



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

Well Name: John Koehn #1-18 (Se)
Location: S/2-Sw-Nw-Se Sec. 18 - Tsp. 28 S. - Rng. 29 W.
License Number: 15-069-20,341-00-00
Spud Date: 3/31/11
Surface Coordinates: 1500' FSL - 2310' FEL

Region: Gray Co., KS
Drilling Completed: 4/16/11

Bottom Hole Coordinates:

Ground Elevation (ft): 2799' **K.B. Elevation (ft):** 2812'
Logged Interval (ft): Surface To: 5658' **Total Depth (ft):** 5658'
Formation: Mississippian "Warsaw" Formation
Type of Drilling Fluid: Chemical

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

OPERATOR

Company: Falcon Exploration, Inc.
Address: 125 N. Market Street, Suite # 1252
Wichita, Kansas 67202

GEOLOGIST

Name: David P. Williams
Company: DW Energy. LLC
Address: 225 N. Market Street, Ste. # 230
Wichita, Kansas 67202

Casing Information:

Surface Casing Set: 8 5/8"/24# Cemented In Pkace @ 1877' w/ 675 Sx 65/45 POZ, 6% Gel, 3% cc, 1/4# Floseal & Tail In w/ 150 Sx Class A, 2% Gel, 3% cc. Cement Did Circulat To Pit.

DST's

DST #1 = 3061'-3192'. Times: 5"-90"-90"-60"

Blow: IF Fair 2" Surface Blow Inc. to B.O.B. in 3"; FF Fair 1.5" Blow Inc. to B.O.B./4".

Recovery: 1250 TF;' (250' M. & 130' HWCM & 755' VSMCW).

Pressures: IH 1411#; FH 1405#; IF 134-215#; FF 254-606#; ISIP 756#; FSIP 746#; Temp = 92 Degrees F. CHL=146,000

DST # 2 3497'-3560" Times: 5"-90"- 93"-180" Blow; IF Strong Blow B.O.B./1". FF Strong Blow GTS/9". See Gauge Report Recovery: 3280' G.I.P. & 190' M.

Pressures: IH 1651#; FH 1617#; IF 71-58 #; FF 78-86#; ISIP 946#; FSIP 945#; Temp = 100 Degrees F.

Gas Flow: FF @ 10" = 19.9 Mcf; @ 20" = 23.5 Mcf;

@ 30" = 33.75 Mcf; @ 40" = 34.9 Mcf; @ 50" = 36.5 Mcf;

@ 60" = 36.8 Mcf Chg. Orifice Plate From 1/2" fo 3/4";

@ 70" = 69.5 Mcf; @ 80" = 72.4 Mcf; @ 90"= 74.43 Mcf.

DST # 3 3497'-3560" Times: 5"-90"-75"-120" Blow:

IF Weak Blow Inc. to 3"; FF Weak Inc. to Strong Blow BOB. @ 30". Recovery: TF= 335'. (150' M. & 185' SMCW).

Pressures: IH 1667#; FH 1657#; IIF 61-51#; FF 83-170#; ISIP 964#; FSIP 931#; Temp = 102 Degrees F. Chlor=115,000 Ppm.

DST #4 3887'-3910' Straddle (All Packers Held)

Times: 5"-90"-60"-90" Blow: IF Strong Blow BOB/1"; FF

Strong Blow BOB/ 1".

Recovery: TF= 2045': (140' VHWCM; 130' VSMCW & 1840' WTR).

Pressures: IH 1843#; FH 1802#; IF 319-443#; FF 503-1050#; ISIP 1107#; FSIP 1102#; Temp = 109 Degrees F.

Chl=150,000 Ppm.

DST # 5 4830'-4857' Times: 5"-90"-60"-90" Blow: IF Weak 1/4" Blow; FF Weak Blow Building to 1/2". Recovery: TF= 60' Mud w/Tr Oil.

Pressures: IH 2323#; FH 2297#; IF 61-31#; FF 59-46#;

ISIP 1469#; FSIP 1315#; Temp =116 Degrees F.

DST # 6 5220'-5259' Times: 5"-90"-60"-16" Blow: IF Weak 1/4" Blow; FF Weak Blow Building to 1/4".

Recovery: TF= 40' Mud.

Pressures: IH 2479#; FH 2435 #; IF 70-37#; FF 61-46#; ISIP 1571#; FSIP 1186#; Temp= 122 Degrees F.

Comments

After review of all of the pertinent geological and structural data, drill test test recoveries and reservoir pressures including electric logs analyses it was recommended by all parties to run production casing and to attempt to complete this well as a commercial producer.



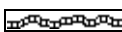
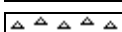
Respectfully submitted,

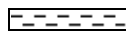


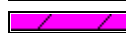

David P. Williams, P. G.




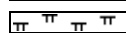

Deviation Survey's

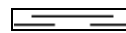
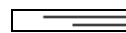



@ 1877'=3/4 degree; @ 3192'=3/4 degree; @ 3941'=1/2 degree; @ 4857'=1 degree; @ 5259'=1 degree; @ 5655'= 1/2 degree.

ROCK TYPES

	Lms
	Anhy
	Bent
	Brec
	Cht

	Clyst
	Coal
	Congl
	Dol
	Gyp

	Igne
	Lmst
	Meta
	Mrlst
	Salt

	Shale
	Shcol
	Shgy
	Sltst
	Ss

	Till
	Grn sh
	Gry shale
	Red shale
	Carb sh

ACCESSORIES

- MINERAL**
- Anhy
 - Arggrn
 - Arg
 - Bent
 - Bit
 - Breclfrag
 - Calc
 - Carb
 - Chtdk
 - Chtlt
 - Dol
 - Feldspar
 - Ferrpel
 - Ferr
 - Glau
 - Gyp

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

- FOSSIL**
- Fuss

- Oomold
- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra

- Pelec
- Pellet
- Pisolite
- Plant
- Strom

- STRINGER**
- Sltstn
 - Sandylms
 - Gryslt
 - Carbsh
 - Anhy
 - Arg
 - Bent
 - Coal
 - Dol
 - Gyp

- Ls
- Mrst
- Sltstrg
- Ssstrg

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

OTHER SYMBOLS

- POROSITY**
- Earthy
 - Fenest
 - Fracture
 - Inter
 - Moldic
 - Organic
 - Pinpoint

- Vuggy
- SORTING**
- Well
 - Moderate
 - Poor

- ROUNDING**
- Rounded
 - Subrnd
 - Subang
 - Angular

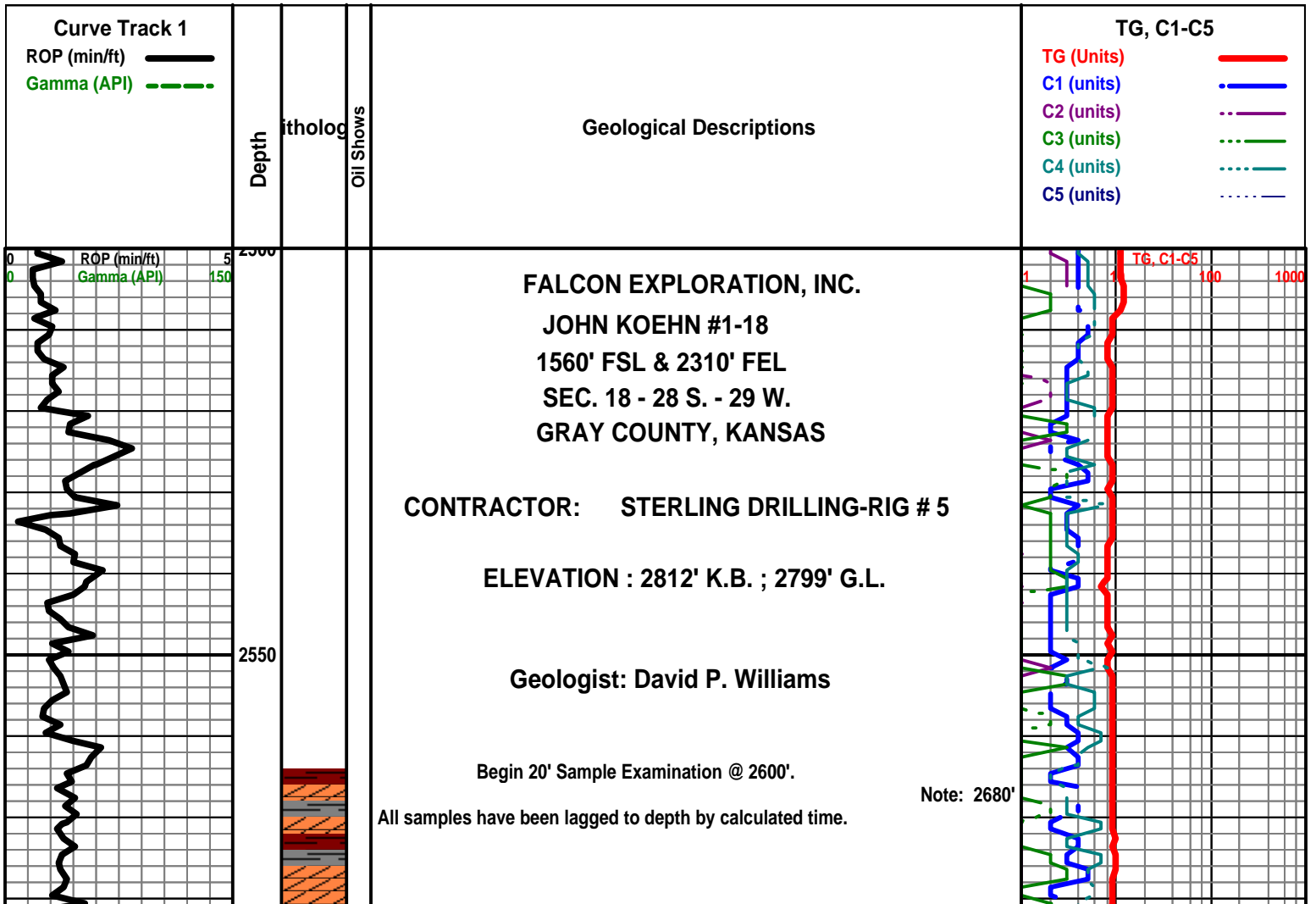
- OIL SHOW**
- Gas show

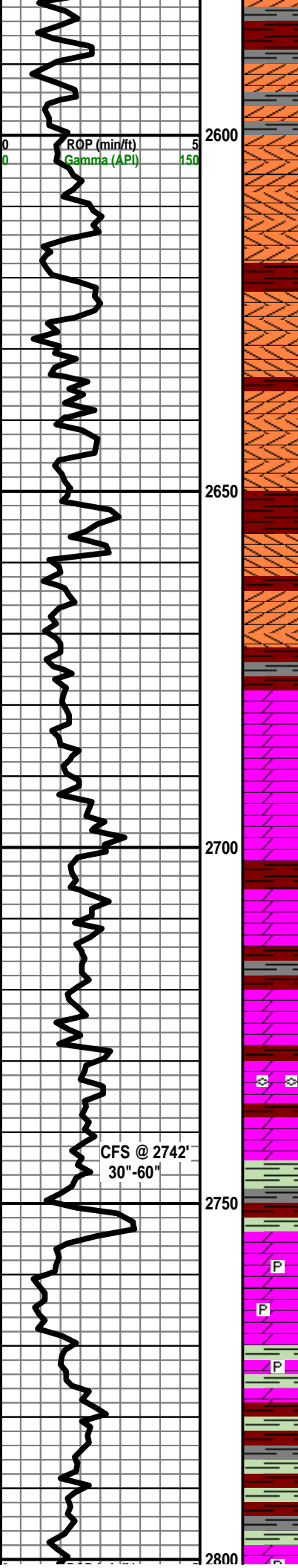
- Even
- Spotted
- Ques
- Dead

- INTERVAL**
- Dst
 - Core

- Dst

- EVENT**
- Rft
 - Sidewall





Anhy/Gyp Sh Red Soft No Odor No Stn No Flor NS

Anhy/Gyp AA Sh Red Soft AA No Odor No Stn No Flor NS

Anhy/Gyp AA Sh Red Soft AA No Odor No Stn No Flor NS

Anhy/Gyp AA Sh Red Soft AA No Odor No Stn No Flor NS

Geologist On Location @ 2650' : 08:45 A.M. on 4/4/11

Anhy/Gyp AA Sh Red Soft AA No Odor No Stn No Flor N

CHASE GROUP 2680' (+ 132)

Dolo Crm-Gry FxIn Poor IxIn Por Sh Red-Char Fissil-Soft AA No Odor No Stn No Flor NS

KRIDER 2706' (+106)

Dolo Crm-Gry FxIn Poor IxIn Por Sh Red Soft AA No Odor No Stn No Flor NS

Dolo Crm-Gry FxIn Poor IxIn Por Sh Red -Char Fissil-Soft AA No Odor No Stn No Flor NS

30" CFS Dolo Crm-Gry FxIn Poor IxIn Por Tr Fos (Fuss) Sh Red-Char Fissil- Soft AA No Odor No Stn No Flor NS

60" CFS Dolo Crm-Gry FxIn Poor IxIn Por Sh Red-Char-Grn Fissil- Soft AA No Odor No Stn No Flor NS

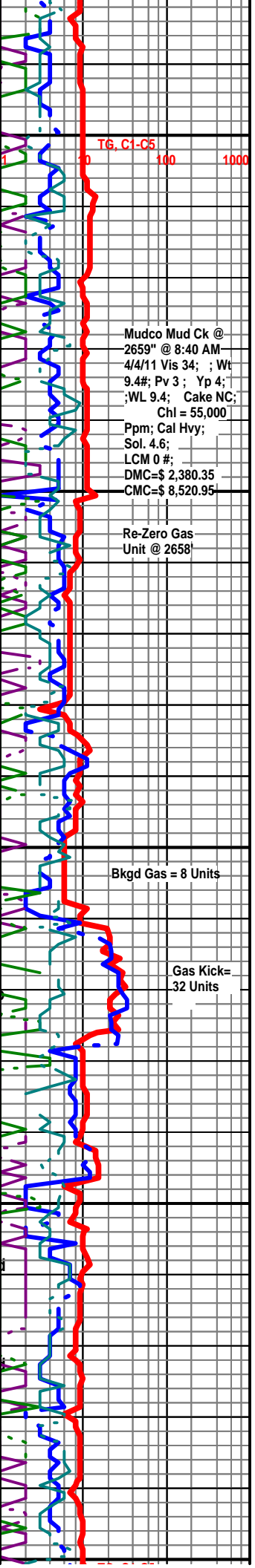
WINFIELD 2754' (+ 58)

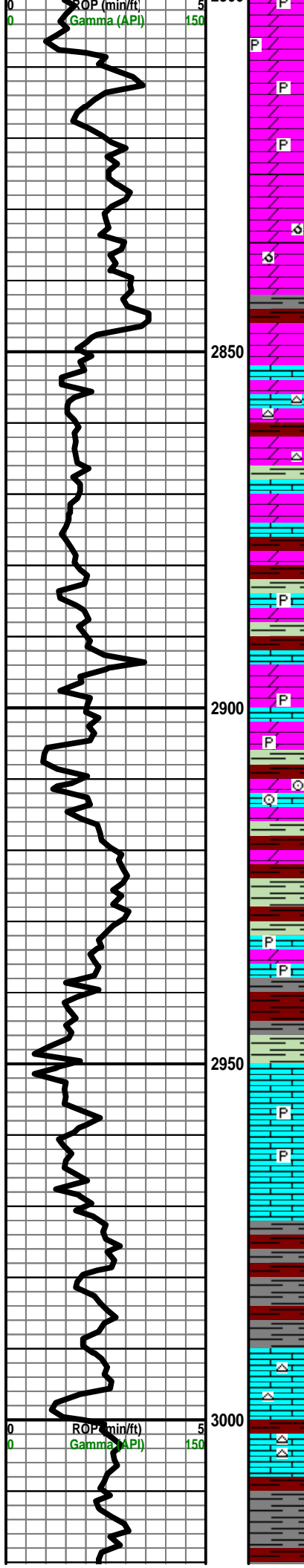
Dolo Wht-Gry FxIn Grad Sucrosic Fair-Med IxIn Por V Soft w/tr Pyr Inklus Sh Red (w/Pyr Inklus)-Char-Gry-Grn Fissil-Soft No Odor No Stn No Flor NS

Dolo Wht-Gry FxIn Grad Sucrosic Fair-Med IxIn Por V Soft w/tr Pyr Inklus Sh Red (w/Pyr Inklus)-Char-Gry-Grn Fissil-Soft No Odor No Stn No Flor NS

Sh Red (w/Pyr Inklus)-Char-Gry-Grn Fissil-Soft V Abd Dolo Wht-Gry FxIn Grad Sucrosic Fair-Med IxIn Por V Soft w/tr Pyr Inklus No Odor No Stn No Flor NS

TOWANDA 2798' (+ 14)





Dolo Wht-Gry FxIn Grad Sucrosic Fair-Med IxIn Por V Soft w/tr Pyr Inlus Ls/Dolo Gry V FxIn Por Cht Wht Op Vit Shp Sh Red Abd-Char-Gry-Grn Fissil-Soft No Odor No Stn No Flor NS

Dolo Gry-Wht FxIn Grad Tr/Sucrosic Poor-Fair IxIn Por V Soft w/tr Pyr Inlus Ls/Dolo Gry V FxIn Por Tr/Cht Wht Op Vit Shp Sh Red Abd-Char-Gry-Grn Fissil-Soft No Odor No Stn Tr/ ? Min Flor NS

Sh Red V Abd-Char-Gry-Grn V Soft (Wash Red) Dolo Wht-Gry FxIn Grad Sucrosic AA Poor-Fair IxIn Por Tr/ Ls/Dolo Poor OOM por (OOMolds Replaced w/Clay Inlus No Odor No Stn No Flor NS

FORT RILEY 2847' (- 35)

Dolo Gry-Wht FxIn Grad Tr/Sucrosic Poor-Fair IxIn Por V Soft w/tr Pyr Inlus Ls/Dolo Gry V FxIn Por Tr/Cht Wht Op Vit Shp Sh Red Abd-Char-Gry-Grn Fissil-Soft No Odor No Stn Tr/ ? Min Flor NS

Dolo Gry-Wht FxIn Grad Tr/Sucrosic Poor-Fair IxIn Por Ls/Dolo Gry V FxIn Por Sh Red Abd-Char-Gry-Grn Fissil-Soft No Odor No Stn No Flor NS

Dolo Gry-Wht FxIn Grad Tr/Sucrosic Poor-Fair IxIn Por Ls/Dolo Gry V FxIn Por Tr/Sli Pyr Inlus Sh Red Abd-Char-Gry-Grn Fissil-Soft No Odor No Stn Tr/ ? Min Flor NS

Dolo Gry-Wht FxIn Grad Tr/Sucrosic Fair-Med IxIn Por AA Ls/Dolo Gry V FxIn Por AA Fos (Crin) Sh Red Abd-Char-Gry-Grn Fissil-Soft No Odor No Stn Tr/ ? Min Flor NS

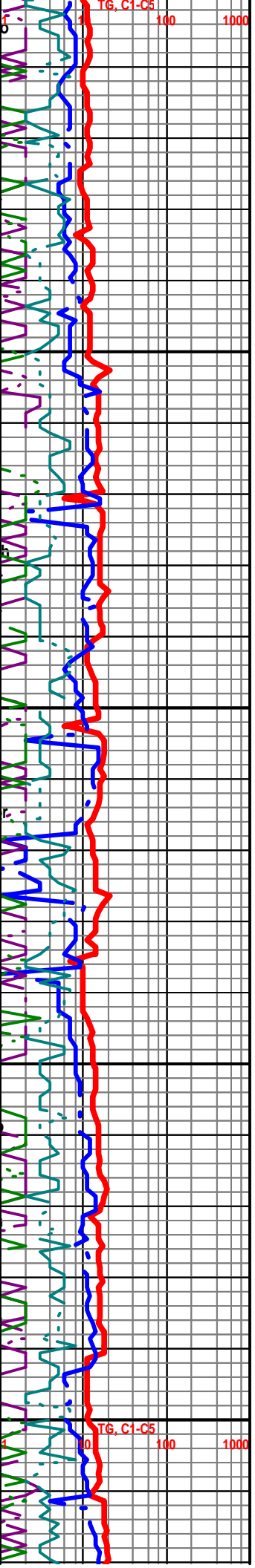
Ls/Dolo Gry V FxIn Por IxIn Por Dolo Gry-Wht FxIn Grad Tr/Sucrosic Poor-Fair IxInn Por Pyr Mass Sh Red Abd-Char-Gry-Grn Fissil-Soft No Odor No Stn No Flor NS

Ls/Dolo Gry V FxIn Por IxIn Por Dolo Gry-Wht FxIn Grad Tr/Sucrosic Poor-Fair IxInn Por Pyr Mass Sh AA Red Abd-Char-Gry-Grn Fissil-Soft No Odor No Stn No Flor NS

Sh Red V Abd-Char-Gry-Grn V Soft (Wash Red) Tr LS/Dolo Wht-Gry FxIn Tr FxIn Sucrosic PorAA Poor-Fair IxIn Por No Odor No Stn No Flor NS

Sh Red V Abd-Char-Gry-Grn V Soft (Wash Red) Tr LS/Dolo Wht-Gry FxIn Tr FxIn Sucrosic PorAA Poor-Fair IxIn Por Cht Wht Op Shp Vit No Odor No Stn No Flor NS

LS Wht-Gry FxIn Poor-Fair IxIn Por Cht Wht Op Shp Vit Sh AA Red V Abd-Char-Gry-Grn V Soft (Wash Red) Tr No Odor No Stn No Flor NS



Sh AA Red V Abd-Char-Gry-Grn V Soft (Wash Red) Tr LS Wht-Gry FxIn A
Poor-Fair IxIn Por Cht Wht Op Shp Vit No Odor No Stn No Flor NS

Sh AA Red V Abd-Char-Gry-Grn V Soft (Wash Red) Tr LS Wht-Gry FxIn A
Poor-Fair IxIn Por Cht Wht Op Shp Vit No Odor No Stn No Flor NS

LS Wht-Gry FxIn Poor-Fair IxIn Por Cht Wht Op Shp Vit Sh AA Red V
Abd-Char-Gry-Grn V Soft (Wash Red) No Odor No Stn No Flor NS

LS Wht-Crm-Gry FxIn Inc Poor-Fair IxIn OOM Por w/ OOL in pl Poor Dis Poor
Develop Chalky Sh AA Red V Abd-Char-Gry-Grn V Soft (Wash Red) No Odor
Scatt Stn Flor (Lt Grn) N^c

BADER 3090' (- 278)

LS Wht-Crrm- Gry FxIn Inc Poor-Fair IxIn Por Chalky Sh AA Red V Abd-Char-Gry-Grn V Soft (Wash
Red) No Odor Scatt Stn Flor (Lt Grn) NS

COTTONWOOD 3105' (-293)

LS Wht-Tan FxIn Inc Poor-Fair IxIn OOM Por w/ OOL in pl Poor Dis Poor Develop
Poor-Fair Leaching Chalky Sh AA Red V Abd-Char-Gry-Grn V Soft (Wash Red)
No Odor Scatt Stn Flor (Lt Grn) NS

Sh AA Red V Abd-Char-Gry-Grn V Soft (Wash Red) LS Wht-Gry FxIn Grad Dns
Micritic No Odor No Stn No Flor Nⁱ

LS Wht-Tan FxIn Inc Poor-Fair IxIn OOM Por w/ OOL in pl Poor Dis Poor Develop
Poor-Fair Leaching ABD Chalk Sh ABD Red V Abd-Char-Gry-Grn V Soft (Wash
Red) No Odor Scatt Stn Flor (Lt Grn) Nⁱ

NEVA 3171' (- 359)

30" CFS LS Wht F-Med OOM Por w/OOL in PI Fair IXLN Por w/ Tr Poor-Fair
InterOOM Por w/Fair-Good Scat Flor (Lt Grn) Tr Chalk Sh AA No Odor Nⁱ

60" CFS LS Wht F-Med OOM Por w/OOL in PI Fair IXLN Por w/ Tr Poor-Fair
InterOOM Por w/Fair-Good Scat Flor (Lt Grn) Tr ChalkSh AA No Odor NS

DISPLACE MUD SYSTEM @ 3192'

RED EAGLE 3198' (- 386)

LS Wht-Crm FxIn Poor IxIn Micritic Por Cht Tan-Gry Op Shp Vit Chalk Abd Sh
Char-Gry-Tr Red Dec No Odor No Stn No Flor NS

LS Crm-Gry FxIn Poor IxIn Micritic Por Cht Wht-Tan-Gry Op Shp Vit Chalk Abd
Sh Char-Gry-Tr Red Dec No Odor No Stn No Flor NS

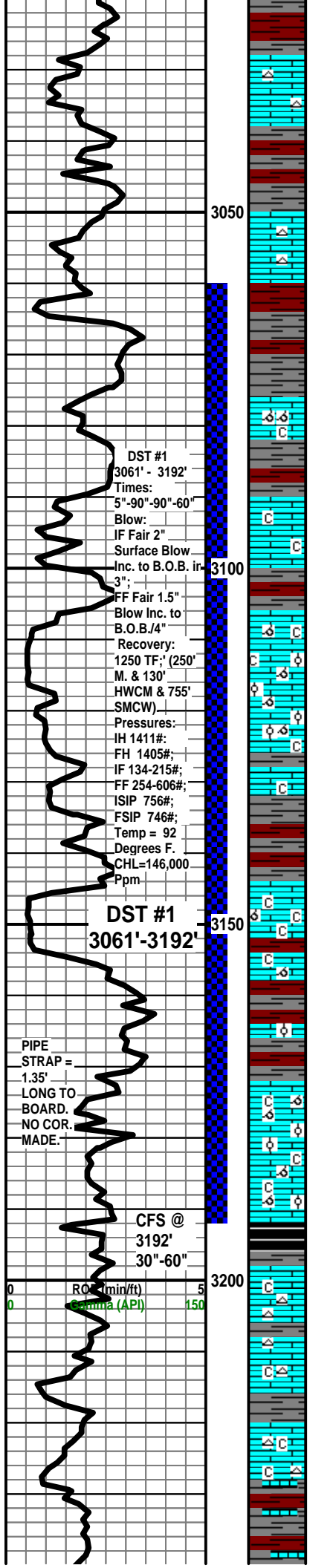
Sh Red-Char-Gry Soft-Fissil LS Wht-Crm-Gry FxIn Poor Pin-Pt IxIn Micritic Por
Chalk No Odor No Stn No Flor NS

Mudco Mud Ck @
3192" @ 8:050 AM
4/5/11 Vis 47; Wt
8.55#; Pv 14 Yp 15;
WL 7.6; Cake 1;
Chl = 2,000 Ppm;
Cal 20; Sol. 2.1;
LCM 3#;
DMC=\$ 1,155.85
CMC=\$ 9,155.85

GAS Kick @
3182' = 56
Units

GAS Kick
@ 3192' =
64 Units

Re-Zero
Tooke Daq @
3204' Bkgd
Gas = 12
Units) 1000



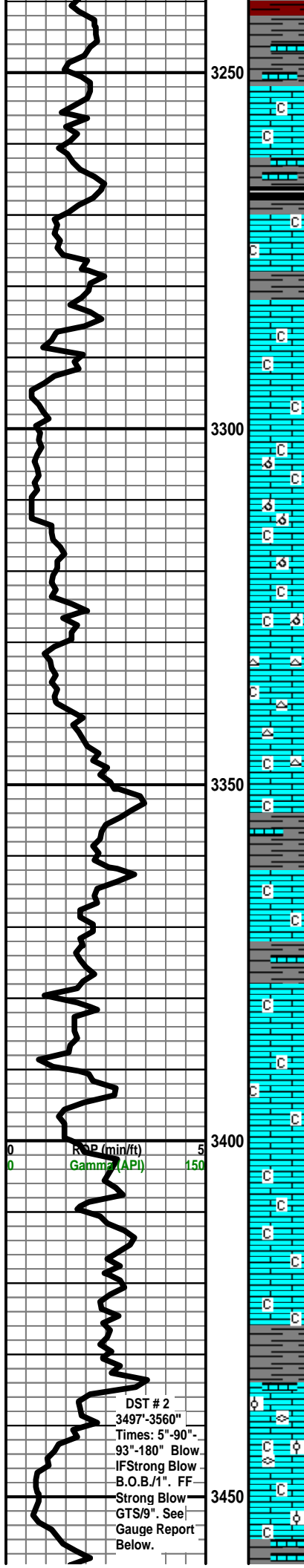
DST #1
3061' - 3192'
Times:
5"-90"-90"-60"
Blow:
IF Fair 2"
Surface Blow
Inc. to B.O.B. in
3";
FF Fair 1.5"
Blow Inc. to
B.O.B./4"
Recovery:
1250 TF; (250'
M. & 130'
HWCM & 755'
SMCW)
Pressures:
IH 1411#;
FH 1405#;
IF 134-215#;
FF 254-606#;
ISIP 756#;
FSIP 746#;
Temp = 92
Degrees F.
CHL=146,000
Ppm

DST #1
3061'-3192'

PIPE
STRAP =
1.35'
LONG TO
BOARD.
NO COR.
MADE.

CFS @
3192'
30"-60"

RO (min/ft)
Gamma (API)



LS Wht-Crm-Gry FxIn Poor IxIn Micritic Por Chalk Abd Sh Char-Gry-Tr Red Dec
No Odor No Stn No Flor NS

LS Wht-Crm-Gry FxIn Poor-Fair Pin-Pt IxIn Por Chalk V Abd Sh Char-Gry-Tr Red
Dec No Odor No Stn No Flor NS

FORAKER 3282' (- 470)

LS AA Wht-Crm-Gry FxIn Poor-Fair-Med Pin-Pt IxIn Por Chalk V Abd Sh
Char-Gry-Tr Red (1 Pc) Dec No Odor No Stn No Flor NS

LS AA Wht-Crm-Gry FxIn Poor-Fair-Med Pin-Pt IxIn w/ Tr OOM Por w/ Small OOL
in PI Poor-Fair Dis Poor-Fair Develop Tr Leaching Por Chalk V Abd Sh
Char-Gry-Tr Red (1 Pc) Dec No Odor No Stn No Flor NS

LS Crm-Gry FxIn Poor-Fair-Med Pin-Pt IxIn Grad Micritic Chalk Abd Cht Wht-Tan
Op Vit Shp Sh Char-Gry No Odor No Stn No Flor NS

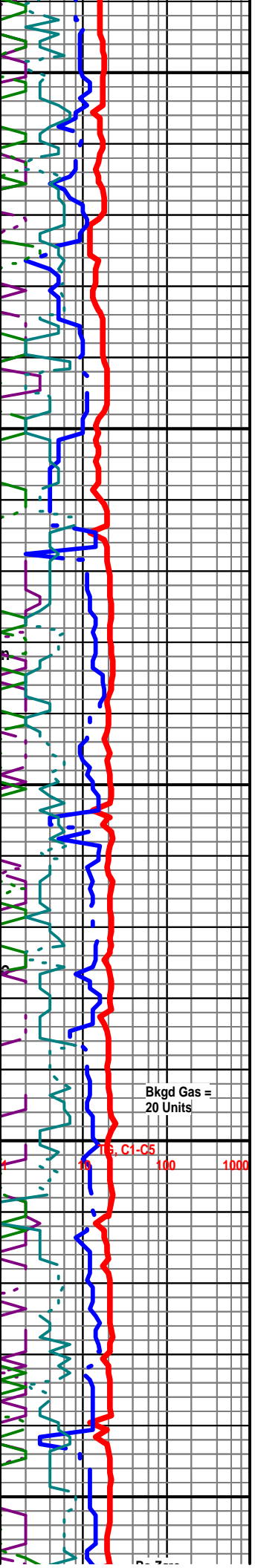
LS Gry FxIn Tr Poor Pin-Pt IxIn Grad Chalk V. Abd Sh Char-Gry No Odor No
Stn No Flor NS

LS AA Gry FxIn Tr Poor Pin-Pt IxIn Grad Chalk V. Abd Sh Char-Gry No Odor No
Stn No Flor NS

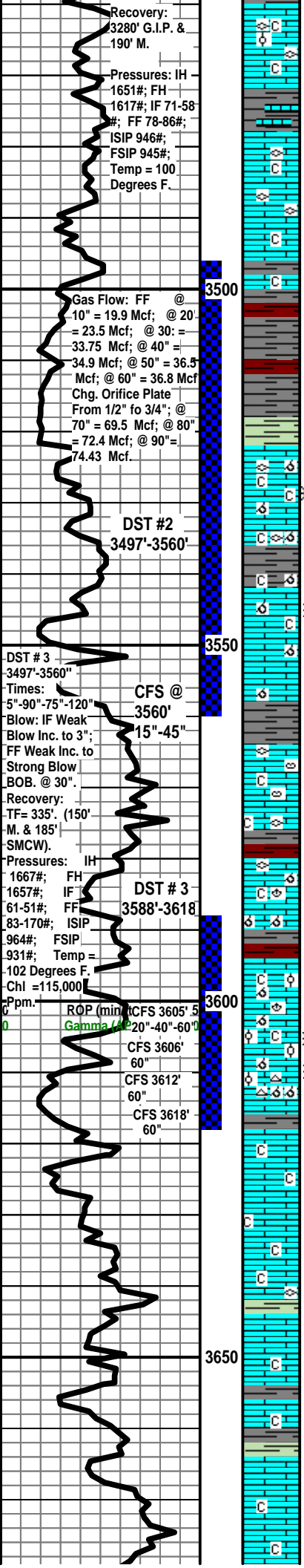
LS Crm- Gry FxIn Tr Poor Pin-Pt IxIn Grad Chalk V. Abd Sh Char-Gry No Odor
No Stn No Flor NS

LS Wht- Crm FxIn Micritic Chalk V. Abd Sh Char-Gry No Odor No Stn No Flor
NS

LS Wht Crm FxIn Tr Poor Small Pin-Pt OOL Por Poor-Fair Leaching Poor Devel
Fos (Fuss) Chalk V. Abd Sh Char-Gry Tr Only No Odor No Stn No Flor NS



DST # 2
3497'-3560"
Times: 5"-90"
93"-180" Blow
IF Strong Blow
B.O.B./1". FF
Strong Blow
GTS/9". See
Gauge Report
Below.



LS Crm-Wht-FxIn Tr Poor Small Pin-Pt OOL Por Poor-Fair Leaching Dec Por Devel Grad Micritic Fos (Fuss) Chalk V. Abd Sh Char-Gry No Odor No Stn No Flor NS

Note: Start 10' Sample Examination @ 3480'.

LS Crm-Wht-Gry FxIn Micritic Fos (Fuss) Chalk V. Abd Sh Tr Only Char-Gry No Odor No Stn No Flor NS

LS Crm-Wht-Gry FxIn Micritic Fos (Fuss) Chalk V. Abd Sh Tr Only Char-Gry No Odor No Stn No Flor NS

Sh Char-Gry-Olive-Red V Soft- Fissil LS AA Wht-Crm-Gry FxIn Poor Pin-Pt Ixln Micritic Dec Chalk AA No Odor No Stn No Flor N

Sh Char-Gry-Olive-Red V Soft- Fissil LS AA Wht-Crm-Gry FxIn Poor Pin-Pt Ixln Micritic Dec Chalk AA No Odor No Stn No Flor NS

STOTLER 3522' (- 710)

Sh Red-Char-Gry-Olive V Soft- Fissil LS AA Wht-Crm-Gry FxIn Poor Pin-Pt Ixln Micritic Dec Chalk AA No Odor No Stn No Flor NS

15" 3560 CFS LS Wht-Crm FxIn V- FxIn Pin-Pt Por w/SSG W/Brokrn Poor-Fair Small-Med Pin-Pt OOL Por Poor-Fair Leaching Dec Poor InterOOM Devel Fos (Fuss) Chalk Sh Tr Char-Gry No Odor ? Scat Stn (Lt Grn) Flor SSG

3560' 45" CFS LS Wht-Crm FxIn V- FxIn Pin-Pt Por w/ SSG Poor-Fair Small-Med Pin-Pt OOL Por Poor-Fair Leaching Dec Poor InterOOM Devel Fos (Crim, Fuss) Chalk Sh Tr Char-Gry No Odor Sli Stn Flor SSG

LS Wht-Crm FxIn Micritic Tr/ Vfg Pin-Pt Por w/ Abd Fos (Fuss, Spic) Poor Ixln P Dns Sh Char Fissil No Odor Scat Stn Flour (Lt Grn) N

LS Wht-Crm FxIn Micritic Tr/ Vfg Pin-Pt Por w/ Abd Fos (Fuss, Spic) Poor Ixln P Dns Sh Char Fissil No Odor Scat Stn Flour (Lt Grn) NS

3605' 20" CFS Ls Wht-Crm FxIn Micritic Tr/ Vfg Pin-Pt Por w/ Abd Fos (Fuss, Spic) Poor Ixln Por Dns Tr Chalk Sh Char-Red Fissil No Odor Scat Stn Flour (Lt Grn) NS

3605' 40" CFS Ls Wht-Crm FxIn Micritic Tr/ Vfg Pin-Pt Por Tr OOM Por Poor InterOOL Por w/Small OOL in pl Fos (Brach) Poor Ixln Por Dns Tr Chalk Sh Char-Red Fissil No Odor Scat Stn Flour (Lt Grn) NS

TARKIO 3595' (- 783)

3605' 60" CFS Ls Wht-Crm FxIn Micritic Tr/ Vfg Pin-Pt Por Tr OOM Por Poor InterOOL Por w/Small OOL in pl Fos (Brach) Poor Ixln Por Dns Tr Chalk Sh Char-Red Fissil No Odor Scat Stn Flour (V Lt Grn) NS

3506' CFS- 60" Ls Wht-Crm FxIn Micritic Tr/ Vfg Pin-Pt Por Tr OOM Por w/OOL in pl Poor-Fair InterOOL/OOM Por w/Small OOL in pl Fos (Brach) Poor Ixln Por Dns Tr Chalk Sh Char-Red Fissil No Odor Sli Scat Stn Flour (V Lt Grn) NS

3512' CFS-60" Ls Wht-Crm FxIn Tr/ Vfg Pin-Pt Por Tr OOM Por w/OOL in pl Poor-Fair InterOOL/OOM Por w/Small OOL in pl Cht Wht Abd Op Shp Vit Tr Chalk Sh Char Fissil No Odor Sli Scat Stn Flour (V Lt Grn) SSG

3618' CFS 60" Ls Wht-Crm FxIn Tr/ Vfg Pin-Pt Por Tr OOM Por w/OOL in pl Poor-Fair InterOOL/OOM Por w/Small OOL in pl Fos (Fuss) Cht Wht-Gry-Tan Abd Op Shp Vit Tr Chalk Sh Char Fissil No Odor Sli Scat Stn Flour (V Lt Grn) SSG

LS Wht-Crm-Gry FxIn Micritic Tr Poor Ixln Gran Por Mostly Dns Chalk Sh Tr Char-Red Fissil No Odor No Stn Flour NS

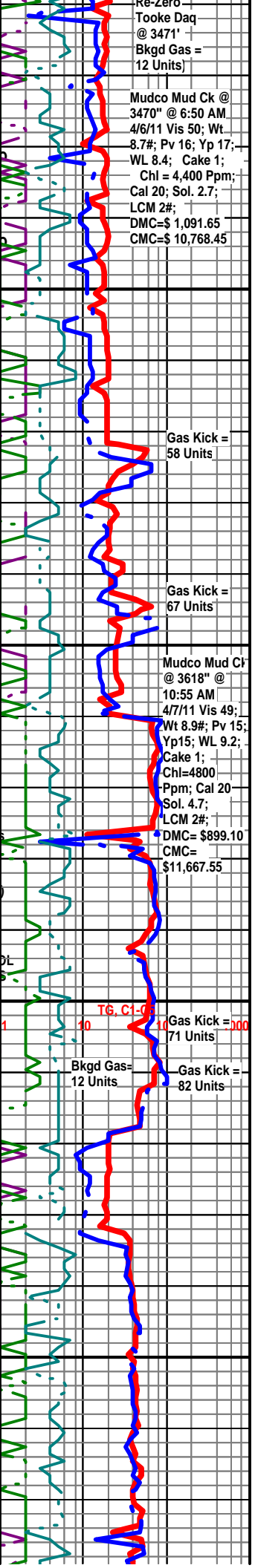
LS Wht-Crm-Gry FxIn Micritic Tr Poor Ixln Gran Por Mostly Dns Chalk Sh Tr Char-Red Fissil No Odor No Stn Flour NS

LS Wht-Crm-Gry FxIn AA Micritic Tr Poor Ixln Gran Por Mostly Dns Fos (Fuss) Chalk Sh Tr Char-Red Fissil No Odor No Stn Flour NS

LS Wht-Crm-Gry FxIn Micritic Tr Poor Ixln Gran Por Mostly Dns Chalk Sh Tr Char-Red Fissil No Odor No Stn Flour NS

LS Crm-Gry FxIn Micritic Tr Poor Ixln Gran Por Mostly Dns Chalk Sh Tr Char-Red-Olive Fissil No Odor No Stn Flour NS

LS Crm-Gry AA FxIn Micritic Tr Poor Ixln Gran Por Mostly Dns Chalk Sh Tr Char-Red Fissil No Odor No Stn Flour NS



Ls Crm-Gry AA FxIn Micritic Tr Poor IxIn Gran Por Mostly Dns Chalk Cht
Wht-Gry Op Shp Vit Sh Tr Char-Red Fissil No Odor No Stn Flour NS

BERN 3692' (-880)

Ls Wht-Crm FxIn Tr/Poor OOM Por Tr/Pin-Pt Por Tr OOM Por w/OOL in pl Poor-Fair InterOOL/OOM Por
w/Small OOL in pl Poor InterOOM Por Fos (Fuss) Chalk Sh Char Fissil No Odor Sli Scat Stn Flour (Y
Lt Grn) SSG

Ls Crm-Gry-Wht FxIn Tr/Pin-Pt Por Poor-Fair IxIn Gran Por Fos V Abd(Fuss) Tr
Chalk Sh Char Fissil No Odor No Stn No Flour NS

Ls Wht-Crm FxIn Poor IxIn Por Mostly Mricrite Tr Poor Dns OOM Por w/ OOL in pl
No Dis Poor-No Leaching Tr Fos V Abd (Fuss) AA Chalk Inc Sh Char Fissil No
Odor No Stn No Flour NS

Ls Wht FxIn Poor IxIn Por Mostly Mricrite Dns Chalk AA Sh Char Fissil No Odor
No Stn No Flour NS

Ls Wht FxIn Poor IxIn Por Mostly Mricrite Dns Chalk AA Sh Char Fissil No Odor
No Stn No Flour NS

Ls Wht-Crm FxIn Poor IxIn Por Mostly Mricrite Tr Poor Dns OOM Por w/ OOL in pl
No Dis Poor-No Leaching Tr Fos (Fuss, Crin) Chalk Inc Sh Char-Red Fissil No
Odor No Stn No Flour NS

Ls Crm FxIn Poor-Fair OOM Por w/ OOL in pl Poor Dis Poor Develop Poor
Leaching Chalk Abd Sh Char-Red Fissil No Odor No Stn No Flour NS

Ls Crm FxIn Gran Poor IxIn Por Cht Wht Op Shp Vit Chalk AA Fos (Fuss) Sh
Char-Red-Grn Fissil No Odor No Stn No Flour N

Ls Crm FxIn Gran Poor IxIn Por Cht Wht Op Shp Vit Abd Chalk Inc AA Fos
(Fuss) Sh Char-Red-Grn Fissil No Odor No Stn No Flour NS

Ls Crm FxIn Gran Poor IxIn Por Abd Chalk Inc AA Fos (Fuss) Sh Char-Red-Grn
Fissil No Odor No Stn No Flour NS

TOPEKA 3794' (- 982)

Ls Wht- Crm FxIn Gran Poor IxIn Por Cht Wht-Gry Abd Inc Op Shp Vit Chalk AA
Pyr Includ Sh Char-Blk Carb Fissil No Odor No Stn No Flour NS

Ls Wht FxIn Gran Poor IxIn Por Micrite Cht Wht-Gry Abd Inc Op Shp Vit Chalk
AA Pyr Includ Sh Char-Red-Grn Fissil No Odor No Stn No Flour NS

Ls Wht FxIn Gran Poor IxIn Por Micrite Cht Wht-Gry Dec Op Shp Vit Chalk Inc Sh
Char-Red Fissil No Odor No Stn No Flour NS

Ls Wht-Crm FxIn Poor IxIn Por Mricrite AA w/Tr Poor Gran FxIn Por Fos (Fuss)
Chalk Inc Sh Char Fissil No Odor No Stn No Flour N

Ls Wht-Crm FxIn Poor IxIn Por Mricrite AA w/Tr Poor Gran FxIn Por Cht Wht Op
Shp Vit Fos (Fuss) Chalk AA Sh Char Fissil No Odor No Stn No Flour NS

Ls Wht-Crm FxIn Poor Gran FxIn Por Cht Wht Op Shp Vit Fos (Fuss) Chalk AA
Sh Char Inc Fissil No Odor No Stn No Flour N

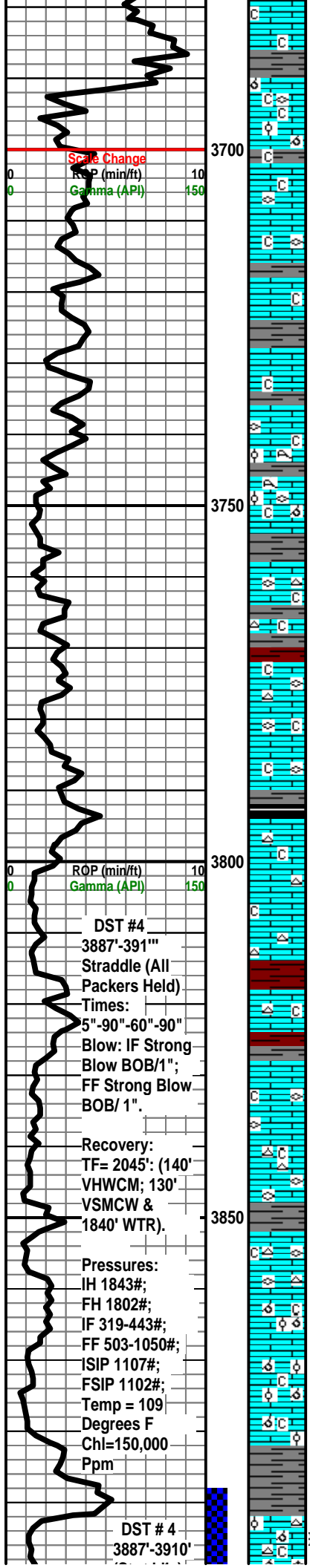
Ls Wht-Crm FxIn OOM Por w/ OOL in pl Poor Dis Poor Leaching Fos (Brac)
Chalk AA Sh Char Fissil No Odor No Stn No Flour NS

Ls Wht-Crm FxIn OOM Por w/ OOL in pl Poor Dis Poor Leaching Chalk AA Fos
(Fuss) Sh Char Fissil No Odor No Stn No Flour NS

Sh Char-Gry Fissil Ls Wht-Crm FxIn OOM Por w/ OOL in pl Poor Dis Poor
Leaching Grad Dns Micrite Chalk AA No Odor No Stn No Flour NS

Lower Topeka 3892' (- 1080)

Ls Wht-Crm FxIn Poor-Fair-Med OOM Por w/ OOL in pl Poor-Fair Dis Poor-Fair Leaching w/ VSSG (w/Broken w/Heat) Cht Wht Op Shp Vit Chalk Abd AA Fos (Brach) Sh Char Fissil No Odor ? V Sli Fk



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

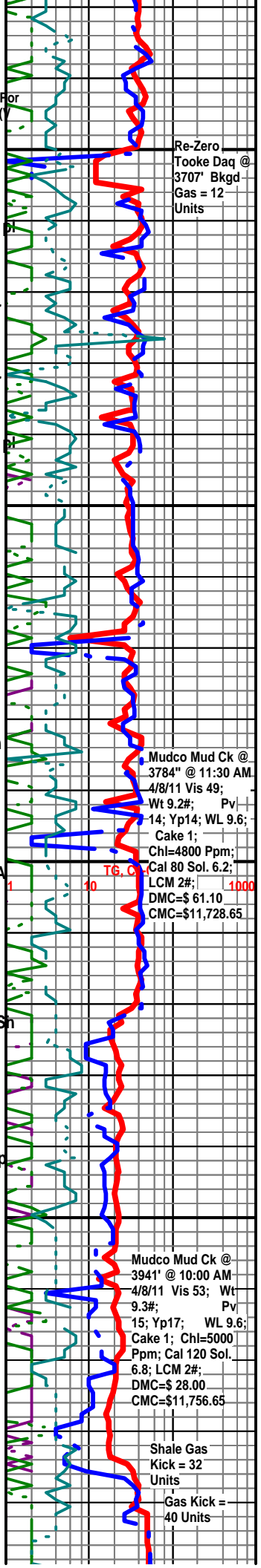
ROP (min/ft) 10
Gamma (API) 150

DST #4
3887'-391"
Straddle (All
Packers Held)
Times:
5"-90"-60"-90"
Blow: IF Strong
Blow BOB/1";
FF Strong Blow
BOB/1".

Recovery:
TF= 2045': (140'
VHWCW; 130'
VSMCW &
1840' WTR).

Pressures:
IH 1843#;
FH 1802#;
IF 319-443#;
FF 503-1050#;
ISIP 1107#;
FSIP 1102#;
Temp = 109
Degrees F
Chl=150,000
Ppm

DST # 4
3887'-3910'



Re-Zero
Tooke Daq @
3707' Bkgd
Gas = 12
Units

Mudco Mud Ck @
3784" @ 11:30 AM
4/8/11 Vis 49;
Wt 9.2#; Pv
14; Yp14; WL 9.6;
Cake 1;
Chl=4800 Ppm;
Cal 80 Sol. 6.2;
LCM 2#; 1000
DMC=\$ 61.10
CMC=\$11,728.65

Mudco Mud Ck @
3941" @ 10:00 AM
4/8/11 Vis 53; Wt
9.3#; Pv
15; Yp17; WL 9.6;
Cake 1; Chl=5000
Ppm; Cal 120 Sol.
6.8; LCM 2#;
DMC=\$ 28.00
CMC=\$11,756.65

Shale Gas
Kick = 32
Units
Gas Kick =
40 Units

(Straddle) 3900

VSSG

Ls Wht-Crm FxIn Poor-Fair-Med OOM Por w/ OOL in pl Poor-Fair Dis Poor-Fair Leaching ? VSSG w/Broken Cht Wht Op Shp Vit Chalk Abd Sh Char Fissil Tr No Odor ? V Sli Flour NS

Ls Wht-Crm FxIn Poor-Fair OOM Por w/ OOL in pl Poor-Fair Dis Poor-Fair Leaching Fos (Brach) Cht Wht Op Shp Vit Chalk Abd Sh Tr Char Fissil No Odor ? V Sli Flour NS

45" CFS @ 3941' Ls Wht-Crm AA FxIn Poor-Fair OOM Por w/ OOL in pl Poor-Fair Dis Poor-Fair Leaching Grad FxIn Dns Micrite Fos (Fuss) Cht Wht Op Shp Vit Chalk Abd Sh Tr Char Fissil No Odor ? V Sli Flour NS

60" CFS @ 3941' Ls Wht-Crm FxIn Poor-Fair OOM Por w/ OOL in pl Poor-Fair Dissol Poor-Fair Leaching Fos (Fuss) Cht Wht-Gry Op Shp Vit Chalk Abd Sh Tr Char Fissil No Odor ? V Sli Flour NS

Ls Wht-Gry FxIn Poor IxIn Por Micritic Fos (Crin) Cht Wht-Gry AA Op Shp Vit Chalk Abd Sh Tr Char Fissil No Odor No Flour NS

Ls Wht-Gry FxIn Poor IxIn Por Micritic Fos (Crin) Cht Wht-Gry AA Op Shp Vit Chalk Abd Sh Tr Char Fissil No Odor No Flour NS

Ls Wht-Gry FxIn Poor IxIn Por Micritic Cht Wht-Gry AA Op Shp Vit Chalk AA Sh Tr Char Fissil No Odor ? Scat min Flor NS

LeCompton 3976' (- 1164)

Ls Crm-Wht FxIn Poor IxIn Por Micritic Grad FxIn Poor Pin-Pt Por Cht Wht-Gry AA Op Shp Vit Chalk AA Sh Tr Char Fissil No Odor ? Scat min Flor NS

Ls Gry-Crm-Wht FxIn Poor IxIn Por Micritic Grad Tr FxIn Poor Pin-Pt Por AA Cht Wht-Gry AA Op Shp Vit Chalk AA Sh Tr Char Fissil No Odor ? Scat min Flor NS

Ls Gry-Crm-Wht FxIn Poor IxIn Por Micritic Grad Tr FxIn Poor Pin-Pt Por AA Cht Wht-Gry AA Op Shp Vit Chalk AA Sh Tr Char Fissil No Odor ? Scat min Flor NS

Ls Gry-Crm FxIn Micritic AA Grad Poor-Fair OOM Por w/ OOL in pl Poor-Fair Dis Poor-Fair Leaching Fos (Fuss) Chalk AA Sh Tr Char Fissil No Odor ? V Sli Flour NS

Ls Wht-Crm FxIn Poor Micritic Tr Poor Pin-Pt Gran Por Grad Tr OOM Por Poor Dis Poor Leaching Chalk AA Sh Tr Char Fissil No Odor ? V Sli Flour NS

Ls Wht-Crm FxIn Poor Micritic Tr Poor Pin-Pt Gran Por Grad Tr OOM Por Poor Dis Poor Leaching Chalk AA Sh Tr Char-Red-Blk ? Carb Fissil No Odor No Flour NS

Ls Wht-Crm FxIn Poor Micritic Tr Poor Pin-Pt Gran Por Grad Tr OOM Por Poor Dis Poor Leaching Chalk AA Sh Tr Char-Red-Blk ? Carb Fissil No Odor No Flour NS

Ls Wht-Gry FxIn Poor IxIn Por Micritic Cht Wht-Gry Op Shp Vit Chalk AA Sh Tr Char Fissil No Odor No Flour NS

Ls Wht-Crm FxIn Micritic AA Grad Poor Gran OOL Por w/small OOL in pl Poor Dis Poor Leaching Fos (Fuss) Chalk AA Sh Tr Char-Red Fissil No Odor No Flour NS

Ls Crm-Gry FxIn Micritic AA Grad FxIn Gran Poor Pin-Pt IxIn Por w/Poor OOL Por w/small OOL in pl Poor Dis Poor Leaching Fos (Fuss) Chalk Inc Abd Sh Tr Char-Red Fissil No Odor No Flour NS

Ls Crm-Gry FxIn Micritic AA Grad FxIn Gran Poor Pin-Pt IxIn Por w/Poor OOL Por w/small OOL in pl Poor Dis Poor Leaching Fos (Fuss) Chalk Wht Inc Abd Sh Tr Char-Red Fissil No Odor No Flour NS

Ls Crm-Gry FxIn Micritic AA Grad FxIn Gran Poor Pin-Pt IxIn Por w/Poor OOL Por w/small OOL in pl Poor Dis Poor Leaching Fos (Fuss) Chalk Wht Inc Abd Sh Tr Char-Red Fissil No Odor No Flour NS

Ls Crm-Gry FxIn Micritic AA Grad FxIn Gran Poor Pin-Pt IxIn Por w/Poor OOL Por w/small OOL in pl Poor Dis Poor Leaching Fos (Fuss) Chalk Wht Inc Abd Sh Tr Char-Red Fissil No Odor No Flour NS

Ls Wht-Crm FxIn Micritic AA Grad Poor Gran OOL Por w/small OOL in pl Poor Dis Poor Leaching Cht Wht Op Shp Vit Fos (Fuss) Chalk AA Sh Tr Char-Blk ? Carb Fissil No Odor No Flour NS

Ls Wht-Crm FxIn Micritic AA Grad Poor Gran OOL Por w/small OOL in pl Poor Dis Poor Leaching Cht Wht Op Shp Vit Fos (Spic) Chalk AA Sh Tr Char-Red

Gas Kick = 62 Units

Re-Zero Tooke Daq @ 3938'. Zero Set @ 12 Units Bkgd Gas = 52 Units

CFS @ 3941' 45"=60"

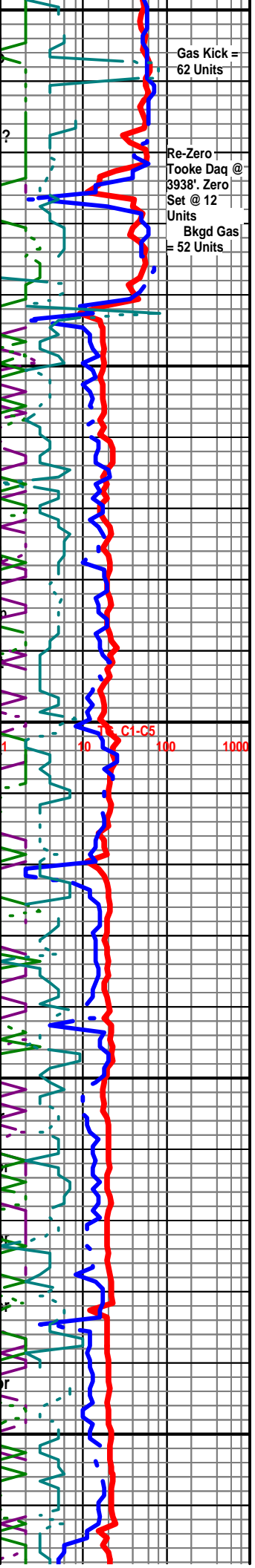
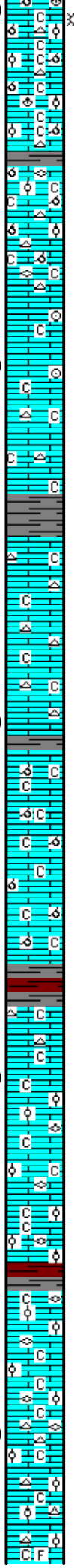
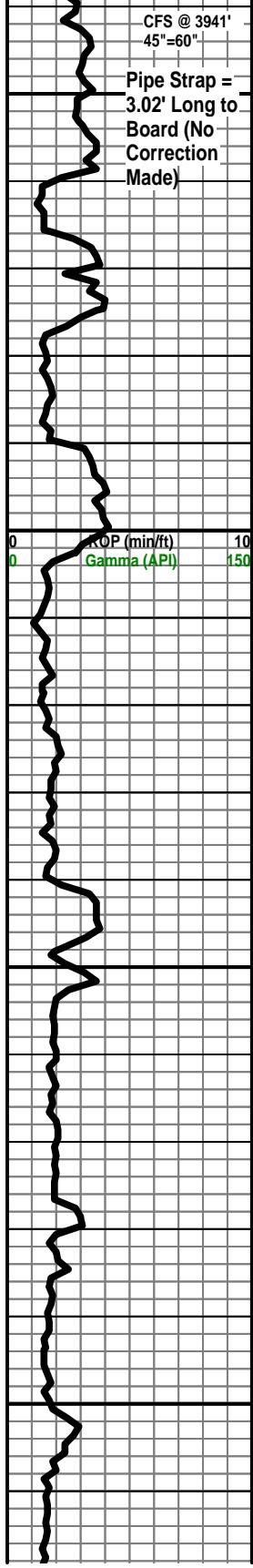
Pipe Strap = 3.02' Long to Board (No Correction Made)

3950

4000

4050

4100



C1-C5 1 10 100 1000

Fissil No Odor No Flour N

Sk Blk Carb-Char Fissil Ls Wht-Gry FxIn AA Grad Dns Micritic AA Fos (Spic) Cht Tr Wht Op Shp Vit Fos (Spic) Chalk No Odor No Flour N

Sk Blk Carb-Char AA Fissil Ls Wht-Gry FxIn AA Grad Dns Micritic AA Cht Tr Wht Op Shp Vit Fos (Spic) Chalk No Odor No Flour NS

Ls Wht-Gry FxIn AA Grad Dns Micritic AA Fos (Brach) Cht Tr Wht Op Vit Shp Sh Blk Carb-Char AA Fissi Chalk No Odor No Flour N

HEEBNER 4153' (- 1341)

Sh Blk Carb-Char-Gry Fissil Ls Wht-Gry FxIn AA Grad Dns Micritic AA Fos (Fuss) Cht Wht Op Vit Shp No Odor No Flour NS

Sh Blk Carb-Char-Gry Fissil Ls Wht-Gry FxIn Dns Micritic AA Fos (Fuss) Cht Wht Op Vit Shp No Odor No Flour NS

TORONTO 4171' (- 1359)

Ls Wht-Gry FxIn Dns Micritic AA Grad FxIn Fair IxIn Por Fos (Fuss) Cht Wht Op Vit Shp Sh Blk Carb-Char-Gry-Red Fissil No Odor No Flour NS

Ls Wht-Gry FxIn Dns Micritic Grad FxIn Fair IxIn Por Fos (Fuss) Cht Wht Abd Op Vit Shp Sh Dec Char-Gry Fissil No Odor No Flour N

DOUGLAS 4192' (- 1380)

Sh Blk Char-Gry-Grn Fissil Ls Wht-Gry AA FxIn Dns Micritic Grad OOL Por Poor-Fair InterOOL Por Poor Develop Poor Leaching Chalk Cht Wht Op Vit Shp No Odor No Flour NS

Sh Blk Char-Gry-Grn Fissil Ls Wht-Gry AA FxIn Dns Micritic Grad OOL Por Poor-Fair InterOOL Por Poor Develop Poor Leaching Cht Wht Op Vit Shp Chalk No Odor No Flour NS

Ls Wht-Gry FxIn Dns Micritic Tr Grad OOL Por AA Poor Develop Poor Leaching Fos (Brach) Cht Wht Op Vit Shp Chalk Sh Blk Char-Gry-Grn Fissil No Odor No Flour NS

Ls Wht-Gry FxIn Dns Micritic Tr Grad OOL Por AA Poor Develop Poor Leaching Cht Wht Op Vit Shp Chalk Sh Blk Char-Gry-Grn Fissil No Odor Sli Scat ? Min Flour NS

30" CFS @ 4256' Sh Blk Char-Gry-Grn Fissil Ls Wht-Gry FxIn Dns Micritic Grad OOL Por Inc InterOOL Por Poor -Fair Develop Poor Fair Leaching Fos Cht Wht Abd Op Vit Shp Tr Chalk No Odor Sli Scat ? Min Flour NS

LANSING 4245' (- 1433)

60" CFS @ 4256' Ls Wht-Gry FxIn Dns Micritic Grad OOL Por Inc InterOOL Por Poor -Fair Develop Poor Fair Leaching Fos Cht Wht Abd Op Vit Shp Tr Chalk Sh Blk Char-Gry-Grn Fissil No Odor Sli Scat ? Min Flour NS

Ls Wht-Crm Gry FxIn Grad OOL Por Inc Poor-Fair IxIn-InterOOL Por Poor - Fair Develop Poor Fair Leaching Fos Cht Wht Abd Op Vit Shp Chalk Sh Char-Gry-Blk Fissil No Odor Sli Scat ? Min Flour NS

Ls Wht-Crm Gry FxIn Grad OOL Por Inc Poor-Fair IxIn-InterOOL Por Poor - Fair Develop Poor Fair Leaching Fos (Crin) Cht Tan Abd Op Vit Shp Chalk Sh Char-Gry-Blk Fissil No Odor Sli Scat ? Min Flour NS

Sh Blk Carb-Char-Gry Fissil Ls Wht-Gry AA FxIn Dns Micritic Grad OOL Por Poor InterOOL Por Poor Develop Poor Leaching Cht Tan Op Vit Shp Chalk No Odor No Flour NS

Ls Wht-Crm Gry FxIn Micritic Grad OOL Por Inc Poor-Fair IxIn-InterOOL Por Poor - Fair Develop Poor-Fair Leaching Fos (Crin) Cht Tan Abd Op Vit Shp Chalk Sh Char-Gry Fissil No Odor Sli Scat ? Min Flour NS

Ls Wht-Crm-Gry AA FxIn Micritic Grad OOL Por Inc Poor-Fair IxIn-InterOOL Por Poor Develop Poor Leaching Fos (Crin) Cht Tan Abd Op Vit Shp Chalk Wht Abd Sh Char-Gry Fissil No Odor No Flour N

Ls Crm-Gry FxIn Micritic Grad OOL Por Inc Poor-Fair IxIn-InterOOL Por Poor - Fair Develop Poor Fair Leaching Fos (Crin) Cht Tan Abd Op Vit Shp Chalk Dec Sh Char-Gry Fissil No Odor No Flour NS

Ls Gry FxIn Micritic Grad Dns Cht Tan-Char-Gry Abd Op Vit Shp Chalk Wht Dec Sh Char-Gry Fissil No Odor Sli No Flour N

Ls Gry Abd FxIn Micritic Grad Dns Cht Char-Gry Abd Op Vit Shp Chalk Wht Dec Sh Char-Gry Fissil No Odor Sli No Flour N

Re-Zero Tooke Daq @ 4135'. Zero Set @ 12 Units. Bkgd Gas = 20 Units

Shale Gas Kick = 52 Units

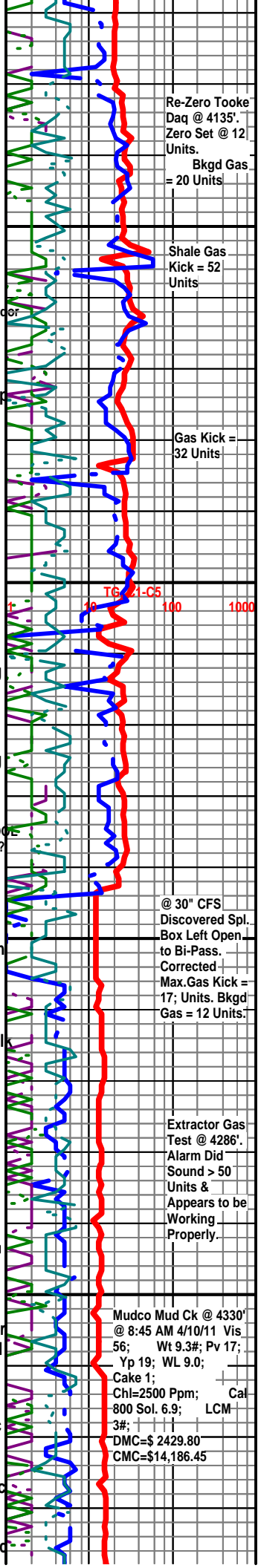
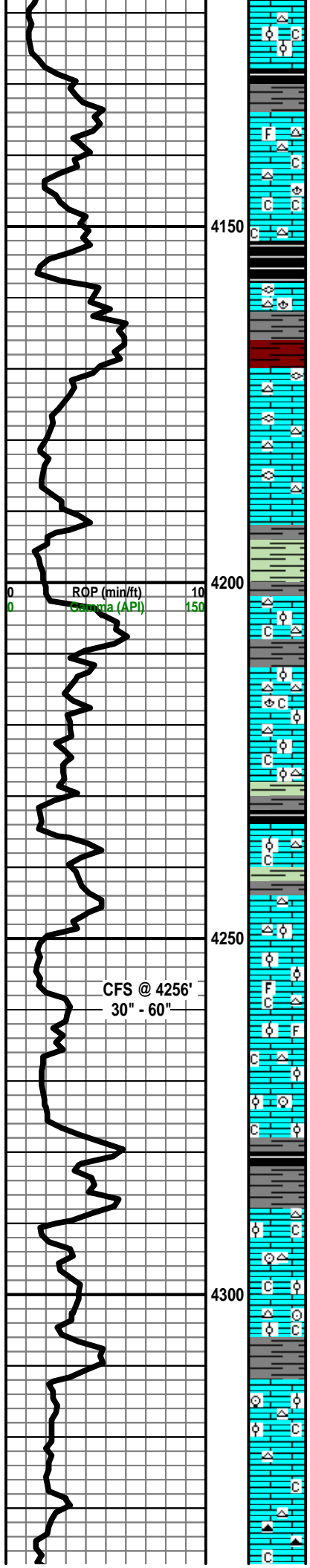
Gas Kick = 32 Units

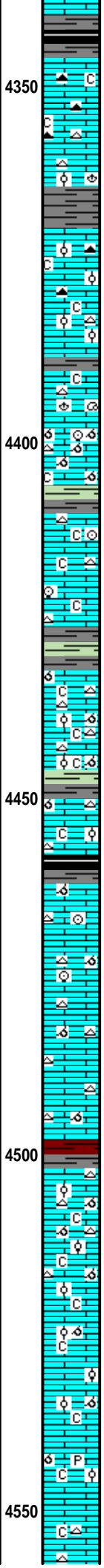
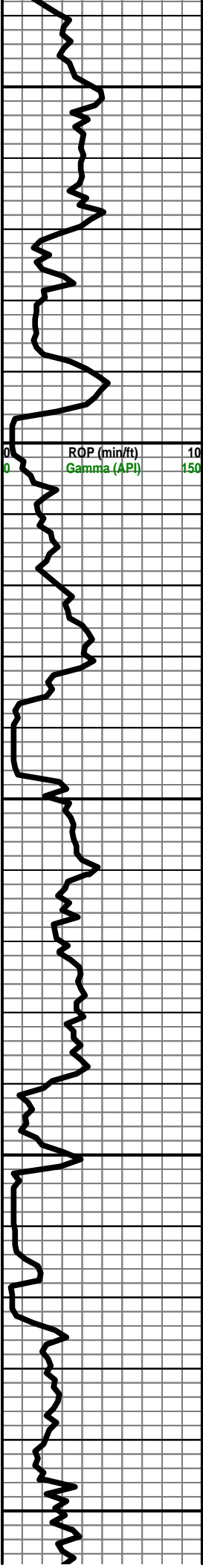
TG 21-C5 100 1000

@ 30" CFS Discovered Spl. Box Left Open to Bi-Pass. Corrected Max. Gas Kick = 17; Units. Bkgd Gas = 12 Units.

Extractor Gas Test @ 4286'. Alarm Did Sound > 50 Units & Appears to be Working Properly.

Mudco Mud Ck @ 4330' @ 8:45 AM 4/10/11 Vis 56; Wt 9.3#; Pv 17; Yp 19; WL 9.0; Cake 1; Chl=2500 Ppm; Cal 800 Sol. 6.9; LCM 3#; DMC=\$ 2429.80 CMC=\$14,186.45





Ls Gry Abd FxIn Micritic Grad Dns Cht Char-Gry Abd Op Vit Shp Chalk Wht Dec
Sh Abd Char-Gry-Blk Carb Fissil No Odor Sli No Flour N

Ls Gry Abd FxIn Micritic Grad Dns Cht Char-Gry Abd Op Vit Shp Chalk Wht Dec
Sh Abd Char-Gry-Blk Carb Fissil No Odor Sli No Flour NS

Ls Crm-Gry FxIn Micritic Grad OOL Por Inc Poor-Fair IxIn-InterOOL Por Poor -
Fair Develop Poor-Fair Leaching Fos (Brach) Cht Tan Abd Op Vit Shp Chalk Dec
Sh Char-Gry Fissil No Odor No Flour N:

Ls Crm-Gry Grad Dec OOL Por Inc Poor IxIn-InterOOL Por Poor Develop Poor
Leaching Grad Micritic FxIn Dns Cht Char-Blk Op Vit Shp Fos (Fuss) Chalk Dec
Sh Char-Gry Fissil No Odor No Flour NS

Ls Wht-Crm-Gry FxIn Micritic Grad Tr/OOL Por w/ Poor-Fair IxIn-InterOOL Por
Poor Develop Poor Leaching Cht Gry Op Vit Shp Chalk Wht Sh Char-Gry Fissil
No Odor No Flour NS

Ls Crm FxIn Micritic Grad OOM Por Med-Lg Vugs w/OOL in Pl Fair-Good
IxIn-Inter OOM Por Fair-Good Develop Fair-Good Leaching Fos (Gastro, Crin)
Cht Gry Op Vit Shp Chalk Wht Abd Sh Char-Gry-Grn Fissil No Odor Sli ? Min
Flour NS

Ls Crm-Gry FxIn Micritic Dns Cht Gry Op Vit Shp Fos (Crin) Chalk Wht Inc Sh
Char-Gry -Grn Fissil No Odor No Flour NS

Ls Crm-Gry FxIn Micritic Dns Cht Gry Op Vit Shp Fos (Crin) Chalk Wht Inc Sh
Char-Gry -Grn Fissil No Odor No Flour NS

Ls Crm OOM Por Lg Deep Vugs w/OOL in pl Poor- Good Inter OOM Por Good
Develop Good Leaching (Poor Inter-Connect OOM Por) Cht Wht Gry-Wht Op Vit
Shp Tr Chalk Wh Sh Char-Gry-Grn Fissil No Odor Sli ? Min Flour NS

Ls Crm OOM Por Lg Deep Vugs w/OOL in pl Poor- Good Inter OOM Por Grad FxIn
Micrite Cht Wht Gry-Wht Op Vit Shp Tr Chalk Wh Sh Char-Gry-Grn Fissil No Odor
Sli ? Min Flour NS

Ls Crm-Gry FxIn Micritic Inc Dns Tr OOM AA Dec Por Deep Vugs w/OOL in pl
Poor- Good InterOOM Por Cht Gry Op Vit Shp Chalk Wht Inc Sh Char-Gry -Grn
Fissil No Odor No Flour NS

Ls Crm-Gry FxIn Micritic Inc Dns Sli Tr OOM AA Dec Por Deep Vugs w/OOL in pl
Poor- Good InterOOM Por Cht Gry Op Vit Shp Fos (Crin) Chalk Wht Inc Sh
Char-Gry -Grn Fissil No Odor No Flour NS

Ls Crm-Gry FxIn Micritic Inc Dns Sli Tr OOM AA Dec (Few Pcs) Cht Gry Op Vit
Shp Fos (Crin) Chalk Wht Inc Sh Char-Gry -Grn Fissil No Odor No Flour NS

Ls Gry-Crm FxIn Micritic Inc Dns Sli Tr OOM AA Dec (Few Pcs) Cht Gry Op Vit
Shp Chalk Wht Inc Sh Char-Gry -Grn Fissil No Odor No Flour NS

Ls Gry-Crm FxIn Micritic AA Chalk Wht V Abd Inc Sli Tr OOM AA Dec (Few
Pcs) Cht Gry Op Vit Shp Chalk Sh Char-Gry -Grn Fissil No Odor No Flour NS

Ls Crm OOM Por Lg Deep Vugs w/OOL in pl Poor- Good Inter OOM Por Good
Develop Good Leaching (Poor Inter-Connect OOM Por) Cht Wht Gry-Wht Op Vit
Shp Sli Tr Chalk Wh Sh Gry-Red Fissil No Odor Sli ? Min Flour NS

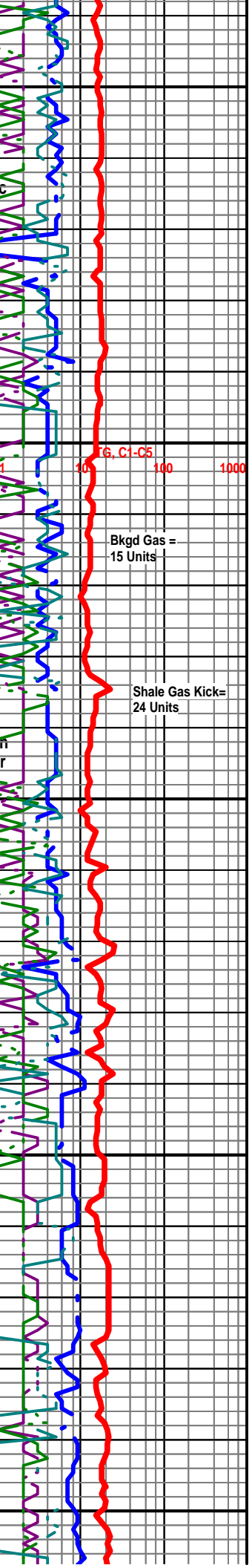
Ls Crm OOM Por Lg Deep Vugs w/OOL in pl Poor- Good Inter OOM Por Good
Develop Good Leaching (Poor Inter-Connect OOM Por) Cht Wht Gry-Wht Op Vit
Shp Sli Tr Chalk Wh Sh Gry-Red Fissil No Odor Sli ? Min Flour NS

Ls Crm FxIn Micritic Dns Sli Tr OOM AA Dec Chalk Wht Abd Sh Char-Gry -Grn
Fissil No Odor No Flour NS

Ls Crm FxIn Micritic Dns Sli Tr OOM AA Dec Chalk Wht Abd Sh Char-Gry -Grn
Fissil No Odor No Flour NS

Ls Crm FxIn Micritic Dns Sli Tr OOM AA Dec Chalk Wht Abd Sh Char-Gry -Grn
w/Pyr Inclu Fissil No Odor Sil ? Min Flour NS

Ls Gry FxIn Micritic Dns Cht Gry-Brn Op Shp-Vit Chalk Wht Abd Sh Char-Gry
-Grn Fissil No Odor Sil ? Min Flour NS



Ls Wht-Crm FxIn Micritic Dns Cht Gry-Grn Op Shp-Vit Chalk Wht Abd Sh
Char-Gry -Grn Fissil No Odor Sil ? Min Flour NS

Ls Wht-Crm FxIn Micritic Dns Cht Gry-Grn Op Shp-Vit Chalk Wht Abd Sh
Char-Gry -Grn Fissil No Odor Sil ? Min Flour NS

STARK 4587' (- 1775)

Sh Blk Carb-Char-Gry Fissil Ls Wht-Gry AA FxIn Dns Micritic Cht Tan Op Vit Shp Chalk No Odor No
Flour NS

SWOPE 4590' (- 1778)

Ls Wht-Crm FxIn Micritic Dns Cht Gry-Grn Op Shp-Vit Chalk Wht Abd Sh
Char-Gry -Grn Fissil No Odor Sil ? Flour NS

Ls Wht-Crm FxIn Micritic Dns Cht Gry-Olive Op Shp-Vit Chalk Wht Abd Sh
Char-Gry -Grn Fissil Fair-Good Odor Sil ? Flour NS

Ls Wht-Crm FxIn Micritic Dns Cht Gry-Olive Op Shp-Vit Chalk Wht Abd Sh
Char-Gry -Grn Abd Inc Fissil Fair-Good Odor Sil ? Flour N

HUSHPUCKNEY SHALE 4630' -1818)

Sh Blk Carb-Char-Gry Fissil Ls Wht-Gry AA FxIn Dns Micritic Grad Fair-Good OOM Por Cht Gry Ded
(1 Pc) Op Vit Shp Chalk No Odor Sil ? Min Flour NS

HERTHA 4638' (- 1826)

Ls Wht FxIn Micritic Dns Grad OOM Por w/OOL in pl No Vis Por No-Poor
Leaching Por Poor Develop Cht Gry Op Shp-Vit Chalk Wht Abd Sh Blk Carb AA
Char-Gry -Red Fissil No Odor V Sil Tr ? Flour NS

Ls Wht FxIn Micritic AA Dns Cht Gry Op Shp-Vit Chalk Wht AA Sh Inc AA
Char-Gry -Red-Grn Fissil No Odor No Flour NS

Ls Wht FxIn Micritic AA Dns Cht Gry Op Shp-Vit Chalk Wht AA Sh AA Inc AA
Char-Gry -Red-Grn Fissil No Odor No Flour NS

Sh AA Inc AA Char-Gry -Red-Grn Fissil Ls Wht FxIn Micritic AA Dns Cht Gry
Op Shp-Vit Chalk Wht AA No Odor No Flour NS

BASE KANSAS CITY SHALE 4676' (- 1864)

Ls Wht FxIn Micritic AA Dns Tr OOM Por Poor InterOOM Por Poor Leaching Cht
Gry-Drk Gry Op Shp-Vit Chalk Wht AA Sh AA Inc AA Char-Gry -Red-Grn Fissil
No Odor No Flour NS

Ls Crm-Gry FxIn Dns Micrite Grad OOM Por Poor-Develop-Poor Dis Poor
Leaching Chalk Wht V Abd Cht Tan-Gry Op Shp Vit Sh Char Gry Fissil No Odor
No Stn No Flor NS

Ls Crm-Gry FxIn Dns Micrite Grad OOM Por Poor-Develop-Poor Dis Poor
Leaching Chalk Wht V Abd Cht Tan-Gry Op Shp Vit Sh Char Gry Fissil No Odor
No Stn No Flor NS

Sh Char-Gry Fissil V Abd (95% of Spl) Tr Ls Crm-Gry V FxIn Micritic Cht Wht Op
Shp Vit Chalk Wht Tr No odor no flor No Stn NS

Sh Char-Gry Fissil V Abd AA Tr Ls Crm-Gry V FxIn Micritic Cht Wht Op Shp Vit
Chalk Wht Tr No Odor No Flor No Stn NS

Sh Char-Gry Fissil V Abd AA) Tr Ls Crm-Gry V FxIn Micritic Cht Wht Op Shp Vit
Chalk Wht Tr No Odor No Flor No Stn NS

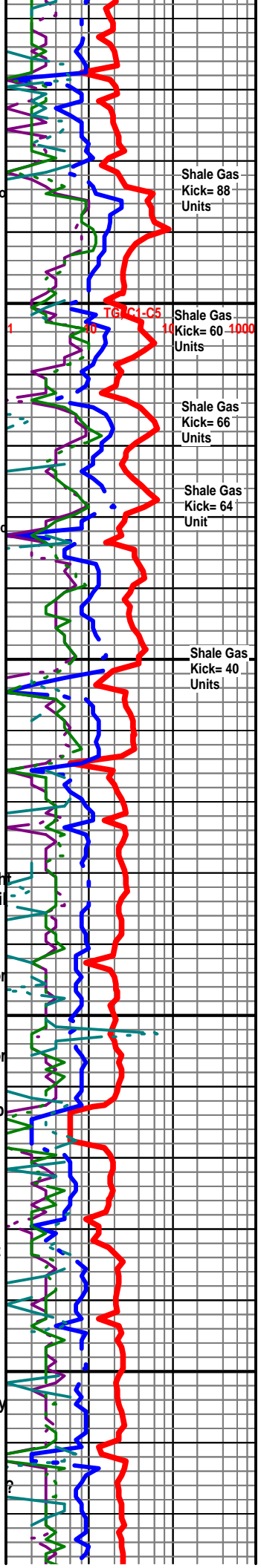
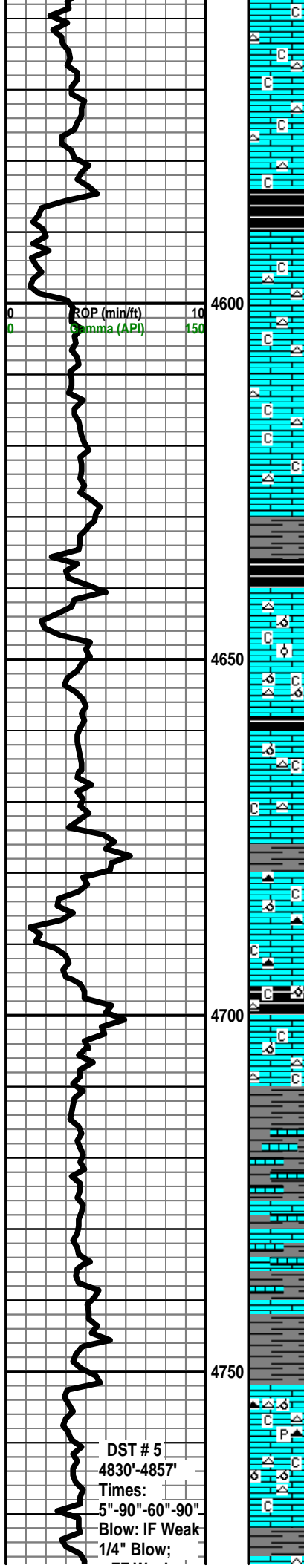
Sh Char-Gry Fissil V Abd Tr Ls Crm-Gry V FxIn Micritic Cht Wht Op Shp Vit
Chalk Wht Tr No Odor No Flor No Stn NS

MARMATON 4752' (- 1940)

Ls Crm- FxIn Dns Micrite No-Poor IxIn Por w/ Pry Inlus Chalk Wht Cht Drk Gry
Op Shp Vit Sh Char Gry-Grn Fissil AA No Odor No Stn Tr Sli ? Min Flor (Few
Pcs) NS

Ls Crm- FxIn Dns Micrite Grad Poor IxIn Por w/Tr Pry Inlus Chalk AA Wht Cht
Wht Op Shp Vit Fos (? Byr) Sh Char Gry-Grn Fissil AA No Odor No Stn Tr Sli
Min Flor (Few Pcs) NS

Ls Crm- FxIn Dns Micrite Grad Poor IxIn Por w/Tr Pry Inlus Chalk AA Wht Cht
Wht Op Shp Vit Fos (? Bvr) Sh Char Gry-Grn Fissil AA No Odor No Stn Tr Sli



DST # 5
4830'-4857'
Times:
5"-90"-60"-90"
Blow: IF Weak
1/4" Blow;

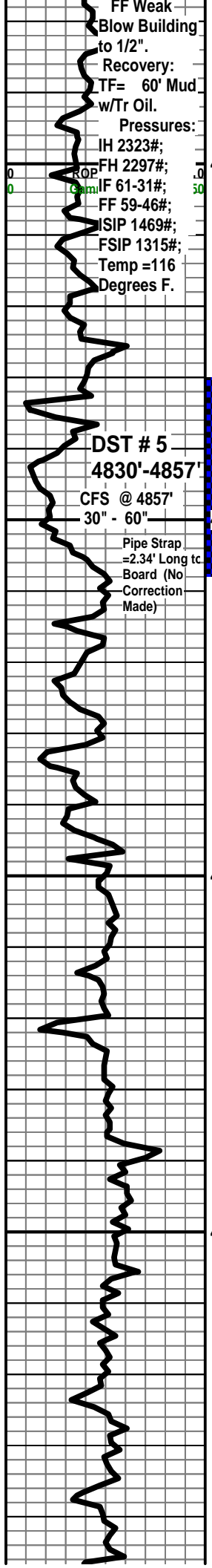
Shale Gas
Kick= 88
Units

Shale Gas
Kick= 60
Units

Shale Gas
Kick= 66
Units

Shale Gas
Kick= 64
Unit

Shale Gas
Kick= 40
Units



Min Flor (Few Pcs) NS

Ls Crm- FxIn Dns Micrite Grad Poor IxIn Por w/Tr Pry Includ Chalk AA Wht Cht Wht Op Shp Vit Fos (? Byr) Sh Char Gry-Grn Fissil AA No Odor No Stn Tr Sli Min Flor (Few Pcs) NS

Ls Crm- FxIn Dns Micrite Grad Poor IxIn Por w/Tr Pry Includ Chalk AA Wht Cht Wht Op Shp Vit Fos (? Byr) Sh Char Gry-Grn Fissil AA No Odor No Stn Tr Sli Min Flor (Few Pcs) NS

Sh Char-Gry Fissil V Abd Tr Ls Crm-Gry V FxIn Micritic Cht Wht Op Shp Vit Chalk Wht Tr No Odor No Flor No Stn NS

Sh Blk Carb Char-Gry Fissil V Abd Tr Ls Crm-Gry V FxIn Micritic Cht Wht Op Shp Vit Chalk Wht Tr No Odor No Flor No Stn NS

Ls Crm- FxIn Dns Micrite Chalk AA Wht Cht Wht Op Shp Vit Sh Char Gry-Grn Fissil AA No Odor No Stn No Flor NS

Pawnee 4838' (- 2026)

30" CFS @ 4857' Ls Wht Fair-Med FxIn Por w/ Fair IxIn Develop (?) Frac Por Tr ? Dead Oil Stn w/ Strong Odor w/ SG/SO Chalk Cht Wht Trip Gillsonitic residue w/ Fair-Good SG/SO Fair Flor Fair Sat Stn Fair Scatt Sat Flor Fair SG/SO

60" CFS @ 4857' Ls Wht Fair-Med FxIn Por w/ Fair IxIn Develop (?) Frac Por Tr ? Dead Oil Stn w/ Strong Odor w/ SG/SO w/ SFO (Lt Grn> 35 API Gv) Chalk Cht Wht Trip Gillsonitic AA w/ Fair-Good SG/SO Sh Blk Carb Fissil Inc Abd Good Flor Fair-Good Scat Stn Fair Fair-Good SG/SO

Ls Gry-Crm FxIn Dns Micrite Grad Poor IxIn Por Chalk AA Wht Sh Blk Carb Abd -Char Gry-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Dns Micrite Grad Poor-No Vis IxIn Por Chalk AA Wht Sh Blk Carb Tr -Char- Gry Tr Fissil No Odor No Stn No Flor NS

Cherokee 4883' (- 2071')

Sh Blk Carb Abd -Char Gry Fissil Ls Wht-Crm FxIn Dns Micrite Grad Tr Poor OC Por No Dis No InterOOM Por Chalk AA Wht Cht Tan w/ Abd OOL in pl w/ Fos (Spic) No Vis Por No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Dns Micrite No Vis Por Chalk AA Wht Cht Tan-Gry Sh Blk Carb AA-Char Gry Fissil No Vis Por No Odor No Stn No Flor NS

Ls Gry FxIn Dns Micrite No Vis Por Chalk AA Wht Cht Wht Sh Char- Abd Gry Fissil No Vis Por No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Dns Micrite No Vis Por Chalk AA Wht Cht Tan-Gry Sh Blk Carb Abd-Char Gry Fissil No Vis Por No Odor No Stn No Flor NS

Sh Blk Carb Abd -Char Gry Fissil Ls AA Dns Micrite Grad Chalk AA Wht No Vis Por No Odor No Stn No Flor NS

Ls Wht-Gry-Crm FxIn Dns Micrite Grad No Vis IxIn Por Chalk AA Wht Cht Tan Op/Translu Shp Vit Sh Blk Carb Abd -Char-Gry-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht-Gry-Crm FxIn Dns Micrite Grad No Vis IxIn Por Chalk AA Wht Cht Tan Op/Translu Shp Vit Sh Blk Carb Abd -Char-Gry-Red Fissil No Odor No Stn No Flor NS

Ls Wht-Gry-Crm FxIn Dns Micrite Grad Poor IxIn Por w/tr VSSG (3 Pcs) Chalk AA Wht Sh Blk Carb / -Char-Gry-Red Fissil No Odor Tr Scatt ? Stn (Lt Brn) Scat ? Min Flor VSSG

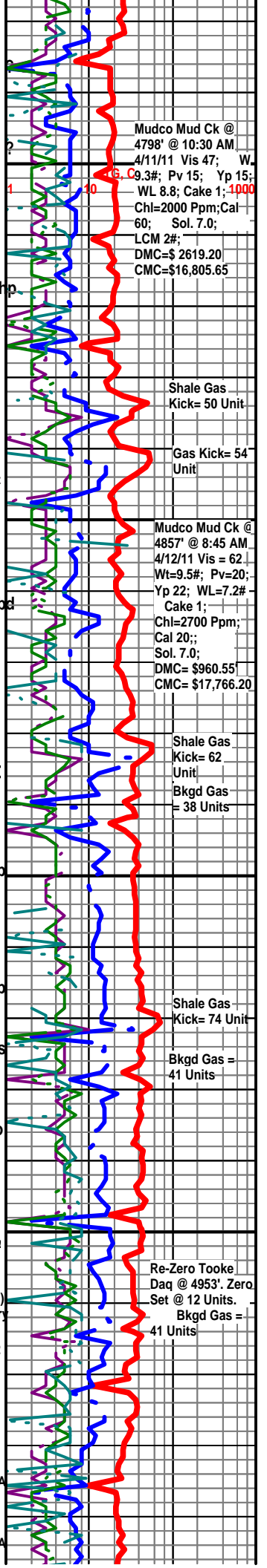
Ls Wht-Gry-Crm FxIn Dns Micrite Grad Poor-Fair IxIn Por w/tr Poor-Fair Vug Leaching VSSG (2 Pcs) Chalk AA Wht Cht Tan-Amber Op/Translu Shp Vit Fos (Crin) Tr Pyr Includ Sh Blk Carb AA -Char-Gry Fissil No Odor Tr Scatt ? Stn (Lt Brn) Scat ? Min Flor VSSG

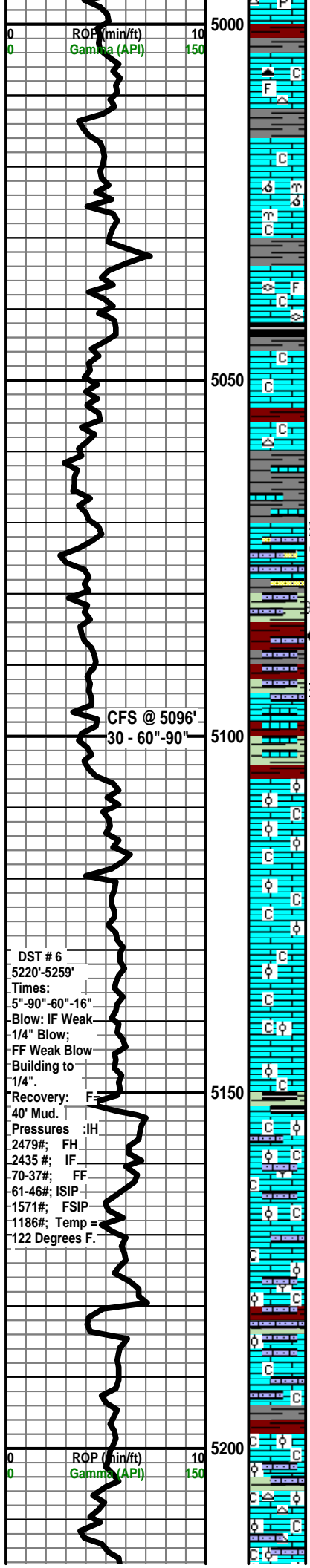
Ls Wht-Crm-Tan AA FxIn Dns Micrite Grad Poor-Fair IxIn Por w/tr Poor-Fair Vug Leaching VSSG (2 Pcs) Chalk AA Wht Cht Tan-Amber Op/Translu Shp Vit Fos (Crin) Tr Pyr Includ Sh Blk Carb AA Inc -Char-Gry-Red Fissil No Odor Tr Scatt ? Stn (Lt Brn) Scat ? Min Flor VSSG

Ls Wht-FxIn w/OOL (Small) in pl Fair-Med IxIn Por "Sandy" Fair-Good Pin-Pt Por Friable Tr Ls FxIn Dns Micrite Sh Red- Gry-Pale Grn Abd Fissil No Odor No Flor No Stn No Stn NS

Ls Wht-Crm-Tan AA FxIn Dns Micrite Grad Poor-Fair IxIn Por w/tr Poor-Fair Vug Leaching Chalk AA Wht Cht Tan-Amber Abd Op-Translu Shp Vit Tr Pyr Includ Sh Blk Carb Char-Gry Fissil No Odor Tr Scatt ? Stn (1 Pcs- Lt Brn) Scat ? Min Flor ? NS

Ls Wht-Crm-Tan AA FxIn Dns Micrite Grad Poor-Fair IxIn Por w/tr Poor-Fair Vug Leaching Chalk AA Wht Cht Tan-Amber Abd Op-Translu Shp Vit Tr Pyr Includ Sh Blk Carb Char-Gry Fissil No Odor No





Scat No Flor NS

Ls Wht-Gry-Crm Fxln Dns Micrite Grad Poor-Fair Ixln Por Poor Ixln Por Chalk AA Wht Cht Tan-Amber Op/Translu Shp Vit Sh Char-Gry-Red w/Tr Fos (Spic Includ Cht) Fissil No Odor No Stn No Flor NS

Ls Wht-Gry-Crm Fxln Dns Micrite Grad Poor-Fair Ixln Por Poor Ixln Pin-Pt Por Chalk AA Wht Sh Blk Carb Fissil No Odor No Stn No Flor NS

Ls Wht-Gry-Crm Fxln Dns Micrite Grad Poor-Fair Ixln Por Poor Ixln Pin-Pt Por Tr Poor OOM Por Poor -Fair Develop Poor Leching Chalk AA Wht Sh Char Fos (Bry ?) Fissil No Odor No Stn No Flor NS

Ls Wht-Crm Fxln Dns Micrite Grad Poor-Fair Ixln Por Poor Ixln Pin-Pt Por Chalk AA Wht Cht Tan Transl/Op Shp Vit Fos (Spic, Fuss) Sh Char Fissil No Odor No Stn No Flor NS

Ls Wht-Crm Fxln Dns Micrite Grad Poor-Fair Ixln Por Poor Ixln Pin-Pt Por Chalk AA Wht Cht Blk Op Shp Vit Sh Blk Carb-Char-Grn Fissil No Odor No Stn No Flor NS

Ls Wht-Crm Fxln Dns Micrite Grad Poor-Fair Ixln Por Fair Ixln Pin-Pt Por w/ Fair SG Fair-Med Sat Str (2 Pcs) F-Good SG Fair Sat Stn (Lt Brn) Chalk AA Sh Char-Red Fissil No Odor Tr Brn Stn No Flor SSG

MORROW SHALE 5062' (- 2250)

Sh Carb Inc -Char-Gry Fissil Ls Wht-Gry-Crm Fxln Dns Micrite Grad No Vis Ixln Por Chalk AA Wht Cht Tan Op/Translu Shp Vit No Odor No Stn No Flor NS

Ls Wht-Pale Grn Fxln w/OOL (Small in pl) Fair-Med Ixln Por "Sandy" Fair-Good Pin-Pt Por w/ Fair-Good Even Stn (Lt-Brn) Fair-Med SG/SO In Ls AA Friable Tr Ls Fxln Dns Micrite Sh Char tr/Pale Grn tr/Red Fissil-Soft Faint Odor Sli Tr Scat Flor Fair SG/SO

30" CFS @ 5096' Sh Char-Gry-Grn-Red Abd Fissil-Soft (Wash Red) Ls Wht-Pale Grn Fxln w/OOL (Small) in pl Fair-Med Ixln Por "Sandy" Friable Fair-Good Pin-Pt Por AA Tr Ls Fxln Dns Micrite Cht Tan Transl Shp Vit No Odor No Stn No Flor NS

60" CFS @ 5096' Sh Char-Gry-Grn-Red Abd Fissil-Soft (Wash Red) Ls Wht-Pale Grn Fxln w/OOL (Small) in pl Fair-Med Ixln Por "Sandy" Fair-Good Pin-Pt Por w/Fair-Med Ixln Por W/SG/SFO AA Tr Ls Fxln Dns Micrite Cht Tan Transl Shp Vit No Odor No Flor SSG/SO

90" CFS @ 5096' Sh Char-Gry-Grn-Red-Pale Grn Abd Fissil-Soft (Wash Red) AA Ls Wht-Pale Grn Fxln w/OOL (Small) in pl Fair-Med Ixln Por "Sandy" Fair-Good Pin-Pt Por w/Fair-Med Ixln Por W/Tr Dec SG/SFO AA Fos Tr Ls Fxln Dns Micrite Cht Tan Transl Shp Vit No Odor No Flor VSSG/SO

MISSISSIPPIAN ST. GEN 5105' (- 2293)

Ls Wht-Fxln w/OOL (Small) in pl Fair-Med Ixln Por "Sandy" Fair-Good Pin-Pt Por Friable Tr Ls Fxln Dns Micrite Sh Red- Gry-Pale Grn Abd Fissil No Odor No Flor No Stn NS

Ls Wht-Fxln w/OOL (Small) in pl Fair-Med Ixln Por "Sandy" Fair-Good Pin-Pt Por Friable Tr Ls Fxln Dns Micrite Sh Red- Gry-Pale Grn Abd Fissil No Odor No Flor No Stn NS

Ls Wht-Fxln w/Tr OOL (V Small) in pl Fair Ixln Por "Sandy" Fair Pin-Pt Ixln Por Friable Chalk Sh Tr Only Red- Char-Gry Fissil-Soft Dec No Odor No Flor No Stn NS

Ls Wht-Fxln w/Tr OOL (V Small) in pl Fair Ixln Por "Sandy" Fair Pin-Pt Ixln Por Friable Grad Micritic Poor Fxln Por Chalk Sh Tr Only Red- Char-Gry Fissil-Soft Dec No Odor No Flor No Stn NS

Ls Wht-Fxln w/Tr Dec OOL (V Small) in pl Fair Ixln Por "Sandy" Fair Pin-Pt Ixln Por Friable Grad Inc Micritic Poor Fxln Por Chalk Sh Pale Grn-Red-Blk Carb Fissil-Soft Dec No Odor No Flor No Stn NS

Ls Wht-Fxln w/Tr Dec OOL (V Small) in pl Fair Ixln Por "Sandy" Fair Pin-Pt Ixln Por Friable Grad Inc Micritic Poor Fxln Por Chalk Sh Pale Grn-Red-Blk Carb-Red Fissil-Soft Dec No Odor No Flor No Stn NS

Ls Wht-Fxln Grad Inc Micritic Poor Fxln Por w/Tr OOL AA (V Small) in pl Fair Ixln Por "Sandy" Fair Pin-Pt Ixln Por Friable w/ VSII Tr SO Stn (1 Pc) w/ Lt Brn Stn w/ tr/SO w/ Broken Chalk Sh Pale Grn-Red Fissil-Soft Dec No Odor No Flor Stn (on 1 pc) VSSO

Ls Wht-Gry Fxln Micritic Dns-V Poor Fxln Por w/Tr Dec OOL (V Small OOL in pl) Poor Ixln Por "Sandy" Poor Dec Pin-Pt Ixln Por Tr/Friable Chalk Sh Pale Grn- Aqua- Char- Red Inc Fissil-Soft Dec No Odor No Stn Flor NS

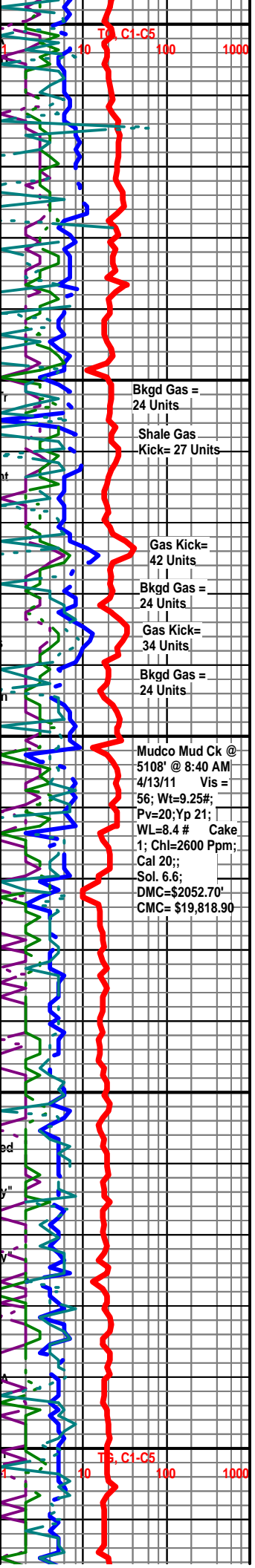
Ls Wht-Gry Fxln Micritic Dns-V Poor Fxln Por w/Tr Dec OOL (V Small OOL in pl) Poor Ixln Por "Sandy" Poor Dec Pin-Pt Ixln Por Tr/Friable Tr/ Chalk Sh Pale Grn--Red (Tr Only) Fissil-Soft Dec No Odor No Stn Flor NS

ST. LOUIS 5186' (- 2374)

Ls Wht-Fxln w/Tr OOL (V Small in pl) Fair Ixln Por "Sandy" Fair Pin-Pt Ixln Por Friable Dns Micritic AA Poor Fxln Por Chalk Sh Red- Char Fissil-Soft No Odor No Flor No Stn NS

Ls Wht-Fxln w/OOL (Small/Med Inc in pl) Fair Ixln Por "Sandy" Poor Dis Poor Devel Tr/Fair Pin-Pt Ixln Por Inc Friable Tr/ Dns Micritic AA Poor Fxln Por Chalk Sh Blk Char-Red-Grn Tr Fissil-Soft No Odor No Flor No Stn NS

Ls Wht-Fxln w/OOL (Med Inc in size in pl) Fair Inc Ixln Por "Sandy" Poor-Fair Dis Fair Devel Tr/Fair Pin-Pt Ixln Por Inc Friable Tr/ Dns Micritic AA Cht Wht-Gry w/OOL in pl Op-Transl No Vis Por Shp Vit Tr Chalk Sh Gry-Grn-Red Tr Fissil-Soft No Odor No Flor No Stn NS



Bkgd Gas = 24 Units

Shale Gas Kick= 27 Units

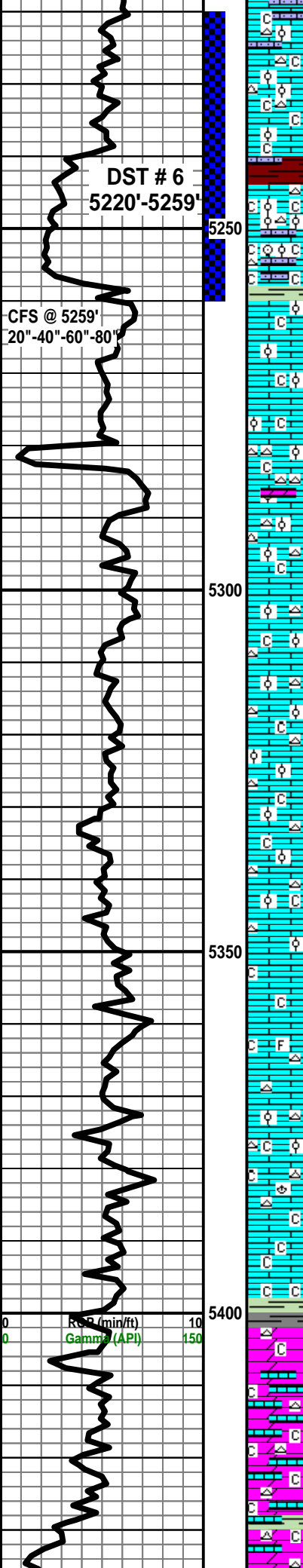
Gas Kick= 42 Units

Bkgd Gas = 24 Units

Gas Kick= 34 Units

Bkgd Gas = 24 Units

Mudco Mud Ck @ 5108' @ 8:40 AM 4/13/11 Vis = 56; Wt=9.25#; Pv=20; Yp 21; WL=8.4 # Cake 1; Chl=2600 Ppm; Cal 20;; Sol. 6.6; DMC=\$2052.70 CMC= \$19,818.90



Ls Wht-Fxln w/OOL (Med Inc in size in pl) Fair Inc lxn Por "Sandy" Poor-Fair Dis Fair Devel Tr/Fair Pin-Pt lxn Por Inc Friable Tr/ Dns Micritic AA Cht Wht-Gry Inc w/OOL (some w/ Blk ? Inclu "Salt & Pepper" in pl Op-Transl No Vis Por Shp Vit Tr Chalk Sh Gry-Grn-Red Tr Fissil-Soft No Odor No Flor No Stn NS

Ls Wht-Fxln w/OOL (Med-Lg in size & in pl) Fair Inc lxn Por -Fair Dis Fair-Med Devel Friable w/ V Sli Scat Stn (Lt Brn) w/ Sli ? SG w/wheat) Tr/ Dns Micritic AA Cht Gry-Tan w/OOL AA Op Poor Vis Por Sh Vit Tr Chalk Inc Abd Sh Red-"Drab" Grn Inc Abd Fissil-Soft No Odor No Flor ? Dead Srn Lt Brn Stn Tr/V Sli Show

St. Louis "B" Por 5244' (- 2432)

20" CFS @ 5259' Chalk Wht V Abd (60% of Spl) Ls Wht Fair-Med OOL Por w/OOL in PI Poor-Fair Dis Cht Tan-Gry Banded Op Shp Vit AA Sh-AA Dec No Odor No Stn No Flor NS. @ 40" CFS @ 5259' Chalk Wht V Abd (25% of Spl) Ls Wht Fair-Med OOL Por w/OOL in PI Poor-Fair Dis Grad Ls Gry-Wht Fxln Gran Pin-Pt Por "Sandy Friable Ls AA" Cht Tan-Gry Banded Op Shp Vit AA Sh Char-Grn-Red Tr AA No Odor No Flor No Stn NS.

@ 60" CFS @ 5259' Ls Gry-Wht V Fxln Gran Pin-Pt Por "Sandy Friable (60% of Spl) Cht Tan-Gry Op Shp Vit AA Chalk Wht V Abd (15% of Spl) Ls Wht Fair-Med OOL Por w/OOL in pl Poor-Fair Dis (15% of Spl) Cht Tan-Gry AA Op Shp Vit w/Fos (Crin) (5% of Spl) Sh Char-Grn-Red (5% of Spl) No Odor No Flor No Stn No Odor No Flor No Stn NS.

80" CFS @ 5259' Ls Gry-Wht V Fxln Gran Pin-Pt Por "Sandy Friable (40% of Spl) Chalk Wht V Abd (25% of Spl) Ls Wht Fair-Med OOL Por w/OOL in PI Poor-Fair Dis (25% of Spl w/1 Pc w/ Lt Brn "Dead Stn (w/tr Poor 1 pc V Sli Sat Stn) Cht Tan-Gry Op Shp Vit (5% of Spl) Sh Char-Grn-Red (5% of Spl) No Odor No Flor No Odor No Flor NS

ST. LOUIS LWR "B" POR 5282- (- 2470)

Ls Wht-Crm Fxln Gran OOL Poor-Fair-Med Size OOL Por w/OOL in PI Poor-Fair Inter OOL Por Friable Dis "Sandy" (40% of Spl) Grad Fxln Poor-Fair lxn Por (30% of Spl) Chalk AA Dec Wht (20% of Spl) Cht Wht Op/Transl Shp Vit (5% of Spl) Tr Ls/Dolo Gry Fxln Poor lxn Por Tr Only (4% of Spl) Sh Char-Grn-Red (3% of Spl) of Spl) No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Gran Fxln Poor-Fair lxn Por (45% of Sp) Grad OOLw/Poor-Fair-Med Size OOL Por w/OOL in pl Poor-Fair Inter OOL Por Friable "Sandy" (30% of Spl) Poor Dis Chalk AA Dec Wht (15% of Spl) Cht Wht Op/Transl Shp Vit (5% of Spl) Sh Char-Red-Blk Carb (5% of Spl) No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Gran Fxln Poor-Fair lxn Por AA Grad OOLw/Poor-Fair-Med Size OOL Por w/OOL in pl Poor-Fair Inter OOL Por Friable "Sandy" Poor Dis Chalk AA Dec Wht Cht Wht Op/Transl Shp Vit Sh Char-Red-Blk Carb No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Gran Fxln Poor-Fair lxn Por AA Grad OOLw/Poor-Fair-Med Size OOL Por w/OOL in pl Poor-Fair Inter OOL Por Friable "Sandy" Poor Dis Chalk AA Dec Wht Cht Wht Op/Transl Shp Vit (5% of Spl) Sh Char-Red-Blk Carb (5% of No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Gran Fxln Poor-Fair lxn Por AA Grad OOLw/Poor-Fair OOL Por Poor-Fair Inter OOL Por Friable "Sandy" Dec AA Poor Dis Chalk AA Dec Wht Cht Amber Op/Transl Shp Vit Dec Sh Char-Red-Aqua- No Odor No Flor No Stn NS

Ls Wht-Crm AA Fxln Gran Fxln Poor-Fair lxn Por Grad OOLw/Poor-Fair OOL Por Poor-Fair Inter OOL Por Friable "Sandy" Dec AA Poor Dis Chalk AA Dec Wht Cht Amber Op/Transl Shp Vit Dec Sh Char-Aqua-Red-Blk Carb AA No Odor No Flor No Stn N

Ls Wht-Crm AA Fxln Gran Fxln Poor-Fair lxn Por Grad OOLw/Poor-Fair OOL Por Poor-Fair Inter OOL Por Friable "Sandy" Dec AA Poor Dis Chalk AA Dec Wht Cht Amber Op/Transl Shp Vit Dec Sh Char-Aqua-Red- Blk Carb Fissil No Odor No Flor No Stn NS

Ls Wht-Crm AA Fxln Gran Fxln Micritic Poor-Fair lxn Por AA Chalk Wht Inc Sh Char-Red Fissil-Soft No Odor No Flor No Stn N

Ls Wht Crm Fxln Micritic Poor-Fair lxn Por Chalk Wht Inc AA Cht "Smoky" Gry Op/Transl Shp Vit Fos ? Sh Char-Grn-Red Fissil-Soft No Odor No Flor No Stn NS

Ls Wht Crm Fxln Micritic Poor-Fair lxn Por Chalk Wht Inc AA Cht Wht- "Smoky" Gry w Tr OOL Inclns Op Shp Vit Chalk Sh Char-Grn- Fissil-Soft No Odor No Flor No Stn NS

Ls Wht Crm Fxln Micritic Poor-Fair lxn Por Chalk Wht Inc AA Cht Wht- "Smoky" Gry Op Shp Vit Chalk Fos (Brach) Sh Tr Red-Grn-Gry Dec Fissil-Soft No Odor No Flor No Stn NS

Ls Wht Crm Fxln Micritic Poor-Fair lxn Por Cht Wht-Gry Op Shp Vit Chalk AA Sh Tr Red-Grn-Gry l Fissil-Soft No Odor No Flor No Stn N

Ls Wht Crm Fxln Micritic Poor-Fair lxn Por Cht Wht-Gry Op Shp Vit Chalk AA Sh Tr Red-Grn-Gry l Fissil-Soft No Odor No Flor No Stn NS

SALEM (SPERGEN) 5404' (- 2592)

Dolo Tan-Brn Fxln Dns Micritic "Blocky No Vis Por Assoc w/ LS Crm-Tan Grad Tan AA Fxln OOL Por w/ OOL in pl Poor Inter OOL Por Grad to Fxln Dns Micritic Cht Wht OP Shp Vit Chalk Wht Sh Pale-Drab Grn-Tr Red Fissil-Soft No Odor No Flor No Dtn NS

Dolo Tan-Brn Fxln Dns Micrite "Blocky No Vis Por Assoc w/ LS Crm-Tan Grad Tab AA Fxln OOL Por w/ OOL in pl Poor Inter OOL Por Grad to Fxln Dns Micritic Cht Wht OP Shp Vit Chalk Wht ShPale-Drab Grn-Tr Red Fissil-Soft No Odor No Flor No Dtn NS

Dolo Tan-Brn Fxln Dns Micrite "Blocky No Vis Por Assoc w/ LS Crm-Tan Grad Tab AA Fxln OOL Por w/ OOL in pl Poor Inter OOL Por Grad to Fxln Dns Micritic Cht Wht OP Shp Vit Chalk Wht Sh Pale-Drab Grn-Tr Red Fissil-Soft No Odor No Flor No Dtn NS

Mudco Mud Ck @ 5259' @ 8:25 AM 4/14/11 Vis = 62; Wt=9.25#; Pv=23; Yp 24; WL=7.2#; Cake 1; Chl=2000 Ppm; Cal 20; Sol. 6.3; DMC= \$ 169.80; CMC= \$19,988.70

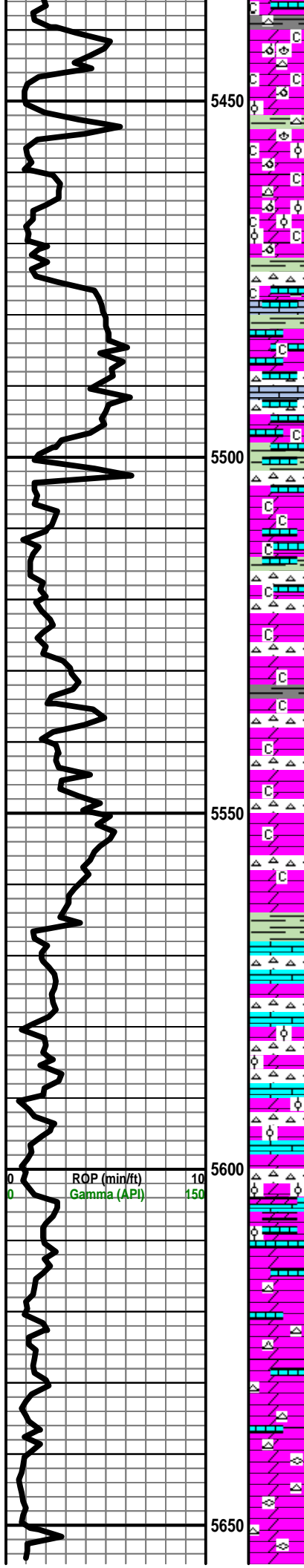
Gas Kick = 22 Units Bkgd Gas = 17 Units

Gas Kick = 25 Units Bkgd Gas = 17 Units

Re-Zero Tooke Daq @ 5293'. Zero Set @ 12 Units. Bkgd Gas= 15 Units

Re-Zero Tooke Daq @ 5421'. Zero Set @ 12 Units. Bkgd Gas= 19 Units

10 100 1000



Dolo Tan-Brn FxIn Dns Micrite "Blocky No Vis Por Grad OOL/OOM Por w/ OOL in pl Tr (1 Pcs) w/ Drk Brn Stn (on Edge Micrite) w/V Poor InterOOLPor Grad Dns Cht Wh-Tan OP Shp Vit (Tr Only) Fos (Brach) Chalk Wht Sh Tr Char Fissil-Soft No Odor No Flor No Dtn NS

Dolo Tan-Brn FxIn Dns Micrite "Blocky No Vis Por Grad OOL/OOM Por w/ OOL in pl Poor-Tair InterOOLPor Grad Dns Fos (Brach) Chalk Wht Cht Wh-Tant OP Shp Vit (Tr Only) Sh Tr Drab Grb Soft No Odor No Flor No Dtn NS

Dolo Tan-Brn FxIn OOL/OOM Por w/ OO in pl Tair-Good InterOOL Por Grad Dns Micrite AA w/No Vis Por Chalk Wht Cht Wh-Tan OP Shp Vit (Tr Only) Sh Char-Blk Carb FissilSoft No Odor No Flor No Dtn NS

Dolo Tan-Brn AA FxIn OOL/OOM Por w/ OOL in pl Fair-Good InterOOL Por Grad Dns Micrite No Vis Por Chalk Wht Cht Wh-Tan Inc OP Shp Vit Sh Char-Drab Grn Fissi-Soft No Odor No Flor No Dtn NS

Dolo/Ls Tan-Crm FxIn Tr OOL/OOM Por w/ OOL in pl Tair-Good InterOOL Por Grad Dns Micrite AA w/ No Vis Por Chalk Wht Cht Wh-Gry OP Shp Vit Inc Sh Char-Drab Grn Fissi-Soft No Odor No Flor No Dtn NS

Dolo/Ls Tan-Crm FxIn Grad Dns Micrite No Vis Por Chalk Wht Cht Wh-Gry Inc Abd OP Shp Vit Inc Sh Char-Drab Grn Fissi-Soft No Odor No Flor No Dtn NS

Dolo/Ls Tan-Crm FxIn Grad Dns Micrite No Vis Por Chalk Wht Cht Wh-Gry Inc Abd OP Shp Vit Inc Sh Char-Drab Grn Fissi-Soft No Odor No Flor No Dtn NS

Dolo/Ls Tan-Crm FxIn Grad Dns Micrite No Vis Por Chalk Wht Cht Wh-Gry-Tan Abd OP Shp Vit Inc Sh Char-Drab Grn Fissi-Soft No Odor No Flor No Dtn NS

Dolo/Ls Tan-Crm FxIn Grad Dns Micrite No Vis Por Chalk Wht Cht V Wh-Gry-Tan Abd OP Shp Vit Inc Sh Char-Drab Grn Fissi-Soft No Odor No Flor No Dtn NS

Dolo/Ls Tan-Crm FxIn Grad Dns Micrite No Vis Por Chalk Wht Cht V Wh-Gry-Tan Abd OP Shp Vit Inc Sh Char-Drab Grn Fissi-Soft No Odor No Flor No Dtn NS

Dolo Crm-Tan-Brn FxIn Grad Dns Micrite No-Poor Vis Por Chalk Wht Cht V Wh-Gry Abd OP Shp Vit Inc Sh Char-Drab Grn Fissi-Soft No Odor No Flor No Dtn NS

Dolo Crm-Tan-Brn FxIn Grad Dns Micrite No-Poor Vis Por Chalk Wht Cht V Wh-Gry Abd OP Shp Vit Inc Sh Char-Drab Grn Fissi-Soft No Odor No Flor No Dtn NS

Dolo Brn-Crm-Tan FxIn Grad Dns Micrite No-Poor Vis Por Grad Poor-Fair OOM Por W/OOL in pl. Poor InterOOM Por Tr Vug Leching Poor Devel Chalk Wht Cht V Wh-Gry Abd OP Shp Vit Inc Sh Char-Drab Grn Fissi-Soft No Odor No Flor No Dtn NS

Dolo Brn-Crm-Tan FxIn Grad Dns Micrite No-Poor Vis Por Grad Poor-Fair OOM Por W/OOL in pl. Poor InterOOM Por Tr Vug Leching Poor Devel Chalk Wht Cht V Wh-Gry Abd OP Shp Vit Inc Sh Char-Drab Grn Fissi-Soft No Odor No Flor No Dtn NS

WARSAW 5568' (- 2756)

Dolo Crm-Tan FxIn Grad Sucrosic Fair IxIn Por Ls Crm FxIn Grad Poor-Fair OOM Por Barren Cht V Wht OP Shp Vit Chalk Wht Sh Char-Aqua Fissi-Soft No Odor No Flor No Dtn NS

Dolo Crm-Tan FxIn Grad Sucrosic Fair IxIn Por Ls Crm FxIn Grad Poor-Fair OOM Por Barren Cht V Wht OP Shp Vit Chalk Wht Sh Char-Aqua Fissi-Soft No Odor No Flor No Dtn NS

Dolo Crm-Tan FxIn Grad Sucrosic Fair IxIn Por Ls Crm FxIn Grad Poor-Fair OOM Por Barren Cht V Wht OP Shp Vit Chalk Wht Sh Char-Aqua Fissi-Soft No Odor No Flor No Dtn NS

Dolo Crm-Tan FxIn Grad Sucrosic Fair IxIn Por Ls Crm FxIn Grad Poor-Fair OOM Por Barren Cht V Wht OP Shp Vit Chalk Wht Sh Char-Aqua Fissi-Soft No Odor No Flor No Dtn NS

Dolo Gry FxIn Grad V FxIn Sucrosic Por w/Fair IxIn Por Fos (Fuss) Ls Crm AA FxIn Grad Poor IxIn Por Barren Cht Wht-Gry OP Shp Vit Chalk Wht Sh Char-Aqua Fissi-Soft No Odor No Flor No Dtn NS

Dolo Gry FxIn Grad V FxIn Sucrosic Por w/Fair IxIn Por Fos (Fuss) Ls Crm AA FxIn Grad Poor IxIn Por Barren Cht Wht-Gry OP Shp Vit Chalk Wht Sh Char-Aqua Fissi-Soft No Odor No Flor No Dtn NS

Dolo Gry FxIn Grad V FxIn Sucrosic Por w/Fair IxIn Por Fos (Fuss) Ls Crm AA FxIn Grad Poor IxIn Por Barren Cht Wht-Gry OP Shp Vit Chalk Wht Sh Char-Aqua Fissi-Soft No Odor No Flor No Dtn NS

30" CFS @ 5655' Dolo Gry FxIn Grad V FxIn Sucrosic Por w/Fair IxIn Por Fos (Fuss) Ls Crm Dec FxIn Grad Poor IxIn Por Barren Cht Wht-Gry OP Shp Vit Chalk Wht Sh Char-Aqua Fissi-Soft No Odor No Flor No Dtn NS

60" CFS @ 5655' Dolo Gry FxIn Grad V FxIn Sucrosic Por w/Fair IxIn Por Fos (Fuss) Ls Crm Dec FxIn Grad Poor IxIn Por Barren Cht Wht-Gry OP Shp Vit Chalk Wht Sh Char-Aqua Fissi-Soft No Odor No Flor No Dtn NS

Mudco Mud Ck @ 5443' @ 10:35 AM 4/15/11 Vis = 62; Wt = 9.1#; Pv=18; Yp 18; WL= 8.0#; Cake 1; Chl=2100 Ppm; Cal 20; Sol. 5.6; MC= \$ 804.40 CMC= \$ 20,793.10

Re-Zero Tooke Daq @ 5572'. Zero Set @ 12 Units. Bkgd Gas= 14 Units

Gas Kick = 22 Units; Bkgd Gas = 15 Units.

CFS @ 5655'
30" - 60"

R.T.D. = 5655' (- 2843)
L.T.D. = 5658' (- 2846)

ELECTRIC LOGS BY

LOGTECH, INC.

DUAL COMP.
POROSITY;
DUAL INDUCTION;
BOREHOLE
COMPENSATED
SONIC;
MICRORESISTIVITY;
GAMMA
RAY-NEUTRON
(CASED HOLE).

5700

5750

@ 11:15 AM 4/16/11
MC = \$ 513.00
CMC = \$ 21,306.10