



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

Well Name: UMCC "A" #1-17
Location: NE-NW-SW of Sec. 17 - T. 30 S. - R. 30 W.
License Number: A.P.I. # 15 - 119 - 21,363 - 00 - 00
Spud Date: 02/25/2014
Surface Coordinates: SPOT: 2310' FSL & 990' FWL

Region: MEADE CO., KS.
Drilling Completed: 03/04/2014

Bottom Hole Coordinates:
Ground Elevation (ft): 2816' **K.B. Elevation (ft):** 2827'
Logged Interval (ft): 1828' **To:** 5702' **Total Depth (ft):** 5702'
Formation: MISSISSIPPIAN "ST. LOUIS"
Type of Drilling Fluid: CHEMICAL/POLYMER/GEL. & MUD DISPLACEMENT @ 2921'.
Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: McCOY PETROLEUM CORPORATION KCC LIC. NO. # 5003
Address: 8080 E. CENTRAL, STE. #300
WICHITA, KANSAS 67206-2366

GEOLOGIST

Name: DAVID P. WILLIAMS, P.G.
Company: DW ENERGY, LLC (DWE)
Address: 312 N. BROADVIEW STREET
WICHITA, KANSAS 67208

CASING & DEVIATION

Surface Casing: Spud at 10:15 PM on 02/25/14. Drilled 12-1/4" to 1833'. Ran 44 joints of new 24#, 8-5/8" casing. Tallied 814'. Set at 1828' KB. Welded straps on shoe, bottom 3 joints and top 2 joints. Tacked collars on the remainder. (5) Centralizers on joints 1-3-5-7-27. Float insert in top of 1st joint. Cemented with 650 sks Class A; 3% CC, 6% Gel & 1/4# FS. Tailed with 200 sks Class A; 3% CC; 1/4# FS. Cement did circulate. Plug down at 3:00 PM on 02/26/14. Allied Cementing ticket #52423. Basket at 742' KB. At 8:00 PM cement was down 40'. Cemented from top with 50 sks Class A with 2% CC at 10:15 pm. By 12:00 PM it down 20'. Cemented with 50 sks Class; 2% CC at 12:15 AM. Cement held. Ticket #52424.

Deviation Sruvey Taken: @ 1833' = 1/4 degree; @ 5336' = 1 degree; @ 5700' = 1 3/4 degree.

DSTs

~~DST #11~~ Interval = 5264'-5336'. Times: 5"-60"-90"-120";

Blow: IF= BOB/1" . No Blow Back During ISIP. FF= Strong Blow BOB/lmed 10 Sec. GTS @ 27" (See Gauge Report Below). BOB Blow Back During FSIP/10".

Recovery: 1060' TF: 810' CGO (5% G & 95% O); 250' MCGO (20% G, 36% M & 44% O).

Pressures: IH = 2682#; FH= 2601#; IF=166-132#; FF=244-376#; ISIP=1691#; FSIP=1544#; Temp.=128 degrees F.. API Grv.=35 degrees F.,

FF GAS GAUGE: @ 30"=15.1 Mcf; @ 40"=15.9 Mcf; @ 50"=16.5 Mcf; @ 60"=16.5 Mcf; @ 70"=16.9 Mcf; @ 80"=16.9 Mcf; @ 90"= 15.9 Mcf.


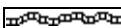
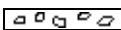

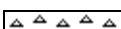
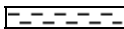













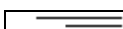
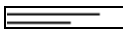


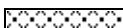
Comments

After review of all geologic samples as examined, combined with the fluid and pressures results from the drill stem test 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 # 88 Kansas

ROCK TYPES

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

ACCESSORIES

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

OTHER SYMBOLS

- POROSITY**
- [E] Earthy
 - [B] Fenest
 - [F] Fracture
 - [X] Inter
 - [Z] Moldic
 - [O] Organic
 - [P] Pinpoint

- [V] Vuggy
- SORTING**
- [W] Well
 - [M] Moderate
 - [P] Poor

- ROUNDING**
- [R] Rounded
 - [r] Subrnd
 - [a] Subang
 - [A] Angular

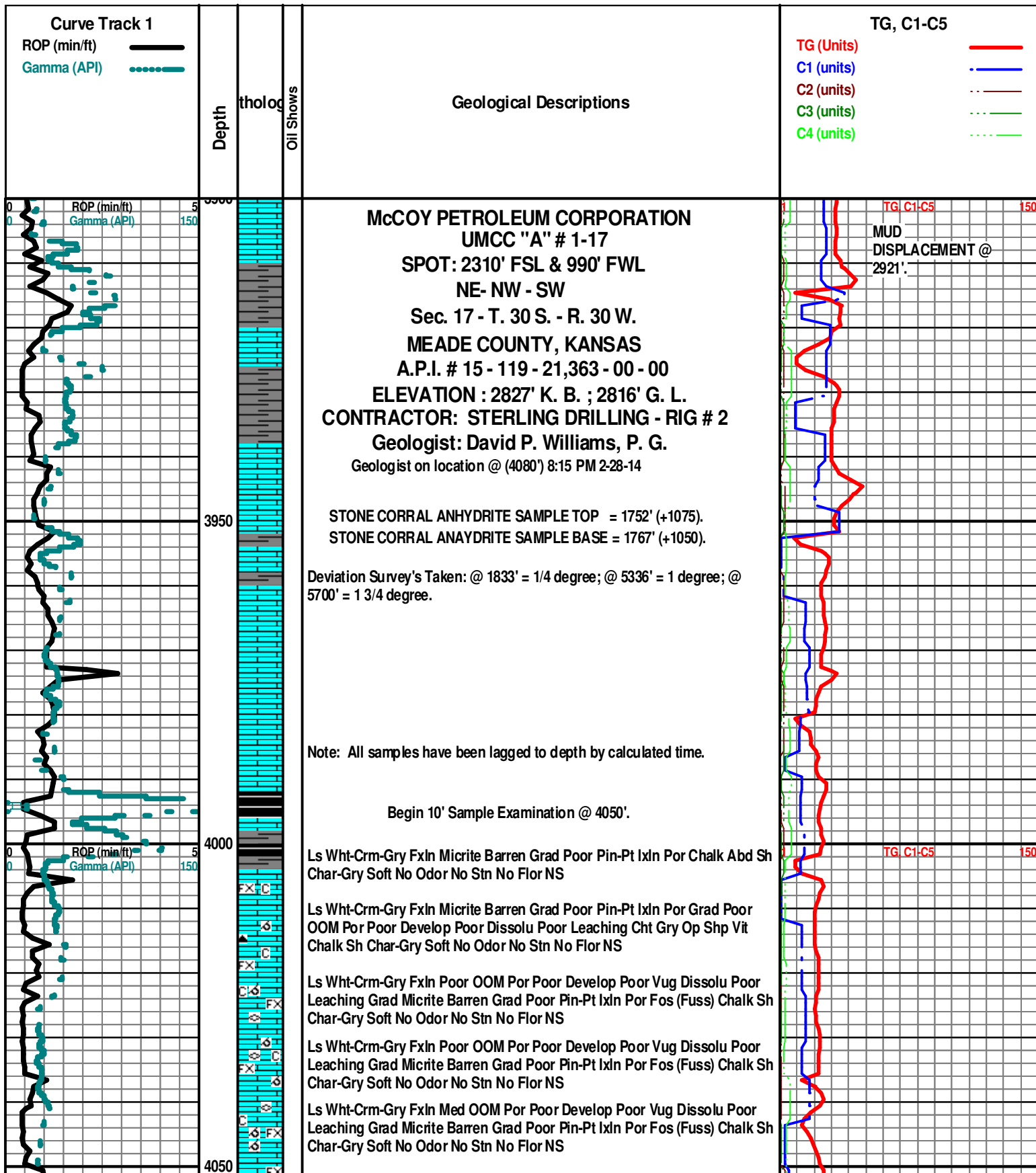
- [●] Even
- [◉] Spotted
- [○] Ques
- [◻] Dead

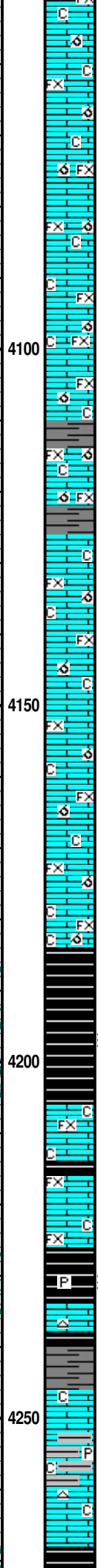
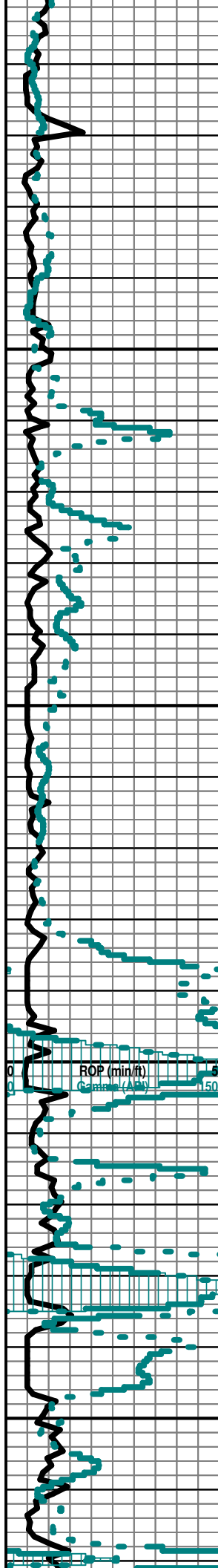
[■] Dst_alt

- EVENT**
- [▶] Rft
 - [▶] Sidewall

- OIL SHOW**
- [*] Gas show

- INTERVAL**
- [■] Core
 - [■] Dst





Ls Wht-Crm-Gry Fxln Poor OOM Por Poor Develop Poor Vug Dissolu Poor Leaching Grad Micrite Barren Grad Poor Pin-Pt Ixln Por Chalk Sh Char-Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Poor OOM Por Poor Develop Poor Dissolu Poor Leaching Grad Micrite Barren Grad Poor Pin-Pt Ixln Por Chalk Sh Char-Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Med OOM Por Poor Develop Med Vug Dissolu Fair Leaching Grad Micrite Barren Grad Poor Pin-Pt Ixln Por Chalk Sh Char-Gry Soft No Odor No Stn No Flor NS

Ls Gry-Wht-Crm-Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Poor OOM Por Poor Develop Poor Dissolu Poor Leaching Cht Wht Op Shp Vit Chalk Sh Char-Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Fair OOM Por Poor Develop Poor Dissolu Poor Leaching Fos (Brach) Chalk Sh Char-Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Tr Poor OOM Por Chalk (Abd) Sh Blk Carb-Char-Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Tr Poor OOM Por Chalk (Abd) Sh Char-Gry-Drk Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Tr Poor OOM Por Chalk (Abd) Sh Char-Gry-Drk Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Tr Poor OOM Por Chalk (Abd) Sh Char-Gry-Drk Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Poor-Fair OOM Por Chalk (Abd) Sh Char-Gry-Drk Gry Soft No Odor No Stn No Flor NS

Ls Tan-Crm-Wht Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Poor OOM Por Chalk (Abd) Sh Char-Gry-Drk Gry Soft No Odor No Stn No Flor NS

Ls Tan-Crm-Wht Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Poor OOM Por Chalk (Abd) Sh Char-Gry-Drk Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Tr Poor OOM Por Chalk Abd Sh Char-Gry-Drk Gry Soft No Odor No Stn No Flor NS

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

Sh Blk Carb (w/GSG)-Char-Gry Fissil Ls Wht-Crm-Tan-Gry Fxln Dns Micrite Grad Pin-Pt Ixln Por Chalk No Odor No Stn No Flor NS

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

Ls Wht-Crm-Gry Fxln Dns Micrite Grad Pin-Pt Ixln Por Chalk No Odor No Stn No Flor NS

HEEBNER 4226' (- 1410)

Sh Blk Carb-Char-Gry (w/Pyr Inklus)-Maroon Soft-Fissil Ls Wht-Crm-Gry Fxln Dns Micrite Grad Pin-Pt Ixln Por Cht Wht Op Shp Vit Chalk No Odor No Stn No Flor NS

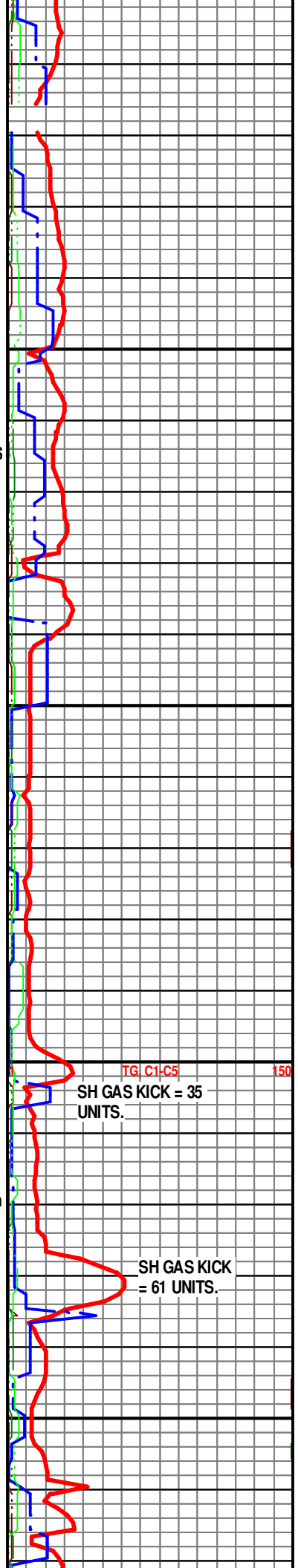
Ls Wht-Crm-Gry Fxln Dns Micrite Grad Pin-Pt Ixln Por Chalk Sh Blk Carb (w/GSG)-Char-Gry Fissil No Odor No Stn No Flor NS

TORONTO 4247' (- 1420)

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

Sh Char-Gry (w/Pyr Inklus)-Maroon Soft-Fissil Ls Wht-Crm-Gry Fxln Dns Micrite Grad Pin-Pt Ixln Por Cht Wht Op Shp Vit Chalk Sh Blk Carb (w/GSG)-Char-Gry Fissil No Odor No Stn No Flor NS

DOUGLAS 4268' (- 1441)



Sh Char-Gry Soft-Fissil Ls Wht-Crm-Gry Fxln Dns Micrite Grad Pin-Pt Ixln
Por Cht Wht Op Shp Vit Chalk No Odor No Stn No Flor NS

Sh Char-Gry Soft-Fissil Ls Wht-Crm-Gry Fxln Dns Micrite Grad Pin-Pt Ixln
Por Cht Wht Op Shp Vit Chalk No Odor No Stn No Flor NS

LANSING 4296' (- 1469)

Ls Wht-Crm-Tan-Gry (w/Pyr & Fos (Crin) Inklus) Microxln Dns Micritic
Barren Grad Fxln Poor Pin-Pt Ixln Por Barren Cht Wht Op Shp Vit Chalk Sh
Char-Gry Soft-Fissil No Odor No Stn No Flor

Ls Wht-Crm-Tan-Gry Microxln Dns Micritic Barren Grad Fxln Poor Pin-Pt Ixln
Por Barren Fos (Fuss, Spiculitic Inklus) Cht Wht Op Shp Vit Chalk Sh Blk
Carb-Char-Gry Soft-Fissil No Odor No Stn No Flor

Ls Wht-Crm-Tan-Gry Microxln Dns Micritic Barren Grad Fxln Poor Pin-Pt Ixln
Por Barren Fos (Fuss) Cht Wht Op Shp Vit Chalk Sh Blk Carb-Char-Gry No
Odor No Stn No Flor

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Fos (Brach
w/Pyr Inklus) Chalk Sh Char-Gry-Blk Carb Fissil Soft No Odor No Stn No
Flor NS

Ls Wht-Crm Microxln-Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Cht
Amber-Gry Op Shp Vit Fos (Spicule) Chalk Sh Char-Gry Soft-Fissil Soft No
Odor No Stn No Flor NS

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

Sh Char-Gry-Blk Carb Tr Soft- Fissil Ls Wht-Crm-Gry Microxln Dns Micrite
Barren Grad Poor Ixln Por ht Wht-Tan Op Shp Vit Chalk Fos (Fuss) No Odor
No Stn No Flor NS

Ls Wht-Crm-Tan Fxln Micrite Barren Cht Wht-Tan Translu-Op Shp Vit Chalk
Sh Char-Gry Fissil-Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Tan Fxln Micrite Barren Cht Amber-Tan Translu-Op Shp Vit
Chalk (Abd) Sh Char-Gry Fissil-Soft No Odor No Stn No Flor NS

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

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Fair-Med Pin-Pt Ixln Por (w/Pyr
Inklus) Grad Poor OOM Por Poor InterOOM Por Barren Chalk Abd Cht
Amber Translu-Op Shp Vit Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Stn
No Flor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Fair-Med Pin-Pt Ixln Por Grad Poor OOM Por Poor
InterOOM Por Barren Chalk Abd Sh Char-Gry Fissil-Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Fair-Med Pin-Pt Ixln Por Grad Poor OOM Por Poor
InterOOM Por Barren Chalk Abd Cht Wht-Tan Translu-Op Shp Vit Fos (Crin) Sh Char-Gry
Fissil-Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Fair-Med Pin-Pt Ixln Por Grad Poor
OOM Por Poor-Fair InterOOM Por Barren Chalk Abd Cht Wht-Tan
Translu-Op Shp Vit Sh Char-Gry Fissil-Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Fair-Med Pin-Pt Ixln Por Grad Poor
OOM Por Poor InterOOM Por Barren Chalk Abd Cht Wht-Tan Translu-Op
Shp Vit Sh Char-Gry Fissil-Soft No Odor No Stn No Flor NS

Ls Crm-Tan-Gry Fxln Dns Micrite Poor- Ixln Por Barren Chalky Sh Blk Carb-
Char- Gry (w/Pyr Inklus) No Odor No Flor No Stn NS

Ls Crm-Tan-Gry Fxln Poor- Ixln Por Barren Grad Poor OOM Por AA Poor
Leahing Poor Develop Chalk Abd Sh Char-Gry-Aqua Fissil No Odor No Flor
No Stn NS

Ls Wht-Crm-Tan Fxln Fair-Med OOM Por Poor InterOOM Por Barren Chalk
Abd Cht Wht-Tan Translu-Op Shp Vit Sh Char-Gry Fissil-Soft No Odor No
Stn No Flor NS

Ls Wht-Crm-Tan Fxln Fair-Med OOM Por Poor InterOOM Por Barren Chalk
Abd Cht Wht-Tan Translu-Op Shp Vit Sh Blk Carb- Char -Gry Fissil-Soft No
Odor No Stn No Flor NS

4300

A

4350

B

C

4400

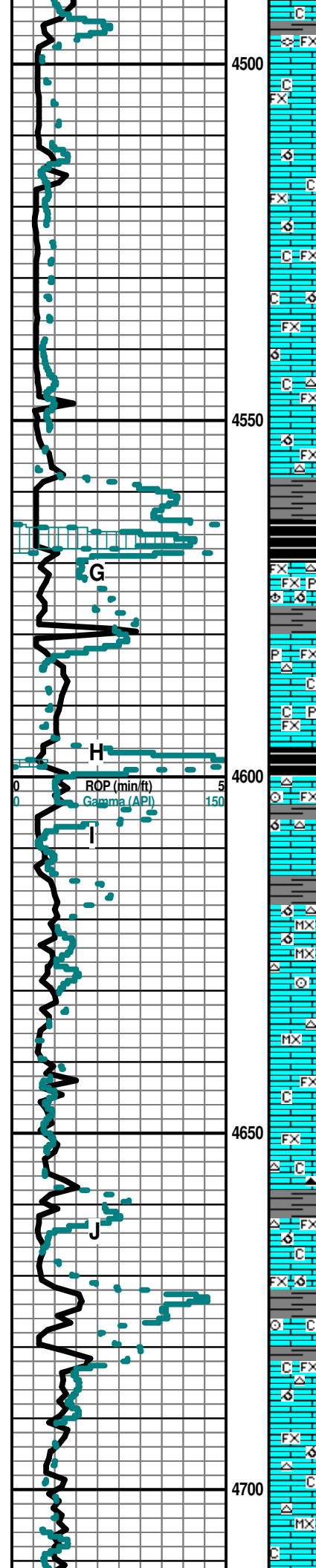
D

4450

ROP (min/ft)
Gamma (API)

TG C1-C5

150



Ls Tan-Crm-Gry FxIn Dns Micrite Poor IxIn Por Barren Fos (Fuss) Chalky Sh Blk Carb-Char-Gry Fissil No Odor No Flor No Stn NS

Ls Tan-Wht-Crm FxIn Med-Good OOM Por Poor-Fair InterOOM Vug Por Barren Chalk Abd Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Stn No Flor NS

Ls Tan-Wht-Crm FxIn Good OOM Por Fair-Med InterOOM Vug Por Barren Chalk Abd Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Stn No Flor NS

Ls Tan-Wht-Crm FxIn Good OOM Por Med-Good InterOOM Por Barren Chalk Abd Sh Blk Carb - Char - Gry- Maroon Fissil-Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Tan FxIn Med-Good OOM Por Poor-Fair InterOOM Por Barren Chalk Abd Cht Wht-Tan Translu-Op Shp Vit Sh Blk Carb - Char - Gry Fissil-Soft No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry Fissil-Soft Ls Wht-Crm-Tan FxIn Med-Good OOM Por Poor-Fair InterOOM Por Barren Chalk Abd Cht Wht-Tan Translu-Op Shp Vit No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry Fissil-Soft Ls Wht-Crm-Tan FxIn Med-Good OOM Por Poor-Fair InterOOM Por Barren Chalk Abd Cht Wht-Tan Translu-Op Shp Vit No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry Fissil-Soft Ls Crm-Tan-Gry FxIn Dns Micrite Poor IxIn Por Barren Cht Wht -Gry Translu-Op Shp Vit Chalky No Odor No Flor No Stn NS

Ls Wht FxIn Dns Micrite (w/Pyr Includ) Poor IxIn Por Barren Grad TrGood OOM Por AA Fos (Brach) Chalk Sh Blk Carb-Char-Gry Fissil-Soft y No Odor No Flor No Stn NS

LANSING "G" 4582' (- 1765)

Ls Crm-Tan-Gry FxIn Dns Micrite Poor IxIn Por Barren Cht Wht-Gry Translu-Op Shp Vit Pyr Mass Chalk Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Flor No Stn NS

Ls Crm-Tan-Gry FxIn Dns Micrite Poor IxIn Por Barren Cht Wht -Gry Translu-Op Shp Vit Pyr Mass Chalk Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Dns Micrite Poor IxIn Por Barren Cht Wht -Gry Translu-Op Shp Vit Fos (Crin) Chalk Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Flor No Stn NS

Ls Wht-Crm-Tan-Gry MicroxIn Dns Micrite Grad Fair IxIn Por Barren Grad Poor OOM Por Poor Develop Poor Leaching Cht Wht (w/Ooids in pl)-Gry Transp-Op Shp Vit Sh AA No Odor No Flor No Stn NS

Ls Wht-Crm MicroxIn Dns Micrite Grad Fair IxIn Por Barren Grad Poor OOM Por Poor Develop Poor Leaching Cht Gry Op Shp Vit Fos (Crin) Sh AA No Odor No Flor No Stn NS

Ls Wht-Crm MicroxIn Dns Micrite Cht Wht-Gry Op Shp Vit Sh AA No Odor No Flor No Stn NS

Ls Crm-Tan FxIn Soft Chalk V Abd Grad Dns Micrite Sh Char Soft No Odor No Flor No Stn NS

Ls Crm-Tan FxIn Soft Chalk V Abd Grad Dns Micrite Cht Wht-Drk Gry Op Shp Vit Sh Char Soft No Odor No Flor No Stn NS

Ls Wht-Crm MicroxIn Dns Micrite Grad Fair OOM Por Poor Develop Poor Leaching Soft Chalk Abd AA Cht Gry Translu-Op Shp Vit Sh AA No Odor No Flor No Stn NS

Ls Crm-Tan FxIn Poor OOM Por Poor InterOOM Por Poor Dissolu Poor Leaching Grad Dns Micrite Cht Wht-Gry Op Shp Vit Chalky Sh Char-Gry Fissil No Odor No Flor No Stn NS

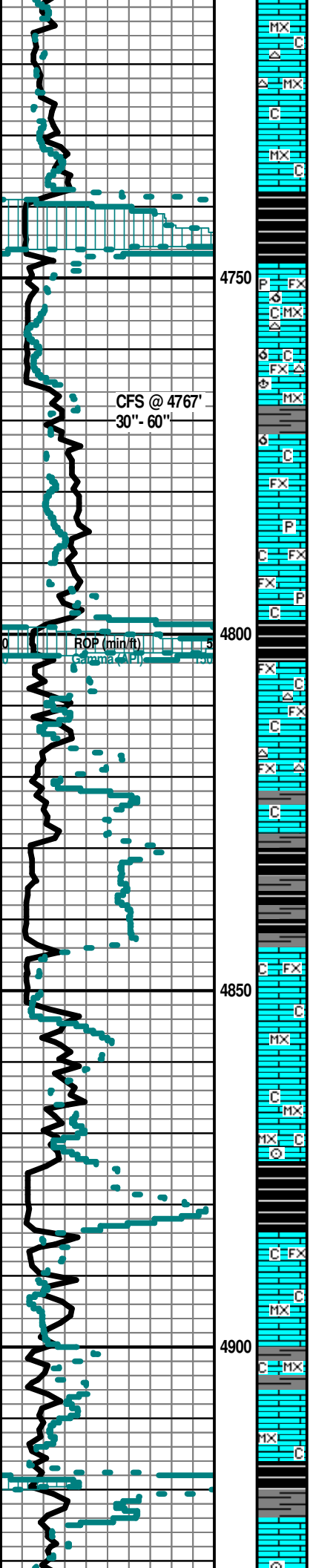
Ls Crm-Tan FxIn Poor OOM Por Poor InterOOM Por Poor Dissolu Poor Leaching Cht Wht-Gry Op Shp Vit Chalky Sh Char-Gry Fissil No Odor No Flor No Stn NS

Ls Crm-Tan FxIn Poor OOM Por Poor InterOOM Por Poor Dissolu Poor Leaching Grad Dns Micrite Cht Wht Op Shp Vit Fos (Crin) Chalky Sh Blk Carb-Char-Gry Fissil No Odor No Flor No Stn NS

Ls Wht-Crm MicroxIn Dns Micrite Cht Gry Translu-Op Shp Vit Chalky Sh Char- Gry Soft No Odor No Stn No Flor NS

TG C1-C5 150

Mudco Ck @
4704' @ 10:25 AM
3/01/14
Vis 47;
WT= 9.15#;
PV= 14;



Ls Wht-Crm MicroIn Dns Micrite Cht Gry Translu-Op Shp Vit Chalk Sh Char- Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm MicroIn Dns Micrite Cht Gry Translu-Op Shp Vit Sh Char- Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry MicroIn Dns Micrite Cht Wht-Gry Translu-Op Shp Vit Chalky Sh Blk Carb- Char- Gry Soft No Odor No Stn No Flor NS

STARK SHALE 4738' (- 1911)

Sh Blk Carb-Char Fissil (w/SG)

KANSAS CITY "SWOPE" 4747' (- 1930)

30" CFS @ 4767' Ls Wht-Crm-Tan FxIn-MicroIn Dns Micrite (w/Pyr Inclus) Grad Poor OOM Por Poor Develop Poor Leaching Chalky Sh Blk Carb (w/GSG)-Char-Gry Fissil No Odor No Stn No Flor SG in Blk Sh

60" CFS @ 4767' Ls Wht-Crm FxIn-MicroIn Dns Micrite Grad Poor OOM Por Poor Develop Poor Leaching Cht Wht-Gry Op Shp Vit Fos (Brach) Chalky Sh Blk Carb (w/GSG)-Char-Gry Fissil No Odor No Stn No Flor SG in Blk Sh

Ls Wht-Crm FxIn Poor OOM Por Poor Leaching Poor Dissolu Barren Grad MicroIn Dns Micrite Chalk (Abd) Cht Gry Op Shp Vit Sh Char-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn MicroIn Dns Micrite (w/Pyr Inclus) Barren Grad Chalky Sh Char-Gry (w/Pry Inclus) Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn MicroIn Dns Micrite Barren Grad Chalky Sh Char-Gry (w/Pry Inclus) Fissil No Odor No Stn No Flor NS

HUSHPUCKNEY SHALE 4798' (- 1971)

KANSAS CITY "HERTHA (L)" 4803' (- 1976)

Sh Blk Carb-Char-Gry Fissil-Soft Ls Crm-Tan-Gry FxIn Dns Micrite Poor IxIn Por Barren Cht Wht -Gry Translu-Op Shp Vit Chalky No Odor No Flor No Stn NS

KANSAS CITY "HERTHA Ø" 4816' (-2000)

Ls Crm-Tan-Gry FxIn Dns Micrite Poor IxIn Por Barren Cht Wht -Gry Translu-Op Shp Vit Chalky Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Flor No Stn NS

Sh Blk Carb-Char-Gry Fissil-Soft Ls Crm-Tan-Gry FxIn Dns Micrite Poor IxIn Por Barren Cht Wht-Gry Translu-Op Shp Vit Chalky No Odor No Flor No Stn NS

Ls Tan-Crm FxIn Micritic Barren Chalk Sh Char-Grn Fissil No Odor No Flor No Stn NS

Ls Tan-Crm MicroIn Micritic Barren Chalk Sh Char-Grn Fissil No Odor No Flor No Stn NS

Ls Tan-Crm MicroIn Micritic Barren Chalk Sh Char-Grn Fissil No Odor No Flor No Stn NS

Ls Crm-Tan-Gry MicroIn Dns Micrite Poor IxIn Por Barren Fos (Crin) Chalky Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Flor No Stn NS

MARMATON 4884' (- 2057)

Ls Crm-Wht-Tan FxIn Poor IxIn Por Micritic Dns Barren Grad FxIn Chalk Sh Char-Gry-Maroon-Aqua Soft-Fissil No Odor No Flor No Stn NS

Ls Crm-Wht-Gry MicroIn Poor IxIn Por Micritic Dns Barren Chalk Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Gry-Crm-Wht MicroIn Poor IxIn Por Micritic Dns Barren Cht Gry Translu-Op Shp Vit Fos (Fuss) Chalk (Abd) Sh Blk Carb-Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Sh-Blk Carb-Char-Gry-Aqua Fissil Ls Wht Crm-Tan FxIn Poor IxIn Por Micritic Dns Barren Chalk Wht Cht Wht-Gry Translu-Op (w/Fos Inclus) Shp Vit No Odor No Flor No Stn

MARMATON "B" 4924' (- 2107)

Ls Crm Wht Tan FxIn Poor IxIn Por Micritic Dns Barren Grad FxIn Fos (Crin)

YP = 15;
WL = 7.6#;
Cake = 1;
Chl = 3100 Ppm;
Cal = 30;
Sol = 5.6%
LCM = 2#;
DMC = \$10,664.20;
CMC = \$17,993.70.

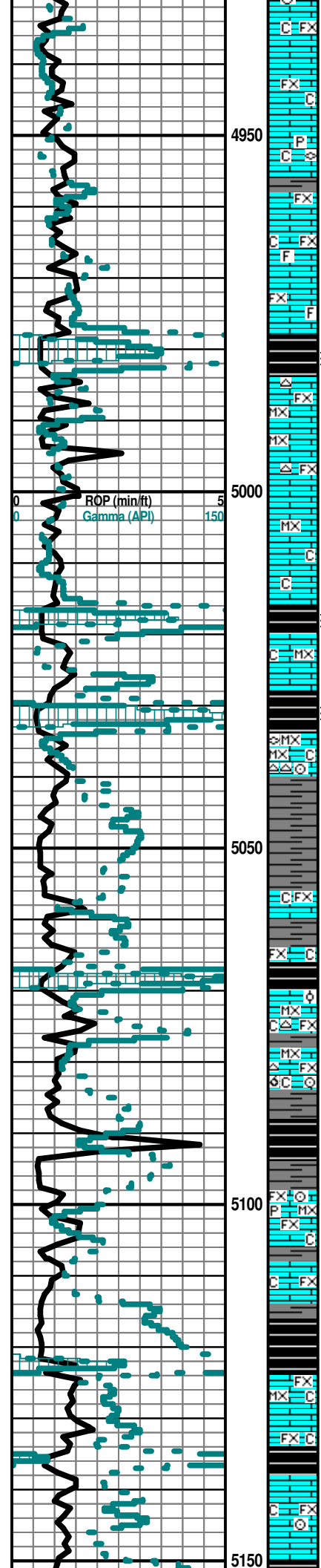
SH GAS KICK = 157 UNITS.

SH GAS KICK = 135 UNITS.

SH GAS KICK = 92 UNITS.

CFS @ 4767'
30" - 60"

ROP (min/ft)



Ls Crm-Wht-Tan FxIn Poor IxIn Por Micritic Dns Barren Grad FxIn Fos (Crin)
V Abd Chalk Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

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

No Sample Caught (Crew Change)

Ls Wht-Crm-Gry FxIn Poor IxIn Pin-Pt Por Micritic (w/Pyr Inclus) Dns Barren
Cht Wht Translu-Op Shp Vit Fos (Fuss) Chalk Sh Char-Gry Soft-Fissil No
Odor No Flor No Stn NS

Sh-Blk Carb-Char-Gry Fissil Ls Wht Crm-Tan FxIn Poor IxIn Por Micritic Dns Barren Chalk Wht
Cht Wht-Gry Translu-Op (w/Fos Inclus) Shp Vit No Odor No Flor No Stn SSG in Blk Carb Sh

BANDERA SHALE 4978' (- 2151)

PAWNEE 4984' (- 2167)

Ls Wht-Crm-Gry MicroIxIn-FxIn Micrite Dns Grad Poor IxIn Gran Por Cht Wht
Translu-Op Shp Vit Sh Blk Carb-Char- Grn/Gry Fissil No Odor No Flor No
Stn NS

Ls Wht-Crm-Gry MicroIxIn-FxIn Micrite Dns Grad Poor IxIn Gran Por Cht Wht
Translu-Op Shp Vit Sh Blk Carb-Char- Grn/Gry Fissil No Odor No Flor No
Stn NS

Ls Wht-Crm-Tan MicroIxIn Micrite Chalky Sh Blk Carb-Aqua No Odor No Flor
No Stn NS

LABETTE SHALE 5016' (- 2199)

Sh Blk Carb-Char-Gry Fissil No Odor No Flor No Stn NS

FORT SCOTT 5021' (-2204)

Ls Wht-Crm-Tan MicroIxIn Micrite Chalky Sh Blk Carb-Char-Gry Fissil No Odor No Flor No Stn
NS

CHEROKEE SHALE 5028' (- 2211)

Sh Blk Carb Abd-Char-Gry Fissil Ls Wht-Crm-Tan MicroIxIn Micrite Grad FxIn
Poor Pin-Pt IxIn Por Cht Amber-Wht-Tan Translu-Op Shp Vit Fos (Crin, Fuss)
Chalk No Odor No Flor No Stn NS

Ls Wht-Crm-Tan MicroIxIn Micrite Grad FxIn Poor Pin-Pt IxIn Por Cht
Amber-Wht-Tan Translu-Op Shp Vit Fos (Crin, Fuss) Chalk Sh Blk Carb
Abd-Char-Gry No Odor No Flor No Stn NS

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

No Sample Caught

SECOND CHEROKEE SHALE 50' (- 22)

Sh Blk Carb-Char-Gry Fissil Ls Crm-Tan MicroIxIn-FxIn Poor IxIn Por Micritic
Dns Barren Grad Poor OOL Por (w Small OOids in pl) Cht Wht Op Shp Vit
Chalk Sh Char-Gry Fissil No Odor No Flor No Stn NS

Sh Blk Carb-Char-Gry Fissil Ls Crm-Tan MicroIxIn-FxIn Poor IxIn Por Micritic
Dns Barren Grad Poor OOM Por (w Small OOids in pl) Cht Wht Op Shp Vit
Chalk Fos (Crin) Sh Char-Gry Fissil No Odor No Flor No Stn NS

Sh Blk Carb-Char-Gry Fissil Ls Crm-Tan MicroIxIn-FxIn Poor IxIn Por Micritic Dns Barren Grad
Poor OOM Por (w Small OOids in pl) Cht Wht Op Shp Vit Chalk Fos (Crin) Sh Char-Gry Fissil
No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Poor IxIn Por Micritic Dns (w/Pyr Inclus) Barren Chalk Cht
Amber Op Shp Vit Sh Blk Carb-Gry Fissil No Odor No Flor No Stn NS

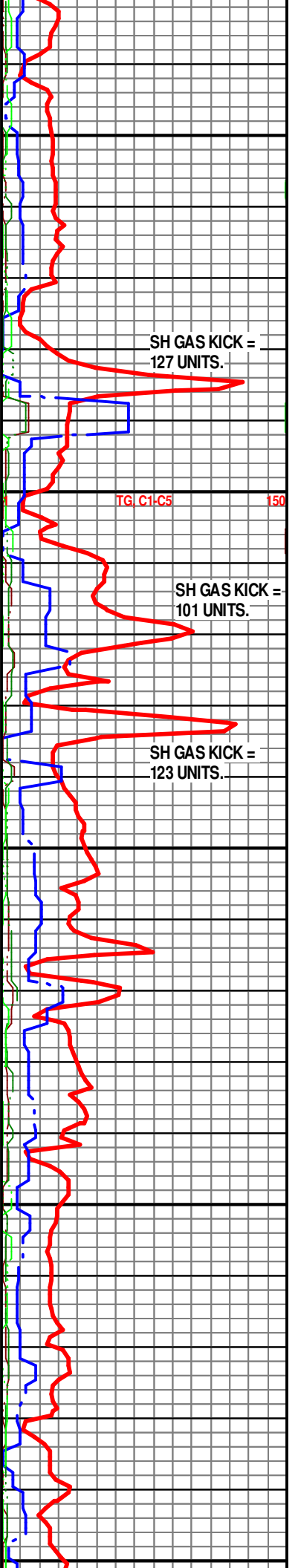
THIRD CHEROKEE SHALE 5114' (- 2287)

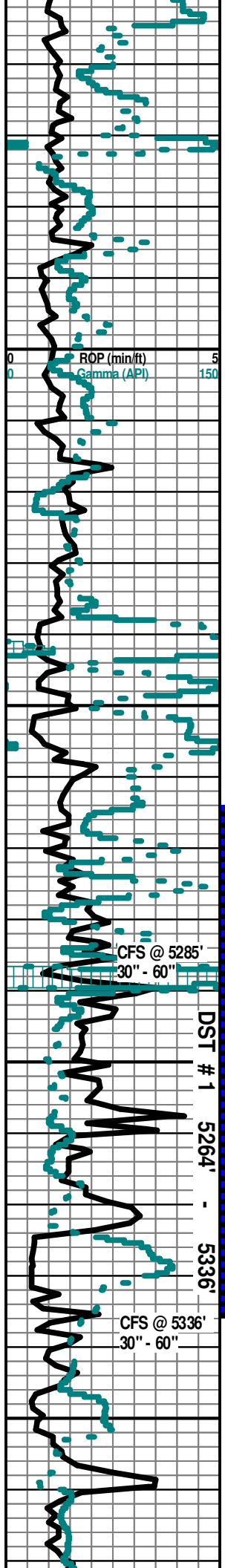
Sh Blk Carb-Gry Fissil Ls Crm-Wht-Tan FxIn Poor IxIn Por Micritic Dns
Barren Chalk No Odor No Flor No Stn NS

Sh Blk Carb-Char-Gry Fissil Ls Wht-Crm-Tan MicroIxIn-FxIn Poor IxIn Por
Micritic Dns Barren Chalk Wht Soft No Odor No Flor No Stn NS

Sh Blk Carb-Gry Fissil Ls Crm-Wht-Tan FxIn Poor IxIn Por Micritic Dns
Barren Chalk No Odor No Flor No Stn NS

Ls Crm-Wht-Tan FxIn Poor IxIn Por Micritic Dns Barren Chalk Fos (Crin) Sh
Blk Carb-Gry Fissil No Odor No Flor No Stn NS





Sh Blk Carb-Char-Gry Fissil Ls Crm-Wht-Tan Fxn Poor Ixln Por Micritic Dns Barren Chalk Wht Soft No Odor No Flor No Stn NS

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

Sh Blk Carb-Char-Gry Fissi Ls Crm-Wht-Tan Fxn Poor Ixln Por Micritic Dns Barren Chalk Cht-Gry Op Shp Vit I No Odor No Flor No Stn NS

Sh Blk Carb-Char-Gry Fissi Ls Crm-Wht-Tan Fxn Poor Ixln Por Micritic Dns Barren Chalk Cht-Gry Op Shp Vit I No Odor No Flor No Stn NS

Sh Char-Gry-Blk Carb Fissil Ls Crm-Wht-Tan Fxn Poor Ixln Por Micritic Dns Barren Cht Wht (w/Fos (Fuss) Includ) Op Shp Vit No Odor No Flor No Stn NS

Sh Char-Gry Fissil Ls Crm-Wht-Tan Fxn Poor Ixln Por Micritic Dns Barren Cht Wht (w/Fos (Fuss) Includ) Op Shp Vit No Odor No Flor No Stn NS

Sh Char-Gry-Tr Blk Carb Fissil Ls Crm-Wht-Tan Fxn Poor Ixln Por Micritic Dns Barren Cht Wht (w/Fos (Fuss) Includ) Op Shp Vit No Odor No Flor No Stn NS

Ls Crm-Wht-Tan Fxn Poor Ixln Por Micritic Dns Barren Chalk Cht Drk Blk-Wht (w/Fos (Fuss) Includ) Op Shp Vit Sh Char-Gry-Tr Blk Carb Fissil No Odor No Flor No Stn NS

Ls Crm-Wht-Tan Fxn Poor Ixln Por Micritic Dns Barren Chalk Cht Drk Blk-Wht (w/Fos (Fuss) Includ) Op Shp Vit Sh Char-Gry-Tr Blk Carb Fissil No Odor No Flor No Stn NS

ATOKA SHALE 5238' (- 2411)

Sh Char-Gry-Tr Blk Carb-Brn (w/SSG) Soft-Fissil Ls Crm-Wht-Tan Microxln-Fxn Poor Ixln Por Micritic Dns Barren Chalk Cht Drk Blk-Wht (w/Fos (Fuss) Includ) Op Shp Vit Faint Odor No Flor No Stn NS

Sh Char-Gry-Blk Carb Soft-Fissil Ls Crm-Wht-Tan Microxln-Fxn Poor Ixln Por Micritic Dns Barren Chalk Cht Drk Blk-Wht Banding (w/Fos (Fuss) Includ) Op Shp Vit Faint Odor No Flor No Stn NS

30" CFS @ 5285' Sh Char-Gry-Blk Carb Soft-Fissil Ls Crm-Wht-Tan Microxln-Fxn Poor Ixln Por Micritic Dns Barren Chalk Cht Drk Blk-Wht Banding (w/Fos (Fuss) Includ) Op Shp Vit Faint Inc Odor No Flor No Stn NS

60" CFS @ 5285' Ls Crm-Wht-Tan Microxln-Fxn Poor Ixln Por Micritic Dns Barren Chalk Cht Drk Blk-Wht Banding (w/Fos (Fuss) Includ) Op Shp Vit Sh Char-Gry-Blk Carb Soft-Fissil Fair Odor No Flor No Stn NS

MORROW SHALE 5286' (- 2459)

MISSISSIPPIAN CHESTER 5290' (- 2463)

Ls Crm-Wht-Tan Microxln-Fxn Poor Ixln Por Micritic Dns Barren Chalk Cht Drk Blk-Wht Banding (w/Fos (Fuss) Includ) Op Shp Vit Sh Char-Gry-Blk Carb Soft-Fissil No Odor No Flor No Stn NS

Ls Crm-Tan Fxn Fair OOL Por (w/Small-Med Ooids in pl) Grad Med Ixln Pin-Pt Por (w/Matted Fos Includ (Crin)) Por Fair SG & SO (Gas & Oil Do Not Flor) (FSG & FSFO w/Broken In Wtr Under Heat) Fair Inc Odor Drk Brn Stn No Flor FSG & FSFO

30" CFS @ 5336' Ls Crm-Tan Fxn Fair-Med OOL Vug Por (w/Small-Med Ooids in pl) Grad Med-Good Ixln Pin-Pt Por (V Soft) (w/Matted Fos (Crin)) Por Med-Good SFG & SFO (Gas & Oil Do Not Flor) (GSG & GSFO w/Broken In Wtr Under Heat & SFO in tray) Med-Good Inc Odor Drk Brn Hvy Stn No Flor GSG & GSFO

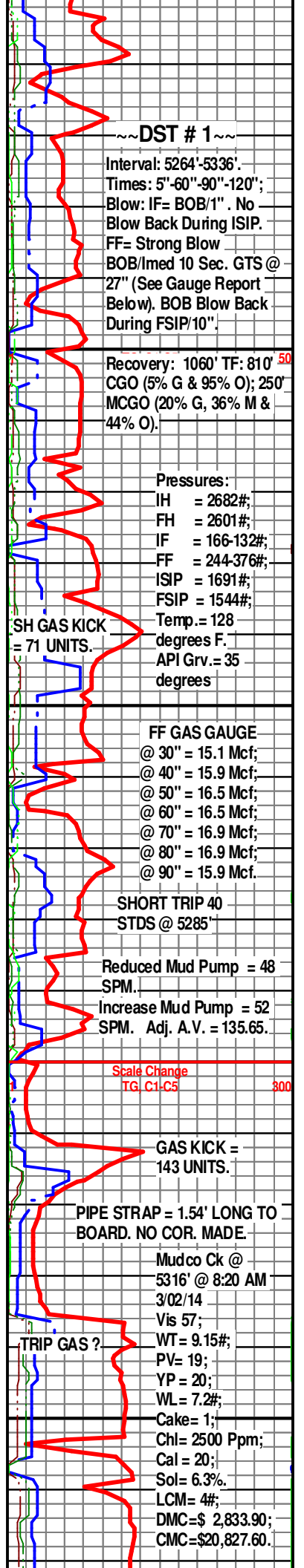
60" CFS @ 5336' Ls Crm-Tan Fxn Fair-Med OOL Vug Por (w/Small-Med Ooids in pl) Grad Med-Good Ixln Pin-Pt Por (w/Pyr Includ) (w/Matted Fos Includ (Lg Crin Fenestral Bry, Coral, Pelec, Etc.)) Por Med-Good GSG & GSFO Sh Blk Carb-Char-Aqua Fissil Inc. Good Odor Good Sat Stn (Lt Brn-Hvy ? Gillsonitic) No Flor GSG & GSFO

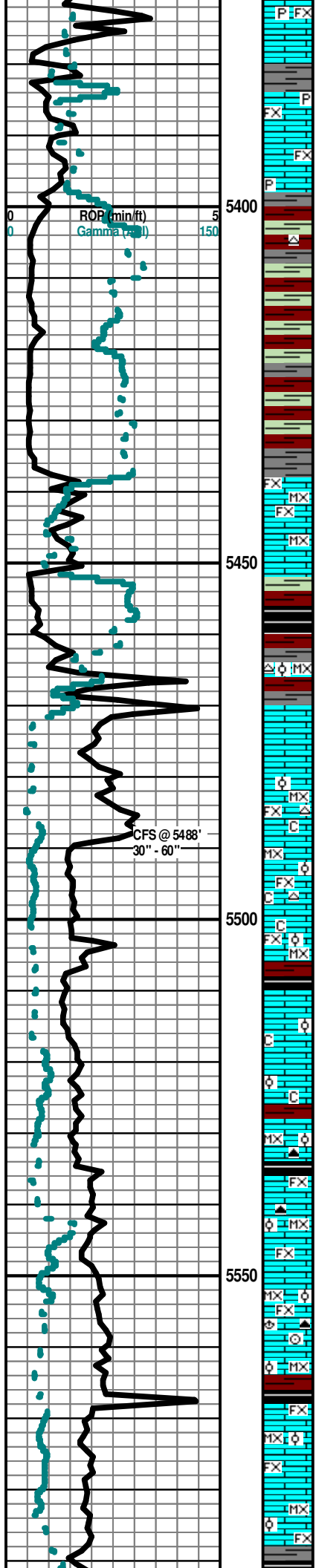
Sh Char- Gry- Drab Grn- Blk Carb Fissil Ls Wht- Crm- Gry Microxln-Fxn Dns Micrite Grad Fair Pin-Pt Ixln Por (w/Streaks Pyr Includ) Pyr Mass Fos (Brach) No Odor No Flor NS

Sh Char- Gry- Drab Grn- Blk Carb Fissil Ls Wht- Crm- Gry Microxln-Fxn Dns Micrite Grad Fair Pin-Pt Ixln Por (w/Streaks Pyr Includ) Pyr Mass Fos (Brach) No Odor No Flor NS

Ls Wht-Fxn Dns Micrite Grad Fair Pin-Pt Ixln Por (w/streaks Pyr Includ) Pyr Mass Abd Sh Char-Gry- Drab Grn-Blk Carb Fissil No Odor No Flor NS

Ls Wht-Fxn Dns Micrite Grad Fair Pin-Pt Ixln Por (w/streaks Pyr Includ) Pyr Mass Abd Sh Char-Gry- Drab Grn-Blk Carb Fissil No Odor No Flor NS





Ls Wht-Fxn Dns Micrite Grad Fair Pin-Pt Ixn Por (w/Streaks Pyr Inclus) Pyr Mass Abd Sh Char-Gry- Drab Grn-Blk Carb Fissil No Odor No Flor NS

Sh Char- Gry-Drab Grn- Blk Carb- Fissil Ls Wht-Fxn Dns Micrite Grad Fair Pin-Pt Ixn Por (w/Streaks Pyr Inclus) Pyr Mass Abd Sh Char-Gry-Drab Grn-Blk Carb Fissil No Odor No Flor NS

Ls Wht-Fxn Dns Micrite Grad Fair Pin-Pt Ixn Por (w/streaks Pyr Inclus) Pyr Mass Abd Sh Char-Gry- Drab Grn-Blk Carb Fissil No Odor No Flor NS

Sh Maroon-Yell-Purp-Char-Blk Carb Soft-Fissil Abd Ls Wht-Crm Fxn Micrite Grad Fair Ixn Por Barren Cht Amber Translu Vit Shp No Odor No Stn No Flor

Sh Maroon-Yell-Purp-Char-Blk Carb Soft-Fissil Abd Ls Wht-Crm Fxn Micrite Grad Fair Ixn Por Barren Cht Amber Translu Vit Shp No Odor No Stn No Flor NS

Sh Red-Maroon-Char-Aqua-Grn/Gry Soft-Fissil (Wash Red) V Abd Ls AA Fxn-Microxin Dns Micrite Barren Chalk No Odor No Stn No Flor NS

Sh Red-Maroon-Char-Aqua-Grn/Gry Soft-Fissil (Wash Red) V Abd Ls AA Fxn-Microxin Dns Micrite Barren Chalk No Odor No Stn No Flor NS

Sh Red-Maroon-Char-Aqua-Grn/Gry Soft-Fissil (Wash Red) V Abd Ls AA Fxn-Microxin Dns Micrite Barren Chalk No Odor No Stn No Flor NS

Sh Red-Maroon-Char-Aqua-Grn/Gry Soft-Fissil (Wash Red) V Abd Ls AA Fxn-Microxin Dns Micrite Barren Chalk No Odor No Stn No Flor NS

Sh Red-Maroon-Char-Aqua-Grn/Gry Soft-Fissil (Wash Red) V Abd Ls AA Fxn-Microxin Dns Micrite Barren Chalk No Odor No Stn No Flor NS

MISSISSIPPIAN "Ste. GEN" 5466' (- 2639)

30" CFS @ 5488' Sh Red-Maroon-Char-Aqua-Grn/Gry-Yell-Purple Soft-Fissil (Wash Red) V Abd Ls Wht Fxn-Microxin Dns Micrite Grad Fair OOL (w/Small OOids in pl) "Sandy OOL LS" Barren Chalk Cht Wht Op Shp Vit No Odor No Stn No Flor NS

60" CFS @ 5488'5488' Sh Red-Maroon-Char-Aqua-Grn/Gry Yell-Purple Soft-Fissil (Wash Red) V Abd Ls Wht Fxn-Microxin Dns Micrite Grad Fair OOL (w/Small OOids in pl) "Sandy OOL LS" Barren Chalk Cht Wht Op Shp Vit No Odor No Stn No Flor NS

Sh Red-Maroon-Char-Aqua-Grn/Gry-Yell-Purple Soft-Fissil (Wash Red) V Abd Ls Wht Fxn-Microxin Dns Micrite Grad Fair OOL (w/Small OOids in pl) "Sandy OOL LS" Barren Chalk Cht Wht Op Shp Vit No Odor No Stn No Flor NS

Sh Red-Maroon-Char-Aqua-Grn/Gry-Yell-Purple Soft-Fissil (Wash Red) V Abd Ls Wht Fxn-Microxin Dns Micrite Grad Fair OOL (w/Small OOids in pl) "Sandy OOL LS" Barren Chalk Cht Wht Op Shp Vit No Odor No Stn No Flor NS

Ls Wht-Lt Brn (in CaCo3 Matrix) Fxn Poor OOL Por (w/V Small OOids in pl) "Sandy OOL Ls" Friable Micritie Chalk Sh Varicolored Soft- Fissil No Odor No Flor No Stn NS

Ls Wht-Lt Brn (in CaCo3 Matrix) Fxn Poor OOL Por (w/V Small OOids in pl) "Sandy OOL Ls" Friable Micritie Chalk Sh Varicolored Soft- Fissil No Odor No Flor NS

Ls Wht-Lt Brn (in CaCo3 Matrix) Fxn Poor OOL Por (w/V Small OOids in pl) "Sandy OOL Ls" Micritie Cht Org-Peach Translu-Op Shp Vit Chalk Sh Varicolored Soft- Fissil No Odor No Flor No Stn NS

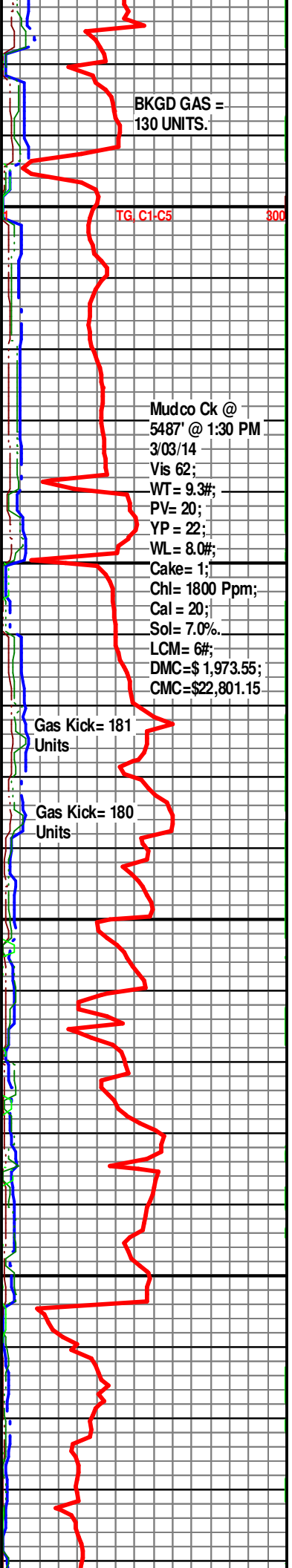
Ls Wht-Crm-Lt Gry Microxin-Fxn Poor Ixn Por Dns Micrite Grad Poor InterOOL Por (w/V Small OOids in pl) Friable "Sandy OOL Ls" Cht Aqua-Gry Op Shp Vit Sh Char-Blk Carb-Lt Gry-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Gry Microxin-Fxn Poor Ixn Por Dns Micrite Grad Poor InterOOL Por (w/V Small OOids in pl) Friable "Sandy OOL Ls" Cht Aqua-Gry Translu-Op Shp Vit Fos (Brach, Crin) Sh Char-Blk Carb-Lt Gry-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Gry Microxin-Fxn Poor Ixn Por Dns Micrite Grad Poor InterOOL Por Friable "Sandy OOL Ls" Sh Char-Blk Carb-Lt Gry-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Gry Microxin-Fxn Poor Ixn Por Dns Micrite Grad Poor InterOOL Por Friable "Sandy OOL Ls" Sh Char-Blk Carb-Lt Gry-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Gry Microxin-Fxn Poor Ixn Por Dns Micrite Grad Poor InterOOL Por Friable "Sandy OOL Ls" Sh Char-Blk Carb-Lt Gry-Aqua Fissil No Odor No Stn No Flor NS



BKGD GAS = 130 UNITS.

TG C1-C5 800

Mudco Ck @
5487' @ 1:30 PM
3/03/14
Vis 62;
WT= 9.3#;
PV= 20;
YP = 22;
WL= 8.0#;
Cake= 1;
Chl= 1800 Ppm;
Cal = 20;
Sol= 7.0%
LCM= 6#;
DMC=\$ 1,973.55;
CMC=\$22,801.15

Gas Kick= 181 Units

Gas Kick= 180 Units

Ls Wht-Crm-Lt Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por Friable "Sandy OOL Ls" Sh Char-Blk Carb-Lt Gry-Aqua Fissil No Odor No Stn No Flor NS

MISS. "ST. LOUIS" POROSITY 5601' (- 2774)

30" CFS @ 5620' Ls Wht-Crm-Lt Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Cht Wht-Org-Peach Translu-Op Shp Vit Sh Char-Blk Carb-Gry Fissil No Odor No Stn No Flor NS

60" CFS @ 5620' Ls Wht-Crm-Lt Gry Microxln-Fxl n Poor Ixln Por Dns Micrite (w/Tr Glacu Includ) Grad Poor InterOOL Por (w/V Smal-I-Med OOids in pl) Friable "Sandy OOL Ls" VSSO (1 Pc w/Drk Blk Stn ? Gillsontic) Cht Wht-Org-Peach Translu Shp Vit Sh Char-Blk Carb-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Wht-Peach Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Wht-Peach Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Peach-Org Inc Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Maroon Abd Inc-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Peach-Org Inc Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Maroon Abd Inc-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Peach-Org Inc Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Maroon Abd Inc-Gry Fissil No Odor No Stn No Flor NS

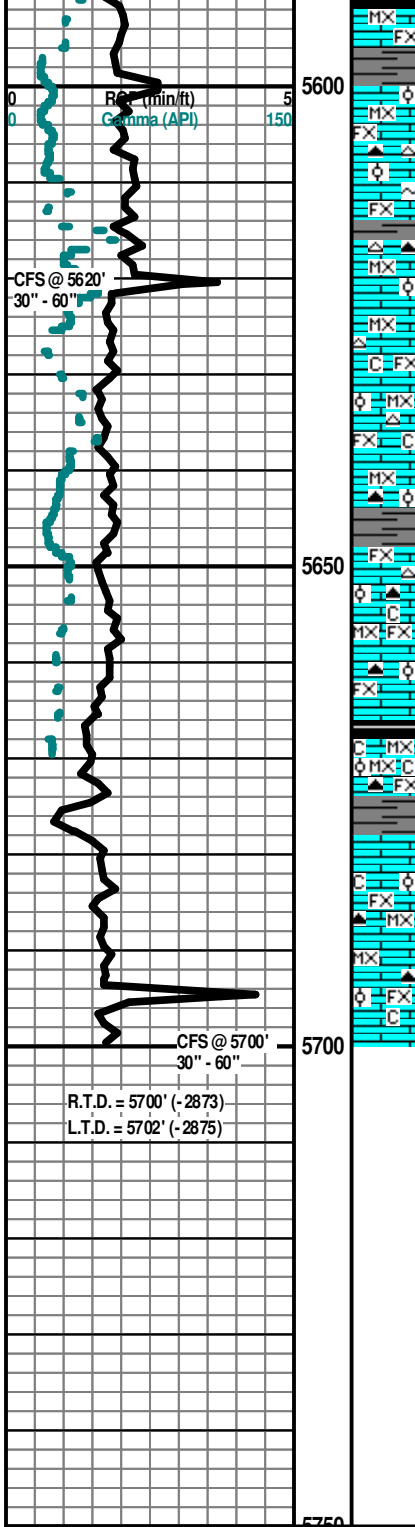
Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Peach-Org Inc Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Maroon Abd Inc-Gry Fissil No Odor No Stn No Flor NS

30" CFS @ 5700' Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Blk Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Maroon Abd Inc-Gry Fissil No Odor No Stn No Flor NS

60" CFS @ 5700' Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Blk Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Maroon Abd Inc-Gry Fissil No Odor No Stn No Flor NS

Electric Logs Run: By Weatherford Logging: Dual Induction; Compensated Density-Neutron; Sonic; & Microresistivity Logs.

Geologist Left Location At: 3:00 P M on 3/04/2014



MISS. "ST. LOUIS" POROSITY 5601' (- 2774)

30" CFS @ 5620' Ls Wht-Crm-Lt Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Cht Wht-Org-Peach Translu-Op Shp Vit Sh Char-Blk Carb-Gry Fissil No Odor No Stn No Flor NS

60" CFS @ 5620' Ls Wht-Crm-Lt Gry Microxln-Fxl n Poor Ixln Por Dns Micrite (w/Tr Glacu Includ) Grad Poor InterOOL Por (w/V Smal-I-Med OOids in pl) Friable "Sandy OOL Ls" VSSO (1 Pc w/Drk Blk Stn ? Gillsontic) Cht Wht-Org-Peach Translu Shp Vit Sh Char-Blk Carb-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Wht-Peach Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Wht-Peach Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Peach-Org Inc Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Maroon Abd Inc-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Peach-Org Inc Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Maroon Abd Inc-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Peach-Org Inc Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Maroon Abd Inc-Gry Fissil No Odor No Stn No Flor NS

30" CFS @ 5700' Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Blk Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Maroon Abd Inc-Gry Fissil No Odor No Stn No Flor NS

60" CFS @ 5700' Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Blk Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Maroon Abd Inc-Gry Fissil No Odor No Stn No Flor NS

Electric Logs Run: By Weatherford Logging: Dual Induction; Compensated Density-Neutron; Sonic; & Microresistivity Logs.

Geologist Left Location At: 3:00 P M on 3/04/2014

