



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

**Well Name:** ALLEN ISSAC #1-24 (NW)  
**Location:** N2-N2-S2-NW 1/4  
**License Number:** 15-069-20361-00-00  
**Spud Date:** 1/28/12  
**Surface Coordinates:** 1620' FNL & 1320' FEL

**Region:** GRAY CO., KS.  
**Drilling Completed:** 2/10/12

**Bottom Hole  
Coordinates:**  
**Ground Elevation (ft):** 2792'                      **K.B. Elevation (ft):** 2802'  
**Logged Interval (ft):** Surface Cs To: 5455'      **Total Depth (ft):** 5455'  
**Formation:** Salem (Spergen) Formation  
**Type of Drilling Fluid:** Chemical Mud

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

**OPERATOR**

**Company:** FALCON EXPLORATION, INC.  
**Address:** 125 N. Market, Ste. 1252  
Wichita, Kansas 67202

**GEOLOGIST**

**Name:** DAVID P. WILLIAMS  
**Company:** DW ENERGY, LLC  
**Address:** 312 N. BROADVIEW STREET  
WICHITA, KANSAS 67208

**Casing & Deviation Surveys**

Ran jts of new 24#, 8 5/8 casing. Tallied 1840'. Set at 1839' KB. Welded straps on GS & bottom 3 joints. Centralizes (3) set at 1, 20, 35. Baskets (3) set at 1, 24, 41. Cemented with 675 sks 65/35 POZ; 6% Gel; 3% CC, 1/4 # FS. Tailed in with 150 Sks Class A; 2% Gel; 3% CC. Cement did circulate to pit. Plug down at 4:15 AM on 1/30/12.

**Deviation Surveys:** @ 1840' = 2 1/4 degrees; @ 3530' = 3 1/2 degrees; @ 4183' = 3 degrees; @ 4251' = 3/4 degrees; @ 4509' = 1/2 degree; @ 5450' = 3/4 degree.

## DSTs

**DST #1 3461'-3532'** Times: 5"-120"-110"-180"; Blow: IF Strong Blow BOB/ 30". FF Strong Blow GTS Instant TSTM. (See Gauge Report Below). Recovery: 3260' GIP; 170' DM. Pressures: IH 1557#; FH 1558#; IF 77-71#; FF 89-135#; ISIP 915#; FSIP 916#; Temp = 104 Degrees F.

Gas Flow:; FF GTS On Open TSTM; @ 10" = 303 Mcf; @ 20" = 324 Mcf; @ 30" = 344 Mcf; @ 40" = 357 Mcf; @ 50" = 363.5 Mcf; @ 60" = 370 Mcf; @ 70" = 377 Mcf; @ 80" = 370 Mcf; @ 90" = 377 Mcf; @ 100" = 377 Mcf; @ 110" = 377 Mcf.

**DST # 2 3461'-3532'**. Times: 5"-90"-65"-60"; Blow: IF Strong Blow BOB/ 4.5". FF Strong Blow BOB/5.5". Recovery: 1205' SWCM: ( 70' WCM; 120' HMCW; 1005' SWCM; 10' M). Pressures: IH 1967#; FH 1963#; IF 37-91#; FF 104-580#; ISIP = 1204#; FSIP 1173#; Temp=114 Degrees F.; Chl=88000 Ppm; PH=6.5; RW=.1 @ 65 degrees

**DST #3 - 4196'-4251'**; Times: 5"-90"-60"-180"; Blow: IF Strong Blow BOB/ 15 Sec. FF Strong Blow GTS/Instant. (See Gauge Report Below). Recovery: 4040'GIP;' GIP;125' GCM: (65' DM; 60' SWCM (7% Wtr)). Chl.= 36000 Ppm;Ph=7.0; RW=.22@ 68 degrees). Pressures: IH 1997#; FH 1995#; IF 33-34#; FF 41-65#; ISIP 1222#; FSIP 1208#; Temp= 115 Degrees F.

Gas Flow: FF GTS/Instant. @ 10" = 108 Mcf; @ 20" = 108 Mcf; @ 30" = 110 Mcf; @ 40" = 110 Mcf; @ 50" = 110 Mcf; @ 60" = 110 Mcf.

**DST # 4 4476'-4509'**; Times: 5"-90"-75"-180"; Blow: IF Fair Blow 8"@ 5 Min.. FF Fair Blow BOB@10 Min. Recovery: 240' GIP; 755' TF: (5' CO (37 Grv.); 140' SO & HWCM (3% Oil, 47% Wtr., 56% M); 60' MCW w/Tr Oil (Tr/O; 74% Wtr., 26% M), 550' SMCW (98% Wtr, 1% M)). Chl.= 59000 Ppm; Ph=7.0; RW=.15 @ 64 degrees). Pressures: IH 2135#; FH 2135#; IF 49-59#; FF 59-362#; ISIP 1324#; FSIP 1304; Temp= 119 Degrees F.




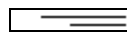

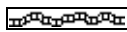


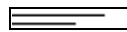

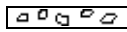

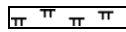







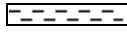

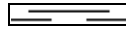

## Comments

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.

## ROCK TYPES

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

**ACCESSORIES**

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

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

- 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
  - Gryslt
  - Gyp
  - Ls
  - Mrst
  - Sltstn
  - Sandylms
  - Sltstrg

- Ssstrg
- Sh
- Grysh

- 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

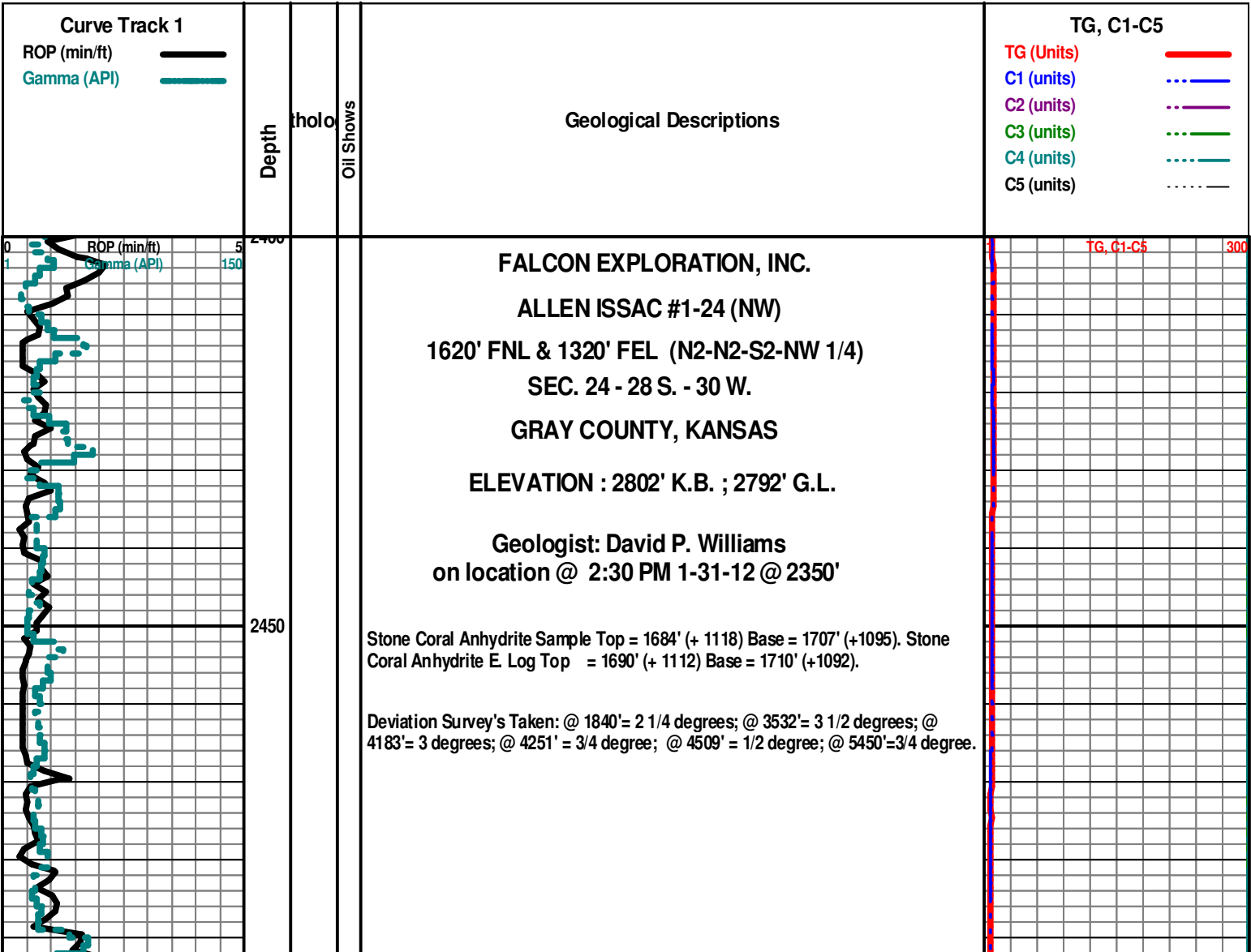
- OIL SHOW**
- Gas show

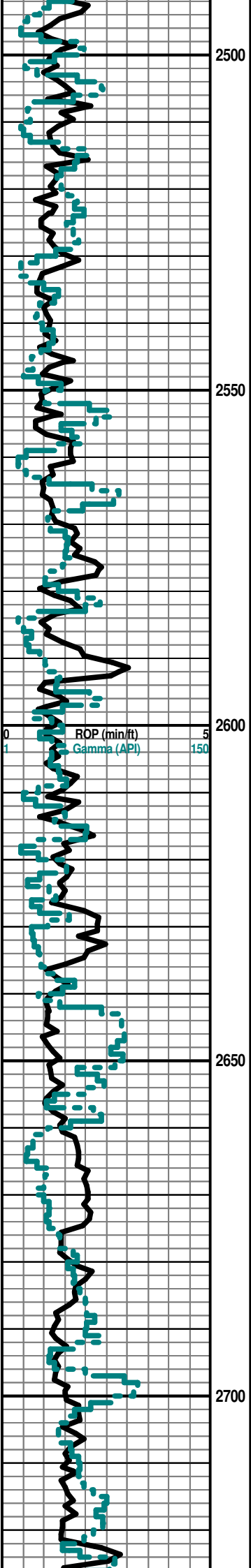
- Even
- Spotted
- Ques
- Dead

- INTERVAL**
- Dst\_alt
  - Dst

- Core
- Dst

- EVENT**
- Rft
  - Sidewall





2500

2550

2600

2650

2700

Note: All samples have been lagged to depth by calculated time.

Begin 20' Sample Examination @ 2600'.

Anhy/Gyp Abd Sh Red-Gry Abd Soft No Stn No Flor NS

Anhy/Gyp Abd AA Sh Red-Gry Abd AA Soft No Stn No Flor NS

Anhy/Gyp Abd AA Sh Red-Gry Abd AA Soft No Stn No Flor NS

**CHASE GROUP 2650' (+152)**

Dolo Gry-Crm Fxln-Microxln Poor lxln Por Grad Sli Ls Gry Sh Red-Gry Soft Abd  
No Odor No Stn Sli Tr ? Flor (Lt Grn) ? SG NS

**KRIDER 2683' (+ 119)**

Dolo Gry-Crm Fxln-Microxln Poor lxln Por AA Sh Red-Gry-Char Soft Abd No Odor  
No Stn No Flor ? Sli SG NS

Much Spl. Debris Sh Red-Grn Fissil-Soft V Abd (Spl Wash Red) Dolo Crm-Grv Fxln  
Poor lxln Por No Odor No Stn No Flor NS

**WINFIELD 2732' (+ 80)**

Much Spl. Debris Sh Red-Grn Fissil-Soft V Abd (Spl Wash Red) Dolo Crm-Grv Fxln

SAMPLE TRAP  
BOX LEFT OPEN

SAMPLE TRAP  
BOX CLOSED

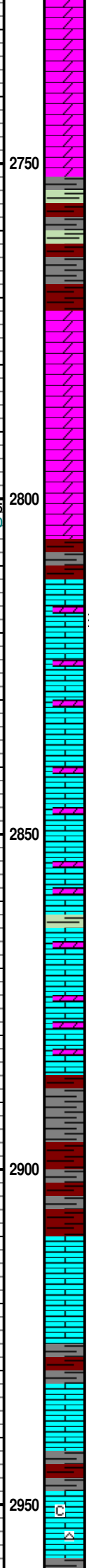
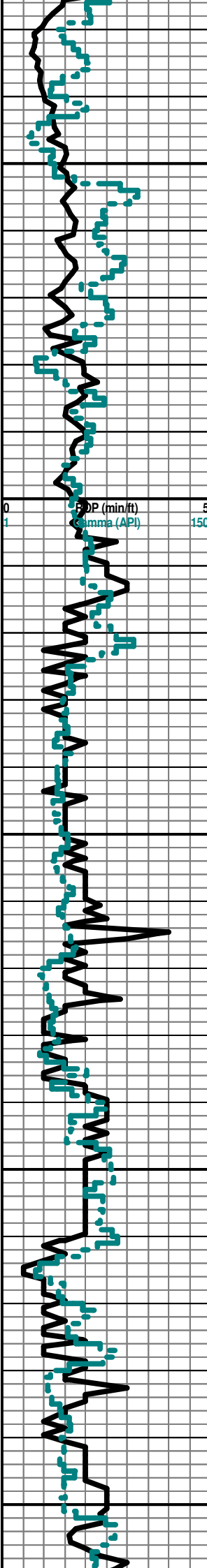
Bkgd Gas =  
20 Units

GAS KICK =  
44 UNITS.

Bkgd Gas =  
20 Units

GAS KICK =  
53 UNITS.

TG, C1-C5 300



Poor lxIn Por No Odor No Stn No Flor NS

Much Spl. Debris Sh Red-Grn Fissil-Soft V Abd (Spl Wash Red) Dolo Crm-Gry FxIn  
 Poor lxIn Por No Odor No Stn No Flor NS

Much Spl. Debris Sh Red-Grn Fissil-Soft V Abd (Spl Wash Red) Dolo Crm-Gry FxIn  
 Poor lxIn Por No Odor No Stn No Flor NS

**TOWANDA 2770' (+ 32)**

Much Spl. Debris Sh Red-Grn Fissil-Soft V Abd (Spl Wash Red) Dolo Crm-Gry FxIn  
 Poor lxIn Por No Odor No Stn No Flor NS

Much Spl. Debris Sh Red-Grn Fissil-Soft V Abd (Spl Wash Red) Dolo Crm-Gry FxIn  
 Poor lxIn Por No Odor No Stn No Flor NS

**FORT RILEY 2811' (- 9)**

Much Spl. Debris Sh Red-Grn Fissil-Soft V Abd (Spl Wash Red) Dolo Crm-Gry FxIn  
 Poor lxIn Por No Odor No Stn No Flor NS

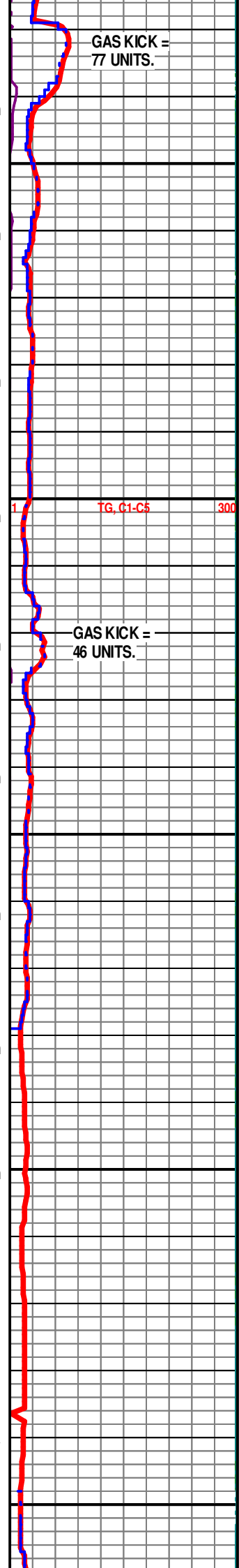
Much Spl. Debris Sh Red-Grn Fissil-Soft V Abd (Spl Wash Red) Dolo Crm-Gry FxIn  
 Poor lxIn Por No Odor No Stn No Flor NS

Much Spl. Debris Sh Red-Grn Fissil-Soft V Abd (Spl Wash Red) Dolo Crm-Gry FxIn  
 Poor lxIn Por No Odor No Stn No Flor NS

Much Spl. Debris Sh Red-Grn Fissil-Soft V Abd (Spl Wash Red) Dolo Crm-Gry FxIn  
 Poor lxIn Por No Odor No Stn No Flor NS

LS Crm-Wht FxIn Poor lxIn Por Inc Abd Sh Red-Char-Gry Soft Fissil AA No Odor  
 No Flor No Stn No Flor NS

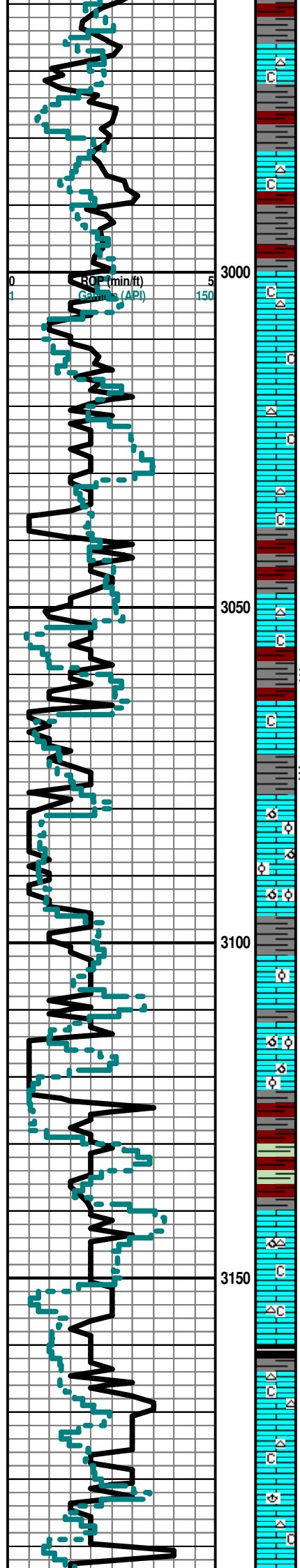
LS Crm-Wht FxIn Poor lxIn Por Grad Sm Pin-Pt FxIn Por Inc Abd Sh Red-Char-Gry  
 Soft Fissil AA No Odor No Flor No Stn No Flor NS



GAS KICK = 77 UNITS.

TG, C1-C5 300

GAS KICK = 46 UNITS.



LS Crm-Wht FxIn Poor IxIn Por Grad Sm Pin-Pt FxIn Por Inc Abd Sh  
 Red-Char-Gry-Grn Soft Fissil AA Cht Gry Op Shp Vit Chalk Wht No Odor No Flor  
 No Stn No Flor NS

LS Crm-Wht FxIn Poor IxIn Por Grad Sm Pin-Pt FxIn Por Inc Abd Sh  
 Red-Char-Gry-Grn Soft Fissil AA Cht Gry Op Shp Vit Chalk Wht No Odor No Flor  
 No Stn No Flor NS

LS Crm-Wht FxIn Poor IxIn Por Grad Sm Pin-Pt FxIn Por Inc Abd Sh  
 Red-Char-Gry-Grn Soft Fissil AA Cht Gry Op Shp Vit Chalk Wht No Odor No Flor  
 No Stn No Flor NS

LS Crm-Wht FxIn Poor IxIn Por Grad Sm Pin-Pt FxIn Por Inc Abd Sh  
 Red-Char-Gry-Grn Soft Fissil AA Cht Gry Op Shp Vit Chalk Wht No Odor No Flor  
 No Stn No Flor NS

LS Wht-Crm-Gry FxIn Poor IxIn Por Grad Sm Pin-Pt FxIn Por Grad Micritic Dsn  
 Barren Sh Red-Char-Gry-Grn Soft Fissil Inc Cht Gry Op Shp Vit Chalk Wht No  
 Odor No Flor No Stn No Flor NS

**BADER 3064' (- 262)**

LS Wht-Crm-Gry FxIn Poor IxIn Por Grad Sm Pin-Pt FxIn Por Grad Micritic Dsn  
 Barren Sh Red-Char-Gry-Grn Soft Fissil Inc Cht Gry Op Shp Vit Chalk Wht No  
 Odor No Flor No Stn No Flor NS

**COTTONWOOD 3079' (- 277)**

LS Wht-Crm-Gry Poor OOM Por Fair InterOOM Por w/OOL in pl w/Poor- Fair  
 Leaching Fair-Good Disolu Tr/Vug Por Barren Grad FxIn IxIn Por Grad Sm Pin-Pt  
 FxIn Por Grad Micritic Dsn Barren Sh Red-Char-Grn Soft Fissil Dec Cht Gry Op  
 Shp Vit Chalk Wht Abd No Odor No Flor No Stn No Flor NS

LS Wht-Crm-Gry Poor OOM Por Fair InterOOM Por w/OOL in pl w/Poor- Fair  
 Leaching Fair-Good Disolu Tr/Vug Por Barren Grad FxIn IxIn Por Grad Sm Pin-Pt  
 FxIn Por Grad Micritic Dsn Barren Sh Red-Char-Grn Soft Fissil Dec Cht Gry Op  
 Shp Vit Chalk Wht Abd No Odor No Flor No Stn No Flor NS

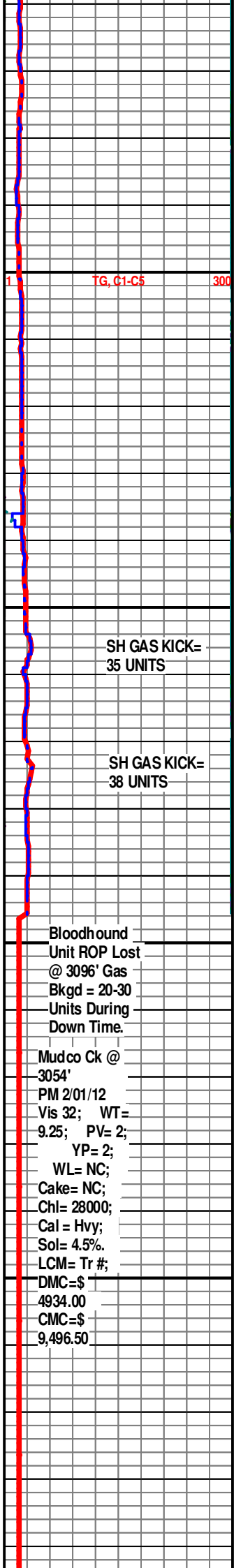
LS Wht-Crm-Gry Poor OOM Por Fair InterOOM Por w/OOL in pl w/Poor- Fair  
 Leaching Fair-Good Disolu Tr/Vug Por Barren Grad FxIn IxIn Por Grad Sm Pin-Pt  
 FxIn Por Grad Micritic Dsn Barren Sh Red-Char-Grn Soft Fissil Dec Cht Gry Op  
 Shp Vit Chalk Wht Abd No Odor No Flor No Stn No Flor NS

**NEVA 3140' (- 338)**

LS Wht-Crm-Gry Poor OOM Por Fair InterOOM Por w/OOL in pl w/Poor- Fair  
 Leaching Fair-Good Disolu Tr/Vug Por Barren Grad FxIn IxIn Por Grad Sm Pin-Pt  
 FxIn Por Grad Micritic Dsn Barren Sh Red-Char-Grn Soft Fissil Dec Cht Gry Op  
 Shp Vit Chalk Wht Abd No Odor No Flor No Stn No Flor NS

LS Wht-Crm-Gry FxIn IxIn Por Grad Micritic Dsn Barren Grad Poor OOM Por  
 Poor-Fair InterOOM Por Poor- Fair Leaching Fair Disolu Barren Dec Sh  
 Red-Char-Grn Soft Fissil Dec Cht Amber-Tan Op Shp Vit Chalk Wht Abd No Odor  
 No Flor No Stn No Flor NS

LS Wht-Crm-Gry FxIn IxIn Por Grad Micritic Dsn Barren Grad Poor OOM Por  
 Poor-Fair InterOOM Por Poor- Fair Leaching Fair Disolu Barren Dec Sh  
 Grn-Red-Char Soft Fissil Dec Cht Wht w/Fos (Brach) Inclu Op Shp Vit Chalk Wht  
 Abd No Odor No Flor No Stn No Flor NS



TG, C1-C5 300

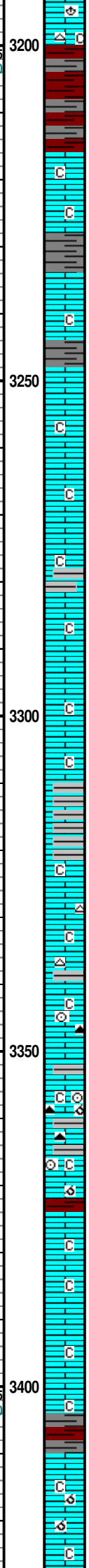
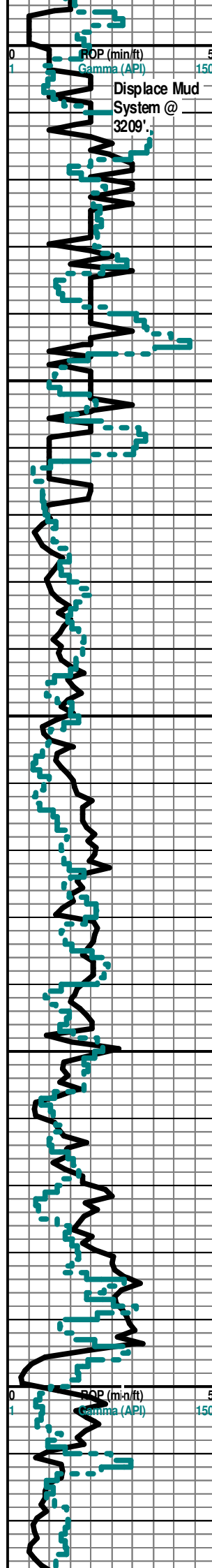
SH GAS KICK= 35 UNITS

SH GAS KICK= 38 UNITS

Bloodhound  
 Unit ROP Lost  
 @ 3096' Gas  
 Bkgd = 20-30  
 Units During  
 Down Time.

Mudco Ck @  
 3054'  
 PM 2/01/12  
 Vis 32; WT=  
 9.25; PV= 2;  
 YP= 2;  
 WL= NC;  
 Cake= NC;  
 Chl= 28000;  
 Cal = Hvy;  
 Sol= 4.5%.  
 LCM= Tr #;  
 DMC=\$  
 4934.00  
 CMC=\$  
 9,496.50





Sh Grn-Red-Char Soft Fissil Inc LS Wht-Crm-Grn FxIn IxIn Por Grad Micritic Dsn Barren Grad Poor OOM Por Poor-Fair InterOOM Por Poor- Fair Leaching Fair Disolu Barren AA Cht Wht Op Shp Vit Chalk Wht Abd No Odor No Flor No Stn No Flor NS

Sh Grn-Red-Char Soft Fissil Inc LS Wht-Crm-Grn FxIn IxIn Por Grad Micritic Dsn Barren Grad Poor OOM Por Poor-Fair InterOOM Por Poor- Fair Leaching Fair Disolu Barren AA Cht Wht Op Shp Vit Chalk Wht Abd No Odor No Flor No Stn No Flor NS

LS Wht-Crm-Gry FxIn IxIn Por Grad Micritic Sh Gm-Red Soft Fissil Tr/Dec Cht Wht-Gry Op Shp Vit Chalk Wht Abd No Odor No Flor No Stn No Flor NS

**FORAKER 3248' (- 447)**

LS Wht-Crm-Gry FxIn IxIn Por Grad Micritic Sh Gm-Red Soft Fissil Tr/Dec Cht Wht-Gry Op Shp Vit Chalk Wht Abd No Odor No Flor No Stn No Flor NS

LS Wht-Crm-Gry FxIn IxIn Por Grad Micritic Sh Gm-Red Soft Fissil Tr/Dec Chalk Wht V Abd No Odor No Flor No Stn No Flor NS

LS Crm-Gry FxIn IxIn Por Grad Micritic Sh Gm-Red Soft Fissil Chalk Wht V Abd No Odor No Flor No Stn No Flor NS

LS Crm-Gry FxIn IxIn Por Grad Micritic Cht Gry Op Shp Vit Sh Grn-Red Soft Fissil Chalk Wht V Abd No Odor No Flor No Stn No Flor NS

LS Crm-Gry FxIn IxIn Por Grad Micritic Cht Gry Op Shp Vit Sh Grn-Red Soft Fissil Fos (Crin) Chalk Wht V Abd No Odor No Flor No Stn No Flor NS

LS Wht-Crm-Gry FxIn IxIn Por Grad Micritic Dsn Barren Grad Poor OOM Por Poor-Fair InterOOM Por Poor- Fair Leaching Fair Disolu Barren Dec Sh Grn-Red-Char Soft Fissil Dec Cht Gry Op Shp Vit Chalk Wht Abd No Odor ? Sli Min Flor No Stn No Flor NS

LS Wht-Crm-Gry FxIn IxIn Por Grad Micritic Dsn Barren Grad Tr/Poor OOM Por Poor InterOOM Por Poor Leaching Poor Disolu Barren Dec Sh Grn-Red-Char Soft Fissil Cht Gry Op Shp Vit Chalk Wht Abd No Odor No Flor No Stn Fair ? Min Flor (Lt Grn) NS

LS Wht-Crm-Gry FxIn IxIn Por Grad Micritic Dsn Barren Grad Tr/Poor OOM Por Poor InterOOM Por Poor Leaching Poor Disolu Barren Dec Sh Grn-Red-Char Soft Fissil Cht Gry Op Shp Vit Chalk Wht Abd No Odor No Flor No Stn Fair ? Min Flor (Lt Grn) NS

**FALL CITY 3410' (- 608)**

LS Wht-Crm-Gry FxIn IxIn Por Grad Micritic Dsn Barren Grad Tr/Poor OOM Por Poor InterOOM Por Poor Leaching Poor Disolu Barren Dec Sh Grn-Red-Char Soft Fissil Cht Gry Op Shp Vit Chalk Wht Abd No Odor No Flor No Stn Fair ? Min Flor (Lt Grn) NS

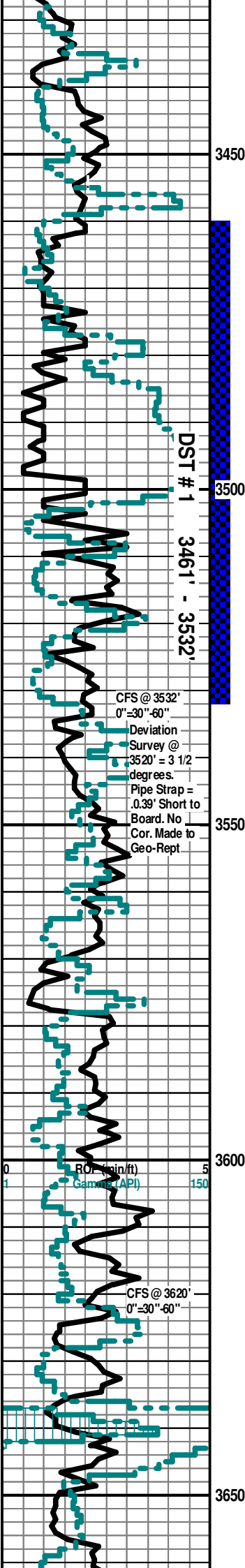
TG, C1-C5 300

Fix Bloodhound Unit ROP @ 3268'

Mudco Ck @ 3532' @ 6:50 AM 2/02/12 Vis 51; WT= 8.7#; PV= 14; YP= 16; WL= 8.0; Cake= 1; Chl= 5400; Cal = 140; Sol= 2.6% LCM= 2#; DMC=\$ 2163.55 CMC=\$ 11,600.05

TG, C1-C5 300

DST # 1 3461'-3532'. Times: 5"-120"-110"-180"; Blow: IF Strong Blow BOB/ 30 Sec. FF Strong Blow GTS Instant TSTM. (See Gauge Report Below). Recovery: 3260' GIP;



LS Crm-Gry FxIn IxIn Por Micritic Dsn No Vis Por Barren Tr OOM Por AA Sh  
Grn-Red Soft Fissil Dec Fos (Brach) Chalk Wht Abd No Odor No Flor No Stn Fair ?  
Min Flor (Lt Grn) NS

**Begin 10' Sample Examination @ 3470'.**

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

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

**ROOT SHALE 3472' (- 671)**

Sh Red-Gry Fissil-Soft V Abd (Spl Wash Red) LS Crm-Gry FxIn Micritic AA Poor  
IxIn Por No Odor No Stn ? Min Flor AA NS

Sh Red-Gry Fissil-Soft V Abd (Spl Wash Red) LS Crm-Gry FxIn Micritic AA Poor  
IxIn Por No Odor No Stn ? Min Flor AA NS

**STOTLER 3498' (- 696)**

LS Wht-Crm-Gry MicroXn-FxIn IxIn Por Micritic Dsn Barren Tr/Fair OOM Por w/OOL in pl (1 Pc) Poor  
InterOOM Por Fair Leaching Fair Disolu Sh Grn-Red Soft Chalk Wht Abd No Odor ? Fair Min Flor (Lt  
Grn-Wht) No Stn ? SG

0" CFS @ 3532' LS Wht-Crm-Gry MicroXn-FxIn IxIn Por Micritic Dsn Barren Grad Tr/Fair OOM Por  
w/OOL in pl Fair InterOOM Por Fair Leaching Fair Disolu Sh Grn-Red Soft Fos (Fuss) Chalk Wht Abd  
No Odor ? Fair Min Flor (Lt Grn-Wht) No Stn ? SG

30" CFS @ 3532' LS Wht-Crm-Gry MicroXn-FxIn IxIn Por Micritic Dsn Barren Grad Tr/Fair OOM Por  
w/OOL (Small) in pl Fair InterOOM Por Fair Leaching Fair Disolu Sh Grn-Red Soft Fos (Fuss) Chalk  
Wht Abd No Odor ? Good Min Flor (Lt Wht) No Stn ? SG

60" CFS @ 3532' LS Wht-Crm-Gry MicroXn-FxIn IxIn Por Micritic Dsn Barren Grad Tr/Fair OOM Por  
w/OOL (Small) in pl Fair InterOOM Por Fair Leaching Fair Disolu Sh Grn-Red Soft Fos (Fuss) Chalk  
Wht Abd No Odor ? Good Min Flor (Lt Wht) No Stn ? SG

LS Gry-Crm MicroXn-FxIn IxIn Por Micritic Dsn Barren Chalk Wht Abd Sh  
Gry-Char-Red Soft No Odor Tr/ Min Flor (Lt Wht) No Stn NS

LS Gry-Crm MicroXn-FxIn IxIn Por Micritic Dsn Barren Chalk Wht Abd Fos (Crin,  
Fuss) Sh Gry Soft No Odor Tr/ Min Flor (Lt Wht) No Stn NS

LS Wht-Crm-Gry MicroXn-FxIn IxIn Por Micritic Dsn Barren Chalk Wht V Abd Sh  
Gry Soft No Odor ? Med Min Flor (Lt Wht) No Stn NS

LS Wht-Crm-Gry MicroXn-FxIn IxIn Por Micritic Dsn Barren Chalk Wht V Abd Sh  
Gry-Char-Tr/Aqua Soft-Fissil No Odor ? Med Min Flor (Lt Wht) No Stn NS

**TARKIO 3569' (- 767)**

LS Wht-Gry MicroXn-FxIn IxIn Por Micritic Dsn Barren Chalk Wht V Abd Sh  
Gry-Char-Maroon Soft-Fissil No Odor ? Med Min Flor (Lt Wht) No Stn ? SSG ?

LS Wht-Gry MicroXn-FxIn IxIn Por Micritic Dsn Barren Chalk Wht V Abd Sh  
Gry-Char-Maroon Soft-Fissil No Odor ? Med Min Flor (Lt Wht) No Stn NS

0" CFS @ 3620' LS Wht-Gry MicroXn-FxIn IxIn Por Micritic Dsn Barren Chalk Wht  
V Abd Cht Crm-Tan Op Shp Sh Gry-Char Soft No Odor ? Med Min Flor (Lt Wht) No  
Stn NS

30" CFS @ 3620' LS Wht-Gry MicroXn-FxIn IxIn Por Micritic Dsn Barren Chalk Wht  
V Abd Cht Crm-Tan Op-Transl Shp Vit Fos (Bry) Sh Gry-Char Soft No Odor ? Med  
Min Flor (Lt Wht) No Stn NS

60" CFS @ 3620' LS Wht-Gry MicroXn-FxIn IxIn Por Micritic Dsn Barren Chalk Wht  
V Abd Cht Crm-Tan Op-Transl Shp Vit Fos (Bry) Sh Gry-Char Soft No Odor ? Med  
Min Flor (Lt Wht) No Stn NS

LS Gry-Tr/Crm MicroXn-FxIn IxIn Por Micritic Dsn Barren Chalk Wht Abd Sh  
Gry-Char-Brn Soft No Odor ? Med Min Flor Dec No Stn NS

LS Wht-Crm MicroXn-FxIn IxIn Por Micritic Dsn Barren Grad Tr/Poor OOM Por  
w/OOL (Small) in pl Poor InterOOM Por Poor Leaching Poor-No Disolu Sh  
Char-Brn Soft Fos (Crin) Chalk Wht Abd No Odor ? Min Flor (Dull Wht) Inc No Stn  
NS

LS Wht-Gry MicroXn-FxIn IxIn Por Micritic Dsn Barren Chalk Wht Abd Sh  
Gry-Char-Red Soft No Odor ? Med Min Flor (Dull Wht) No Stn NS

LS Wht-Gry FxIn IxIn Pin-Pt Por Mostly Micritic AA Dsn Barren Chalk Wht Abd Sh  
Gry-Char Soft No Odor No Flor No Stn NS

LS Wht-Gry FxIn Por Mostly Micritic AA Dsn Barren Chalk Wht Abd Sh Gry-Char

170' DM. Pressures:  
IH 1557#;  
FH 1558#; IF  
77-71#; FF  
89-135#; ISIP  
915#; FSIP  
916#; Temp=  
104 Degrees F.

Gas Flow;; FF GTS On  
Open TSTM; @ 10" =  
303 Mcf; @ 20" = 324  
Mcf; @ 30" = 344 Mcf;  
@ 40" = 357 Mcf; @  
50" = 363.5 Mcf; @ 60"  
= 370 Mcf; @ 70" =  
377 Mcf; @ 80" = 370  
Mcf; @ 90" = 377 Mcf;  
@ 100" = 377 Mcf; @  
110" = 377 Mcf.

GAS KICK = 77  
UNITS

Scale Change  
TG, C1-C5 200

GAS KICK =  
63 UNITS

GAS KICK = 163  
UNITS

RE-CYCLE GAS KICK  
= 118 UNITS

Scale Change  
TG, C1-C5 300

BKGD GAS  
KICK = 154  
UNITS

? TRIP GAS  
AFTER DST #  
1

BKGD GAS  
KICK = 154  
UNITS

Scale Change  
TG, C1-C5 200

GAS KICK =  
186 UNITS

BKGD GAS  
KICK = 120  
UNITS

BKGD GAS  
KICK = 120  
UNITS

BKGD GAS  
KICK = 120  
UNITS

BKGD GAS  
KICK = 120  
UNITS



LS Wht-Crm-Gry Fxln Tr/Poor Ixln Por Mostly Micritic AA Dsn Barren Chalk Wht Sh Gry Char Soft No Odor No Flor No Stn NS

**BERN 3670' (- 868)**

LS Wht-Crm-Gry Fxln Tr/Poor Ixln Por Mostly Micritic AA Dsn Barren Chalk Wht Abd Fos (Crin) Sh Gry-Char Soft No Odor No Flor No Stn NS

LS Wht-Crm-Gry Fxln Tr/Poor Ixln Por Mostly Micritic AA Dsn Barren Chalk Wht Abd Sh Gry-Char Soft No Odor No Flor No Stn NS

LS Wht-Crm-Gry Fxln Tr/Poor Ixln Por Mostly Micritic AA Dsn Barren Chalk Wht Abd Sh Gry-Char Soft No Odor No Flor No Stn NS

LS Wht-Crm-Gry Fxln Tr/Poor Ixln Por Mostly Micritic AA Dsn Barren Chalk Wht Abd Fos (Fuss)Sh Gry-Char Soft No Odor No Flor No Stn NS

LS Wht-Crm Fxln Tr/Poor Ixln Por Mostly Micritic AA Dsn Barren Chalk Wht Abd Cht Amber-Gry Transl-Op Shp Vit Sh Tr/ Char-Red Soft No Odor No Flor No Stn NS

LS Wht-Crm Fxln Tr/Poor Ixln Por Mostly Micritic AA Dsn Barren Chalk Wht Abd Cht Amber-Gry Transl-Op Shp Vit Sh Tr/ Char-Red Soft No Odor No Flor No Stn NS

LS Wht-Crm Fxln Tr/Poor Ixln Por Mostly Micritic AA Dsn Barren Chalk Wht Abd Cht Amber-Gry Transl-Op Shp Vit Sh Tr/ Char-Red Soft No Odor No Flor No Stn NS

LS Wht-Crm Fxln Tr/Poor Ixln Por Mostly Micritic AA Dsn Barren Chalk Wht Abd Cht Amber-Gry Transl-Op Shp Vit Sh Tr/ Char-Red Soft No Odor No Flor No Stn NS

LS Wht-Crm Fxln Tr/Poor Ixln Por Mostly Micritic AA Dsn Barren Chalk Wht Abd Cht Amber-Gry Transl-Op Shp Vit Sh Tr/ Char-Red Soft No Odor No Flor No Stn NS

LS Wht-Crm Fxln Tr/Poor Ixln Por Mostly Micritic AA Dsn Barren Chalk Wht Abd Cht Amber-Gry Transl-Op Shp Vit Sh Tr/ Char-Red Soft No Odor No Flor No Stn NS

**TOPEKA 3770' (- 968)**

LS Wht-Crm-Gry Fxln Poor Ixln Por Mostly Micritic Dsn Barren Chalk Wht Abd Cht Wht Op Shp Vit Sh Blk Carb-Char-Grn Fissil Soft No Odor No Flor No Stn NS

LS Wht-Crm-Gry Fxln Poor Ixln Por Mostly Micritic Dsn Barren Chalk Wht Abd Cht Wht Op Shp Vit Sh Blk Carb-Char-Grn Fissil Soft No Odor No Flor No Stn NS

LS Wht-Crm-Gry Fxln Poor Ixln Por Mostly Micritic Dsn Barren Chalk Wht Abd Cht Wht-Gry Op Shp Vit Fos (Fuss) Sh Blk Carb-Char Fissil Soft No Odor No Flor No Stn NS

LS Wht-Crm-Gry Fxln Poor Ixln Por Mostly Micritic Dsn Barren Chalk Wht Abd Cht Wht Op Shp Vit Fos (Fuss) Sh Char-Red Fissil Soft No Odor No Flor No Stn NS

LS Wht-Crm-Gry Fxln Poor Ixln Por Mostly Micritic Dsn Barren Chalk Wht Abd Cht Wht-Blk Op Shp Vit Fos (Fuss) Sh Char-Red Fissil Soft No Odor No Flor No Stn NS

LS Wht-Crm-Gry Fxln Poor Ixln Por Mostly Micritic Dsn Barren Chalk Wht Abd Cht Wht-Tan-Gry w/Fos Includ (Crin) Op Shp Vit Pyr Mass Sh Char Fissil No Odor No Flor No Stn NS

LS Wht-Crm-Gry Fxln Poor Ixln Por Mostly Micritic Dsn Barren Chalk Wht Abd Cht Tan-Gry w/Fos Includ (Crin) Op Shp Vit Sh Char Fissil No Odor No Flor No Stn NS

LS Wht-Crm-Gry Fxln Poor Ixln Por Mostly Micritic Dsn Barren Chalk Wht Abd Cht Wht-Tan-Gry w/Fos Includ (Crin) Op Shp Vit Pyr Mass Sh Char Fissil No Odor No Flor No Stn NS

LS Wht-Crm-Gry Fxln Poor Ixln Por Mostly Micritic Dsn Barren Chalk Wht Abd Cht Wht Op Shp Vit Fos(Crin) Sh Char Fissil No Odor No Flor No Stn NS

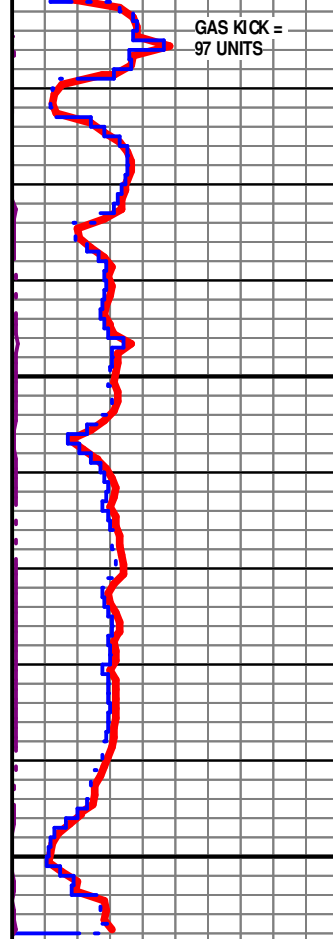
LS Wht-Crm-Gry Fxln Poor Ixln Por Chalk Wht Abd Cht Wht-Tan-Gry w/Fos Includ (Crin) Op Shp Vit Pyr Mass Sh Char Fissil No Odor No Flor No Stn NS

LS Wht-Crm-Gry Fxln Poor-Fair Ixln Por Chalk Wht Abd Cht Wht Op Shp Vit Sh Char Fissil No Odor No Flor No Stn NS

LS Wht-Crm-Gry Fxln Poor-Fair Ixln Por Grad Tr/OOL Por w/ OOL in pl Poor Develop Poor Dissolu Poor Leacing Chalk Wht Abd Cht Wht Op Shp Vit Sh Char-Red Fissil No Odor No Flor No Stn NS

LS Wht-Crm-Gry Fxln Poor-Fair Ixln Por Grad Tr/OOM Por Poor InterOOM Por

GAS KICK = 97 UNITS

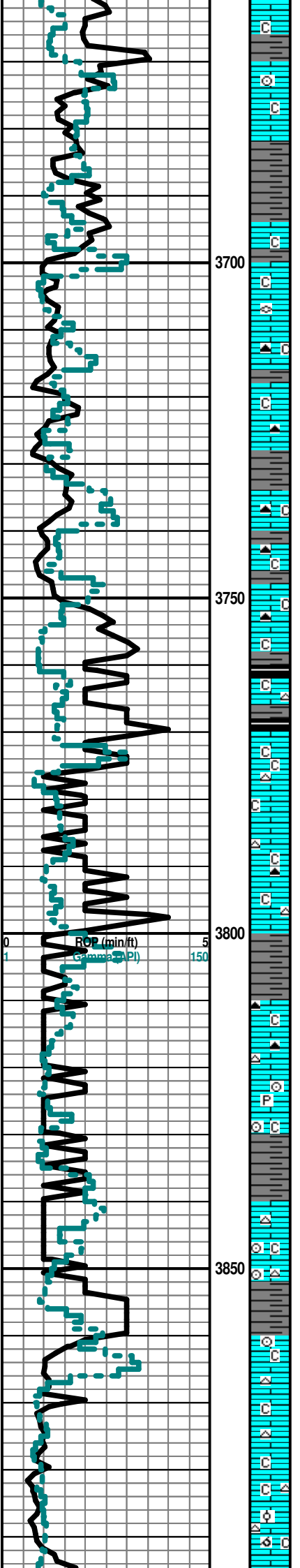
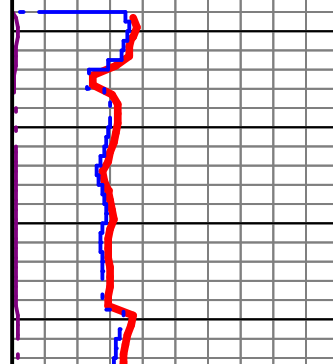


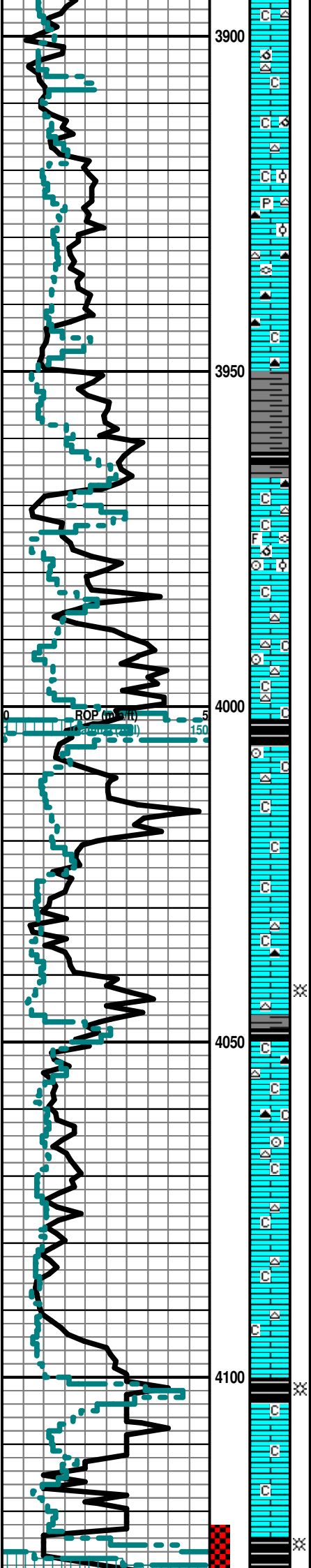
Bloodhound Unit  
TG & C1 Data Lost  
@ 3758' Gas Bkgd  
= 50-60 Units  
During Down Time.

TG, C1-C5 200

Mudco Ck @  
3841' @ 2:00  
PM 2/03/12.  
Vis 56; WT=  
9.1#; PV= 17;  
YP= 17;  
WL= 8.4;  
Cake= 1;  
Chl= 5400; Cal=  
= 280; Sol=  
5.4%; LCM=  
3.5#; DMC=\$  
1305.95  
CMC=\$  
12,906.00

Fix Bloodhound  
Unit ROP @ 3858'





Poor Develop Poor Dissolu Poor Leaching Chalk Wht Abd Cht Wht Op Shp Vit Sh Char-Red Fissil No Odor No Flor No Stn NS

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

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

LS Wht-Crm FxIn Poor-Fair IxIn w/ Pyr Inclus Por Grad Tr/OOL Por w/ OOL (Small) in pl Poor Develop Poor Dissolu Poor Leacing Chalk Wht Abd Cht Wht-Tan Transl-Op Shp Vit Sh Char Tr/Red Fissil No Odor No Flor No Stn NS

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

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

LS Crm-Wht FxIn Poor-Fair IxIn Cht Blk Op Shp Vit Fos (Fuss) Sh Char Fissil Inc No Odor No Flor No Stn NS

**LECOMPTON 3950' (- 1148)**

LS Crm-Wht FxIn Poor-Fair IxIn Cht Blk-Wht Op Shp Vit Sh Blk Carb - Char Fissil No Odor No Flor No Stn NS

LS Wht-Crm FxIn Micritic Grad Poor-Fair IxIn Por Grad Tr/OOM Por w/ OOL (Small) in pl Poor-Fair Develop Poor-Fair Dissolu Poor-Fair Leaching Chalk Wht Abd Cht Wht-Tan Transl-Op Shp Vit Fos (Crim, Spic) Sh Char Fissil No Odor No Flor No Stn NS

LS Crm-Gry FxIn Micritic Grad Poor-Fair IxIn Por Chalk Wht Abd Cht Wht-Tan Transl-Op Shp Vit Fos (Crim) Sh Char Fissil No Odor No Flor No Stn NS

LS Crm-Gry FxIn Micritic Grad Poor-Fair IxIn Por Chalk Wht Abd Cht Wht-Tan Transl-Op Shp Vit Fos (Crim) Sh Char Fissil No Odor No Flor No Stn NS

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

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

LS Crm-Wht FxIn Poor-Fair IxIn Cht Blk-Wht Op Shp Vit Sh Blk Carb - Char Fissil No Odor No Flor No Stn NS

Sh Blk Carb-Char Fissil FSG Ls Crm-Wht-Gry FxIn Dns Micrite Poor IxIn Por Chalk Wht Soft Cht Wht Transl-Op Shp Vit Fos (Fuss) No Odor No Stn No Flor FSG (in Sh Blk Carb)

Ls Crm-Gry FxIn Poor-Fair IxIn Por Chalk Wht Soft Abd Cht Blk-Tan Op Shp Vit Sh Char-Grn Fissil No Odor No Stn No Flor NS

Ls Crm-Wht FxIn Grad Poor IxIn Por Grad Tr/OOM Por w/ OOL (Small) in pl Poor Develop Poor Dissolu Poor Leaching Chalk Wht Abd Cht Blk-Tan Op Shp Vit Fos (Crim) Sh Char Fissil No Odor No Flor No Stn NS

Ls Crm-Gry FxIn Poor-Fair IxIn Por Chalk Wht Soft Abd Tr/Cht Wht-Tan (Banded) Op Shp Vit Sh Char-Grn Fissil No Odor No Stn No Flor NS

Ls Gry-Crm FxIn Poor-Fair IxIn Por Grad Dns Micrite AA Chalk Wht Soft Cht Wht-Tan (Banded) Op Shp Vit Sh Char-Grn Fissil No Odor No Stn No Flor NS

Sh Blk Carb-Char-Grn Fissil F-G SG Ls Crm-Wht-Gry FxIn Dns Micrite Poor IxIn Por Chalk Wht Soft Cht Wht Transl-Op Shp Vit Fos (Crim) No Odor No Stn No Flor FSG (in Sh Blk Carb)

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

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

**HEEBNER 4123' (- 1321)**

Sh Blk Carb-Char-Grn Fissil F-G SG Ls Crm FxIn Dns Micrite Poor IxIn Por Chalk

Mudco Ck @  
4183' @ 12:50  
PM 2/04/12  
Vis 53; WT=  
9.25#; PV=  
15; YP=  
16; WL=  
7.6; Cake=  
1; Chl=  
3400; Cal =  
20; Sol=  
6.3%; LCM= 2  
#; DMC=\$  
1399.05  
CMC=\$  
14,305.05

SH GAS KICK  
= 60 UNITS.

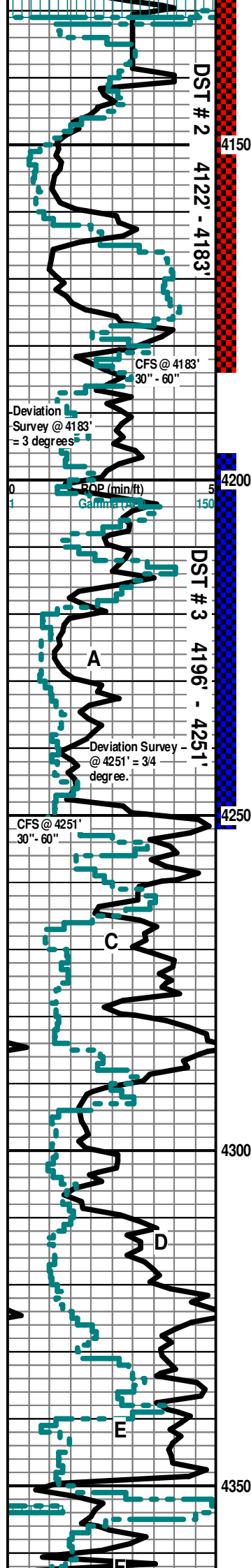
DST # 2  
3461'-3532" Times:-  
5'-90"-65"-60";  
Blow: IF Strong  
Blow BOB/4.5". FF  
Strong Blow  
BOB/5.5".  
Recovery:  
1205' SWCM: (70'  
WCM; 120' HMCW;  
1005' SWCM; 10'  
M).  
Pressures: IH  
1967#; FH  
1963#; IF  
37-91#; FF  
104-580#; ISIP  
1204#; FSIP  
1173#; Temp = 114  
Degrees F.  
Chl=88000 Ppm;  
PH=6.5;  
RW=.1 @ 65  
degrees.

SH GAS  
KICK = 61  
UNITS.

SH GAS  
KICK = 143  
UNITS.

SH GAS  
KICK = 106  
UNITS.

RE-CYCLE SH



Wht Soft Cht Wht Trans-Op Shp Vit Fos (Crin) No Odor No Stn No Flor FSG (in Sh Blk Carb)

**TORONTO 4142' (- 1340)**

Ls Wht-Crm MicroIn-FxIn Poor-Fair IxIn Por Cht Wht Op Shp Vit Chalk Wht Soft Abd Sh Blk Carb-Char AA Fissil No Odor No Stn Ls w/Med ? Min Flor or Stn Flor ?

**DOUGLAS 4160' (- 1358)**

30" CFS @ 4183' Sh Char-Gry-Grn Soft-Fissli w/ \Fos (Fuss) Ls Crm-Wht-Gry FxIn Dns Micrite Poor IxIn Por Chalk Wht Soft Abd No Odor No Stn Few Pcs Sli ? Min Flor AA Grad No Flor NS

60" CFS @ 4183' Sh Char-Gry-Grn Soft-Fissli w/ \Fos (Fuss) Ls Crm-Wht-Gry FxIn Dns Micrite Poor IxIn Por Chalk Wht Soft Abd No Odor No Stn Few Pcs Sli ? Min Flor AA Grad No Flor NS

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

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

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

**LANSING 4216' (-1414)**

Ls Wht-Dk Gry MicroIn-FxIn w/ Pin-Pt IxIn Por w/ Fair- Med SG (Under Heat) Even Sat Stn Flor (Lt Grn-Wht) Throught Tray Cht Wht-Tan Op Shp Vit Fos (Crin) Chalk Wht Soft Sh Char-Gry Fissil No Odor SG

30" CFS @ 4251' Ls Wht-Dk Gry MicroIn-FxIn w/ Pin-Pt IxIn Por w/ Fair- Med SG (Under Heat) Even Sat Stn Flor (Lt Grn-Wht) Throught Tray Cht Wht-Tan Op Shp Vit Fos (Crin) Chalk Wht Soft Sh Char-Gry Fissil No Odor SG

60" CFS @ 4251' Ls Wht-Dk Gry MicroIn-FxIn w/ Pin-Pt IxIn Por w/ Fair- Med SG (Under Heat) Even Sat Stn Flor (Lt Grn-Wht-Through Spl.) Cht Wht-Tan-Amber Transl-Op Shp Vit Fos (Crin) Chalk Wht Soft Sh Aqua- Char-Gry Fissil No Odor SG

Sh Char-Gry Fissil Ls Crm-Gry MicroIn-FxIn Poor IxIn Por Grad Micritic Chalk Wht Soft Dec No Odor No Stn ? Sli Min Flor Dec NS

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

Ls Crm-Tan MicroIn-FxIn Poor IxIn Por Grad Micritic w/ Pry Includs Chalk Wht Soft Fos (Crin) Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor Dec AA NS

Ls Crm FxIn Grad Fair-Med OOM Por OOL Por w/OOL in pl (Wht) Med Dissolu Med Devel med leaching Por Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor Sh Char-Gry Fissil NS

Sh Char-Gry Fissil Ls Crm-Gry MicroIn-FxIn Poor IxIn Por Grad Micritic Chalk Wht Soft Dec No Odor No Stn ? Sli Min Flor Dec NS

Chalk Wht Soft V Abd (60% of Spl) Ls Crm-Tan MicroIn-FxIn Poor IxIn Por Grad Micritic Sh Char-Gry-Grn Fissil No Odor No Stn ? V Sli Min Flor NS

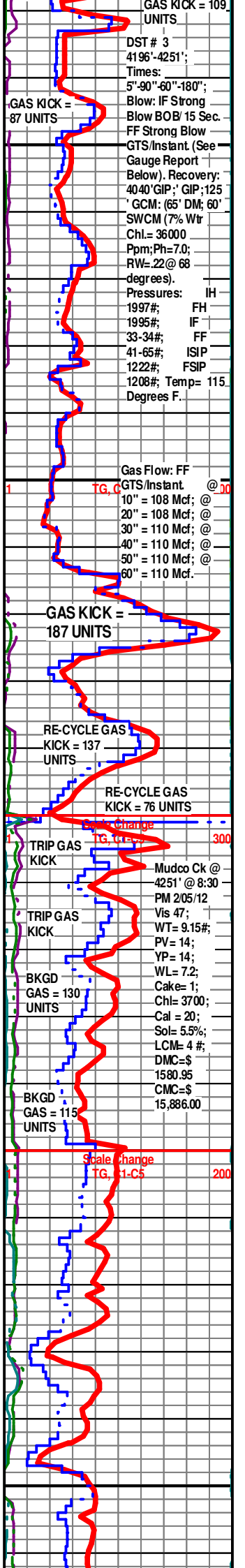
Ls Crm MicroIn-FxIn Poor IxIn Por Grad Micritic Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor NS

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

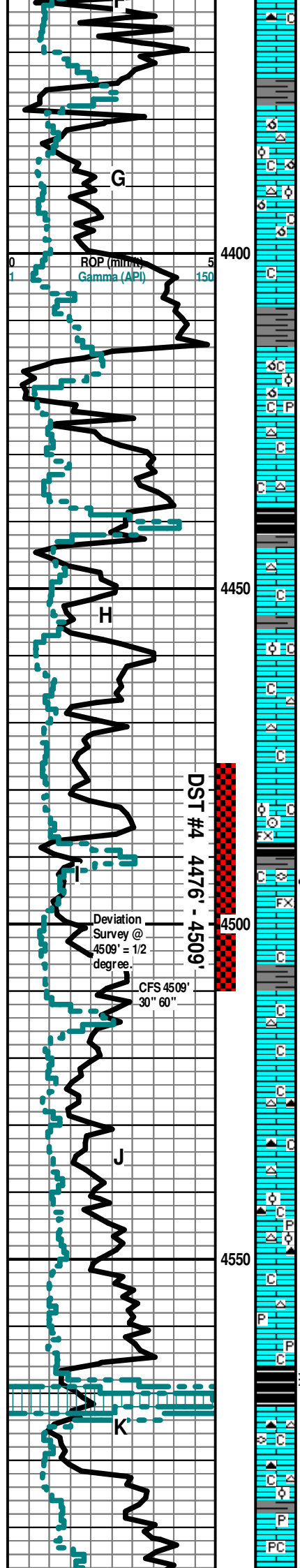
Ls Gry-Crm MicroIn-FxIn Poor IxIn Por Grad Micritic Cht Tan-Gry-Char Op Shp Vit Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor Sh /char-Gry Fissil NS

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

Ls Crm-Gry MicroIn-FxIn Poor IxIn Por Micritic Grad Poor OOM Por w/OOL in pl (Brn) Poor Dissolu Poor Devel Cht Tan-Gry Op Shp Vit Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor Sh Char-Gry Fissil NS







Ls Crm MicroXln-Fxln Poor Ixln Por Micritic Cht Gry Op Shp Vit Chalk Wht Soft Fos (Crin) Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor Sh Char-Gry Fissil NS

Ls Crm-Gry MicroXln-Fxln Poor Ixln Por Micritic Grad Poor OOM Por w/OOL in pl (Brn) Poor Dissolu Poor Devel Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor Sh Char-Gry Fissil NS

Ls Crm MicroXln-Fxln Grad Poor OOM Por w/OOL in pl (Wht) Med Dissolu Med Devel Grad Poor Ixln Por Micritic Cht Tan-Gry Op Shp Vit Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor Sh Char-Gry Fissil NS

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

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

Ls Crm MicroXln-Fxln Grad Poor OOM Por w/OOL in pl (Wht) Med Dissolu Med Devel Grad Poor Ixln Por Micritic w/Pyr Inclus Cht Tan-Gry Op Shp Vit Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor Sh Char-Gry Fissil NS

Ls Crm MicroXln-Fxln Poor Ixln Por Grad Micritic Cht Wht Op Shp Vit Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor Sh Char-Gry Tr Blk Carb Fissil NS

Ls Crm MicroXln-Fxln Poor Ixln Por Grad Micritic Cht Wht Op Shp Vit Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor Sh Char-Gry Tr Blk Carb Fissil NS

Ls Crm MicroXln-Fxln Grad Poor OOL Por w/OOL in pl (Wht) Med Dissolu Med Devel Grad Poor Ixln Por Micritic w/Pyr Inclus Cht Tan-Gry Op Shp Vit Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor Sh Char-Gry Fissil NS

Ls Crm MicroXln-Fxln Poor Ixln Por Grad Micritic Cht Tan Op Shp Vit Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor Sh Char-Gry Tr Blk Carb Fissil NS

Ls Wht Crm Fxln Fair-Med IxlnPin-Pt Por w/Tr Pry Inclus & Good SG/SFO (Clear-V Lt Brn -Vlt Grn Flor) Ls w/Calcite Overgroth Xls w/ Tr Fair-Good Vug Leaching Por Strong Odor V Chalky Wht Soft Abd Good Cut (Lt Grn Flor) Fos (Crin) Tr Ls Wht w.Poor OOL Por w. OOL in pl Poor Dissolu Poor-Fair Leaching Tr Flor (Lt Grn) Sh Char Fissil Good Odor Med-Good Flor Med-Good Stn SG/SFO

30" CFS @ 4509' Ls Wht Crm Fxln Grad Dns Barren Chalky Wht Soft Abd Fos (Fuss) Sh Char-Gry Tr Only Sli Odor Sli Flor AA NS

60" CFS @ 4509' Ls Wht-Crm Fxln Grad Micritic Dns Barren Chalky Wht Soft Abd Sh Char-Gry No Odor No Flor No Stn NS

Ls Crm-Tan Fxln Grad Micritic Dns Barren Chalky Wht Soft Cht Wht Op Shp Wht Sh Grn-Gry Soft No Odor No Flor No Stn NS

Ls Crm-Tan Fxln Grad Micritic Dns Barren Chalky Wht Soft Cht Wht-Tan-Gry Transl-Op Shp Wht Sh Grn-Gry Soft Inc No Odor No Flor No Stn NS

Ls Crm-Gry Fxln Grad Micritic Dns Barren Chalky Wht Soft Cht Wht-Tan-Gry Transl-Op Shp Wht Sh Grn-Gry Soft No Odor No Flor No Stn NS

Ls Crm-Gry Fxln Poor Ixln Por Micritic Dns Barren AA w/tr Pyr Inclus Grad Tr/ Poor OOL Por Poor InterOOL Por Poor Dissolu Poor Leaching Chalky Wht Soft Cht Wht-Char Op Shp Wht Sh Grn-Gry Soft No Odor No Flor No Stn NS

Ls Wht-Tan Fxln Poor Ixln Por Micritic Dns Barren AA Chalky Wht Soft Cht Wht-Gry Transl-Op Shp Wht Sh Grn w/Pry Inclus-Gry-Char Soft No Odor No Flor No Stn NS

**STARK 4564' (- 1762)**

Sh Blk Carb-Gry Fissil w/ SG when broken Ls Crm-Gry Fxln Poor Ixln Por Micritic Dns Barren Fos (Fuss) Cht Wht-Gry w/Fos (Fuss Inclus) Op Shp Wht No Odor No Flor No Stn SG in Blk Carb Sh

Ls Wht-Crm Fxln Fair Ixln Por Grad Tr/Poor OOL Por w/ OOL in pl (small) Tr Fair Vug Dissolu Poor-Fair Soring Poor-Tr/Fair Leaching Por Chalky Wht Soft Cht Wht-Gry Transl-Op Shp Wht Sh Grn w/Pry Inclus-Gry-Char Soft No Odor No Flor No Stn NS

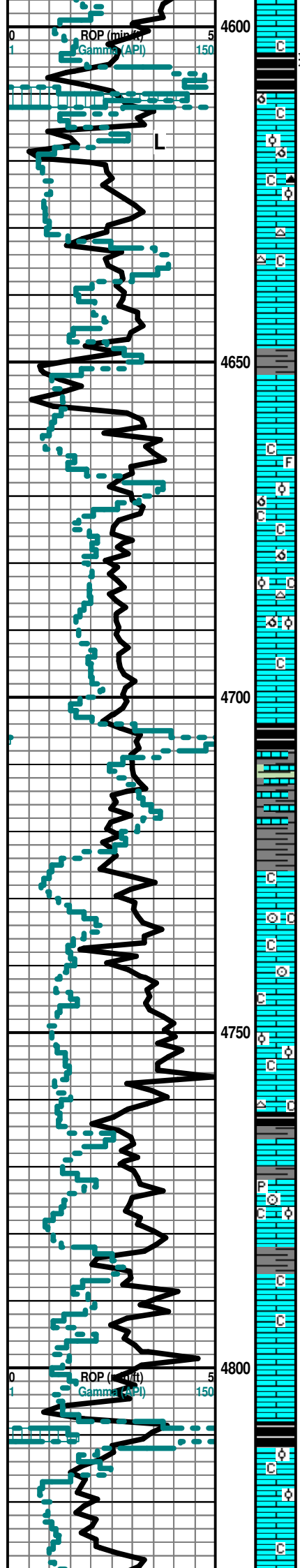
Ls Wht-Crm Fxln Poor Ixln Por Micritic Dns Barren Chalky Wht Soft Sh Char-Gry

DST # 4  
4476'-4509';  
Times:  
5"-90"-75"-180";  
Blow: IF Fair Blow  
8'@ 5 Min.. FF Fair  
Blow BOB@10 Min..  
Recovery: 240'  
GIP; 75' TF: (5' CO  
(37 Grv.); 140' SO &  
HWCM (3% Oil, 47%  
Wtr., 56% M); 60'  
MCW w/Tr Oil (tr/O;  
74% Wtr., 26% M),  
55' SMCW (98%  
Wtr, 1% M). Chl.=  
59000 Ppm;  
Ph=7.0; RW= 15@  
64 degrees).  
Pressures: IH  
2135#; FH  
2135#; IF  
49-59#; FF  
59-362#; ISIP  
1324#; FSIP  
1304; Temp= 119  
Degrees F.

GAS KICK =  
169 Units

Mudco Ck @  
4509' @ 11:45  
AM 2/06/12  
Vis 56; WT=  
9.1; PV= 18;  
YP= 19;  
WL= 6.4;  
Cake= 1;  
Chl= 3400;  
Cal = 20;  
Sol= 5.6%.  
LCM= 2#;  
DMC=\$  
1955.90  
CMC=\$  
17,841.90

EXTRACTOR  
MOTOR  
BURNED  
OUT @ 4520'



Fissil No Odor No Flor No Stn NS

**HUSHPUCKNEY 4605' (- 1803)**

Sh Blk Carb-Gry Fissil w/ SG when broken Ls Crm-Gry Fxln Poor Ixln Por Micritic Dns Barren Chalky Wht Soft No Odor No Flor No Stn SG in Blk Carb Sh SG

Ls Crm-Gry Fxln Poor Ixln Por Micritic Dns Barren Ls Crm-Gry Fxln Poor Ixln Por Micritic Dns Barren Grad Fair-Med OOM Por w/ OOL (small) in pl Fair Dissolu Fair Leaching Cht Gry w/Abd OOL in pl Op Shp Vit Chalk Wht Soft Sh Blk Carb-Gry Fissil w/ SG when broken AA SSG

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

Sh Gry Tr/Blk Carb Fissil Ls Drk Gry Fxln Poor Ixln Por Micritic Dns Barren Chalky Wht Soft No Odor No Flor No Stn NS

**BASE KANSAS CITY 4650' (- 1848)**

Sh Gry Tr/Blk Carb Fissil Ls Drk Gry Fxln Poor Ixln Por Micritic Dns Barren Chalky Wht Soft No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Poor-Fair Ixln Por Chalky Wht Soft Cht Wht-Gry w/Fos (Spic) & OOL in pl Trans-Op Shp Wht Sh Char-Gry Fissil AA No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Poor-Fair Ixln Por Micritic Dns Barren Grad Fair-Med OOM Por w/ OOL (small) in pl Fair-Med Dissolu (Few Pcs) w/Fair-Med Leaching Cht Wht Op Shp Vit Chalky Wht Soft V Abd Inc Sh Char-Gry Fissil AA No Odor No Flor No Stn NS

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

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

Ls Wht-Crm-Gry Fxln Poor Ixln Por Micritic Dns Barren V Abd Chalk Wht Soft Sh Char-Gry-Grn-Blk Carb (? Sluff) Fissil No Odor No Flor No Stn NS

Sh Blk Carb-Gry Fissil-"Gummy-Sof" Ls Gry-Crm Fxln Poor Ixln Por Micritic Dns Barren Chalky Wht Soft V Abd No Odor No Flor No Stn NS

**MARMATON 4730' (- 1928)**

Ls Wht Fxln Poor Ixln Por Micritic Dns Barren V Abd Chalk Wht Soft Sh Gry Fissil No Odor No Flor No Stn NS

Ls Crm-Wht-Gry Fxln Poor Ixln Por Micritic Dns Barren Fos (Crin) Chalk Wht Soft Sh Gry Fissil No Odor No Flor No Stn NS

Ls Crm-Wht-Gry Fxln Poor Ixln Por Micritic Dns Barren Fos (Crin) Chalk Wht Soft Sh Gry Fissil No Odor No Flor No Stn NS

Ls Crm-Brn-Wht Fxln Poor Ixln Por Micritic Dns Barren Grad Poor-Fair OOL Por w/OOL in PI Poor Dissolu Poor-Fair Leaching (Few Pcs) Chalk Wht Soft Sh Gry-Grn-Char Fissil No Odor No Flor No Stn NS

Sh Blk Carb-Gry Fissil-"Gummy-Sof" Ls Gry-Crm Fxln Poor Ixln Por Micritic Dns Barren Cht Wht-Brn (Banded) Trans Shp Vit Chalky Wht Soft Abd No Odor No Flor No Stn NS

Ls Crm-Brn-Wht Fxln Poor Ixln Por Micritic Dns Barren Grad Poor-Fair OOL Por w/OOL in PI Poor Dissolu Poor-Fair Leaching (Few Pcs) Fos (Crin) Chalk Wht Soft Pyr Mass Sh Gry-Grn-Char Fissil No Odor No Flor No Stn NS

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

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

**PAWNEE 4808' (- 2006)**

Sh Blk Carb-Gry Fissil Ls Crm-Brn-Wht Fxln Poor Ixln Por Micritic Dns Barren Grad Poor OOL Por w/OOL in PI Poor Dissolu Poor Leaching Chalk Wht Soft Sh Gry Fissil No Odor No Flor No Stn NS

Ls Crm-Brn-Wht Fxln Poor Ixln Por Micritic Dns Barren Grad Poor-Fair OOL Por w/OOL in PI Poor Dissolu Poor-Fair Leaching (Few Pcs) Chalk Wht Soft Sh Gry-Blk Carb AA Fissil No Odor No Flor No Stn NS

TG, C1-C5 200

Mudco Ck @ 4601' @ 8:35 AM 2/07/12  
Vis 55; WT= 9.2; PV= 18; YP= 18; WL= 7.2; Cake= 1; Chl= 4100; Cal= 20; Sol= 6.2%; LCM= 2#; DMC=\$ 147.20 CMC=\$ 17,989.10

@ 4708' CHANGE OUT EXTRACTOR MOTOR. GAS TEST AT GEO-TRAILER & @ GAS TEST @ EXTRACTOR. BOTH POSITIVE GAS KICKS. UNIT IS BACK UP & RUNNING OK.

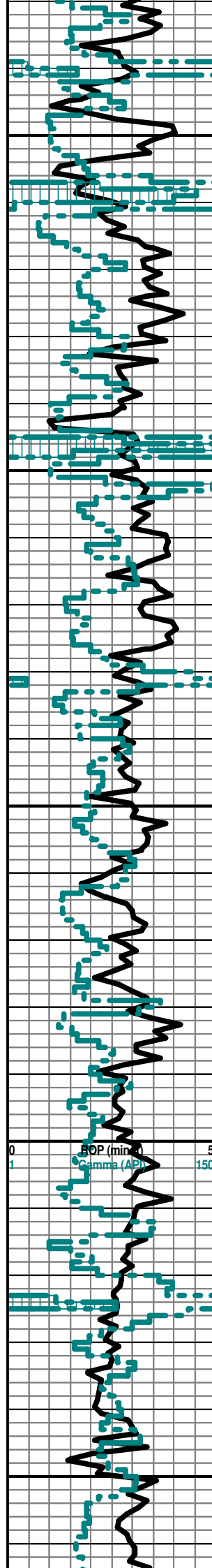
Gas Test @ Extractor & GeoTrailer. Unit Is Working.

EXTRACTOR MOTOR BURNED OUT @ 4738'

@ 4772' EXTRACTOR MOTOR CHANGED OUT & UNIT IS BACK UP & RUNNING OK.

Gas Kick = .C5 37 Unit 200





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

**CHEROKEE SHALE 4847' (- 2045)**

Sh Blk Carb-Gry Fissil Ls Crm-Brn-Wht Fxn Poor Ixln Por Micritic Dns Barren Grad  
Poor OOL Por w/OOL in Pl Poor Dissolu Poor Leaching Cht Wht-Gry Op Shp Vit  
Chalk Wht Soft Sh Gry Fissil No Odor No Flor No Stn NS

Ls Crm-Wht Fxn Poor-Fair Ixln Por Micritic Barren Chalk Wht Soft Fos (Brach) Sh  
Blk Carb\_Gry Fissil No Odor No Flor No Stn NS

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

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

Sh Blk Carb-Char Fissil V Abd Ls Crm-Wht Fxn Poor Ixln Por Micritic Dns Barren  
w/Pry Inclus Tr/Chalk AA No Odor No Flor No Stn NS

Sh Gry-Char-Blk Carb Fissil V Abd Ls Crm-Wht Fxn Poor Ixln Por Micritic Dns  
Barren w/Pry Inclus Tr/Chalk AA Cht Amber Transl Shp Vit No Odor No Flor No  
Stn NS

Ls Crm-Wht-Gry Fxn Poor Ixln Por Micritic Barren Chalk Wht Soft Cht Gry (w/  
OOL Inclus) Op Shp Vit Sh Char-Gry Fissil No Odor No Flor No Stn NS

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

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

Ls Crm-Wht-Gry Fxn Poor Ixln Por Micritic Barren Grad Poor OOL Por w/ OOL in  
pl No Dissolu No Leaching w/ Pyr Inclus Chalk Wht Soft Sh Char-Gry-Blk Carb  
Fissil AA No Odor No Flor No Stn NS

Ls Crm-Wht-Gry Fxn Poor Ixln Por Micritic Barren Grad V Poor OOL Por w/OOL in  
pl No Dissolu No Leaching Chalk Wht Soft Sh Char-Gry-Blk Carb Fissil AA No  
Odor No Flor No Stn NS

Ls Crm-Wht-Gry Fxn Poor Ixln Por Micritic Barren Cht Amber-Wht (w/Fos (Bry)  
Inclus) Chalk Wht Soft Sh Char-Gry-Blk Carb Fissil AA No Odor No Flor No Stn NS

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

Ls Crm-Wht Fxn Poor Ixln Por Micritic Dns Barren Chalk AA Cht Amber (w/Fos  
(Spic) Inclus) Transl Shp Vit Sh Char-Gry-Blk Carb Fissil No Odor No Flor No Stn  
NS

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

Ls Wht-Crm Fxn Poor Ixln Por Micritic Dns Barren Chalk AA Cht Amber Transl  
(w/Fos Inclus) Shp Vit Sh Char-Gry Fissil No Odor No Flor No Stn NS

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

Ls Gry-Crm Fxn Poor Ixln Por Micritic Dns Barren Cht Amber-Transl Shp Vit Chalk  
Sh Char-Gry Fissil No Odor No Flor No Stn NS

Ls Gry-Crm Fxn Poor Ixln Por Micritic Dns Barren w/Pyr Inclus Cht Tan Op Shp  
Vit Chalk Sh Char-Gry-Grn Fissil No Odor No Flor No Stn NS

**MORROW 5036' (-2034)**

Sh Varicolored Char-Gry-Grn (w/Pyr Inclus)-Red-Olive Fissil Ls Crm-Gry Fxn Poor  
Ixln Por Micritic Dns Barren Cht Tan Op Shp Vit Chalk No Odor No Flor No Stn NS

Sh Varicolored Char-Gry-Grn (w/Pyr Inclus)-Red-Olive Fissil Ls Crm-Gry Fxn Poor  
Ixln Por Micritic Dns Barren Cht Tan Op Shp Vit Chalk No Odor No Flor No Stn NS

Sh Varicolored Grn-Olive-Aqua-Char-Gry-Maroon Fissil Ls Wht-Crm-Gry Fxn Poor  
Ixln Por Micritic Grad Tr OOL Por w/OOL (V Small) in pl Poor Develop Poor  
Dissolu Poor Leaching Por Cht Drk Amber Banded Wht Transl-Op Shp Vit Chalk  
No Odor No Flor No Stn NS

SH GAS KICK =  
65 UNITS

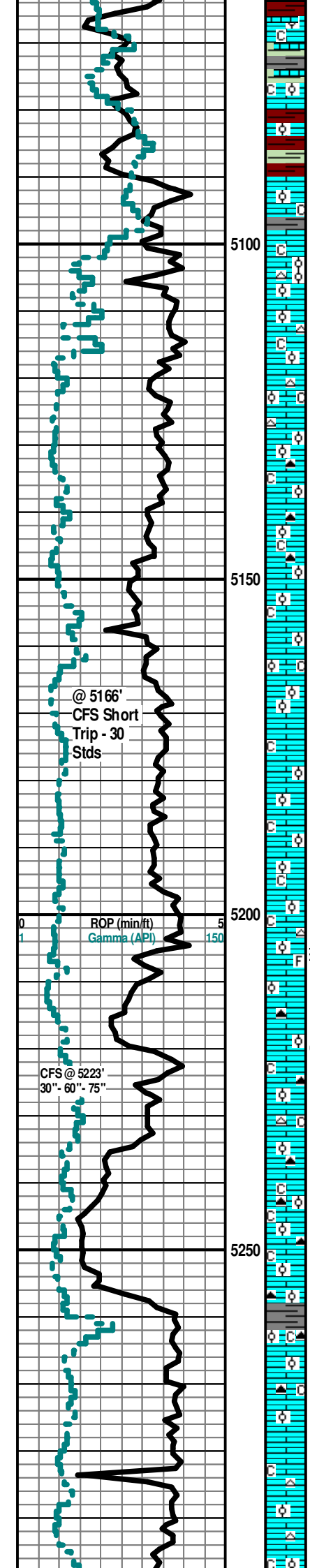
TG, C1-C5 200

SH GAS KICK =  
42 UNITS

Bkgd Gas =  
24 Units

Gas Inc = 58  
Units

Bkgd Gas =



Ls Wht-Crm-Gry Fxln Poor Ixln Por Micritic Grad Wht OOL Por w/V Small OOL in Place "Sandy" OOL Por Poor Inter OOL Por Cht Drk Amber Banded Wht Transl-Op Shp Vit Chalk Sh Varicolored Red (Wash Red)-Grn-Aqua w/Pyr Includ-Char-Gry-Blk Carb Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Gry Fxln Poor Ixln Por Micritic Grad Wht OOL Por w/V Small OOL in Place "Sandy" OOL Por Poor Inter OOL Por Cht Drk Amber Banded Wht Transl-Op Shp Vit Chalk Sh Varicolored Red (Wash Red)-"Gummy" Grn (Waxy)-Aqua w/Pyr Includ-Char-Gry-Blk Carb Fissil No Odor No Flor No Stn NS

**MISSISSIPPIAN 5090' (-2288)**

Ls Wht-Crm-Gry-Grn Fxln Poor Ixln Por Grad Wht OOL Por w/V Small OOL in Place "Sandy" OOL Por Poor Inter OOL Por Chalk Sh Varicolored "Gummy" Red (Wash Red)-Grn-Aqua-Char-Gry-Blk Carb Fissil Tr No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Poor Ixln Por Grad Wht OOL Por w/V Small OOL in Place "Sandy" OOL Por Poor Inter OOL Por Cht Shp Vit (Tr Only) Chalk Sh -Char-Gry-Blk Carb-Red Fissil Tr No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Poor Ixln Por Grad Wht OOL Por w/V Small OOL in Place "Sandy" OOL Por Poor Inter OOL Por Cht Tan Op Shp Vit Chalk Sh -Char-Gry-Grn Fissil Tr No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Poor Ixln Por Grad Wht OOL Por w/V Small OOL in Place "Sandy" OOL Por Poor Inter OOL Por Cht Tan Shp Vit Chalk Sh -Char-Grn Fissil Tr No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Poor Ixln Por Grad Wht OOL Por w/V Small OOL in Place "Sandy" OOL Por Poor Inter OOL Por Cht Blk Op Shp Vit Chalk Sh Char-Grn-Red Fissil Tr No Odor No Flor No Stn NS

30" CFS @ 5166' Ls Wht-Crm Fxln Poor Ixln Por Grad Wht OOL Por w/V Small OOL in Place "Sandy" OOL Por Poor Inter OOL Por Cht Blk Op Shp Vit Chalk Sh Char-Gry-Blk Carb-Olive Fissil Tr No Odor No Flor No Stn NS

60" CFS @ 5166' Ls Wht-Crm Fxln Poor Ixln Por Grad Wht OOL Por w/V small OOL in Place "Sandy" OOL Por Poor Inter OOL Por Cht Shp Vit (Tr Only) Chalk Sh -Char-Gry-Blk Carb-Red Fissil Tr No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Poor Ixln Por Grad Wht-Gry-Grn OOL Por w/V small OOL in Place "Sandy" OOL Por Poor Inter OOL Por w/Pyr Includ Chalk Sh Char-Gry-Blk Carb-Grn Fissil Tr No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Poor Ixln Por Grad Wht-Gry-Grn OOL Por w/V small OOL in Place "Sandy" OOL Por Poor Inter OOL Por w/Pyr Includ Chalk Sh Char-Gry-Blk Carb-Grn Fissil Tr No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Poor Ixln Por Grad Wht-Gry-Grn OOL Por w/V small OOL in Place "Sandy" OOL Por Poor Inter OOL Por w/Pyr Includ Chalk Sh Char-Gry-Blk Carb-Grn Fissil Tr No Odor No Flor No Stn NS

**ST. LOUIS "B" 5206' (- 2402)**

30" CFS @ 5223' Ls Wht-Crm-Gry Fxln Poor Ixln Por Micritic Grad Wht OOL Por w/Med-Lg OOL in Place "Sandy" OOL Por Poor-Fair Inter OOL Por Friable Grad Fxln Sucrosic Por Cht Clear Transl Vit Shp w/Fos (Spic) Includ Chalk Wht Soft Abd Sh Char-Gry Sli ? Flor Stn (Pale Grn) w/SSG

60" CFS @ 5223' Ls Wht Fxln Ixln OOL Por w/Med OOL in Place "Sandy" OOL Por Friable Poor-Fair Inter OOL Por Cht Amber Transl Vit Shp Sh Char-Gry V Faint Odor Sli ? Min Flor Stn (Pale Grn) NS

75" CFS @ 5223' Ls AA Small-Med OOL Por Poor Inter OOL Por w/SSG/SSO (1 Pc) w. Tr (SO when broken) Poor Vug Leaching Poor Dissolu Sh Char-Gry-Grn-Aqua Faint Odor Sli ? Min Flor (Few Pcs) ? VSSG.VSSO

**ST. LOUIS LOWER "B" POR 5234' (- 2432)**

Ls Crm-Wht Fxln Grad Poor Ixln Por Micritic Cht Tan-Gry Transl-Op Shp Vit Chalk Wht Soft V Abd Sh Char-Gry-Grn-Aqua No Odor No Stn No-Tr V Sli ? Min Flor NS

Ls Crm-Wht Fxln Grad Poor Ixln Por Micritic Cht Tan-Gry Transl-Op Shp Vit Chalk Wht Soft Sh Char-Gry-Grn-Aqua No Odor No Stn No-Tr V Sli ? Min Flor NS

Ls Crm-Wht Fxln Grad Poor Ixln Por Micritic Cht Amber Transl-Op Shp Vit Chalk Wht Soft Sh Char-Gry-Grn No Odor No Stn No-Tr V Sli ? Min Flor NS

Ls Crm-Wht Fxln Grad Poor Ixln Por Micritic Cht Amber Transl-Op Shp Vit Chalk Wht Soft Sh Char-Gry-Grn No Odor No Stn No-Tr V Sli ? Min Flor NS

Ls Crm-Wht Fxln Grad Poor Ixln Por Micritic Cht Amber Transl-Op Shp Vit Chalk Wht Soft Sh Char-Gry-Grn No Odor No Stn No-Tr V Sli ? Min Flor NS

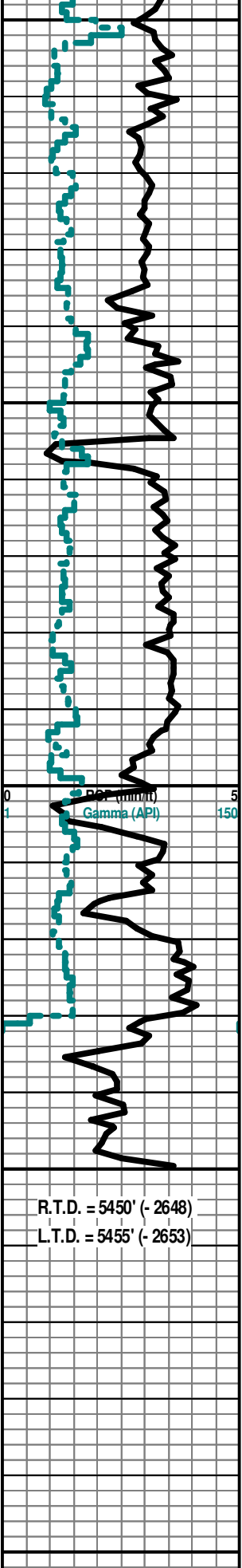
Ls Crm-Wht-Sli Grn Fxln Grad Poor Ixln Por Micritic Cht Wht Op Shp Vit Chalk Wht Soft Sh Char-Gry-Grn No Odor No Stn No-Tr V Sli ? Min Flor NS

Ls Crm-Wht-Sli Grn Fxln Grad Poor Ixln Por Micritic Cht Wht Op Shp Vit Chalk Wht Soft Sh Char-Gry-Grn No Odor No Stn No-Tr V Sli ? Min Flor NS

Mudco Ck @ 5075' @ 11:15 AM 2/08/12  
Vis 49; WT= 9.2#; PV= 16; YP= 17; WL= 6.4; Cake= 1; Chl= 3100; Cal = 20; Sol= 6.3%; LCM= 2.5 #; DMC=\$ 3532.45; CMC=\$ 21,521.55

TG, C1-C5 200

Lighter Gas Test @ Extractor @ 5276'. Lag Depth = 5265'. Unit Working Properly.



Ls Crm-Wht-Gry Fxln Grad Poor Ixln Por Micritic Grad MicroOOL Por Fxln Dec AA  
 Cht Tan-Gry Op Shp Vit Chalk Wht Soft Sh Char-Gry-Grn-Grn No Odor No Stn  
 No-Tr V Sli ? Min Flor NS

Ls Crm-Wht-Gry Fxln Grad Poor Ixln Por Micritic Grad MicroOOL Por Fxln Dec AA  
 Cht Tan-Gry Op Shp Vit Chalk Wht Soft Sh Char-Gry-Grn-Grn No Odor No Stn  
 No-Tr V Sli ? Min Flor NS

Ls Crm-Wht-Gry Fxln Grad Poor Ixln Por Micritic Grad MicroOOL Por Fxln Dec AA  
 Cht Tan-Gry Op Shp Vit Chalk Wht Soft Sh Char-Gry-Grn-Grn No Odor No Stn  
 No-Tr V Sli ? Min Flor NS

Ls Crm-Wht-Gry Fxln Grad Poor Ixln Por Micritic Cht Tan-Gry Op Shp Vit Chalk  
 Wht Soft Sh Char-Gry-Grn-Grn No Odor No Stn No-Tr V Sli ? Min Flor NS

Sh Varicolored Aqua-Red-Char-Gry- Blk Carb-Olice Fissil Ls Crm-Gry Fxln Micritic  
 tr MicroOOIL Grad Ls Gry Fxln Micritic Cht Wht Op Shp Vit Fos (Brach) No Odor  
 No Stn No Flor NS

**ST. LOUIS "C" MARKER 5355' (- 2553)**

Sh Varicolored Aqua-Red-Char-Gry- Blk Carb-Olice Fissil Ls Crm-Gry Fxln Micritic  
 tr MicroOOIL Grad Ls Gry Fxln Micritic Cht Wht Op Shp Vit Fos (Brach) No Odor  
 No Stn No Flor NS

Sh Varicolored Aqua-Red-Char-Gry- Blk Carb-Olice Fissil Ls Crm-Gry Fxln Micritic  
 tr MicroOOIL Grad Ls Gry Fxln Micritic Cht Wht Op Shp Vit Fos (Brach) No Odor  
 No Stn No Flor NS

Sh Varicolored Aqua-Red-Char-Gry- Blk Carb-Olice Fissil Ls Crm-Gry Fxln Micritic  
 tr MicroOOIL Grad Ls Gry Fxln Micritic Cht Wht Op Shp Vit Fos (Brach) No Odor  
 No Stn No Flor NS

Sh Varicolored Aqua-Red-Char-Gry- Blk Carb-Olice Fissil Ls Crm-Gry Fxln Micritic  
 tr MicroOOIL Grad Ls Gry Fxln Micritic Cht Wht Op Shp Vit Fos (Brach) No Odor  
 No Stn No Flor NS

**SALEM (SPERGEN) 5399' (- 2597)**

Dolo Gry Fxln Dns Micrite Grad Poor Sucrosic Por Poor Ixln Por Tr/Ls Crm-Gry  
 Fxln Micritic Cht Wht Op Shp Vit Sh Varicolored No Odor No Stn No Flor NS

Dolo/Ls Crm-Gry Fxln Dns Micrite Grad Poor Sucrosic Por Poor Ixln Por Cht Wht  
 Op Shp Vit Sh Varicolored No Odor No Stn No Flor NS

Dolo/Ls Crm-Gry Fxln Dns Micrite Grad Poor Sucrosic Por Poor Ixln Por Cht Wht  
 Op Shp Vit Sh Varicolored No Odor No Stn No Flor NS

**SALEM (SPERGEN) POROSITY 5399' (-2597)**

30" CFS @ 5450' Dolo/Ls Crm-Gry Fxln Dns Micrite Grad Poor Sucrosic Por Poor  
 Ixln Por Cht Wht Op Shp Vit Sh Varicolored No Odor No Stn No Flor NS

60" CFS @ 5450' Dolo/Ls Crm-Gry Fxln Dns Micrite Grad Poor Sucrosic Por Poor  
 Ixln Por Cht Wht Op Shp Vit Sh Varicolored No Odor No Stn No Flor NS

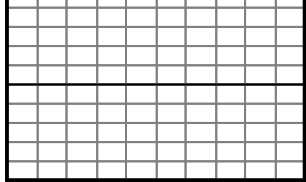
ELECTRIC LOGS By LOGTECH, INC.: DUAL COMP. POROSITY; DUAL  
 INDUCTION; BOREHOLE COMPENSATED SONIC; MICRORESISTIVITY; GAMMA  
 RAY-NEUTRON (CASED HOLE).

**Geologist Left Location @ 4:10 AM 2-10-12**

Mudco Ck @  
 5391' @ |  
 11:10 AM |  
 2/09/12 Vis |  
 53; WT= |  
 9.3; PV= 17; |  
 YP= 21; |  
 WL= 6.8; |  
 Cake= 1; |  
 Cht= 3600; |  
 Cal = 20; |  
 Sol= 6.9%. |  
 LCM= 4#; |  
 DMC=\$ |  
 1828.75 |  
 CMC=\$ |  
 23,350.30

R.T.D. = 5450' (- 2648)  
 L.T.D. = 5455' (- 2653)

5500



5550

