



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

Well Name: MTPRC "B" # 4-22
Location: C - S/2 - SE of Sec. 22 - T. 30 S. - R. 19 W.
License Number: A.P.I. #15 - 097 - 21,793 - 00 - 00
Spud Date: 06/07/2014
Surface Coordinates: SPOT: 660' FSL & 1320' FEL

Region: KIOWA CO., KS.
Drilling Completed: 06/17/2014

**Bottom Hole
Coordinates:**
Ground Elevation (ft): 2220' **K.B. Elevation (ft):** 2233'
Logged Interval (ft): 621' **To:** 5198' **Total Depth (ft):** 5200'
Formation: MISSISSIPPIAN 'WARSAW'
Type of Drilling Fluid: CHEMICAL/POLYMER/GEL WITH MUD DISPLACEMENT @ 3687'.
Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: McCOY PETROLEUM CORPORATION KCC LIC. NO. # 5003
Address: 9342 E. CENTRAL
WICHITA, KANSAS 67206

GEOLOGIST

Name: DAVID P. WILLIAMS, P.G., KS. LIC. # 88
Company: DW ENERGY, LLC (DWE)
Address: 312 N. BROADVIEW STREET
WICHITA, KANSAS 67208

Casing & Deviation Surveys:

First Surface Casing String: Spud at 2:45 pm on 06/07/14. Drilled 17-1/2" hole to 99'. Ran 2 joints of 48# ; 13-3/8" surface casing. Tallied 80', set at 95' KB. Cut Texas shoe. Cemented with 250 sks 60/40 POZ; 3% Cc, 1/4# CF. Cement did circulate. Plug down at 11:15 pm on 06/06/14. Basic Energy Services Cementing ticket #10881.

Second Casing String: Drilled 12-1/4" hole to 566'. Ran 6 joints of new 32# 10-3/4" surface casing. Tallied 270'. Set at 270' KB, 257' GL. Texas shoe cut on bottom joint. Tacked all collars. Tacked pins on bottom 4 and top 2 joints. Cemented with 170 sks ACON; blend. Then tailed with 150 sks 60/40 POZ; 2% CC ; 1/4# CF. Cement did not circulate. Plug down at 12:30 am on 06/09/14. Basic Energy Services ticket #1083. Temperature survey locates top of cement at 100'. Shoot (2) 1/4" perforations at 100'. Pump fresh water through perforations at a rate 4.42 bbl/min for 20 minutes (88 bbl) before water circulates Pump 150 sks common cement through perfs. Cement did not circulate. WOC 3.50 hours. Pump 400 sks common through perfs at 100' at 2 bbl/min and 250 PSI. Cement did circulate to pits. Final cementing job done at 8:45 pm 06/09/14. Basic Energy Services cementing ticket #1718-10827A.

Third Casing String: Drilled 9-7/8" hole to 626'. Ran 14 joints of new 24# 8-5/8" surface casing. Tallied 606.72'. Set at 621.22'. Texas shoe cut on bottom joint. Tacked all collars. Tacked pins on bottom 2 and top 2 joints. Cemented bottom with 150 sks 60/40 POZ; 3% cc; 2% Gel & 1/4# Floseal. Cement did not circulate. Plug down at 9:00 pm on 06/10/14. Basic Energy Services ticket #1718-10668.

Deviation Survey's Taken: @ 626' = 1/2 degree; @ 4938' = 1 1/4 degrees; @ 5124' = 3/4 degree;

DSTs

~~DST # 1~~ Interval:4858'-4938'. Times: 5"-60"-90"-150"; Blow: IF=Weak/ 1". No Blow Pack. FF= BOB/12". No Blow Back During FSIP.

Recovery: 1640' GIP & 50' SOCM (> 1% O; 99% M)).

Pressures: IH=2419#; FH=2405#; IF=25-31#; FF=32-41#; ISIP=535#; FSIP=953#; TEMP.=112 degrees. F..

~~DST #2~~ Interval: 5080'- 5124'. Times:5"-60"-90"-120"; Blow: IF= Strong/BOB/45 Sec.. ISIP/Weak Blow Back/1/2". FF= BOB/2 Sec. & GTS @ 12" (See Gas Gauge Report). FSIP/BOB Blow Back.

Recovery: 430' TF: 70" GCM w/OS (21% G; 0% O; 79% M); 125' GOCWM (14% G; 14% O, 34% W & 38% M); 235' GM & OCW (20% G; 30% O; 32% W & 18% M).

Pressures: IH=2721#; FH=2480#; IF=42-59#; FF=46-146#; ISIP= 1477#; FSIP=1389#; TEMP.=120 degrees F.; API RW =.075 @ 83 degrees F.; CHL.= 90,000 Ppm..

FF GAS GAUGE: @12"=19 Mcf; @ 20"=34 Mcf; @ 30"=36 Mcf; @ 40"=37 Mcf;@ 50"=39 Mcf; @ 60"=39 Mcf; @ 70"=39 Mcf; @ 80"=39 Mcf; @ 90"=39 Mcf.

Comments

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

Respectfully submitted,

David P. Williams, P.G
Evan Stone
Zach Wiele

ROCK TYPES

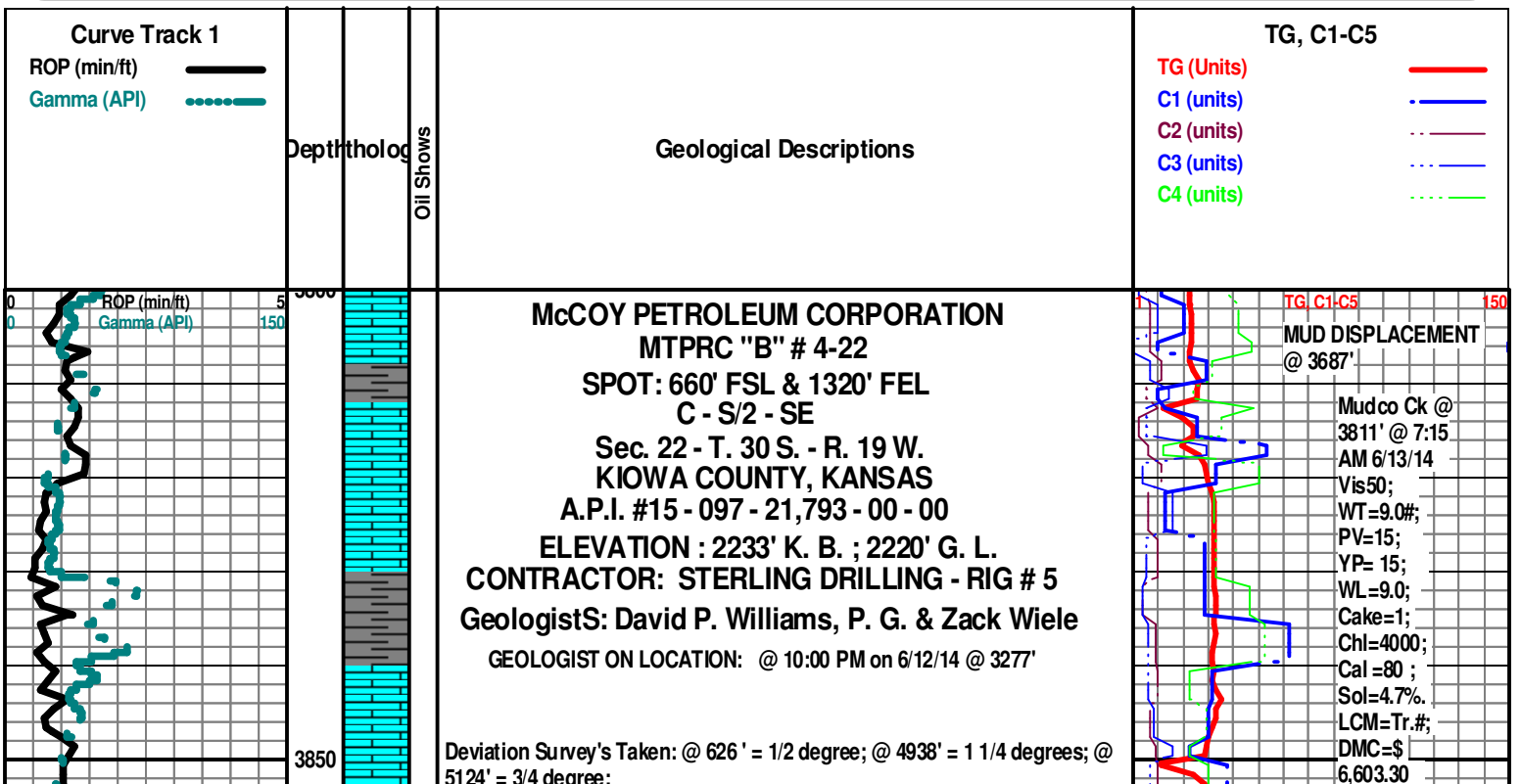
	Anhy		Clyst		Gry sh		Mrlst		Shgy
	Bent		Coal		Gyp		Red shale		Sltst
	Brec		Congl		Igne		Salt		Ss
	Carb sh		Dol		Lmst		Shale		Till
	Cht		Grn sh		Meta		Shcol		

ACCESSORIES

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

OTHER SYMBOLS

POROSITY		Vuggy	ROUNDING		Even	EVENT
	Earthy	SORTING			Spotted	
	Fenest				Ques	
	Fracture				Dead	
	Inter					
	Moldic			INTERVAL		
	Organic		OIL SHOW		Dst	
	Pinpoint				Dst_alt	

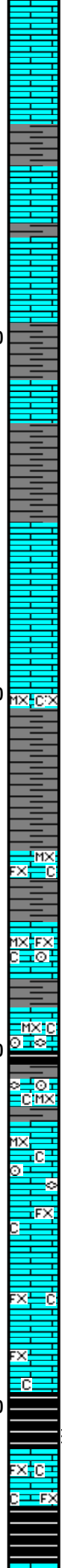
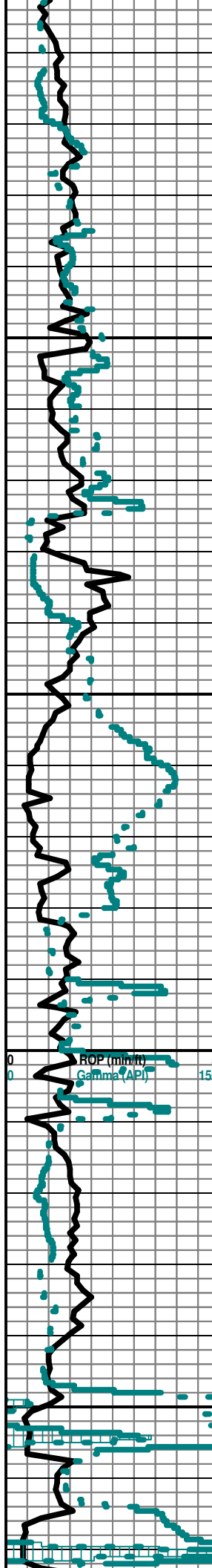


3900

3950

4000

4050



Note: All samples have been lagged to depth by calculated time.
Begin 30' Kelly Down Sample Examination @ 4000'.

Ls Gry-Crm-Wht Fxn-Microxn Dns Micrite Chalky Sh Char-Gry Soft No Odor No Flor No Stn NS

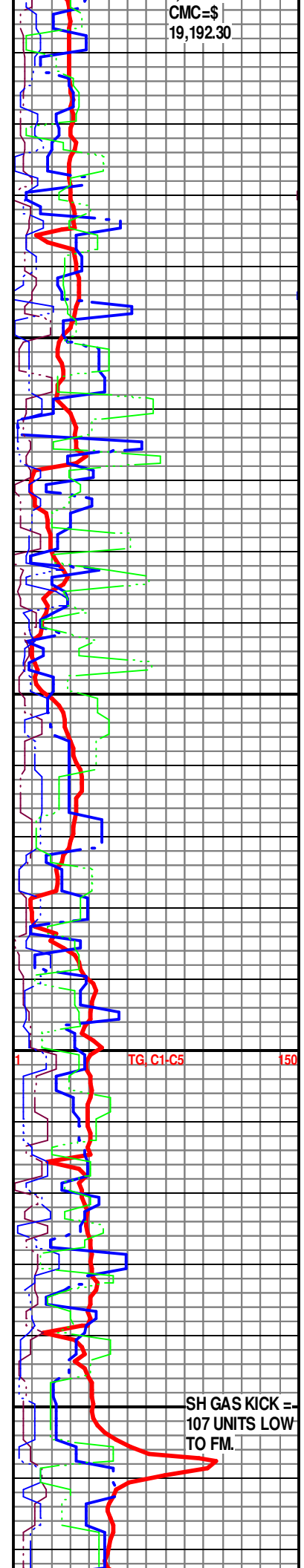
Ls Wht-Gry-Crm Fxn-Microxn Dns Micrite Fos (Crin) Chalky Sh Gry-Aqua Soft No Odor No Flor No Stn NS

LECOMPTON "B" 4010' (-1777)

Ls Wht-Gry-Crm Fxn-Microxn Dns Micrite Fos (Crin, Fuss) Chalky Sh Char-Gry-Aqua Soft-Fissil No Odor No Flor No Stn NS

QUEEN HILL SHALE 4048' (-1815)

Sh Blk Carb-Char-Gry-Aqua Fissil-Soft Ls Wht-Crm Fxn Micrite Chalky No Odor No Flor No Stn NS



SH GAS KICK =- 107 UNITS LOW TO FM.

4100

4150

4200

4250

Ls Wht-Crm FxIn Micrite Grad Poor IxIn Pin-Pt Por Chalky Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Flor No Stn NS

Sh Char-Gry Soft Ls Wht-Crm FxIn Micrite Grad Poor IxIn Pin-Pt Por Fos (Fuss, Gastro) Chalky No Odor No Flor No Stn NS

Ls Wht-Crm FxIn-MicroxIn Micrite Grad Poor IxIn Pin-Pt Por Chalky Sh Char-Gry-Drk Gry Fissil-Soft No Odor No Flor No Stn NS

Sh Blk Carb-Char-Gry-Drk Gry Fissil (w/SG in Sh Blk Carb) Ls Wht-Crm FxIn-MicroxIn Micrite Grad Poor IxIn Pin-Pt Por Fos (Crin) Chalky No Odor No Flor No Stn

Ls Wht-Crm FxIn Micrite Grad Poor IxIn Pin-Pt Por (w/Pyr Includ) Chalky Sh Blk Carb-Char- Gry-Drk Gry Fissil-Soft No Odor No Flor No Stn NS

Sh Char-Gry-Grn Fissil-Soft (Abd) Ls Wht-Crm FxIn Micrite Grad Poor IxIn Pin-Pt Por Qtz Ss Wht FGn Well Sort Sub Ang (w/CaCo3 Martix & Fos Carb Includ) Chalky No Odor No Flor No Stn NS

ROP (min/ft)
Gamma (API)

@ 4160' ADJ. A.V.
= 189.47 @ 64
SPM.

REZERO TOOKE
DAQ @ 4180 RTD.
BKGD GAS SET=
12 UNITS.

Scale Change
TG C1-C5 300

SH GAS KICK
= 231 UNITS

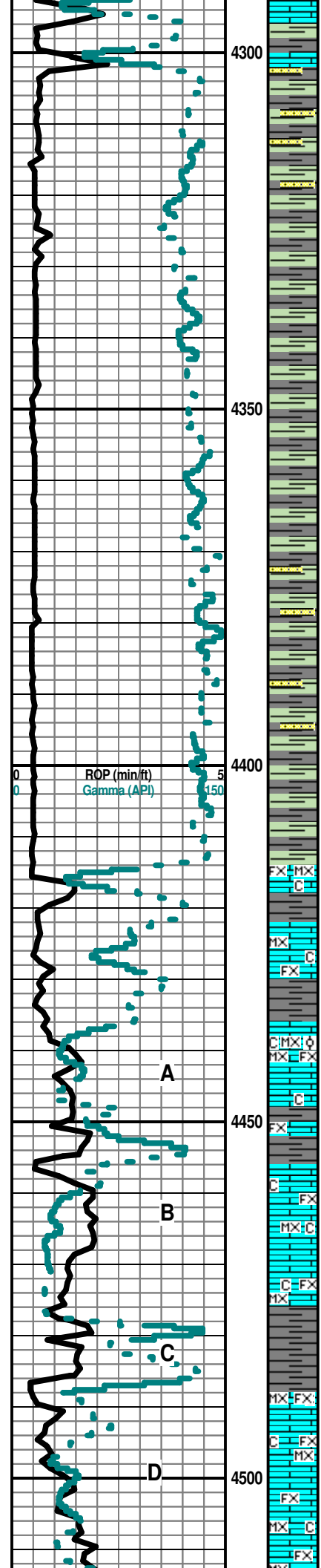
SH GAS KICK =
140 UNITS.

? RECYCLE GAS
KICK = 127 UNITS.

HEEBNER 4225' (-1992)

TORONTO 4243' (- 2010)

DOUGLAS 4258' (-2025)



Sh Char-Gry-Grn Fissil-Soft (Abd) Ls Wht-Crm FxIn Micrite Grad Poor IxIn Pin-Pt Por Qtz Ss Wht FGrn Well Sort Sub Ang (w/CaCo3 Martix & Fos Carb Inclus) Chalky No Odor No Flor No Stn NS

Sh Char-Gry-Grn Fissil-Soft Ls Wht-Crm FxIn Micrite Grad Poor IxIn Pin-Pt Por Chalky No Odor No Flor No Stn NS

Sh Char-Gry-Grn Fissil-Soft Ls AA (w/Pyr Inclus) Qtz Ss Wht VFGrn Well Sort Sub Ang (w/ Carb Inclus) Poor IGran Por Friable Chalky No Odor No Flor No Stn NS

IATAN (BROWN LIME) 4414' (- 2181)

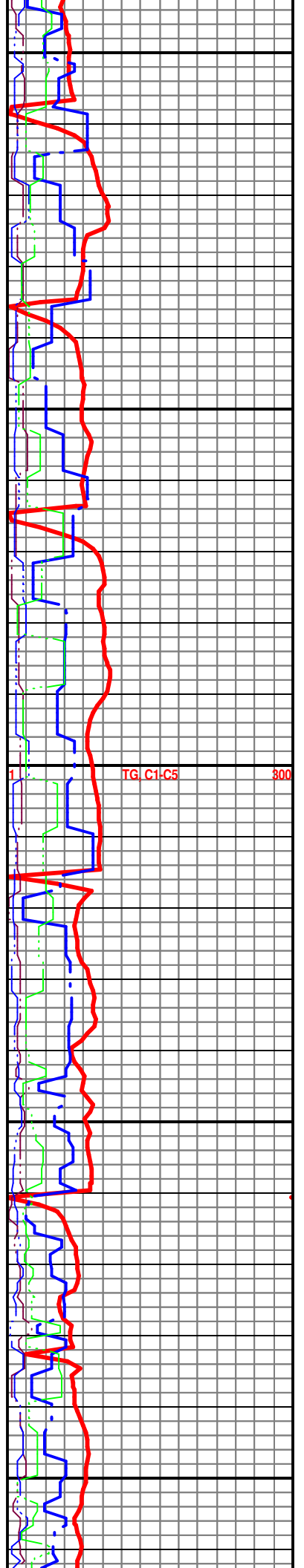
LANSING 4437' (- 2204)

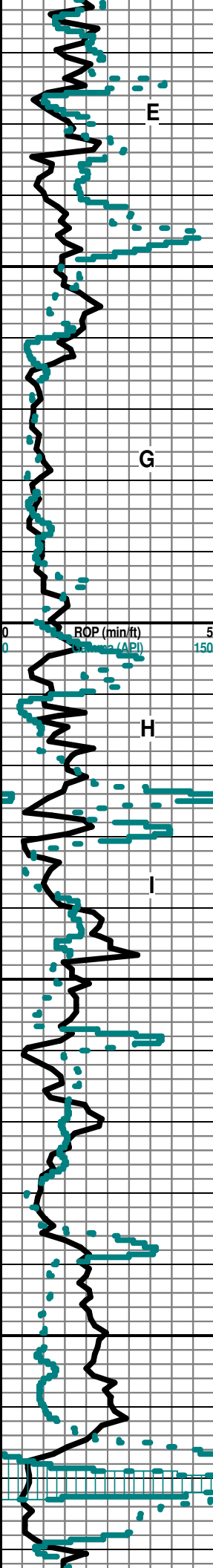
Ls Wht-Crm-Tan-Gry FxIn-MicroxIn Dns Micrite Grad Poor IxIn Por Grad Poor OOL Por (w/OOL in pl) No Dissolu Poor Develop Chalky Sh Gry-Char-Grn Soft-Fissil No Odor No Flor No Stn NS

LANSING "B" 4456' (- 2215)

Ls Wht-Crm-Tan-Gry FxIn-MicroxIn Dns Micrite Grad Poor IxIn Por Chalky Sh Gry-Char-Grn Soft-Fissil No Odor No Flor No Stn NS

Sh Gry-Char-Grn Soft-Fissil Ls Wht-Crm-Tan-Gry FxIn-MicroxIn Dns Micrite





Sh Gry-Char-Grn Soft-Fissil Ls Wht-Crm-Tan-Gry Fxln-Microxln Dns Micrite (w/Pyr Inclus) Grad Poor Ixln Por Chalky No Odor No Flor No Stn NS

LANSING "F" 4548' (- 2315)

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

@ 4600' START 10' SAMPLE EXAMINATION (WET & DRY)

Sh Gry-Char-Grn Soft-Fissil Ls Wht-Crm-Tan-Gry Fxln-Microxln Dns Micrite Grad Poor Ixln Por Chalky No Odor No Flor No Stn NS

Ls Wht-Crm-Tan-Gry Fxln-Microxln Dns Micrite Grad Poor Ixln Por Fos (Crin) Chalky Sh Gry-Char-Grn Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Tan-Gry Fxln-Microxln Dns Micrite Grad Poor Ixln Por Cht Gry Op Shp Vit Chalky Sh Gry-Char-Grn Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Lt Tan Microxln-Fxln Micritic No Vis Por Cht Lt Tan Op Shp Vit Pyr Mass Chalky Sh Char- Gry- Grn- Blk Carb Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Tan Microxln-Fxln Micritic No Vis Por Cht Gry Op Shp Vit Chalk (Abd) Sh Char-Gry-Grn-Aqua Fissil No Odor No Stn No Flor NS

KANSAS CITY "H" (DRUM) 4810' (-2377)

Ls Wht-Crm-Lt Tan Microxln-Fxln Micritic No Vis Por Cht Gry Op Shp Vit Chalk (V Abd) Sh Char-Gry-Grn-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Tan Microxln-Fxln Micritic No Vis Por Cht Tan Op Shp Vit Chalk (V Abd) Sh Char-Gry-Grn-Aqua-Blk Carb Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Tan Microxln Micritic No Vis Por Cht Tan Op Shp Vit Chalk (V Abd) Fos (Crin) Sh Char-Gry-Blk Carb Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Tan Microxln Micritic No Vis Por Cht Gry-Drk Gry Op Shp Vit Chalk (V Abd) Fos (Crin) Sh Char-Gry-Blk Carb Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Tan Microxln-Fxln Mostly Micrite Chalky Sh Char-Gry-Blk Carb Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Tan Microxln Micritic No Vis Por Cht Wht-Gry-Drk Gry (Banded) Op Shp Vit Chalk (Abd) Sh Char-Gry Fissil No Odor No Stn No Flor NS

Ls Crm-Lt Tan Microxln Micritic No Vis Por Cht Gry-Drk Gry (Banded w/Fos Wht Includ) Op Shp Vit Chalk (Abd) Sh Char-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Crm Microxln-Fxln Mostly Micrite Grad Poor Pin-Pt Ixln Por Wht-Cht Gry Op Shp Vit (w/Fos Wht Crin Includ) Chalky Sh Char-Gry-Blk Carb Fissil No Odor No Stn No Flor NS

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

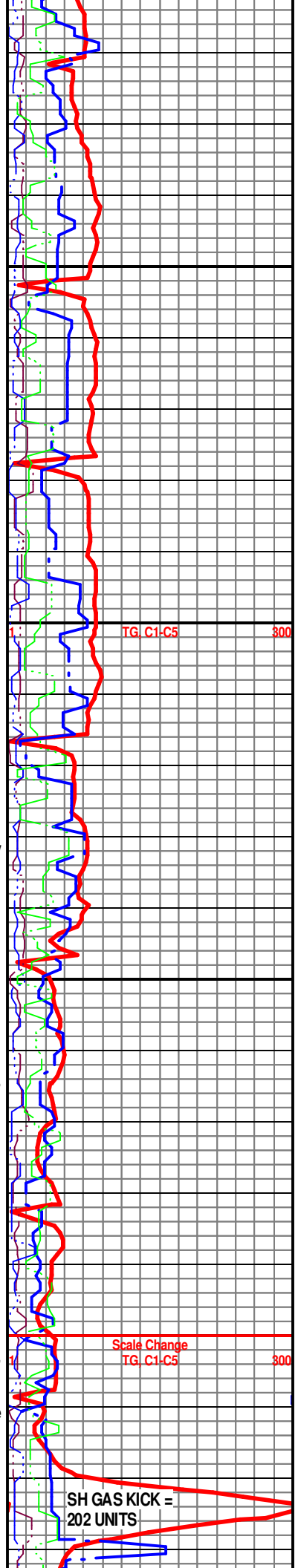
Ls Crm-Lt Tan-Wht-Gry Microxln-Fxln Mostly Micrite Poor Ixln Por Cht Wht-Gry Translu-Op Shp Vit Chalk (V Abd) Sh Char-Gry-Aqua Fissil No Odor No Stn No Flor NS

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

Sh Blk Carb-Char-Gry Fissil (w/FSG) Ls Crm-Lt Tan-Wht Microxln-Fxln Mostly Micrite Cht Wht-Gry Op Shp Vit Chalky No Odor No Stn No Flor SG in Blk Carb Sh

KANSAS CITY "J" (DENNIS) 4728' (- 2495)

Ls Crm-Lt Tan-Wht Microxln-Fxln Mostly Micrite Poor Ixln Por Cht Wht-Gry



TG C1-C5 800

Scale Change TG C1-C5 800

SH GAS KICK = 202 UNITS

Op Shp Vit Foss (Brach) Chalky Sh Blk Carb-Char-Gry Fissil No Odor No Stn No Flor NS

Ls Lt Tan-Crm-Wht MicroIn Micrite Grad Poor Pin-Pt Ixln Por Cht Wht-Gry Op Shp Vit Chalk (Abd) Sh Blk Carb (w/SSG AA)-Char-Gry Fissil No Odor No Stn No Flor NS

Ls Lt Tan-Crm-Wht MicroIn Micrite Grad Poor-Fair Pin-Pt Ixln Por Cht Wht-Gry Op Shp Vit Chalky Sh Blk Carb (w/SSG AA)-Char-Gry Fissil No Odor No Stn No Flor NS

STARK SHALE 4760' (- 2527)

Sh Blk Carb-Char-Gry Fissil (w/SG) Abd in Blk Sh Ls Crm-Gry-Wht Fxln-MicroIn Micrite Grad Poor Pin-Pt Ixln Por No Vis-Por Chalky No Odor No Stn No Flor NS

KANSAS CITY "K" SWOPE 4770' (-2537)

Ls Crm-Gry-Wht Fxln-MicroIn Micrite Grad Poor Pin-Pt Ixln Por-No Vis Por Cht Wht-Gry (Banded) Op Shp Vit Chalky Fos (Crin) Sh Blk Carb- Char- Gry-Aqua (w/Pyr Inklus) Fissil No Odor No Stn No Flor NS

Ls Lt Tan-Wht Fxln Micrite Dns Grad Fair Pin-Pt Ixln Por Cht Gry-Wht Op Shp Vit Chalky Sh Char-Gry-Blk Carb Fissil No Odor No Stn No Flor NS

Ls Lt Tan-Wht Fxln Micrite Dns Grad Fair Pin-Pt Ixln Por Chalk Sh Char - Gry- Fissil No Odor No Stn No Flor NS

Ls Lt Tan-Wht-Gry Fxln Micrite Dns Grad Fair Pin-Pt Ixln Por Chalk Sh Char-Gry-Blk Carb Fissil No Odor No Stn No Flor NS

HUSHPUCKNEY 4812' (- 2579)

Sh Blk Carb-Char-Gry-Aqua Fissil Ls Wht-Gry-Lt Tan Fxln Micrite Dns Grad Poor Pin-Pt Ixln Por Cht Wht-Tan (w/Fos Inklus) Transp- Op Shp Vit Chalk No Odor No Stn No Flor NS

Ls Gry-Lt Tan Fxln Micrite Dns Grad Poor Pin-Pt Ixln Por Chalk Sh Char-Gry (Abd)-Blk Carb-Aqua Fissil No Odor No Stn No Flor NS

Ls Gry-Lt Tan Fxln Mostly Micrite Dns Grad Poor Pin-Pt Ixln Por Chalk Sh Char-Gry-Blk Carb-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht-Gry-Lt Tan Fxln Micrite Dns Grad Poor Pin-Pt Ixln Por Chalk Sh Char-Gry-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht-Gry-Lt Tan Fxln Mostly Micrite Dns Grad Poor Pin-Pt Ixln Por Chalk Sh Char-Gry-Aqua Fissil No Odor No Stn No Flor NS

Sh Char-Gry-Fissil Ls Crm-Wht MicroIn Dns Micrite Chalky No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry-Lt Aqua Fissil Ls Gry-Crm-Wht MicroIn Dns Micrite Chalky No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry-Lt Aqua Carb Fissil Ls Gry-Crm-Wht MicroIn Dns Micrite Chalky No Odor No Stn No Flor NS

Ls Wht-Crm Fxln Micrite Grad Fair-Med Pin-Pt Ixln Por Barren Chalky Sh Blk Carb-Gry-Lt Brn-Aqua/Grn-Red Soft-Fissil No Odor No Stn No Flor NS

Sh Blk Carb-Gry-Lt Brn-Aqua/Grn-Red Soft-Fissil Ls Wht-Crm Fxln Micrite Grad Fair-Med Pin-Pt Ixln Por Barren Chalky No Odor No Stn No Flor NS

MARMATON "B" 4914' (- 2681)

30" CFS @ 4938' Ls Wht-Crm-Lt Tan Fxln Med-Good Pin-Pt Ixln Por (w/GSG) Good Even Flor (15% in Tray) Med-Good Odor Lt Brn Stn (w/FSFO InTray) V Soft Fos (Spicule) GSG & FSO

60" CFS @ 4938' Ls Wht-Crm-Lt Tan Fxln Med-Good Pin-Pt Ixln Por (w/GSG) Good Even Flor (10% in Tray) Med Odor Lt Brn Stn (w/FSFO InTray) V Soft Fos (Crin, Fuss, Spicule) GSG & FSO

Ls Wht-Crm MicroIn-Fxln Dns Micrite Poor Ixln Por Chalk Sh Blk Carb-Char-Gry-Aqua Fissil No Odor No Stn No Flor NS

PAWNEE 4953' (- 2720)

SH GAS KICK RECYCLE = 194 UNITS.

DST # 1

Interval: 4858'-4938'.
Times: 5'-60"-90"-150";
Blow: IF=Weak/ 1". No Blow Pack. FF= BOB/12".
No Blow Back During FSP.

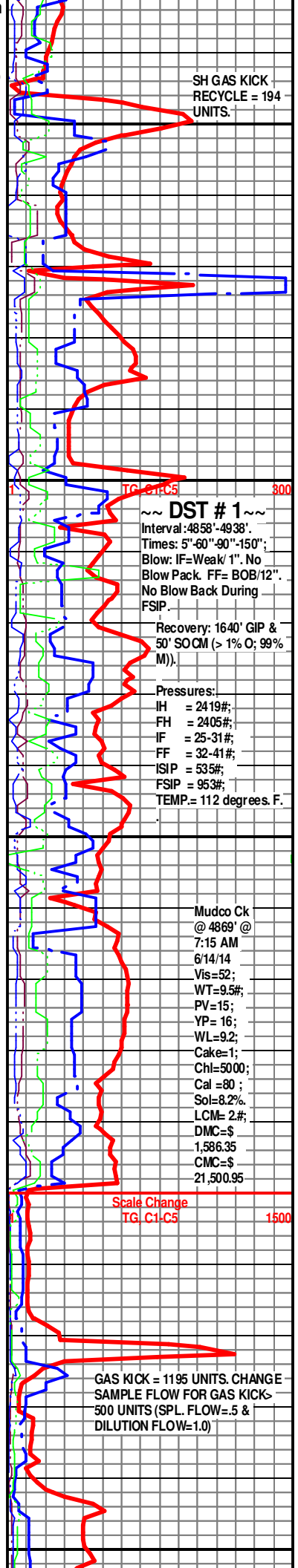
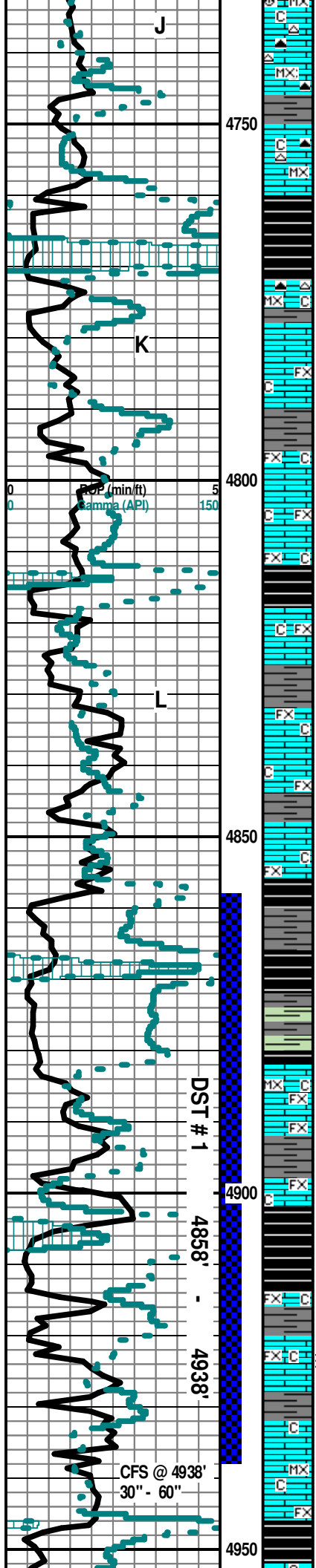
Recovery: 1640' GIP & 50' SOCM (> 1% O; 99% M).

Pressures:
IH = 2419#;
FH = 2405#;
IF = 25-31#;
FF = 32-41#;
ISIP = 535#;
FSIP = 953#;
TEMP = 112 degrees. F.

Mudco Ck @ 4869' @ 7:15 AM 6/14/14
Vis=52;
WT=9.5#;
PV=15;
YP= 16;
WL=9.2;
Cake=1;
Chl=5000;
Cal =80;
Sol=8.2%
LCM= 2#;
DMC=\$ 1,586.35
CMC=\$ 21,500.95

Scale Change TG C1C5 1500

GAS KICK = 1195 UNITS. CHANGE SAMPLE FLOW FOR GAS KICK- 500 UNITS (SPL. FLOW=.5 & DILUTION FLOW=1.0)



Ls Wht MicroXn-FxIn Dns Micrite No Vis Por Grad Poor Pin-Pt IxIn Por Barren Fos (Crin) Chalk Sh Blk Carb-Char-Gry Fissil AA No Odor No Stn No Flor NS

Sh Blk Carb-Gry-Aqua/Grn Soft-Fissil Ls Wht-Crm FxIn Micrite Grad Fair-Med Pin-Pt IxIn Por Barren Chalky No Odor No Stn No Flor NS

FORT SCOTT 4984' (- 2751)

Sh Blk Carb-Char Fissil Ls Wht-Lt Tan MicroXn-FxIn Dns Micrite Cht Wht-Crm Op Shp Vit Chalky No Odor No Stn No Flor NS

CHEROKEE SHALE 4992' (- 2759)

Sh Blk Carb-Char Fissil Ls Wht-Lt Tan MicroXn-FxIn Dns Micrite Chalky No Odor No Stn No Flor NS

Ls Wht-Lt Tan MicroXn-FxIn Dns Micrite Cht Wht-Crm Op Shp Vit Fos (Crin) Chalky Sh Blk Carb-Char Fissil No Odor No Stn No Flor NS

Sh Char-Gry-Drab Grn-Aqua Fissil Ls Wht-Lt Tan MicroXn-FxIn Dns Micrite (w/Pyr Includ) Grad Poor IxIn Pin-Pt Por Barren No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry-Drab Grn-Aqua Fissil Ls Wht-Lt Tan MicroXn-FxIn Dns Micrite (w/Pyr Includ) Grad Poor IxIn Pin-Pt Por Barren No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry-Drab Grn-Aqua Fissil Ls Wht-Lt Tan MicroXn-FxIn Dns Micrite (w/Pyr Includ) Grad Poor IxIn Pin-Pt Por Barren No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry-Drab Grn-Aqua Fissil Ls Wht-Lt Tan MicroXn-FxIn Dns Micrite Grad Poor IxIn Pin-Pt Por Barren Cht Wht-Gry Op Shp Vit No Odor No Stn No Flor NS

Sh Blk Carb-Char-Drab Grn/Gry-Aqua (w/Pyr Includ) Fissil Ls Wht-Lt Tan MicroXn-FxIn (w/Pyr Includ) Dns Micrite Grad Poor IxIn Pin-Pt Por Barren No Odor No Stn No Flor NS

Sh Blk Carb-Char-Drab Grn/Gry-Aqua (w/Pyr Includ) Fissil Ls Wht-Lt Tan MicroXn-FxIn (w/Pyr Includ) Dns Micrite Grad Poor IxIn Pin-Pt Por Barren No Odor No Stn No Flor NS

MISSISSIPPIAN 5070' (- 2837)

30" CFS @ 5100' Ls Wht-Crm-Lt Tan MicroXn-FxIn Micritic Grad Poor-Fair Pin-Pt IxIn Por (w/SSG) Tr Scat Gillsontic "Dead" Stn (Drk Blk) Cht Wht- Peach- Org Trip Op Shp Vit Qtz Ss Lt Brn-Wht (w/Cht Includ (Org-Peach-Wht) Ang-Sub Ang Fair Sort (w/CaCo3 Matrix) & FSG (? Mrw) Chalky Sh Varicolored Char-Gry-Drab Grn-Aqua-Olive Soft-Fissil Faint ? Odor Sli Flor (Lt Grn) Sli SG

60" CFS @ 5100' Ls Wht-Crm-Lt Tan MicroXn-FxIn Micritic Grad Poor-Fair Pin-Pt IxIn Por (w/SSG) Tr Scat Gillsontic "Dead" Stn (Drk Blk) Cht Wht-Peach-Org Trip Op Shp Vit Qtz Ss Lt Brn-Wht (w/Cht Includ (Org-Peach-Wht) Ang-Sub Ang Fair Sort (w/CaCo3 Matrix) & FSG (? Mrw) Chalky Pyr Mass Dolo Crm-Tab FxIn Fair IxIn Por ? Lt Brn Stn Sh Varicolored Char-Gry-Drab Grn-Aqua-Olive Soft-Fissil Faint ? Odor Sli Flor (Lt Grn) Sli SG

SALEM (SPERGEN) 5100' (- 2867)

SALEM (SPERGEN) Ø 5106' (- 2873)

75" CFS @ 5113' Dolo/Ls Tan-Crm-Gry FxIn Med-Good Pin-Pt IxIn "Salt & Pepper" Sucrosic Por (w/GSG & Tr SSO) (w/Gillsontic Drk Blk Residue & Glacu & Pyr Includ) Brittle Good Odor (Both Gas & Oil Do Flor Lt Grn & Oil is Lt Brn/Clear) Qtz Ss Lt Brn-Wht (w/Cht Includ (Org-Peach-Wht) Ang-Sub Ang Fair Sort (w/CaCo3 Matrix) & FSG (? Mrw) Cht Trip AA (w/SSG) Fair Scatt Stn Drk Blk Med Flor Med-Good SG & SSO

75" CFS @ 5124' Dolo/Ls Gry-Tan-Crm-FxIn Med-Good Pin-Pt IxIn "Salt & Pepper" Grad Small Vug Sucrosic Por (w/GSG & Tr FO) (w/Gillsontic Drk Blk Residue Pyr Mass Brittle Med-Good Odor (Both Gas & Oil Do Flor Lt Grn & Oil is Lt Brn/Clear) Cht Trip AA (w/SSG) Fair Scatt Stn Drk Blk Med Flor Med-Good SG & SFO

NOTE: GEOLOGIST'S EVAN STONE & ZACH WIELE REPLACED DAVID P. WILLIAMS @ 1:30 PM ON 6/16/14 DUE TO RIG SCHEDULE CONFLICT.

MISS. WARSAW 5138' (- 2905)

Dolo Tan-Gry-Crm FxIn Dns Micrite Poor Pin-Pt IxIn Por (Trc Scat Vug Por) Trc Glacu Includ Cht Drk Gry Translu-Op Shp Sh Gry-Grn- Red Fissil No Odor No Flor No Stn NS

Dolo Gry-Crm FxIn-MicroXn Dns Micritic Poor-Fair Pin-Pt IxIn Por Trc Scat Vug Por) Glacu Includ Sh Gry-Grn-Red Fissil No Flor No Stn NS

Dolo Gry-Crm FxIn-MicroXn Dns Micritic Poor-Fair Pin-Pt IxIn Por Glacu Includ Sh Gry-Grn Fissil No Flor No Stn NS

Mudco Ck @ 5100' @ 12:00 PM 6/15/14 Vis 56; WT=9.3#; PV=15; YP=26; WL=9.6; Cake=1; Chl=6000; Cal =80; Sol=6.8%; LCM= 3#; DMC=\$ 1,857.05 CMC=\$ 23,358.00

~DST #2~ Interval: 5080'-5124'. Times: 5' 60" 90" 120". Blow: IF=Strong/ BOB/45 Sec. ISIP/Weak Blow Back 1/2". FF= BOB/2 Sec. & GTS @ 12" (See Gas Gauge Report). FSP/BOB Blow Back.

Recovery: 430' TF: 70" GCM w/O (21% G; 0% O; 79% M); 125' GOCWM (14% G; 14% O; 34% W & 38% M); 235' GM & OCW (20% G; 30% O; 32% W & 18% M). Pressures: IH = 2721#; FH = 2480#; IF = 42-59#; FF = 46-146#; ISIP = 1477#; FSP = 1389#; TEMP = 120 degrees F. API RW = .075 @ 83 degrees F.; CHL = 90,000 Ppm.

FF GAS GAUGE: @ 12" = 19 Mcf; @ 20" = 34 Mcf; @ 30" = 36 Mcf; @ 40" = 37 Mcf; @ 50" = 39 Mcf; @ 60" = 39 Mcf; @ 70" = 39 Mcf; @ 80" = 39 Mcf; @ 90" = 39 Mcf.

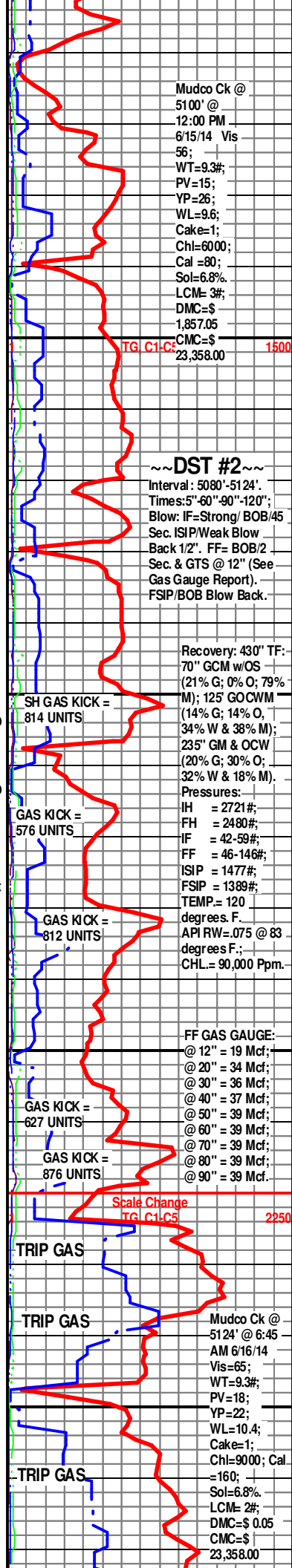
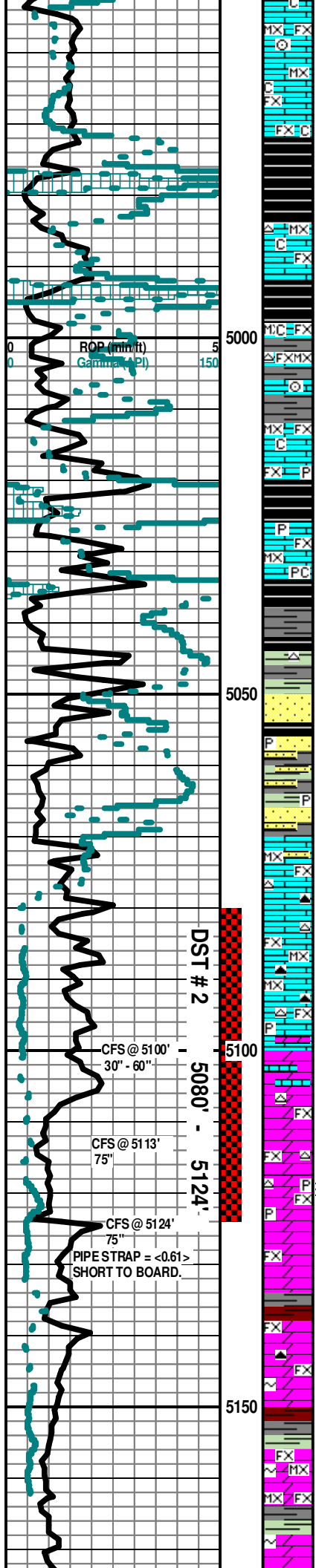
Scale Change TG C1/C5 2250

TRIP GAS

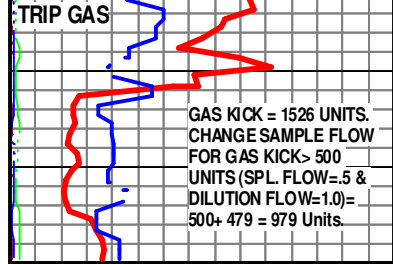
TRIP GAS

TRIP GAS

Mudco Ck @ 5124' @ 6:45 AM 6/16/14 Vis=65; WT=9.3#; PV=18; YP=22; WL=10.4; Cake=1; Chl=9000; Cal =160; Sol=6.8%; LCM= 2#; DMC=\$ 0.05 CMC=\$ 23,358.00



~~ No TD Circulation Samples Caught - Rig Crew Miscommunication During Tour Change.



0 CFS @ 5200' 5
ROP (30" - 60" 150
Gamma (API)
R.T.D. = 5200' (-2967)
L.T.D. = 5198' (-2965)

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

Geologist's Left Location at 8:40 PM on 6/16/2014

5200
5250
5300