

LITHOLOGY STRIP LOG

WellSight Systems

Scale 1:240 (5"=100') Imperial

Well Name: Canton "C" #3
Location: 1300' FNL & 1135' FWL, Sec. 20-T30S-R17W, Kiowa Co., KS.
Licence Number: 15-097-21724-0000 Region: Glick Field
Spud Date: 4/27/2012 Drilling Completed: 5/8/2012
Surface Coordinates: 1300' FNL & 1135' FWL, Sec. 20-T30S-R17W

Bottom Hole Same as above
Coordinates:
Ground Elevation (ft): 2038' K.B. Elevation (ft): 2049'
Logged Interval (ft): 4000' To: 5180' Total Depth (ft): 5180'
Formation: Viola at Total Depth
Type of Drilling Fluid: Freshwater/Gel to 2995'; Chemical Gel 2995' to 5180'.

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Herman L. Loeb, LLC.
Address: P.O. Box 838
Lawrenceville, IL. 62439-0838

GEOLOGIST

Name: Jon D. Christensen
Company: Consulting Petroleum Geologist
Address: 9002 W. Silver Hollow St.
Wichita, KS. 67205-8856

Cores

None Taken

DSTs

DST #1(Upper Miss. Chert) 4878' - 4902'(Corrected Depths to the Log) Test Times 15"-45"-45"-90" IFP Strong Blow BOB/30 Sec. Gas to Surface in 4 Min. Gauged Maximum of 672.7 MCFG/15", FFP Gas to Surface throughout, stabilized at 482.6 MCFG/45" of FFP, weak surface Blowback on FSI; REC: 190' MSW(60%W, 40%M) CI 105,000, Mud 5000; IFP 143-156#, ISIP 350#, FFP 144-165#, FSIP 350#, IHP 2371#, FHP 2366#, BHT 118 Deg. F.

DST #2(Lower Miss. Chert) 4903' - 4939'(Corrected Depths to the Log) Test Times 15"-45"- 45"-60" IFP Strong Blow BOB/3 Min., FFP Fair to Strong Blow BOB/16 Min., no Gas to Surface; 1.25" Blowback in ISI, 1" Blowback on FSI; REC: 868' Gas in Pipe, 50' MW(80%W, 20%M), 450' Gsy SW, CI 110,000, Mud 6000; IFP 40-133#, ISIP 356#, FFP 148-239#, FSIP 355#, IHP 2475#, FHP 2356#, BHT 125 Deg. F. (Water CI verified by Mud Co. Engineer).

Comments

4/27/12 MIRU Sterling Drilling Rig #2, Spud at 9:00 PM.; 4/28/12 TD. 568' - Short Trip prior to setting Surface Casing; 4/29/12 Drilling at 1142'; 4/30/12 Drilling at 2362'; 5/1/12 Drilling at 2995' - Displacing mud system; 5/2/12 Drilling at 3545'; 5/3/12 Drilling at 3968'; 5/4/12 Drilling at 4334'; 5/5/12 Drilling at 4658'; 5/6/12 TD. 4906' - CCH for DST #1; 5/7/12 TD. 4943' - DST #2; 5/8/12 Drilling at 5100' - Reached TD. 5180' at 1:45 PM; 5/9/12 RTD. 5180' - LTD. 5177' - TIH to LDDP for setting Production Casing.

Set new 8 5/8"(23#) Surface Casing at 568' w/ 275sx. Cement did Circulate(Basic Energy Services). PD. 11:45 AM. 4/28/12.

Set new 5 1/2"(15.5#) Production Casing at 5157' w/200 sx.(Basic Energy Services). PD. 11:30 PM. 5/9/12. Port Collar at 3510'.

Surveys: 0.75 Deg. at 568'(Surface Casing); 0.25 Deg. at 4906'(DST #1); 1 Deg. at 5180' RTD.

Pipe Strap at 4906'(DST #1): Strap 2.20' Short to the Board, no correction made to the Board.


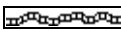
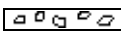
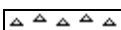
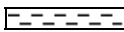







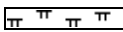

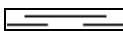
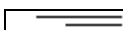
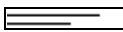



After review of the Halliburton Logs, DST data and positive shows of commercial amounts of hydrocarbons, the operator elected to set new 5 1/2" Production casing for completion in the Mississippi Chert.

LOG TOPS: Stotler Lmst. 3361(-1312), Howard 3590(-1541), Heebner Shale 4074(-2025), Toronto 4090(-2041), Brown Lmst. 4235(-2186), Lansing 'A' 4254(-2205), Stark Shale 4573(-2524), Base Kansas City 4664(-2615), Marmaton 4720(-2671), Altamont 4733(-2684), Cherokee Shale 4808(-2759), Reworked Miss. Chert 4862(-2813), Miss. Lmst. 4922(-2873), Kinderhook Shale 5095(-3046), Viola 5124(-3075).








































































NOTE: This log was shifted upward by 3' - 4' for correlation purposes with the Halliburton Logs.

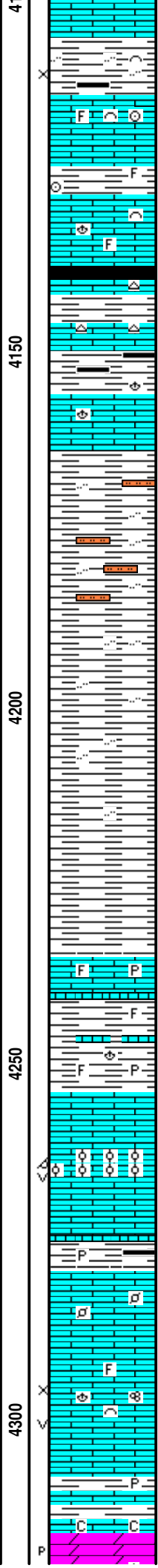
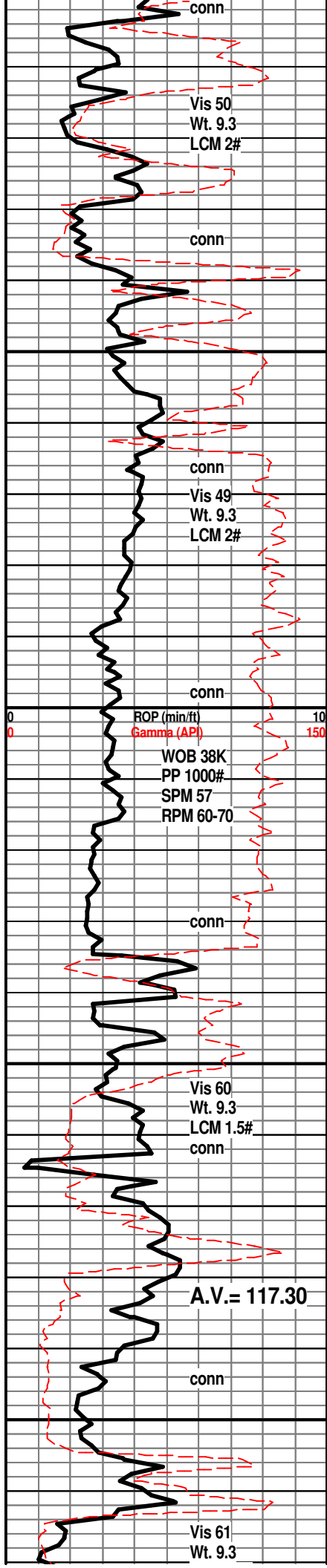
A port collar was set at 3510' in the Production Casing string, and cemented during completion operations of the Canton 'C' #3. The Stotler Lmst. exhibited a 25 Unit gas kick and calculates productive on the logs. The zone should be perforated and tested from 3364' - 3368'(log depths) after initial production from the Mississippi Chert.

ROCK TYPES

 Anhy  Bent  Brec  Cht	 Clyst  Coal  Congl  Dol	 Gyp  Igne  Lmst  Meta	 Mrlst  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  Gastro  Oolite	 Ostra  Pelec  Pellet  Pisolite  Plant  Strom STRINGER  Anhy  Arg  Bent  Coal  Dol  Gyp  Ls  Mrst	 Sltstrg  Ssstrg TEXTURE  Boundst  Chalky  Cryxln  Earthy  Finexln  Grainst  Lithogr  Microxln  Mudst  Packst  Wackest
---	--	--	--	---



ns.

SH; med gy, platy, occ silty

LM; lt brn, tan, foss ip, scat poor to fair interpart por, minor chalky mtz, lt yel min fluor, ns.

SH; lt to med gy, grn, trc rust red/brn, platy, foss

LM; lt brn, tan, hd, micritic, occ foss, tite

LM; tan to lt brn, hd, micritic, blocky, scat off wh to gy cht, no vis por, ns.

SH; dk gy, trc blk, platy, occ foss

LM; med brn, hd, foss ip, micritic, blocky

SH; lt to med gy, silty w/interbdd sltst.

SH; lt to med gy, firm, silty ip, platy

SH; med gy, fiss - flakey, smooth

BROWN LMST. 4235(-2186)
LM; med brn, hd, occ pyr, rare well cem foss.

SH; med gy grn, foss ip, interbdd thin shaly lmst

LANSING 4254(-2205)
LM; off wh, tan, buff, hd, dense, most micritic

LM; tan to lt gy brn, oolitic, well dev. oomoldic por, brittle ip, trc vug por, med to occ brite yel fluor, no vis oil stn, no odor, trc gas bubbles

SH; dk gy, trc blk, platy, pyr ip.

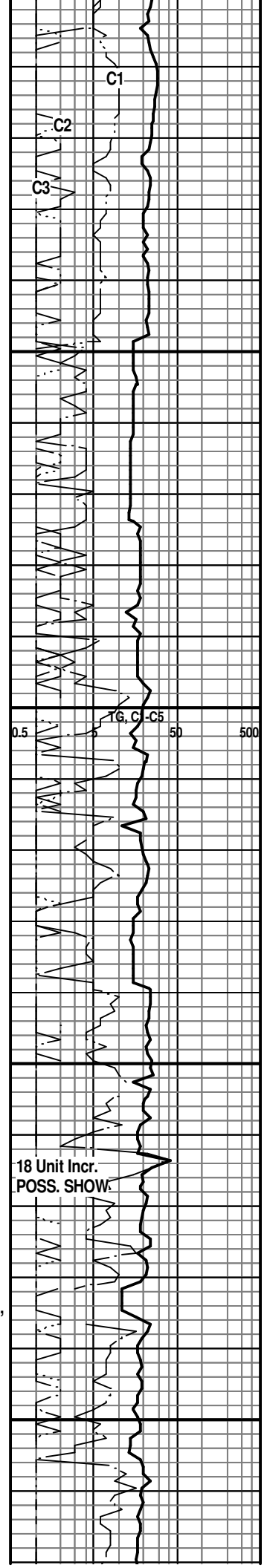
LANSING 'B' 4279(-2230)
LM; tan to off wh, lt brn, foss ip, scat small pelletal lmst, well cem, dull yel min fluor, ns.

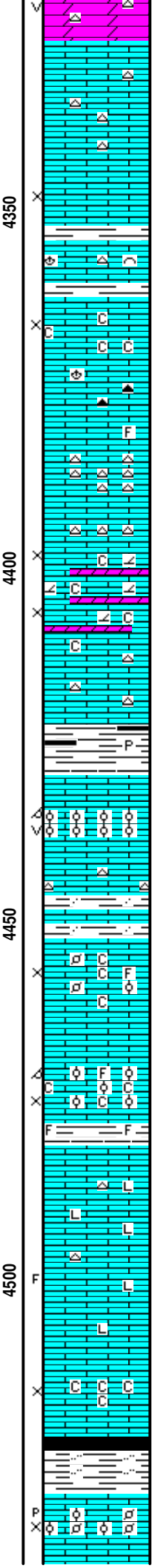
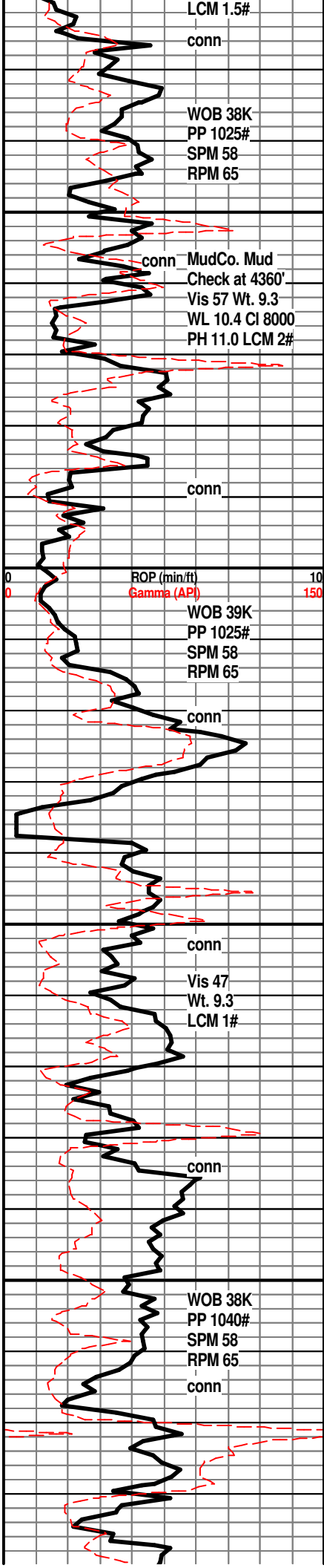
LM; lt gy, rare off wh, foss ip, scat fair interpart w/vug por, lt yel min fluor, no vis stn, no odor, barren, ns.

SH; dk gy, platy, pyr ip.

LM; wh, off wh, med xln, v. chalky, soft

LM; tan to lt brn, sucrosic, med por and vug por, lt vel





LM; tan to lt brn, sacrosic, gd p-p and vug por, lt yel min fluor, no stn or odor, scat off wh cht, ns.

LM; lt to med brn, most dense, blocky, hd, scat gy to off wh cht, no vis por, ns.

LM; It brn, med xln to gran text, fair interxln por, lt yel min fluor, no stn or odor, ns.

LM; med to dk brn, foss ip, dense

LM; off wh, tan, buff, fxln w/scat sucrosic text, partly chalky soft mtx, fair to gd interxln por, dull yel min fluor, no stn or odor, ns.

LM; tan to lt brn, f to med xln, most dense, abnt gy occ foss cht, no fluor, ns.

LM; tan to lt brn, buff, med xln, scat cse opaque spar calc xtals, interbdd sucrosic text partly dolomitic lmst, v. dull yel fluor, no stn or odor, occ soft chalky mtx, barren, ns.

LM; med brn, hd, scat gy cht, tite

SH; dk gy, trc blk, sticky ip, rarely pyr

LANSING/KC. 'H' 4429(-2380)

LM; tan to buff, lt brn, oolitic, med size moldic por, brittle, well dev. vug por ip, dull yel min fluor only, no stn or odor, no gas kick

LM; tan to lt brn, hd, micritic, occ gy oolitic cht

SH; grn, gy grn, platy, silty ip.

LM; wh to off wh, foss ip, most med xln w/soft chalky mtx, fair to poor interxln por, dull yel fluor, no stn or odor, ns.

LM; off wh, tan, buff, foss w/scat oolitic lmst, fair oomoldic w/interpart por, occ soft chalky mtx, no fluor, ns.

SH; med to dk gy, platy, foss ip.

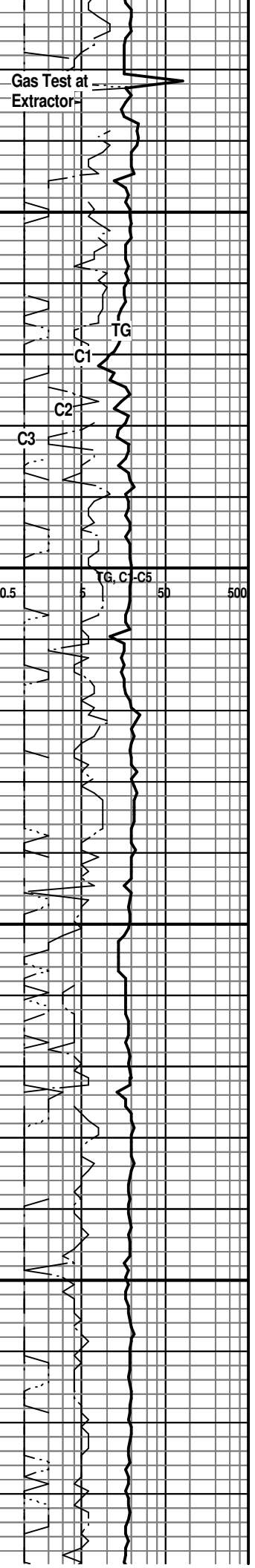
LM; lt to med gy brn, lt brn, most micritic to litho, dense, rare gy cht, tite

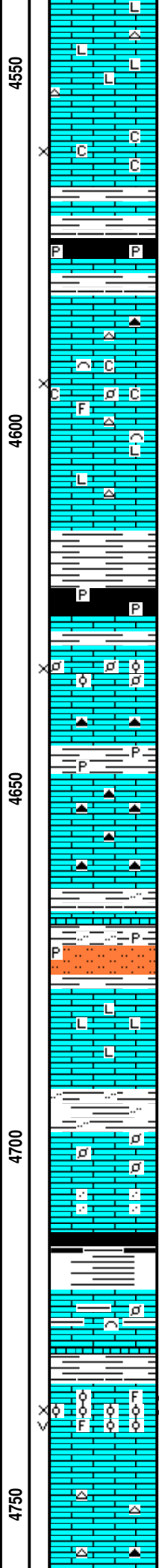
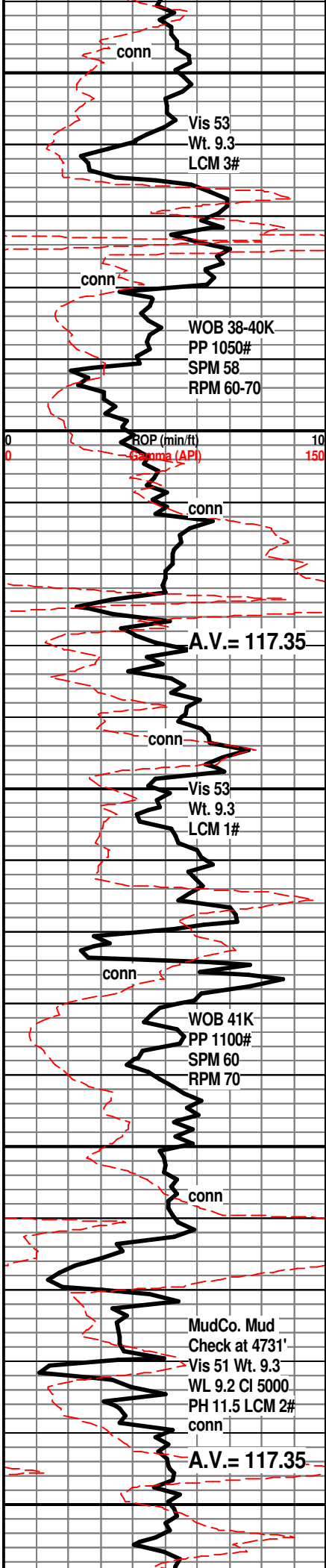
LM; tan to lt brn, buff, fxln, most hd - micritic, trc frags w/spar calc edge xtals, no fluor, no stn or odor, ns.

LM; off wh, tan, wh, f to med xln, poor interxln por, scat soft chalky mtx, no fluor, no stn, ns.

SH; dk gy- blk, platy, w/much soft grn silty sh.

LM; off wh, buff, tan, foss - scat small pellets and ooids, fair interpart por, scat p-p por, dull yel fluor, no stn or odor, no gas kick, ns.





LM; tan to cream, buff, hd, blocky, most litho to micritic, trc tan/off wh cht, tite

LM; tan to cream, buff, med xln, some gran text, occ soft chalky mtx, fair interxln por, lt yel min fluor, no stn or odor, ns.

STARK SHALE 4573(-2524)

SH; dk gy, blk, pyr ip, platy

SWOPE 4581(-2532)

LM; off wh, tan, buff, occ foss mat, much hd micrite, interbdd amber to lt gy cht, occ fxln chalky lmst w/poor to fair interxln por, scat lt yel min fluor, no stn or odor, ns.

LM; off wh, tan, lt brn, fxln to litho, dense, scat off wh to wh cht, no vis por, ns.

SH; blk, carb ip, occ pyr, blocky

HERTHA 4628(-2579)

LM; off wh, tan, cream, foss w/occ small pellets and ooids, most well cem, poor to no vis por, lt yel min fluor, no stn, no gas kick, ns.

LM; med to dk brn, hd, blocky, scat amber cht

SH; med to dk gy, lmy ip, occ pyr

LM; med to dk brn, v. hd, abnt dk brn/smoky cht, tite

BASE KANSAS CITY 4664(-2615)

SH; grn, gy grn, silty w/interbdd sltst, occ pyr

LM; off wh, tan, wh, buff, hd, micritic to litho, pale blue/yel min fluor, no vis por, no stn or odor, ns.

SH; grn, gy grn, brn, some varic sh, v. firm, occ silty

LM; off wh, tan, buff, foss ip - finely pelletal, well cem, no vis por, lt yel min fluor, no stn or odor, interbdd gritty text partly sandy lmst, ns.

SH; varic, grn/brn, rust red, dk gy-blk, platy, occ silty, some v. soft - sticky

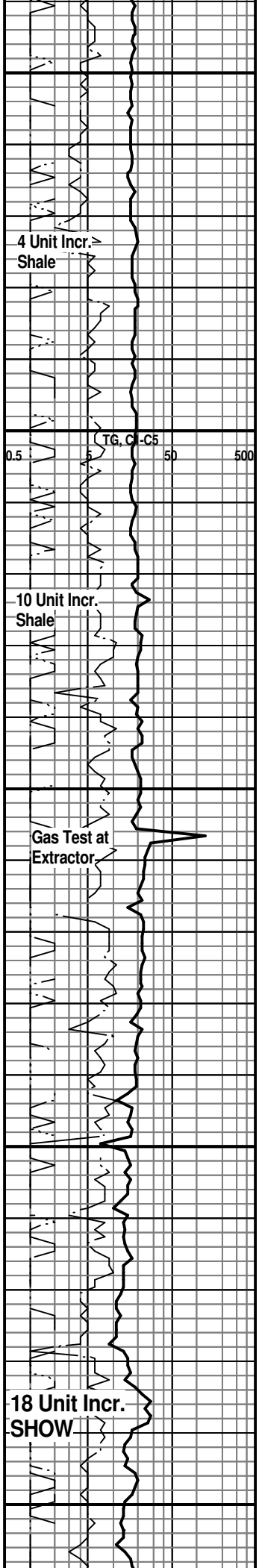
MARMATON 4720(-2671)

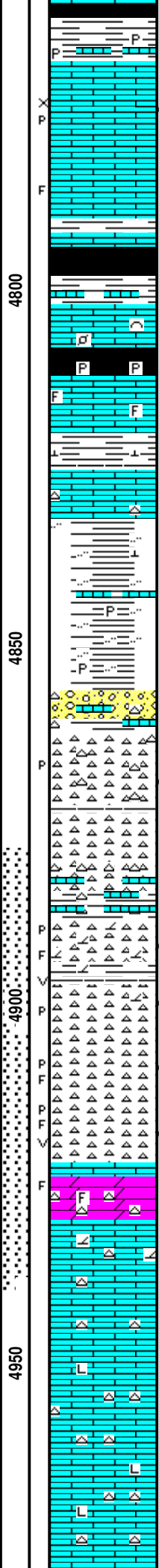
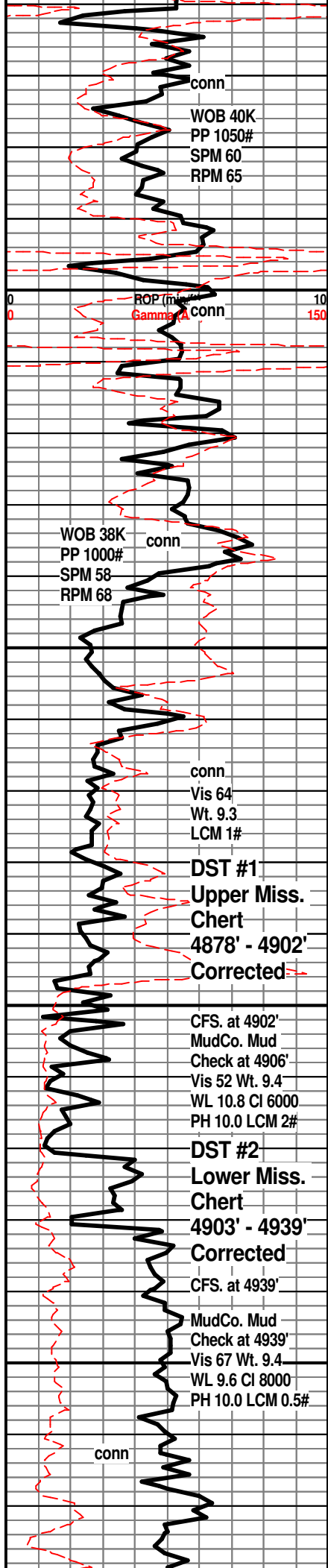
LM; lt brn, buff, grn tint - partly argil, most dense, rarely foss, no vis por, ns.

ALTAMONT 4733(-2684)

LM; lt golden brn, foss - partly oolitic, gd interpart w/vug por, brite yel fluor, SFO, spotted to even lt brn oil stn, gas bubbles, fair oil odor, gd cut

LM; tan to lt brn, buff, most dense, blocky, hd, no vis por, scat tan to amber cht, dull yel to no fluor, ns.





SH; blk, platy, carb ip.

PAWNEE 4768(-2719)

LM; off wh, wh, buff, foss to finely pelletal, fair interpart w/rare p-p por, scat lt brn spotted oil stn, med to brite yel fluor, VSSFO in rare pcs, trc gas bubbles, faint odor

LM; tan to off wh, cream, most dense, trc frags w/trc edge stn, lt yel fluor, no odor, most tite

SH; blk, carb ip, platy, trc gas

LM; tan to lt brn, scat well cem foss, much dense micrite, no vis por, no fluor, ns.

CHEROKEE SHALE 4808(-2759)

SH; blk, carb ip, occ pyr, platy

LM; lt brn, tan, dense, blocky, rare well cem foss, dull yel min fluor, ns,

SH; med gy grn, some varic, calc

LM; tan to lt brn, blocky, v. hd, rare gy cht, tite

SH; varic, grn, gy, maroon, yel, fiss to flakey, rarely pyr, silty ip.

CONGL; nodular lmst, varic cht, some weath. cht w/spotted dk brn dead oil stn, scat fresh gy to opaque cht, much varic shale

REWKD. MISS. CHERT 4862(-2813)

CHT; wh, off wh, pale grn, some varic cht, fresh and tripolite, fair p-p por, spotted med brn oil stn, no odor, few gas bubbles, no cut

CHT; off wh, pale grn, hd, much fresh cht, hd brn lmy cht, scat cse qtz xtals

CHT; wh, off wh, fresh w/much tripolite, grainy text, partly dolomitic, fair p-p w/rare vug por, trc frags, scat med to brite yel fluor, no FO., no odor, gas bubbles, weak/no cut

DST #1: Upr. Miss. Chert 4878'- 4902'

CHT; wh, off wh, fresh and trip, fair to gd p-p por w/scat frags, much brite yel fluor, spotted lt brn stn, trc FO., fair odor, fair cut, gas bubbles

CHT; wh, off wh, fresh and tripolite, some gd p-p and vug - leached por, brite yel fluor, spotted lt brn live stn, SSFO, fair odor, gas bubbles

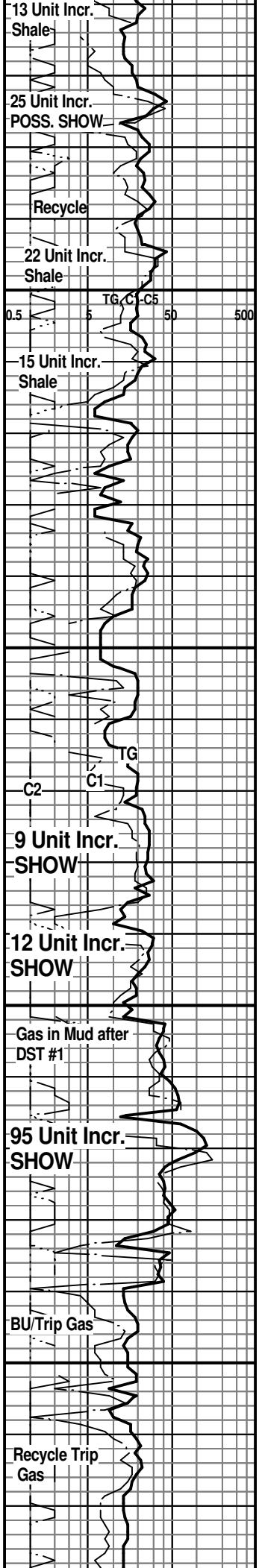
MISSISSIPPI LMST. 4922(-2873)

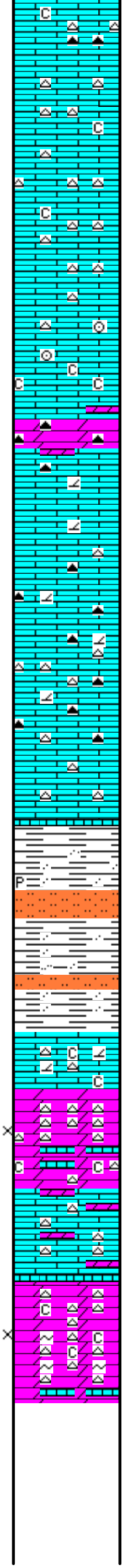
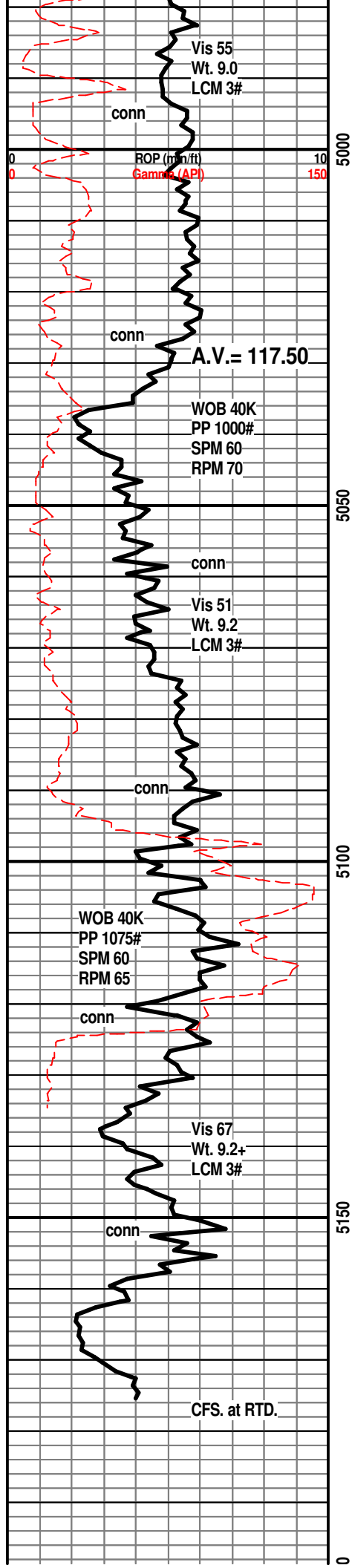
DOL AND LMST; wh, gy, sucrosic, foss ip, much chert w/occ frags, poor interxln por, dull yel min fluor, no stn, ns.

LM; grn, gy grn, hd, blocky, interbdd dolomitic lmst w/sucrosic text, dense

DST #2: Lwr. Miss. Chert 4903' - 4939' Corrected Depths to LOG

LM; tan to off wh, occ pale grn, hd, most micritic to litho, cherty ip w/opaque off wh to pale brn-org, no vis por, ns.





LM; wh, off wh, rare lt gy, med xln w/scat chalky mtx, interbdd org cht, most dense, blocky, no fluor, no stn or odor, ns.

LM; off wh, wh, tan, med xln ip, cherty, dense, v. rare partly chalky mtx, no fluor, ns.

LM; dull red brn, foss ip, fxln, most dense, cherty ip, tite

LMY DOL; med gy to gy brn, lt gy, med xln, v. cherty w/med to occ dk gy/dove gy fresh cht, no vis por, occ sucrosic text, dull yel min fluor, no stn or odor, no gas kick, ns.

LM; lt to med brn, hd, partly dolomitic, chert w/much gy/dove gy cht, no vis por, no fluor, ns.

LM; med brn, med gy brn, interbdd dolomitic lmst and sandy text dolo w/fair interxln por, dull yel min fluor, scat gy cht, no stn or odor, ns.

KINDERHOOK SHALE 5095(-3046)
SH; med grn, gy grn, occ varic, firm, silty ip w/interbdd sltst.

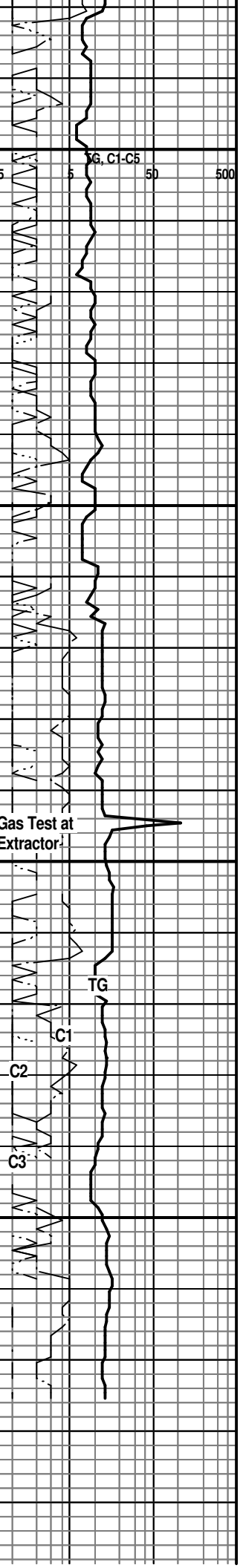
SH; med gy grn, some varic shales, silty to sandy, firm

VIOLA 5124(-3075)
LM; off wh, dolomitic, some soft chalky mtx, dull yel fluor, no stn, ns.

DOL; tan to buff, off wh, sucrosic, fair to gd interxln por, abnt wh foss to spicular cht, interbdd tan to cream dolomitic lmst, dull yel min fluor, no stn or odor, ns.

LM; tan to off wh, buff, med to cse xln, partly dolomitic, dense, scat wh cht, ns.

DOL; wh, buff, lt gy, sucrosic, very cherty w/dolomitic chert interbdd, fair to gd interxln por, chalky mtx ip, occ glau, dull yel min fluor, no stn or odor, no gas kick, barren, ns.



RTD. 5180' at 1:45 PM. 5/8/12

