

LITHOLOGY STRIP LOG

WellSight Systems

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

Well Name: Heft #3-5
Location: 2590' FSL & 770' FEL, Sec. 5-T28S-R18W, Kiowa Co., KS.
Licence Number: 15-097-21715-0000 Region: Einsel Field
Spud Date: 1/24/2012 Drilling Completed: 2/4/2012
Surface Coordinates: 2590' FSL & 770' FEL, Sec. 5-T28S-R18W

Bottom Hole Same as above
Coordinates:
Ground Elevation (ft): 2216' K.B. Elevation (ft): 2227'
Logged Interval (ft): 3400' To: 4940' Total Depth (ft): 4940'
Formation: Kinderhook at Total Depth
Type of Drilling Fluid: Freshwater/Gel to 3220'; Chemical Gel 3220' to 4940'

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OPERATOR

Company: Strata Exploration, Inc.
Address: P.O. Box 401
Fairfield, IL. 62837-0401

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(Lansing 'A') 4236' - 4252'(Corrected Depths to Log) Test Times 15"-45"-45"-90" IFP Strong BOB Blow/30 Sec., FFP Strong BOB Blow/1 Min., no Blowback on SI's; REC: 989' Gas in Pipe, 2' GCM(5%G, 95%M), 67' WM(40%W, 60%M), 120' SW(CI 130,000, Mud 5500); IFP 13-46#, ISIP 1386#, FFP 53-106#, FSIP 1368#, IHP 2116#, FHP 2059#, BHT 116 Deg. F.

DST #2(Mississippi Chert) 4788' - 4848'(Corrected Depths to Log) Test Times 15"-45"-45"-90" IFP Fair to Strong Blow BOB/11 Min., FFP Strong Blow BOB/6 Min., no Blowback on SI's, no Gas to Surface; REC: 600' Gas in Pipe, 185' OCM(4%O, 96%M), No Water; IFP 30-64#, ISIP 1077#, FFP 81-106#, FSIP 1064# and Building, IHP 2530#, FHP 2354#, BHT 120 Deg. F.

DST #3(Mississippi Chert) 4848' - 4863'(Corrected Depths to Log) Test Times 15"-45"-45"-90" IFP Strong Blow BOB/6.5 Min, FFP Strong Blow BOB/7.5 Min., 1" Blowback, no Gas To Surface; REC: 60' Gas in Pipe, 25' SOCMW(1%O, 29%M, 70%W), 496' SW(CI 120,000, Mud 10,400); IFP 43-203#, ISIP 1420#, FFP 210 - 479#, FSIP 1420#, IHP 2454#, FHP 2388#, BHT 127 Deg. F.

Comments

1/24/12 MIRU Sterling Drilling Co. Rig #1, Spud at 9:00 PM.; 1/25/12 TD. 573' - TOH to run 8 5/8" Surface Casing; 1/26/12 TD. 573' - WOC; 1/27/12 Drilling at 1170'; 1/28/12 Drilling at 2362'; 1/29/12 Drilling at 3208'; 1/30/12 Drilling at 3951'; 1/31/12 TD. 4248' - DST #1; 2/1/12 TD. 4512' - Bit Trip; 2/2/12 TD. 4736' - CFS; 2/3/12 TD. 4844' - TIH after DST #2; 2/4/12 Drilling at 4912' - Reached Total Depth of 4941' at 8:15 AM. - ran Halliburton Logs, LTD. 4942'; 2/5/12 RTD. 4940' - LDDP, Set 5 1/2" Production Casing.

Set new 8 5/8"(23#) Surface Casing at 561' w/ 450 sx. Cement did Circulate(Basic Energy Services). PD. at 4:20 AM. 1/26/12.

Set new 5 1/2" (15.5#) Production Casing at 4930' w/200 sx. "Strata Blend". PD. 5:00 PM. 2/5/12.

Surveys: 1 Deg. at 573'(Surface Casing), Second Survey at 573' after reaming to 14.75" = 0 Deg. deviation; 0.25 Deg. at 4248'(DST #1); 0.75 Deg. at 4844'(DST #2).

Pipe Strap at 4248'(DST #1): Strap 1.94' Short to the Board, no correction made to the Board.


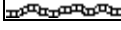
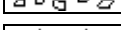

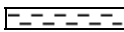







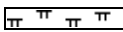

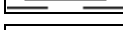

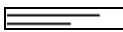

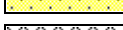
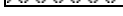
After review of the Halliburton Logs, DST data, and positive shows of Hydrocarbons, the operator elected to set new 5 1/2" Production Casing for completion in the Mississippi Chert.

LOG TOPS: Chase 2462(-235), Stotler Lmst. 3428(-1201), Howard 3633(-1406), Heebner Shale 4069(-1842), Toronto 4084(-1857), Brown Lmst. 4224(-1997), Lansing 'A' 4232(-2005), Lansing/KC. 'H' 4401(-2174), Stark Shale 4538(-2311), Hertha 4602(-2375), Base Kansas City 4638(-2411), Pleasanton 4655(-2428), Marmaton 4680(-2453), Pawnee 4724(-2597), Cherokee Shale 4764(-2537), Miss. Chert 4826(-2599), Kinderhook Shale 4895(-2668), Kinderhook Sand 4916(-2689).








































































NOTE: This log was shifted downward by 4' for correlation purposes with the Halliburton LOGS.

NOTE: This log was shifted downward by 2' for correlation purposes with the Halliburton LOGS.

ROCK TYPES

 Anhy  Bent  Brec  Cht	 Clyst  Coal  Congl  Dol	 Gyp  Igne  Lmst  Meta	 Mrlst  Salt  Shale  Shcol	 Shgy  Sltst  Ss  Till
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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
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OTHER SYMBOLS

- POROSITY**
- E Earthy
 - F Fenest
 - F Fracture
 - X Inter
 - M Moldic
 - O Organic
 - P Pinpoint

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

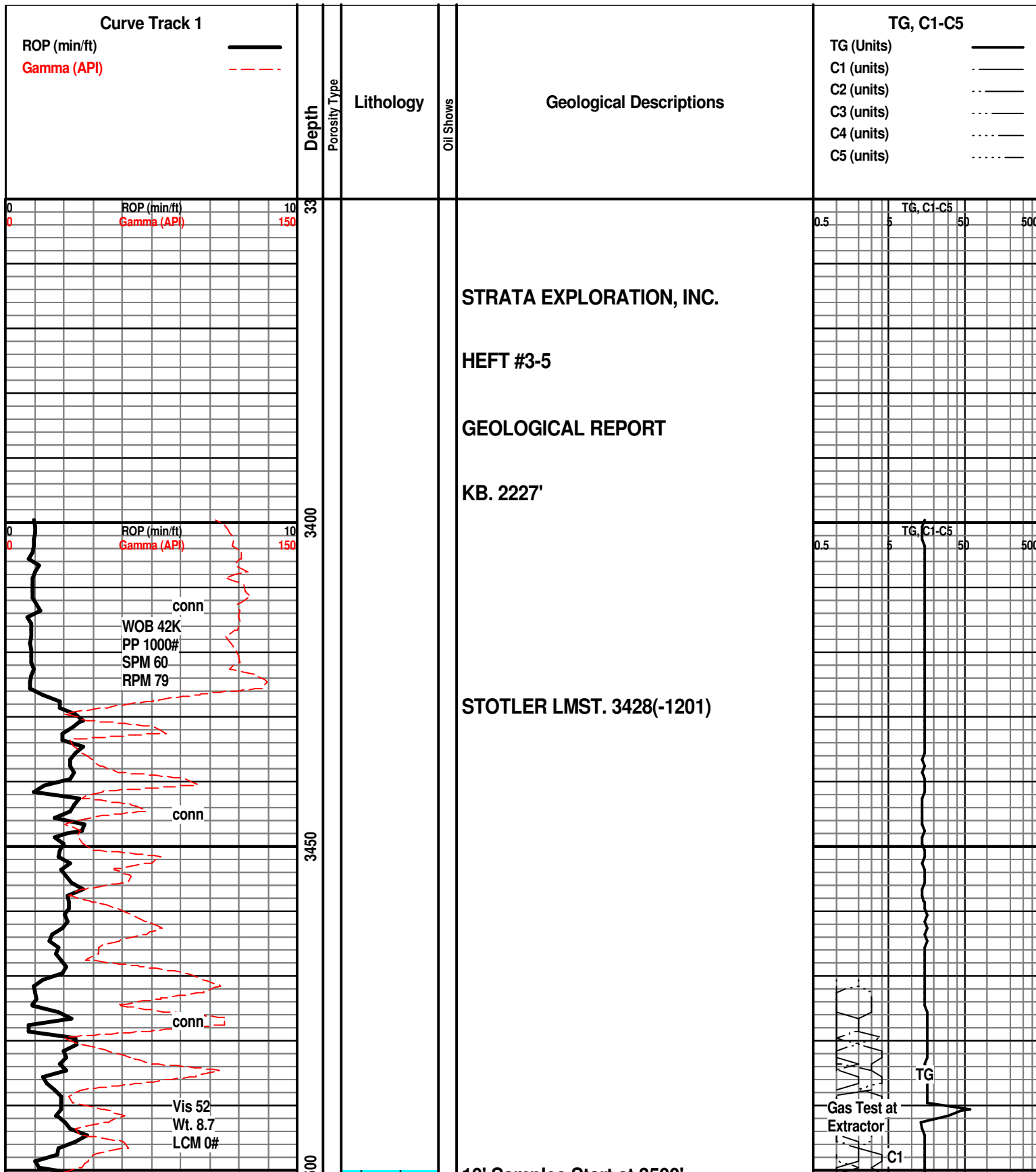
- ROUNDING**
- R Rounded
 - S Subrnd
 - a Subang
 - A Angular

- Spotted
- Ques
- Dead

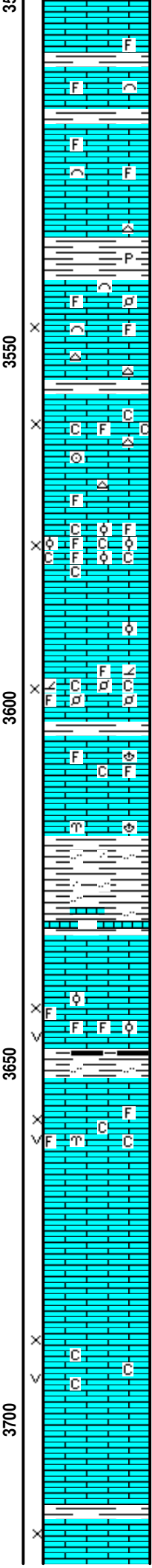
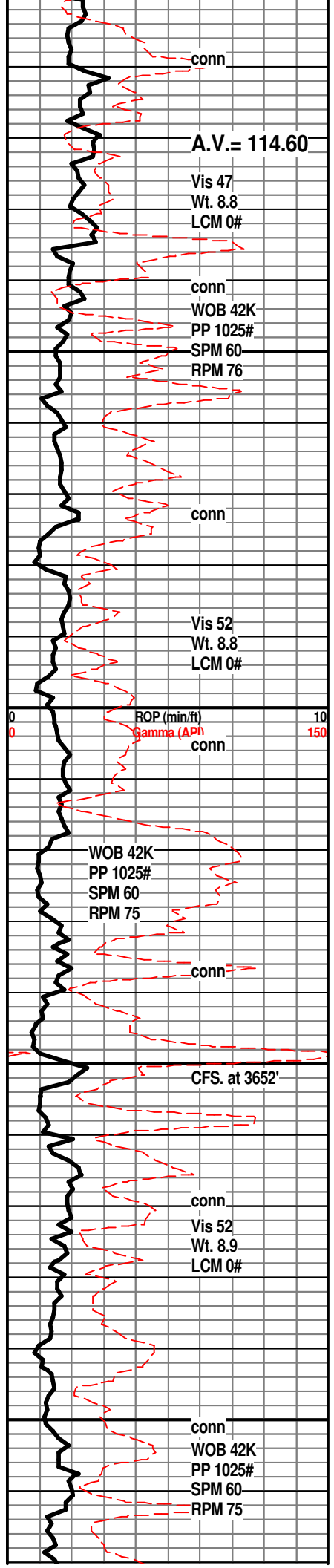
- EVENT**
- Rft
 - Sidewall

- INTERVAL**
- Core
 - Dst

- OIL SHOW**
- Even



10 Samples Start at 3500



LM; tan to med brn, foss ip, most well cem, poor interpart por, lt yel fluor, ns.

LM; off wh, tan, buff, foss ip, most dense, micritic, hd, no vis por, ns.

SH; med gy, platy, occ pyr

LM; tan to lt brn, v. foss, fair interpart por, lt to med yel fluor, occ foss gy cht, no stn or odor, no gas kick, ns.

LM; off wh, wh, fxln, v. chalky-soft ip, poor vis interxln por, lt yel min fluor, ns.

LM; tan to lt gy brn, hd, blocky, rarely foss, no vis por, scat gy foss cht, interbdd dk brn micrite, tite

LM; tan to buff, highly foss, minor chalky mtx, gd interpart por, rarely oolitic, lt yel fluor, no stn or odor, no gas kick, ns.

LM; off wh, buff, tan, fxln to sucrosic text, partly dolomitic, foss ip, fair to gd interxln por, interbdd finely pelletal lmst, dull to lt yel min fluor only, ns.

LM; tan to buff, gy brn, foss ip, poor interpart por, minor soft chalky mtx, dull/lt yel fluor, no stn or odor, no gas kick, ns.

SH; med gy to gy grn, silty to sandy, firm

HOWARD 3632(-1405)

LM; lt brn, dense, micritic, tite, blocky

LM; tan to cream, f to med xln, scat foss mat, fair to gd interxln por, occ small vug por, occ soft chalky mtx, no stn or odor, no gas kick, ns.

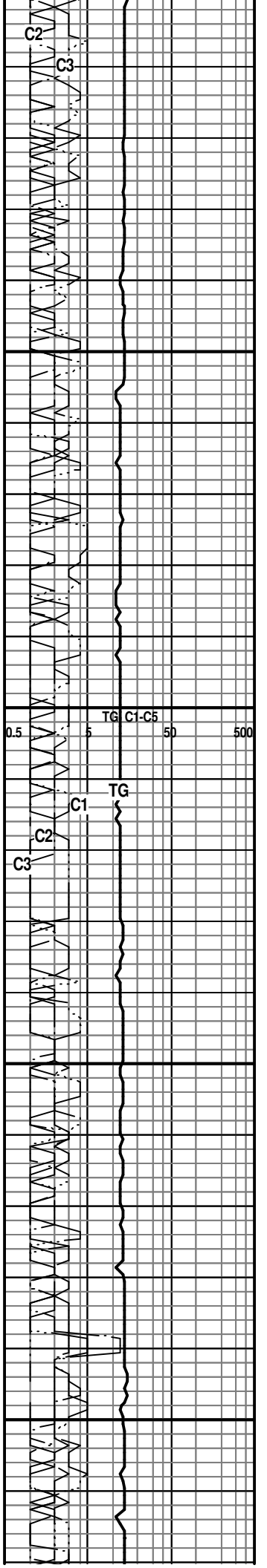
SH; med gy, some dk gy/blk, firm, platy, silty

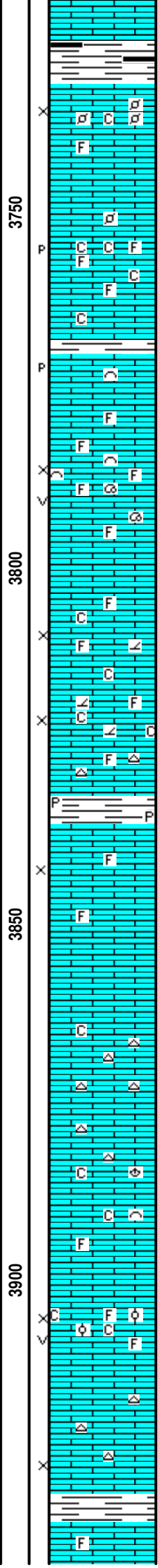
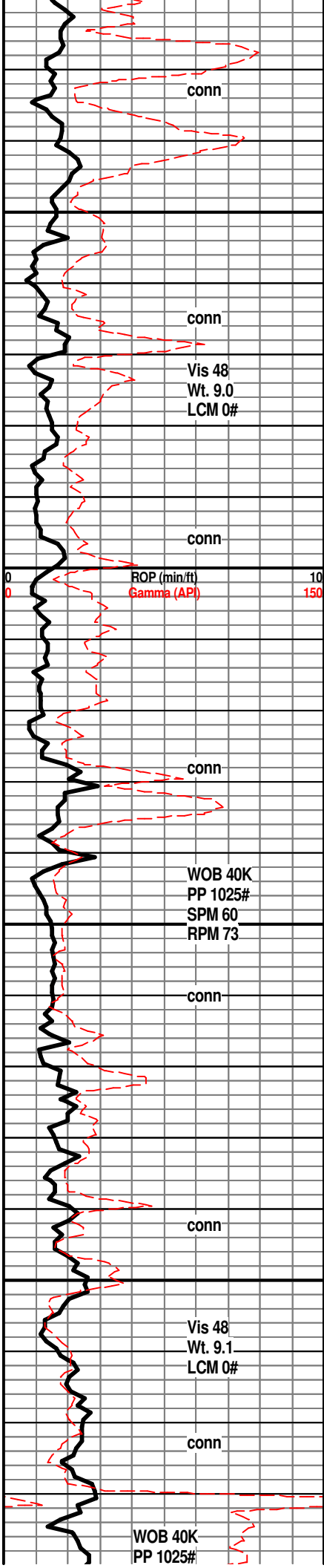
LM; tan to cream, buff, f to med xln, scat foss mat, occ soft chalky mtx, fair interpart por, rare small vug por, dull yel min fluor only, ns.

LM; tan to lt brn, off wh, fxln to dense - micritic, most blocky, tite

LM; off wh, cream, buff, f to occ med xln, fair interxln w/scat vug por, minor soft chalky mtx, lt yel min fluor, ns.

LM; tan to lt brn, fxln, scat med xln, fair interxln por,





interbddd med brn nd micrite, no fluor, no stn or odor, ns.

SH; med to dk gy, firm

TOPEKA 3732(-1505)

LM; lt brn, tan, buff, foss to finely pelletal ip, poor to fair interpart por, minor soft chalky mtx, no fluor, no stn, ns.

LM; tan to lt brn, foss ip, some gran text, fair interxln w/scat p-p por, minor soft chalky mtx, dull yel min fluor, ns.

LM; lt brn, tan, v. foss, scat gd interpart w/some well dev. vug por, much foss hash ip, dull yel min fluor, no stn, no gas kick, ns.

LM; off wh, tan, cream, foss to fxln, scat fair to gd interpart/interxln por, occ soft chalky mtx, interbddd dolomitic lmst w/sucrosic text, dull to lt yel fluor, no stn or odor, ns.

SH; dk gy, firm, platy, occ pyr

LM; tan to lt brn, buff, f to med xln, rarely foss, fair to gd interxln por, scat cse spar calc xtals, dull to lt yel min fluor, no stn, no gas kick, ns.

LM; off wh, tan, buff, fxln, occ foss mat, poor to fair interpart por, interbddd gy occ foss cht, no fluor, no stn or odor, ns.

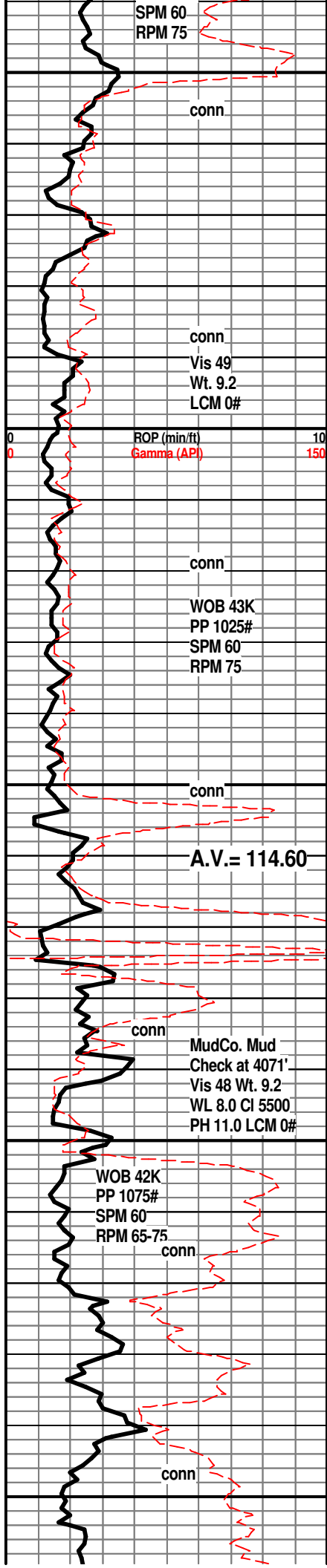
LM; tan to buff, lt brn, foss ip, scat dense blocky micrite, minor soft chalky mtx, no fluor, no stn or odor, ns.

LM; lt brn, foss - partly oolitic, some foss hash, fair interpart w/occ vug por, scat chalky soft mtx, lt yel fluor, no stn or odor, ns.

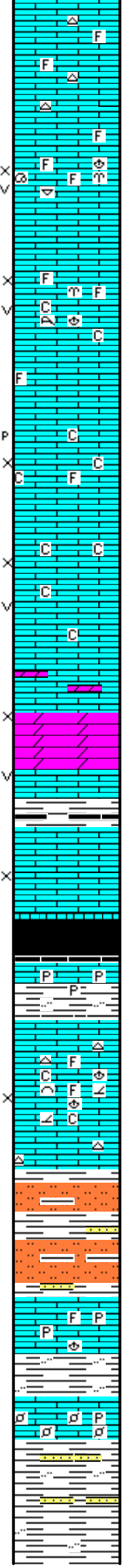
SH; dk gy, gy grn, trc blk, platy

LM; tan to lt brn. buff. foss ip. interbddd med xln lmst.





3950
4000
4050
4100
4150



some tite, occ off wh to gy cht, no fluor, no stn or odor, ns.

LM; tan to lt brn, foss, scat well dev. interpart and small vug por, lt yel min fluor only, no stn odor, ns.

LM; tan to lt brn, buff, foss to med xln, some gran text, fair to gd interxln w/occ small vug por, minor soft chalky mtx, ns.

LM; tan to off wh, buff, foss ip, scat fair to gd interpart w/occ p-p por, soft chalky mtx, dull yel fluor, ns.

LM; off wh, tan, fxl n to sucrosic text, fair interxln w/occ vug por, lt yel min fluor, minor soft chalky mtx, no stn or odor, no gas kick, ns.

LM; tan to buff, fxl n, some sucrosic text, partly dolomitic w/interbdd dolomitic lmst, poor to fair interxln w/rare small vug por, dull yel min fluor, ns.

SH; dk gy, trc blk, platy

LM; tan to off wh, buff, foss ip, poor interpart por, scat chalky mtx, dull yel fluor, no stn or odor, ns.

HEEBNER SHALE 4069(-1842)
SH; blk, carb ip, blocky
LM; med brn, dense, micritic, pyr ip.

SH; grn, silty, occ pyr, soft/sticky ip.

TORONTO 4084(-1857)
LM; off wh, tan, lt gy, foss ip, hd, cherty ip, tite

LM; off wh, lt brn, med xln, scat sucrosic text - partly dolomitic, fair interxln por, scat foss mat, interbdd soft chalky mtx, lt yel fluor, no stn or odor, ns.

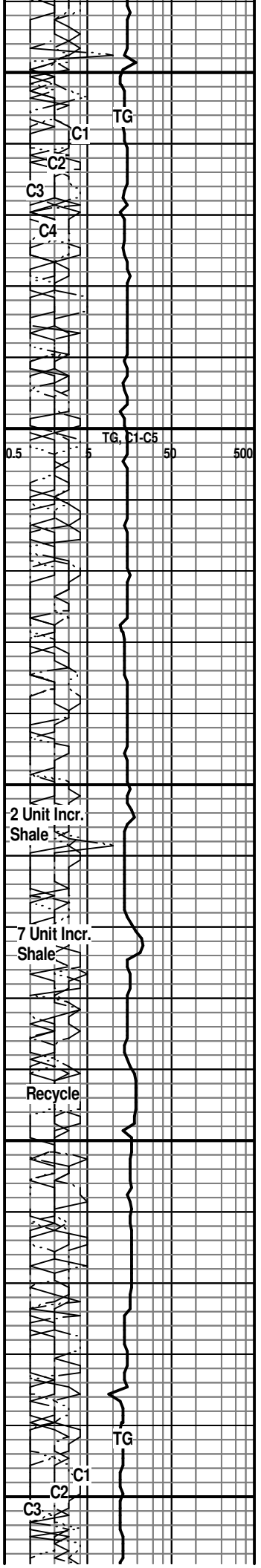
DOUGLAS SHALE 4103(-1876)
SH; lt gy, grn, silty w/interbdd slitst and shaly ss strngs.

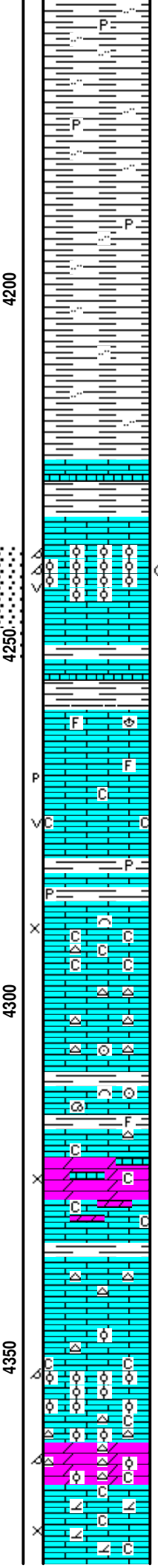
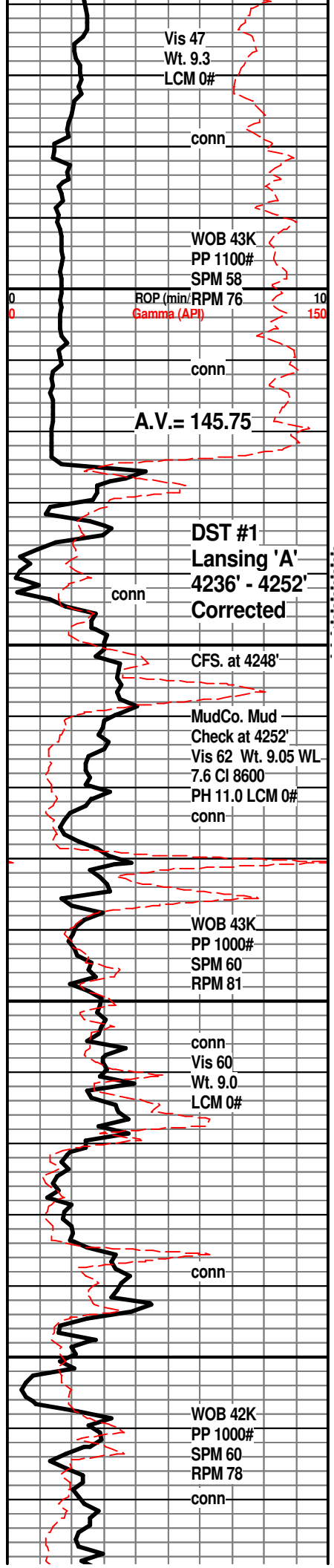
LM; med brn, dense, rarely foss, pyr ip, hd

SH; lt to med gy, silty ip.

LM; med to dk brn, foss - pelletal, well cem, occ pyr, tite

SH; lt to med gy, grn, silty ip, interbdd thin mica ss strngs.





SH; lt to med gy, silty ip, much smooth, rare dissem. pyr

SH; med gy, firm, platy to flakey, smooth, rarely silty

BROWN LMST. 4224(-1997)
LM; med to dk brn, dense, micritic, tite

LANSING 'A' 4232(-2005)
LM; lt to med brn, oolitic, med to occ lrg moldic por, occ vug por, brittle ip, med to brite yel fluor, gas bubbles, trc. dk brn oil stn, no odor, gas show

DST #1: Lansing 'A' 4236' - 4252' (Corrected to LOGS)

LANSING 'B' 4259(-2032)
LM; tan to lt gy brn, foss ip, most well cem, no vis por, dull yel fluor, ns.
LM; tan to lt/med gy, f to med xln, scat well dev. p-p and vug por, occ rextalized vugs, lt yel min fluor only, occ soft chalky mtx, no stn or odor, no gas kick, ns.
SH; med to dk gy, pyr ip.

LM; off wh, wh, tan, f to med xln, fair interxln por, much soft chalk and chalky mtx, lt yel min fluor, no stn or odor, interbdd gy occ foss cht, ns.

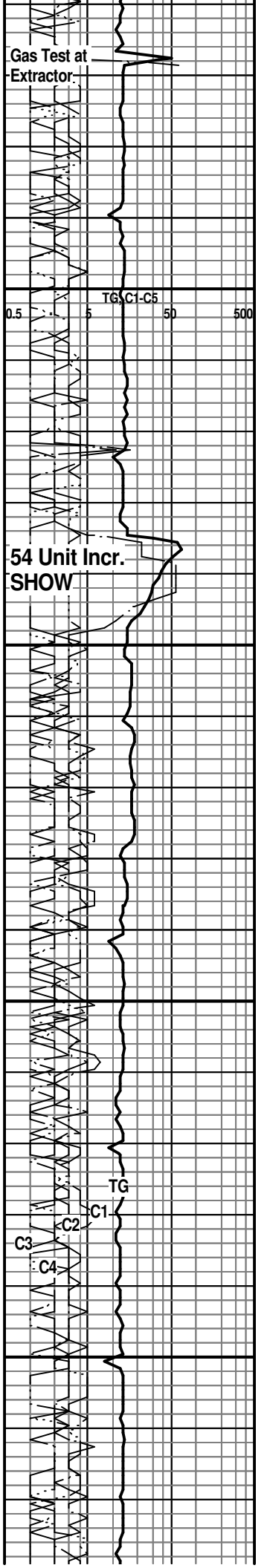
LM; lt to med brn, foss ip, most dense, tite
SH; grn, gy grn, foss ip, platy

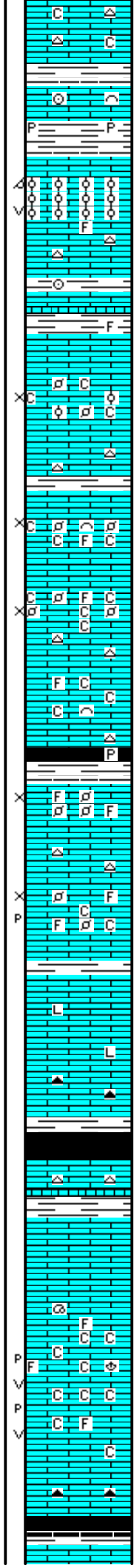
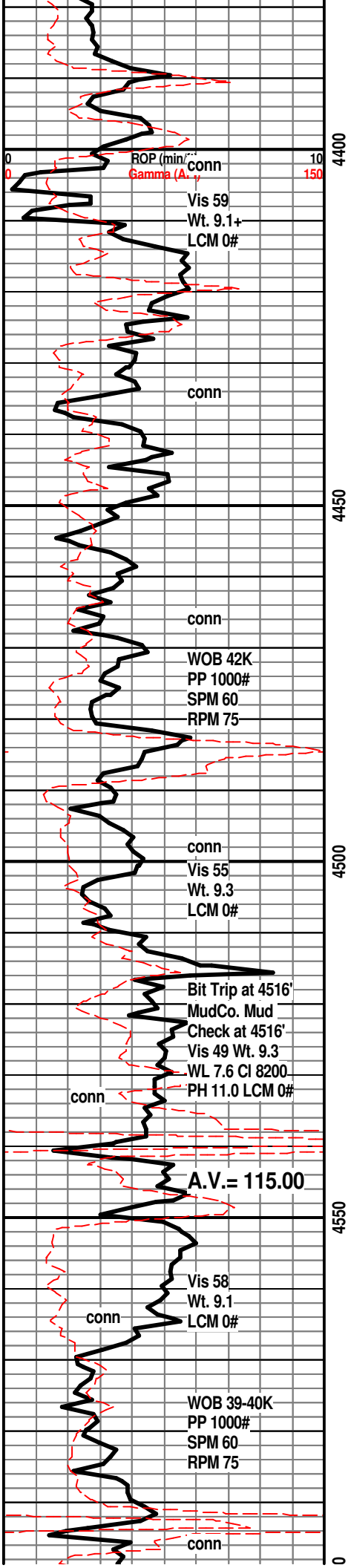
DOL; off wh, tan, buff, sucrosic to med rhombic, interbdd dolo. lmst w/foss mat, scat cse spar calc xtals, occ chalky mtx, lt yel fluor, no stn or odor, no gas kick, ns.

LM; lt brn, buff, hd, cherty ip, tite

LM; off wh, tan, foss - oolitic, med size molds, interbdd wh oolitic cht, minor chalky mtx, scat gd oomoldic por, lt yel fluor, no stn or odor, ns.

LM; off wh, lt brn, buff, much sucrosic text - partly dolomitic, some cse spar calc xtals, soft chalky mtx, dolomitic ip, fair interxln por, lt yel fluor, ns.





LM; tan to cream, buff, fxl n dense, occ chalky mtx, poor/no vis por, no fluor, cherty ip, ns.

LM, med to dk brn, hd, foss ip, tite

SH; med to dk gy, firm, occ pyr

LANSING/K.C. 'H' 4401(-2174)

LM; tan to lt brn, oolitic, v. gd oomoldic por, occ vug por, scat foss mat, brittle, v. dull yel min fluor only, no stn or odor, no gas kick, ns.

LM; tan to lt brn, dense, occ cherty, tite

SH; grn, gy grn, fiss, foss ip.

LM; off wh, tan, foss, scat small pellets and oolites, partly chalky soft mtx, fair interpart por, no fluor, no stn, ns.

K.C. 'I' 4448(-2221)

LM; tan to buff, foss, scat small pellets, much soft chalky mtx, fair interpart por, dull to rarely lt yel fluor, no stn, no gas kick, ns.

LM; off wh, cream, buff, foss, finely pelletal ip, abnt soft chalky mtx, poor interpart por, minor gy cht, no fluor, ns.

LM; off wh, tan, wh, fxl n w/occ foss mat, chalky, soft, no fluor, ns.

SH; dk gy, blk, platy, occ pyr

K.C. 'J' DENNIS 4489(-2262)

LM; tan to lt brn, gran to foss, pelletal ip, loosely cem, fair interpart por, scat cse spar calc xtals, no fluor, no stn or odor, no gas kick, ns.

LM; tan to cream, lt brn, foss, partly oolitic, fair interpart w/occ p-p por, occ soft chalky mtx, rare gy to off wh cherty lmst, dull to lt yel fluor, no stn or odor, no gas kick, ns.

BIT OUT OF GAUGE - REAM BACK TO BOTTOM

LM; med to dk brn, dk gy, litho ip, blocky, micritic, scat smoky/dk gy cht

STARK SHALE 4538(-2311)

SH; blk, carb ip, trc gas

LM; med brn, gy brn, dense, cherty ip, tite

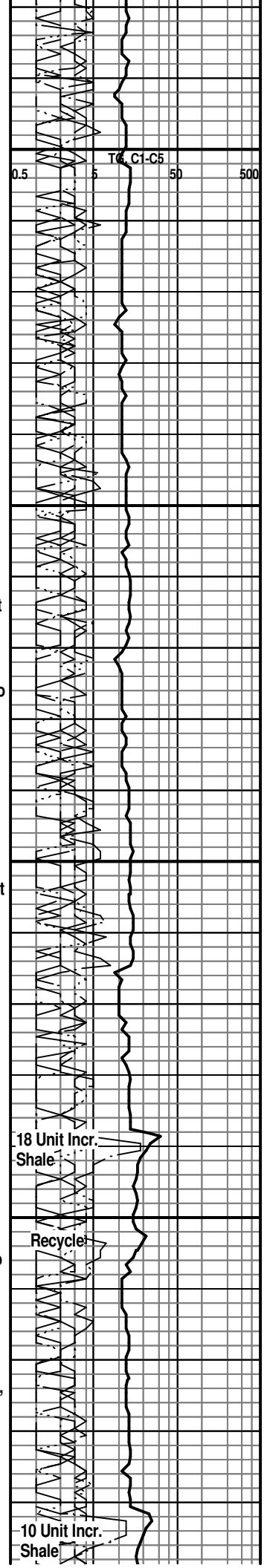
SWOPE 4550(-2323)

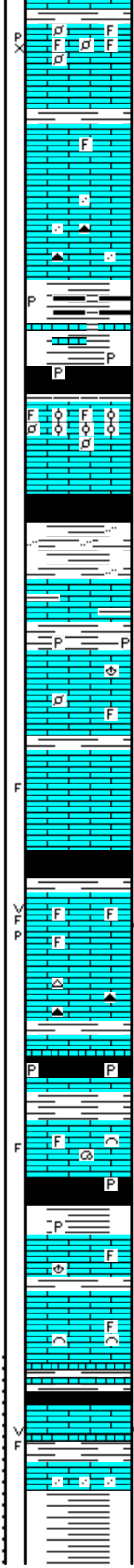
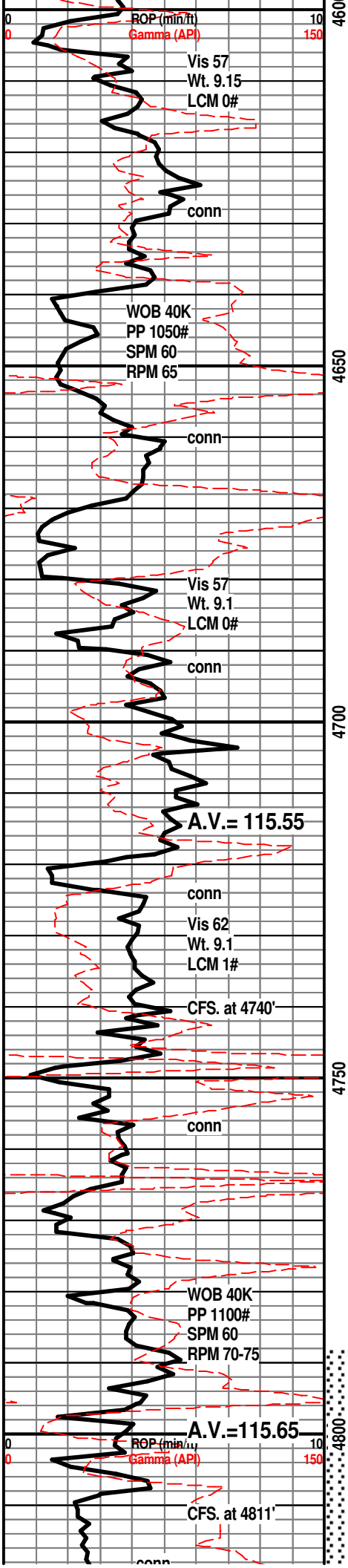
LM; lt gy, off wh, lt brn, most dense, micritic, blocky, no vis por, dull yel min fluor, ns.

LM; off wh, buff, med xln w/scat foss mat, well dev. p-p and small vug por, occ soft chalky mtx, no fluor, no stn, no odor, no gas kick, ns.

LM; med brn, blocky, dense, scat smoky/brn cht

SH; blk, carb ip, blocky, trc gas





HERTHA 4602(-2375)
LM; lt brn, gran to foss, pelletal ip, loosely cem foss, occ p-p por, dull yel min fluor only, no stn, no odor, no gas kick, barren

LM; med brn, gritty to occ sandy text, most well cem, interbdd dense litho lmst w/rare smoky cht, no vis por, no fluor, ns.

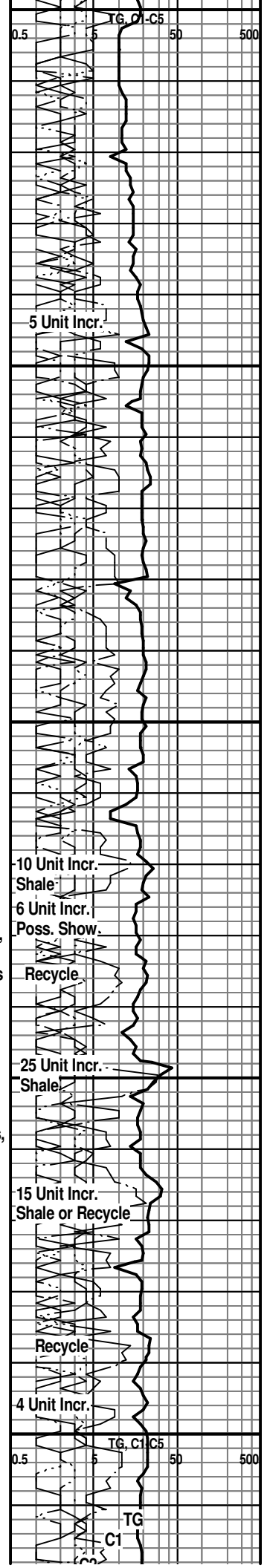
BASE KANSAS CITY 4638(-2411)
SH; varic: grn, brn, gy, maroon, dk gy to blk, occ pyr, fiss, interbdd lmy shale and thin lmst. strngs.

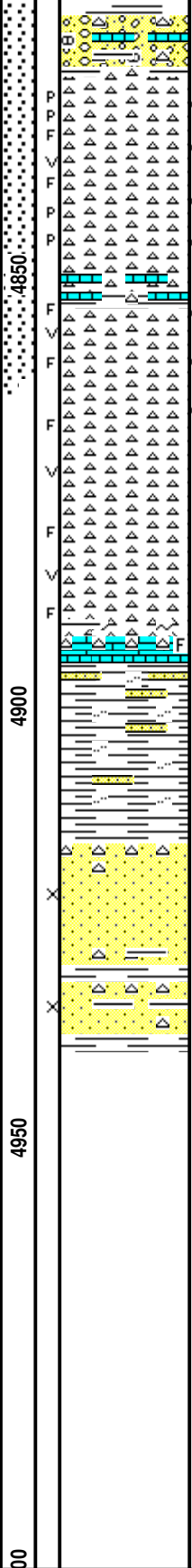
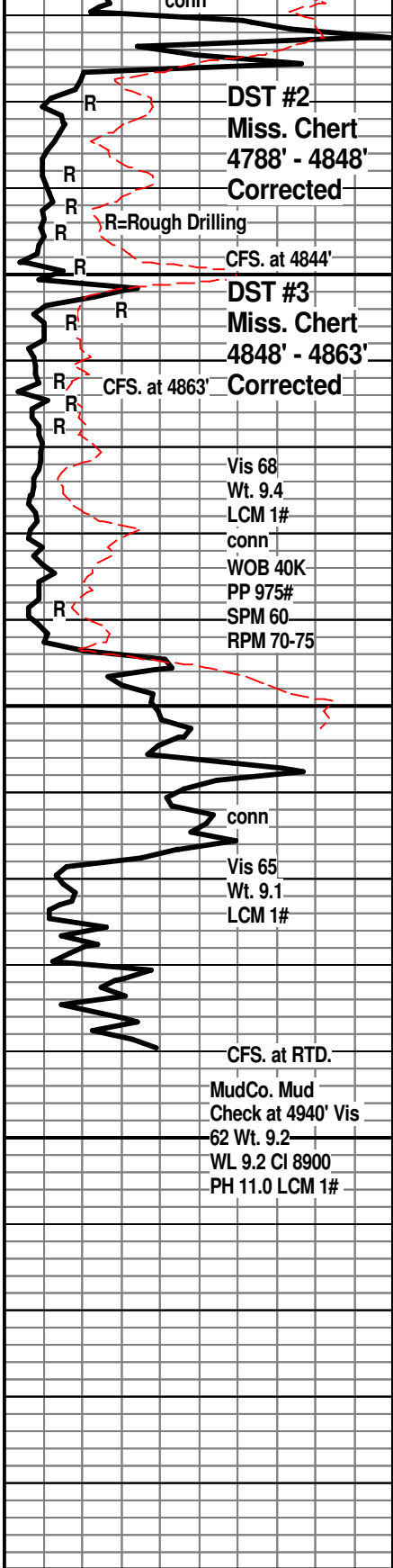
PLEASANTON 4655(-2428)
LM; off wh, tan, highly foss - oolitic at top, fairly well cem, lt yel min fluor, no stn or odor, lt yel min fluor, no gas kick, ns.
LM; med to dk brn, dense, tite
SH; med gy, grn, dk gy - blk, silty, soft, some varic. sh

MARMATON 4680(-2453)
LM; tan to buff, pale grn tint, argil ip, hd
SH; med gy, gy grn, firm, pyr ip.
LM; tan to buff, lt brn, occ foss, most well cem, some dense - micritic, hd, no vis por, no fluor, ns.
LM; tan to lt brn, most micritic, blocky, scat cse spar calc xtals, rare blk tar/gilsonite, poss frags, dull yel fluor, no odor, no live shows, most looks tite, no gas kick
SH; blk, carb ip, w/grn soft silty sh

PAWNEE 4724(-2497)
LM; tan to lt brn, fxln, scat foss mat, scat unconnected vug por, trc frags, spotted lt to med brn oil stn, no odor, few pcs. bleeding oil w/oil sheen/rainbow, fair/gd cut, occ p-p por also, med yel fluor, weak show - most looks tite
SH; blk, carb ip, trc gas, blocky to soft, occ pyr
LM; tan to lt brn, foss, most well cem, rare calc fld frags, no fluor, no vis por, ns.

CHEROKEE SHALE 4764(-2537)
SH; blk, dk gy, some varic, platy, occ pyr
LM; tan to lt brn, occ foss, most hd - dense, no vis por, no stn or odor, ns.
LM; lt brn, buff, tan, f to med xln, occ spar calc xtals, rare foss mat, trc blk tar/gils. in foss mat, poor/no vis por, no odor, no gas kick
SH; dk gy - blk, platy, pyr ip.
LM; off wh, tan, buff, fxln, occ small vug por w/spotted dk brn stn, some tar/gils, v. faint odor, poss frags, v. weak show
LM; off wh, tan, sl. sandy - gritty, hd, no vis por, no stn or odor, no gas kick, ns.
SH; varic, maroon, grn, red, platy to flakey





CONGL; weath lrg lmst nodules, cse lmst frags w/gilsonite-tar, varic cht, dense

MISSISSIPPI CHERT 4826(-2599)
 CHT; grn, pale grn, wh, grainy - tripolite, spotted med brn stn, fair odor, med/brite yel fluor, p-p and vug por, SFO, occ dead/residual oil, occ gas
 CHT; off wh, wh, pale grn, grainy - tripolite, fair to gd p-p/occ vug por, much med/brite yel fluor, faint odor, SFO, gas bubbles, some fresh cht w/occ frags, hd cherty lmst/shaly cht interbdd

DST #2: Miss. Chert 4788' - 4848'
 CHT; wh, off wh, fresh and trip, trip w/gd even lt brn stn w/SFO, scat frags w/oil stn, definite decrease in show, scat brite yel fluor, trc vug por, faint odor, gas kick missed by plugged extractor - there was a recycle

DST #3: Miss Chert 4848' - 4863'
 CHT; wh, off wh, transl, fresh w/rare trip, most sharp edges, occ frags, 5% w/brite yel fluor, trc spotted lt brn stn and gas bubbles, most barren of show, rare vug por

CHT; wh, off wh, occ transl, most fresh, scat frags and vug por, trc grn glau clay inclusions - shaly ip, no fluor, no stn or odor, barren

LM; tan to off wh, med xln, foss ip, tite

KINDERHOOK SHALE 4895(-2668)
 SH; med gy to grn, silty to sandy, interbdd thin grn vf to occ f gr qtz ss strngs, firm

KINDERHOOK SAND 4916(-2689)
 SS; clr, lt gy, f gr qtz, clusters, some qtzitic - siliceous, cherty ip, fair intergran por, no fluor, no stn or odor, barren, ns.

SS; wh, lt gy, clr, f gr qtz, clusters, well srt, fair to gd intergran por, some argil - interbdd shaly ss and sandy sh, no fluor, no stn or odor, ns.

RTD. 4940' at 8:15 AM. 2/4/12

LTD. 4942'

Halliburton DIL, NEU/DEN/ Microlog, MIRL

NOTE: This log was shifted downward by 4' for correlation purposes with the Halliburton LOGS.

