

LITHOLOGY STRIP LOG

WellSight Systems

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

Well Name: Kinyon #2-33
Location: 2185' FSL & 2165' FEL, Sec. 33-T27S-R18W, Kiowa Co., KS.
Licence Number: 15-097-21799-0000 Region: Einsel Field
Spud Date: 7/14/2014 Drilling Completed: 7/21/2014
Surface Coordinates: 2185' FSL & 2165' FEL, Sec. 33-T27S-R18W

Bottom Hole Same as Above
Coordinates:
Ground Elevation (ft): 2192' K.B. Elevation (ft): 2205'
Logged Interval (ft): 3900' To: 4825' Total Depth (ft): 4825'
Formation: Kinderhook at Total Depth
Type of Drilling Fluid: Freshwater/Gel to 3326'; Chemical Gel 3326' to 4825'

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

OPERATOR

Company: Herman L. Loeb, LLC.
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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') 4206' - 4222'(Corrected Depths) Test Times 15"-45"-45"-90" IFP Strong Blow BOB/15 Sec., FFP Strong Blow BOB/15 Sec., no Gas to Surface, no Blowback on SI's; REC: 2125' Gas in Pipe, 30' G&OCMW(5%G, 2%O, 65%W, 28%M), CI 50,000, Mud 2000; IFP 19-17#, ISIP 968#, FFP 16-25#, FSIP 1038#, IHP 2081#, FHP 2039#, BHT 116 Deg. F.

DST #2(Cherokee Lmst.) 4744' - 4761'(Corrected Depths) Test Times 15"-45"-45"-90" IFP Strong Blow BOB/3 Min., FFP Strong Blow BOB Immediately, no Gas to Surface, no Blowback on SI's; REC: 2590' Gas in Pipe, 5' Drlg. Mud w/few oil specks, no water; IFP 17-16#, ISIP 1371#, FFP 11-8#, FSIP 1227#, IHP 2442#, FHP 2394#, BHT 120 Deg. F.

DST #3(Miss. Chert) 4790' - 4807'(Corrected Depths) Test Times 15"-45"-45"-120" IFP Strong Blow BOB/Immed. Gas to Surface in 7 Min., FFP Gas to Surface throughout Gauged 449.3 MCFG(52# on 0.5" Choke) in 45 Min. of FFP, BOB Blowback in 35 Min. of FSI; REC: 450' Clean Gassy Oil(25%G, 75%O - 39 Deg. API), 120' GWMO(9%G, 80%O, 3%W, 8%M) CI 58,000, Mud 5200; IFP 245-212#, ISIP 1077#, FFP 226-249#, FSIP 1073#, IHP 2637#, FHP 2410#. BHT 122 Deg. F.

Comments

7/14/14/ MIRU Sterling Drilling Rig #5, Spud at 8:45 PM.; 7/15/14 TD. 623' - CCH; 7/16/14 Drilling at 1300'; 7/17/14 Drilling at 3294'; 7/18/14 TD. 4222' - Make up Test tool for DST #1; 7/19/14 Drilling at 4485'; 7/20/14 TD. 4760' - DST #2; 7/21/14 TD. 4807' - Prep. to TIH after DST #3, reached Total Depth of 4825' at 10:30 AM.; 7/22/14 RTD. 4825', LTD. 4831' - LDDP for setting 5 1/2" Production Casing.

Set new 8 5/8"(23#) Surface Casing at 621' with 400 sx. of Cement(Basic Energy Services). Cement did Circulate. PD. at 11:30 AM. on 7/15/14.

Set new 5 1/2"(15.5#) Production Casing at 4823'(NOTE CORRECTED DEPTHS BY TUBING TALLY) with 200 sacks of "Loeb Blend" cement(Basic Energy Services). PD. at 5:45 PM. on 7/22/14.

Surveys: 2.0 Deg. at 623'(Surface Casing); 1.50 Deg. at 4222'(DST#1); 0.75 Deg. at 4760'(DST #2); 1.0 Deg. at 4825' RTD.


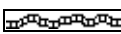
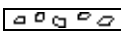
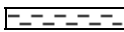







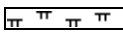

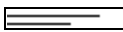



Pipe Strap at 4222'(DST #1): Strap 0.04' Short to the Board, no correction made to the Board.

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








































































NOTE: This log was shifted to match Drilling Depths after completion data. It was shifted upward from the Halliburton openhole logs by 4' to 6'.

LOG TOPS: Chase 2242(-237), Stotler Lmst. 3390(-1185), Howard 3590(-1385), Heebner Shale 4040(-1835), Toronto 4053(-1848), Brown Lmst. 4192(-1987), Lansing 'A' 4202(-1997), Lansing/KC 'H' 4363(-2158), K.C. 'I' 4410(-2205), Stark Shale 4498(-2293), Hertha 4560(-2355), Base Kansas City 4590(-2385), Marmaton 4640(-2435), Pawnee 4682(-2477), Cherokee Shale 4719(-2514), Reworked Miss. 4766(-2561), Clean Miss. Chert 4789(-2583), Kinderhook Shale 4822(-2617).

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
 [X] Fracture
 [I] Inter
 [M] Moldic
 [O] Organic
 [P] Pinpoint

[V] Vuggy

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

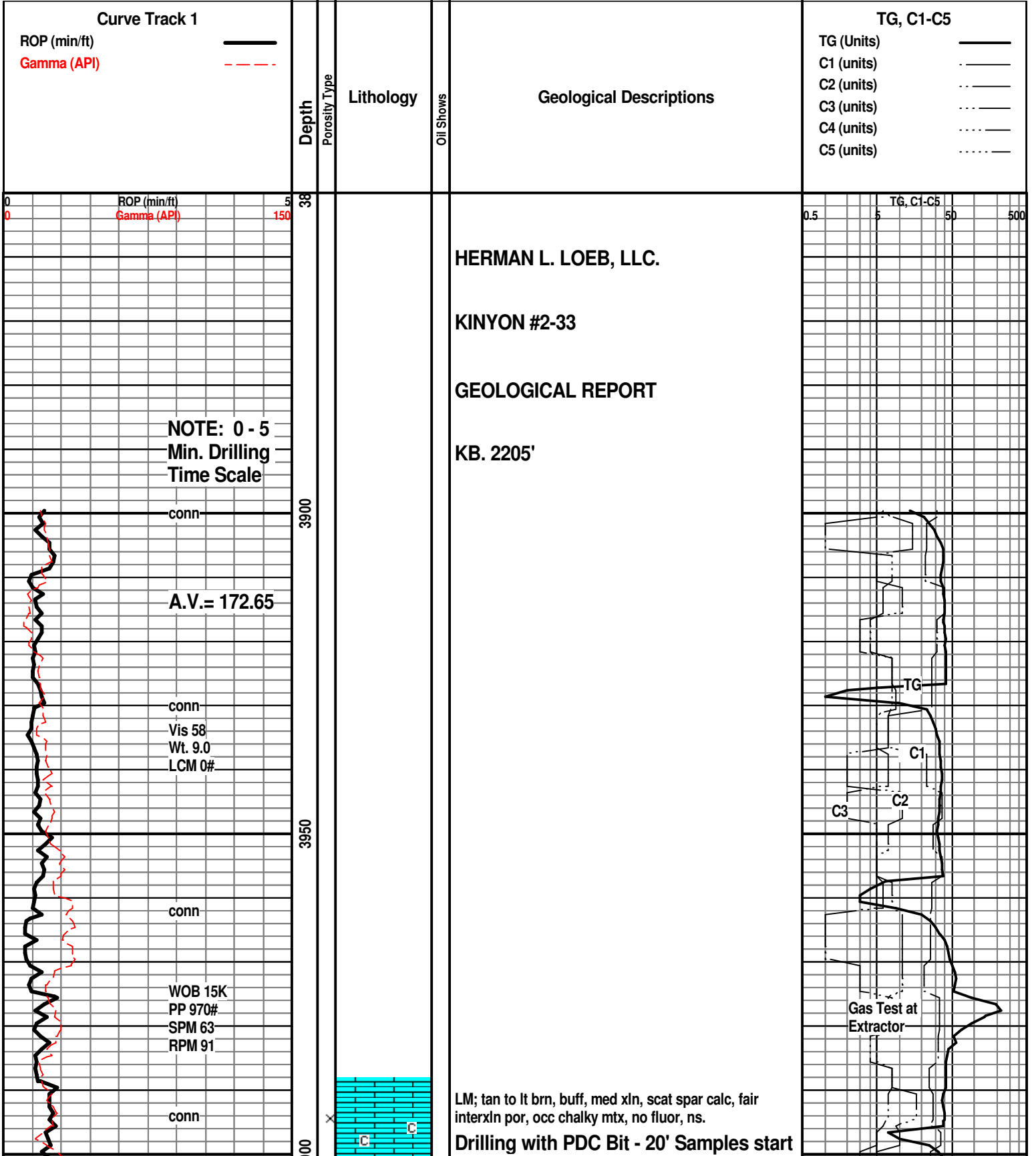
- ROUNDING**
 [R] Rounded
 [r] Subrnd
 [a] Subang
 [A] Angular

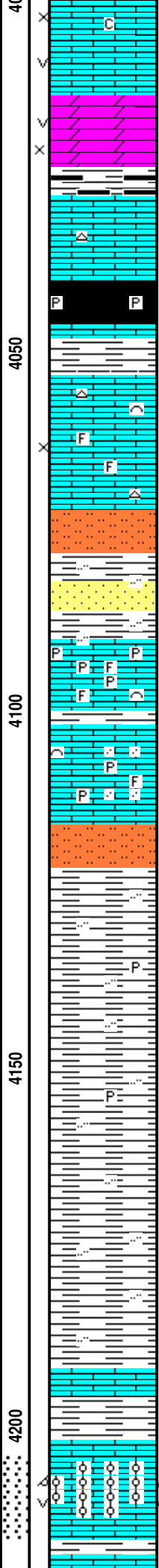
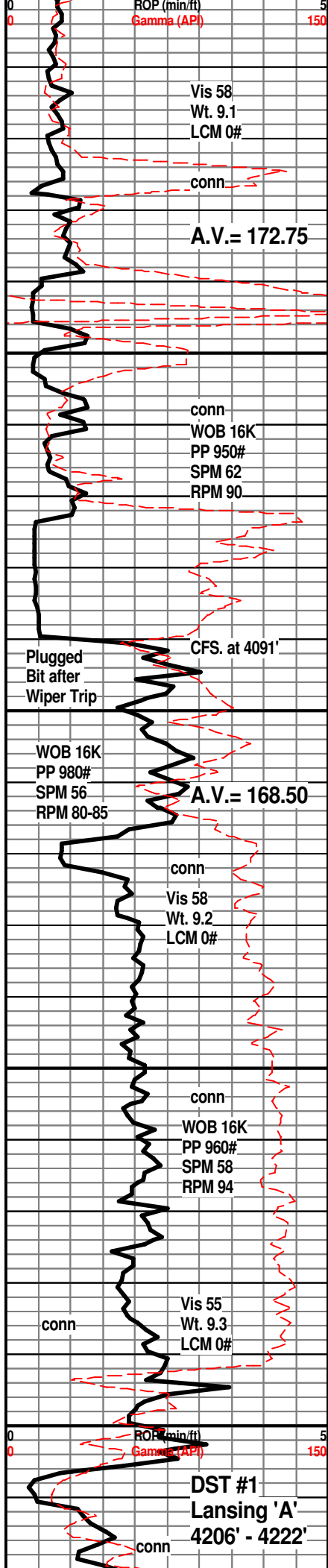
- [S] Spotted
 [Q] Ques
 [D] Dead

- EVENT**
 [Rft] Rft
 [Sd] Sidewall

- INTERVAL**
 [Core] Core
 [Dst] Dst

OIL SHOW
 [Even] Even





at 4000'

LM; lt brn, cse xln, dolomitic, lt/med yel min fluor, scat well dev. vug por, no vis stn, ns.

DOL; lt brn, sucrosic to fine rhombic, fair interxln w/occ small vug por, lt yel min fluor, no stn, ns.

SH; dk gy, blk, platy

LM; lt brn, gy brn, some argil, most dense, blocky, trc off wh cht, no vis por, ns.

HEEBNER SHALE 4040(-1835)
SH; blk, carb, occ pyr, faint gas odor
LM; med brn, hd, blocky, tite

TORONTO 4053(-1848)
LM; off wh, buff, tan, foss ip, most well cem, interbdd med xln lmst w/scat chalky mtx, fair interxln por, dull yel min fluor, no stn or odor, rare off wh cht, ns.

DOUGLAS SHALE 4072(-1867)
SLTST; lt gy, sandy, occ mica w/interbdd vf gr qtz ss, platy, w/lt to med gy silty sh

40 Stand Wiper Trip at 4091'
LM; lt to med brn, foss ip, pyr, dense, no vis por, scat lt yel min fluor

LM; med to dk brn, gy brn, foss ip, some sandy to gritty text, dense, scat pyr

SH; lt to med gy, platy, some silty sh and sltst.

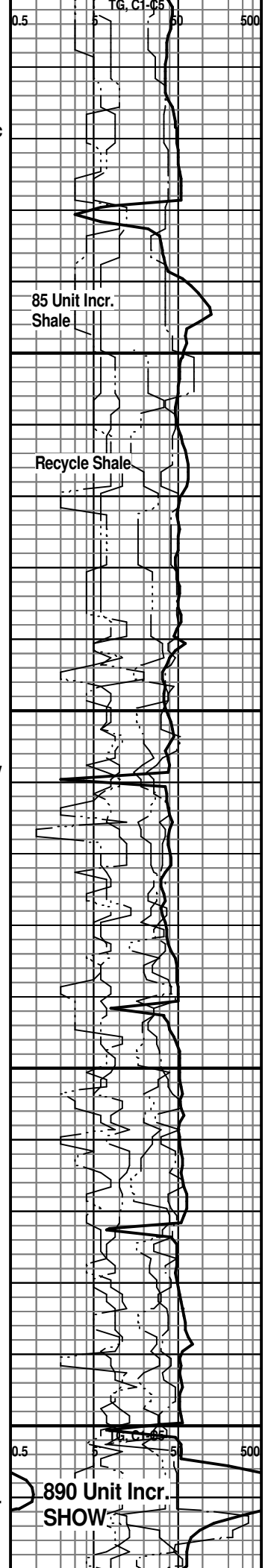
SH; lt to med gy, platy, occ silty, rarely pyr

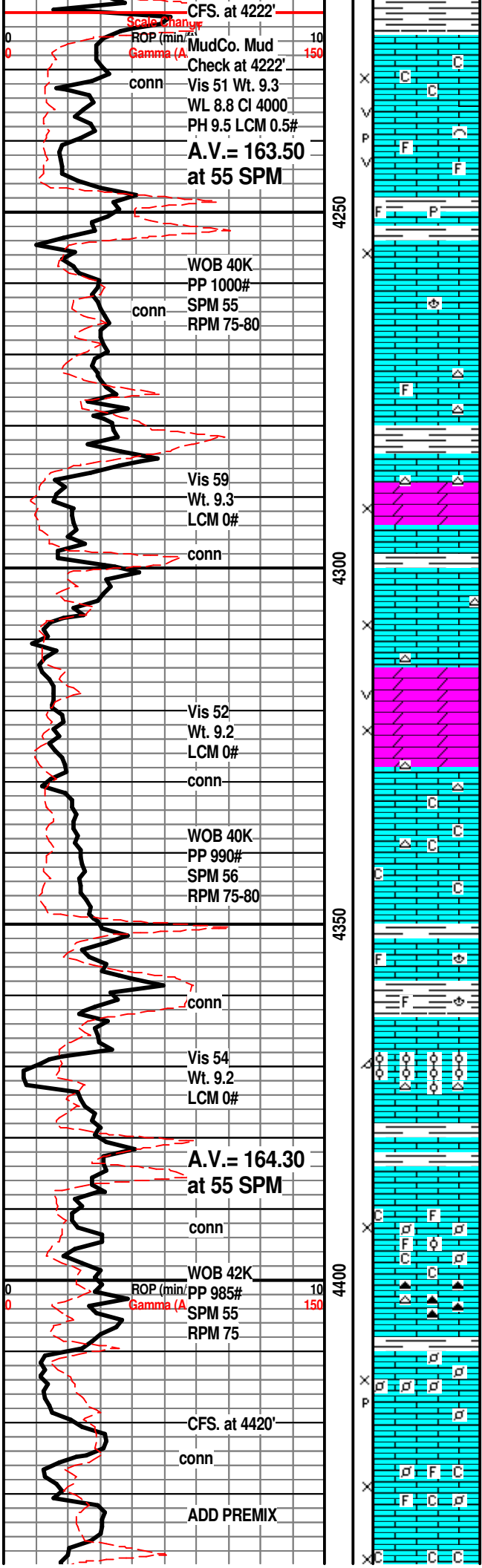
SH; lt to med gy, smooth, occ silty

BROWN LMST. 4192(-1987)
LM; med to dk brn, dense, blocky

LANSING 'A' 4202(-1997)
LM; tan to lt brn, oolitic, med to lrg moldic por, uniform brite yel fluor, SFO w/spotted to occ even lt brn oil stn, gas bubbles, gd oomoldic w/scat vug por, fair odor, fair cut

DST #1: Lansing 'A' 4206' - 4222'





LANSING 'B' 4225(-2020)
LM; off wh, tan, wh, f to med xln, chalky ip, poor vis interxln por, no fluor, no stn or odor

LM; lt gy, off wh, buff, foss ip, scat fair vug and p-p por, quest. gas bubbles, v. faint odor, no vis oil stn, most w/dull yel fluor, no cut

LM; lt brn, pyr, foss ip, hd

LM; off wh, tan, f to med xln, fair to gd interxln por, occ spar calc, no stn or odor, no fluor, ns.

LM; tan to lt brn, foss ip, most well cem, some micritic, scat tan cht, no vis por, ns.

LM and DOL; off wh, sucrosic text, partly dolomitic, poor interxln por, most tite, dull yel fluor, no stn or odor, ns.

LM; tan to lt gy, med xln w/scat spar calc, fair interxln por, occ gy cht, dull yel min fluor, no stn or odor, ns.

DOL; off wh, tan, lt gy brn, sucrosic, fair to gd interxln w/occ vug por, scat gy cht, dull yel min fluor, no stn or odor, no gas kick, ns.

LM; tan to lt brn, buff, fxln, chalky mtx ip, scat gy cht, no vis por, no fluor, ns.

LM: med to dk brn, hd, blocky, tite

SH; med to dk gy, platy, occ foss

LANSING/K.C. 'H' 4363(-2158)
LM; lt brn, oolitic, well dev. oomoldic por, most med to small size molds, brittle ip, scat oolitic cht, med yel fluor, no stn/odor, no gas kick, ns.

SH; med gy, flakey

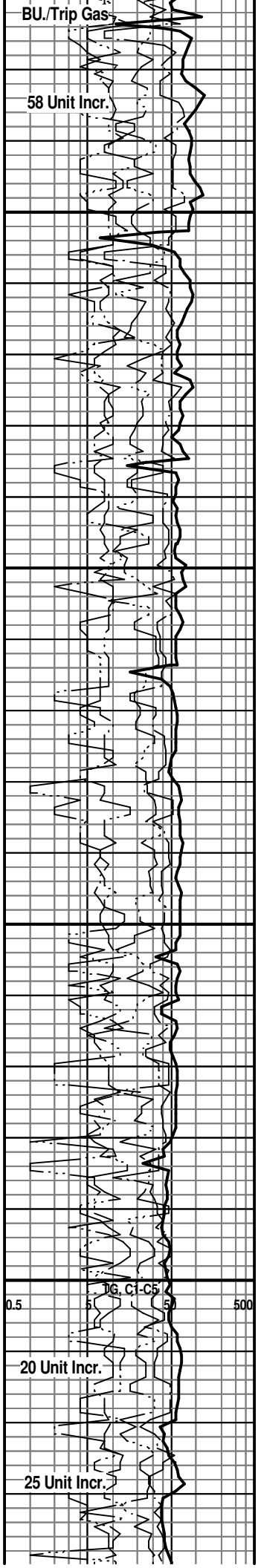
LM; tan to cream, buff, foss w/scat pellets - well cem ooids and hash, trc poor interpart por, chalky mtx ip, dull yel to no fluor, no vis stn, no gas kick, ns.

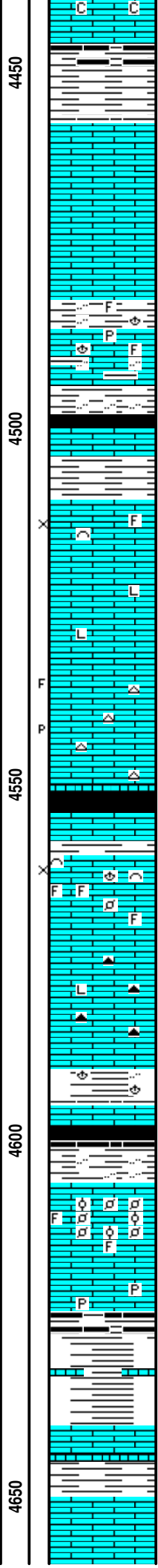
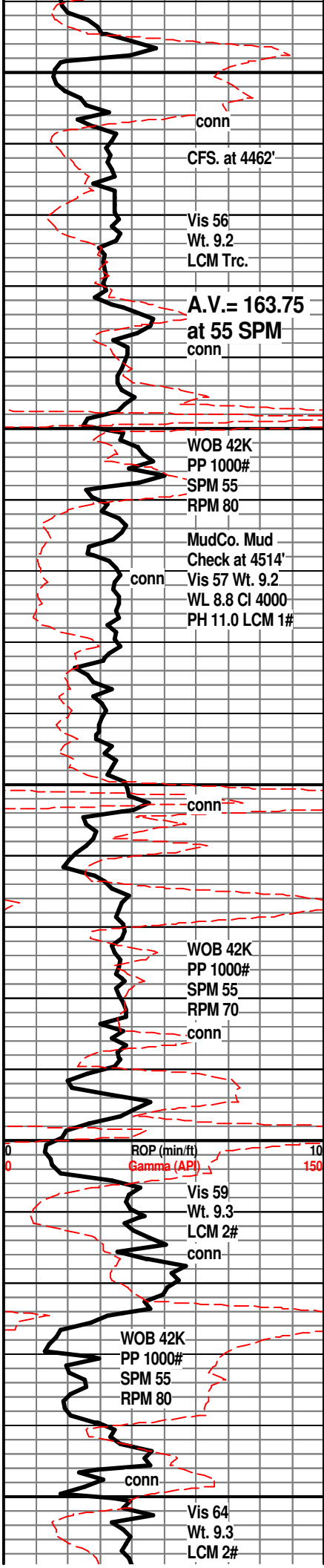
LM; med brn, hd, blocky, abnt brn cht, tite

KANSAS CITY 'I' 4410(-2205)
LM; tan to buff, foss w/abnt small pellets and occ oolites, much soft chalk and chalky mtx, fair interpart w/scat p-p por, dull yel fluor, no stn or odor, no sample shows

LM; tan to cream, buff, gran - med xln, scat foss mat, gd interpart/interxln por, minor chalky mtx. dull yel fluor, no stn or odor, no sample shows

LM: tan to off wh. f to med xln. some gran text. poor





LM; tan to dk wh, f to med xln, some gran text, poor interln por, occ chalky, no fluor, ns.
SH; med to dk gy, gy grn, platy

KANSAS CITY 'J' 4457(-2252)
LM; tan to lt brn, f to med xln, some sucrosic text, partly dolomitic, no vis por, no fluor, no stn or odor, ns.
LM; tan to cream, buff, most dense, micritic, no vis por, no fluor, ns.
SH; med gy, gy brn, lmy, foss ip.
LM; med gy, foss ip, some gritty - silty text, occ pyr, tite, interbdd argil lmst. and silty sh.

STARK SHALE 4498(-2293)
SH; blk, carb ip, trc gas

SWOPE 4510(-2305)
LM; tan to off wh, buff, foss - well cem, trc poor interpart por, no vis stn, no odor, ns.
LM; tan to lt brn, buff, most dense - micritic, some litho, tite
LM; tan to cream, lt brn, fxln to micritic, scat poor p-p por, poss frags, most dense, no fluor, no vis stn, no sample shows, interbdd tan to brn cht

SH; blk, carb, platy, trc gas

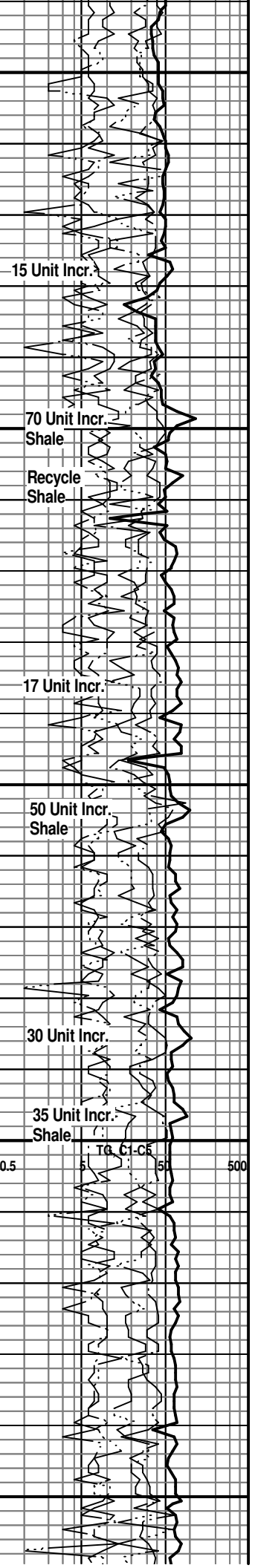
HERTHA 4560(-2355)
LM; off wh, buff, lt brn, foss w/some foss hash, occ fair interpart por, med yel min fluor, no vis stn, no odor, no gas kick
LM; med to dk brn, gy brn, hd, interbdd dk gy to smoky cht, litho ip, tite

BASE KANSAS CITY 4590(-2385)
SH; varic, maroon, red, grn, foss ip.
SH; blk, varic, platy, occ silty

PLEASANTON 4606(-2401)
LM; tan to lt brn, highly foss - well cem pellets and ooids, dense, no vis por, lt yel min fluor, no stn or odor, ns.
LM; med gy, gy brn, dense, micritic, blocky, occ pyr

SH; lt gy, grn, rare yel, dk gy - blk, platy, some v. soft, interbdd gy grn lmst strng.

MARMATON 4640(-2435)
LM; lt to med gy, gy grn, dense, blocky, tite
SH; med gy grn, grn, rust brn, platy
LM; tan to lt brn, micritic, blocky, hd, no vis por, no fluor, ns.



A.V.= 164.80
at 55 SPM

WOB 42K
PP 1000#
SPM 55
RPM 78

DST #2
Cherokee
4744' - 4761'
Corrected
CFS. at 4761'

MudCo. Mud
Check at 4761'
Vis 64 Wt. 9.3
WL 9.4 CI 5200
PH 9.5 LCM 2#

DST #3
Miss. Chert
4790' - 4807'
Corrected

CFS. at 4807'
MudCo. Mud
Check at 4807'
Vis 54 Wt. 9.3
WL 8.8 CI 5200
PH 9.0 LCM 2#
CFS. at RTD.

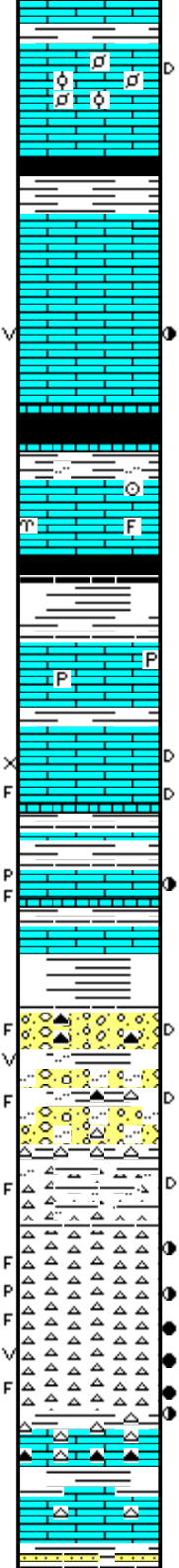
ROP (min)
Gamma (A)

4700

4750

4800

4850



LM; lt to med brn, foss ip w/scat well cem ooids/pellets, dull yel min fluor, trc blk tar/gils on few pcs, no live shows, no odor

SH; blk, dk gy, platy, trc gas

PAWNEE 4682(-2477)

LM; tan to lt brn, micritic, blocky, no vis por, no fluor, ns.

LM; med brn, blocky, scat small discontinuous vug por, few pcs w/scat oily film - med brn spotted oil stn, med yel fluor, gd cut, no odor, looks tite

SH; blk, carb, gas odor

SH; dk brn, gritty, foss ip.

LM; lt to med brn, hd, scat well cem foss mat, lt yel min fluor, no vis por, ns.

CHEROKEE SHALE 4719(-2514)

SH; blk, carb ip, w/grn soft flakey sh

LM; lt to med brn, most dense, scat pyr, no vis por, no fluor, ns.

LM; lt brn, tan, fxl, abnt blk dead oil, lt yel fluor, trc v. poor interxln por, trc frags w/edge stn, SS hvy oil, v. faint odor, fair cut

CHEROKEE LMST. 4751(-2546)

LM; lt brn, fxl, frags w/live edge stn, some p-p por, lt yel fluor, SSFO, occ cse spar calc xtals w/stn, trc chalky mtx, some dense barren lmst.

DST #2: Cherokee Lmst. 4744' - 4761'

REWORKED MISS/CONG 4766(-2561)

CHT AND CONGL; org, wh, brn, fresh and weath, much blk tar/gils, scat frags and vug por, lt to med yel fluor, interbdd gy grn silty sh and gritty gy grn cht

CHT; gy, gritty, silty ip, scat blk tar/gils, tite

CLEAN MISS. CHERT 4789(-2584)

CHT; wh, off wh, fresh and trip, abnt opaque qtz xtals, trip cht w/spotted to even brn stn, frags, SSFO, faint odor, gas bub., med/brite yel fluor

CHT; wh, off wh, most fresh, frags w/weathered surfaces w/SFO, much brite yel fluor, faint odor, much even w/some spotted stn, gas bubbles, scat vug por

DST #3: Miss. Chert 4790' - 4807'

LM; red brn, oxidized, hd, abnt grn cht and cherty lmst, interbdd varic sh

KINDERHOOK SHALE 4822(-2617)

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

RTD. 4825' at 10:30 AM. 7/21/14

LTD. 4831'

Halliburton ACRT, NEU/DEN, Microlog, MRIL

NOTE: This log was shifted to correspond with Driller Depths. Log depths are 4' - 6' to deep based on completion data.

115 Unit Incr. Shale

Recycle

84 Unit Incr.

260 Unit Incr. Shale

110 Unit Incr. Shale

Recycle

30 Unit Incr.

45 Unit Incr. SHOW

B.U. Gas

Max. 405 Unit Incr. SHOW

0.5 5 50 500

