

# LITHOLOGY STRIP LOG

## WellSight Systems

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

Well Name: #5-10 Stapleton  
Location: 335' FNL & 385' FEL, Sec. 10-T30S-R32W, Haskell Co., KS.  
Licence Number: 15-081-21957-0000 Region: Diaden Field Ext.  
Spud Date: 7/29/2011 Drilling Completed: 8/10/11  
Surface Coordinates: 335' FNL & 385' FEL, Sec. 10-T30S-R32W

Bottom Hole Same as Above  
Coordinates:  
Ground Elevation (ft): 2888' K.B. Elevation (ft): 2901'  
Logged Interval (ft): 4000' To: 5640' Total Depth (ft): 5640'  
Formation: St. Louis at Total Depth  
Type of Drilling Fluid: Freshwater/Gel to 3120'; Chemical Gel 3120' to TD.

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

### 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(Upper Morrow Sand) 5260' - 5348' Test Times 15"-45"-45"-90" IFP Strong Blow BOB/4", FFP Strong Blow BOB/Immed. No Gas to Surface, no Blowback on SI's; REC: No detectable GIP, 100' DM, no oil or gas; IFP 29-31#, ISIP 353#, FFP 33-37#, FSIP 757#(Building at appx.45 Deg. angle), IHP 2658#, FHP 2540#, BHT 132 Deg. F.

DST #2(St. Louis A + B) 5526' - 5576' Test Times 15"-45"-45"-90" IFP Strong Blow BOB/1 Min. Gas to Surface in 4 Min., FFP Gauged Gas throughout - Stabilized at 34# on a 1" choke = 1.391 MMCFGPD/45" of FFP; No Blowback on SI's; REC: 270' GOCM(40%G, 20%O, 40%M), no Water; IFP 255-281#, ISIP 1431#, FFP 227-268#, FSIP 1419#, IHP 2759#, FHP 2655#, BHT 129 Deg. F.

### Comments


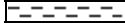

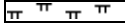
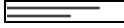
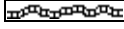




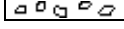


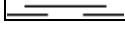

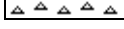


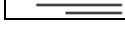
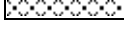
7/29/11 MIRU Sterling Drilling Co. Rig #5, Spud at 7:15 PM.; 7/30/11 Drilling at 780'; 7/31/11 TD. 1809' - TOH to run Surface Casing; 8/1/11 Drilling at 2000'; 8/2/11 Drilling at 2830'; 8/3/11 Drilling at 3610'; 8/4/11 Drilling at 4135'; 8/5/11 Drilling at 4600'; 8/6/11 Drilling at 4985'; 8/7/11 Drilling at 5285'; 8/8/11 TD. 5348' - TIH after DST #1; 8/9/11 TD. 5576' - CCH for DST #2; 8/10/11 RTD. 5640' - Reached TD. at 4:45 AM. - CCH for Logs

Set new 8 5/8"(23#) Surface Casing at 1804' KB. w/605 sx.(Basic Energy Services). Cement Did Circulate. PD. 2:00 PM. 7/31/11.








































































Surveys: 1.75 Deg. at 1809'(Surface Casing); 1.0 Deg. at 3686'(Bit Trip); 1.0 Deg. at 5348'(DST #1); 0.5 Deg. at 5576'(DST #2).

Pipe Strap at 3686'(Bit Trip): Strap 1.47' Short to the Board, no correction made to the Board.
























### ROCK TYPES

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

### ACCESSORIES

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

### OTHER SYMBOLS

<b>POROSITY</b>	 Vuggy	<b>ROUNDING</b>	 Spotted	<b>EVENT</b>
 Earthy		 Rounded	 Ques	 Rft
 Fenest	<b>SORTING</b>	 Subrnd	 Dead	 Sidewall
 Fracture	 Well	 Subang		
 Inter	 Moderate	 Angular	<b>INTERVAL</b>	
 Moldic	 Poor		 Core	
 Organic		<b>OIL SHOW</b>	 Dst	
 Pinpoint		 Even		

Curve Track 1

ROP (min/ft)

Gamma (API)



Depth

Porosity Type

Lithology

Oil Shows

Geological Descriptions

TG, C1-C5

TG (Units)

C1 (units)

C2 (units)

C3 (units)

C4 (units)

C5 (units)



0 ROP (min/ft) 10  
0 Gamma (API) 150

0 ROP (min/ft) 10  
0 Gamma (API) 150

0.5 TG, C1-C5 5 50 500

0.5 TG, C1-C5 5 50 500

STRATA EXPLORATION, INC.

#5-10 STAPLETON

GEOLOGICAL REPORT

KB. 2901'

conn

Vis 48  
Wt. 9.1  
LCM 1#

conn

conn

WOB 40K  
PP 950#  
SPM 60  
RPM 75

conn

A.V.= 139.15

conn

4000

4050

4100



TG

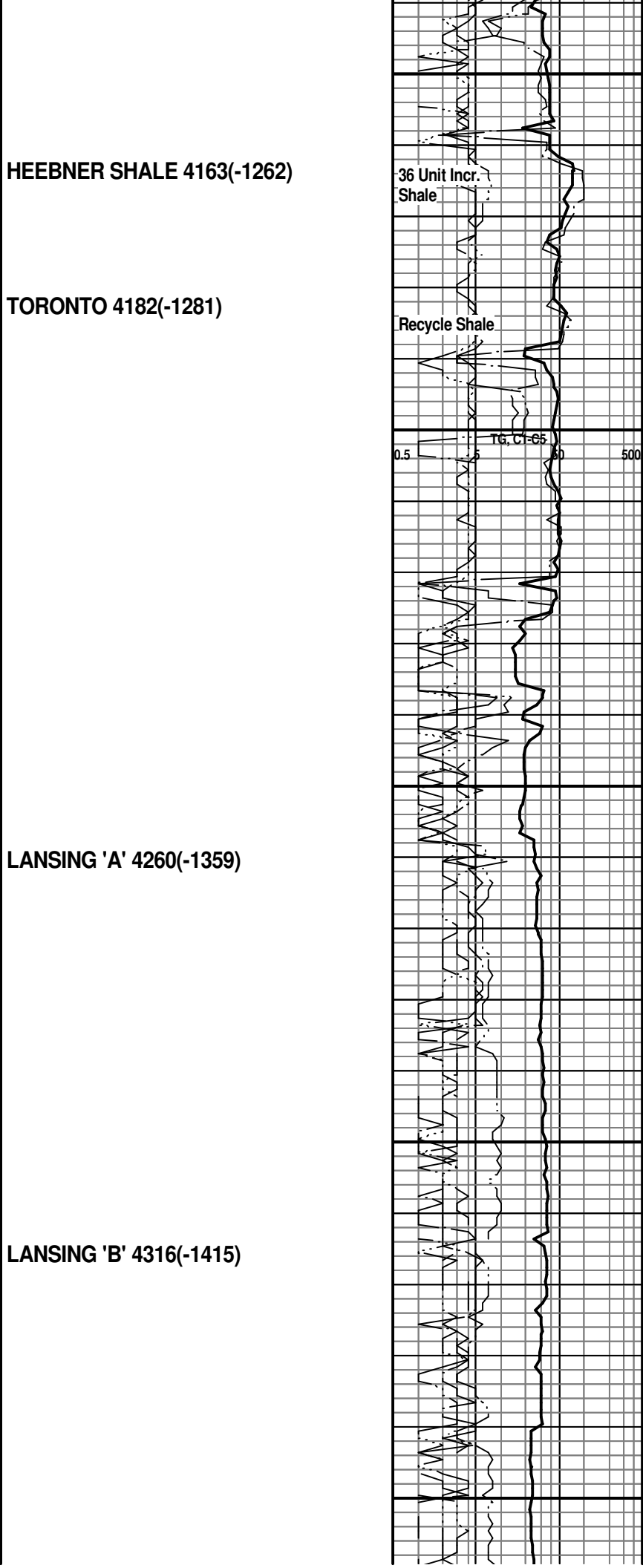
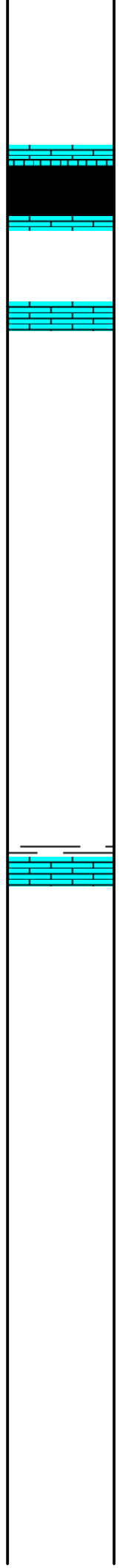
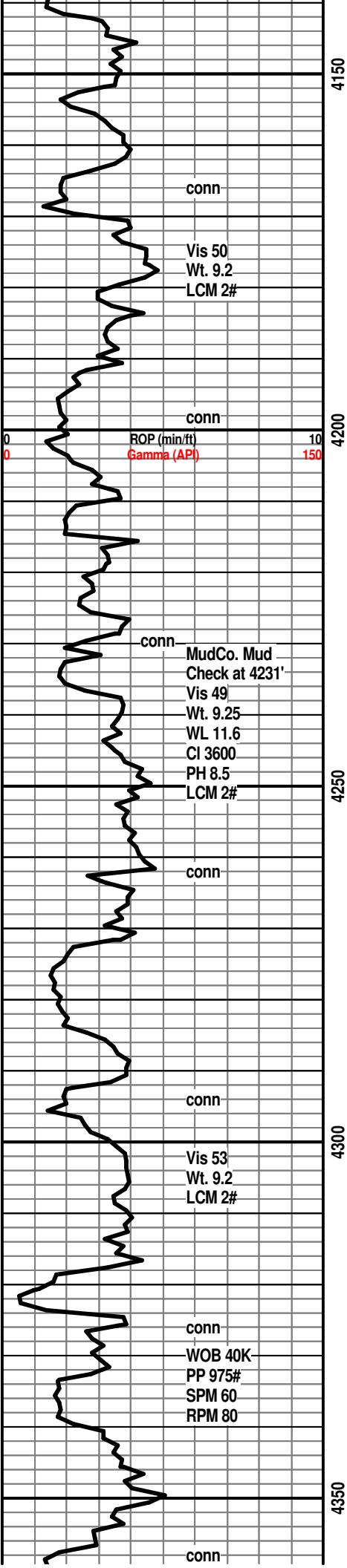
C1

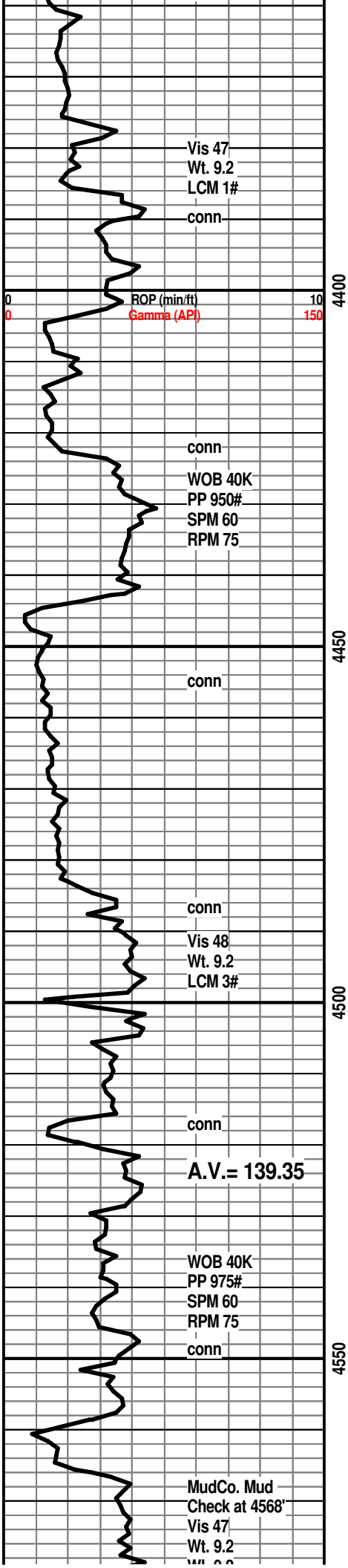
C2

C3

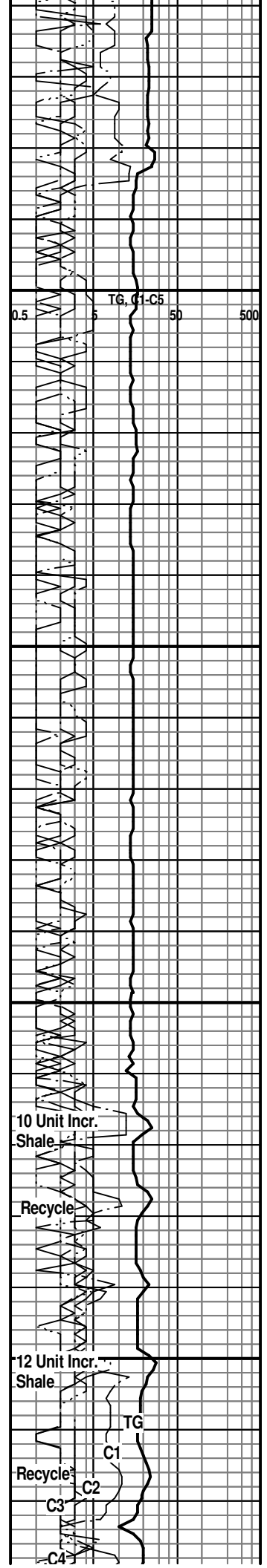
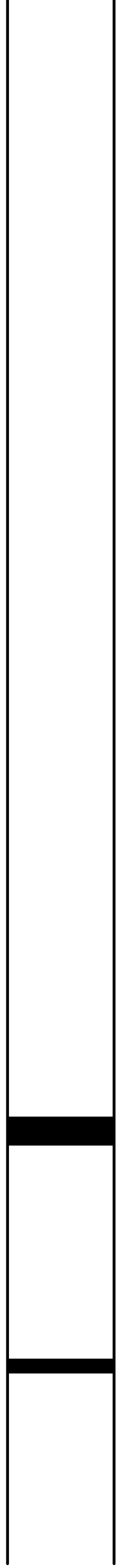
48 Unit Incr. Shale

Recycle Shale





LANSING 'F' 4444(-1543)



WL 9.2  
CI 1700  
PH 10.0  
LCM 2#

ROP (min/ft) 10  
Gamma (API) 150

conn

WOB 40K  
PP 975#  
SPM 60  
RPM 75

conn

Vis 42  
Wt. 9.2  
LCM 2#

conn  
A.V.= 139.50

CFS. at 4700'

conn

Vis 48  
Wt. 9.2  
LCM 2#

conn  
A.V.= 139.60

WOB 40K  
PP 975#  
SPM 60  
RPM 78

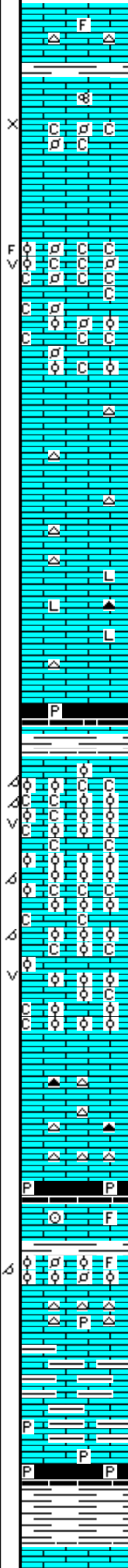
conn

4600

4650

4700

4750



LM; med gy brn, med brn, foss ip, most dense, scat wh to tan cht, no vis por, no fluor, tite

**Start 10' Samples at 4600'**

LM; wh to off wh, foss, finely pelletal ip, occ soft - chalky mtx, poor interpart por, no vis stn, quest. odor, no sample shows

LM; med brn, dense, micritic, hd

LM; off wh, tan, buff, foss, frags w/spar calc xtals, rare calc. lined vug por, faint odor, med yel fluor, much soft chalk and chalky mtx, spotted lt brn oil stn, no FO., no gas kick

LM; off wh, tan to buff, foss to med xln, chalky mtx ip, fair interpart/interxln por, no fluor, no stn or odor, ns.

LM; lt to med brn, tan, most dense - micritic, scat tan to off wh cht, no vis por, tite

LM; med brn, blocky, dense - litho ip, scat tan to amber cht, no vis por, ns.

SH; blk, carb ip, gassy, blocky, occ pyr

**KANSAS CITY 'A' 4689(-1788)**

LM; tan to cream, off wh, oolitic, lrg molds, well dev. oomoldic por, rare vug por, much chalky mtx, lt yel flour, no stn or odor, no gas kick, barren, ns.

LM; tan to lt brn, rare cream, oolitic, most med size moldic por, brittle ip, scat med yel min fluor, occ soft chalky mtx, no stn or odor, ns.

LM; med brn, micritic, litho ip, hd, interbdd gy to smoky cht, no vis por, ns.

SH; blk, carb ip, scat pyr, gassy

**KANSAS CITY 'B' 4749(-1848)**

LM; tan to lt brn, hd, dense, foss ip, tite

LM; tan to lt brn, buff, foss - oolitic, most small to med size ooids, fair to poor oomoldic por, dull yel min fluor only, no stn or odor, ns.

LM; med gy to dk gy brn, argil, interbdd lmy shale

SH; v. dk gy to blk, platy, firm, pyr ip.

SH; dk gy, grn, fiss, silty ip.

**KANSAS CITY 'C' 4795(-1892)**

TGI C1-C5 50 500

15 Unit Incr. Shale

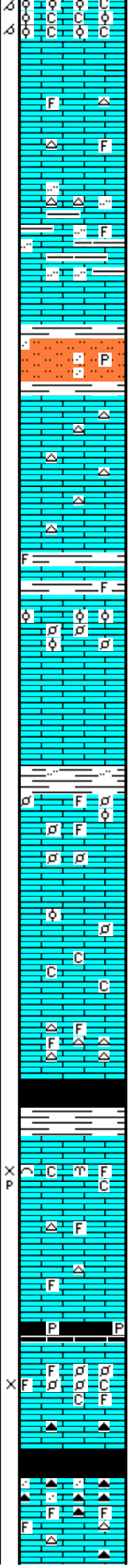
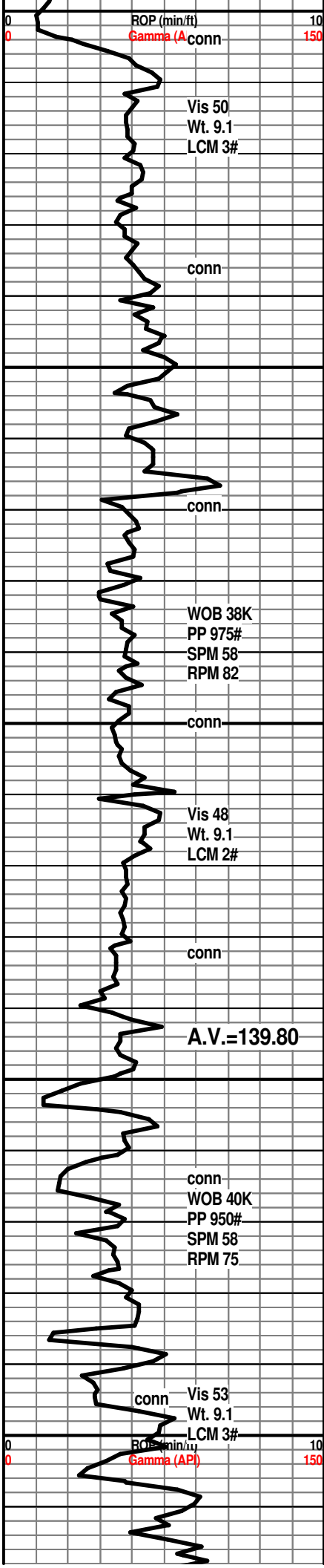
32 Unit Incr. Shale

Recycle Shale

Recycle

Change Extractor Filter

Gas Tests at Extractor



LM; lt brn, tan, oolitic, most w/med to irg molds, ga oomoldic por, med yel min fluor, much soft chalky mtx, no stn or odor, no gas kick, ns.

LM; med brn, foss ip, most dense, no vis por, scat tan to gy cht, no fluor, ns.

LM; med to dk gy, gy brn, gritty to silty, dense, no vis por, interbdd hd lmy shale, tite

LM; med gy brn, cse xln, scat grn glau incl, poor to no interxln por, dull yel fluor, ns.

SLTST; lt gy, rare med gy, sandy ip, most soft, rarely pyr

**MARMATON 4854(-1953)**  
LM; tan to buff, cream, hd, micritic, occ off wh cht, no vis por, lt yel min fluor, no stn or odor, ns.

LM; tan to off wh, buff, fxln to occ gritty text, well cem, scat off wh/tan cht, no vis por, ns.

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

LM; tan to lt brn, foss - partly oolitic/finely pelletal, most well cem w/no vis por, minor soft chalky mtx, dull yel min fluor only, no stn or odor, ns.

SH; grn, silty ip, firm

LM; med brn, med xln, rarely foss/finely pelletal, most dense, blocky, no vis por, no stn or odor, ns.

LM; tan to cream, off wh, fxln, chalky soft mtx ip, no stn or odor, ns.

LM; dk brn, hd, cherty w/gy foss cht, v. hd, tite

SH; blk, carb, gassy

**PAWNEE 4958(-2057)**  
LM; off wh, foss to med xln, fair interpart w/fair p-p por, chalky mtx, lt yel fluor, trc/rare lt brn v. spotted oil stn, few gas bubbles, poss. faint odor, weak/no cut, very little sample w/show

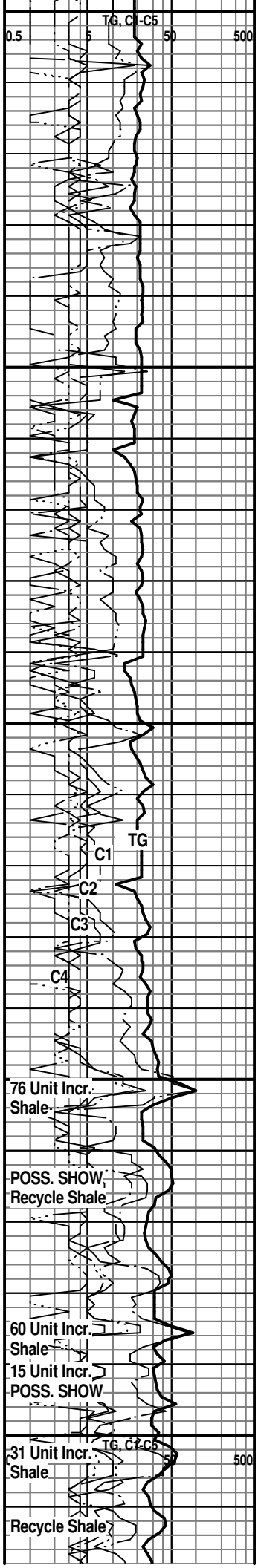
LM; tan to lt brn, foss ip, most dense, occ tan cht, no vis por, no stn or odor, ns.

SH; blk, brittle, blocky ip, gassy, scat pyr.

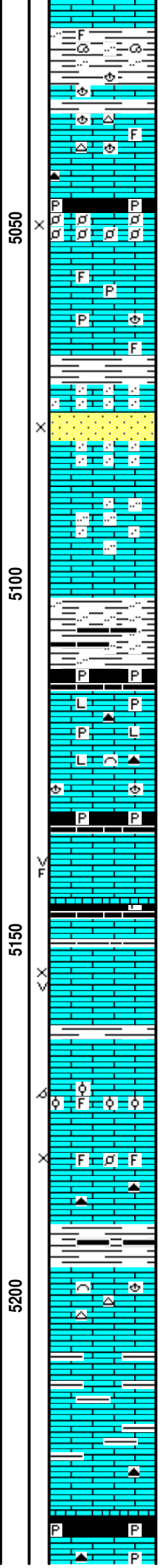
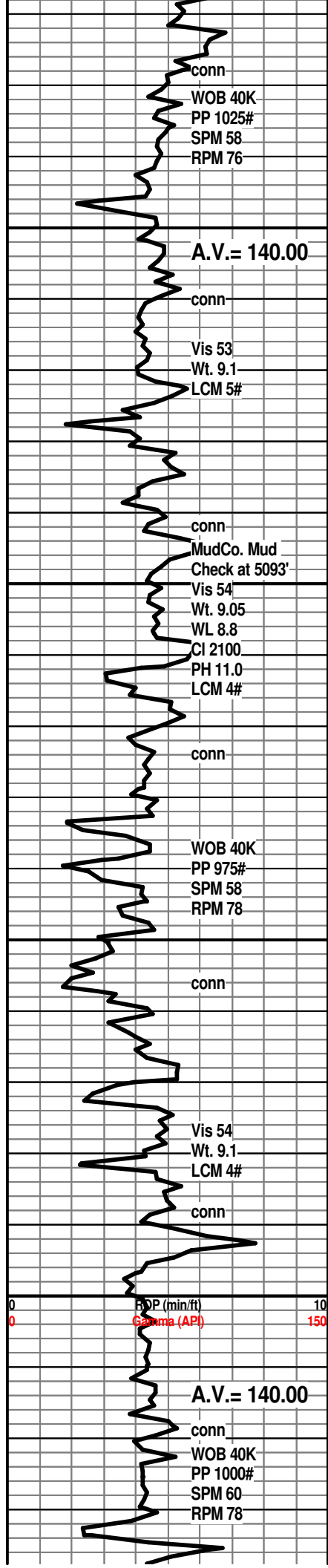
**FORT SCOTT 4987(-2086)**  
LM; tan to lt brn, foss, finely pelletal ip, scat cse foss frags, minor chalky mtx, dull/lt yel fluor, no odor, no vis oil stn, fair interpart por, few gas bubbles

**CHEROKEE SHALE 5002(-2101)**  
SH; blk, fiss, blocky to soft, carb ip, trc gas

LM; med brn, hd, foss ip, abnt dk brn foss cht, interbdd tan v. hd siliceous lmst, dense, no vis por, ns.







SH; dk gy, silty, firm, occ foss

LM; med brn, most micritic, scat foss mat, interbdd brn/tan/gy foss cht, no vis por, no stn, no fluor, ns.

SH; blk, carb ip, gassy, occ pyr.

LM; med brn, foss-pelletal, cse pellets, loosely cem, lt yel fluor, fair interpart por, no odor, gas bubbles vis, no vis oil stn, no cut - gas show

LM; med brn, med gy brn, med xln, scat well cem foss, occ pyr, hd, no vis por, no fluor, ns.

SH; dk gy, firm, calc

LM; tan, lt gy, sandy, v. hd, siliceous, tite

SS; off wh, lt gy, f gr qtz, lmy-calc cmt, fri, fair intergran por, lt golden yel fluor, no vis stn, no odor, poss gas bubbles, no cut

LM; tan to lt brn, sandy ip, most well cem, no vis por, no fluor, ns.

SH; dk gy, blk, platy, occ silty

SH; blk, platy, carb ip, occ pyr

**ATOKA 5115(-2214)**

LM; med brn, blocky, occ pyr, hd, some litho, no vis por, pyr ip, scat dk brn to smoky cht, tite, ns.

LM; tan to lt brn, foss ip, well cem, most micritic, blocky, no vis por, no fluor, ns.

SH; blk, carb ip, gassy, pyr

LM; tan to lt brn, cse xln, well dev. vug por, frags, lt yel fluor, gas bubbles, lt brn scat oil stn, faint odor, fair cut

SH; blk, v. dk gy, pyr ip, brittle

LM; tan to off wh, buff, fxln, poor to fair interxln por, minor vug por, lt yel fluor, rare lt brn oil stn, trc gas bubbles, weak cut, poor show

SH; dk gy, fiss

LM; tan to lt brn, foss - partly oolitic, poor to fair interpart/trc oomoldic por, lt yel fluor, no vis oil stn, quest. gas bubbles, no cut, poor/no show

LM; lt brn, finely pelletal to oolitic, streak of poor interpart por, dull yel fluor, no stn or odor, barren, rare amber/brn cht

SH; dk gy, trc blk, platy

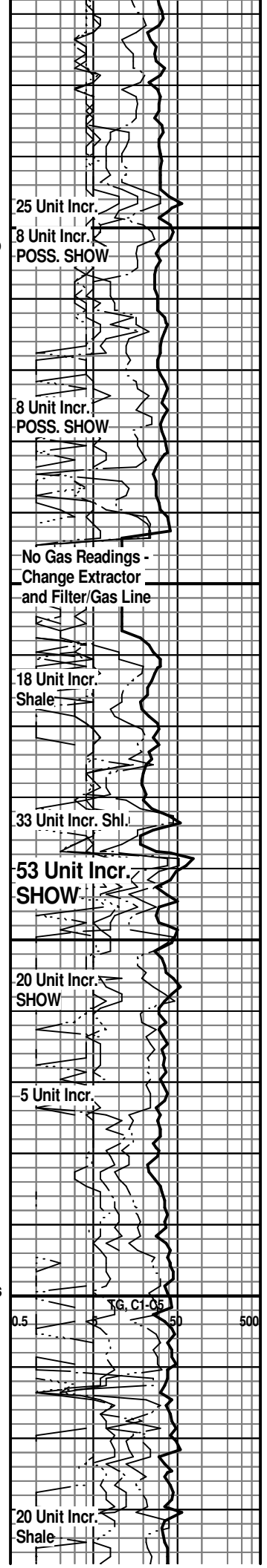
LM; tan to lt brn, foss ip, scat cse spar calc xtals, no vis por, minor off wh cht, no fluor, ns.

LM; med to dk gy, gy brn, argil, v. firm, tite

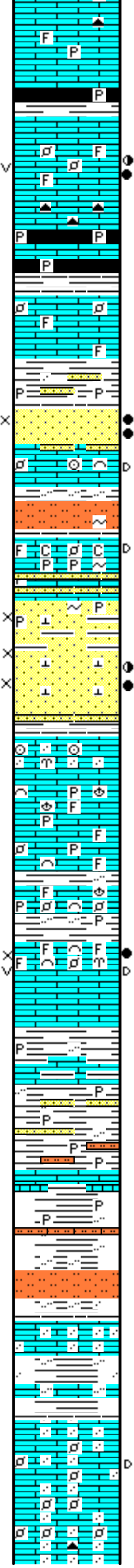
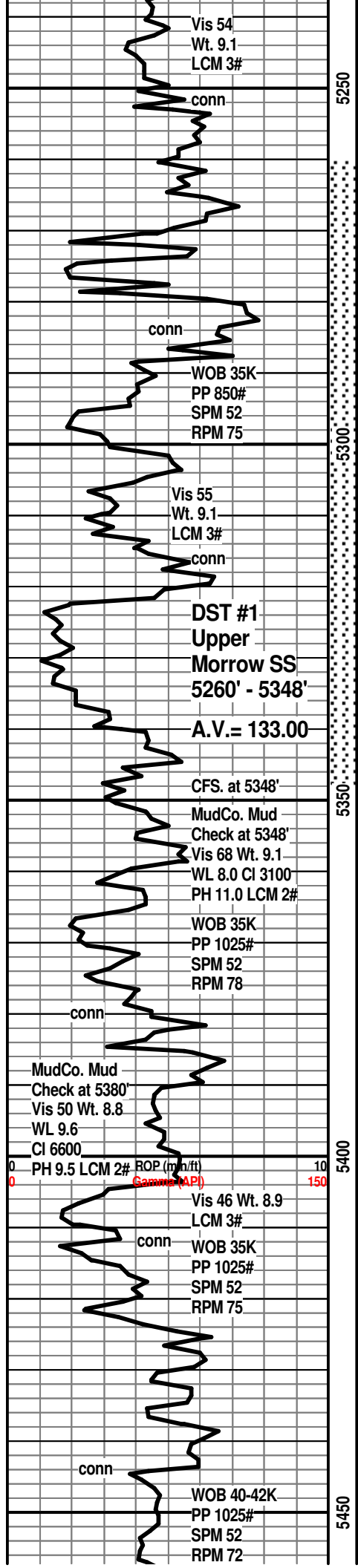
LM; dk gy brn, dk gy, hd, argil ip, blocky, rare smoky cht, tite

**ATOKA SHALE MKR. 5231(-2330)**

SH; blk, platy, occ pyr







LM; tan to med brn, foss ip, most well cem, scat dk gy to smoky cht, rarely pyr, no vis por, no stn or odor, ns.

SH; dk gy to blk, fiss, occ pyr

LM; med brn, cse xln, scat foss frags, fairly well dev. vug por, med yel fluor, SSFO and gas bubbles, spotted to even med brn oil stn, gd odor, gd cut

**MORROW SHALE 5270(-2369)**  
SH; blk, carb, coaly frags, pyr  
LM; dk brn, v. hd, blocky

LM; med to dk gy, gy brn, med brn, cse xln, scat foss mat, hd, blocky, no vis por, no fluor, ns.

SS; lt gy to med brn(oil stn), f gr qtz, fri, clusters, fair/gd por, golden yel fluor, much oil saturation, SSFO, occ pyr hd ss, gd odor, fair/gd cut, slow acid reaction, trc gas bubbles

LM; tan, lt gy, cream, med xln, foss, sandy at top, dead tarry resid oil/gils, lt yel fluor, no odor

LM; lt gy, grn, brn- tan, foss, cse xln, rare chalky mtz, occ blk tar/gils, minor glau, dull yel fluor, hd siliceous lmst at base

**UPPER MORROW SAND 5322(-2421)**  
SS; wh, lt gy, grn, vf to f gr qtz, fri to dense, thinly bdd - argil ip, most w/gd intergran por, minor pyr, lt yel fluor, no odor, gas bubbles vis  
SS; clr, lt gy, f to med gr, qtz, spotted to even dk brn oil stning, golden yel fluor, gas bubbles, gd intergran por, SSFO, faint odor, gd cut, calc cmt.

LM; lt to med brn, foss, sandy ip, dense, no vis por, no stn or odor, ns.

**DST #1: Upr. Morrow SS 5260' - 5348'**

LM; med brn, gy brn, hd, cse xln, abnt foss frags, pyr ip, no vis por, no stn or odor, ns.

LM; med gy brn, med brn, v. foss, well cem, hd, rare pyr, no vis por, no stn or odor, ns.

SH; med gy, silty ip, rarely pyr

LM; lt brn. lt gy, cse xln, abnt foss mat, fair interpart/vug por, much even dk brn to blk oil stn, some tar/gilsonite, fair odor, golden yel fluor, gd cut, SSFO, instant cut

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

LM; med to dk gy brn, hd, pyr ip, rare foss, argil

SH; med to dk gy, calc, occ silty, interbdd fgr qtz ss strngs

SH; lt gy, pale grn, trc rust red sltst, interbdd grn/brn nodular lmst, platy to flakey, pyr ip.

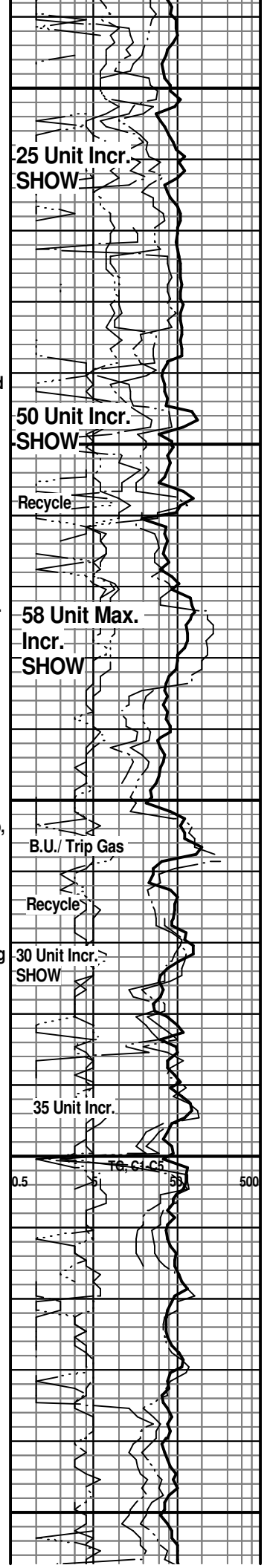
SH; grn, lt gy, silty, occ pyr, interbdd rust red sltst

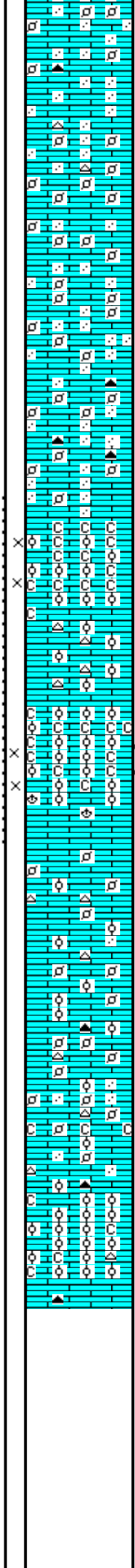
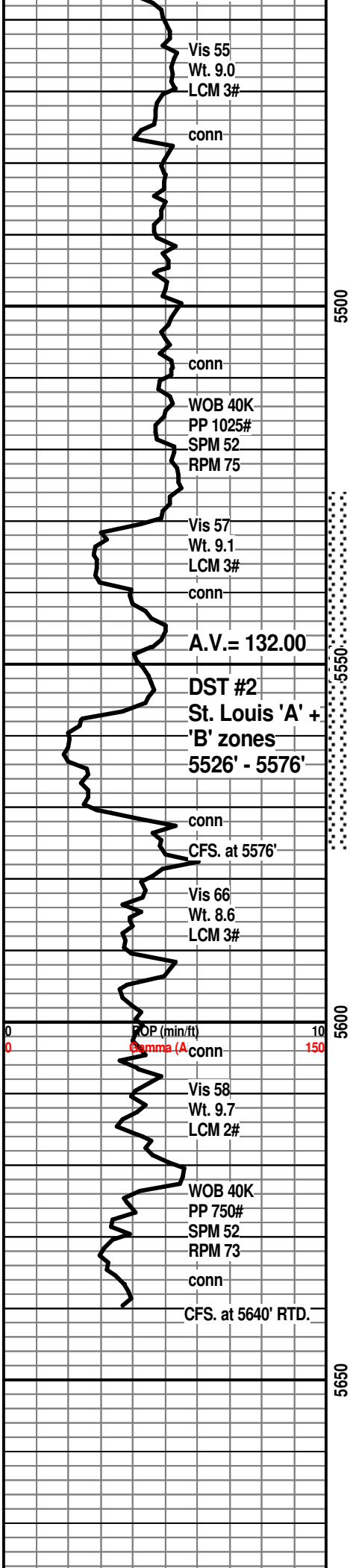
LM; lt gy to lt brn, sandy, hd, weathered appear.

SH; varic, platy, interbdd brn/off wh sandy lmst.

**ST. GENEVIEVE 5437(-2536)**  
LM; wh to off wh, sandy to finely pelletal, minor soft chalky mtz, rare blk dead tar flakes, dull yel to no fluor, no odor, weak cut

LM; wh, off wh, rare tan, sandy - abnt vf to f gr qtz gr in





mostly dense mtx, scat small tan/pale brn carb pellets, trc brite org cht, hd, no vis por, no stn or odor, ns.

LM; off wh, wh, tan, v. sandy, pelletal ip, all well cem, scat wh/org cht, no fluor, no stn or odor, ns.

LM; wh to off wh, tan, mostly sandy, abnt vf to f gr qtz in dense mtx, occ rnd carb pellets, hd, blocky, rare wh to pale org cht, no fluor, no stn or odor, ns.

LM; off wh, wh, tan, sandy to finely pelletal, hd, blocky, scat org cht, well cem, ns.

**ST. LOUIS 'A' 5530(-2629)**  
 LM; wh, off wh, oolitic, med size ooids, abnt wh soft chalk and chalky mtx, med/brite yel fluor, fair interpart por, SSFO, gd(sweet)odor, blk/dk brn spotted to even oil stn, fair to gd cut, no vis gas bubbles

LM; tan to cream, pelletal/oolitic, well cem, scat wh cht, no vis por, ns.

**ST. LOUIS 'B' 5556'(-2655)**  
 LM; wh to off wh, oolitic, v. chalky at top, most med to lrg ooids, fair to gd interpart por - loose ooids in tray, spotted to even med brn oil stn, SFO, gas bubbles, sweet gas odor, most w/brite yel fluor(chalk also), fair to gd cut, other foss mat, some barren por.

**DST #2: St. Louis 'A+B' 5526' - 5576'**

LM; off wh, tan, finely pelletal, scat small ooids, interbdd wh cht, no vis por, no stn or odor, ns.

LM; tan to lt brn, abnt small rnd carb pellets and occ small ooids, rarely sandy, well cem, occ trans/lt gy to org cht, no fluor, ns.

LM; tan to buff, lt brn, pelletal to sandy, interbdd soft chalky lmst, scat rare ooids, no vis por, no fluor, ns.

LM; tan to lt brn, foss - highly oolitic, well cem, minor chalky mtx, no vis por, no fluor, no stn or odor, scat tan/brn cht, ns.

**RTD. 5640' at 4:45 AM. 8/10/11**

LTD.

Halliburton DIL, NEU/DEN w/ PE,

