



Mudgrouve

Petroleum Corporation

Geologist's Report

Company: American Warrior, Inc
 Lease: Bertrand #2-26
 Field: Cook South
 Location: NW-SE-SE-NW
 Sec: 26 Twsp: 11S Rge: 33W
 County: Logan State: Kansas
 GL: 3109 KB: 3117

Contractor: Duke Drilling Company Rig #8
 Spud: 2/18 /14 Comp: 2/27/14
 RTD: 4740 LTD: 4740
 Mud Up: 3400' Type Mud: Chemical/Displaced

Samples Saved From: 3700' to RTD
 Drilling Time Kept From: 3700' to RTD
 Samples Examined From: 3700' to RTD
 Geological Supervision From: 3950' to RTD
 Geologist on Well: Kurt Talbott

Surface Casing: 8 5/8" @ 320'
 Production: None

Logs: By Pioneer: CNL/CDL, DIL, MEL

ROCK TYPES

Cht	Lmst fw<7	shale, gry	shale, red	Ss
Cht vari	shale, grn	Carbon Sh	Shcol	

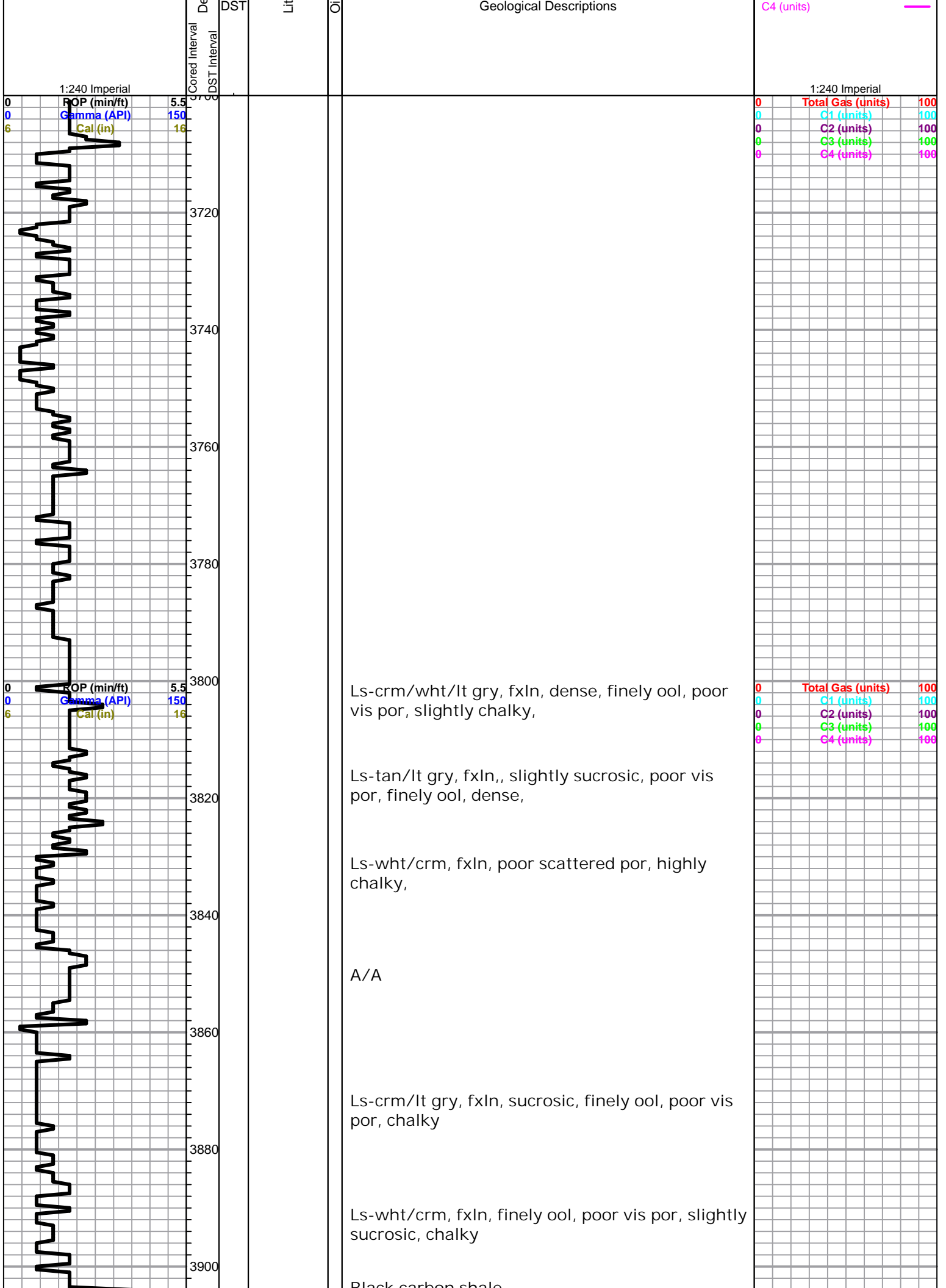
OTHER SYMBOLS

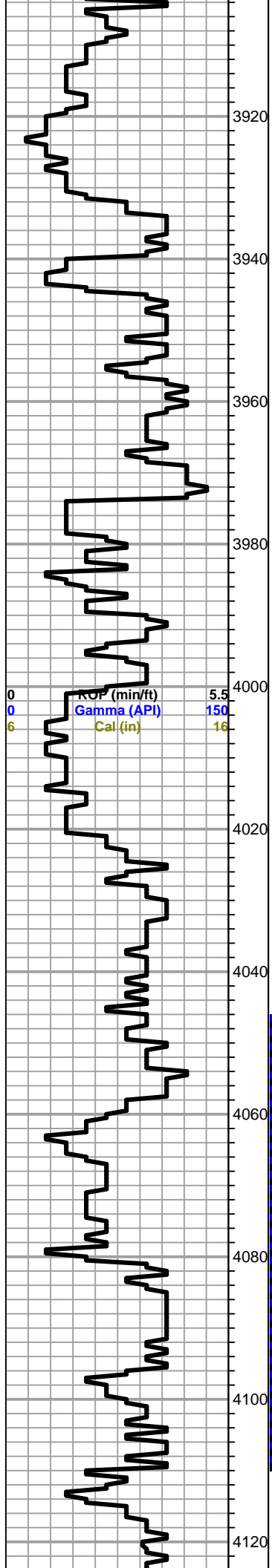
DST

	DST Int
	DST alt

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)

Curve Track #1	depth Intervals	hology	Show	TG, C1 - C5
ROP (min/ft)				Total Gas (units)
Gamma (API)				C1 (units)
Cal (in)				C2 (units)
				C3 (units)





Black carbon shale

Sand-gry, friable, well rounded, poor vis por,

A/A Ls- crm/wht, fxln, poor vis por, chalky

A/A

Ls- wht/crm, fxln, finely ool, slightly sucrosic, poor vis por, chalky, Sand- A/A Chert-crm/gry

Ls-crm/tan/lt gry, fxln, sucrosic, slightly dolomitic, poor scattered por, no vis shows chalky, chert-crm/gry

A/A Trace black carbon shale

A/A

Ls-crm/tan, -f-med xln, sucrosic, slightly dolomitic, poor scattered por, Chalky- chert-crm/tan

Heebner 4016.0 (-899.0)4018.0 (-901.0)

Black carbon shale

Ls-tan/gry, fxln, dense, scattered ool/fossils, scattered poor por, slightly chalky

A/A Shale-brown/red soft

Toronto 4042.0 (-925.0)4048.0 (-931.0)

Ls-crm/wht/tan, fxln, few fossils/ool, poor scattered iner xln por to sub oom por, chalky, no vis shows,

Lansing 4054.0 (-937.0)4060.0 (-943.0)

Ls-crm/tan/lt gry, fxln, slightly ool, dense, poor scattered poor por, chalky, no vis shows

Ls-crm/tan/wht, fxln, highly ool, dense, poor scattered iner xln to iner ool por, spotty dark brown to black stains, NSFO, no odor, chalky

Ls-tan/lt gry, fxln, ool, dense, poor vis por, cherty in part, slightly pyritic in part,

Ls-wht/lt gry, fxln, ool, fair ppt to iner xln por, ool, dark brown stains, SFO, fair odor, slightly chalky

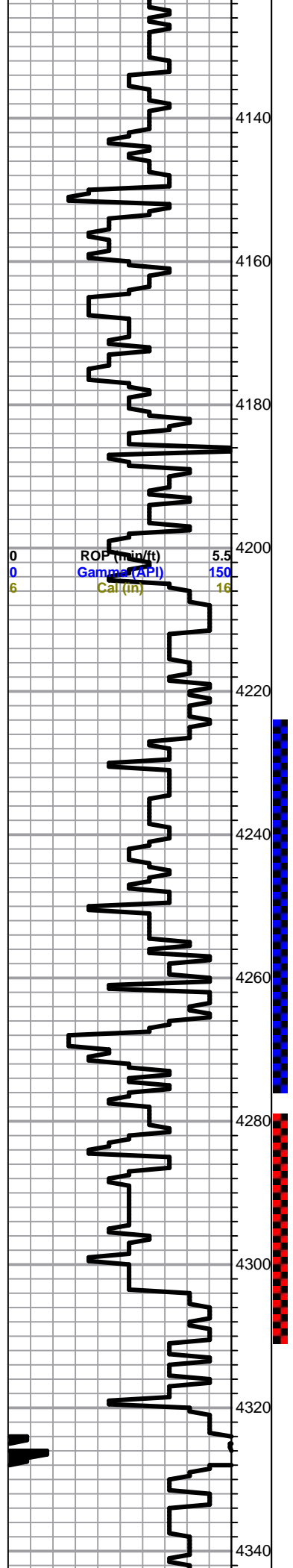
Ls- crm/tan/wht, fxln, slightly ool, dense, cherty in part, poor vis por, chert-tan/crm, slightly chalky

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

DST #1 4047-4109
30-45-30-60
IF: BOB 2 min
ISI: No return

Recovery:
288' MW (50w/50m)
248' MCW (80w/20m)
1364' MCW (95w/5m)

Pressures:
ISIP 1215 psi
FSIP 1217 psi
IFP 166-625 psi
FFP 612-900 psi
HSH 2034-1972 psi



Ls-wht/crm, fxln, slightly ool, dense, poor vis por, chalky,

Ls-tan/lt gry, fxln, dense, ool, poor vis por, chert-tan/crm, Shale-gry/grn/brwn

Ls-crm/wht, fxln, ool, scattered ppt to iner xln por, slightly chalky, scattered dark brown/blk stains, NSFO, odor? chert-bone wht/gry

Ls-wht/lt gry, fxln, dense, poor vis por, chert-gry, chalky Shale-brwn/grn

Ls-crm/tan, fxln, dense, poor vis por, chalky,

Ls-wht/lt gry, fxln, dense, poor vis por, chalky, shale-brwn/grn faint odor

Ls-wht/crm/lt gry, fxln, dense, poor vis por, cher-gry/crm, slightly chalky, Shale-blk/brwn faint odor

Black carbon shale

Ls-tan/buff/lt gry, fxln, dense, scattered ppt por, broken open faint odor, trace stains, NSFO, chert-tan/gry

Ls-tan/buff, fxln, dense, slightly ool, poor iner xln por, spotty dark brown stains, spotty weak SFO, faint odor

Ls-tan/lt gry, fxln, dense, poor vis por, slightly chalky

Ls-wht/crm, fxln, dense, cherty in part, poor scattered por, trace spotty stains, TrSFO, faint odor, slightly chalky

Ls-crm/tan, fxln, slightly ool, scattered poor por, spotty stains, NSFO, slightly chalky Shale-grn/brwn

Ls-crm/wht, fxln, slightly ool, poor vis pro, cherty, chalky, Trace Black carbon shale

Ls-tan/gry, fxln, ool, oom por, golden brown to dark brown stains, good SFO, fair odor, chert-tan/gry

Stark 4281.0 (-1164.0)4282.0 (-1165.0)

Black carbon shale

Ls-crm/tan, fxln, scattered finely vug por, trace stains, NSFO,

Ls-crm/wht, fxln, slightly ool, scattered fair finely vug to iner part. por, golden brown stains, Fair to good SFO, fair odor, chert-gry/crm

Ls-crm/tan/gry, fxln, ool, scattered poor por, dense, cherty, faint odor

Ls-tan/lt gry, fxln, dense, poor vis por, chert-boney wht/gry

Ls-wht/tan/gry, fxln, dense, ool, poor scattered por, trace stains, NSFO, no odor, chalky, chert-tan/gry

Ls-tan/lt gry, fxln, dense, poor vis por, trace spotty stains, NSFO, no odor, slightly chalky

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

DST #2 4224-4275
30-45-45-60

IF: BOB 16 minutes
ISI: No return

Recovery:
10' Oil
92' OGWM
(2%o 28%w 70%m)
124' WCM
(40w/60m)
124' MCW
(80w/20m)

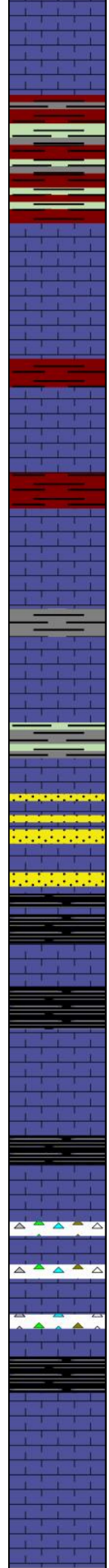
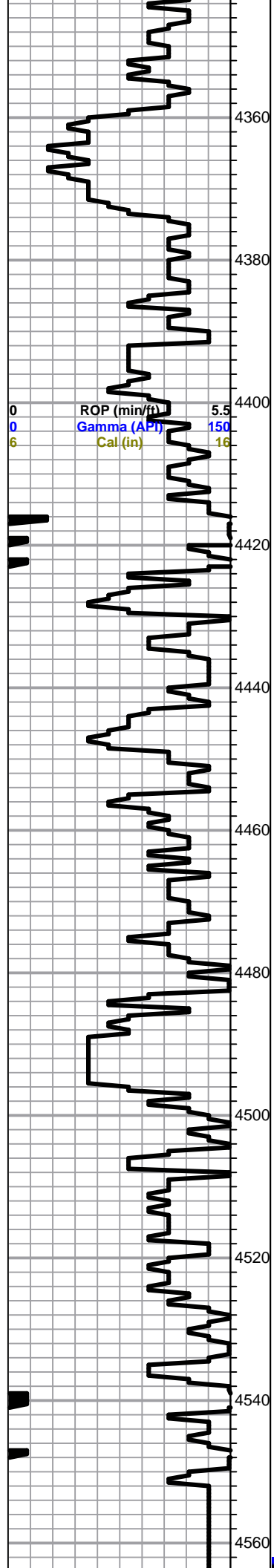
Pressures
ISIP 632 psi
FSIP 637 psi
IFP 37-106 psi
FFP 109-176 psi
HSH 2134-2126 psi

DST #3 4278-4310
30-45-45-60

IF: Built to 1'
ISI: No return

Recovery:
45' Mud w/oil spots

Pressures:
ISIP 450 psi
FSIP 433 psi
IFP 19-27 psi
FFP 28-38 psi
HSH 2165-2122 psi



Ls-lt gry, fxln, slightly ool, dense, cherty in part, poor vis por, chalky,

Ls-lt gry/tan, fxln, ool, poor vis por, dense, slightly chalky,

Shale- brwn/red/gry- soft,
Shale-gry-soft chalky

Marmaton 4374.0 (-1257.0)4376.0 (-1259.0)

Ls-tan/lt gry, dense, poor vis por, chery in part, slightly chalky

Ls-lt gry/tan, fxln, few fossils, dense, por vis por, slightly chalky,

Shale-brown/red-soft

Ls- lt gry/crm, fxln, dense, slightly ool, poor vis por, slightly chalky

Ls-gry, fxln, few fossils, poor vis por, chalky, shale-brwn/red,

Ls-gry/tan, fxln, slightly sucrosic, poor vis por, slightly chalky, shale-gry/brwn/blk, chert-gry/crm

Ls- & Chert A/A, Sand-gry, vfg, mostly well cemented, poor por,

A/A Shale- gry/grn

Ls-gry/tan, fxln, dense, poor vis por, chalky, Sand-A/A, Shale- blk/gry/grn

Ls-gry/tan, fxln, poor vis por, cherty in part, slightly chalky, Shale- A/A

Ls- gry/tan, fxln, slightly granular, dense, cherty in part,
Trace black carbon shale

Pawnee 4485.0 (-1368.0)4485.0 (-1368.0)

Ls-buff/gry, fxln, few fossils, dense, poor vis por, chert-gry/tan

Shale-black carbon

Ls-tan/buff/gry, fxln, ool/fossils, dense, poor vis por, chert-gry/tan

Ls-tan/buff, fxln, ool/fossils, poor vis por, cherty in part, slightly chalky

Black carbon shale, chert-tan/buff/gry

Fort Scott 4538.0 (-1421.0)4538.0 (-1421.0)

Ls-crm/tan, fxln, highly ool, dense, poor vis por, trace black carbon shale, chert-tan/crm

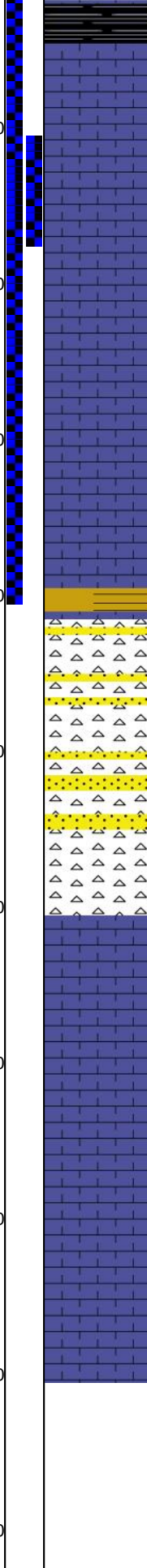
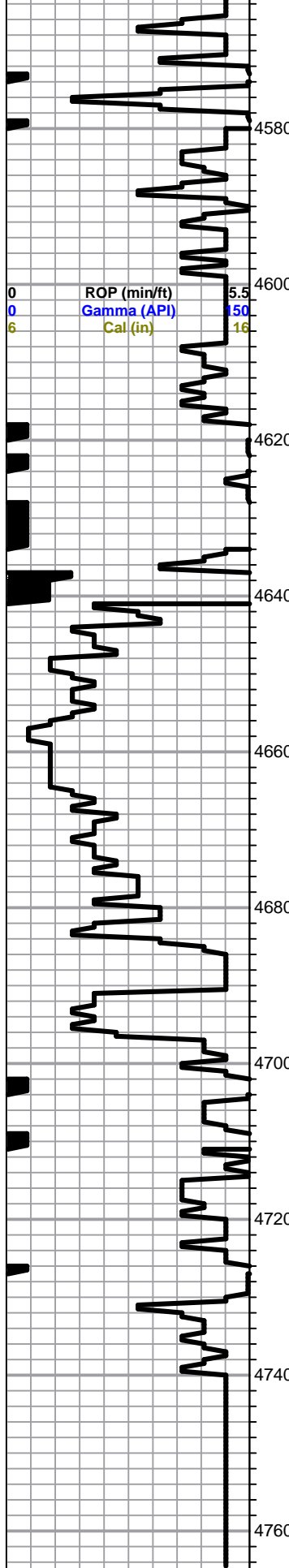
Ls-lt gry/tan, fxln, highly ool, poor vis por, slightly chalky

Cherokee 4565.0 (-1448.0)4566.0 (-1449.0)

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

DST #4 4563-4640
30-30-30-30
IF: Died In 7 min

Recovery:



Black carbon shale

Ls-buff/tan, ool/fossil in part, poor por, dense, cherty in part, slightly chalky

Ls-tan/buff, fxln, highly ool, poor vis por, dense

Ls-crm/tan, fxln, ool, poor vis por, dense, slightly chalky

Ls-lt gry/tan, fxln highly ool, poor vis por, dense, slightly chalky trace black carbon shale

Ls-tan/buff, fxln, ool, cherty in part, poor iner xln to sub oom por, dark brown stains, Saturation, Fai odor, Good SFO,

Ls-tan/gry/buff, fxln, dense, few fossils, poo spotty por, dark brown to black stains, Fair SFO, fair odor, slightly chalky

Ls-crm/tan, fxln, dense, poor vis por, slightly chalk, shale-blk/grn chert- tan/crm

Shale- varying color, slightly sandy
Chert- smokey gry

A/A Sand-wht, fine to med grained, poorly sorted, friable, poor por

A/A

Ls-wht/crm/lt gry, slightly ool, poor vis por, ool, sucrosic, slightly chalky

Ls-cm/wht/lt gry, fxln, slightly granular ool, sucrosic, poor vis por, slightly chalky, Chert-tan/crm

Ls-tan/buff, fxln dense, ool, poor vis por, slightly chalky,

Ls-lt gry/tan, fxln, ool, slightly granuler, poor scattered iner xln por, chalky, chert-tan/crm

Ls-wht/crm, fxln, sucrosic, ool, poor ppt to iner xln por, slightly glauconitic, chalky,

Ls-tan/gry, fxln, ool, oom, poor sub oom por, chalky, shale-gry/grn

Total Depth 4740.0 (0.0)4740.0 (0.0)

5 mud

Pressures:

ISIP 100 psi
 FSIP 51 psi
 IFP 18-19 psi
 FFP 21-51 psi
 HSH 2398-2279 psi

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100