

Sean Deenihan

Petroleum Geologist

15-077-21776

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GEOLOGIST'S REPORT DRILLING TIME AND SAMPLE LOG

COMPANY Atlas Operating LLC
 LEASE Sanders-Schmisser #3
 FIELD Spivey-Grabs-Basil
 LOCATION 330' FNL & 2200' FEL
 SEC 28 TWSP 31SRGE 8W
 COUNTY Harper STATE Kansas
 CONTRACTOR Val Rig #5
 SPUD 12/12/11 COMP 12/21/11
 RTD 4950' LTD 4951'
 MUD UP 3295' TYPE MUD Chemical
 SAMPLES SAVED FROM 3700' TO RTD
 DRILLING TIME KEPT FROM 3700' TO RTD
 SAMPLES EXAMINED FROM 3700' TO RTD
 GEOLOGICAL SUPERVISION FROM 3800'
 REFERENCE WELL Sanders-Schmisser #2

ELEVATIONS

KB 1595'
 DF _____
 GL 1585'
 Measurements Are All
 From Kelly Busting

CASING

CONDUCTOR _____
 SURFACE 8-5/8" @ 260'
 PRODUCTION 4.5"

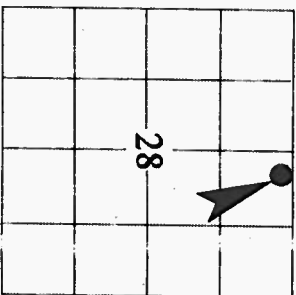
ELECTRICAL SURVEYS

CND DIL, _____
 MICRO _____
 Superior _____

Struct
Pos.

Atlas - Green #8

Formation	Sample Tops	E-log Tops
Heebner Shale		3396 (-1801)
Lansing	3740 (-2145)	3735 (-2140)
Stark Sh.	4062 (-2467)	4062 (-2467)
Cherokee Sh.	4290 (-2695)	4290 (-2695)
Mississippi	4402 (-2807)	4402 (-2807)
Viola	4748 (-3153)	4746 (-3151)
Simpson Sd	4798 (-3203)	4794 (-3199)
Simpson Sh	4870 (-3275)	4869 (-3274)

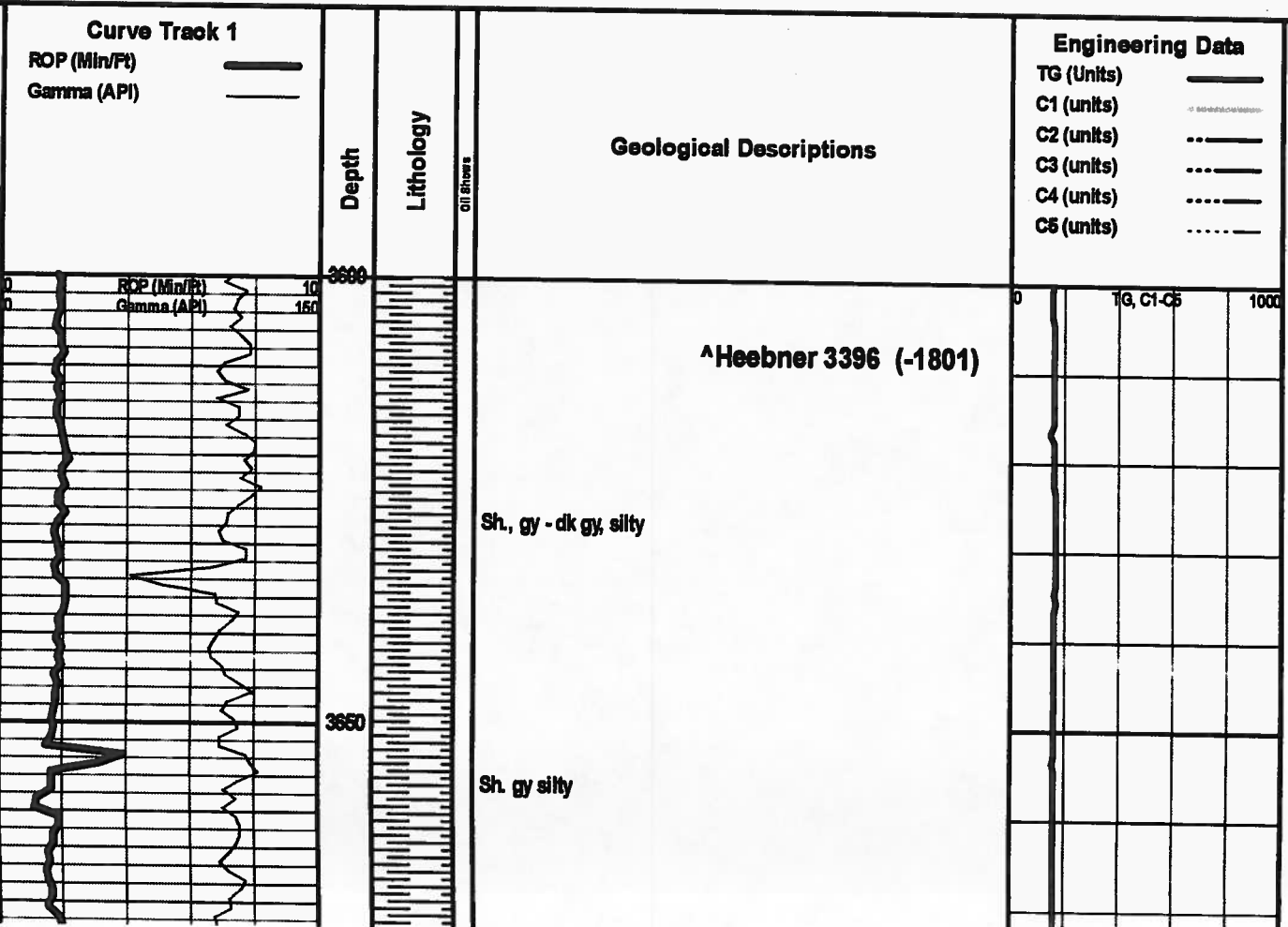


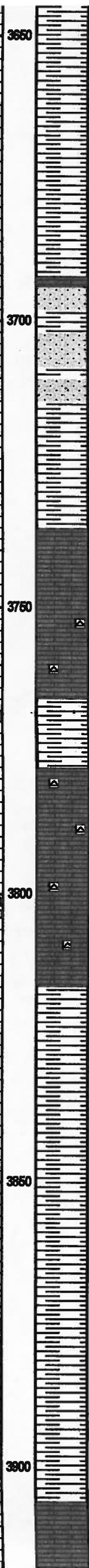
REMARKS The Sanders Schmisser #3 will be further evaluated through casing based on sample and log analysis.

Respectfully Submitted,

Sean Deenihan

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Sh. gy silty

Stalnaker Sd 3694 (-2099)

Ss., lt gy, vf - md gr, p sorted, sub rd, fr intgran Por, Fri, n/s

Lansing 3735 (-2140)

Ls., tn, crm, chiky, p intgran Por, firm, no odor

Sh., gy

Ls., crm, tn, shaley, p vis por, sli cherty, firm, n/s

Sh., gy-dk gy

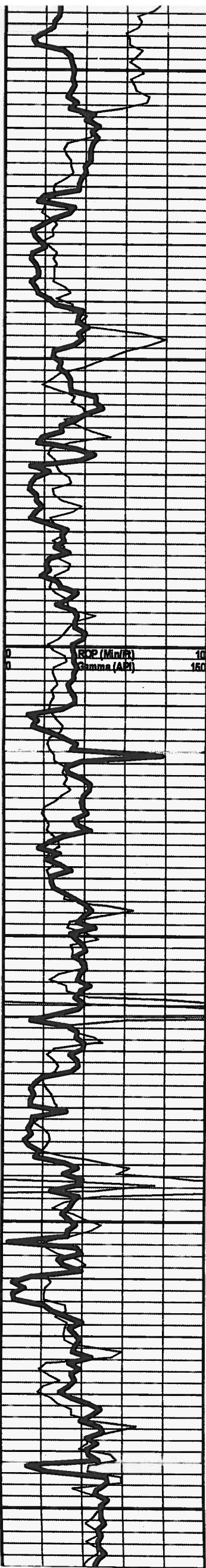
Sh., gy, bm, dk rd

Sh., dk gy - blk, gummy

KC 3906 (-2311)

Hole in Pipe
Bit trip
Button Bit

IG, C1-C5



KC 3906 (-2311)

Sh., gy

Sh., gy

Dol., f xin, p intdn Por, fri, n/s

Ls., crm, vf gr, NVP, hd, n/s

Ls., crm, vf gr, p vis Por, chiky, n/s

Ls., crm, tn, vf gr, p intgran Por, fos frags- Fus, firm, n/s

Cht, gy, fresh, sharp spic, fos frags, hd

Ls., wh, crm, vf gr, chiky, p vis Por, fri, no odor

Ls., wh, tn, xf gr, p Por, inc gy chert, firm

Stark Sh. 4062 (-2467)

Sh., blk

Ls., crm, vf gr, fos, p-fr intgran por, shaley, fri, n/s

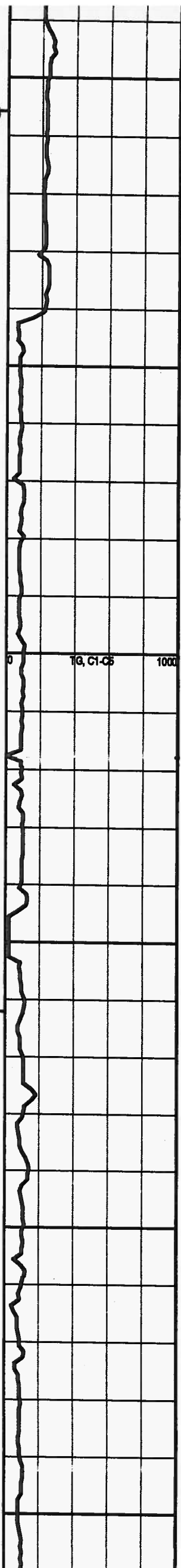
Ls., crm, lt brn, firm-hd, p vis por, occ fos, n/s

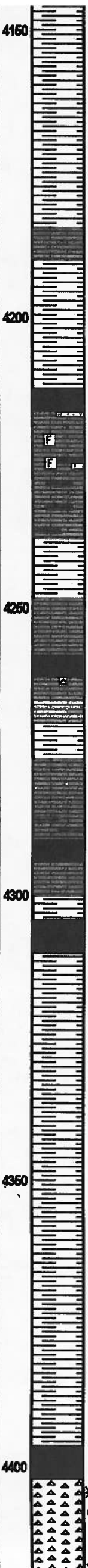
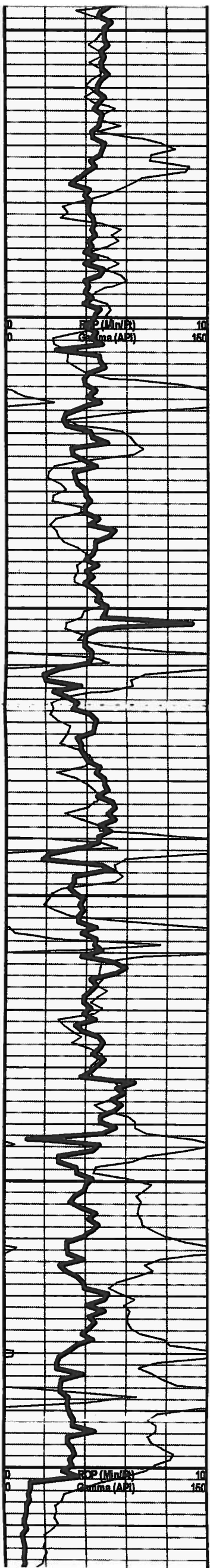
Ls., crm, hd, vf gr, chiky IP, sme sdy, occ Fos, n/s

Ls., crm, vf gr, p intgran por, firm, n/s

Sh., gy-dk gy, brn

Sh., gy, tn, brn





4150 Sh., gy, tn, bm

Sh, dk gy

4200 Ls., tn, bm, shaley, p vis por

Sh., blk

Ls., cm, vf gr, fos, dolc, p vis Por, n/s

4250 Ls., cm, vf gr, p vis por, firm-hd, inc. wh-gy Cht, fresh

Ls., wh, cm, vf gr, p intgrpn por, abd rd/bm Sh., n/s

Ls., cm, vf gr, p vis Por, firm, n/s

Sh., blk

4300 Abd Sh., rd, bm, gy

Sh., blk

Ls., cm, Ool, NVP, brittle, n/s

4350 Ls., cm, f gr, p vis Por, hd, n/s

Ss., wh, vf gr, sb rd, well srtcd, well cmntd p intgran Por, barren, gassy?, no odr

Sh., varic

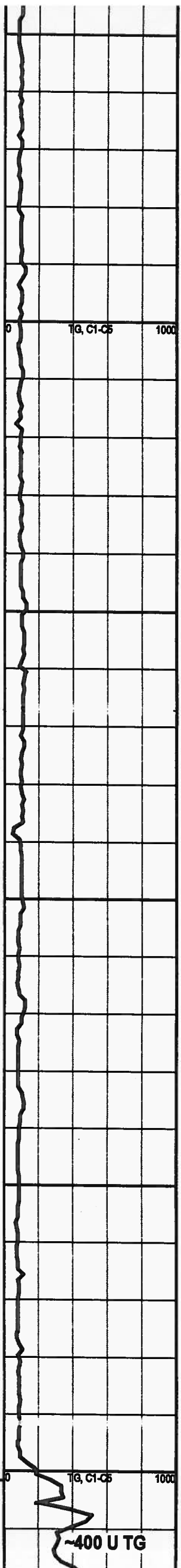
Ss., clr, wh, vf gr, sbrcd, mod srtcd, fr intgran por, sli show live lt bm oil, ft odor, fluor

Sh., varic

4400 **Mississippi 4402 (-2806)**

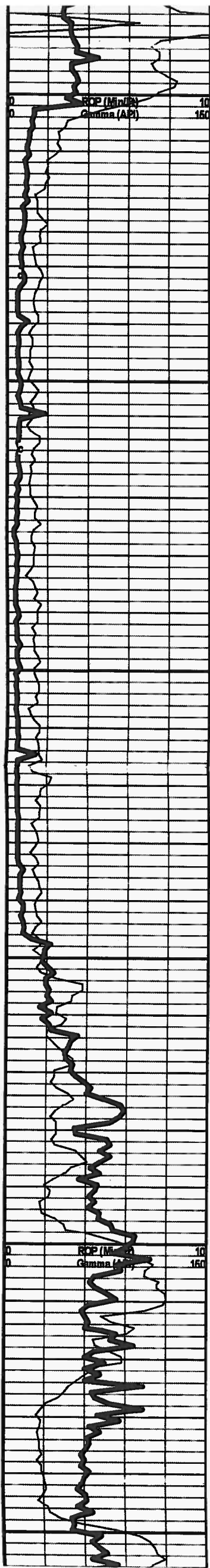
Cht., clr, wh, abd spic, gd-exc por, Trip, rapid gas bubble, FSFO - lt bm, mod odr, gd fluor

Cht (Tripolite), wh, gd-exc vug/trip Por, spic, vfri-firm, sat w/ lt



Mud 4260'
vis 47
wt 9.3#
LCM 3#

~400 U TG



Ss., cl, wh, vf gr, sbrd, mod srted, fr intgran por, sli show live lt brn oil, ft odor, fluor

Sh., varic

Mississippi 4402 (-2806)

Cht, cl, wh, abd spic, gd-exc por, Trip, rapid gas bubble, FSFO - lt brn, mod odr, gd fluor

Cht (Tripolite), wh, gd-exc vug/trip Por, spic, vfri-firm, sat w/ lt brn Oil, gassy, GSFO, gd odr, gd bright fluor

Cht, wh-tn, exc vug/foe cast Por, trip, spic IP, firm-hd, sli chiky, good oil bleed, abd lt brn Oil floating in tray, sme dk brn-blk tarry oil, v gd odr, gd fluor

Cht., a.a

Cht., bright wh, most w/ gd trip Por, rr sli-weathered/fresh, Skim of med brn tarry oil on sample cup, pred gd slow oil bleed, sme w/ p O show upon crush, firm, dec. fluor

Cht., wh, trip, v gd Por

Cht., a.a, dec. spic, inc. diatoms, gd Moldic Por, abd slow oil bleed, gd odor, gd fluor

Cht., wh, weathered-trip, drk brn - tarry/flaky oil, rr gas bubble, inc barren Por, dec. Stn, wk fluor

Cht., a.a

Tripolite, bright white, dec show/stn, gassy odor, wk fluor

Ls., crm, tn, vf gr, chiky, NSFO

Ls., crm, gy, f gr, shaley, n/s

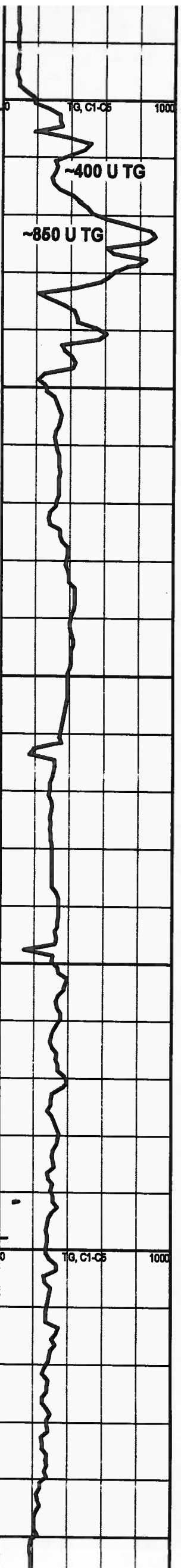
Ls., tn, vf, gr, NVP hd,

Kinderhook 4598 (-3003)

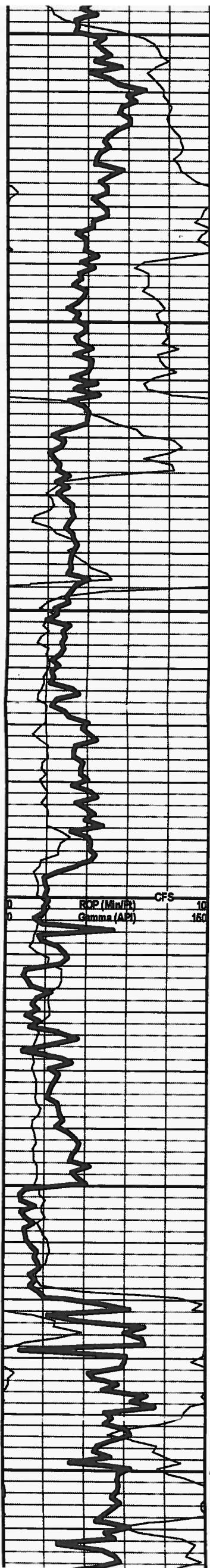
Sh., varic, hd

Sh., a.a

Ls., wh-crm, vf gr, P vis Por, v hd n/s



Mud 4560' vis 64 wt 9.2# LCM 5#



4650

Sh., aa

Sh., varic, silty, r Ss., gy, vf gr, pr intgran Por, firm, n/s

Ls., cm, vf gr, NVP hd, scaly

4700

Sh., gy, gm, bm

Sh., blk

Sh., gm, gy, firm

Sh., varic, firm, cong

4750

Viola 4750 (-3154)

Dol., gy, vf xln, fr intbn por, no show

Dol., wh, gy, vf xln, p v vug por, firm, Pyr, n/s

Dol., gy, p vis Por, n/s

Simpson Sd 4794 (-3199)

4800

Ss., gy, clr, vf - f gr, p intgran Por, dirty IP, glauc, sme bm str, no odor, no fluor, no cut, no str.

Ss., clr, tn, vf gr, sb ang, well sorted, well cemented, dirty, no show.

Ls., cm, gy, vf gr, p intgran Por, scaly, hd

Sh., varic

4850

Ss., clr, gm, vf gr, Pyr IP, fri, dirty, n/s

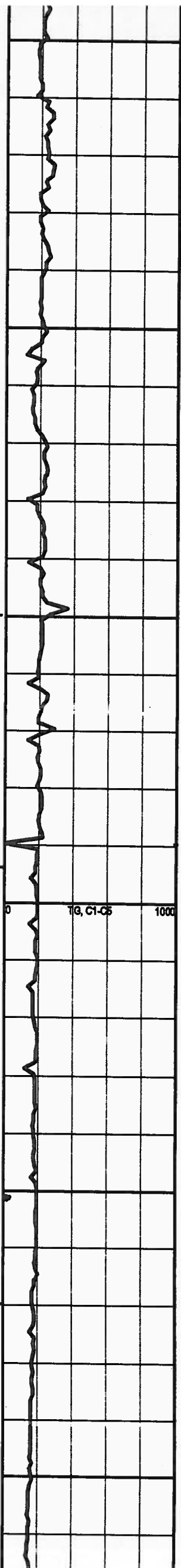
Ss., clr, wh, vf gr, p - fr intgran Por, mod strded, sb rd, no odor, n/s

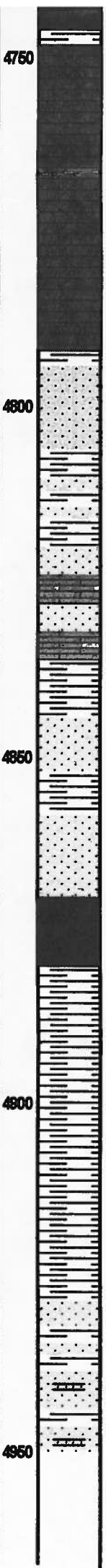
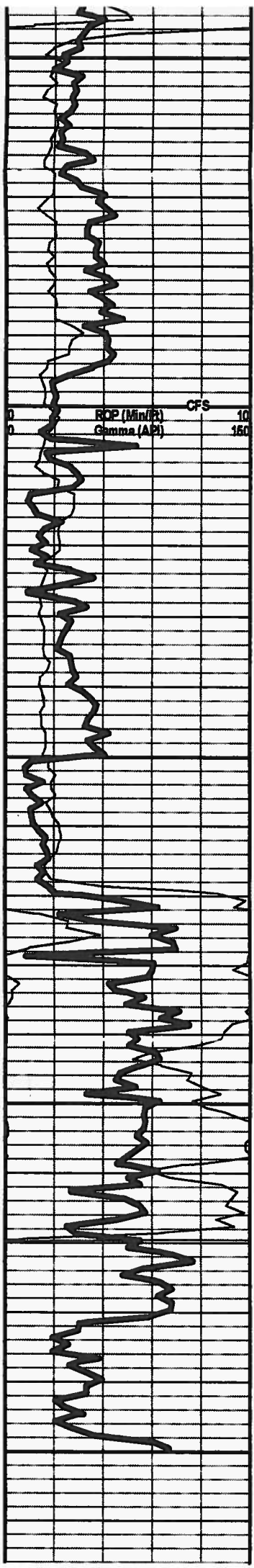
Simpson Sh 4870 (-3275)

Sh., gy-dk gy, mottled, pyr, n/s

4900

Sh., gm, gy, purp, fis, n/s





Viola 4750 (-3154)

Dol., gy, vf-xln, fr intxn por, no show

Dol., wh, gy, vf xln, p vug por, firm, Pyr, n/s

Dol., gy, p vis Por, n/s

Simpson Sd 4794 (-3199)

Ss., gy, clr, vf -f gr, p intgran Por, dirty IP, glauc, sme bm str, no odor, no fluor, no cut, no str.

Ss., clr, tn, vf gr, sb ang, well sorted, well cemented, dirty, no show.

Ls., crm, gy, vf gr, p intgran Por, scaly, hd

Sh., varic

Ss., clr, gm, vf gr, Pyr IP, fri, dirty, n/s

Ss., clr, wh, vf gr, p - fr intgran Por, mod srted, sb rd, no odor, n/s

Simpson Sh 4870 (-3275)

Sh., gy-dk gy, mottled. pyr, n/s

Sh., gm, gy, purp, fis, n/s

Sh., sdy, n/s

Pred sh., w/ dirty Ss. stringers, abd dk minerals, fr intgran Por, n/s

RTD 4950 LTD 4951

