



NORAM

WELLSITE SERVICES

Billings, MT 406-652-3922

SAMPLE LOG

WELL NAME: Pluto 27-1

LOCATION: Sec 27 T18N R61E

COUNTY: White Pine

STATE: Nevada

COUNTRY: United States of America

COMPANY: Plains Exploration and Production Co.

FIELD/POOL: Wildcat

WELLTYPE: Exploratory

NORAM FILE: CR714

UWI: 2703305318

API: 27-033-05318

COMMENTS: Nabors Drilling, Rig 148

G.L.: 7357 ft

K.B.: 7382 ft

Top of Data: 60 ft MD 60 ft TVD

Top of Samples: 60 ft MD 60 ft TVD

Total Depth: 9643 ft MD 9631 ft TVD SAMPLES
LOGS

Well Location Coordinates: 1865' FSL & 905' FEL, Sec 27 T18N R61E

Mud Type Summary

Mud Company: MI Swaco

Mud type: Spud Mud 30 ft to 157 ft

Air/Mist/LSND 157 ft to 4750 ft

Gel/SP101 4750 ft to 9643 ft

Spud Date: 05/08/2007 23:00 hrs

TD Date: 07/31/2007 08:00 hrs

Consulting From: 05/08/2007 to 08/01/2007

Sample Data: 60 ft to 1630 ft 30 ft; 1630 ft to 9643 ft 10 ft

Gas Data: 60 ft to 9643 ft

Wellsite Consulting Firm: NorAm Wellsite Services, LLC

Wellsite Geologist: 1) T. Rooster From 60 ft to 9643 ft MD

Wellsite Geologist:	1) T. Baeten	From 60 ft to 9643 ft MD
	2) L. Klause	From 60 ft to 9230 ft MD
	3) D. Myhre	From 9230 ft to 9643 ft MD

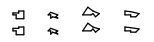

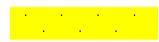

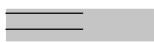










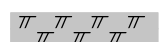
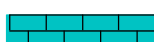
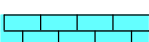
















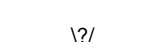

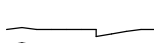


Hole Size:	17.5 inch	From 157 ft to 1629 ft MD
	12.25 inch	From 1629 ft to 4750 ft MD
	8.75 inch	From 4750 ft to 9643 ft MD
Casing:	20 inch	From 122 ft to Surfac ft MD
	13 3/8 inch	From 1589 ft to Surfac ft MD
	9 5/8 inch	From 4995 ft to Surfac ft MD

Bottom Formation:	Chainman Shale (Mississippian)
Well Status:	Dry & Abandoned

Wireline Log Summary			
Company:	Baker Atlas Run 1	Company:	Baker Atlas Run 2
Interval:	From 1582 ft to 0 ft	Interval:	From 4656 ft to 1589 ft
Log Suite:	HDIL-MRIL-ZDL-CN-GR-DAL-DIP-2CAL	Log Suite:	HDIL-MRIL-ZDL-CN-GR-DIP-2CAL
Remarks:		Remarks:	
Company:	Baker Atlas Run 3		
Interval:	From 6915 ft to 4400 ft		
Log Suite:	HDIL-MRIL-ZDL-CN-GR-DIP-2CAL		

Remarks:

LITHOLOGY SYMBOLS

	Breccia		Conglomerate		Sandstone		Siltstone
	Shale Gray		Shale Black		Shale Light		Shale Dark
	Shale Colored		Claystone Gray		Claystone Colored		Bentonite
	Chert Light		Chert Dark		Marlstone Calcareous		Marlstone Dolomitic
	Limestone mud supported		Limestone grain supported		Dolomite Primary		Dolomite Secondary
	Siderite		Anhydrite Primary		Anhydrite Secondary		Gypsum
	Salt		Coal		Coal interbedded		Igneous Basic
	Igneous Acidic		Tuff		Welded Tuff		Metamorphic
	Karst		No Sample		Not Interpretable		Questionable
	Unconformity		Shale Brown		Claystone Brown		

ACCESSORY SYMBOLS

// Anhydritic	/ Argillite	- Argillaceous	B Bentonitic	▲ Cemented Bituminous Subst.
⊞ Brecciated	⊥ Calcareous	■ Carbonaceous	▲ Chert Dark	△ Chert Light
⊞ Chert Tripolitic	⊥ Dolomitic	+ Feldsparitic	● Ferruginous Pellets	∨ Ferruginous
^ Glauconite	∖ Gypsiferous	† Heavy Minerals	K Kaolin	* Minerals
⊙ Nodules	• Phosphatic	p Pyritic	⊞ Salt	◦ Sandy Grains
▪ Sandy	— Laminated Shale	^ Siliceous	•• Silty	∨ Tuffaceous
◦ Pebbles	■ Coal	∖ Sideritic	m Micaceous	

STRINGERS

⊞ Anhydritic stringers	⊞ Dolomitic stringers	⊞ Gypsum stringers	⊞ Limestone stringers	⊞ Marlstone Calcareous stringers
⊞ Marlstone Dolomitic stringers	⊞ Sandstone stringers	⊞ Siltstone stringers	⊞ Siderite stringers	

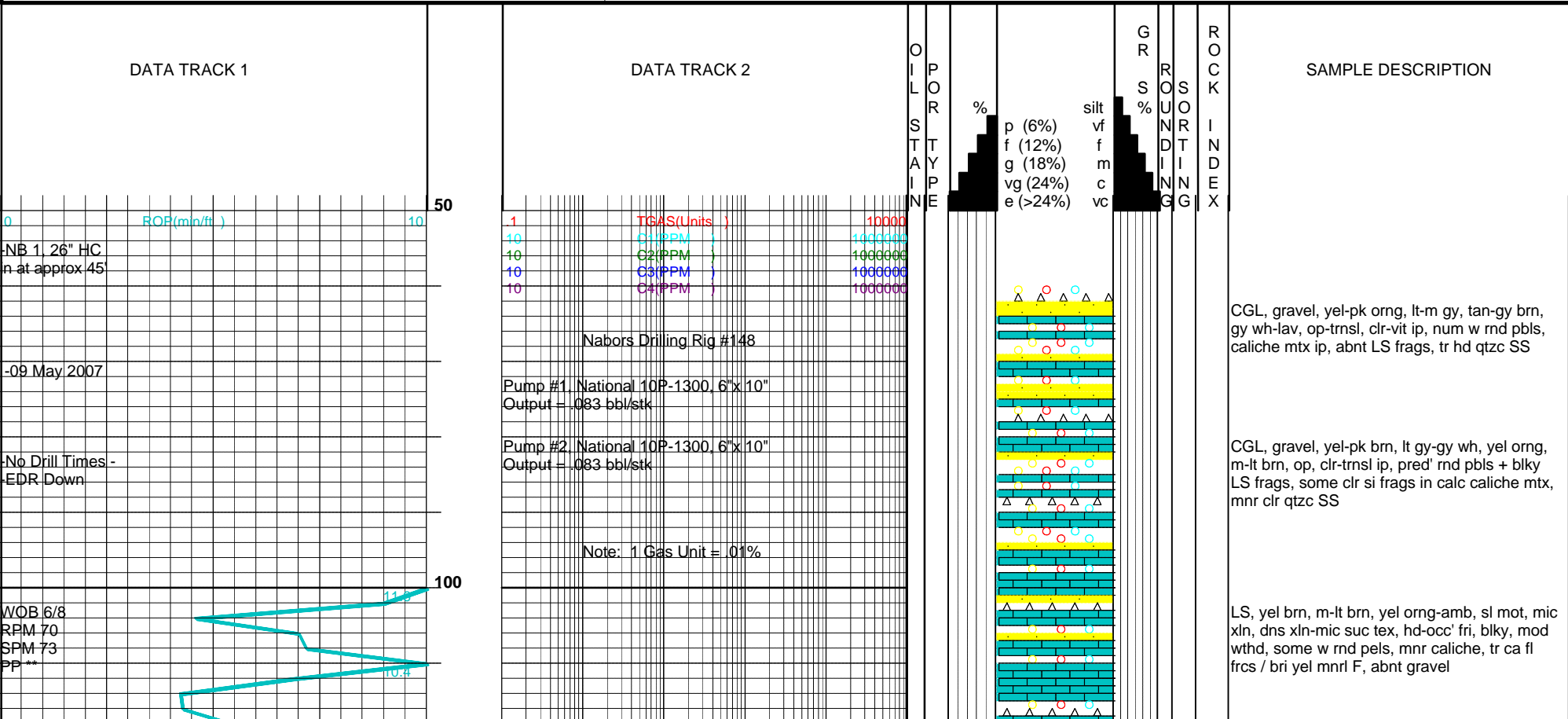
FOSSIL SYMBOLS

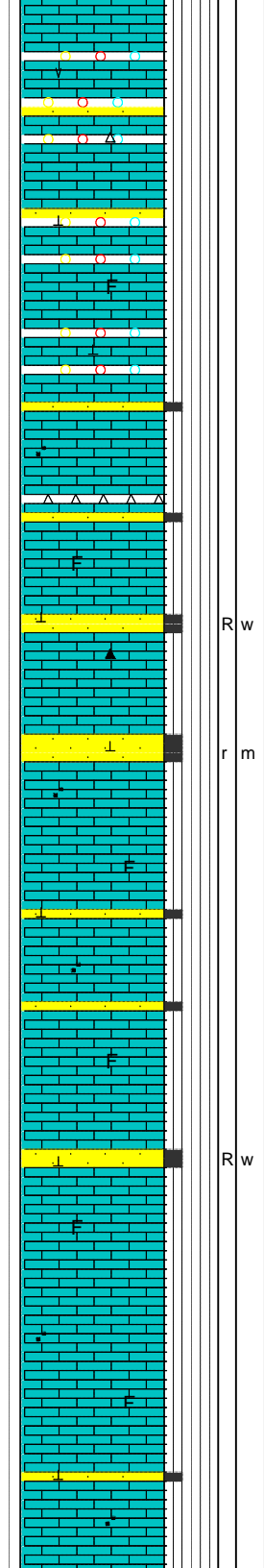
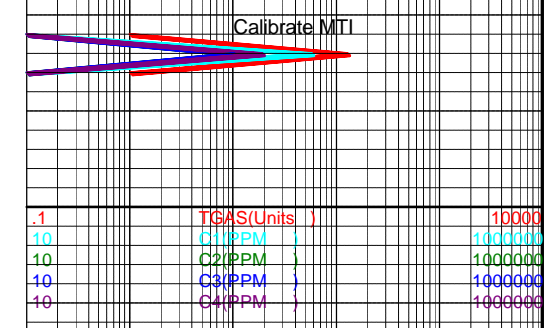
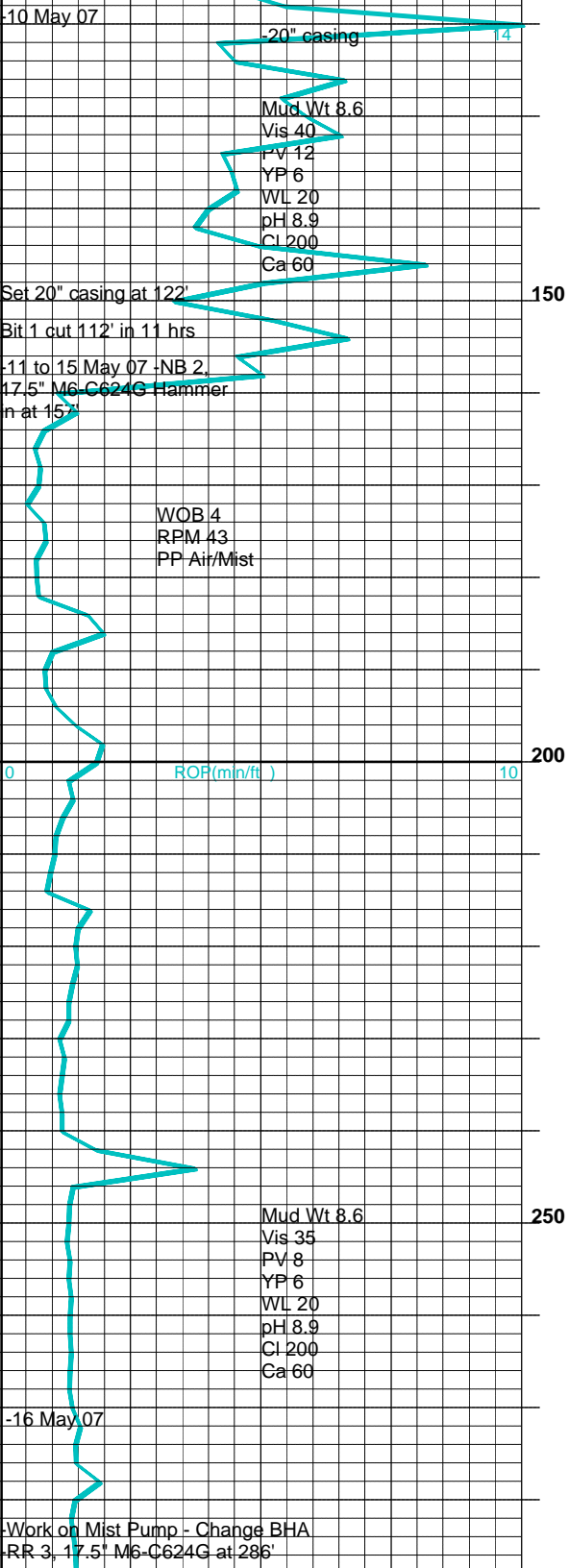
▪ Amphipora	∨ Belemnites	^ Bioclastic	∪ Brachiopod	∩ Bryozoa
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- ☐ Coral
- ☐ Crinoidal
- ☐ Echinoid
- ☐ Fish Remain
- ☐ Foraminifera
- F Fossil
- △ Gastropod
- ∩ Intraclast
- ♣ Oolites
- ⊖ Ootoids
- Ostracod
- ∩ Pelecypod
- ∩ Pellet
- ∩ Pisolite
- ♣ Plant Remain
- ∩ Scaphopod
- ∩ Skeletal
- ∩ Stromatoporoid
- ∩ Cephalopod
- ∩ Non Descript
- ▨ Laminated
- S Plant Spores

1 symbol <=10%, 2 symbols 10%-20%, 3 symbols 20%-30%

ROCK INDEX	POROSITY	GRAINSIZE	SORTING	OTHER SYMBOLS	
IA > 100 md IB 10md - 100md IC 1md - 10md	ID 0.5md - 1md II 0.07md - 0.5md III < 0.07md	ig - intergranular ix - intercrystalline v - vuggy o - organic	p - pinpoint f - fenestral m - moldic e - earthy	slt - silt vf - very fine f - fine m - medium c - coarse vc - very coarse	p - poorly m - moderately w - well
OILSTAIN D - dead ○ - questionable (no fluorescence in solvent) ● - spotty (fluorescence in solvent) ● - live		TEXTURE C - chalky cx - cryptocrystalline e - earthy L - lithographic		CURVE LEGEND ROP(min/ft) TGAS(Units) C1(PPM) C2(PPM) C3(PPM) C4(PPM)	
OTHER SYMBOLS DST Core Sidewall Core RTF MDT pressure point Fault Reverse Fault Slide Rotate					





CGL, gravel, lt yel tan-yel, yel org, lt gy brn-lt brn, lt gy-gy tan, tr dk gy bnnd pbbs, hd-mod hd, blk, rthy-grty tex, occ' sm, gen v calc grd to LS, stly-v sl tuff ip, abnt clr-pk-lt amber qtz xls, tr dendrite

LS, yel tan-lt yel gy, yel org-yel brn, lt-m brn, org tan, crm yel org, tr sl mot, mic-crp xln, vf xln, rthy, scat fos deb, mnr ca frcs, stly ip, tr lt brn-lt org CHT, decr vol qtz frags, rr wh mnrl F

LS, yel-lt yel org, lt brn-tan, pk tan, yel tan-yel gy, yel wh, bnnd-sl mot ip, mic-crp xln, hd, blk, stly-sdy ip, tr fos, scat caliche, rr 1 mm vugs, spty dull yel mnrl F, tr m gy cement tr CHT org-lt brn, trns, spec ip, mic-crp xln, hd, rr ca fld frcs

SS, lt yel-yel org, lt yel tan, vf gr, mod-w srtd, rnd-sb rnd, clr-trns, hd, calc cmt, stly ip, tr org CHT, NVS

LS, yel tan-lt brn, pale yel-yel org, yel gy-yel wh, pk tan, tr sl mot, mic-crp xln, hd, blk, sm tex, occ grty w/ vf gr sd, scat fos + dendrites, tr fnt mnrl F

SS, lt yel-lt yel org, vf gr, mod-w srtd, w rnd-sb rnd, hd, clr grns, v calc, rr org CHT

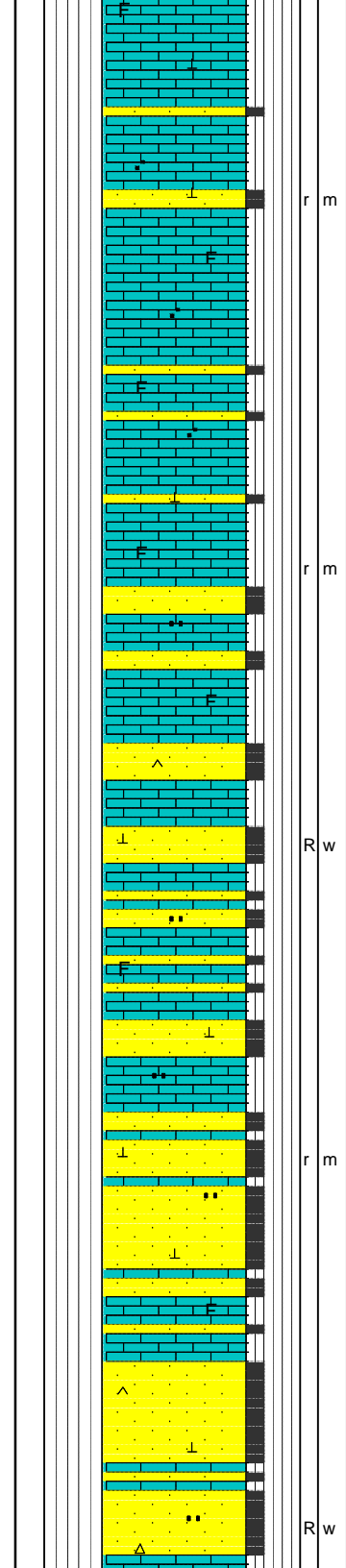
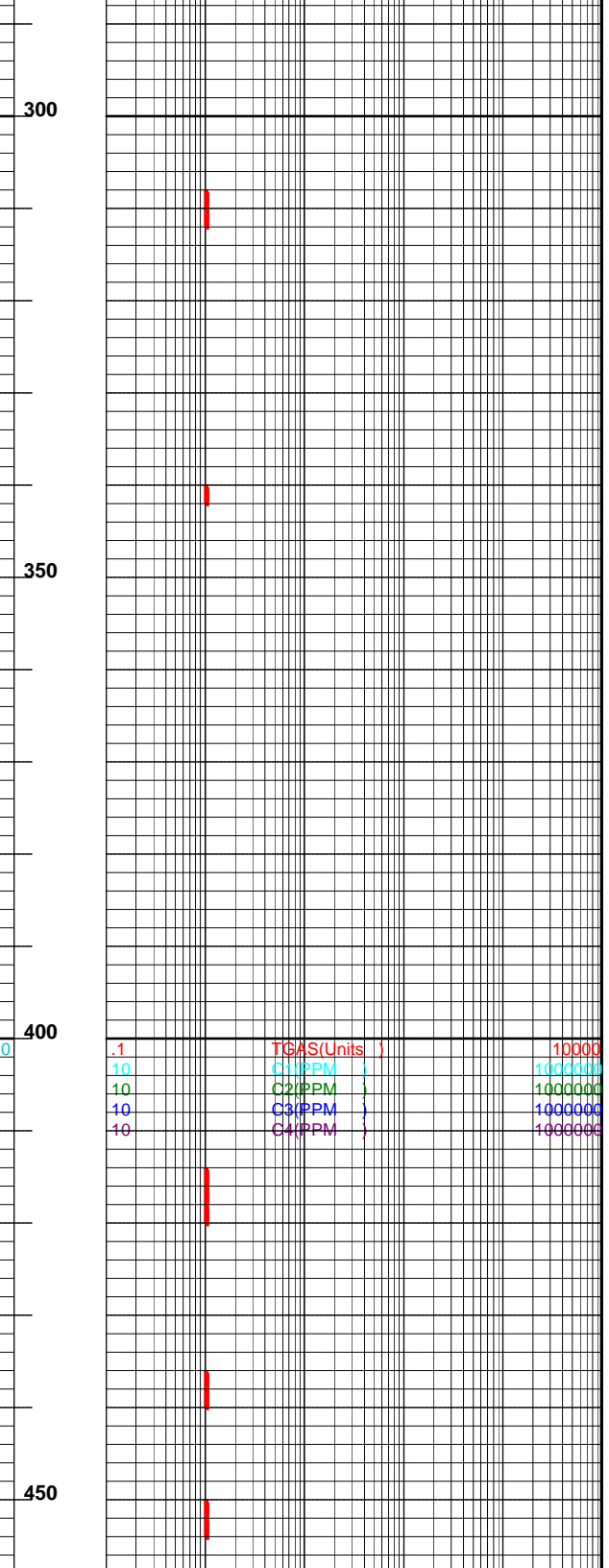
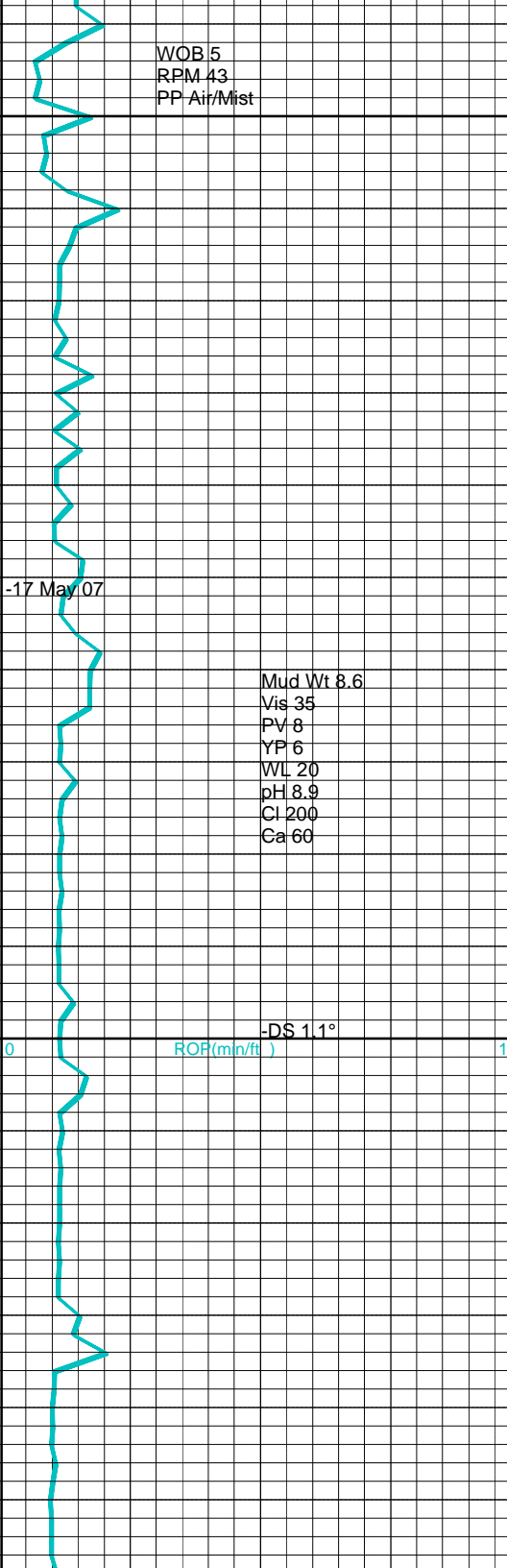
LS, lt yel-yel brn, yel org, lt-m brn, pk tan-crm org, tr bnnd, mic-crp xln, hd, blk, sm tex, occ' v sdy, fos' ip, mnr dendrite, scat vugs + voids, rr bri yel-tr dull yel mnrl F

LS, tan-lt brn, lt yel-yel org, yel tan-yel gy, gy wh, crm pk, sl mot, mic-crp xln, hd, blk, sm tex, occ' v sdy, fos' ip, mnr dendrite, scat vugs + voids, rr bri yel-tr dull yel mnrl F

R w

r m

R w



r m
 SS, lt yel-pk tan, vf gr, mod srtdd, rnd-sb ang, clr-sl fros gr, hd, gen v calc

 r m
 LS, yel-yel tan, yel orgng-crm, pk tan-buff gy, tr bnndd, mic xln, hd, blkly, rthy-sm tex, sdy-slty ip, mnr wh-clr ca, scat fos deb + dendrites, occ vugs, tr mnrl F

 r m
 LS, lt brn-yel tan, yel-yel orgng, orgng brn-yel gy, sl mot-tr bnndd, mic-vf xln, crp xln, rthy-sm tex, blkly, hd, tr ca fld frcs, slty-slty ip, incr' fos', occ dendrites, scat vugs, tr free wh ca, tr wh mnrl F

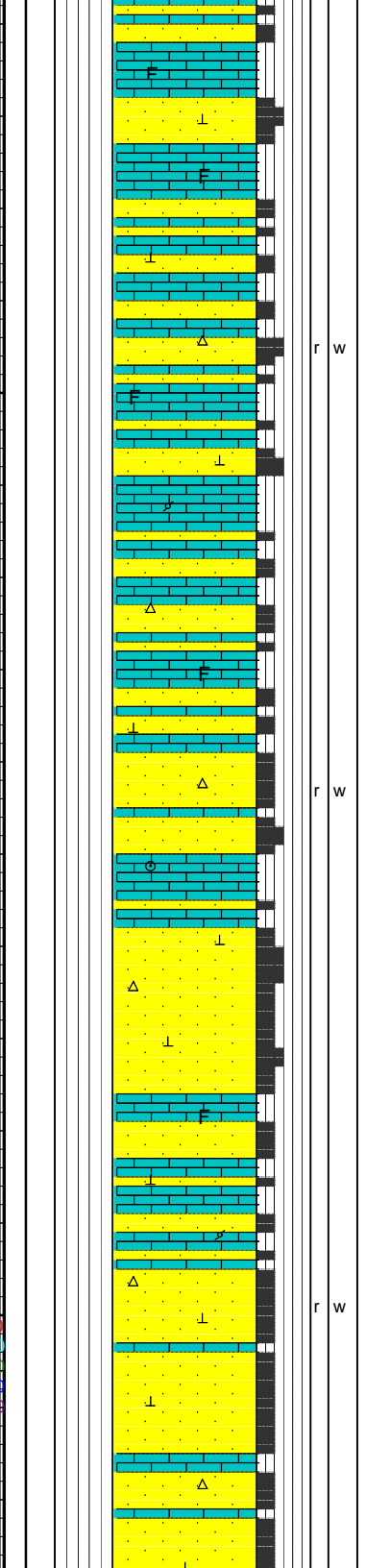
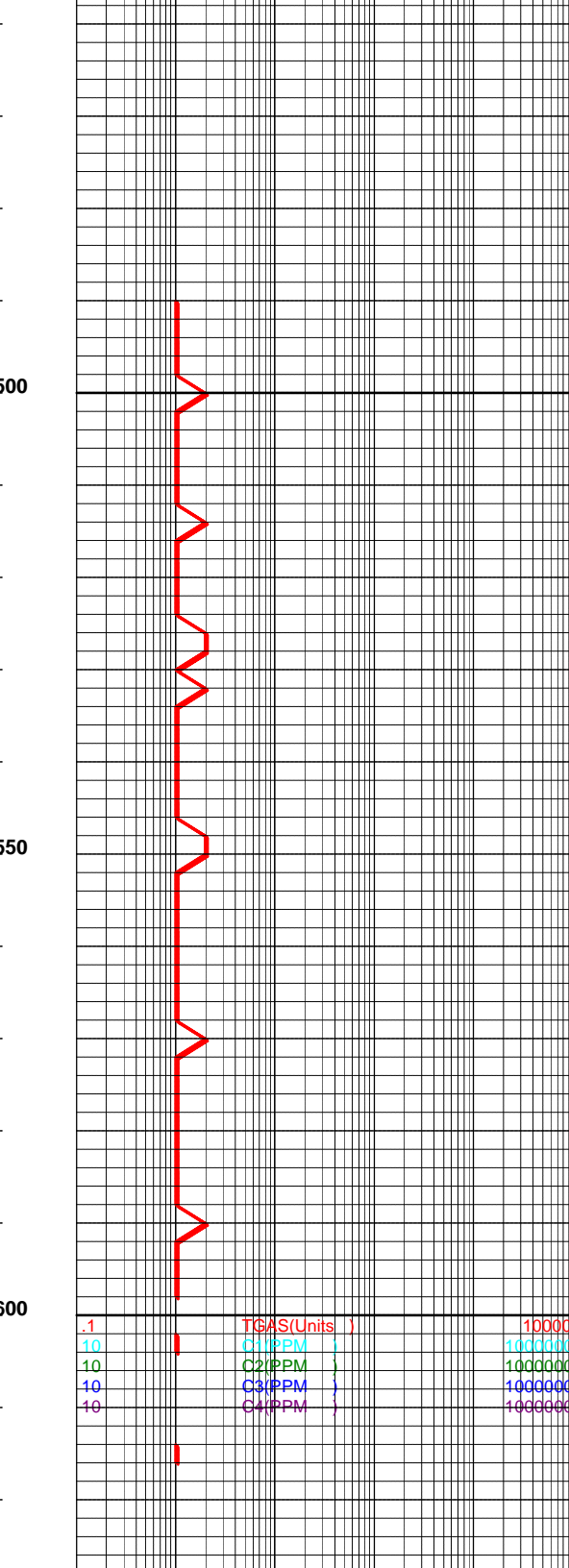
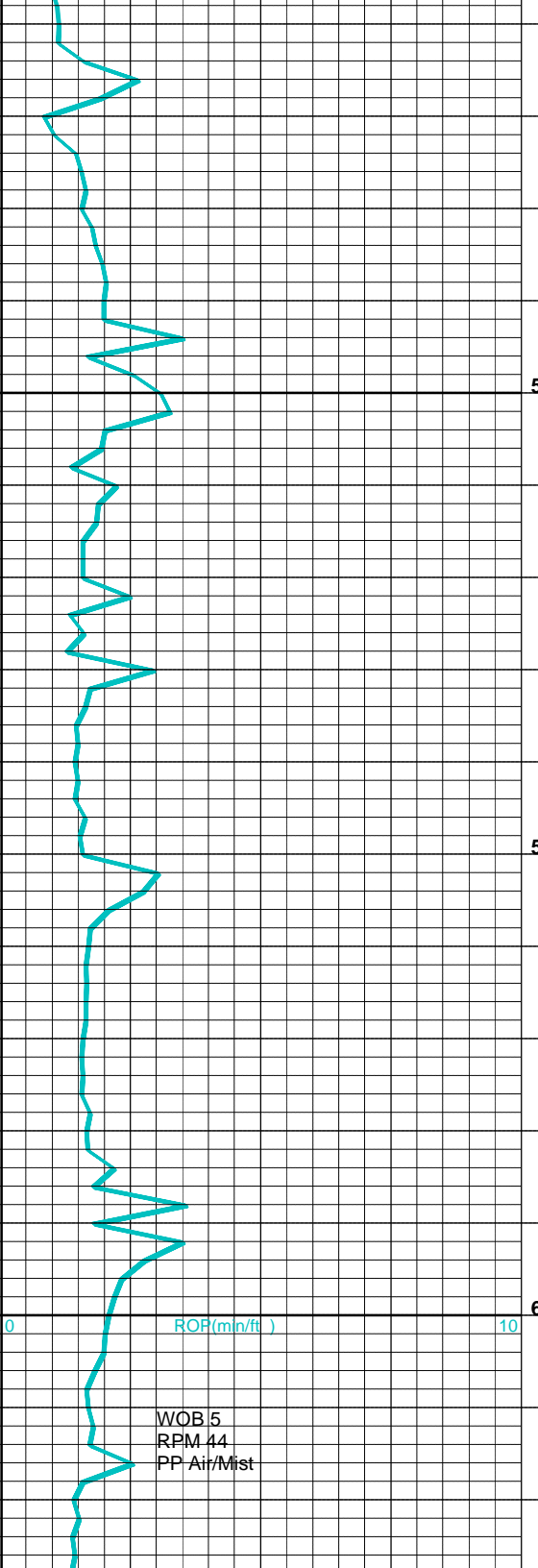
 R w
 SS, lt-dk yel, yel gy-yel tan, yel orgng, vf gr, mod w srtdd, rnd-sb rnd, clr-sl fros gr, hd, rthy-grty tex, calc cmt, sl sil ip, slty ip, tr dendrite, spty dull yel F, NC

 r m
 LS, lt brn-pk tan, lt yel gy, tr mot, mic-crp xln, rthy, hd, blkly, v slty-sdy ip, occ free clr-wh xln ca, mnr ca fld + lined frcs, tr fos, tr bri wh-dull yel gn mnrl F

 r m
 SS, yel tan-lt pk gy, yel orgng, vf gr, mod w srtdd, rnd-sb ang, clr-trnsl, hd, calc cmt, sil ip, slty ip, tr dentrite, scat dull yel brn F, NC

 R w
 LS, crm tan-buff tan, lt brn, v lt pk tan, tr sl mot, mic xln, rthy tex, tr sm, hd, blkly, freq intbd snd + slt, tr fos, tr free xln ca + frac fl, rr bri wh yel mnrl F

 R w
 SS, yel tan-yel orgng, lt-m yel, lt yel gy, vf gr, mod w srtdd, rnd-sb rnd, clr-sl fros, v calc, slty ip, tr lt brn-orgng CHT, abnt dull yel gn F, NC



LS, yel tan-lt pk tan, lt brn-crm tan, buff gy, mot ip, mic xln, hd, blk, rthy, scat crin stems + fos deb, slty-sdy ip, occ ca fld + lined frcs, tr free wh-clr xln ca, tr yel wh mnrl F

SS, yel gy, lt pk-gy wh, yel orgng-lav, occ' mot / orgng mnrl stn, vf-occ' f gr, w srted, rnd-sbang, clr-fros grns, hd-fri, calc cmt, rr dk mnrl str, tr gy-brn trnsl CHT incl + si fl frcs, tr-nil intrgr por, pred' w rnd drill cuttings + cvg

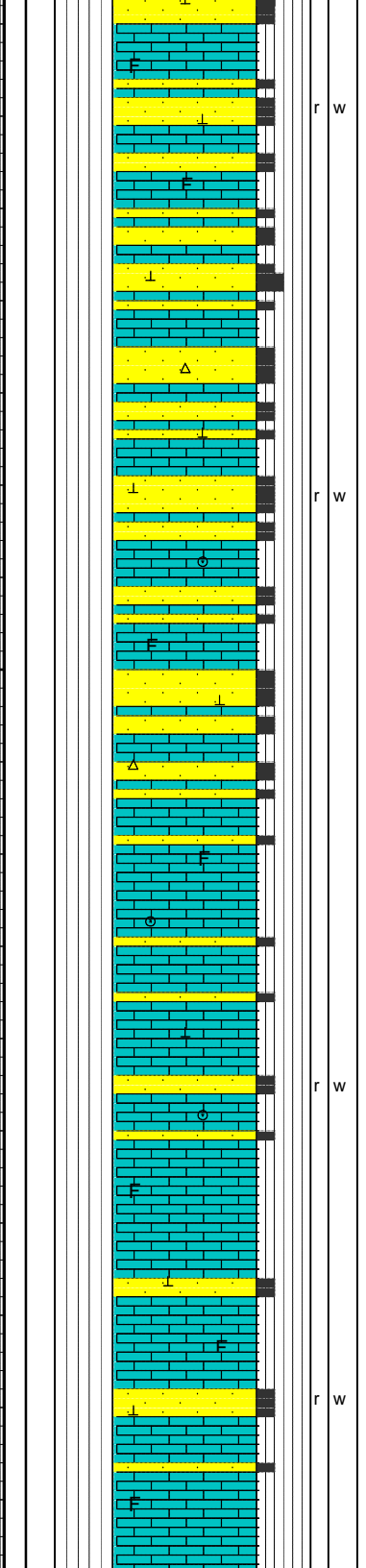
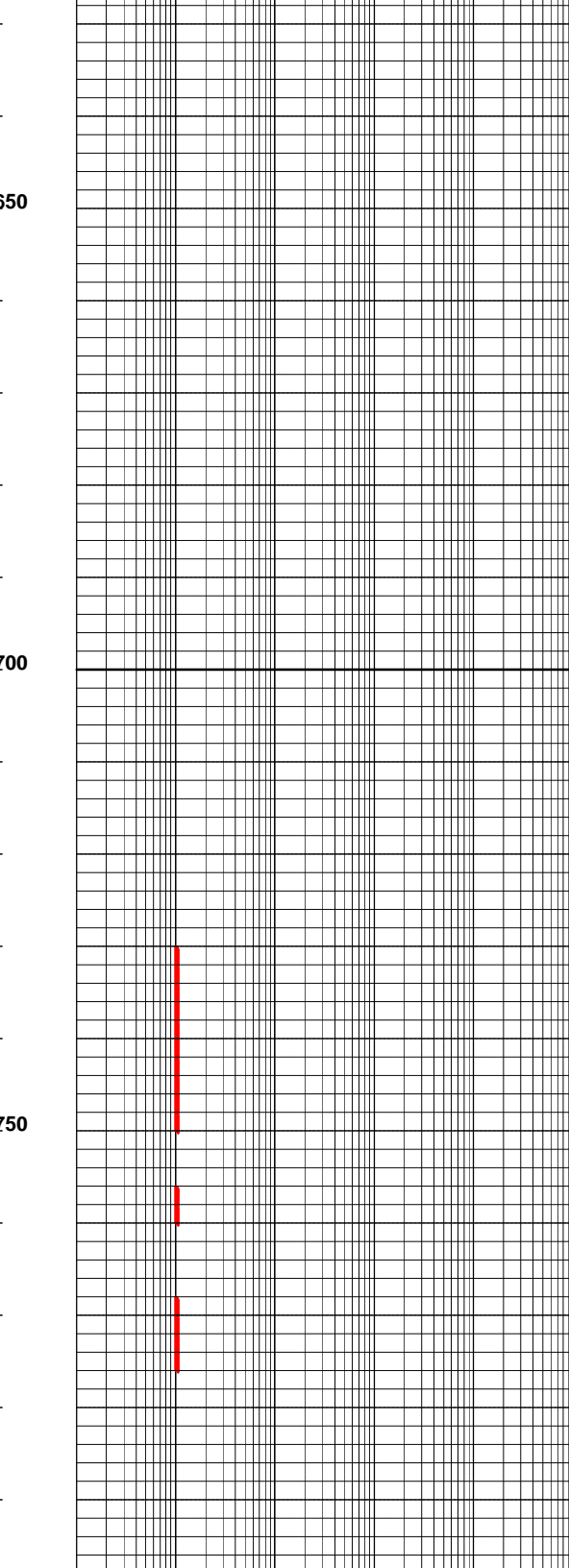
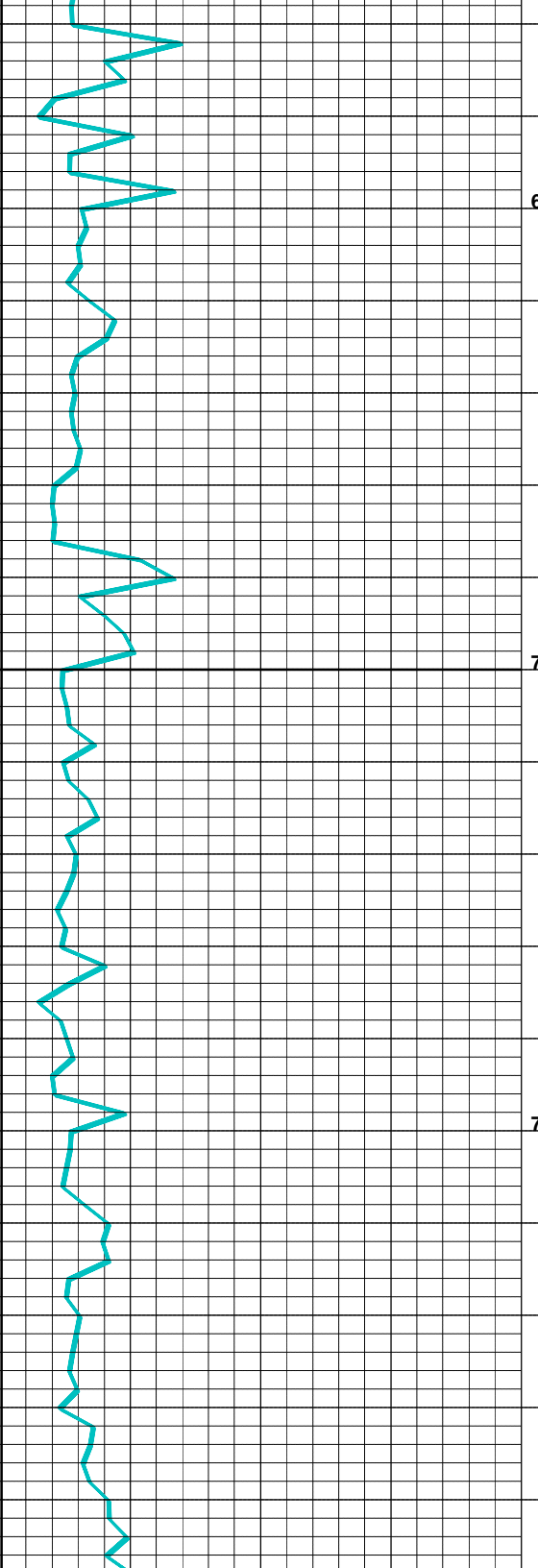
LS, pk brn-lt gy, gy brn-yel, sl mot ip, mic-crp xln, rthy tex, dns xln-sb vit ip, hd, blk, num fib + pel' fos incl, scat dk mnrl vn', gen tt, rr xl lined vugs, tr free xln ca / bri yel-wh mnrl F, NC, abnt c rnd SS cvg

SS, yel gy-yel orgng, lt pk-gy wh, pk tan-lav, pred' vf gr, w srted, rnd-sbang, hd-occ' fri, calc cmt, mnr CHT incl, intbd LS, w rnd pbl drill cuttings + cvg

SS, yel gy-yel orgng, gy wh, lt pk-lav, vf-occ' f gr, w srted, rnd-sbang, clr-fros, hd-mod hd, calc cmt, pred' w rnd drill cuttings, rr dk mnrl str, scat gy-brn chty incl + pbls, mnr si + ca fl frcs, tr-nil intrgr por, NVS

LS, pk tan-lt gy, yel gy, m-lt brn, mic-crp xln, rthy-dns xln tex, hd, blk-rnd, cln, sil-chty ip, gen fos', rr frcs, tr free ca / yel wh mnrl F, NC, num c rnd SS frags

SS, yel gy-lt pk, yel orgng, gy wh-lav, vf gr, w srted, rnd-sbang, clr-fros grns, pred' hd w rnd drill cuttings, calc cmt, rr chty incl + pbls, tr ca + si fl frcs, tr-nil intrgr por, NVS



LS, pk brn, yel brn-crm, lt gy-gy brn, sl mot, mic-crp xln, rthy tex, hd-dns, w rnd-blky frags, gen fos', rr xl lined vugs, tr ca fl fracs + free xln ca, rr dk mnrl str + styl, NVS, abnt c rnd SS cvg

SS, yel gy-yel orgn, lt pk, gy wh-lav, vf-occ' f gr, w srted, sbang-rnd, clr-fros, hd-mod hd, calc cmt, rr chty incl + frc fl, gen tt, NVS

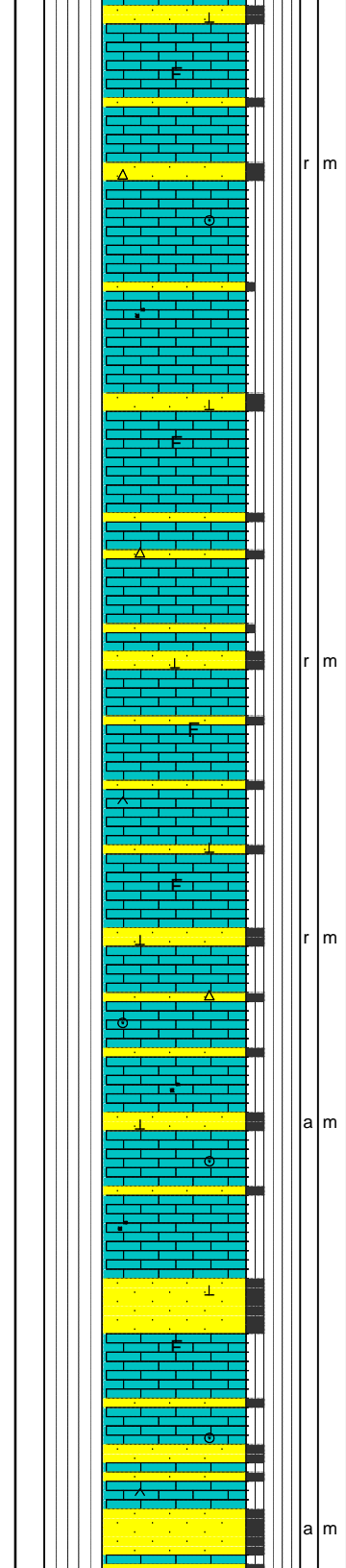
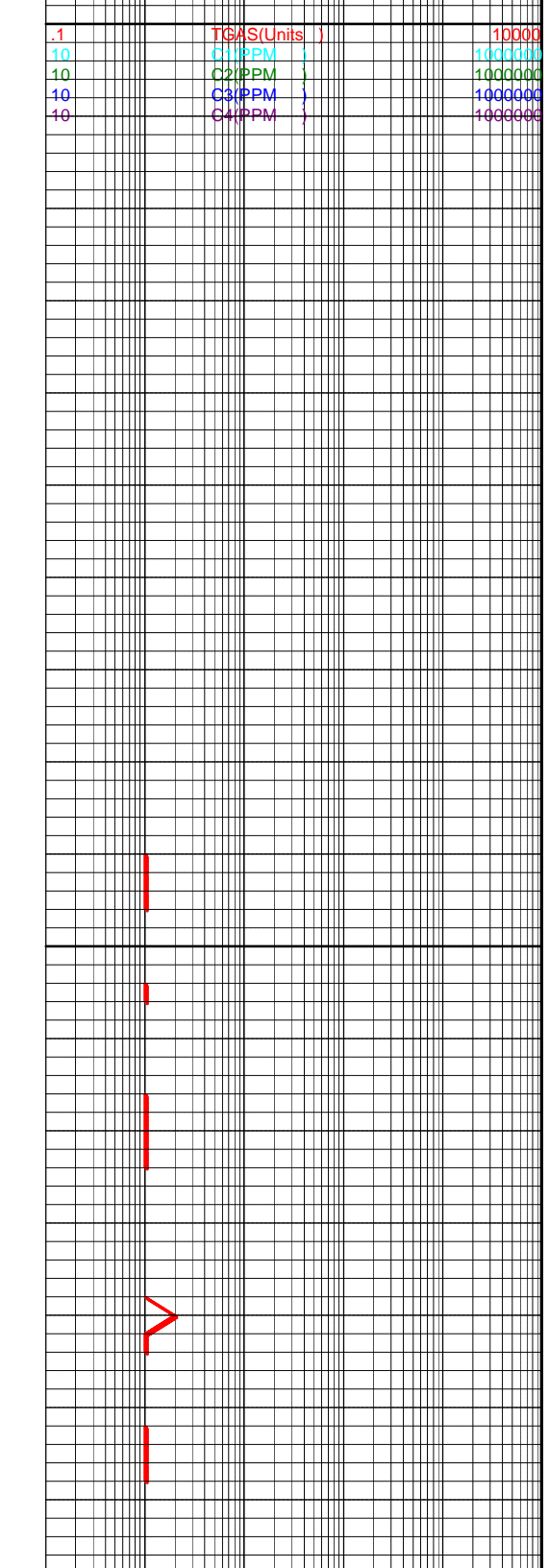
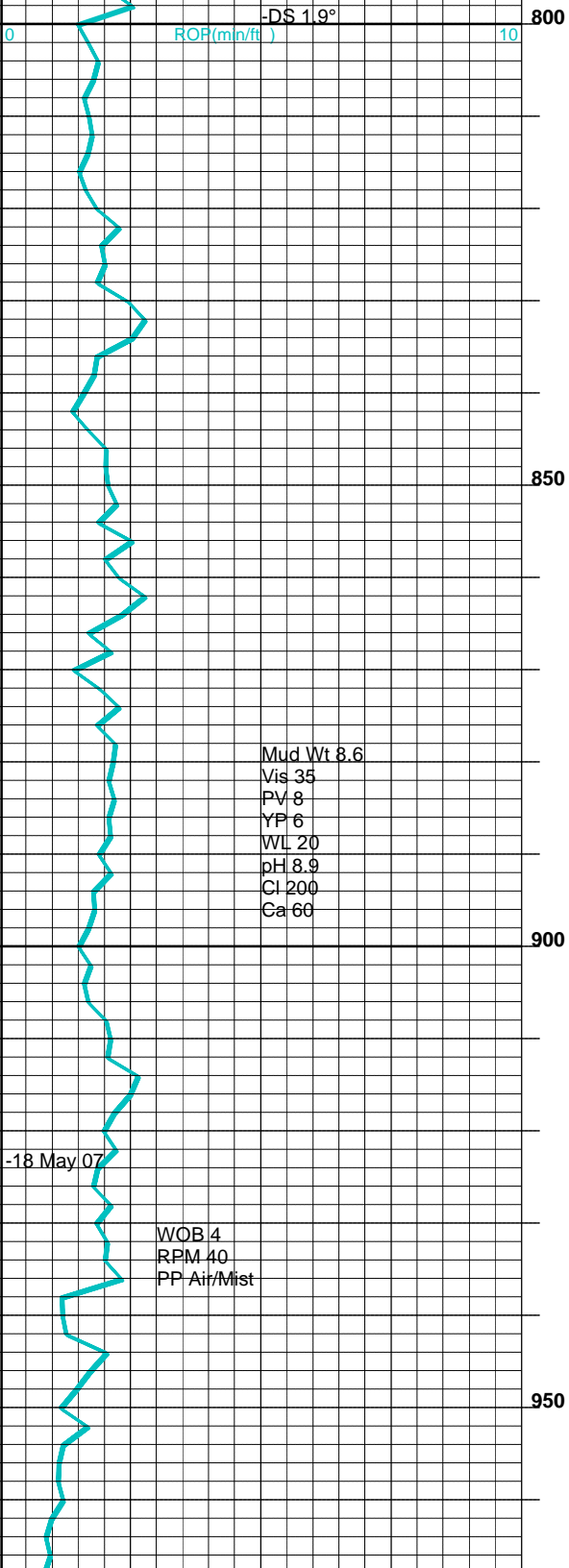
LS, lt gy brn-pk, yel brn-crm, lt-m gy, mot ip, mic-crp xln, rthy tex, occ' vit m-c xln, hd-dns, blk-y-rnd frags, sil-sdy ip, mnrl xl lined vugs, rr xln ca, NF, NC

SS, yel gy-yel orgn, lt pk-gy wh, lav, vf-f gr, sbang-rnd, clr-sl fros grns, hd-mod hd, calc cmt, rr sil-chty incl, tr dk mnrl str, gen tt, NVS

LS, gy brn-pk tan, yel brn, lt gy-crm, mot ip, mic xln, some m-c xln, dns xln-rthy tex, vit ip, hd, blk-y, scat fos deb, rr crin stems, tr xl lined vugs + fracs, NF, NC

LS, pk brn, yel brn-lt pk, gy brn, lt gy-crm, mot ip, pred' mic xln, dns xln-rthy tex, sb vit ip, hd-mod hd, blk-y, sil-chty ip, gen fos', tr free xln ca, xl lined fracs + vugs, spty yel wh mnrl F, NC

LS, lt brn-lt gy brn, pk brn-yel brn, yel orgn-crm tan, sl mot ip, mic xln, rthy tex, dns ip, sb vit ip, hd, stly-sdy ip, sil ip, num crin + fos frags, tr ca fld fracs + free xln ca, rr mnrl F



SS, lt yel-lt gy tan, tan-lt yel org, vf gr, mod w srted, rnd-sb rnd, clr-trnsl gr, hd, blk, v calc, slty ip, tr lt orgn brn-amber CHT, NF, NC

LS, tan-lt brn, lt yel tan-gy tan, buff crm-lt yel, mic xln, rthy tex, dns-sb vit ip, hd-mod hd, scat fos, some intbd slt + sd grs, rr bri yel mnrl F, f cuttings

SS, lt yel-yel orgn, lt yel gy, vf gr, mod w srted, rnd-sb ang, clr-sil fros, hd, calc cmt, slty ip, tr trnsl gy-amber CHT

LS, tan-lt yel brn, lt brn-v lt pk tan, yel gy, tr mot, pred mic xln, rthy-dns xln, hd, blk, ip, sdy-slty ip, sil ip / intbd chty nod, mnrl crin + fos deb, rr mnrl F

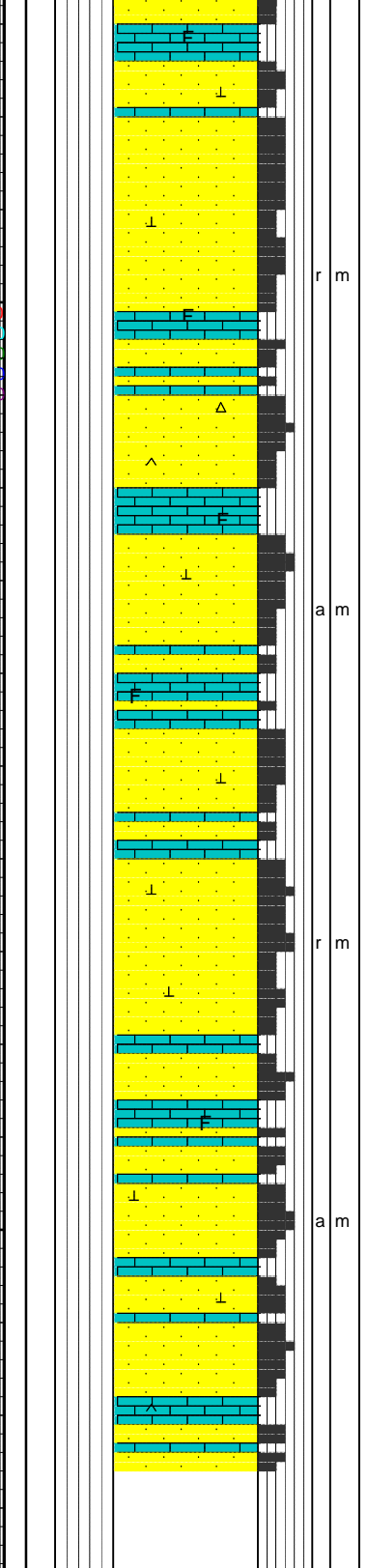
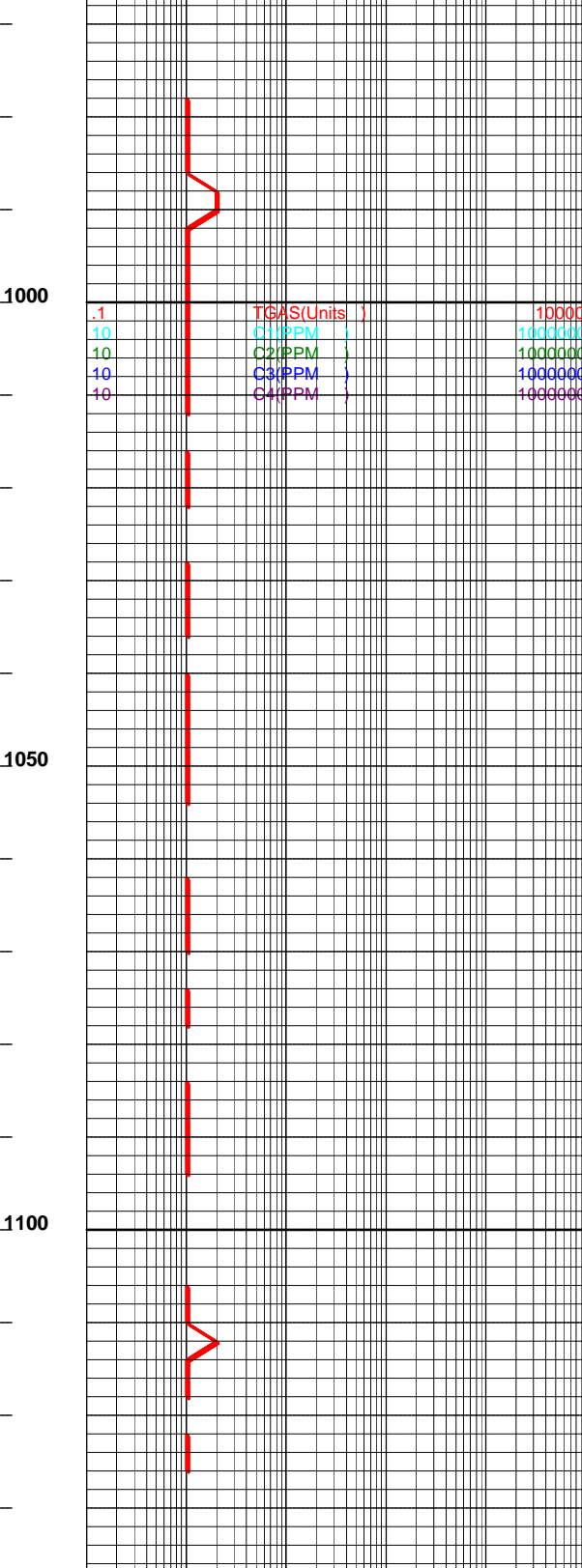
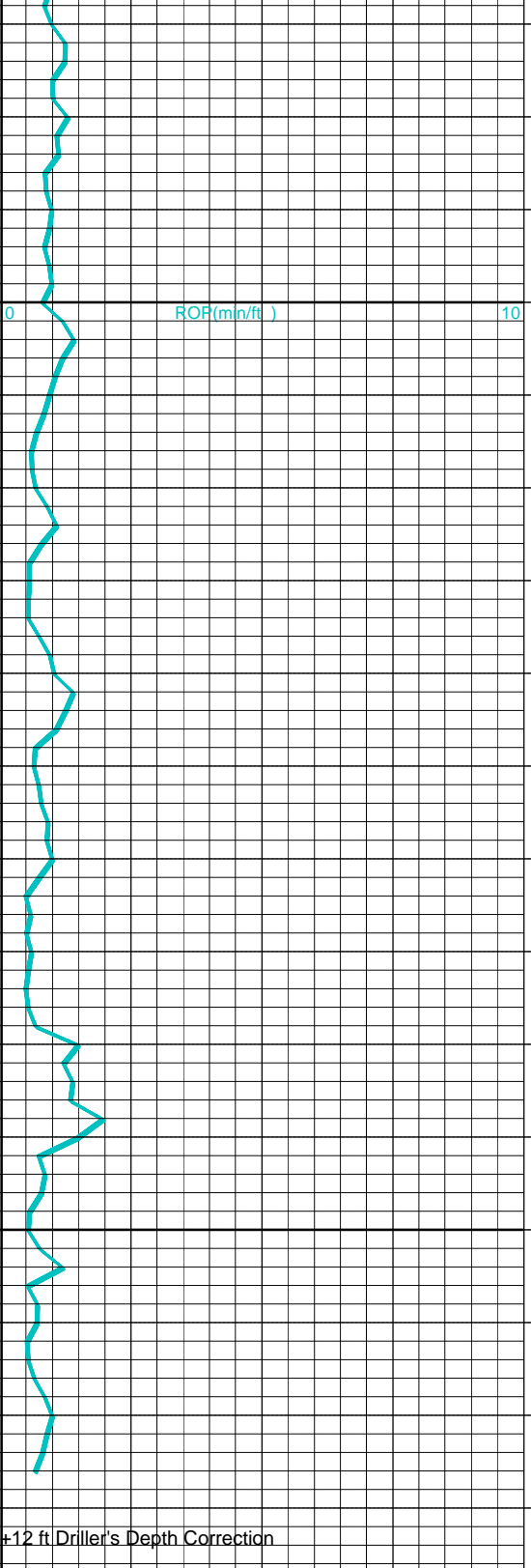
LS, lt brn-yel tan, lt yel-yel orgn, buff crm-gy tan, mot ip, mic xln, hd, rthy tex, dns ip, tr sb vit, blk, ip, sdy-sil ip, tr lt brn CHT, scat fos, rr dull yel gn F, NC

LS, crm tan-lt brn, lt yel-yel crm, mot-spec ip, pred mic xln, hd, dns xln, sm-sb vit ip, scat intbd vf gr sd, sil ip, v fos' ip, rr fnt yel mnrl F, fine cuttings

SS, lt yel-yel orgn, crm wh, vf gr, sb ang-sb rnd, clr-trnsl, sl fros, hd, calc cmt, some uncon vf-c sd gr, tr brn orgn CHT

LS, lt gy brn-yel tan, crm-pk tan, dk brn, yel gy, mic-crp xln, rthy, sm ip, hd, mot ip, blk / rnd edges, sil ip, tr ca fld frcs, abnt crin + fos deb, vug ip, NVS, vc pebble cuttings

Mud Wt 8.6
Vis 35
PV 8
YP 6
WL 20
pH 8.9
Cl 200
Ca 60



SS, yel-yel orgng, yel crm-crm tan, pk rd, vf-f gr, mod w srtd, clr, trnsl-sl fros ip, sb ang-rnd, hd-mod hd, calc cmt, abnt lse grns, some m-c qtz grns, tr dull yel gn F, NC

SS, lt-m yel, lt yel orgng-crm tan, pk' rd, gy wh, vf-f gr, tr m gr, mod srtd, sb ang-rnd, clr-trnsl, sl fros ip, hd-mod hd, num uncon grs, calc cmt, sil ip, tr lt brn-pk tan CHT, tr intrgr por, spty dull yel gn F, NC

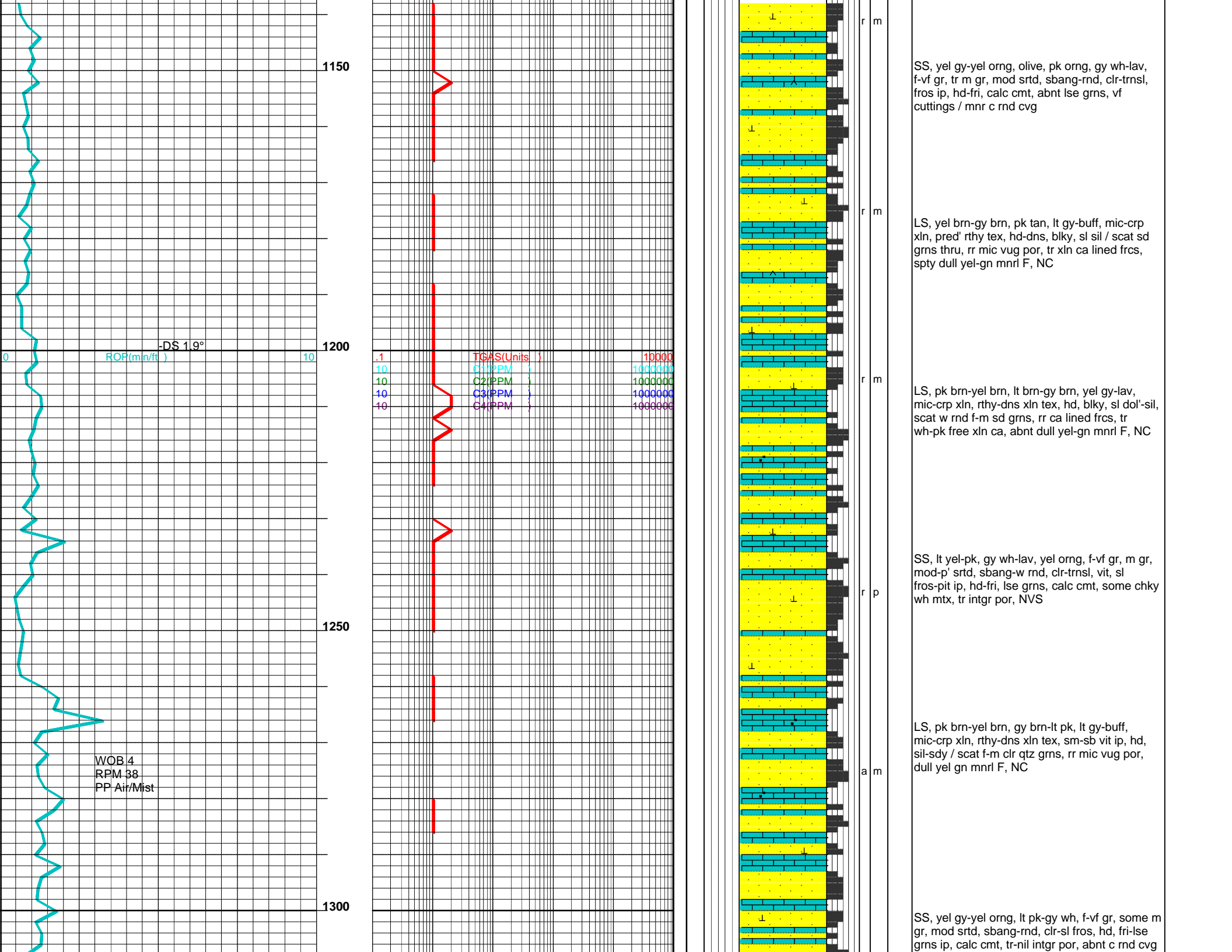
LS, crm yel-tan, lt brn, sl mot, mic xln, mod hd-hd, rthy-dns xln, mnr ca fld frcs, fos' ip, scat intbd sd, rr bri mnrl F

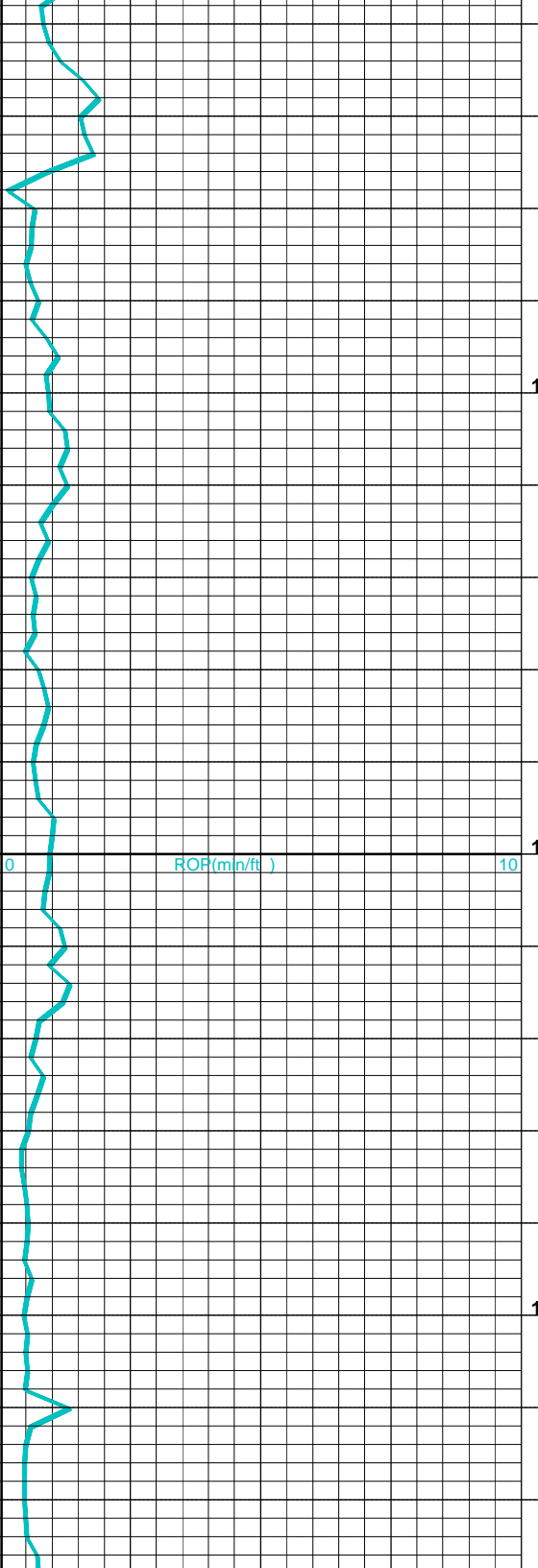
LS, lt brn-gy tan, crm, mot ip, mic xln, hd, dns ip, rthy, sdy-slty ip, abnt fos deb, tr free trnsl ca, scat ca frac fl, rr bri mnrl F, f cuttings

SS, lt yel-yel orgng, crm tan, gy wh, vf-f gr, m gr, uncon-fri, mod hd, mod srtd, sb ang-rnd, clr, trnsl-sl fros, calc cmt, NVS, p smpl, vf-powder cuttings

SS, yel gy-yel orgng, lt pk-gy wh, f-vf gr, some m gr, mod srtd, sbang-rnd, clr-sl fros, fri-lse grns, occ' hd, calc cmt, p spl quality, vf drill cuttings

LS, yel brn, gy brn-pk tan, lt gy-buff, yel orgng, mic-crp xln, rthy tex, occ' f-m xln / suc-vit tex, hd-dns, fos', sil-sdy ip, rr mic vug + frc por, NVS, num c rnd cvgs





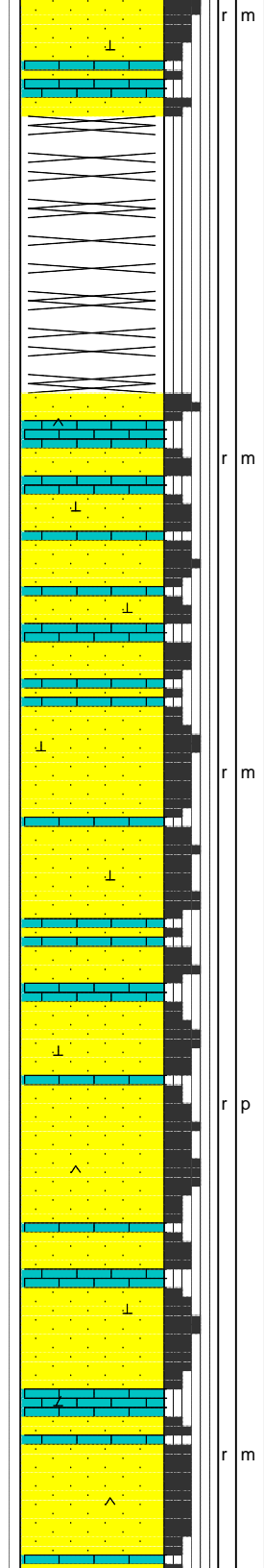
1350

1400

1450

ROP(min/ft)

.1	TGAS(Units)	10000
10	C1(PPM)	1000000
10	C2(PPM)	1000000
10	C3(PPM)	1000000
10	C4(PPM)	1000000



r m
r m
r m
r m
r p
r m
r m

to 20 mm

-No Sample

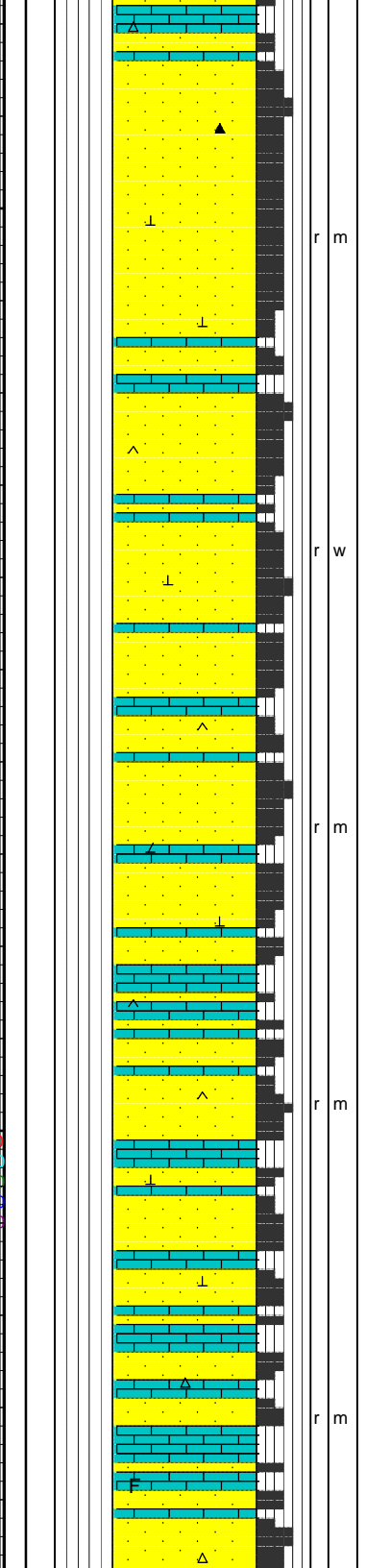
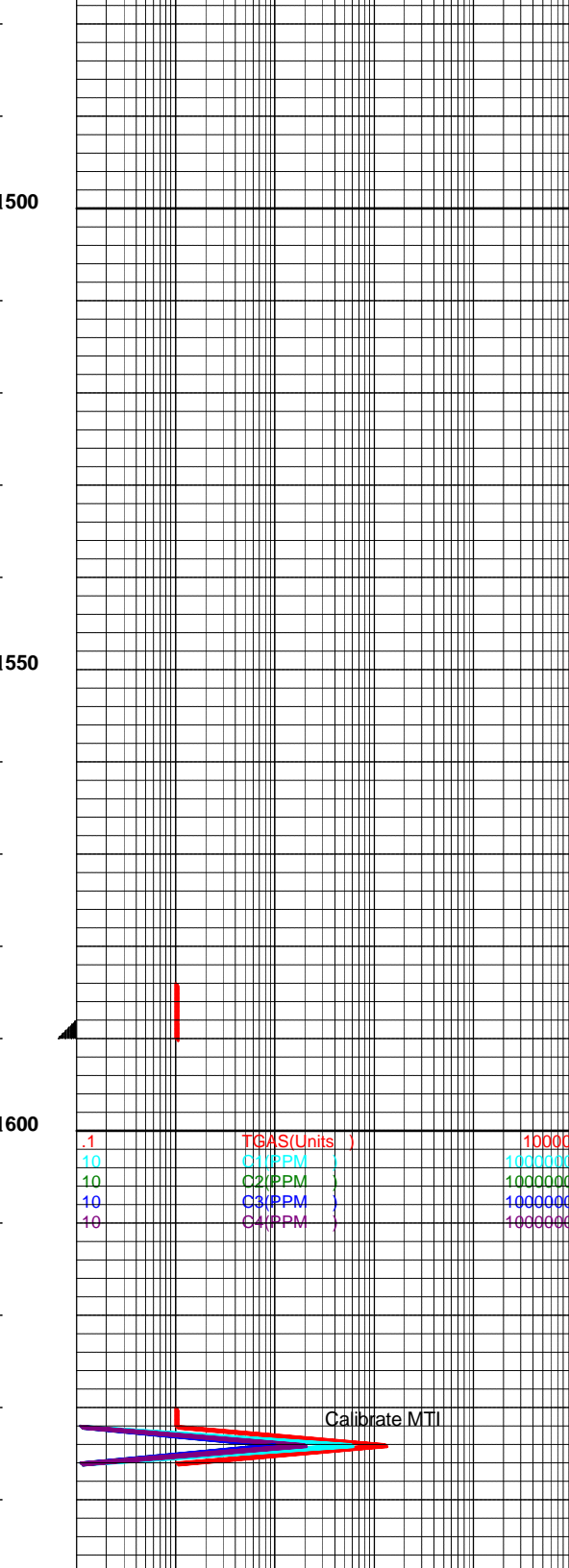
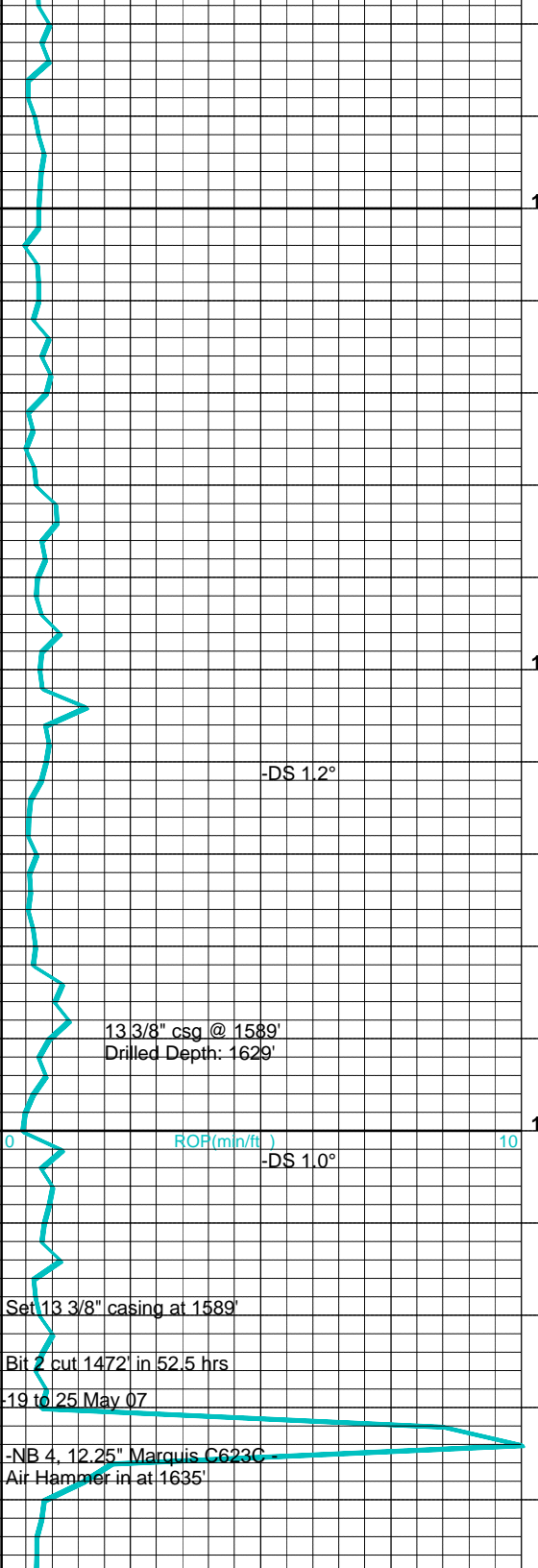
LS, yel brn-gy brn, pk-lt brn, mic-crp xln, rthy-dns xln tex, hd-blky, sil-sdy ip / intbd SS, dull yel gn mnrl F, NC

SS, yel-lt pk, yel org, gy wh-lav, f-vf gr, some m gr, mod srted, sbang-rnd, clr-sl fros, hd-fri, calc cmt, abnt lse grns, low sample volume, VPS

SS, gy wh-pale yel, lt pk-yel org, f gr, vf-m gr, mod srted, sbang-w rnd, clr-sl fros, pit ip, pred' uncon, lse grns-fri, calc cmt, p spl quality, vf powdery cuttings

SS, lt pk-yel, yel org, yel gy-gy wh, f-vf gr, m gr, mod-p' srted, sbang-w rnd, clr-sl fros, pit ip, hd-fri, abnt lse grns, calc-sil cmt, tr intrgr por, spty yel-gold mnrl F, NC, p spl quality

LS, pk brn-gy tan, yel brn, m-lt gy, mic-crp xln, rthy-dns xln tex, sb vit ip, hd, blkly, sil-chy ip, sl dol', scat clr sd grns, rr mic vug por, tr ca lined frcs + free xln ca, spty dull yel-gn mnrl F, NC



SS, yel gy-yel orng, olive, gy tan-lt pk, mot / orng mnrl stn, f-vf gr, mod-w srtd, sbang-rnd, p' srtd ip / w rnd m grns, clr-sl fros, hd-fri, calc cmt, rr smky gy CHT frags, tr-nil intrgr por, spty dull yel-gold mnrl F, NC, abnt spl volume, incr' formation water

SS, yel gy-pk tan, yel orng, lt pk-gy wh, pk orng, mot ip, f-vf gr, tr m gr, mod-w srtd, sbang-rnd, clr-sl fros grns, hd-fri, calc-sil cmt, some chky mtx, dull yel-gold mnrl F, NC

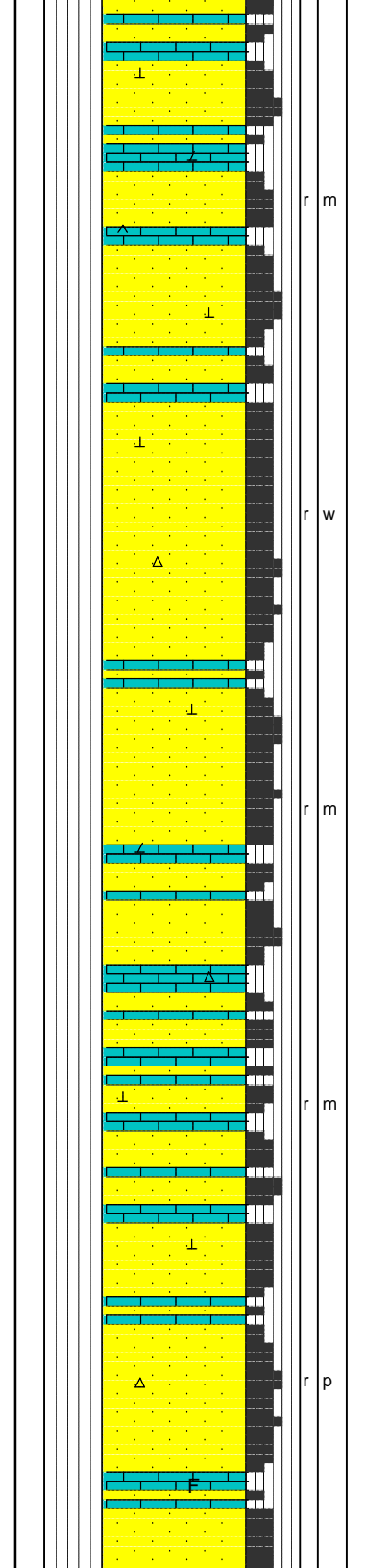
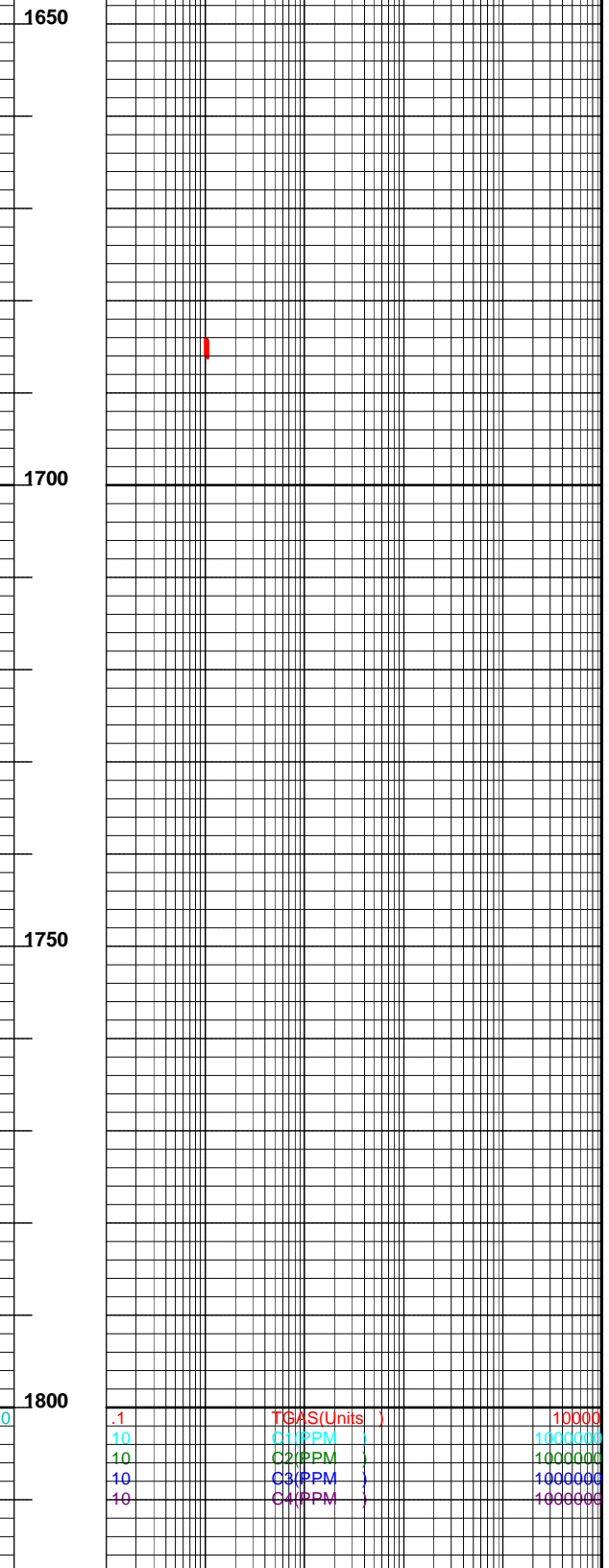
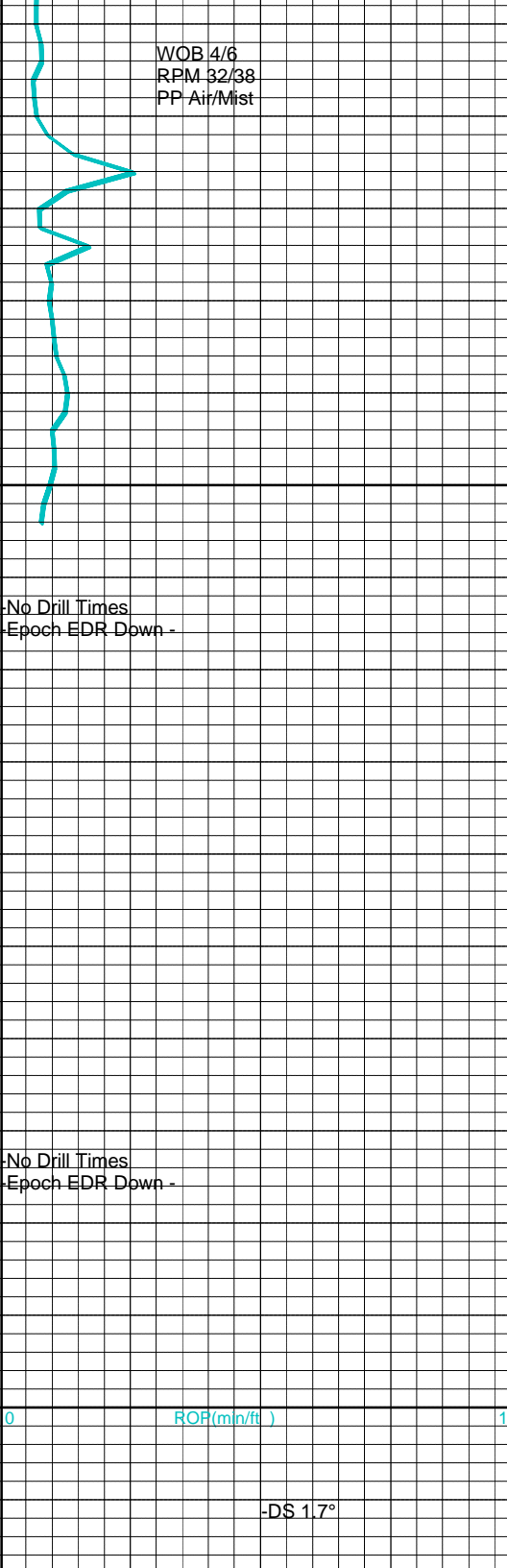
SS, yel gn-yel orng, olive, yel gy-lt pk, f-vf gr, slty, tr m gr, mod srtd, sbang-rnd, clr-sl fros, fri-occ' hd, calc-sil cmt, tr-nil intrgr por, spty yel-gold mnrl F, NC

LS, yel brn-gy tan, pk brn, lt-m gy, mic-crp xln, rthy tex, sm-sb vit ip, hd, blk-y-pty, sl dol'-sil ip, occ' sdy, tr free xln ca, spty bri yel mnrl F, NC

SS, yel gy-yel orng, lt pk-gy tan, pk orng, f-vf gr, slty, tr m gr, mod srtd, sbang-rnd, clr-sl fros, hd-occ' fri, calc-sil cmt, tr-nil intrgr por, NVS

LS, pk brn-yel brn, lt-m brn, gy brn, mot ip, mic-crp xln, pred' rthy tex, hd-mod hd, fos' ip, sl dol'-sil, rr smky gy CHT frags, tr free xln ca, spty yel mnrl F, NC

SS, yel gy-olive, lt pk-gy wh, yel orng-lav, f-vf gr, some m-c gr, mod srtd, sbang-rnd, clr-sl



fros, hd-fri, calc cmt, num lse grns + trnsl-op
CHT frags, tr-nil intgr por, NVS

LS, yel gy-pk brn, yel brn, gy wh-pk, lt-m gy,
buff, mic-crp xln, rthy-sm tex, hd-mod hd, sl
dol'-sil ip, tr ca lined frcs + xln clus, spty bri yel
mnrI F, NC

SS, yel orng, yel gy-pk orng, gy wh-olive, f-vf
gr, m gr, mod-w srted, sbang-rnd, clr-trnsl, sl
fros ip, fri-occ' hd, lse grns, calc cmt, tr vis por,
NF, NC

SS, gy wh-yel, yel orng-lt pk, f-vf gr, m gr, mod
srted, sbang-rnd, clr-sl fros, mod hd-fri, calc
cmt, abnt lse grns, scat CHT frags, tr-nil intgr
por, NVS, incr' formation water

LS, yel brn-pk tan, m-lt brn, yel gy-buff, mot ip,
mic-crp xln, rthy-sm tex, dns xln-sb vit ip, hd,
mod hd-brit ip, cln, v calc-sl dol', sil ip / rr
amb-smoky gy CHT, scat fos deb, xln ca lined
frcs + vugs, spty dull yel-gn mnrI F, NC

SS, yel gy-pk tan, olive, yel orng, gy wh-lav, f-vf
gr, mod-w srted, p' srted ip / m-c grns + chty
frags, sbang-w rnd, clr-trnsl, vit ip, hd-fri, abnt
lse grns, calc cmt, some chky wh mtx, tr vis
por, NF, NC

SS, yel brn-olive, yel orng-pk, gy wh, f-vf gr,
mod-w srted, sbrnd-ang, clr-trnsl, vit, hd-fri, lse

No Drill Times
Epoch EDR Down -

1850

IPe

1900

1950

a m

a w

a m

r m

a m

r m

grns, calc cmt, rr ca fl frcs, tr-p intgr por, NVS

SS, yel-pk, yel org, yel gy-olive, f-vf gr, mod-w srted, sbang, clr-trnsl, vit, hd-fri, calc cmt, num lse grns, rr CHT, scat brecciated + fos' LS frags, tr free xln ca, NF, NC

LS, lt-m brn, lt gy tan-buff crm, lt yel-pale yel org, gy wh, sl mot ip, mic xln, rthy-dns xln, plty ip, tr free wh chky-xln ca, fos' ip, slty / some intbd sd grns, fnt yel wh F, NC, making abnt formation water

SS, lt yel-yel org, pk-yel tan, yel gy-lt olive brn, f-vf gr, srted, sbang-sb rnd, clr-trnsl, vit ip, hd-fri, uncon ip, calc cmt, tr lse xln ca frags, tr dull yel wh mnrl F, NC

-No Sample

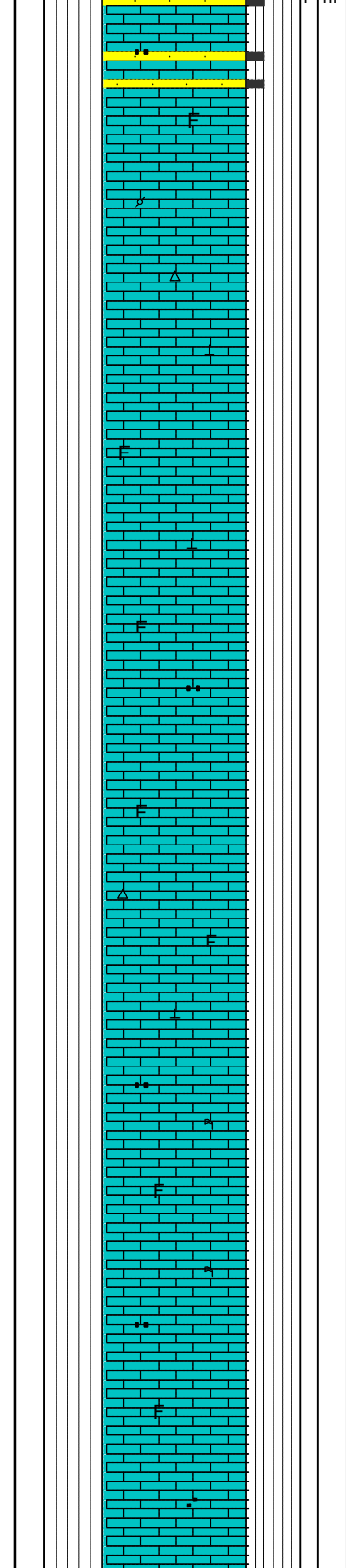
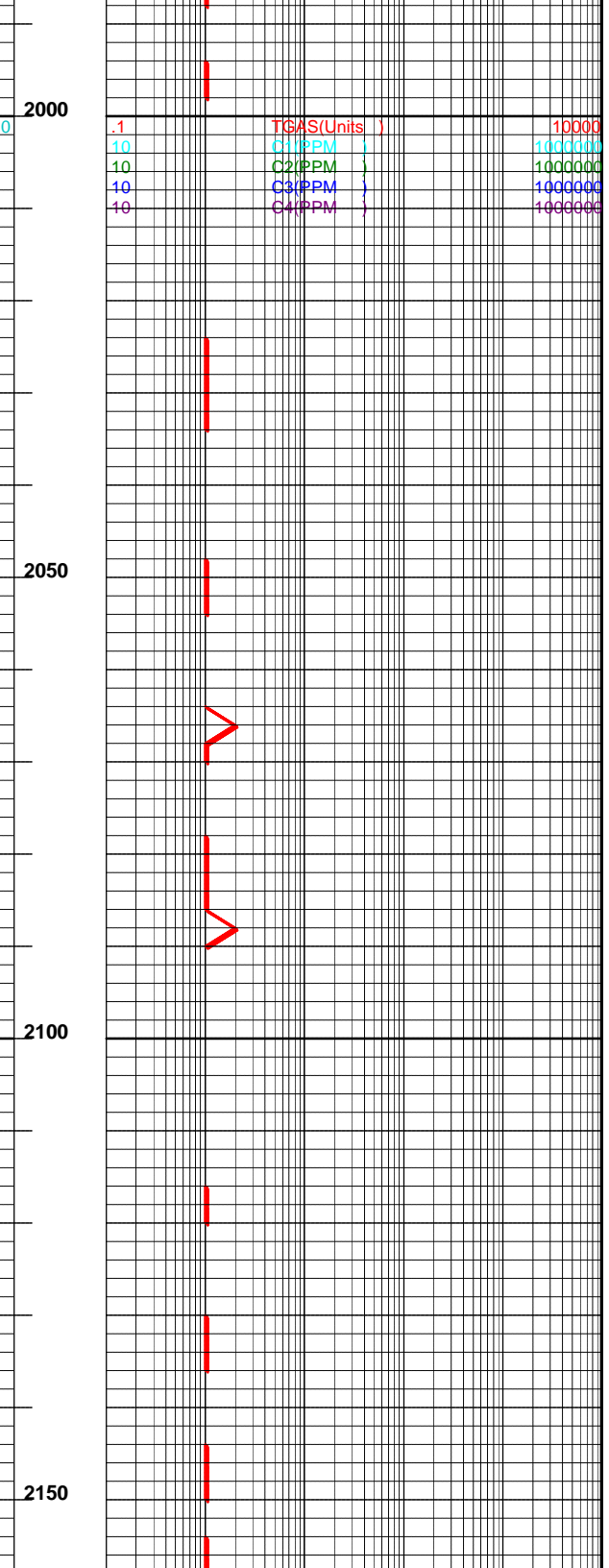
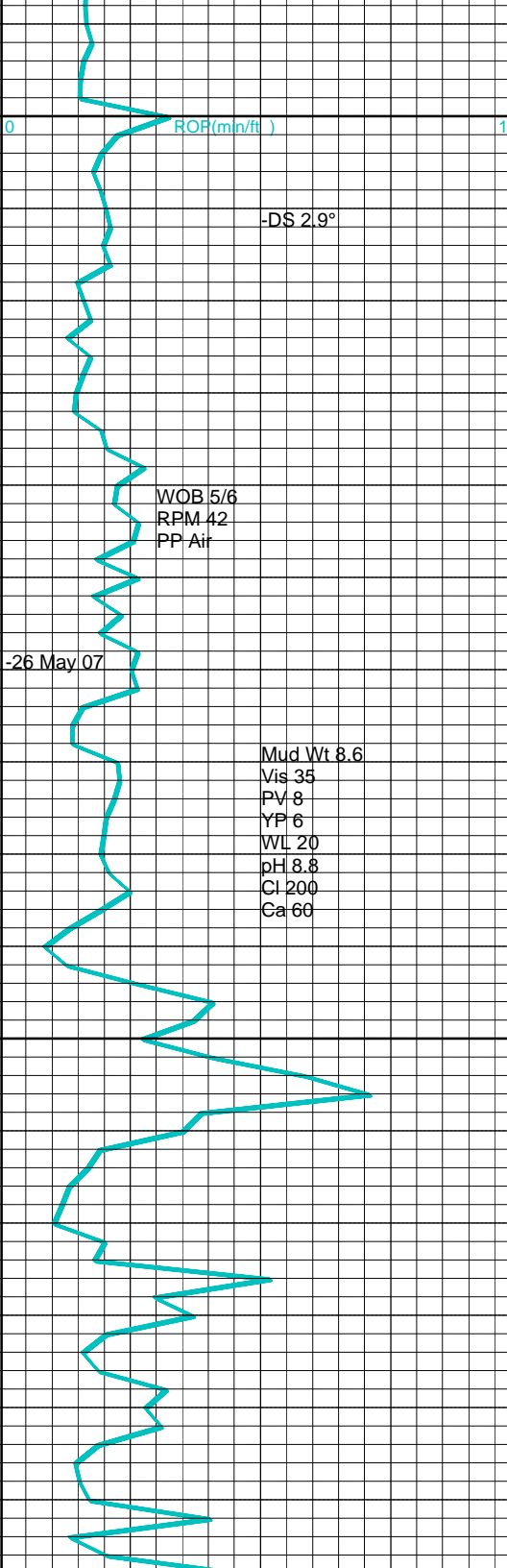
SS, lt yel tan-lt gy tan, lt yel-gy wh, yel org, vf-f gr, sb ang-sb rnd, clr-trnsl, fri-mod hd, uncon, calc cmt, scat amber-lt gy trnsl CHT, NF, NC, p spl quality

LS, tan-gy tan, lt brn, buff gy-crm wh, lt yel tan, mic-vf xln, crp xln, mod hd-v frm, tr fos deb, mnrl free f-tr c xln ca, occ op-lt amber brn CHT, some intxln por / f xln vugs, rr mnrl F, f cuttings

SS, yel tan-yel org, lt olive-crm tan, lt gy-gy wh, vf-f gr, mod srted, sb ang-rnd, clr-sl fros, fri-lse gr, occ mod hd, v calc / wh ca frags, slty ip, some intbd fos' LS, lt gy-trnsl tan CHT, low sample volume + vf cuttings

LS, tan-lt brn, buff gy-crm wh, lt yel tan, mot ip, mic-dns xln, crp xln, rthy-sm tex, tr mic sucx tex, mod hd-hd, v frm, sb plty-sblky, tr ca fld frcs, scat clr-op xln ca, cln, tr fos frags, tr intxln por, spty fnt yel wh F, NC

SS, lt yel-yel org, lt gy tan-lt gy, lt org brn



LS, tan-lt brn, crm tan-lt gy tan, buff tan-crm wh, gen mot, mic-crp xln, rthy-sm tex, dns xln, hd-mod hd, sblky-sb plty, cln, v fos'-fusulinid ip, tr tan-amber CHT, tr-p intgr por, occ pp + vug por, rr yel wh F, NC

LS, tan-crm tan, lt brn, lt yel tan-buff gy, lt yel org, sl mot ip, mic-crp xln, rthy-dns ip, sm, tr mic sucr tex, mod hd-hd, gen cln, scat fos deb, tr free wh-trnsl ca, tr intgr por, rr dull yel F, NC

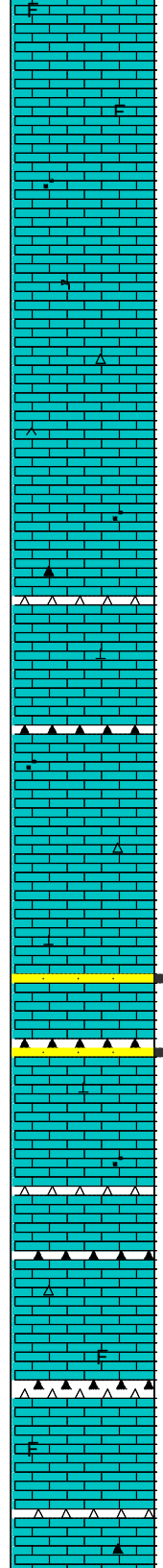
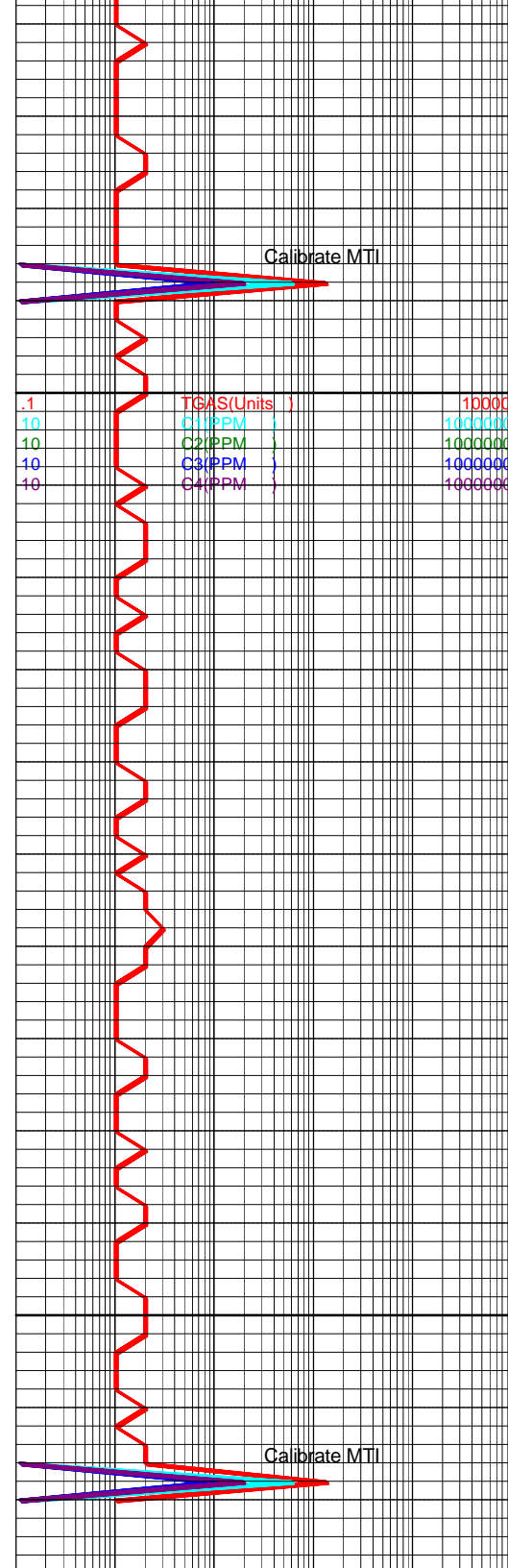
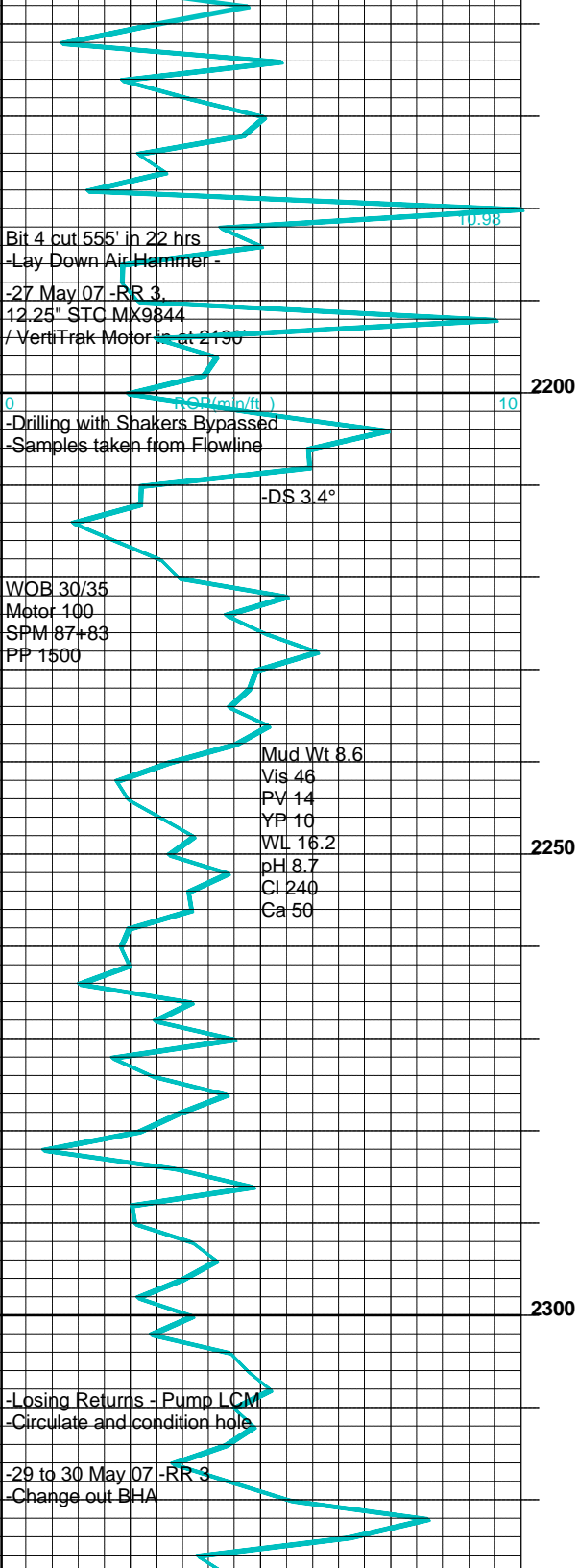
LS, tan-lt yel tan, lt brn, crm tan-lt gy tan, tr mot, mic-dns xln, crp xln, mod hd-hd, rthy, scat free f-c xln ca, tr fos, tr slty / occ imbd vf sd grns, tr dull yel gn F, NC, incr' formation water

LS, tan-buff tan, crm tan, lt brn, lt yel brn, occ' mot, mic-vf xln, pred rthy tex, dns ip, hd-mod hd, sblky-sb plty, some lse xln ca, tr ca frac fl + edgs, tr amber CHT, fos', rr vugs, tr fnt mnrl F

LS, tan-buff tan, lt gy tan-crm gray, lt brn-lt yel tan, mot ip, mic xln, rthy, tr sm, hd-mod hd, blk, scat free wh xln ca, abnt fos frags, cln-tr slty, no vis por, tr yel-yel wh mnrl F, NC

LS, lt brn-crm tan, yel tan-pk tan, buff gy, mot-spec ip, mic xln, rthy, dns, hd-mod hd, brit ip, occ lse c xln ca, tr ca lined frcs, v fos', tr lt yel-yel org SS, tr F, NC

LS, lt-m brn, gy brn-pk tan, buff-gy wh, sl mot, mic xln, rthy-dns xln tex, some m-c xls / suc-vit tex, hd-mod hd, cln, v calc, abnt fos frags thru, tr xln ca lined frcs + vugs, spty dull yel-gn mnrl



F, NC, vf drill cuttings, low sample volume

LS, lt brn, pk tan-yel brn, buff, gy brn-gy wh, mic-crp xln, rthy tex, dns xln-mic suc ip, hd-v frm, sl brit, slty-sdy ip, gen fos', tr xln LS + ca lined vugs + frcs, spty dull yel mnrl F, NC, making abnt formation water

Poor Sample Quality - Abundant LCM

LS, lt gy-pk brn, yel brn, gy tan-crm, buff, mot ip, mic-occ' f xln, rthy-dns xln tex, trns-l vit ip, hd-mod hd, fri-brit, occ' frm-chky, cln, v calc-sil, scat lt gy-smoky CHT frags, rr xl lined frcs, mnr trns-l chky ca / yel mnrl F, NC, g spl quality + volume

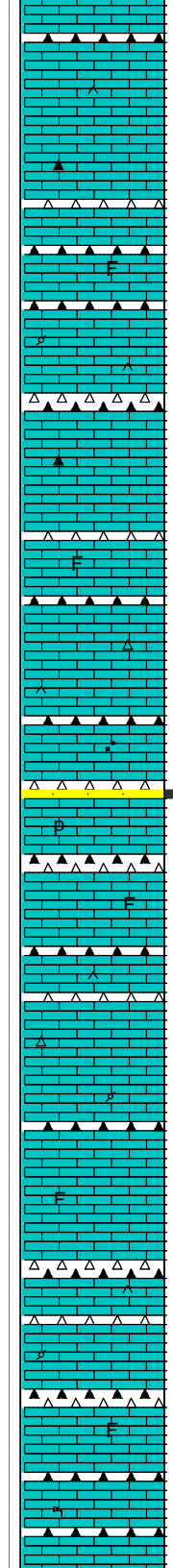
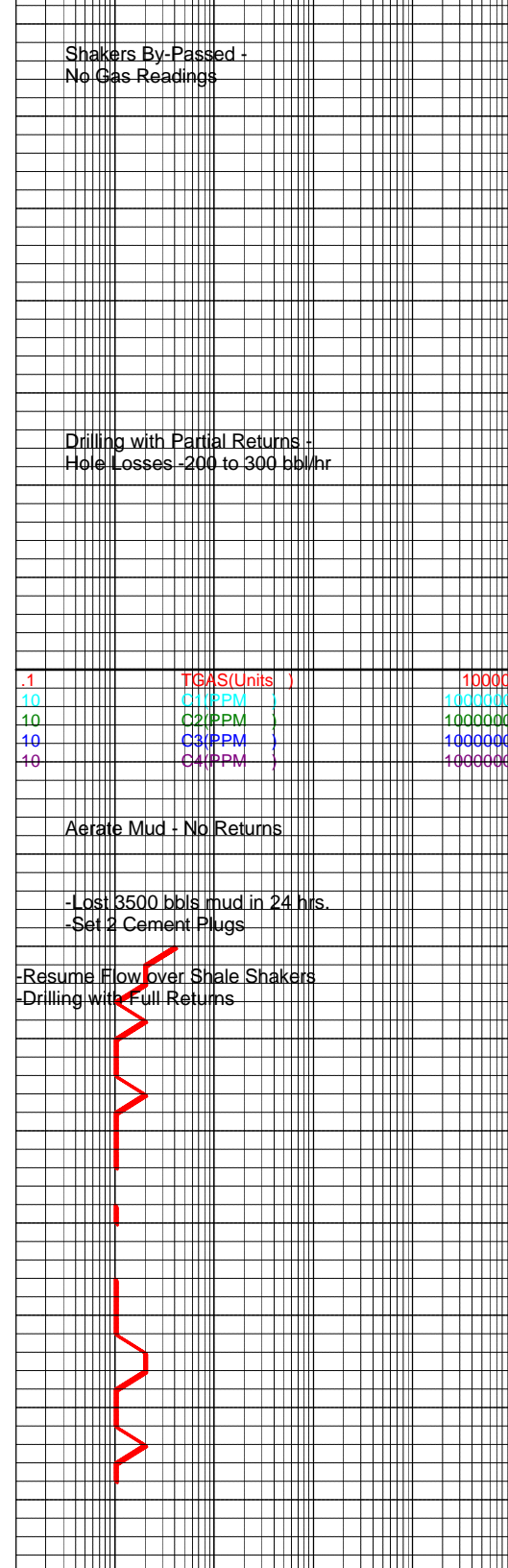
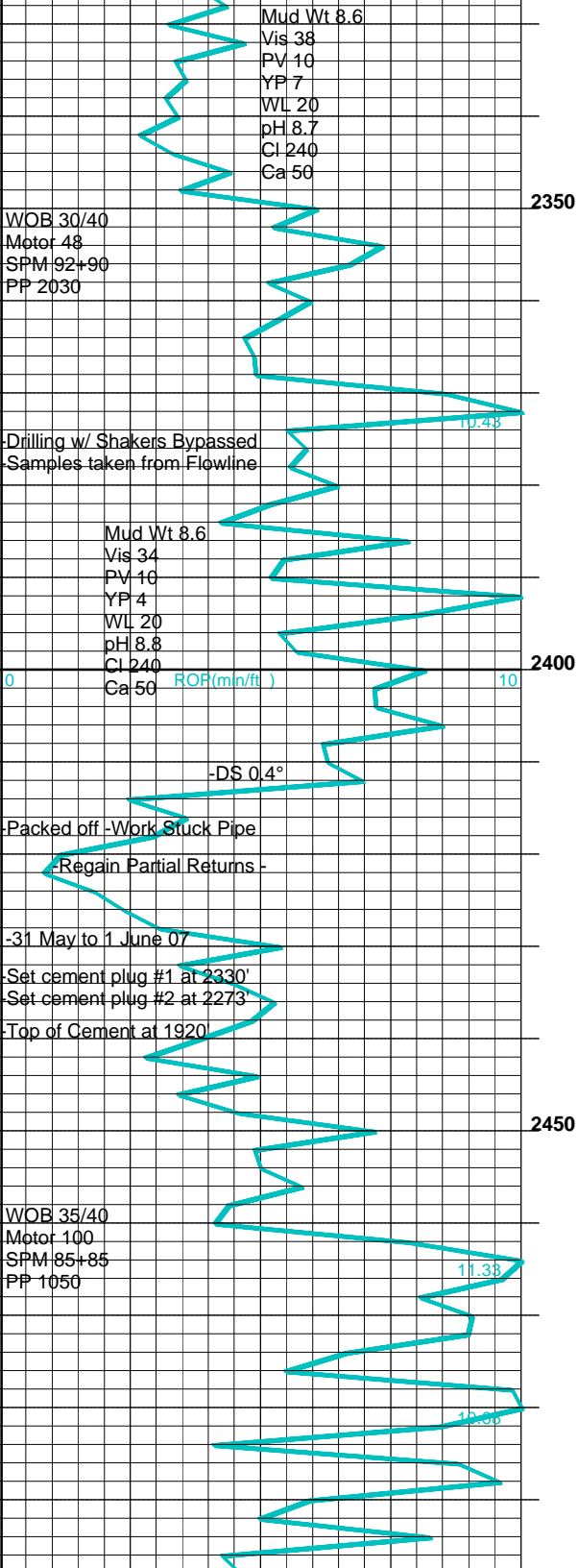
CHT, smoky gy-gy tan, lt pk-yel brn, gy wh, trns-l, blk-y-ang, v hd, rr mic frcs / calc str

LS, lt gy-crm, pk brn, yel brn-gy wh, gy tan-buff, sl mot, tr org mnrl stn, mic-crp xln, rthy-dns xln tex, chky, hd-v frm, sil ip / num chty incl, spty yel mnrl F, NC

LS, yel brn-gy tan, pk brn-yel gy, crm, lt gy-buff, mot ip, mic-crp xln, rthy tex, dns xln-sb vit ip, hd-mod hd, occ' frm-chky, sil-sdy ip, num CHT frags thru, tr yel mnrl F, abnt LCM contam

CHT, yel brn-pk, gy brn-tan org, trns-l, v ang-blky, rr mic frcs / calc ifil

LS, lt brn-yel brn, m brn, lt-m gy, mot crm-buff, mic-crp xln, rthy-dns xln tex, sb vit, hd-mod hd, frm-chky ip, scat fos frags, v calc-sil / 10 to 20% CHT, rr ca lined frcs / bri yel F, NC



LS, gy brn-yel brn, lt-m gy, pk tan-buff, mic-crp xln, rthy-dns xln tex, sb vit ip, hd-mod hd, sil / trnsl-op CHT frags thru, tr free xln ca, spty bri-dull yel F, NC, abnt LCM in spl after trip

CHT, lt gy-yel brn, smoky gy-lt brn, pk-yel org, trnsl-op, vit-sl pit tex, v ang-blky, rr mic frcs / org mnrl stn + calc ifil

LS, gy brn, lt gy-yel brn, pk tan-buff, mot crm-wh, mic-crp xln, pred' rthy tex, vf xln-mic suc ip, hd-dns, occ' frm-chky, scat fos deb + pels, spty dull gn mnrl F, v sil / 20% trnsl-op CHT a/a

LS, m-lt brn, yel brn-gy brn, pk tan, lt gy-buff, crm, gen mot, mic-crp xln, rthy-dns xln tex, hd, frm-chky ip, sl fos', v calc-sil, num CHT frags thru, rr xln ca lined frcs, spty yel-gn mnrl F, NC

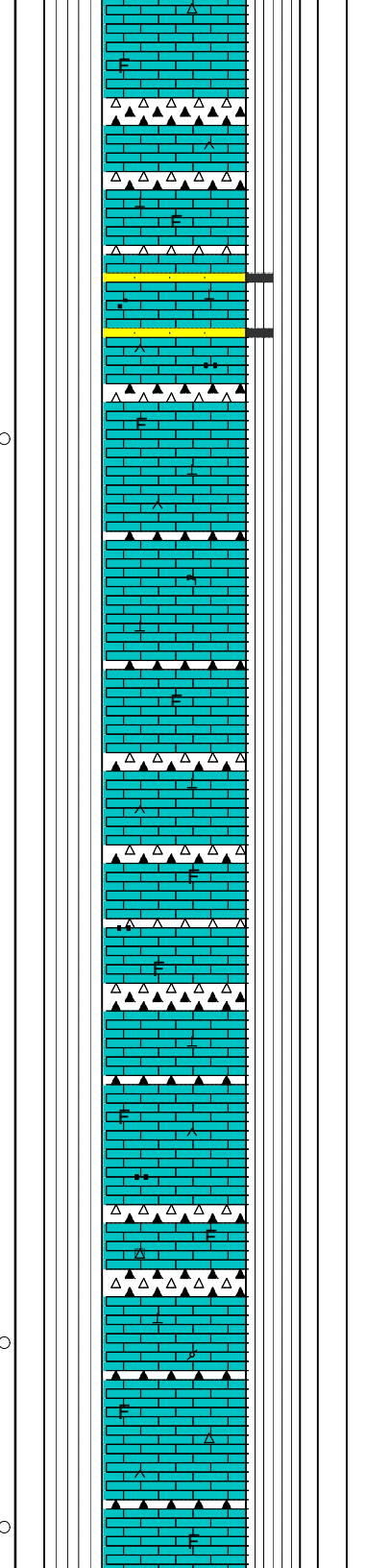
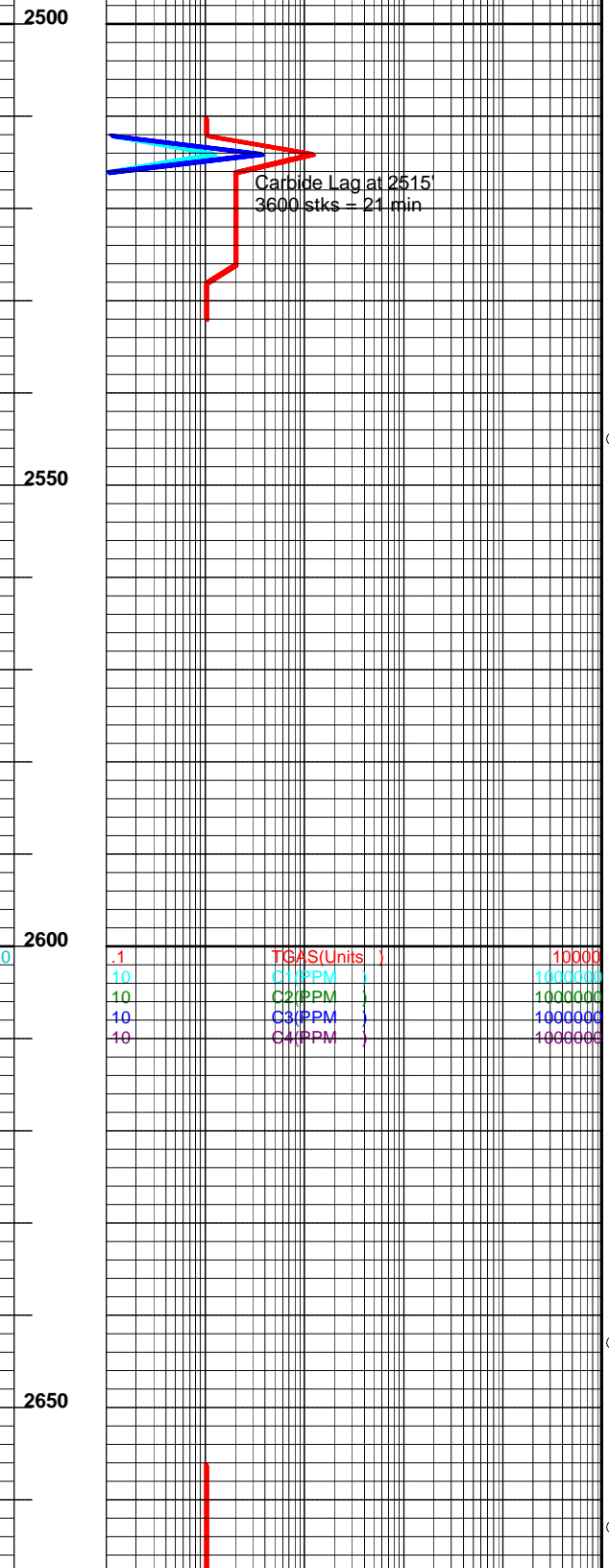
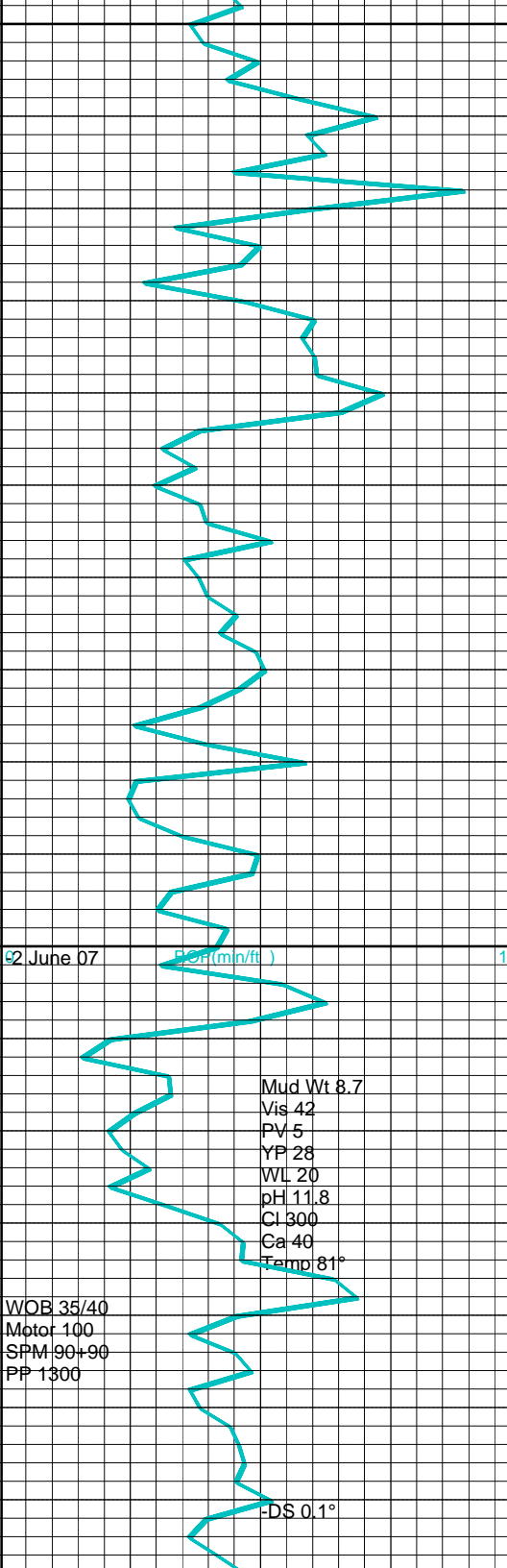
CHT, lt-dk brn, lt gy-pk tan, yel brn, dk gy-gy brn, sl mot ip, trnsl-op, v ang-blky, tr LS ctc + ca mic frcs, tr yel org-pk f gr SS + pos cvg

LS, gy brn-tan, yel brn-crm tan, lt-m gy, buff gy-gy wh, yel org, mot ip, mic-crp xln, hd-mod hd, frm, tr fos, mnr free ca, occ' slty-sdy, sil ip, abnt CHT, scat dull yel gn F, NC

LS, m-lt brn, yel brn, gy tan-buff, lt-dk gy, mic-crp xln, pred' rthy tex, dns xln-mic suc ip, hd-mod hd, occ' frm-chky, scat fos deb + pels, gen sil / imbd CHT frags, brec ip, mnr ca lined frcs + xln ca clus, spty yel mnrl F, NC

CHT, lt-dk brn, yel tan-pk, gy wh, gy brn-blk, bndd ip, trnsl-op, v ang-blky, num conch frcs + ca mic frcs, LS ctc + incl

LS, lt-m brn, gy brn-lt gy, yel brn-buff, gen mot, some yel mnrl stn, mic-crp xln, rthy tex, dns xln-sb vit ip, hd-v frm, brit, v fos', scat pels + cor frags, sil ip / mnr CHT, tr ca lined frcs / bri



yel F, NC

CHT, lt brn-m gy brn, smky brn, tan-yel brn, dk gy brn, tr mnrl dk bnds, crp xln, hd, ang-sblky, trnsl-clr, occ ca lined frcs, num micro frcs

LS, lt-m gy brn, lt brn-buff tan, lt yel brn-buff gy, sl mot ip, tr yel org bnd, mic-crp xln, rthy-dns xln, hd-v frm, scat fos frags, sil ip, slty-sdy, some vf-f gr SS, occ voids + vugs / op wh-clr xln ca, num ca edgs + frac fl, spty yel gn mnrl F, NC

NOTE, blk tar like substance floating on pits

LS, lt brn-lt gy tan, crm tan, buff tan-buff gy, lt yel brn, v mot ip, mic-crp xln, rthy-tr chky tex, hd-frm, v fos' ip, num ca edgs + fld frcs, slty-sdy ip, sl sil ip, decr gy blk CHT, tr yel org-dull yel gn F, NC

LS, lt brn-gy tan, yel tan-crm tan, buff tan-yel gy, mot ip, mic-crp xln, rthy-dns xln, tr chky, hd-mod hd, v frm, scat fos pel + cor frags, tr slty, sil ip, occ ca frc fl, tr mnrl F, NC

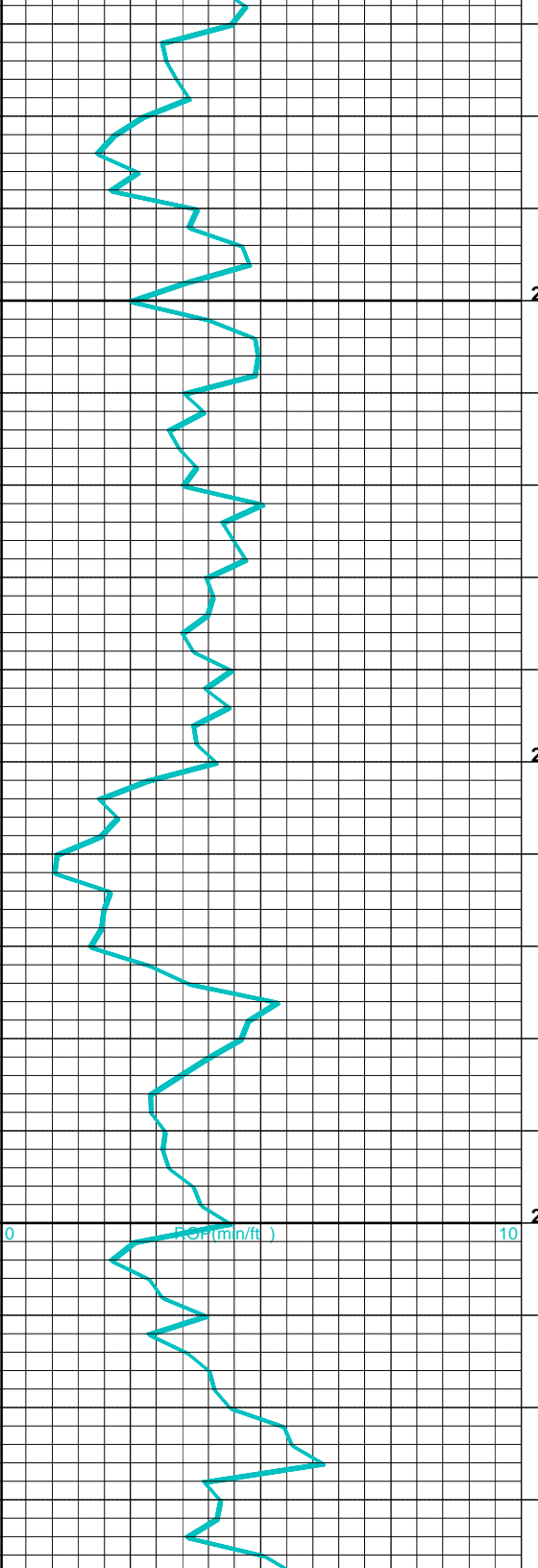
CHT, m brn-dk gy brn, lt brn-tan, pk brn, op-trnsl, crp xln, hd, ang-sblky, num ca incl + edgs, fos' ip, frc ip

LS, lt brn-buff tan, lt-m gy brn, yel tan-gy tan, mot ip, mic-crp xln, hd-mod hd, dns, some f-m xl ca lined frcs + vugs, sil ip, scat intbd sd grns, fos' ip, abnt CHT, tr dull wh-yel gn F, NC

LS, lt brn-gy tan, buff tan-lt yel brn, crm gy, m brn, mot ip, mic-crp xln, rthy-dns xln, hd-mod hd, occ' v frm, freq free xln ca, some frc-vugs fl / ca, sil, slty-sdy ip, scat fos deb, v chty ip, tr yel org mnrl F, NC

LS, lt-m brn, gy brn-buff, mot gy tan-crm, mic-crp xln, rthy-chky tex, dns xln-sb vit ip, hd-v frm, brit, v fos', cln, v calc / mnrl si repl + dk brn CHT, rr ca fl frcs, tr blk tar in spl / NF + yel gn mky C

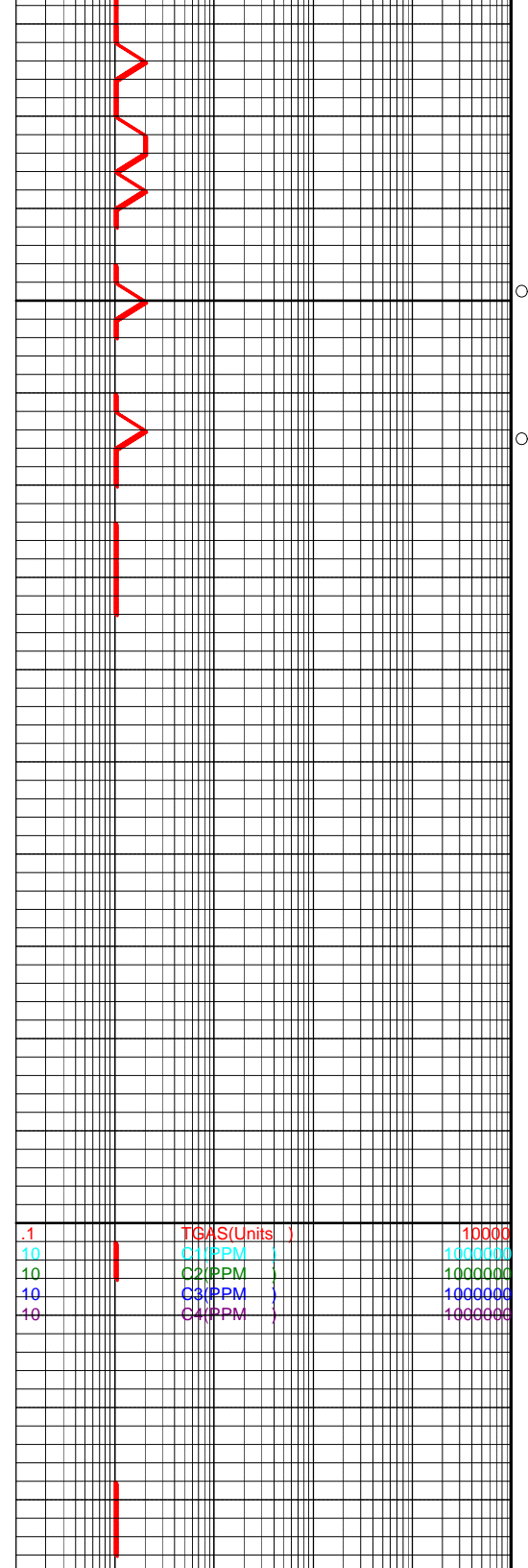
CHT, dk gy brn, dk brn-smoky gy, lt gy-mky



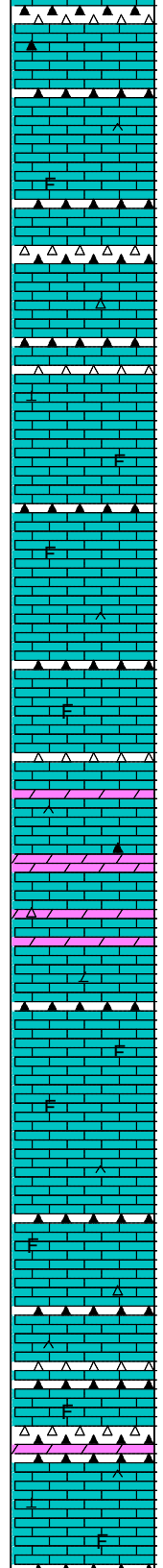
2700

2750

2800



TGAS(Units)	10000
C1(PPM)	1000000
C2(PPM)	1000000
C3(PPM)	1000000
C4(PPM)	1000000



CHT, dk gy brn, dk brn-smoky gy, lt gy-mky wh, v ang-blky, tr LS ctc + ifil, num ca mic frcs

LS, m-lt brn, dk brn-gy brn, gy tan-buff, mot-spec ip, mic-crp xln, rthy-dns xln tex, hd-mod hd, brit, sil ip / imbd CHT, scat fos deb thru, mnr xln ca lined frcs, NF, NC

LS, lt-m brn, tan-crm, dk brn-gy brn, mot ip, mic-crp xln, rthy-chky tex, dns xln-sb vit ip, hd-frm, cln, v calc + fos', chty ip / mnr si repl, rr dk mnrl str, tr ca fl frcs, tr blk tar / NF + yel gn mky C

LS, lt-m brn, pk tan-crm, gy brn, gen mot, mic-crp xln, rthy-dns xln tex, sb vit, hd-mod hd, frm-chky ip, cln, v calc-fos', sil-chty ip, num ca mic frcs, spty yel mnrl F, NC

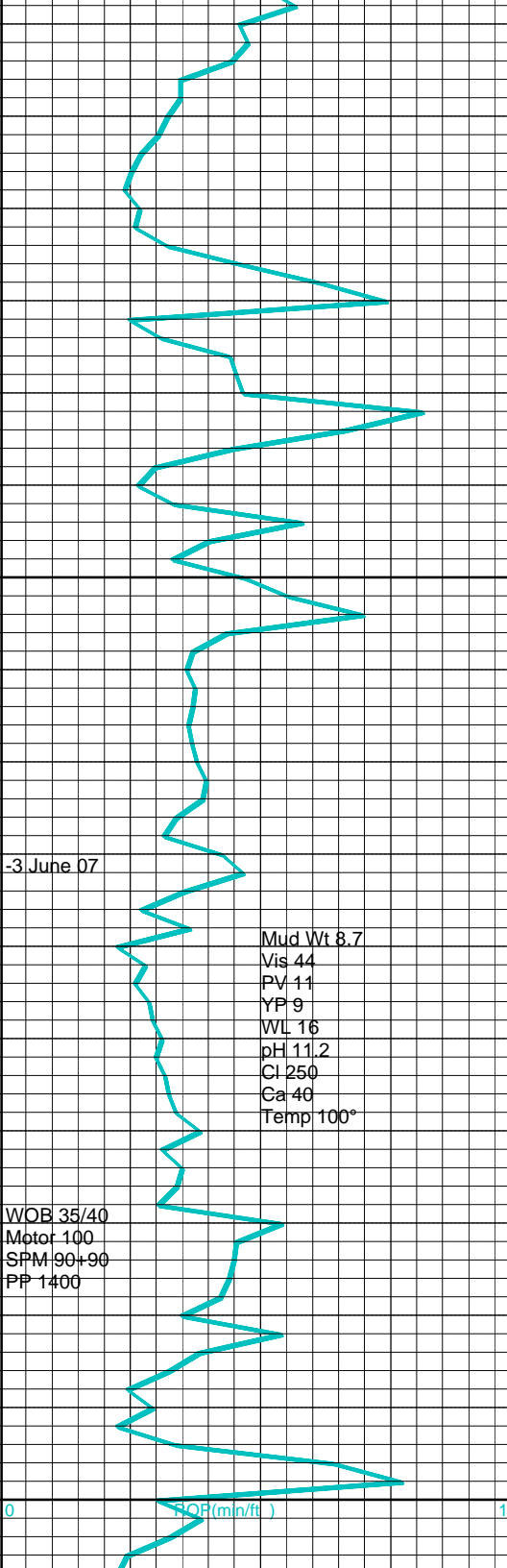
LS, dk gy brn, lt-dk brn, mot gy tan-buff, mic-crp xln, dns xln-rthy tex, hd, blk-gran, num ca mic frcs, brec ip, sil-sl dol', scat trnsl brn CHT frags, rr yel mnrl F, NC

LS, lt brn-gy tan, m-dk gy brn, crm-wh, mot ip, mic-crp xln, rthy-dns xln tex, chky, hd-sft, brit, v calc-fos', sil ip, rr yel mnrl F, NC, decr' blk tar on mud pits

LS, gy brn, m-lt brn, crm-buff / yel orgn mnrl stn, mot-spec ip, mic-crp xln, rthy-dns xln tex, chky, sb vit ip, hd-frm, chty ip / mnr si repl, scat fos frags, tr ca lined frcs, rr f-m gr ca + dol xl grth, NVS

CHT, m-lt brn, yel brn-gy brn, gy wh-gy blk, v ang-blky, rr conch frcs, num mic frcs / ca ifil

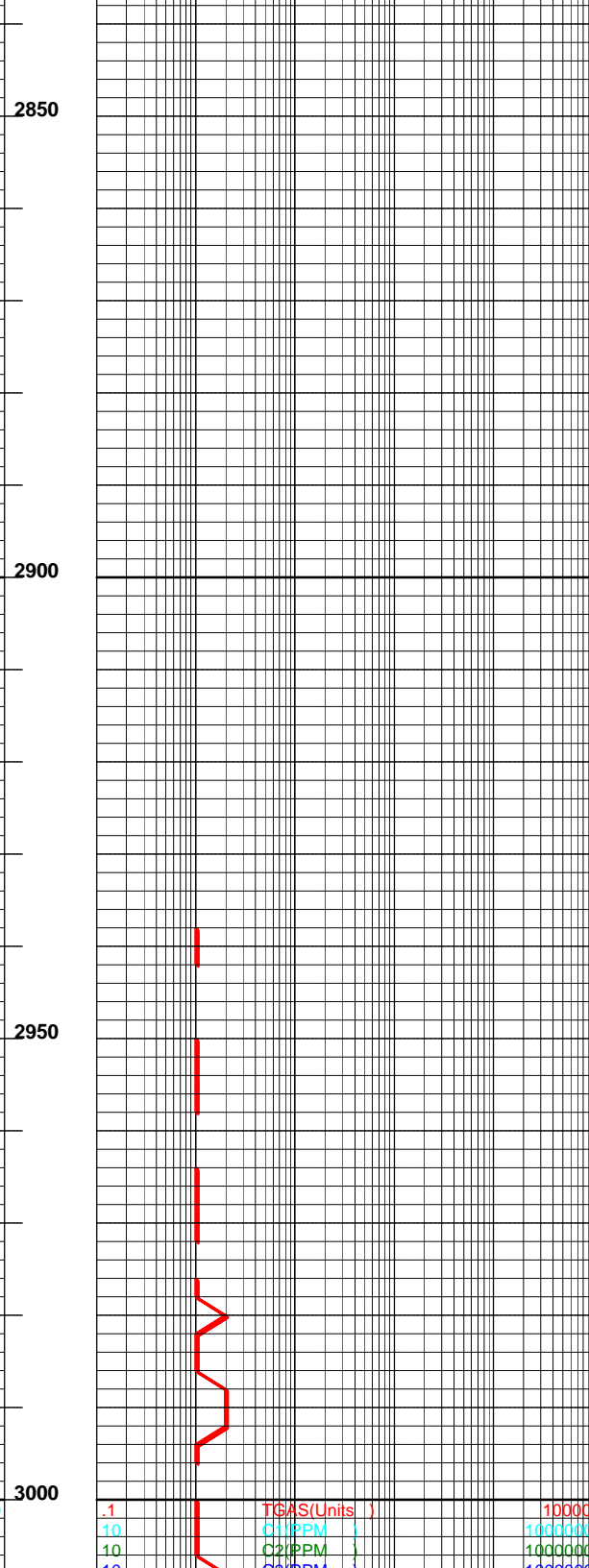
LS, m gy-gy brn, dk gy, lt-m brn, lt yel brn-buff gy, crm wh, mot ip, mic-crp xln, rthy, dns xln, hd-brit, mod hd-v frm, plty-sblky, sil ip, dol' ip, fos' ip, occ xln ca lined frcs, abnt m brn-dk gy brn CHT. rr dk vel F. NC



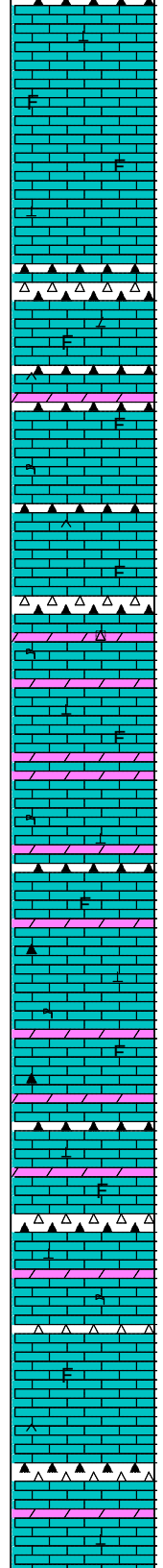
Mud Wt 8.7
 Vis 44
 PV 11
 YP 9
 WL 16
 pH 11.2
 Cl 250
 Ca 46
 Temp 100°

WOB 35/40
 Motor 100
 SPM 90+90
 PP 1400

-3 June 07



TGAS(Units) 10000
 C1 PPM 1000000
 C2 PPM 1000000
 C3 PPM 1000000



LS, lt brn-lt gy brn, tan-buff gy, m gy, m-dk gy brn, gen mot, mic-crp xln, rthy-tr chky tex, dns ip, hd-v frm, mnr ca fld frc + vugs, num mic frcs, abnt fos deb, cln-sl dol', some lt brn-dk gy brn CHT, rr fnt F, NC

CHT, dk gy brn-m brn, gy blk, lt brn-smky gy, op-trnsl, hd, ang-blky, some f-c xln ca fld frcs + edgs, occ mic + conch frcs

LS, m gy-dk brn, lt brn-gy tan, dk gy brn, yel brn-crm gy, mot, mic-crp xln, rthy-dns xln, hd-v frm, dol' ip, sil ip, num fos + cor frags, tr free wh xln ca, mnr ca frc fl, some gy blk-lt smky tan CHT, rr dull yel gn F, NC

DOL, m-dk gy brn, yel brn, mot ip, mic xln, hd, blk, dns xln-rthy, occ fos deb, some ca edgs + frc fl, sil-chty ip

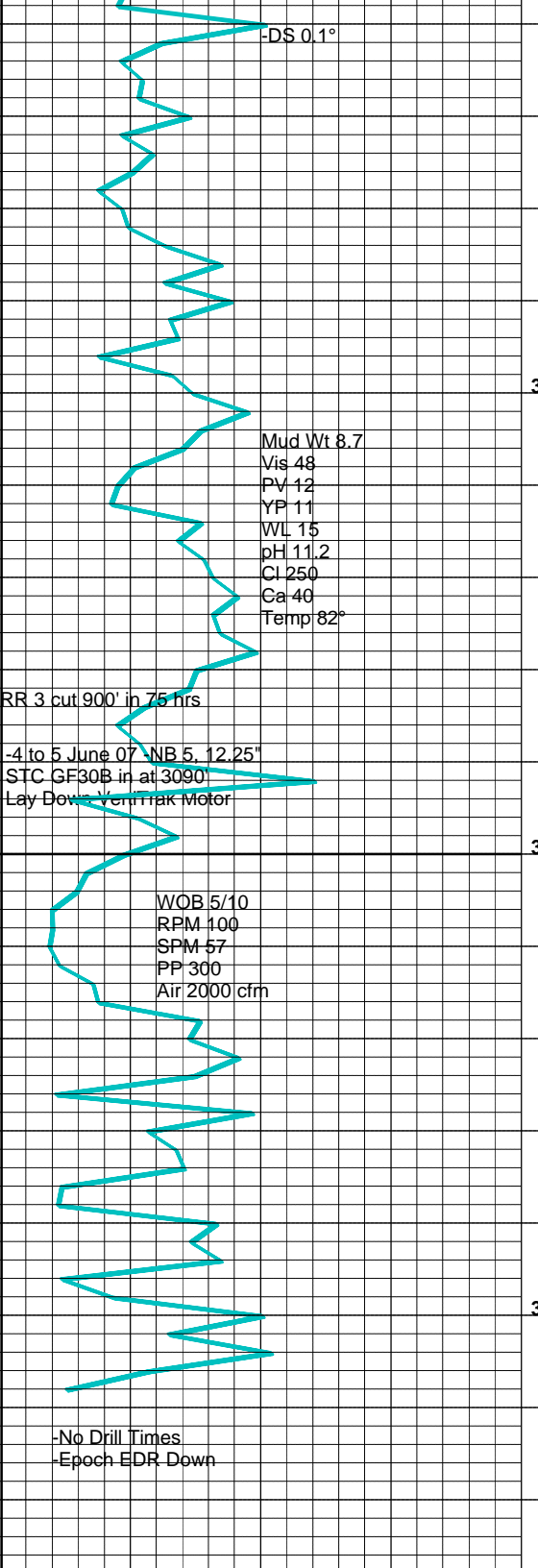
LS, m brn-dk gy brn, lt brn-gy tan, yel brn, buff gy-crm wh, mot-spec ip, mic xln, hd-mod hd, frm, dns xln-rthy, v fos' ip, scat ca lined frcs, occ free chky wh ca, dol' ip, tr brn blk CHT, rr bri yel wh-tr dull yel orgn F, fnt yel wh flash C

LS, m-dk gy brn, m brn-yel tan, buff tan, mot ip, mic xln, hd-mod hd, sb blk, dns-rthy, sil ip / dk gy brn CHT ctc, dol' ip, freq mic frcs, mnr ca fld + lined frcs, tr free xln ca, scat fos deb, rr fnt wh yel F, NC

CHT, brn blk-dk gy brn, crp-mic xln, hd, ang-sblky, occ ca edgs + fld frcs, num mic frcs

LS, lt-m gy brn, lt brn-crm tan, dk gy brn, yel tan-crm wh, v mot ip, pred mic xln, rthy-dns ip, hd-mod hd, sblky, occ free chky ca, cln / abnt coral + fos + ca fl frcs, scat mic frcs, mnr lt amber-dk gy brn CHT, rr mnrl F, NC

LS, dk gy brn-gy blk, m-dk gy, m brn-buff, mot



-DS 0.1°

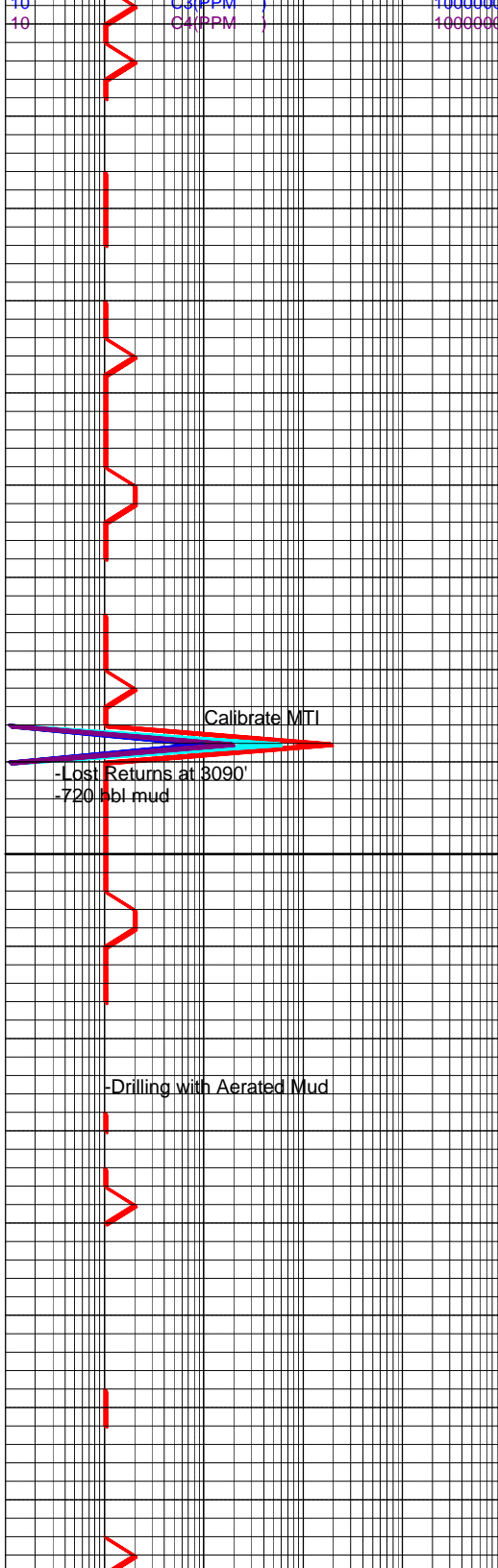
Mud Wt 8.7
 Vis 48
 PV 12
 YP 11
 WL 15
 pH 11.2
 Cl 250
 Ca 40
 Temp 82°

RR 3 cut 900' in 75 hrs

-4 to 5 June 07 - NB 5. 12.25'
 STC GF30B in at 3090'
 Lay Down Ventrak Motor

WOB 5/10
 RPM 100
 SPM 57
 PP 300
 Air 2000 cfm

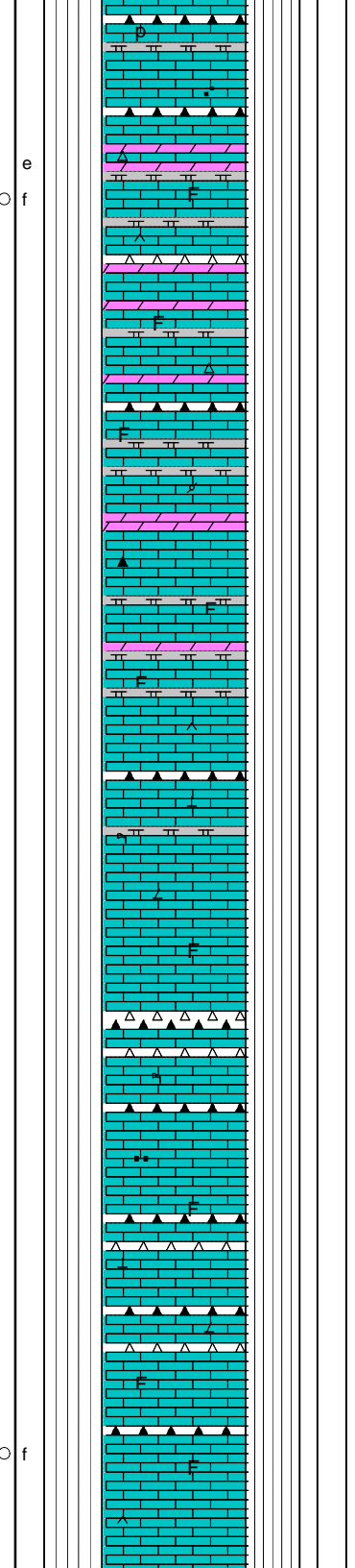
-No Drill Times
 -Epoch EDR Down



Calibrate MTI

-Lost Returns at 3090'
 -720 bbl mud

-Drilling with Aerated Mud



LS, dk gy brn-gy blk, m-dk gy, m-brn buff, mot ip, rthy tex, dns xln-sb vit ip, hd-mod hd, sft-mrly, occ' brit, v sil-sil dol', sdy ip, mnr CHT, rr mic pyr, tr xln-chky wh ca, brec ip, rr ca fl frcs / bri yel F + wk mky yel C

LS, dk gy-gy brn, m-lt brn, gy blk, crm-buff, mot-spec ip, mic-crp xln, pred' rthy tex, hd-v frm, brit, occ' sft-chky / abnt gy calc clay, sil-chty ip, sl dol', num ca fl frcs + mic frcs, brec ip, scat fos frags, spty yel F / fnt yel gn C

LS, gy tan-crm, lt-m brn, gy brn-gy blk, mot lt gy-buff, mic-crp xln, rthy-chky tex, sb vit ip, frm-hd, brit-fri ip, abnt sft mrly clay, num fos frags + pels, tr ca fl frcs, sl dol' ip, mnr sil repl + CHT, rr yel F, NC

LS, buff, lt brn-crm, lt-dk gy brn, gen mot-spec, mic-crp xln, pred' rthy-chky tex, frm-hd, occ' brit, abnt sft mrly clay, v fos', rr dk mnrl str, sl dol'-sil ip, tr ca mic frcs, NVS

LS, lt-m gy brn, crm tan-lt brn, buff gy-crm wh, dk gy brn, mot-spec, mic-crp xln, rthy-chky tex, mod hd, frm-hd, abnt fos + cor frags, some dk gy brn CHT, sl dol', scat ca fld + lined frcs, NF, NC

CHT, dk-m gy brn, brn blk, amber-lt smky gy, hd, ang-blky, op-trnsl, tr ca edges

LS, crm tan-lt gy brn, lt brn-buff gy, m gy brn, tr yel brn-pk tan, mot-spec ip, mic-crp xln, rthy-dns xln, hd-mod hd, v frm, fos', sl arg-slty ip, dol' ip, rr lt yel F, NC

LS, lt brn-crm tan, lt-m gy brn, crm gy-buff wh, mot ip, mic-crp xln, hd-v frm, sbky, rthy, dns xln, tr slty, tr vf gr sd, scat wh free xln + chky ca + lined frcs, fos' ip, sil-dol' ip, abnt lt amber-brn blk CHT, spty yel wh mnrl F, NC

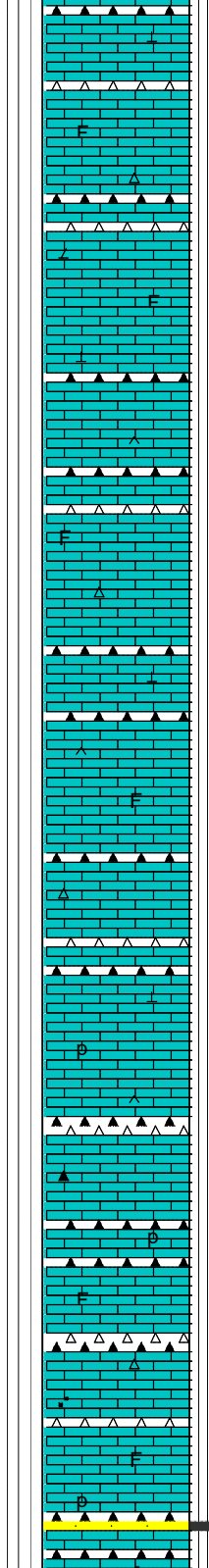
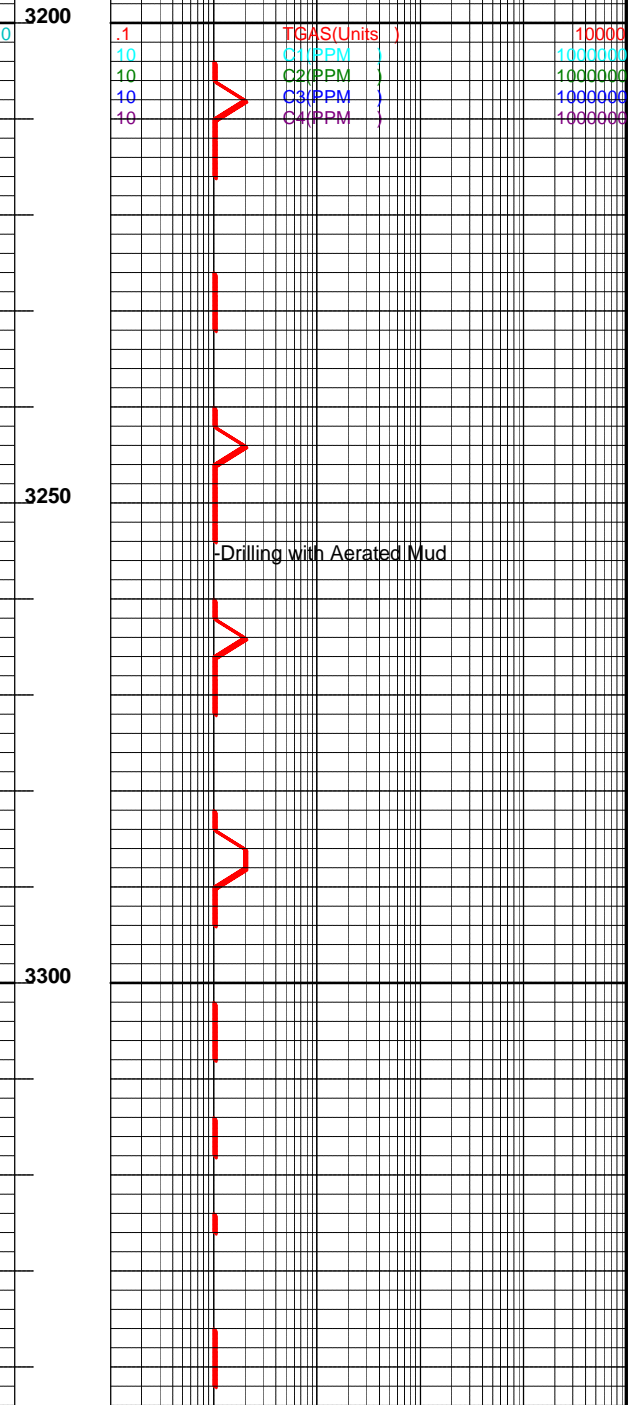
LS, m-dk gy, lt-m brn, gy brn-gy blk, yel tan buff, occ' brit, v sil-sil dol', sdy ip, mnr CHT, rr mic pyr, tr xln-chky wh ca, brec ip, rr ca fl frcs / bri yel F + wk mky yel C

WOB 10/15
 RPM 100
 SPM 95
 PP 350
 Air 2000 cfm

ROP(min/ft) 0 10

-DS 1.2°

-No Drill Times
 -Epoch EDR Down



tan-brn, mot ip, mic-crp xln, rthy tex, dns xln-sb vit ip, hd-mod hd, blk-brit, sl dol-sil ip, mnr lt-dk trnsi CHT, scat fos frags, tr ca fl frcs, rr free xln ca / bri yel F + wk mky yel C

CHT, lt gy-mky wh, lt-m brn, smoky gy-brn blk, trnsi-op, v ang-blky, vit-pit tex, rr mic frcs / ca ifil, scat mic pyr

LS, dk gy-gy brn, lt gy, m-lt brn, gy tan-buff, mot-spec ip, mic-crp xln, rthy-dns xln tex, hd-sil, mod hd-brit ip, mnr si repl + CHT, rr xl lined frcs, tr wh-pk ca / bri yel F + fnt mky C

LS, dk gy brn, m-lt brn, lt-dk gy, gy tan, yel crm-wh, mot ip, mic-crp xln, rthy-dns xln tex, hd-mod hd, blk, brit-sply ip, gen sil-chty, stly-sdy ip, rr fos frags + xl lined frcs, tr xln ca / bri yel F, NC

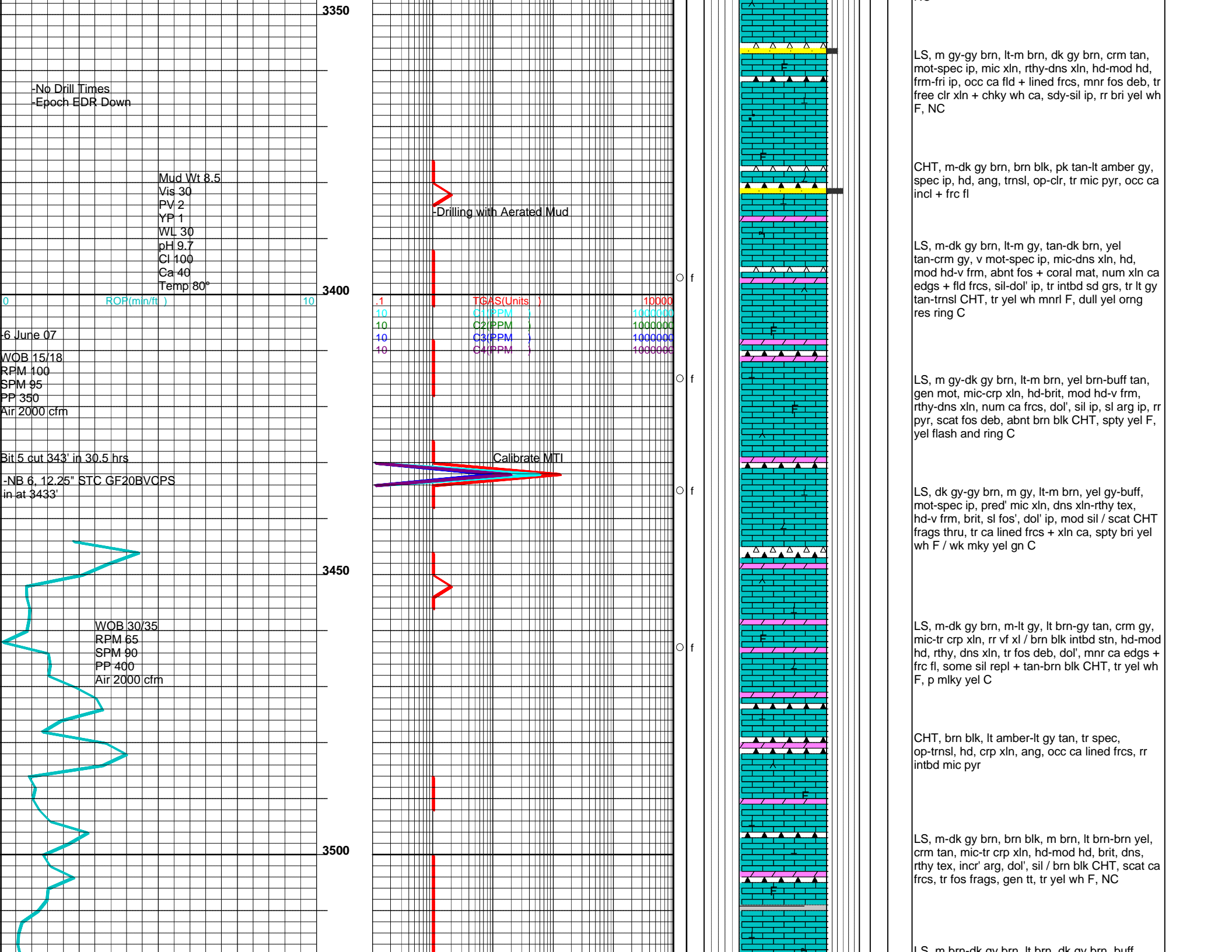
LS, dk gy-gy brn, m brn-pk tan, m-lt gy, buff, mot-spec ip, some yel org stn, mic-crp xln, pred' rthy tex, hd-v frm, blk, sil-occ' sdy, mnr si repl + CHT, fos' ip, tr ca fl frcs, spty bri yel mnrl F, NC

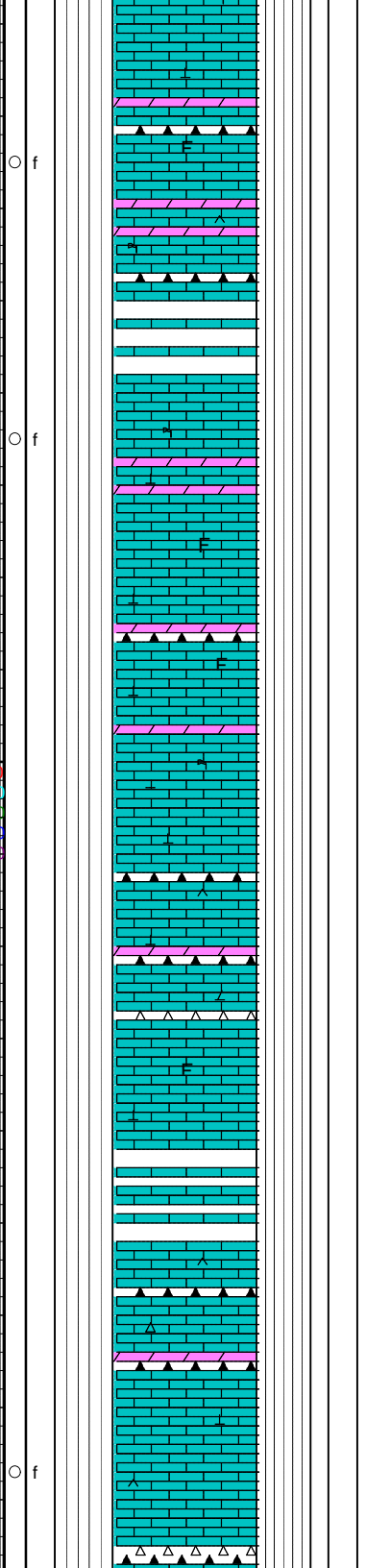
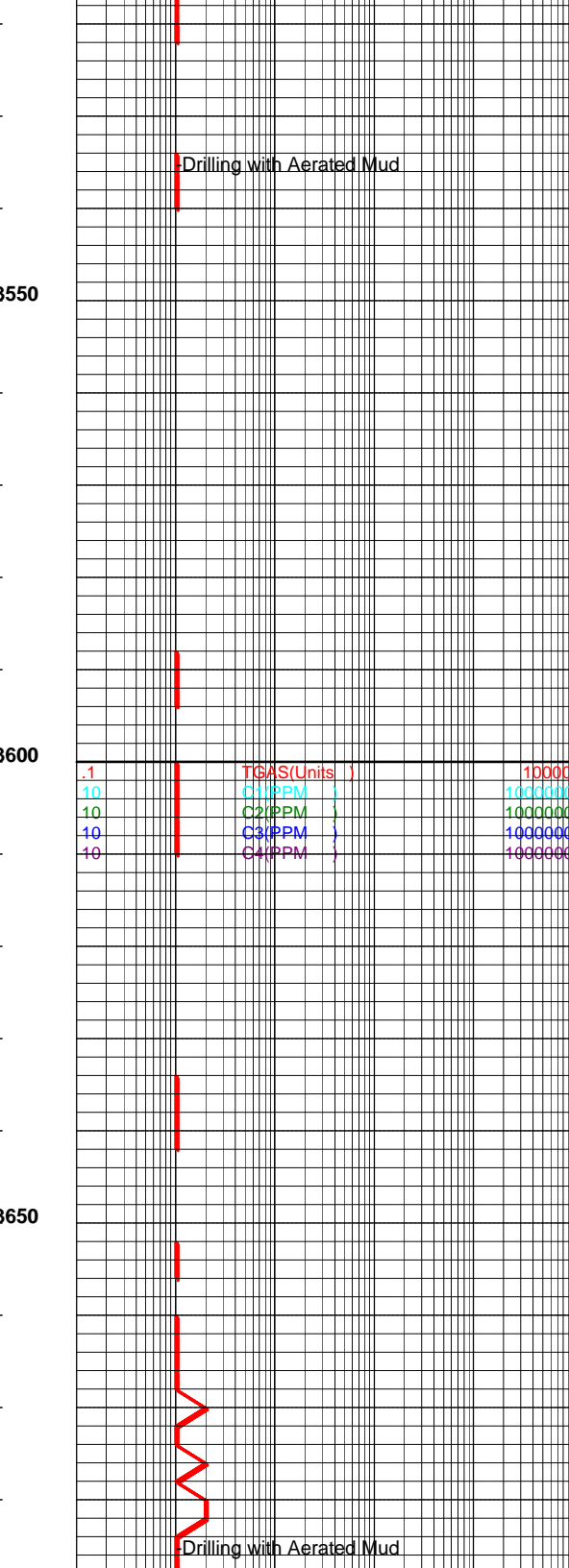
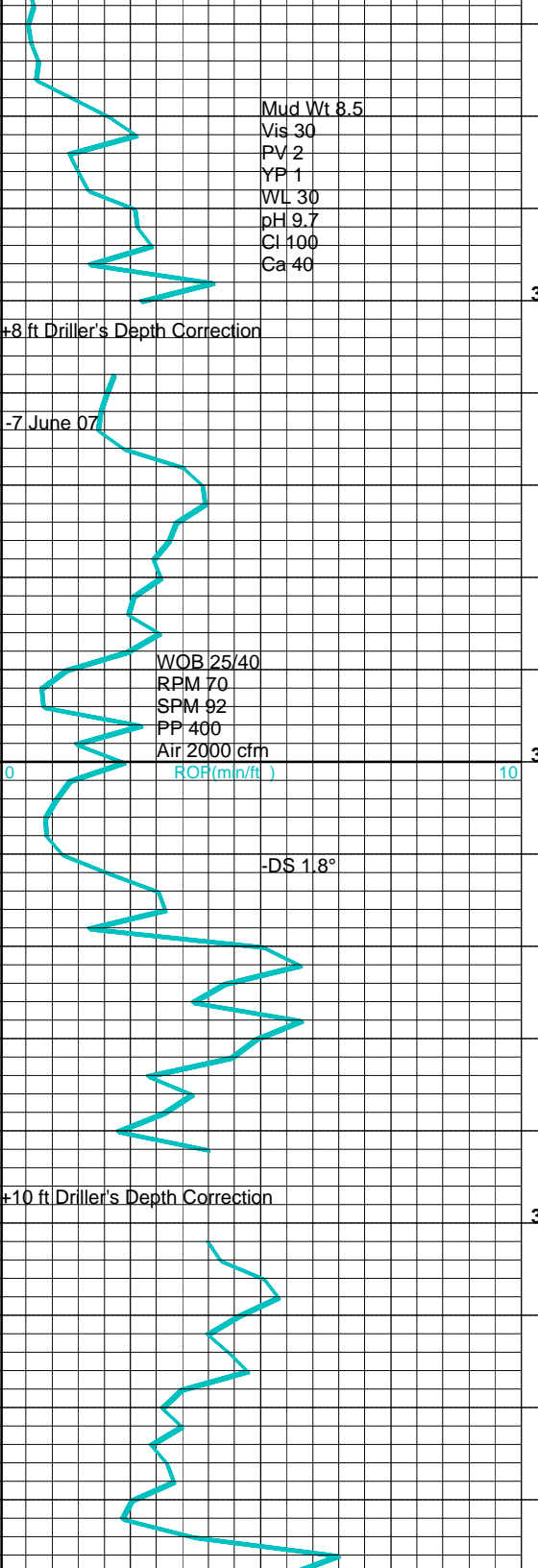
LS, dk gy brn, lt-dk gy, m-lt brn, crm-buff, mot gy wh, pred' mic xln, dns xln-rthy tex, hd-occ brit, sil-chty, vf dism pyr, tr ca lined frcs + mic frcs, tr xln ca / bri yel F, NC

CHT, m-lt gy, lt brn-gy brn, mky-gy wh, trnsi-op, clr-vit ip, v ang-blky, num thn flky frags, pred' si repl in LS, rr mic pyr

LS, m-lt brn, dk gy brn, yel brn-pk tan, lt-dk gy, mot-spec ip, mic-crp xln, dns xln-rthy tex, sb vit ip, hd-brit, cln, v calc-sl dol', sil-sdy ip, trnsi pk-gy wh CHT frags thru, scat fos deb, rr xln ca / bri yel F, NC

LS, m-dk gy, gy brn, lt brn-gy tan, mot-spec ip, pred' mic xln, dns xln-rthy tex, hd-brit, frm-fri ip, sl fos', occ' sdy / vf sd grns thru, rr mic pyr, sil / mnr si repl + CHT, tr free ca / bri yel mnrl F, NC





LS, m-brn-dk gy brn, lt brn, dk gy brn, buff tan-ornge brn, v mot-spec ip, mic-crp xln, hd-brit, mod hd, rthy, dns xln, abnt fos deb, tr free wh ca, num mic frcs + ca frc fl, dol' ip, occ brn blk CHT, tr yel wh F, NC

LS, m-dk gy brn, m-lt brn, tan-lt gy tan, mot, mic-dns xln, vit ip, hd, sblky, dol', fos', frcs, some ca fld + lined frcs, occ free xln-chky wh ca, sl sil ip / mnr brn blk CHT, tr dull yel gn F, fnt dk yel res ring C

LS, dk brn-dk gy brn, m-lt brn, m-lt gy brn, crm tan-buff gy, mot, mic-crp xln, hd-mod hd, brit, dns, dol', sil ip, some f-c xln ca lined frcs, abnt fos' + cor, tr bri wh-yel F, wk res ring C

LS, m-dk brn, m-dk gy brn, lt brn-crm tan, v mot ip, mic-crp xln, hd-mod hd, brit, dns xln, scat fos deb, sl arg-dol' ip, num ca edgs + fld frcs, free xln ca, tr CHT, spty mnrl F, NC

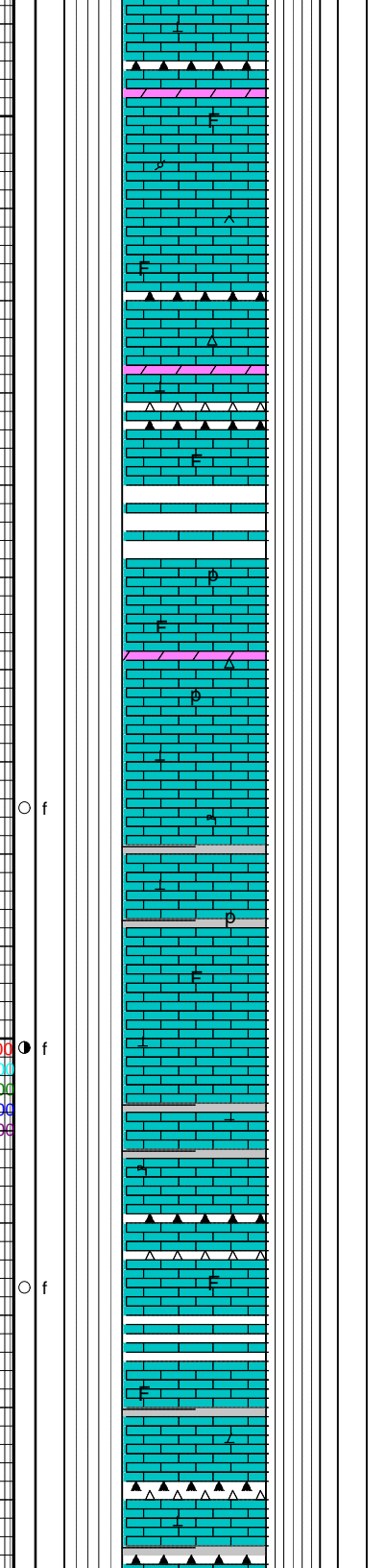
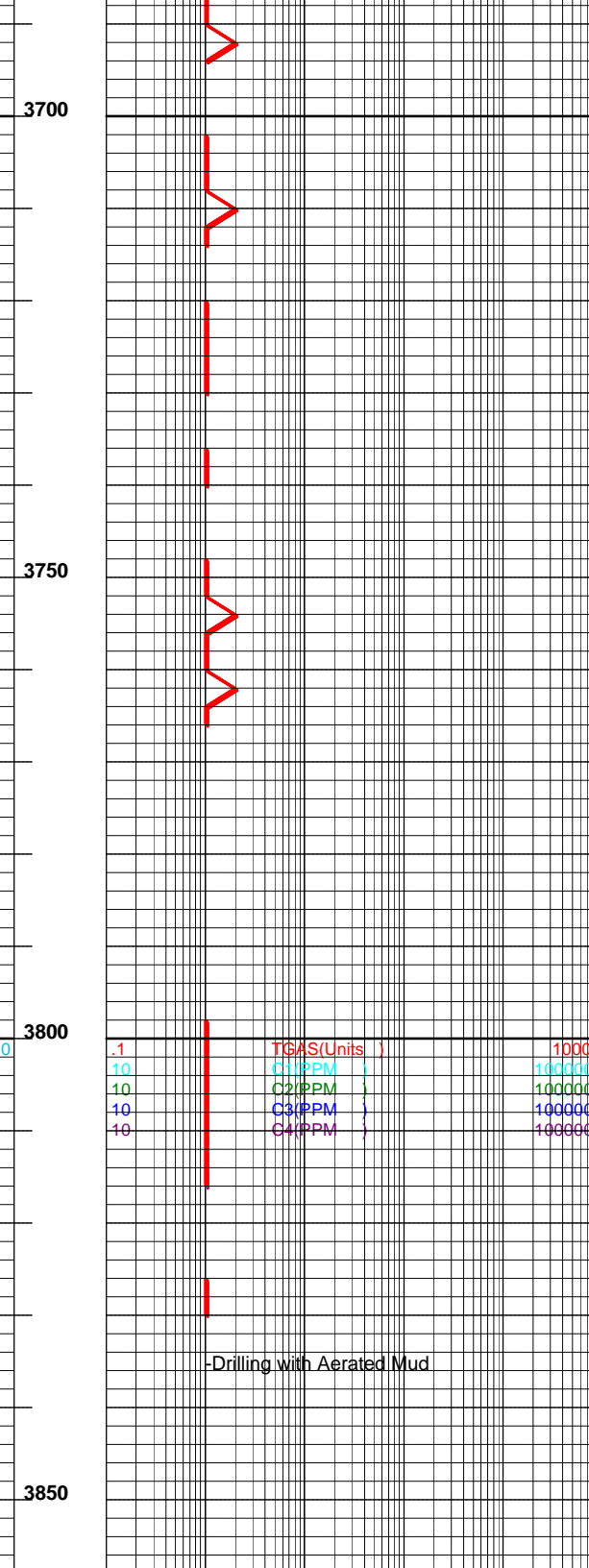
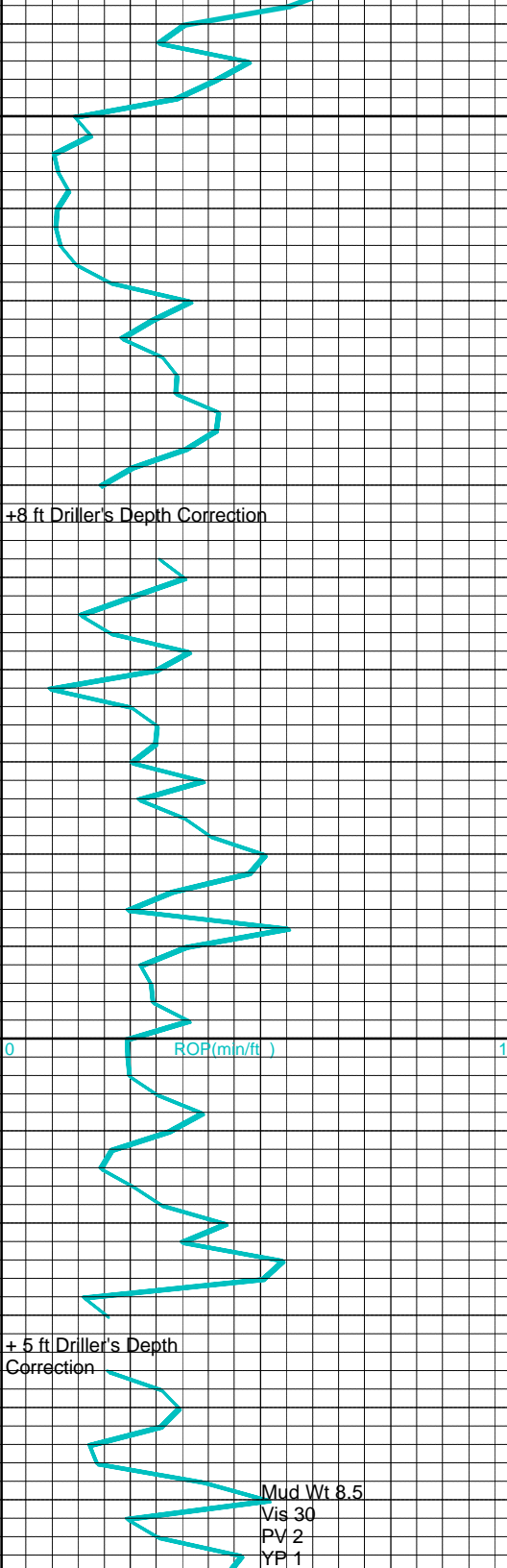
LS, dk gy brn-dk brn, m-lt brn, gy brn-yel brn, mot ip, mic-crp xln, hd-brit, mod hd, dns-rthy ip, fos' ip, incr' arg, occ' sil-dol', num ca frc fl, mnr brn blk CHT / ca edgs, tr yel wh-dull yel orng F, NC

CHT, dk brn-brn blk, amber-m gy brn, crp xln, hd, ang-sply, sblky ip, op-trnsl, tr fos

LS, m-dk brn, dk gy brn, lt brn, yel brn, mot ip, mic-crp xln, dns, hd-brit, mod hd, scat fos, freq ca fld + lined frcs, lse crm-wh xln ca, dol' ip, rr blk carb SH, tr yel wh F, wk res ring C

LS, dk gy brn-gy blk, dk brn, some m brn-gy tan, mot crm-buff, mic-crp xln, rthy-dns xln tex, hd-mod hd, brit, sblky-sply, sil ip / mnr si repl + CHT, num frcs lined / wh xln ca, spty bri yel mnrl F, NC

LS, dk gy brn-blk, dk brn, m-dk gy, sl mot-spec ip, mic-crp xln, rthy-dns xln tex, hd-brit, blkly-plty, sil-chty ip, num ca lined frcs + mic frcs, tr ca / bri yel F + wk mky C, sl carb odor



when heated

LS, m-dk brn, mot gy brn-gy wh, dk gy, tan-buff, spec ip, mic-crp xln, dns xln-rthy tex, sb vit-mic suc ip, hd-v frm, brit, gen fos' / scat pels + fos frags thru, cln, v calc, occ' sil-chty, tr ca frcs, rr xl lined voids, spty yel mnrl F, NC

LS, dk brn-gy brn, m brn, lt-dk gy, buff, mot-spec ip, pred' mic xln, dns xln-rthy tex, sb vit, hd-brit, cln, v calc / mnrl si repl + CHT, occ' sdy, abnt fos deb thru, tr ca lined frcs + free xln ca / yel mnrl F, NC

LS, m-dk gy brn, dk brn-yel brn, m-lt gy, tan-buff, gen mot-bnnd, mic xln, dns xln-rthy tex, some vit m-c xln frags, hd-mod hd, brit-fri, cln, num fos frags + deb, occ' sil-chty, rr mic pyr, tr wh xln ca + frc fl, spty bri yel F, NC

LS, m-dk gy brn, m-lt brn, dk gy brn, tan-buff gy, mot ip, mic-f xln, tr c xln, rthy-dns xln, sl sucr ip, hd-mod hd, fos + coral frags, abnt lse wh-trnsl ca, ca fld + lined frcs, tr dis pyr, some m gy-gy gn pyr' SH, occ yel wh-dull yel F, fnt yel res ring C

LS, m brn-gy brn, lt brn-gy tan, crm tan, yel brn, dk gy brn, mot ip, mic xln, mod hd-hd, rthy-dns xln, sb vit, fos', free xln ca + frcs, sl arg, tr intbd sd grns, abnt bri wh-yel F, slow strmg lt yel C

SH, m-dk gy, lt gy, gy gn, mas-sblky, rthy tex, mod hd, mod calc, scat mic-dism pyr, tr slty-sdy

LS, m-lt brn, m gy-dk gy brn, crm tan-yel brn, mic-crp xln, f xln, hd-mod hd, dns-sucr tex, abnt fos + cor deb, some free wh xln ca, cln, sl dol'-arg ip, occ lt brn-brn blk CHT, spty yel wh-dull yel org F, v fnt res ring C

CHT, lt brn-smky gy, brn blk, rr yel org brn, spec ip, crp xln, hd, ang-sblky, op-trnsl, some intbd + frc fl ca

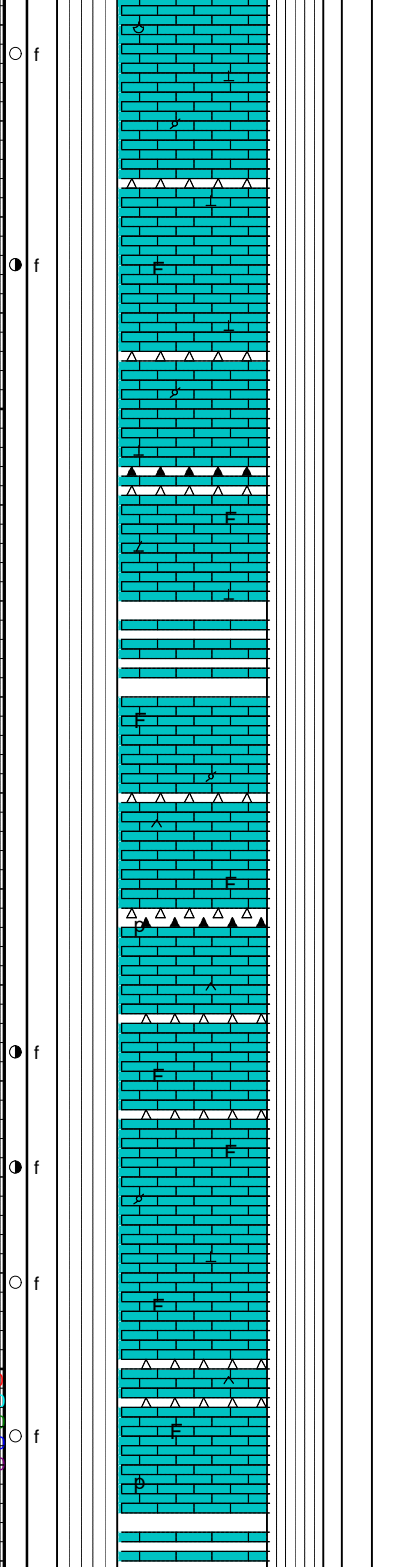
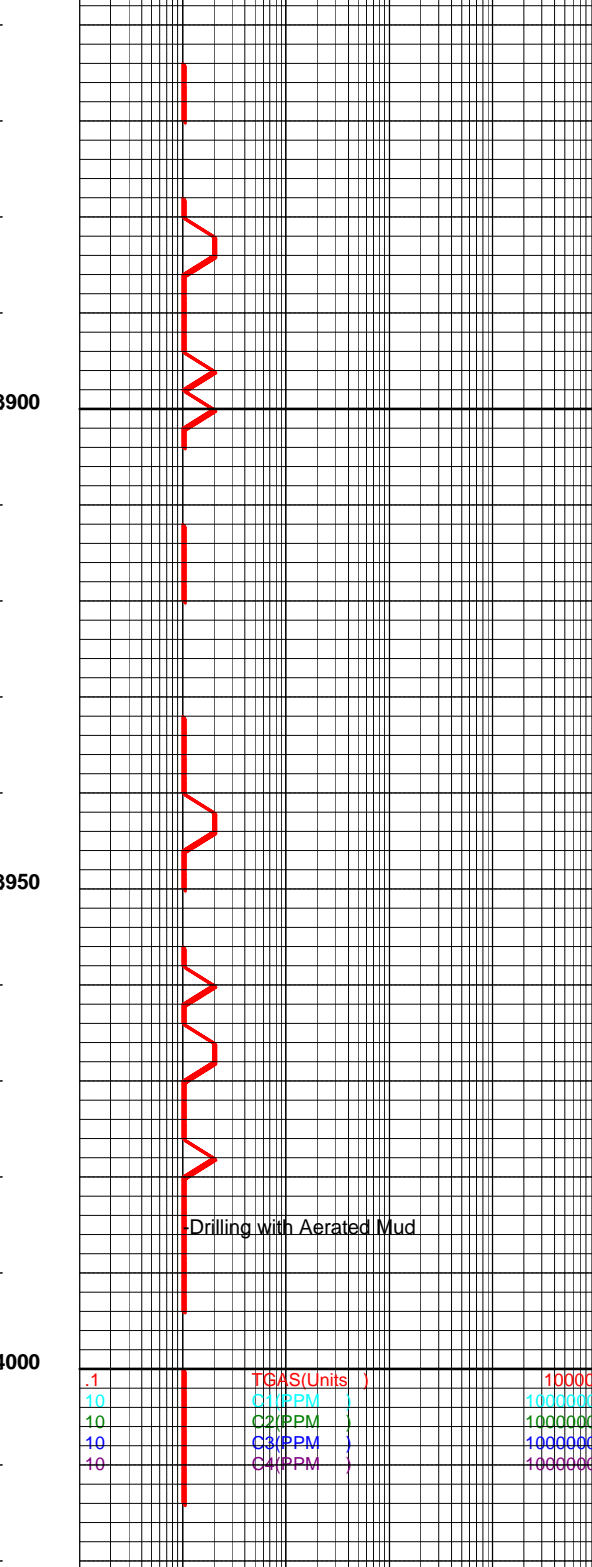
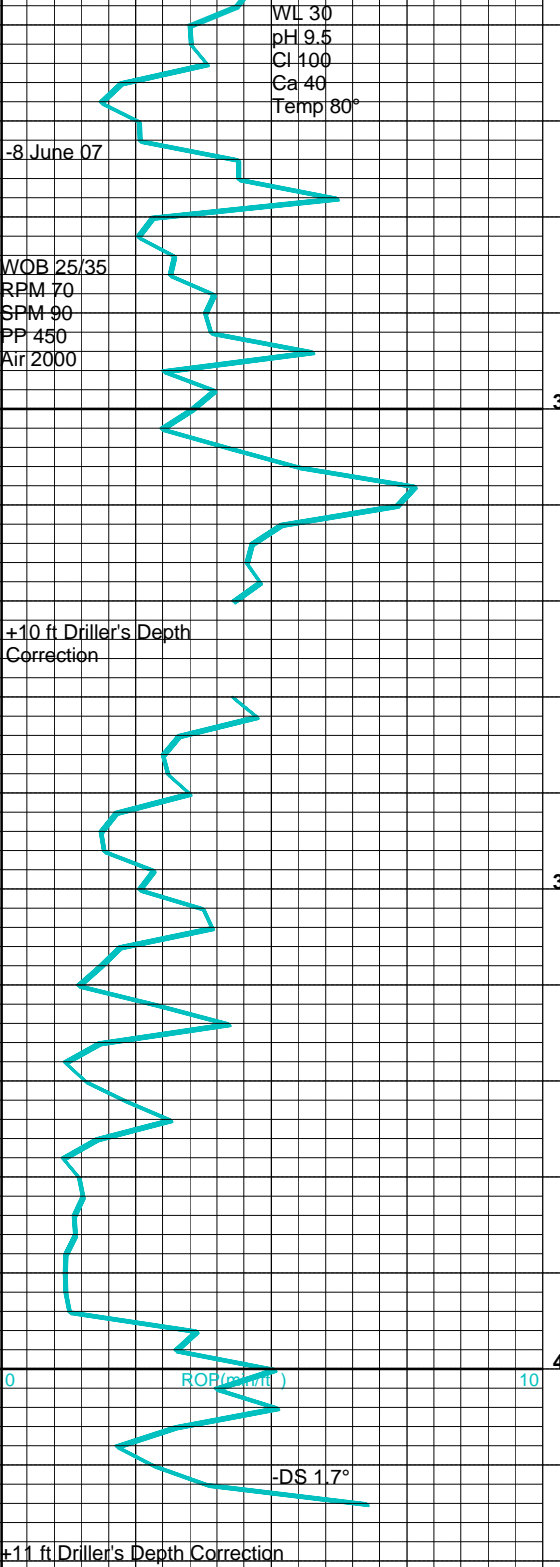
+8 ft Driller's Depth Correction

ROP (min/ft)

+ 5 ft Driller's Depth Correction

Mud Wt 8.5
Vis 30
PV 2
YP 1

-Drilling with Aerated Mud



LS, m-dk gy brn, m-lt brn, tan-crm wh, mot ip, mic xln, rthy-dns, hd-mod hd, fos' / pel + prly shell frags, scat free xln ca + lined frcs, sil ip, incr' arg, mnr lt brn-smky gy, trnsl CHT, tr yel-wh F, wk res ring C

LS, lt-m brn, crm tan-buff wh, dk brn, v mot, mic-crp xln, dns-tr mic sucx tex, vit-tr prly, v pel + fos deb, cln, num ca frcs + rr fld vugs, scat free wh xln ca, tr sl sil, mnr lt brn CHT / mic pyr, abnt bri yel F, slow seeping yel C

LS, lt brn-gy tan, buff tan-lt gy, m brn-dk gy brn, mot ip, mic-crp xln, tr vf xln, hd-brit, mod hd, dns-sm, fos' + pel', some free f-c xln ca + lined frcs, tr styl, sl dol' ip, mnr lt brn CHT, spty bri yel-yel gn F, v fnt res ring C

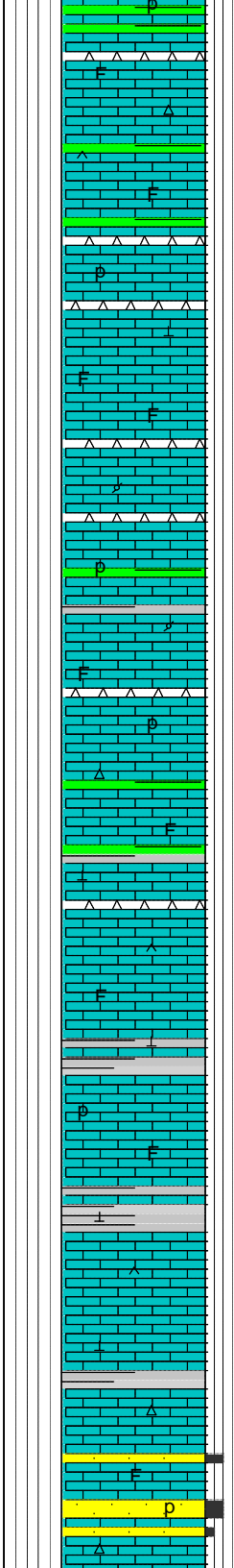
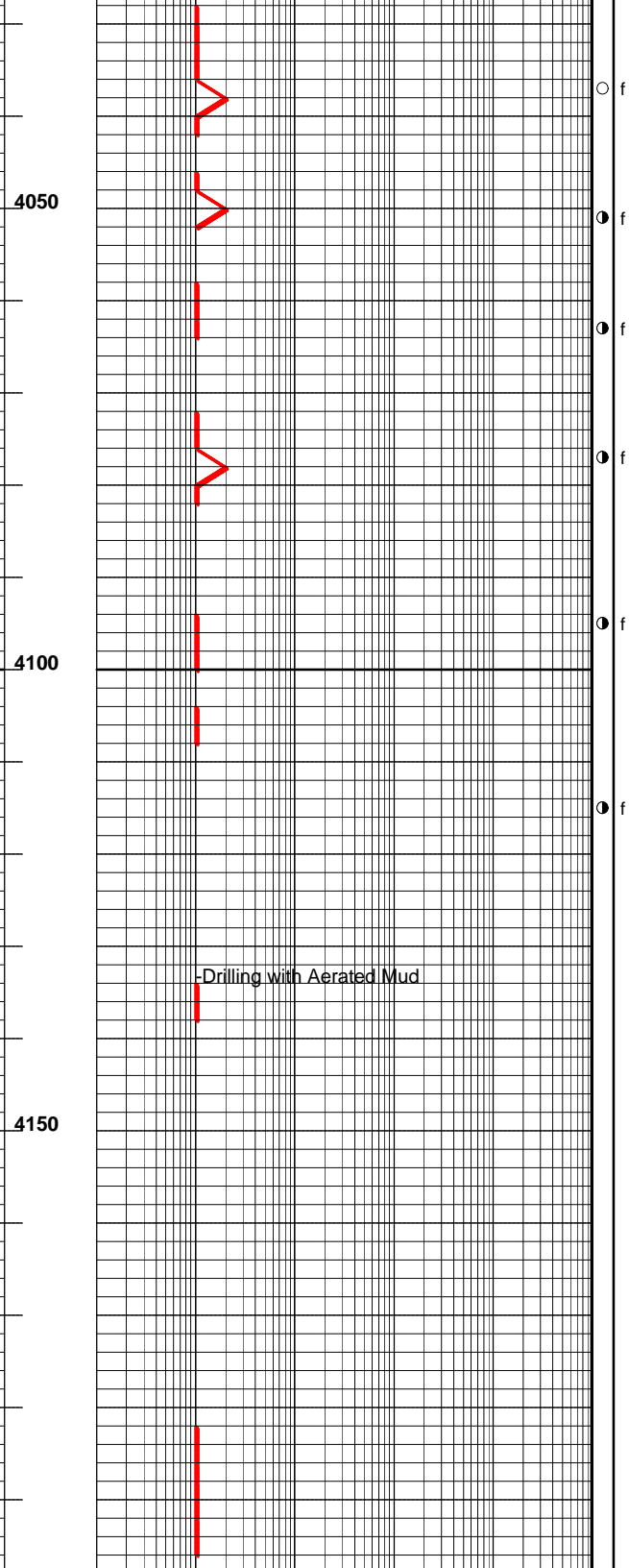
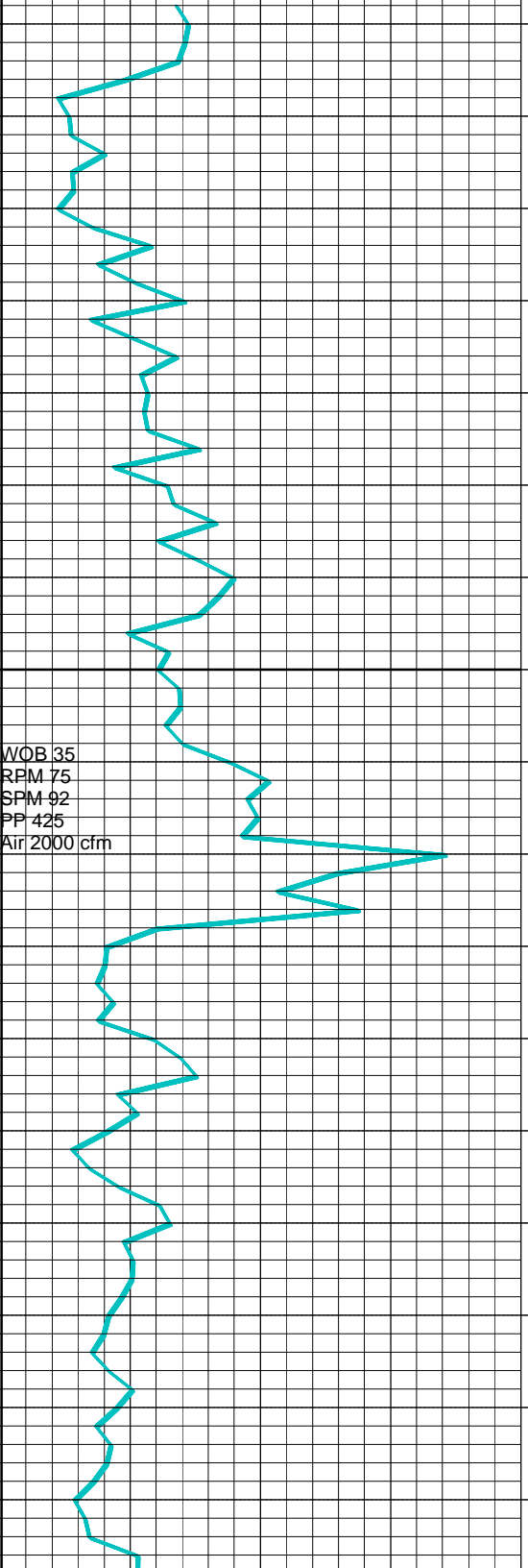
LS, lt-m brn, mot gy brn-gy wh, crm-buff, mic-crp xln, rthy-sm tex, chky, dns xln-sb vit ip, hd-frm, brit, cln, v calc, pred' fos deb + pels, sil-chty ip, occ' bnnd / dk mnrl str, some free xln ca / spty yel mnrl F, NC

CHT, gy wh-brn, smoky gy, yel tan-pk, trnsl, v ang-blky, rr mic pyr, tr mic frcs / ca ifil, some LS ctc

LS, dk gy brn-gy blk, lt-dk brn, mot gy tan-buff, mic-crp xln, rthy tex, dns xln-sb vit ip, hd-v frm, brit ip, blkly-plty, scat fos frags, sil ip / trnsl gy-brn CHT, num clr ca xls + ca fl frcs, rr dk brn-blk stn, spty yel wh F / mky yel C

LS, m-lt brn, lt-dk gy brn, gy tan-crm, gen mot, mic-crp xln, rthy-sb vit tex, occ' f xln-suc, hd-v frm, brit, pred' fos deb + pels, mnr frcs, tr xln-chky ca, spty bri yel F / wk mky C

LS, gy tan-buff, lt-m brn, gy brn, crm, mot-occ' bnnd, pred' mic xln, dns xln-sb vit tex, rthy-chky, suc ip, hd-v frm, brit, v fos' / pels + fos frags thru, scat xl clus + vugs, tr free ca, rr pyr conc, spty yel F / wk mky C



LS, lt gy brn-pk, lt-m brn, crm-buff, mot ip, mic xln, sb vit-dns xln tex, rthy-chky ip, hd-v frm, brit-pty, gen fos', tr chky-xln ca, sil ip / pk tan-lt gy trnsl CHT, tr bri gn wxy SH / mic pyr, spty bri yel F, wk mky C

LS, lt brn-gy tan, pk-buff, crm, mot ip, mic-crp xln, sb vit-dns xln tex, rthy-chky ip, hd-v frm, brit, abnt fos frags + pels, sil ip / mnr CHT, rr mic pyr conc, tr bri gn wxy SH, tr ca fl frc + free xln ca, spty bri yel F / p slw stmg C

LS, lt-m brn, pk, gy brn, mot crm-buff, mic-crp xln, rthy-dns xln, sb vit-mic suc ip, hd-v frm, brit, cln, v calc, pred' fos deb, brec ip, mnr si repl + CHT, rr pyr conc, tr bl gn wxy pyr' SH, tr wh chky ca, spty bri yel F / wk slw stmg yel C

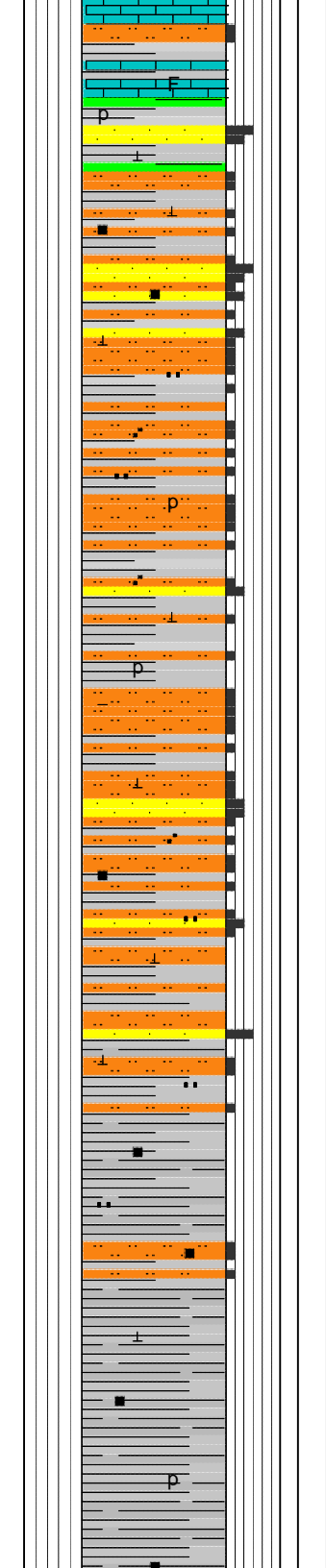
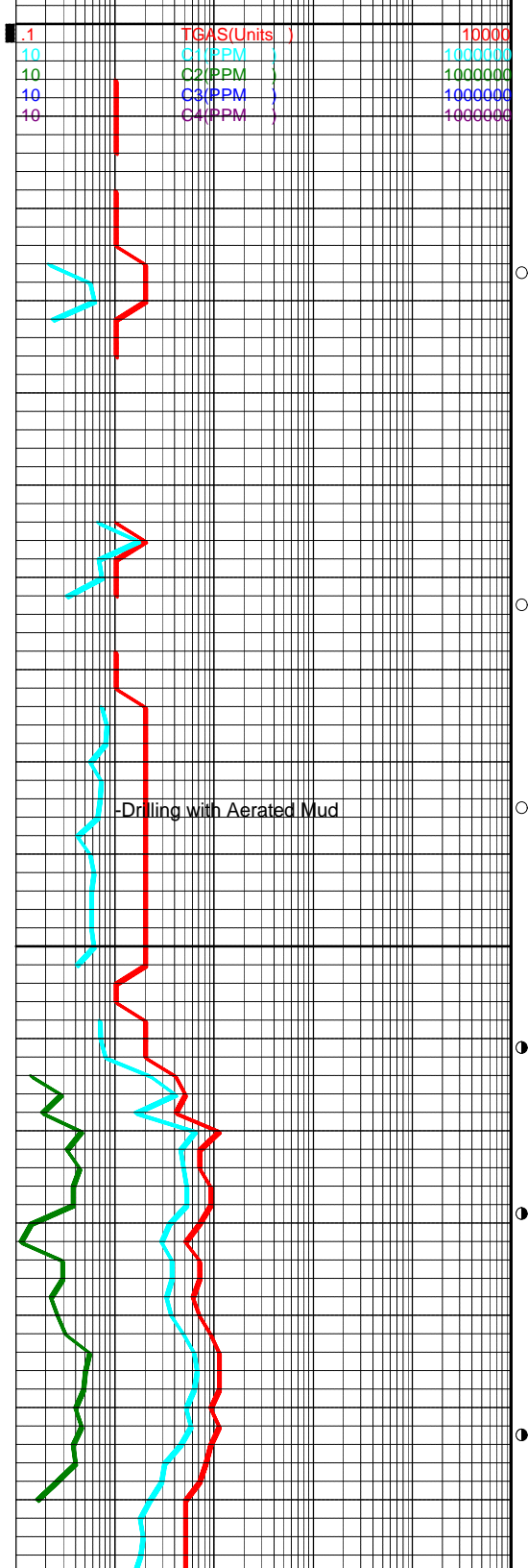
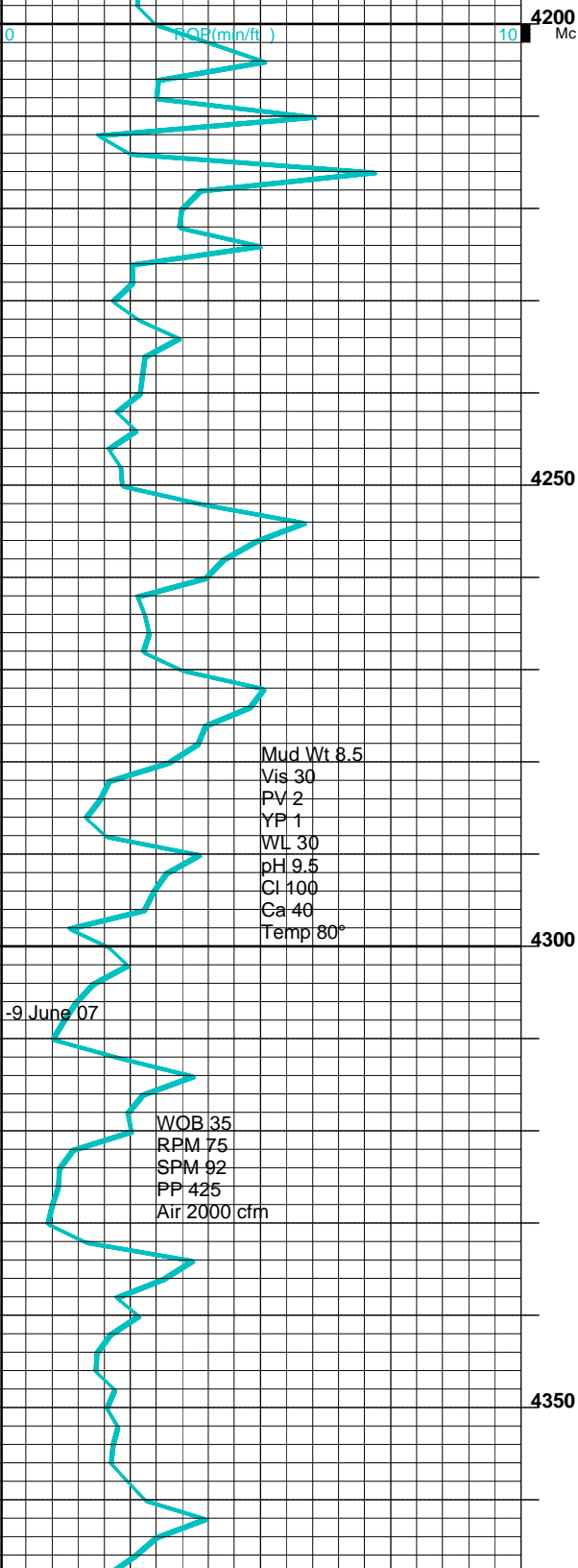
LS, m-lt brn, gy tan-buff, gy brn, gen mot-spec, mic-crp xln, dns xln-rthy tex, sb vit-chky ip, hd-v frm, brit, abnt fos frags + pels thru, occ' sil-cthy, rr pyr str, mnr bl gn-gy SH, tr free ca, spty yel F / wk slw stmg C

LS, gy brn, m-dk brn, pk brn-buff, mot crm-wh, mic-crp xln, rthy-dns xln tex, sb vit ip, hd-v frm, blk-brit, abnt fos frags, tr gy-pk trnsl CHT, rr mic pyr, tr gy-gn SH, tr chky-xln ca / yel F + fnt mky C

SH, lt-m gy, gy gn-lav gy, spec ip, frm-mod hd, sfis-mas, brit-spty ip, rthy-wxy tex, mic mica'-sity ip, mod calc, tr dk mnrl str

LS, lt brn-m brn, gy brn, crm tan-buff gy, mot, mic-crp xln, dns xln-rthy ip, sb bit ip, hd-v frm, scat fos deb, mnr free xln ca + lined frcs, tr lt brn-lt gy tan CHT, some lt gy-gn pyr SH, rr yel F, NC

SS, lt gy-lt gy tan, gy wh, lt gn, spec ip, vf gr, sb rnd-sb ang, clr-si fros, hd-mod hd, calc cmt, slty-grdg to SLT ip, tr free c qtz grns, tr lt brn



CHT, scat m-c-vf xln pyr cod, tr dk brn carb incl, NF, NC, v fine cuttings

SH, m-lt gy, lt-m gn, gy brn, mas, mod hd-frm, rthy tex, mod calc, scat carb thru, slty, tr mic pyr, tr trnsl wh-lt brn CHT, vf cuttings

SS, lt gy-lt tan, m gy brn, crm gy, spec, vf gr, mod w srted, sb rnd-sb ang, hd-mod hd, lse grns, calc cmt, v slty ip, some carb incl, tr dk brn stn, slow seeping pale yel C

SLT, m gy-lt gy, gy brn, mas-pty, frm, mod-v calc, num carb incl + ptgs, v arg ip, freq imbd sd grns, occ pyr

SH, m-lt gy, gy brn, dk gy, tr lt gn, frm-sft, rthy tex, sl-n calc, slty ip, tr intbd sd gr, occ intbd carb mat, scat thn pyr vns + free clusters, NF, v wk res ring C, v fine cuttings

SLT, lt gy-gy tan, m gy brn, buff tan, mot / gy wh + blk, frm-sft, rthy, mod-v calc, sdy ip, arg, sl carb' ip

SS, lt gy-lt tan, vf gr, sb ang-sb rnd, clr-sl fros, pred' uncon, calc, slty, tr pyr, NF, fnt yel gold res ring pinch C, vf cuttings

SH, m gy-lt gy, lt gy brn, dk gy-brn blk, bri gn-lt gy gn, pty, frm-sft, rthy-tr sl wxy, n-sl calc, slty, carb ip, tr gy wh-clr SS / some free c qtz grns, tr yel F, mlky yel seeping C

SH, dk brn-dk gy brn, lt-m gy, lt gy brn, lt gy gn, mod hd-frm, brit ip, mas-splnty, rthy, tr glos-sl wxy, mod-sl calc, occ ca incl + frac fl, incr' carb, tr mic pyr vns, scat gas bubbles in wet smpl, tr yel gold F, wk fnt yel res ring C

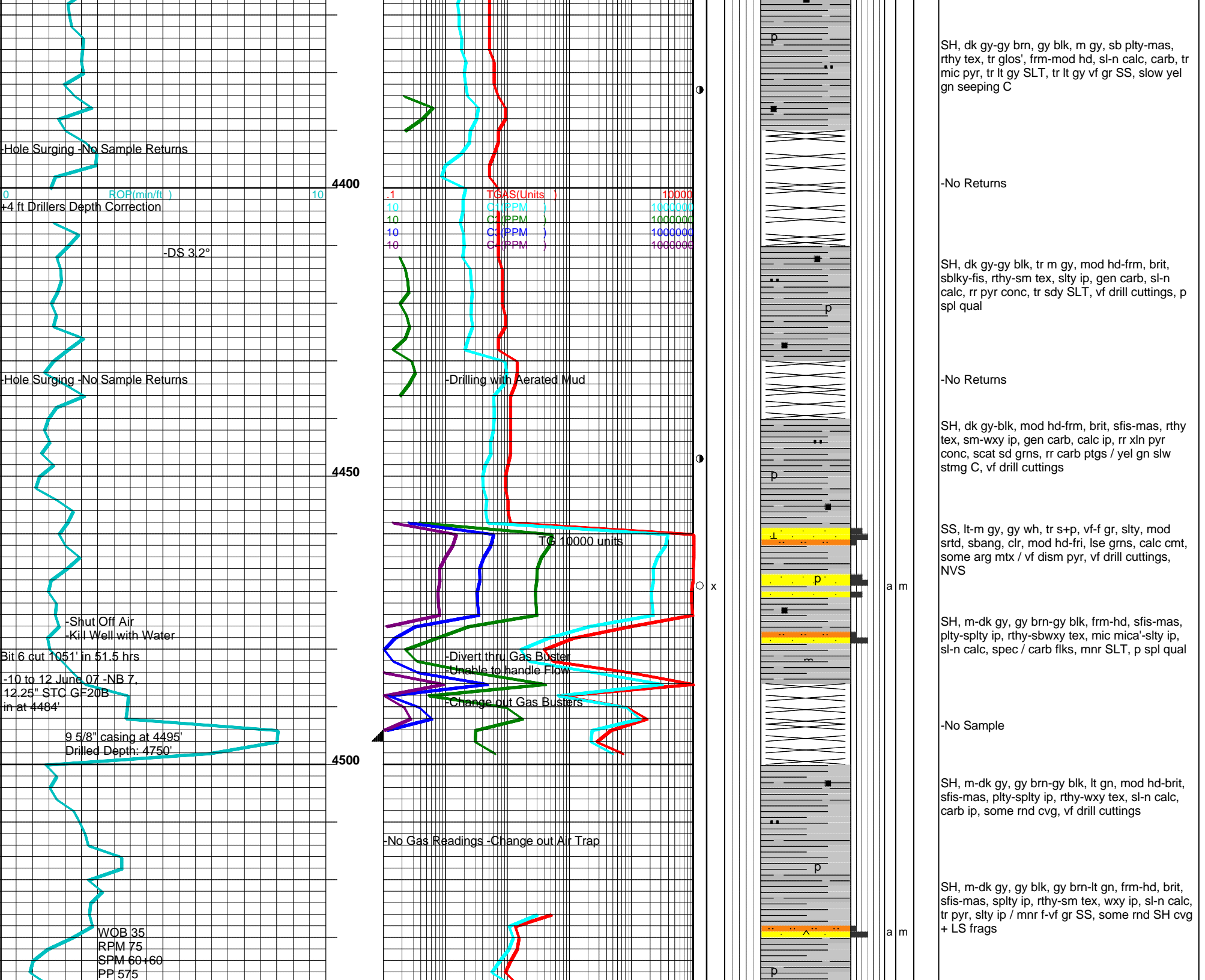
SH, dk gy-gy blk, dk gy-blk brn, m gy, frm-mod hd, sb pty, rthy, tr glos' tex, sl-n calc, tr ca lined + fld frcs, carb, some lt gy SLT, occ lse c qtz grns, tr mic pyr, rr dull yel F / v slow yel gold C

Mud Wt 8.5
Vis 30
PV 2
YP 1
WL 30
pH 9.5
Cl 100
Ca 46
Temp 80°

-Drilling with Aerated Mud

-9 June 07

WOB 35
RPM 75
SPM 92
PP 425
Air 2000 cfm



Hole Surging - No Sample Returns

ROP(min/ft) 10
 +4 ft Drillers Depth Correction

-DS 3.2°

Hole Surging - No Sample Returns

-Drilling with Aerated Mud

-Shut Off Air
 -Kill Well with Water

Bit 6 cut 1051' in 51.5 hrs

-10 to 12 June 07 -NB 7,
 12.25" STC GF20B
 in at 4484'

9 5/8" casing at 4495'
 Drilled Depth: 4750'

WOB 35
 RPM 75
 SPM 60+60
 PP 575

TGAS(Units) 10000
 CIPPM 1000000
 CIPPM 1000000
 CIPPM 1000000
 CIPPM 1000000

TGAS 10000 units

-Divert thru Gas Buster
 -Unable to handle Flow
 -Change out Gas Busters

-No Gas Readings -Change out Air Trap

SH, dk gy-gy brn, gy blk, m gy, sb plty-mas, rthy tex, tr glos', frm-mod hd, sl-n calc, carb, tr mic pyr, tr lt gy SLT, tr lt gy vf gr SS, slow yel gn seeping C

-No Returns

SH, dk gy-gy blk, tr m gy, mod hd-frm, brit, sblky-fis, rthy-sm tex, slty ip, gen carb, sl-n calc, rr pyr conc, tr sdy SLT, vf drill cuttings, p spl qual

-No Returns

SH, dk gy-blk, mod hd-frm, brit, sfis-mas, rthy tex, sm-wxy ip, gen carb, calc ip, rr xln pyr conc, scat sd grns, rr carb ptgs / yel gn slw stmg C, vf drill cuttings

SS, lt-m gy, gy wh, tr s+p, vf-f gr, slty, mod strtd, sbang, clr, mod hd-fri, lse grns, calc cmt, some arg mtx / vf dism pyr, vf drill cuttings, NVS

SH, m-dk gy, gy brn-gy blk, frm-hd, sfis-mas, plty-splty ip, rthy-sbwxy tex, mic mica-slty ip, sl-n calc, spec / carb flks, mnr SLT, p spl qual

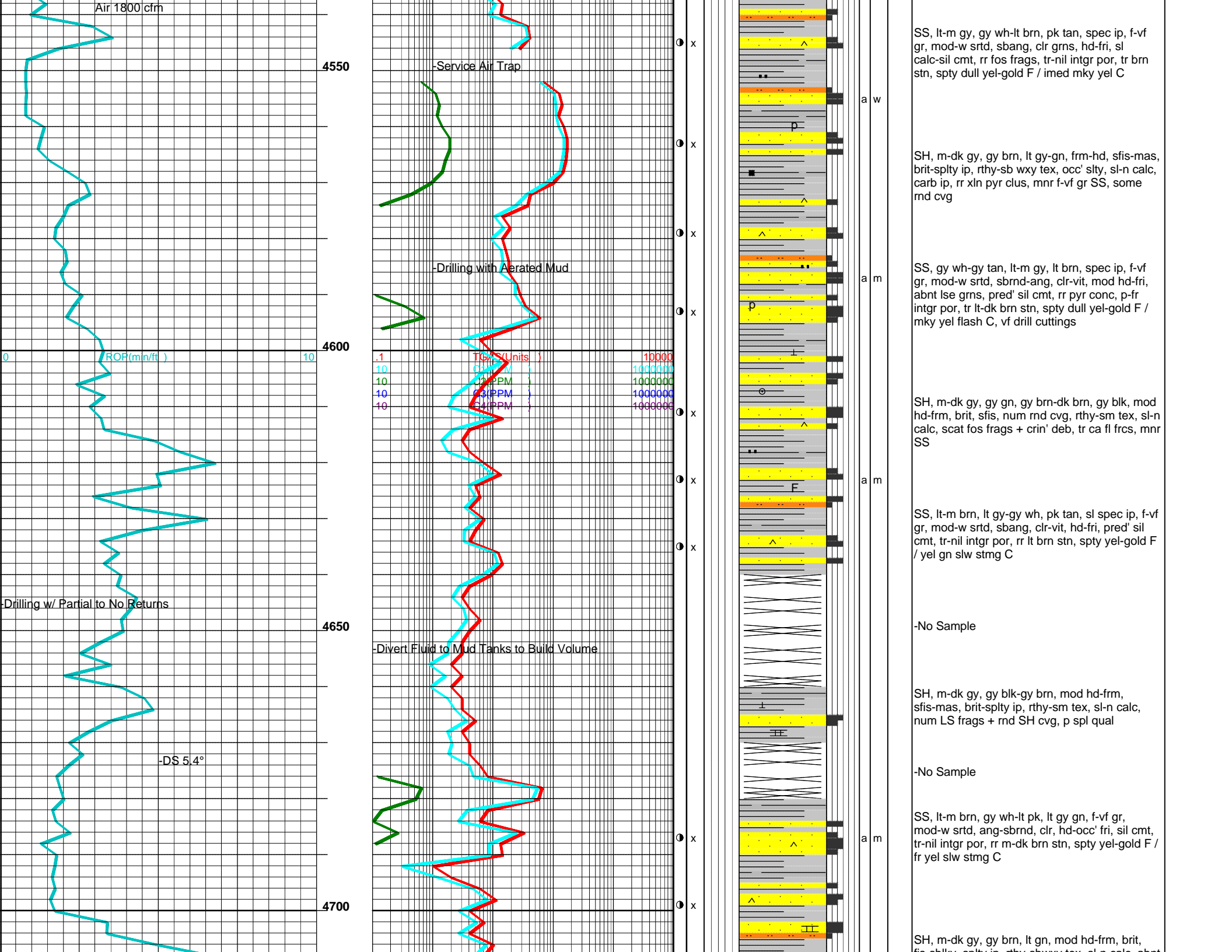
-No Sample

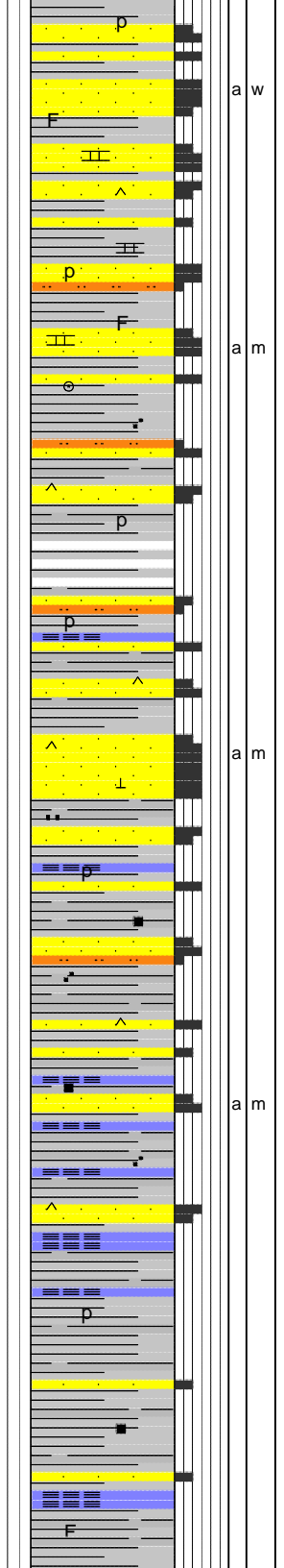
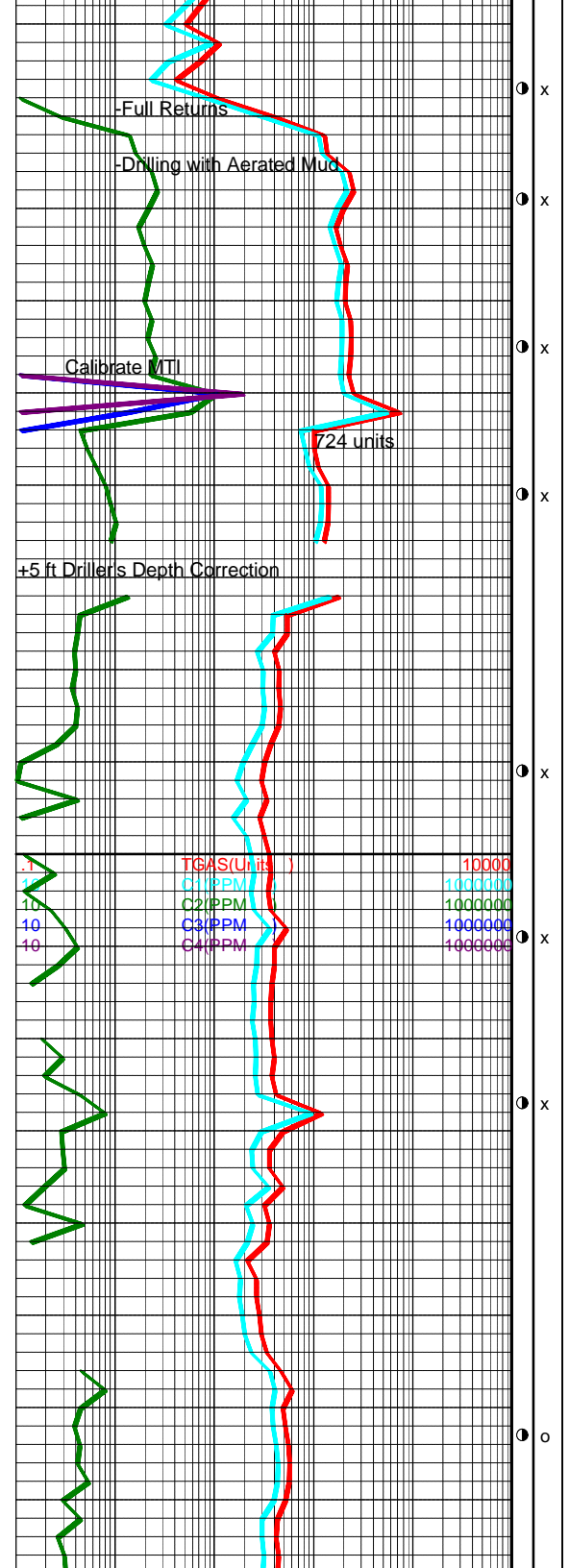
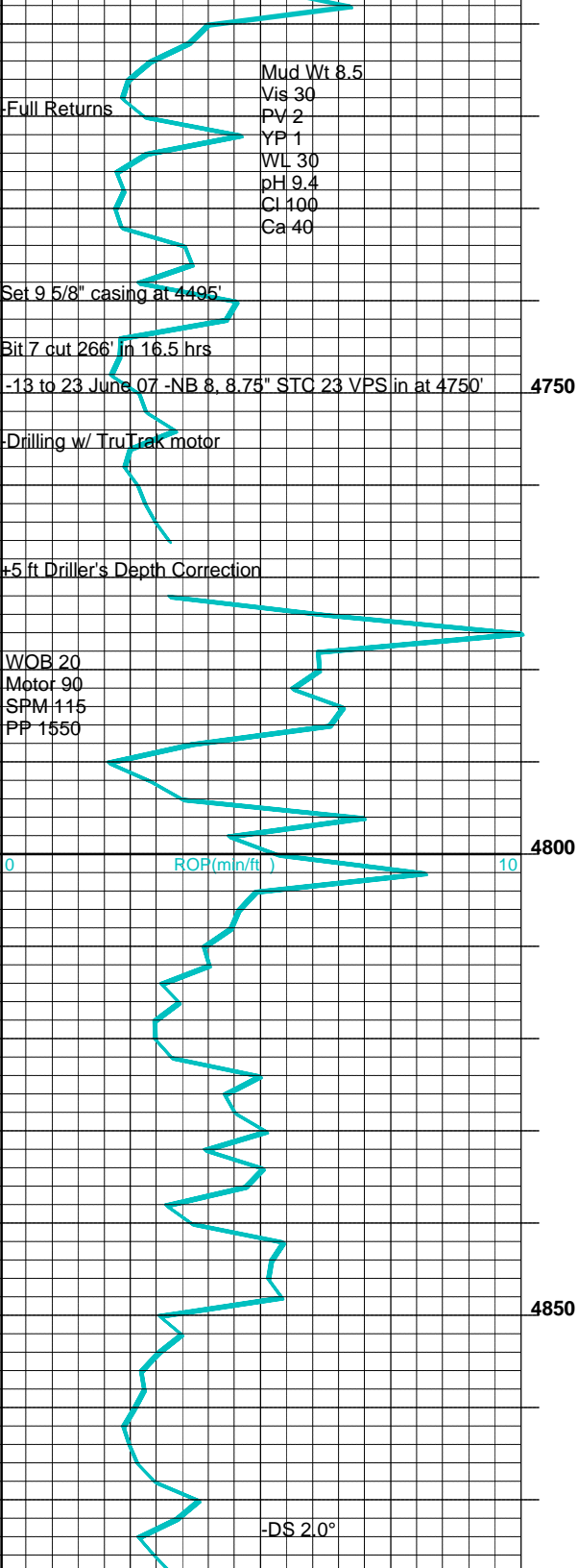
SH, m-dk gy, gy brn-gy blk, lt gn, mod hd-brit, sfis-mas, plty-splty ip, rthy-wxy tex, sl-n calc, carb ip, some rnd cvg, vf drill cuttings

SH, m-dk gy, gy blk, gy brn-lt gn, frm-hd, brit, sfis-mas, splty ip, rthy-sm tex, wxy ip, sl-n calc, tr pyr, slty ip / mnr f-vf gr SS, some rnd SH cvg + LS frags

a m

a m





ss-sbky, spity ip, rthy-sbowxy tex, sl-n calc, abnt rnd cvg

SS, lt-m brn, pk tan, gy wh-lt gy, f-vf gr, mod-w srted, sbang, clr-vit, gen hd, sil cmt, rr pyr conc, scat fos deb, incr' LS + SH cvg, tr-nil por, tr lt brn stn, spity bri yel-gold F / fr yel stmg C

SH, m-dk gy, gy brn-gy gn, mod hd-frm, fis-sbky, occ' spity, rthy-sm tex, sl-n calc, scat fos frags + crin stems, tn' bd SS str, abnt rnd SH cvg

SH, m-dk gy, gy blk, dk gy brn, hd-v frm, brit, sfis-mas, plty-spity ip, rthy-sm tex, occ' stly / scat f-vf sd grns, sl carb, sl-n calc, rr mic pyr conc, tr gy wh-brn SS / bri yel-gn F + fr slw stmg yel C, abnt cvg

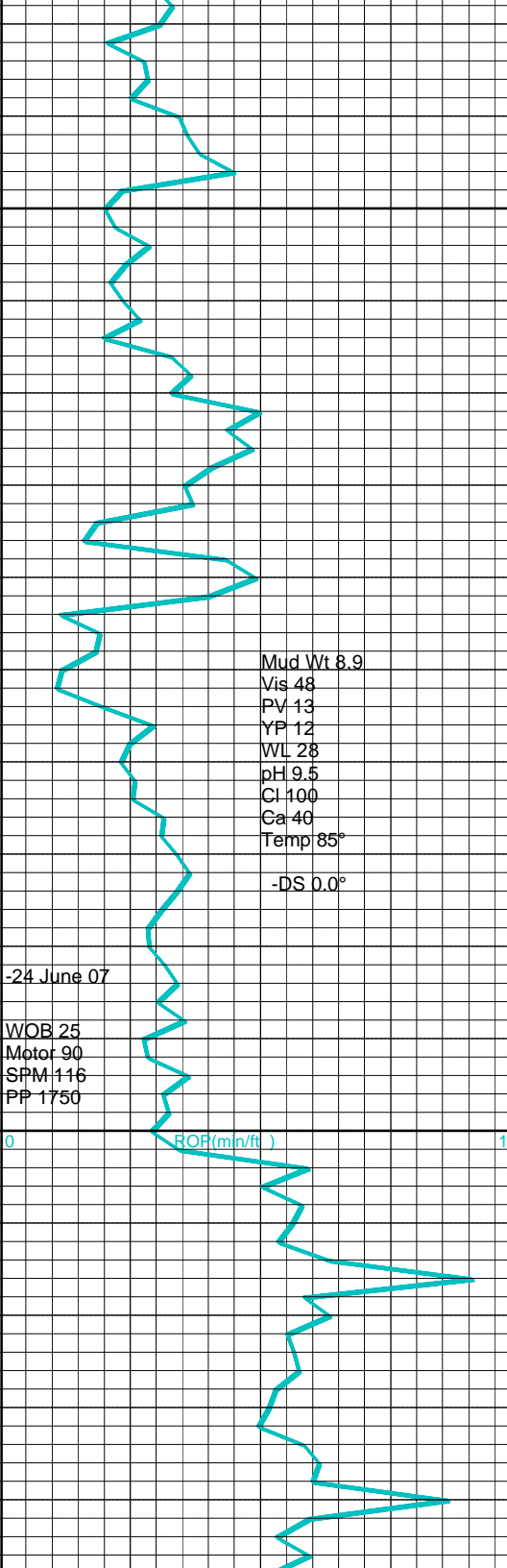
SS, gy wh, lt gy-gy brn, lt-m brn, sl mot-spec ip, f-vf gr, tr m gr, mod-w srted, sbrnd-ang, clr-vit, hd, occ' fri-lse grns, sl calc-sil cmt, qtzc ip, p-nil intgr por, spity brn stn, abnt bri yel F / fr-g stmg C, 50% of spl / F, num rnd SH cvg

SH, m-dk gy, gy blk, gy brn-gy gn, v frm-hd, sfis-mas, spity, rthy-sm tex, stly-sdy / mnr SS a/a, sl-n calc, tr mic pyr, abnt cvg

SH, dk gy-gy blk, dk gy brn-m gy, v frm-hd, sfis-mas, pred' rthy tex, mnr stly-sdy str, some tn' bd SS lenses, rr pyr conc, rr dk brn-blk carb mat, sl-n calc, tr ca lined frcs, incr' clay, abnt cvg

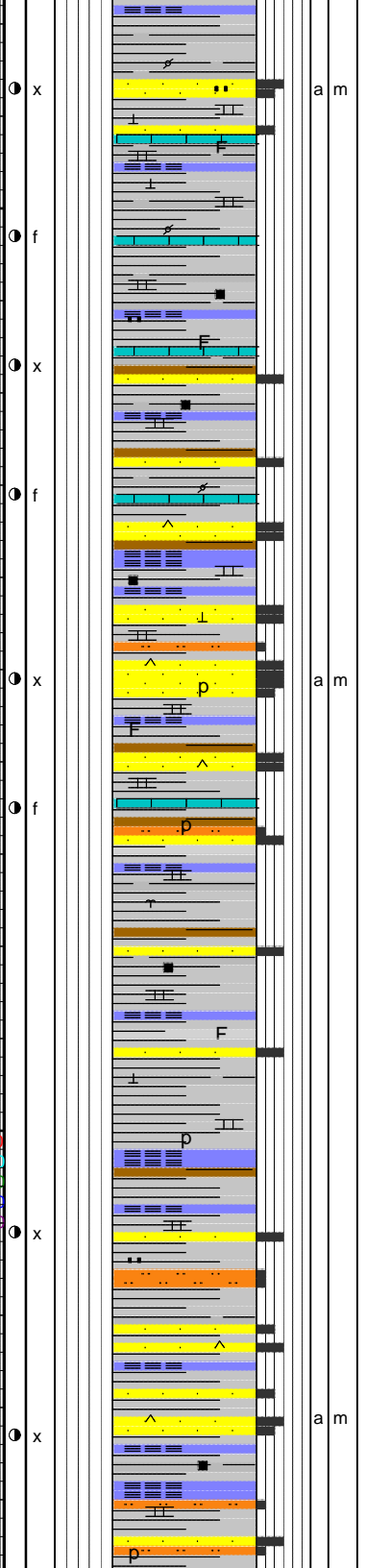
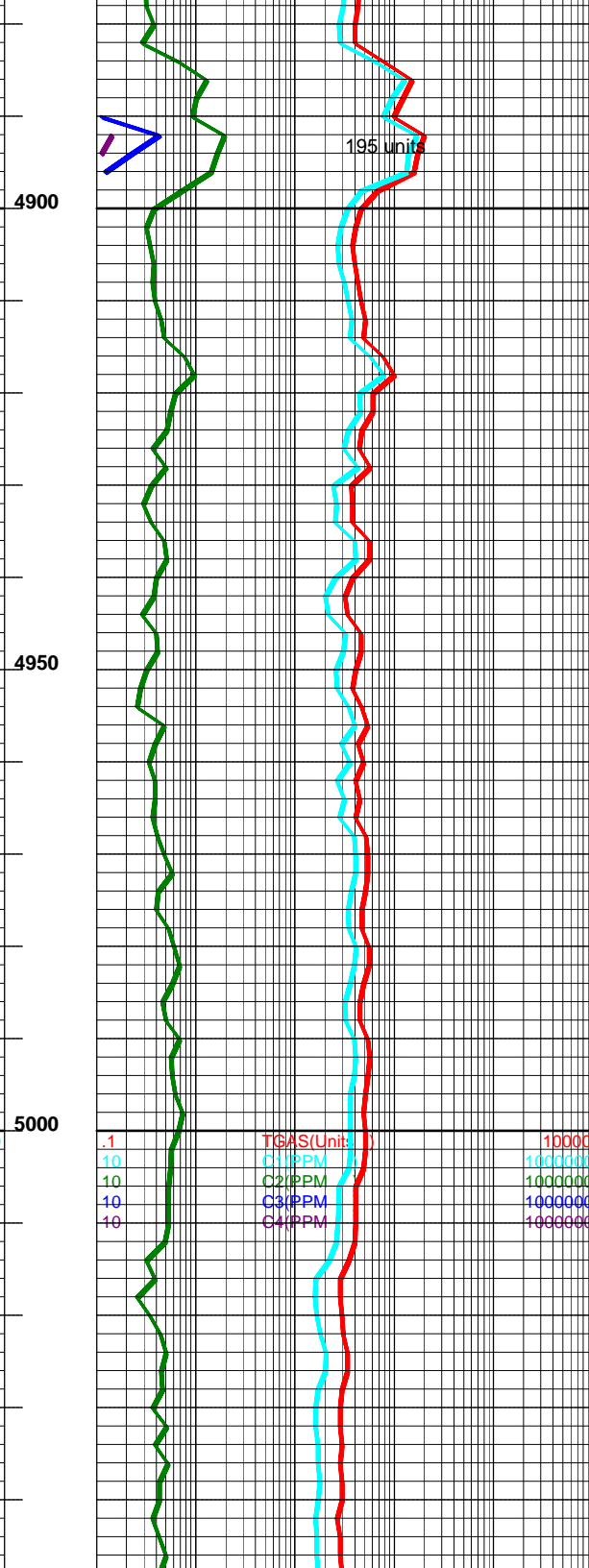
SH, m-dk gy, gy blk-gy brn, hd-v frm, occ' brit, sfis-mas, rthy-sm tex, stly ip, tr f-vf gr SS, mnr clay, sl-n calc, pred' rnd SH cvg, decr' spl volume

SH, dk-m gy, m-dk gy brn, gy blk, mod hd-v frm, hd ip, sfis-mas, sm-rthy tex, n-v sl calc, rr ca incl, carb ip / fos frags, tr dis-mic pyr, cly, occ yel wh seeping C, scat rnd cvg



Mud Wt 8.9
 Vis 48
 PV 13
 YP 12
 WL 28
 pH 9.5
 Cl 100
 Ca 46
 Temp 85°
 -DS 0.0°

-24 June 07
 WOB 25
 Motor 90
 SPM 116
 PP 1750



a m
 SS, m gy-gy brn, lt gy-gy wh, lt brn, mot ip, mod srtd, f-vf gr, sb ang, clr-trnsl, hd-mod hd, calc-sil ip, tr slty, scat LS + ca frcs, abnt blk carb SH / pel + fos deb, tr intgr pyr + nod, tr dk yel F, occ dk brn stn, fr stmg mlky yel C

f
 SH, m-dk gy, blk-gy blk, lt gy-gy tan, m brn-gy brn, mot ip, sfis-mas, mod hd-v frm, sm-rthy tex, occ' glos, n-tr v calc, carb-v fos' ip, freq LS str, tr slty, mnr lt brn-lt gy SS / yel gold F + strong stmg pale yel C

f
 SH, m gy-gy brn, dk gy, m brn-rd org brn, gy blk, lt gy, occ' mot, mod hd-v frm, sfis-mas, n-v sl calc, some dk brn-brn blk LS + fos frags, carb ip, tr mic pyr, scat slt + clay

a m
 SS, lt gy-gy wh, crm wh-tan, lt brn, m gy, bnd ip, vf-f gr, clr-trnsl, sb ang-sb rnd, hd-mod hd, sil cmt, tr ca lined frcs + LS frags, tr pyr, tr SLT, occ intbd carb mat, yel wh-gold F, slow stmg yel wh C

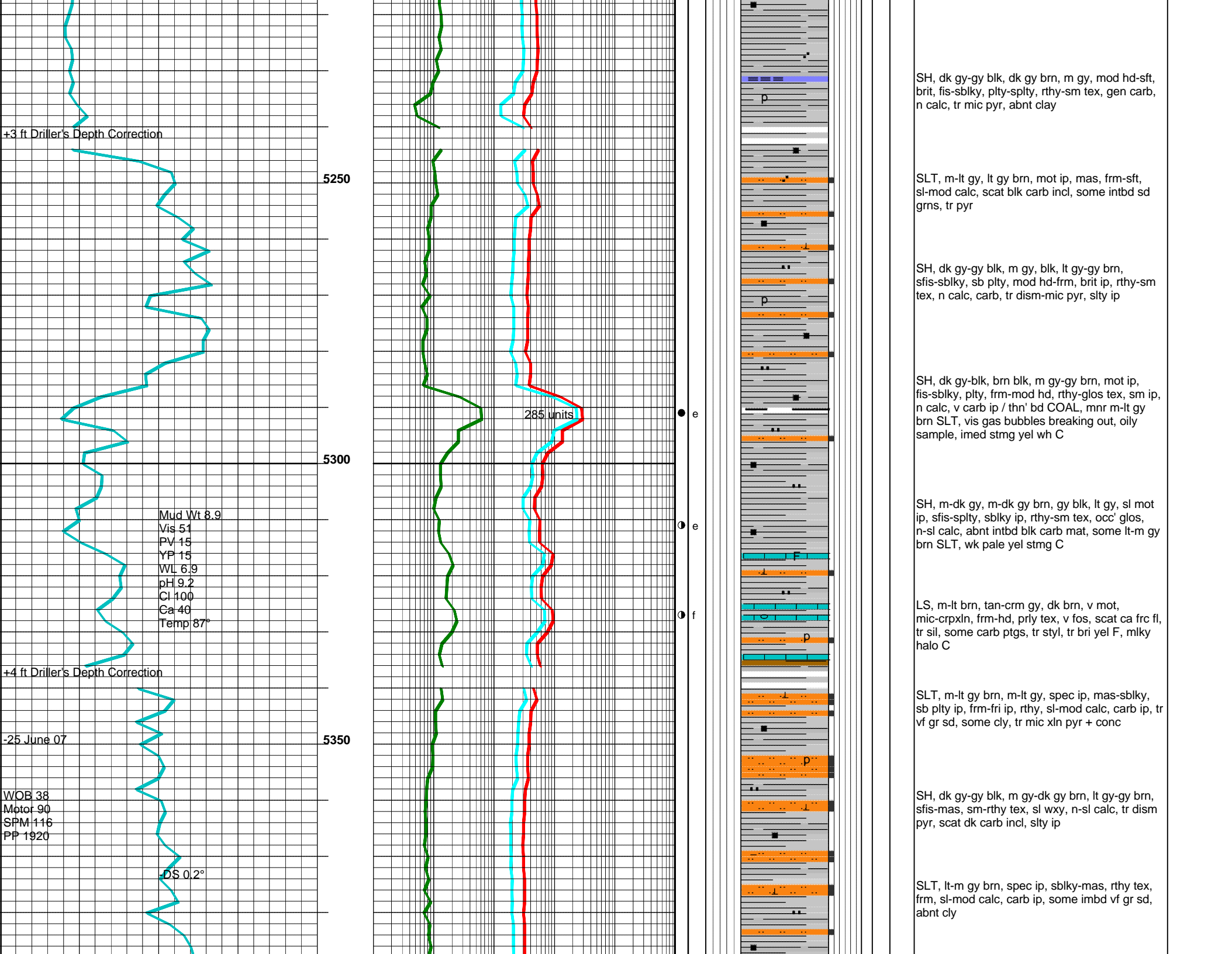
f
 LS, m brn-tan, brn blk, crm wh, mot, mic xln, hd-frm, num ca frcs, prly ip, abnt fos, scat pyr, some SH ctc, tr frc F / yel C

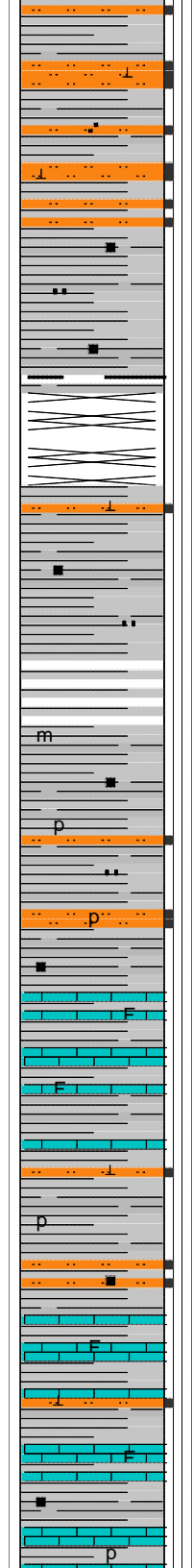
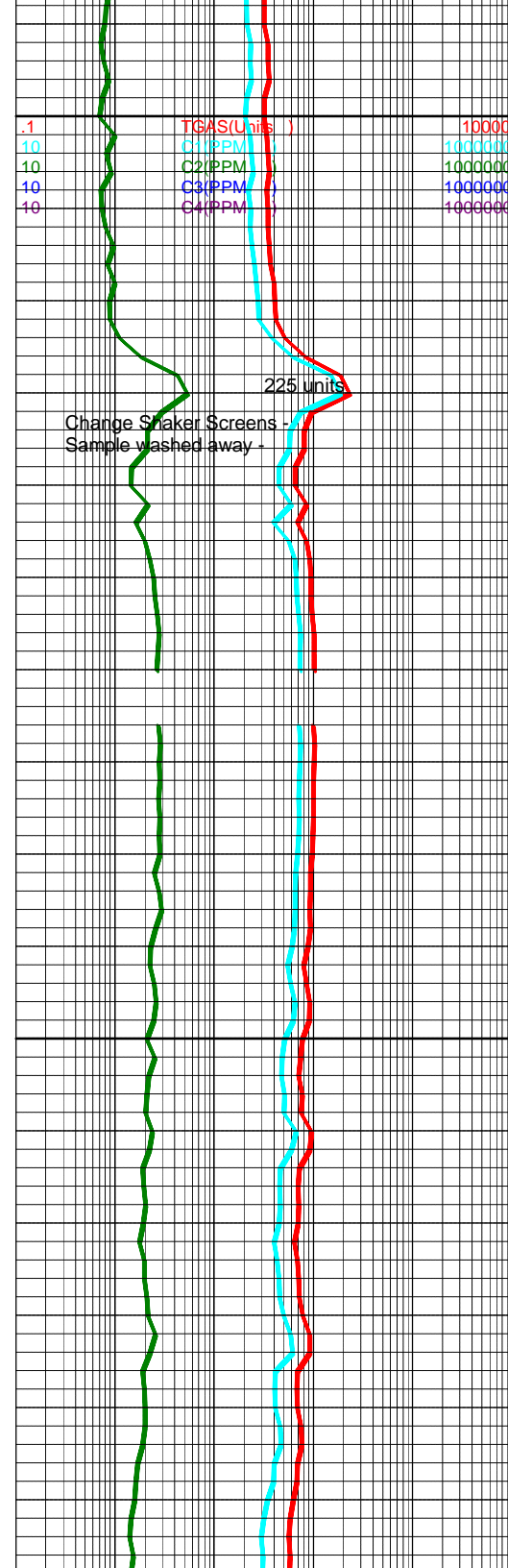
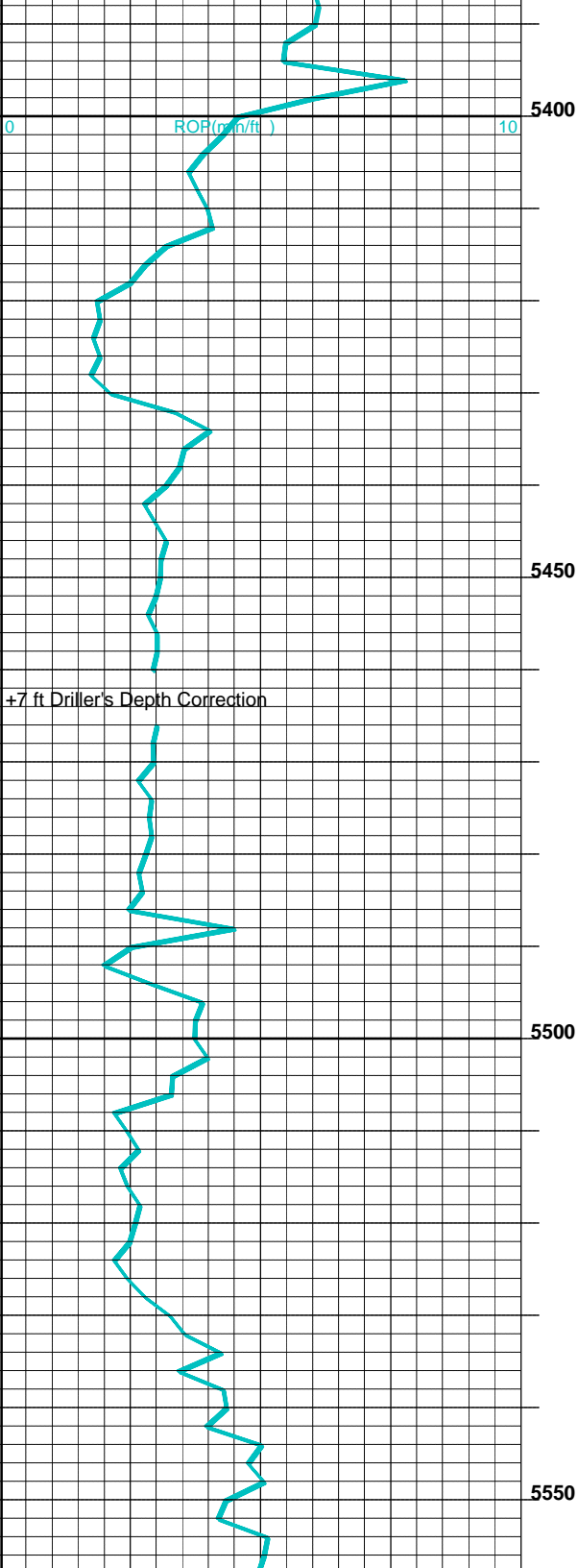
f
 SH, m-dk gy, gy brn-m brn, lt gy, org brn, mod hd-v frm, mas-sfis, sm-rthy tex, gen n calc, tr ca fld frcs, tr slty / clay + pyr, carb ip, tr fos-bry deb, occ LS ptgs, some rnd cvgs

x
 SH, m-dk gy, olive brn-gy brn, m brn, tr mot, mas-sfis, splty ip, mod hd-v frm, sm-rthy tex, sl wxy ip, n calc, decr' carb mat, scat dism-vf pyr, occ lt brn-crm tan fos LS, some SLT + clay, mnr lt gy-lt brn SS / tr F + res ring C

a m
 SS, lt-m gy, wh-gy wh, gy brn, occ' spec / carb flks f-vf gr, slty ip, mod-w srtd, sbang, clr-trnsl, vit, hd-occ' fri, pred' sil cmt, qtzc ip, tr-nil intgr por, mnr frcs / dk mnr str + stn, spty yel gn F / slw stmg yel C

p
 SH, dk gy-gy brn, m gy, dk brn-gy blk, hd-frm, bit fr sil, calc, carb, etc. in carb mat, carb





SH, dk-m gy, gy blk, lt-m gy brn, sfis-mas, splty, sm-rthy tex, sl wxy ip, frm, mod hd-brit, n-v sl calc, occ' slty, carb, cly

SLT, m-lt gy, gy brn, spec ip, frm-mod hd, brit-occ' fri, mas-plty, mod-v calc, scat carb flks, arg-sdy / vf sd grns thru

SH, m-dk gy, lt gy, gy brn-gy blk, frm-sft, mod hd-brit, fis-sblky, splty ip, rthy-sm tex, slty ip, mnr clay, sl-n calc, carb ip, blkly-splty COAL frags / vis gas bubbles on wet surface + imed bri yel C

SH, dk gy, m-lt gy, gy blk, frm-mod hd, brit, fis-sblky, plty-splty ip, some sft clay, rthy-sm tex, occ' slty-sdy, carb ip, sl-n calc

SH, dk gy-gy blk, m gy, gy brn-dk brn, frm-mod hd, brit, fis-sblky, splty ip, pred' rthy tex, slty-mic mica' ip, rr pyr conc, n calc, scat carb incl

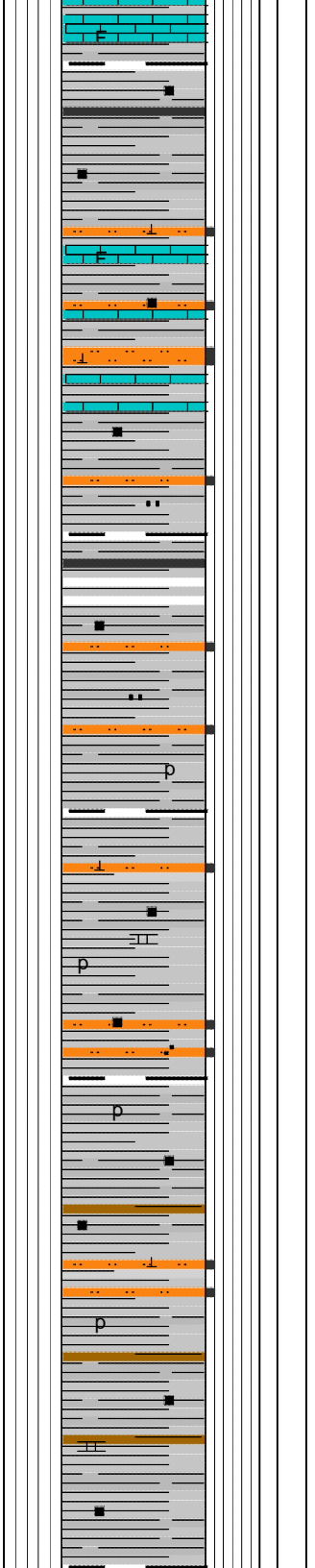
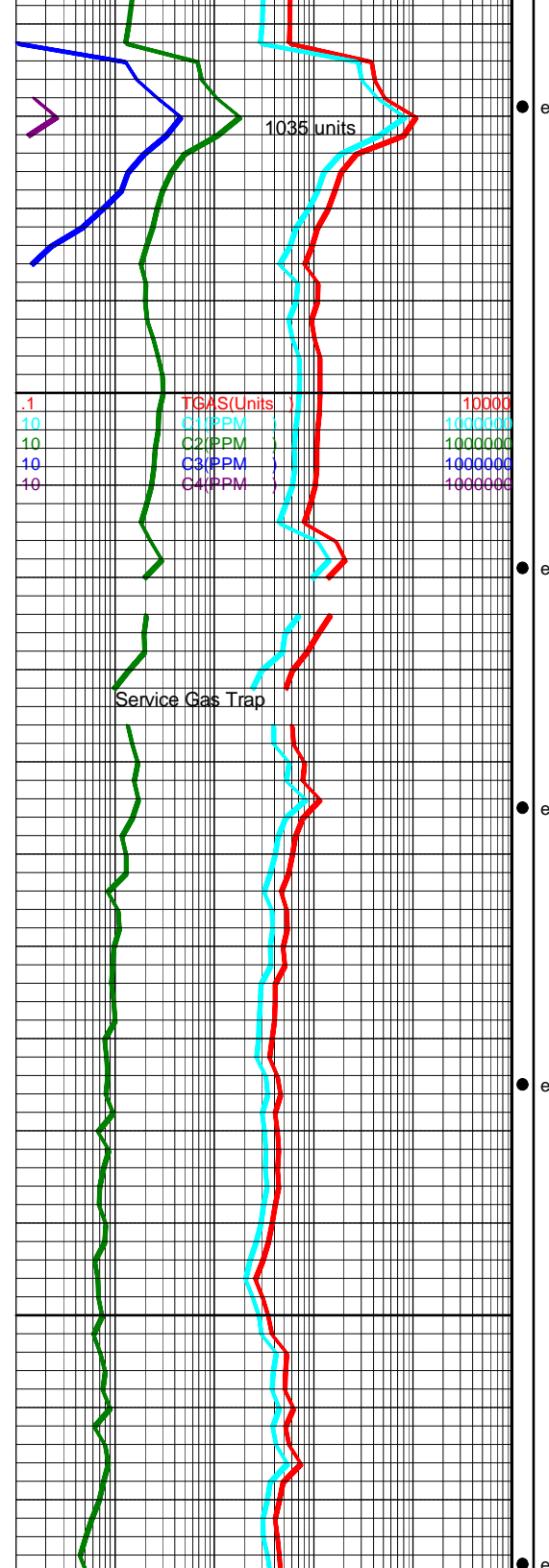
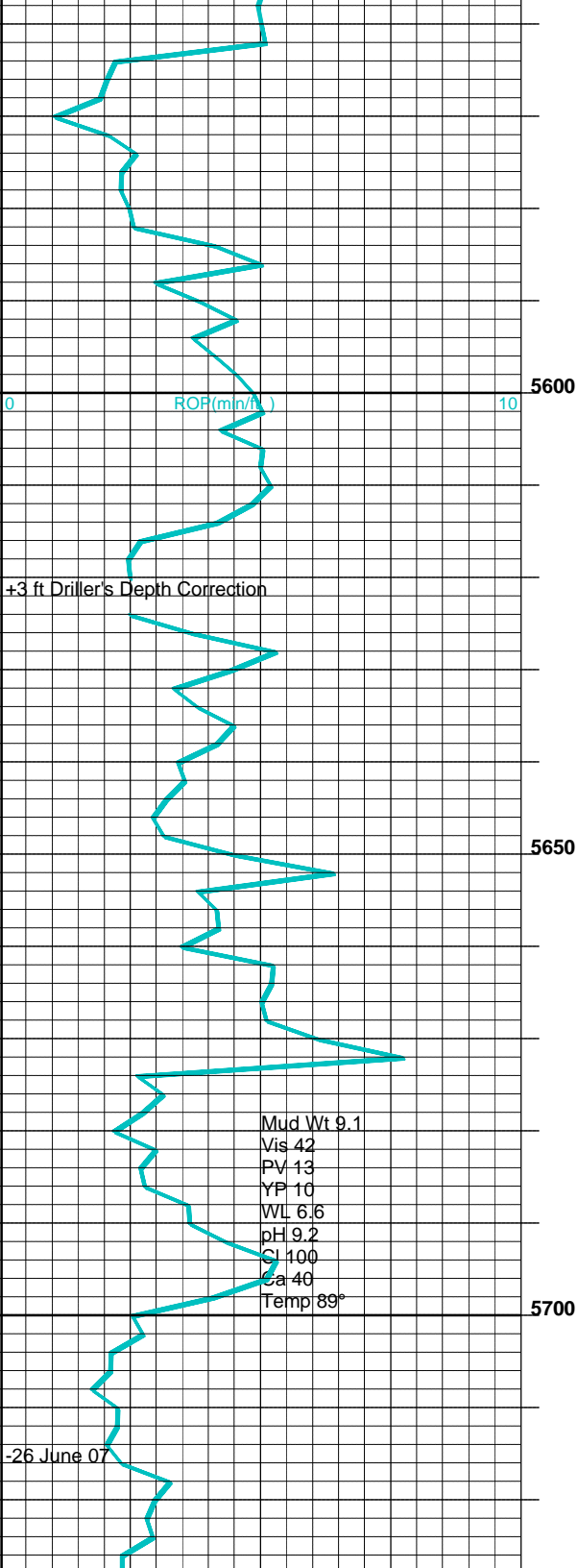
SLT, m-lt gy, gy brn, spec / carb flks, frm-mod hd, mas-sblky, calc, vf dism pyr, arg-sdy / abnt clay, rr ca frcs + LS incl

LS, crm-wh, lt-m gy, lt brn-buff, gen mot-bnnd, mic-crp xln, rthy-chky tex, occ' vit-prly, frm-sft, mod hd-brit ip, fos frags thru, num dk mnrl str, tr xln ca + frc fl, rr mnrl F, NC

SH, dk gy-gy brn, m-lt gy, gy blk, frm-mod hd, brit, fis-sblky, splty, rthy-sm tex, slty ip, carb, gen n calc, rr pyr conc

SH, dk gy-gy blk, m gy, dk gy brn, frm-mod hd, brit, fis-sblky, splty, pred' rthy tex, slty ip, n calc, mnr carb incl, tr mic pyr

LS, m-lt gy, crm-buff, gy brn-dk brn, gen mot, mic-crp xln, rthy-sb vit tex, frm-mod hd, sft-chky, cln, v calc-fos', brec ip, tr SH ctc +



incl, rr carb ptgs, tr mic pyr, dk mnrl str + styl,
rr mic vugs + ca fl frcs, spty yel F, NC

SH, dk gy-gy blk, m-lt gy, frm-mod hd, brit,
fis-sply, rthy-sm tex, n calc, gen carb
COAL, blk, hd-brit, blk-sply, glos'-rthy tex,
some SH ctc, vis gas bubbles on wet surface,
imed bri yel wh C

SLT, m-lt gy, gy brn-dk gy, sl spec, frm-hd, fri,
mas-sblky, mod-v calc, arg-sdy / vf sd grns
thru, scat carb incl, abnt fos' LS

SH, dk gy-gy blk, m-lt gy, gy brn, frm-mod hd,
brit, fis-sblky, sply, rthy-sm tex, sly ip, n calc,
scat LS frags, rr mic pyr, gen carb, abnt glos'
blk brit COAL / imed yel wh C

SH, dk-m gy, gy blk, lt gy-gy brn, spec ip, mod
hd-frm brit, fos-sblky, rthy-sm tex, n-tr sl calc,
carb, tr mic pyr, sly grd to SLT, mnr dk
brn-mot crm tan LS / yel wh F, decr' blk COAL
/ yel wh C

SH, dk-m gy, gy blk, lt gy-m gy brn, pk org
brn, sfis-sblky, sply, rthy-sm tex, n-v sl calc,
occ free wh-lt brn chky ca + LS, tr pyr conc,
carb / tn' intbd blk glos COAL, wk stmg pale yel
C

SLT, lt gy-gy tan, spec, v frm, mas, rthy, sl
calc, carb incl, occ intbd vf gr sd

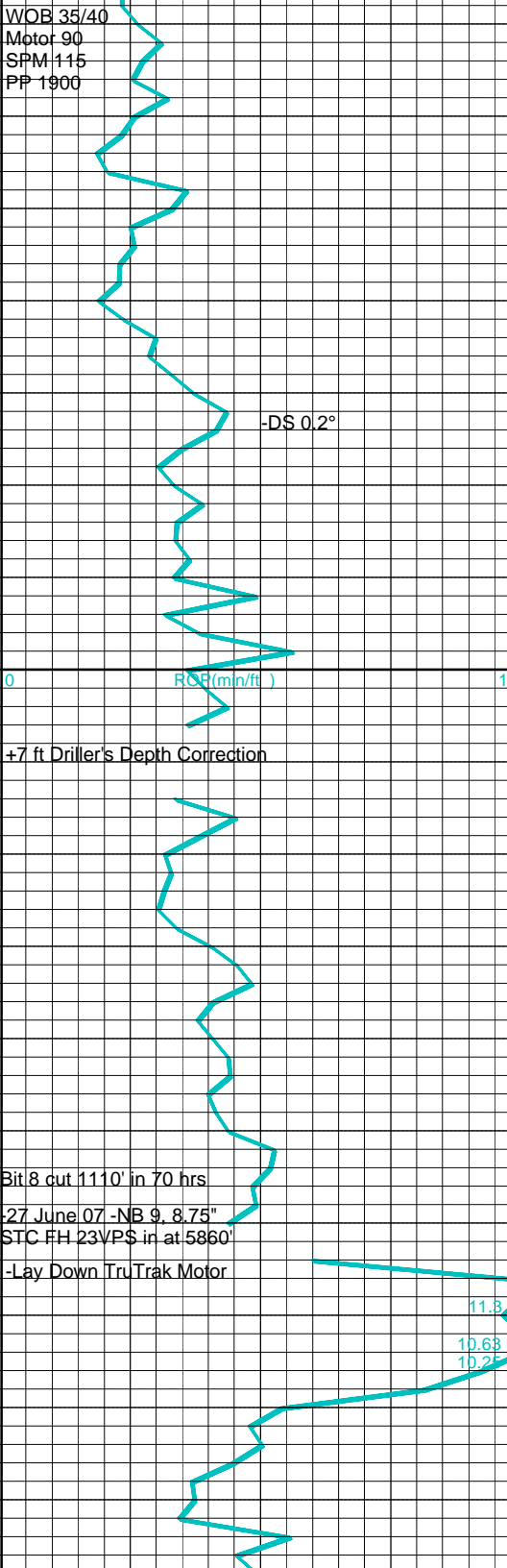
SH, m-dk gy, dk-lt gy brn, gy blk, pk rd-org
brn, mot ip, sfis-sblky, mod hd-frm, brit,
rthy-sm tex, carb, tr LS frags, scat dism pyr,
mnr SLT, some COAL / gas bubbles + imed yel
wh C, abnt LCM contam

SLT, lt gy tan-m gy brn, spec, frm-mod hd,
mas-sblky, rthy tex, mod cac, some vf gr sd,
ptgs, scat carb ptgs

SH, dk-m gy, gy blk, m-dk gy brn, org brn, tr
mot, fis-plty, sply, hod hd-frm, brit, rthy-sm tex,
n calc, occ free chky crm wh-trnsl xln ca, tr brn
LS, tr dism pyr, gen carb, wk seeping yel wh C,
abnt LCM

Mud Wt 9.1
Vis 42
PV 13
YP 10
WL 6.6
pH 9.2
Cl 100
Ca 46
Temp 89°

WOB 35/40
 Motor 90
 SPM 115
 PP 1900



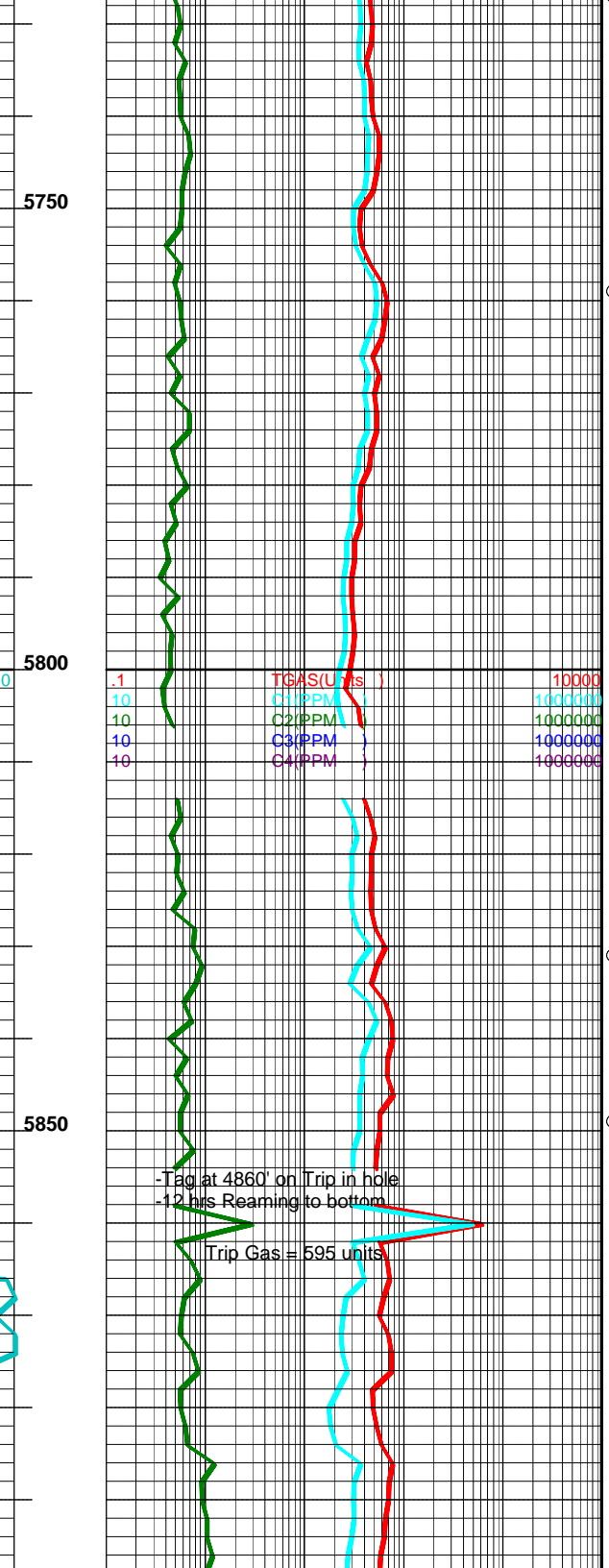
-DS 0.2°

+7 ft Driller's Depth Correction

Bit 8 cut 1110' in 70 hrs

27 June 07 - NB 9, 8.75"
 STC FH 23VPS in at 5860'

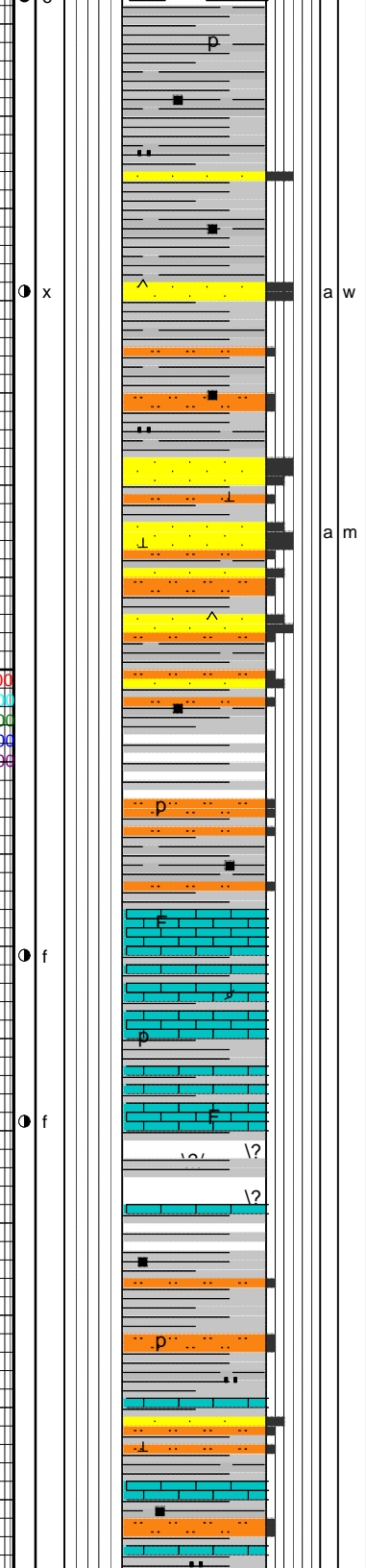
-Lay Down TruTrak Motor



.1	TGAS(Units)	10000
10	C1(PPM)	1000000
10	C2(PPM)	1000000
10	C3(PPM)	1000000
10	C4(PPM)	1000000

-Tag at 4860' on Trip in hole
 -12 hrs Reaming to bottom

Trip Gas = 595 units



COAL, blk, fis-sblky, hd-brit, mod hd ip, glos
 tex, gas bubbles on wet surface, imed bri yel
 wh C

SH, dk gy, m gy-dk gy brn, gy blk, tr mot pk
 orng brn, mod hd frm, brit, fis-plty, sm-rthy tex,
 sl-n calc, tr mic pyr

SS, lt-dk brn, lt gy, f-vf gr, hd, sb ang, clr-sl
 fros, sil-sil calc, abnt brn blk stn, slow seeping
 mlky yel C

SH, dk gy-gy brn, gy blk, m-lt gy, fis-sblky,
 mod hd frm, brit, n calc, slty ip, carb, mnr blk
 COAL / gas bubbles + stmg yel wh C

SLT, lt-m gy, spec ip, mod hd frm, sblky, rthy,
 sl calc, sil ip / scat dk brn + gy wh f-vf gr SS

SS, lt gy-wh, m gy-gy gn, vf-f gr, mod-w srted,
 sbang, clr-vit, hd-fri, calc-sil cmt, rr ca lined
 frcs, tr-nil intgr por, occ' bndd / dk mnrl str,
 LCM contam, NVS

SH, dk gy-gy blk, m-lt gy, dk gy brn, frm-hd,
 brit, fis-sblky, splty, rthy-sm tex, n calc, tr carb
 str + COAL, intbd gy brn sdy SLT

SLT, gy brn, m-lt gy, sl spec, frm-hd, mas,
 arg-sdy / vf sd grns thru, mod calc, thn carb
 str, rr pyr conc

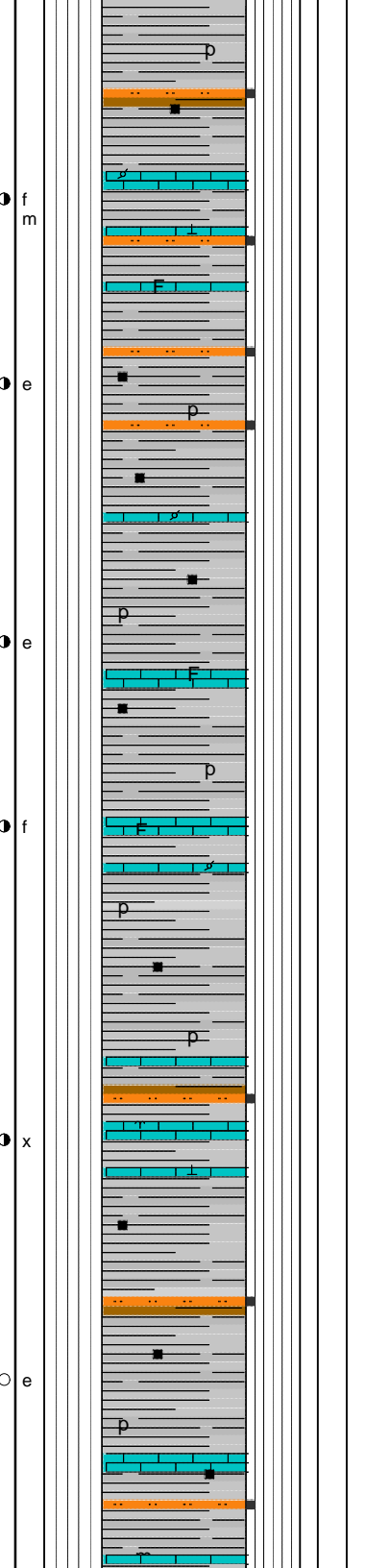
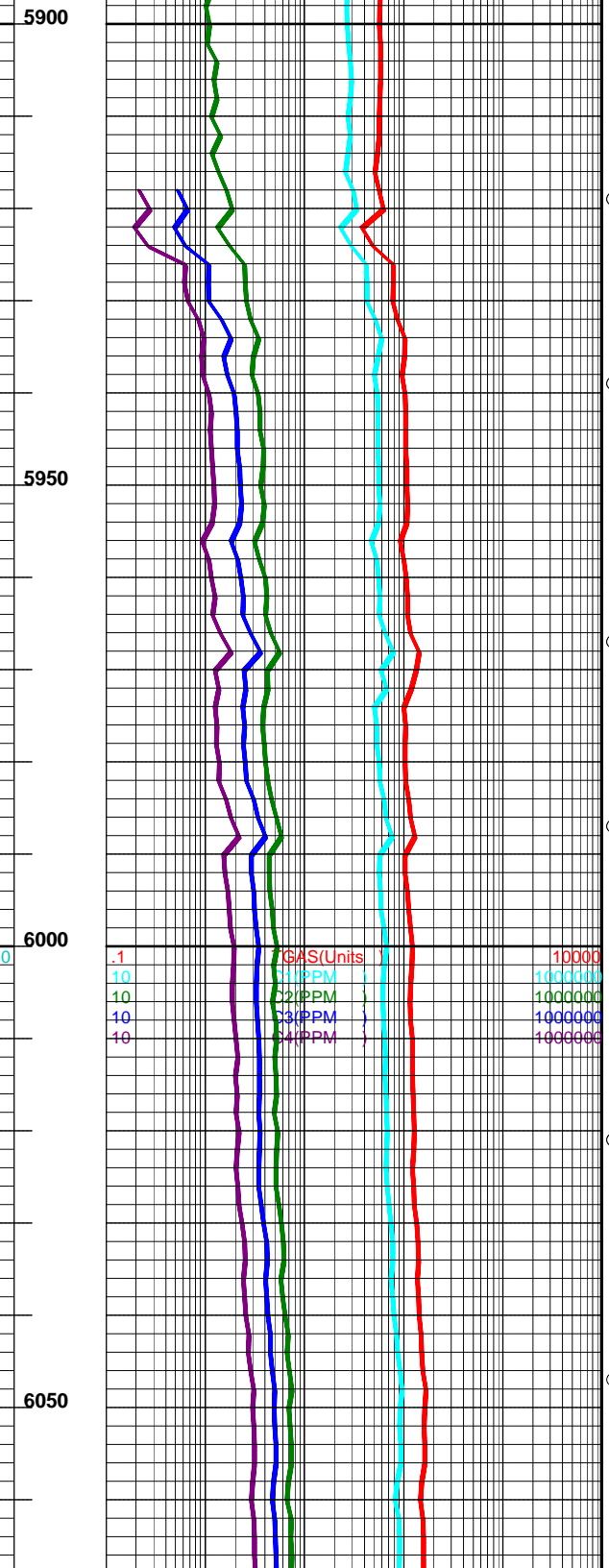
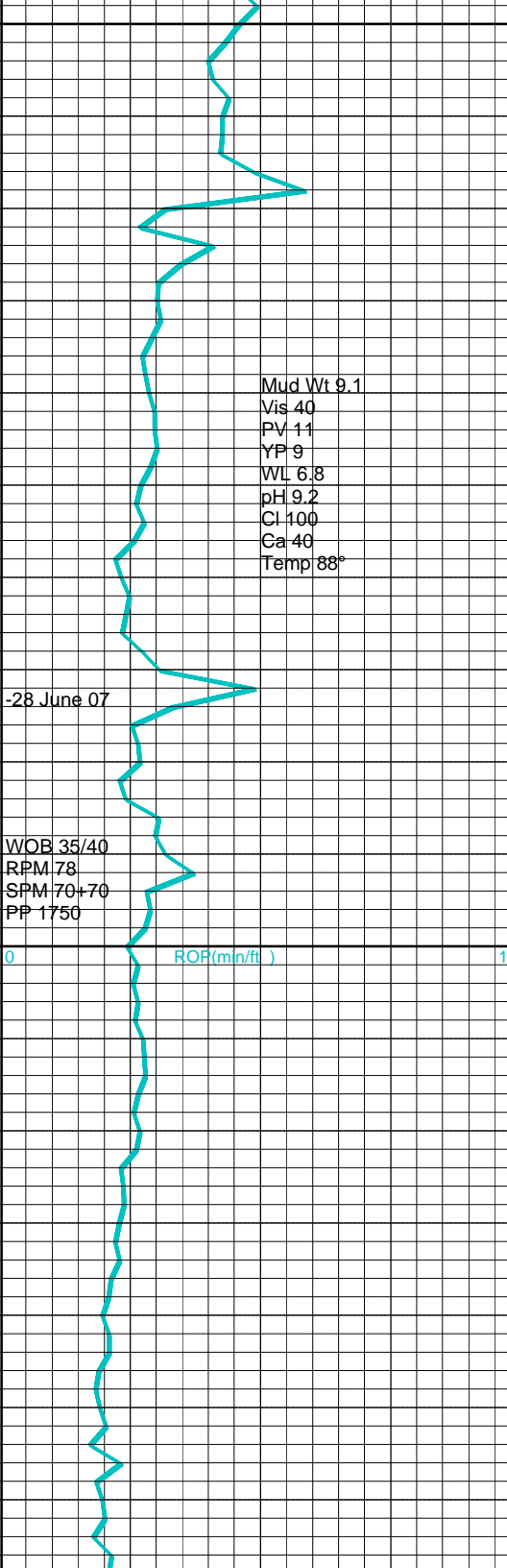
LS, crm-buff, lt-m gy, gy brn-m brn, gen
 mot-bndd, mic-crp xln, rthy-chky tex, sb vit ip,
 frm-sft, occ' hd, dk mnrl str + styl, rr mic pyr, v
 calc-fos', tr ca fl frcs + free xln ca, spty yel F /
 bri yel stmg C, abnt LCM

Dump Pill Tank -
 95% LCM in sample

SH, dk gy-gy blk, m gy, dk brn-brn blk, mod
 hd frm, brit, fis-splty, rthy-sm tex, n calc, occ
 carb str, rr mic pyr, mnr sdy SLT + LS

SLT, m-lt gy, gy brn, spec ip, v frm-fri, mas,
 rthy, sl-mod calc, carb inc, tr mic pyr, mnr lt gy
 vf gr SS, abnt dk-m gy SH

SH, dk-m gy, gy brn-brn blk, dk brn, mod



LS, dk-m gy, gy brn-brn blk, dk brn, mod hd frm, mas-sfis, rthy-sm tex, n-tr sl calc, slty ip, scat mic pyr, some LS frgs + tn ptgs, v carb ip / wk milky yel slow seeping C

LS, dk-m brn gy, brn blk, lt brn-crm tan, v mot, mic-crp xln, frm-mod hd, rthy-prly tex, abnt fos deb, occ free wh chky ca, tr ca fld + lined frcs, tr pyr conc, some tn' bd carb SH, spty yel wh F, lined milky C, oil film on smple

SH, m gy-gy brn, dk gy-brn blk, fis-mas, mod hd frm, brit ip, rthy-sm tex, n-sl calc, scat dism-mic pyr, some lt gy-gy brn SLT, carb / tr blk COAL, slow yel gold C

SH, dk gy-dk gy brn, m-lt gy, sfis-mas, mod hd frm, rthy-sm tex, sl wxy ip, incr' calc, tr lt gy SS, slty ip, carb, tr dism pyr + conc, tr yel wh F / yel wh flash C, oily smell + film on smpl

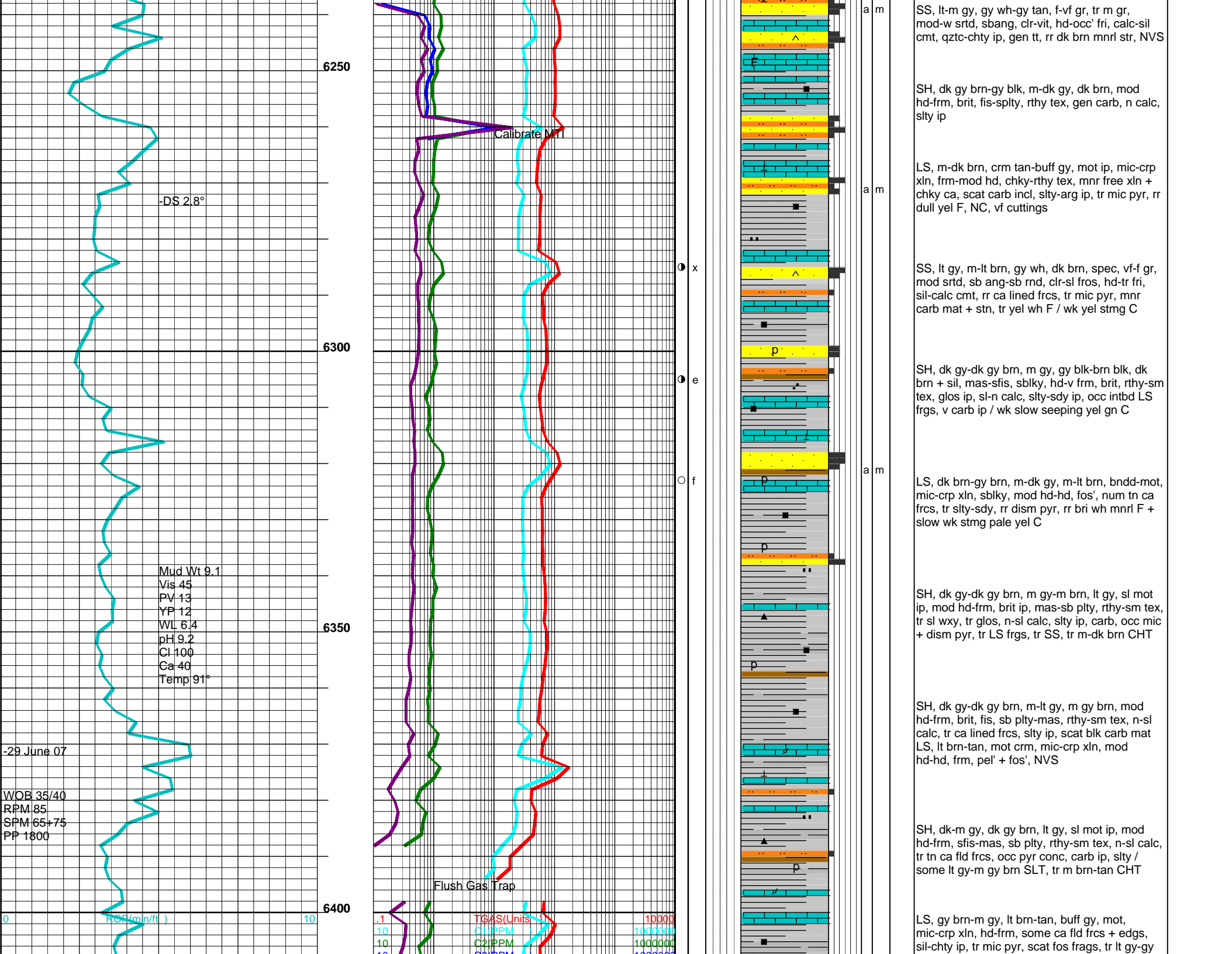
LS, dk-m brn, crm tan-buff gy, mot, mic-crp xln, hd-v frm, scat chky wh ca, num ca frc fl, num pels + fos, tr mic xln pyr, tr bri wh-dull yel F, slow seeping yel wh C

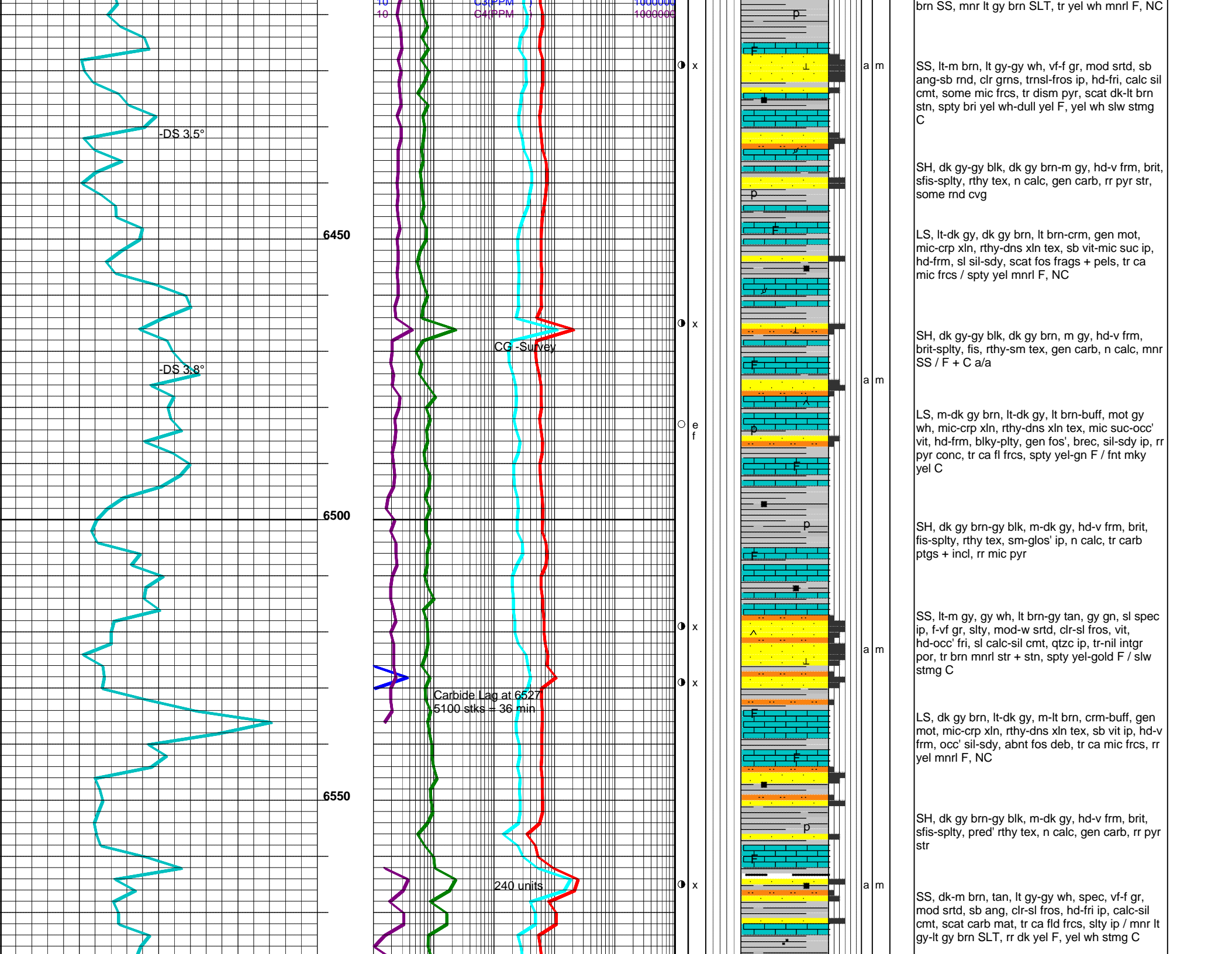
SH, dk gy-dk gy brn, m gy-lt gy, m gy brn-m brn, sfis-sblky, sb plty, rthy-sm tex, tr glos, mod hd-v frm, brit, n-sl calc, slty ip, tr xl ca lined frcs, carb, tr pyr conc, vis oil film

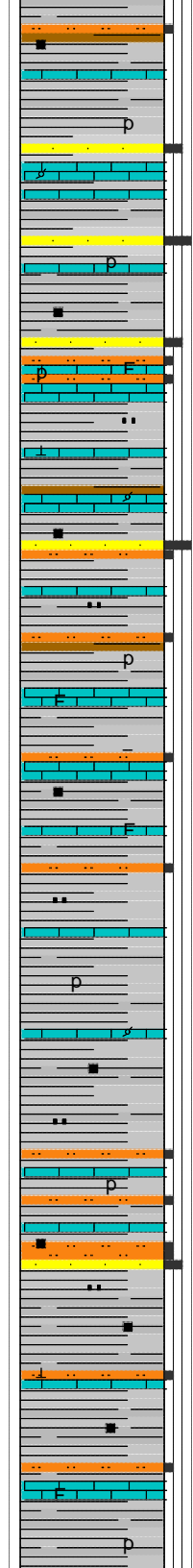
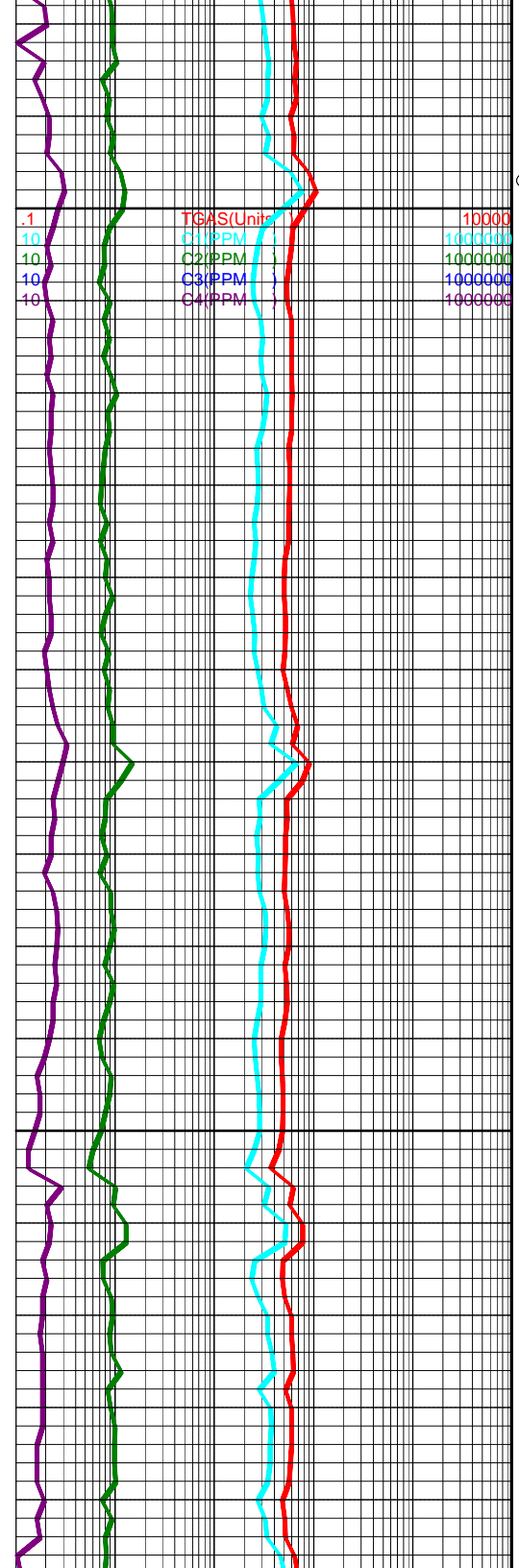
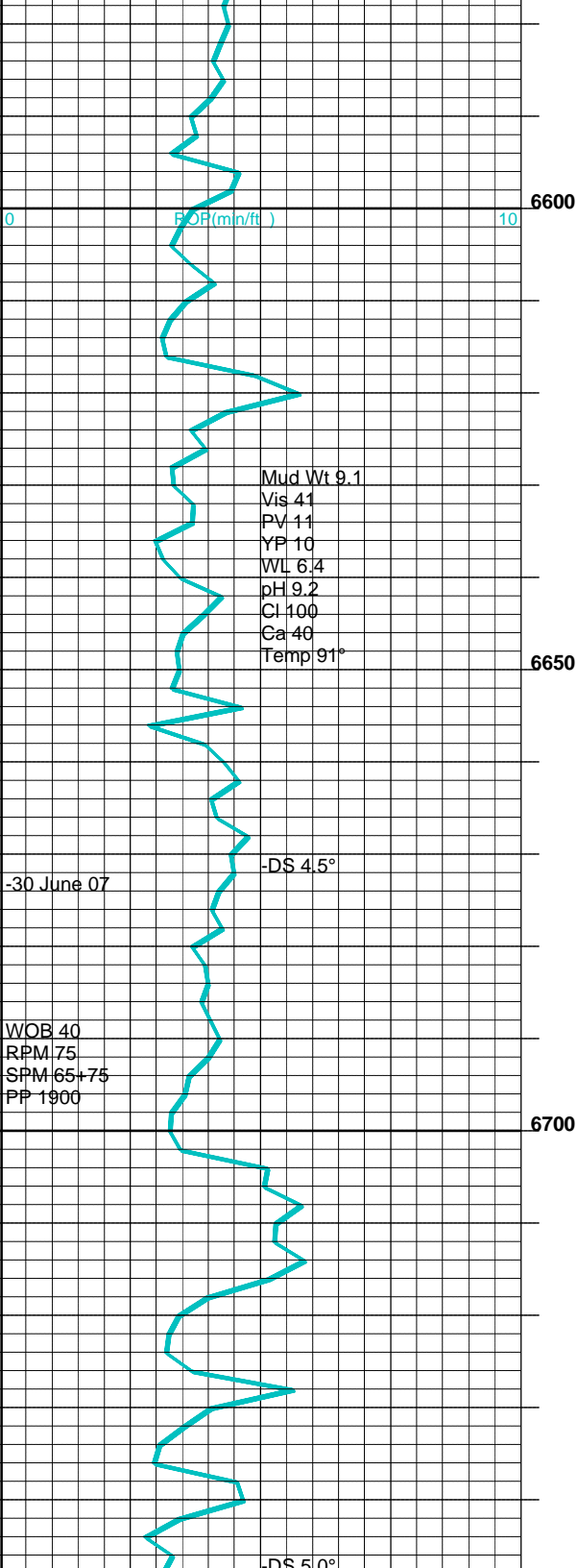
LS, dk-m brn, gy brn-crm tan, mot ip, mic-crp xln, hd frm, scat ca fld frcs + edgs, slty ip, arg ip, scat pel + bry frags, tr bri yel wh F, slow pale yel gn seeping C

SH, dk-m gy, dk-m gy brn, lt gy, mas-sfis, mod hd frm, rthy-sm tex, n-mod calc, tr ca fld frcs, tr free wh chky ca, slty ip / mnr lt gy brn SLT, carb, wk seeping yel C

SH, dk gy-gy blk, m gy, brn blk-gy brn, v frm-hd, brit, sfis-mas, spty, pred' rthy tex, slty







SH, dk-m gy, gy blk, lt gy, gy brn, mas-sfis, splty, mod hd-brit, n calc, carb, tr slty-sdy, rr mic xln pyr

LS, dk gy-gy brn, lt brn-tan, v mot, mic-crp xln, mod hd, frm-sft, rthy-chky, num pel + fos frags, abnt tn ca fld frcs, occ free chky crm wh ca, tr dism-mic pyr, carb incl, some intbd sd grns, spty bri yel-yel gold F, stmg mky yel C

SLT, lt-m gy, lt gy brn, mas, frm-sft, arg, mod calc, scat carb mat, occ imbd LS nod, tr sdy, tr mic xln pyr

LS, lt-m brn, m gy, gy brn-brn blk, buff gy, mot, mic-crp xln, mod hd-frm, hd, tr free xln + chky ca, v pel', sdy, slty, scat mic pyr + conc, some tn carb ptgs, tr yel wh mnrl F, NC

SH, dk-m gy, gy blk, m-lt gy brn, lt gy, sfis-mas, sb plty, mod hd-frm, brit, rthy-sm tex, n-sl calc, scat mic pyr + conc, carb ip, incr' slty

LS, m-lt brn, gy tan-crm gy, v dk gy brn, mot, mic-crp xln, frm-hd, tr free ca + tn fld frcs, scat pel + fos frags, rr mic pyr, slty ip, tr yel wh F, NC

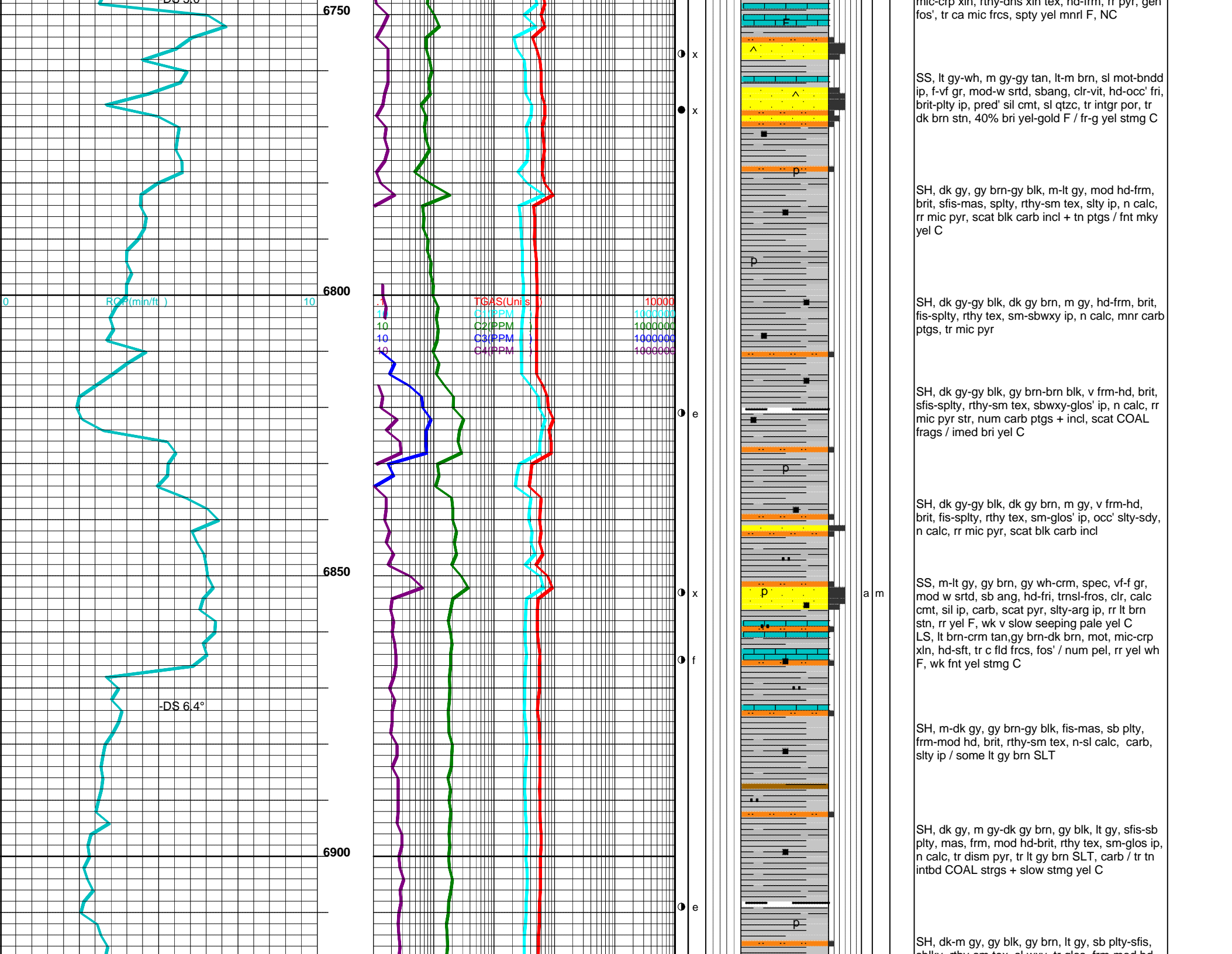
SH, m-dk gy, gy brn, lt gy-lt gy brn, gy blk, sl mot ip, sfis-sb plty, mas, rthy-sm tex, tr sl wxy, mod hd-frm, brit, n-sl calc, tr ca frc fl, carb, some lt gy-lt gy brn SLT

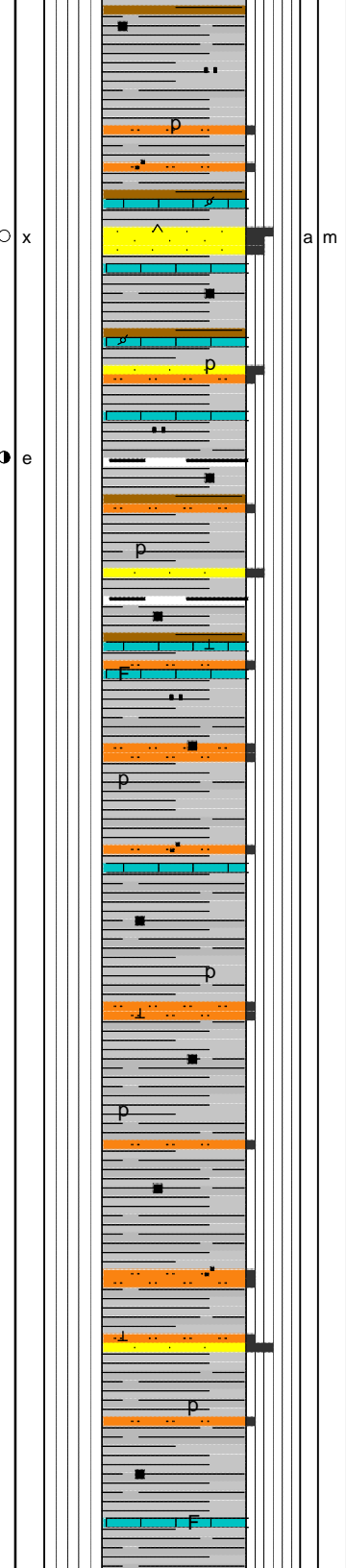
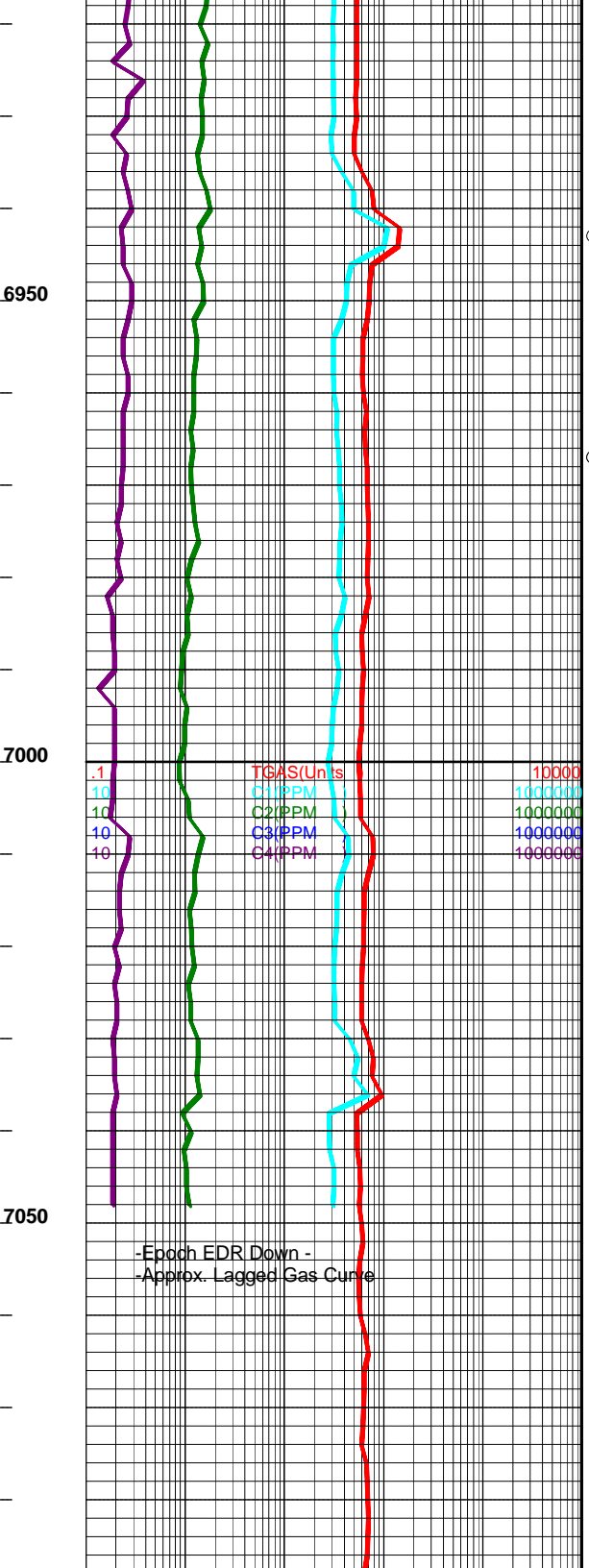
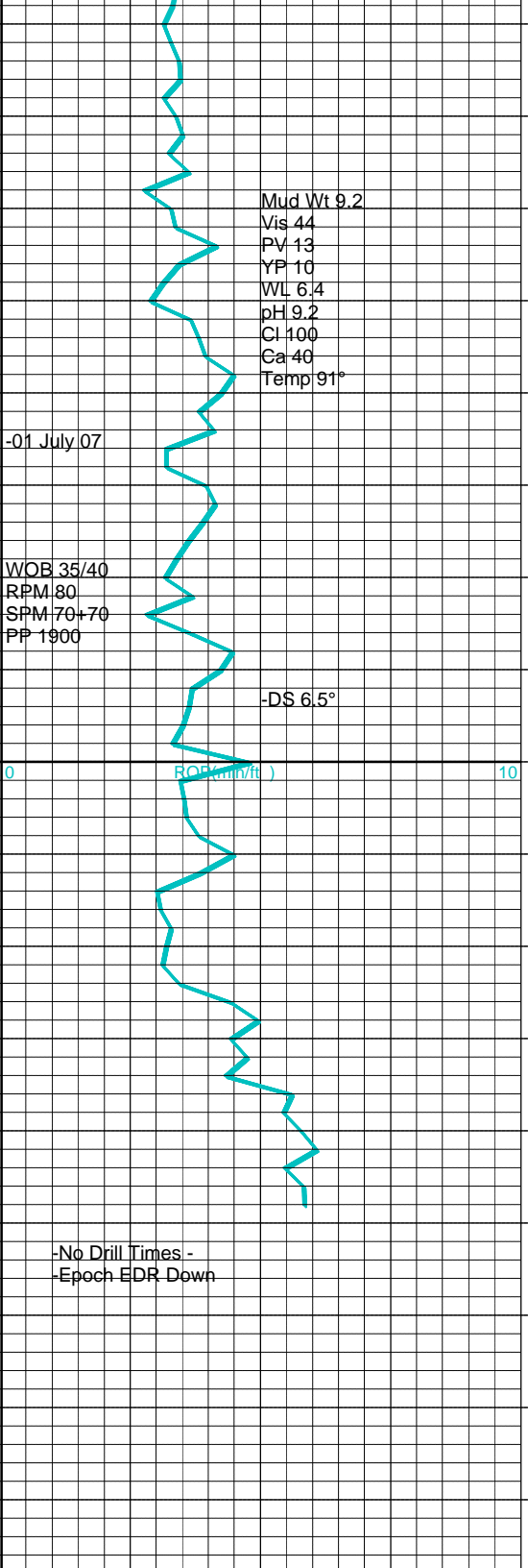
SH, dk-m gy, dk-m gy brn, lt gy, mod hd-frm, brit ip, sfis-sb plty, n-sl calc, carb, slty ip, tr mic pyr

SLT, lt gy-lt gy brn, m gy, spec ip, mas, frm-mod hd, sl-mod calc, arg, sdy, scat carb incl, tr mic pyr, tr SH ctc, mnrl lt gy-gy wh vf-f gr SS

SH, dk gy-gy blk, dk gy brn, m gy, v frm-hd, brit, sfis-splty, rthy-sm tex, gen n calc, carb ip, mnrl LS + SLT, some rnd cvg

LS, m-dk gy, dk brn-gy brn, gy tan-buff, mic-crp xln, rthy-sm tex, mod hd-frm, m pyr, gen





gen n calc, sl stly ip, carb ip, tr mic xln pyr + conc

SLT, lt gy-m gy brn, pk tan, spec-bnnd ip, frm-fri, mod hd, rthy, mod-sl calc, sdy, arg, carb, tr dism pyr

SS, lt gy-gy wh, crm wh-lt tan, lt gy brn, vf-f gr, mod srt'd, sb ang, clr-sl fros, hd, sil, stly isp, tr mic xln pyr, cln-tr carb incl, mnr lt brn-crm gy LS, rr yel F, fnt yel res ring C

SH, dk-m gy, m-lt gy brn, gy blk, lt gy, sfis-sply, mas, mod hd-frm, brit, rthy-sm tex, tr glos, n calc, some lt gy brn SLT, tr pyr, scat carb ptgs, mnr blk COAL / vis gas bubbles in wet sample + wk seeping yel wh C

SH, dk gy-gy brn, m gy, gy blk, lt gy-lt gy brn, sl mot ip, mod hd-brit, v frm, fis-sb plty, rthy-sm tex, sb wxy-glos ip, n calc, scat mic-dism pyr, stly isp, carb, some blk-brn blk mod hd-brit COAL / yel wh stmg C

SLT, lt gy-lt gy brn, spec, frm-mod hd, rthy tex, sl calc, arg, scat vf sd grns, occ carb incl, tr mic pyr, some m-lt brn mot fos' LS

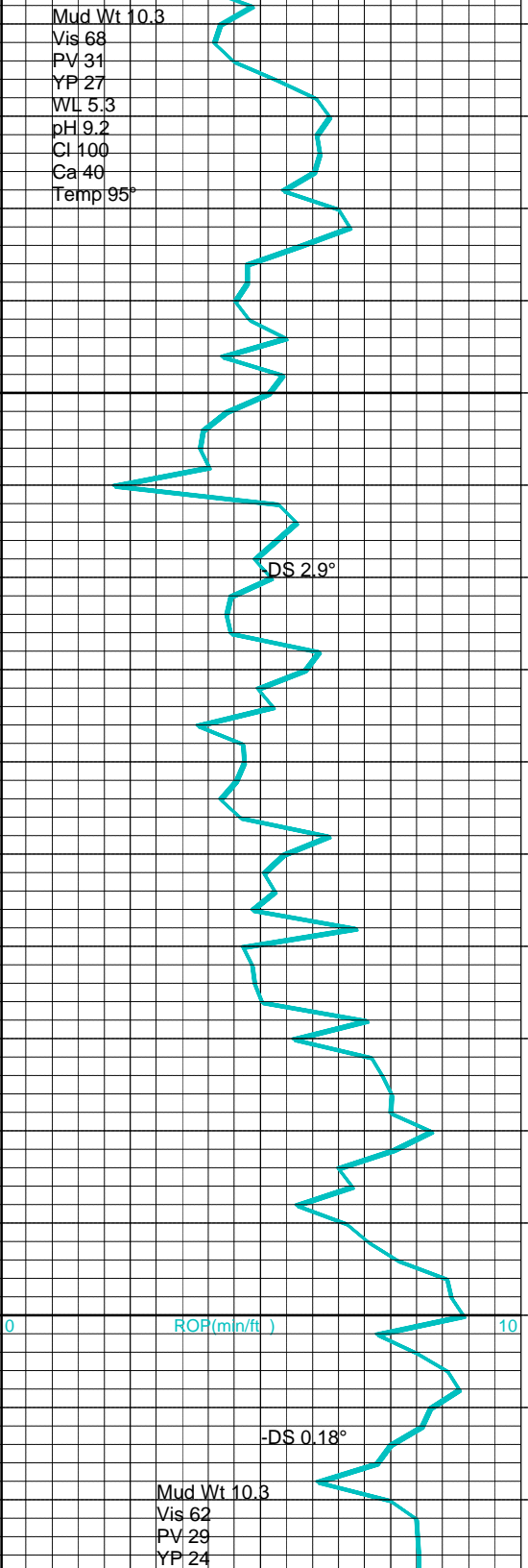
SH, dk gy-dk gy brn, m gy-lt gy brn, lt gy, sfis-mas, sply ip, mod hd-brit, frm, rthy-sm tex, n-sl calc, stly ip, carb, tr gy tan LS nod + m brn mot frags, tr pyr

SH, dk gy-gy blk, dk gy brn, m gy, mod hd-frm, brit, fis-sply, rthy-sm tex, n calc, vf dism pyr, scat carb incl, tr sdy SLT

SLT, m-lt gy, gy brn-dk gy, spec-bnnd ip, frm-mod hd, fri, mas-sfis, calc ip, tr gy brn mot rthy-fos' LS, scat carb incl, rr mic pyr, arg-sdy / f-vf gr SS str

SH, gy brn-gy blk, m-dk gy, mod hd-brit, sfis-sply, rthy-sm tex, occ' glos', n calc, scat mic pyr + tn vn', rr carb ptgs / fnt mky C

Mud Wt 10.3
 Vis 68
 PV 31
 YP 27
 WL 5.3
 pH 9.2
 Cl 100
 Ca 40
 Temp 95°



DS 2.9°

7300

7350

7400

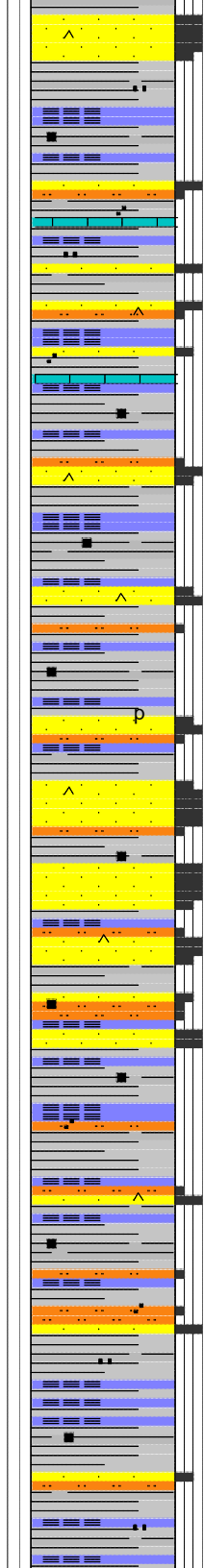
ROP(min/ft)

DS 0.18°

Mud Wt 10.3
 Vis 62
 PV 29
 YP 24

.1	TGAS(units)	10000
10	C1(PPV)	1000000
10	C2(PFM)	1000000
10	C3(PPV)	1000000
10	C4(PPV)	1000000

O x



r m

a w

a m

mod srt, md-sb ang, clr-sl fros, nd, tr m / some lse grns, sil, sl calc ip, scat slt + carb incl, tr free chky wh + xln ca, tr SH ctc, rr yel wh F, slow wk lt yel stmg C

SH, dk gy-dk gy brn, m gy-m brn, gy blk, frm-sft, mas, rthy tex, n calc, some chky wh LS, stly / rr imbd sd grns, carb ip, abnt clay

SH, dk gy, dk gy brn-m gy, gy blk, frm-sft, mas, mod hd-sply ip, rthy tex, stly-sdy ip, n calc, tr chky wh LS + rr nod / dull yel mnrl F, abnt clay, VPS

SS, lt gy-gy wh, gy tan-m gy, f-vf gr, some m gr, mod-p' srt, sbang-rnd, clr-sl fros, hd-mod hd, sl calc-sil cmt, gen tt, abnt clay

SH, dk gy-gy blk, dk gy brn, m gy, frm-sft, mod hd-brit ip, mas-occ' sply, rthy-sm tex, n calc, sl carb, abnt clay, mnrl SLT + SS str

SS, gy wh-lt gy, gy tan, m gy, f-vf gr, mod-w srt, sbang, clr-vit, hd-occ' fri, sil cmt, qtzc ip, rr pyr conc, mnrl carb flks + dk mnrl bnds, tr ca mic frcs, p intgr por / spty brn stn, rr dull yel F + wk mky yel C

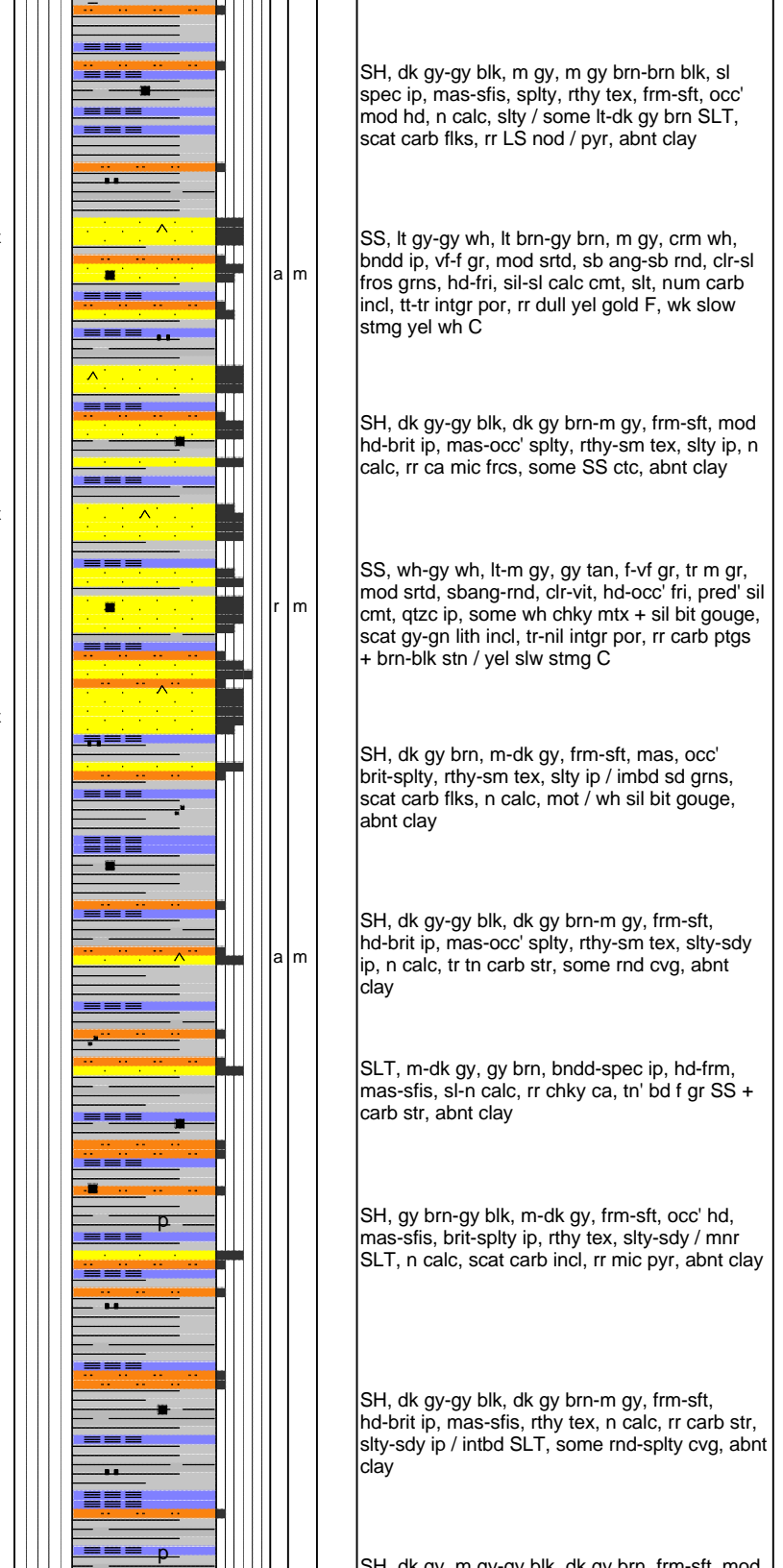
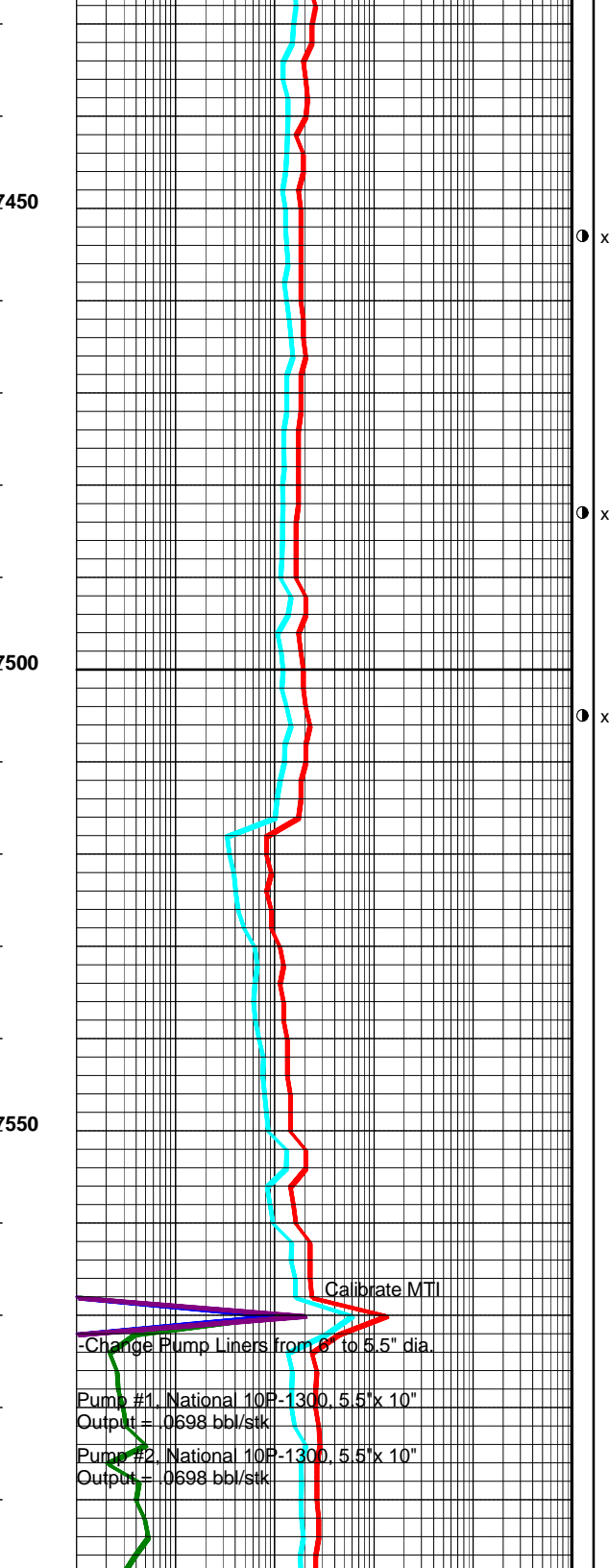
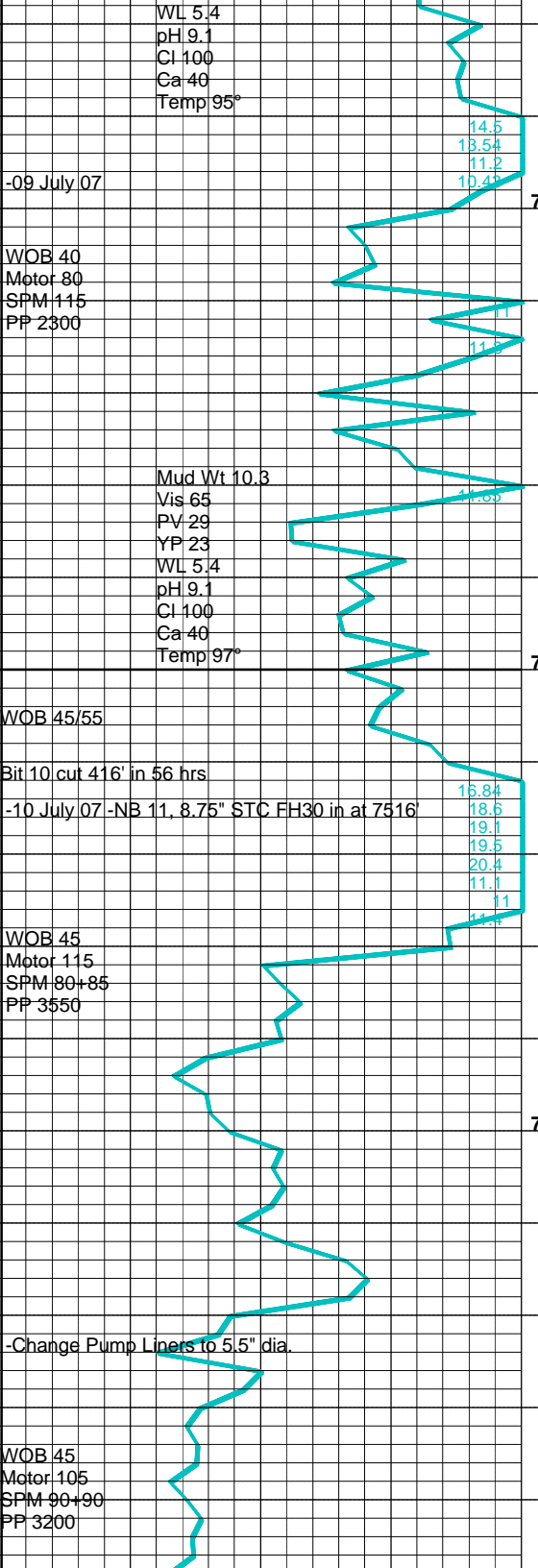
SLT, gy brn, m-lt gy, spec ip, hd-frm, mas-sblky, sl-n calc, sl carb, arg-sdy / f-vf gr SS str

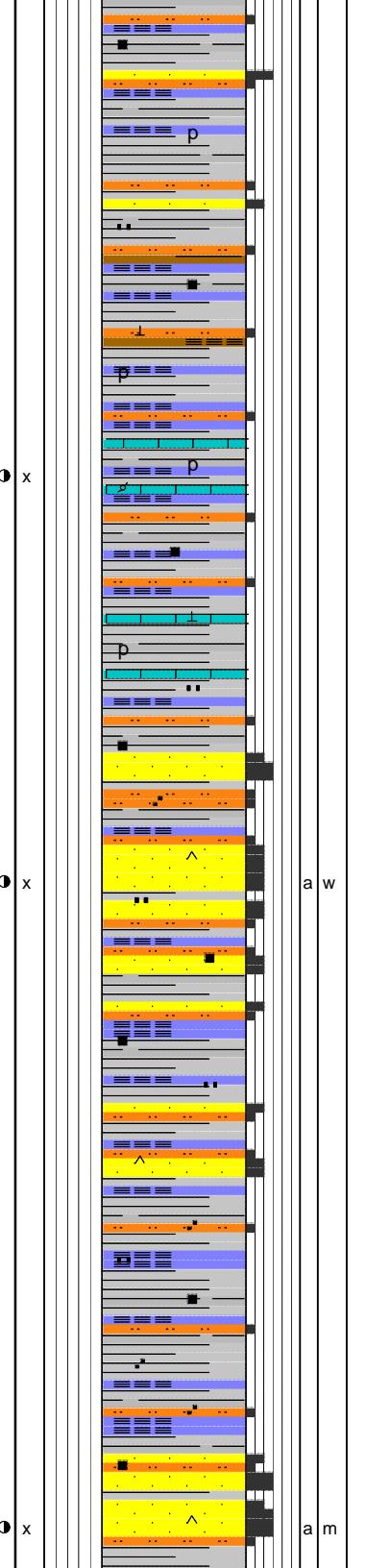
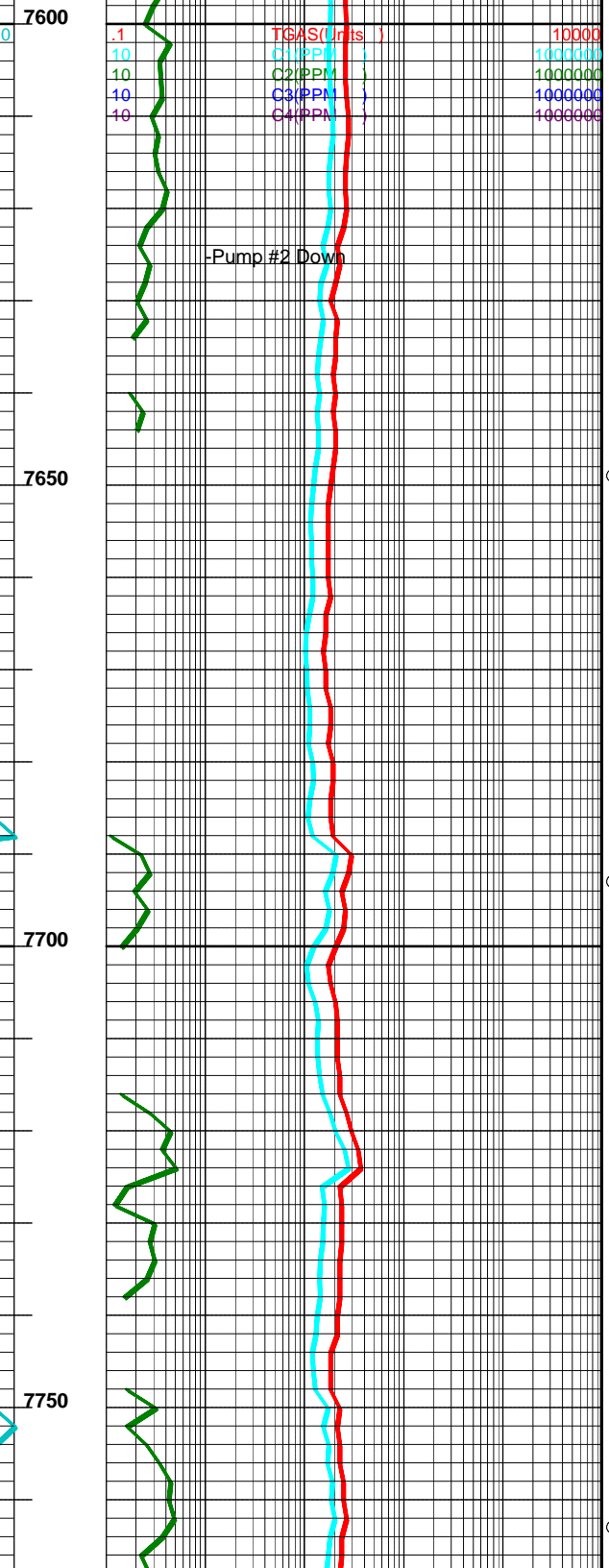
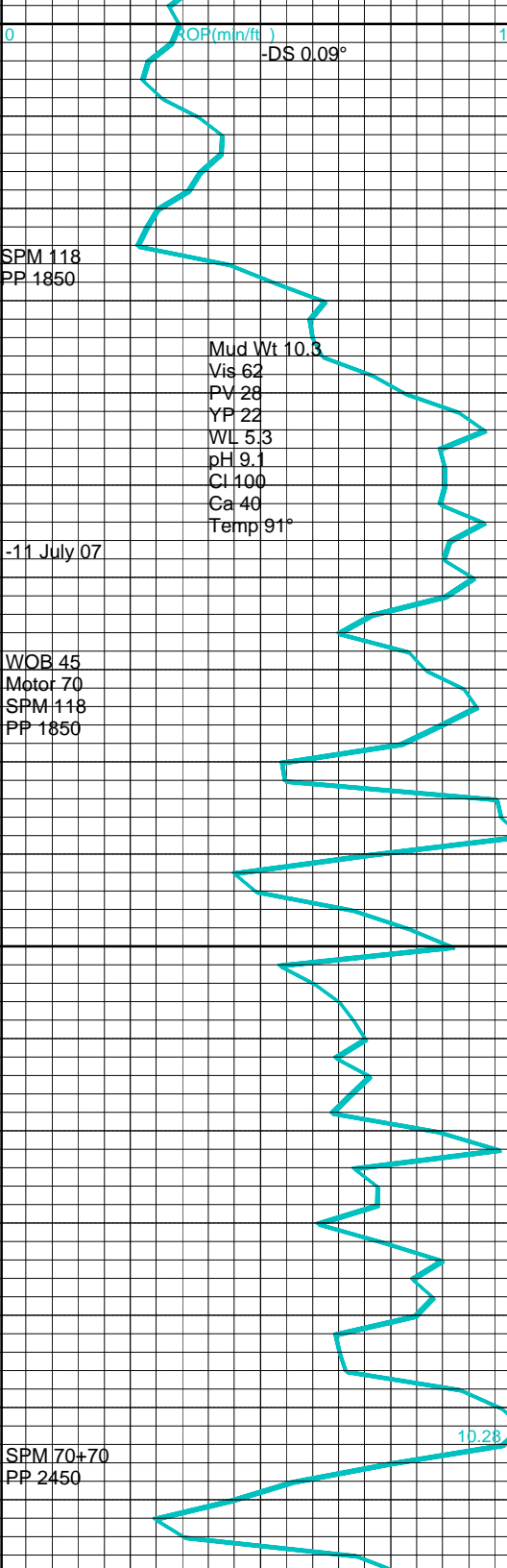
SH, dk gy brn-gy blk, m-dk gy, frm-sft, mas, brit-sply ip, rthy-sm tex, n calc, scat carb incl, intbd f-vf gr SS, abnt clay

SH, dk gy brn, dk gy-gy blk, m gy, frm-sft, mod hd-brit ip, mas-sply, n calc, rthy tex, stly ip, spec-bndd carb SLT imbd / f-vf sd grns, abnt clay

CLST, m gy-gy brn, sft-amor, n-sl calc, scat imbd slt + sd grns

SS, lt gy-gy wh, lt brn-lt gy brn, vf-f gr, mod srt, sb ang-sb rnd, clr-sl fros, hd-mod hd, occ lse grns, sil-sl calc, tr dk mnrl bnds, tr mot crm lt brn LS, gen tt, NVS





SH, dk gy, m gy gy blk, dk gy brn, mnr sft, mod
 hd-brit, mas-sfis, rthy tex, n calc, slty / mnr m-lt
 gy SLT + gy wh SS, scat carb mat, tr pyr conc,
 abnt m gy-lt gy brn sft CLST

SLT, m gy, lt-m gy brn, spec ip, mas, rthy tex,
 frm, sl calc, arg / clay, some carb flks + tn sh
 ptgs, tr intbd sd grns

SH, dk gy-dk gy brn, gy blk, m gy-m gy brn,
 mot ip, mas-sfis, rthy tex, occ' sm-glos, frm-sft,
 mod hd-brit, n-sl calc, mnr free wh ca + frc fl,
 mod-v carb ip, slty, tr mic pyr + conc, abnt clay

LS, lt brn-crmy brn, m-dk brn, gy tan, mot, mic
 xln, frm-sft, mod hd, chky, tr dns xln, scat free
 chky + xln ca, tr ca fld + lined frcs, tr pels,
 arg-slty ip, some mic-vf xln pyr conc, rr fnt wh
 mnr F, yel stmg C, p spl qual

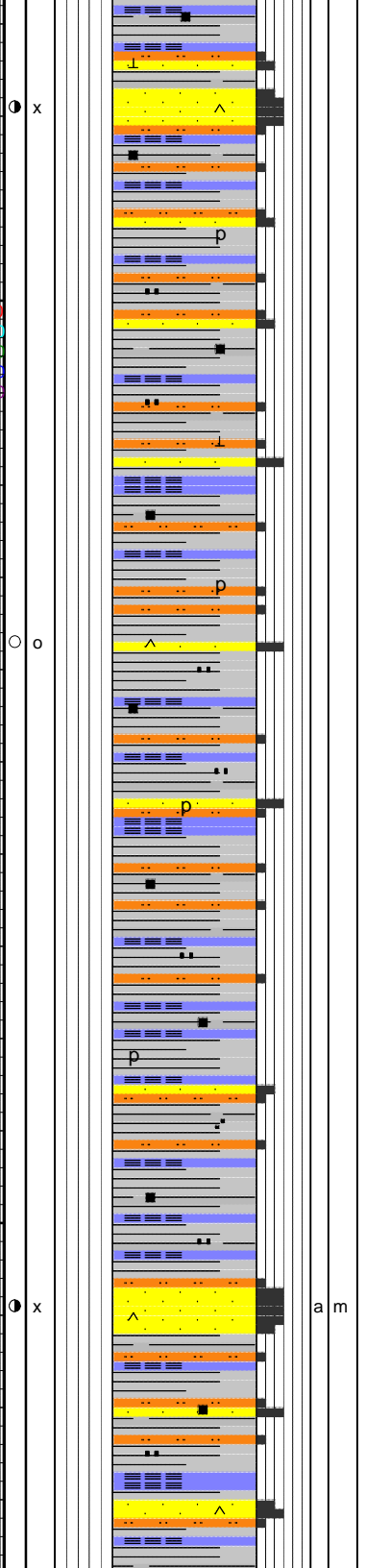
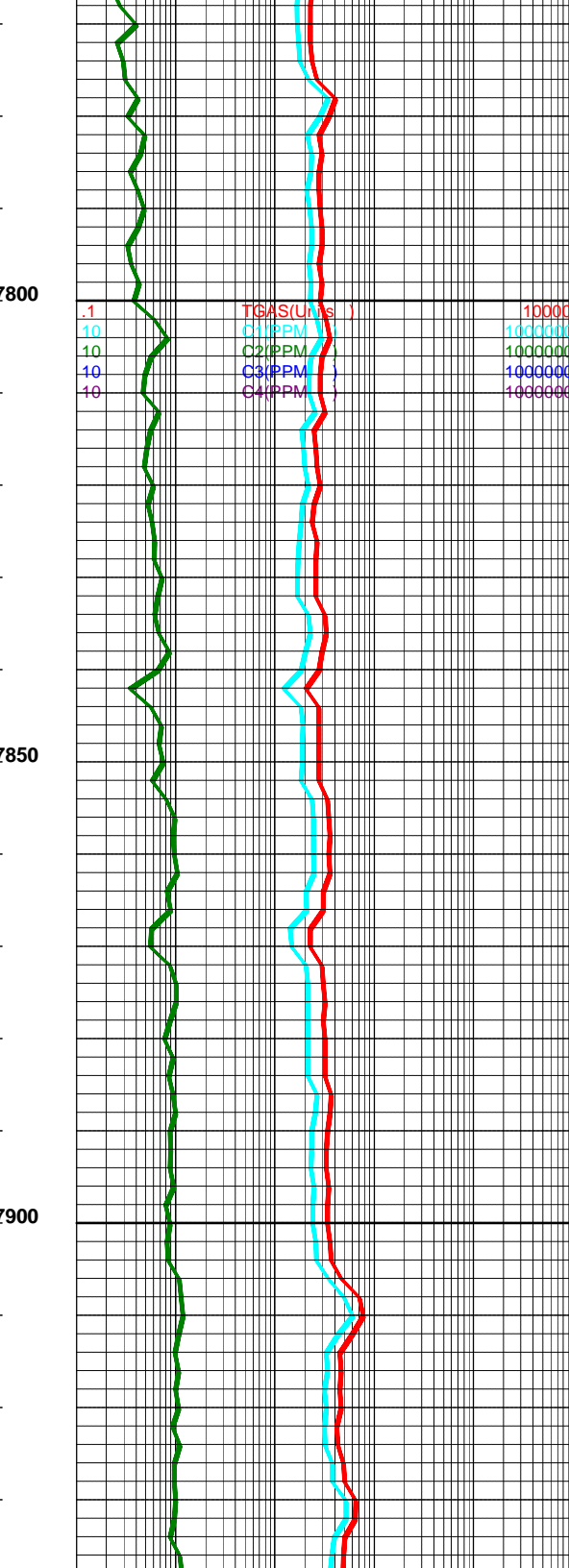
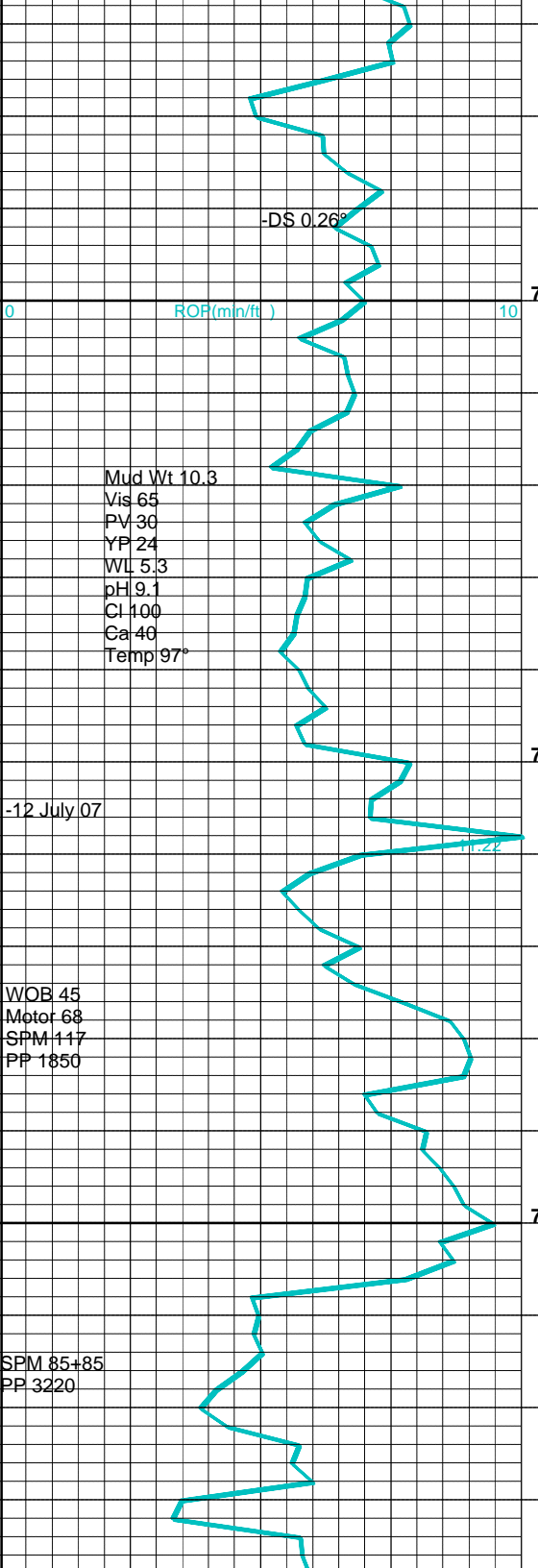
SH, dk gy-dk gy brn, gy blk, m gy, sfis-mas,
 pty, frm, mod hd-brit, rthy tex, n-sl calc, tr ca
 lined frcs, carb ip, slty, scat pyr conc, abnt clay

SS, m-dk gy, gy blk-gy brn, lt gy-gy wh,
 bndd-spec ip, vf gr-slty, w srtd, sbang, clr-sl
 fros, hd-occ' fri, sil-sl calc cmt, arg mtz ip, grdg
 to sdy SLT, rr brec LS + ca frags, scat carb incl
 + ptgs, tr-nil intgr por / brn-blk stn, sply yel slw
 stmg C

SH, pred' clay, m-dk gy, dk gy brn, sft-frm,
 mas, rthy-sm tex, n calc, rr chky wh ca incl,
 some brit-sply carb SH frags, tr slty SS a/a

SH, dk gy brn-m gy, dk gy-gy blk, sft-frm, mas,
 rthy-sm tex, n calc, rr carb incl, some brit-sply
 frags + rnd cvg, mnr SLT + SS str

SS, gy brn, lt-dk gy, gy blk-dk brn, gy wh,
 mot-bnnd ip, vf-f gr, slty, mod-w srtd, sbang,
 clr-sl fros grns, hd, occ' fri, sil-sl calc cmt, rr ca
 fl frcs, tr-nil intgr por, scat carb flks + ptgs / yel
 stmg C, intbd SH + SLT



SLT, gy brn, m-dk gy, gy blk, bnnd-spec ip, hd-frm, mas-sblky, sl-n calc, carb ip, rr pyr str, arg-sdy / tn' bd SS + SH, rr chky-fos' LS frags, abnt clay

SH, dk gy, dk gy brn-gy blk, m gy, sl spec ip, mas-sfis, rthy tex, frm-mod hd, occ' hd-brit, n-tr sl calc, tr dism pyr, scat carb mat, slty ip grd g to SLT

SLT, m-dk brn, lt-m gy brn, spec-tr bnnd, frm, sft-mod hd, mas, rthy tex, n-sl calc, occ tn carb SH ptgs + flks, dsy ip, tr dism pyr + conc

SH, dk gy-m gy, m-dk gy brn, mas-sfis, splty, rthy-tr glos' tex, n-sl calc, v slty ip, sl-v carb ip, tr chky wh-m brn fos LS frags, tr mic-vf xln pyr conc, incr CLST
SS, gy wh-tan, m-dk brn, spec-bnnd ip, vf-f gr, hd, sil, carb, ca fld frcs, tt, v slow seeping yel C

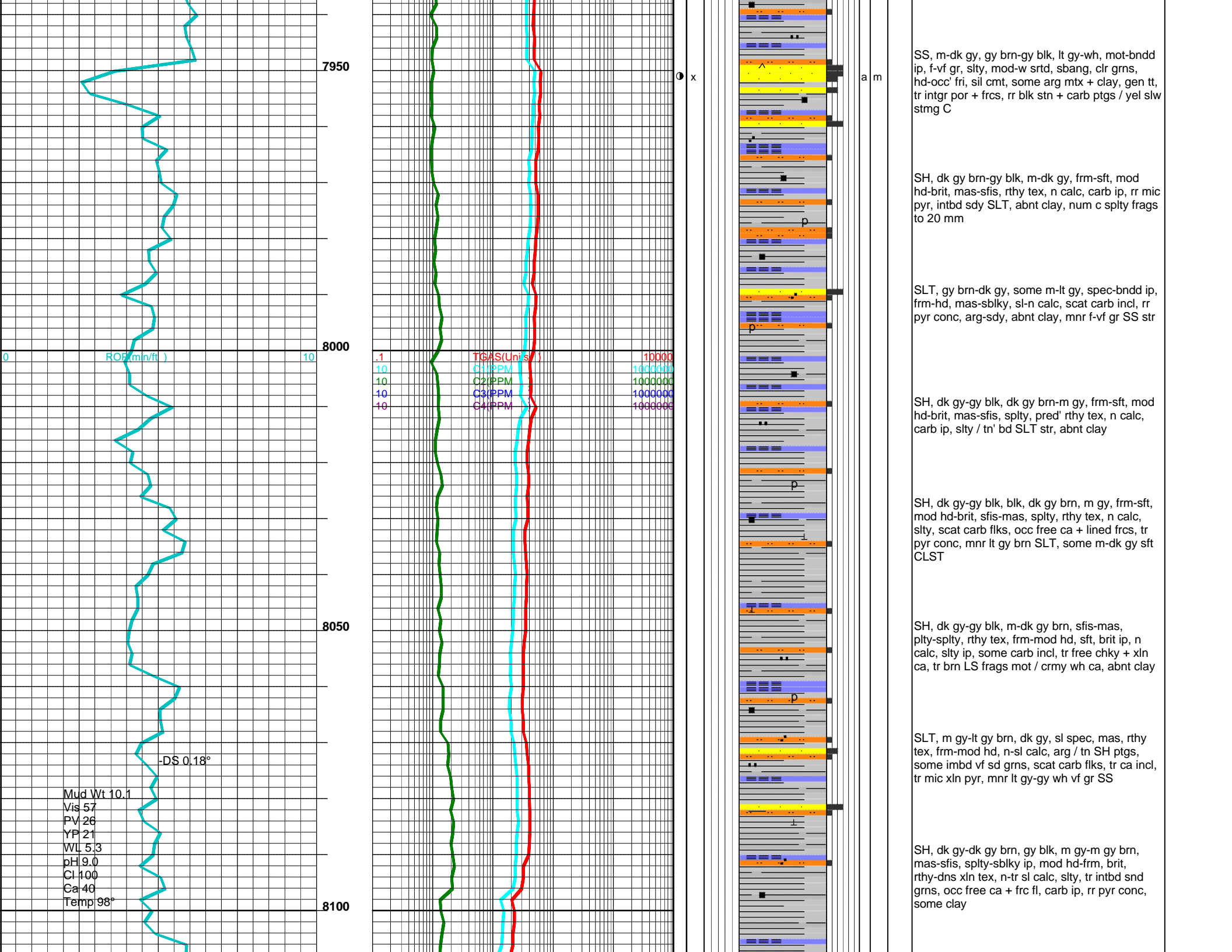
SH, dk gy-gy blk, m gy, m-dk gy brn, sfis-mas, frm-sft, mod hd-brit, tr hd, rthy tex, gen n calc, slty, carb ip, tr dism pyr, abnt clay

SLT, m gy-lt gy brn, dk gy, mas, frm-mod hd, rthy-dns ip, n-sl calc, sdy ip, arg, tr mic pyr, scat carb incl, tr dk-lt brn chky-hd LS frags, tr lt-m gy SS

SH, dk gy-gy blk, gy brn-m gy, frm-sft, mod hd-brit ip, mas-sfis, rthy-occ' glos' tex, n calc, scat carb incl, some splty frags + rnd cvg, mnr SLT, abnt clay

SS, m-lt gy, gy wh, gy brn-gy blk, mot-bnnd ip, f-vf gr, mod-w srtd, sbang, clr-sl fros, hd, sil-sl calc cmt, abnt clay, tn' bd SLT, tr-nil intgr por, mnr ca fl frcs, scat carb incl + ptgs / yel slw stmg C

SH, dk gy-gy blk, dk gy brn, m gy, frm-sft, hd-brit ip, mas-sfis, rthy tex, slty ip, n calc, gen carb, num c splty frags to 25 mm, abnt clay, incr' rnd cvg / higher pump rate



-13 July 07

WOB 45/48
Motor 105
SPM 90+90
PP 2650

-Washout on Pump #1

SPM 116
PP 1820

-Short Trip 10 stands

Mud Wt 10.0
Vis 52
PV 23
YP 18

ROP (min/ft)

-DS 0.36°

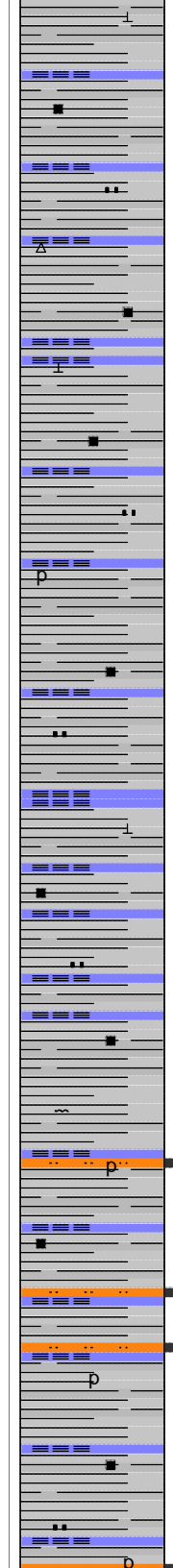
8150

8200

8250

.1	TGAS (units)	10000
10	C1 PPM	1000000
10	C2 PPM	1000000
10	C3 PPM	1000000
10	C4 PPM	1000000

Calibrate MTL



SH, dk gy-gy blk, dk gy brn, m gy, splty-sblky, sfis-mas, mod hd-brit, frm, rthy-sm tex, semi glos' ip, n calc, slty ip, tr free ca + lined frcs, carb ip, rr dism pyr, abnt clay

SH, dk gy-gy blk, dk gy brn, m gy, sfis-mas, splty, mod hd-brit, frm-sft, rthy-sm tex, n calc, tr ca frac fl, scat free chky-xln ca, carb ip, occ tn intbd SLT + m-dk gy sdy SLT, rr gy wh-lt gy brn chty SS / wh dol fld frcs, abnt m gy-lt gy brn CLST

SH, dk gy-gy blk, dk gy brn-m gy, frm-mod hd, brit, fis-sblky, splty, abnt sft mas clay, rthy tex, sm-glos' ip, pos sks, gen carb, n calc, tr ca fl frcs + tn' bd SLT, rr pyr vn'

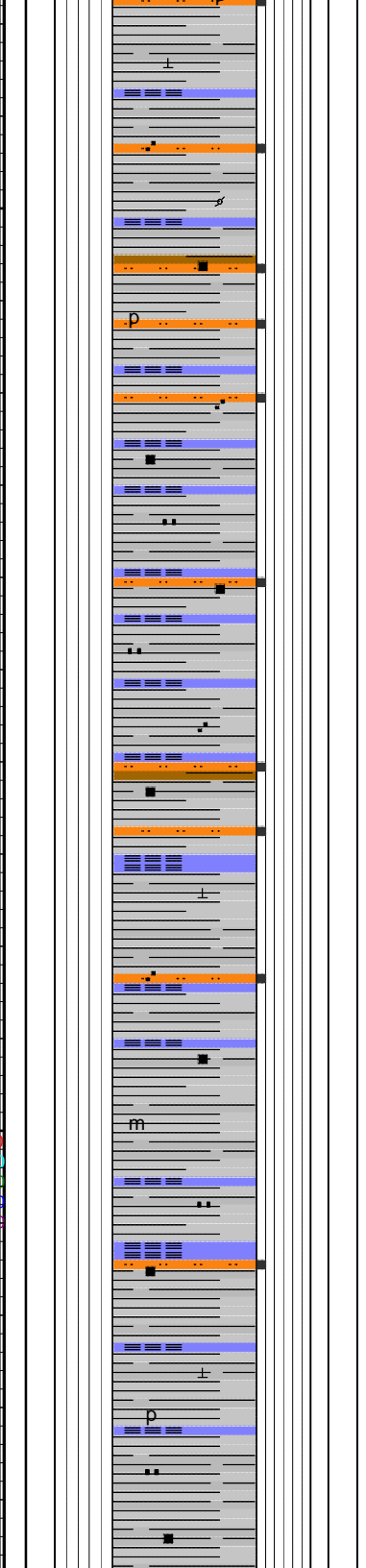
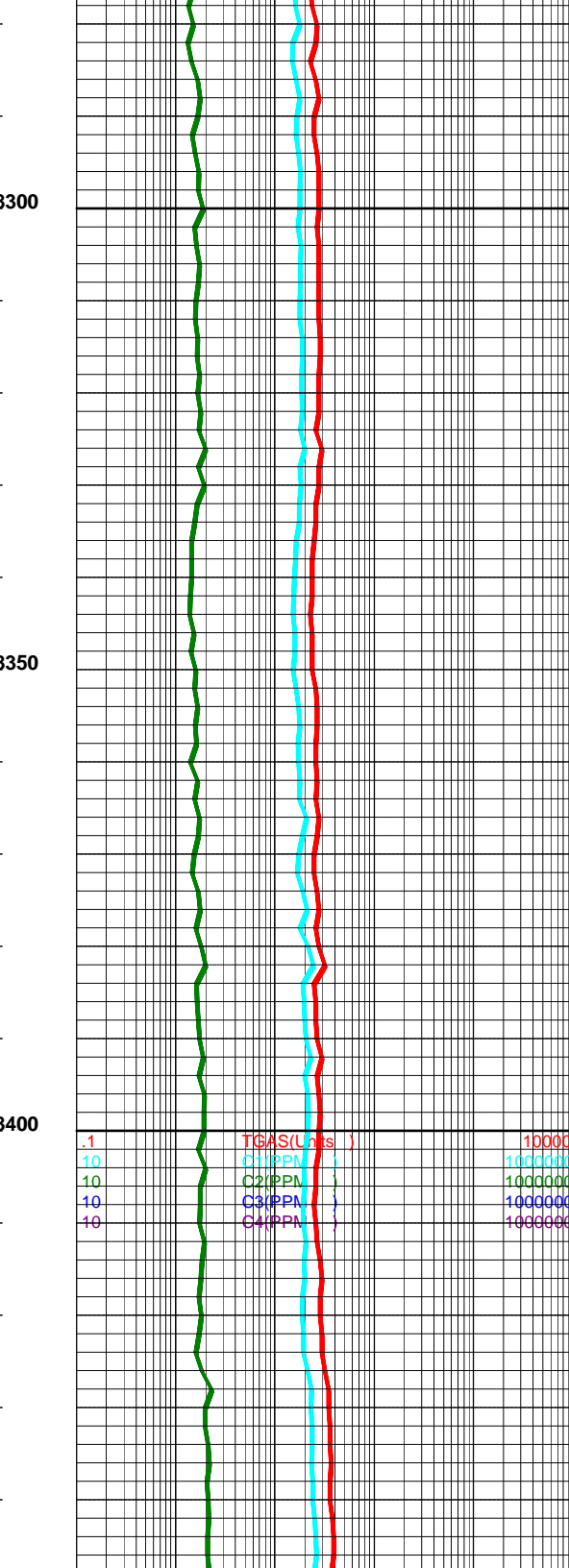
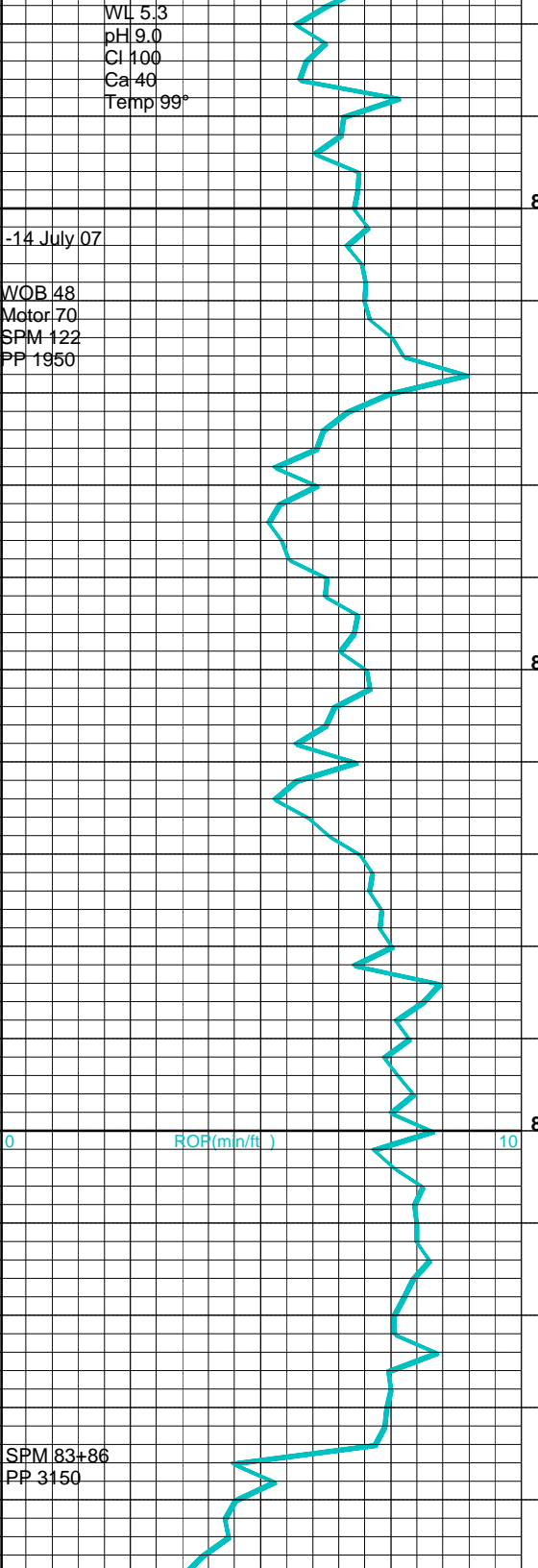
SH, dk gy-gy blk, dk gy brn, frm-hd, brit, fis-sblky, splty, sft-mas ip / abnt clay, rthy-sm tex, glos' ip, n calc, gen carb, some rnd cvg

SH, dk gy-gy blk, dk gy brn-m gy, frm-sft, mas, hd-brit ip, fis-splty, rthy-sm tex, gen carb, n calc, tr chky wh ca + mot LS, abnt clay

SH, dk gy-gy blk, some gy brn-m gy, hd-brit, fis-sblky, rthy tex, sm-glos' ip, occ' mic mica'-phyllitic, n calc, mnr carb str, num c splty frags after wiper trip

SH, dk gy-gy blk, dk gy brn, m gy, hd-brit, fis-sblky, splty, abnt sft mas clay, pred' rthy tex, n calc, carb ip, rr pyr vn', tn' bnnd / sdy SLT str, some rnd cvg

SH, dk gy-gy blk, dk-m gy brn, m gy, hd-mod hd, brit-occ' frm, sblky-sfis, splty, n calc, carb ip, tr lt brn-gy brn SLT, tr mic-dism pyr + conc, some m-dk gy CLST



SH, dk gy-gy blk, dk gy brn, mas-sfis, splty, rthy tex, mod hd-brit, hd-frm, n calc, tr wh ca + dol frc fl, slty ip, carb, rr m brn mic xln LS frags, some clay

SH, dk gy-gy blk, m-dk brn gy, mas-sfis, splty-sblky, rthy-sm tex, glos'-phyllitic ip, hd-brit, mod hd-frm, n calc, occ ca fld + lined frcs, tr free chky ca, carb ip, rr pels, tr dk brn LS frags

SLT, dk gy-dk gy brn, mas, rthy-grty tex, mod hd, hd-frm, n-sl calc, tr ca incl, scat carb flks, sdy, arg, tr disp pyr, tr lt brn f gr SS, abnt clay

SH, dk gy-gy blk, dk gy brn, hd-frm, brit, fis-sblky, splty, abnt sft clay, rthy-sm tex, slty ip, n calc, gen carb, tr ca fl frcs + free chky wh ca

SH, dk gy-gy blk, dk gy brn-m gy, frm-sft, mas, hd-splty ip, rthy-sm tex, occ' glos', rr carb ptg, n calc, tr ca mic frcs, slty ip / mnr sdy SLT, abnt clay

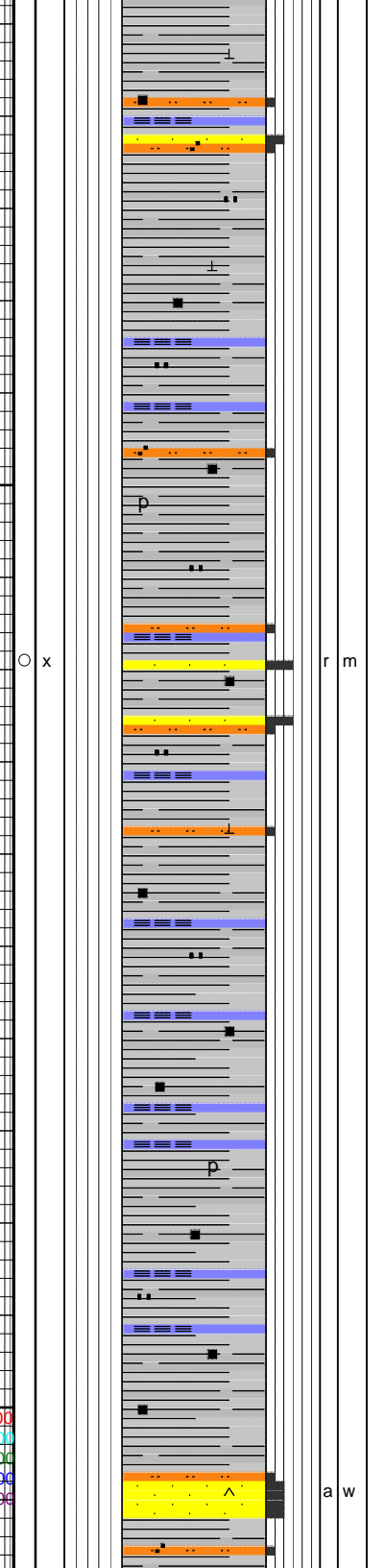
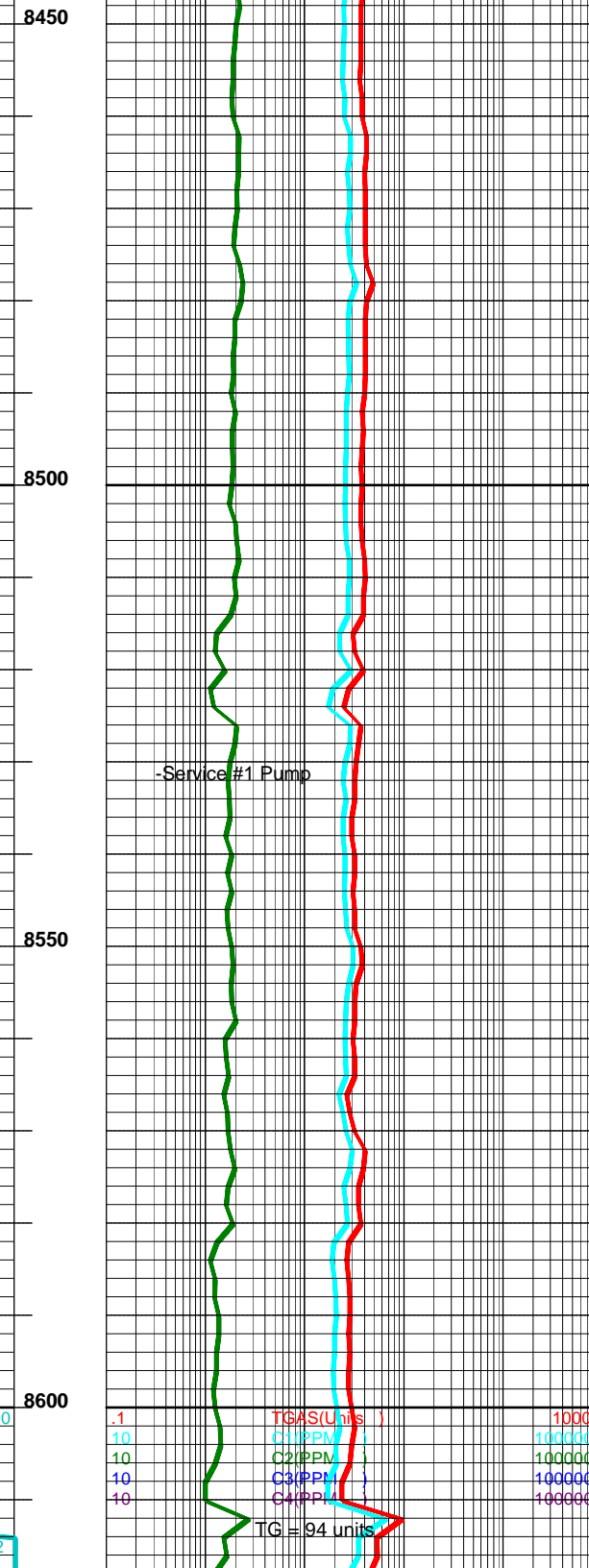
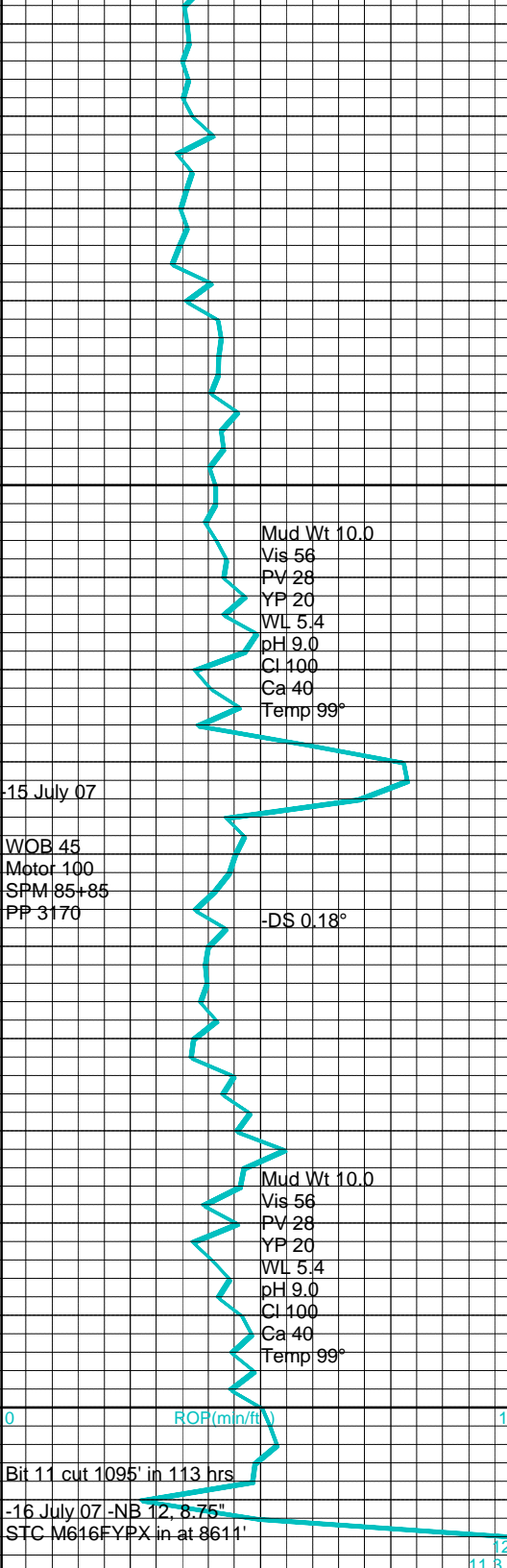
SH, dk gy-gy blk, dk gy brn, m gy, frm-sft, mas, hd-splty ip, rthy-sm tex, slty ip, gen carb, n calc, scat wh xln-chky ca + frc fl, abnt clay

SH, dk gy-gy blk, dk gy brn, frm-hd, brit, fis-splty, abnt sft mas clay, rthy-sm tex, occ' slky-glos', mic mica'-phyllitic ip, rr carb incl, n calc, scat chky wh ca + xln frc fl, some rnd cvg

SH, dk gy-gy blk, dk gy brn-m gy, frm-sft, mas, pred' clay, some hd-brit, fis-splty, rthy-sm tex, slty ip, mnr carb incl + ptgs, n calc, scat sft chky wh LS

SH, dk gy-gy blk, dk gy brn, mas-sfis, frm-mod hd, sft, rthy tex, n calc, slty ip, carb ip, rr pyr conc, tr wh ca frc fl, tr gy wh-lt brn SS

SH, dk gy-gy blk, m-dk gy brn, blk, mas-sfis



SH, dk gy-gy blk, m-dk gy brn, blk, mas-sfis, rthy tex, tr sm-glos', frm-mod hd, hd-brit ip, n calc, occ ca fld + lined frcs, carb, some dk gy-lt brn sft CLST

SLT, dk gy, mas-sfis, rthy tex, mod hd-brit, frm, n-sl calc, sdy, scat carb flks, mnr lt gy-m gy brn bnnd vf-f gr SS

SH, dk gy-gy blk, dk gy brn-m brn, fis-mas, splty, mod hd-frm, hd-brit, rthy-sm tex, glos-phyllitic ip, n calc, tr ca fld frcs, slty ip, carb ip, tr lt brn SS, some clay

SH, gy blk-dk gy, brn blk-blk, fis-pty, mas, mod hd-brit, hd-frm, sft ip / clay, sm-rthy tex, glos ip, n calc, tr mic pyr + conc, tr free xln-chky ca, rr ca fld frcs, carb, mnr lt-dk gy brn SLT, tr lt brn SS

SS, lt gy-lt brn, m gy, gy wh, spec-bnnd ip, vf-f gr, mod srtd, sbrnd-sbang, clr-sl fros, hd, sil, tr mic frcs, scat carb incl, some tan-lt gy brn frm SLT, tt, rr dk yel gn F, slow seeping lt yel C

SH, dk gy-gy blk, dk-m gy brn, sfis-mas, mod hd-frm, hd-brit ip, rthy-sm tex, n calc, carb, slty ip / some lt brn-lt gy brn calc SLT, tr m brn-gy brn LS frags, some clay

SH, dk gy-dk gy brn, gy blk, m gy-m gy brn, mas-sfis, tr sblky, mod hd-frm, hd-brit ip, rthy tex, n calc, incr' carb, tr m gy SLT / ca fld frcs, tr m gy brn LS nod, some m gy-gy brn sft clay

SH, dk gy-gy blk, dk gy brn, frm-hd, brit, abnt sft-mas clay, rthy tex, sm-silky ip, occ' phyllitic, gen carb, n calc, tr ca fl frcs, scat chky wh ca + mot crm LS, rr pyr str, num c splty frags to 20 mm

SH, dk gy-gy blk, frm-hd, brit, sfis-splty, abnt clay, rthy-sm tex, occ' silky-glos', n calc, tr ca fl frcs, mnr carb ptgs, tr dk gy brn SS

SS, gy brn-gy blk, m-dk gy, pred' vf gr, w srtd, sbang, clr grns, hd, sil cmt, carb, some SH ctc, gen tt, rr ca frcs, NVS

WOB 8/25
Motor 150
SPM 85+85
PP 3270

8650

8700

8750

16.8

10.6

12.48

SH, dk gy-gy blk, brn blk, gy brn-m gy, hd-frm, brit, fis-sblky, rthy tex, sm-glos' ip, n calc, tr chky wh ca, tn' bd SS, rr pyr str, gen carb, num c splty frags to 25 mm

SH, dk gy-gy blk, dk gy brn-m gy, hd-frm, brit-splty, abnt sft-mas clay, rthy-sm tex, slty ip, mnr carb str, rr pyr conc, n calc, some rnd SH + LS frags

tr LS, lt-dk gy, mot gy wh, crm, lt brn-gy brn, mic-crpxln, rthy-sb vit tex, hd-sft, dol'-sil ip, tn' bd / SH

SH, dk gy-gy blk, dk gy brn, hd-brit, fis-sblky, rthy tex, sm-glos' ip, n calc, gen carb, mnr clay, tr sdy SLT, tn' bd LS str, some c splty frags to 40 mm

SH, dk gy-gy blk, dk gy brn, m gy, hd-frm, fis-sblky, brit-splty, abnt sft mas clay, rthy-sm tex, slty ip / gy brn sdy SLT, n calc, gen carb, tr vf dism pyr

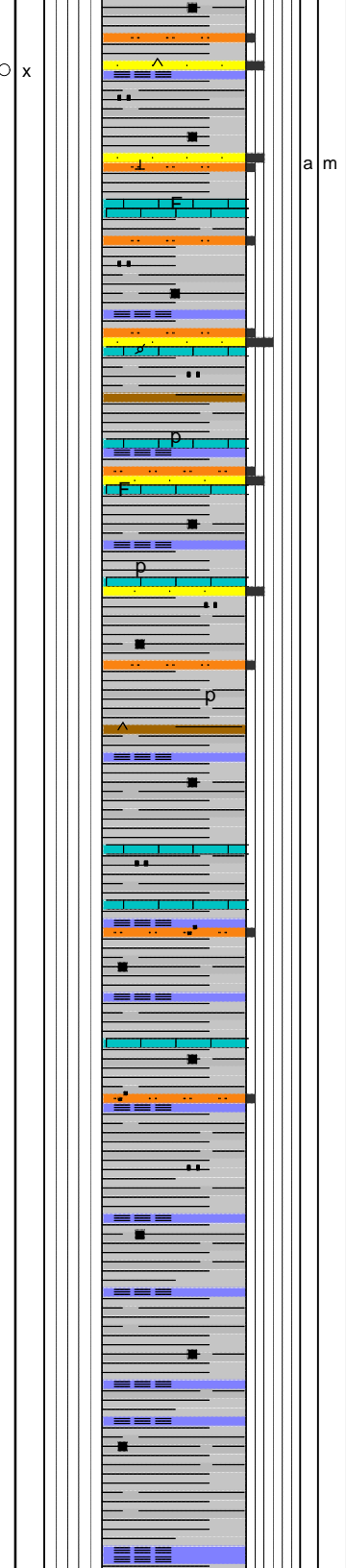
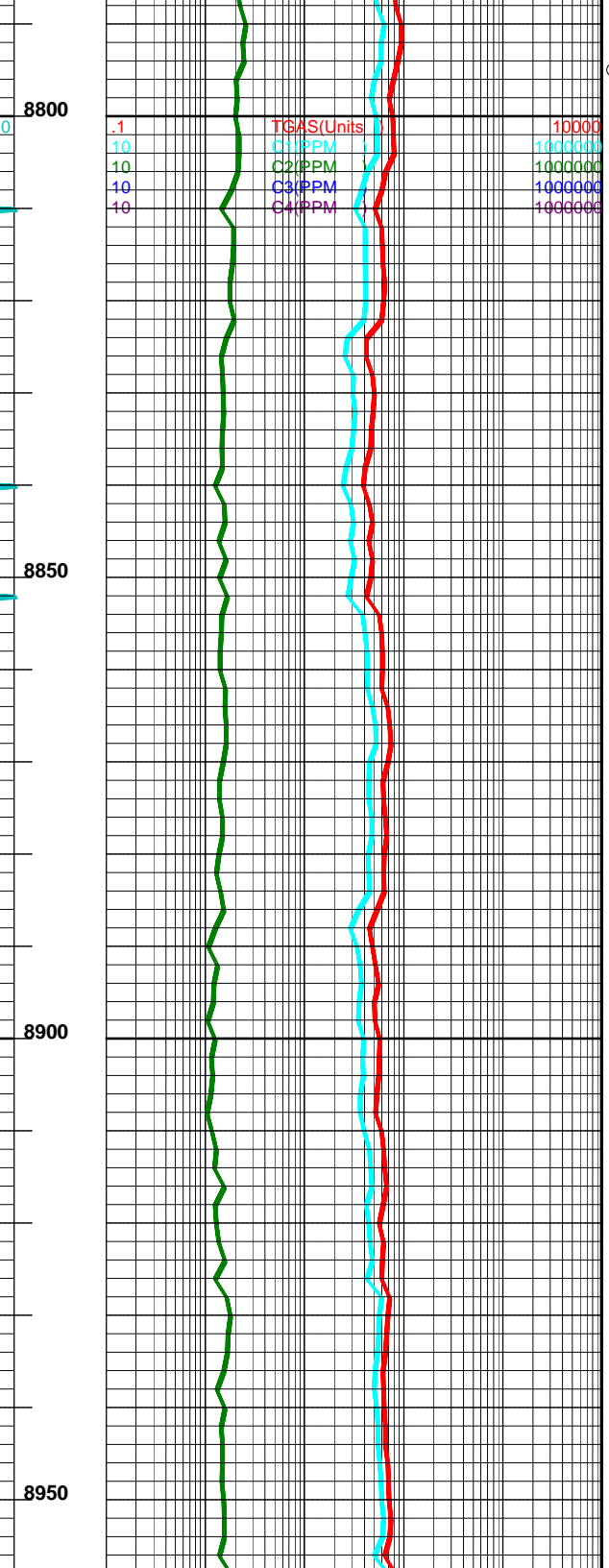
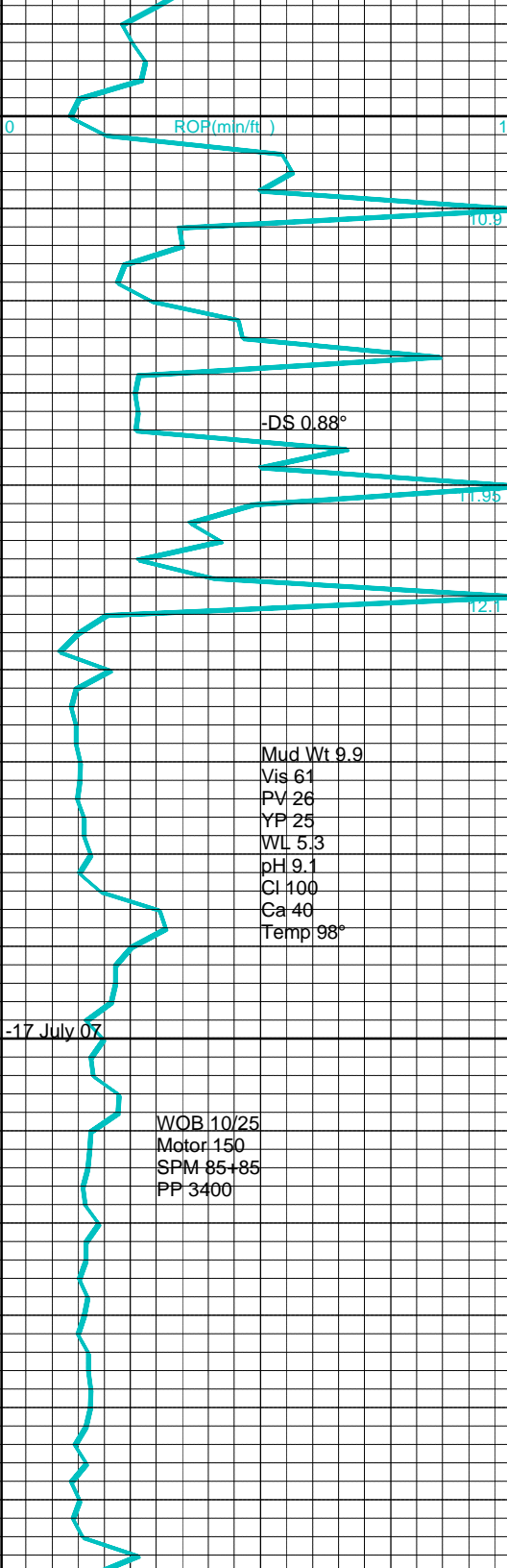
SH, dk gy-gy blk, dk gy brn, frm-sft, mas, hd-brit ip, rthy-sm tex, n calc, mnr gy brn-gy blk sdy carb SLT, p spl qual

SH, dk gy-gy blk, dk gy brn, frm-sft, mas, occ' hd-brit, rthy-sm tex, slty ip, gen carb, n calc, rr ca fl frcs, tr gy brn-chky wh mot LS, abnt clay, VPS

SH, dk gy-gy blk, dk gy brn, m gy, frm-sft, mas, abnt clay, tr hd-brit, rthy tex, slty ip, mnr sdy SLT str gen carb, n calc, rr gy brn fos' LS / shell frags

SH, dk gy, gy blk-dk gy brn, m gy, frm, occ' mod hd-brit, mas-sfis, abnt sft clay, n calc, carb ip, tr lt brn-dk gy sdy SLT, tr free wh chky ca, mnr crm tan-m gy brn fos' LS frags

a m



SLT, lt-m gy brn, sl spec, mod hd, mas, mod calc, scat carb flks + tn sh ptgs, sl arg, some intbd sd grns

SS, lt gy-lt brn, gy wh, vf gr, hd, mod w strd, sbang-sbrnd, clr-sl fros, sil, tr vf carb incl, tt, tr dk yel gn F, slow stmg yel C

LS, lt brn-crm wh, dk gy brn, mot, mic-crp xln, hd, sil ip, tr free chky ca, num fos + pels, tr tn carb bnds, scat mic-dism pyr, NF, fnt pale yel res ring C

SH, dk gy-gy blk, m gy-dk gy brn, m brn, mas-sfis, splty, frm-mod hd, hd-brit, rthy-sm tex, n-tr sl calc, tr ca fld frc to 2 mm, slty ip, carb ip, sil ip, scat dism pyr, num dk gy brn-lt brn LS nod, mnr lt brn-lt gy SS, abnt rnd v c cuttings

SH, dk gy-gy blk, dk gy brn, m-lt gy, m brn, fis-splty, mas, rthy tex, mod hd-brit, frm-hd, some sft clay, n calc, carb, tr lt brn sl calc SLT, tr dism pyr

SH, dk gy-gy blk, dk gy brn, m gy, frm-sft, mas, brit-splty ip, rthy tex, slty ip, gen carb, n calc, scat sft wh chky LS, abnt clay, p spl qual

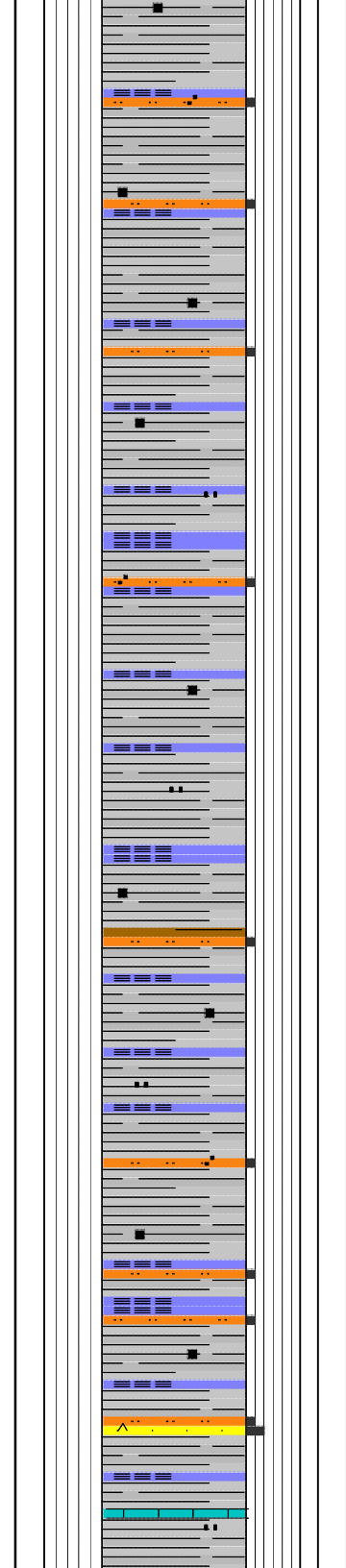
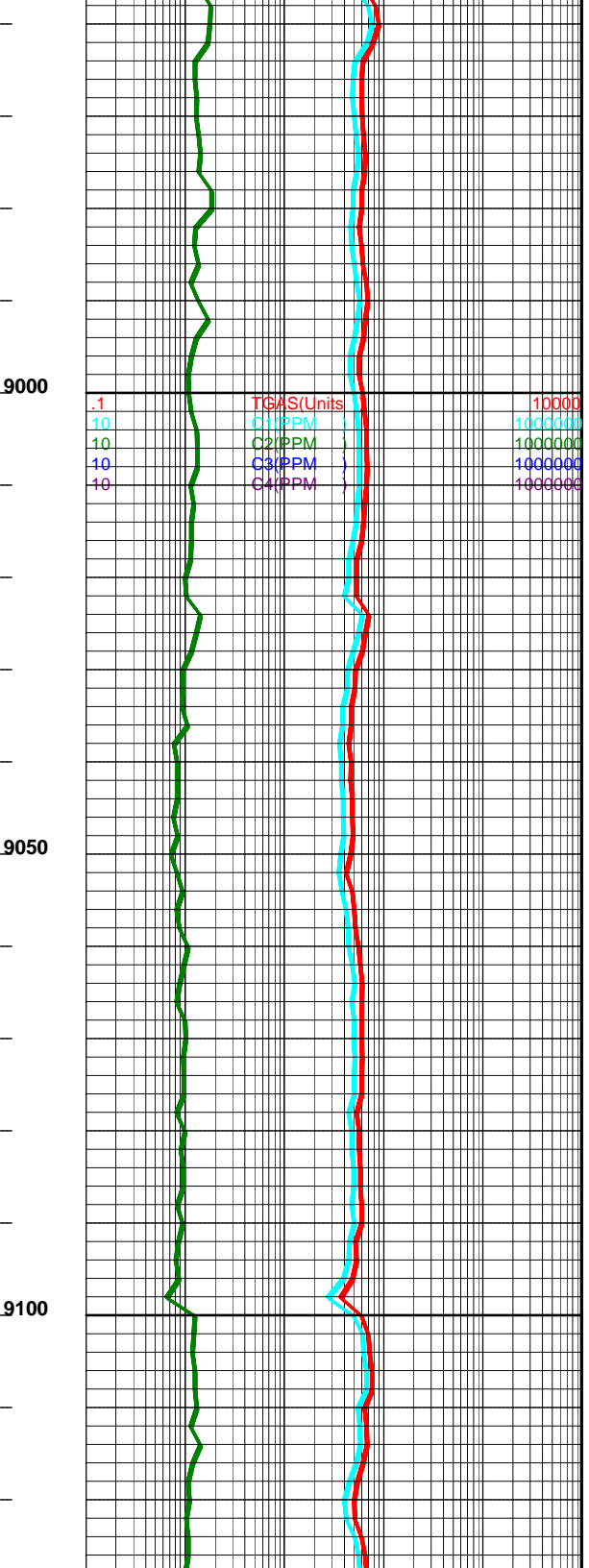
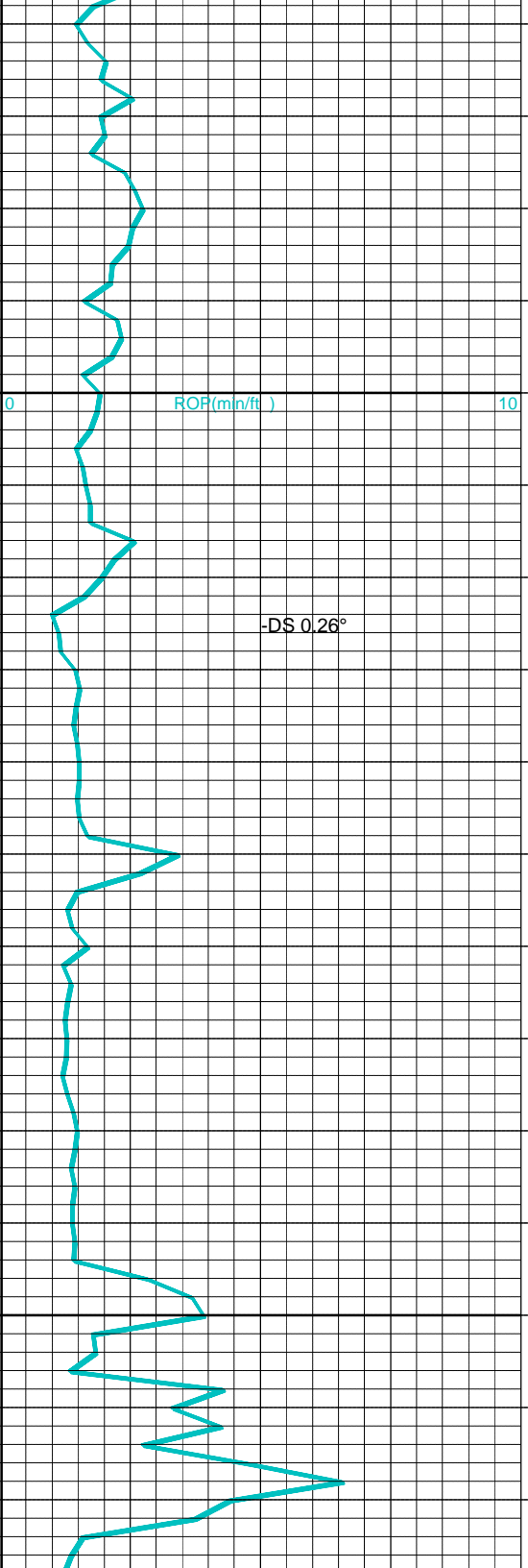
SH, dk gy-gy blk, dk gy brn-m gy, frm-sft, mas, pred' clay, rthy tex, slty ip, occ' bndd / gy brn SLT, gen carb, n calc, tr crm-wh chky LS, p spl qual

SH, dk gy-gy blk, dk gy brn, m gy, frm-sft, occ' brit, sfis-mas, rthy tex, gen carb, n calc, rr wh chky ca, abnt clay, vf drill cuttings

SH, dk gy-gy blk, dk gy brn, frm-sft, mas, brit-splty ip, rthy tex, gen carb, n calc, tr chky wh ca, abnt clay, p spl qual

Mud Wt 9.9
 Vis 61
 PV 26
 YP 25
 WL 5.3
 pH 9.1
 Cl 100
 Ca 46
 Temp 98°

WOB 10/25
 Motor 150
 SPM 85+85
 PP 3400



SH, dk gy-gy blk, dk gy brn-m gy, frm-sft, mas-sfis, rthy tex, slty ip, gen carb, n calc, rr' mot / chky wh ca, abnt clay, VPS

SH, dk gy-gy blk, dk gy brn, m gy, frm-sft, mas-sfis, rthy tex, slty ip, carb, n calc, abnt clay, vf drill cuttings

SH, dk gy-gy blk, dk gy brn, frm-sft, hd-brit ip, sfis-mas, splty, rthy-sm tex, occ' slty, gen carb, n calc, scat crm-wh chky LS, abnt clay

SH, dk gy-gy blk, dk gy brn-m gy, frm-sft, occ' hd-brit, sfis-mas, rthy tex, gen carb, n calc, rr ca fl frcs, num c splty frags to 25 mm, abnt clay

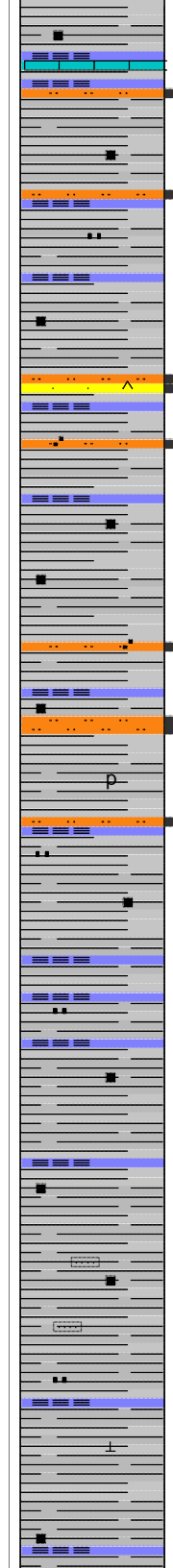
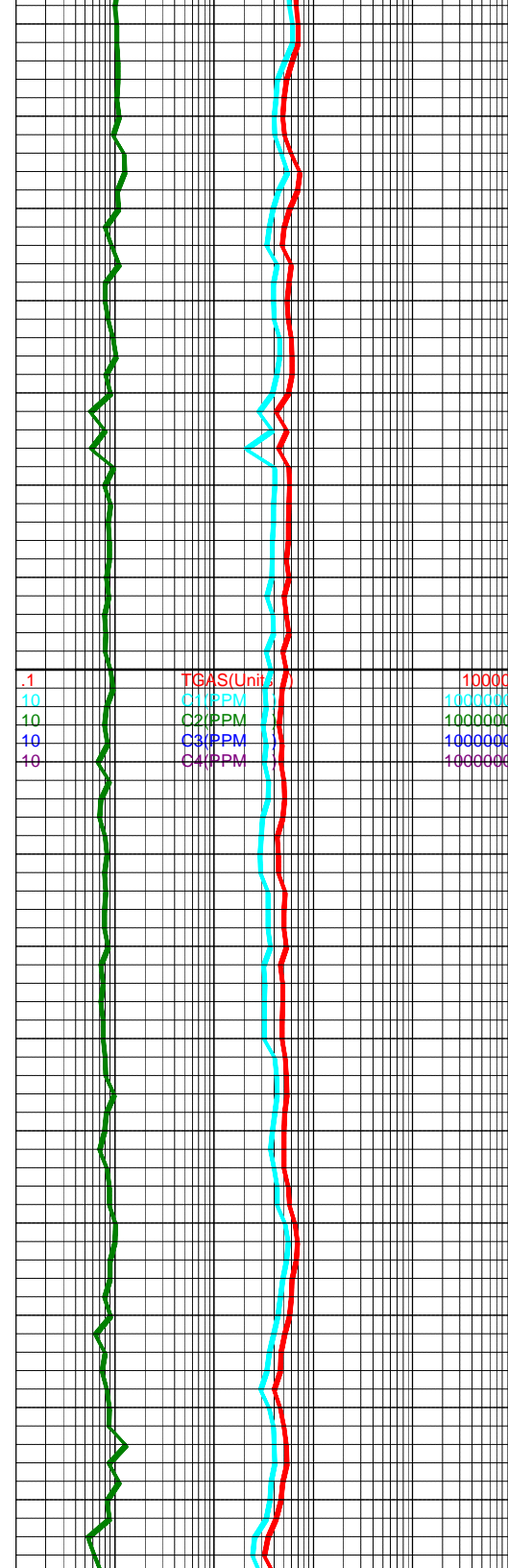
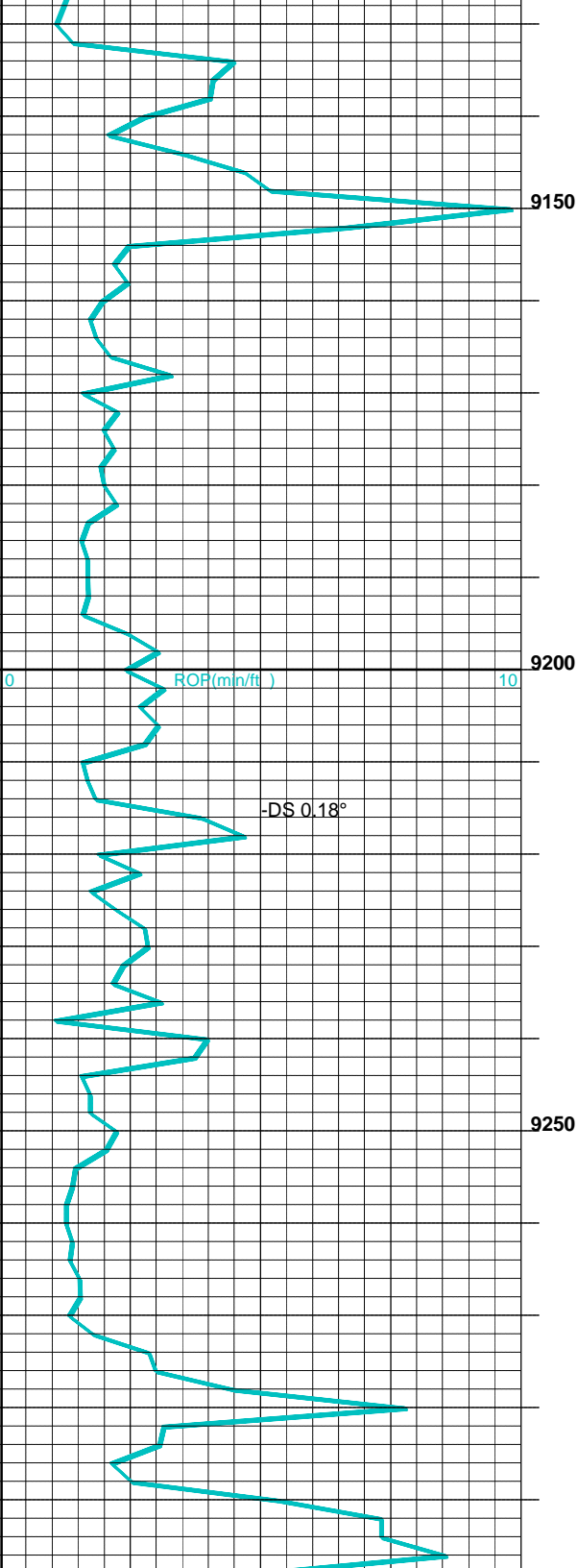
SH, dk gy-gy blk, gy brn-dk brn, m gy, frm-sft, hd-brit ip, sfis-mas, rthy tex, slty ip, carb, n calc, abnt clay, some c splty frags + rnd cvg, p spl qual

SH, dk gy-gy blk, dk gy brn, frm-sft, tr hd-brit, sfis-mas, rthy-sm tex, slty ip, n calc, tr chky wh ca, abnt clay, vf drill cuttings

SH, dk gy-gy blk, dk gy brn-m gy, frm-sft, mas, occ' brit-splty, rthy tex, slty ip, gen carb, tr chky wh ca + mot-bnnd LS frags, abnt clay

SLT, gy brn, m-dk gy, sl spec-bnnd ip, hd-frm, mas-sblky, sl-n calc, arg-sdy, grdg to vf gr SS

SH, dk gy-gy blk, frm-sft, hd-brit ip, sfis-mas, rthy tex, sm-glos' ip, occ' slty, carb, n calc, rr ca fl frcs, tr crm-gy wh chky-xln LS, abnt clay,



num c pty-spty frags to 25 mm

SH, dk gy-gy blk, dk gy brn, frm-sft, hd-brit ip, sfis-mas, rthy-sm tex, occ' glos', pos sks, n calc, gen carb, mnr SLT str, abnt clay, num spty frags + rnd cvg, p spl qual

SH, dk gy-gy blk, dk gy brn, m gy, frm-sft, hd-brit ip, sfis-mas, pty-spty, rthy-sm tex, slty ip, mnr carb SLT + vf gr SS str, n calc, some chky tan-wh LS, abnt clay

SH, dk gy-gy blk, dk gy brn, frm-sft, hd-brit ip, sfis-mas, rthy-sm tex, slty ip / mnrdy SLT, abnt clay, n calc, carb, rr pyr conc, some mot gy-crm chky LS, num rnd cvg

SLT, gy brn, m-lt gy, sl spec, hd-frm, mas, sl-n calc, arg-sdy, grdg to vf gr SS ip

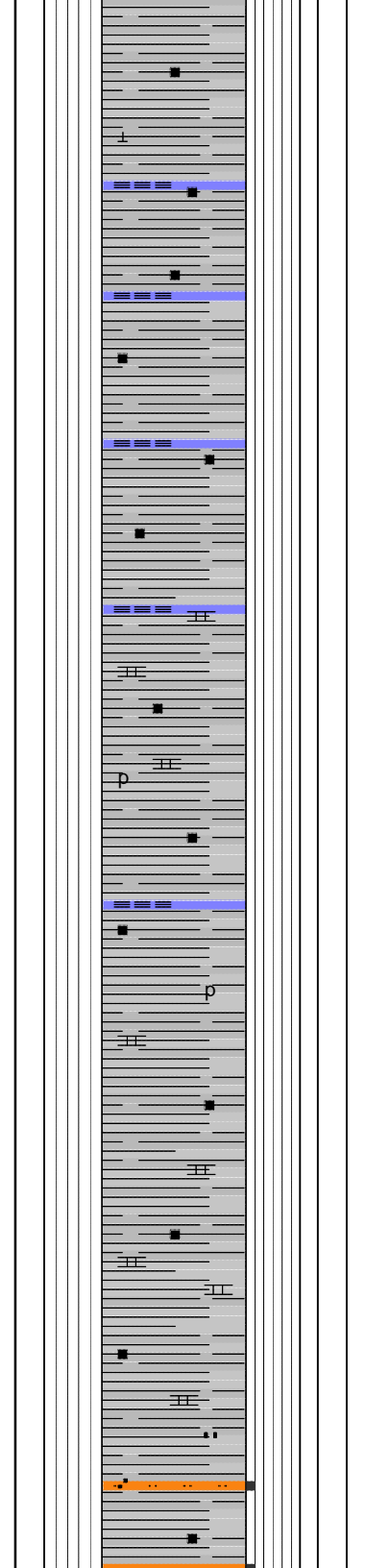
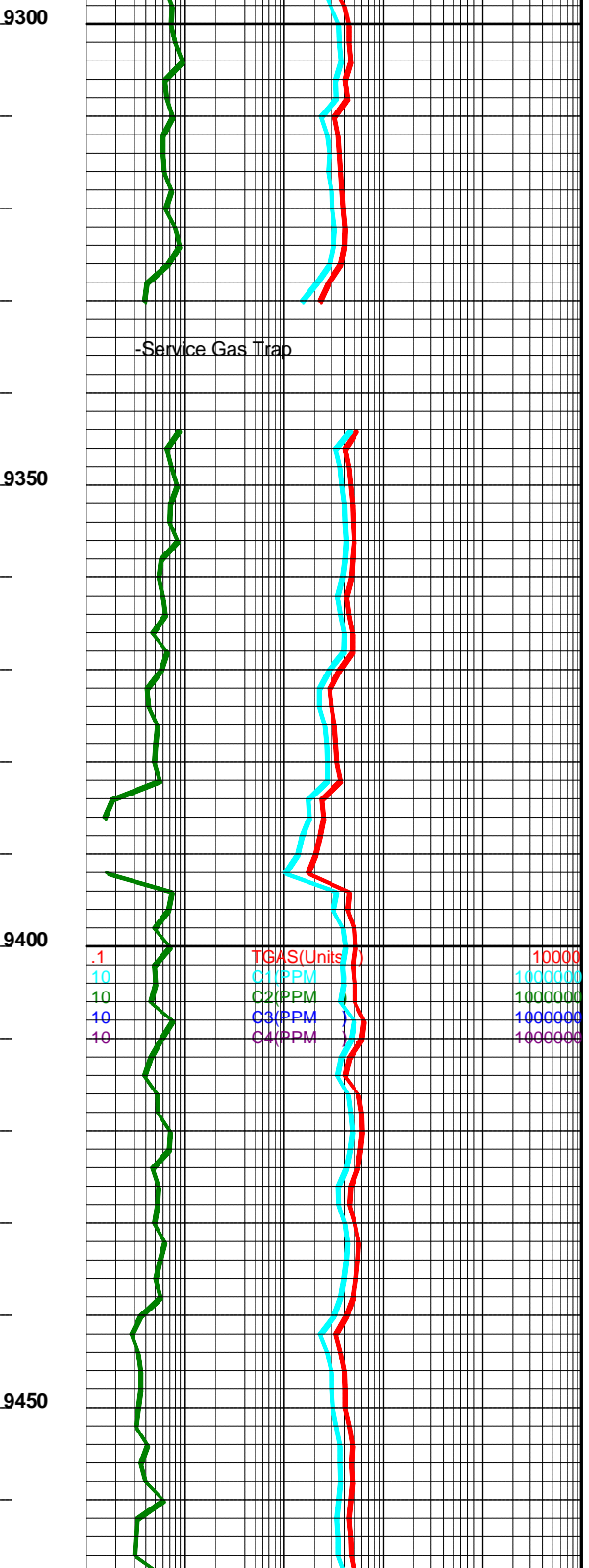
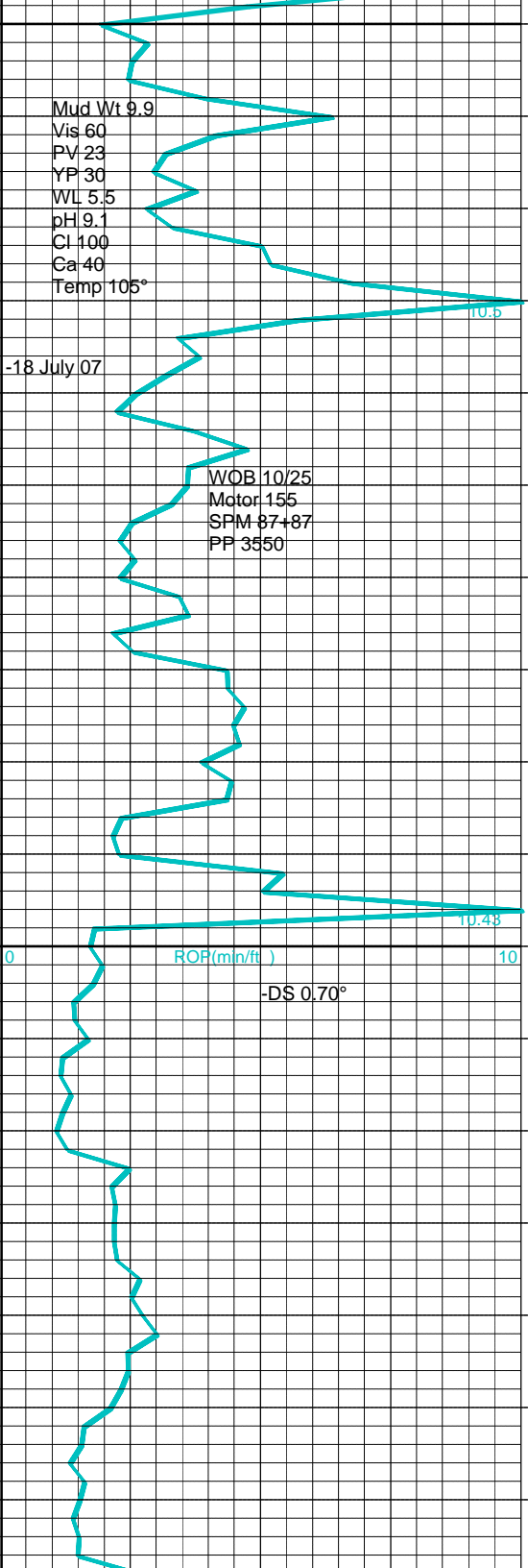
SH, dk gy-gy blk, hd-mod hd, brit, fis-sblky, pred' rthy tex, slty ip, mnrdy clay, carb, rr pyr vn', n calc, num c spty frags to 20 mm, scat w rnd SLT, SS + LS cvg

SH, dk gy-gy blk, hd-mod hd, brit ip, fis-sblky, rthy tex, sl slty ip, occ clay, n calc, mod carb, tr spty frags, scat mod rnd SLT, LS cvg

SH, dk gy-gy blk, hd-mod hd, brit ip, sblky-spty, rthy tex, sl slty ip, mnrdy clay, n calc, mod carb, tr spty frags, scat mod rnd SLT, + rr LS cvg

SH, med gy, dk gy-gy-blk, frm-mod hd, pty-sblky, tr rthy tex, slty ip, occ clay, calc ip, mod carb, scat mod rnd vf-f gr, w srt gy-gy-brn SS strng, rr SLT

SH, dk gy-gy blk, tr brn blk, mod hd-hd, pred pty, sblky ip, tr clay, calc ip, carb-v carb, sl slty



ip

SH, dk gy-gy blk, gy brn, brn blk, mod hd-hd, pred plty, sblky ip, tr splty, occ clay, calc ip, carb-v carb, sl slty ip

SH, dk gy-gy blk, hd-mod hd, brit ip, fis-sblky, plty ip, rthy tex, sl slty ip, occ clay, tr calc, mod carb, tr splty frags

SH, dk gy-blk, gy blk-brn blk, hd-frm, brit, fis-sblky, splty, sft-mas ip, mnr clay, rthy tex, sm-slky ip, occ' phyllitic, carb, n calc, tr ca mic frcs + chky-xln ca

SH, dk gy-blk, hd-frm, brit, fis-sblky, some gy brn sft-mas clay, rthy-sm tex, slky-glos' ip, carb, n calc, rr ca fl frcs + tn' bd dol' LS, num c splty frags to 25 mm

SH, dk gy-blk, hd-brit, occ' frm-sft, fis-sblky, plty-splty, rthy tex, sm-slky ip, carb, rr pyr conc, n calc, tr ca lined frcs + free chky-xln ca

SH, dk gy-blk, hd-frm, brit, fis-sblky, splty, occ' sft-mas, some clay, rthy-sm tex, slky-glos' ip, carb, n calc, tr gy-wh mot chky LS

SH, dk gy-gy blk, dk gy brn, hd-brit, tr frm-sft, fis-sblky, rthy tex, sm-glos' ip, gen carb, n calc, tr tn' bd gy-wh LS + ca, num c splty SH frags to 35 mm

SH, dk gy-blk, dk gy brn-m gy, hd-frm, brit, fis-sblky, splty, rthy-sm tex, slty ip, carb, n calc, tr ca fl frcs + mic frcs

WOB 15
 Motor 145
 SPM 82+83
 PP 3000

9500

9550

9600

-DS 1.49°

ROP(min/ft)

Mud Wt 9.9
 Vis 62
 PV 25
 YP 28
 pH 9.1
 Cl 100
 Ca 40
 Temp 106°

Bit 12 cut 1032' in 56 hrs

.1	TGAS(Units)	10000
10	C1(PPM)	1000000
10	C2(PPM)	1000000
10	C3(PPM)	1000000
10	C4(PPM)	1000000

O e

O e

SLT, dk gy-gy brn, m gy, gy blk-brn, sl spec-bnnd ip, hd-frm, mas, gen n calc, arg-sdy, grdg to vf gr SS, rr pyr conc, scat carb incl / bri yel slw stmg C

SH, dk gy-blk, gy brn-m gy, frm-hd, brit, occ' sft, fis-sblky, splty, pred' rthy tex, slty / mnr SLT str, gen carb, n calc, tr ca + dol fl frcs, num rnd cvg

SH, dk gy-blk, dk gy brn, m gy, frm-hd, brit, fis-sblky, splty, occ' sft-mas, rthy-sm tex, slty ip, carb, n calc, tr chky wh ca + frc fl

SH, dk gy-blk, hd-frm, brit, occ' sft, fis-sblky, splty, rthy-sm tex, slky-glos' ip, gen carb, n calc, tr chky ca, mnr gy brn sdy SLT

SH, dk gy-blk, dk gy brn-m gy, hd-brit, some frm-sft, fis-sblky, rthy-occ' glos' tex, slty ip, carb, n calc, num c splty frags to 30 mm

SH, dk gy-blk, dk gy brn, hd-frm, brit, fis-sblky, plty-splty, some sft-mas clay, rthy-sm tex, slty ip, n calc, gen carb, tr crm-gy mot chky LS

SLT, gy brn-gy blk, m-dk gy, spec-bnnd ip, hd-frm, mas-sblky, arg-sdy, some vf sd grns thru, gen n calc, scat carb incl / spty yel C

SH, dk gy brn-blk, gy blk, m-dk gy, hd-frm, brit-splty ip, fis-sblky, rthy-sm tex, carb, n calc, some chky-xln ca, tn' bd SLT str

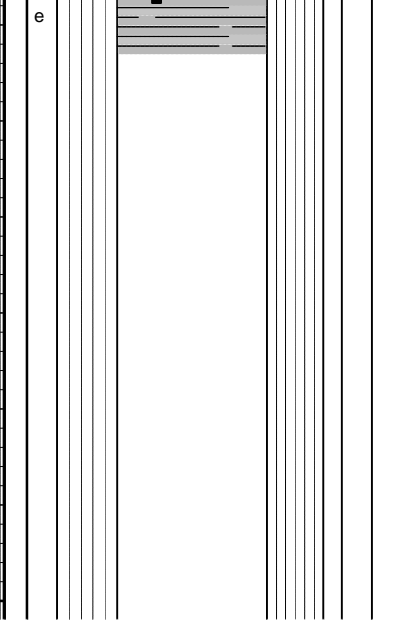
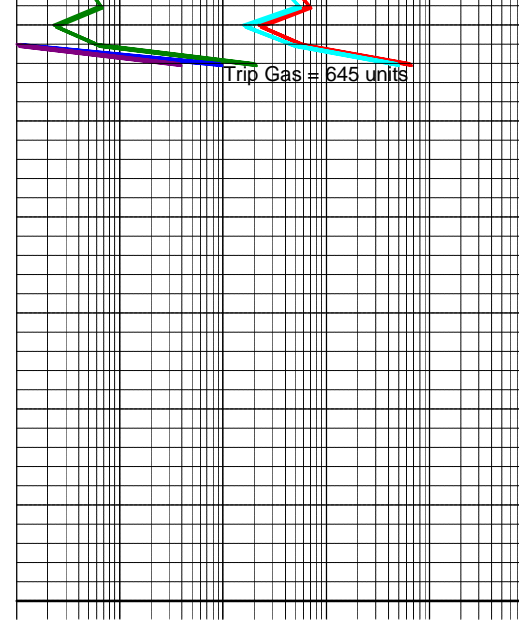
SH, dk gy-blk, dk gy brn, hd-mod hd, brit, fis-sblky, rthy tex, slty ip, occ' bnnd / SLT, gen carb, n calc, num c splty frags + rnd cvg

SH, dk gy-blk, dk gy brn, hd-mod hd, brit, fis-sblky, rthy tex, slty ip, tr bnnd / SLT, n calc,

Shut in 12 out 1002 in 30 hrs
-19 to 31 July 07 - Trip for Motor Failure at 9643'
Stuck on TOOH at 9173' -
String parted at HWDP -
Top of 489' Fish at 8677'
Unable to recover Fish
Attempt Tubing-Conveyed Dipmeter Log -
Unable to get tools beyond 5153'
Ream and Condition Hole to 7505' -
Plug and Abandon Well on 31 July 07

9650

9700



gen v carb / imed wh stmg C + int res ring
Thank you for using NorAm Wellsite Services