

Form	ACO1 - Well Completion
Operator	Merit Energy Company, LLC
Well Name	BIRNEY 34-1
Doc ID	1721920

All Electric Logs Run

ARRAY COMPENSATED TRUE RESISTIVITY LOG
BOREHOLE COMPENSATED SONIC ARRAY LOG
BOREHOLE VOLUME CALIPER PLOT (5.5 CASING)
INSITE DIRECTIONAL SURVEY
MICROLOG
QUAD
SPECTRAL DENSITY DUAL SPACED NEUTRON LOG

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Tops

Name	Top	Datum
STONE CORRAL	1795	.
CHASE	2635	.
WABAUNSEE	3320	.
TOPEKA	3670	.
HEEBNER	4088	.
TORONTO	4112	.
LANSING	4149	.
IOLA	4350	.
SWOPE	4633	.
HERTHA	4672	.
MARMATON	4772	.
PAWNEE	4886	.
FORT SCOTT	4923	.
CHEROKEE	4942	.
ST GENEVIEVE	5391	.
ST LOUIS	5470	.

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Casing

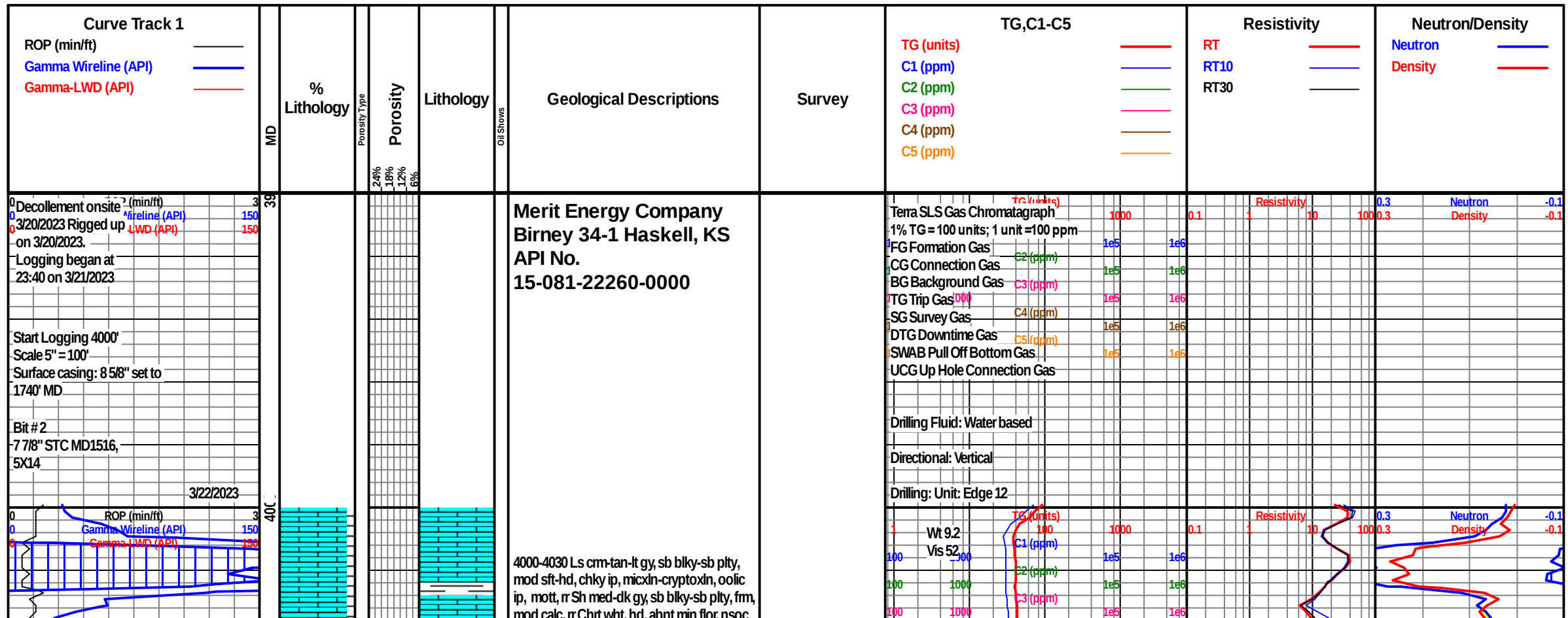
Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	1741	A	690	see attached

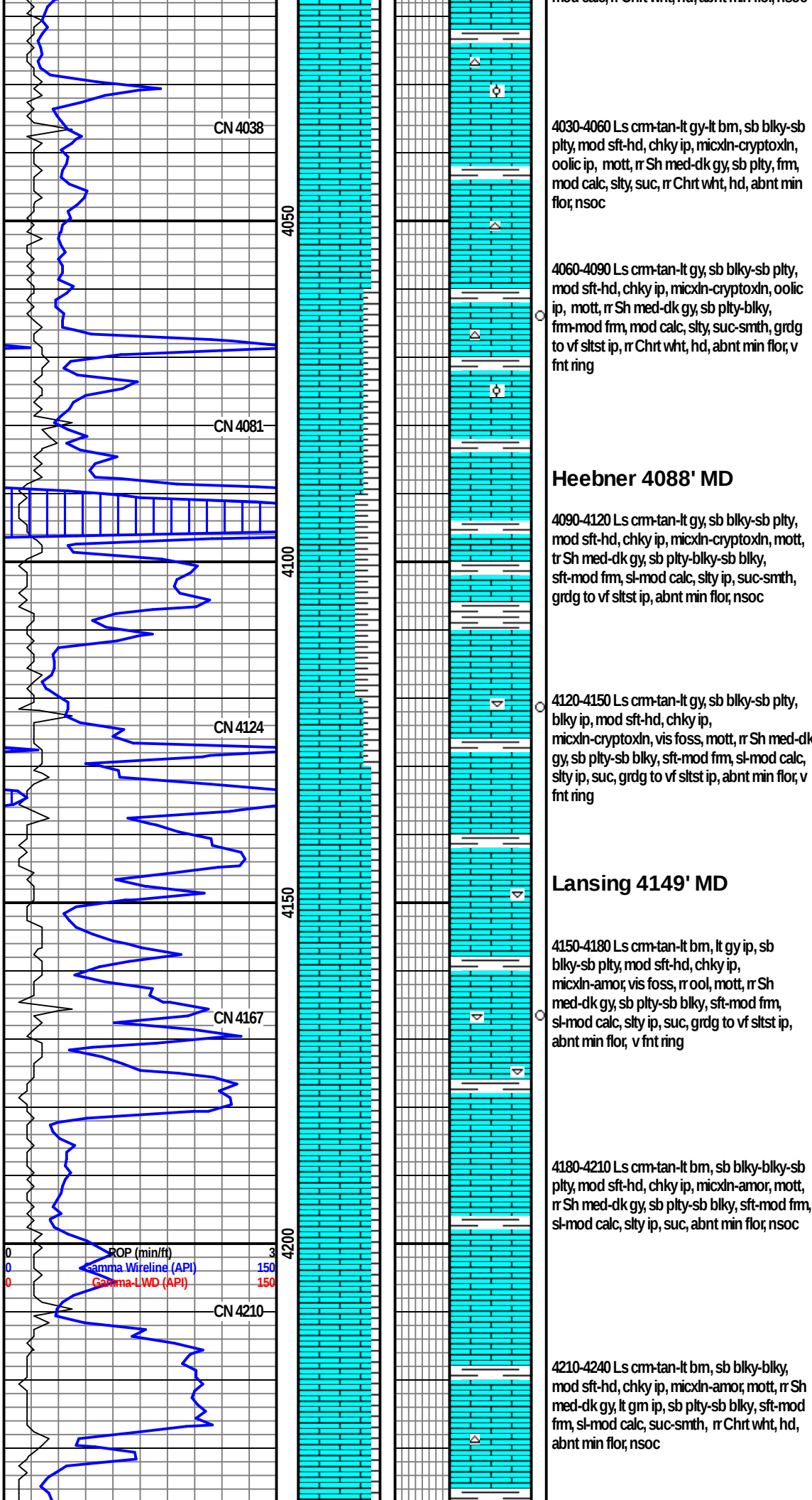
Well Name:	Birney 34-1		
API:	15-081-22260-0000		
Location:	1564' FEL 1886' FNL, Sec 34, T249S, R33W, Haskell County, KS		
License Number:		Region:	Wildcat
Spud Date:	3/19/2023	Drilling Completed:	3/22/2023
Surface Coordinates:	Lat: 37.481352° Long: -100.923926°		
Bottom Hole Coordinates:			
Ground Elevation (ft):	2950	K.B. Elevation (ft):	2962
Logged Interval (ft):	4000	To: 5501	Total Depth (ft): 5501
Formation:	Lansing, Herta Limestone, Altamont Limestone and Novinger Limestone		
Type of Drilling Fluid:	Water Based Mud		

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

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

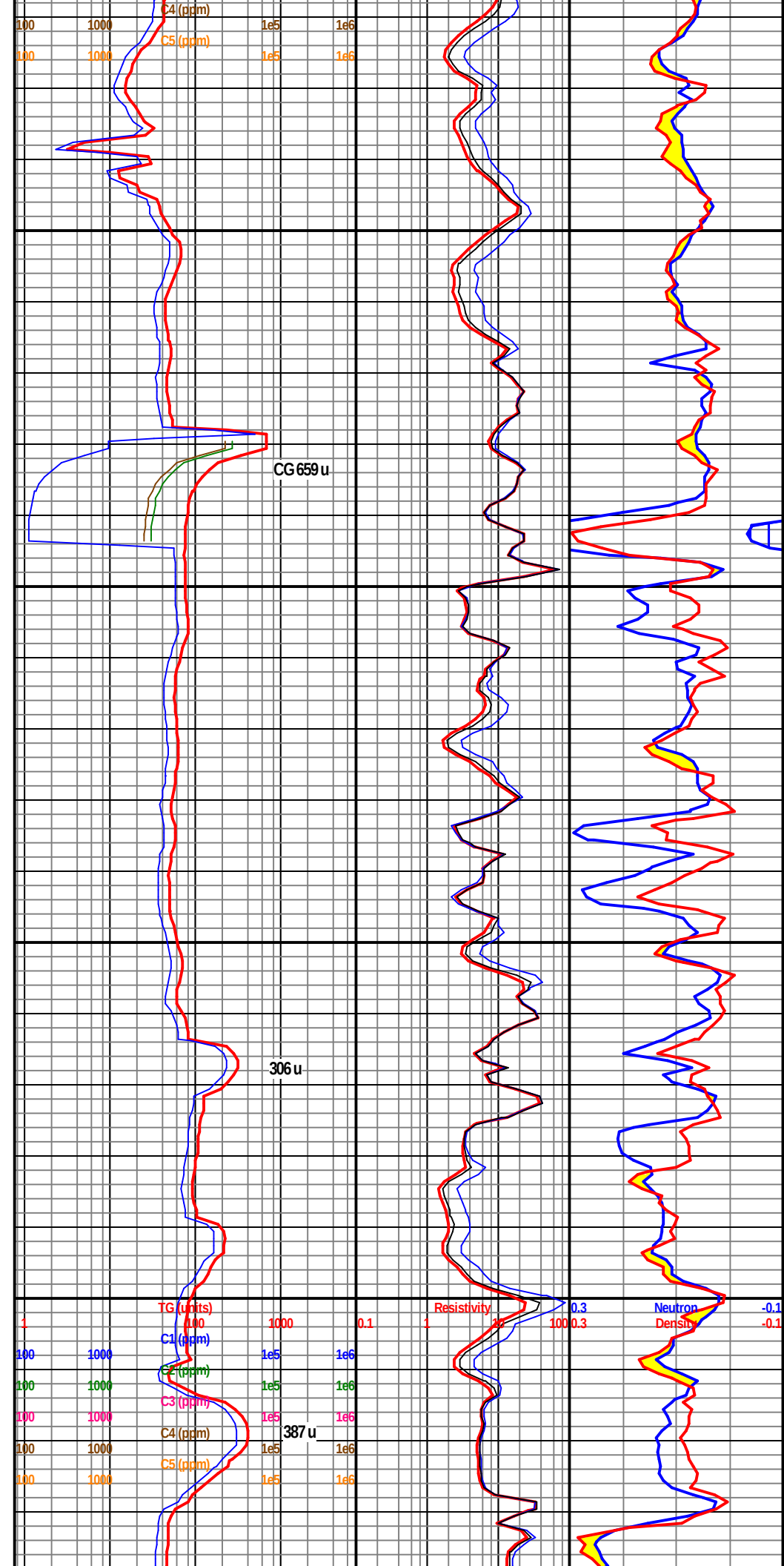
OTHER SYMBOLS			
POROSITY	SORTING	Angular	INTERVAL
Earthy	Well	OIL SHOW	Core
Fenest	Moderate	Even	Dst
Fracture	Poor	Spotted	EVENT
Inter	ROUNDING	Ques	Rft
Moldic	Rounded	Dead	Sidewall
Organic	Subrnd		New symbol
Pinpoint	Subang		
Vuggy			

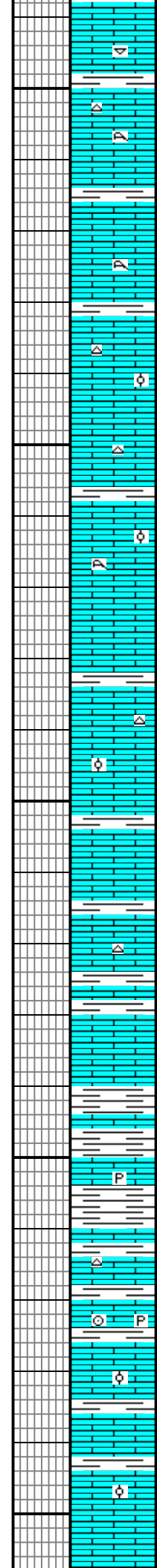
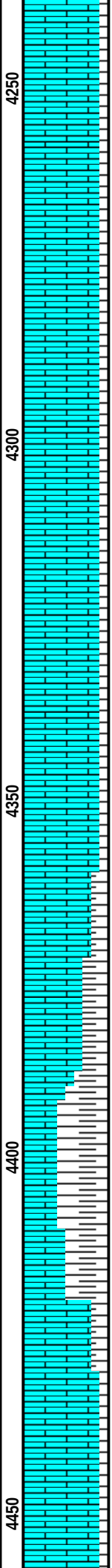
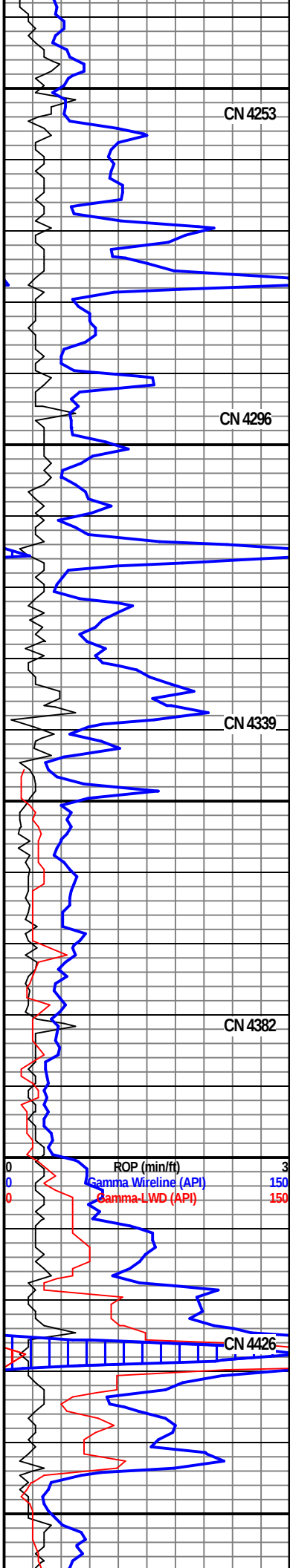




MD 4053 TVD 4052.94
AZ 43.37 SS -1090.94

MD 4183 TVD 4182.94
AZ 32.03 SS -1220.94





4240-4270 Ls cm-tan-lt bm, lt gy ip, sb blkly-bkly, mod sft-hd, chky ip, micxn-amor, mott, rr foss frag, rr Sh med-dk gy, lt gm ip, sb plty-sb blkly, sft-mod fm, sl-mod calc, suc-smth, rr Chrt wht-lt gy, hd, abnt min flor, v fnt ring

4270-4300 Ls cm-tan-lt bm, sb blkly-bkly, mod sft-hd, chky ip, micxn, amor ip, mott, rr ool, rr foss frag, rr Sh med-dk gy, gm ip, sb plty-sb blkly, sft-mod fm, sl-mod calc, suc, rr Chrt wht-lt gy, hd, abnt min flor, nsoc

4300-4330 Ls cm-tan-lt gy, sb blkly-bkly, mod sft-hd, chky ip, micxn-amor, mott, rr ool, rr foss frag, rr Sh med-dk gy, gm ip, sb plty-sb blkly, sft-mod fm, sl-mod calc, suc, grdg to vf sltst ip, rr Chrt wht, hd, abnt min flor, nsoc

4330-4360 Ls cm-tan-lt gy, sb blkly-bkly, mod sft-hd, micxn-amor, mott, rr ool, rr Sh med-dk gy, sb plty-sb blkly, sft-mod fm, sl-mod calc, suc, grdg to vf sltst ip, rr Chrt wht, hd, abnt min flor, nsoc

Iola 4350' MD

4360-4390 Ls tan-lt gy, sb blkly-bkly, mod sft-hd, micxn-amor, mott, occ Sh lt-dk gy, sb plty-sb blkly, sft-mod fm, sl-v calc, suc, grdg to vf sltst ip, rr Chrt wht, hd, abnt min flor, nsoc

4390-4410 Sh dk gy-blk, gy ip, plty-bkly, sb blkly ip, fm-mod fm, sl calc, suc, grdg to vf sltst ip, occ Ls tan-lt gy, sb blkly-bkly, mod sft-hd, micxn-amor, mott, rr pyr, abnt min flor, sl mlky cut

4410-4420 Sh lt-dk gy-blk, sl-mod calc, a/a, abnt Ls a/a, rr Chrt wht, hd abnt min flor, nsoc

4420-4430 Ls cm-tan-lt gy, rr ool, a/a, tr Sh a/a, rr Chrt a/a, rr pyr, abnt min flor, nsoc

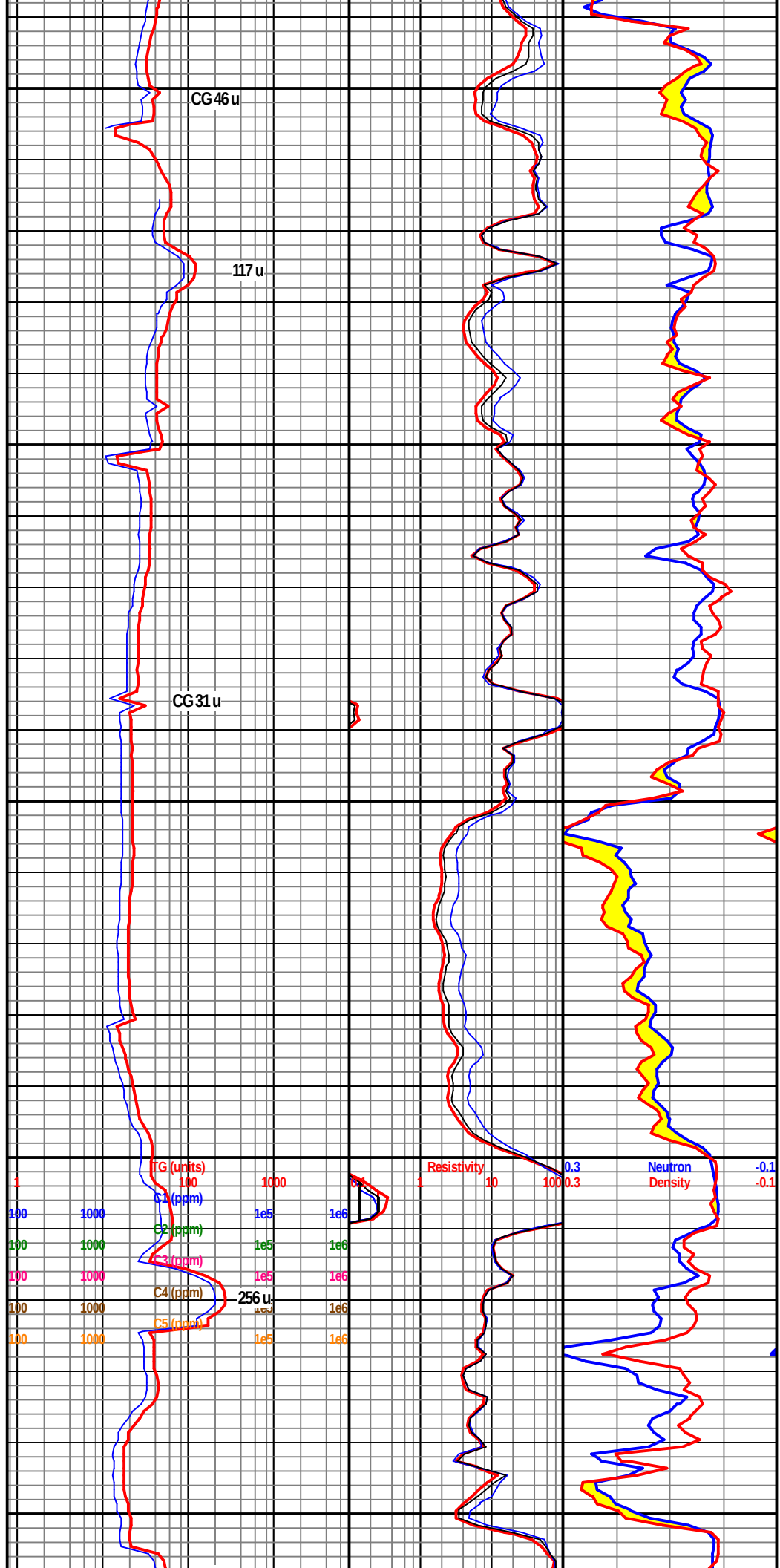
4430-4440 Ls cm-tan-lt gy, rr ool, a/a, rr Sh a/a, rr Chrt a/a, rr pyr, abnt min flor, nsoc

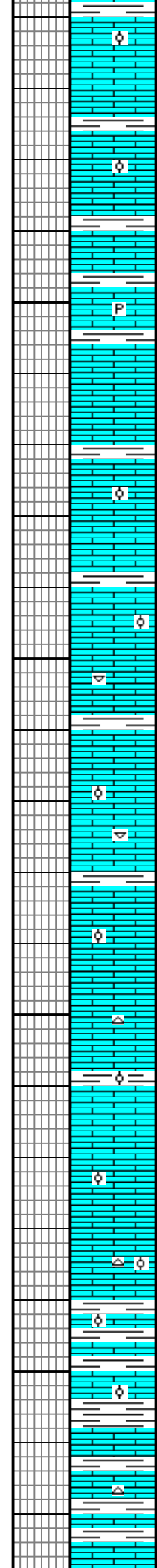
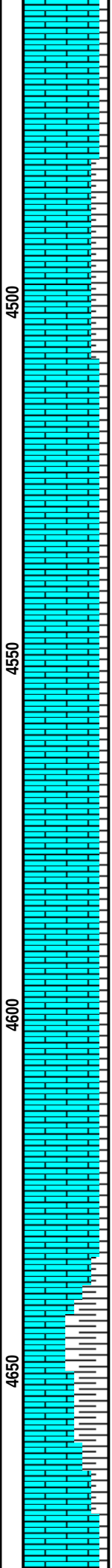
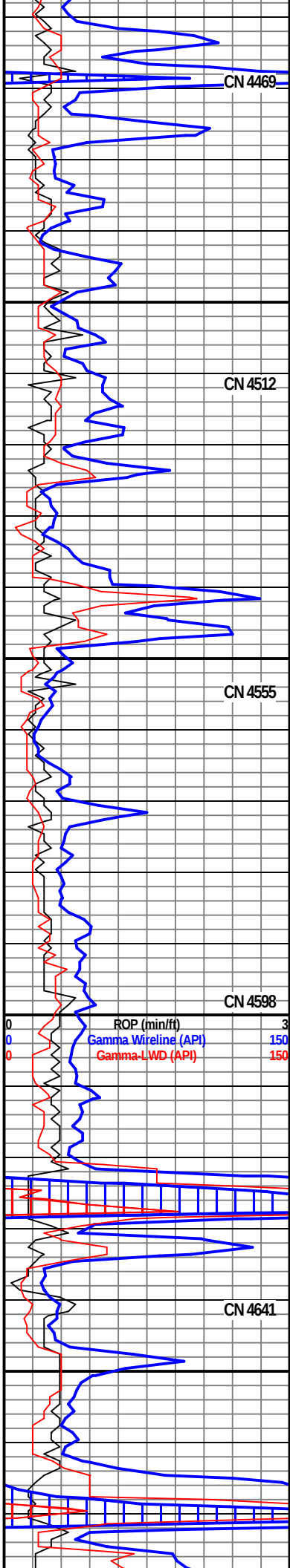
Drum 4444' MD

4440-4450 Ls cm-tan-lt gy, cryptoxln, a/a, rr Sh a/a, rr Chrt a/a, abnt min flor, nsoc

MD 4312 TVD 4311.94
AZ 16.83 SS -1349.94

MD 4441 TVD 4440.93
AZ 0.57 SS -1478.93





Drum Base 4463' MD

4450-4480 Ls cm-tan-lt gy, sb blkly-bkly-sb plty, mod sft-hd, micxn-cryptoxln, amor ip, mott, oolic, rr Sh lt-dk gy, sb plty-sb blkly, sft-mod frm, sl-mod calc, suc, grdg to vf sltst ip, abnt min flr, nsoc

4480-4510 Ls cm-tan-lt gy, lt bm ip, sb blkly-bkly-sb plty, mod sft-hd, micxn-cryptoxln, mott, oolic, tr Sh lt-dk gy, sb plty-sb blkly, sft-mod frm, sl-mod calc, suc, grdg to vf sltst ip, rr pyr, abnt min flr, nsoc

4510-4540 Ls cm-tan-lt gy, lt bm ip, sb blkly-bkly-sb plty, v sft-hd, micxn-cryptoxln, mott, oolic, rr Sh lt-dk gy, sb plty-sb blkly, sft-mod frm, sl-mod calc, suc, grdg to vf sltst ip, rr Chrt wht, blkly, hd, non calc, abnt min flr, nsoc

4540-4570 Ls cm-tan-lt gy, sb blkly-bkly-sb plty, v sft-hd, micxn-cryptoxln, mott, oolic ip, vis foss frag, rr Sh lt-dk gy, sb plty-sb blkly, sft-mod frm, sl-mod calc, suc, grdg to vf sltst ip, rr Chrt wht, blkly, hd, non calc, abnt min flr, nsoc

4570-4600 Ls cm-lt bm-lt gy, sb blkly-bkly-sb plty, mod sft-hd, micxn-cryptoxln, no vis por, mott, oolic, vis foss frag, rr Sh lt-dk gy, sb plty-sb blkly, sft-mod frm, sl-mod calc, suc, grdg to vf sltst ip, rr Chrt wht, blkly, hd, non calc, abnt min flr, nsoc

4600-4630 Ls cm-lt bm-lt gy, sb blkly-bkly-sb plty, mod sft-hd, micxn-cryptoxln-amor, no vis por, mott, oolic, rr Sh lt-dk gy-blk, sb plty-sb blkly, sft-mod frm, sl-mod calc, suc, grdg to vf sltst ip, rr Chrt wht-tmsl, blkly, hd, non calc, abnt min flr, nsoc

Swope 4633' MD

4630-4640 Ls sb plty-sb blkly, a/a, rr Sh med gy-dk gy, a/a, rr Chrt a/a, abnt min flr, nsoc

4640-4650 Ls sb plty-sb blkly, a/a, abnt Sh a/a, slty, grdg to sltst, rr Chrt a/a, abnt min flr, v frnt ring

4650-4660 Ls sb plty-sb blkly, a/a, abnt Sh a/a, slty, grdg to sltst, rr Chrt a/a, abnt min flr, nsoc

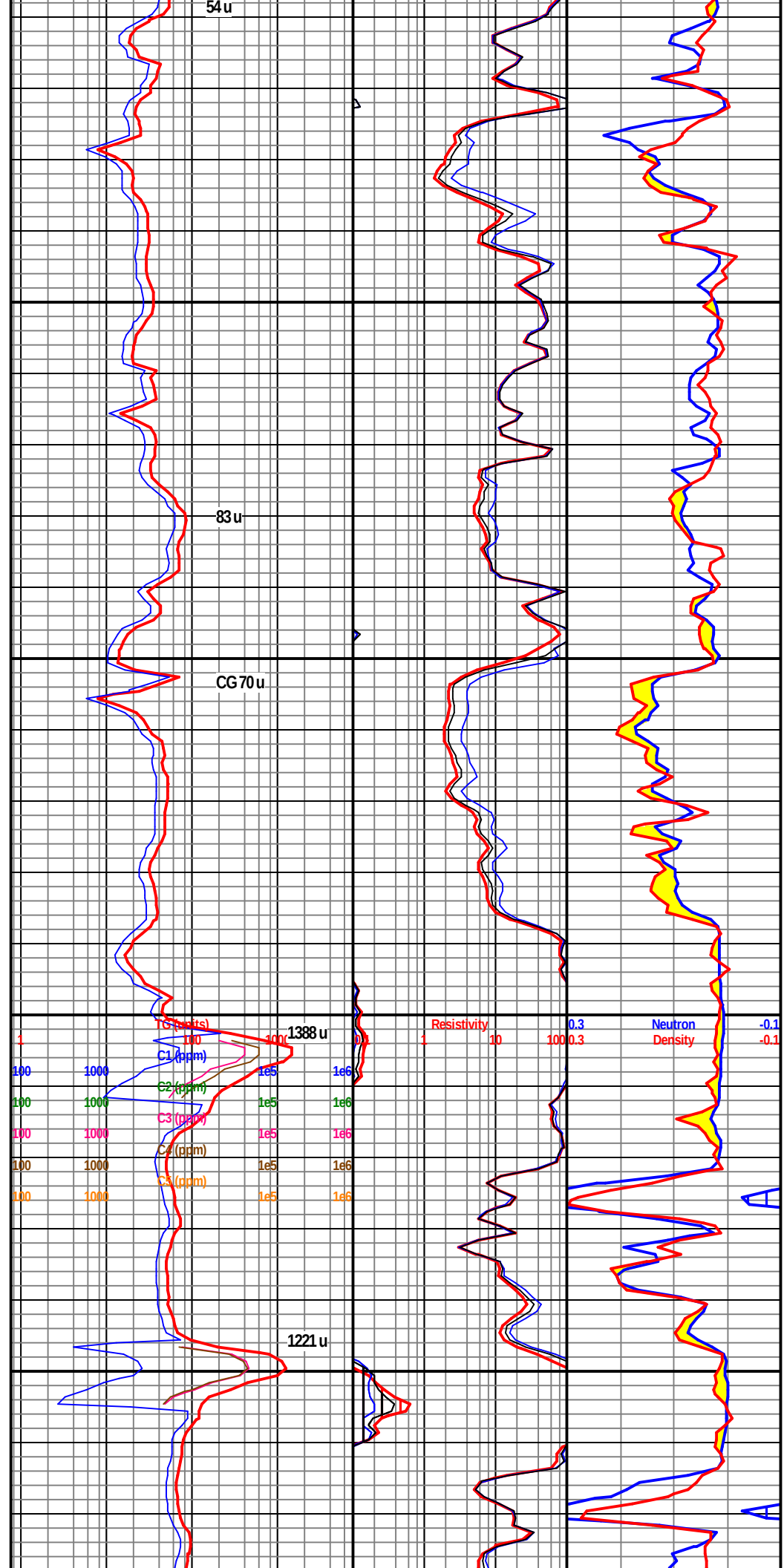
4660-4670 Ls sb plty-sb blkly, a/a, occ Sh a/a, slty-suc, rr Chrt a/a, abnt min flr, nsoc

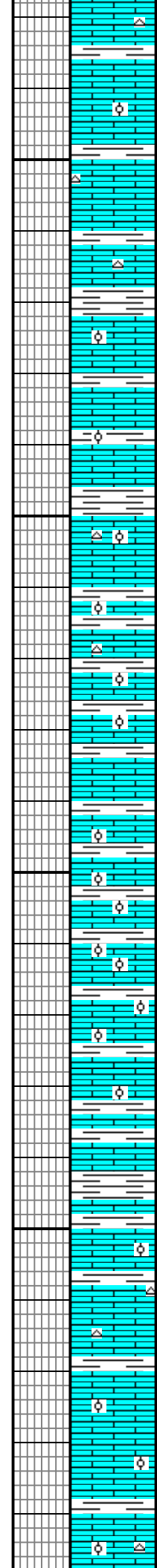
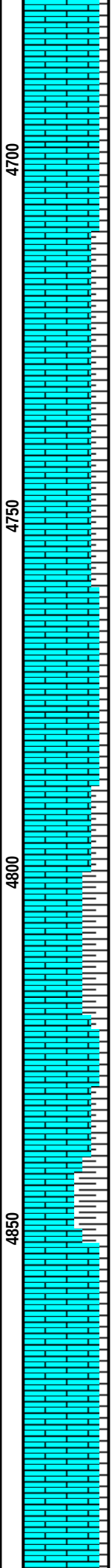
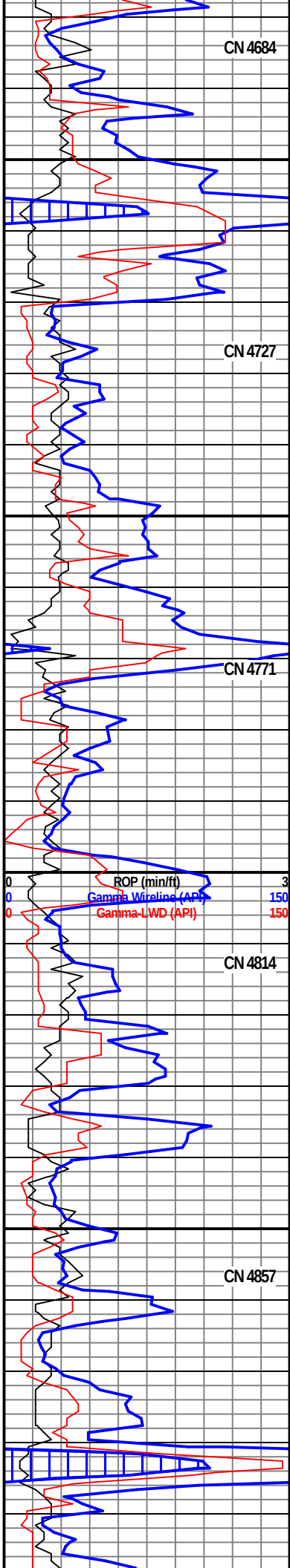
Hush Shale 4665' MD

Hertha LS 4672' MD

4670-4680 Ls cm-tan, lt gy ip, a/a, tr Sh a/a, slty, suc, rr Chrt a/a, abnt min flr, nsoc

MD 4571 TVD 4570.93
AZ 342.11 SS -1608.93





4680-4710 Ls cm-lt bm-lt gy, sb plty-sb
blky-blky, mod sft-hd, micxn-cryptoxln, no
vis por, mott, oolic ip, rr Sh lt-dk gy, sb plty-sb
blky, sft-mod fm, sl-mod calc, suc, grdg to vf
slst ip, rr Chrt wht-tmsl, blky, hd, non calc,
abnt min flor, nsoc

4710-4740 Ls cm-lt bm-lt gy, sb plty-sb
blky-blky, mod sft-hd, micxn-cryptoxln, no
vis por, mott, oolic grdg to carb sh ip, tr Sh
lt-dk gy-blk, sb plty-sb blky, sft-mod fm,
sl-mod calc, suc, grdg to vf slst ip, rr Chrt
wht-tmsl, blky, hd, non calc, abnt min flor,
nsoc

4740-4760 Ls cm-lt bm-lt gy, sb plty-sb
blky-blky, mod sft-hd, micxn-cryptoxln,
oolic, no vis por, mott, tr Sh ala rr Chrt
wht-tmsl, blky, hd, non calc, abnt min flor,
mod mlky cut

4760-4770 Ls ala, tr Sh lt-med gy, gm ip, ala, rr
Chrt ala, abnt min flor, nsoc

4770-4780 Ls vis foss, ala, rr Sh lt-med gy, ala,
rr Chrt ala, abnt min flor, v fnt ring

Marmaton 4772' MD
4780-4790 Ls tan, dk lam ip, ala, rr Sh lt-med
gy, ala, abnt min flor, sl mlky cut

4790-4800 Ls off wht-lt gy-tan, cm ip, ala, tr
Sh med gy-blk, ala, abnt min flor, v fnt cut

Alamont 4798' MD
4800-4810 Ls off wht-lt gy-lt bm, abnt ool, ala,
tr Sh med gy-blk, ala, abnt min flor, nsoc

4810-4820 Ls bm-lt bm-tan, abnt ool, ala, occ
Sh med gy-blk, lt gy ip, ala, abnt min flor,
nsoc

4820-4830 Ls cm-tan-lt bm, tr ool, ala, rr Sh
med gy-blk, lt gy ip, ala, abnt min flor, fst mlky
cut

4830-4840 Ls cm-tan-lt bm, rr ool, ala, tr Sh
med gy-blk, lt gy ip, ala, abnt min flor,

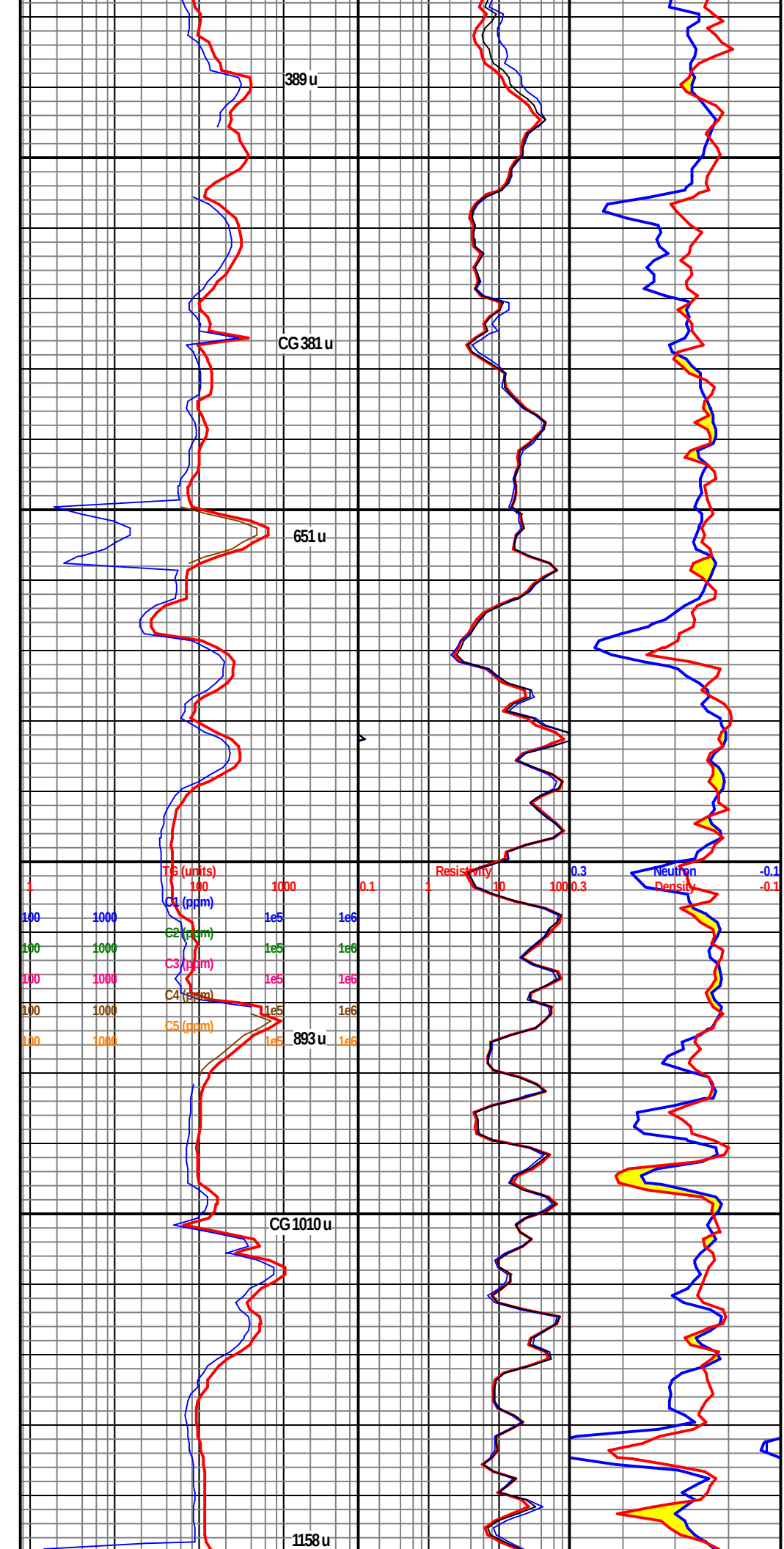
Novinger 4839' MD
4840-4850 Ls cm-tan-lt bm, rr ool, ala, abnt
Sh med gy-blk, ala, abnt min flor, nsoc

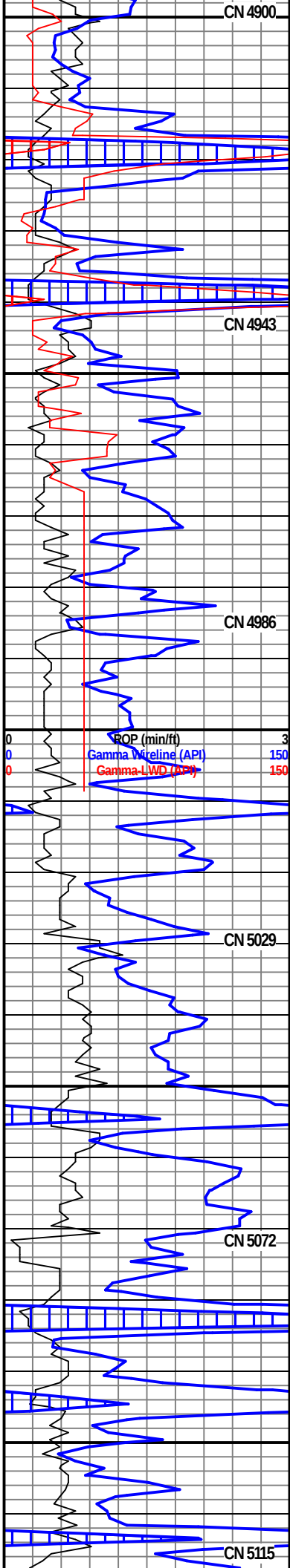
4850-4880 Ls cm-lt gy-lt bm, sb plty-sb
blky-blky, mod sft-hd, micxn, no vis por,
mott, oolic ip, rr Sh lt-dk gy-blk, plty-sb blky,
sft-mod fm, sl-mod calc, suc, grdg to vf slst
ip, rr Chrt wht-tmsl, blky, hd, non calc, abnt
min flor, v sl cut

Pawnee 4886' MD
4880-4910 Ls cm-lt gy-lt bm, sb plty-sb
blky-blky, mod sft-hd, micxn, no vis por,
mott, occ ool, rr Sh lt-dk gy-blk, plty-sb blky,
sft-mod fm, sl-mod calc, suc, grdg to vf slst
ip, rr Chrt wht-tmsl, blky, hd, non calc, abnt

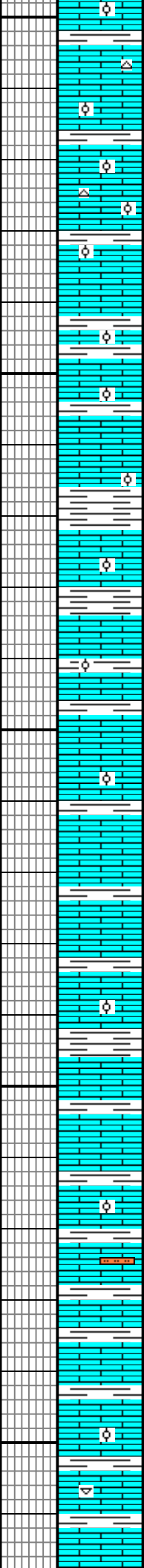
MD 4700 TVD 4699.92
AZ 336.05 SS -1737.92

MD 4829 TVD 4828.92
AZ 33.44 SS -1866.92





4900
4950
5000
5050
5100



min flor, v sl cut

Ft Scott 4923' MD
4910-4940 Ls crm-lt gy-lt bm, sb plty-sb blkly, mod sft-hd, micxn, amor ip, no vis por, mott, occ ool, tr Sh lt-dk gy-blk, plty-sb blkly, sft-mod frm, sl-mod calc, suc, grdg to vf sltst ip, r Chrt wht-tmsl, blkly, hd, non calc, abnt min flor, v sl cut

Cherokee 4942' MD
4940-4970 Ls tan-lt gy-lt bm, sb plty-sb blkly, mod sft-hd, micxn-amor, no vis por, mott, occ ool, tr Sh med gy-blk, plty-sb blkly, sft-mod frm, sl-mod calc, suc, grdg to vf sltst ip, abnt min flor, v sl cut

4970-5000 Ls crm-tan-lt gy-lt bm, sb plty-sb blkly, mod sft-hd, micxn-amor, no vis por, mott, occ ool, tr Sh med gy-blk, plty-sb blkly, sft-mod frm, sl-mod calc, suc, grdg to vf sltst, abnt min flor, nsoc

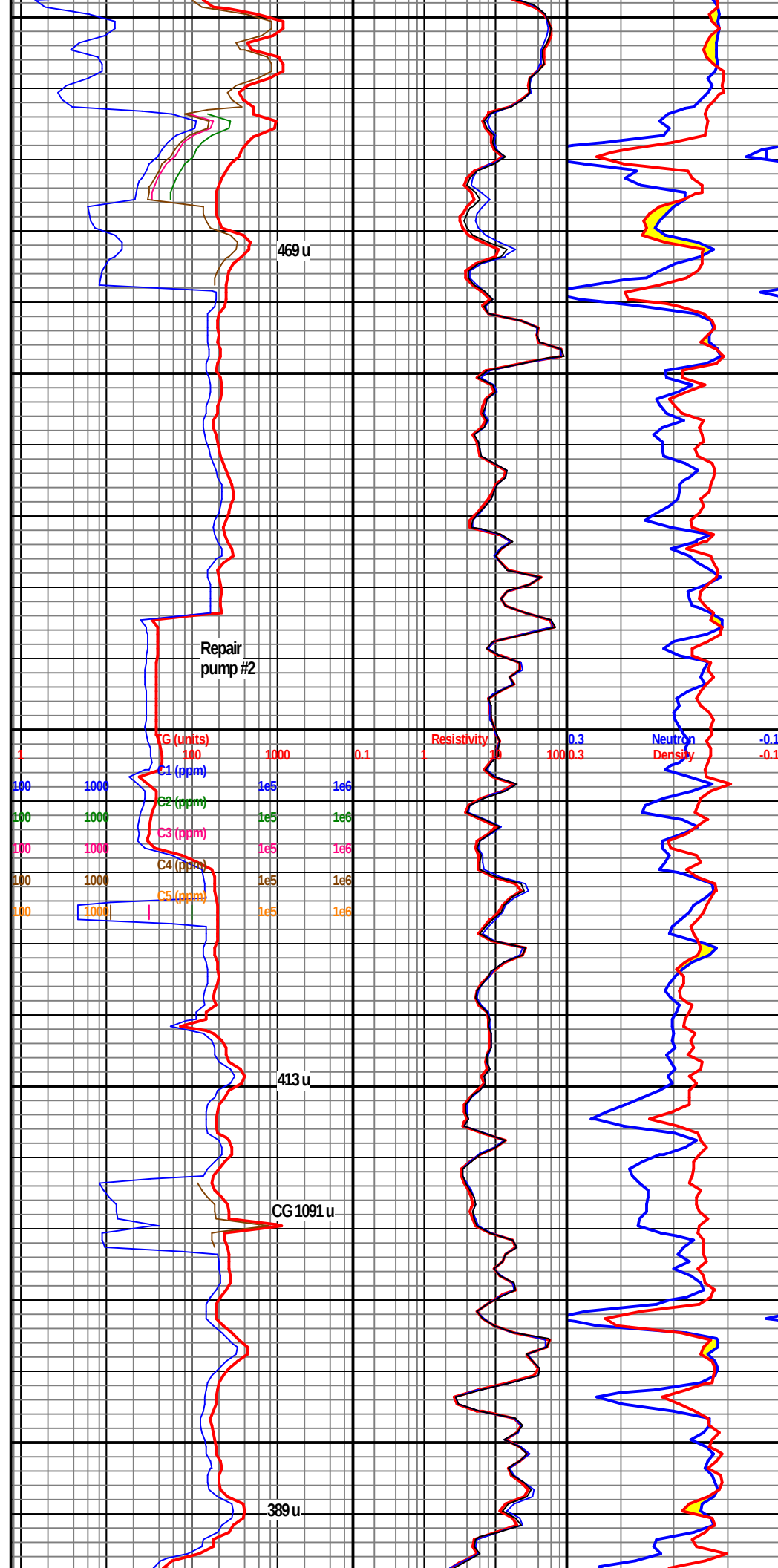
5000-5030 Ls crm-tan-lt gy-lt bm, sb plty-blky-sb blkly, mod sft-hd, micxn-amor, no vis por, r r ool, tr Sh med gy-blk, plty-sb blkly, sft-mod frm, sl-mod calc, suc, grdg to vf sltst, abnt min flor, nsoc

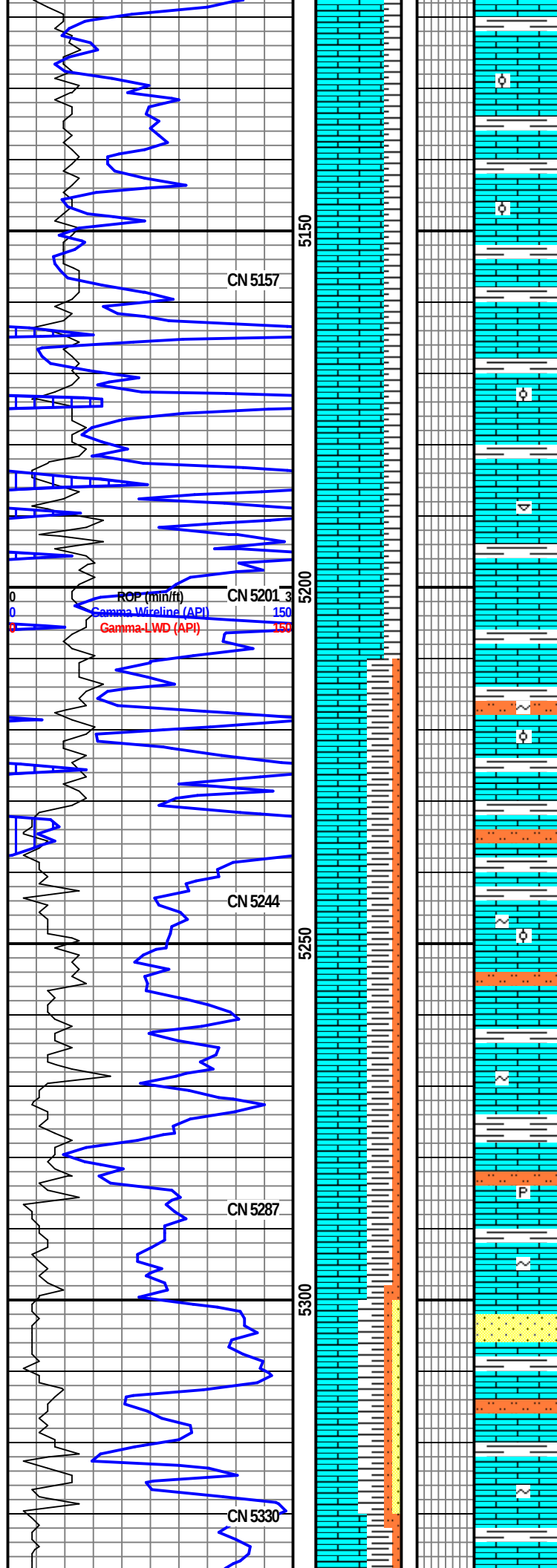
5030-5060 Ls crm-lt gy-lt bm, sb plty-blky-sb blkly, mod sft-hd, micxn-amor, no vis por, r r ool, occ Sh med gy-blk, plty-sb plty, sft-mod frm, sl-mod calc, suc, grdg to vf sltst, abnt min flor, nsoc

5060-5090 Ls crm-lt bm-lt gy, sb plty-blky-sb blkly, mod sft-hd, micxn, no vis por, r r ool, tr Sh med gy-blk, plty-sb plty, sft-mod frm, sl-mod calc, suc, grdg to vf sltst, r Slst gy sb blkly, r glau, abnt min flor, fst mlky cut

5090-5120 Ls crm-lt gy-lt bm, sb plty-sb blkly, mod sft-hd, micxn-amor, no vis por, r r ool, vis foss frag, tr Sh med gy-blk, plty-sb plty, sft-mod frm, sl-mod calc, suc, grdg to vf sltst ip, abnt min flor, nsoc

MD 4958 TVD 4957.92
AZ 78.7 SS -1995.92





5120-5150 Ls crm-lt gy-lt bm, sb plty-sb blk, mod sft-hd, micxn-amor, dk lam ip, mott, no vis por, rr ool, tr Sh med gy-blk, plty-sb plty, sft-mod fm, sl-mod calc, suc, grdg to vf sltst ip, abnt min flr, nsoc

5150-5180 Ls crm-lt gy-lt bm, sb plty-sb blk, mod sft-hd, micxn-amor, dk lam ip, mott, no vis por, rr ool, tr Sh lt gy-blk, plty-sb plty, sb blk ip, sft-mod fm, non-mod calc, suc, grdg to vf sltst ip, abnt min flr, v fnt mlky cut

5180-5210 Ls lt gy-lt bm, tan ip, sb plty-sb blk, mod sft-hd, micxn-amor, dk lam ip, mott, no vis por, vis foss, rr ool, tr Sh lt gy-blk, plty-sb plty, sft-mod fm, non-mod calc, suc, grdg to vf sltst ip, abnt min flr, v fnt mlky cut

5210-5240 Ls lt bm-crm-lt gy, blk-sb blk, mod fm-hd, micxn, rr ool, mott, tr Sh dk gy-gy, sb blk-sb plty, fm, mod calc, suc ip, tr Sltst gy-lt gy, sb blk-blk, mod fri-sft, sl calc, grdg to vf Ss ip, rr glau, abnt min flr, sl mlky cut

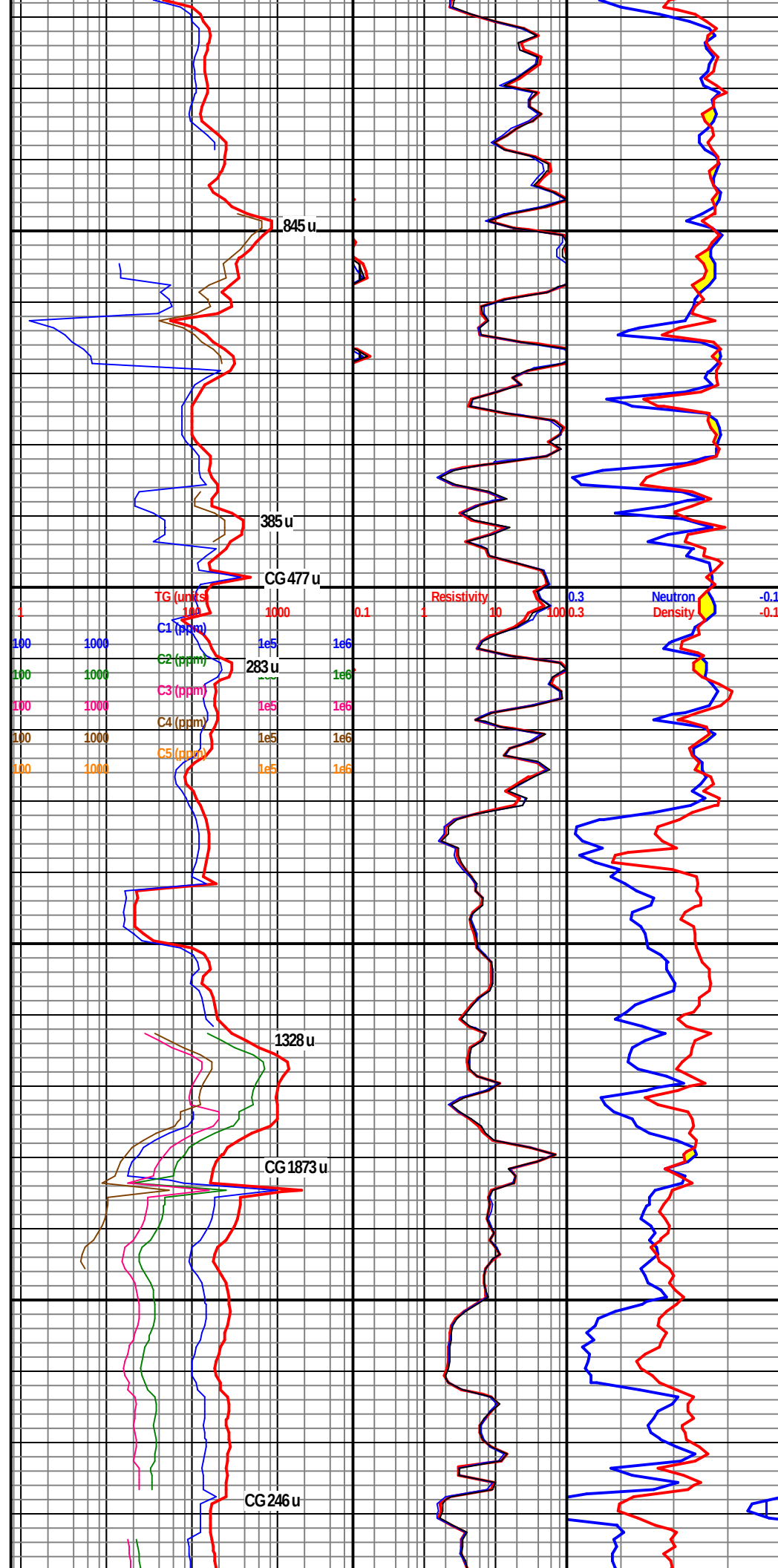
Morrow Group 5232' MD

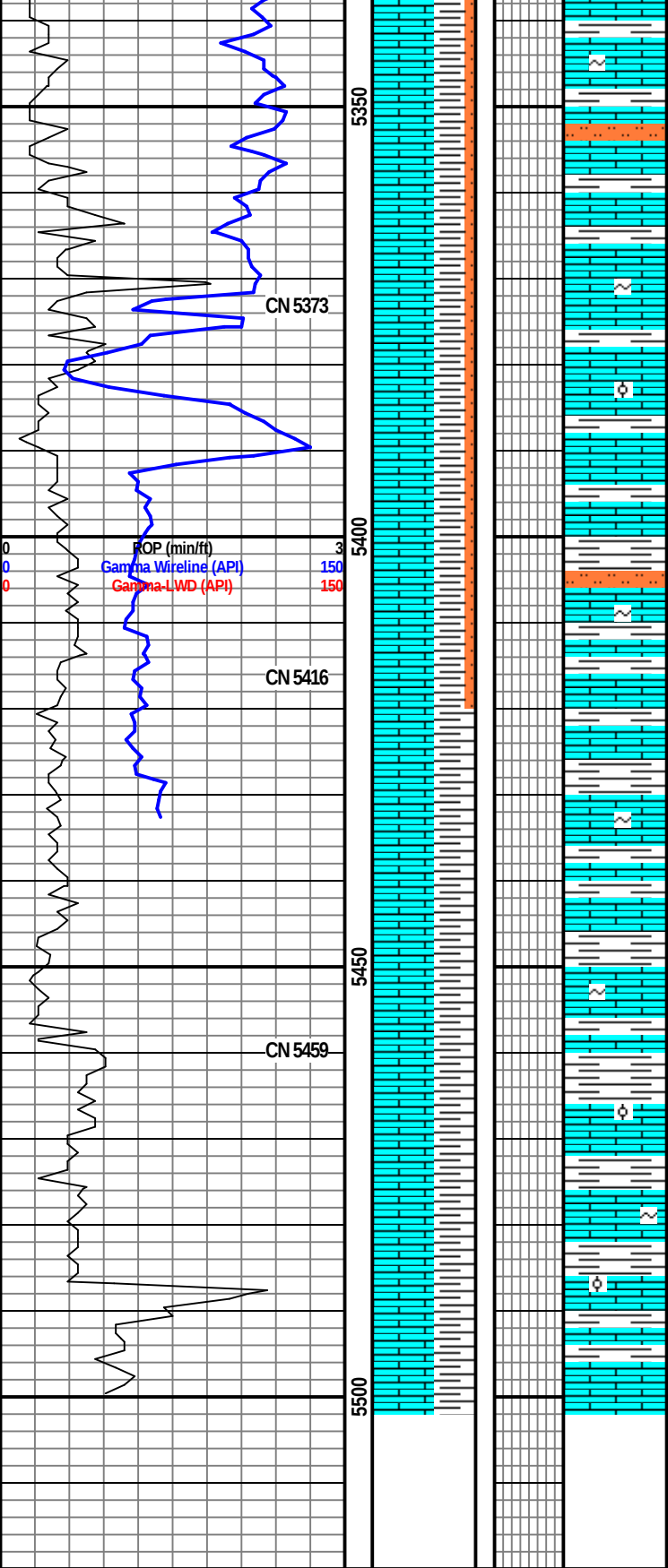
5240-5270 Ls lt bm-crm-lt gy, blk-sb blk, mod fm-hd, micxn, rr ool, mott, tr Sh dk gy-gy, sb blk-sb plty, fm, mod calc, suc, rr Sltst bm-lt gy, sb blk-blk, mod fri-sft, sl calc, grdg to vf Ss, rr glau, abnt min flr, fst mlky cut

5270-5300 Ls lt bm-crm-lt gy, blk-sb blk, mod fm-hd, micxn, mott, tr Sh dk gy-gy, sb blk-sb plty, fm, mod calc, suc ip, grdg to vf sltst, rr Sltst gy-lt gy, sb blk-blk, mod fri-sft, sl calc, dk lam ip, grdg to vf Ss ip, rr glau, rr pyr, abnt min flr, sl mlky cut

Chester 5314' MD

5300-5330 Ls lt bm-crm-lt gy, blk-sb blk, mod fm-hd, micxn, mott, tr Ss dk bm-off wht, rd-sb ang, fri-fm, non-mod calc, tr Sh dk gy-gy, sb blk-sb plty, fm, mod calc, suc, grdg to vf sltst, rr Sltst gy-lt gy, sb blk-blk, mod fri-sft, sl calc, dk lam ip, grdg to vf Ss ip, rr glau, abnt min flr, v sl fnt cut





5330-5360 Ls lt bm-crm-lt gy, blk-y-sb blk-y-sb
pity, mod frm-hd, micxn, mott, tr Sh dk gy-gy,
sb blk-y-sb pity, frm, mod calc, suc, r Stst
bm-lt gy-gm, sb blk-y-blky, mod fri-sft, sl calc,
grdg to vf Ss, rr glau, rr Ss bm, abnt min flr, v
sl fnt cut

5360-5390 Ls gy-bm-lt bm, blk-y-sb blk-y-sb
pity, mod frm-hd, micxn, r ool, no vis por,
mott, grdg to carb sh ip, occ Sh lt gy-blk, sb
blk-y-sb pity, sft-frm, mod-non calc, suc, r
Stst gy, sb blk-y, mod frm, mod calc, rr glau,
abnt min flr, nsoc

St Gen 5391' MD

5390-5420 Ls gy-crm-lt bm, blk-y-sb blk-y-sb
pity, mod frm-hd, micxn, no vis por, mott,
occ Sh lt gy-blk, sb blk-y-pity, sft-frm,
mod-non calc, suc-sb wxy, rr Stst gy, sb blk-y,
mod frm, mod calc, rr glau, abnt min flr,
nsoc

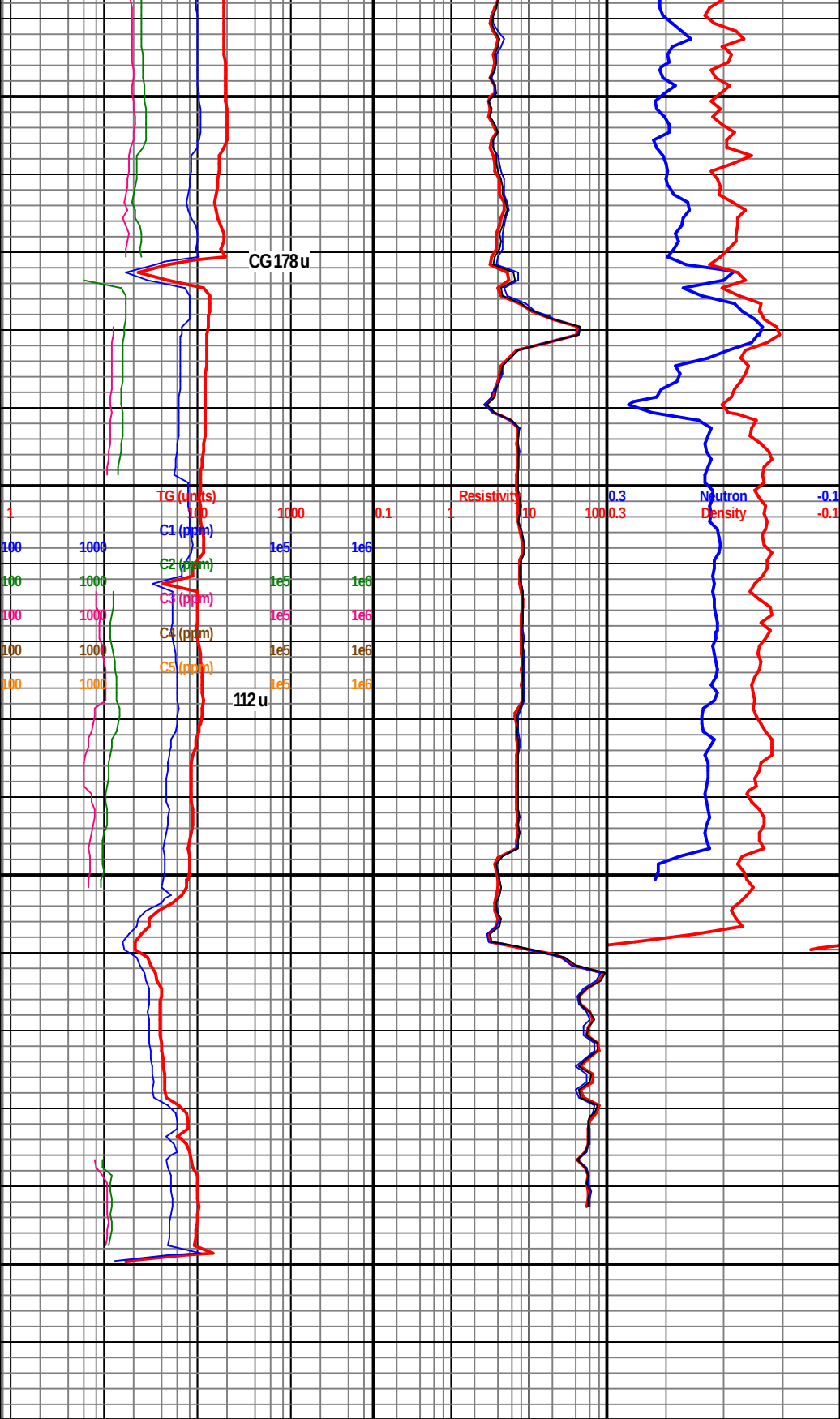
5420-5450 Ls gy-crm-bm, blk-y-sb blk-y-sb
pity, mod frm-hd, micxn-crytoxn, no vis por,
mott, occ Sh lt gy-blk, sb blk-y-pity, sft-frm,
mod-non calc, suc-sb wxy, grdg to sltst ip, rr
glau, abnt min flr, nsoc

5450-5480 Ls wht-crm-lt bm-gy, blk-y-sb
blk-y-sb pity, mod sft-hd, micxn-crytoxn, rr
ool, mott, occ Sh lt gy-blk, sb blk-y-pity,
sft-frm, mod-non calc, suc-sb wxy, grdg to
sltst ip, rr glau, abnt min flr, nsoc

St Louis 5470' MD

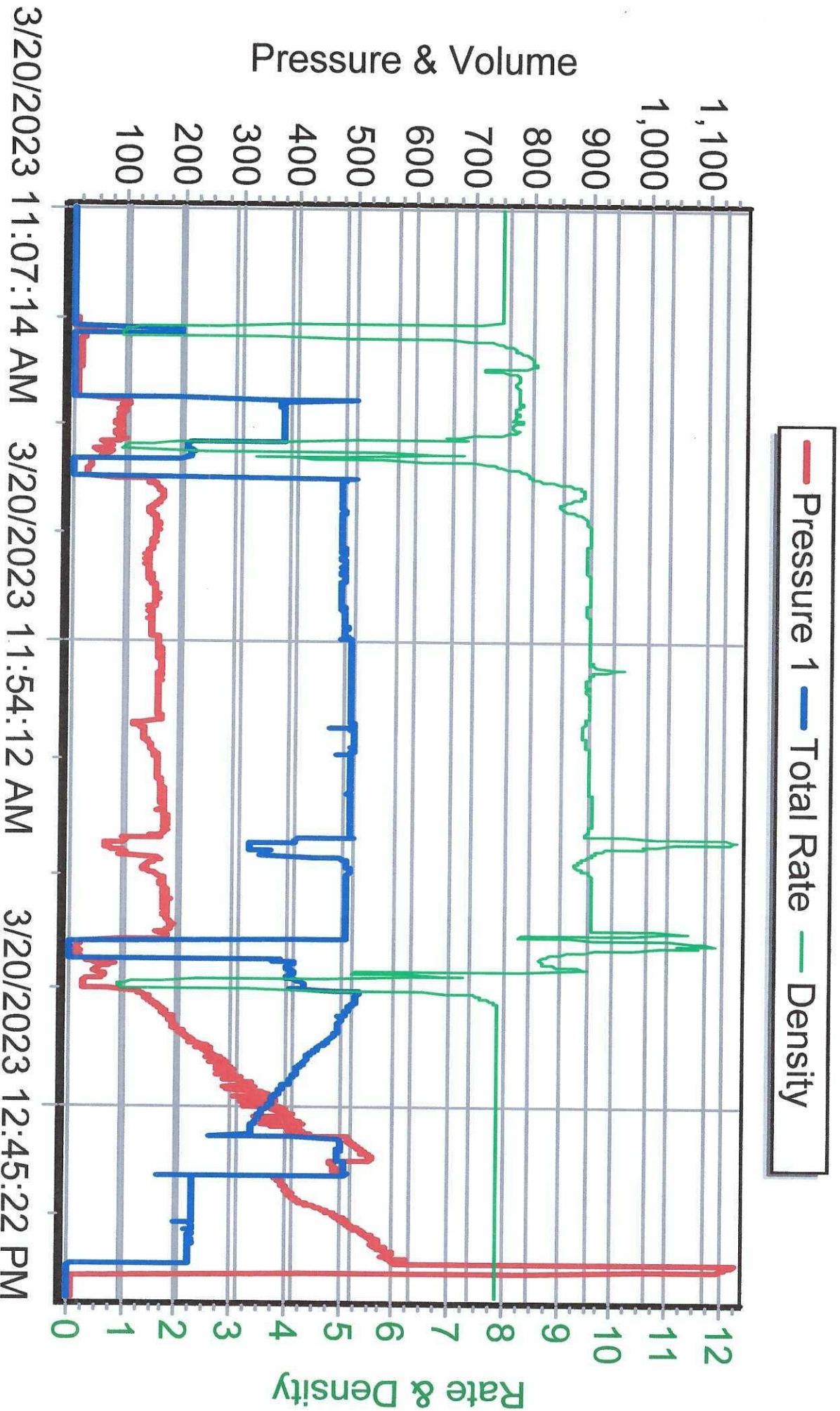
5480-5501 Ls wht-crm-bm, blk-y-sb blk-y-sb
pity, mod frm-hd, micxn, rr ool, mott, occ Sh
lt gy-blk, sb blk-y-pity, sft-frm, mod-non calc,
suc-sb wxy, grdg to sltst ip, rr glau, abnt min
flr, nsoc

**TD 5501' MD reached at
15:24 on 3/22/2023**



MERIT ENERGY

BIRNEY 34-1 8 5/8



QUASAR ENERGY SERVICES, INC.

3288 FM 51

Gainesville, Texas 76240

Office: 940-612-3336

Fax: 940-612-3336 | qesi@qeserve.com

Form 185-2N.2

3/23/23

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