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COMPOSITE GEOLOGIST'S LOG

WellSight Systems

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

Well Name: James Taylor #511508
 Location: Taylor County, WV
 License Number: API#: 47-910-01186
 Spud Date: 13 February 2010
 Surface Coordinates: Latitude 39.29442
 Longitude -80.19261
 Bottom Hole Coordinates: assumed same as surface coordinates
 Ground Elevation (ft): 1270
 Logged Interval (ft): 2,686' To: 7,825'
 Formation: Balltown to the Elks
 Type of Drilling Fluid: water based mud

Region: Marcellus Prospect
 Drilling Completed: continued

K.B. Elevation (ft): 1284
 Total Depth (ft): continued

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: EQT Production Company
 Address: EQT Plaza
 625 Liberty Ave.
 Pittsburgh, PA 15222

GEOLOGISTS

Name: Isaaah Land, Nick Masi, Dan Mackney
 Company: Sunburst Consulting, Inc.
 Address: P.O. Box 51297; 513 Hilltop Road, Suite #5
 Billings, Montana 59105; (406) 259-4124
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ROCK TYPES

	Alluvium		Cht		Igne		Shcol
	Anhy		Clyst		Ls		Shgy
	Arg dol		Coal		Meta		Slst
	Arg ls		Congl		Mrlst		Ss
	Bent		Dol		Salt		Sssilty
	Brec		Dol ls		Shale		Tuff
	Calc dol		Gyp		Shblk		Unknown

ACCESSORIES

- FOSSIL**
- Algae
 - Amph
 - Belm
 - Bioclst
 - Brach
 - Bryozoa
 - Cephal
 - Coral
 - Crin
 - Echin
 - Fish
 - Foram
 - Fossil
 - Gastro
 - Oolite
 - Ostra
 - Pelec
 - Pellet
 - Pisolite

- Plant
- Strom

- MINERAL**
- Anhy
 - Arggrn
 - Arg
 - Bent
 - Bit
 - Breclrag
 - Calc
 - Carb
 - Chtdk
 - Chtlt
 - Dol
 - Feldspar
 - Ferrpel
 - Ferr
 - Glau
 - Gyp

- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff

- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg

- TEXTURE**
- Boundst
 - Chalky
 - Cryxln
 - Earthy
 - Finexln
 - Grainst
 - Lithogr
 - Microxln
 - Mudst
 - Packst
 - Wackest

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol

OTHER SYMBOLS

INTERVALS

- Core
- Dst
- Slide

EVENTS

- Rft
- Bit change
- Sidewall

POROSITY TYPE

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

SORTING

- Well
- Moderate
- Poor

ROUNDING

- Rounded
- Subrnd
- Subang

- Angular

OIL SHOWS

- Even
- Spotted
- Ques
- Dead

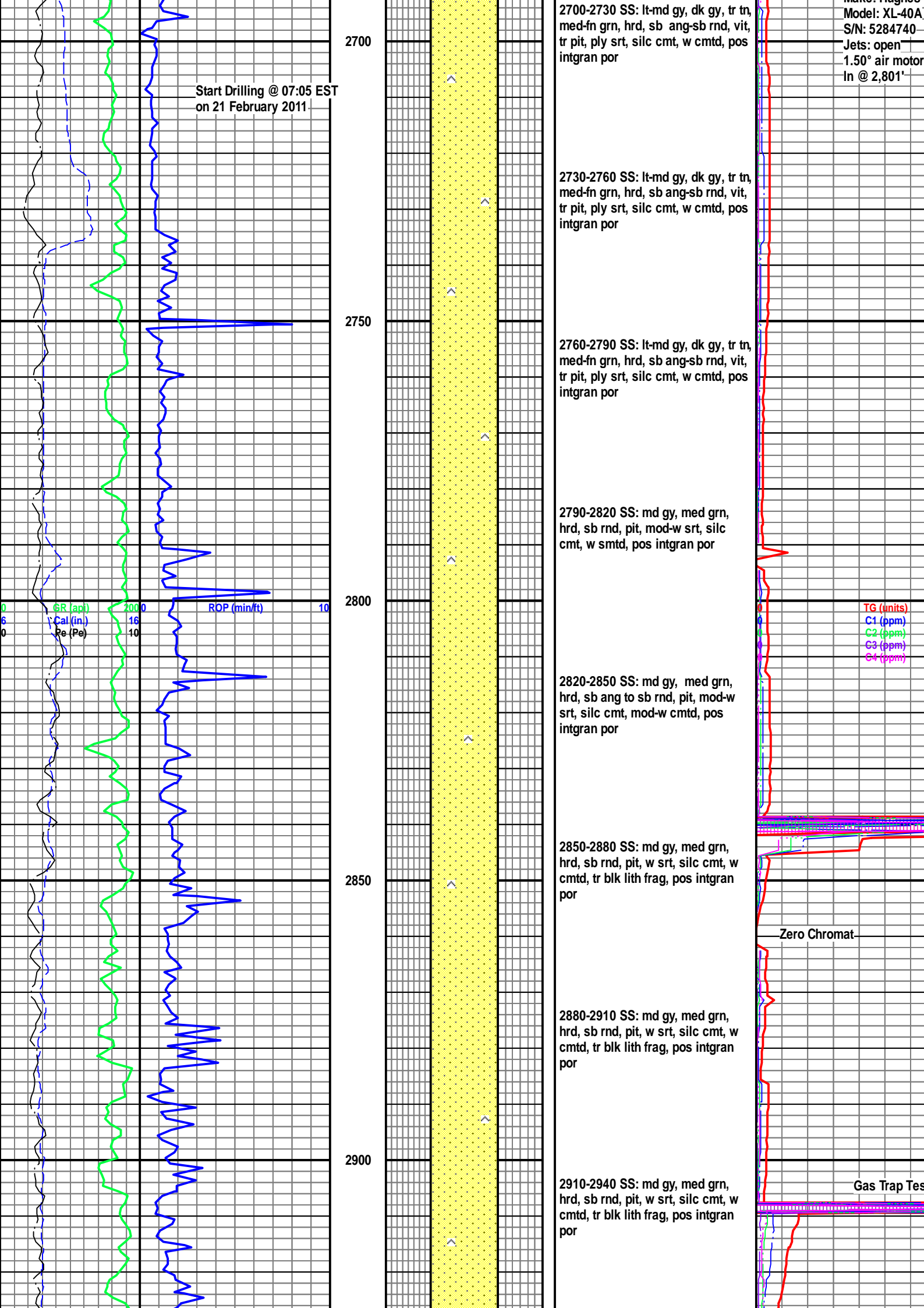
COMMENTS

COMPANY MAN: Bill Teel,
 TOOLPUSHER: Bruce Lambert, Ernie Langridge
 RIG: Savanna 640E

WV File #: 6980P512475R (280-81)

SURFACE CASING: 13 3/8" 54.5# MC-50 @ 879'
 INTERMEDIATE CASING: 9 5/8" 40# MD-50 @ 2699'

E-Log 1		ROP		Depth	Porosity	Lithology	Oil Show	Oil Show Symbols	Geological Descriptions	TG, C1-C5				
GR (api)	Cal (in.)	Pe (Pe)	ROP (min/ft)							TG (units)	C1 (ppm)	C2 (ppm)	C3 (ppm)	C4 (ppm)
0	6	0	10	2000	24% 18% 12% 6%					0	0	0	0	0
6	16	10								0	0	0	0	0
0										0	0	0	0	0
Sunburst Consulting Arrived on site and rigged up on 20 February 2011										Samples Caught by Sunburst Consultants in 30' intervals starting at 2,700'				
NOTE: E-Log Data Sh 8' to Match Drillers De										Bit #4rr Size: 8 3/4 Make: Hughes				



Start Drilling @ 07:05 EST
on 21 February 2011

Model: XL-40A
S/N: 5284740
Jets: open
1.50° air motor
In @ 2,801'

2700

2700-2730 SS: lt-md gy, dk gy, tr tn, med-fn grn, hrd, sb ang-sb rnd, vit, tr pit, ply srt, silc cmt, w cmt, pos intgran por

2750

2730-2760 SS: lt-md gy, dk gy, tr tn, med-fn grn, hrd, sb ang-sb rnd, vit, tr pit, ply srt, silc cmt, w cmt, pos intgran por

2800

2760-2790 SS: lt-md gy, dk gy, tr tn, med-fn grn, hrd, sb ang-sb rnd, vit, tr pit, ply srt, silc cmt, w cmt, pos intgran por

2850

2790-2820 SS: md gy, med grn, hrd, sb rnd, pit, mod-w srt, silc cmt, w smtd, pos intgran por

2900

2820-2850 SS: md gy, med grn, hrd, sb ang to sb rnd, pit, mod-w srt, silc cmt, mod-w cmt, pos intgran por

2850-2880 SS: md gy, med grn, hrd, sb rnd, pit, w srt, silc cmt, w cmt, tr blk lith frag, pos intgran por

2880-2910 SS: md gy, med grn, hrd, sb rnd, pit, w srt, silc cmt, w cmt, tr blk lith frag, pos intgran por

2910-2940 SS: md gy, med grn, hrd, sb rnd, pit, w srt, silc cmt, w cmt, tr blk lith frag, pos intgran por

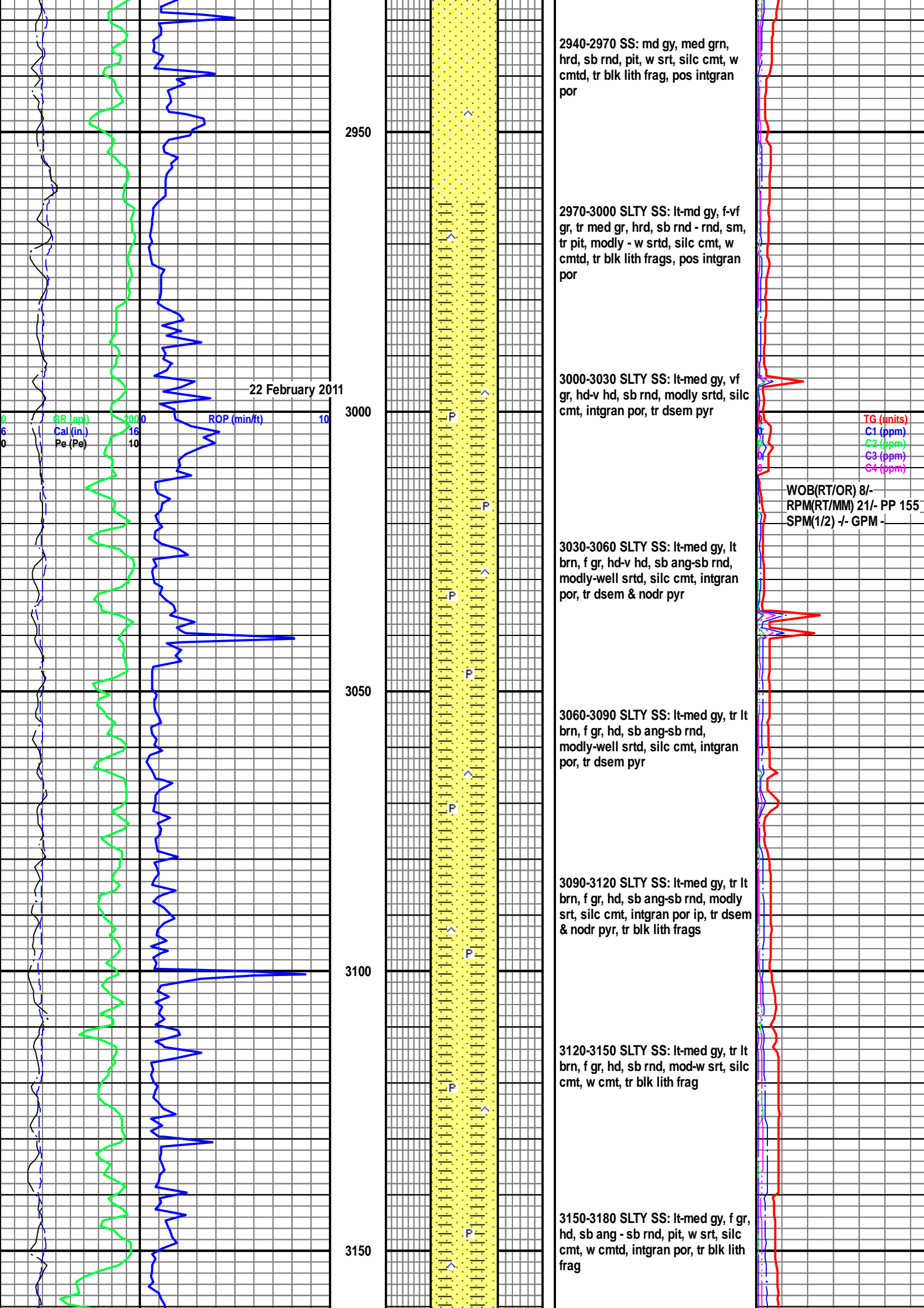
GR (api)
Cal (in)
Re (Pe)

ROP (min/ft)

TG (units)
C1 (ppm)
C2 (ppm)
C3 (ppm)
C4 (ppm)

Zero Chromat

Gas Trap Test



22 February 2011

GR (api)
Cal (in)
Pe (Pe)

ROP (min/ft)

TG (inits)
C1 (ppm)
C2 (ppm)
C3 (ppm)
C4 (ppm)

WOB(RT/OR) 8/
RPM(RT/MM) 21/- PP 155
SPM(1/2) +/- GPM -

2950

3000

3050

3100

3150

2940-2970 SS: md gy, med grn, hrd, sb rnd, pit, w srt, silc cmt, w cmt, tr blk lith frag, pos intgran por

2970-3000 SLTY SS: lt-md gy, f-vf gr, tr med gr, hrd, sb rnd - rnd, sm, tr pit, modly - w srt, silc cmt, w cmt, tr blk lith frags, pos intgran por

3000-3030 SLTY SS: lt-med gy, vf gr, hd-v hd, sb rnd, modly srt, silc cmt, intgran por, tr dsem pyr

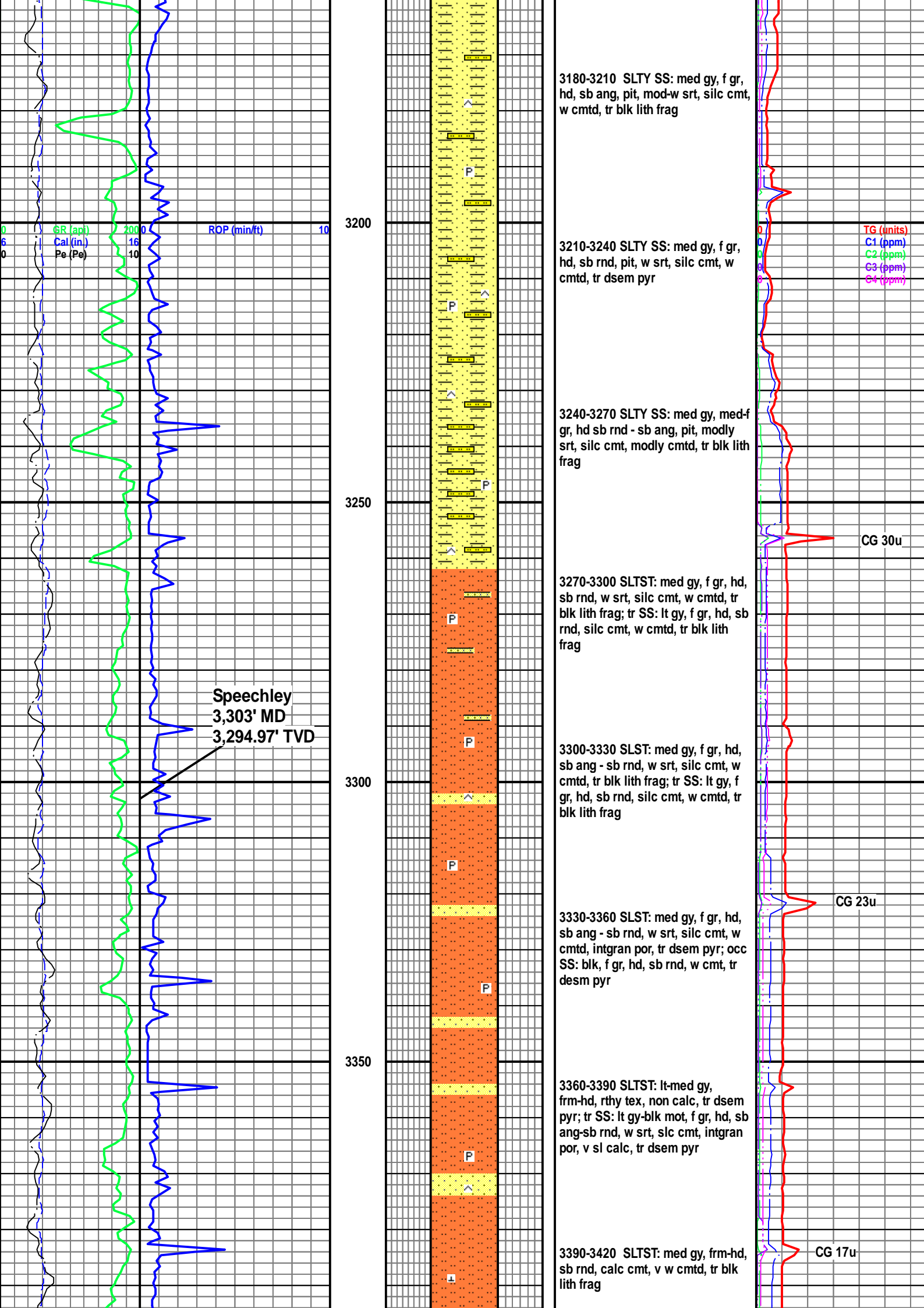
3030-3060 SLTY SS: lt-med gy, lt brn, f gr, hd-v hd, sb ang-sb rnd, modly-well srt, silc cmt, intgran por, tr dsem & nodr pyr

3060-3090 SLTY SS: lt-med gy, tr lt brn, f gr, hd, sb ang-sb rnd, modly-well srt, silc cmt, intgran por, tr dsem pyr

3090-3120 SLTY SS: lt-med gy, tr lt brn, f gr, hd, sb ang-sb rnd, modly srt, silc cmt, intgran por ip, tr dsem & nodr pyr, tr blk lith frags

3120-3150 SLTY SS: lt-med gy, tr lt brn, f gr, hd, sb rnd, mod-w srt, silc cmt, w cmt, tr blk lith frag

3150-3180 SLTY SS: lt-med gy, f gr, hd, sb ang - sb rnd, pit, w srt, silc cmt, w cmt, intgran por, tr blk lith frag



GR (api) 2000
 Cal (in) 16
 Pe (Pe) 10
 ROP (min/ft) 10

3200

3180-3210 SLTY SS: med gy, f gr, hd, sb ang, pit, mod-w srt, silc cmt, w cmt, tr blk lith frag

3210-3240 SLTY SS: med gy, f gr, hd, sb rnd, pit, w srt, silc cmt, w cmt, tr dsem pyr

3240-3270 SLTY SS: med gy, med-f gr, hd sb rnd - sb ang, pit, modly srt, silc cmt, modly cmt, tr blk lith frag

3250

3270-3300 SLTST: med gy, f gr, hd, sb rnd, w srt, silc cmt, w cmt, tr blk lith frag; tr SS: lt gy, f gr, hd, sb rnd, silc cmt, w cmt, tr blk lith frag

Speechley
 3,303' MD
 3,294.97' TVD

3300

3300-3330 SLST: med gy, f gr, hd, sb ang - sb rnd, w srt, silc cmt, w cmt, tr blk lith frag; tr SS: lt gy, f gr, hd, sb rnd, silc cmt, w cmt, tr blk lith frag

3330-3360 SLST: med gy, f gr, hd, sb ang - sb rnd, w srt, silc cmt, w cmt, intgran por, tr dsem pyr; occ SS: blk, f gr, hd, sb rnd, w cmt, tr desm pyr

3350

3360-3390 SLTST: lt-med gy, frm-hd, rthy tex, non calc, tr dsem pyr; tr SS: lt gy-blk mot, f gr, hd, sb ang-sb rnd, w srt, silc cmt, intgran por, v sl calc, tr dsem pyr

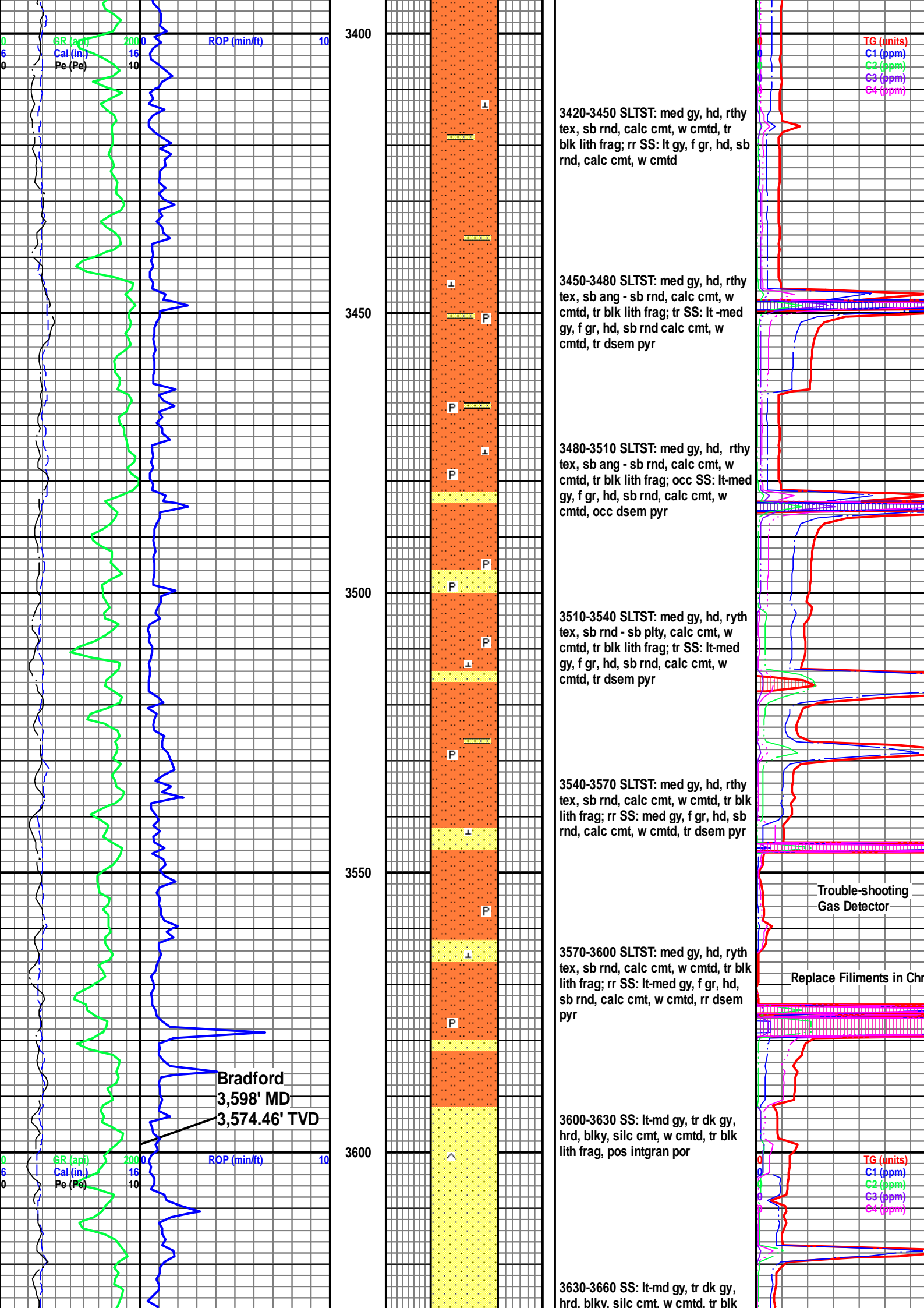
3390-3420 SLTST: med gy, frm-hd, sb rnd, calc cmt, v w cmt, tr blk lith frag

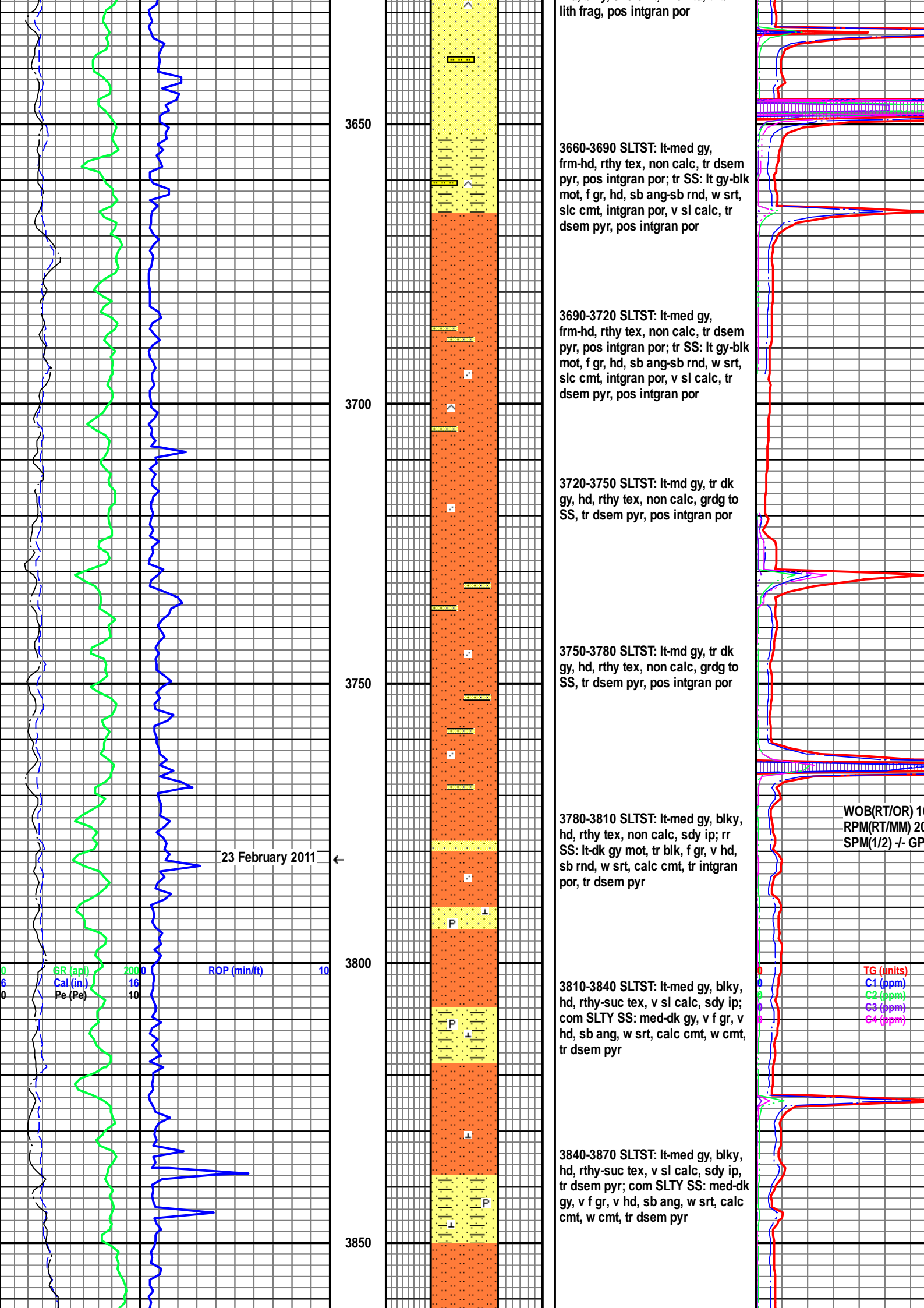
TG (units)
 C1 (ppm)
 C2 (ppm)
 C3 (ppm)
 C4 (ppm)

CG 30u

CG 23u

CG 17u





3650

3700

3750

3800

3850

23 February 2011 ←

GR (api) 2000
 Cal (in) 16
 Pe (Pe) 10

ROP (min/ft) 10

WOB(RT/OR) 1
 RPM(RT/MM) 20
 SPM(1/2) -/- GP

TG (inits)
 C1 (ppm)
 C2 (ppm)
 C3 (ppm)
 C4 (ppm)

lith frag, pos intgran por

3660-3690 SLTST: lt-med gy, frm-hd, rthy tex, non calc, tr dsem pyr, pos intgran por; tr SS: lt gy-blk mot, f gr, hd, sb ang-sb rnd, w srt, slc cmt, intgran por, v sl calc, tr dsem pyr, pos intgran por

3690-3720 SLTST: lt-med gy, frm-hd, rthy tex, non calc, tr dsem pyr, pos intgran por; tr SS: lt gy-blk mot, f gr, hd, sb ang-sb rnd, w srt, slc cmt, intgran por, v sl calc, tr dsem pyr, pos intgran por

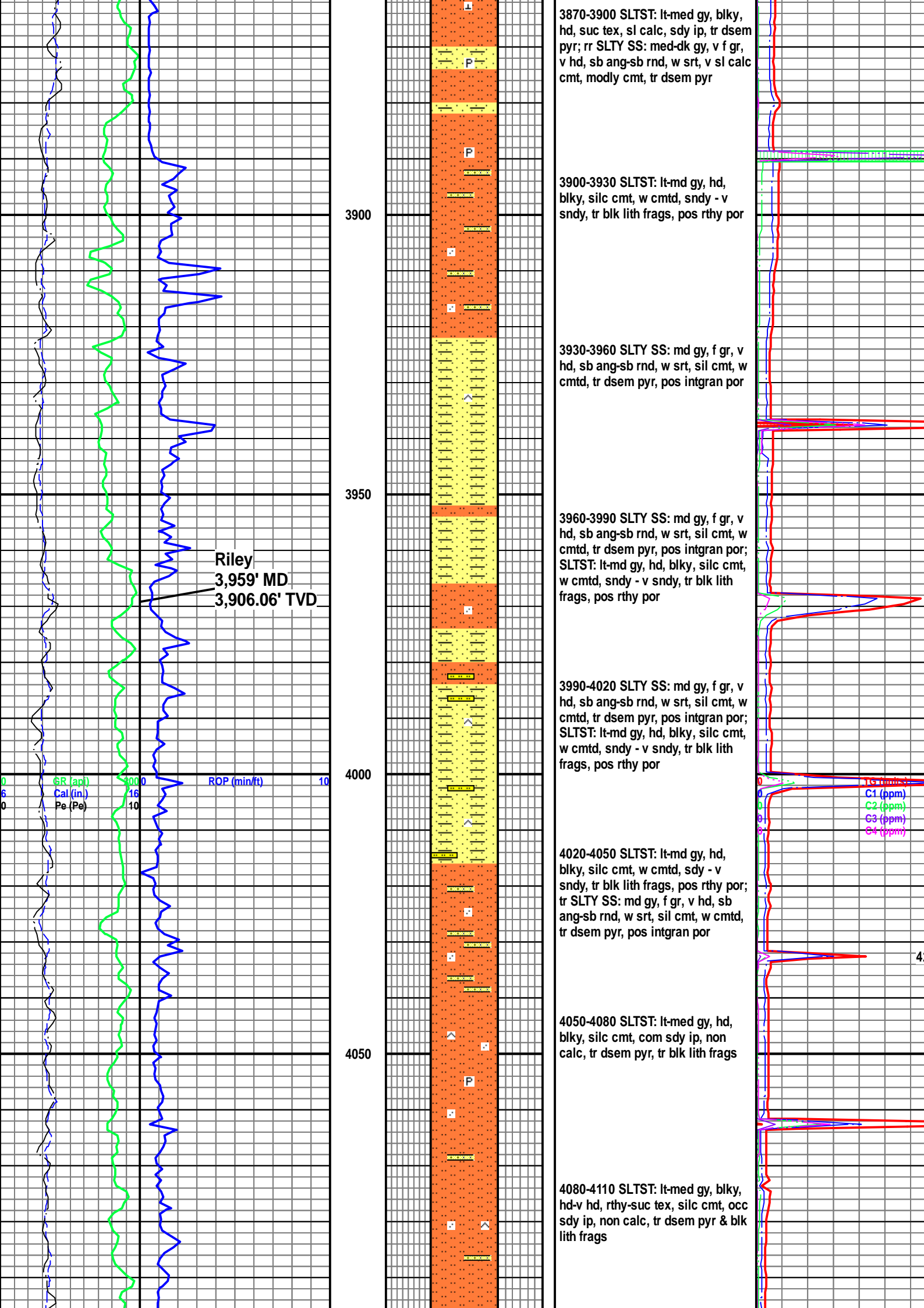
3720-3750 SLTST: lt-md gy, tr dk gy, hd, rthy tex, non calc, grgd to SS, tr dsem pyr, pos intgran por

3750-3780 SLTST: lt-md gy, tr dk gy, hd, rthy tex, non calc, grgd to SS, tr dsem pyr, pos intgran por

3780-3810 SLTST: lt-med gy, blkly, hd, rthy tex, non calc, sdy ip; rr SS: lt-dk gy mot, tr blk, f gr, v hd, sb rnd, w srt, calc cmt, tr intgran por, tr dsem pyr

3810-3840 SLTST: lt-med gy, blkly, hd, rthy-suc tex, v sl calc, sdy ip; com SLTY SS: med-dk gy, v f gr, v hd, sb ang, w srt, calc cmt, w cmt, tr dsem pyr

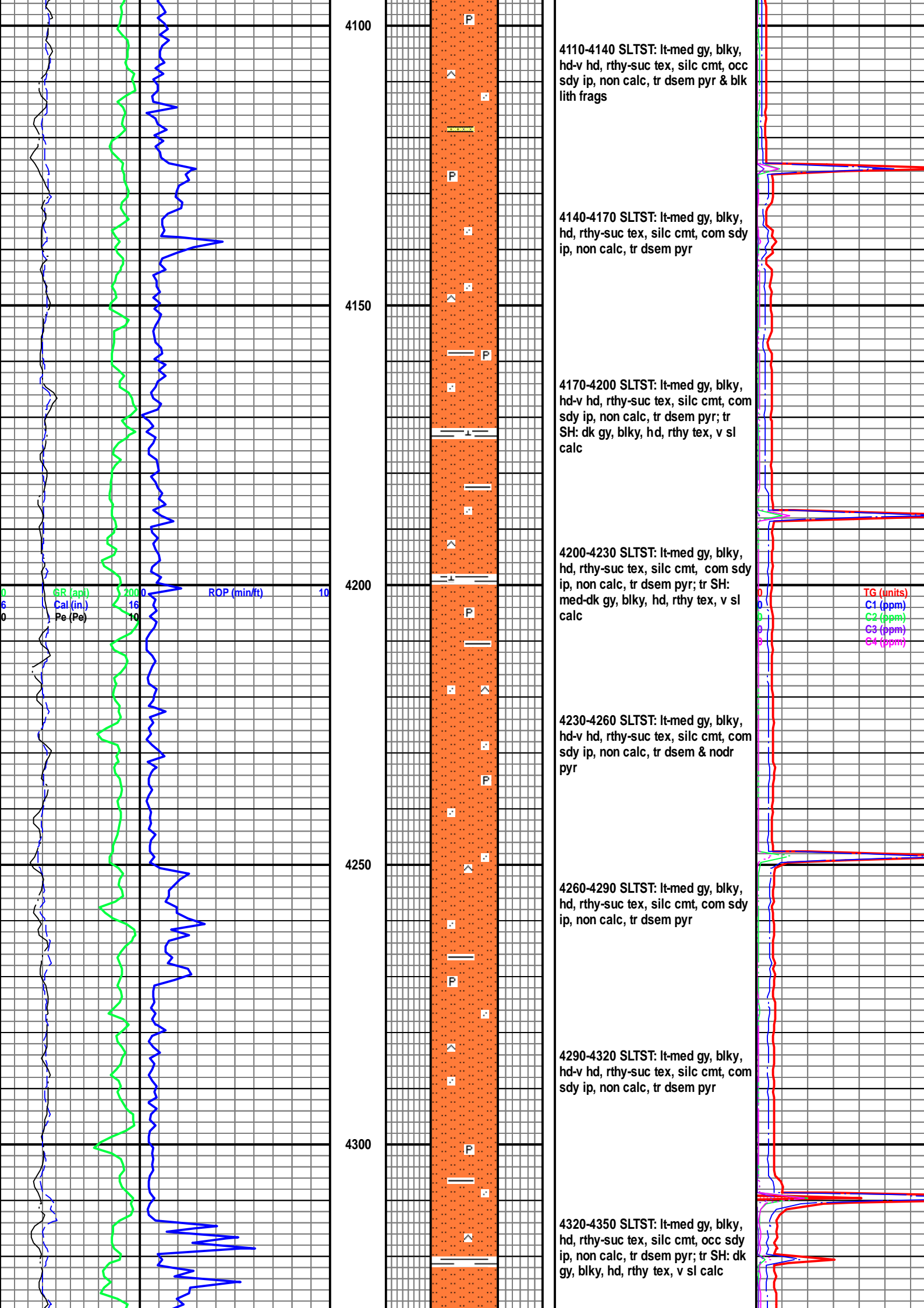
3840-3870 SLTST: lt-med gy, blkly, hd, rthy-suc tex, v sl calc, sdy ip, tr dsem pyr; com SLTY SS: med-dk gy, v f gr, v hd, sb ang, w srt, calc cmt, w cmt, tr dsem pyr



Riley
3,959' MD
3,906.06' TVD

GR (api)	1000	ROP (min/ft)	10
Cal (in)	16		
Pe (Pe)	10		

TC (ppm)
C1 (ppm)
C2 (ppm)
C3 (ppm)
C4 (ppm)



4100

4110-4140 SLTST: lt-med gy, blk, hd-v hd, rthy-suc tex, silc cmt, occ sdy ip, non calc, tr dsem pyr & blk lith frags

4150

4140-4170 SLTST: lt-med gy, blk, hd, rthy-suc tex, silc cmt, com sdy ip, non calc, tr dsem pyr

4200

4170-4200 SLTST: lt-med gy, blk, hd-v hd, rthy-suc tex, silc cmt, com sdy ip, non calc, tr dsem pyr; tr SH: dk gy, blk, hd, rthy tex, v sl calc

4250

4200-4230 SLTST: lt-med gy, blk, hd, rthy-suc tex, silc cmt, com sdy ip, non calc, tr dsem pyr; tr SH: med-dk gy, blk, hd, rthy tex, v sl calc

4300

4230-4260 SLTST: lt-med gy, blk, hd-v hd, rthy-suc tex, silc cmt, com sdy ip, non calc, tr dsem & nodr pyr

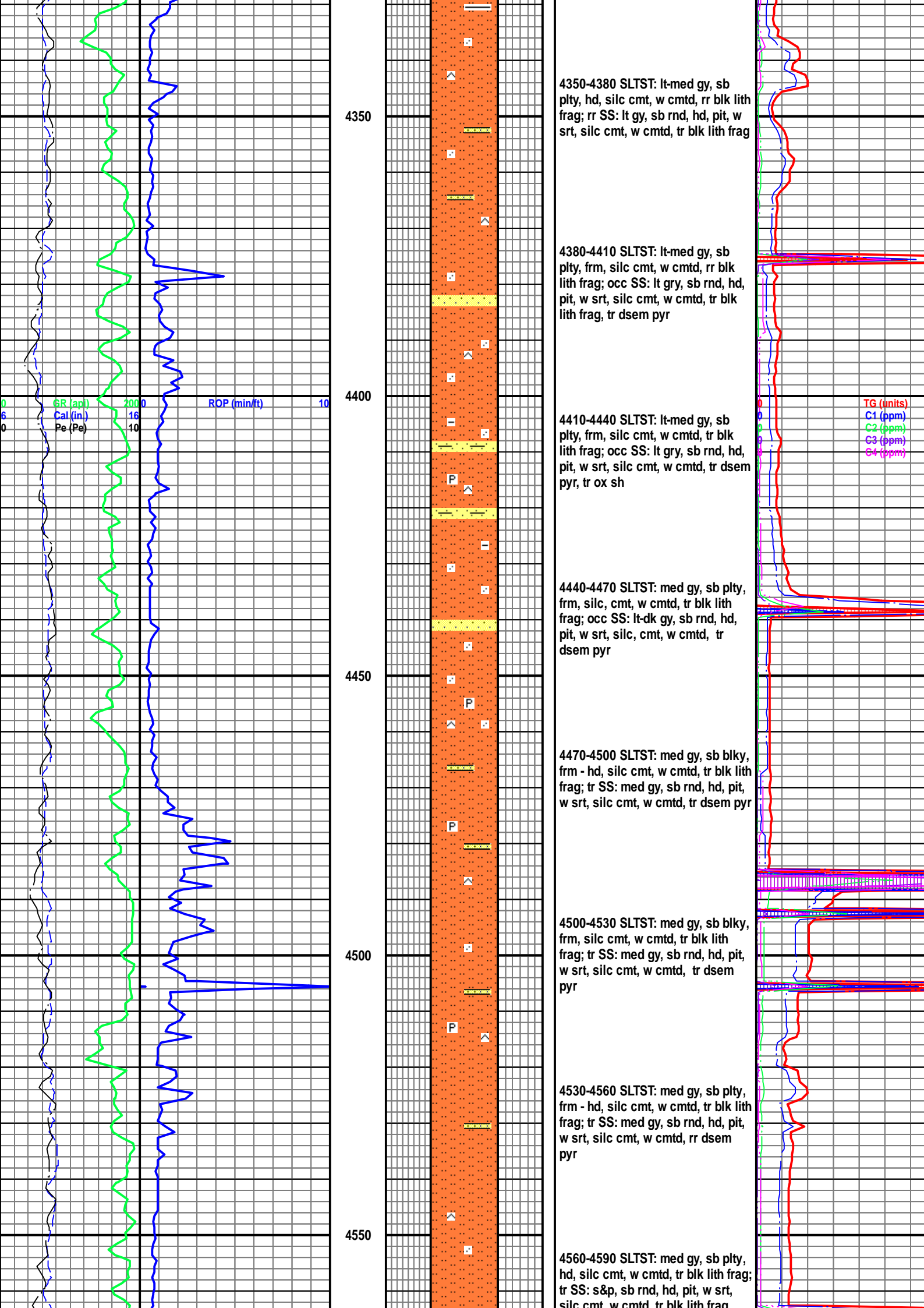
4260-4290 SLTST: lt-med gy, blk, hd, rthy-suc tex, silc cmt, com sdy ip, non calc, tr dsem pyr

4290-4320 SLTST: lt-med gy, blk, hd-v hd, rthy-suc tex, silc cmt, com sdy ip, non calc, tr dsem pyr

4320-4350 SLTST: lt-med gy, blk, hd, rthy-suc tex, silc cmt, occ sdy ip, non calc, tr dsem pyr; tr SH: dk gy, blk, hd, rthy tex, v sl calc

GR (api) 2000
 Cal (in) 16
 Pe (Pe) 10
 ROP (min/ft) 10

TG (units)
 C1 (ppm)
 C2 (ppm)
 C3 (ppm)
 C4 (ppm)



4350
4400
4450
4500
4550

4350-4380 SLTST: lt-med gy, sb plty, hd, silc cmt, w cmt, rr blk lith frag; rr SS: lt gy, sb rnd, hd, pit, w srt, silc cmt, w cmt, tr blk lith frag

4380-4410 SLTST: lt-med gy, sb plty, frm, silc cmt, w cmt, rr blk lith frag; occ SS: lt gry, sb rnd, hd, pit, w srt, silc cmt, w cmt, tr blk lith frag, tr dsem pyr

4410-4440 SLTST: lt-med gy, sb plty, frm, silc cmt, w cmt, tr blk lith frag; occ SS: lt gry, sb rnd, hd, pit, w srt, silc cmt, w cmt, tr dsem pyr, tr ox sh

4440-4470 SLTST: med gy, sb plty, frm, silc cmt, w cmt, tr blk lith frag; occ SS: lt-dk gy, sb rnd, hd, pit, w srt, silc, cmt, w cmt, tr dsem pyr

4470-4500 SLTST: med gy, sb blk, frm - hd, silc cmt, w cmt, tr blk lith frag; tr SS: med gy, sb rnd, hd, pit, w srt, silc cmt, w cmt, tr dsem pyr

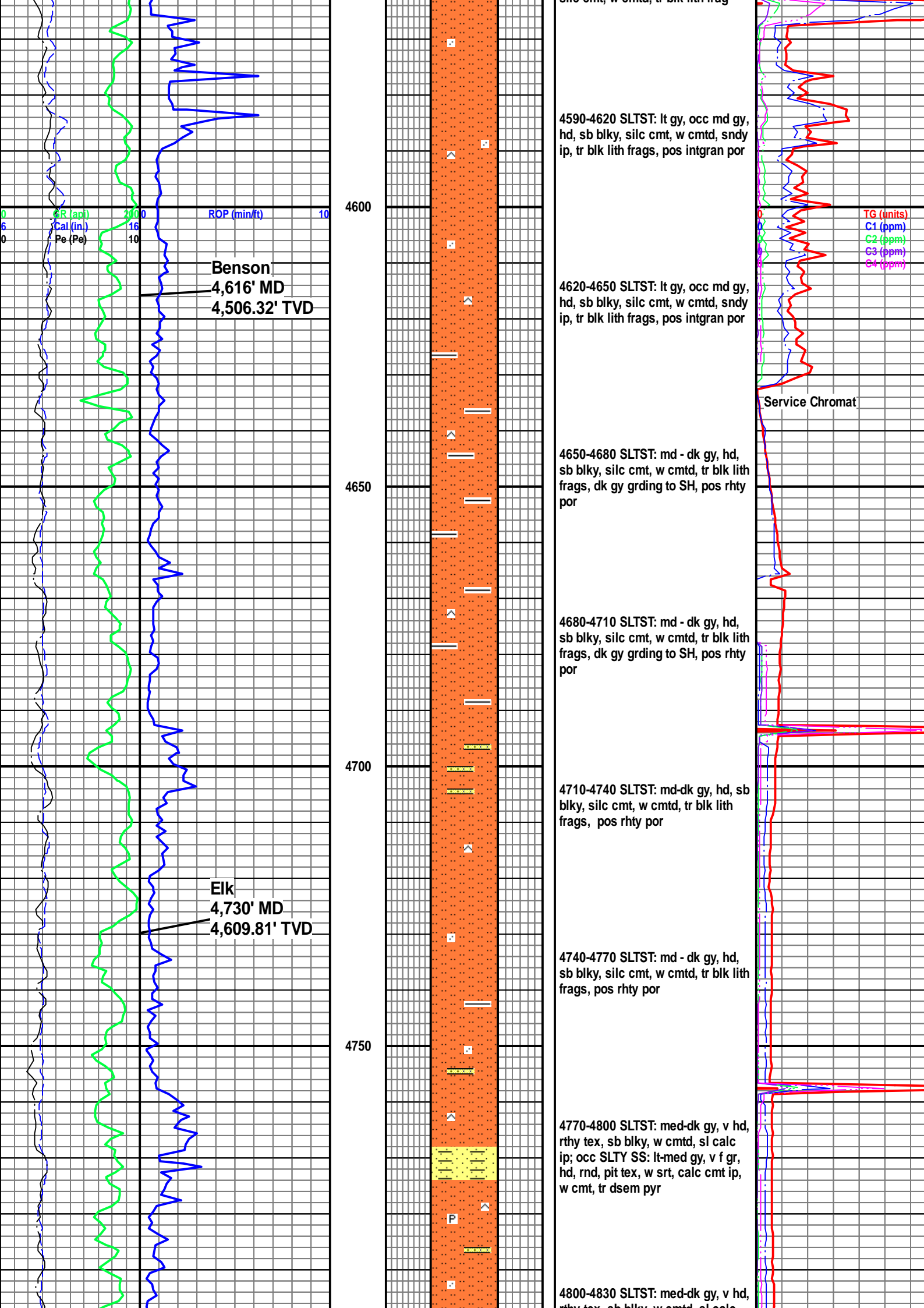
4500-4530 SLTST: med gy, sb blk, frm, silc cmt, w cmt, tr blk lith frag; tr SS: med gy, sb rnd, hd, pit, w srt, silc cmt, w cmt, tr dsem pyr

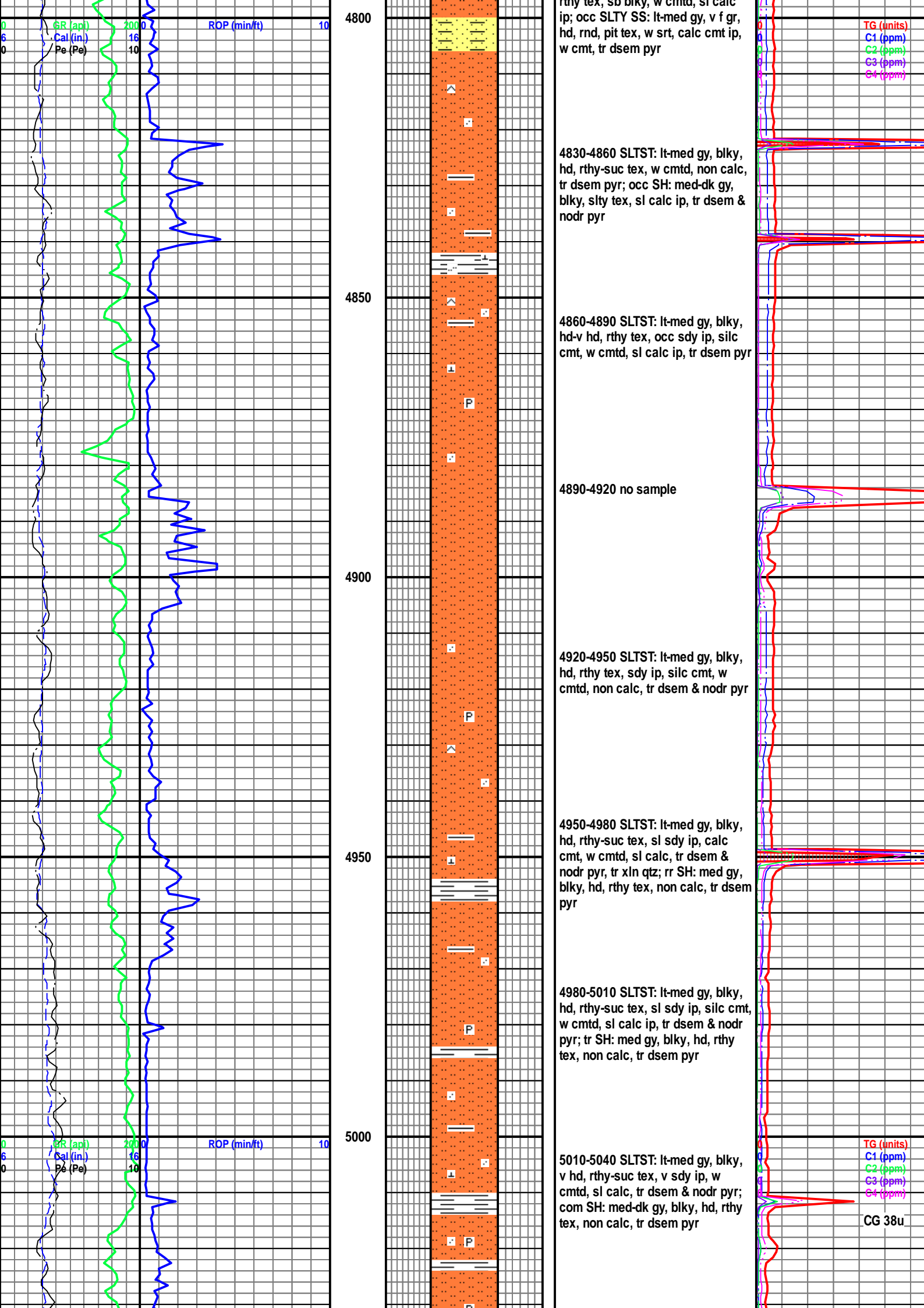
4530-4560 SLTST: med gy, sb plty, frm - hd, silc cmt, w cmt, tr blk lith frag; tr SS: med gy, sb rnd, hd, pit, w srt, silc cmt, w cmt, rr dsem pyr

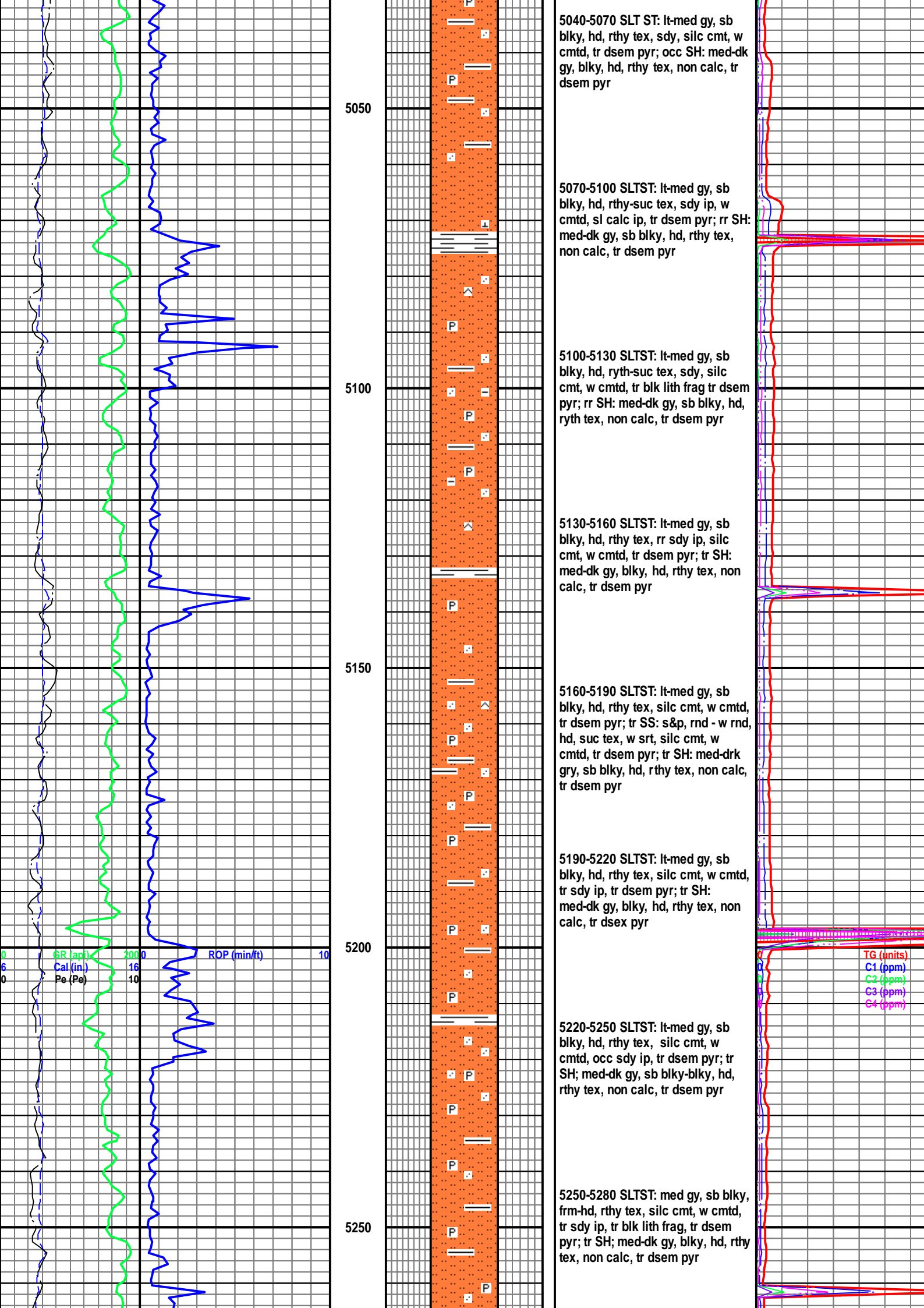
4560-4590 SLTST: med gy, sb plty, hd, silc cmt, w cmt, tr blk lith frag; tr SS: s&p, sb rnd, hd, pit, w srt, silc cmt, w cmt, tr blk lith frag

TG (units)
C1 (ppm)
C2 (ppm)
C3 (ppm)
C4 (ppm)

GR (api) 2000
Cal (in) 16
Pe (Pe) 10
ROP (min/ft) 10







5050

5040-5070 SLT ST: lt-med gy, sb blk, hd, rthy tex, sdy, silc cmt, w cmt, tr dsem pyr; occ SH: med-dk gy, blk, hd, rthy tex, non calc, tr dsem pyr

5100

5070-5100 SLTST: lt-med gy, sb blk, hd, rthy-suc tex, sdy ip, w cmt, sl calc ip, tr dsem pyr; rr SH: med-dk gy, sb blk, hd, rthy tex, non calc, tr dsem pyr

5100-5130 SLTST: lt-med gy, sb blk, hd, ryth-suc tex, sdy, silc cmt, w cmt, tr blk lith frag tr dsem pyr; rr SH: med-dk gy, sb blk, hd, ryth tex, non calc, tr dsem pyr

5150

5130-5160 SLTST: lt-med gy, sb blk, hd, rthy tex, rr sdy ip, silc cmt, w cmt, tr dsem pyr; tr SH: med-dk gy, blk, hd, rthy tex, non calc, tr dsem pyr

5160-5190 SLTST: lt-med gy, sb blk, hd, rthy tex, silc cmt, w cmt, tr dsem pyr; tr SS: s&p, rnd - w rnd, hd, suc tex, w srt, silc cmt, w cmt, tr dsem pyr; tr SH: med-drk gry, sb blk, hd, rthy tex, non calc, tr dsem pyr

5200

5190-5220 SLTST: lt-med gy, sb blk, hd, rthy tex, silc cmt, w cmt, tr sdy ip, tr dsem pyr; tr SH: med-dk gy, blk, hd, rthy tex, non calc, tr dsem pyr

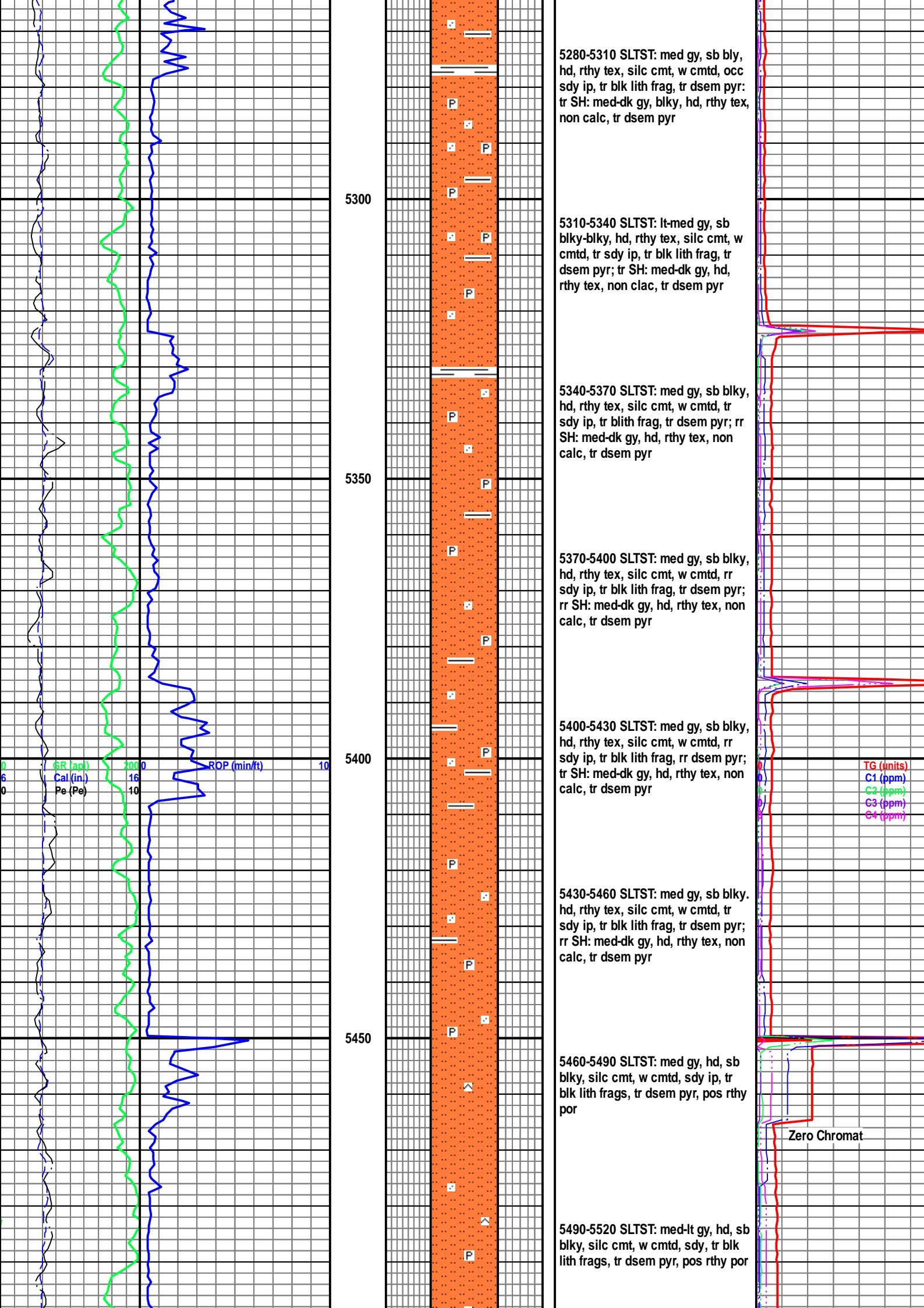
TG (units)
C1 (ppm)
C2 (ppm)
C3 (ppm)
C4 (ppm)

5250

5220-5250 SLTST: lt-med gy, sb blk, hd, rthy tex, silc cmt, w cmt, occ sdy ip, tr dsem pyr; tr SH: med-dk gy, sb blk-blk, hd, rthy tex, non calc, tr dsem pyr

5250-5280 SLTST: med gy, sb blk, frm-hd, rthy tex, silc cmt, w cmt, tr sdy ip, tr blk lith frag, tr dsem pyr; tr SH: med-dk gy, blk, hd, rthy tex, non calc, tr dsem pyr

GR (api) 2000
Cal (in) 16
Pe (Pe) 10
ROP (min/ft) 10



5300

5280-5310 SLTST: med gy, sb bly, hd, rthy tex, silc cmt, w cmt, occ sdy ip, tr blk lith frag, tr dsem pyr; tr SH: med-dk gy, blk, hd, rthy tex, non calc, tr dsem pyr

5310-5340 SLTST: lt-med gy, sb blk-blky, hd, rthy tex, silc cmt, w cmt, tr sdy ip, tr blk lith frag, tr dsem pyr; tr SH: med-dk gy, hd, rthy tex, non clac, tr dsem pyr

5350

5340-5370 SLTST: med gy, sb blk, hd, rthy tex, silc cmt, w cmt, tr sdy ip, tr blk lith frag, tr dsem pyr; rr SH: med-dk gy, hd, rthy tex, non calc, tr dsem pyr

5370-5400 SLTST: med gy, sb blk, hd, rthy tex, silc cmt, w cmt, rr sdy ip, tr blk lith frag, tr dsem pyr; rr SH: med-dk gy, hd, rthy tex, non calc, tr dsem pyr

5400

5400-5430 SLTST: med gy, sb blk, hd, rthy tex, silc cmt, w cmt, rr sdy ip, tr blk lith frag, rr dsem pyr; tr SH: med-dk gy, hd, rthy tex, non calc, tr dsem pyr

TG (units)
C1 (ppm)
C2 (ppm)
C3 (ppm)
C4 (ppm)

5450

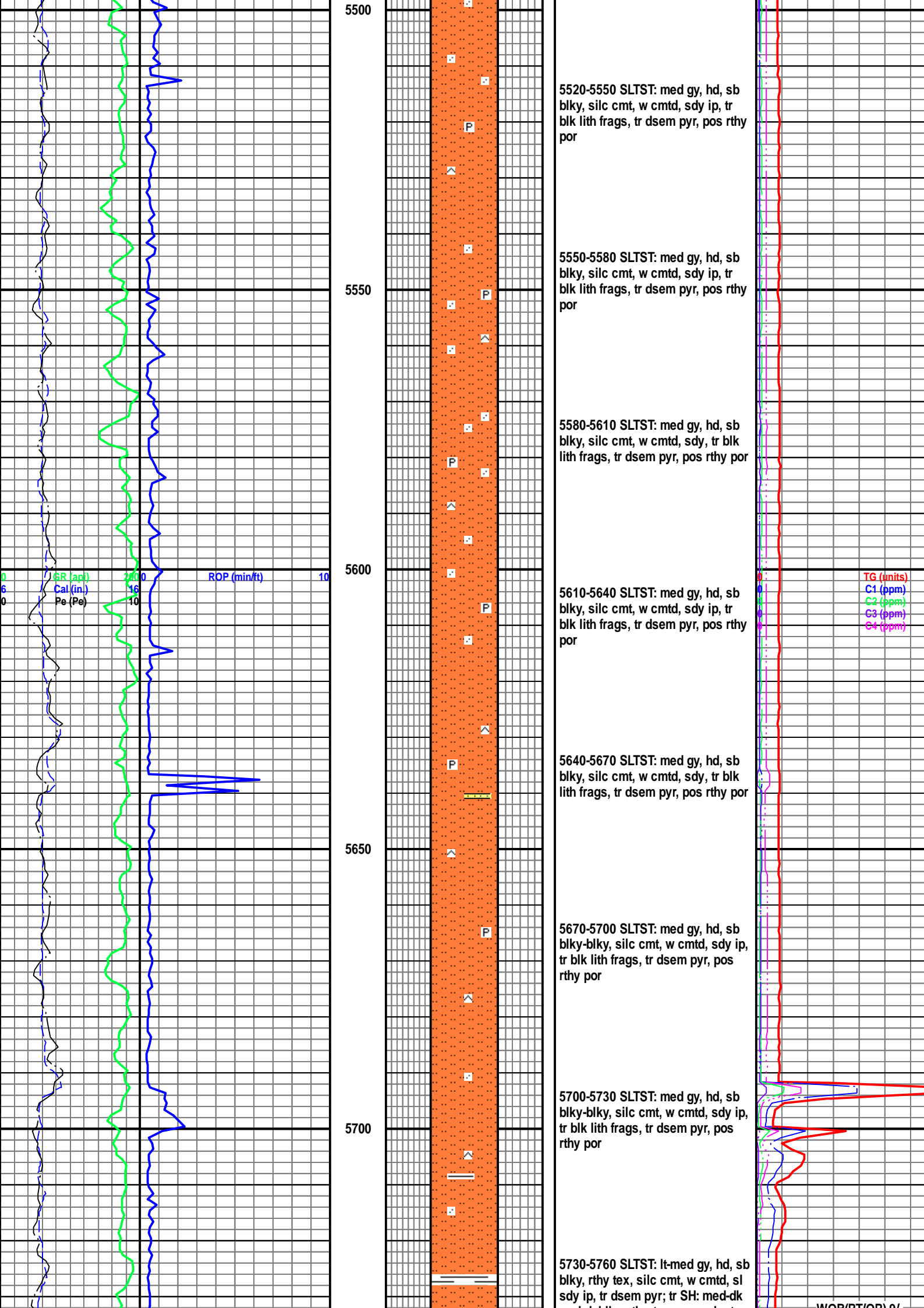
5430-5460 SLTST: med gy, sb blk, hd, rthy tex, silc cmt, w cmt, tr sdy ip, tr blk lith frag, tr dsem pyr; rr SH: med-dk gy, hd, rthy tex, non calc, tr dsem pyr

5460-5490 SLTST: med gy, hd, sb blk, silc cmt, w cmt, sdy ip, tr blk lith frags, tr dsem pyr, pos rthy por

Zero Chromat

5490-5520 SLTST: med-lt gy, hd, sb blk, silc cmt, w cmt, sdy, tr blk lith frags, tr dsem pyr, pos rthy por

GR (api) 2000
Cal (in) 16
Pe (Pe) 10
ROP (min/ft) 10



5500

5520-5550 SLTST: med gy, hd, sb
blky, silc cmt, w cmt, sdy ip, tr
blk lith frags, tr dsem pyr, pos rthy
por

5550

5550-5580 SLTST: med gy, hd, sb
blky, silc cmt, w cmt, sdy ip, tr
blk lith frags, tr dsem pyr, pos rthy
por

5600

5580-5610 SLTST: med gy, hd, sb
blky, silc cmt, w cmt, sdy, tr blk
lith frags, tr dsem pyr, pos rthy por

GR (api) 200
Cal (in) 16
Pe (Pe) 10
ROP (min/ft) 10

5610-5640 SLTST: med gy, hd, sb
blky, silc cmt, w cmt, sdy ip, tr
blk lith frags, tr dsem pyr, pos rthy
por

TG (units)
C1 (ppm)
C2 (ppm)
C3 (ppm)
C4 (ppm)

5650

5640-5670 SLTST: med gy, hd, sb
blky, silc cmt, w cmt, sdy, tr blk
lith frags, tr dsem pyr, pos rthy por

5670-5700 SLTST: med gy, hd, sb
blky-blky, silc cmt, w cmt, sdy ip,
tr blk lith frags, tr dsem pyr, pos
rthy por

5700

5700-5730 SLTST: med gy, hd, sb
blky-blky, silc cmt, w cmt, sdy ip,
tr blk lith frags, tr dsem pyr, pos
rthy por

5730-5760 SLTST: lt-med gy, hd, sb
blky, rthy tex, silc cmt, w cmt, sl
sdy ip, tr dsem pyr; tr SH: med-dk

26 February 2011

gy, hd, blk, rthy tex, non calc, tr dsem pyr

WOB(RT/DR) 9/
RPM(RT/MM) 40/- PF
SPM(1/2) -/- GPM

GR (api) 2000
Cal (in) 16
Pe (Pe) 10
ROP (min/ft) 10

5750
5800
5850
5900
5950

5760-5790 SLTST: lt-med gy, hd, blk, rthy-suc tex, silc cmt, w cmt, sdy ip, tr dsem & nodr pyr; tr SH: med-dk gy, hd, blk, rthy tex, non calc, tr dsem pyr

5790-5820 SLTST: lt-med gy, hd, blk, rthy-suc tex, silc cmt, w cmt, occ sdy ip, tr dsem pyr; tr SH: med-dk gy, blk, hd, slty tex, non calc, tr dsem & nodr pyr

5820-5850 SLTST: lt-med gy, blk, v hd, rthy-suc tex, silc cmt, v w cmt, sdy ip, non calc, tr dsem & nodr pyr

5850-5880 SLTST: lt-med gy, hd, blk, rthy-suc tex, silc cmt, w cmt, occ sdy ip, tr dsem pyr; tr SH: med-dk gy, blk, hd, slty tex, non calc, tr dsem & nodr pyr

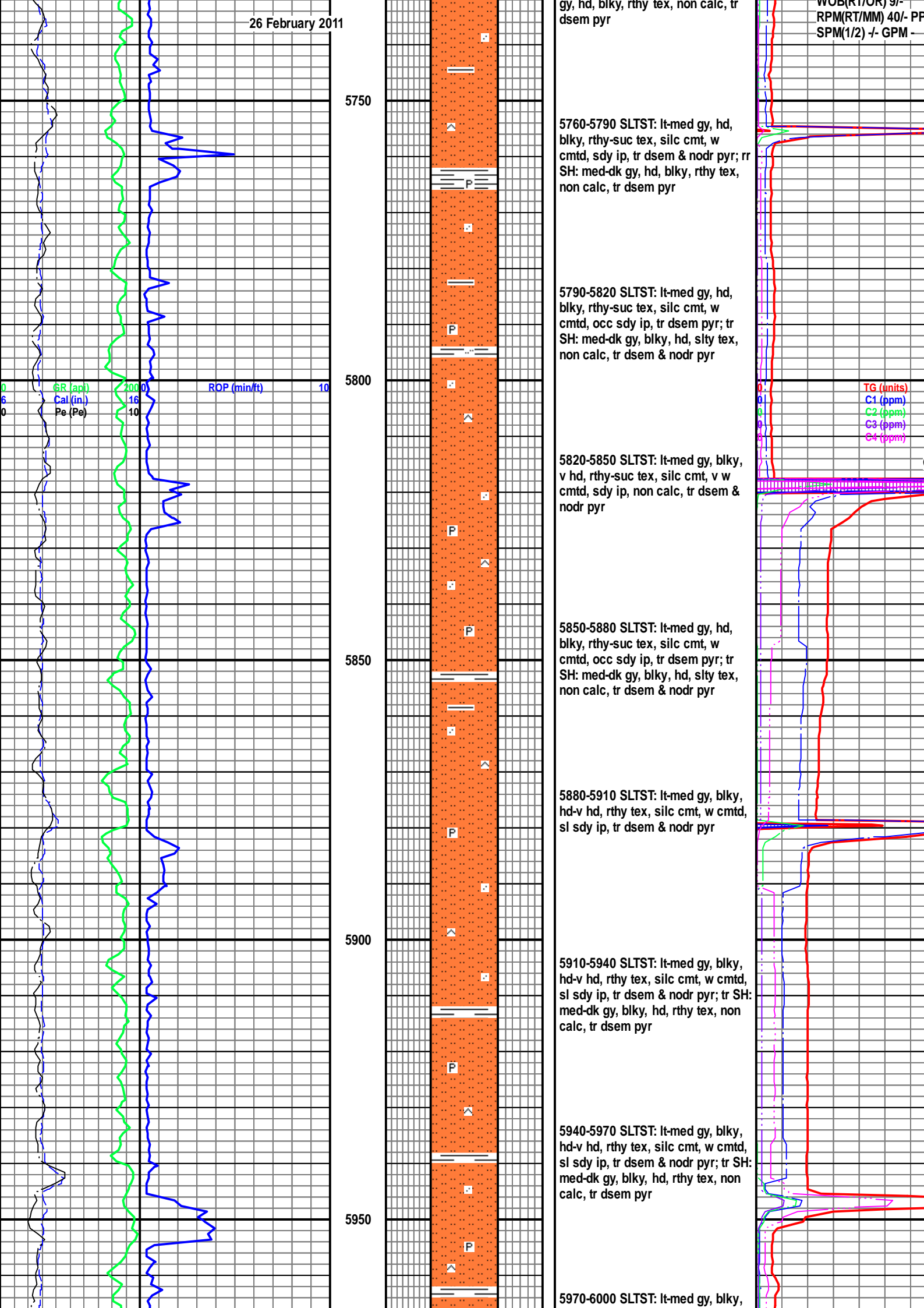
5880-5910 SLTST: lt-med gy, blk, hd-v hd, rthy tex, silc cmt, w cmt, sl sdy ip, tr dsem & nodr pyr

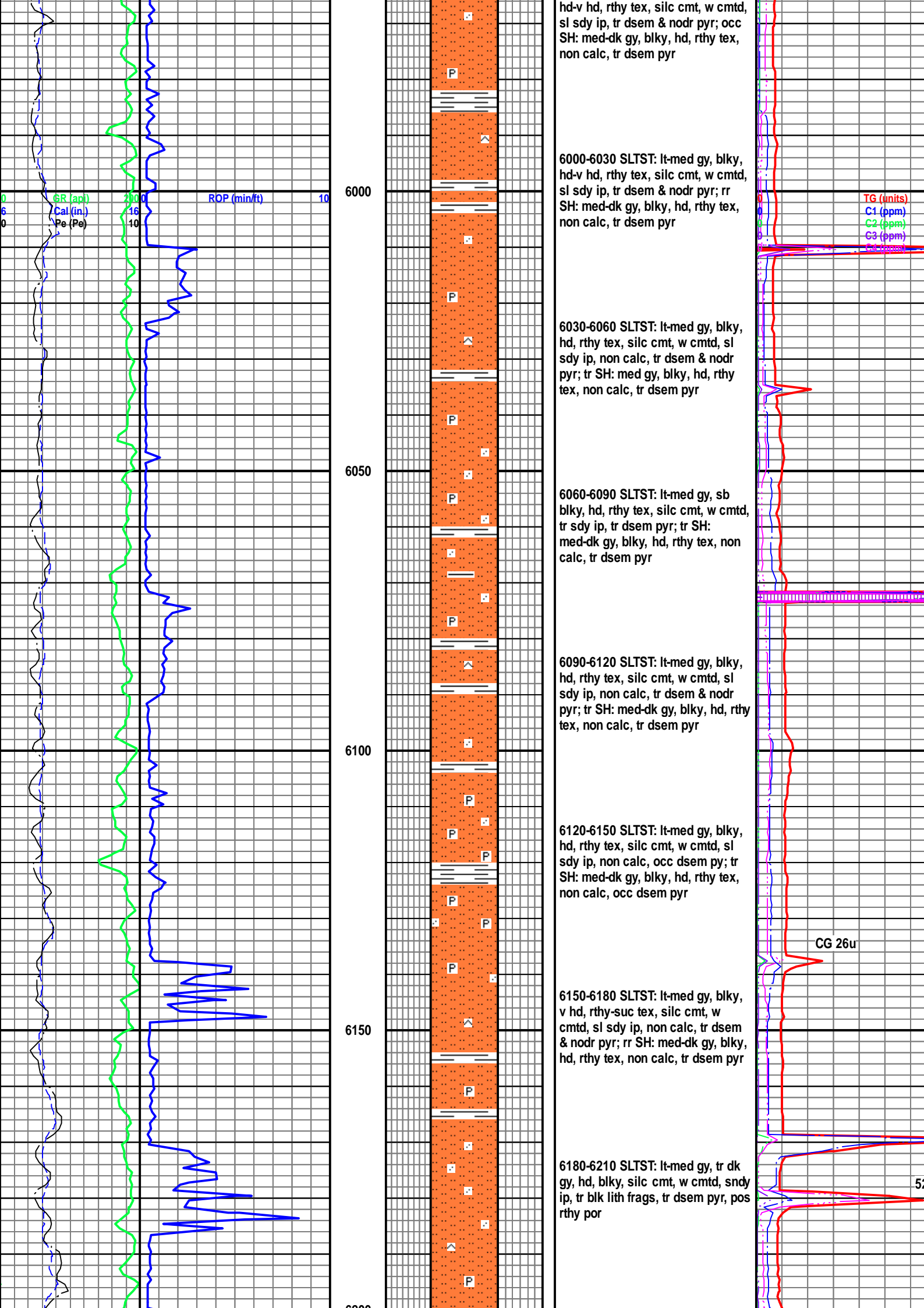
5910-5940 SLTST: lt-med gy, blk, hd-v hd, rthy tex, silc cmt, w cmt, sl sdy ip, tr dsem & nodr pyr; tr SH: med-dk gy, blk, hd, rthy tex, non calc, tr dsem pyr

5940-5970 SLTST: lt-med gy, blk, hd-v hd, rthy tex, silc cmt, w cmt, sl sdy ip, tr dsem & nodr pyr; tr SH: med-dk gy, blk, hd, rthy tex, non calc, tr dsem pyr

5970-6000 SLTST: lt-med gy, blk,

TG (units)
C1 (ppm)
C2 (ppm)
C3 (ppm)
C4 (ppm)





hd-v hd, rthy tex, silc cmt, w cmt, sl sdy ip, tr dsem & nodr pyr; occ SH: med-dk gy, blk, hd, rthy tex, non calc, tr dsem pyr

6000-6030 SLTST: lt-med gy, blk, hd-v hd, rthy tex, silc cmt, w cmt, sl sdy ip, tr dsem & nodr pyr; rr SH: med-dk gy, blk, hd, rthy tex, non calc, tr dsem pyr

6030-6060 SLTST: lt-med gy, blk, hd, rthy tex, silc cmt, w cmt, sl sdy ip, non calc, tr dsem & nodr pyr; tr SH: med gy, blk, hd, rthy tex, non calc, tr dsem pyr

6060-6090 SLTST: lt-med gy, sb blk, hd, rthy tex, silc cmt, w cmt, tr sdy ip, tr dsem pyr; tr SH: med-dk gy, blk, hd, rthy tex, non calc, tr dsem pyr

6090-6120 SLTST: lt-med gy, blk, hd, rthy tex, silc cmt, w cmt, sl sdy ip, non calc, tr dsem & nodr pyr; tr SH: med-dk gy, blk, hd, rthy tex, non calc, tr dsem pyr

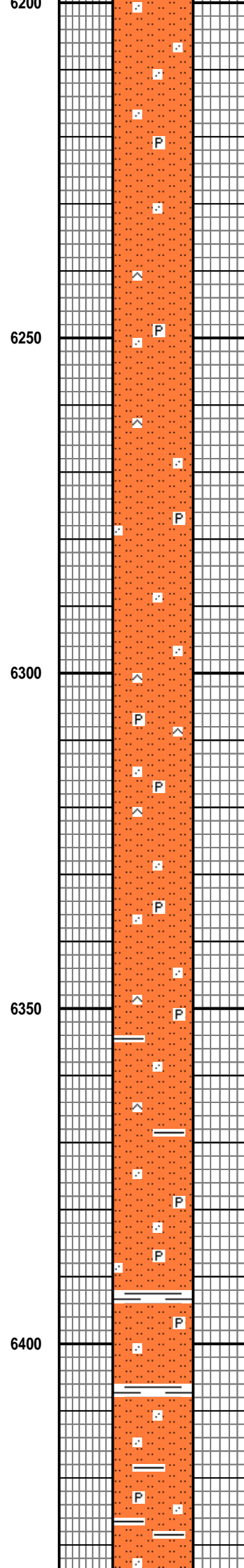
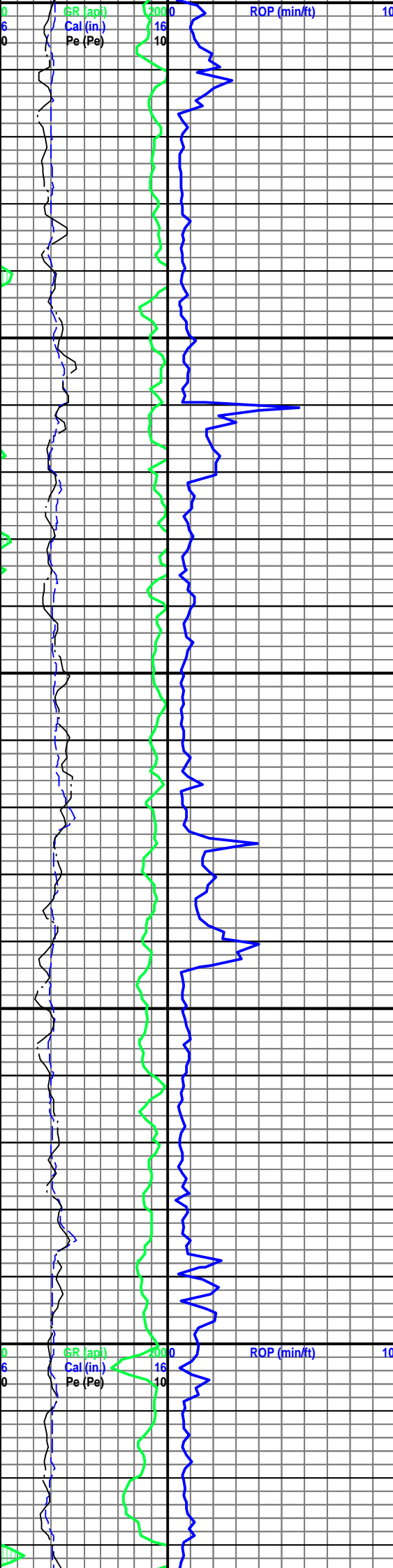
6120-6150 SLTST: lt-med gy, blk, hd, rthy tex, silc cmt, w cmt, sl sdy ip, non calc, occ dsem pyr; tr SH: med-dk gy, blk, hd, rthy tex, non calc, occ dsem pyr

6150-6180 SLTST: lt-med gy, blk, v hd, rthy-suc tex, silc cmt, w cmt, sl sdy ip, non calc, tr dsem & nodr pyr; rr SH: med-dk gy, blk, hd, rthy tex, non calc, tr dsem pyr

6180-6210 SLTST: lt-med gy, tr dk gy, hd, blk, silc cmt, w cmt, sndy ip, tr blk lith frags, tr dsem pyr, pos rthy pyr

TG (units)
C1 (ppm)
C2 (ppm)
C3 (ppm)
CG 26u

5



6210-6240 SLTST: lt-med gy, hd, sb blkly-sb plty, silc cmt, w cmt, sndy ip, tr blk lith frags, tr dsem pyr, pos rthy por

6240-6270 SLTST: med-lt gy, tr dk gy, hd, blkly, silc cmt, w cmt, sndy ip, tr blk lith frags, tr dsem pyr, pos rthy por

6270-6300 SLTST: med-lt gy, tr dk gy, hd, blkly, silc cmt, w cmt, sndy ip, tr blk lith frags, tr dsem pyr, pos rthy por

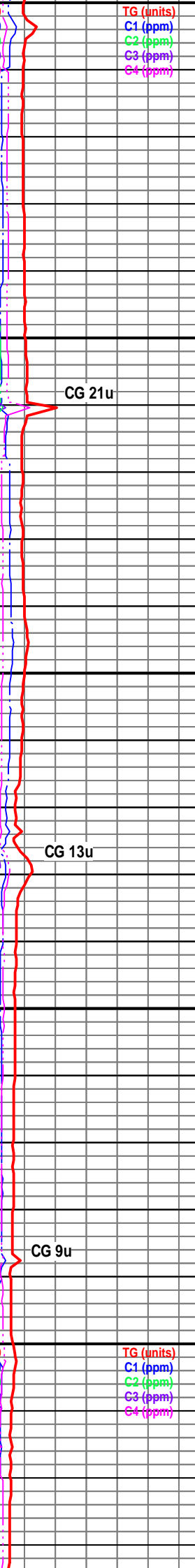
6300-6330 SLTST: lt-med gy, sb plty-plty, hd, silc cmt, w cmt, rthy tex, tr sdy ip, tr blk lith frag, tr dsem pyr

6330-6360 SLTST: med gy, sb plty-plty, hd, silc cmt, w cmt, rthy tex, tr sdy ip, tr blk lith frag, tr dsem pyr

6360-6390 SLTST: lt-med gy, sb plty, hd, silc cmt, w cmt, rthy tex, tr sdy ip, tr blk lith frag, tr dsem pyr; rr SH: med-dk gy, sb blkly, hd, rthy tex, non calc, tr dsem pyr

6390-6420 SLTST: med gy, sb plty, hd, silc cmt, w cmt, rthy tex, occ sdy ip, tr blk lith frag, occ dsem pyr; tr SH: med-dk gy, sb blkly, hd, rthy tex, non calc, tr dsem pyr

6420-6450 SLTST: lt-med gy, sb plty, hd, silc cmt, w cmt, rthy tex, tr sdy ip, tr blk lith frag, tr dsem pyr; rr SH: med-dk gy, sb blkly, hd, rthy tex, non calc, tr dsem pyr

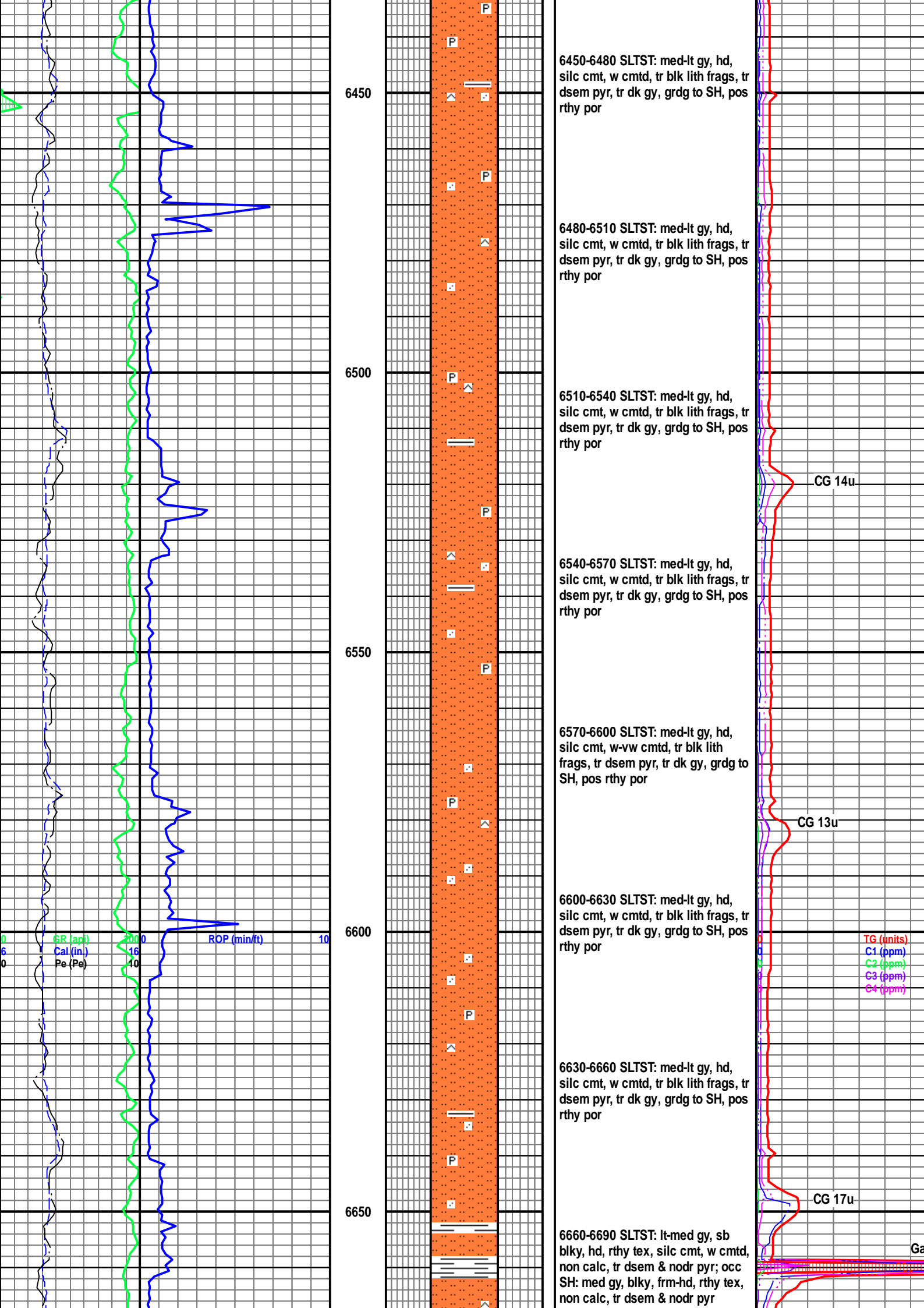


CG 21u

CG 13u

CG 9u

TG (units)
C1 (ppm)
C2 (ppm)
C3 (ppm)
C4 (ppm)



6450
6500
6550
6600
6650

6450-6480 SLTST: med-lt gy, hd, silc cmt, w cmt, tr blk lith frags, tr dsem pyr, tr dk gy, grdg to SH, pos rthy por

6480-6510 SLTST: med-lt gy, hd, silc cmt, w cmt, tr blk lith frags, tr dsem pyr, tr dk gy, grdg to SH, pos rthy por

6510-6540 SLTST: med-lt gy, hd, silc cmt, w cmt, tr blk lith frags, tr dsem pyr, tr dk gy, grdg to SH, pos rthy por

6540-6570 SLTST: med-lt gy, hd, silc cmt, w cmt, tr blk lith frags, tr dsem pyr, tr dk gy, grdg to SH, pos rthy por

6570-6600 SLTST: med-lt gy, hd, silc cmt, w-vw cmt, tr blk lith frags, tr dsem pyr, tr dk gy, grdg to SH, pos rthy por

6600-6630 SLTST: med-lt gy, hd, silc cmt, w cmt, tr blk lith frags, tr dsem pyr, tr dk gy, grdg to SH, pos rthy por

6630-6660 SLTST: med-lt gy, hd, silc cmt, w cmt, tr blk lith frags, tr dsem pyr, tr dk gy, grdg to SH, pos rthy por

6660-6690 SLTST: lt-med gy, sb blk, rthy tex, silc cmt, w cmt, non calc, tr dsem & nodr pyr; occ SH: med gy, blk, frm-hd, rthy tex, non calc, tr dsem & nodr pyr

CG 14u

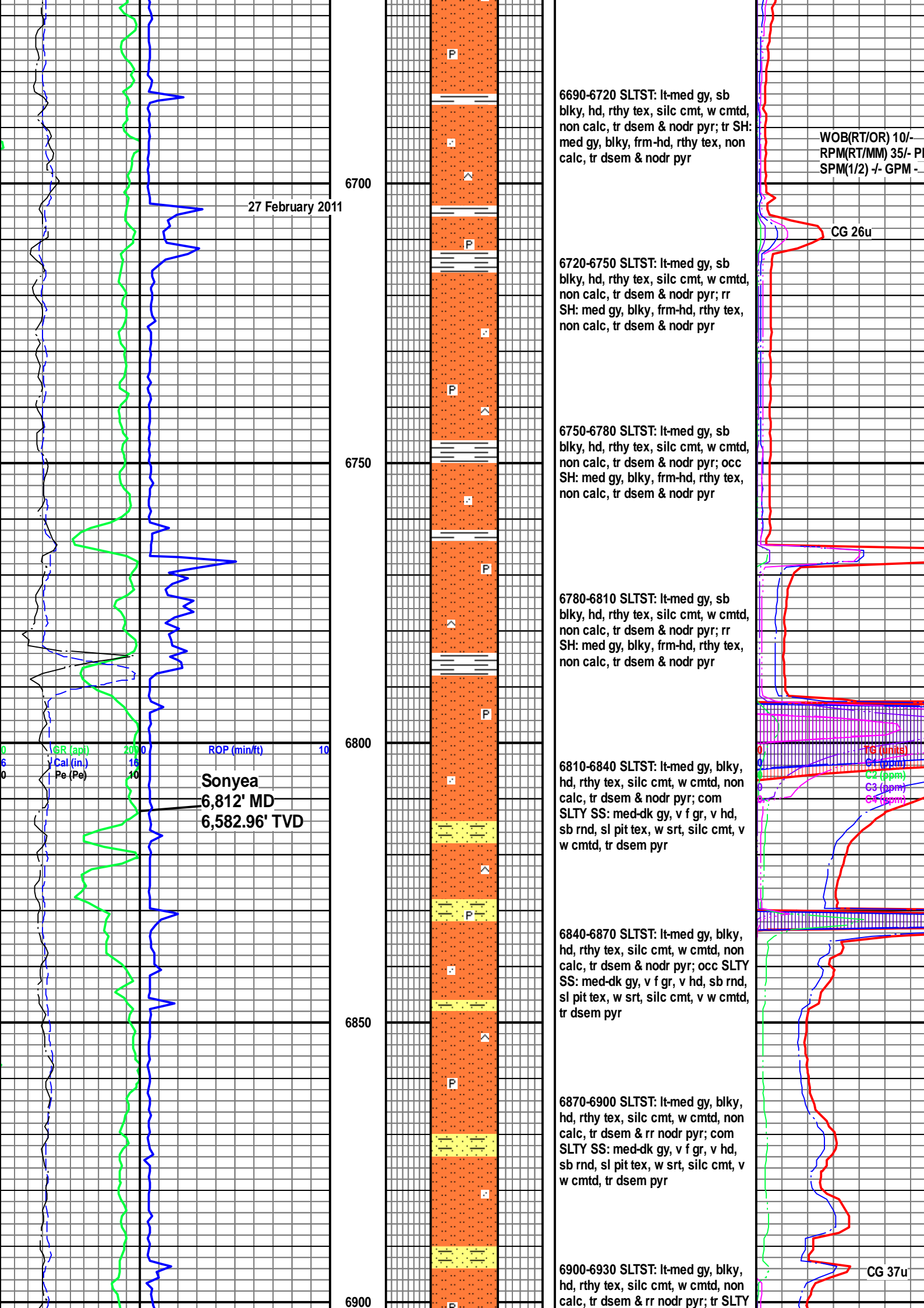
CG 13u

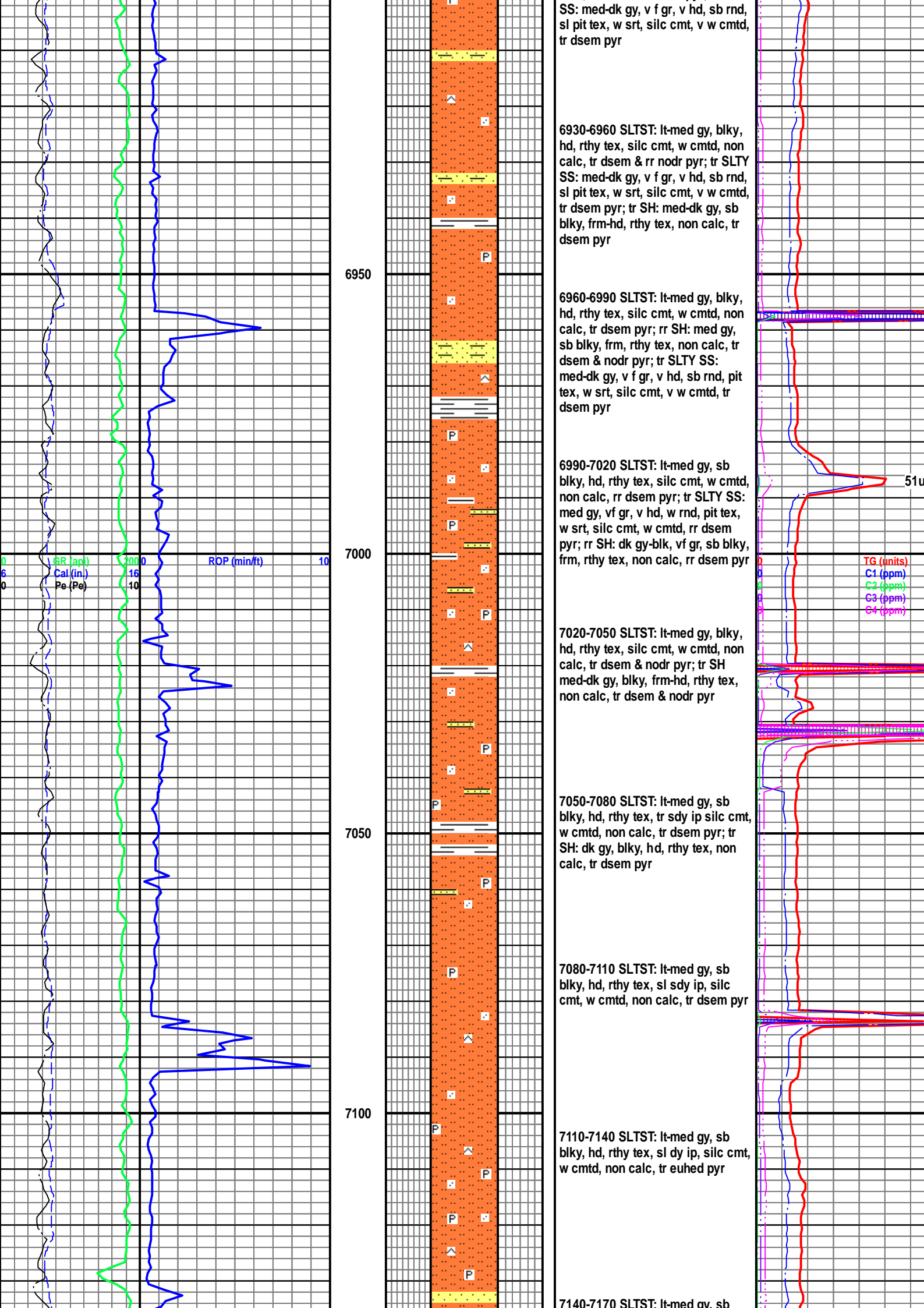
CG 17u

GR (api) 200
Cal (in) 16
Pe (Pe) 10
ROP (min/ft) 10

TG (units)
C1 (ppm)
C2 (ppm)
C3 (ppm)
C4 (ppm)

Ga





SS: med-dk gy, v f gr, v hd, sb rnd, sl pit tex, w srt, silc cmt, v w cmt, tr dsem pyr

6930-6960 SLTST: lt-med gy, blk, hd, rthy tex, silc cmt, w cmt, non calc, tr dsem & rr nodr pyr; tr SLTY SS: med-dk gy, v f gr, v hd, sb rnd, sl pit tex, w srt, silc cmt, v w cmt, tr dsem pyr; tr SH: med-dk gy, sb blk, frm-hd, rthy tex, non calc, tr dsem pyr

6960-6990 SLTST: lt-med gy, blk, hd, rthy tex, silc cmt, w cmt, non calc, tr dsem pyr; rr SH: med gy, sb blk, frm, rthy tex, non calc, tr dsem & nodr pyr; tr SLTY SS: med-dk gy, v f gr, v hd, sb rnd, pit tex, w srt, silc cmt, v w cmt, tr dsem pyr

6990-7020 SLTST: lt-med gy, sb blk, hd, rthy tex, silc cmt, w cmt, non calc, rr dsem pyr; tr SLTY SS: med gy, vf gr, v hd, w rnd, pit tex, w srt, silc cmt, w cmt, rr dsem pyr; rr SH: dk gy-blk, vf gr, sb blk, frm, rthy tex, non calc, rr dsem pyr

7020-7050 SLTST: lt-med gy, blk, hd, rthy tex, silc cmt, w cmt, non calc, tr dsem & nodr pyr; tr SH med-dk gy, blk, frm-hd, rthy tex, non calc, tr dsem & nodr pyr

7050-7080 SLTST: lt-med gy, sb blk, hd, rthy tex, tr sdy ip silc cmt, w cmt, non calc, tr dsem pyr; tr SH: dk gy, blk, hd, rthy tex, non calc, tr dsem pyr

7080-7110 SLTST: lt-med gy, sb blk, hd, rthy tex, sl sdy ip, silc cmt, w cmt, non calc, tr dsem pyr

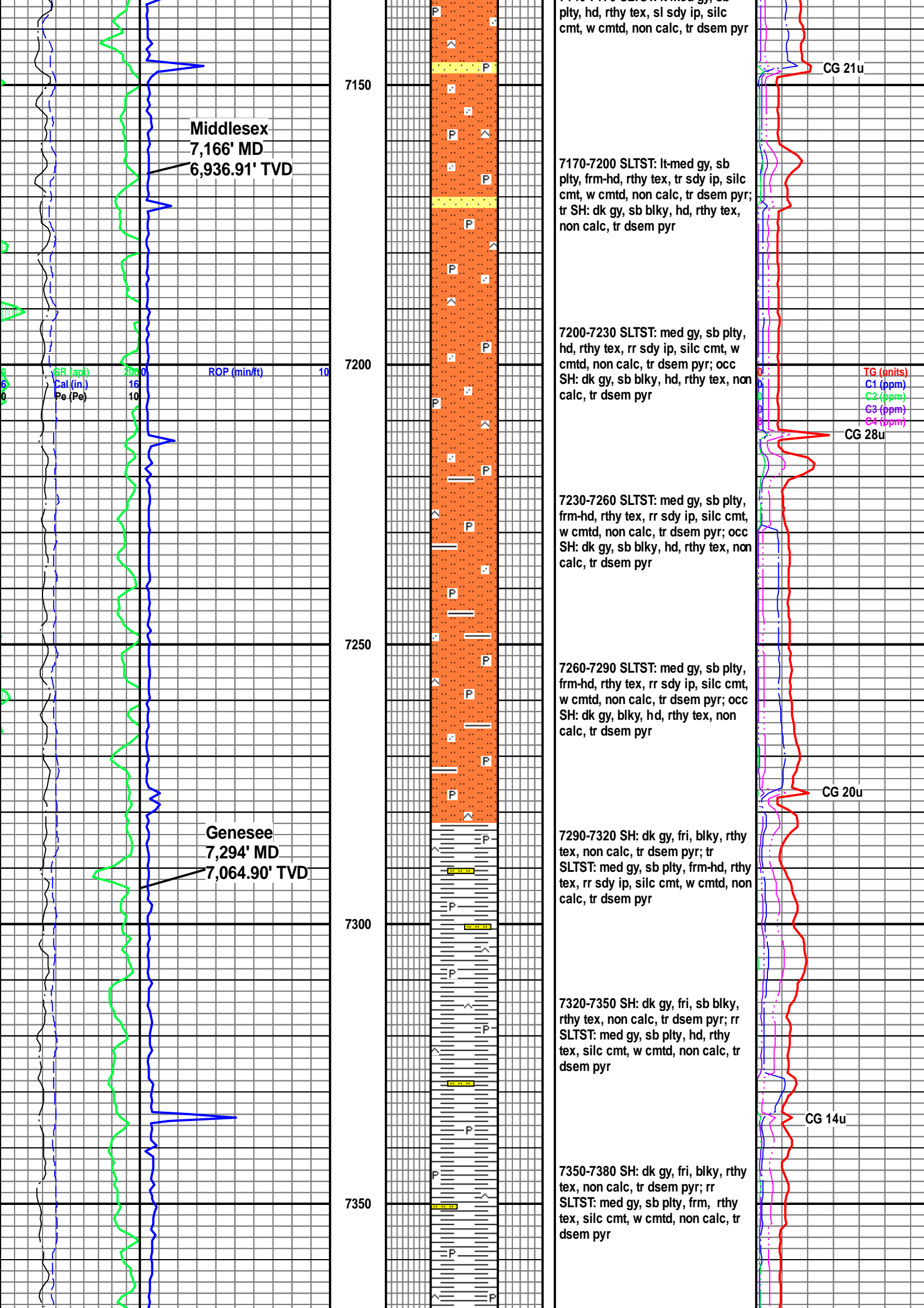
7110-7140 SLTST: lt-med gy, sb blk, hd, rthy tex, sl dy ip, silc cmt, w cmt, non calc, tr euhed pyr

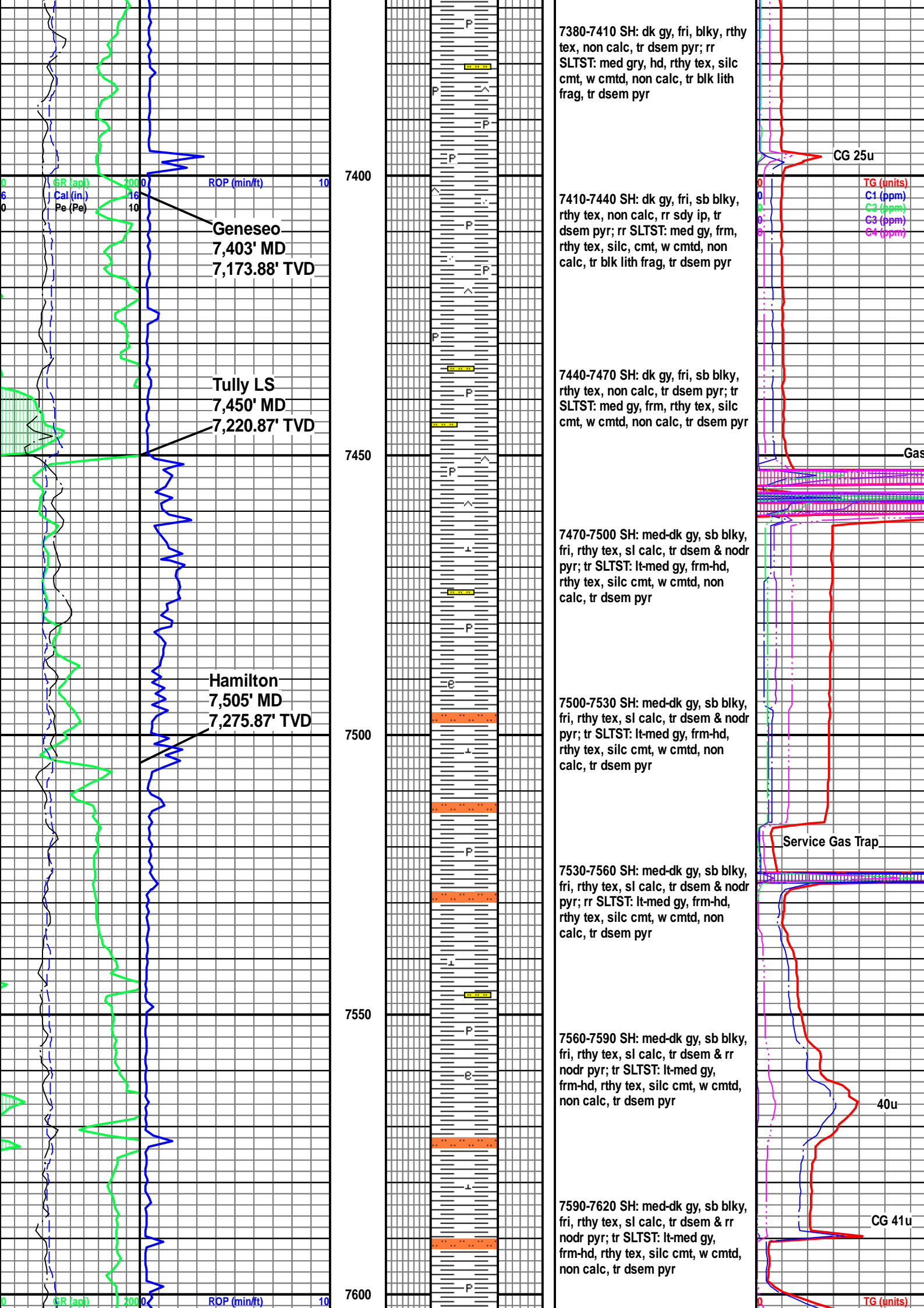
7140-7170 SLTST: lt-med gy, sb

GR (api) 2000
Cal (in) 16
Pe (Pe) 10
ROP (min/ft) 10

TG (units)
C1 (ppm)
C2 (ppm)
C3 (ppm)
C4 (ppm)

51 u





GR (api) 200 0
 Cal (in) 16 0
 Pe (Pe) 10 0

Genesee
 7,403' MD
 7,173.88' TVD

Tully LS
 7,450' MD
 7,220.87' TVD

Hamilton
 7,505' MD
 7,275.87' TVD

7400

7450

7500

7550

7600

7380-7410 SH: dk gy, fri, blk, rthy tex, non calc, tr dsem pyr; rr SLTST: med gry, hd, rthy tex, silc cmt, w cmt, non calc, tr blk lith frag, tr dsem pyr

7410-7440 SH: dk gy, fri, sb blk, rthy tex, non calc, rr sdy ip, tr dsem pyr; rr SLTST: med gy, frm, rthy tex, silc cmt, w cmt, non calc, tr blk lith frag, tr dsem pyr

7440-7470 SH: dk gy, fri, sb blk, rthy tex, non calc, tr dsem pyr; rr SLTST: med gy, frm, rthy tex, silc cmt, w cmt, non calc, tr dsem pyr

7470-7500 SH: med-dk gy, sb blk, fri, rthy tex, sl calc, tr dsem & nodr pyr; rr SLTST: lt-med gy, frm-hd, rthy tex, silc cmt, w cmt, non calc, tr dsem pyr

7500-7530 SH: med-dk gy, sb blk, fri, rthy tex, sl calc, tr dsem & nodr pyr; rr SLTST: lt-med gy, frm-hd, rthy tex, silc cmt, w cmt, non calc, tr dsem pyr

7530-7560 SH: med-dk gy, sb blk, fri, rthy tex, sl calc, tr dsem & nodr pyr; rr SLTST: lt-med gy, frm-hd, rthy tex, silc cmt, w cmt, non calc, tr dsem pyr

7560-7590 SH: med-dk gy, sb blk, fri, rthy tex, sl calc, tr dsem & rr nodr pyr; rr SLTST: lt-med gy, frm-hd, rthy tex, silc cmt, w cmt, non calc, tr dsem pyr

7590-7620 SH: med-dk gy, sb blk, fri, rthy tex, sl calc, tr dsem & rr nodr pyr; rr SLTST: lt-med gy, frm-hd, rthy tex, silc cmt, w cmt, non calc, tr dsem pyr

CG 25u

TG (units)
 C1 (ppm)
 C2 (ppm)
 C3 (ppm)
 C4 (ppm)

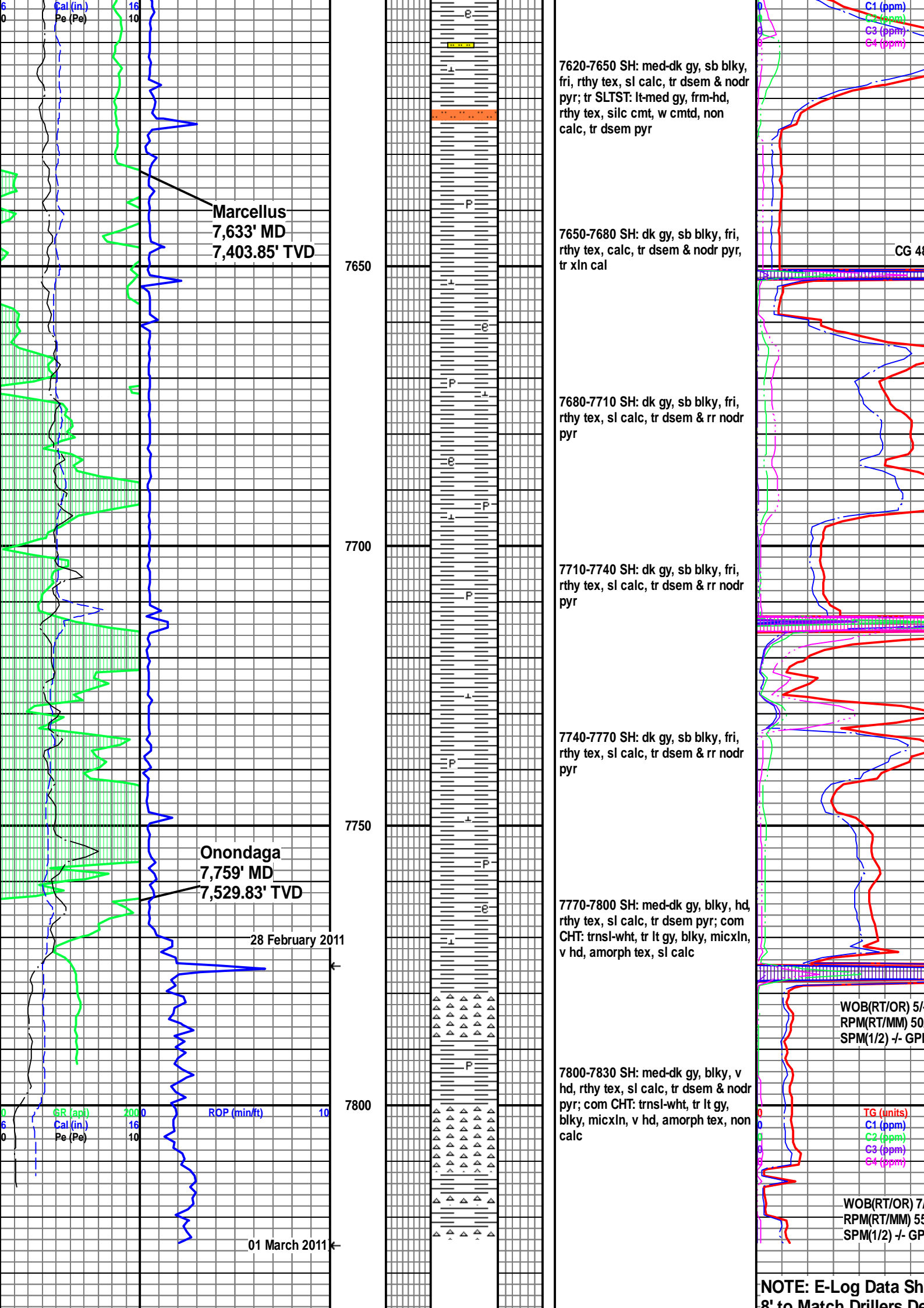
Gas

Service Gas Trap

40u

CG 41u

TG (units)



Marcellus
7,633' MD
7,403.85' TVD

Onondaga
7,759' MD
7,529.83' TVD

7620-7650 SH: med-dk gy, sb blk, fri, rthy tex, sl calc, tr dsem & nodr pyr; tr SLTST: lt-med gy, frm-hd, rthy tex, silc cmt, w cmt, non calc, tr dsem pyr

7650-7680 SH: dk gy, sb blk, fri, rthy tex, calc, tr dsem & nodr pyr, tr xln cal

7680-7710 SH: dk gy, sb blk, fri, rthy tex, sl calc, tr dsem & rr nodr pyr

7710-7740 SH: dk gy, sb blk, fri, rthy tex, sl calc, tr dsem & rr nodr pyr

7740-7770 SH: dk gy, sb blk, fri, rthy tex, sl calc, tr dsem & rr nodr pyr

7770-7800 SH: med-dk gy, blk, hd, rthy tex, sl calc, tr dsem pyr; com CHT: trnsi-wht, tr lt gy, blk, micxln, v hd, amorph tex, sl calc

7800-7830 SH: med-dk gy, blk, v hd, rthy tex, sl calc, tr dsem & nodr pyr; com CHT: trnsi-wht, tr lt gy, blk, micxln, v hd, amorph tex, non calc

7650

7700

7750

7800

