



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

Well Name: Razor 25O-2411
API: 051234264700
Location: SWSE Sec 25-T10N-R58W
License Number:
Spud Date: 8/31/2016
Surface Coordinates: 40.803461
-103.810197

Region: Wildcat Field
Drilling Completed: 9/4/2016

Bottom Hole
Coordinates:
Ground Elevation (ft): 4718
Logged Interval (ft): 4845 To: 15771
Formation: Niobrara
Type of Drilling Fluid: Water Based Mud

K.B. Elevation (ft): 4739
Total Depth (ft): 15771

Printed by HORIZONTAL.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Whiting Oil & Gas Corp.
Address: 1700 Broadway Suite 2300
Denver, CO 80290

GEOLOGIST

Name: Mitch Schneider, Craig Dreiling
Company: Acme Geologic Consulting
Address: 108 Berry Street
Little Rock, AR 72205

Drilling Company

Unit Drilling Company
Rig 406

Gas Detection

Mudlogging Systems, Inc., M Logger, Model TGC, Total Gas and Chromatograph

Comments

Lithologies and tops at drilled depths, not corrected to elogs. Where the well bore gas is 100% methane, the C1 line is moved to 85% for graphical purposes only.

ROCK TYPES

 Anhy
 Bent
 Brec
 Cht
 Clyst

 Coal
 Congl
 Dol
 Gyp
 Igne

 Lmst
 Meta
 Cyan mrlst
 Mrlst
 Salt
















 Shale
 Shcol
 Shgy
 Sltst
 Ss







 Till
 Cyan chk
 Chalk

ACCESSORIES

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
 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

POROSITY

 Earthy
 Fenest
 Fracture
 Inter
 Moldic
 Organic
 Pinpoint





 Vuggy

SORTING

 Well
 Moderate
 Poor

OTHER SYMBOLS

ROUNDING

 Rounded
 Subrnd
 Subang
 Angular

OIL SHOW

 Even

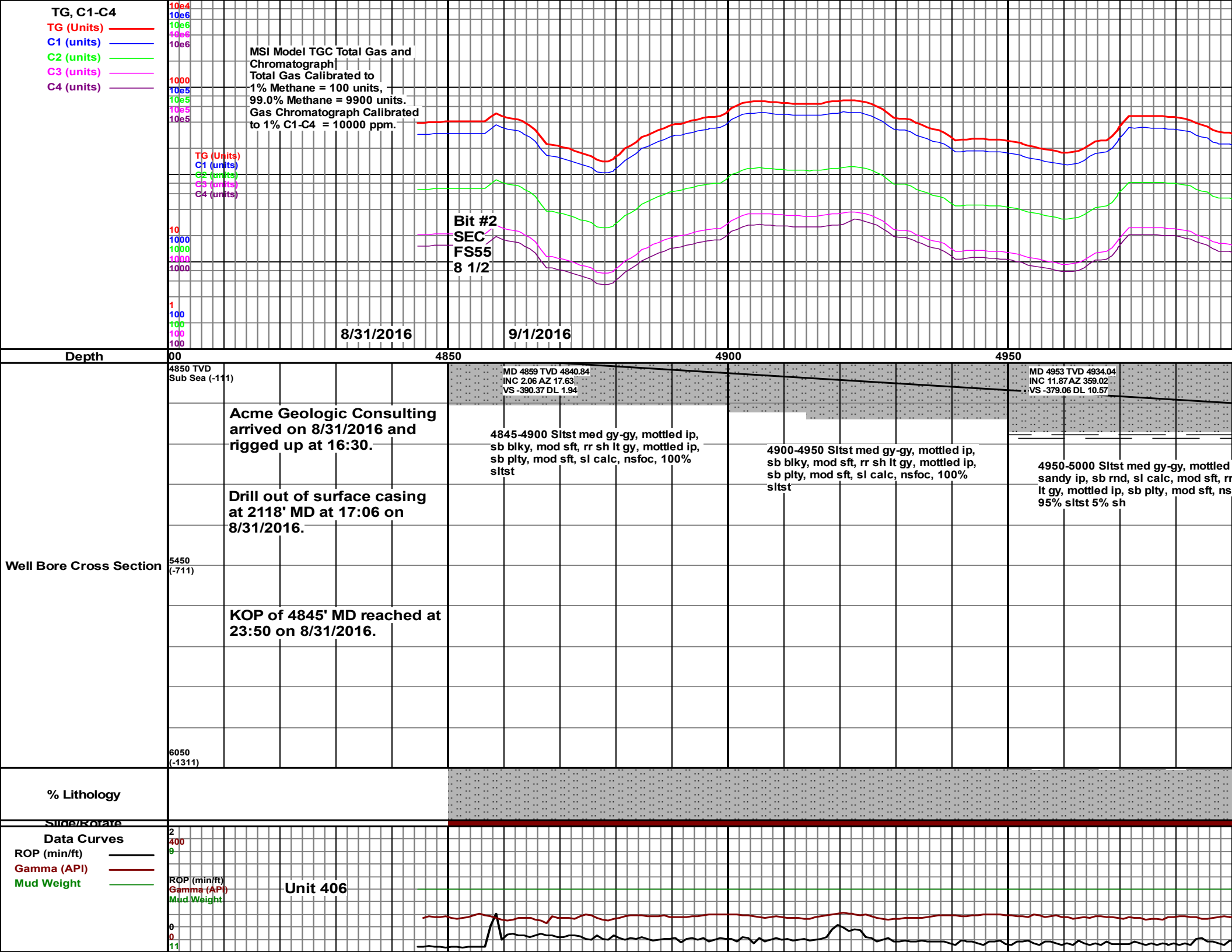
 Spotted
 Ques
 Dead

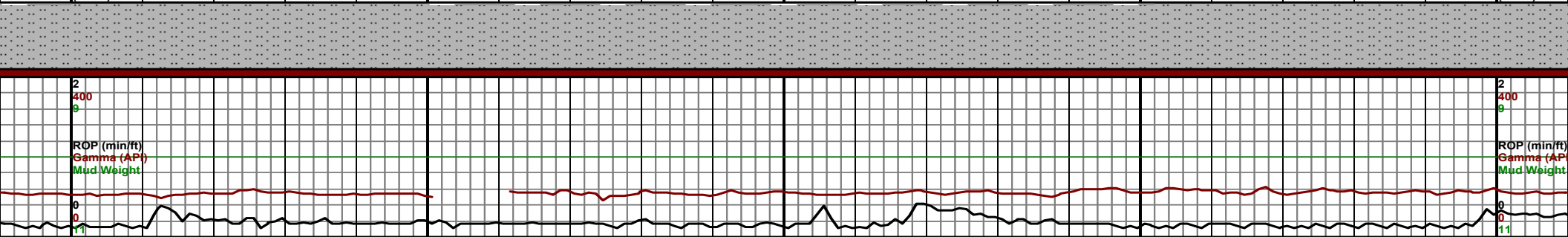
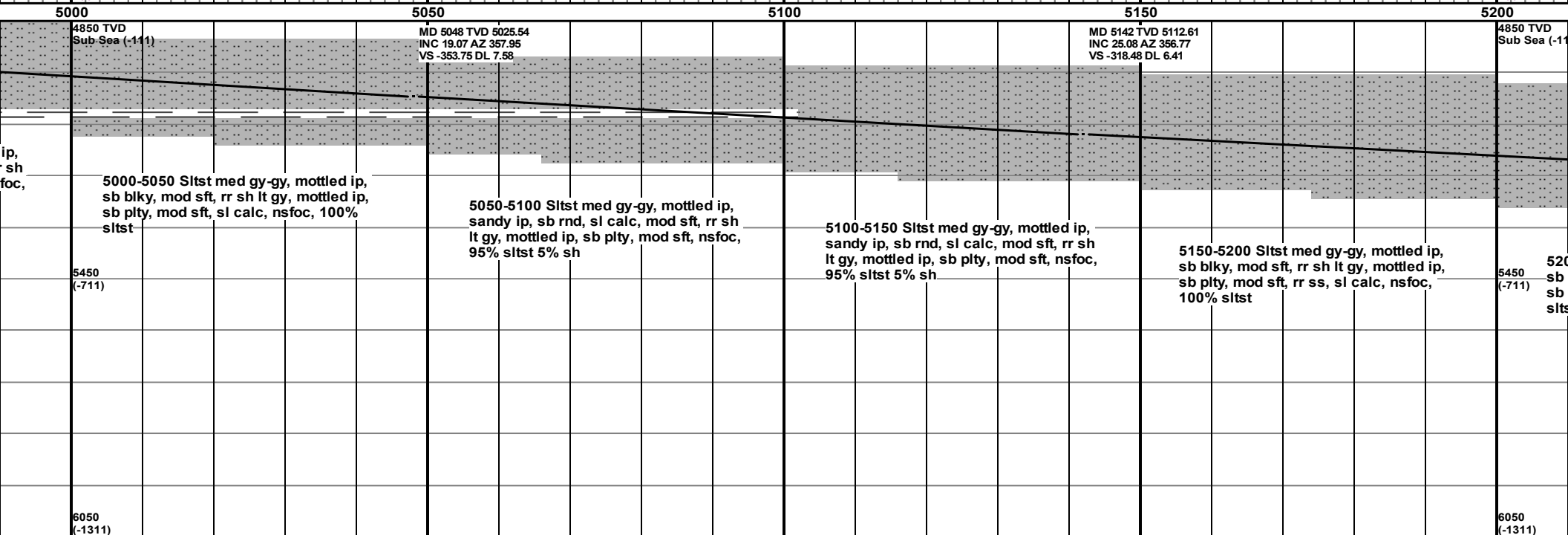
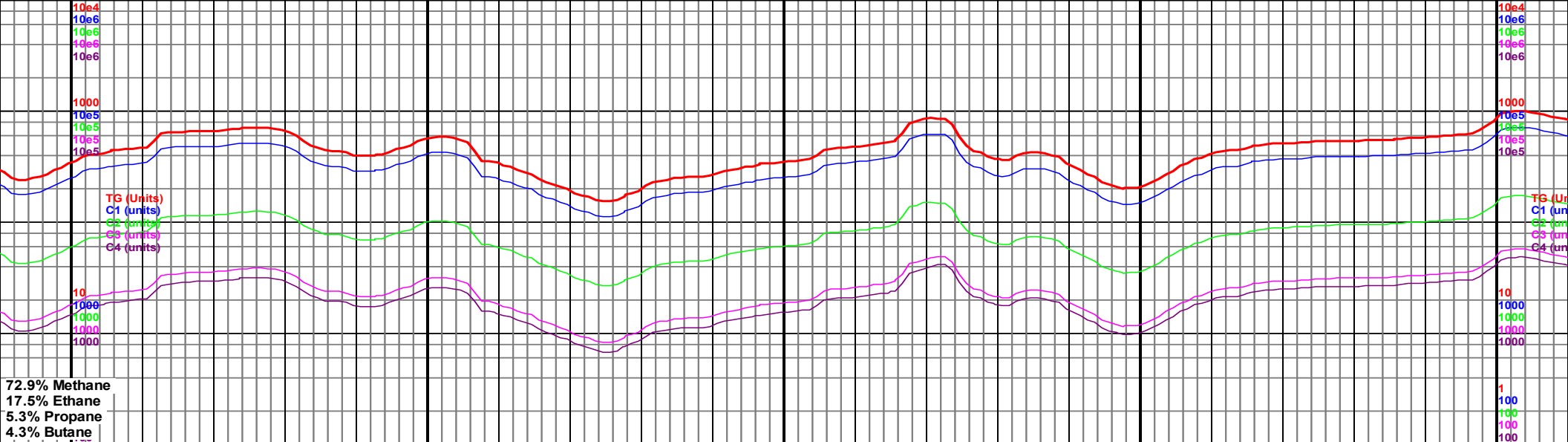
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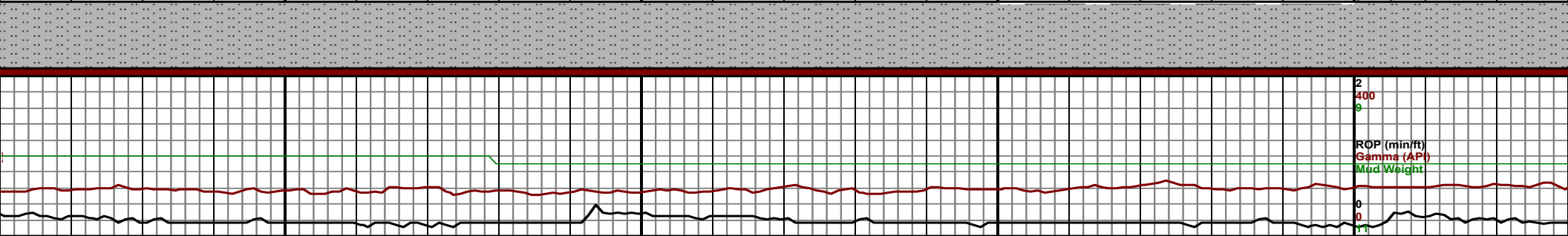
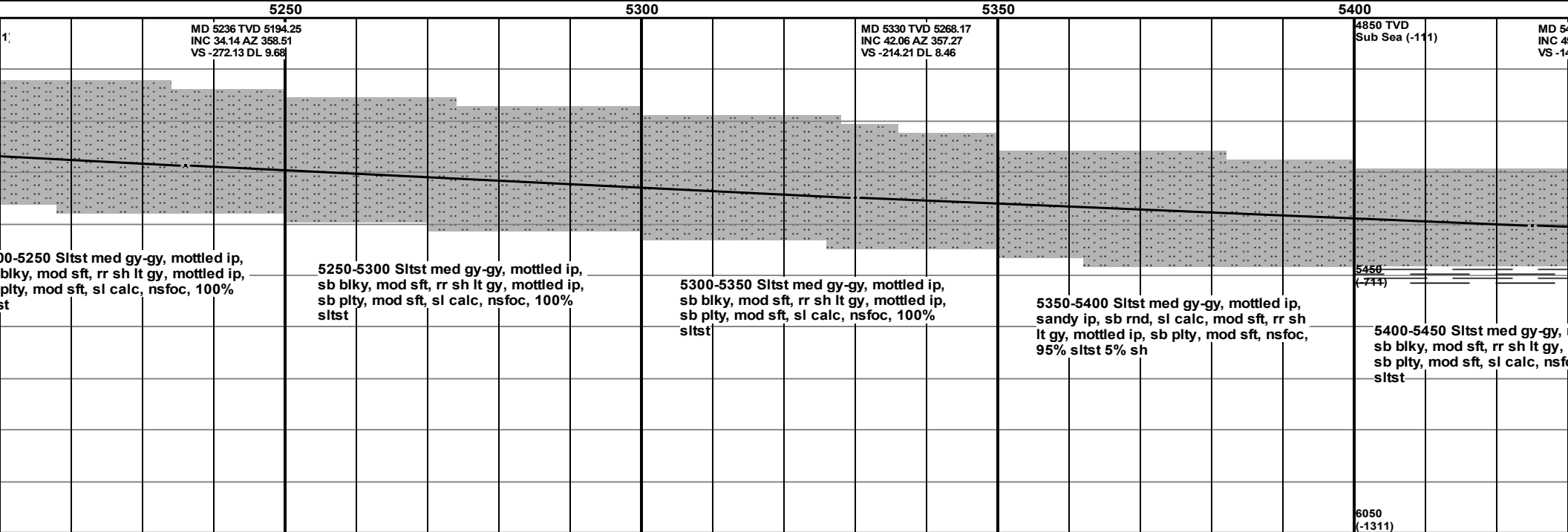
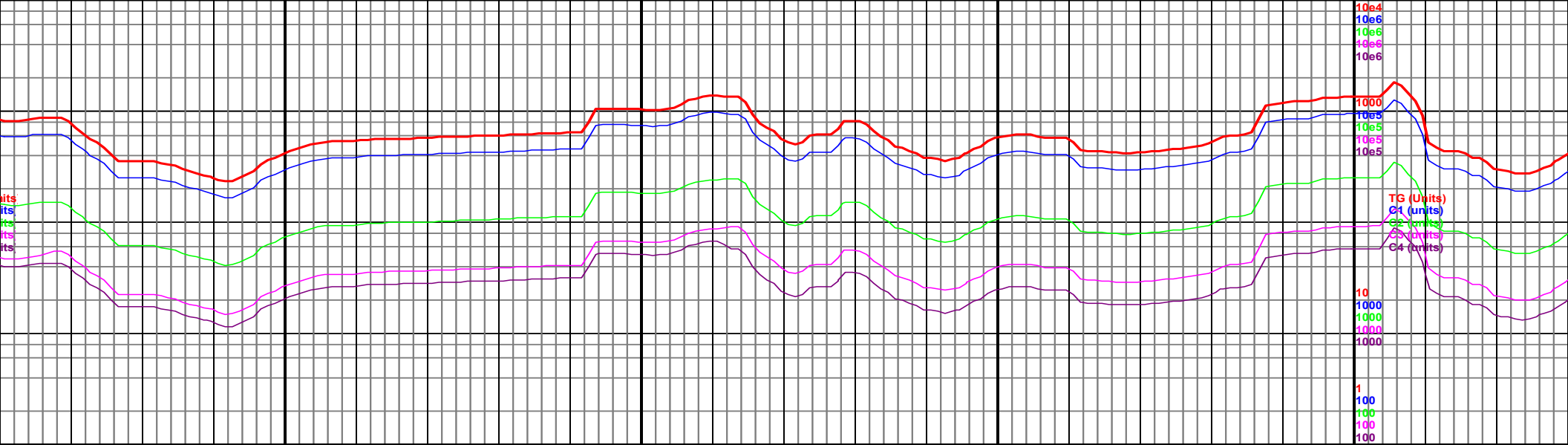
 Core
 Dst

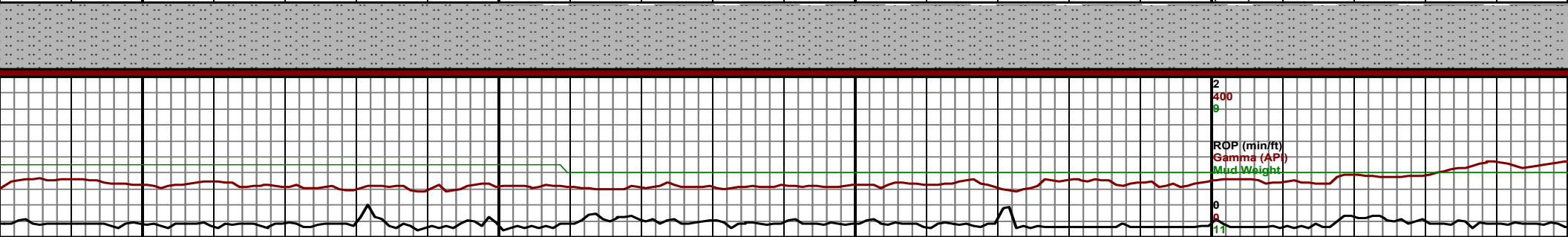
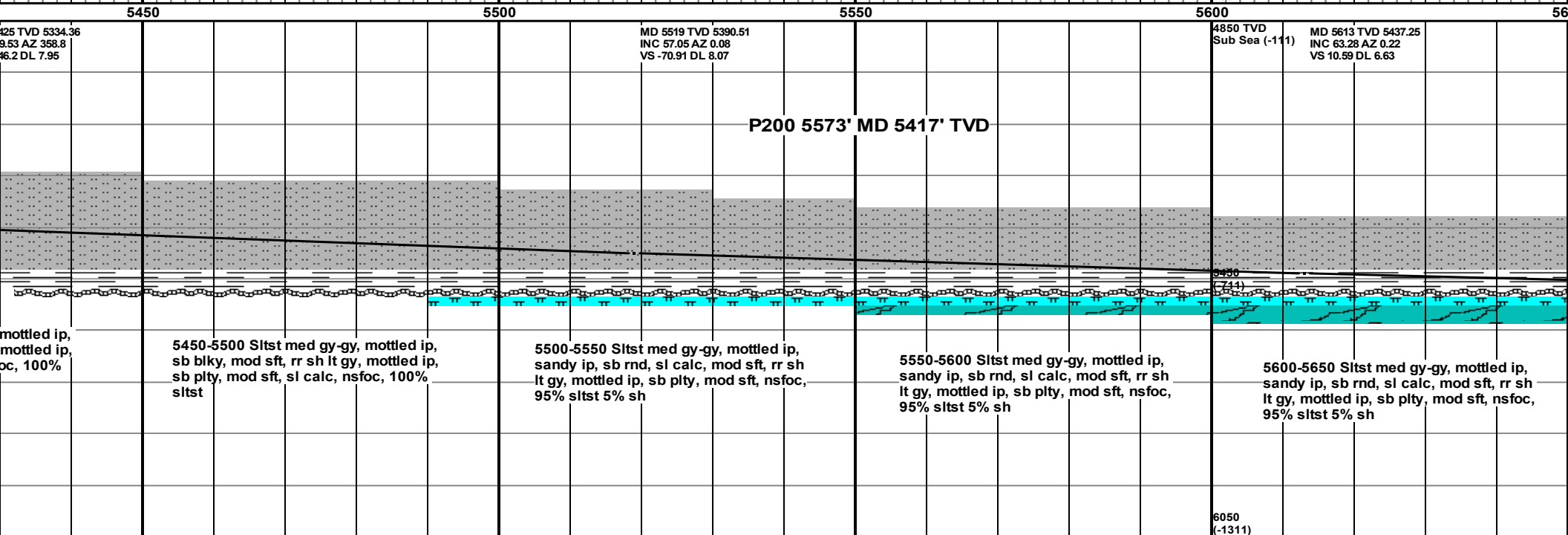
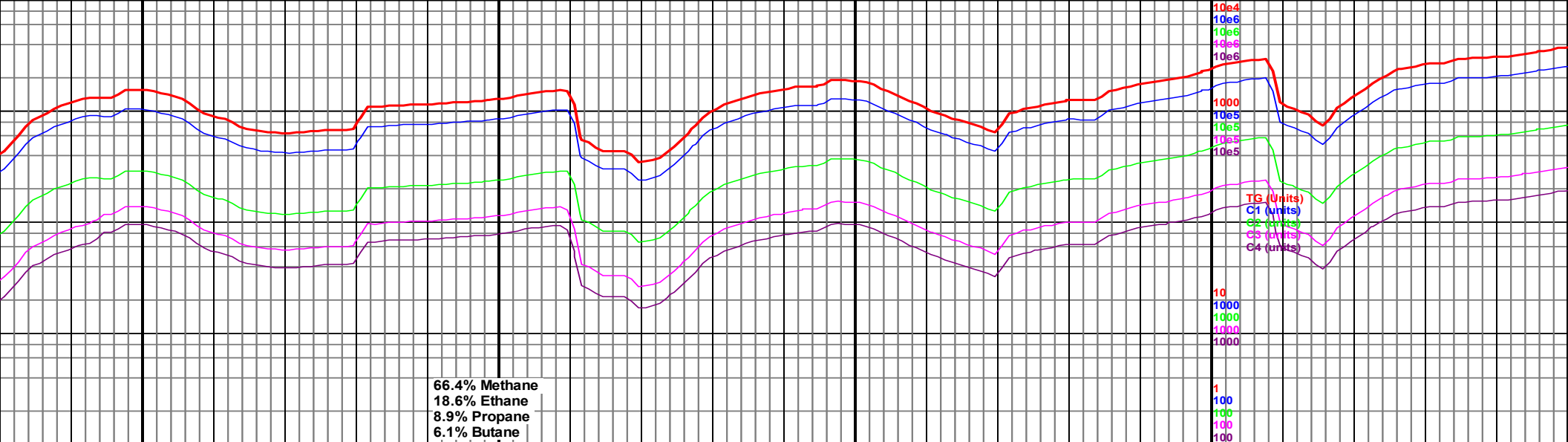
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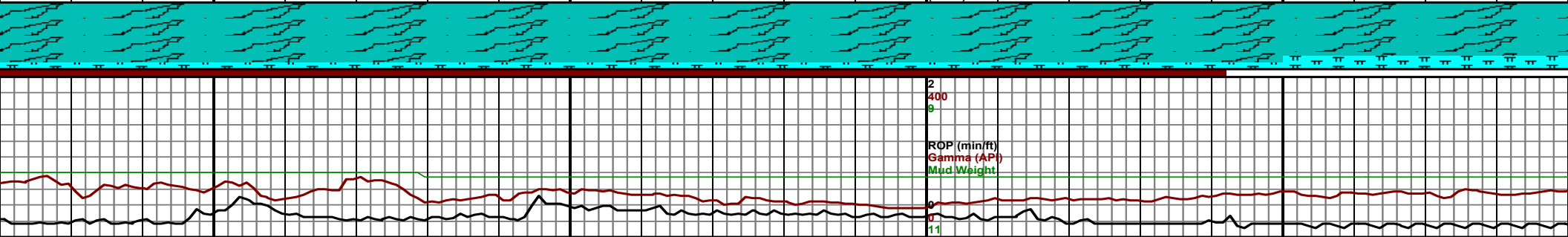
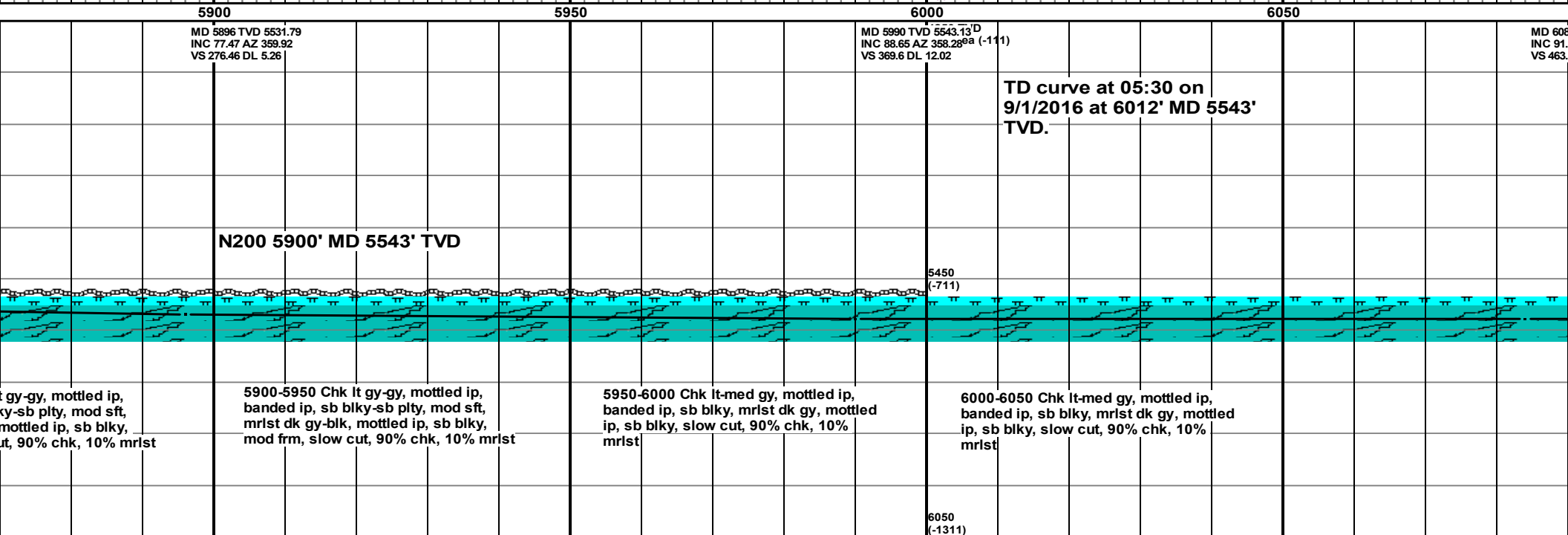
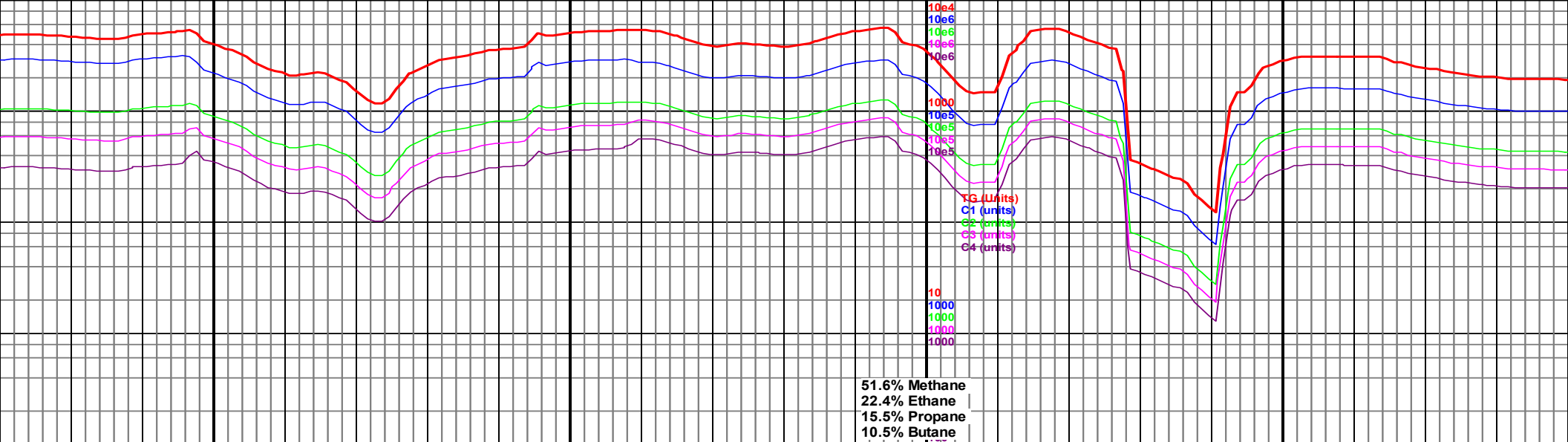
 Rft
 Sidewall

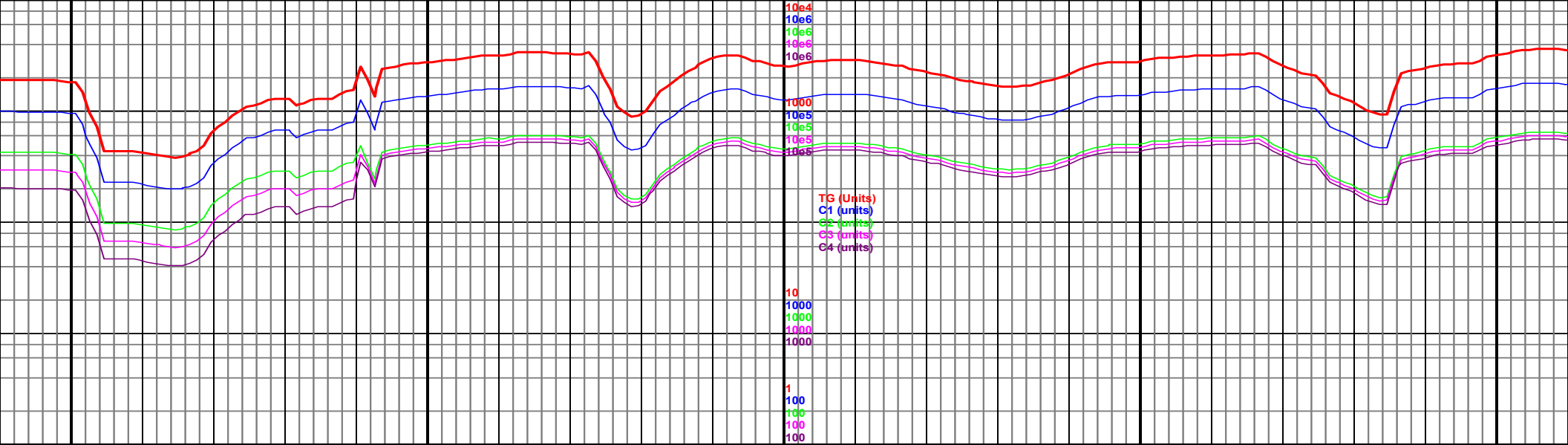




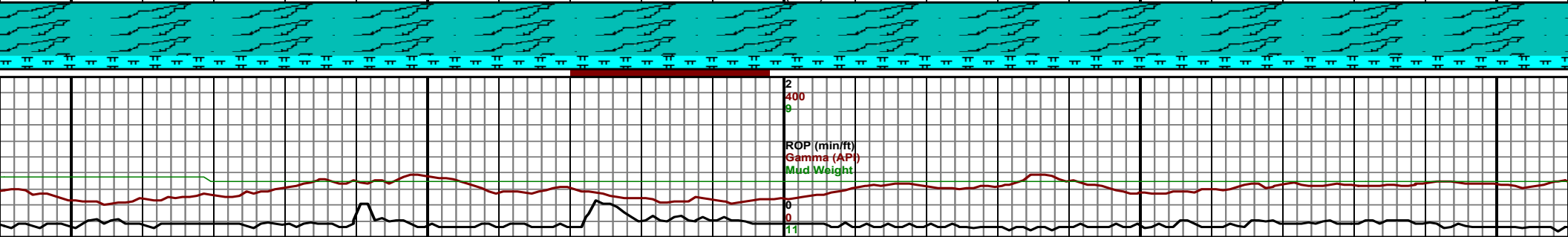


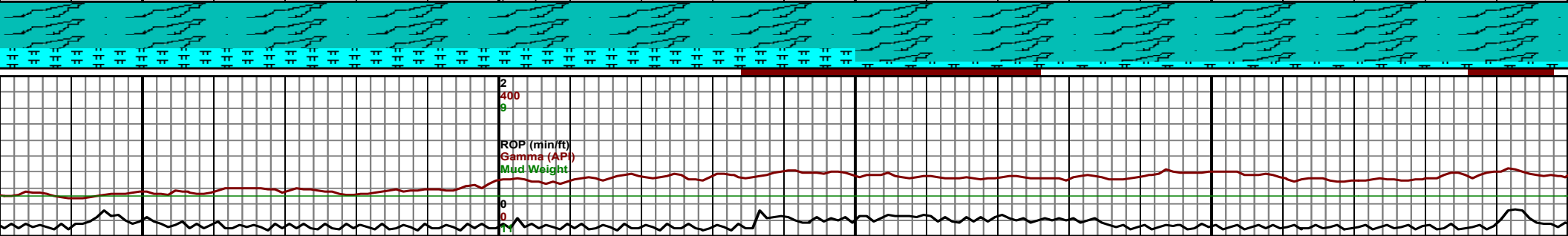
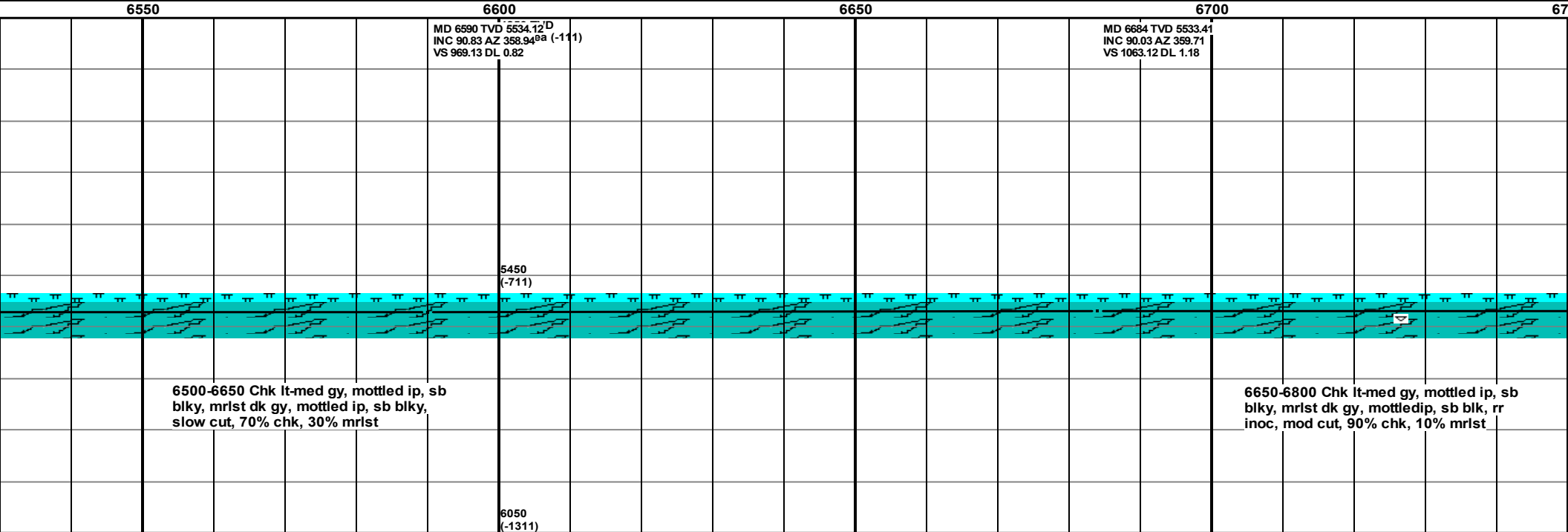
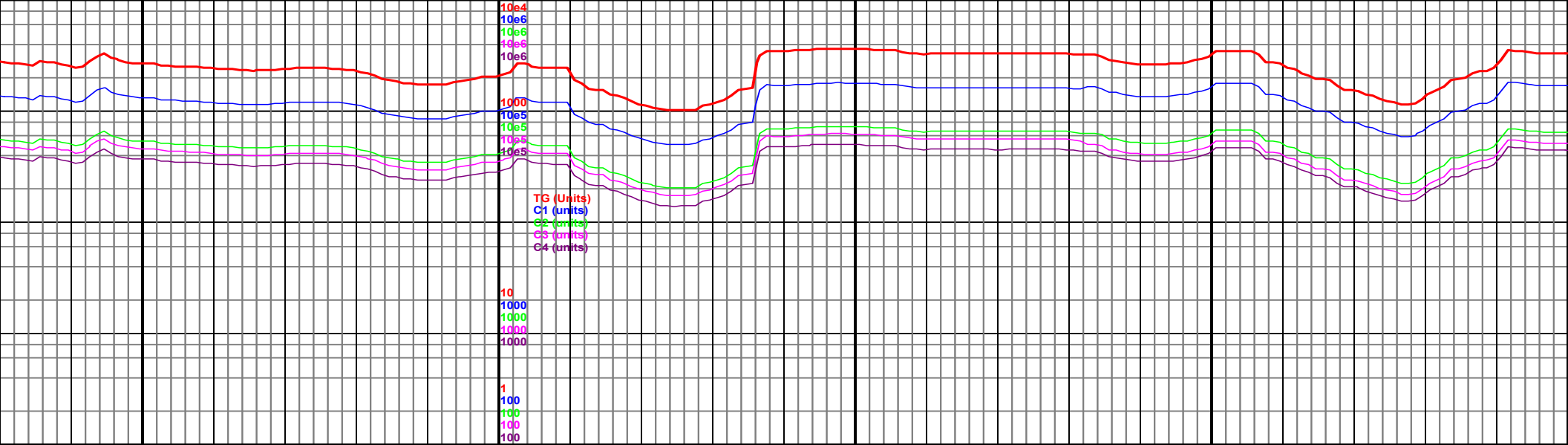


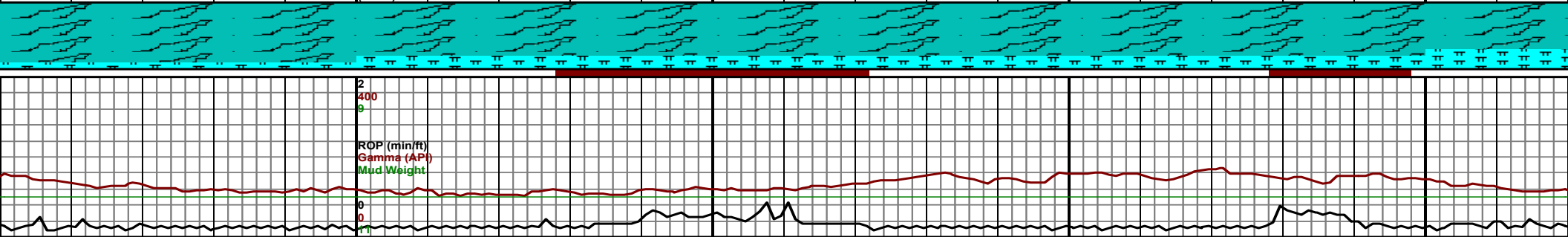
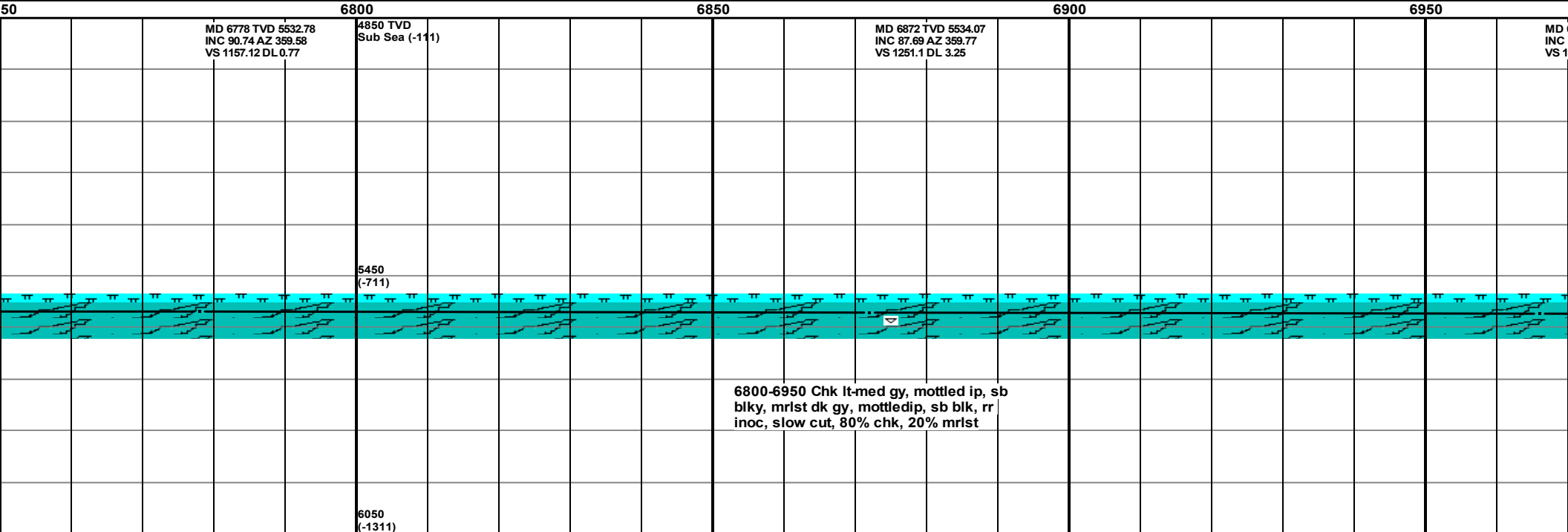
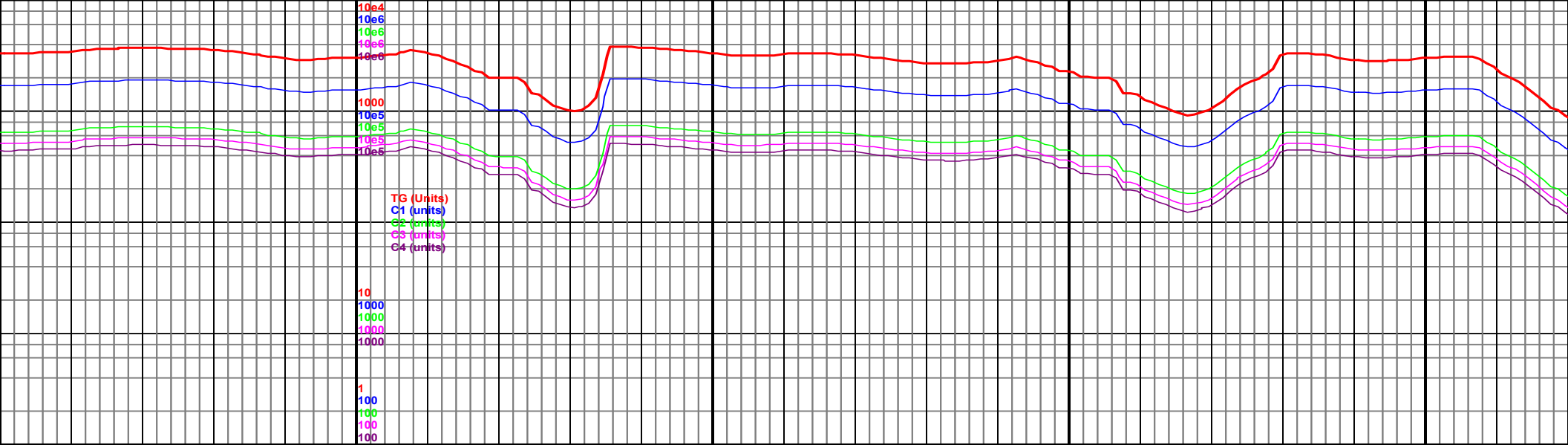


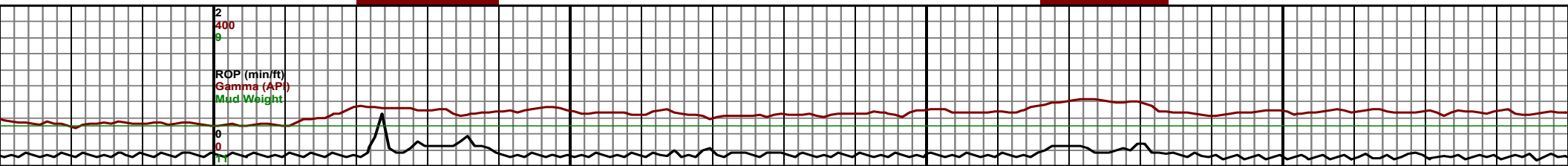
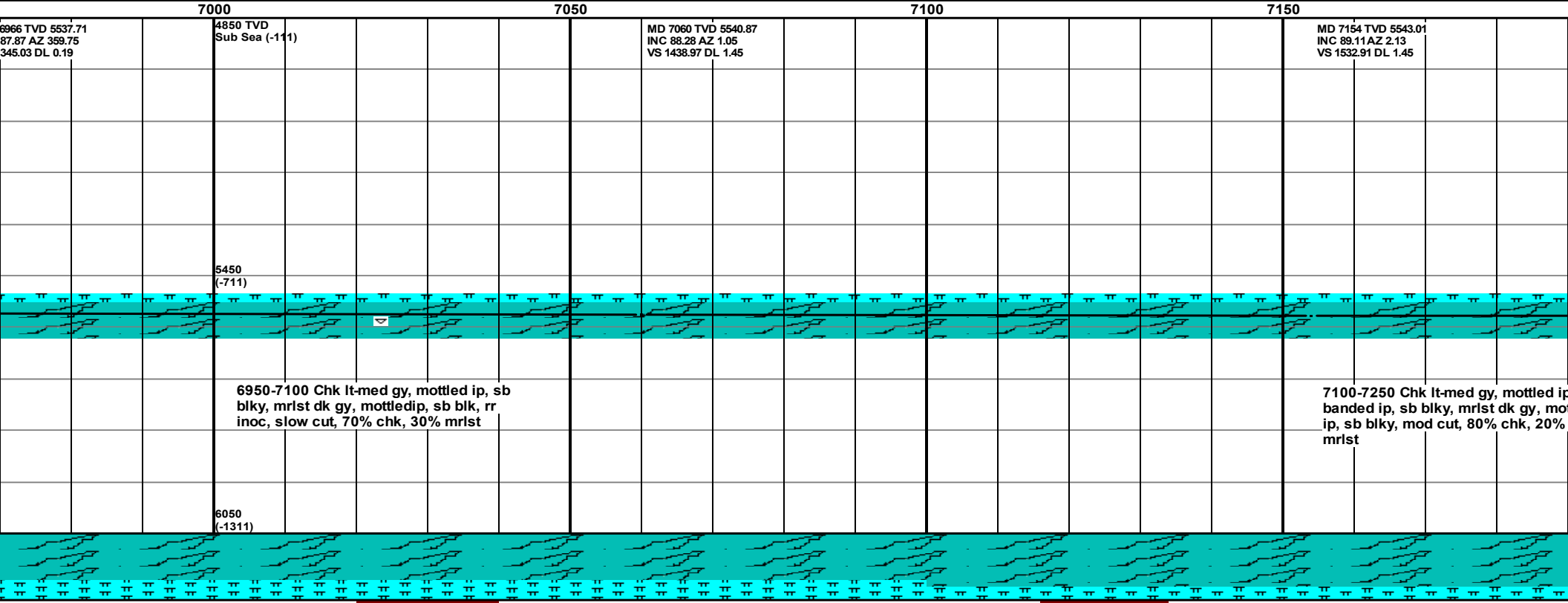
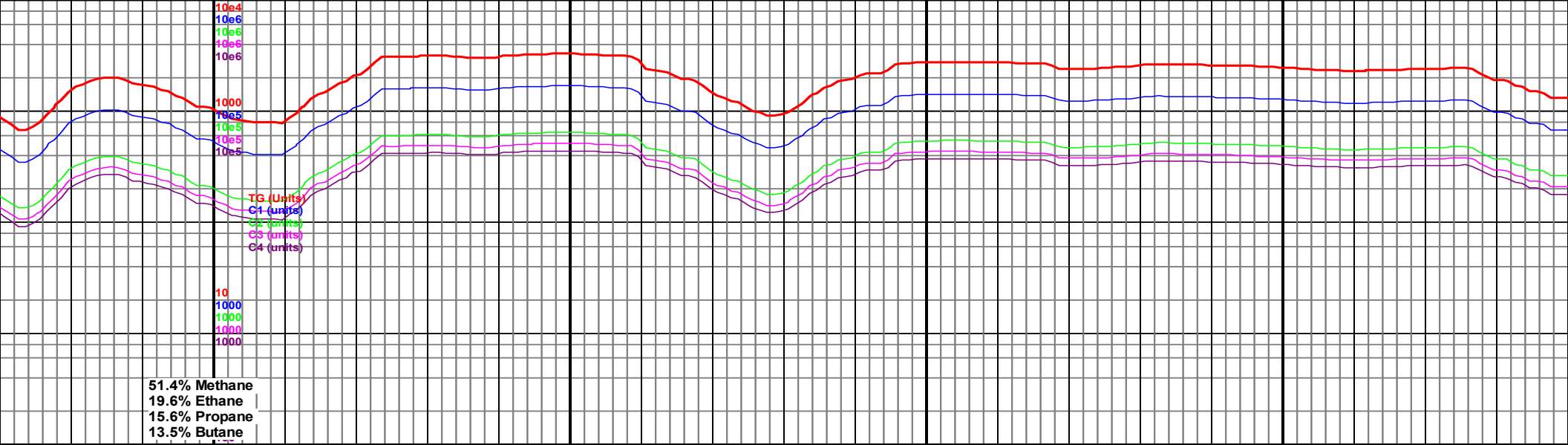


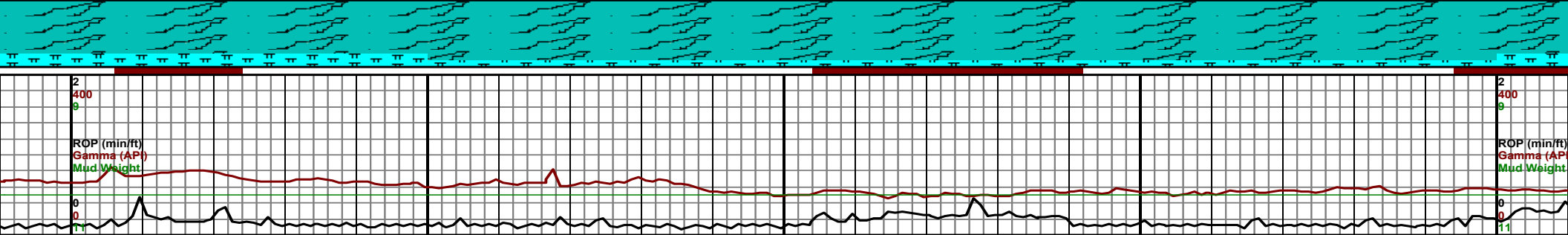
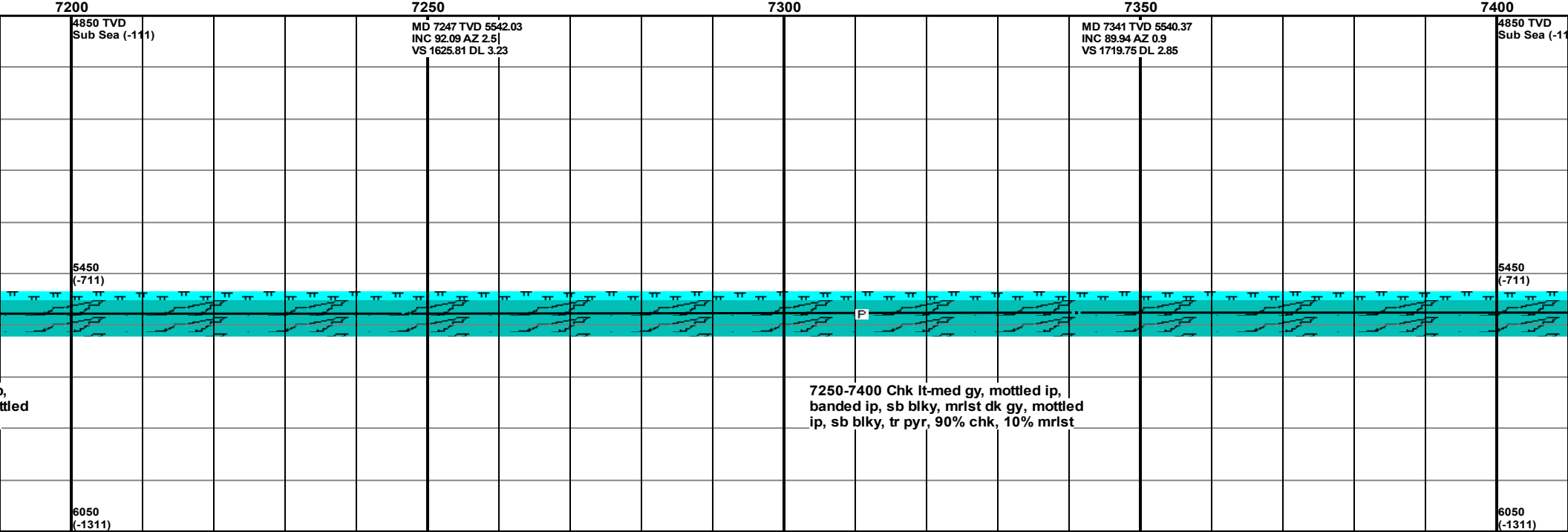
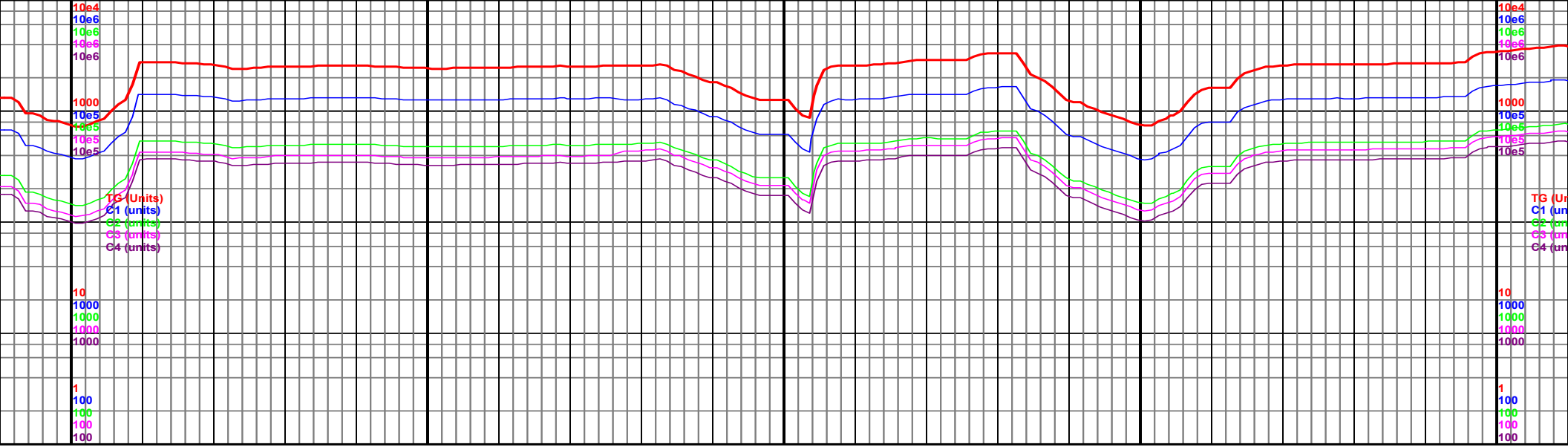
4 TVD 5543.13 35 AZ 357.5 53 DL 2.99	MD 6119 TVD 5542.16 INC 91.82 AZ 357.93 VS 498.49 DL 1.82		4850 TVD Sub Sea (-111)	MD 6213 TVD 5539.68 INC 91.2 AZ 358.96 VS 592.42 DL 1.28		M IN V
	Short trip for agitator at 6133' MD at 06:30 on 9/1/2016. Resume drilling at 09:36.					
	6050-6200 Chk lt-med gy, mottled ip, banded ip, sb blk, mrlst dk gy, mottled ip, banded ip, sb blk, mod cut, 80% chk, 20% mrlst			5450 (-711)		
			6050 (-1311)			

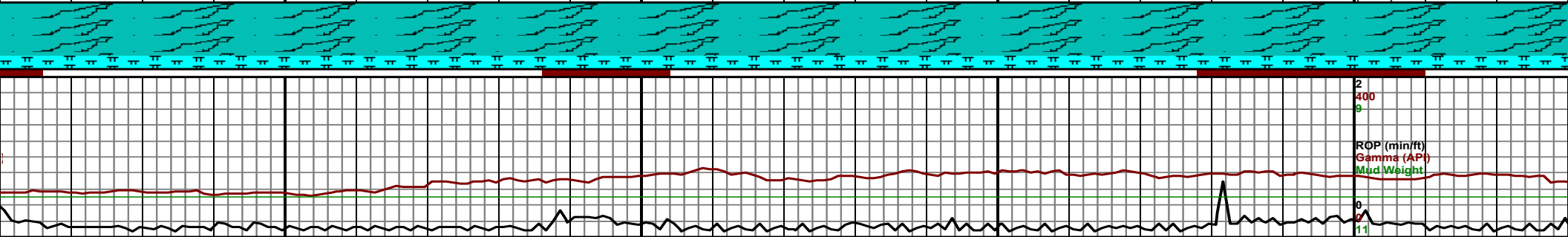
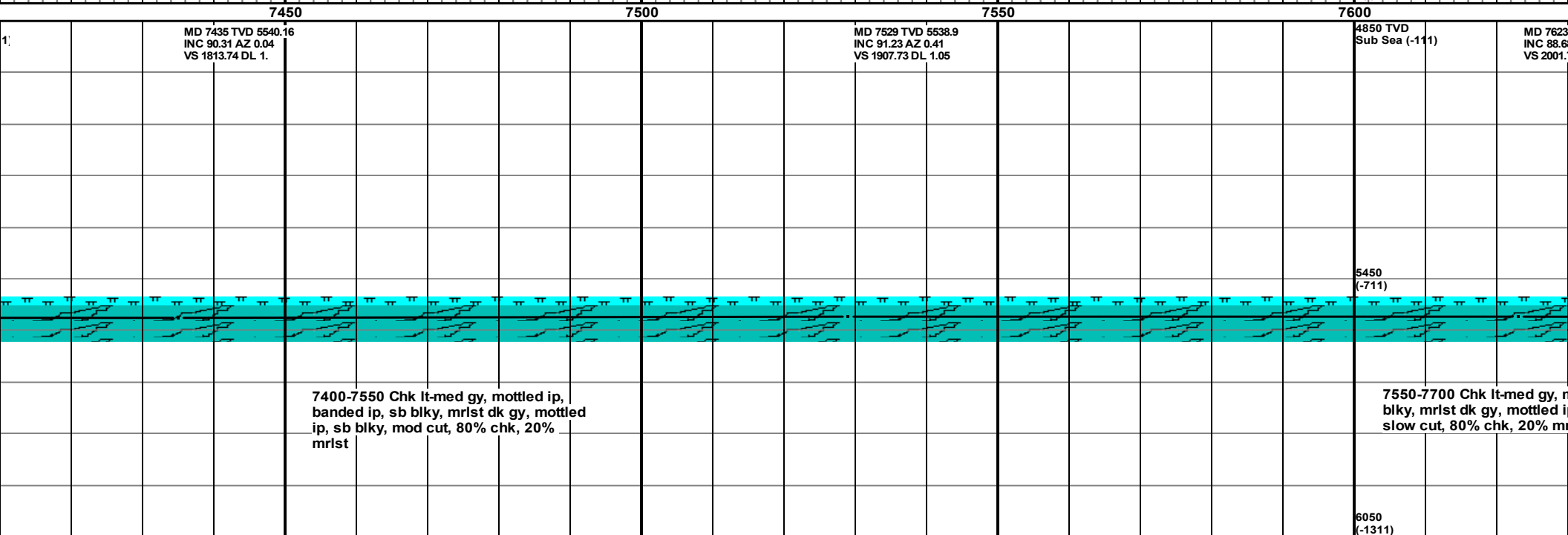
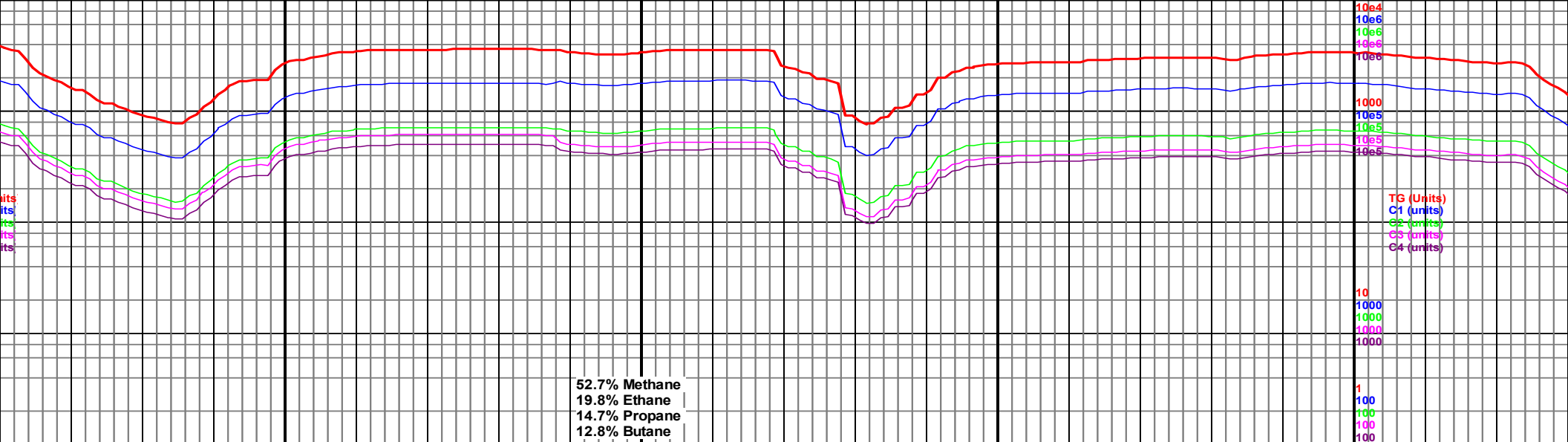


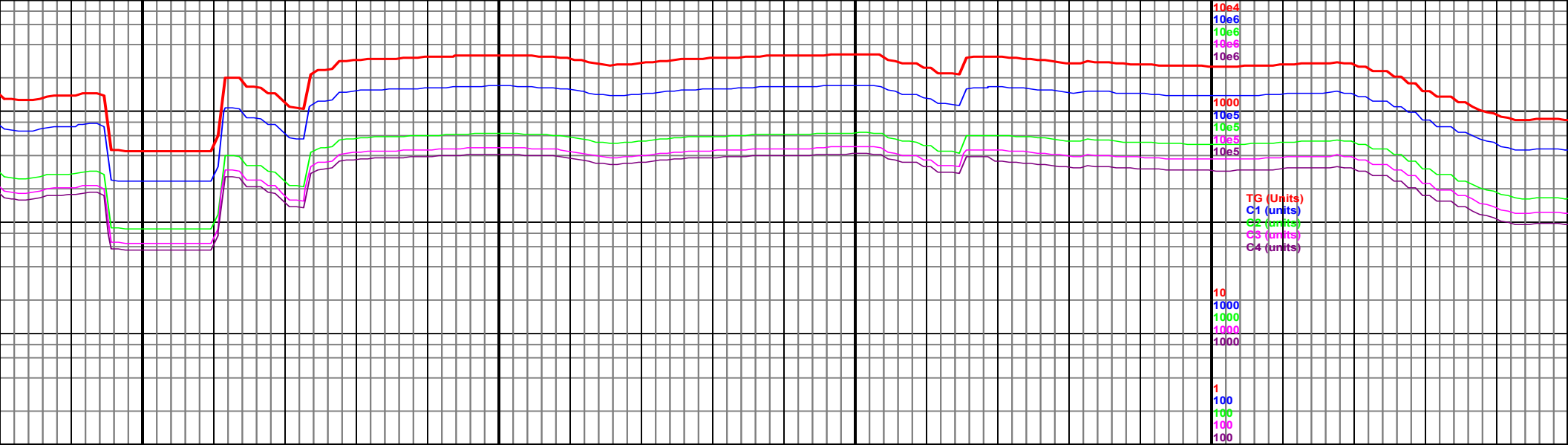




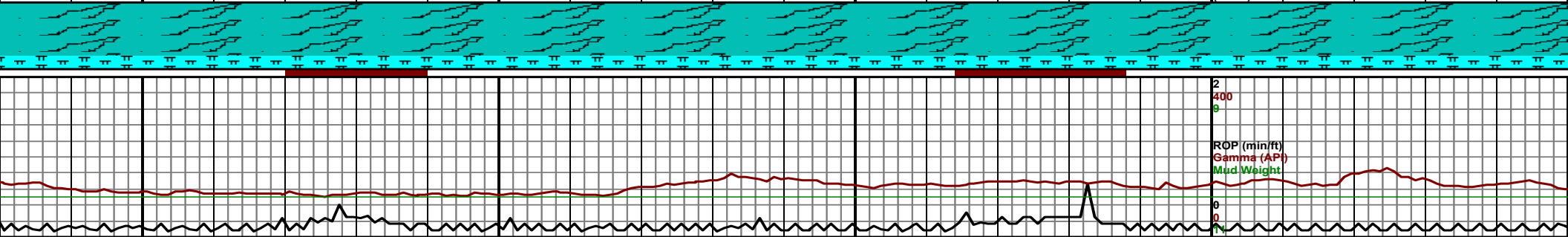


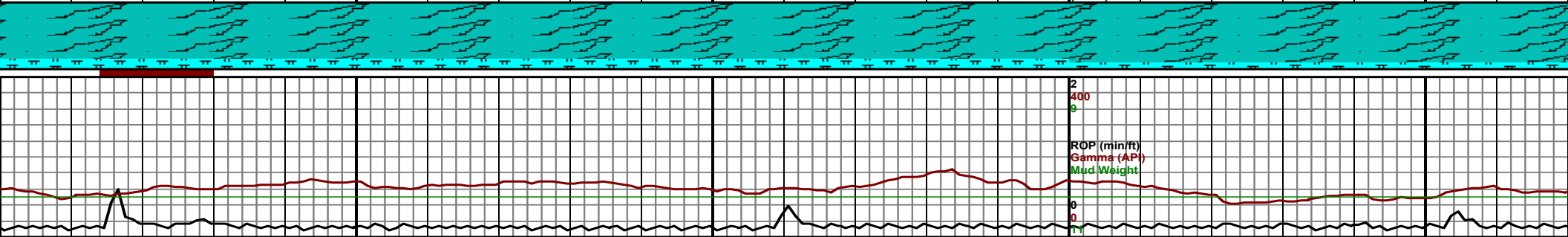
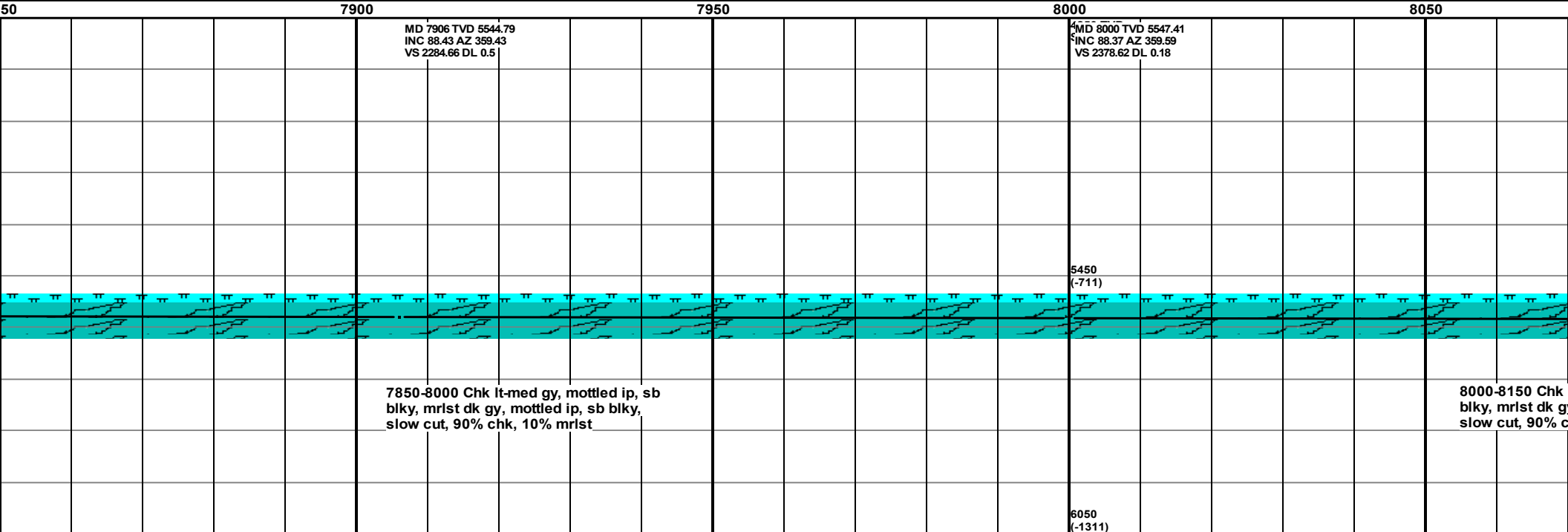
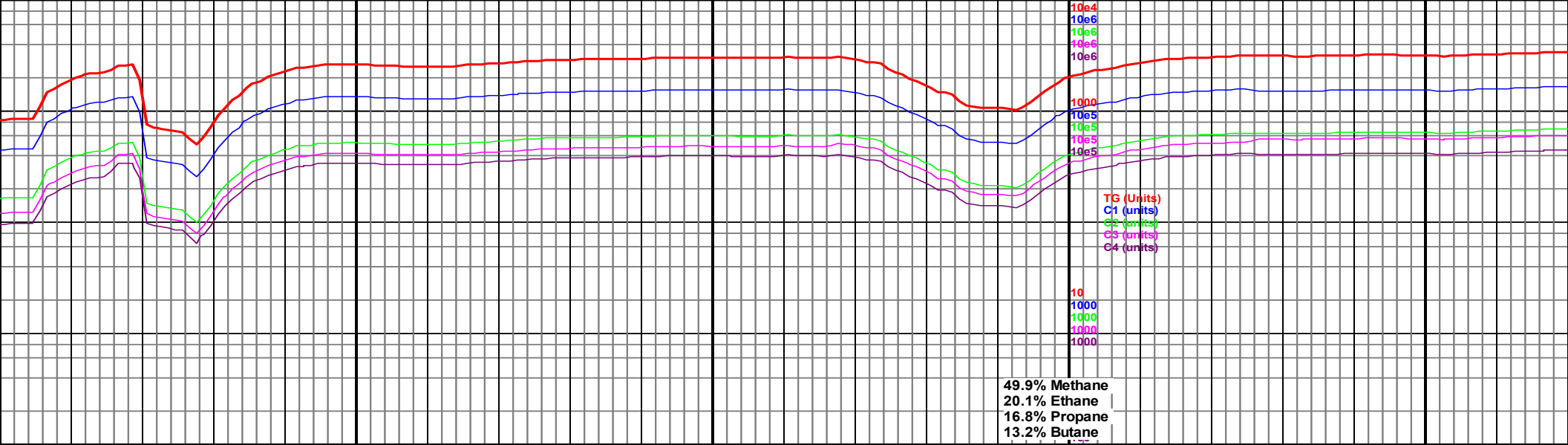


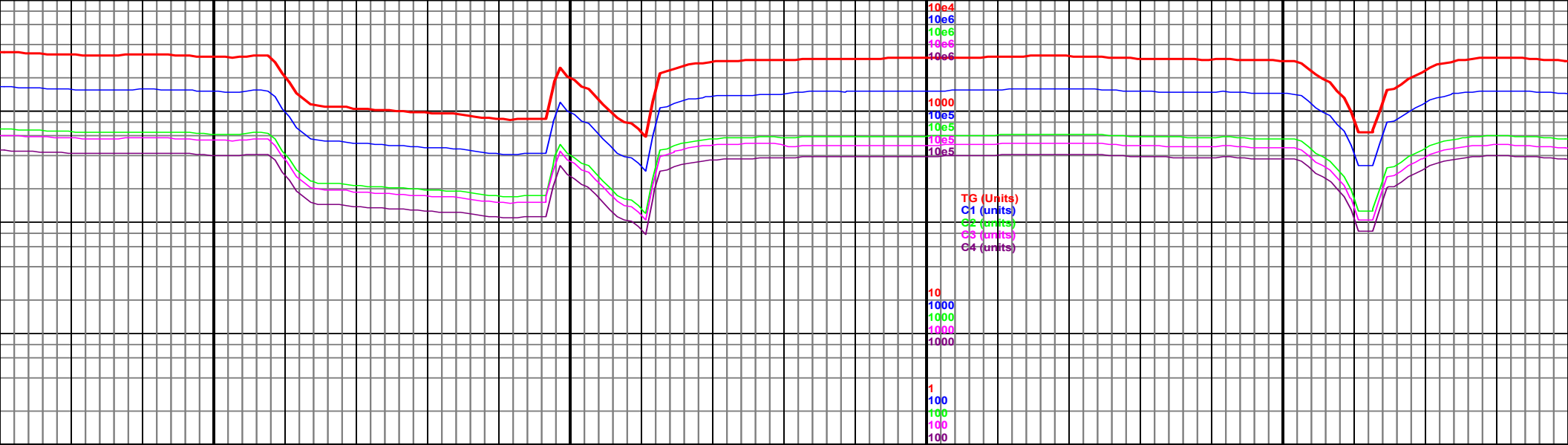




TVD 5538.97 8 AZ 359.98 73 DL 2.75		MD 7718 TVD 5540.48 INC 89.51 AZ 359.83 VS 2096.71 DL 0.89		4850 TVD Sub Sea (-111) MD 7812 TVD 5542.19 INC 88.4 AZ 359.9 VS 2190.7 DL 1.18
mottled ip, sb p, sb blk, r r1st			7700-7850 Chk lt-med gy, mottled ip, sb blk, mrlst dk gy, mottled ip, sb blk, rr inoc, rr pyr, slow cut, 80% chk, 20% mrlst	







8100
MD 8095 TVD 5550.35
INC 88.09 AZ 359.16
VS 2473.57 DL 0.54

8150

8200
MD 8189 TVD 5552.45
INC 89.35 AZ 358.97^{Sea} (-111)
VS 2567.53 DL 1.36

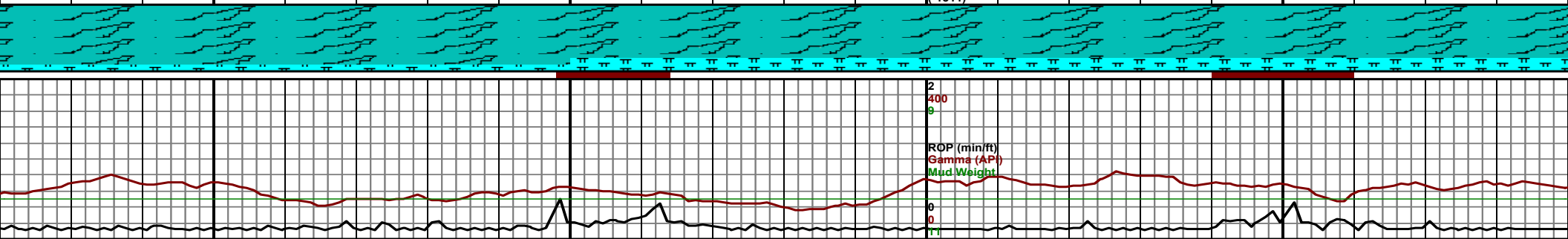
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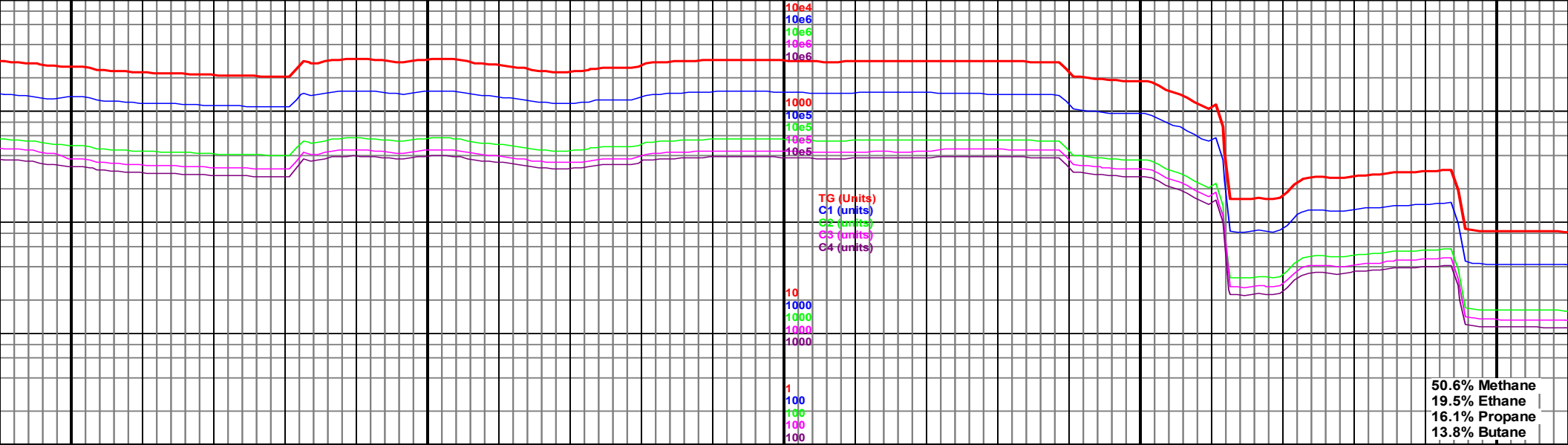
MD 8283
INC 87.9
VS 2661.7

lt-med gy, mottled ip, sb
y, mottled ip, sb blk, 10% mrst

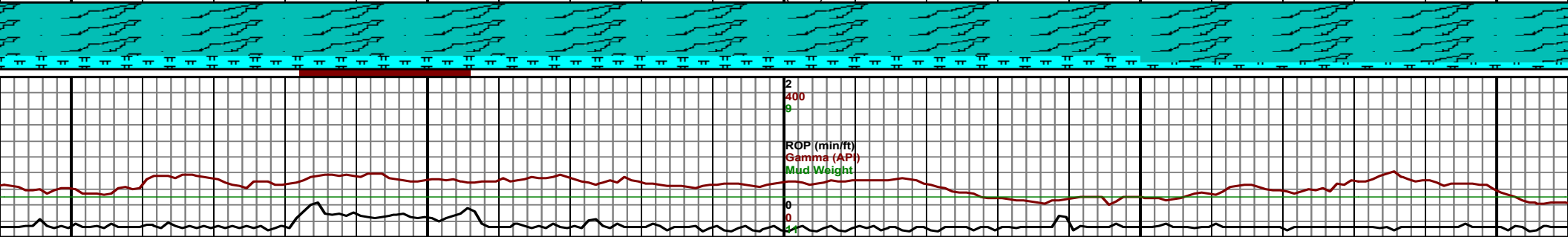
8150-8300 Chk lt-med gy, mottled ip, sb
blk, mrst dk gy, mottled ip, sb blk,
slow cut, 80% chk, 20% mrst

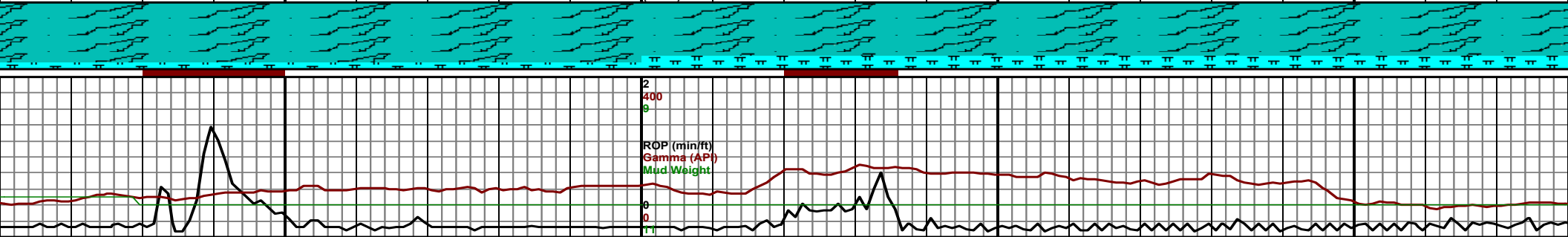
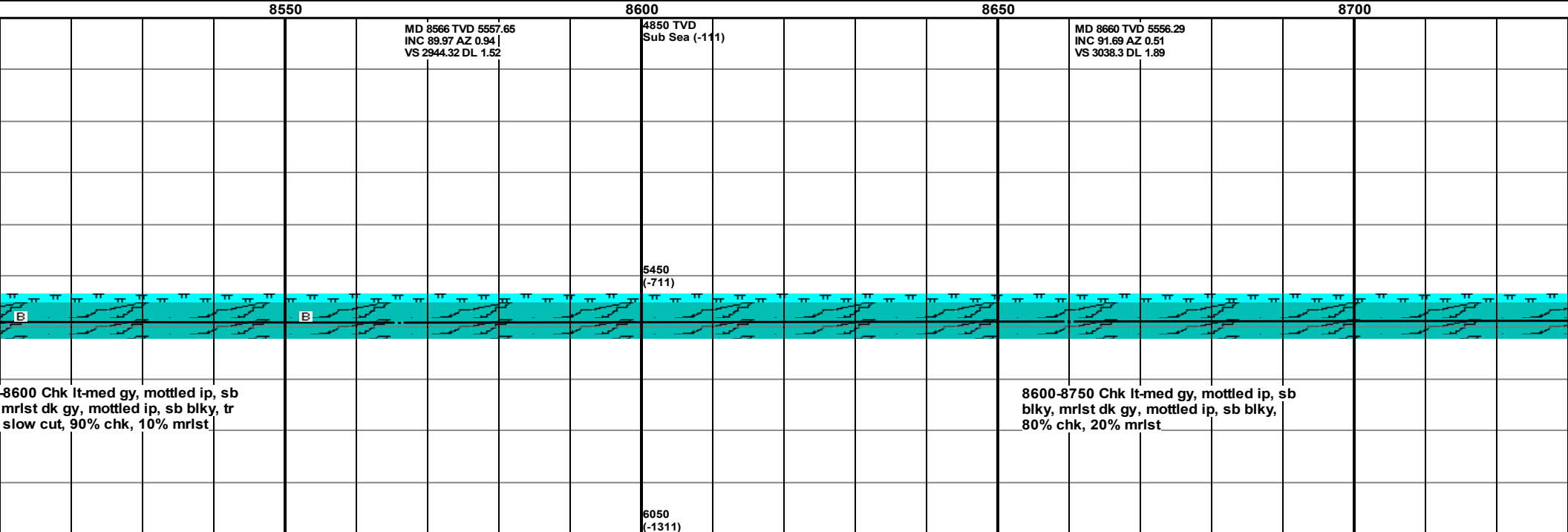
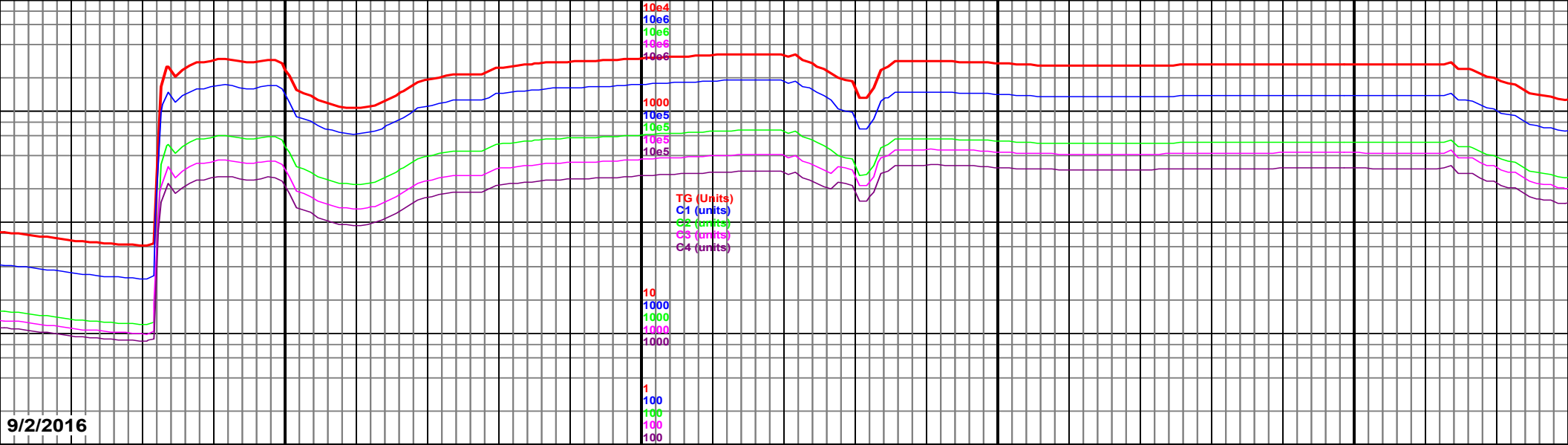
6050
(-1311)

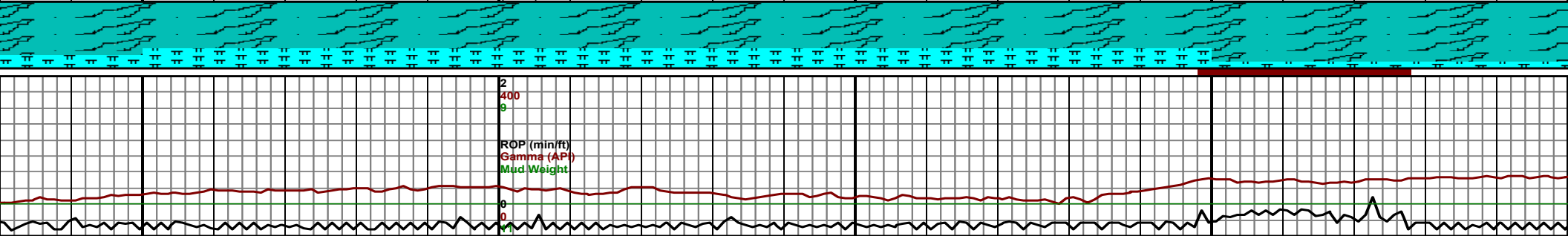
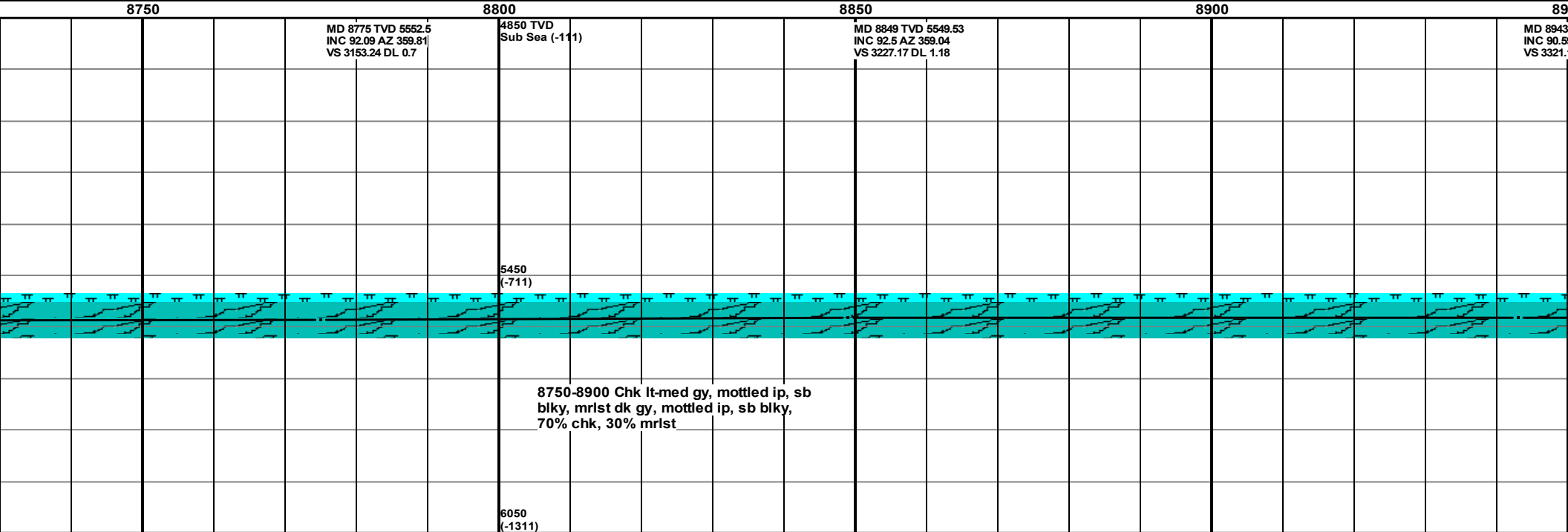
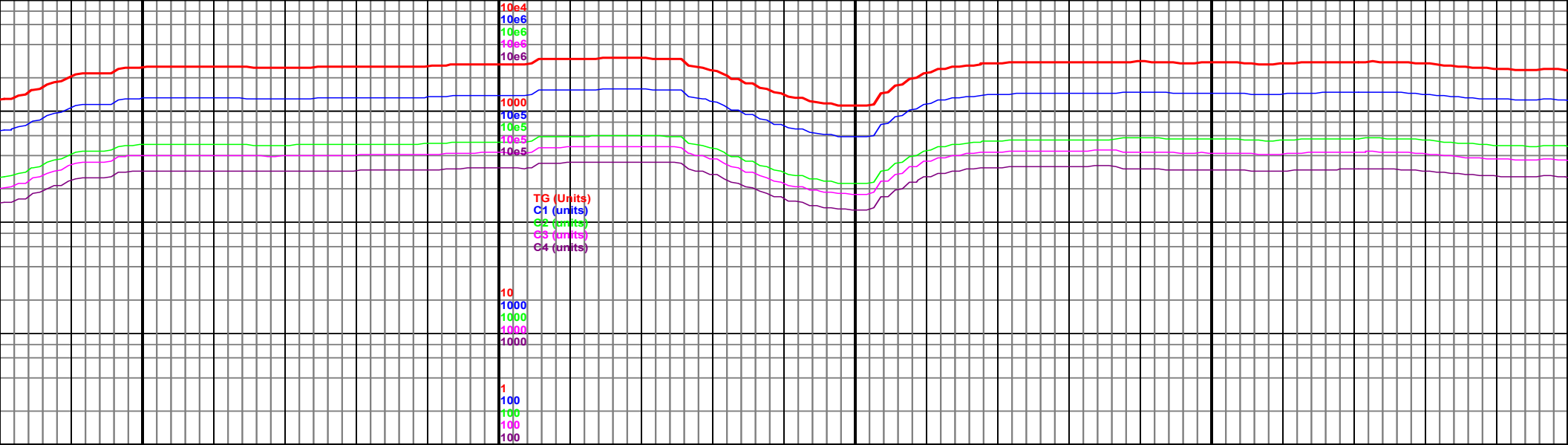


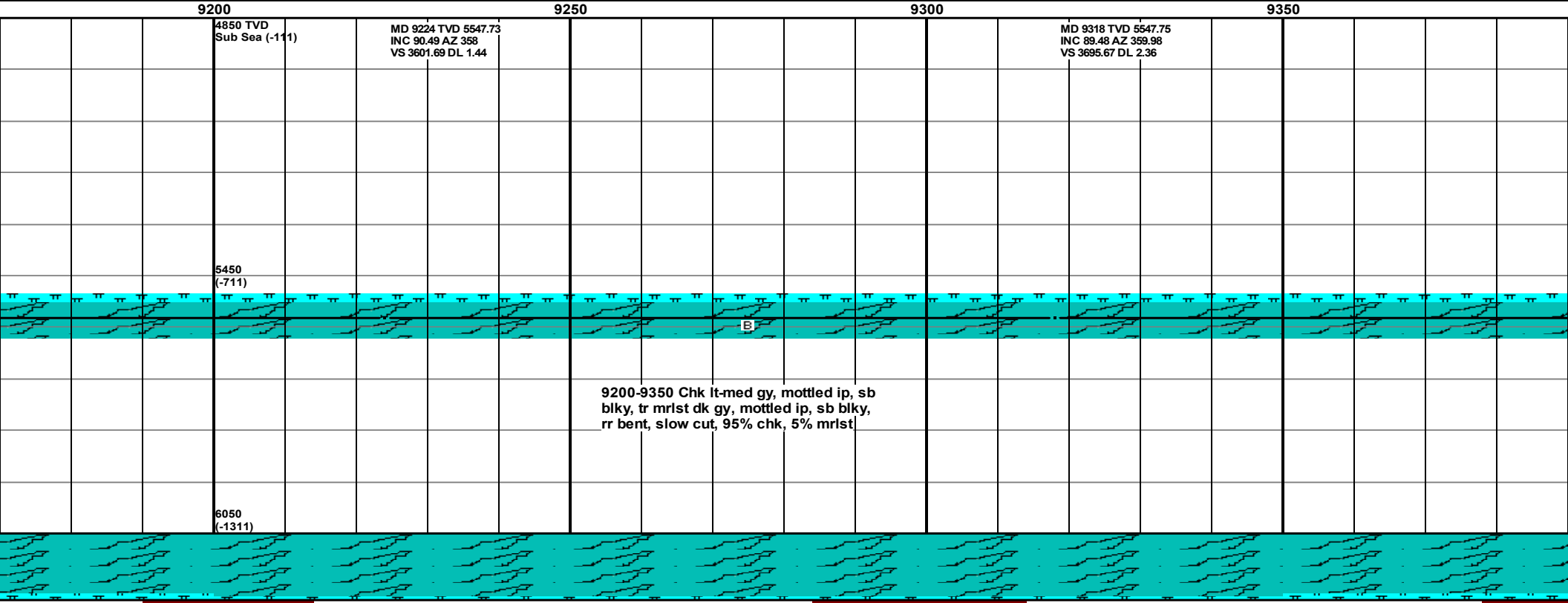
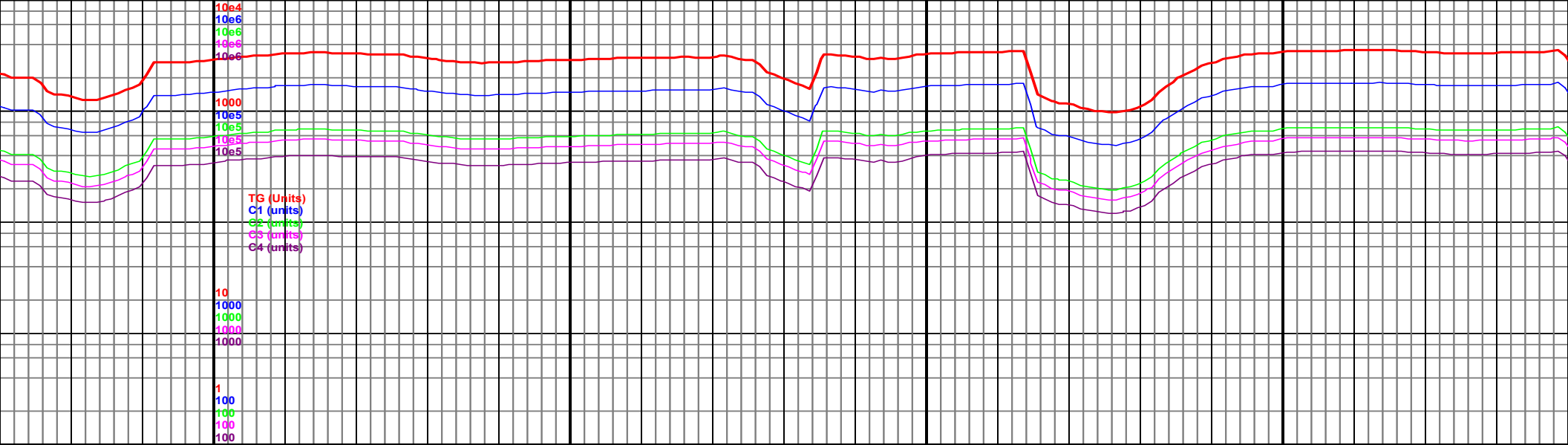


8300	8350	8400	8450	8500
TVD 5554.7 1 AZ 359.39 49 DL 1.6		MD 8378 TVD 5556.55 INC 89.85 AZ 2.44 VS 2756.44 DL 3.8	4850 TVD Sub Sea (-111)	MD 8472 TVD 5557.15 INC 89.42 AZ 2.26 VS 2850.36 DL 0.5
		5450 (-711)		
	8300-8450 Chk lt-med gy, mottled ip, sb blky, mrlst dk gy, mottled ip, sb blky, slow cut, 80% chk, 20% mrlst	6050 (-1311)		8450 blky, bent,

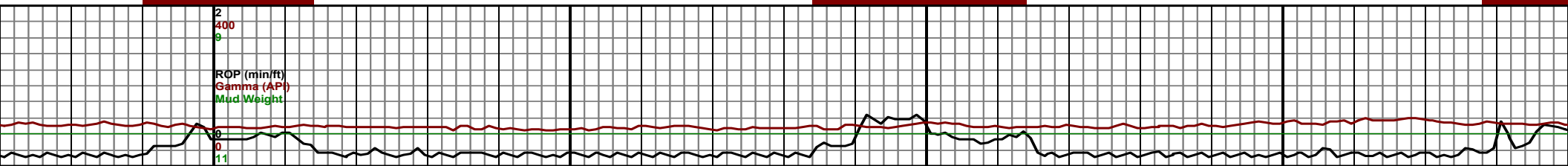


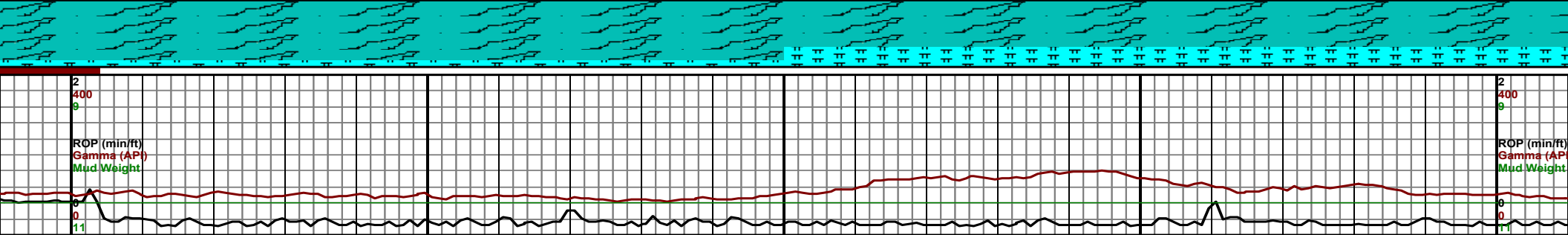
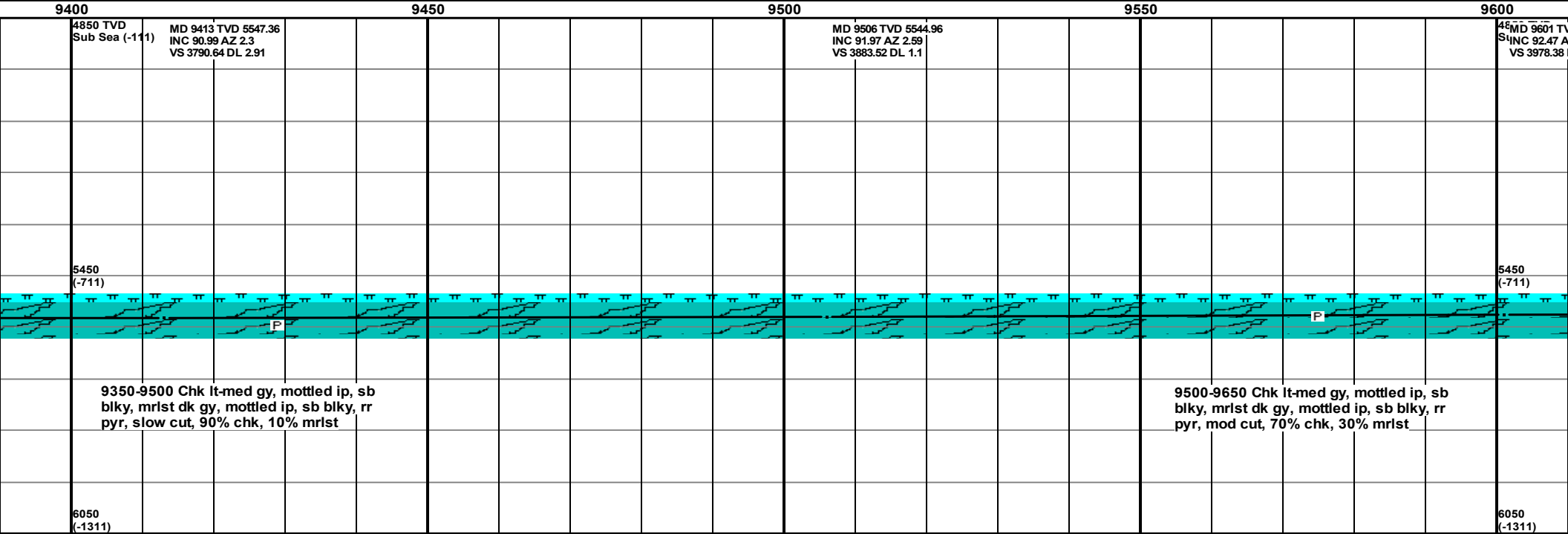
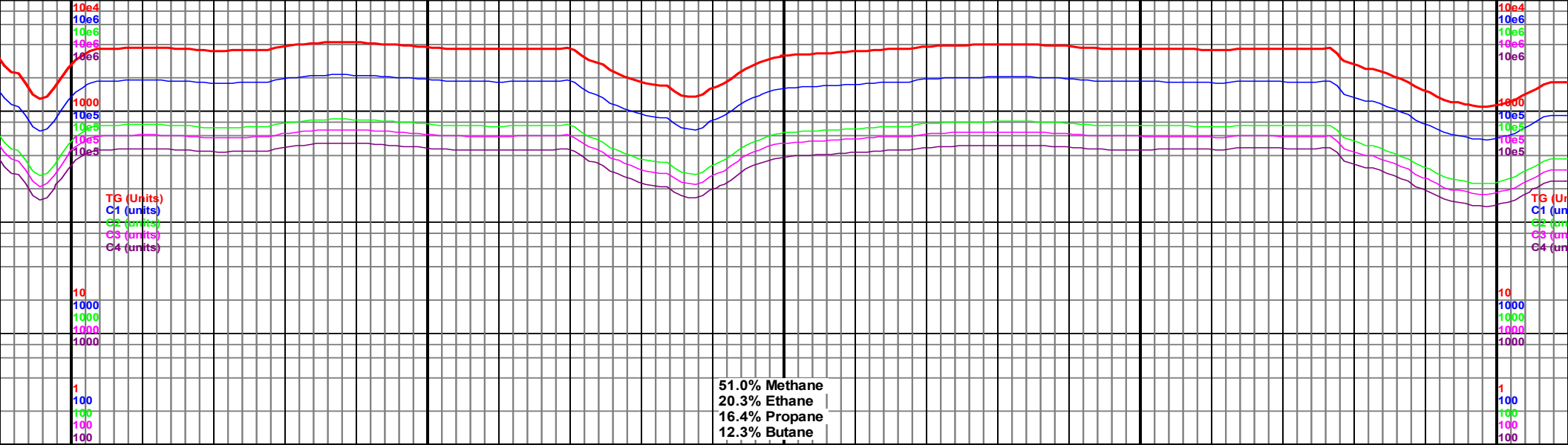


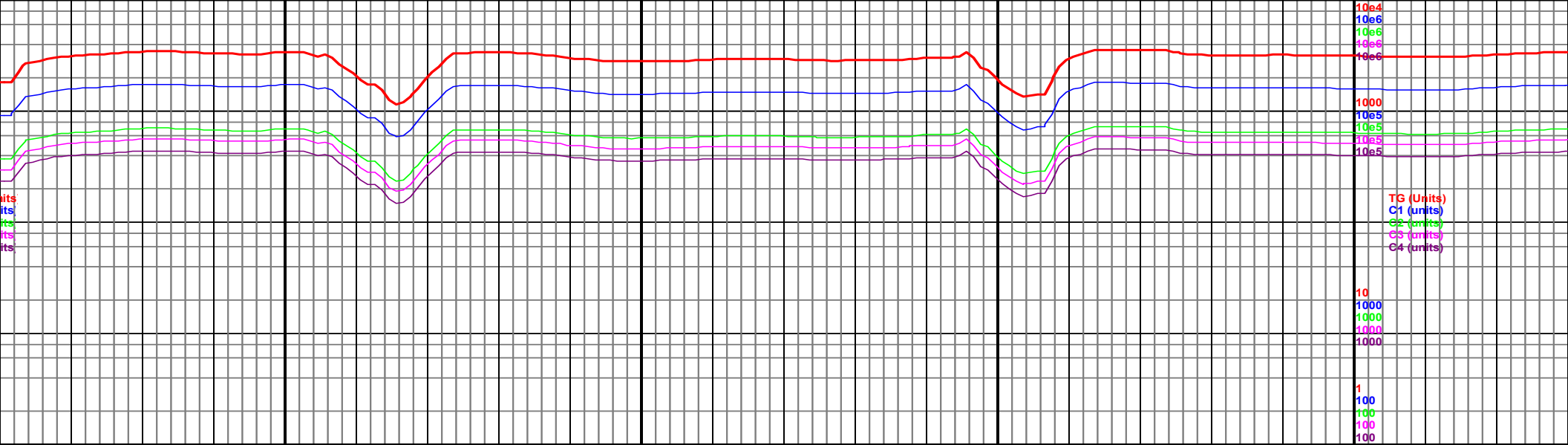




9200-9350 Chk lt-med gy, mottled ip, sb
blky, tr mrlst dk gy, mottled ip, sb blky,
rr bent, slow cut, 95% chk, 5% mrlst







MD 5541.28
INC 90.74 AZ 1.85
VS 4073.31 DL 0.94

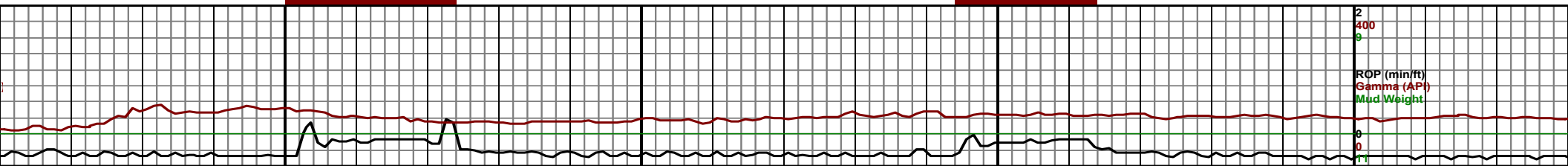
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INC 90.74 AZ 1.17
VS 4073.31 DL 1.96

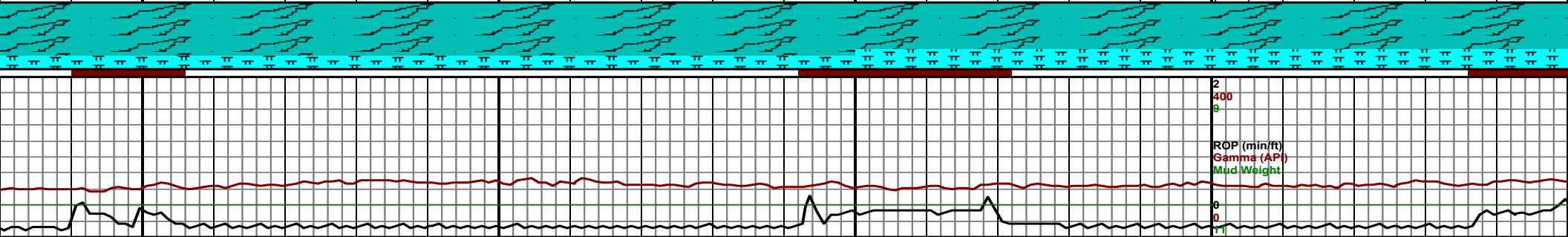
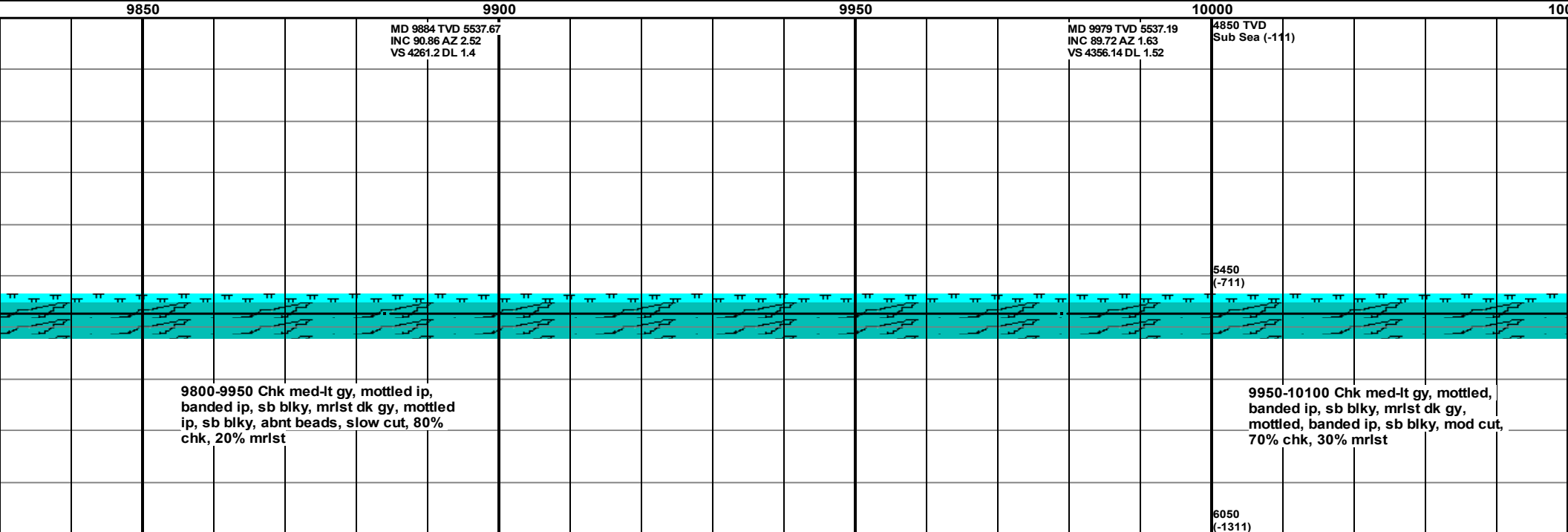
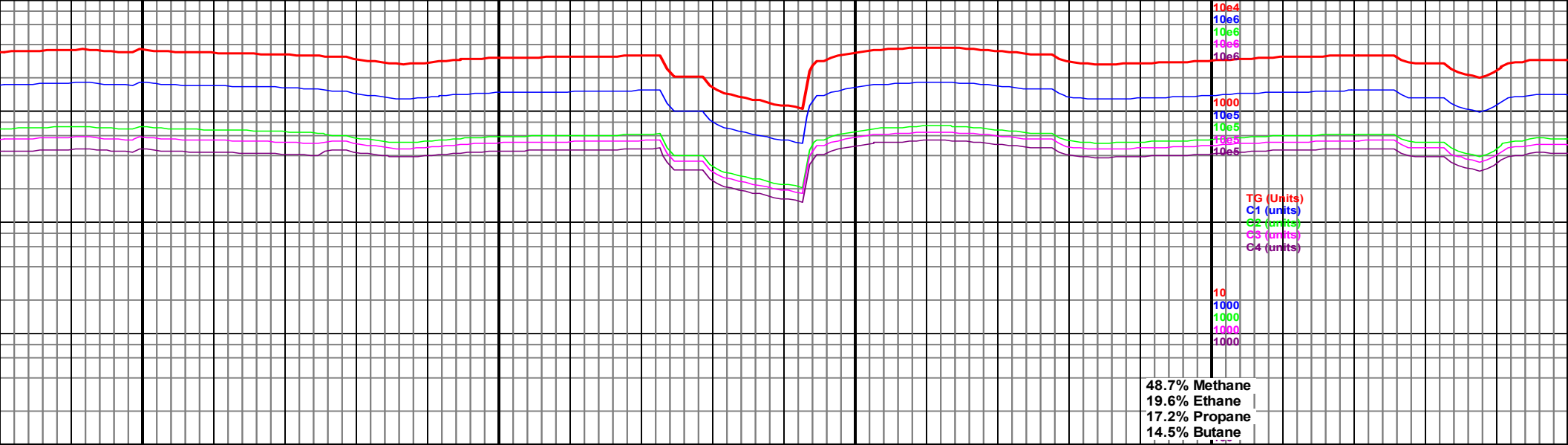
MD 9790 TVD 5538.19^D
INC 89.78 AZ 1.77 Sea (-111)
VS 4167.27 DL 1.2

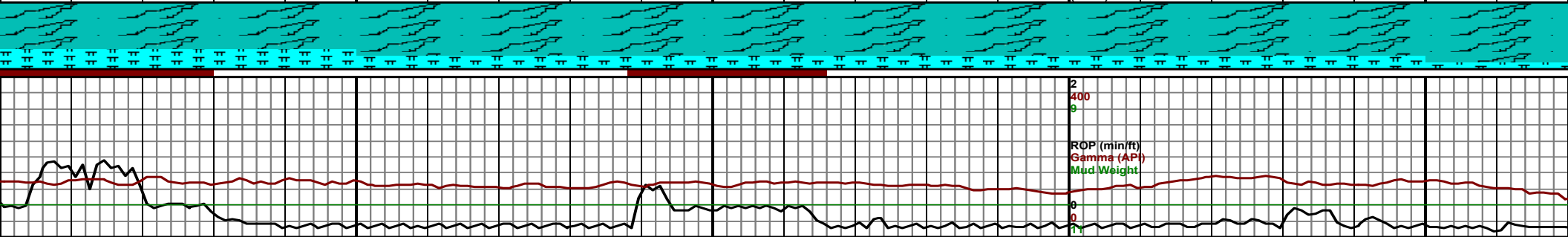
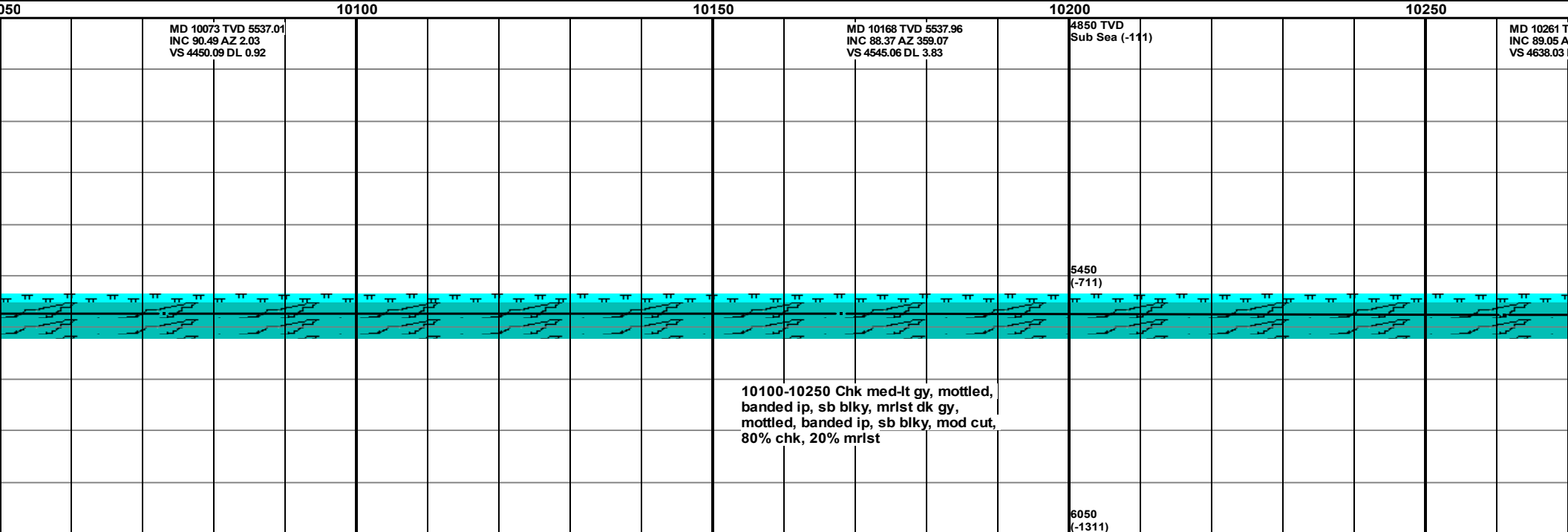
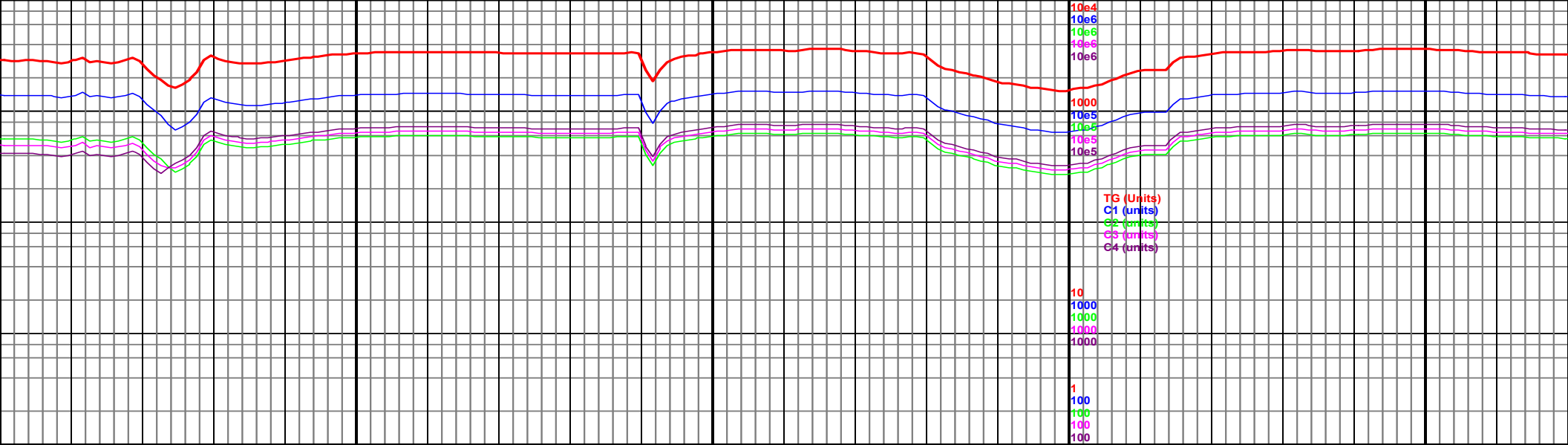
9650-9800 Chk med-lt gy, mottled ip,
banded ip, sb blk, mrlst dk gy, mottled
ip, sb blk, rr pyr, mod cut, 80% chk,
20% mrlst

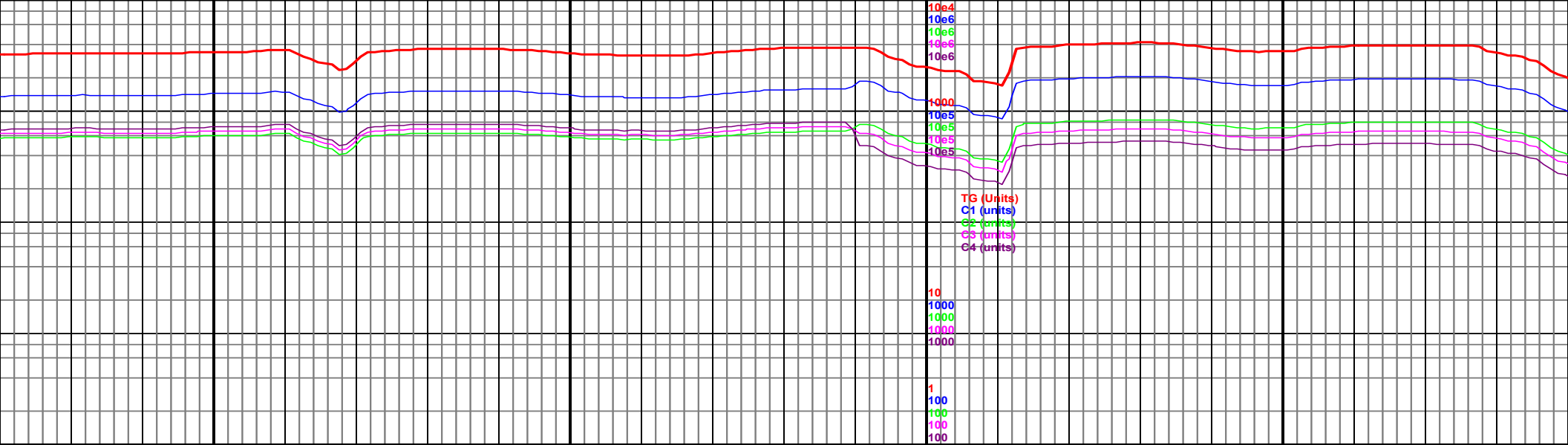
5450
(-711)

6050
(-1311)









VD 5540.05
Z 359.12
DL 0.73

MD 10356 TVD 5541.22
INC 89.54 AZ 358.83
VS 4733.01 DL 0.6

4850 TVD
Sub Sea (-111)

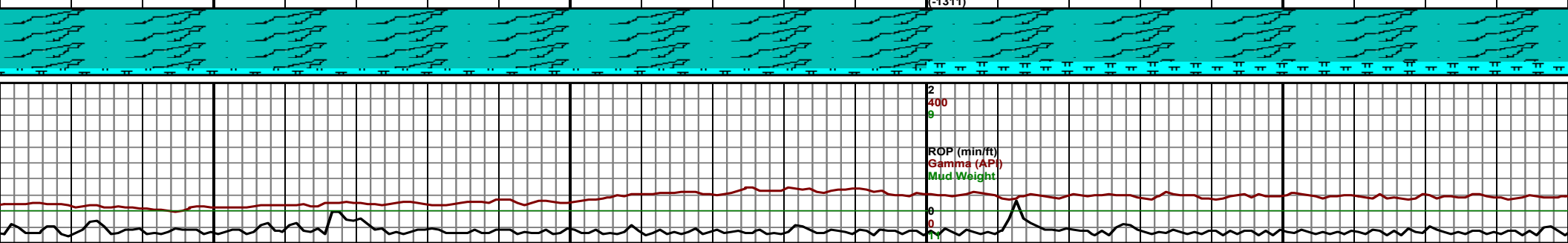
MD 10450 TVD 5541.34
INC 90.31 AZ 358.41
VS 4826.98 DL 0.93

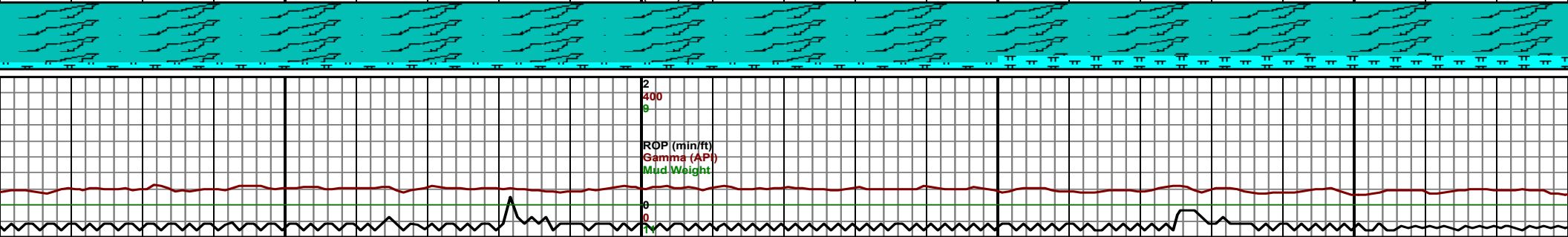
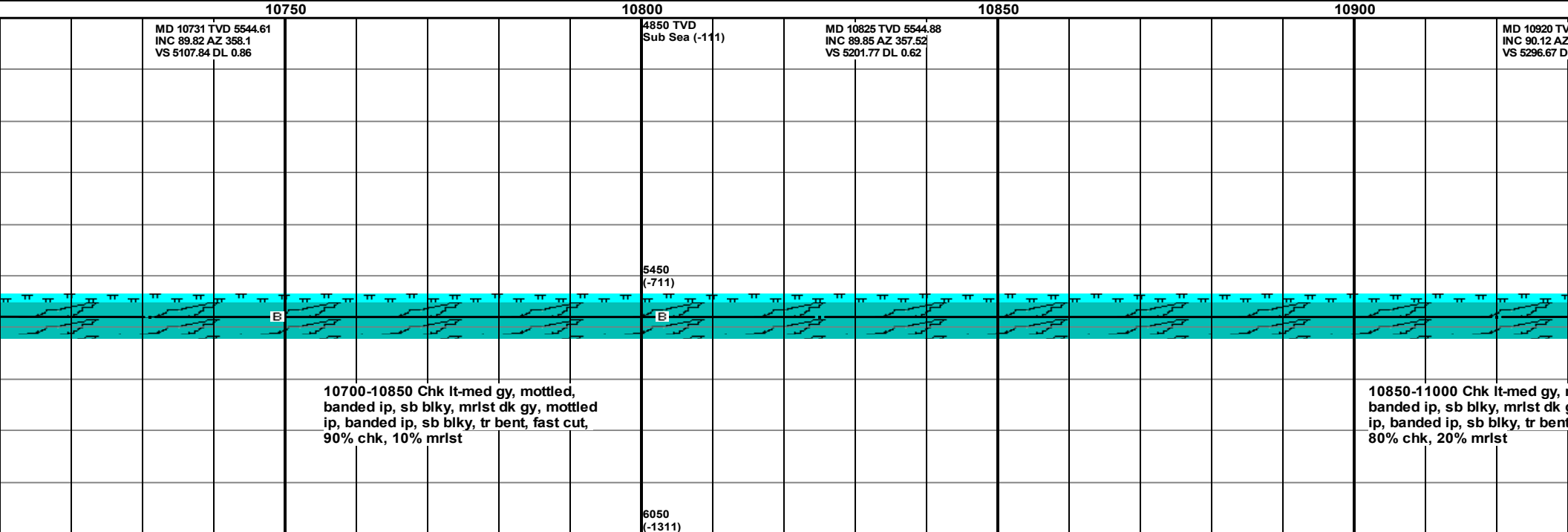
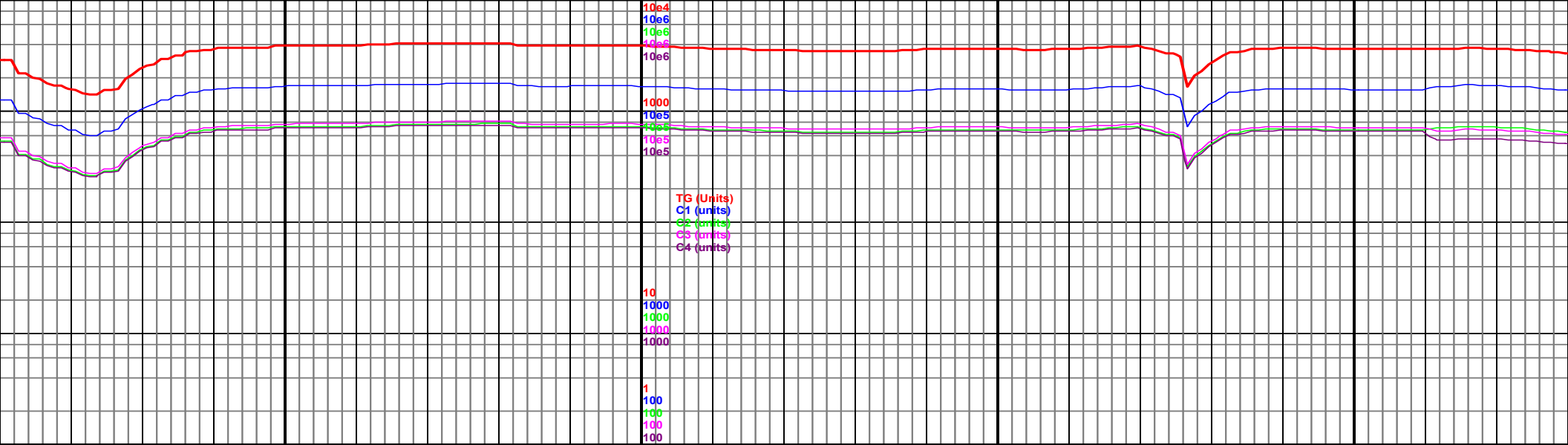
10250-10400 Chk med-lt gy, mottled,
banded ip, sb blk, mrlst dk gy,
mottled, banded ip, sb blk, mod cut,
90% chk, 10% mrlst

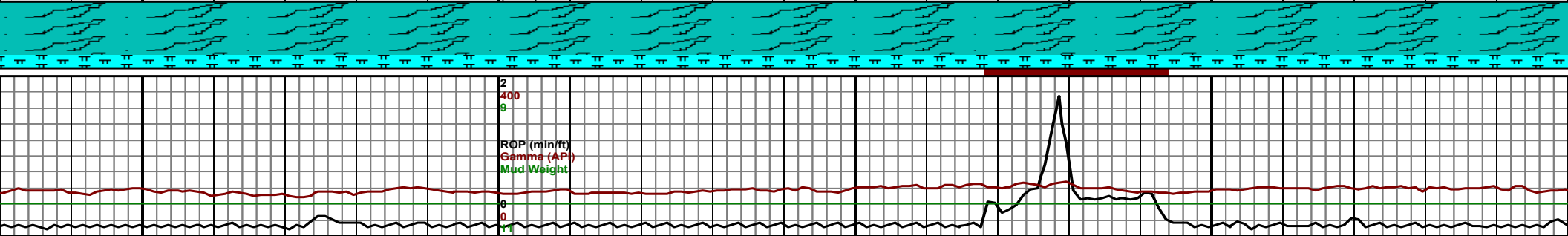
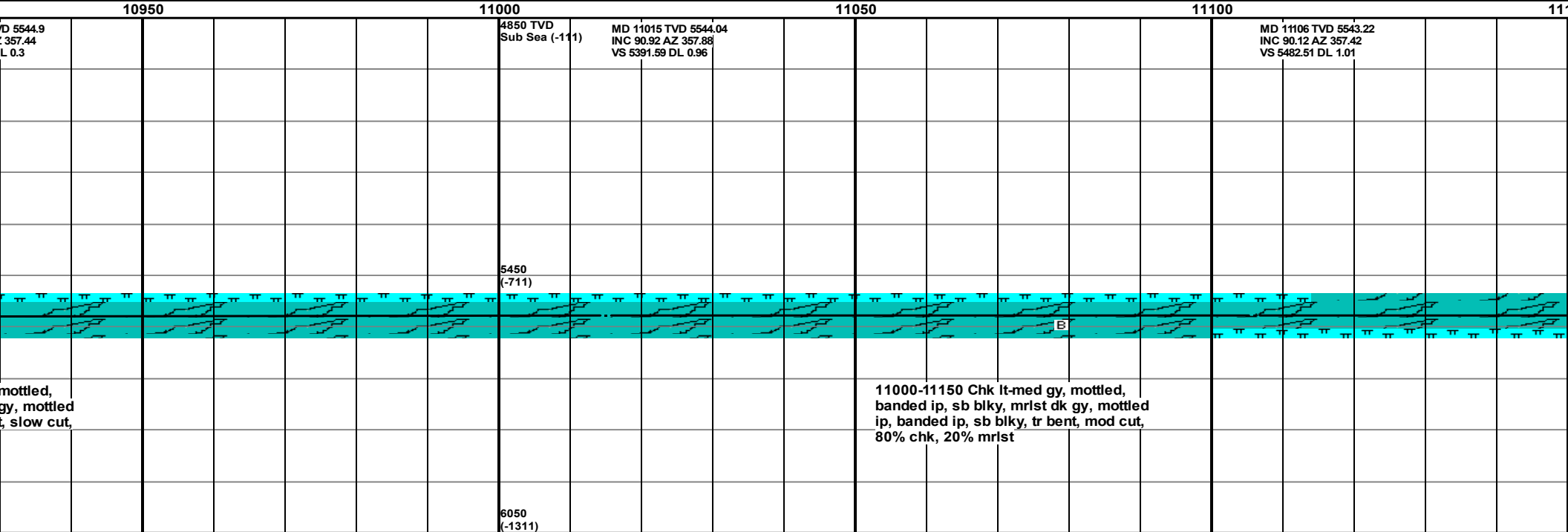
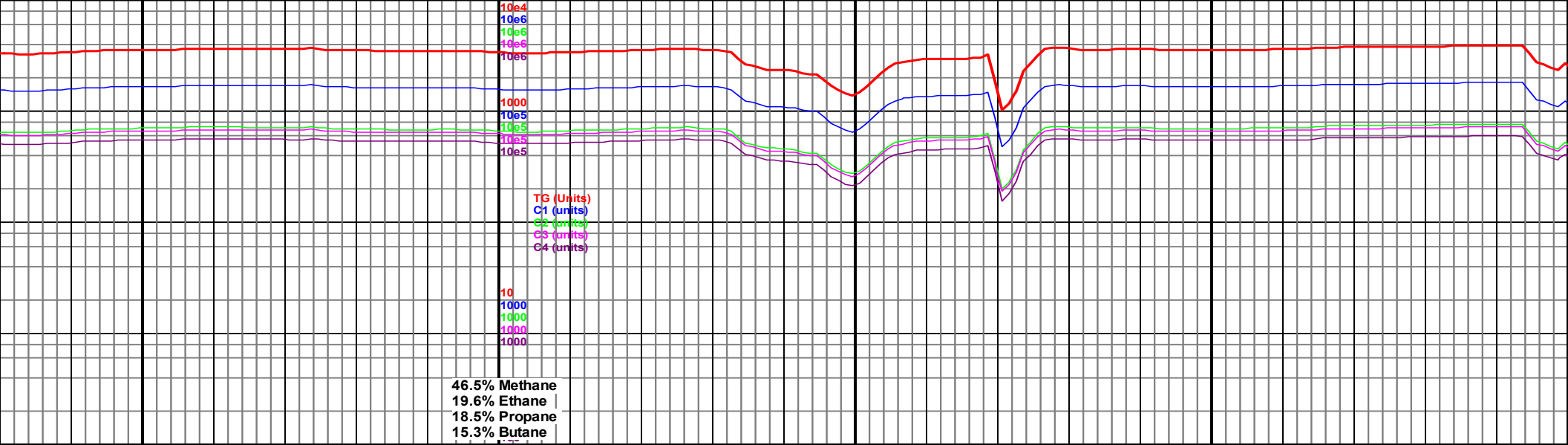
10400-10550 Chk med-lt gy, mottled,
banded ip, sb blk, mrlst dk gy,
mottled, banded ip, sb blk, mod cut,
80% chk, 20% mrlst

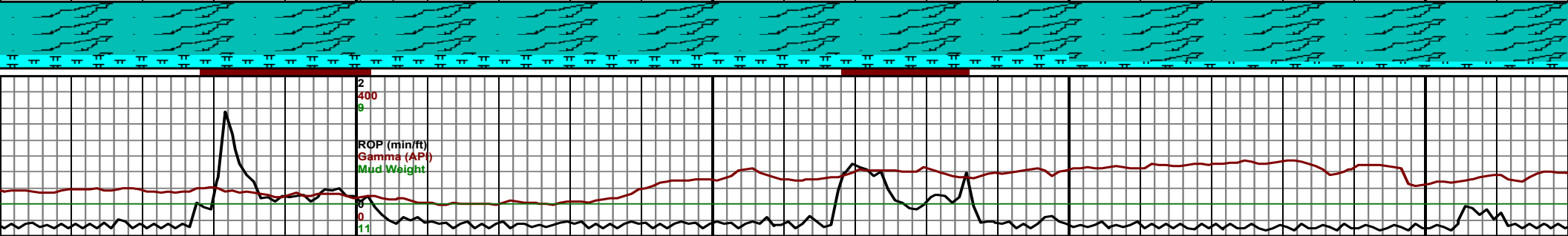
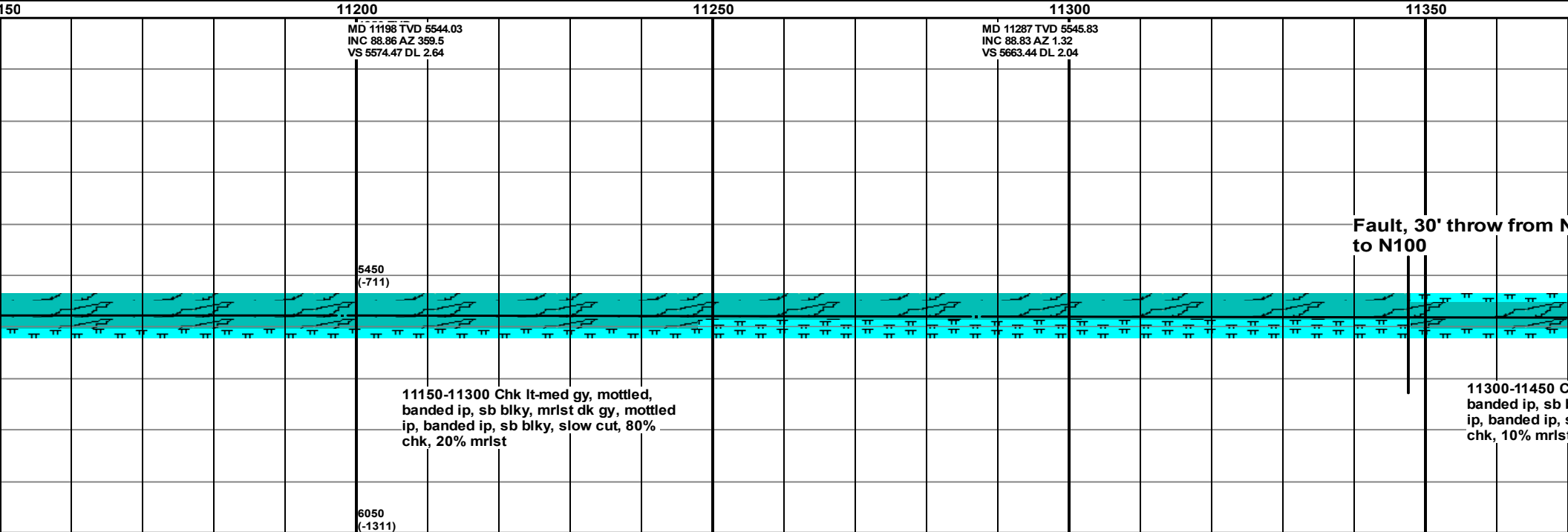
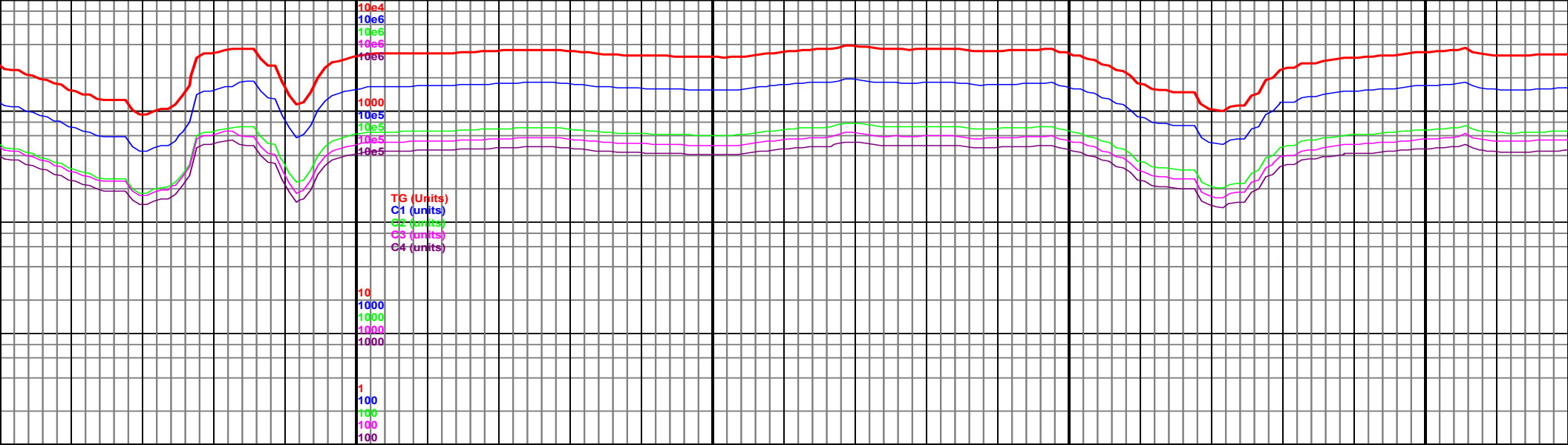
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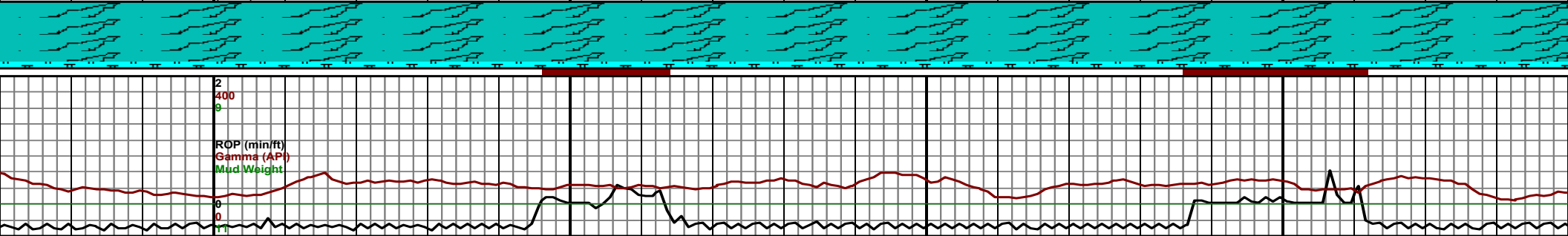
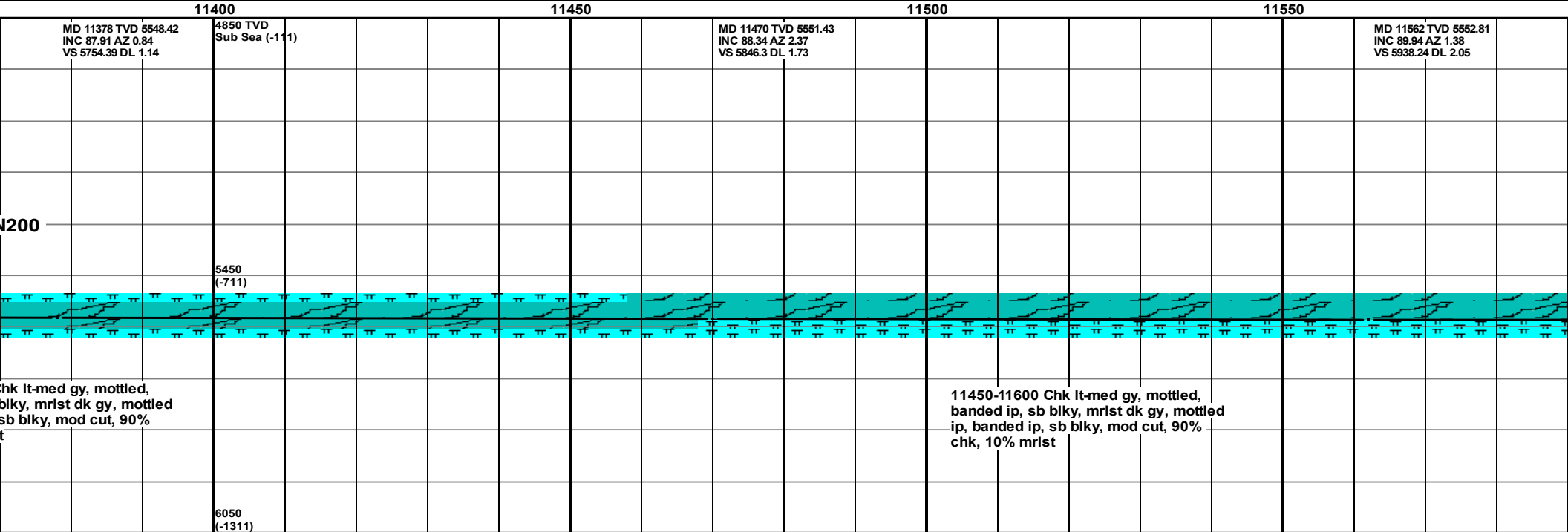
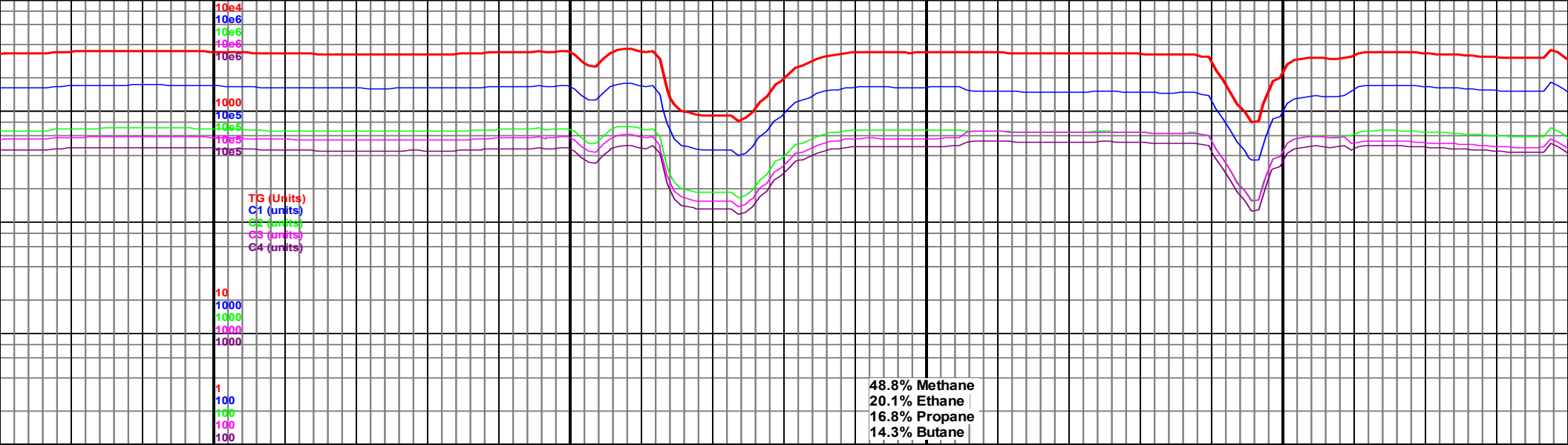
6050
(-1311)

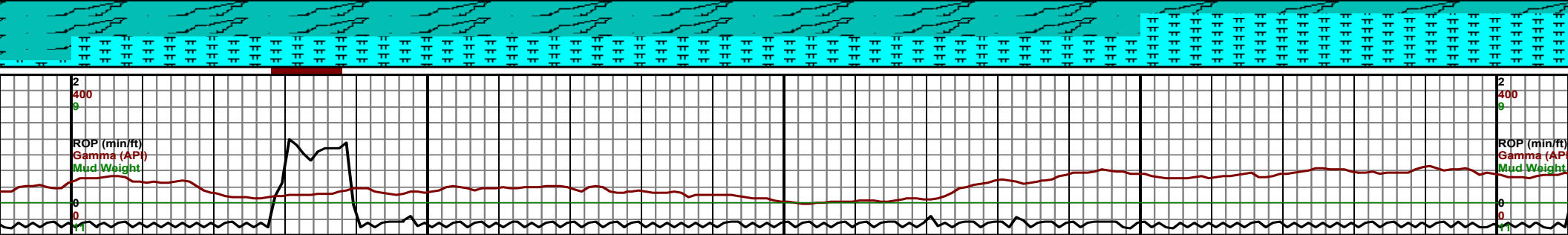
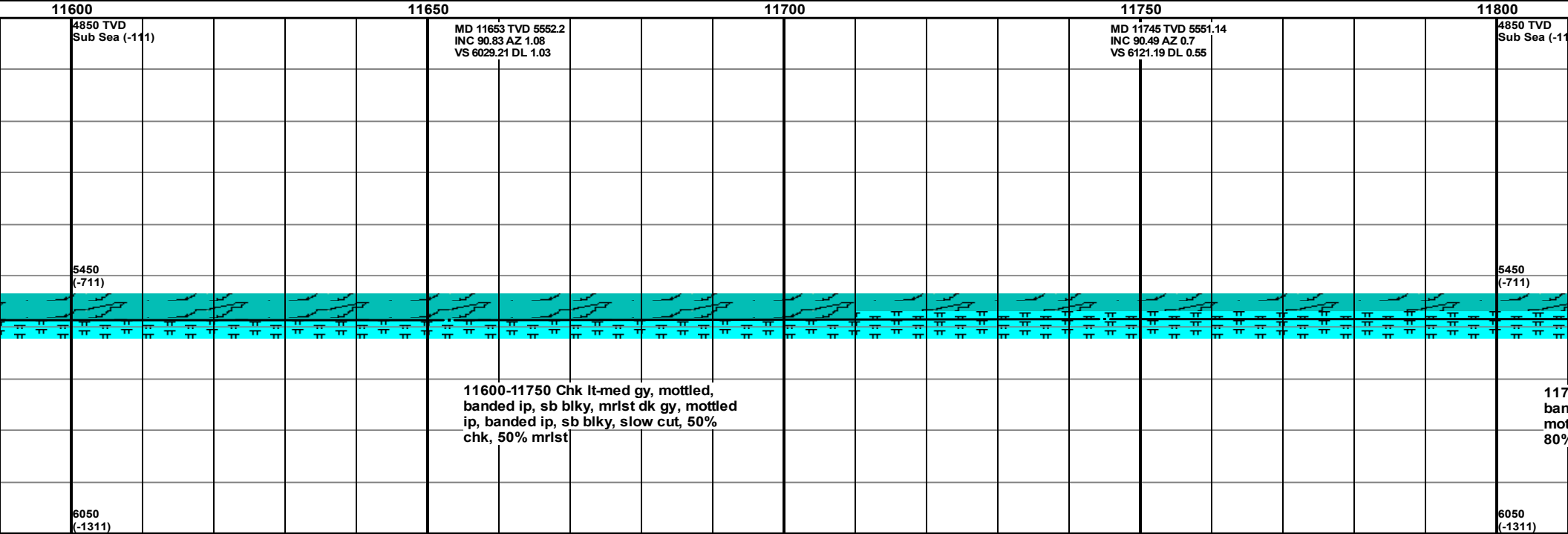
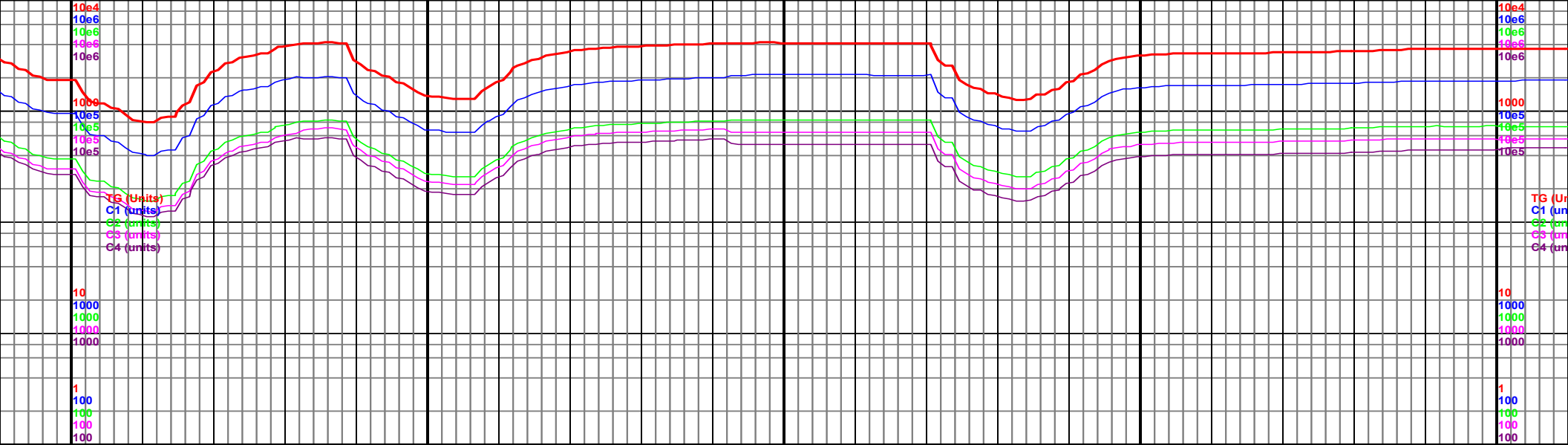


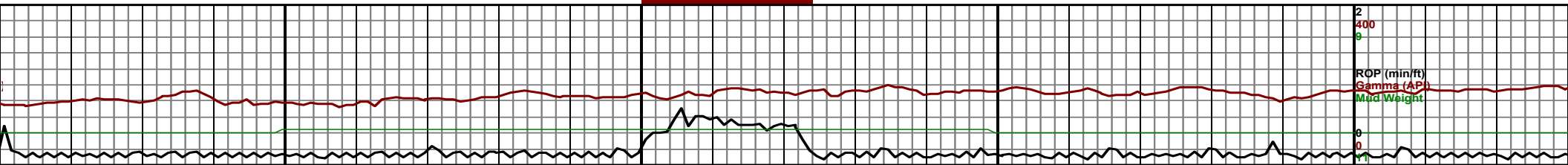
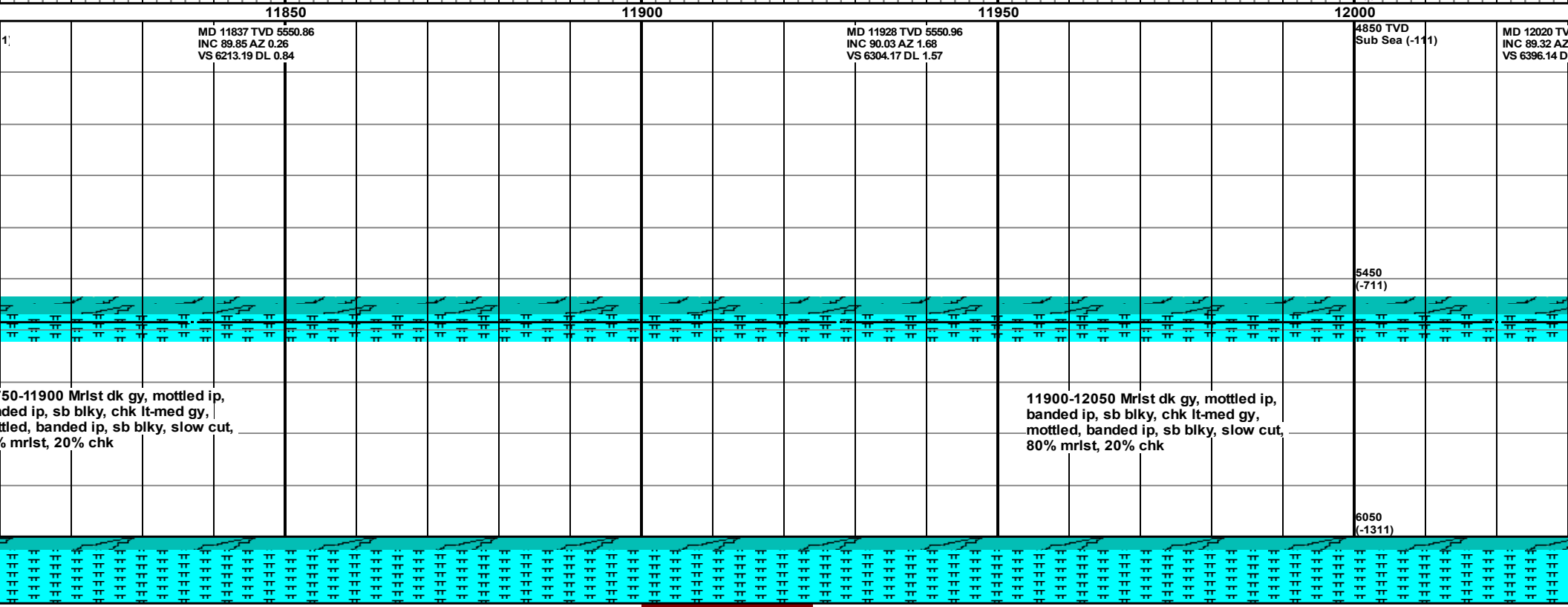
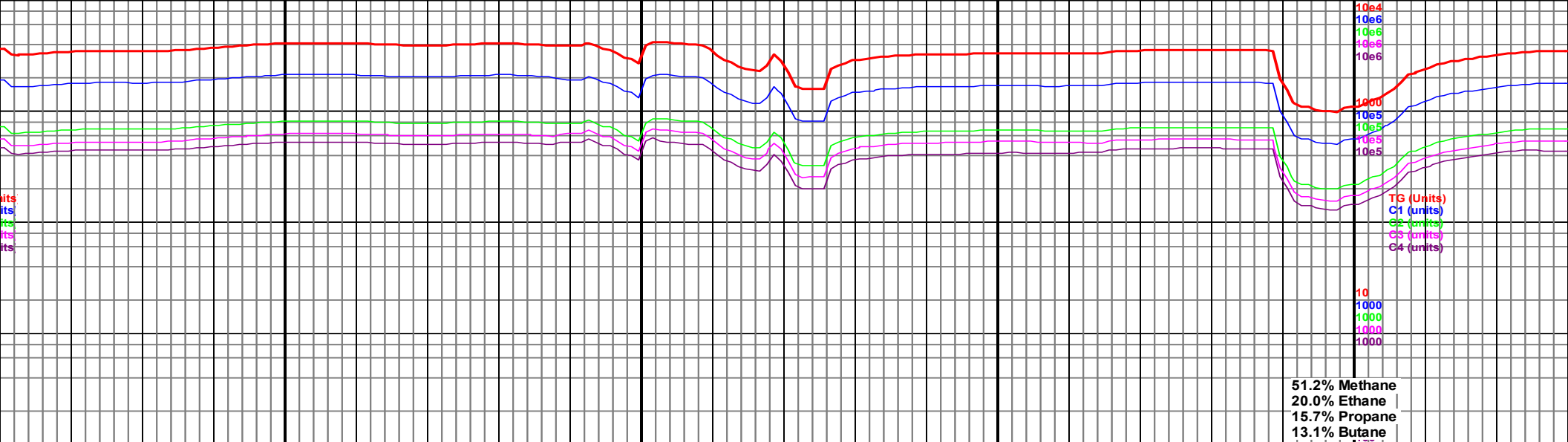


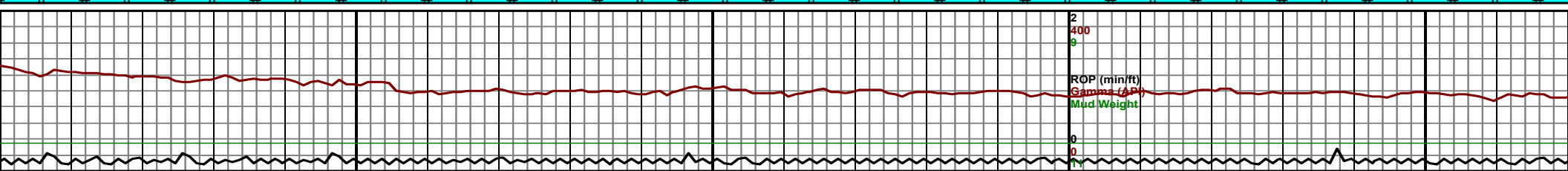
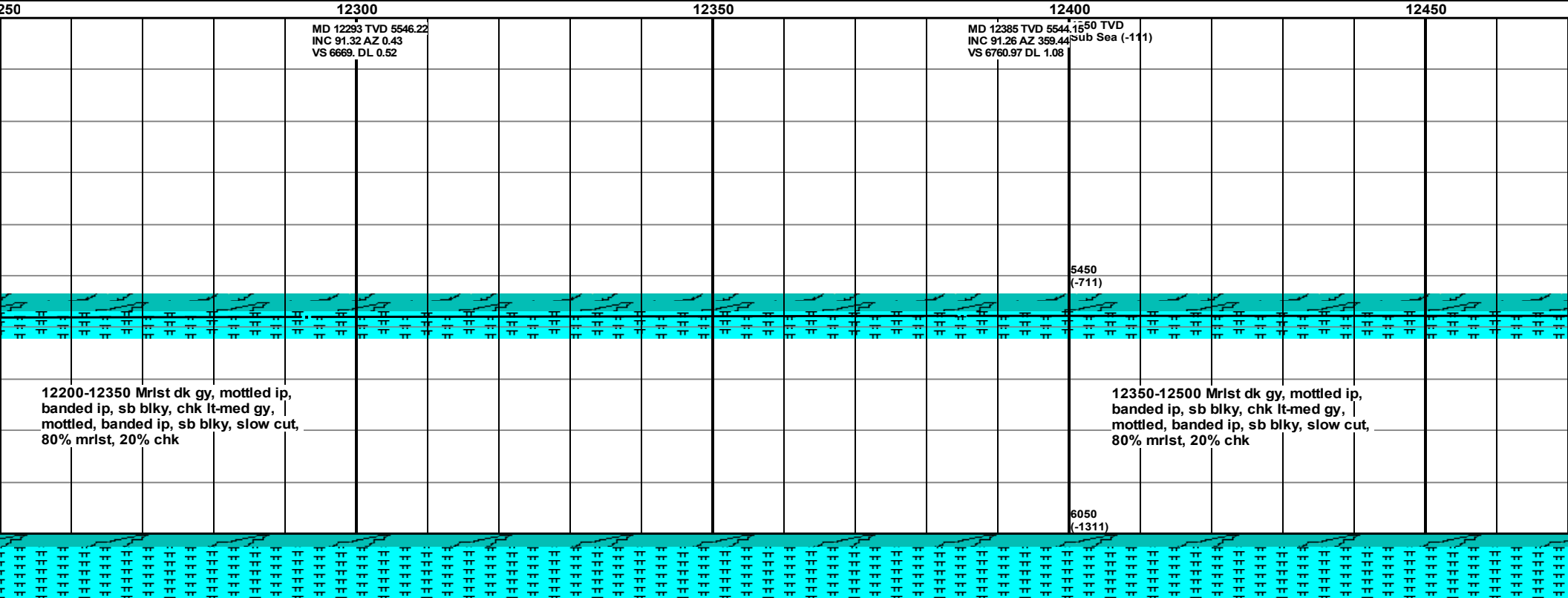
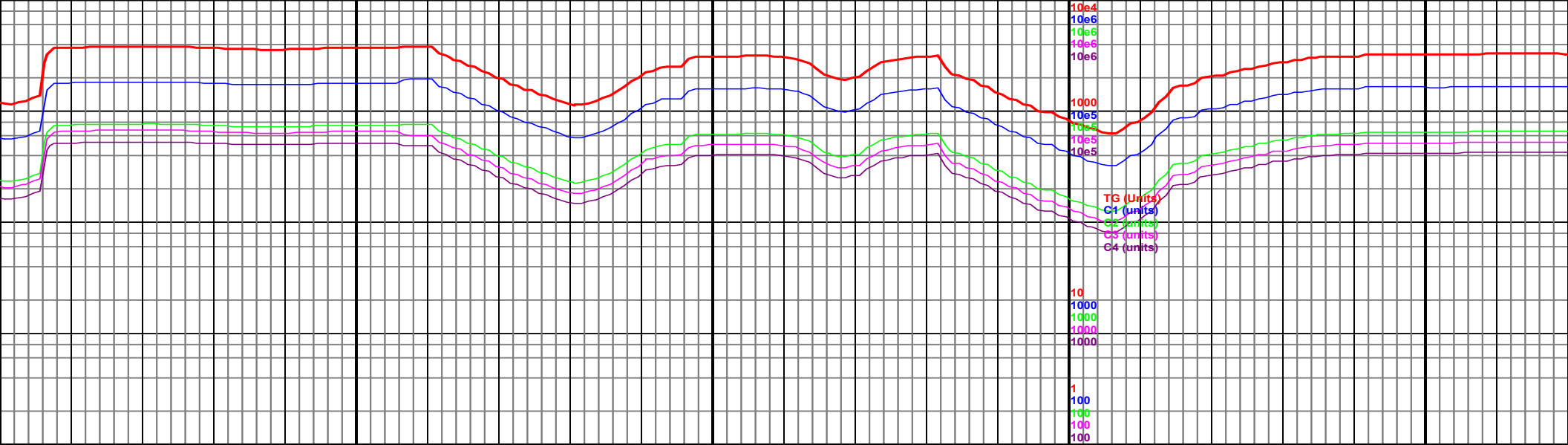


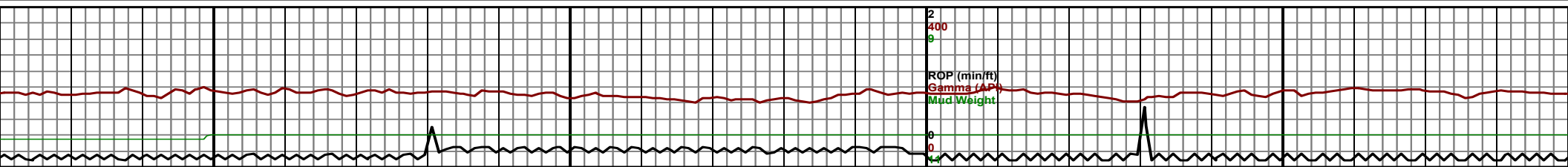
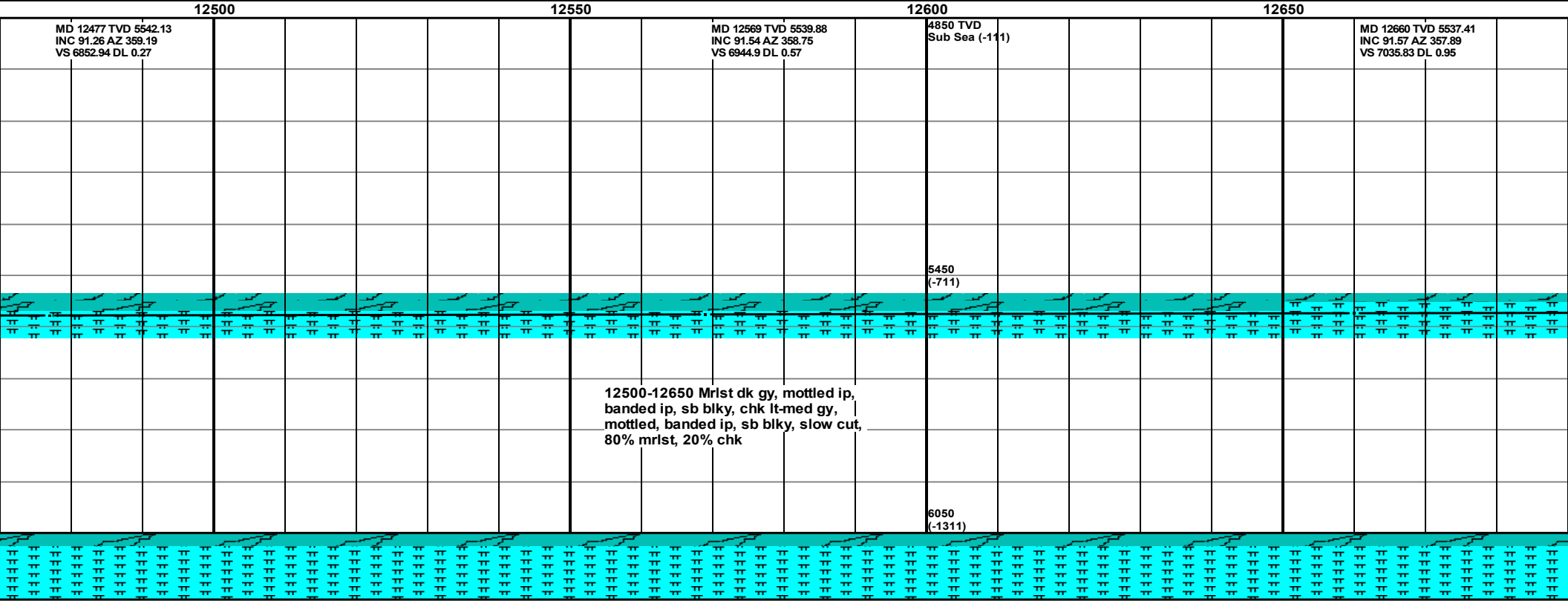
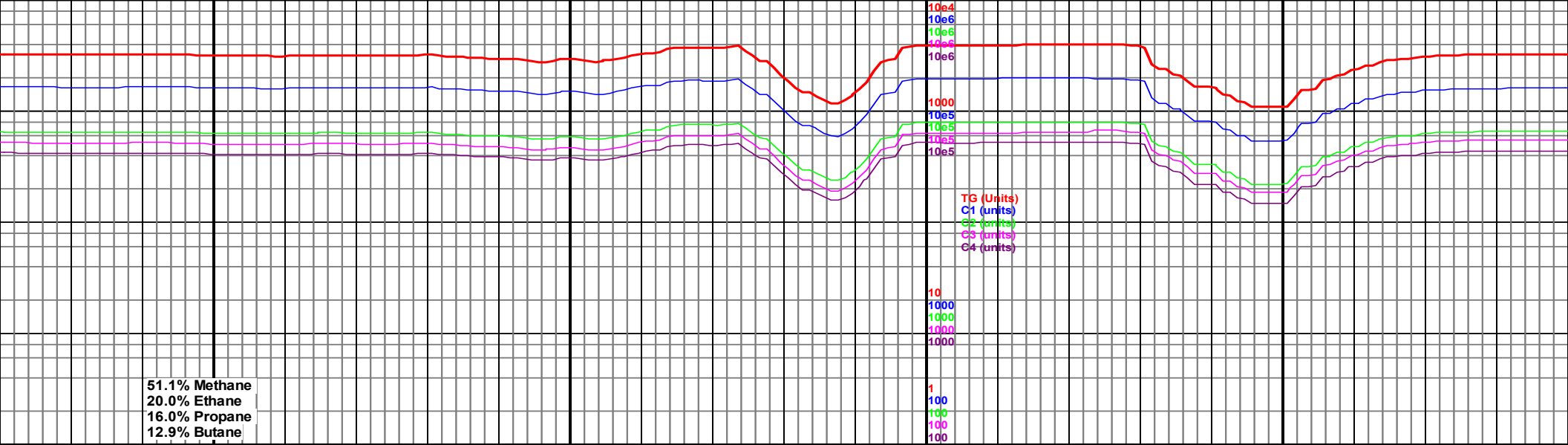


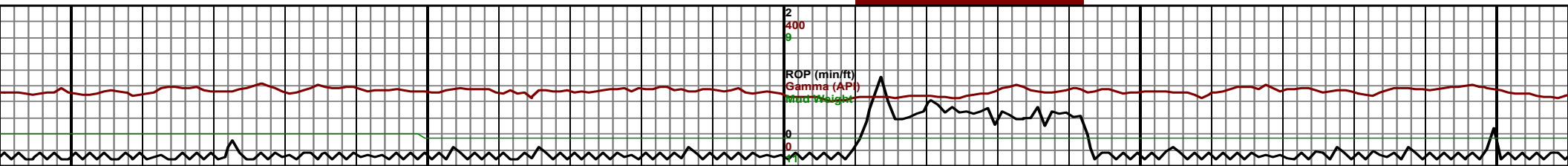
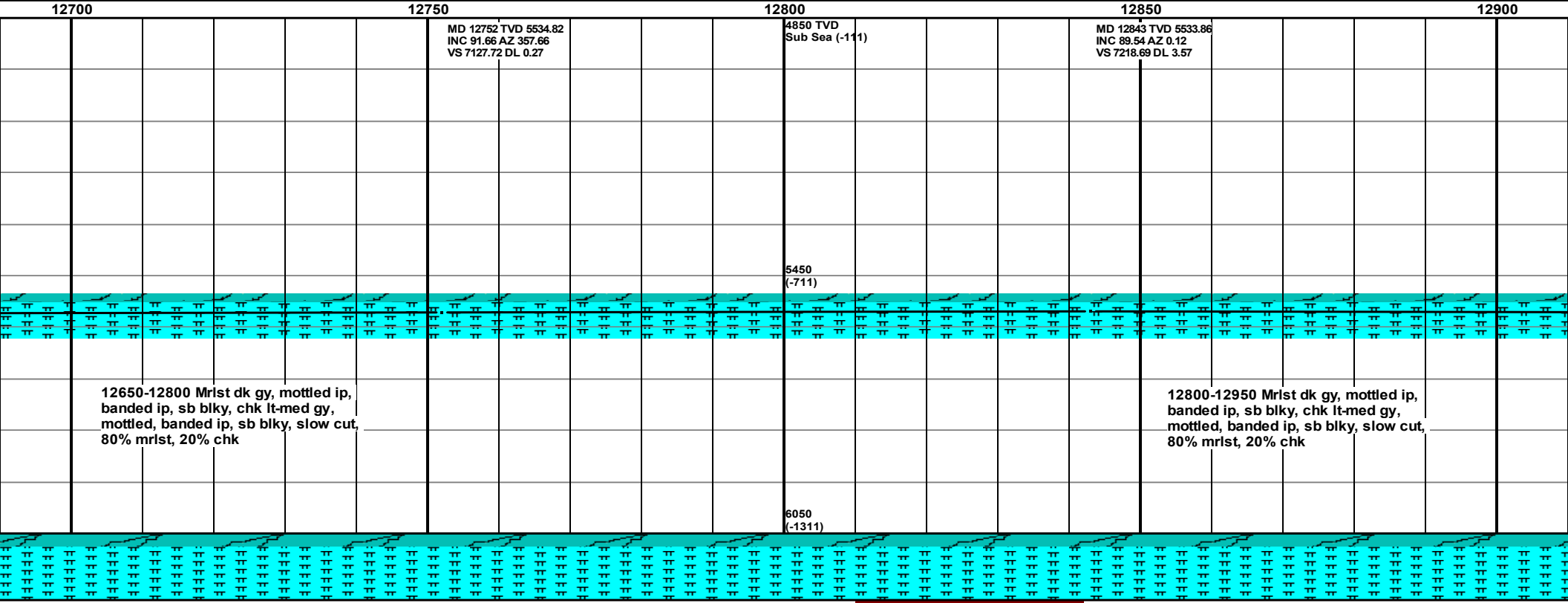
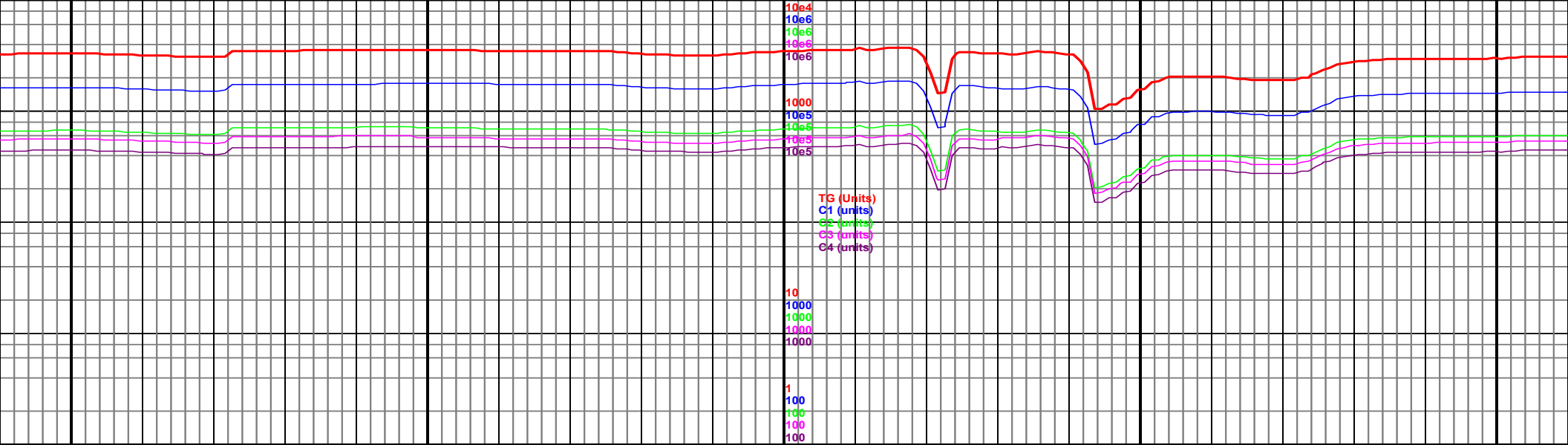


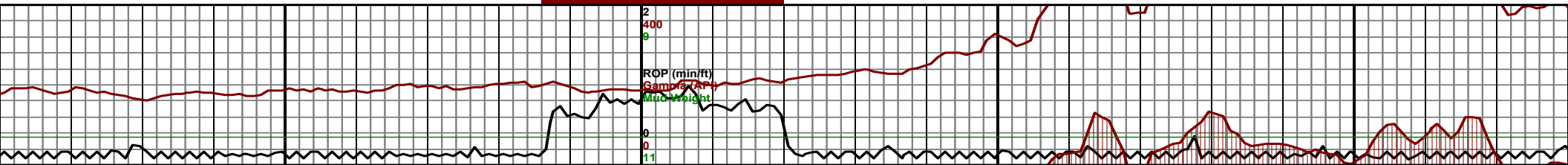
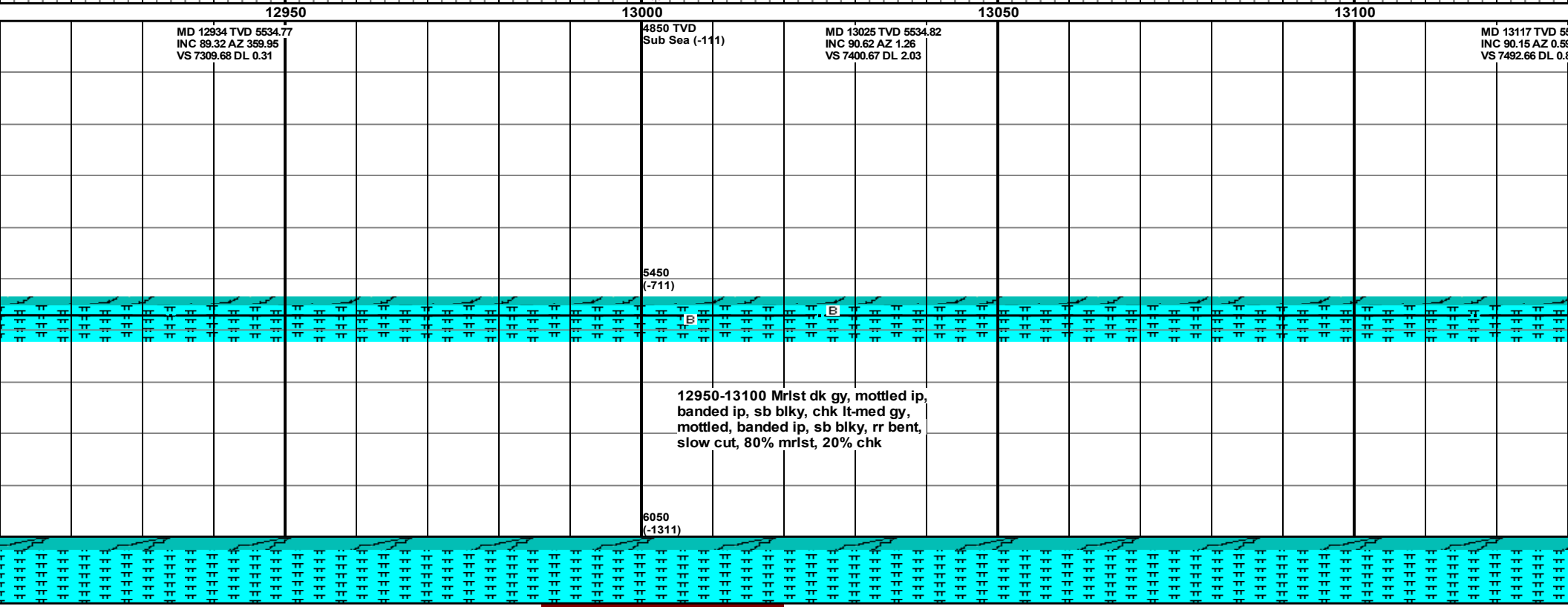
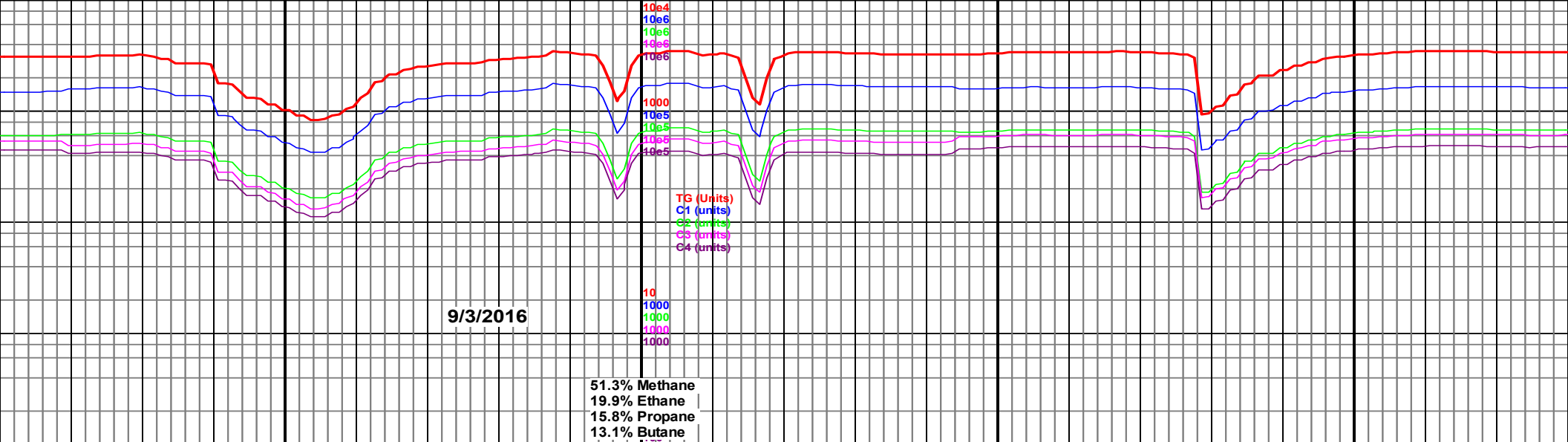


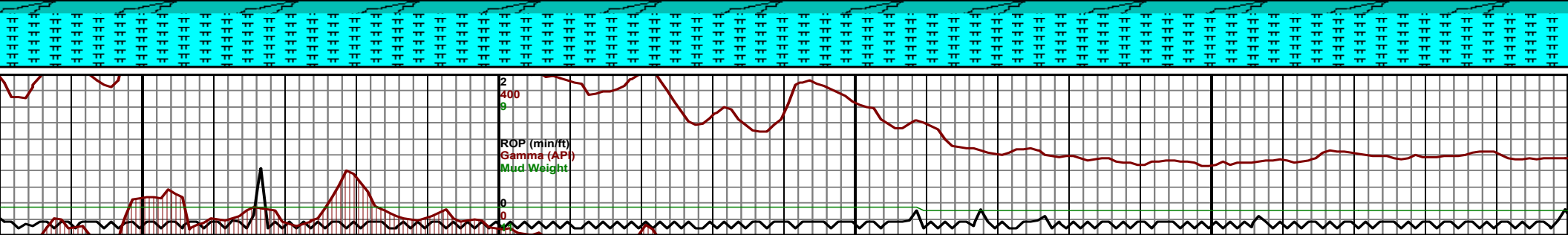
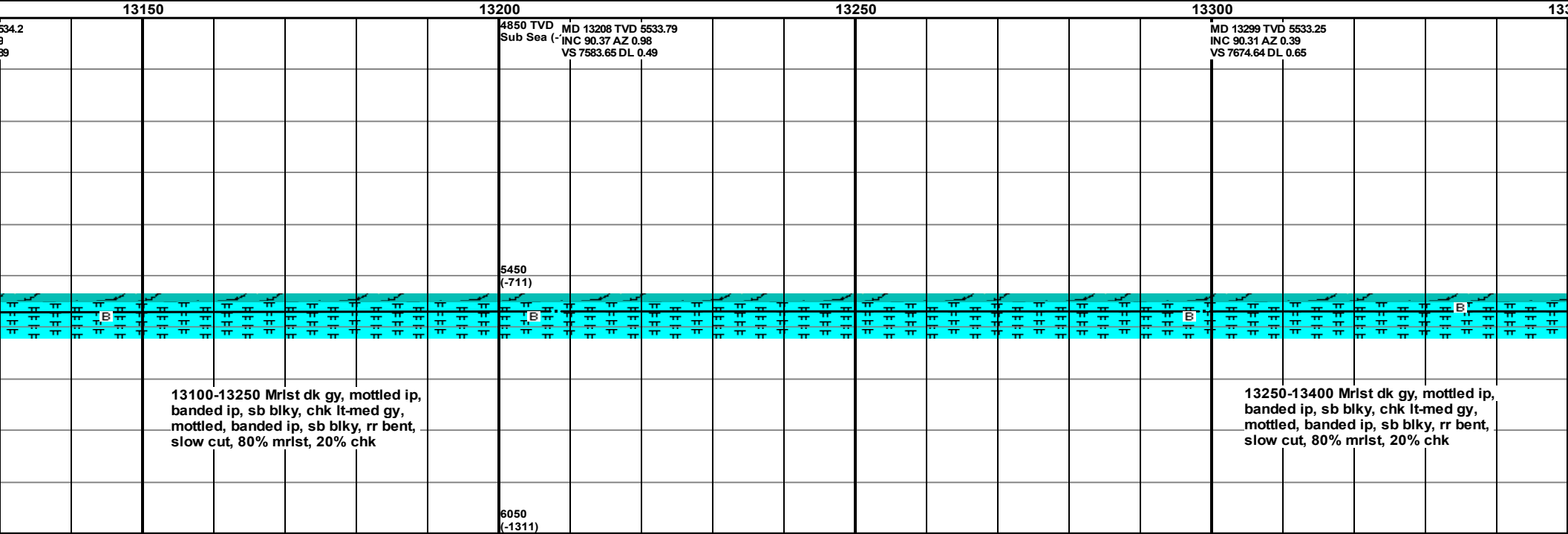
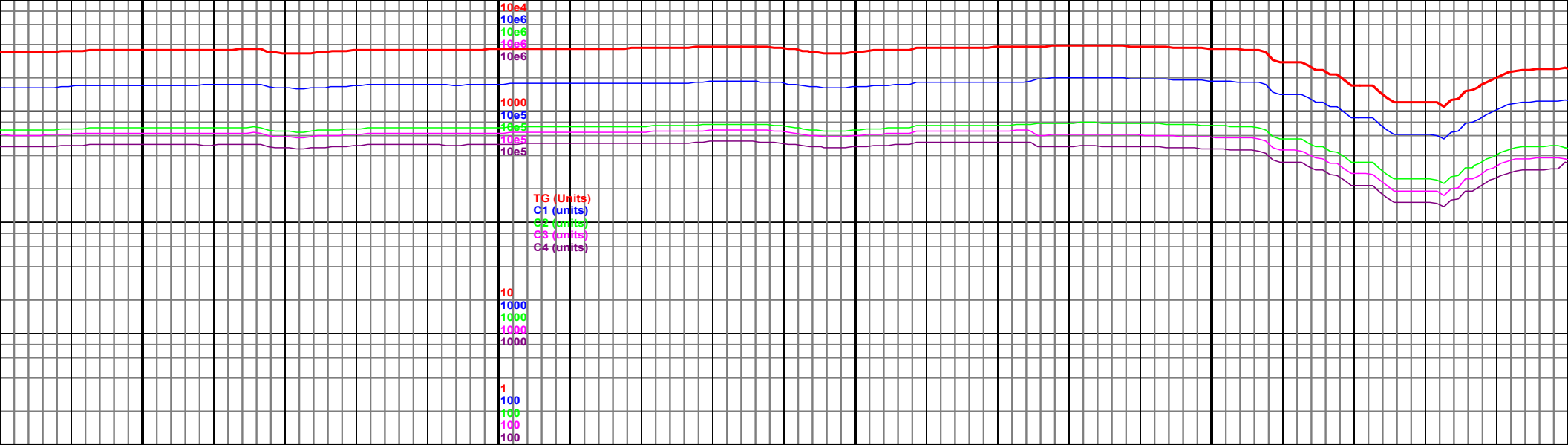


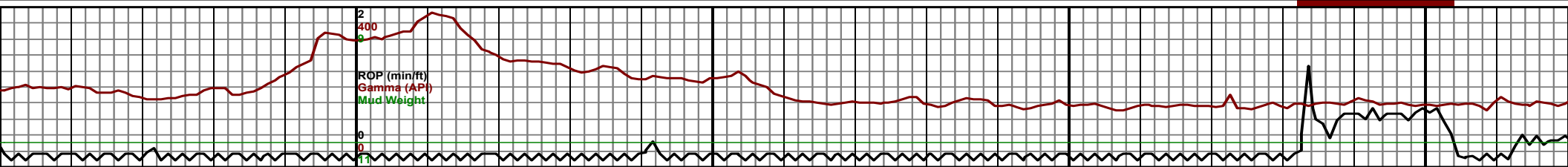
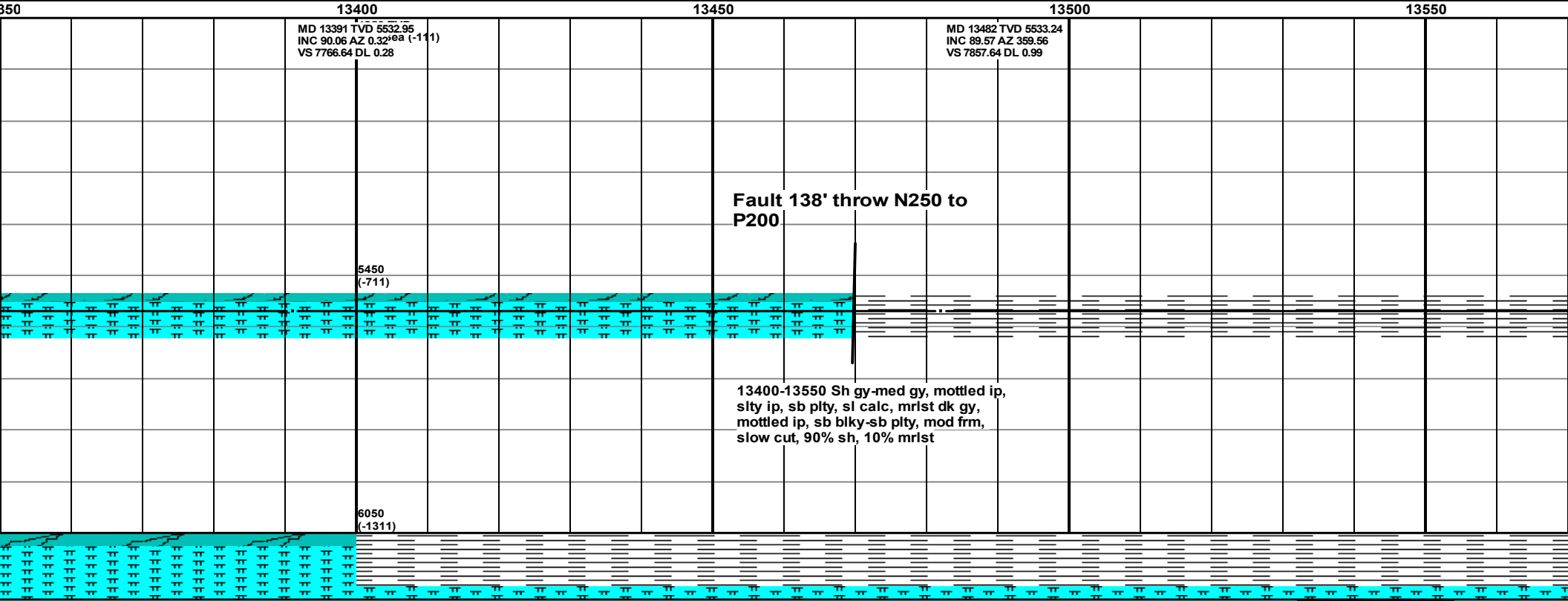
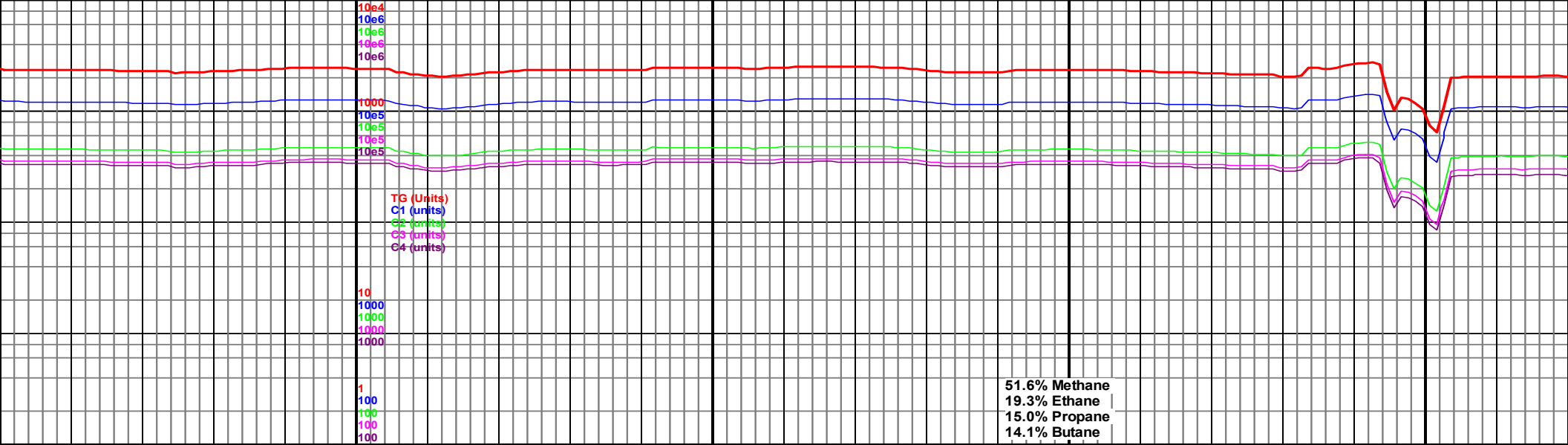


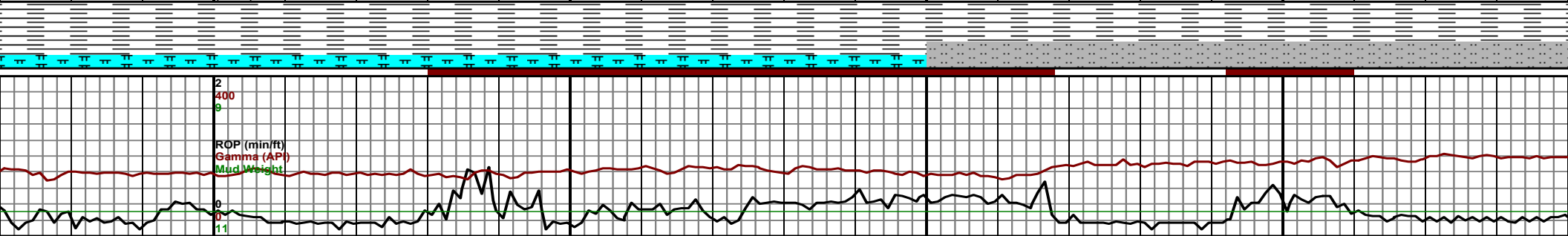
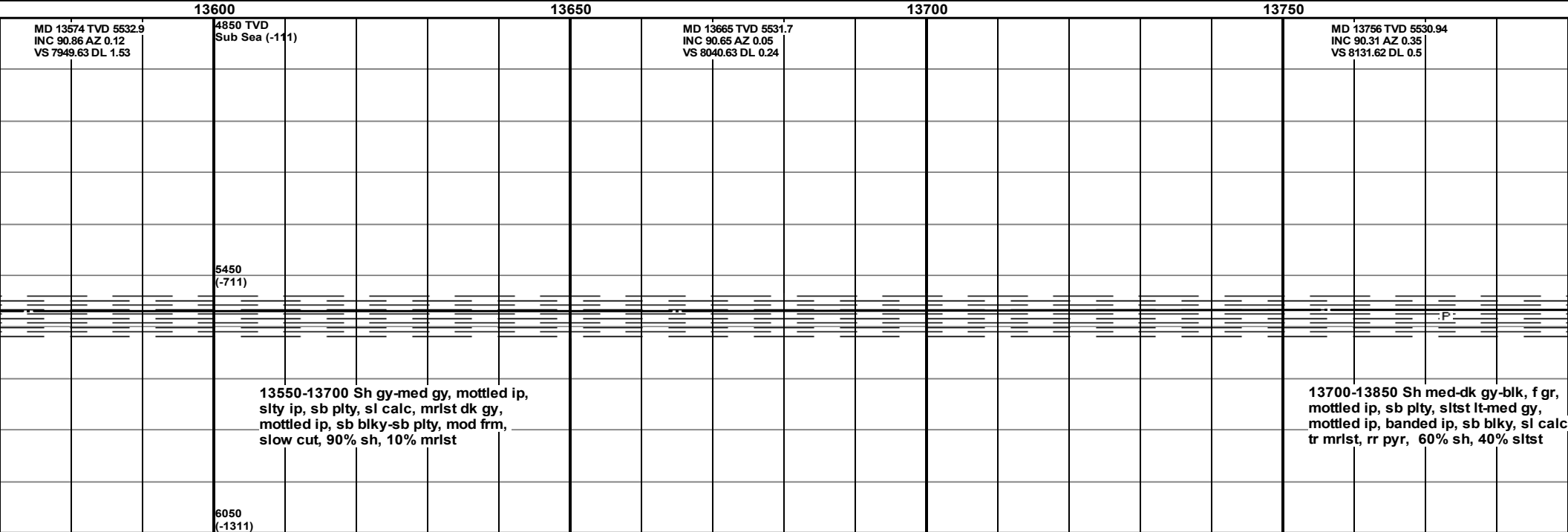
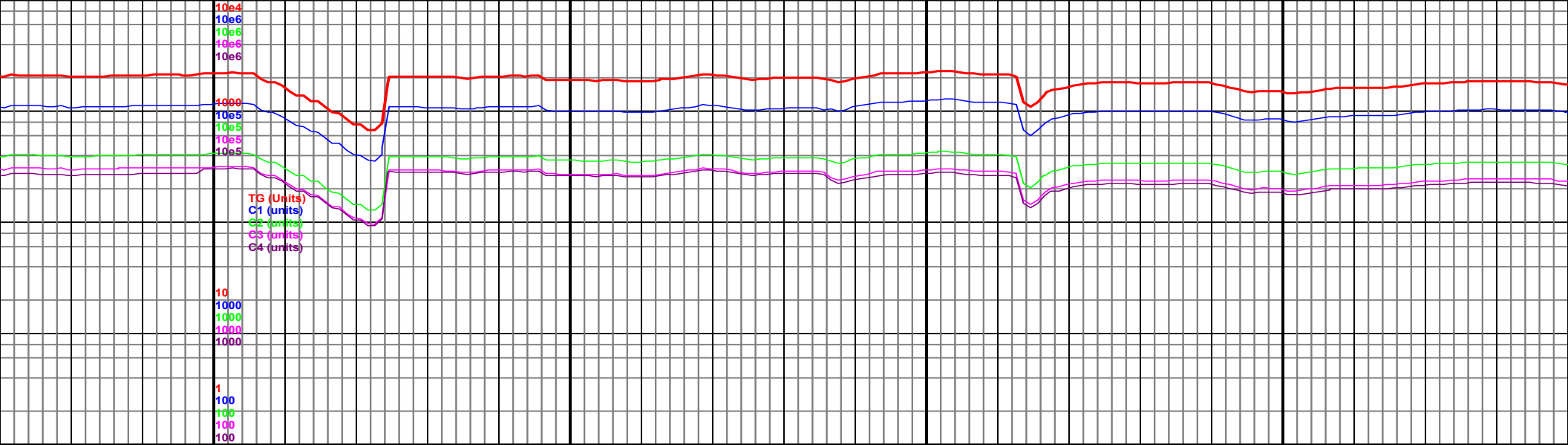


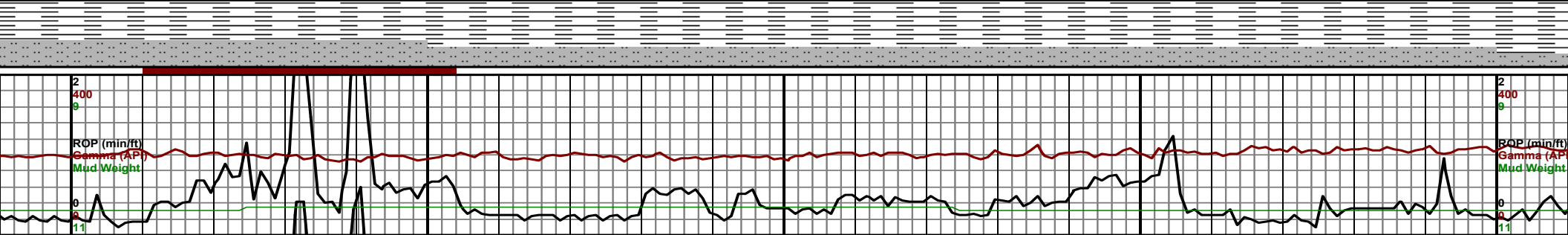
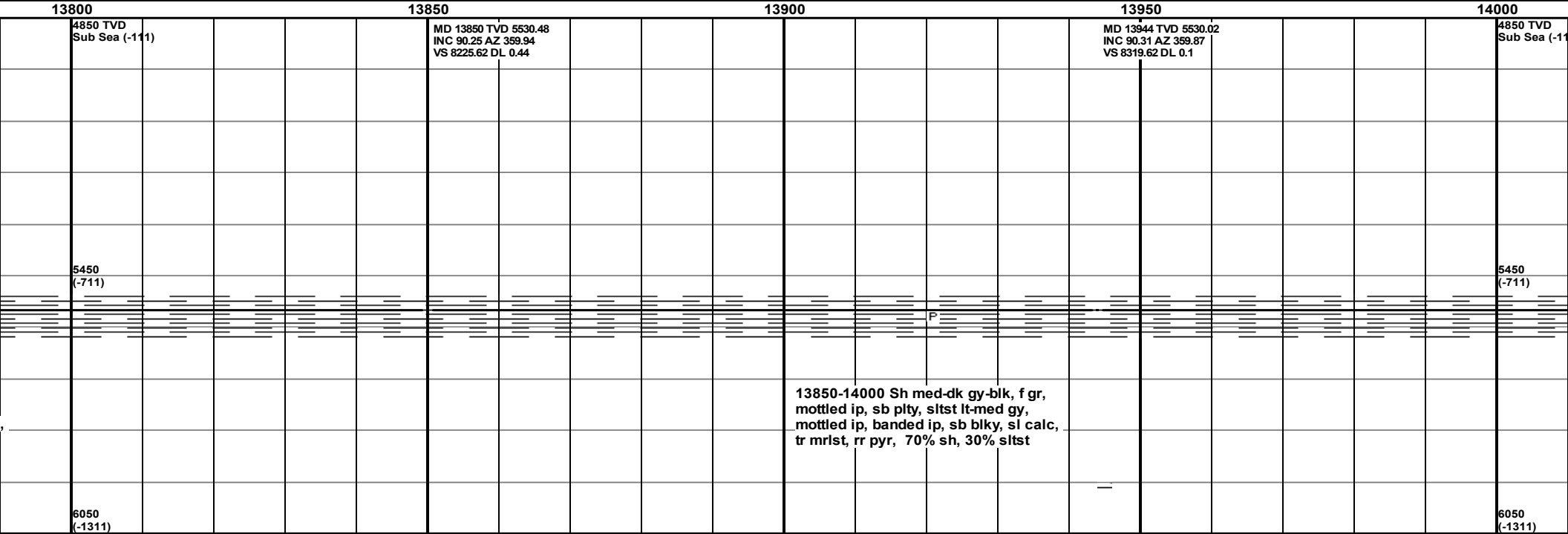
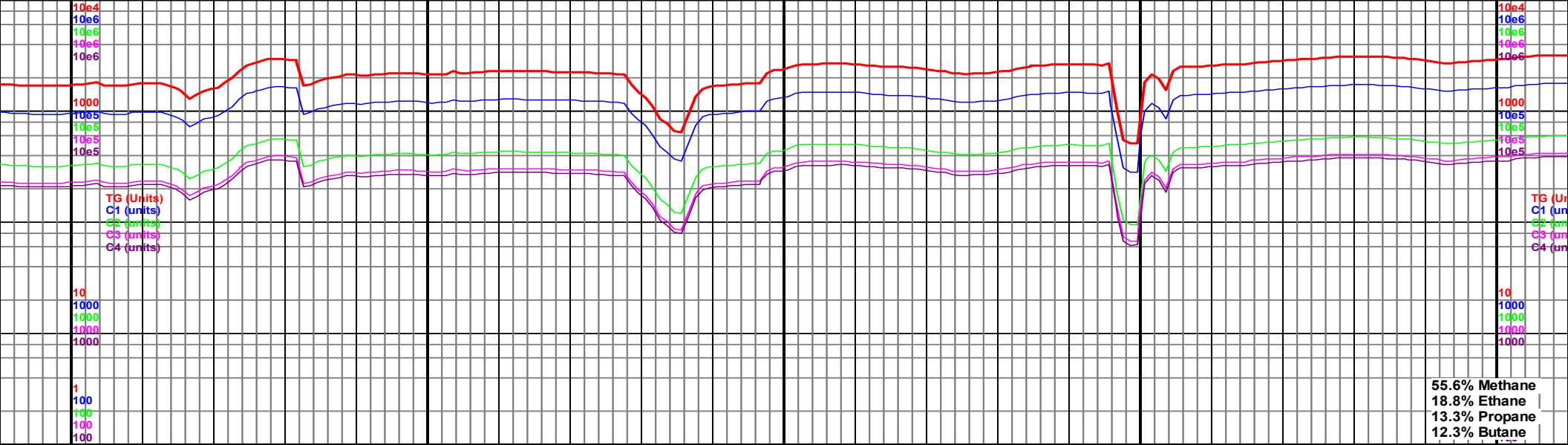


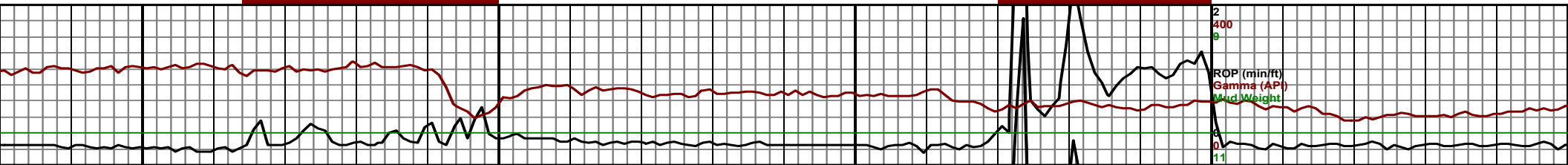
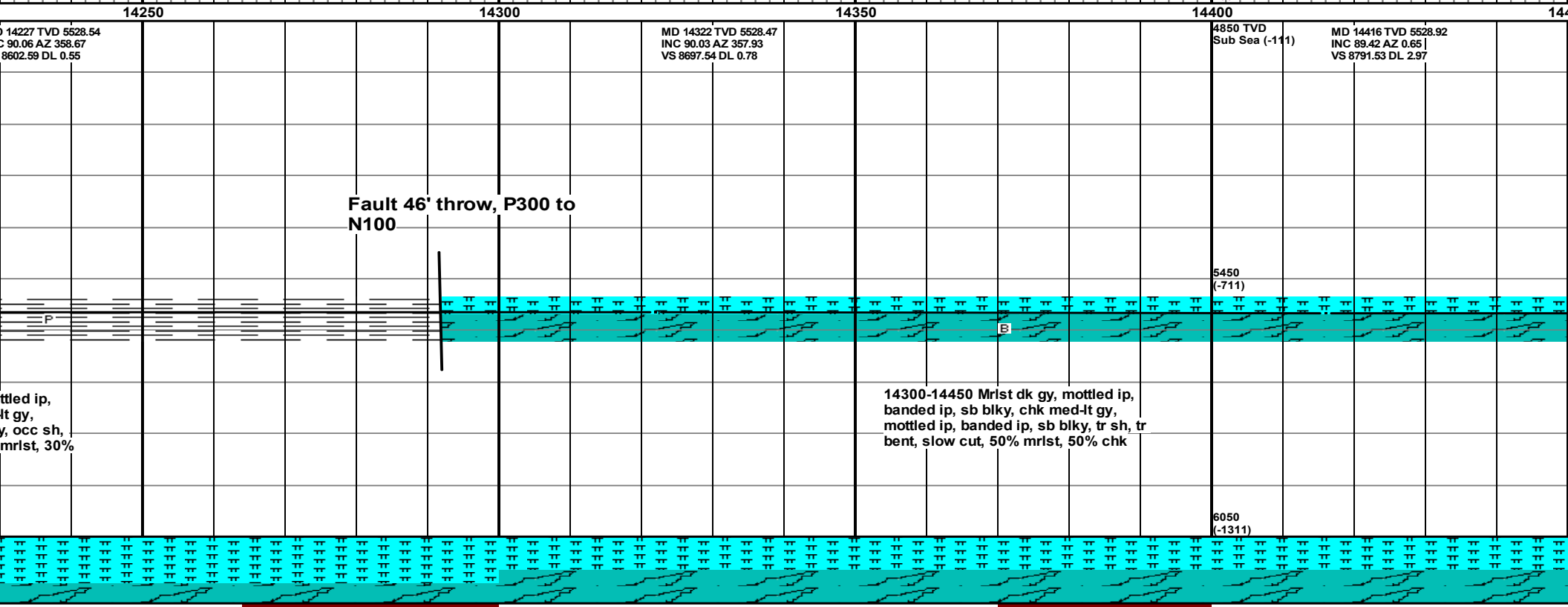
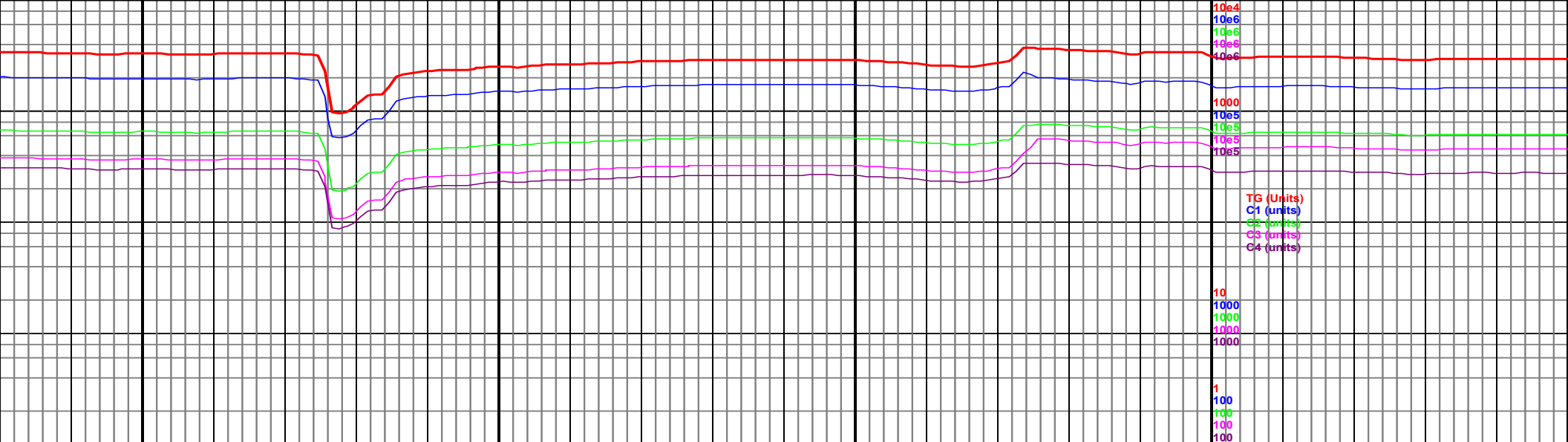


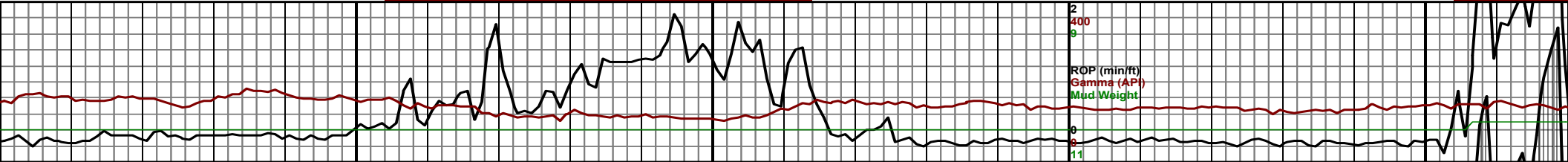
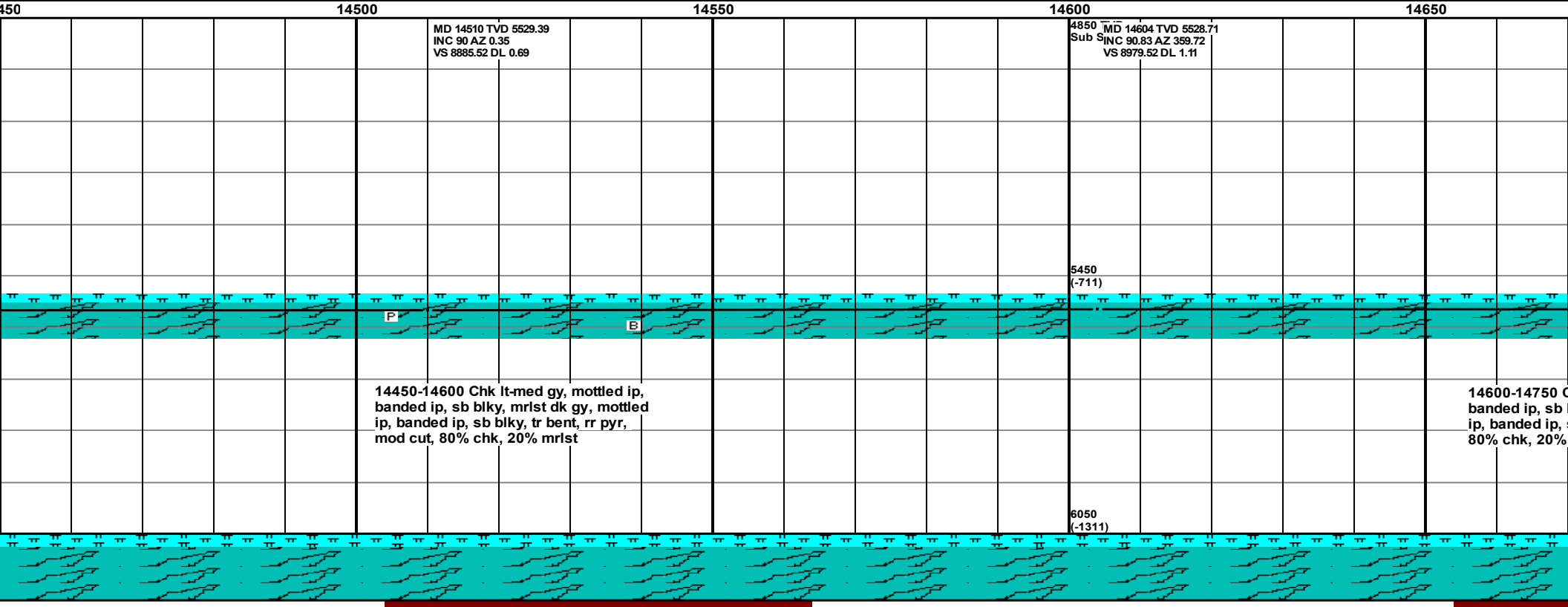
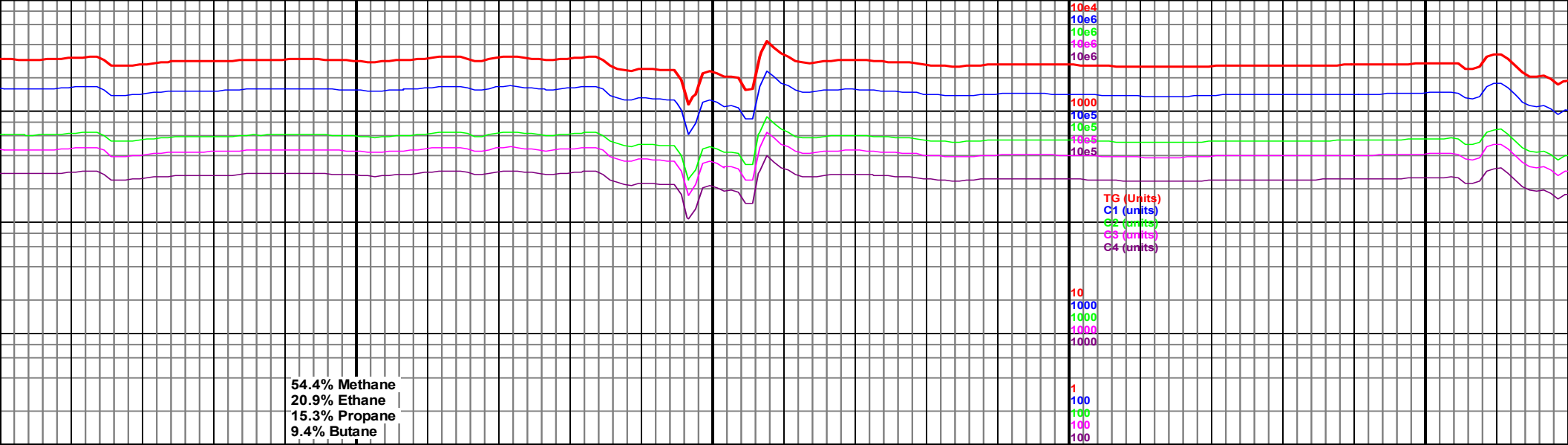


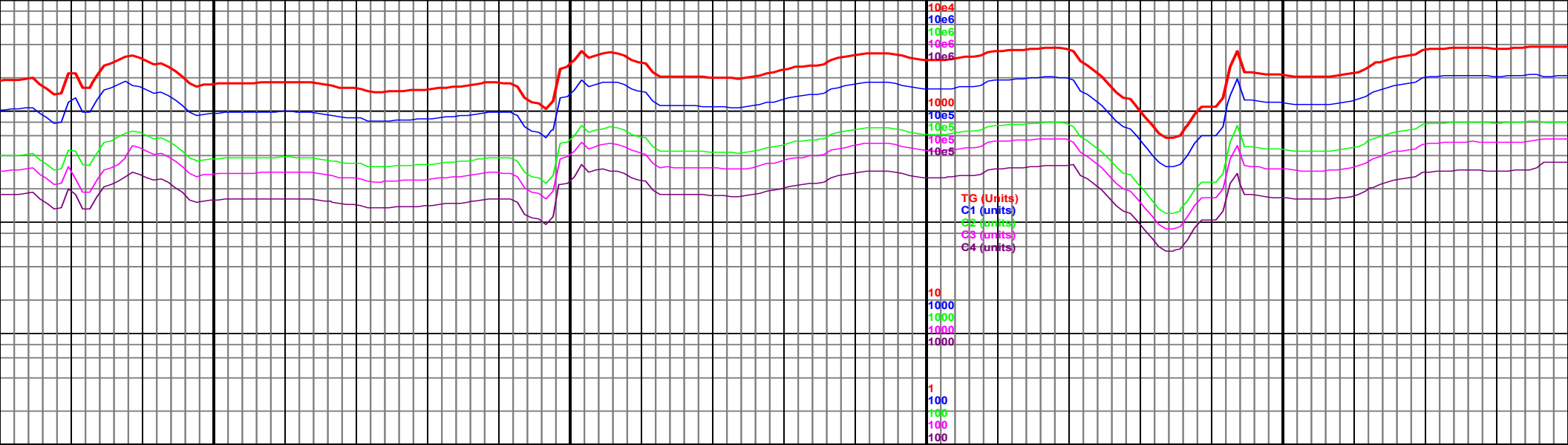












14700

14750

14800

14850

MD 14699 TVD 5528.64
INC 89.26 AZ 1.13
VS 9074.51 DL 2.22

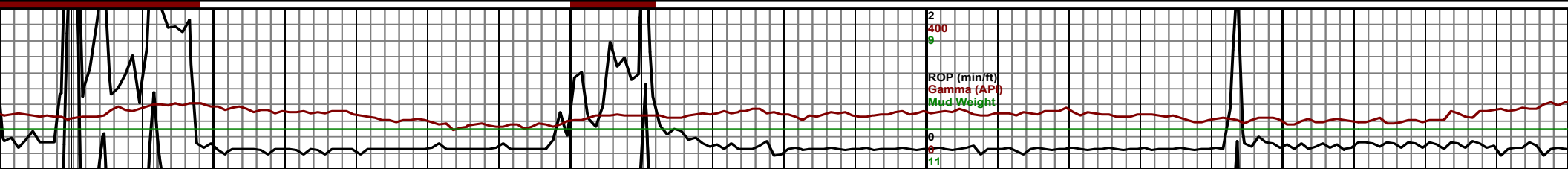
MD 14794 TVD 5530.43
INC 88.58 AZ 1.93 (-111)
VS 9169.46 DL 1.11

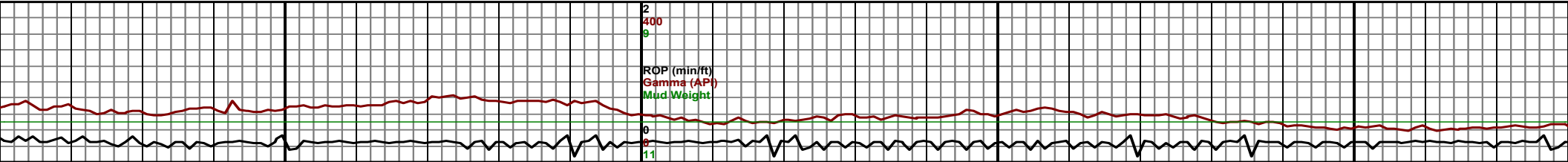
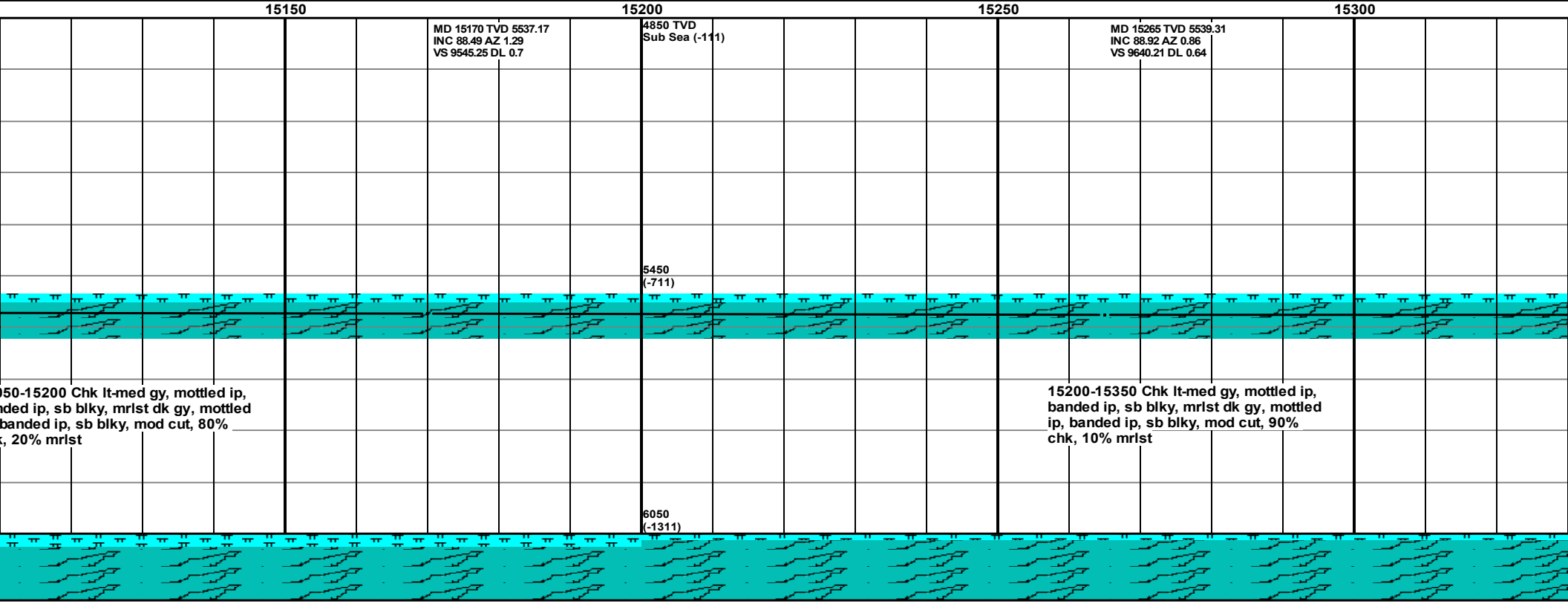
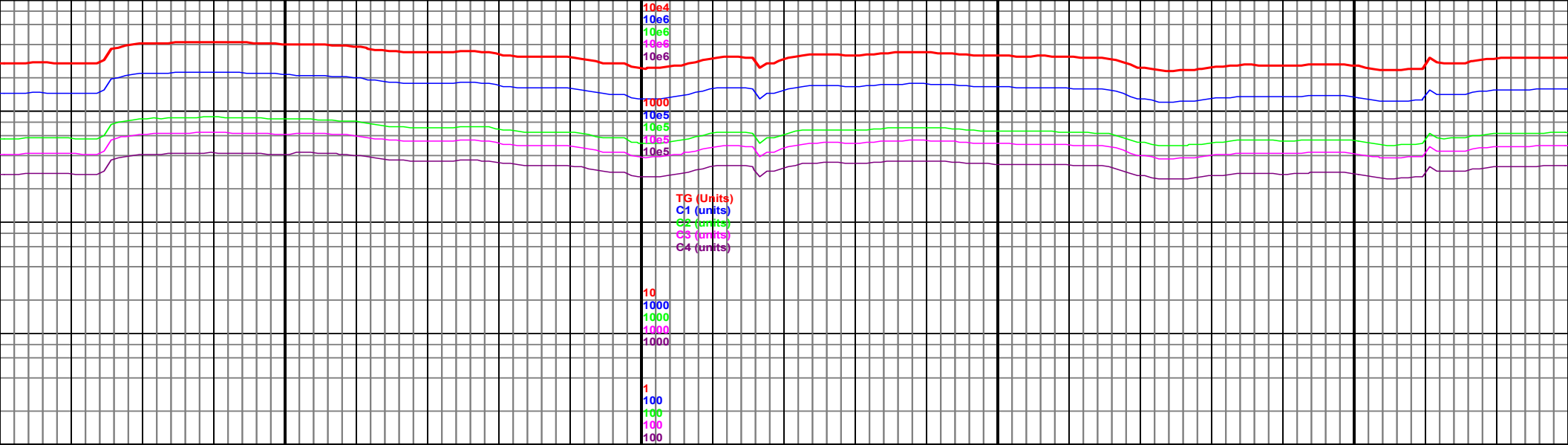
Chk lt-med gy, mottled ip,
blky, mrlst dk gy, mottled
sb blky, rr bent, mod cut,
mrlst

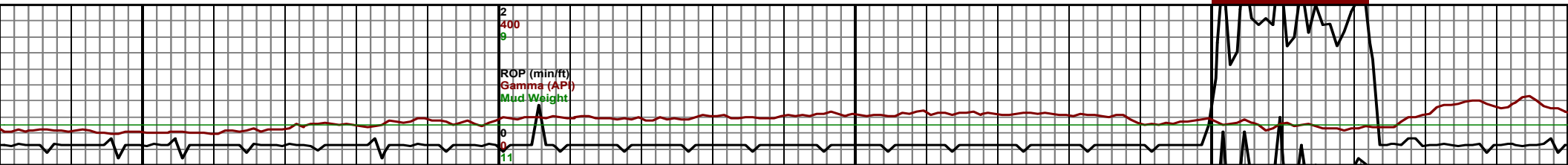
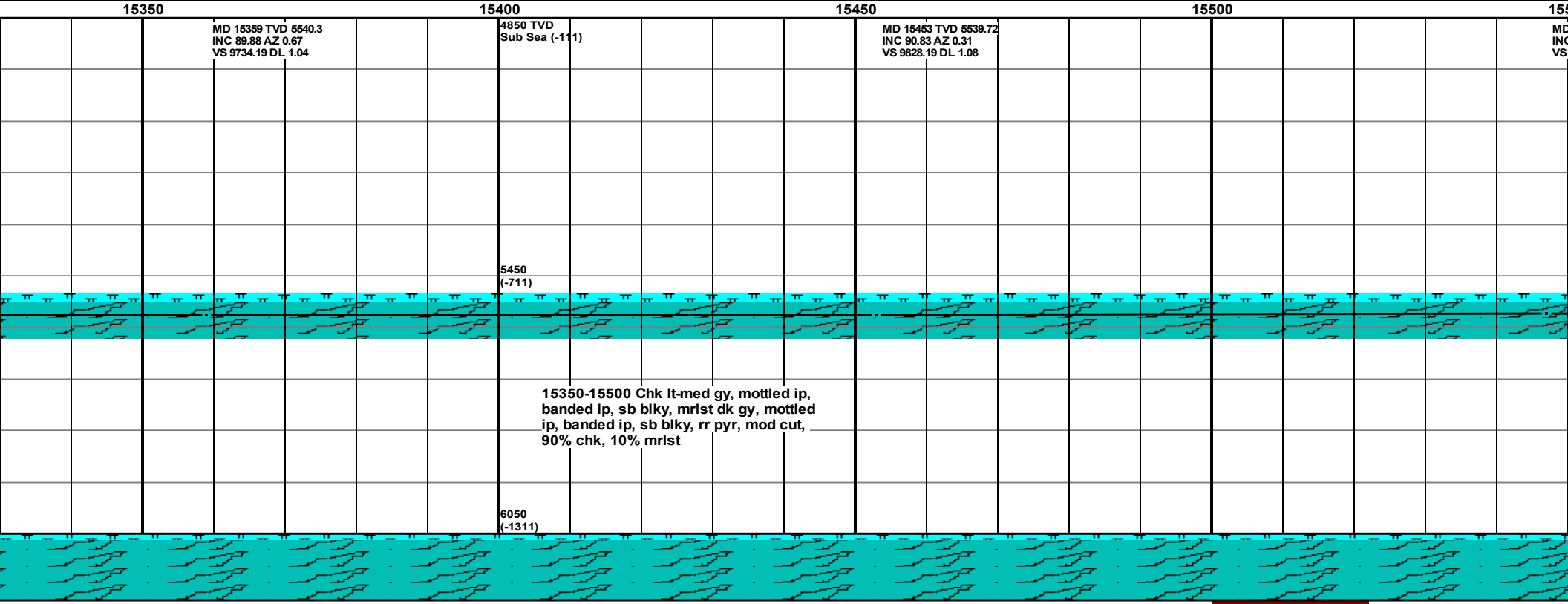
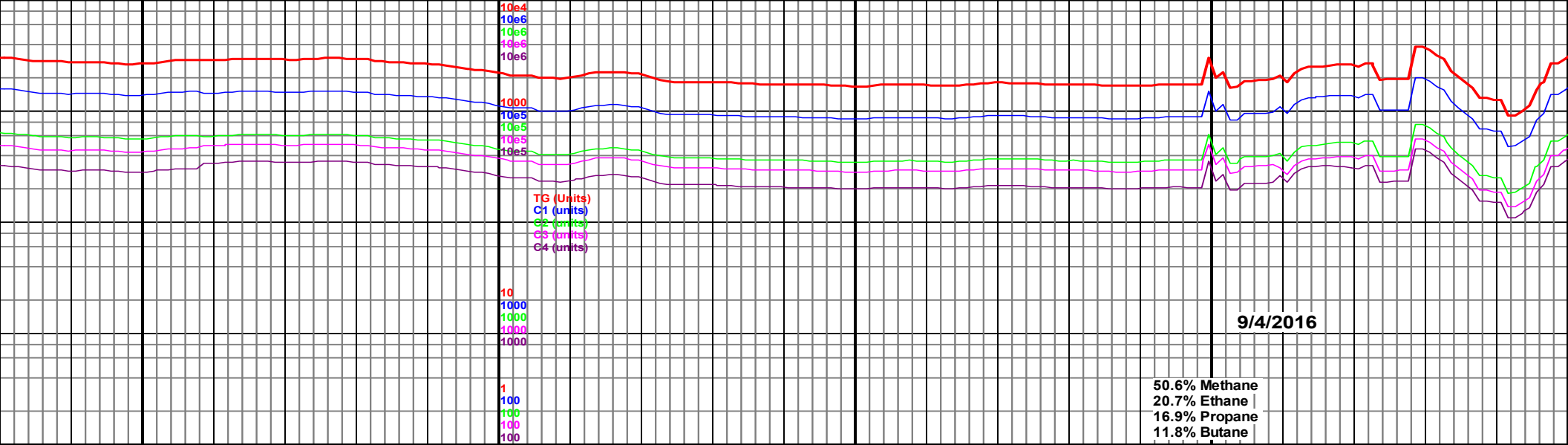
14750-14900 Chk lt-med gy, mottled ip,
banded ip, sb blky, mrlst dk gy, mottled
ip, banded ip, sb blky, mod cut, 80%
chk, 20% mrlst

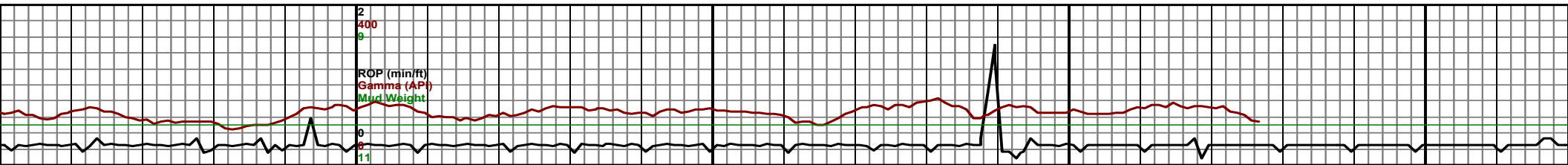
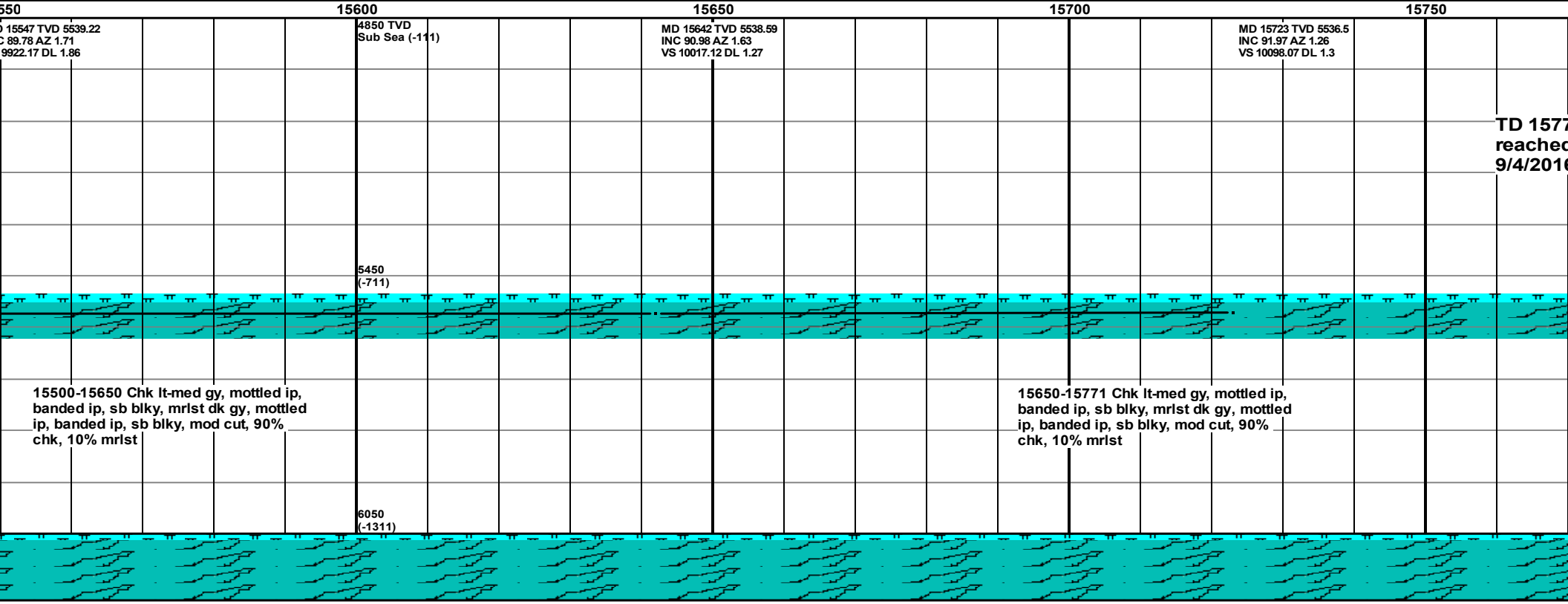
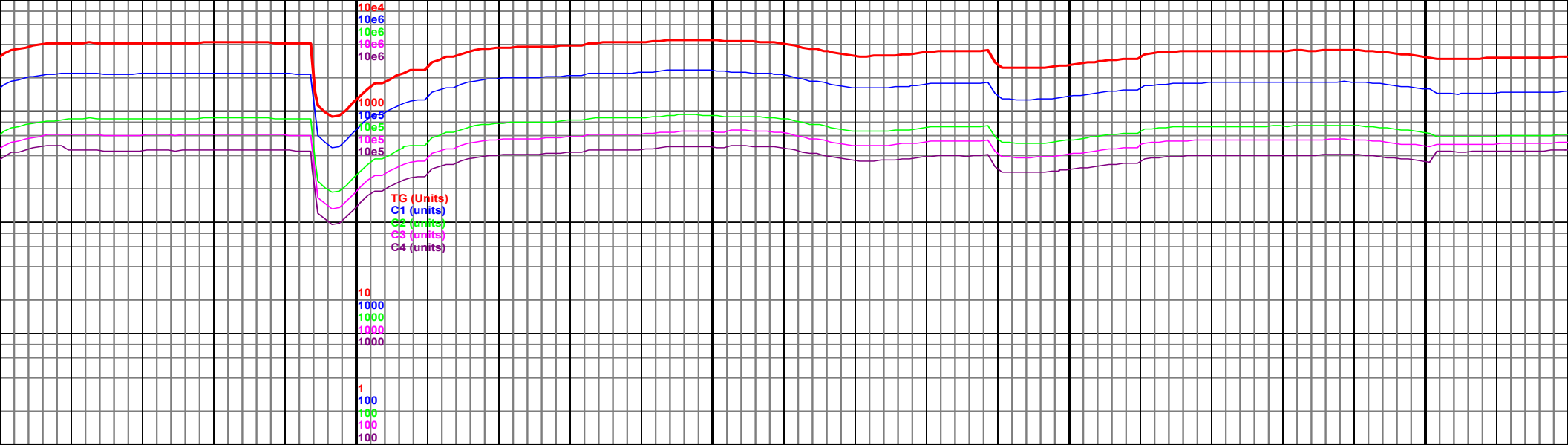
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(-711)

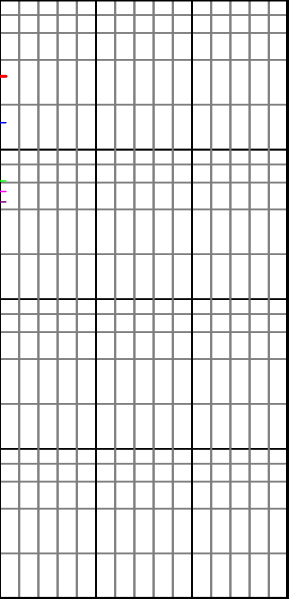
6050
(-1311)











15

71' MD 5536' TVD
d at 02:54 on
6

