



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

Well Name: Razor 22D-2703A  
Well Id: 05-123-38508-00  
Location: NWNW 22-T10N-R58W  
License Number: 05-123-38508-00  
Spud Date: 5/28/2015  
Surface Coordinates: Lat.: 40.830206 Long.: -103.858556

Region: Redtail Field  
Drilling Completed: 6/4/2015

Bottom Hole  
Coordinates:  
Ground Elevation (ft): 4832  
Logged Interval (ft): 5186 To: 13236  
Formation: Pierre, Sharon Springs, Niobrara A  
Type of Drilling Fluid: Water Based Mud

K.B. Elevation (ft): 4853  
Total Depth (ft): 13236

Printed by HORIZONTAL.LOG from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

#### OPERATOR

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

#### GEOLOGIST

Name: Todd Nakata, Lauren Roddy  
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**

**INTERVAL**



**Core**



**Dst**

**EVENT**

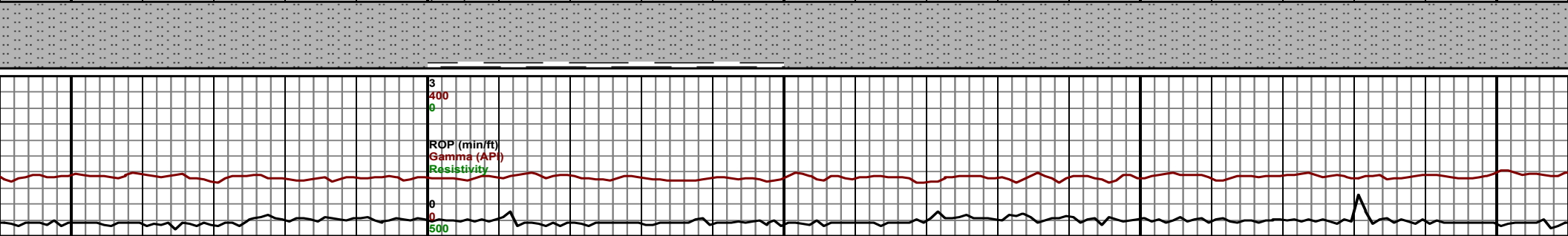
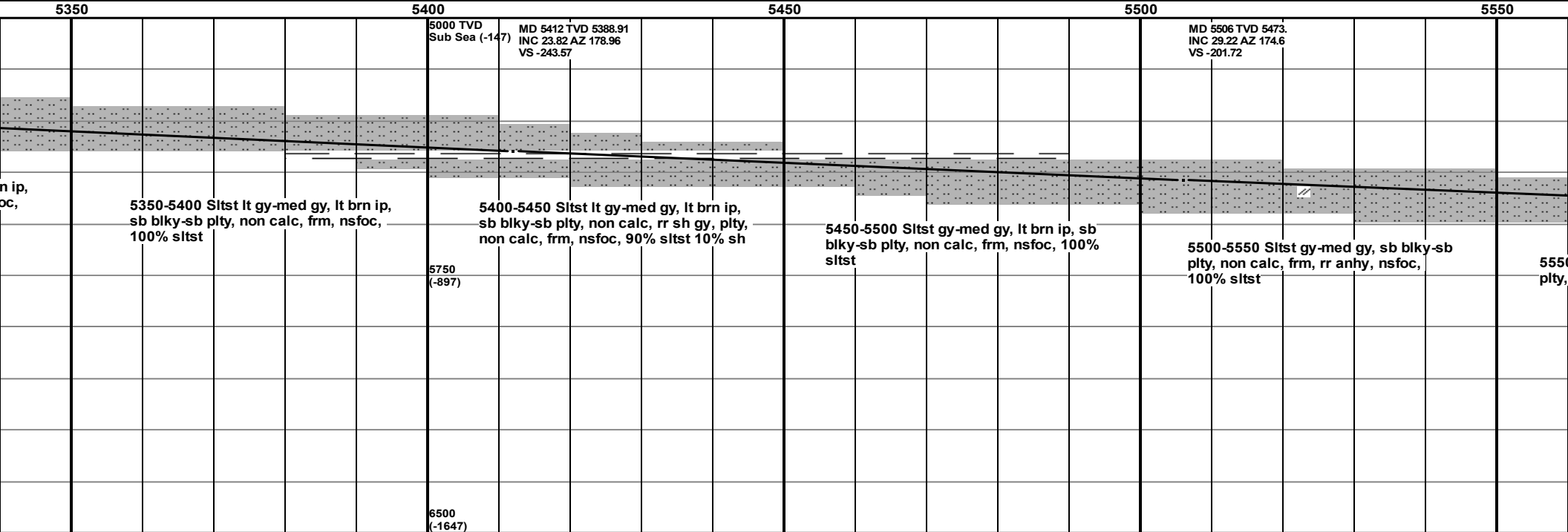
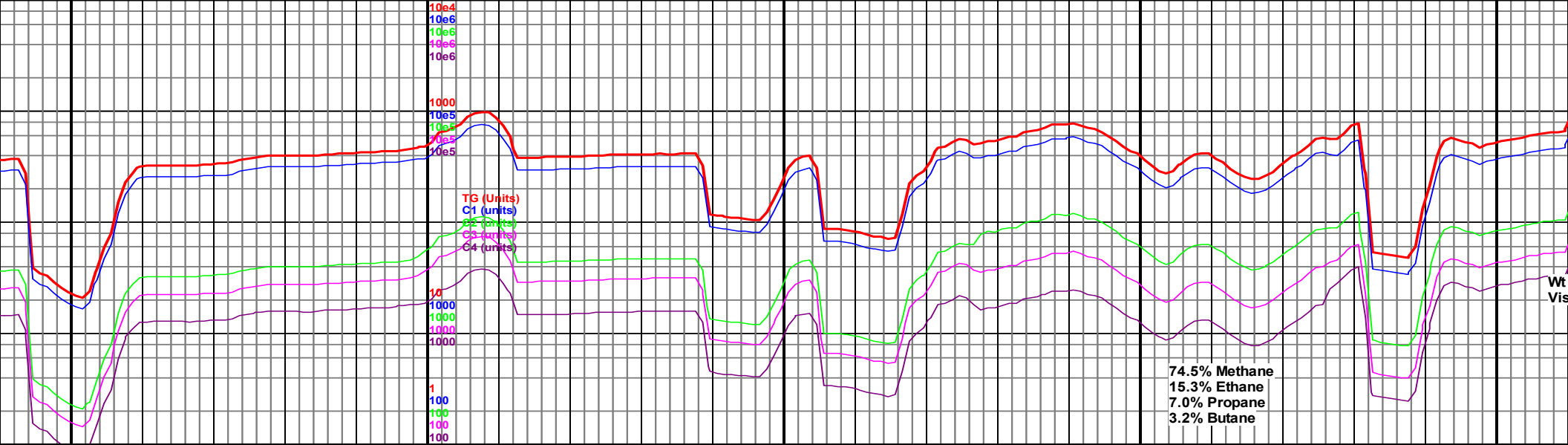


**Rft**

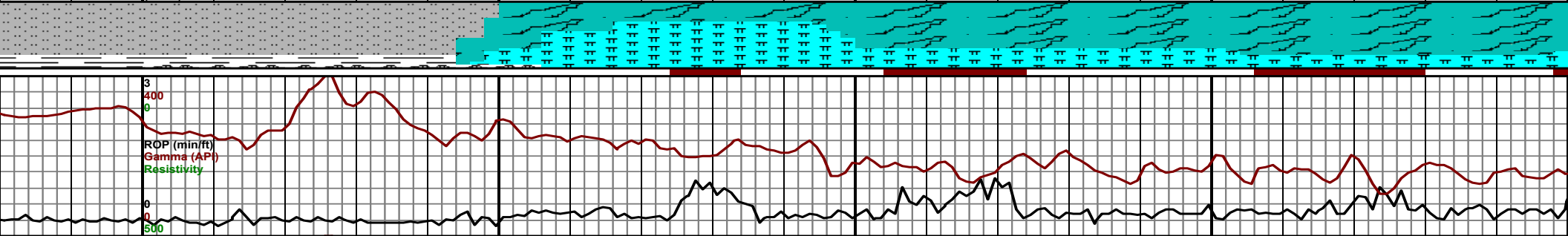
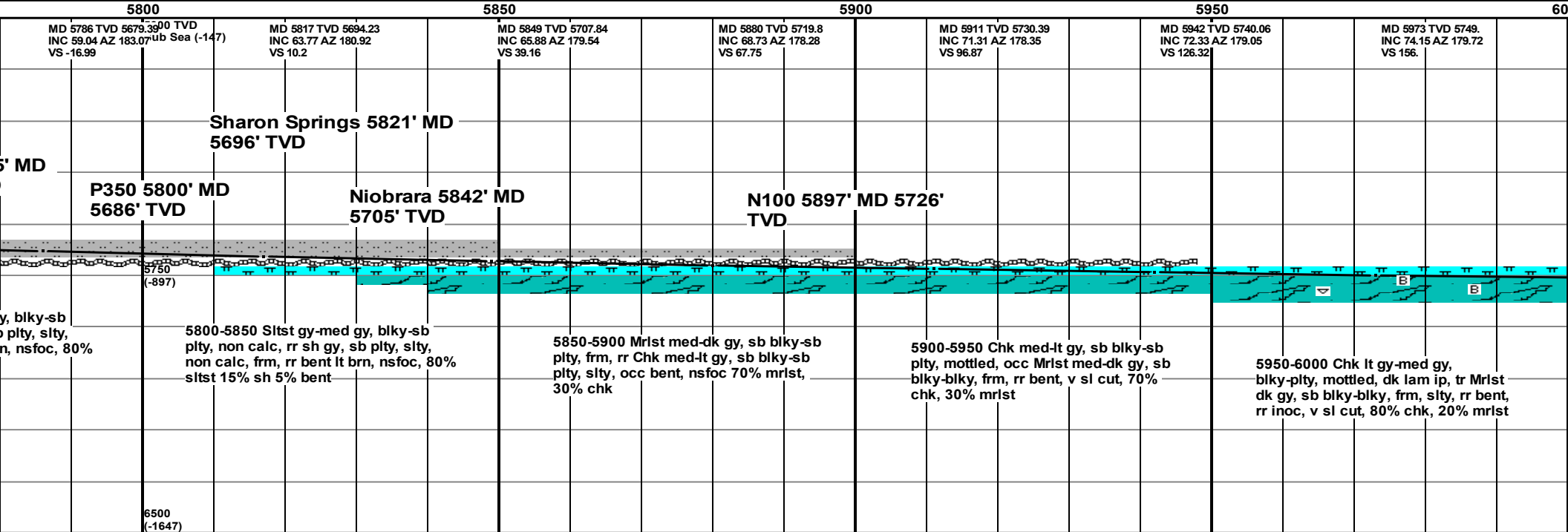
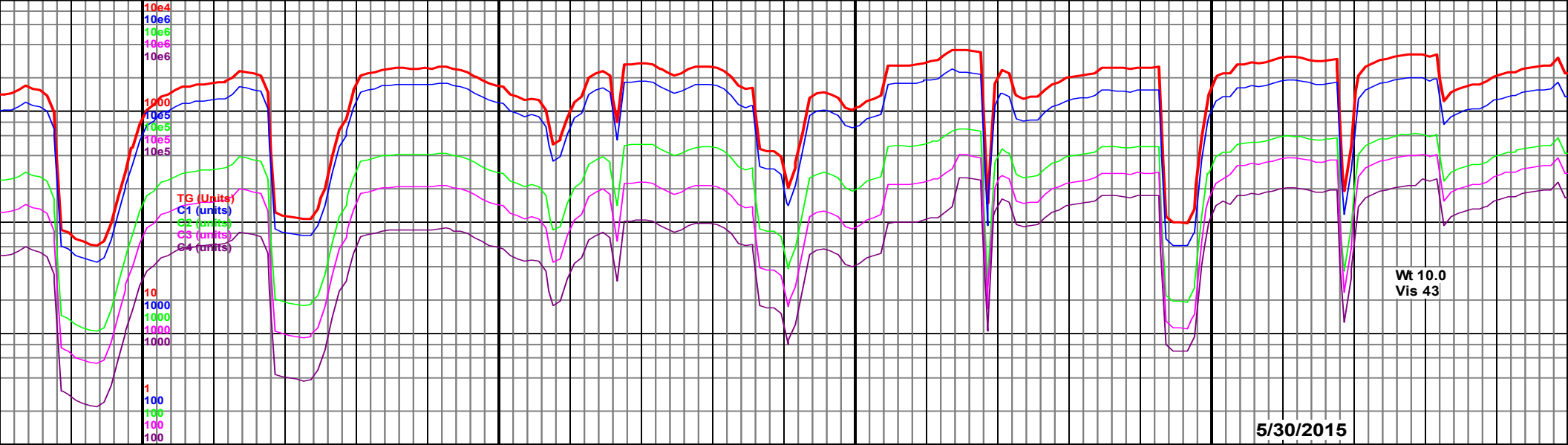


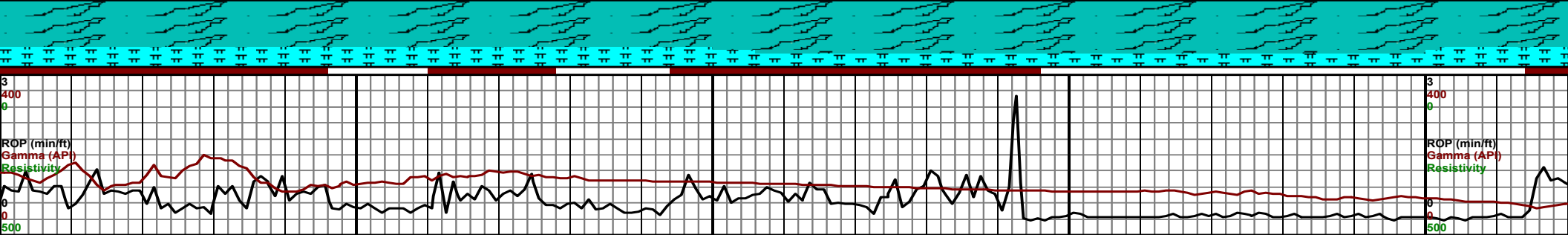
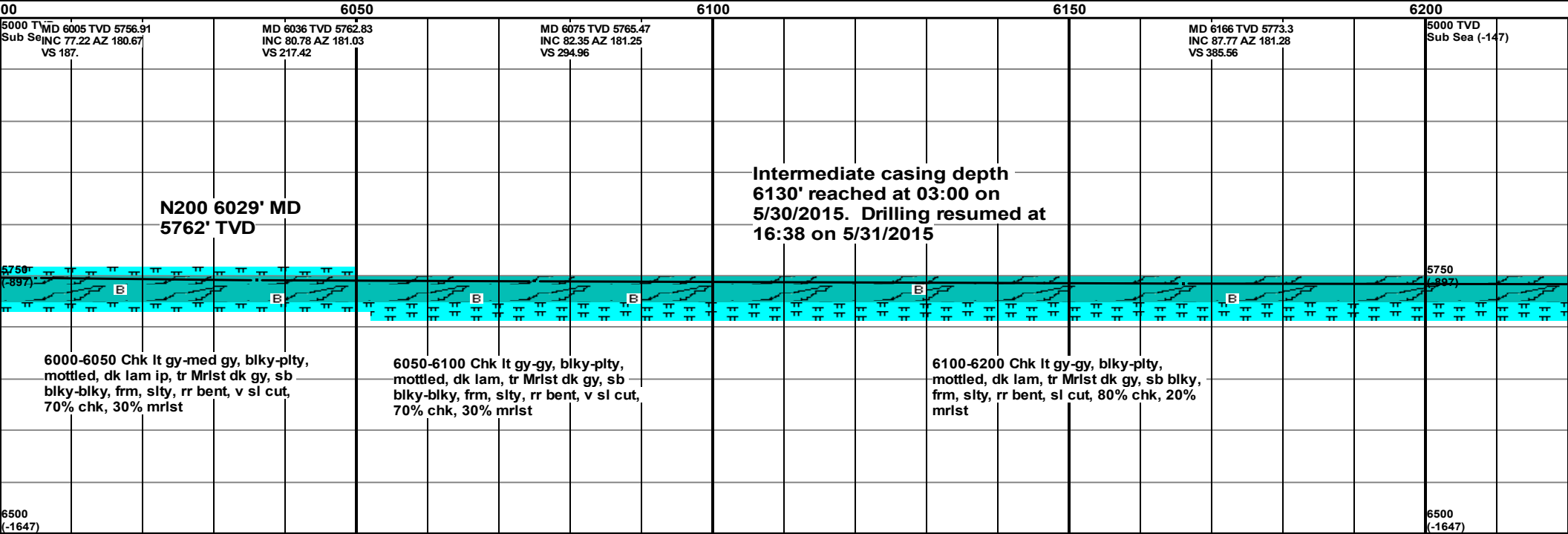
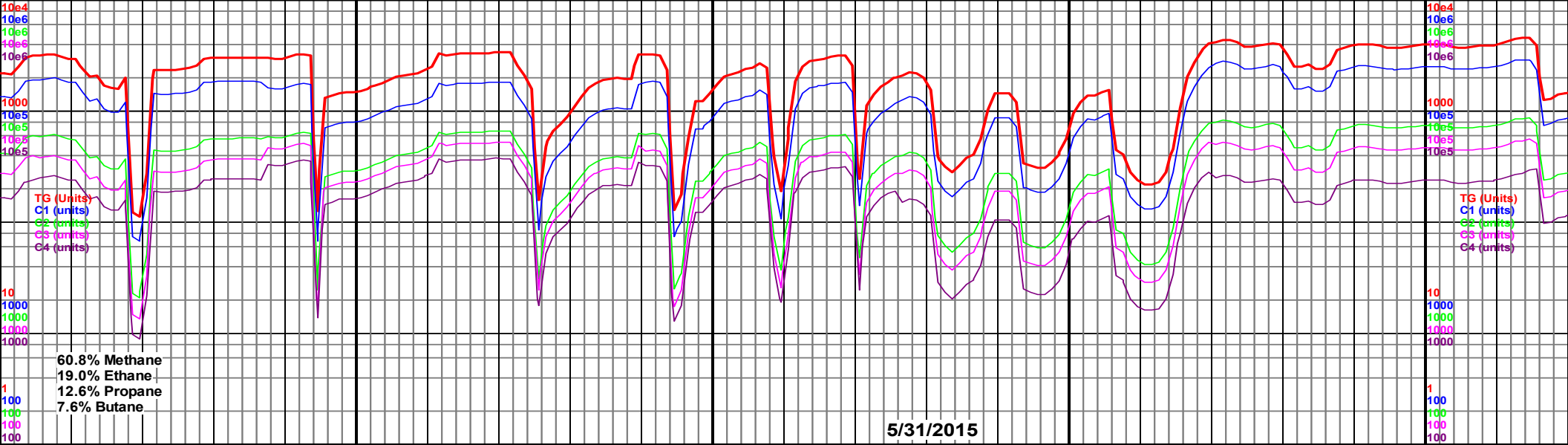
**Sidewall**



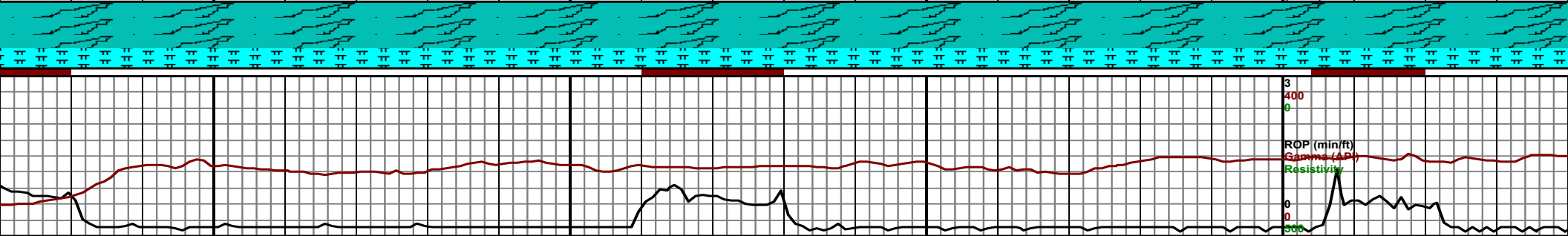
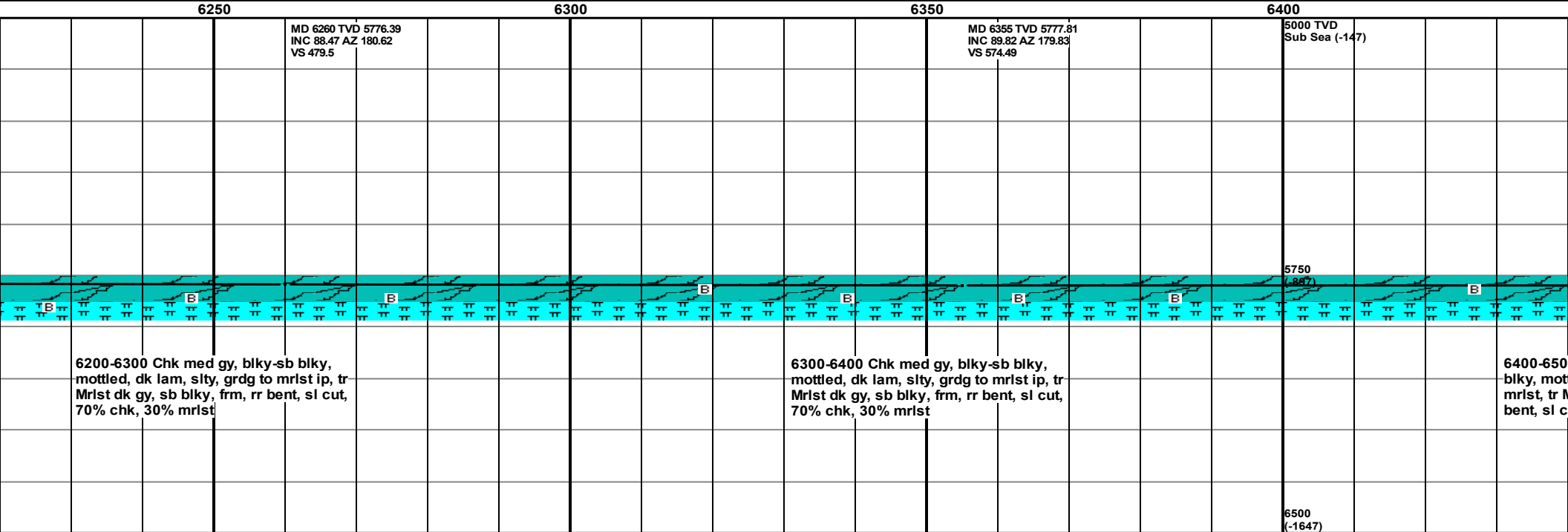
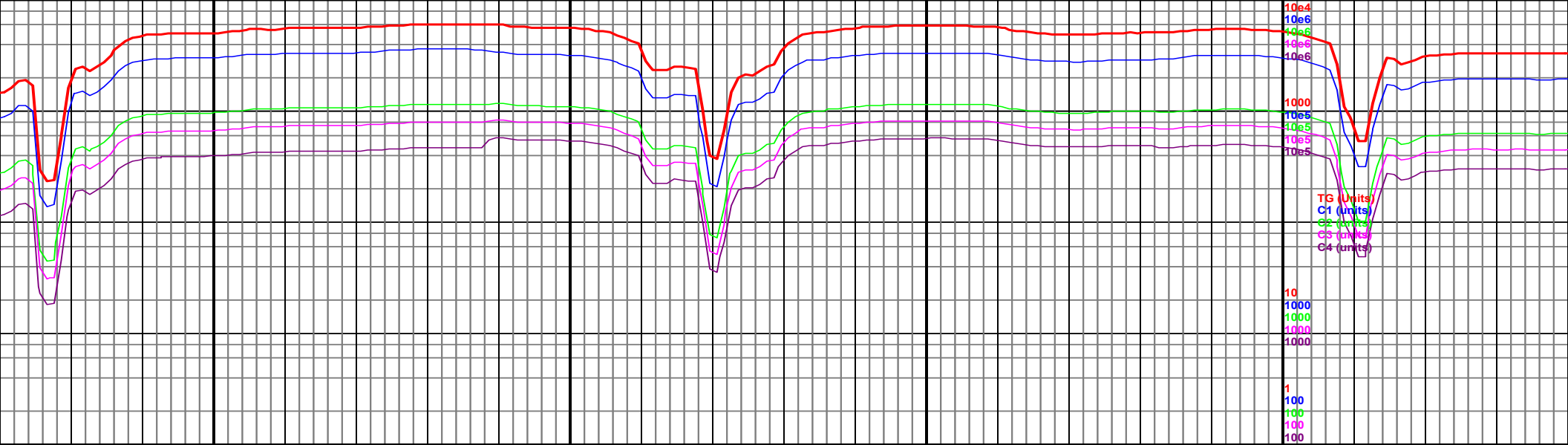




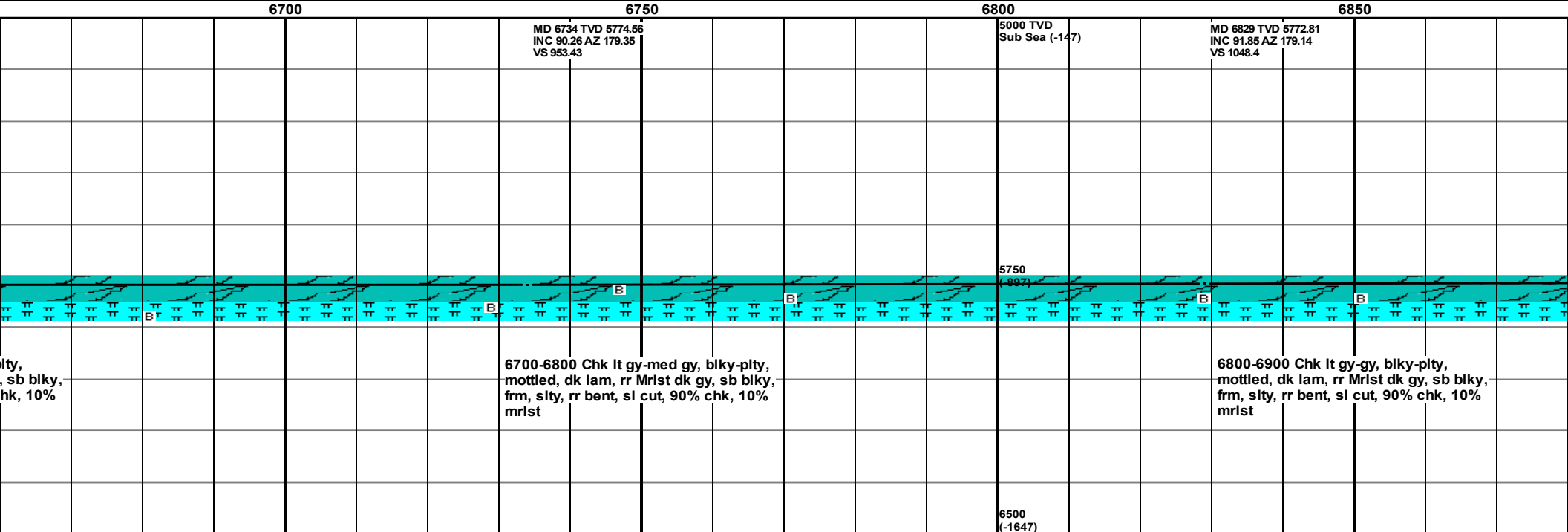


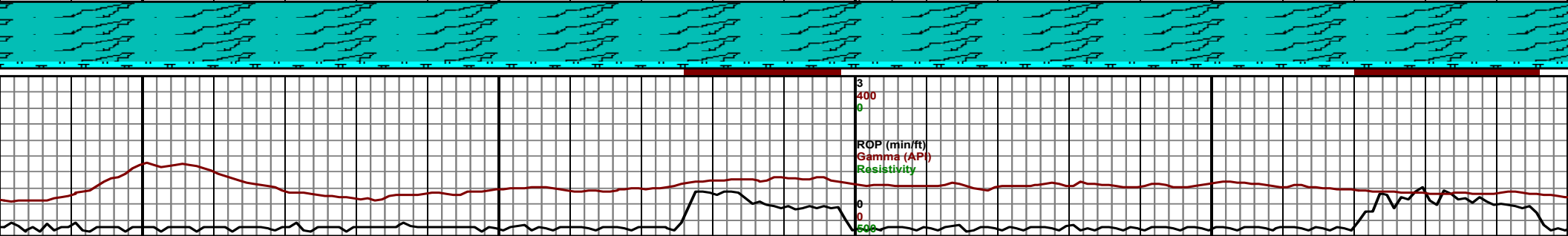
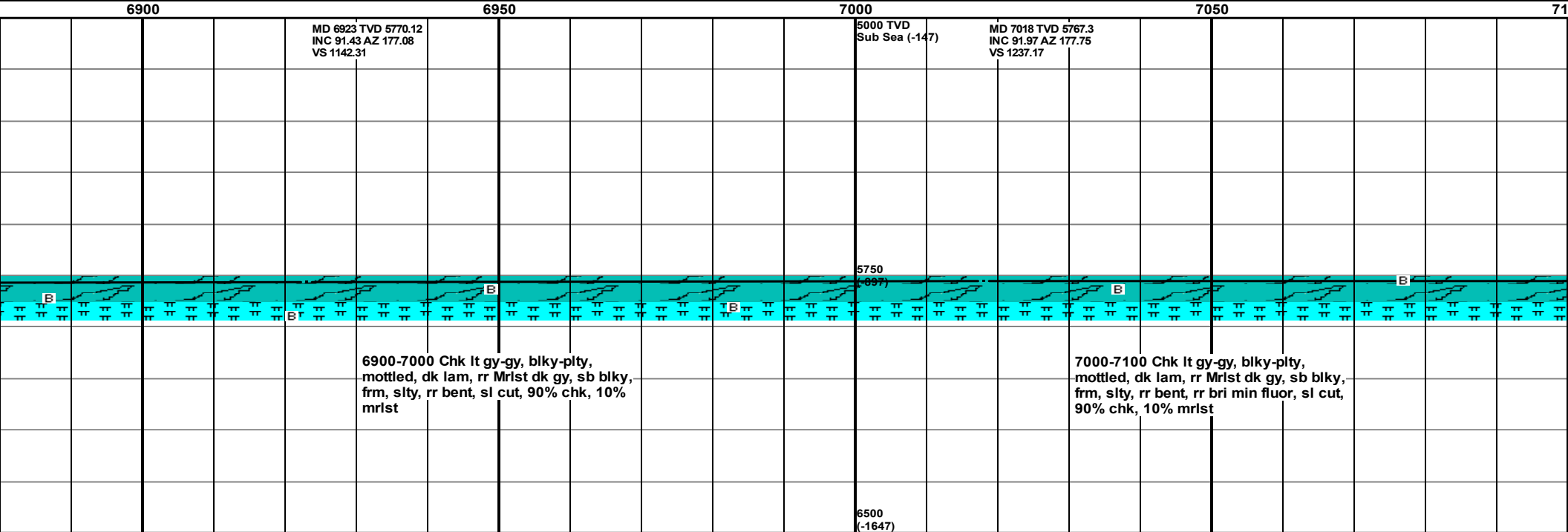
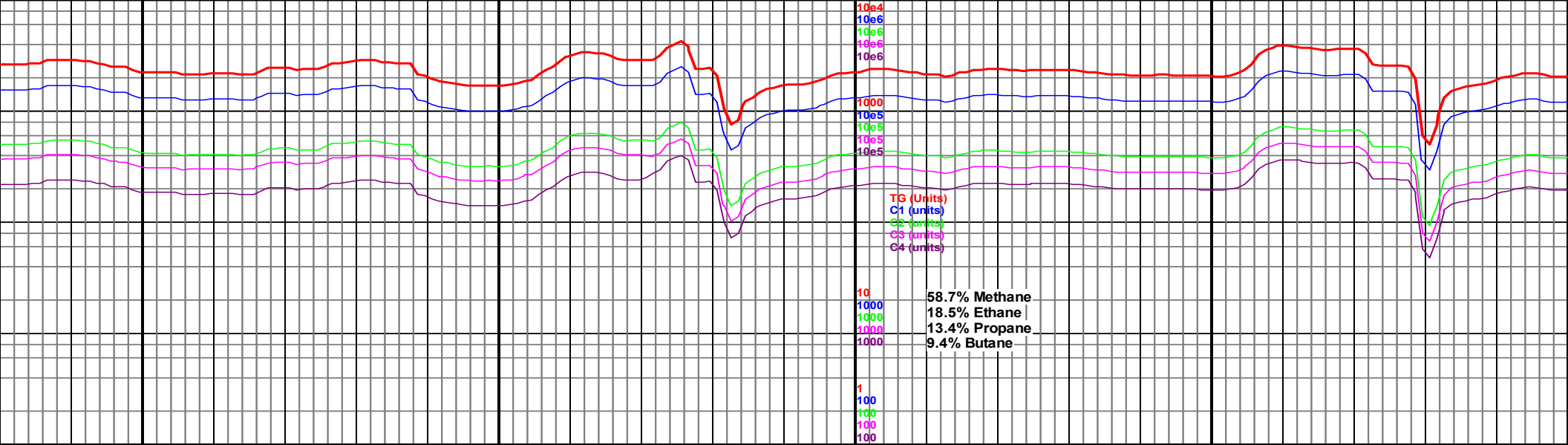


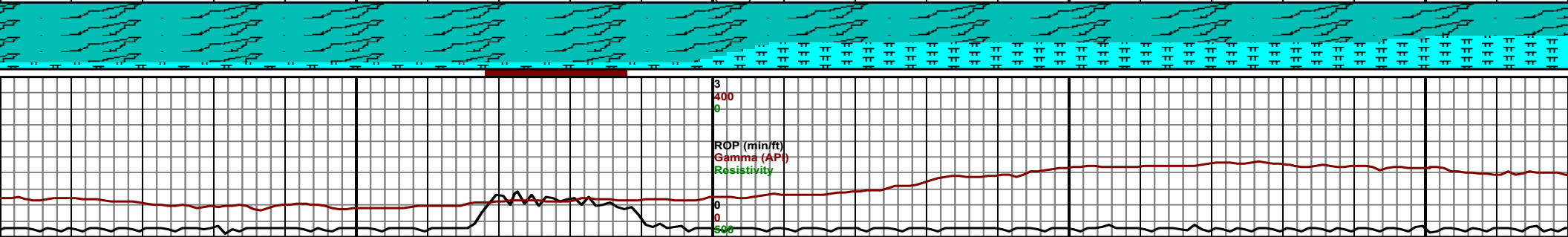
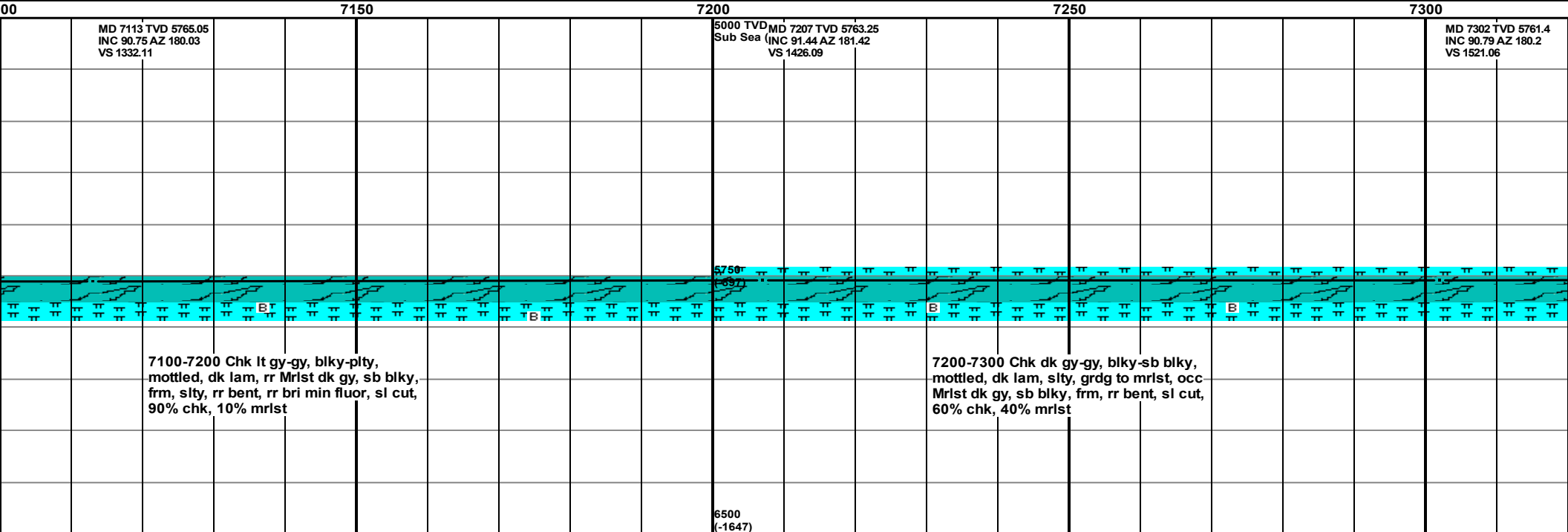
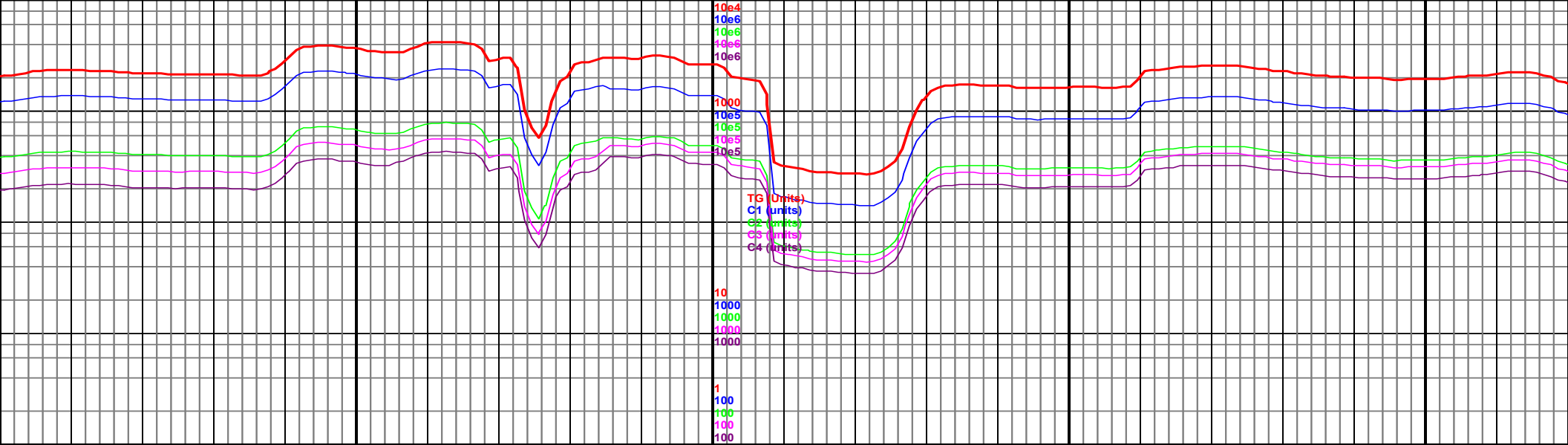


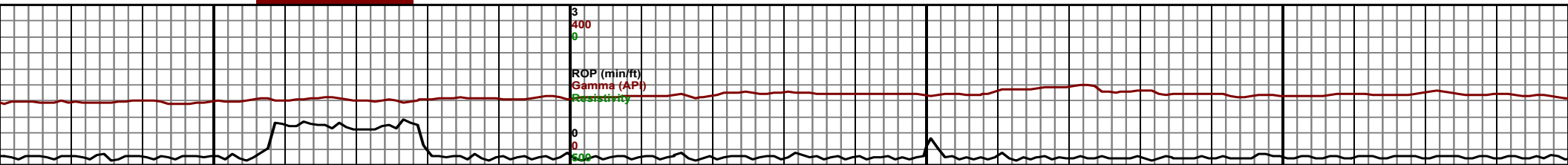
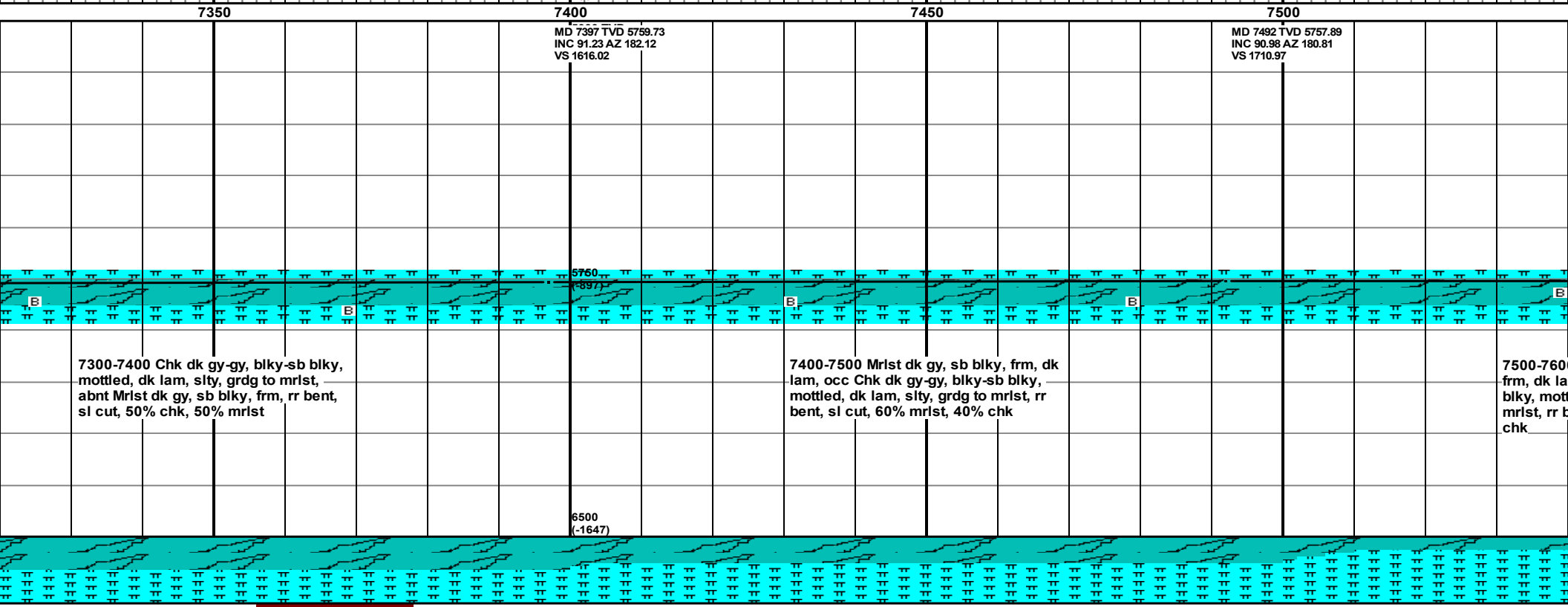
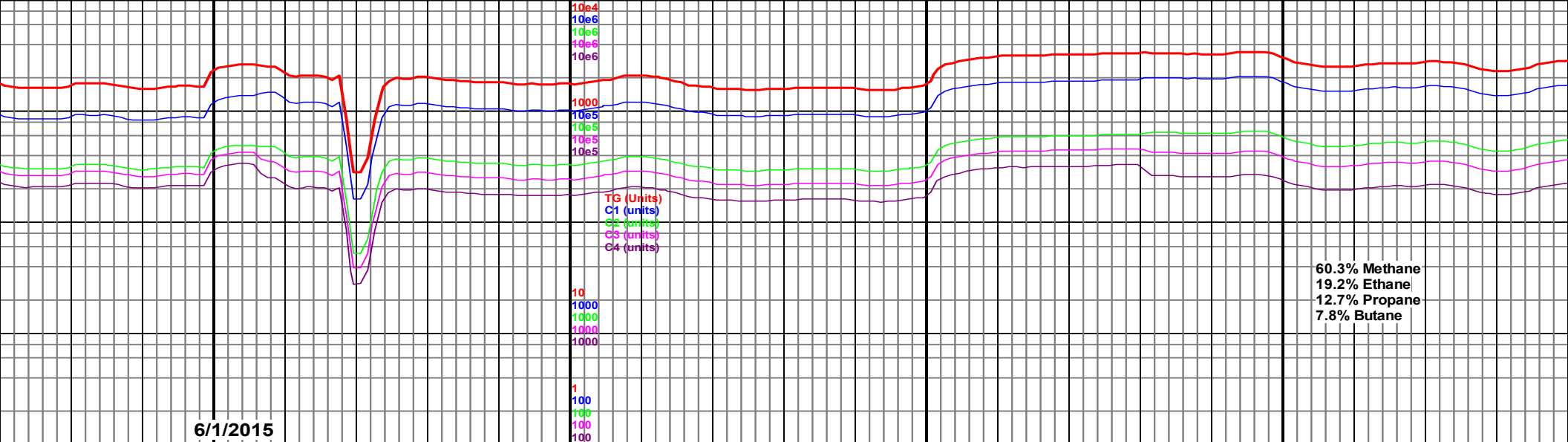


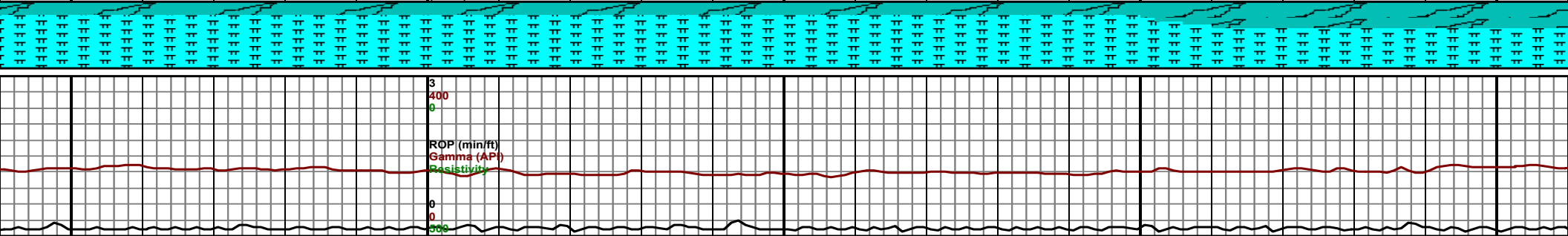
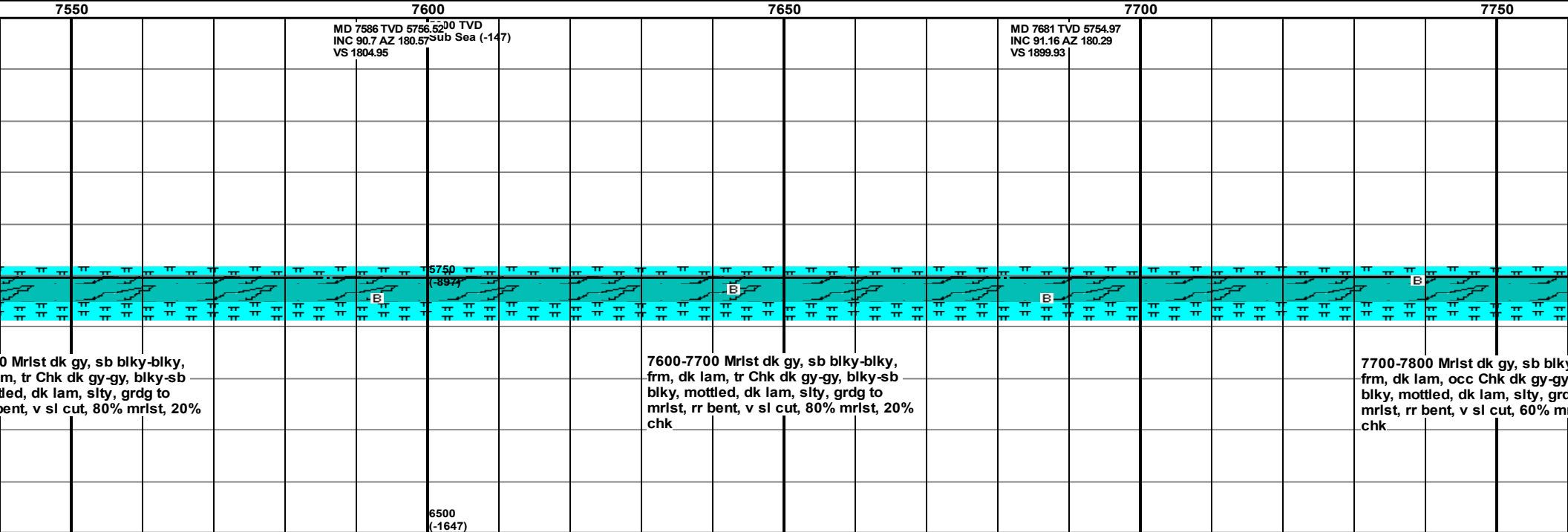
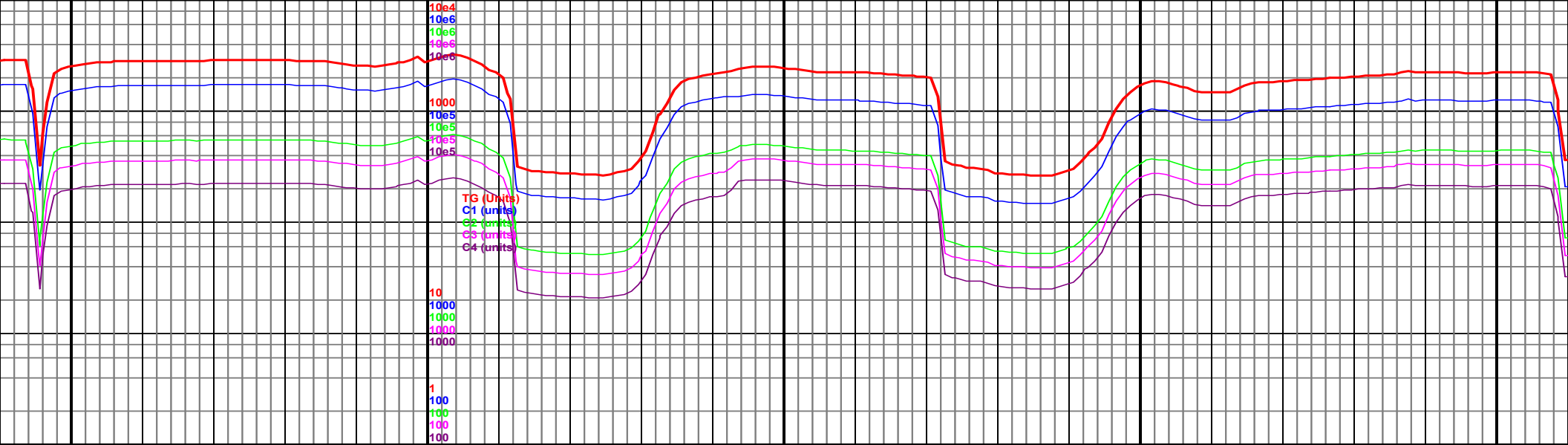


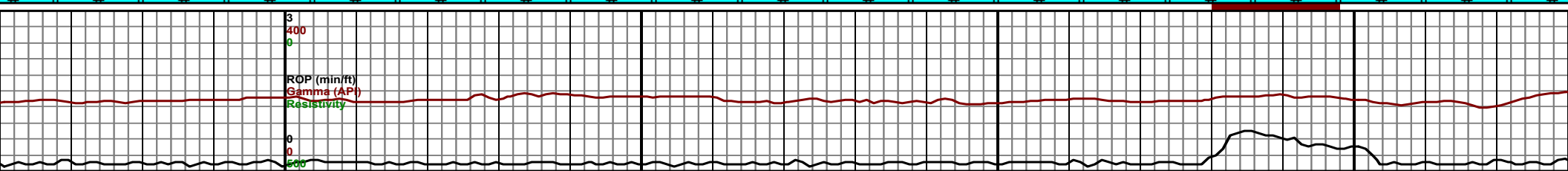
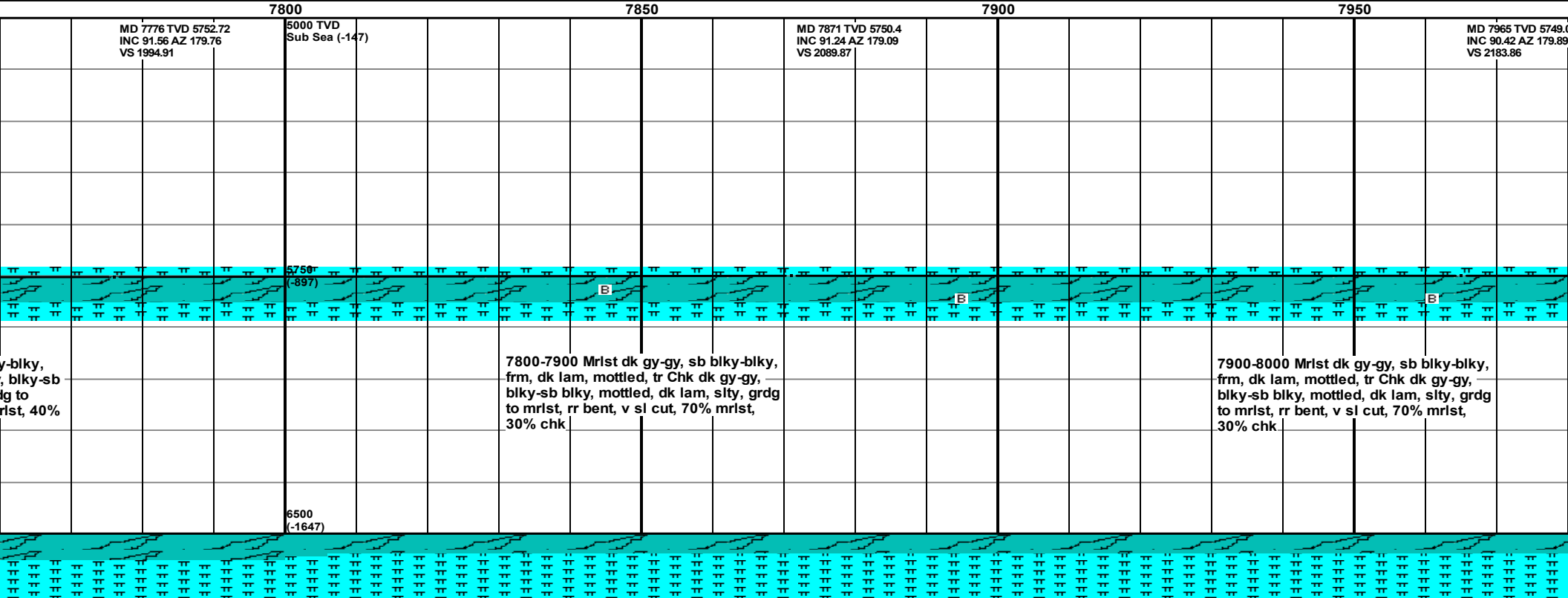
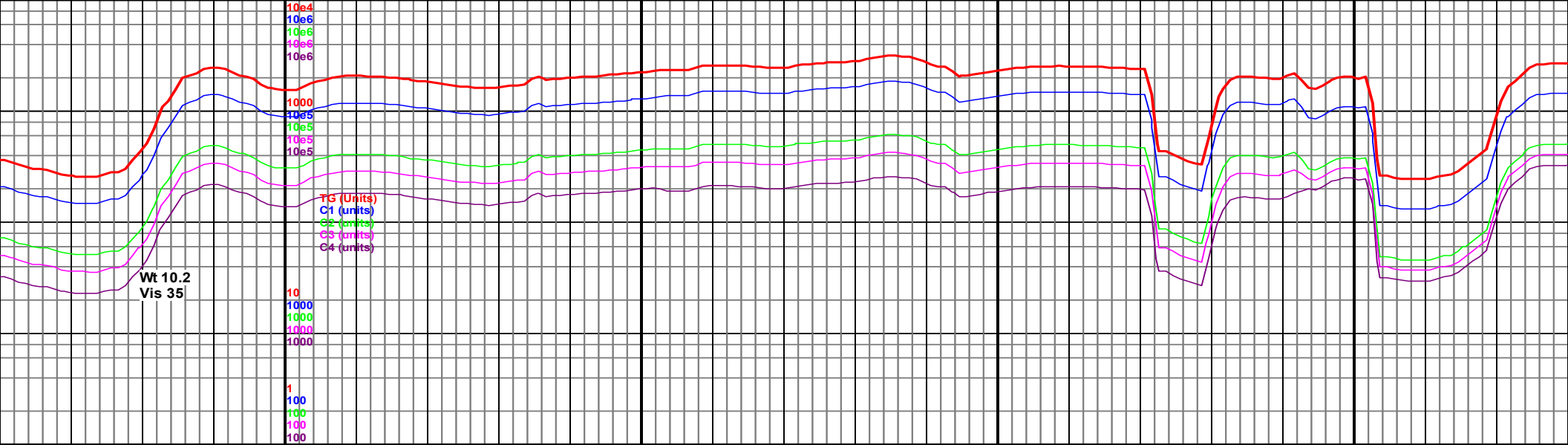




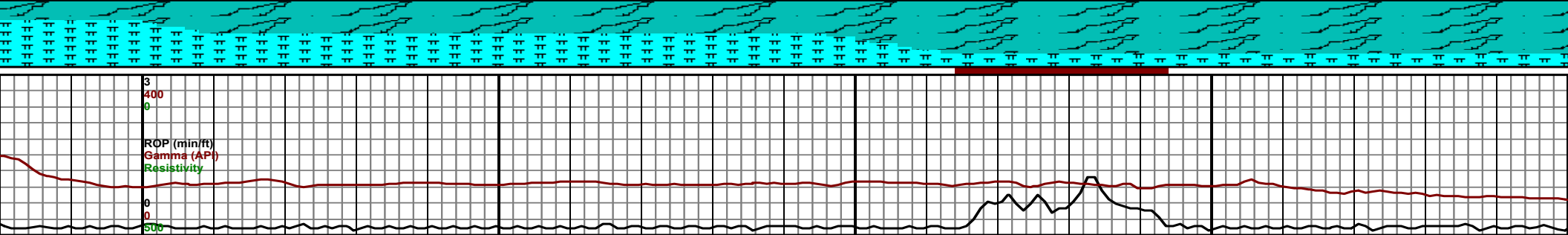
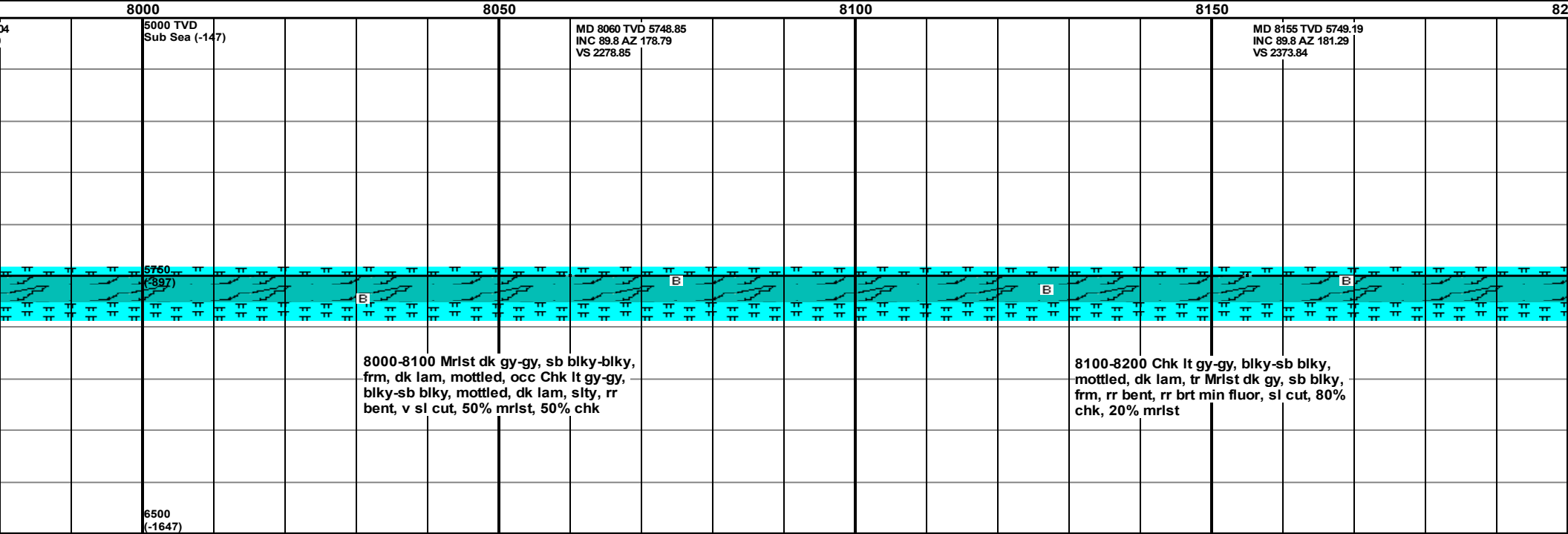
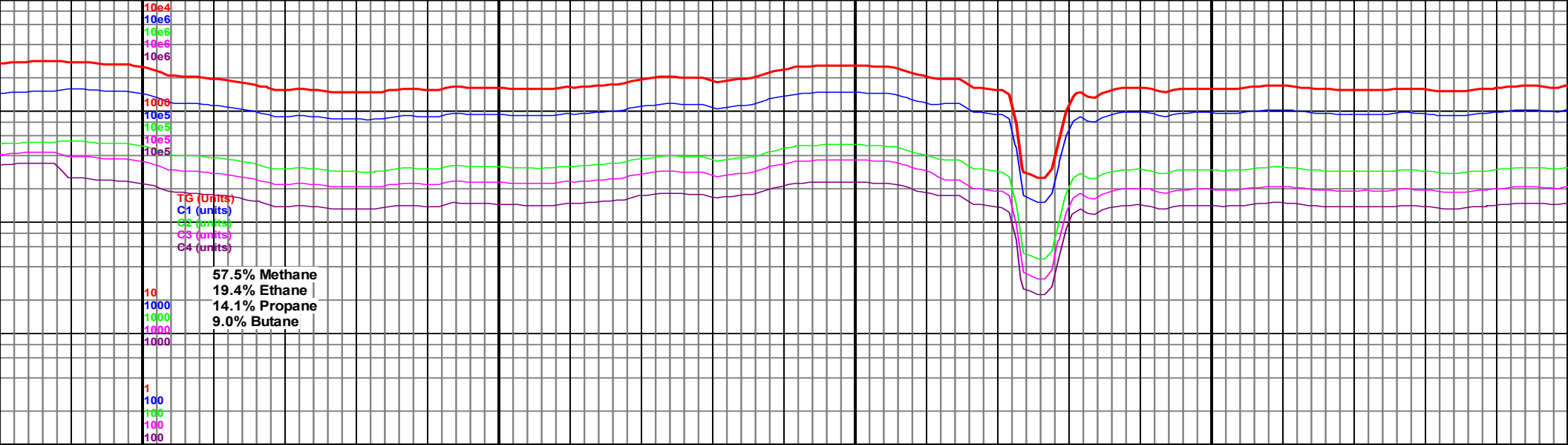


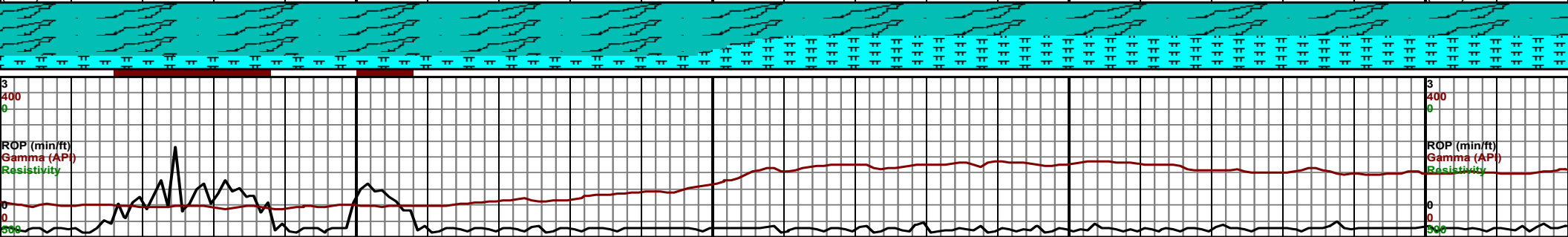
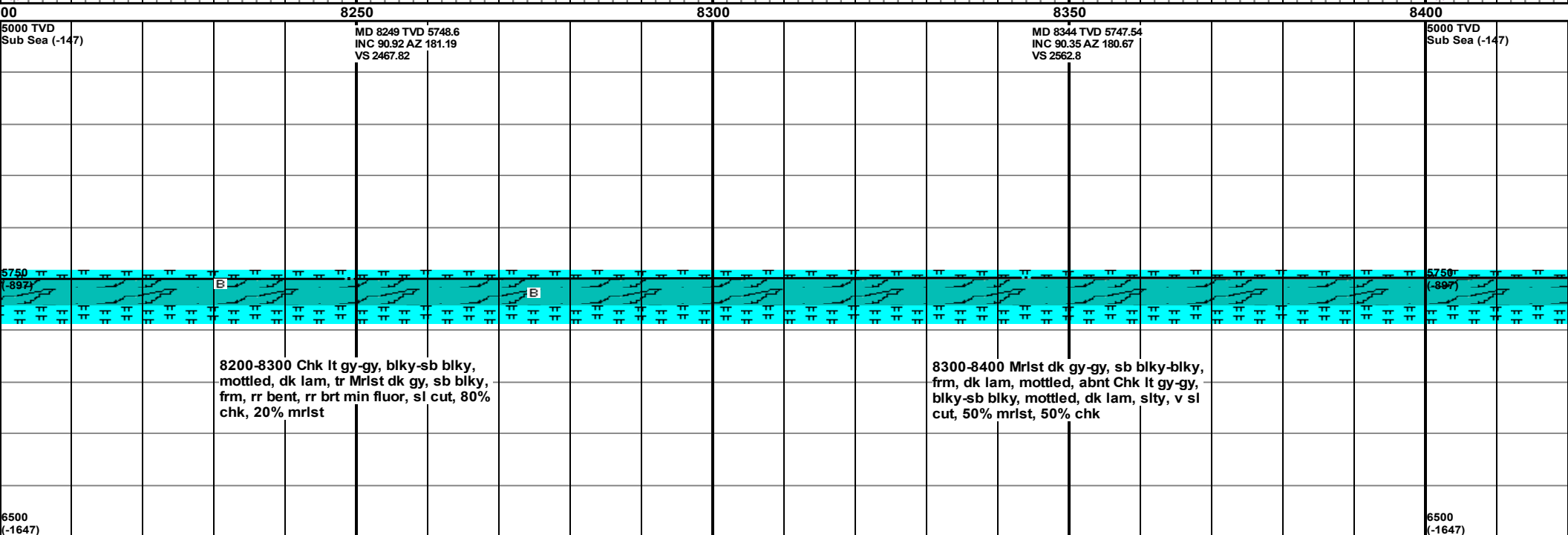
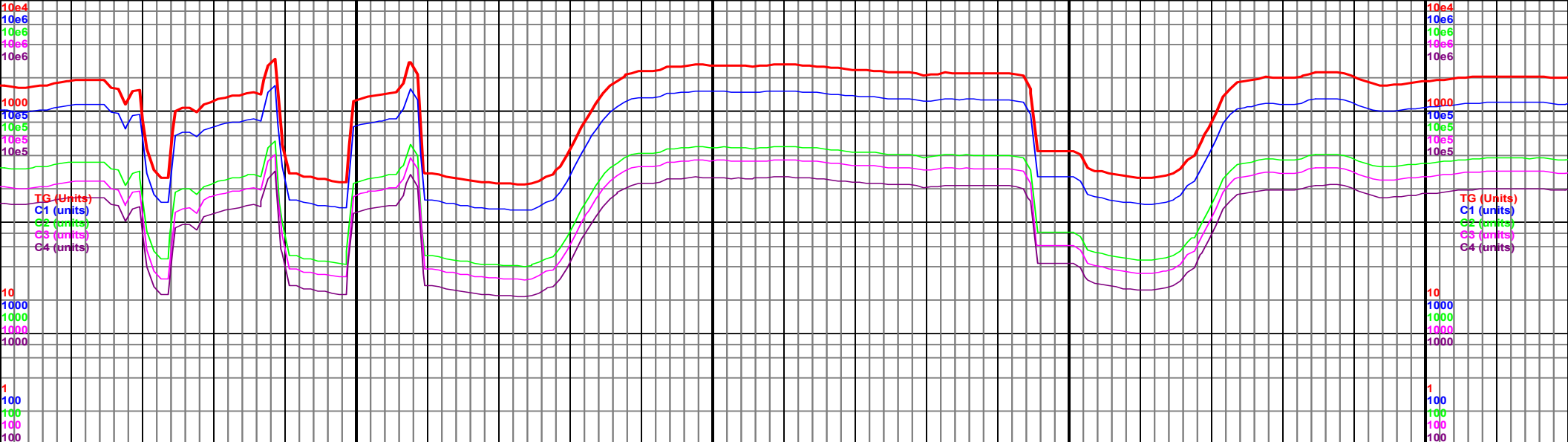


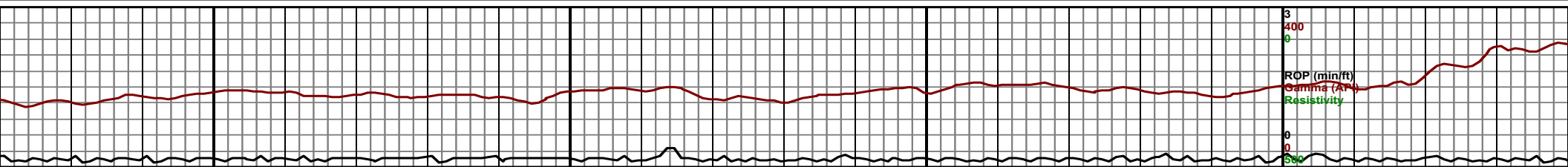
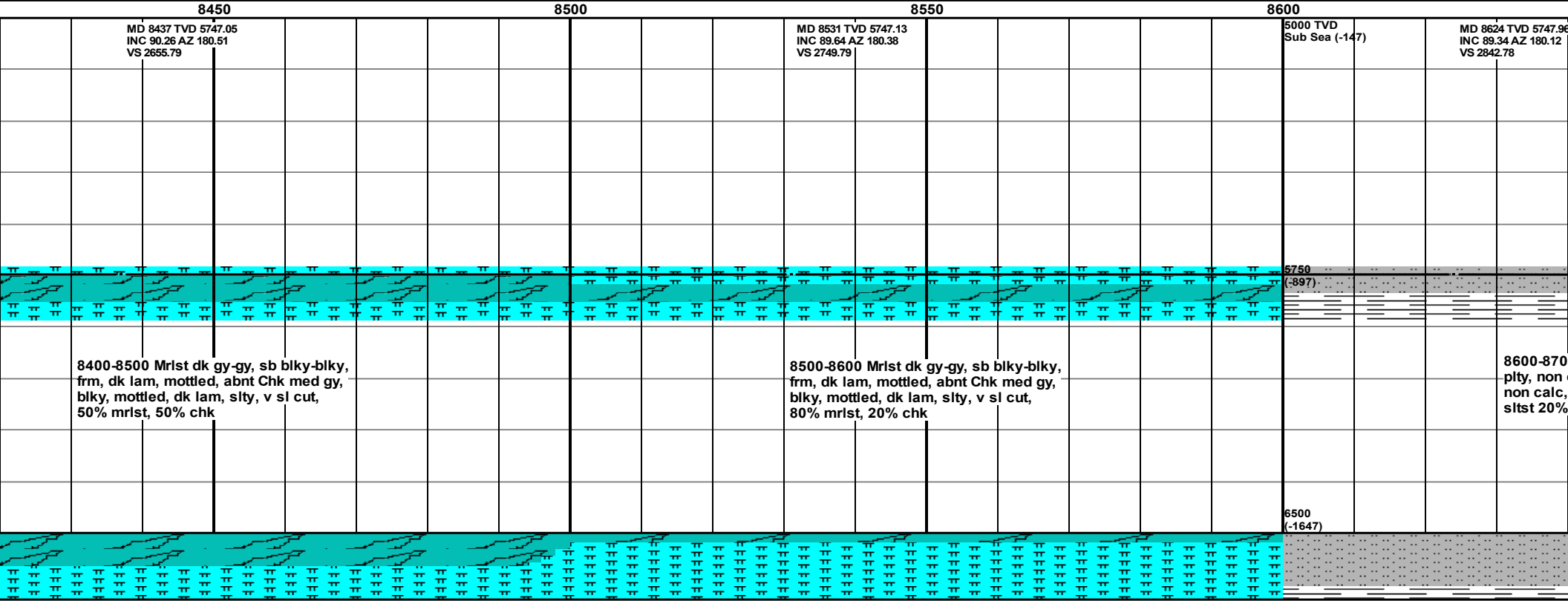
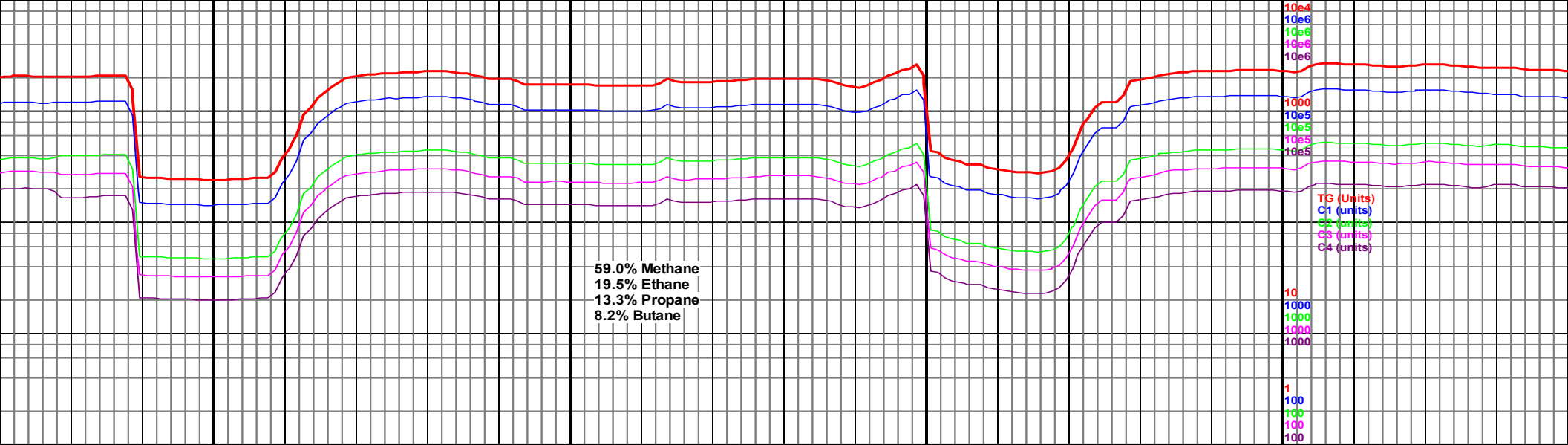


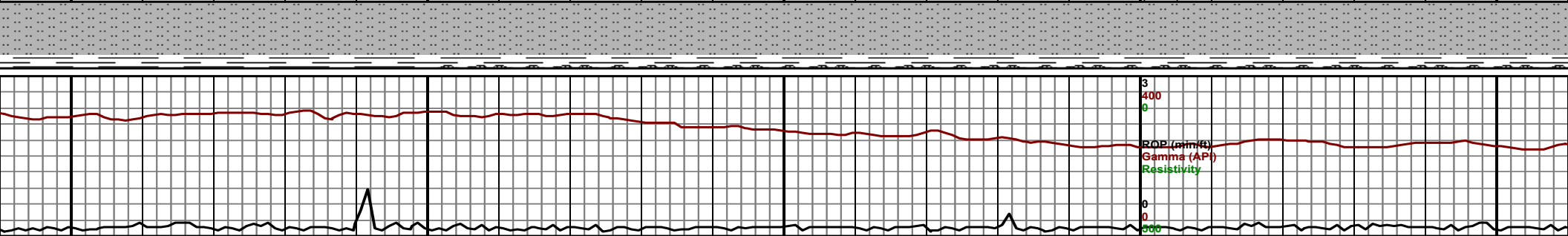
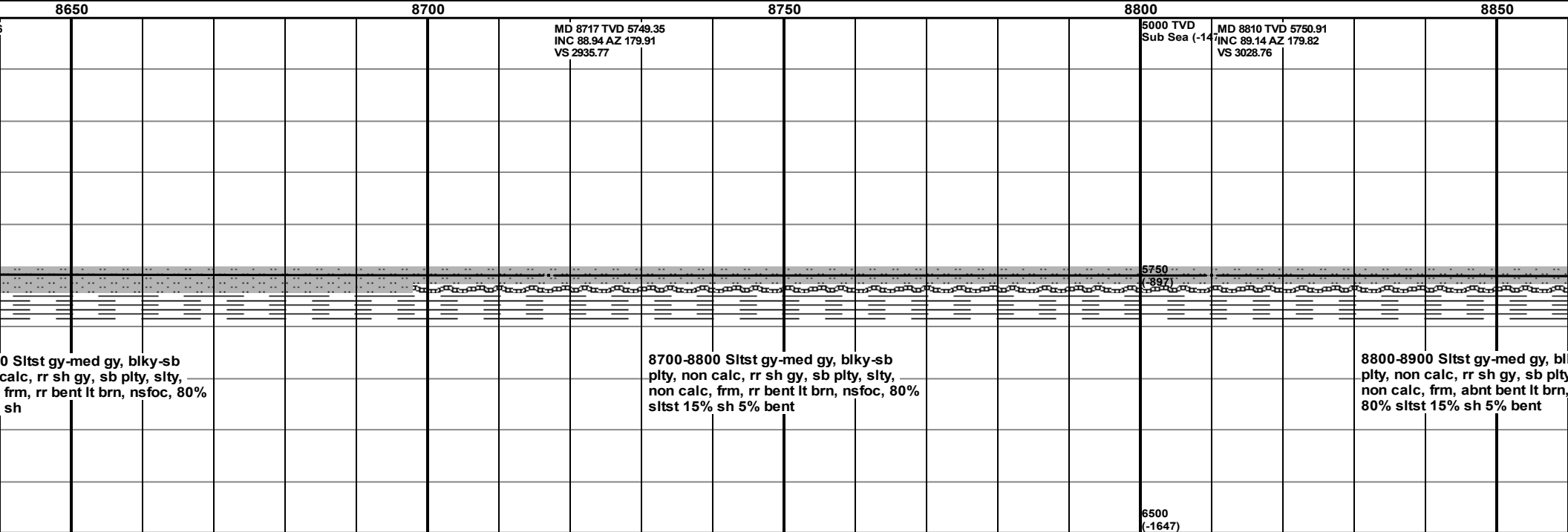
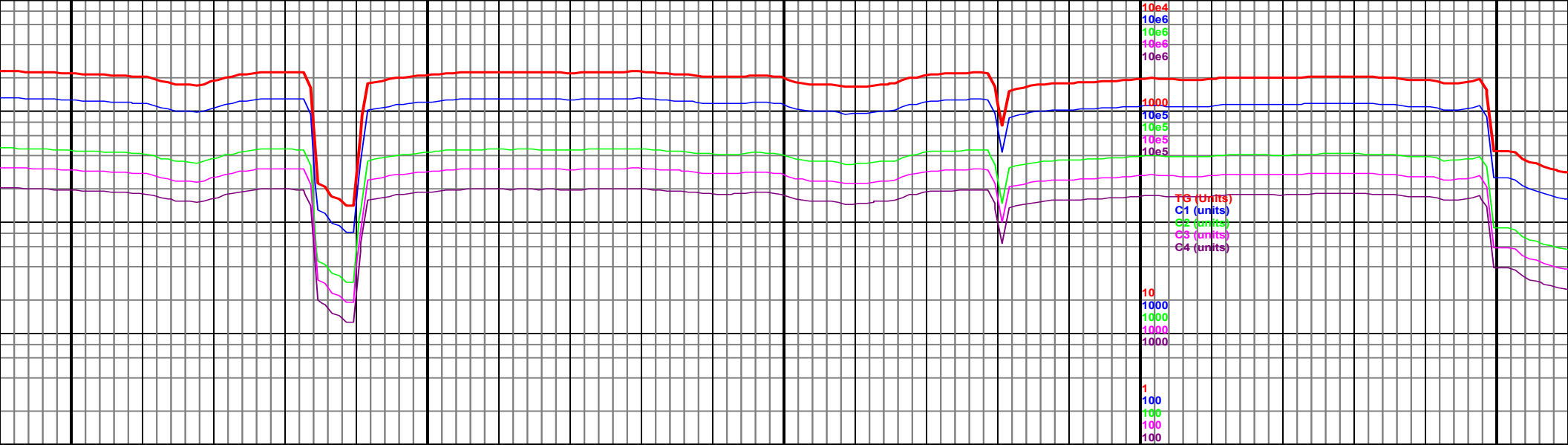


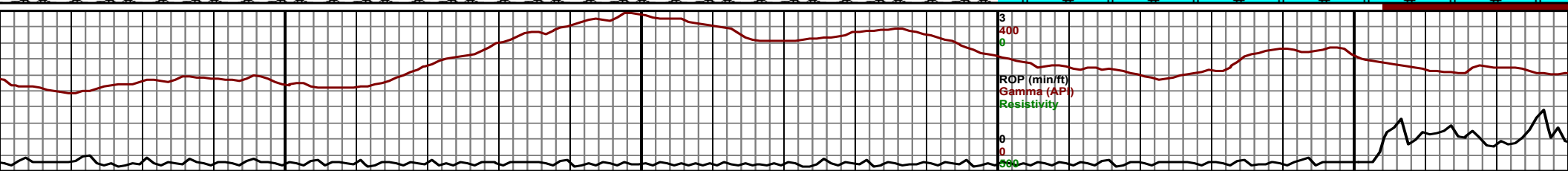
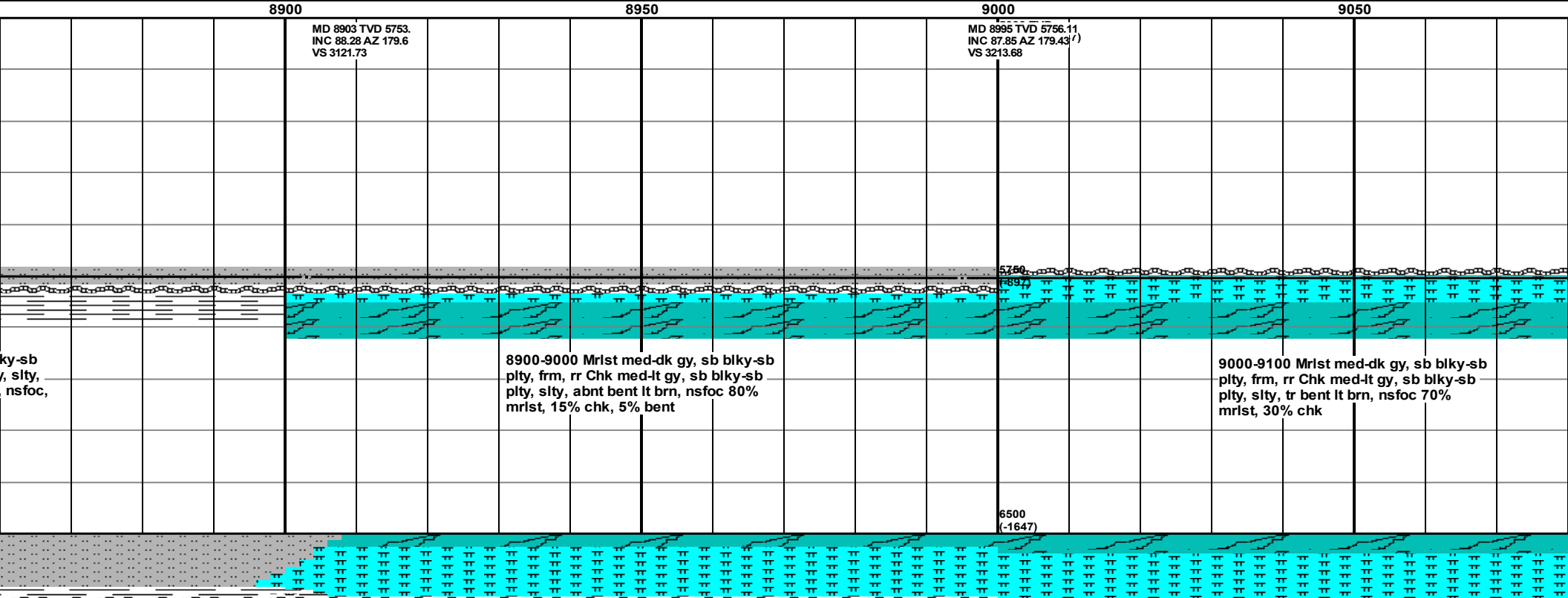
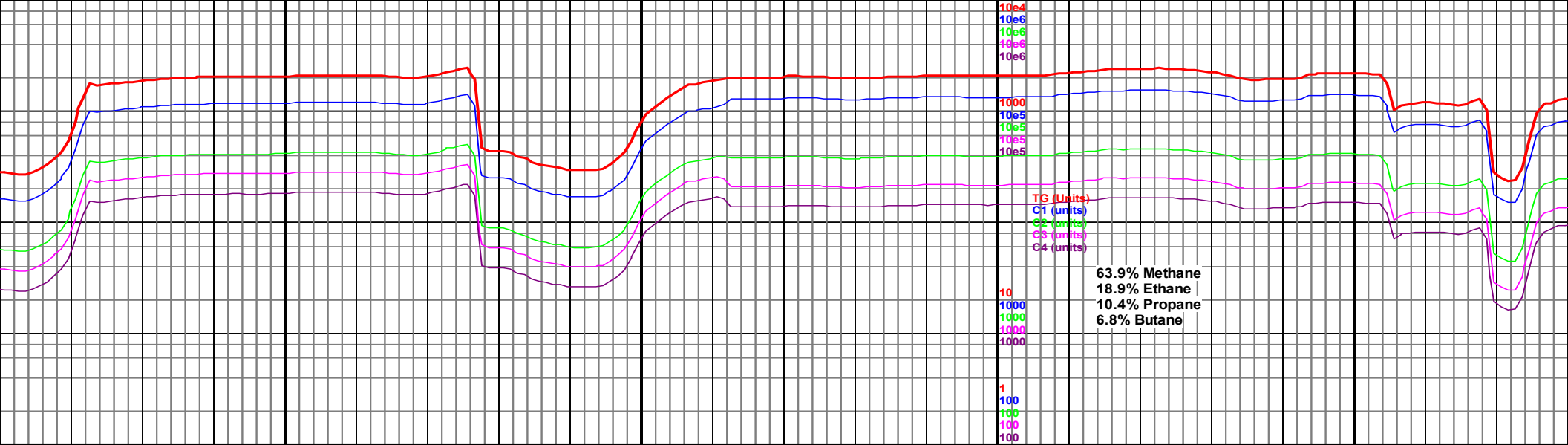


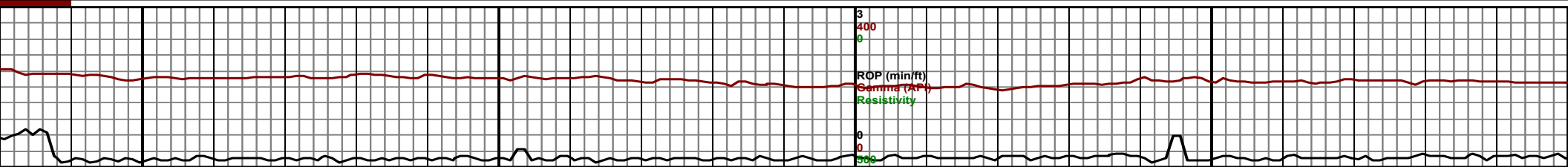
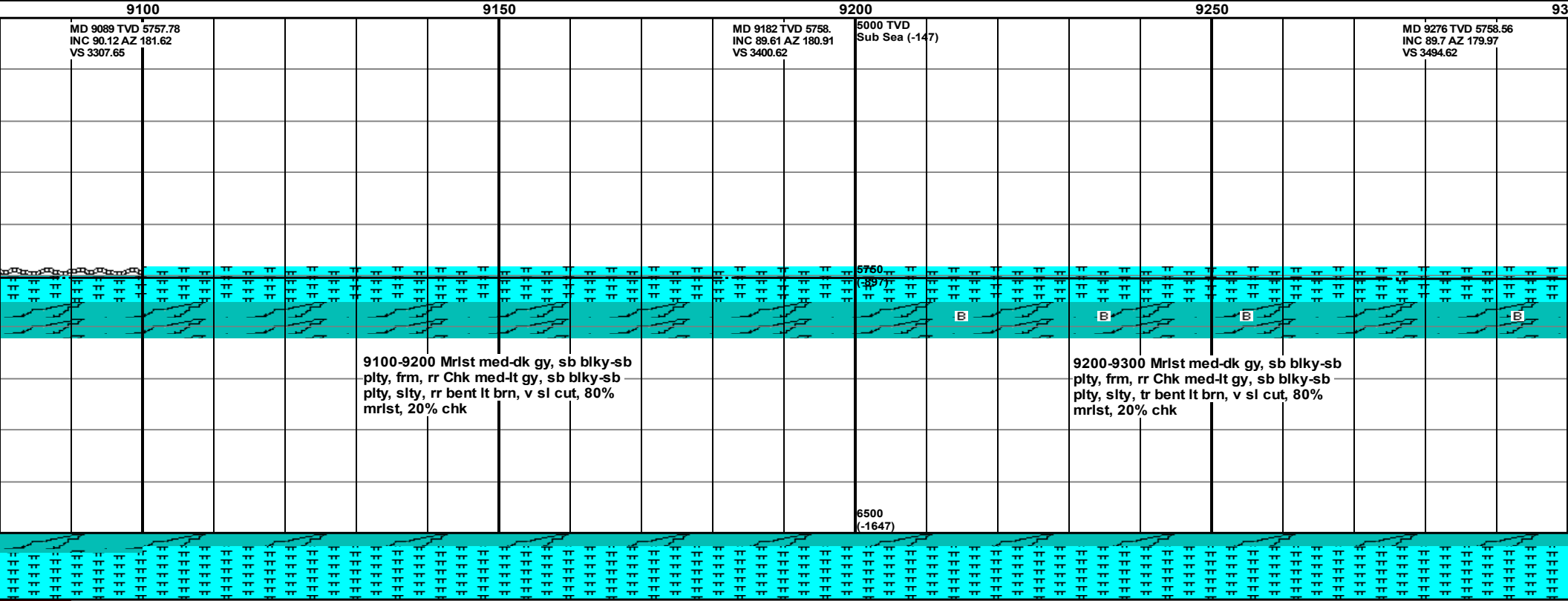
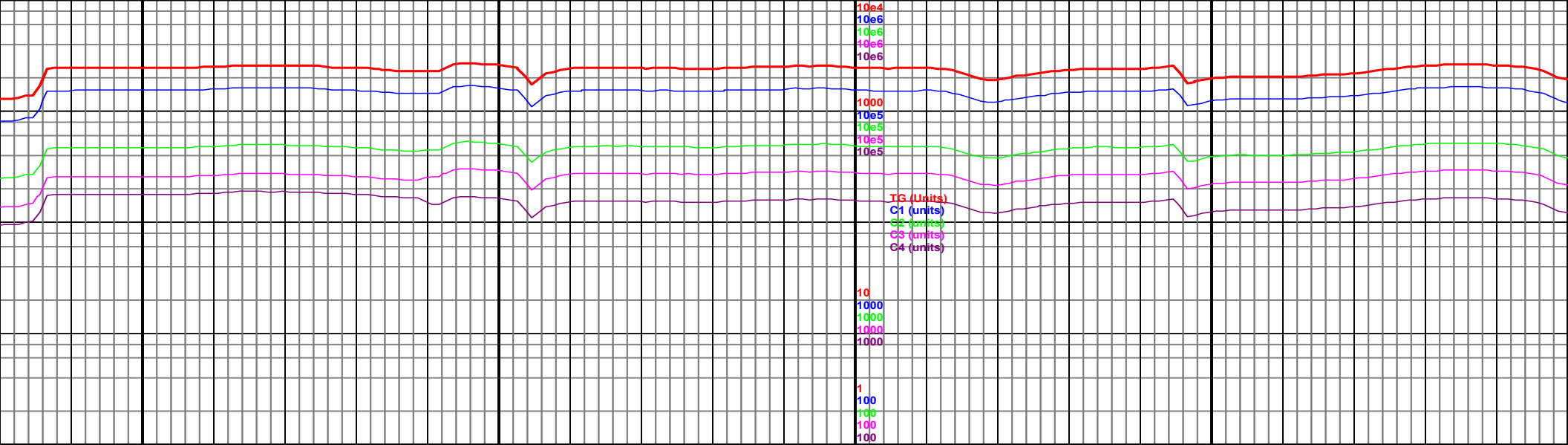


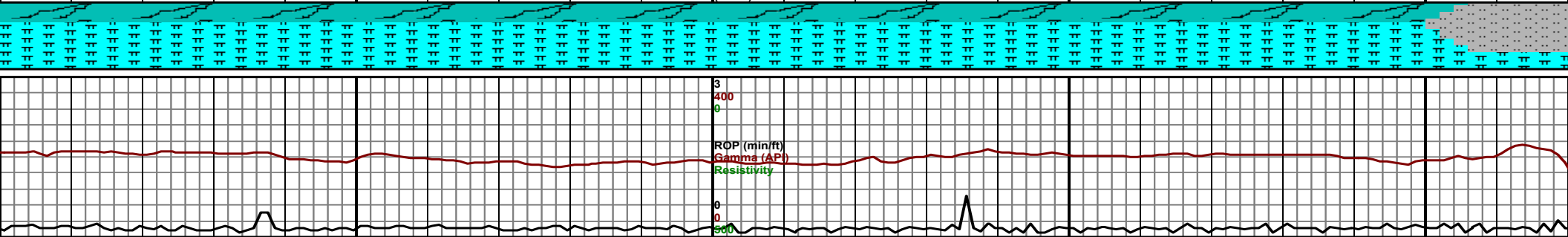
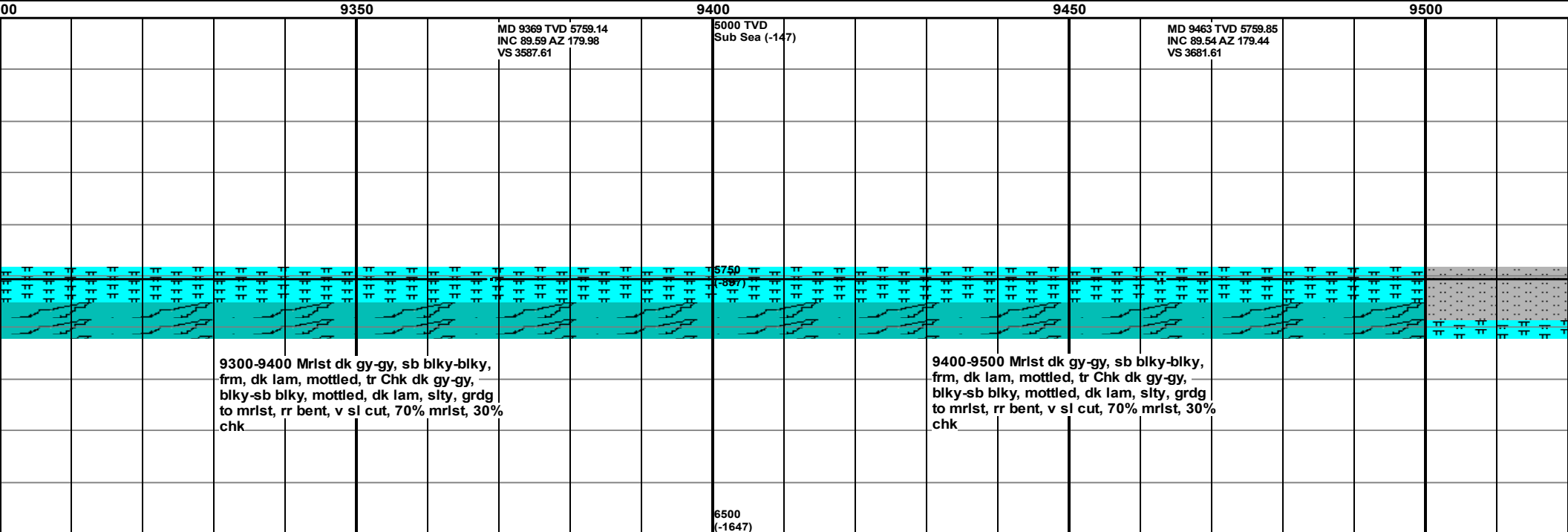
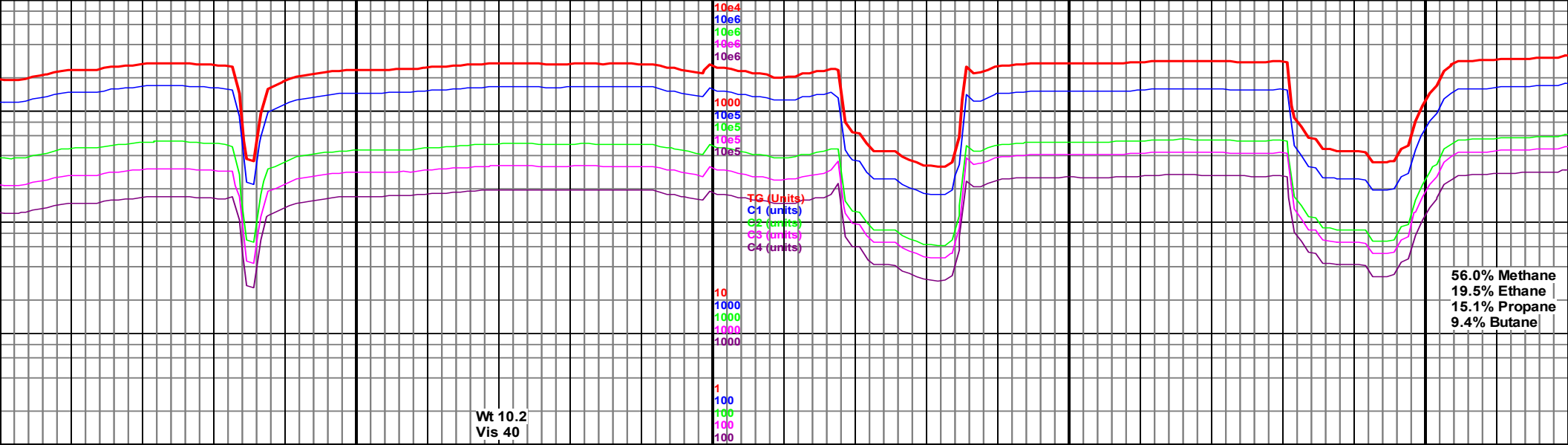


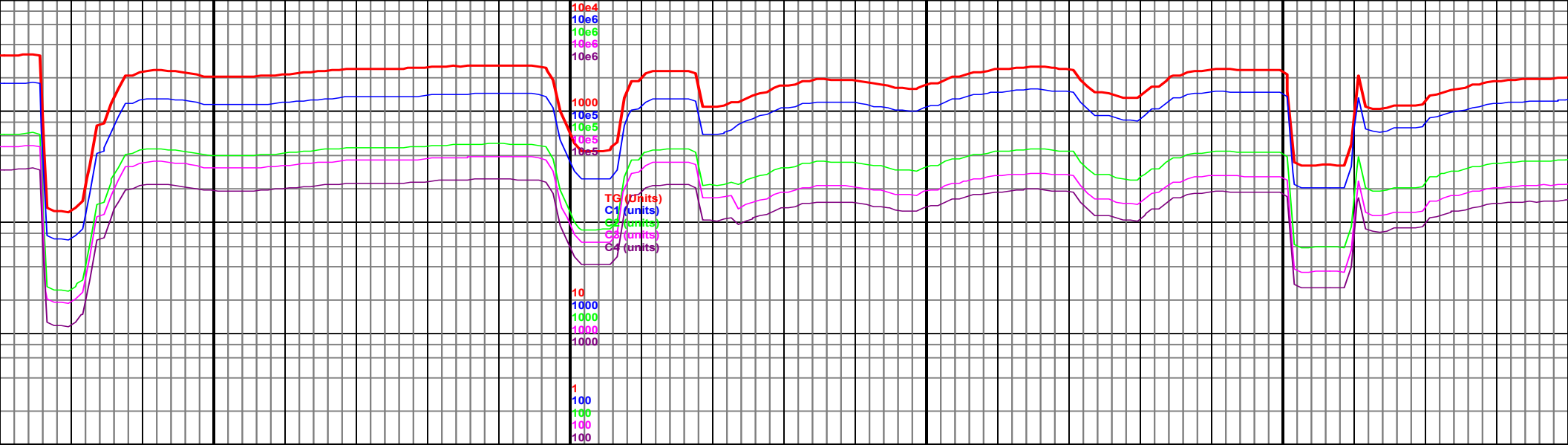












9550

MD 9556 TVD 5760.7  
INC 89.42 AZ 179.56  
VS 3774.6

9600

5000 TVD  
Sub Sea (-147)

9650

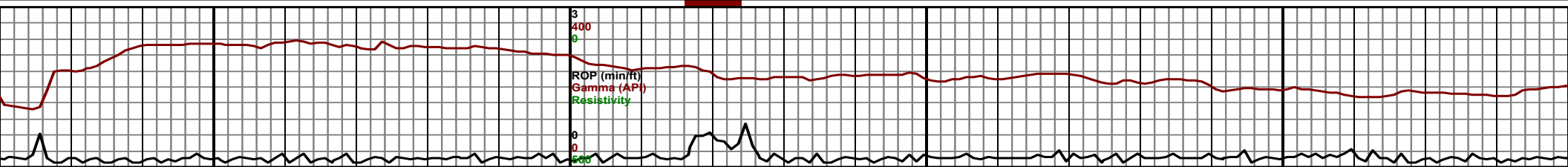
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9700

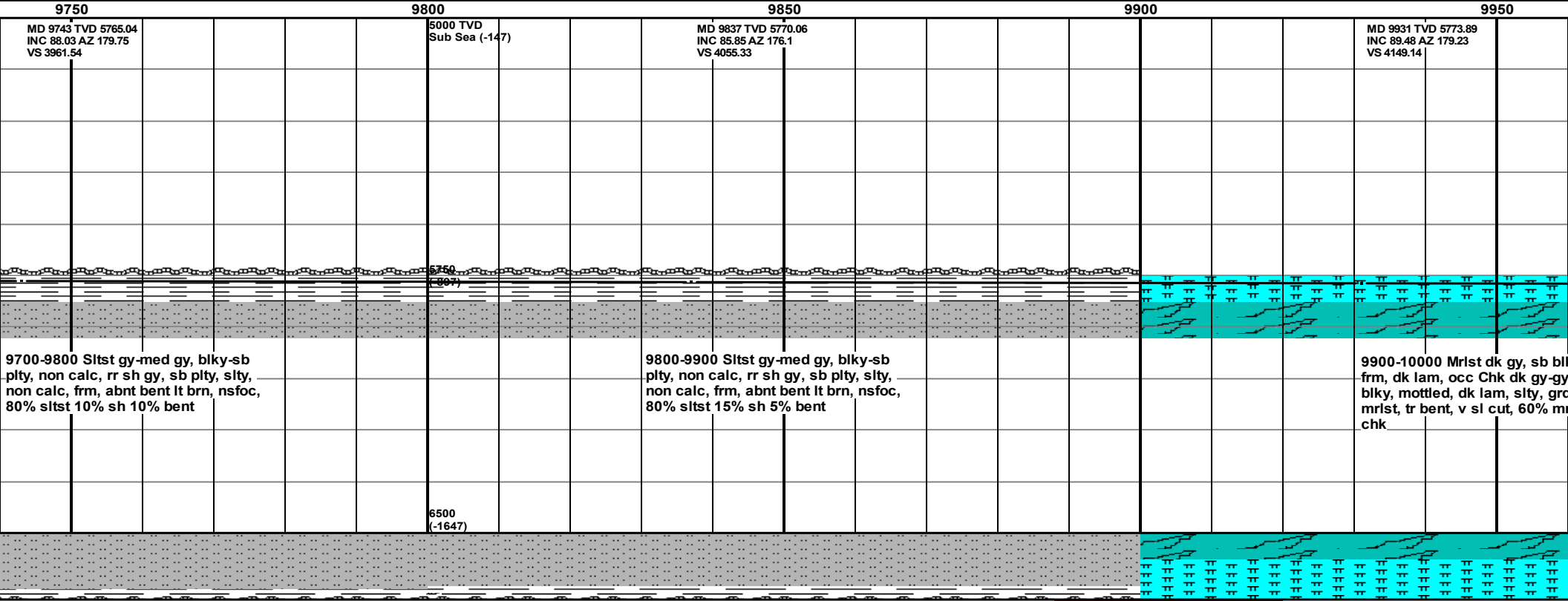
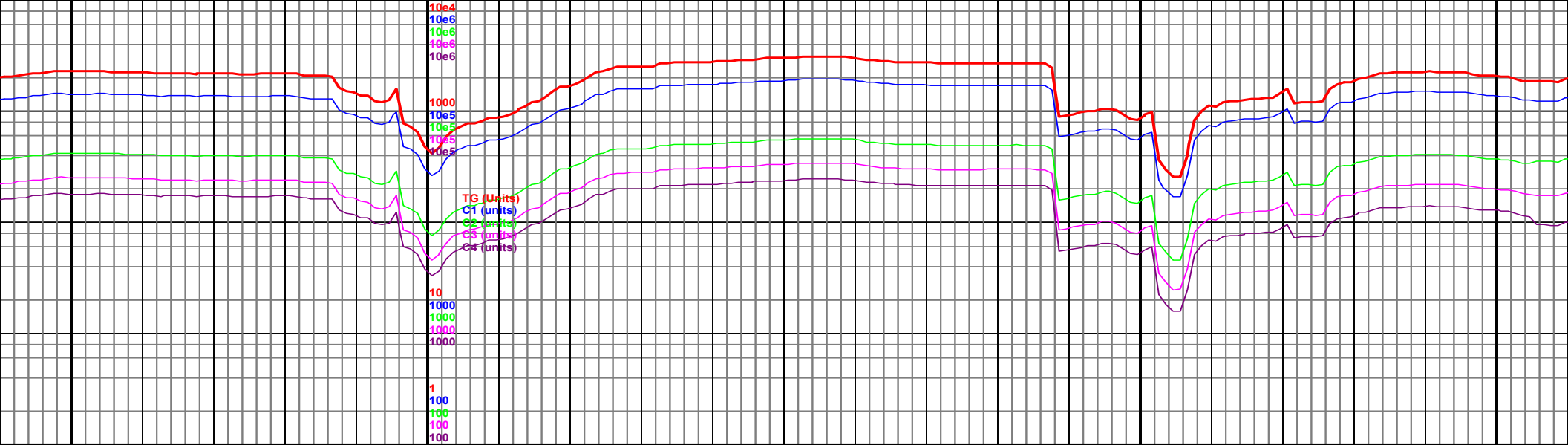
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plty, non calc, rr Mrst med-dk gy, sb  
blkly-sb plty, frm, rr bent lt brn, nsfoc,  
80% siltst, 20% mrst

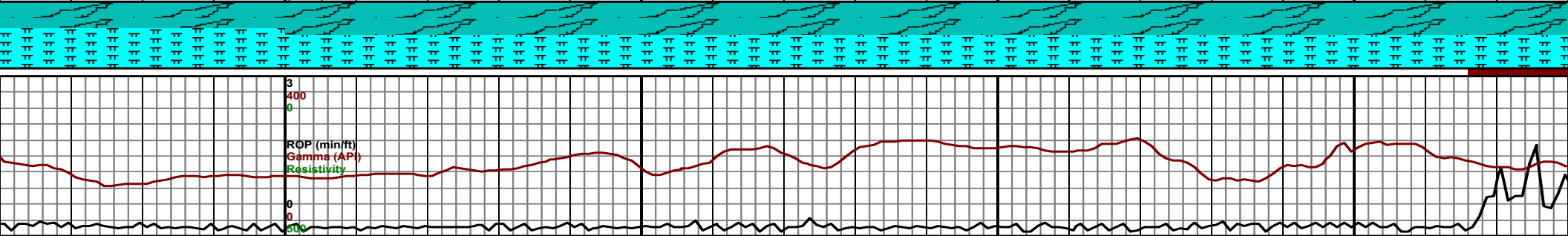
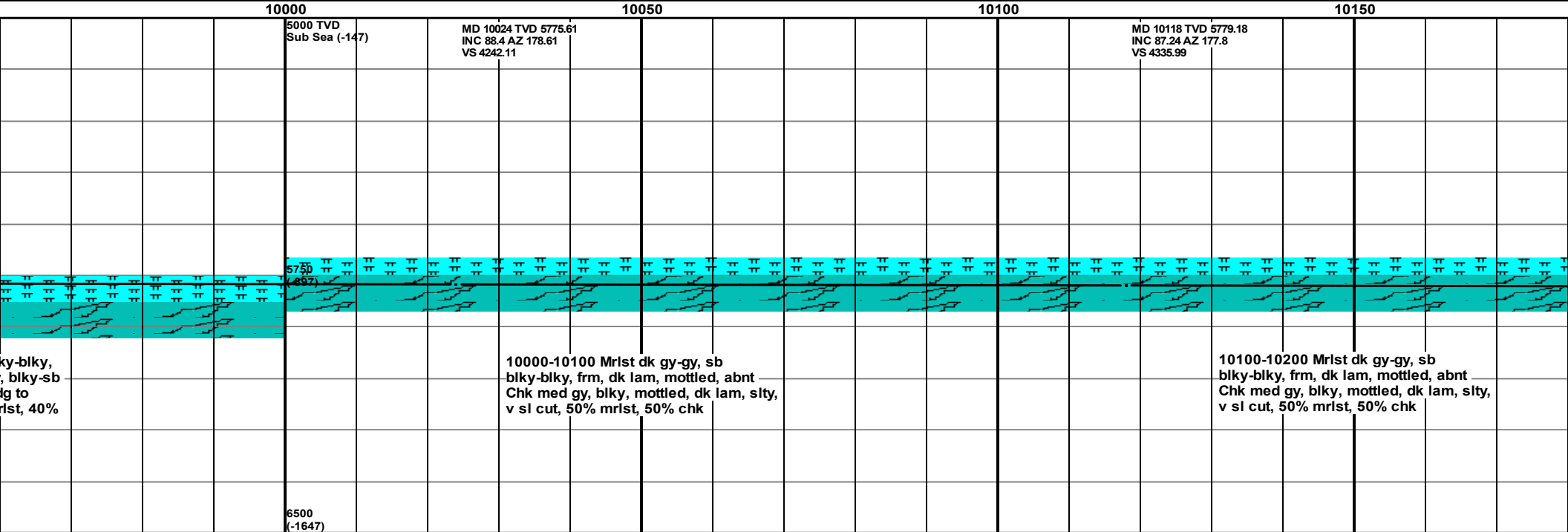
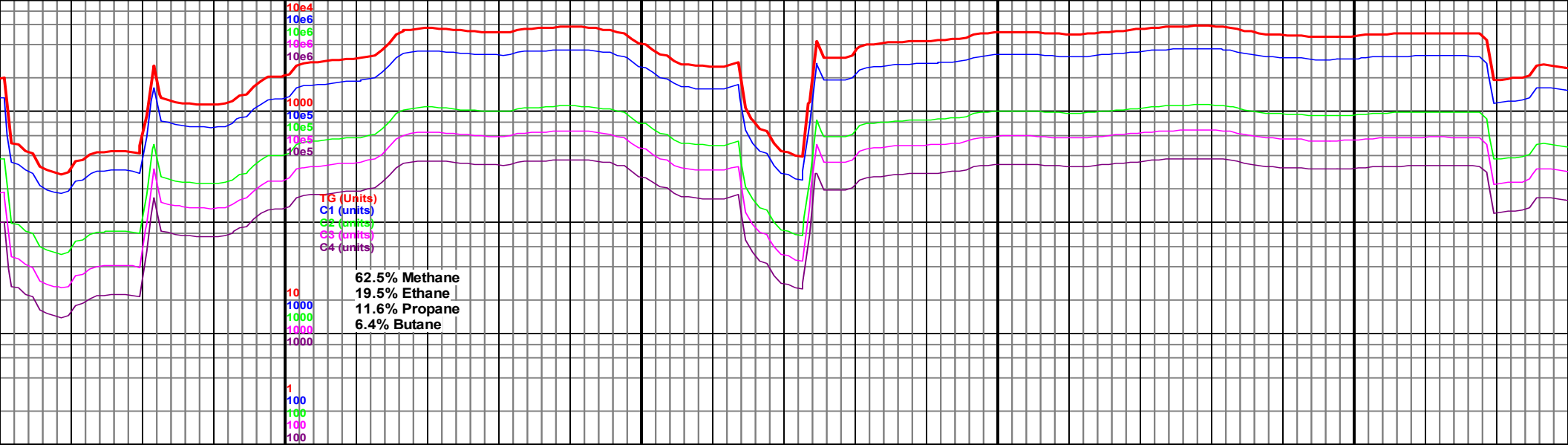
9600-9700 Siltst gy-med gy, blkly-sb  
plty, non calc, Mrst med-dk gy, sb  
blkly-sb plty, frm, rr bent lt brn, nsfoc,  
80% siltst, 20% mrst

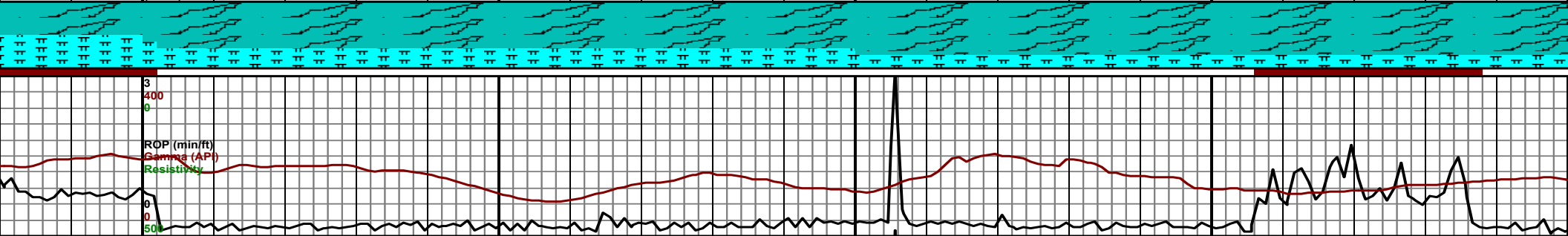
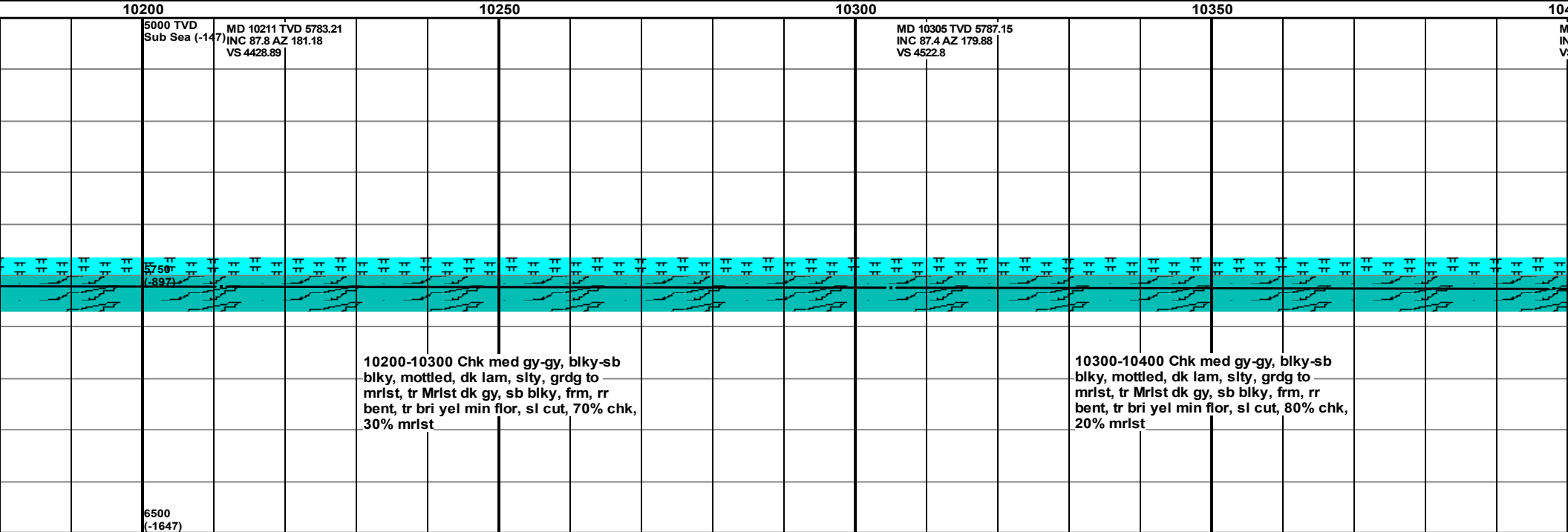
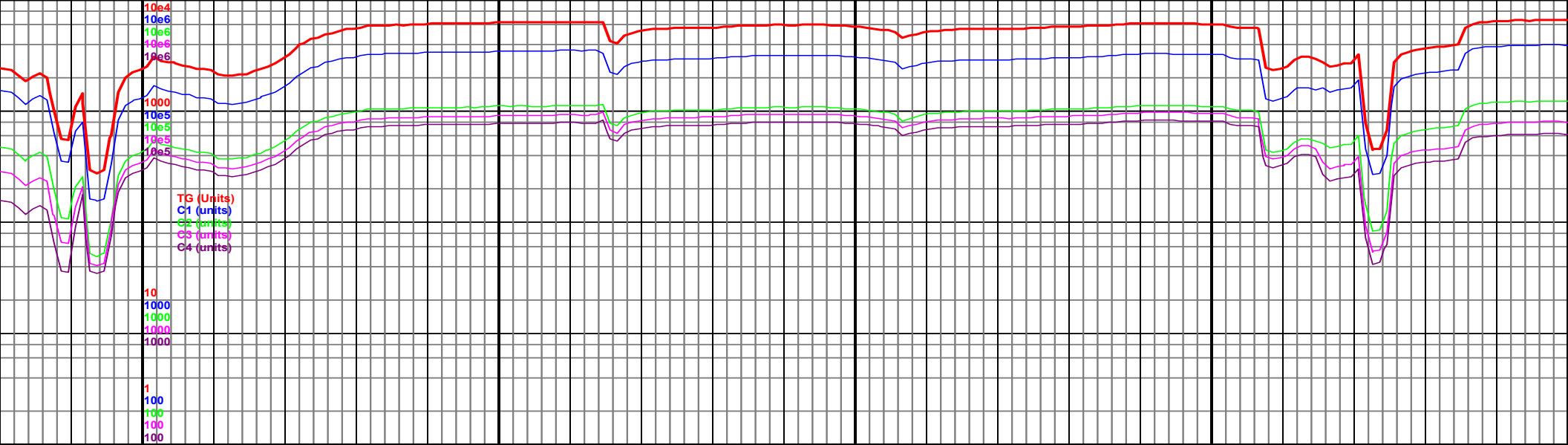
6500  
(-1647)

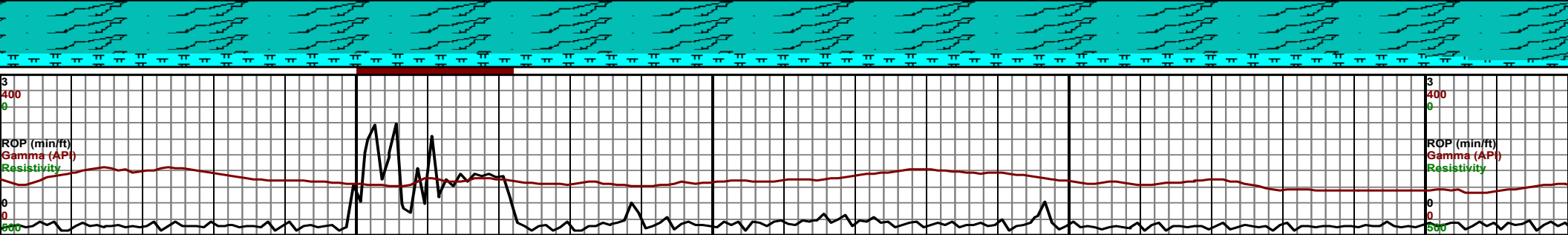
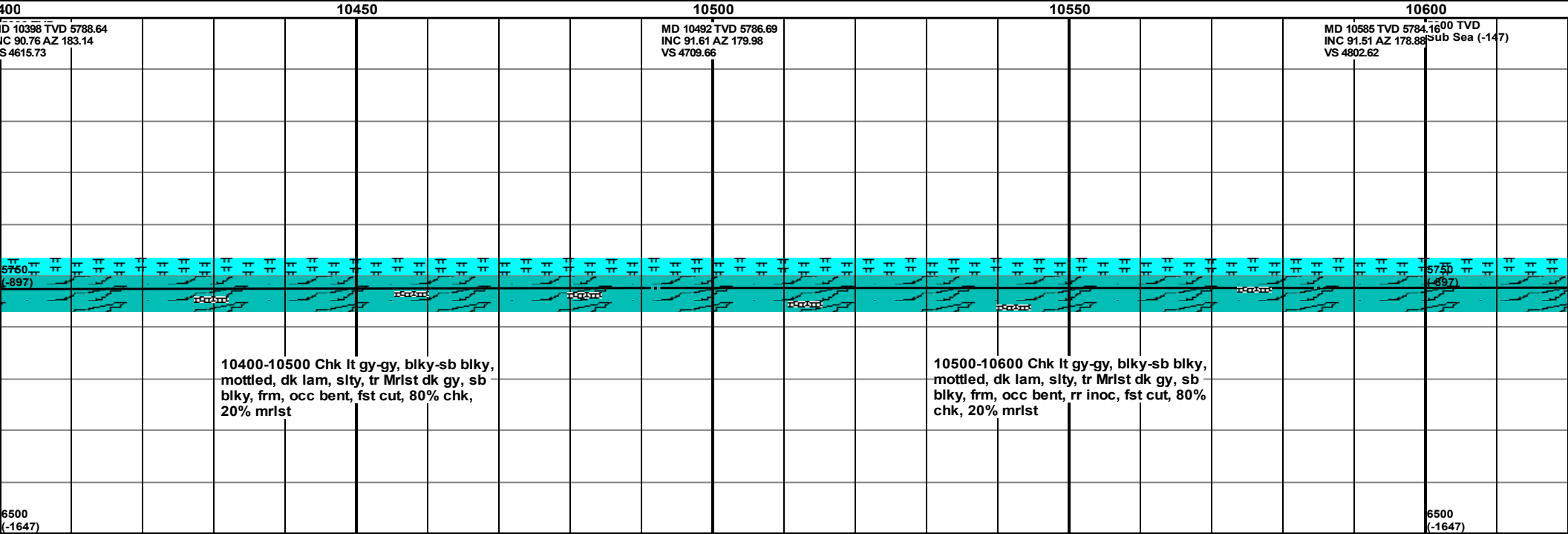
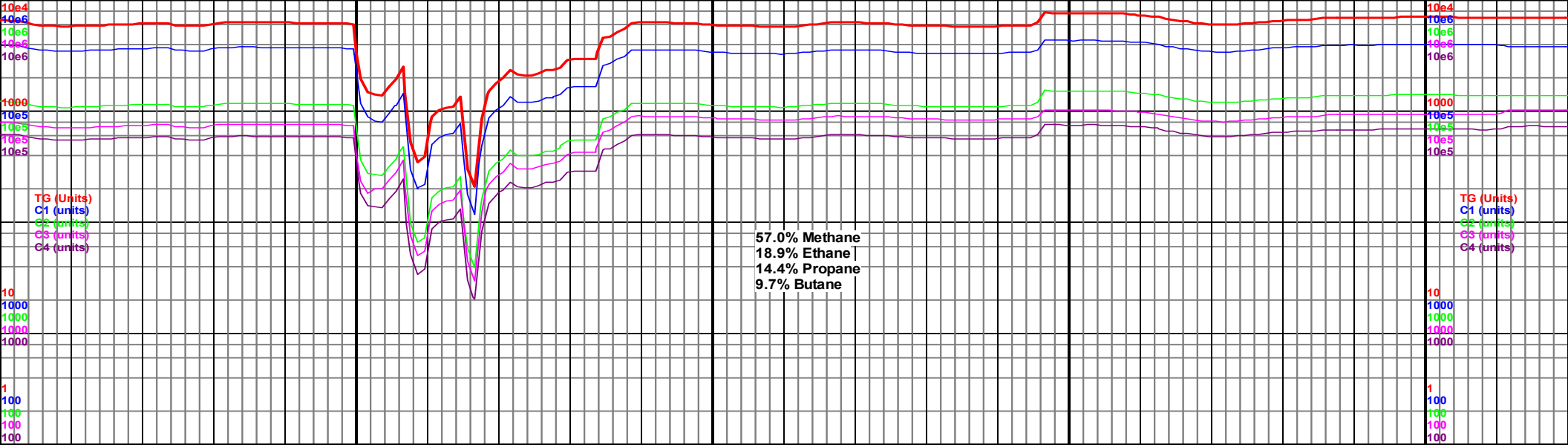


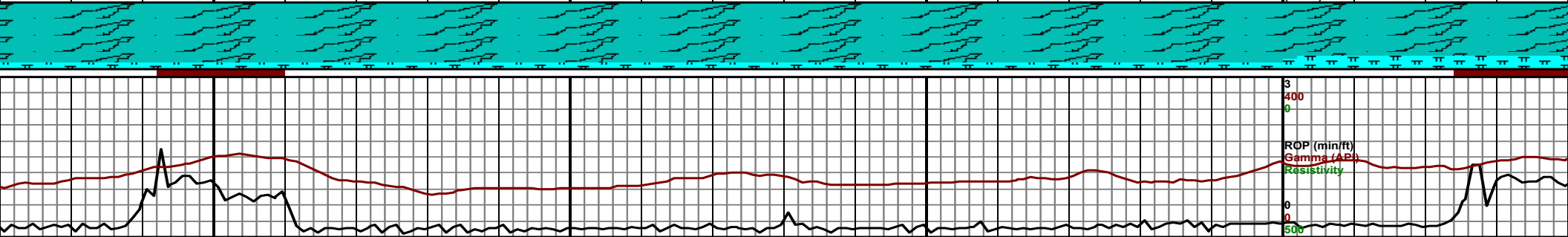
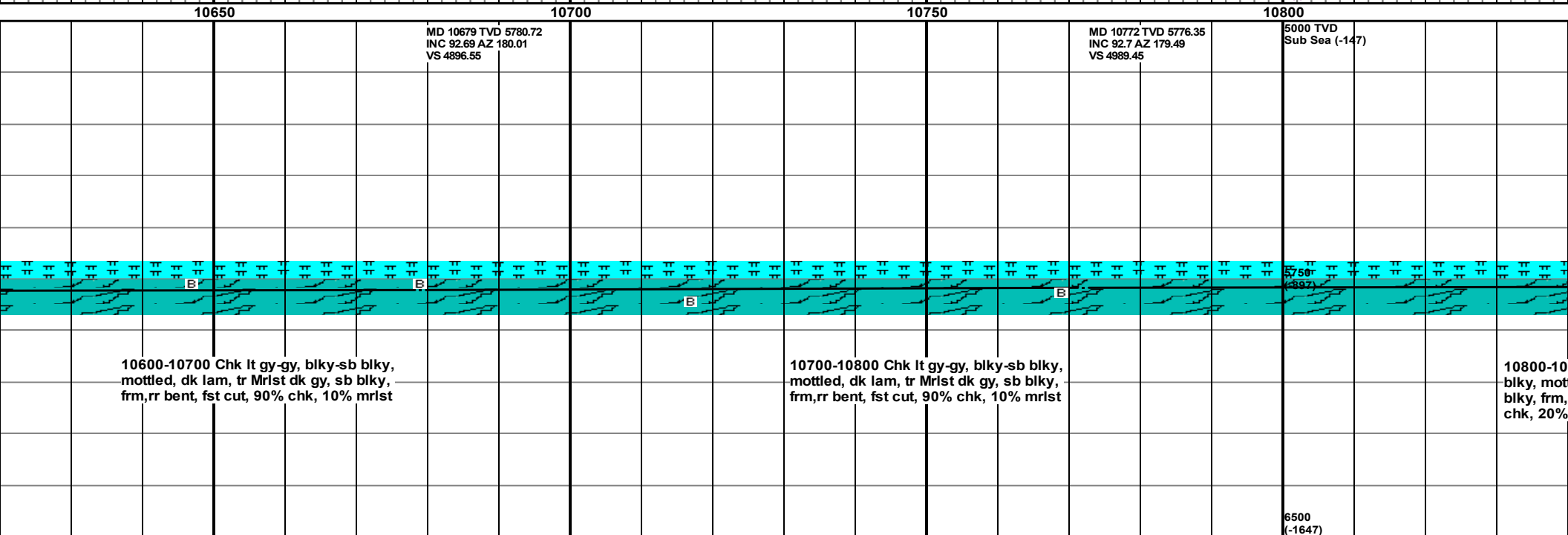
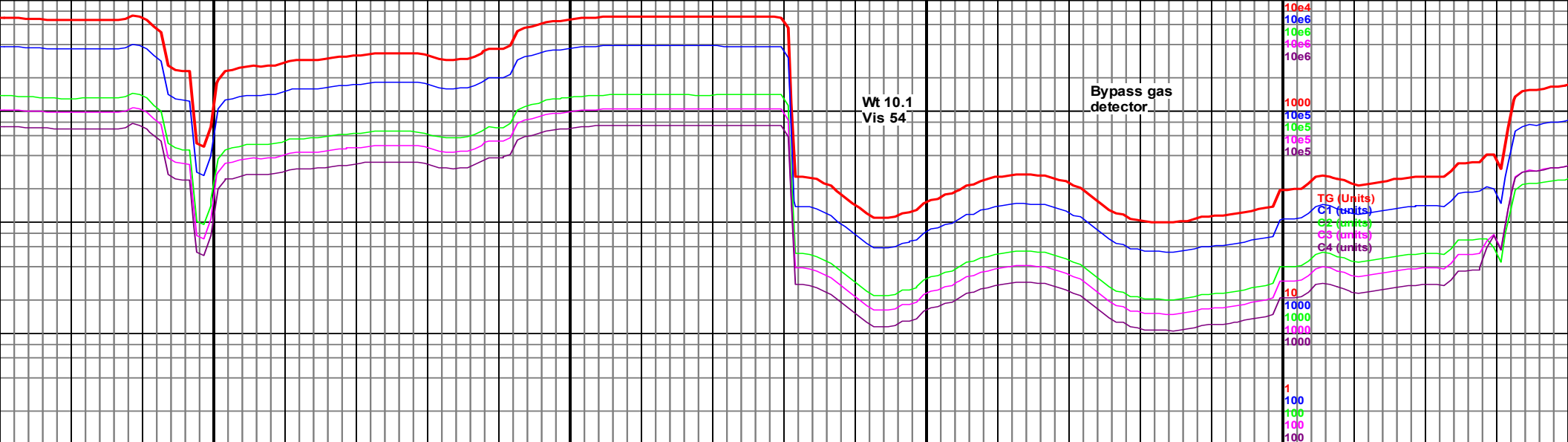


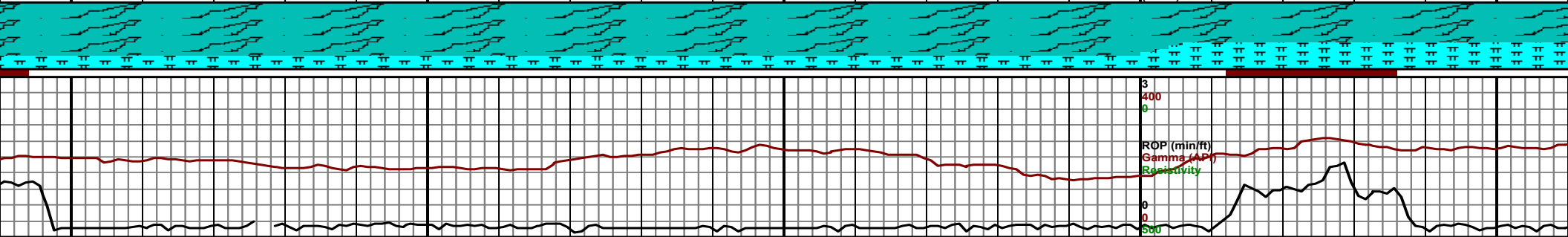
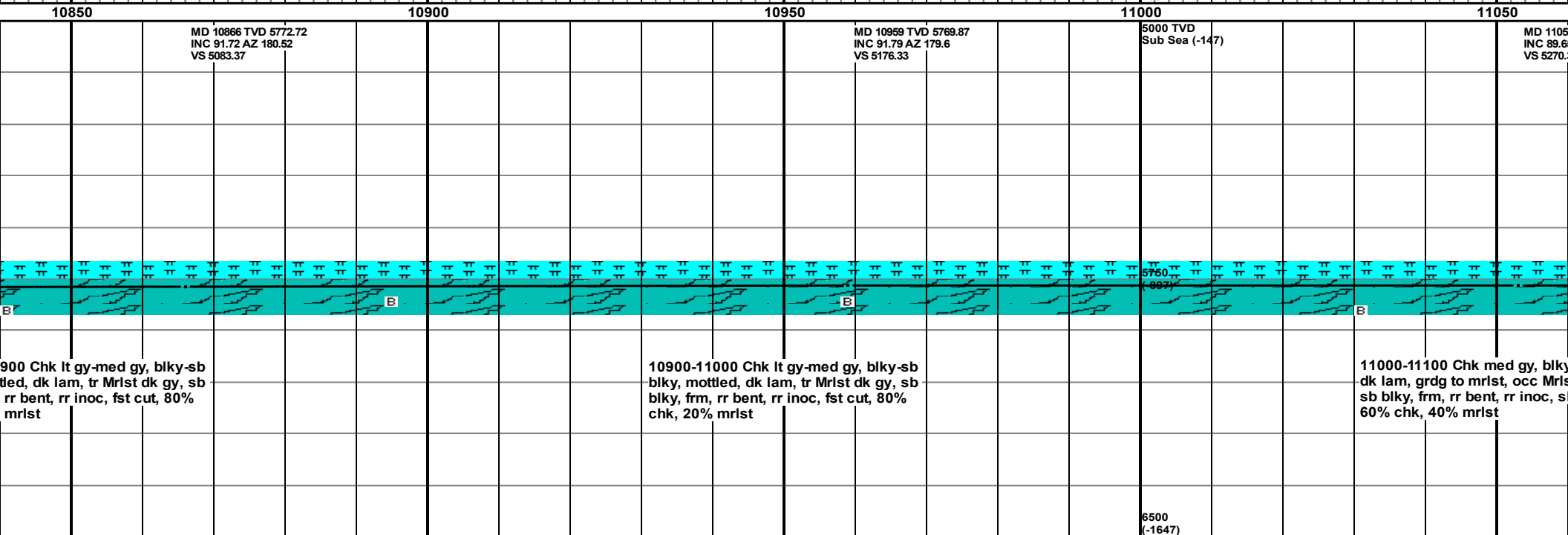
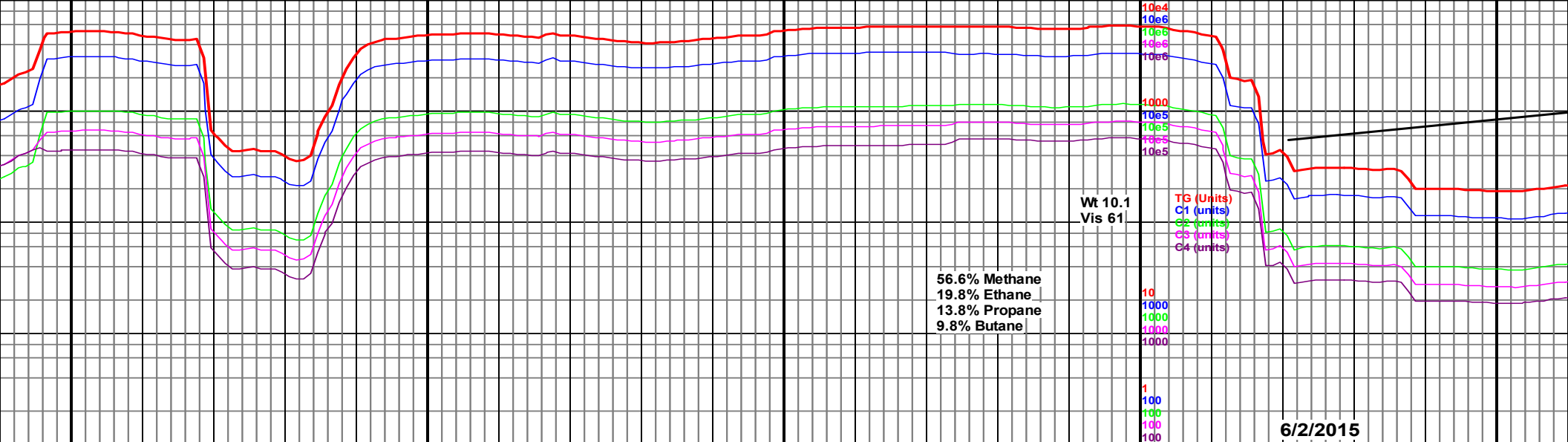


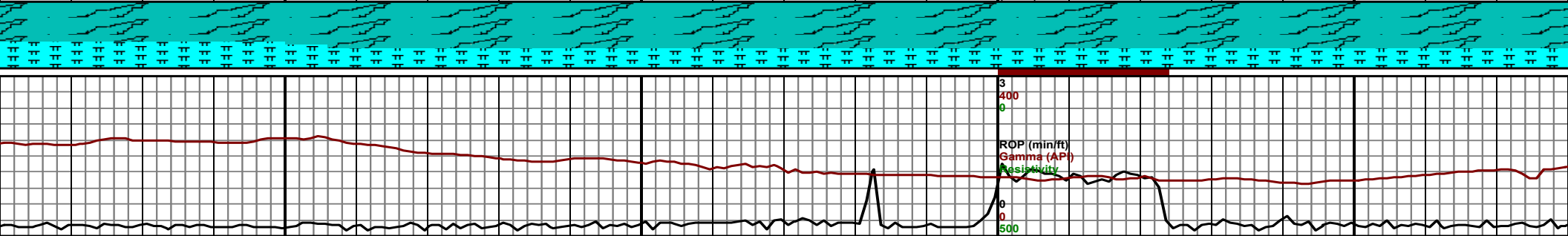
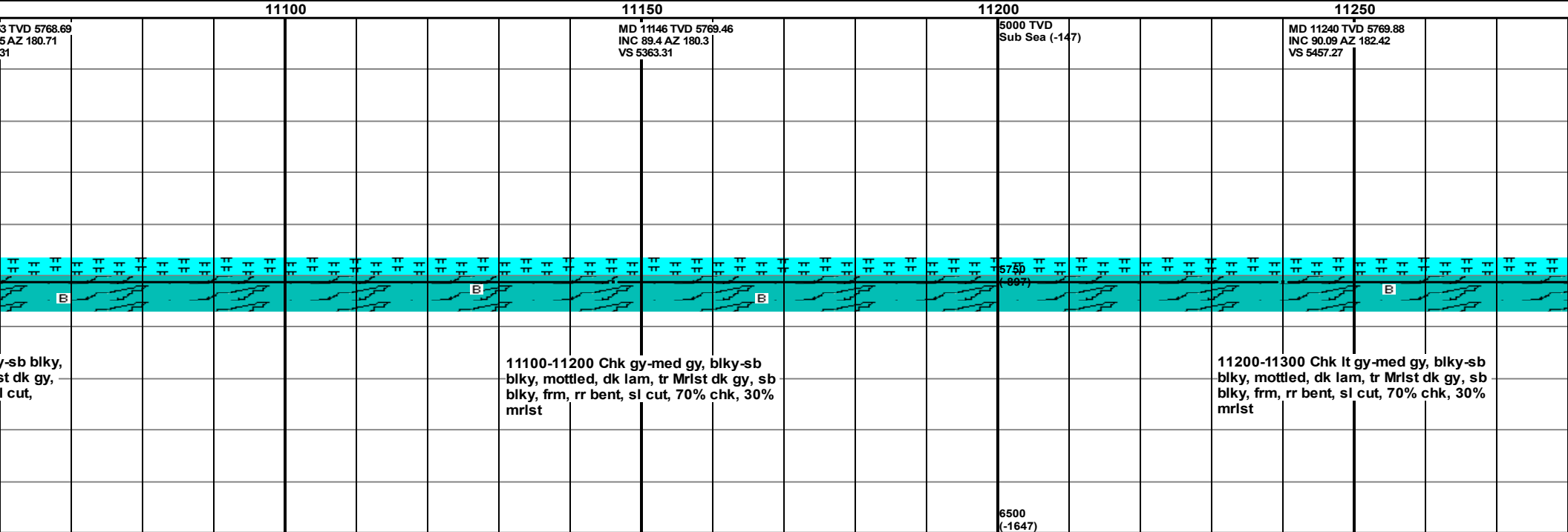
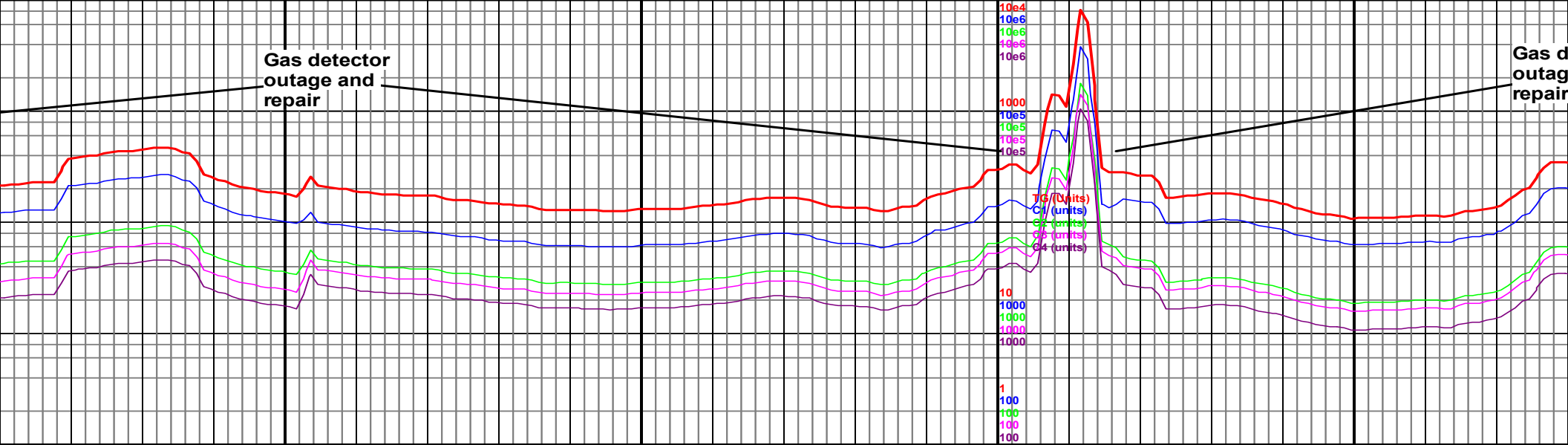












Detector  
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