



Scale 1:600 (2"=100') Metric  
Measured Depth Log

Well Name: Crowder 38N-19HZ  
Location: Weld County, CO  
License Number: 05-123-36720  
Spud Date: 3/14/13  
Surface Coordinates: 564' FNL, 853' FEL  
Sec 18, T2N, R65W  
Bottom Hole Coordinates: 460' FSL, 196' FEL  
Sec 19, T2N, R65W  
Ground Elevation (m): 4952'  
Logged Interval (m): 7400'  
Formation: Niobrara C  
Type of Drilling Fluid: Oil Based Mud

Region: DJ Basin  
Drilling Completed: 3/25/13

K.B. Elevation (m): 4969'  
Total Depth (m): 16553'

To: 16553'

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

#### OPERATOR

Company: Anadarko Petroleum Corporation  
Address: Granite Tower  
1099 18th St., Suite 1800  
Denver, CO 80202


GEOLOGIST

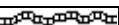
Name: Justin Robbins / Pat Hill / Justin Graf  
Company: Great Divide Consulting, Inc.  
Address: P.O. Box 630263  
Highlands Ranch, CO 80163

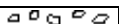
Comments


Hook load sensor issues were cause of multiple gaps and depth adjustments in measured depth.

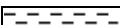
ROCK TYPES


 Anhy


 Bent


 Brec


 Cht


 Clyst


 Coal


 Congl


 Dol


 Gyp


 Igne


 Lmst

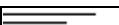
 Meta


 Mrlst


 Salt

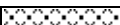
 Shale

 Shcol

 Shgy

 Sltst

 Ss

 Till

ACCESSORIES

MINERAL

 Anhy

 Arggrn

 Arg

 Bent

 Bit

 Brecfrag

 Calc

 Carb

 Chtdk

 Chtlt

 Dol

 Feldspar

 Ferrpel

 Ferr

 Glau

 Gyp

 Hvymin

 Kaol

 Marl

 Minxl

 Nodule

 Phos

 Spr calc

 Pyr

 Salt

 Sandy

 Silt

 Sil

 Sulphur

 Tuff

 New symbol

 New symbol

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

OTHER SYMBOLS

POROSITY

 Earthy

 Fenest

 Fracture

 Inter

 Moldic

 Organic

 Pinpoint

 Vuggy

SORTING

 Well

 Moderate

 Poor

ROUNDING

 Rounded

 Subrnd

 Subang

 Angular

OIL SHOW

 Even

 Spotted

 Ques

 Dead

INTERVAL

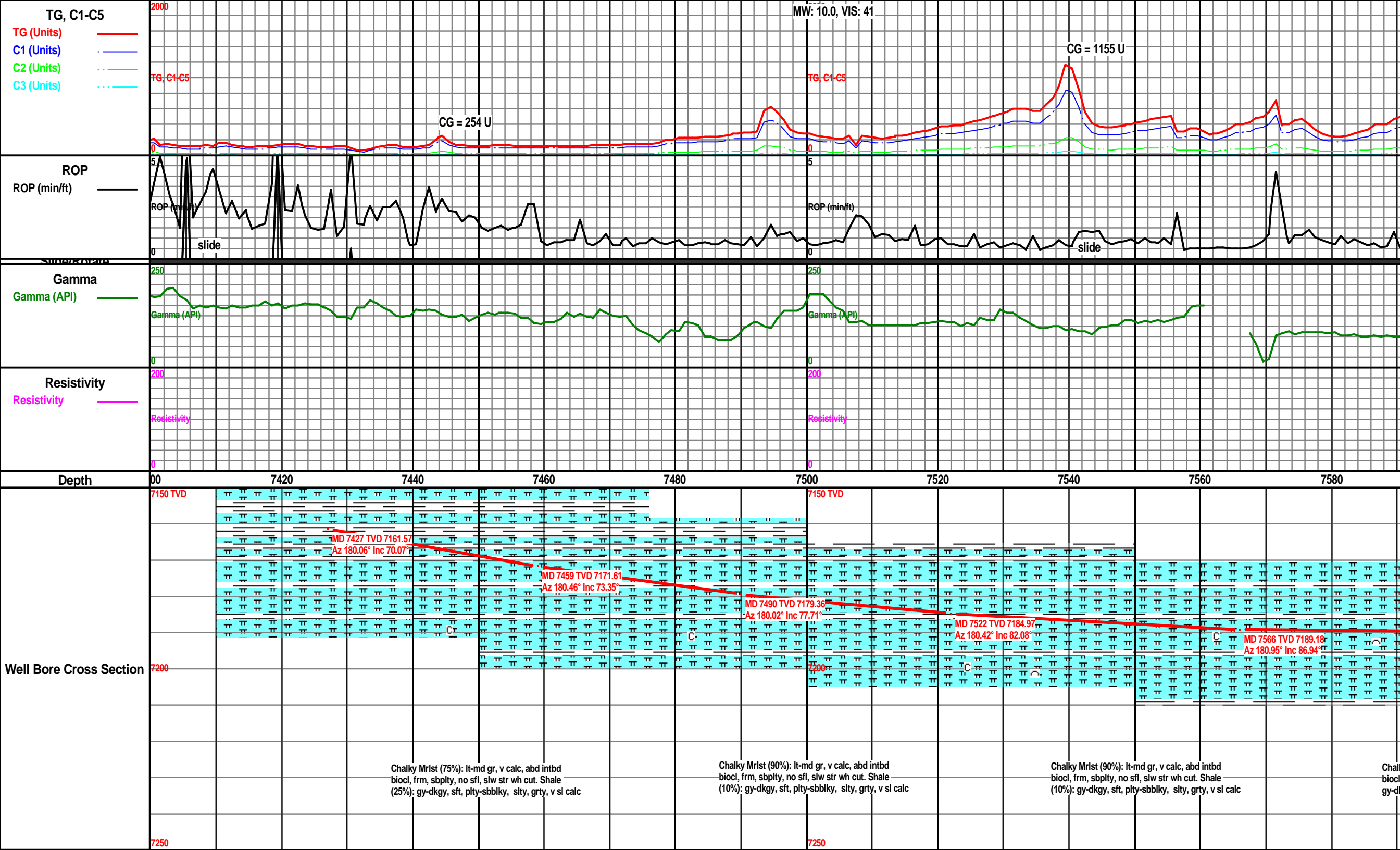
 Core

 Dst

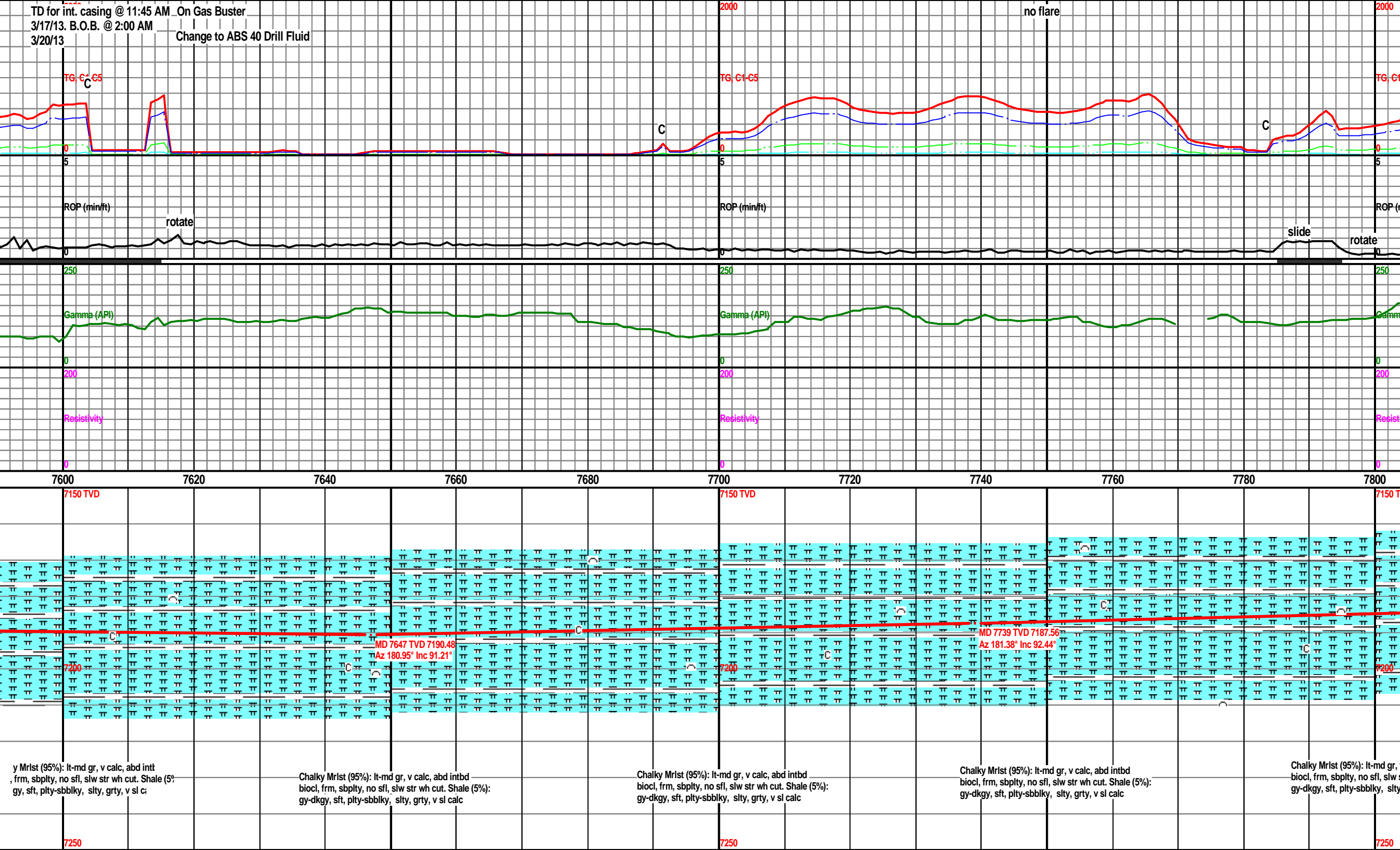
EVENT

 Rft

 Sidewall



TD for int. casing @ 11:45 AM. On Gas Buster  
3/17/13. B.O.B. @ 2:00 AM  
3/20/13  
Change to ABS 40 Drill Fluid



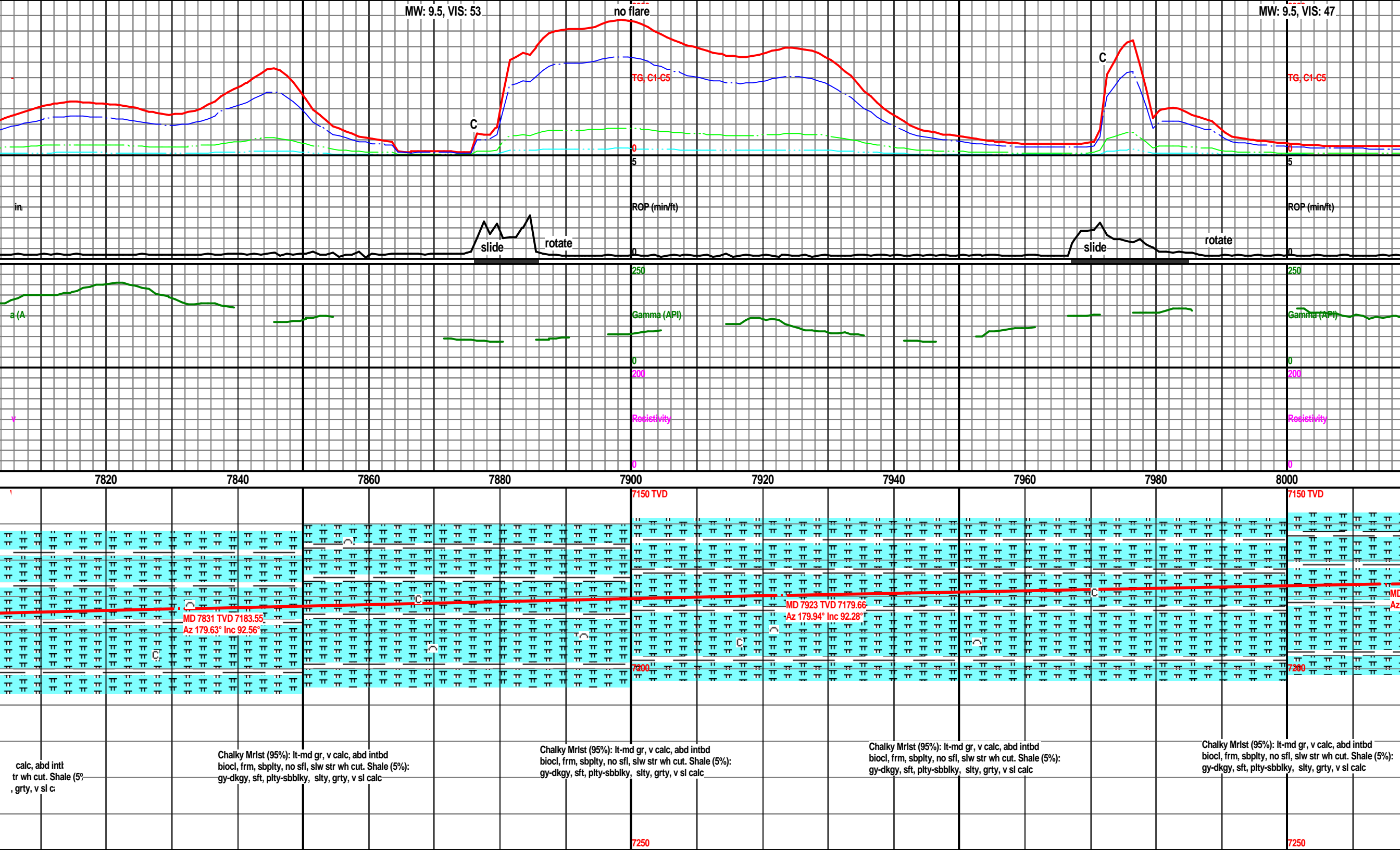
y Mrlst (95%): lt-md gr, v calc, abd intbd  
, frm, sbpity, no sfl, slw str wh cut. Shale (5%):  
gy, sft, pty-sbbiky, slty, grty, v sl calc

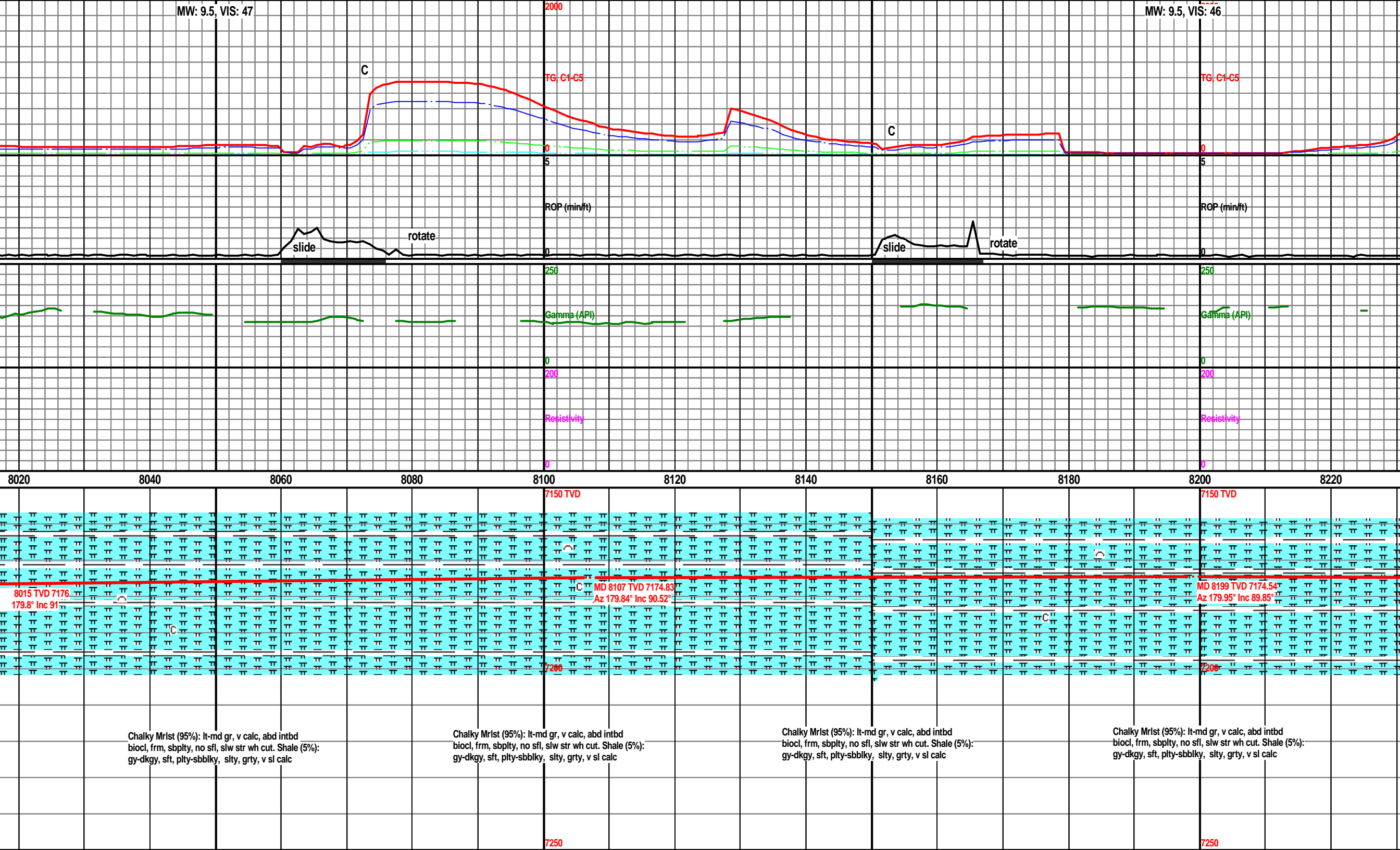
Chalky Mrlst (95%): lt-md gr, v calc, abd intbd  
biocl, frm, sbpity, no sfl, slw str wh cut. Shale (5%):  
gy-dkgy, sft, pty-sbbiky, slty, grty, v sl calc

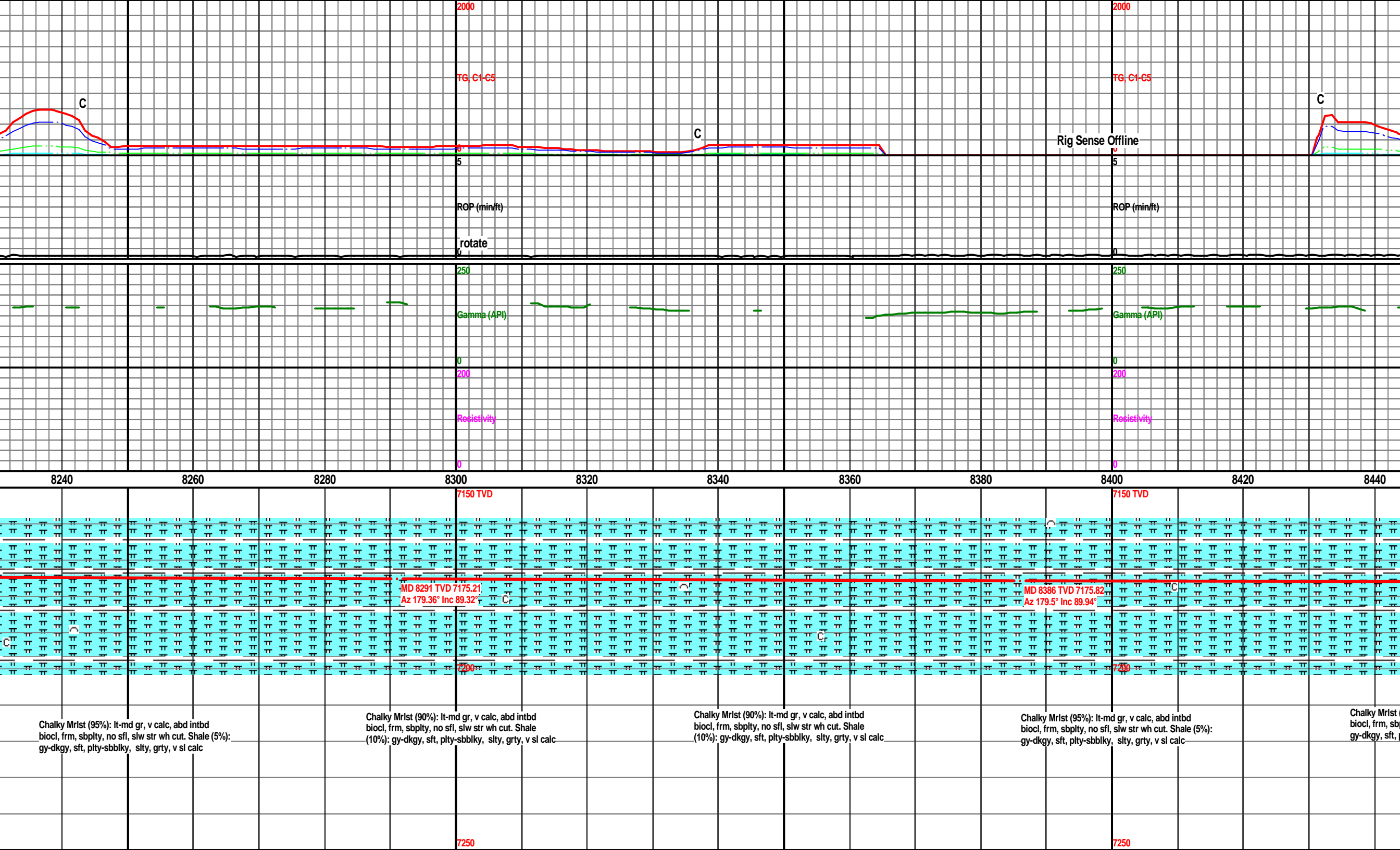
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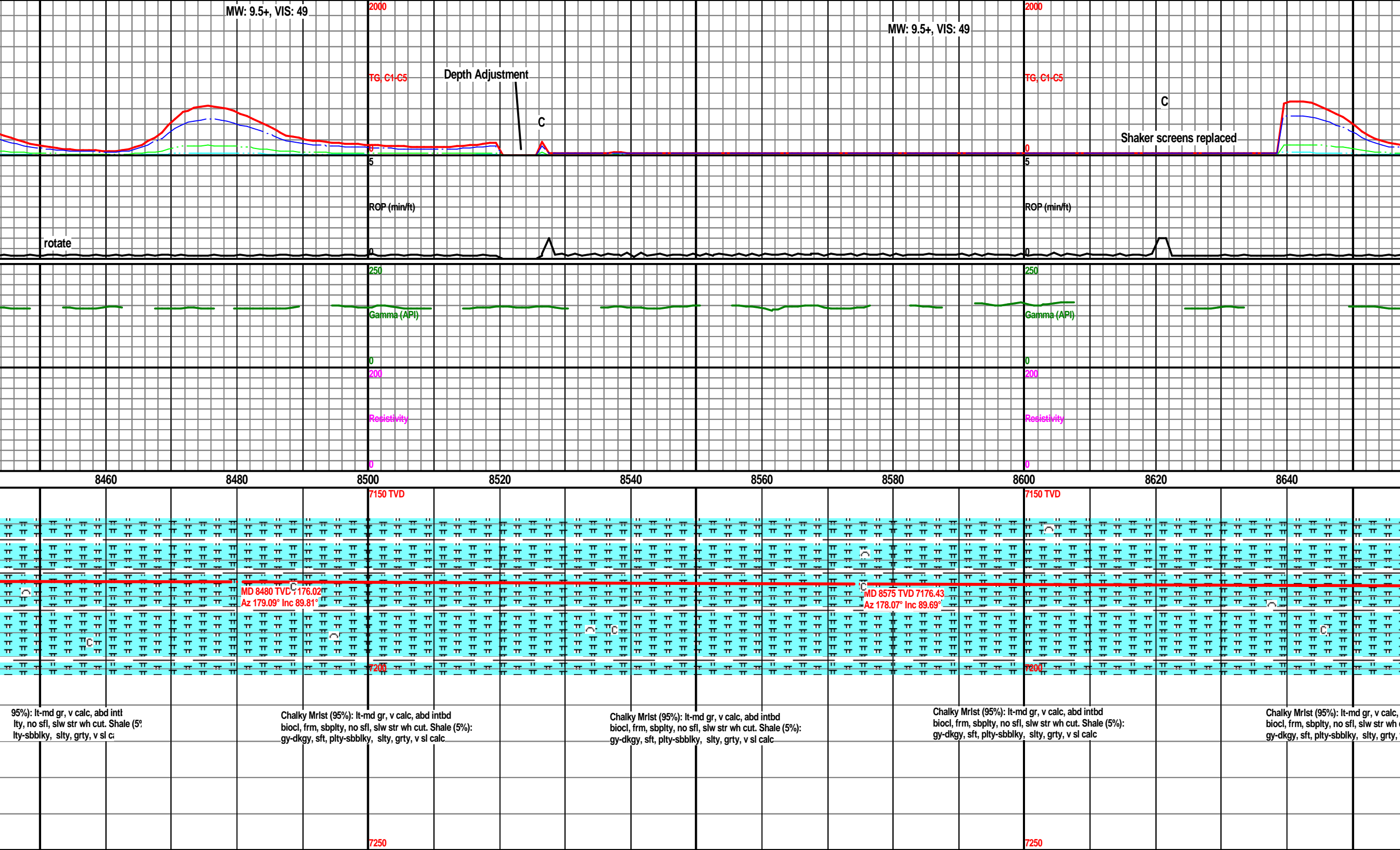
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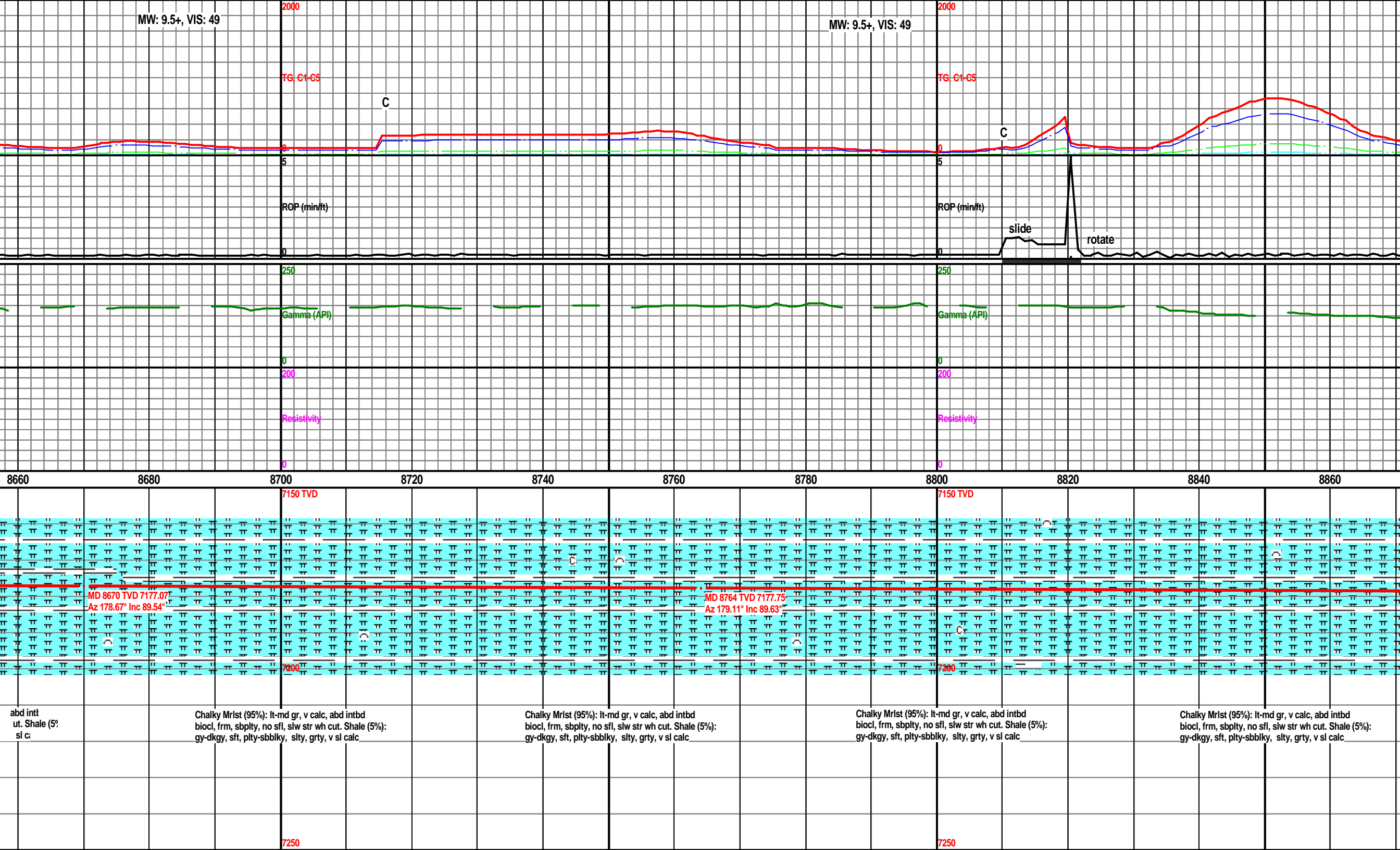




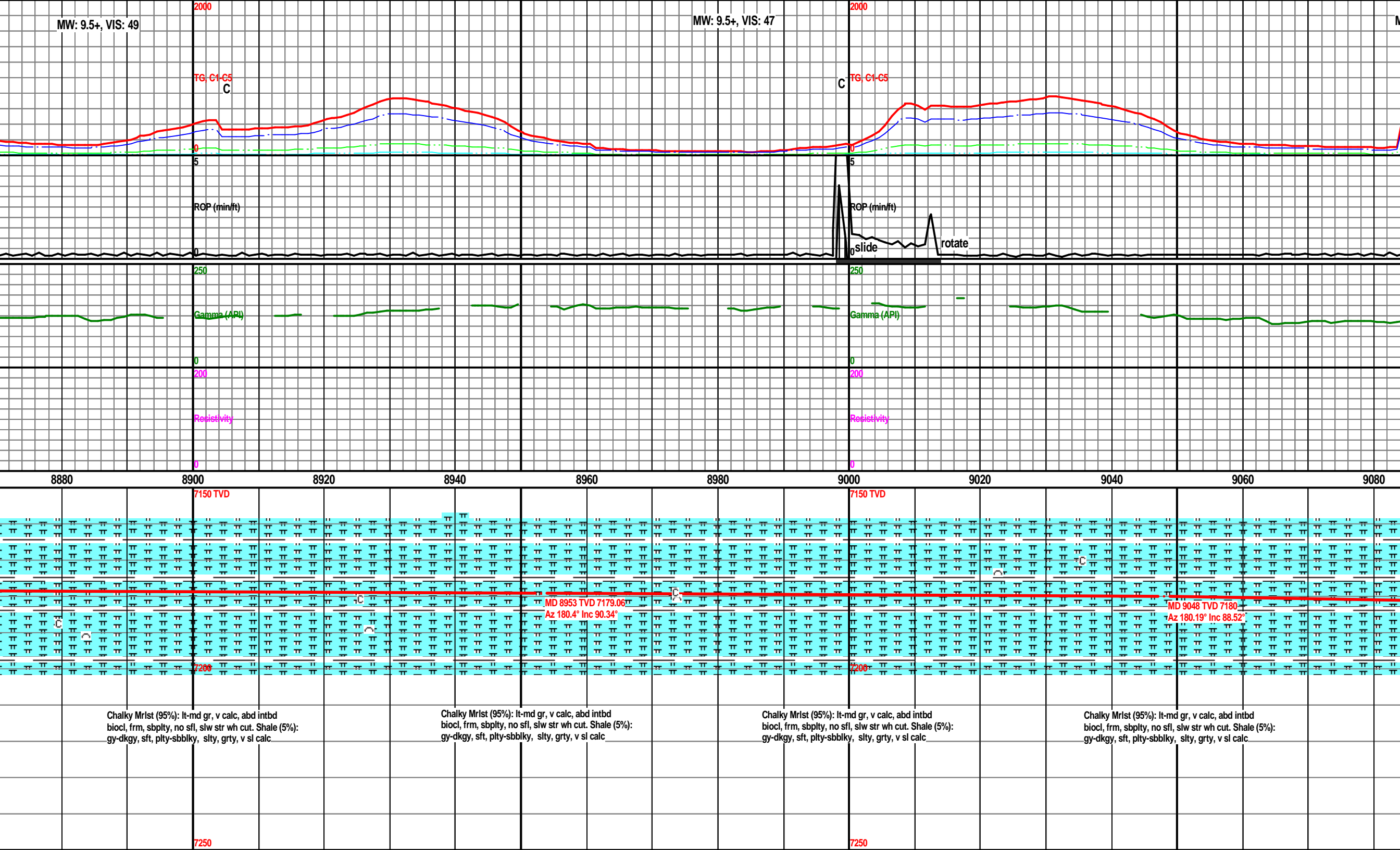


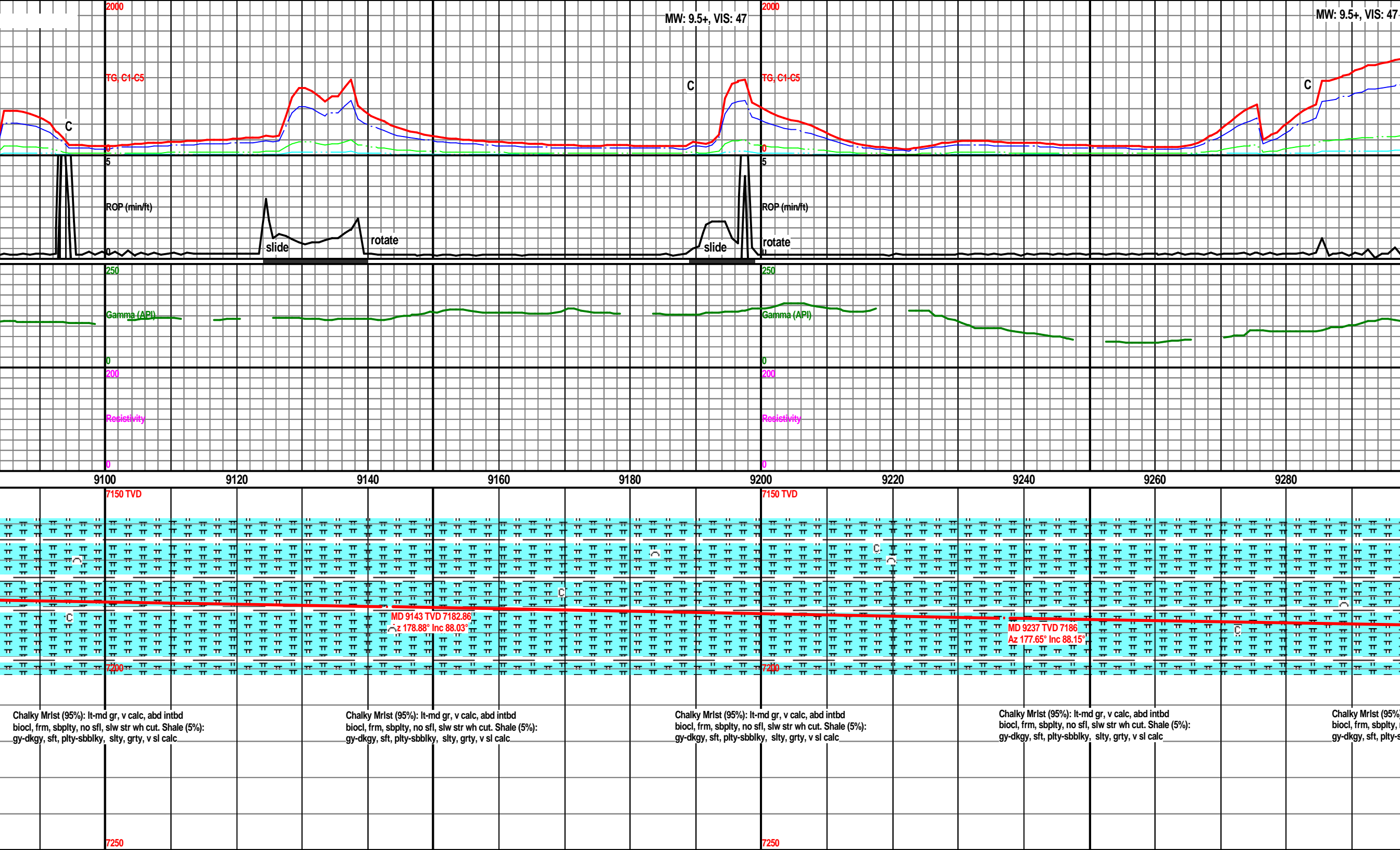


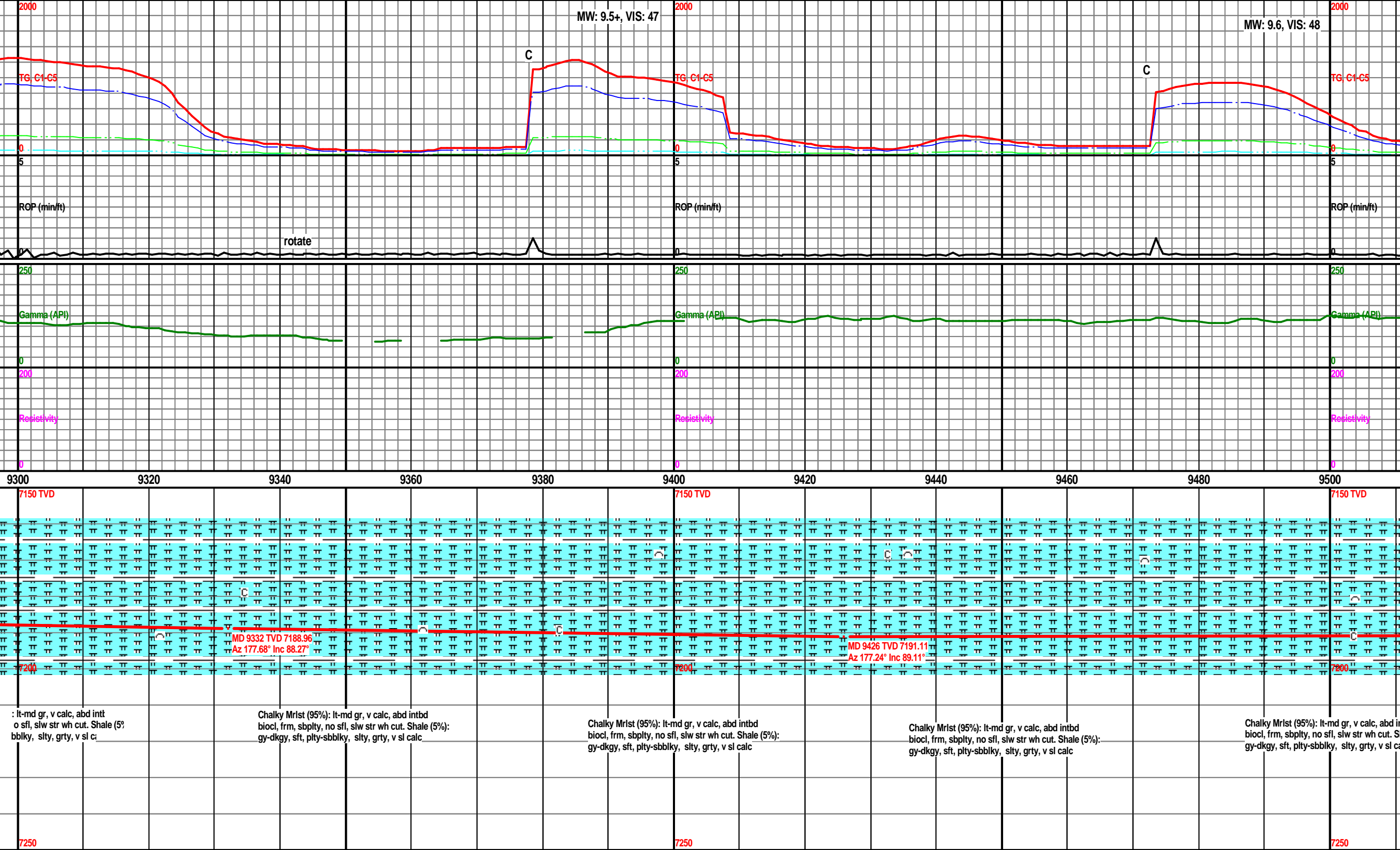


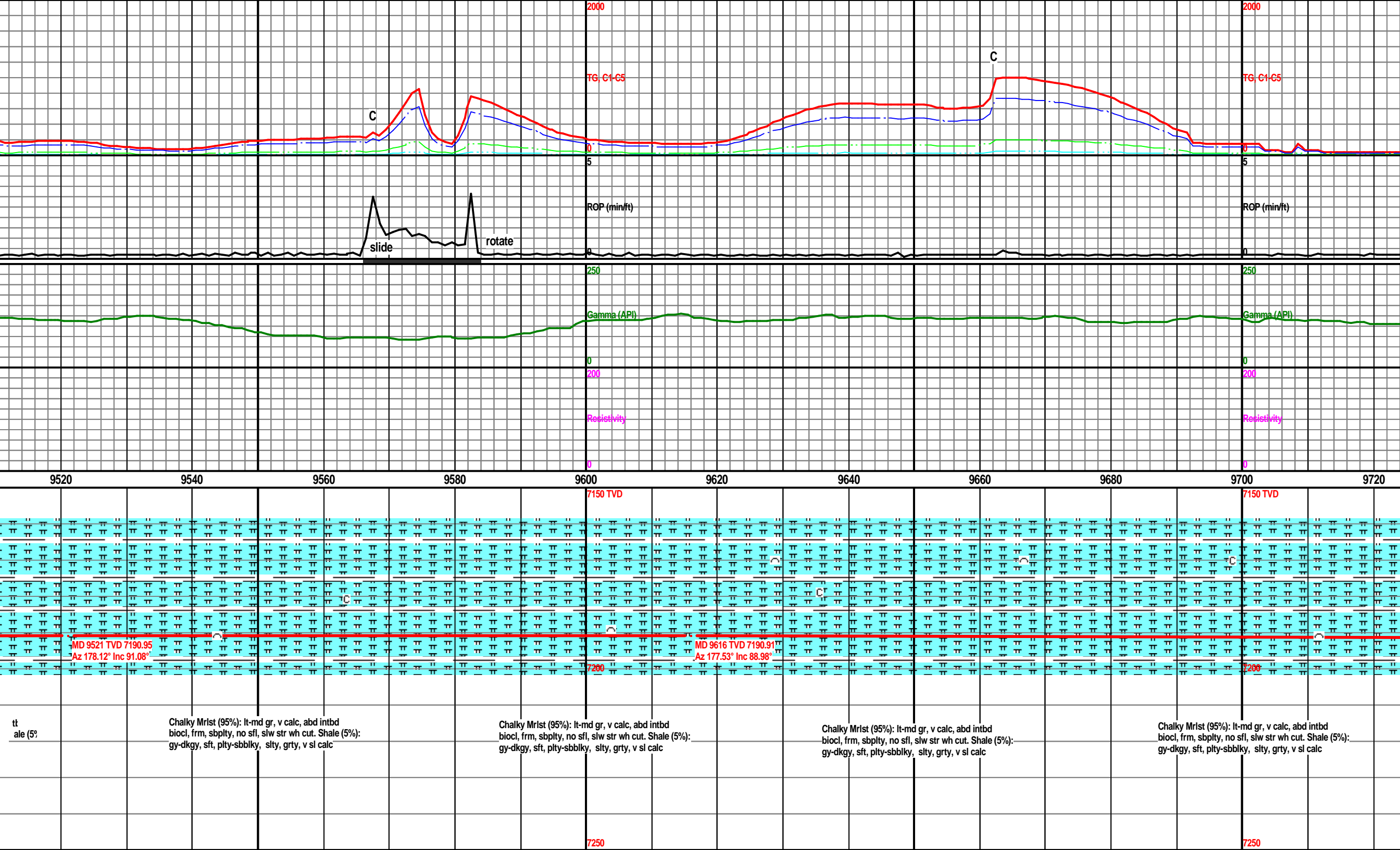


**MW: 9.5+, VIS: 47**



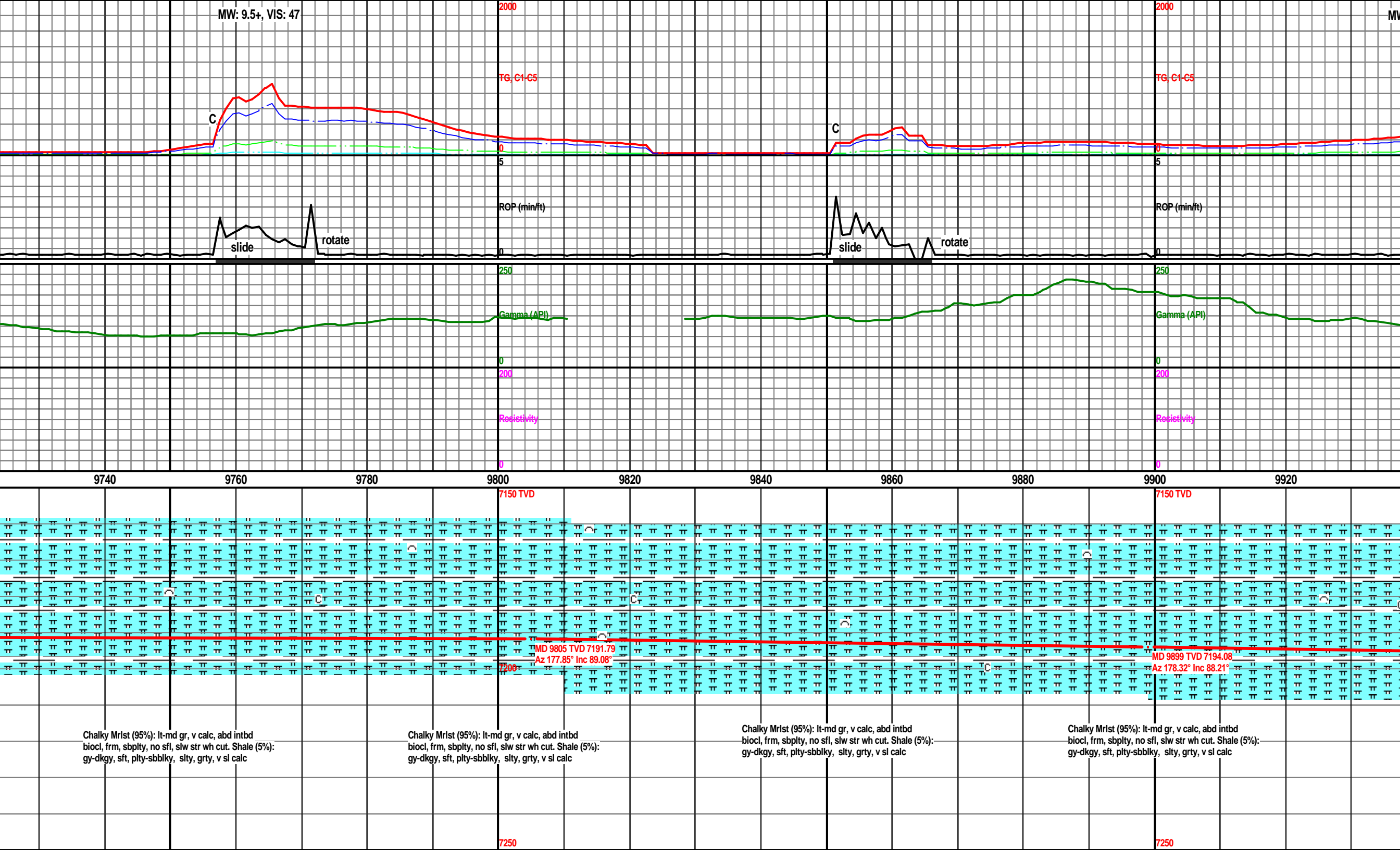


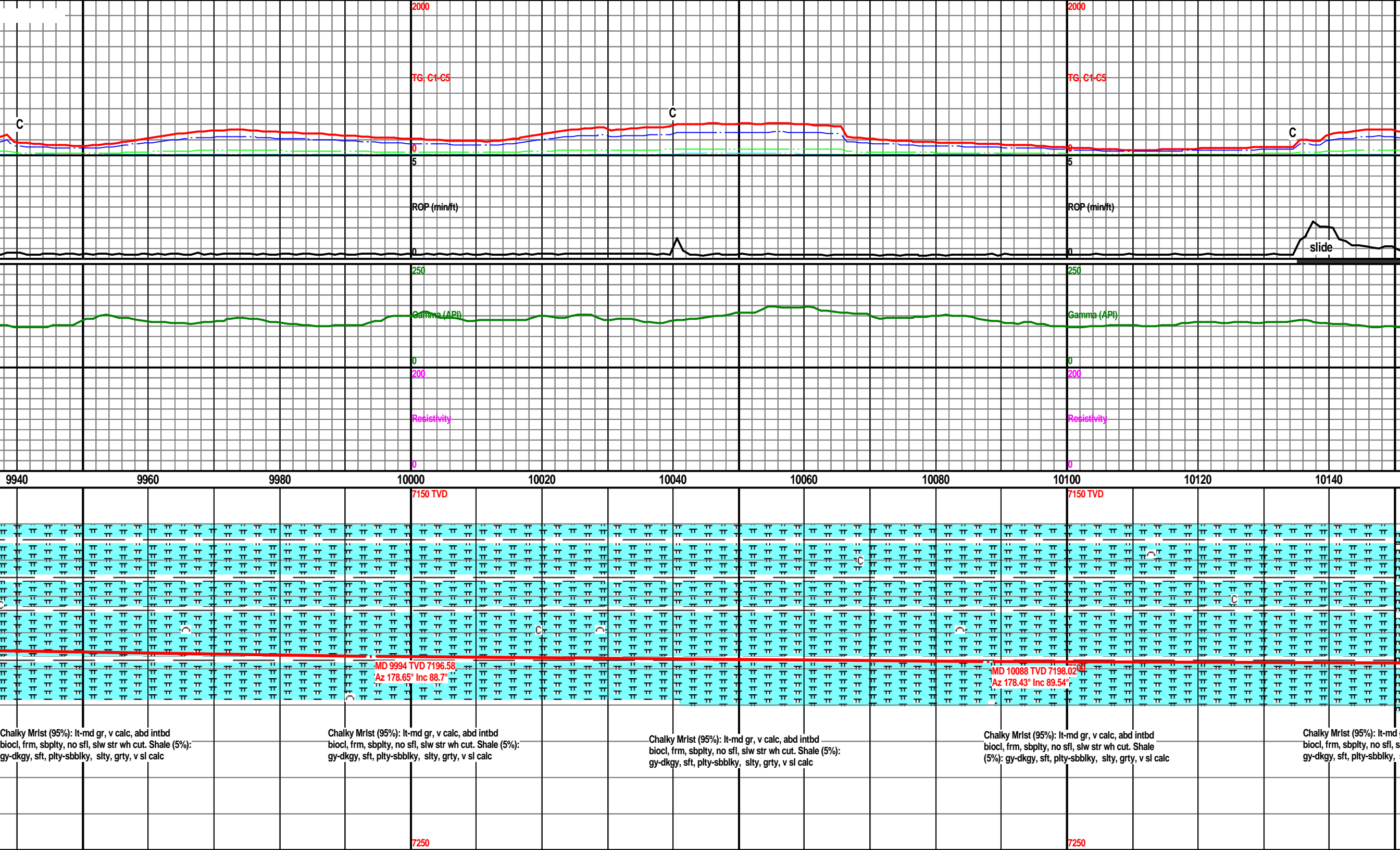


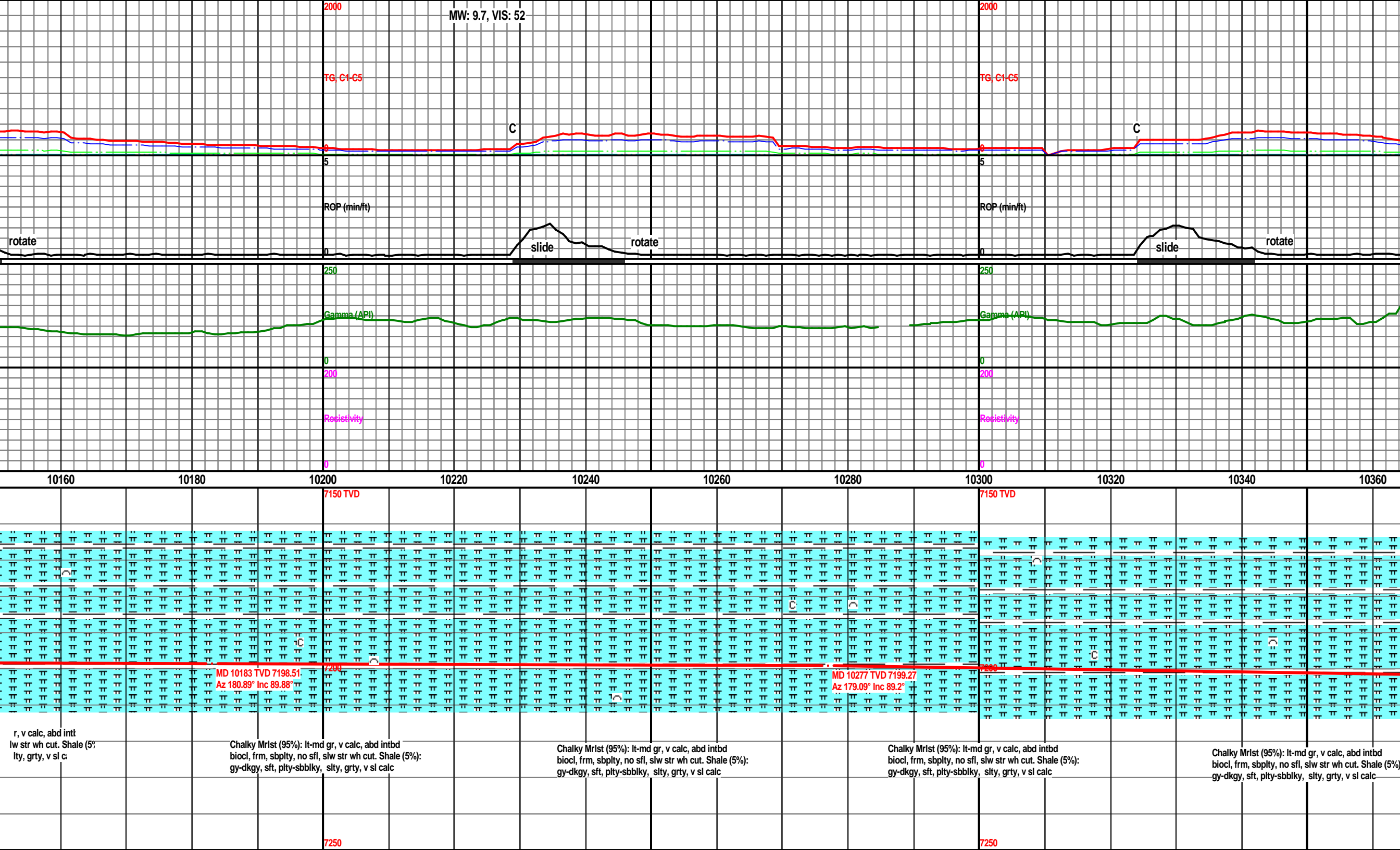


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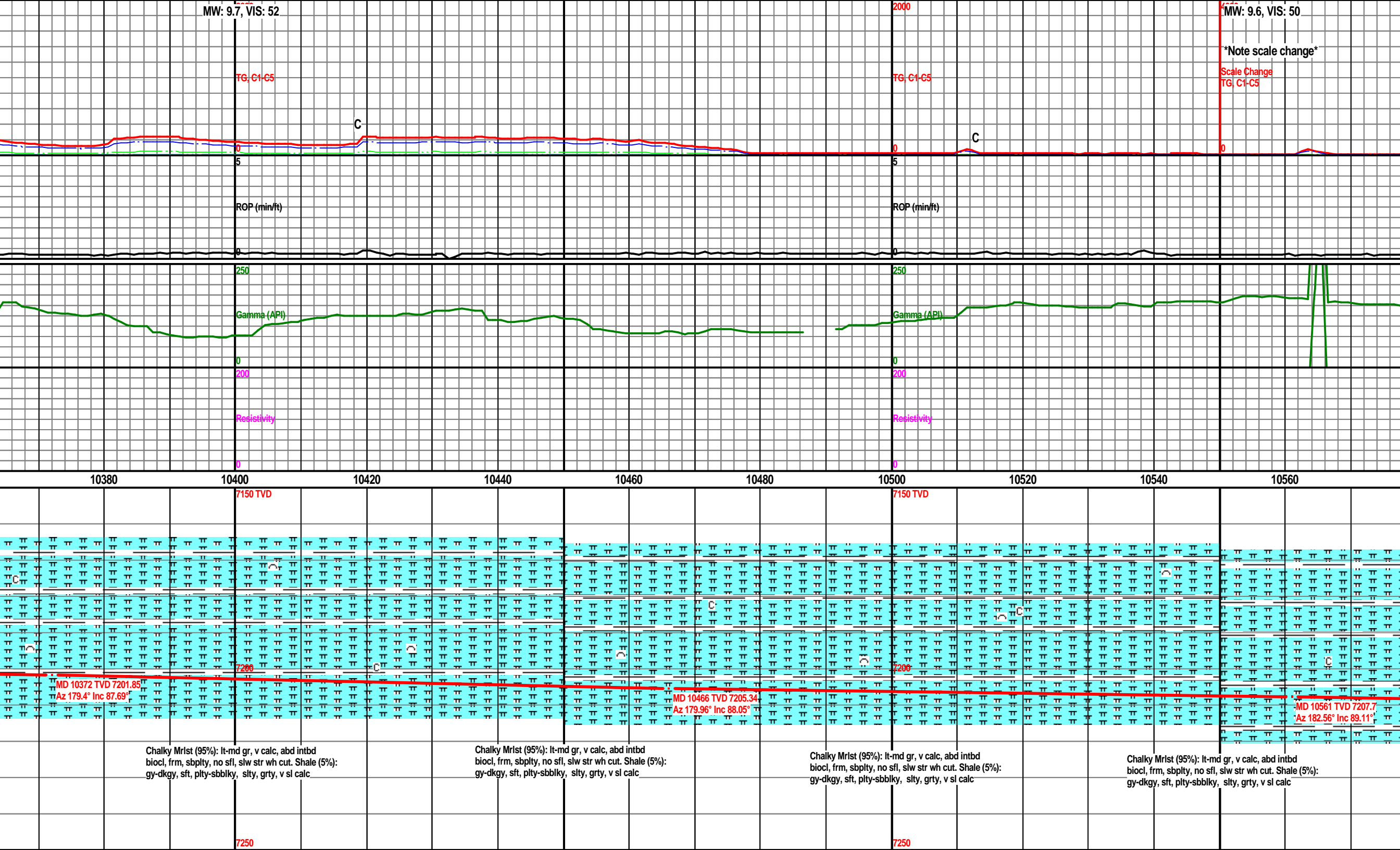
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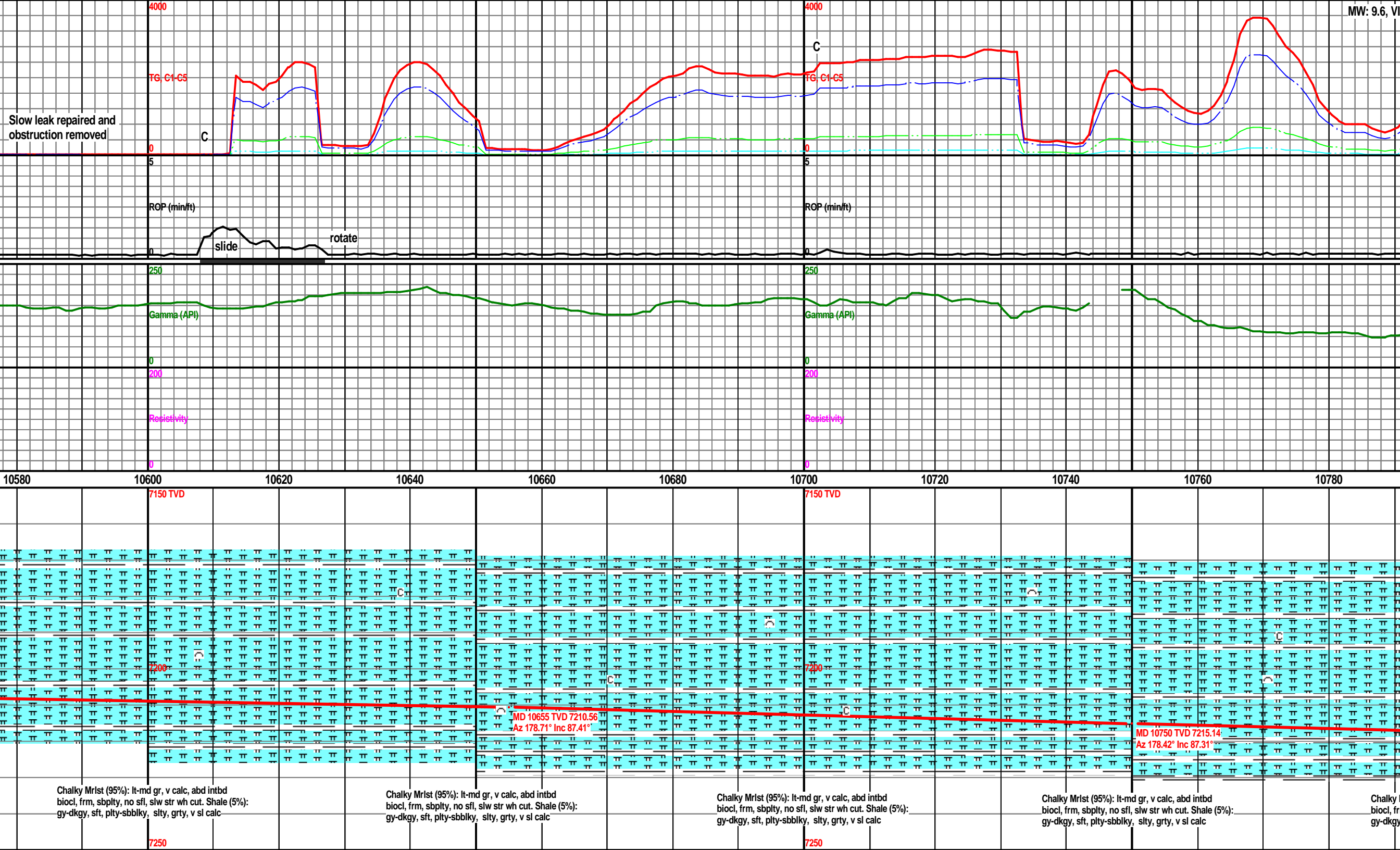


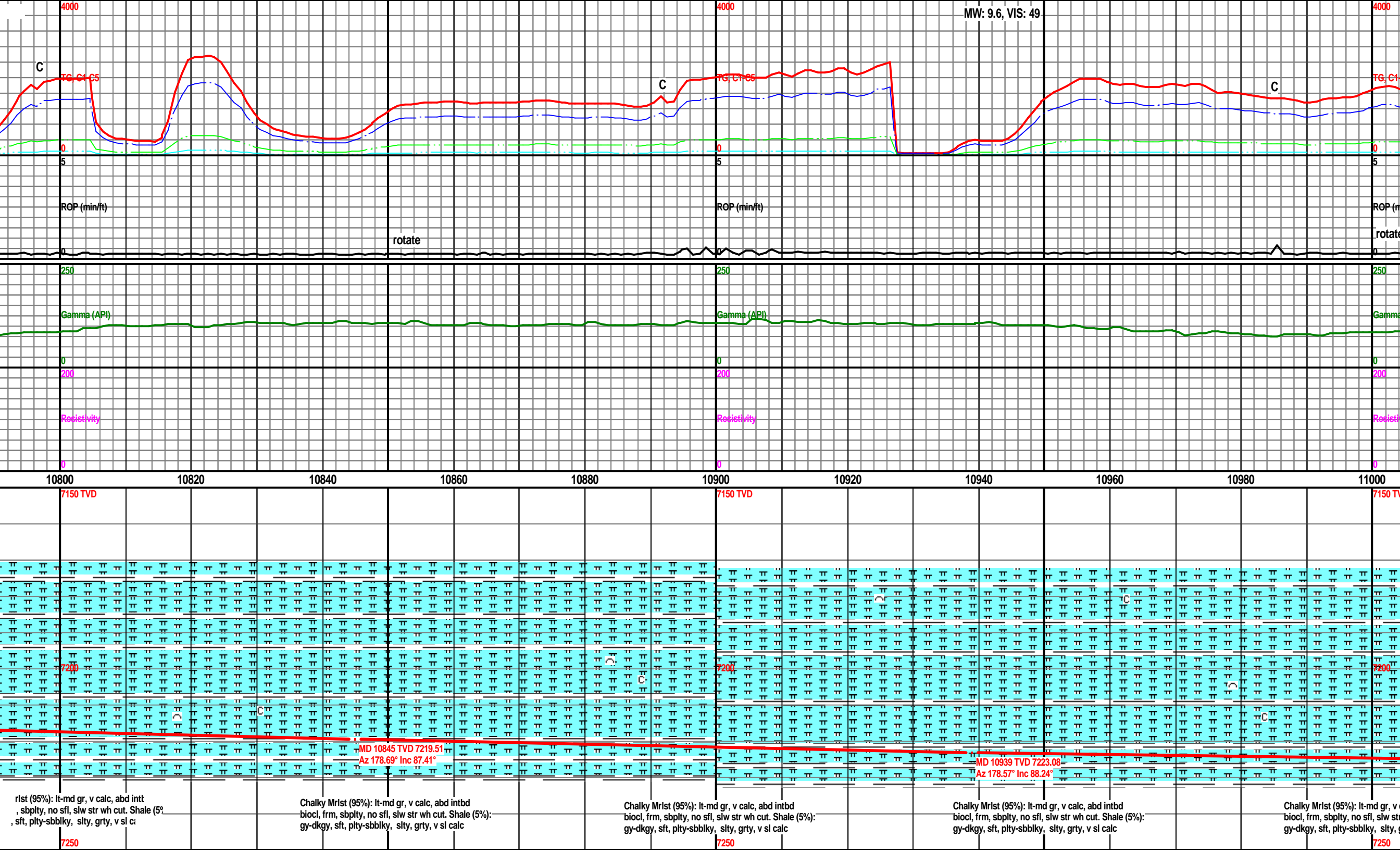


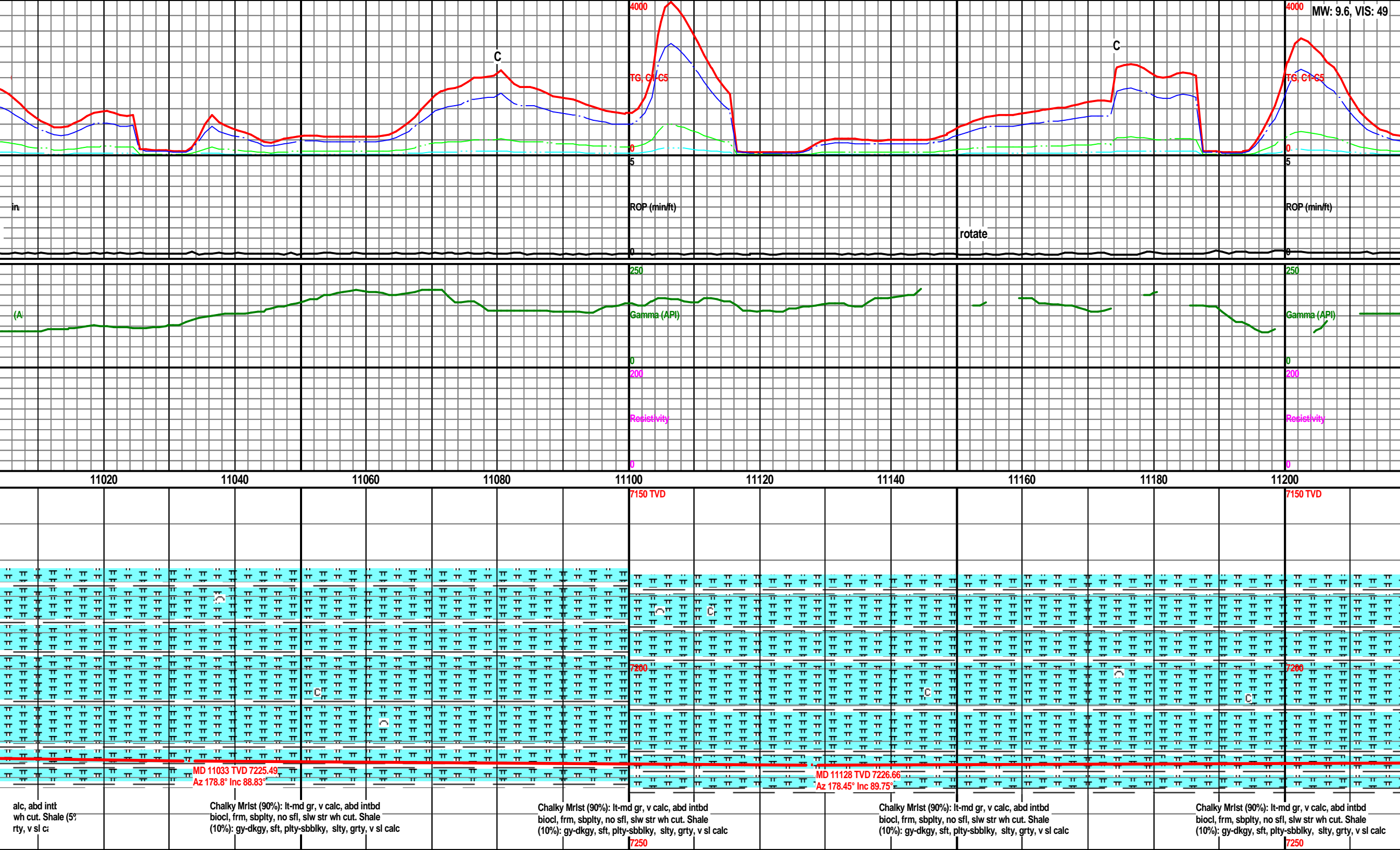


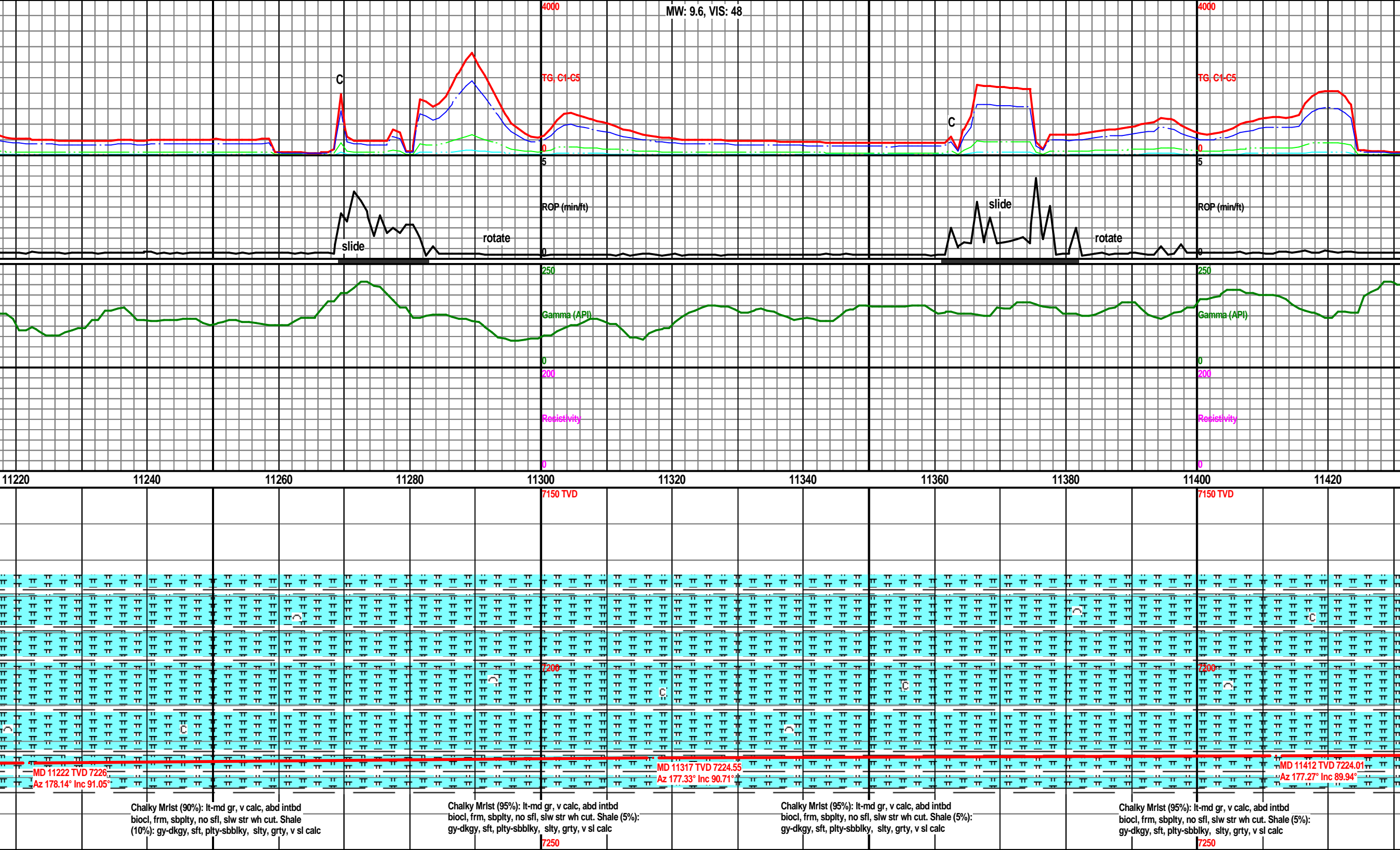




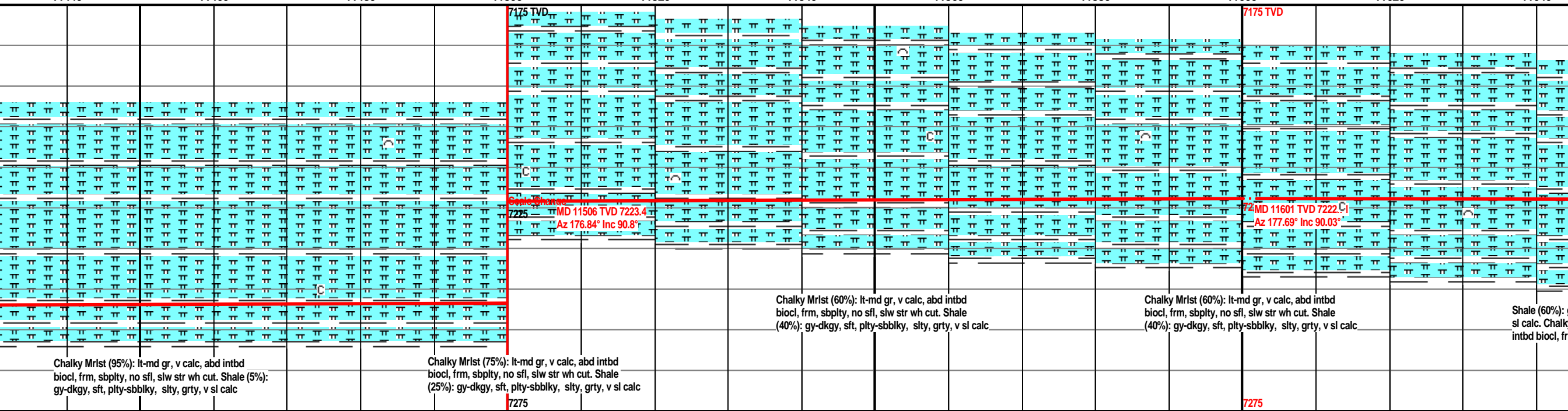
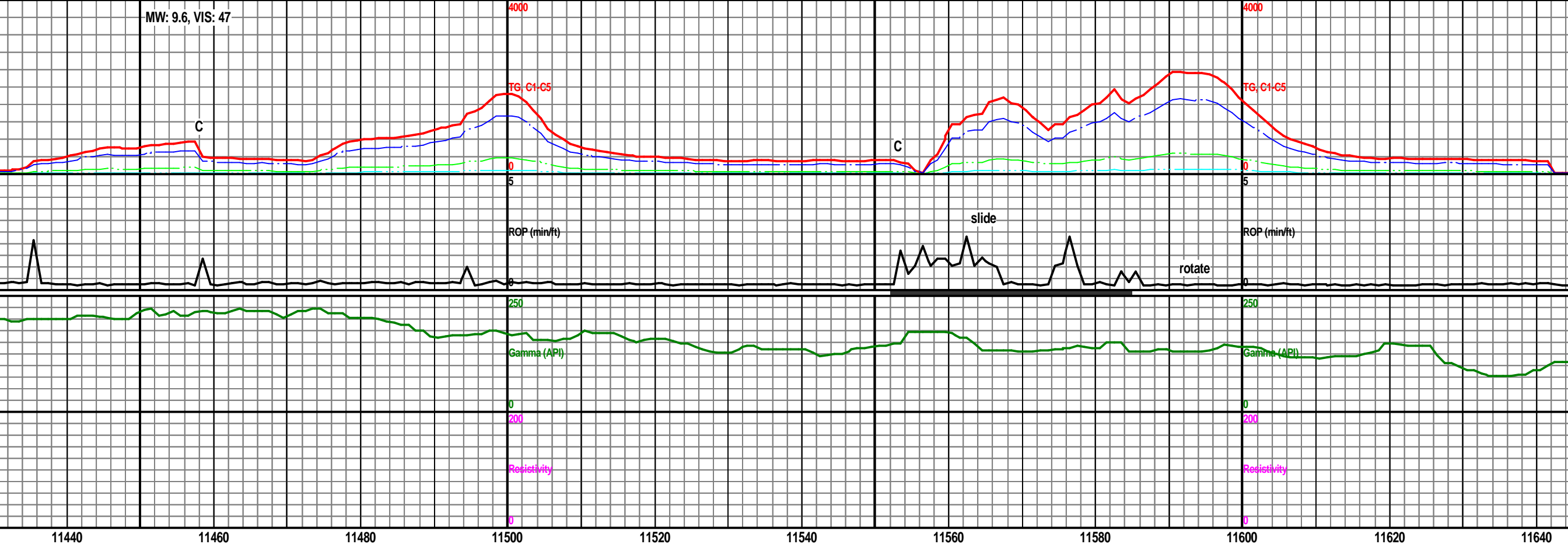


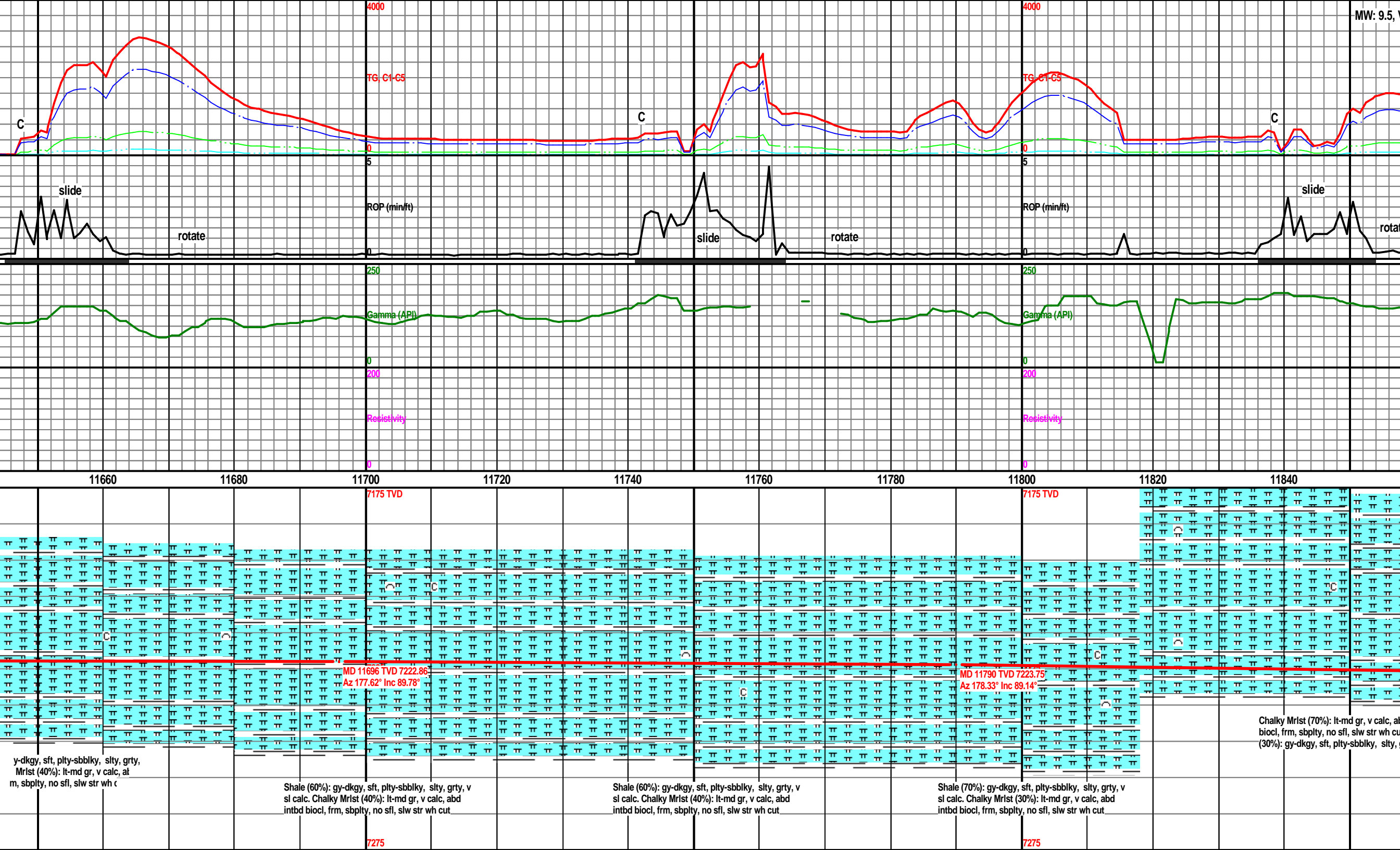


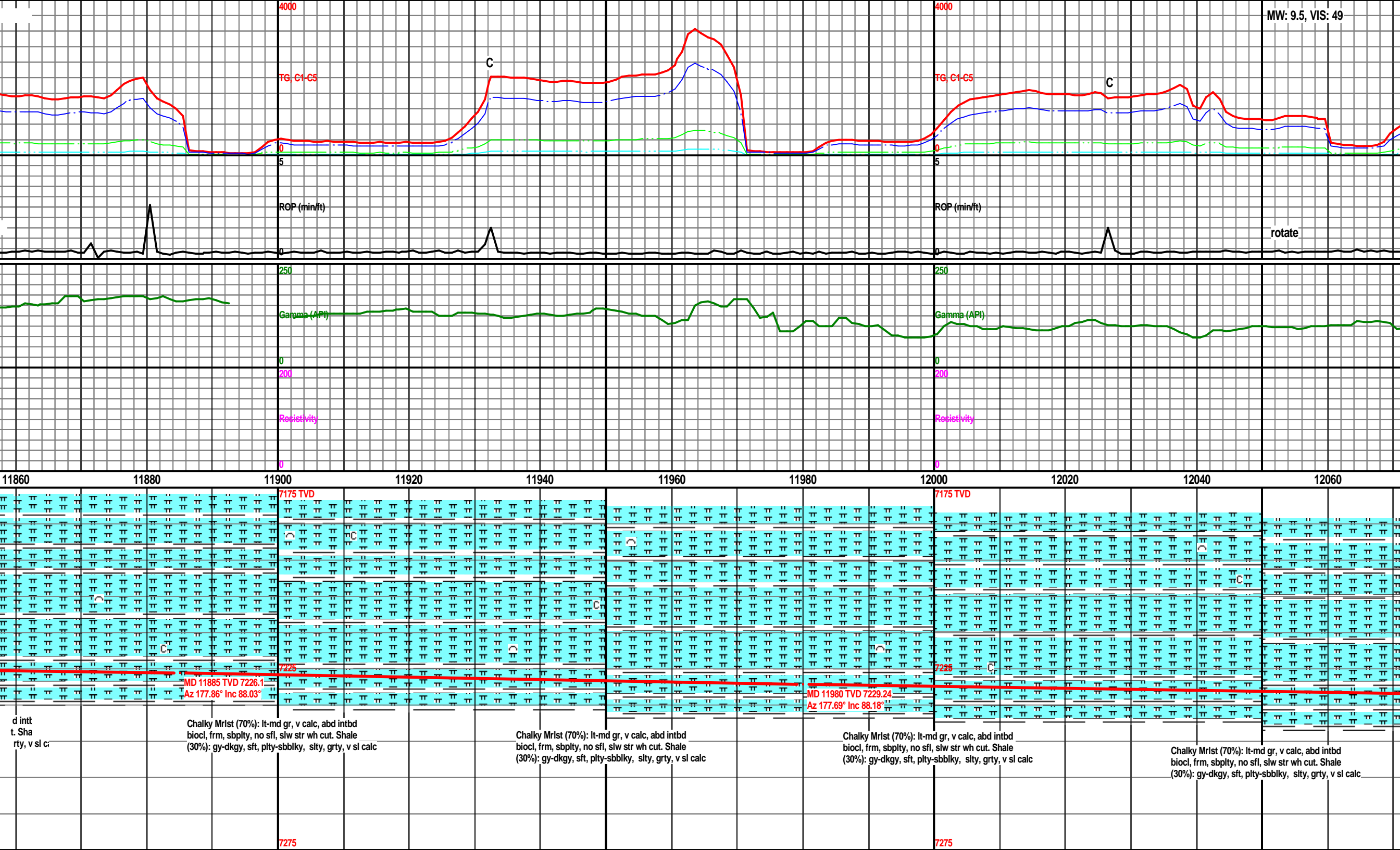




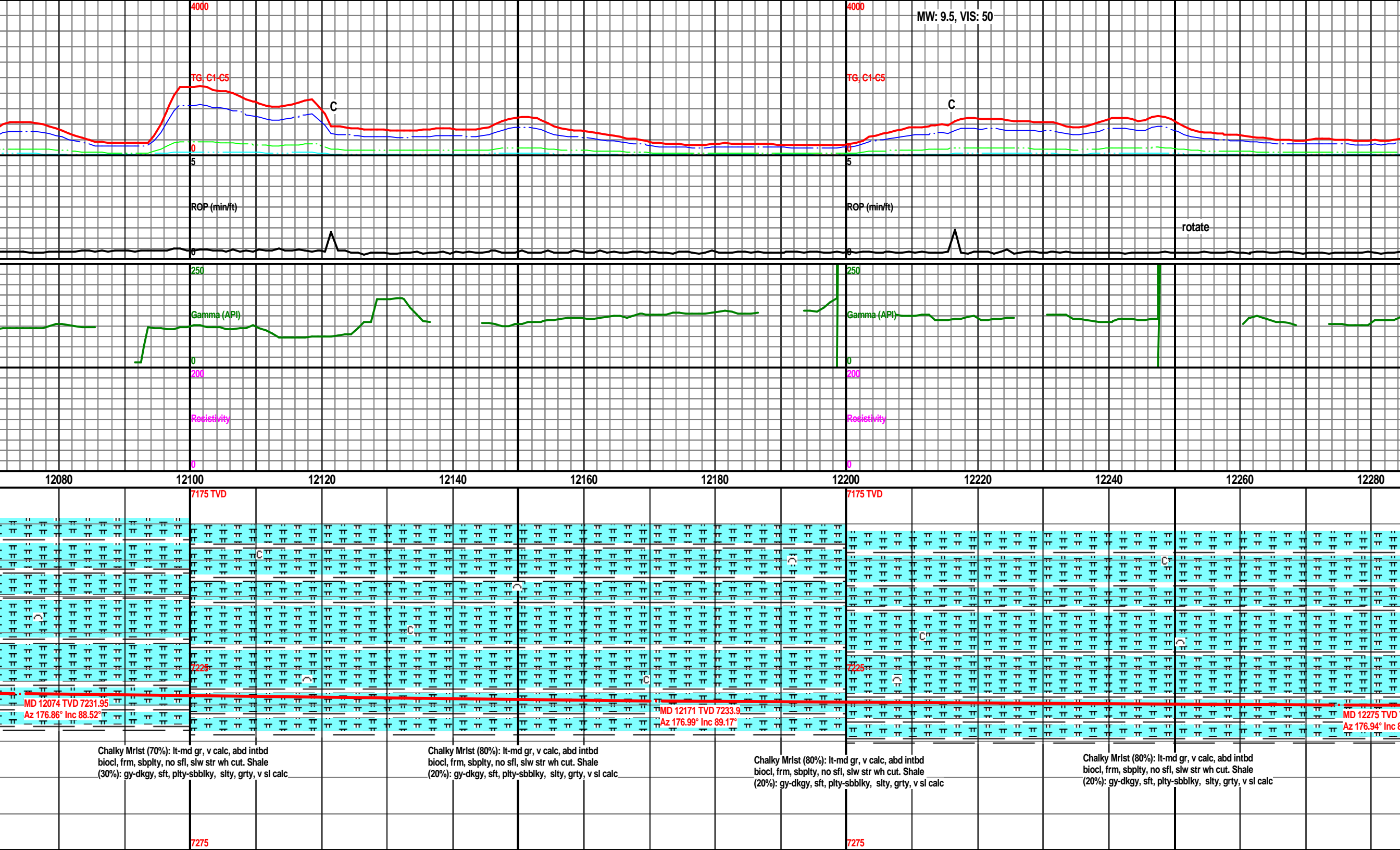
MW: 9.6, VIS: 47

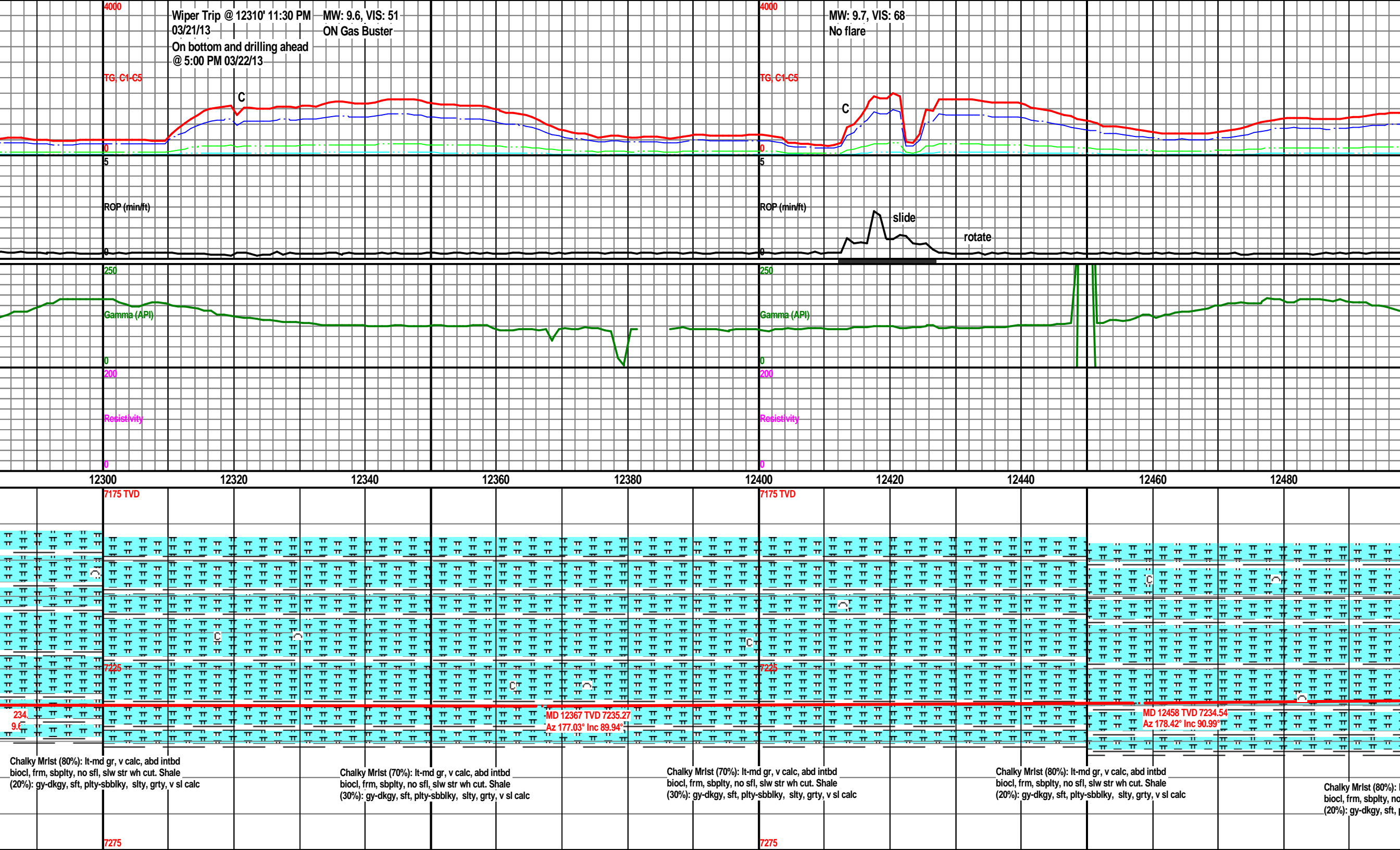


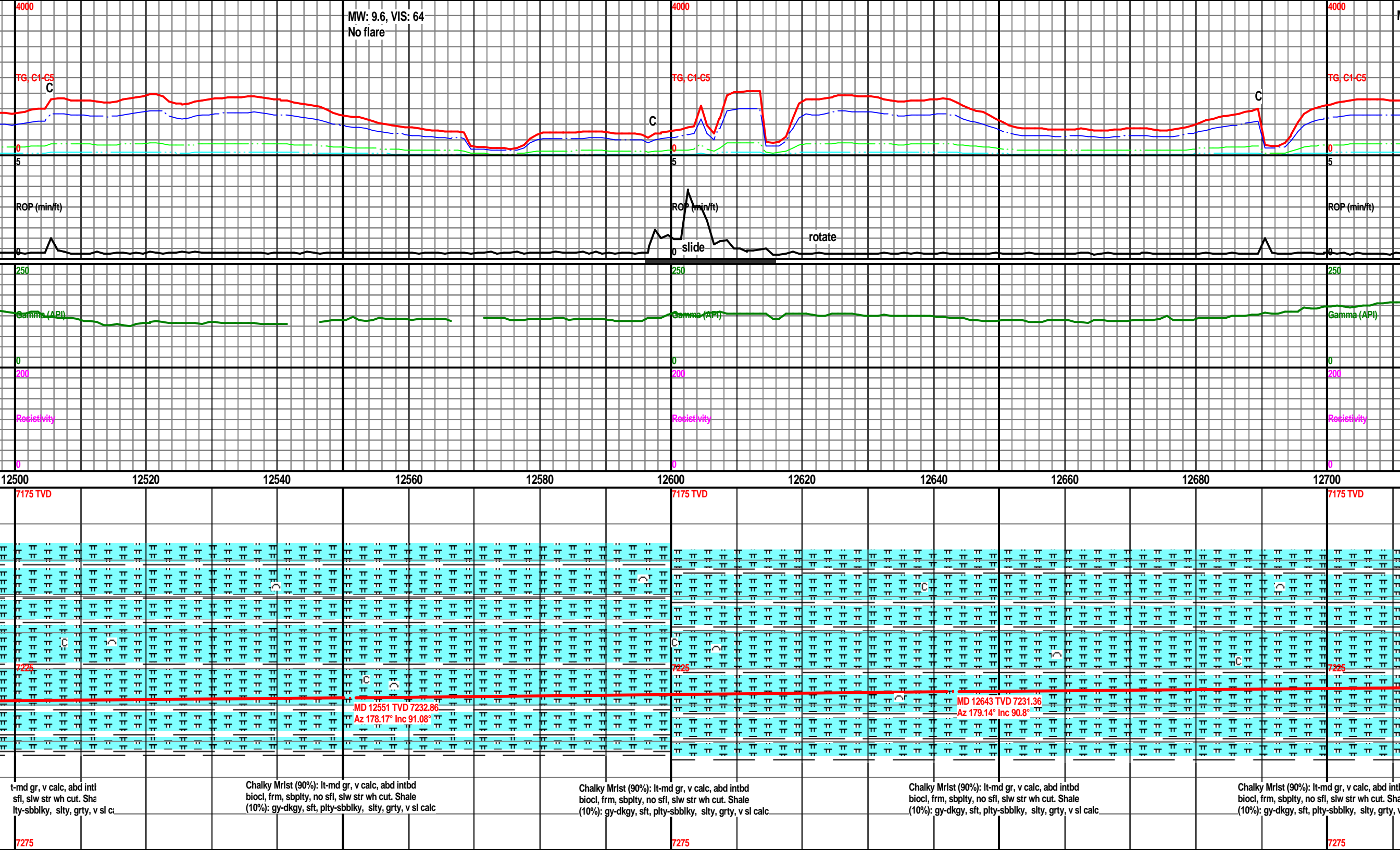


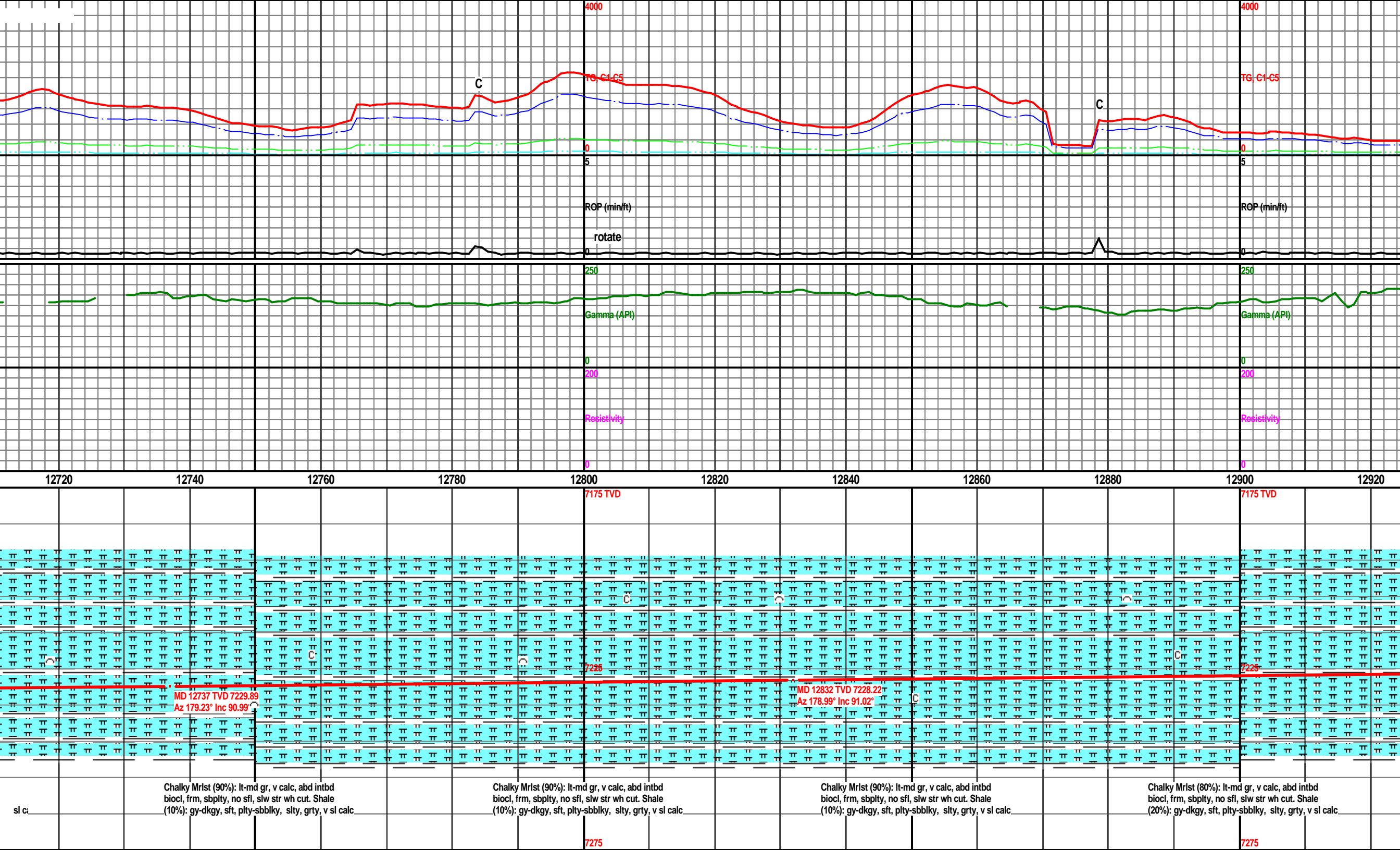












4000

TG, C1-C5

0

5

ROP (min/f)

rotate

0

250

Gamma (API)

0

200

Resistivity

0

3000

7175 TVD

7275

and gr, v calc, slw str wh y-sbbiky, slty

