

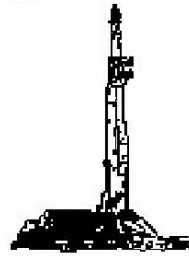
GOOLSBY BROTHERS
and associates, inc.

575 Union Blvd, Suite 208
Lakewood, CO 80228
303-945-2860 Office



Geological Wellsite
Supervision

www.goolsbybrothers.com



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

Well Name: HUDSON 13C-35HZ
Location: Section 26, T2N, R65W, Weld County, CO.
License Number: API: 05-123-35946, AFE# 2069428.DRL Region: Wattenberg
Spud Date: January 31, 2013 Drilling Completed: February. 13, 2013
Surface Coordinates: Sec 26, T2N, R65W 353' FNL & 501' FWL
Lat: 40° 06' 57.17" N Long: 104° 38' 20.10" W
Bottom Hole Coordinates: SW SW Sec 35, T2N, R65W
9860.9' South & 89.54' West of Surface Location
Ground Elevation (ft): 4909' K.B. Elevation (ft): 4925'
Logged Interval (ft): 6650' To: 16845' Total Depth (ft): 16845'
Formation: Pierre shales / sands, Niobrara B ChalkTarget
Type of Drilling Fluid: Polymer-Water to ICP / Oil Based Mud in Lateral
Printed by HORIZONTAL.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Anadarko/Kerr-McGee Oil & Gas Onshore LP
Address: Granite Tower - 1099 18th St, Ste 1800
Denver, CO 80202
CO Geologist, Tom Birmingham

GEOLOGIST

Name: Robert Nordeck, W. H. McCroskey III
Company: Goolsby Brothers & Assoc. (GBA), Inc. (www.goolsbybrothers.com)
Address: 575 Union Blvd.
Suite 208,
Lakewood CO. 80228

E-logs

MWD GR: 6560' - 7522' & 7575' - 16772'
MWD Resistivity: 7575' - 16779'


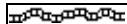
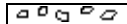

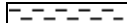

Casing






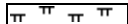
9 5/8" Surface Casing set @ 1333'
7" Intermediate Casing set @ 7543'
4 1/2" Production Liner to be set to 16845' TD







Comments





- 1) Drilling Contractor: Xtreme Drilling, Rig # 22
Rig Manager: Mike Headley / Tyler Humphrey
- 2) Company Man: Dave Cornett / Randy Anderson /
Danny Warner / Will Pettijohn
- 3) Well Site Geologists: Goolsby Brothers & Assoc. :
Robert Nordeck / W. H McCroskey III
- 4) Mud Company : Newpark Drilling Fluids,
Mud Engineer: Nick Jevne
- 5) Directional Drilling: Sperry / Halliburton
Drillers: Randy Bernatow,
MWD: Matthew Busche, Caleb Jones, Clay Wass
- 6) Gas Equipment: Mudlogging Systems Inc.
by Terra Services
Redbox # ML-173 & # ML-058 w/ Ratcliff Agitator

ROCK TYPES

 Anhy
 Bent
 Brec
 Cht
 Clyst
 Coal

 Oil sat.
 Congl
 Dol
 Gyp
 Lmst
 Mrlst

 Salt
 Shale
 Shcol
 Shgy
 Ss
 Slstst

 Ss
 Chalk
 Carb sh
 Slty sh

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

	Chlkstg
	Anhy
	Arg
	Bent
	Coal

	Dol
	Gyp
	Ls
	Mrst
	Sltstrg
	Ssstrg

TEXTURE

	Boundst
	Chalky
	Cryxln
	Earthy
	Finexln
	Grainst
	Lithogr
	Microxln
	Mudst
	Packst
	Wackest

OTHER SYMBOLS

OIL SHOWS

	Even
	Spotted
	Ques
	Dead
	Vspotty
	near even

POROSITY TYPE

	Earthy
	Fenest
	Fracture
	Inter
	Moldic
	Organic

	Pinpoint
	Vuggy

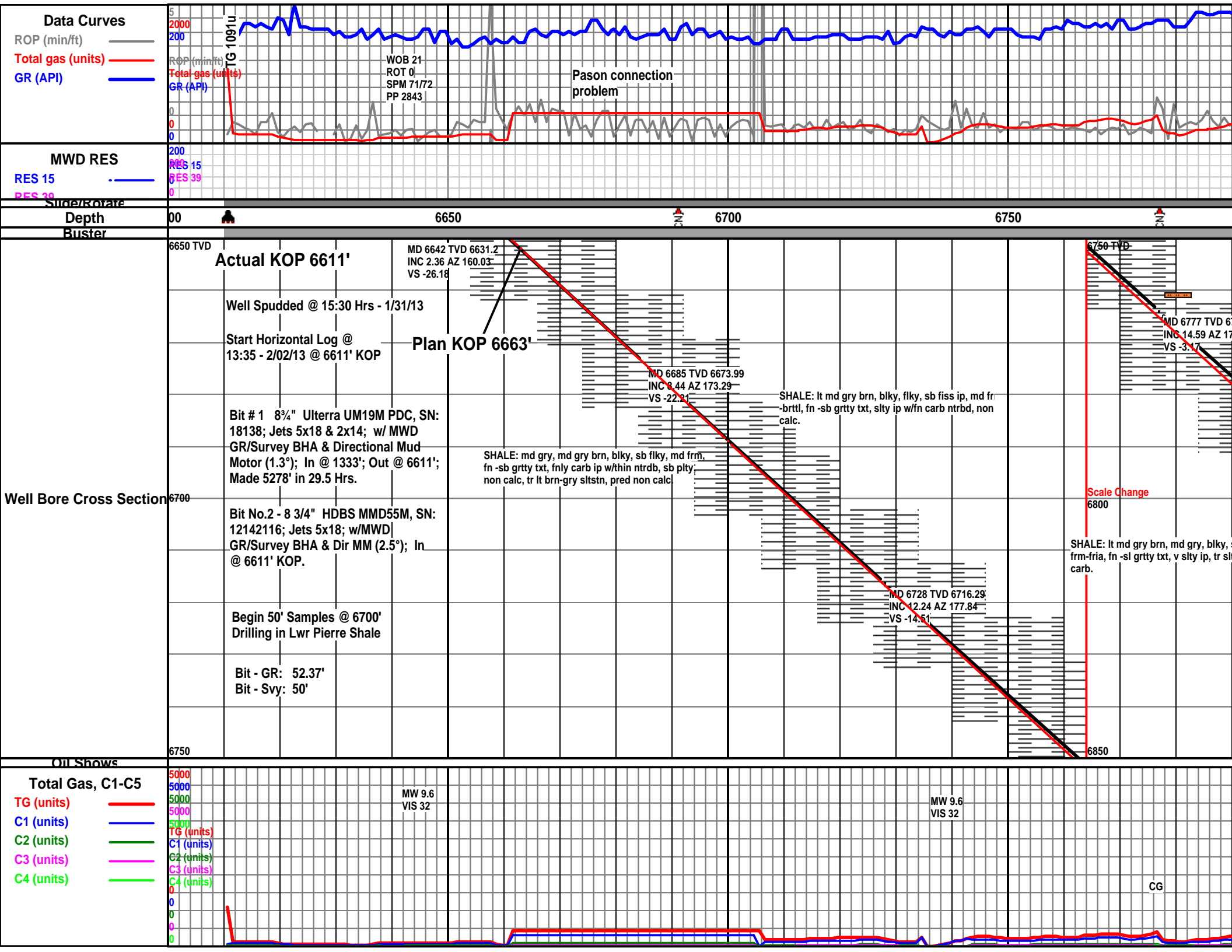
ROUNDING

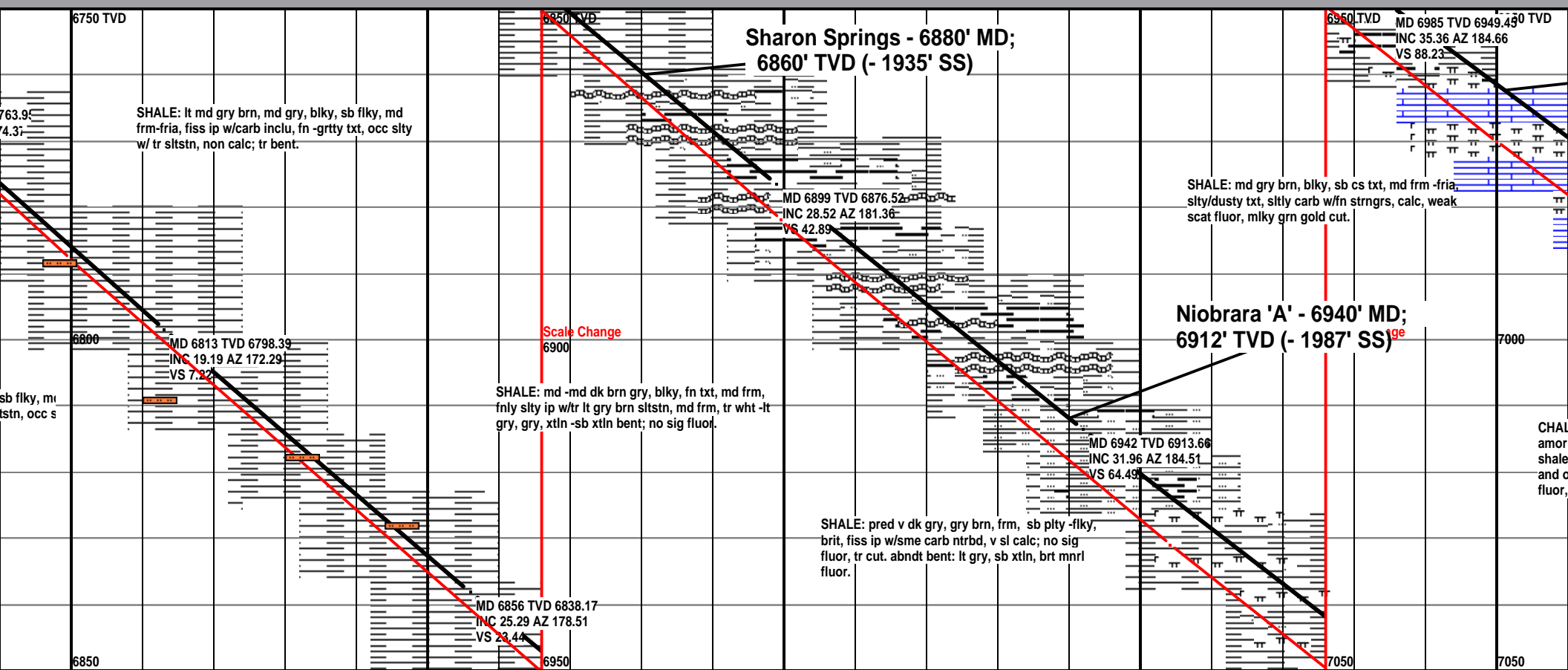
	Rounded
	Subrnd
	Subang

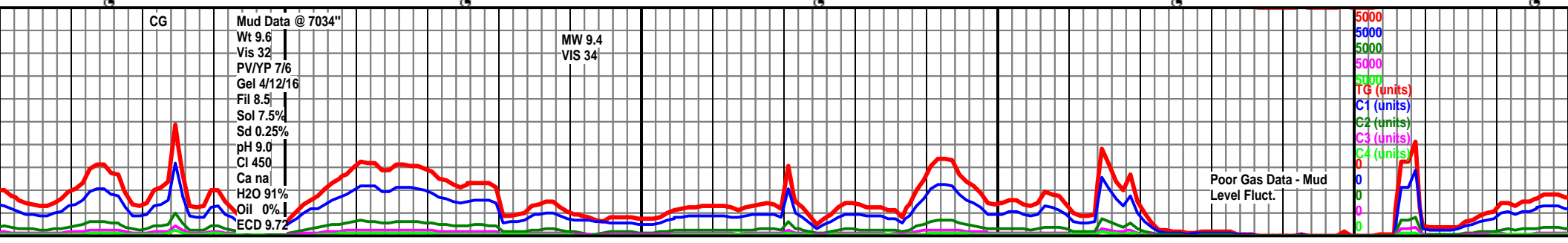
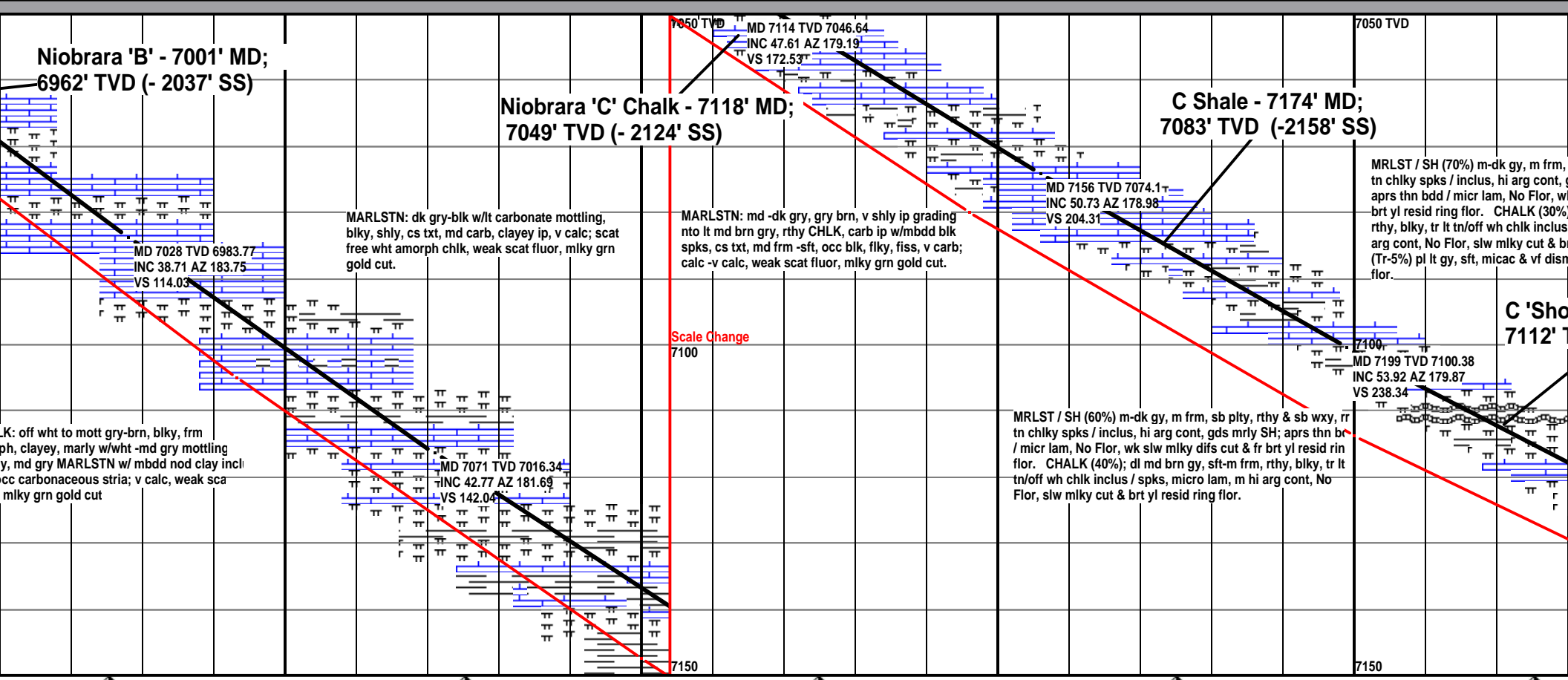
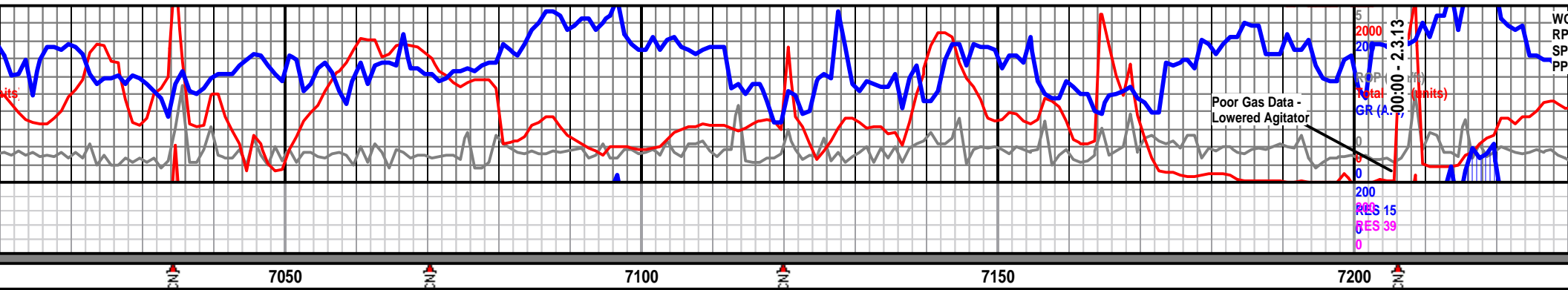
	Angular
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SORTING

	Well
	Moderate
	Poor







Niobrara 'B' - 7001' MD;
6962' TVD (- 2037' SS)

Niobrara 'C' Chalk - 7118' MD;
7049' TVD (- 2124' SS)

C Shale - 7174' MD;
7083' TVD (-2158' SS)

C 'Sho
7112' MD

off wht to mott gry-brn, blk, frm
ph, clayey, marly w/wht-md gry mottling
y, md gry MARLSTN w/ mbdd nod clay incl
occ carbonaceous stria; v calc, weak sca
mlky grn gold cut

MARLSTN: dk gry-blk w/lt carbonate mottling,
blk, shly, cs txt, md carb, clayey ip, v calc; scat
free wht amorph chl, weak scat fluor, mlky grn
gold cut.

MARLSTN: md-dk gry, gry brn, v shly ip grading
nto lt md brn gry, rthy CHLK, carb ip w/mbdd blk
spks, cs txt, md frm -sft, occ blk, flky, fiss, v carb;
calc -v calc, weak scat fluor, mlky grn gold cut.

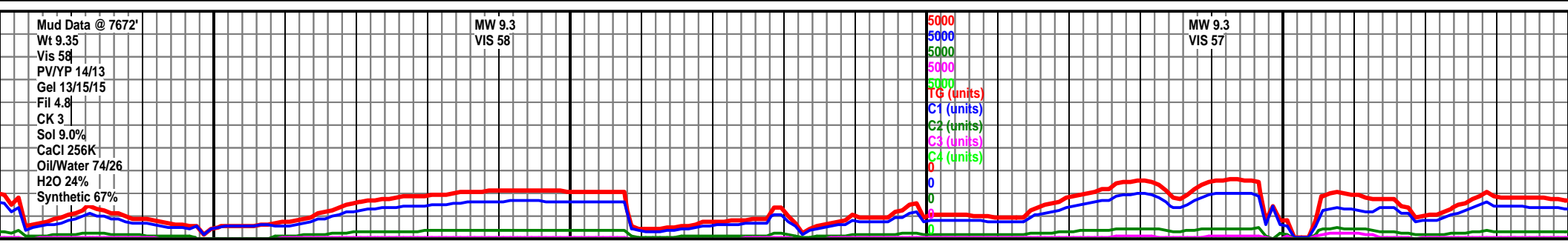
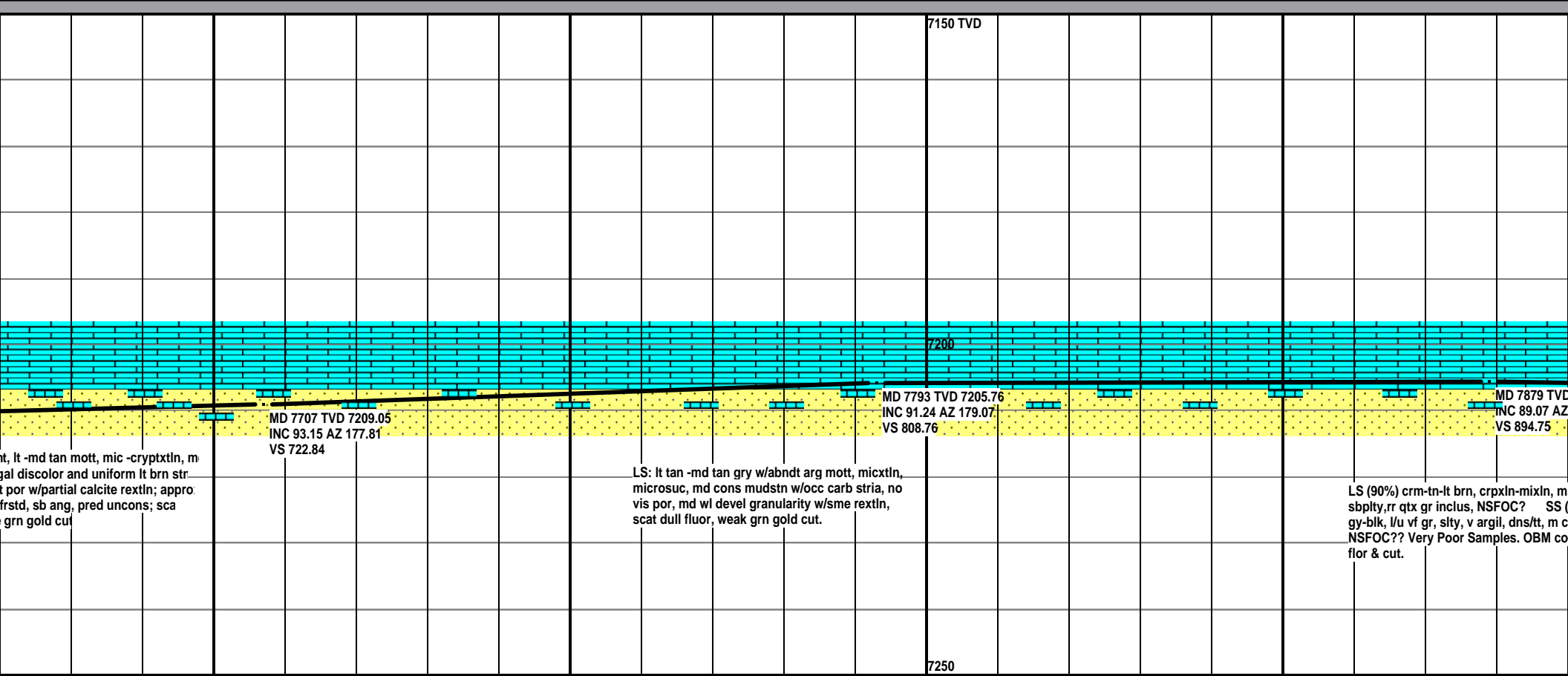
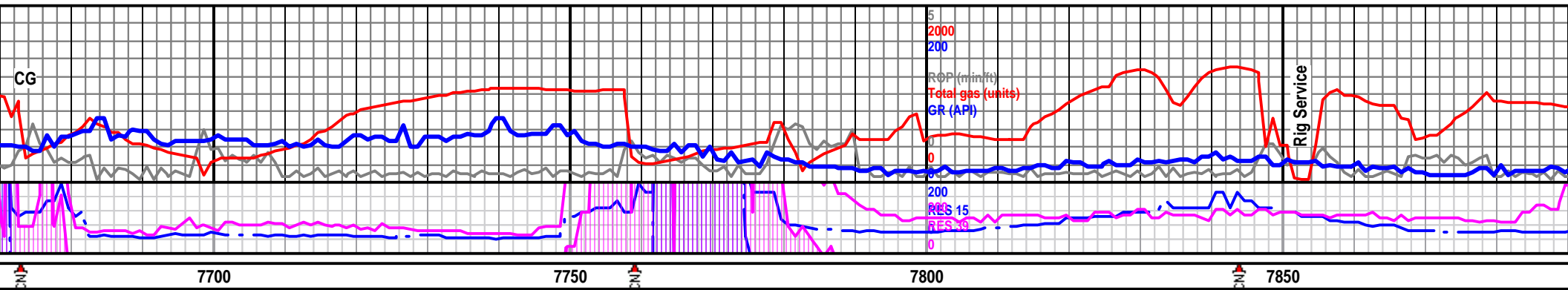
MRLST / SH (60%) m-dk gy, m frm, sb plty, rthy & sb wxy, rr
tn chiky spks / inclus, hi arg cont, gds mrlly SH; aprs thn br
/ micr lam, No Flor, wk slw mlky difs cut & fr brt yl resid rin
flor. CHALK (40%); dl md brn gy, sft-m frm, rthy, blk, tr lt
tn/off wh chl, inclus / spks, micro lam, m hi arg cont, No
Flor, slw mlky cut & brt yl resid ring flor.

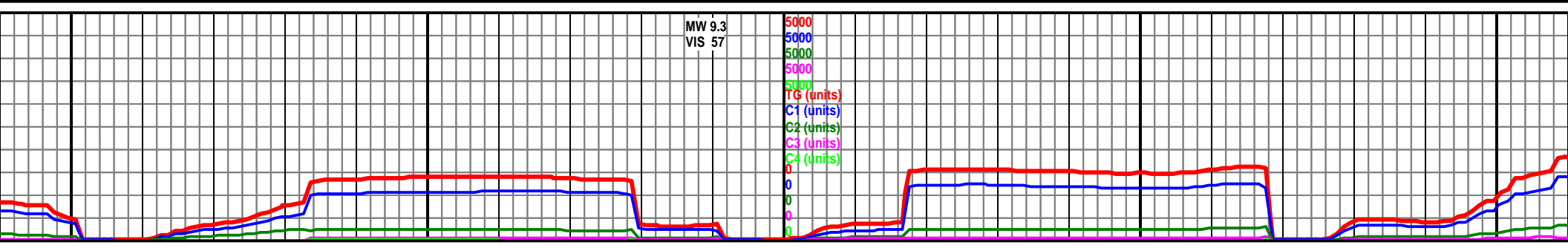
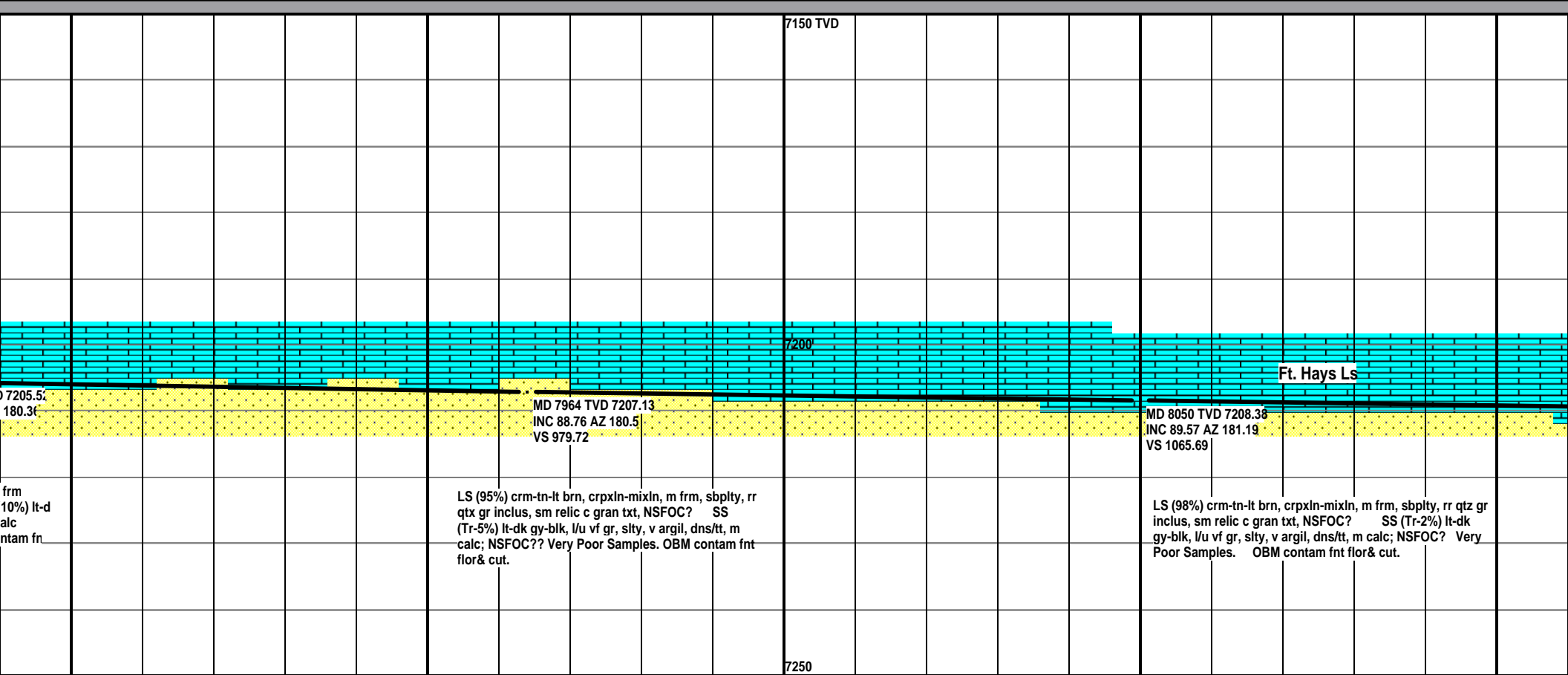
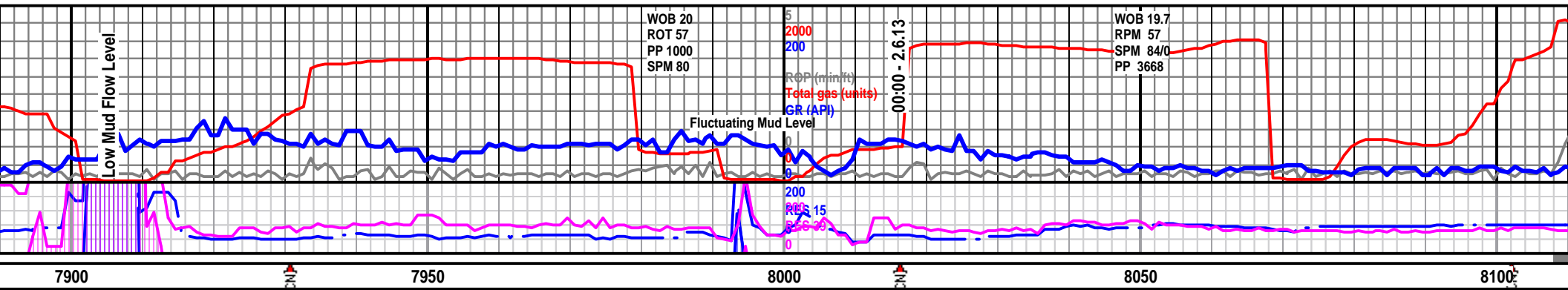
MRLST / SH (70%) m-dk gy, m frm,
tn chiky spks / inclus, hi arg cont,
aprs thn bdd / micr lam, No Flor, w
brt yl resid ring flor. CHALK (30%)
rthy, blk, tr lt tn/off wh chl, inclus
arg cont, No Flor, slw mlky cut & b
(Tr-5%) pl lt gy, sft, micac & vf disn
flor.

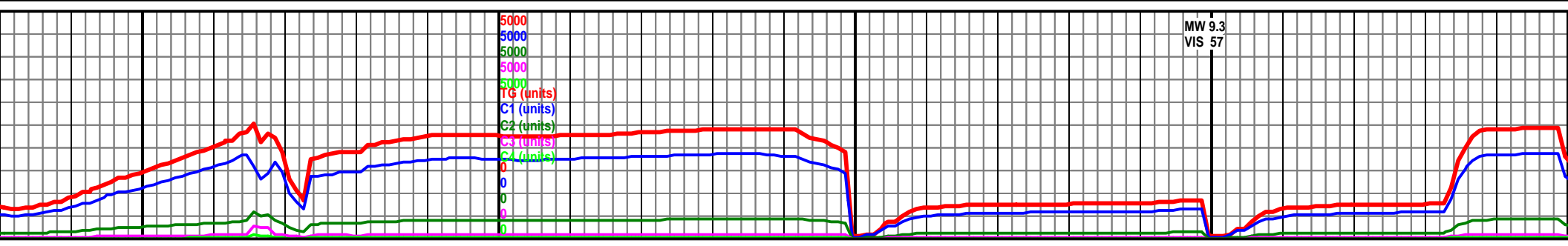
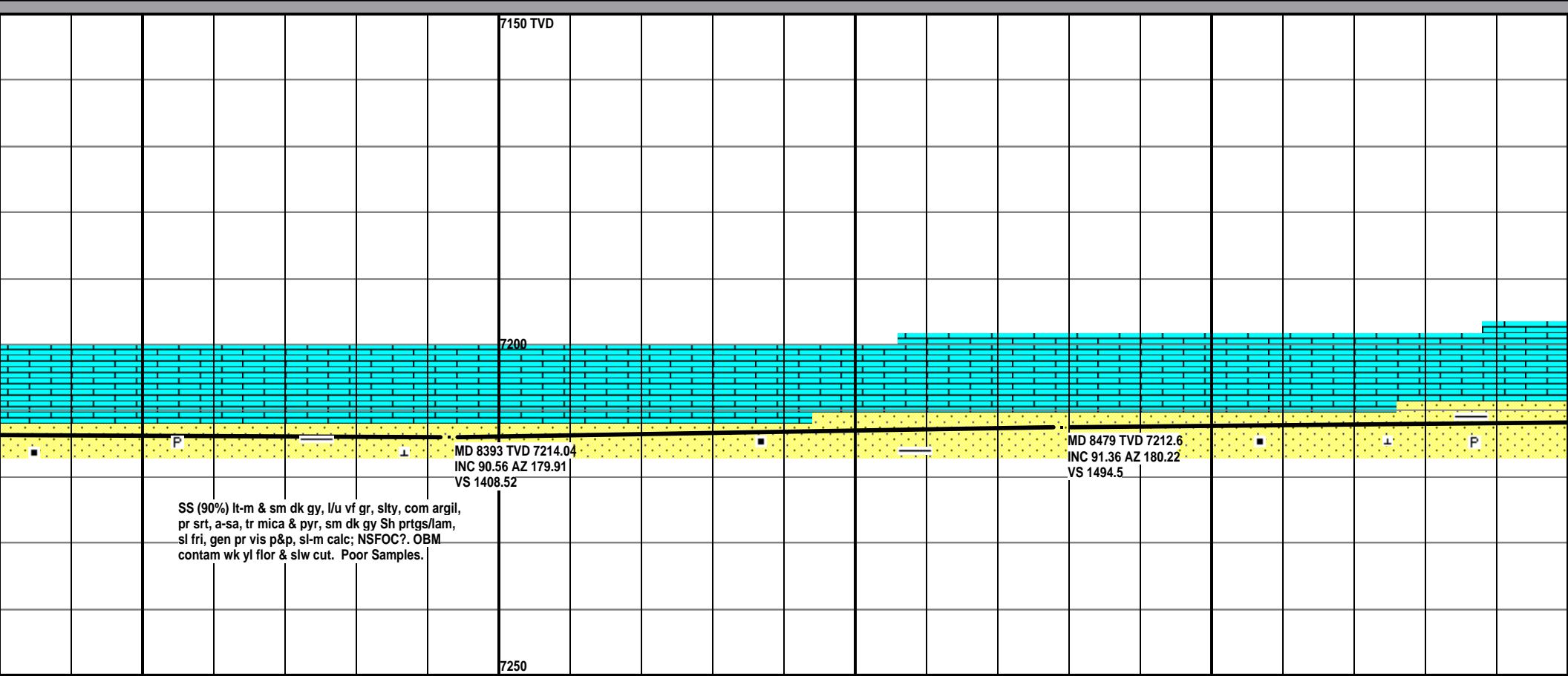
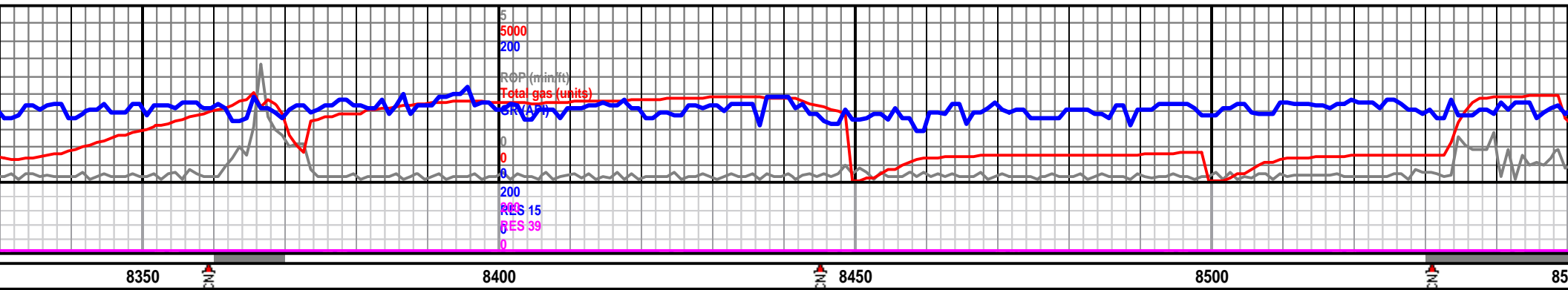
Mud Data @ 7034"
Wt 9.6
Vis 32
PV/NP 7/6
Gel 4/12/16
Fil 8.5
Sol 7.5%
Sd 0.25%
pH 9.0
Cl 450
Ca na
H2O 91%
Oil 0%
ECD 9.72

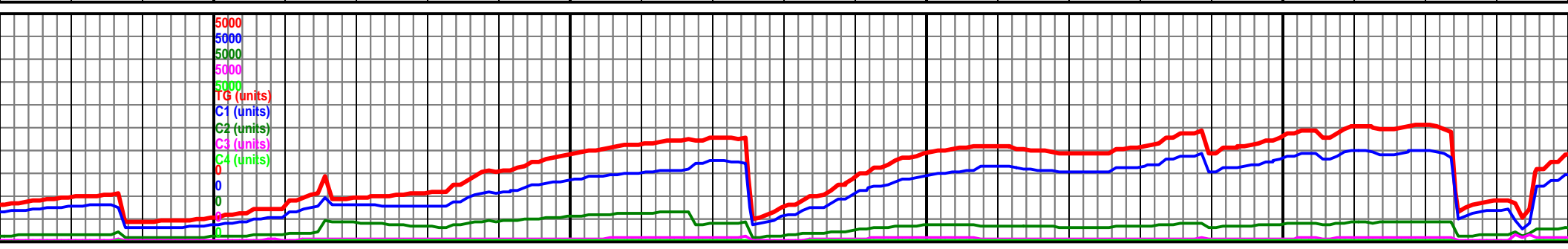
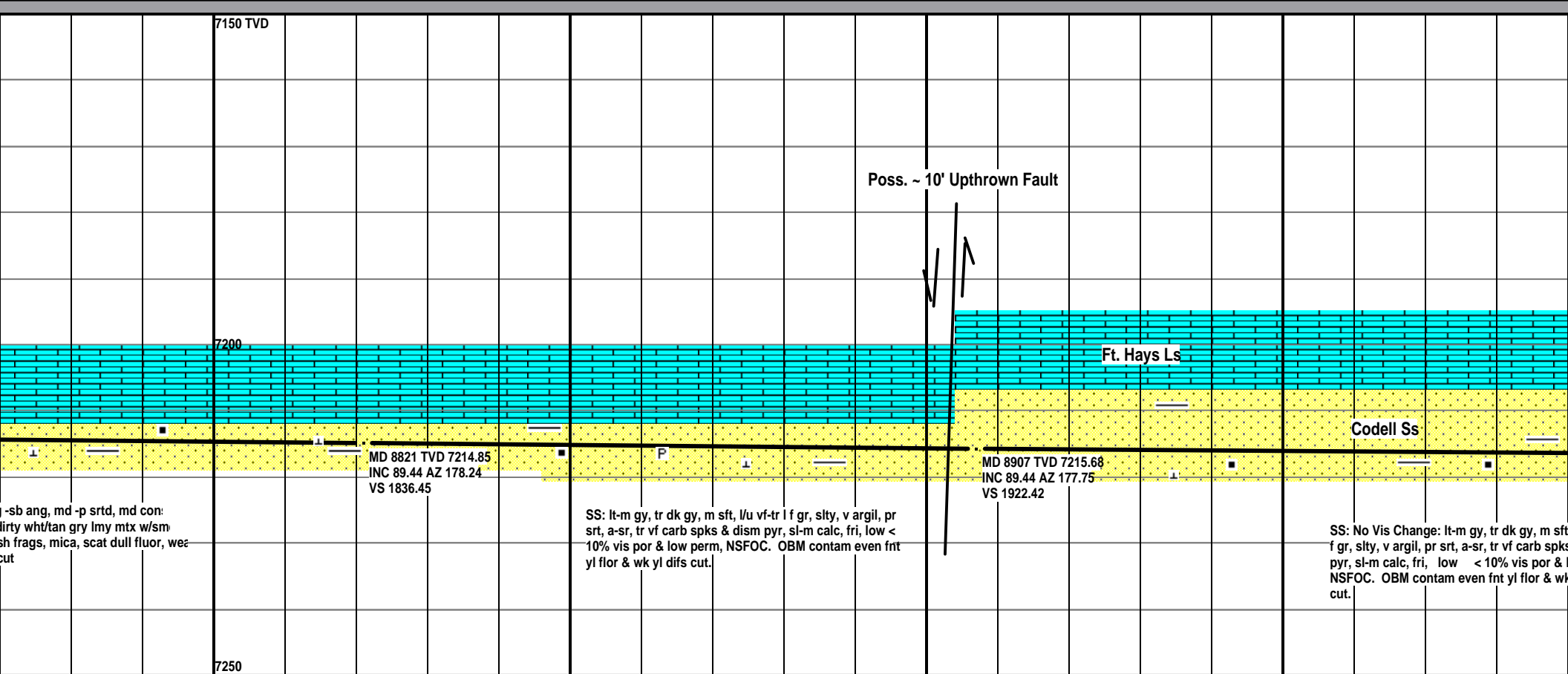
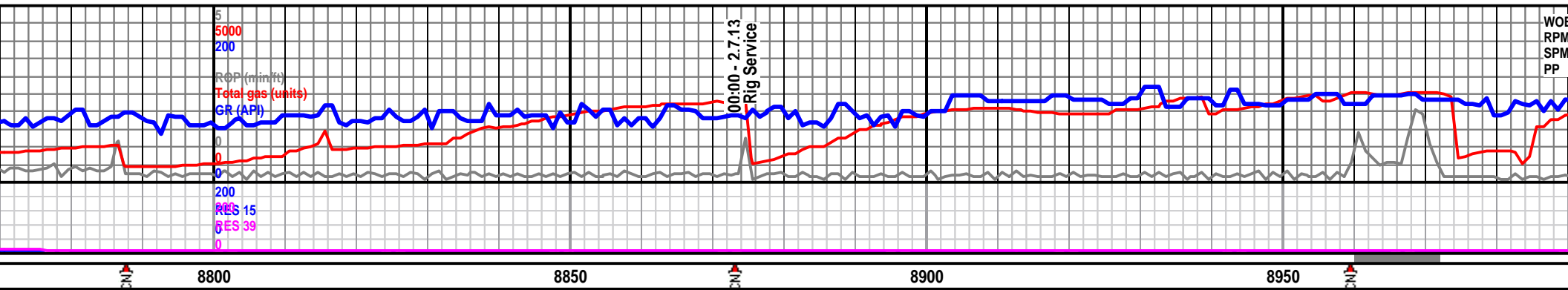
MW 9.4
VIS 34

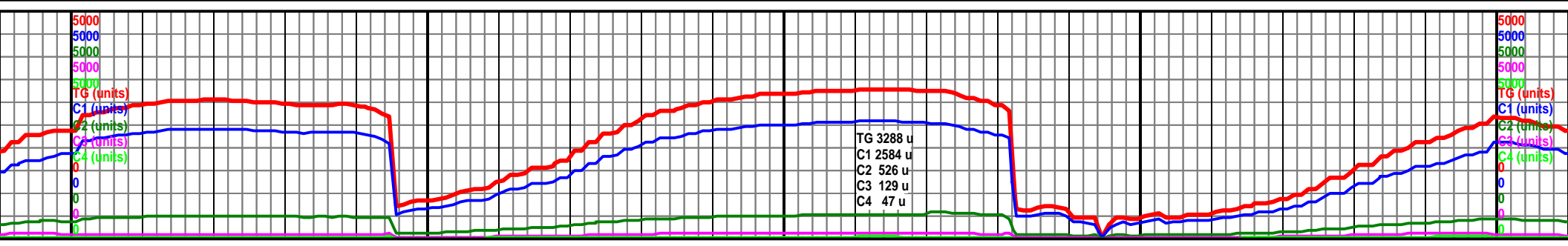
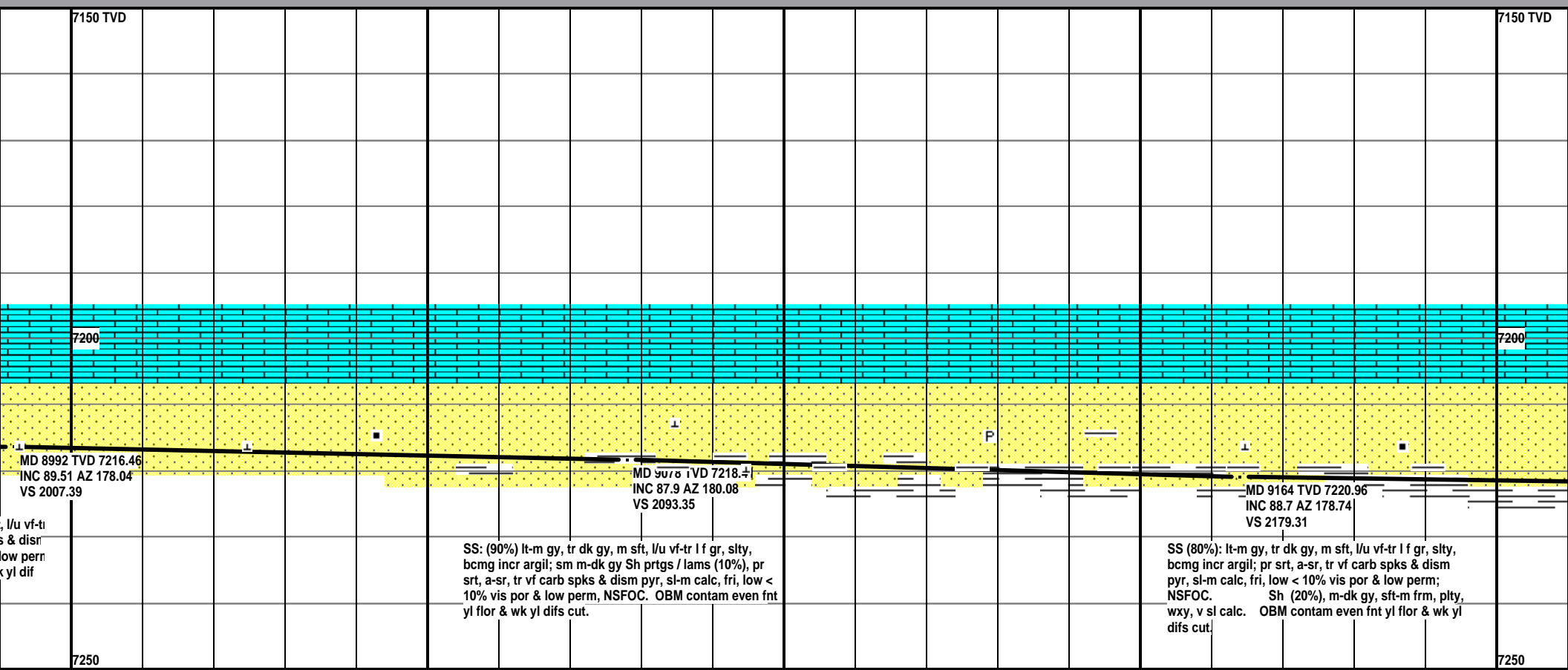
Poor Gas Data - Mud
Level Fluct.

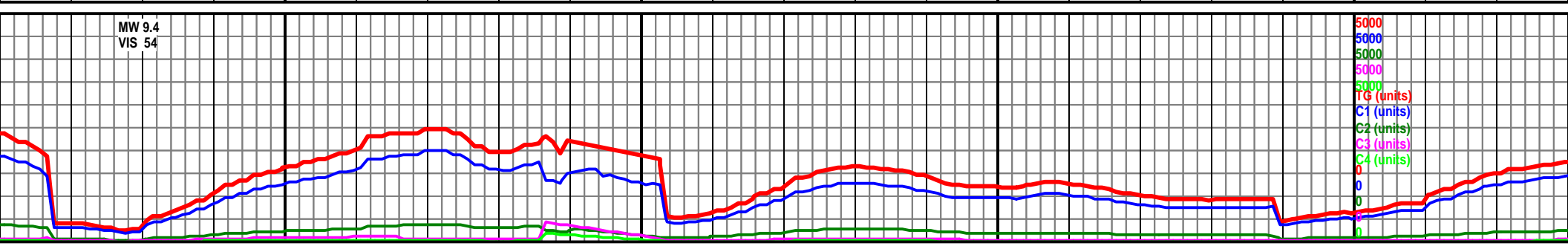
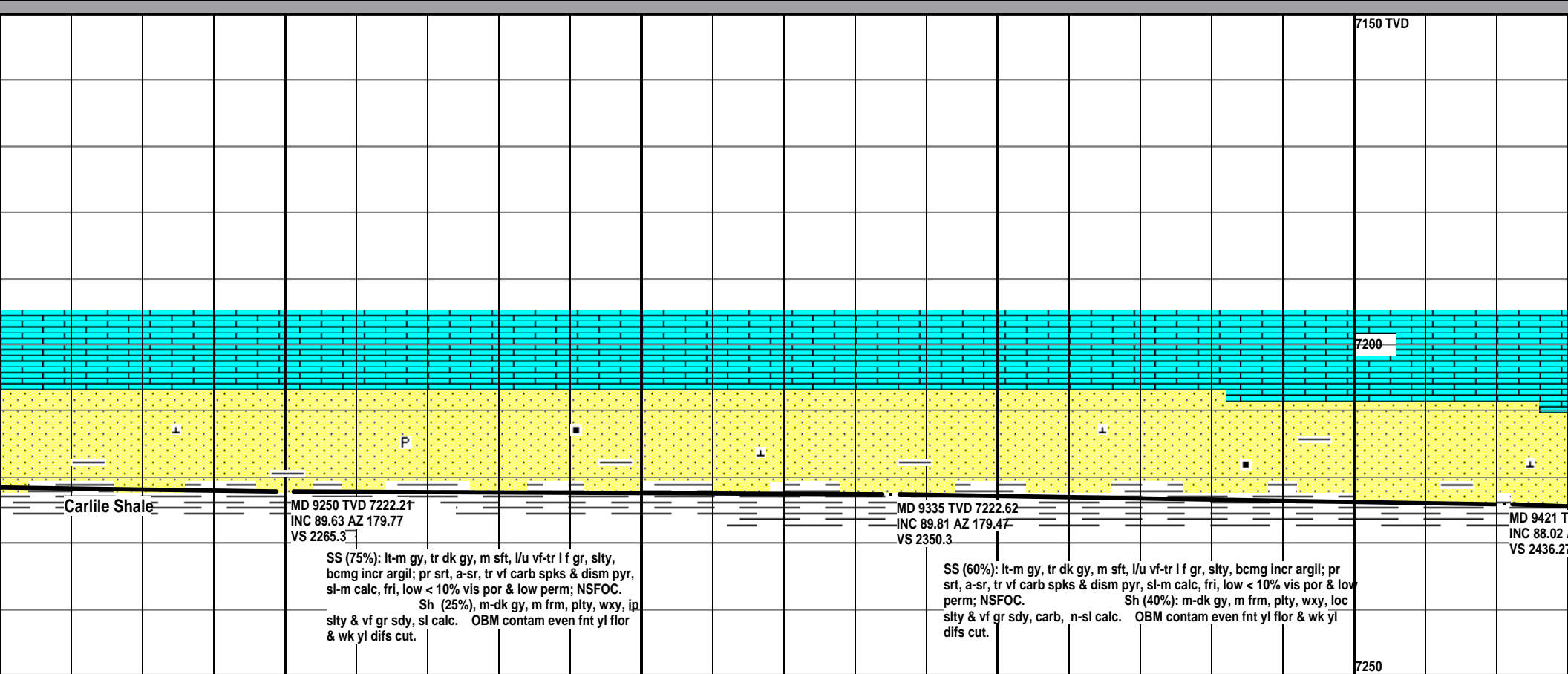
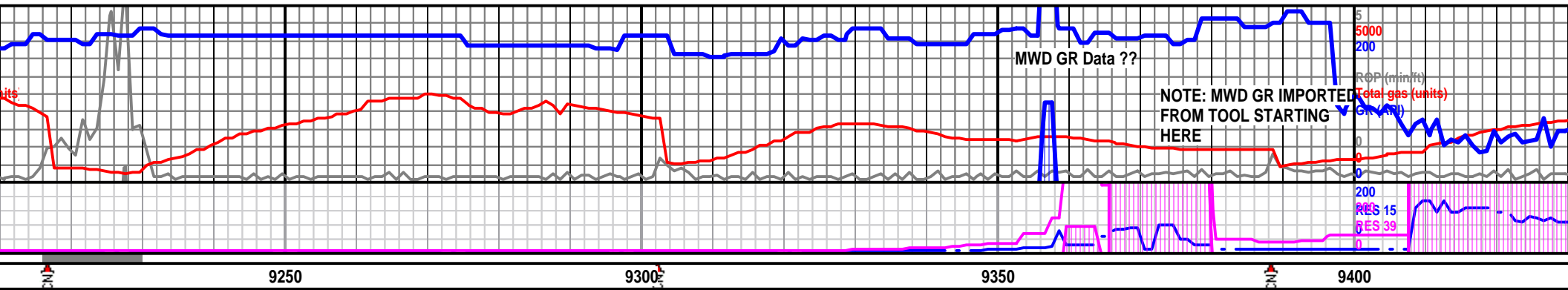


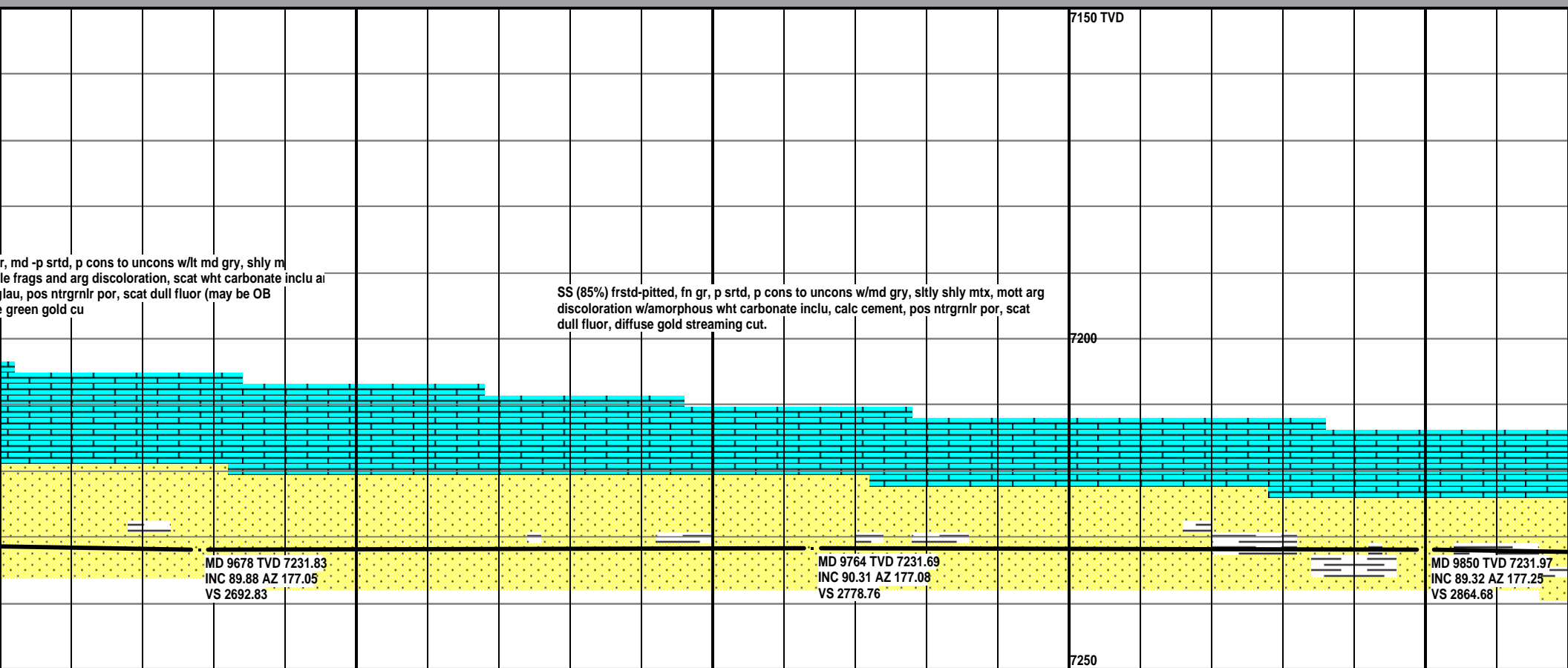


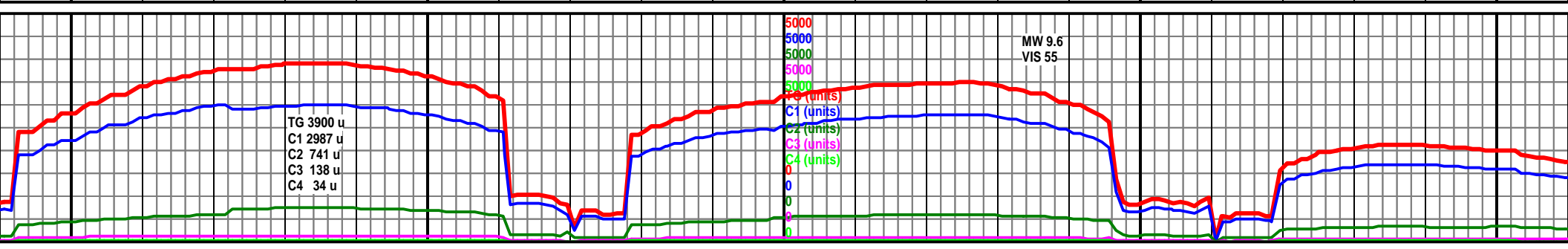
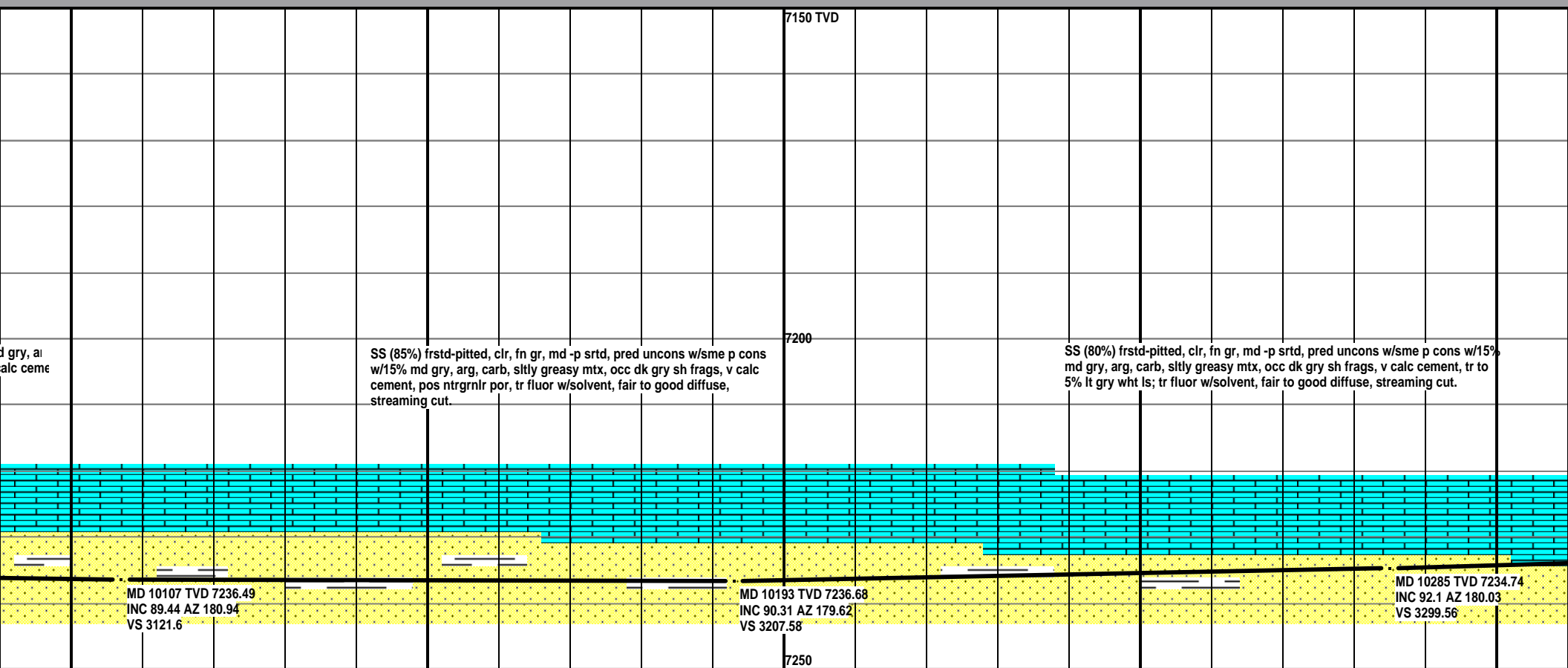


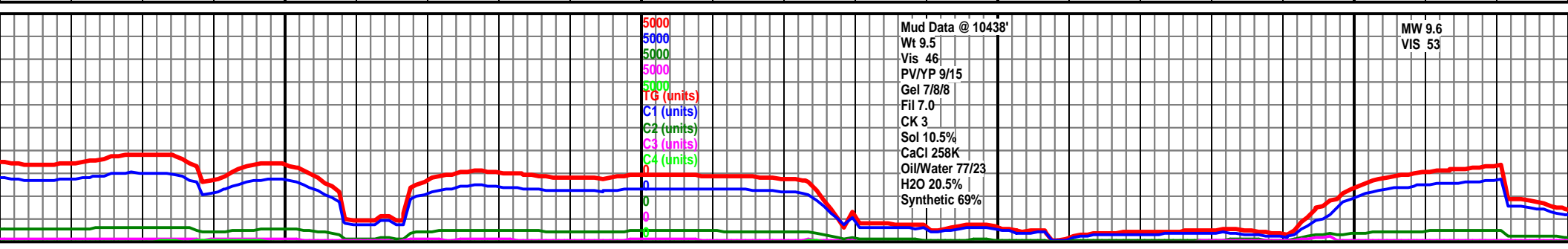
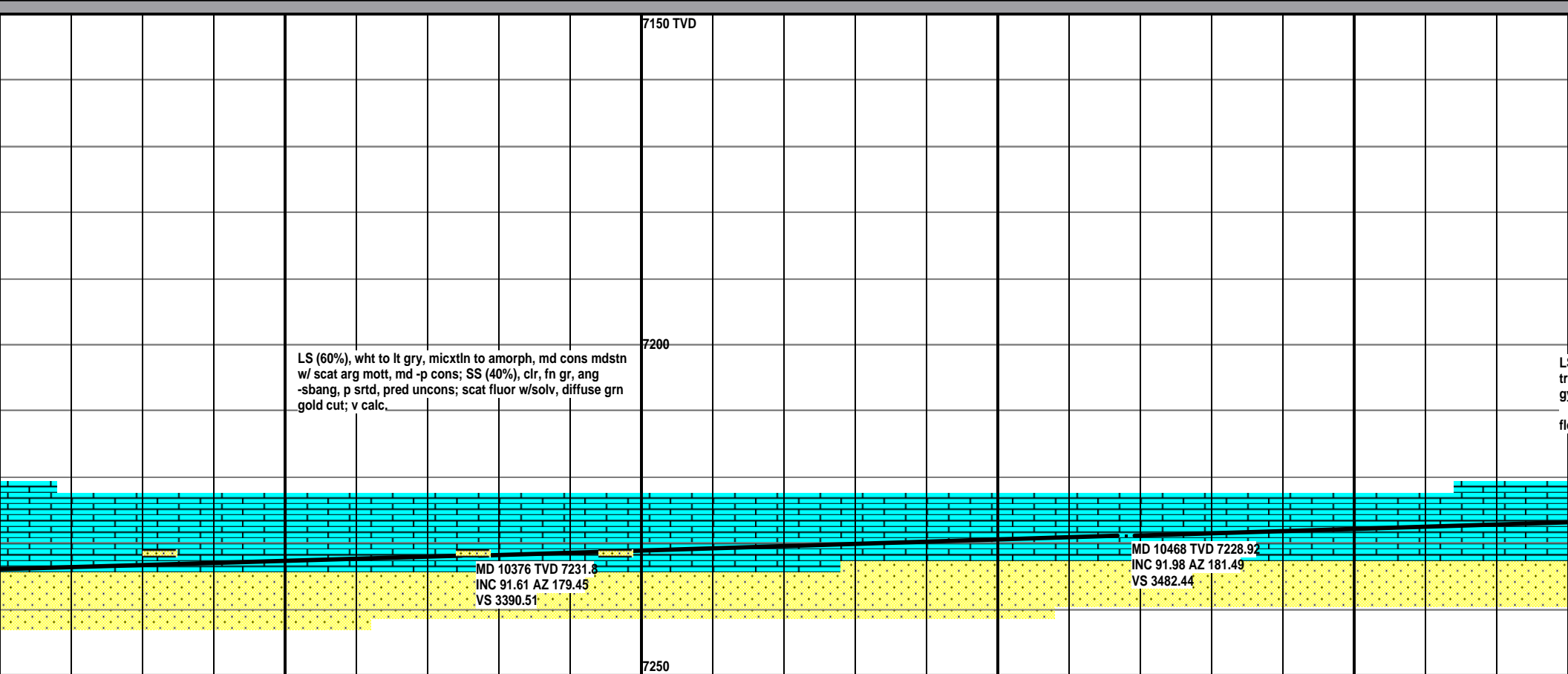
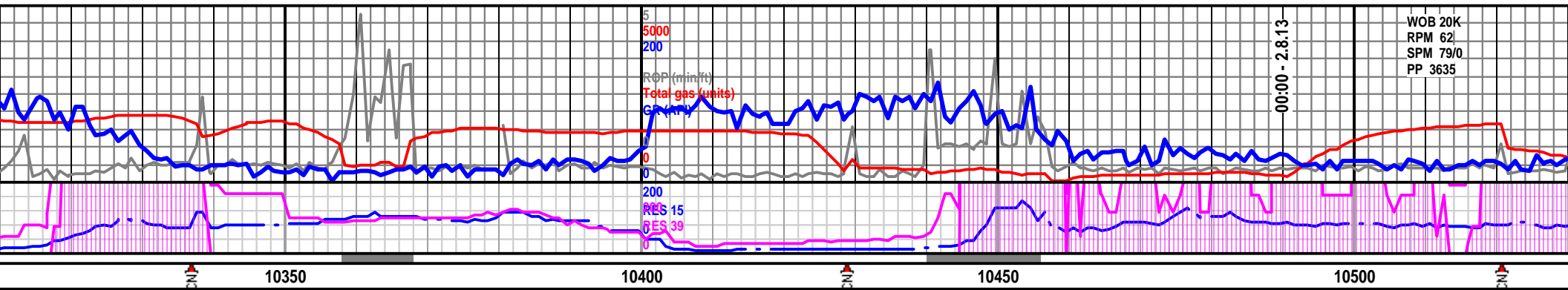


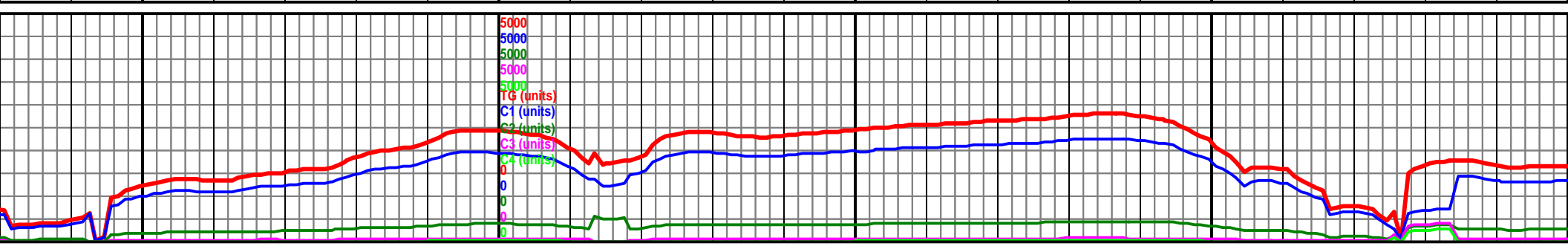
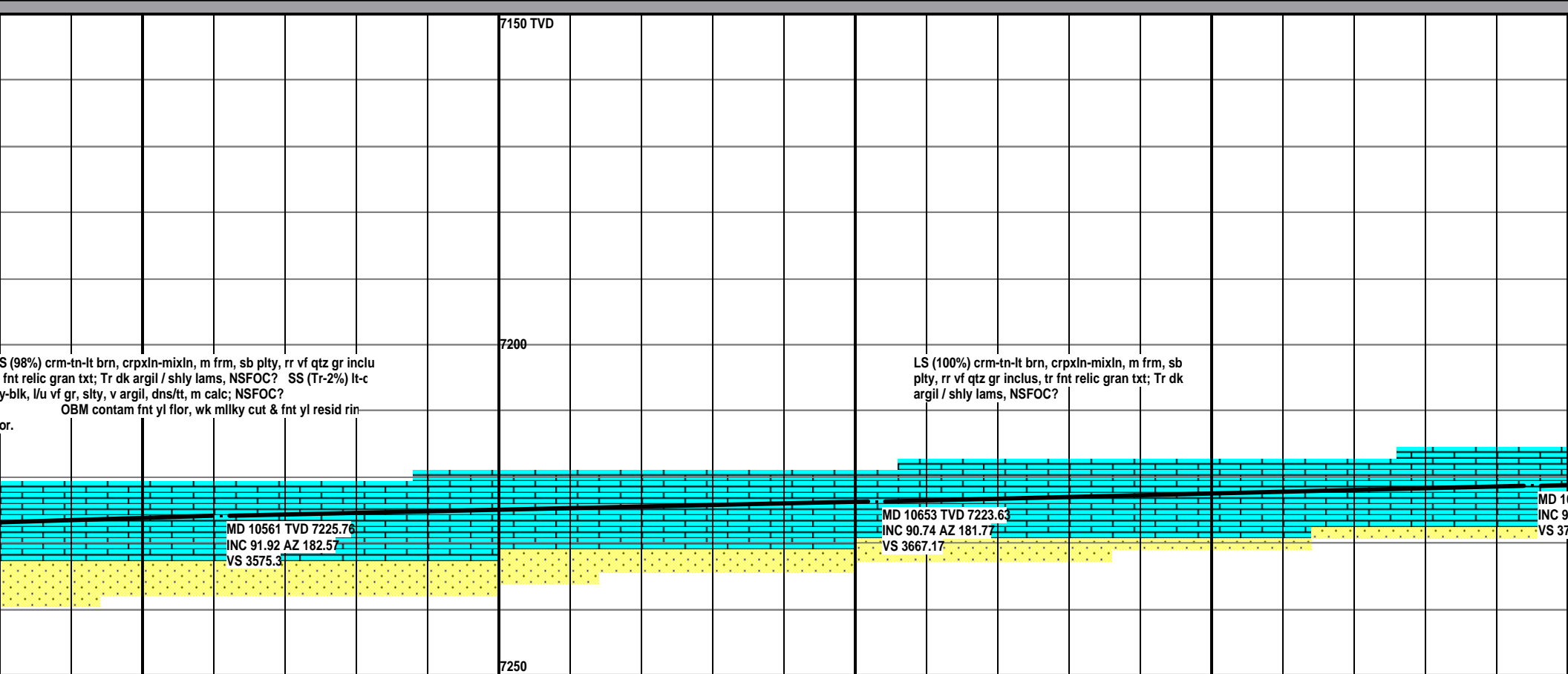
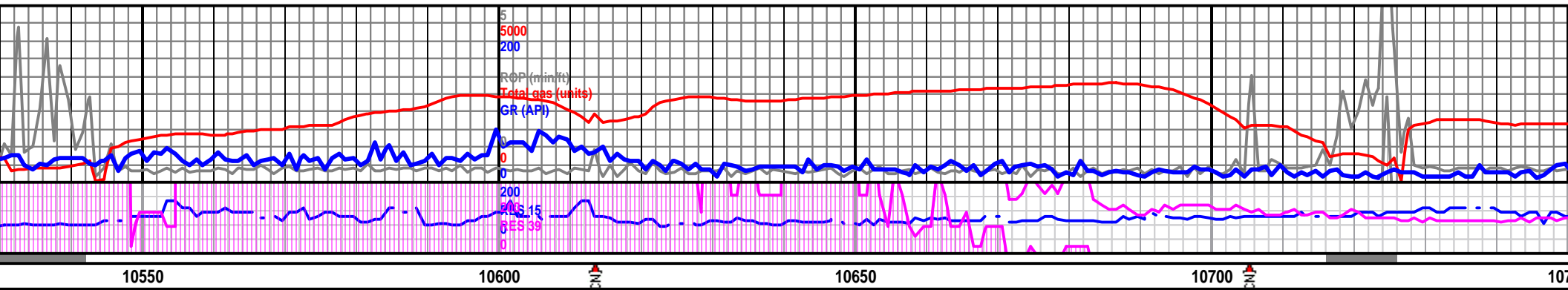


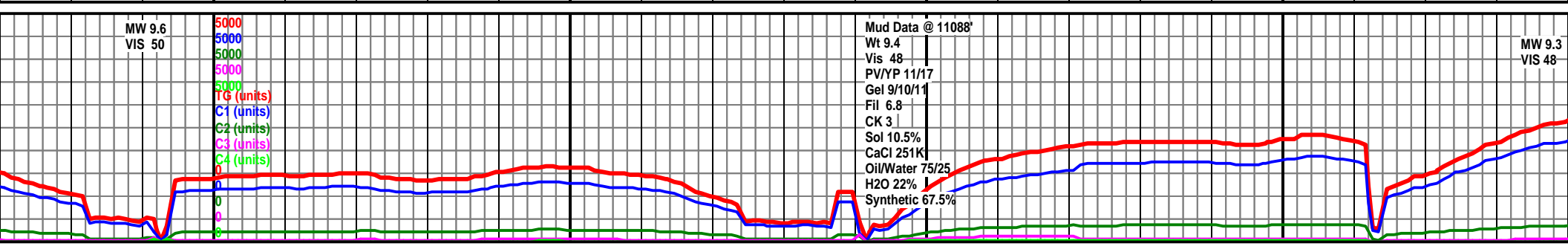
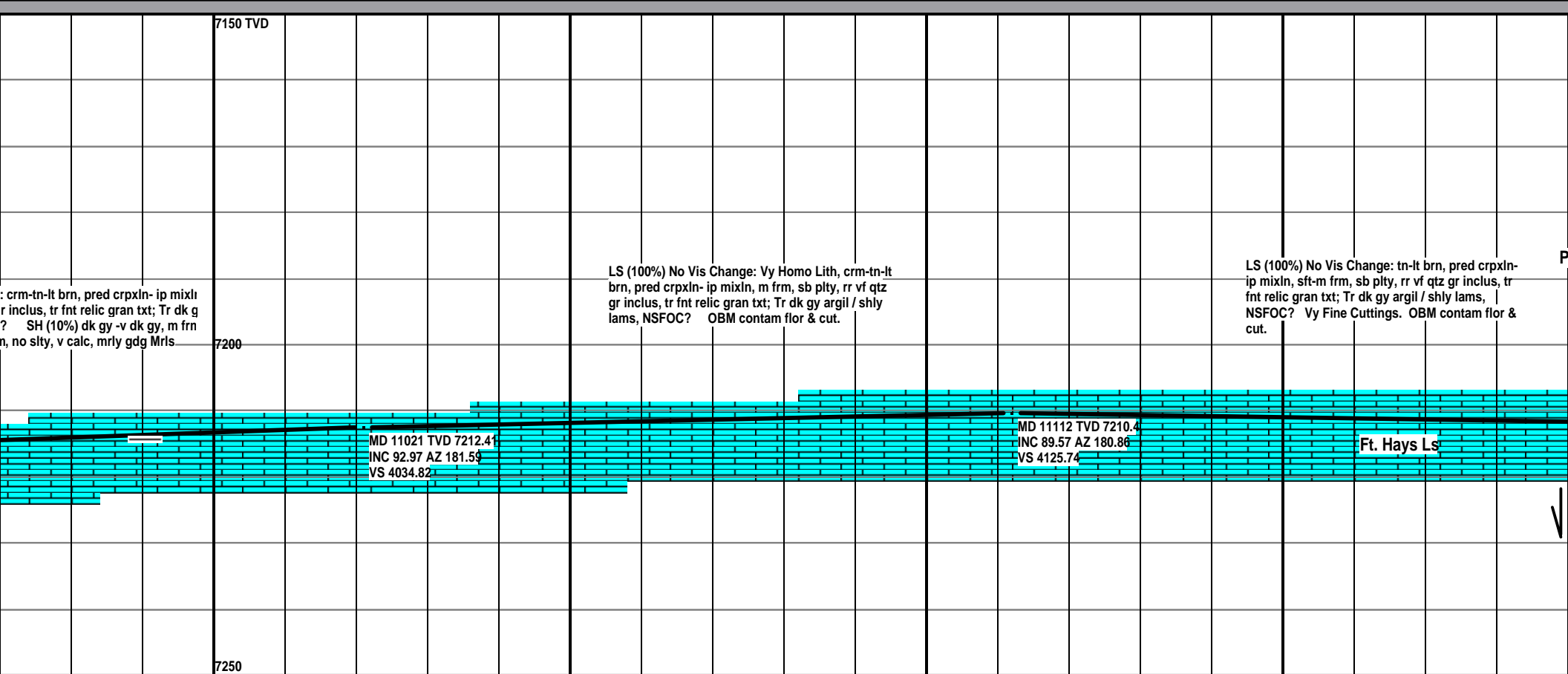
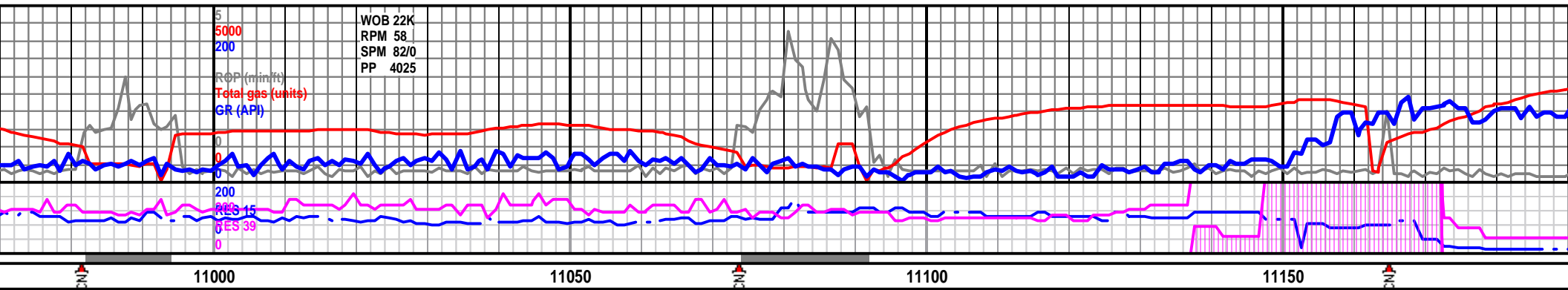


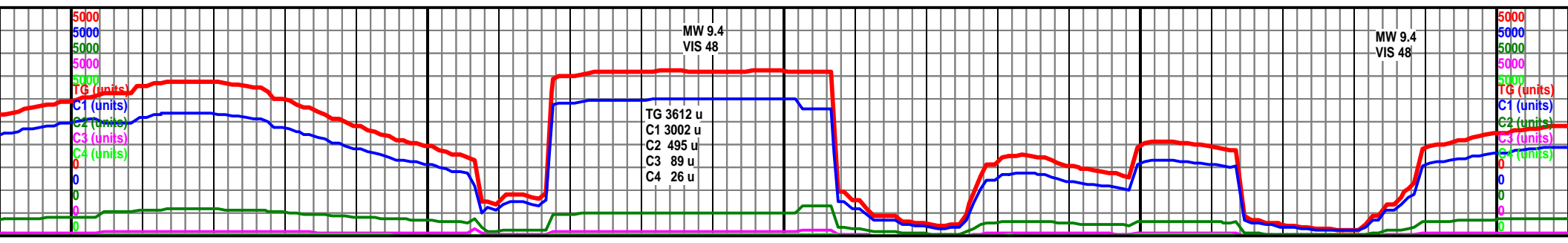
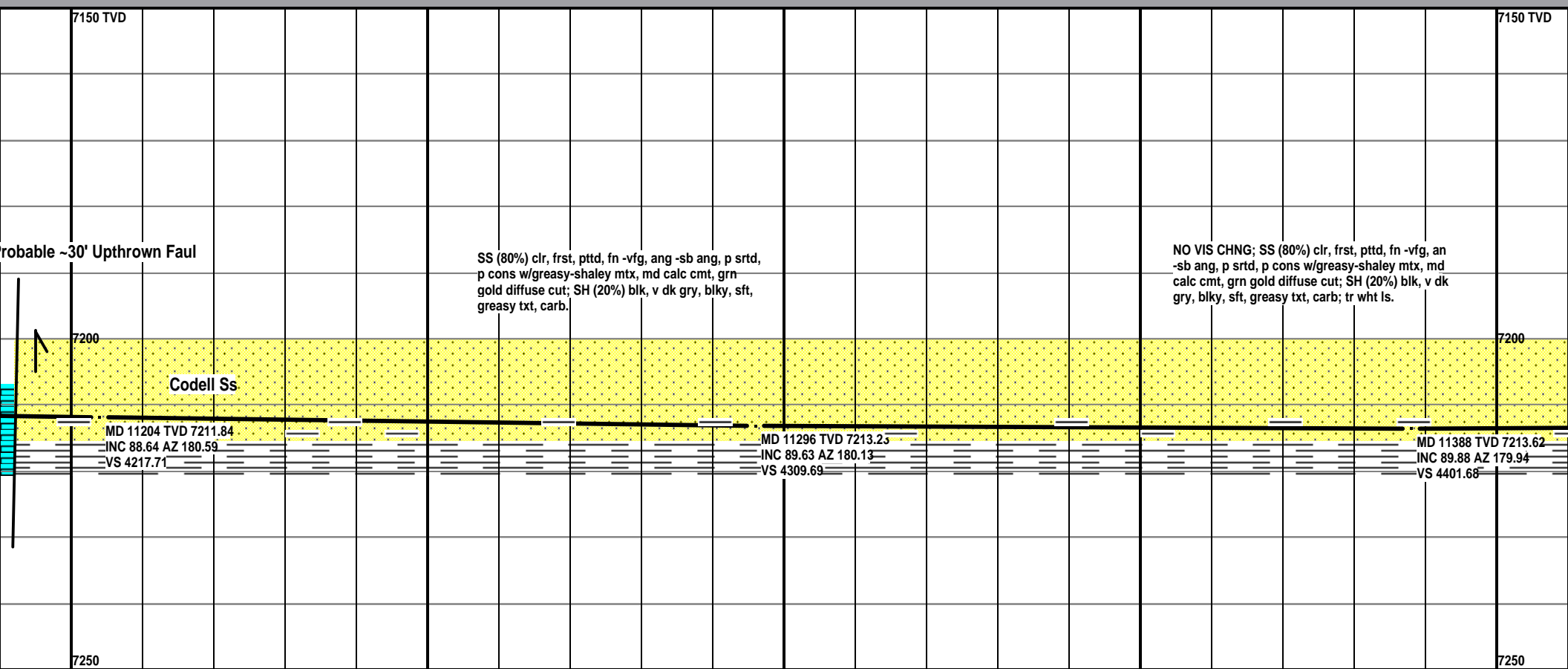
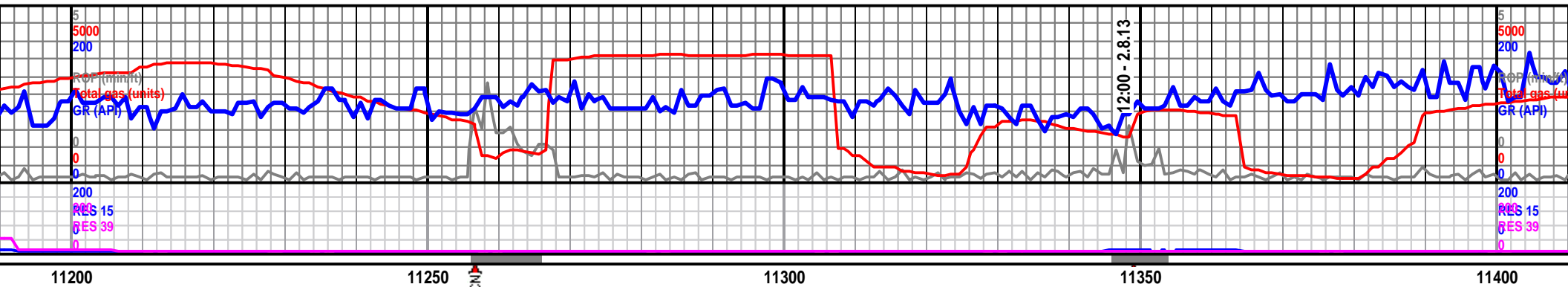


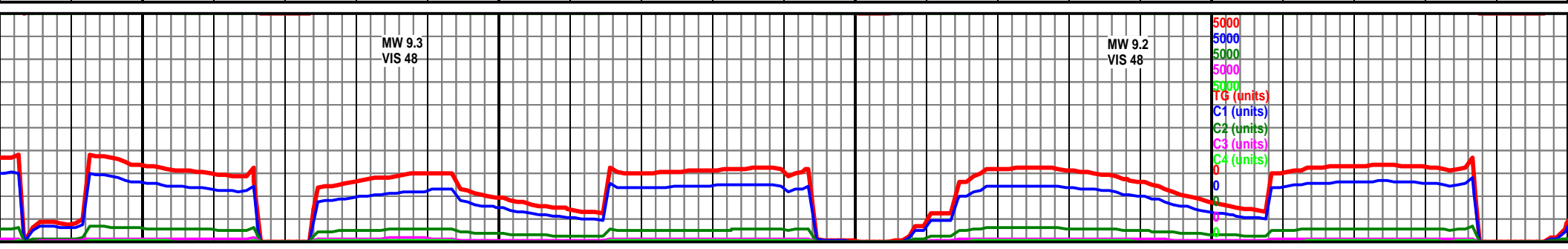
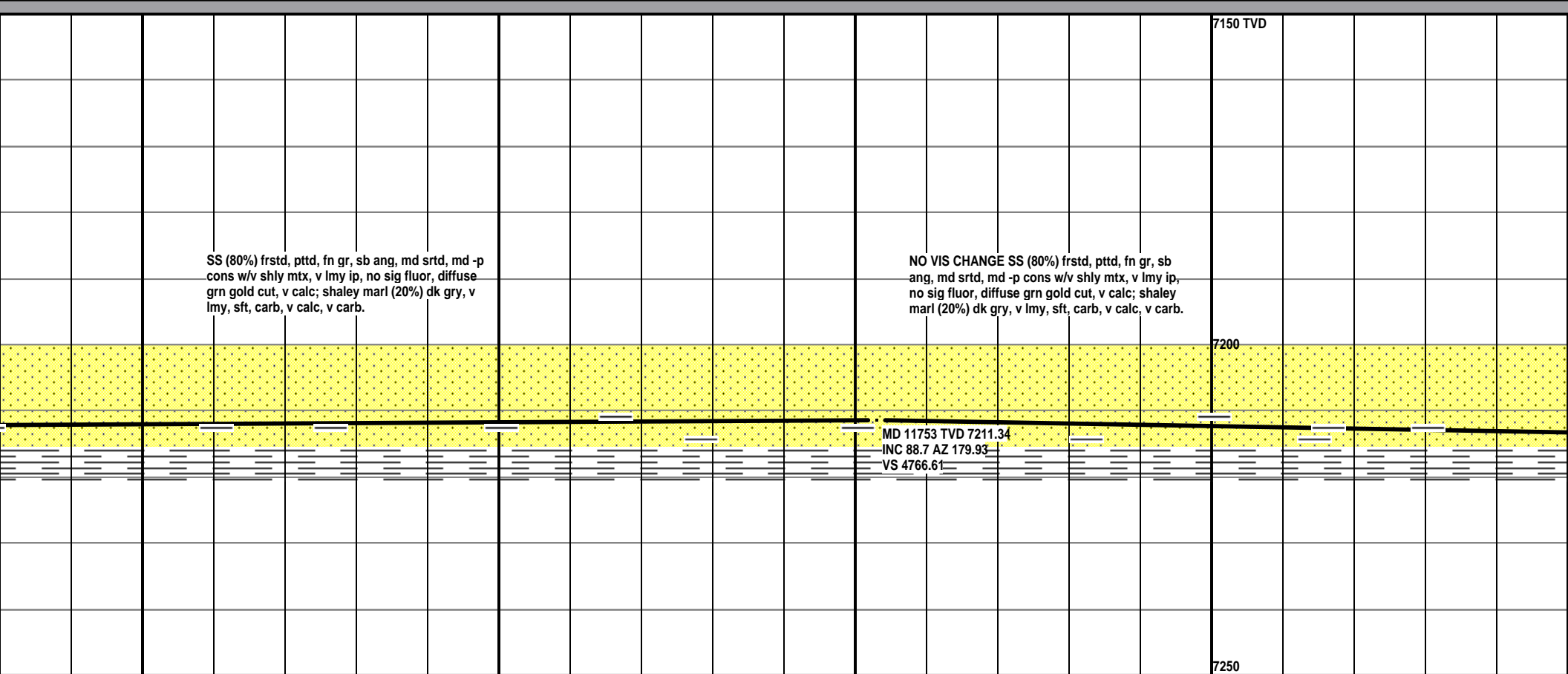
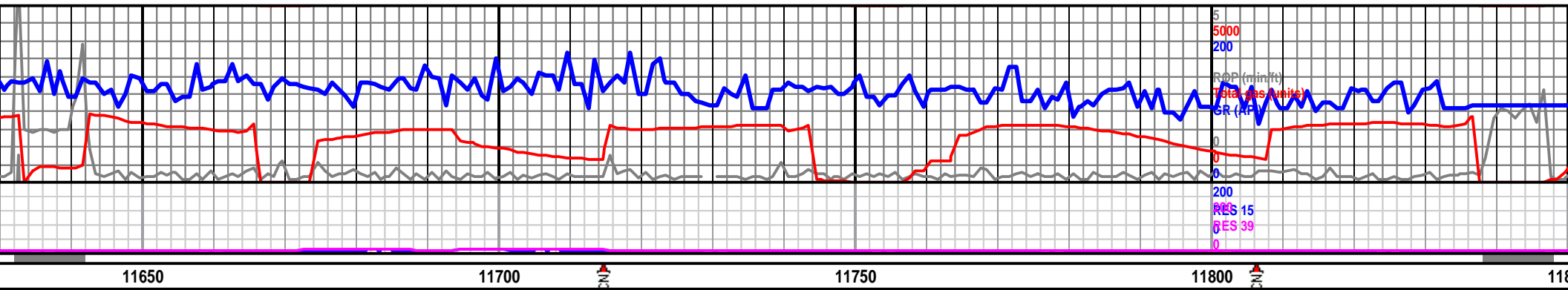


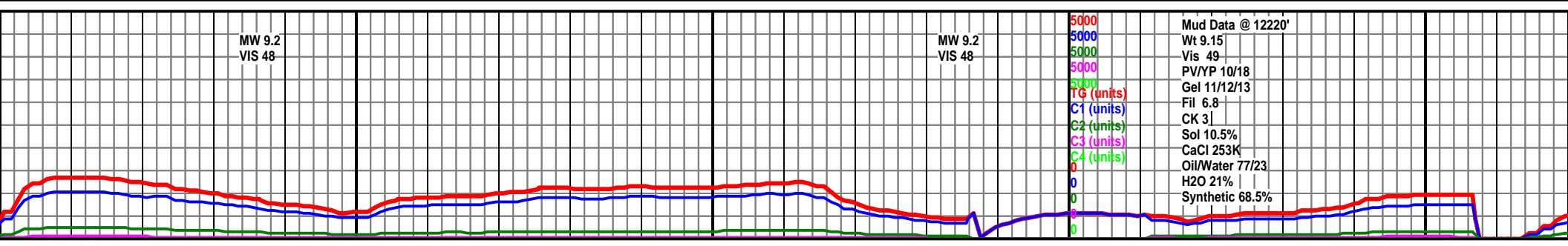
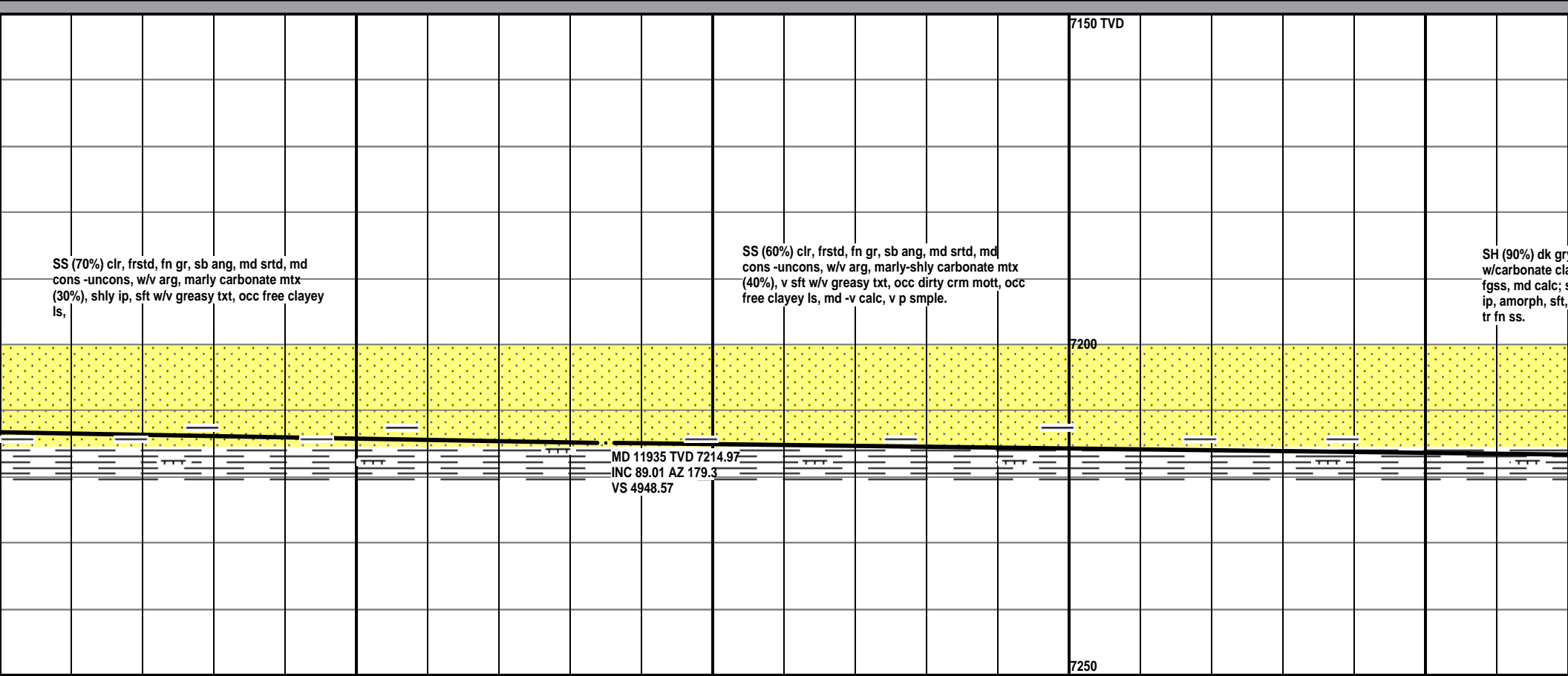
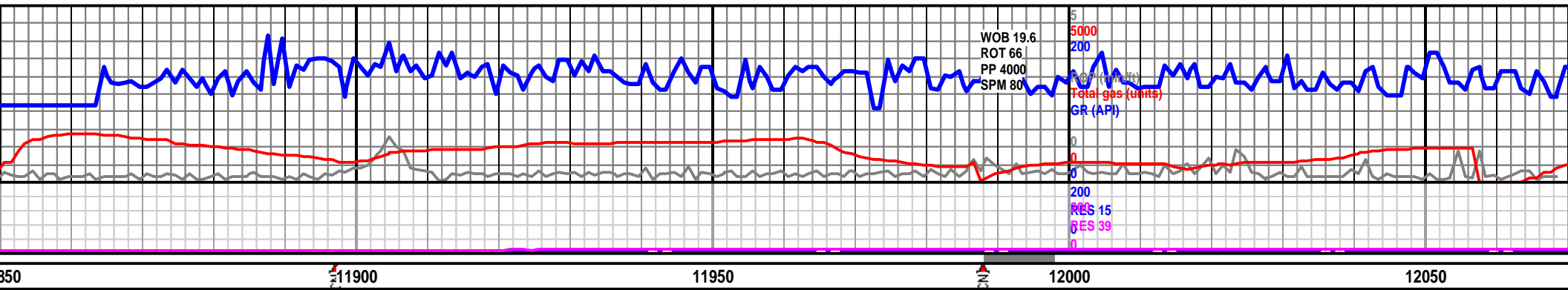


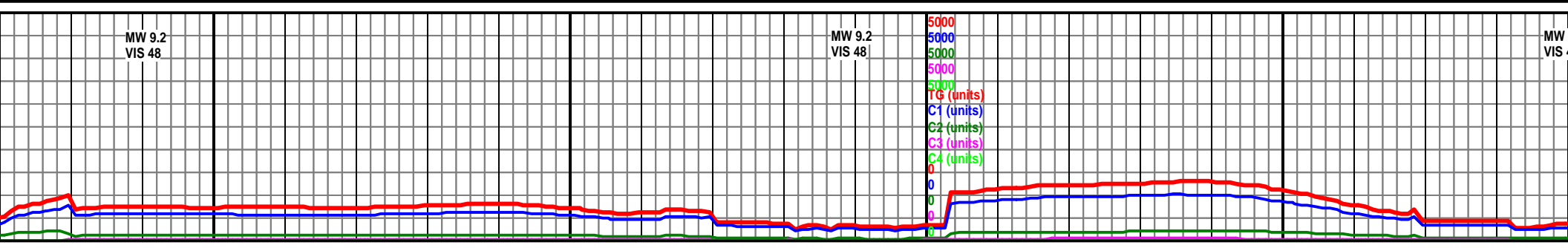
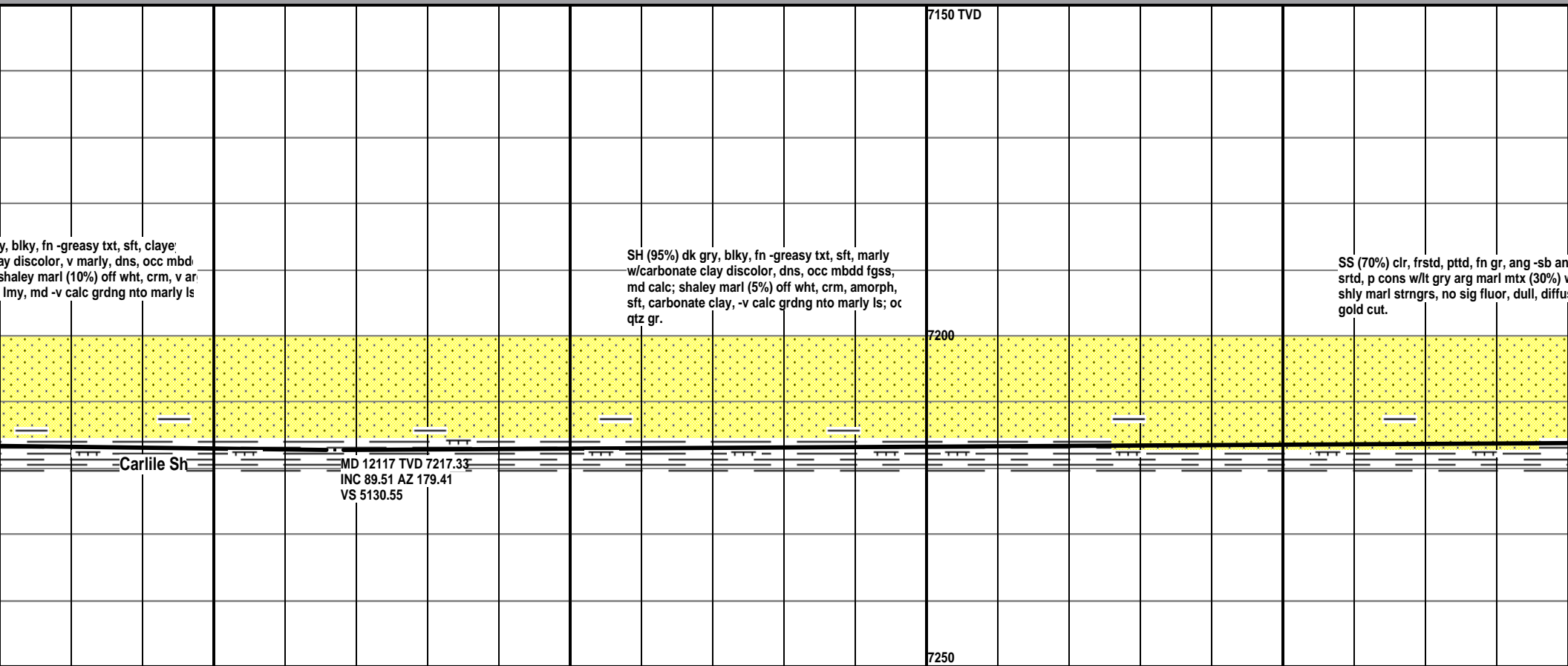


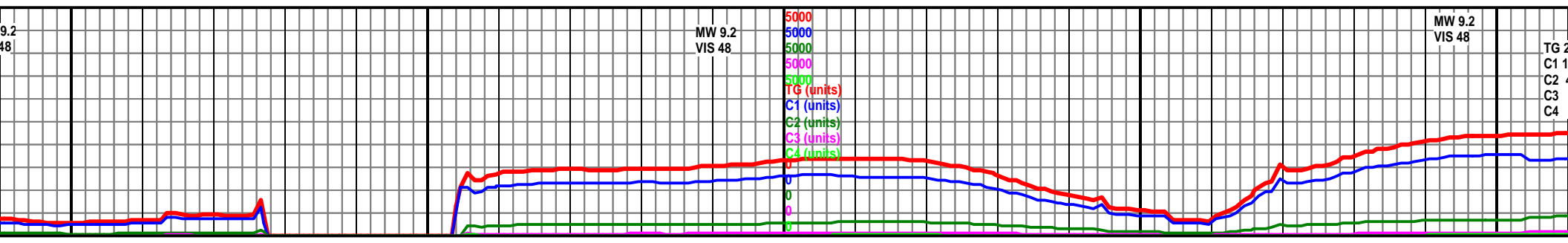
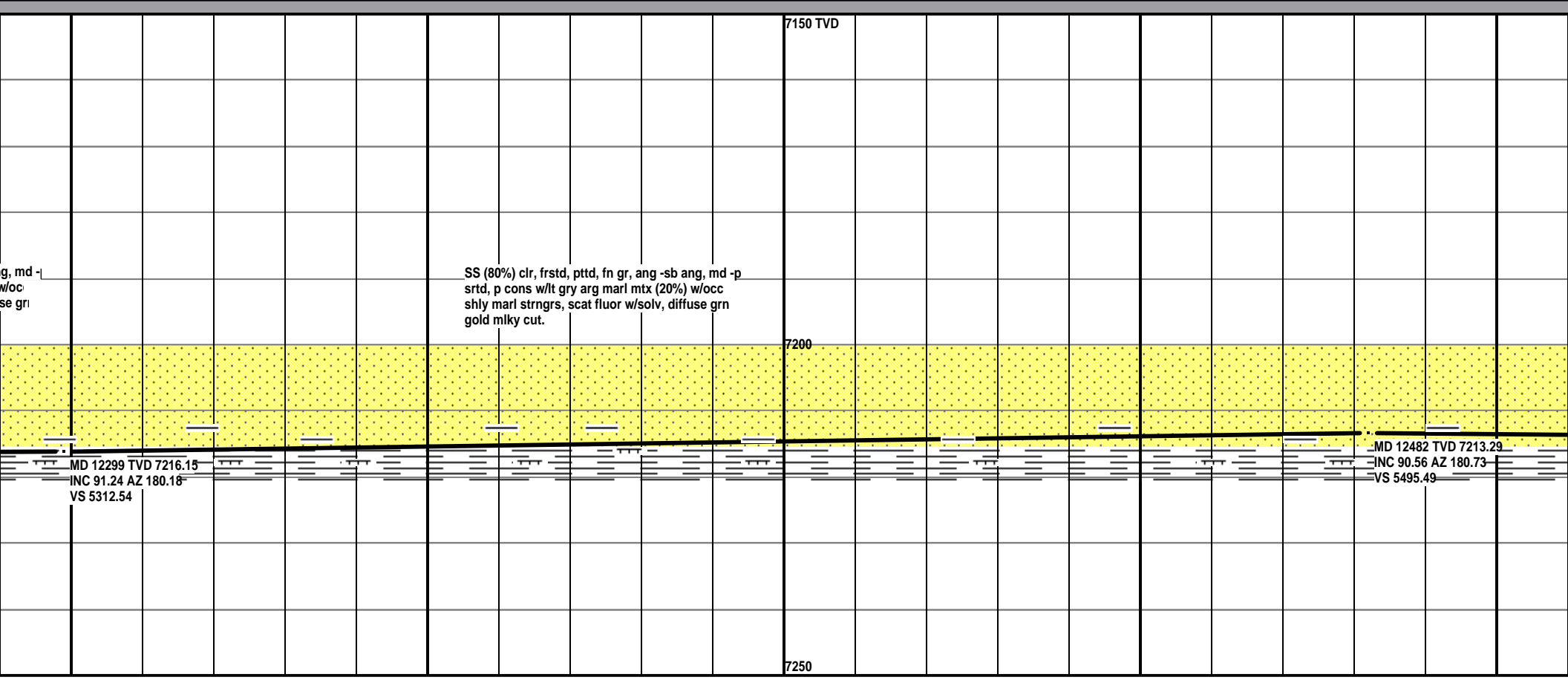
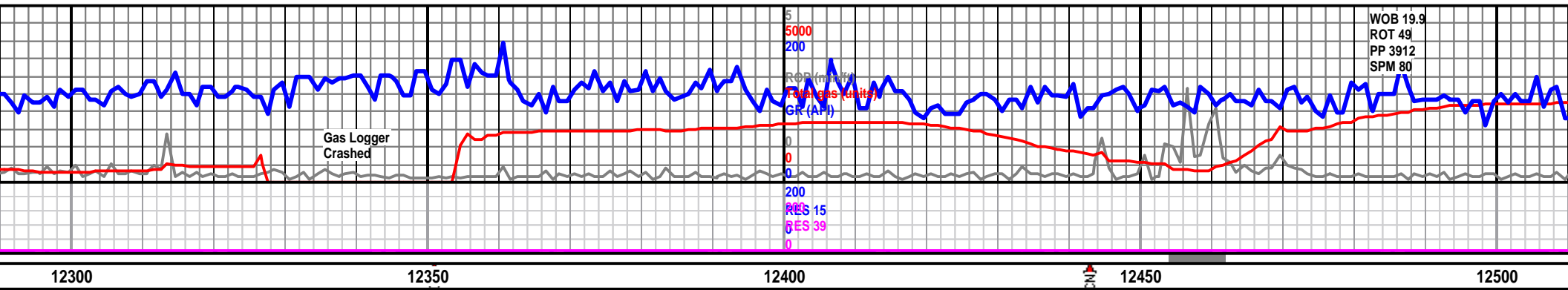


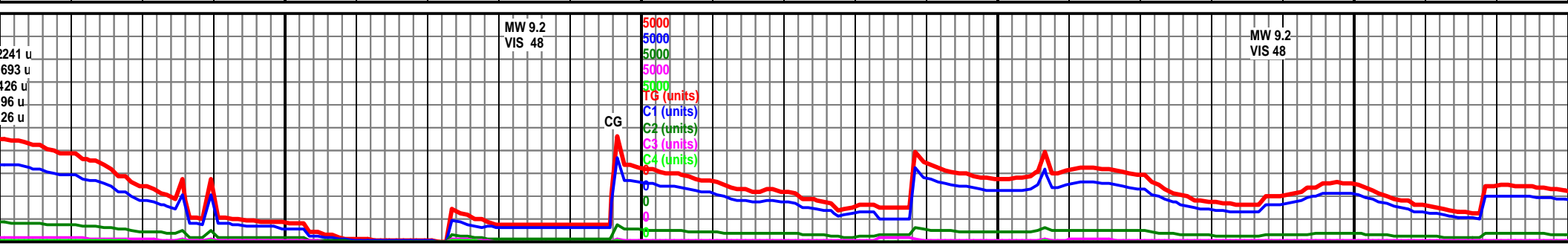
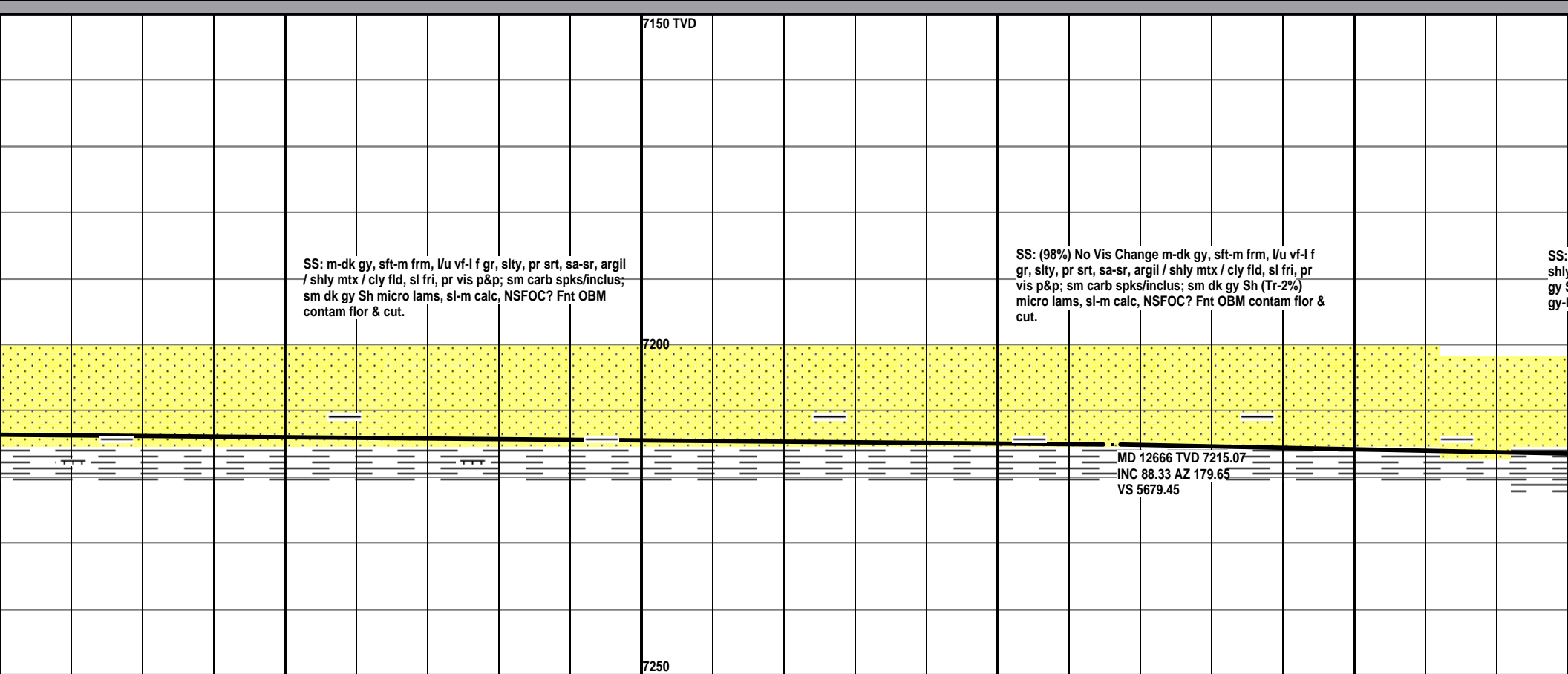


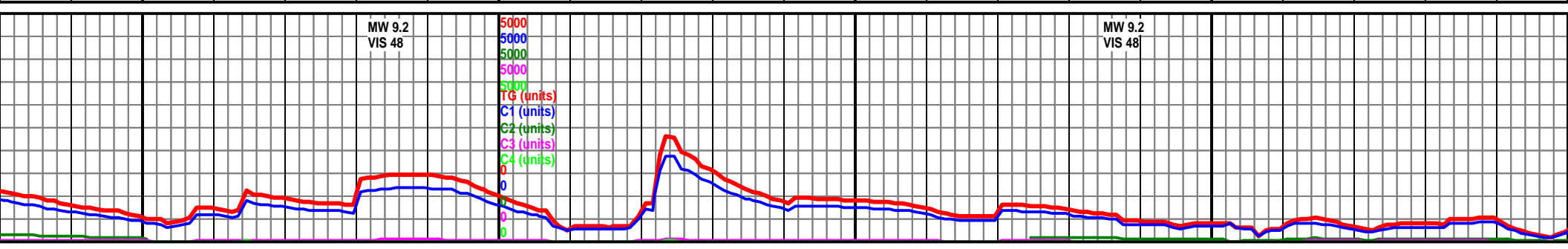
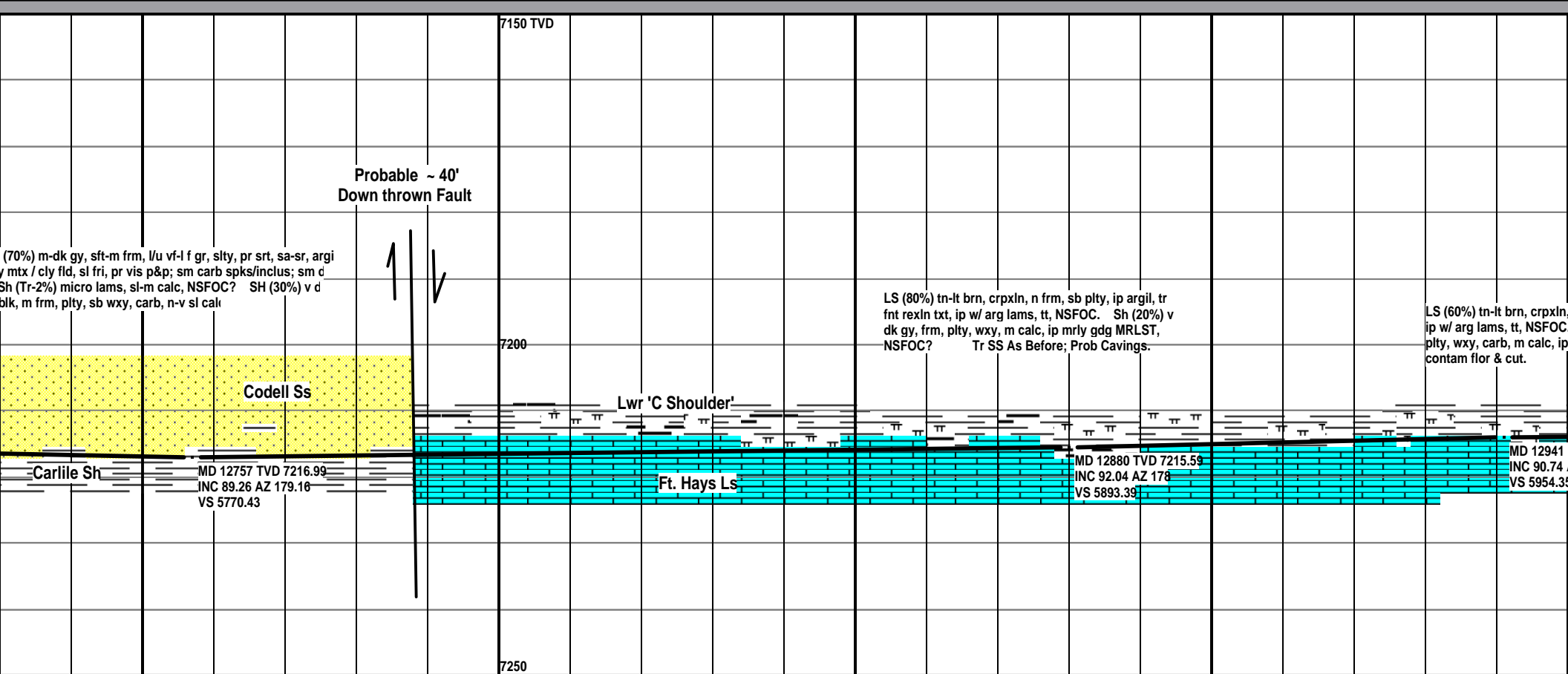
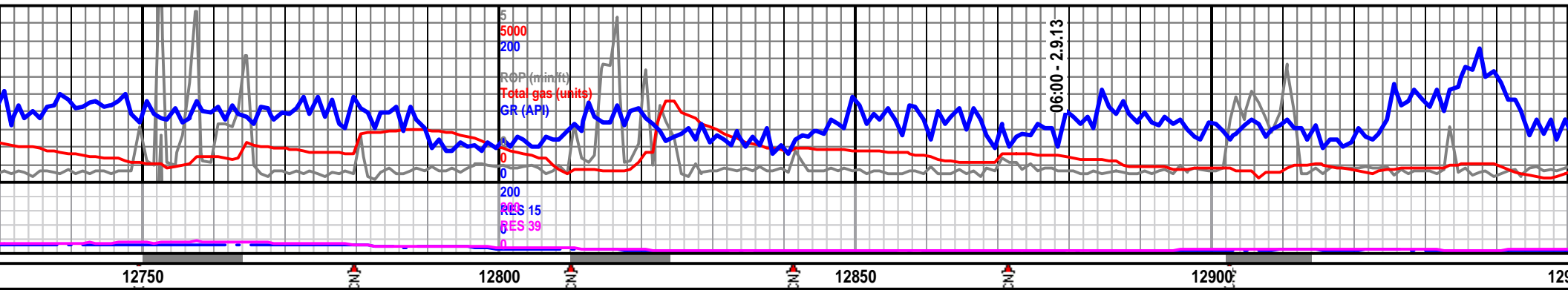


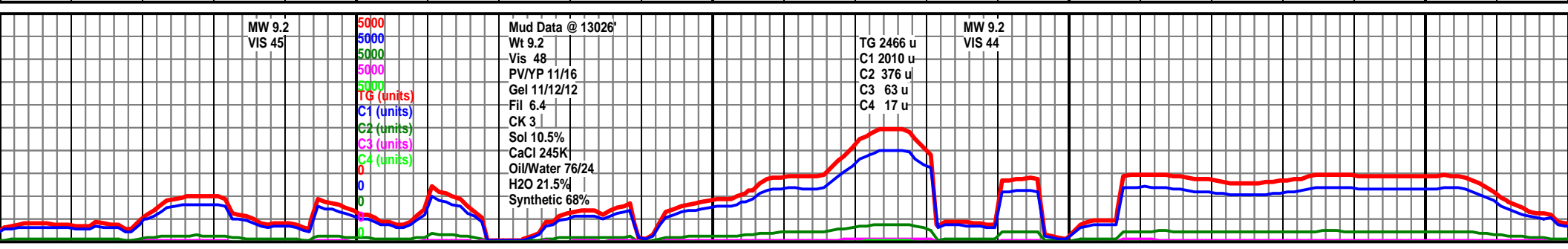
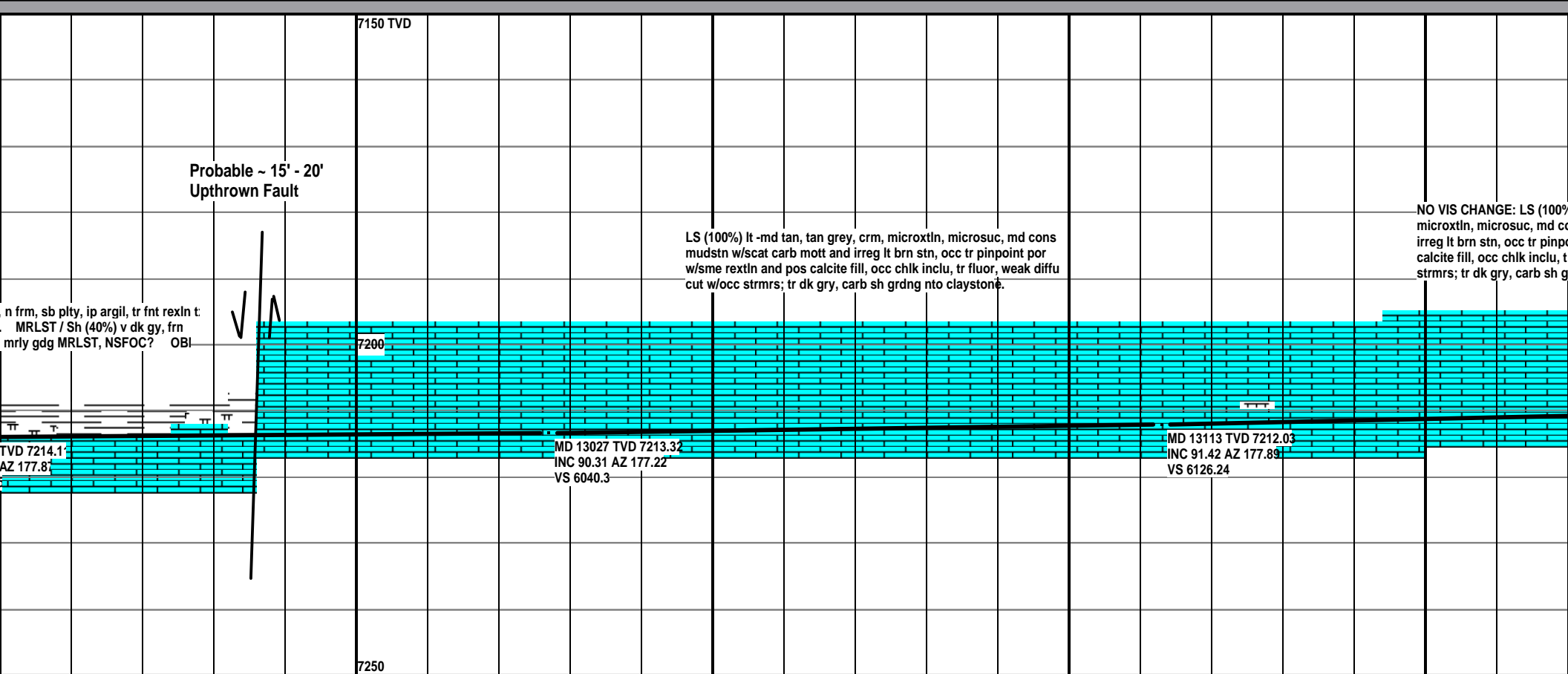
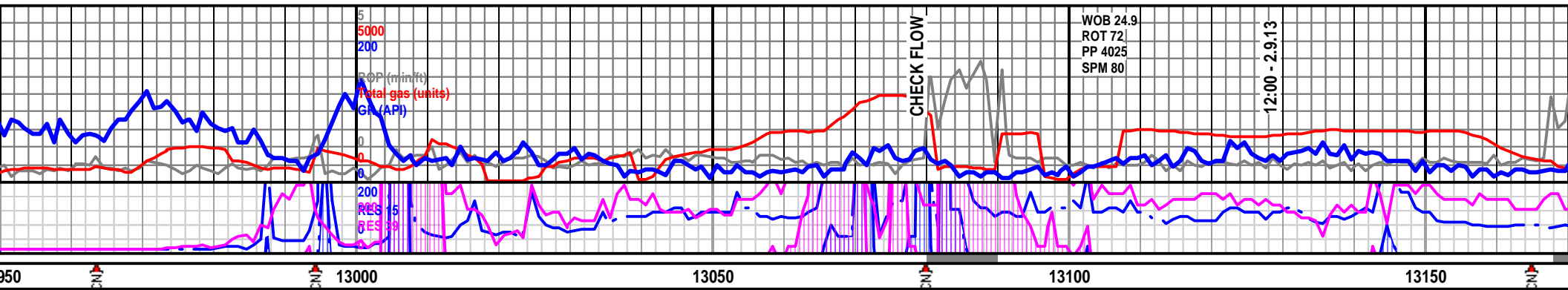


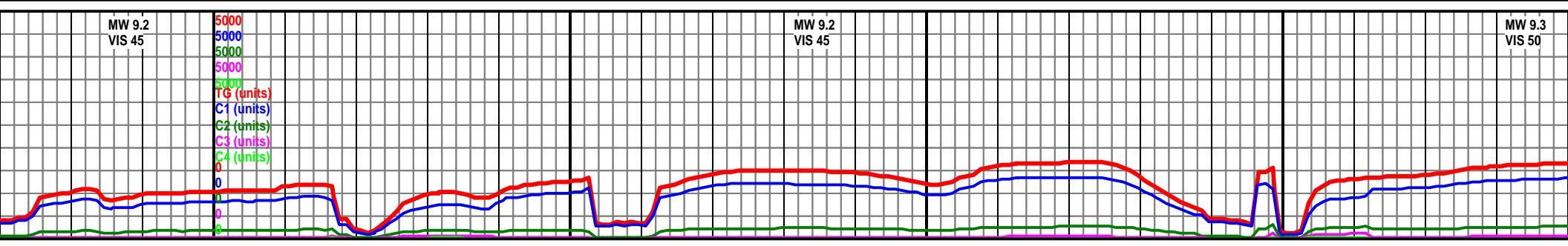
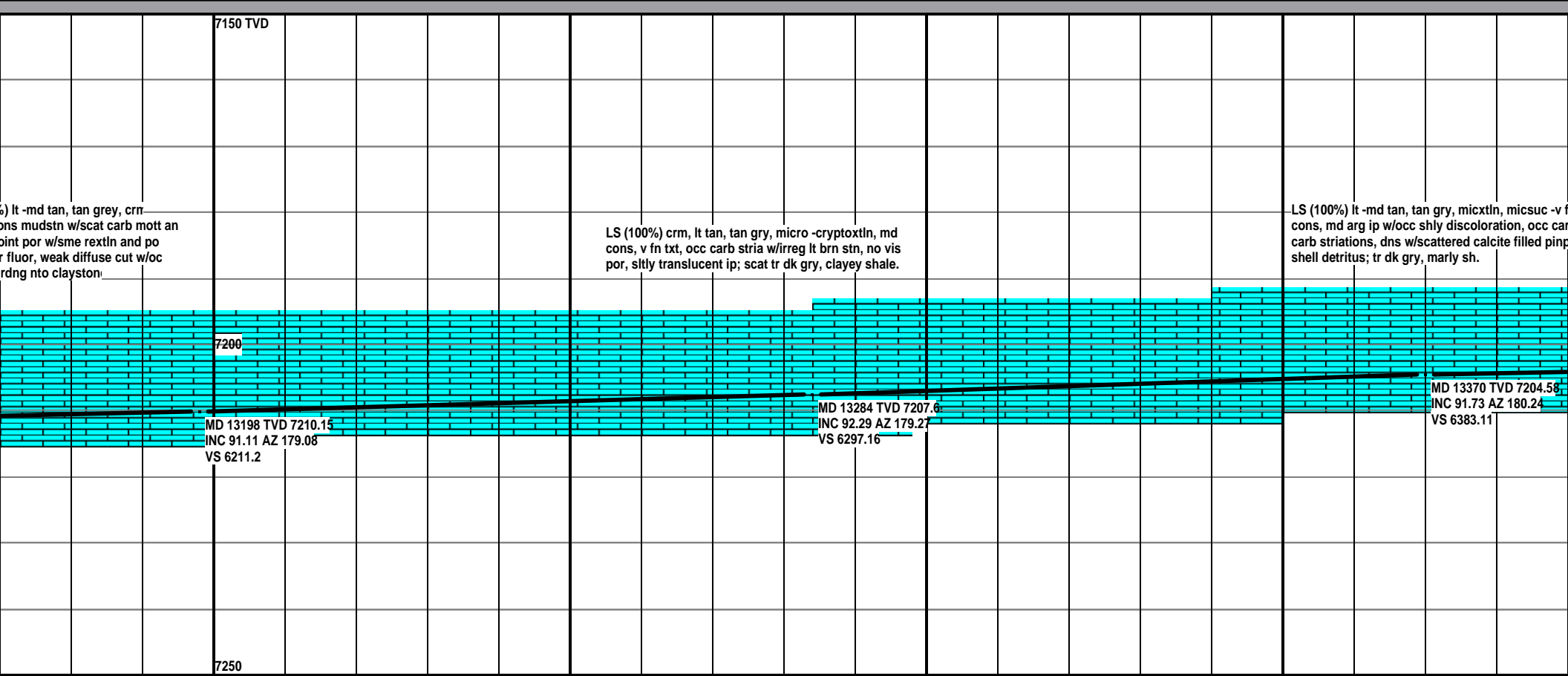
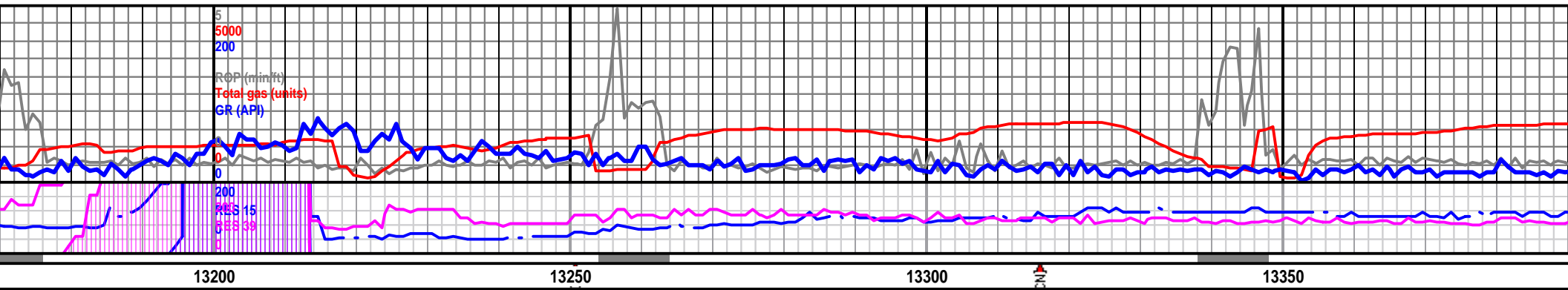


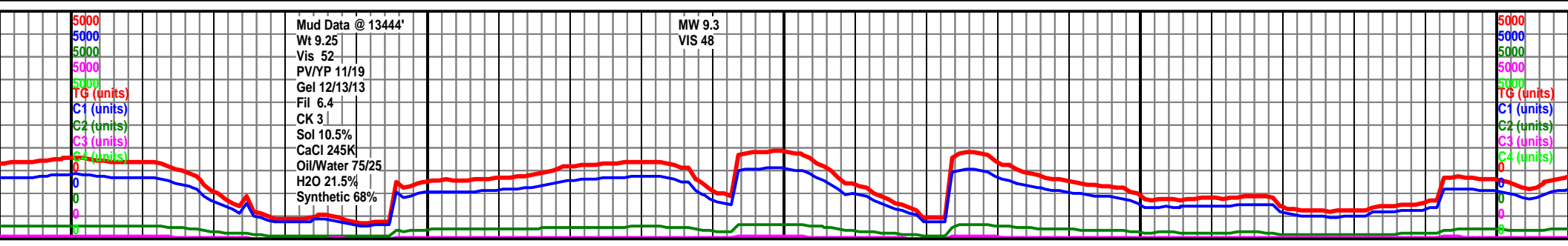
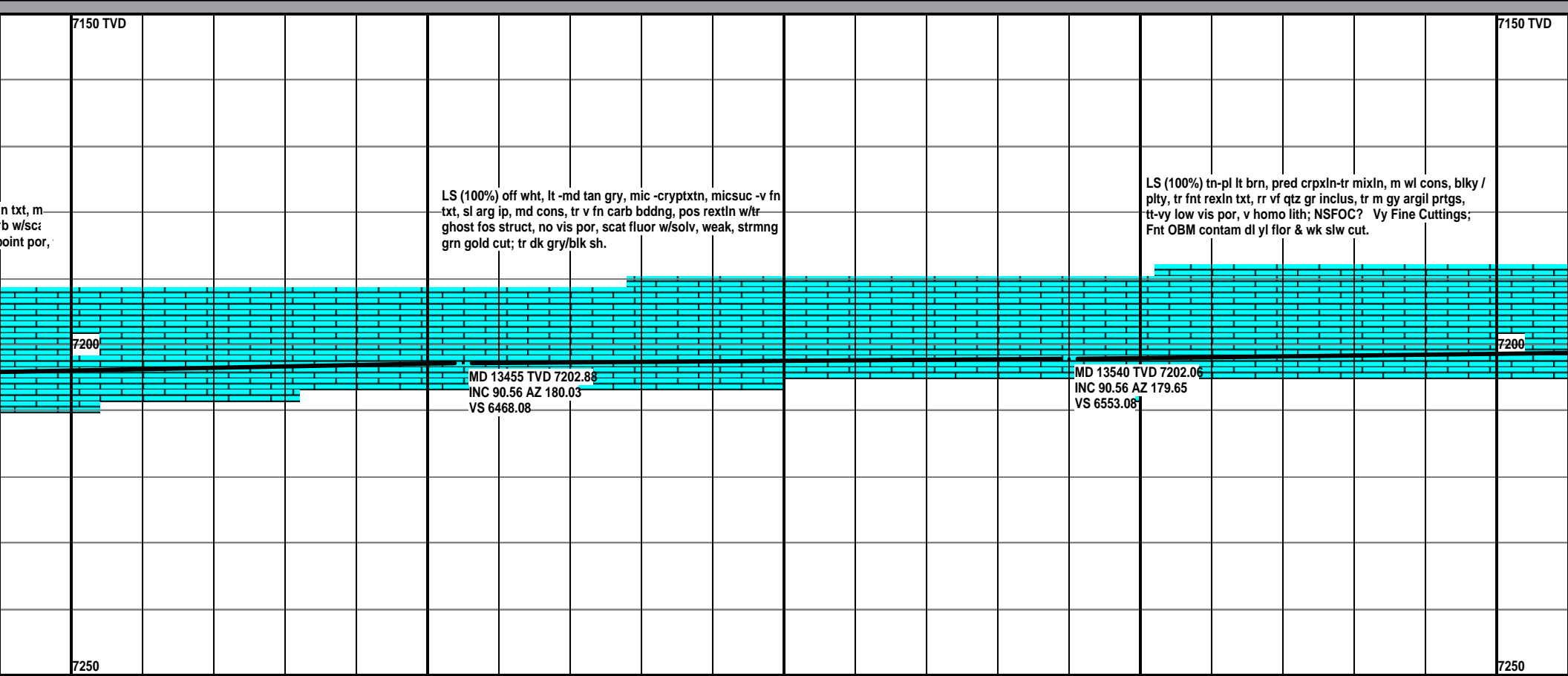
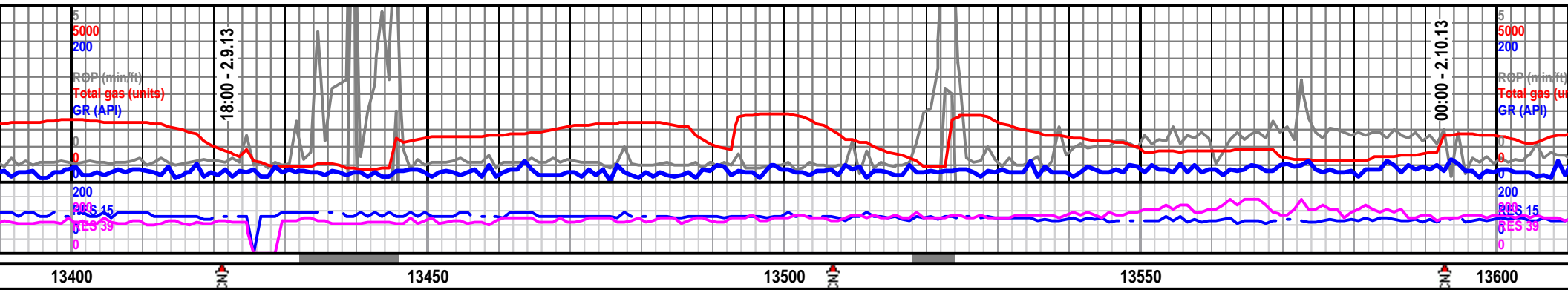












00%) No Vis Change: lt-m-sm dk gy, l/u vf-l f gr, slty, pr s
 , calc cly cmtd fri clstrs & abnt lse unconsol qtz grs, ip
 shly, tr carb spks, aprs thn lam, v calc lmy mtx, pr apr vi
 NSFOC. OBM contam fnt yl flor & mlky ct

MD 14054 TVD 7204.34
 INC 89.63 AZ 179.94
 VS 7067.02

MD 14140 TVD 7204.8
 INC 89.75 AZ 179.77
 VS 7153.01

MD 14226 TVD 7204.24
 INC 90.99 AZ 179.6
 VS 7239.01

NO VISIBLE CHANGE SS (100%) No Vis Change: lt-m-sm
 dk gy, l/u vf-l f gr, slty, pr srt, sa-sr, calc cly cmtd fri clstrs
 & abnt lse unconsol qtz grs, ip v arg / shly, tr carb spks,
 aprs thn lam, v calc lmy mtx, pr apr vis p&p; NSFOC

SS (100%) clr, fn g
 -p cons w/abndt u
 w/tr vfig ss, non-
 greasy txt sh.

7150 TVD

7200

7250

00%) No Vis Change: lt-m-sm dk gy, l/u vf-l f gr, slty, pr s, calc cly cmtd fri clstrs & abnt lse unconsol qtz grs, ip shly, tr carb spks, aprs thn lam, v calc lmy mtx, pr apr vi NSFOC. OBM contam fnt yl flor & mlky ct

NO VISIBLE CHANGE SS (100%) No Vis Change: lt-m-sm dk gy, l/u vf-l f gr, slty, pr srt, sa-sr, calc cly cmtd fri clstrs & abnt lse unconsol qtz grs, ip v arg / shly, tr carb spks, aprs thn lam, v calc lmy mtx, pr apr vis p&p; NSFOC

SS (100%) clr, fn g -p cons w/abndt u w/tr vvf g ss, non-greasy txt sh.

00%) No Vis Change: lt-m-sm dk gy, l/u vf-l f gr, slty, pr s
 , calc cly cmtd fri clstrs & abnt lse unconsol qtz grs, ip
 shly, tr carb spks, aprs thn lam, v calc lmy mtx, pr apr vi
 NSFOC. OBM contam fnt yl flor & mlky ct

NO VISIBLE CHANGE SS (100%) No Vis Change: lt-m-sm
 dk gy, l/u vf-l f gr, slty, pr srt, sa-sr, calc cly cmtd fri clstrs
 & abnt lse unconsol qtz grs, ip v arg / shly, tr carb spks,
 aprs thn lam, v calc lmy mtx, pr apr vis p&p; NSFOC

SS (100%) clr, fn g
 -p cons w/abndt u
 w/tr vfig ss, non-
 greasy txt sh.

MD 14054 TVD 7204.34
 INC 89.63 AZ 179.94
 VS 7067.02

MD 14140 TVD 7204.8
 INC 89.75 AZ 179.77
 VS 7153.01

MD 14226 TVD 7204.24
 INC 90.99 AZ 179.6
 VS 7239.01

7150 TVD

7200

7250

100% No Vis Change: It-m-sm dk gy, l/u vf-l f gr, slty, pr s, calc cly cmtd fri clstrs & abnt lse unconsol qtz grs, ip shly, tr carb spks, aprs thn lam, v calc lmy mtz, pr apr vi NSFOC. OBM contam fnt yl flor & mlky ct

NO VISIBLE CHANGE SS (100%) No Vis Change: It-m-sm dk gy, l/u vf-l f gr, slty, pr srt, sa-sr, calc cly cmtd fri clstrs & abnt lse unconsol qtz grs, ip v arg / shly, tr carb spks, aprs thn lam, v calc lmy mtz, pr apr vis p&p; NSFOC

SS (100%) clr, fn g -p cons w/abndt u w/tr vvf g ss, non-greasy txt sh.

7150 TVD

7200

7250

MD 14054 TVD 7204.34
INC 89.63 AZ 179.94
VS 7067.02

MD 14140 TVD 7204.8
INC 89.75 AZ 179.77
VS 7153.01

MD 14226 TVD 7204.24
INC 90.99 AZ 179.6
VS 7239.01

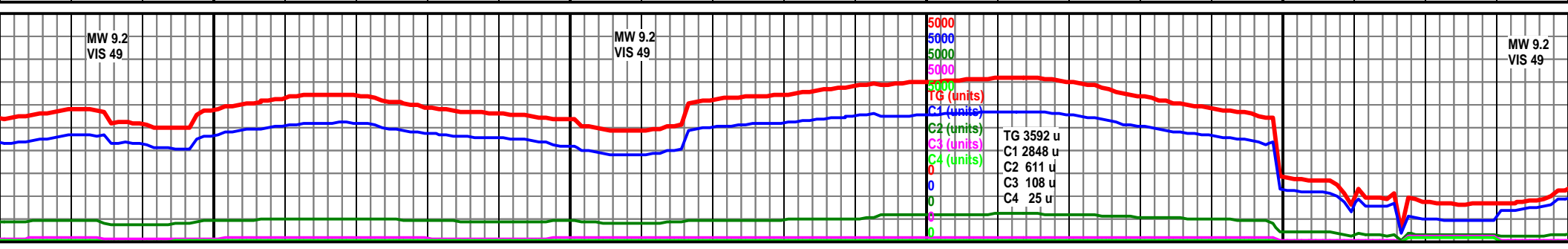
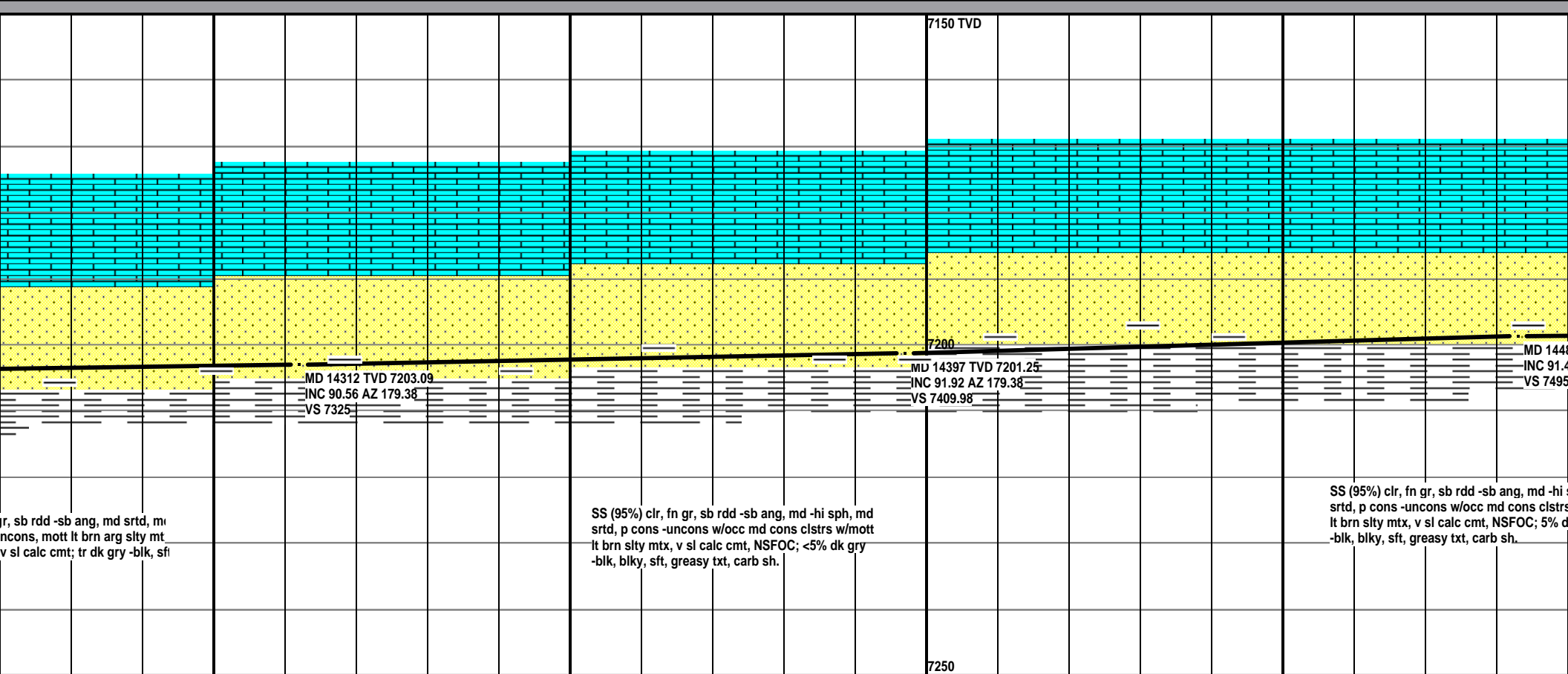
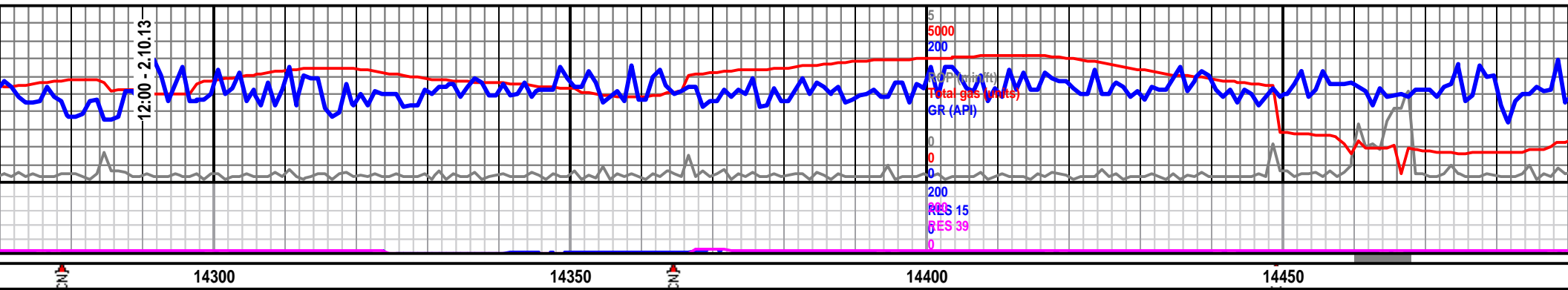
MW 9.2
VIS 49

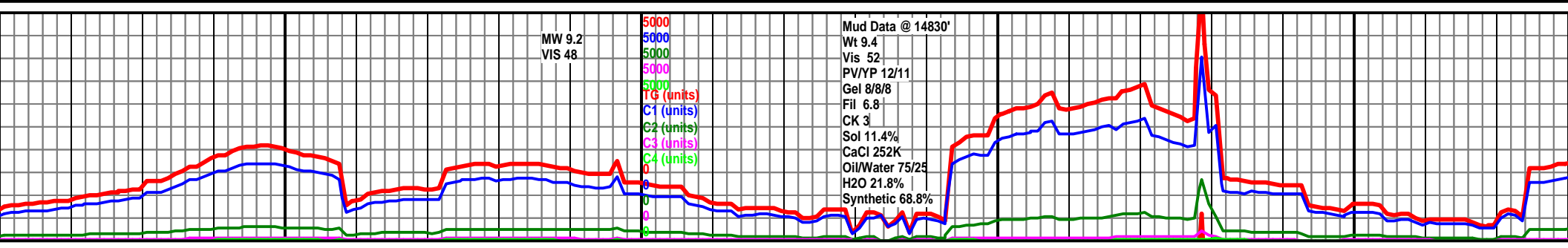
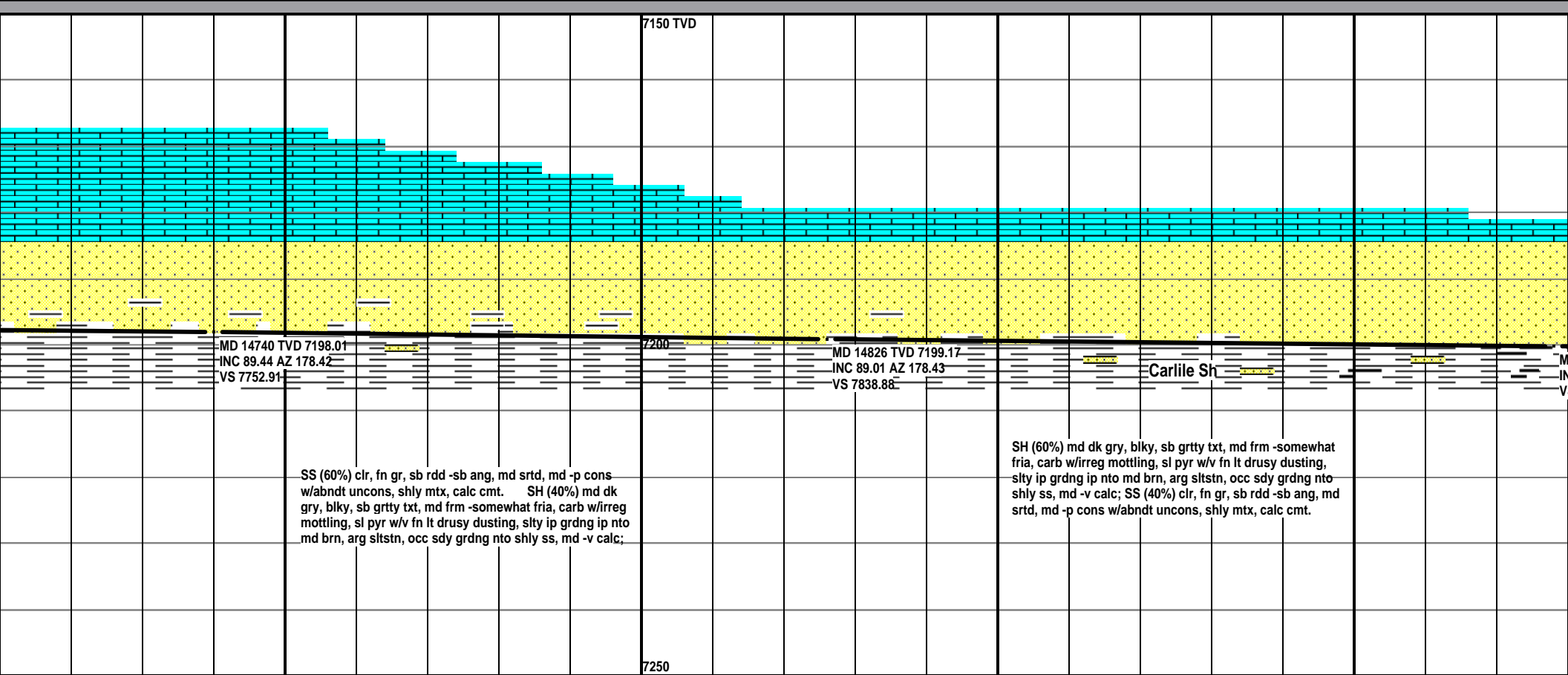
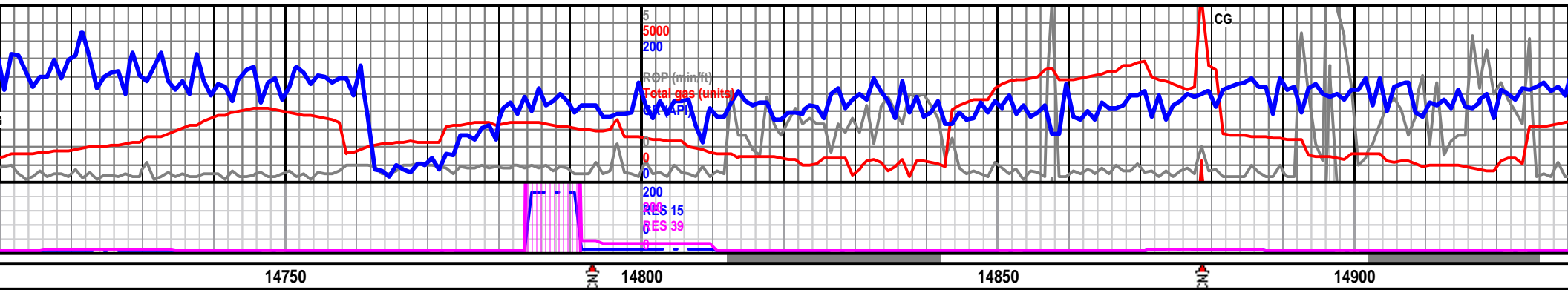
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VIS 48

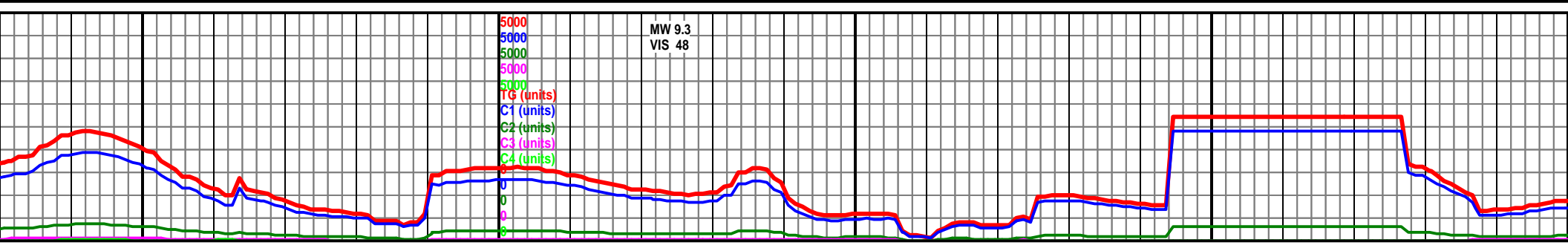
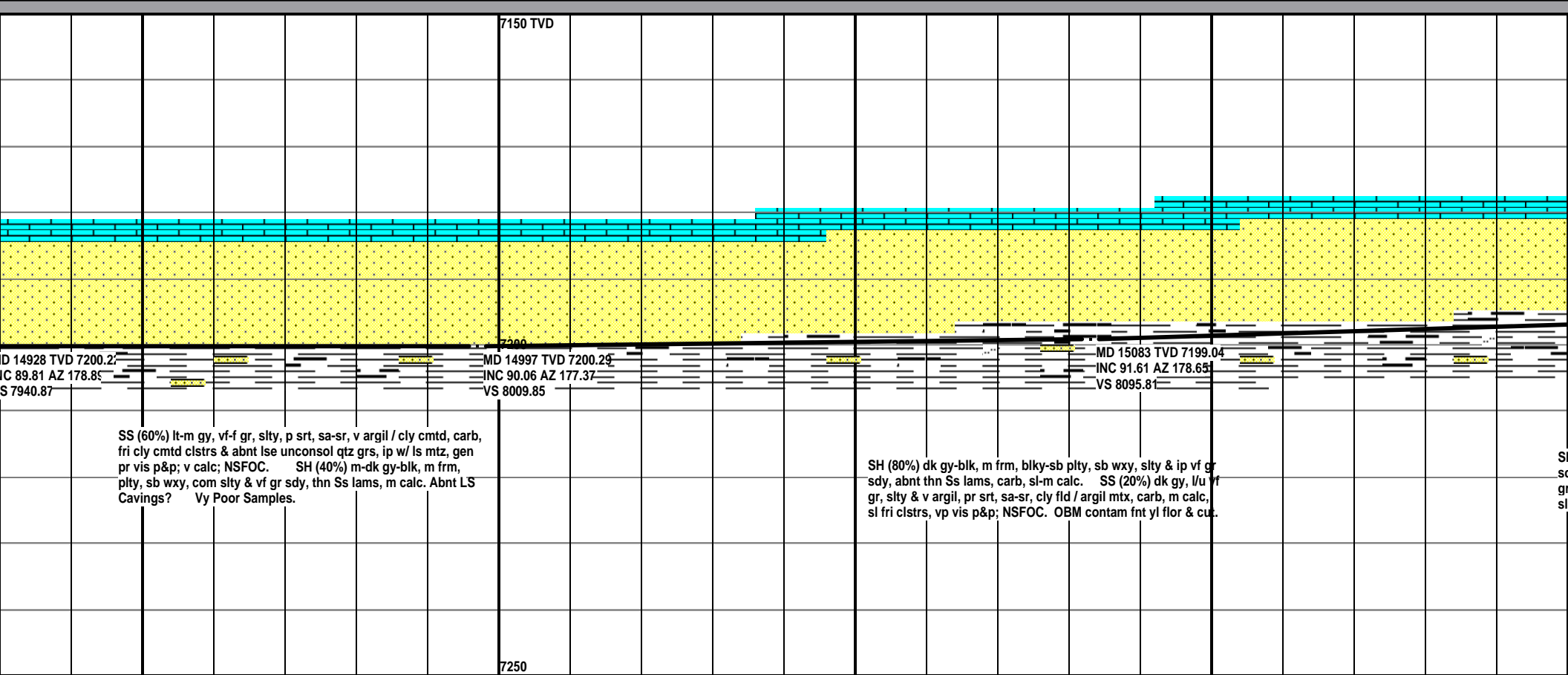
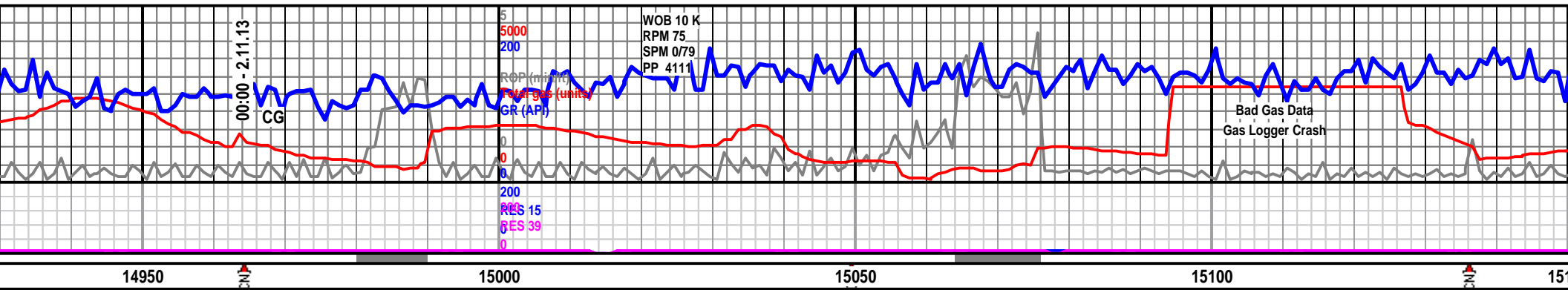
CG

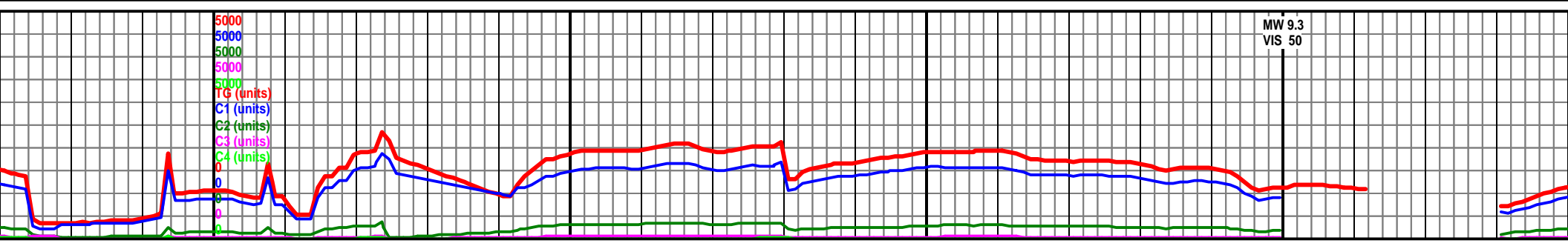
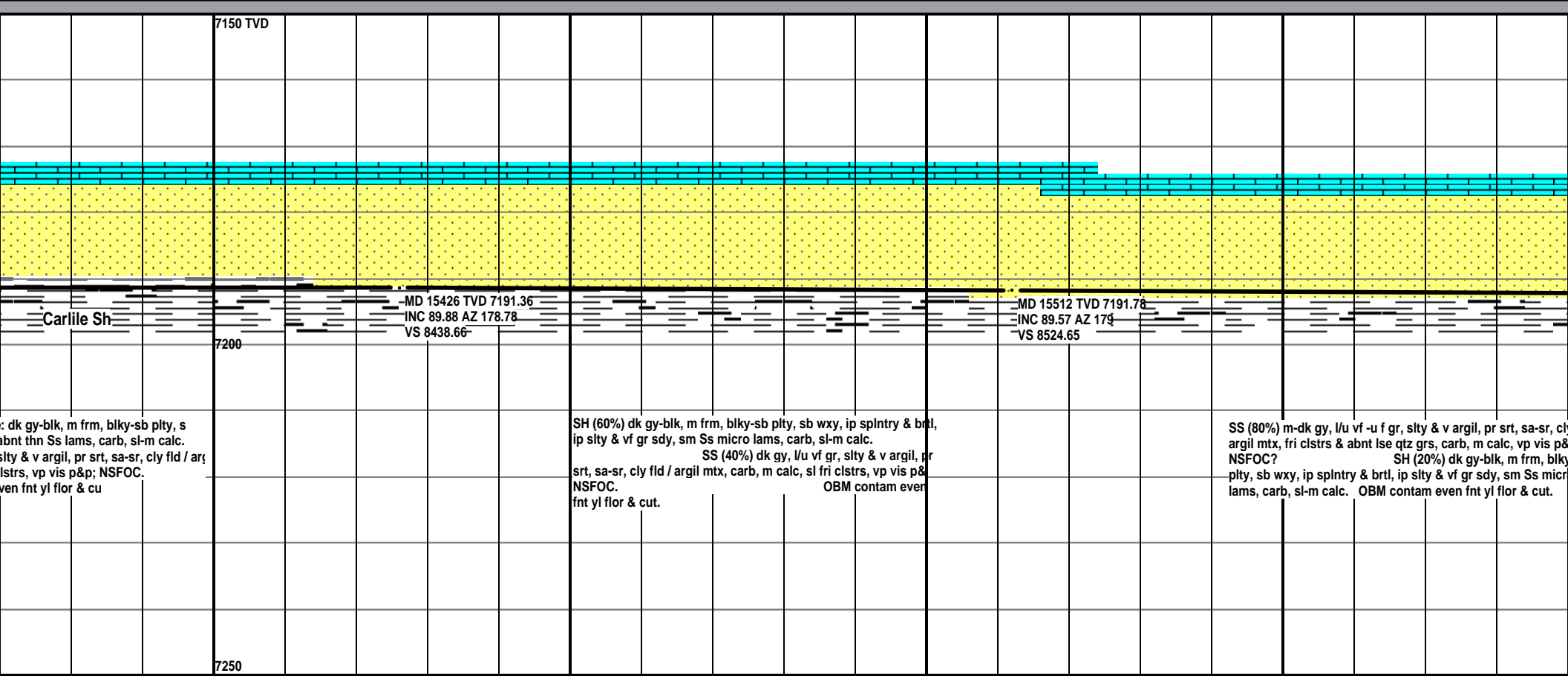
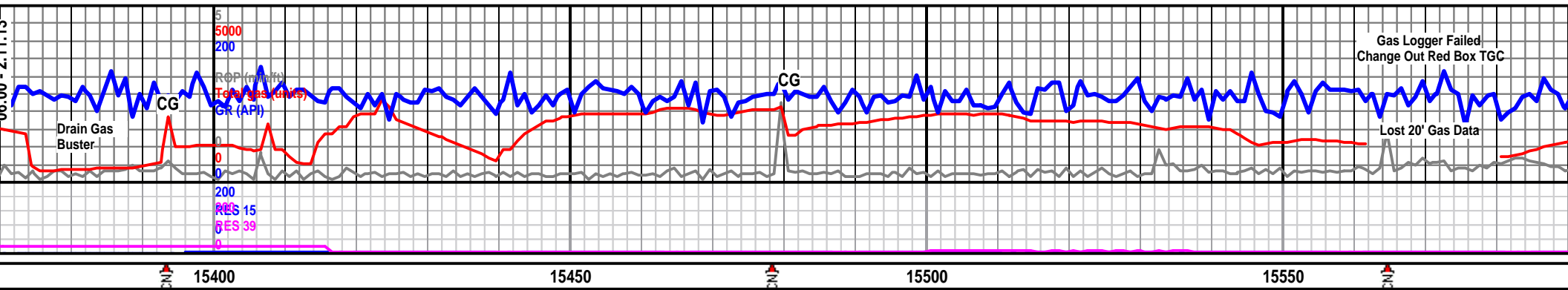
TG (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)

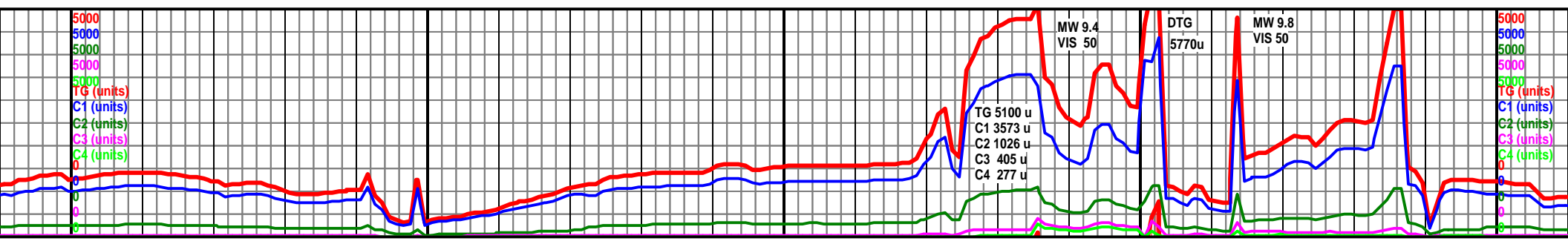
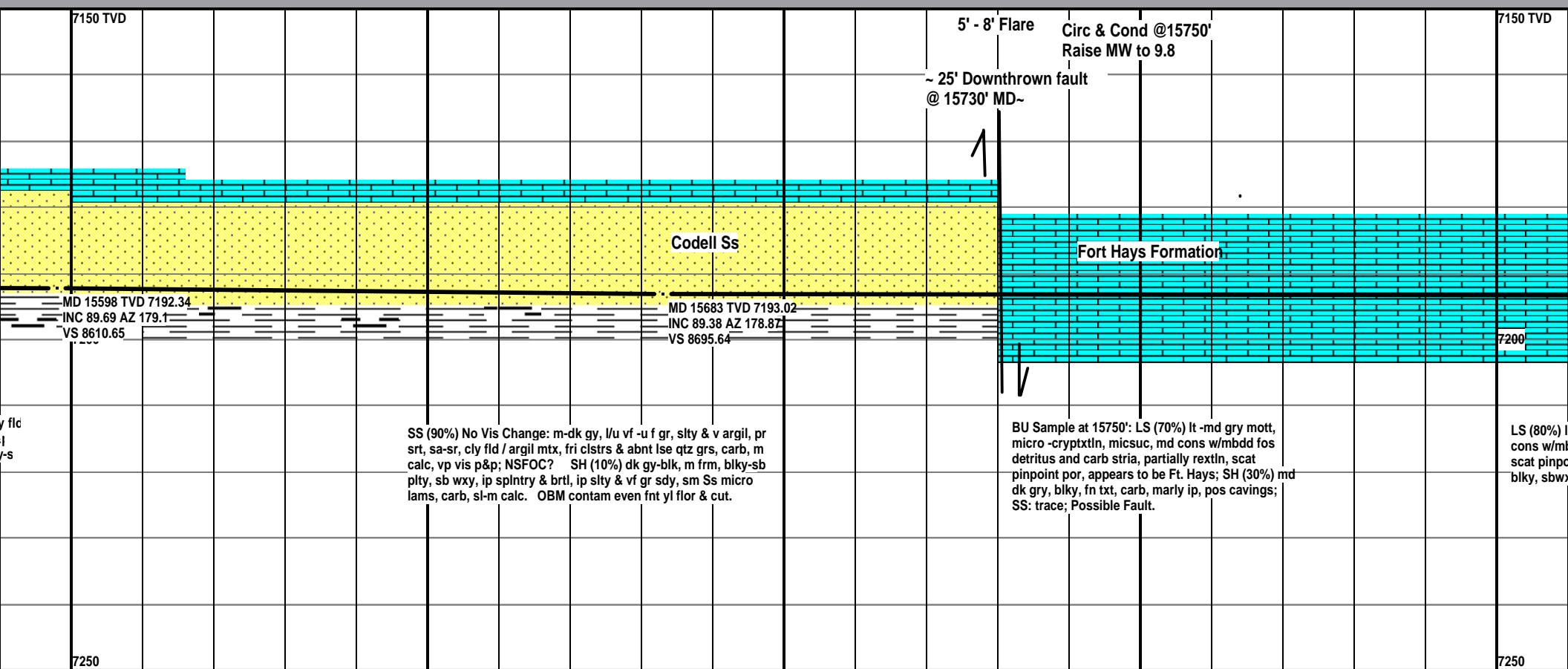
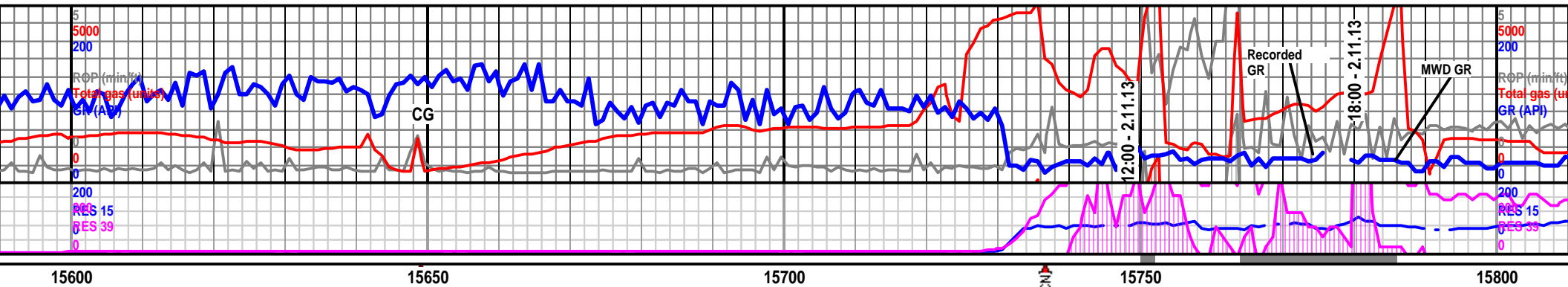
TG 3295 u
C1 2625 u
C2 549 u
C3 96 u
C4 25 u

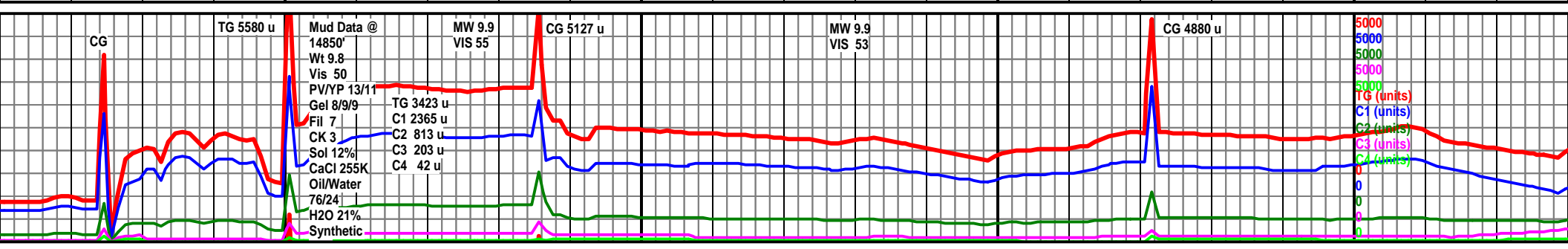
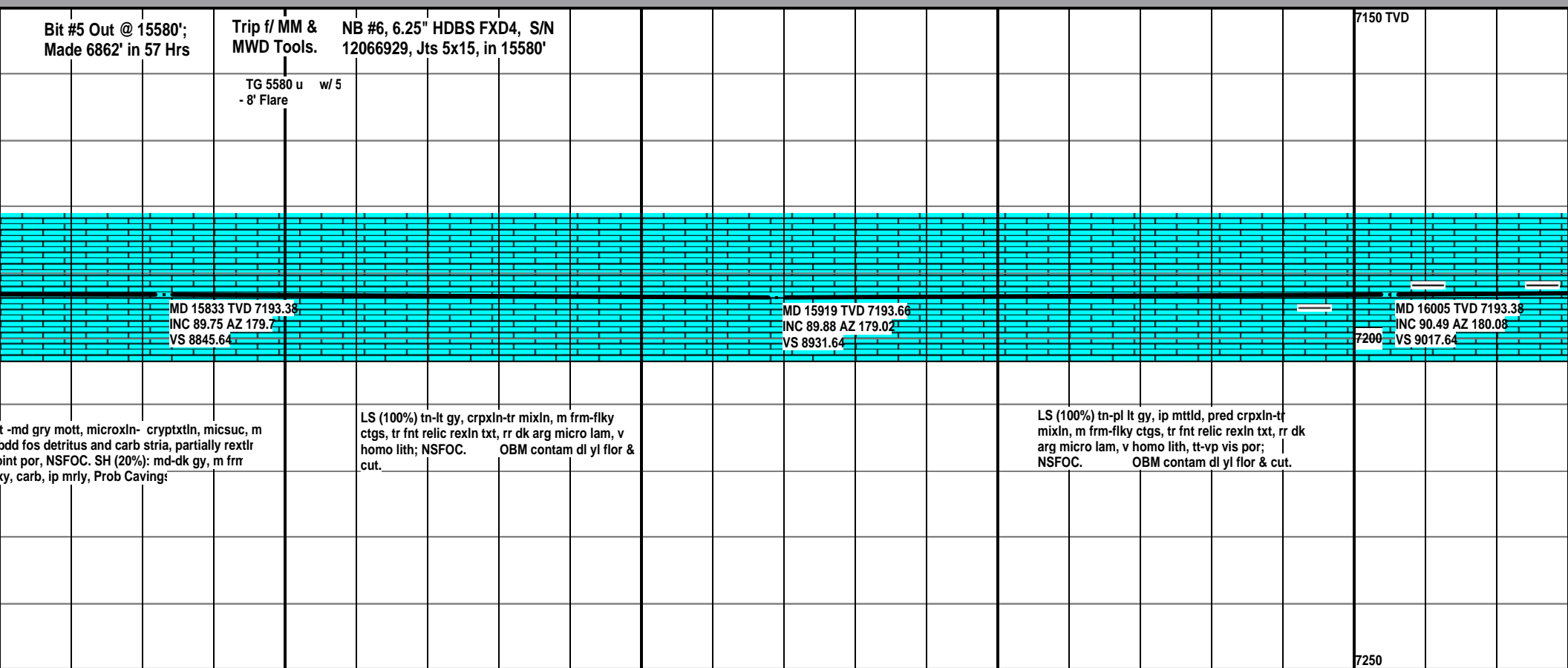


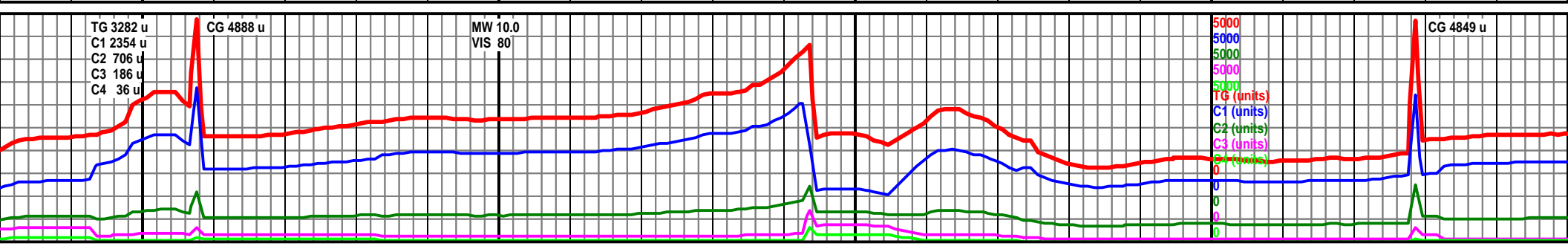
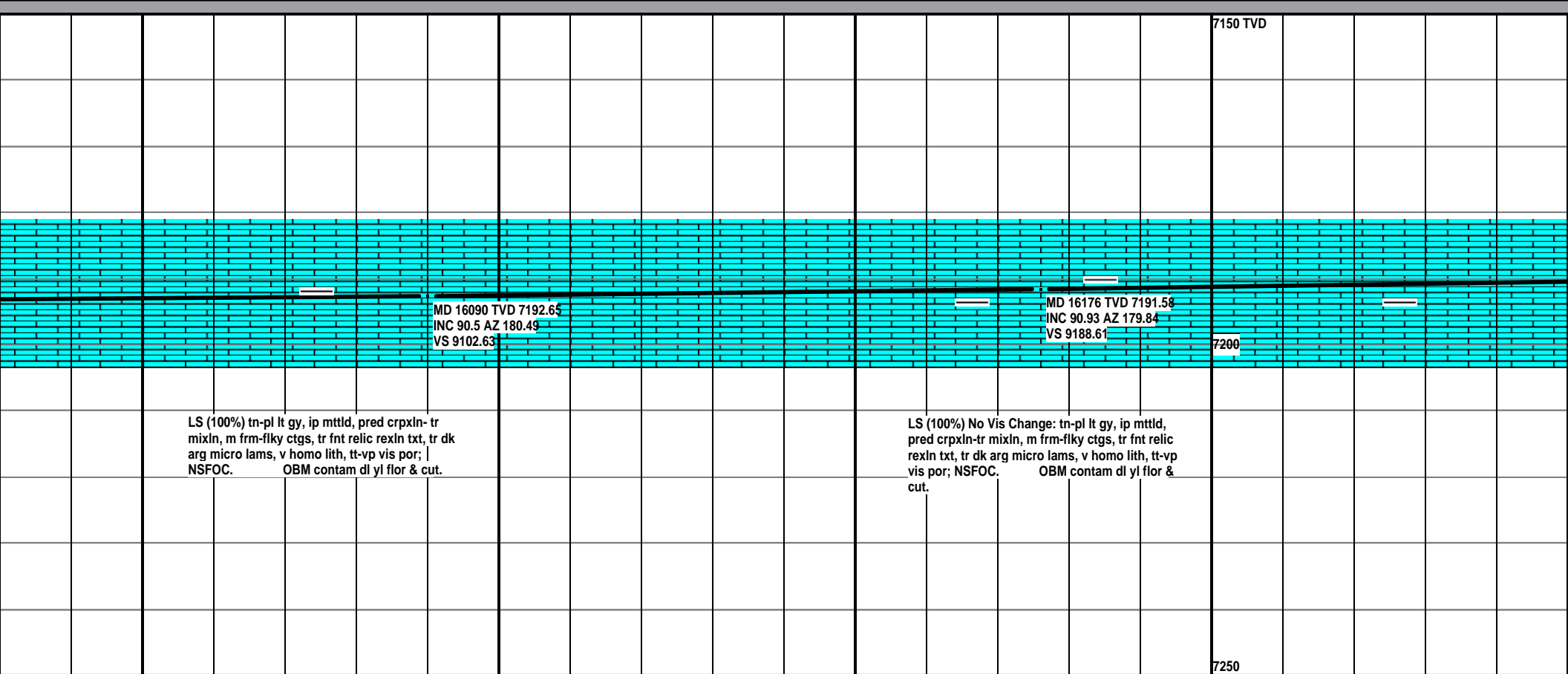
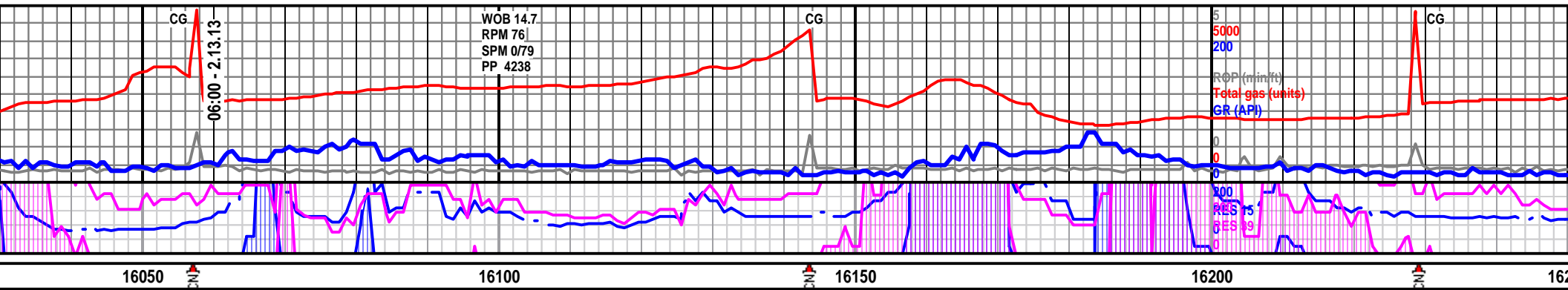


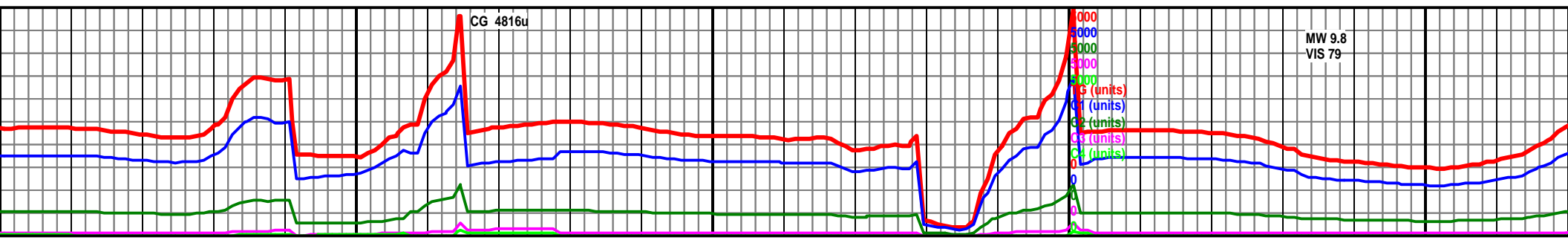
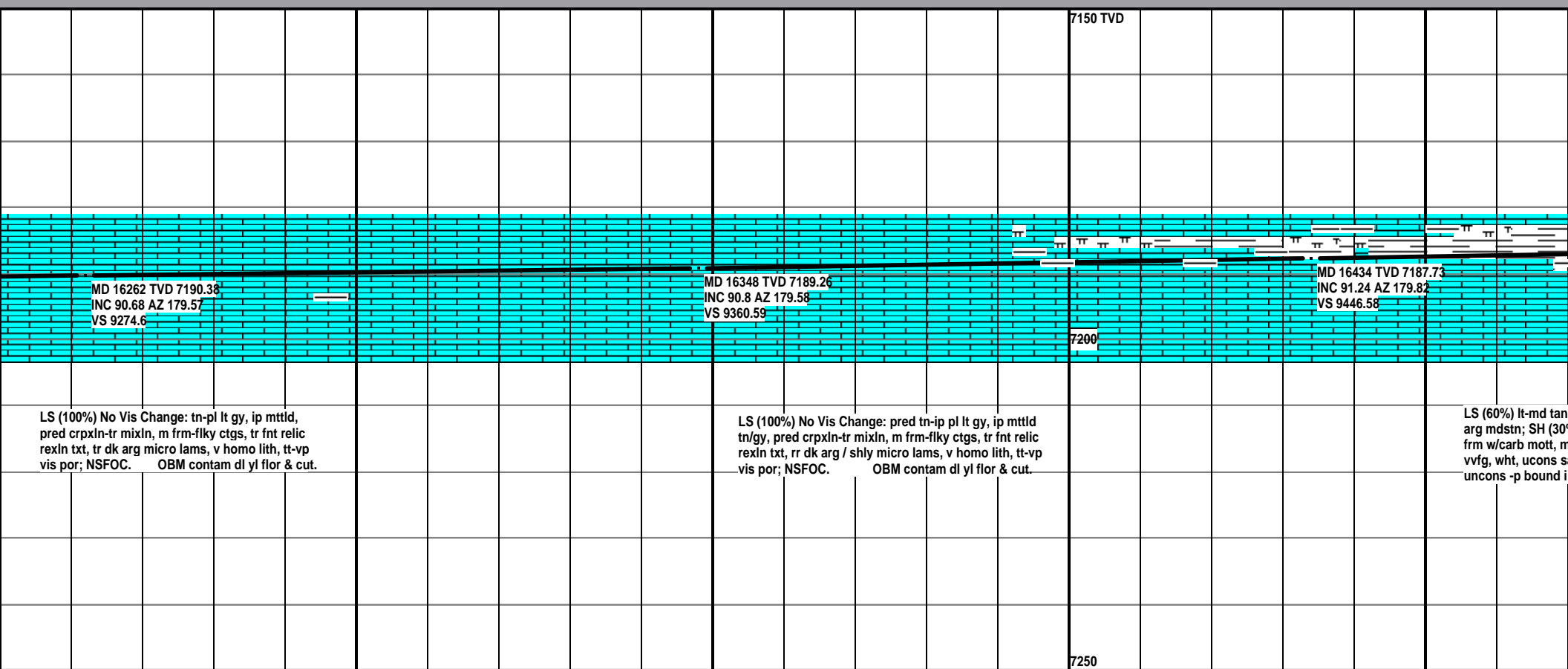
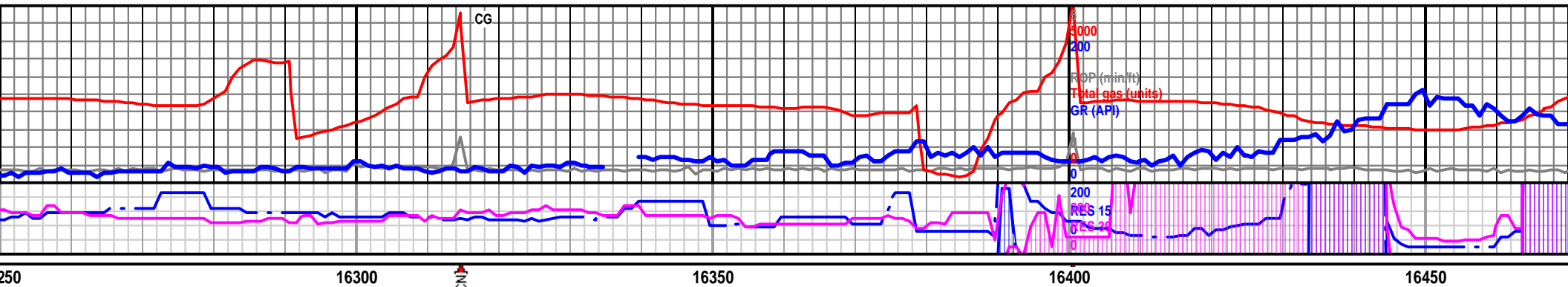


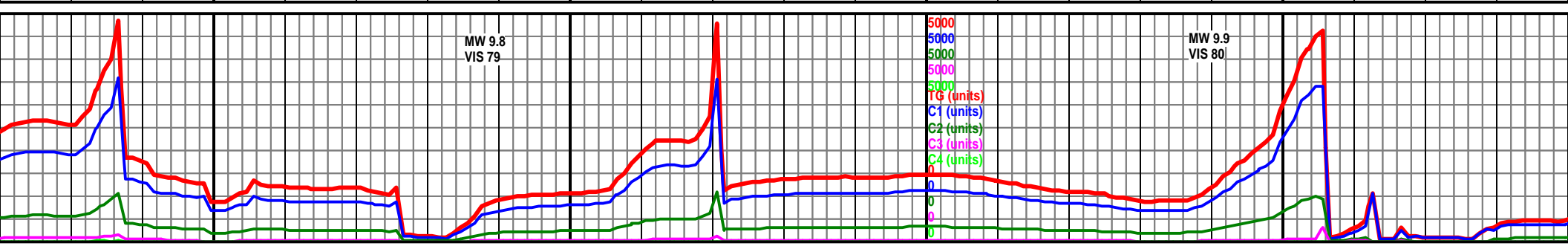
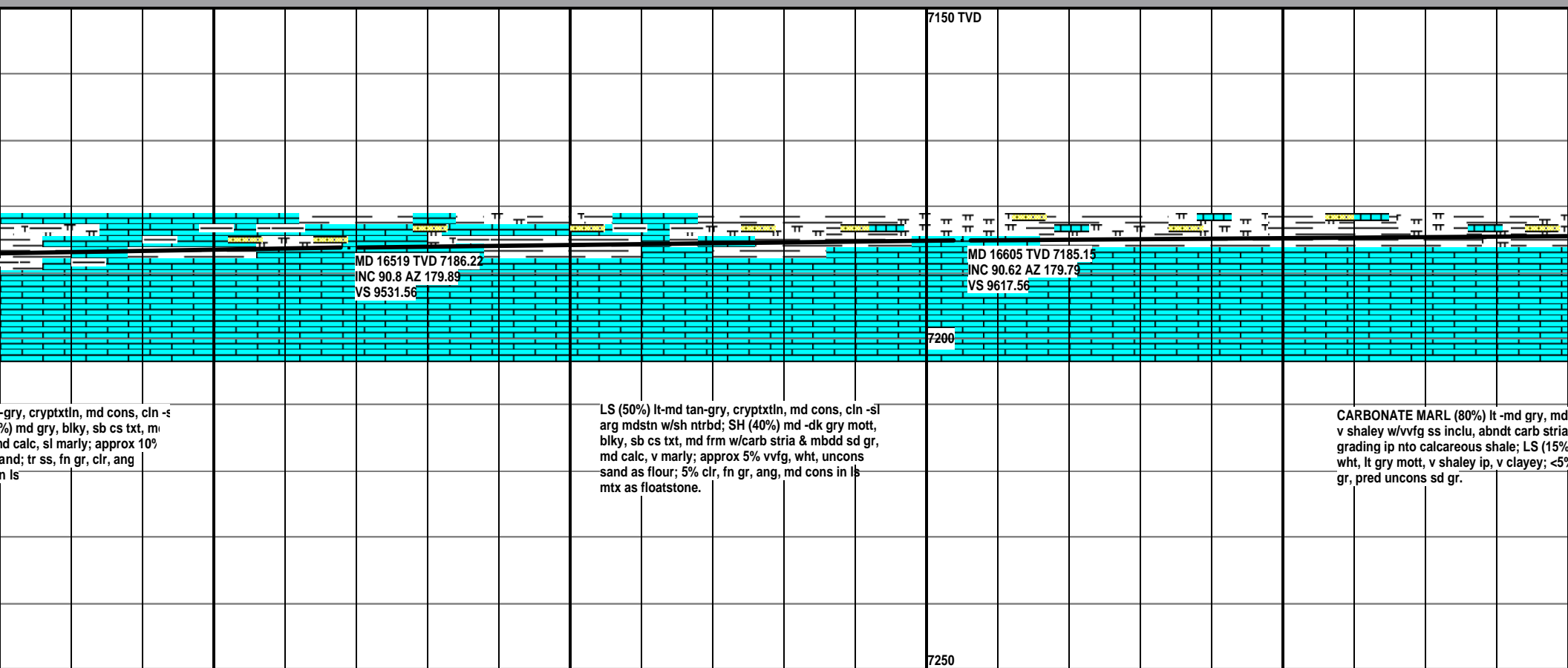












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