

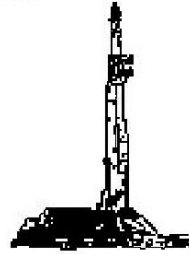
GOOLSBY BROTHERS
and associates, inc.

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: NRC 27N-8HZ
Well Id:
Location: Sec. 8 T1N R67W Weld County, CO.
License Number: API:051233909100 AFE: 2085772
Spud Date: April 20nd, 2014
Surface Coordinates: 350' FSL, 2274' FWL
Bottom Hole: 460' FNL, 525' FWL
Coordinates: Lat. 40.0592480, Lon. -104.9081660, Sec.8, T1N R67W
Ground Elevation (ft): 5074' **K.B. Elevation (ft):** 5099'
Logged Interval (ft): 7400' **To:** 12897 **Total Depth (ft):** 12897'
Formation: Codell SS
Type of Drilling Fluid: LSND (Polymer-Water)
Region: Wattenberg
Drilling Completed: April 28th, 2014
Printed by HORIZONTAL.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Anadarko Petroleum Corporation
Address: Granite Tower - 1099 18th St, Ste 1800
Denver, CO 80202
CO Geologist, Tom Birmingham.

GEOLOGIST

Name: George Bejan, Blake Stacey
Company: Goolsby Brothers & Assoc. (GBA), Inc. (www.goolsbybrothers.com)
Address: 575 Union Blvd.
Suite 208,
Lakewood CO. 80228

E-logs

MWD Gamma

Casing

Intermediate casing: 7", 26#, HTC 110 LTC, set at 12882'

Liner: 4 1/2", packer and assembly, 11.5#, HCP 110, LTC & D2X, set at 12882'

Comments

Drilling Contractor: H&P 311

Pumps 1 & 2: Gardner Denver PZ 11 6" x 11" (.0914 bbl/stk)

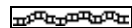
Rig Manager: Jack Truett, James Baggett.

Drillers: Michael Munroe, Christopher Beckstead

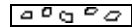
ROCK TYPES



Anhy



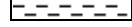
Bent



Brec



Cht



Clyst



Coal



Oil sat.



Congl



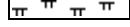
Dol



Gyp



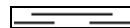
Lmst



Mrlst



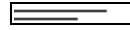
Salt



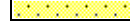
Shale



Shcol



Shgy



Ss



Sltst



Ss



Chalk



Carb sh



Sltly sh

ACCESSORIES

MINERAL

	Anhy
	Arggrn
	Arg
	Bent
	Bit
	Brecfrag
	Calc
	Carb
	Chtdk
	Chtlit
	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

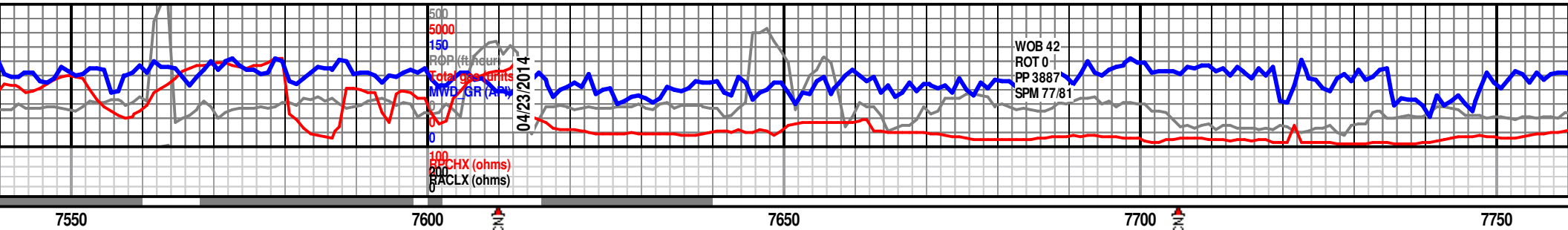
ROUNDING

	Rounded
	Subrnd
	Subang

	Angular
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SORTING

	Well
	Moderate
	Poor



TOP
98' TVD,

MRLS (60%): brn-dk grybrn, frm-hd, crypxln-micrxln, blkyltly-sply, rthy, tr prismatic clcit. CHALK (40%): md gry brn, frm-hd, crypxln-micrxln, blkyl, md cons, v slty, NF yel-grn sl milky cut.

Niobrara 'B' - 7617' MD;
7504' TVD (- 2405' SS)

Scale Change
7600

CHALK (60%): md gry brn, frm-hd, crypxln-micrxln, blkyl-sbblky, md cons fos detritus in clay mtx, slty; MRLS (40%): brn-dk grybrn, frm-hd, crypxln-micrxln, blkyltly-sply, rthy, tr nod pyr, tr prismatic clcit, NF flush grn-brn milky cut.

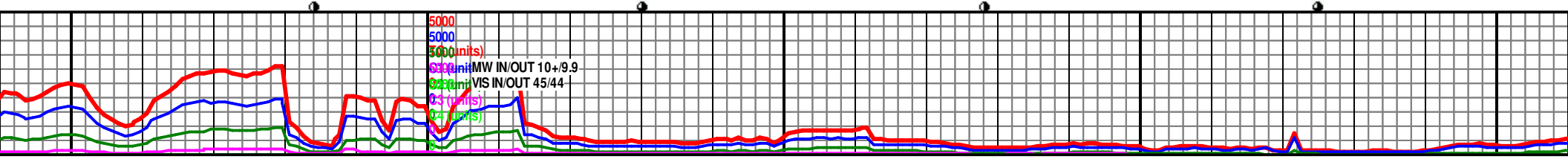
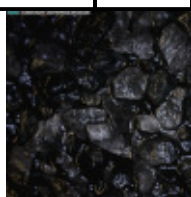
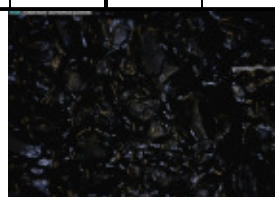
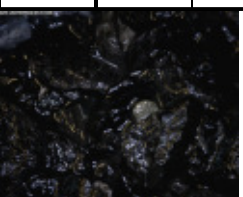
MRLS 60%: brn-dk grybrn, frm-hd, crypxln-micrxln, blkyltly-sply, rthy, tr nod pyr, abdn prismatic clcit; SH (10%): md dk gry, blkyl, sb fiss, calc; CHALK (30%): md gry brn, frm-hd, crypxln-micrxln, blkyl-sbblky, md cons fos detritus in clay mtx, slty, NF flush grn-brn milky cut.

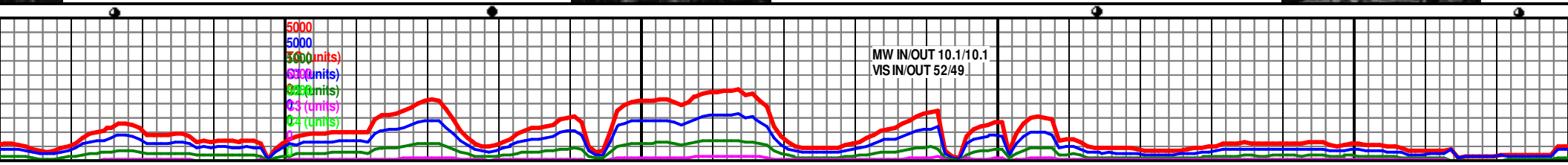
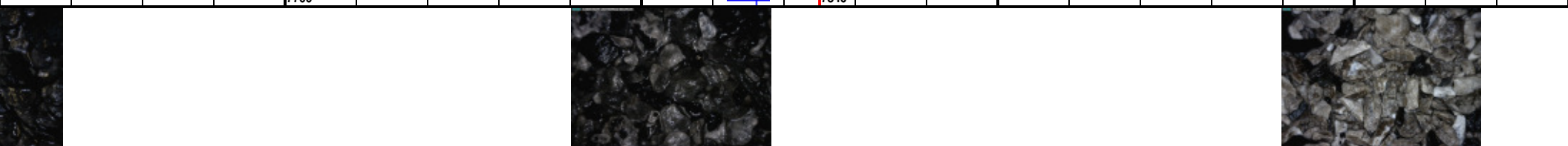
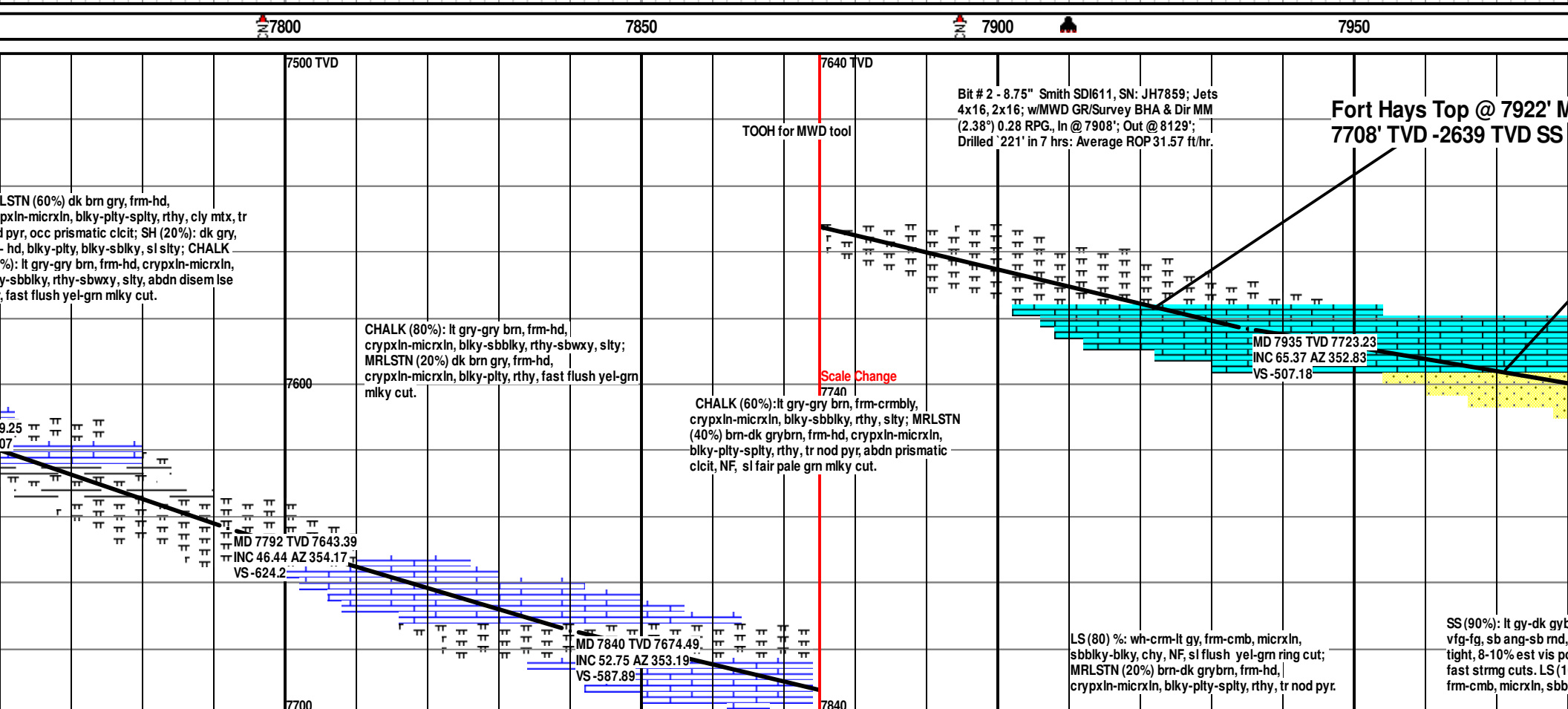
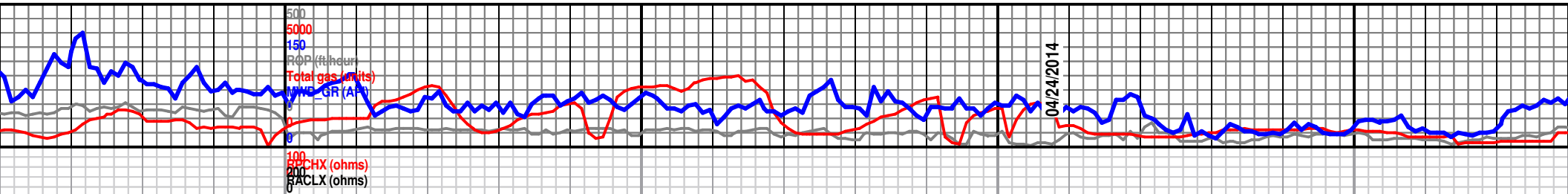
CHALK (60%): lt gry-gry brn, frm-hd, crypxln-micrxln, blkyl-sbblky, md cons, rthy-sbwxy, slty, abdn dise m lse pyr. MRLS (40%): brn-dk grybrn, frm-hd, crypxln-micrxln, blkyltly-sply, rthy, occ prismatic clcit, flush yel-brn cut with fast strmg cuts.

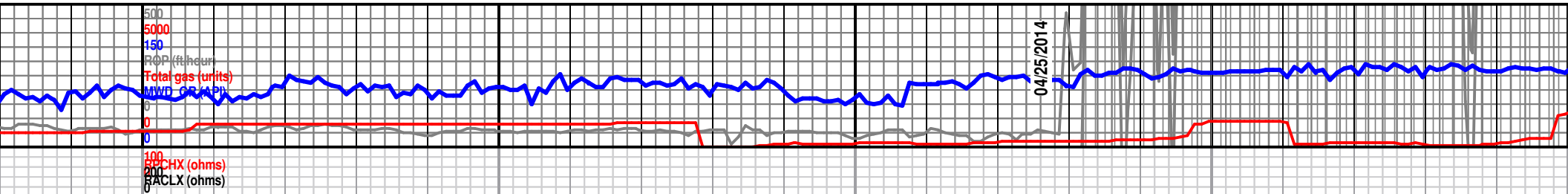
Niobrara 'C' Top @ 7719'
MD, 7589 TVD, - 2490 TVD
SS

ott
dk
tr

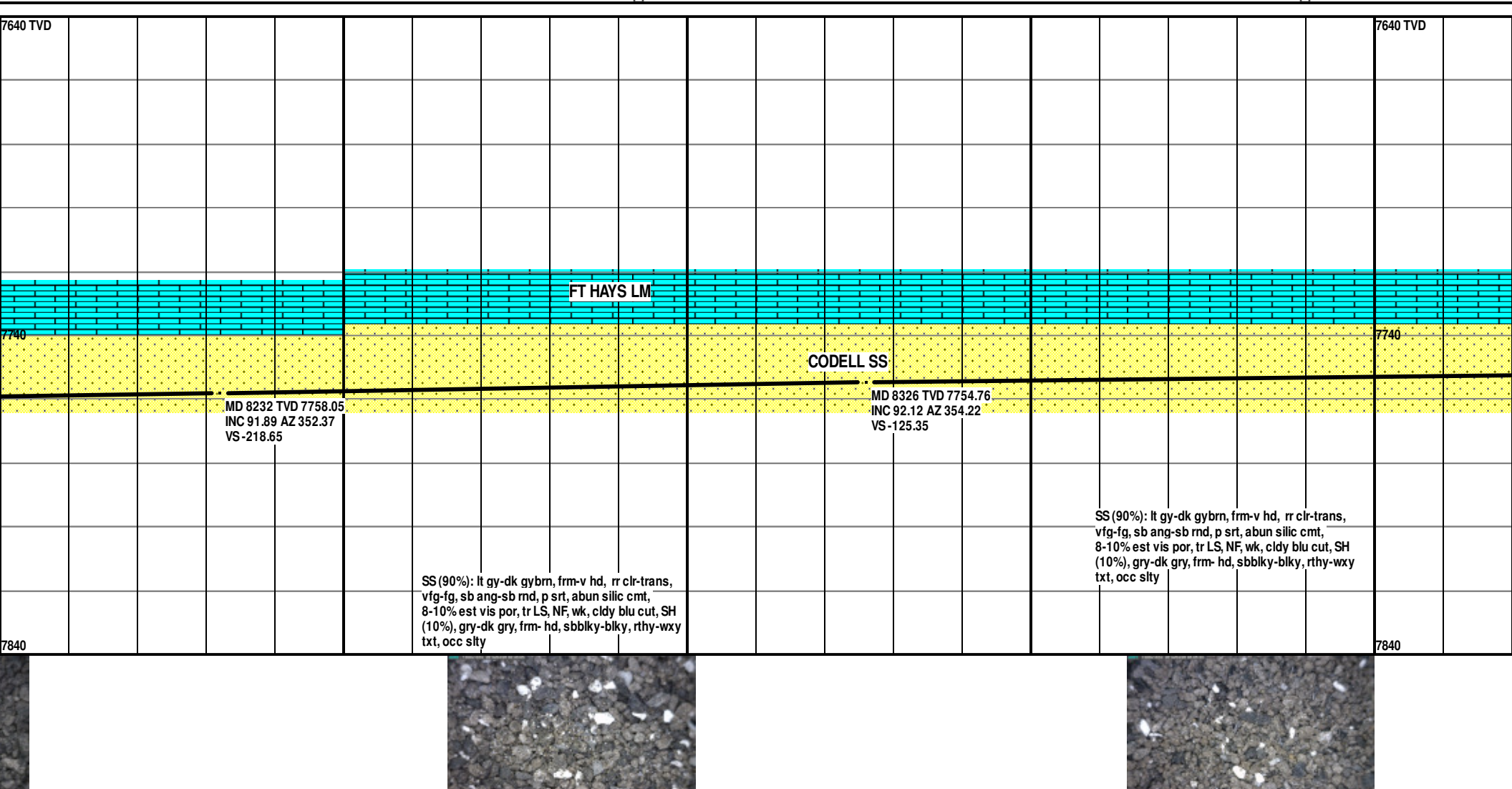
MR
cry
noc
frm
(20
blk
pyr

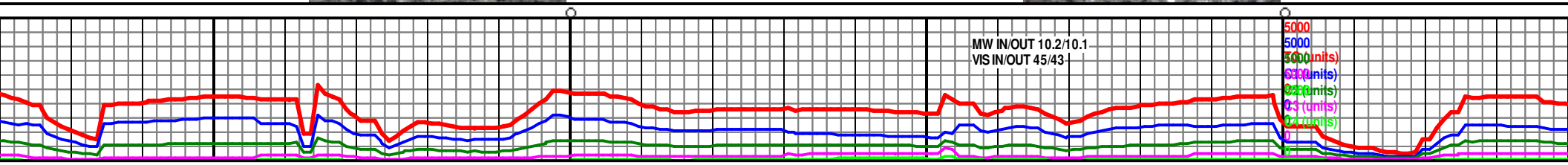
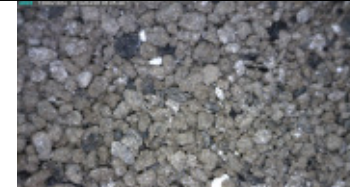
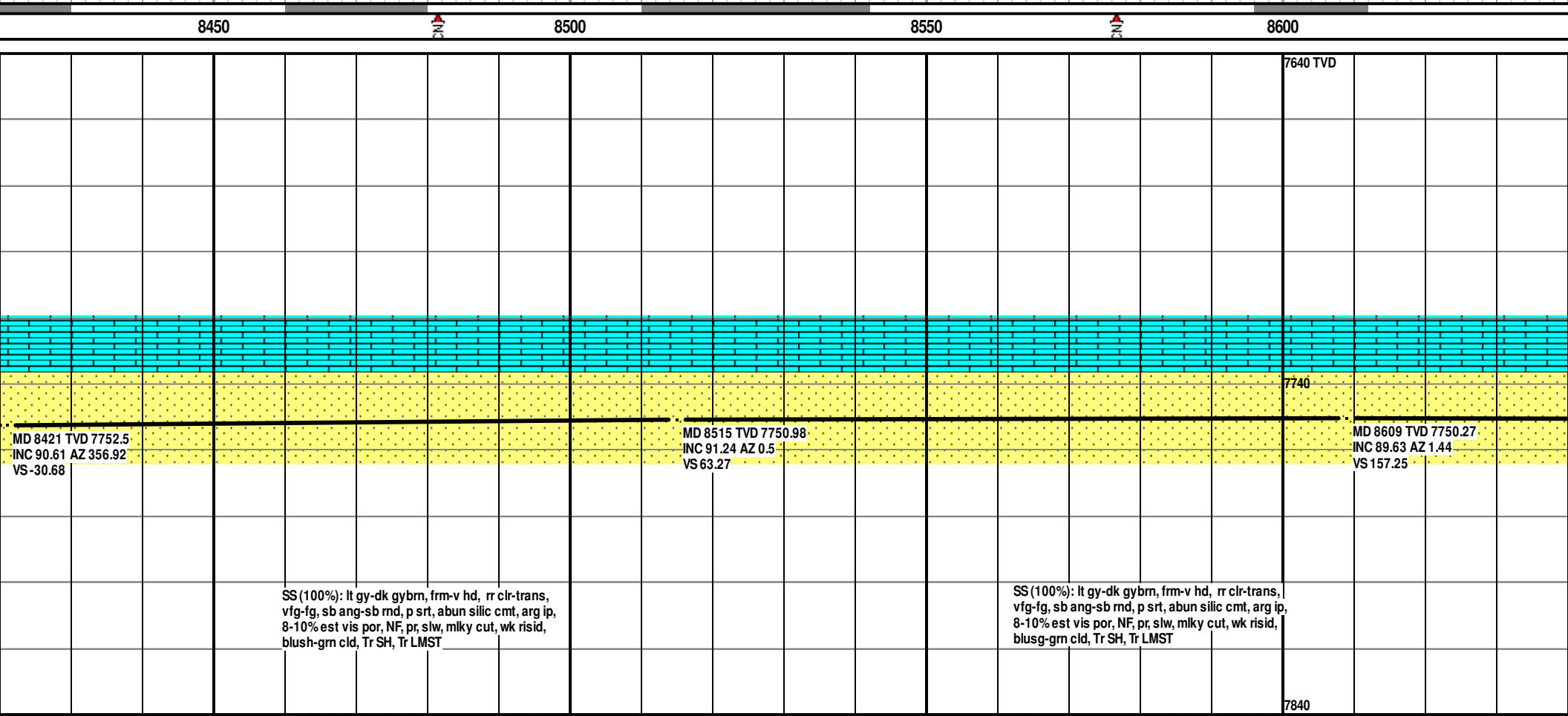
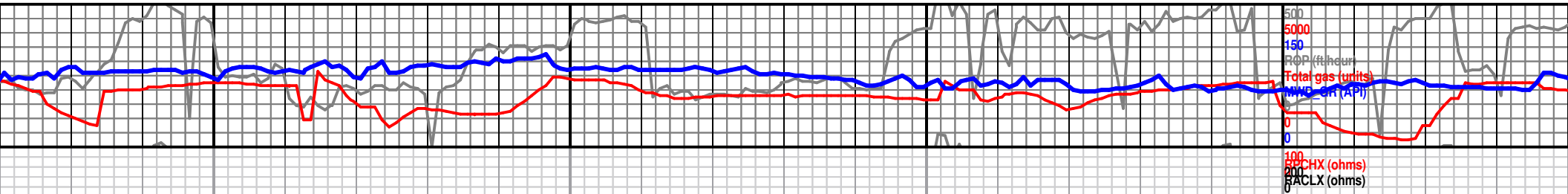


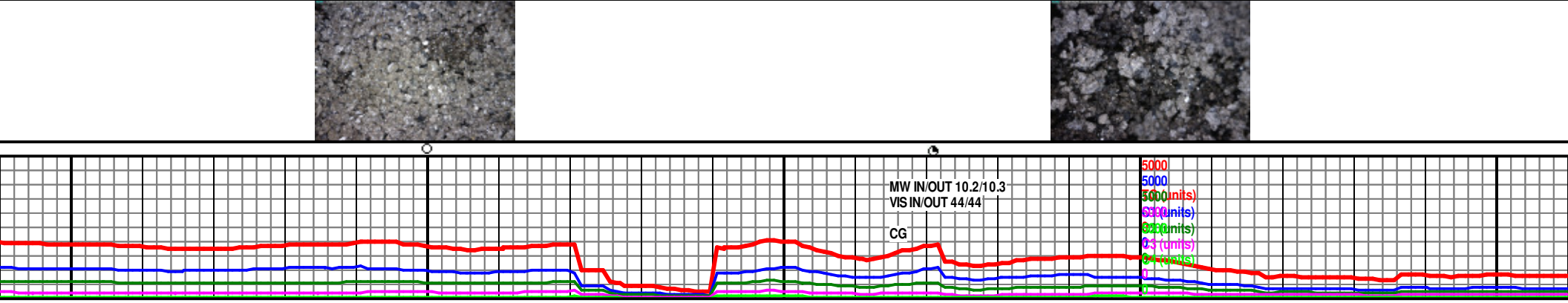
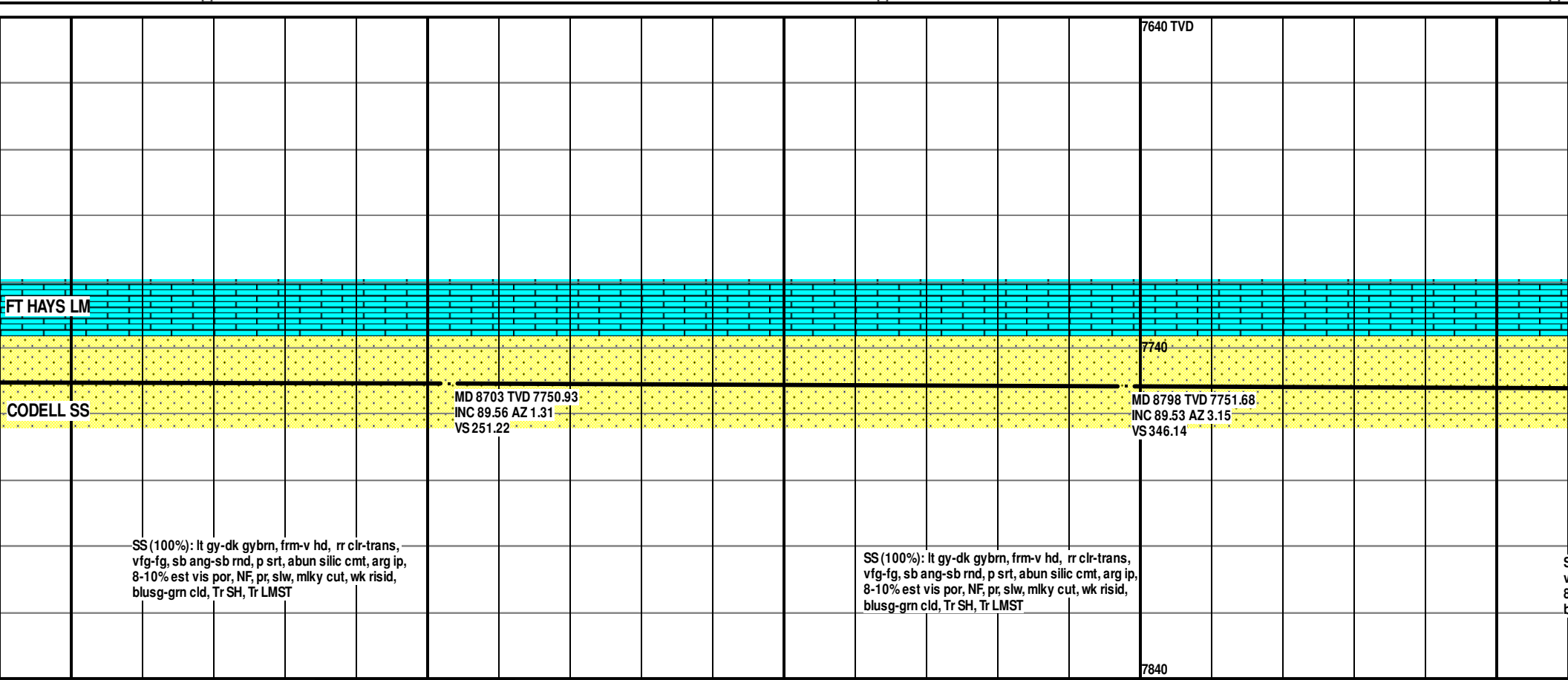


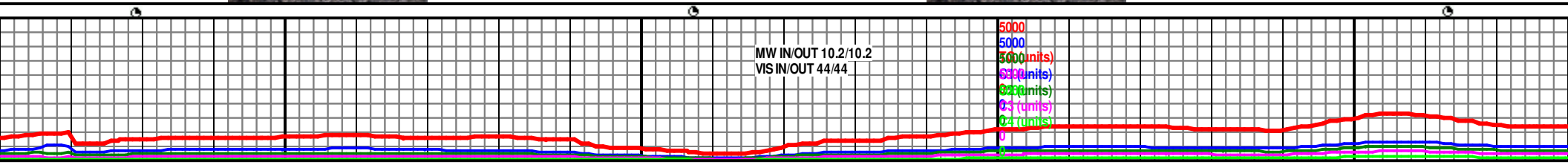
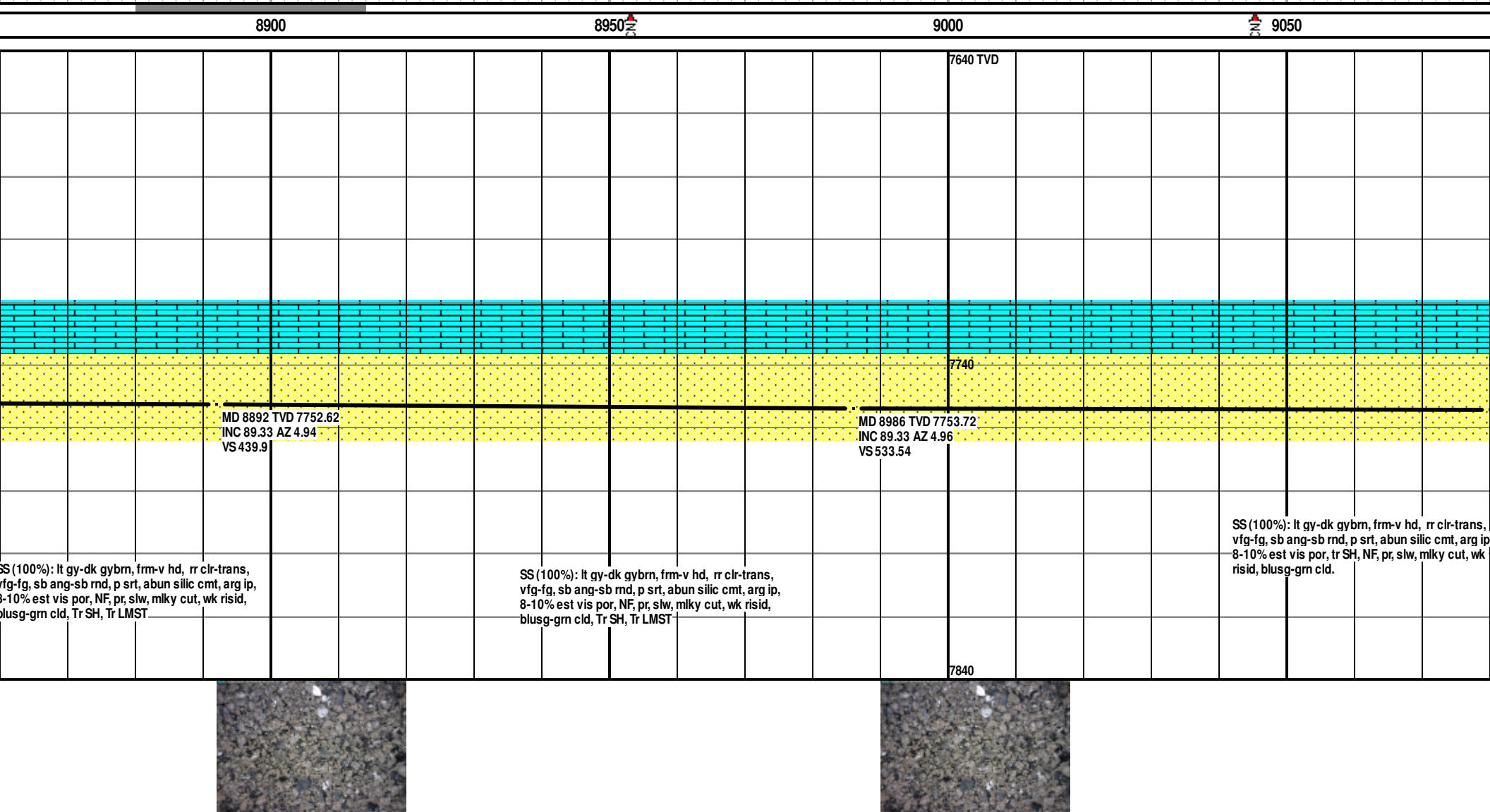


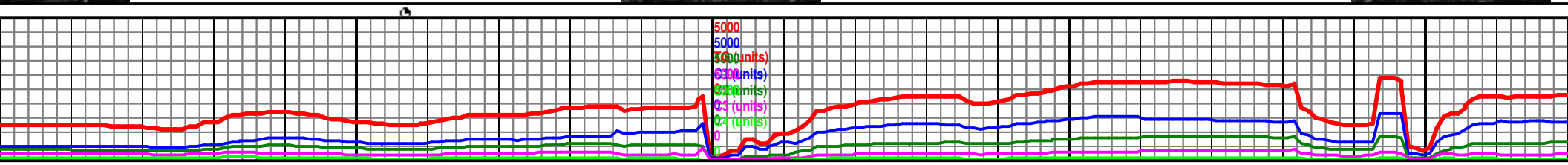
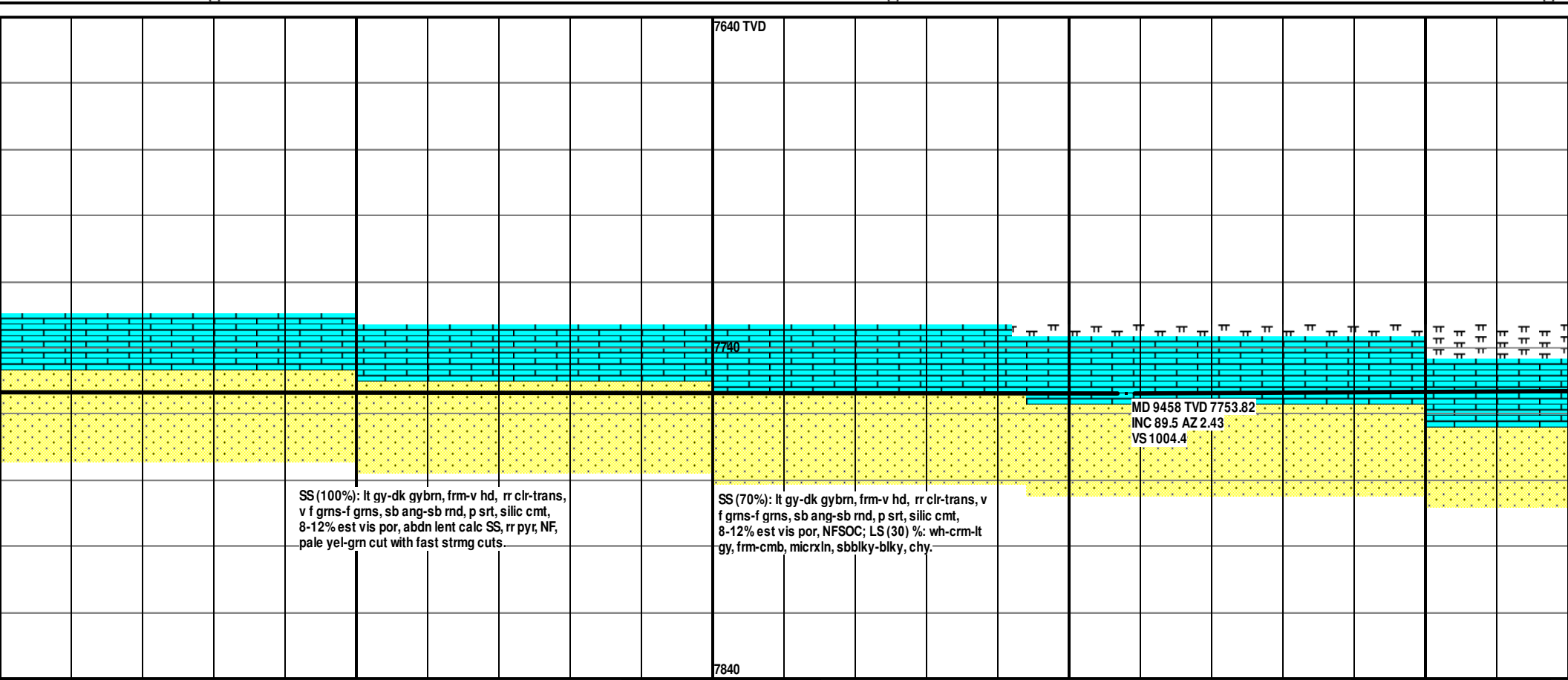
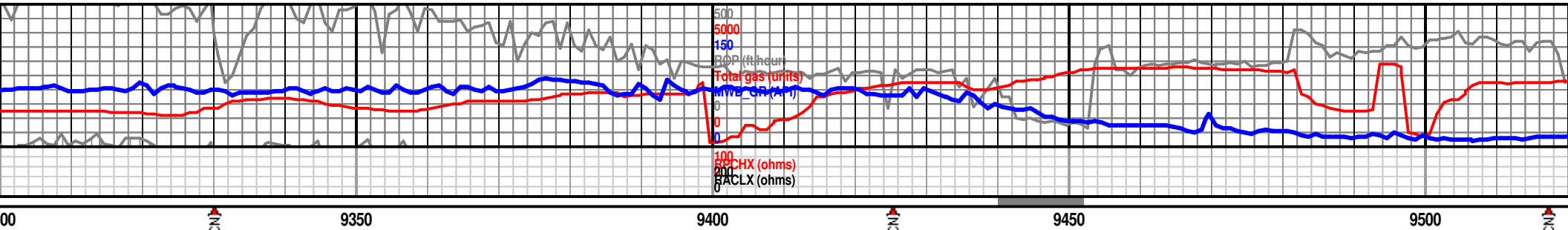
MD	7640 TVD													

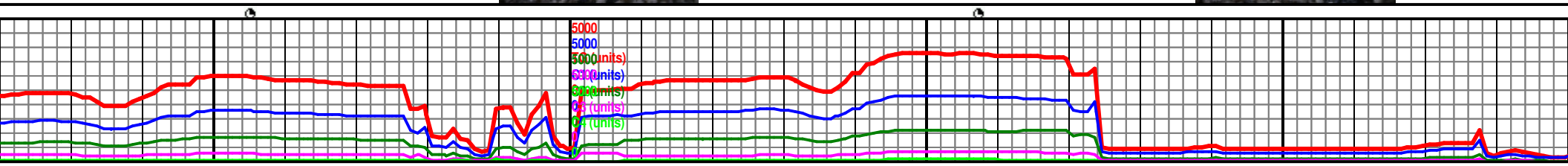
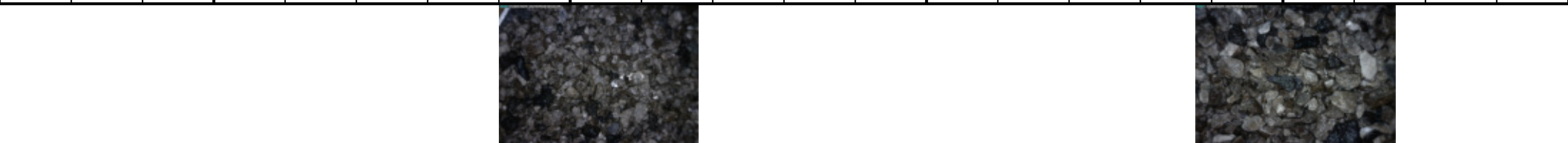
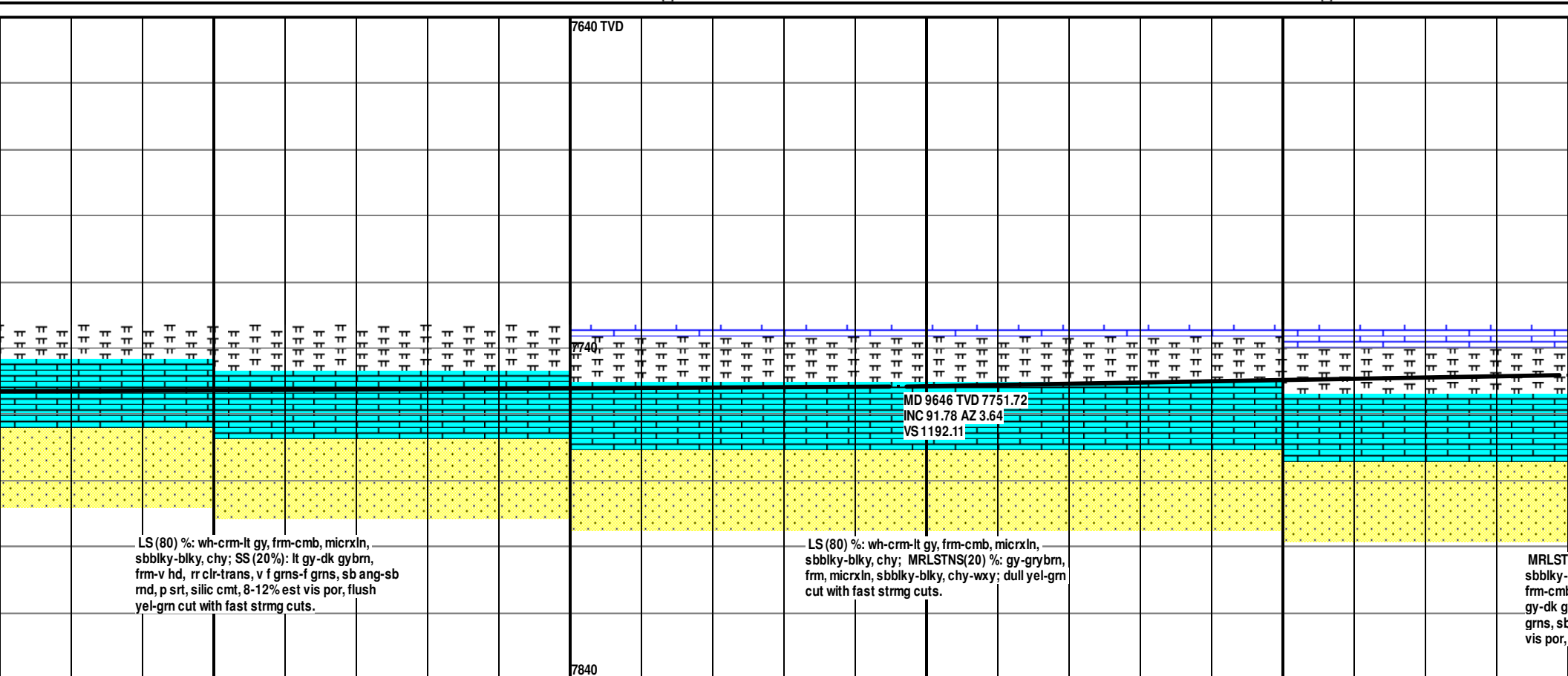
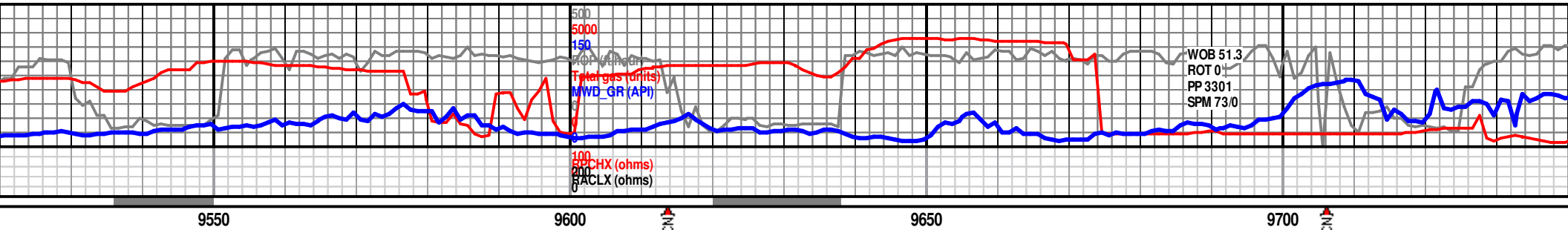


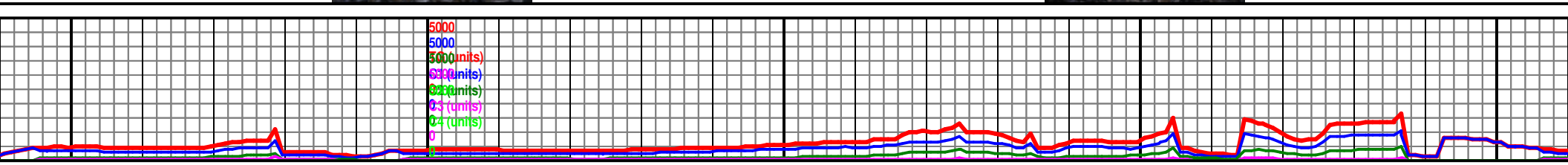
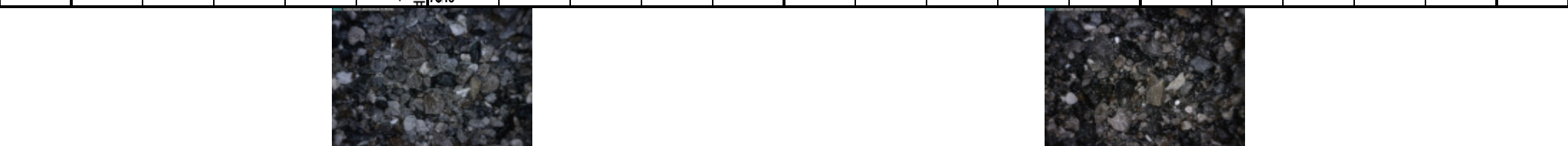
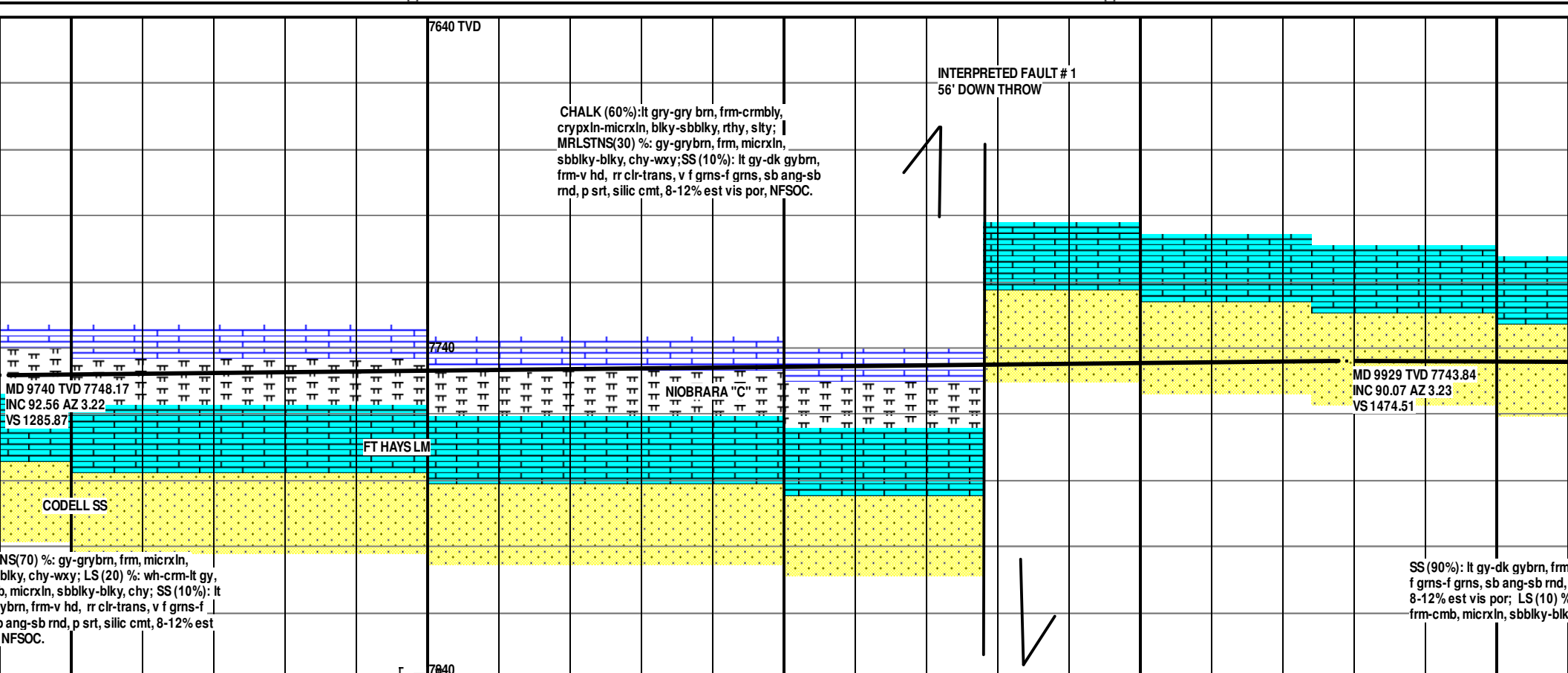
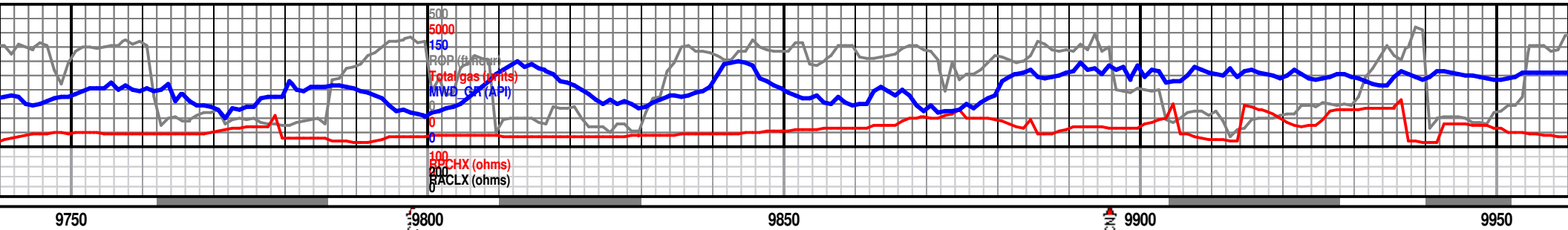


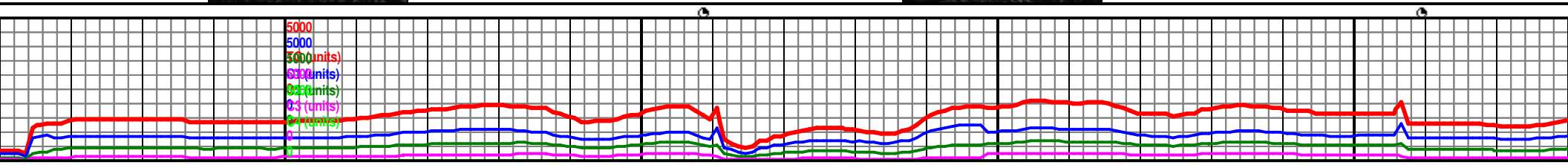
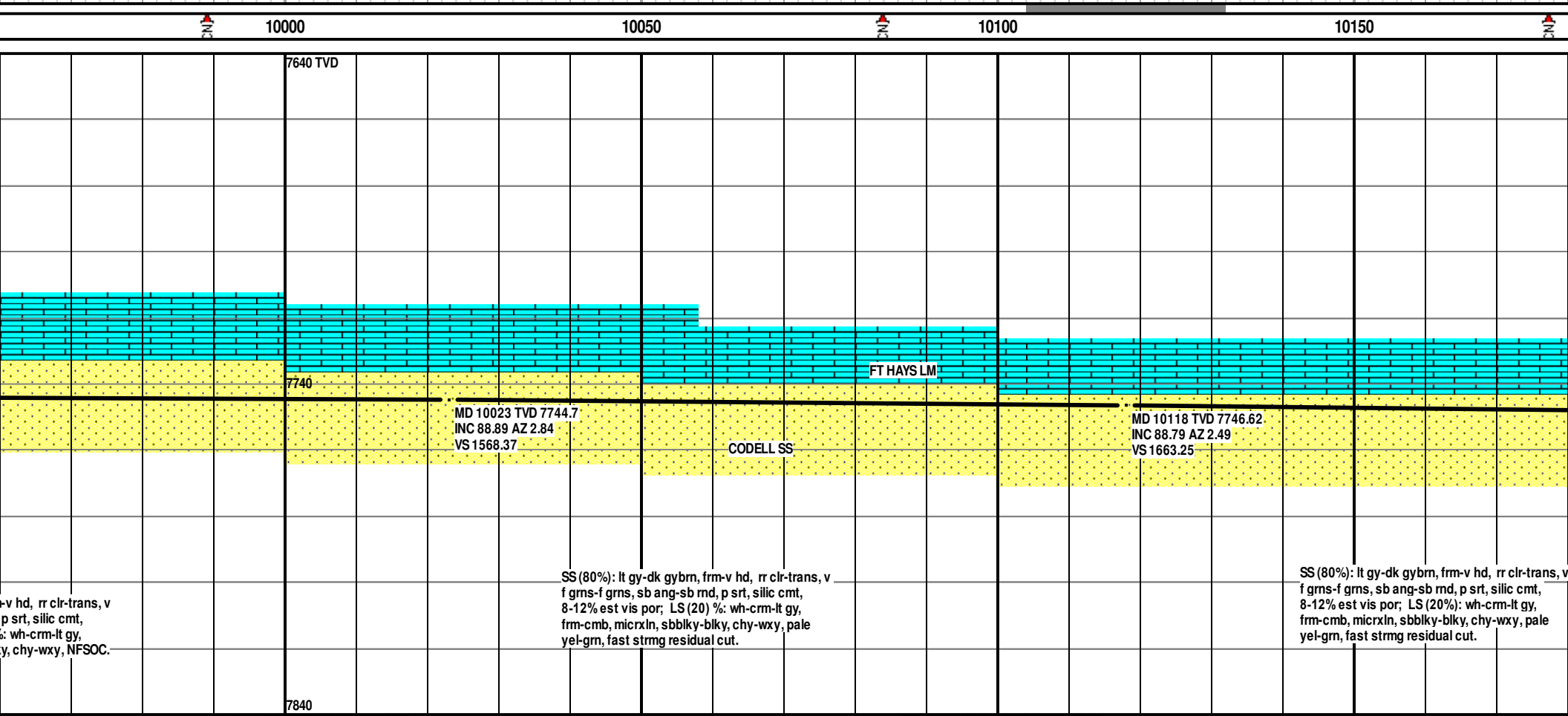
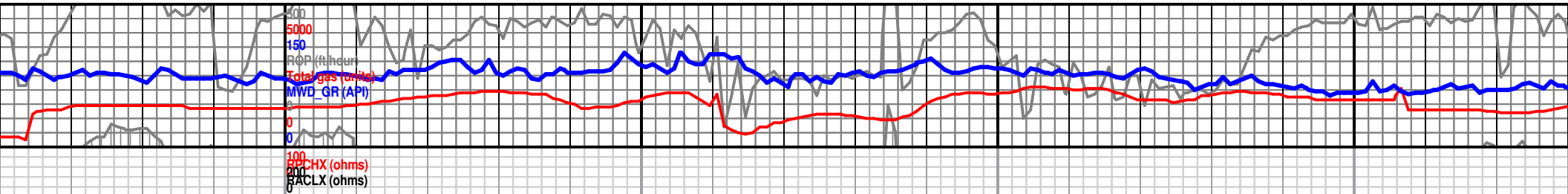


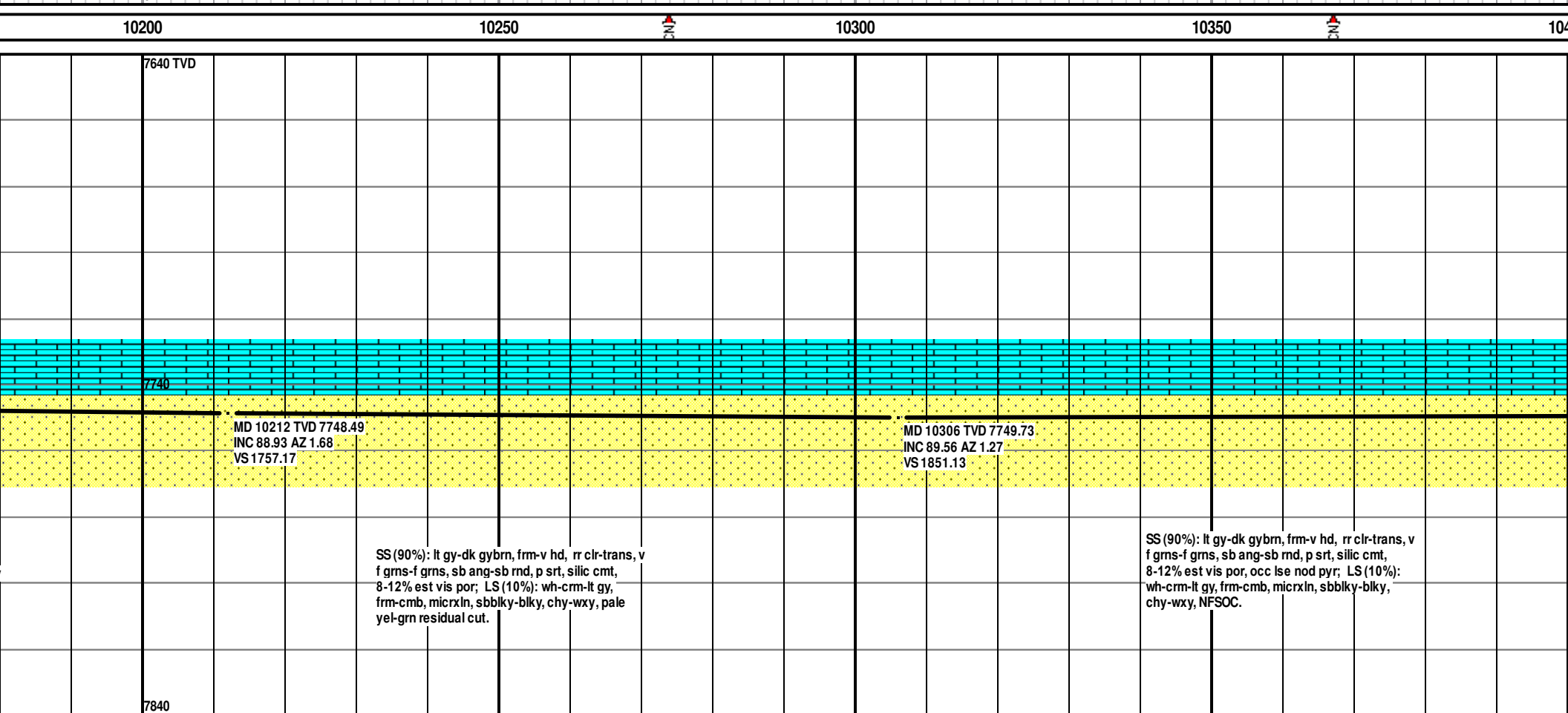


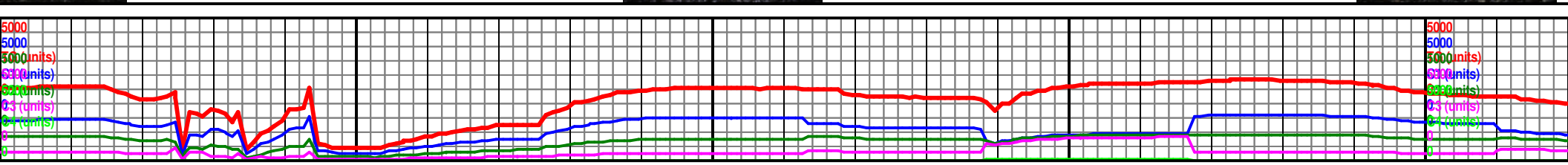
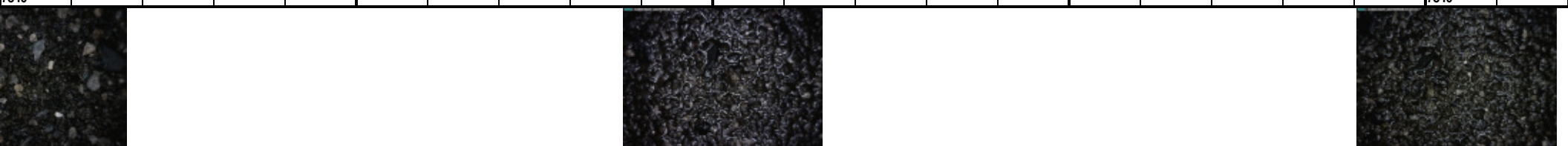
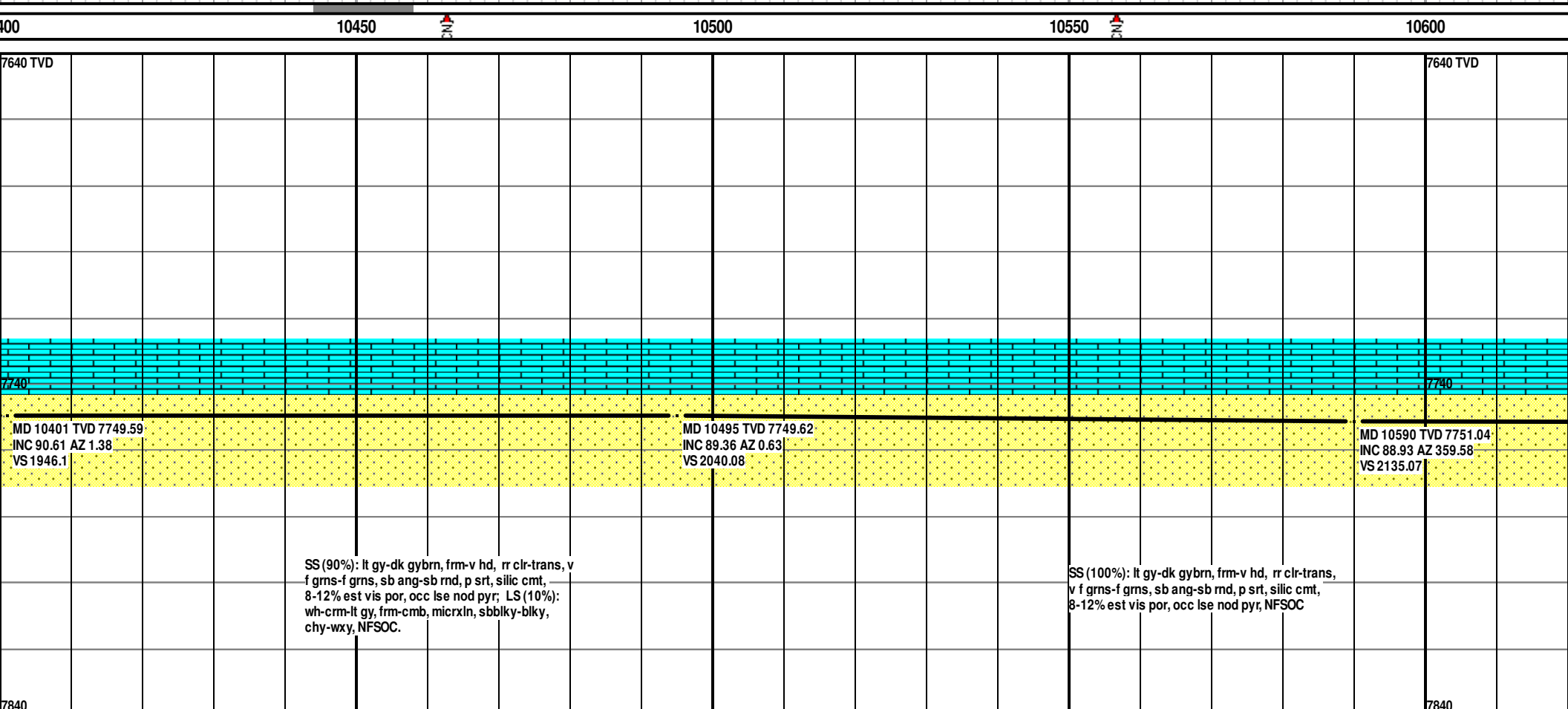
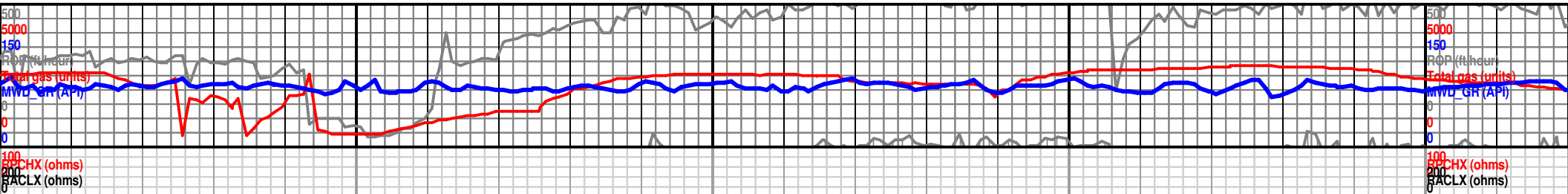


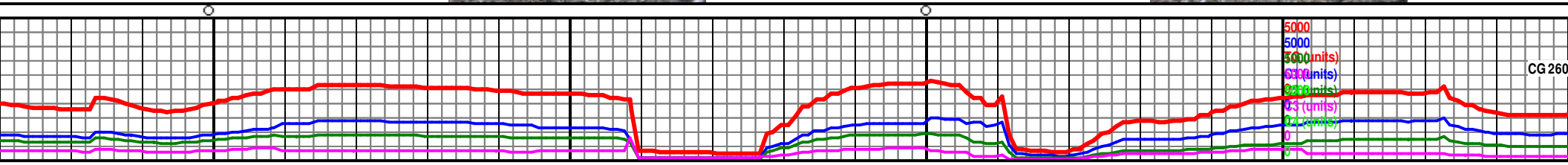
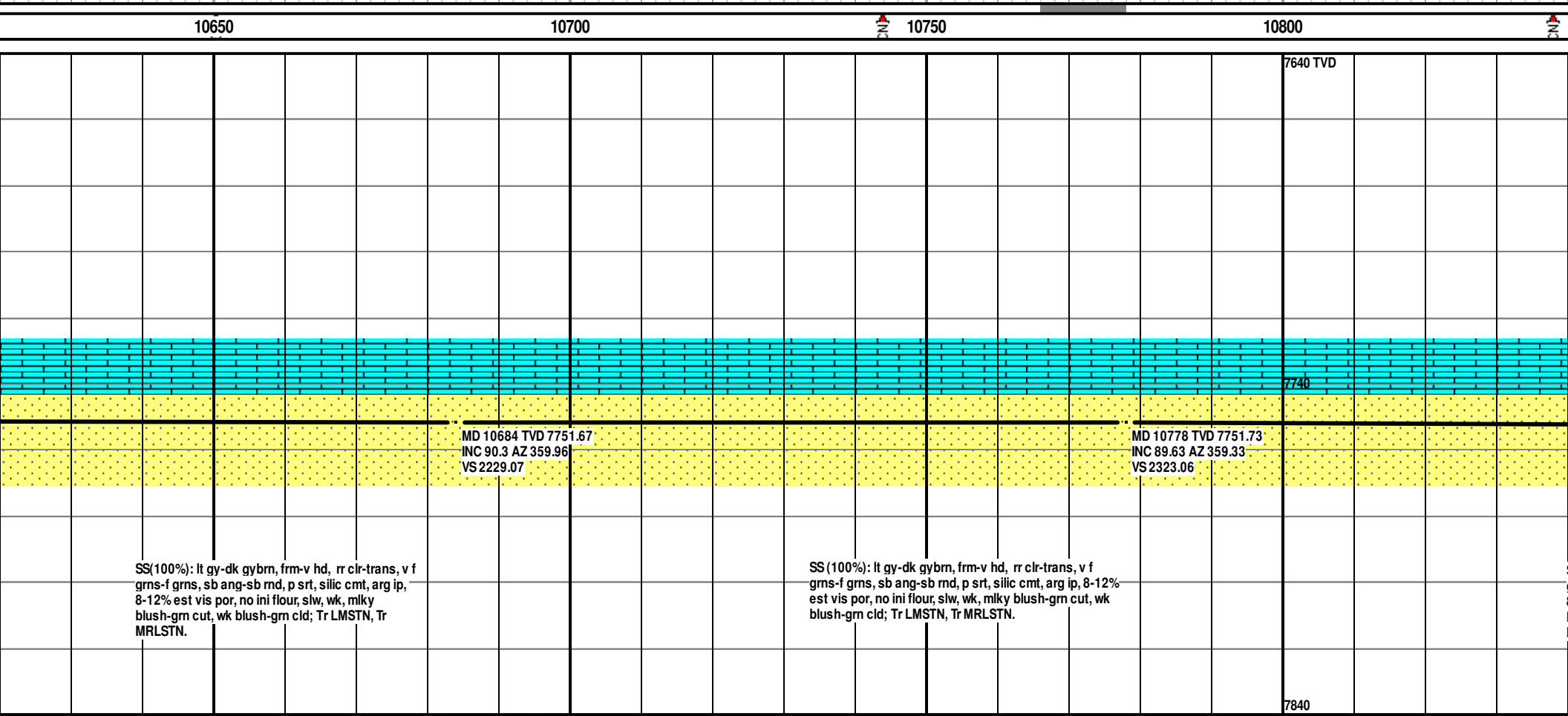
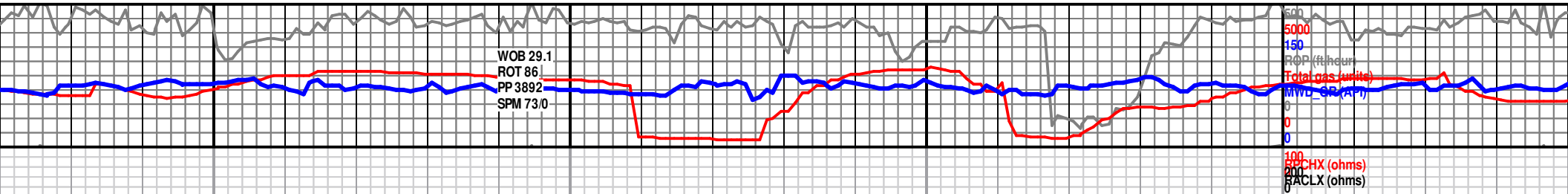


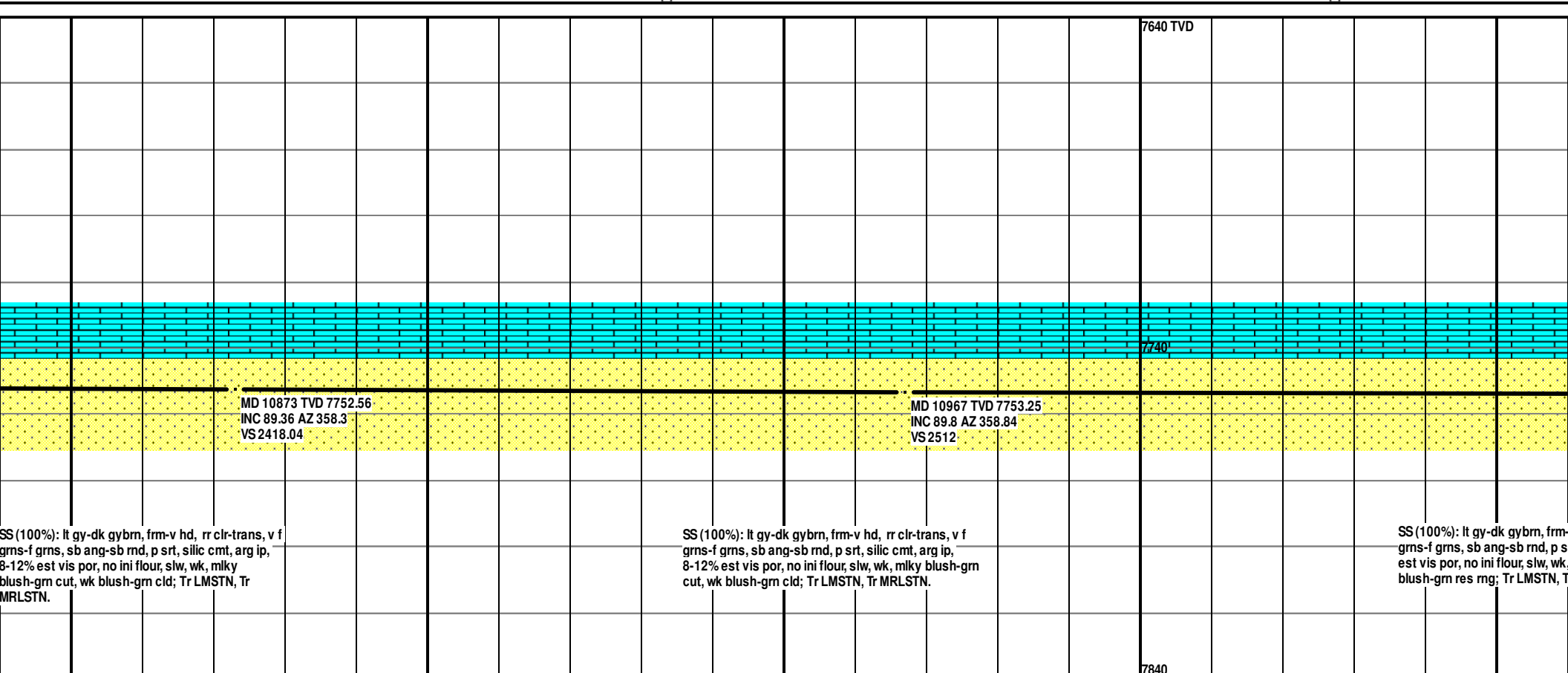
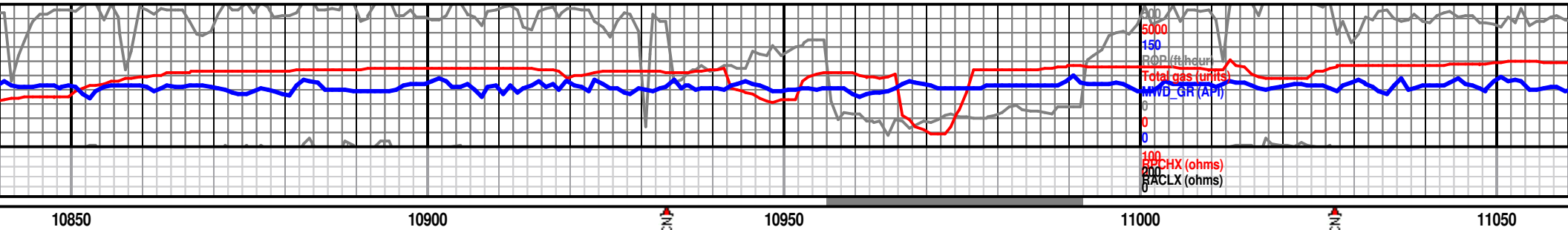








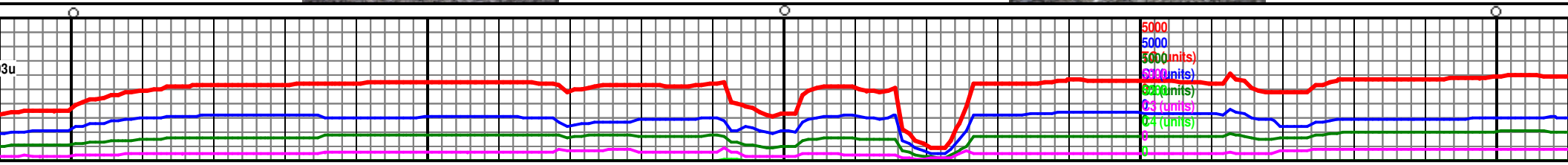
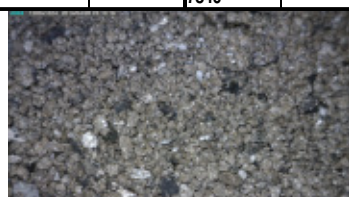


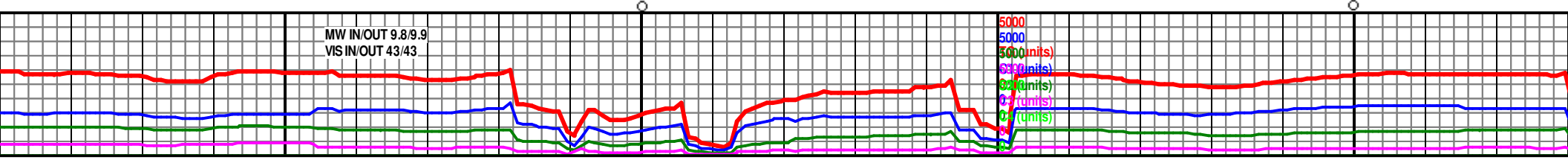
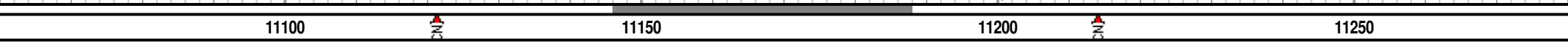


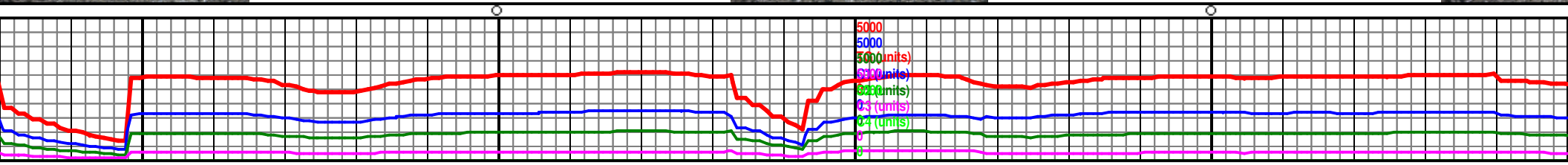
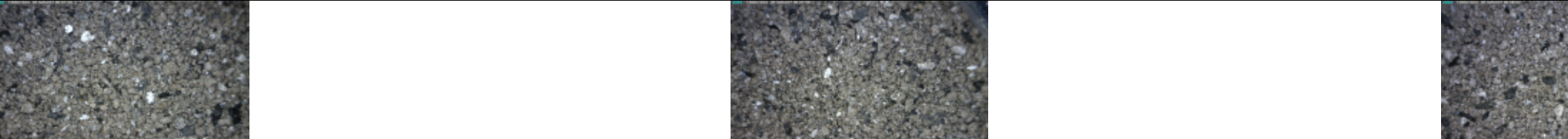
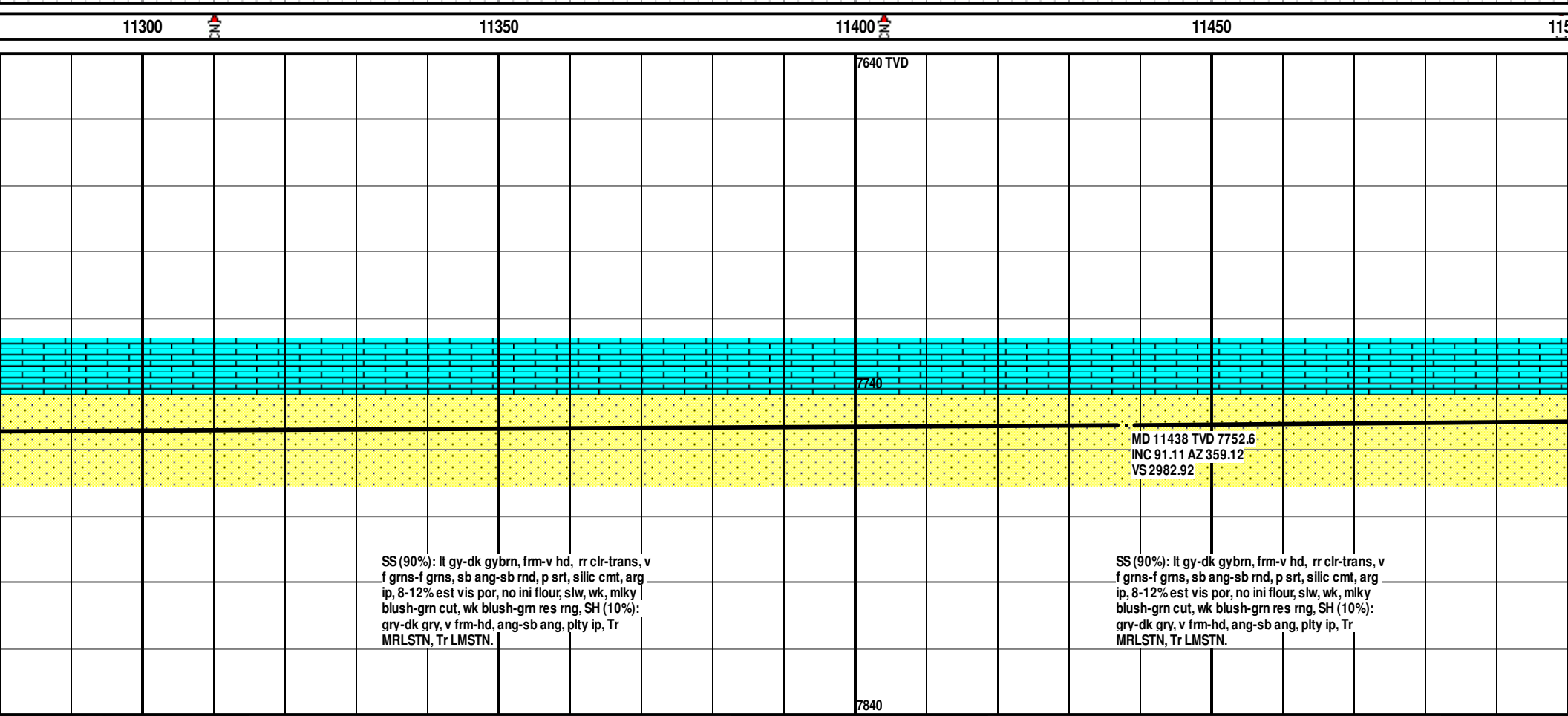
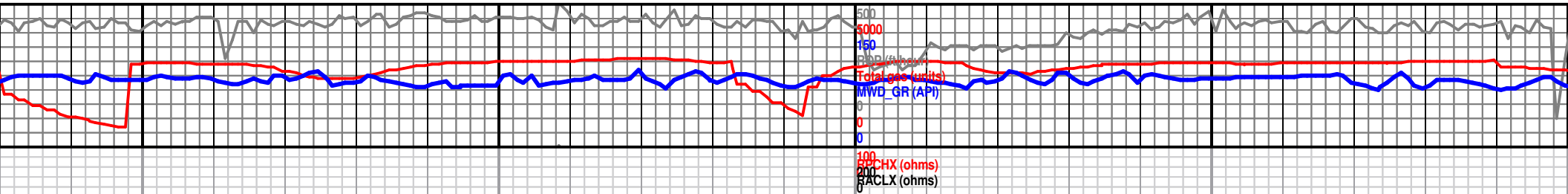
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grns-f grns, sb ang-sb rnd, p srt, silic cmt, arg ip,
8-12% est vis por, no ini flour, slw, wk, mlky
blush-grn cut, wk blush-grn cld; Tr LMSTN, Tr
MRLSTN.

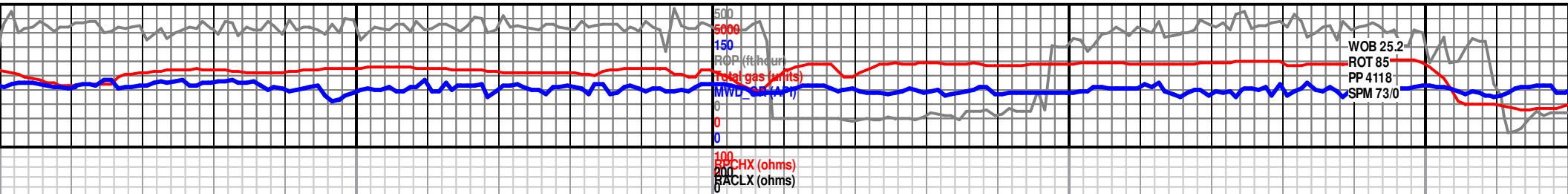
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8-12% est vis por, no ini flour, slw, wk, mlky blush-grn
cut, wk blush-grn cld; Tr LMSTN, Tr MRLSTN.

SS (100%): lt gy-dk gybrn, frm-
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blush-grn res mg; Tr LMSTN, T

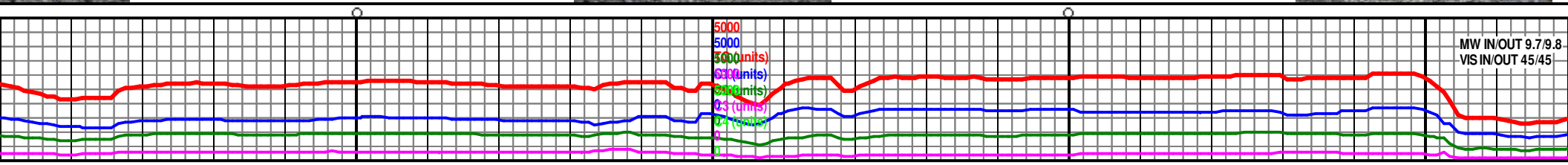
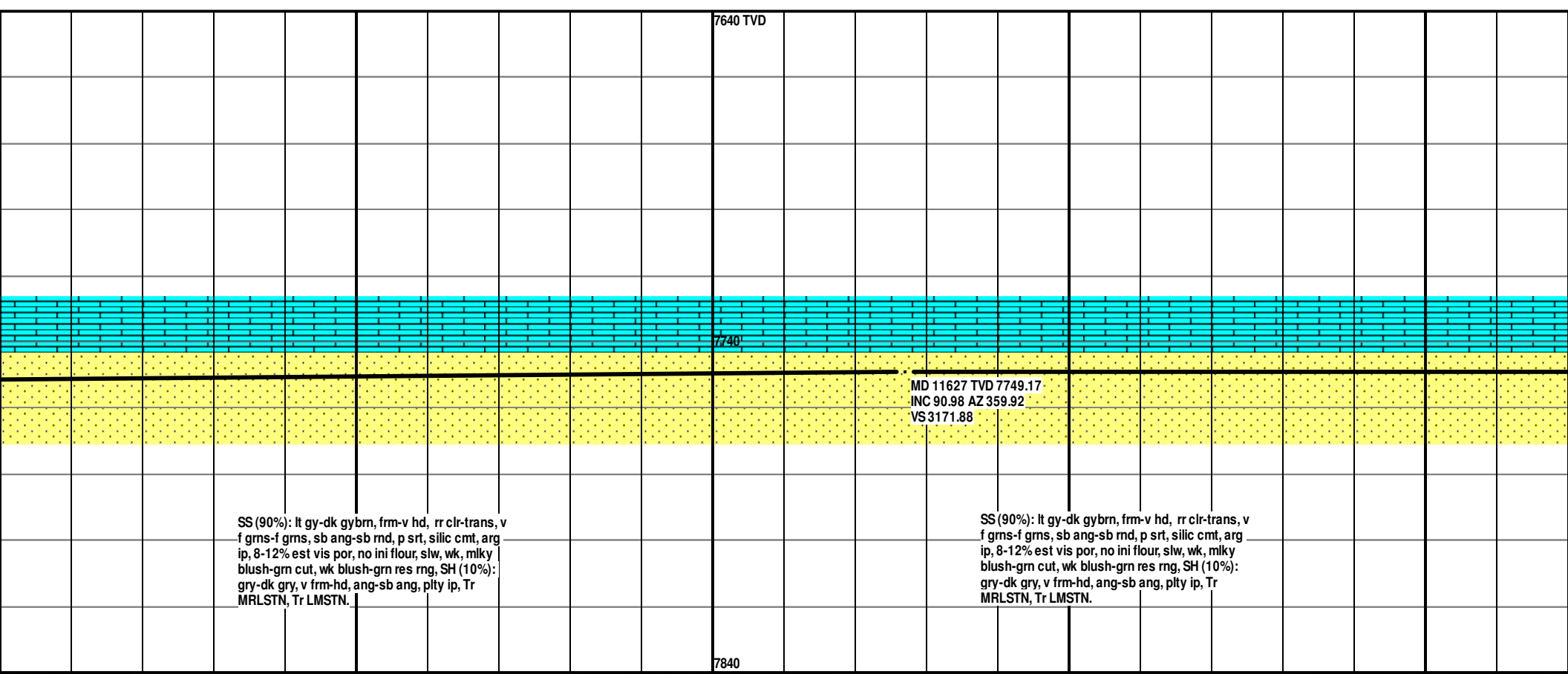


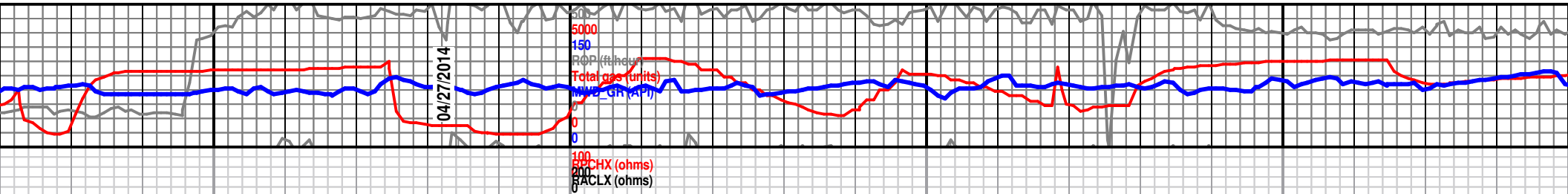






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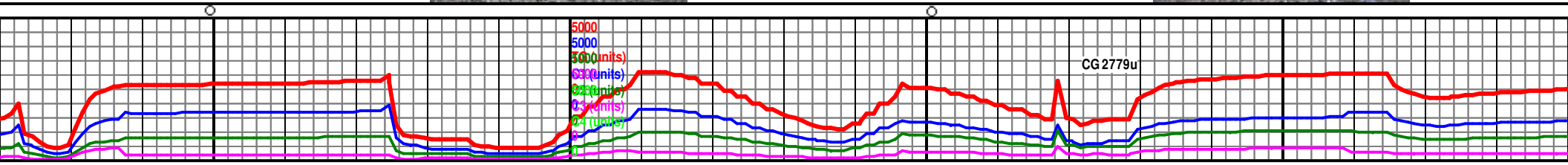
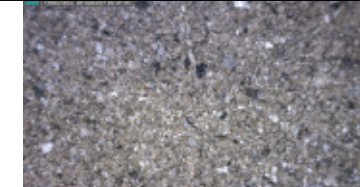
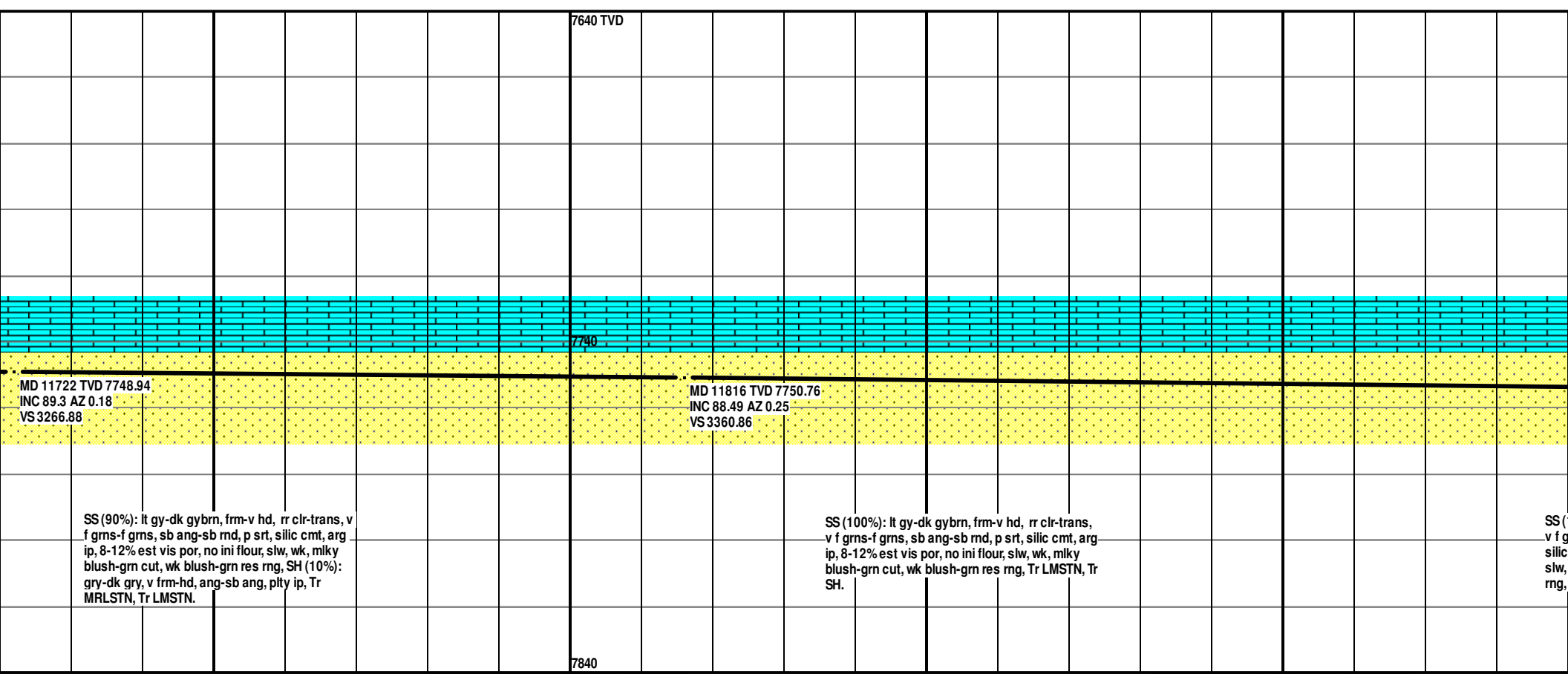


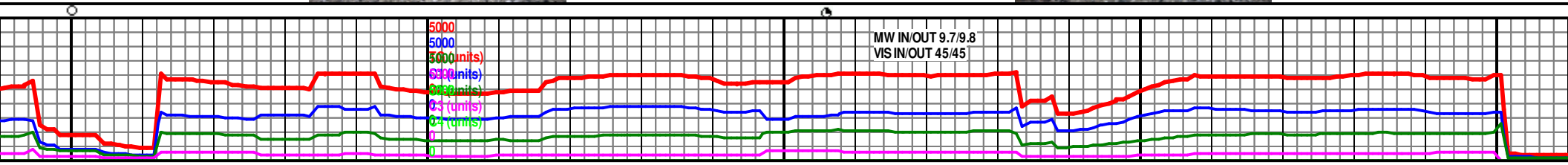
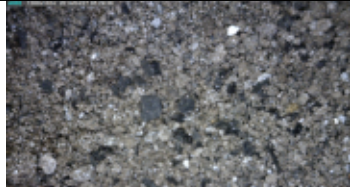
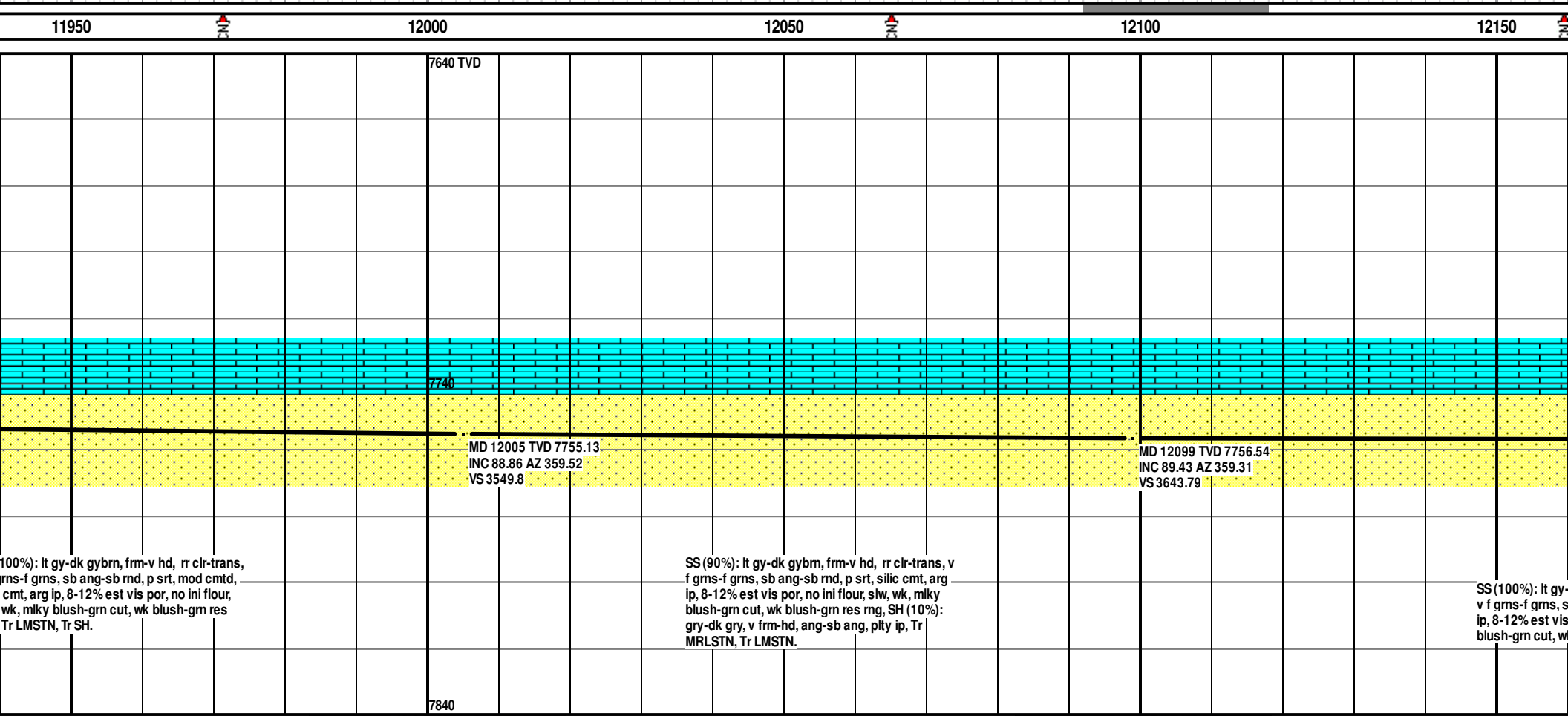
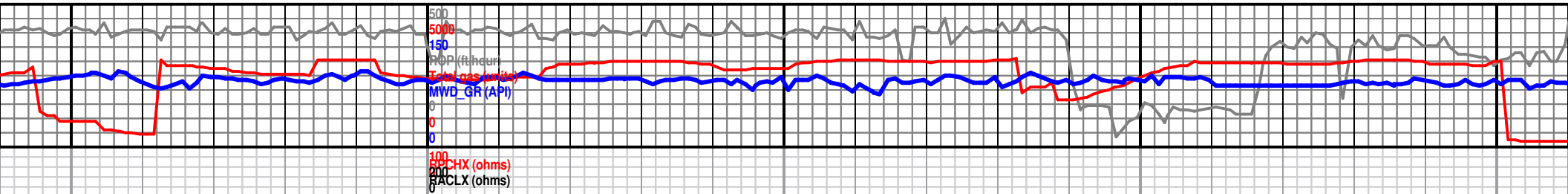
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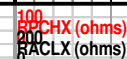
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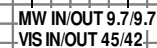
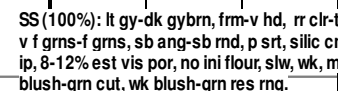
11900

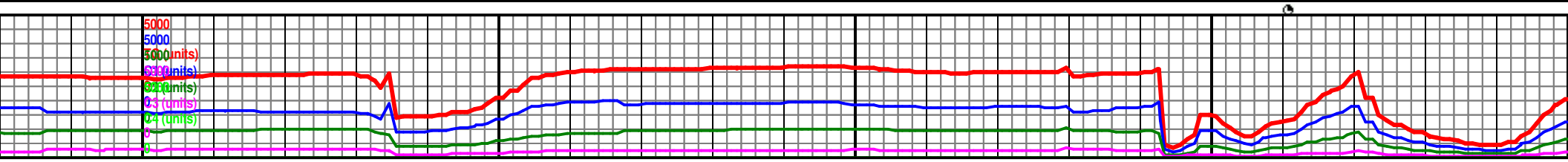
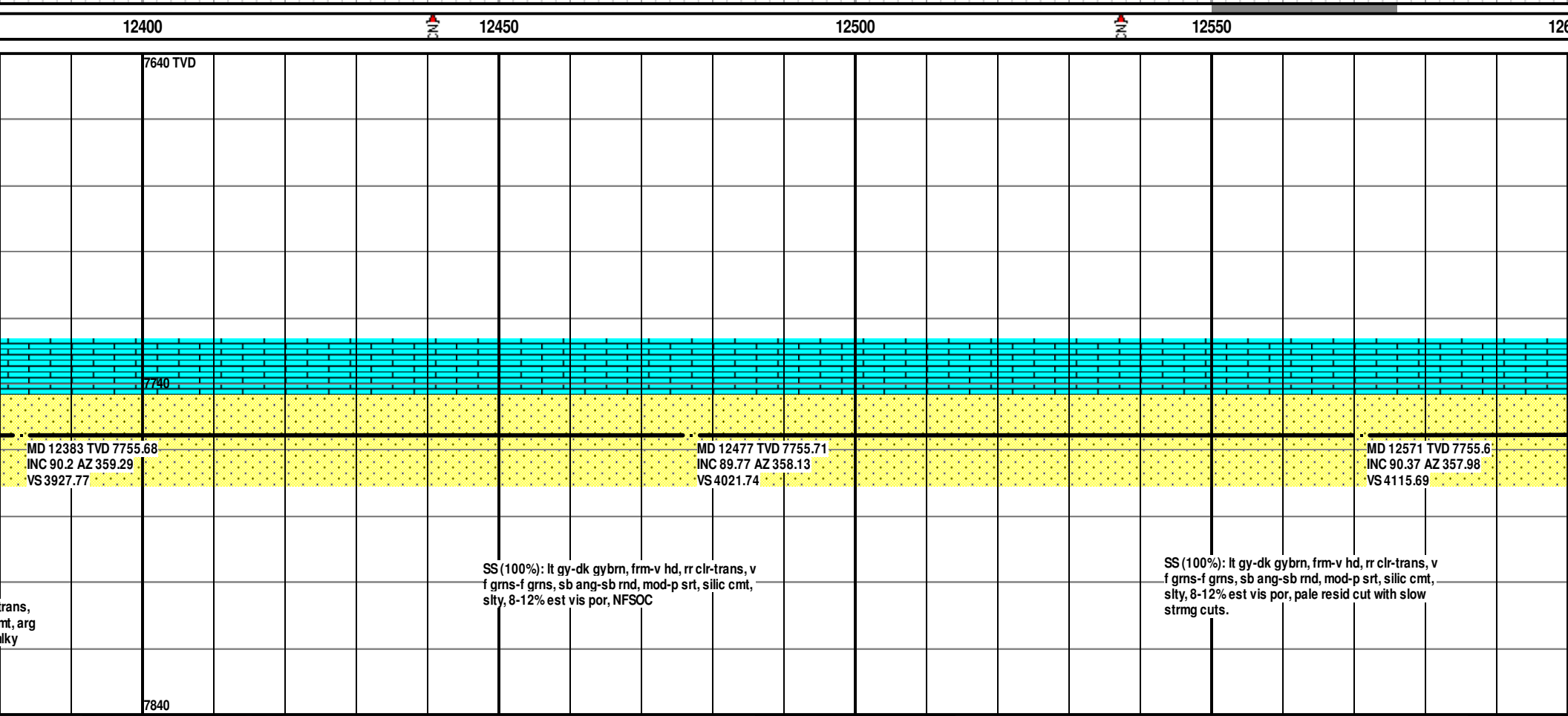
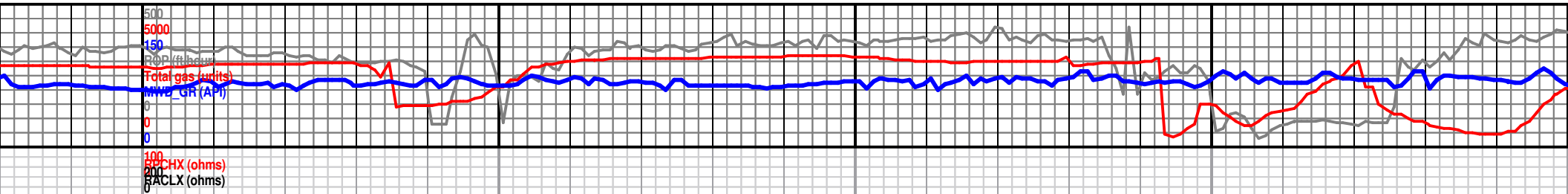


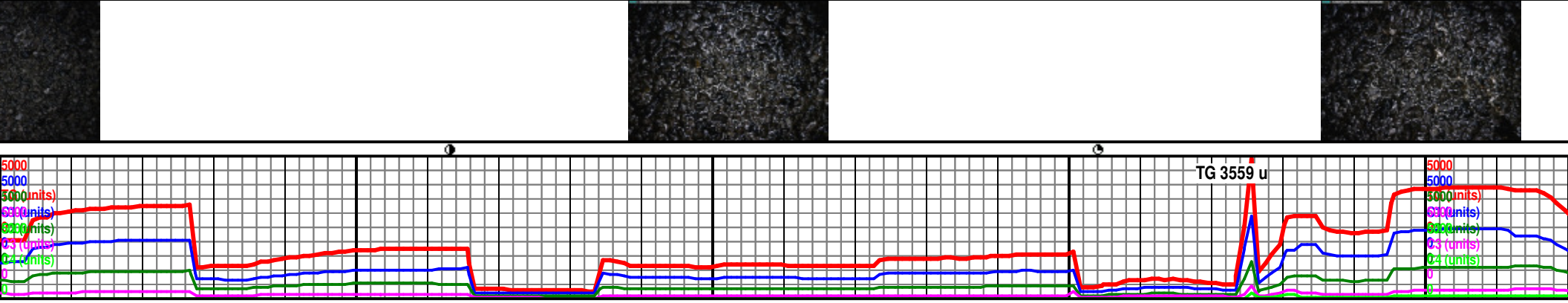
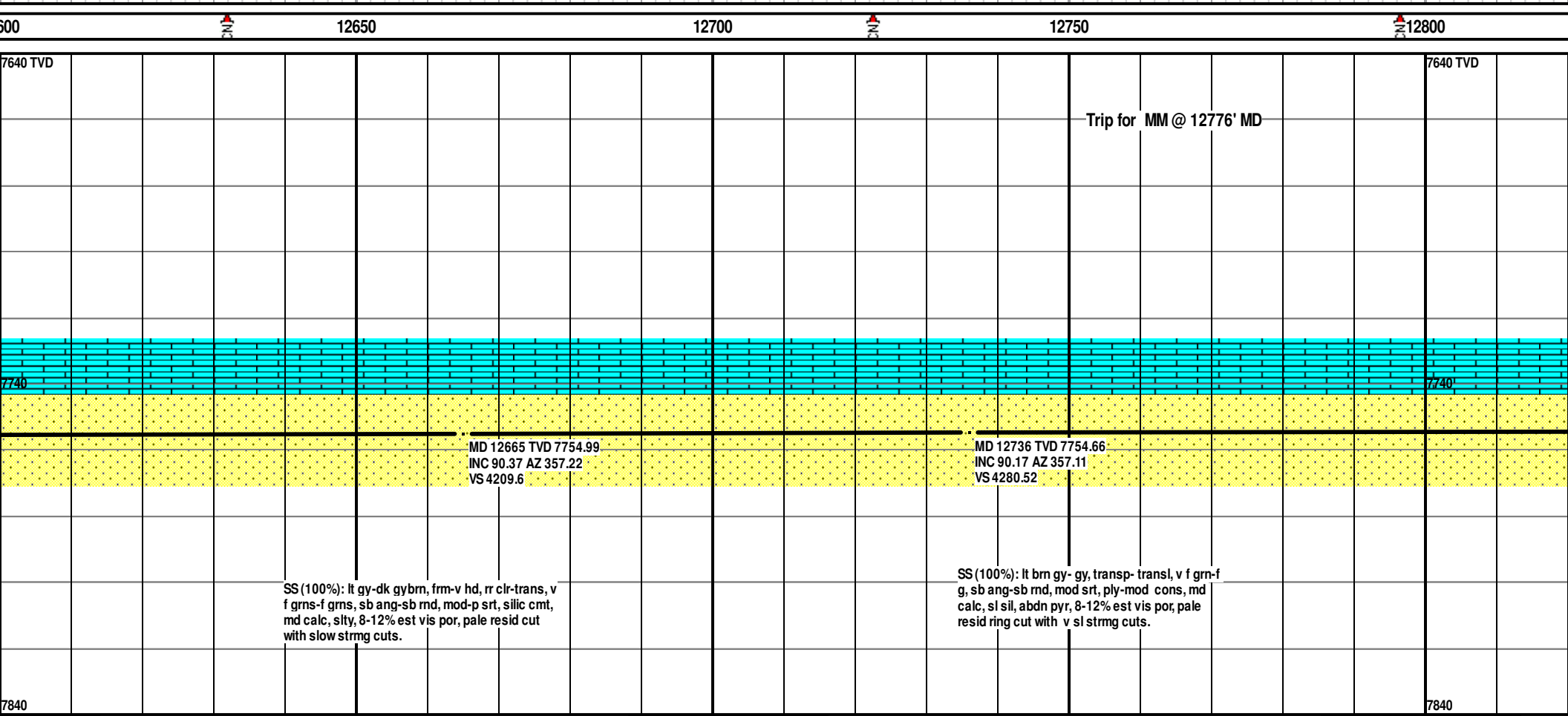
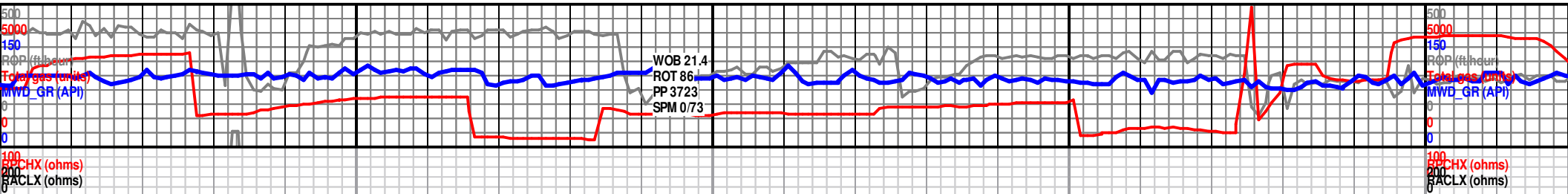


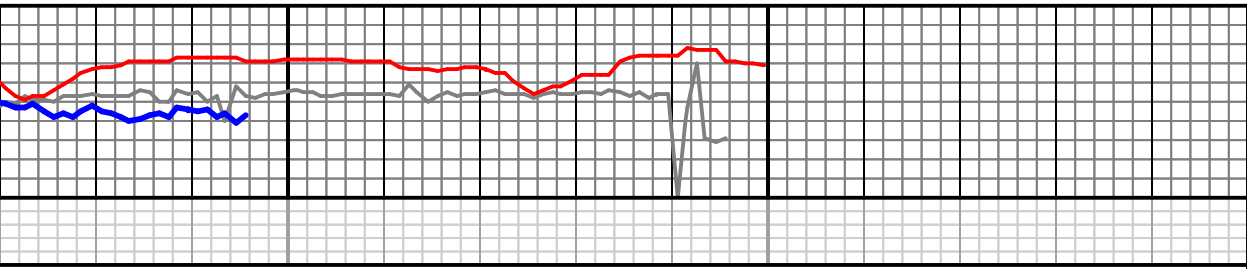


12350









12850

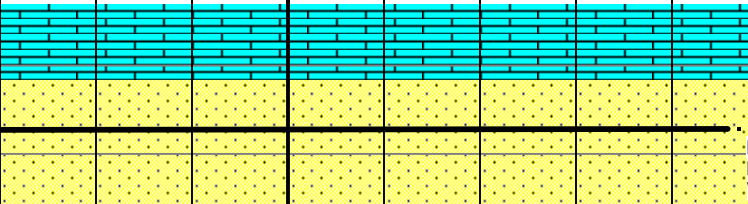


12900

129

TD'd @ 12897', 04/28/14 at 6:35 am hours

4.5" production liner set and cemented at
12882' ,WT: 11.6 ppf; Grade: HCP110 on April 29,
2014.



Projection to Bit

MD 12897 TVD 7754.1
INC 90.17 AZ 357.11
VS 4441.3

SS (100%): lt brn gy- gy, transp- transl, v f grn-f
g, sb ang-sb rnd, mod srt, ply-mod cons, md
calc, sl sil, abdn pyr, 8-12% est vis por, dull resid
cut with sl strmg cuts.

(GOOLSBY BROTHERS & ASSOCIATES)

