

OPERATOR: **Cub Creek Energy**

WELL NAME: **Markham 12**

FIELD NAME: DJ Basin - Wattenberg

DRILLING RIG: Xtreme 18

API #: 05-123-43274

LAT/LONG: 40.2691, -105.02314

SURFACE HOLE: NWSE S32-T4N-R68W, 2501' FSL, 1517' FEL

BOTTOM HOLE: NWSW S32-T4N-R68W, 2475' FSL, 460' FWL

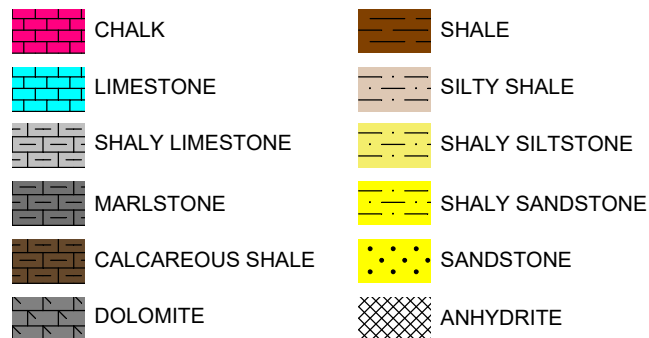


Earth Science Agency, LLC

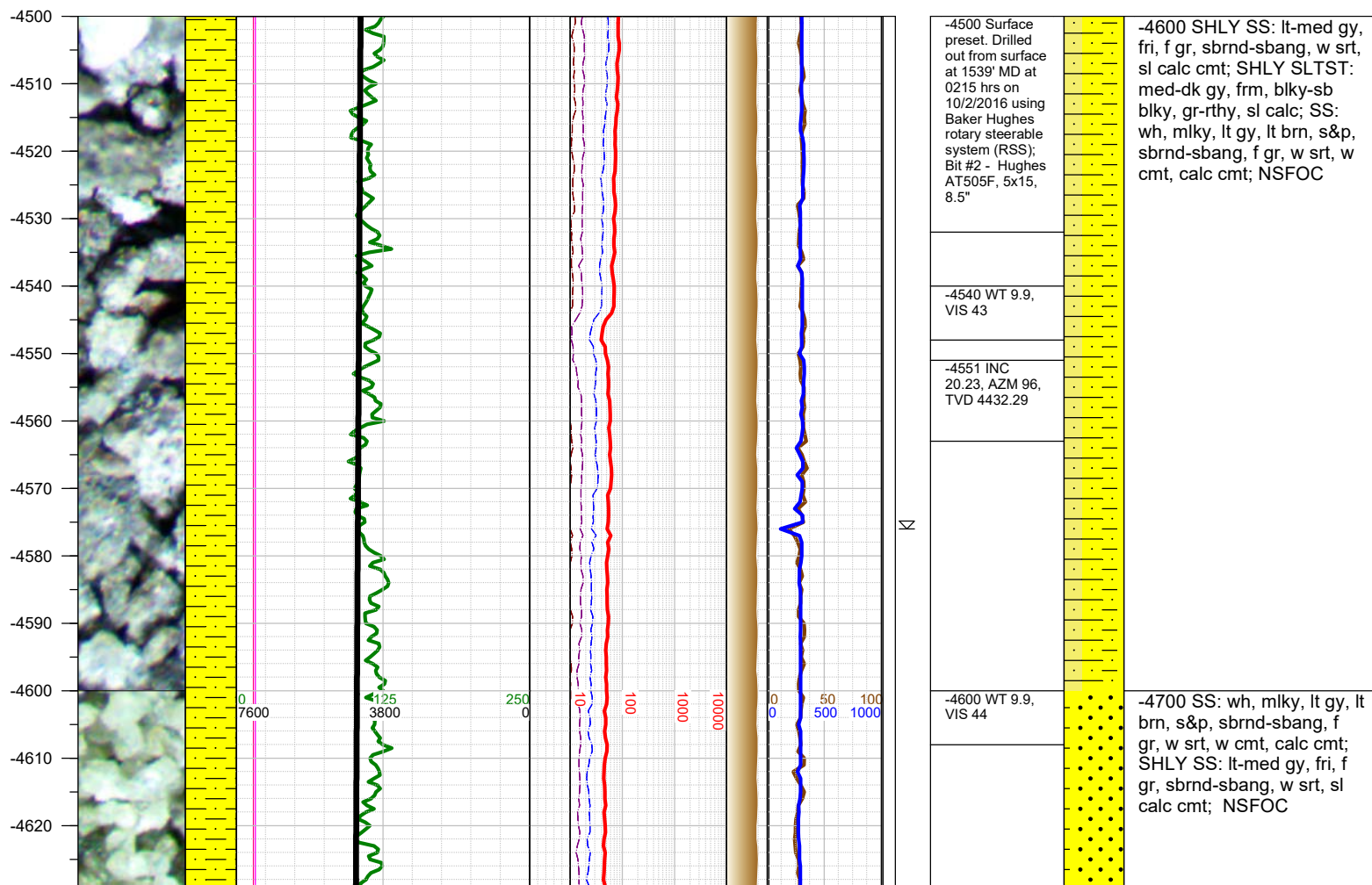
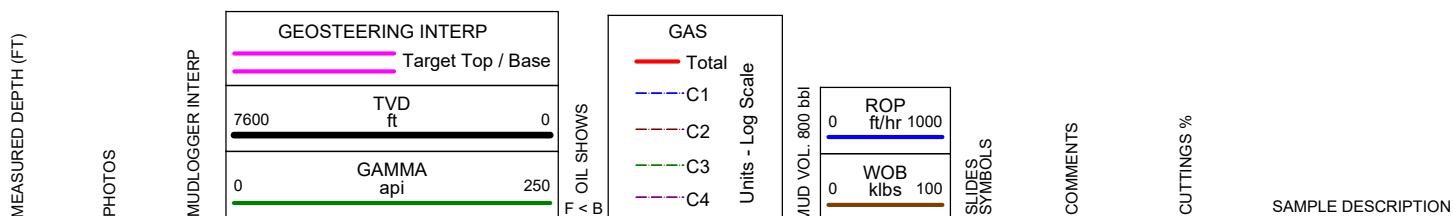
COUNTY: Weld
STATE: Colorado
GROUND ELEVATION: 5038'
KELLY BUSHING: 5055'
DRILLING FLUID: WBM
TVD VS. MD: 7046' / 11955'
SPUD DATE: October 2, 2016
TD DATE: October 4, 2016

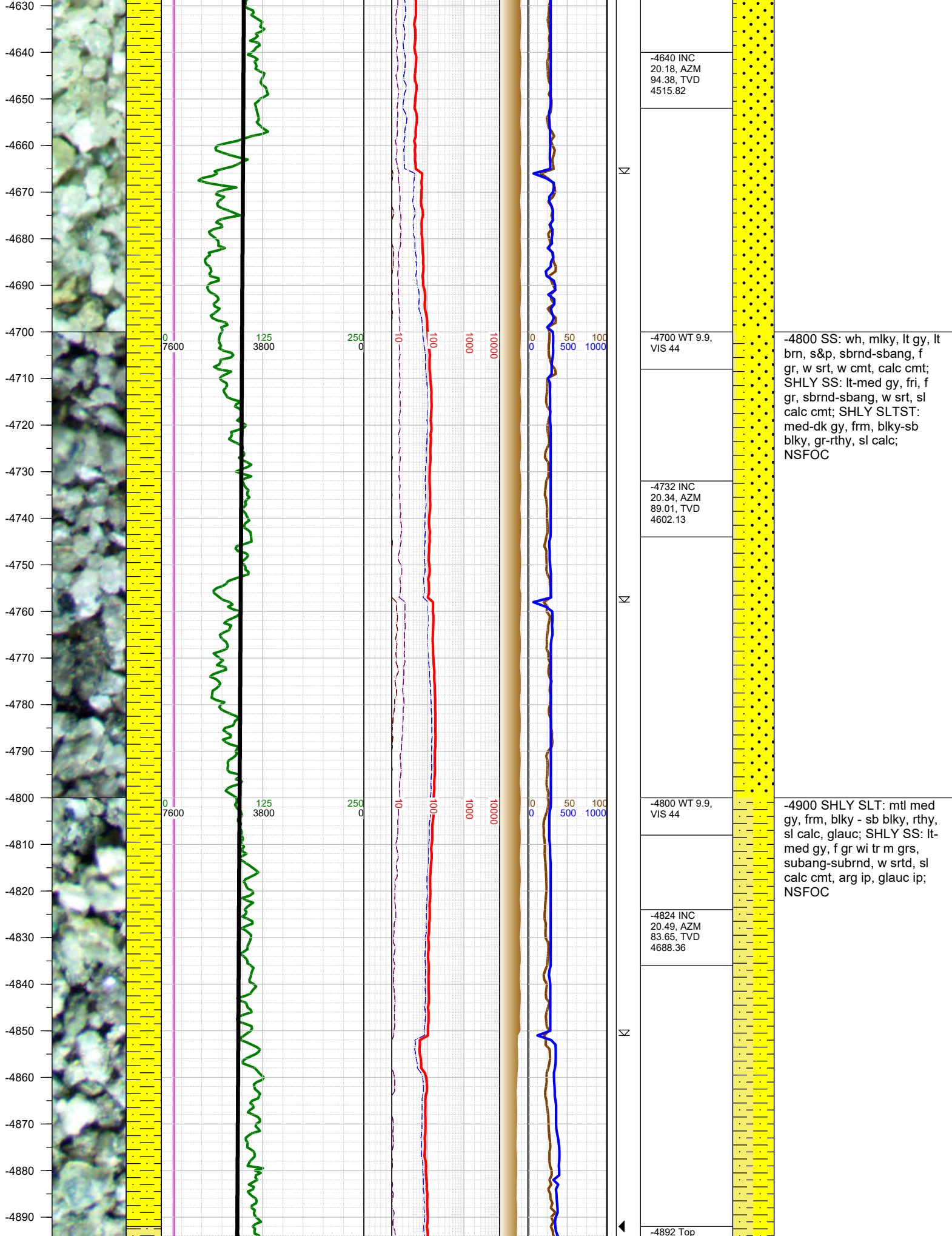
DEPTHS LOGGED: 4500' - 11955'
DATES LOGGED: October 2, 2016 - October 4, 2016
GEOLOGISTS: Blue Spikes, Ari Berland
SCALE: 5" = 100'

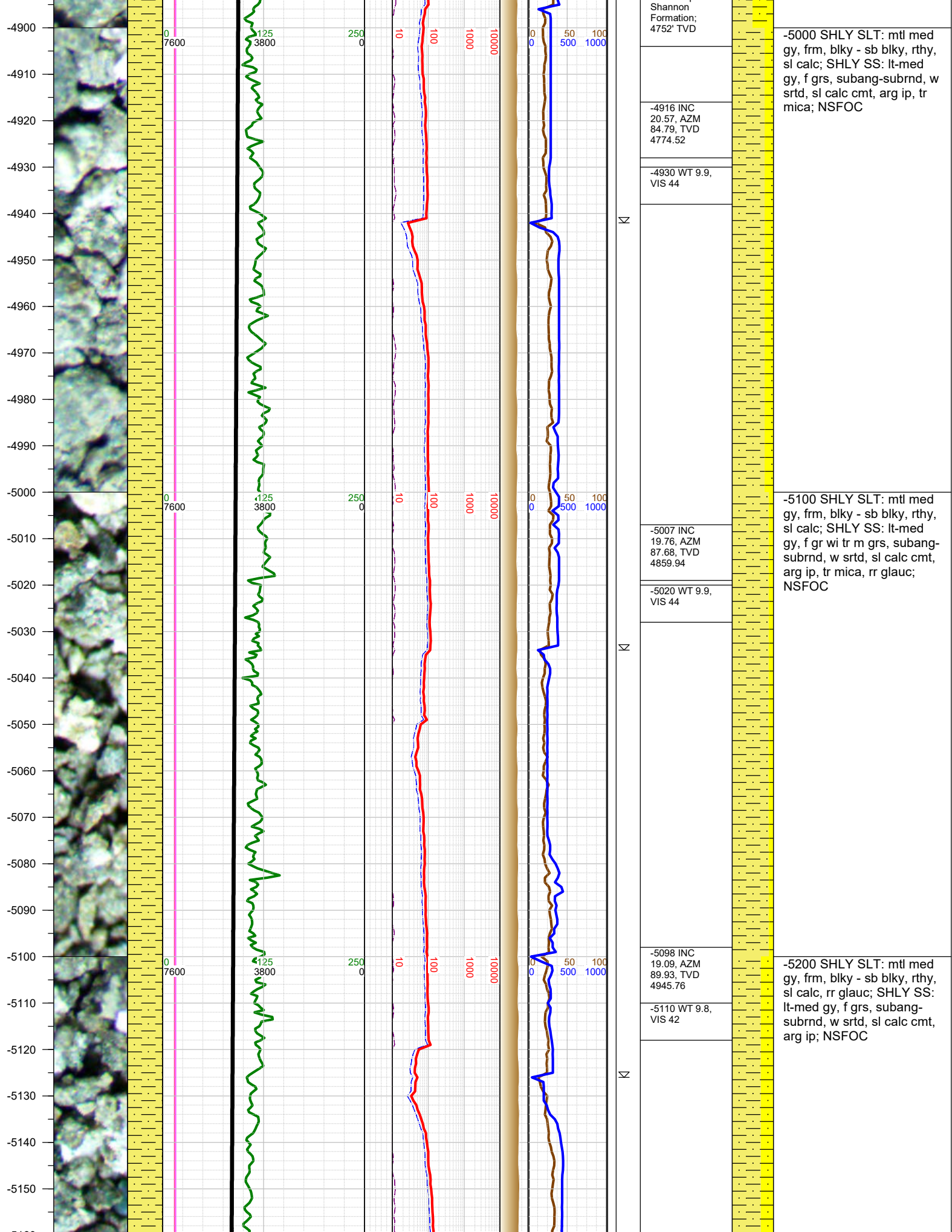
LEGEND

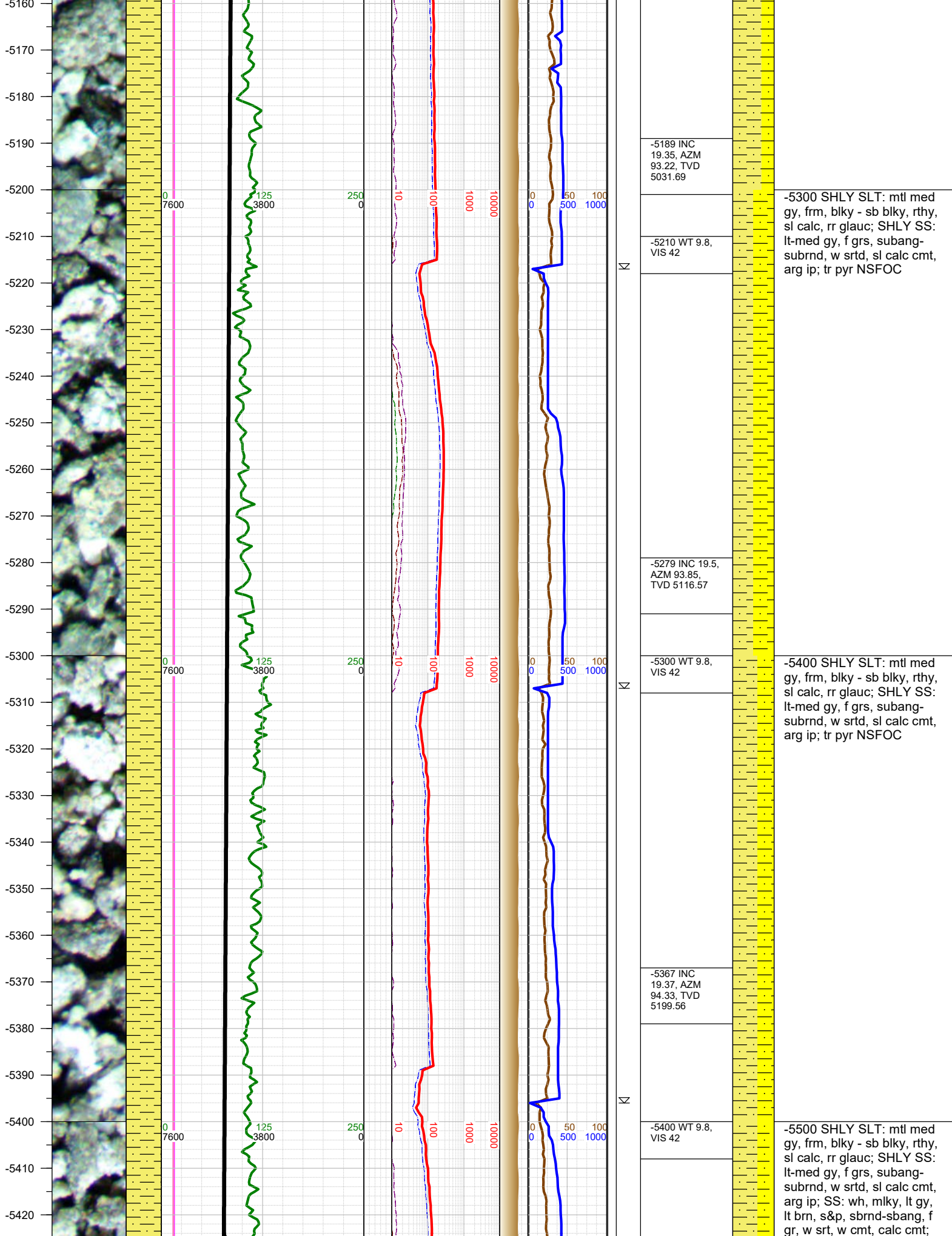


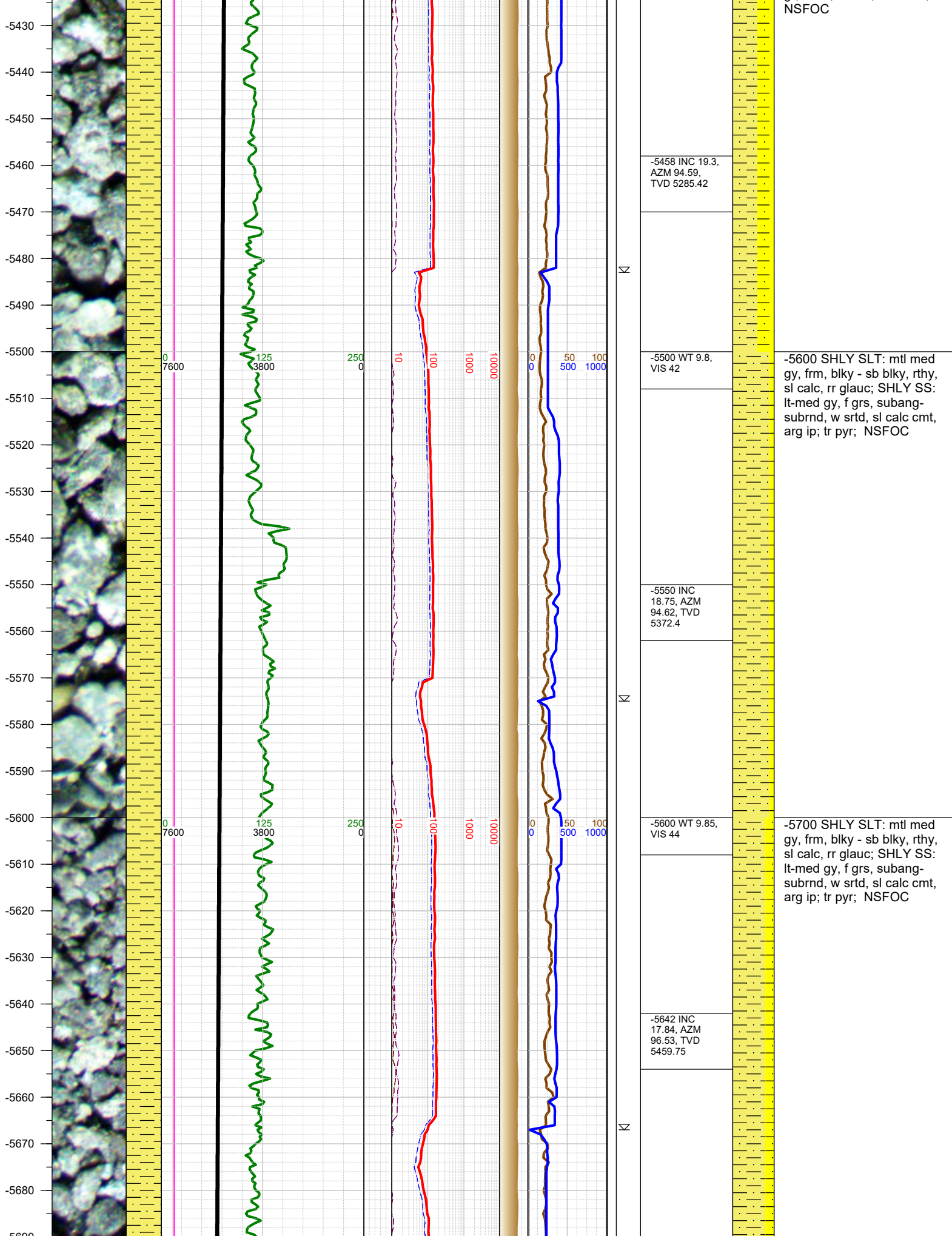
FORMATION CONNECTION MIDNIGHT NEW BIT GAS SHOW FAULT

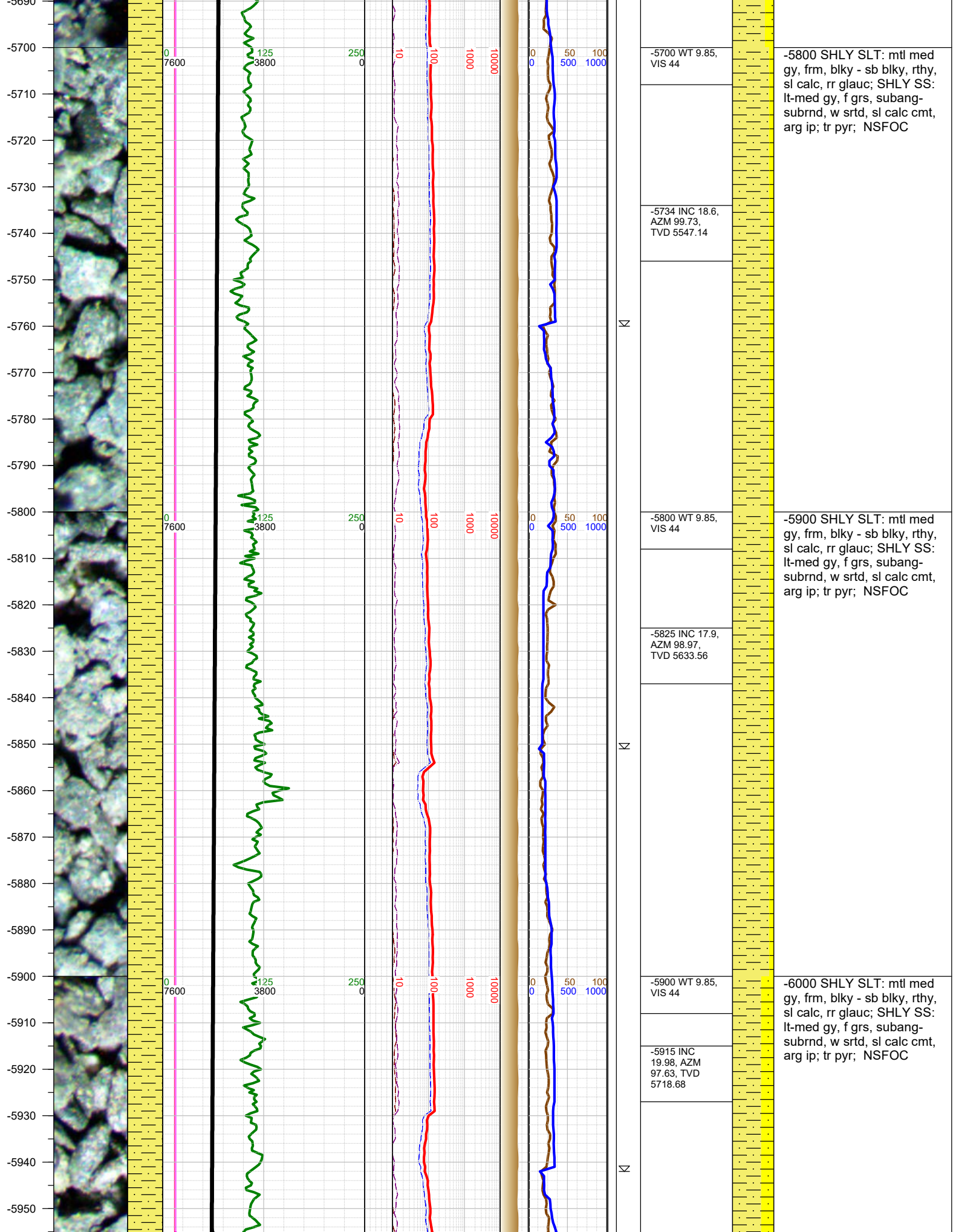












-5700 WT 9.85,
VIS 44

-5734 INC 18.6,
AZM 99.73,
TVD 5547.14

-5800 WT 9.85,
VIS 44

-5825 INC 17.9,
AZM 98.97,
TVD 5633.56

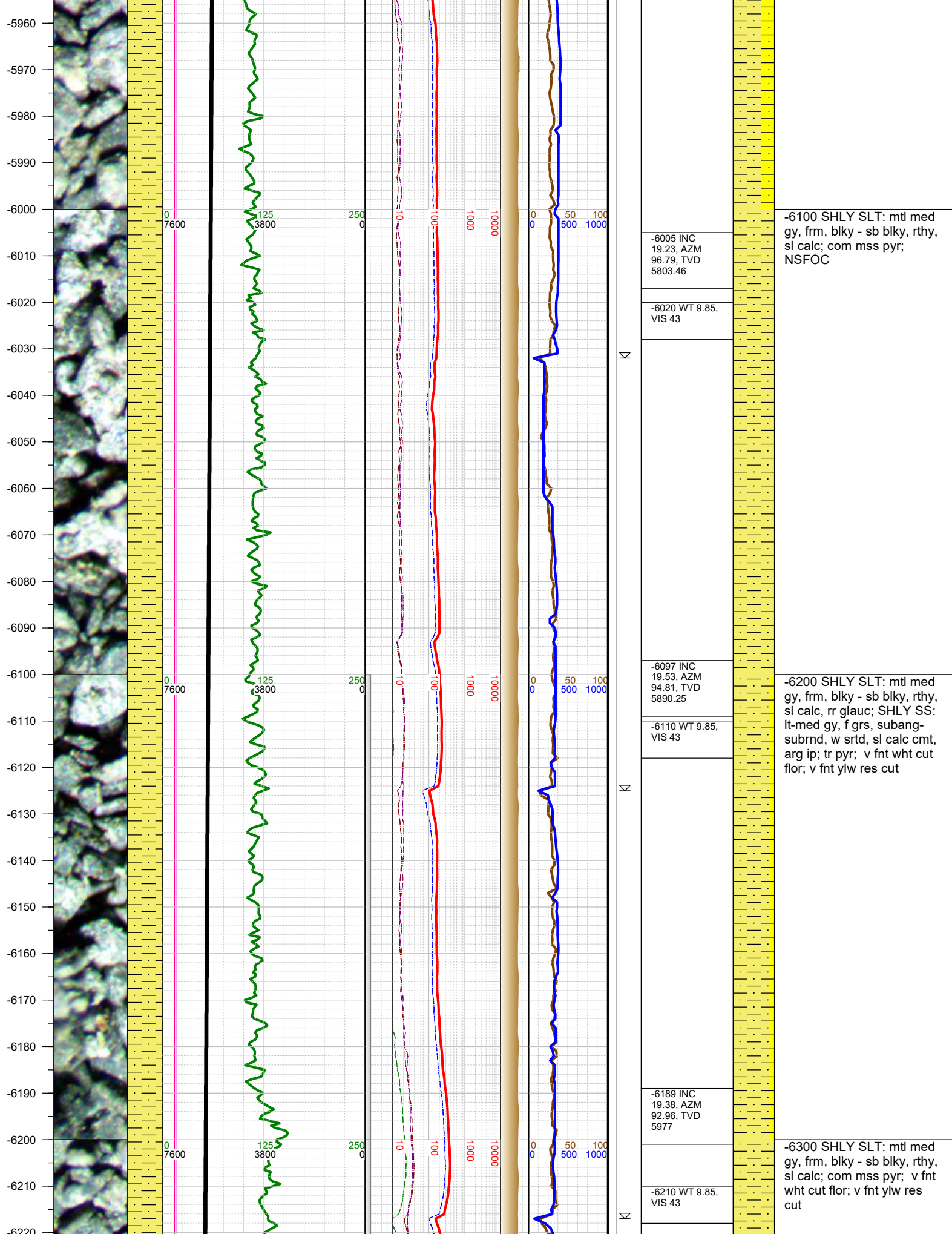
-5900 WT 9.85,
VIS 44

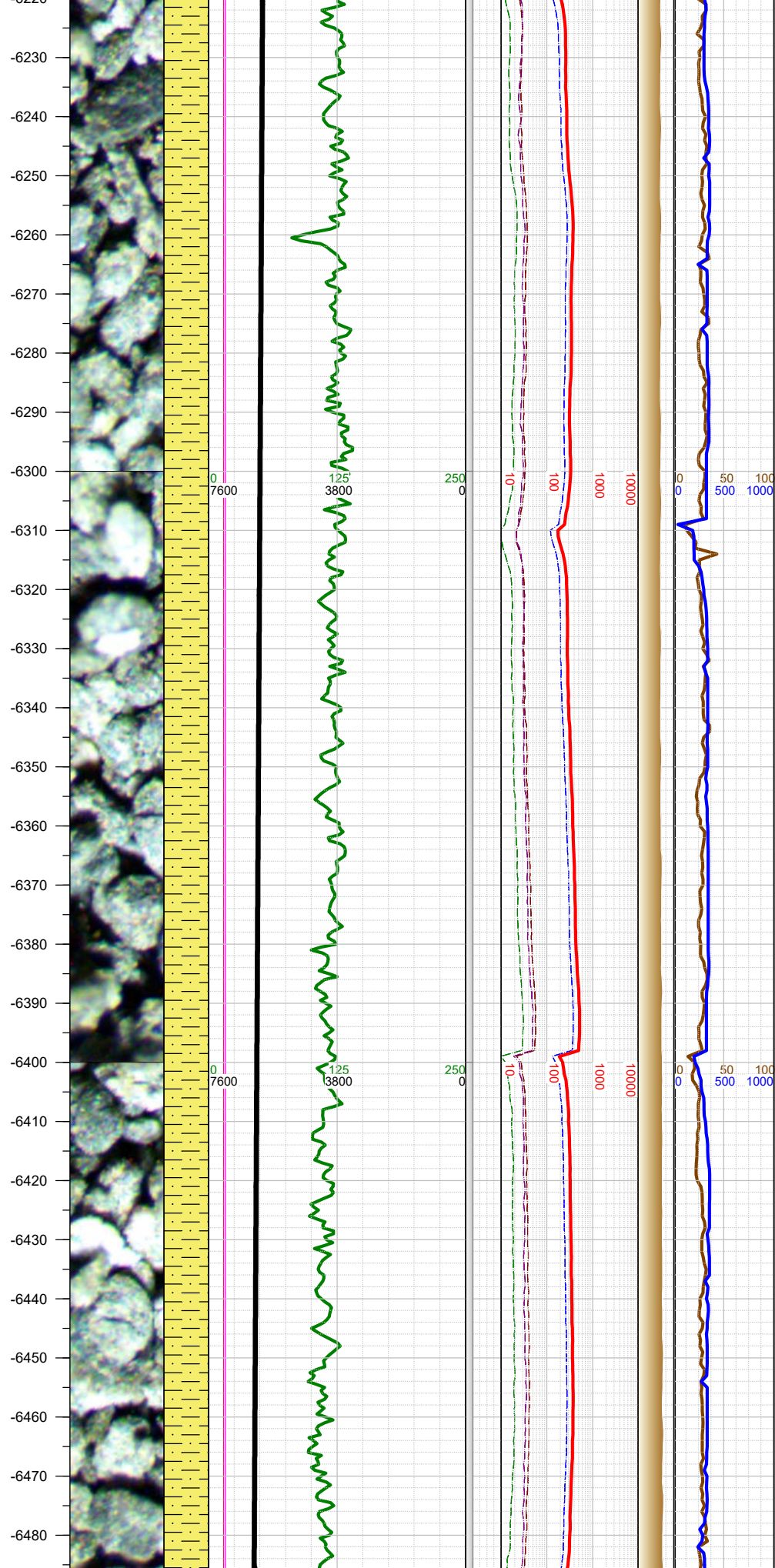
-5915 INC
19.98, AZM
97.63, TVD
5718.68

-5800 SHLY SLT: mtl med
gy, frm, blk - sb blk, rthy,
sl calc, rr glauc; SHLY SS:
lt-med gy, f grs, subang-
subrnd, w srtd, sl calc cmt,
arg ip; tr pyr; NSFOC

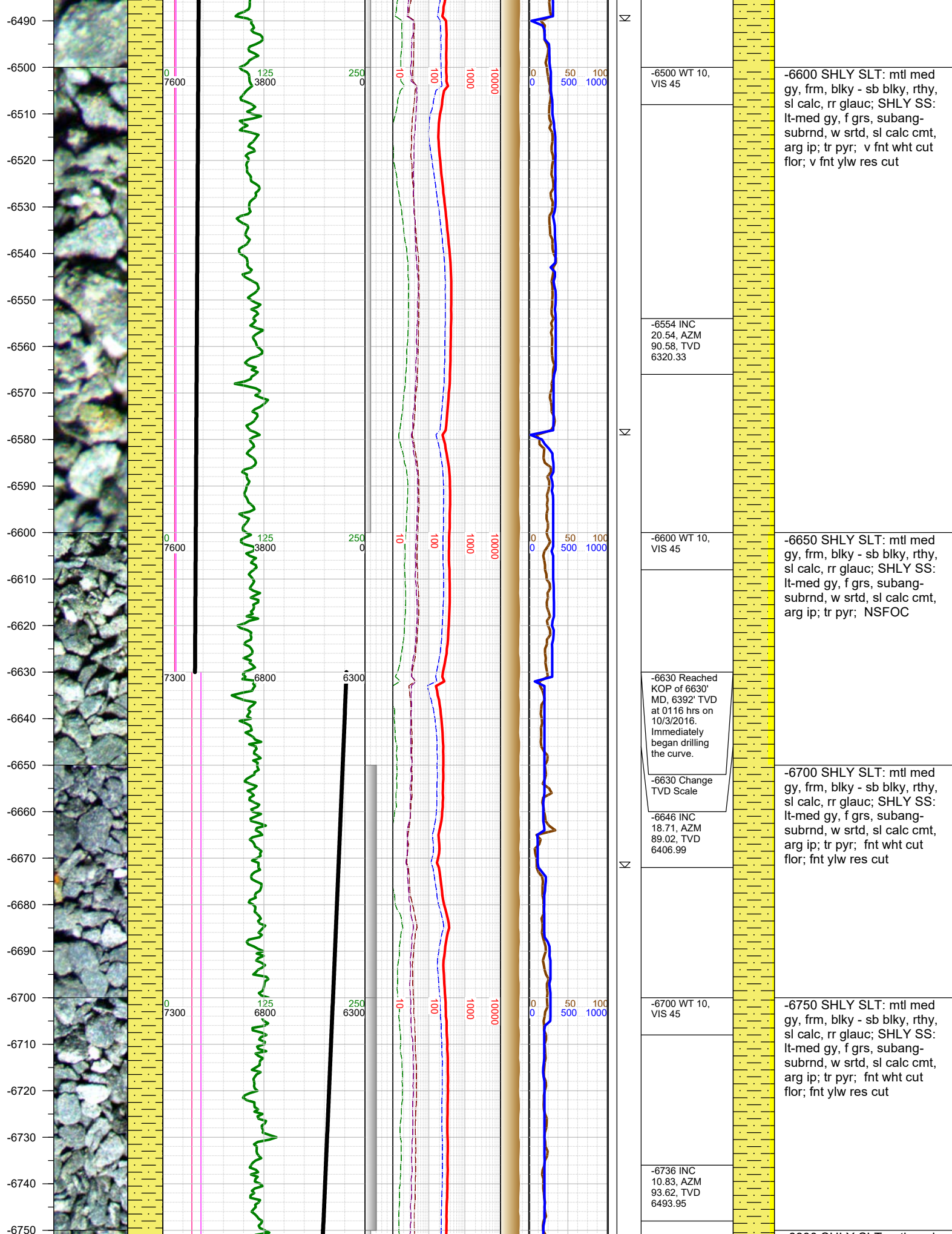
-5900 SHLY SLT: mtl med
gy, frm, blk - sb blk, rthy,
sl calc, rr glauc; SHLY SS:
lt-med gy, f grs, subang-
subrnd, w srtd, sl calc cmt,
arg ip; tr pyr; NSFOC

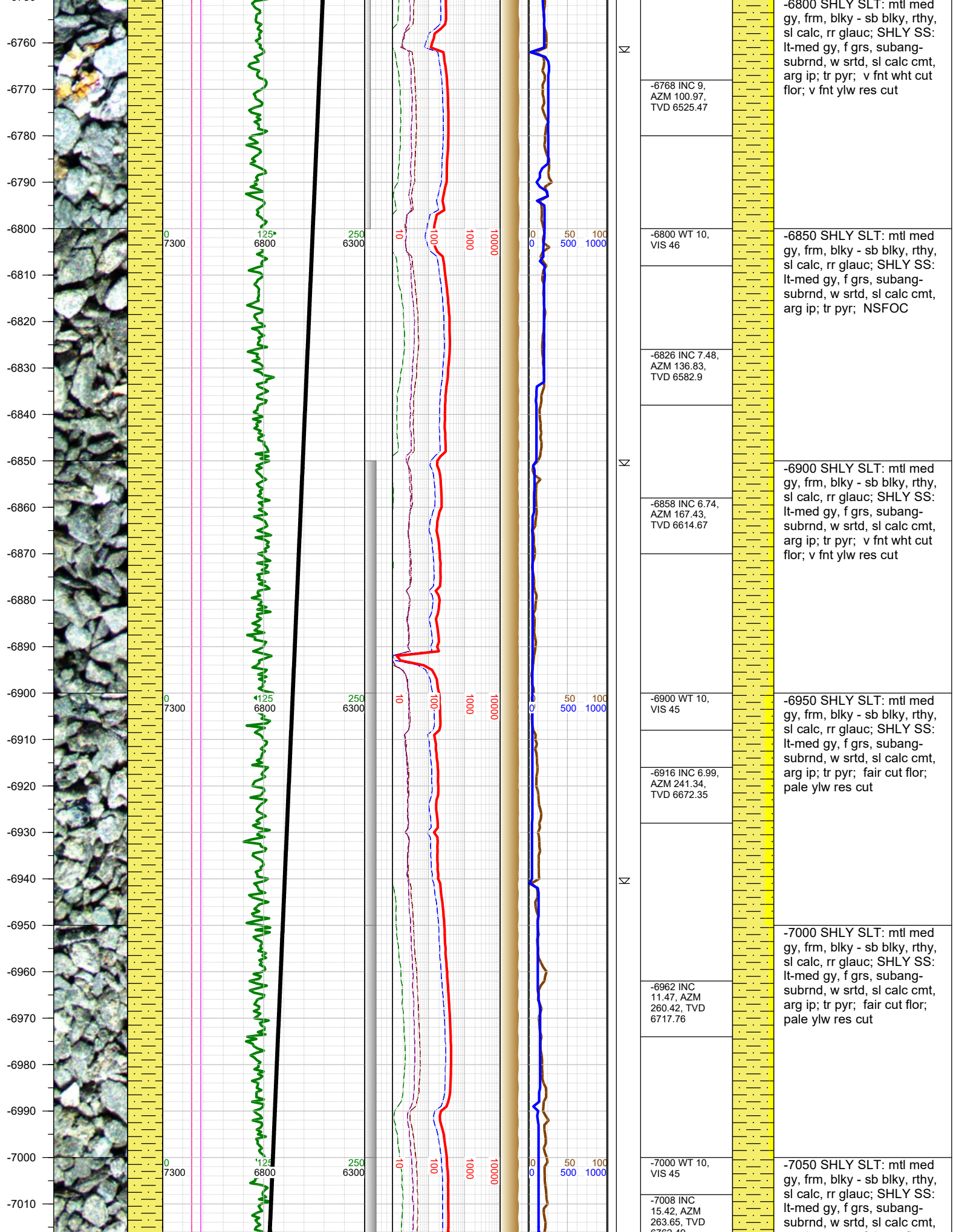
-6000 SHLY SLT: mtl med
gy, frm, blk - sb blk, rthy,
sl calc, rr glauc; SHLY SS:
lt-med gy, f grs, subang-
subrnd, w srtd, sl calc cmt,
arg ip; tr pyr; NSFOC

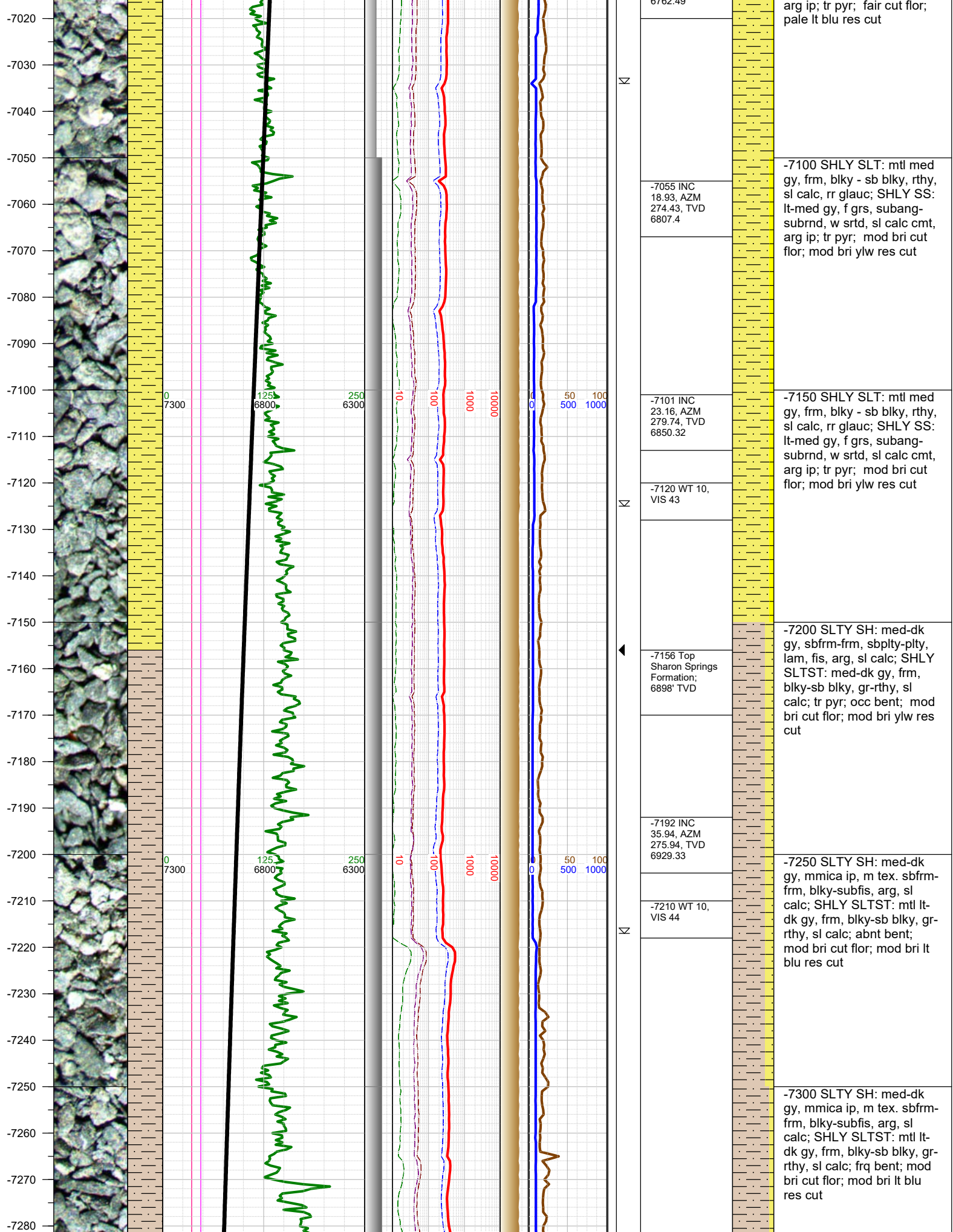


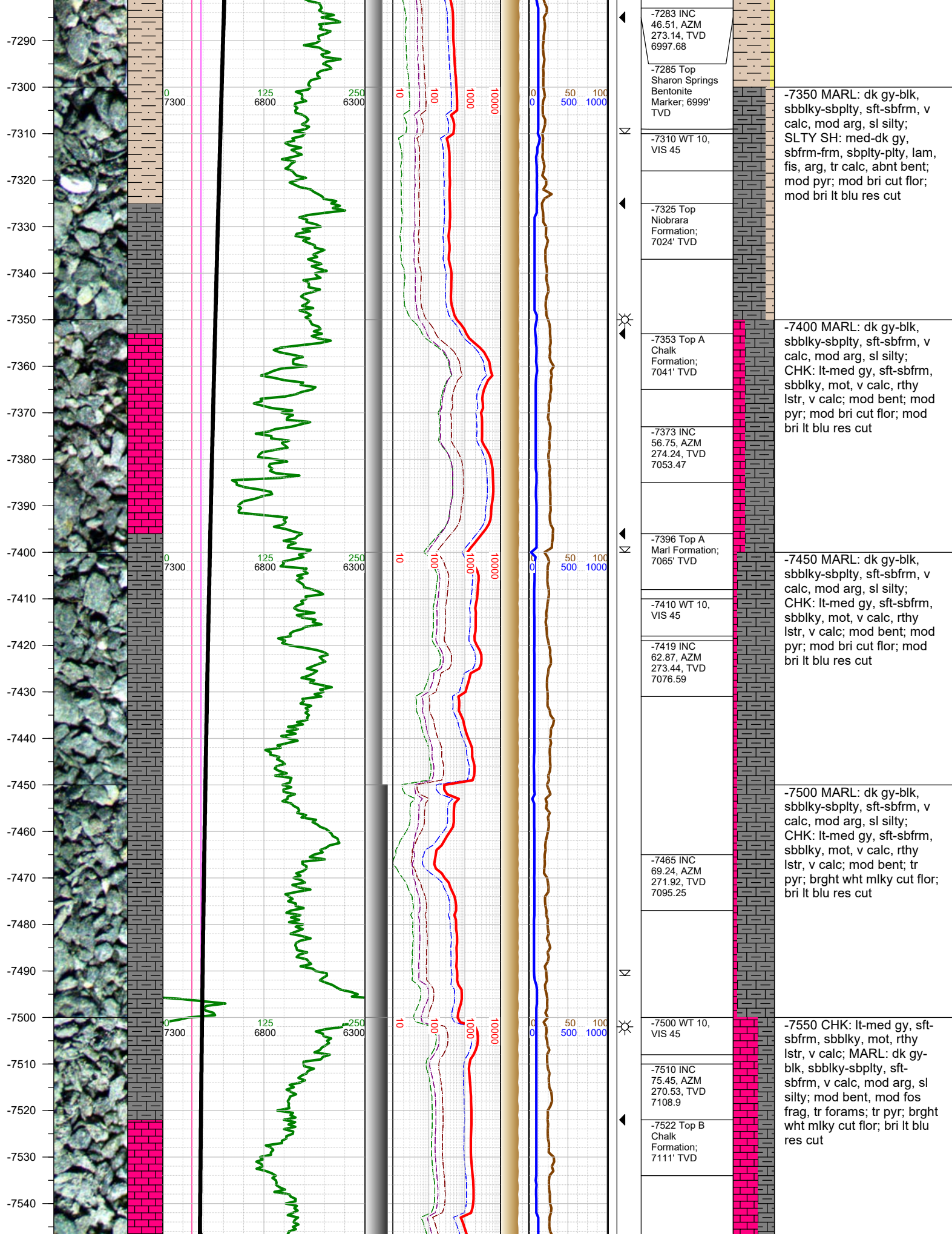


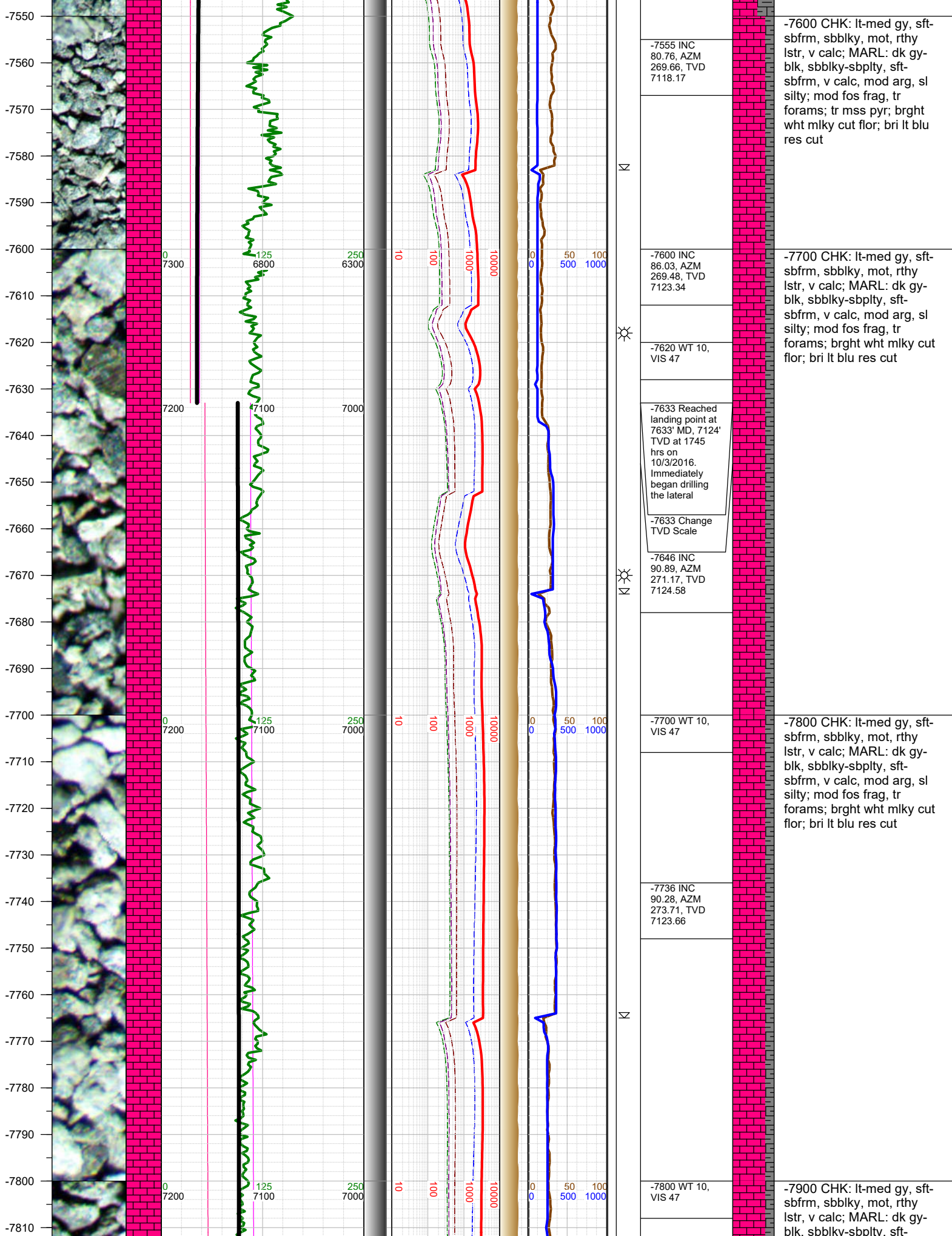
-6281 INC 19.69, AZM 90.3, TVD 6063.71		
-6300 WT 9.9, VIS 46		-6400 SHLY SLT: mtl med gy, frm, blkly - sb blkly, rthy, sl calc; com mss pyr; v fnt wht cut flr; v fnt ylw res cut
-6373 INC 19.58, AZM 87.49, TVD 6150.36		
-6398 0000 hrs on 10/3/2016		-6500 SHLY SLT: mtl med gy, frm, blkly - sb blkly, rthy, sl calc, rr glauc; SHLY SS: lt-med gy, f grs, subang-subrnd, w srtd, sl calc cmt, arg ip; tr pyr; v fnt wht cut flr; v fnt ylw res cut
-6410 WT 9.9, VIS 46		
-6465 INC 20.15, AZM 88.42, TVD 6236.88		

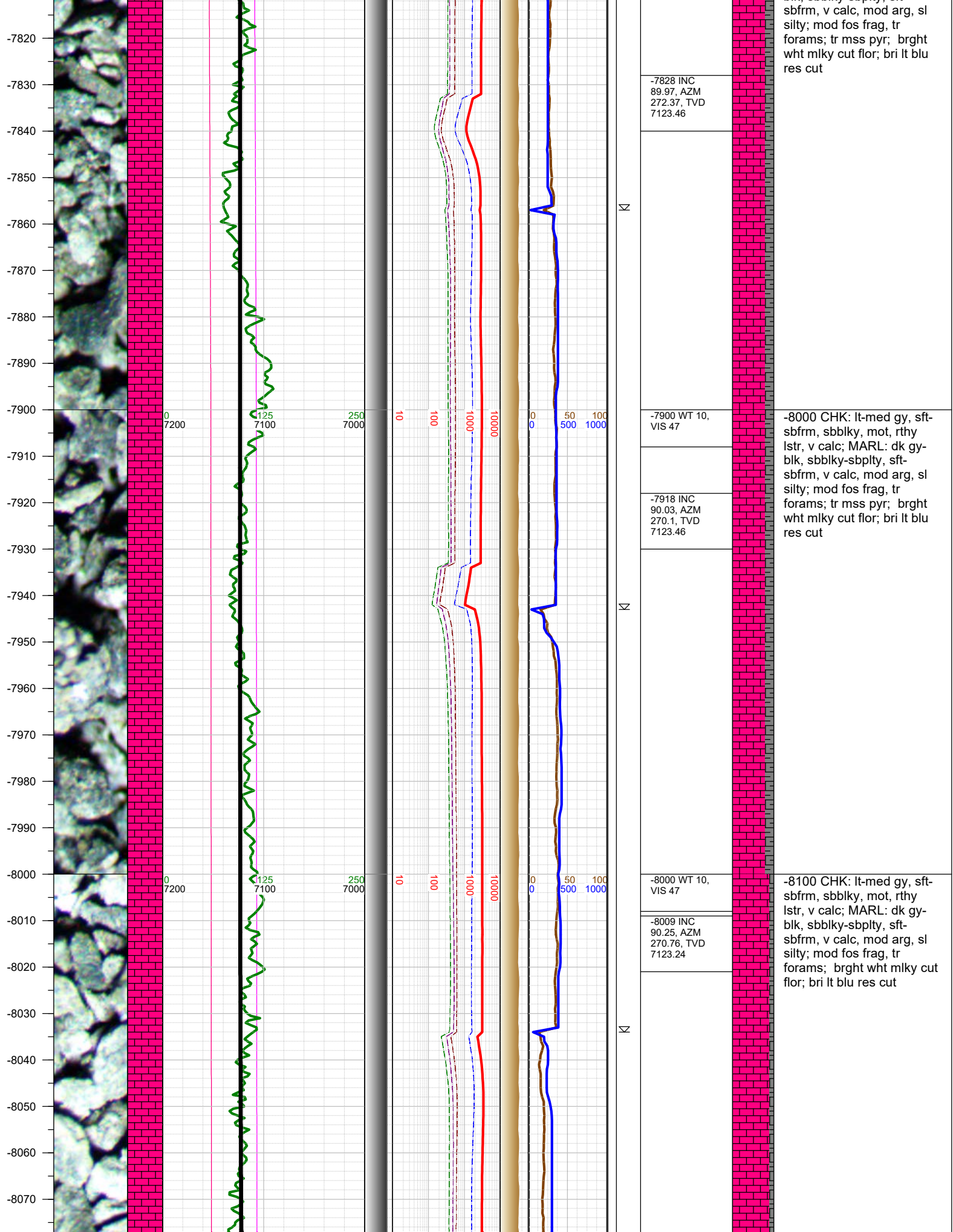


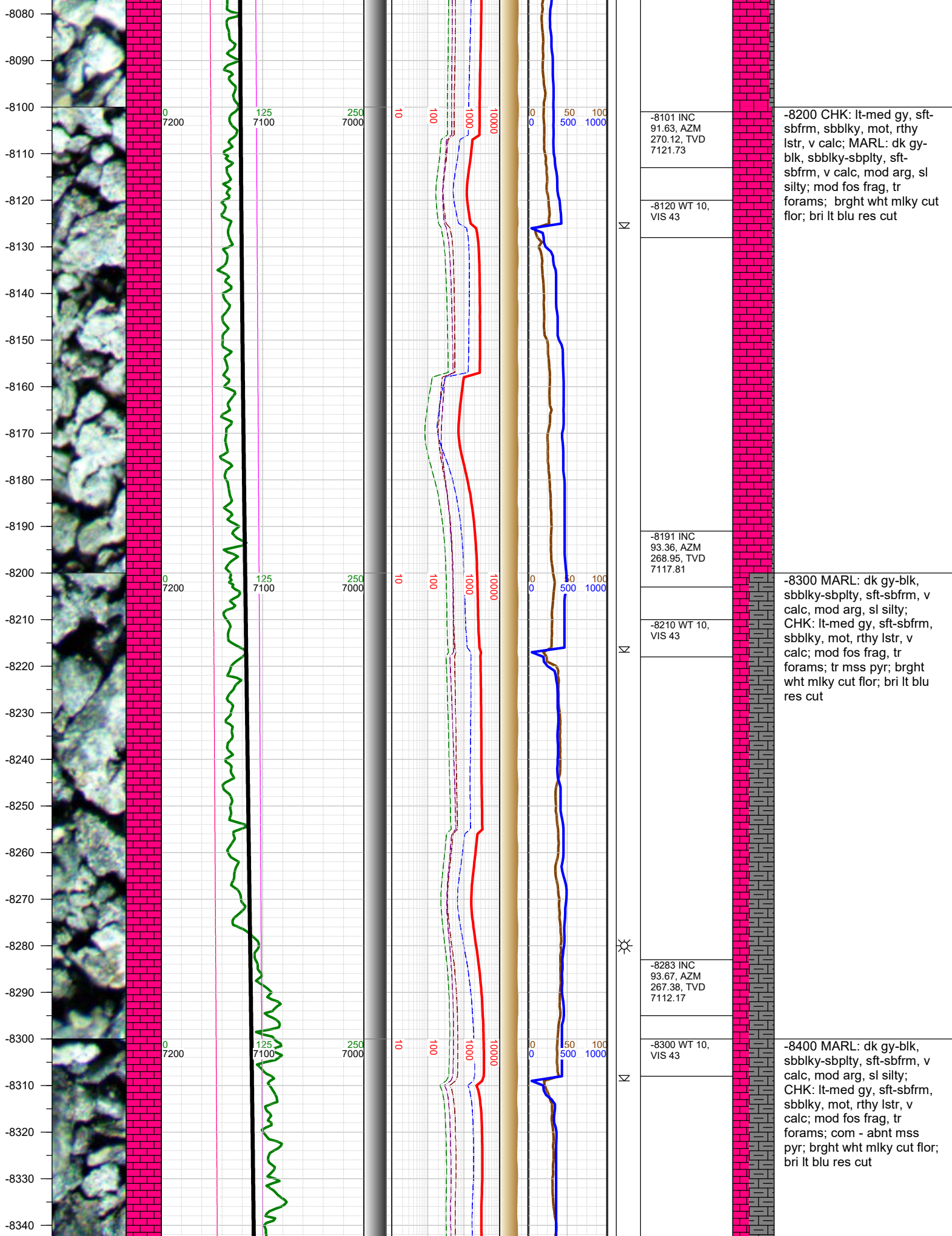


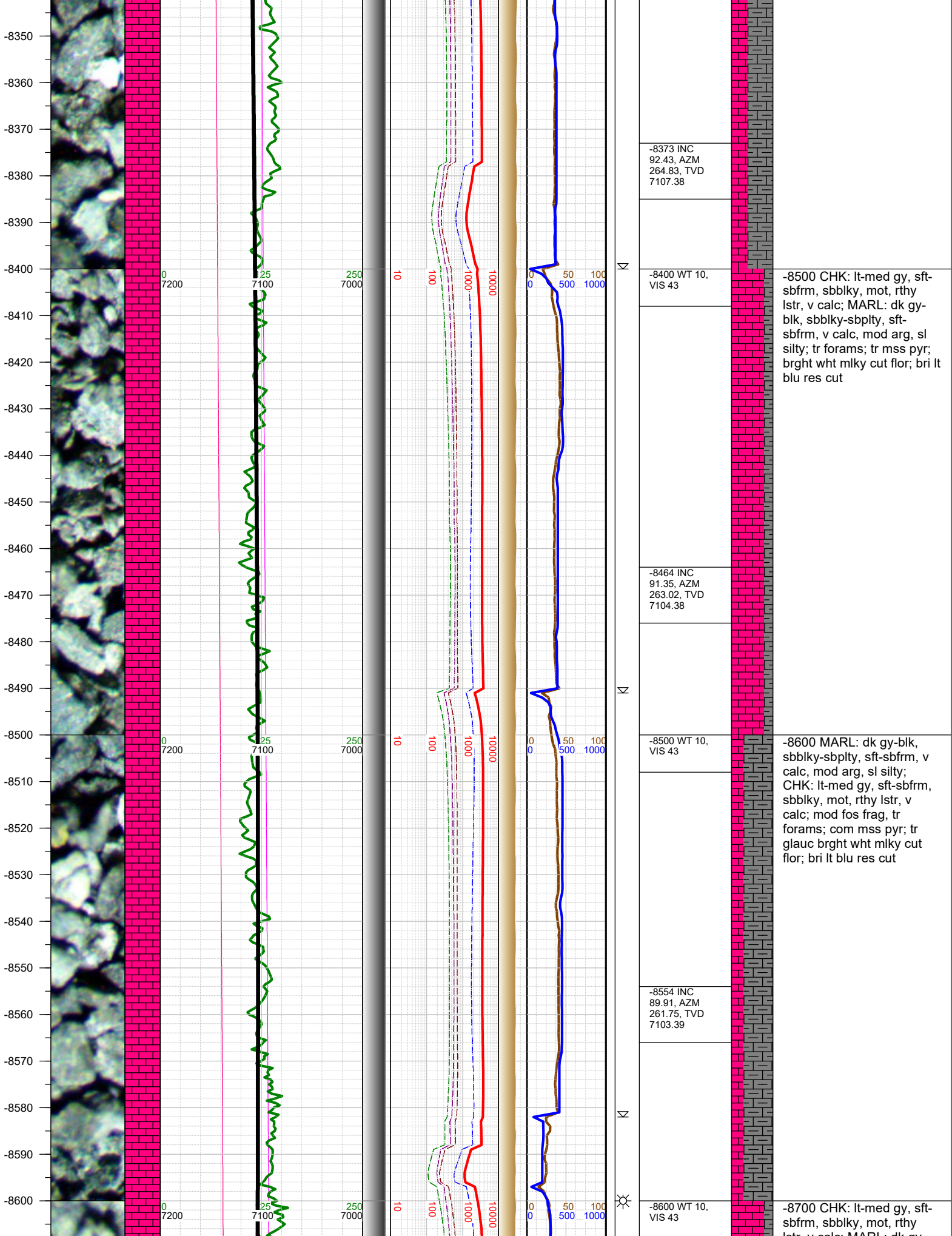


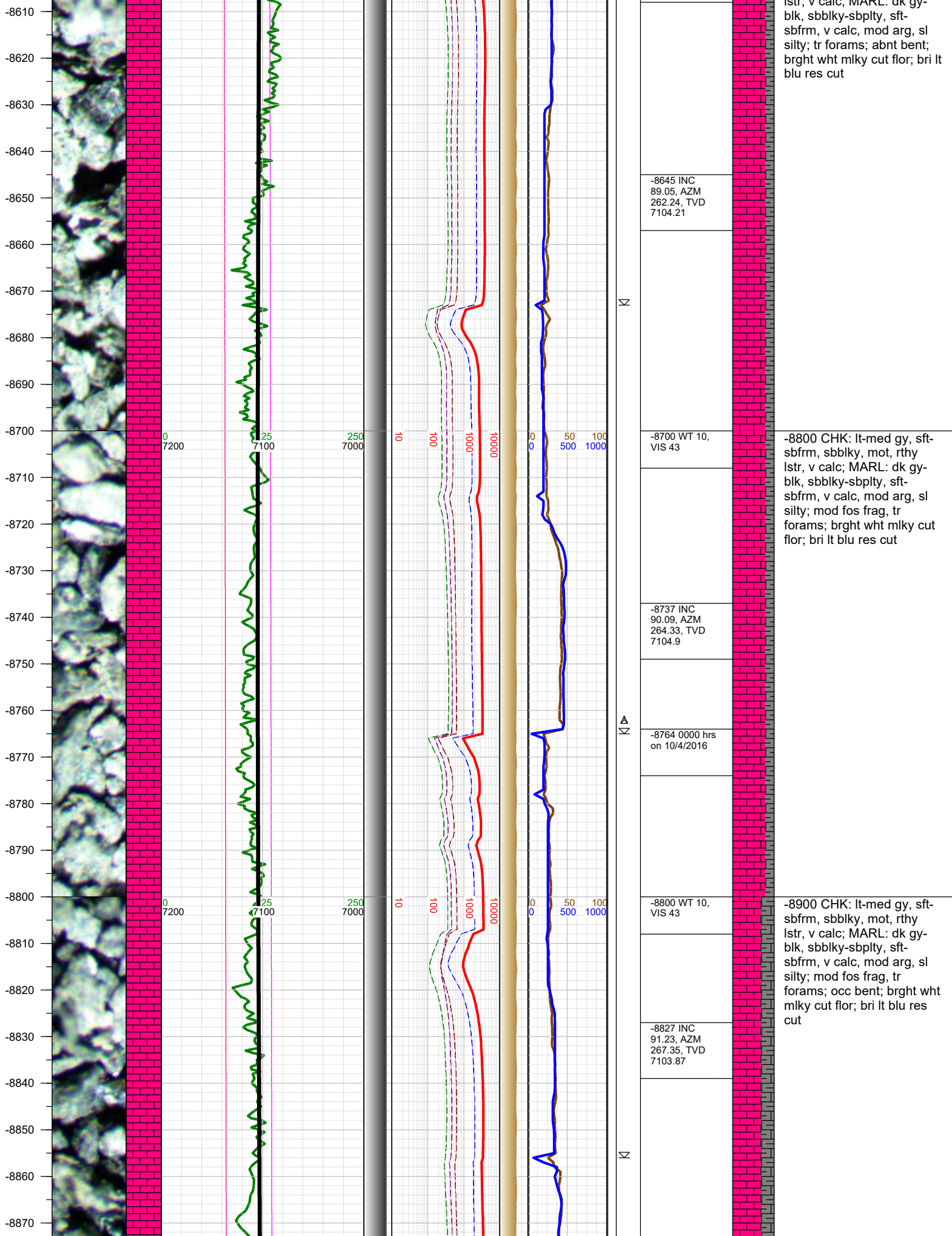


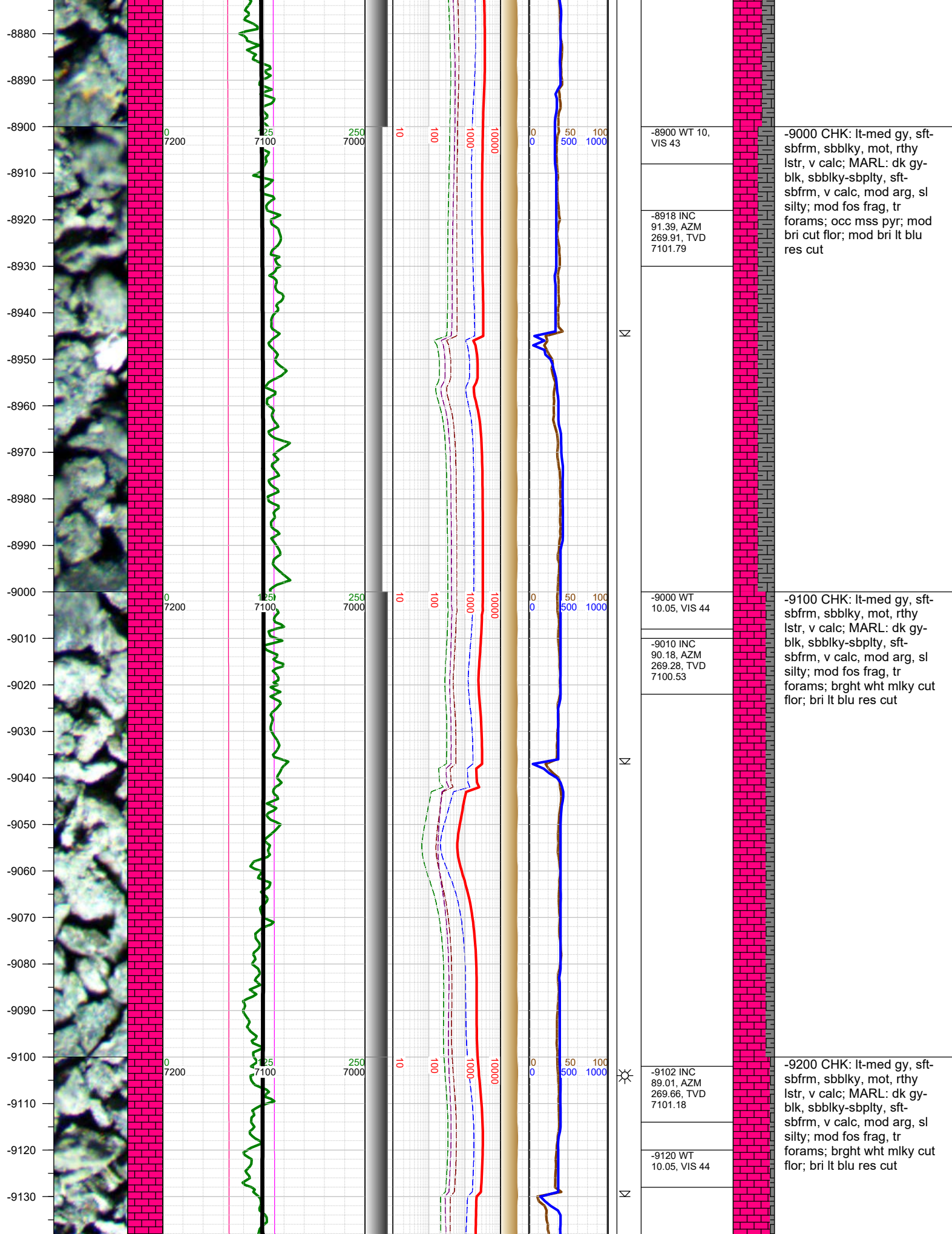


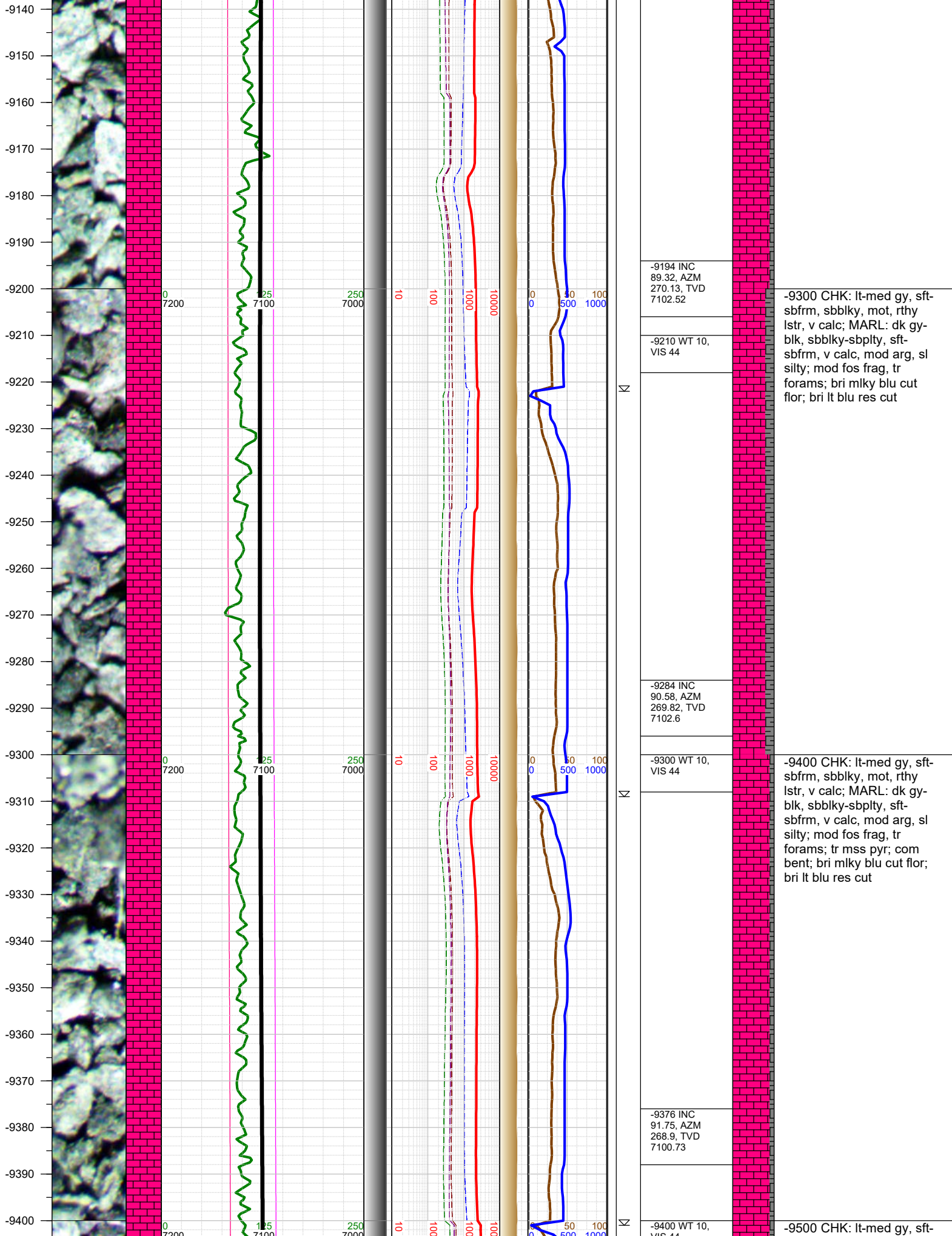


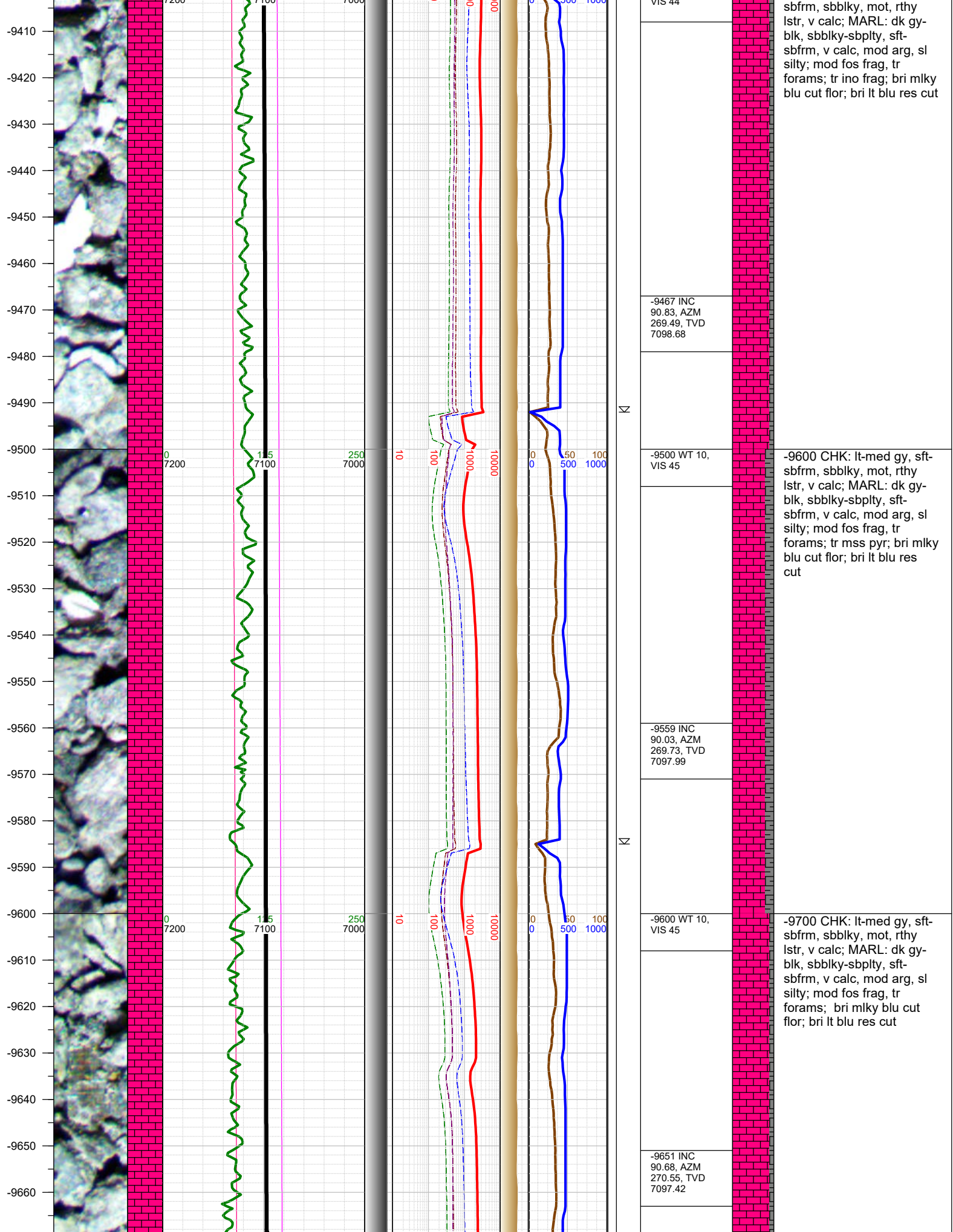


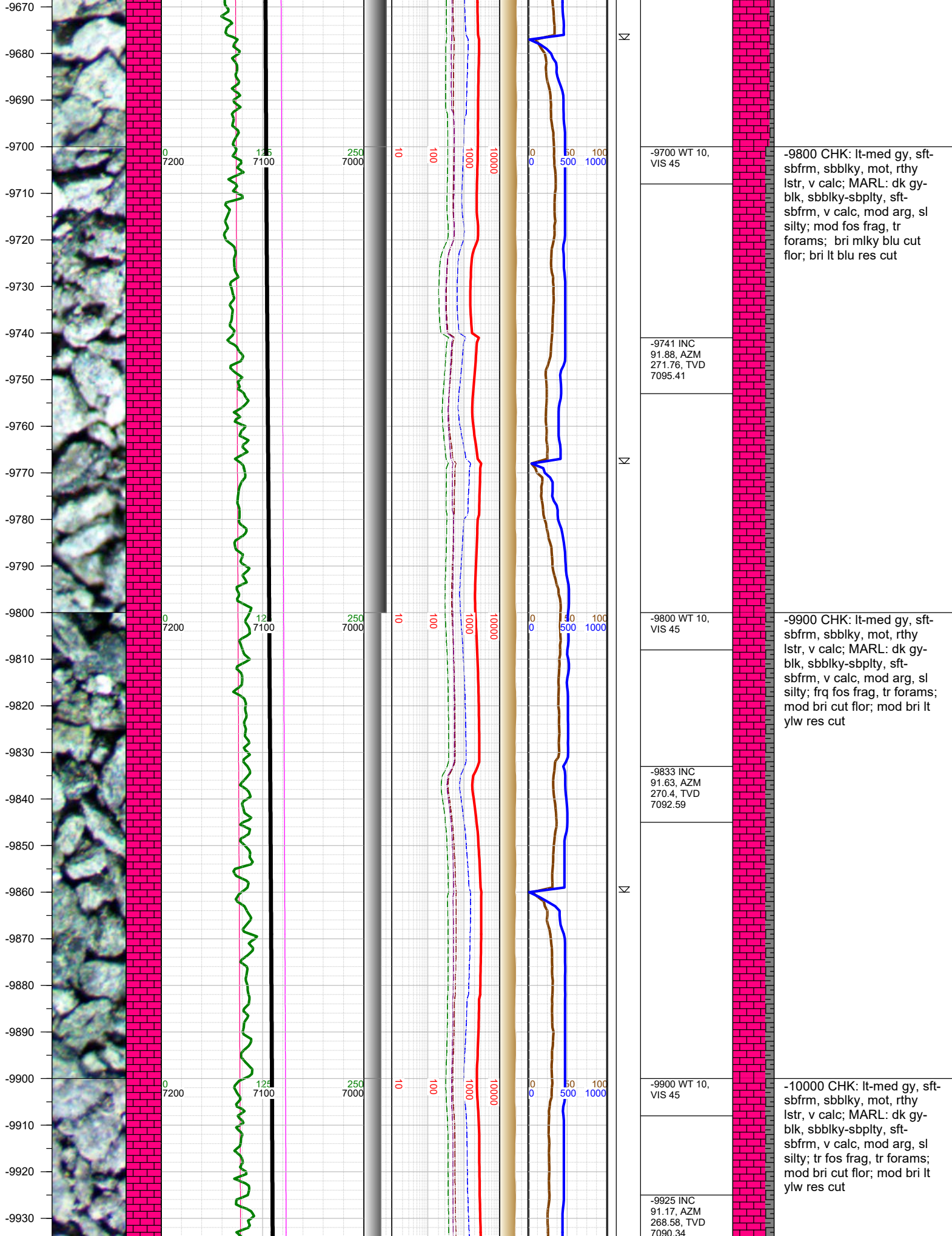




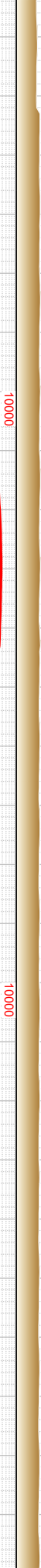
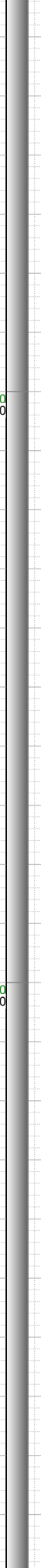
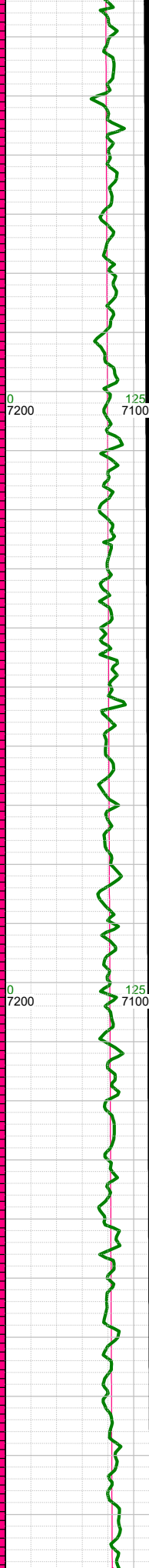
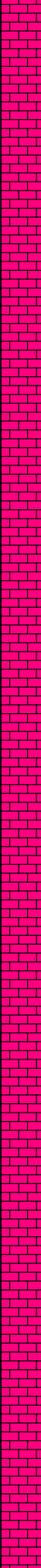








-9940
-9950
-9960
-9970
-9980
-9990
-10000
-10010
-10020
-10030
-10040
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-10070
-10080
-10090
-10100
-10110
-10120
-10130
-10140
-10150
-10160
-10170
-10180
-10190



-10000 WT
10.1, VIS 50

-10016 INC
90.86, AZM
268.19, TVD
7088.73

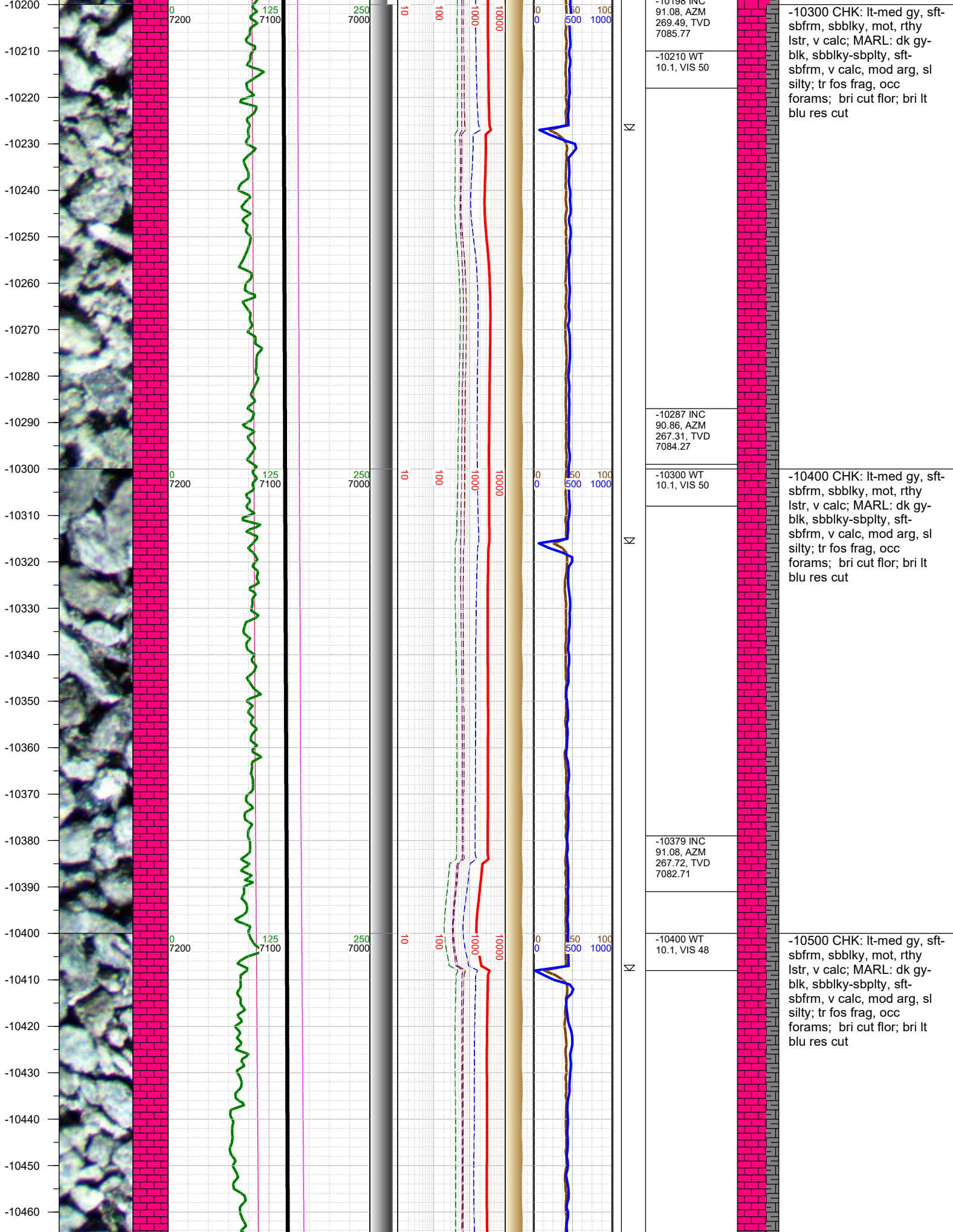
-10106 INC
90.89, AZM
269.43, TVD
7087.35

-10120 WT
10.1, VIS 50

-10198 INC

-10100 CHK: lt-med gy, sft-sbfrm, sbbkly, mot, rthy lstr, v calc; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, v calc, mod arg, sl silty; frq fos frag, tr forams; mod bri cut flor; mod bri lt ylw res cut

-10200 CHK: lt-med gy, sft-sbfrm, sbbkly, mot, rthy lstr, v calc; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, v calc, mod arg, sl silty; tr fos frag, tr forams; mod bri cut flor; mod bri lt ylw res cut



-10196 INC
91.08, AZM
269.49, TVD
7085.77

-10210 WT
10.1, VIS 50

-10287 INC
90.86, AZM
267.31, TVD
7084.27

-10300 WT
10.1, VIS 50

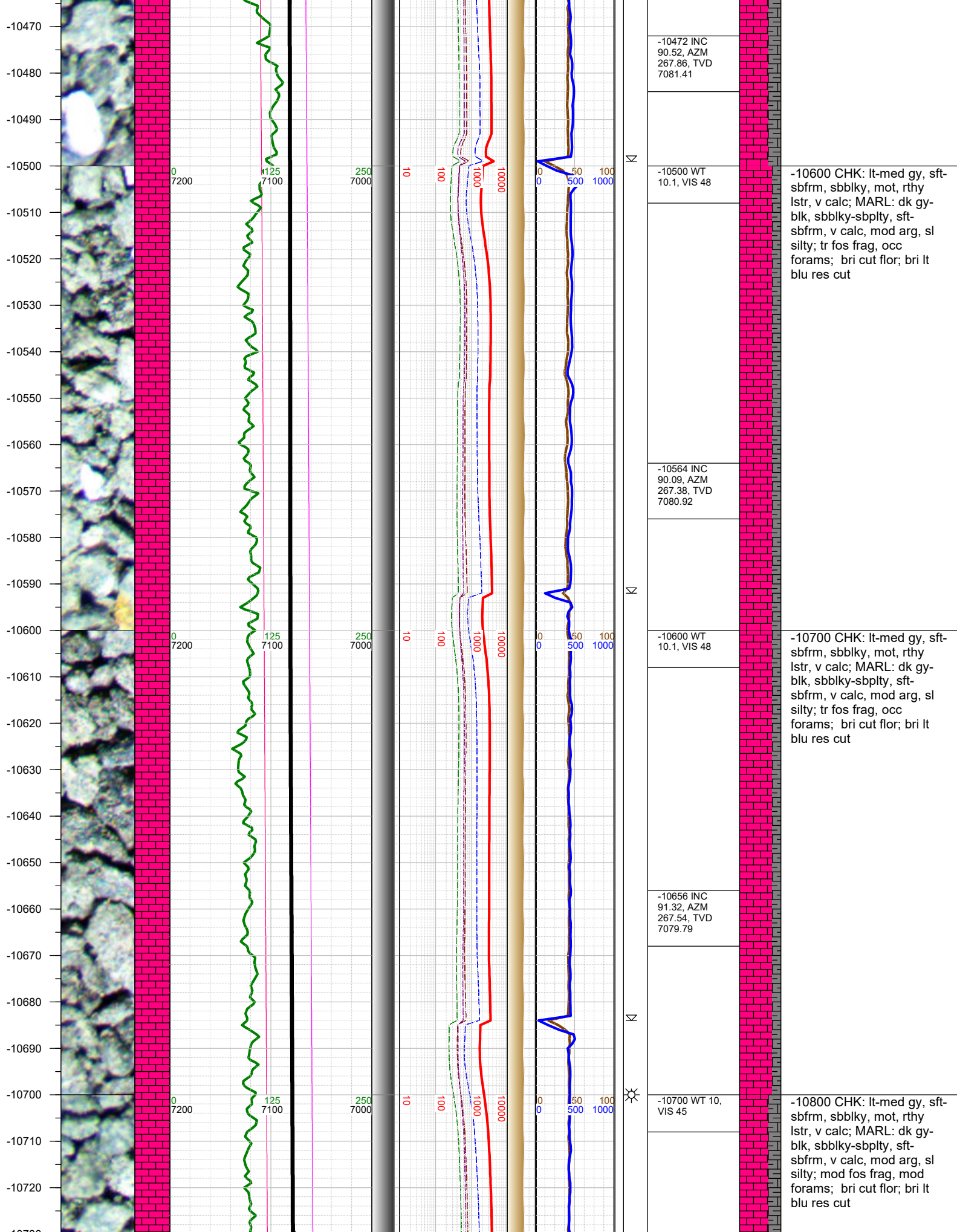
-10379 INC
91.08, AZM
267.72, TVD
7082.71

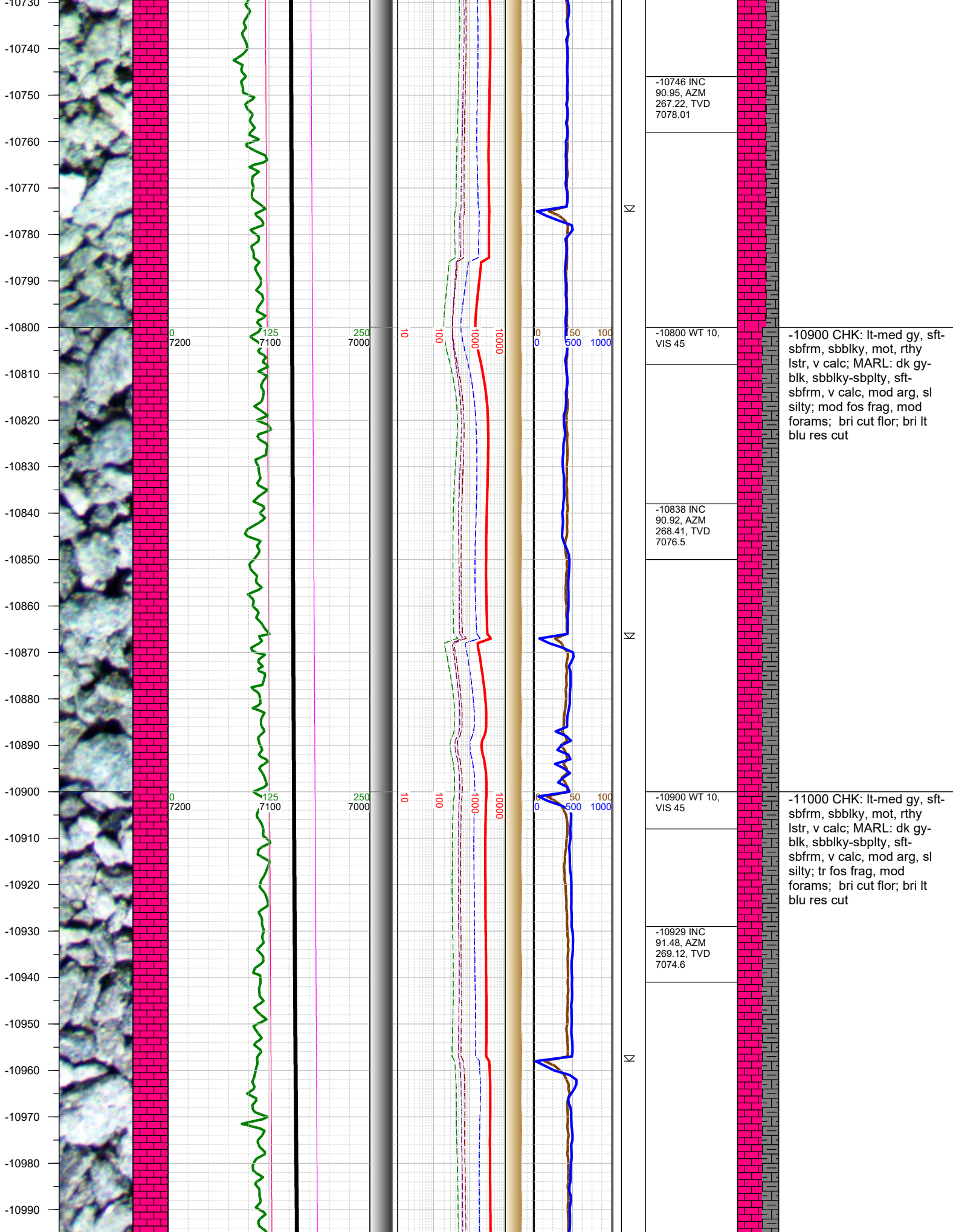
-10400 WT
10.1, VIS 48

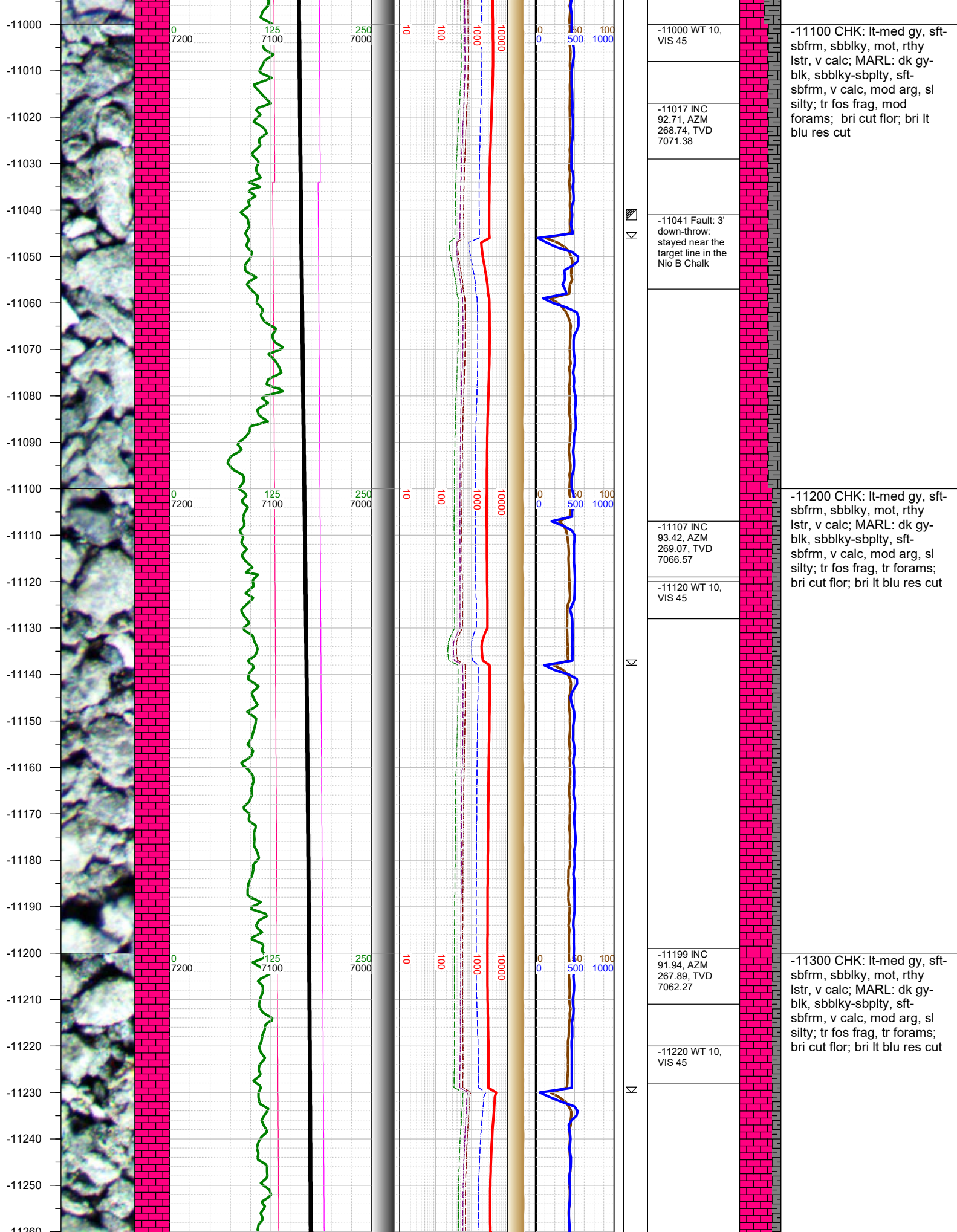
-10300 CHK: lt-med gy, sft-
sbfrm, sbblky, mot, rthy
lstr, v calc; MARL: dk gy-
blk, sbblky-sbplty, sft-
sbfrm, v calc, mod arg, sl
silty; tr fos frag, occ
forams; bri cut flr; bri lt
blu res cut

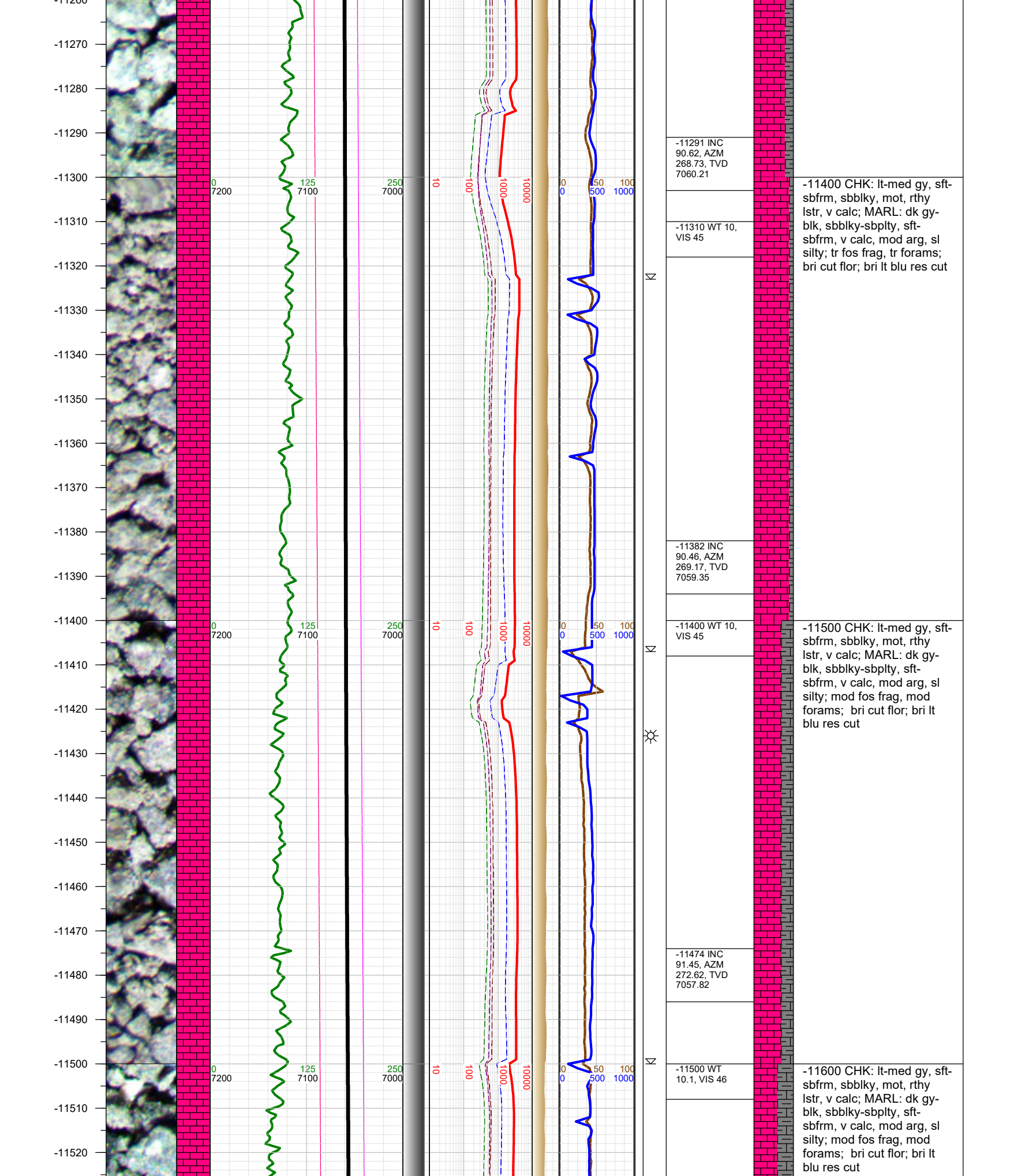
-10400 CHK: lt-med gy, sft-
sbfrm, sbblky, mot, rthy
lstr, v calc; MARL: dk gy-
blk, sbblky-sbplty, sft-
sbfrm, v calc, mod arg, sl
silty; tr fos frag, occ
forams; bri cut flr; bri lt
blu res cut

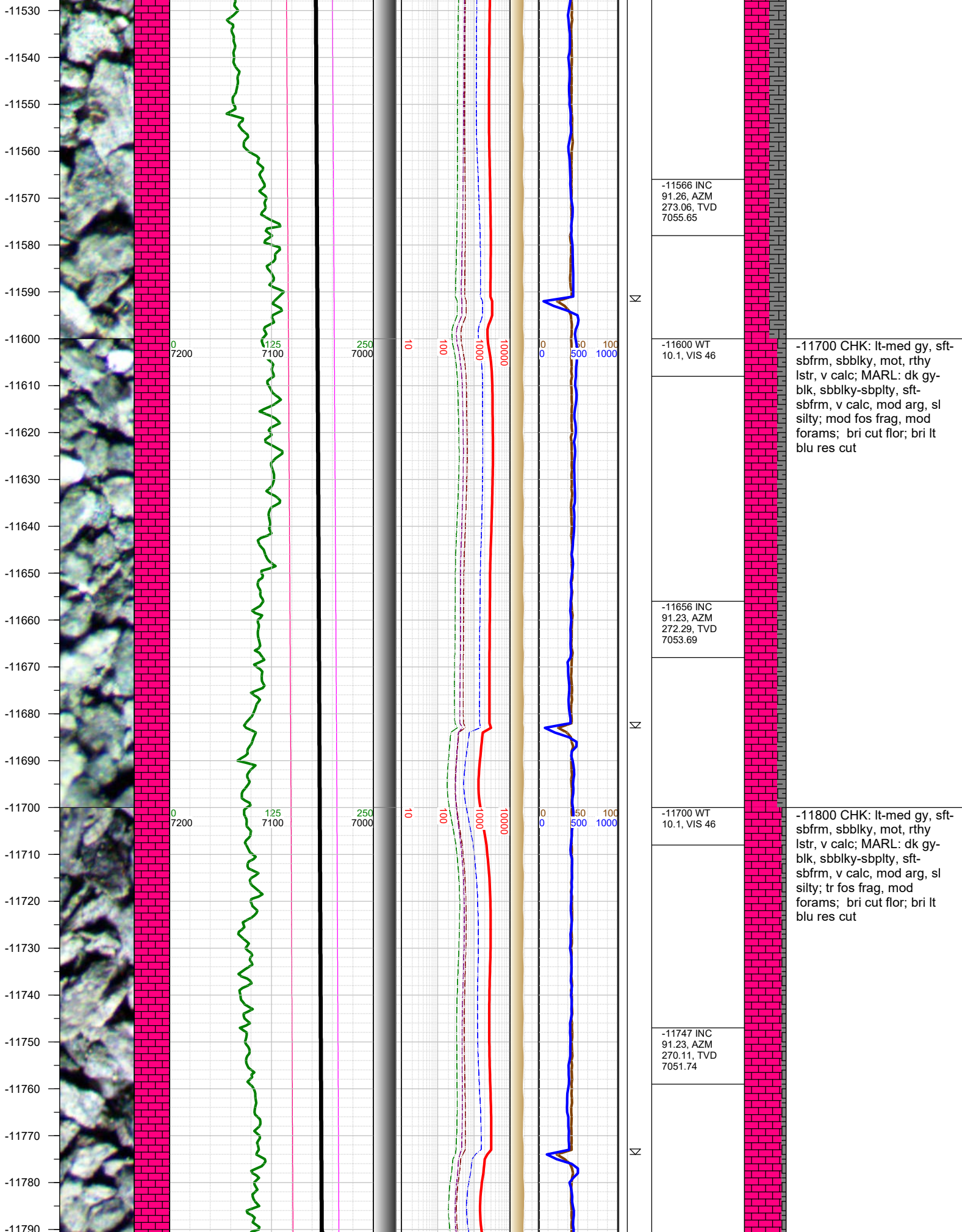
-10500 CHK: lt-med gy, sft-
sbfrm, sbblky, mot, rthy
lstr, v calc; MARL: dk gy-
blk, sbblky-sbplty, sft-
sbfrm, v calc, mod arg, sl
silty; tr fos frag, occ
forams; bri cut flr; bri lt
blu res cut

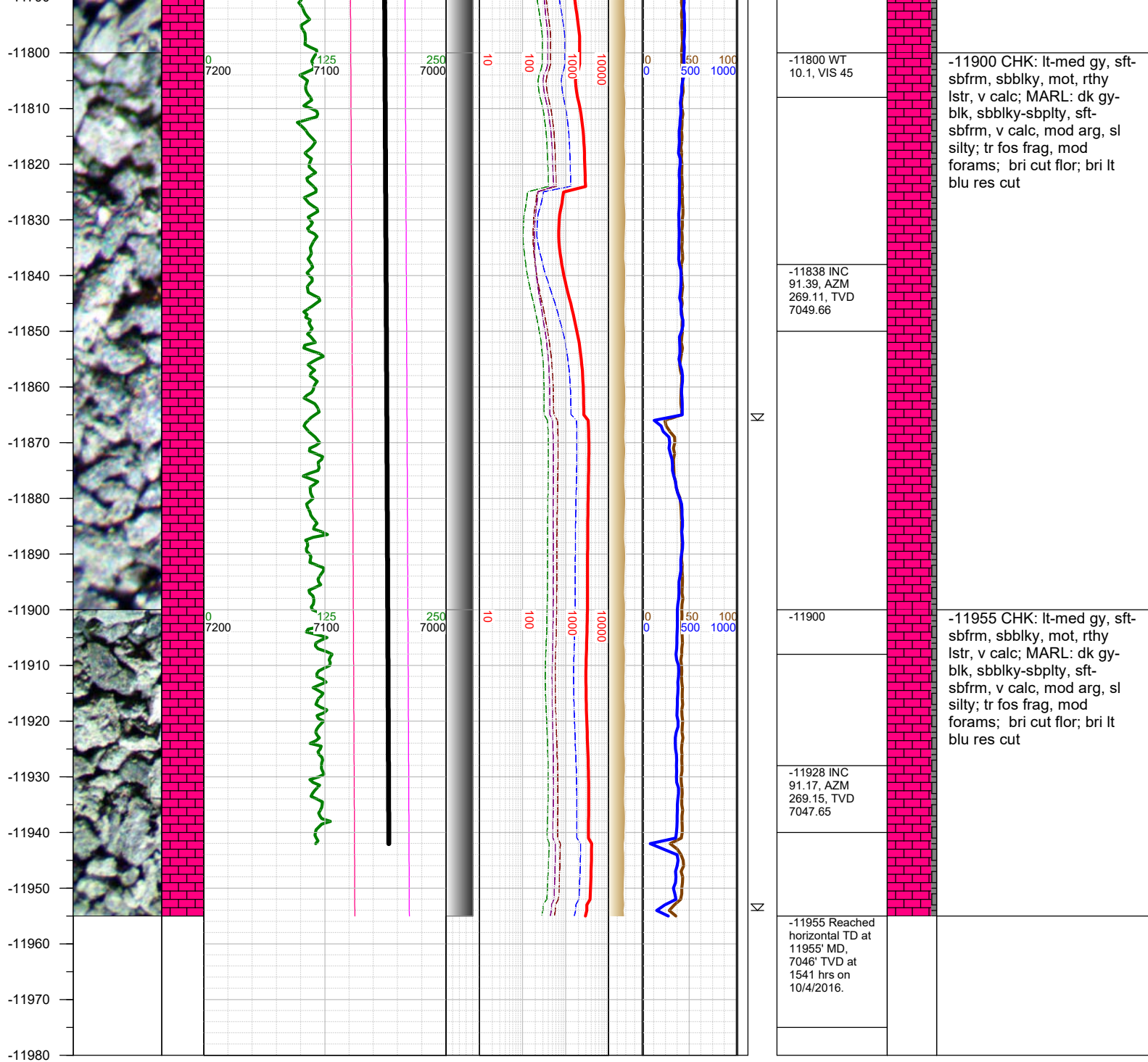












TOTAL DEPTH = 11955'

Thank you for using Earth Science Agency