

OPERATOR: **Extraction Oil & Gas**

WELL NAME: **HFE 5**

FIELD NAME: DJ Basin - Wattenberg

DRILLING RIG: Cyclone 37

API #: 05-123-44772

LAT/LONG: 40.29472, -104.995207

SURFACE HOLE: SWSW S22-T4N-R68W, 1125' FSL, 991' FWL

BOTTOM HOLE: S22-T4N-R68W, 930' FSL, 460' FEL

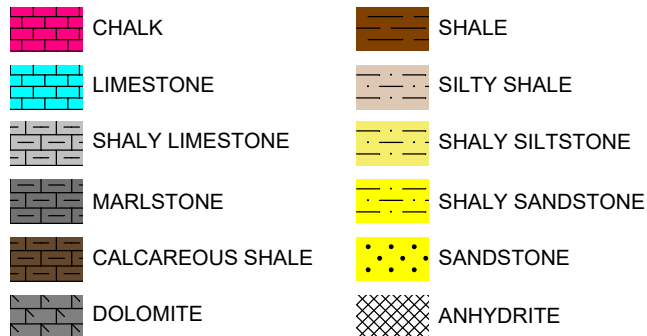


Earth Science Agency, LLC

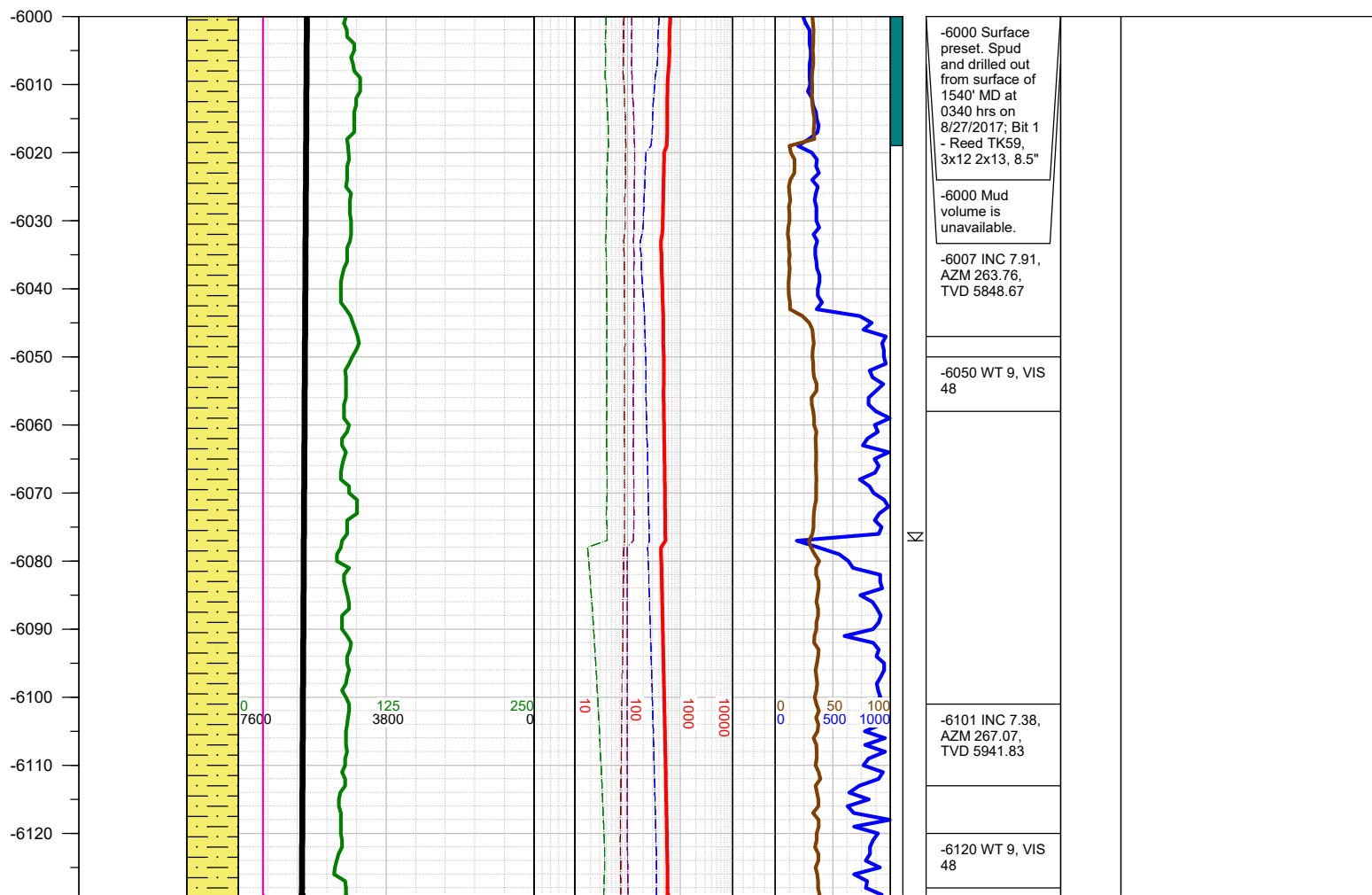
COUNTY: Weld
STATE: Colorado
GROUND ELEVATION: 4919'
KELLY BUSHING: 4947'
DRILLING FLUID: OBM
TVD VS. MD: 7061' / 11755'
SPUD DATE: August 27, 2017
TD DATE: August 28, 2017

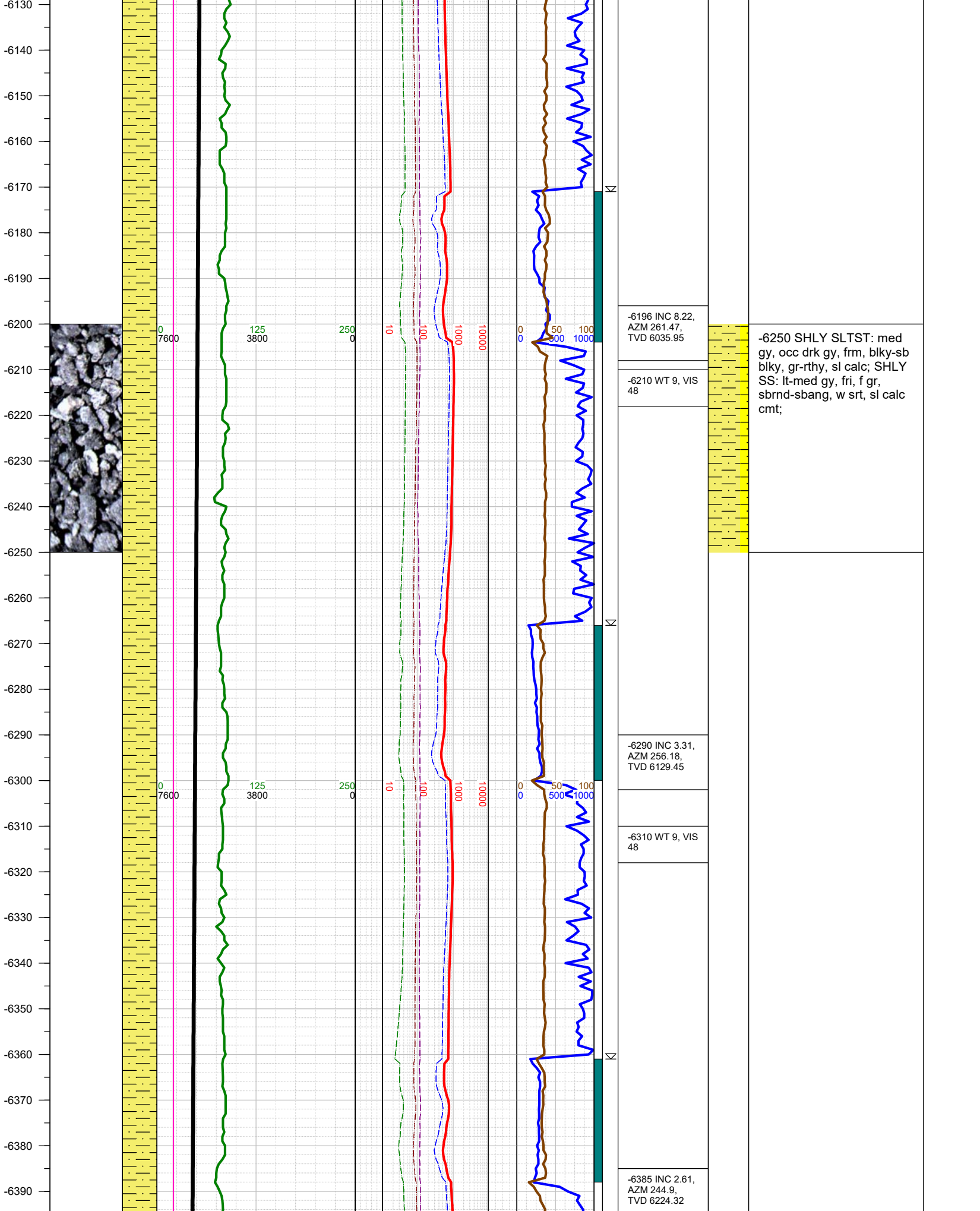
DEPTHS LOGGED: 6000' - 11755'
DATES LOGGED: August 27, 2017 - August 28, 2017
GEOLOGISTS: Dan Jacobs, Kyle Welty
SCALE: 5" = 100'

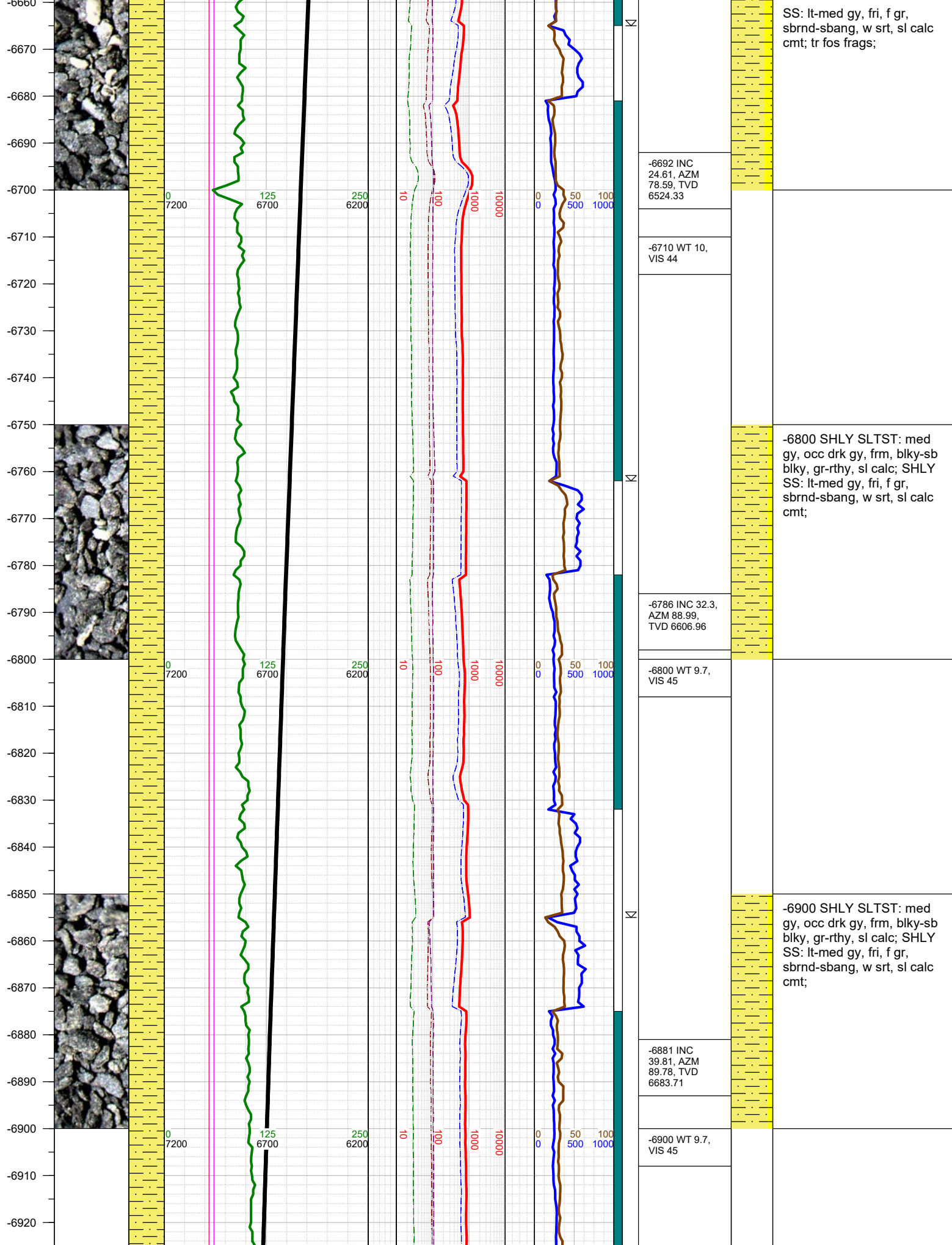
LEGEND

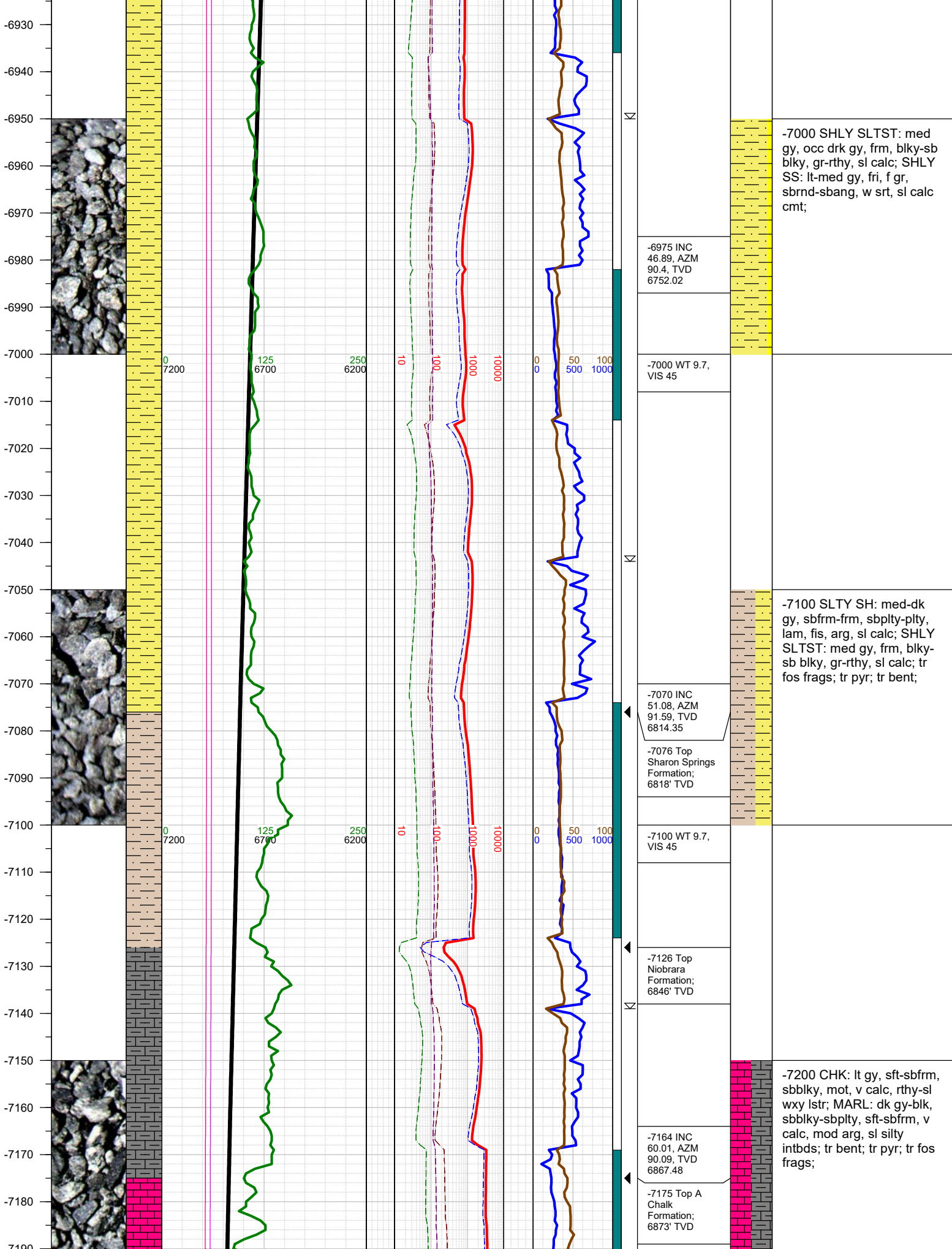


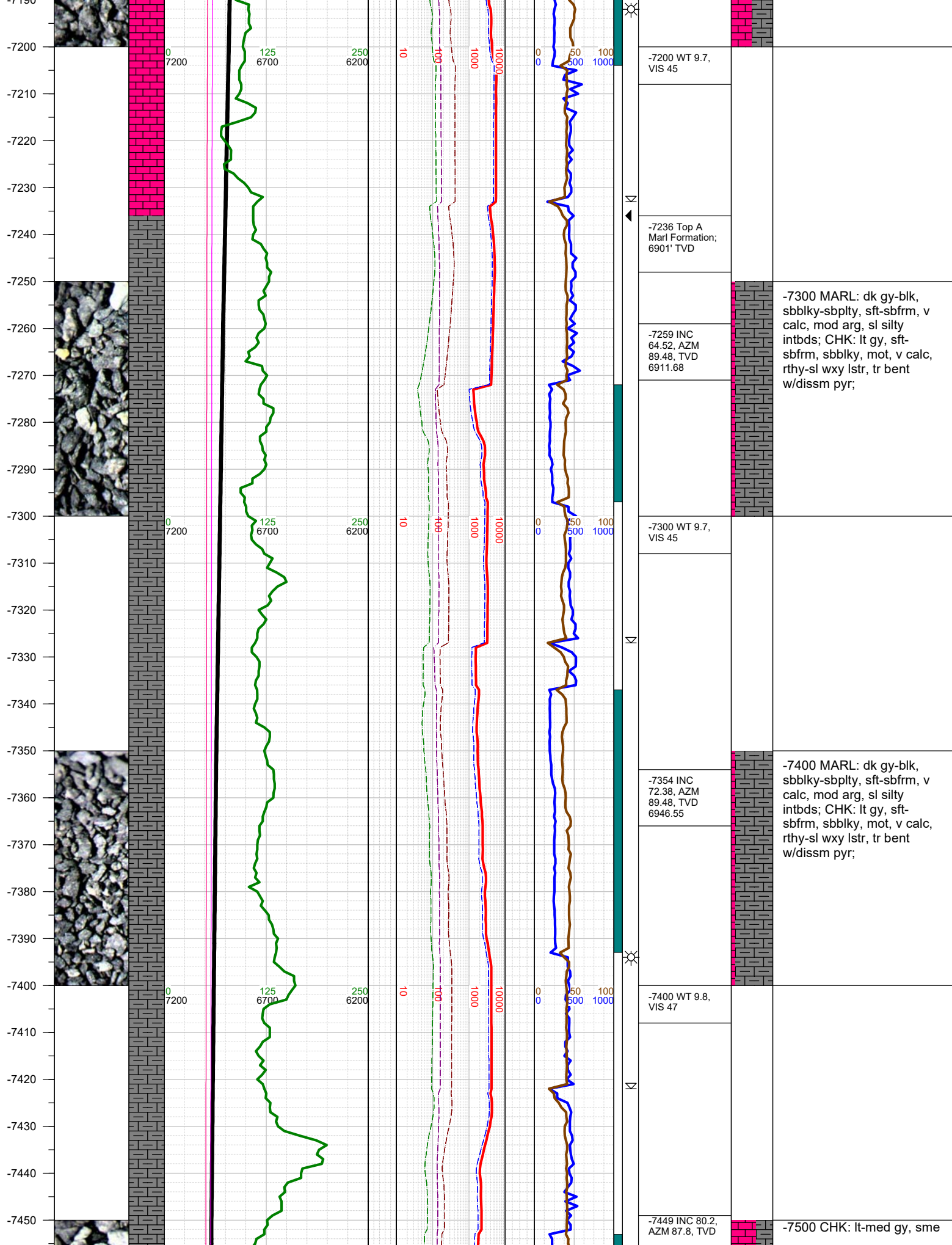
FORMATION \approx CONNECTION Δ MIDNIGHT NEW BIT GAS SHOW FAULT

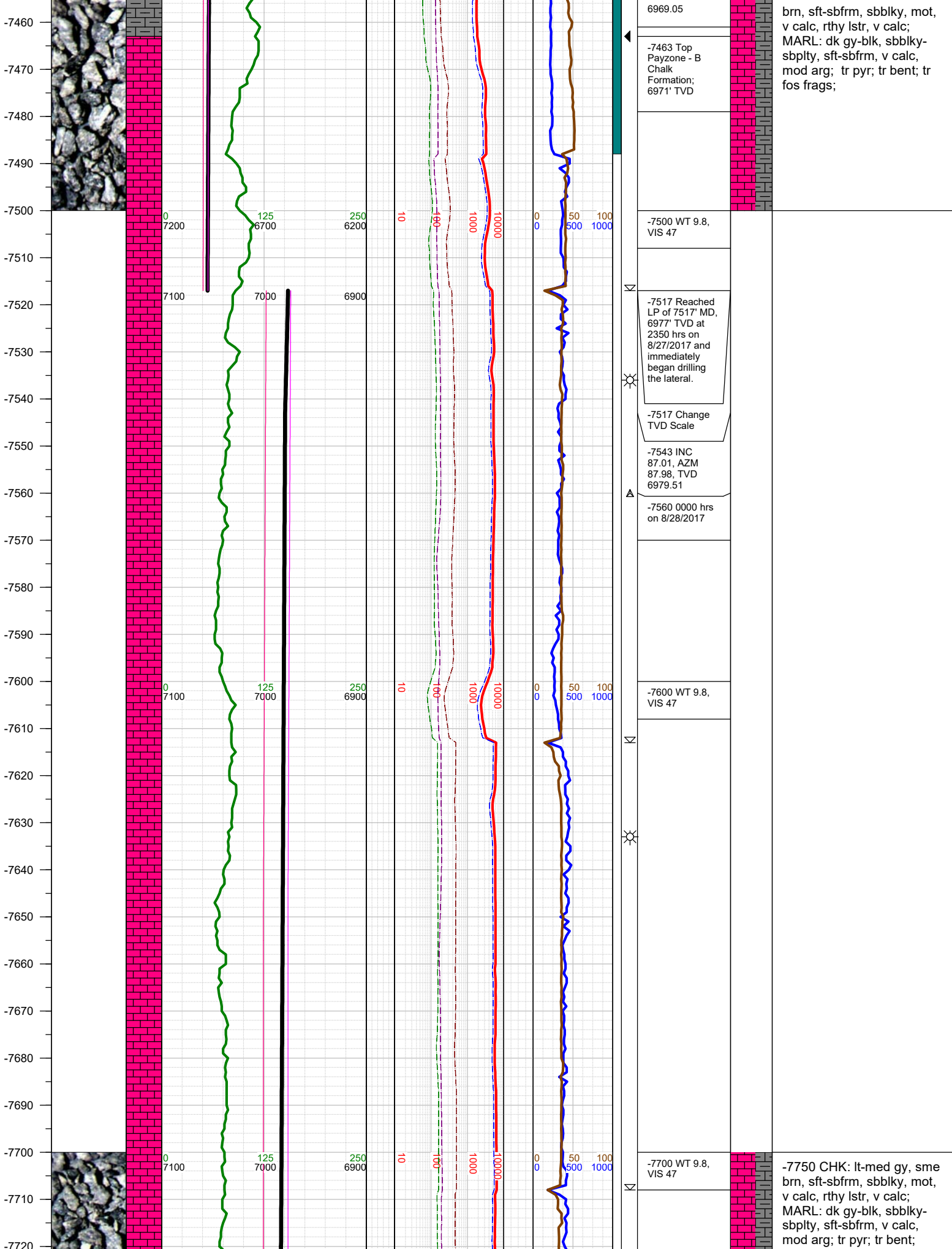


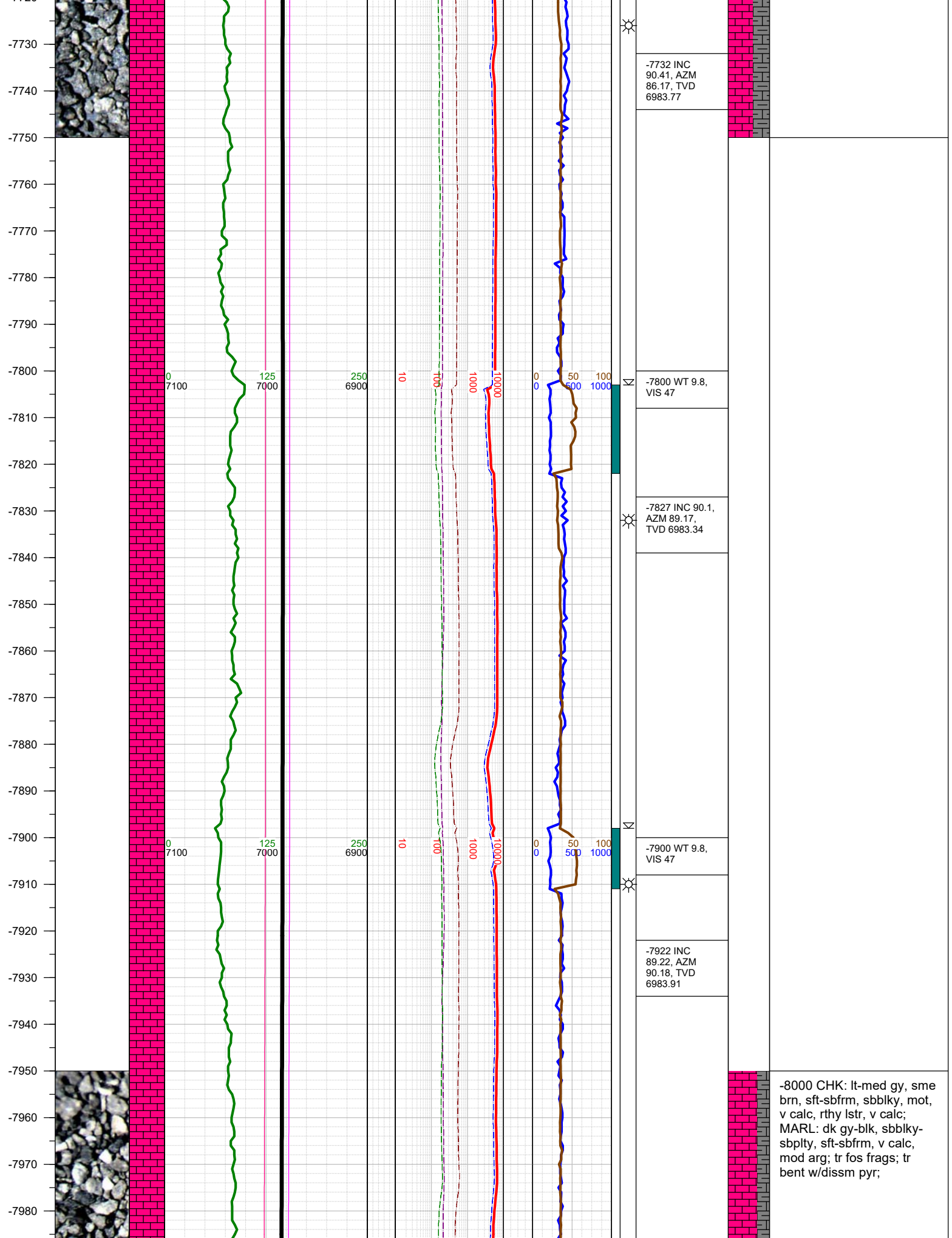


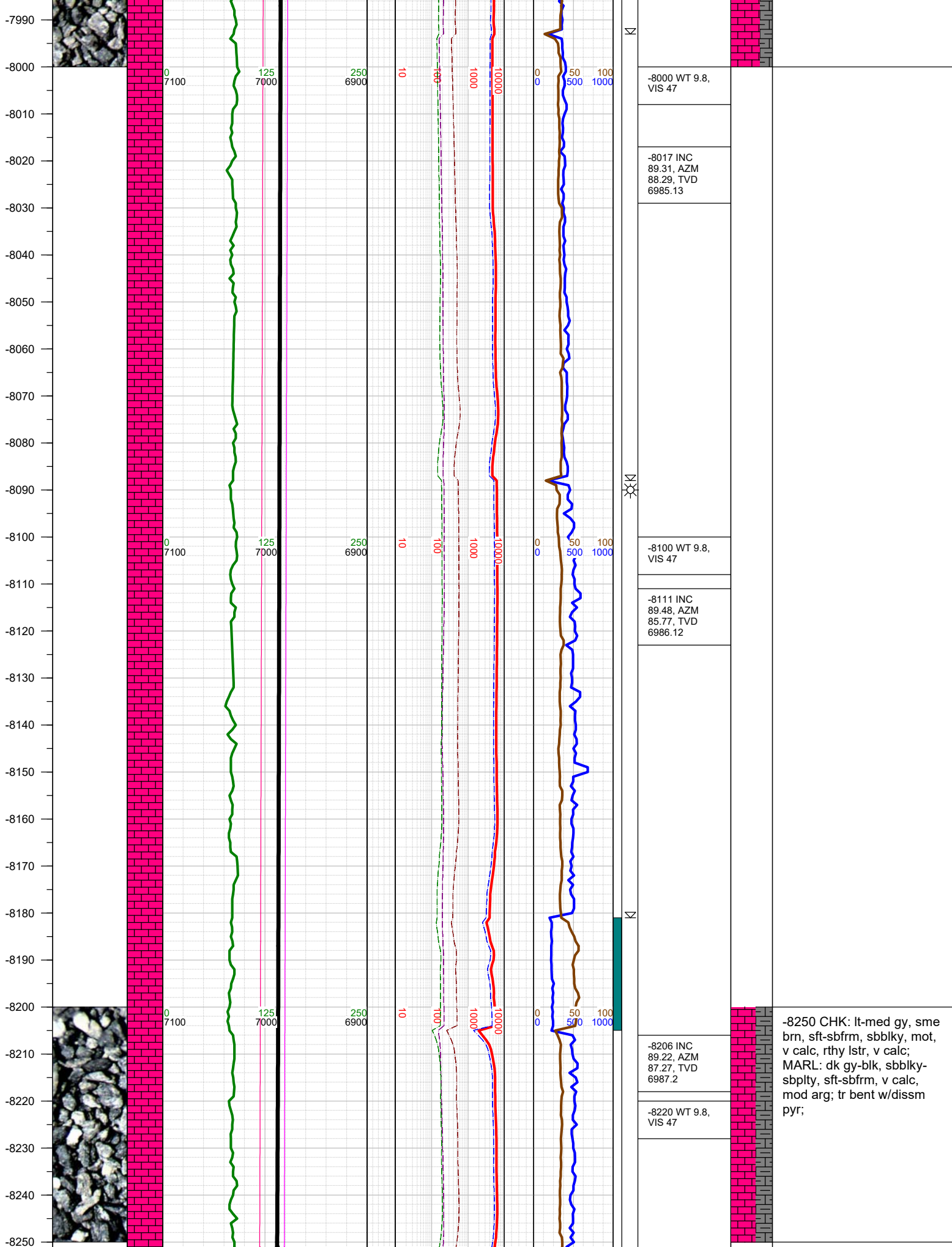


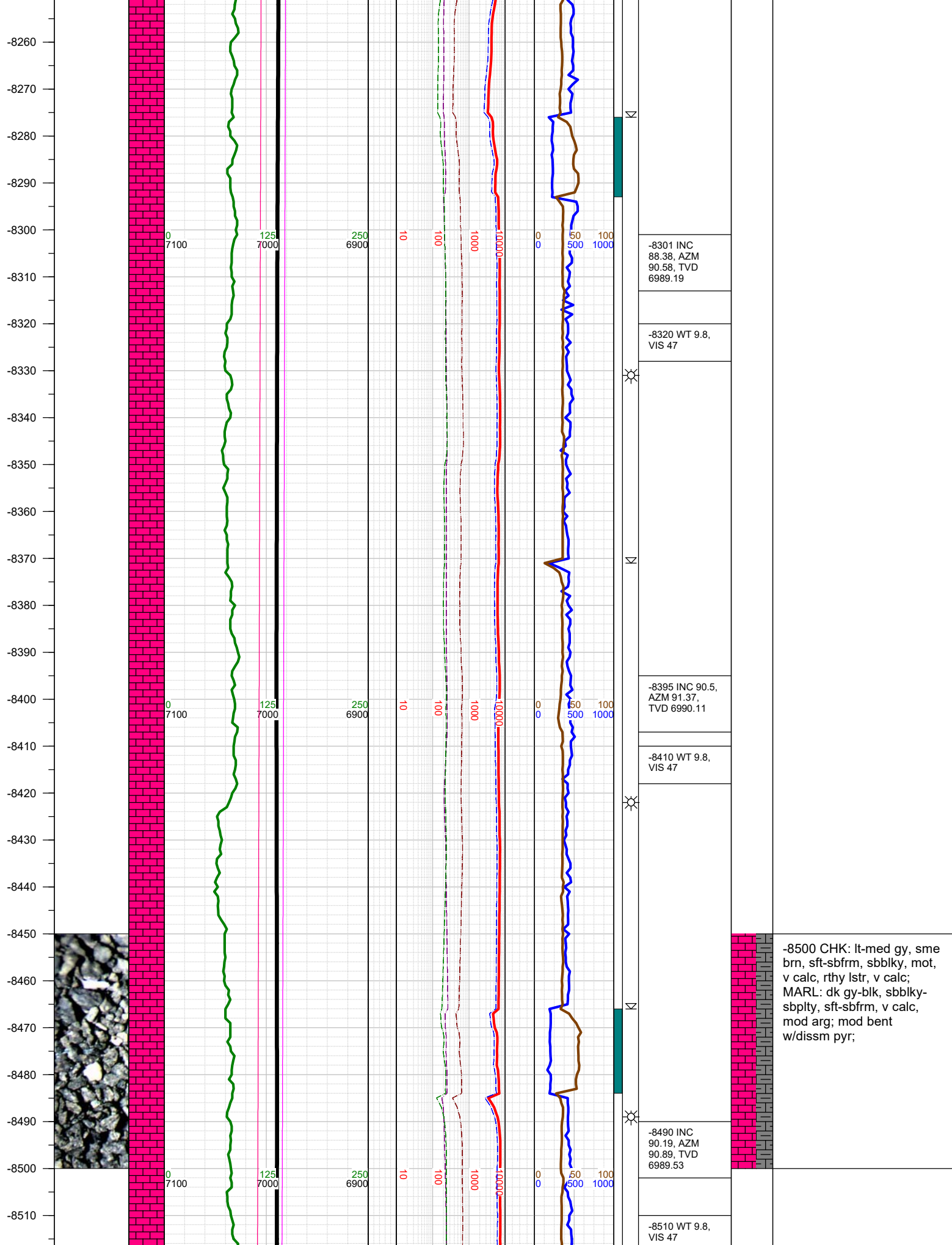




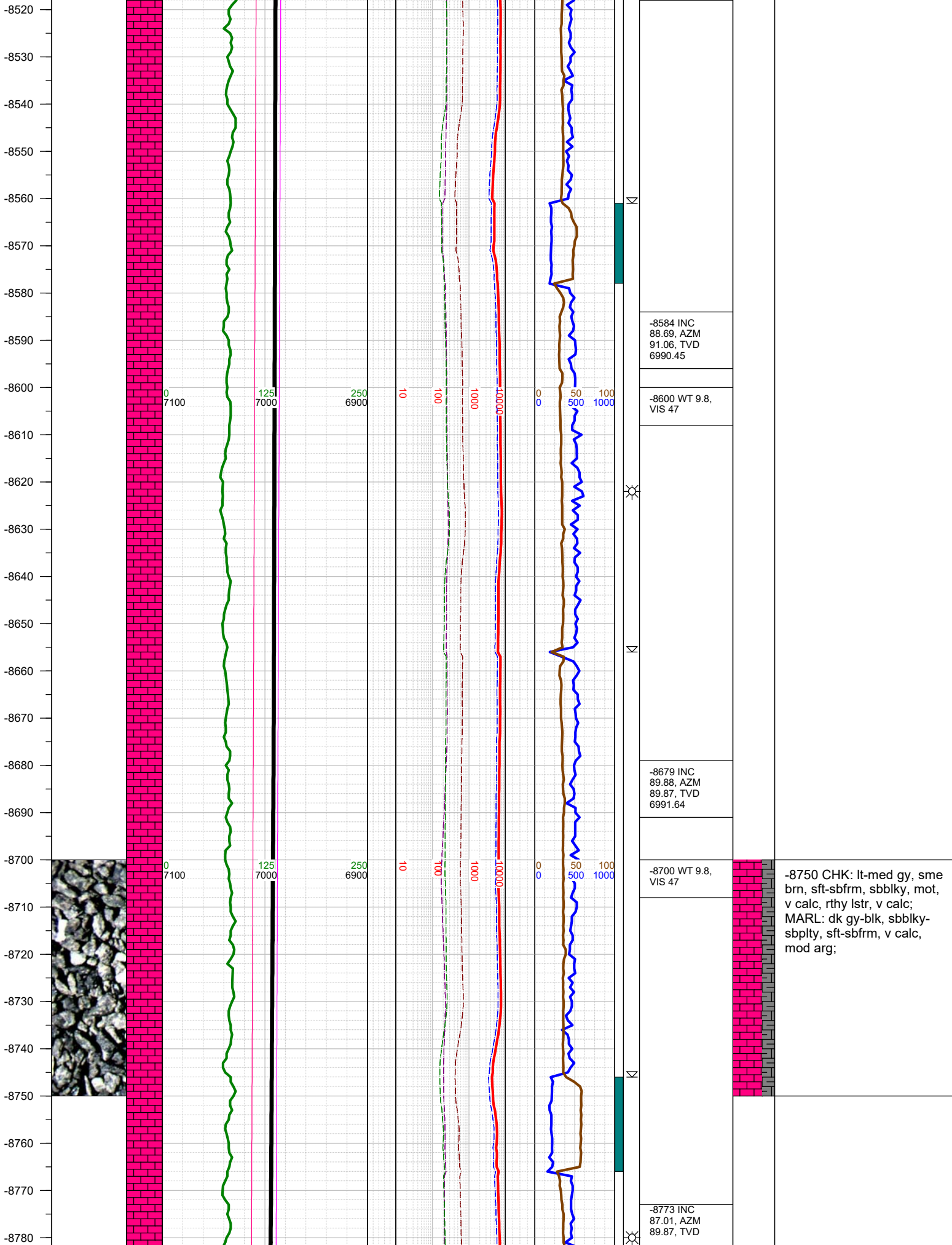


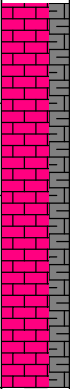
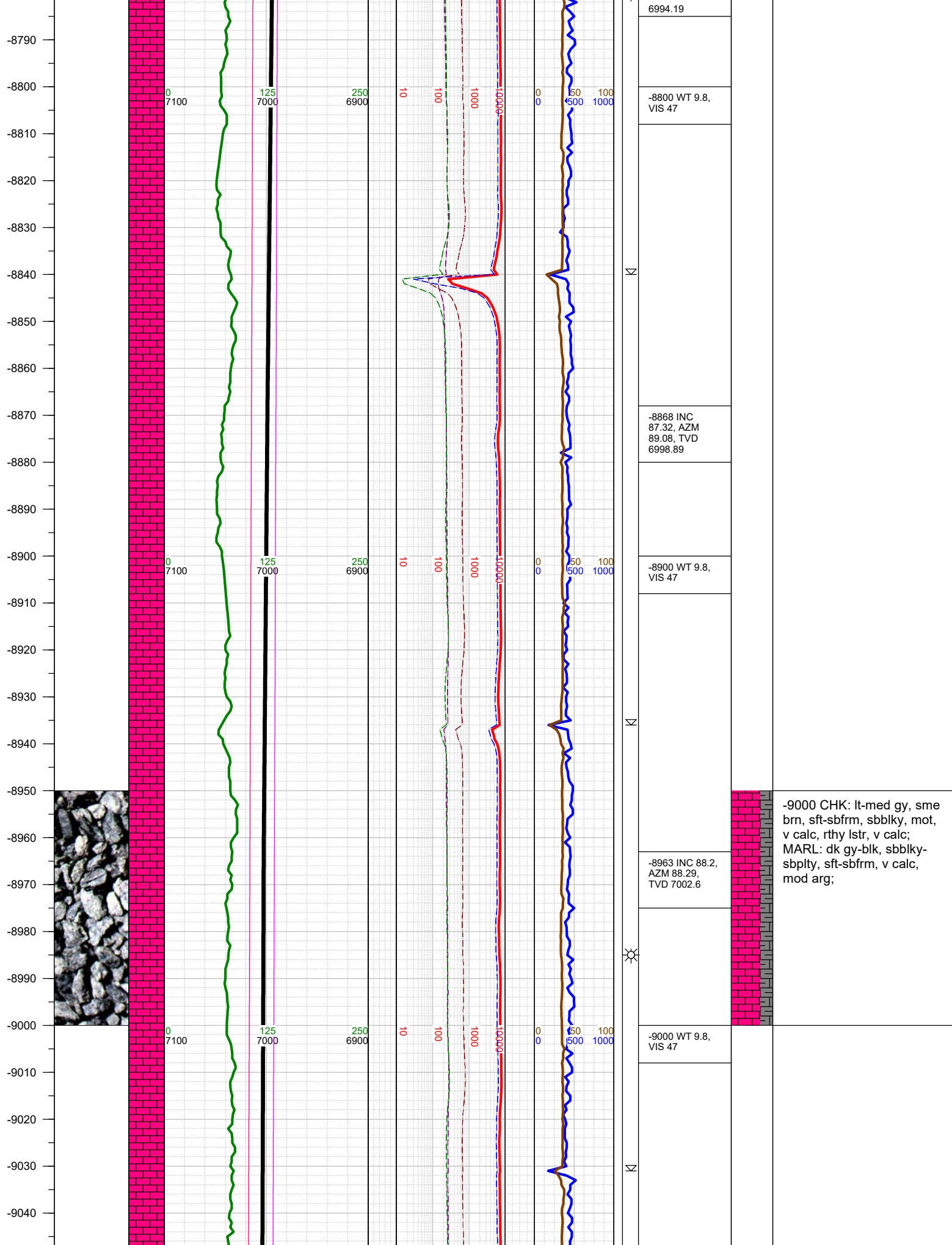






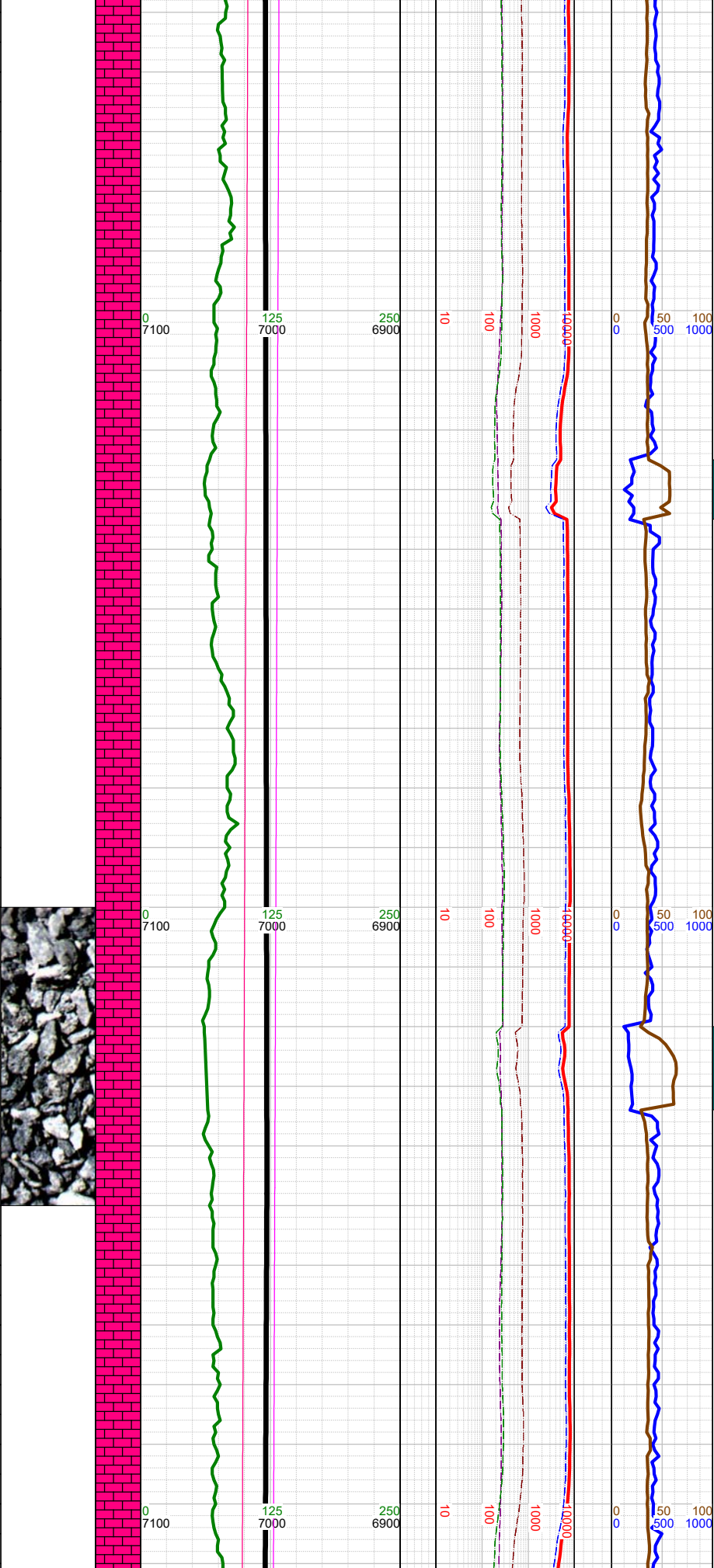
-8500 CHK: lt-med gy, sme
brn, sft-sbfrm, sbbky, mot,
v calc, rthy lstr, v calc;
MARL: dk gy-blk, sbbky-
sbplty, sft-sbfrm, v calc,
mod arg; mod bent
w/dissm pyr;





-9000 CHK: lt-med gy, sme brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr, v calc; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, v calc, mod arg;

-9050
-9060
-9070
-9080
-9090
-9100
-9110
-9120
-9130
-9140
-9150
-9160
-9170
-9180
-9190
-9200
-9210
-9220
-9230
-9240
-9250
-9260
-9270
-9280
-9290
-9300
-9310



-9057 INC 90.1,
AZM 88.68,
TVD 7003.99

-9100 WT 9.8,
VIS 47

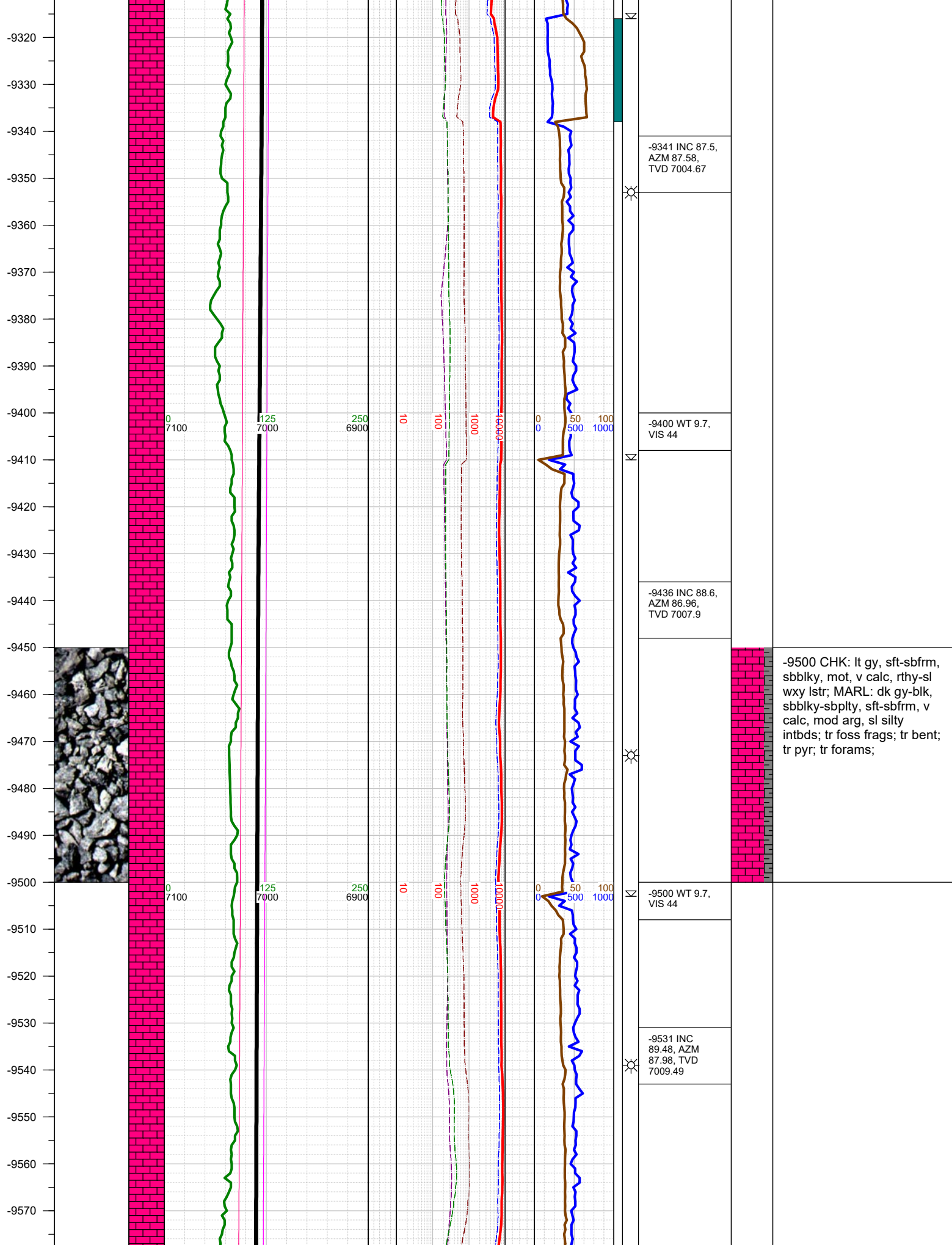
-9152 INC
90.59, AZM
88.68, TVD
7003.42

-9200 WT 9.7,
VIS 44

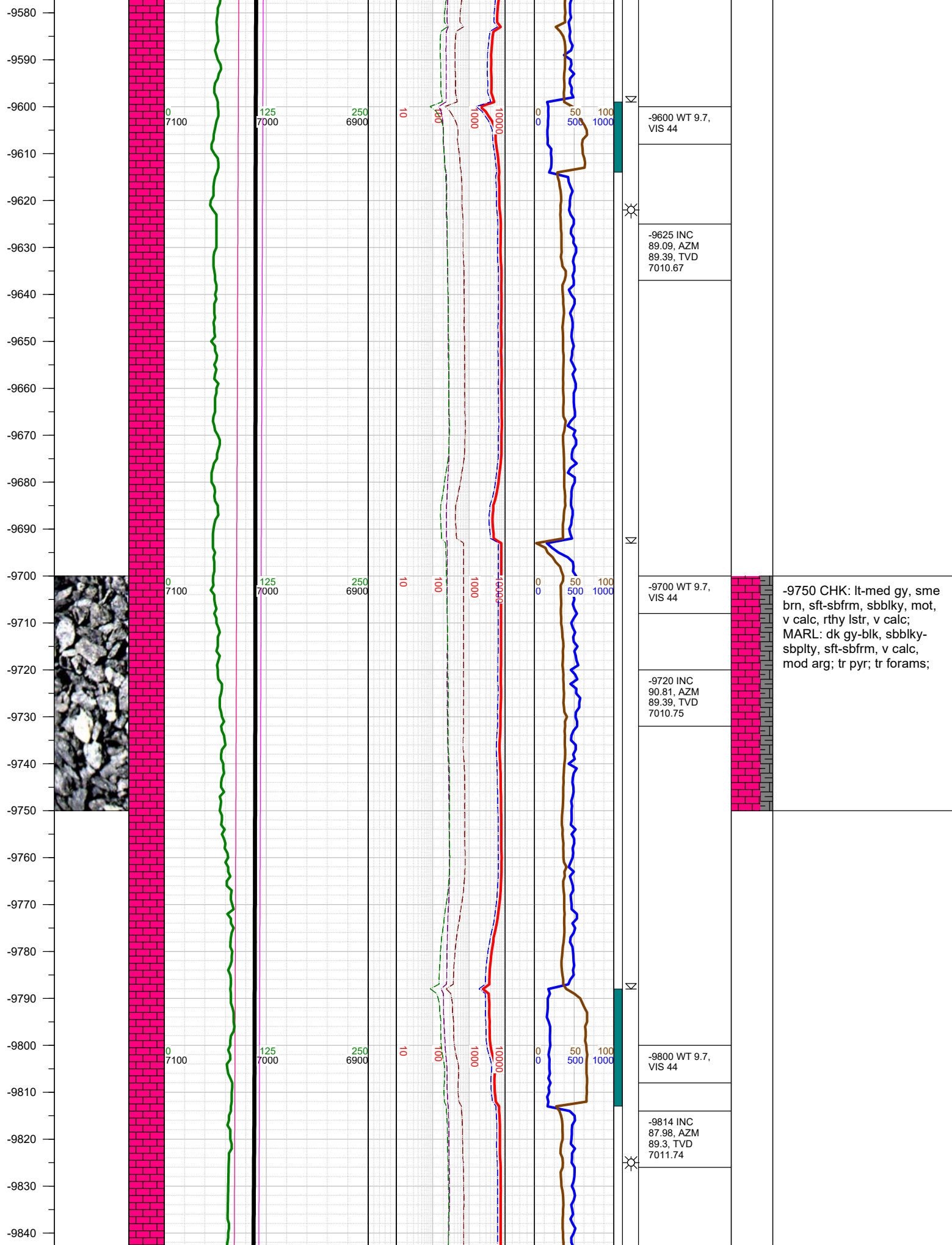
-9247 INC
90.19, AZM
87.58, TVD
7002.78

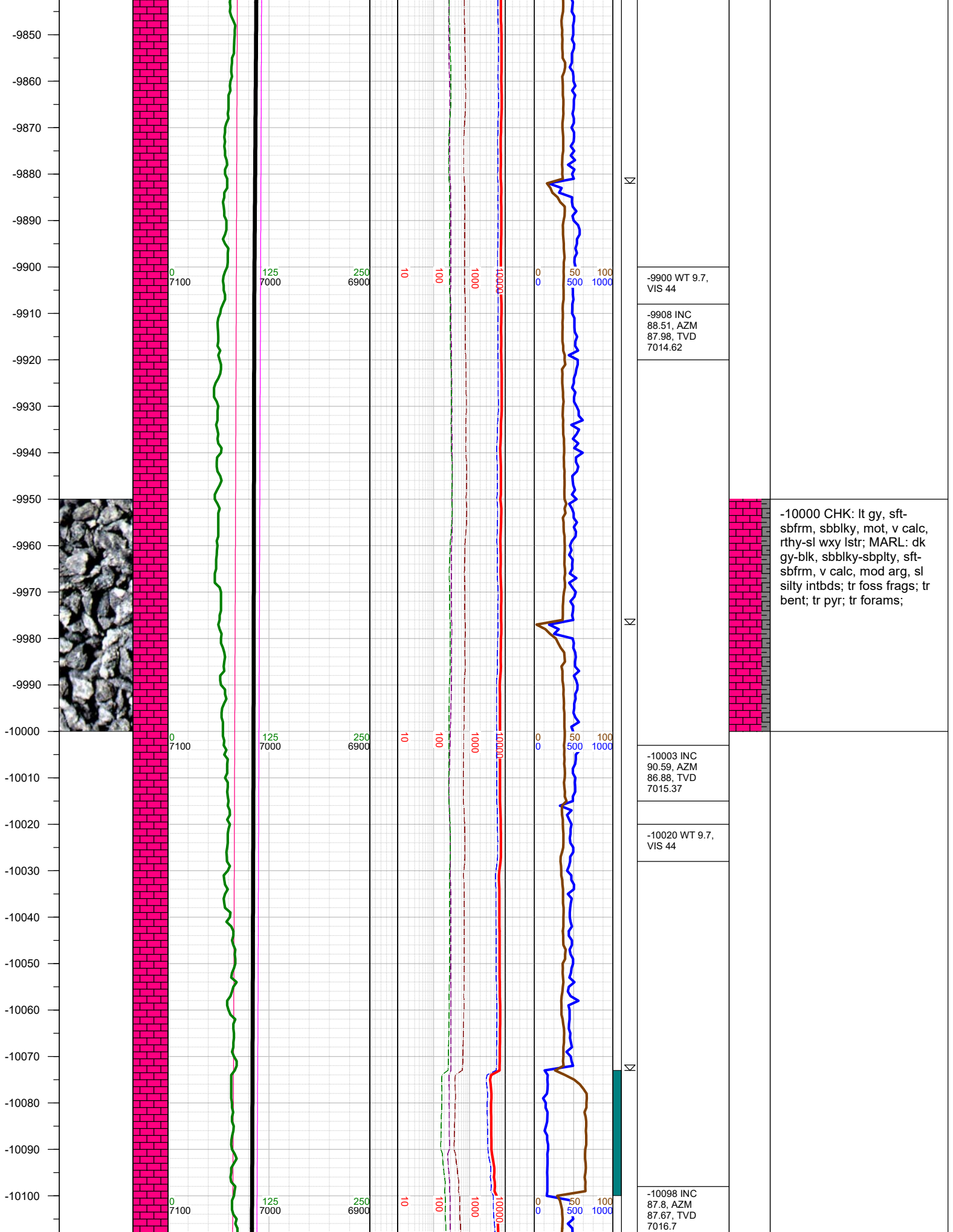
-9300 WT 9.7,
VIS 44

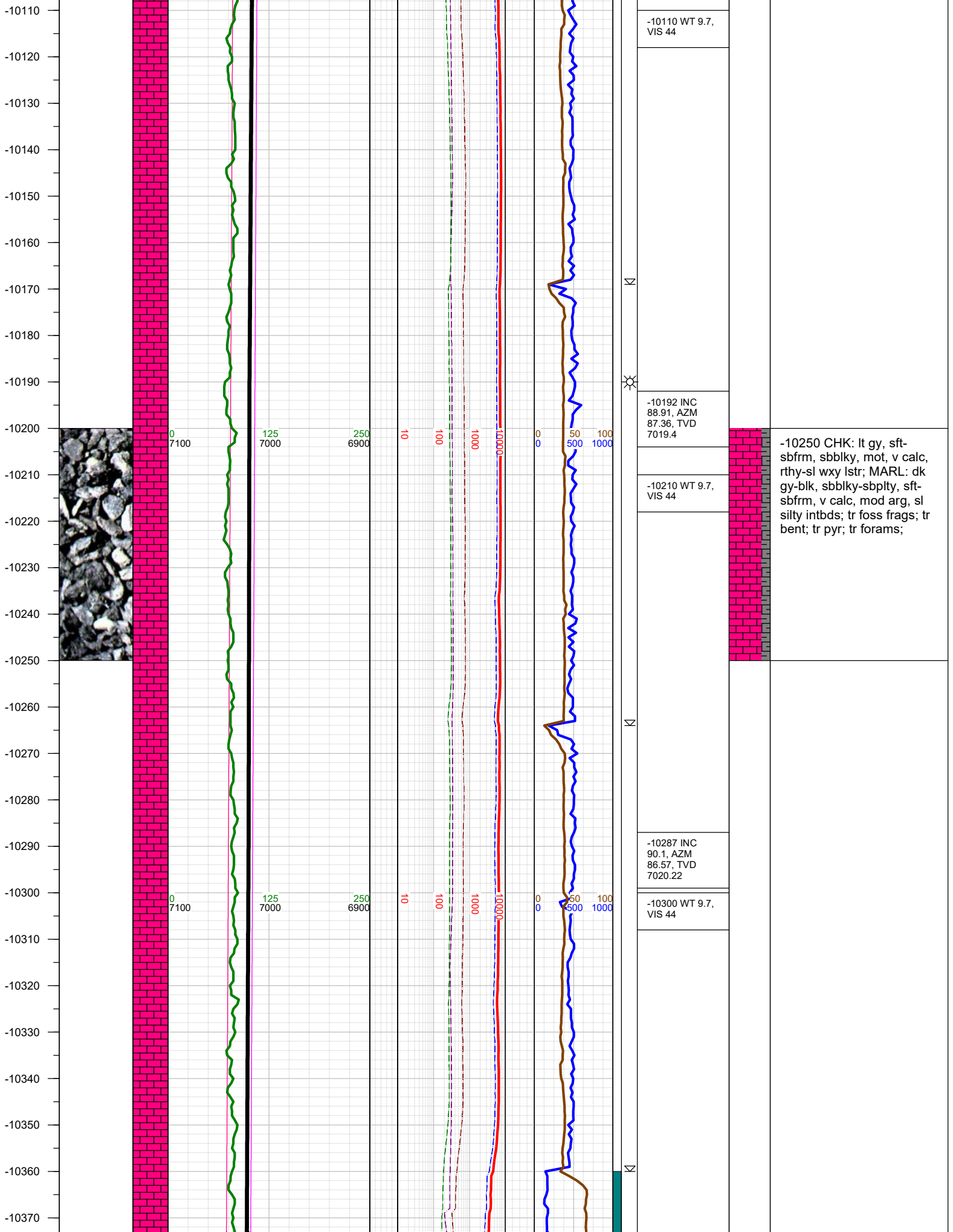
-9250 CHK: lt gy, sft-sbfrm,
sbbly, mot, v calc, rthy-sl
wxy lstr; MARL: dk gy-blk,
sbbly-sbply, sft-sbfrm, v
calc, mod arg, sl silty
intbds; tr foss frags; tr bent;
tr pyr; tr forams;



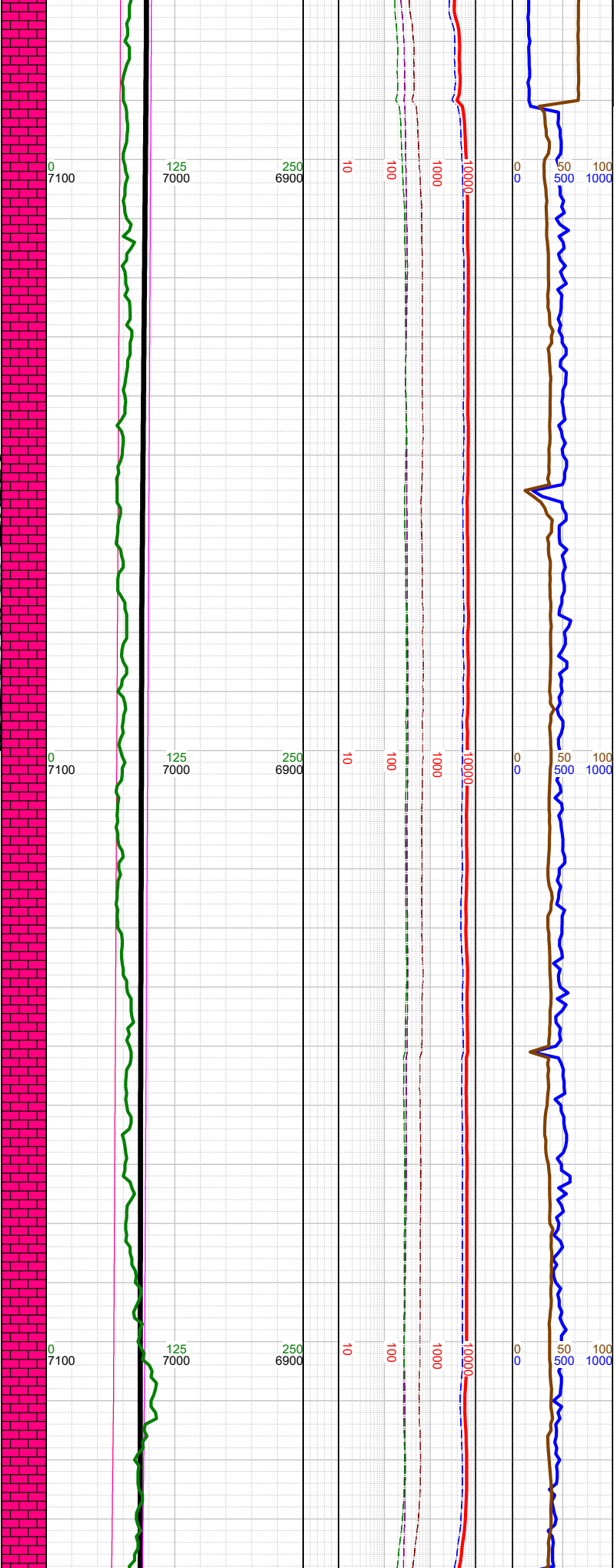
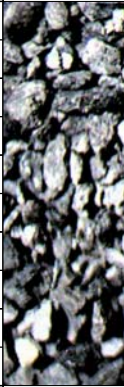
-9500 CHK: lt gy, sft-sbfrm, sbblky, mot, v calc, rthy-sl wxy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, v calc, mod arg, sl silty intbds; tr foss frags; tr bent; tr pyr; tr forams;



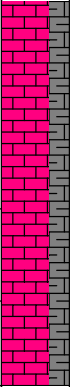




-10380
-10390
-10400
-10410
-10420
-10430
-10440
-10450
-10460
-10470
-10480
-10490
-10500
-10510
-10520
-10530
-10540
-10550
-10560
-10570
-10580
-10590
-10600
-10610
-10620
-10630

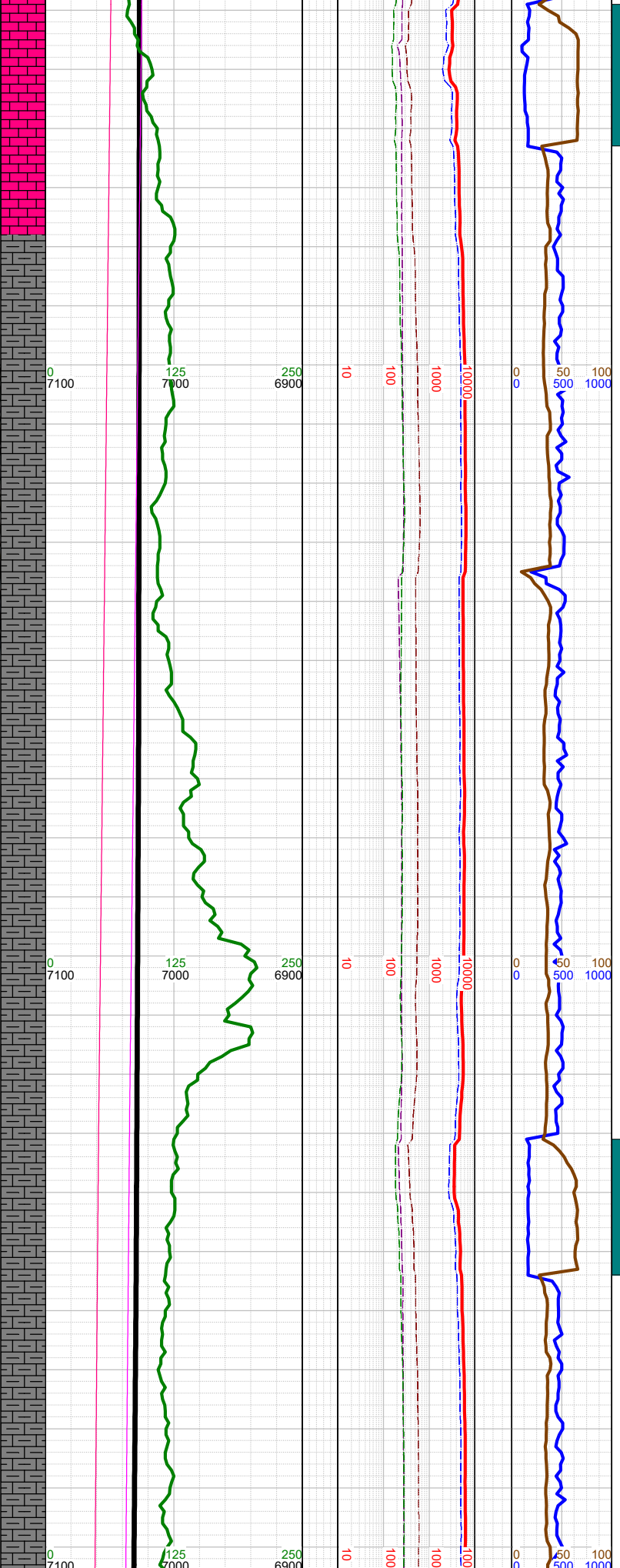


-10382 INC 87.5, AZM 90.27, TVD 7022.21
-10400 WT 9.7, VIS 44
-10477 INC 88.29, AZM 89.17, TVD 7025.7
-10500 WT 9.6, VIS 44
-10571 INC 90.41, AZM 89.48, TVD 7026.77
-10600 WT 9.6, VIS 44

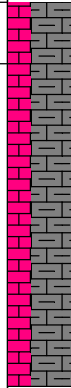


-10500 CHK: lt-med gy,
sme brn, sft-sbfrm, sbblky,
mot, v calc, rthy lstr, v calc;
MARL: dk gy-blk, sbblky-
sbplty, sft-sbfrm, v calc,
mod arg;

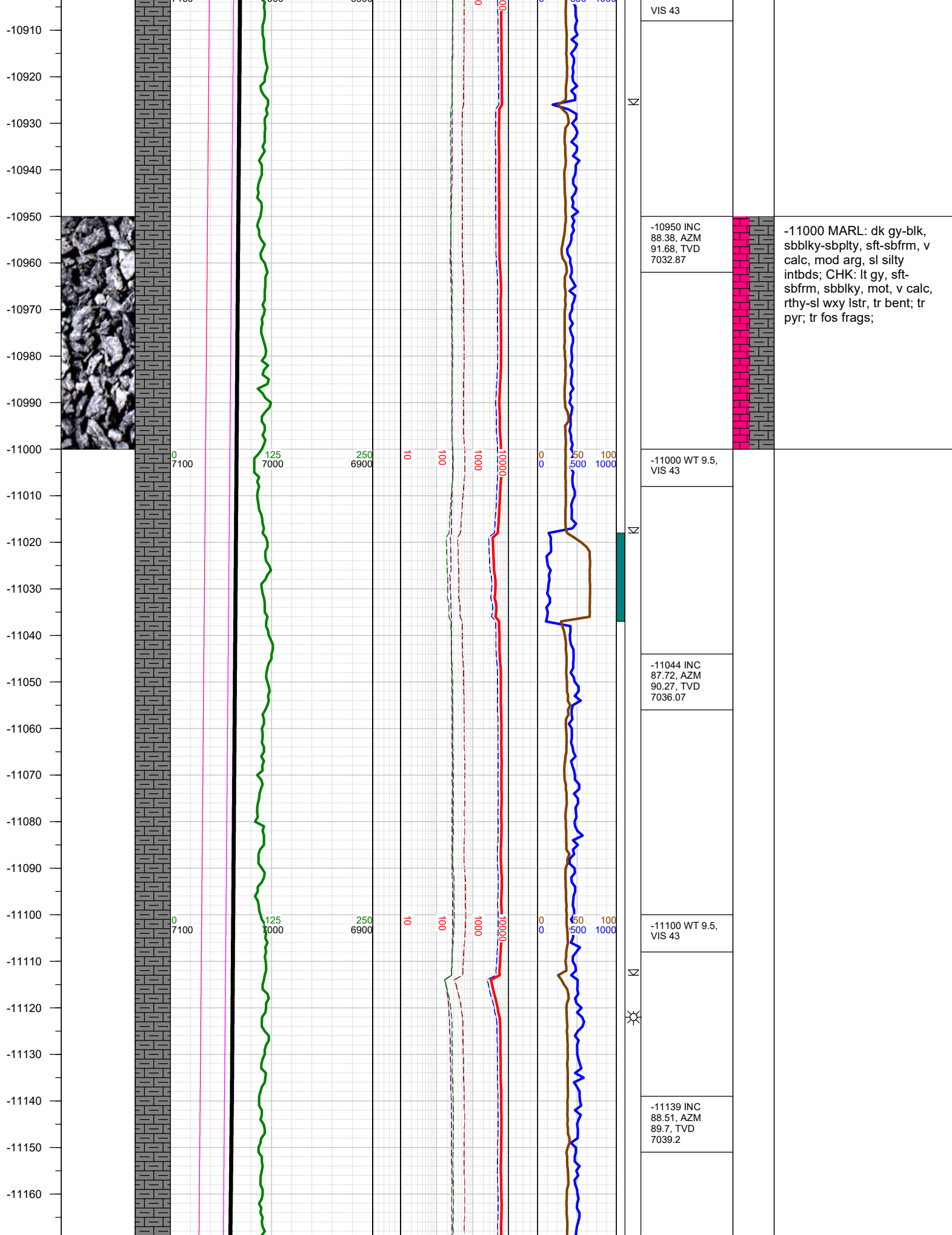
-10640
-10650
-10660
-10670
-10680
-10690
-10700
-10710
-10720
-10730
-10740
-10750
-10760
-10770
-10780
-10790
-10800
-10810
-10820
-10830
-10840
-10850
-10860
-10870
-10880
-10890
-10900

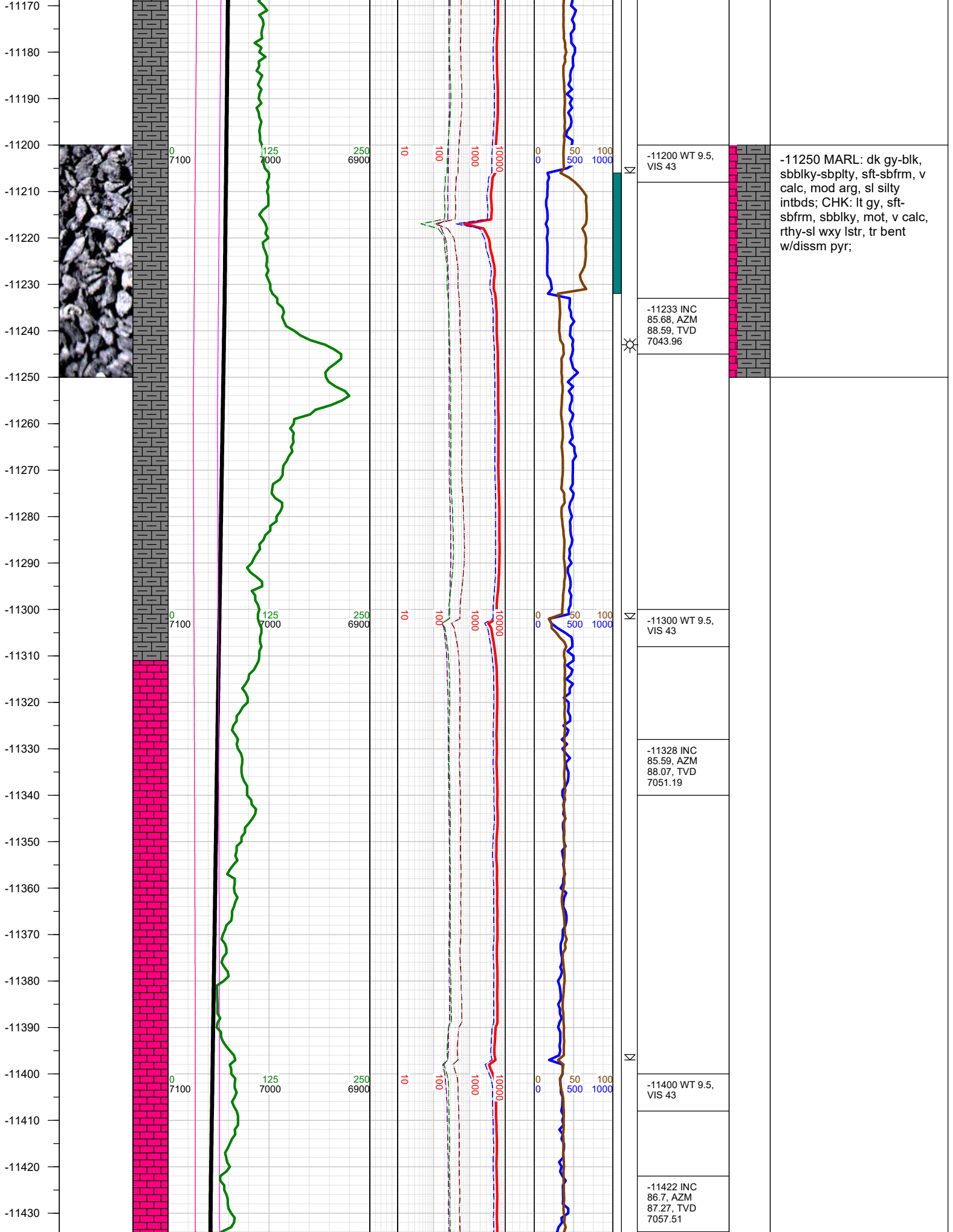


-10666 INC 89.31, AZM 91.19, TVD 7027	
-10700 WT 9.6, VIS 44	
-10761 INC 90.1, AZM 90.58, TVD 7027.49	
-10800 WT 9.6, VIS 44	
-10855 INC 87.5, AZM 91.37, TVD 7029.46	
-10900 WT 9.5,	

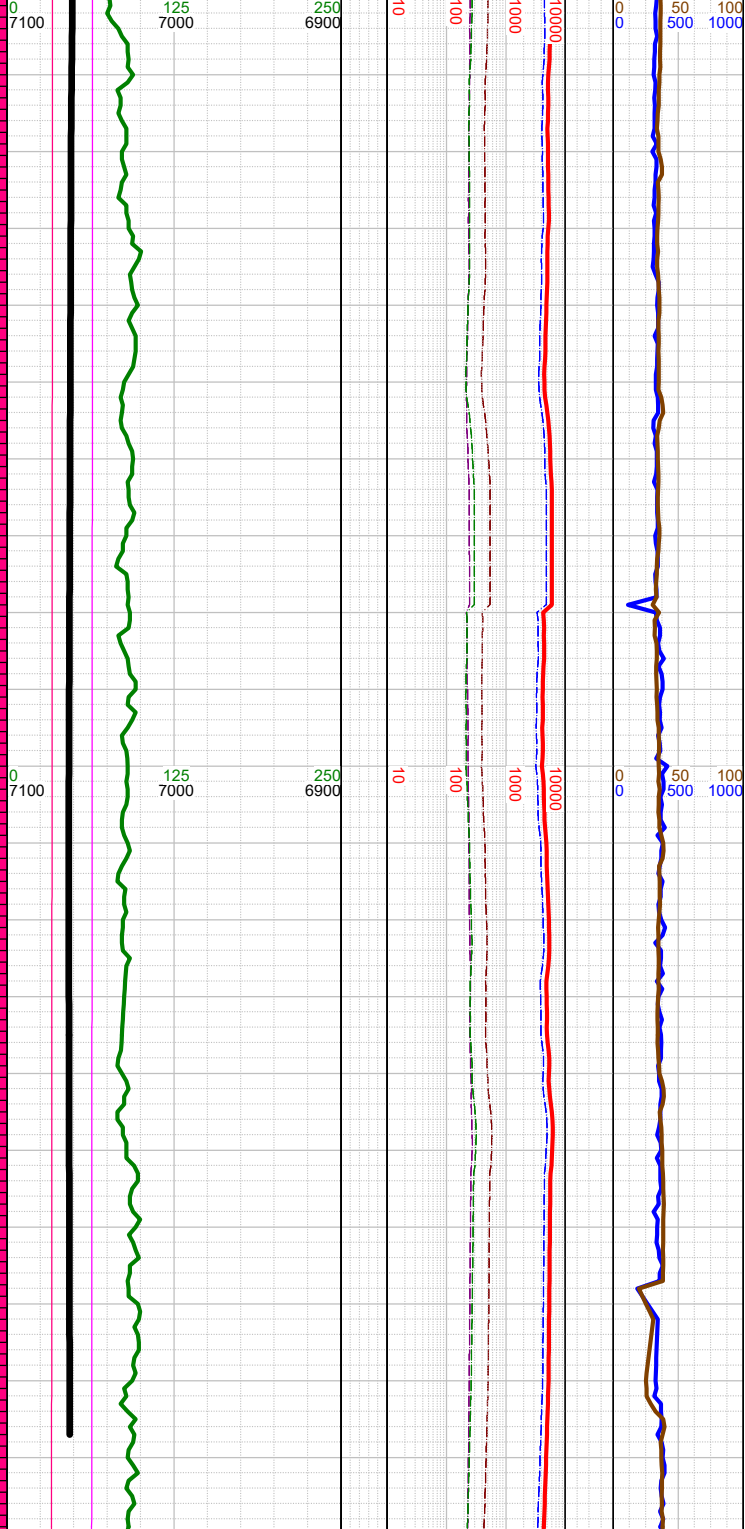
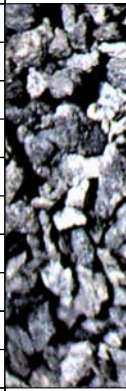


-10750 MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, v calc, mod arg, sl silty intbds; CHK: lt gy, sft-sbfrm, sbblky, mot, v calc, rthy-sl wxy lstr; tr bent; tr pyr; tr forams;





-11440
-11450
-11460
-11470
-11480
-11490
-11500
-11510
-11520
-11530
-11540
-11550
-11560
-11570
-11580
-11590
-11600
-11610
-11620
-11630
-11640
-11650
-11660
-11670
-11680
-11690

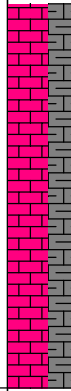


⌵

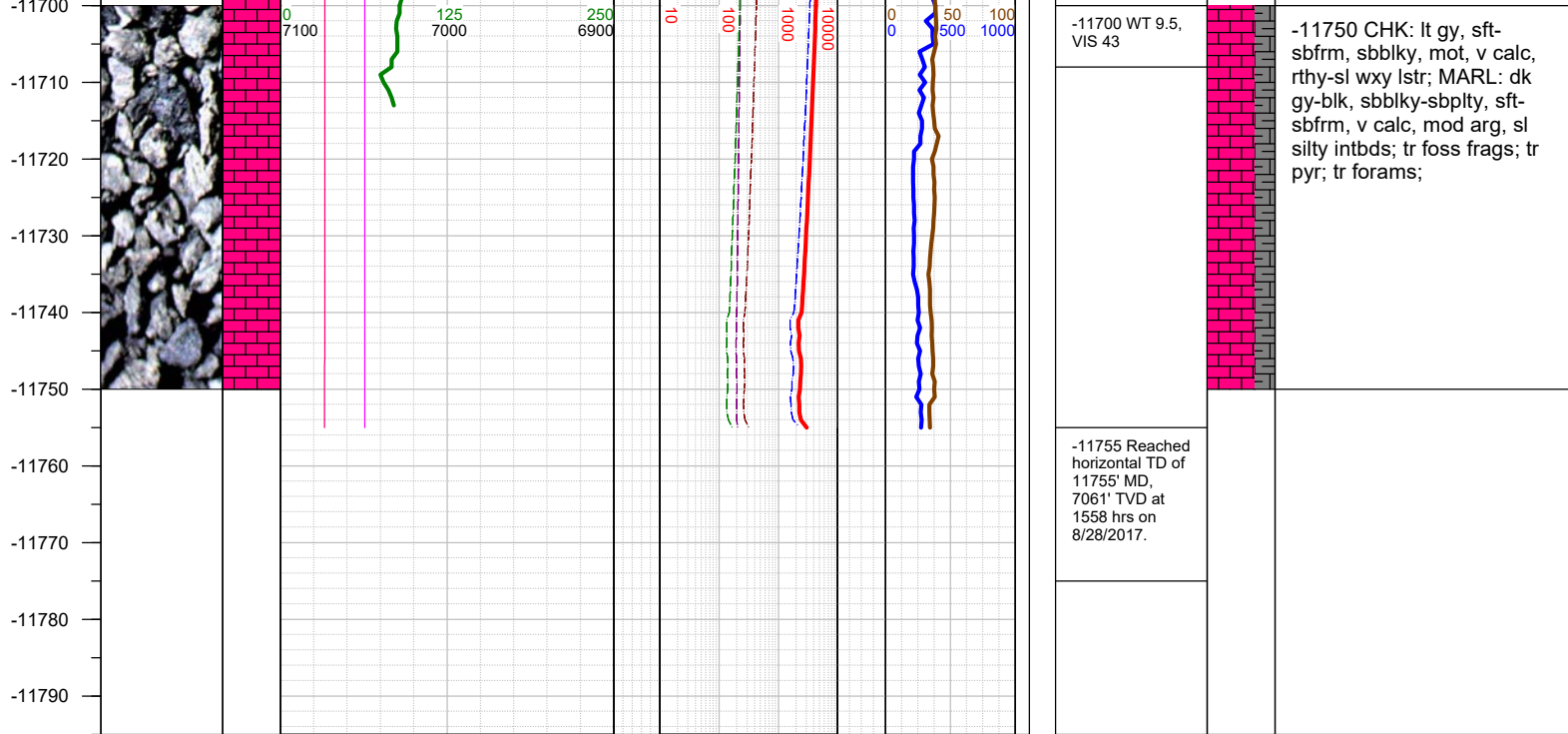
⌵

⌵

-11500 WT 9.5, VIS 43
-11517 INC 88.29, AZM 86.88, TVD 7061.66
-11600 WT 9.5, VIS 43
-11612 INC 89.88, AZM 86.7, TVD 7063.18
-11687 INC 91.12, AZM 86.57, TVD 7062.52



-11500 CHK: lt gy, sft-sbfrm, sbblky, mot, v calc, rthy-sl wxy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, v calc, mod arg, sl silty intbds; tr foss frags; tr pyr; tr forams;



TOTAL DEPTH = 11755'

Thank you for using Earth Science Agency