

OPERATOR: **Extraction Oil & Gas**

WELL NAME: **Varra 5**

FIELD NAME: DJ Basin - Wattenberg

DRILLING RIG: Patterson 341

API #: 05-123-39985

LAT/LONG: 40.513081, -104.92388

SURFACE HOLE: NWSW S5-T6N-R67W, 1641' FSL, 789' FWL

BOTTOM HOLE: S4-T6N-R67W, 1790' FSL, 460' FEL

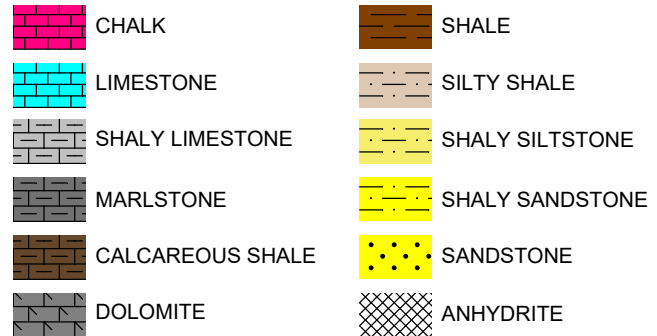


Earth Science Agency, LLC

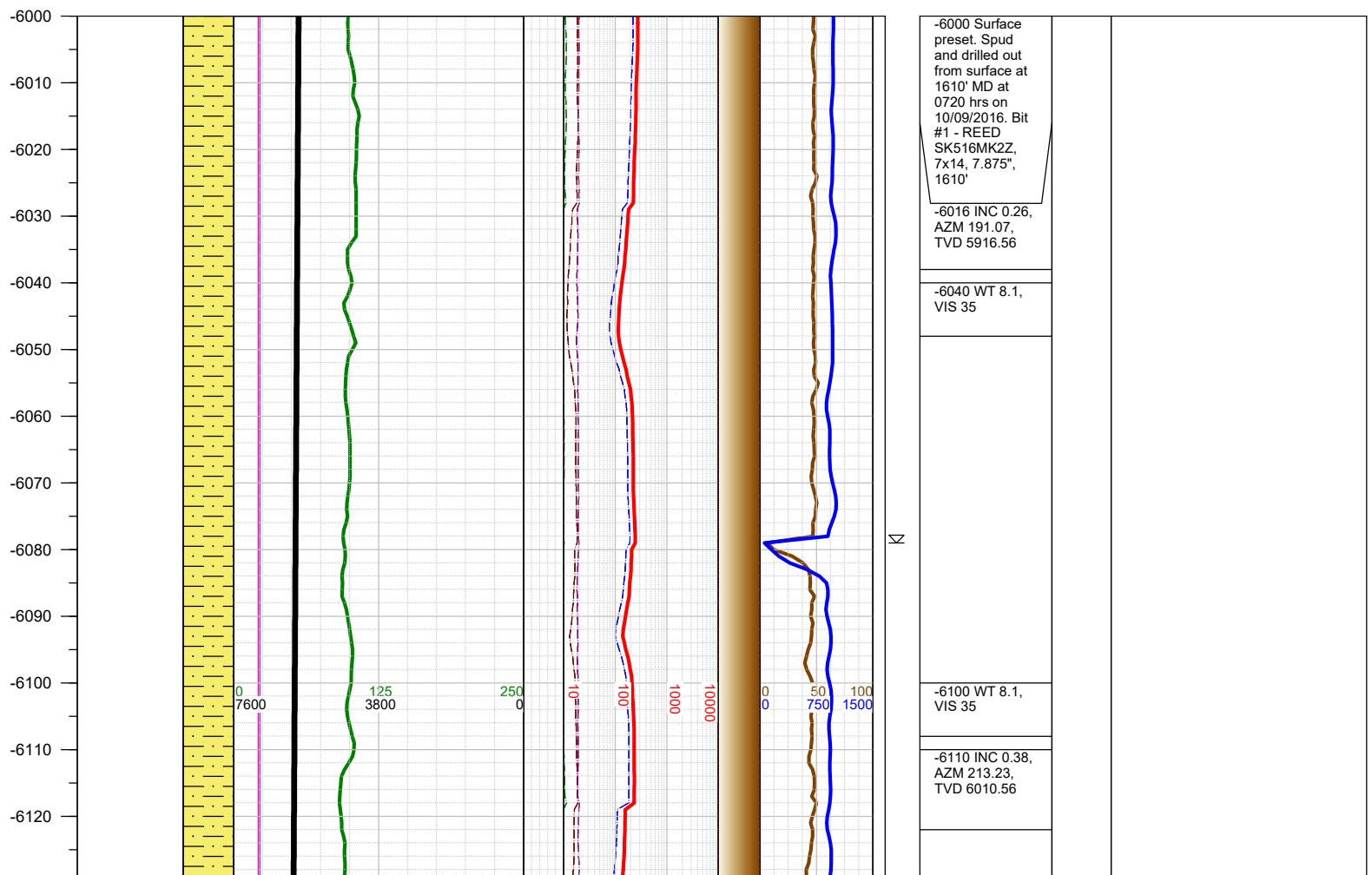
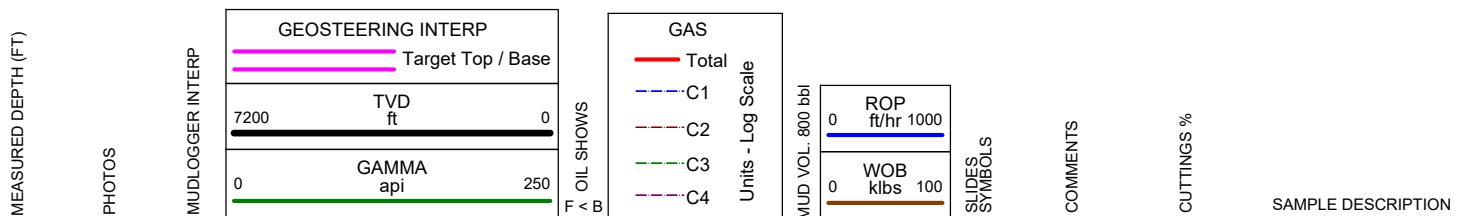
COUNTY: Weld
STATE: Colorado
GROUND ELEVATION: 4874'
KELLY BUSHING: 4899'
DRILLING FLUID: OBM
TVD VS. MD: 6998' / 16905'
SPUD DATE: October 9, 2016
TD DATE: October 12, 2016

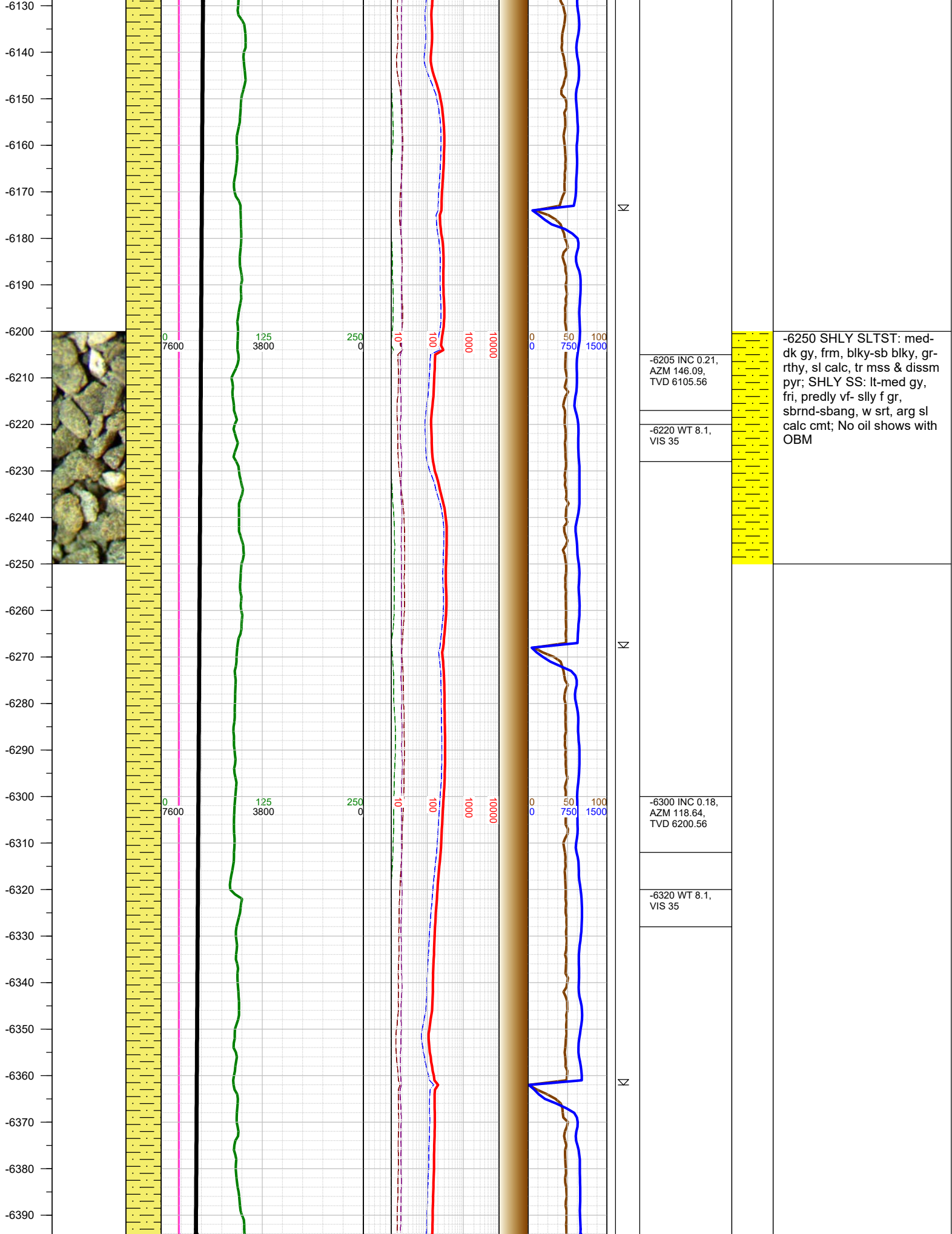
DEPTHS LOGGED: 6000' - 16905'
DATES LOGGED: October 9, 2016 - October 12, 2016
GEOLOGISTS: Ari Berland, Jared Gerard
SCALE: 5" = 100'

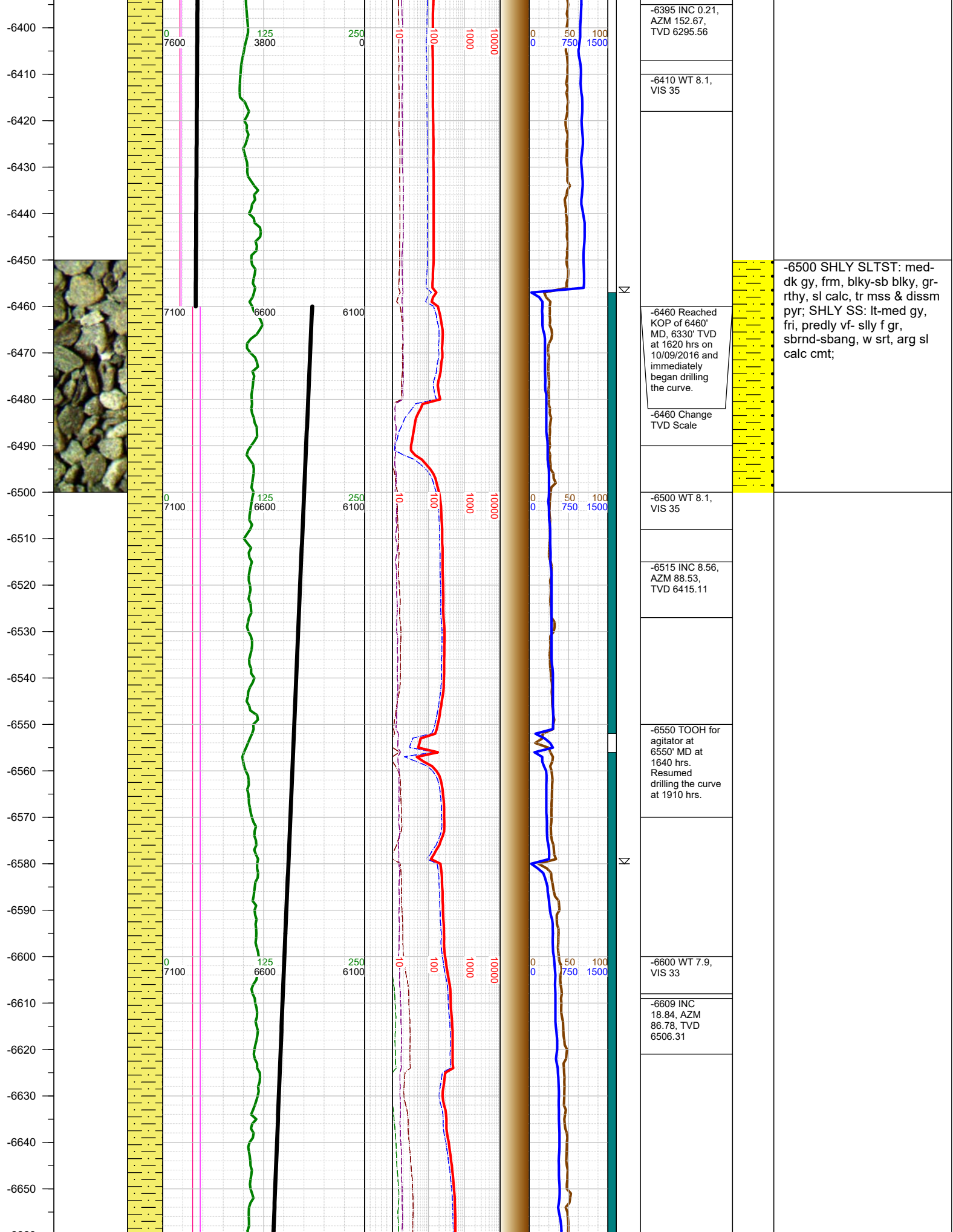
LEGEND

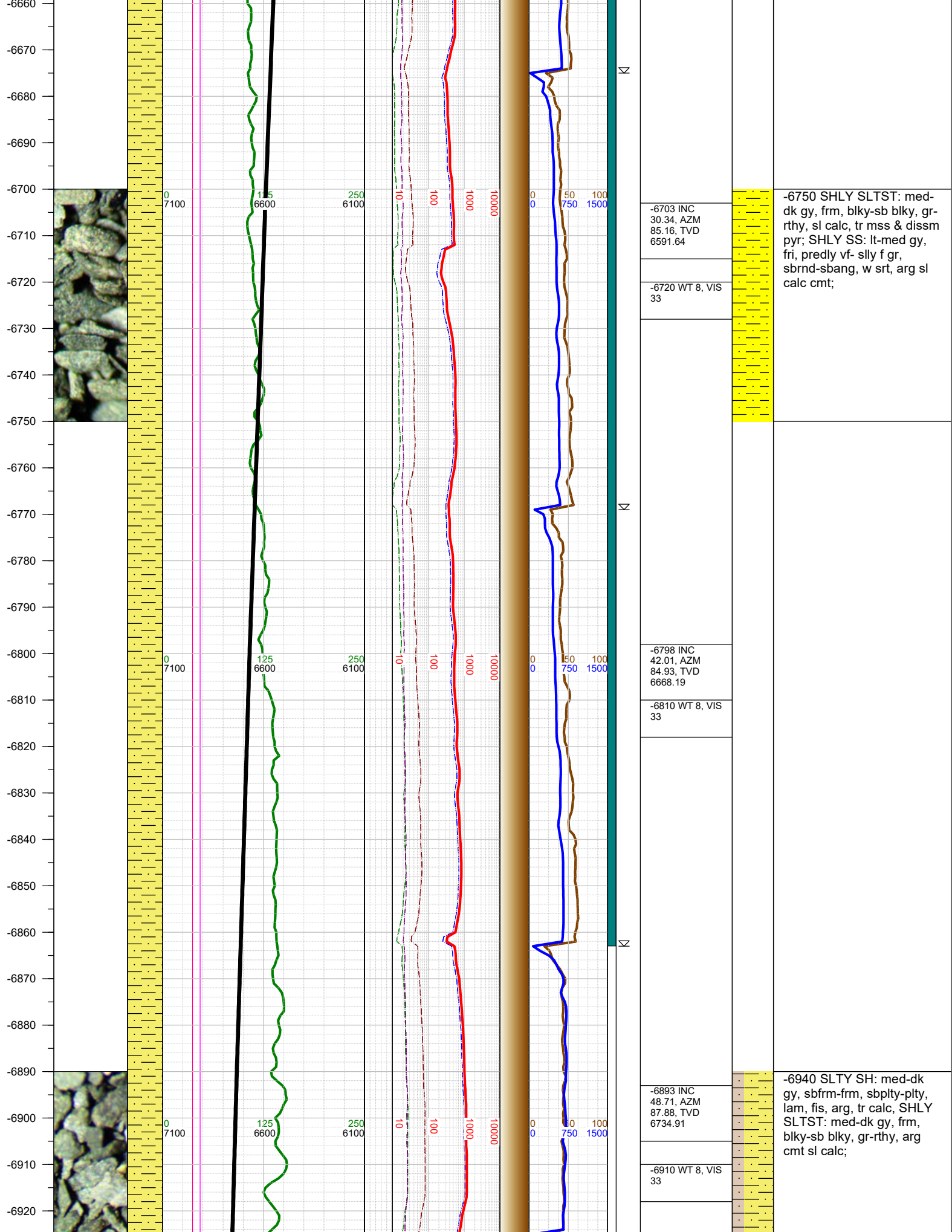


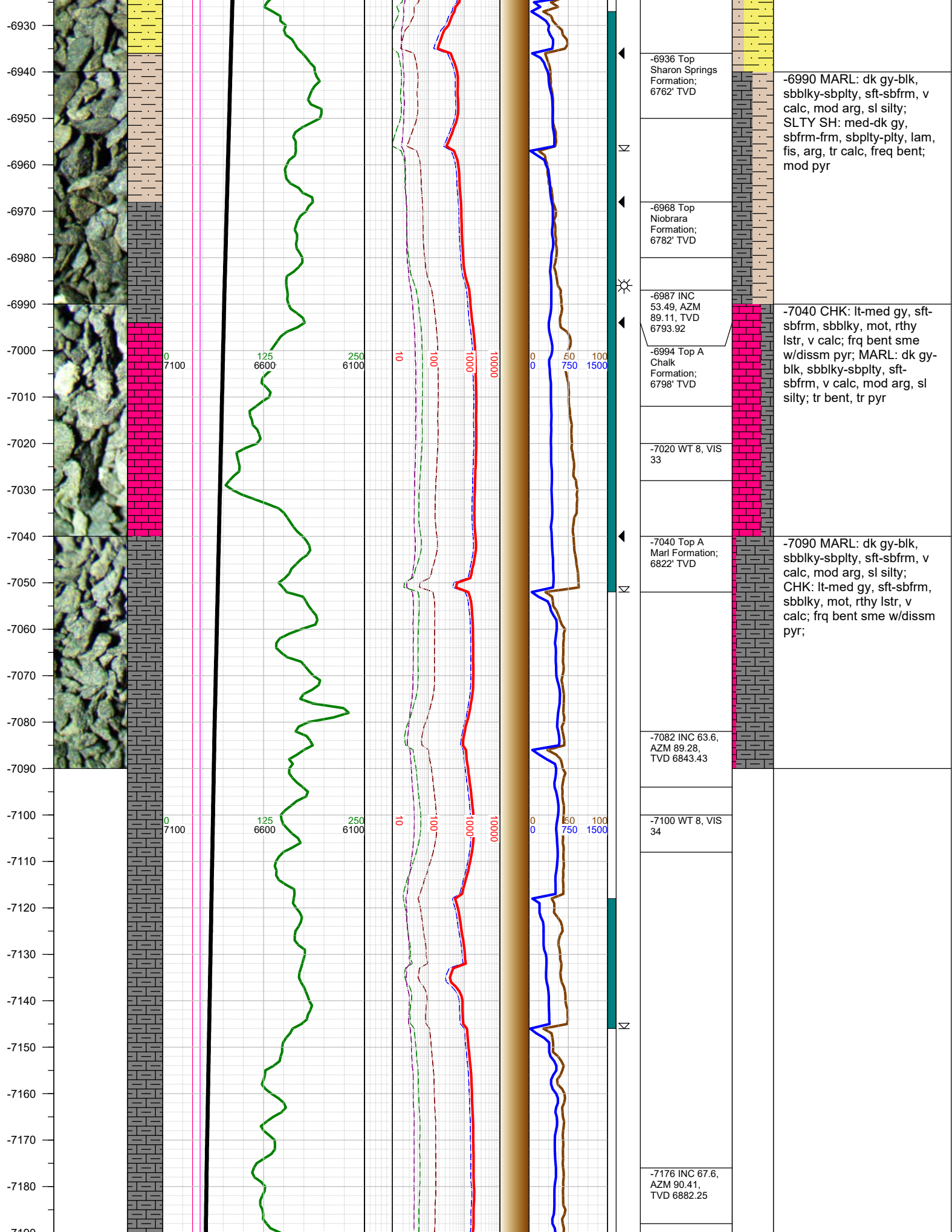
FORMATION \approx CONNECTION Δ MIDNIGHT NEW BIT GAS SHOW FAULT

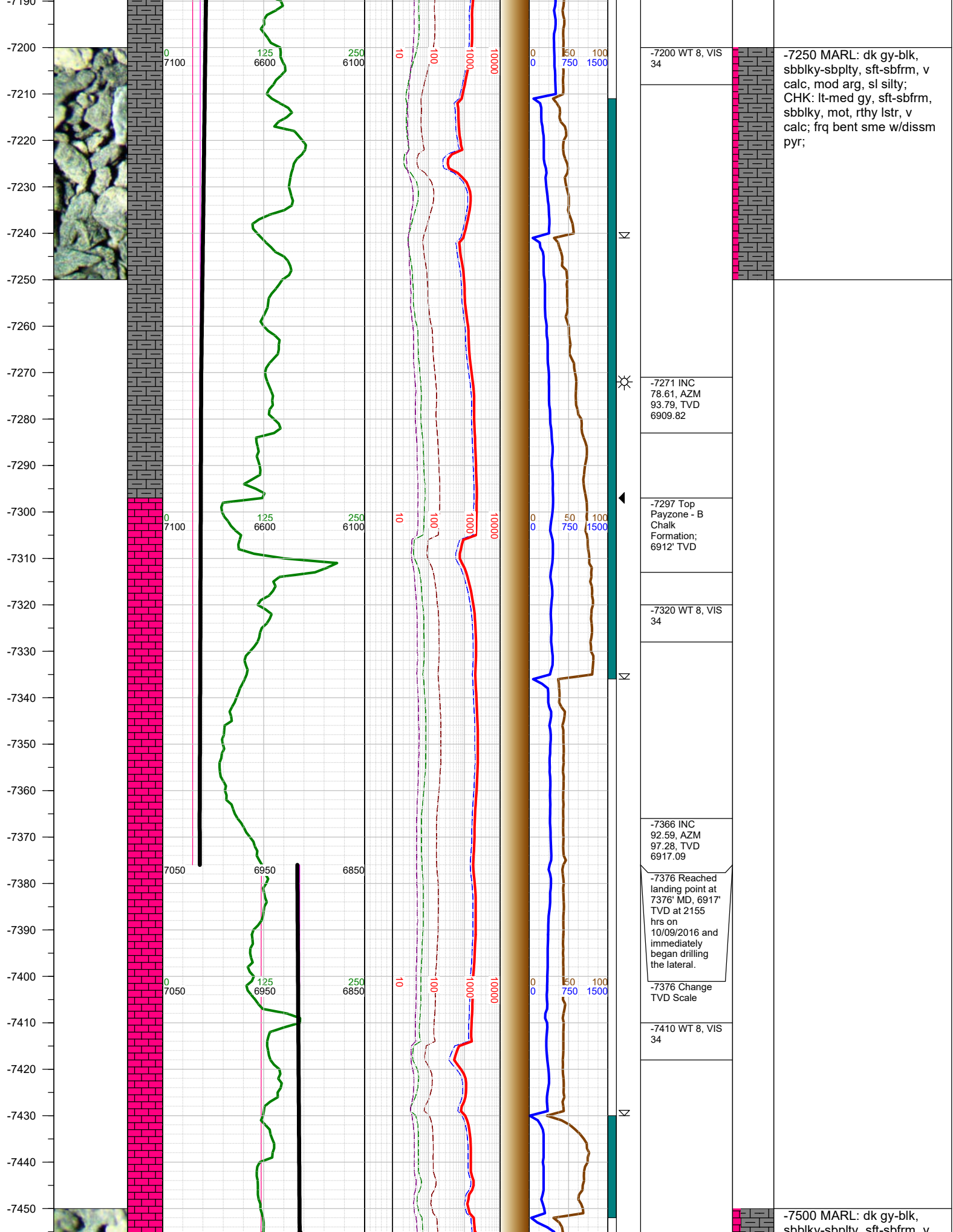


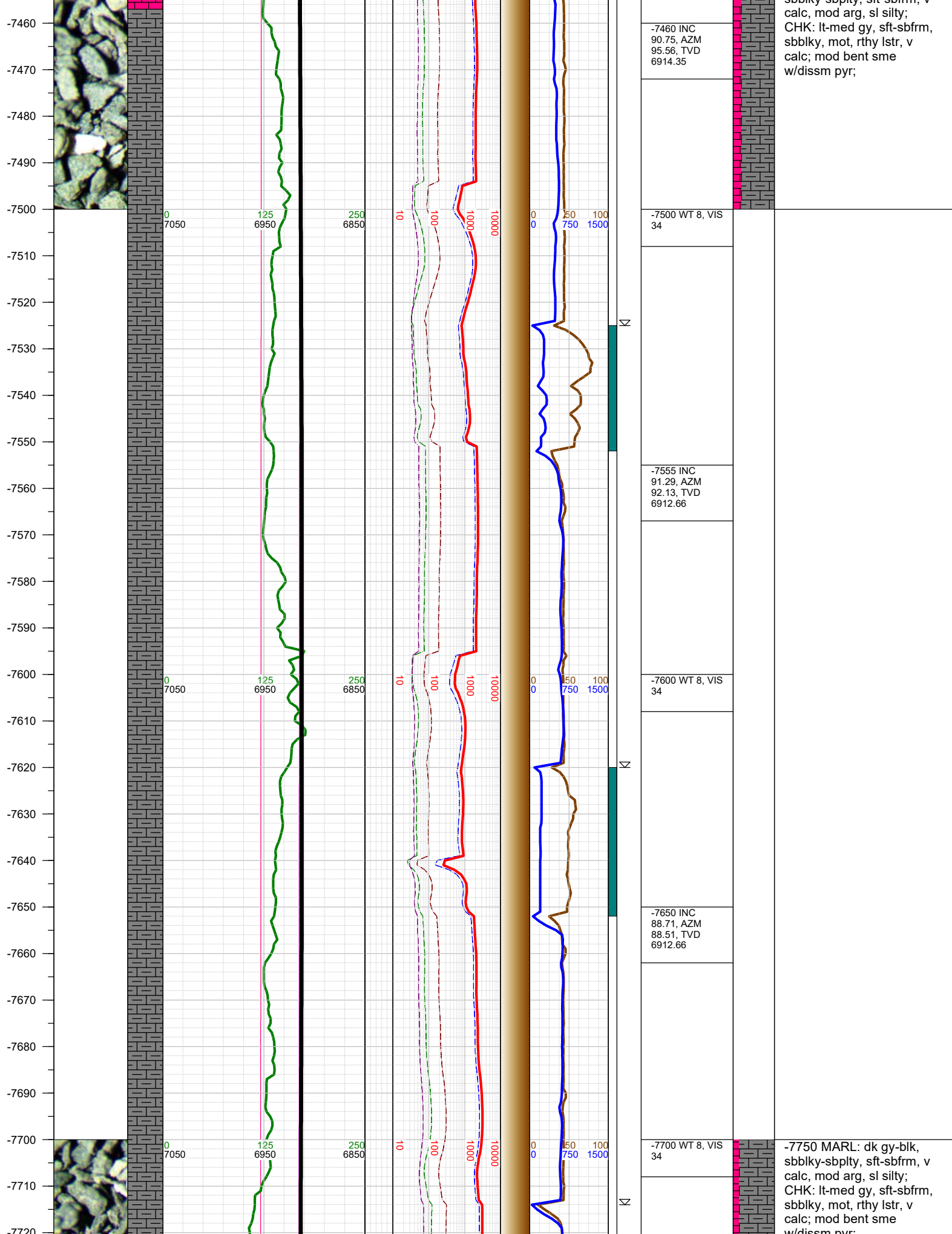


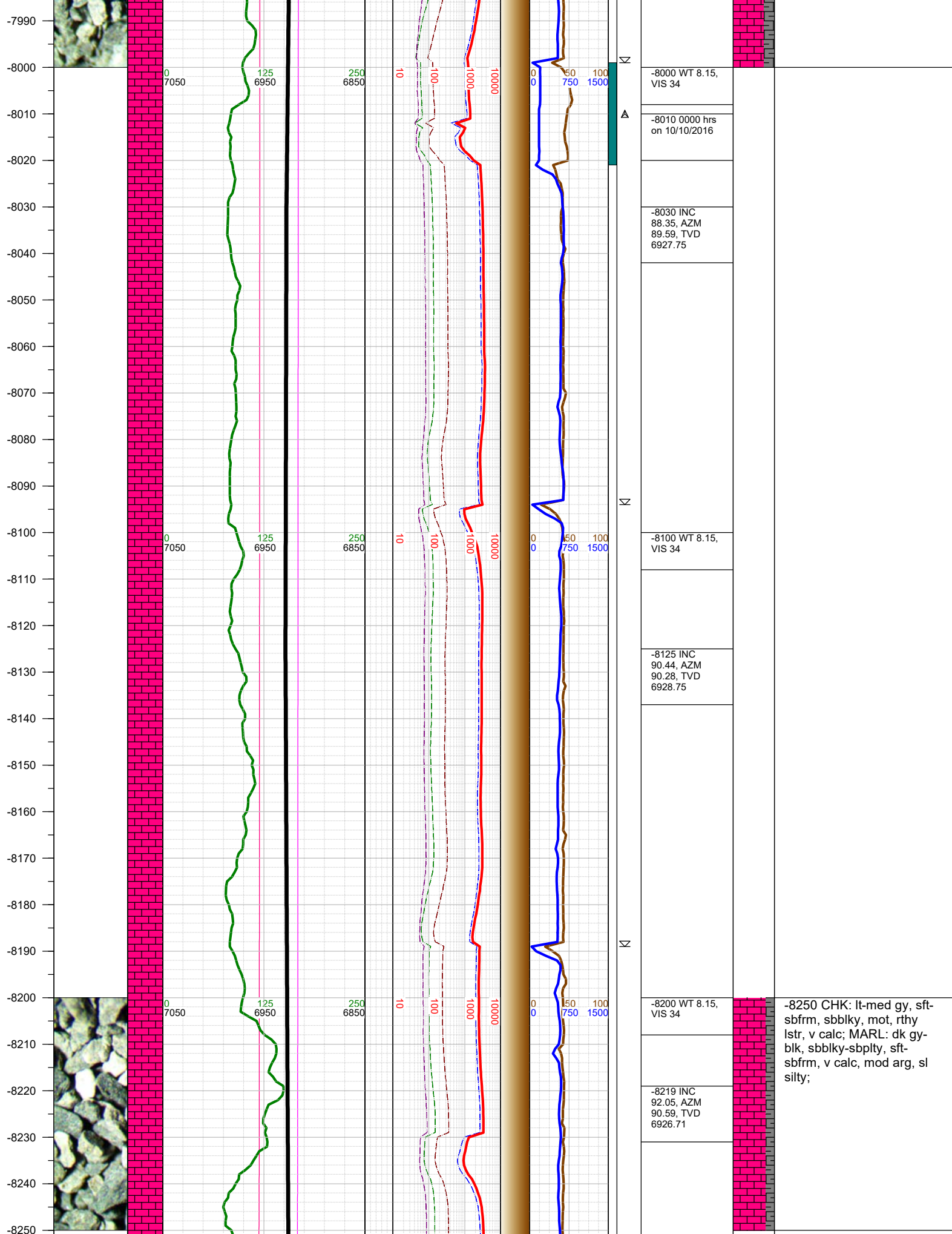


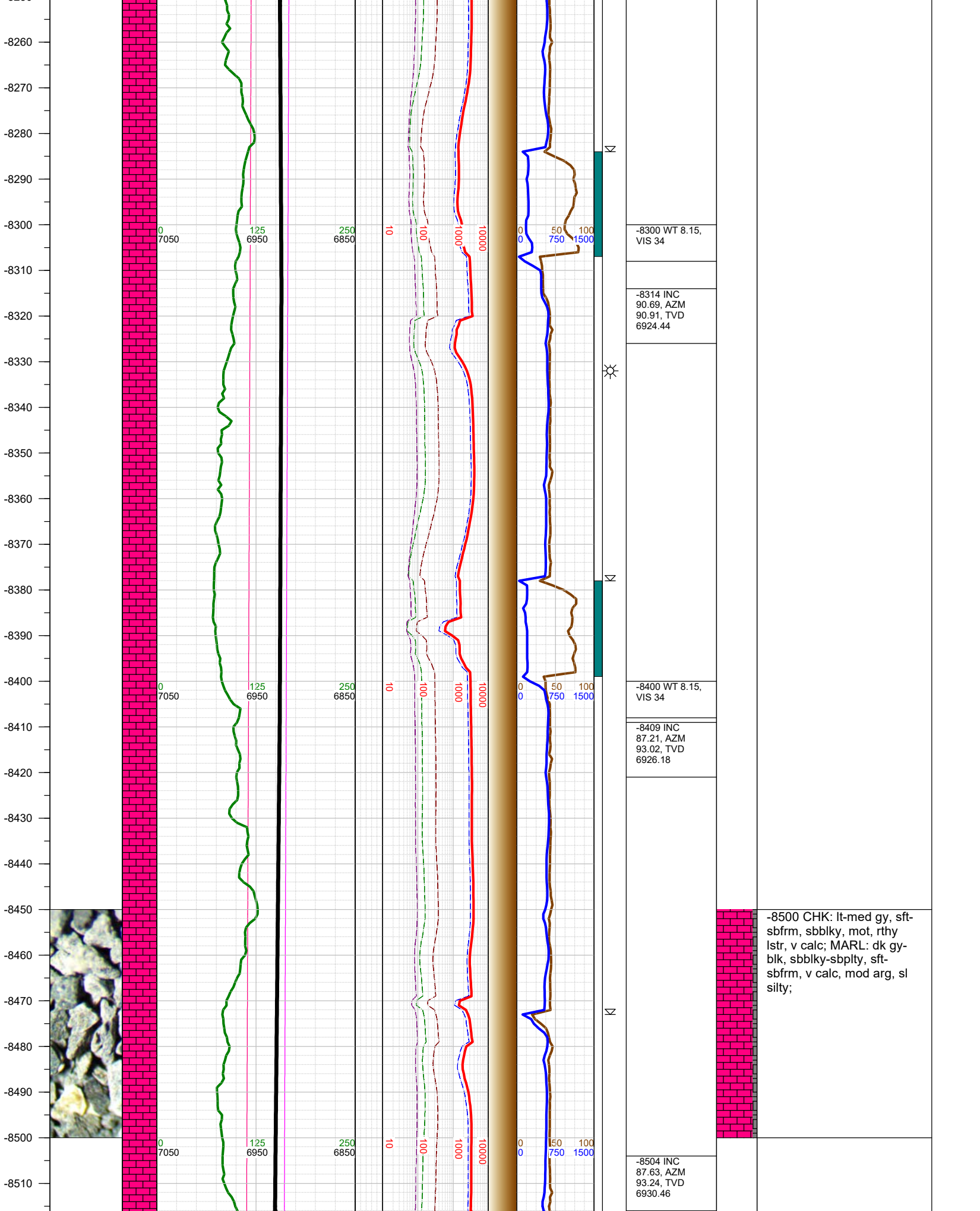


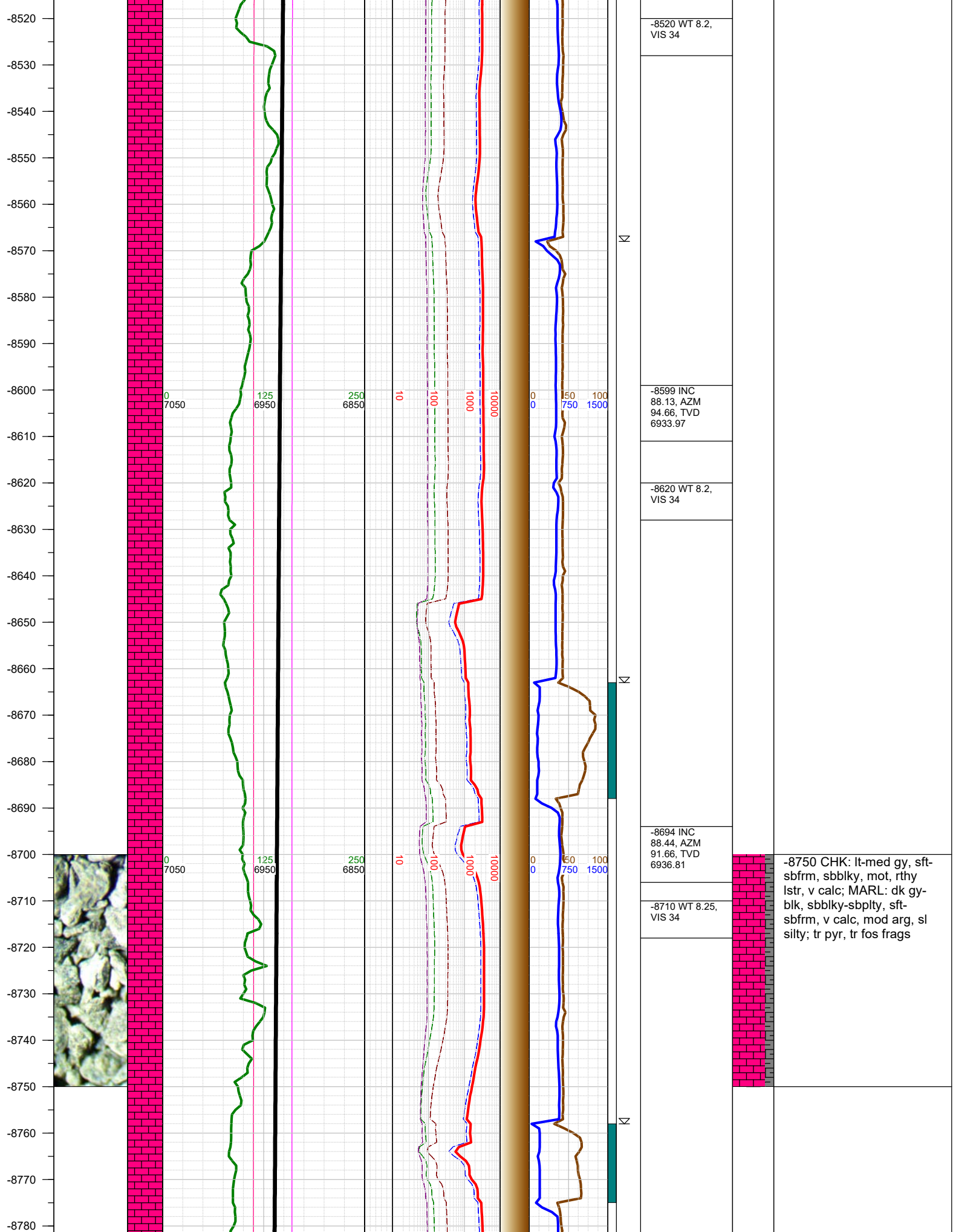


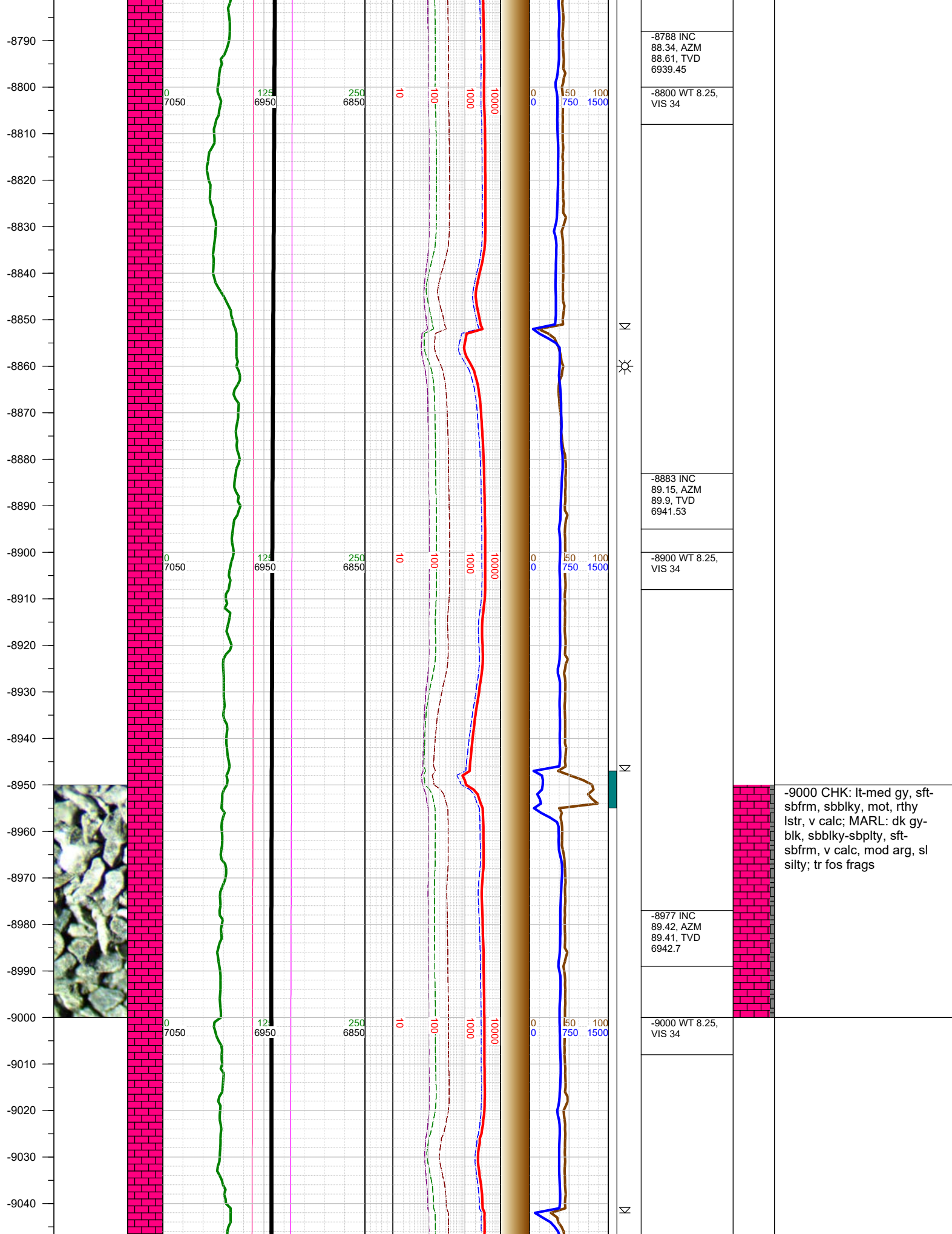


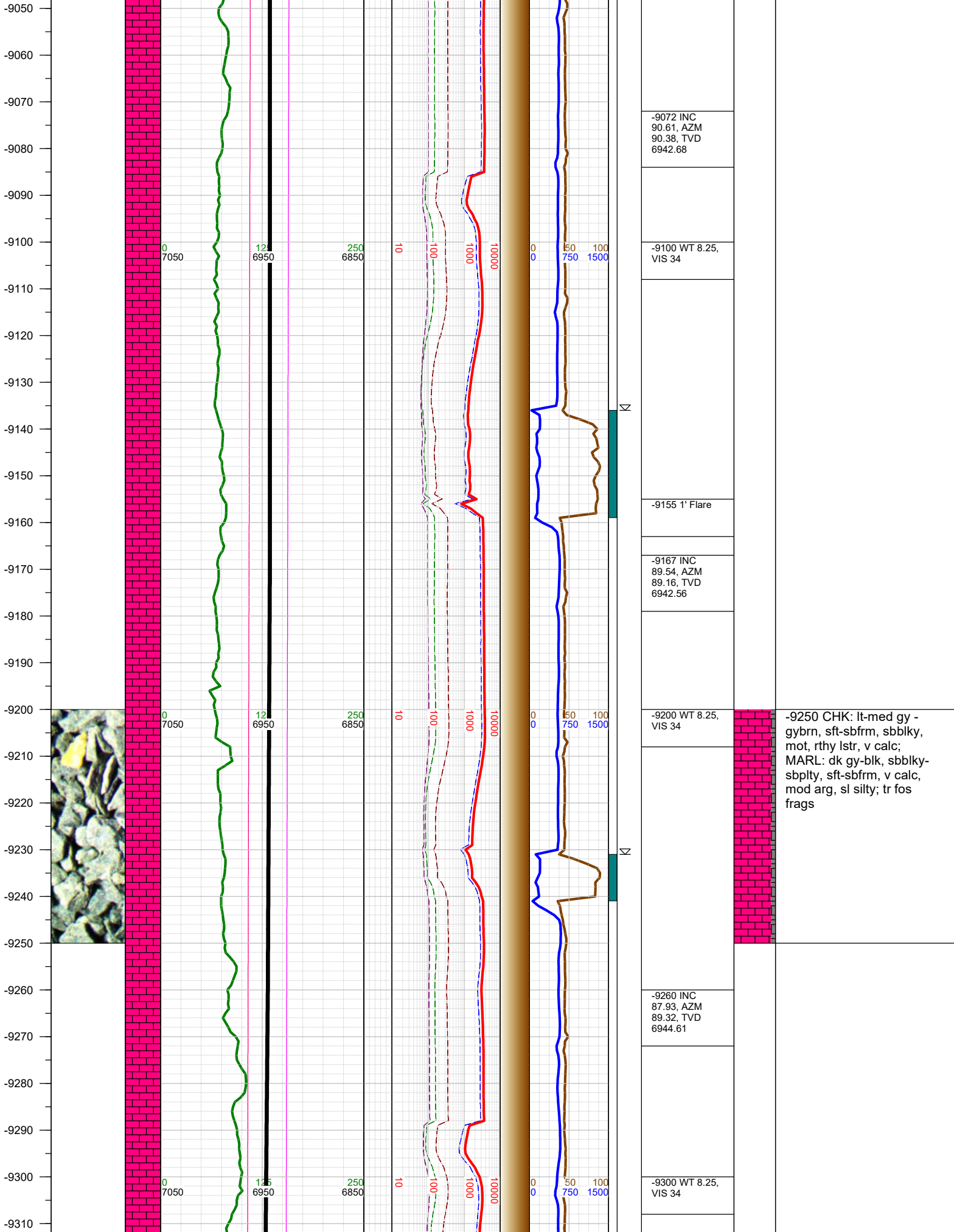


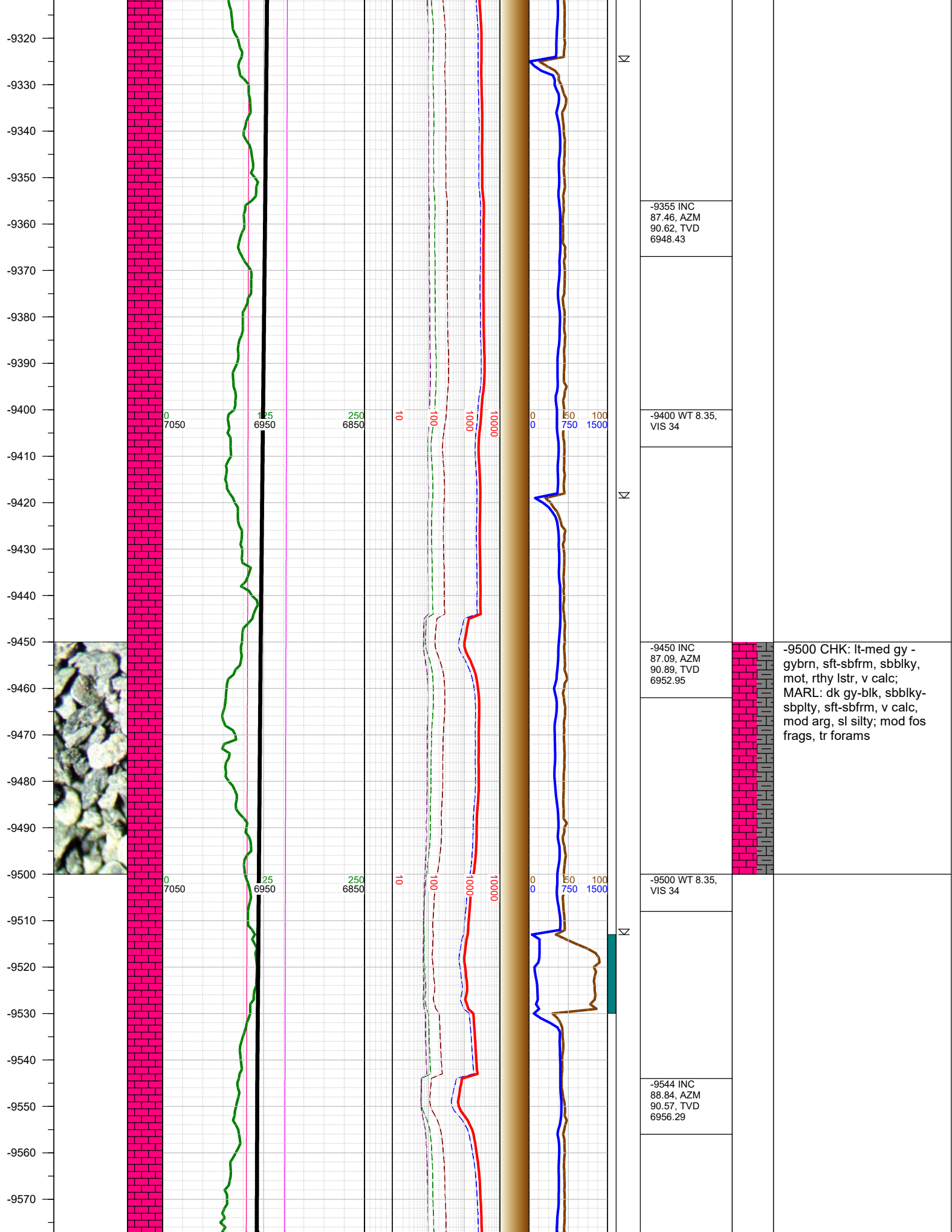


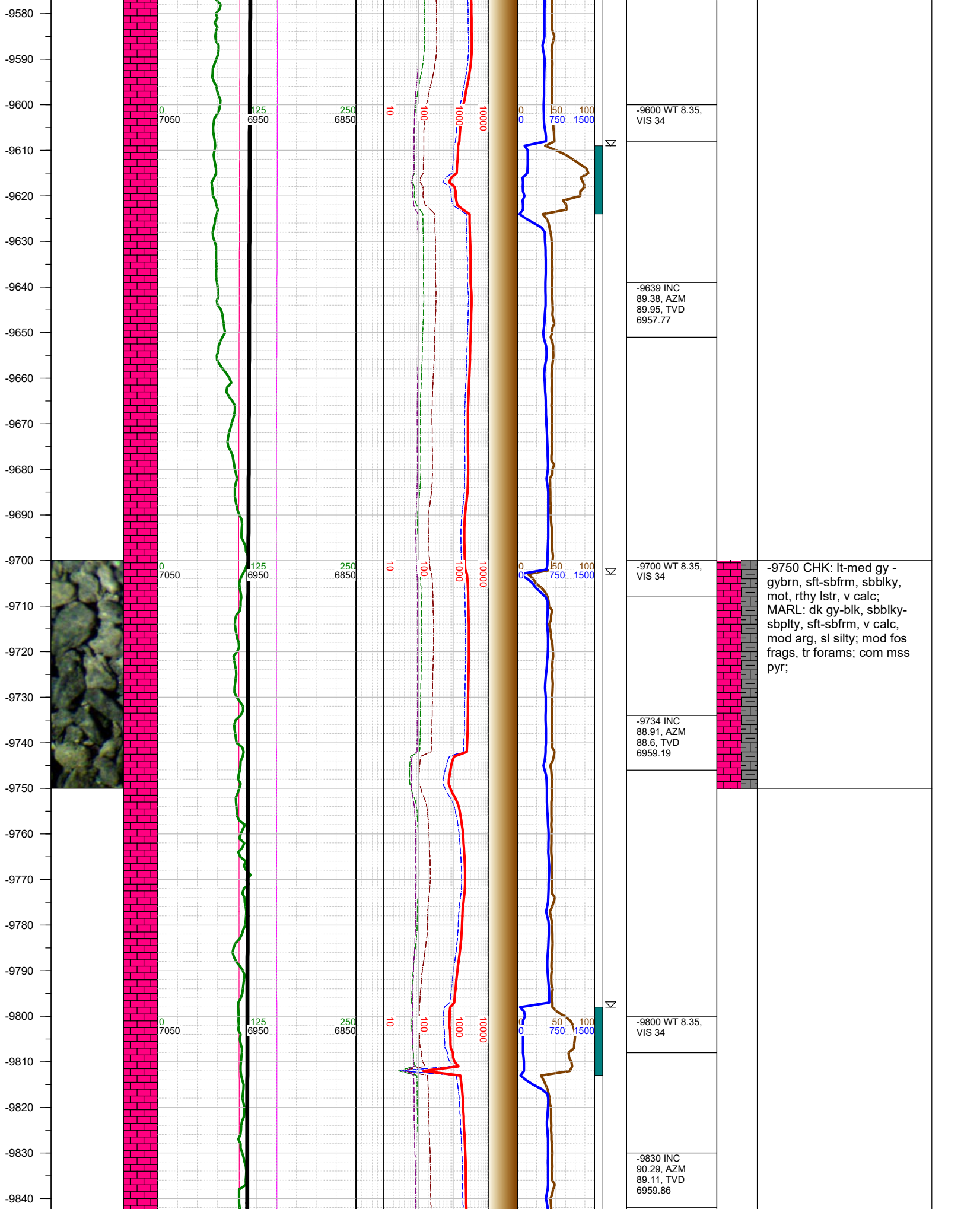


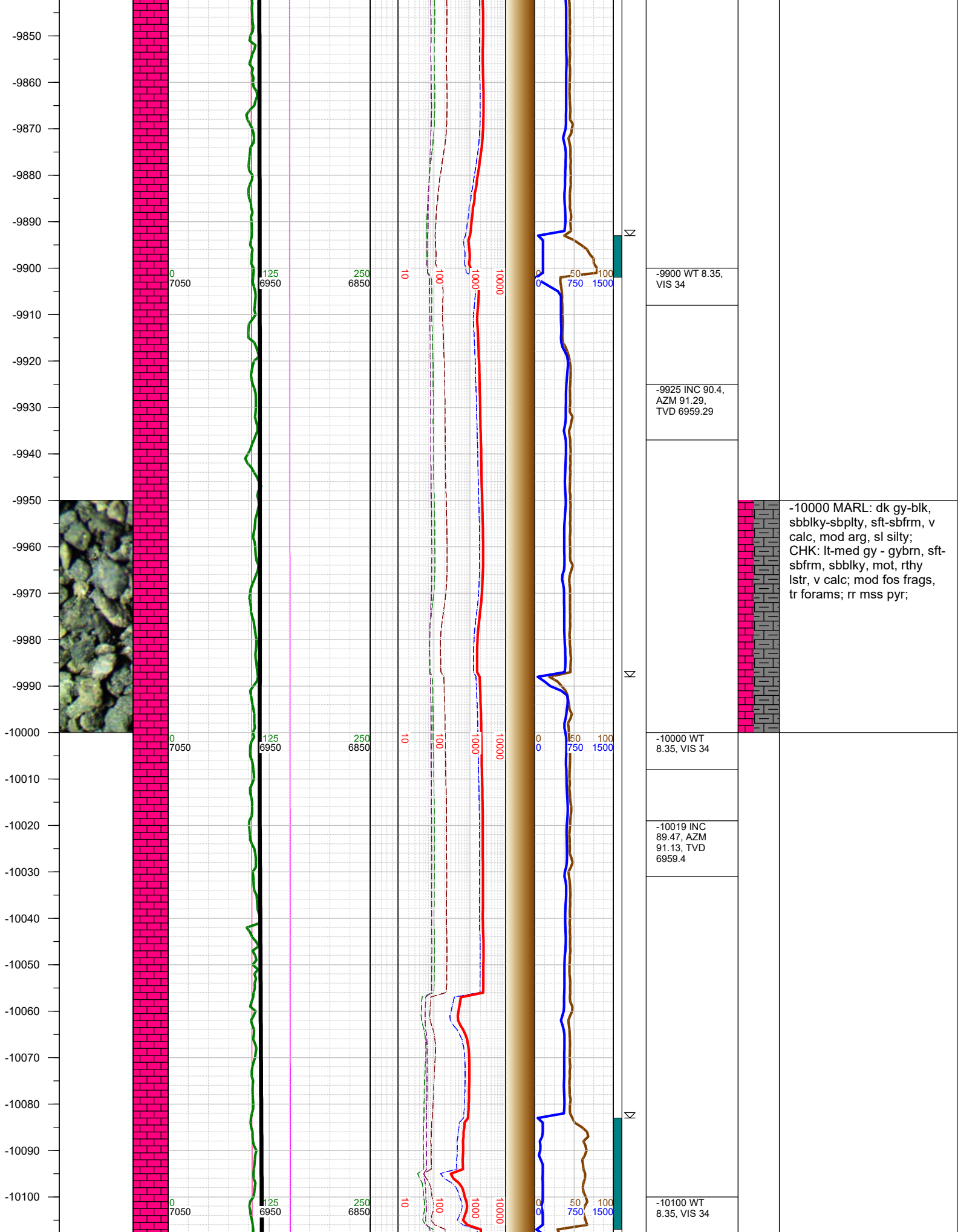


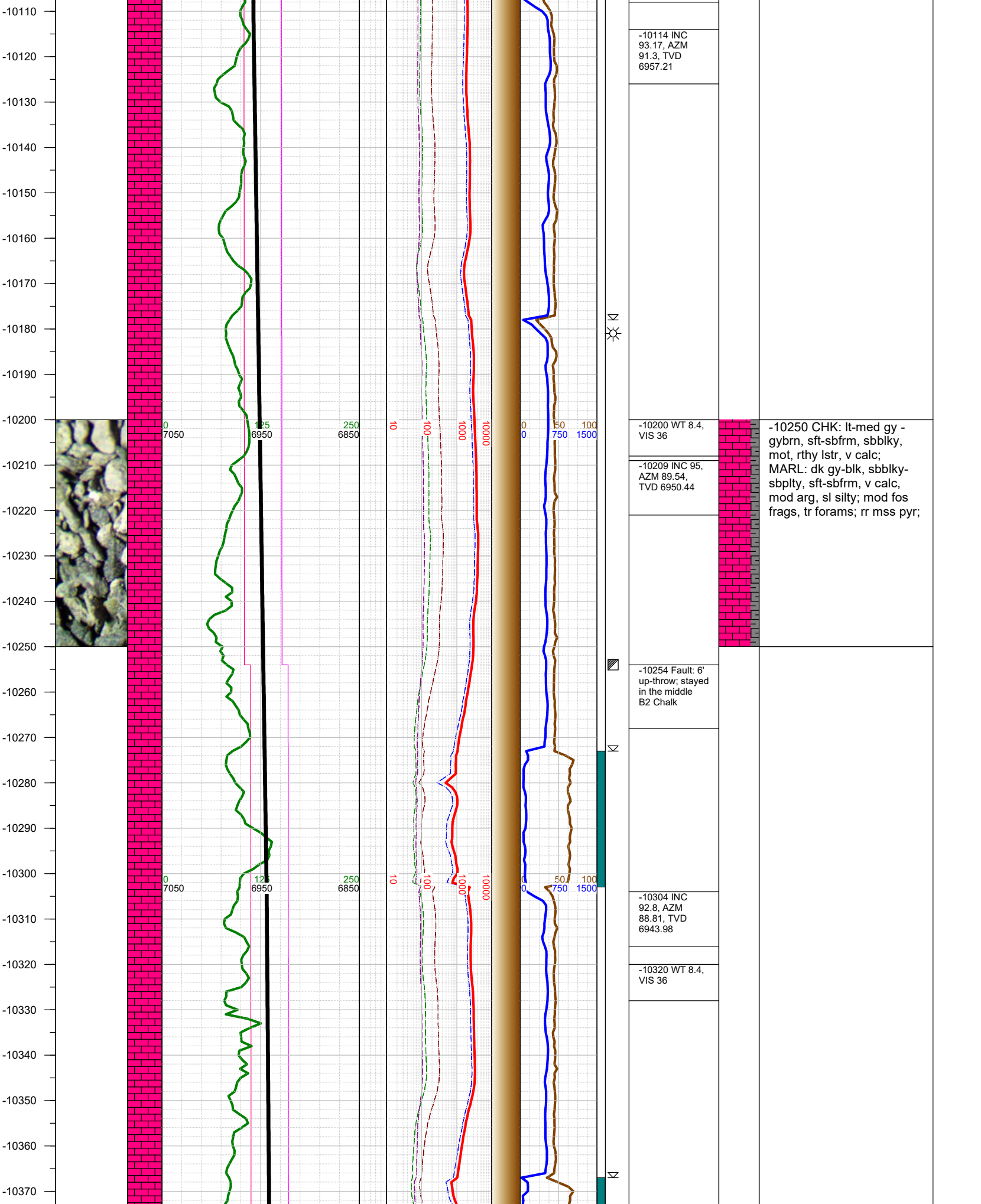


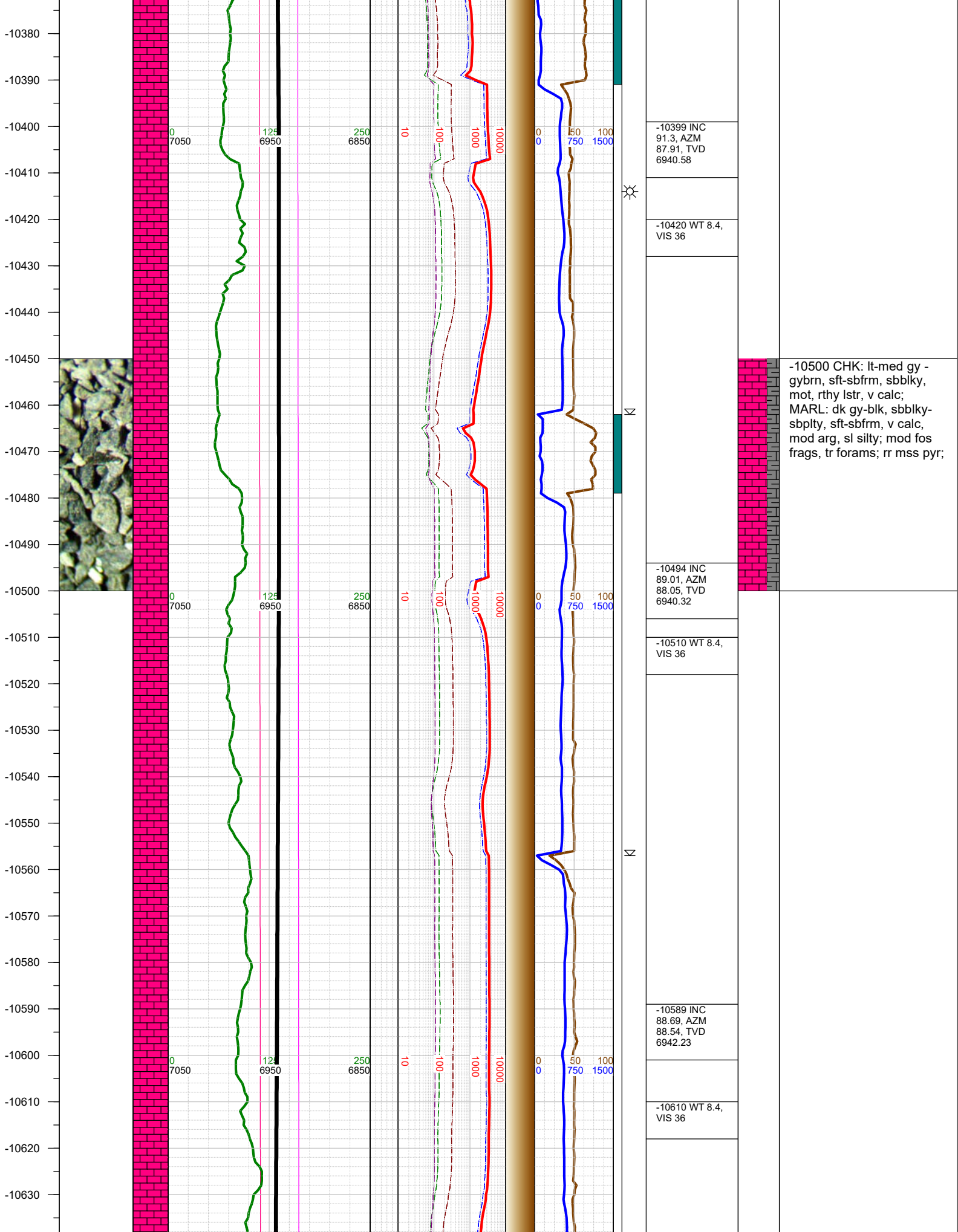


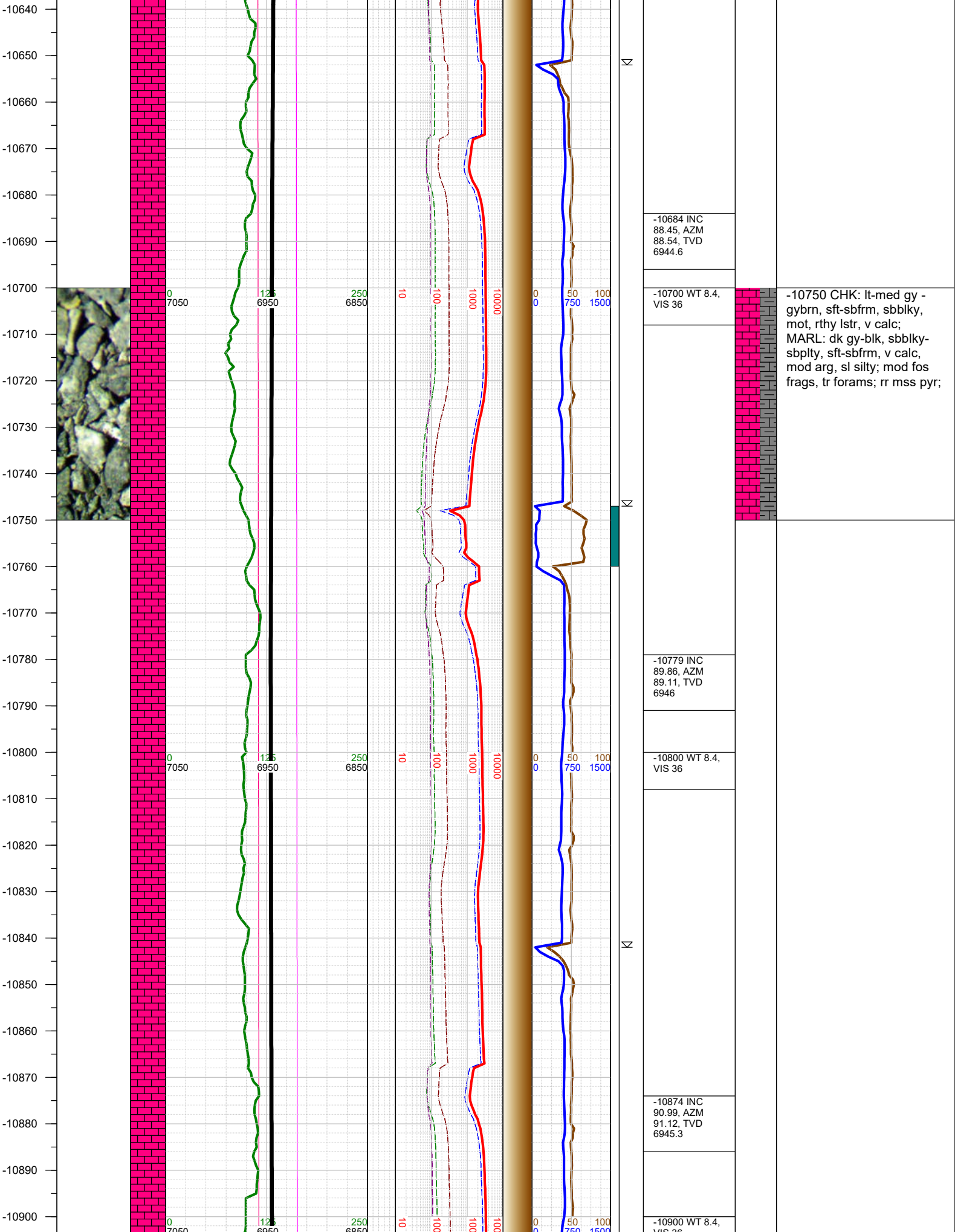


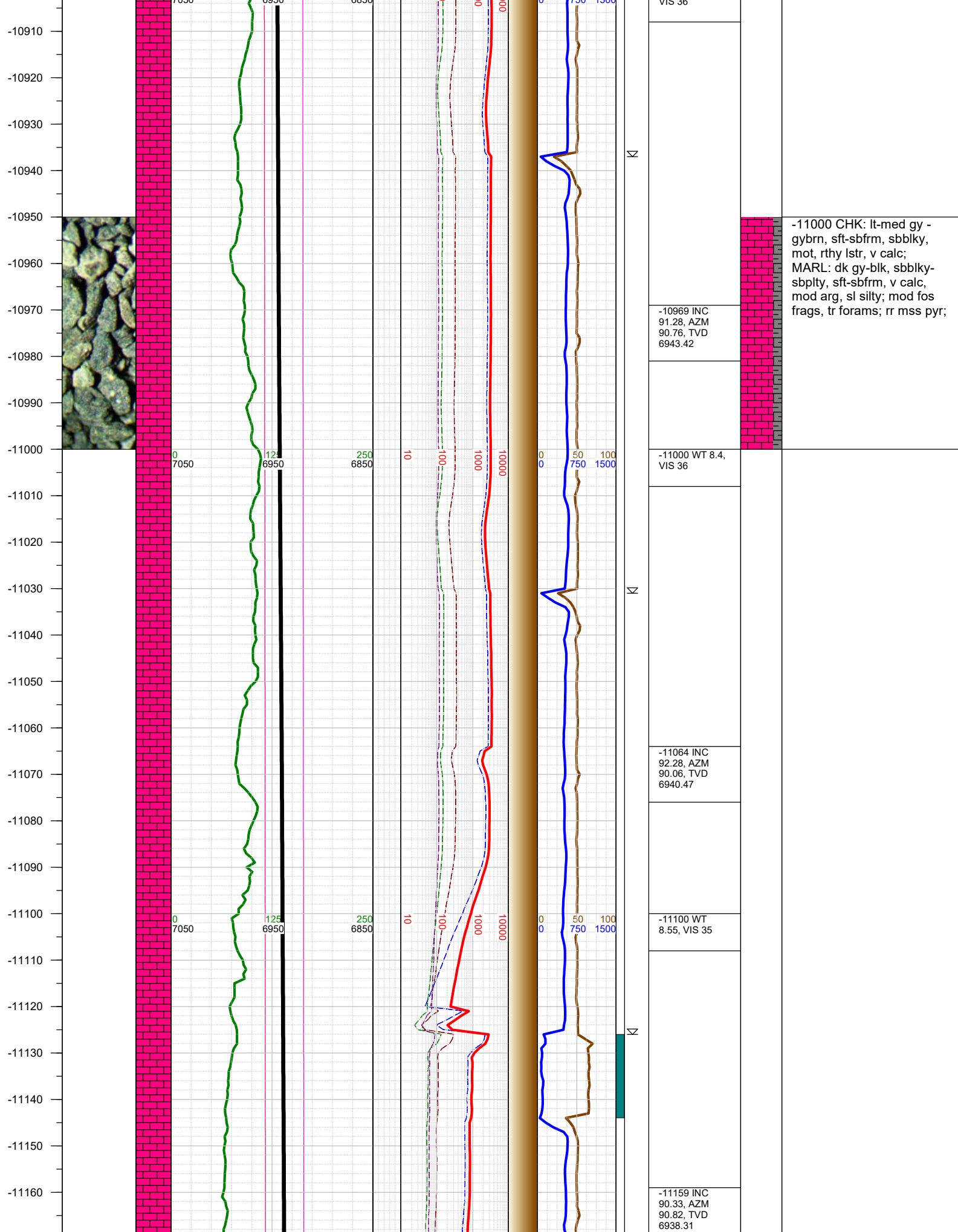


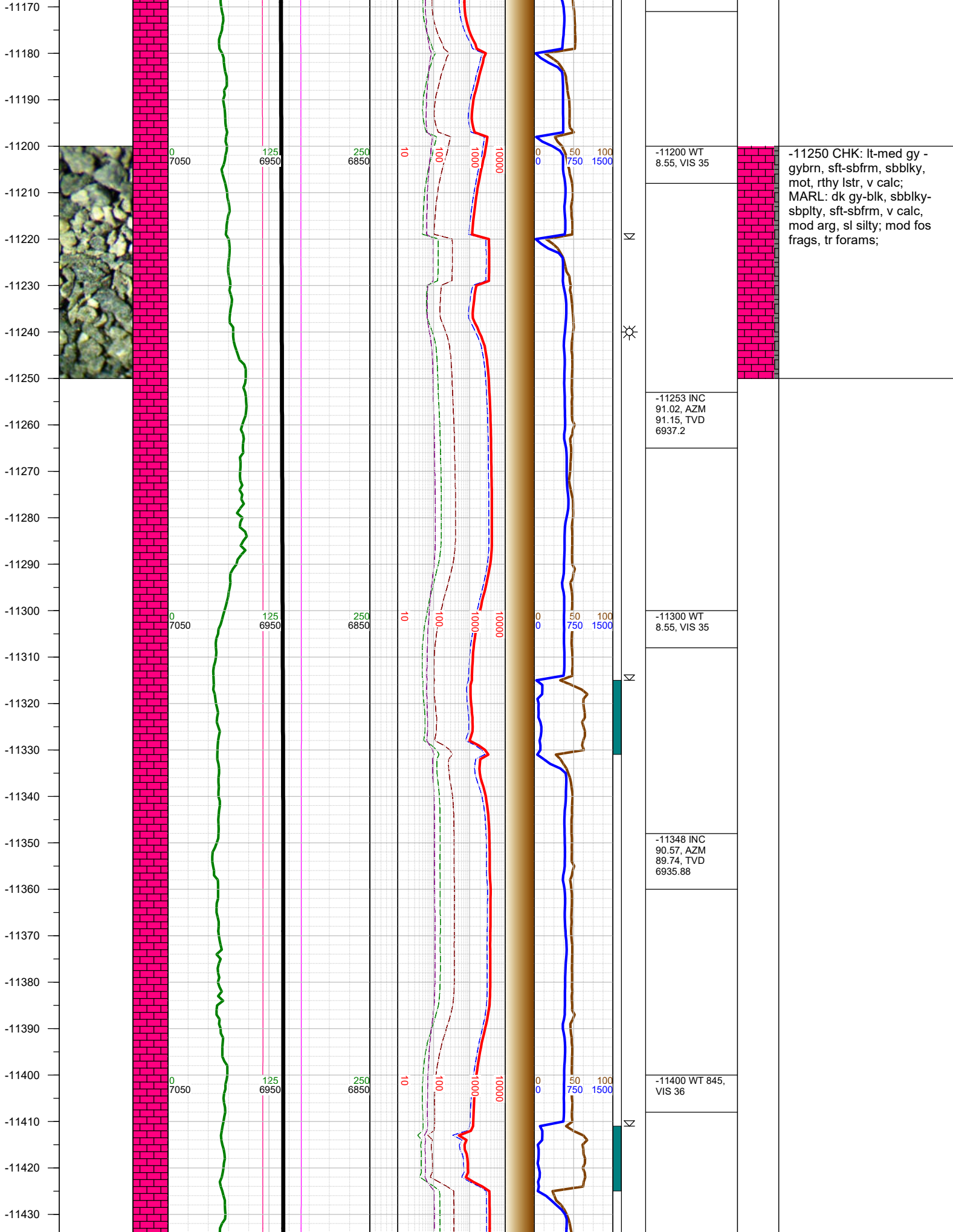




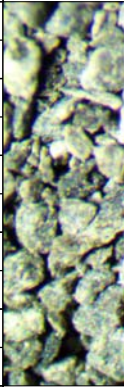








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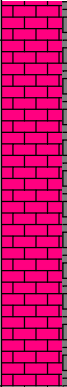
-11443 INC
89.38, AZM
88.49, TVD
6935.92

-11500 WT 845,
VIS 36

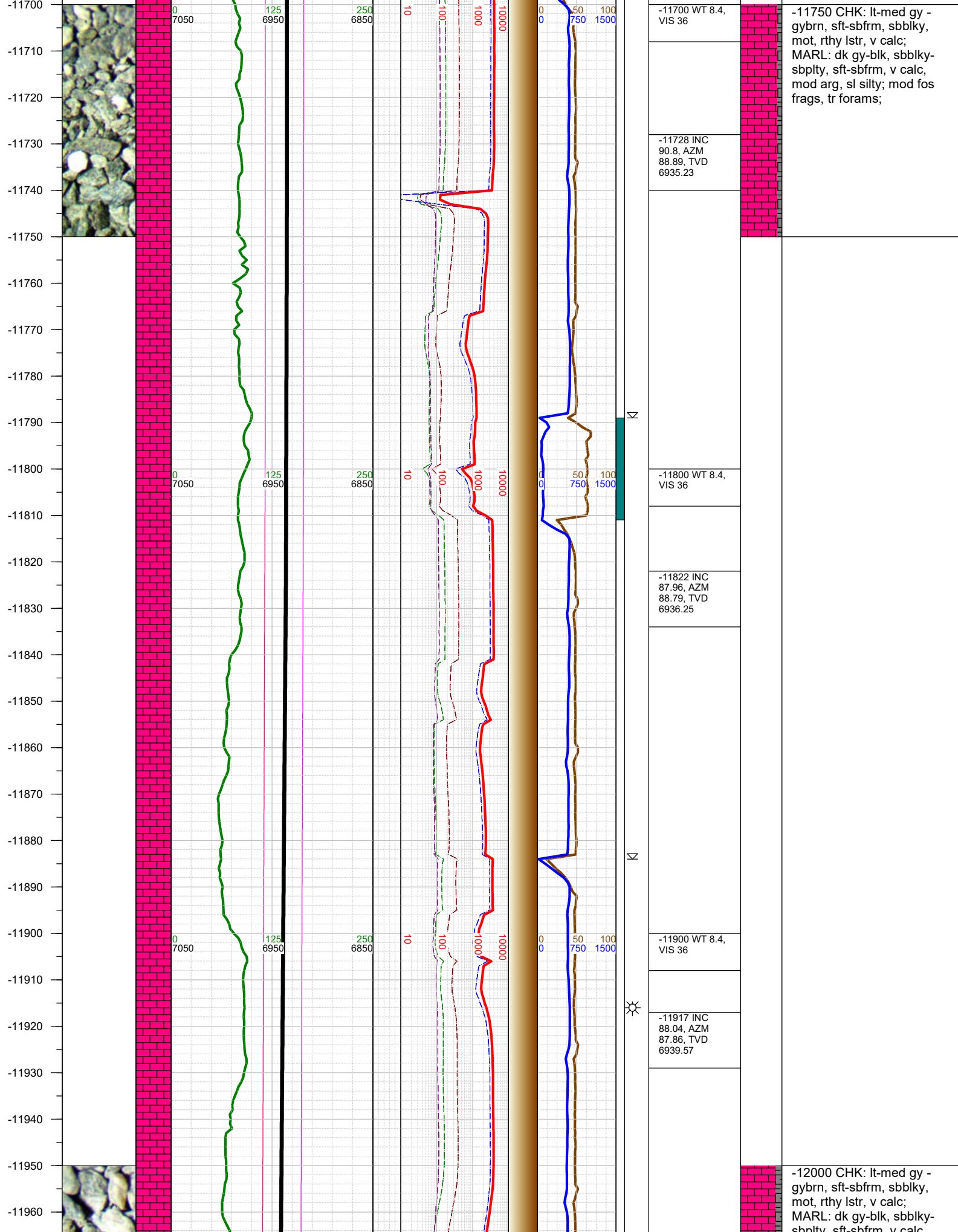
-11538 INC
90.61, AZM
89.79, TVD
6935.93

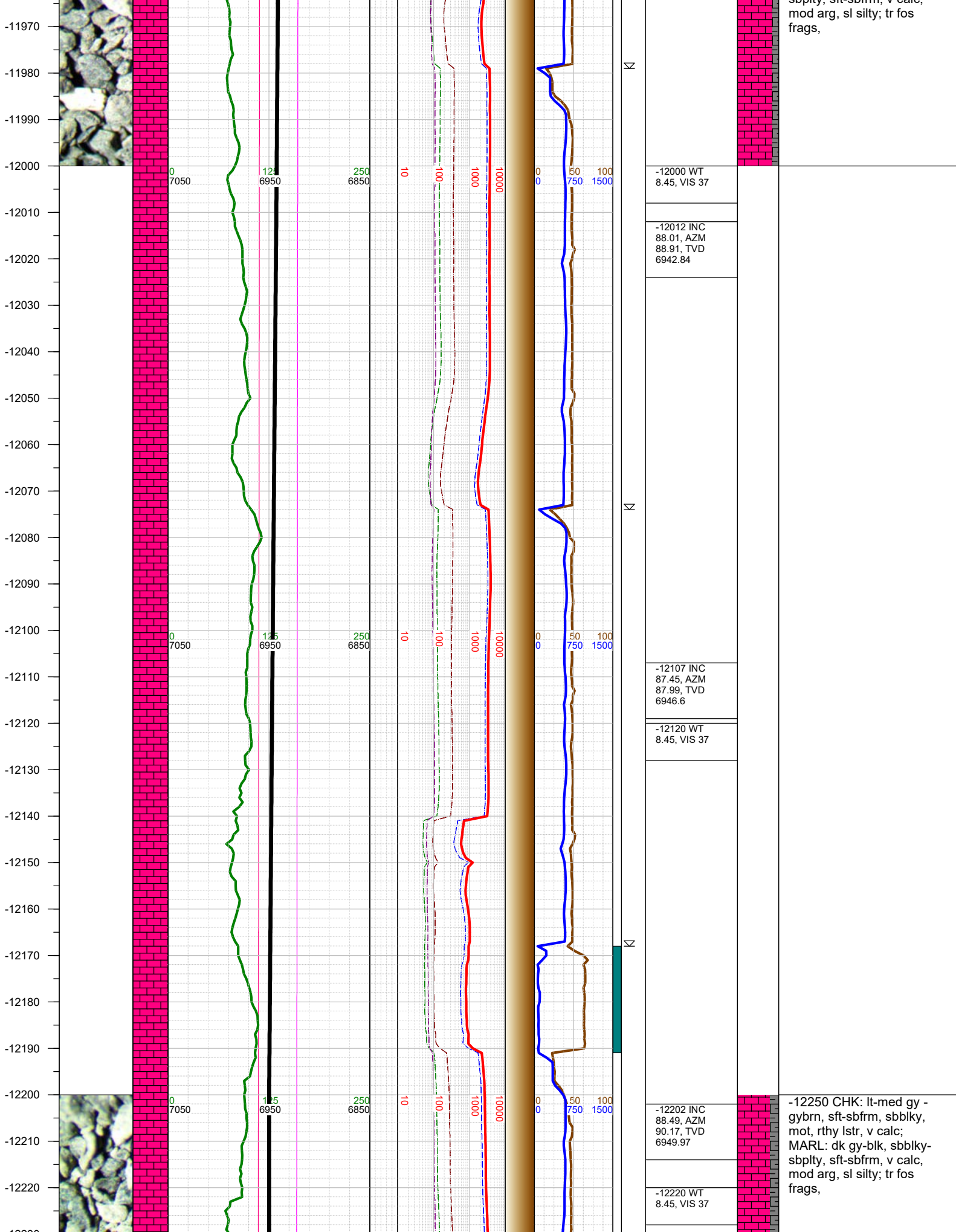
-11600 WT 845,
VIS 36

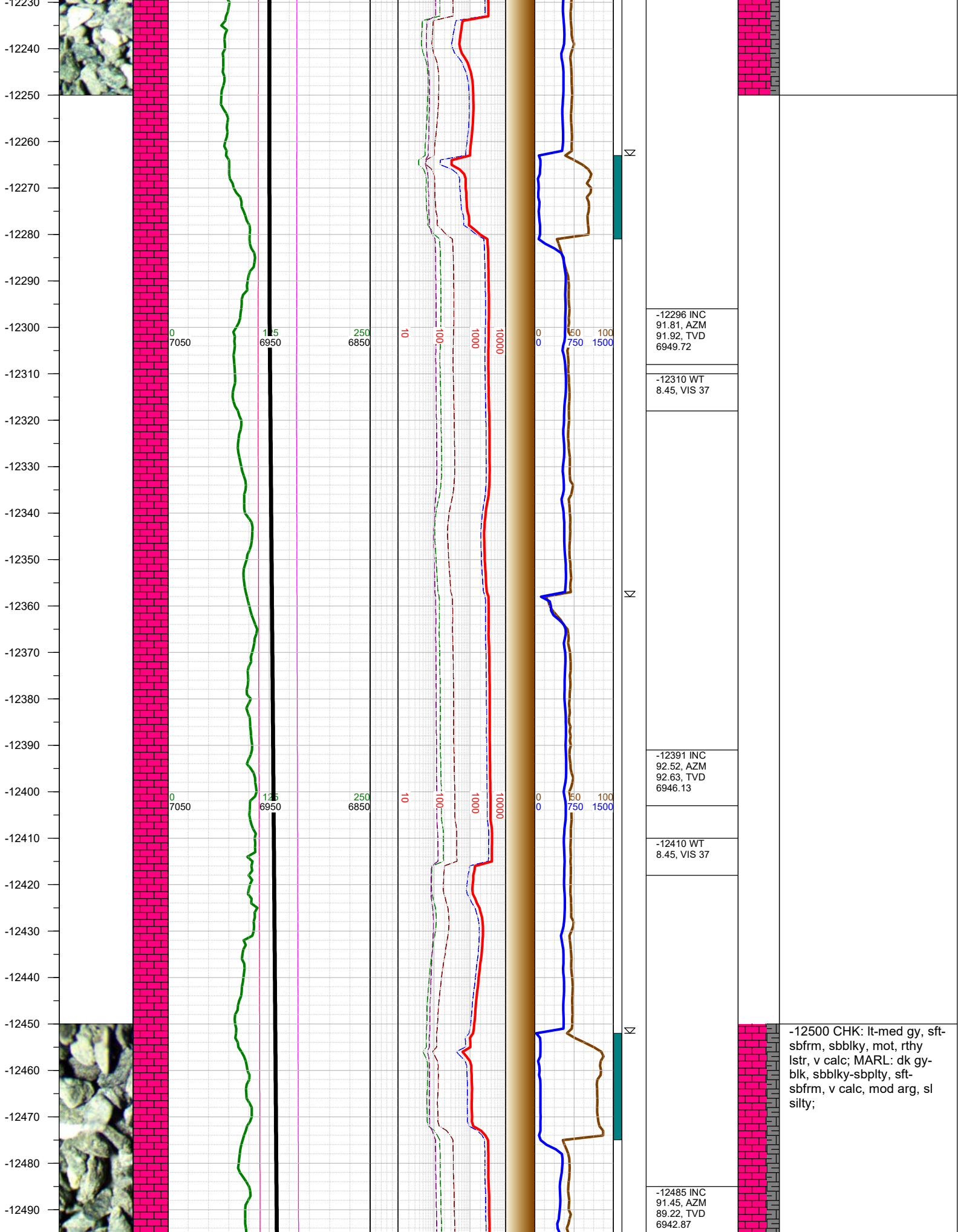
-11633 INC
89.72, AZM
89.11, TVD
6935.66

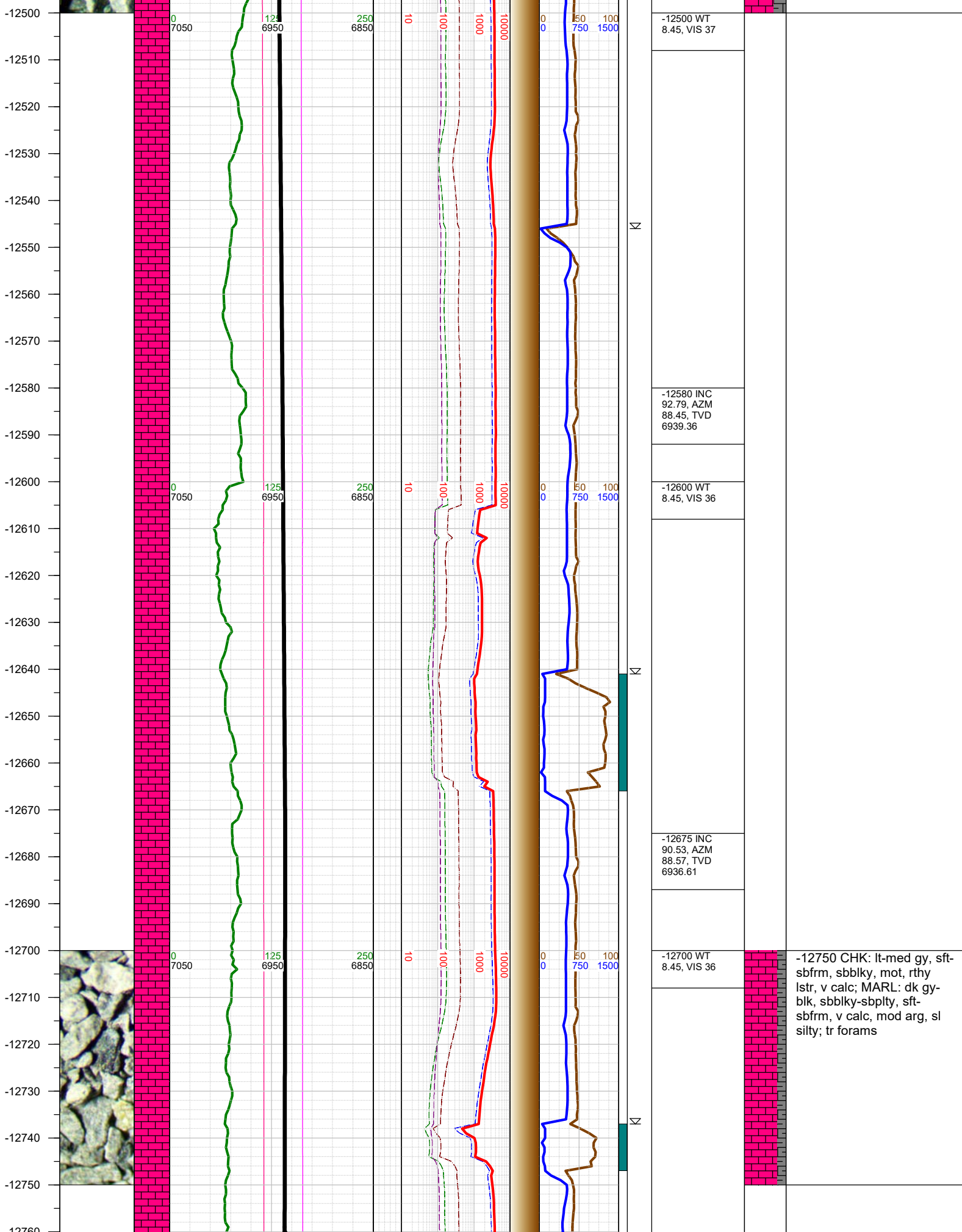


-11500 CHK: lt-med gy -
gybrn, sft-sbfrm, sbbkly,
mot, rthy lstr, v calc;
MARL: dk gy-blk, sbbkly-
sbply, sft-sbfrm, v calc,
mod arg, sl silty; mod fos
frags, tr forams;









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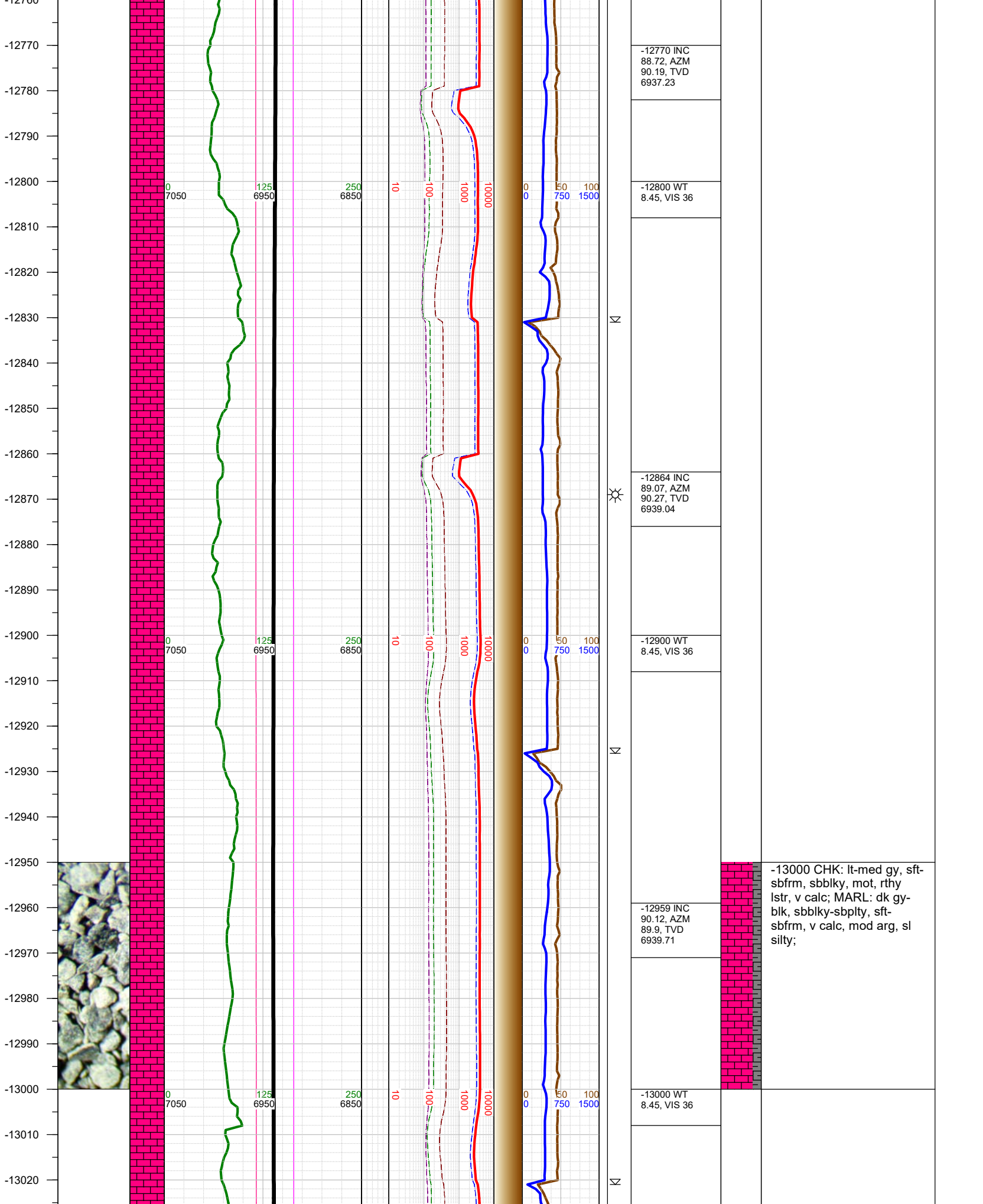
-12580 INC
92.79, AZM
88.45, TVD
6939.36

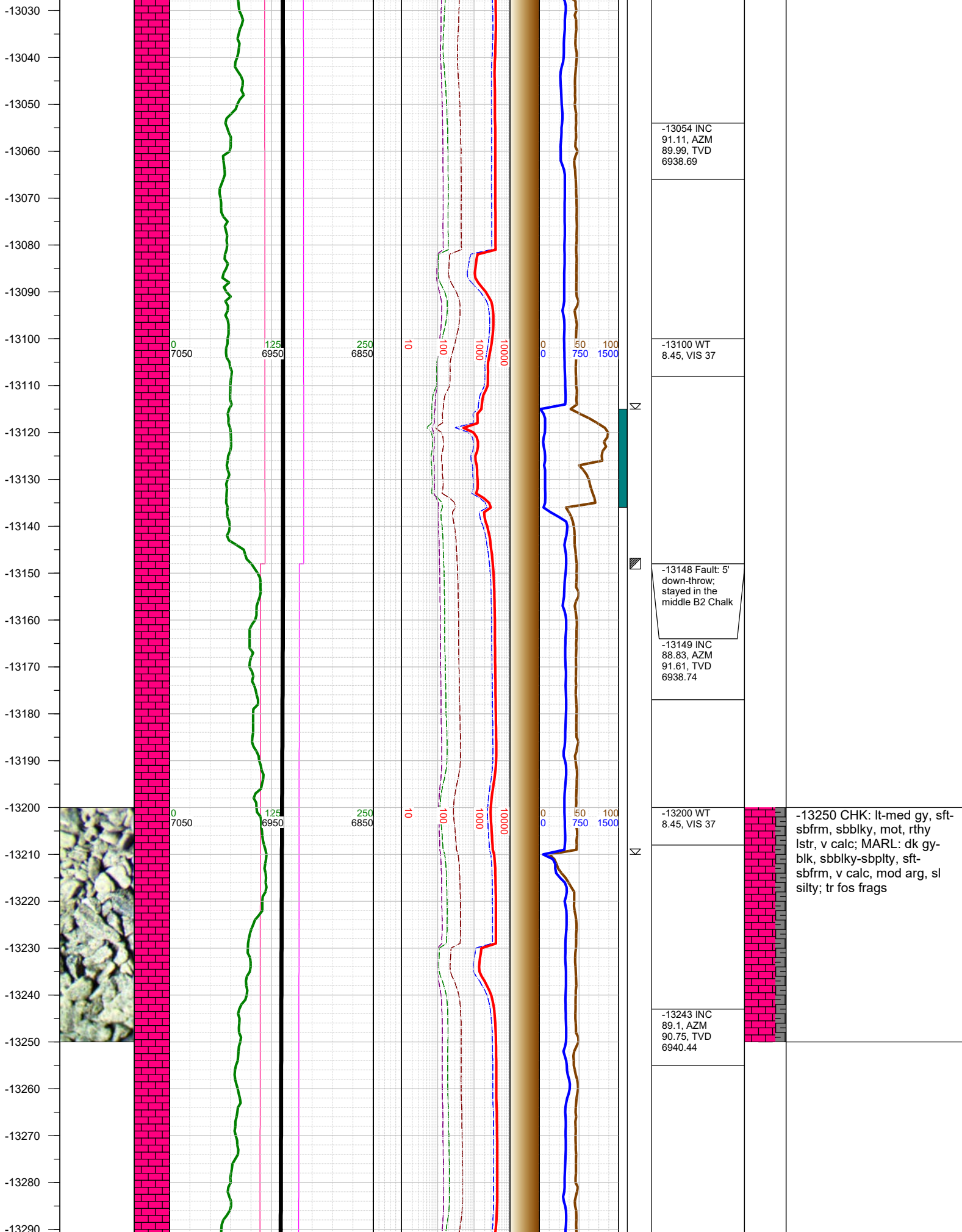
-12600 WT
8.45, VIS 36

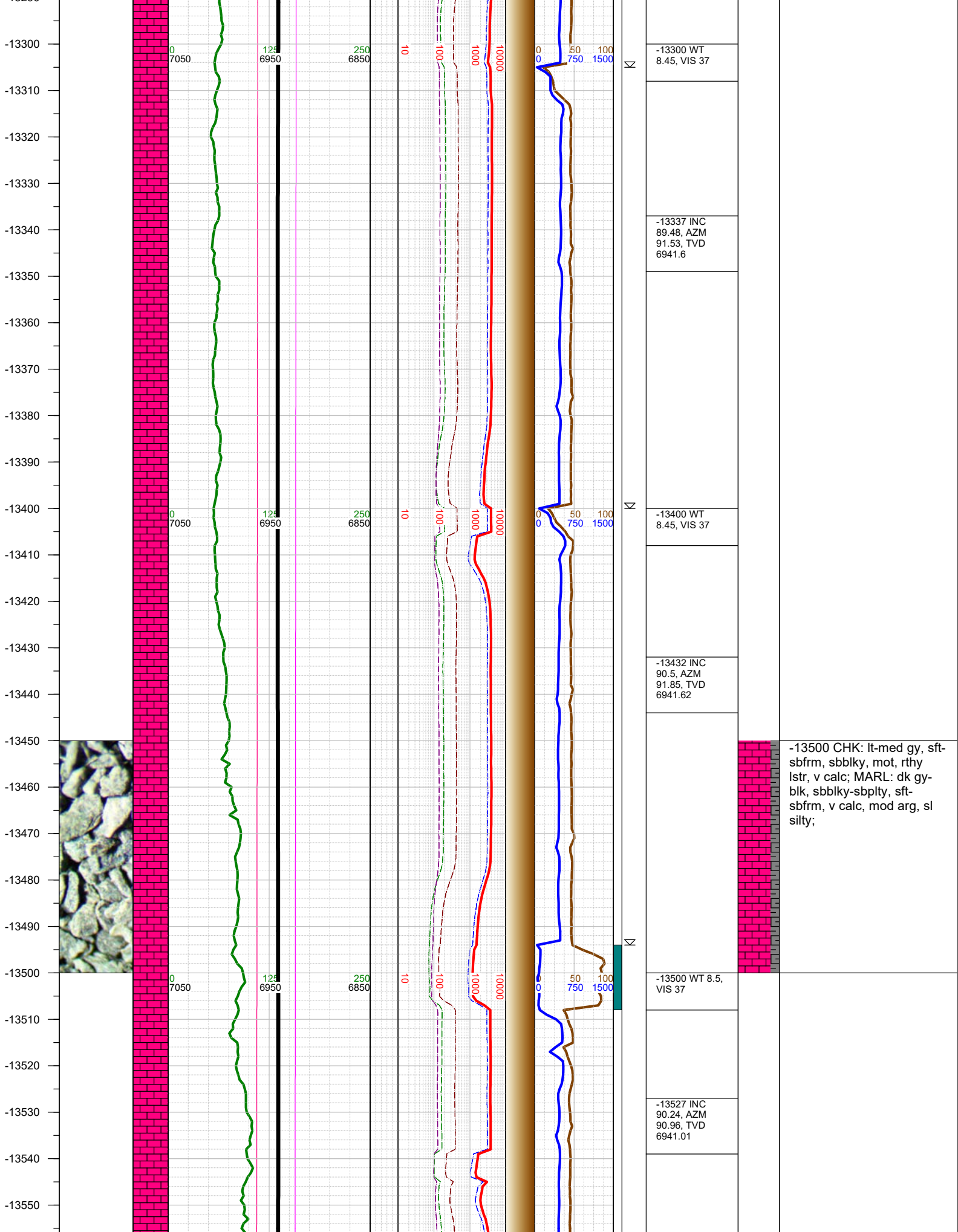
-12675 INC
90.53, AZM
88.57, TVD
6936.61

-12700 WT
8.45, VIS 36

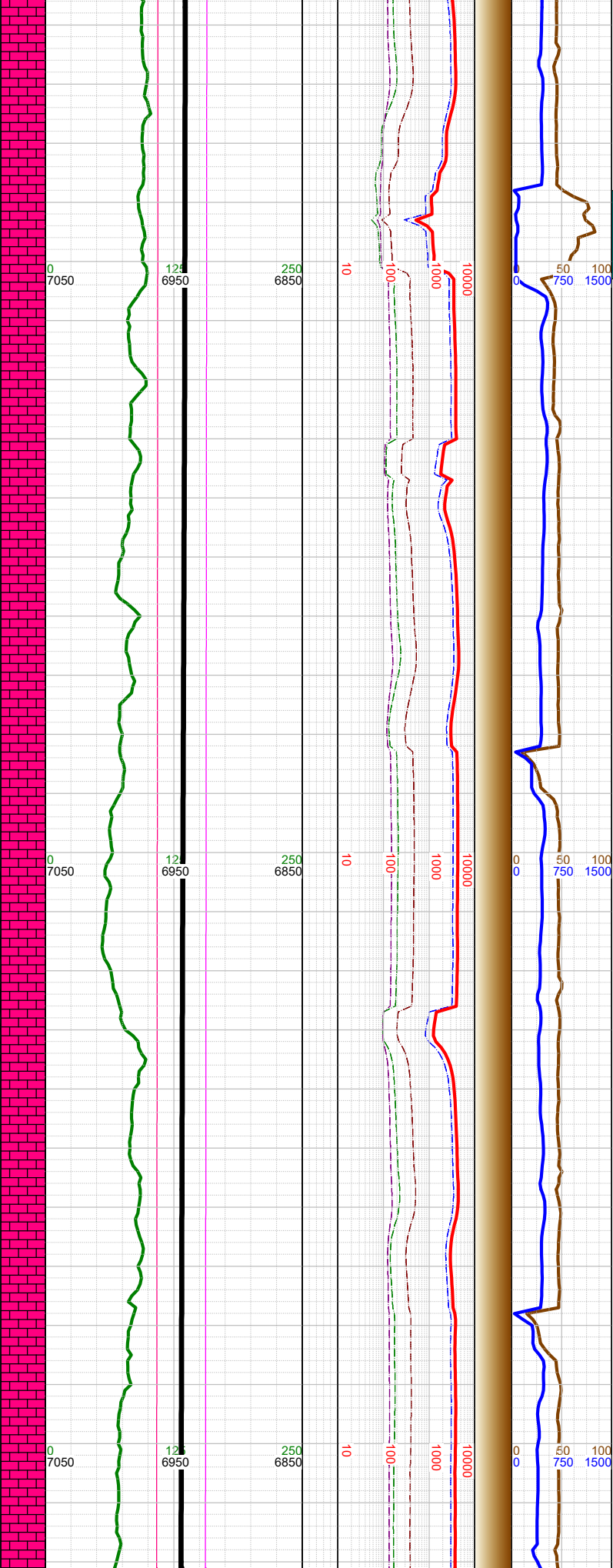
-12750 CHK: lt-med gy, sft-sbfrm, sbbiky, mot, rthy lstr, v calc; MARL: dk gy-blk, sbbiky-sbplty, sft-sbfrm, v calc, mod arg, sl silty; tr forams



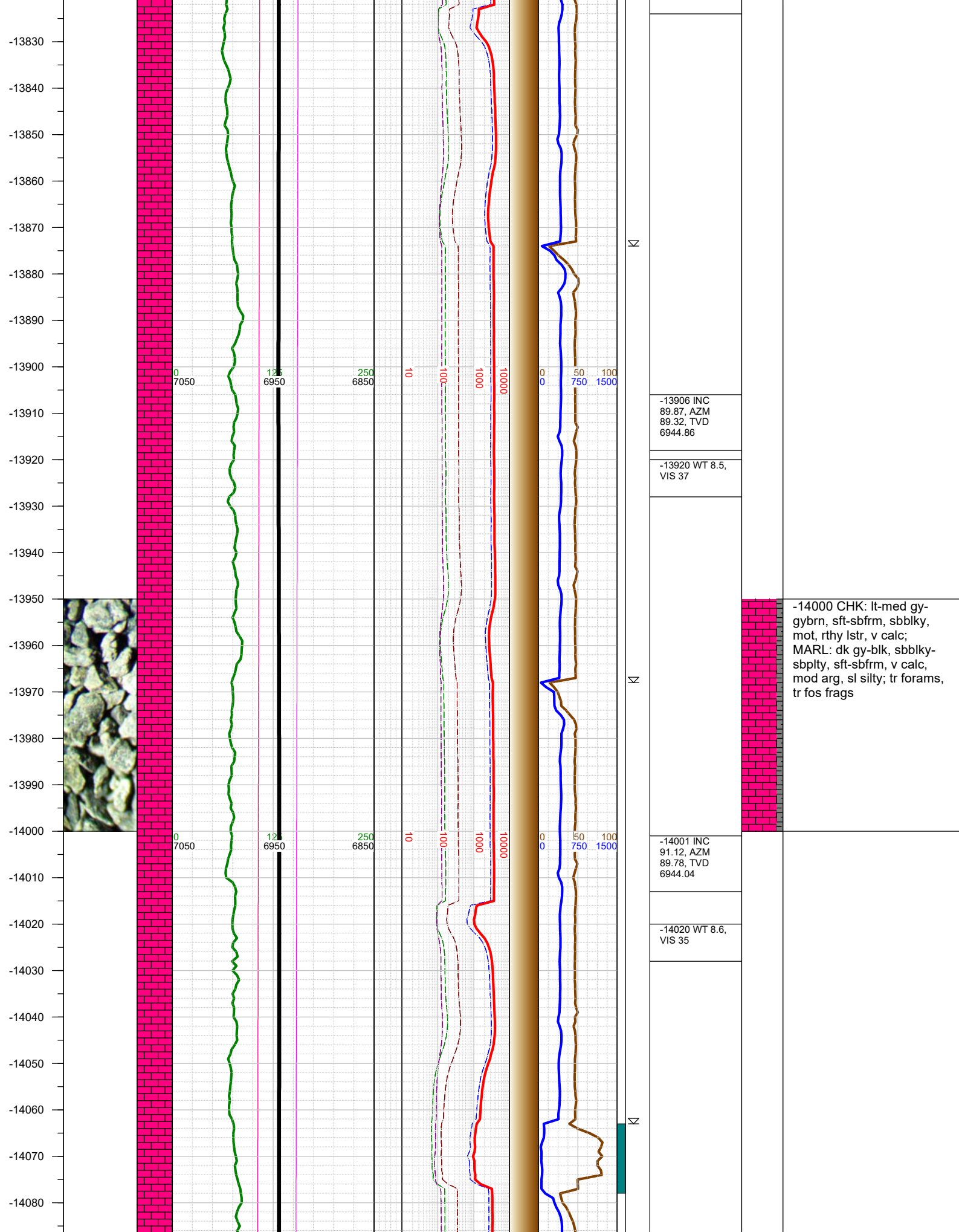


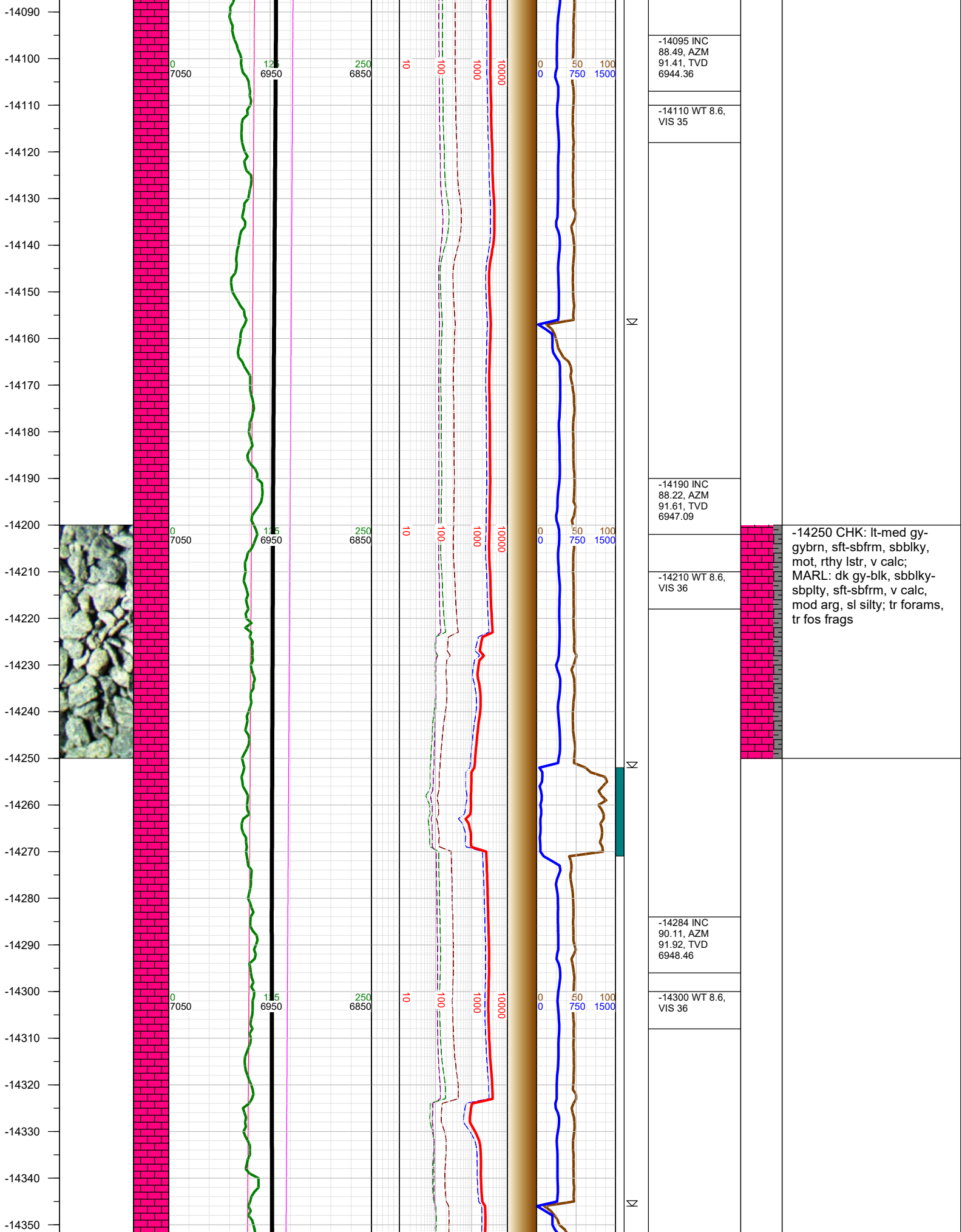


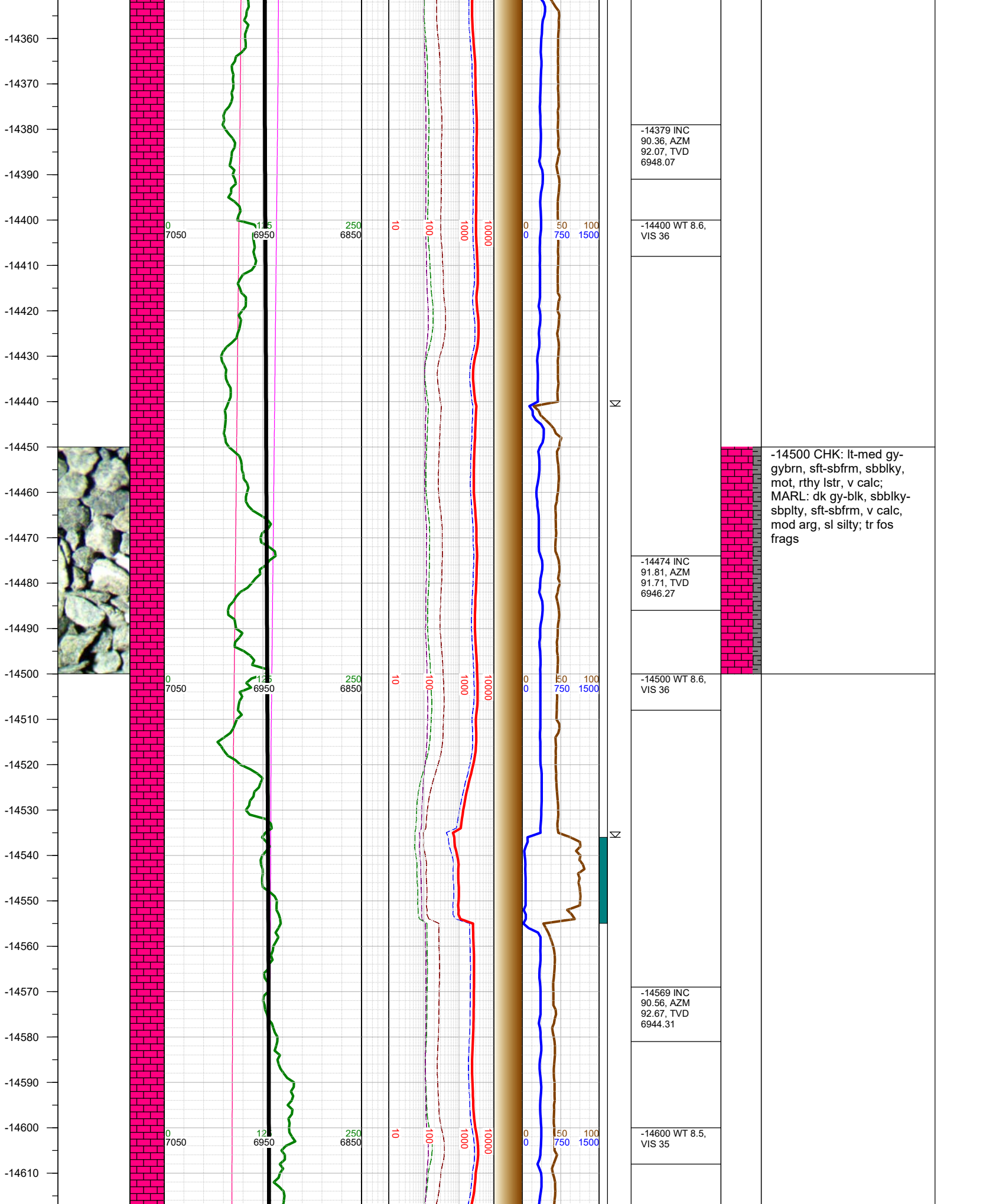
-13560
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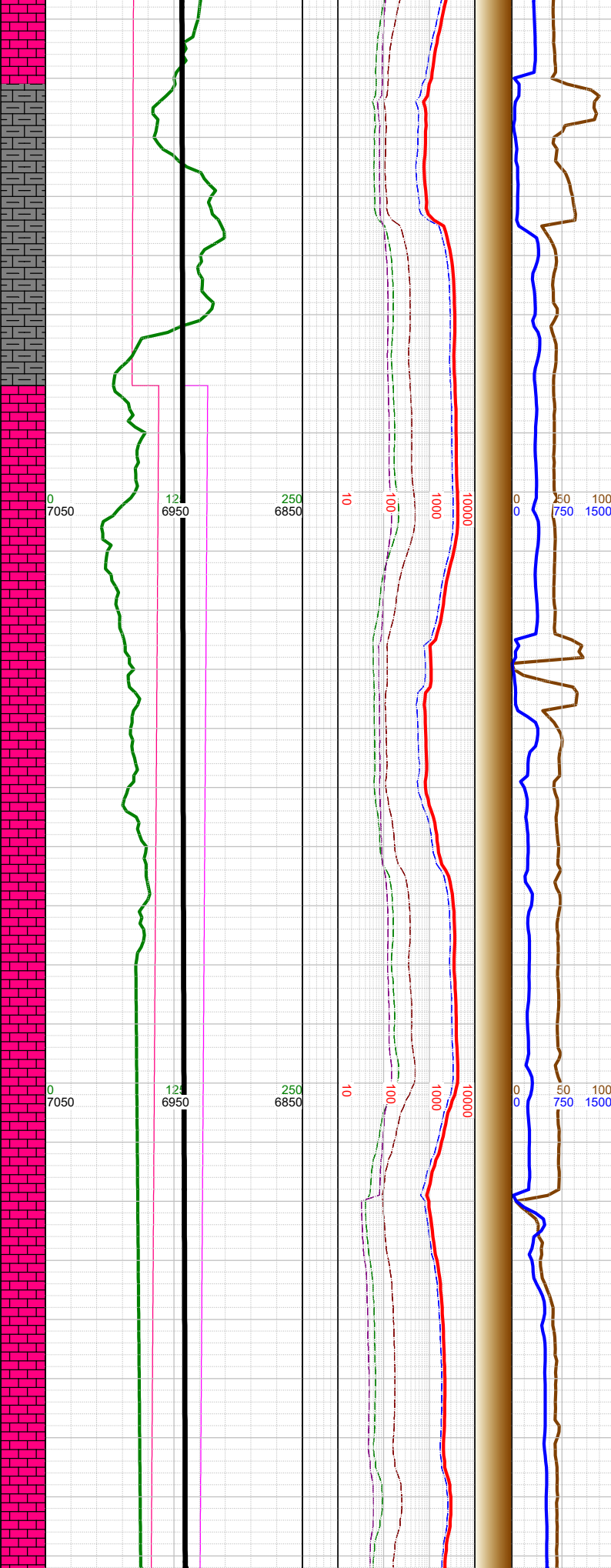
		-13588 0000 hrs on 10/11/2016		
		-13600 WT 8.5, VIS 37		
		-13622 INC 88.92, AZM 89.77, TVD 6941.71		
		-13700 WT 8.5, VIS 37		-13750 CHK: lt-med gy, sft- sbfrm, sbbkly, mot, rthy lstr, v calc; MARL: dk gy- blk, sbbkly-sbply, sft- sbfrm, v calc, mod arg, sl silty;
		-13717 INC 89.11, AZM 89.34, TVD 6943.34		
		-13800 WT 8.5, VIS 37		
		-13812 INC 89.59, AZM 89.36, TVD 6944.42		







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-14870
-14880



-14663 INC
90.48, AZM
89.72, TVD
6943.46

-14682 Fault:
21' up-throw;
upper to middle
B2 Chalk

-14700 WT 8.5,
VIS 35

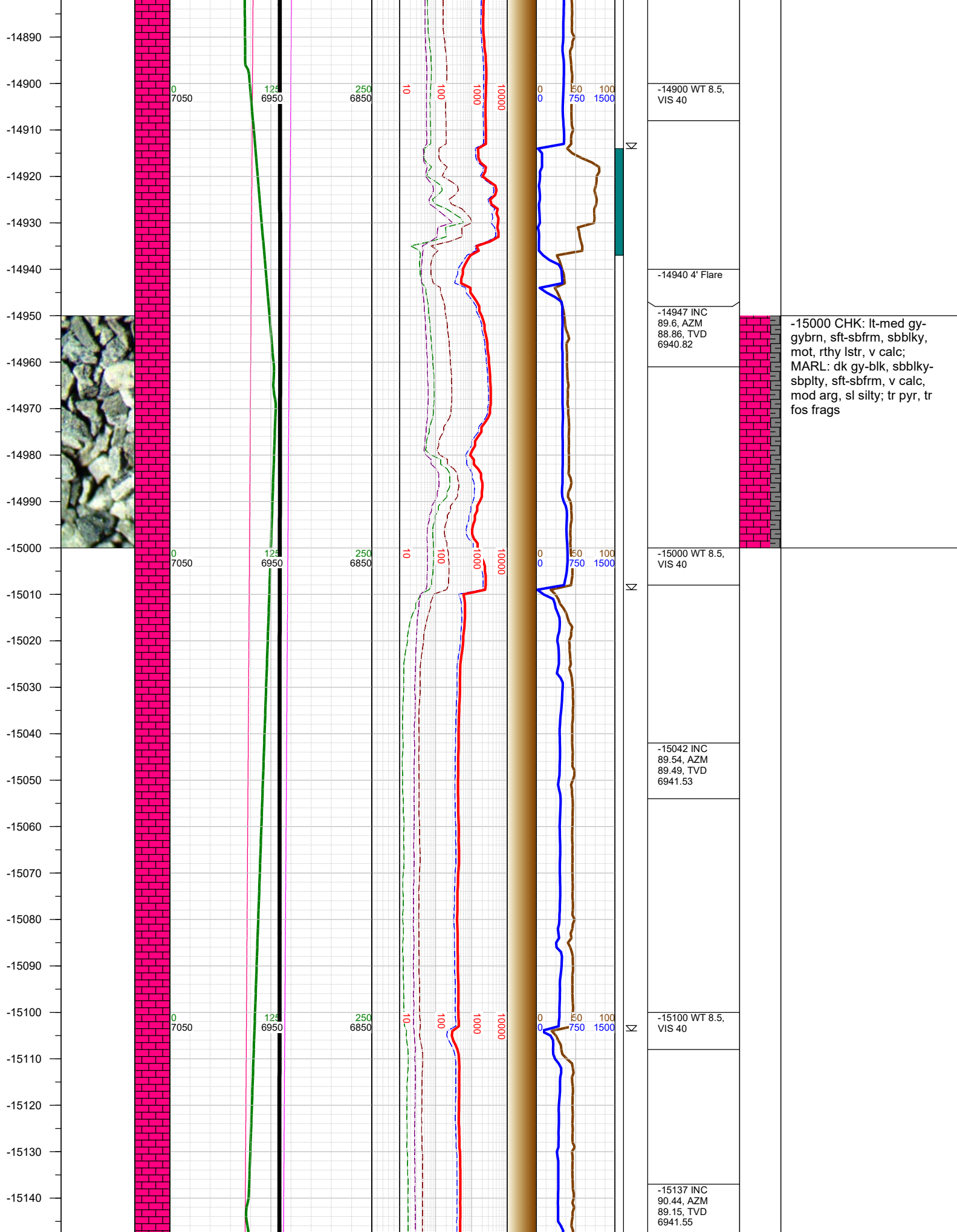
-14758 INC
90.24, AZM
89.05, TVD
6942.86

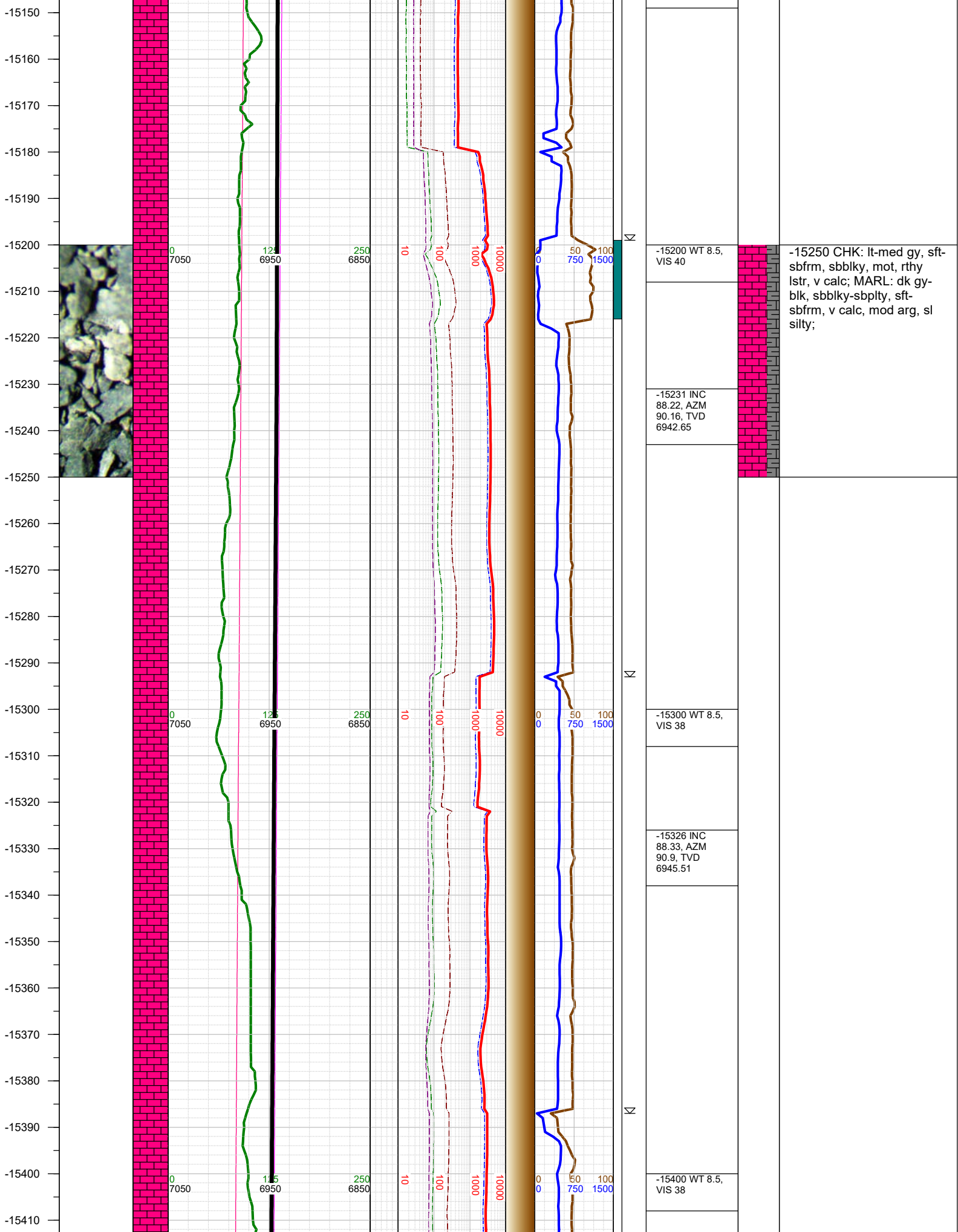
-14800 WT 8.6,
VIS 37

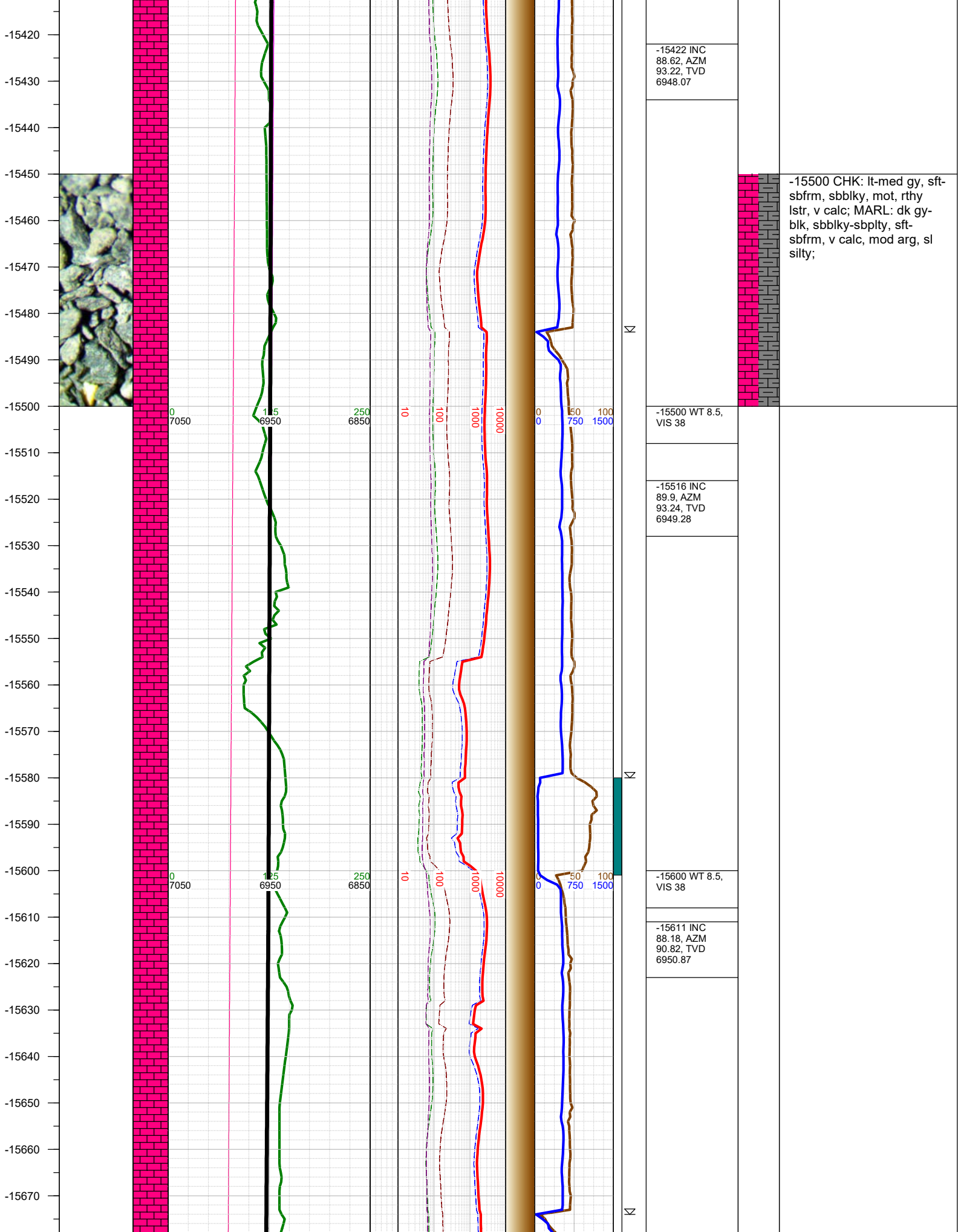
-14819 TOOH
for bit #2 -
REED
SK516MK27,
7x14, 7.875",
14819' at 0700
hrs. Resumed
drilling at 1805
hrs. Flare was
observed up to
15' during trip
gas returns.

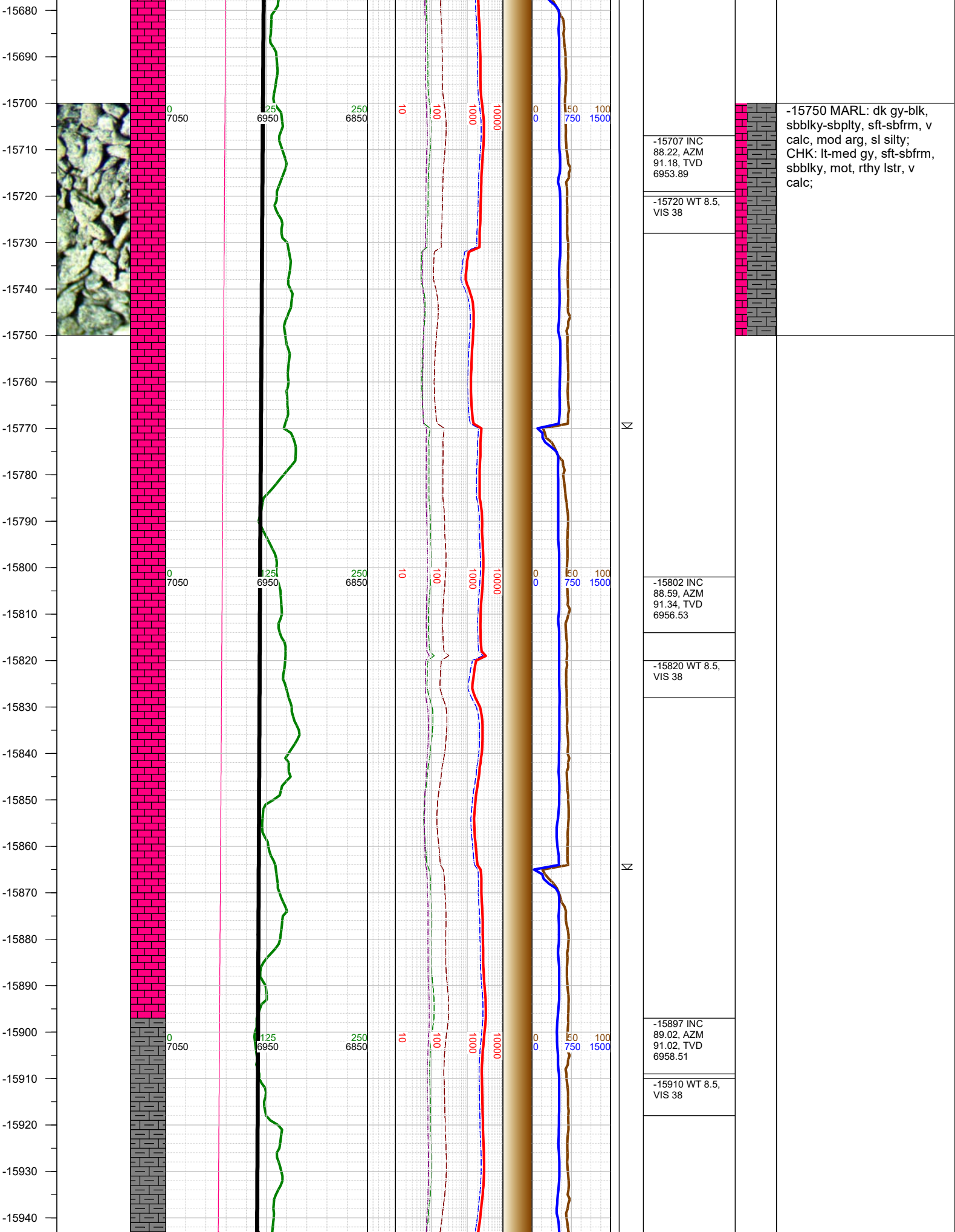
-14853 INC
91.32, AZM
87.48, TVD
6941.57

-14750 CHK: lt-med gy-
gybrn, sft-sbfrm, sbblky,
mot, rthy lstr, v calc;
MARL: dk gy-blk, sbblky-
sbplty, sft-sbfrm, v calc,
mod arg, sl silty; tr fos
frags

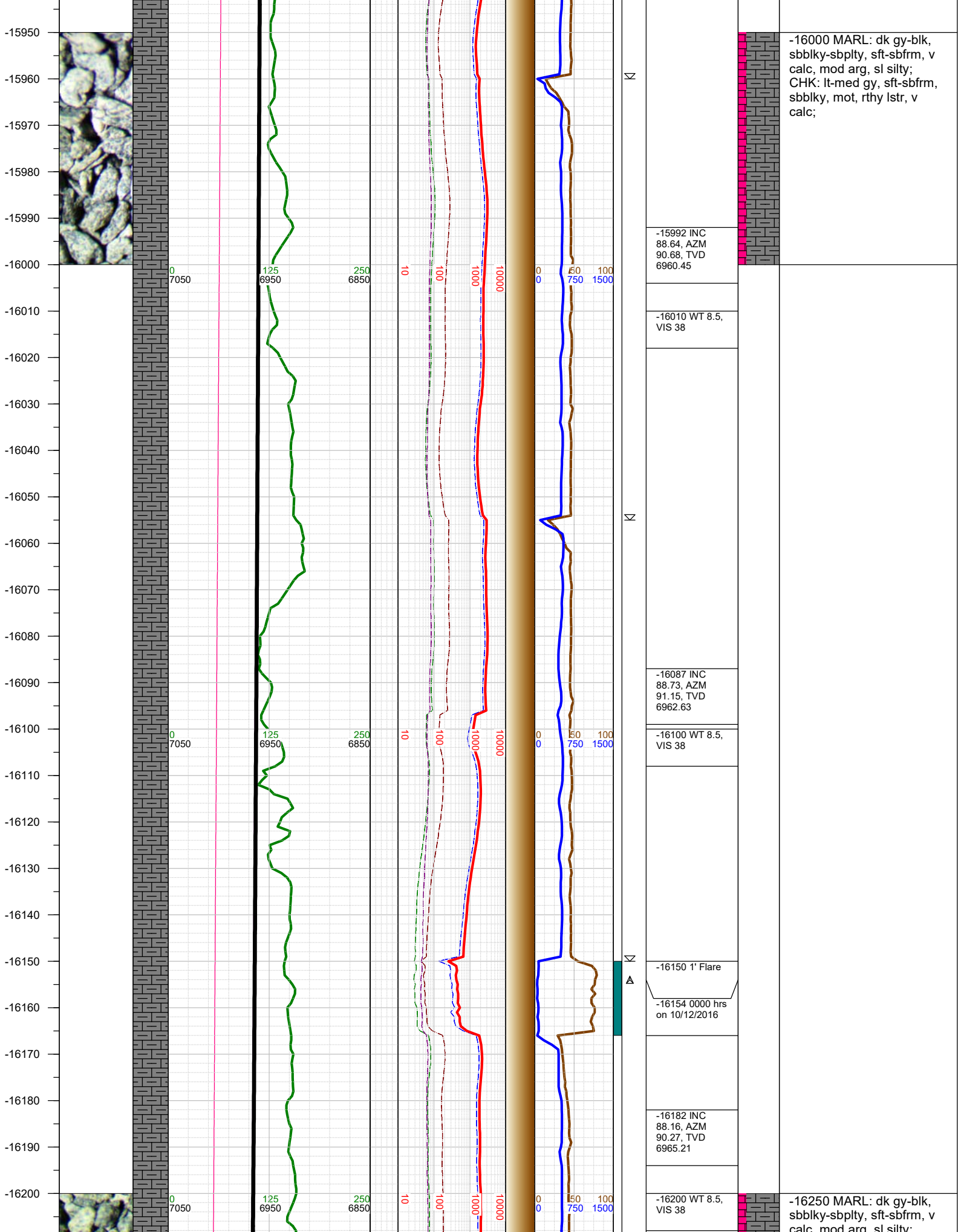


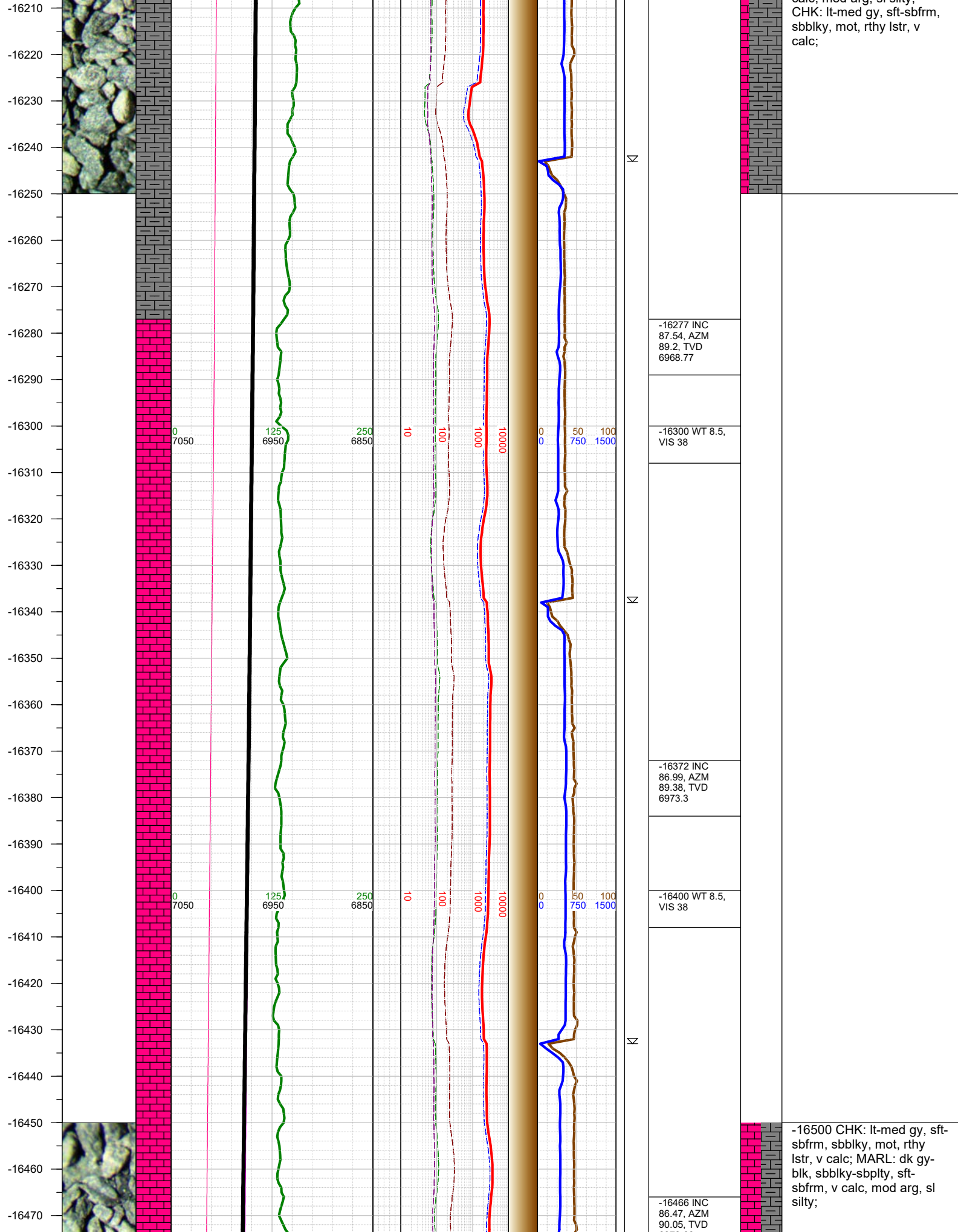


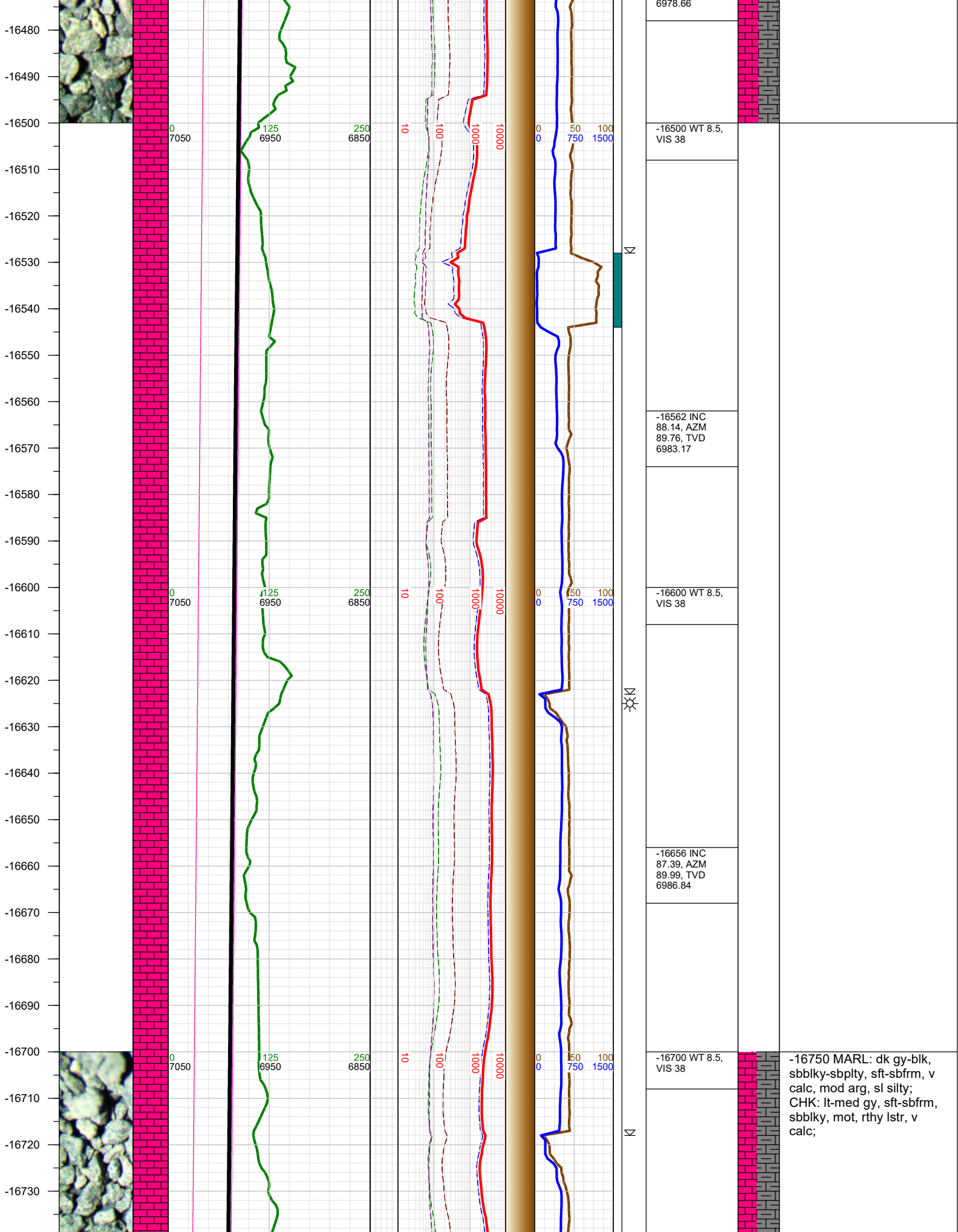


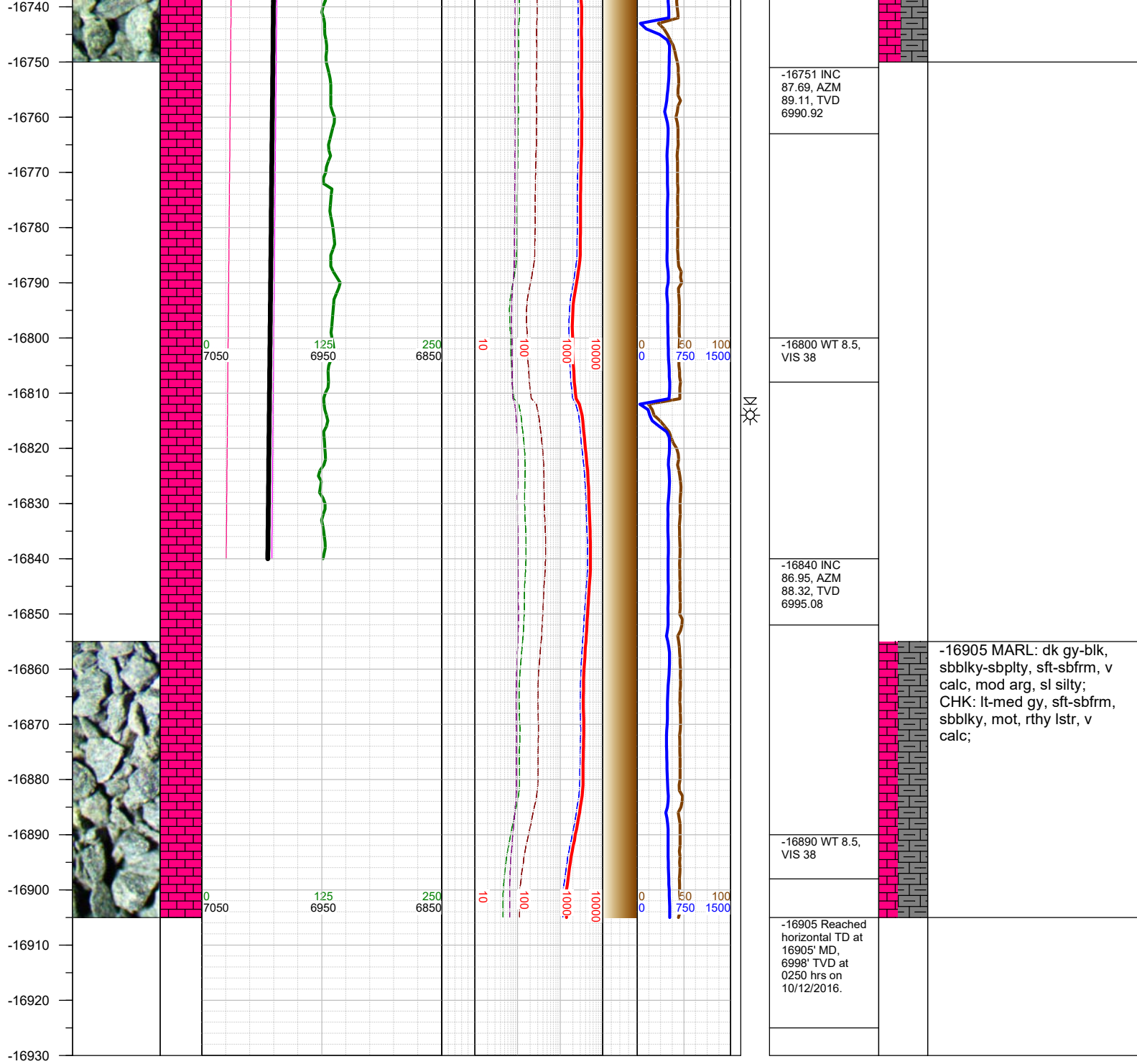


-15750 MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, v calc, mod arg, sl silty; CHK: lt-med gy, sft-sbfrm, sbbkly, mot, rthy lstr, v calc;









TOTAL DEPTH = 16905'

Thank you for using Earth Science Agency