

OPERATOR: **Extraction Oil & Gas**

WELL NAME: **Leonard 6N**

FIELD NAME: DJ Basin - Wattenberg

DRILLING RIG: Cyclone 37

API #: 05-123-45047

LAT/LONG: 40.121492, -104.903278

SURFACE HOLE: NWSW S21-T2N-R67W, 1824' FSL, 494' FWL

BOTTOM HOLE: S21-T2N-R67W, 1410' FSL, 460' FEL



Earth Science Agency, LLC

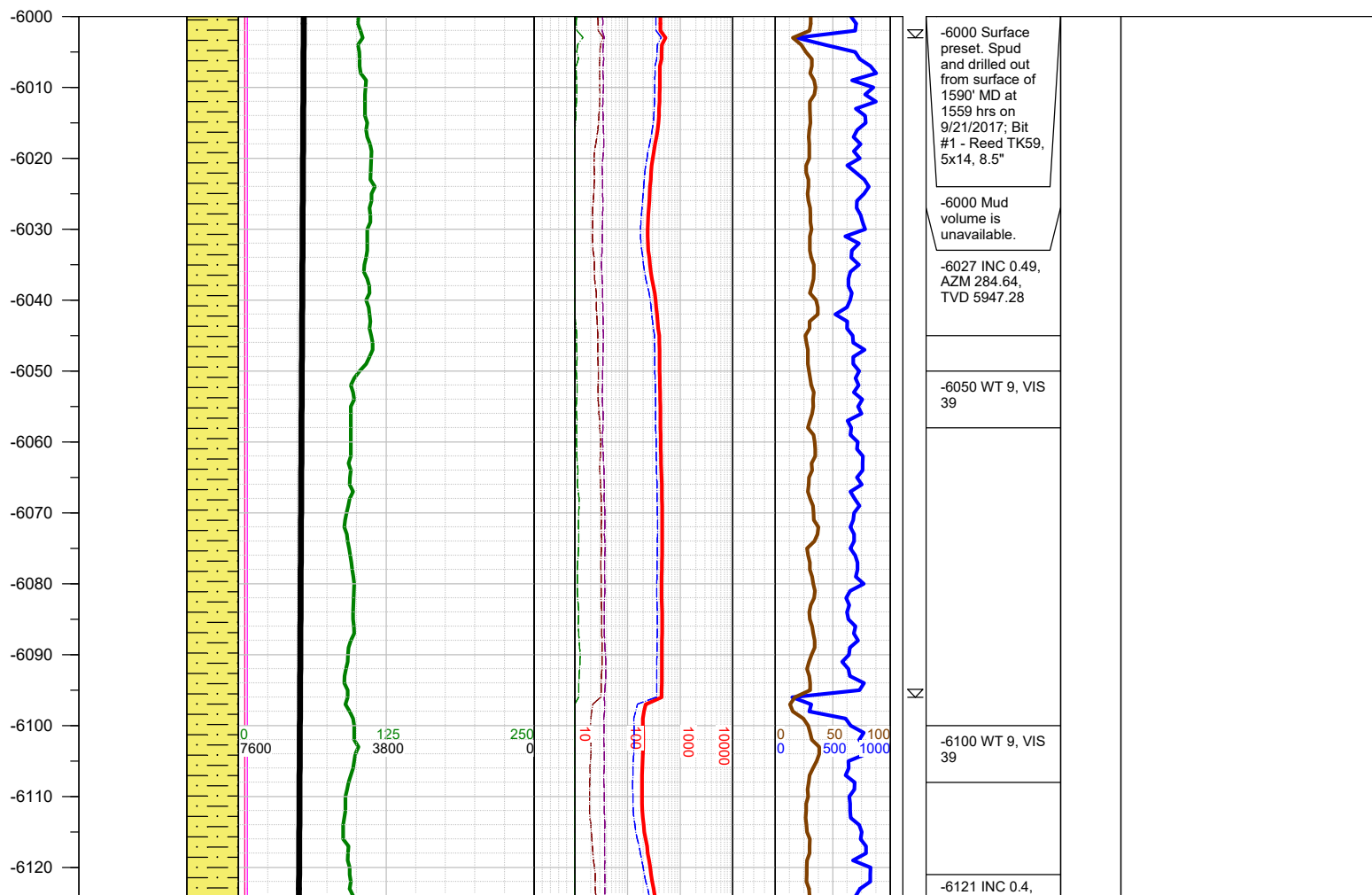
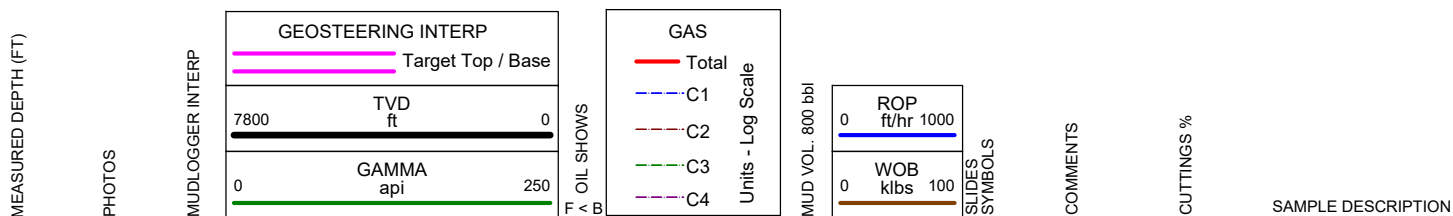
COUNTY: Weld
STATE: Colorado
GROUND ELEVATION: 5004'
KELLY BUSHING: 5032'
DRILLING FLUID: OBM
TVD VS. MD: 7426' / 12096'
SPUD DATE: September 21, 2017
TD DATE: September 23, 2017

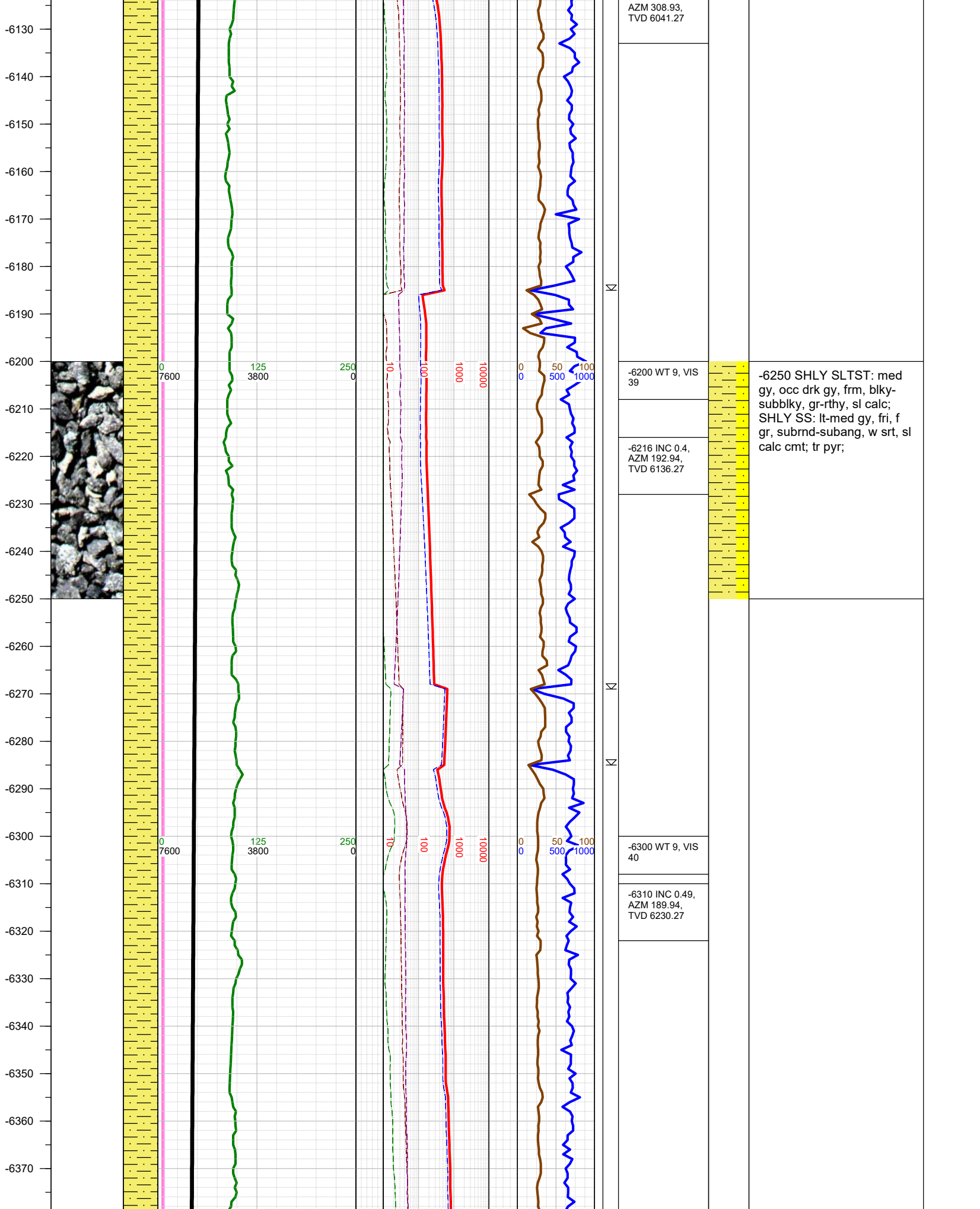
DEPTHS LOGGED: 6000' - 12096'
DATES LOGGED: September 21, 2017 - September 23, 2017
GEOLOGISTS: Kyle Welty, Dan Jacobs
SCALE: 5" = 100'

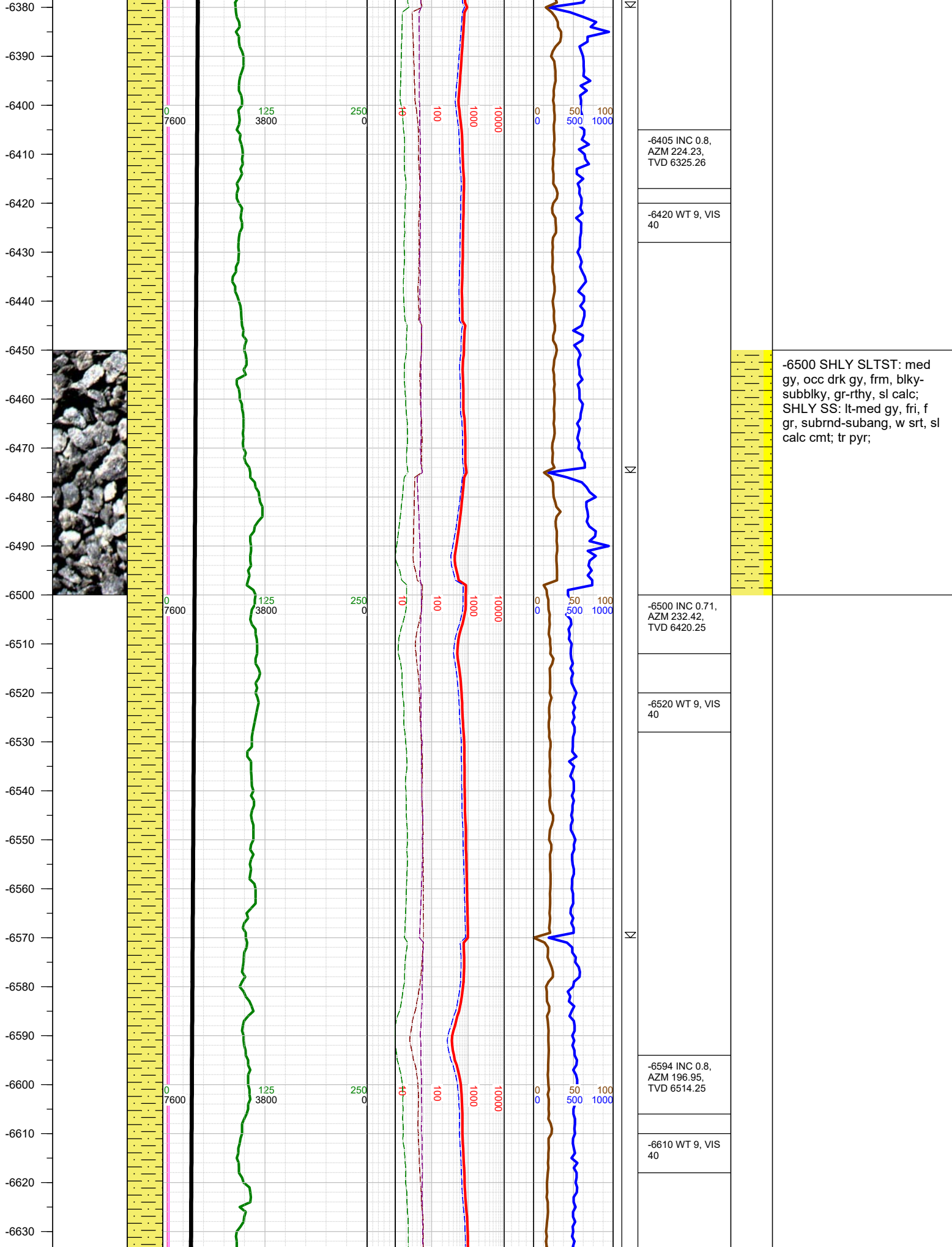
LEGEND

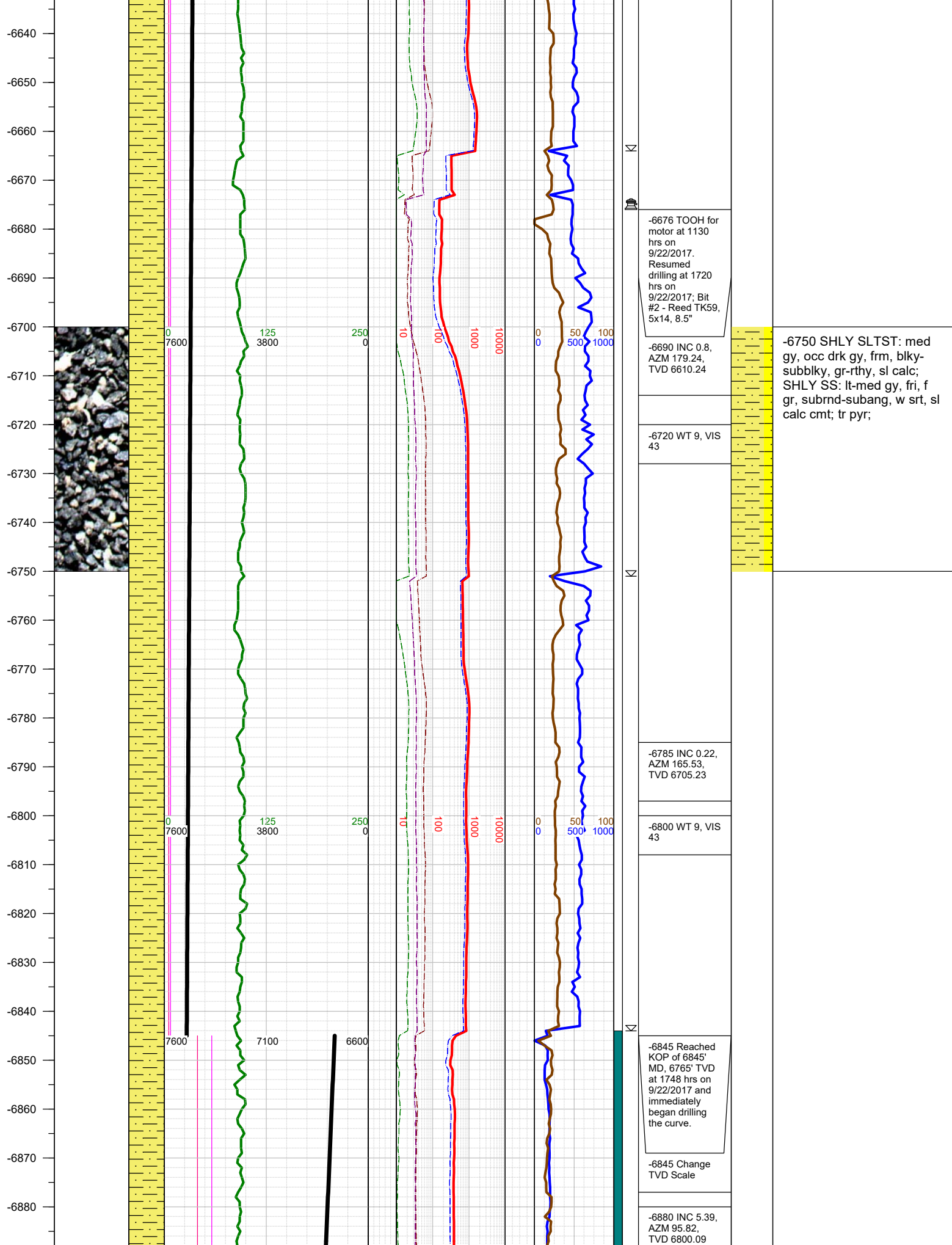


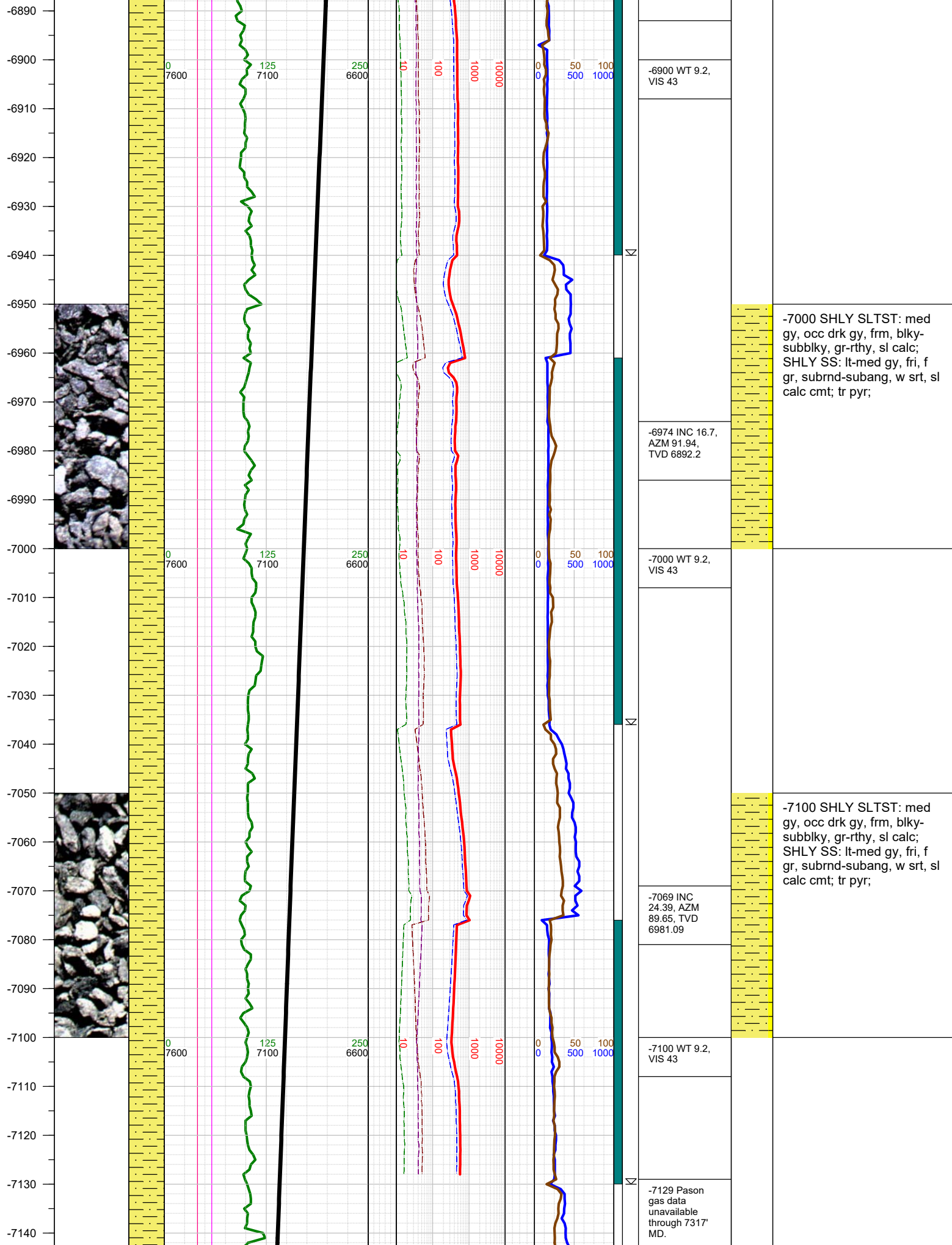
FORMATION \approx CONNECTION Δ MIDNIGHT NEW BIT GAS SHOW FAULT

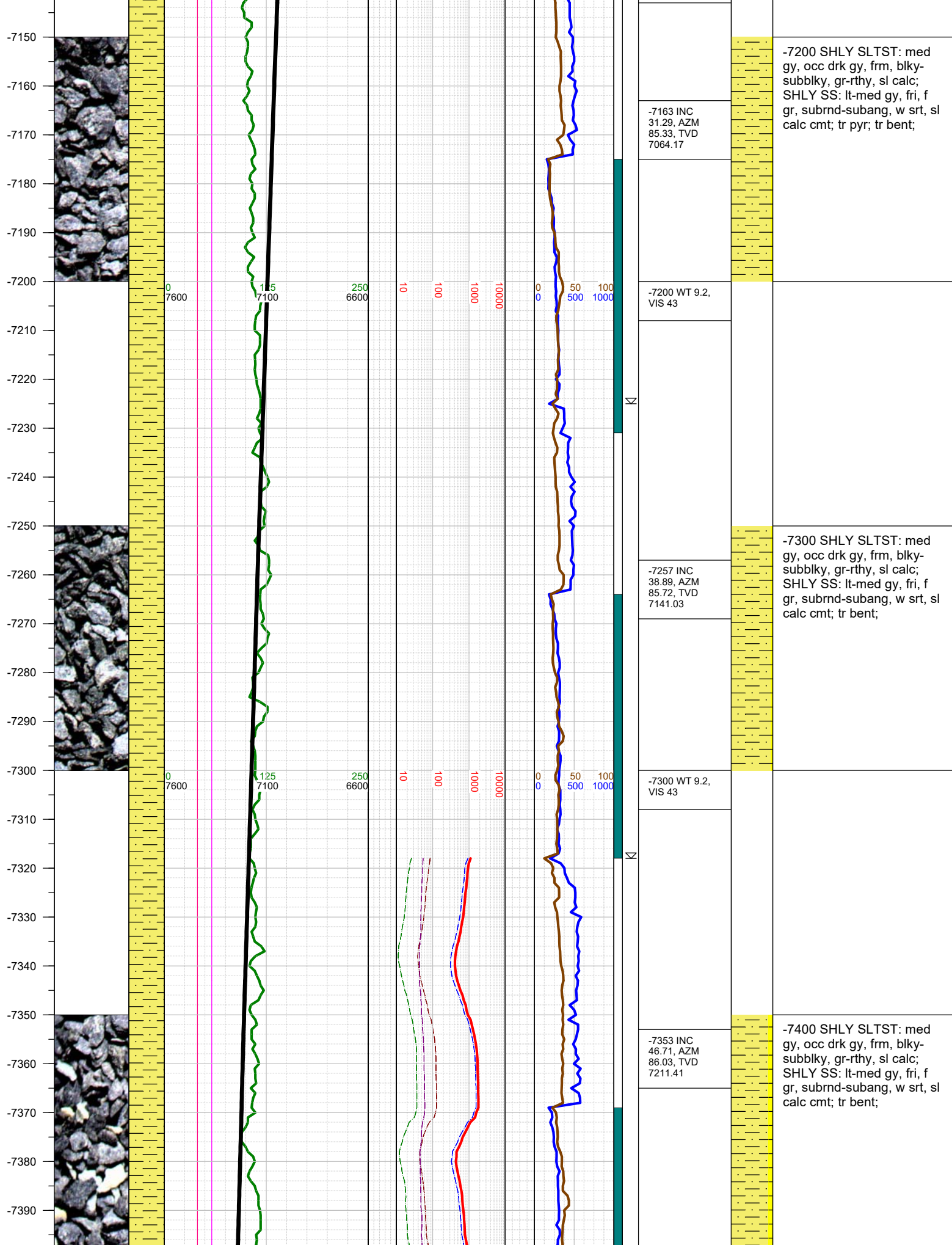


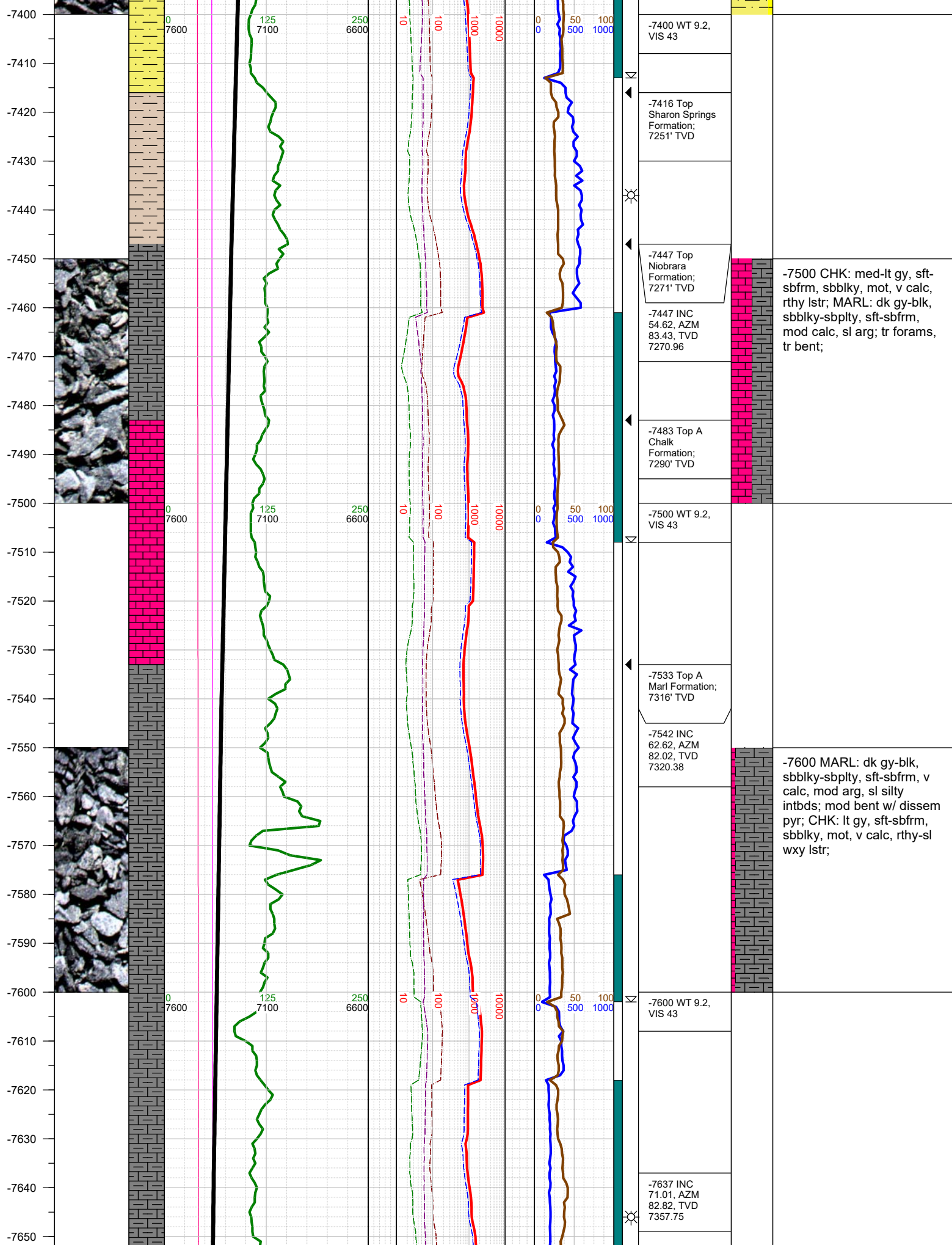


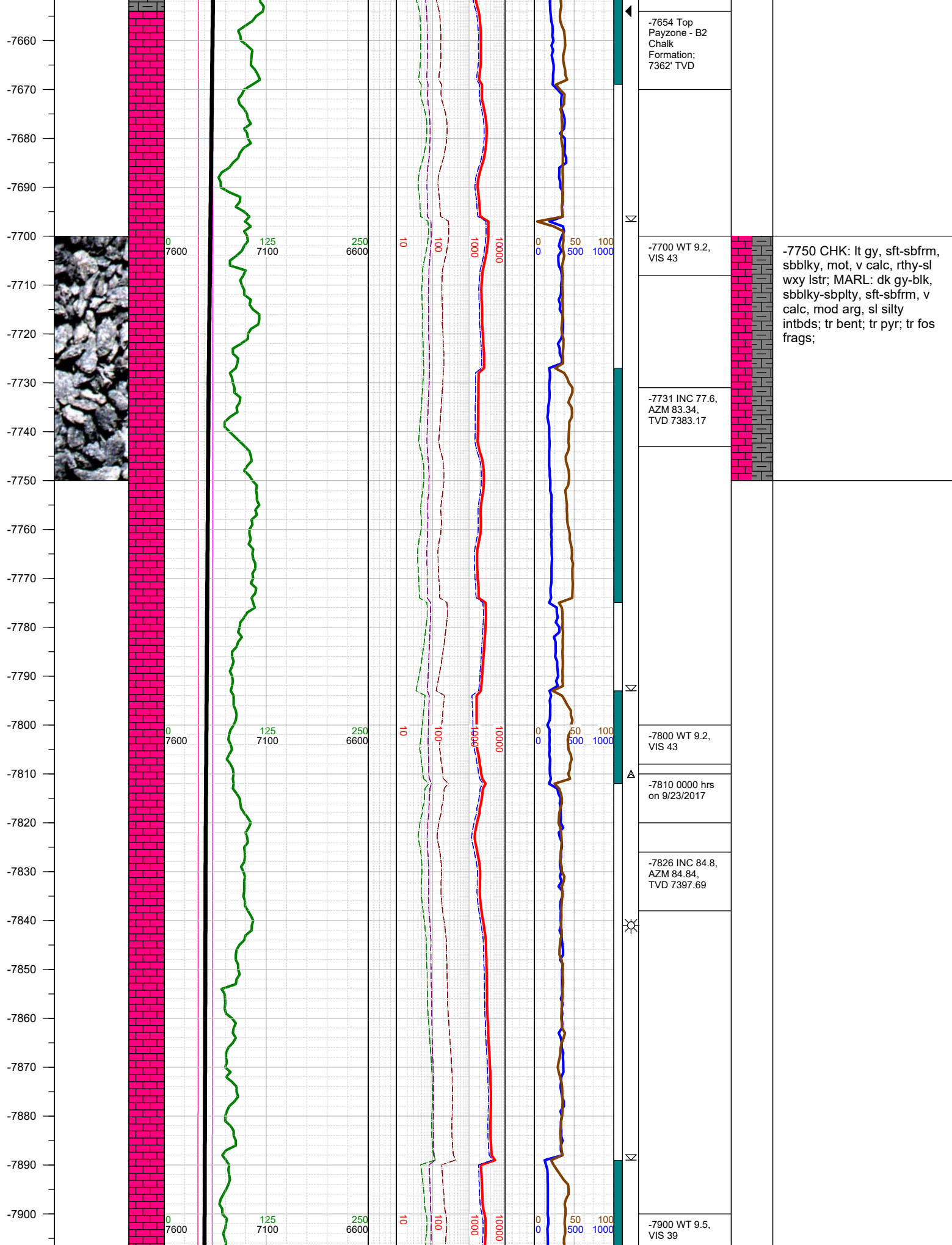




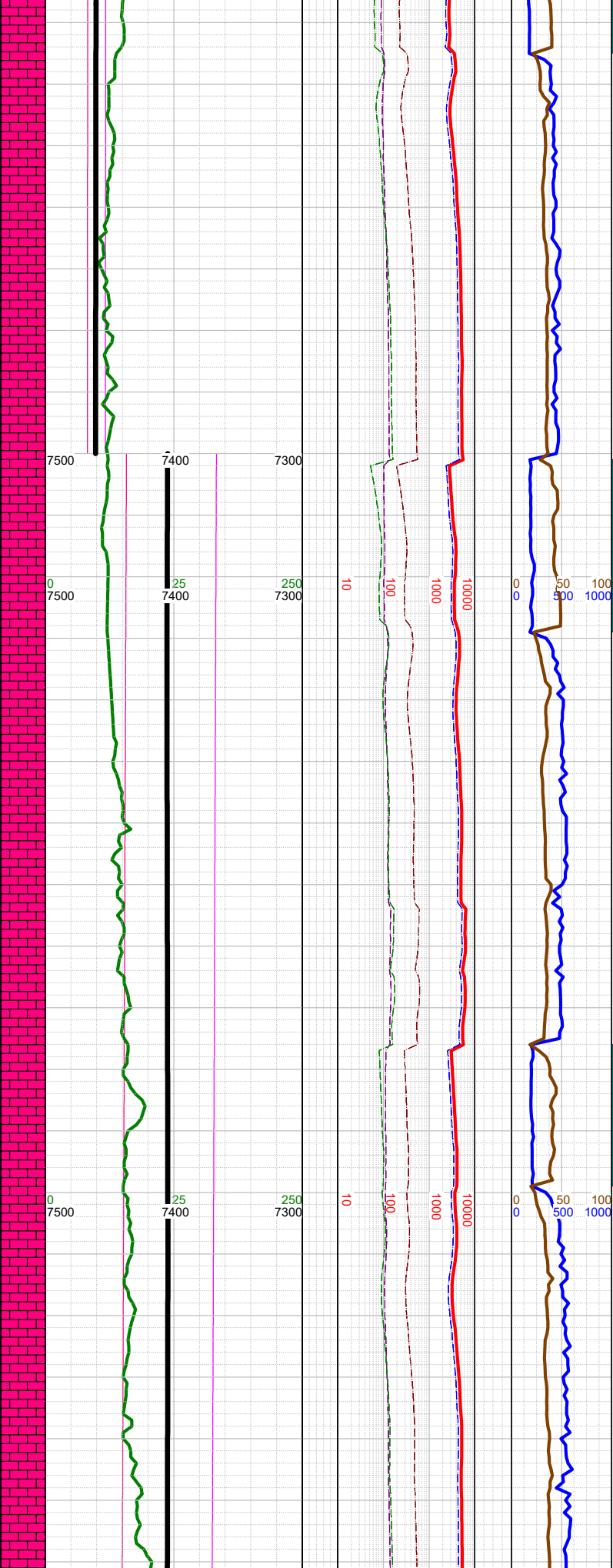








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☀	-7920 INC 87.58, AZM 85.15, TVD 7403.94
⚡	-7980 Reached LP of 7980' MD, 7405' TVD at 0050 hrs on 9/23/2017 and immediately began drilling the lateral.
⚡	-7980 Change TVD Scale
☀	-8015 INC 90.5, AZM 87.62, TVD 7405.53
☀	-8030 WT 9.5, VIS 39
☀	-8100 WT 9.5, VIS 39
☀	-8110 INC 90.5, AZM 90.44, TVD 7404.7



-8000 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 pyr; mod fos
frags; tr forams;

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-8204 INC 88.5,
AZM 90.92,
TVD 7405.52

-8220 WT 9.5,
VIS 39

-8299 INC
89.79, AZM
91.23, TVD
7406.94

-8320 WT 9.5,
VIS 39

-8393 INC
90.01, AZM
88.81, TVD
7407.1

-8410 WT 9.5,
VIS 39

-8250 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 bent; tr pyr; mod
fos frags; tr forams;

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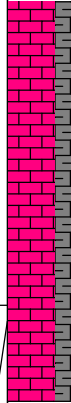
-8488 INC 88.6,
AZM 90.22,
TVD 7408.26

-8490 Fault: 12'
up-throw;
stayed in B2
Chalk

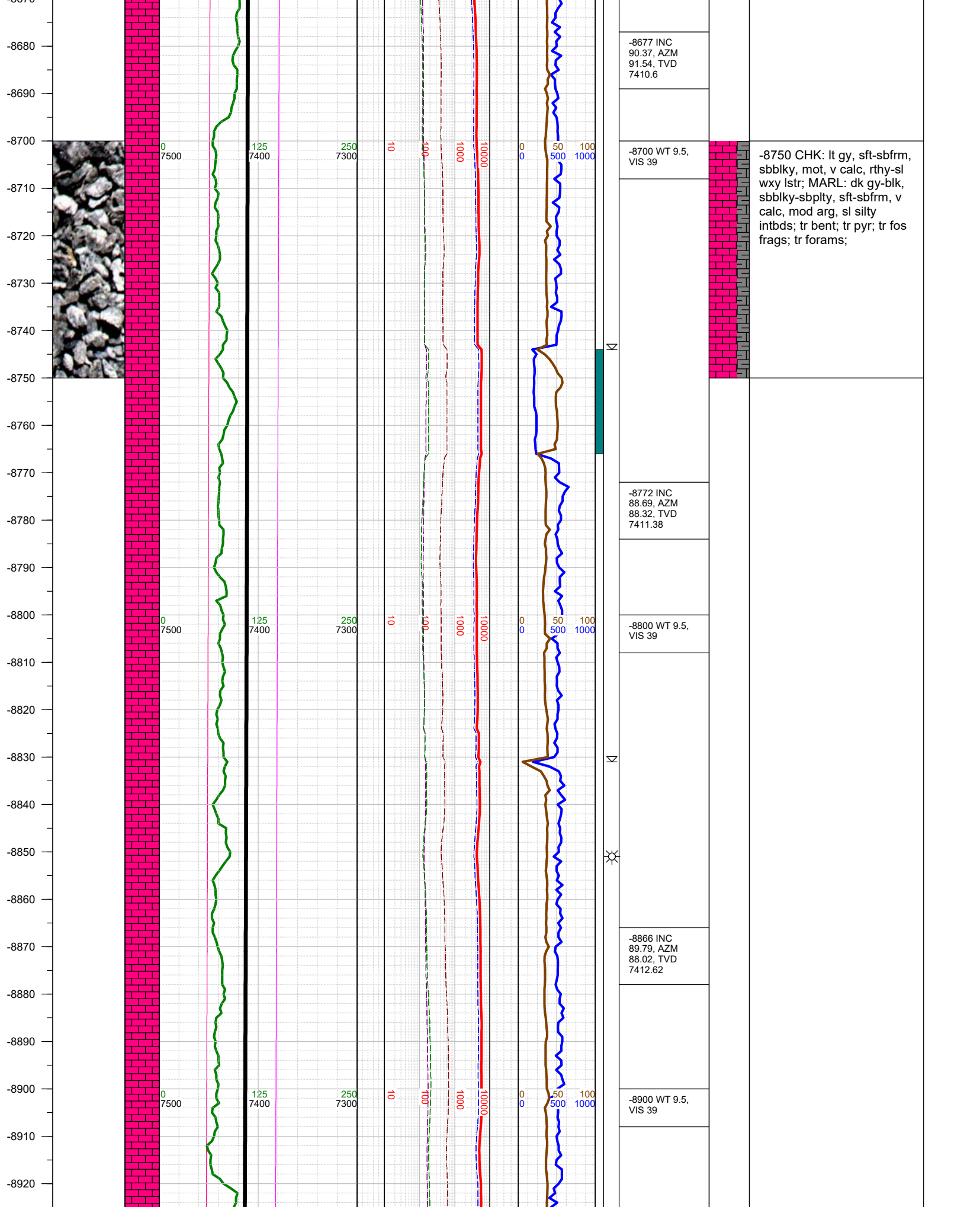
-8520 WT 9.5,
VIS 39

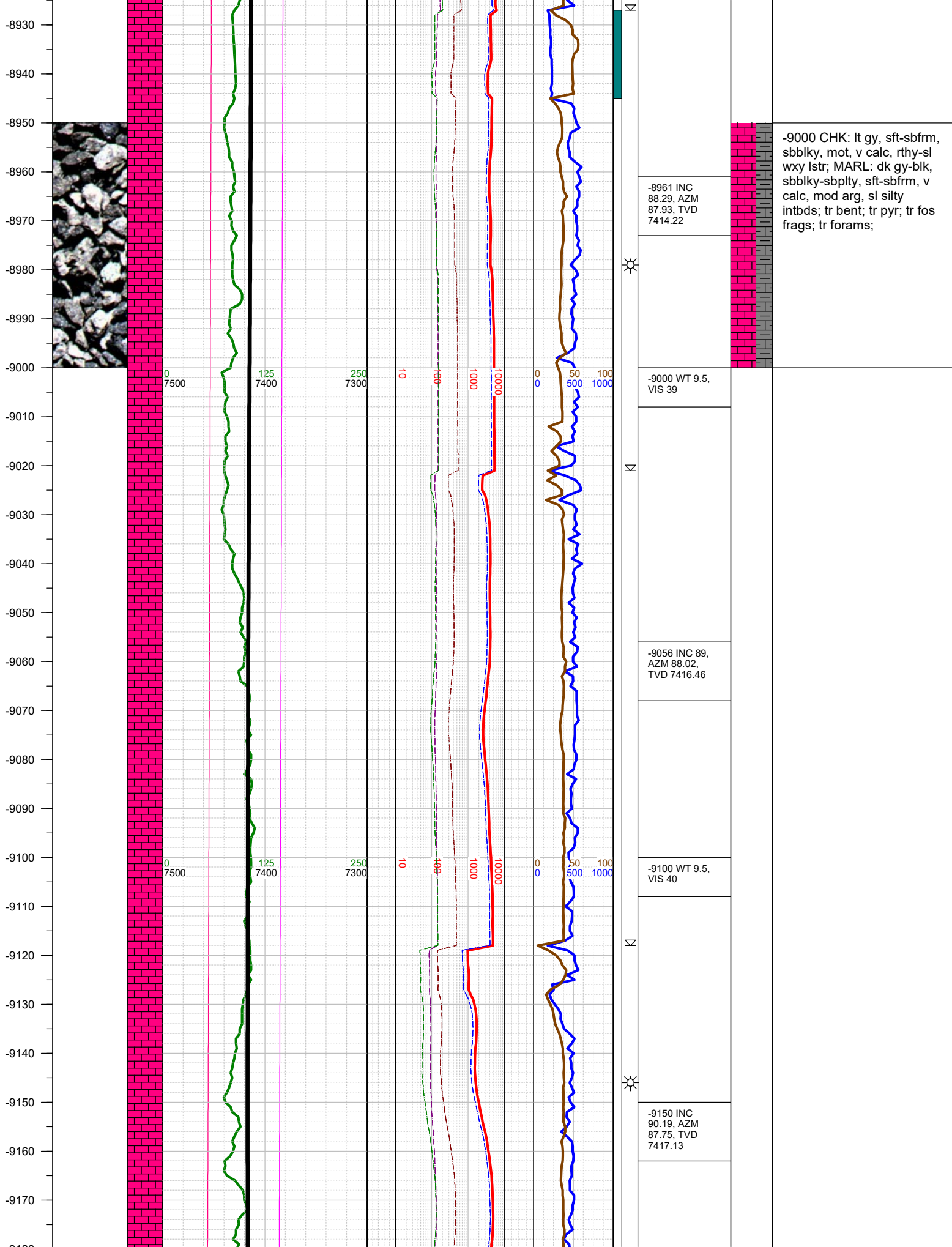
-8582 INC
89.09, AZM
91.14, TVD
7410.15

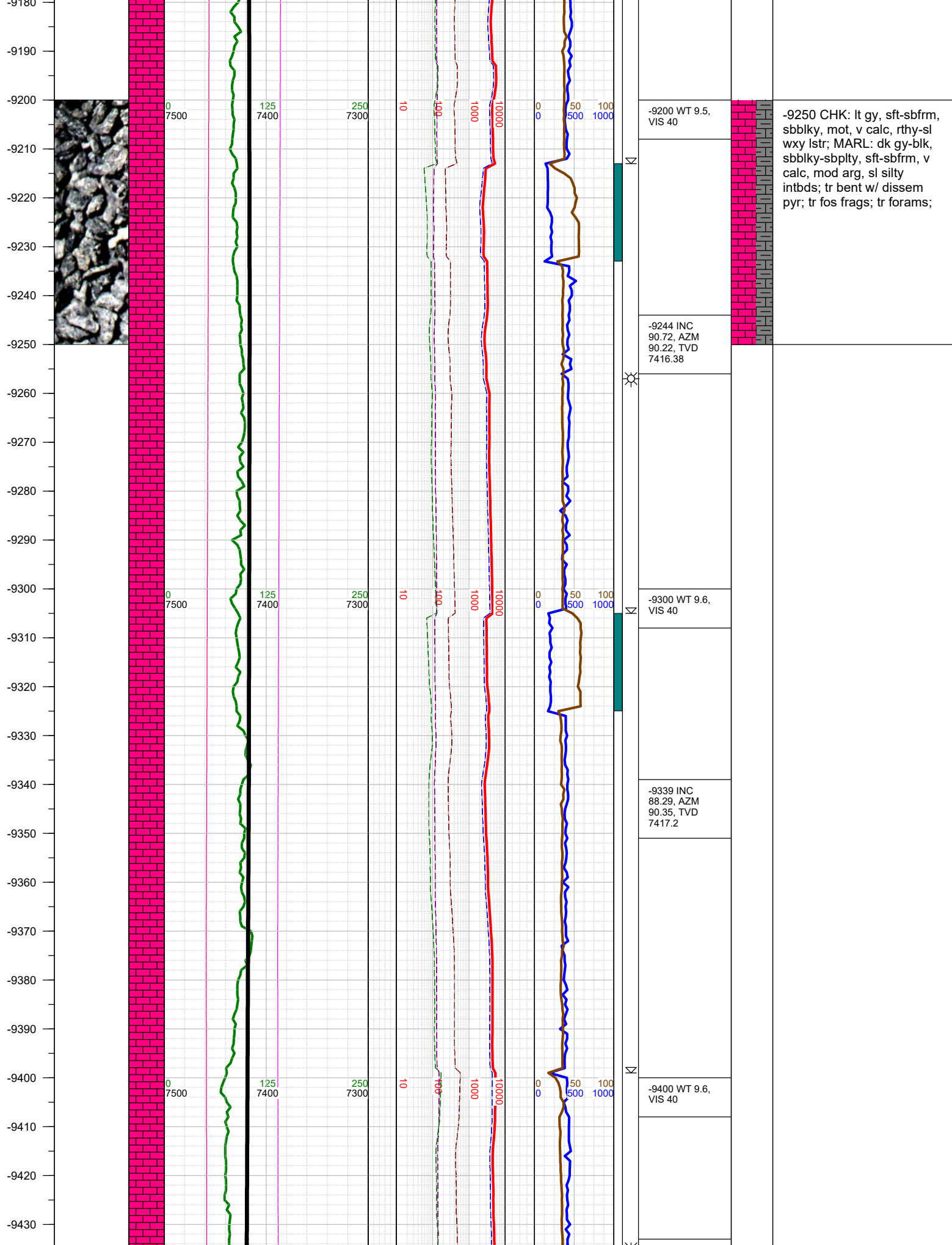
-8600 WT 9.5,
VIS 39

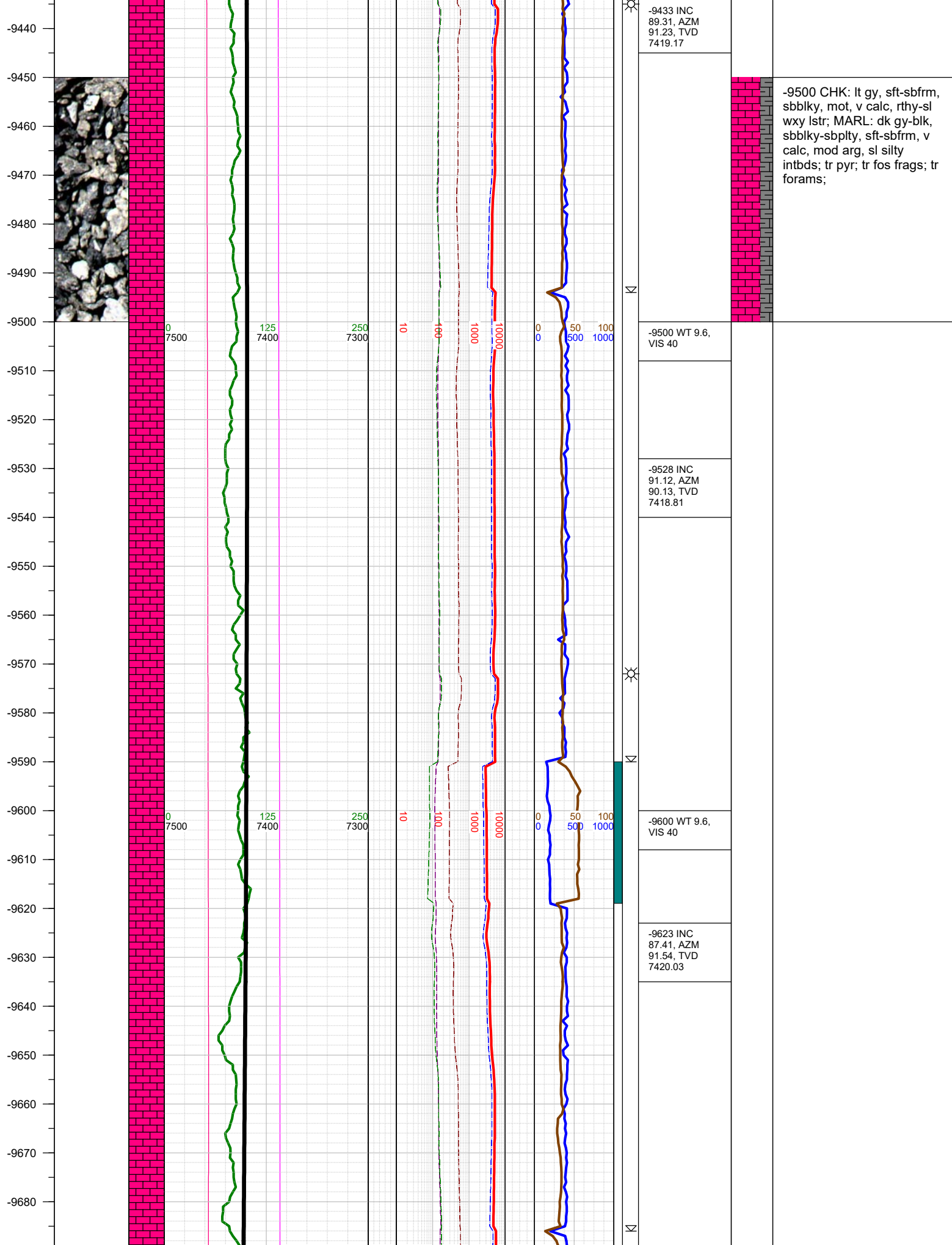


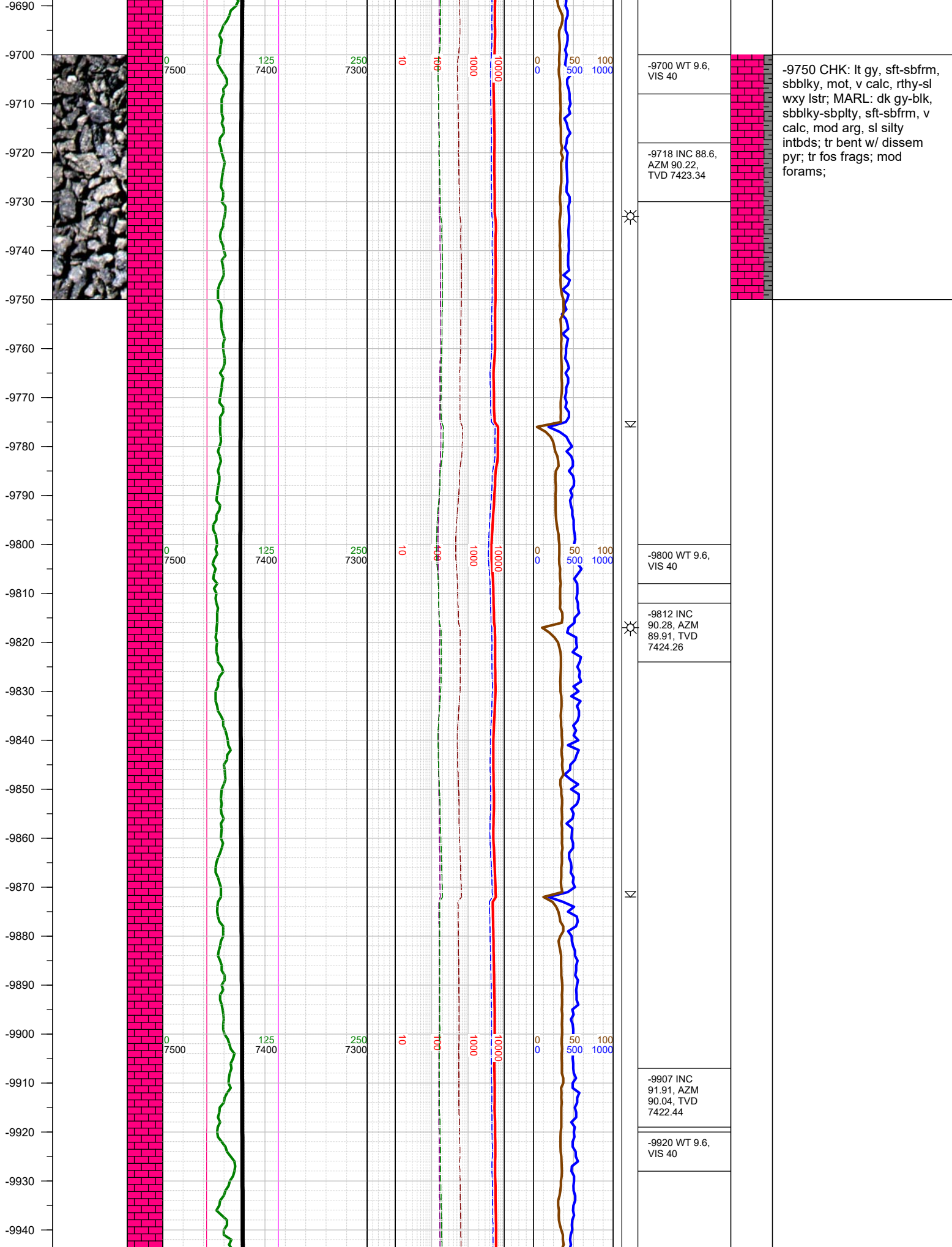
-8500 CHK: lt gy, sft-sbfrm,
sbbiky, mot, v calc, rthy-sl
wxy lstr; MARL: dk gy-blk,
sbbiky-sbplty, sft-sbfrm, v
calc, mod arg, sl silty
intbds; tr bent; tr pyr; tr fos
frags; tr forams;

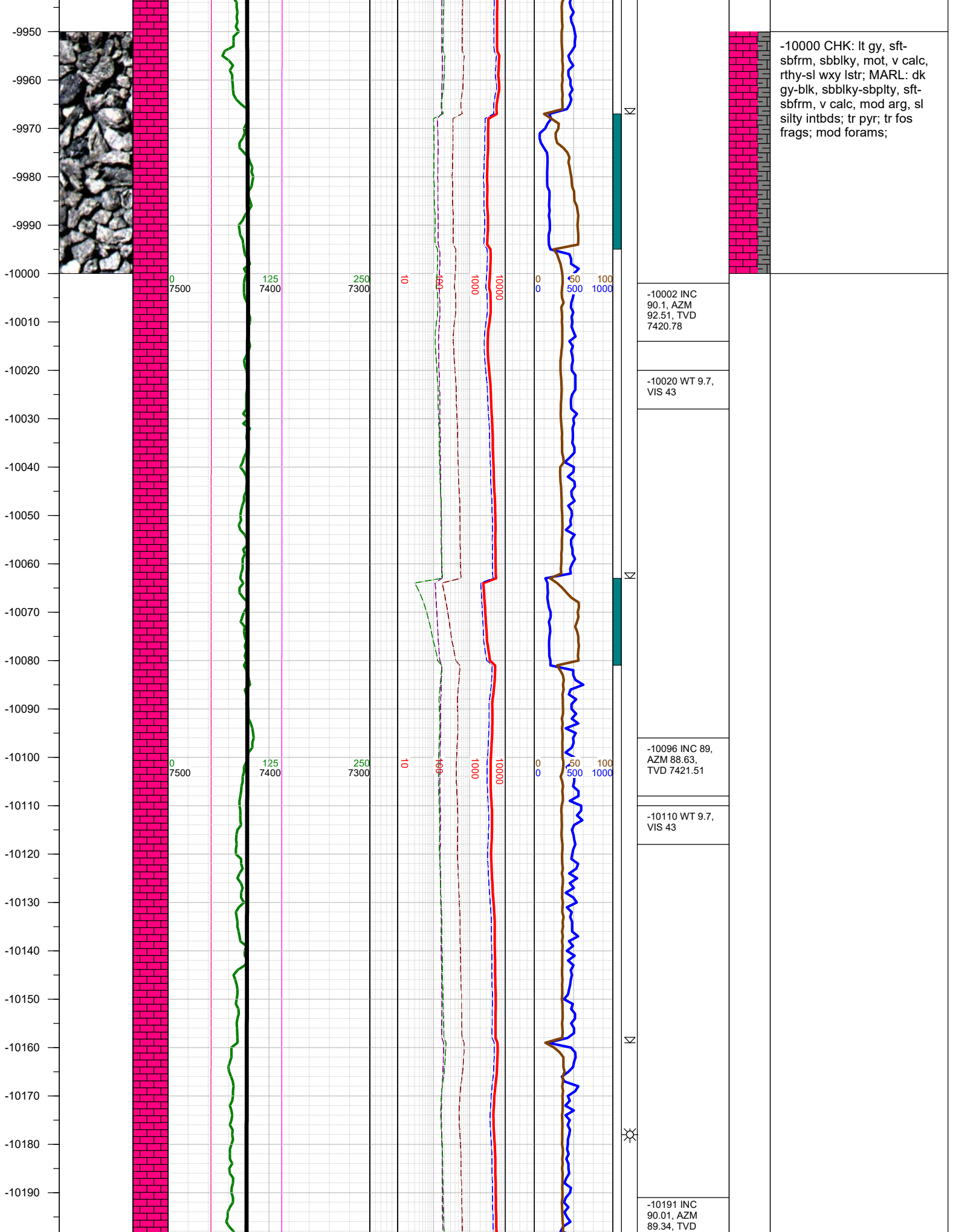


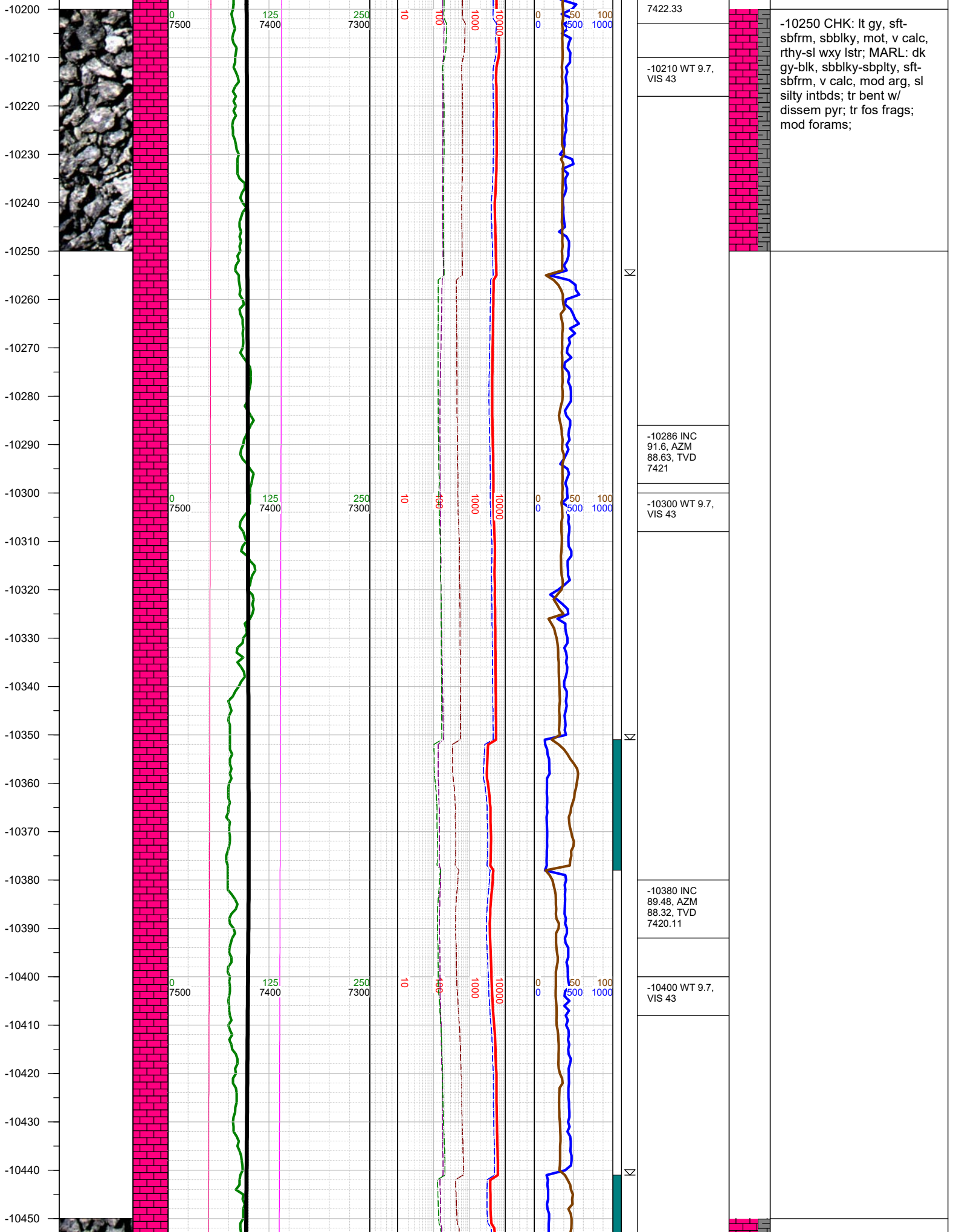




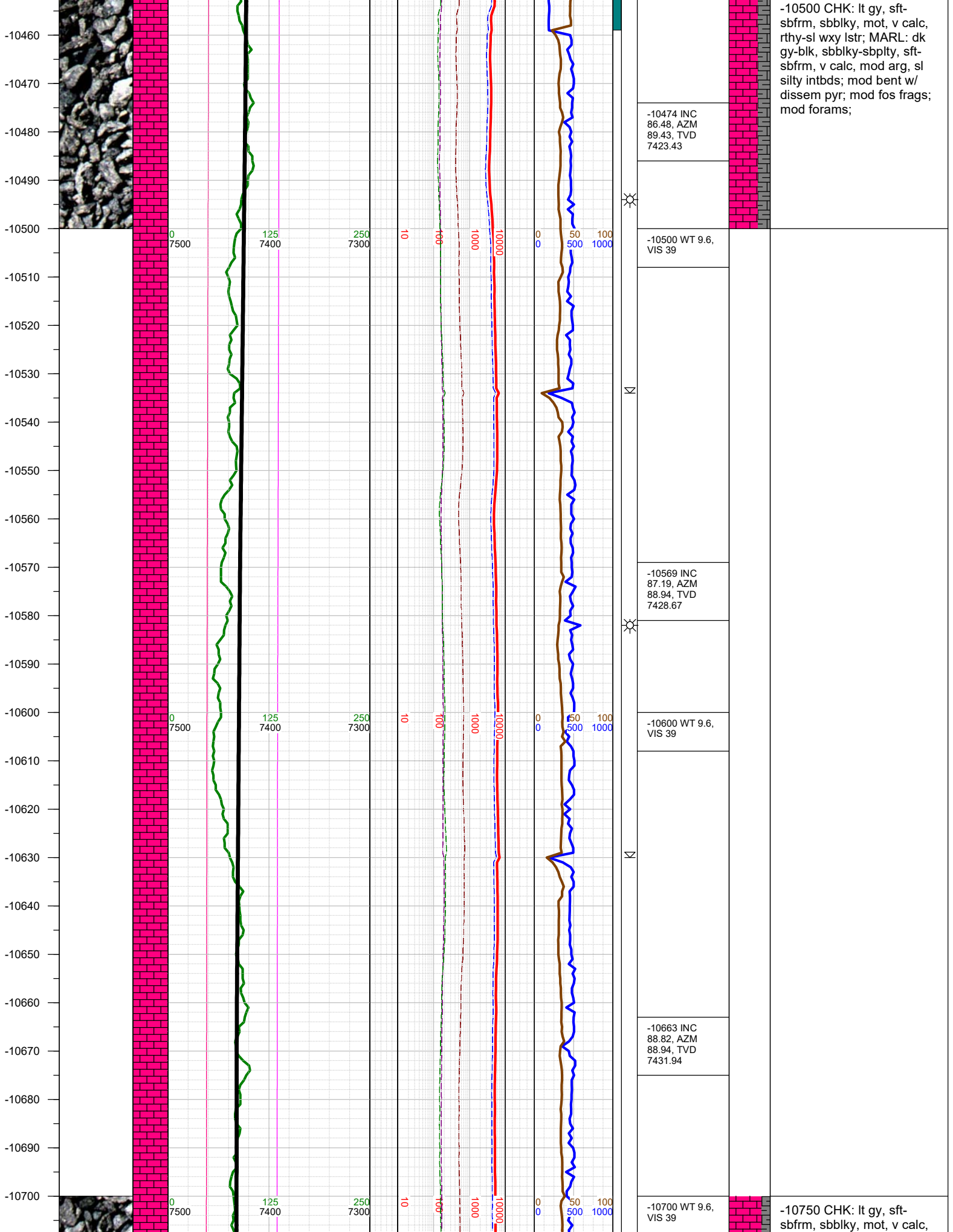


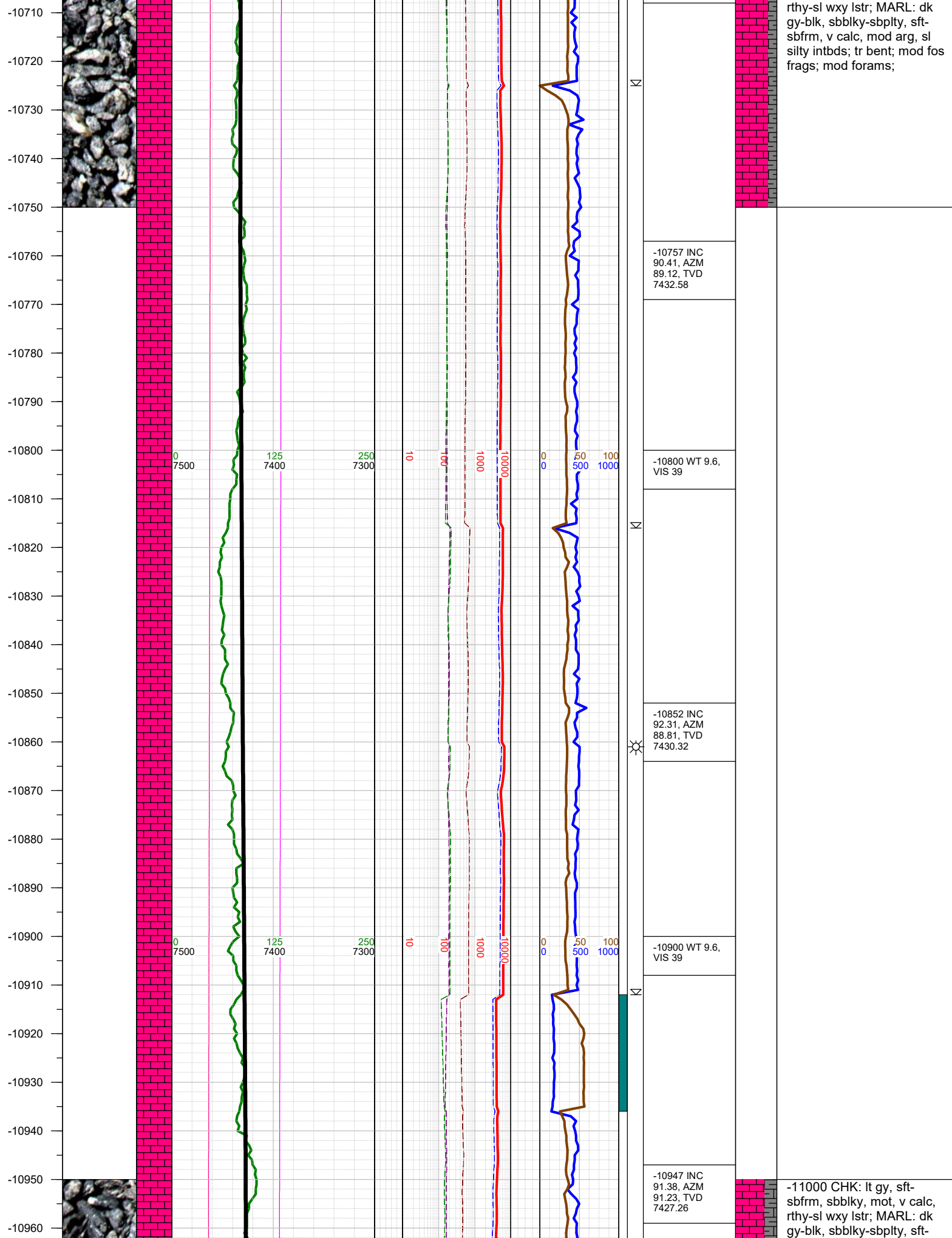


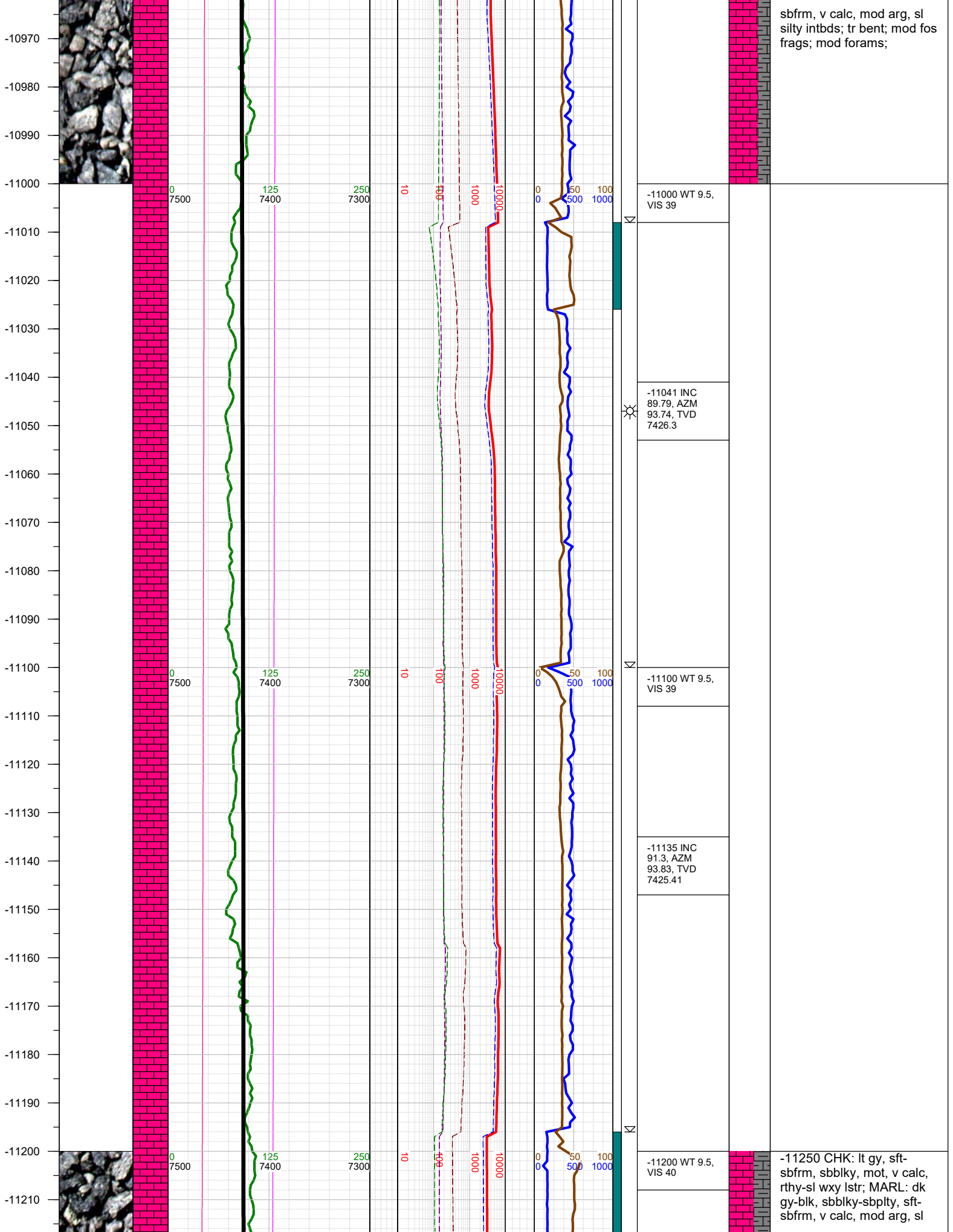




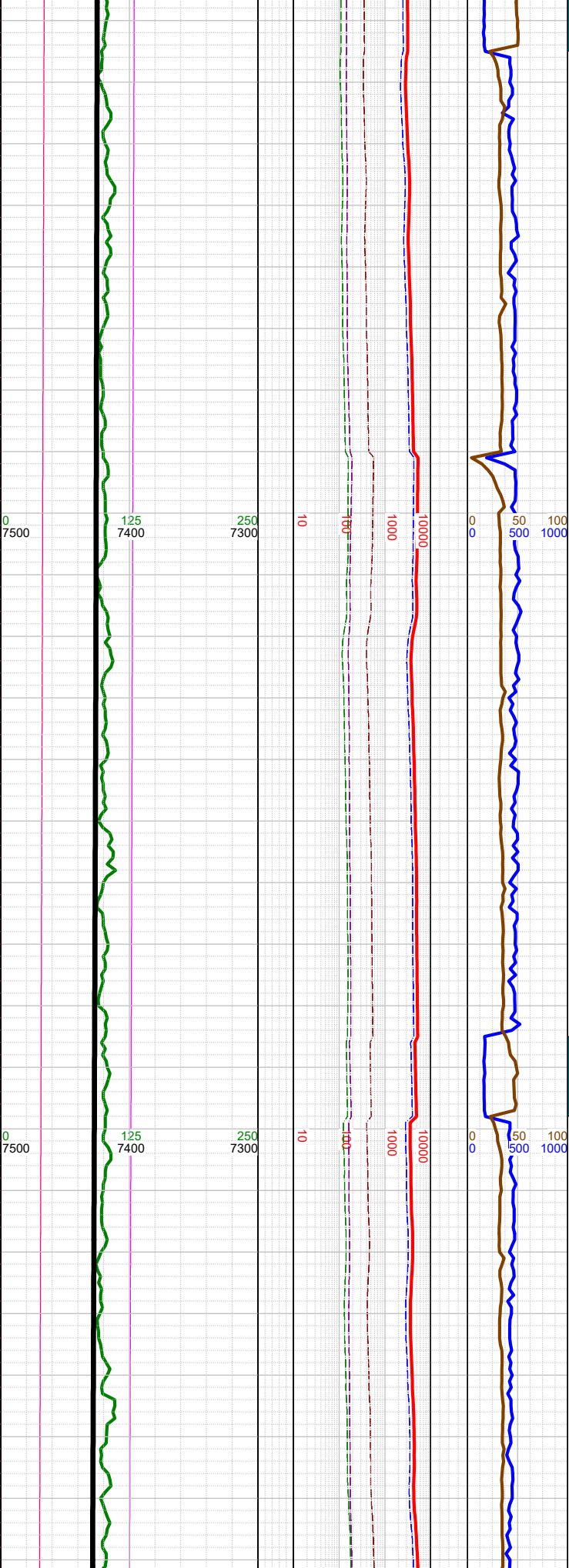
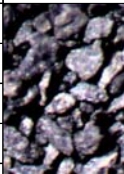
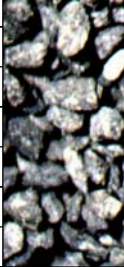
-10250 CHK: lt gy, sft-sbfrm, sbblky, mot, v calc, rthy-sl wxy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, v calc, mod arg, sl silty intbds; tr bent w/ dissem pyr; tr fos frags; mod forams;







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-11230 INC
88.91, AZM
92.82, TVD
7425.23

-11300 WT 9.5,
VIS 40

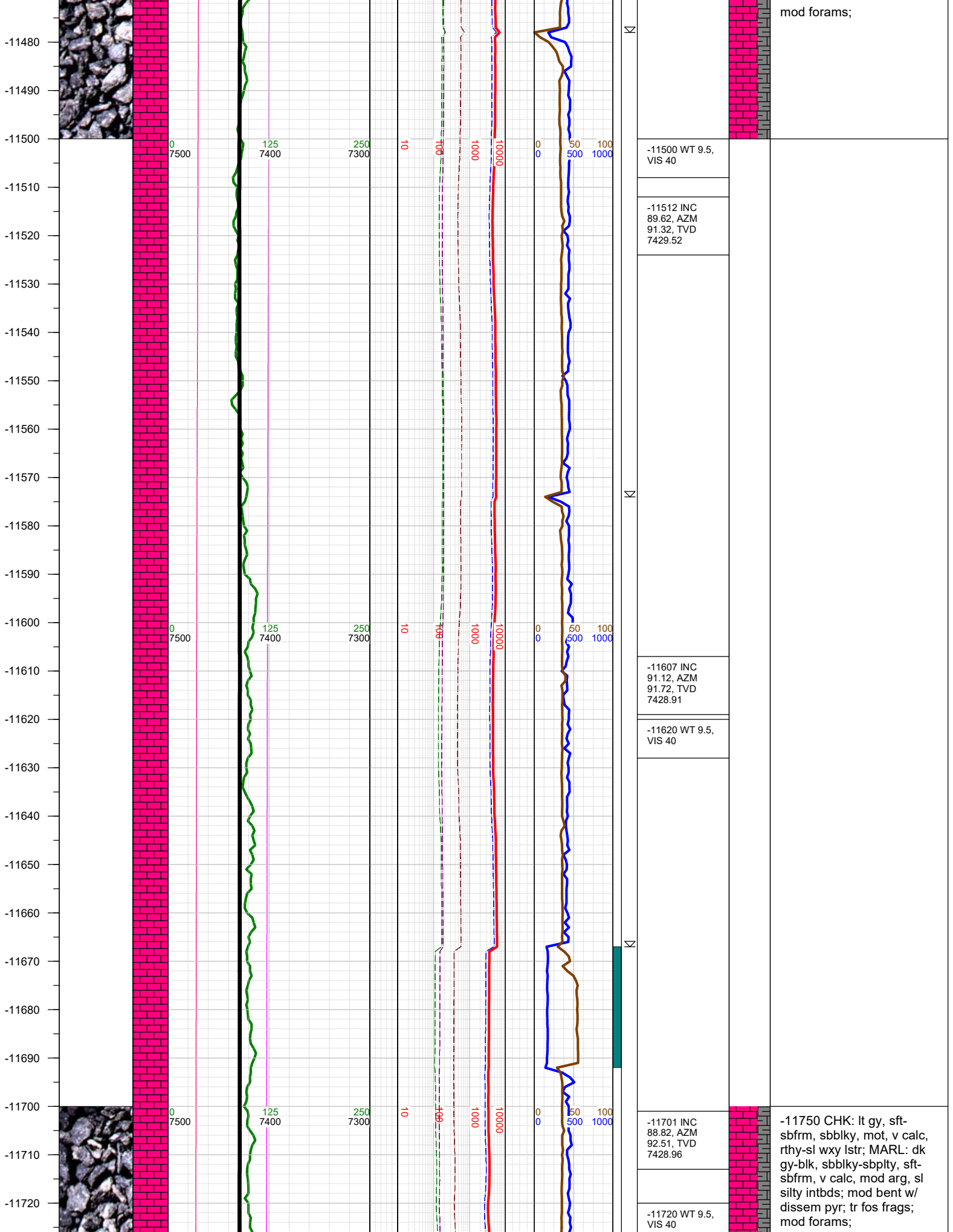
-11324 INC
90.01, AZM
92.25, TVD
7426.12

-11400 WT 9.5,
VIS 40

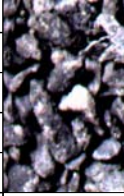
-11418 INC
88.11, AZM
92.25, TVD
7427.66

silty intbds; tr bent w/
dissem pyr; tr fos frags;
mod forams;

-11500 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; mod bent w/
dissem pyr; tr fos frags;



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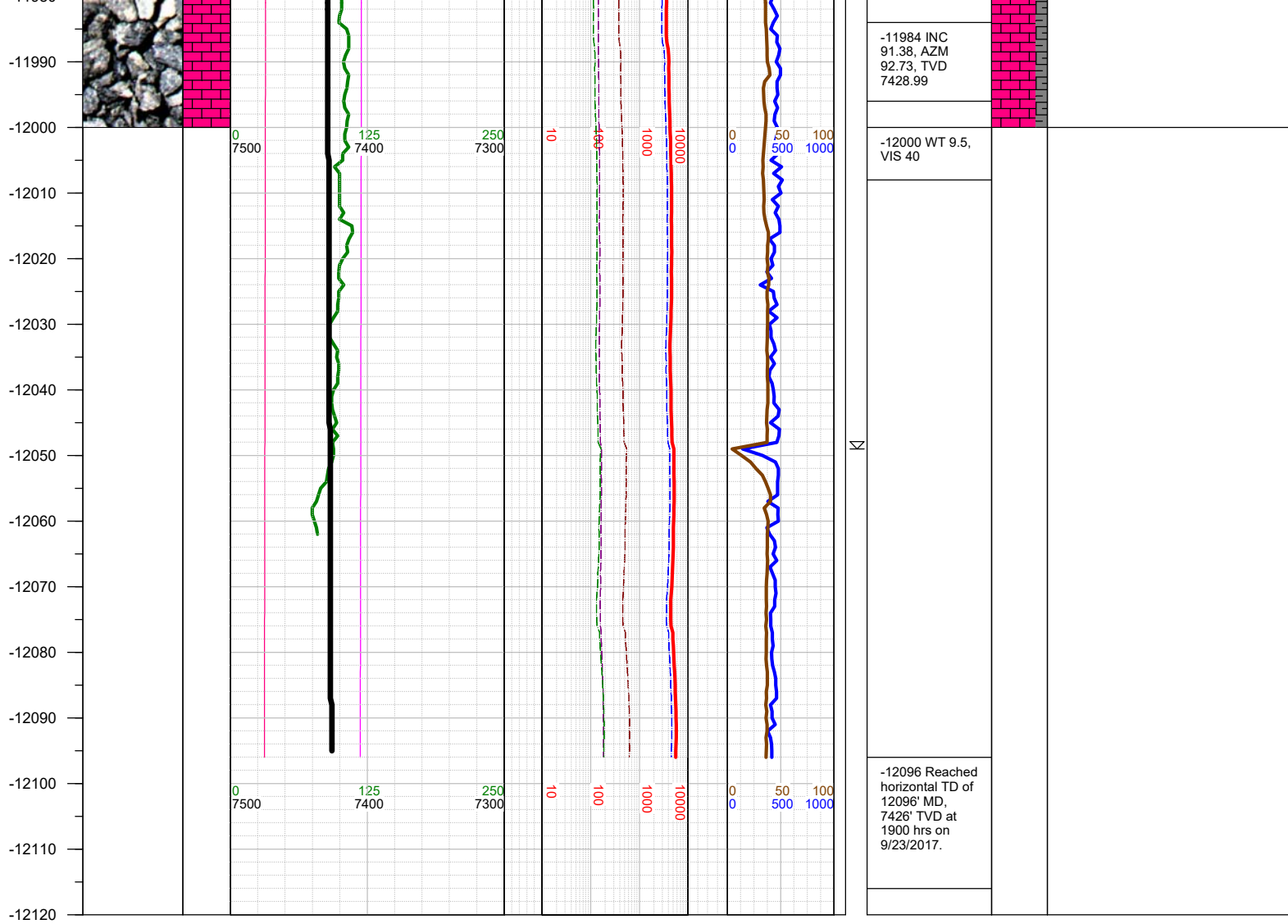
-11796 INC
89.88, AZM
92.11, TVD
7430.04

-11810 WT 9.5,
VIS 40

-11890 INC
90.01, AZM
93.35, TVD
7430.13

-11910 WT 9.5,
VIS 40

-12000 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 bent w/
dissem pyr; tr fos frags; tr
forams;



TOTAL DEPTH = 12096'

Thank you for using Earth Science Agency