

OPERATOR: **Extraction Oil & Gas**

WELL NAME: **Livingston S19-25-9N**

FIELD NAME: DJ Basin - Wattenberg

DRILLING RIG: Patterson 901

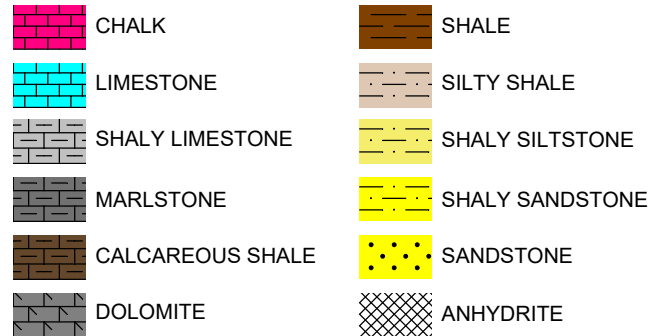
API #: 05-014-20746

LAT/LONG: 39.978562, -105.039608  
SURFACE HOLE: NWSE S7-T1S-R68W, 2331' FSL, 1384' FEL  
BOTTOM HOLE: S19-T1S-R68W, 460' FSL, 2234' FEL

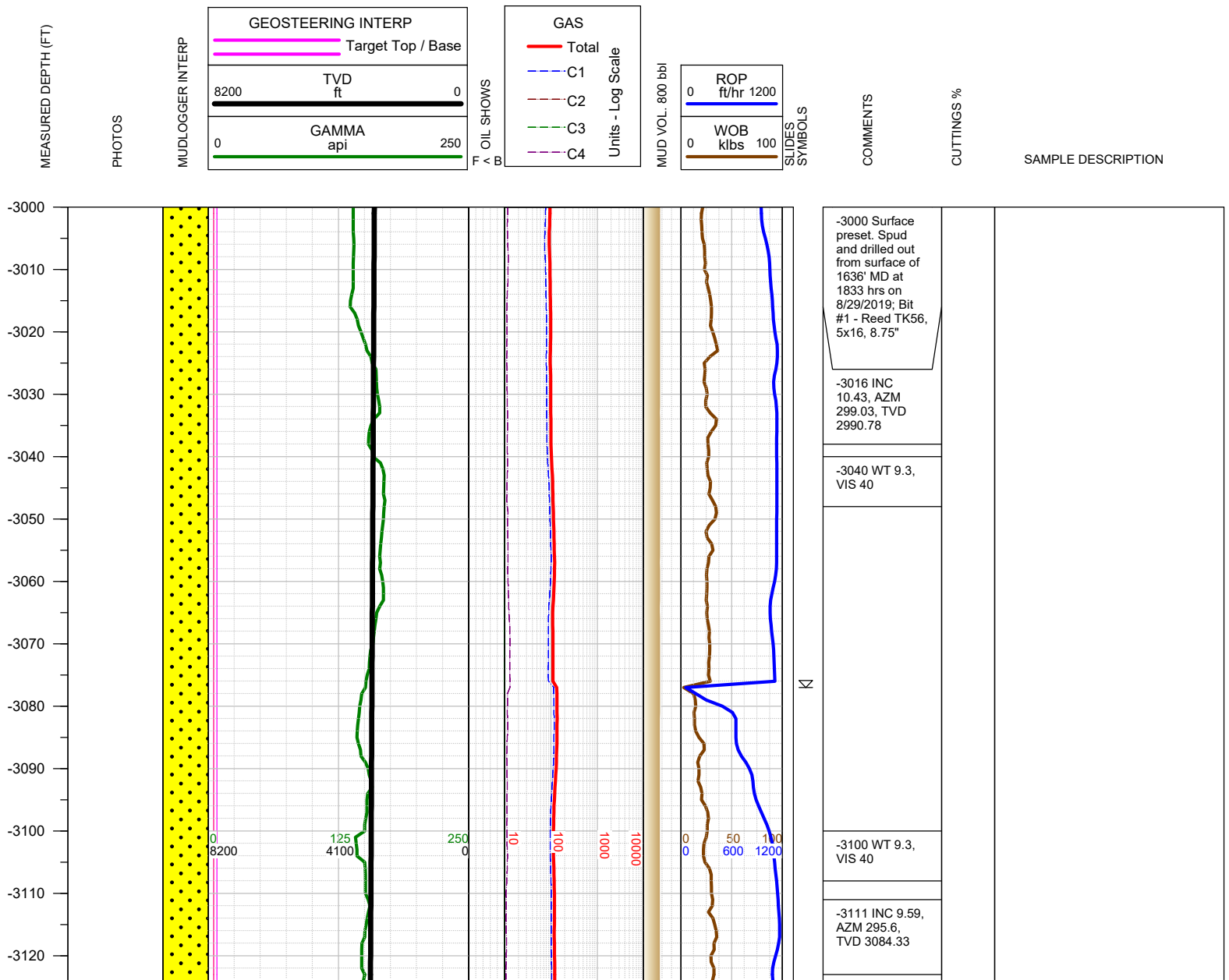


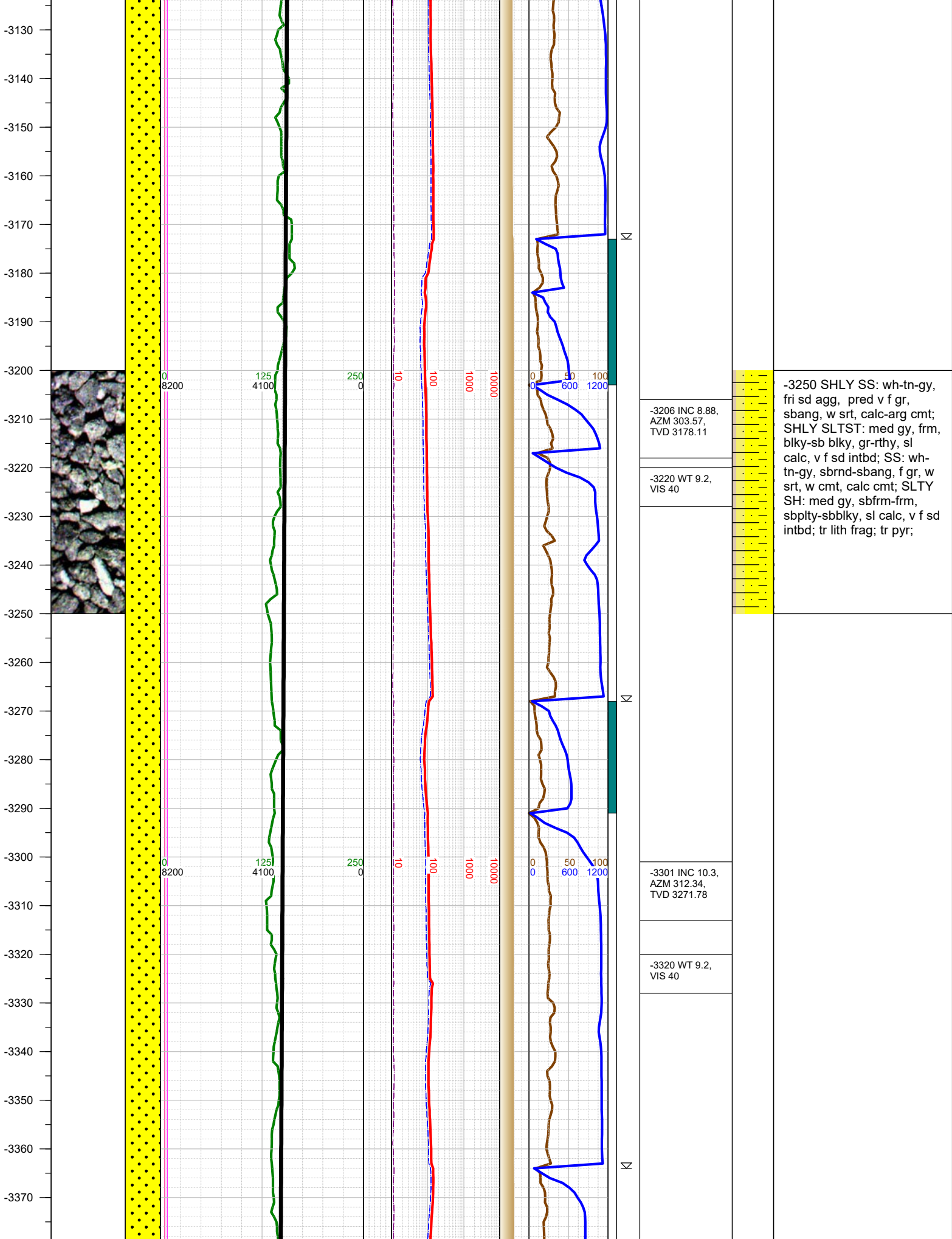
COUNTY: Broomfield  
STATE: Colorado  
GROUND ELEVATION: 5322'  
KELLY BUSHING: 5351'  
DRILLING FLUID: OBM  
TVD VS. MD: 8091' / 20835'  
SPUD DATE: August 29, 2019  
TD DATE: September 1, 2019  
  
DEPTHS LOGGED: 3000' - 20835'  
DATES LOGGED: August 29, 2019 - September 1, 2019  
GEOLOGISTS: Ross Apodaca, Dominic Pitre  
SCALE: 5" = 100'

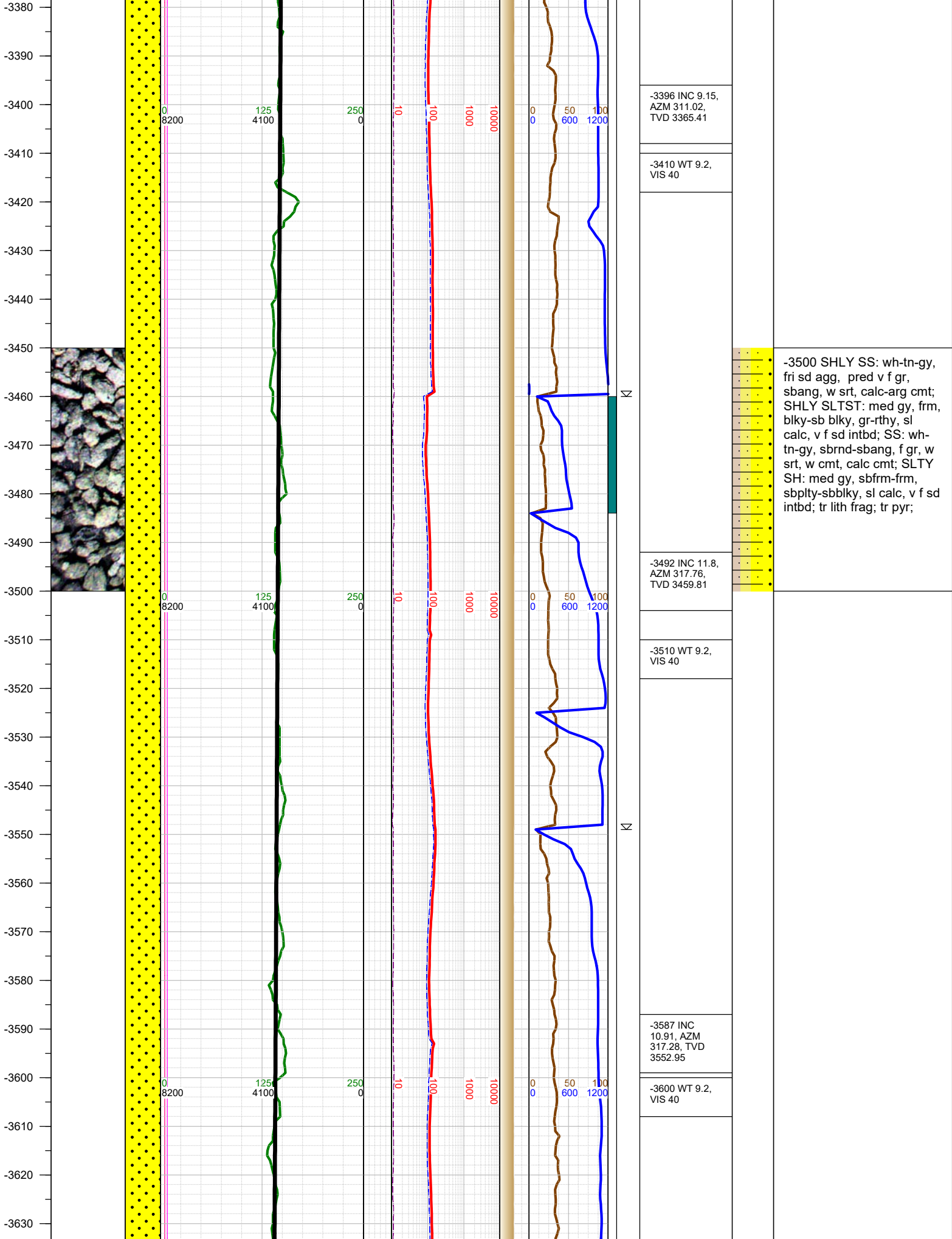
#### LEGEND

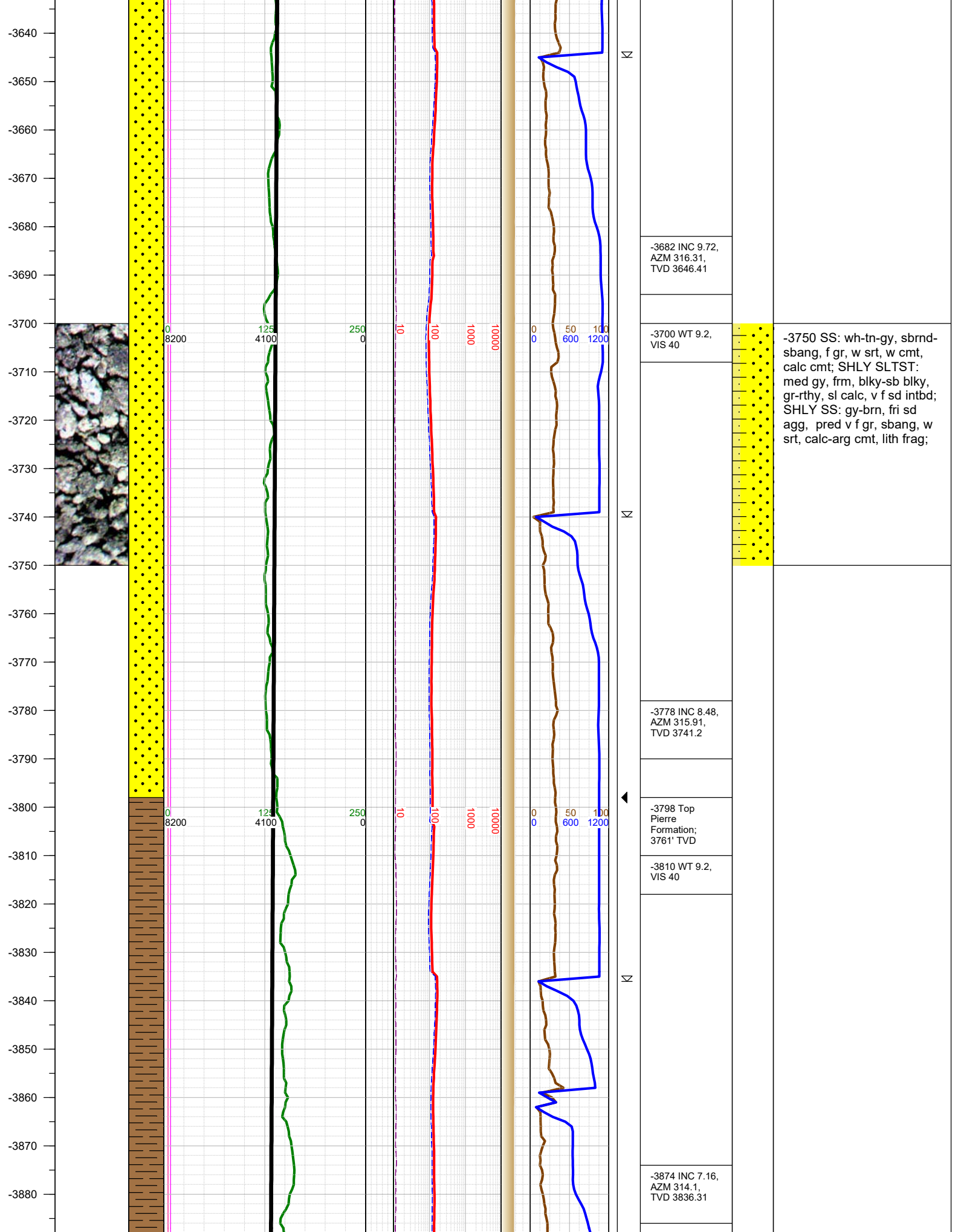


FORMATION  $\approx$  CONNECTION  $\Delta$  MIDNIGHT NEW BIT GAS SHOW FAULT

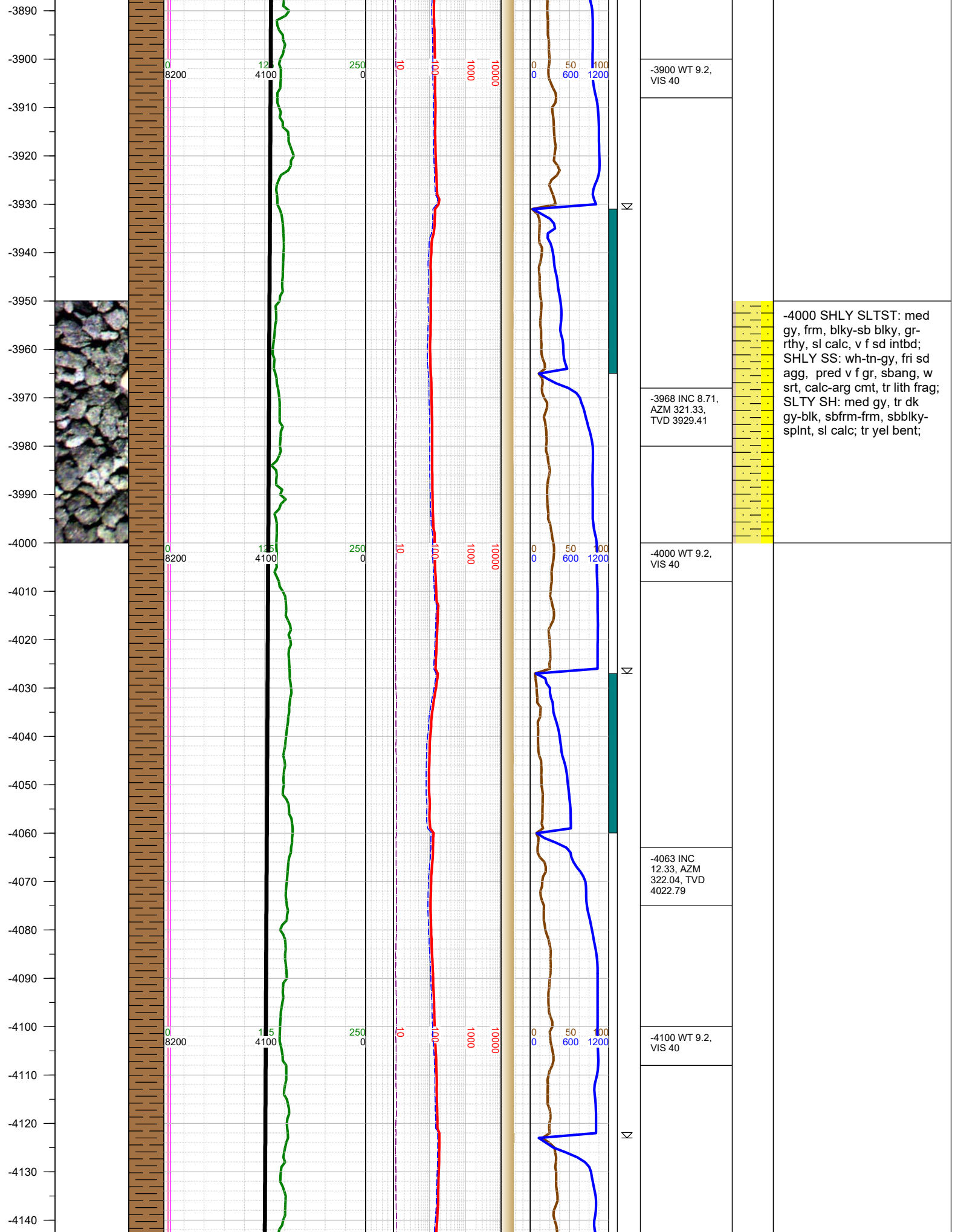


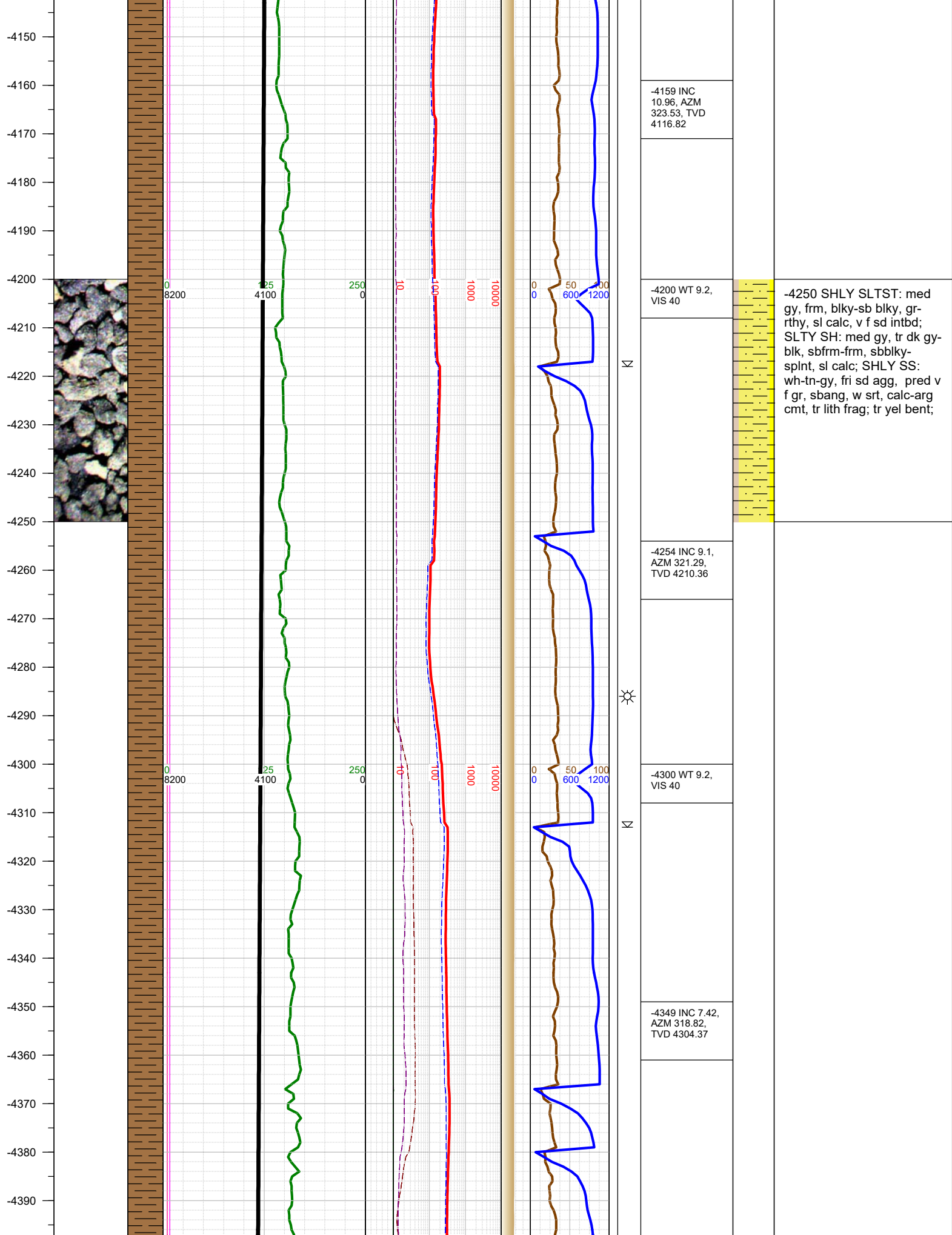


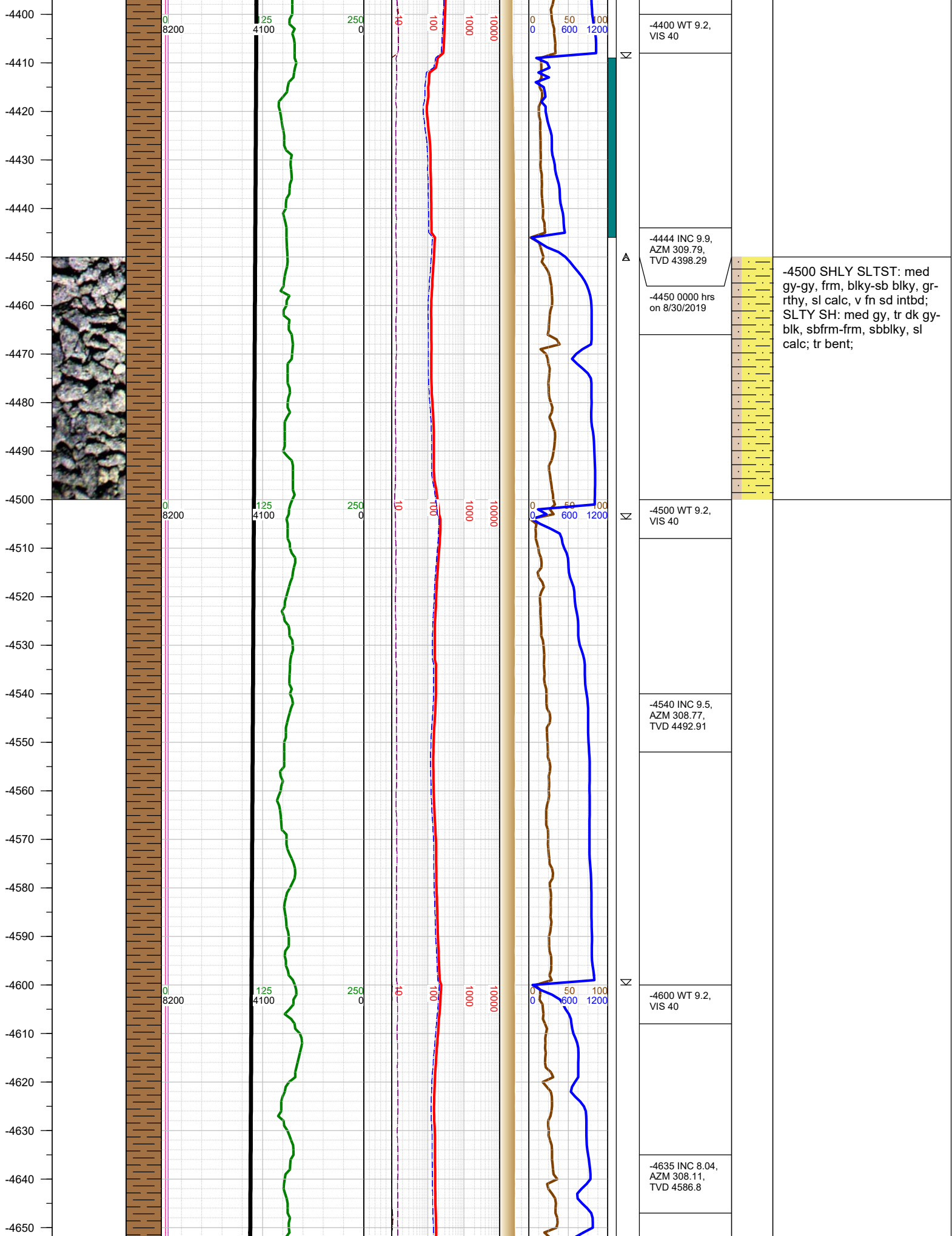




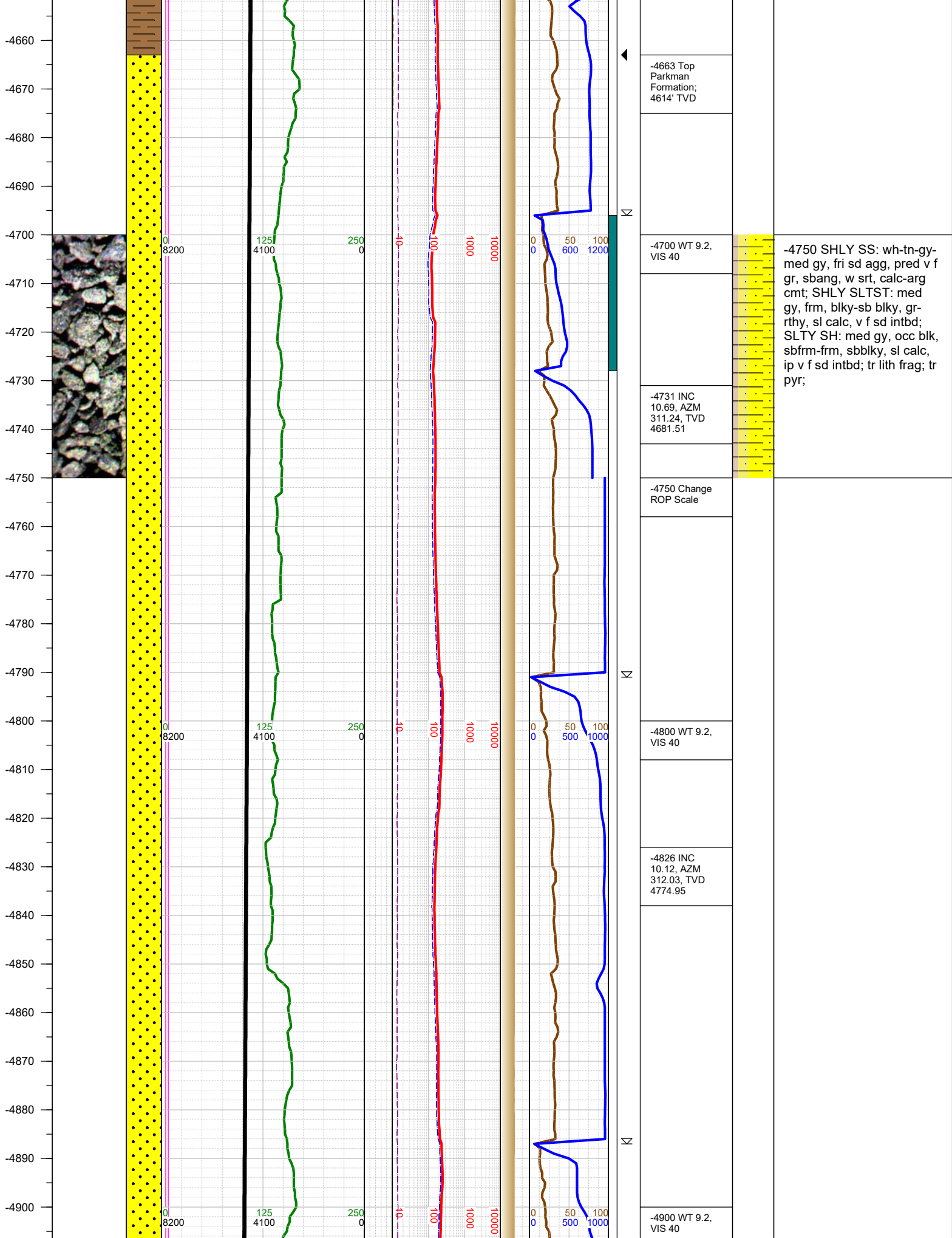




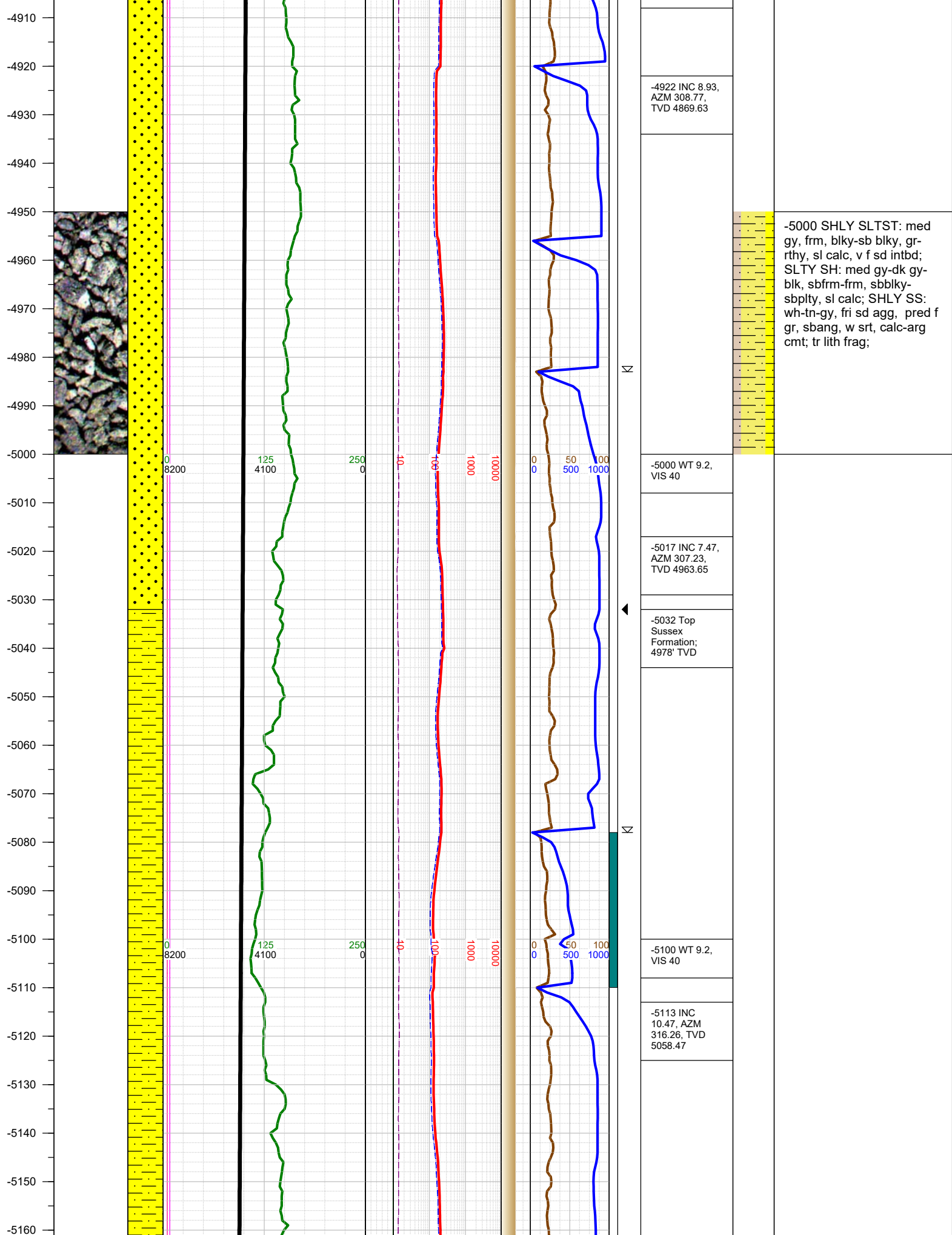


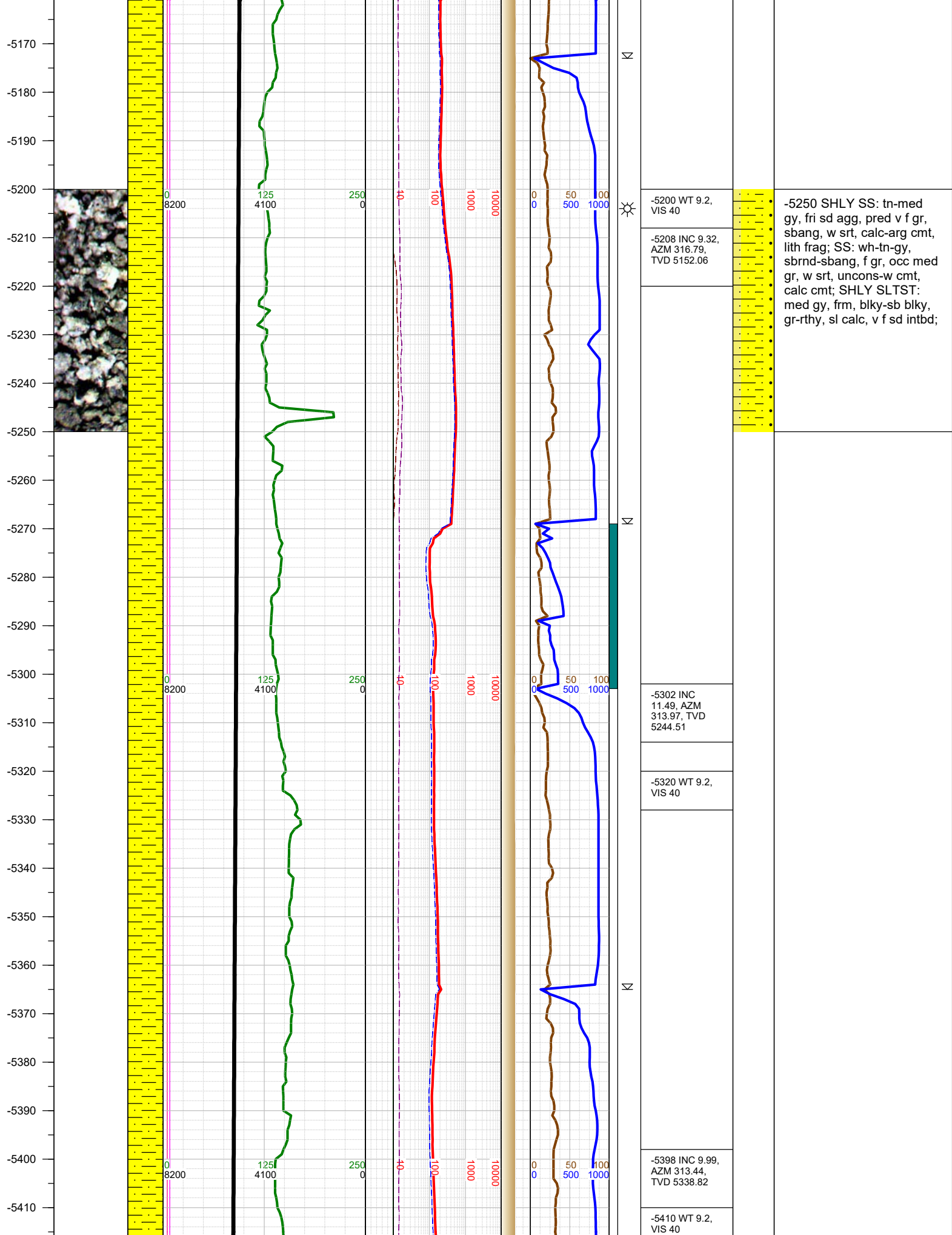




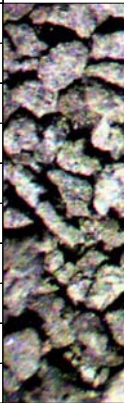








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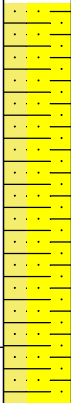
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-5493 INC 8.26,  
AZM 313.66,  
TVD 5432.62

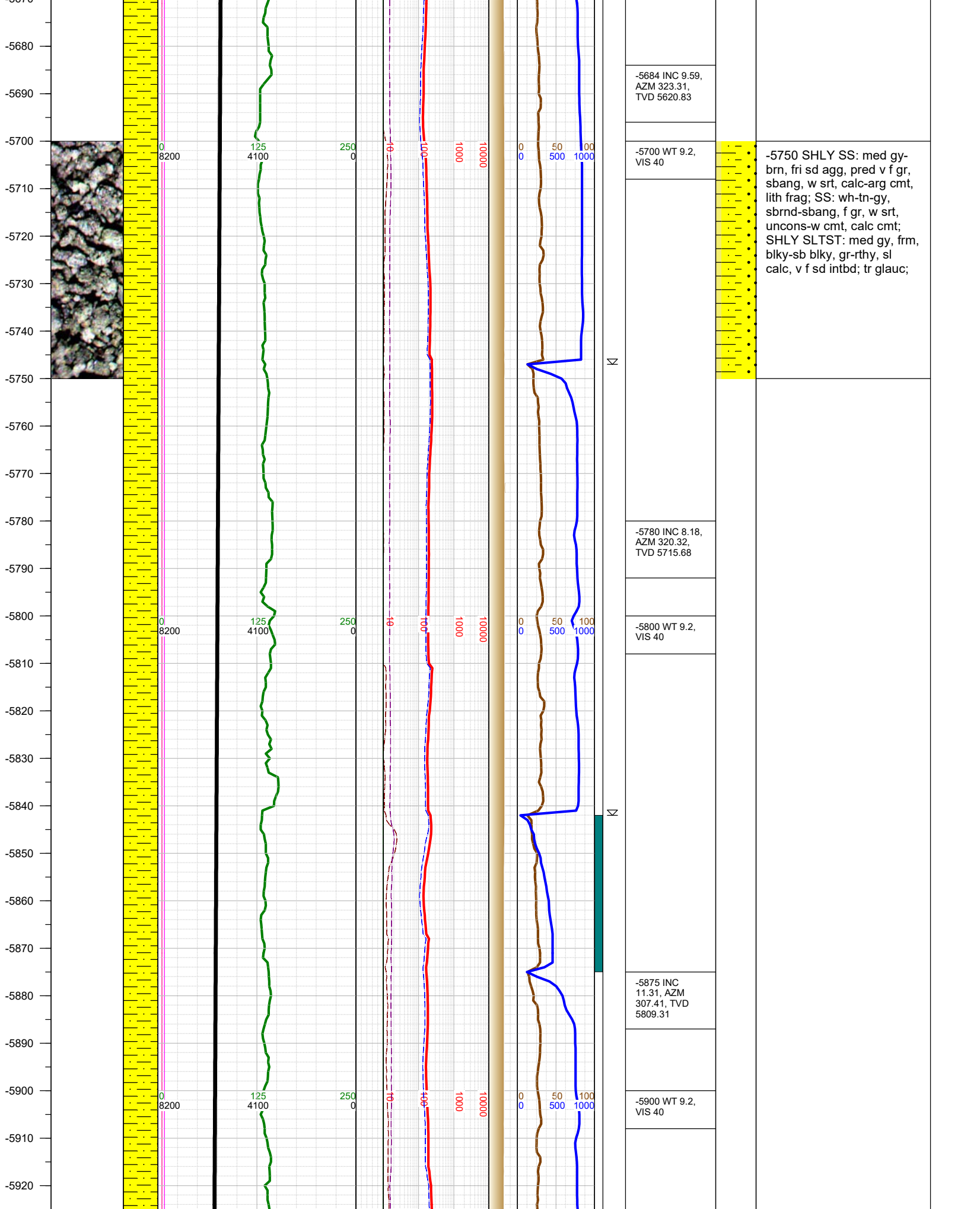
-5510 WT 9.2,  
VIS 40

-5589 INC  
10.65, AZM  
321.46, TVD  
5527.31

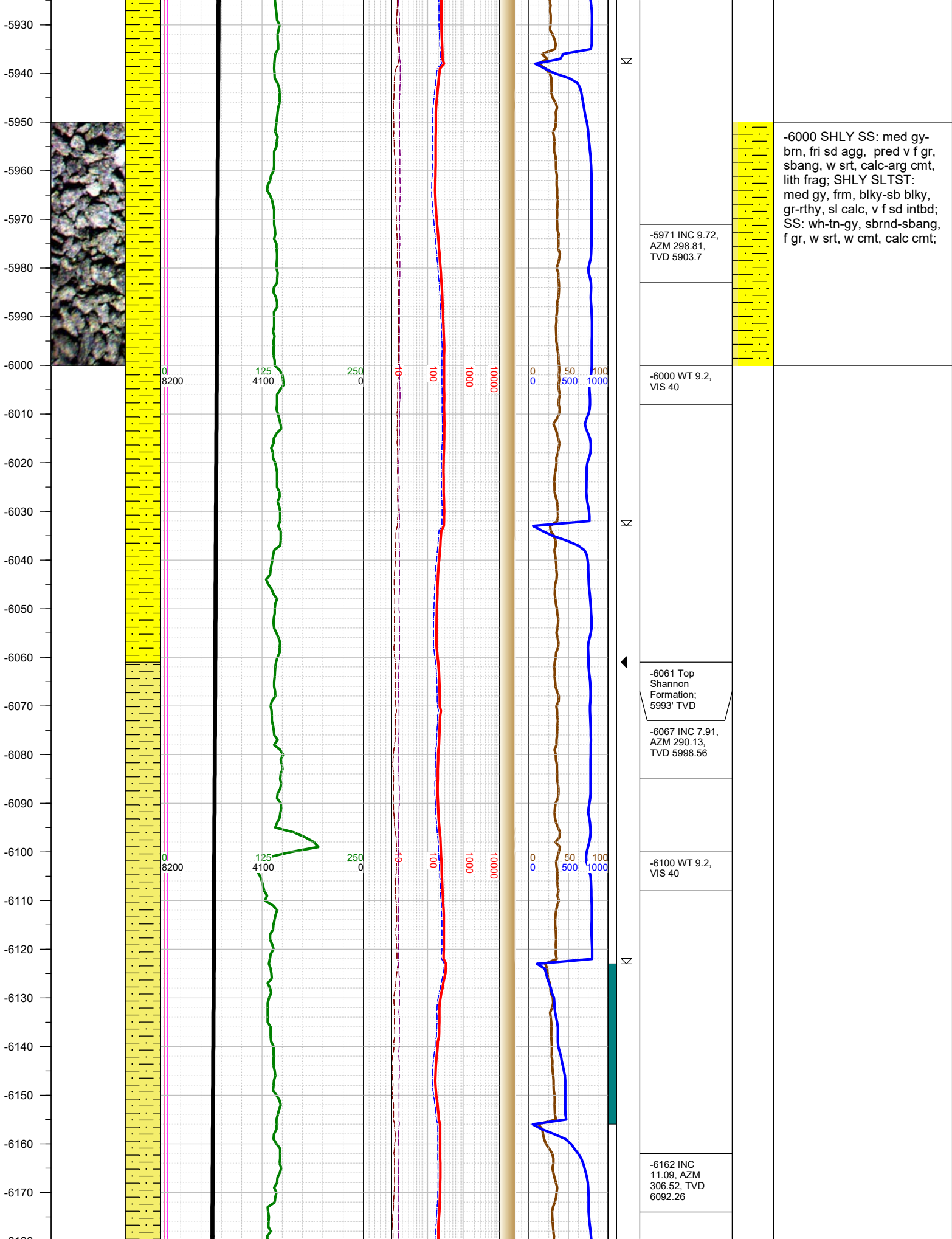
-5610 WT 9.2,  
VIS 40

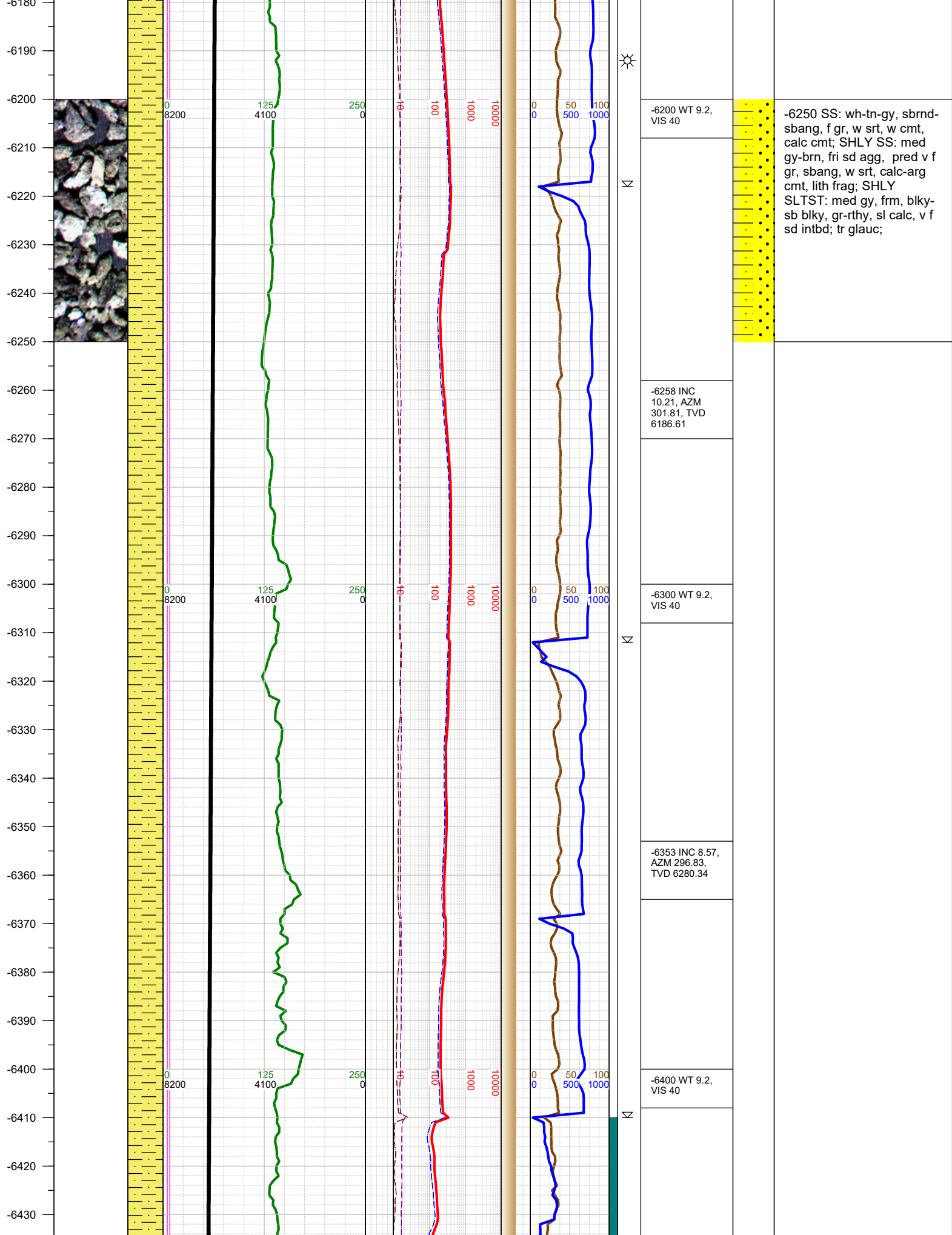


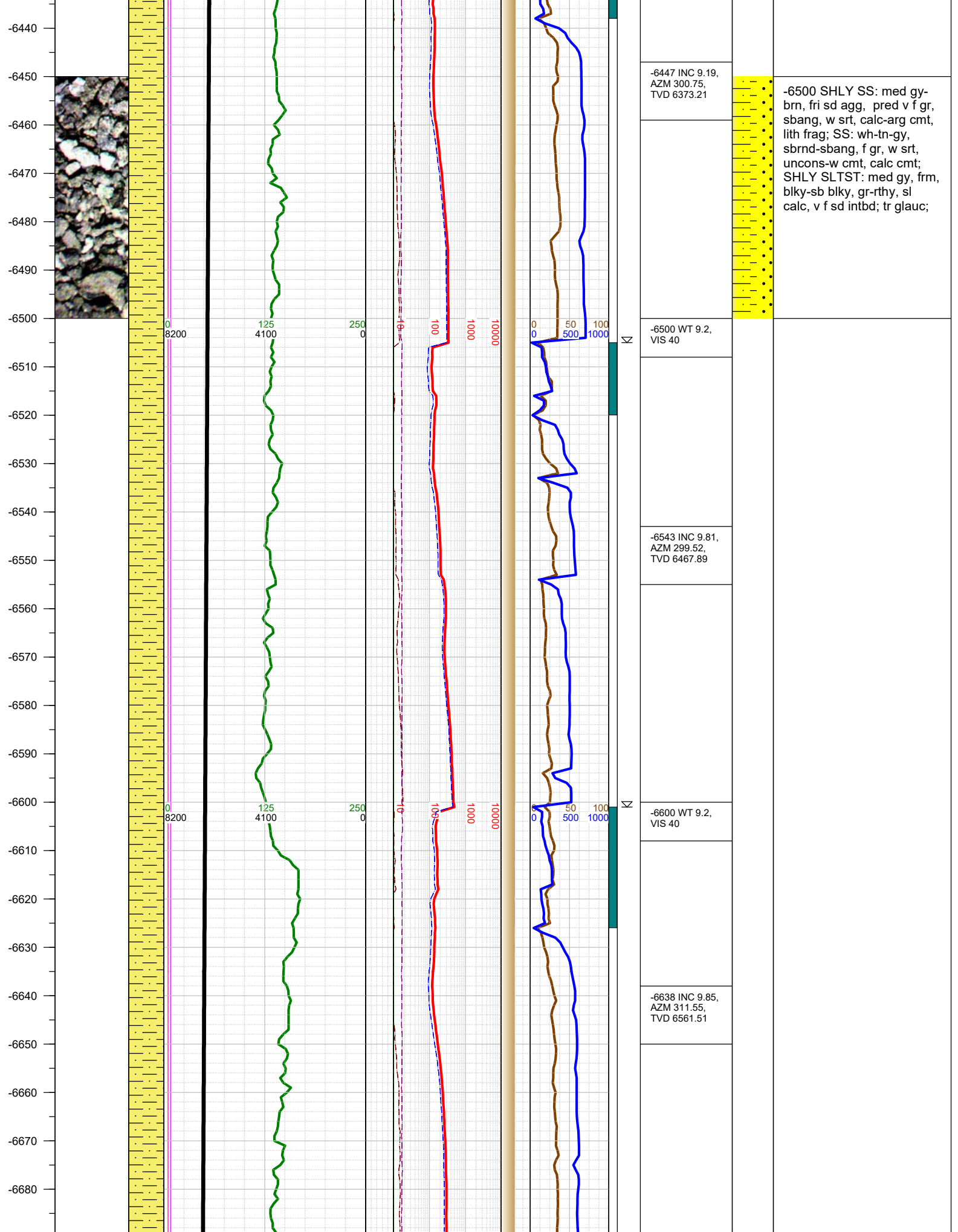
-5500 SHLY SS: med gy-  
gy, fri, f gr, sbrnd-sbang, w  
srt, sl calc cmt; SHLY  
SLTST: med-dk gy, frm,  
blky-sb blky, gr-rthy, sl  
calc;



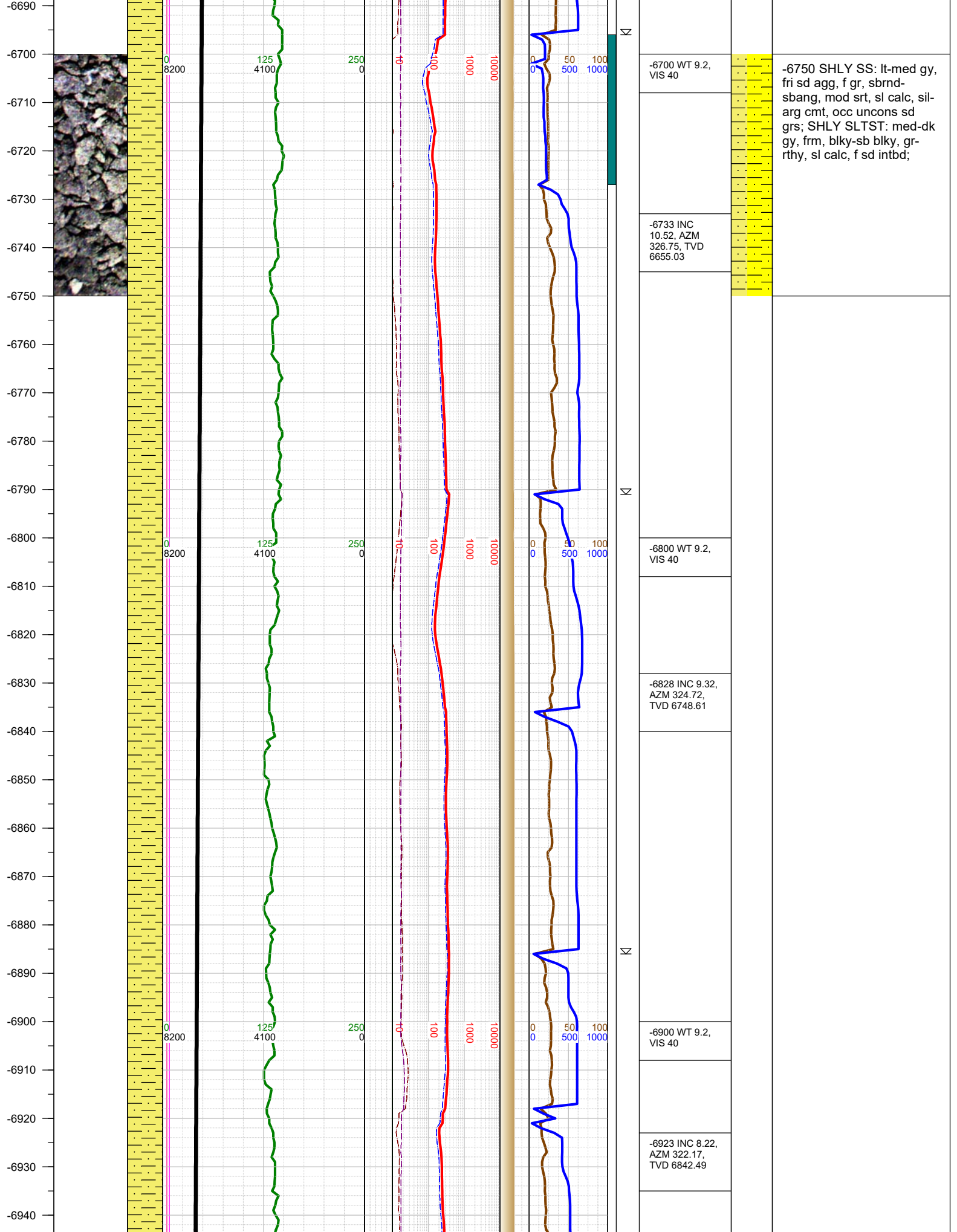




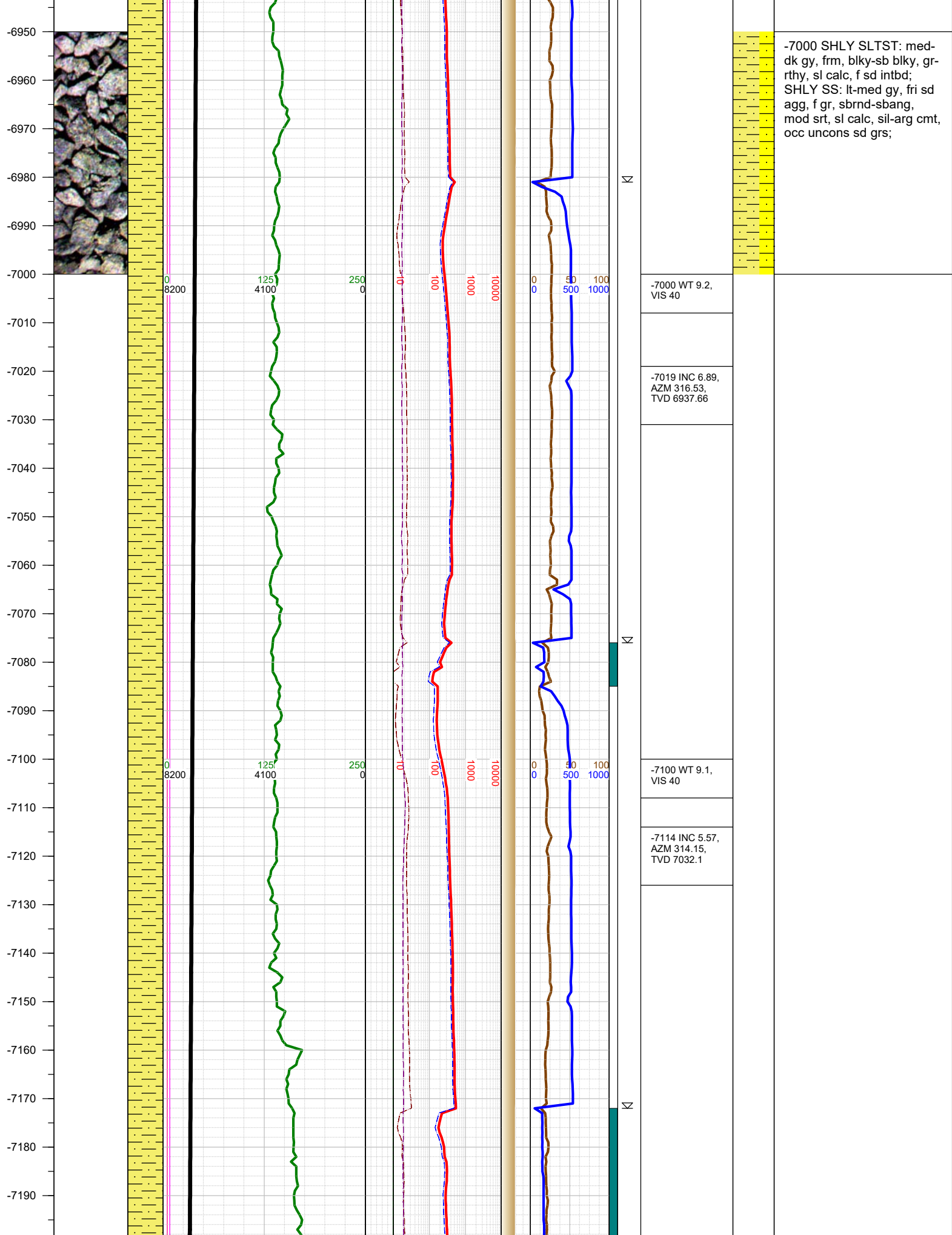


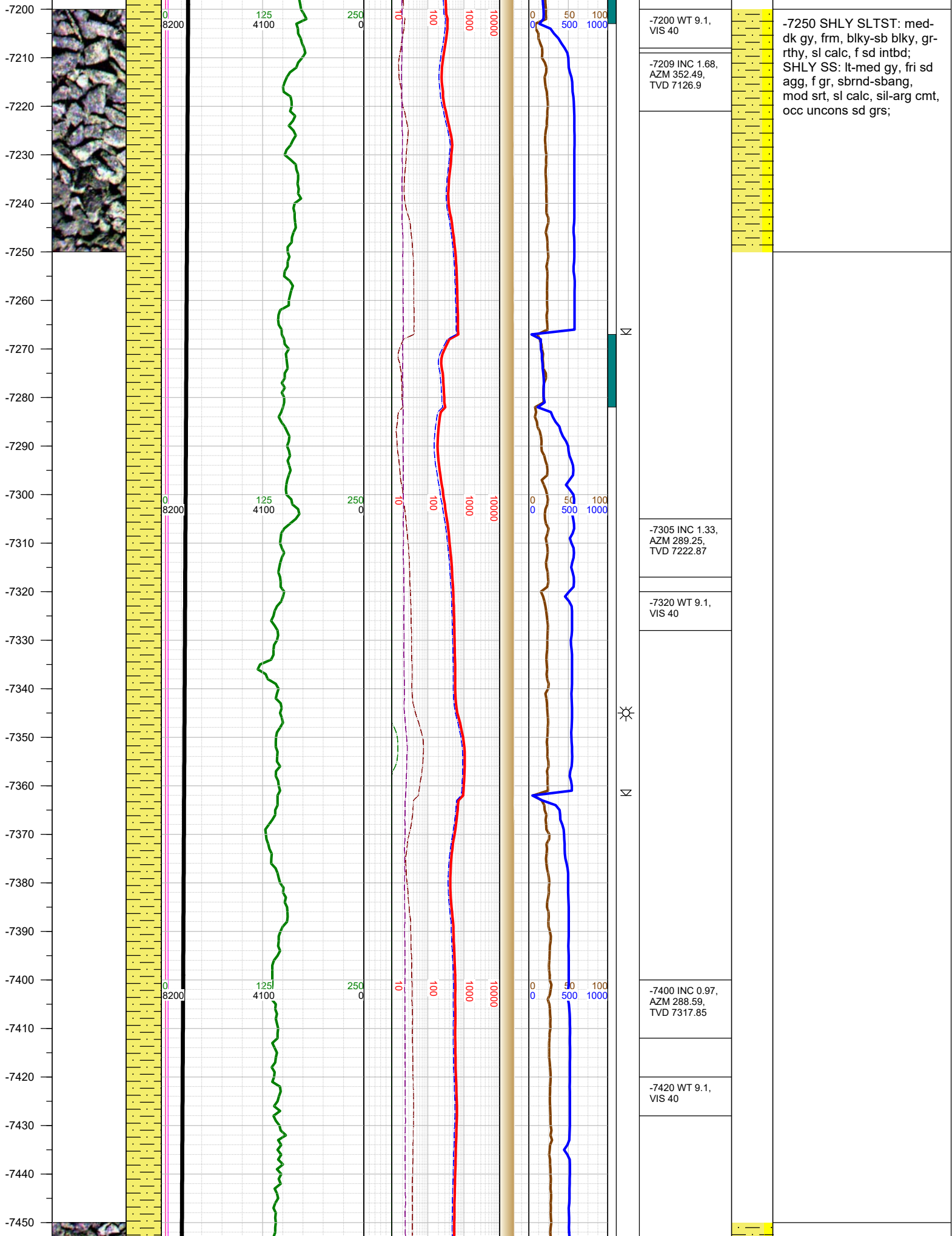


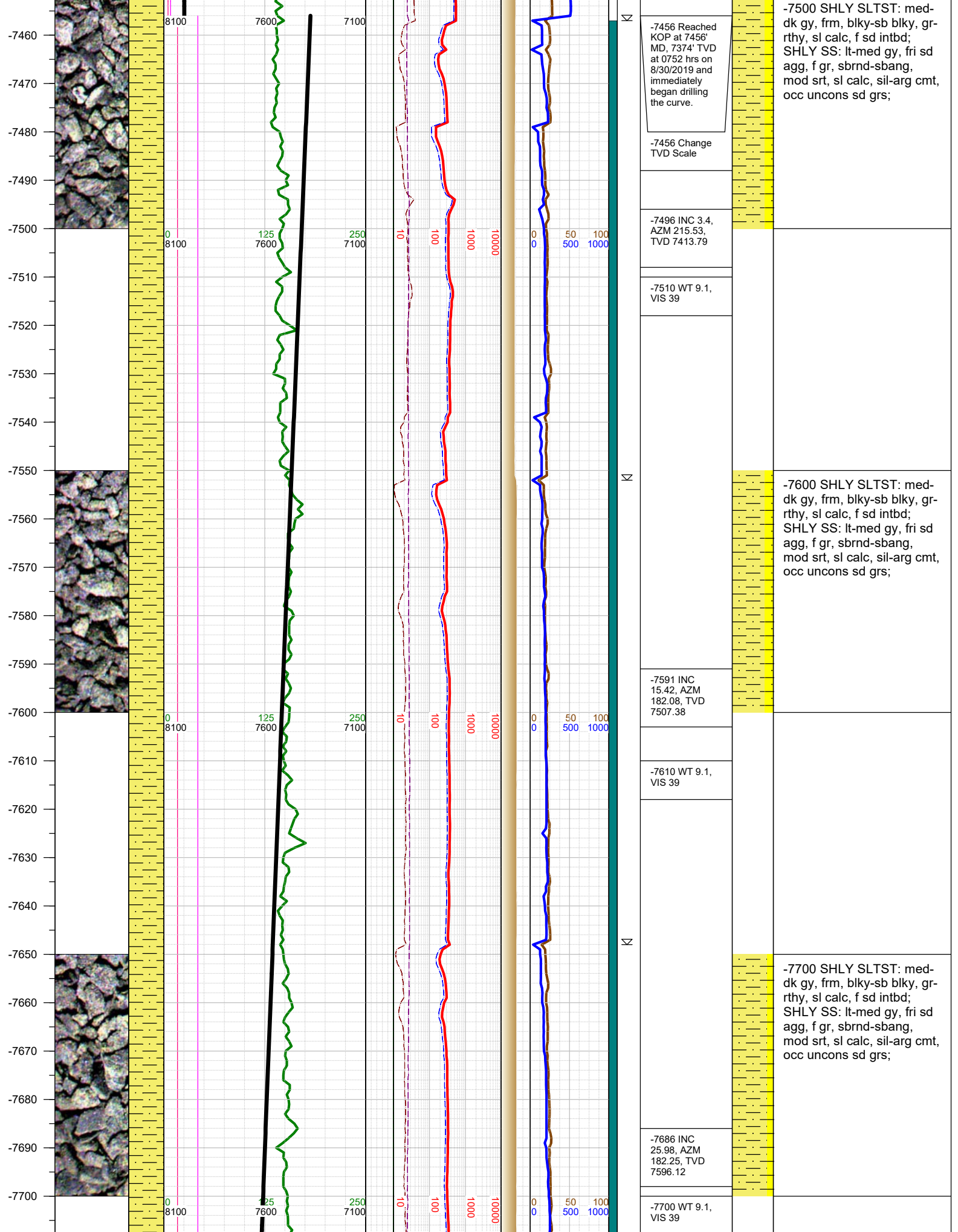




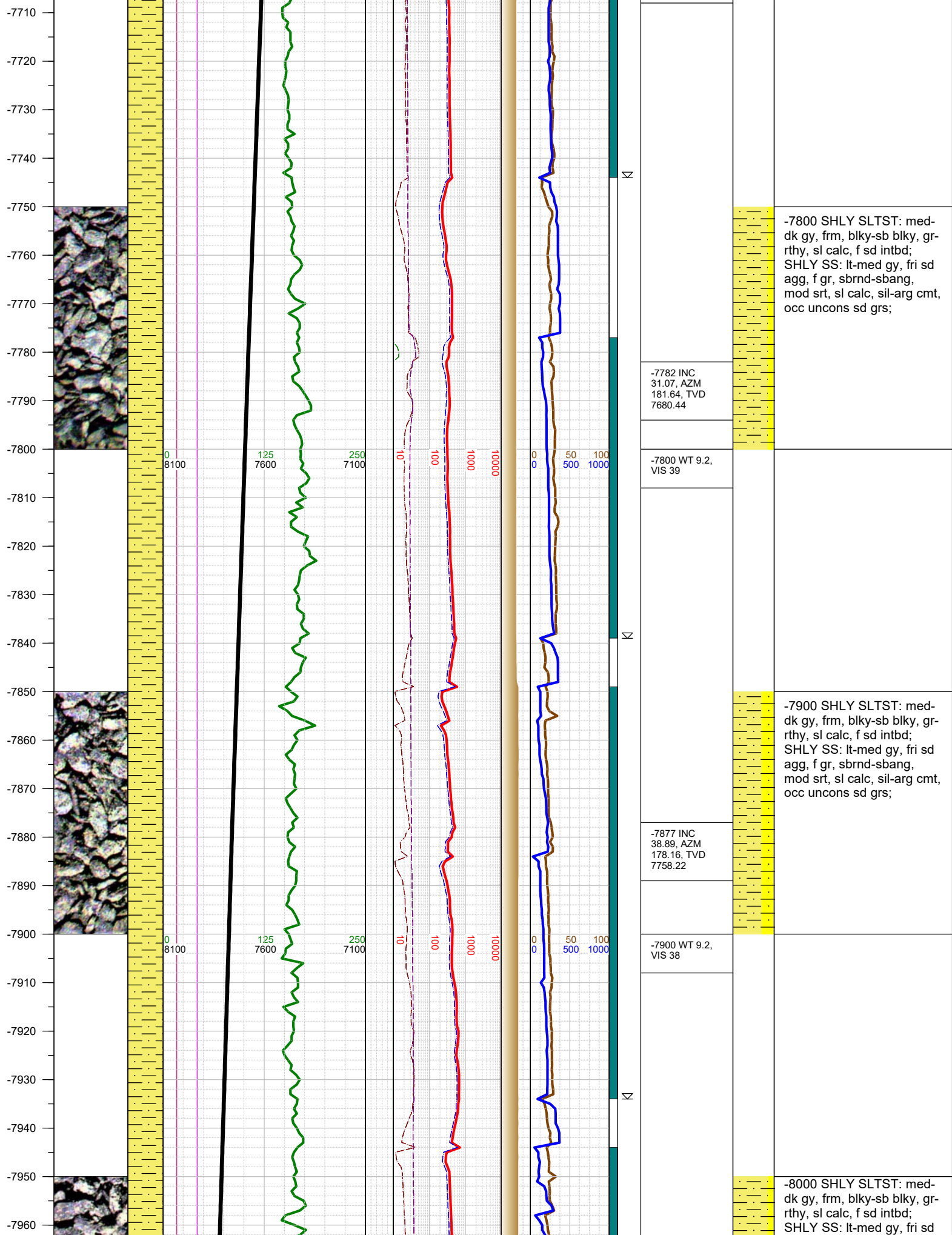




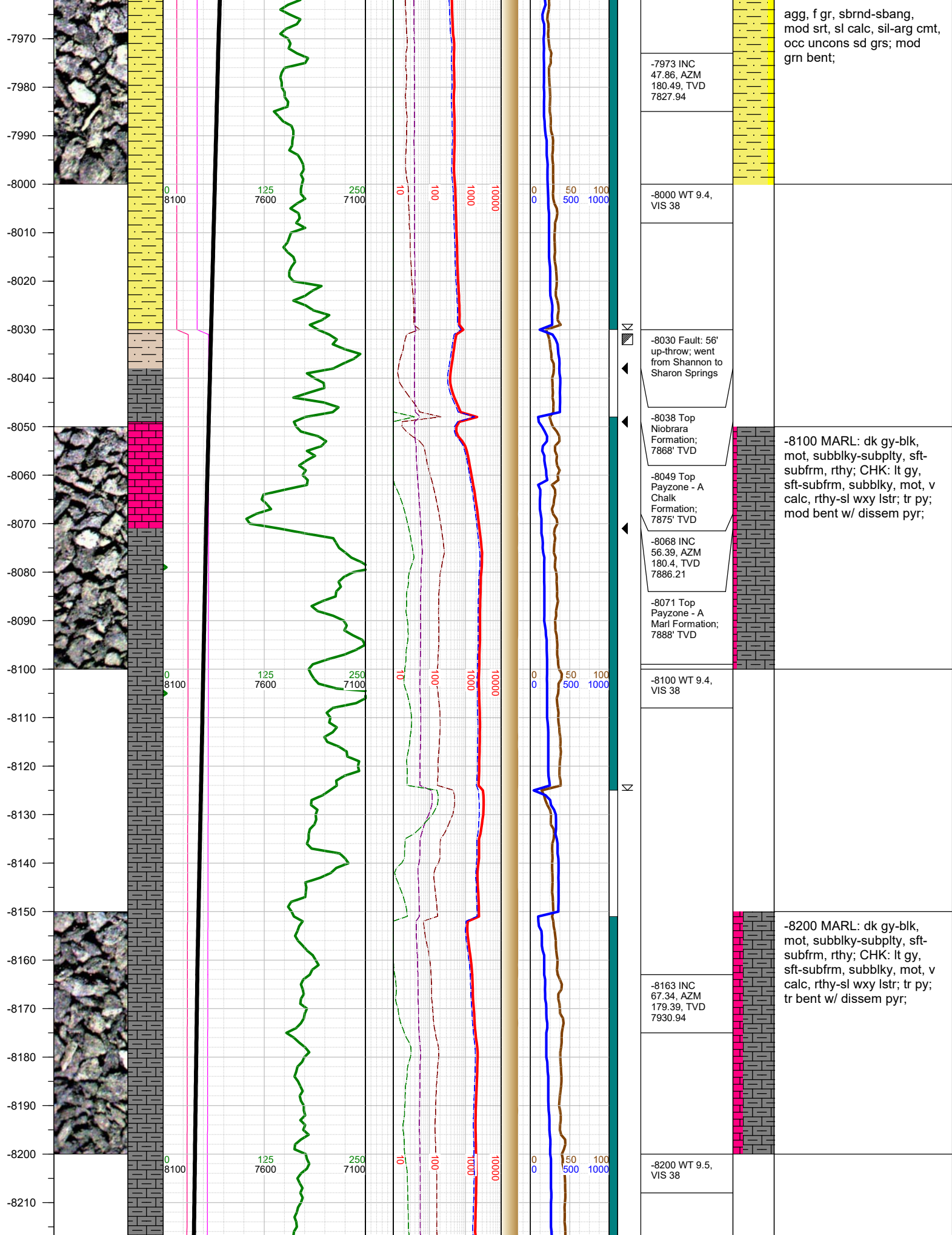


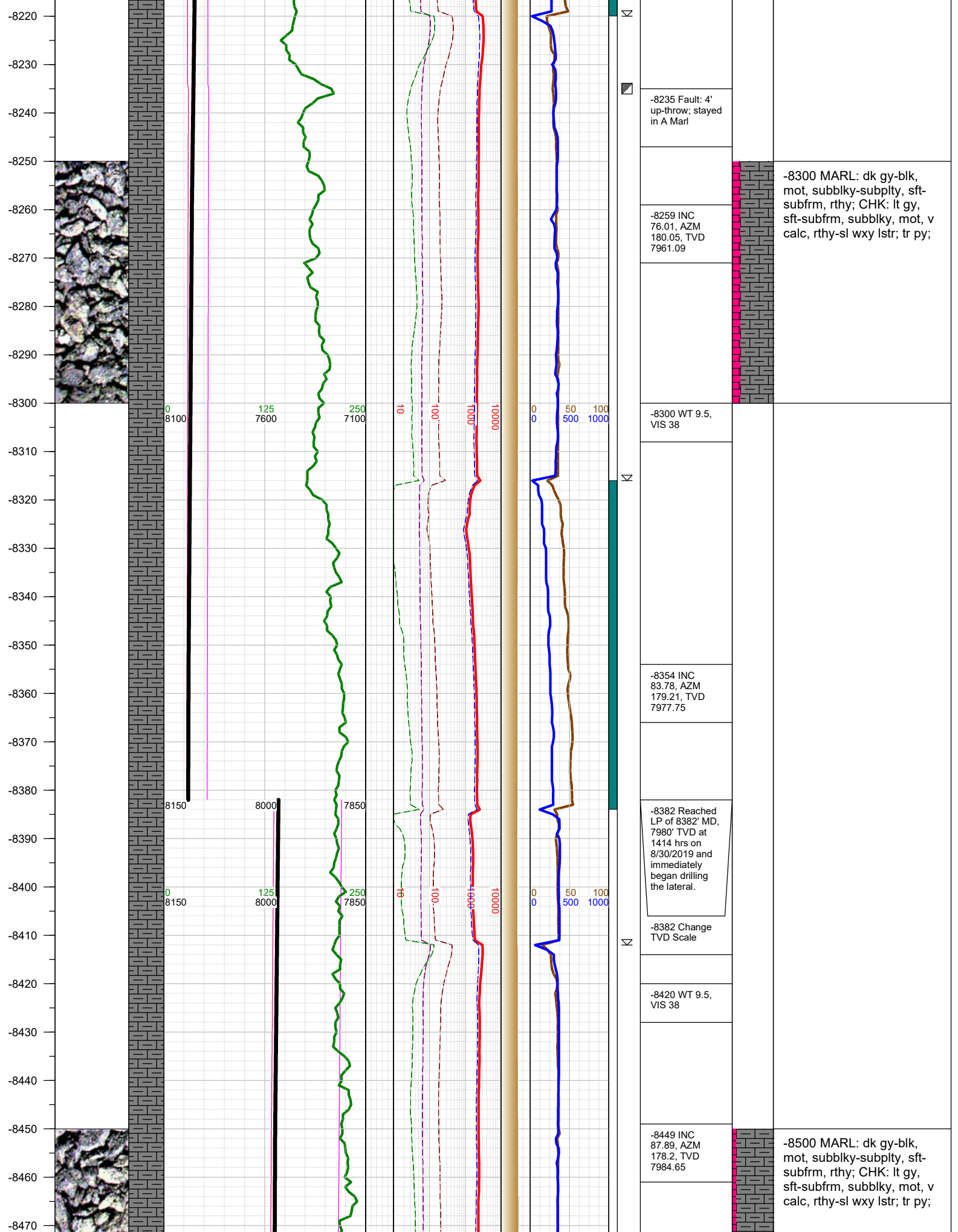


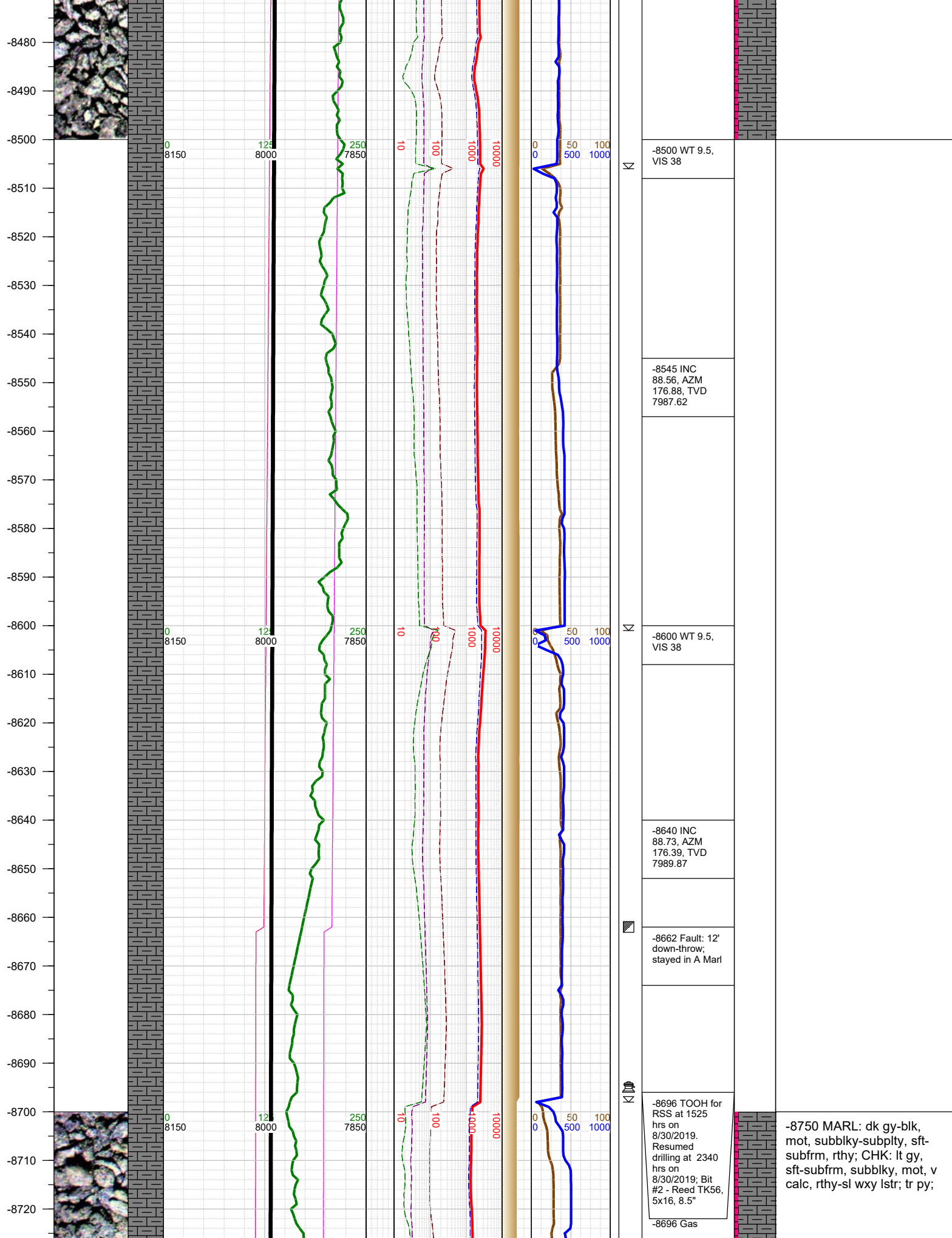








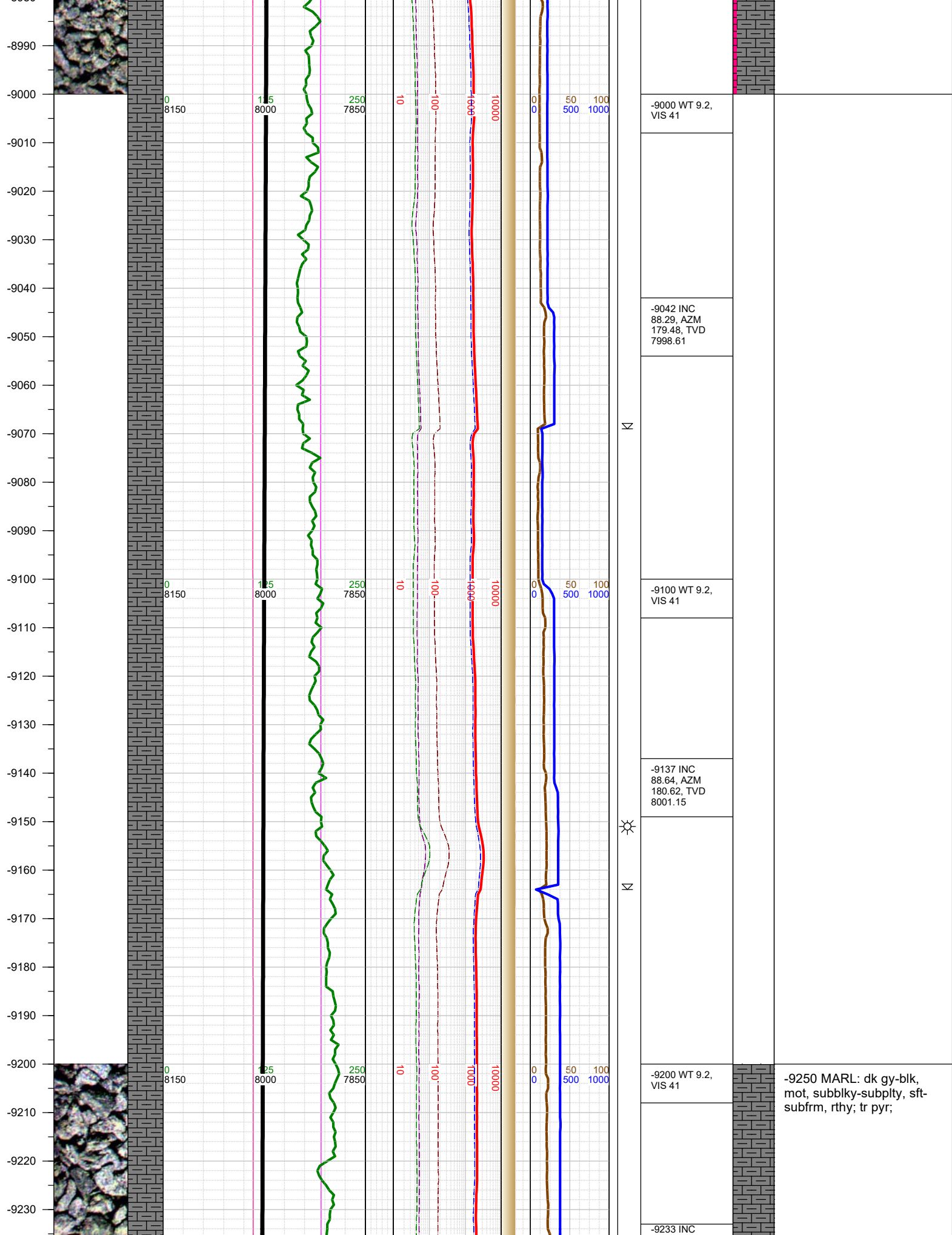


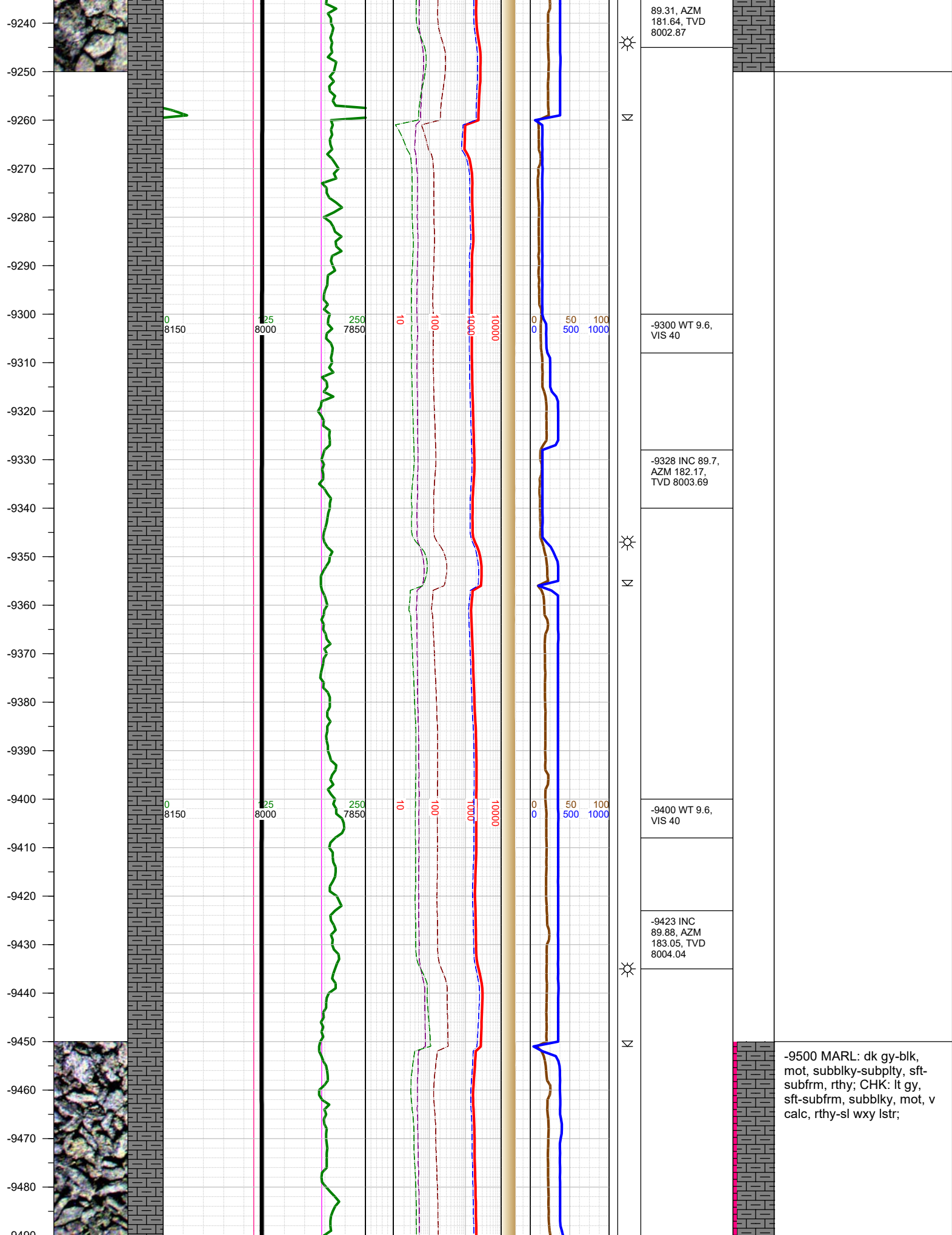


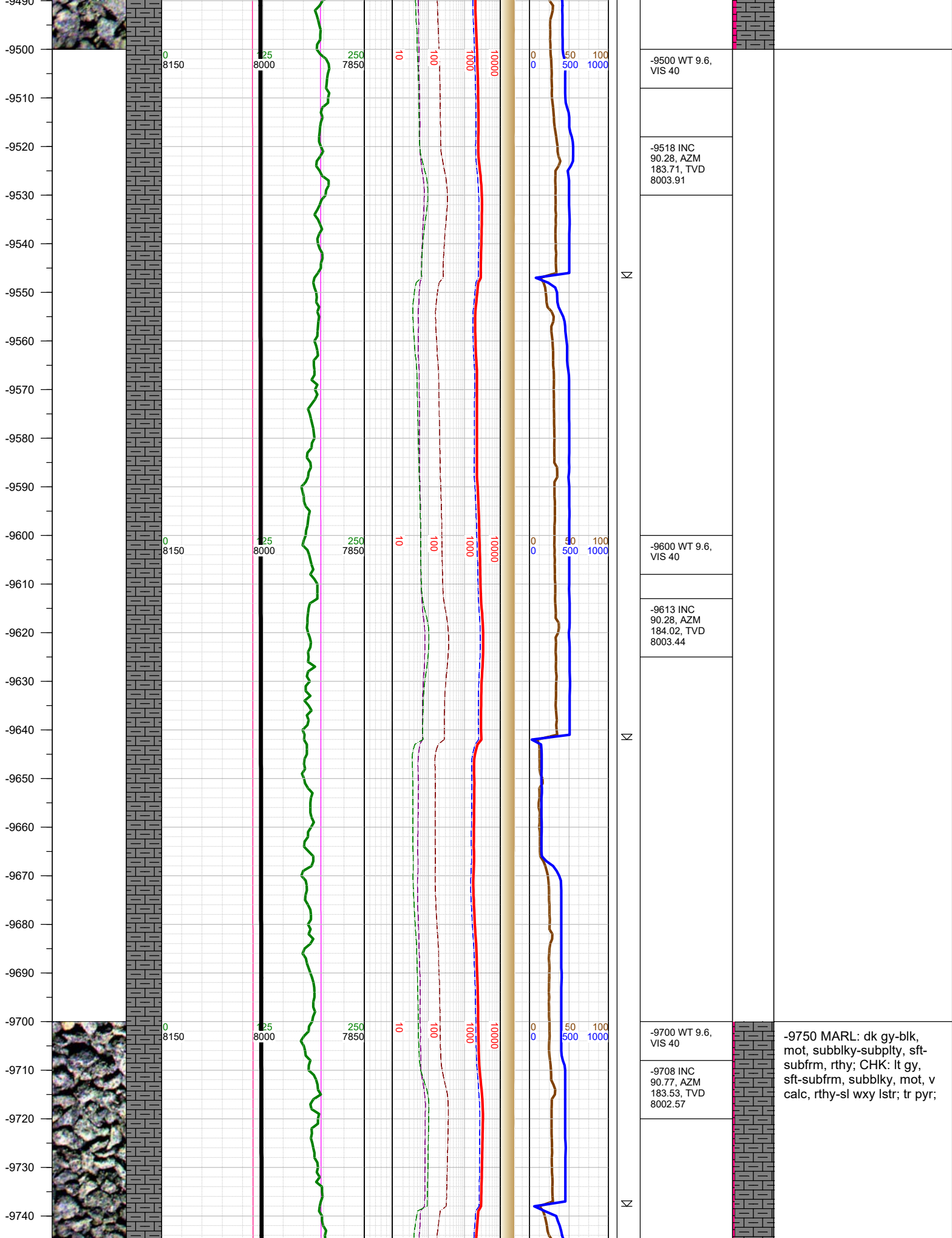














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-9802 INC  
91.03, AZM  
183.09, TVD  
8001.1

-9820 WT 9.6,  
VIS 40

Σ

-9890 WT 9.6,  
VIS 40

Σ

-9898 Fault: 10'  
down-throw;  
stayed in A Marl

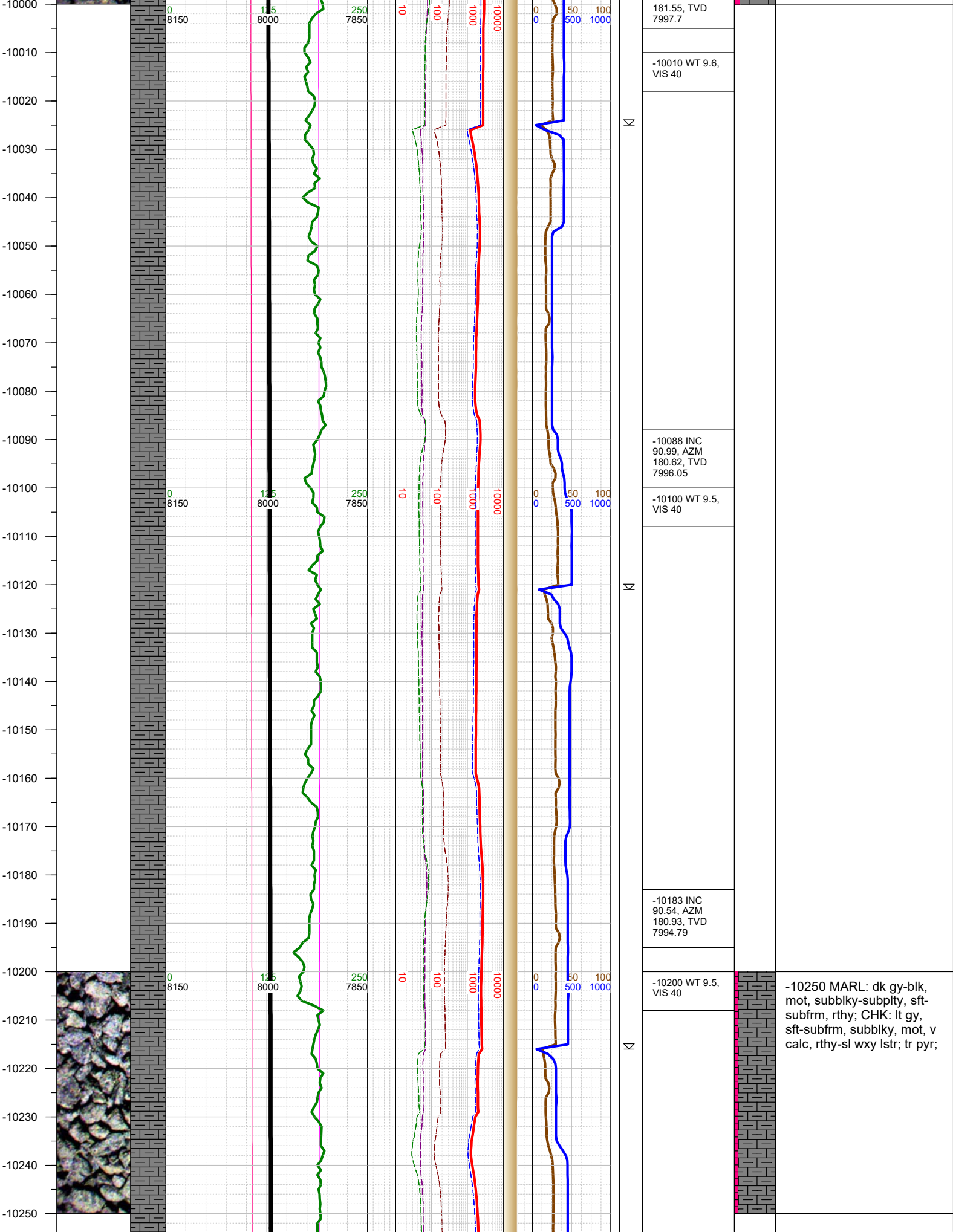
-9898 INC  
91.03, AZM  
182.25, TVD  
7999.37

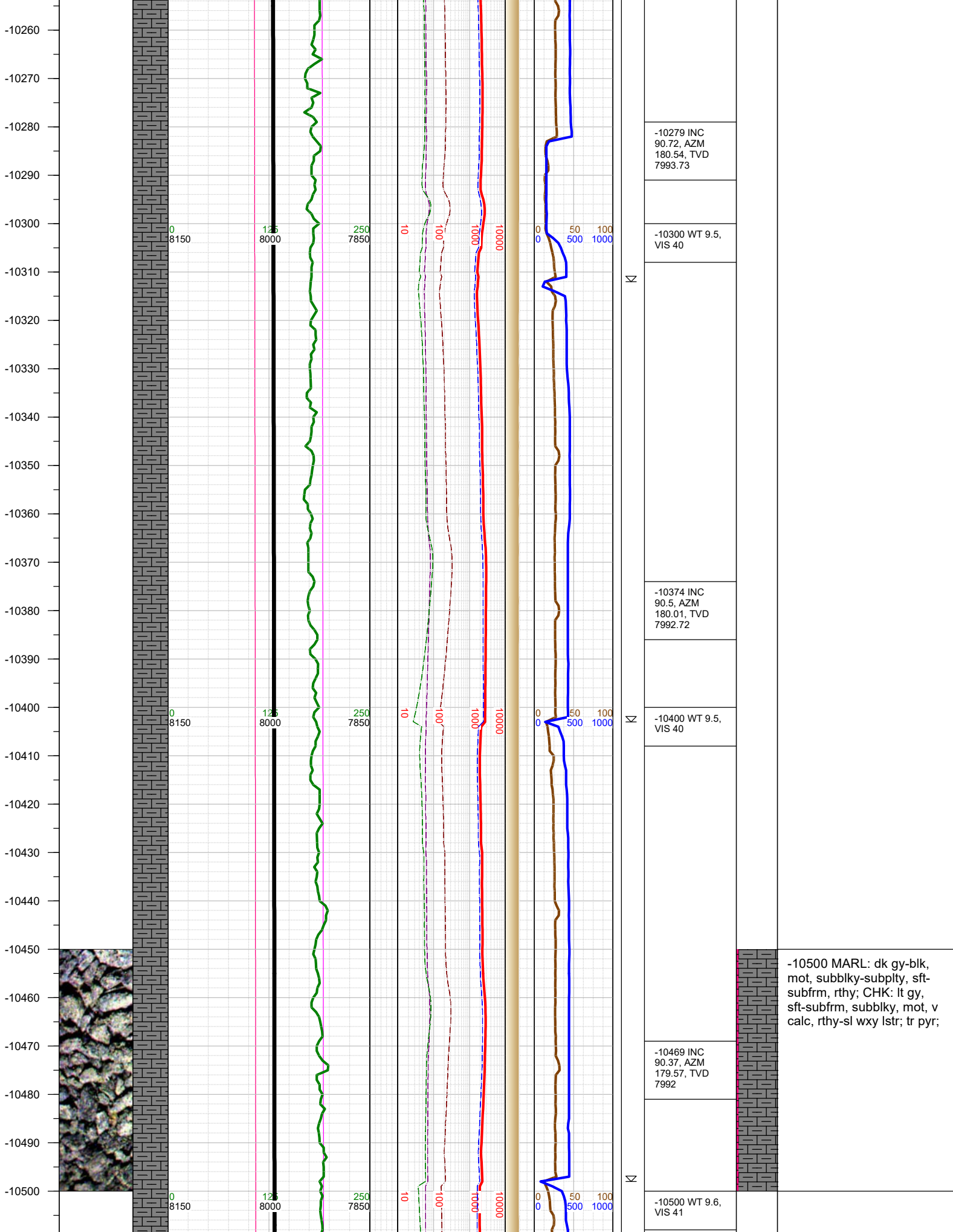
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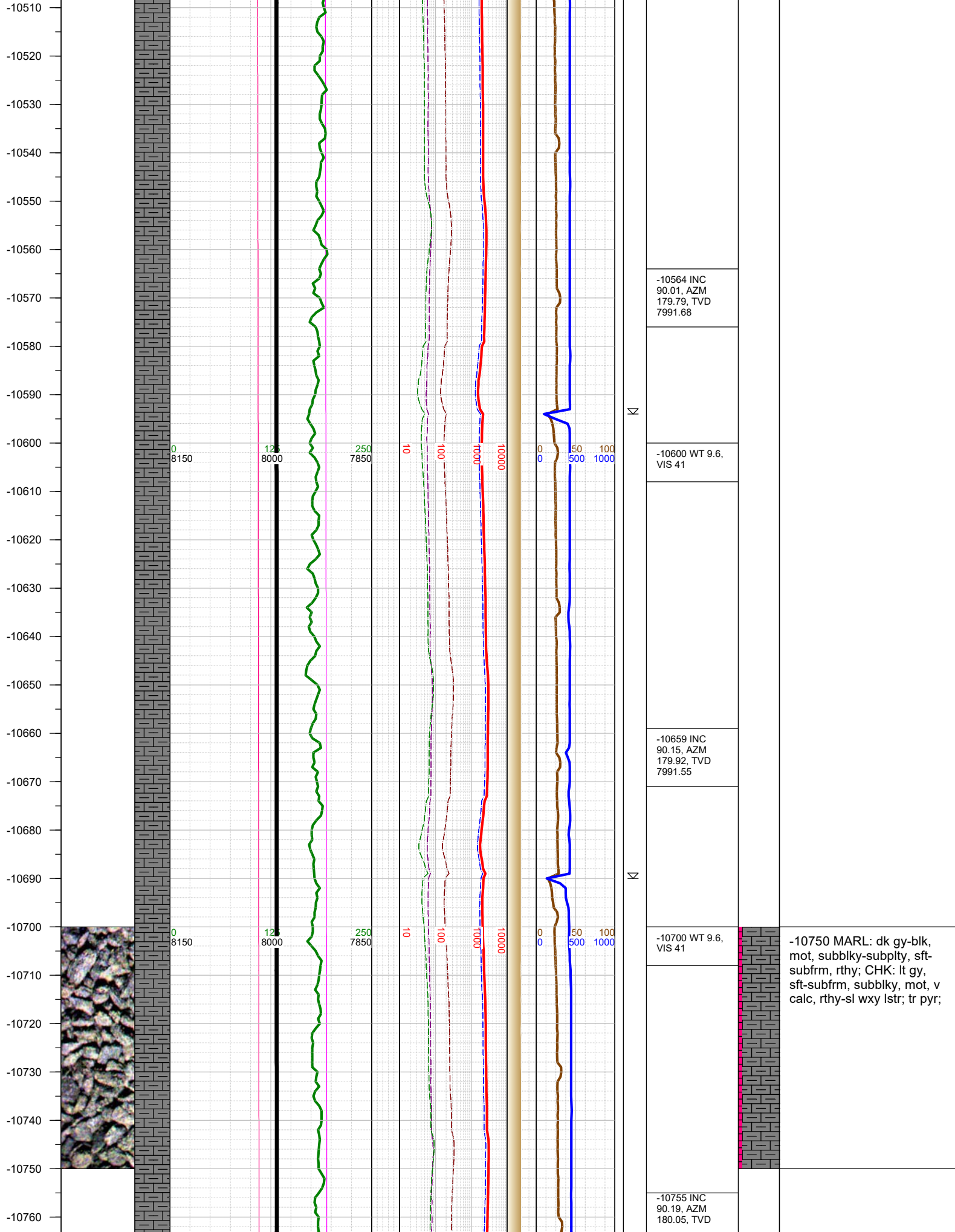
-10000 MARL: dk gy-blk,  
mot, subblky-subply, sft-  
subfrm, rthy; CHK: lt gy,  
sft-subfrm, subblky, mot, v  
calc, rthy-sl wxy lstr; tr pyr;

-9993 INC  
90.99, AZM

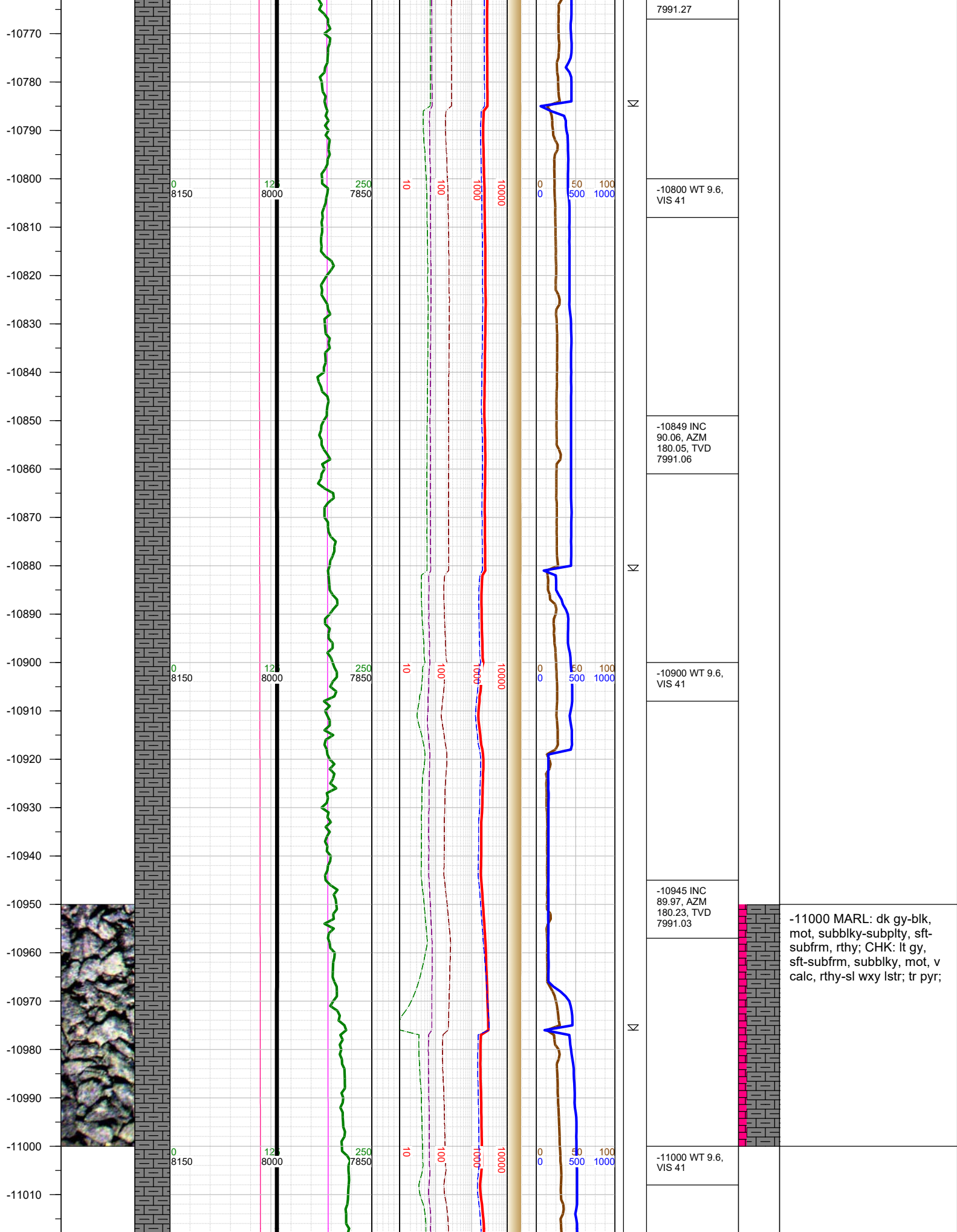




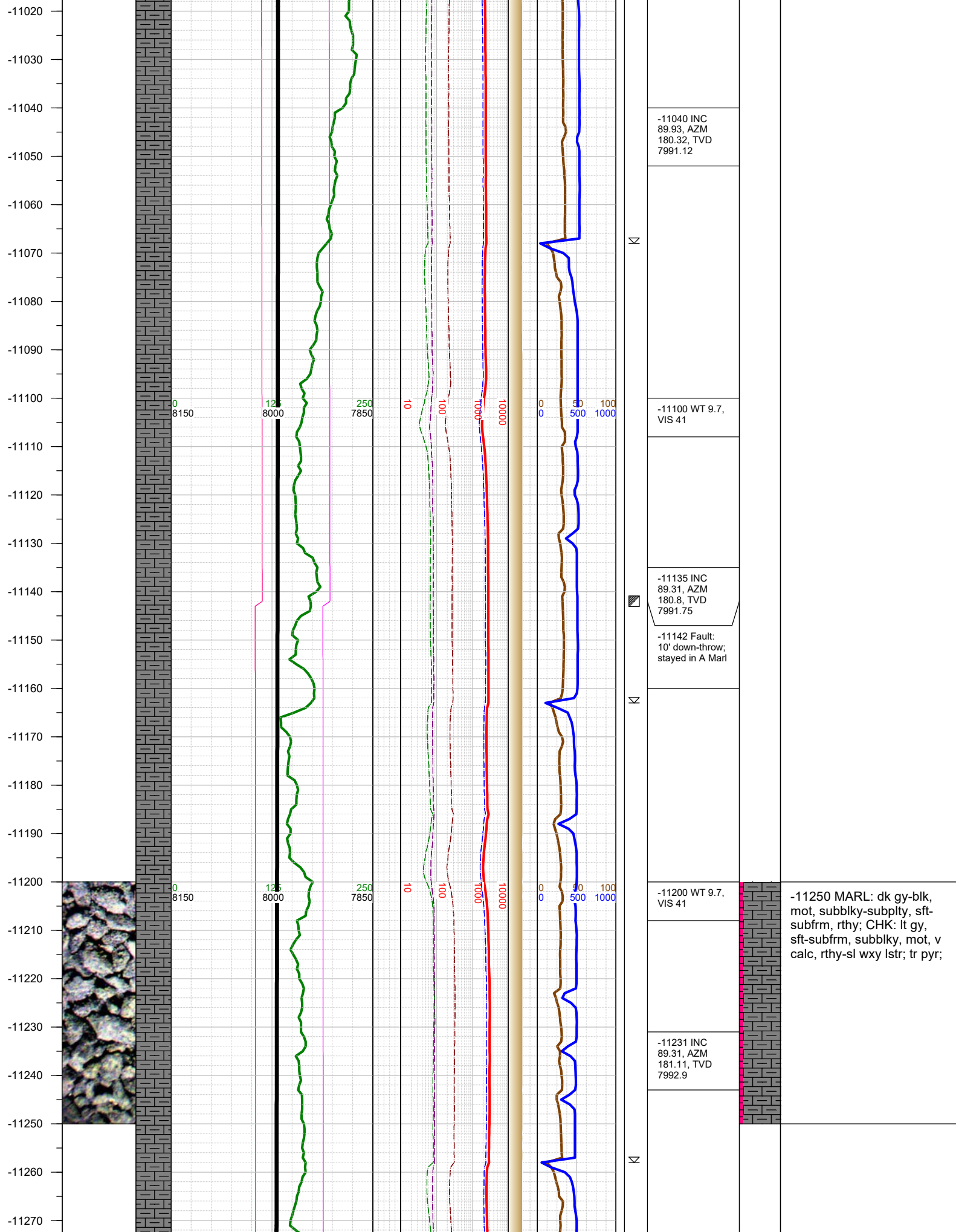


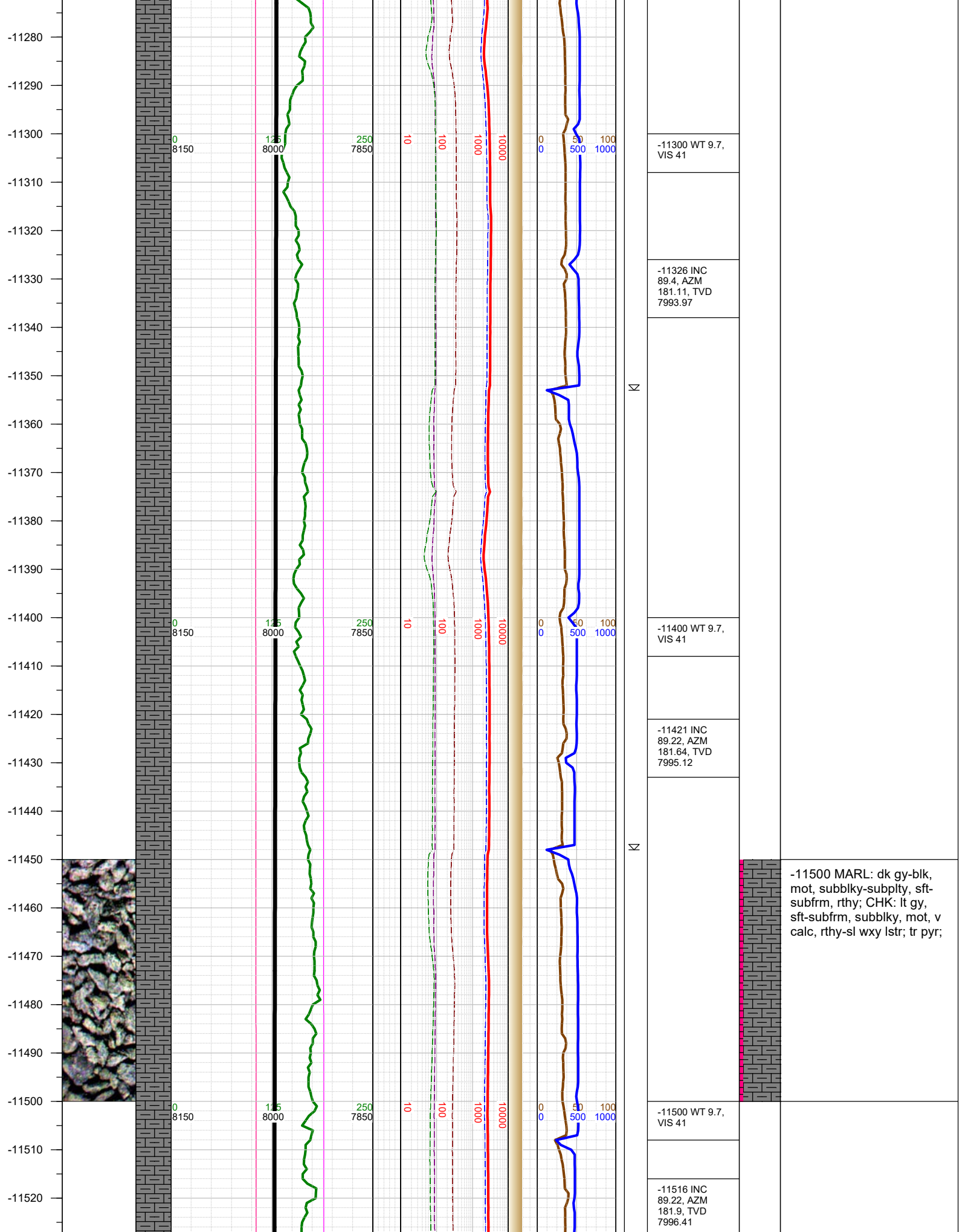


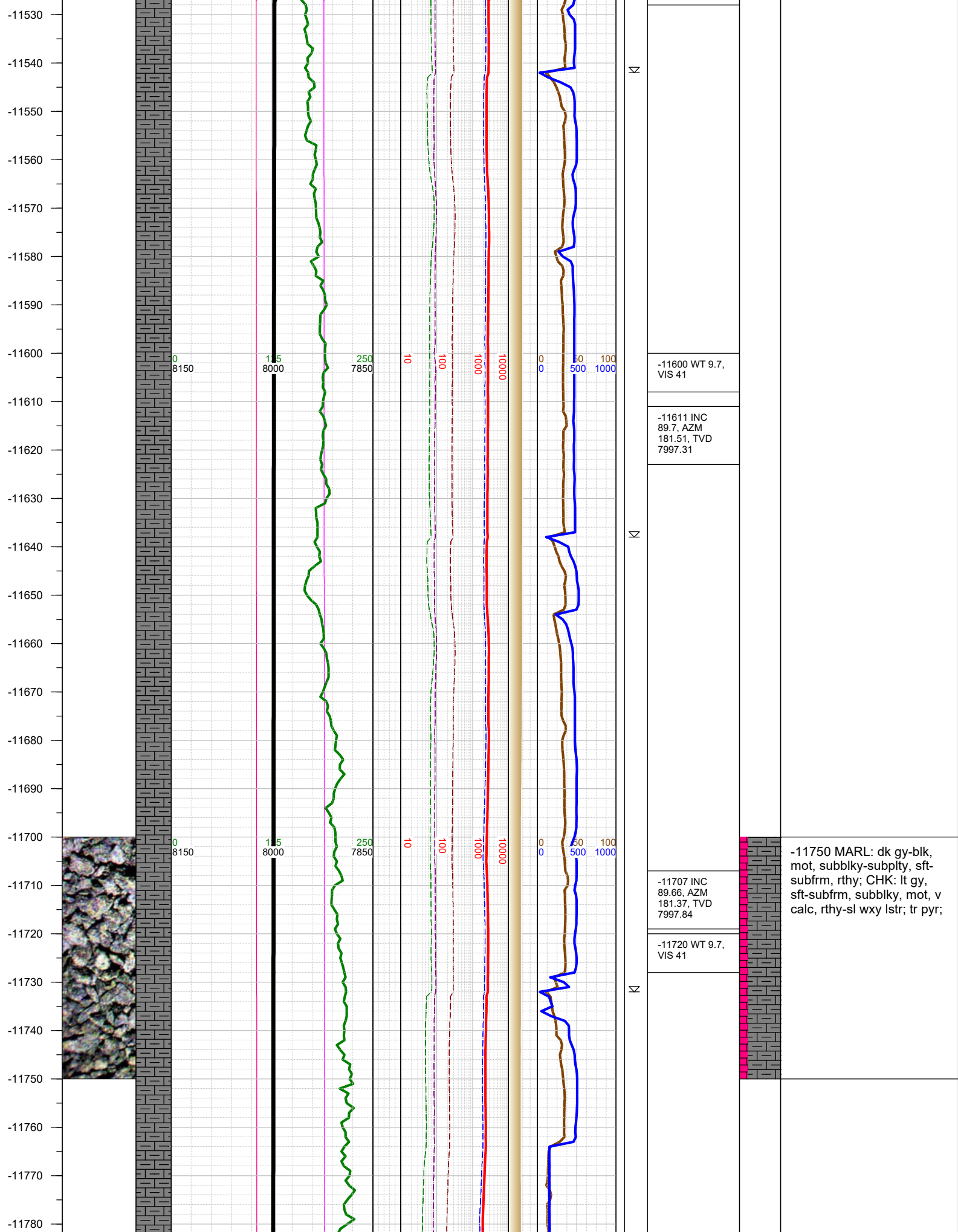




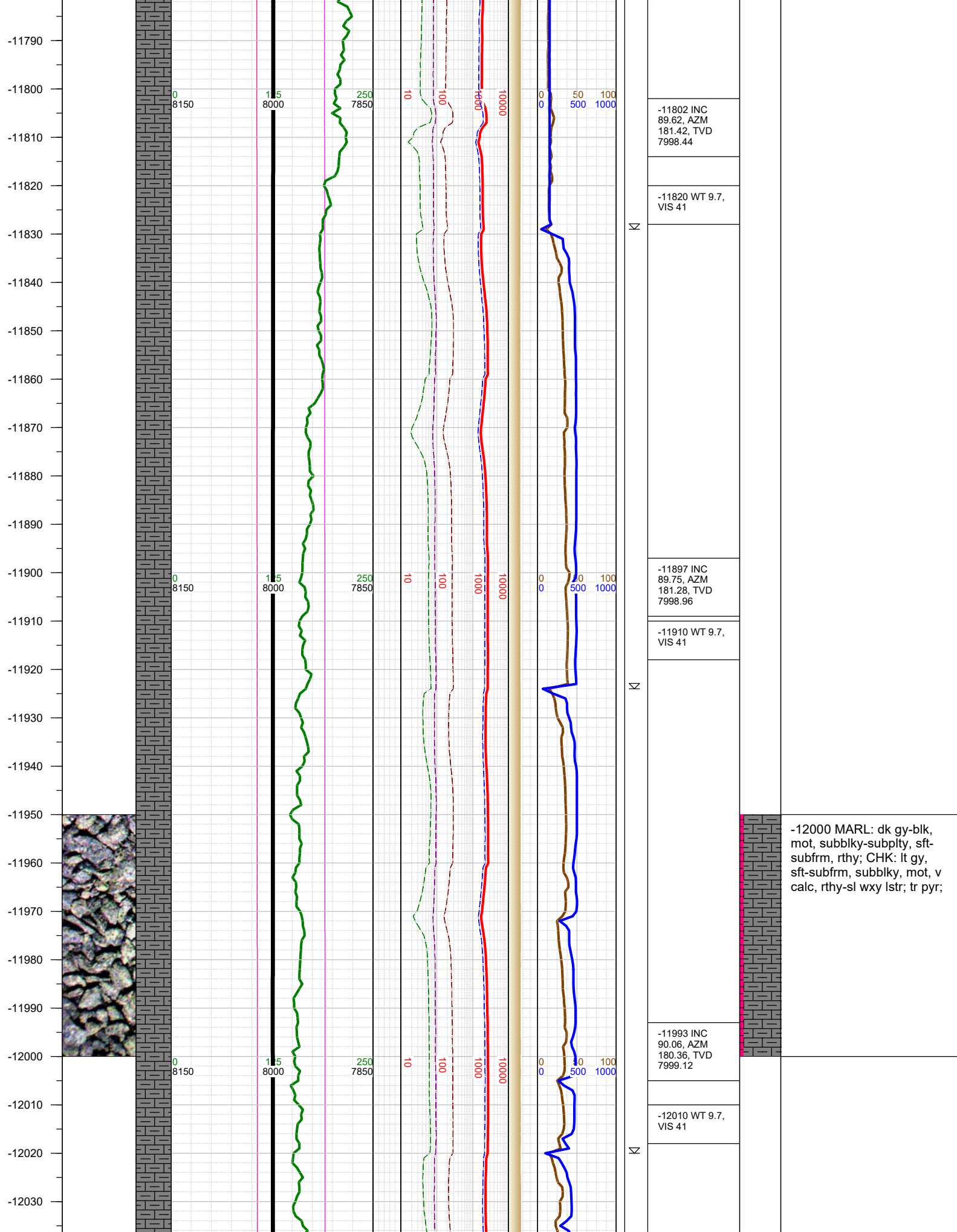


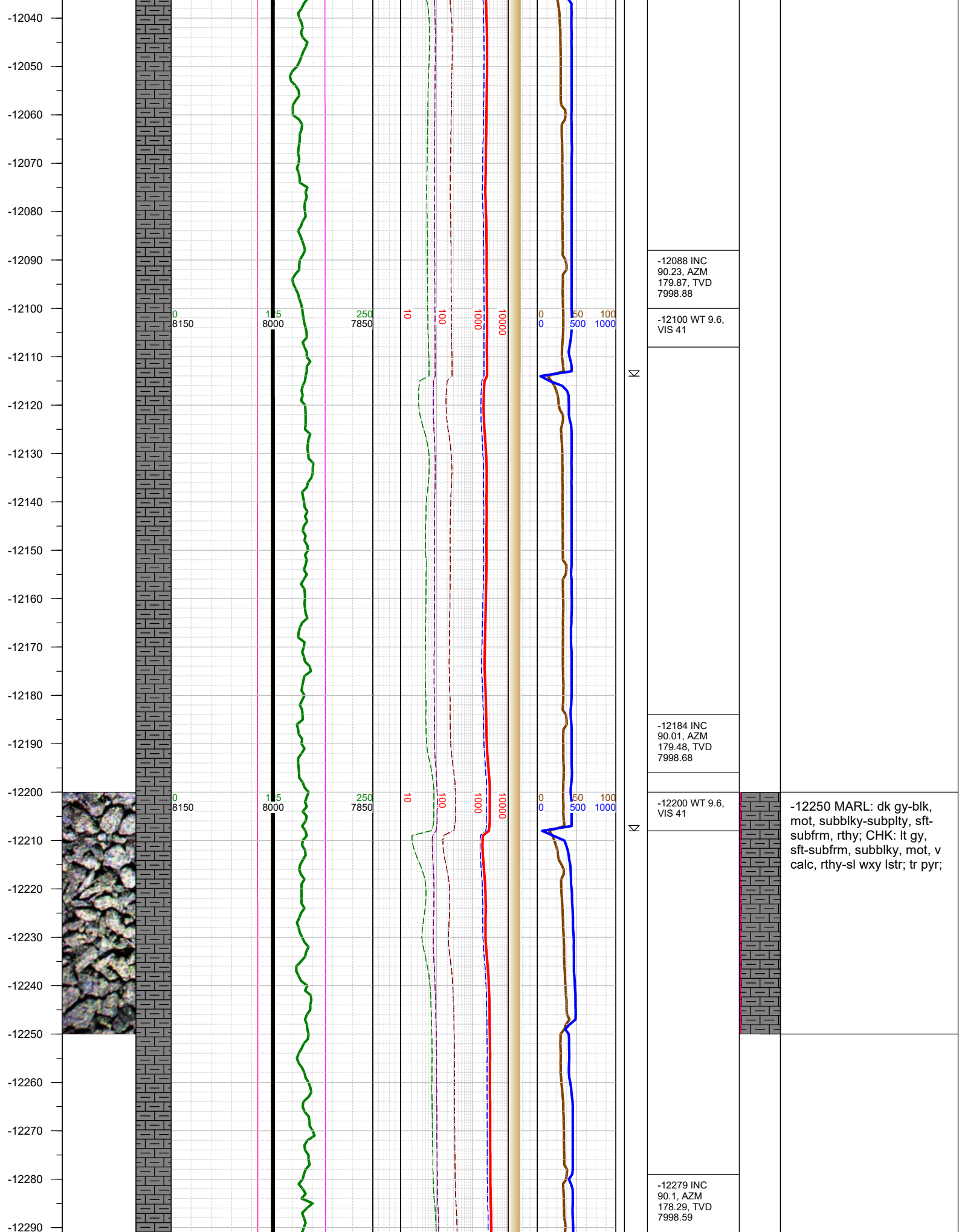


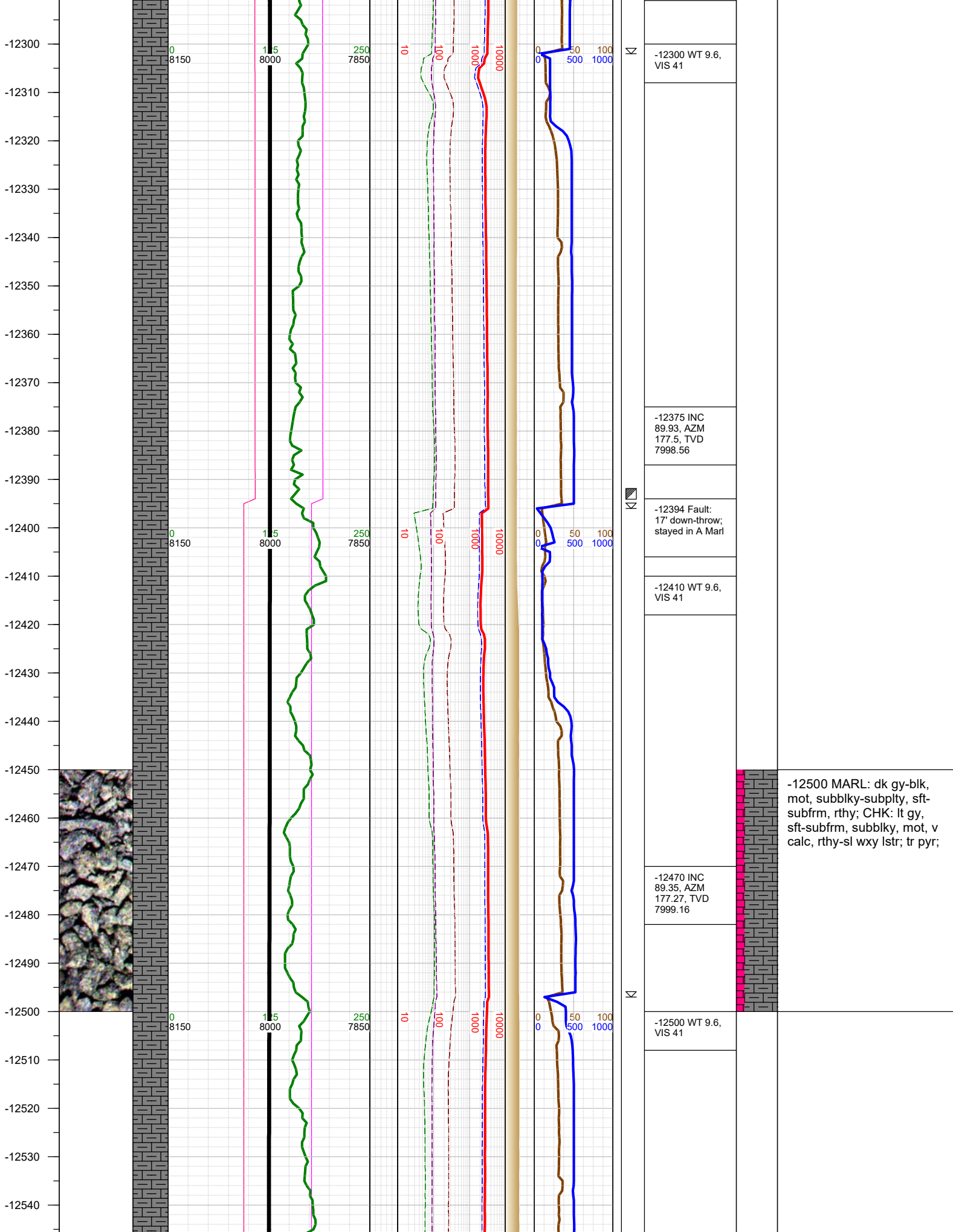




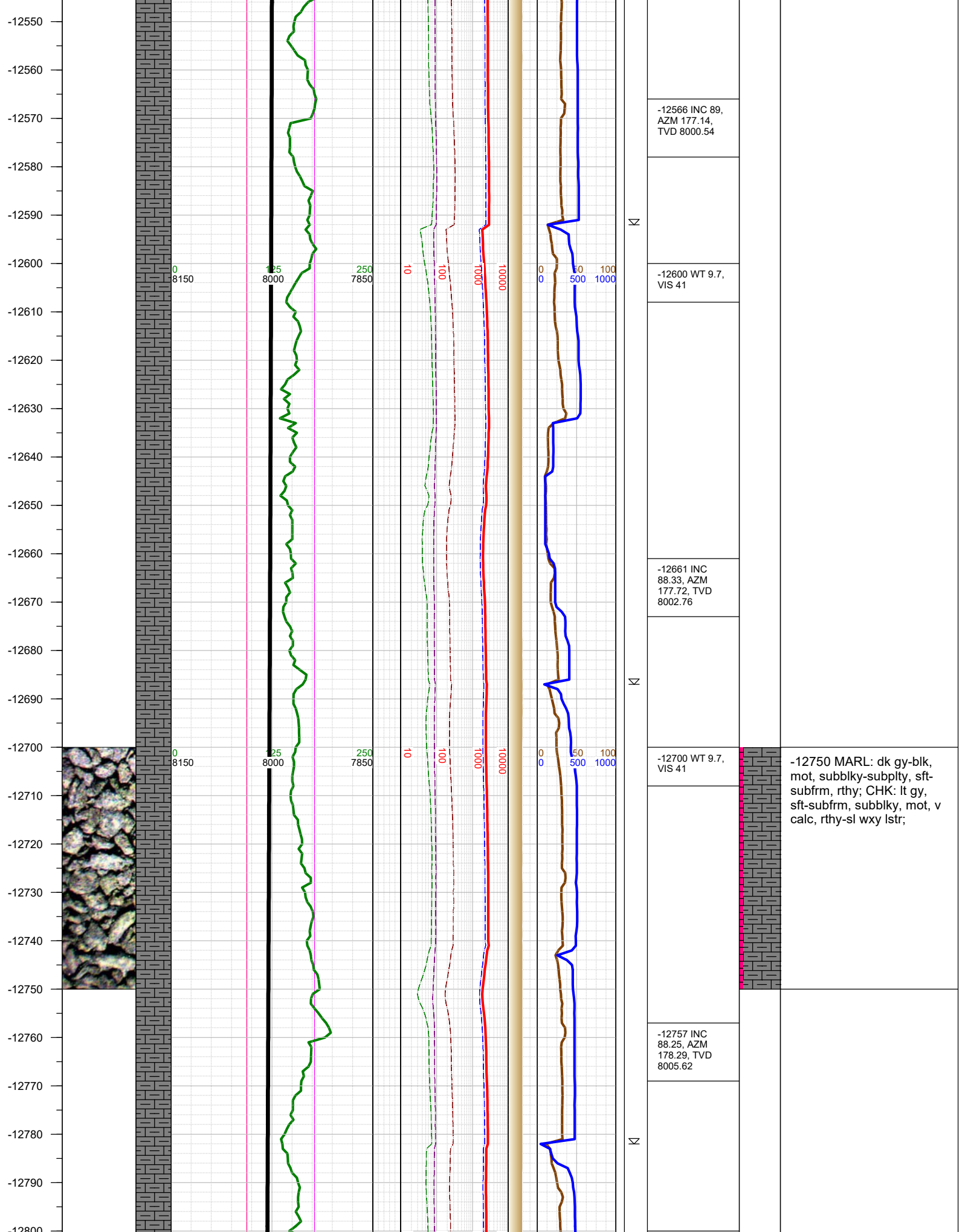


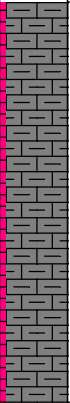
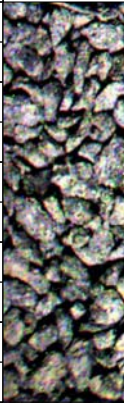
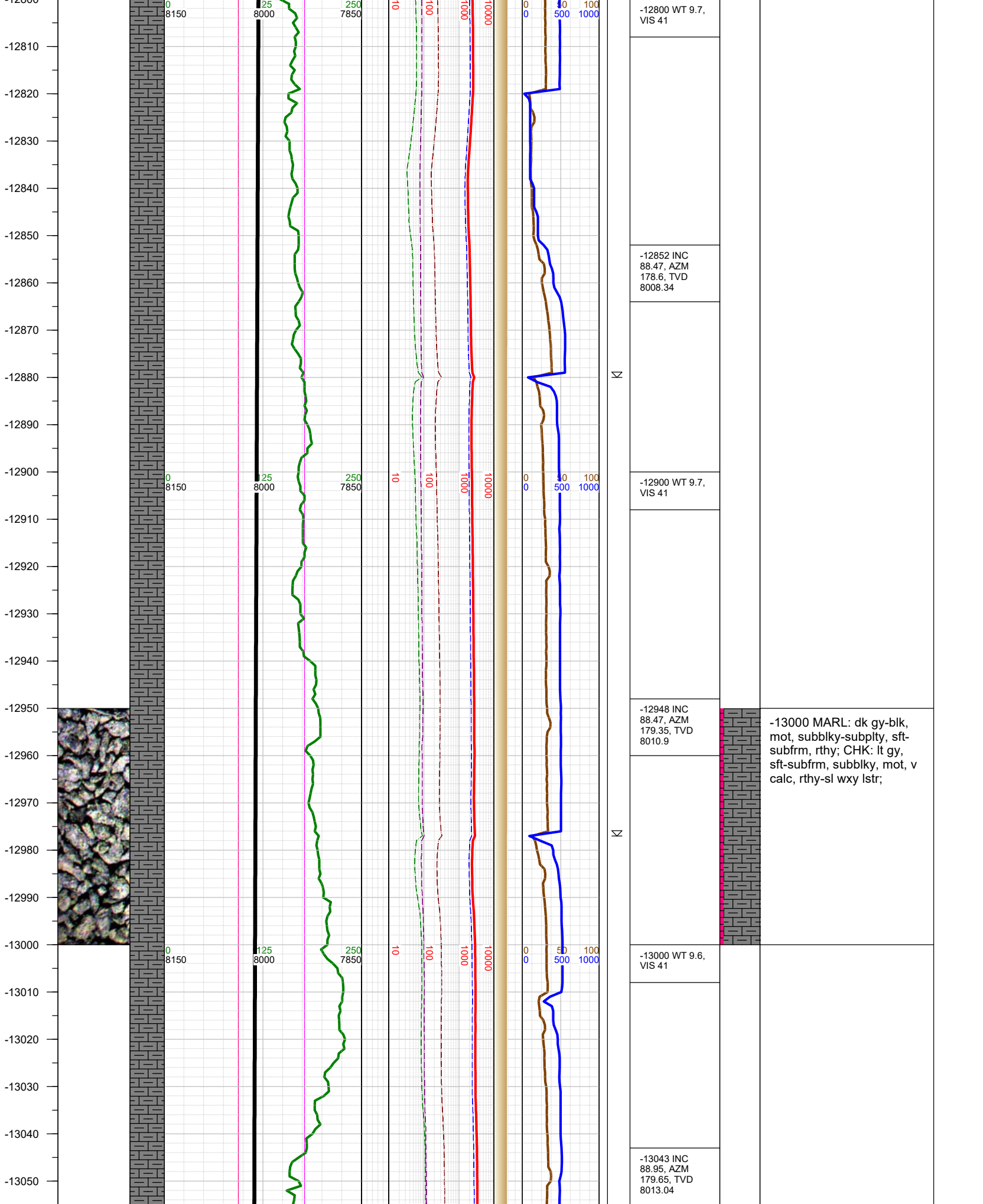




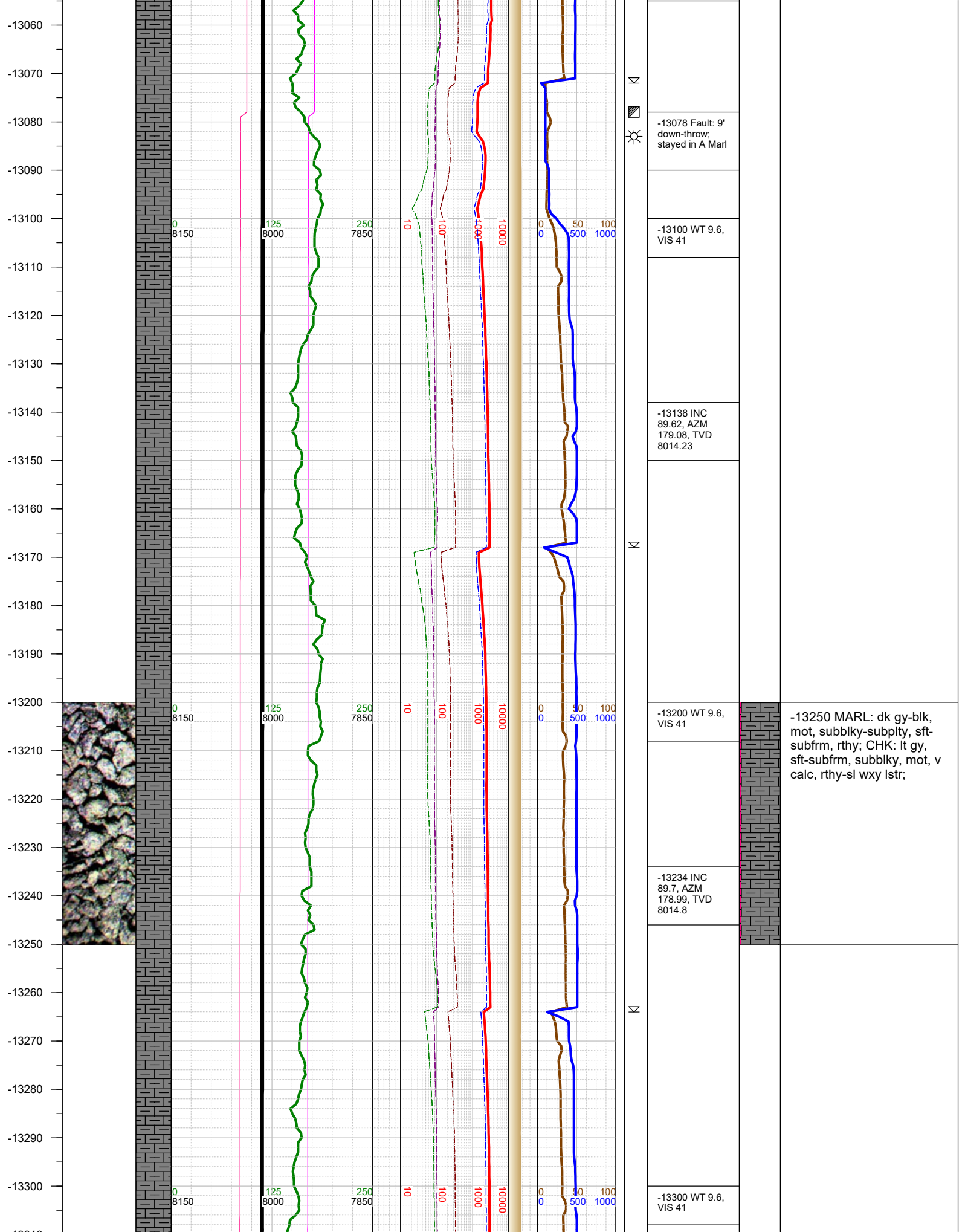




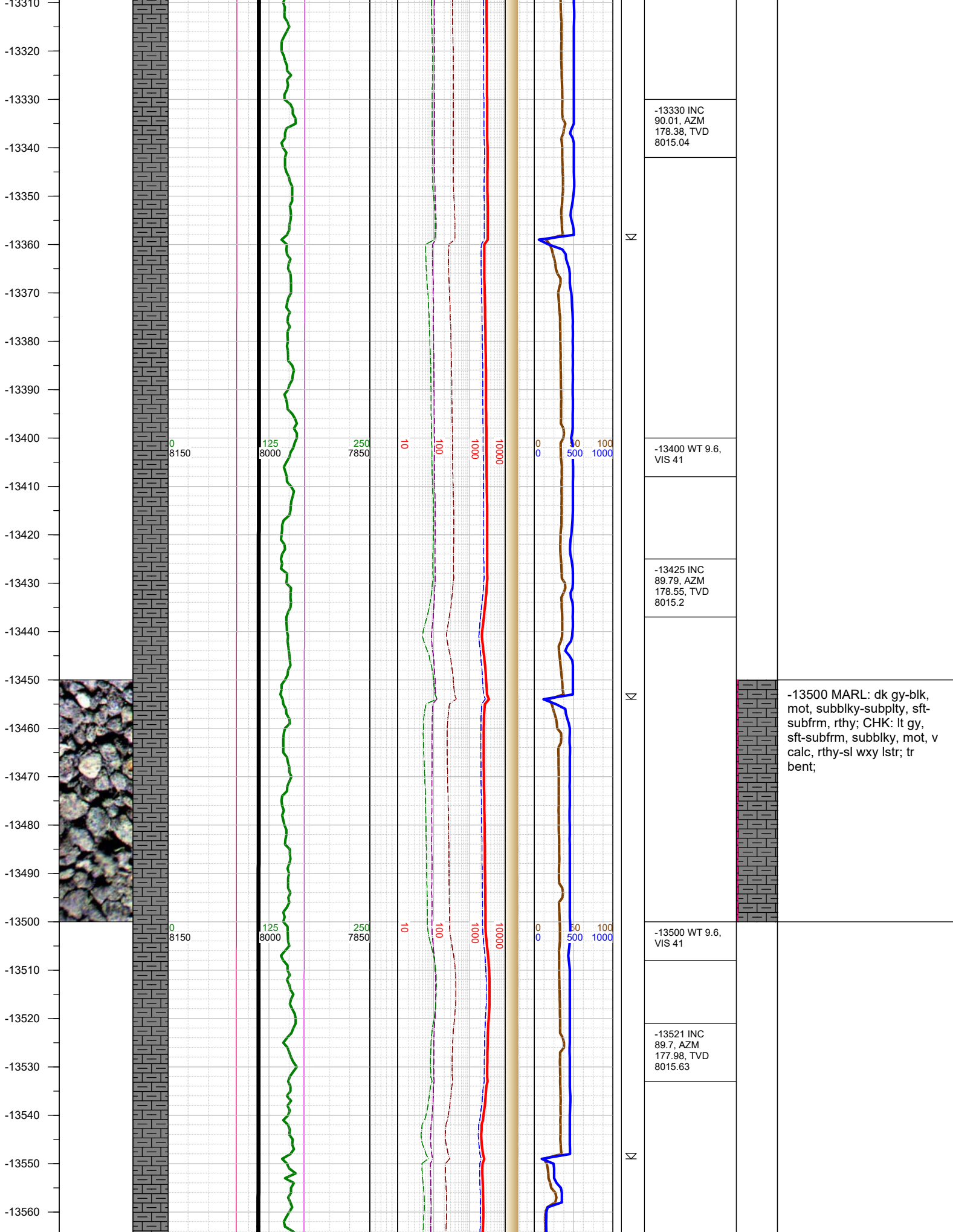




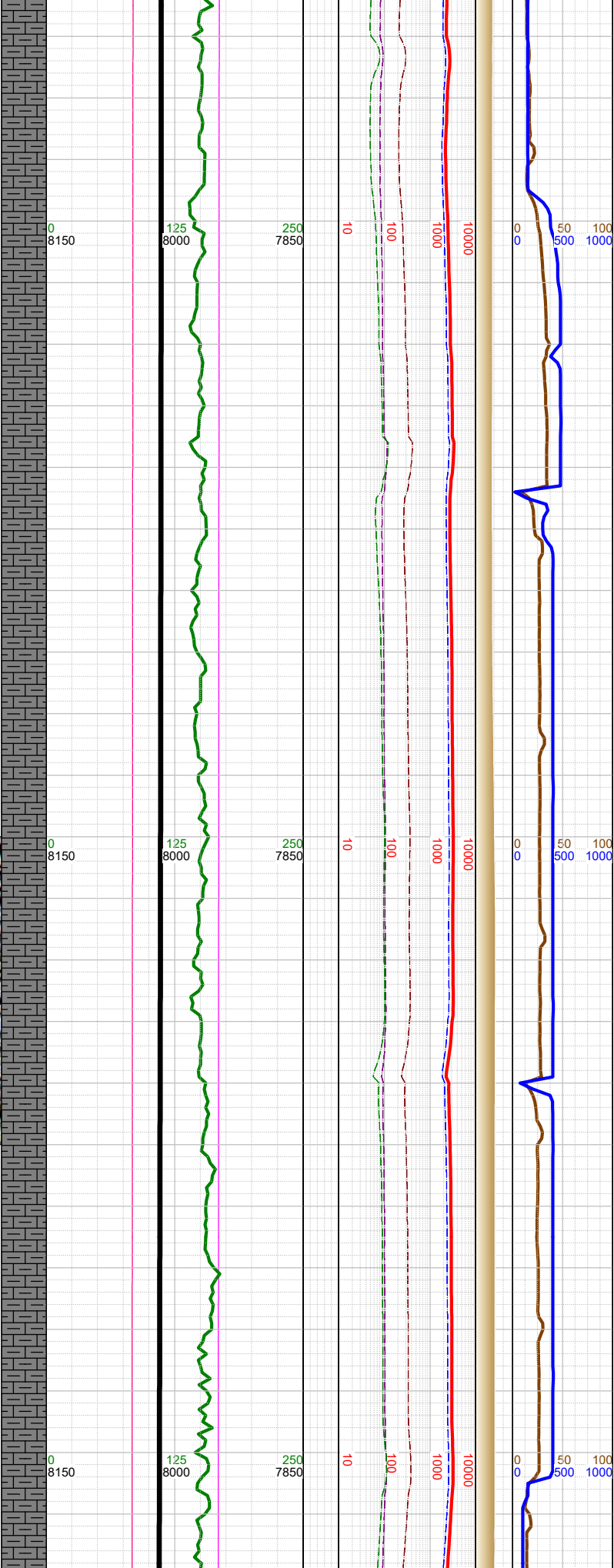
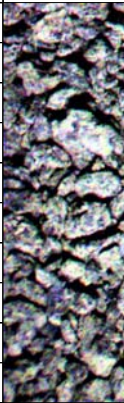
-13000 MARL: dk gy-blk, mot, subblky-subply, sft-subfrm, rthy; CHK: lt gy, sft-subfrm, subblky, mot, v calc, rthy-sl wxy lstr;







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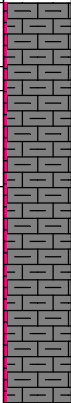
-13600 WT 9.6,  
VIS 41

-13616 INC  
89.84, AZM  
177.45, TVD  
8016.01

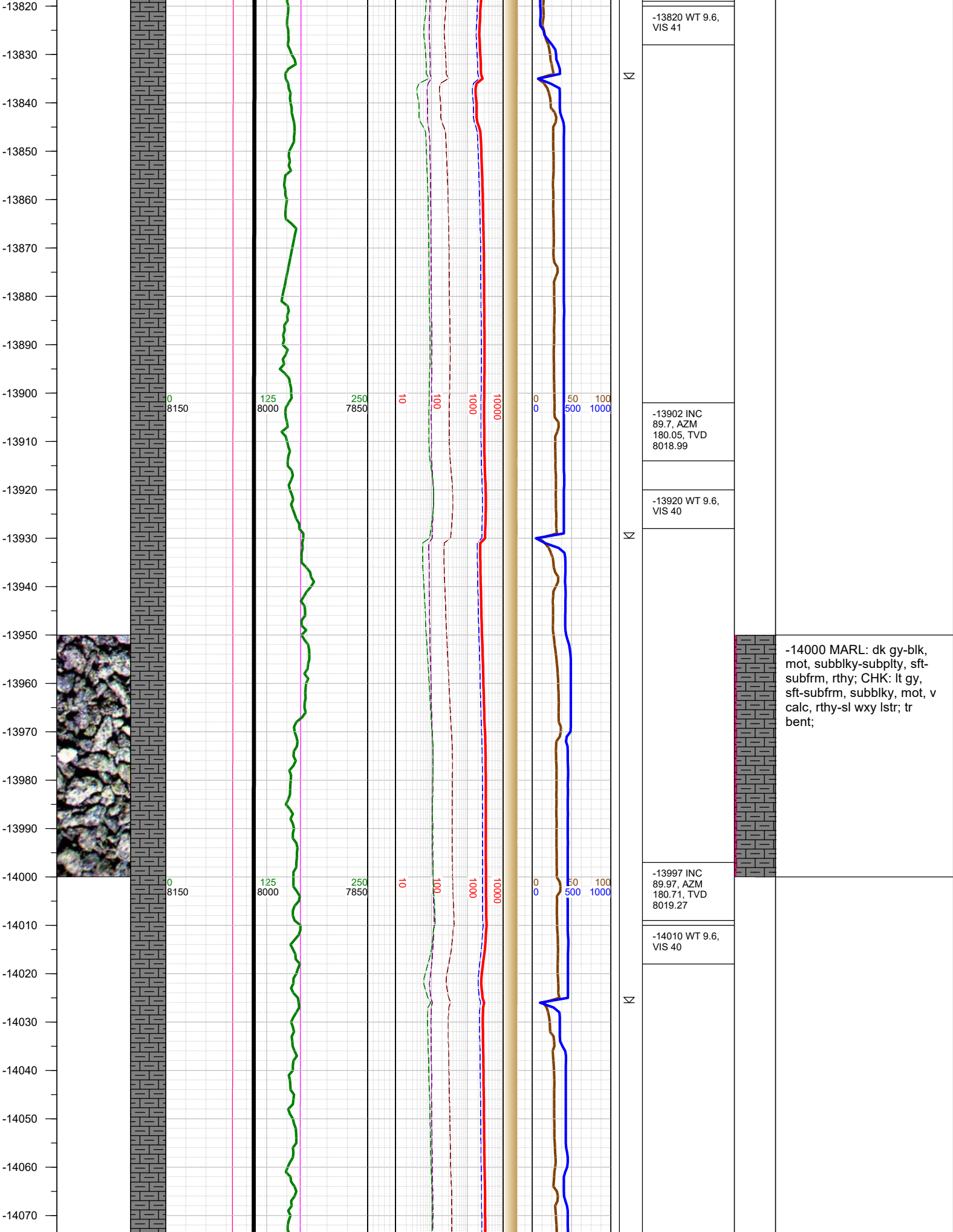
-13700 WT 9.6,  
VIS 41

-13711 INC  
89.31, AZM  
178.38, TVD  
8016.72

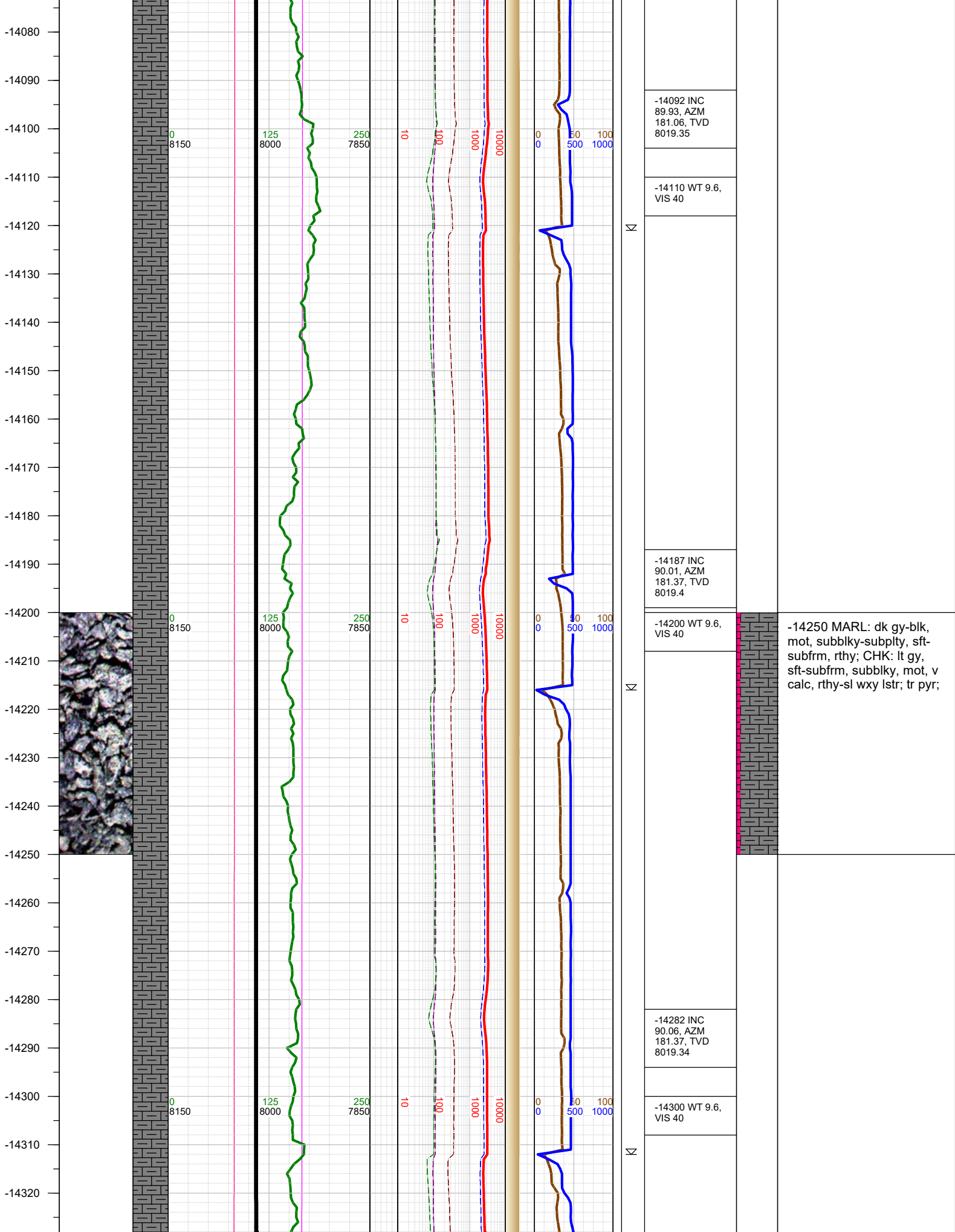
-13807 INC  
89.13, AZM  
179.35, TVD  
8018.02

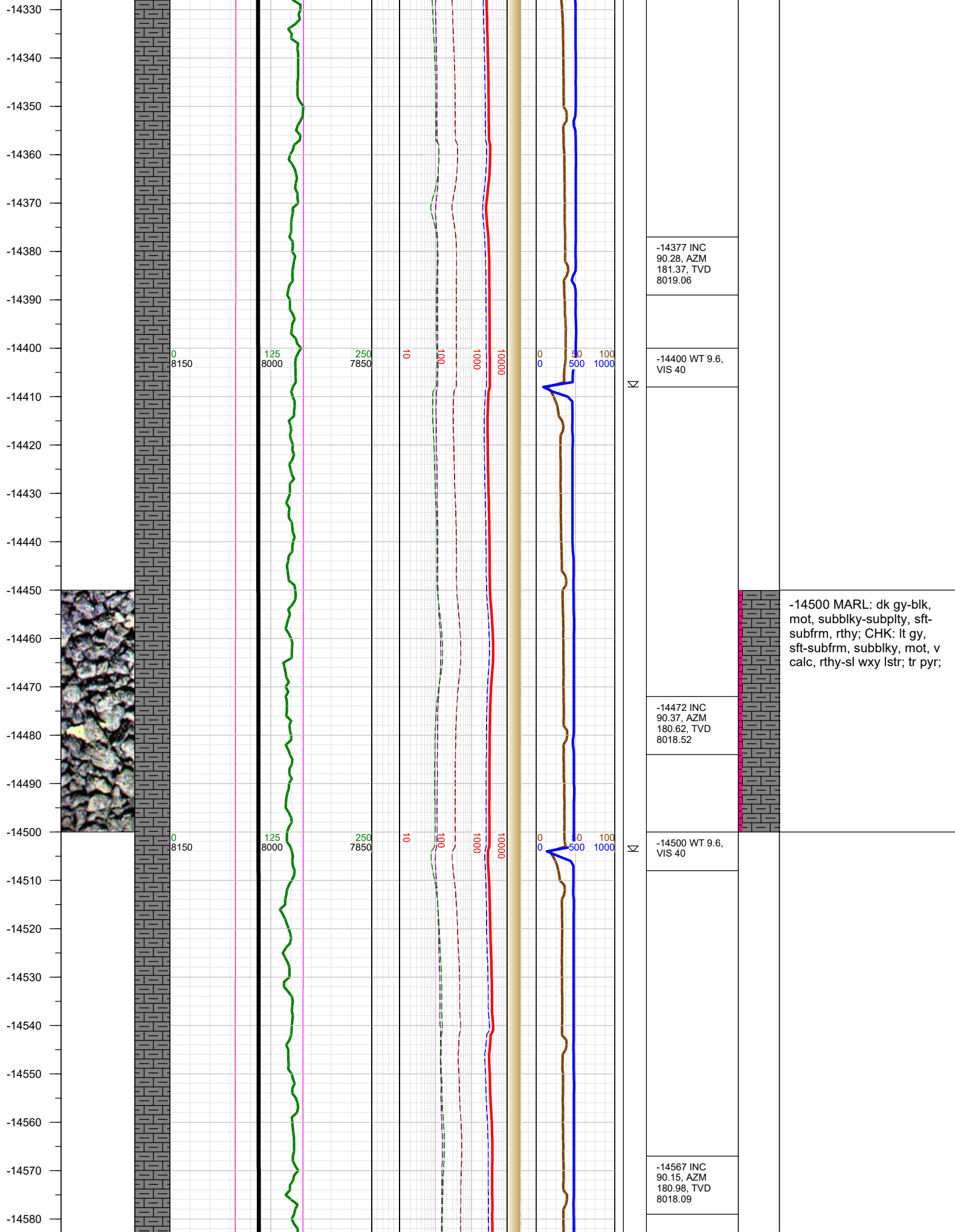


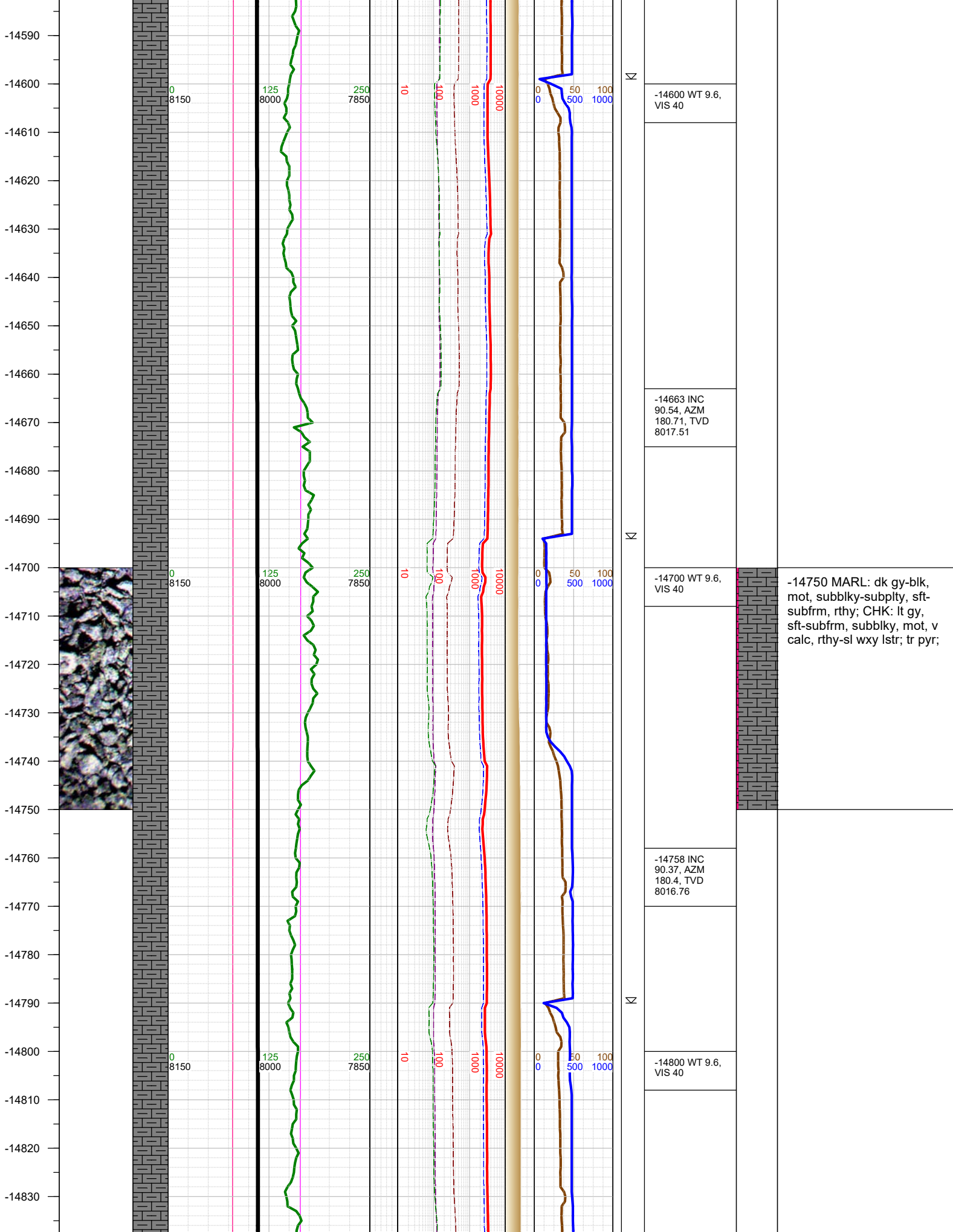
-13750 MARL: dk gy-blk,  
mot, subblky-subply, sft-  
subfrm, rthy; CHK: lt gy,  
sft-subfrm, subblky, mot, v  
calc, rthy-sl wxy lstr; tr  
bent;



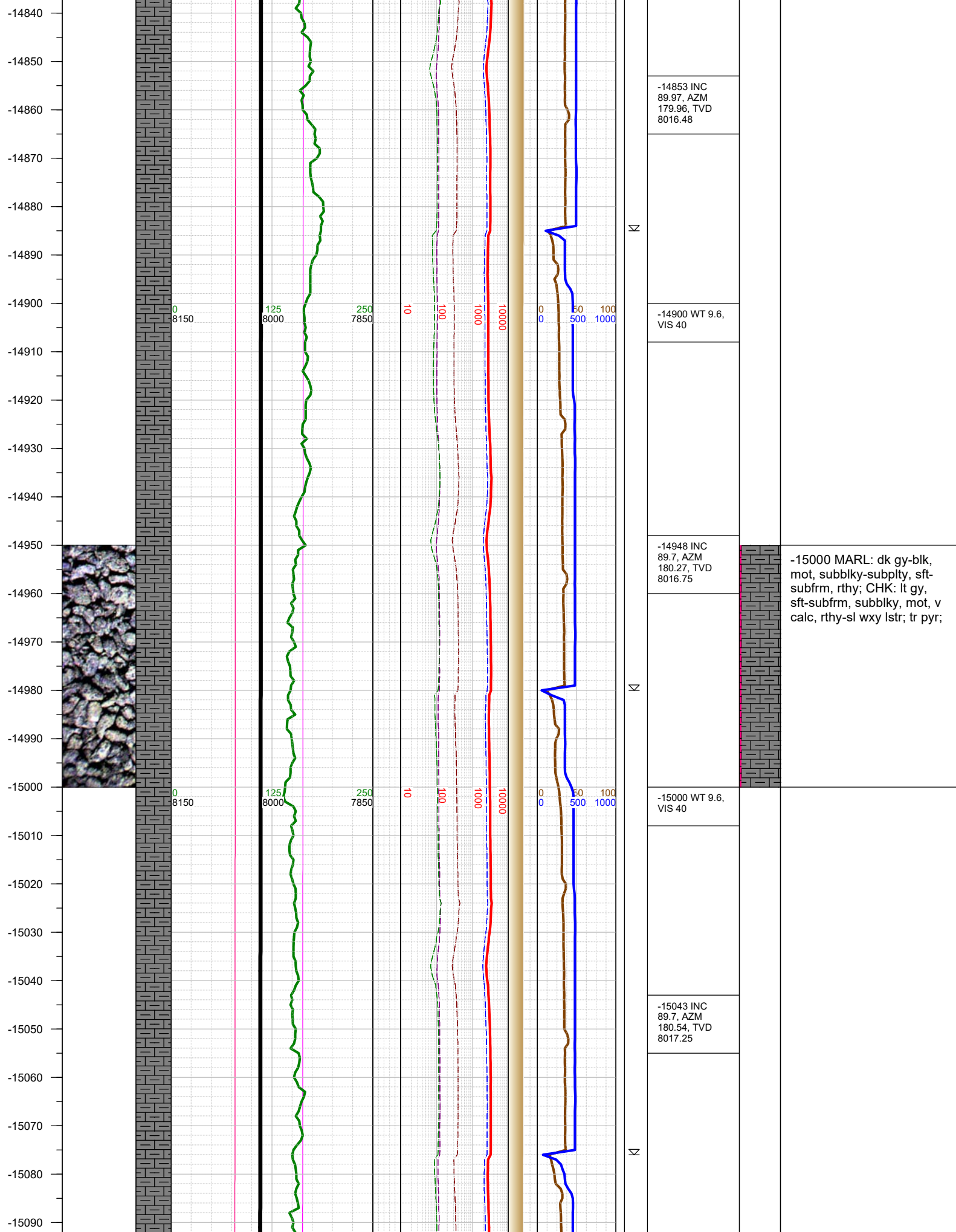


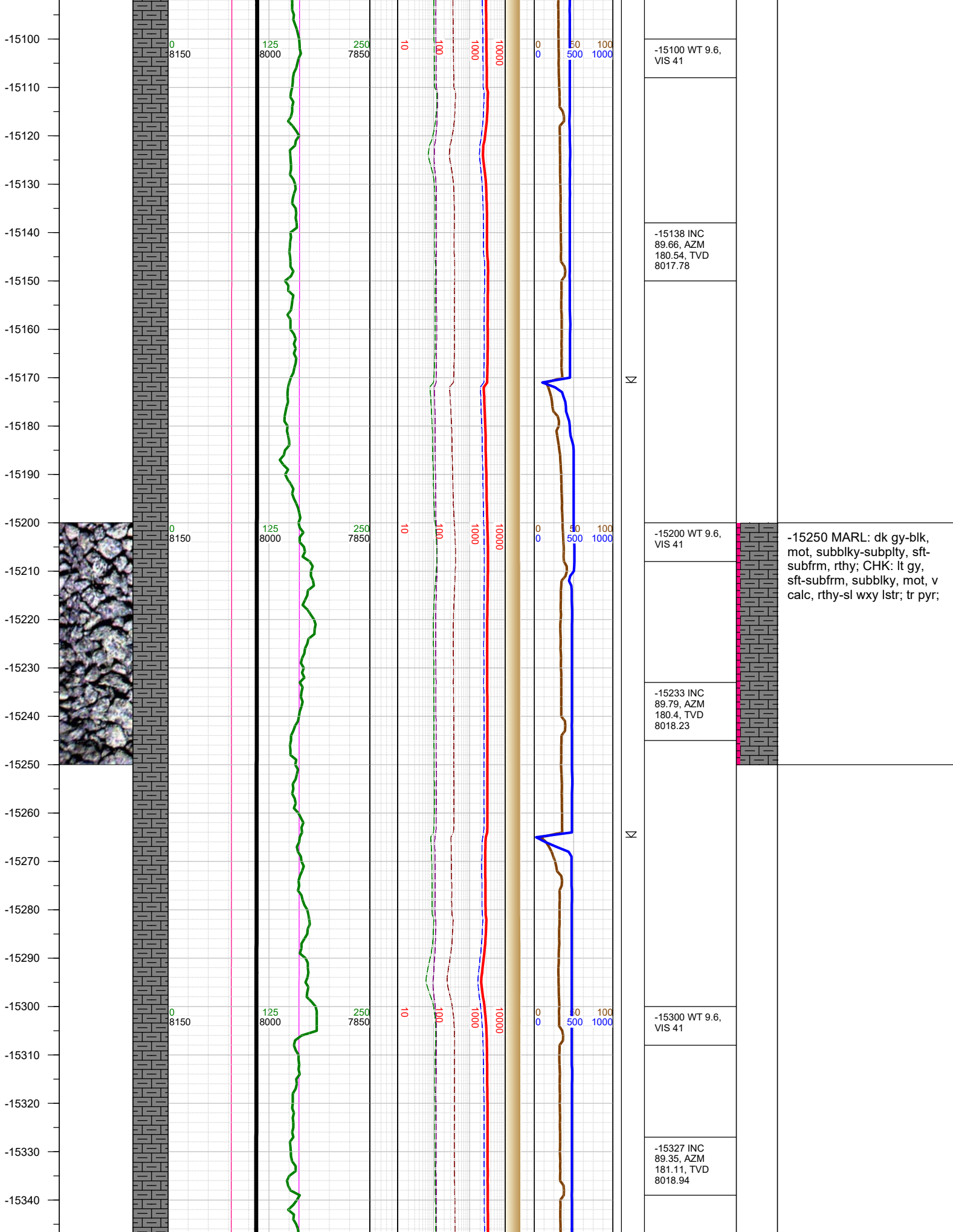












-15100 WT 9.6,  
VIS 41

-15138 INC  
89.66, AZM  
180.54, TVD  
8017.78

-15200 WT 9.6,  
VIS 41

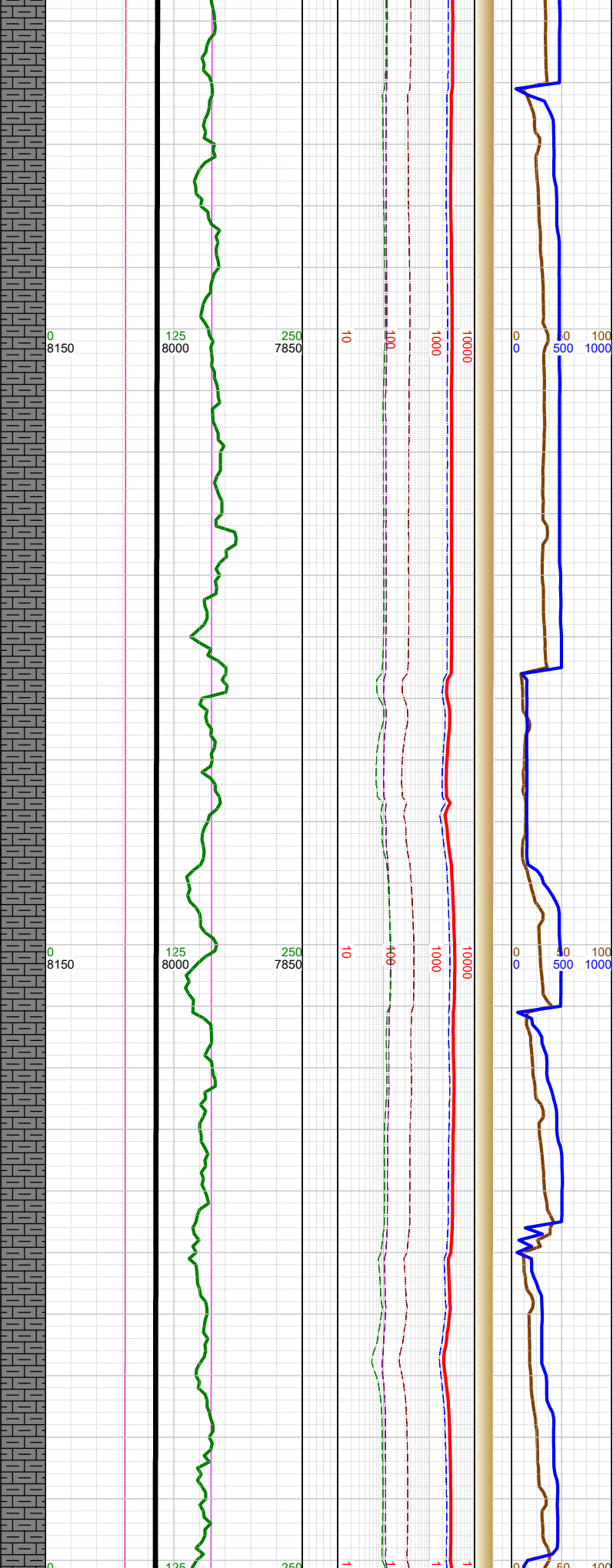
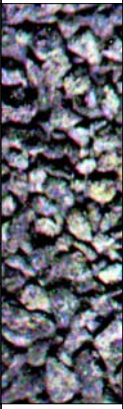
-15233 INC  
89.79, AZM  
180.4, TVD  
8018.23

-15300 WT 9.6,  
VIS 41

-15327 INC  
89.35, AZM  
181.11, TVD  
8018.94

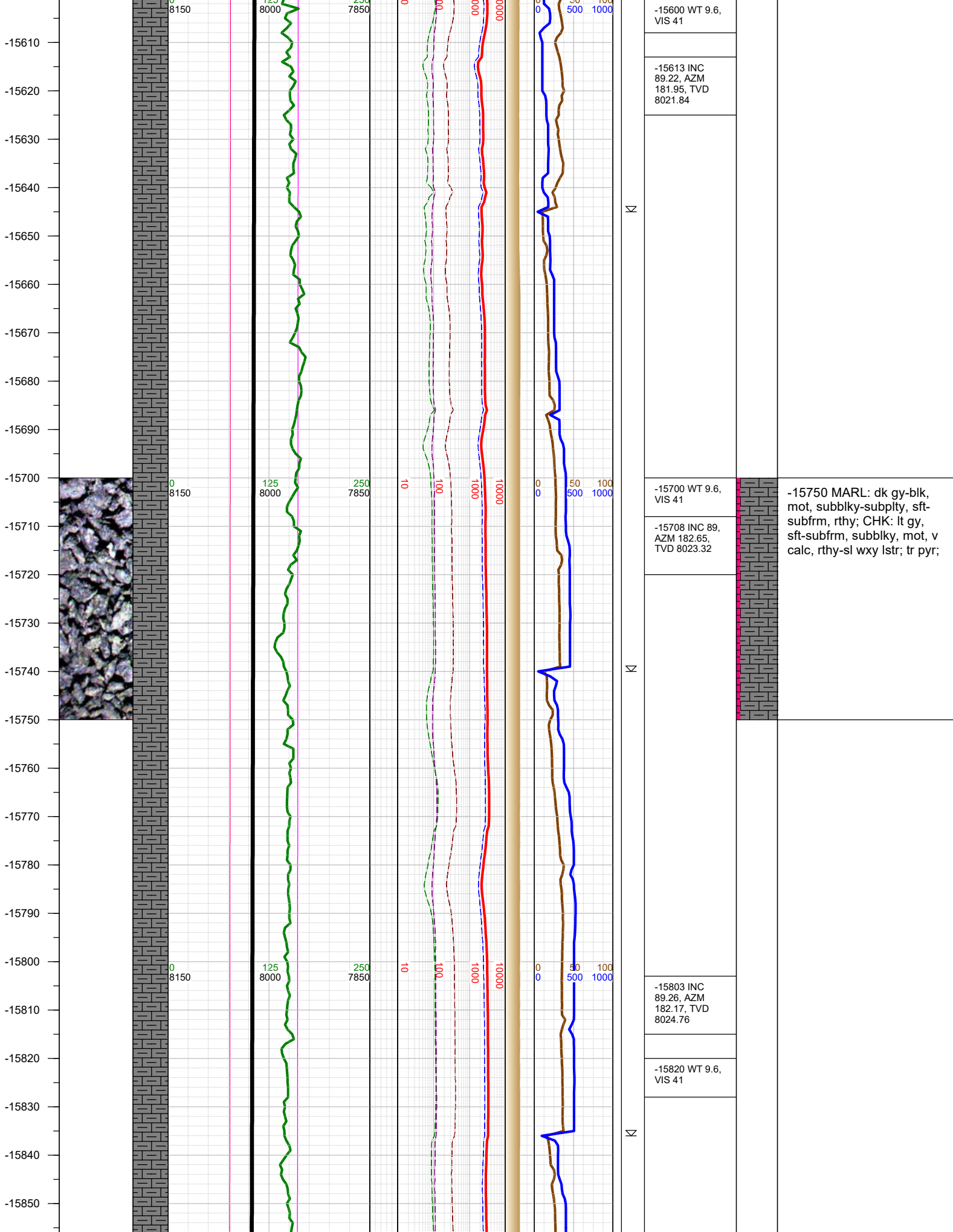
-15250 MARL: dk gy-blk,  
mot, subblky-subply, sft-  
subfrm, rthy; CHK: lt gy,  
sft-subfrm, subblky, mot, v  
calc, rthy-sl wxy lstr; tr pyr;

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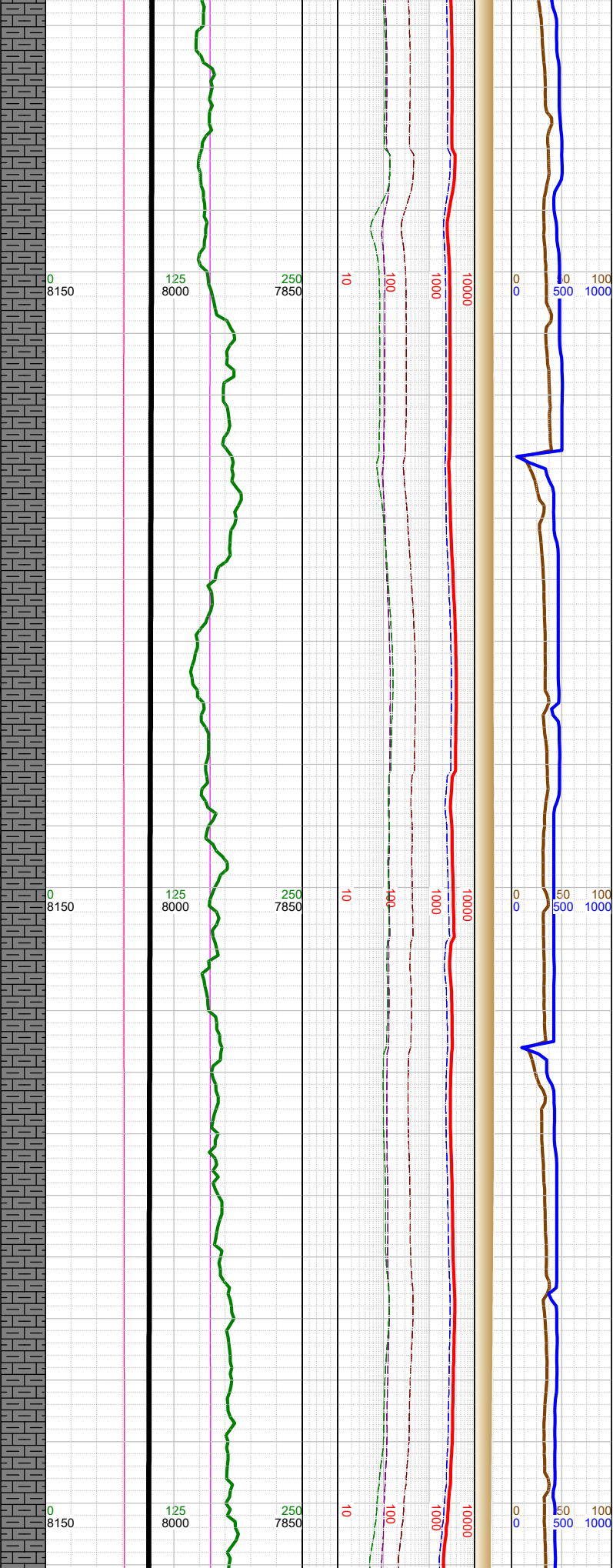
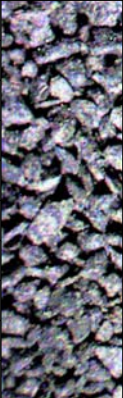


▲ ▽	-15360 0000 hrs on 9/1/2019		
	-15400 WT 9.6, VIS 41		
	-15422 INC 89.44, AZM 181.2, TVD 8019.94		
▽	-15500 MARL: dk gy-blk, mot, subblky-subply, sft- subfrm, rthy; CHK: lt gy, sft-subfrm, subblky, mot, v calc, rthy-sl wxy lstr; tr pyr;		
	-15500 WT 9.6, VIS 41		
	-15518 INC 89.53, AZM 181.64, TVD 8020.81		
▽			

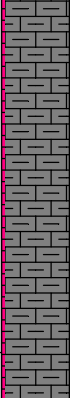




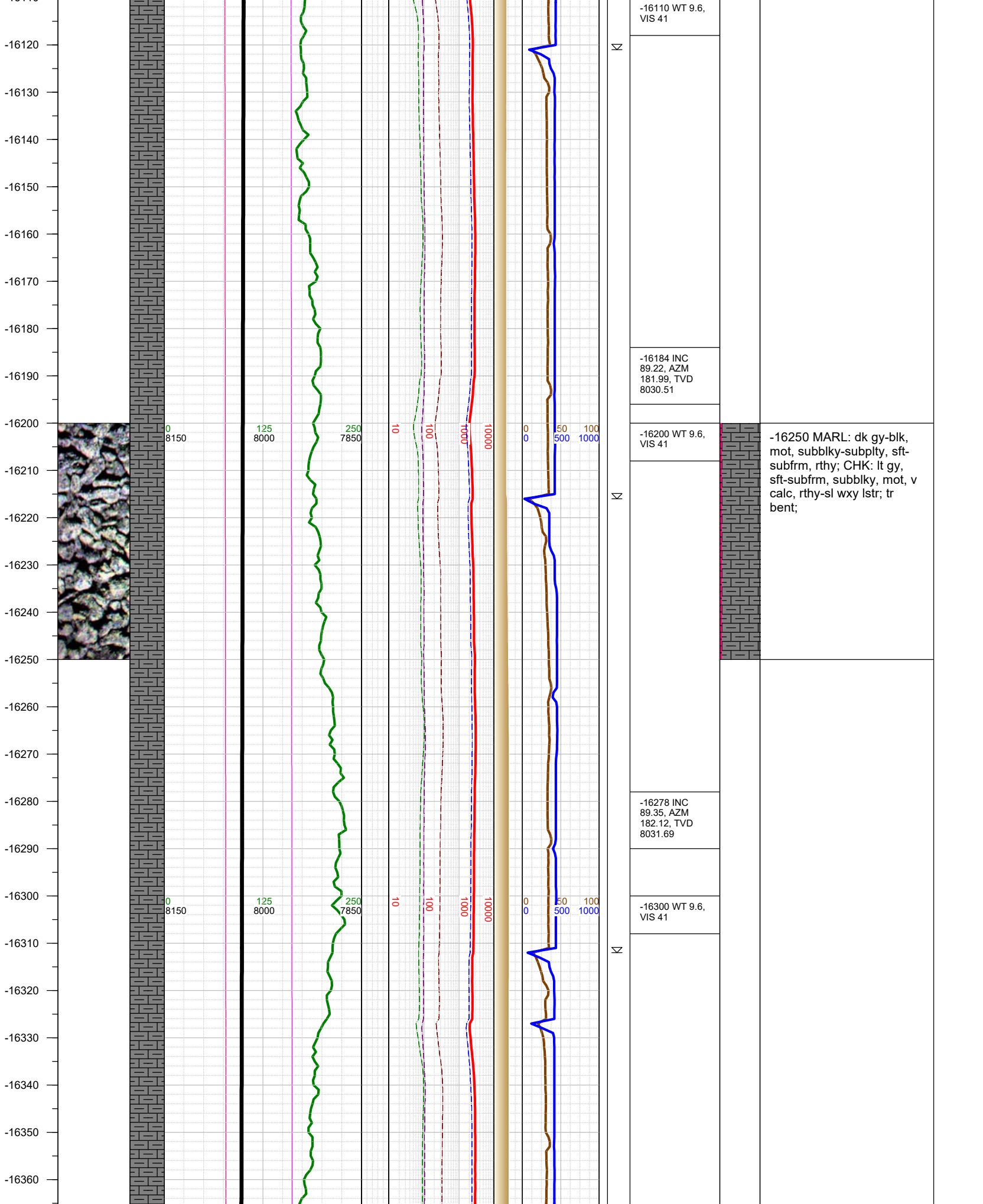
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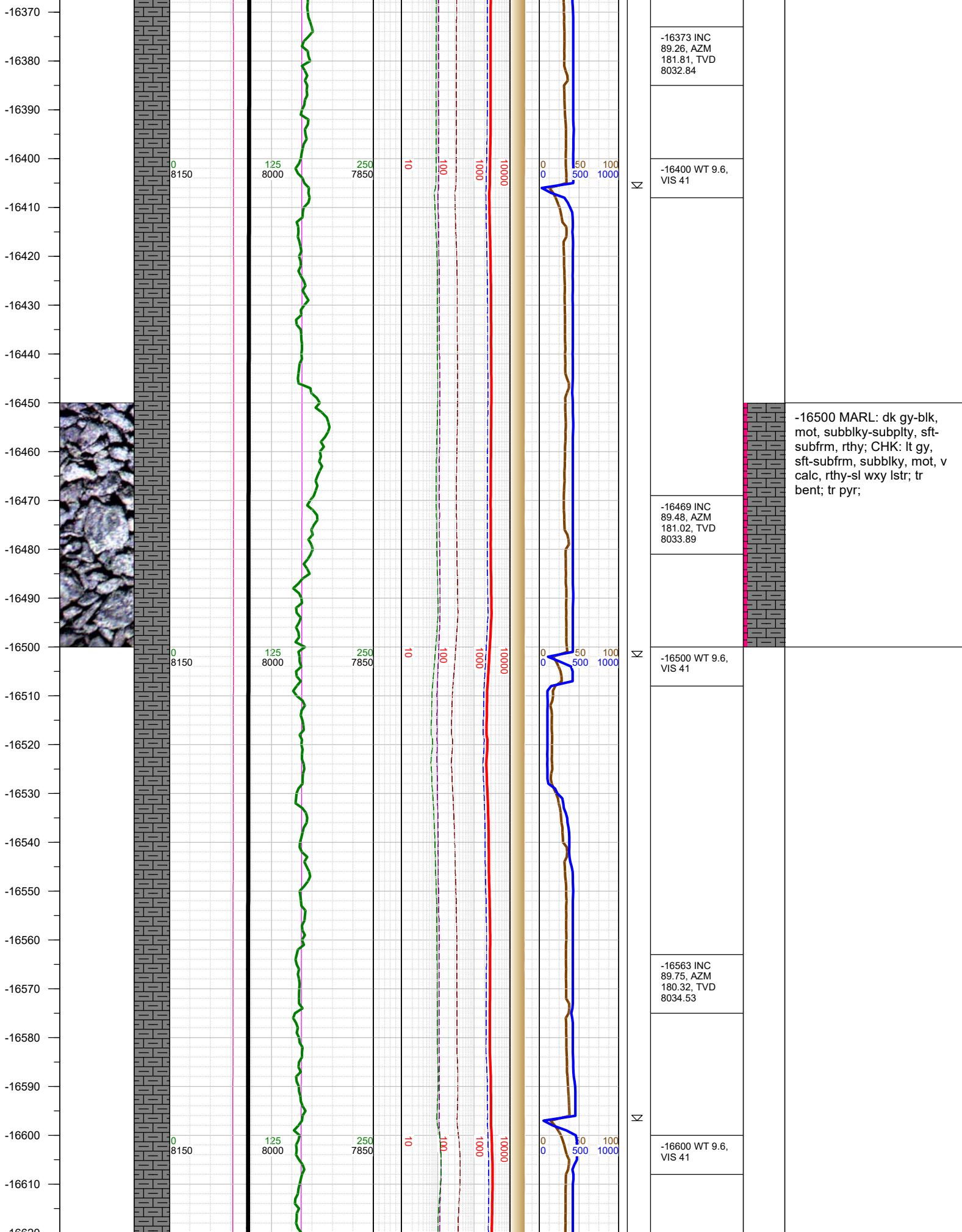
-15899 INC 88.91, AZM 182.52, TVD 8026.29	
-15920 WT 9.6, VIS 41	
-15994 INC 89.17, AZM 182.3, TVD 8027.88	
-16010 WT 9.6, VIS 41	
-16089 INC 89.22, AZM 181.99, TVD 8029.22	

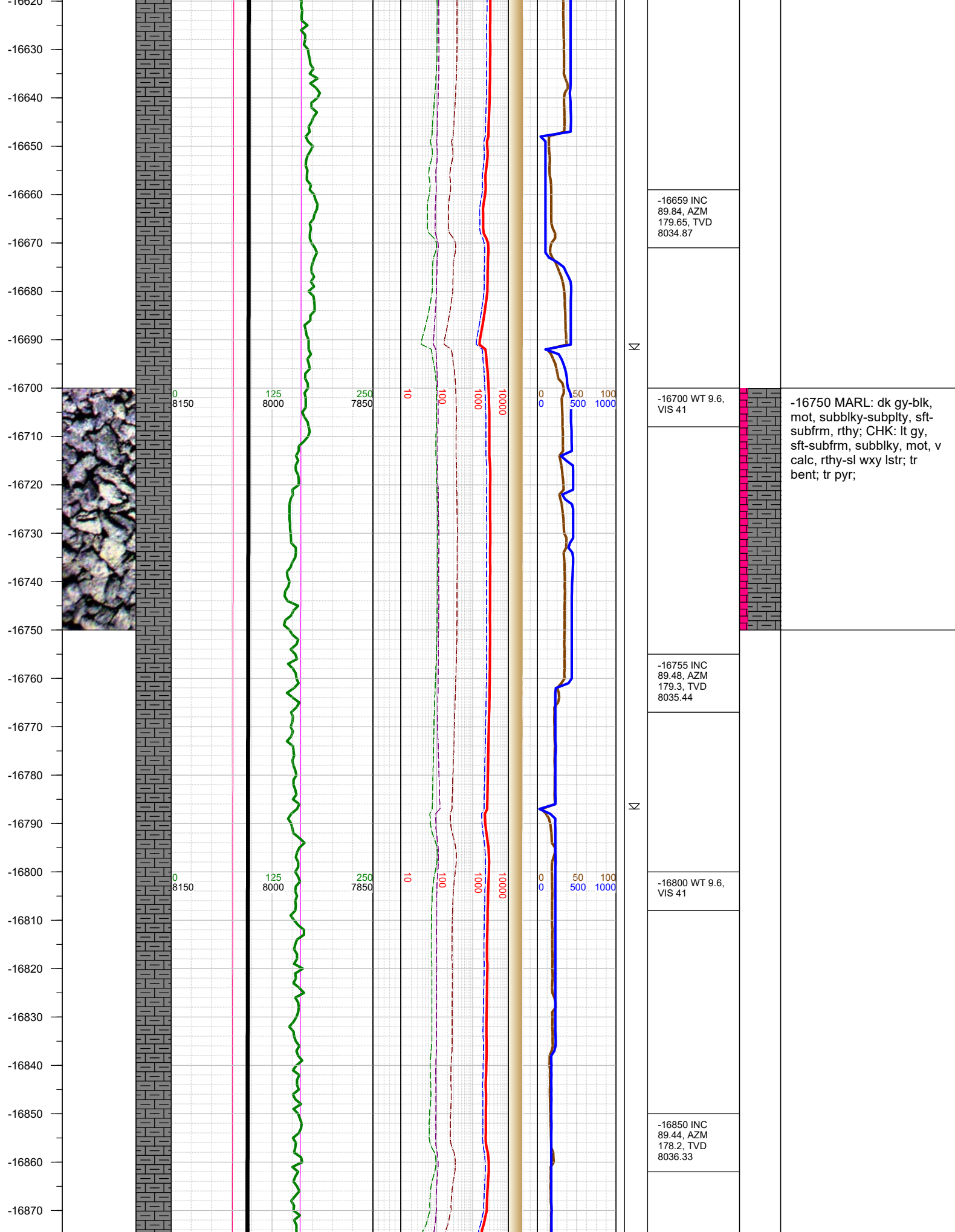


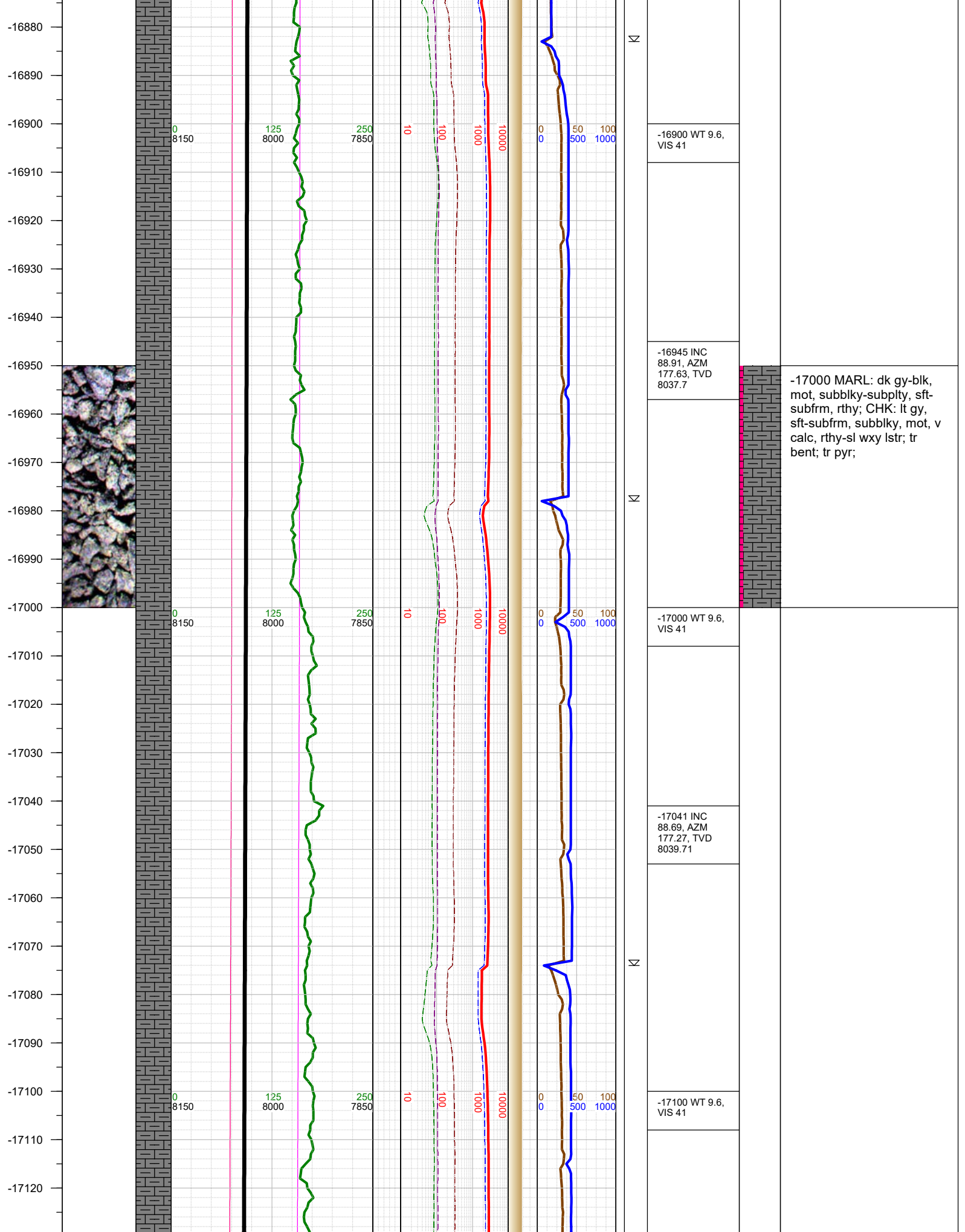
-16000 MARL: dk gy-blk,  
mot, subblky-subply, sft-  
subfrm, rthy; CHK: lt gy,  
sft-subfrm, subblky, mot, v  
calc, rthy-sl wxy lstr; tr  
bent;



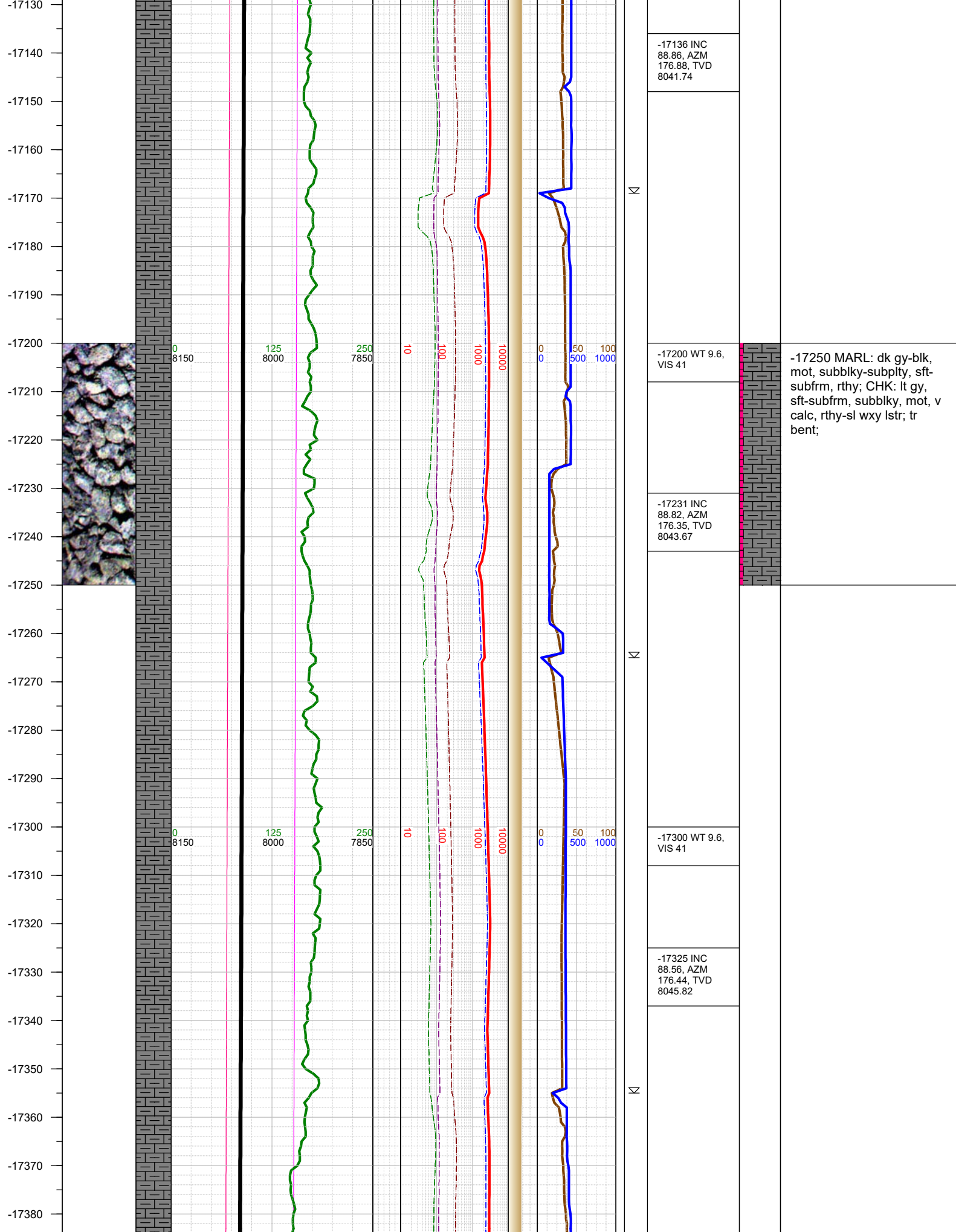


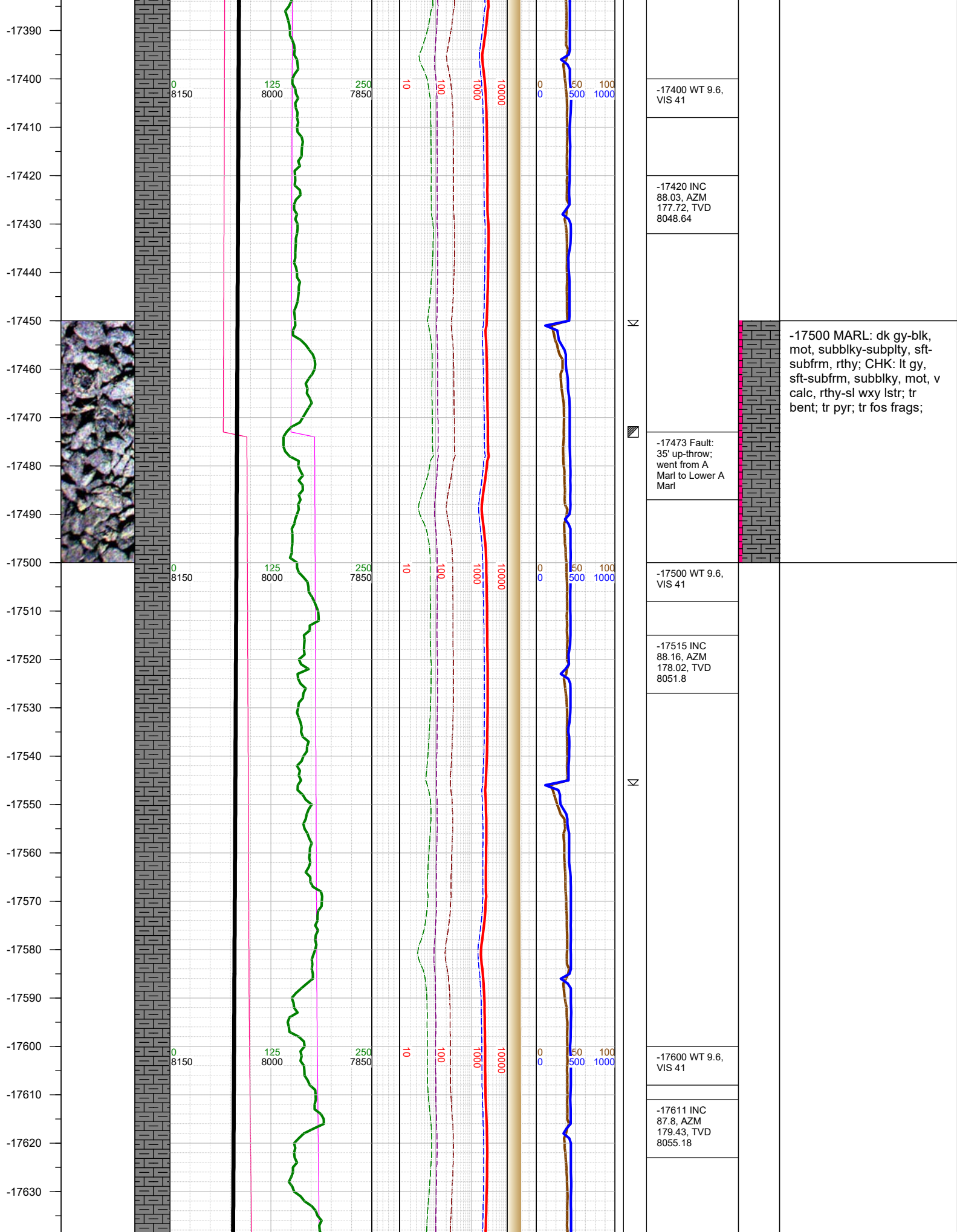


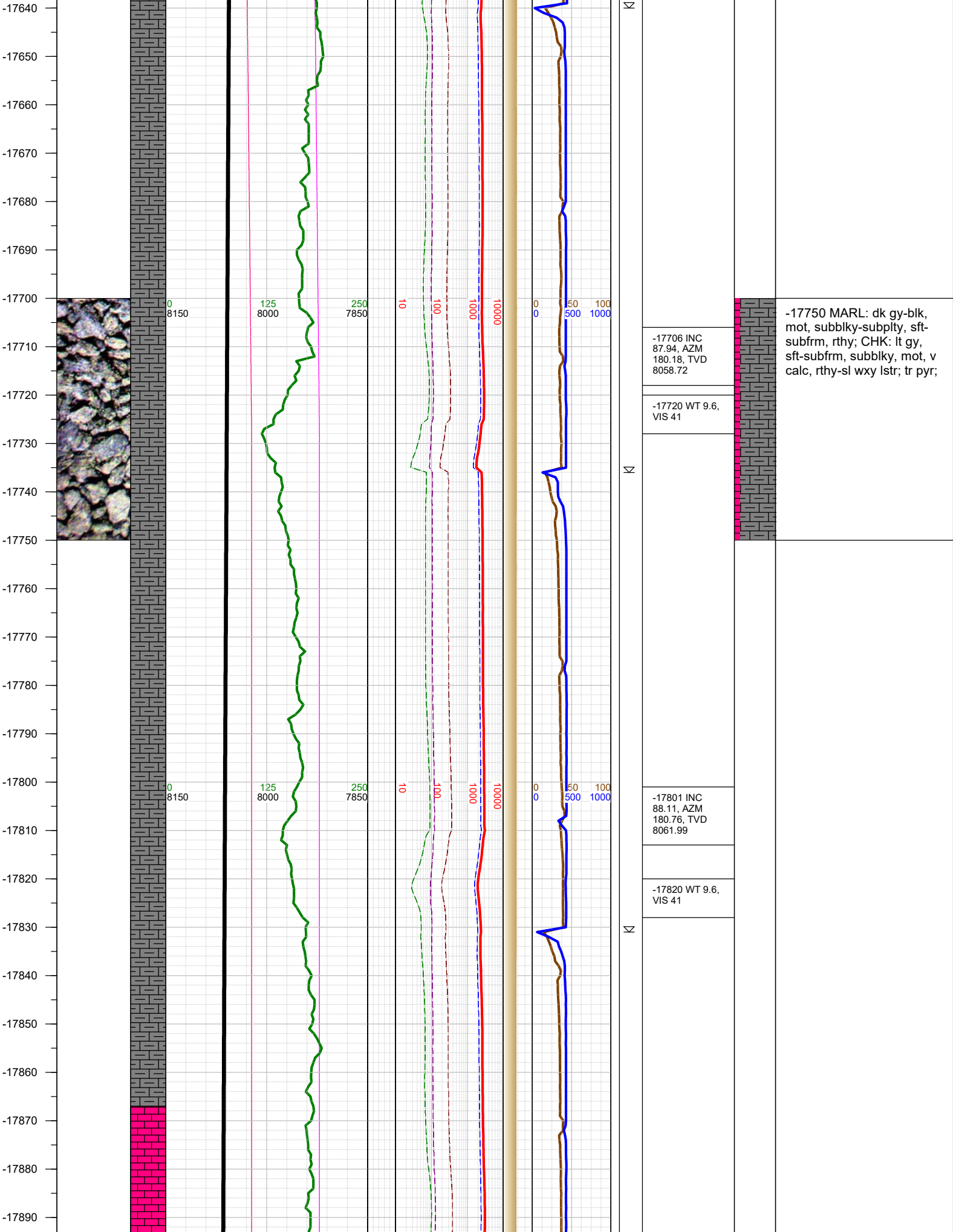




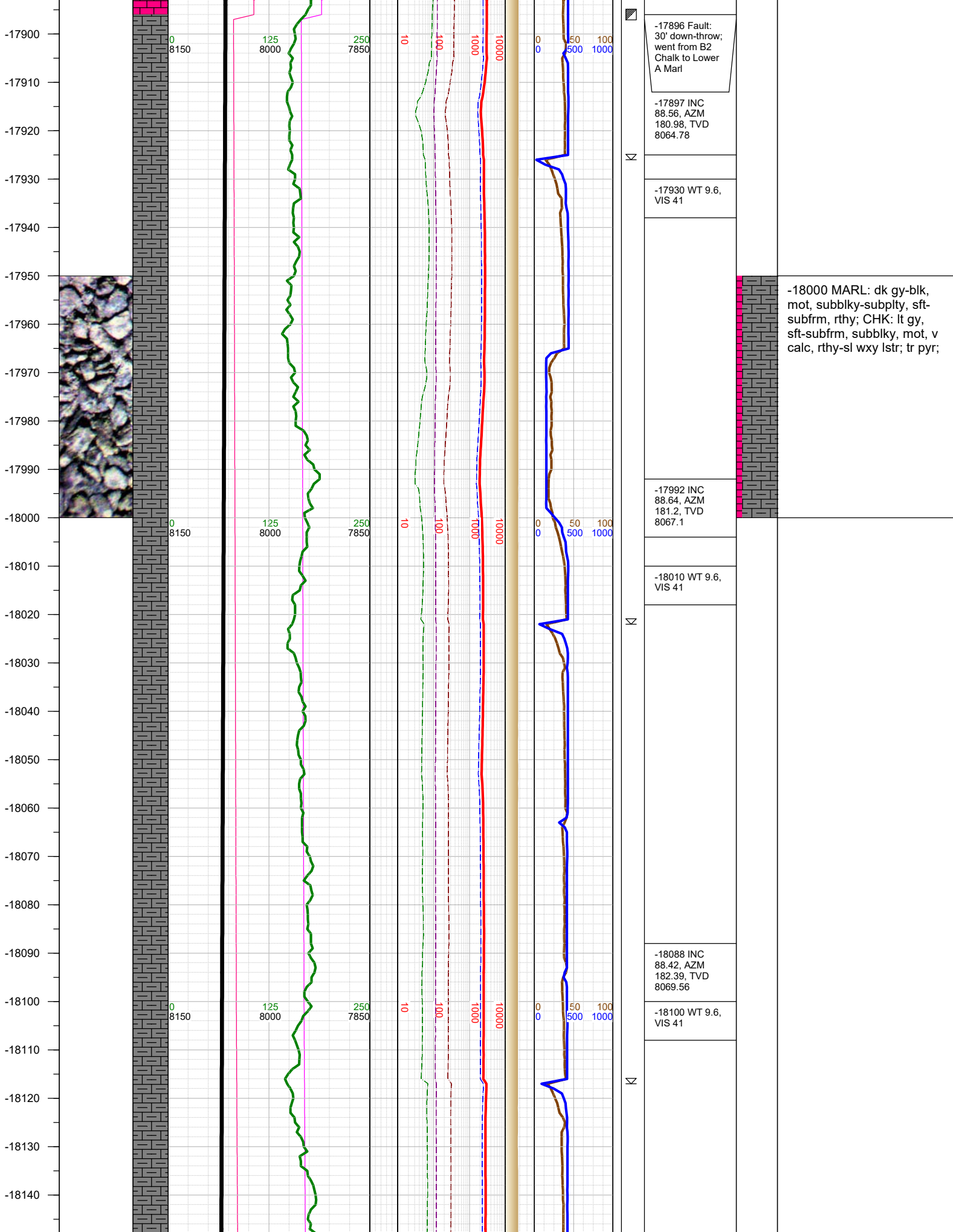












-17896 Fault:  
30' down-throw;  
went from B2  
Chalk to Lower  
A Marl

-17897 INC  
88.56, AZM  
180.98, TVD  
8064.78

-17930 WT 9.6,  
VIS 41

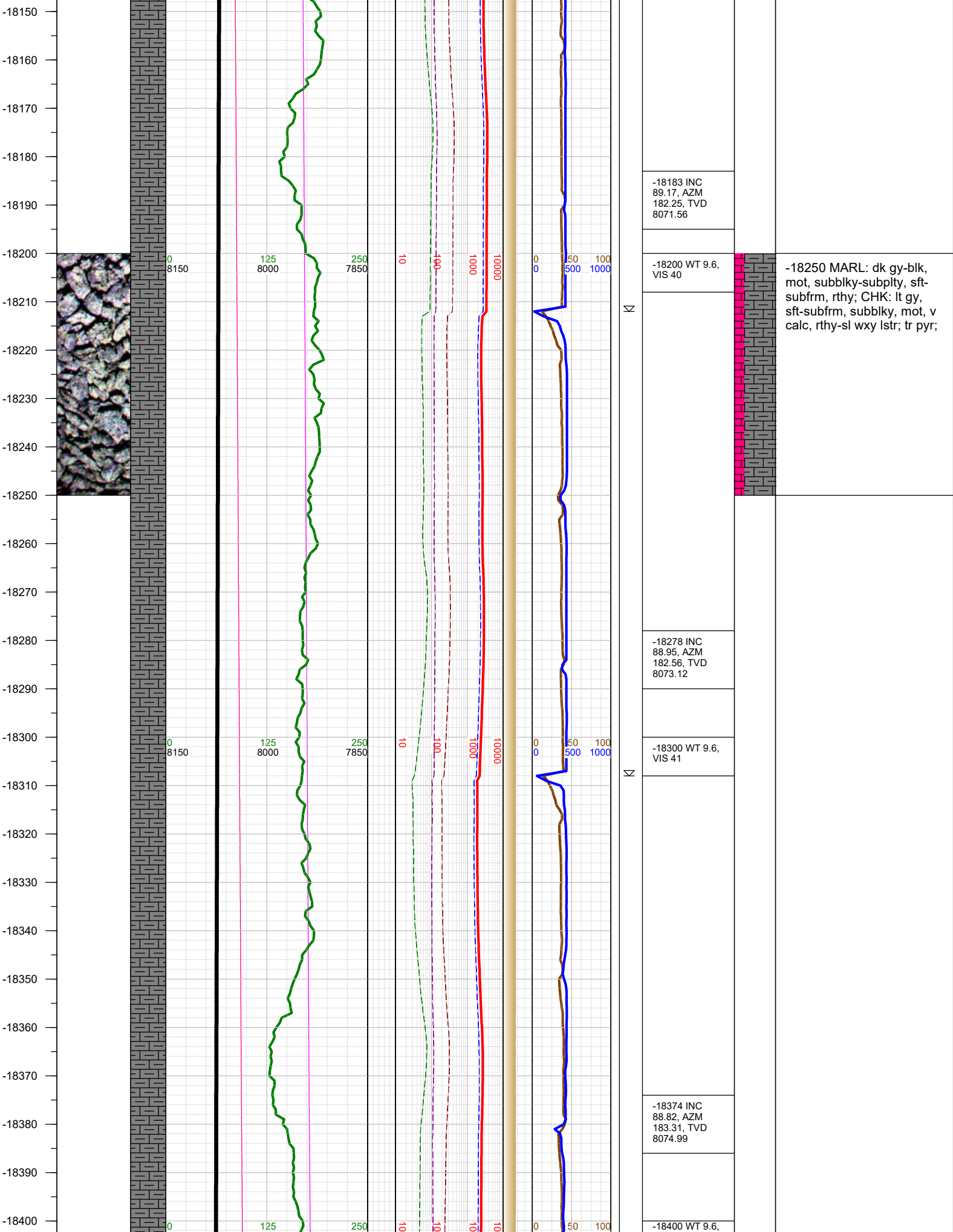
-17992 INC  
88.64, AZM  
181.2, TVD  
8067.1

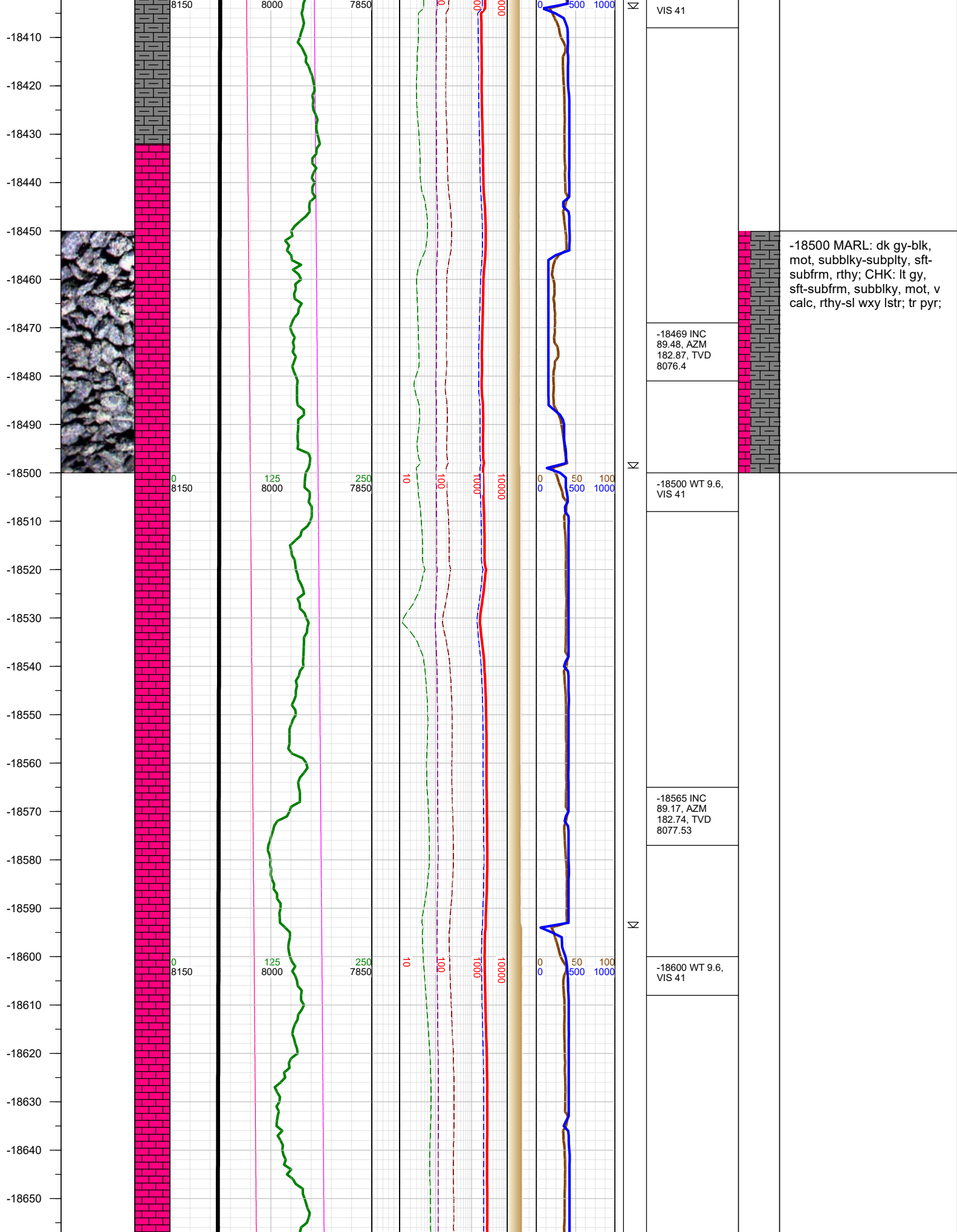
-18010 WT 9.6,  
VIS 41

-18088 INC  
88.42, AZM  
182.39, TVD  
8069.56

-18100 WT 9.6,  
VIS 41

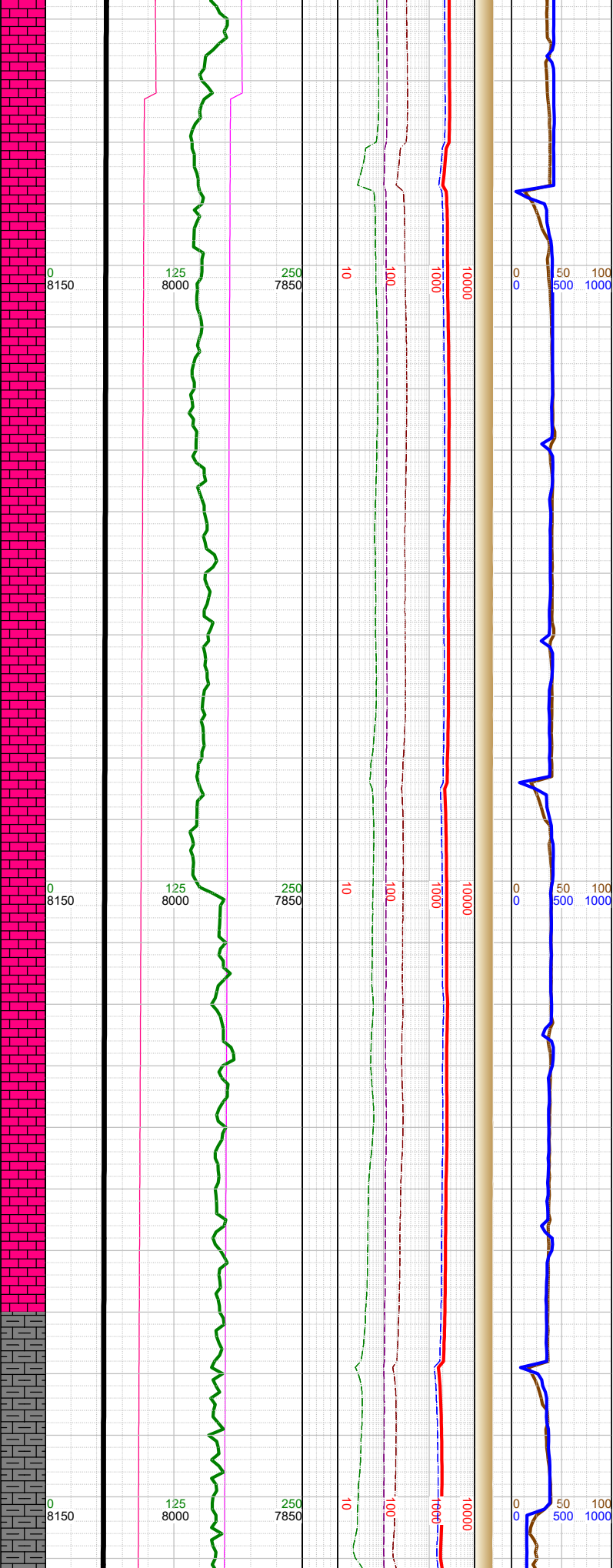
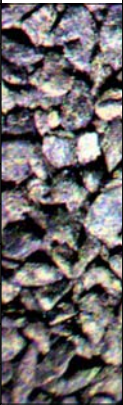
-18000 MARL: dk gy-blk,  
mot, subblky-subplty, sft-  
subfrm, rthy; CHK: lt gy,  
sft-subfrm, subblky, mot, v  
calc, rthy-sl wxy lstr; tr pyr;



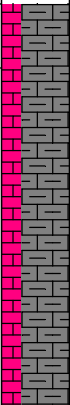




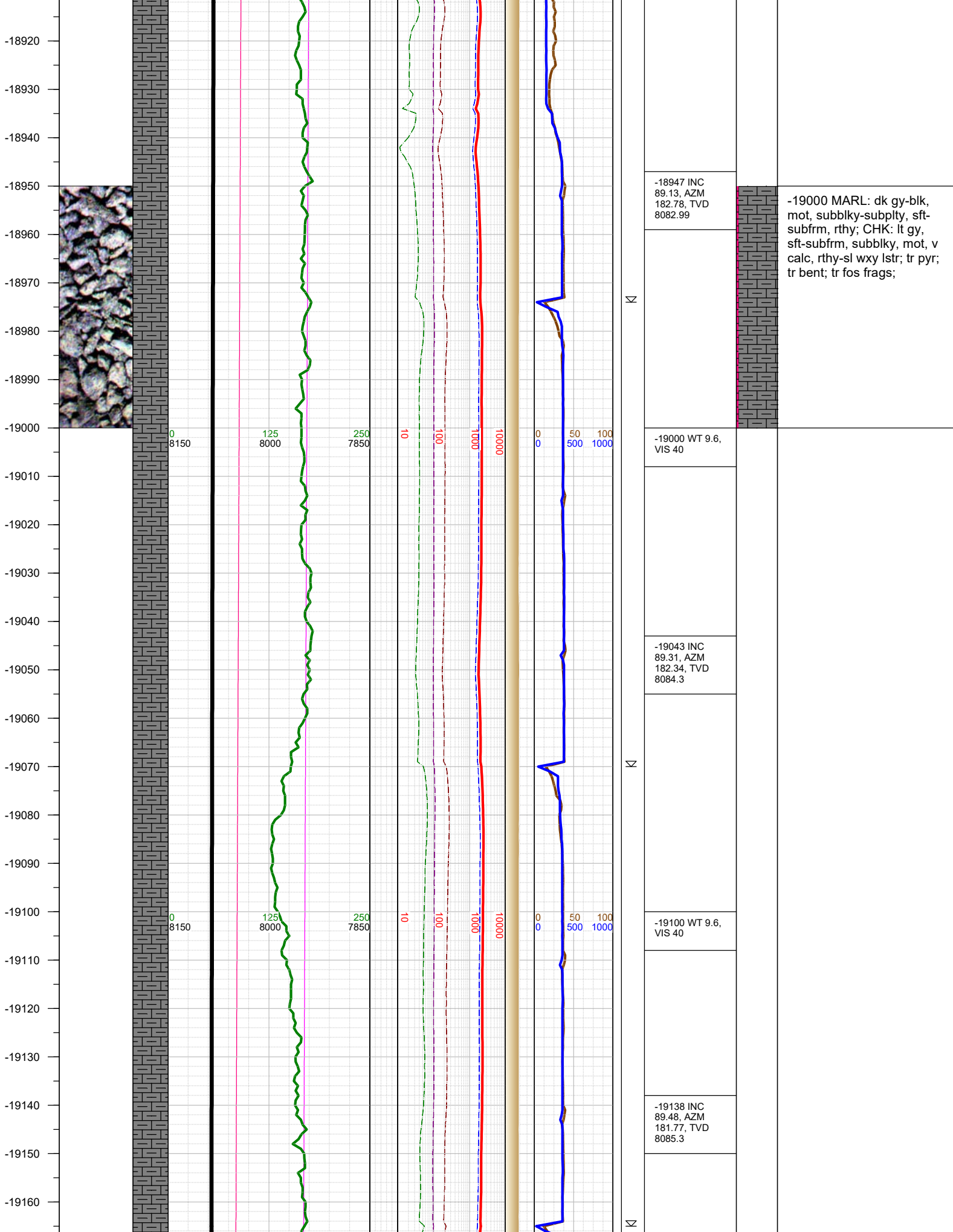
-18660  
-18670  
-18680  
-18690  
-18700  
-18710  
-18720  
-18730  
-18740  
-18750  
-18760  
-18770  
-18780  
-18790  
-18800  
-18810  
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-18890  
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-18910

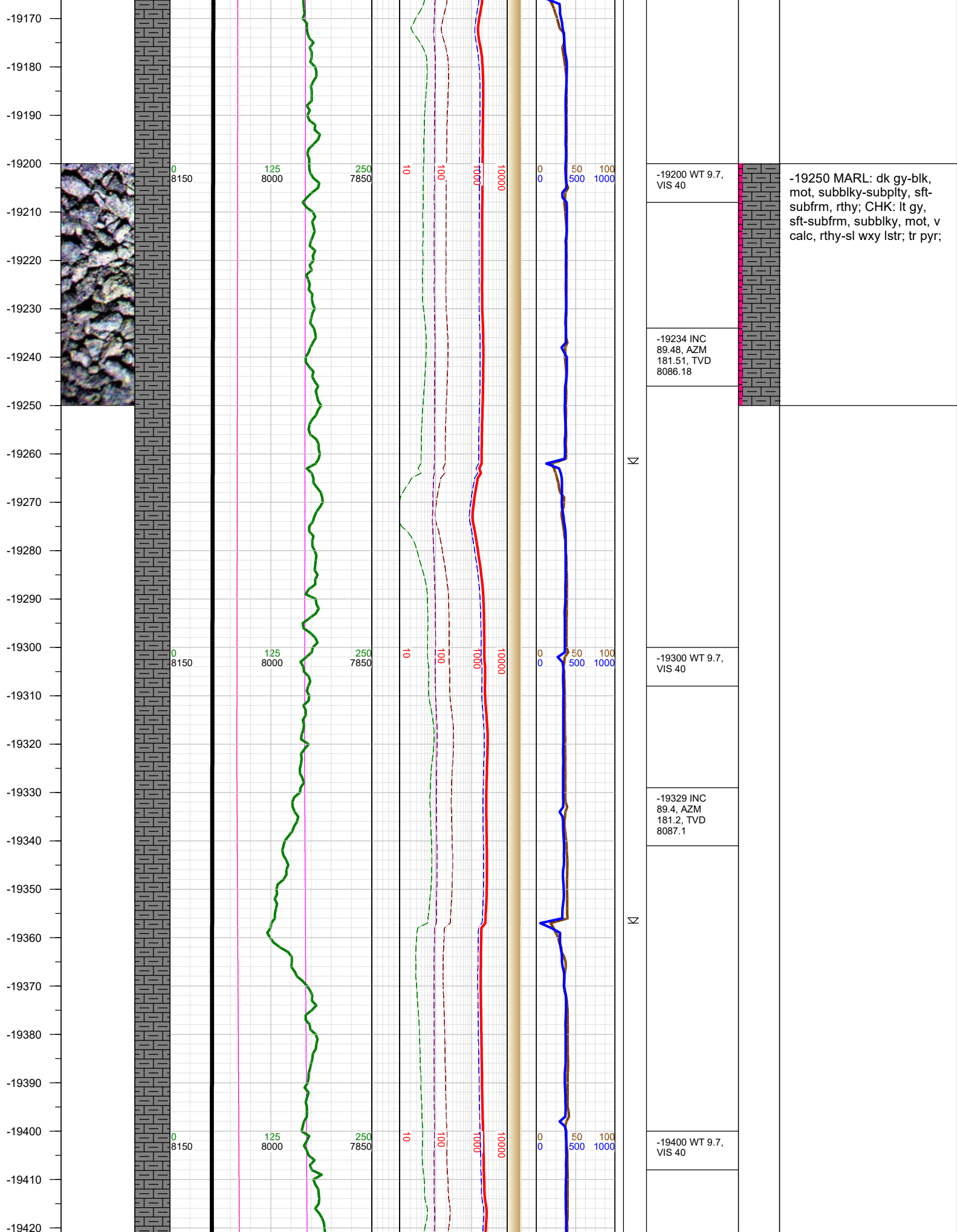


-18661 INC 89.09, AZM 182.74, TVD 8078.98	
-18672 Fault: 13' down-throw; stayed in B2 Chalk	
-18700 WT 9.6, VIS 41	
-18756 INC 89.22, AZM 182.92, TVD 8080.39	
-18800 WT 9.6, VIS 40	
-18852 INC 89.26, AZM 182.65, TVD 8081.66	
-18900 WT 9.6, VIS 40	

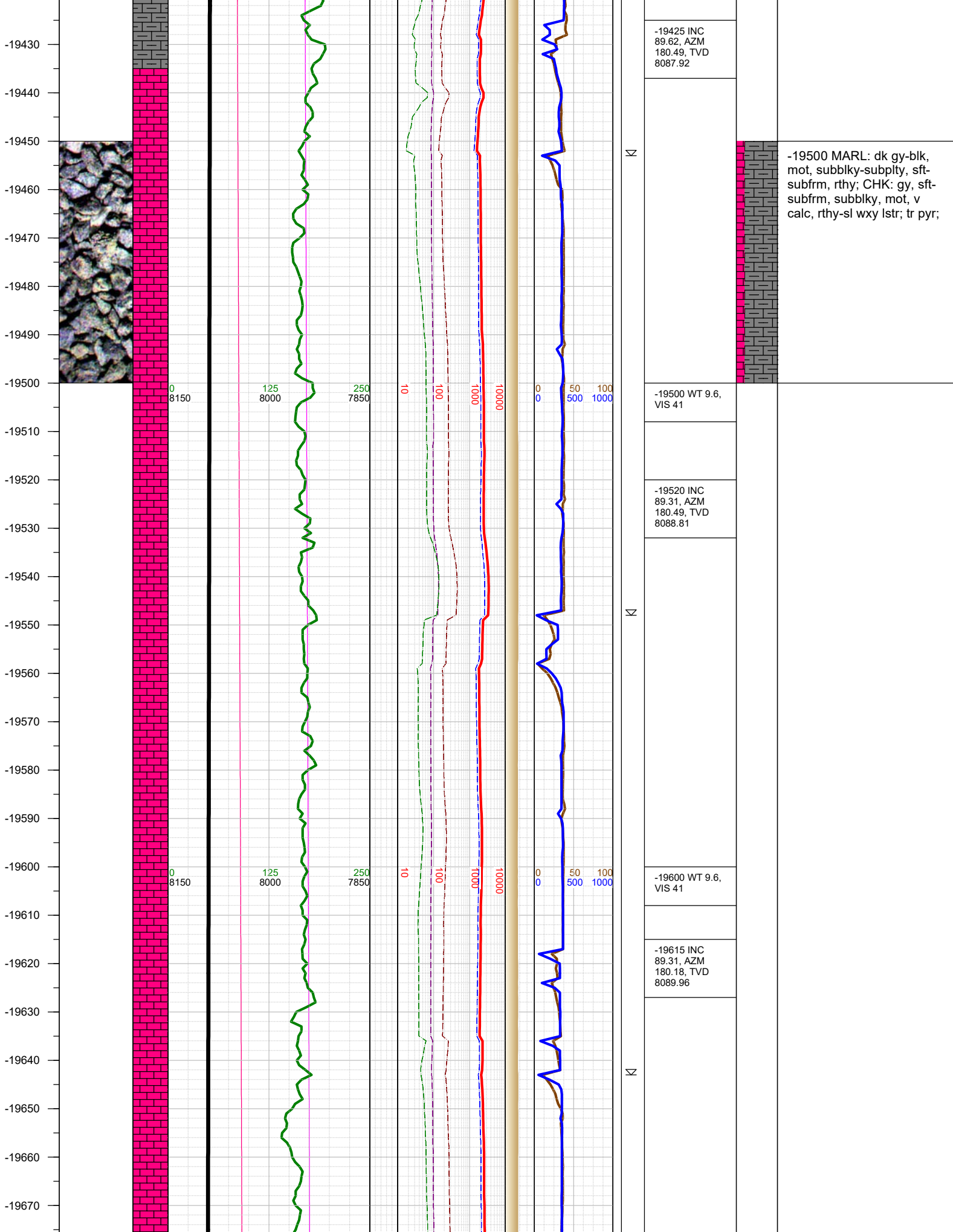


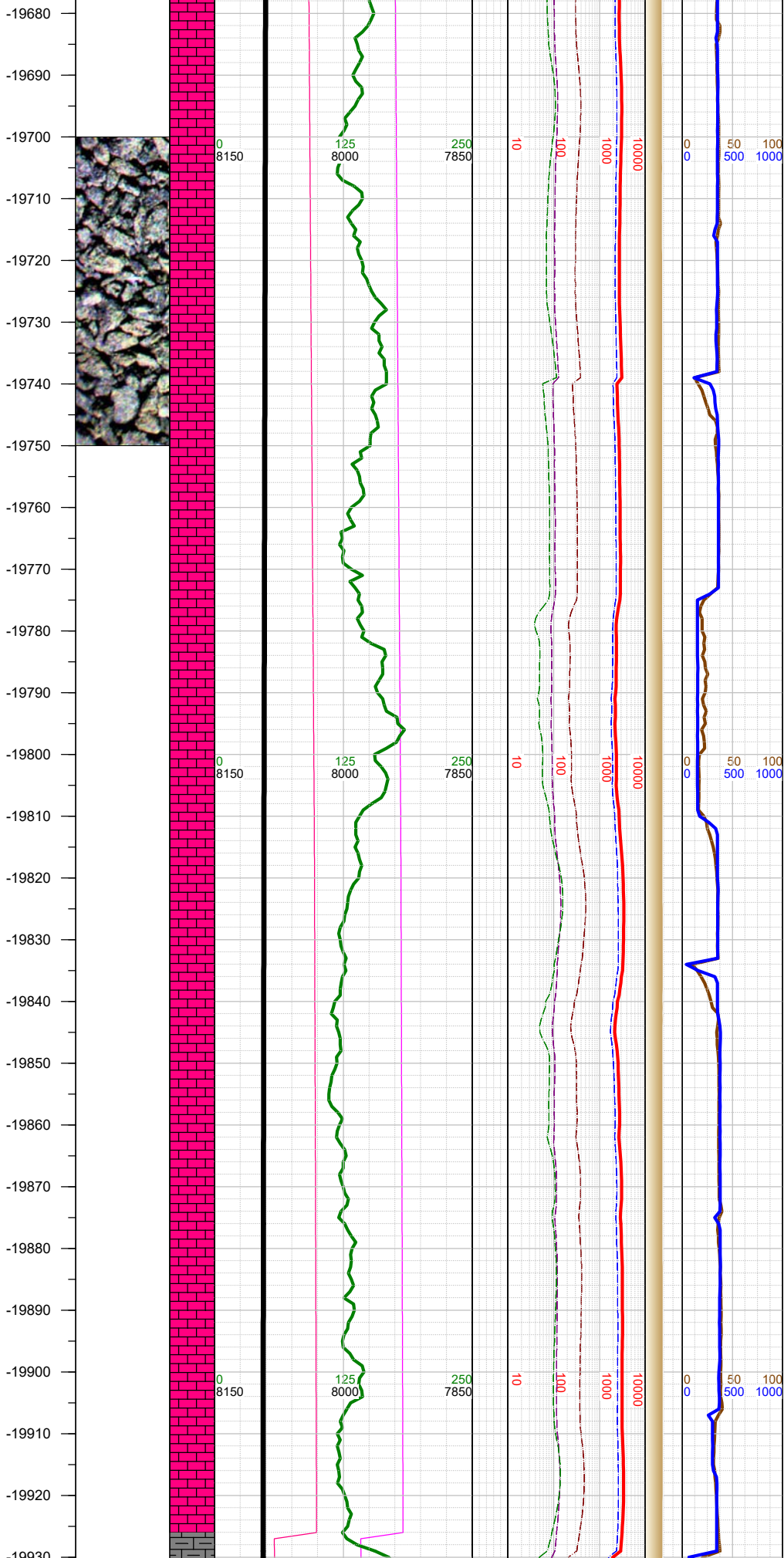
-18750 MARL: dk gy-blk,  
mot, subblky-subplty, sft-  
subfrm, rthy; CHK: lt gy,  
sft-subfrm, subblky, mot, v  
calc, rthy-sl wxy lstr; tr pyr;  
tr bent; tr fos frags;











-19700 WT 9.6,  
VIS 40

-19709 INC  
89.26, AZM  
179.52, TVD  
8091.13

-19803 INC  
89.09, AZM  
179.65, TVD  
8092.48

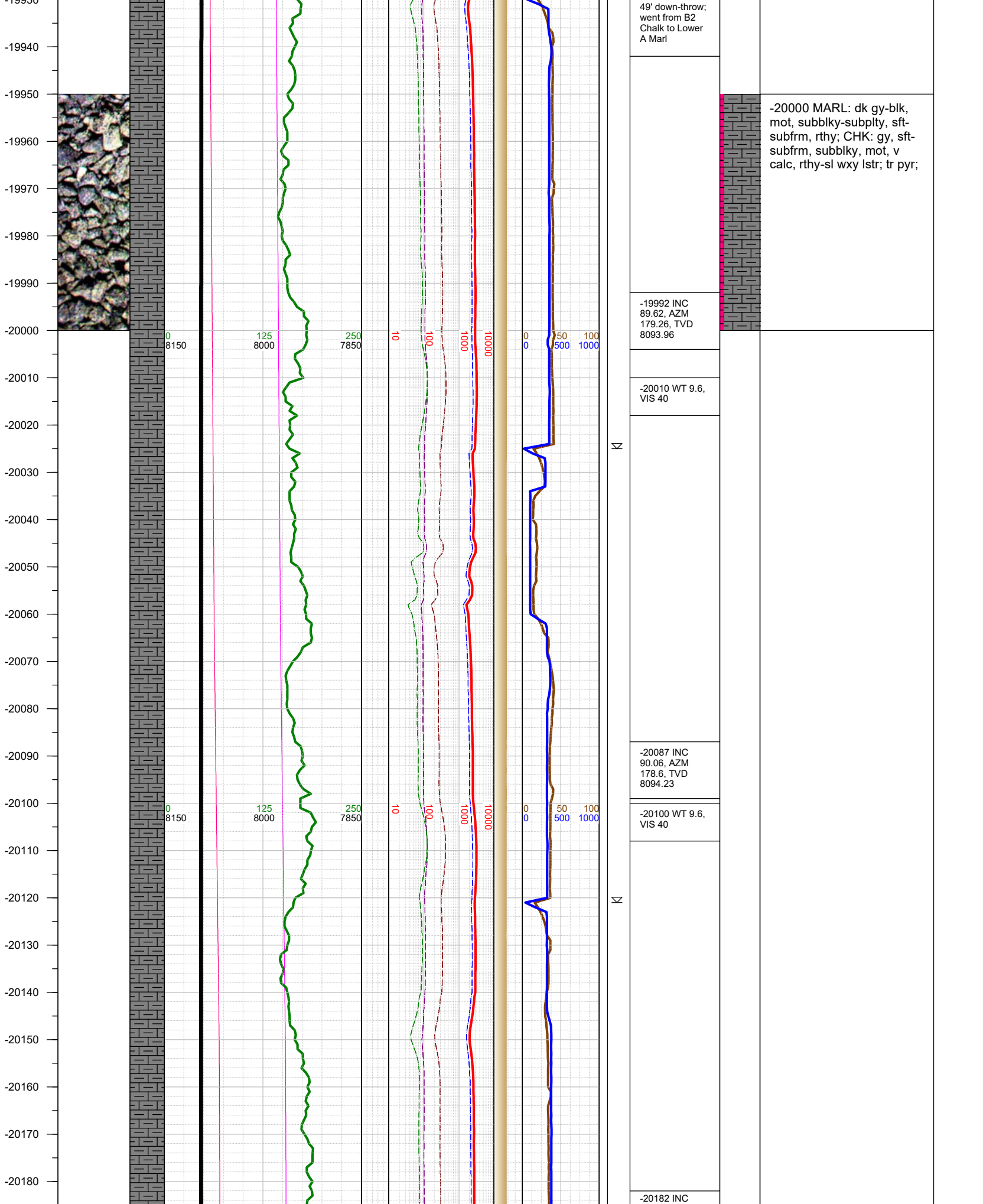
-19820 WT 9.6,  
VIS 40

-19898 INC  
89.75, AZM  
179.43, TVD  
8093.44

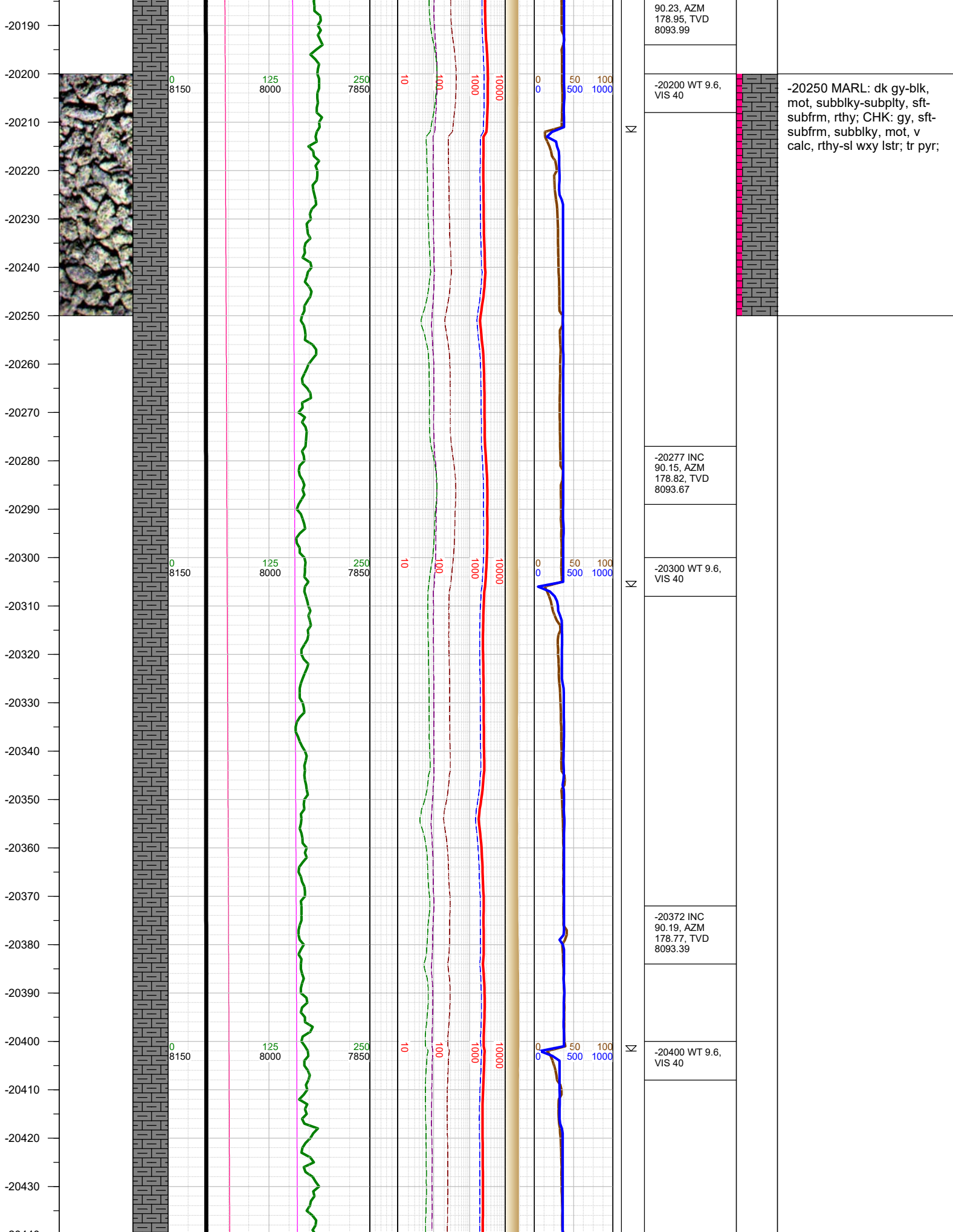
-19910 WT 9.6,  
VIS 40

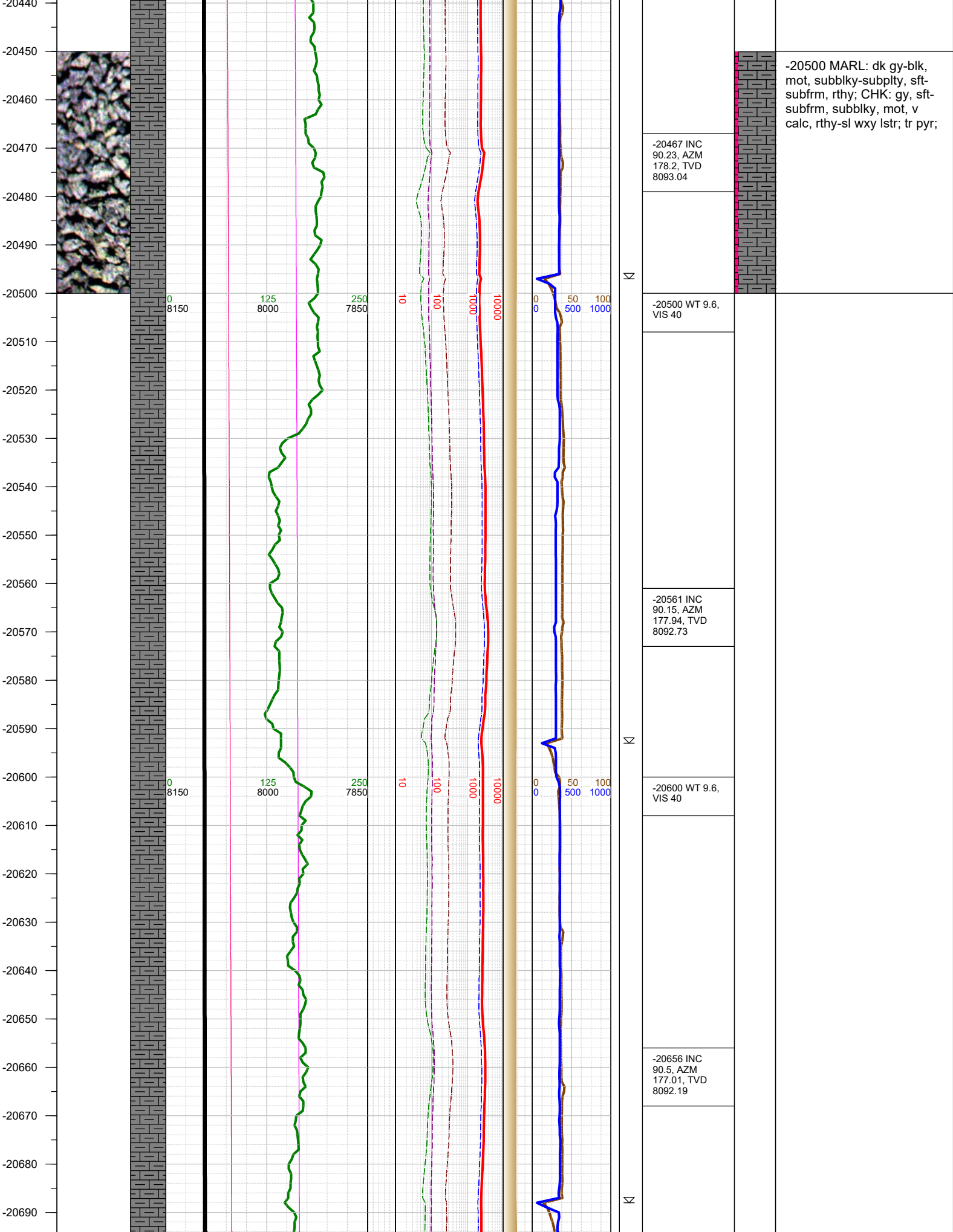
-19926 Fault:

-19750 MARL: dk gy-blk,  
mot, subblky-subply, sft-  
subfrm, rthy; CHK: med gy-  
brn, sft-subfrm, subblky,  
mot, v calc, rthy-sl wxy lstr;  
tr pyr;









-20500 MARL: dk gy-blk, mot, subblky-subply, sft-subfrm, rthy; CHK: gy, sft-subfrm, subblky, mot, v calc, rthy-sl wxy lstr; tr pyr;

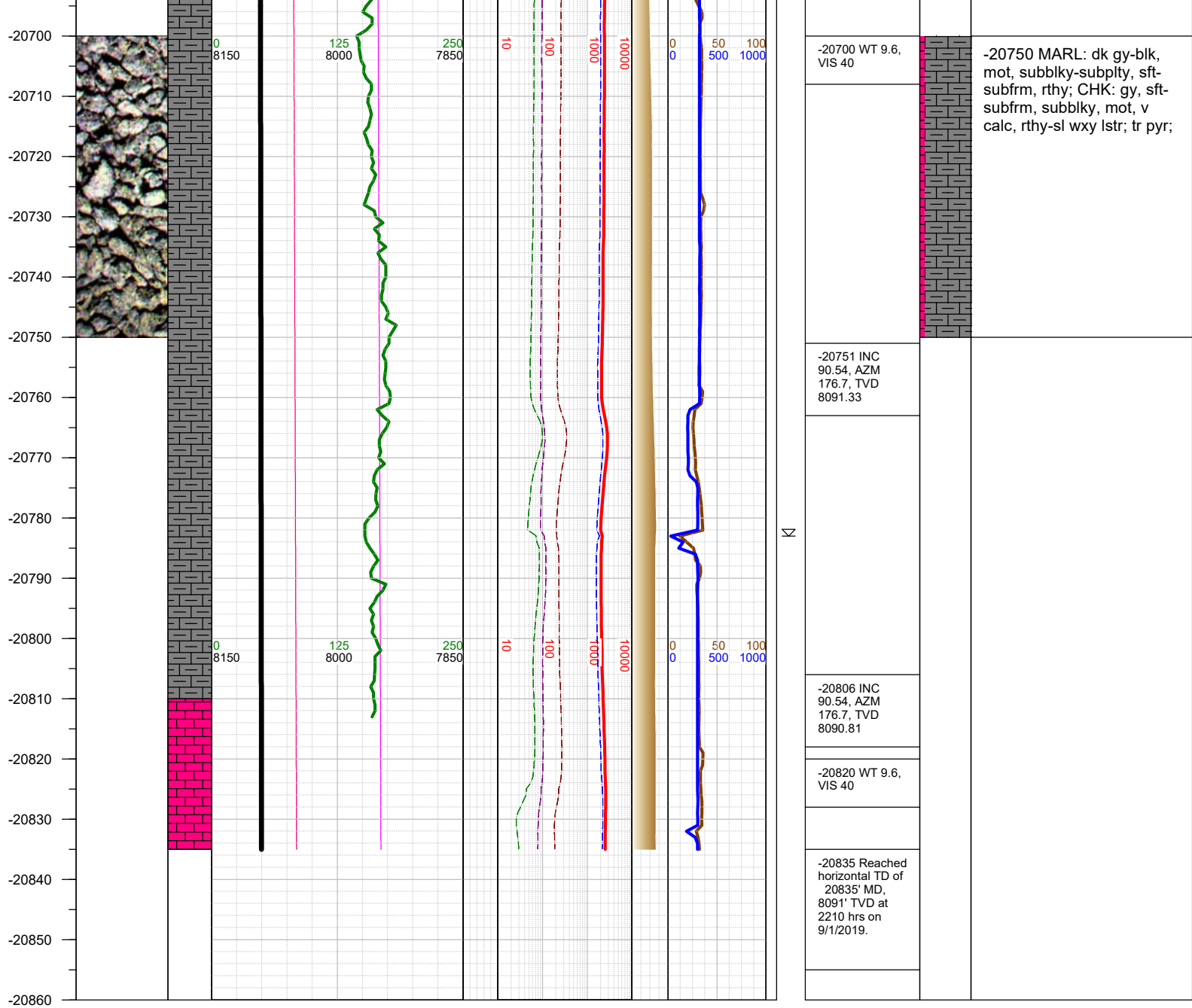
-20467 INC  
90.23, AZM  
178.2, TVD  
8093.04

-20500 WT 9.6,  
VIS 40

-20561 INC  
90.15, AZM  
177.94, TVD  
8092.73

-20600 WT 9.6,  
VIS 40

-20656 INC  
90.5, AZM  
177.01, TVD  
8092.19



TOTAL DEPTH = 20835'

Thank you for using Earth Science Agency