

OPERATOR: **Extraction Oil & Gas**

WELL NAME: **Duck Club 12W-20-2N**

FIELD NAME: DJ Basin - Wattenberg

DRILLING RIG: Patterson 901

API #: 05-001-10162

LAT/LONG: 39.97937, -104.73093

SURFACE HOLE: NWSW S12-T1S-R66W, 2575' FSL, 694' FWL

BOTTOM HOLE: S10-T1S-R66W, 856' FNL, 2180' FEL



Earth Science Agency, LLC

COUNTY: Adams

STATE: Colorado

GROUND ELEVATION: 5037'

KELLY BUSHING: 5066'

DRILLING FLUID: OBM

TVD VS. MD: 7239' / 17807'

SPUD DATE: December 25, 2018

TD DATE: December 28, 2018

DEPTHS LOGGED: 6000' - 17807'

DATES LOGGED: December 26, 2018 - December 28, 2018

GEOLOGISTS: Dan Jacobs, Blake Eatherton

SCALE: 5" = 100'

LEGEND



CHALK



LIMESTONE



SHALY LIMESTONE



MARLSTONE



CALCAREOUS SHALE



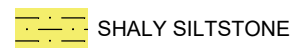
DOLOMITE



SHALE



SILTY SHALE



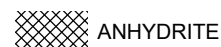
SHALY SILTSTONE



SHALY SANDSTONE

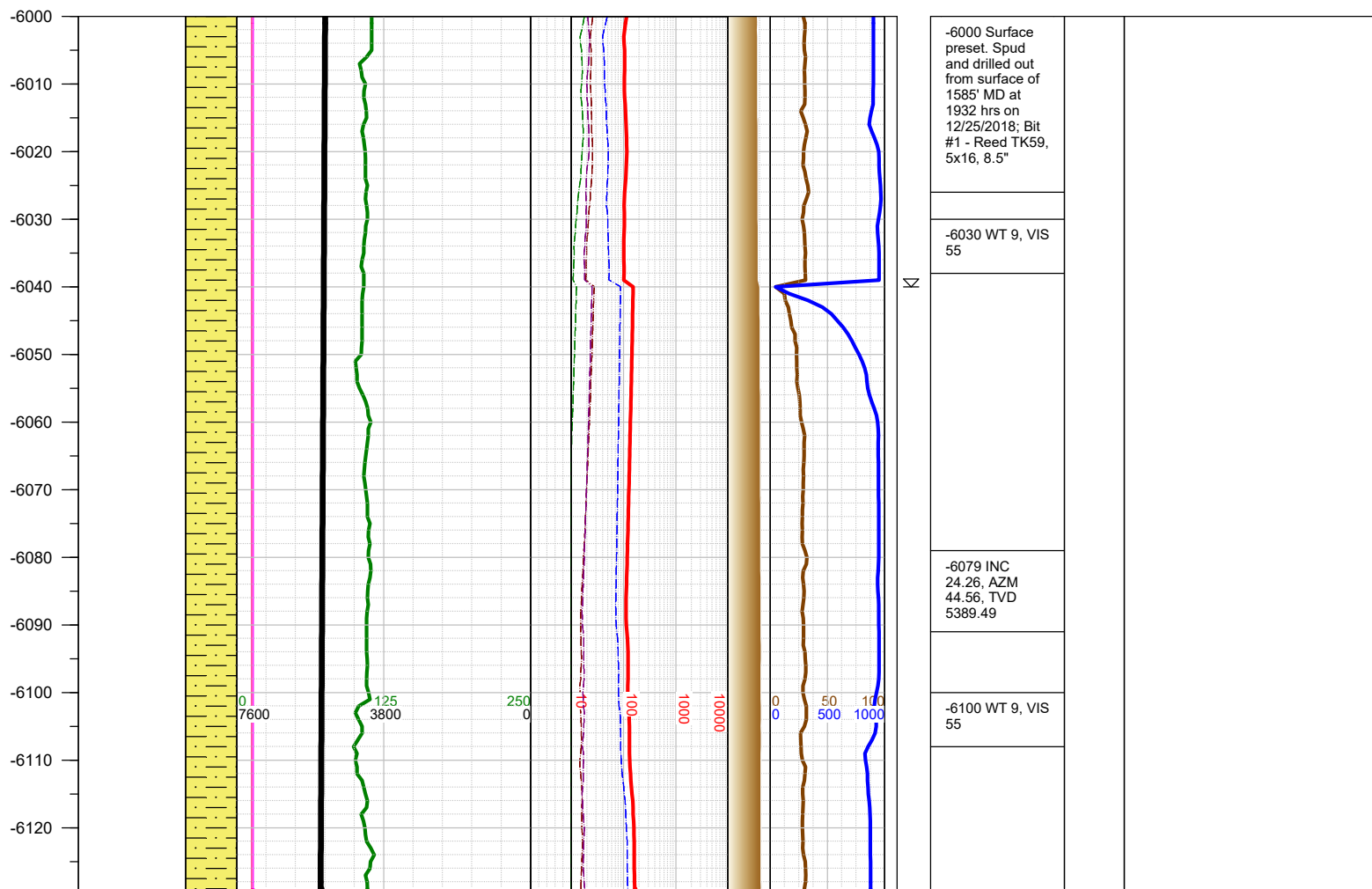
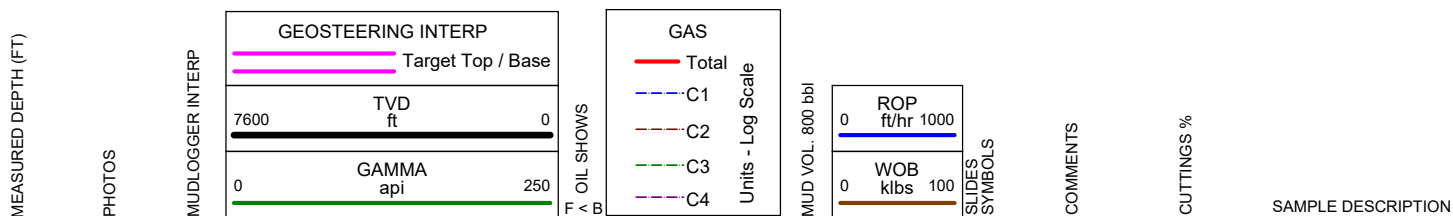


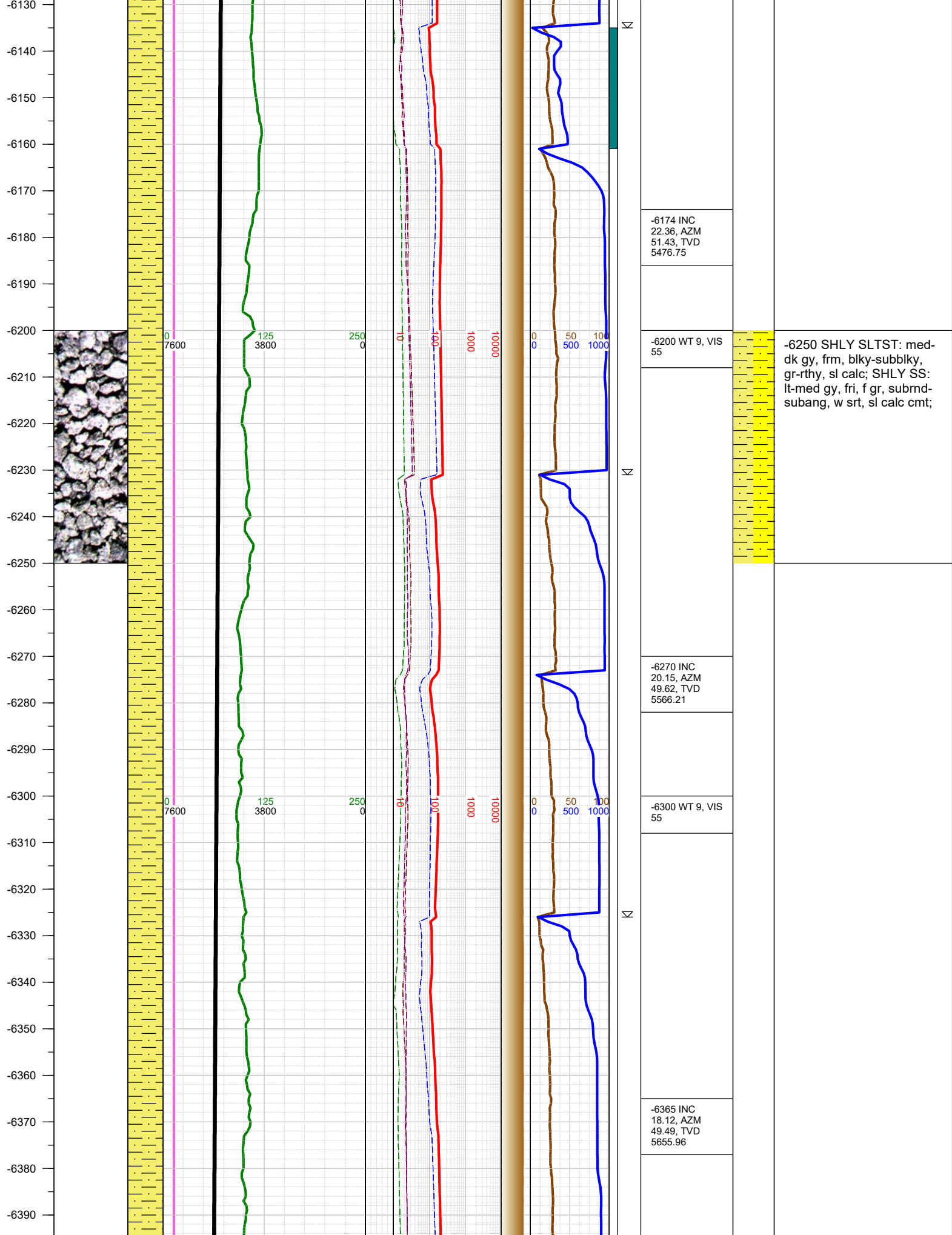
SANDSTONE

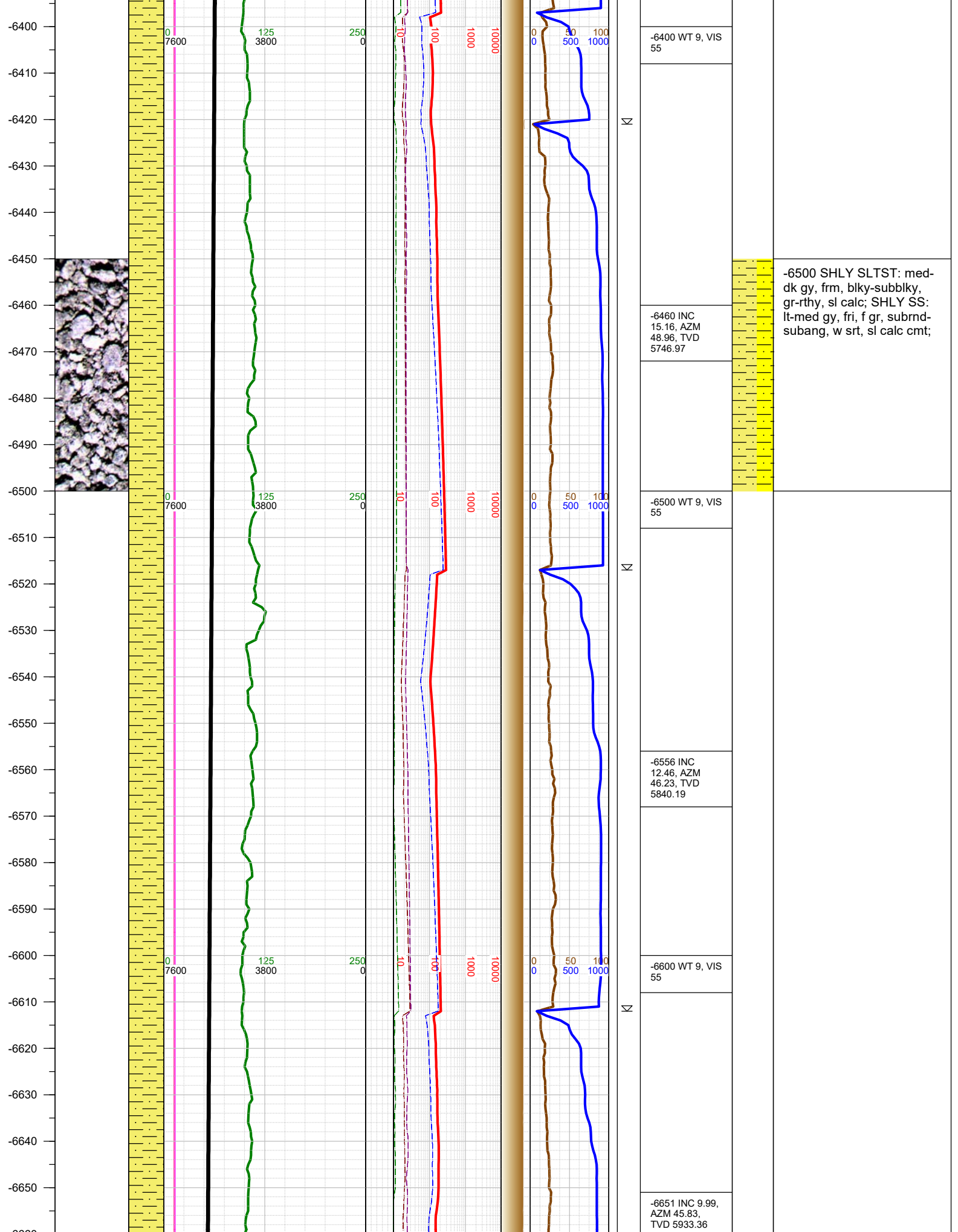


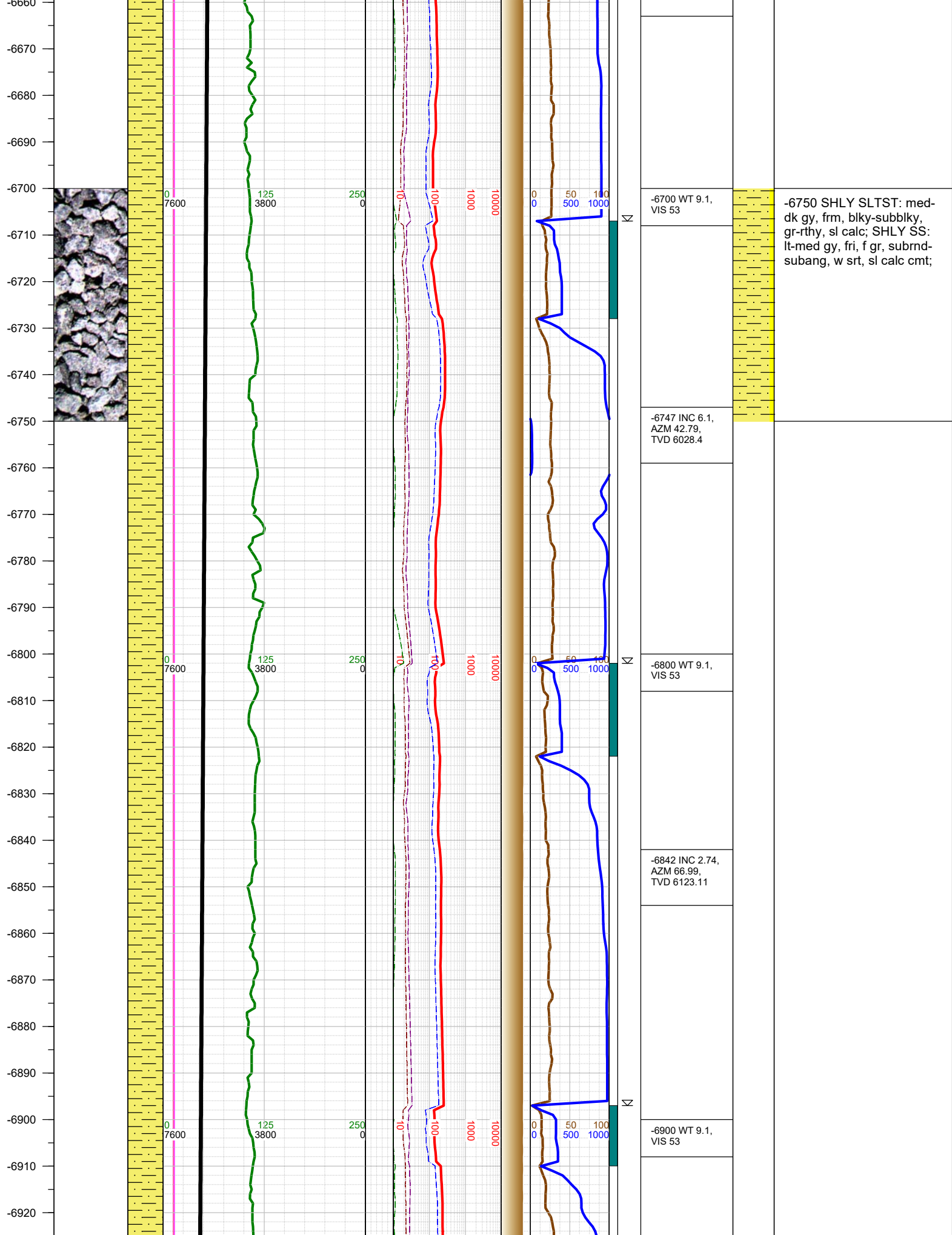
ANHYDRITE

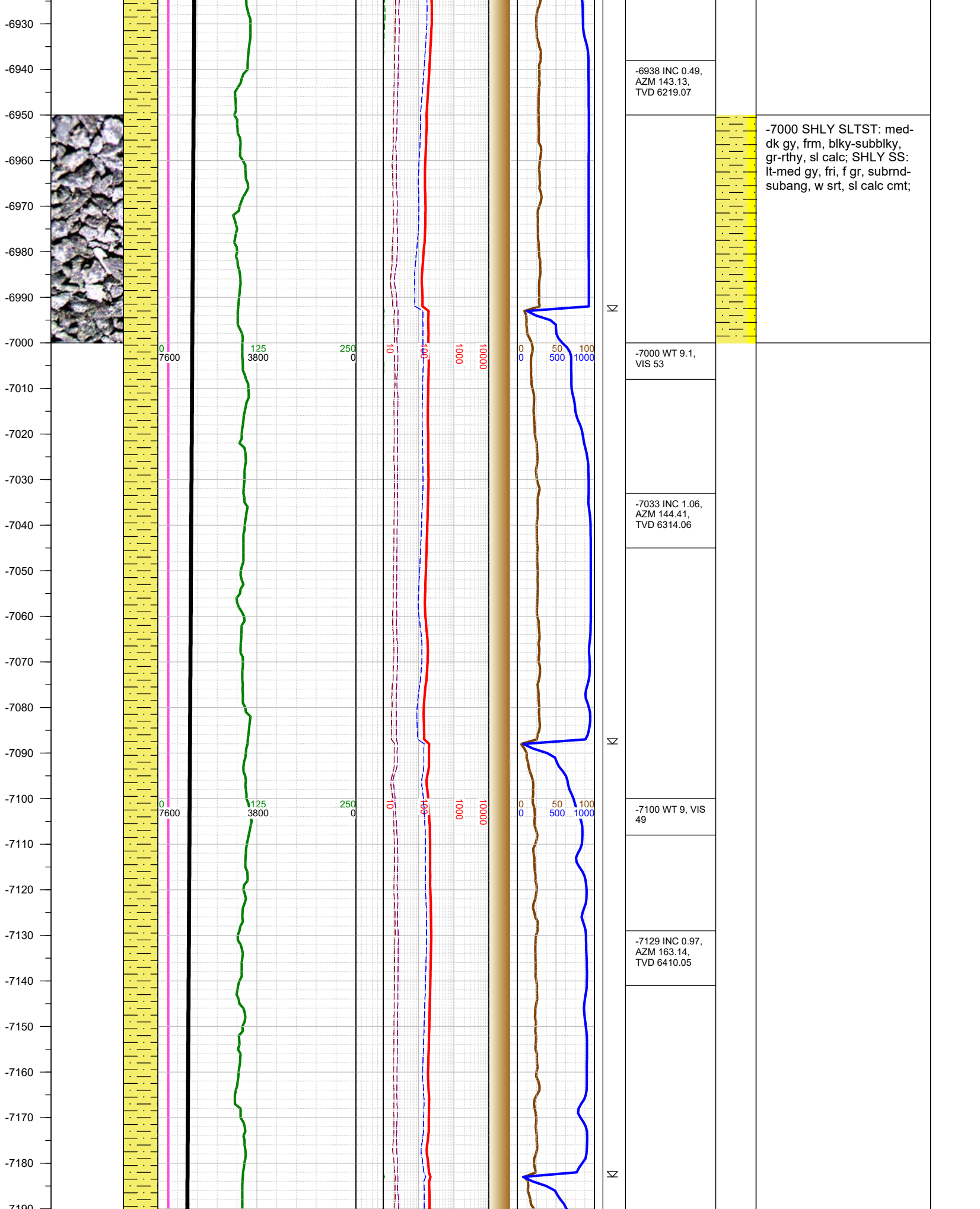
FORMATION \approx CONNECTION Δ MIDNIGHT NEW BIT GAS SHOW FAULT

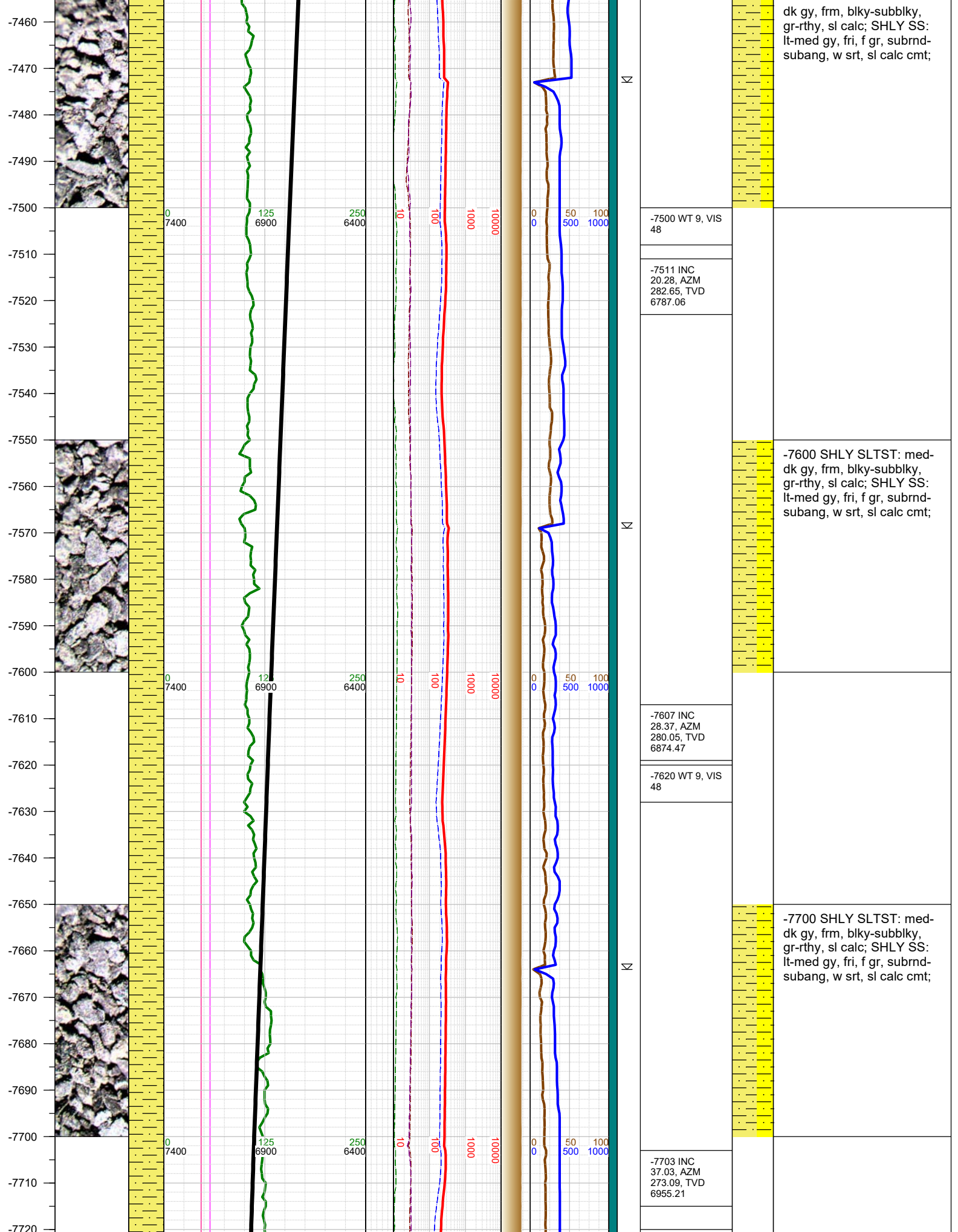


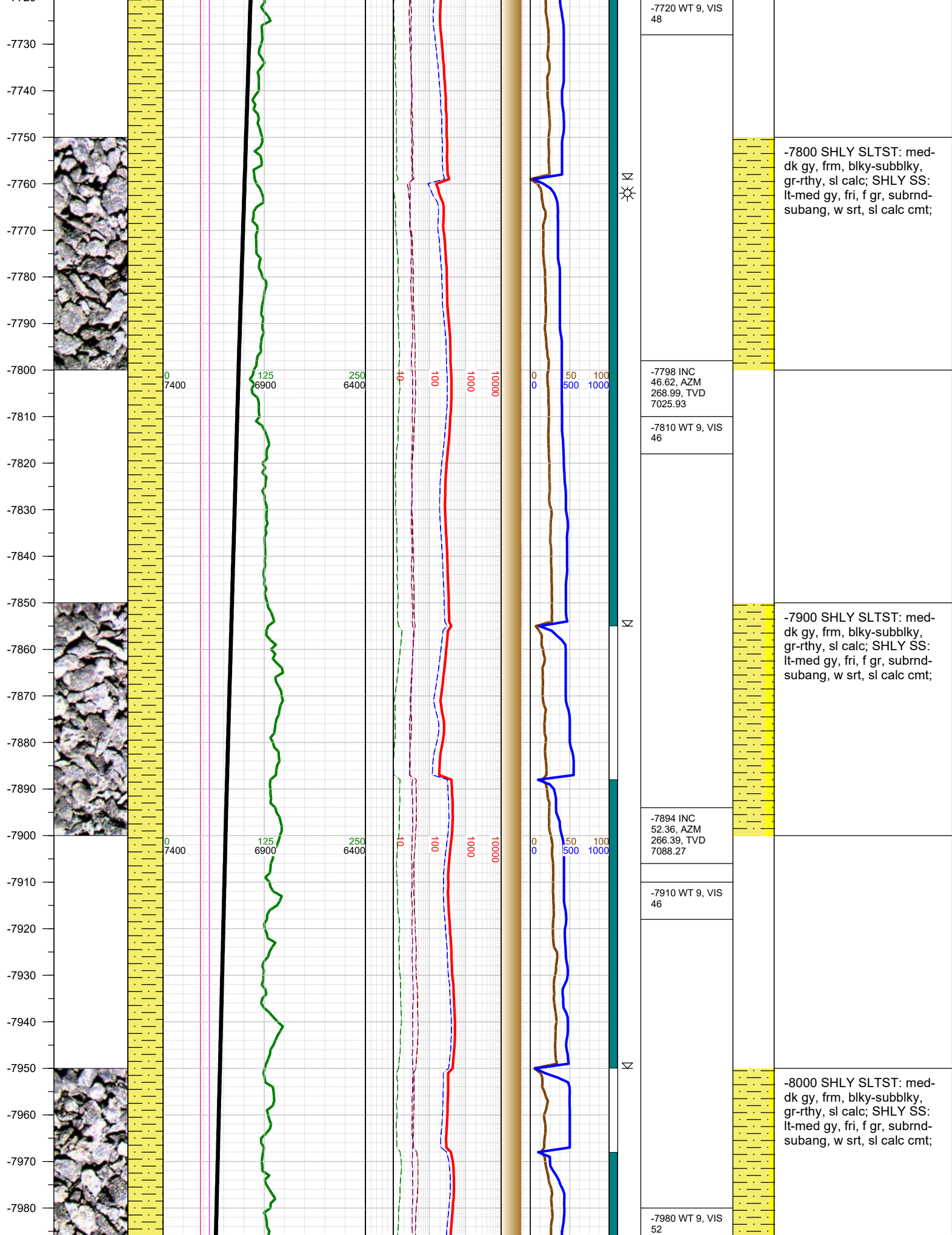


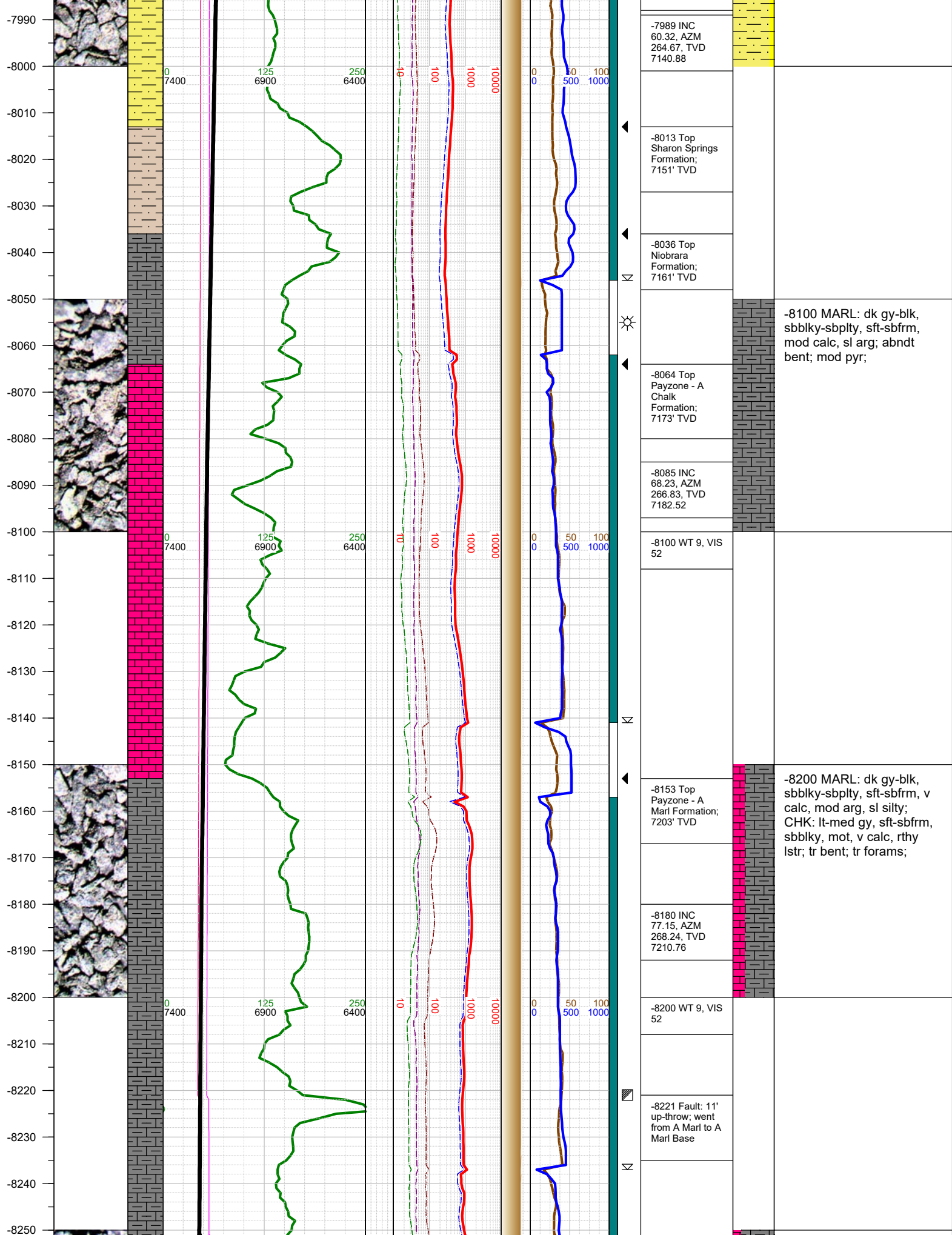


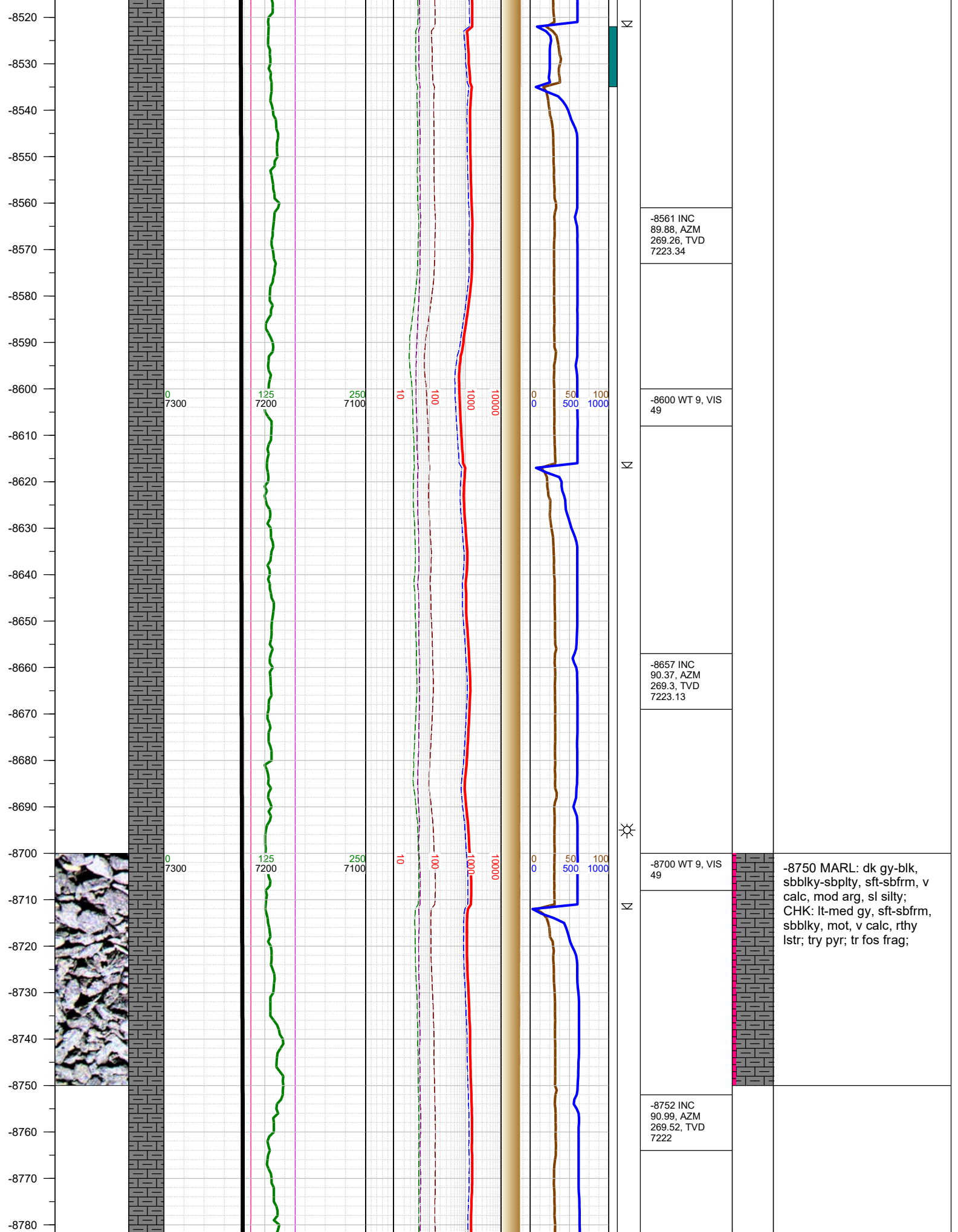


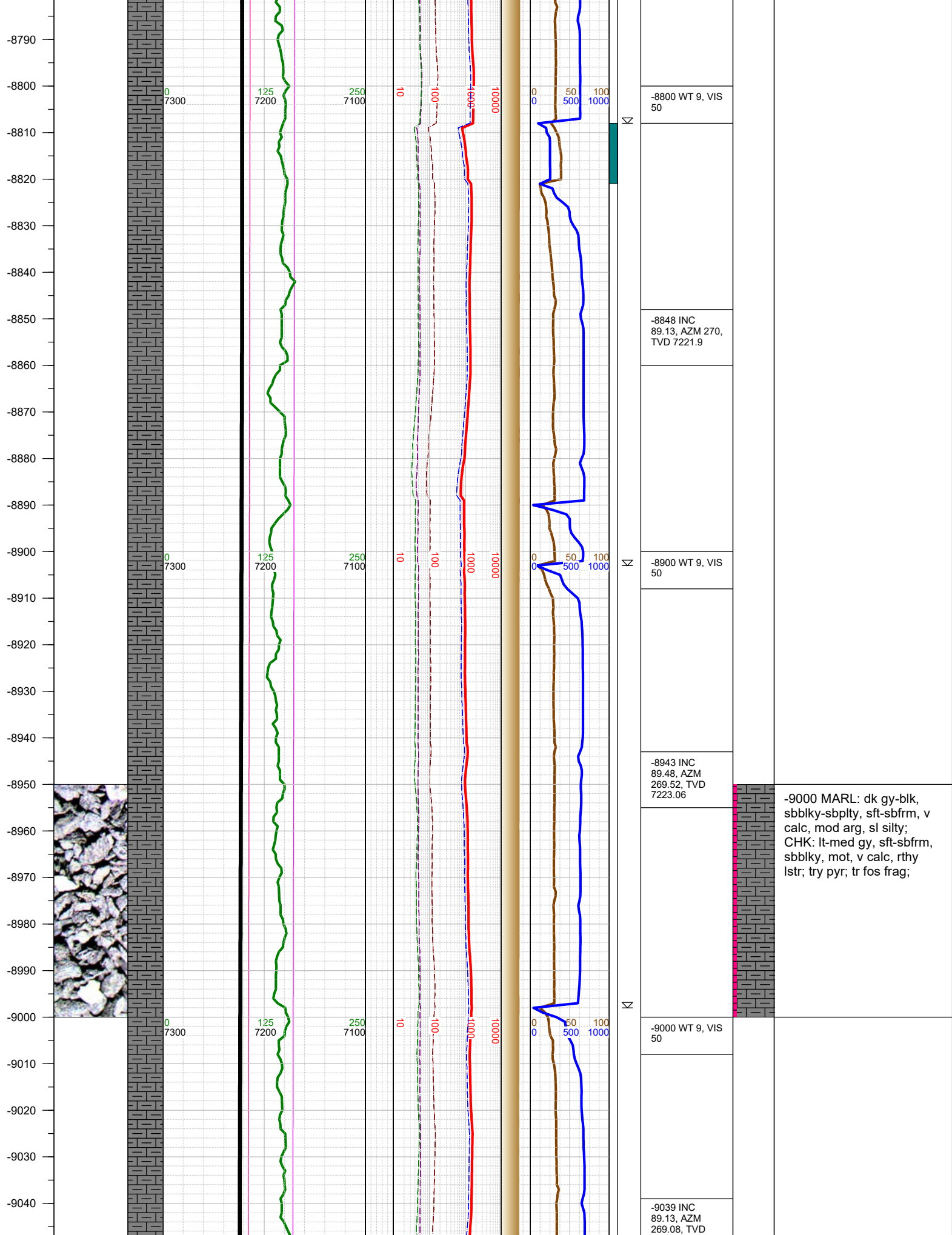


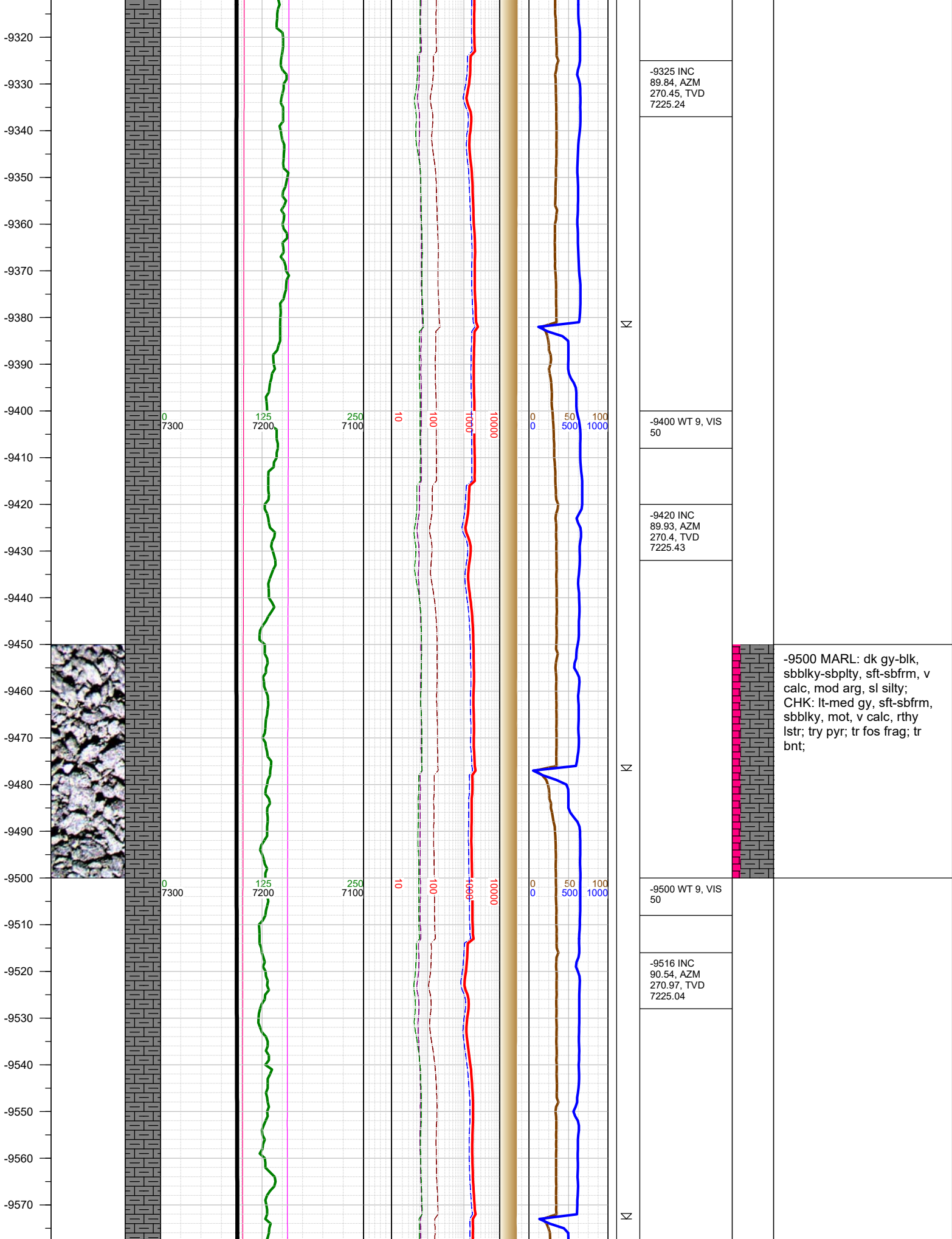


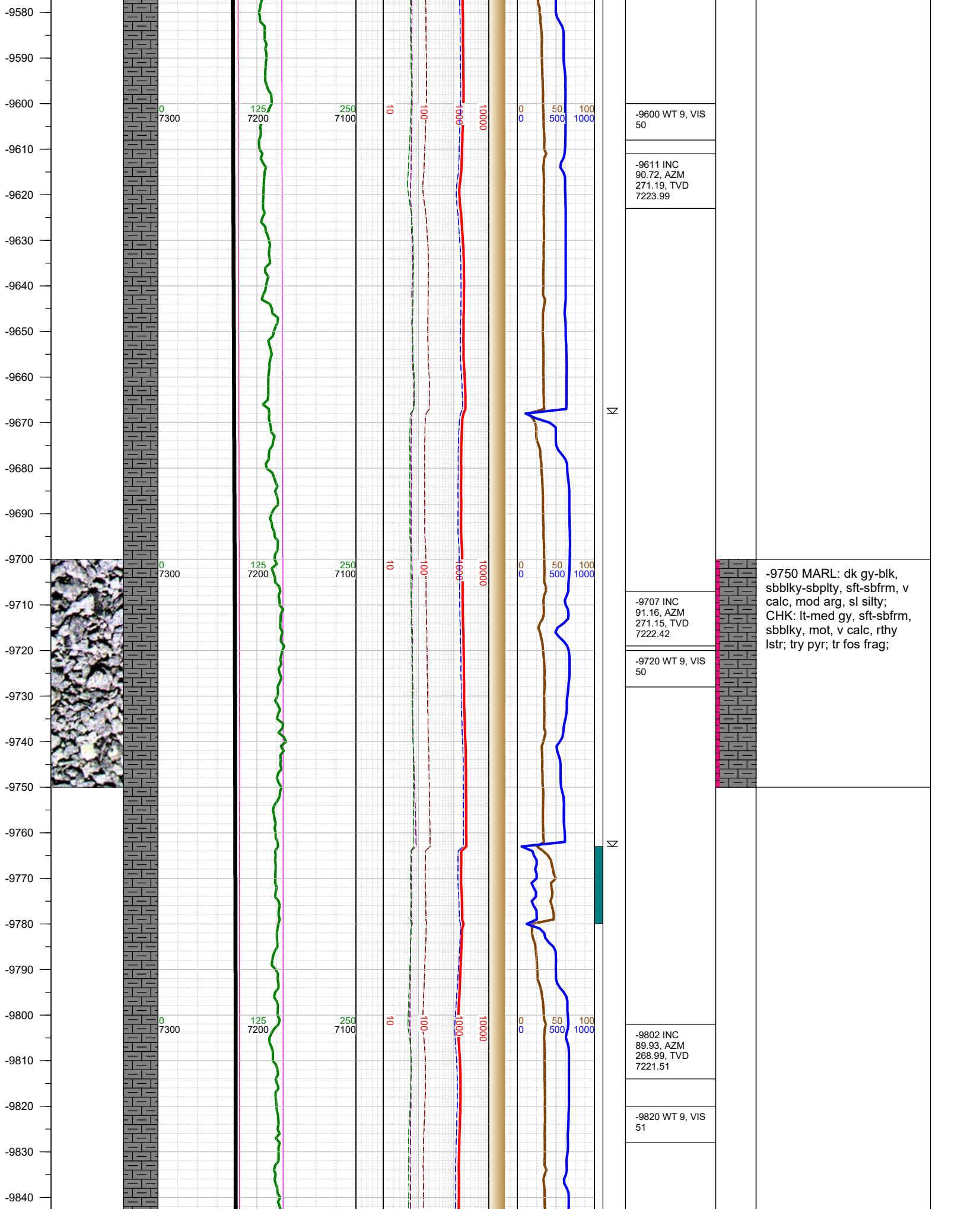


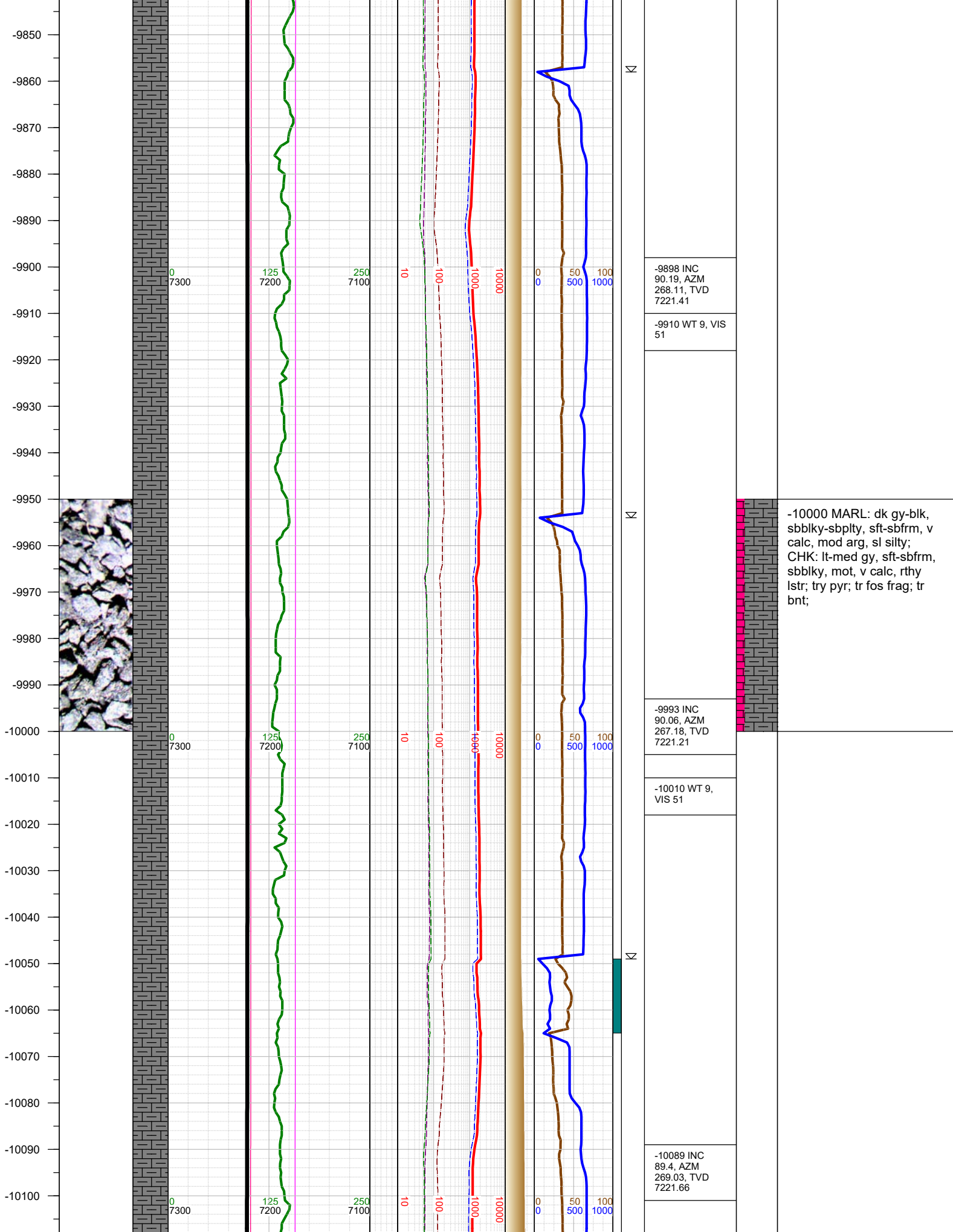


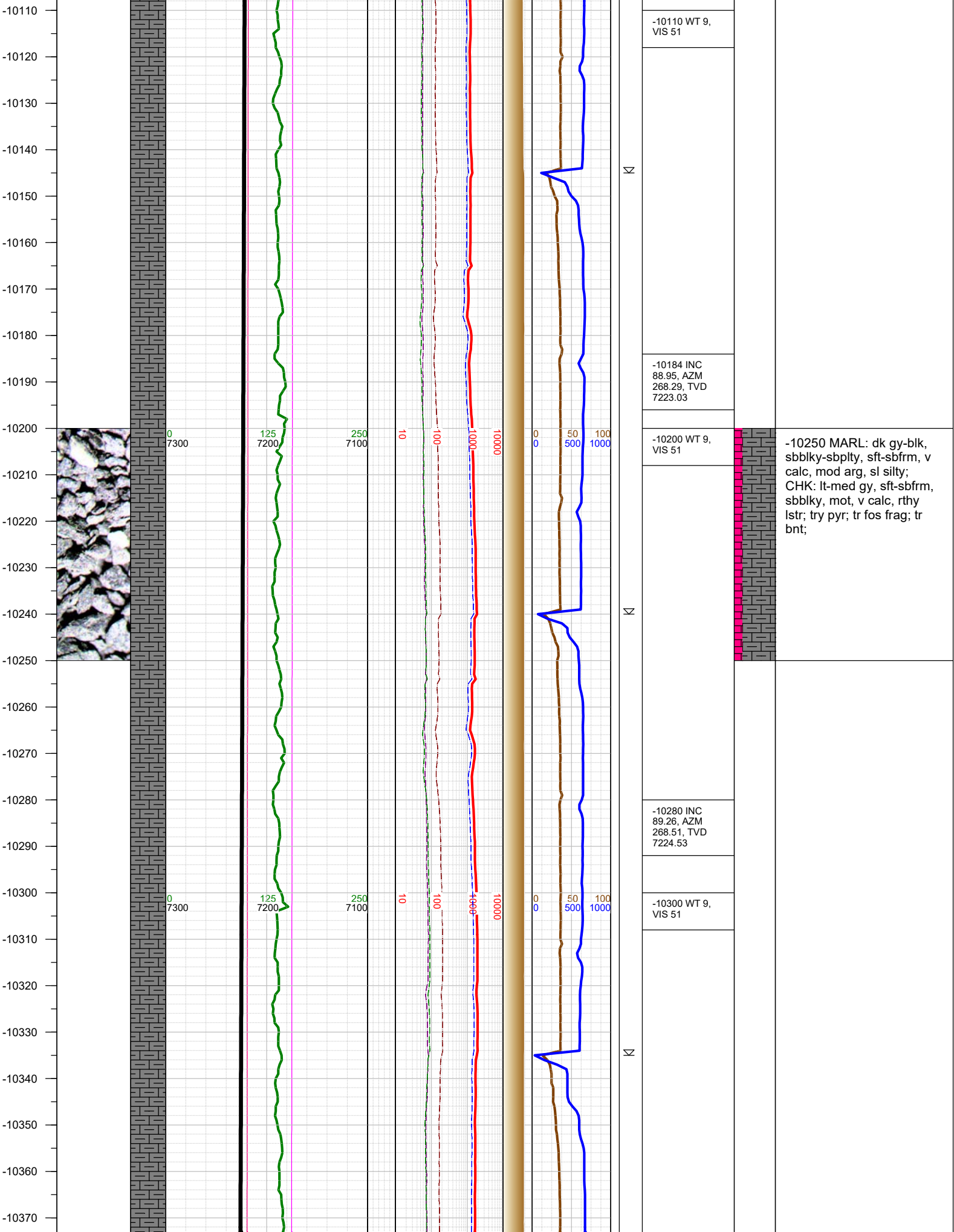


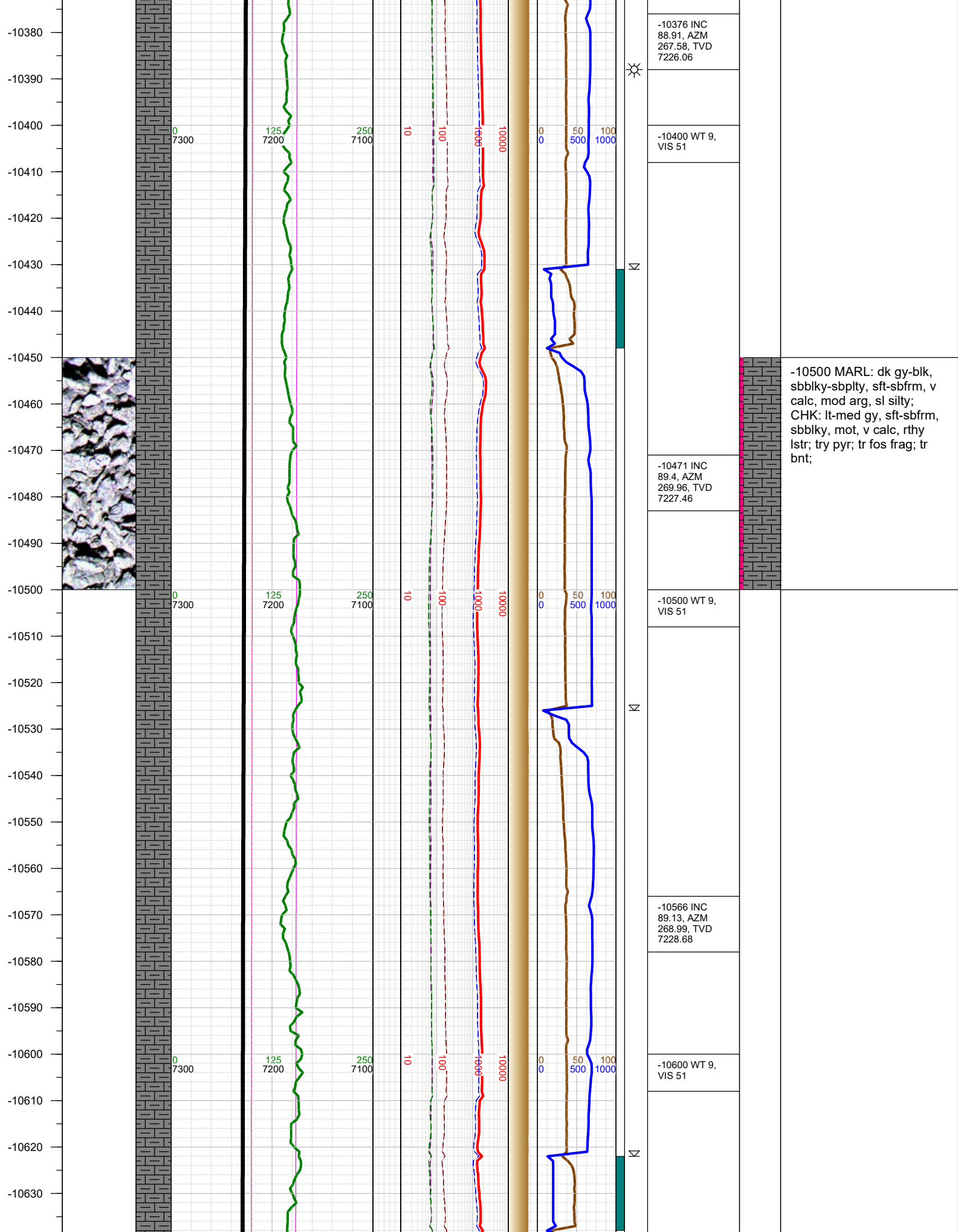


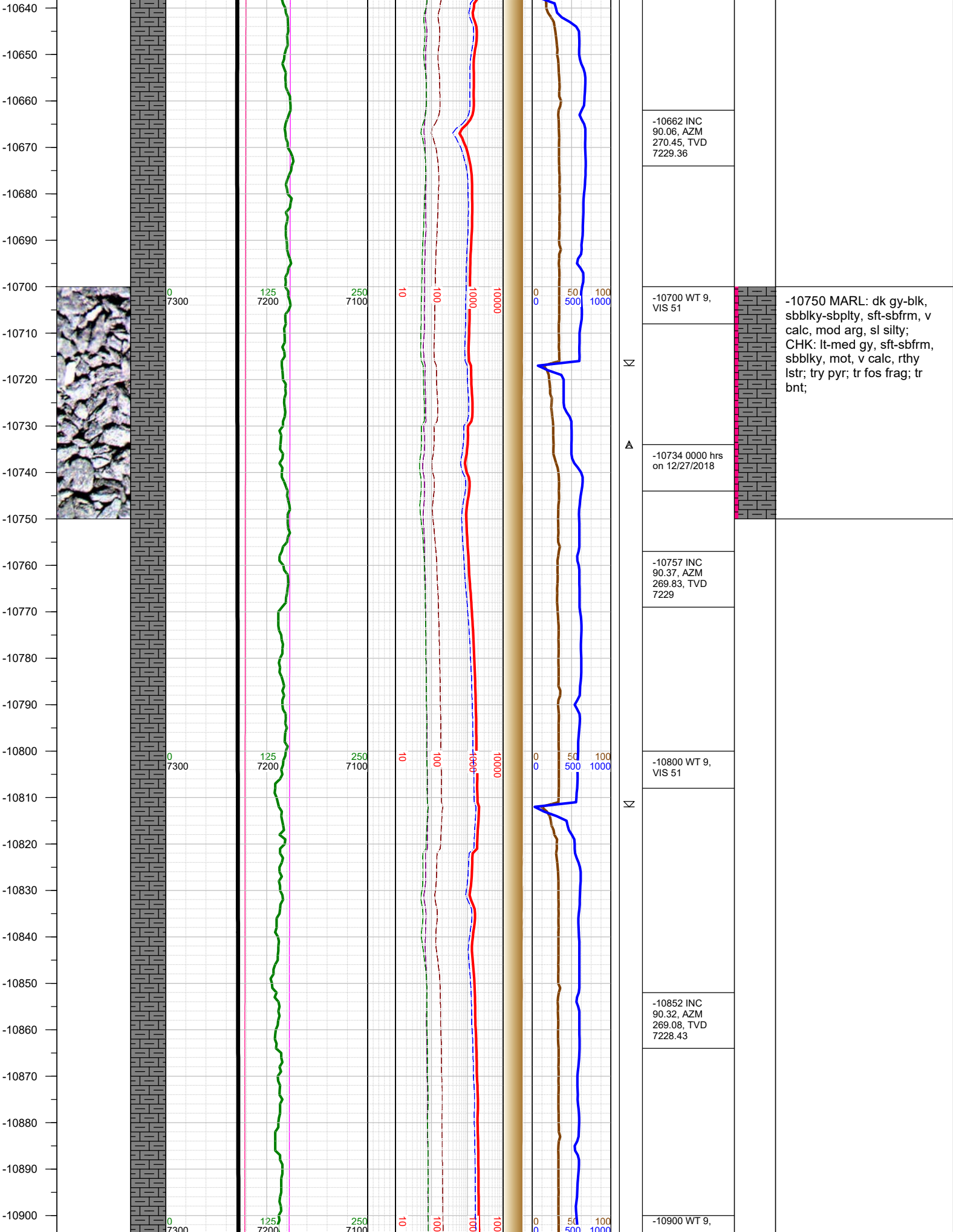


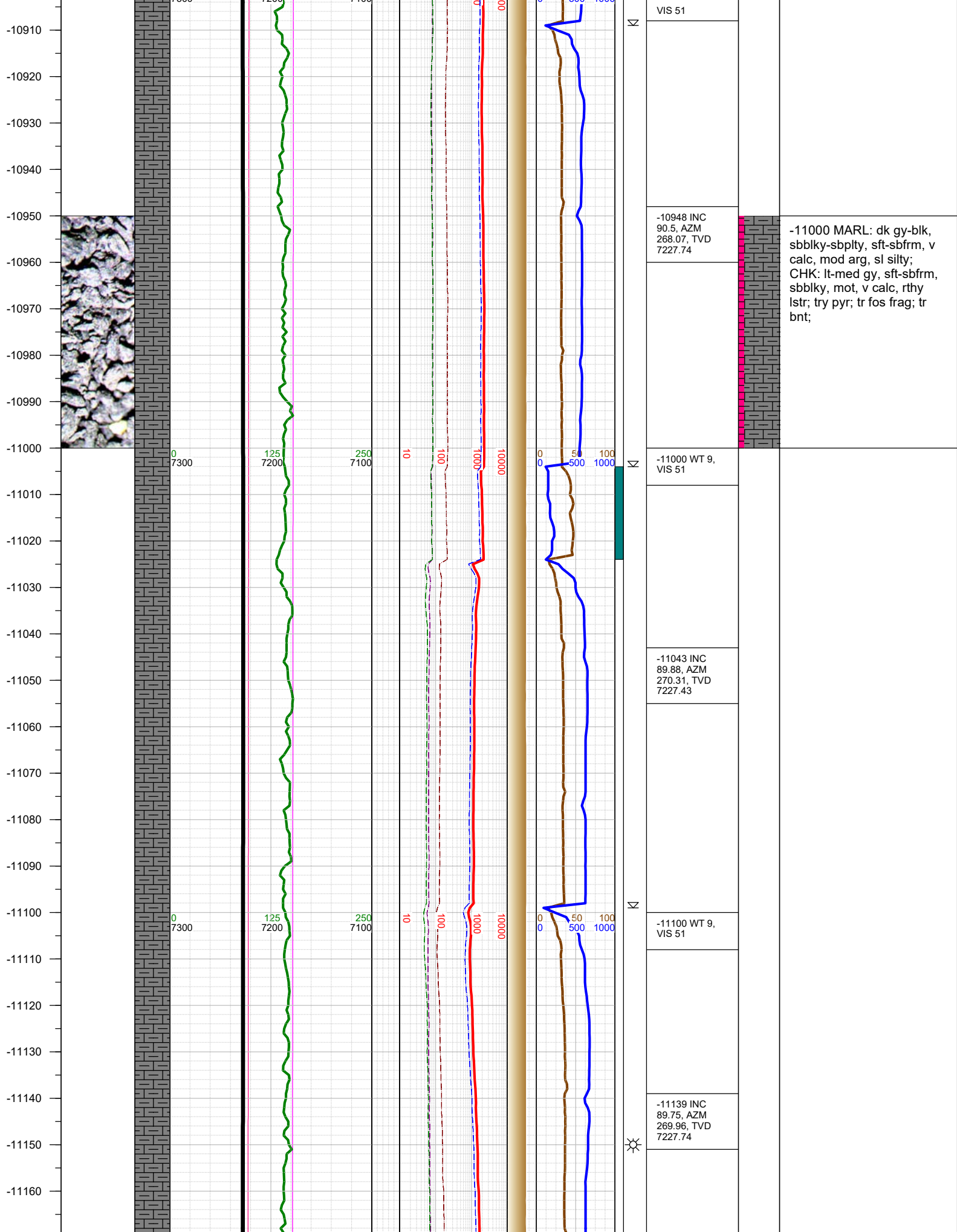


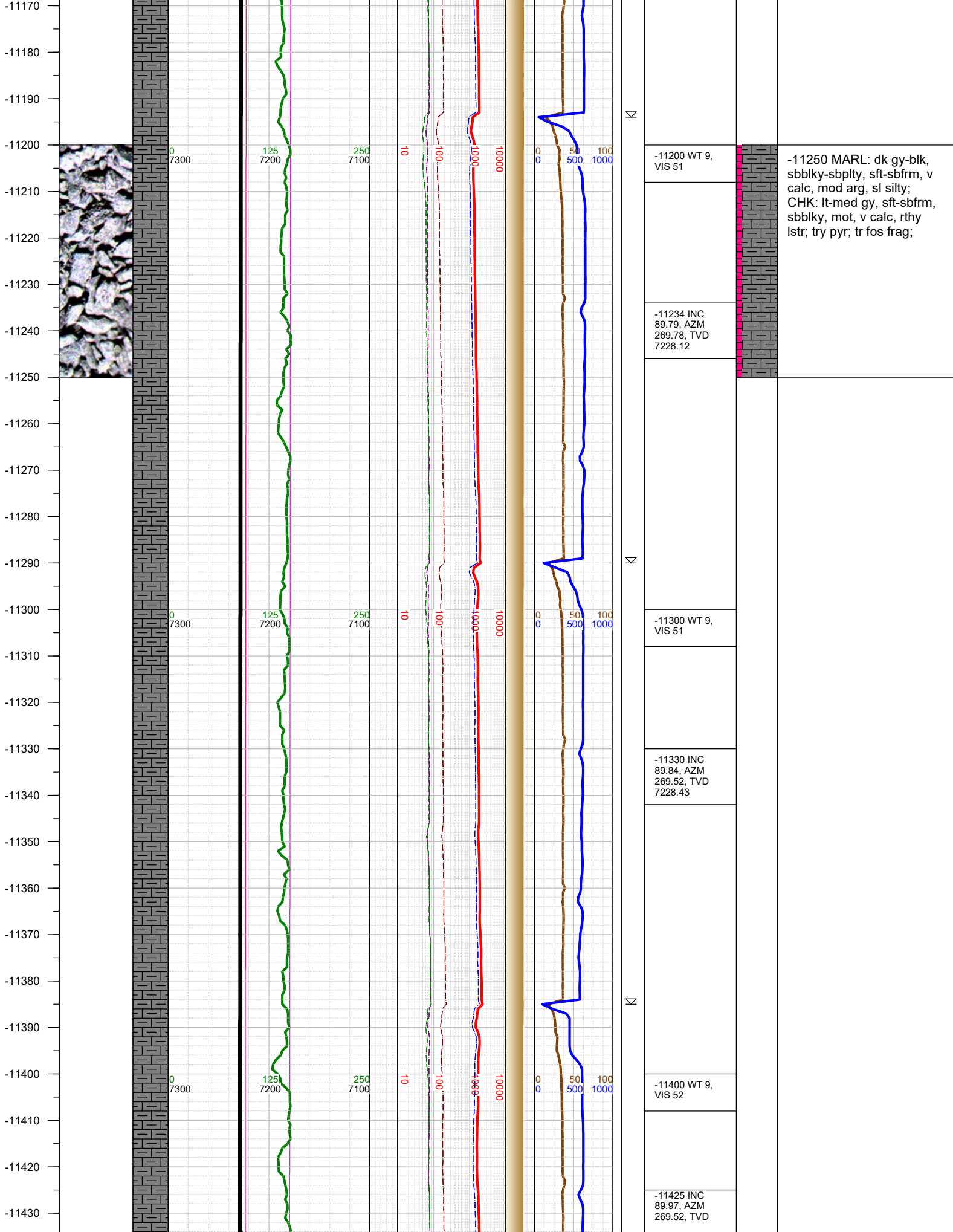


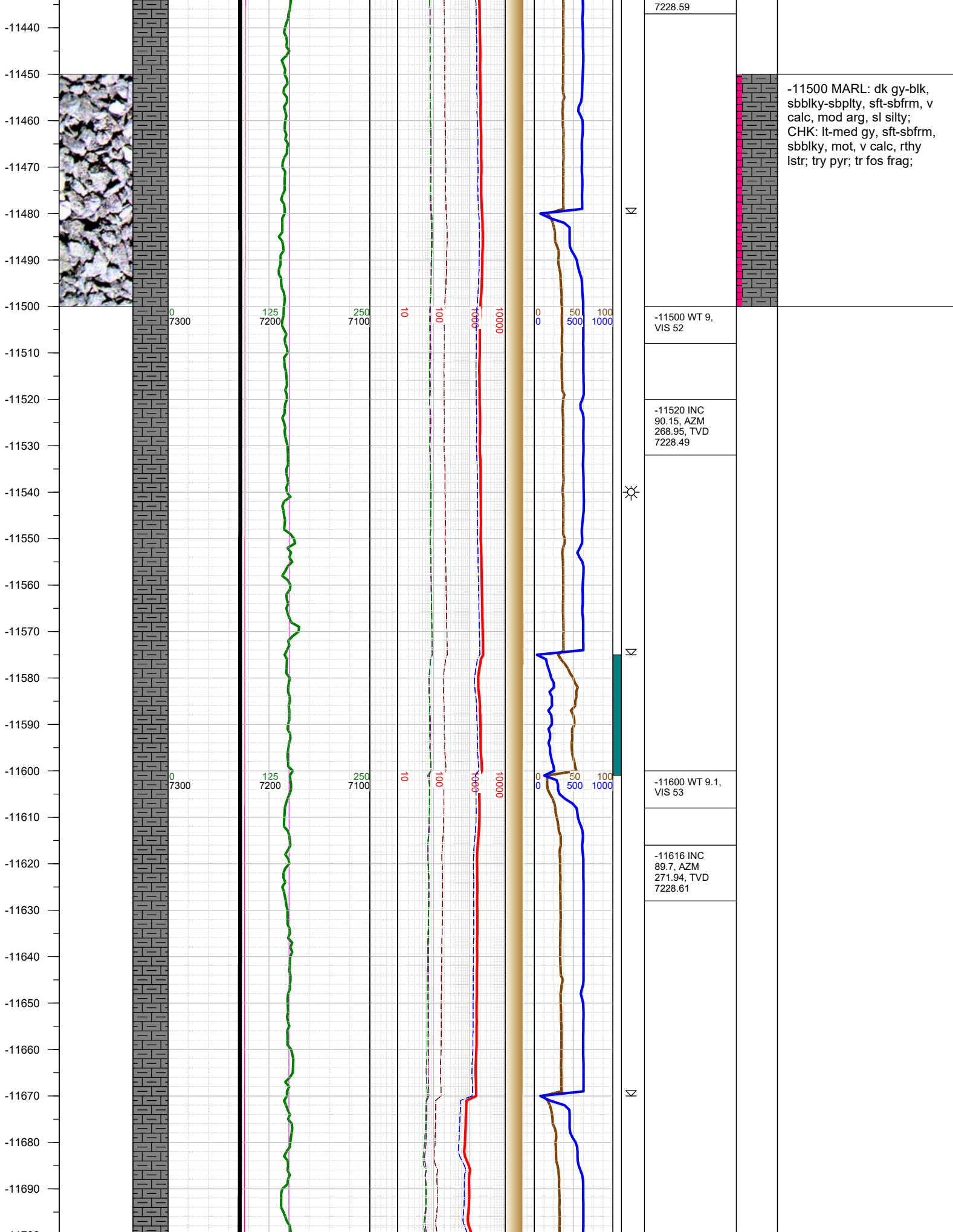


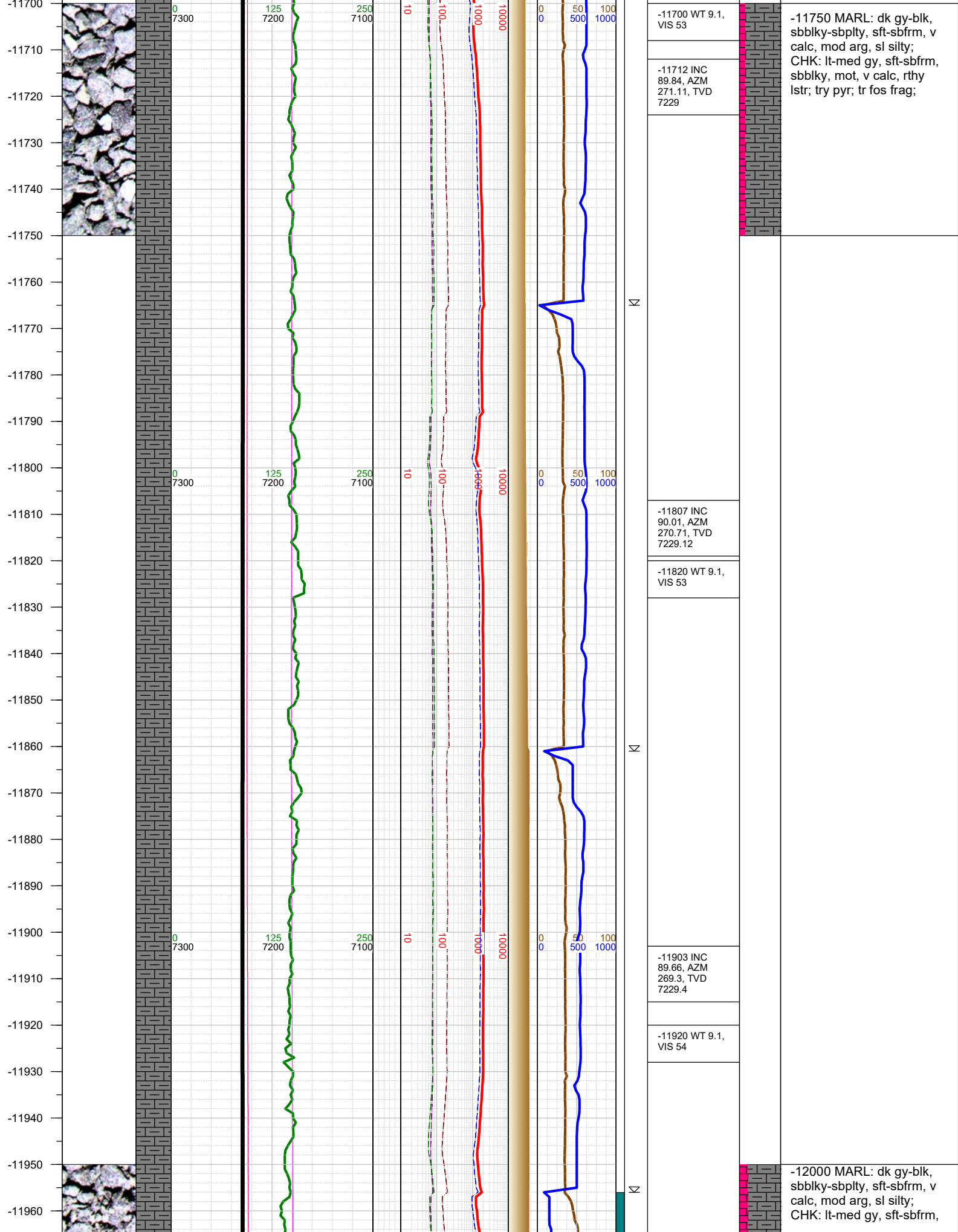




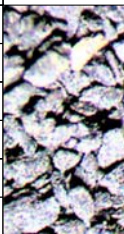
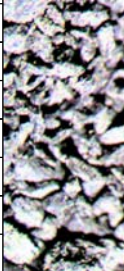








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-11998 INC
90.77, AZM
271.41, TVD
7229.04

-12010 WT 9.1,
VIS 54

-12094 INC
91.34, AZM
270.31, TVD
7227.27

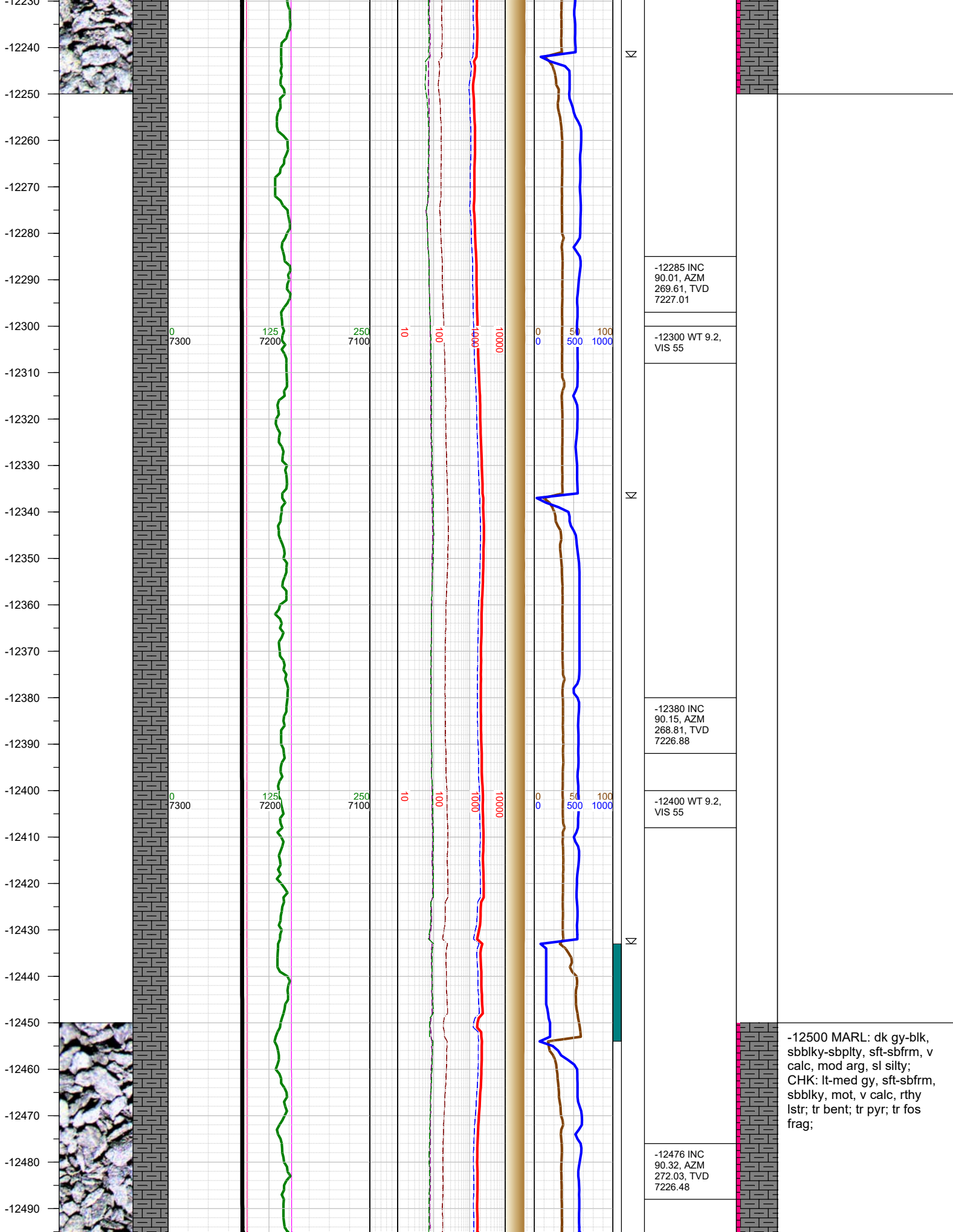
-12110 WT 9.1,
VIS 54

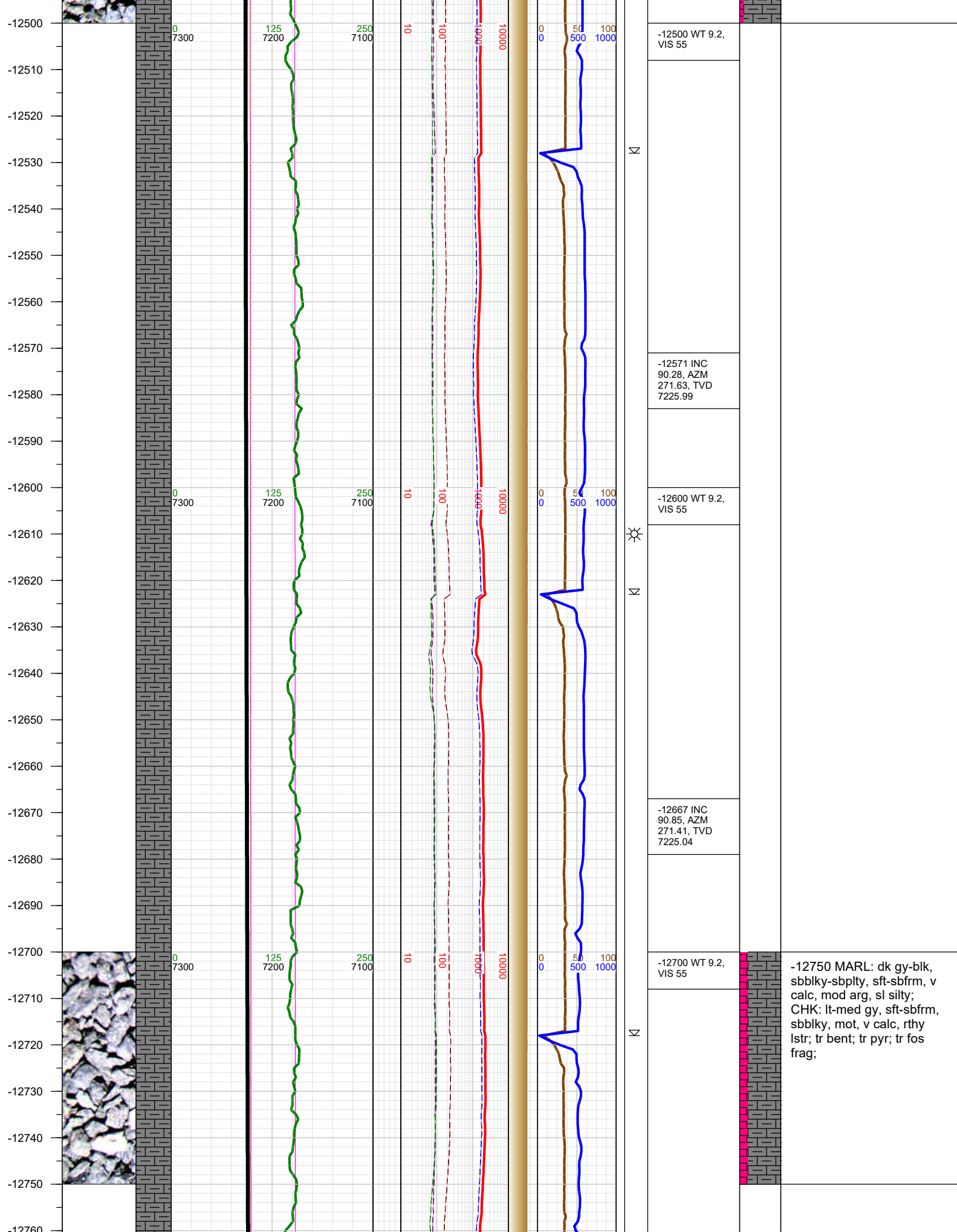
-12190 INC
89.48, AZM
270.22, TVD
7226.59

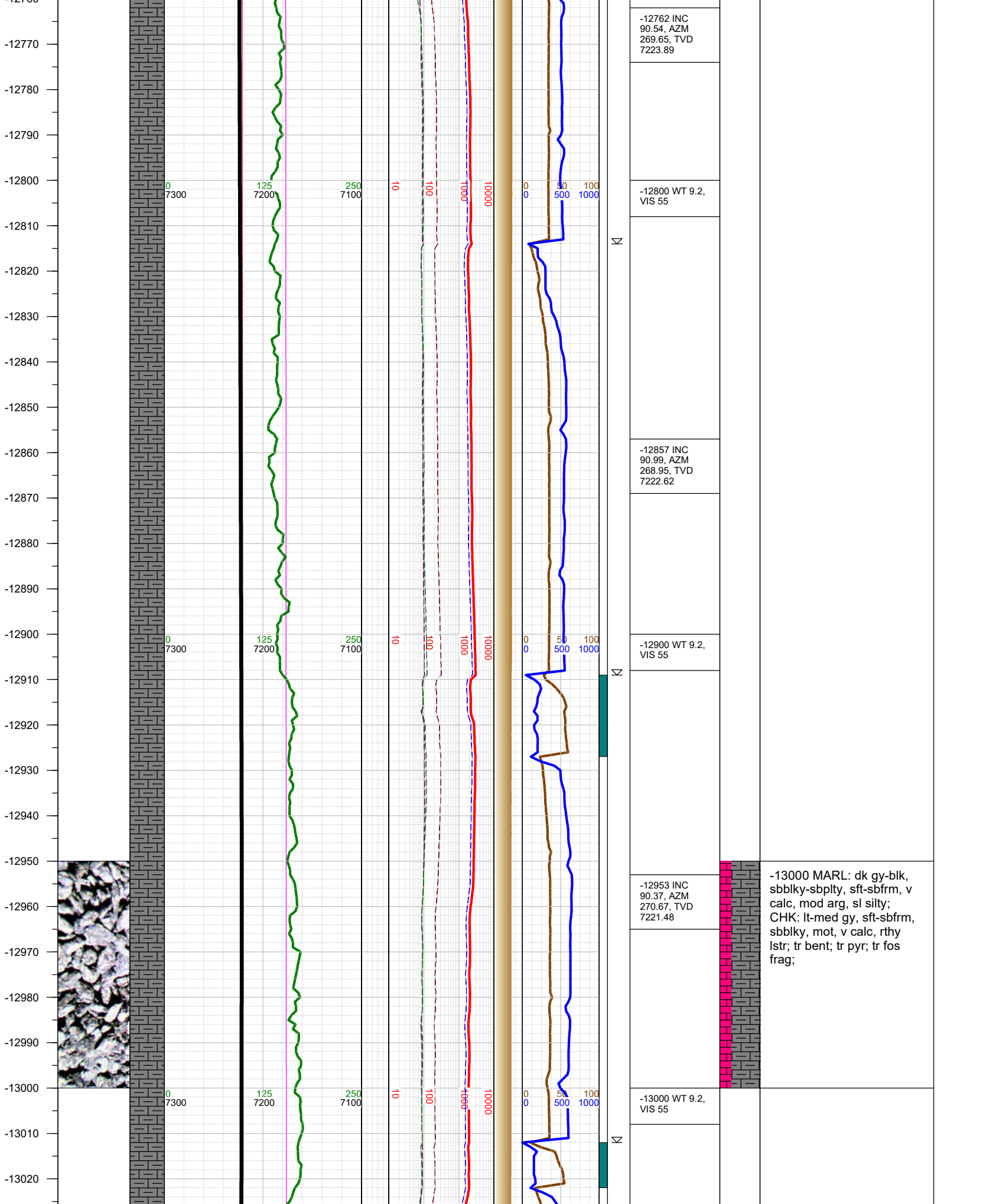
-12210 WT 9.1,
VIS 54

sbblky, mot, v calc, rthy
lstr; try pyr; tr fos frag; tr
bnt;

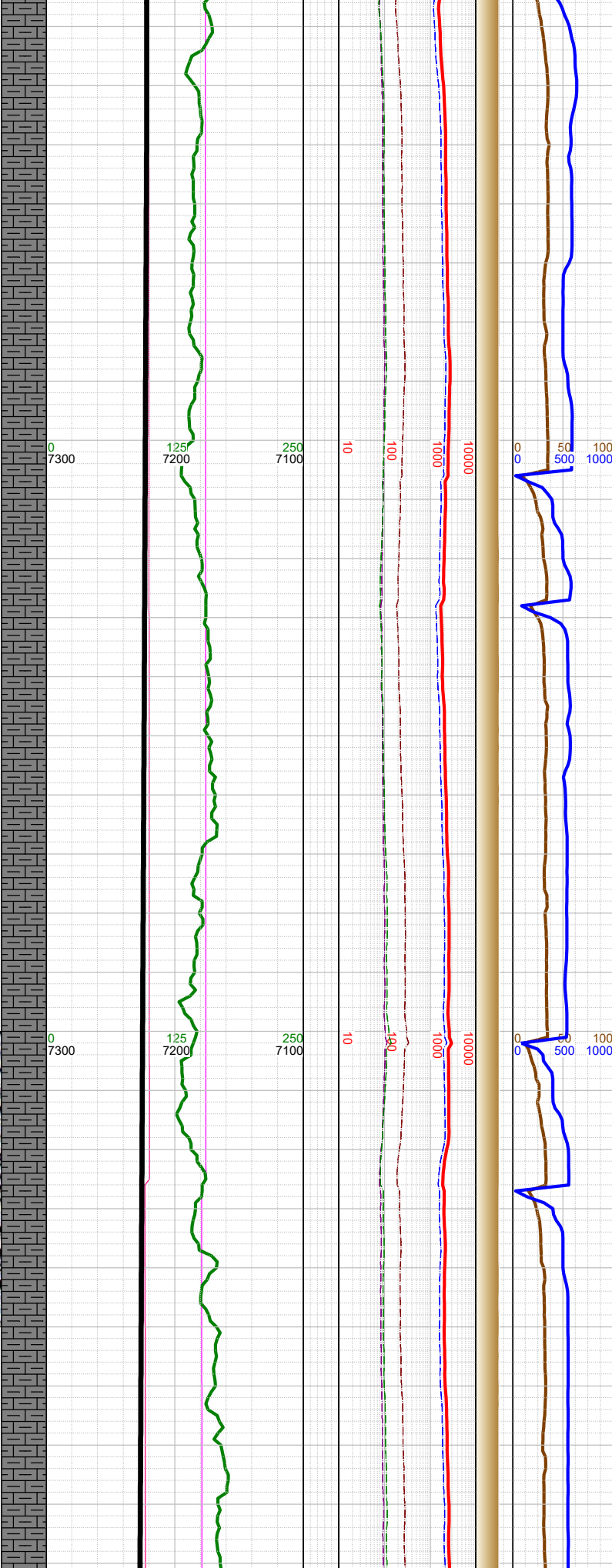
-12250 MARL: dk gy-blk,
sbblky-sbplty, sft-sbfrm, v
calc, mod arg, sl silty;
CHK: lt-med gy, sft-sbfrm,
sbblky, mot, v calc, rthy
lstr; try pyr; tr fos frag;



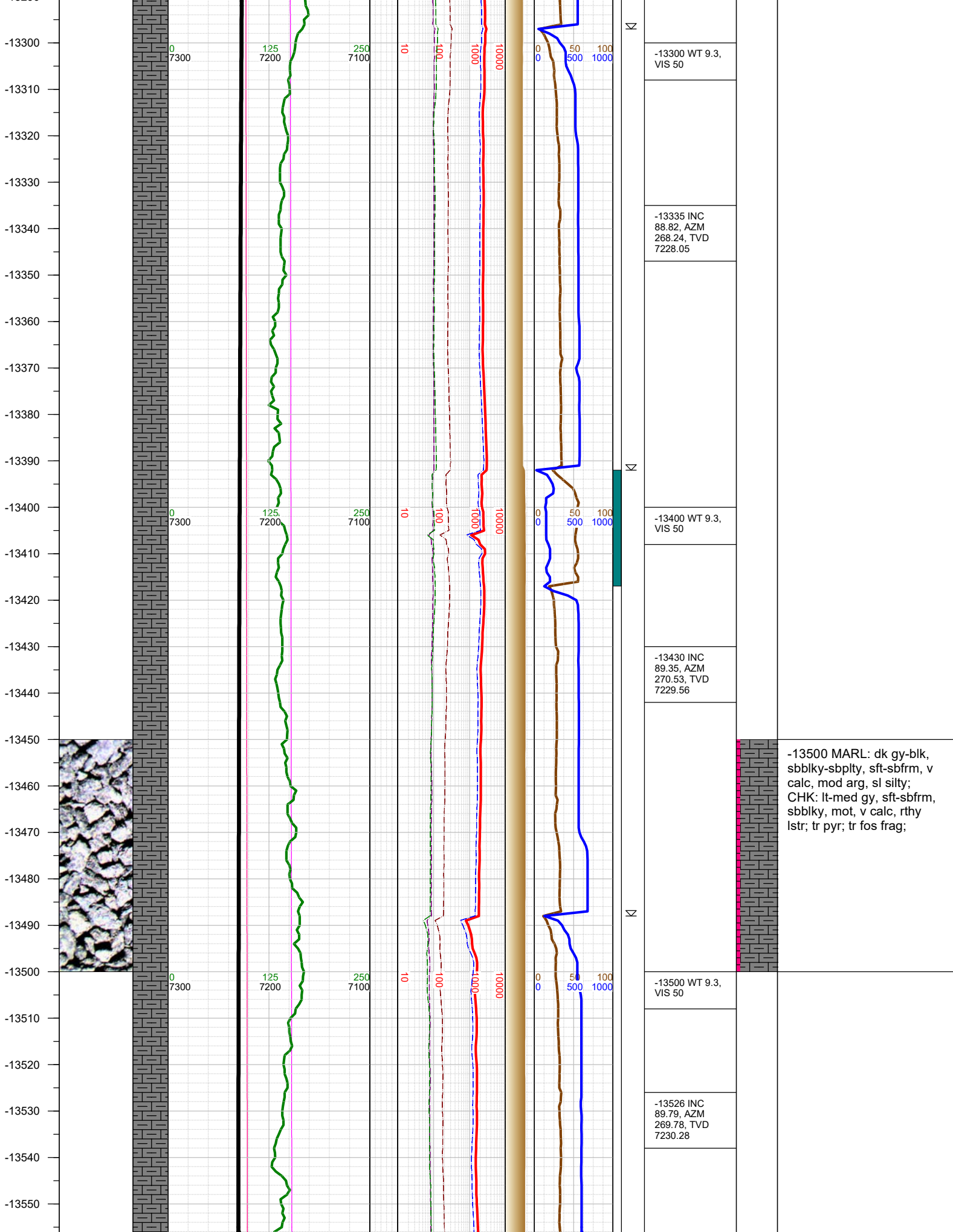


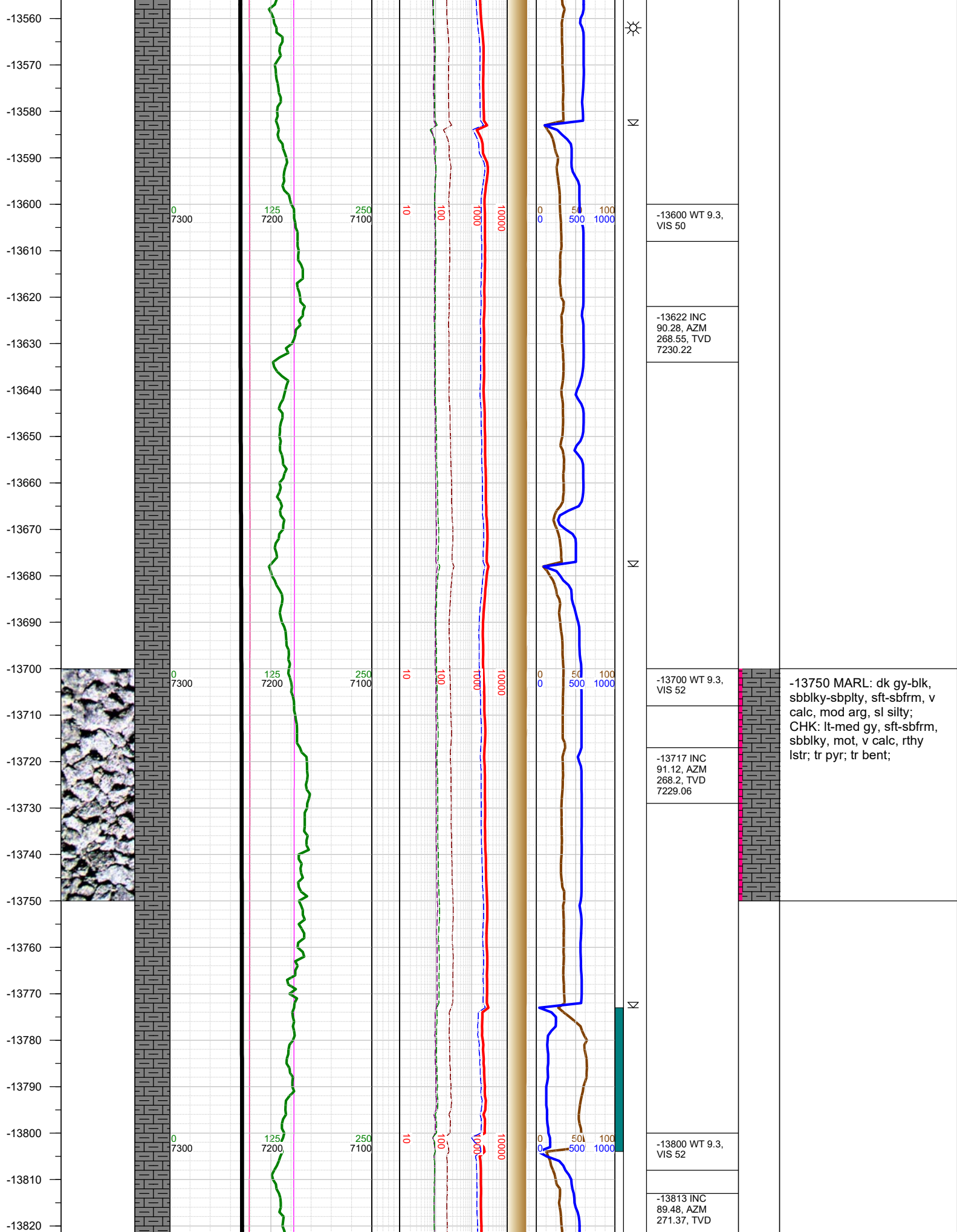


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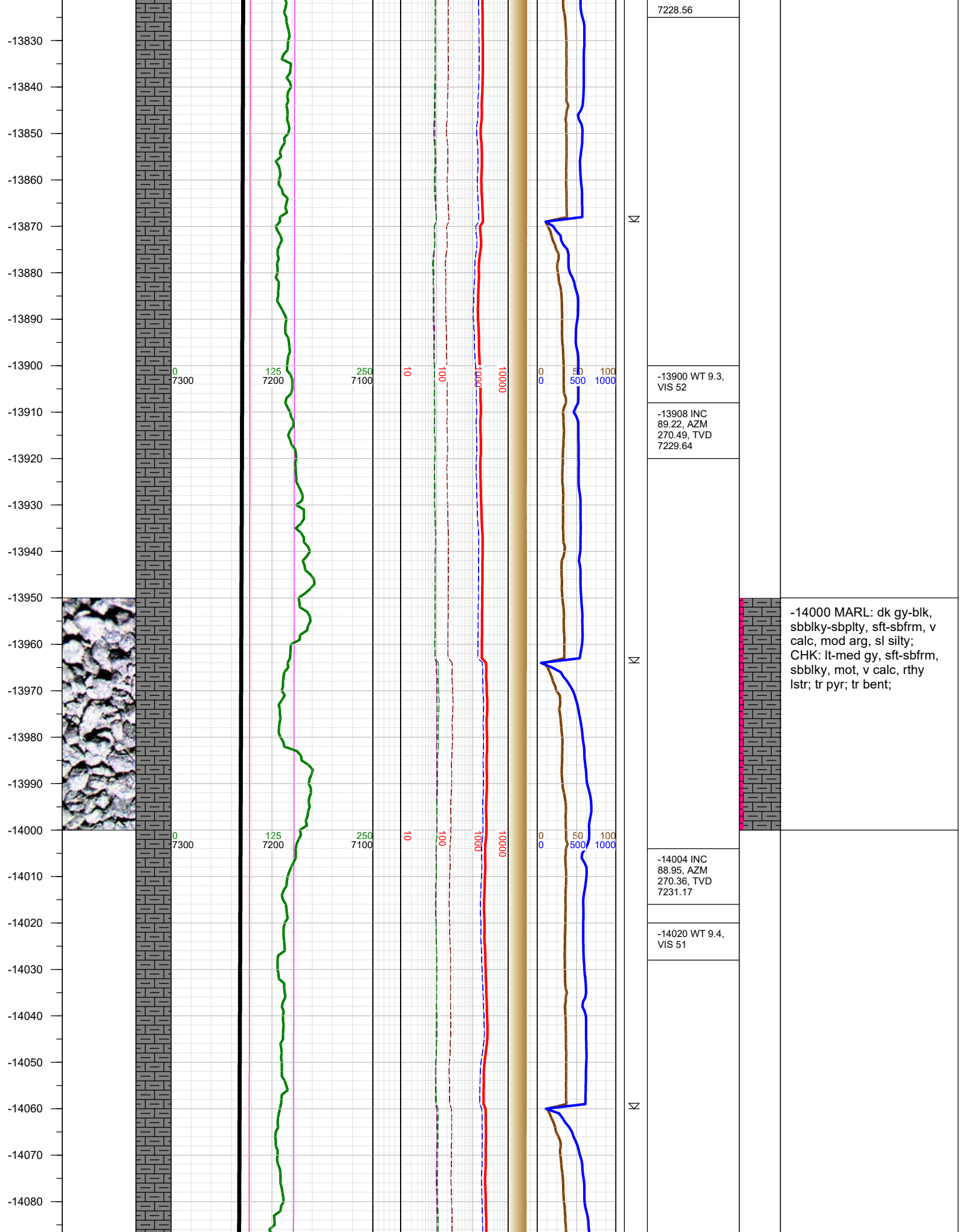


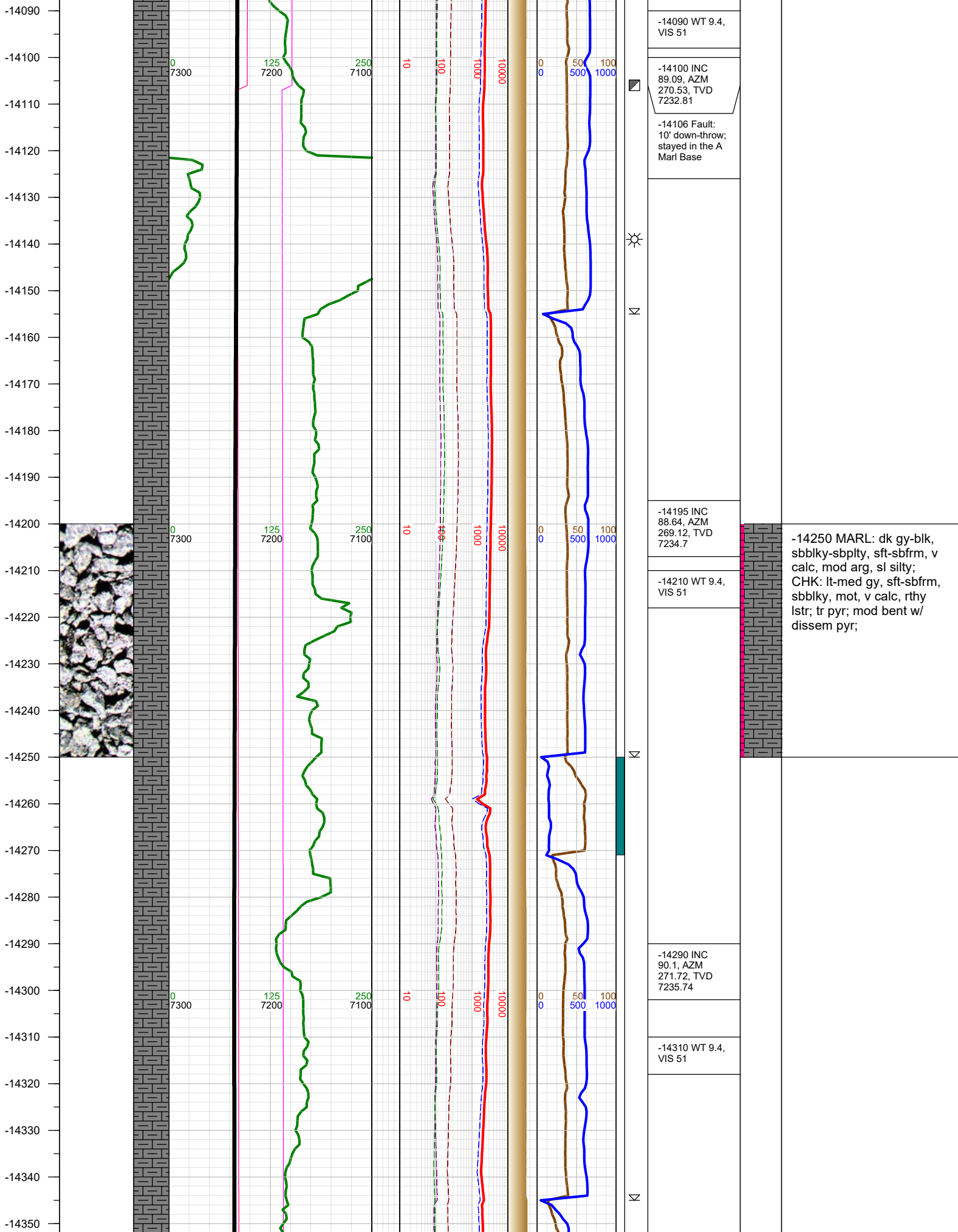
	-13049 INC 89.04, AZM 270.31, TVD 7221.97	
	-13100 WT 9.2, VIS 55	
	-13145 INC 88.69, AZM 269.08, TVD 7223.88	
	-13200 WT 9.3, VIS 50	
		-13250 MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, v calc, mod arg, sl silty; CHK: lt-med gy, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; tr bent; tr pyr; tr fos frag; tr forams;
	-13226 Fault: 3' down-throw; stayed in the A Marl Base	
	-13240 INC 88.73, AZM 268.9, TVD 7226.01	





-13750 MARL: dk gy-blk, sbblky-sbply, sft-sbfrm, v calc, mod arg, sl silty; CHK: lt-med gy, sft-sbfrm, sbblky, mot, v calc, rthy lstr; tr pyr; tr bent;





-14090 WT 9.4,
VIS 51

-14100 INC
89.09, AZM
270.53, TVD
7232.81

-14106 Fault:
10' down-throw;
stayed in the A
Marl Base

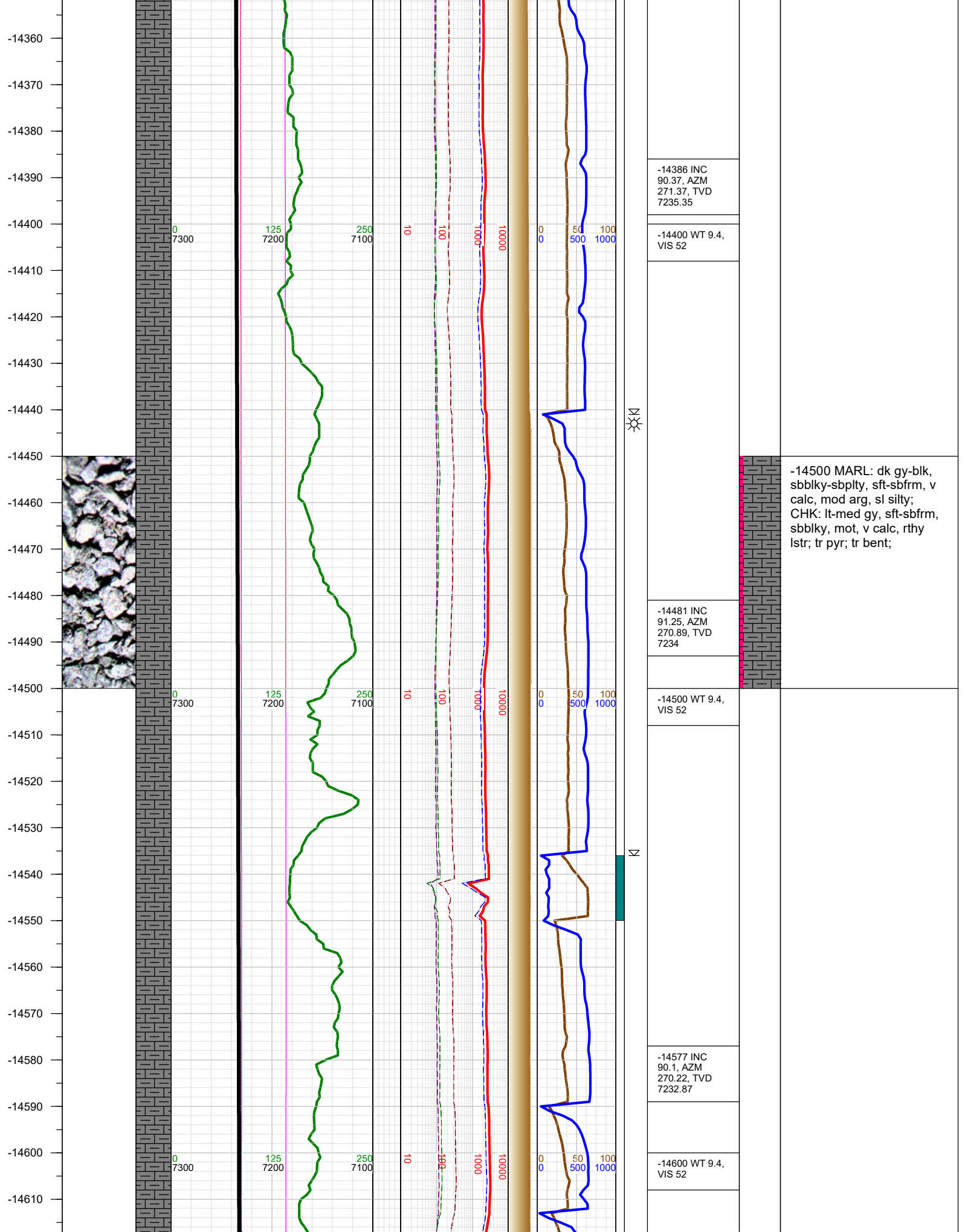
-14195 INC
88.64, AZM
269.12, TVD
7234.7

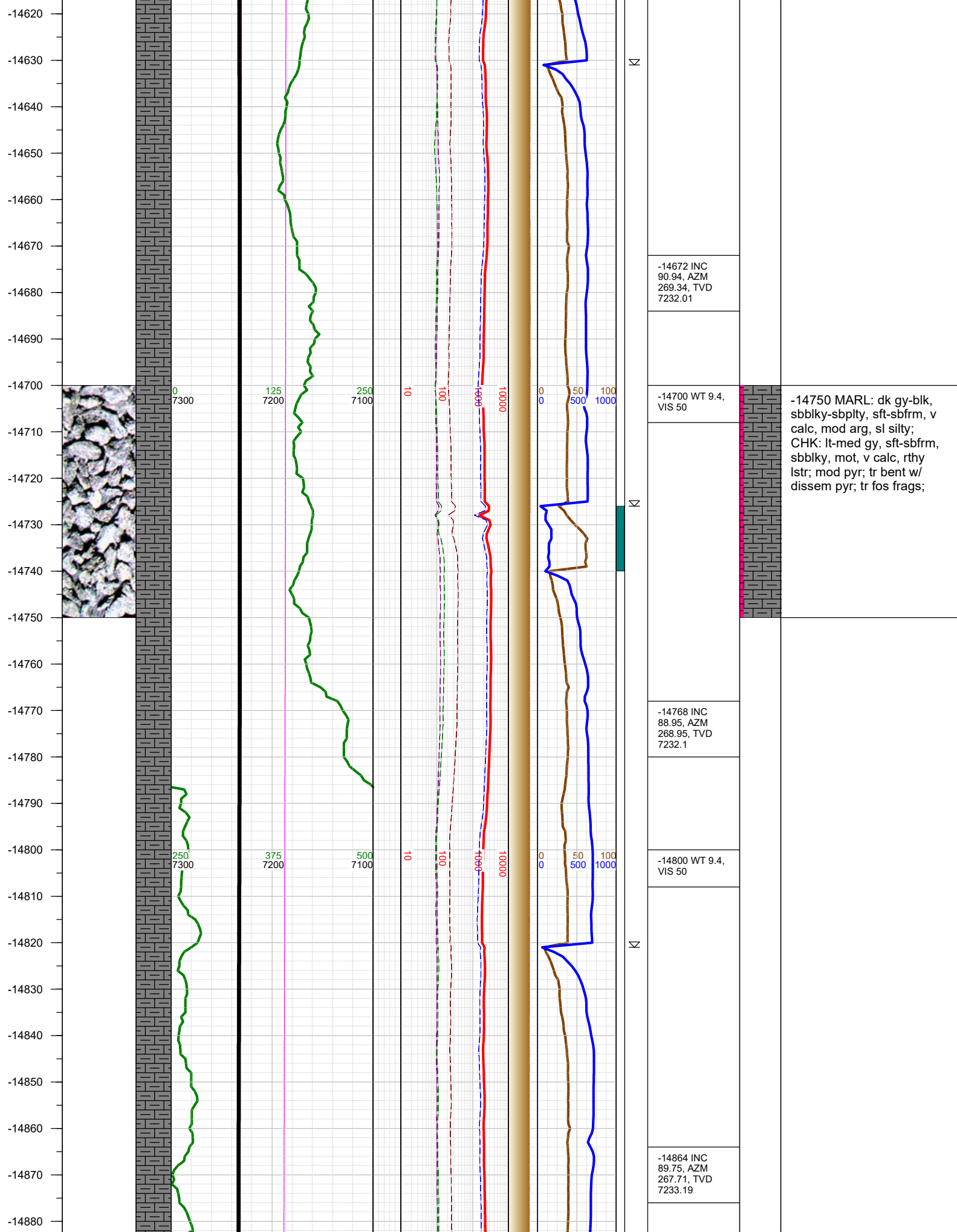
-14210 WT 9.4,
VIS 51

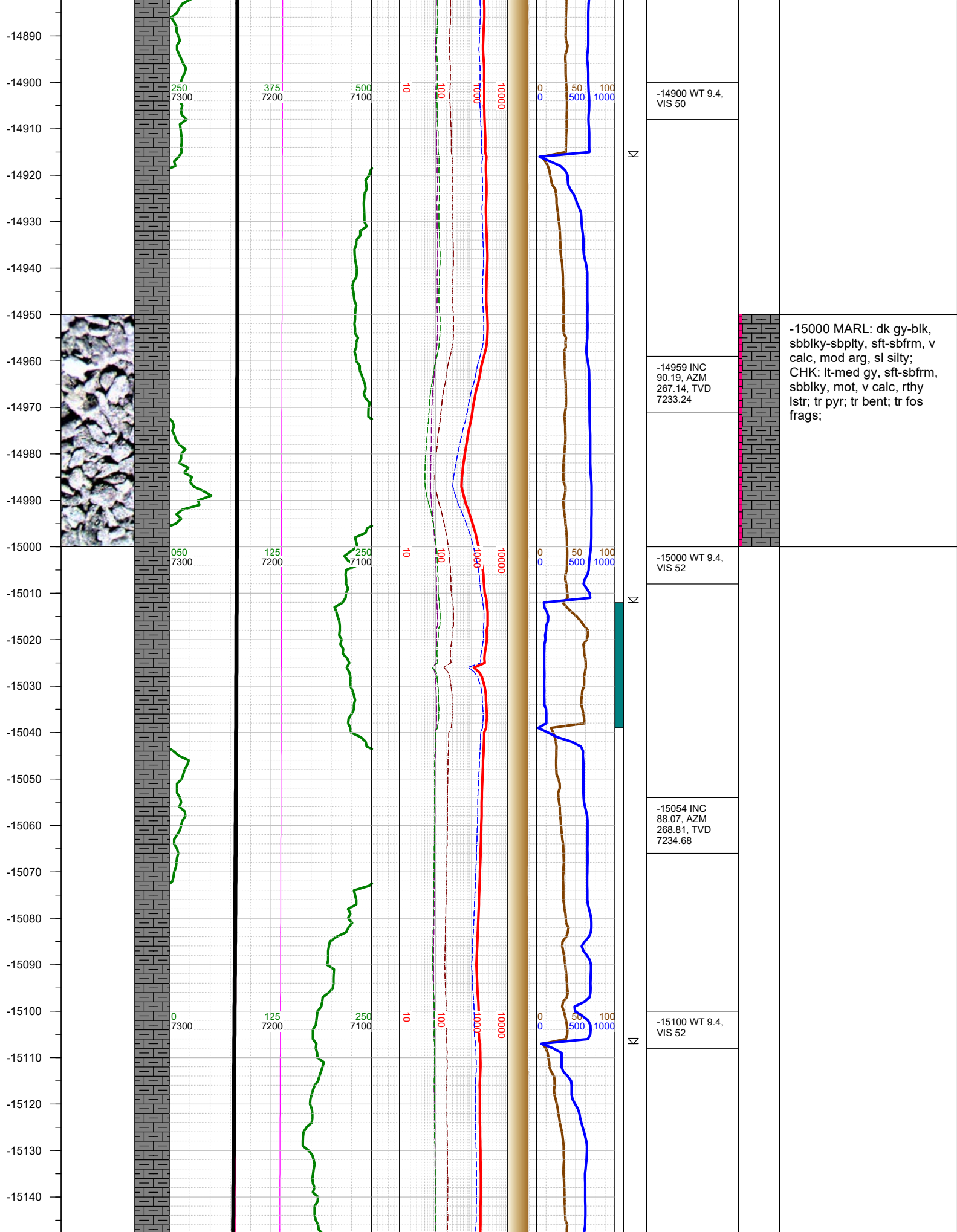
-14290 INC
90.1, AZM
271.72, TVD
7235.74

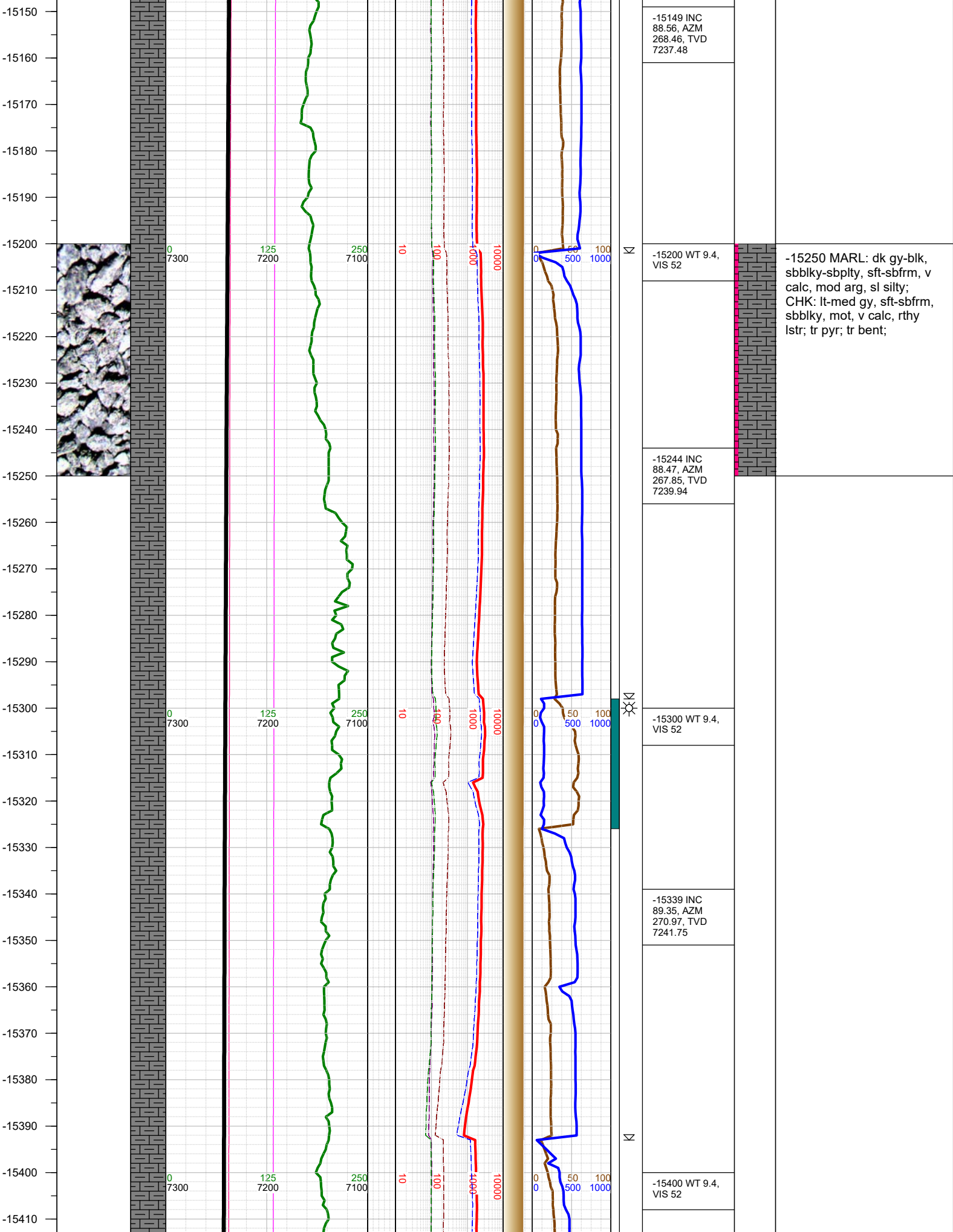
-14310 WT 9.4,
VIS 51

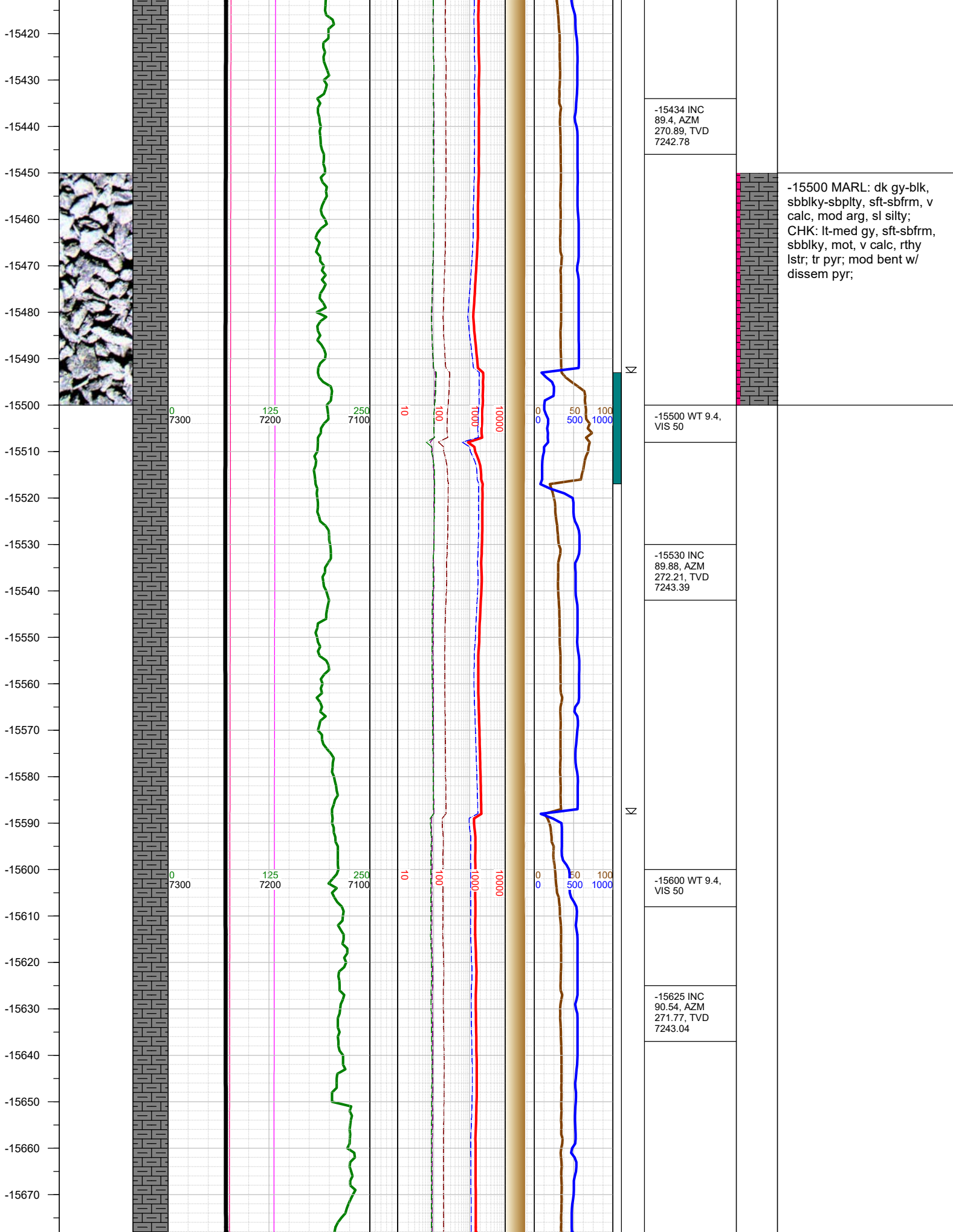
-14250 MARL: dk gy-blk,
sbbkly-sbplty, sft-sbfrm, v
calc, mod arg, sl silty;
CHK: lt-med gy, sft-sbfrm,
sbbkly, mot, v calc, rthy
lstr; tr pyr; mod bent w/
dissem pyr;

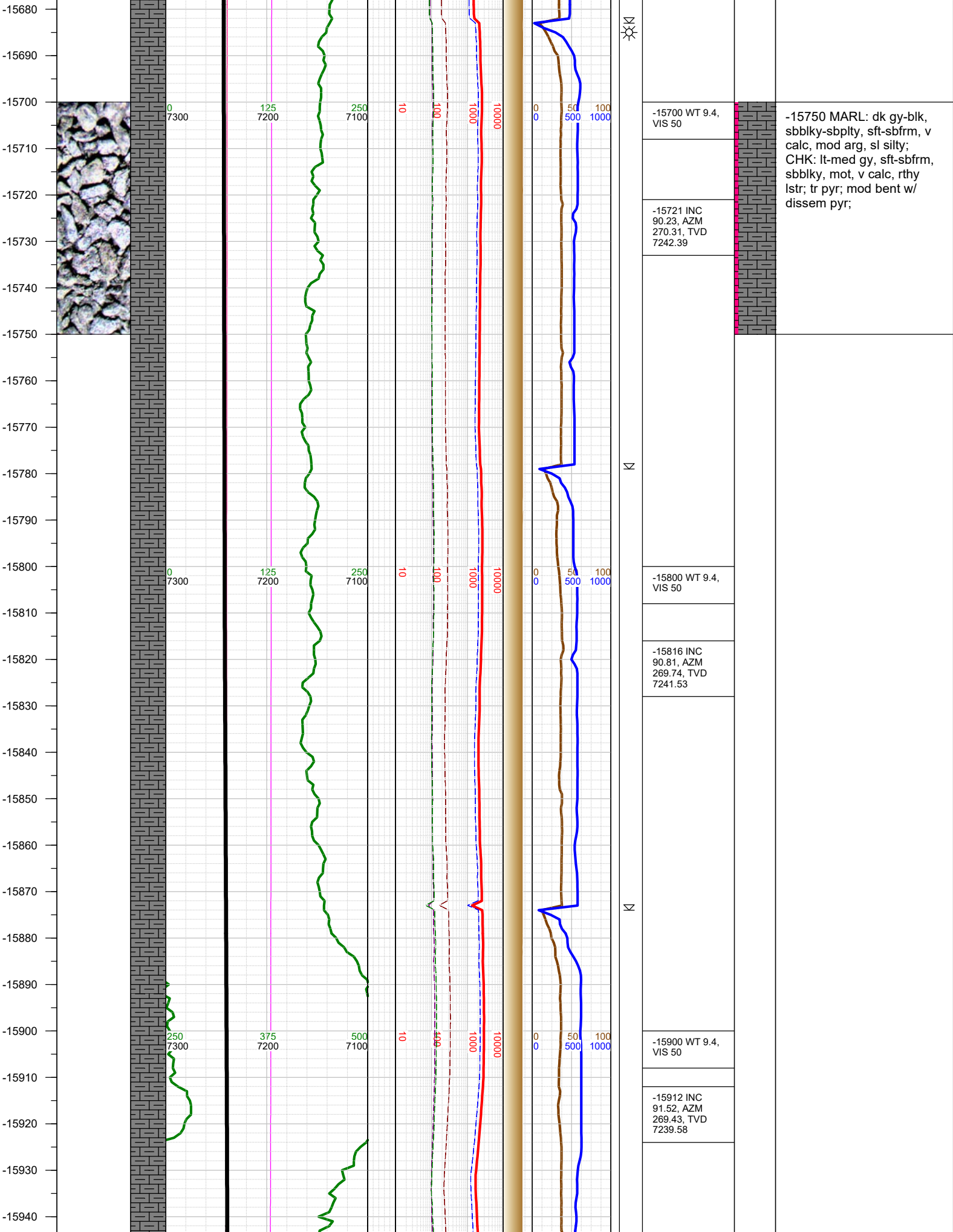


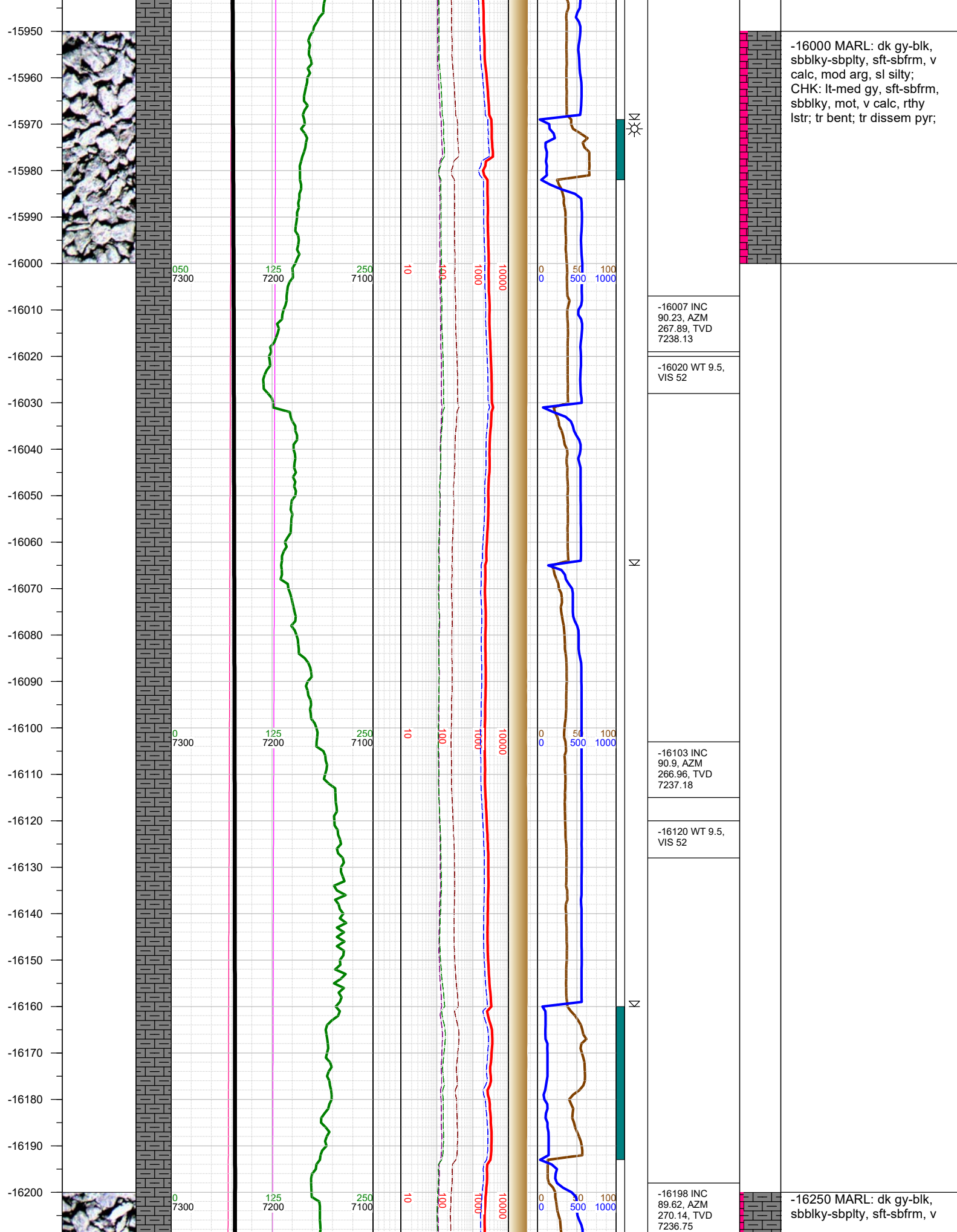


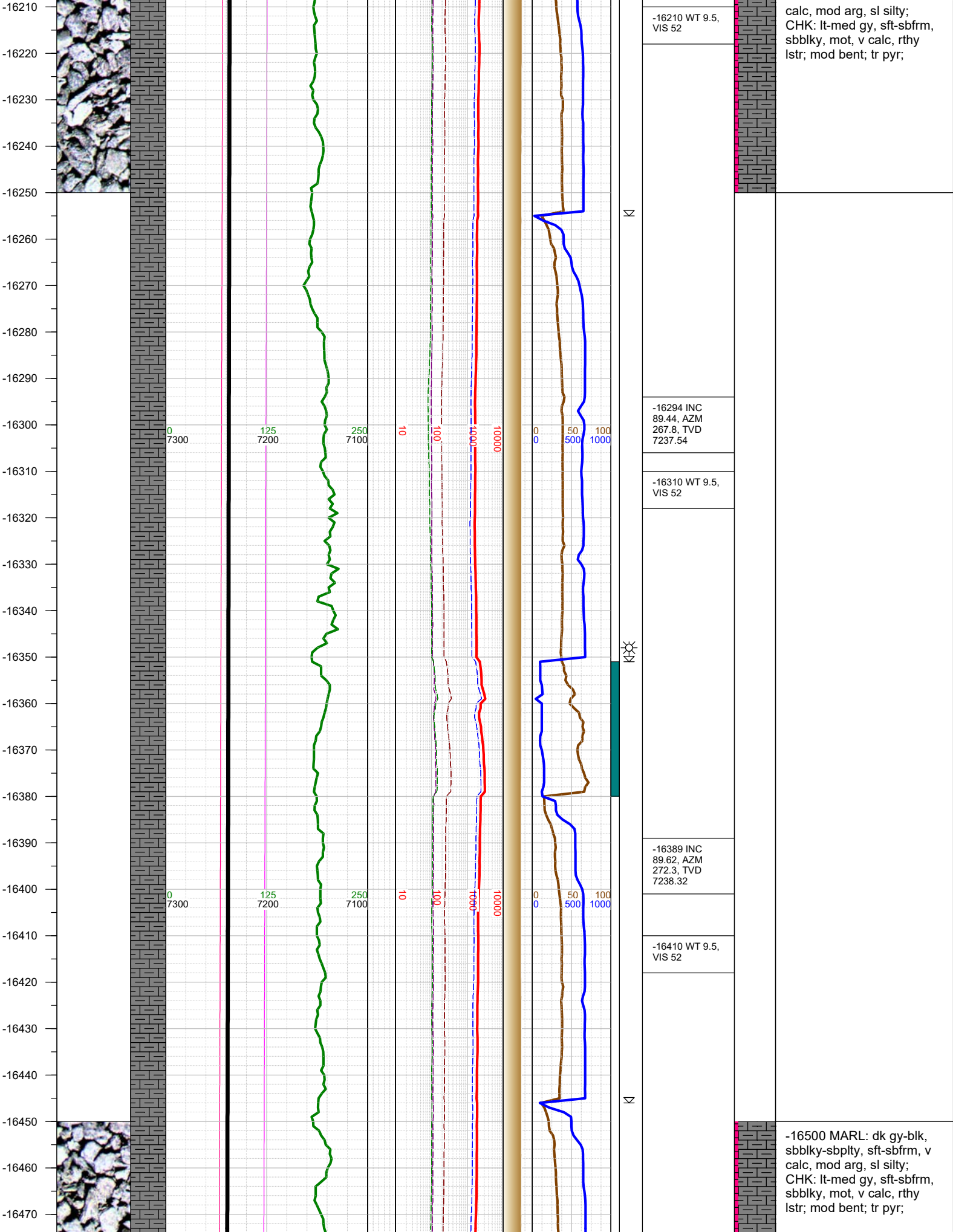




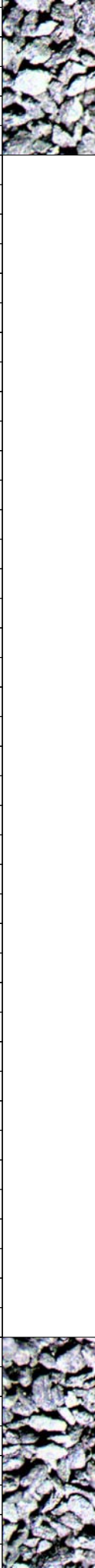








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-16484 INC
89.31, AZM
270.05, TVD
7239.2

-16500 WT 9.5,
VIS 53

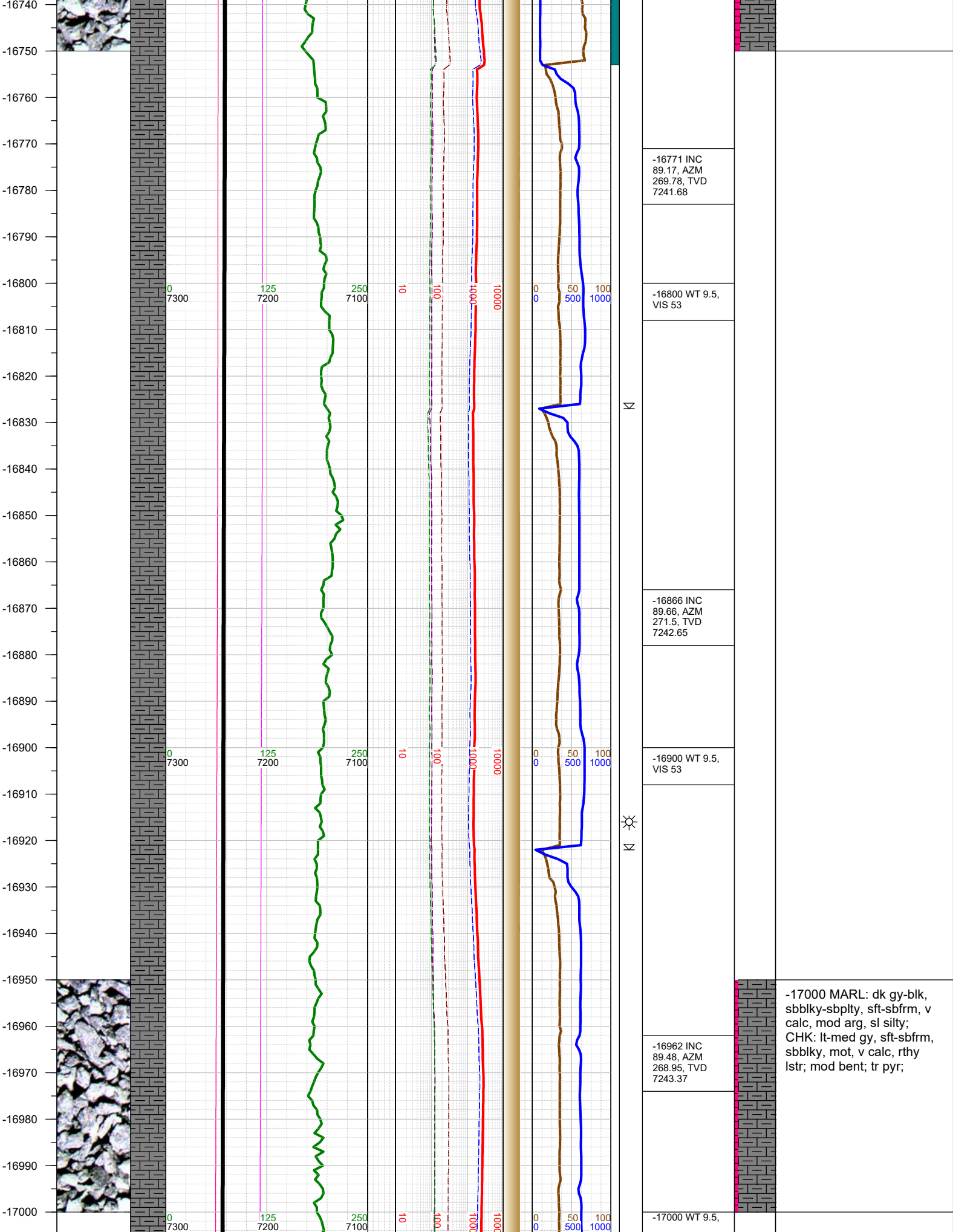
-16580 INC
89.44, AZM
273.53, TVD
7240.25

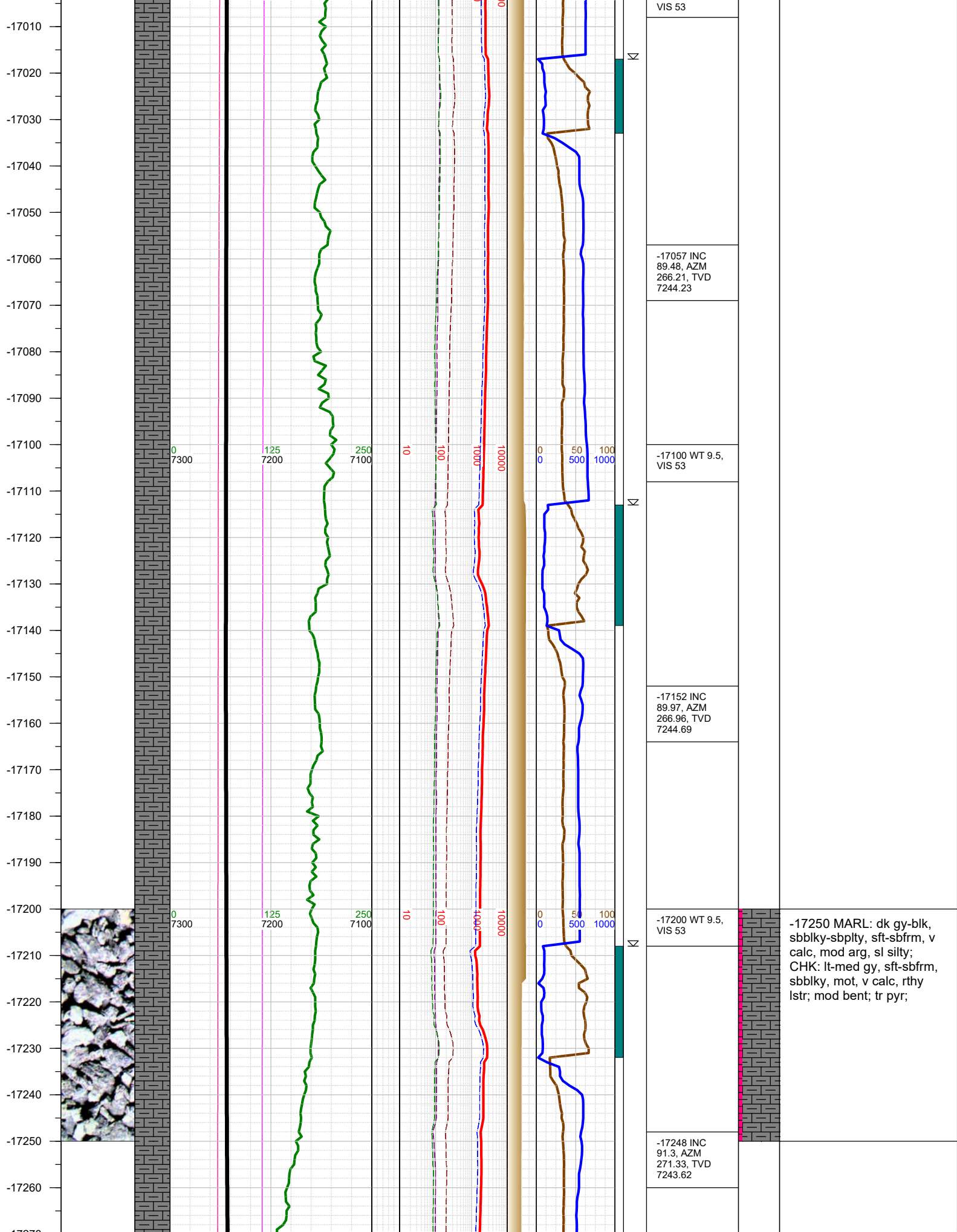
-16600 WT 9.5,
VIS 53

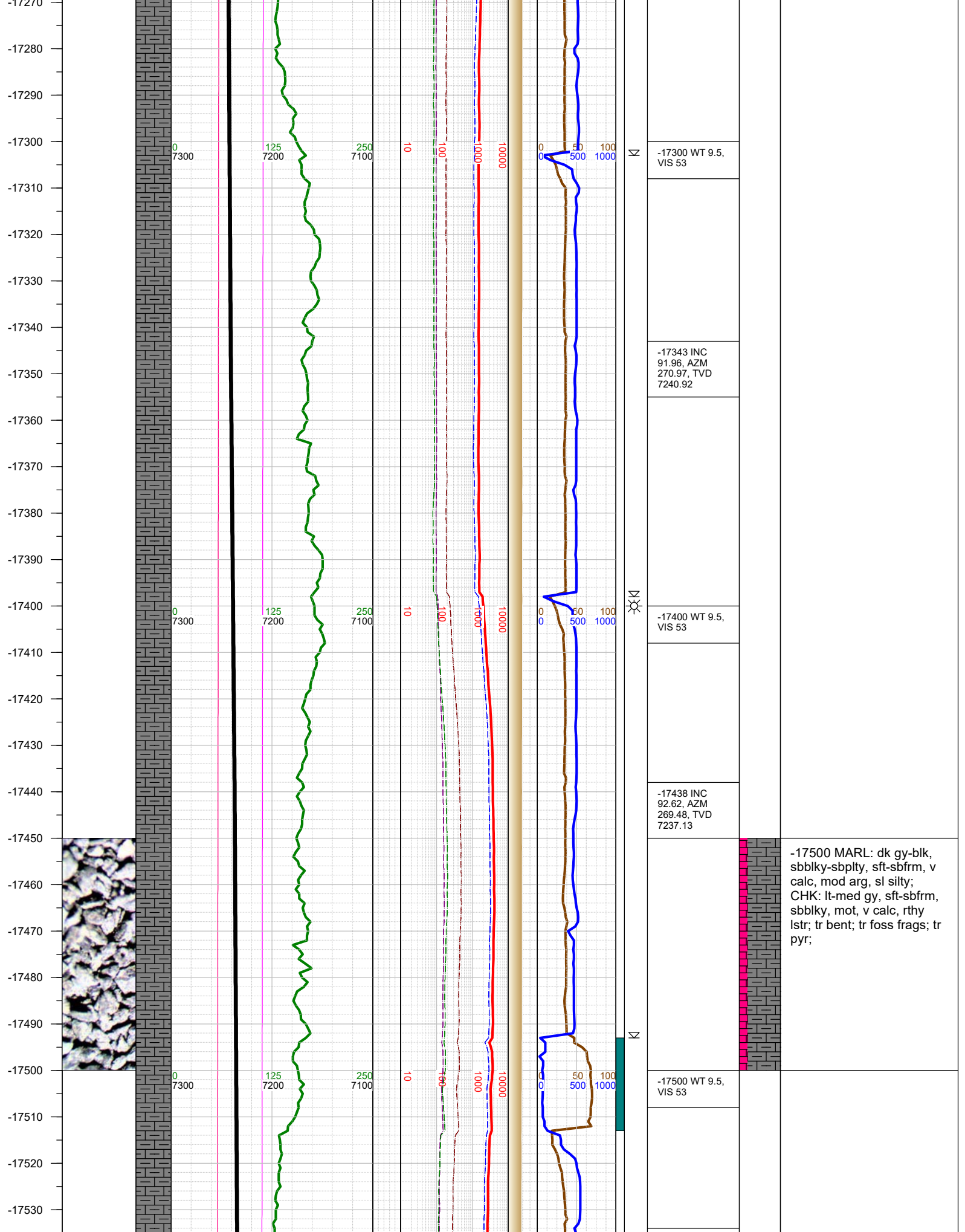
-16675 INC
89.84, AZM 276,
TVD 7240.85

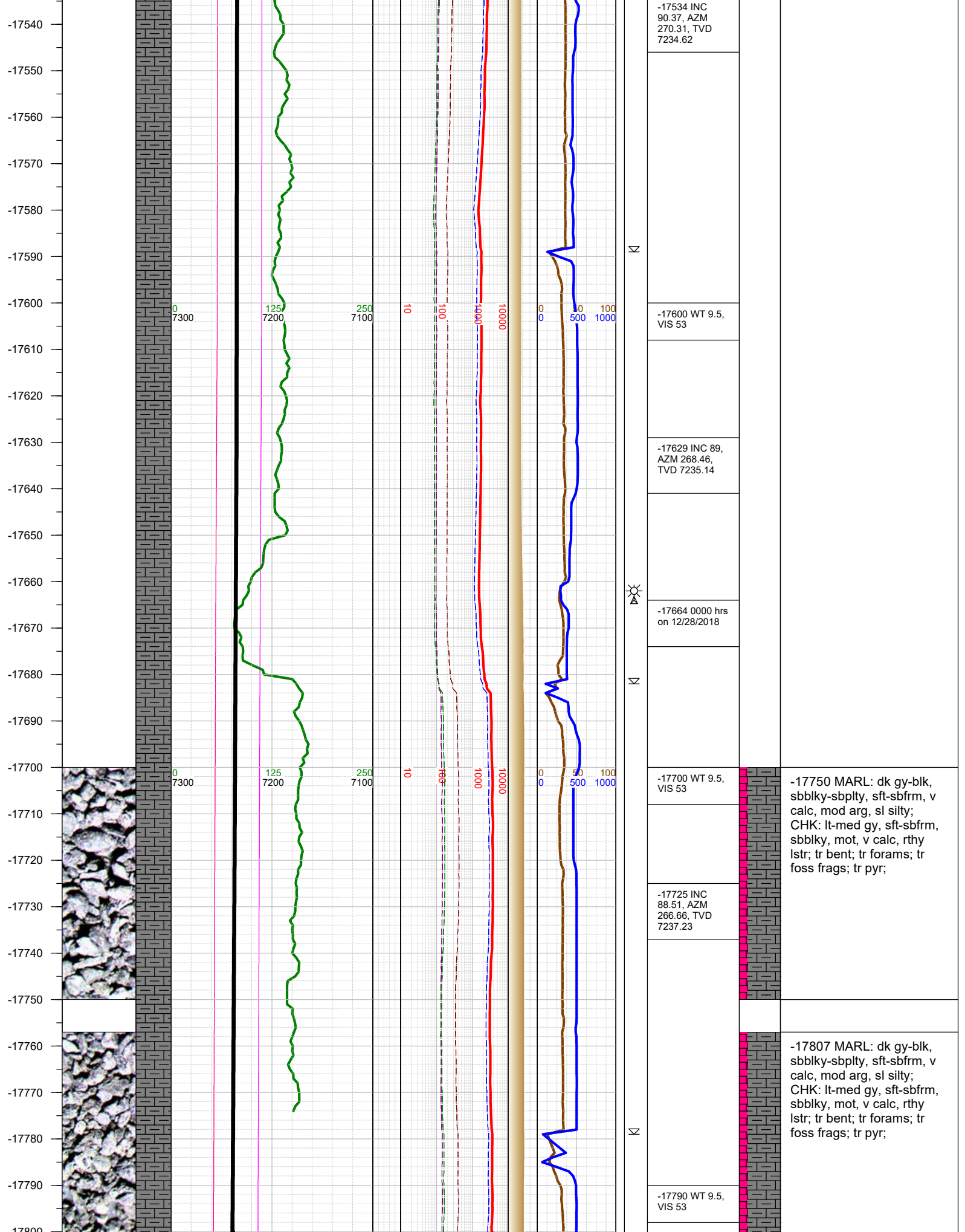
-16700 WT 9.5,
VIS 53

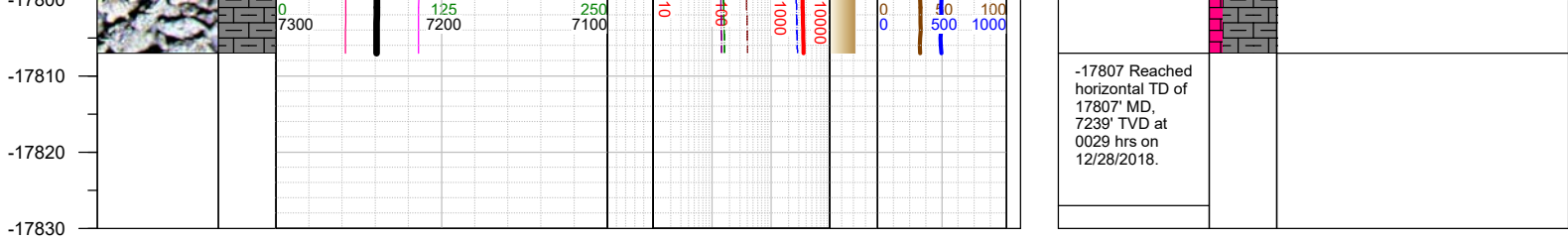
-16750 MARL: dk gy-blk,
sbbkly-sbplty, sft-sbfrm, v
calc, mod arg, sl silty;
CHK: lt-med gy, sft-sbfrm,
sbbkly, mot, v calc, rthy
lstr; mod bent; tr pyr;











TOTAL DEPTH = 17807'

Thank you for using Earth Science Agency