

OPERATOR: **Extraction Oil & Gas**
WELL NAME: **AD Fed Library 20W-25-18**
FIELD NAME: DJ Basin - Wattenberg
DRILLING RIG: Ensign 147
API #: 05-123-45037

LAT/LONG: 40.38239, -104.67649
SURFACE HOLE: NWSW S21-T5N-R65W, 1828' FSL, 367' FWL
BOTTOM HOLE: S24-T5N-R66W, 0' FSL, 2201' FEL

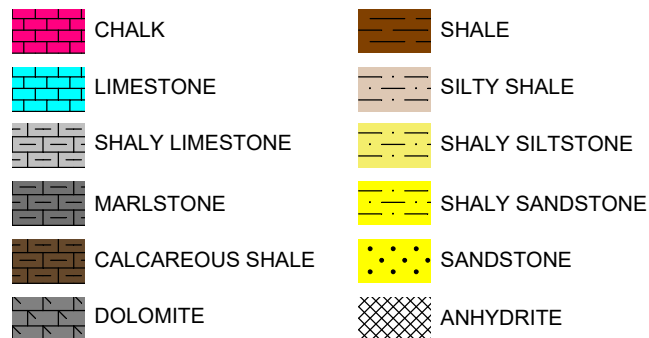


Earth Science Agency, LLC

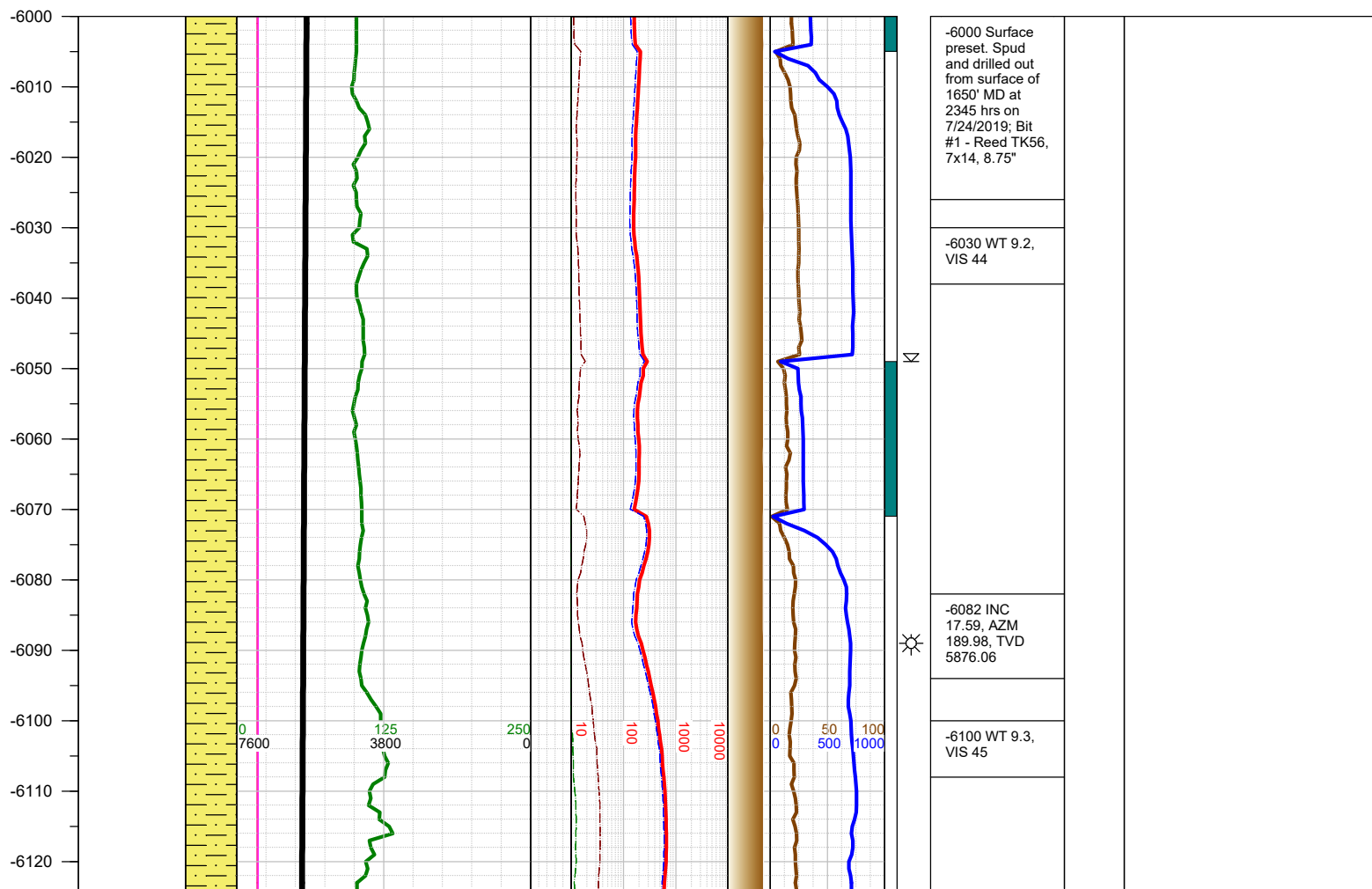
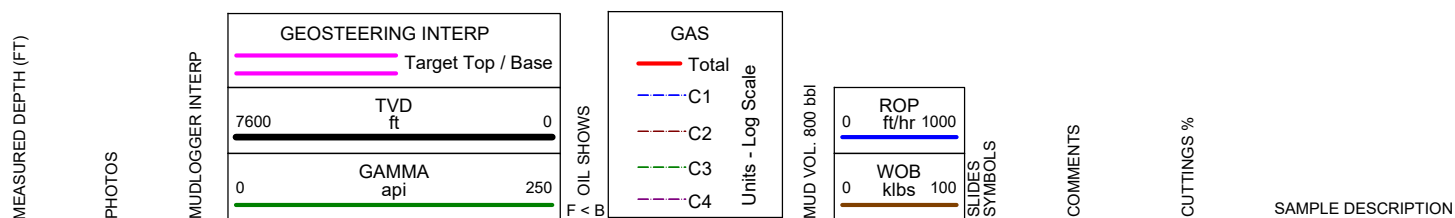
COUNTY: Weld
STATE: Colorado
GROUND ELEVATION: 4638'
KELLY BUSHING: 4666'
DRILLING FLUID: OBM
TVD VS. MD: 7007' / 19816'
SPUD DATE: July 24, 2019
TD DATE: July 29, 2019

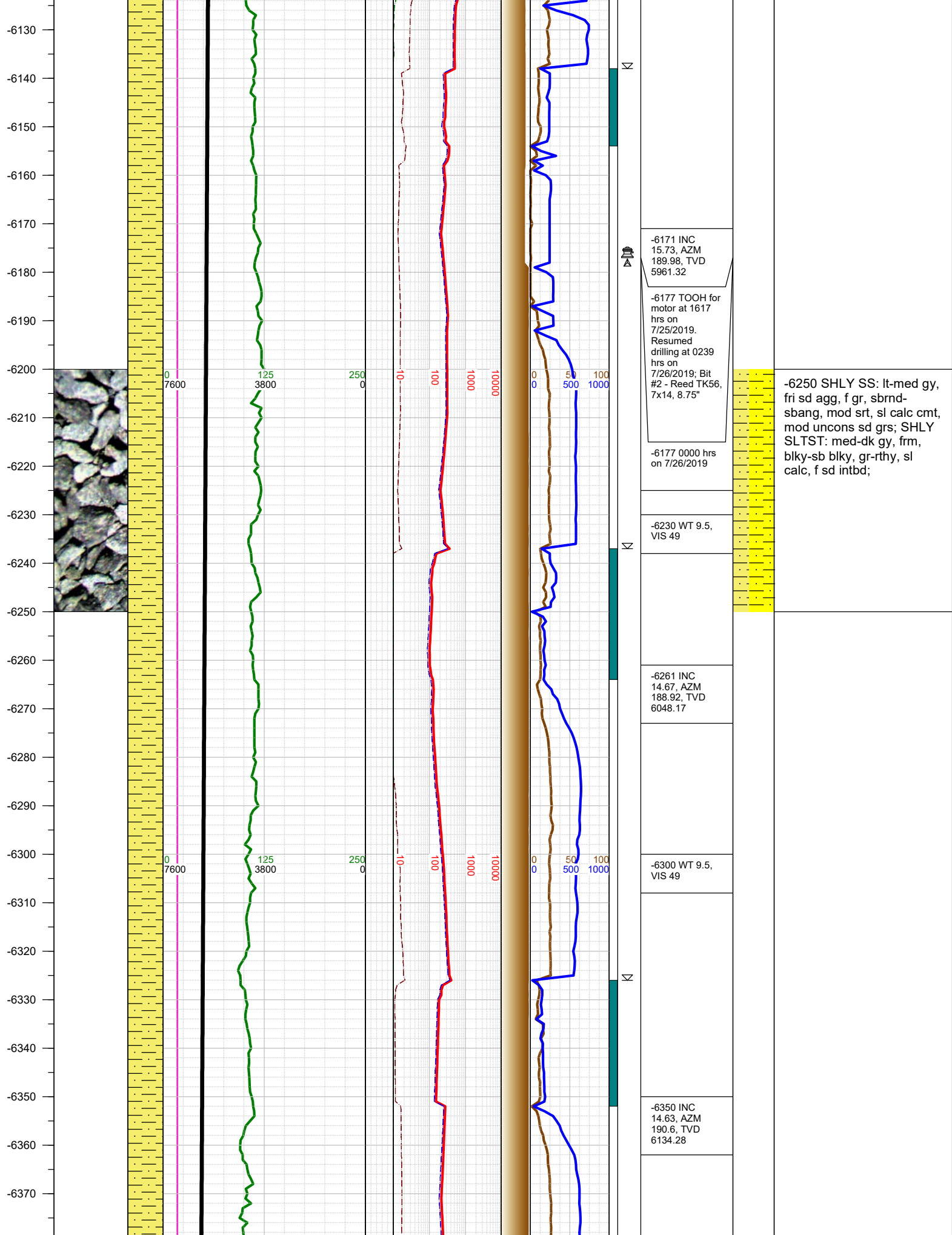
DEPTHS LOGGED: 6000' - 19816'
DATES LOGGED: July 25, 2019 - July 29, 2019
GEOLOGISTS: Nick Damon, Ross Apodaca
SCALE: 5" = 100'

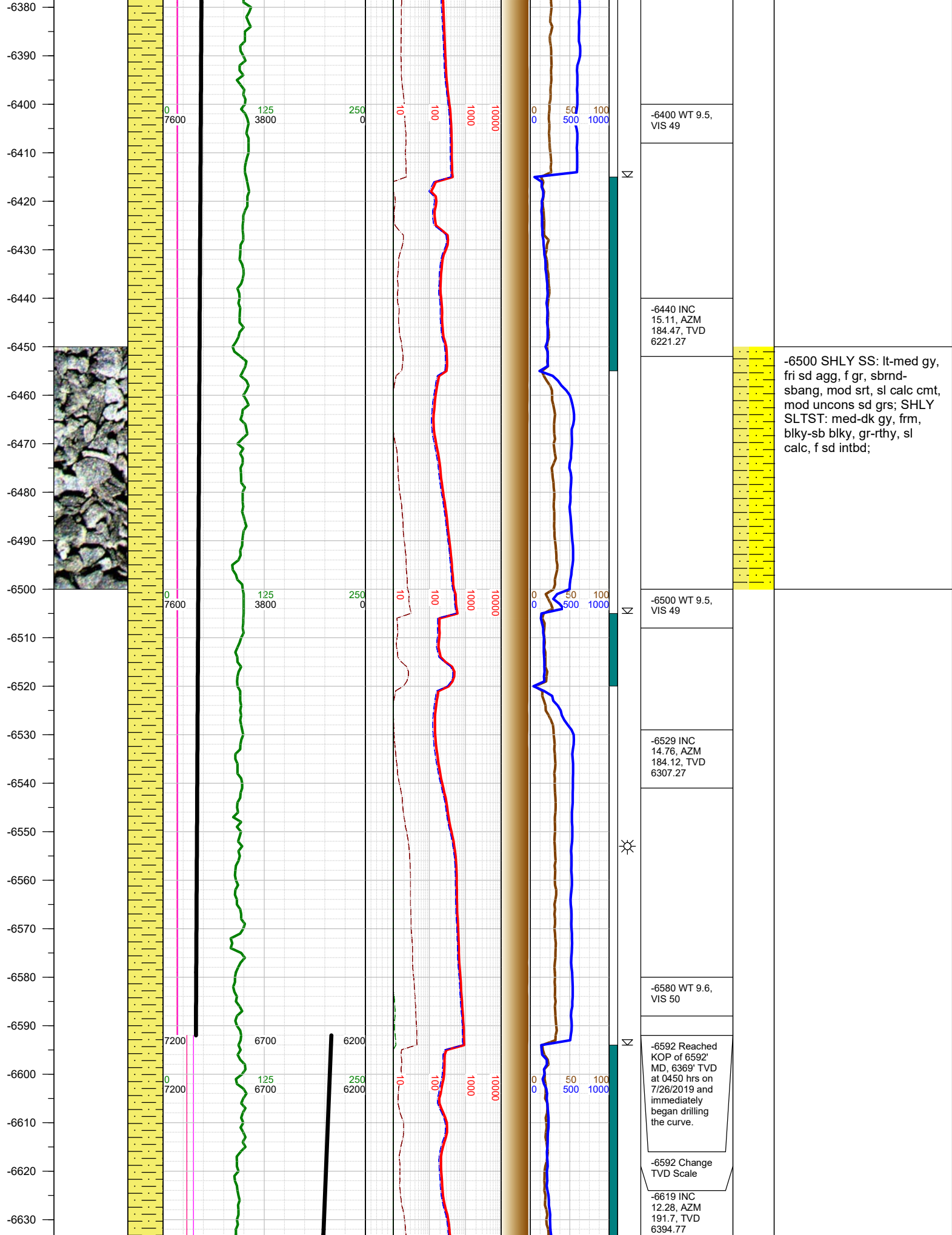
LEGEND

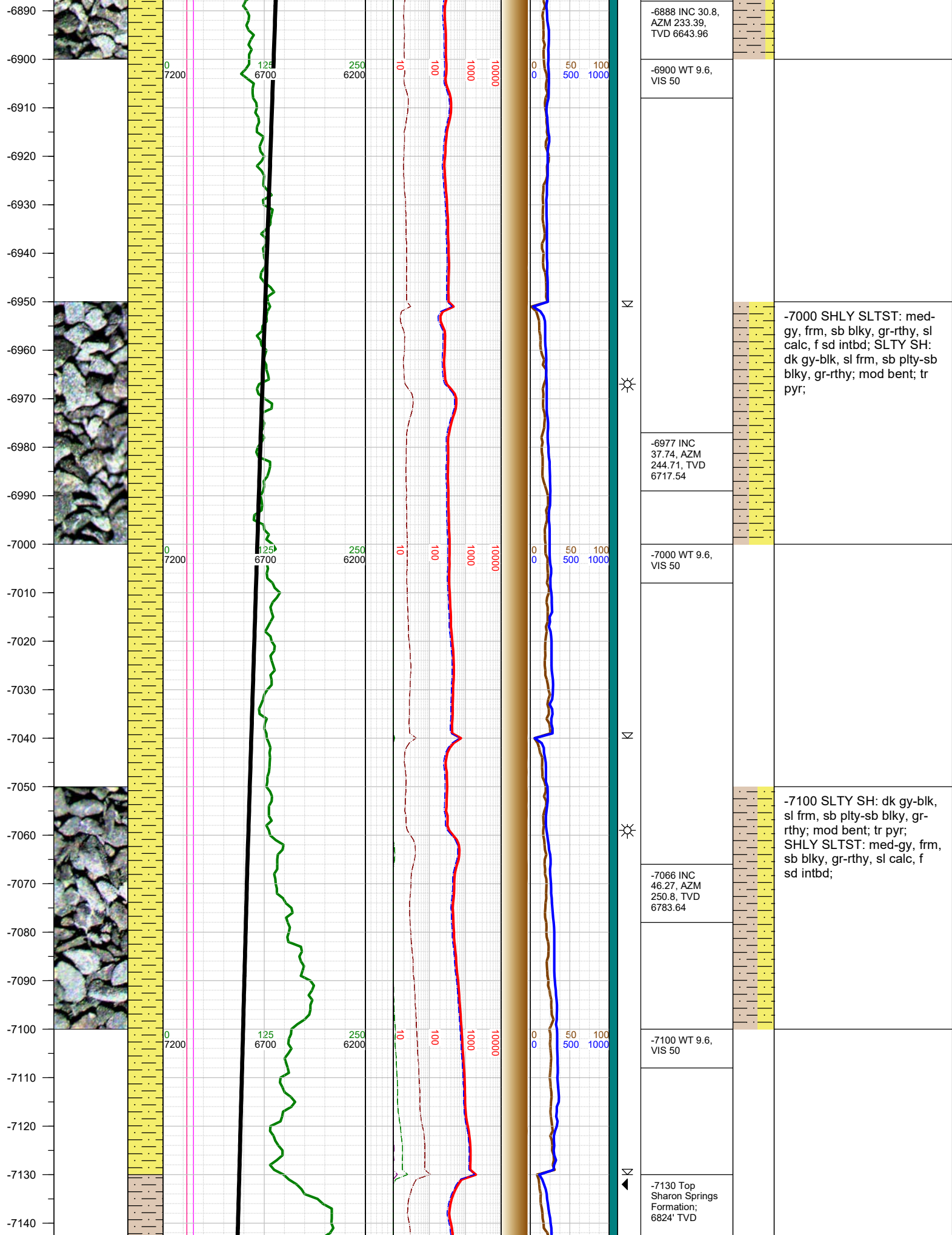


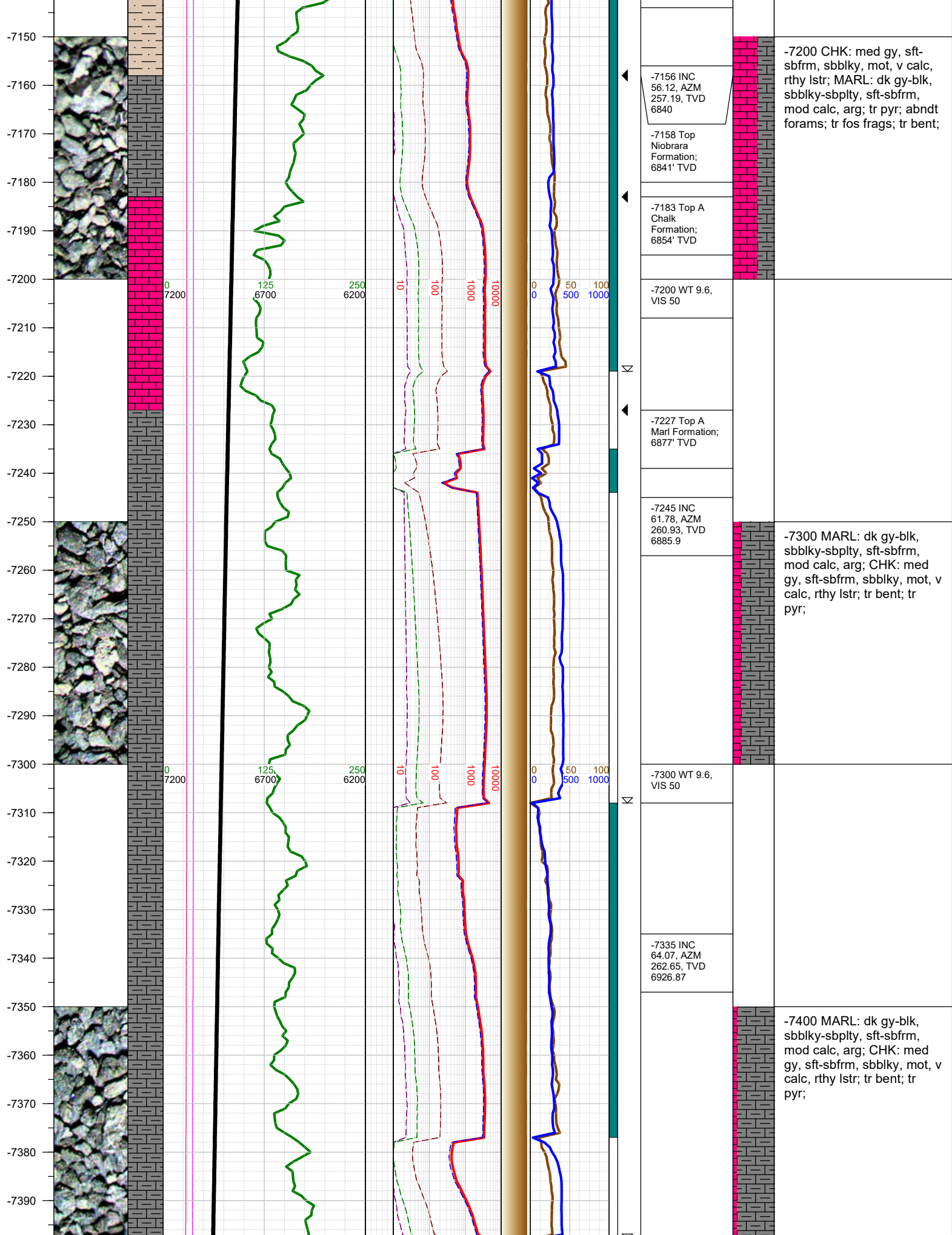
FORMATION CONNECTION MIDNIGHT NEW BIT GAS SHOW FAULT

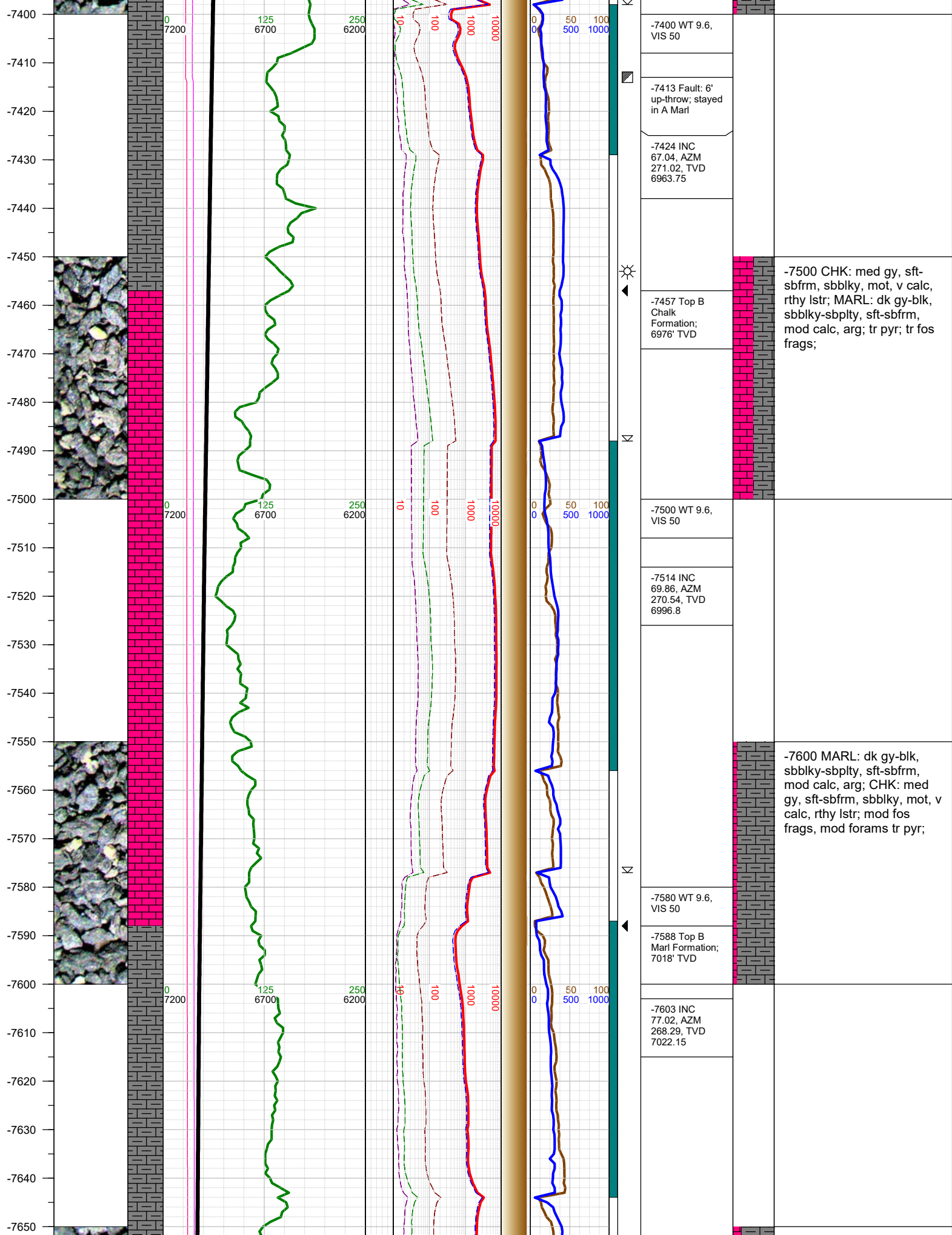


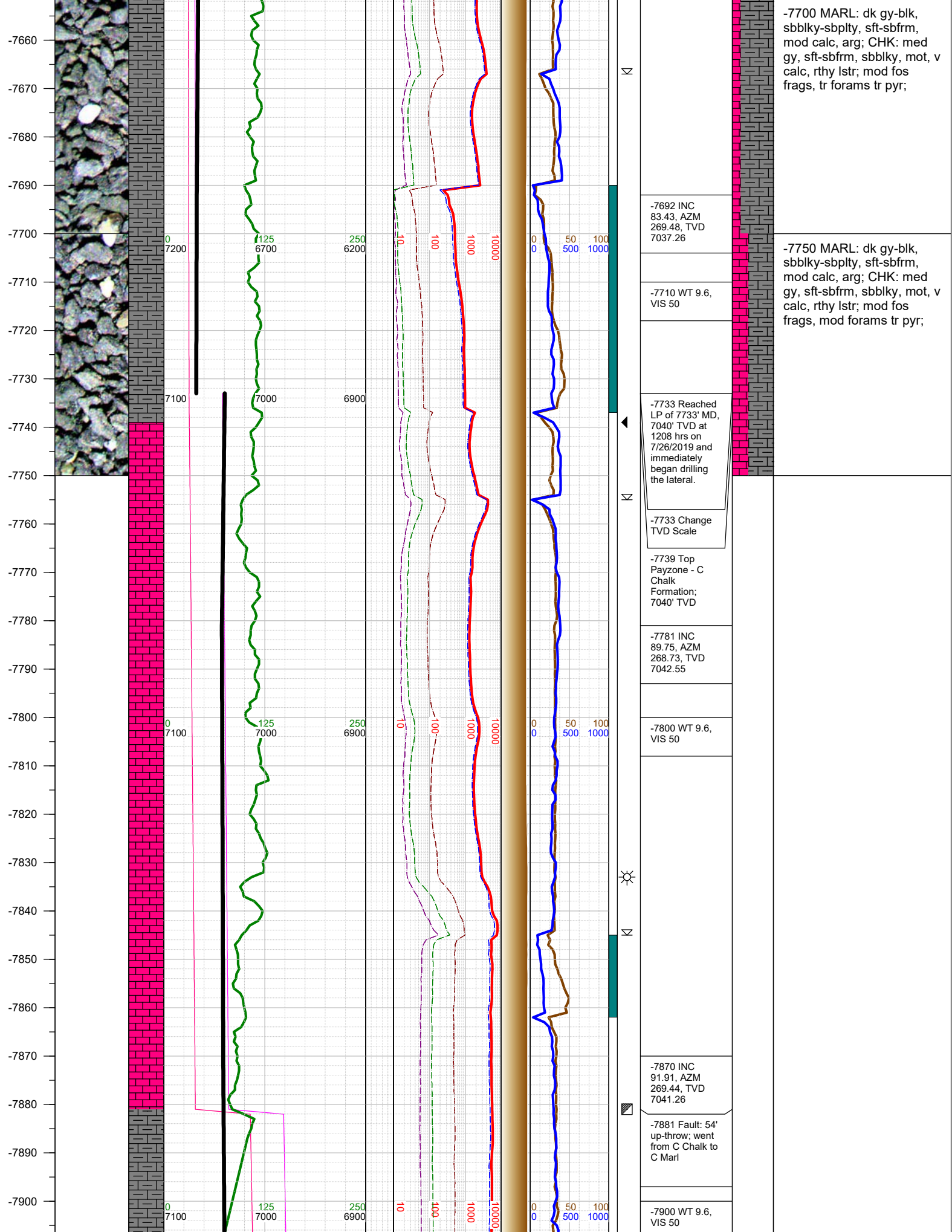




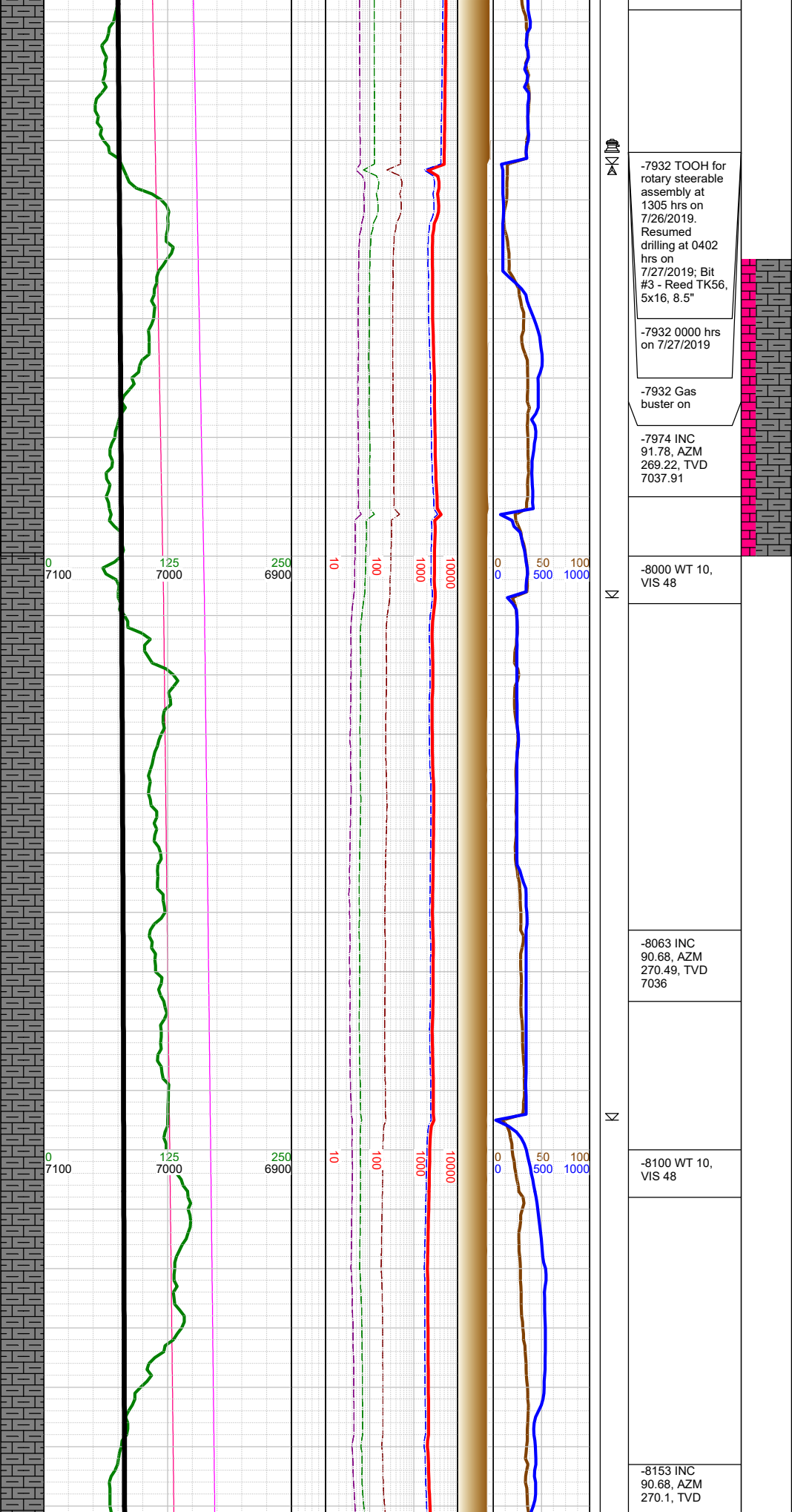








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-7932 TOO H for rotary steerable assembly at 1305 hrs on 7/26/2019. Resumed drilling at 0402 hrs on 7/27/2019; Bit #3 - Reed TK56, 5x16, 8.5"

-7932 0000 hrs on 7/27/2019

-7932 Gas buster on

-7974 INC 91.78, AZM 269.22, TVD 7037.91

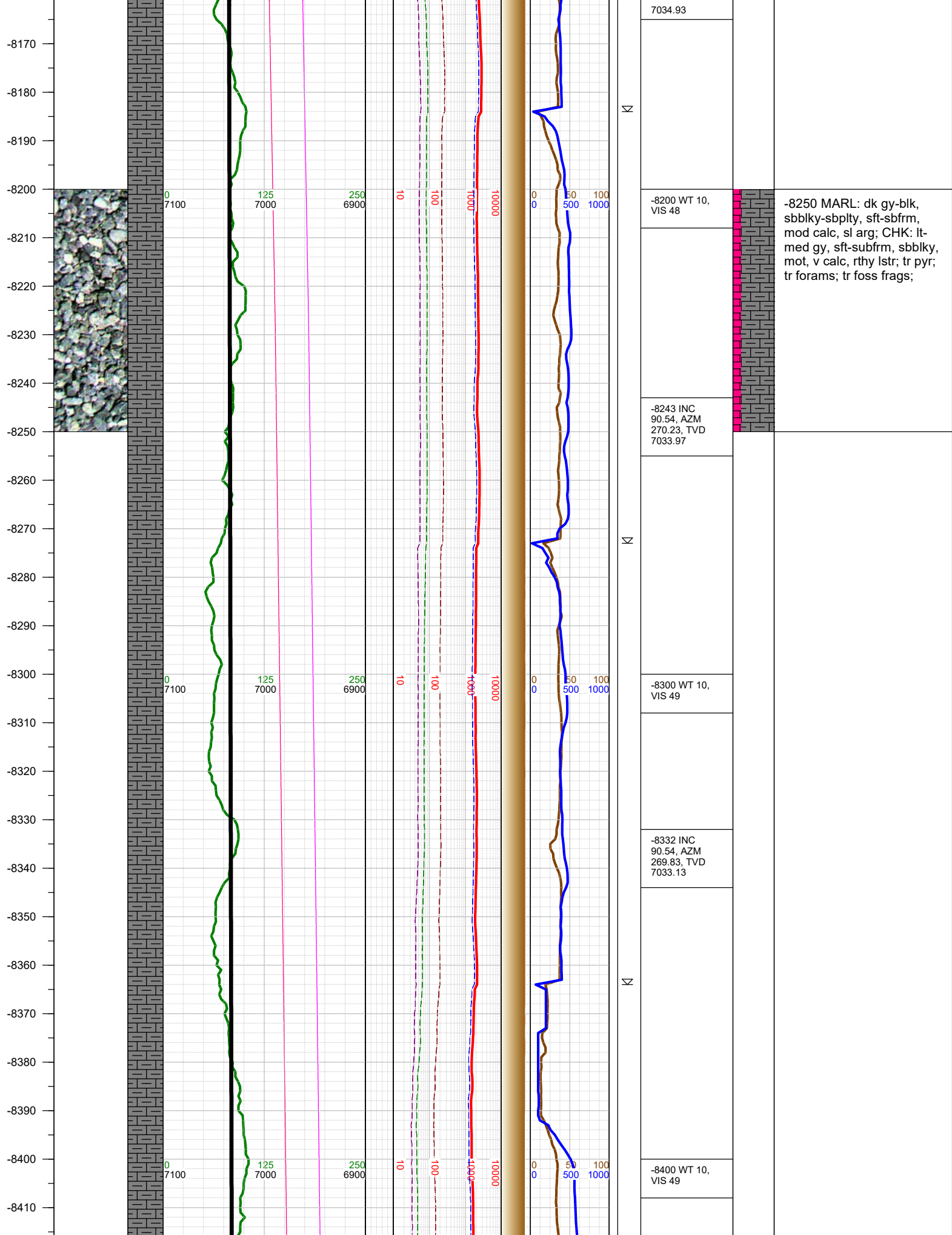
-8000 WT 10, VIS 48

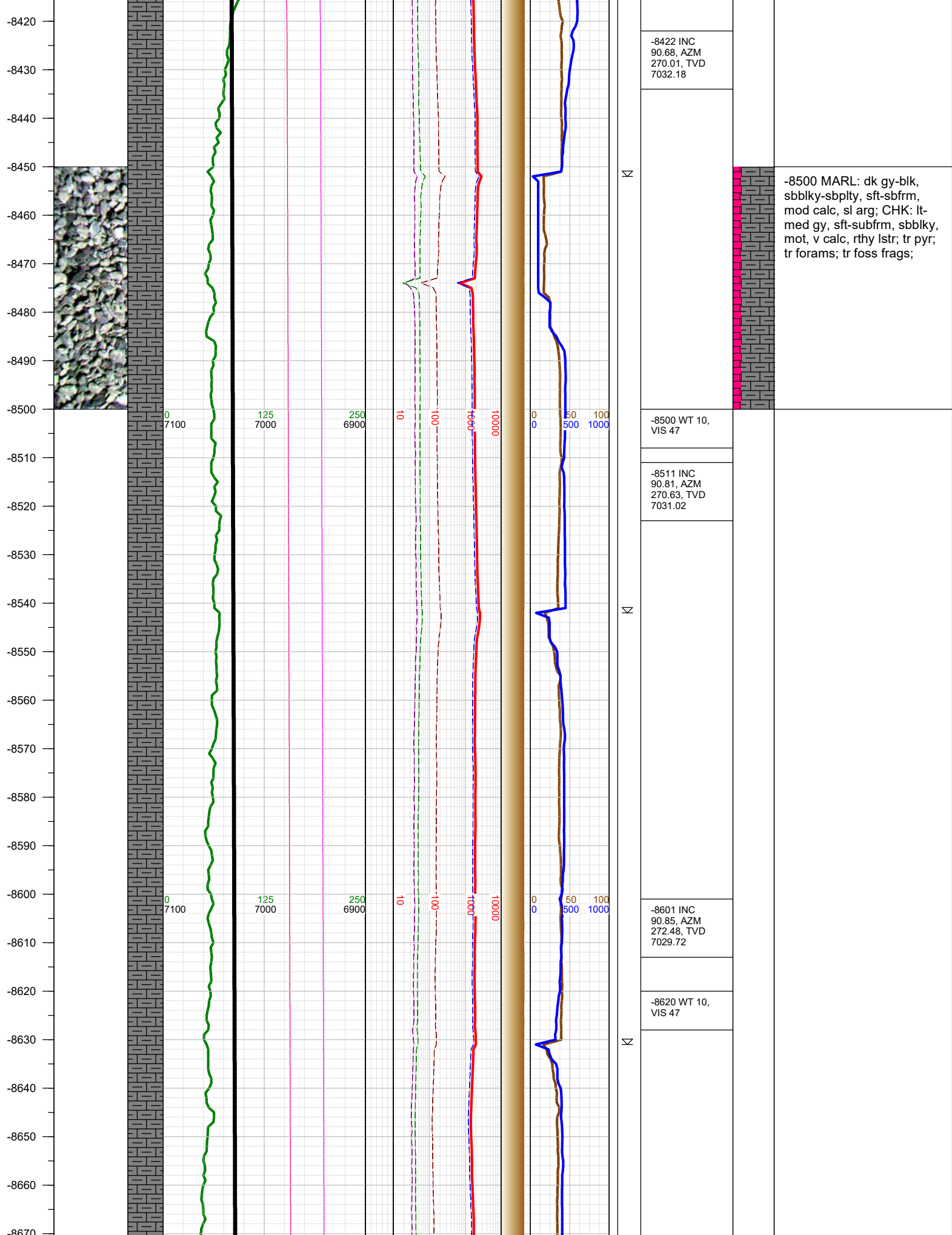
-8063 INC 90.68, AZM 270.49, TVD 7036

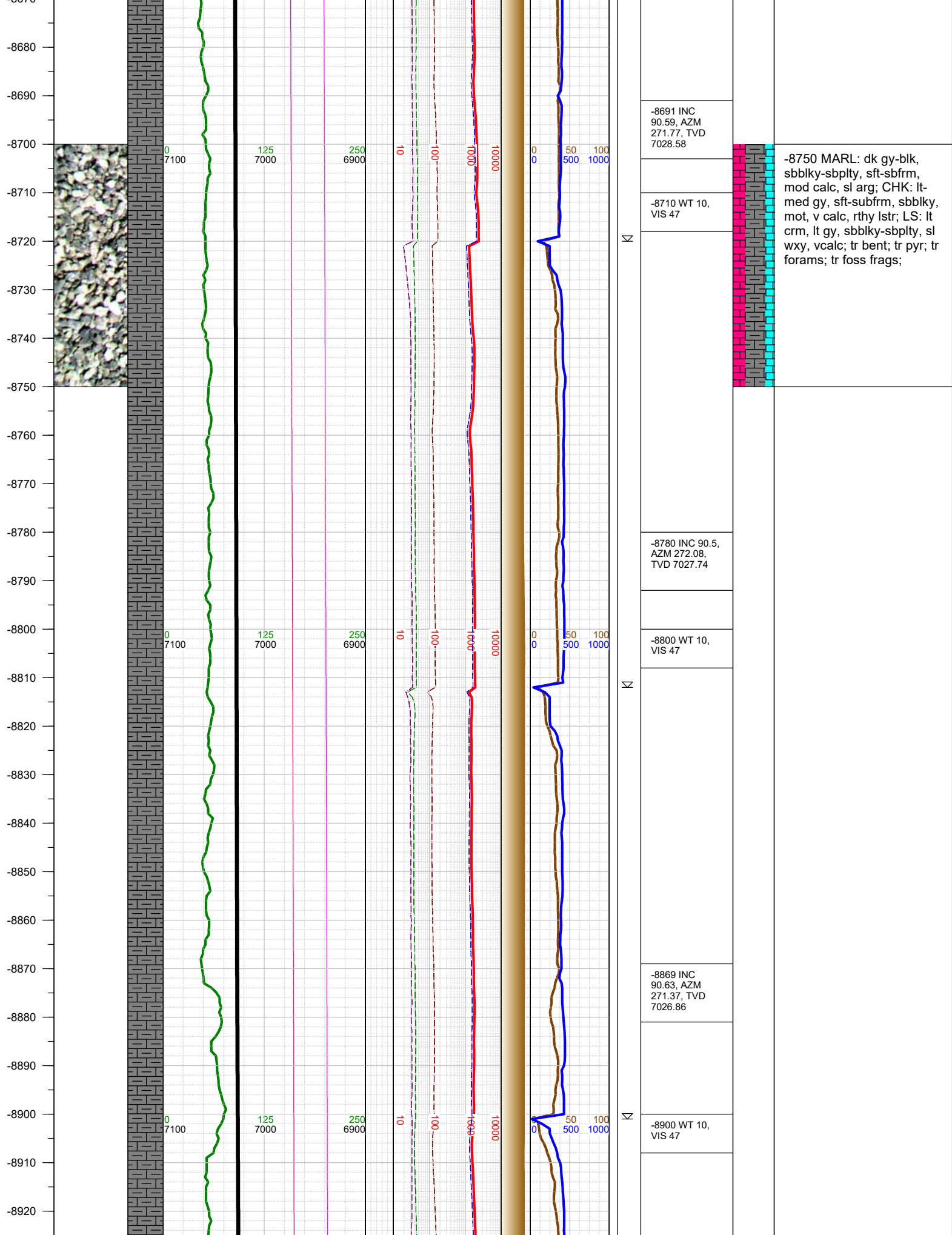
-8100 WT 10, VIS 48

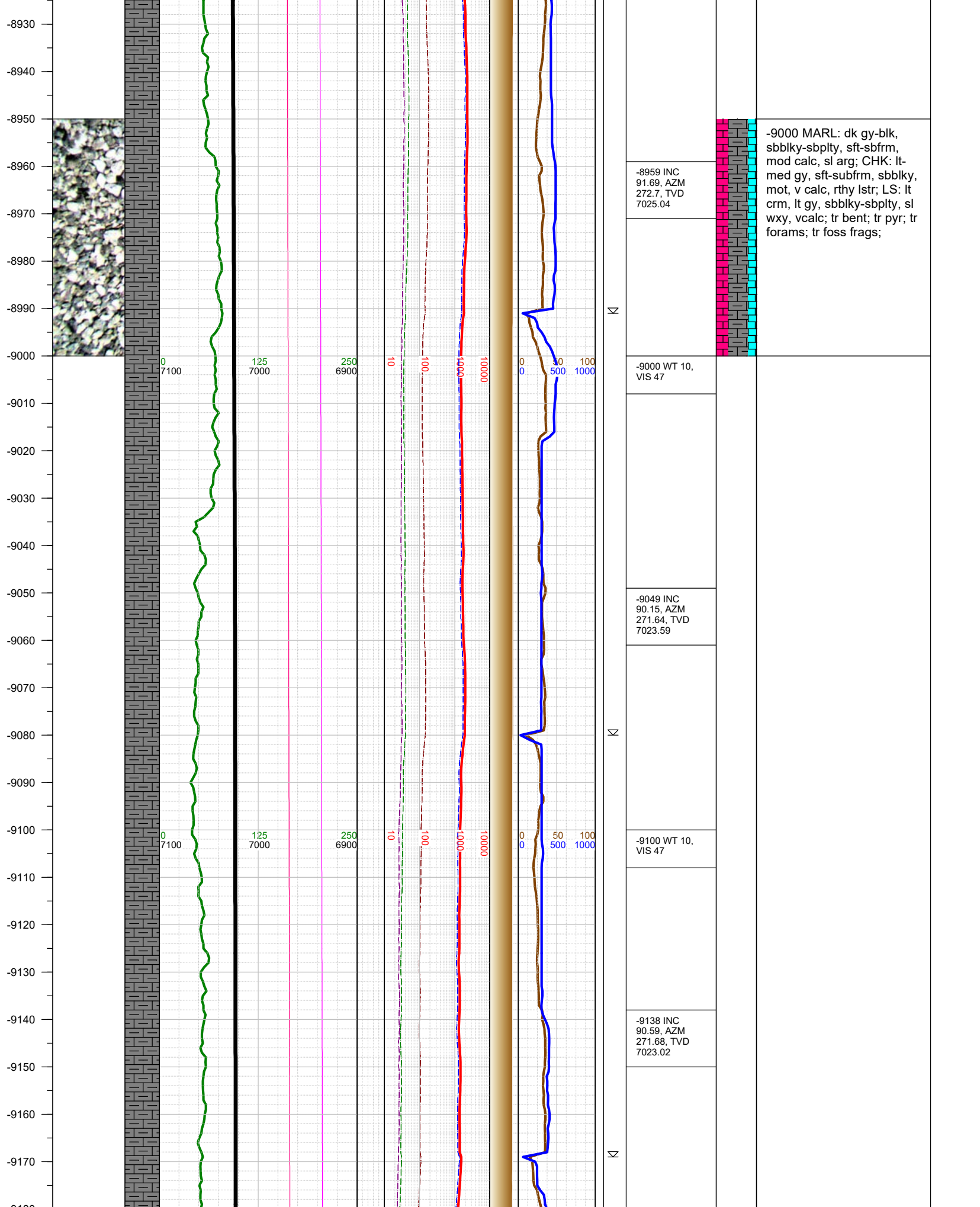
-8153 INC 90.68, AZM 270.1, TVD

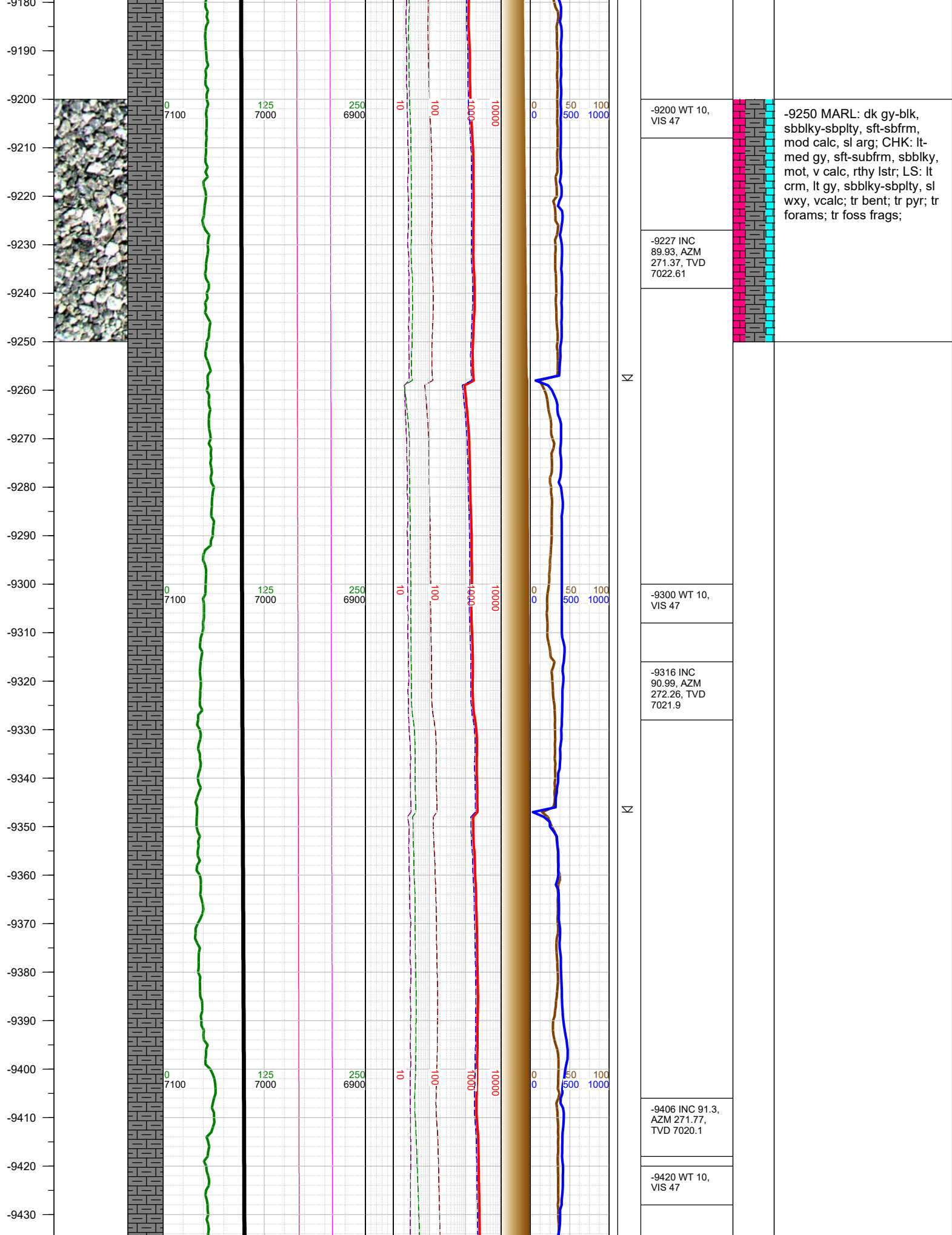
-8000 MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg; CHK: lt-med gy, sft-subfrm, sbblky, mot, v calc, rthy lstr; tr pyr; tr forams; tr foss frags;

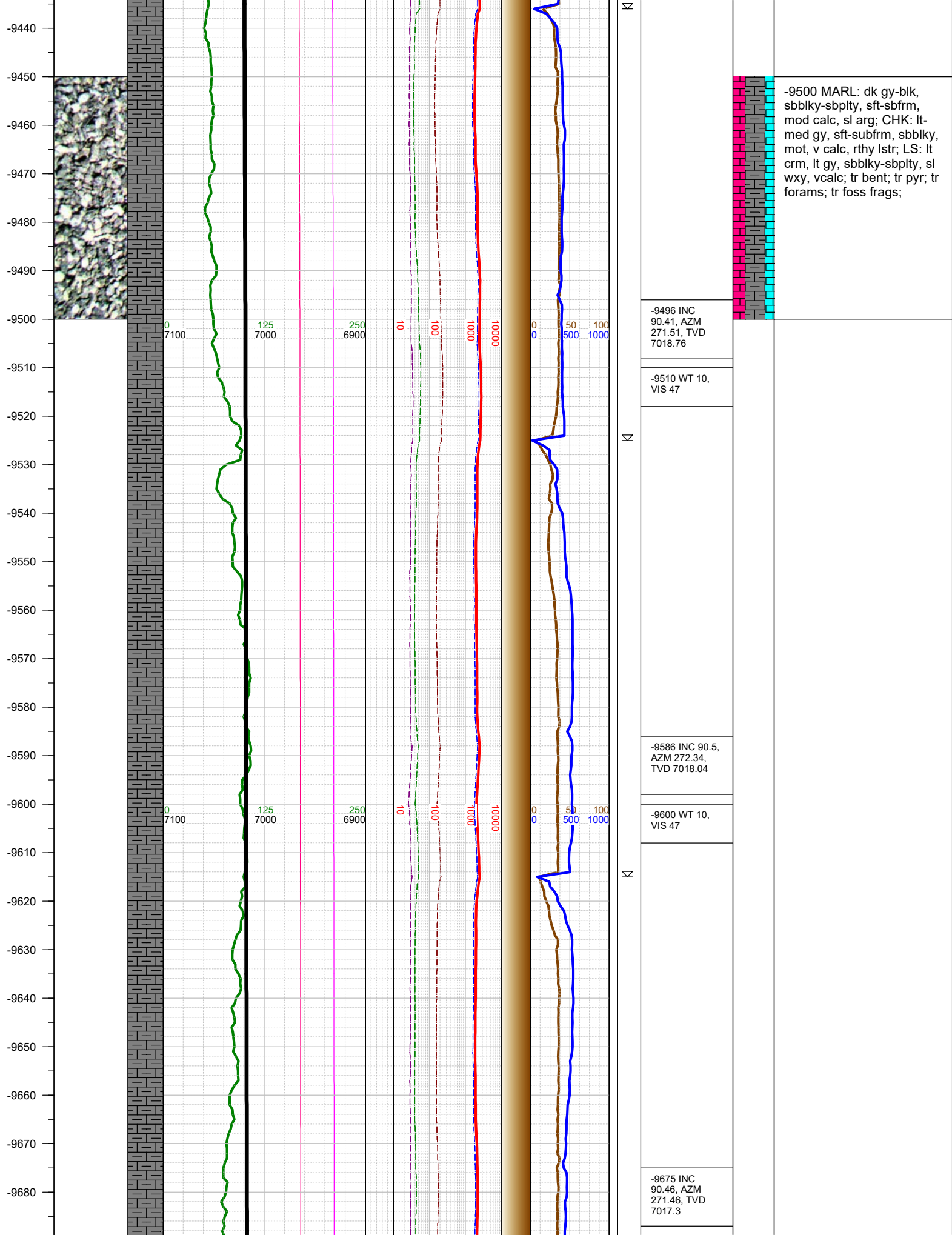


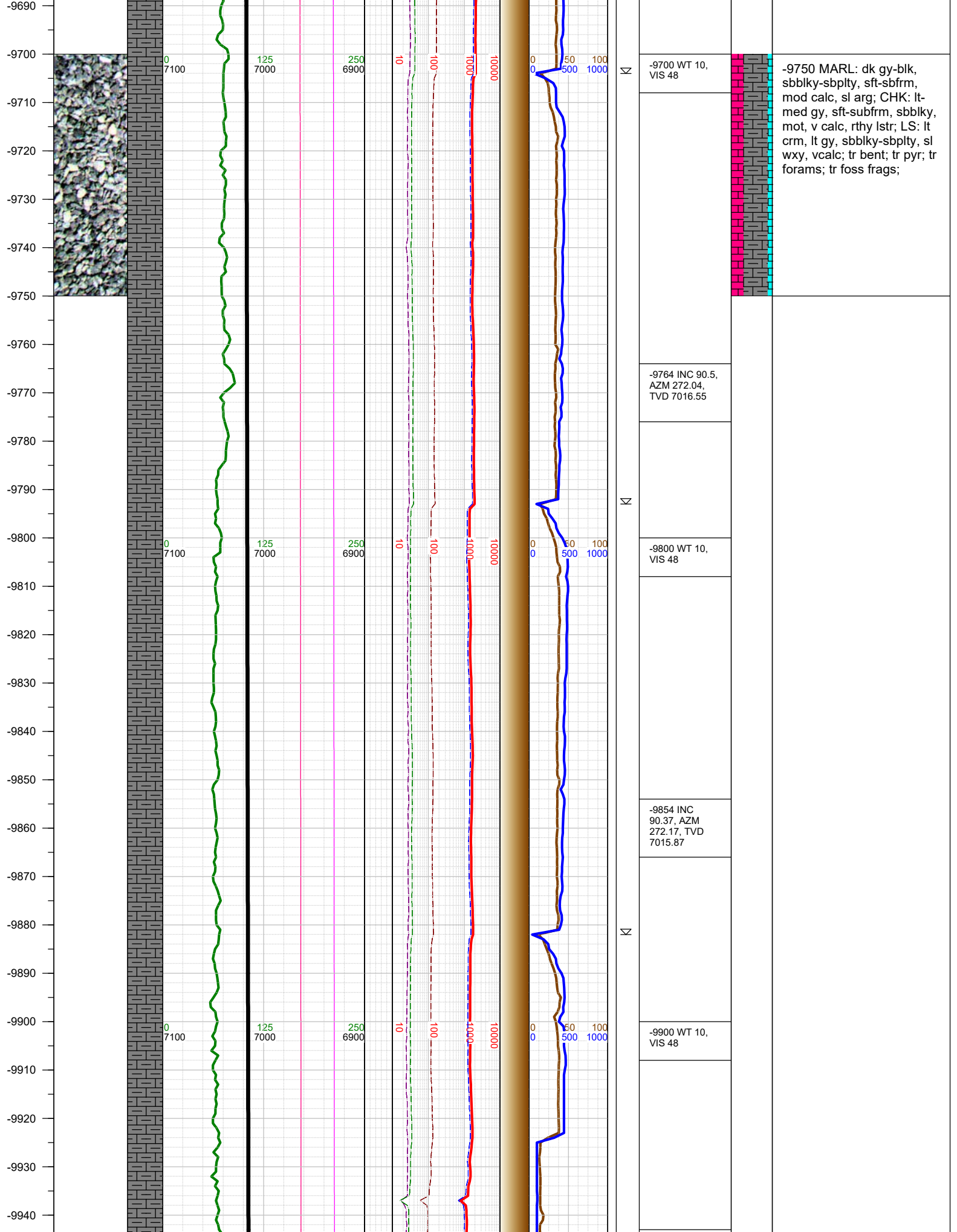


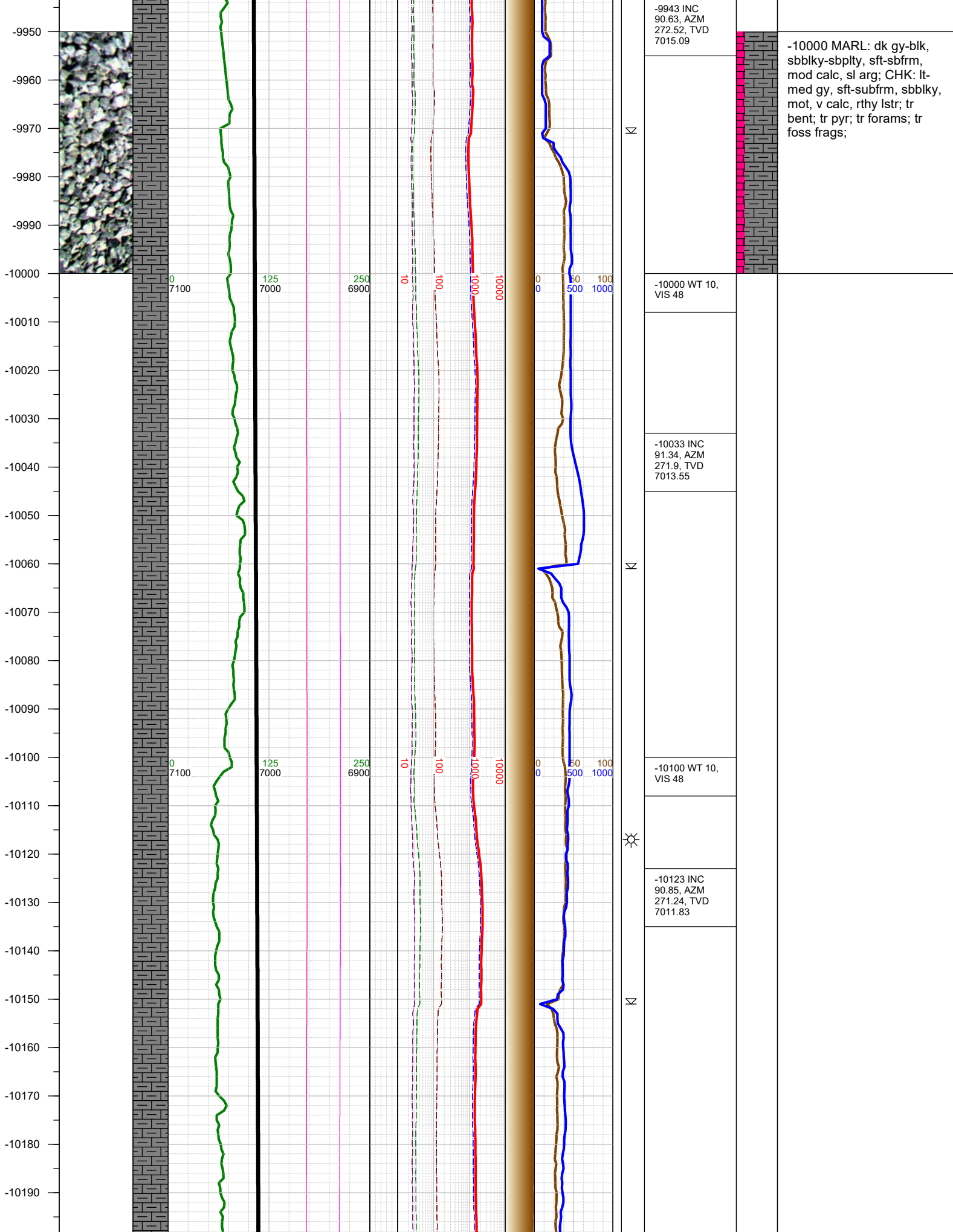


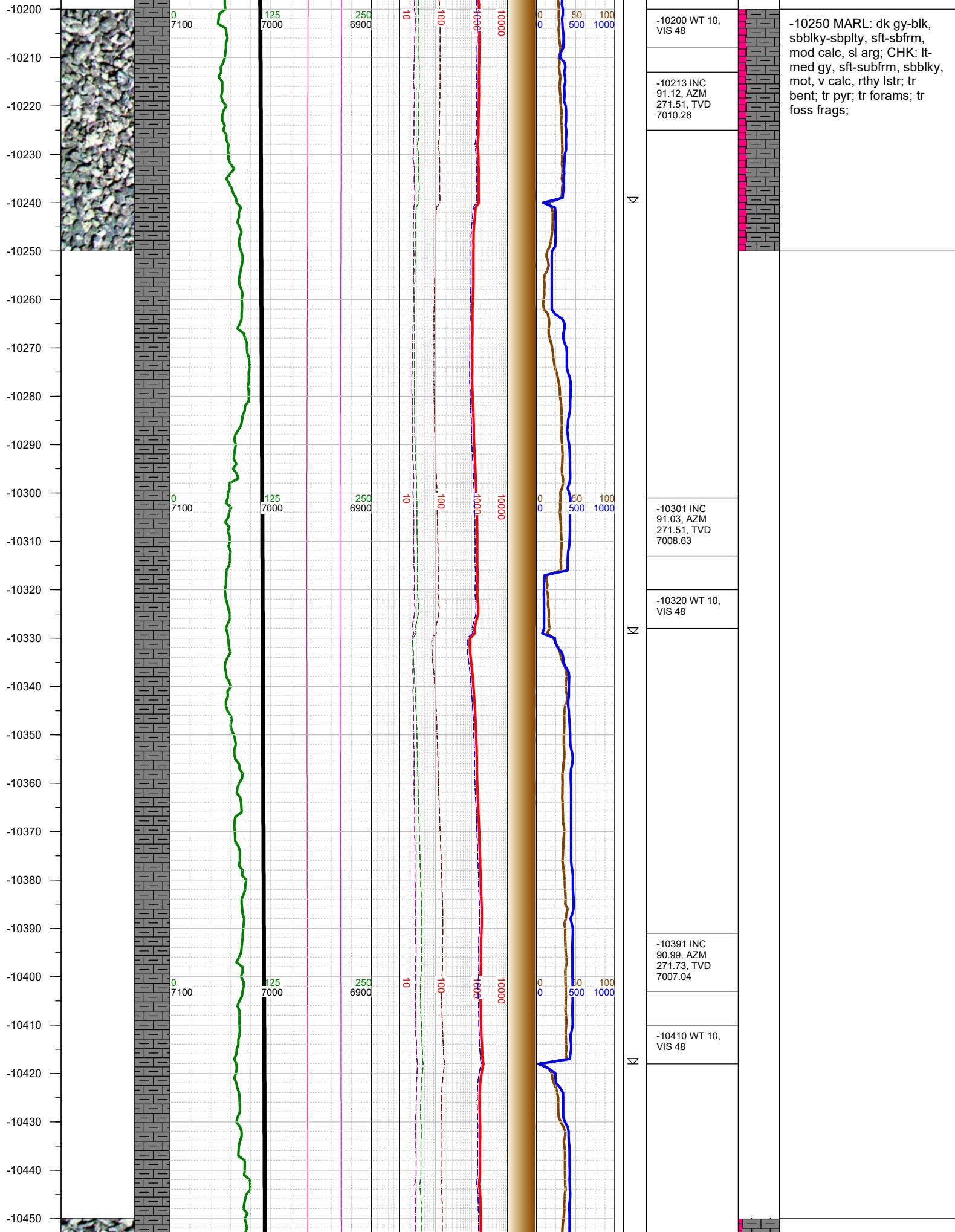


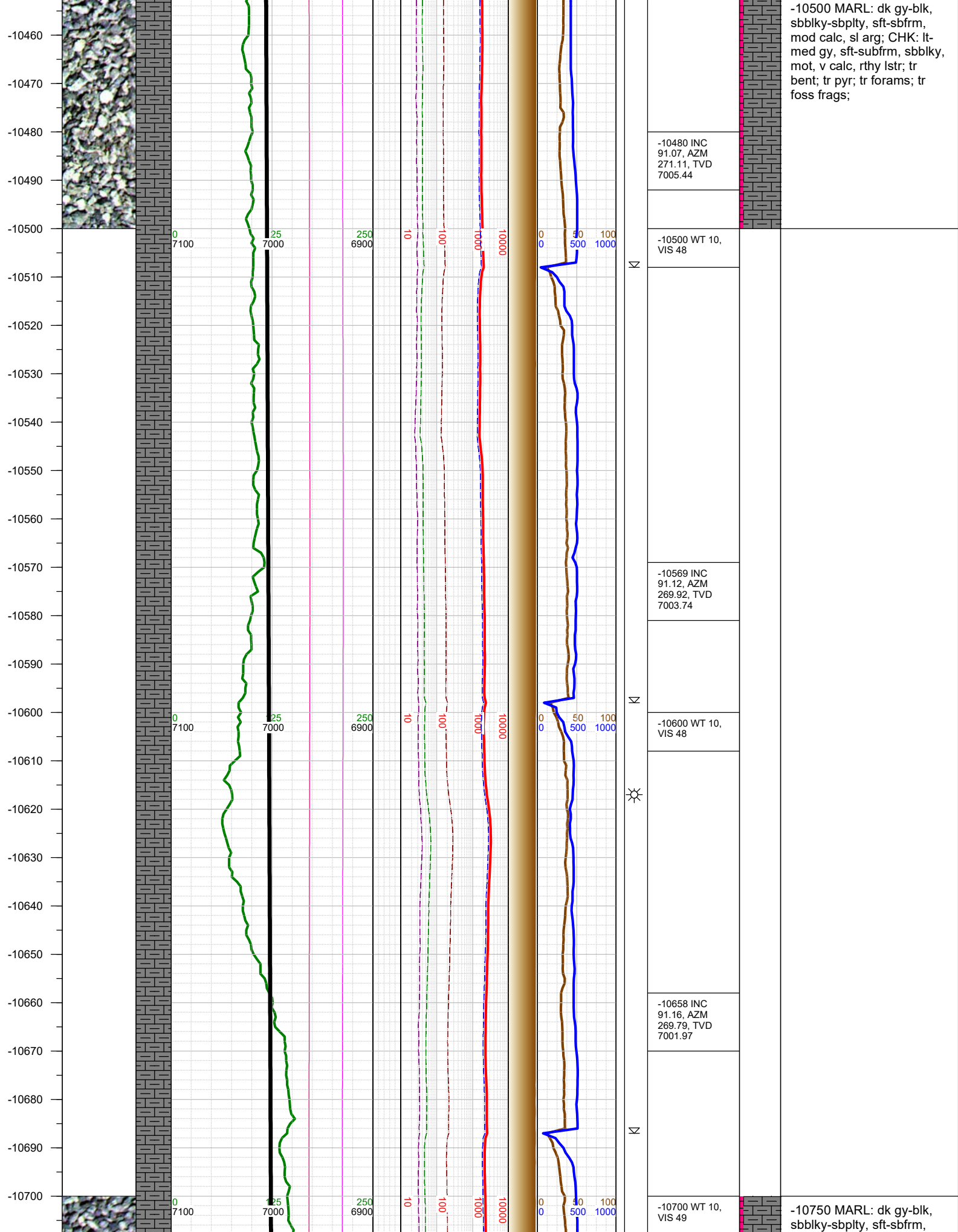


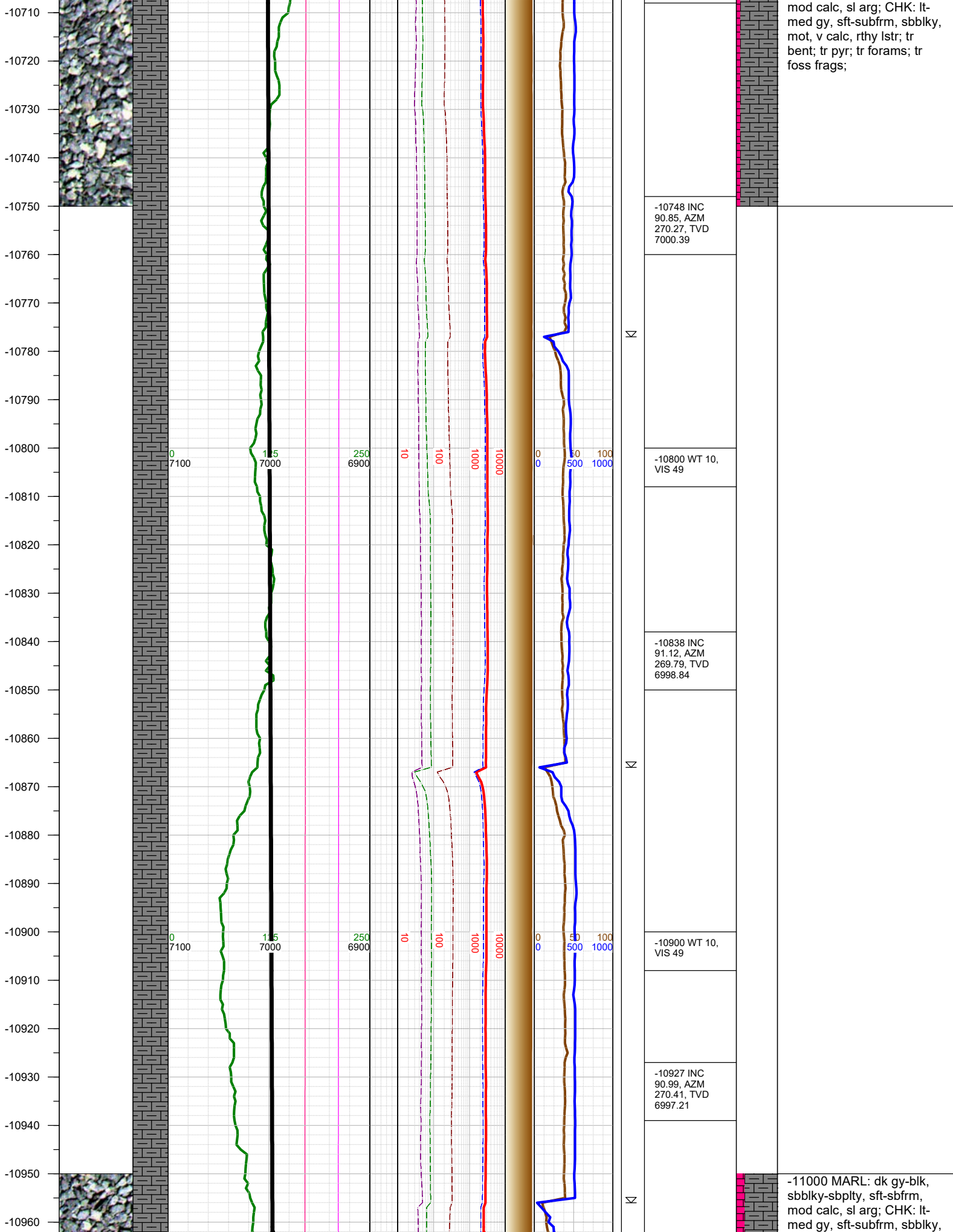


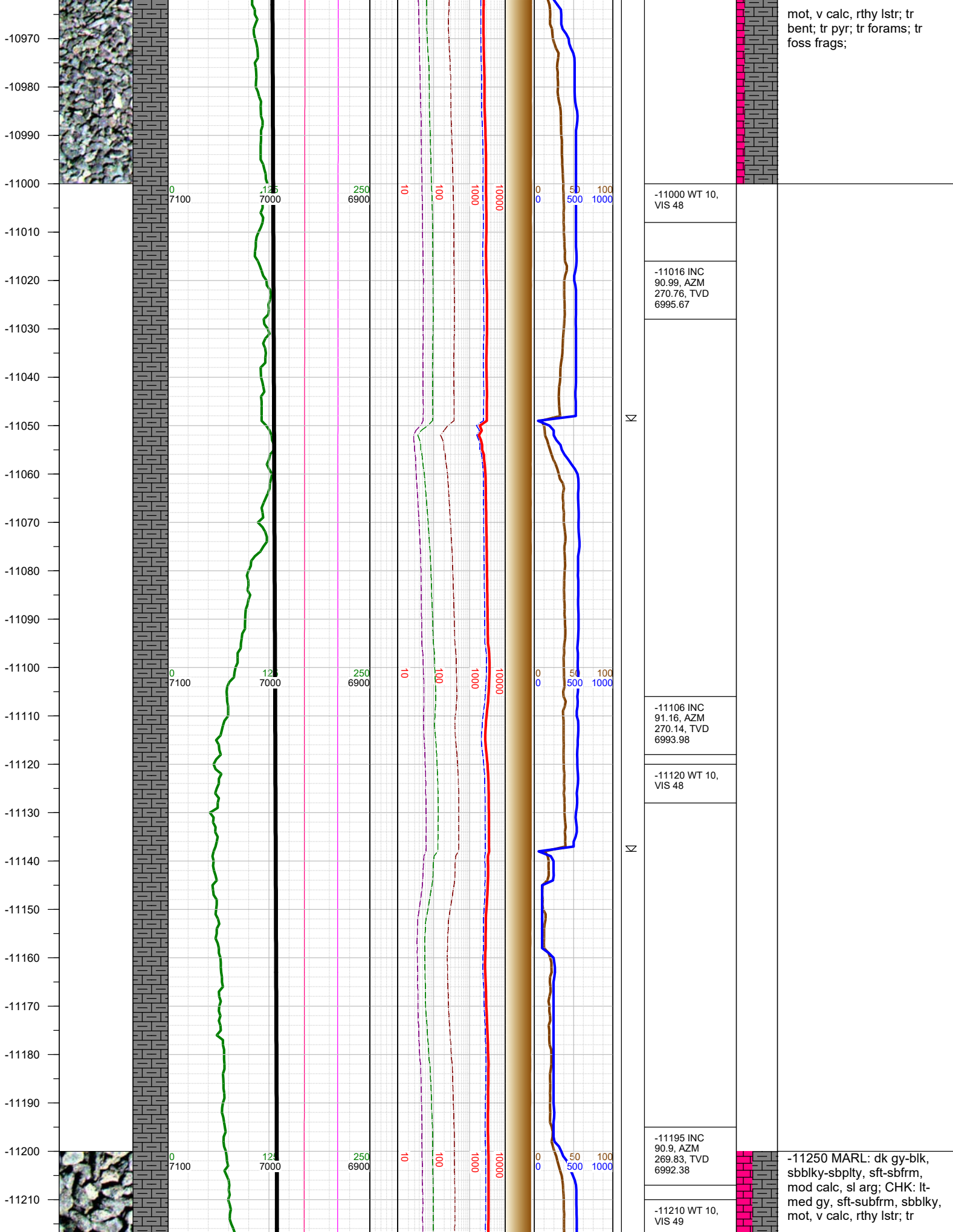












mot, v calc, rthy lstr; tr
bent; tr pyr; tr forams; tr
foss frags;

-11000 WT 10,
VIS 48

-11016 INC
90.99, AZM
270.76, TVD
6995.67

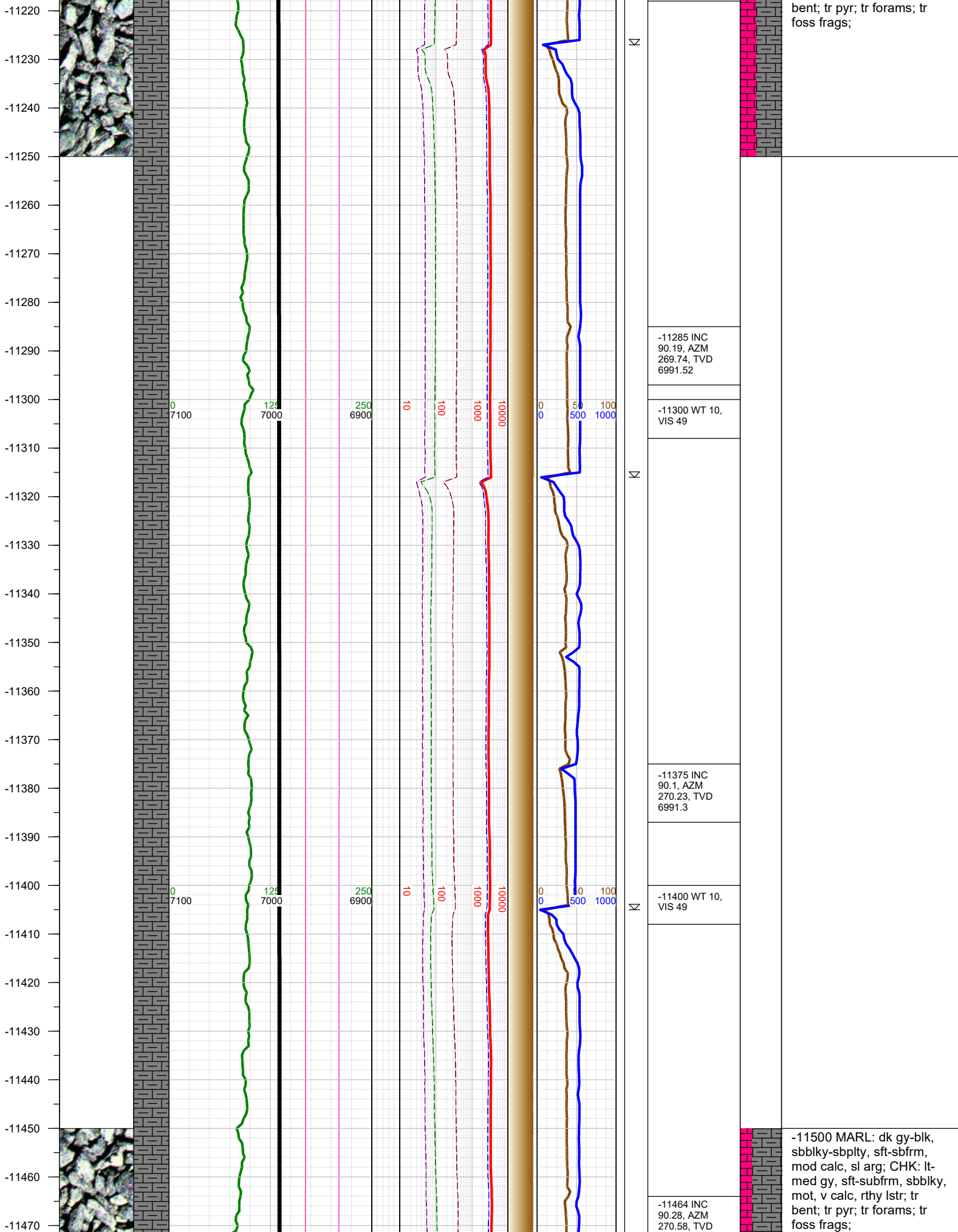
-11106 INC
91.16, AZM
270.14, TVD
6993.98

-11120 WT 10,
VIS 48

-11195 INC
90.9, AZM
269.83, TVD
6992.38

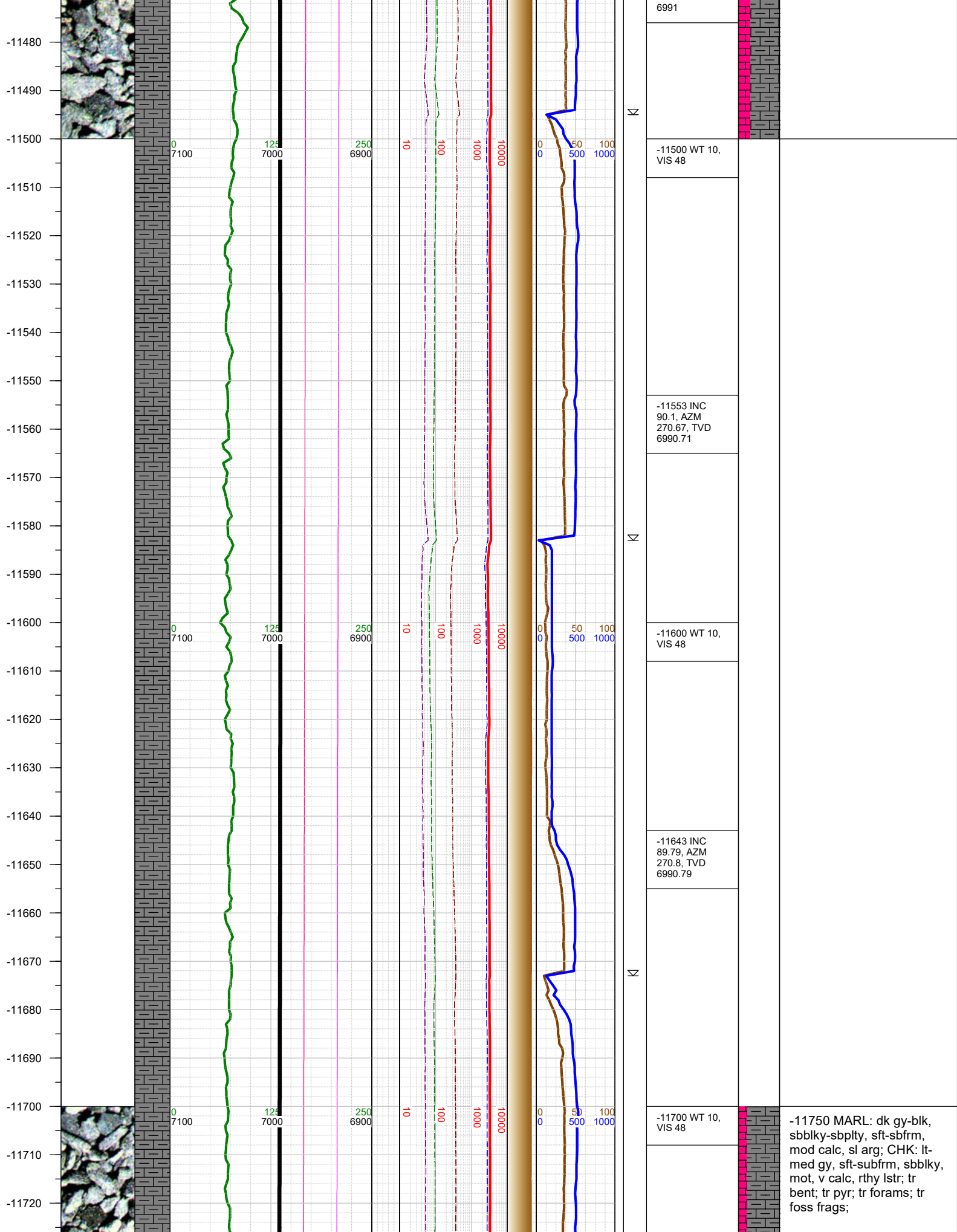
-11210 WT 10,
VIS 49

-11250 MARL: dk gy-blk,
sbbly-sbply, sft-sbfrm,
mod calc, sl arg; CHK: lt-
med gy, sft-subfrm, sbbly,
mot, v calc, rthy lstr; tr

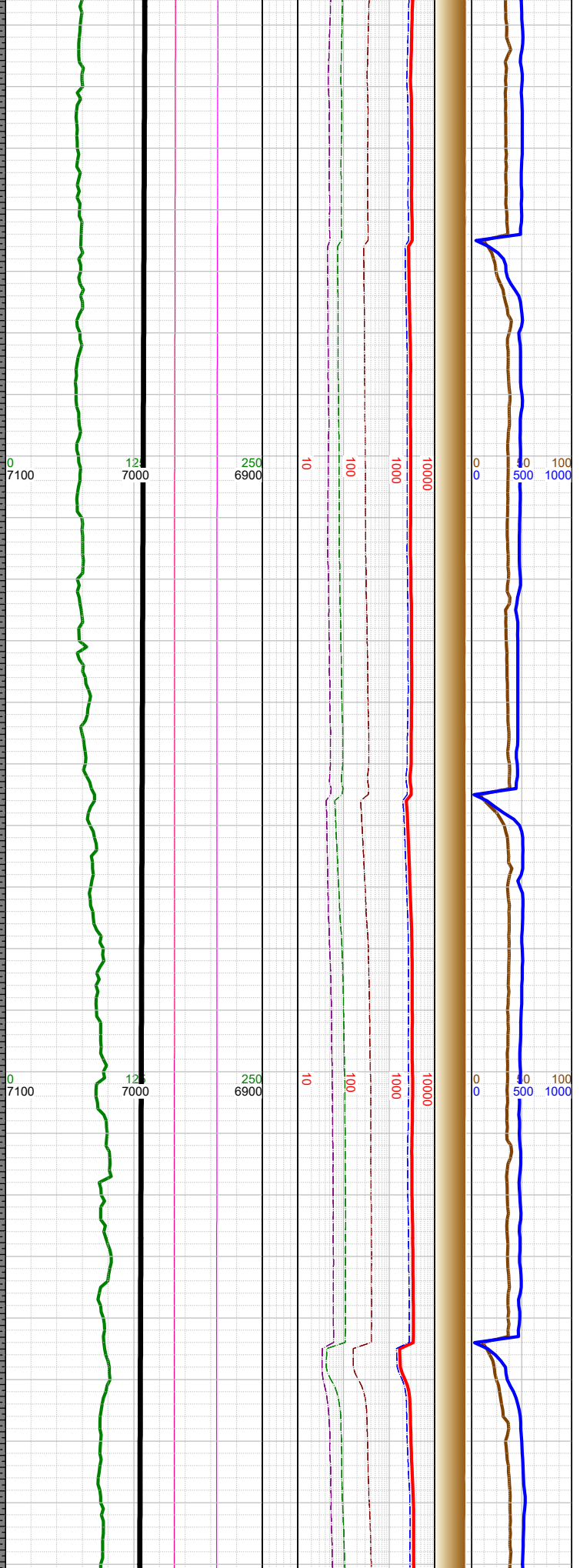
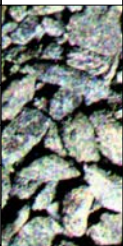
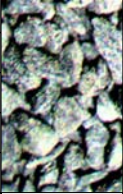


bent; tr pyr; tr forams; tr
foss frags;

-11500 MARL: dk gy-blk,
sbbly-sbply, sft-sbfrm,
mod calc, sl arg; CHK: lt-
med gy, sft-subfrm, sbbly,
mot, v calc, rthy lstr; tr
bent; tr pyr; tr forams; tr
foss frags;

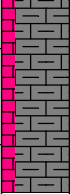


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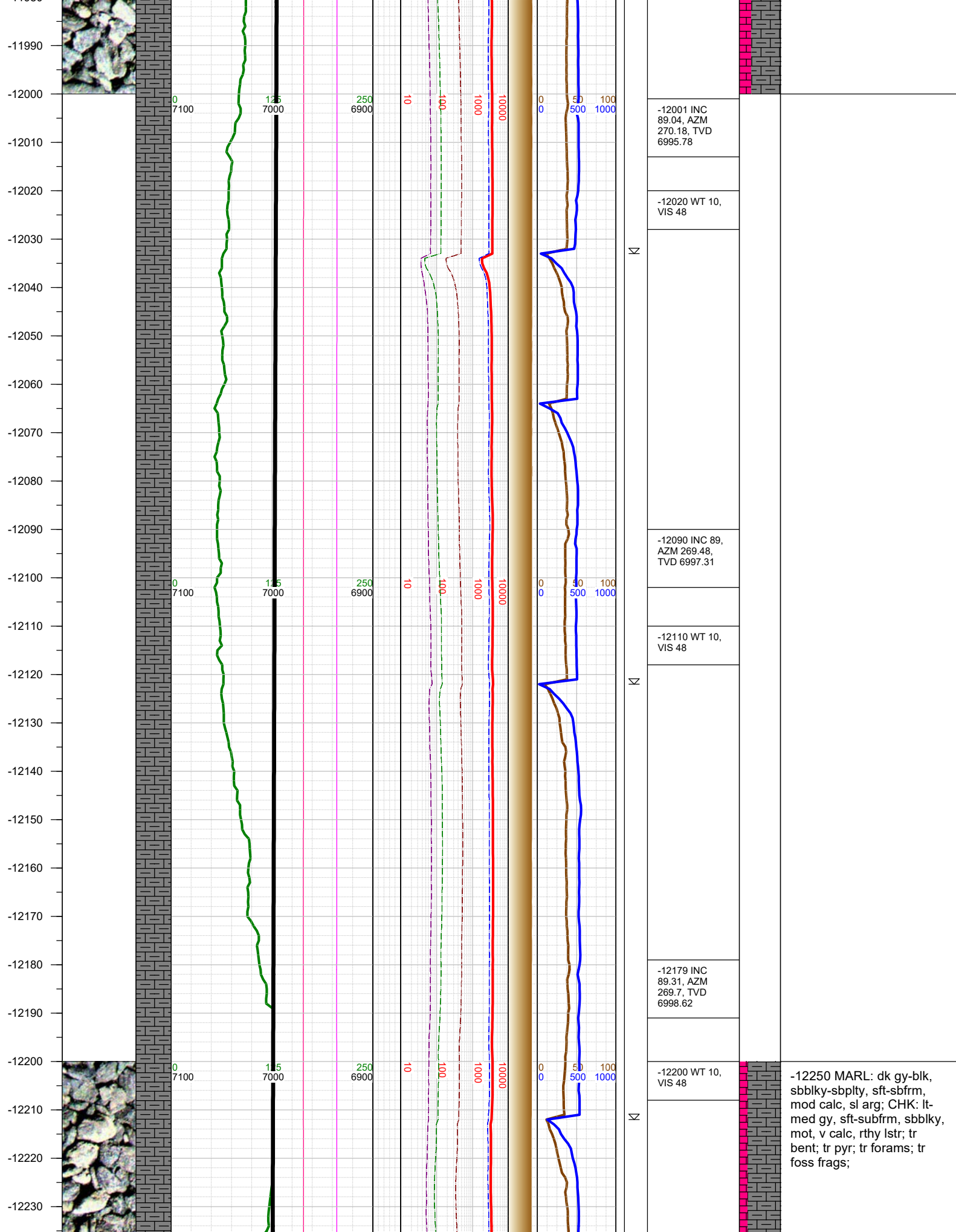


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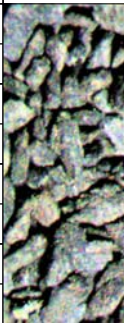
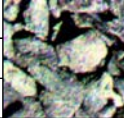
-11732 INC 89.04, AZM 269.88, TVD 6991.7
-11800 WT 10, VIS 48
-11821 INC 89.04, AZM 270.67, TVD 6993.19
-11900 WT 10, VIS 48
-11911 INC 89.31, AZM 269.61, TVD 6994.49



-12000 MARL: dk gy-blk,
sbbly-sbply, sft-sbfrm,
mod calc, sl arg; CHK: lt-
med gy, sft-subfrm, sbbly,
mot, v calc, rthy lstr; tr
bent; tr pyr; tr forams; tr
foss frags;



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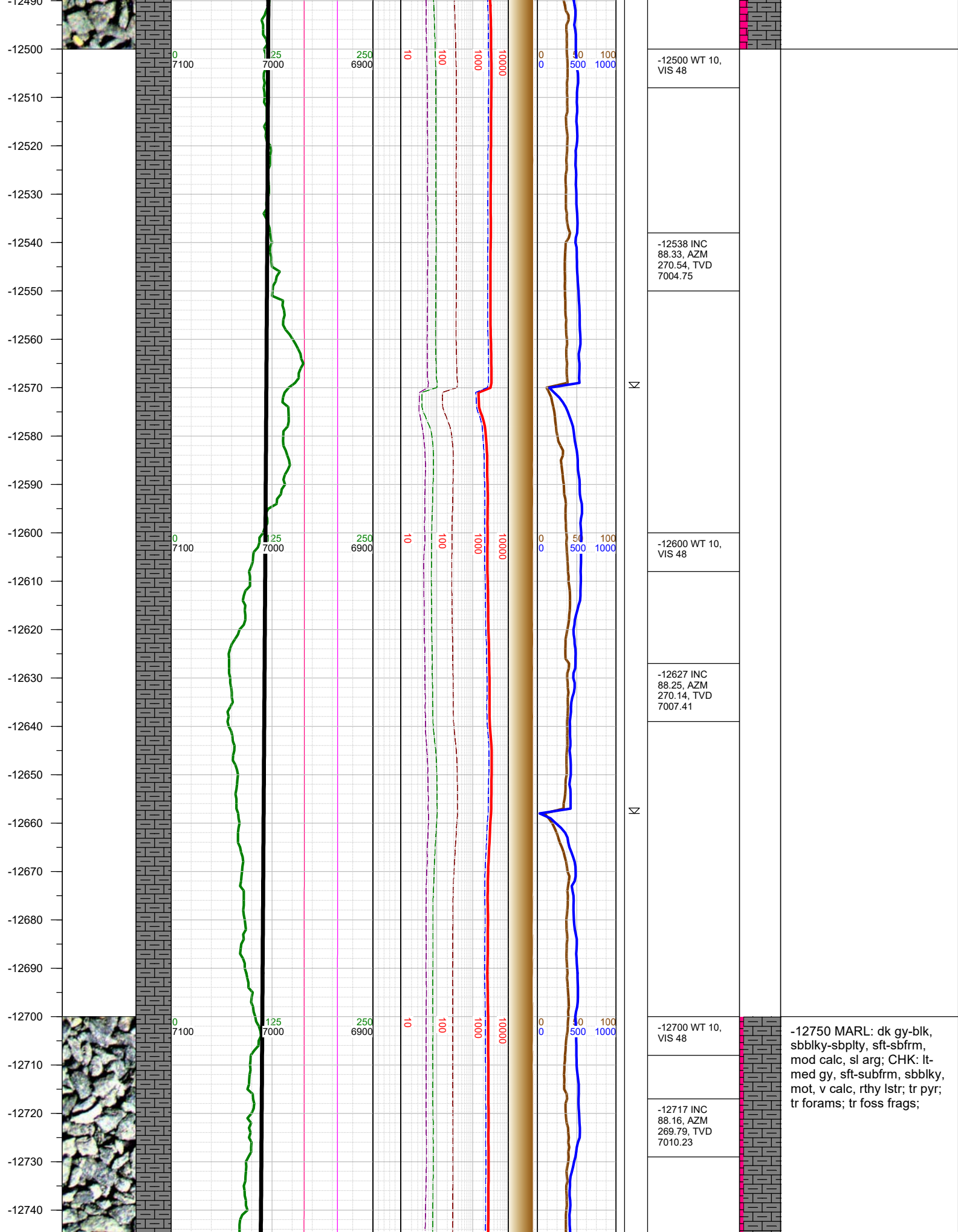
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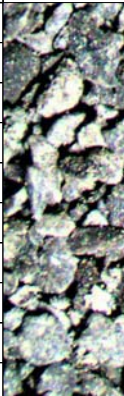
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88.03, AZM
270.41, TVD
7013.22

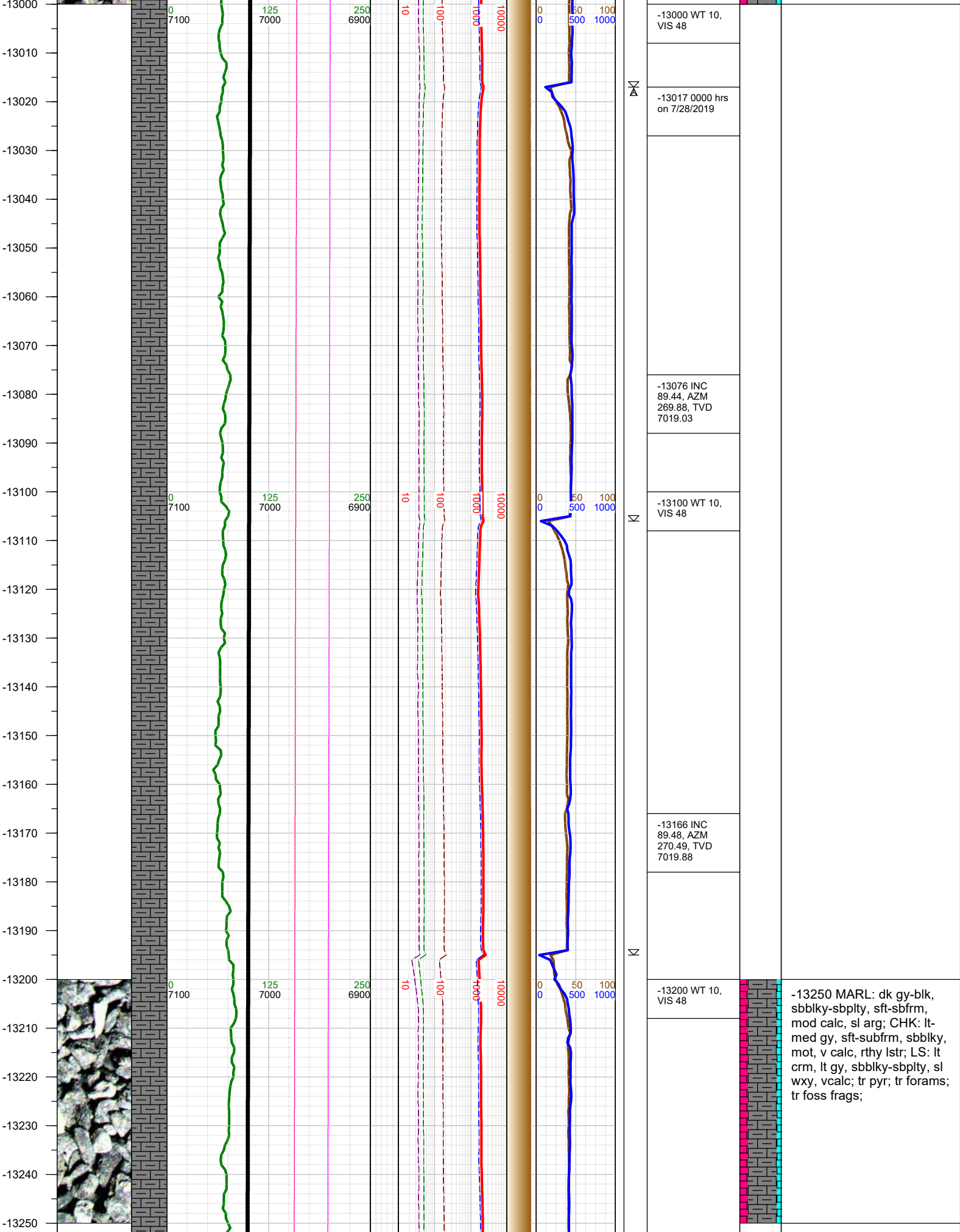
-12820 WT 10,
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-12897 INC
88.2, AZM
270.45, TVD
7016.18

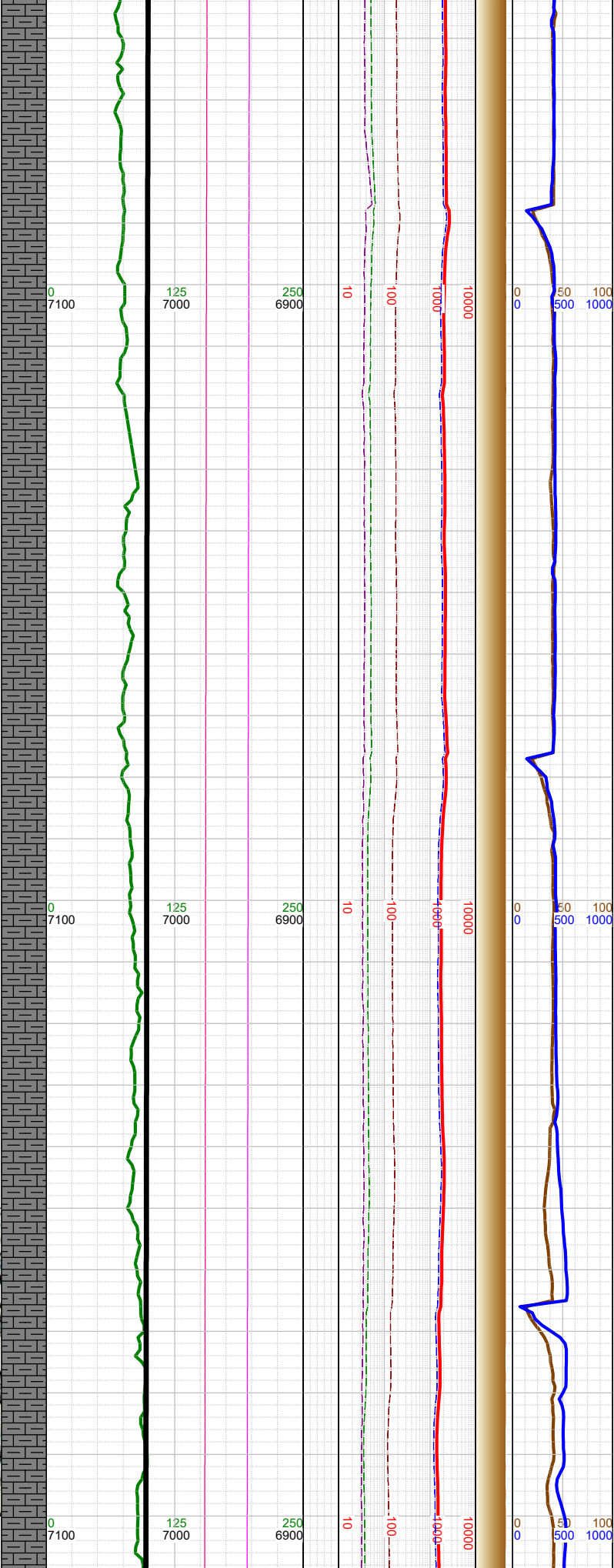
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VIS 48

-12986 INC
89.35, AZM
270.41, TVD
7018.08

-13000 MARL: dk gy-blk,
sbbiky-sbpity, sft-sbfrm,
mod calc, sl arg; CHK: lt-
med gy, sft-subfrm, sbbiky,
mot, v calc, rthy lstr; LS: lt
crm, lt gy, sbbiky-sbpity, sl
wxy, vcalc; tr pyr; tr forams;
tr foss frags;



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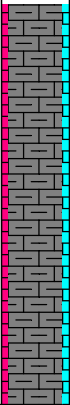


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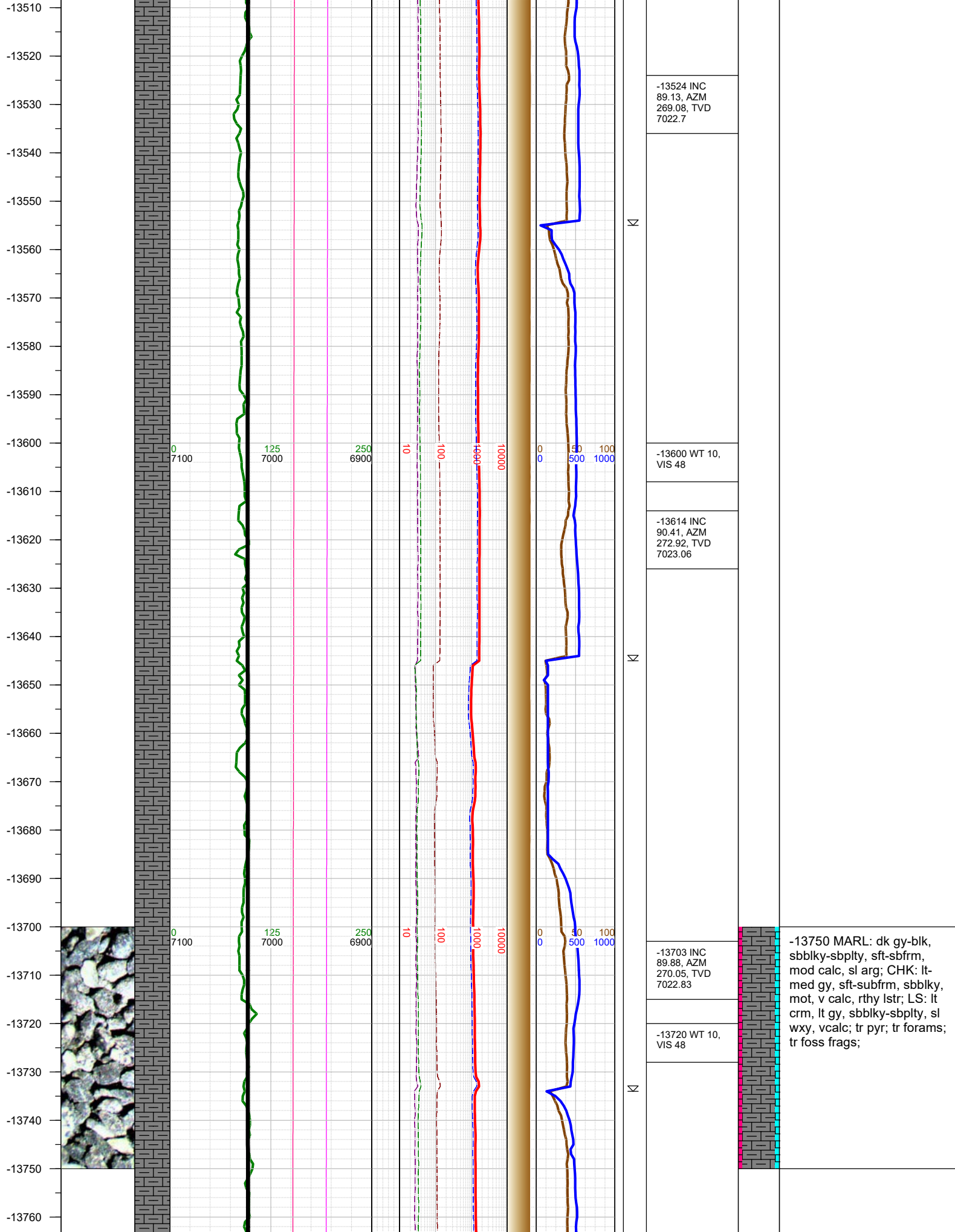
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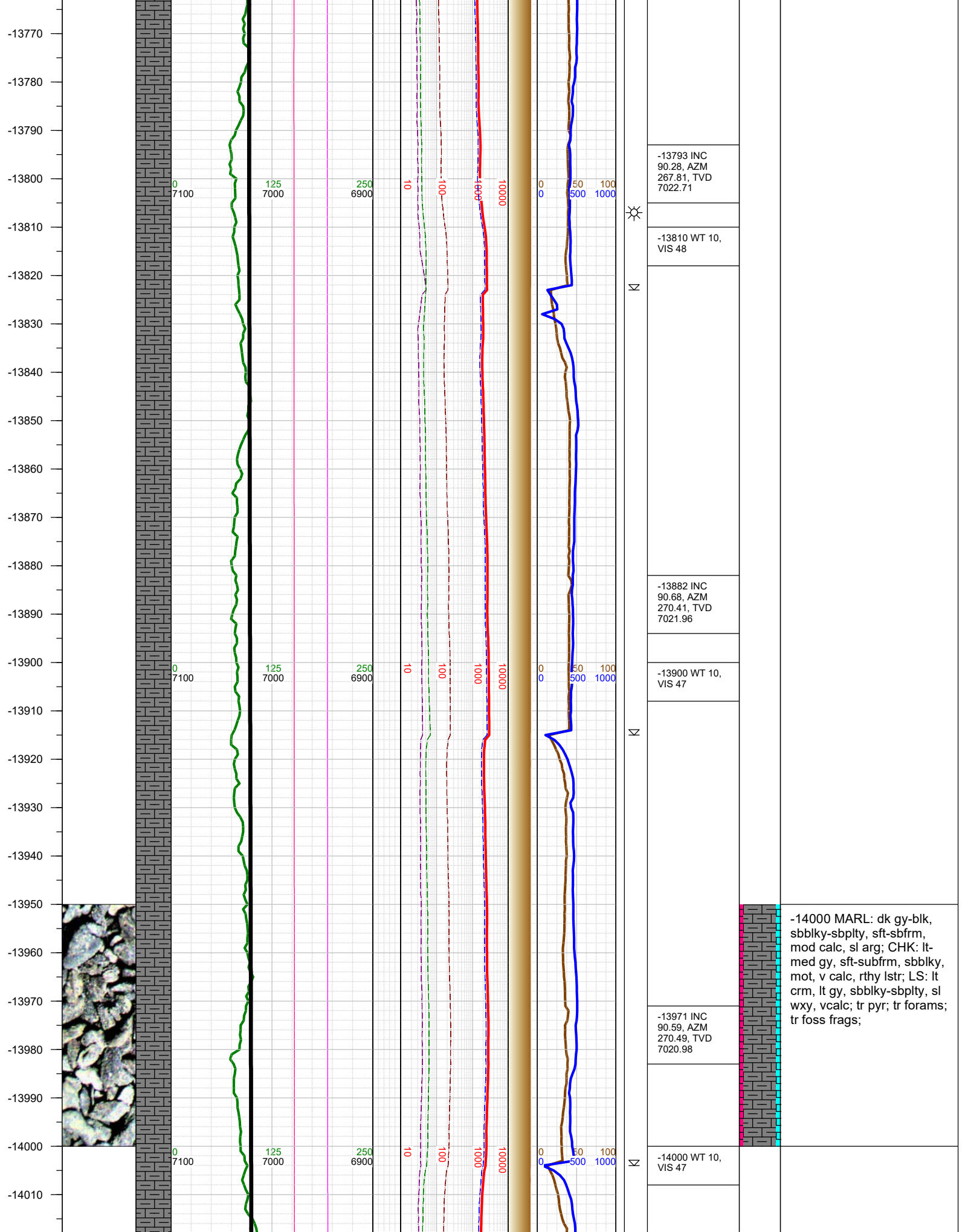
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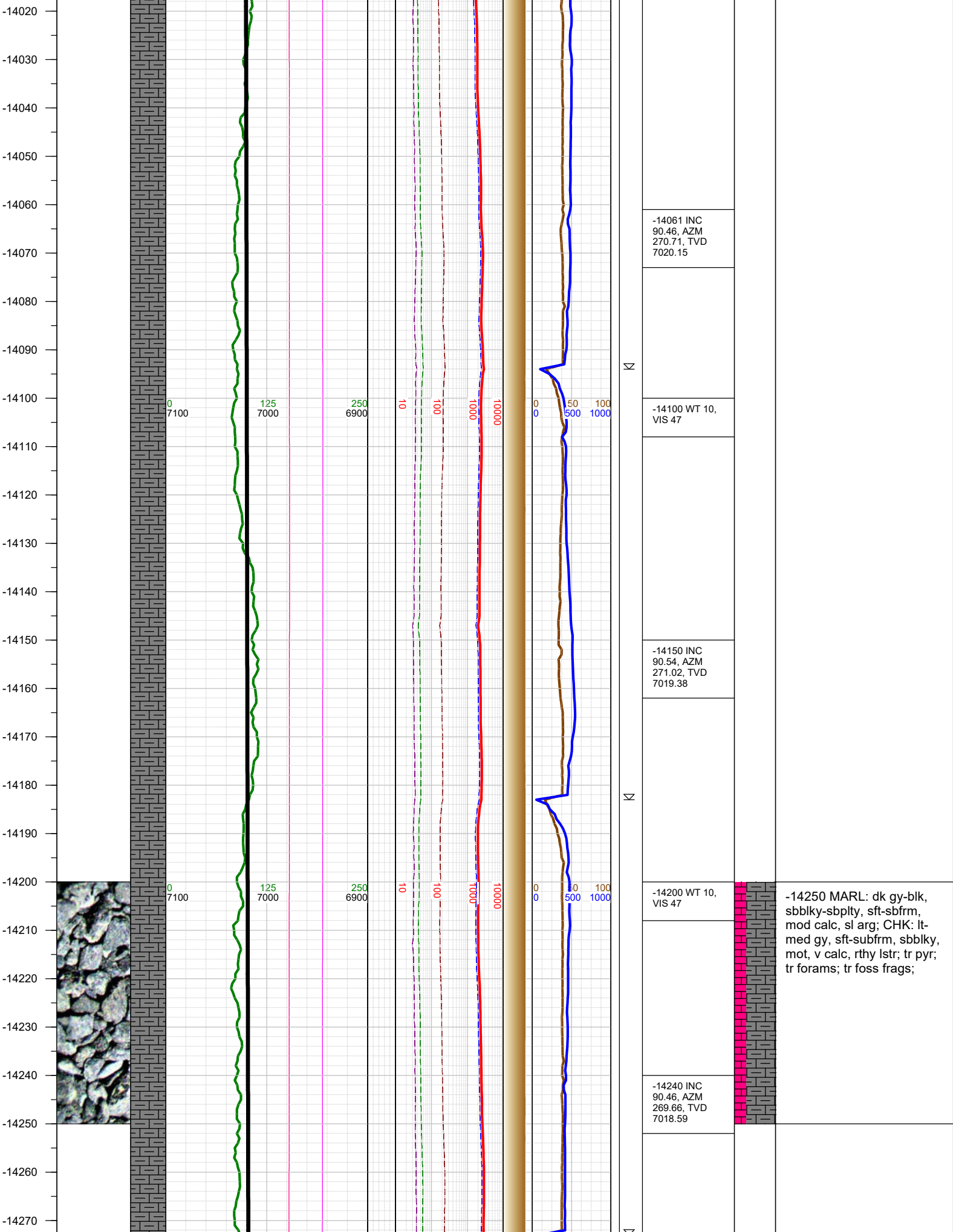
-13255 INC 89.35, AZM 269.66, TVD 7020.79	
-13300 WT 10, VIS 49	
-13345 INC 89.53, AZM 270.63, TVD 7021.67	
-13400 WT 10, VIS 49	
-13435 INC 90.01, AZM 270.67, TVD 7022.03	
-13500 WT 10, VIS 49	

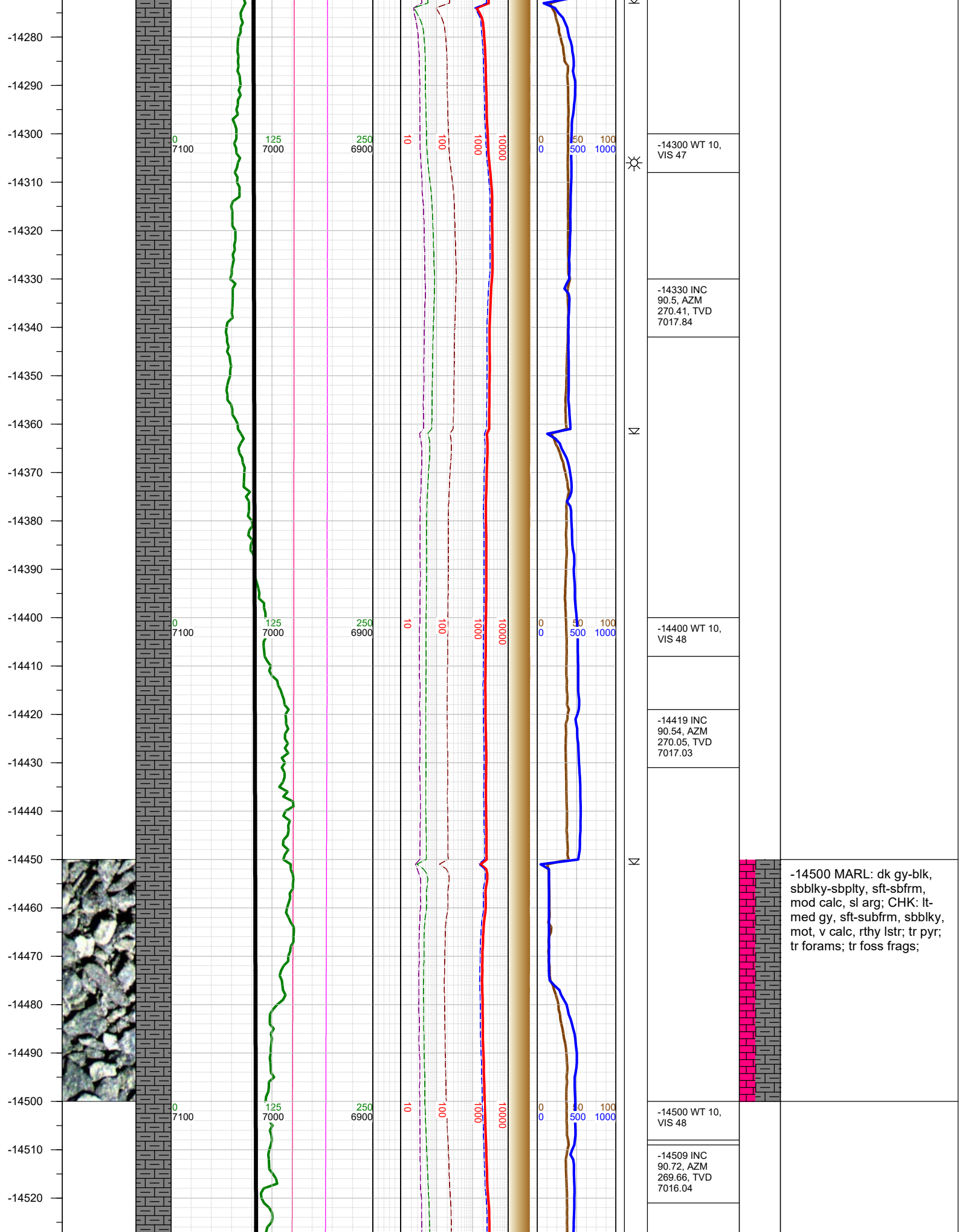


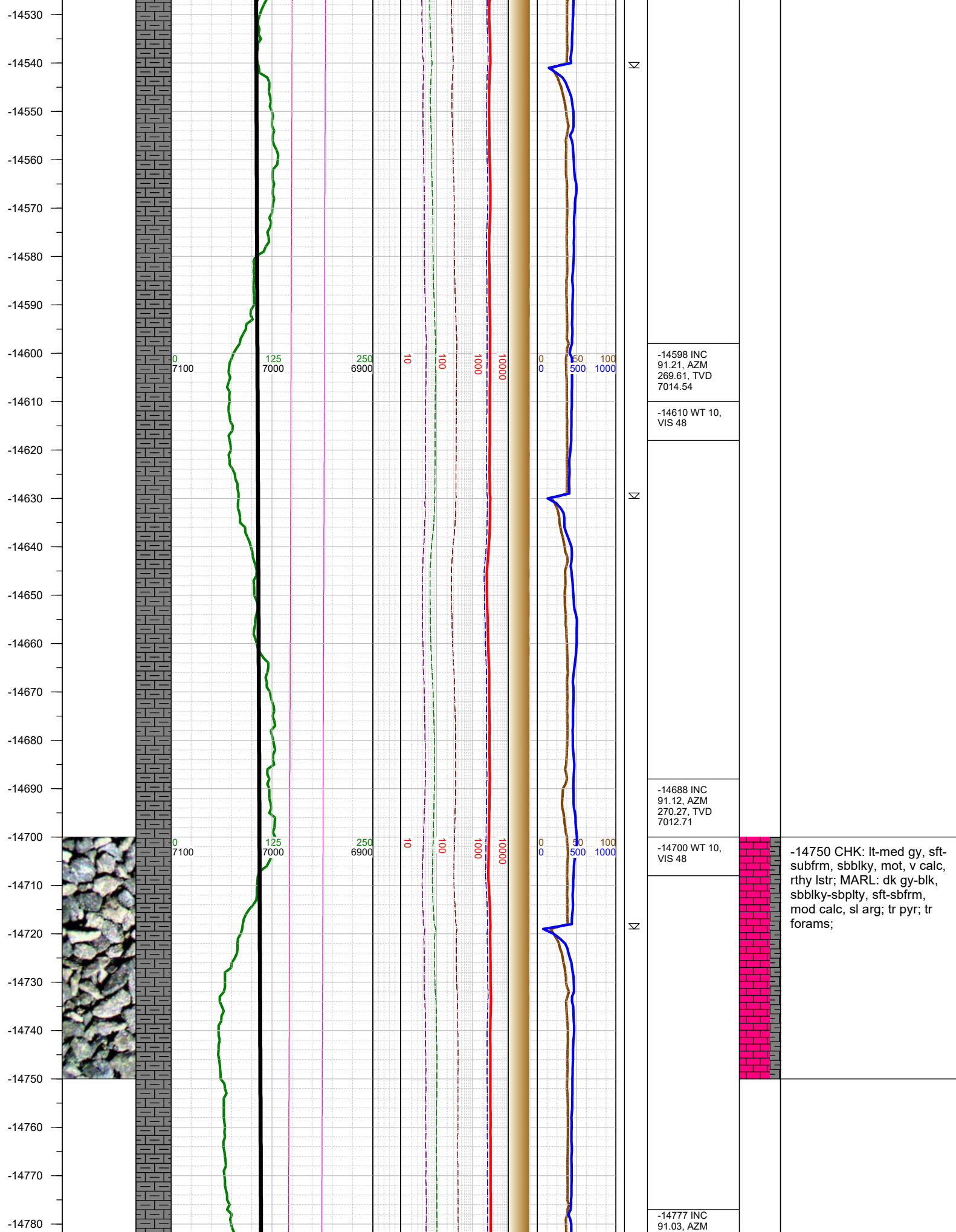
-13500 MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg; CHK: lt-med gy, sft-subfrm, sbblky, mot, v calc, rthy lstr; LS: lt crm, lt gy, sbblky-sbplty, sl wxy, vcalc; tr pyr; tr forams; tr foss frags;

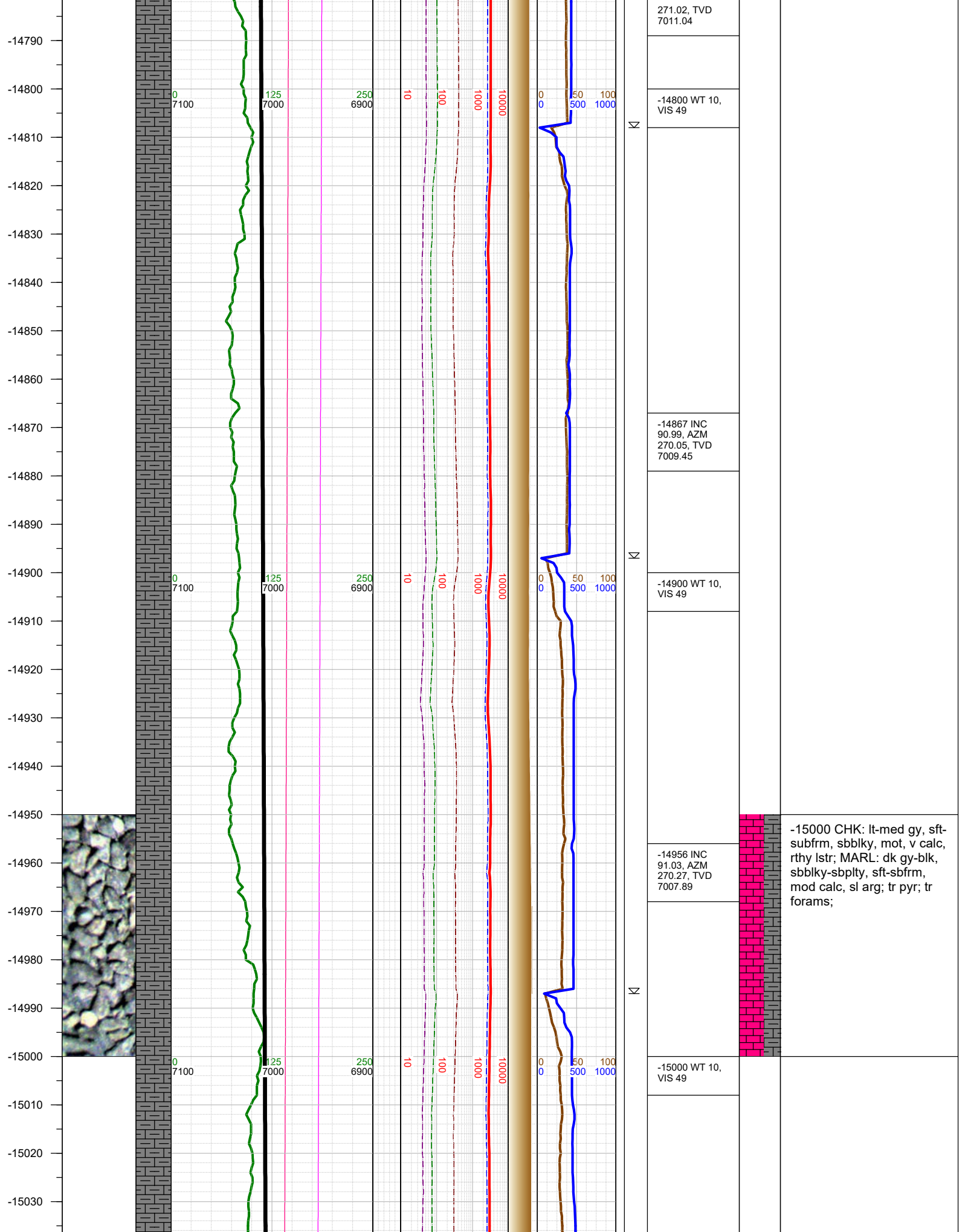


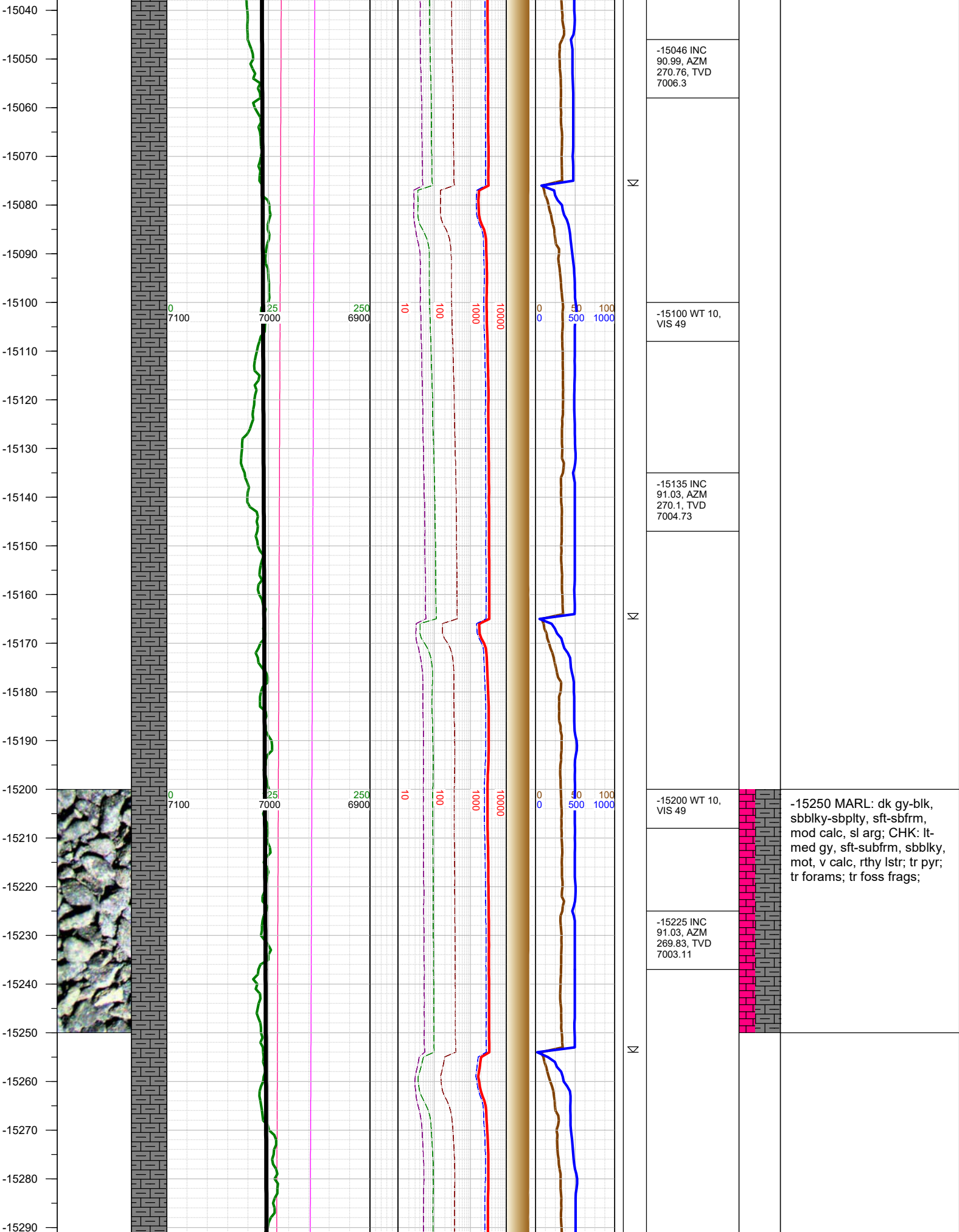


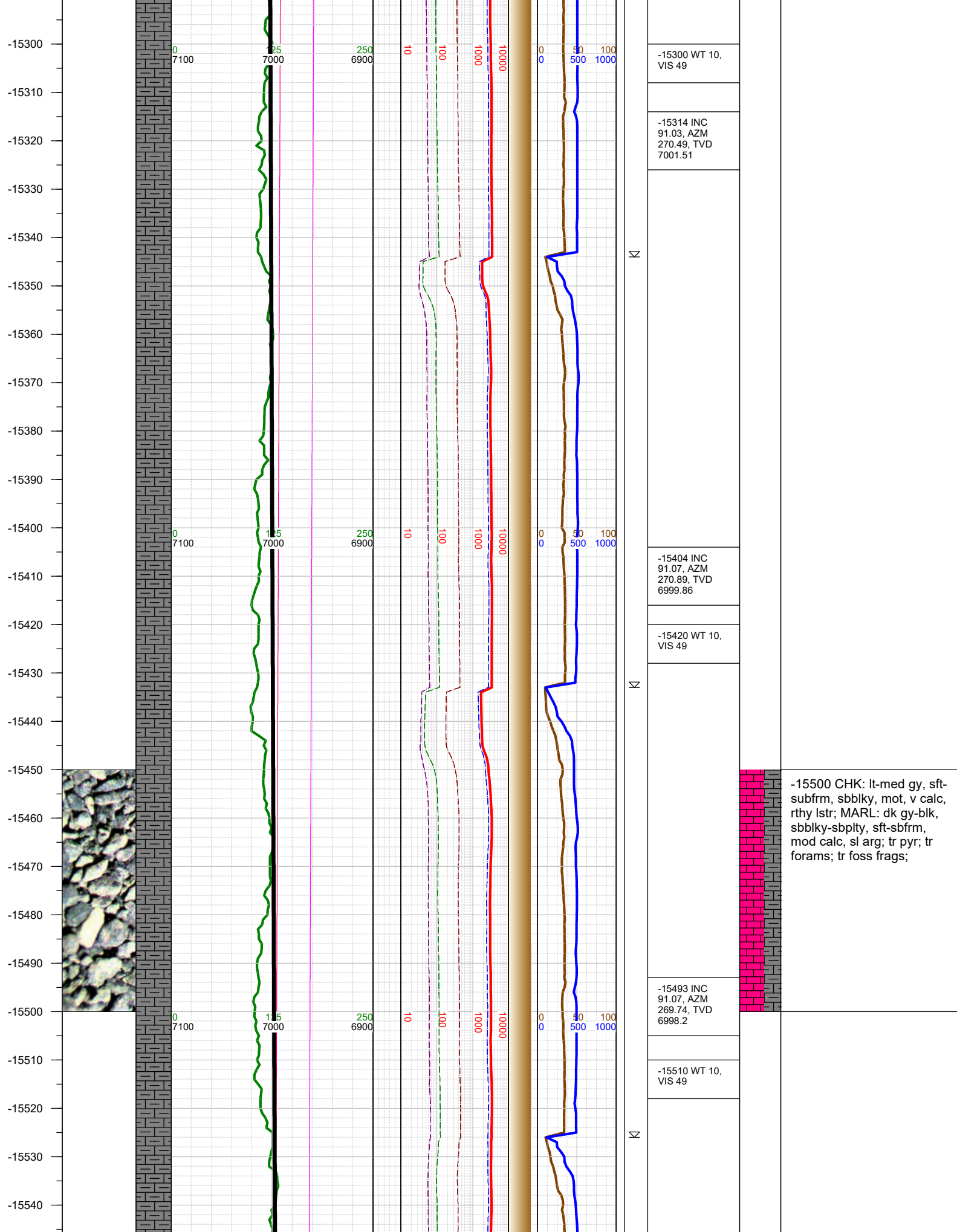




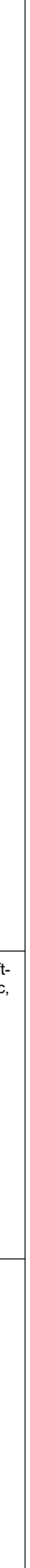
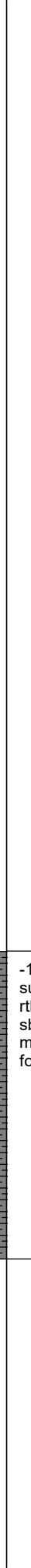
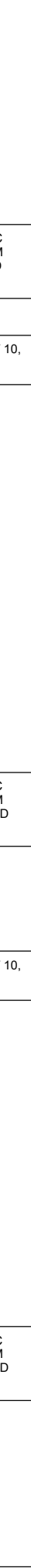
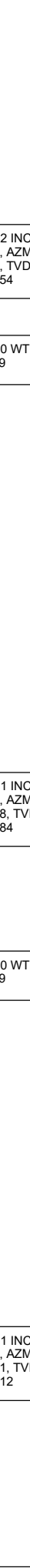
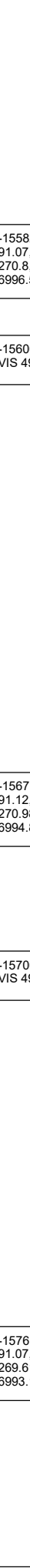
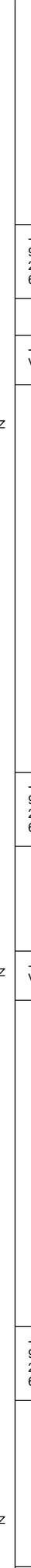
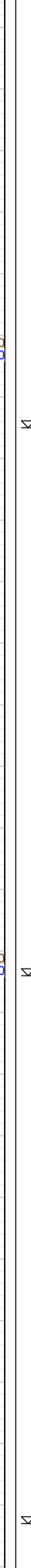
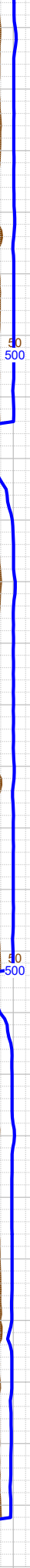
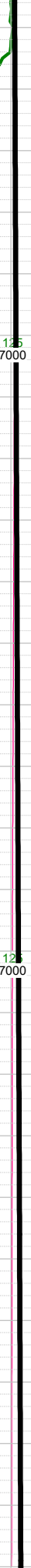
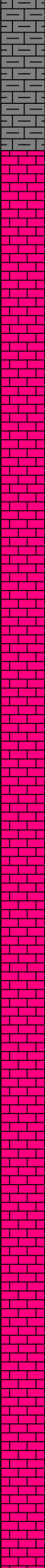
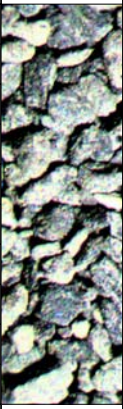








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-15582 INC
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270.8, TVD
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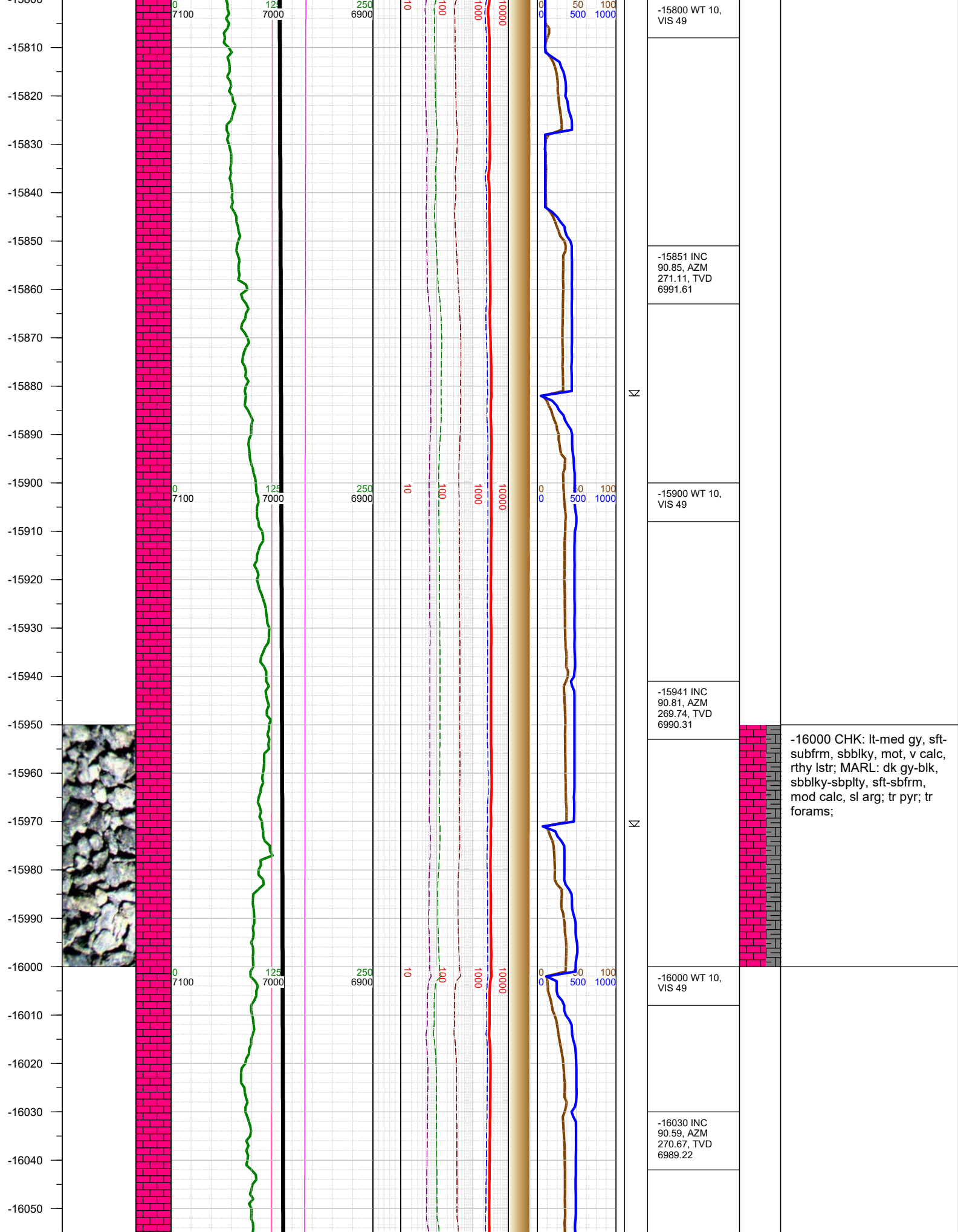
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-15671 INC
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6994.84

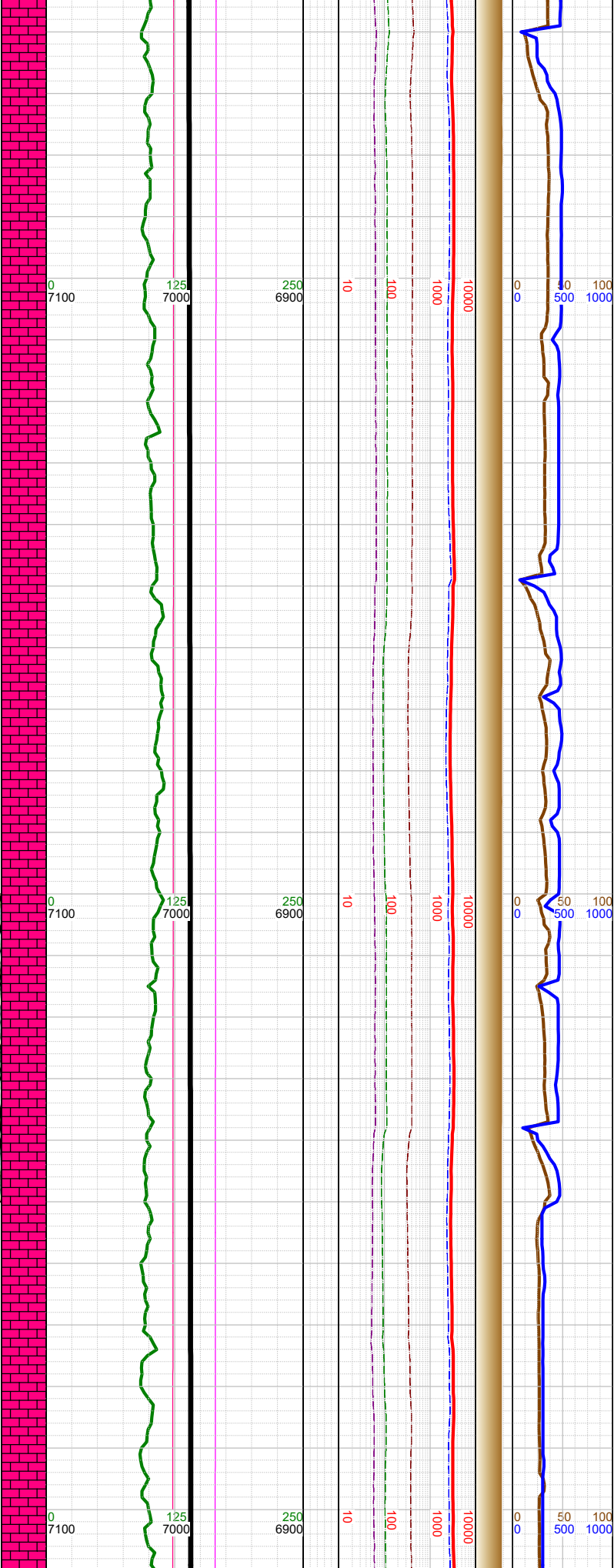
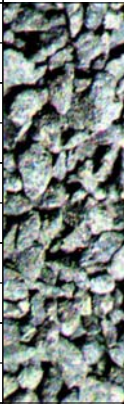
-15700 WT 10,
VIS 49

-15761 INC
91.07, AZM
269.61, TVD
6993.12

-15750 CHK: lt-med gy, sft-
subfrm, sbblky, mot, v calc,
rthy lstr; MARL: dk gy-blk,
sbblky-sbplty, sft-sbfrm,
mod calc, sl arg; tr pyr; tr
forams;



-16060
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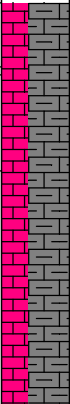
-16100 WT 10,
VIS 49

-16120 INC
90.32, AZM
270.98, TVD
6988.5

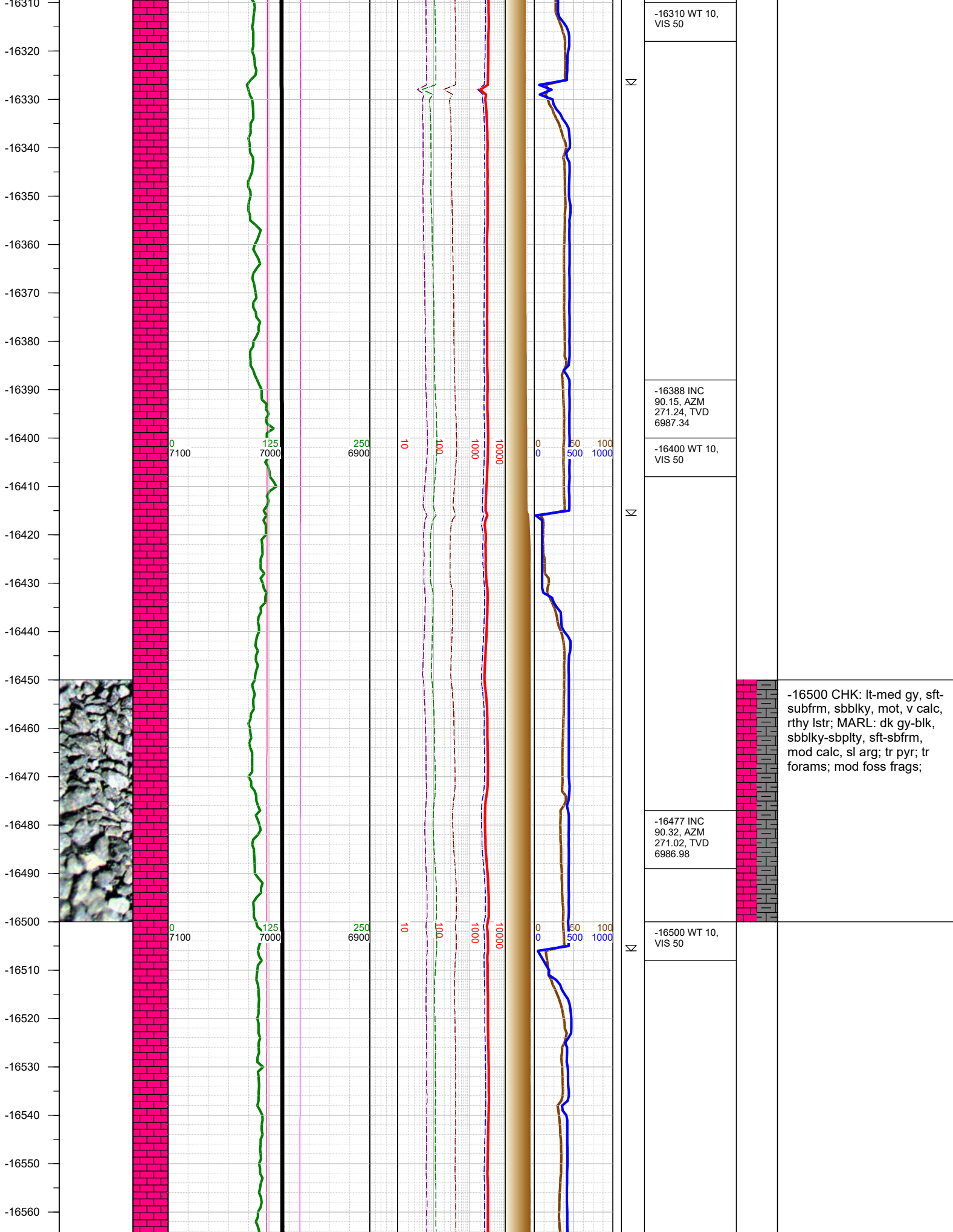
-16200 WT 10,
VIS 49

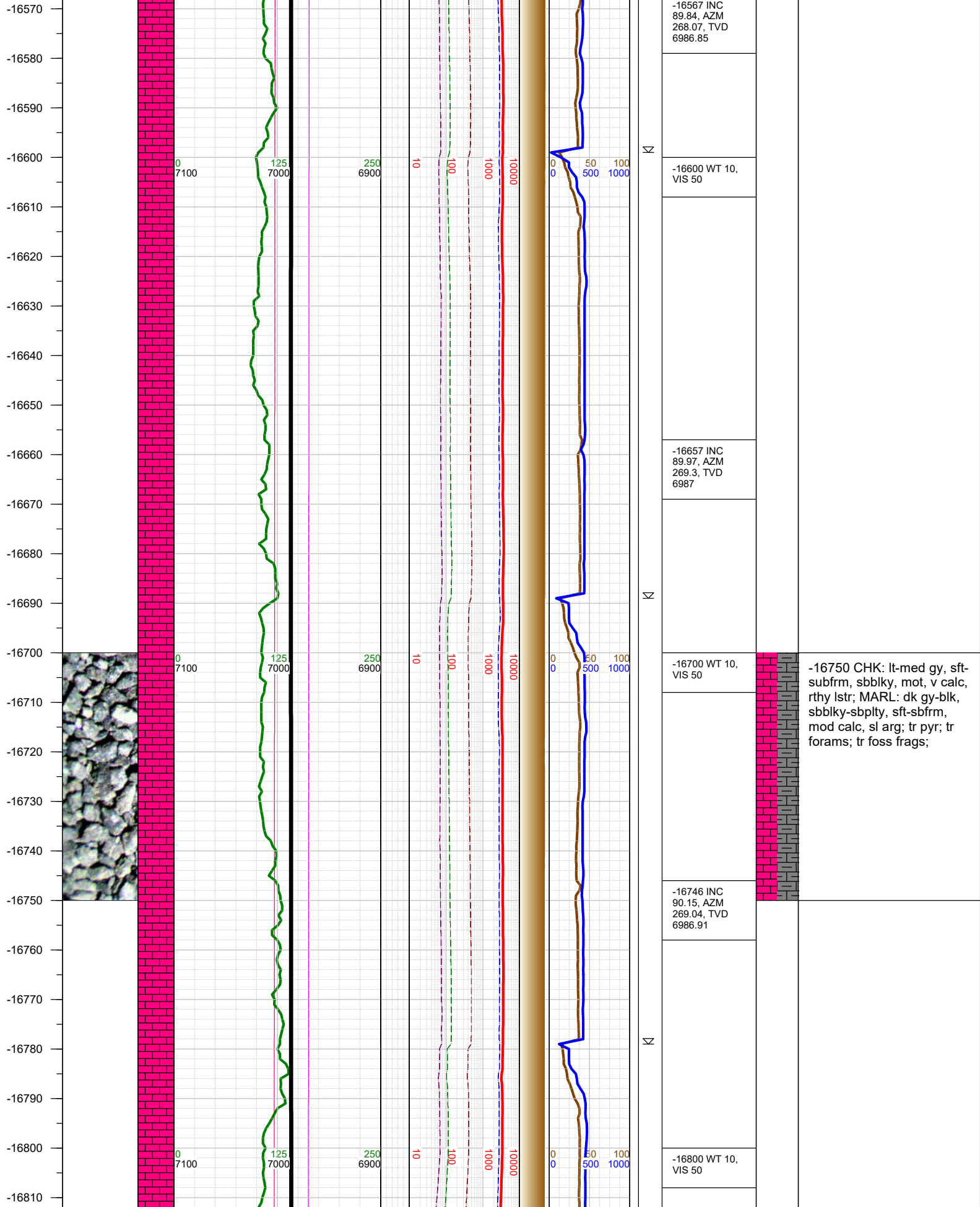
-16209 INC
90.32, AZM
271.15, TVD
6988.01

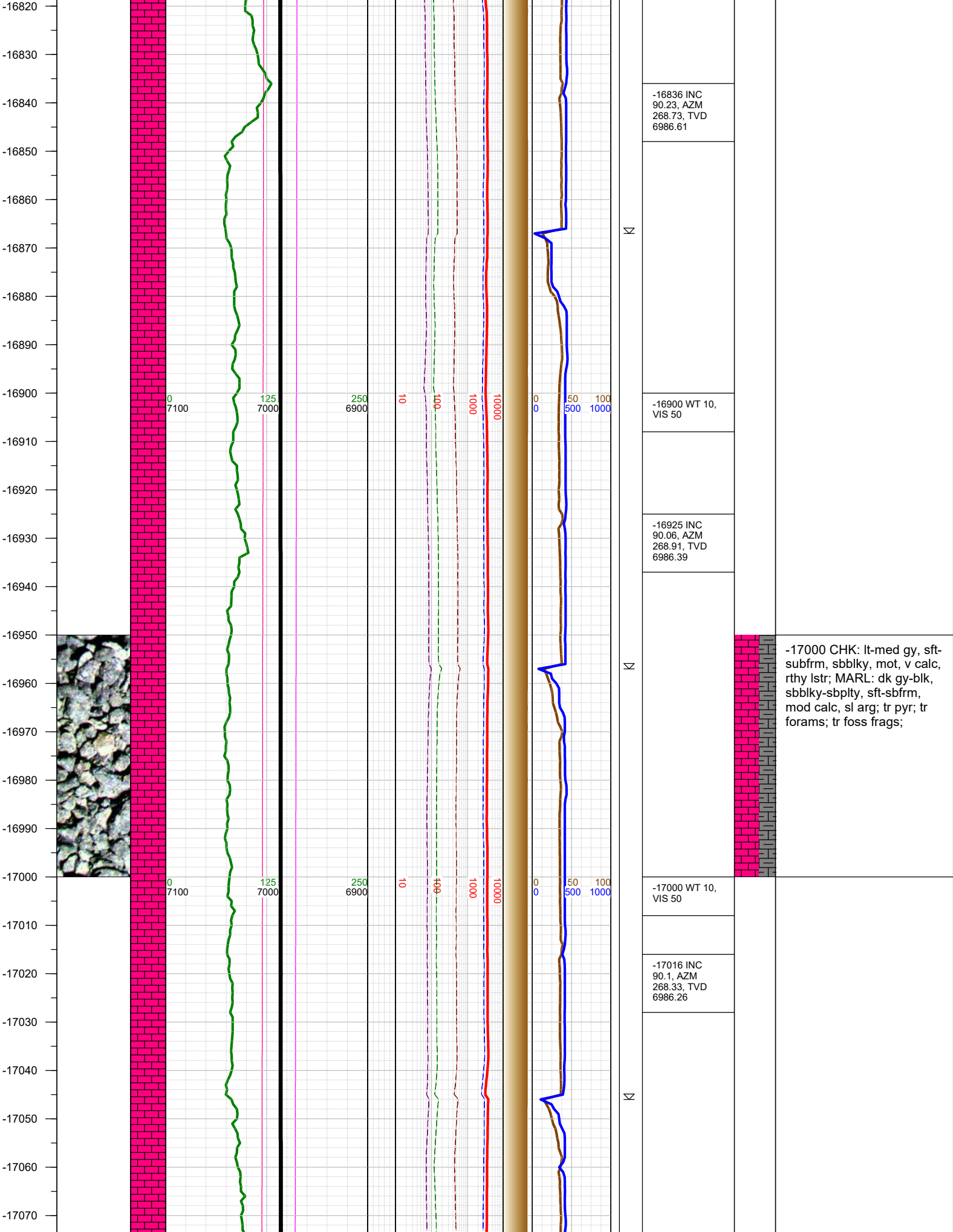
-16298 INC
90.19, AZM
271.11, TVD
6987.61

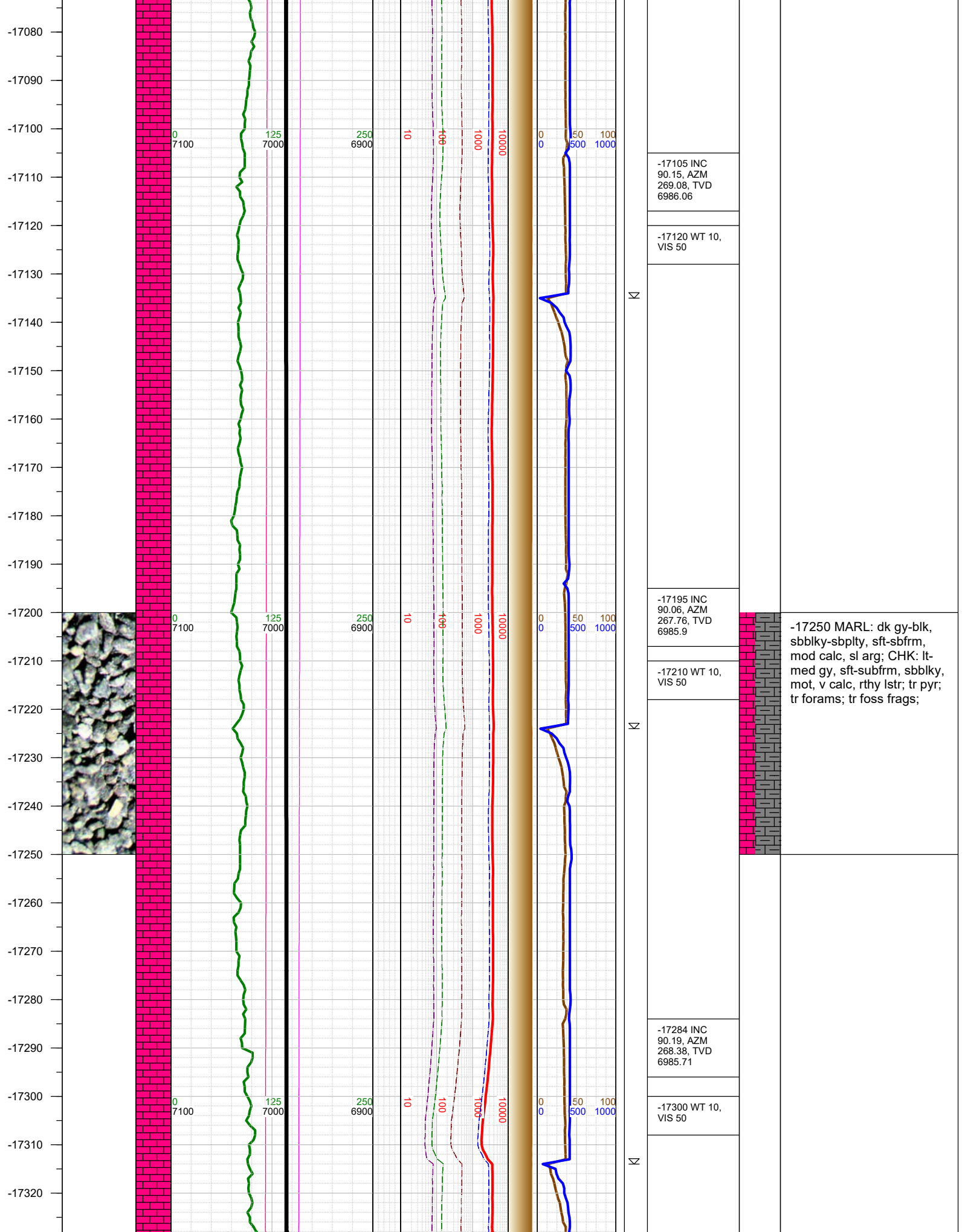


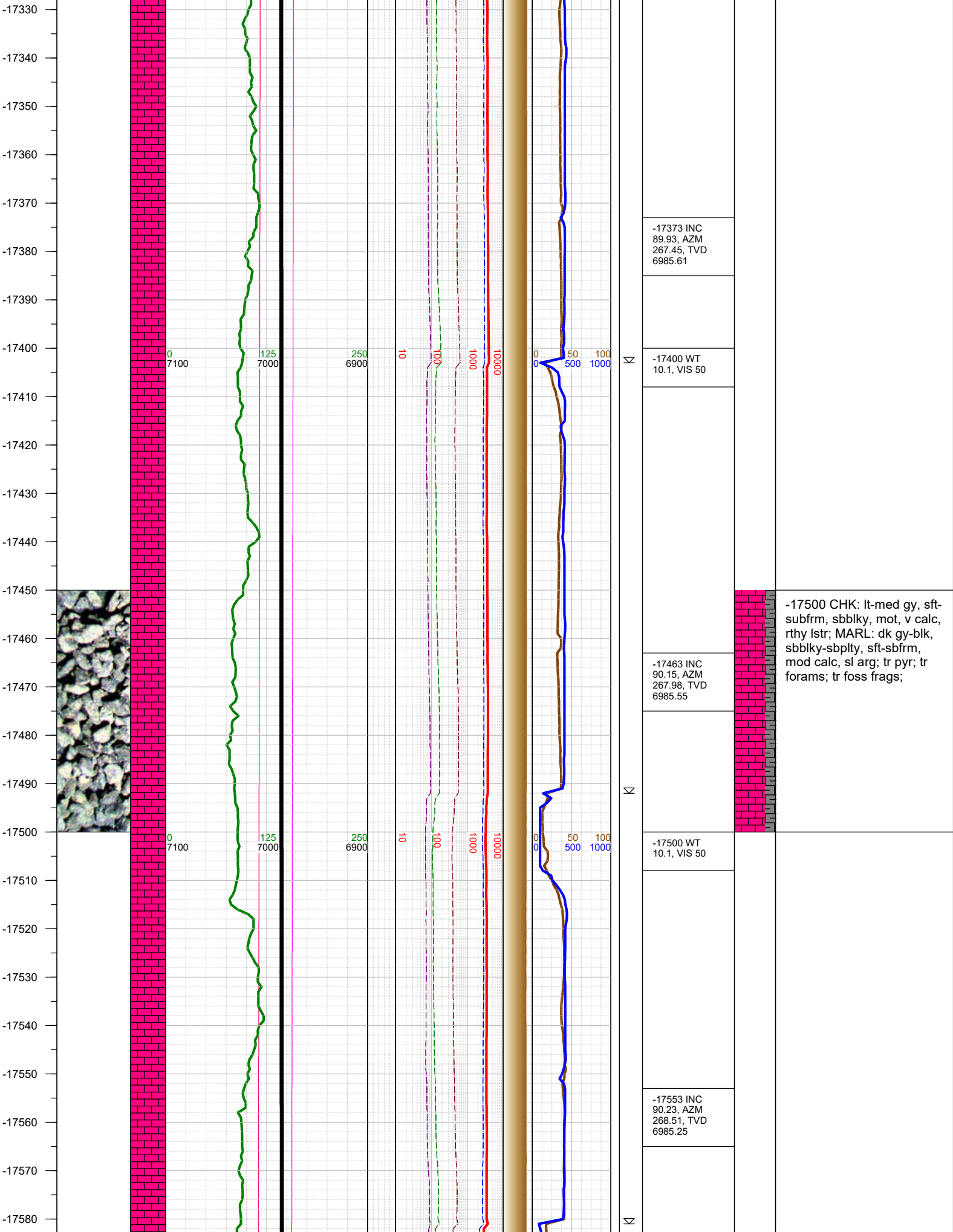
-16250 MARL: dk gy-blk,
sbbly-sbply, sft-sbfrm,
mod calc, sl arg; CHK: lt-
med gy, sft-subfrm, sbbly,
mot, v calc, rthy lstr; tr pyr;
tr forams; abndt foss frags;

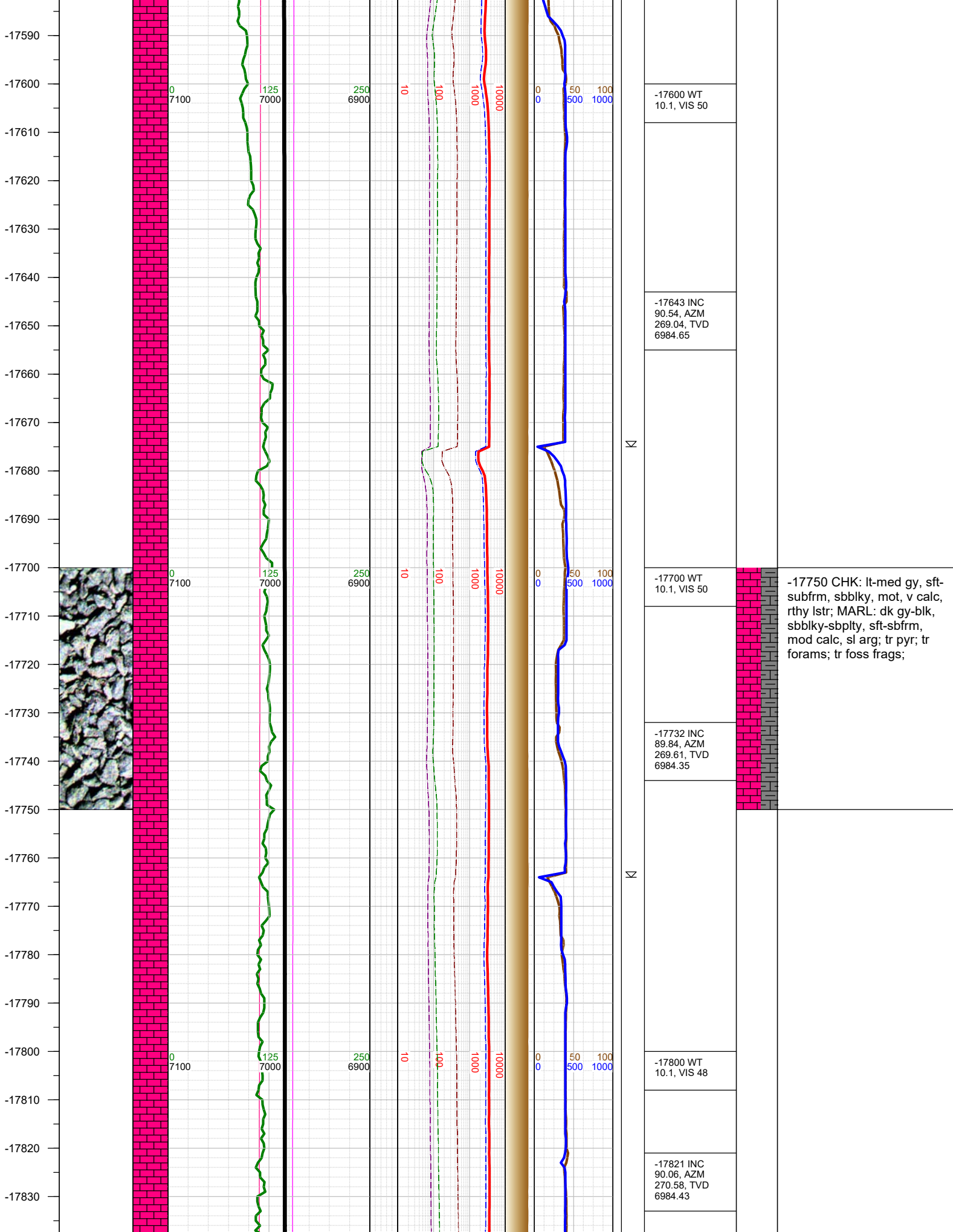




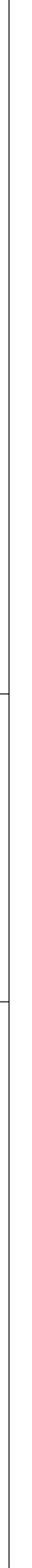
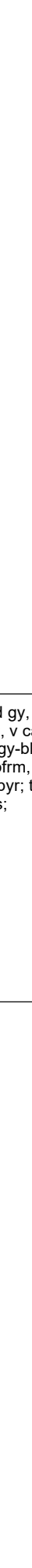
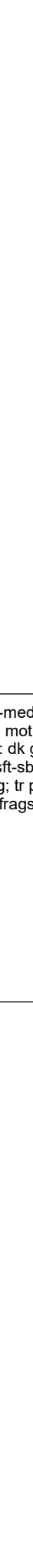
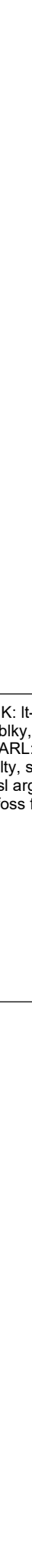
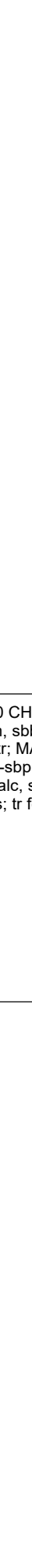
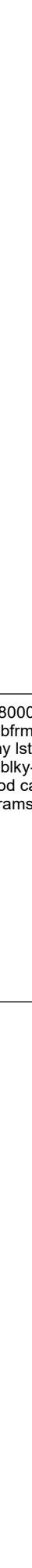
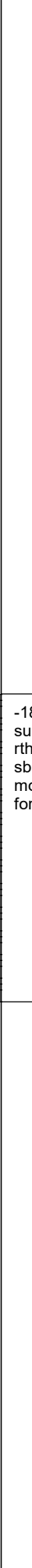
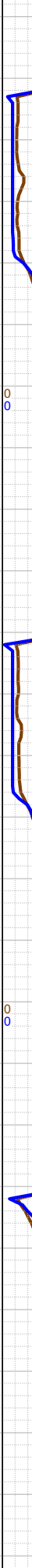
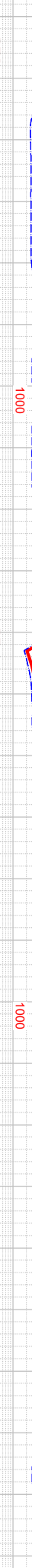
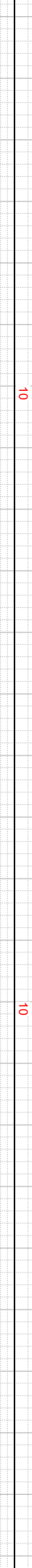
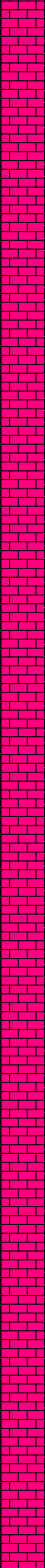
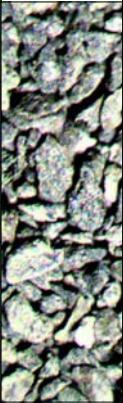








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-17900 WT
10.1, VIS 48

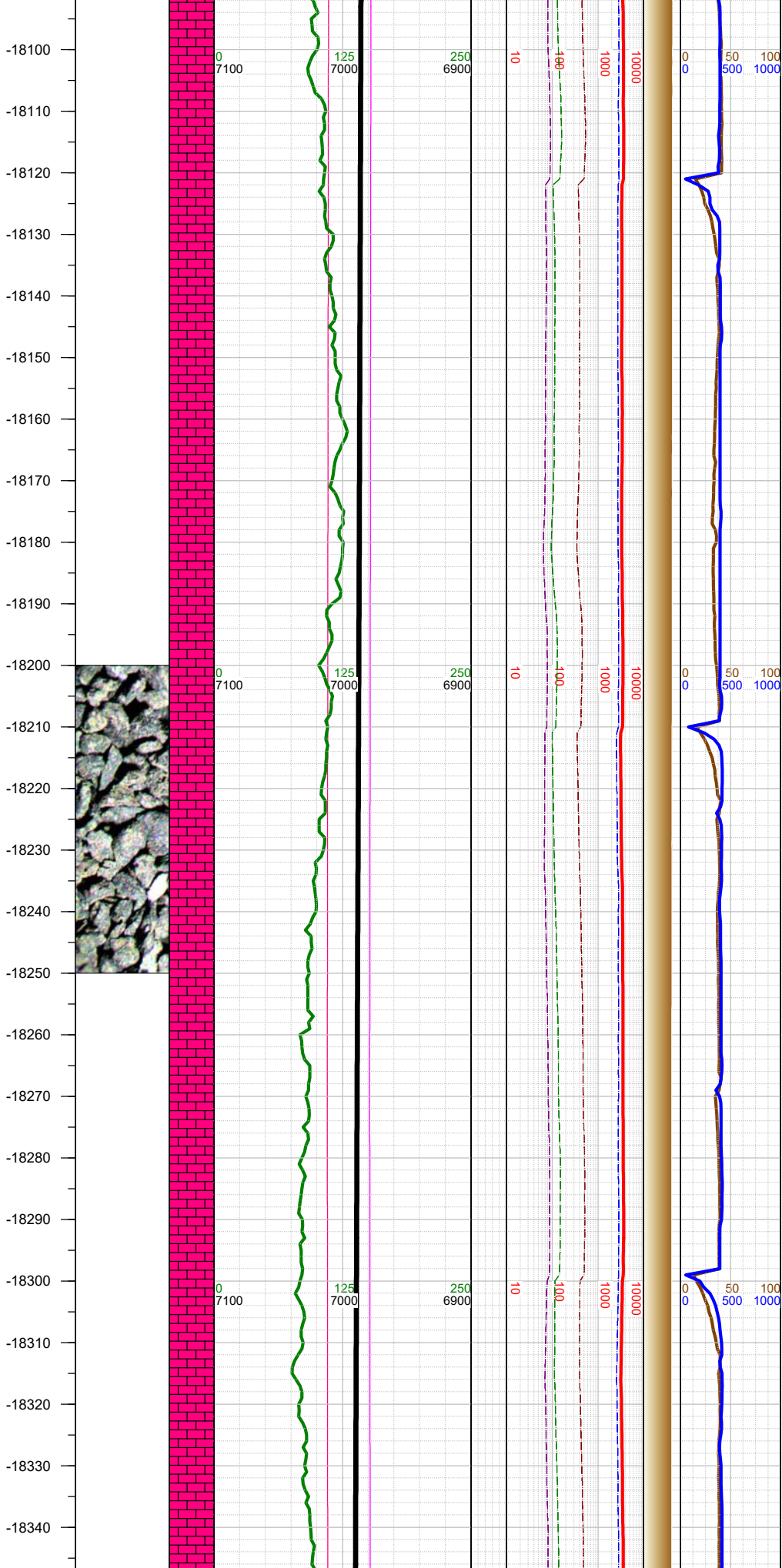
-17910 INC
89.93, AZM
269.79, TVD
6984.44

-18000 INC
89.48, AZM
269.39, TVD
6984.9

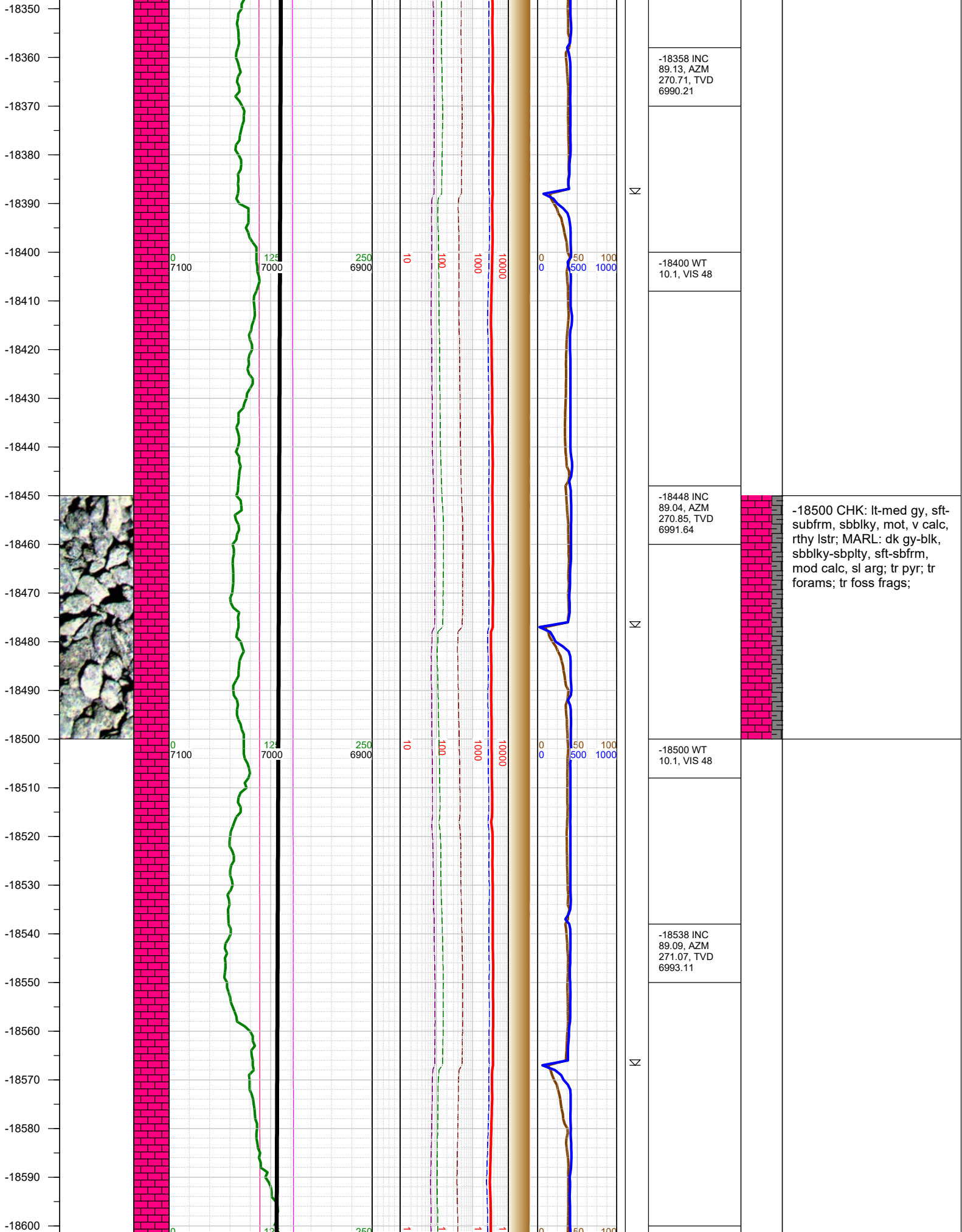
-18020 WT
10.1, VIS 48

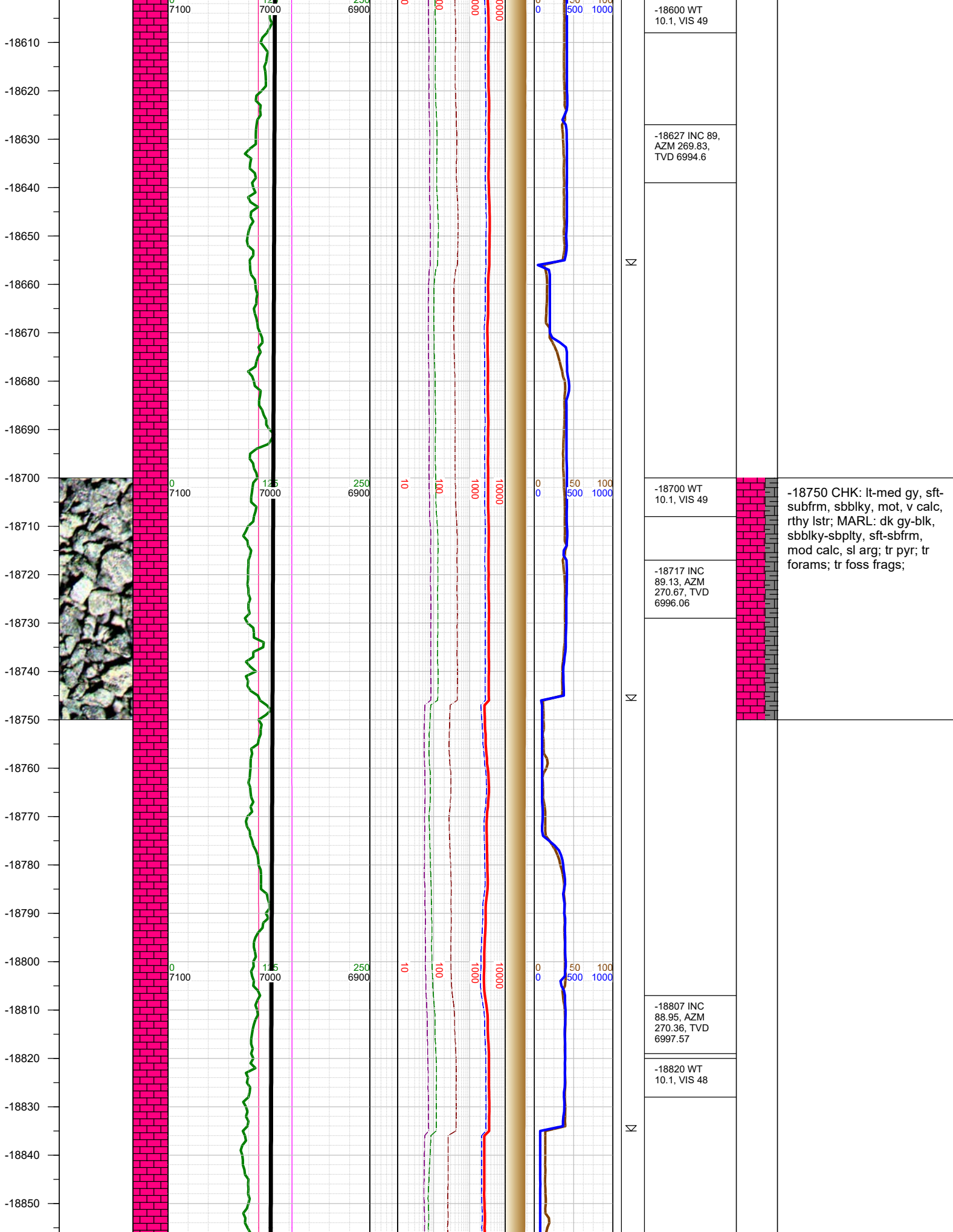
-18089 INC

-18000 CHK: lt-med gy, sft-subfrm, sbbly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg; tr pyr; tr forams; tr foss frags;

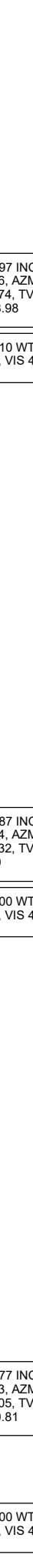
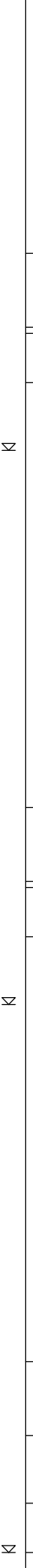
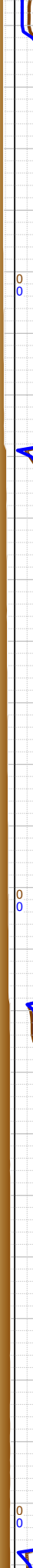
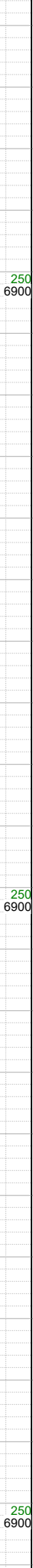
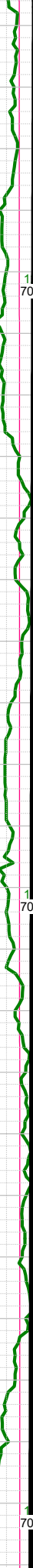
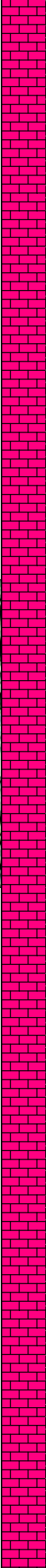
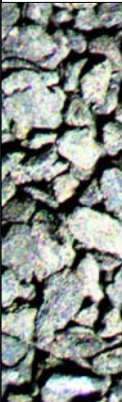


89.44, AZM 270.41, TVD 6985.74		
-18110 WT 10.1, VIS 48		
-18179 INC 88.86, AZM 270.36, TVD 6987.07		
-18200 WT 10.1, VIS 48	-18250 CHK: lt-med gy, sft- subfrm, sbbiky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbiky-sbpity, sft-sbfrm, mod calc, sl arg; tr pyr; tr forams; tr foss frags;	
-18269 INC 89, AZM 269.92, TVD 6988.75		
-18300 WT 10.1, VIS 48		





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-19100
-19110



-18897 INC
89.26, AZM
269.74, TVD
6998.98

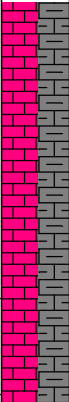
-18910 WT
10.1, VIS 48

-18987 INC
89.44, AZM
270.32, TVD
7000

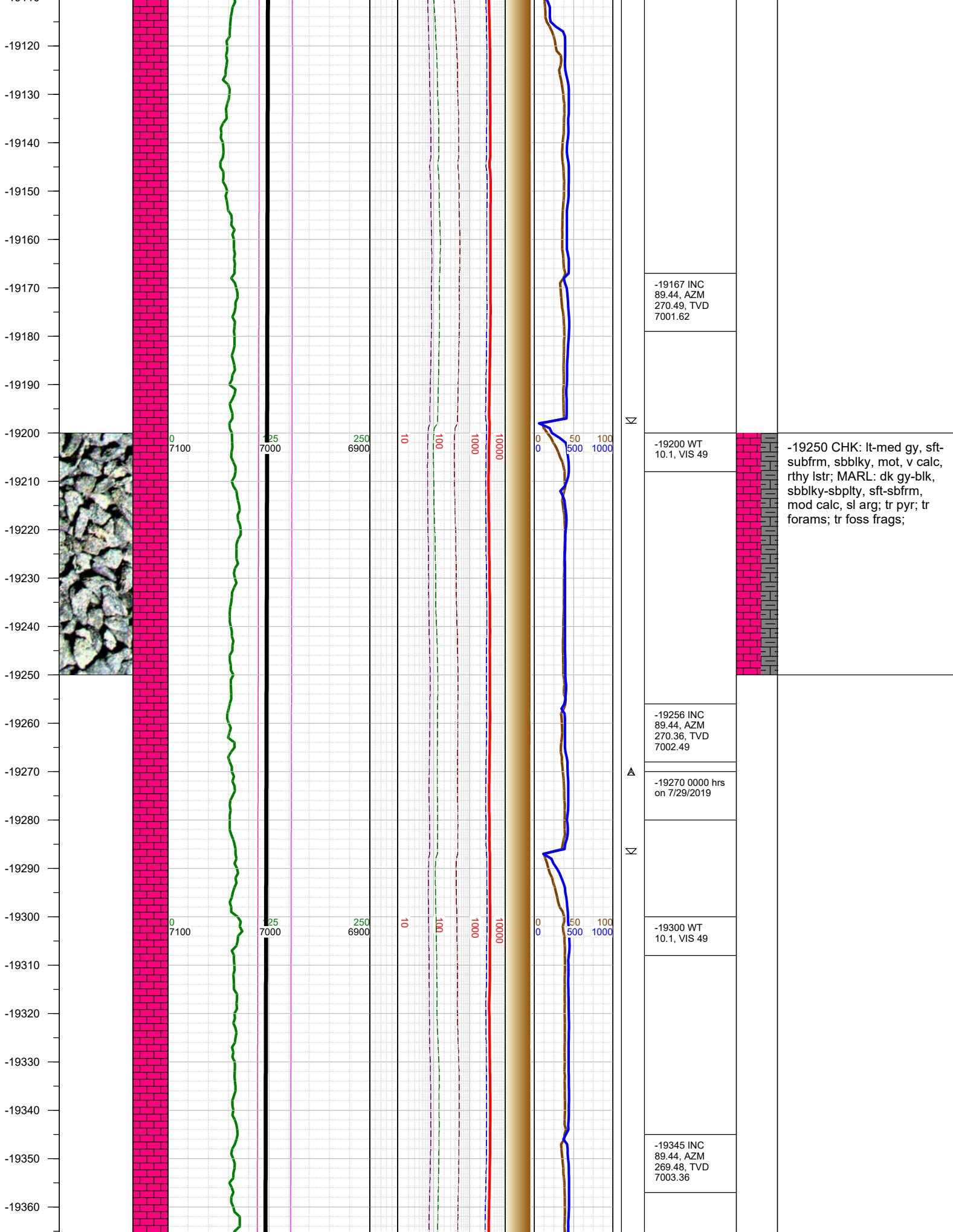
-19000 WT
10.1, VIS 48

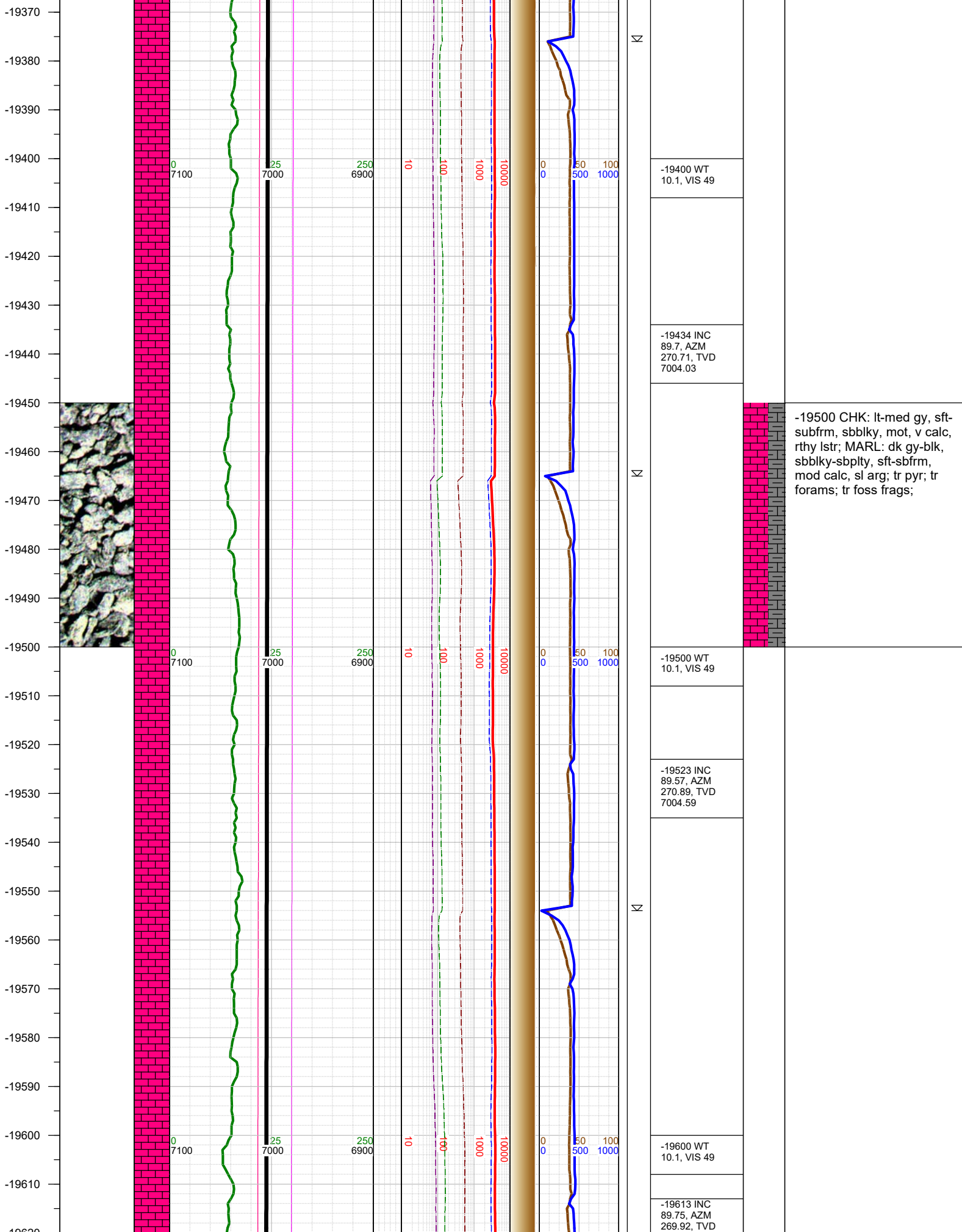
-19077 INC
89.53, AZM
270.05, TVD
7000.81

-19100 WT
10.1, VIS 48

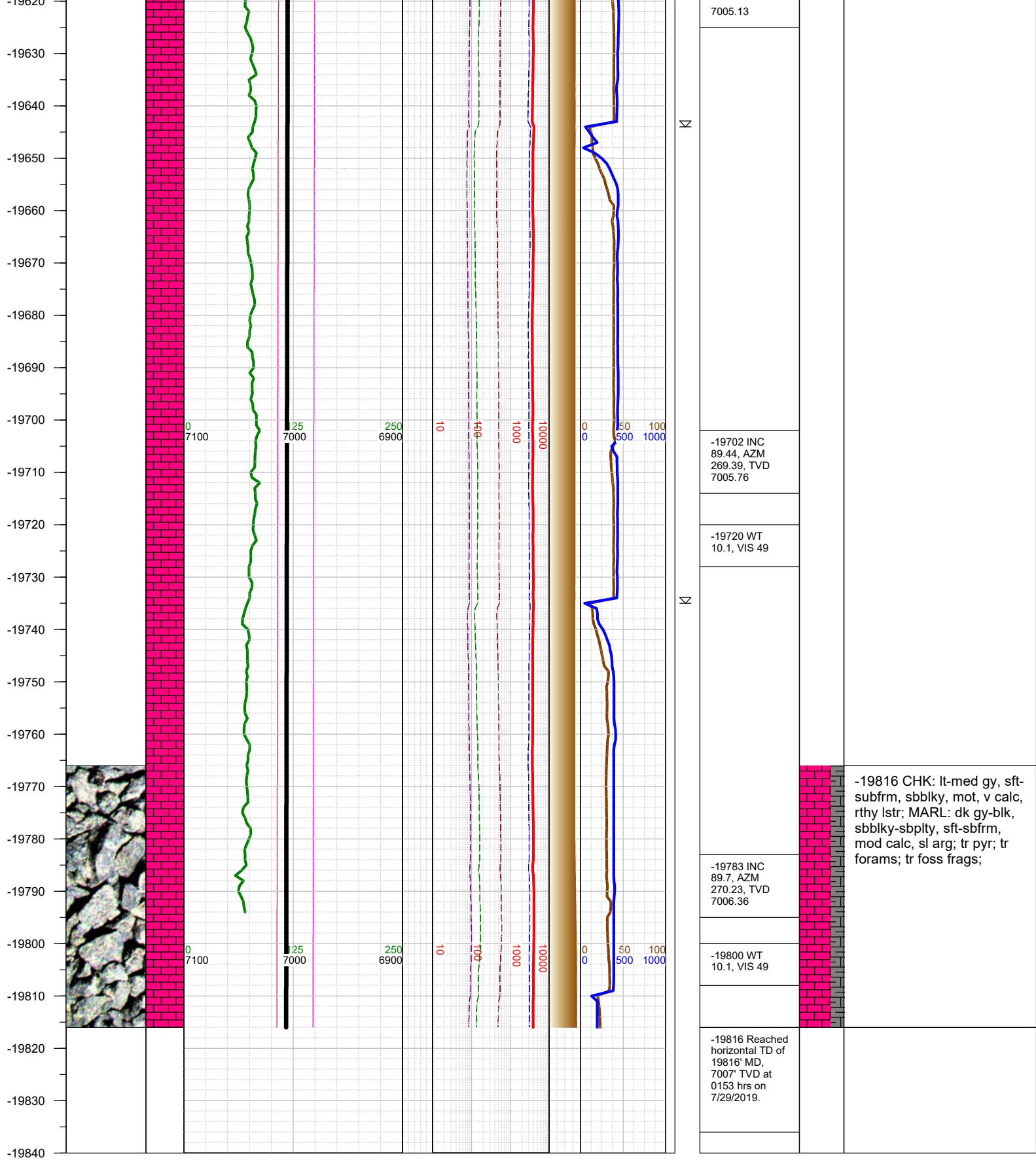


-19000 CHK: lt-med gy, sft-subfrm, sbbly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg; tr pyr; tr forams; tr foss frags;





-19500 CHK: lt-med gy, sft-subfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg; tr pyr; tr forams; tr foss frags;



TOTAL DEPTH = 19816'

Thank you for using Earth Science Agency