

OPERATOR: **Extraction Oil & Gas**  
WELL NAME: **AD Fed Library 20W-25-17**  
FIELD NAME: DJ Basin - Wattenberg  
DRILLING RIG: Ensign 147  
API #: 05-123-45033

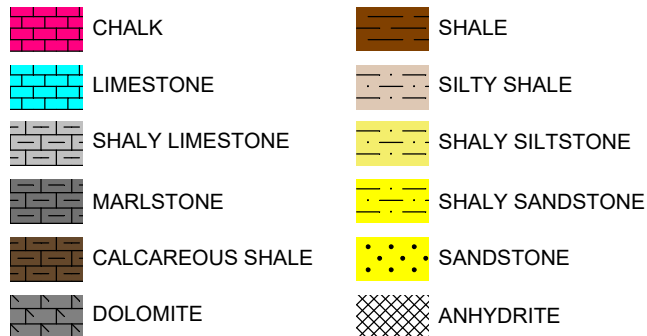
LAT/LONG: 40.38246, -104.67649  
SURFACE HOLE: NWSW S21-T5N-R65W, 1852' FSL, 367' FWL  
BOTTOM HOLE: S24-T5N-R66W, 358' FSL, 2203' FEL



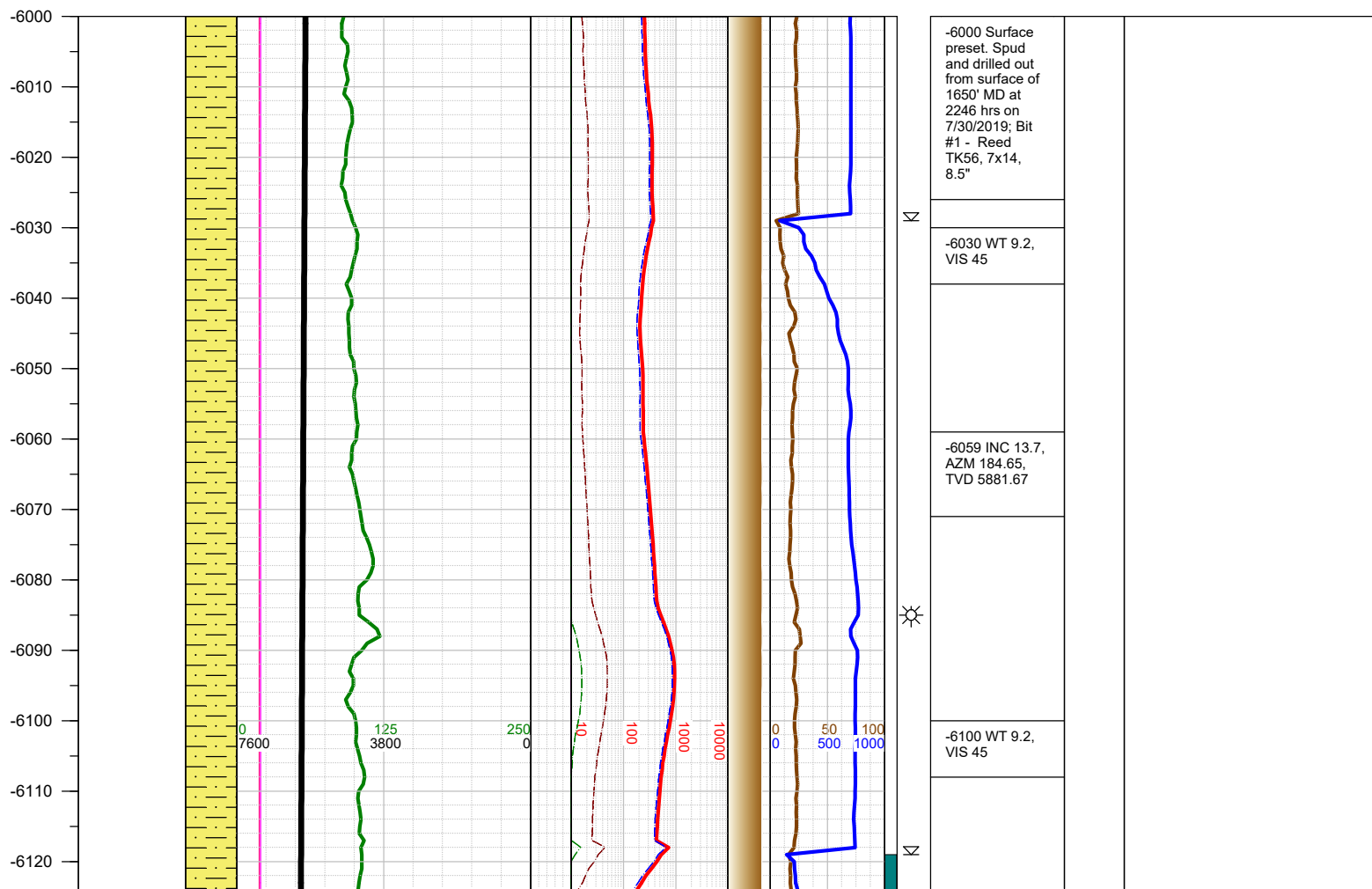
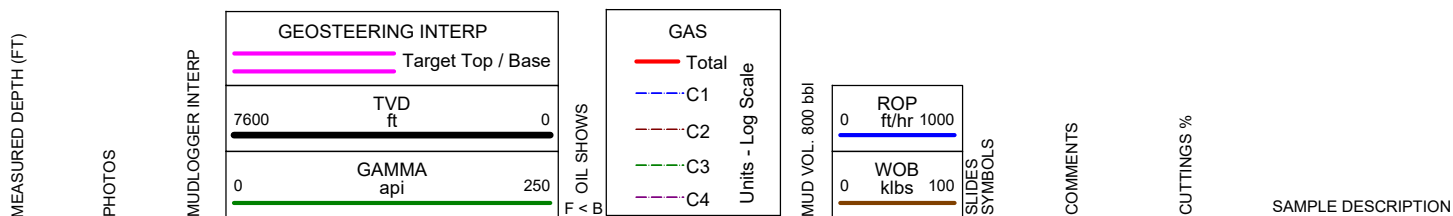
Earth Science Agency, LLC

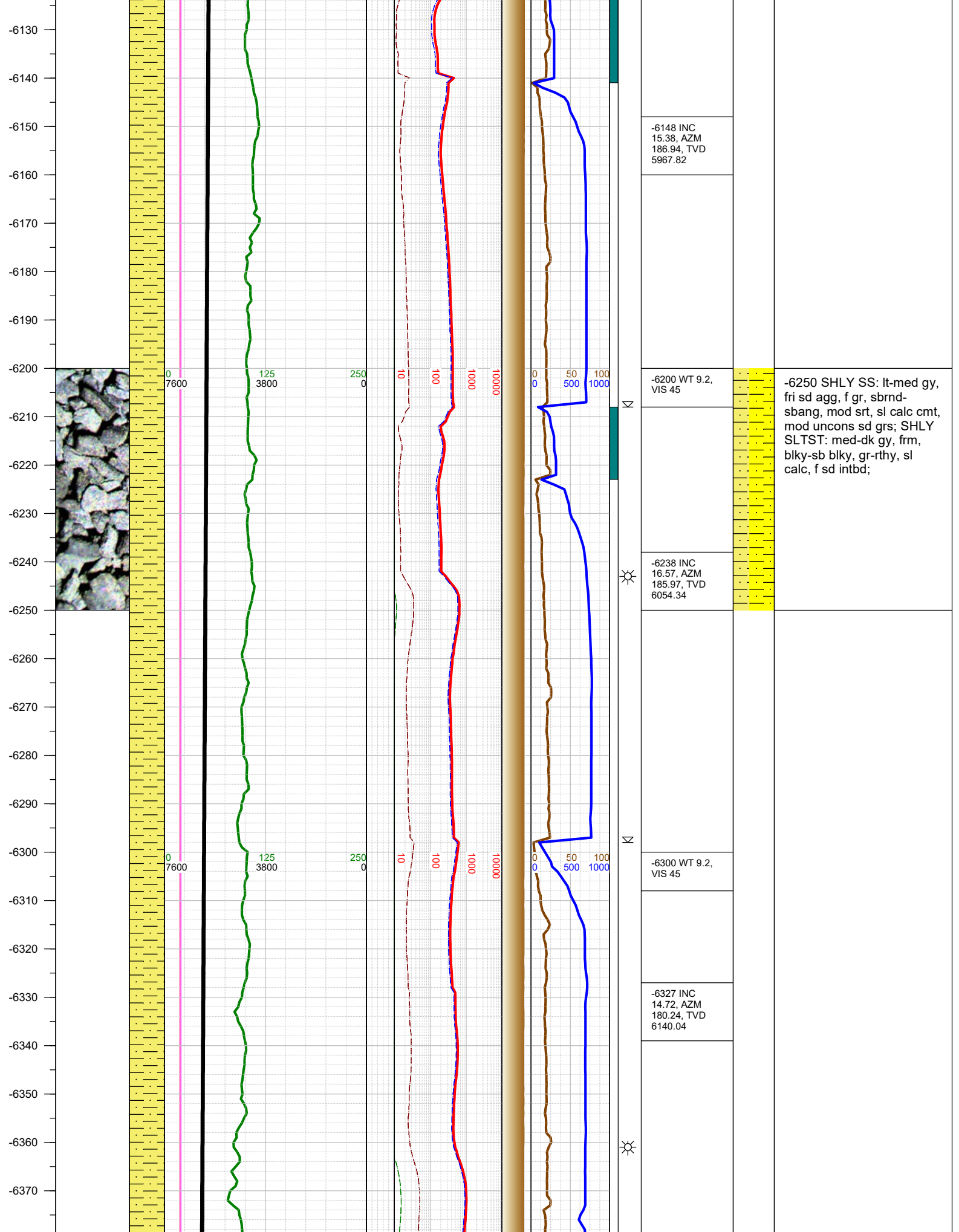
COUNTY: Weld  
STATE: Colorado  
GROUND ELEVATION: 4639'  
KELLY BUSHING: 4667'  
DRILLING FLUID: OBM  
TVD VS. MD: 6935' / 19702'  
SPUD DATE: July 30, 2019  
TD DATE: August 3, 2019  
  
DEPTHS LOGGED: 6000' - 19702'  
DATES LOGGED: July 31, 2019 - August 3, 2019  
GEOLOGISTS: Dan Jacobs, Ross Apodaca  
SCALE: 5" = 100'

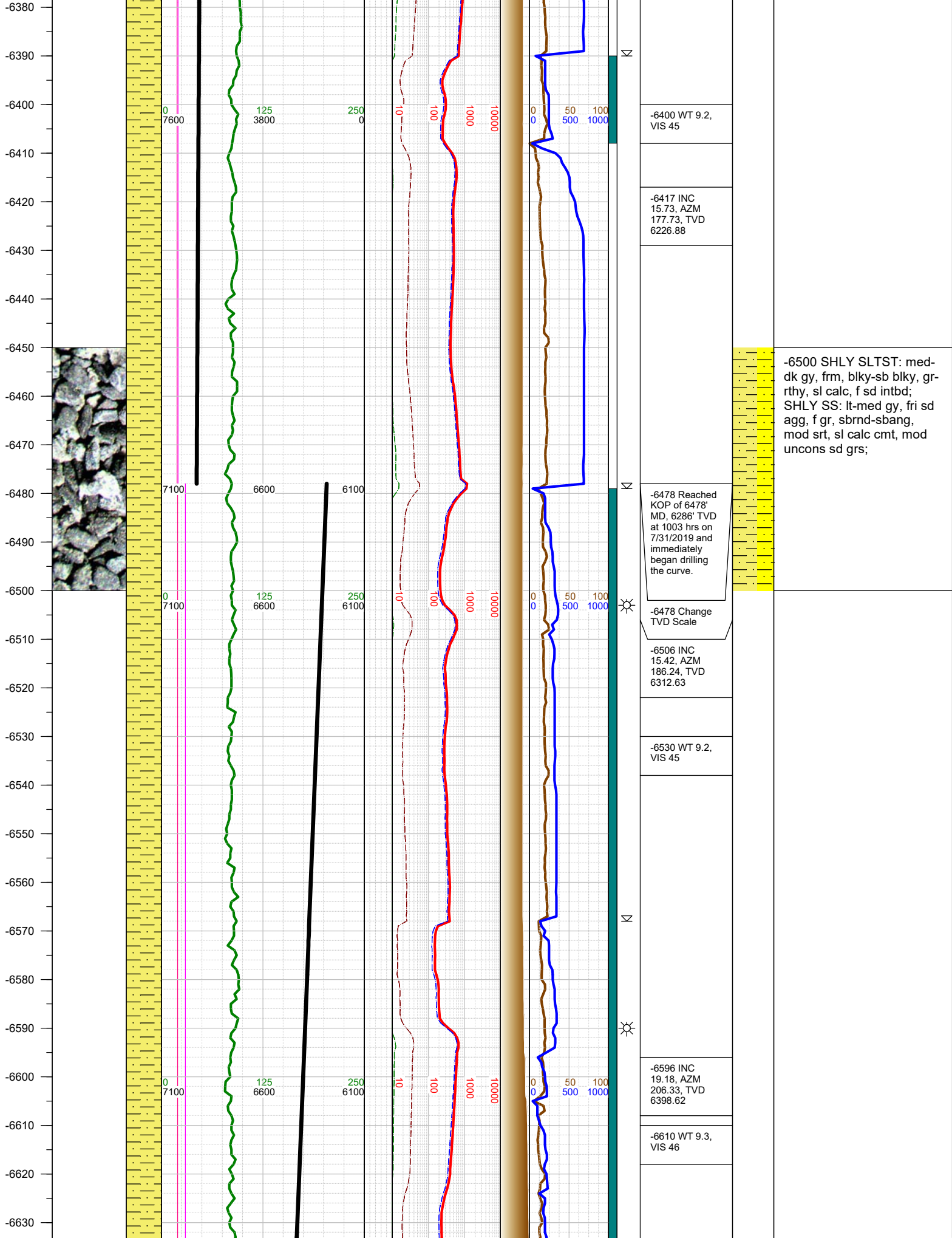
#### LEGEND



FORMATION CONNECTION MIDNIGHT NEW BIT GAS SHOW FAULT



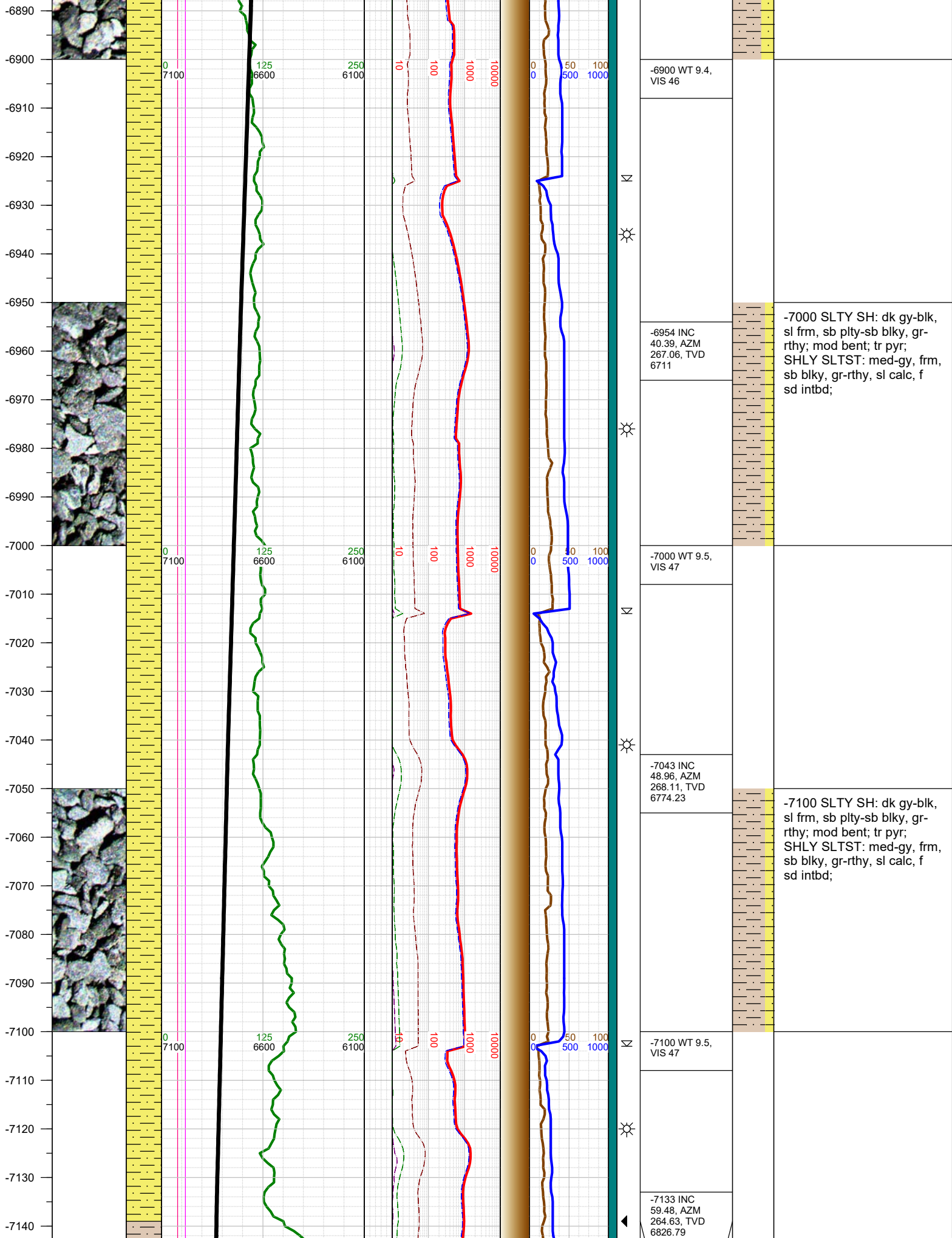


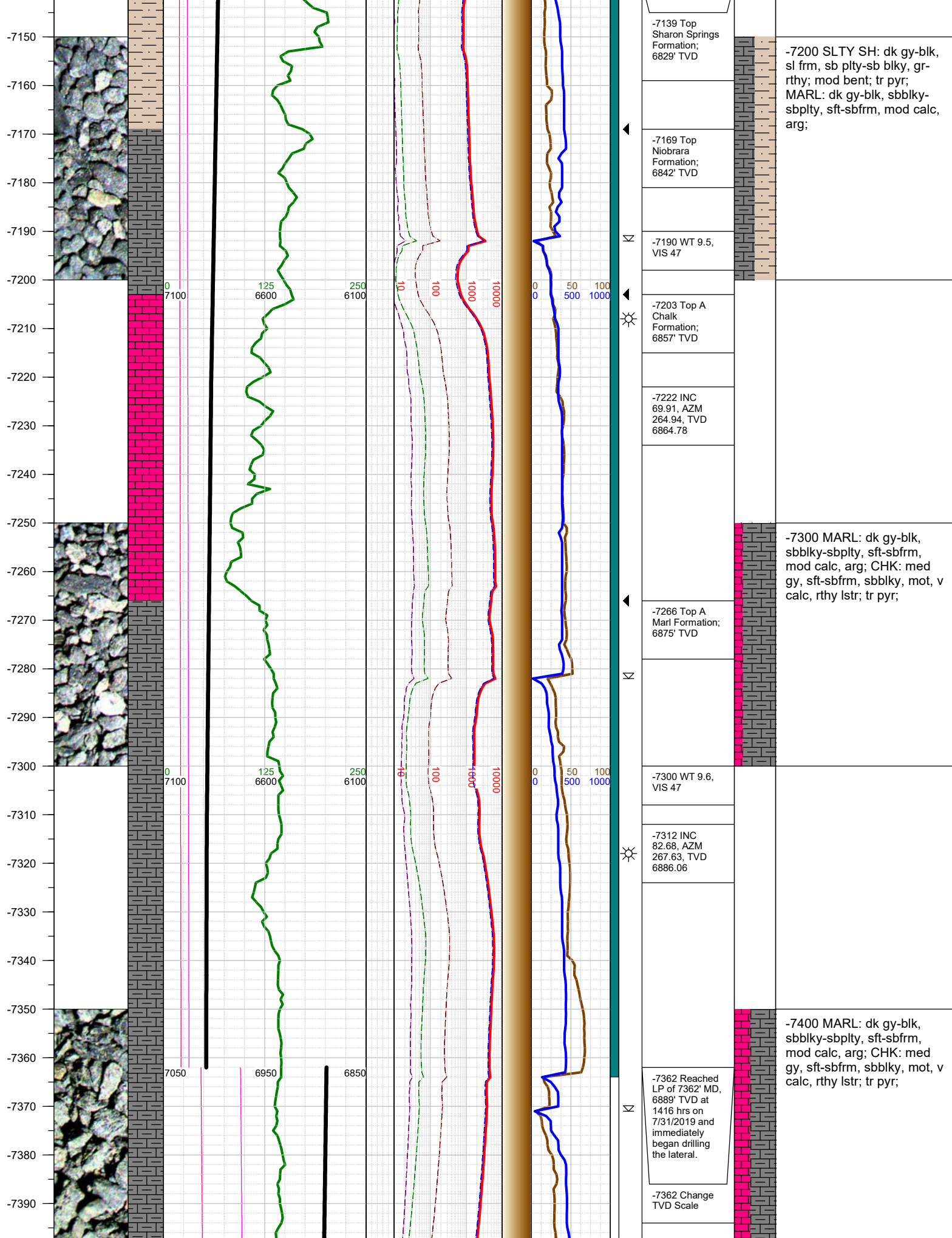


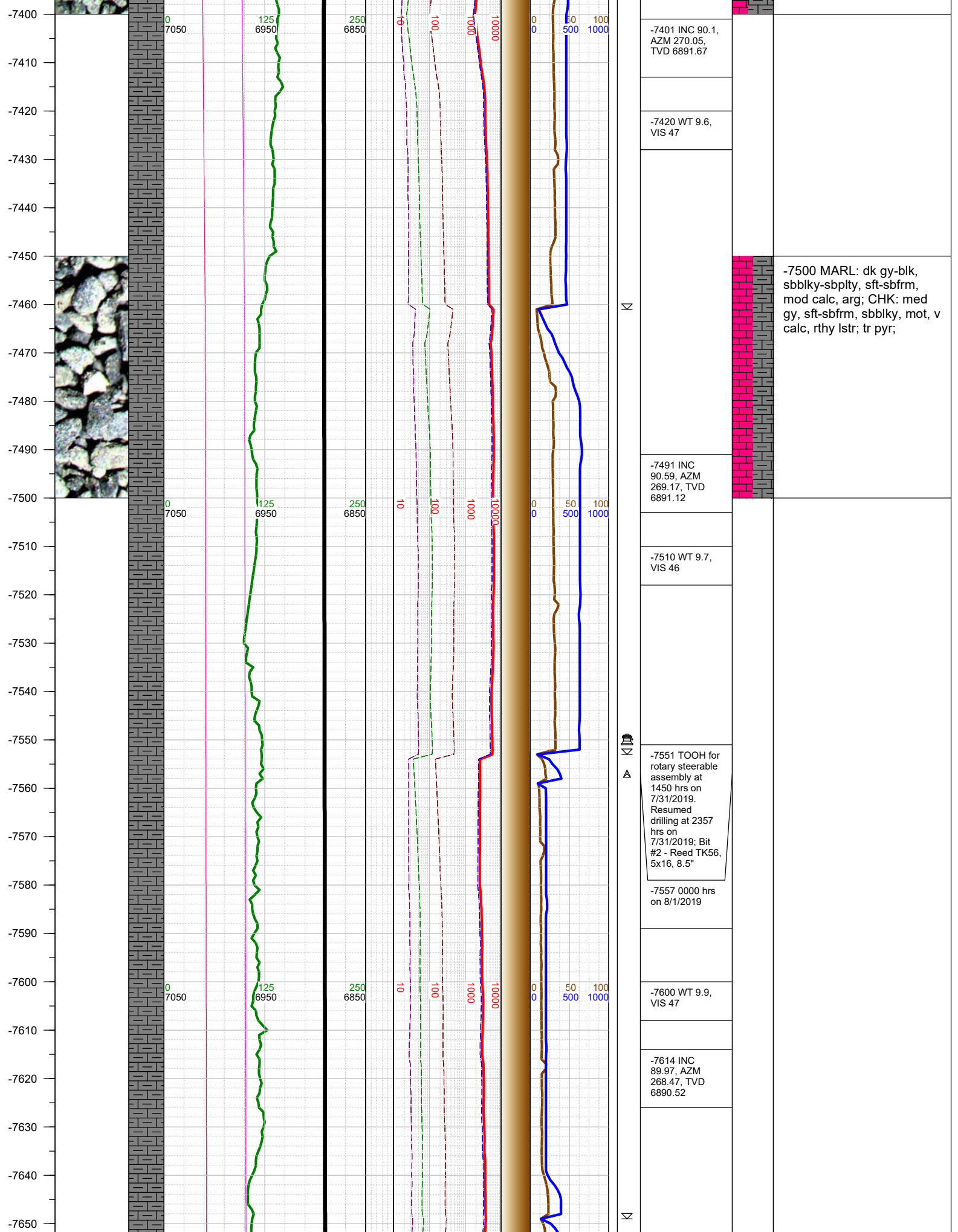




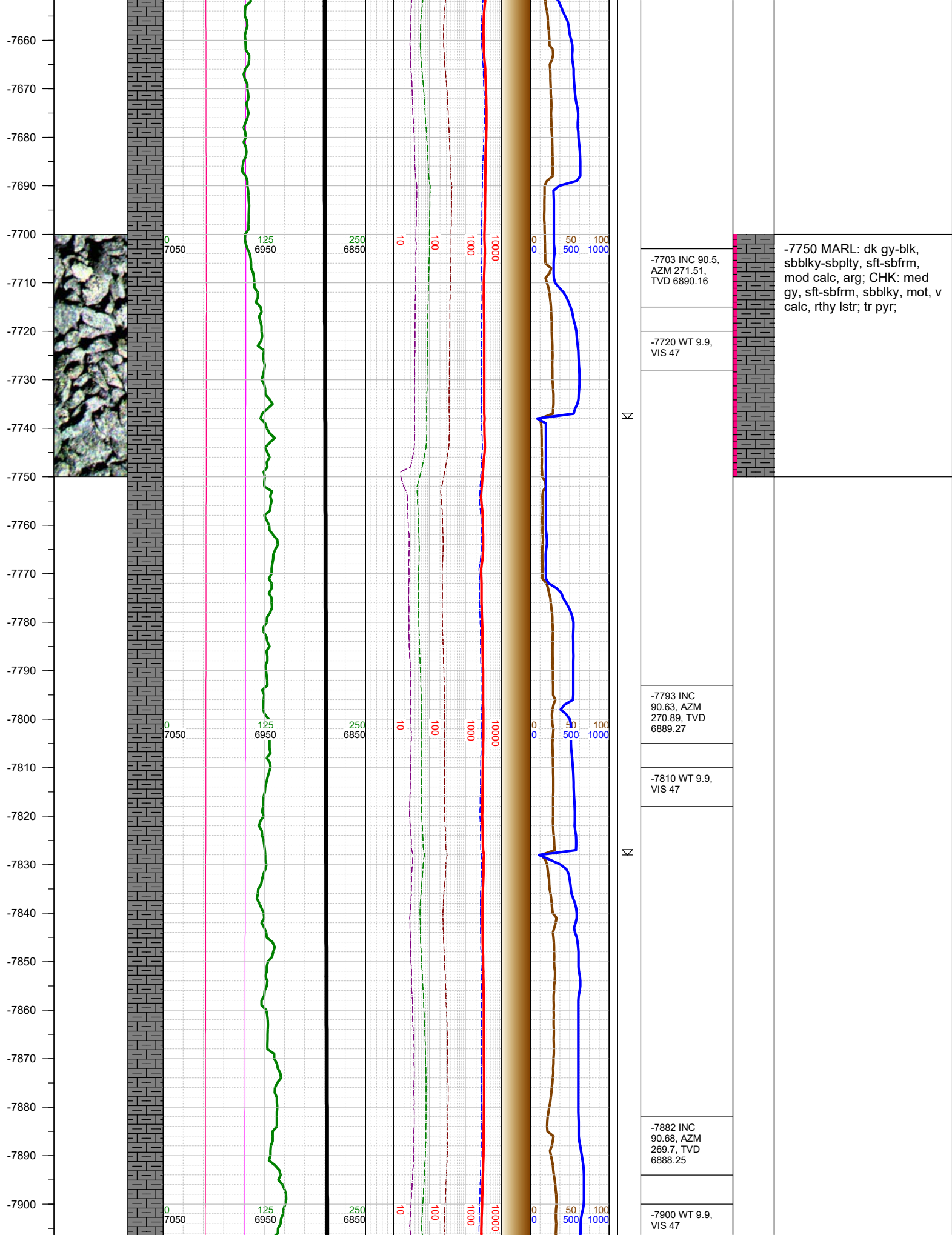




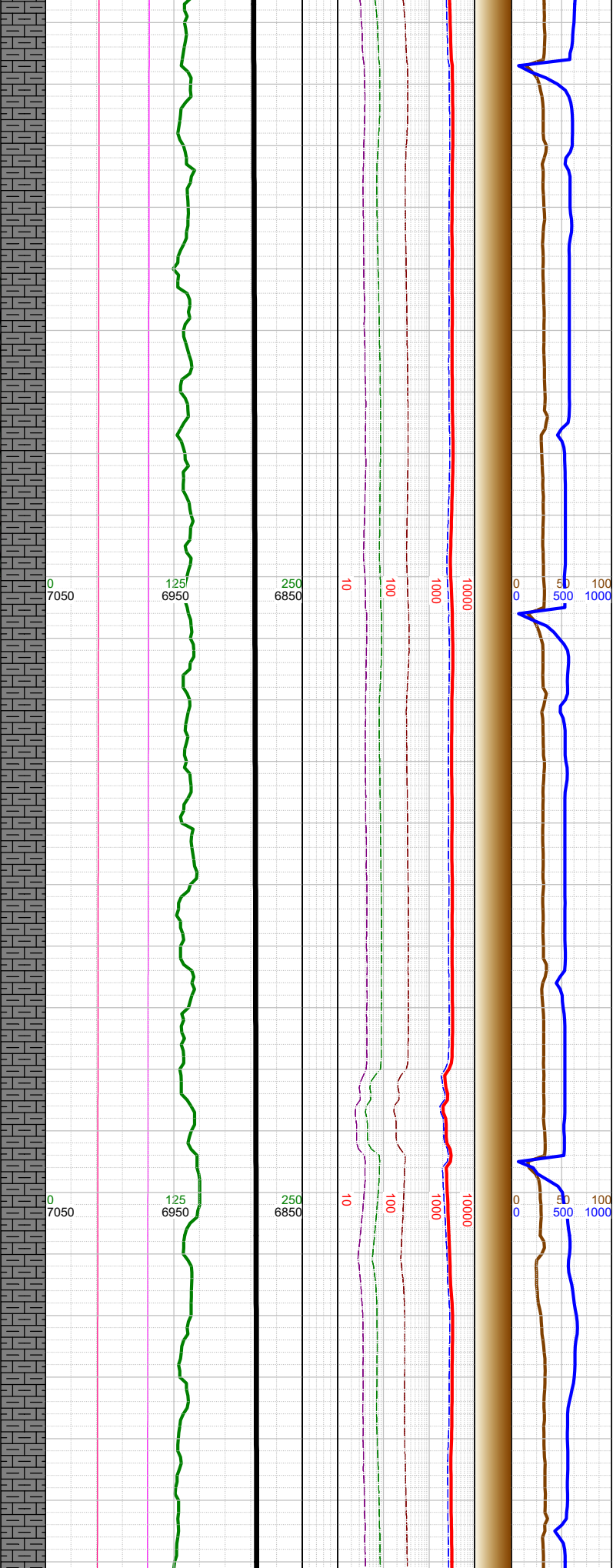
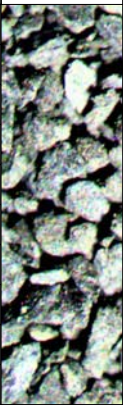




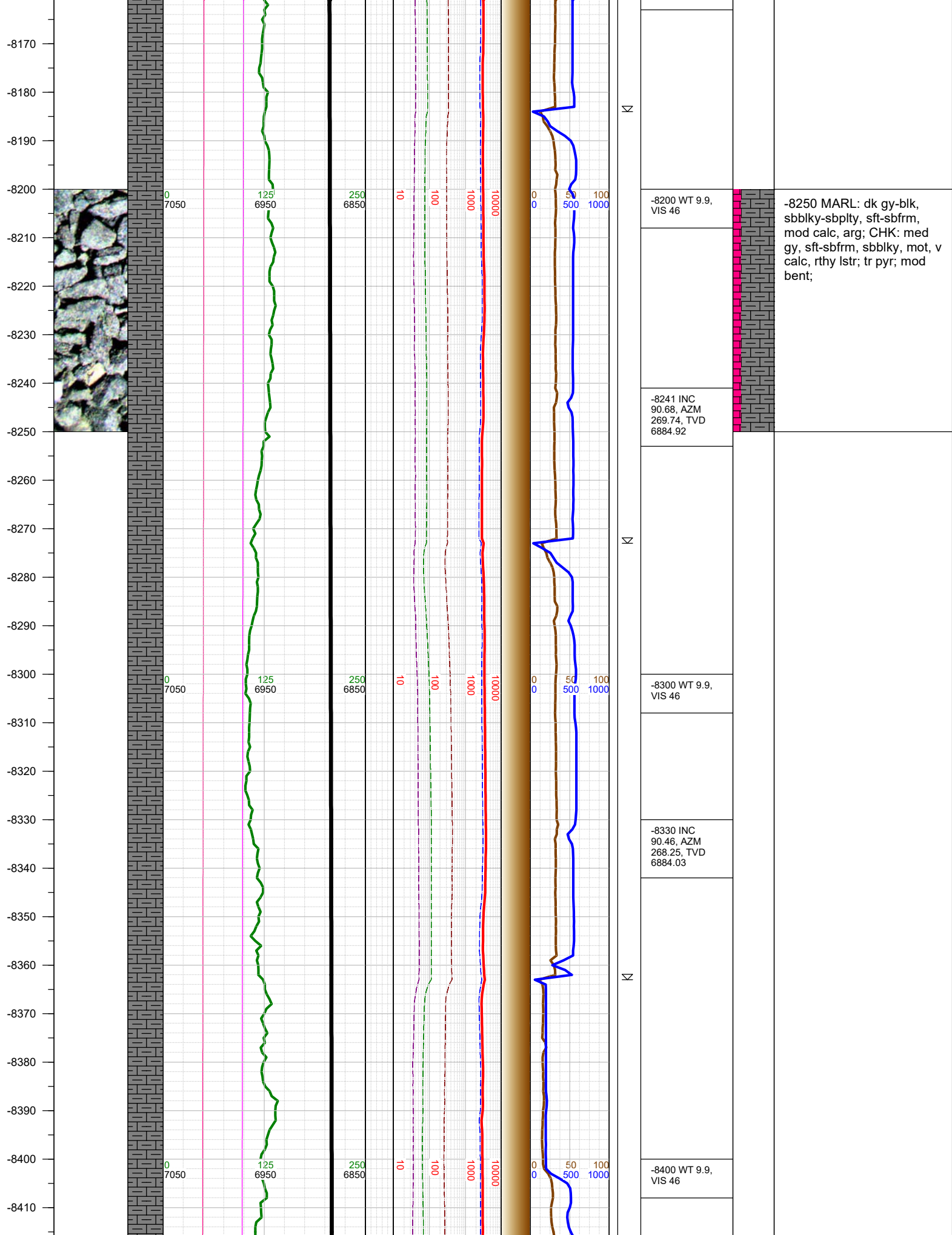




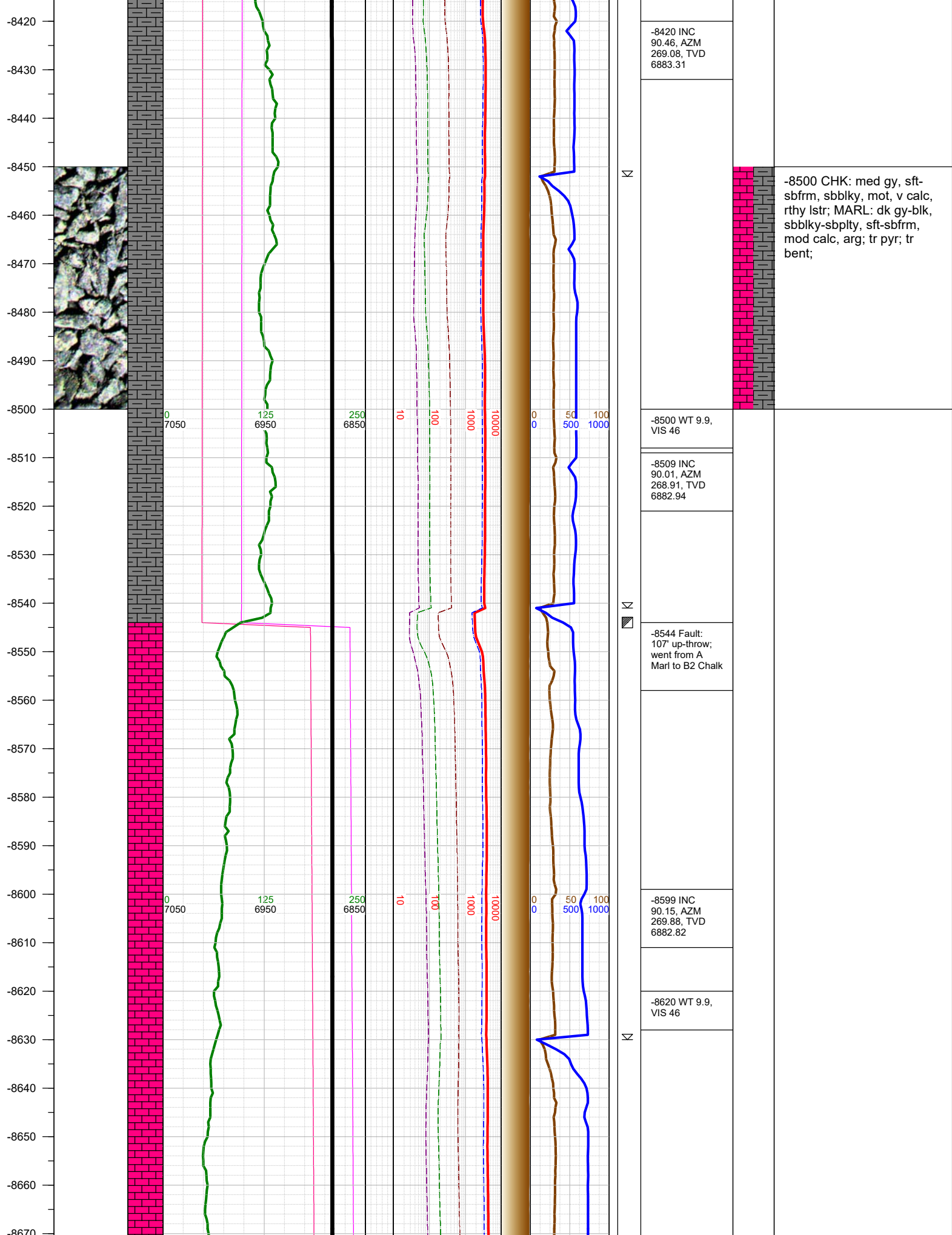
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N			<div>-8000 MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, arg; CHK: med gy, sft-sbfrm, sbblky, mot, v calc, rthy lstr; tr pyr; mod bent;</div>
		<div>-7971 INC 90.5, AZM 269.61, TVD 6887.34</div>	
N			
		<div>-8000 WT 9.9, VIS 47</div>	
		<div>-8061 INC 90.63, AZM 269.7, TVD 6886.45</div>	
N		<div>-8100 WT 9.9, VIS 46</div>	
		<div>-8151 INC 90.32, AZM 268.33, TVD 6885.7</div>	







-8420 INC  
90.46, AZM  
269.08, TVD  
6883.31

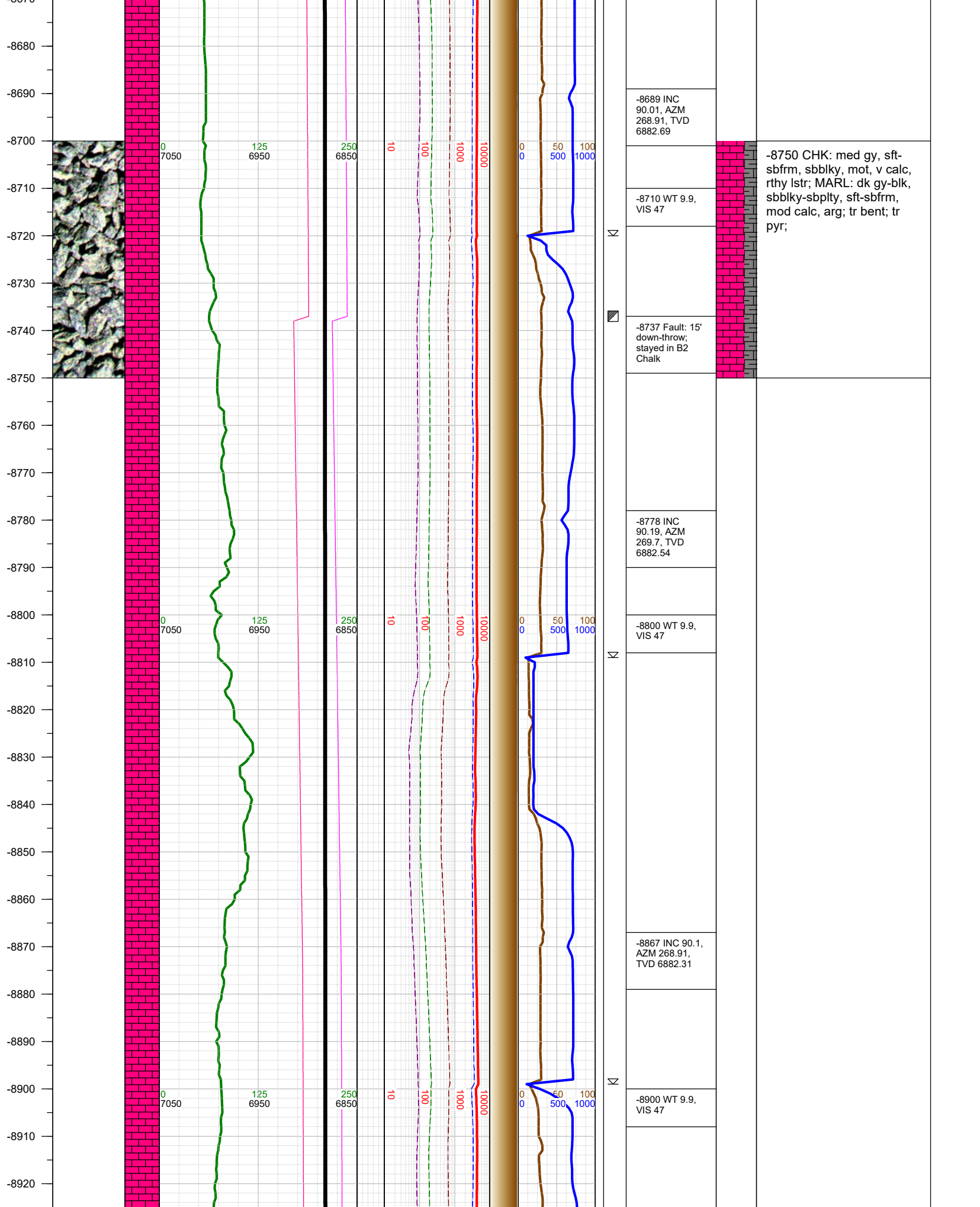
-8500 WT 9.9,  
VIS 46

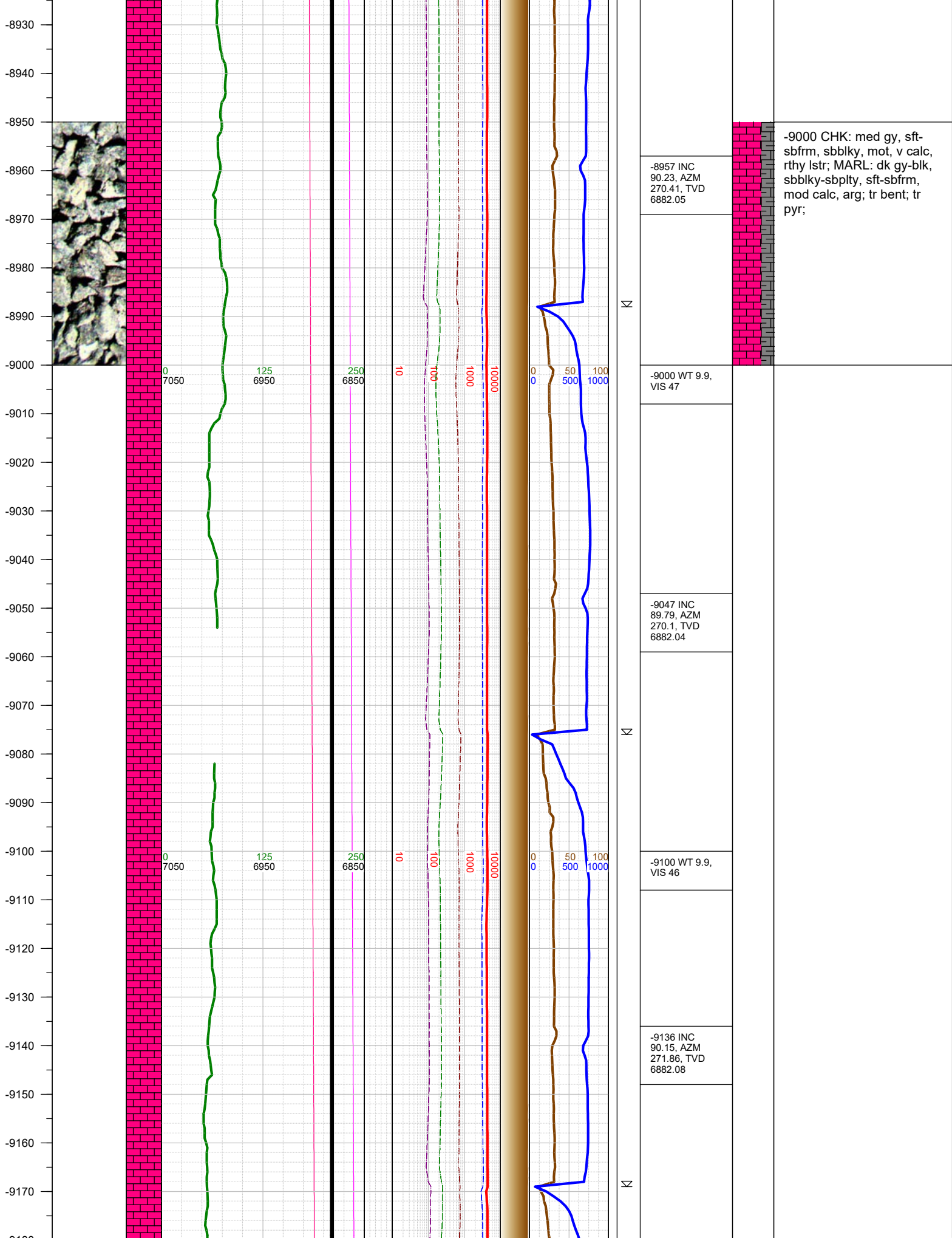
-8509 INC  
90.01, AZM  
268.91, TVD  
6882.94

-8544 Fault:  
107' up-throw;  
went from A  
Marl to B2 Chalk

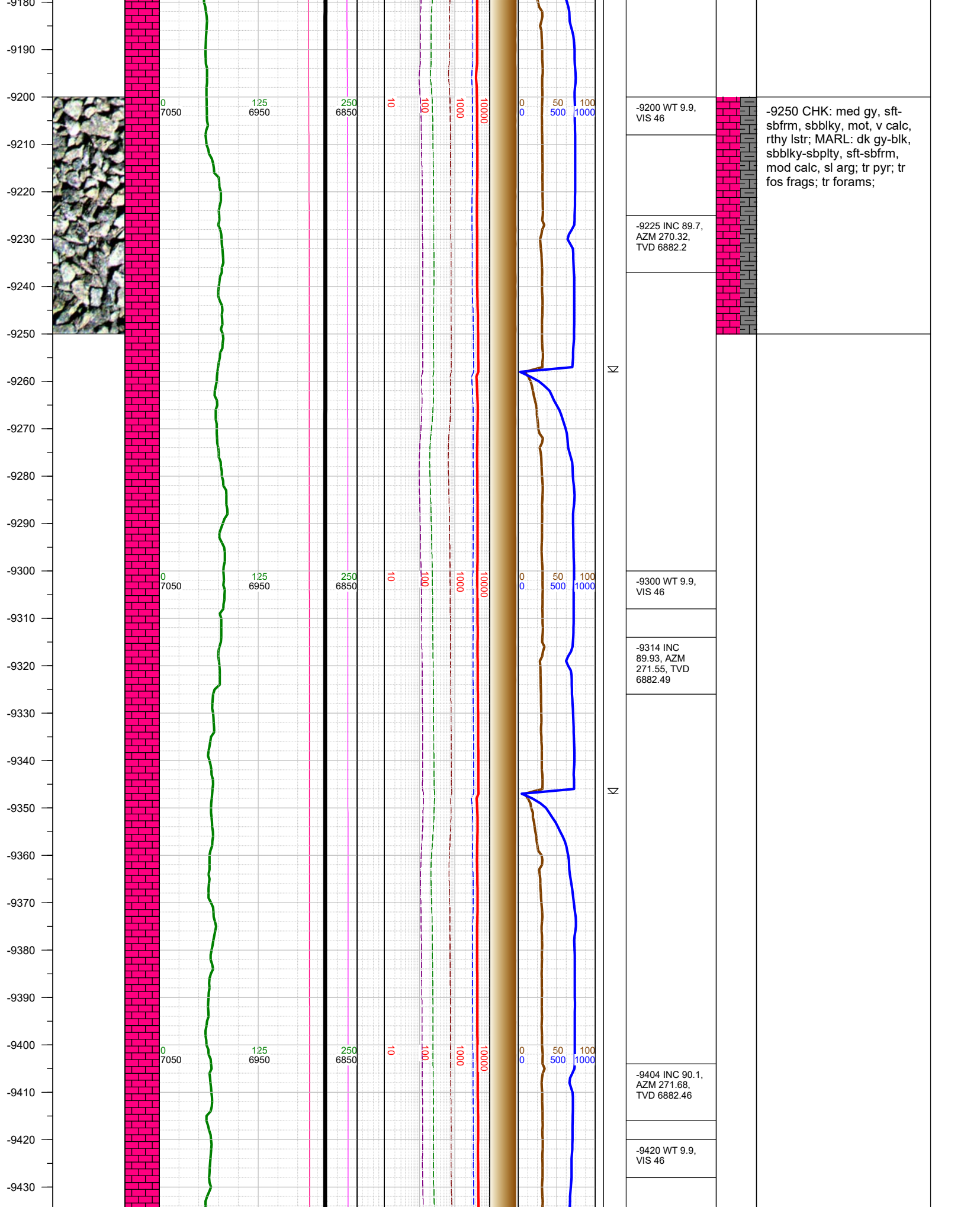
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90.15, AZM  
269.88, TVD  
6882.82

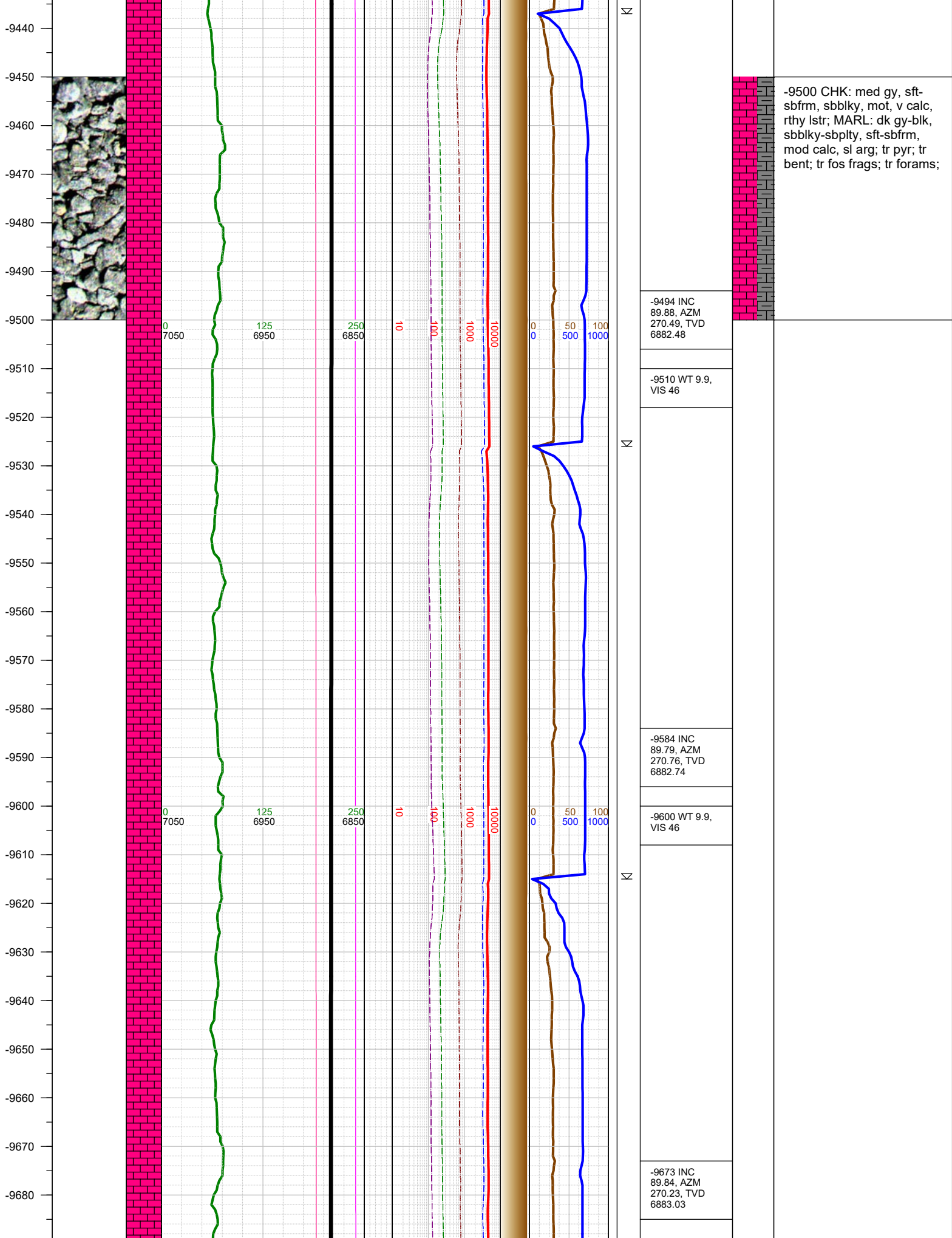
-8620 WT 9.9,  
VIS 46

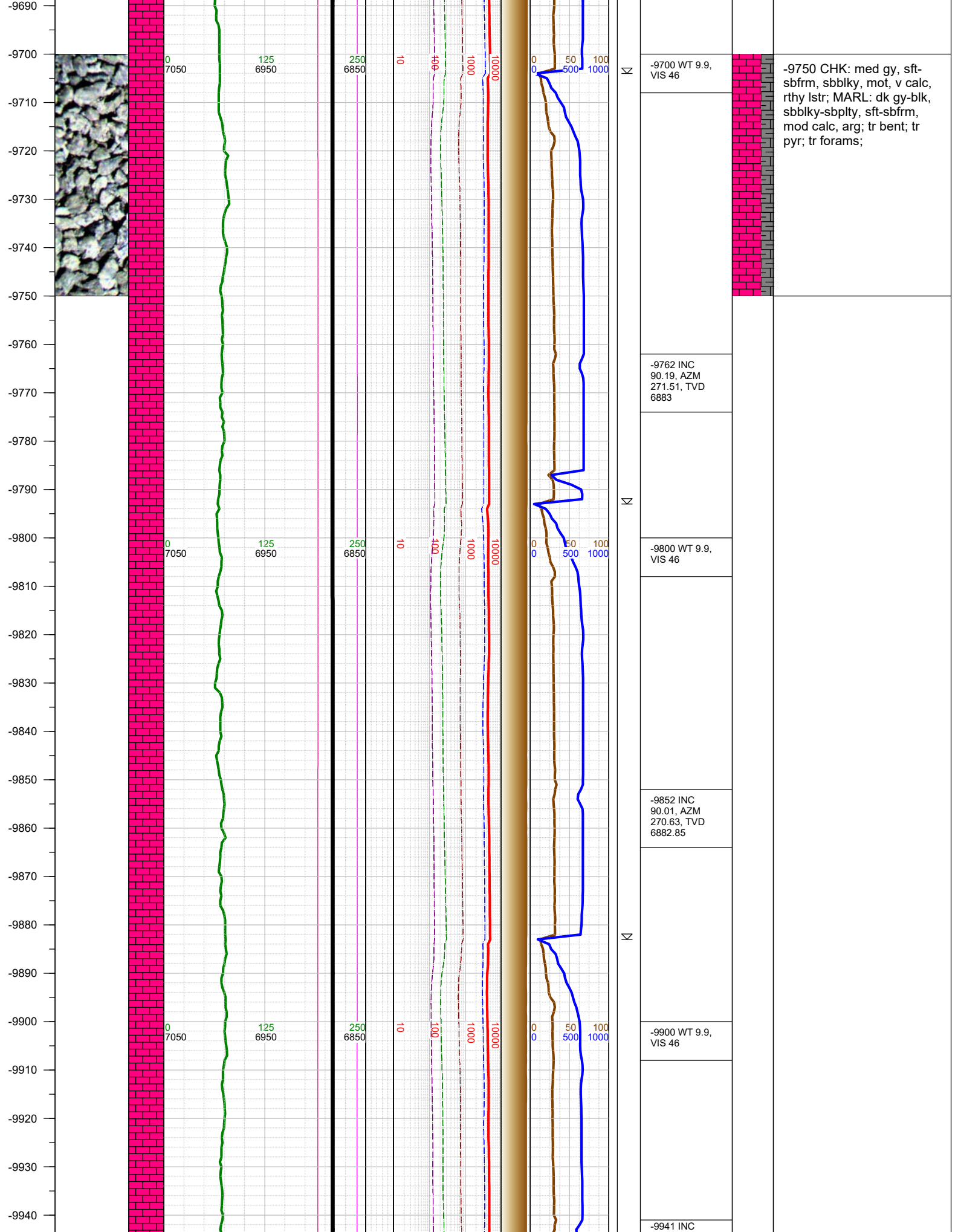




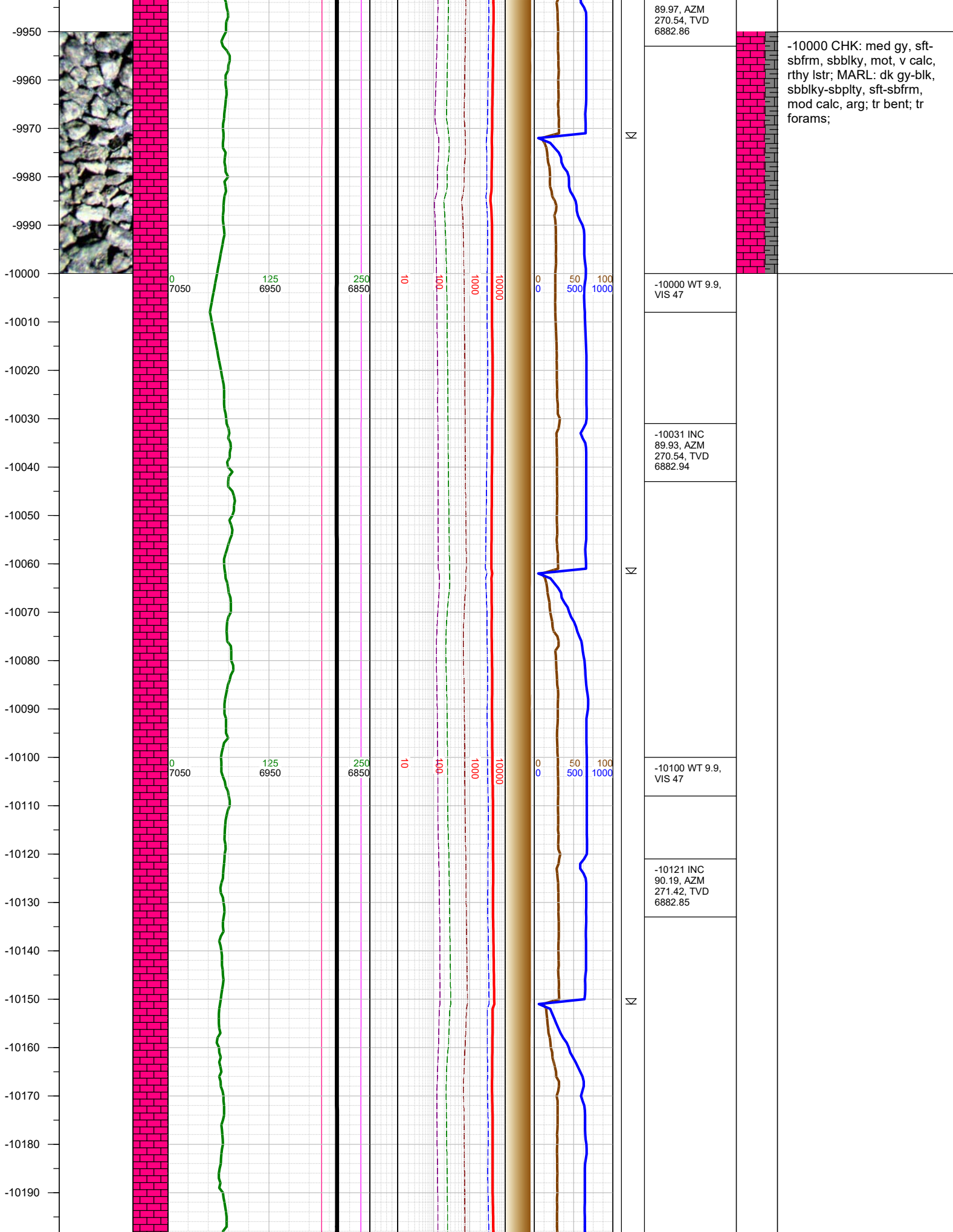


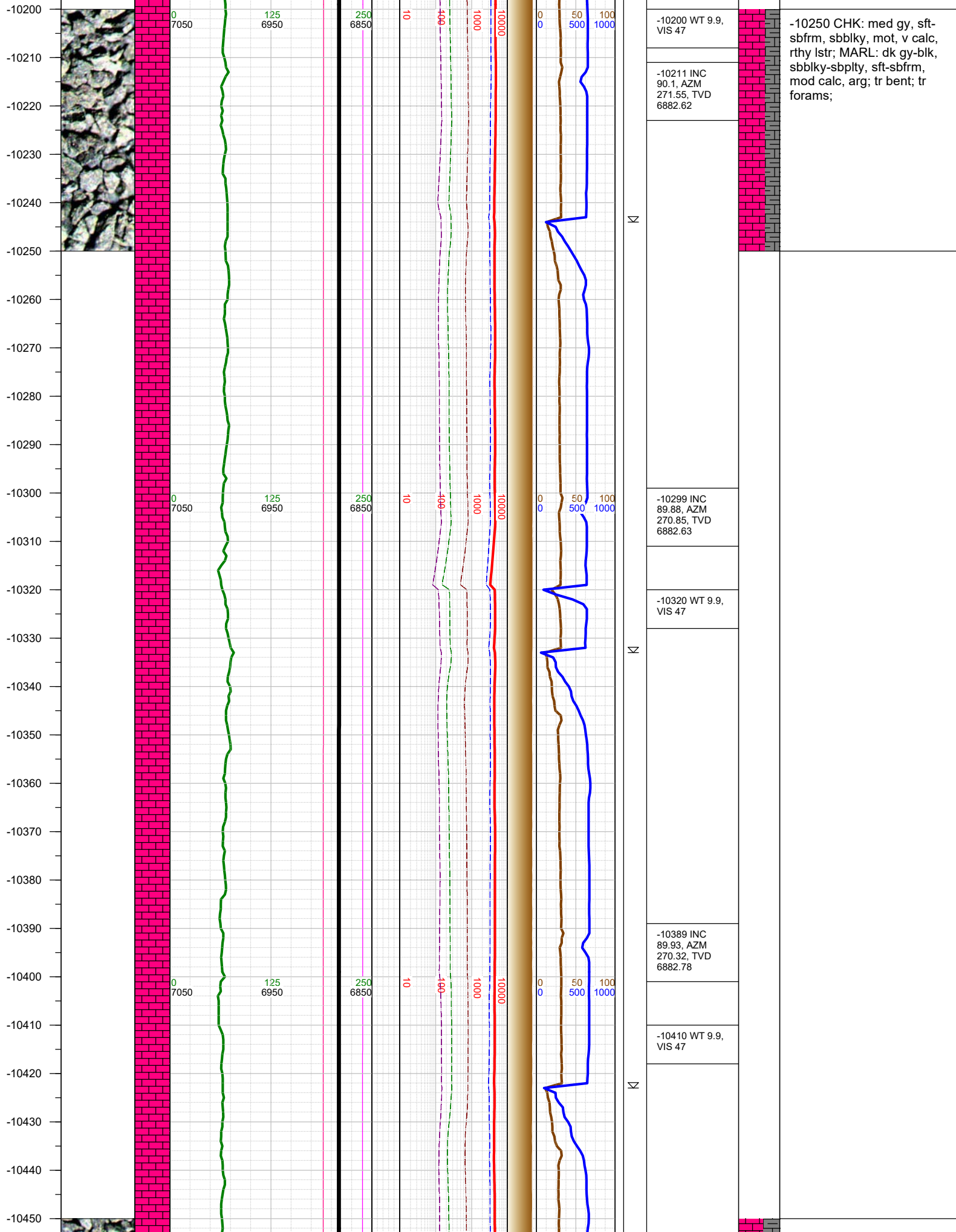


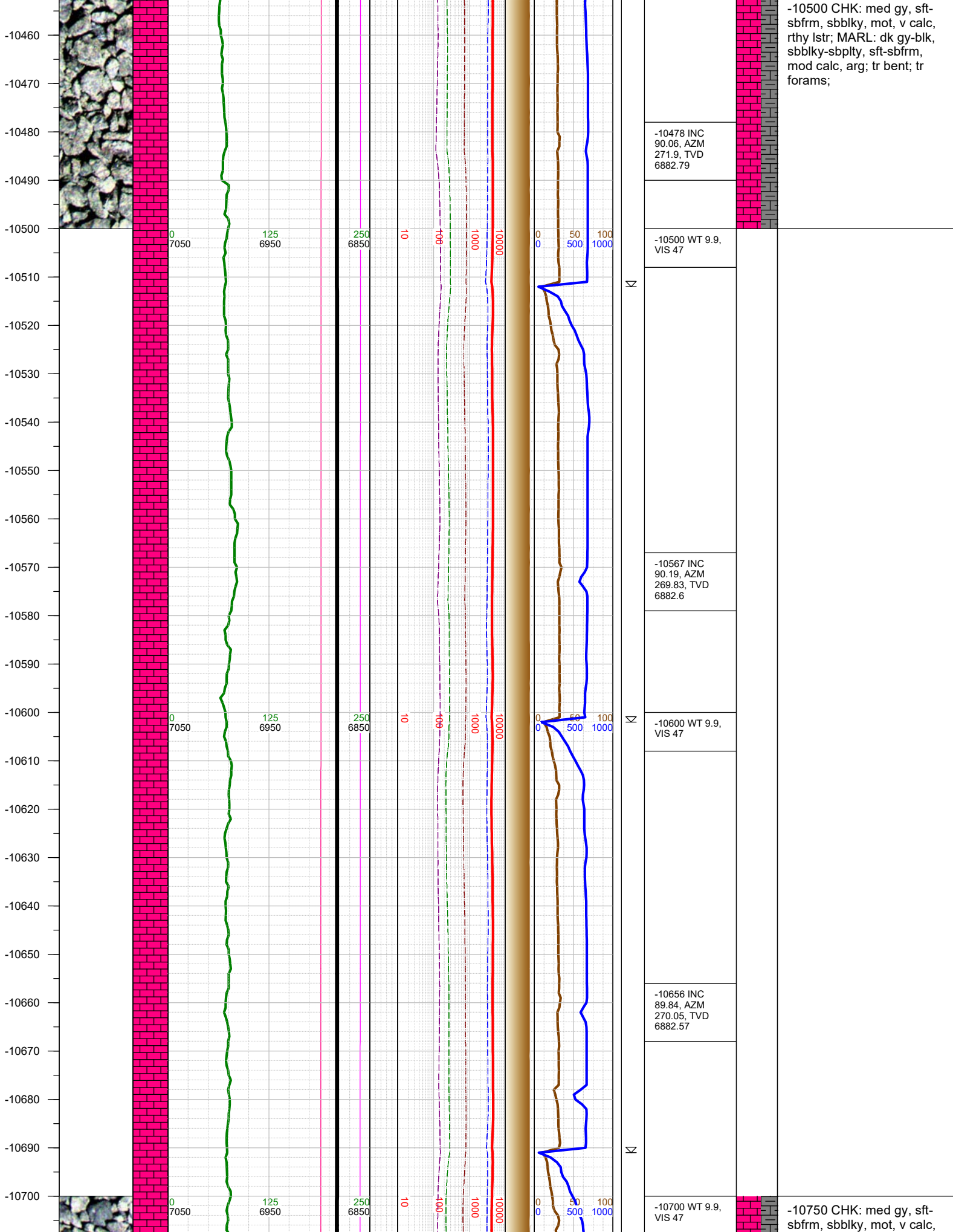












-10500 CHK: med gy, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbply, sft-sbfrm, mod calc, arg; tr bent; tr forams;

-10478 INC  
90.06, AZM  
271.9, TVD  
6882.79

-10500 WT 9.9,  
VIS 47

-10567 INC  
90.19, AZM  
269.83, TVD  
6882.6

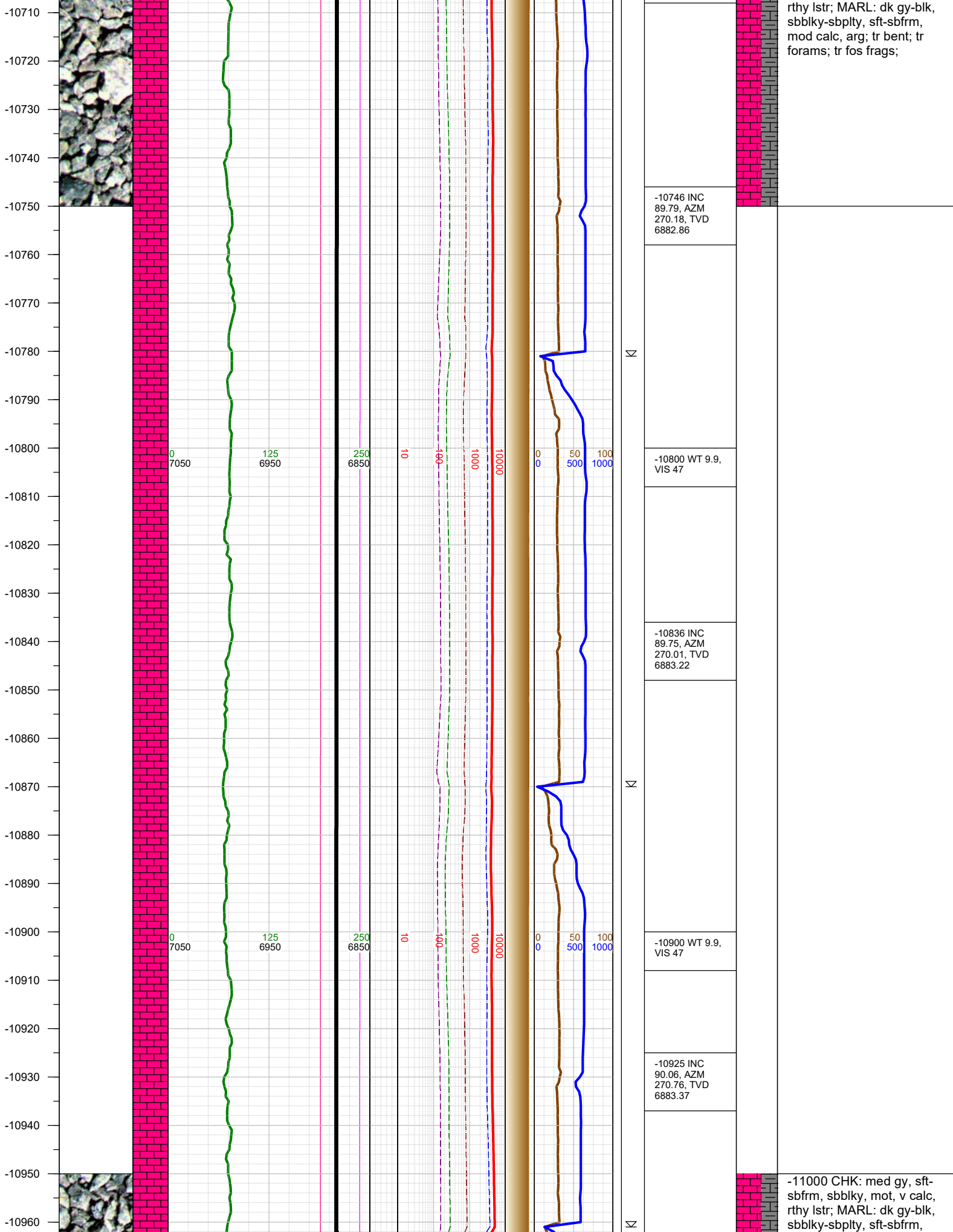
-10600 WT 9.9,  
VIS 47

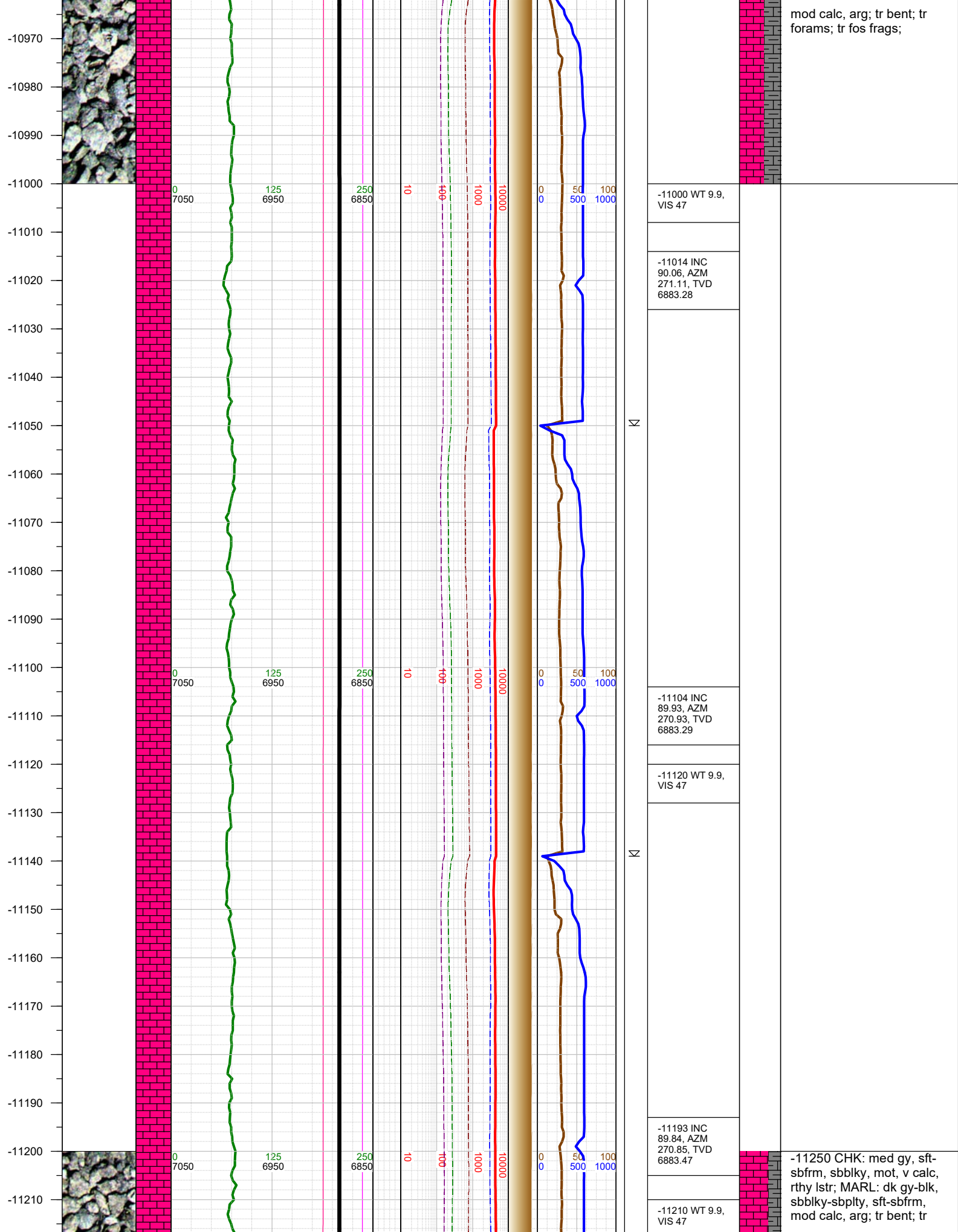
-10656 INC  
89.84, AZM  
270.05, TVD  
6882.57

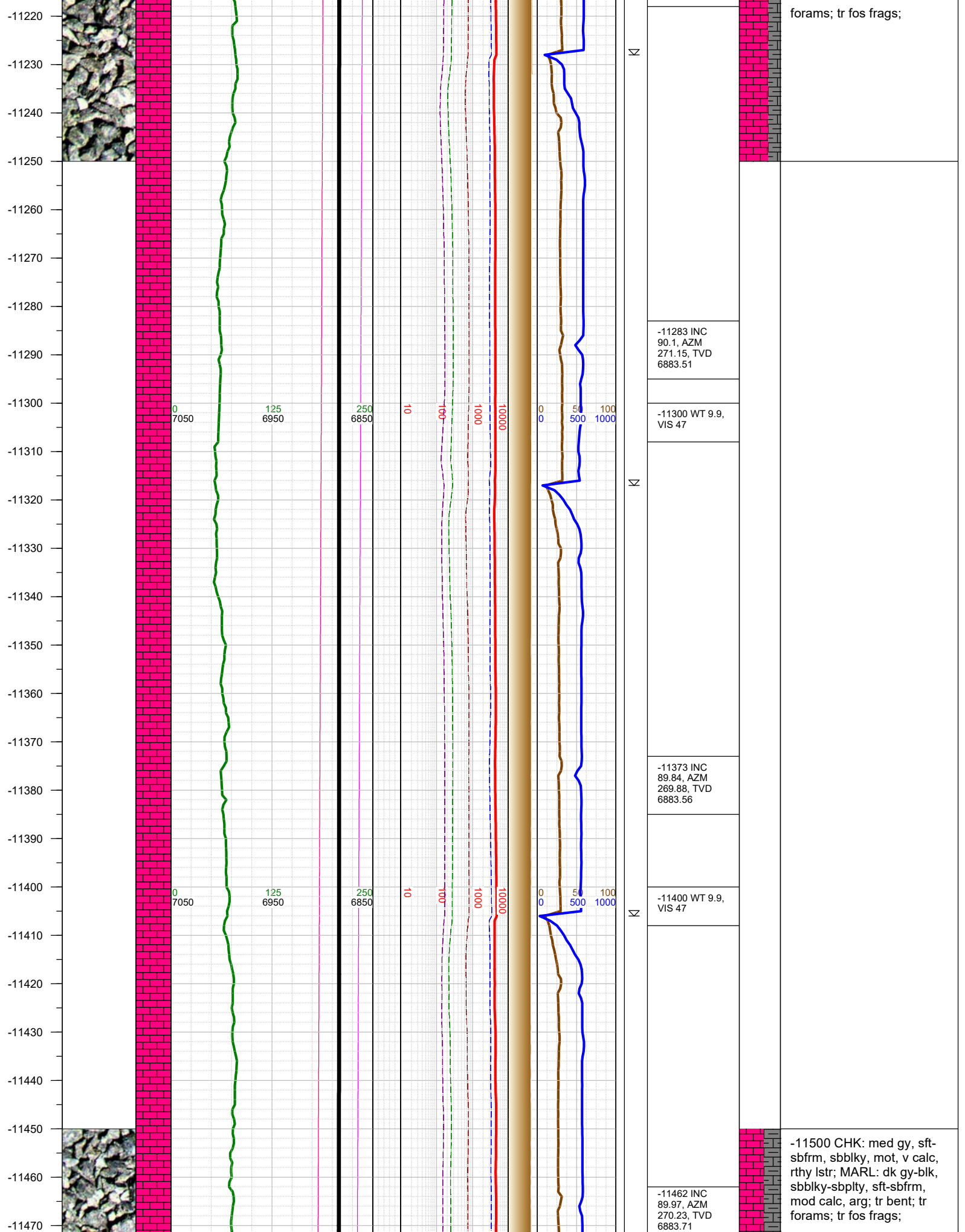
-10700 WT 9.9,  
VIS 47

-10750 CHK: med gy, sft-sbfrm, sbblky, mot, v calc,

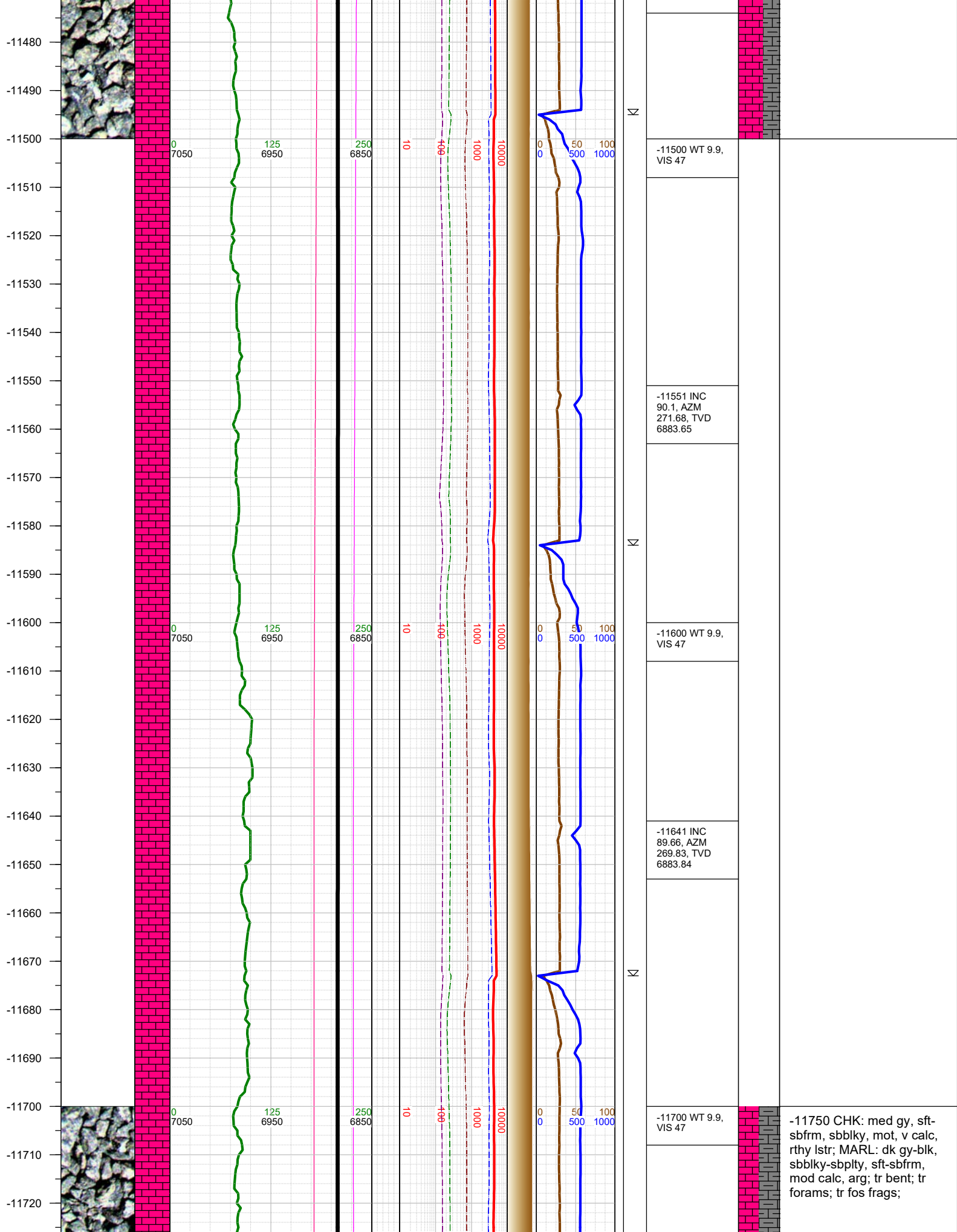




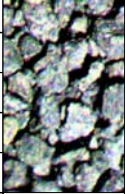








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0 500 1000

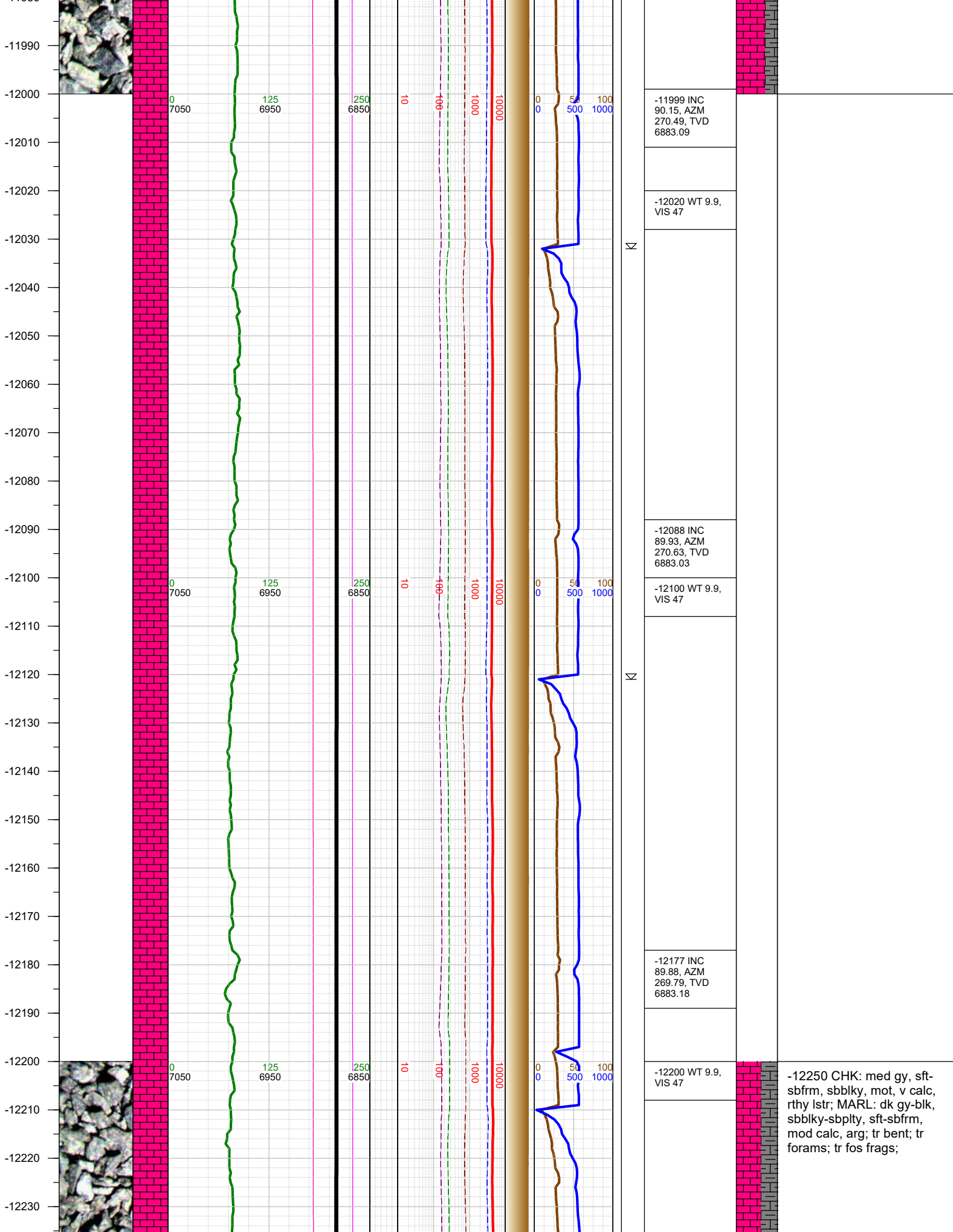
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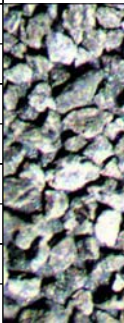
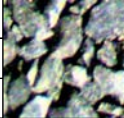
-11730 INC 90.15, AZM 271.46, TVD 6883.99	
-11800 WT 9.9, VIS 47	
-11819 INC 90.01, AZM 271.6, TVD 6883.86	
-11900 WT 9.9, VIS 47	
-11909 INC 90.41, AZM 271.2, TVD 6883.53	

-12000 CHK: med gy, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, arg; tr bent; tr forams; tr fos frags;





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-12267 INC  
89.84, AZM  
270.1, TVD  
6883.4

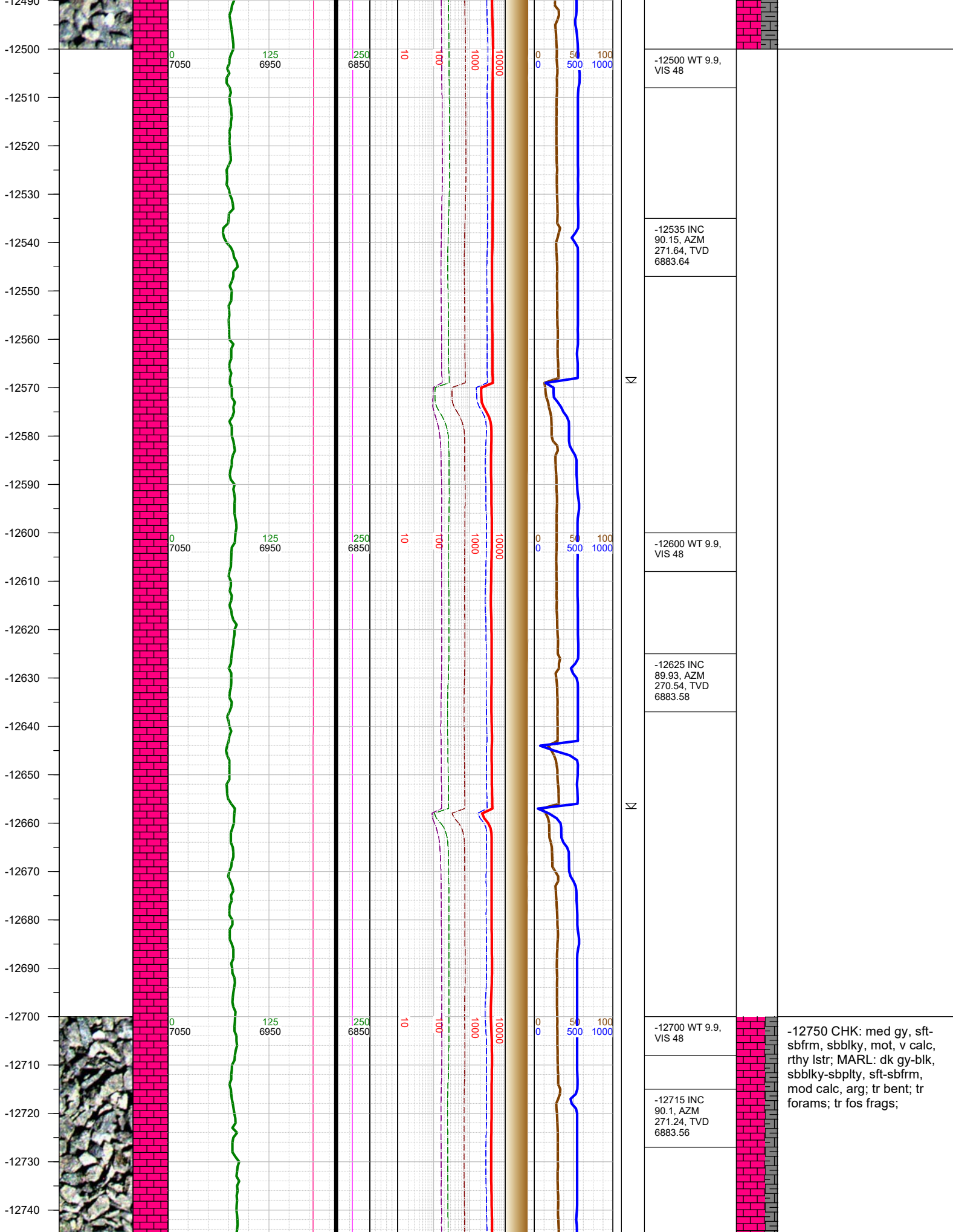
-12300 WT 9.9,  
VIS 47

-12356 INC  
90.01, AZM  
270.93, TVD  
6883.52

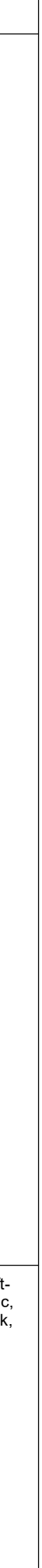
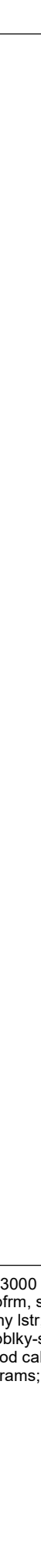
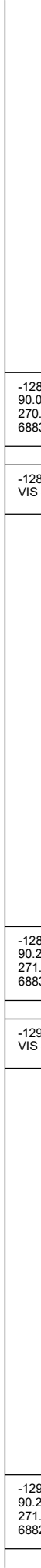
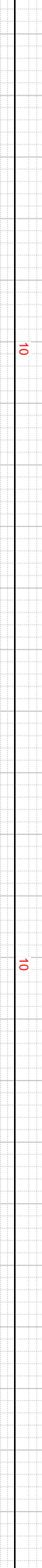
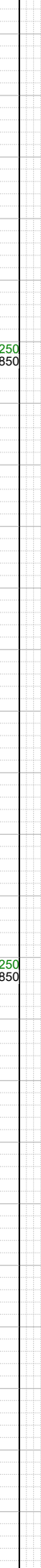
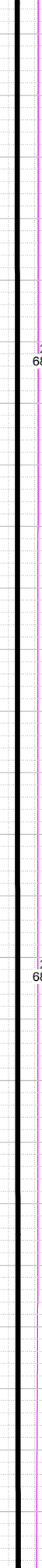
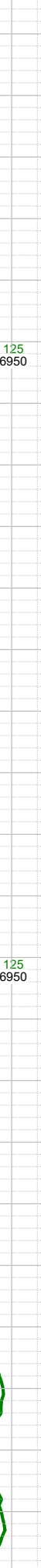
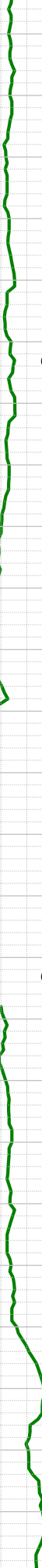
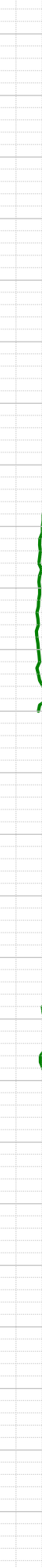
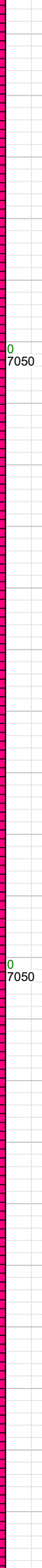
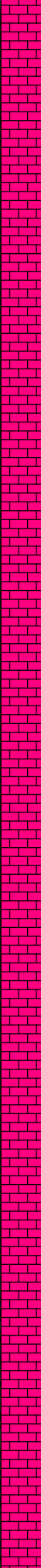
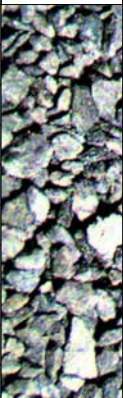
-12400 WT 9.9,  
VIS 47

-12446 INC  
89.84, AZM  
270.18, TVD  
6883.63

-12500 CHK: med gy, sft-  
sbfm, sbblky, mot, v calc,  
rthy lstr; MARL: dk gy-blk,  
sbblky-sbplty, sft-sbfm,  
mod calc, arg; tr bent; tr  
forams; tr fos frags;



-12750  
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-12805 INC  
90.01, AZM  
270.45, TVD  
6883.47

-12820 WT 9.9,  
VIS 49

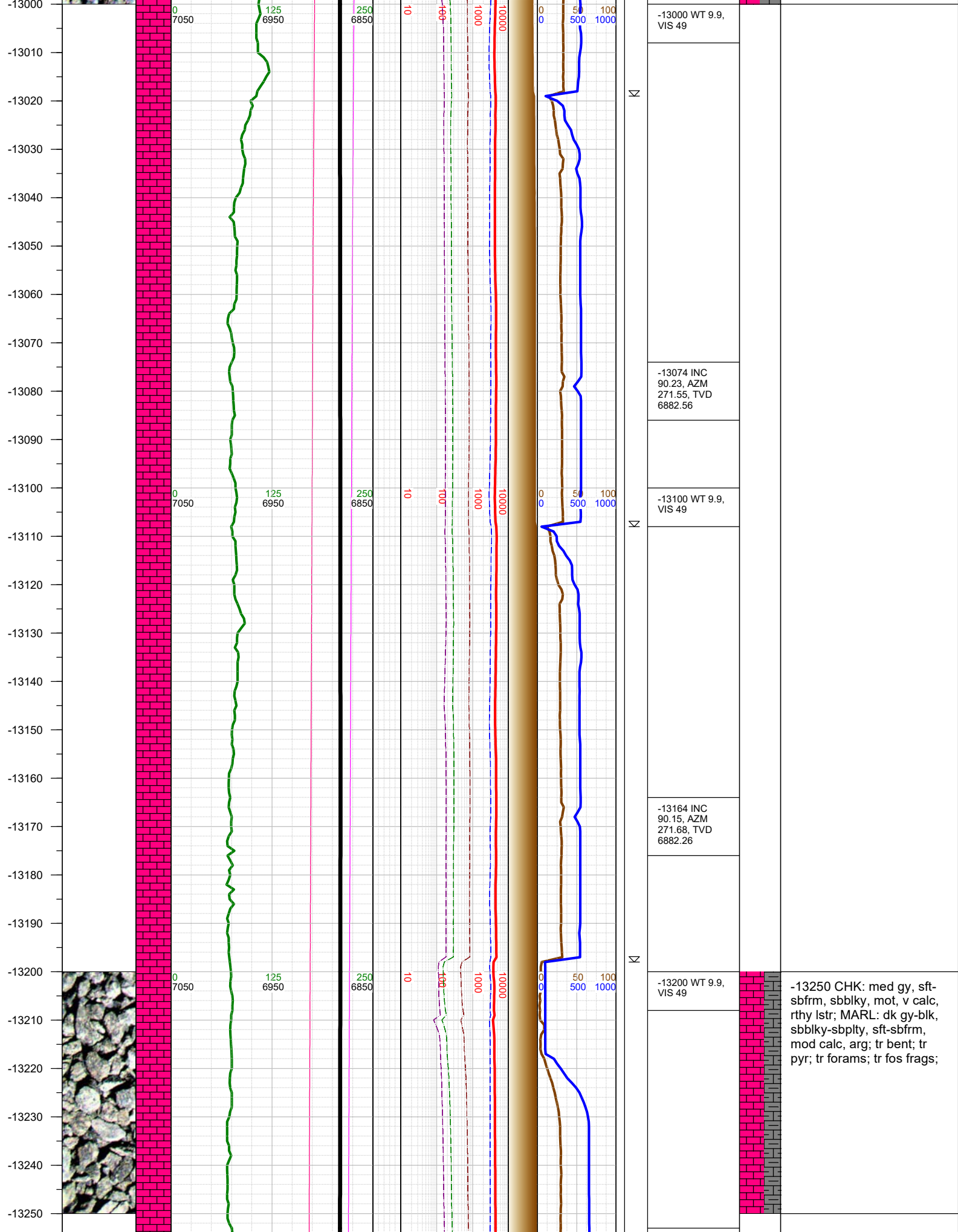
-12895 INC  
90.23, AZM  
271.55, TVD  
6883.28

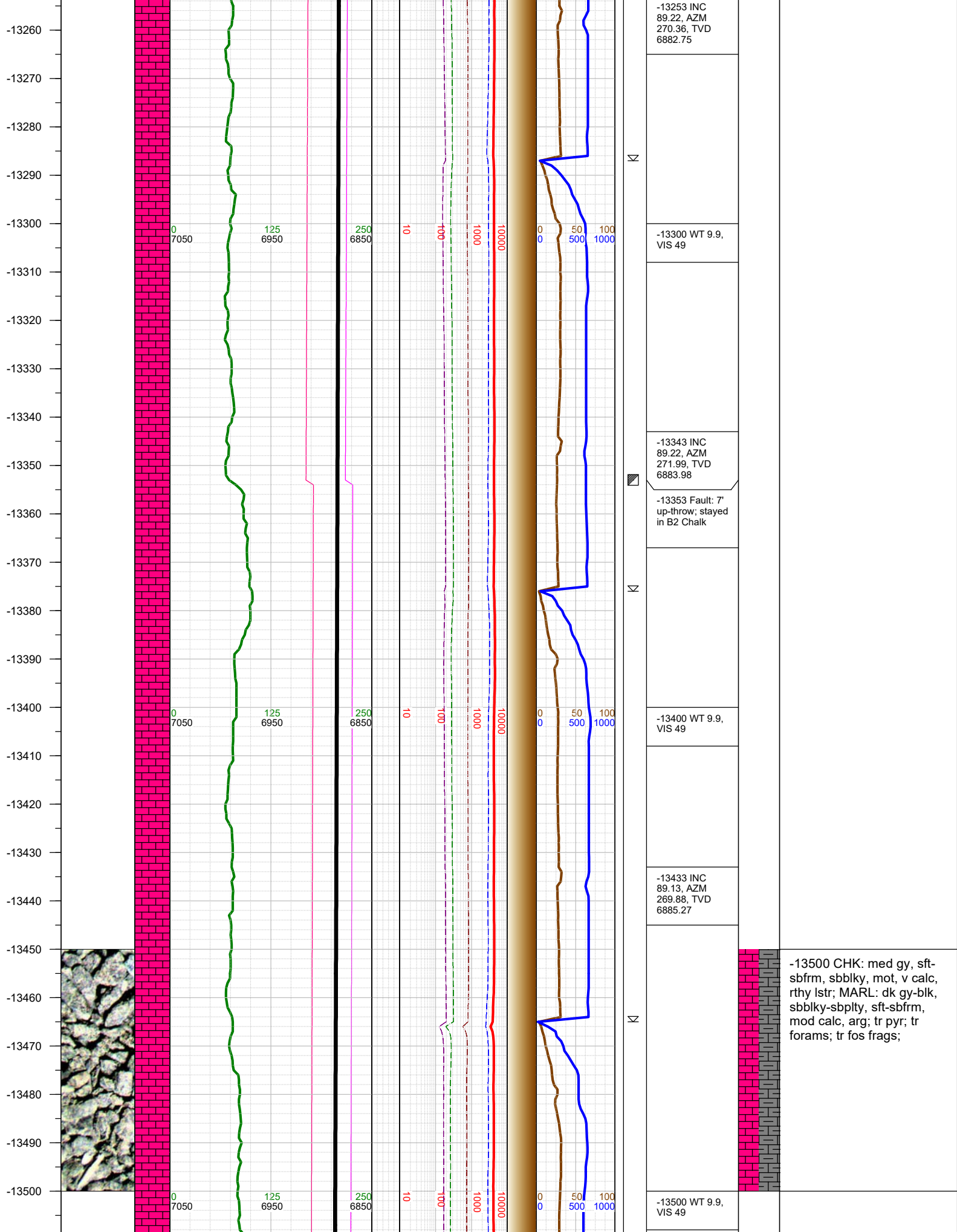
-12910 WT 9.9,  
VIS 49

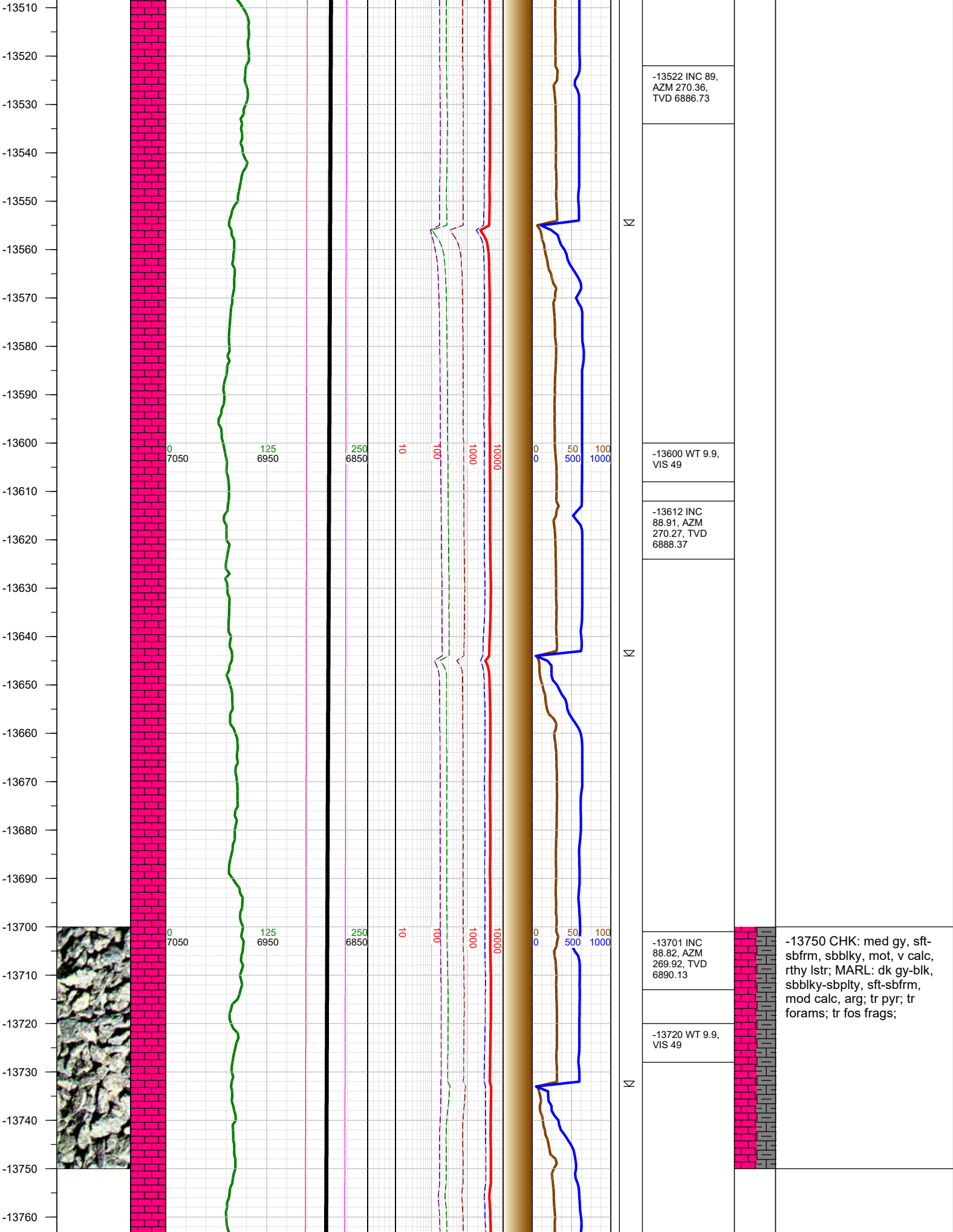
-12984 INC  
90.23, AZM  
271.9, TVD  
6882.92

-13000 CHK: med gy, sft-  
sbfrm, sbblky, mot, v calc,  
rthy lstr; MARL: dk gy-blk,  
sbblky-sbplty, sft-sbfrm,  
mod calc, arg; tr bent; tr  
forams; tr fos frags;

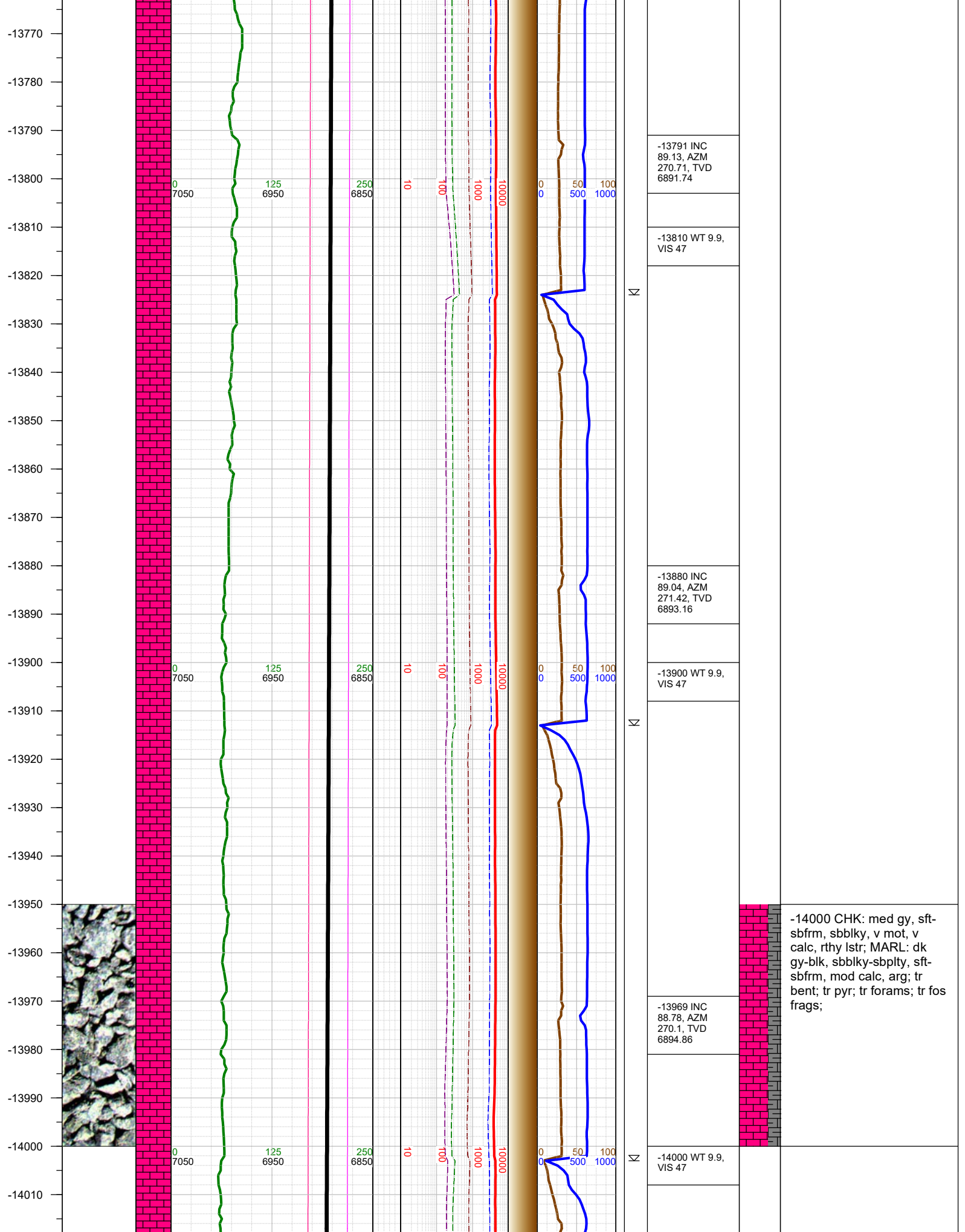


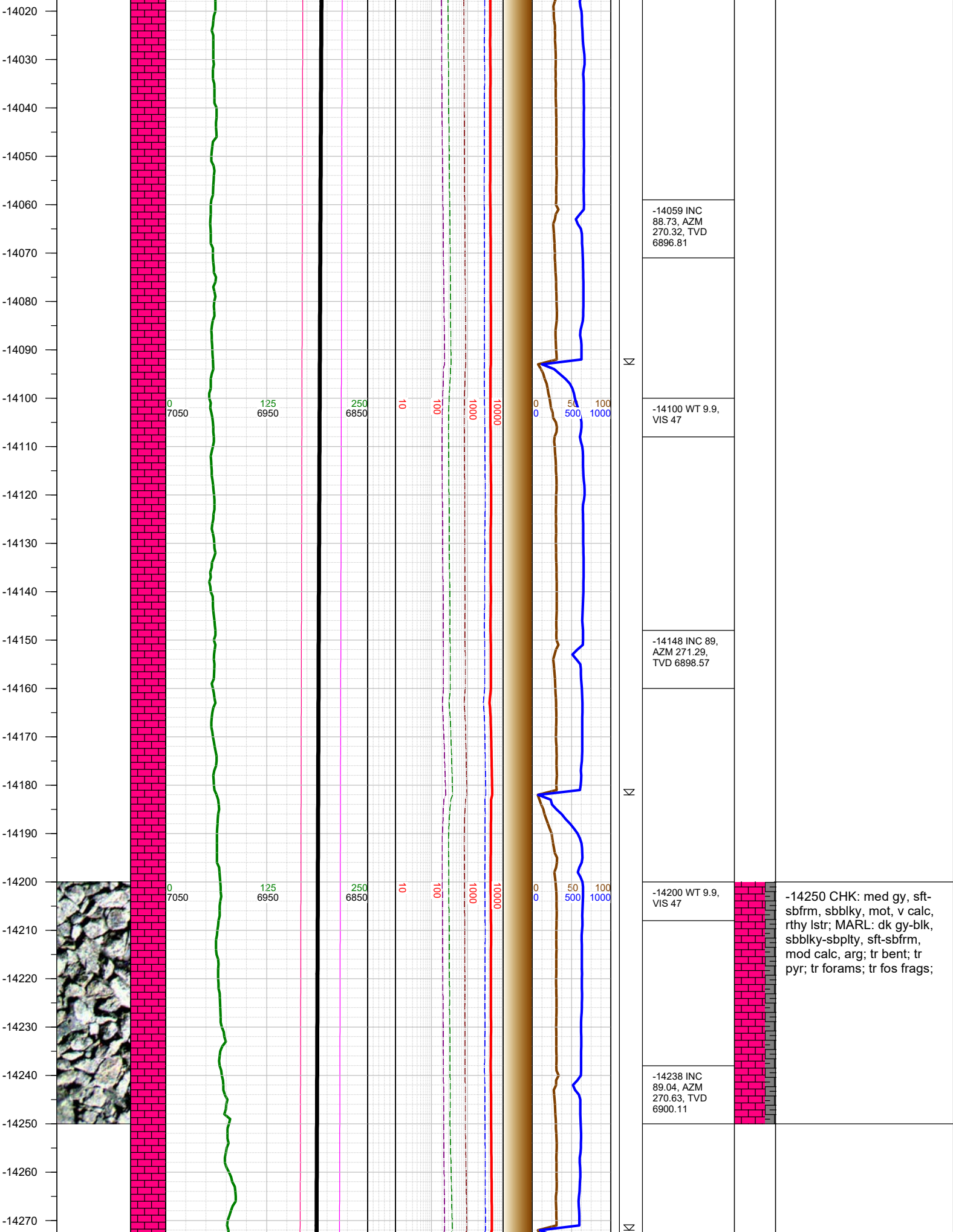


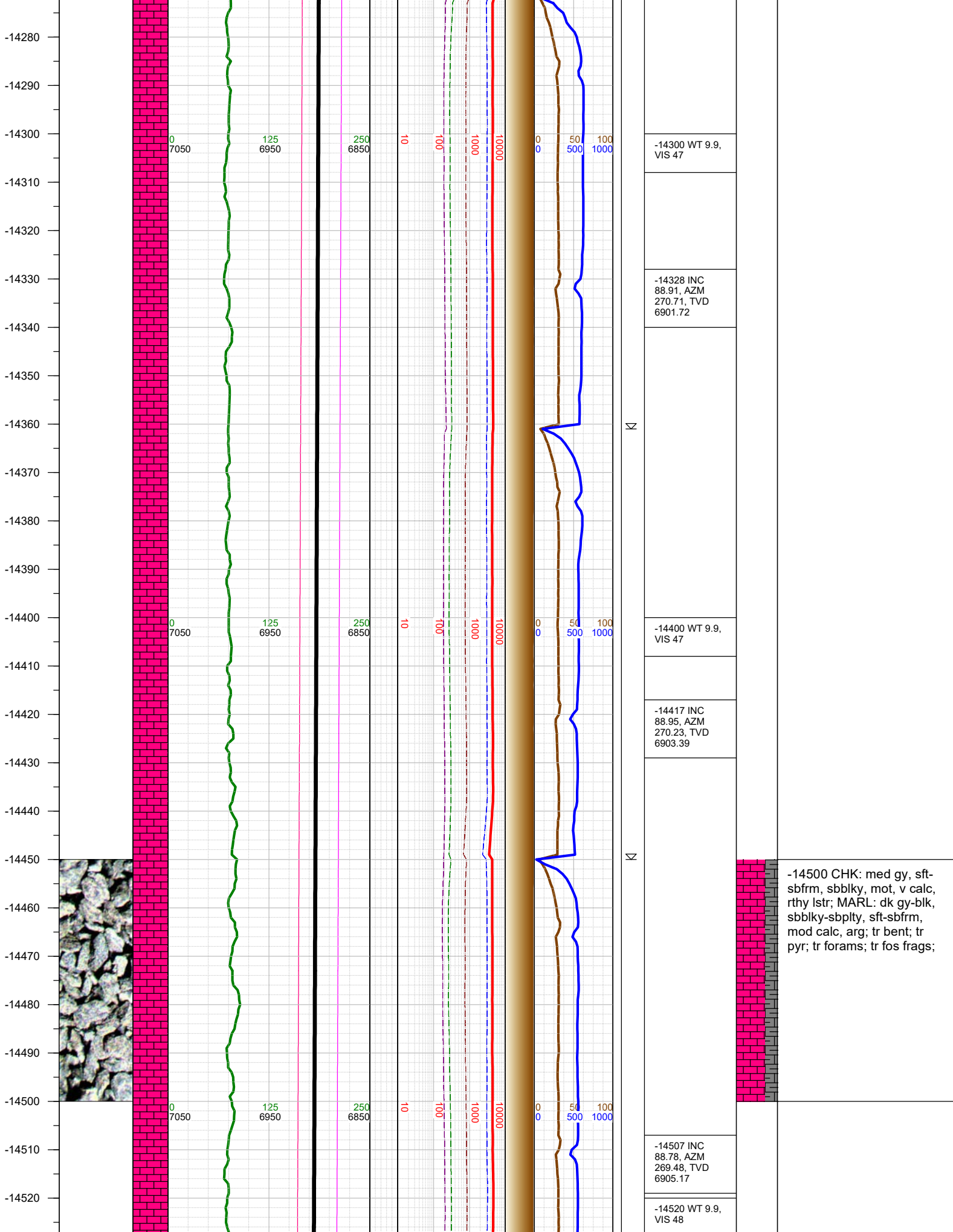




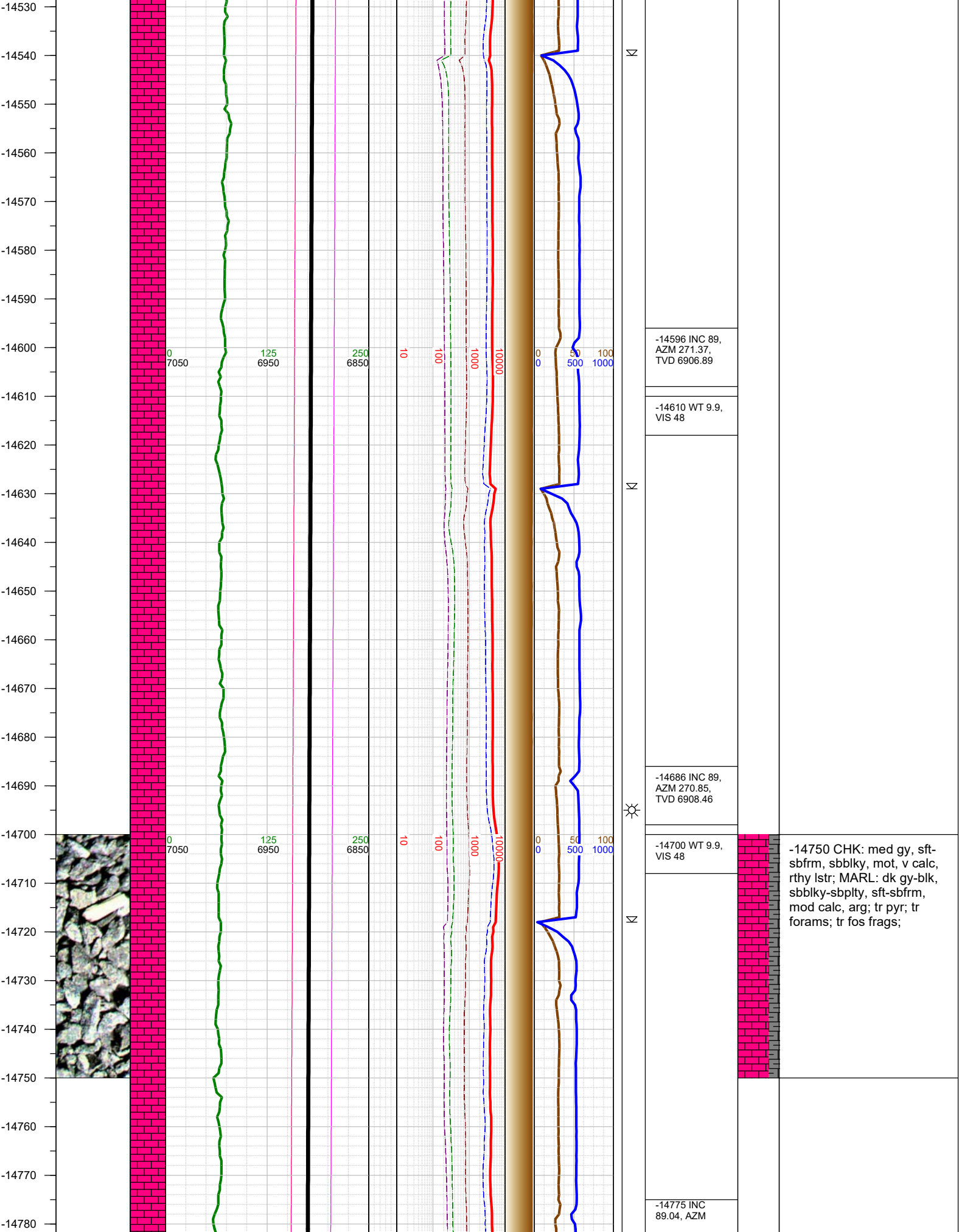


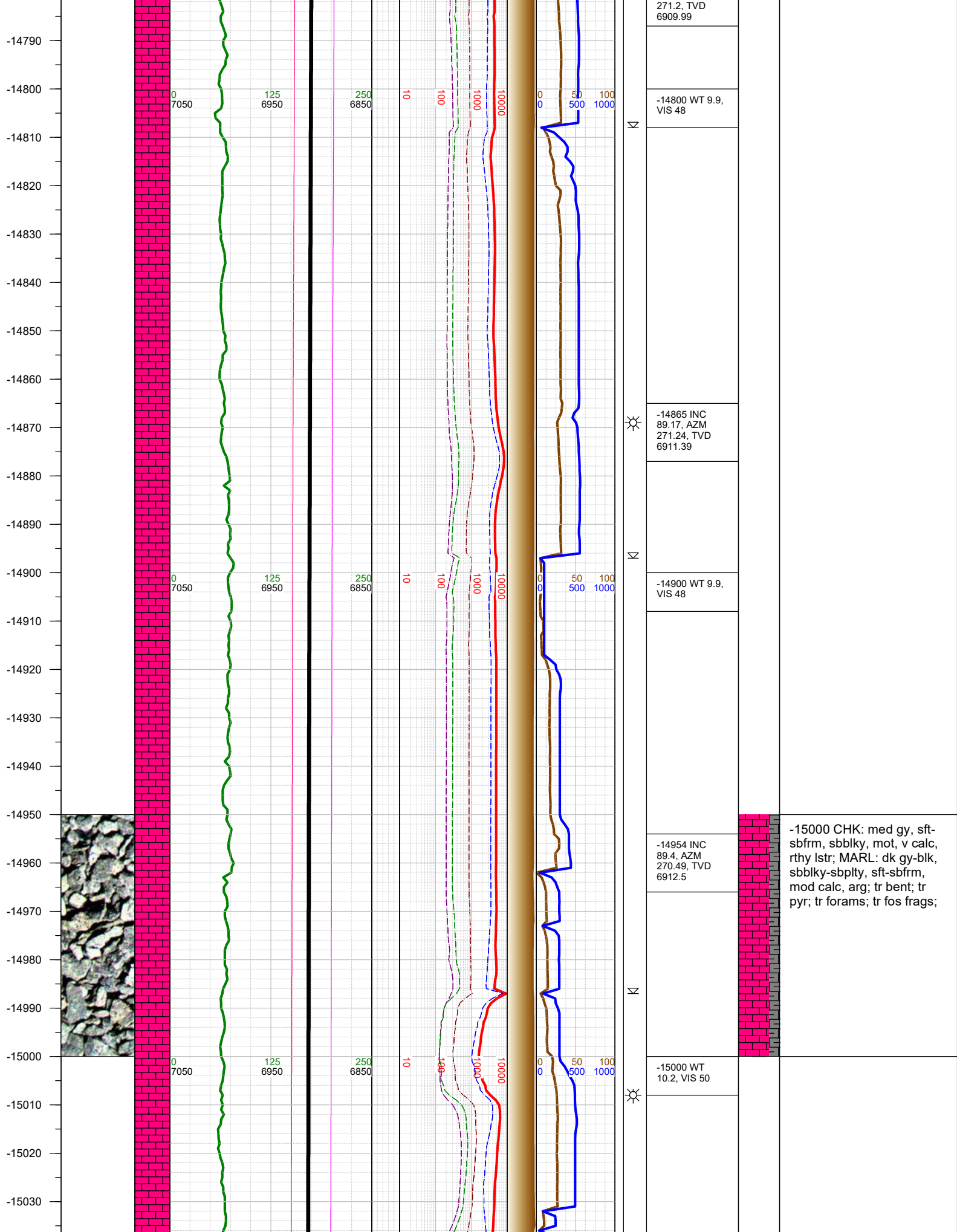


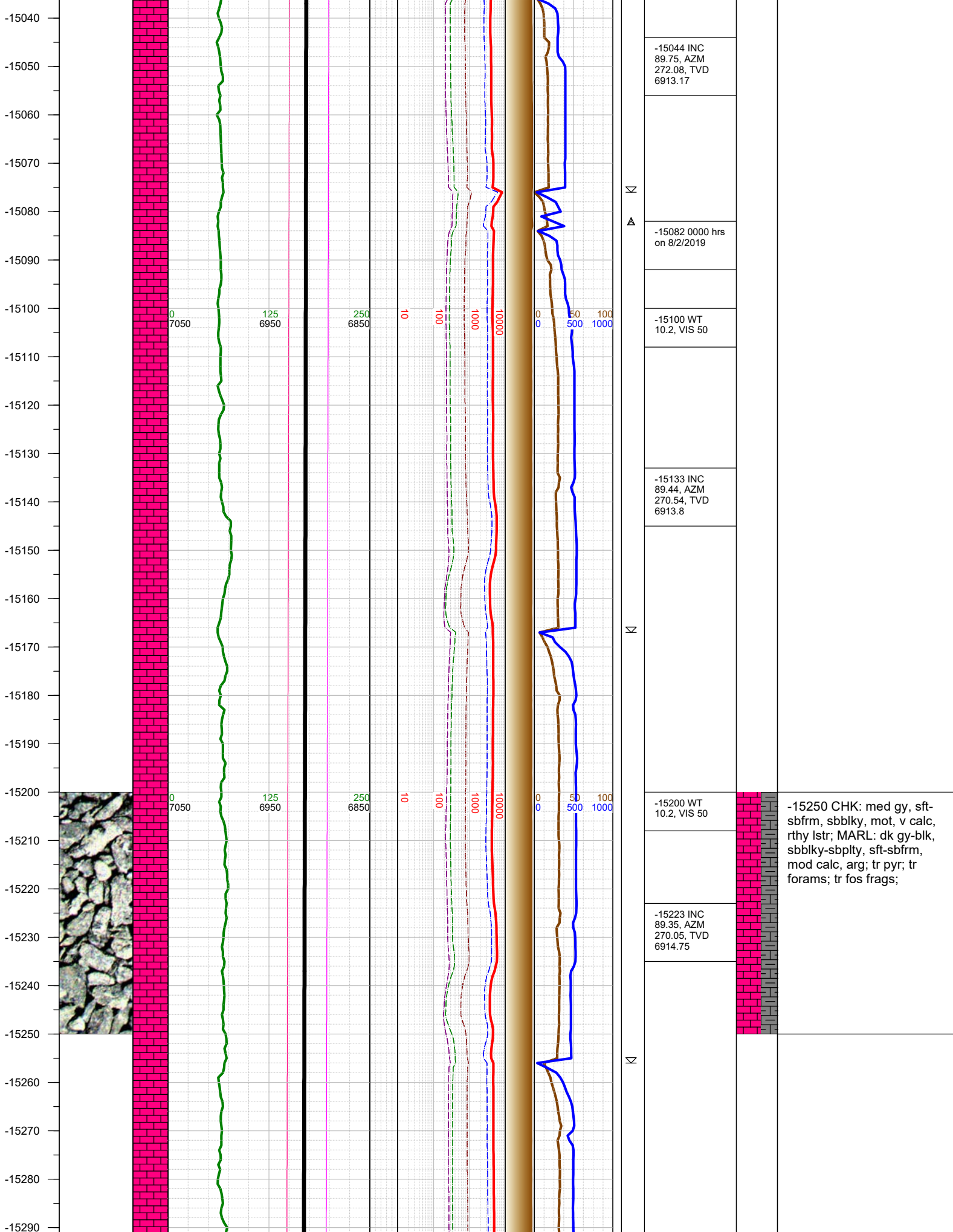




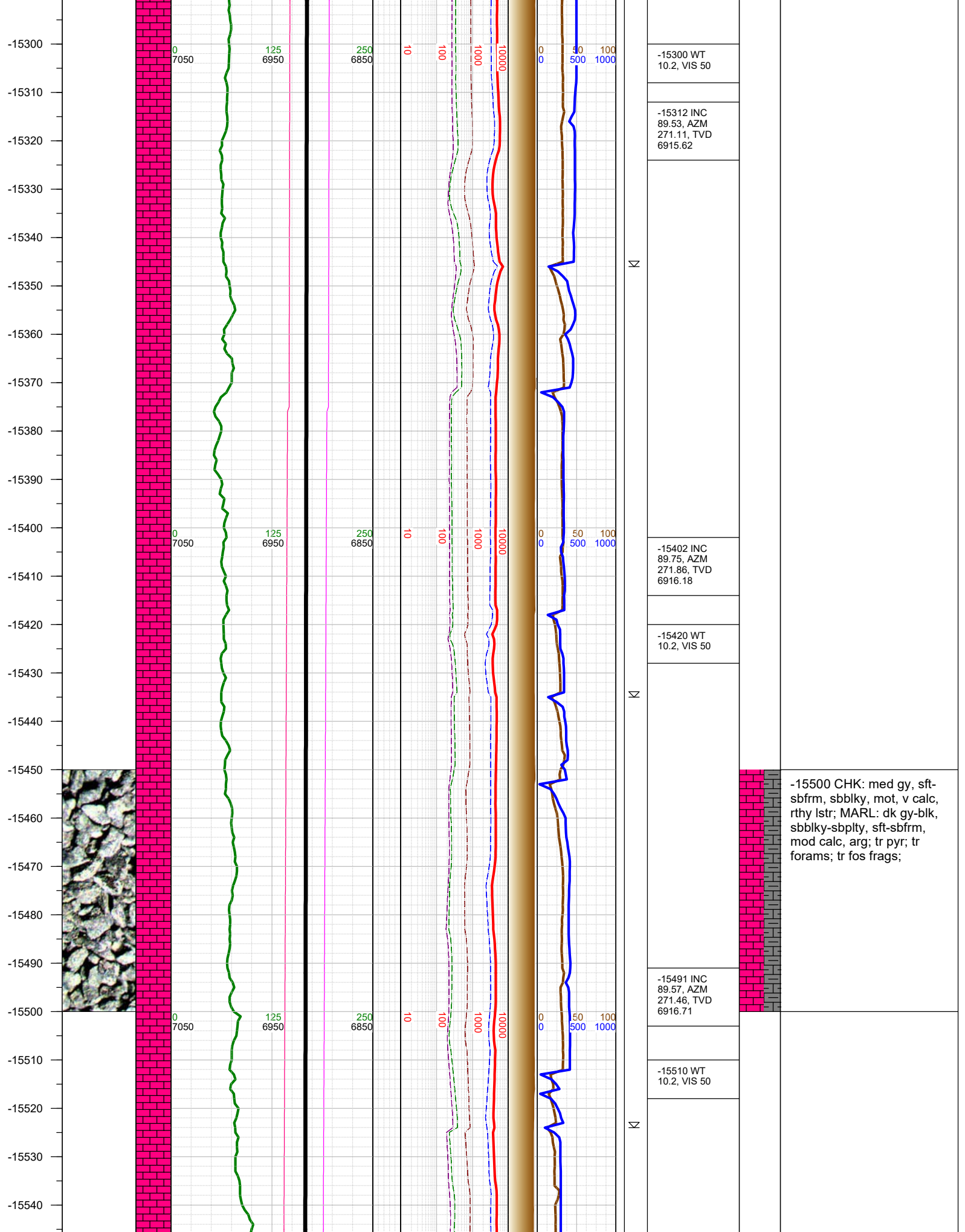


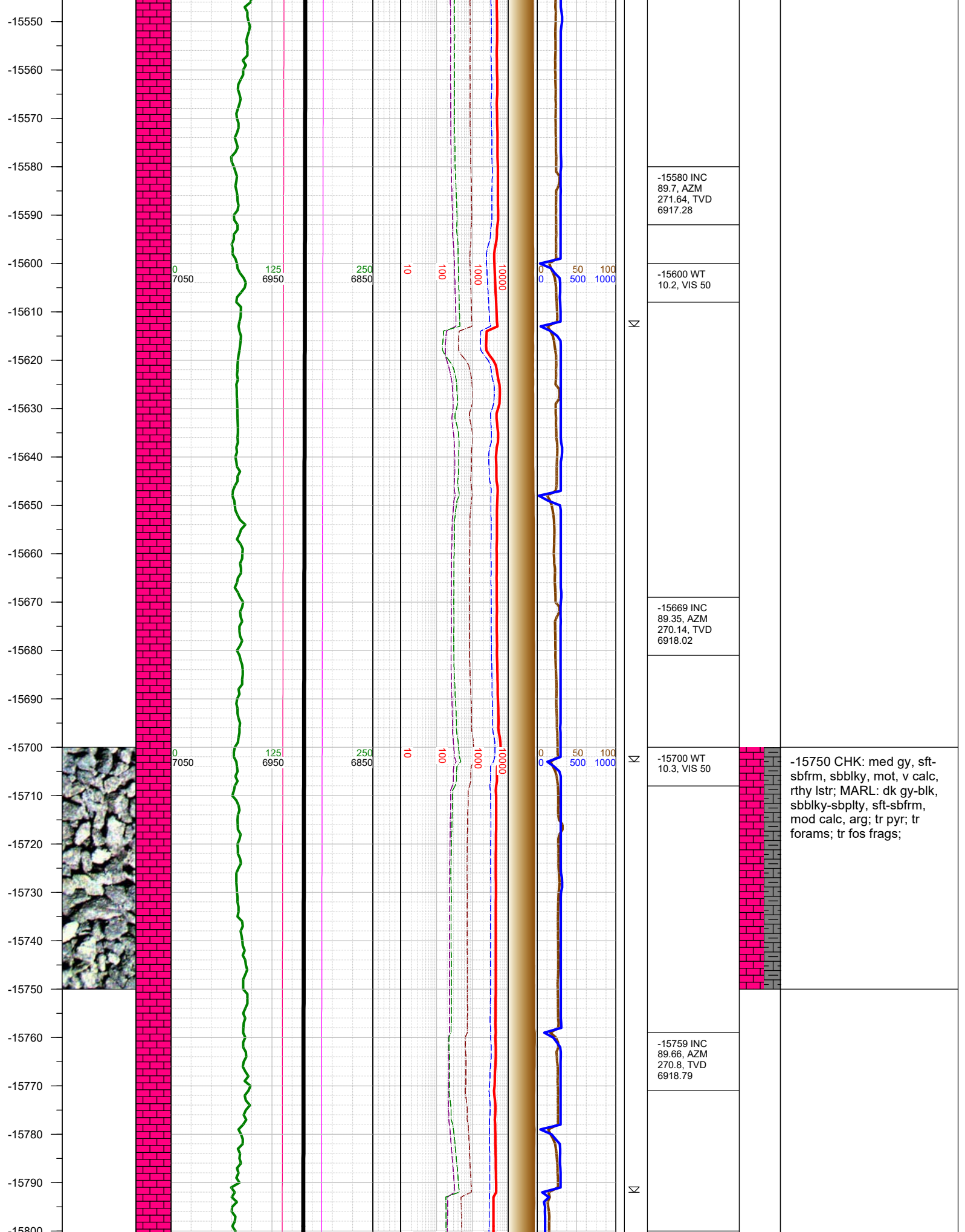


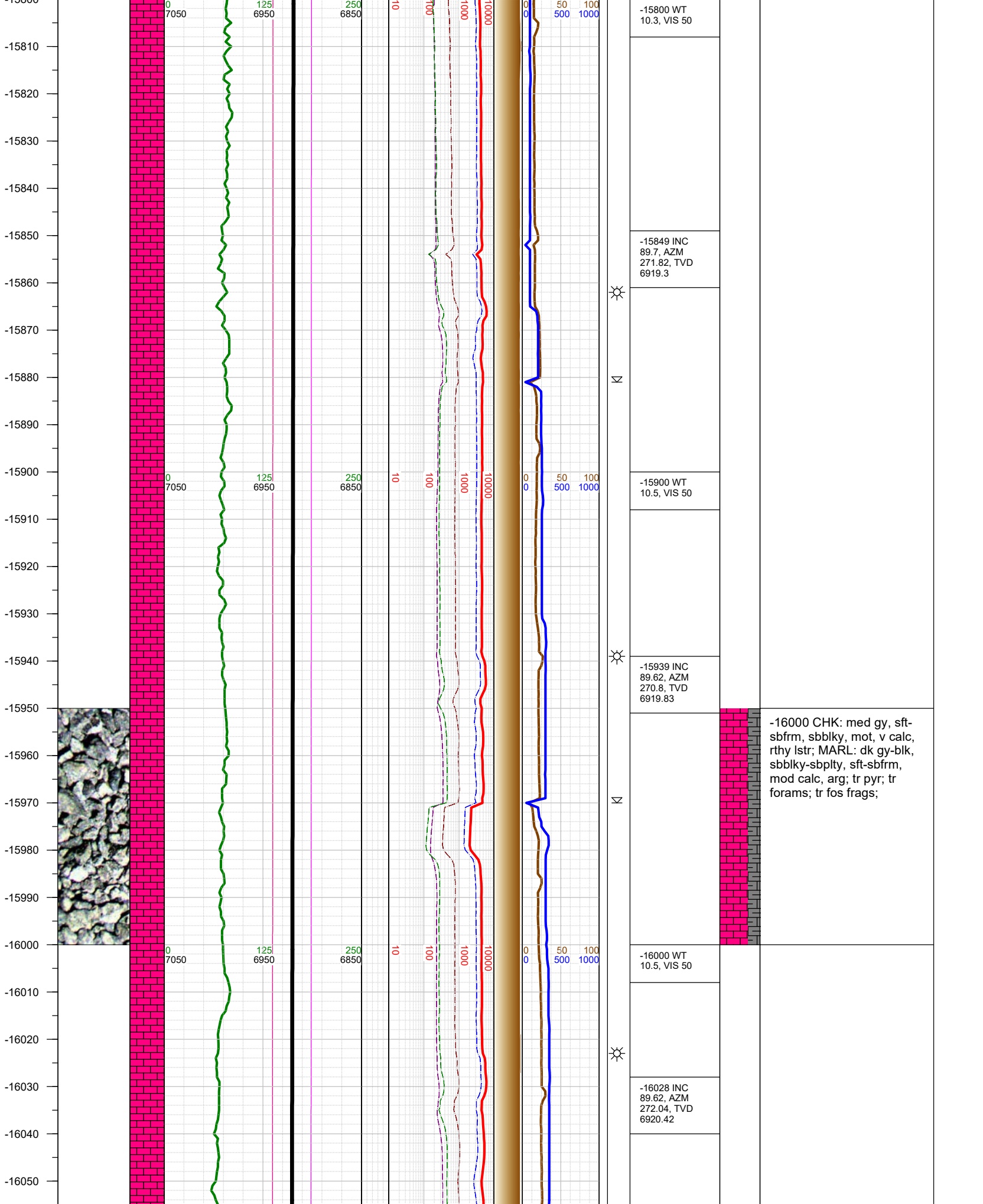




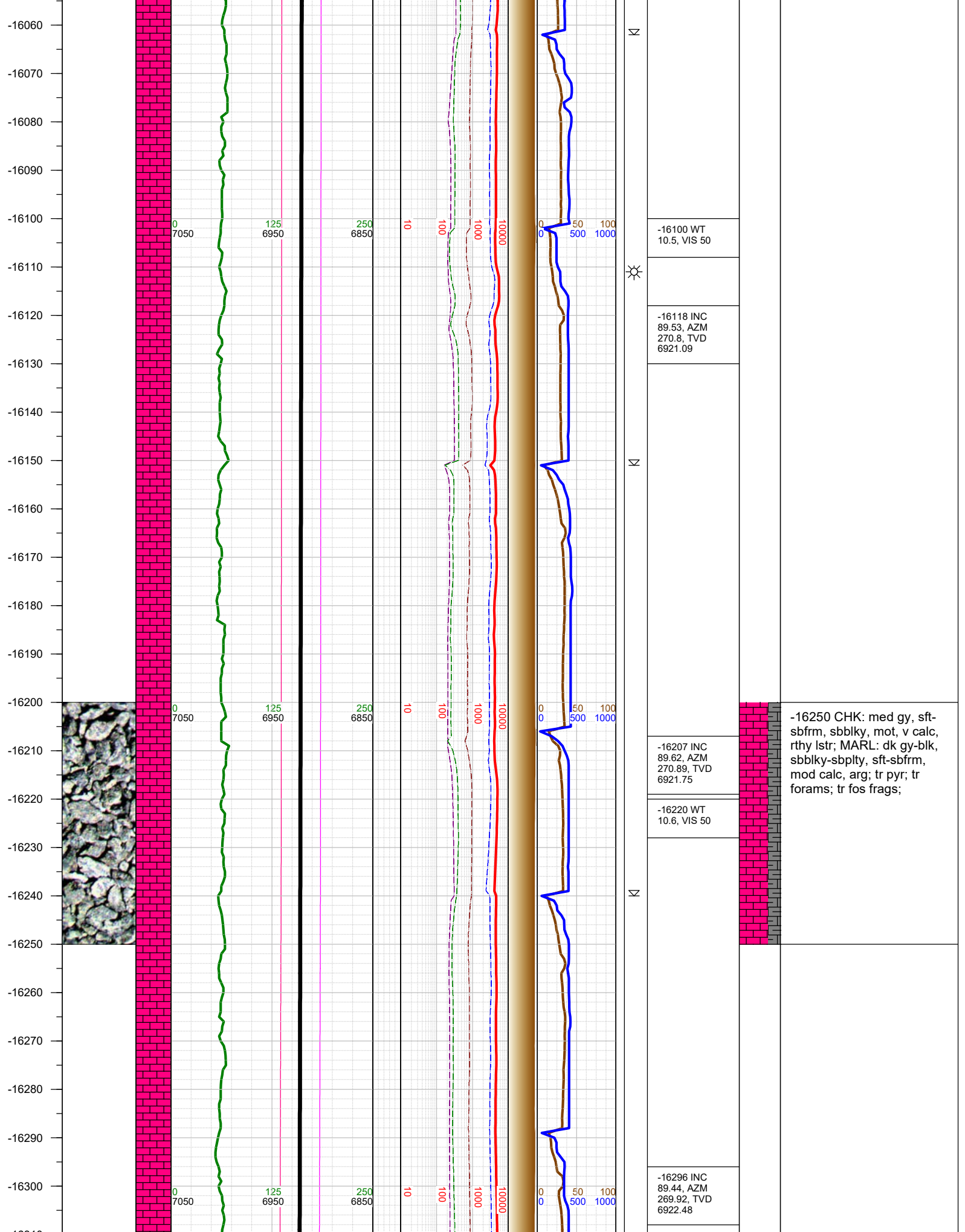


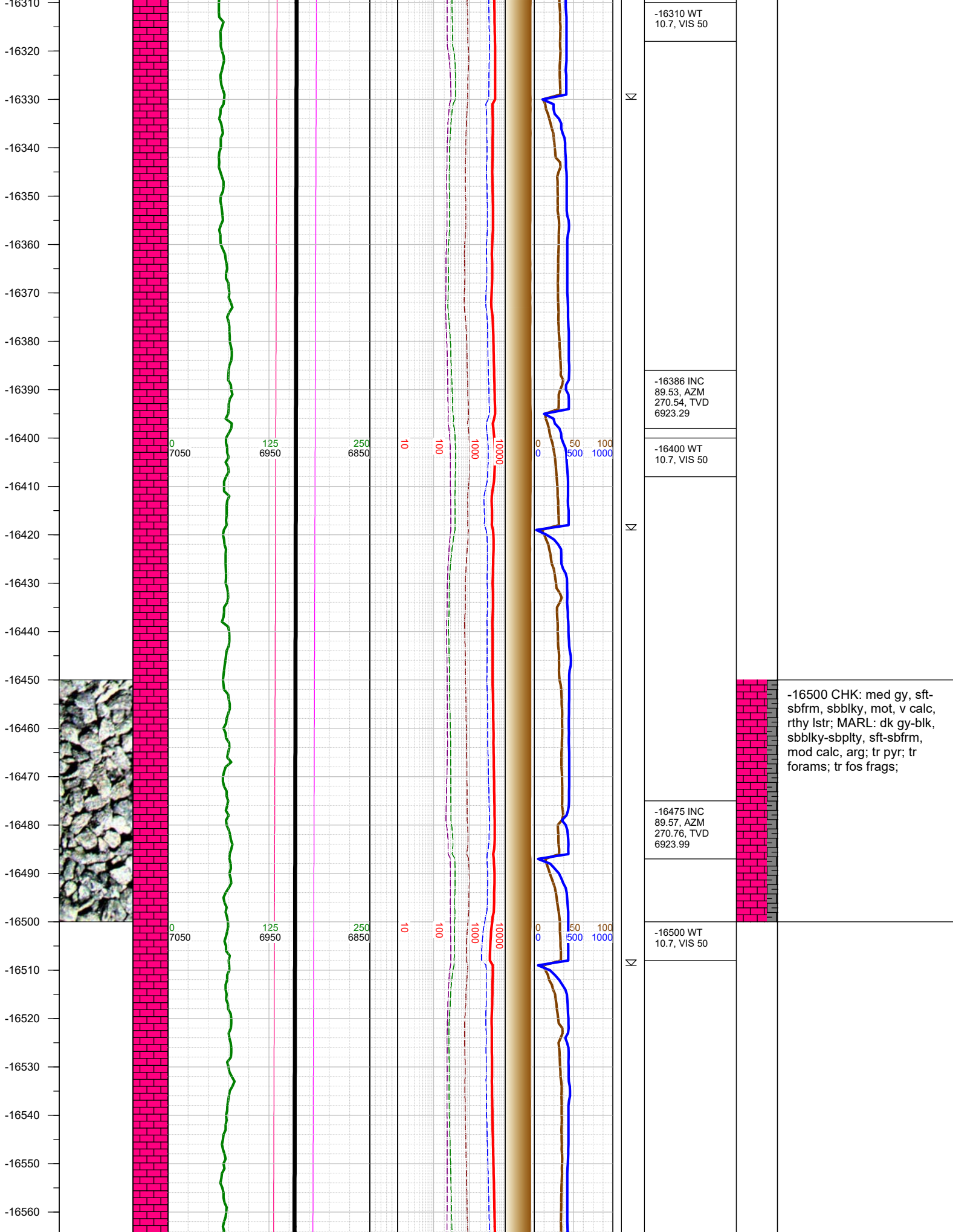












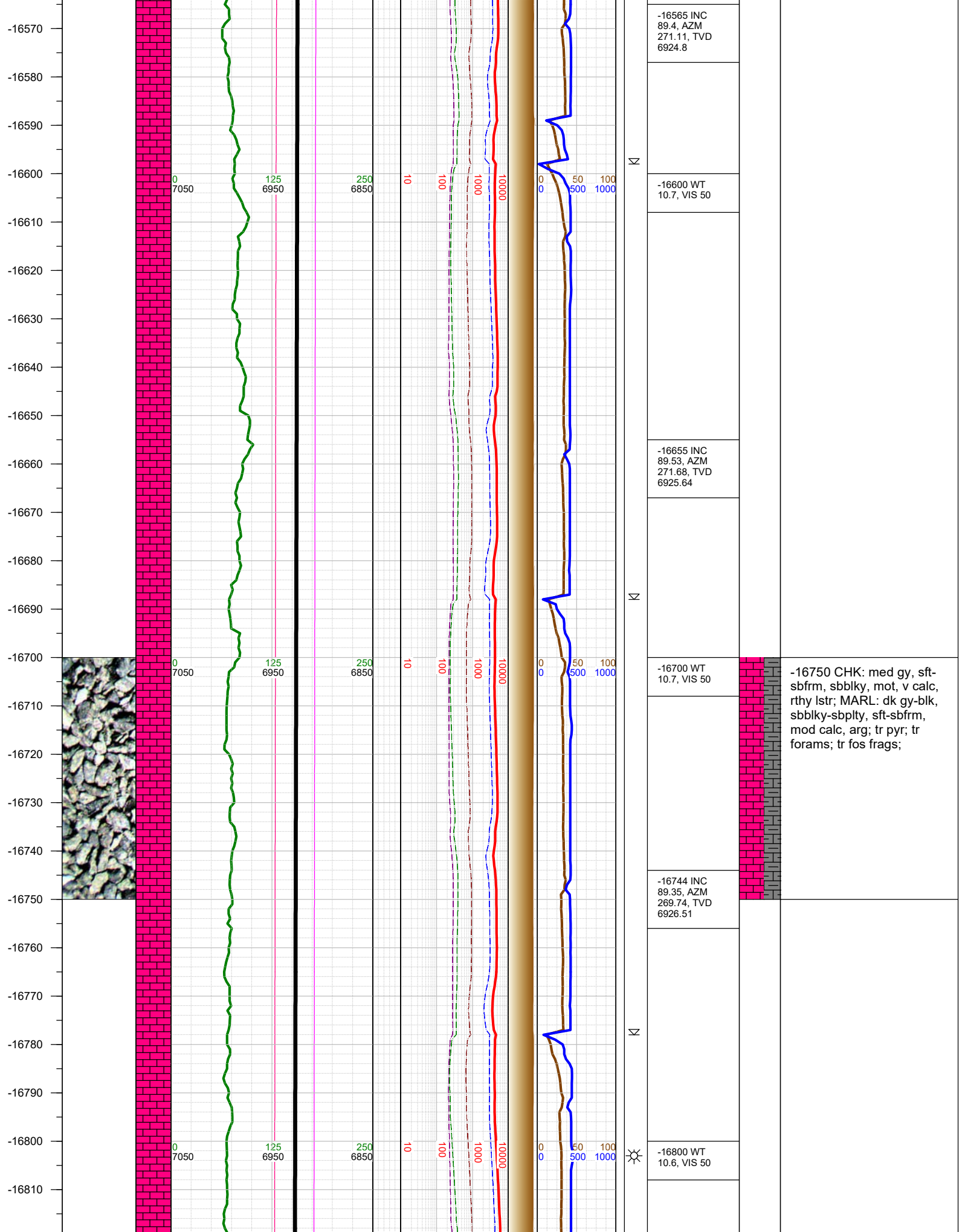
-16310 WT  
10.7, VIS 50

-16386 INC  
89.53, AZM  
270.54, TVD  
6923.29

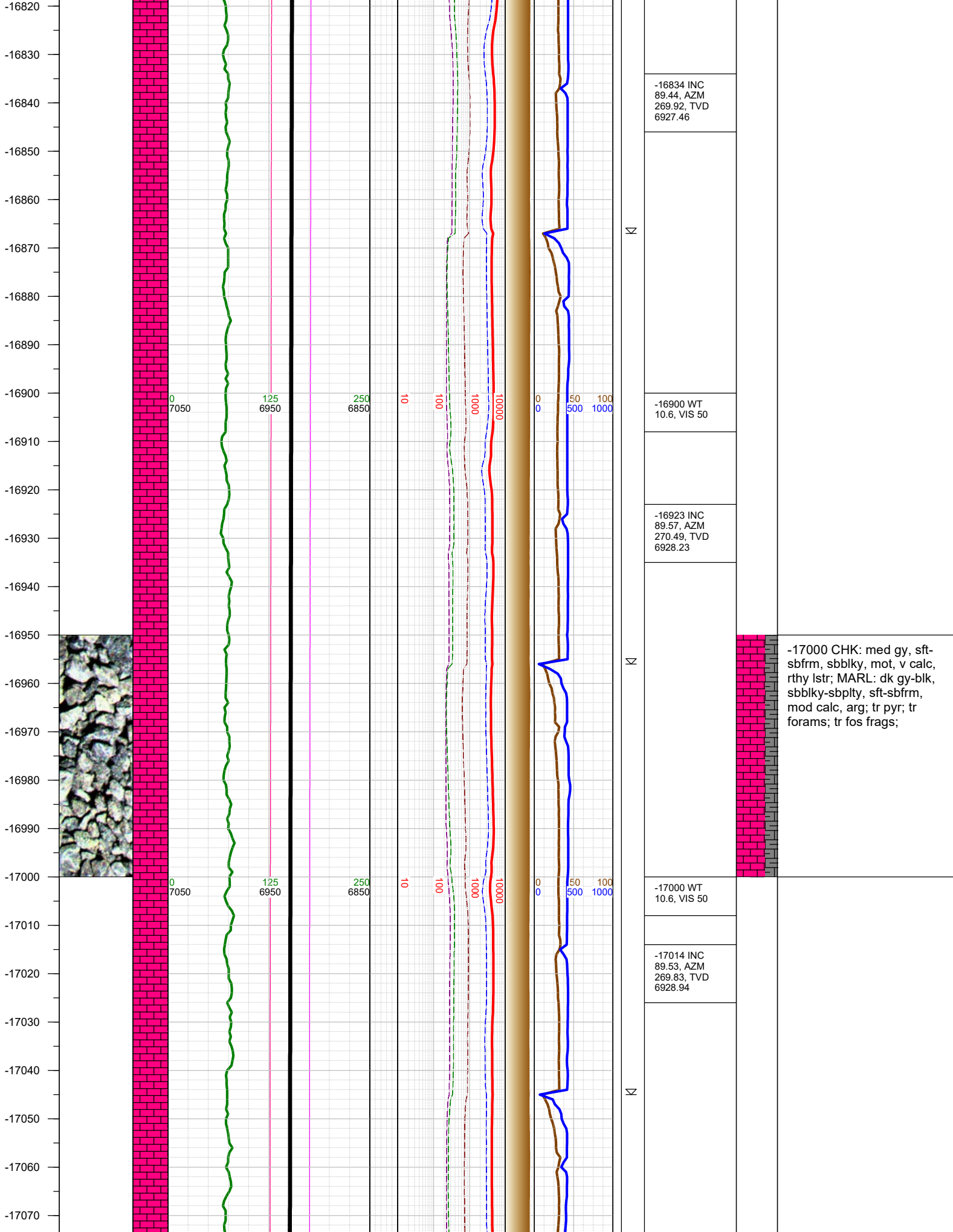
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10.7, VIS 50

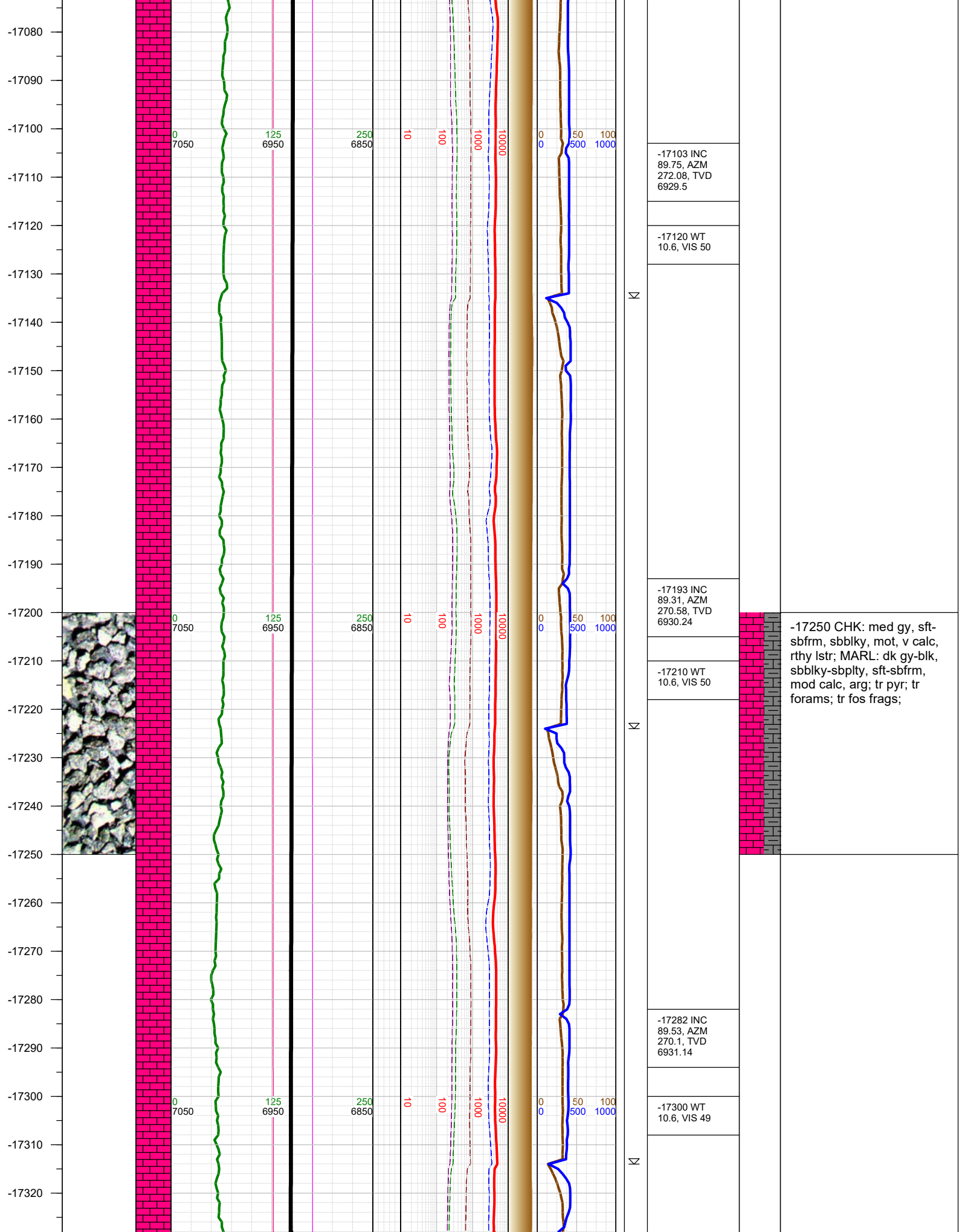
-16475 INC  
89.57, AZM  
270.76, TVD  
6923.99

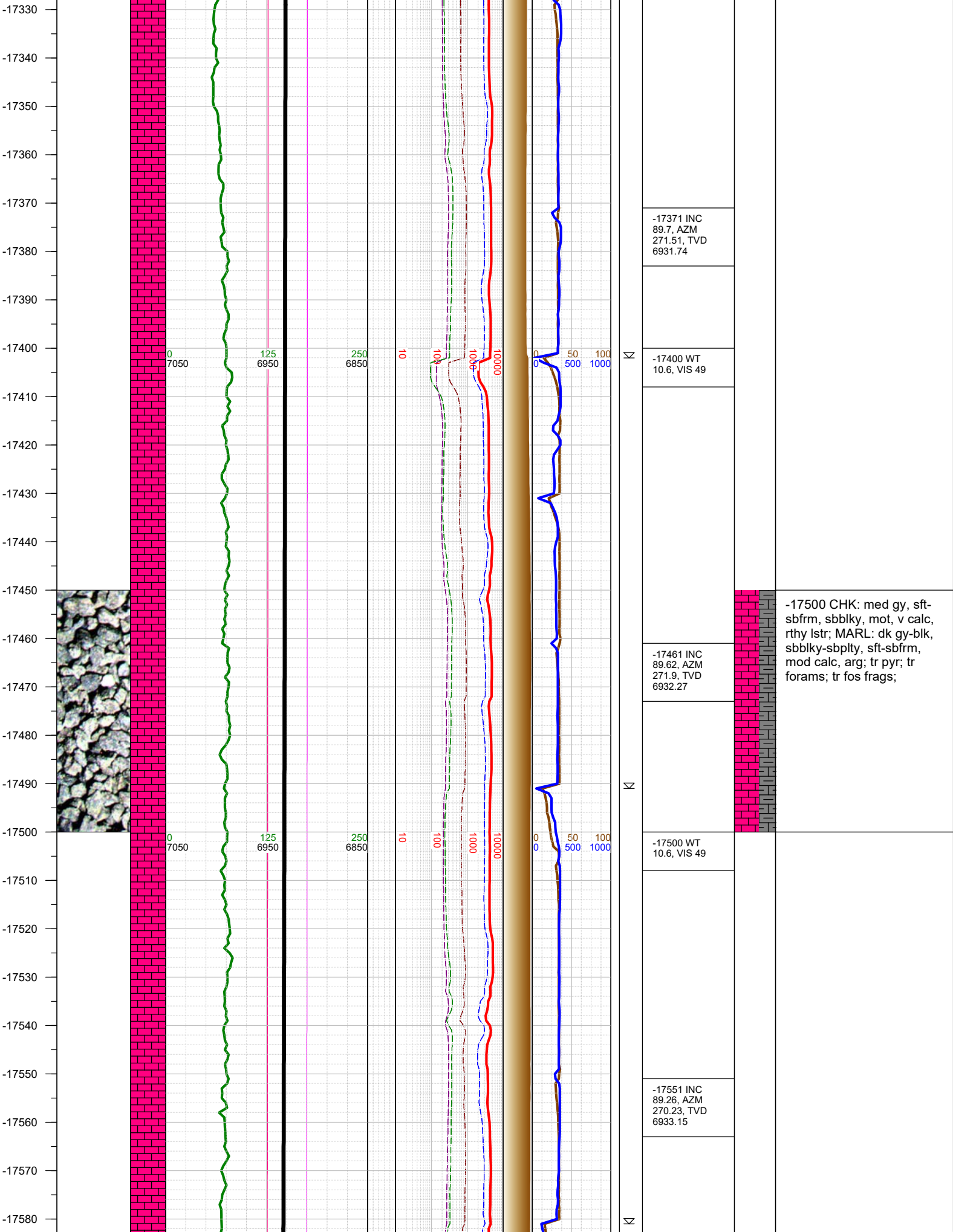
-16500 WT  
10.7, VIS 50



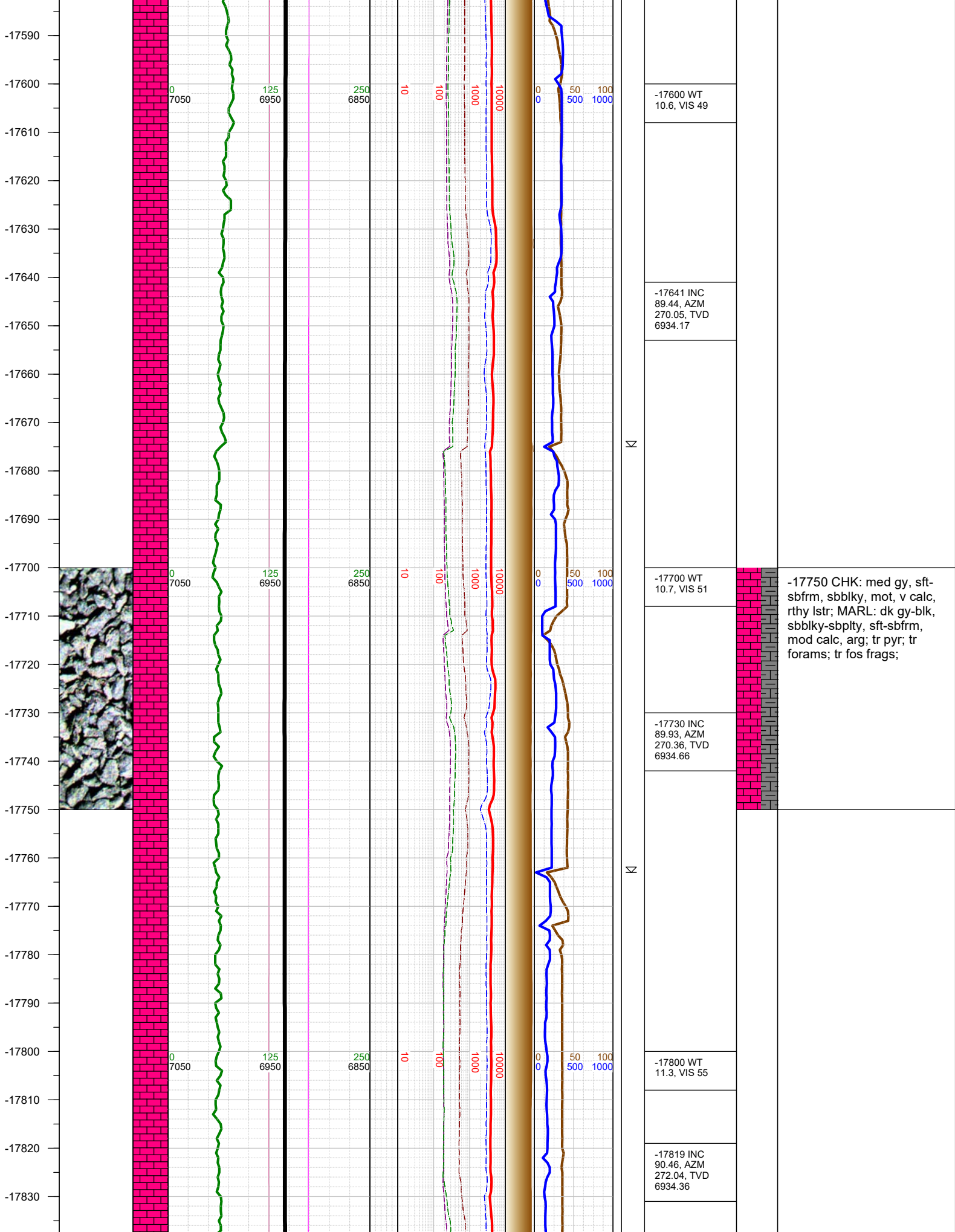


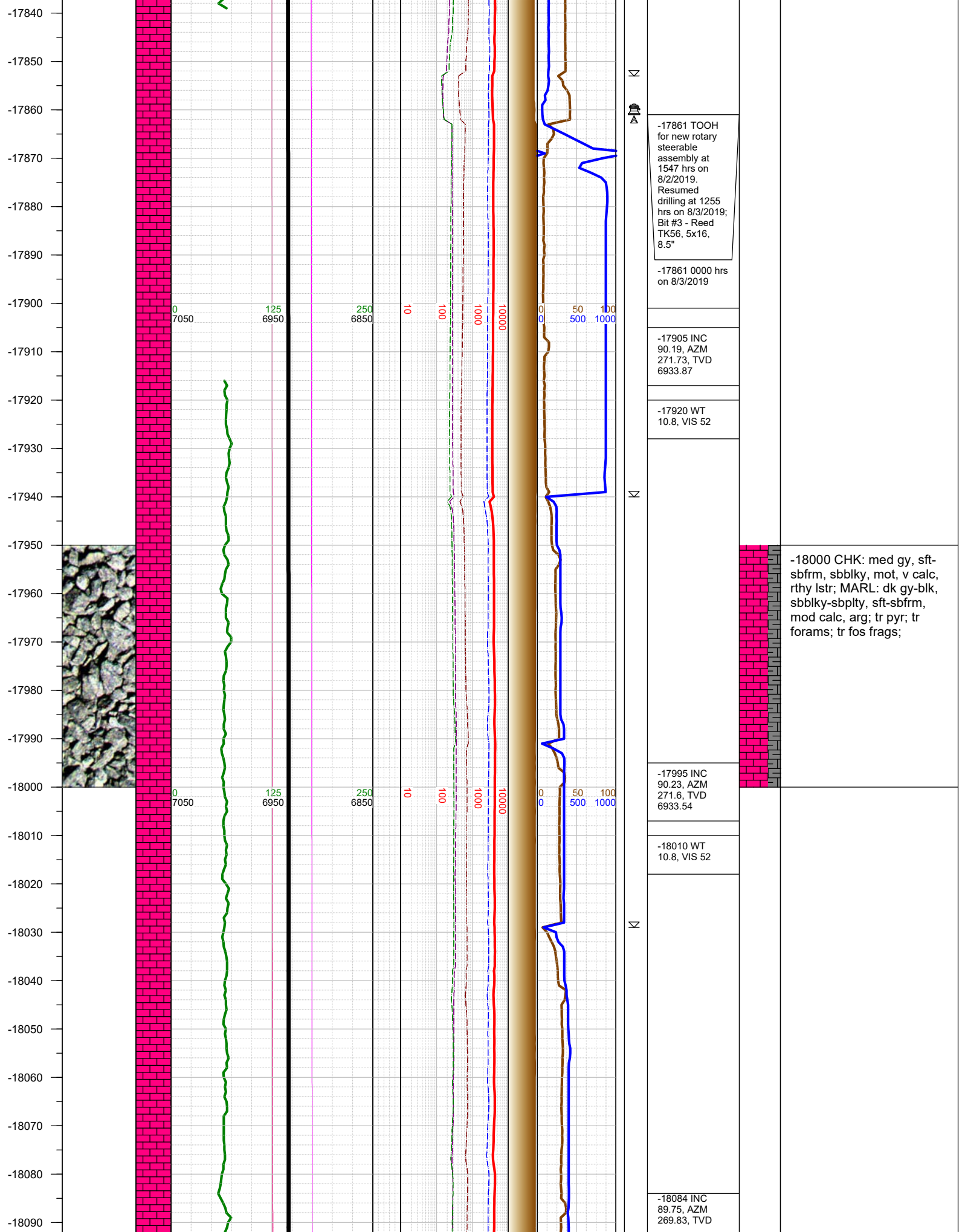


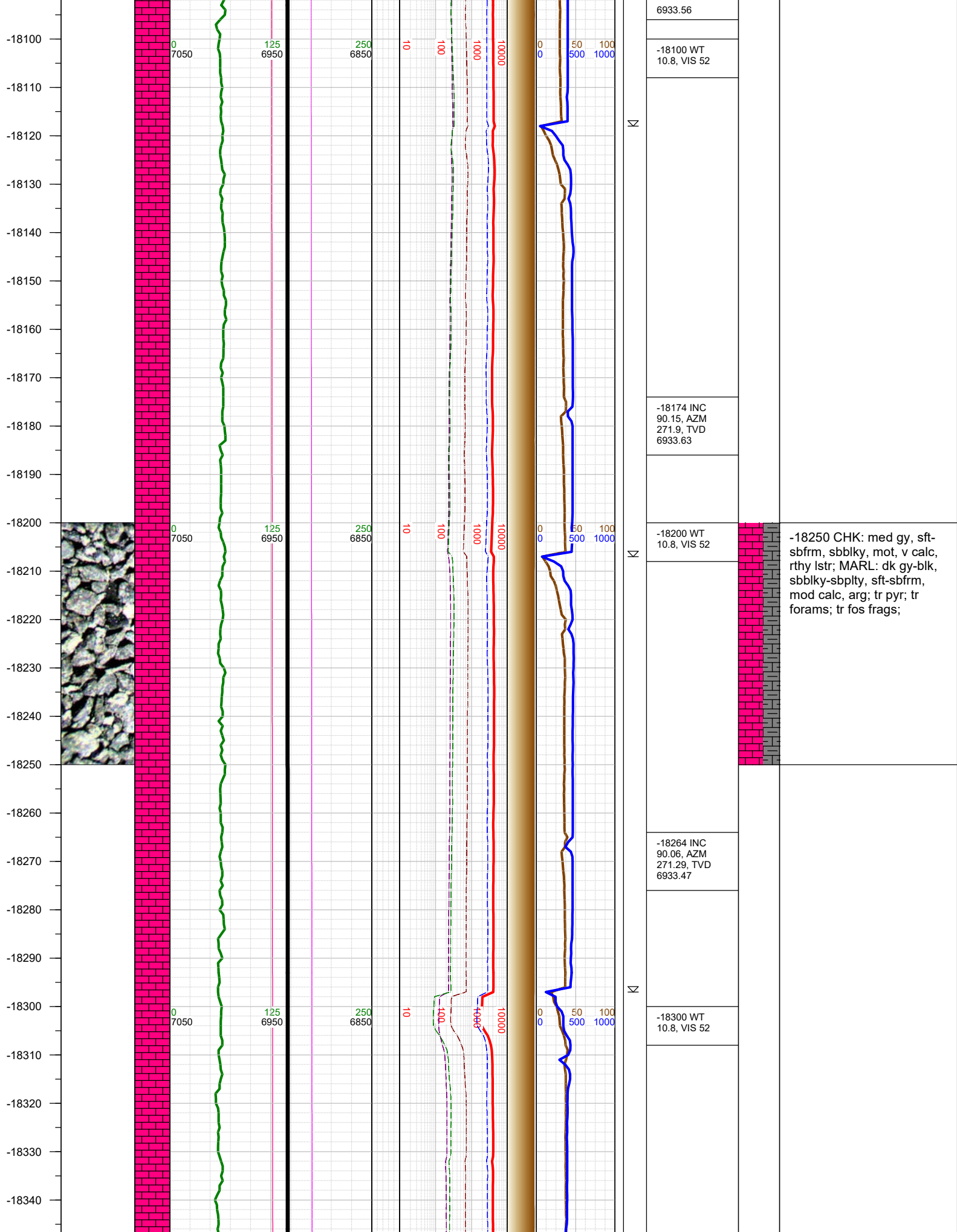




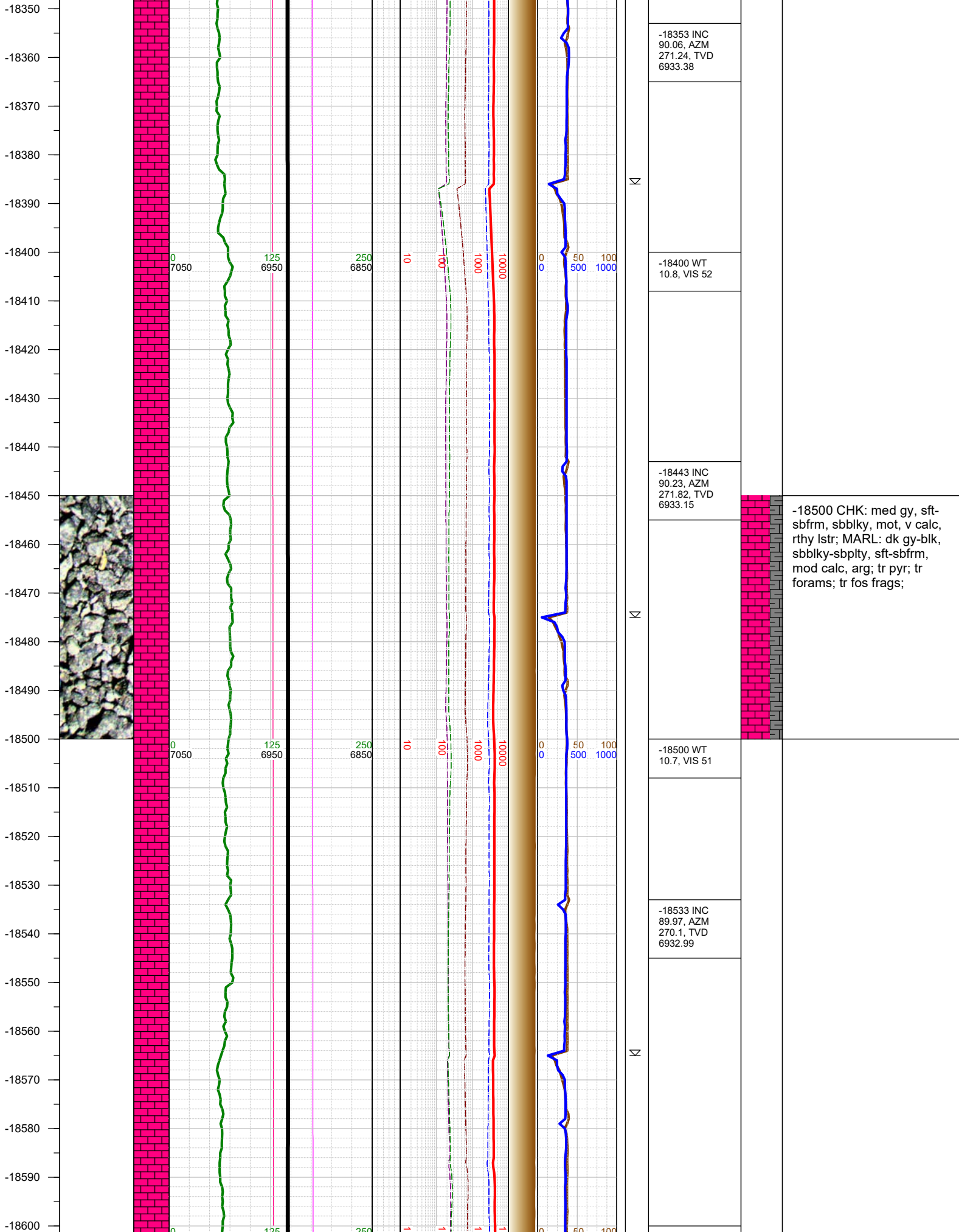


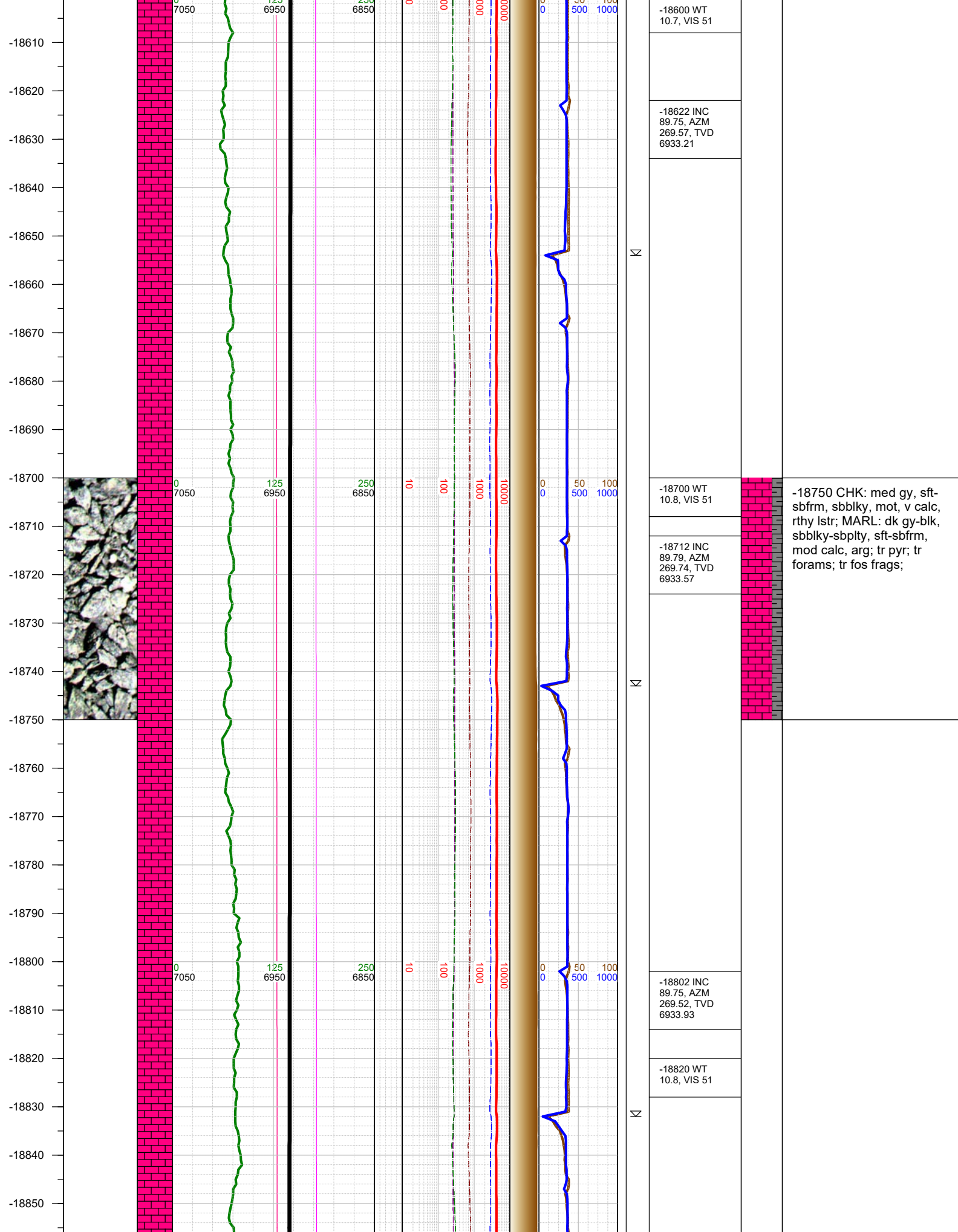


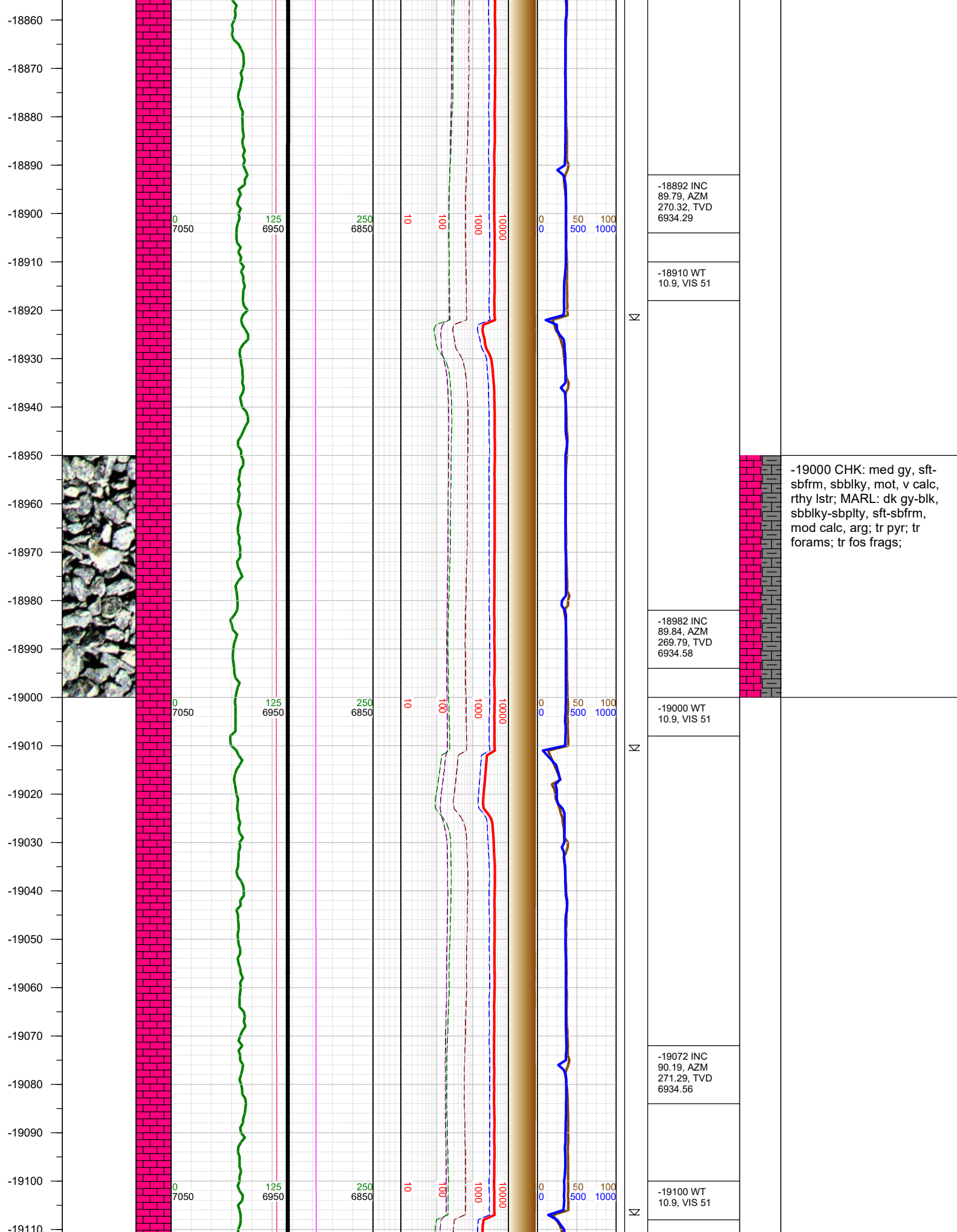




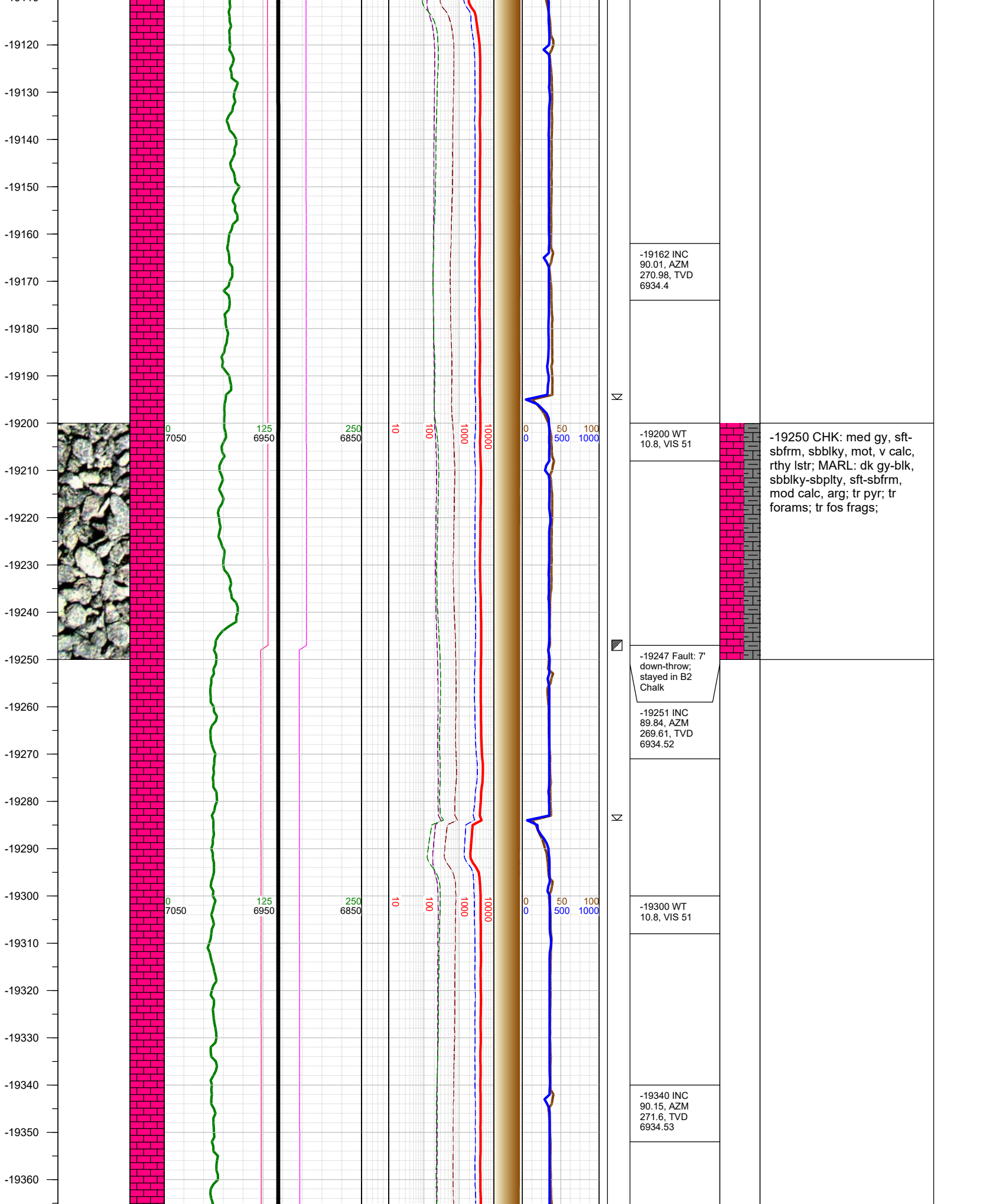












-19120  
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-19320  
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-19340  
-19350  
-19360



0 125 250 10 100 1000 10000  
7050 6950 6850  
0 50 100  
0 500 1000

-19162 INC  
90.01, AZM  
270.98, TVD  
6934.4

-19200 WT  
10.8, VIS 51

⌵

-19250 CHK: med gy, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, arg; tr pyr; tr forams; tr fos frags;

▨

-19247 Fault: 7' down-throw; stayed in B2 Chalk

-19251 INC  
89.84, AZM  
269.61, TVD  
6934.52

⌵

-19300 WT  
10.8, VIS 51

-19340 INC  
90.15, AZM  
271.6, TVD  
6934.53

