

OPERATOR: **Extraction Oil & Gas**
WELL NAME: **Interchange B S22-30-14N**
FIELD NAME: DJ Basin - Wattenberg
DRILLING RIG: Patterson 901
API #: 05-014-20779

LAT/LONG: 39.978152, -104.99122
SURFACE HOLE: NESW S10-T1S-R68W, 2196' FSL, 1671' FWL
BOTTOM HOLE: S22-T1S-R68W, 460' FSL, 1491' FEL

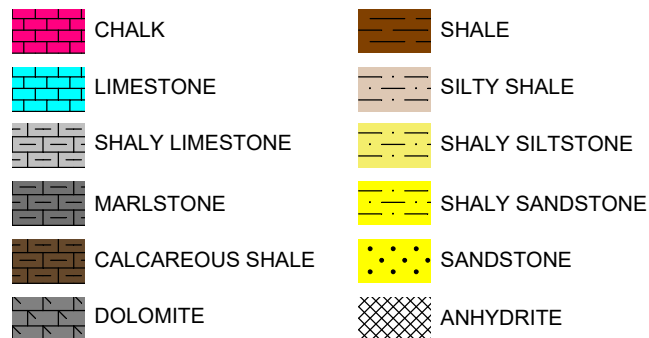


Earth Science Agency, LLC

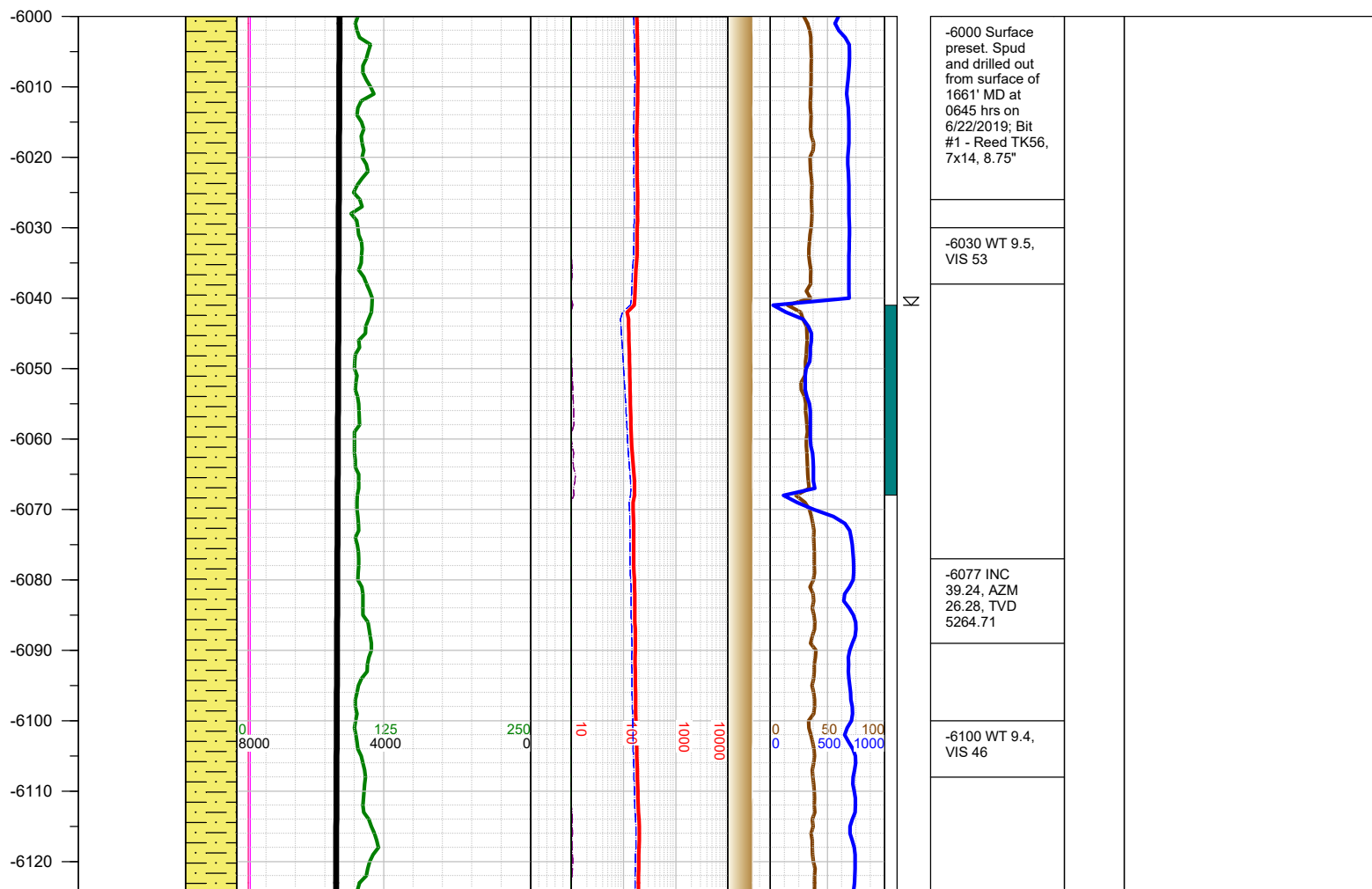
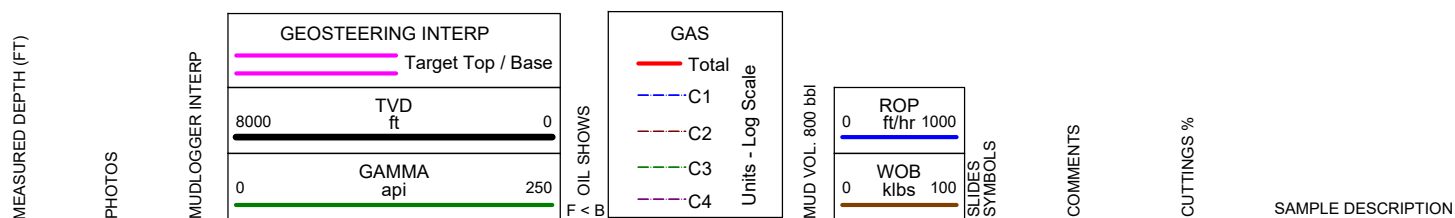
COUNTY: Broomfield
STATE: Colorado
GROUND ELEVATION: 5206'
KELLY BUSHING: 5235'
DRILLING FLUID: OBM
TVD VS. MD: 7751' / 24392'
SPUD DATE: June 22, 2019
TD DATE: June 25, 2019

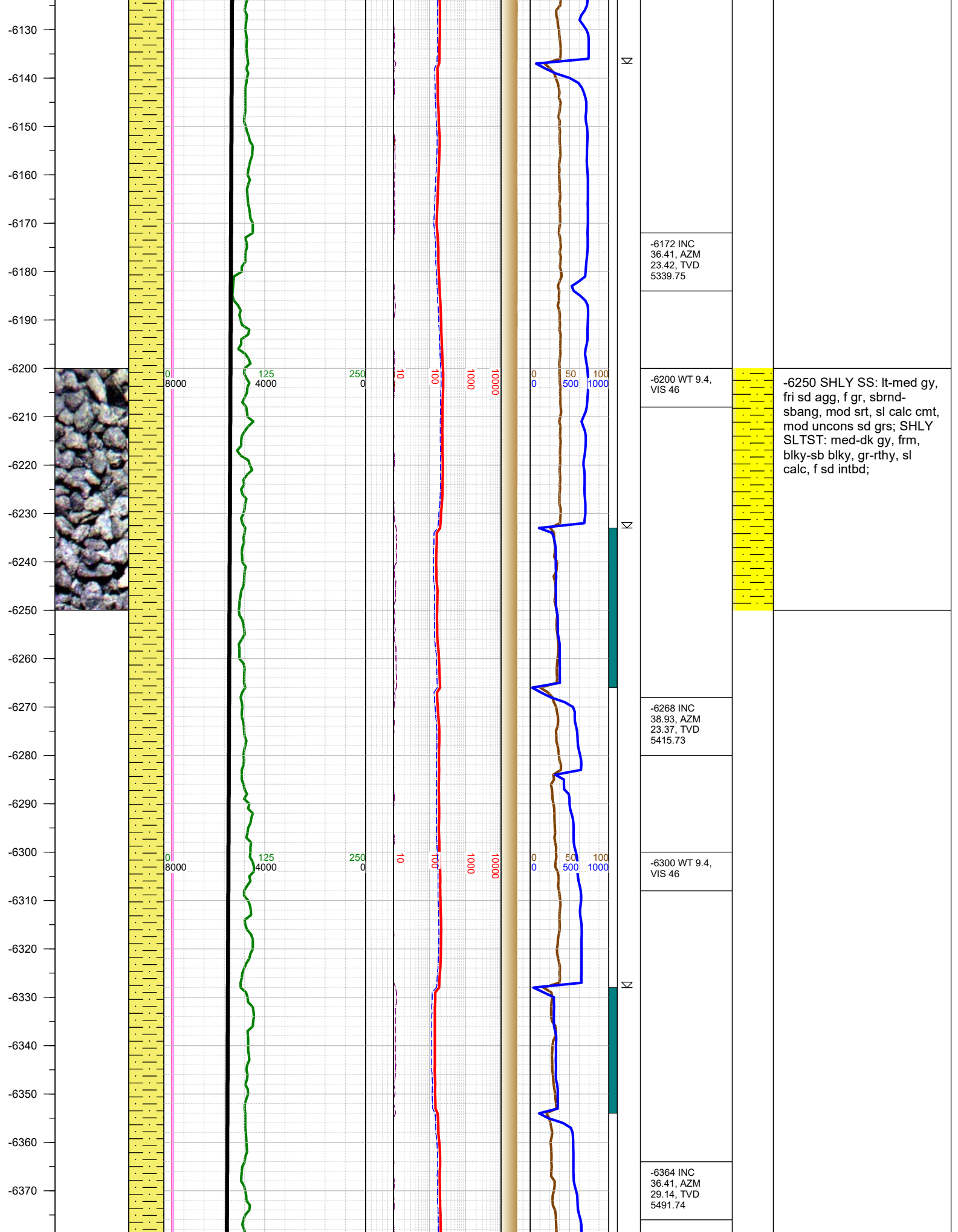
DEPTHS LOGGED: 6000' - 24392'
DATES LOGGED: June 22, 2019 - June 25, 2019
GEOLOGISTS: Dominic Pitre, Madison Miller
SCALE: 5" = 100'

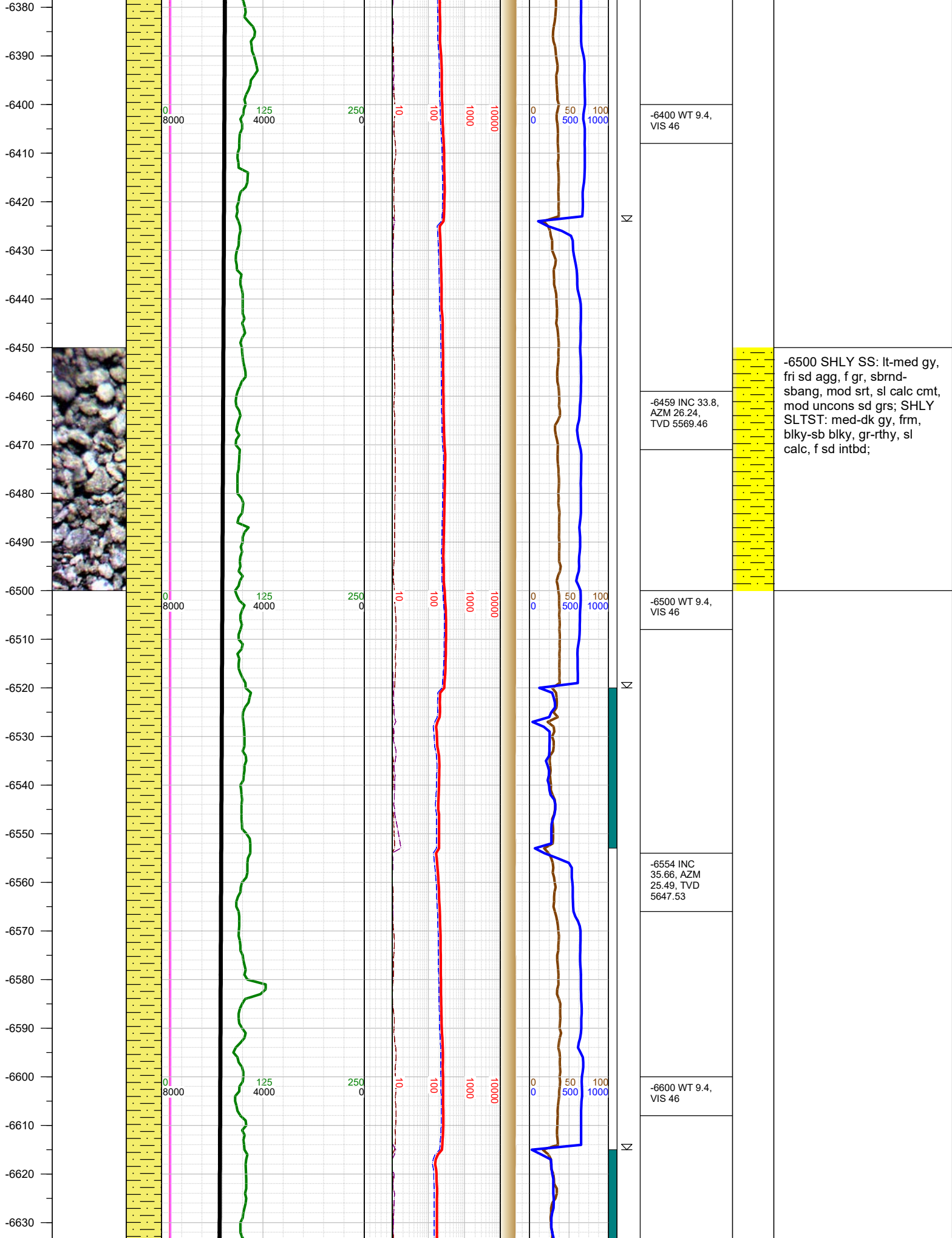
LEGEND

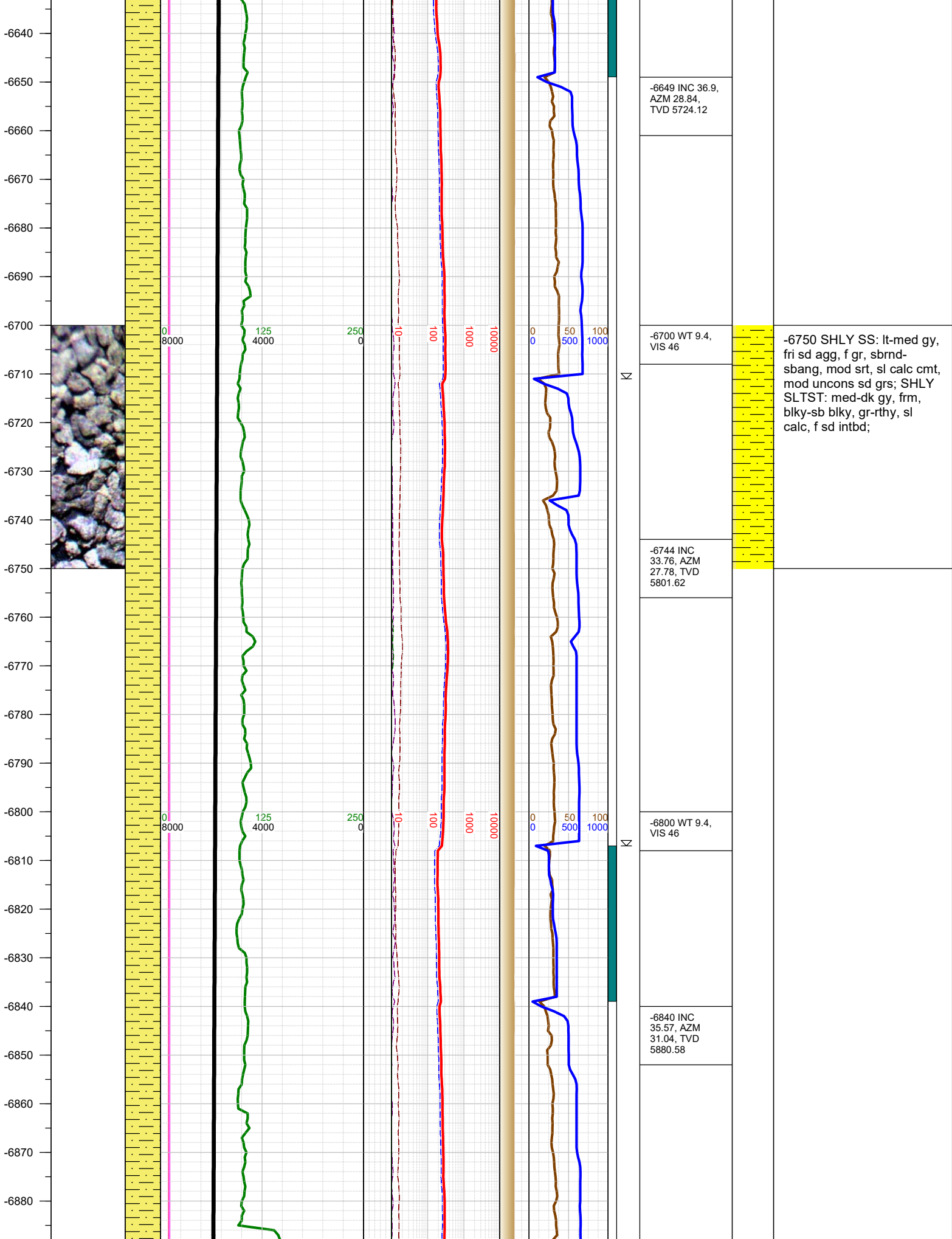


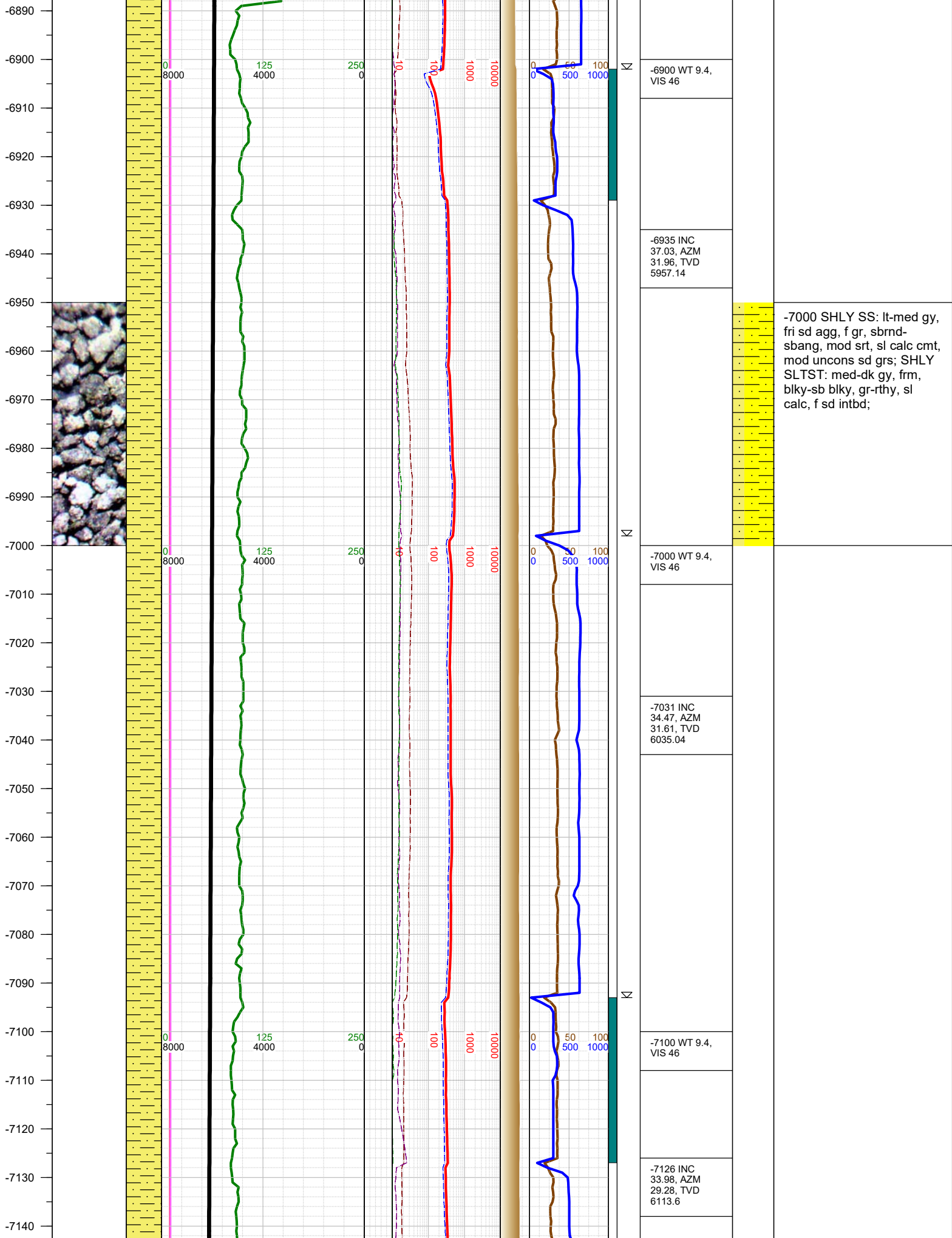
FORMATION \approx CONNECTION Δ MIDNIGHT NEW BIT GAS SHOW FAULT

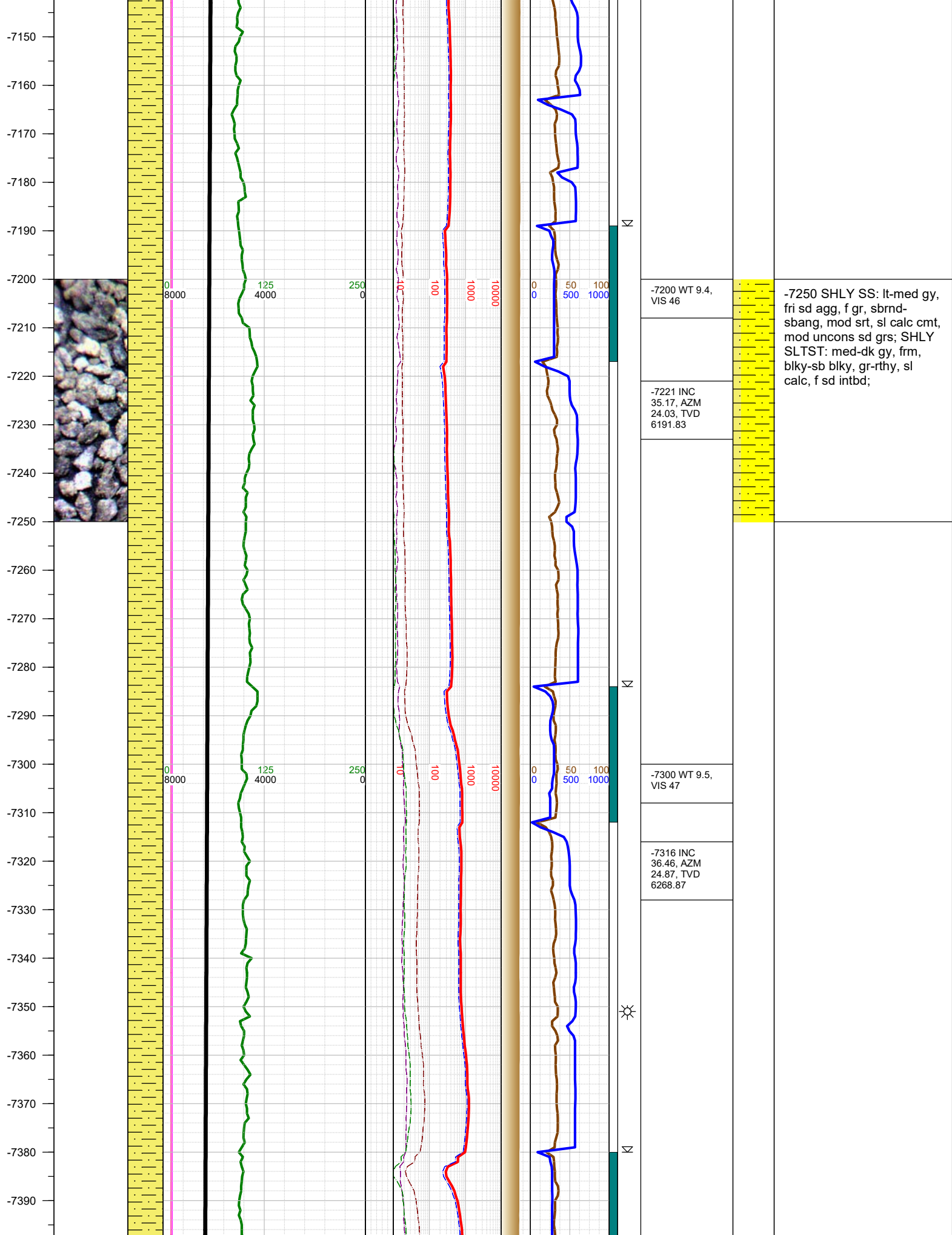


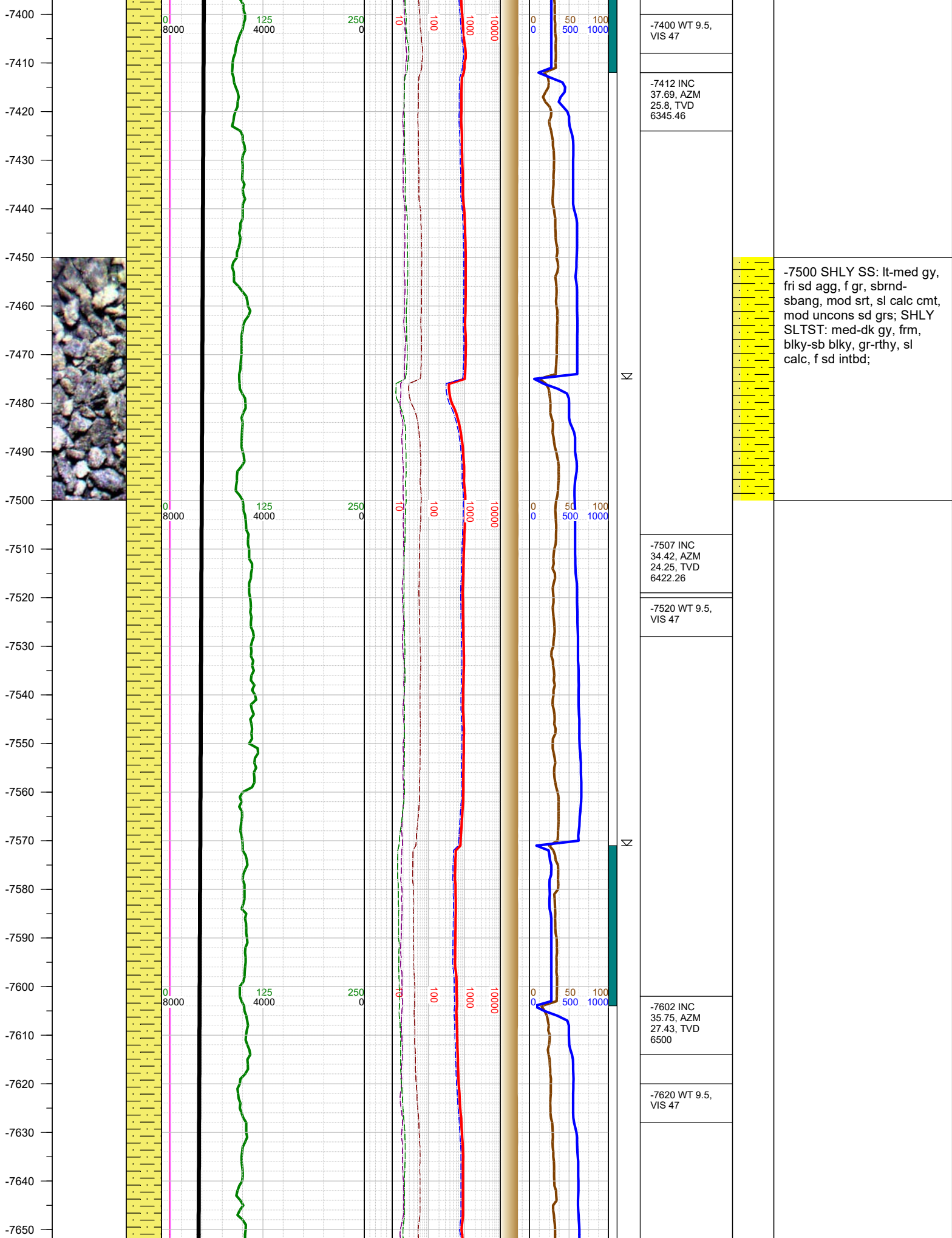


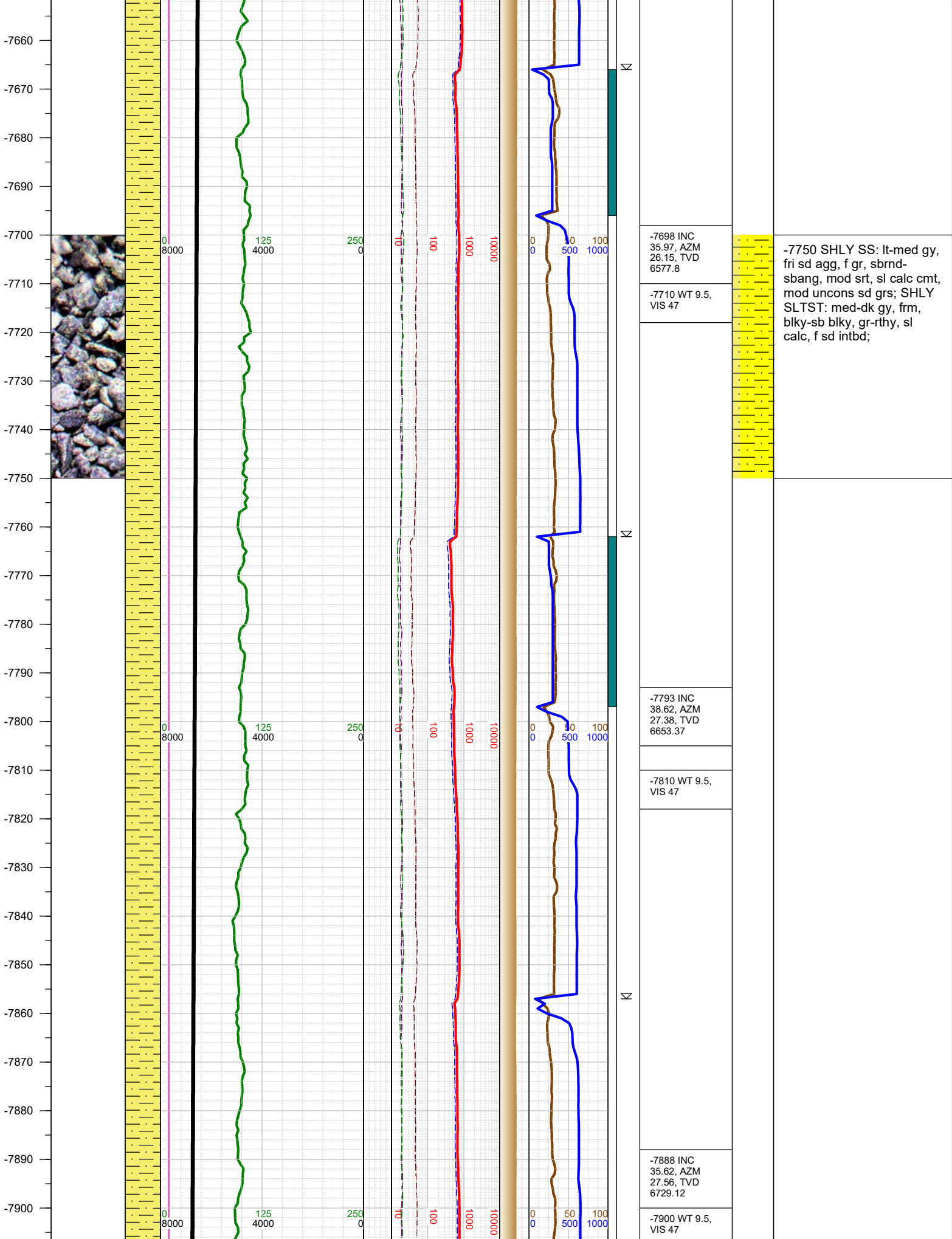


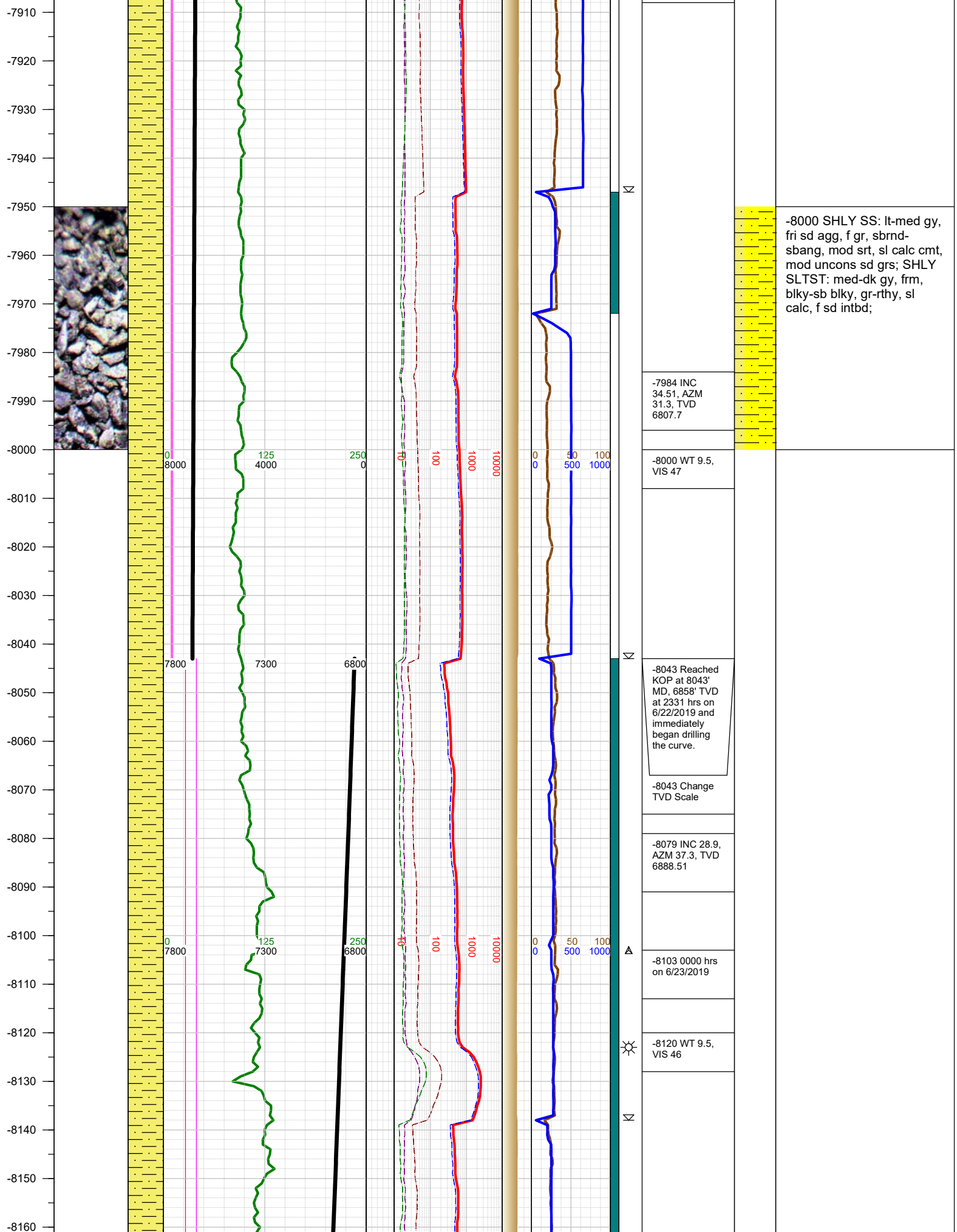


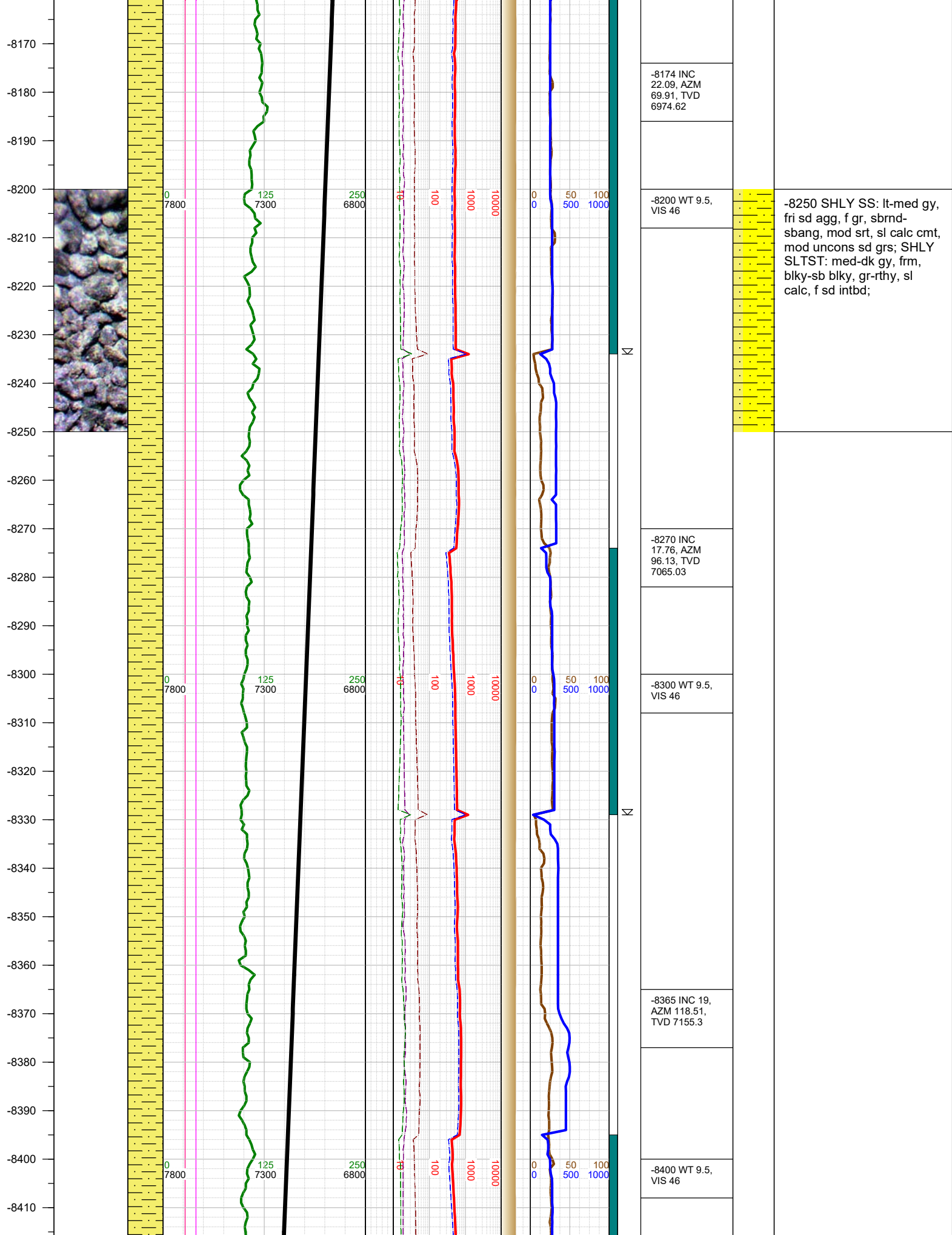


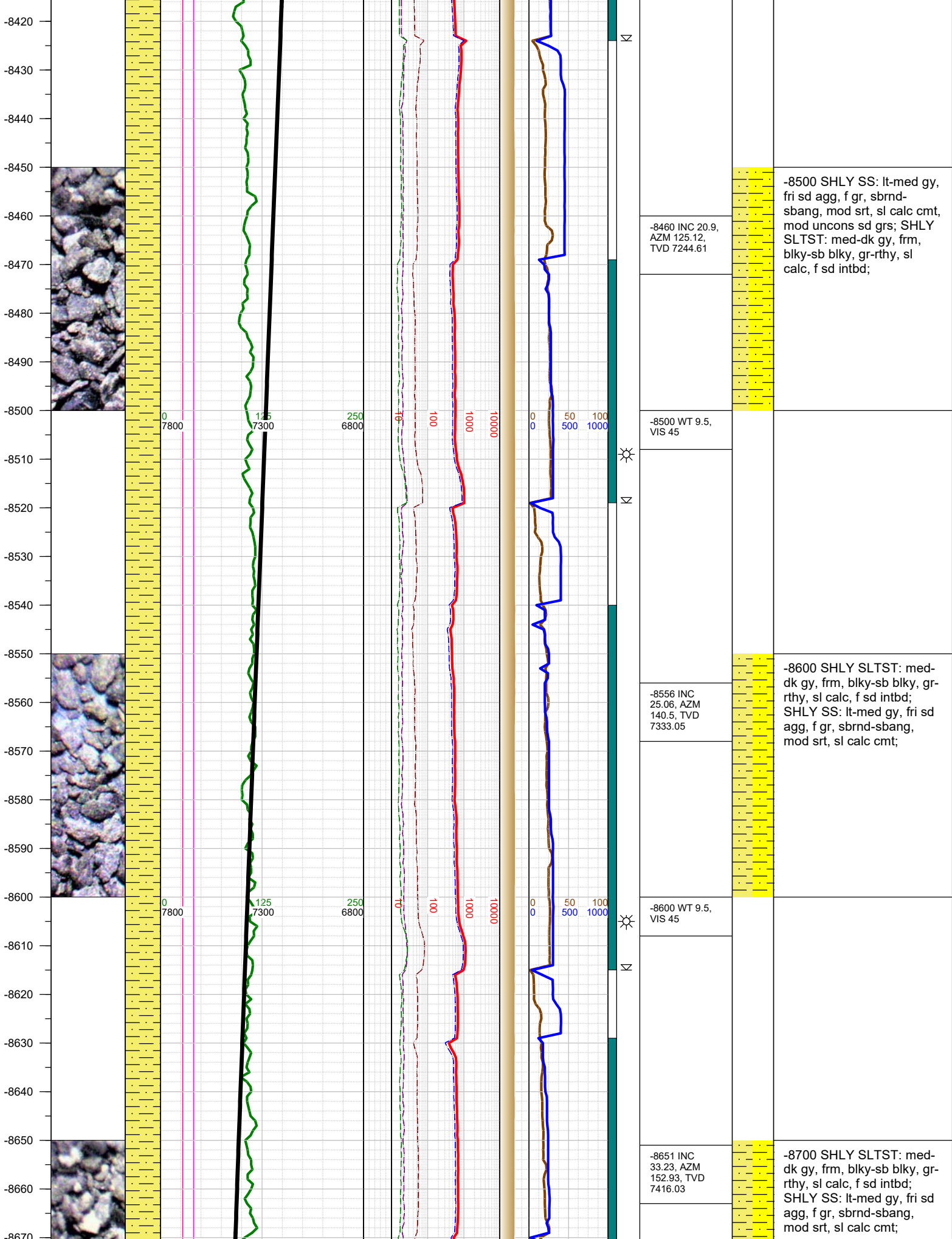


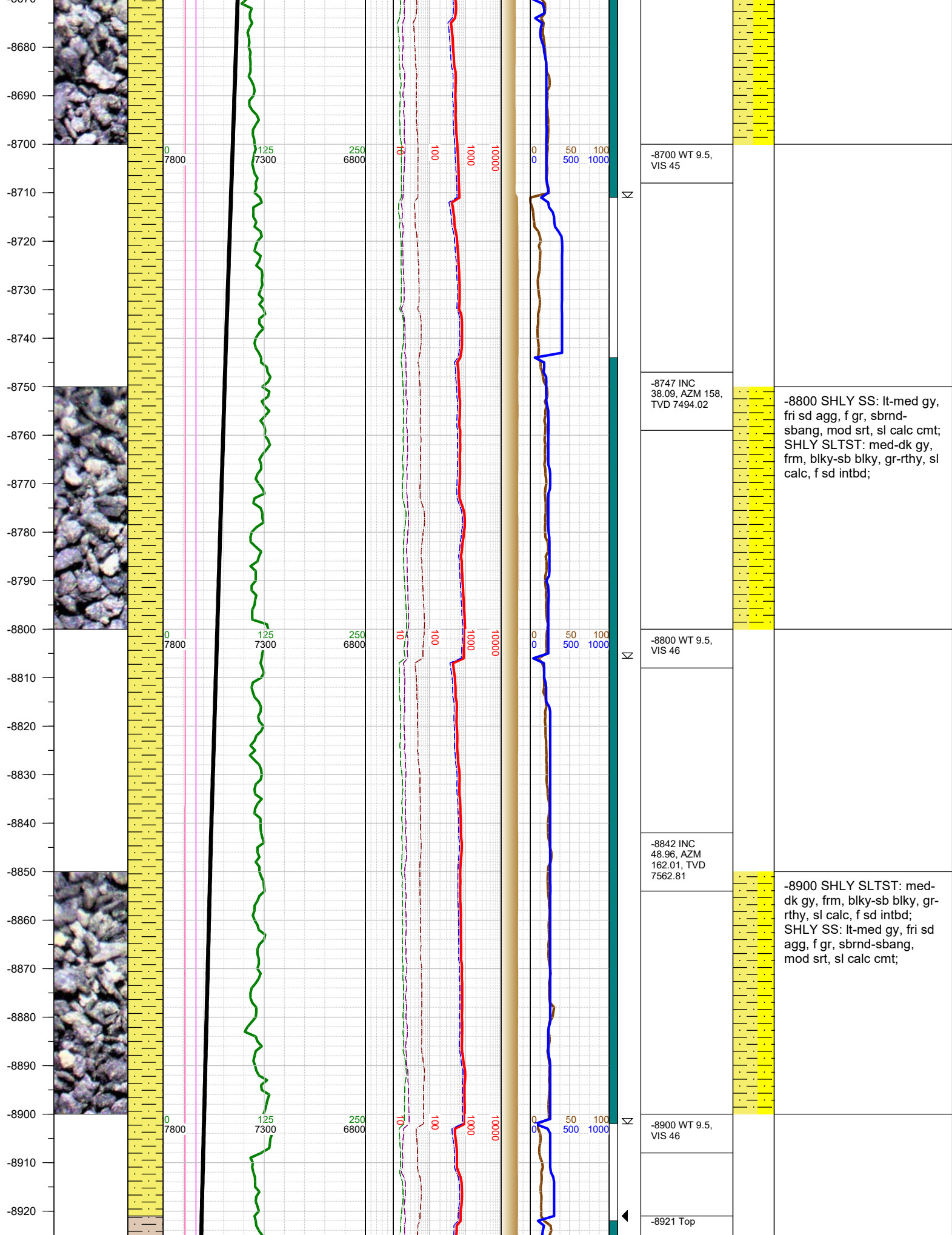


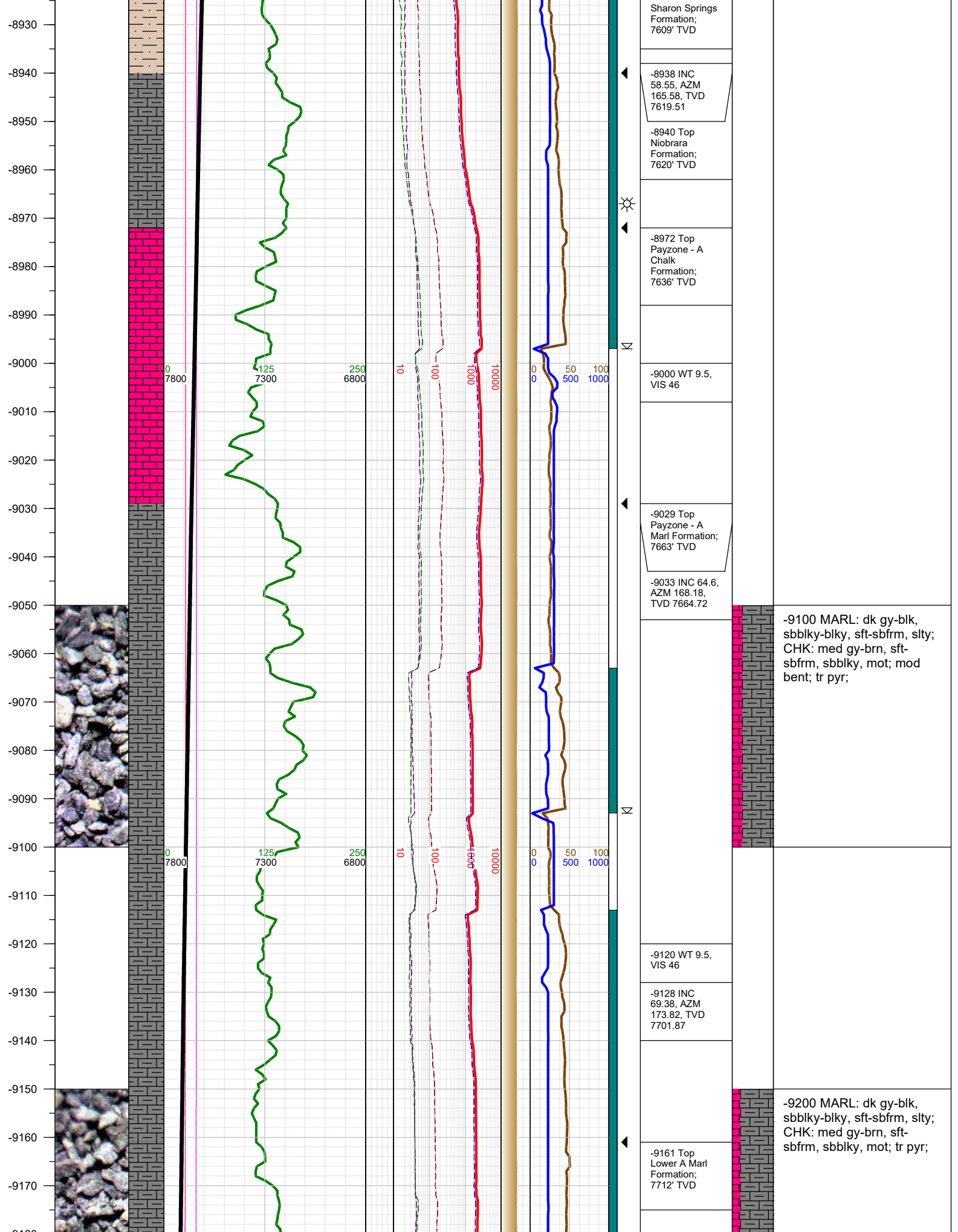


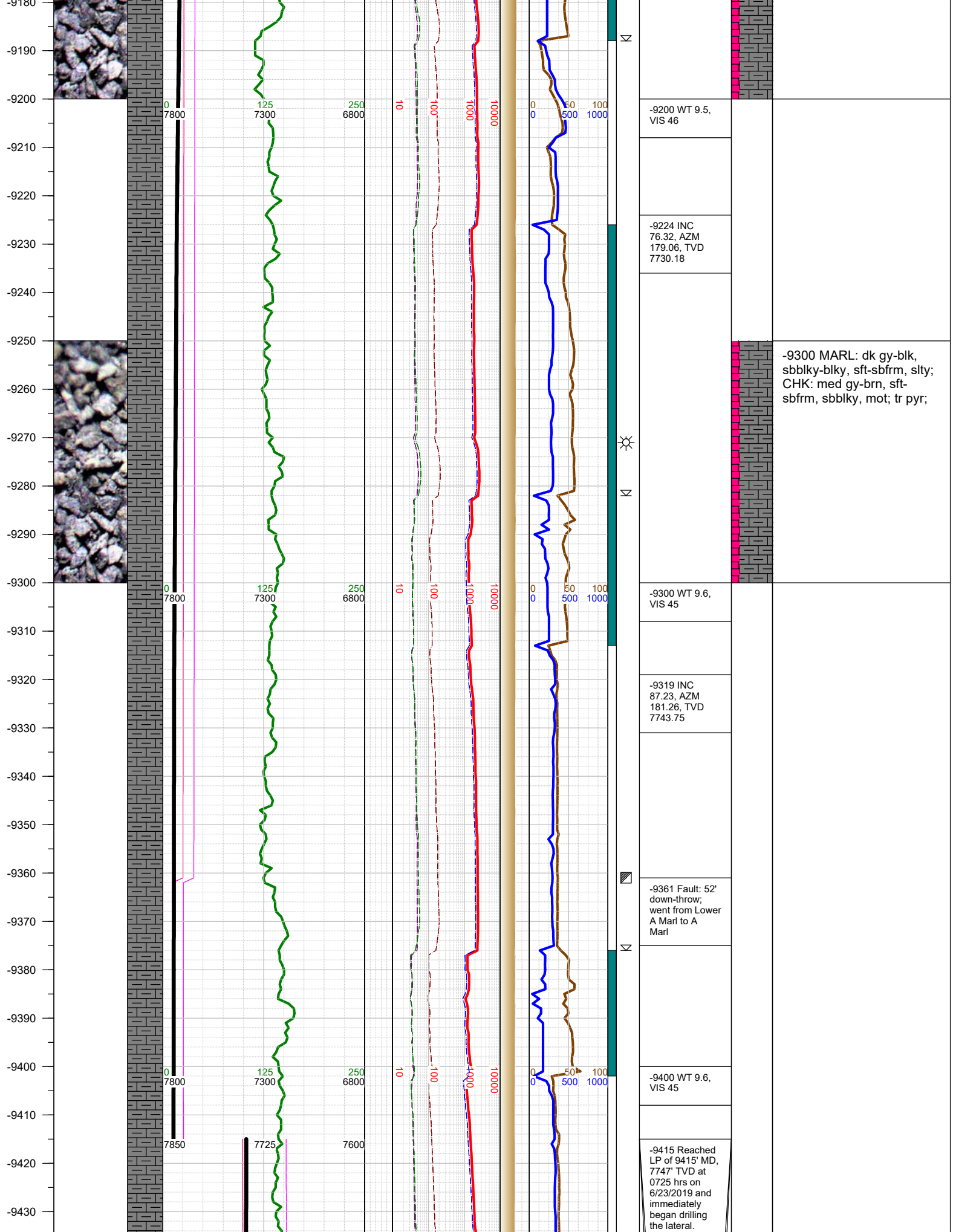


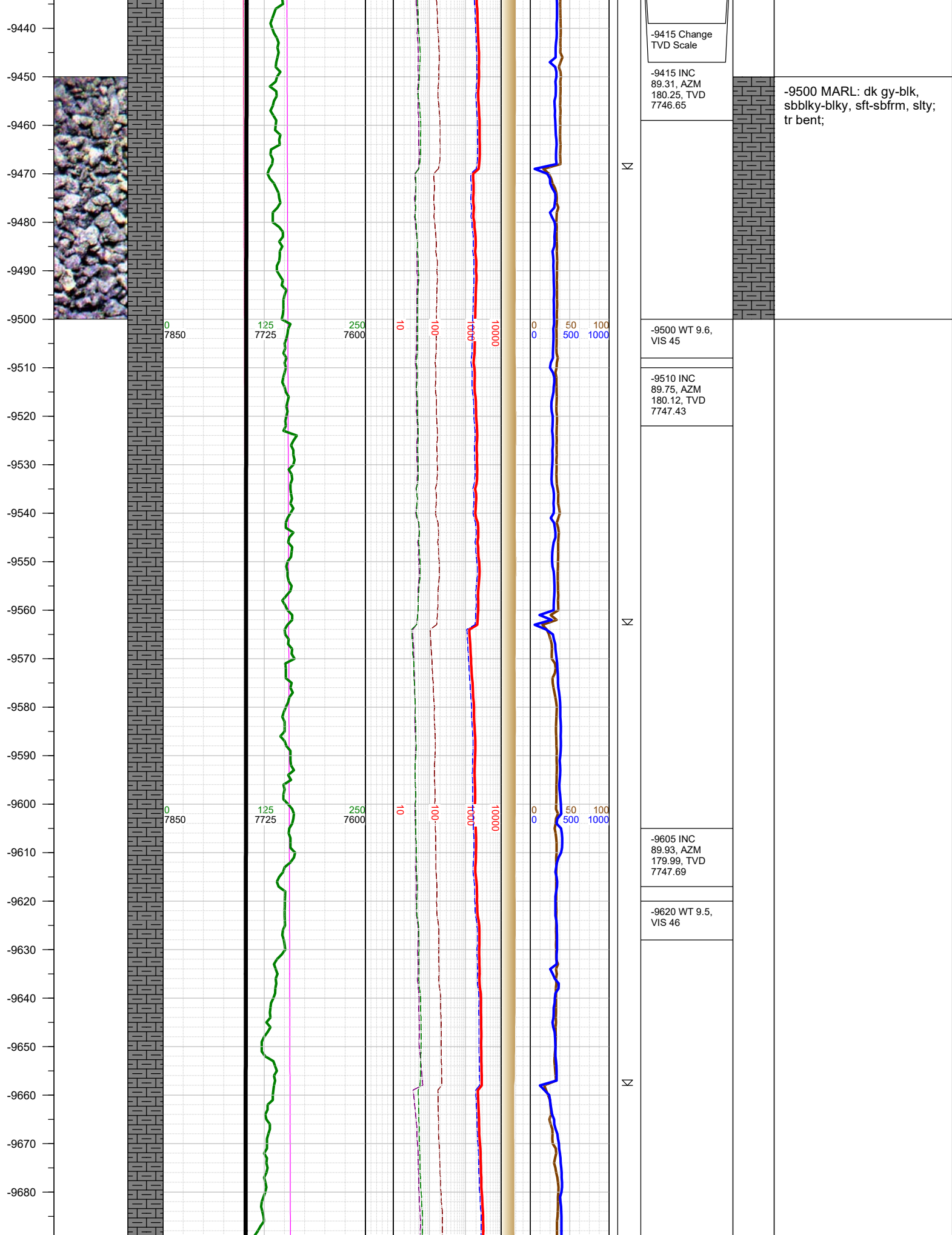


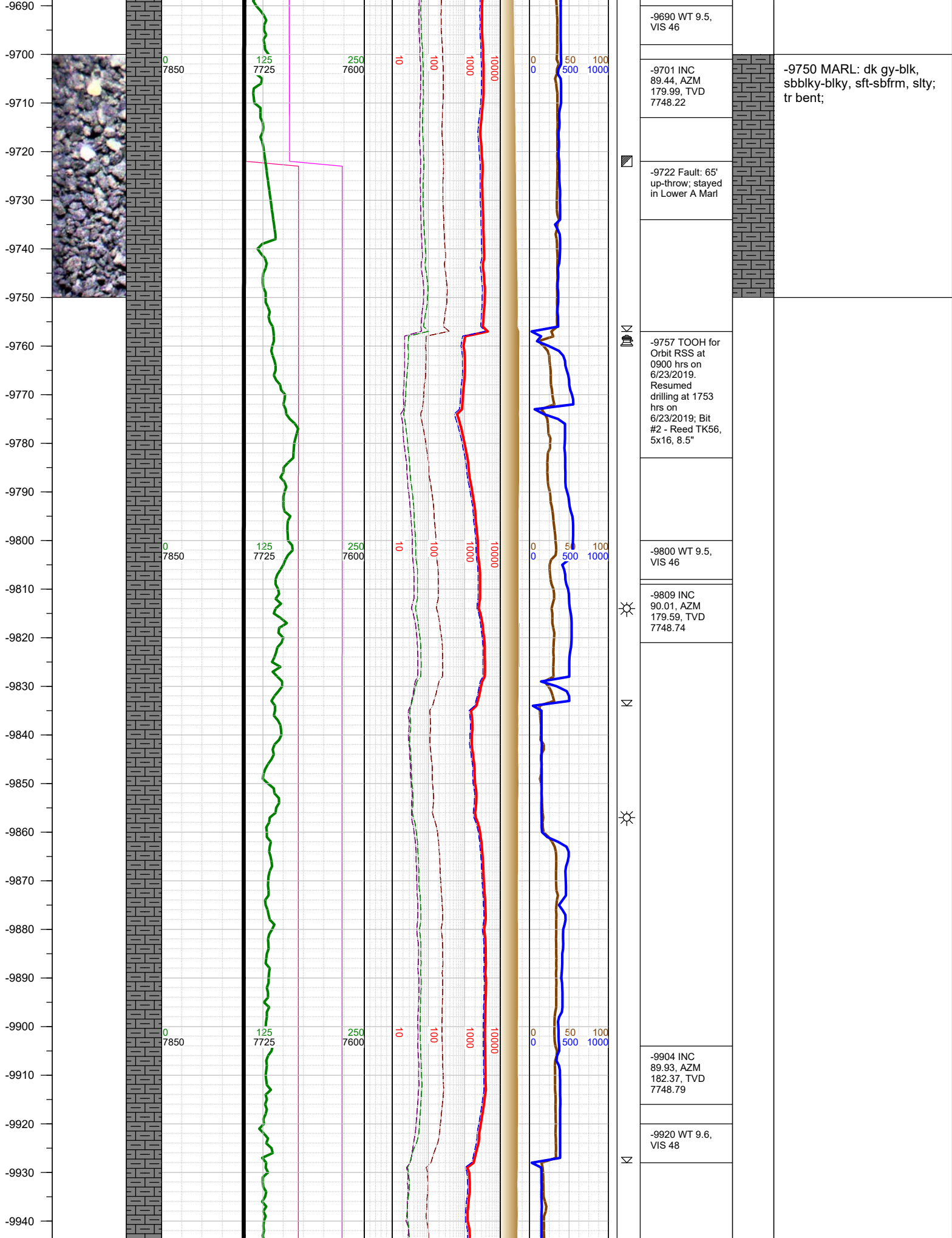


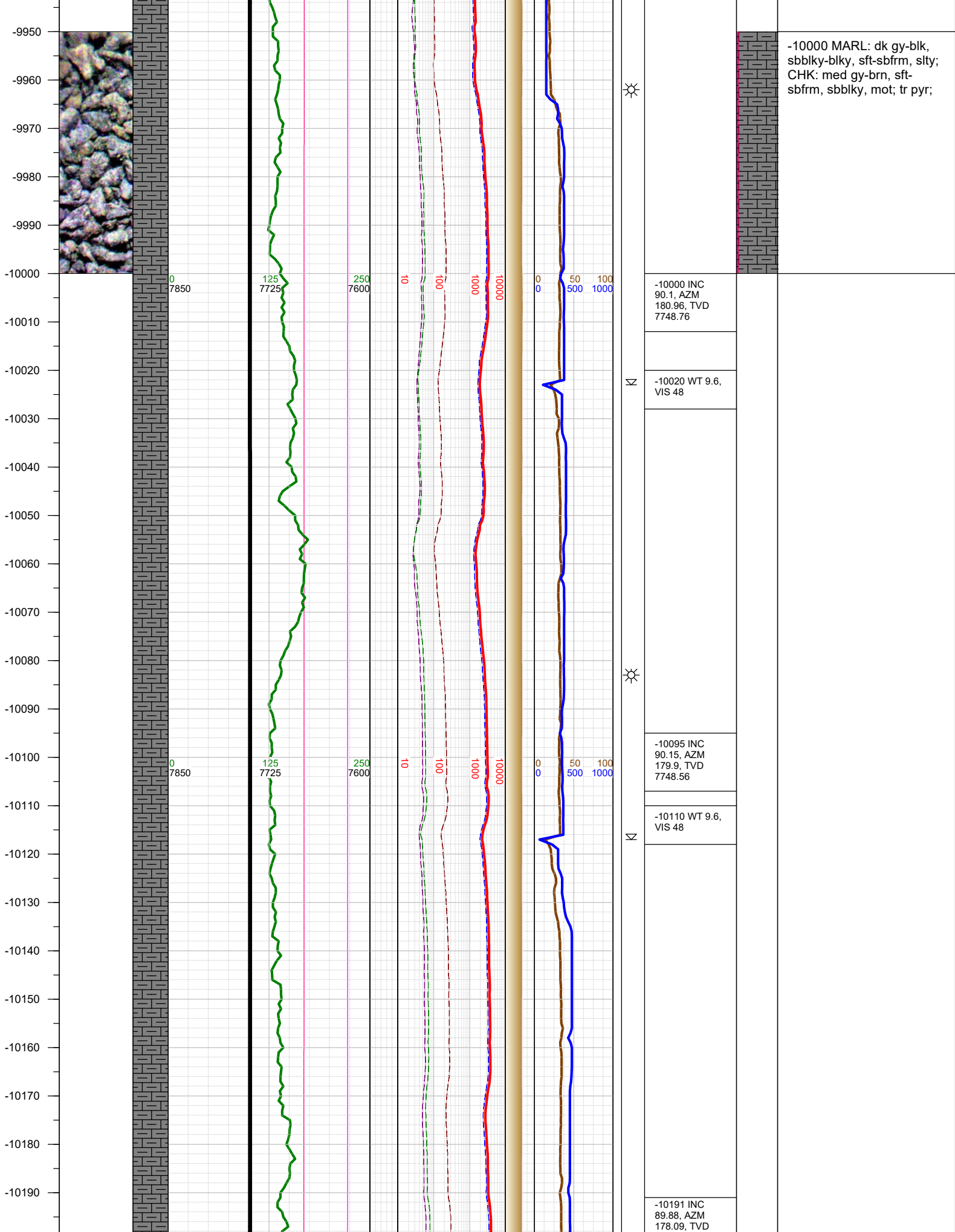


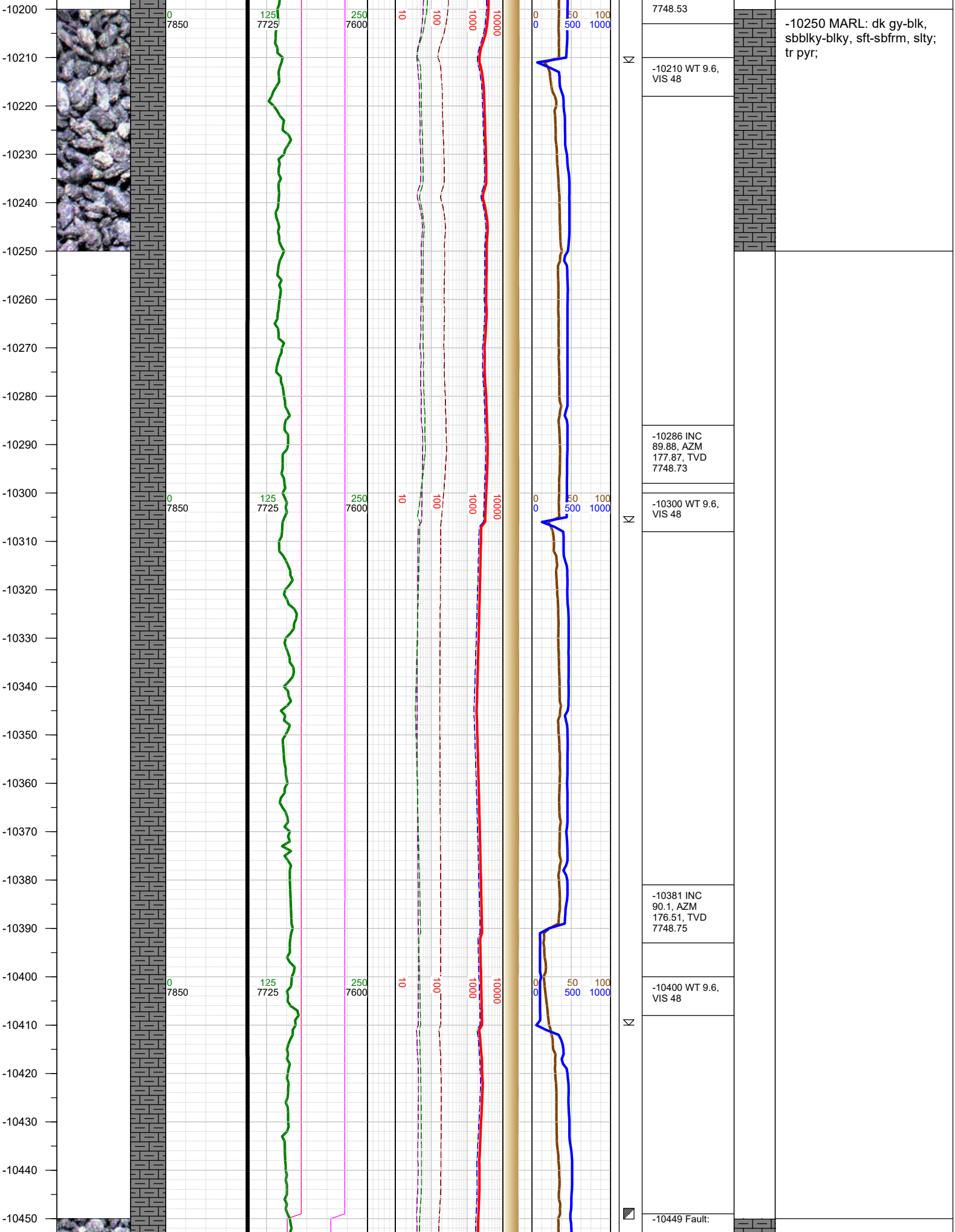


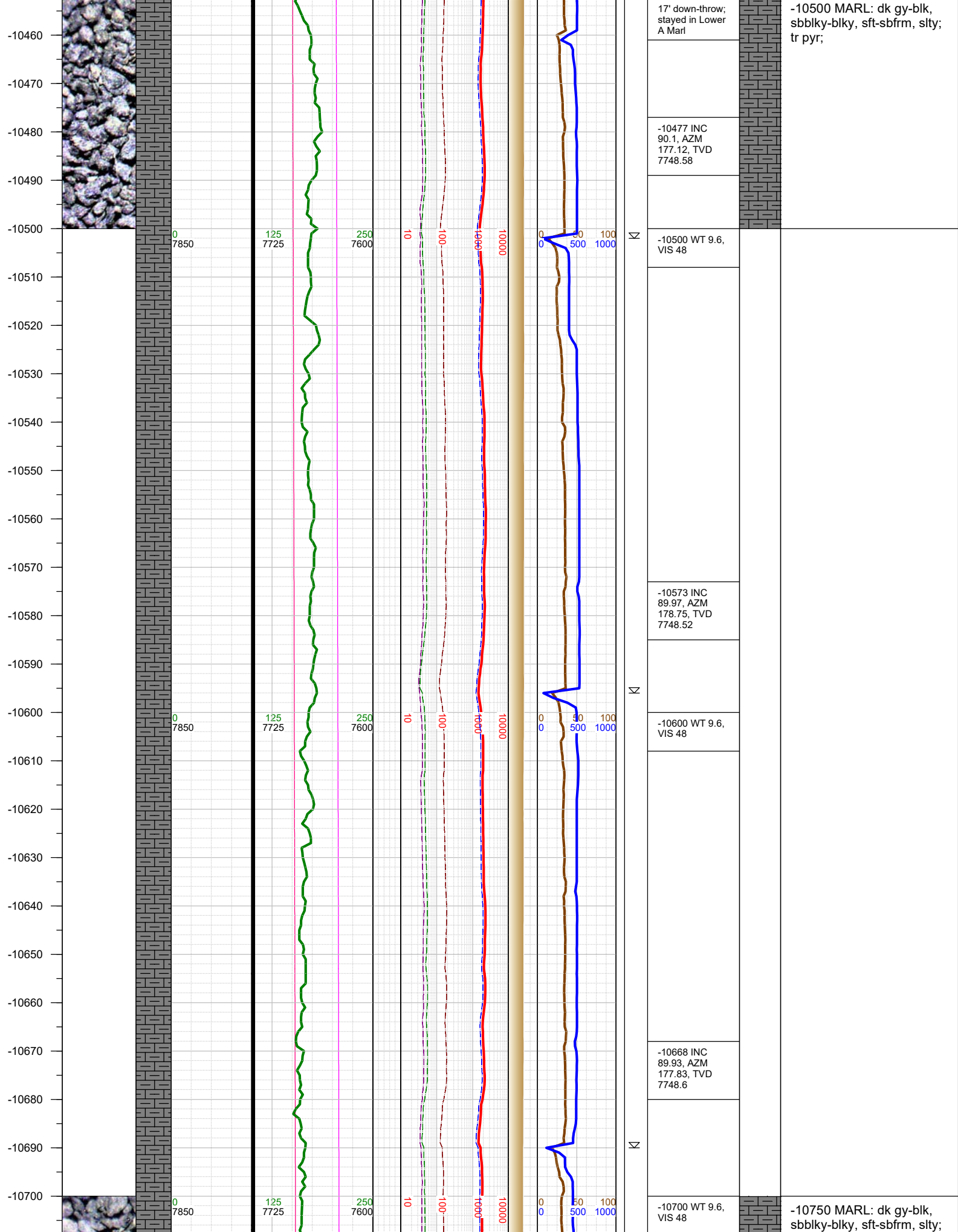


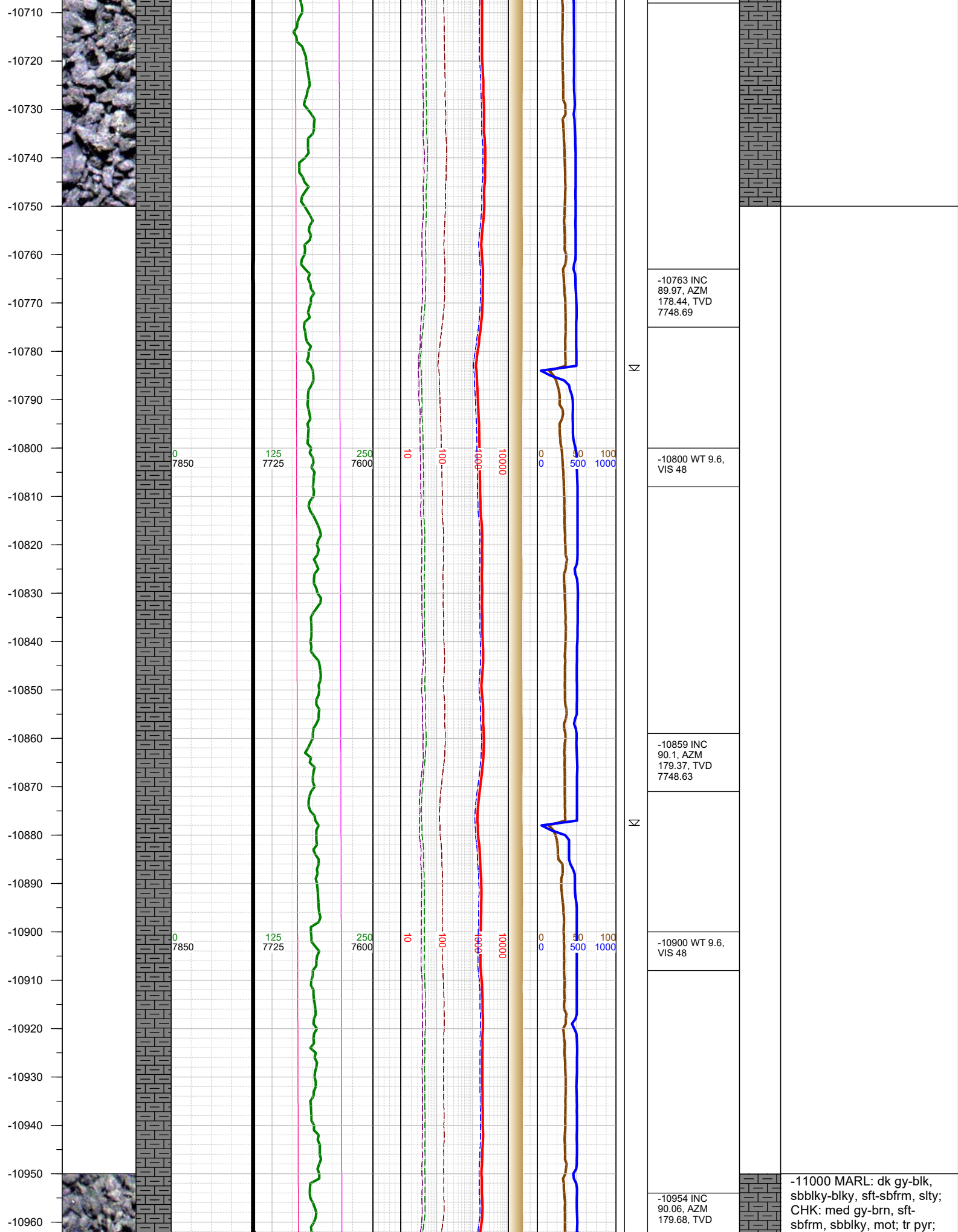


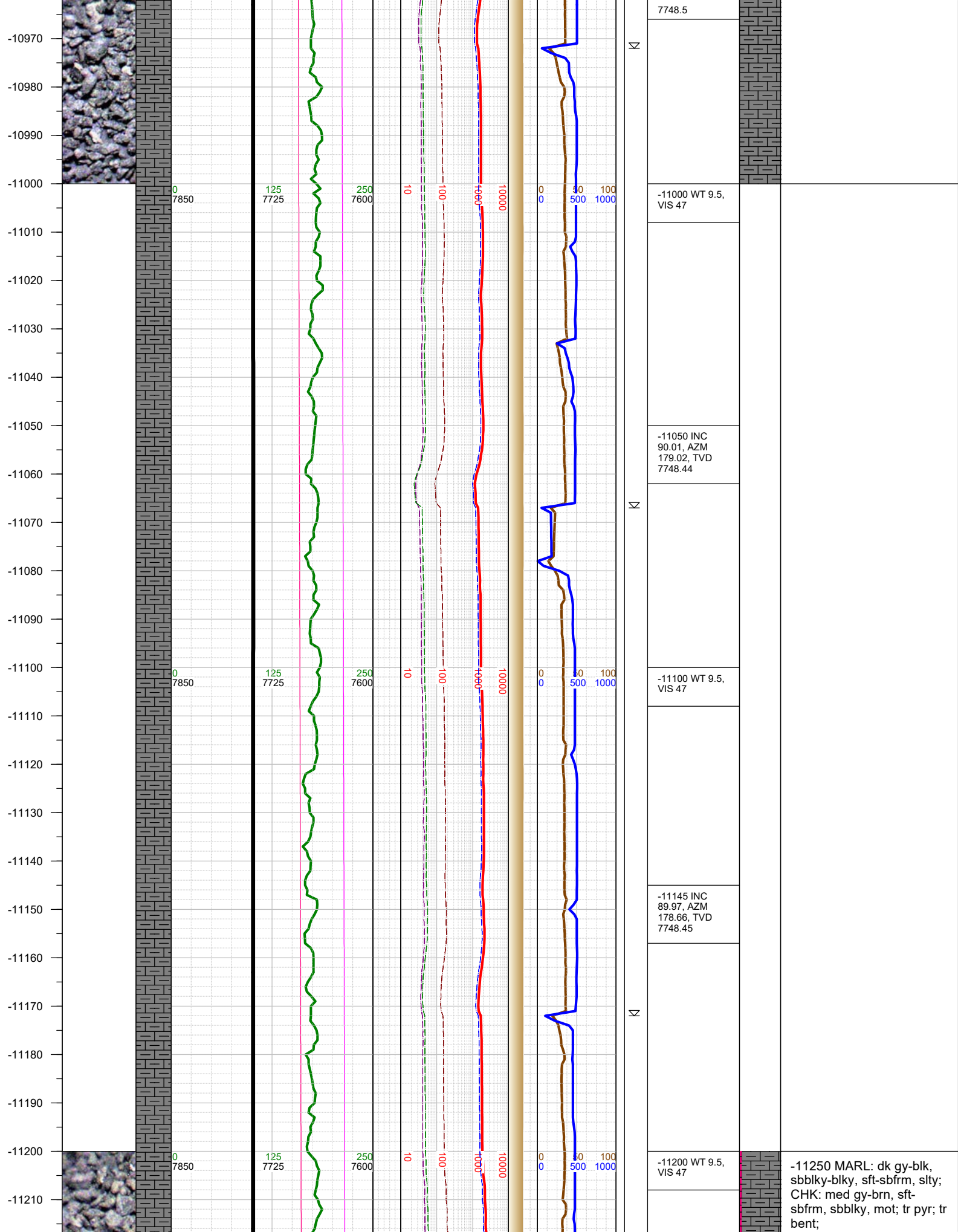


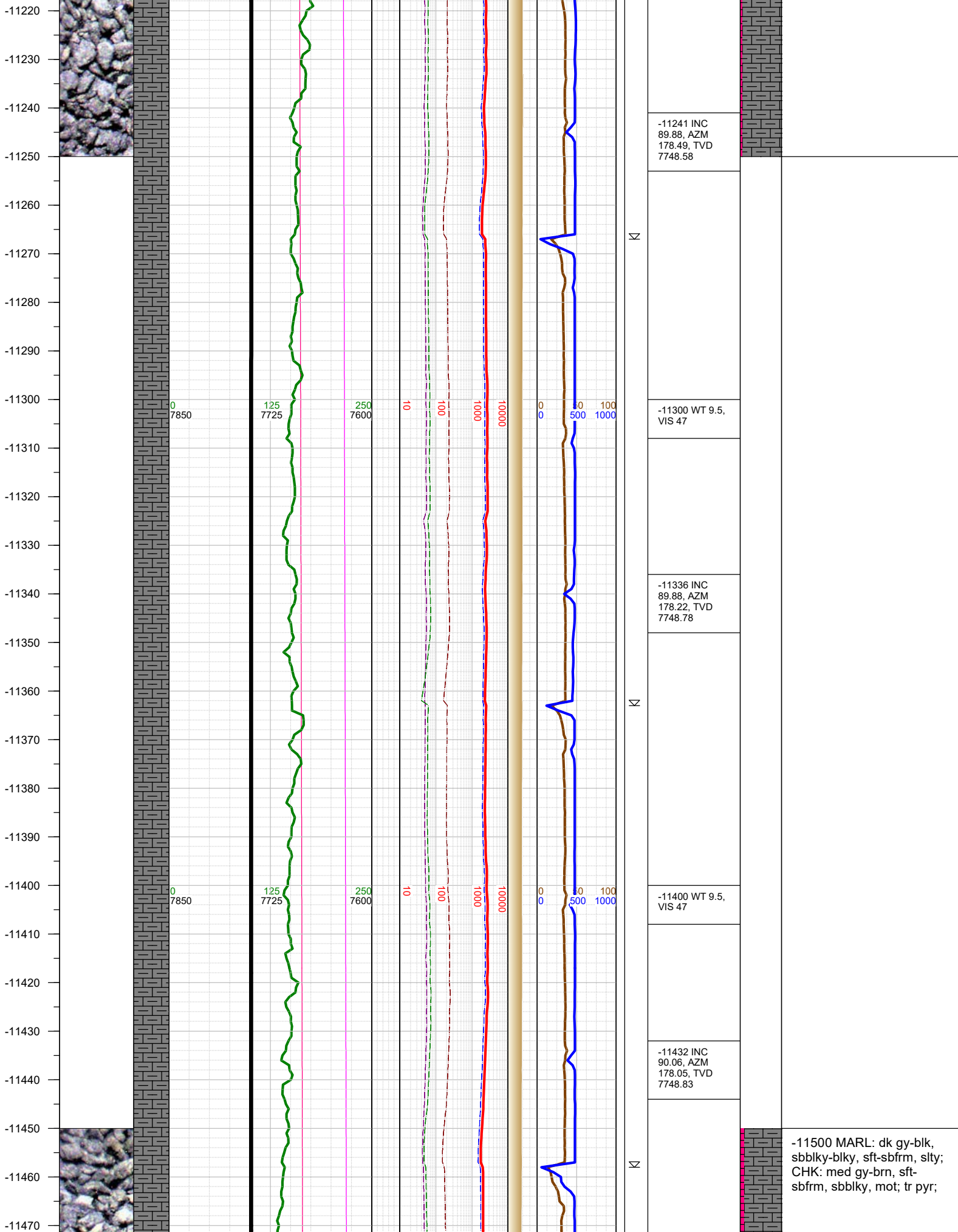


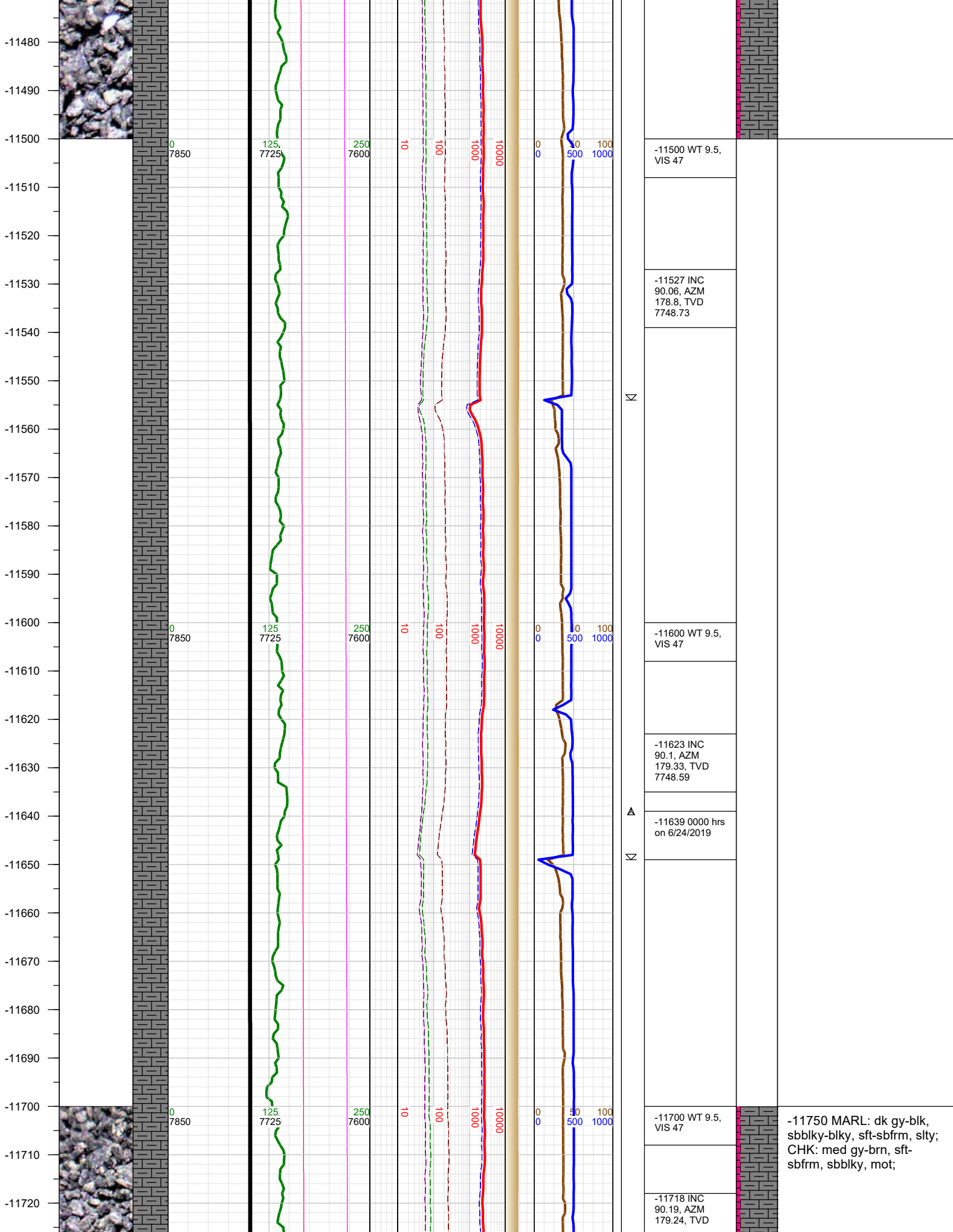




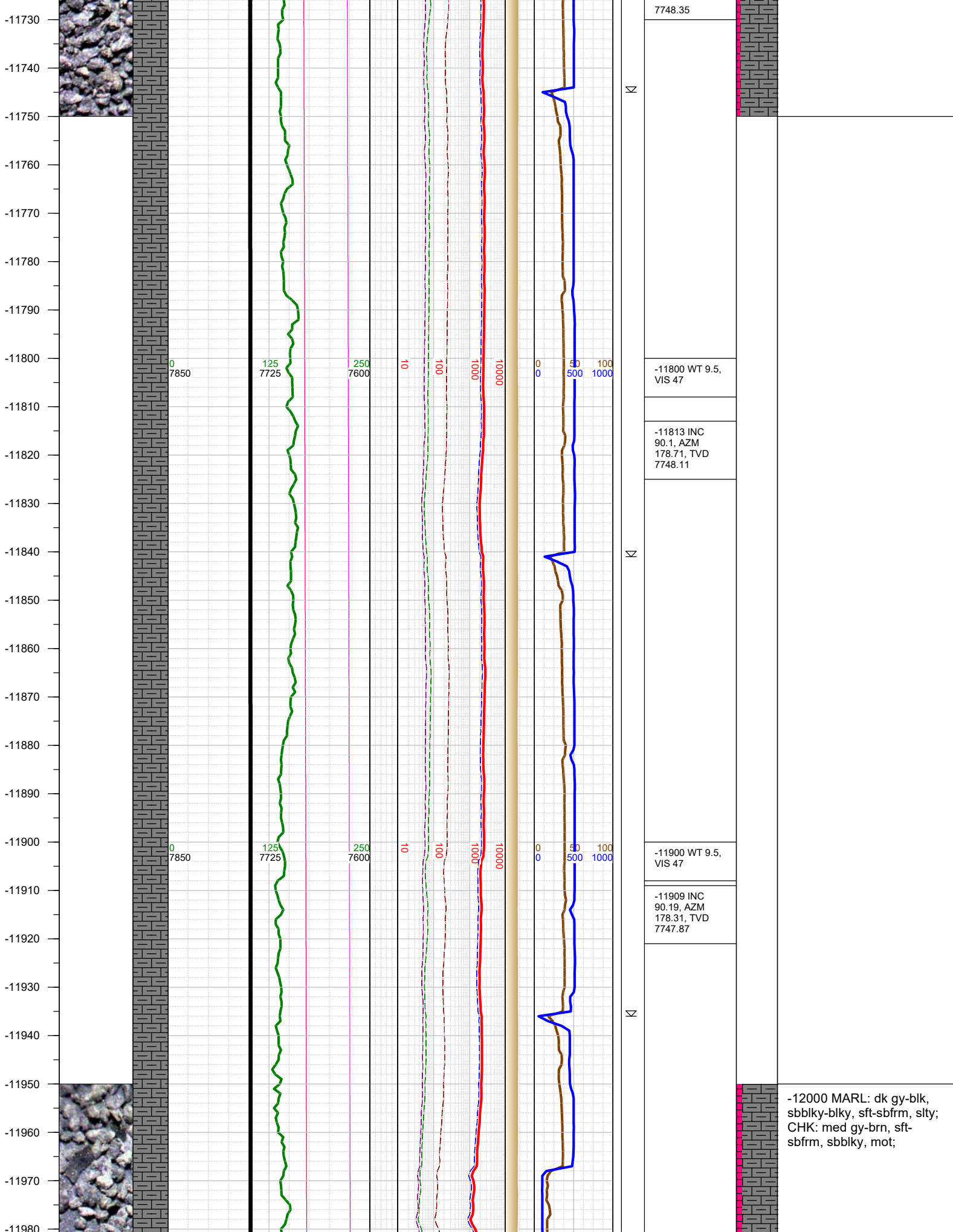


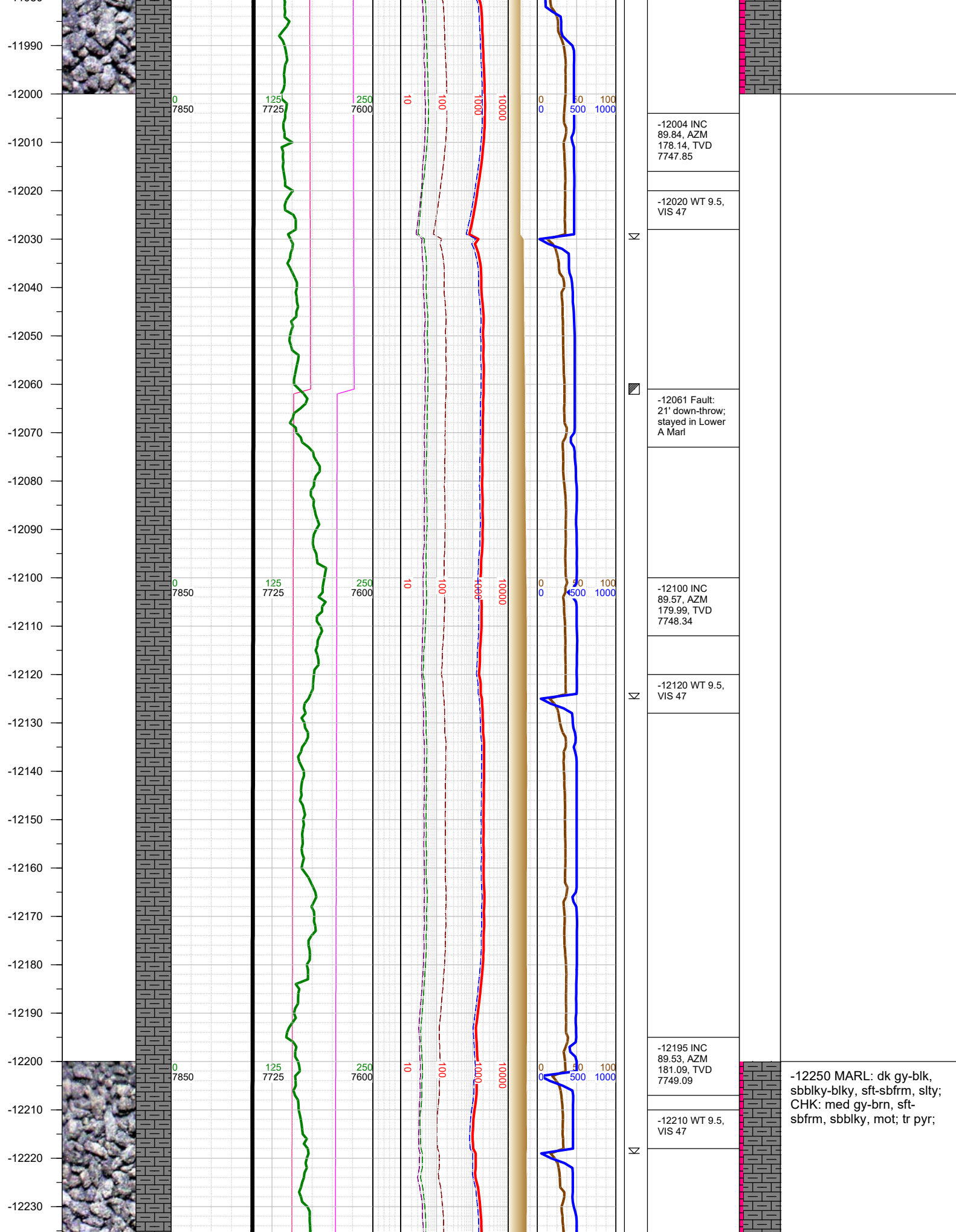






-11750 MARL: dk gy-blk, sbblky-blky, sft-sbfrm, slty; CHK: med gy-brn, sft-sbfrm, sbblky, mot;





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-12291 INC
89.57, AZM
181.71, TVD
7749.84

-12310 WT 9.5,
VIS 47

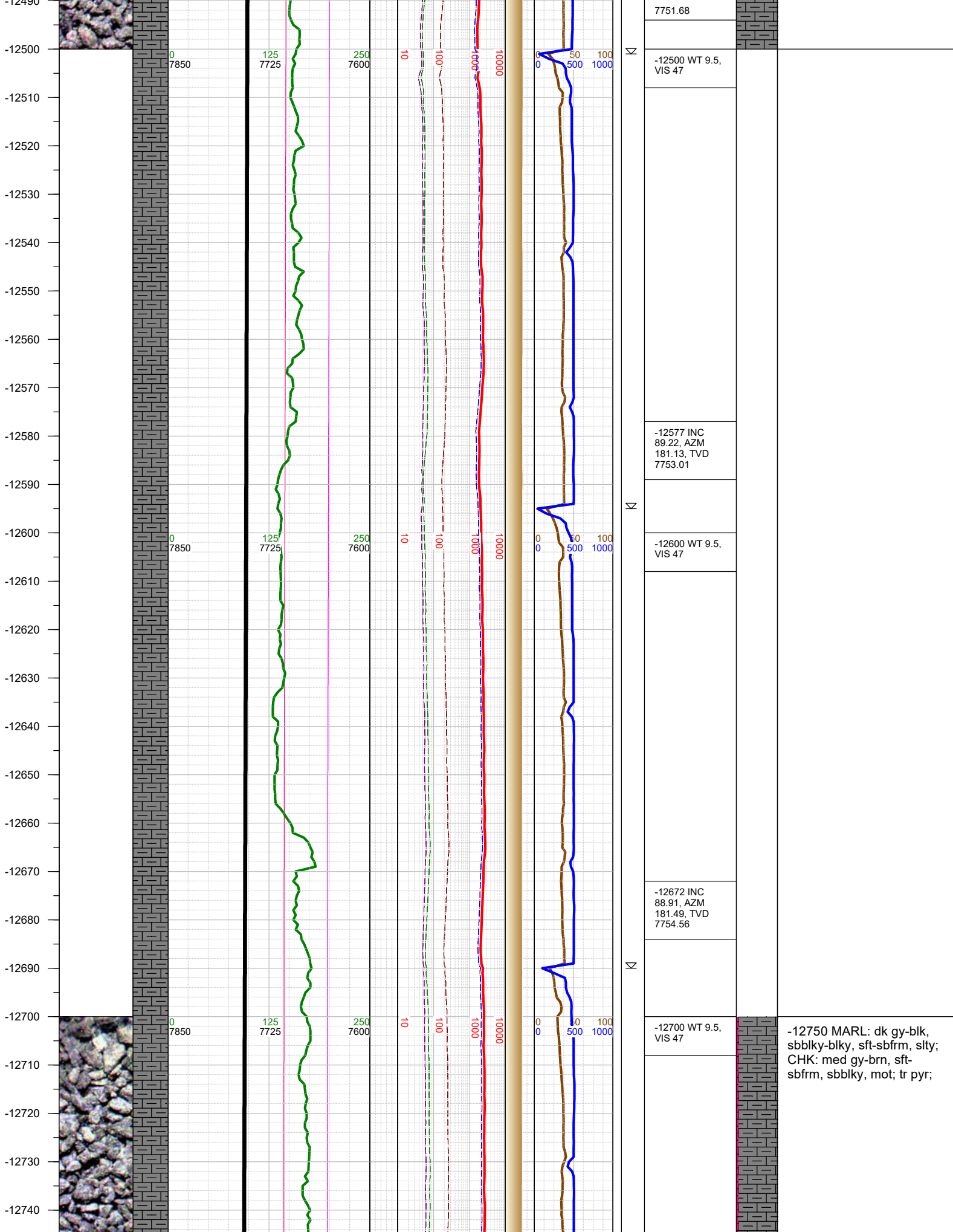
-12386 INC
89.53, AZM
181.18, TVD
7750.59

-12400 WT 9.5,
VIS 47

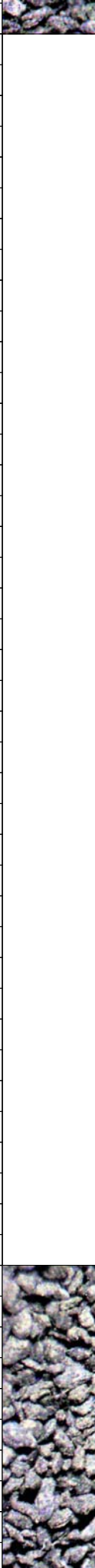
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-12482 INC
89.17, AZM
182.37, TVD

-12500 MARL: dk gy-blk,
sbbiky-blky, sft-sbfrm, slty;
tr pyr; tr forams;



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-12767 INC
89.04, AZM
182.1, TVD
7756.26

-12800 WT 9.5,
VIS 47

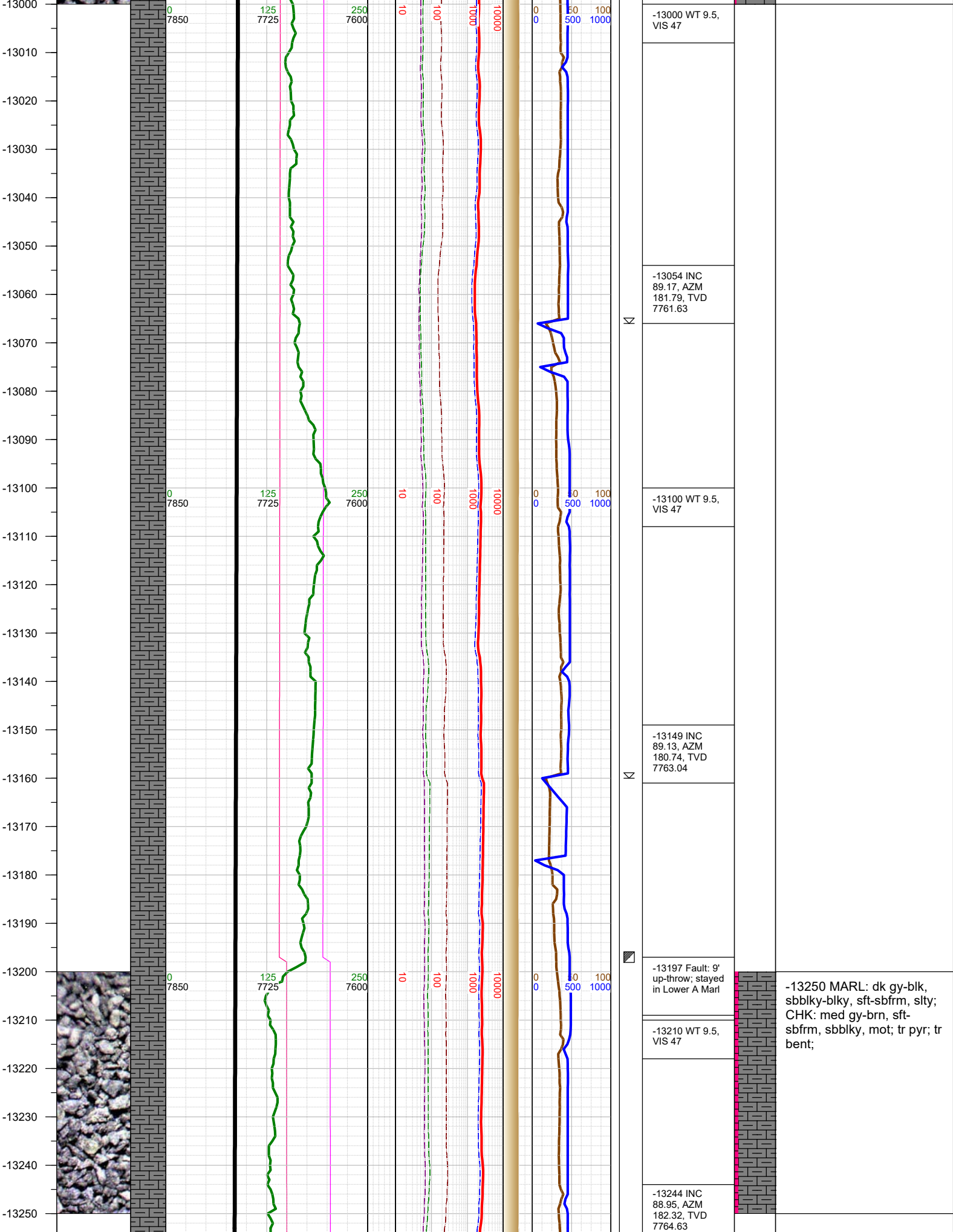
-12863 INC
88.82, AZM
181.13, TVD
7758.05

-12900 WT 9.5,
VIS 47

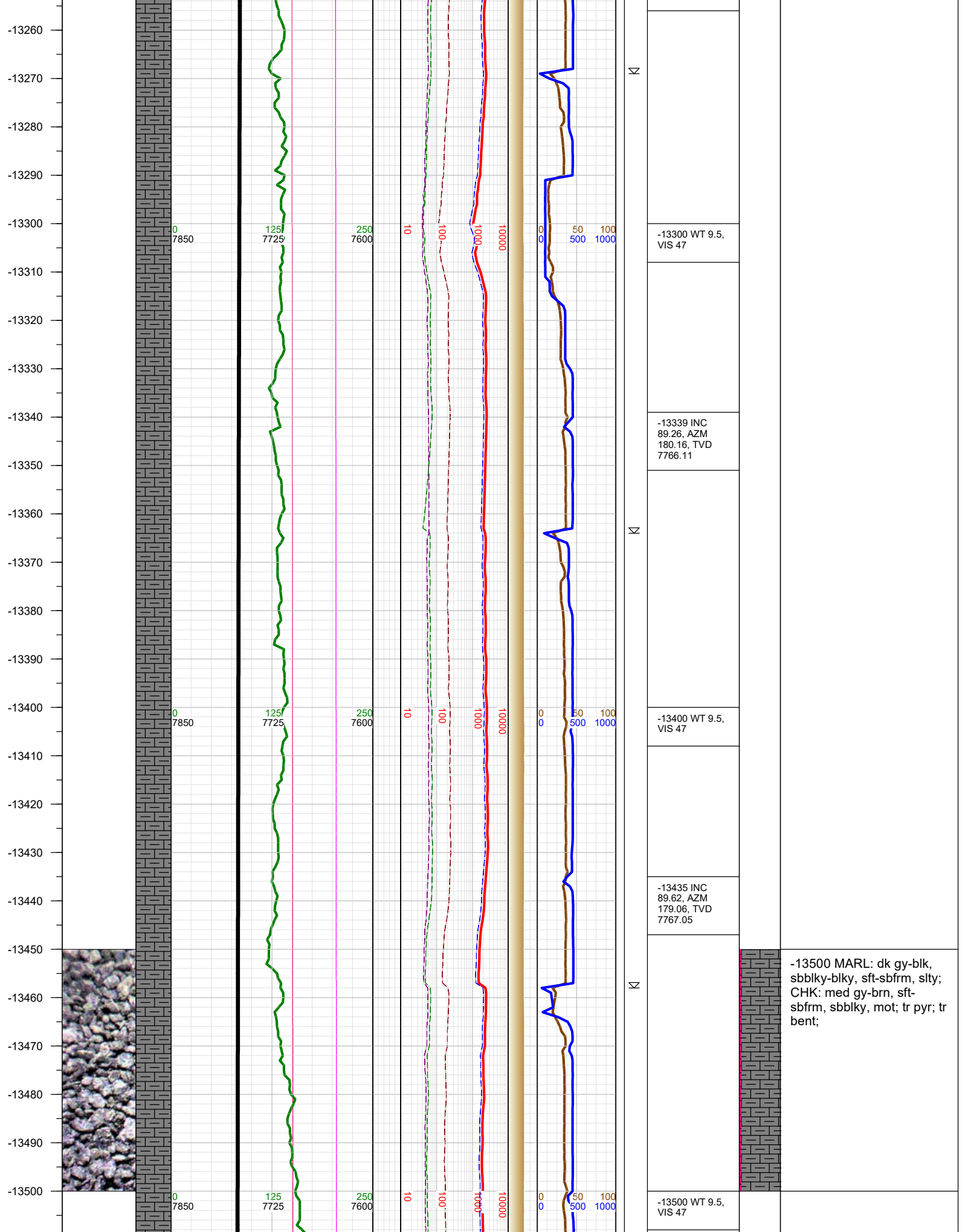
-12958 INC
88.86, AZM
181.35, TVD
7759.98

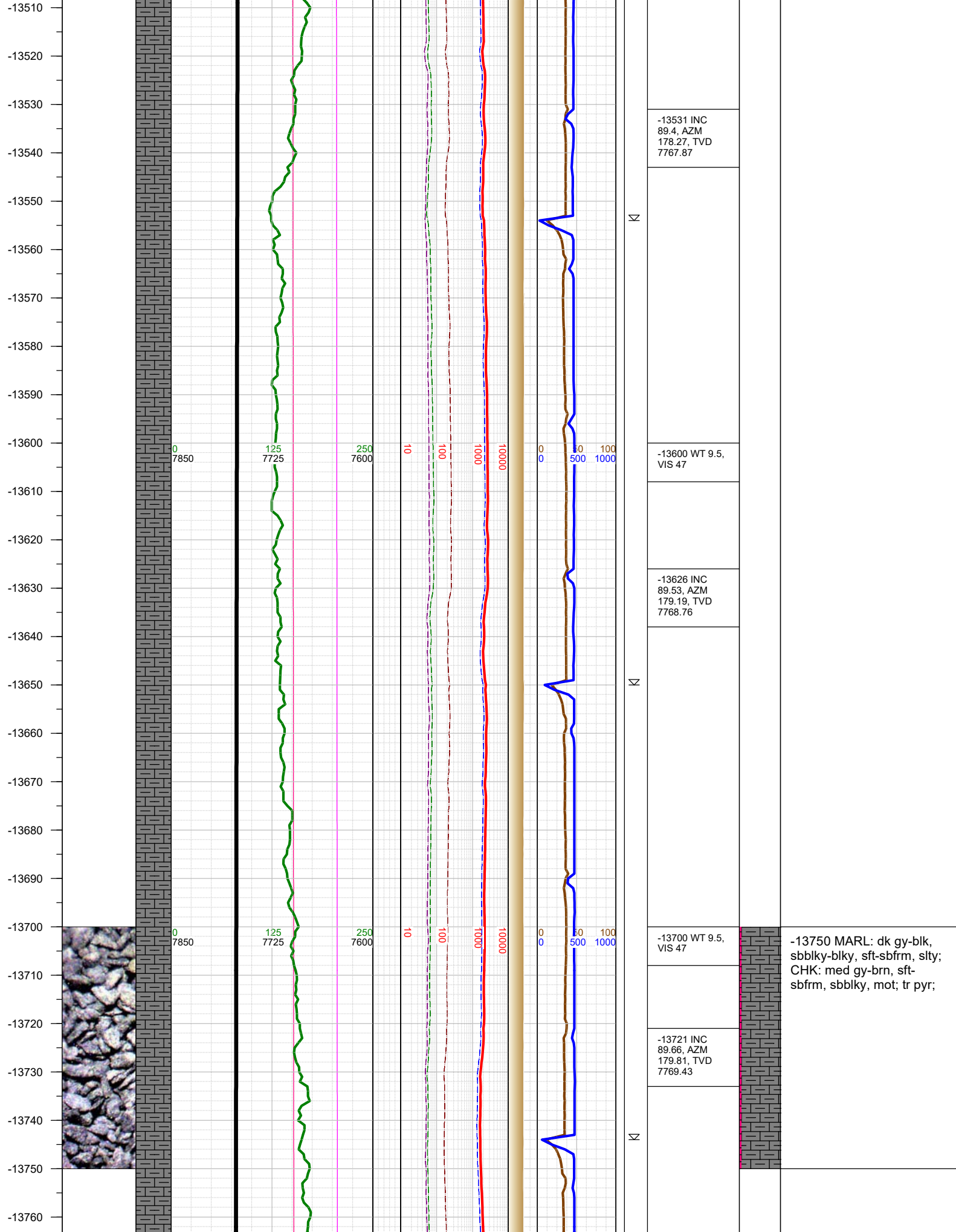
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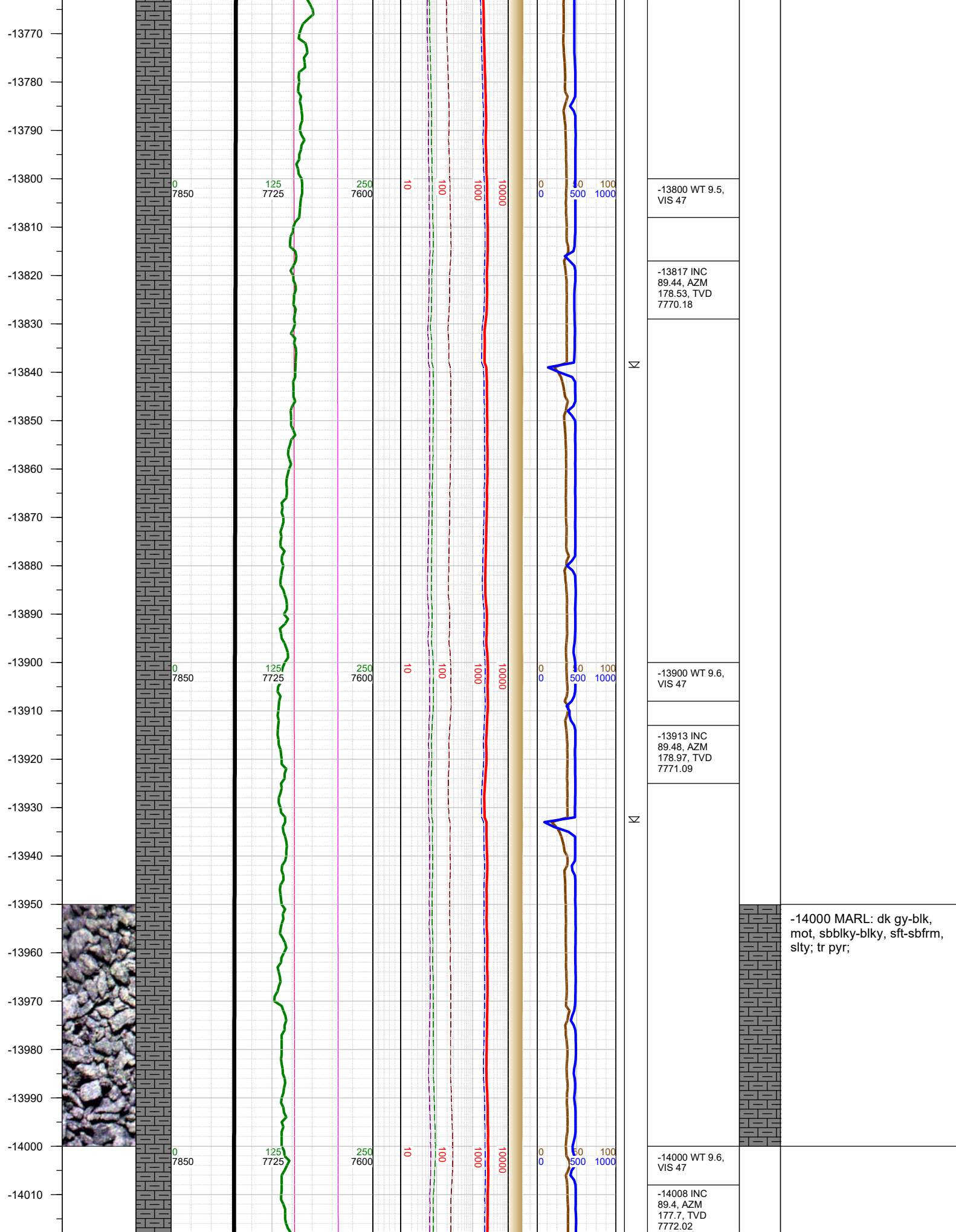
-13000 MARL: dk gy-blk,
sbbiky-blky, sft-sbfrm, slty;
CHK: med gy-brn, sft-
sbfrm, sbbiky, mot; tr pyr;

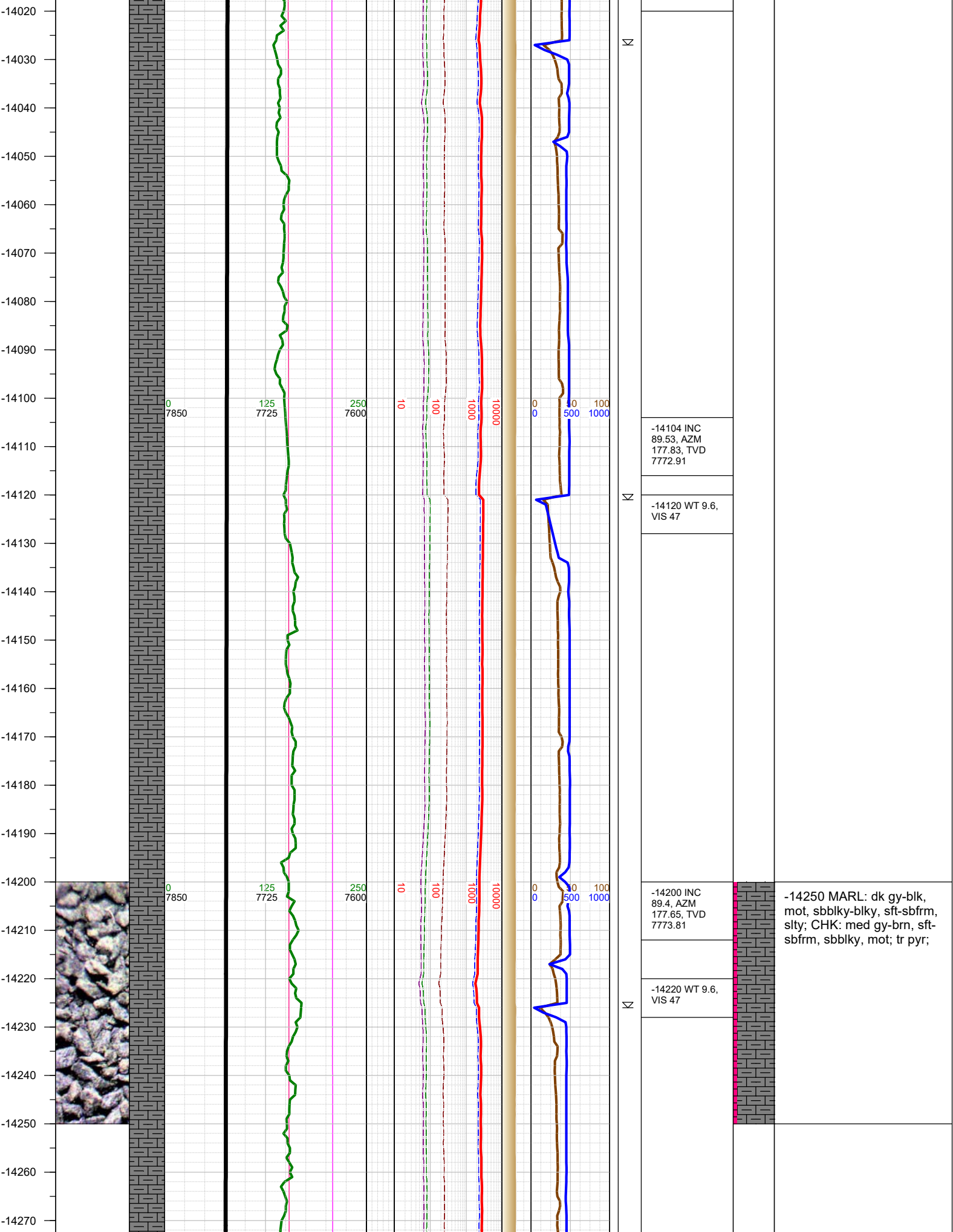


-13250 MARL: dk gy-blk, sbblky-blky, sft-sbfrm, slty; CHK: med gy-brn, sft-sbfrm, sbblky, mot; tr pyr; tr bent;









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-14295 INC
89.66, AZM
178.66, TVD
7774.59

-14310 WT 9.6,
VIS 47



-14346 Fault: 7'
down-throw;
stayed in Lower
A Marl

-14391 INC
89.44, AZM
178.18, TVD
7775.34

-14410 WT 9.6,
VIS 47

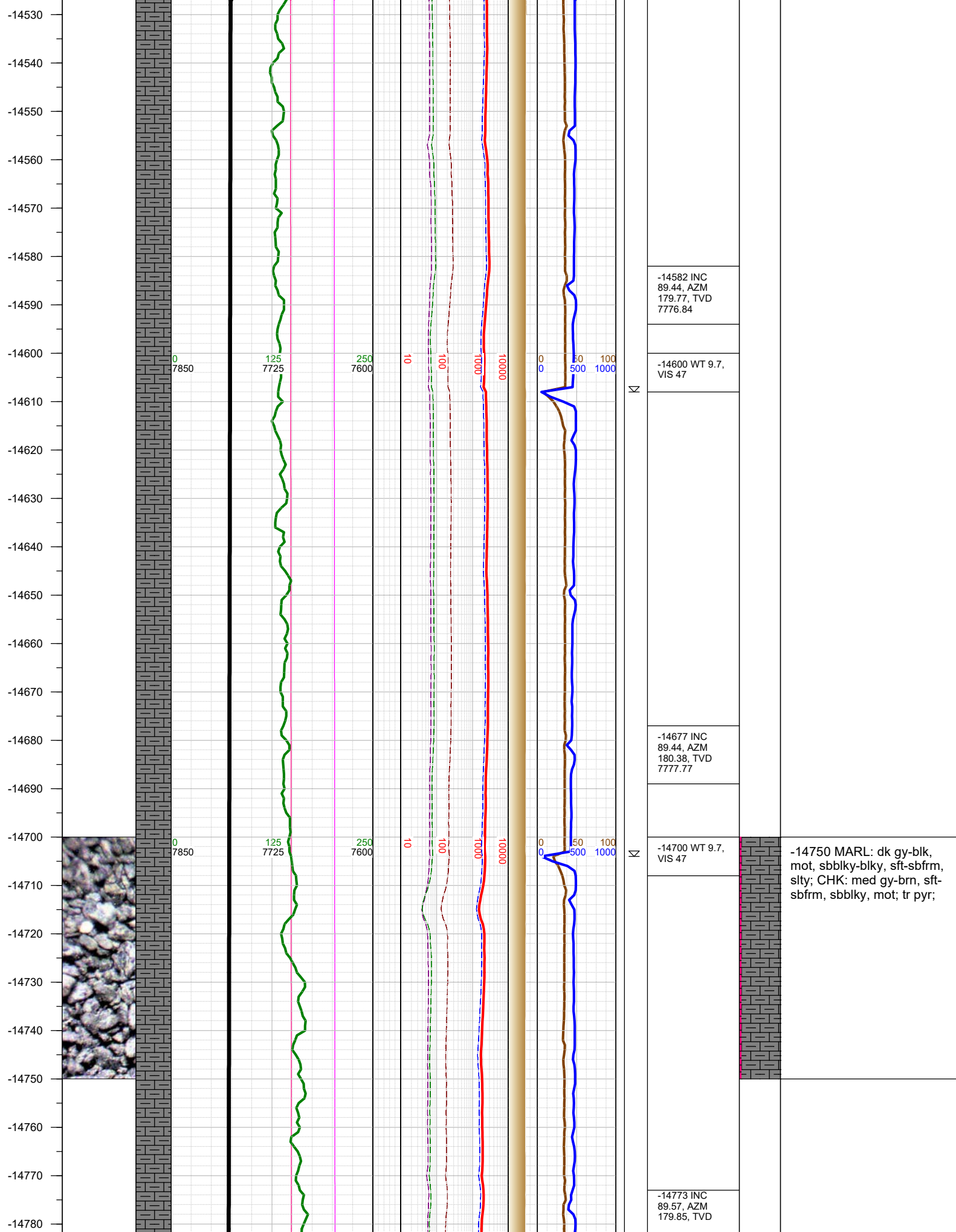


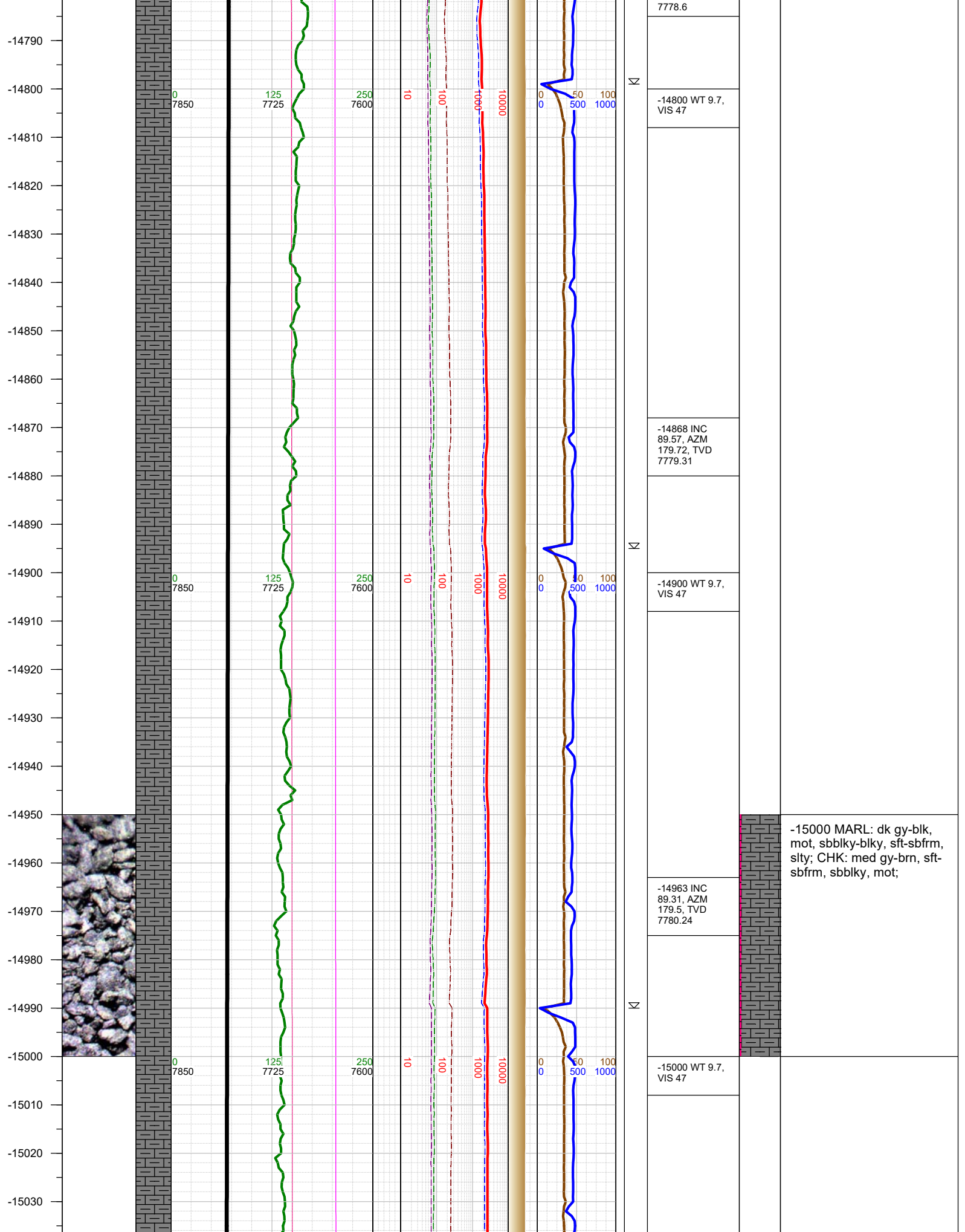
-14500 MARL: dk gy-blk,
mot, sbbiky-blky, sft-sbfrm,
slty; CHK: med gy-brn, sft-
sbfrm, sbbiky, mot; tr pyr;

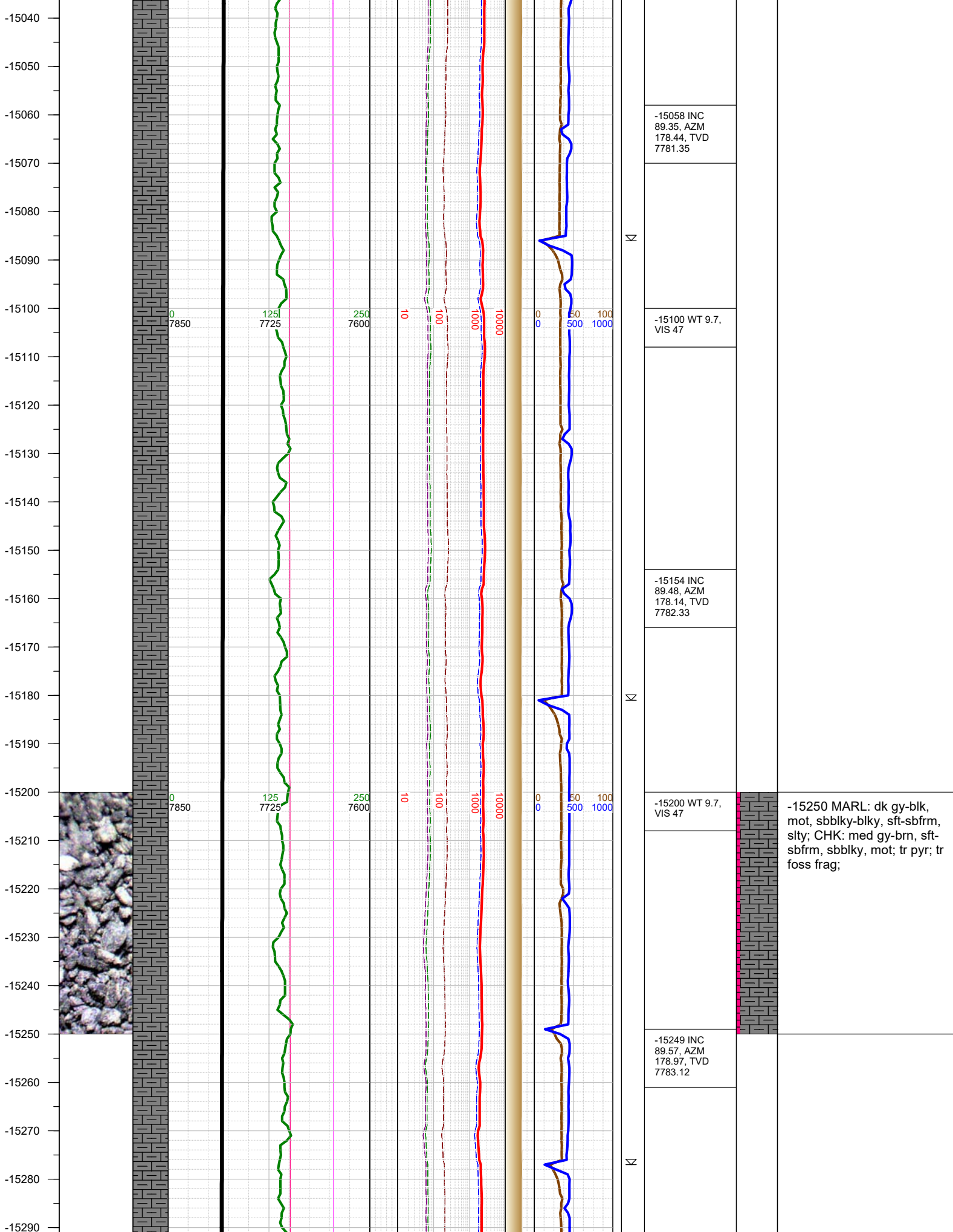
-14486 INC
89.66, AZM
179.68, TVD
7776.09

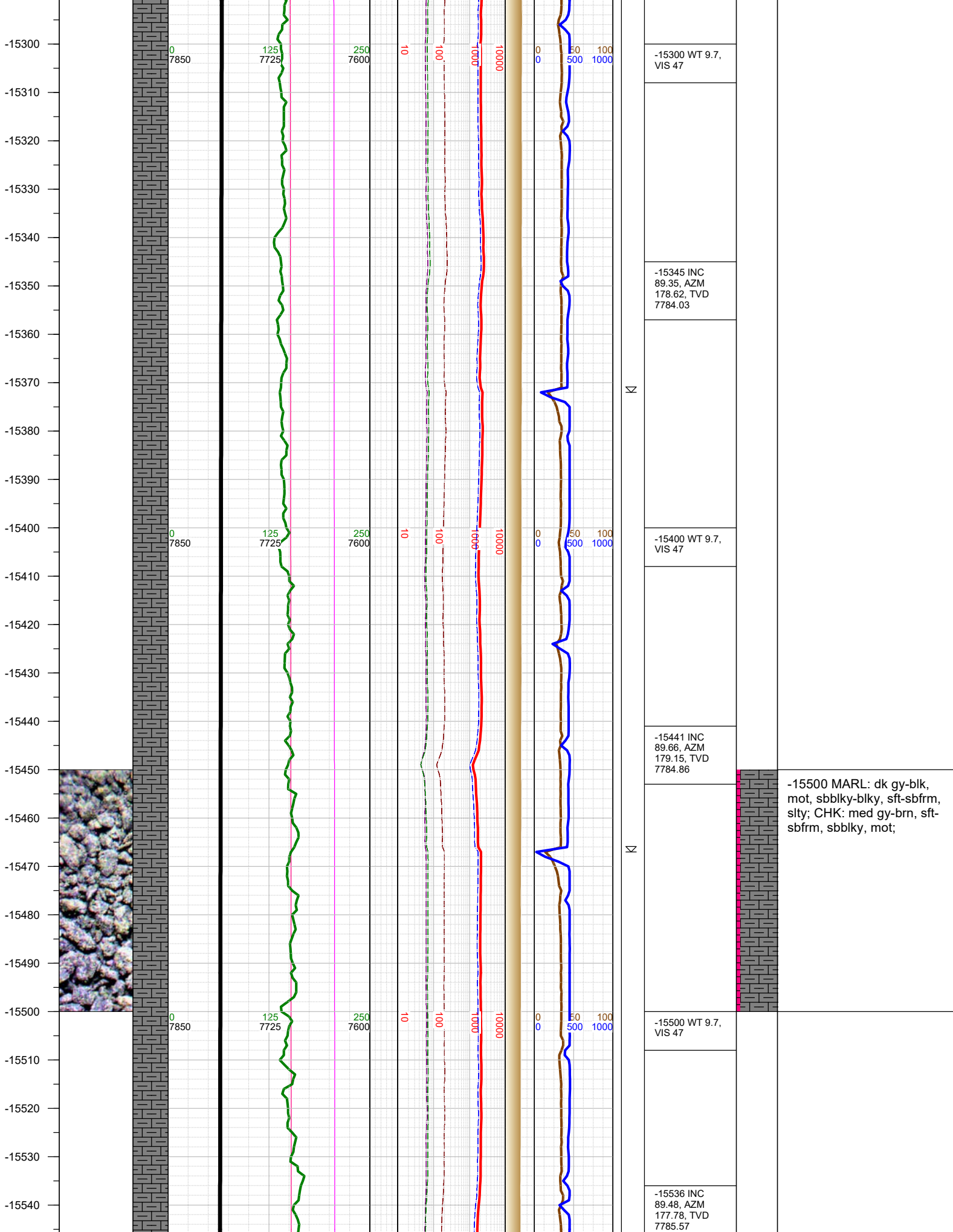
-14500 WT 9.7,
VIS 47



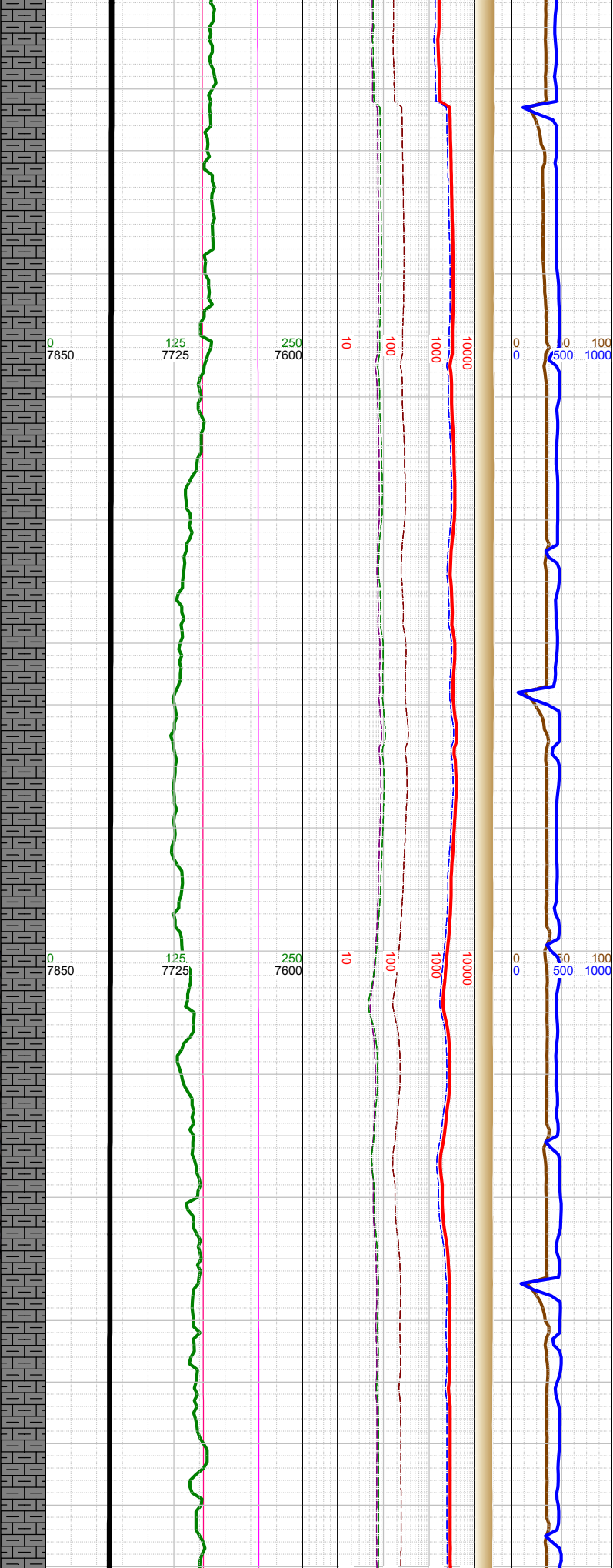
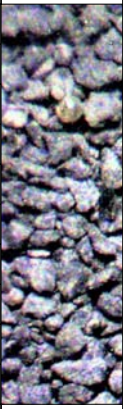




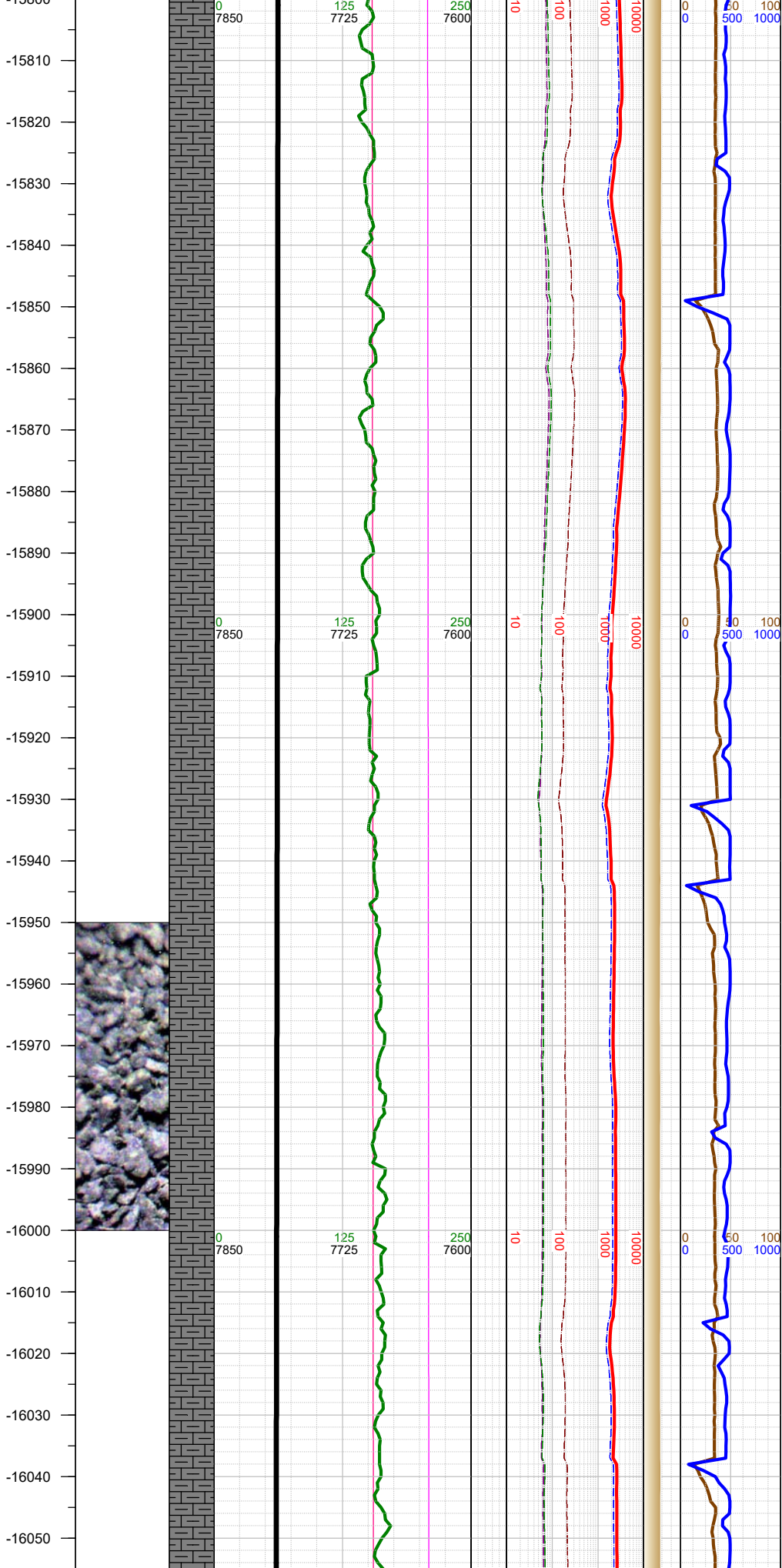




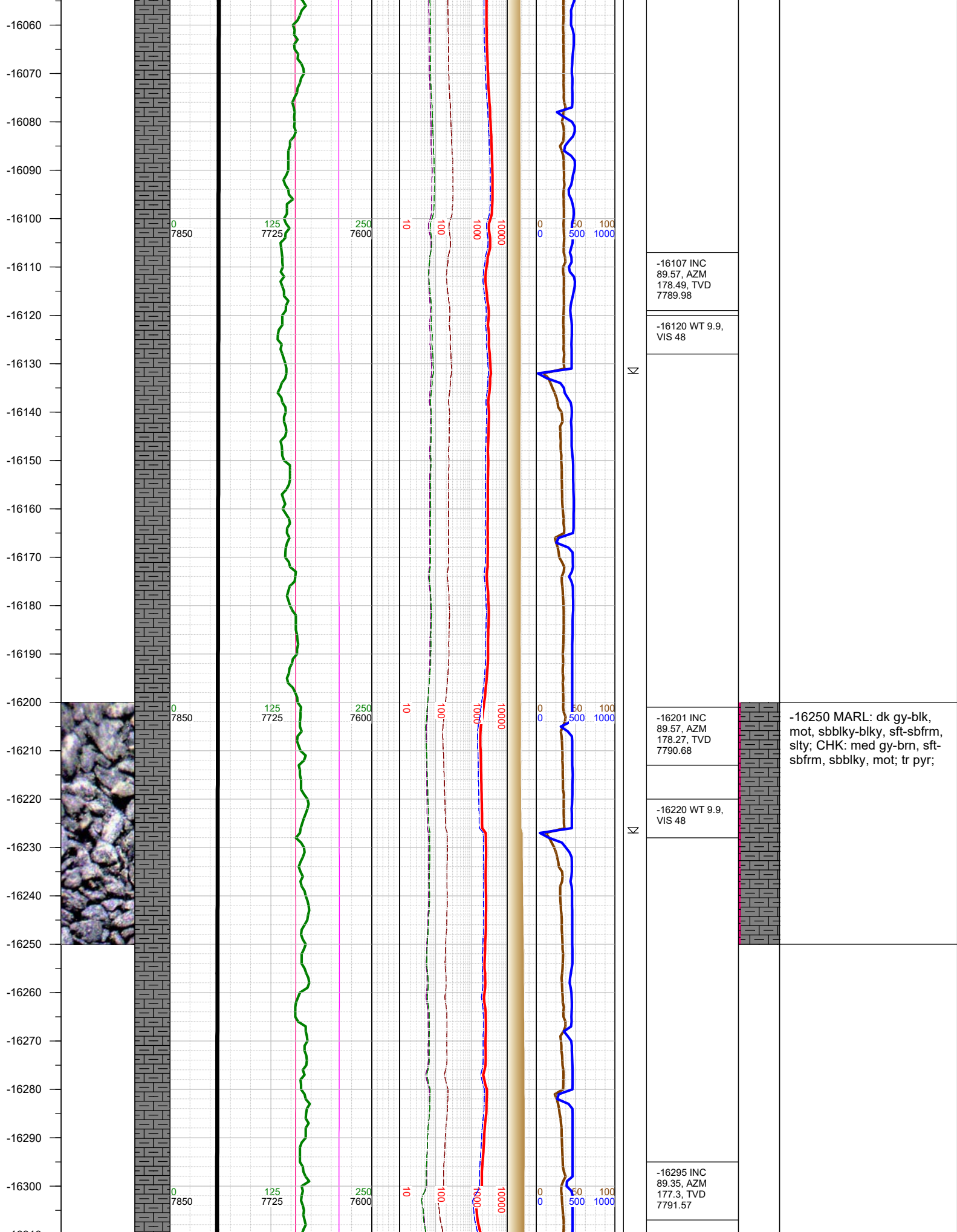
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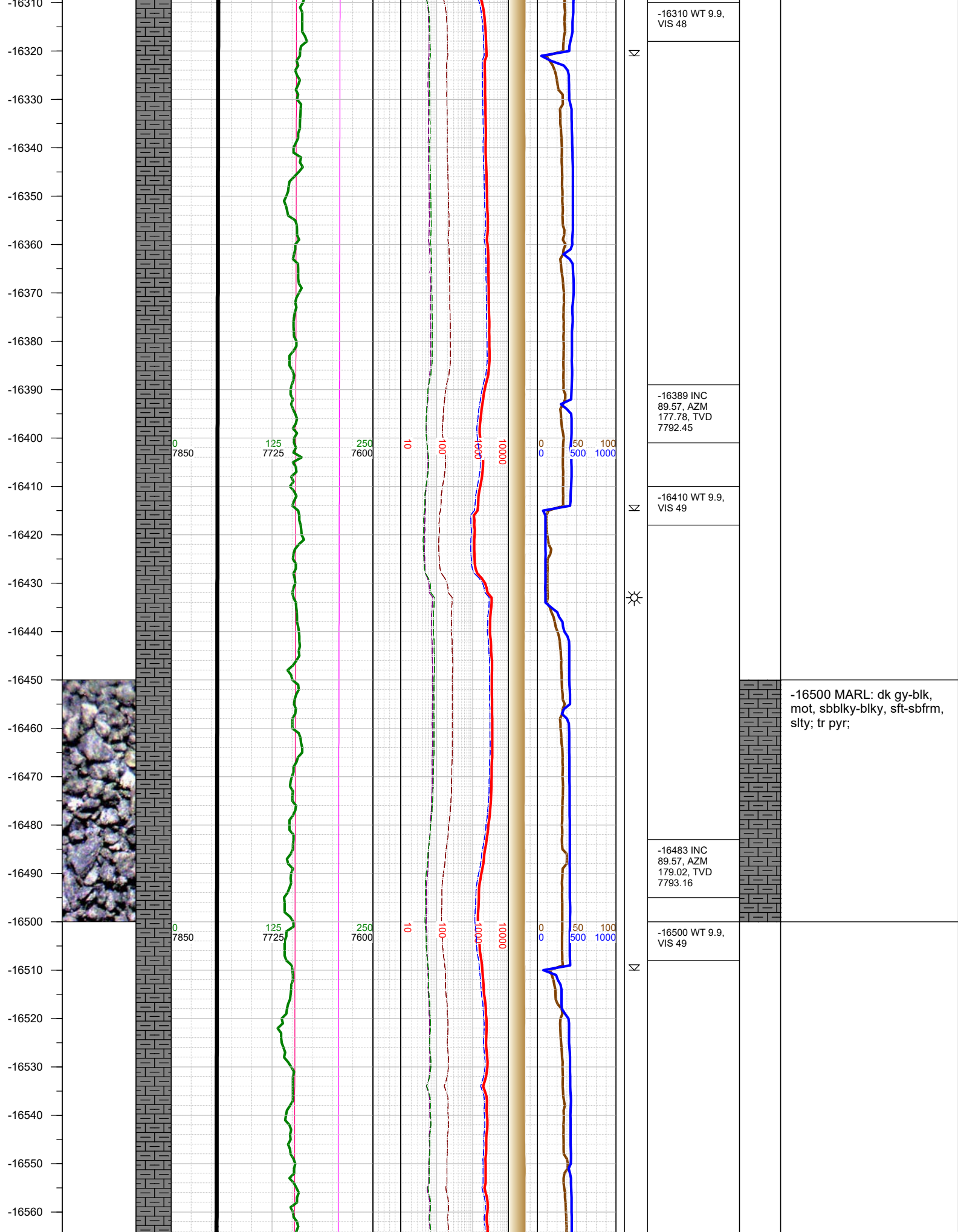


N		-15600 WT 9.9, VIS 49	
		-15632 INC 89.62, AZM 178.66, TVD 7786.32	
N		-15700 WT 9.9, VIS 49	-15750 MARL: dk gy-blk, mot, sbblky-blky, sft-sbfrm, slty; CHK: med gy-brn, sft-sbfrm, sbblky, mot; tr pyr;
		-15727 INC 89.31, AZM 178.4, TVD 7787.21	
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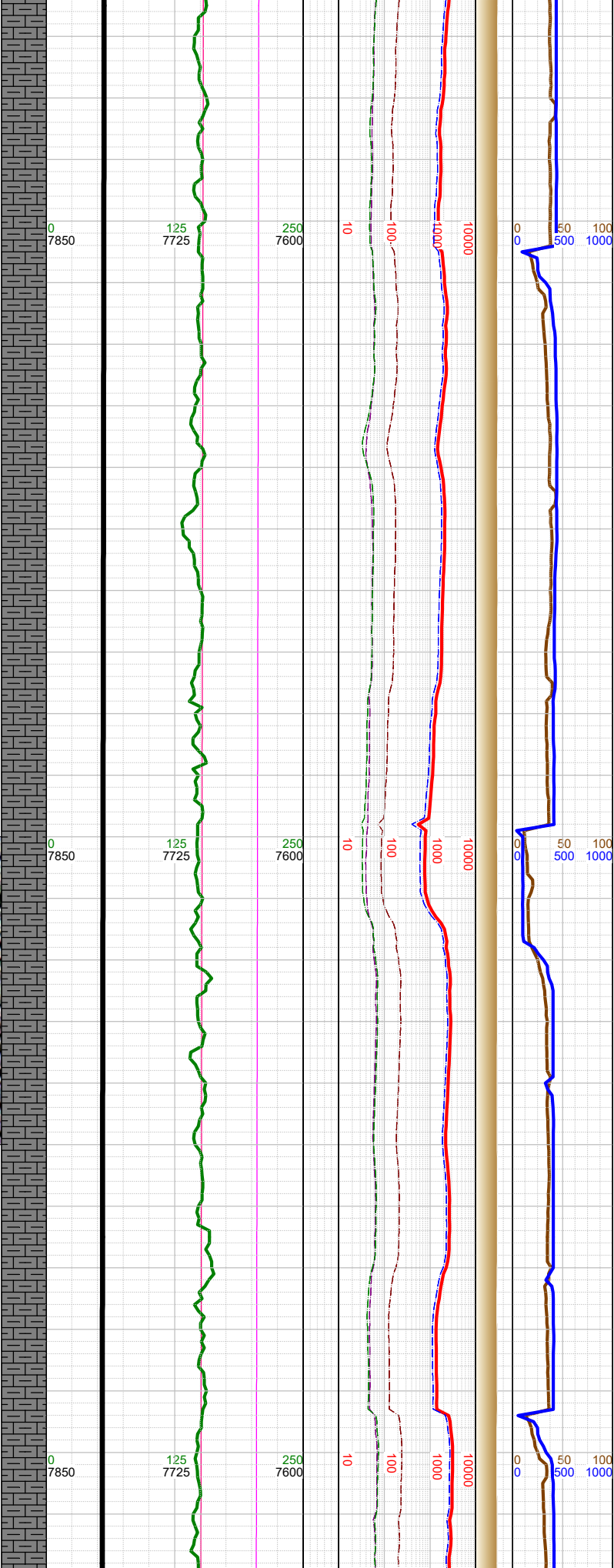
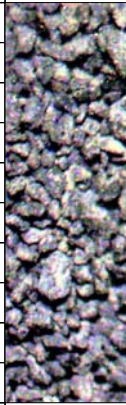


N	-15800 WT 9.9, VIS 49	
	-15822 INC 89.79, AZM 178.62, TVD 7787.96	
	-15900 WT 9.9, VIS 49	
N	-15918 INC 89.53, AZM 178.49, TVD 7788.52	
	-16000 MARL: dk gy-blk, mot, sbblky-blky, sft-sbfrm, slty; CHK: med gy-brn, sft-sbfrm, sbblky, mot; tr pyr;	
	-16000 WT 9.9, VIS 48	
N	-16013 INC 89.57, AZM 178.22, TVD 7789.27	





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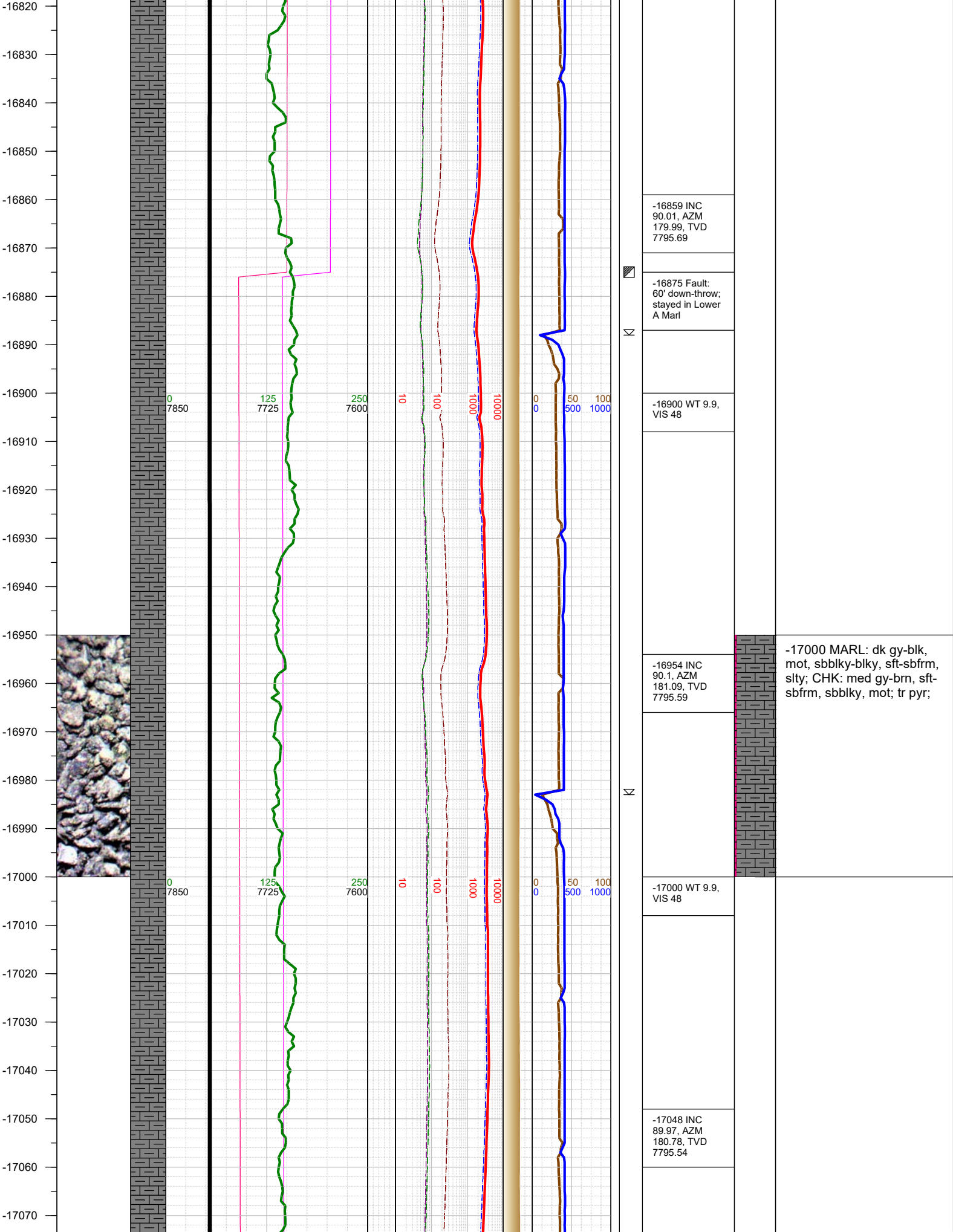
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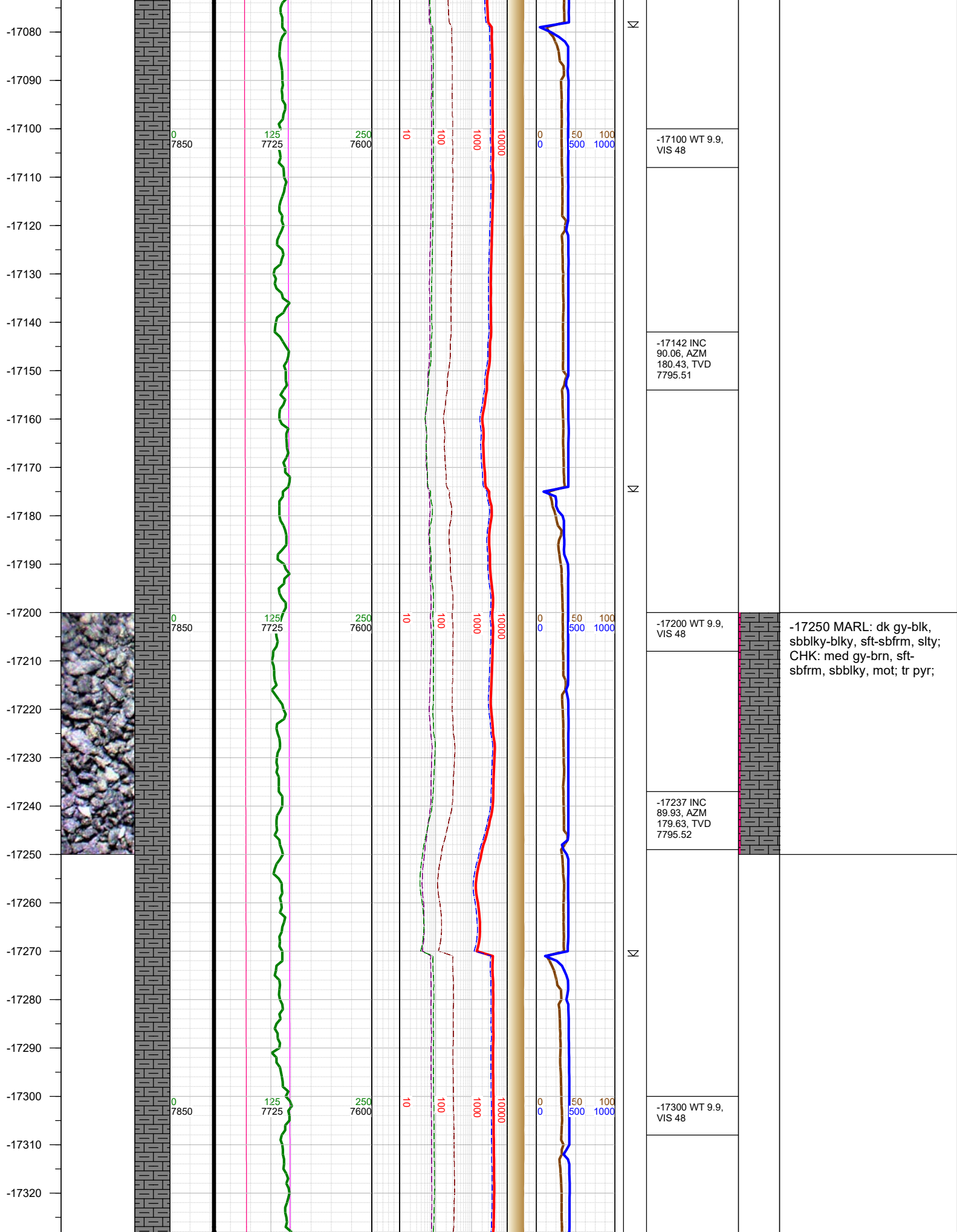
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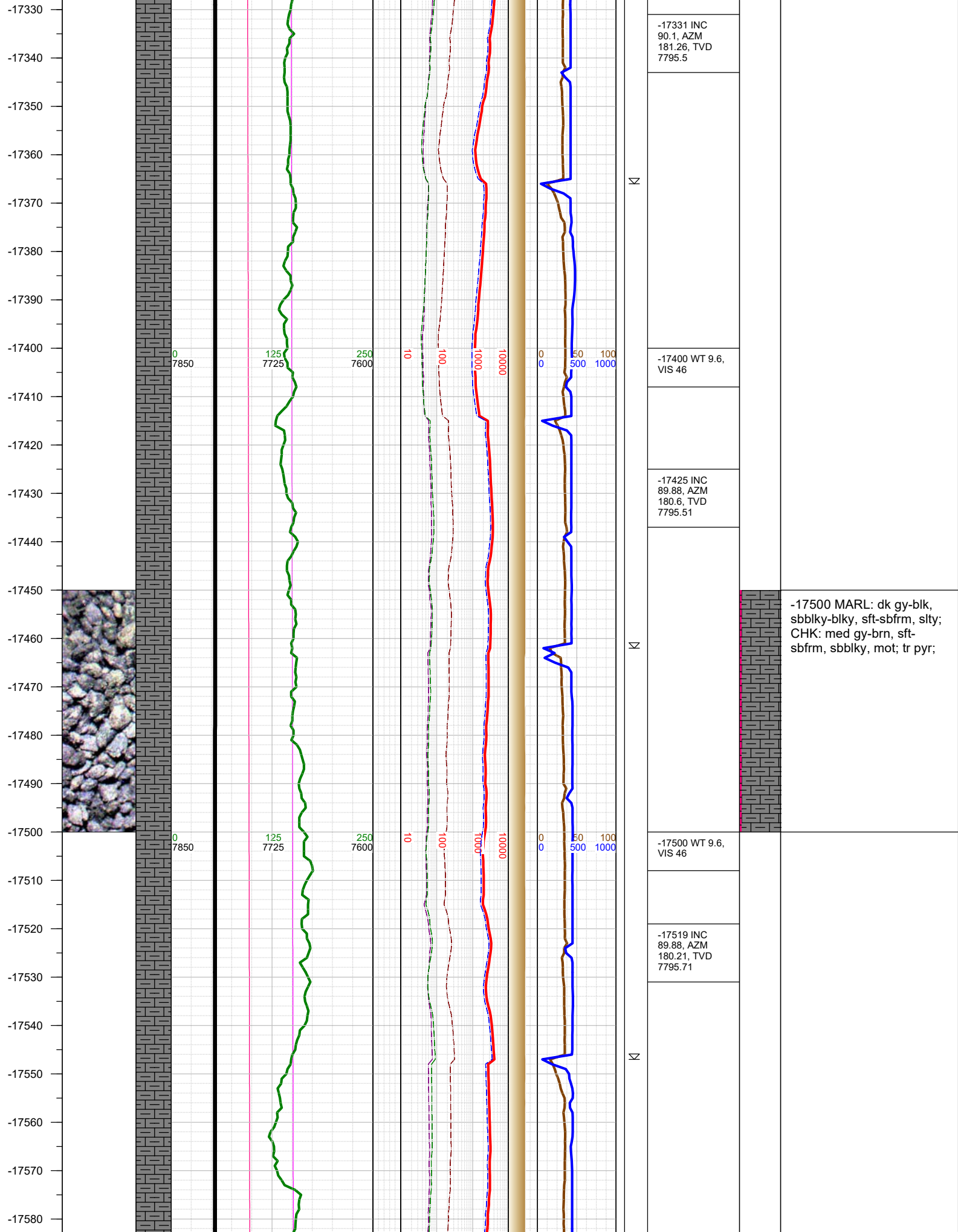
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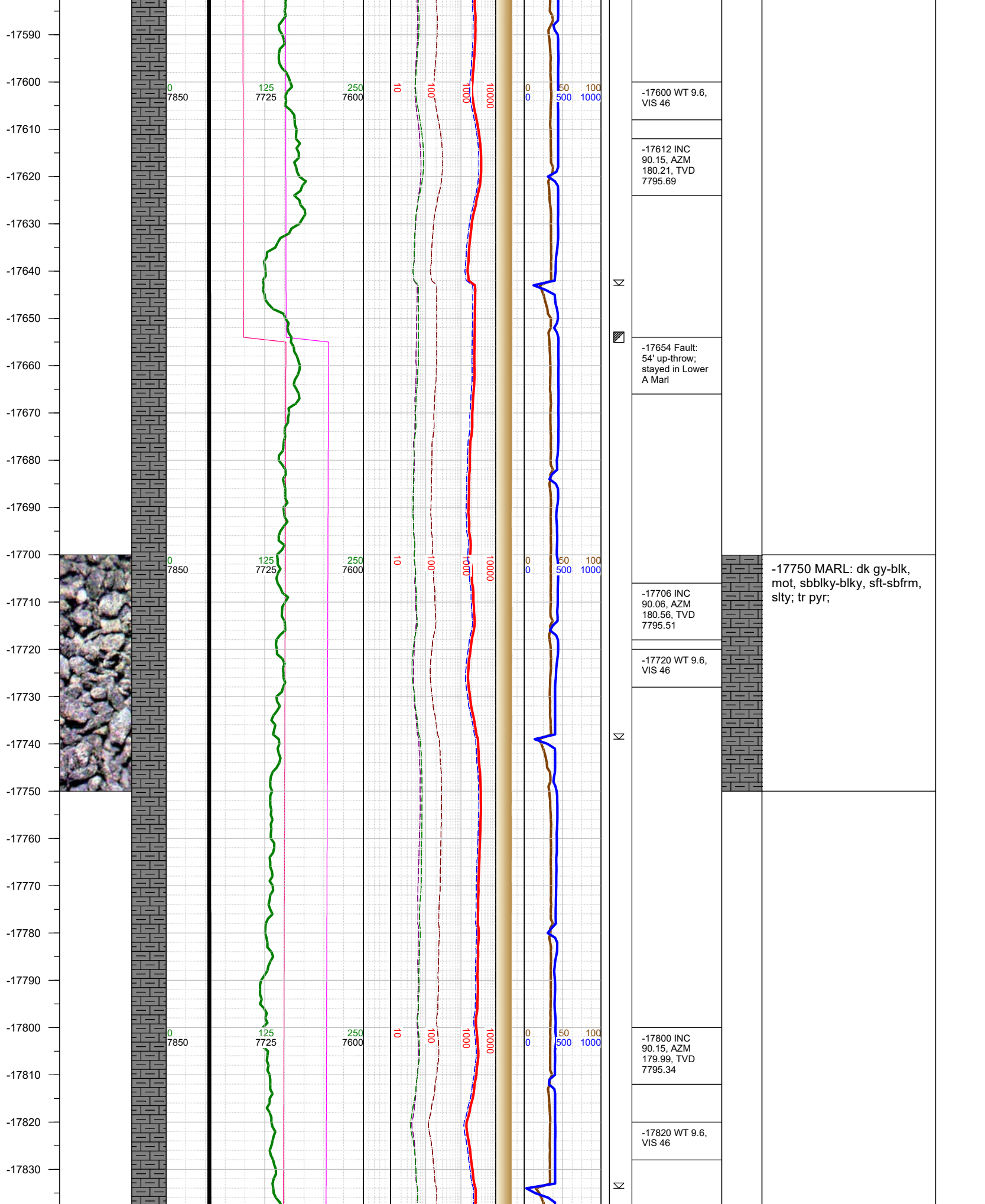
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-16577 INC 89.62, AZM 180.03, TVD 7793.82	
-16600 WT 9.9, VIS 49	
-16671 INC 89.48, AZM 179.9, TVD 7794.56	
-16700 WT 9.9, VIS 49	-16750 MARL: dk gy-blk, mot, sbbiky-blky, sft-sbfrm, slty; tr pyr;
-16765 INC 89.57, AZM 180.52, TVD 7795.34	
-16800 WT 9.9, VIS 49	

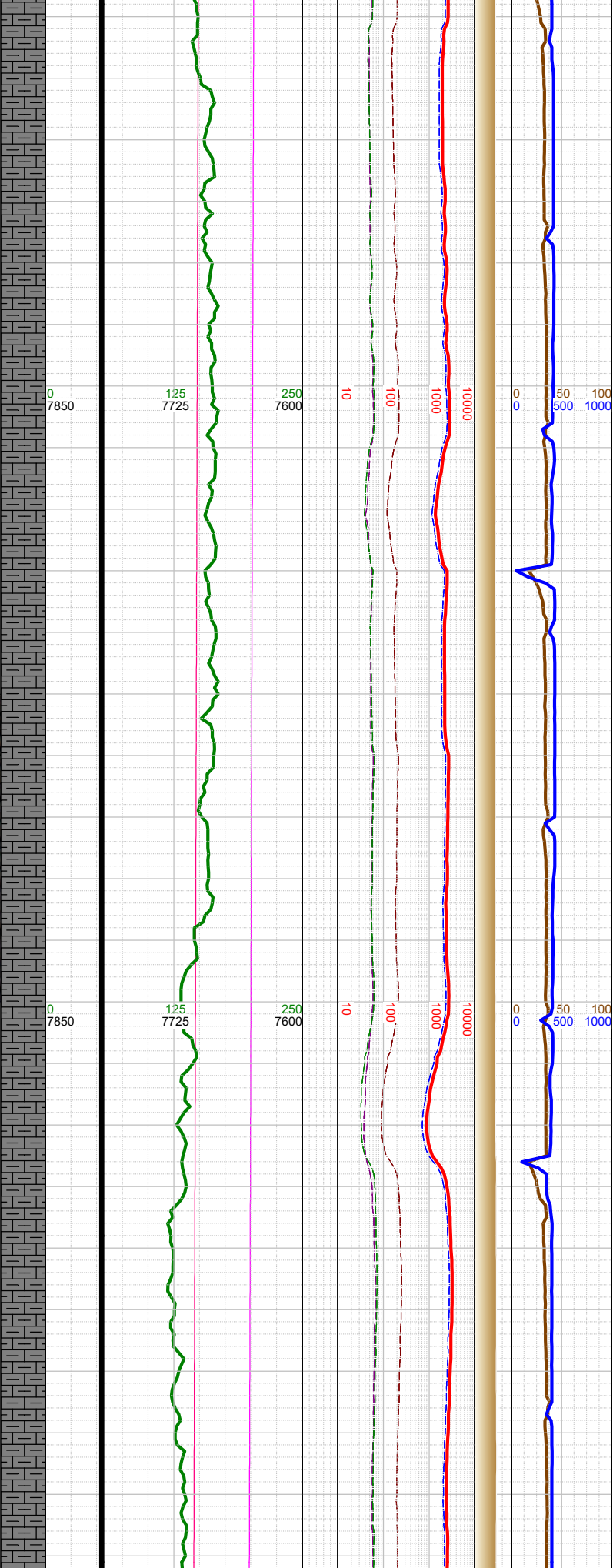
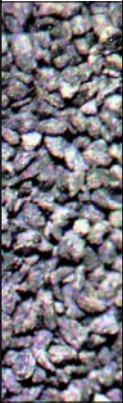








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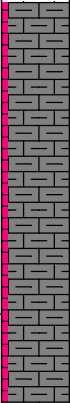
-17893 INC
90.06, AZM
180.56, TVD
7795.17

-17910 WT 9.6,
VIS 46

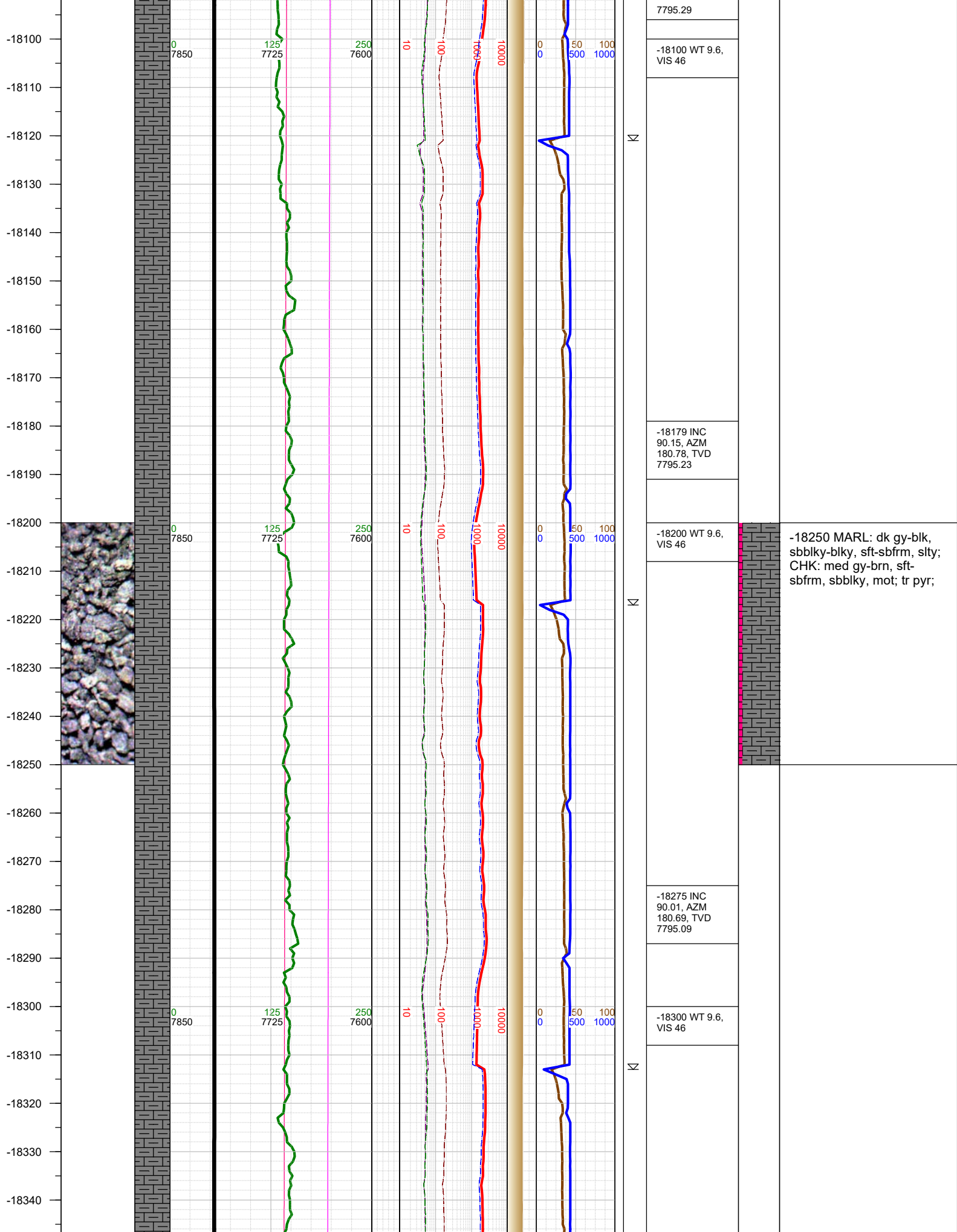
-17989 INC
89.93, AZM
179.9, TVD
7795.18

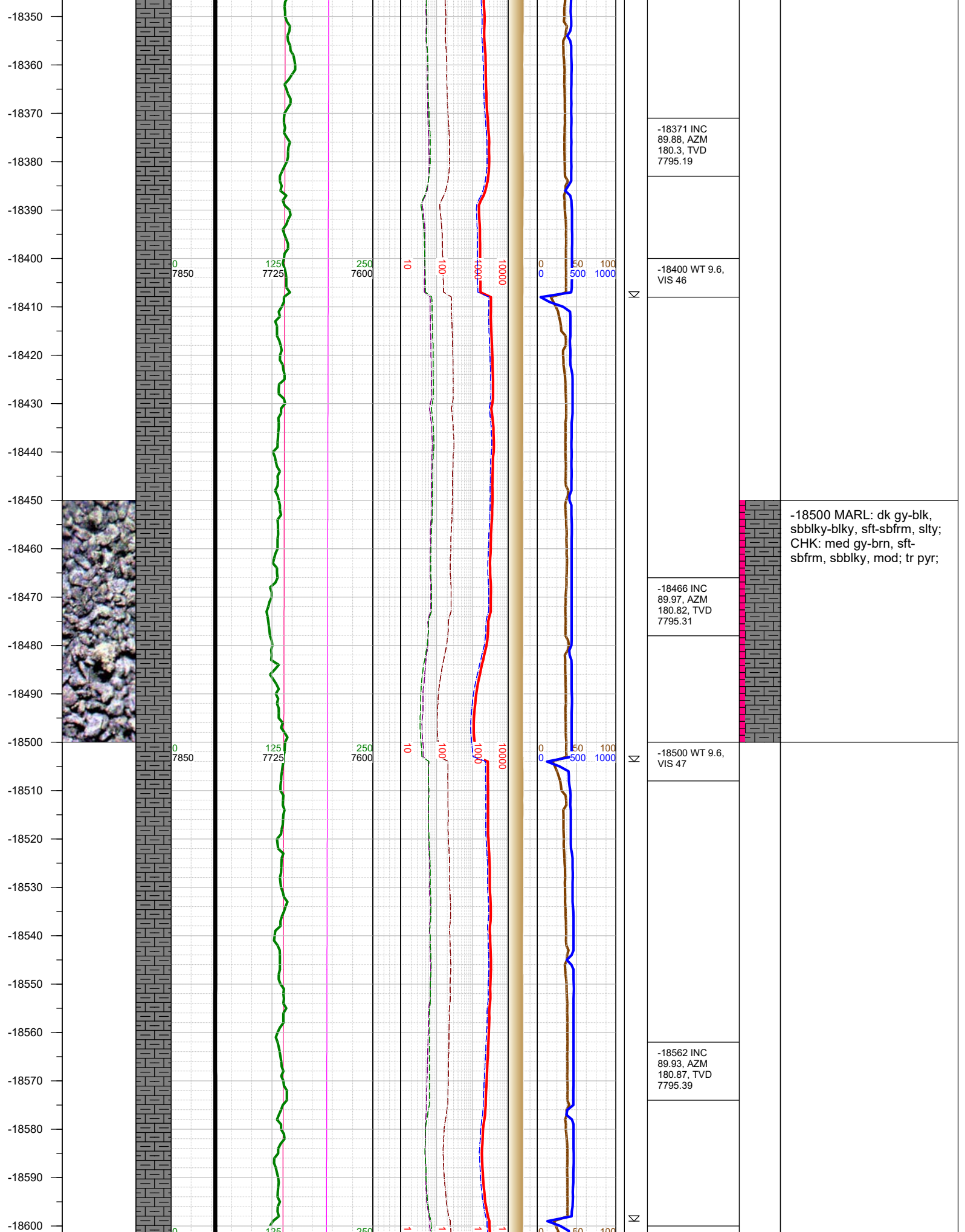
-18010 WT 9.6,
VIS 46

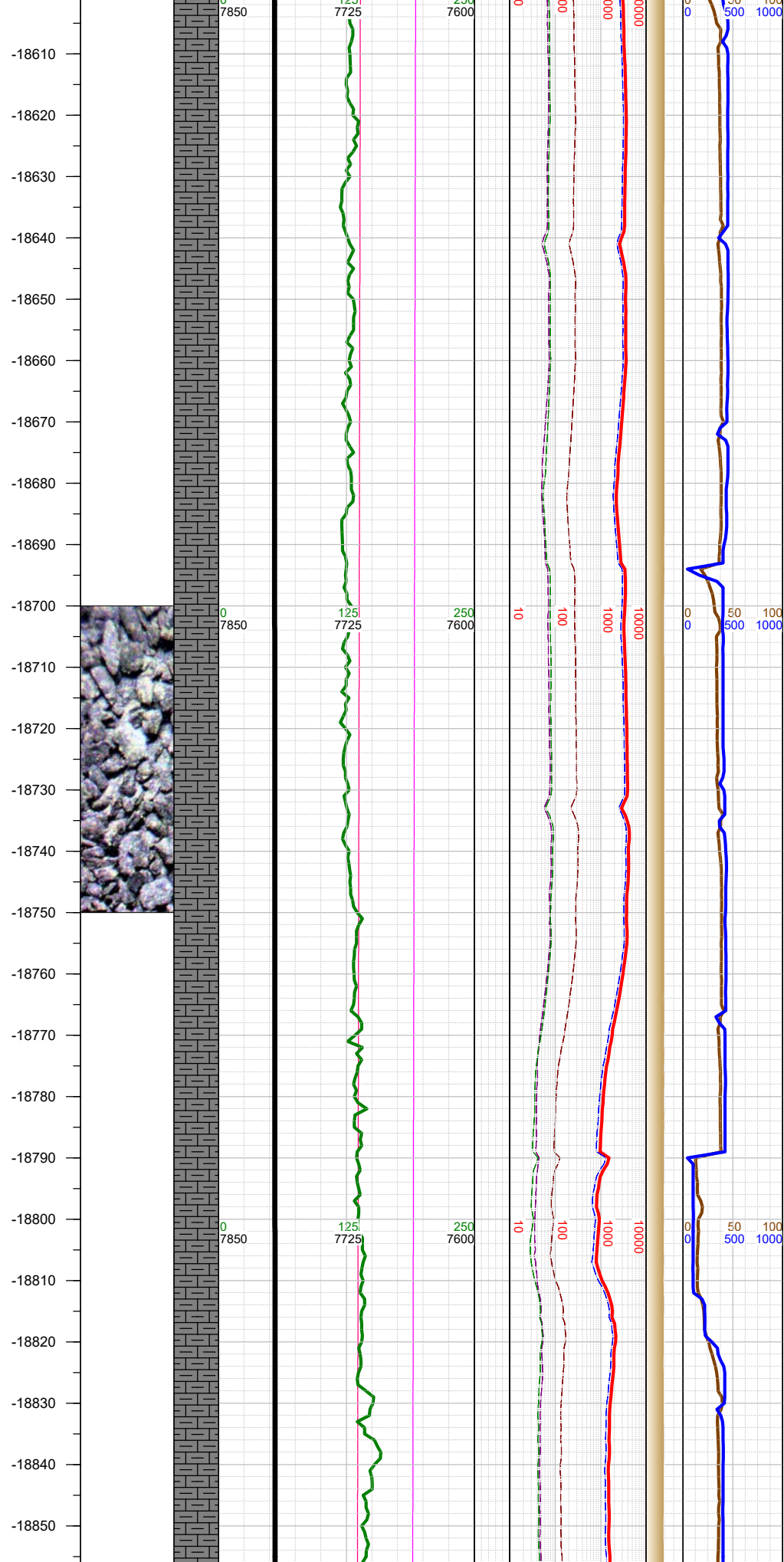
-18084 INC
89.93, AZM
181.09, TVD

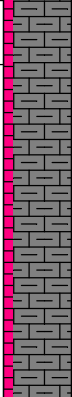


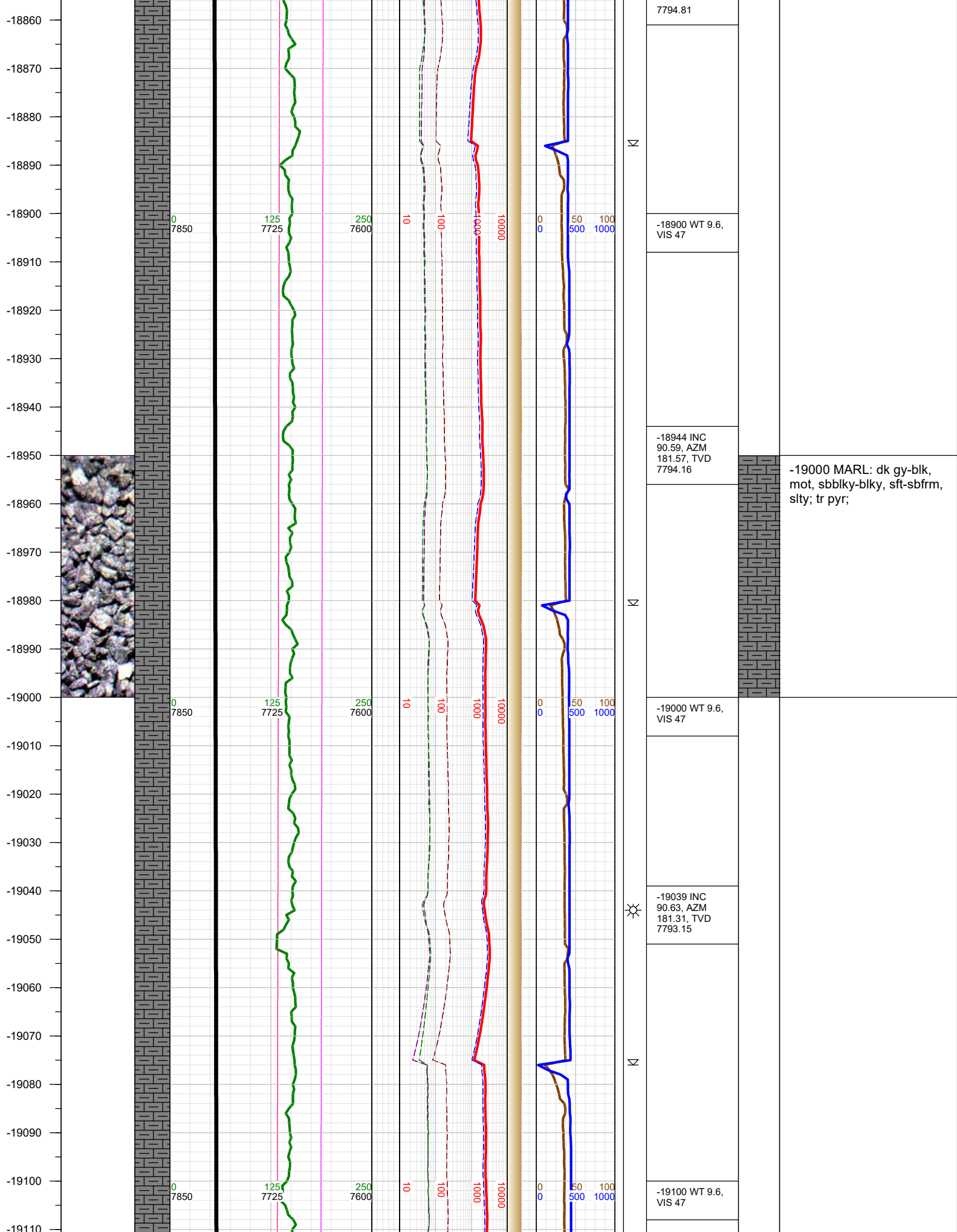
-18000 MARL: dk gy-blk,
sbblky-blky, sft-sbfrm, slty;
CHK: med gy-brn, sft-
sbfrm, sbblky, mot; tr pyr;

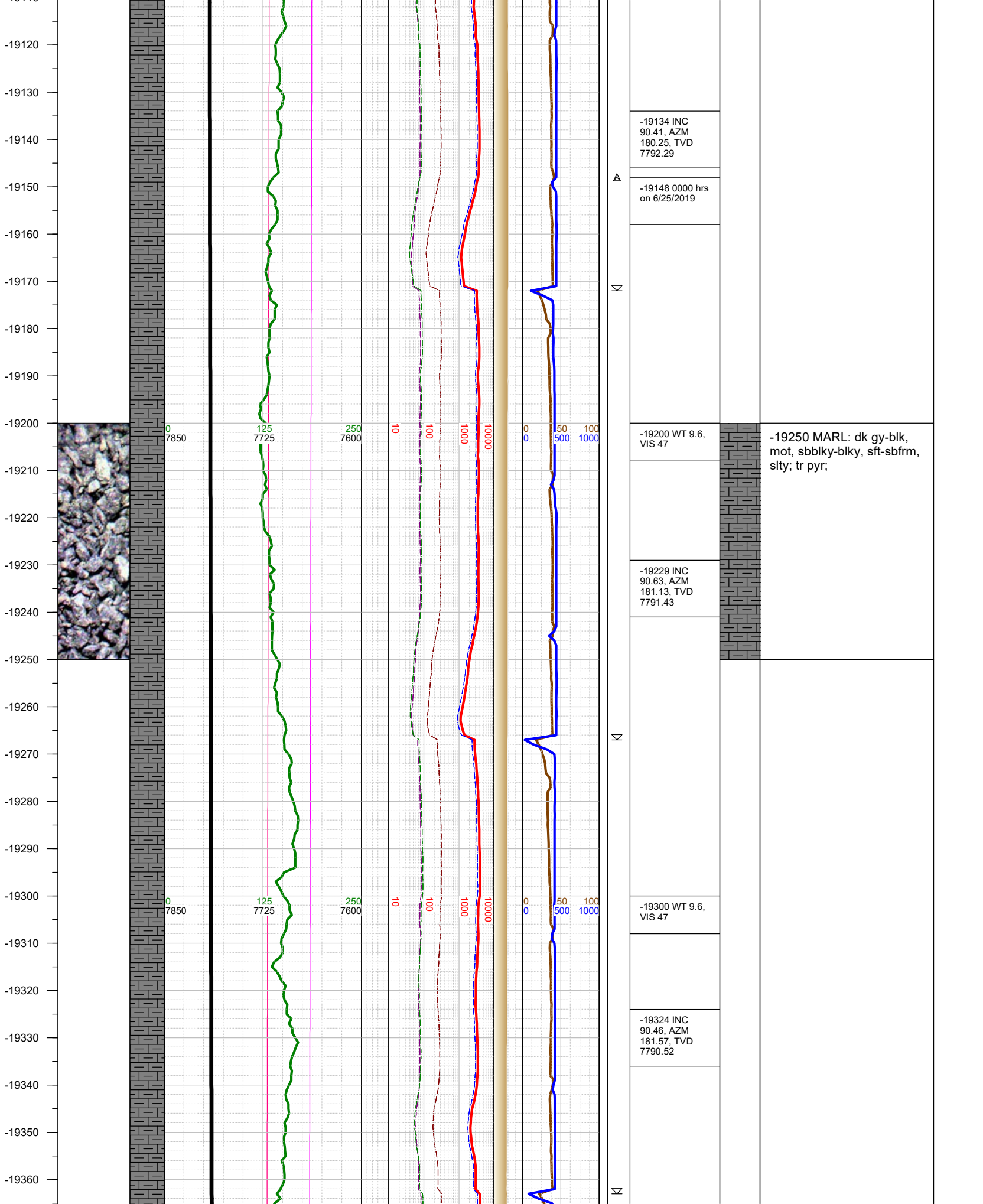


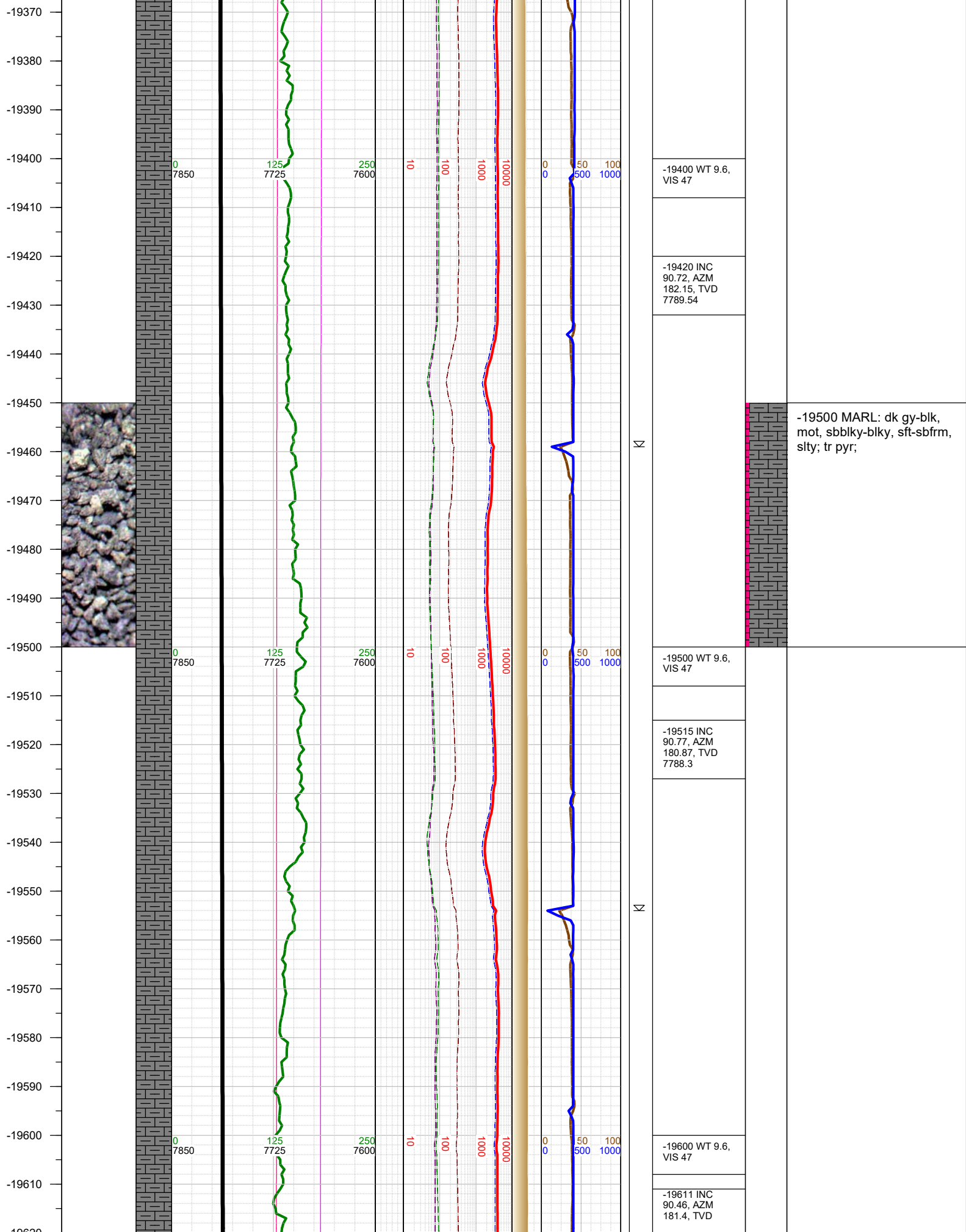




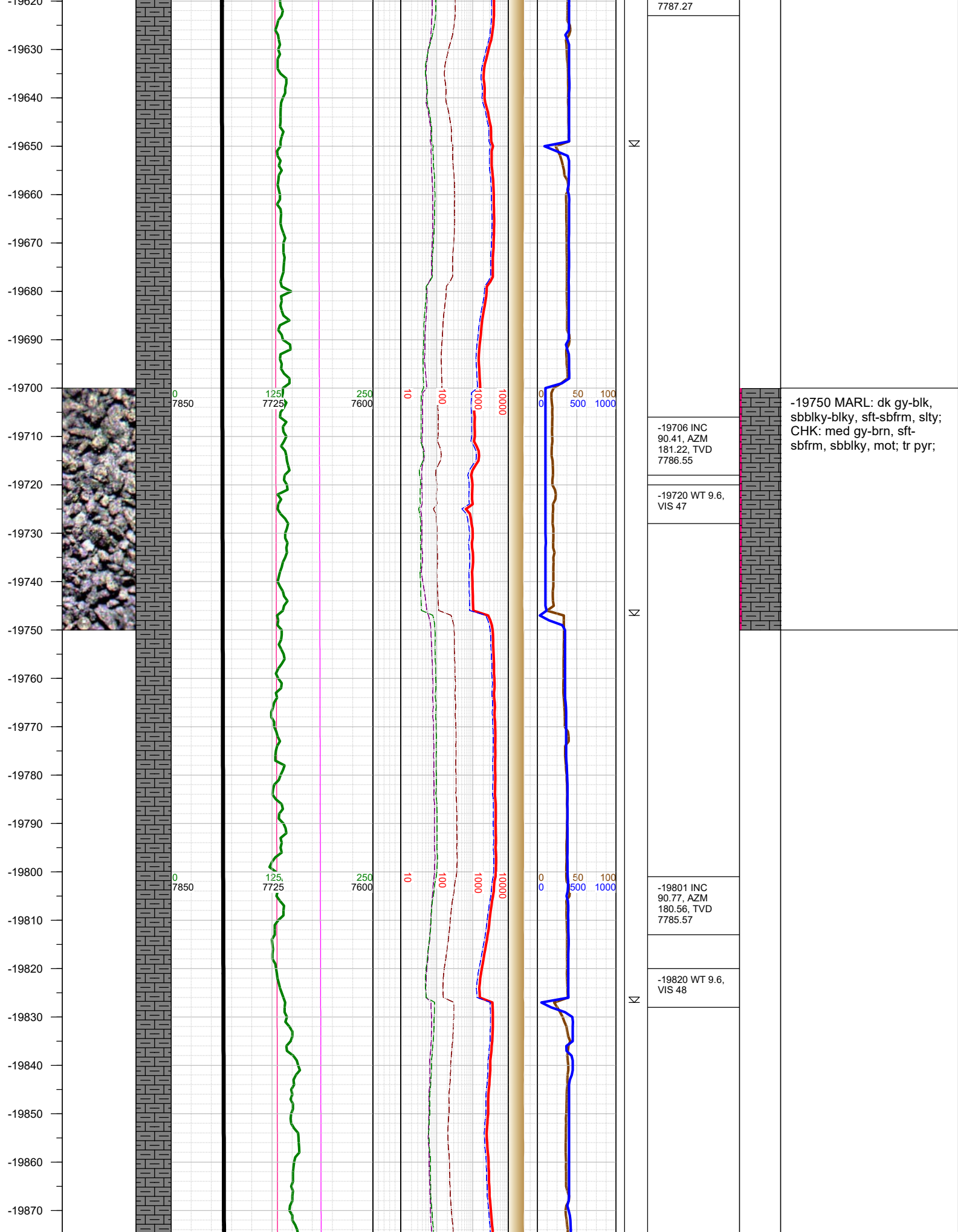
Σ	-18600 WT 9.6, VIS 47		
	-18658 INC 90.23, AZM 180.38, TVD 7795.26		
	-18700 WT 9.6, VIS 47		-18750 MARL: dk gy-blk, sbbblky-blky, sft-sbfrm, slty; CHK: med gy-brn, sft- sbfrm, sbbblky, mot; tr pyr;
Σ	-18753 INC 90.06, AZM 180.6, TVD 7795.02		
	-18800 WT 9.6, VIS 47		
	-18849 INC 90.19, AZM 180.69, TVD		

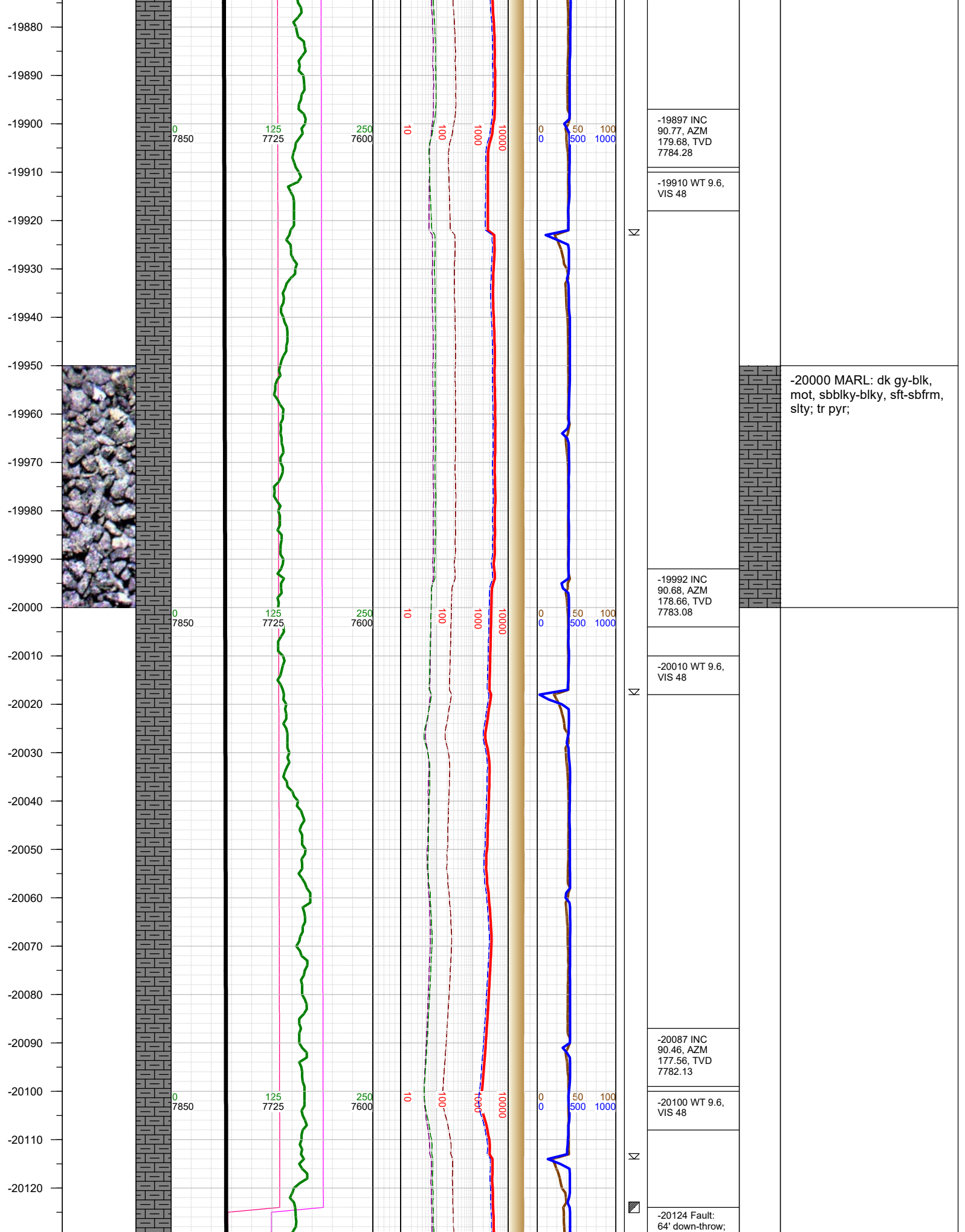




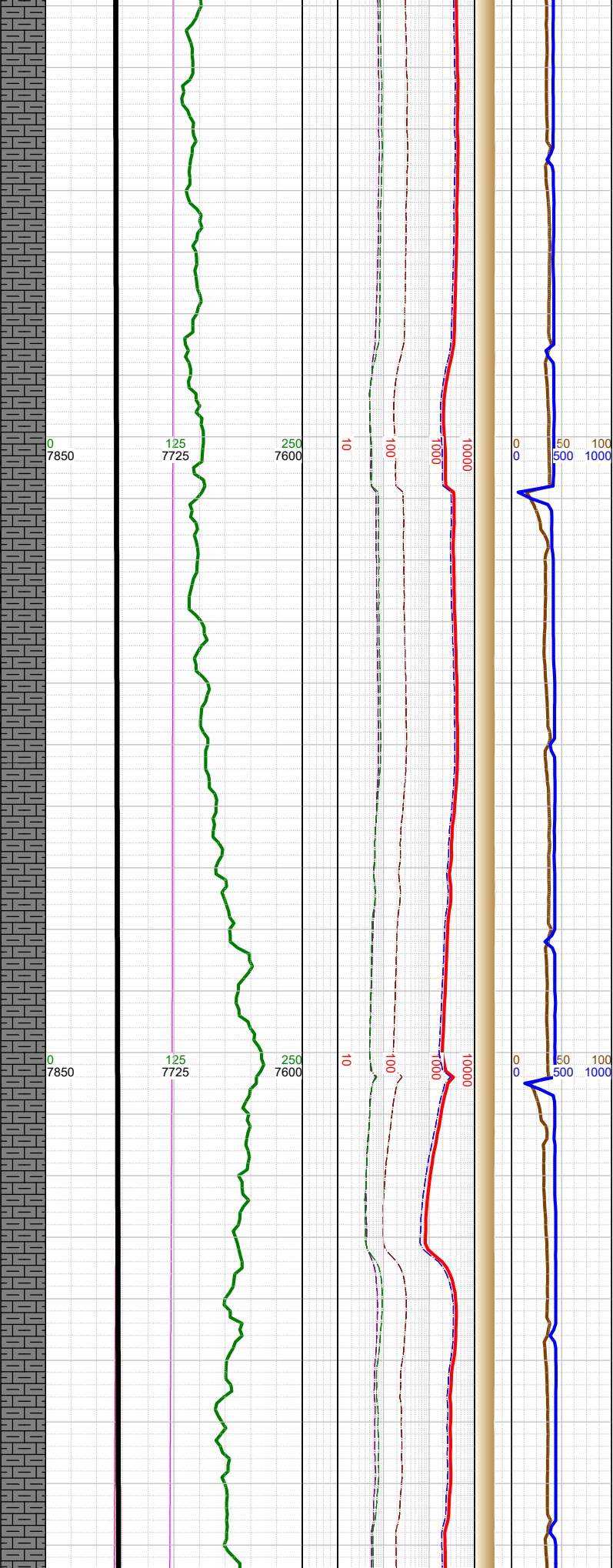
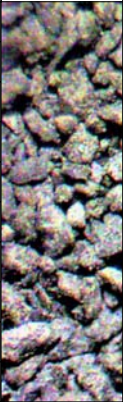


-19500 MARL: dk gy-blk, mot, sbbiky-blky, sft-sbfrm, slty; tr pyr;

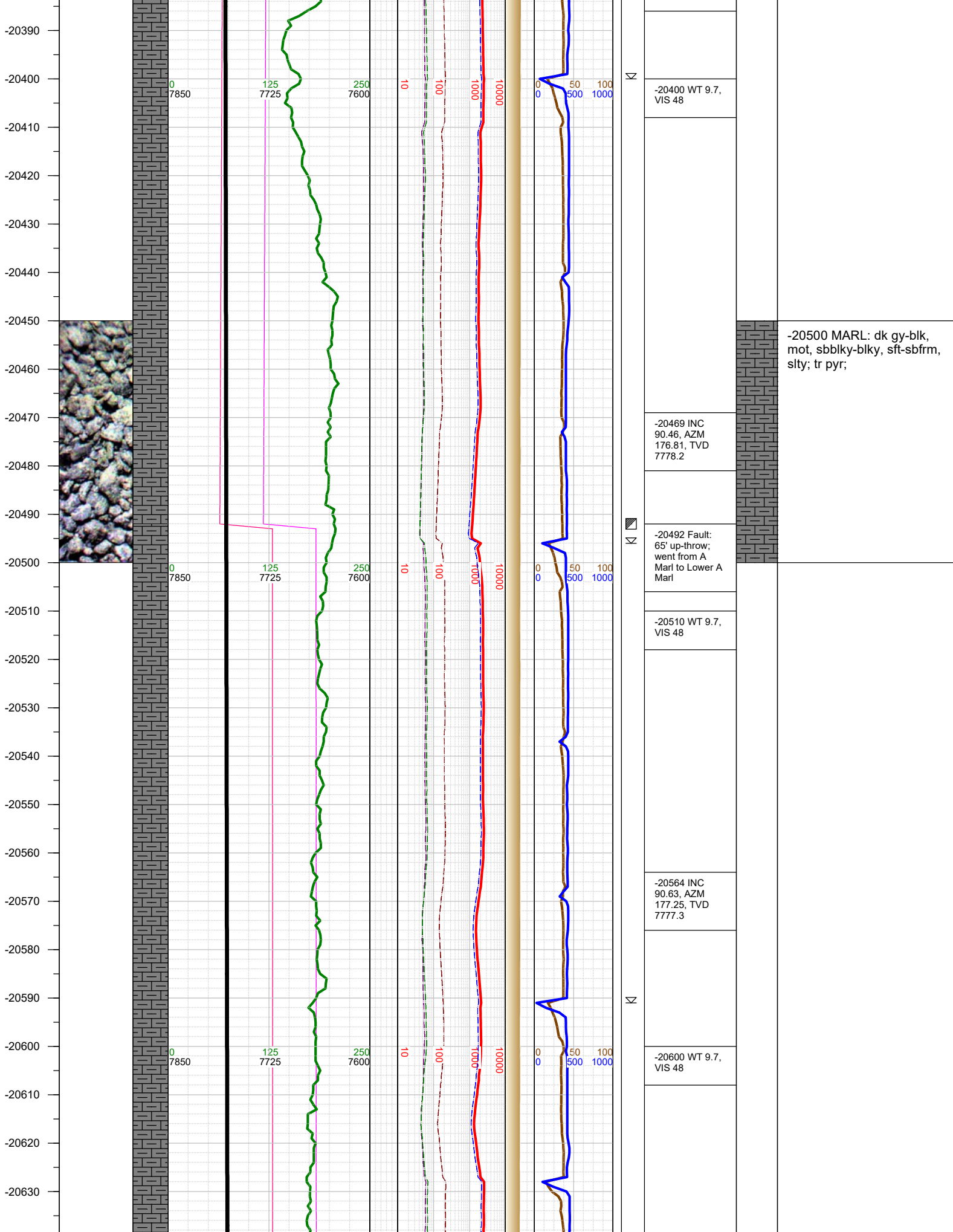


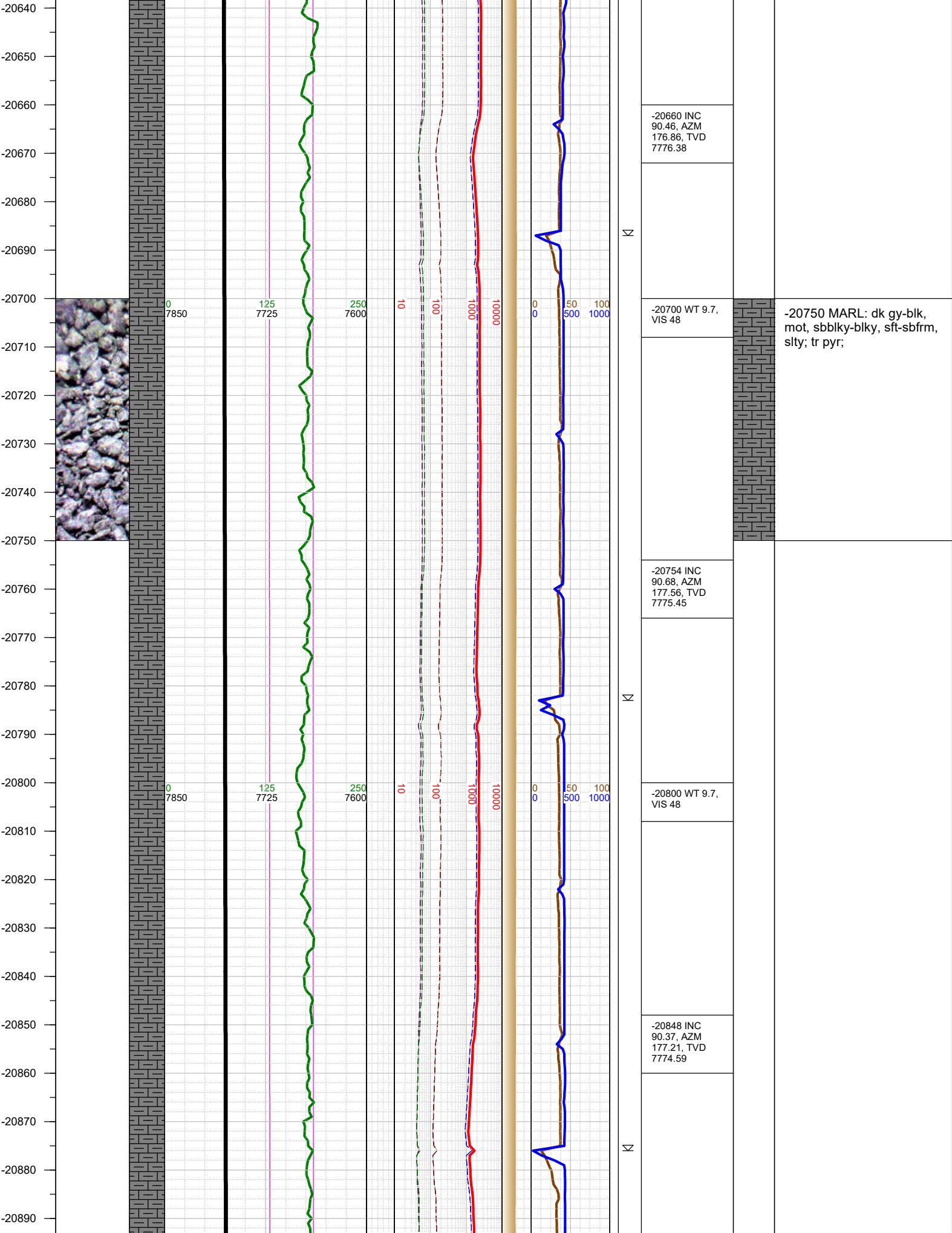


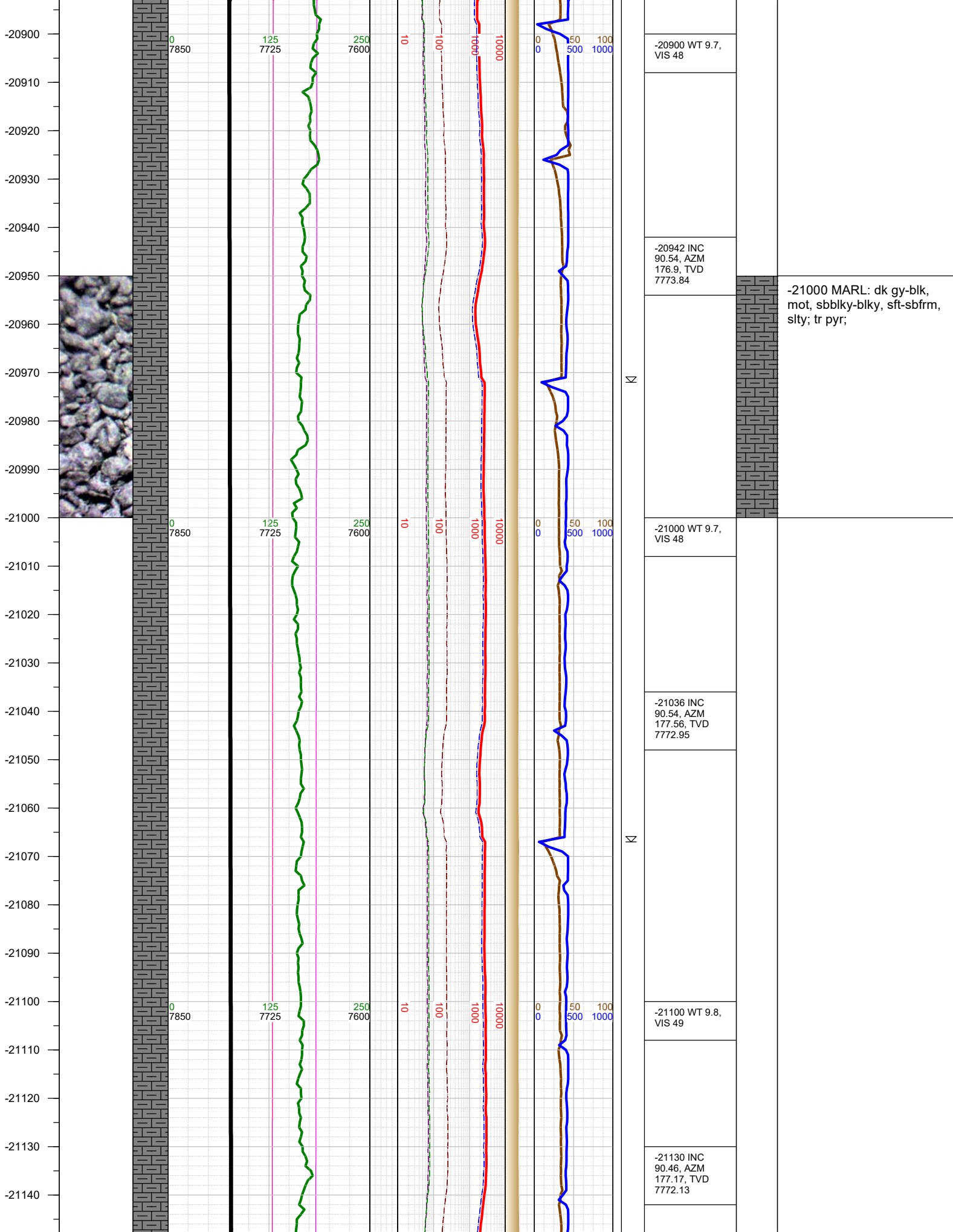
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-20260
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-20280
-20290
-20300
-20310
-20320
-20330
-20340
-20350
-20360
-20370
-20380

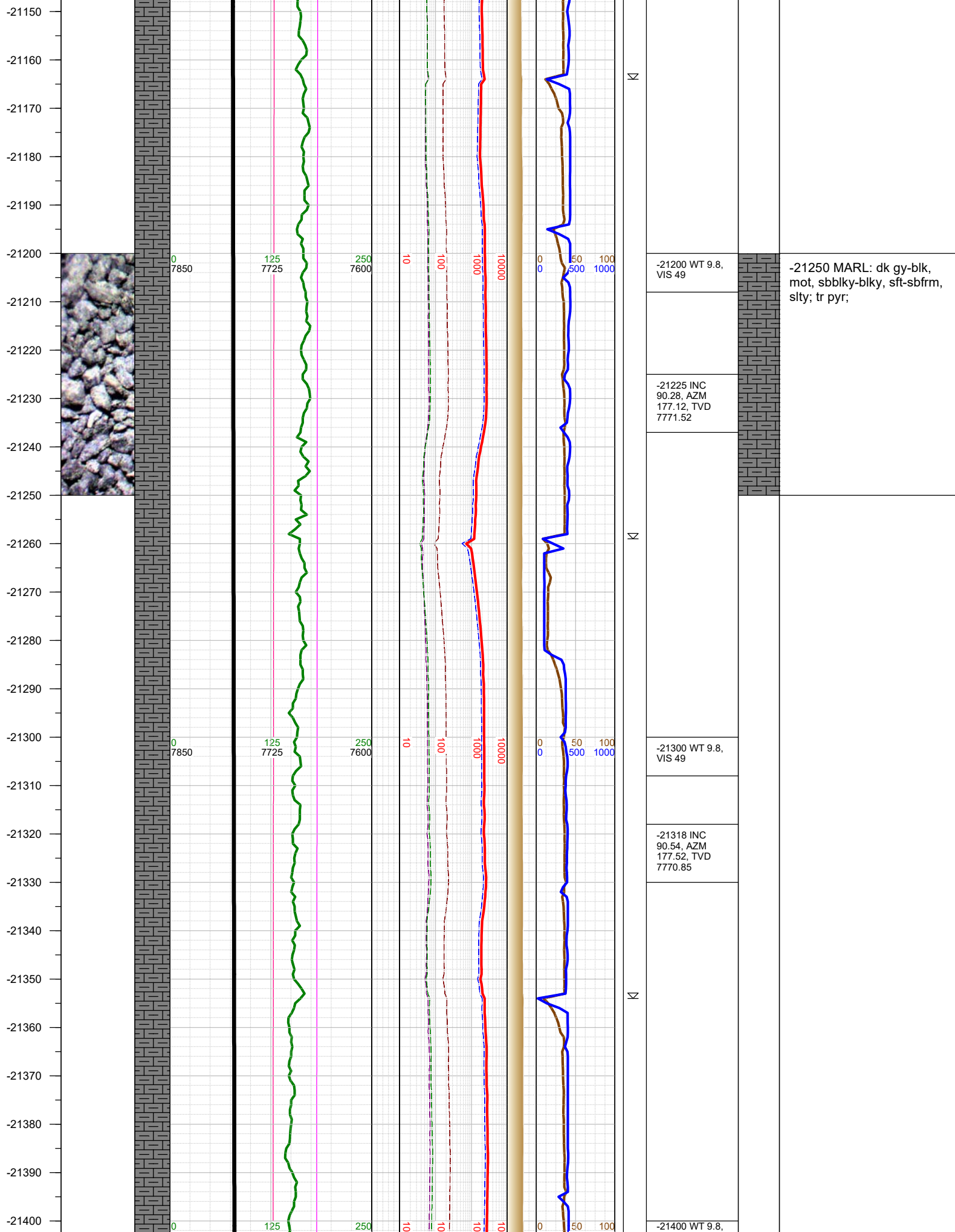


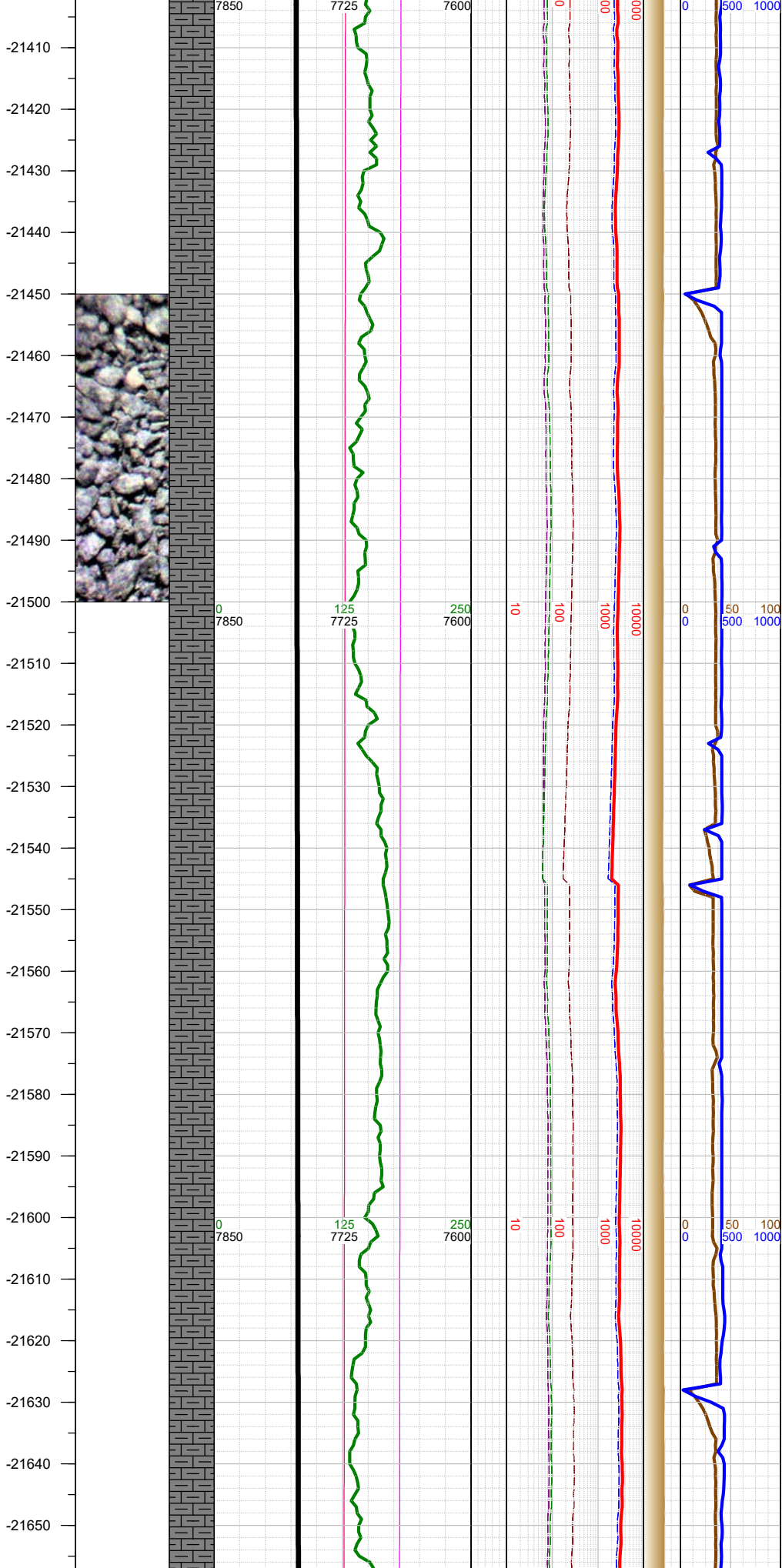
stayed in Lower A Marl	
-20183 INC 90.68, AZM 177.61, TVD 7781.18	
-20200 WT 9.7, VIS 48	-20250 MARL: dk gy-blk, mot, sbblky-blky, sft-sbfrm, slty; tr pyr;
-20279 INC 90.63, AZM 178.18, TVD 7780.08	
-20300 WT 9.7, VIS 48	
-20374 INC 90.59, AZM 177.17, TVD 7779.07	











VIS 49		
	-21413 INC 90.41, AZM 178.27, TVD 7770.07	
		-21500 MARL: dk gy-blk, mot, sbblky-blky, sft-sbfrm, slty; tr pyr;
-21507 INC 90.54, AZM 179.37, TVD 7769.29		
	-21520 WT 9.8, VIS 49	
-21601 INC 90.37, AZM 179.24, TVD 7768.54		
	-21620 WT 9.8, VIS 49	

-21660
-21670
-21680
-21690
-21700
-21710
-21720
-21730
-21740
-21750
-21760
-21770
-21780
-21790
-21800
-21810
-21820
-21830
-21840
-21850
-21860
-21870
-21880
-21890
-21900
-21910



0
7850

125
7725

250
7600

10

100

1000

10000

0
0

50
500

100
1000

-21695 INC
90.63, AZM
180.21, TVD
7767.72

-21710 WT 9.8,
VIS 49

Σ

-21789 INC
90.68, AZM
180.69, TVD
7766.65

-21810 WT 9.8,
VIS 49

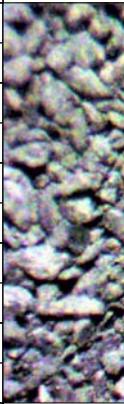
Σ

-21883 INC
90.68, AZM
180.16, TVD
7765.53

-21900 WT 9.8,
VIS 49

-21750 MARL: dk gy-blk,
sbbiky-blky, sft-sbfrm, slty;
CHK: med gy-brn, sft-
sbfrm, sbbiky, mot; tr pyr;

-21920
-21930
-21940
-21950
-21960
-21970
-21980
-21990
-22000
-22010
-22020
-22030
-22040
-22050
-22060
-22070
-22080
-22090
-22100
-22110
-22120
-22130
-22140
-22150
-22160



0
7850

125
7725

250
7600

10

100

1000

10000

0
0

50
500

100
1000

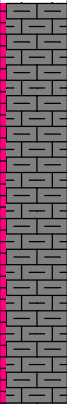
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-21977 INC
90.59, AZM
180.38, TVD
7764.49

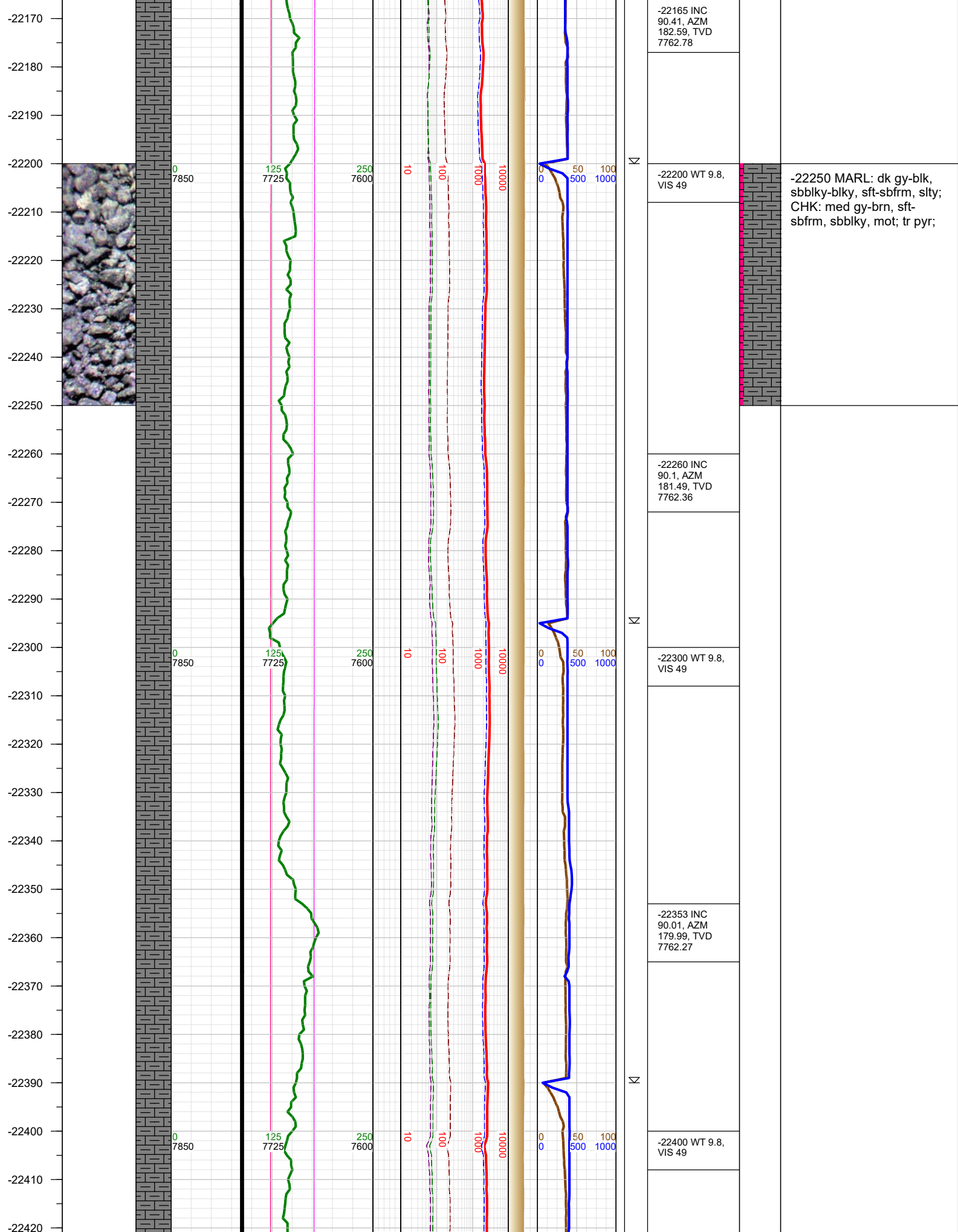
-22000 WT 9.8,
VIS 49

-22071 INC
90.54, AZM
181.13, TVD
7763.56

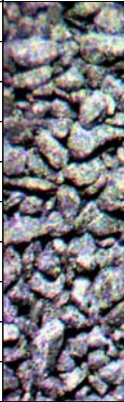
-22100 WT 9.8,
VIS 49



-22000 MARL: dk gy-blk,
sbbiky-blky, sft-sbfrm, slty;
CHK: med gy-brn, sft-
sbfrm, sbbiky, mot; tr pyr;



-22430
-22440
-22450
-22460
-22470
-22480
-22490
-22500
-22510
-22520
-22530
-22540
-22550
-22560
-22570
-22580
-22590
-22600
-22610
-22620
-22630
-22640
-22650
-22660
-22670



0
7850

125
7725

250
7600

10

100

1000

10000

0
0

50
500

100
1000

-22447 INC
90.1, AZM
179.81, TVD
7762.18

-22500 WT 9.8,
VIS 49

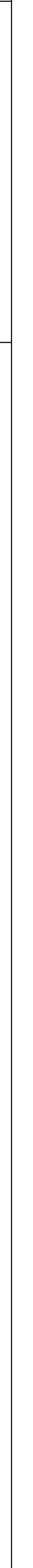
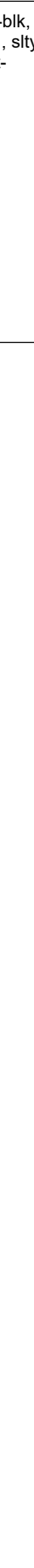
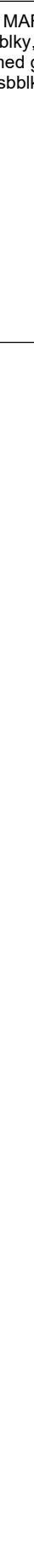
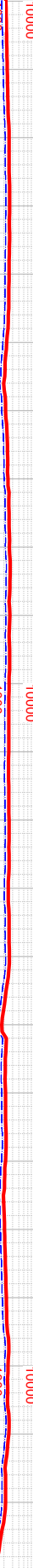
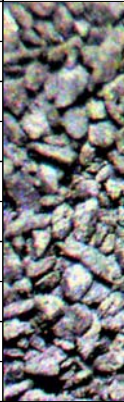
-22541 INC
89.93, AZM
179.24, TVD
7762.16

-22600 WT 9.8,
VIS 48

-22635 INC
90.19, AZM
180.03, TVD
7762.06

-22500 MARL: dk gy-blk,
sbblky-blky, sft-sbfrm, slty;
CHK: med gy-brn, sft-
sbfrm, sbblky, mot; tr foss
frag;

-22680
-22690
-22700
-22710
-22720
-22730
-22740
-22750
-22760
-22770
-22780
-22790
-22800
-22810
-22820
-22830
-22840
-22850
-22860
-22870
-22880
-22890
-22900
-22910
-22920
-22930



-22700 WT 9.8,
VIS 48

-22729 INC
90.06, AZM
179.68, TVD
7761.85

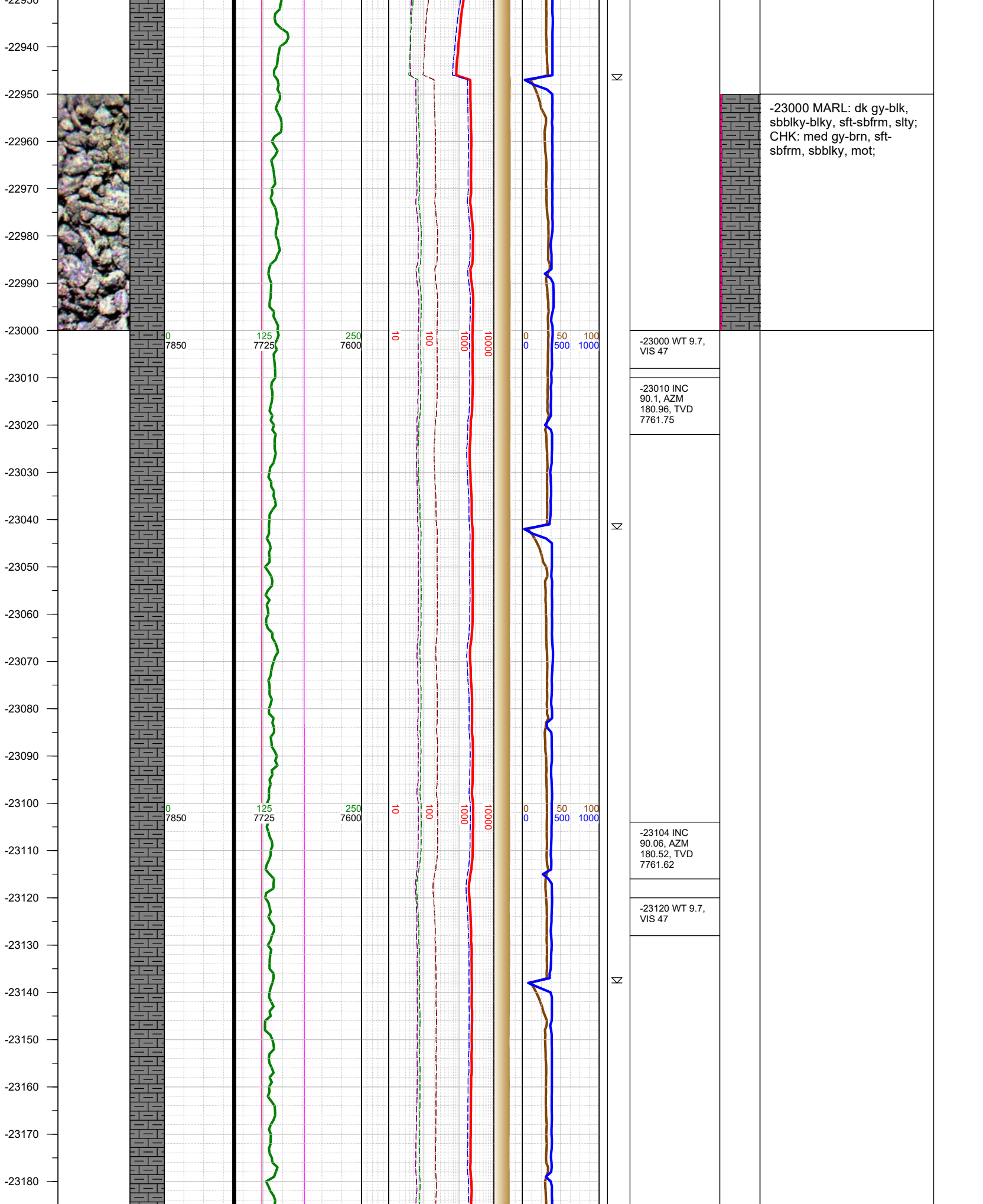
-22800 WT 9.7,
VIS 47

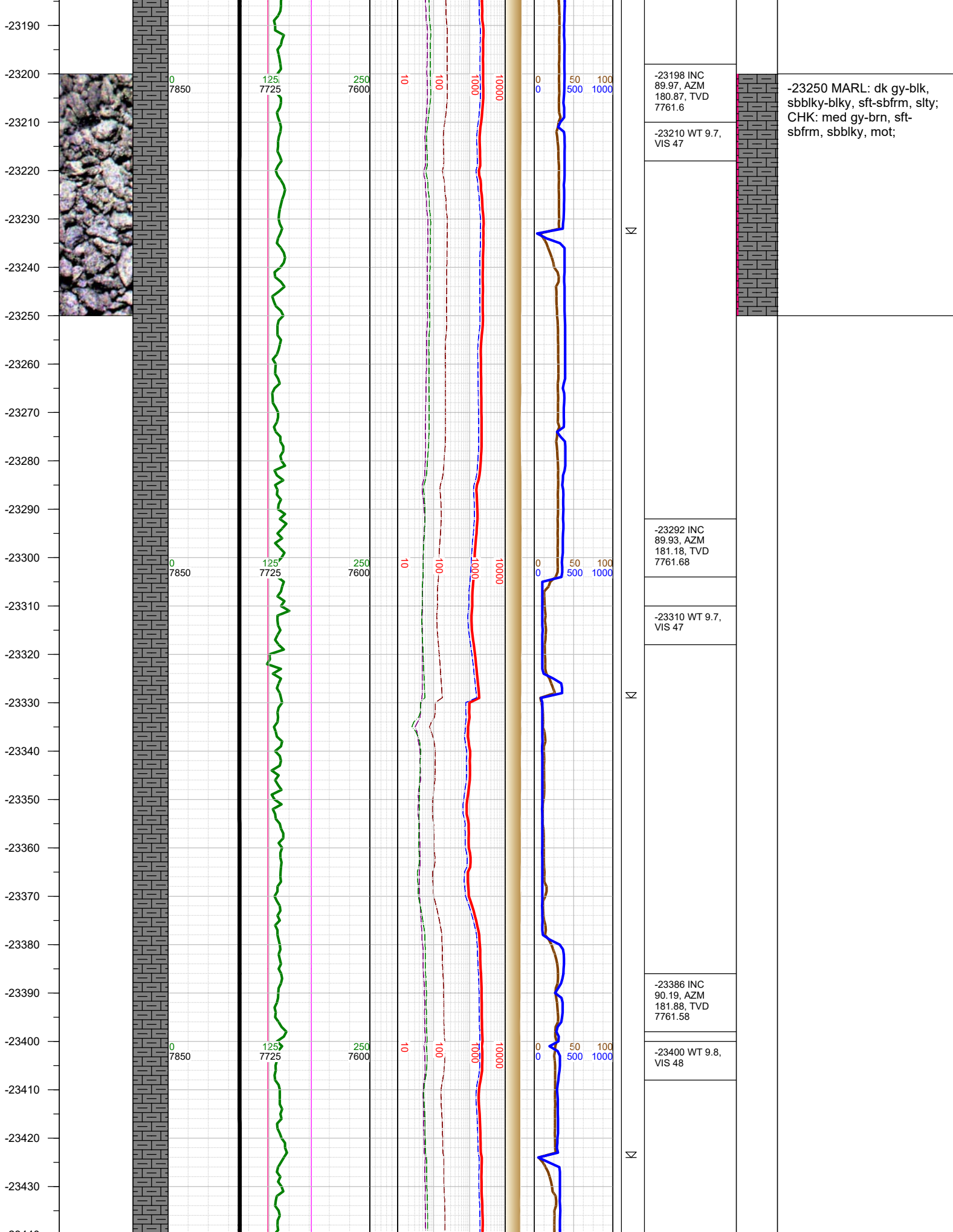
-22822 INC
89.97, AZM
179.11, TVD
7761.83

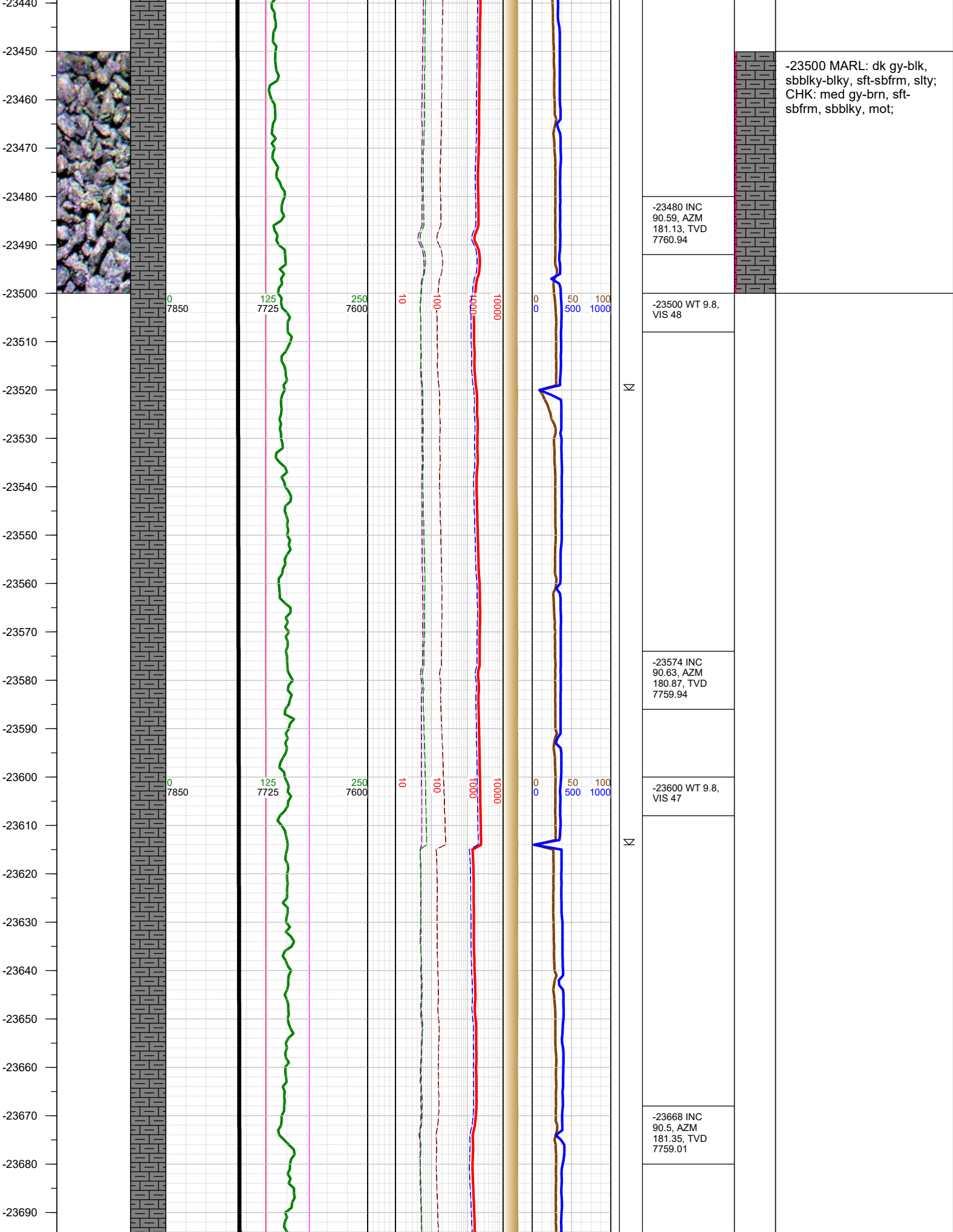
-22900 WT 9.7,
VIS 47

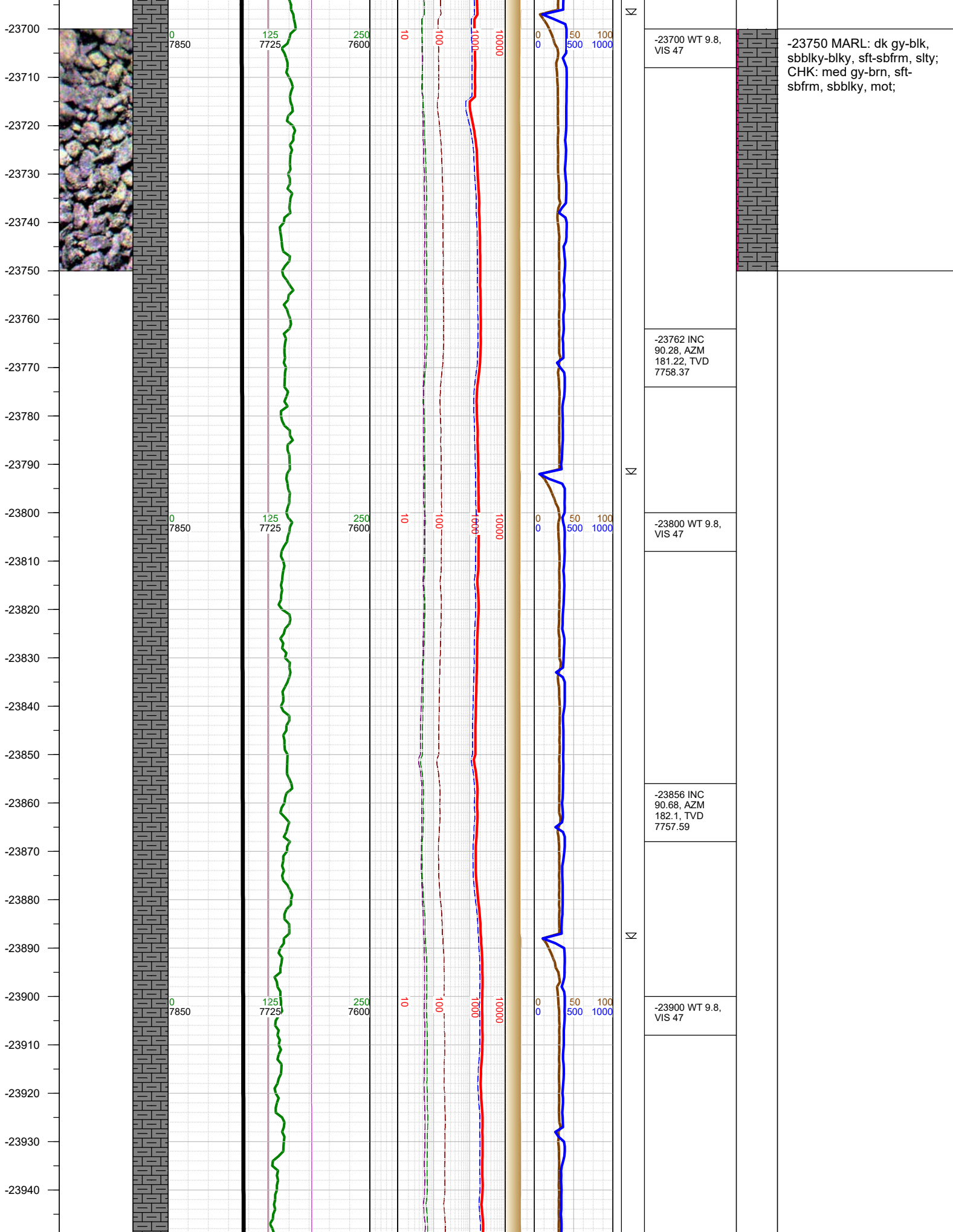
-22916 INC
90.01, AZM
181.22, TVD
7761.84

-22750 MARL: dk gy-blk,
sbbiky-blky, sft-sbfrm, slty;
CHK: med gy-brn, sft-
sbfrm, sbbiky, mot;









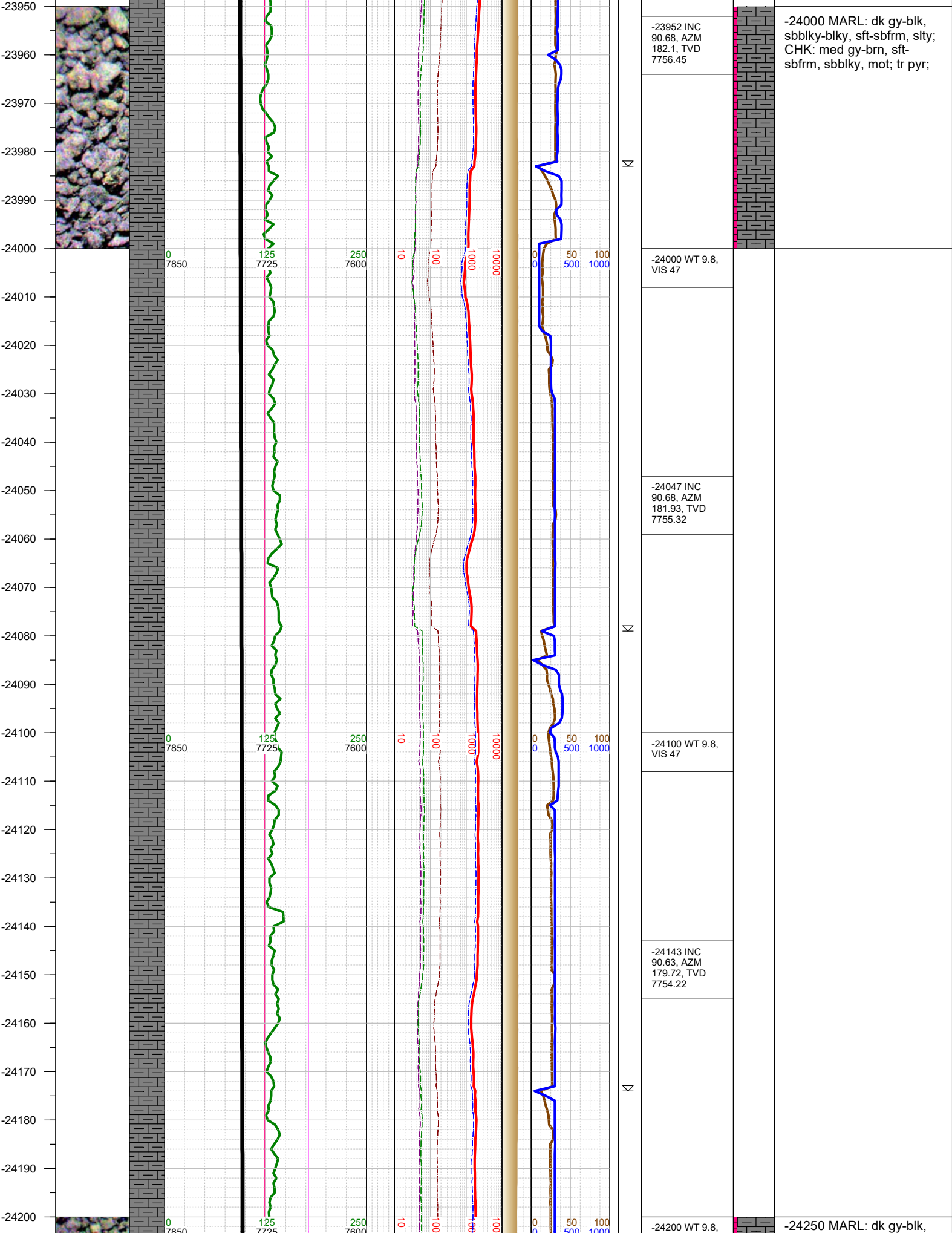
-23700 WT 9.8,
VIS 47

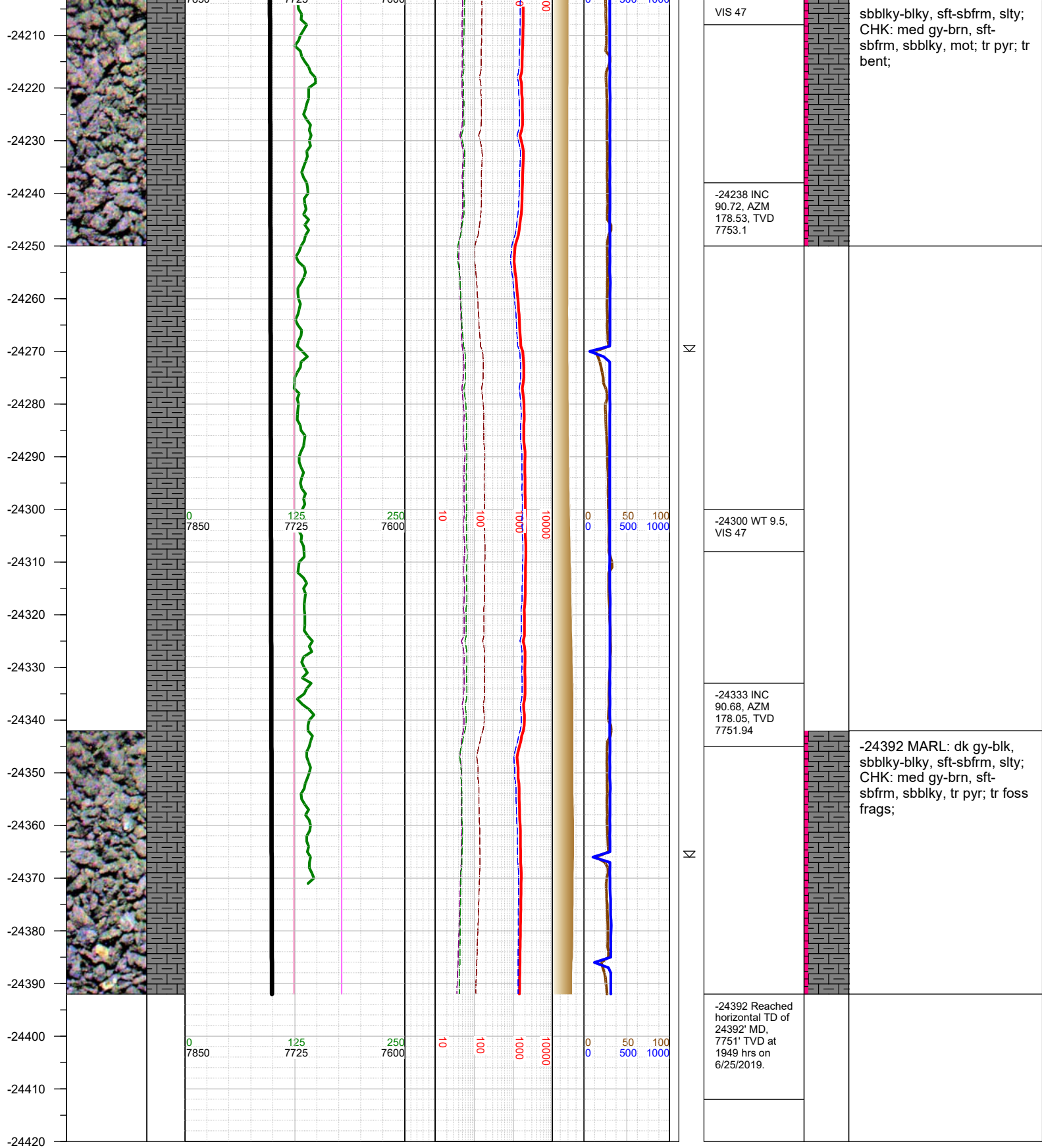
-23762 INC
90.28, AZM
181.22, TVD
7758.37

-23800 WT 9.8,
VIS 47

-23856 INC
90.68, AZM
182.1, TVD
7757.59

-23900 WT 9.8,
VIS 47





TOTAL DEPTH = 24392'

Thank you for using Earth Science Agency