

OPERATOR: **Extraction Oil & Gas**  
WELL NAME: **Interchange B N35-20-5C**  
FIELD NAME: DJ Basin - Wattenberg  
DRILLING RIG: Patterson 901  
API #: 05-014-20772

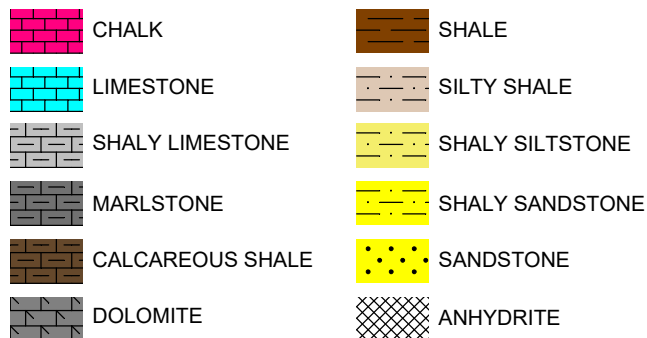
LAT/LONG: 39.978964, -104.991406  
SURFACE HOLE: NESW S10-T1S-R68W, 2492' FSL, 1620' FWL  
BOTTOM HOLE: S34-T1N-R68W, 460' FNL, 1537' FEL



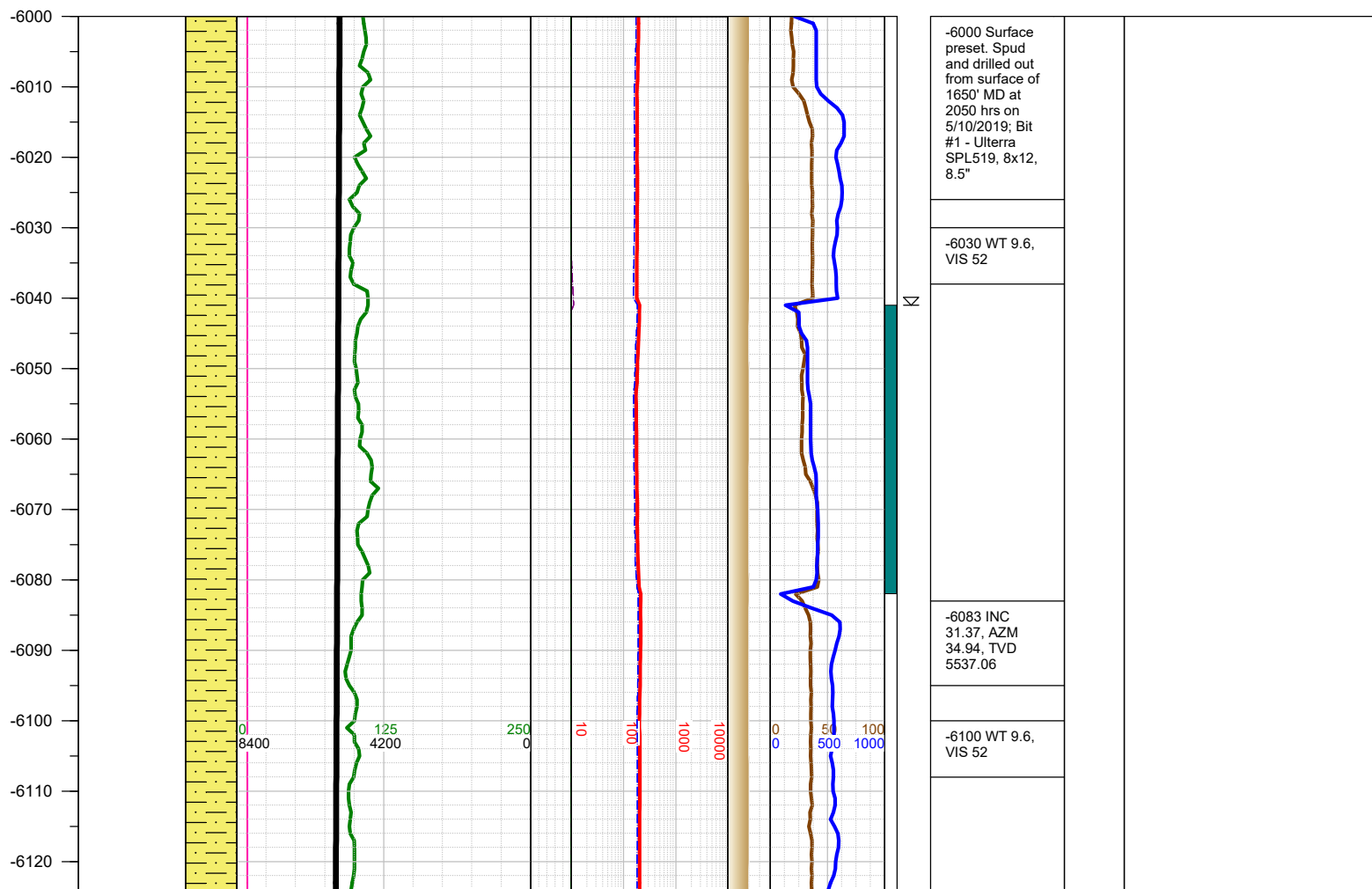
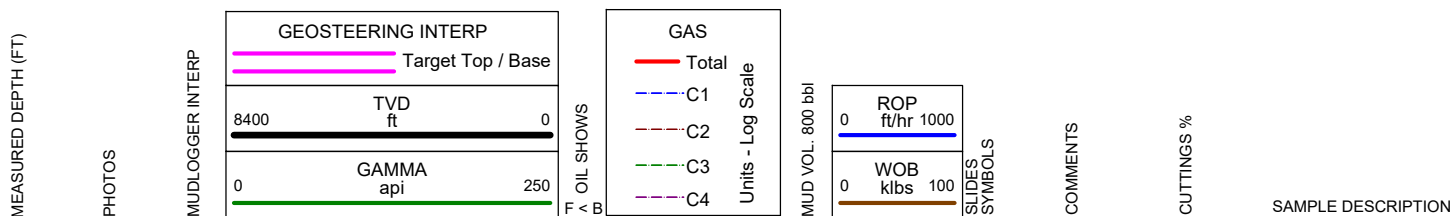
Earth Science Agency, LLC

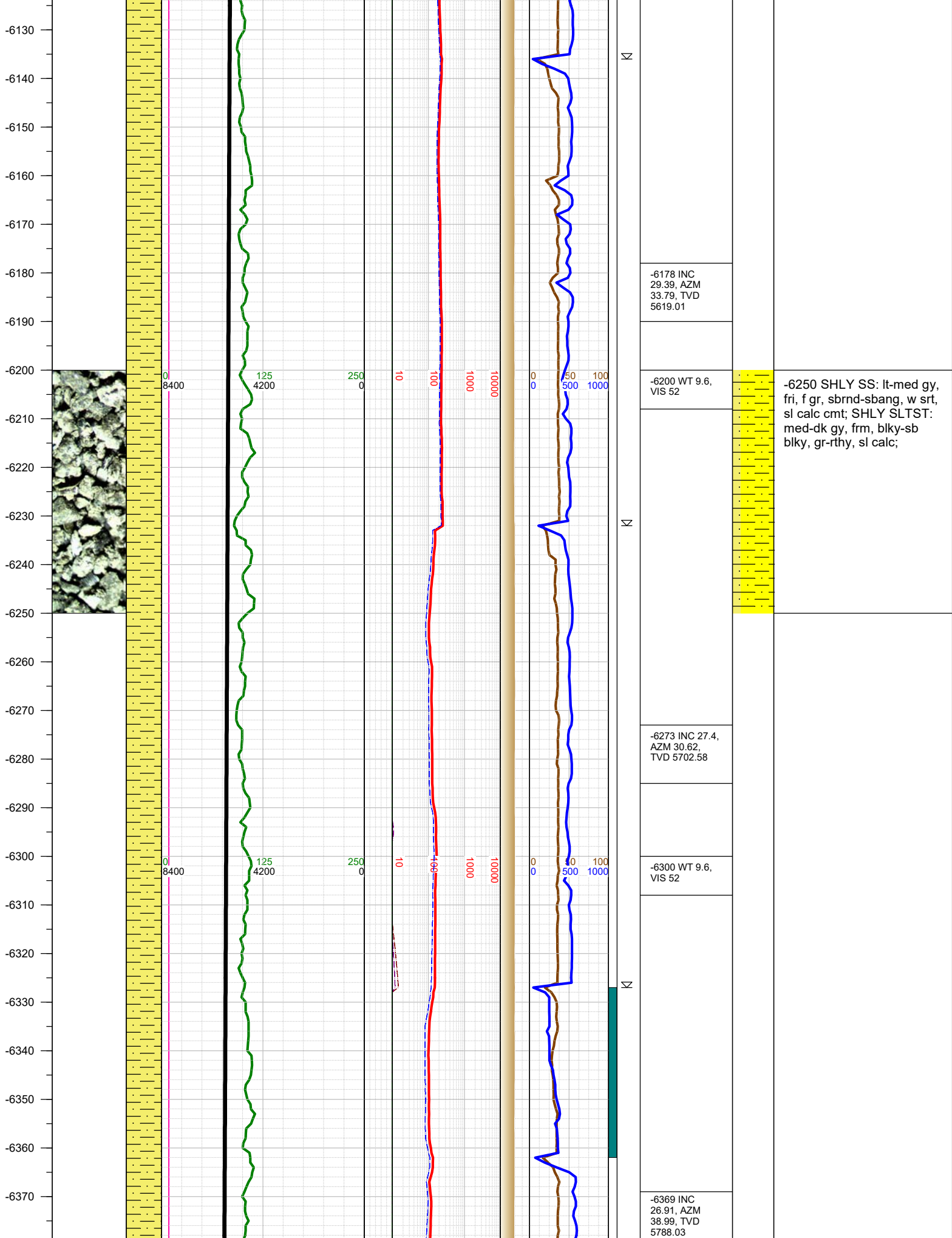
COUNTY: Broomfield  
STATE: Colorado  
GROUND ELEVATION: 5213'  
KELLY BUSHING: 5242'  
DRILLING FLUID: OBM  
TVD VS. MD: 8037' / 18720'  
SPUD DATE: May 10, 2019  
TD DATE: May 14, 2019  
  
DEPTHS LOGGED: 6000' - 18720'  
DATES LOGGED: May 11, 2019 - May 14, 2019  
GEOLOGISTS: Nick Damon, Dominic Pitre  
SCALE: 5" = 100'

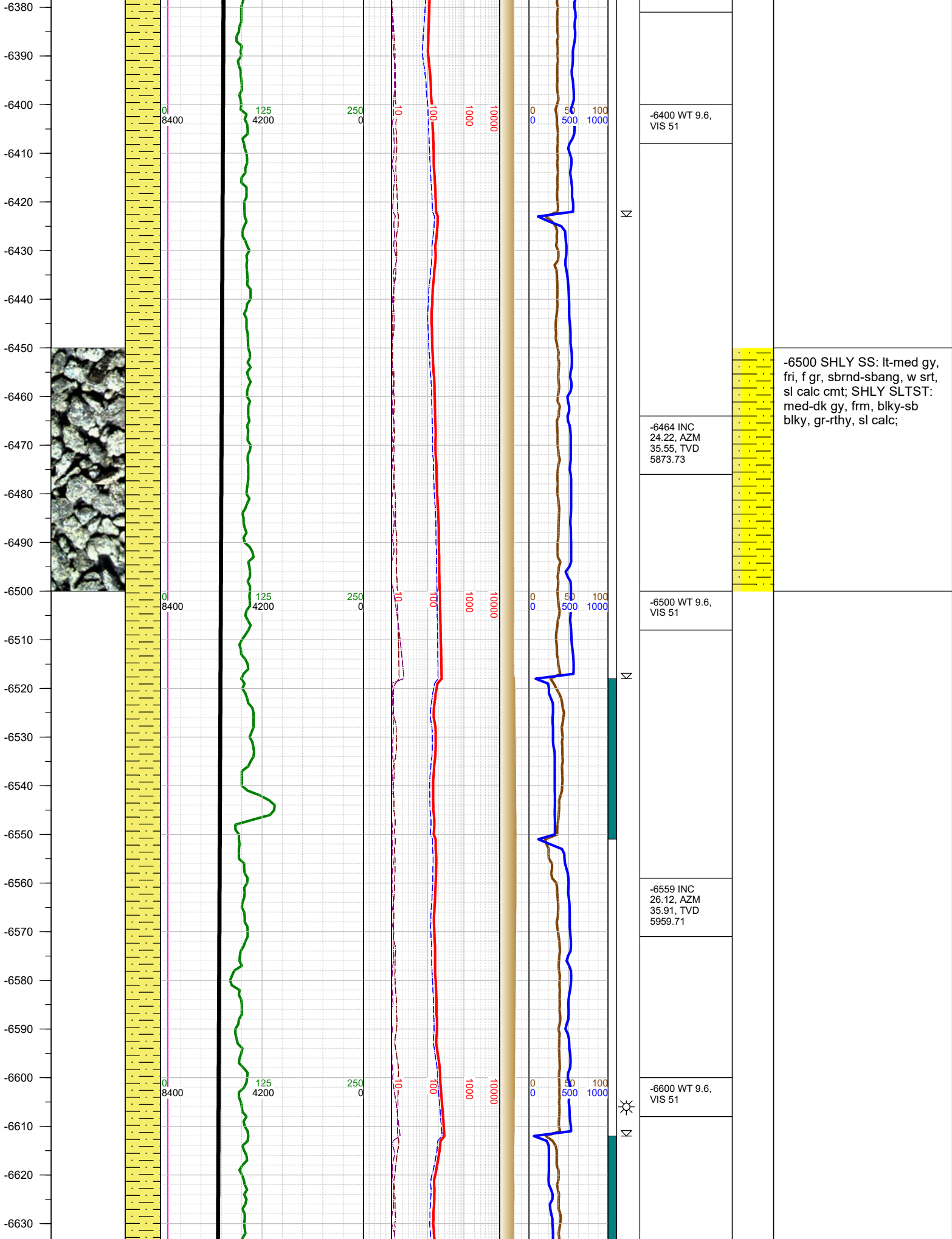
#### LEGEND

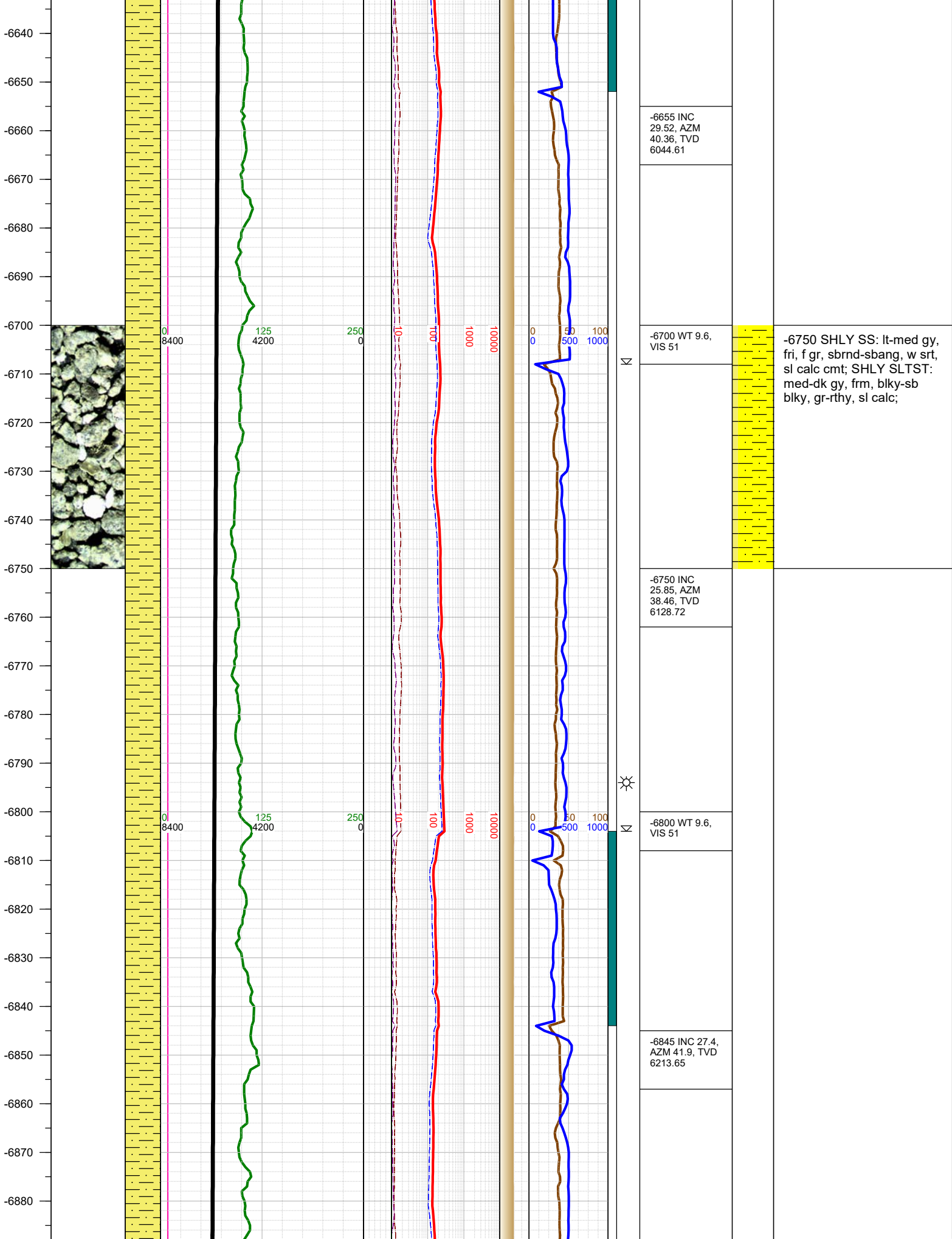


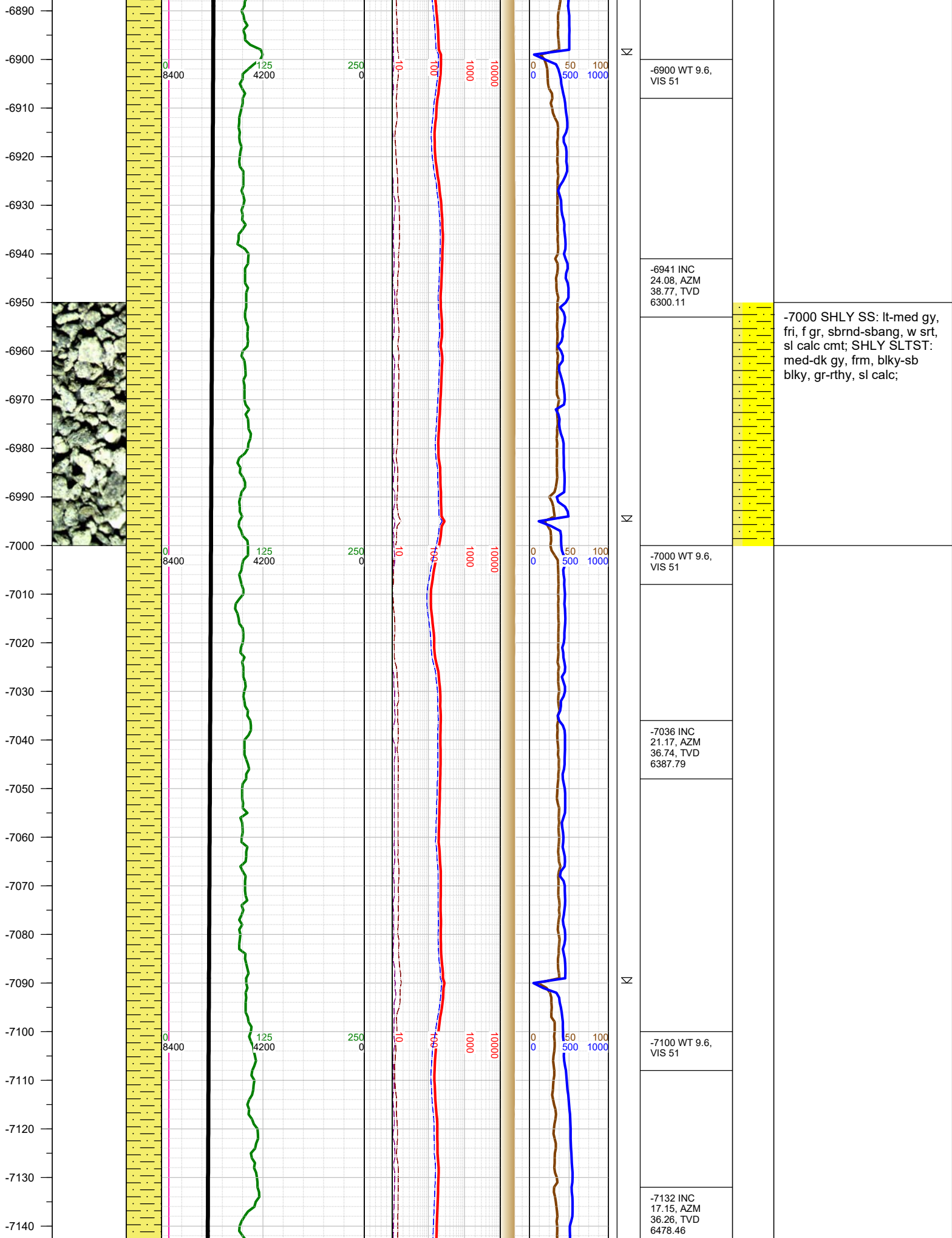
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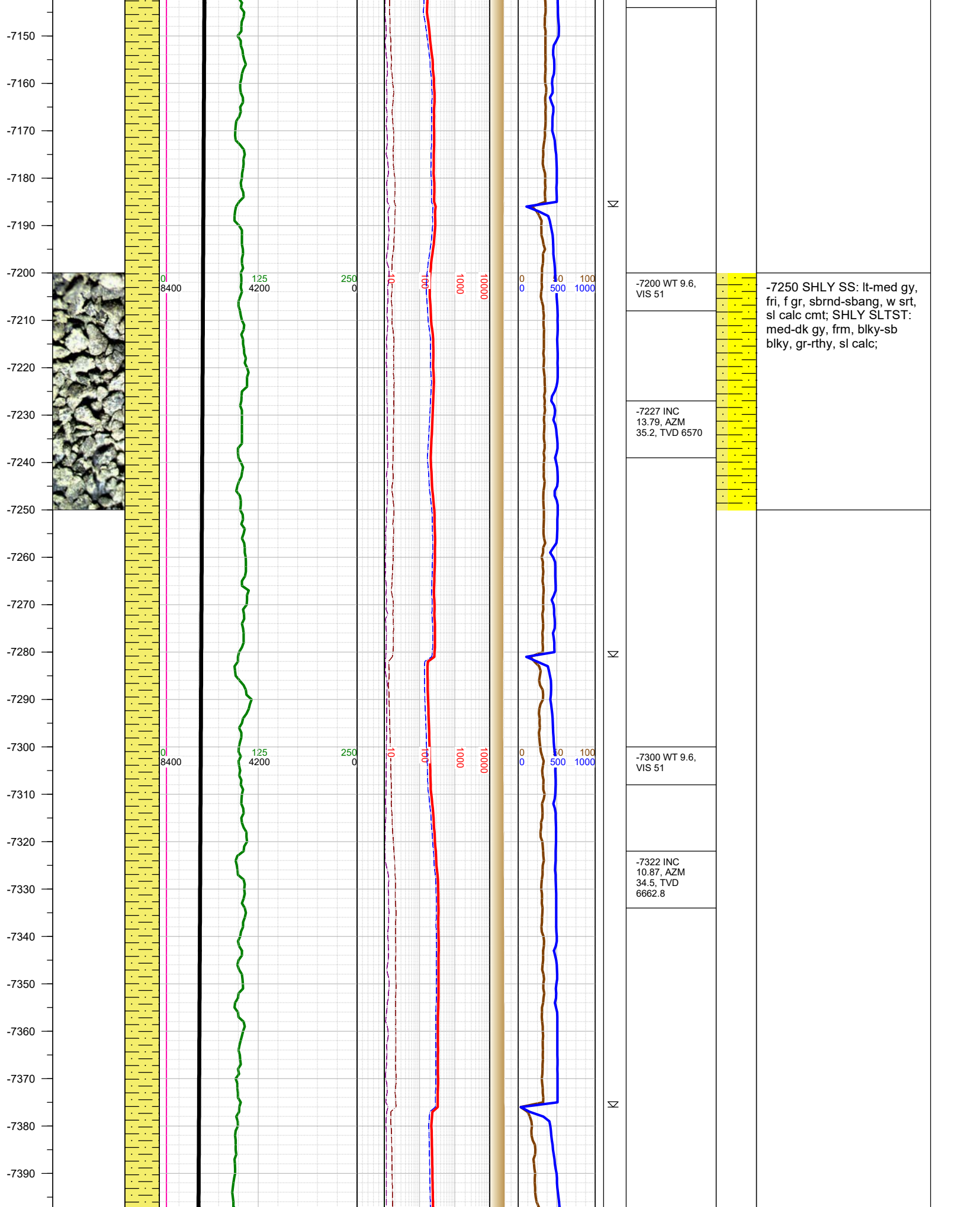


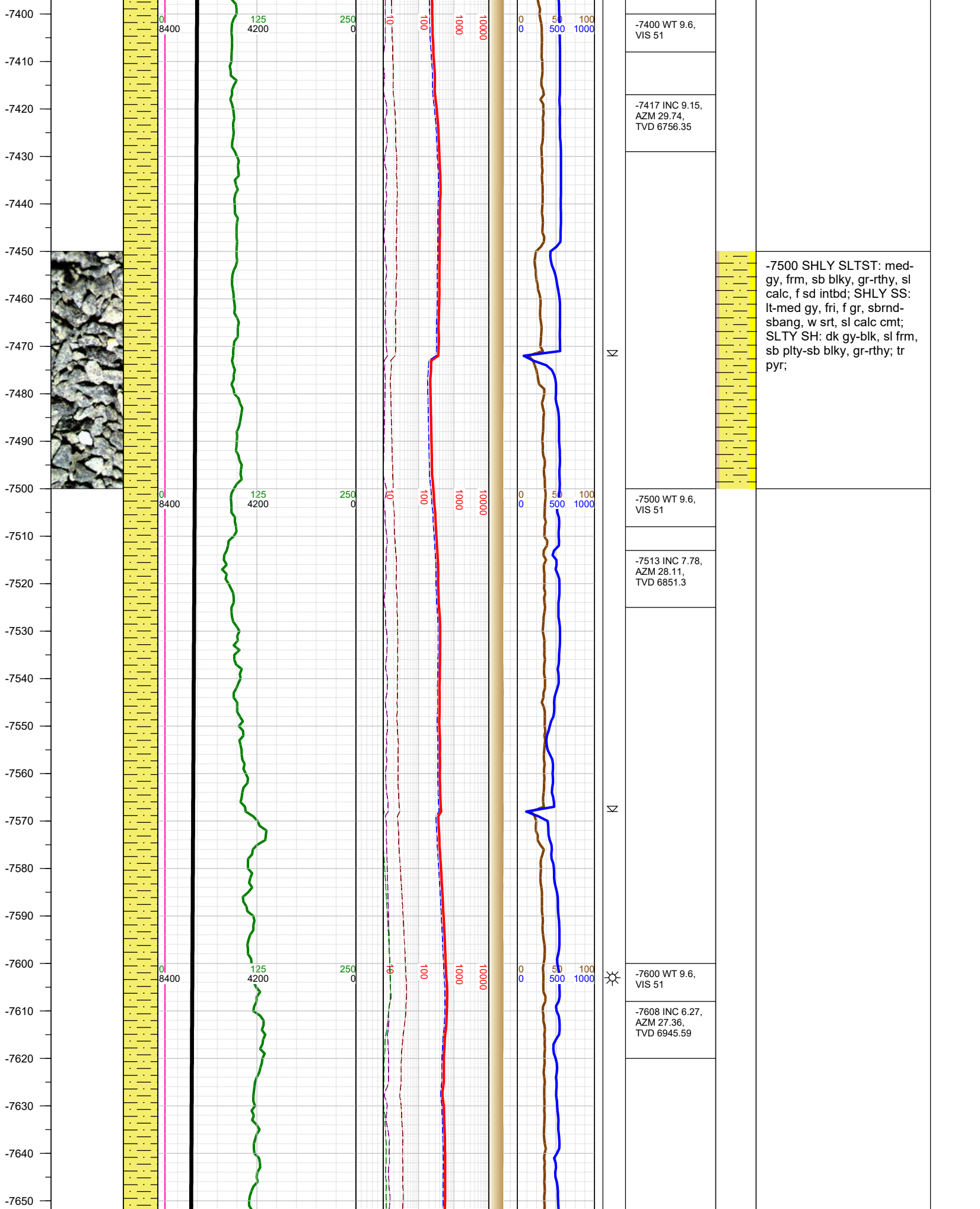


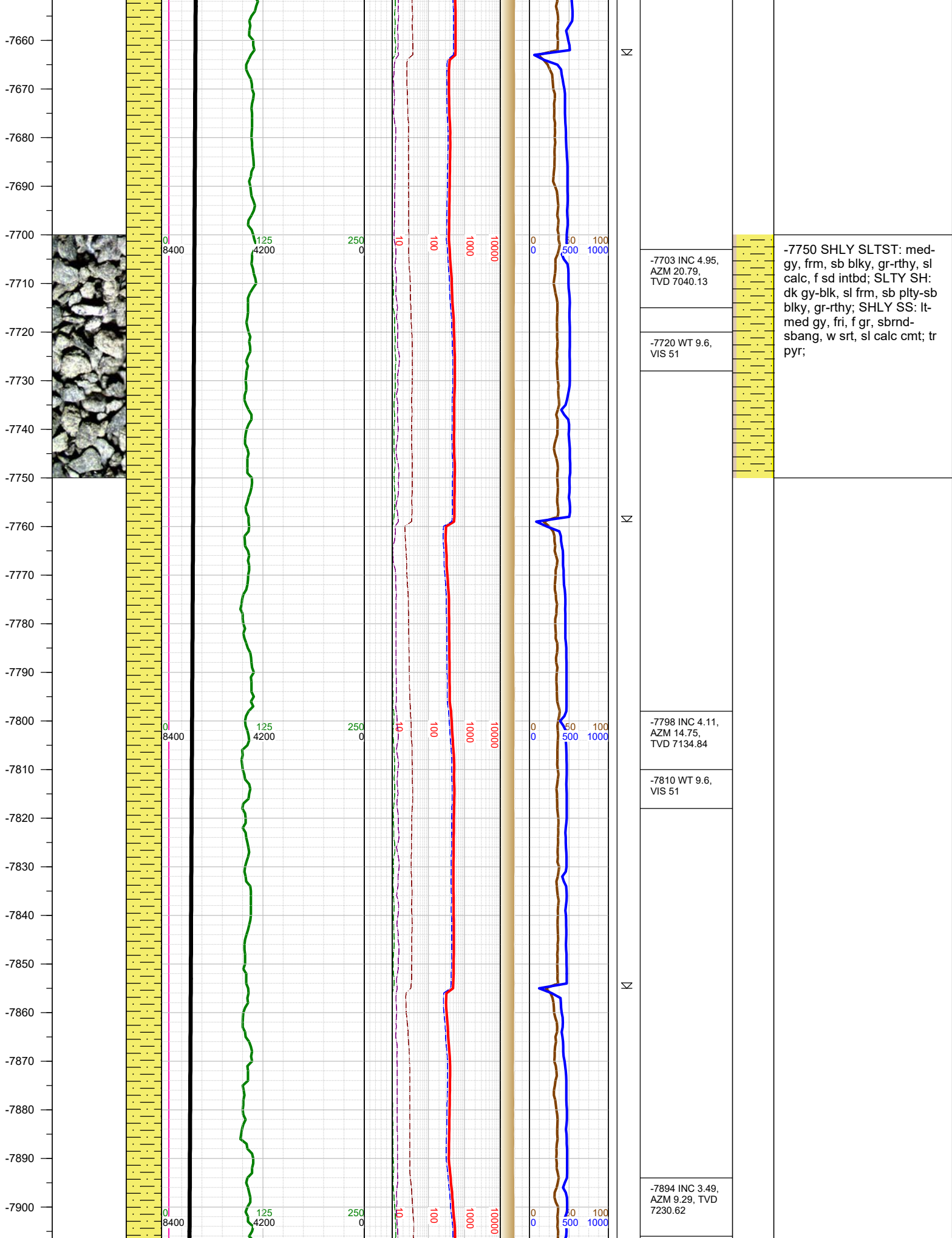


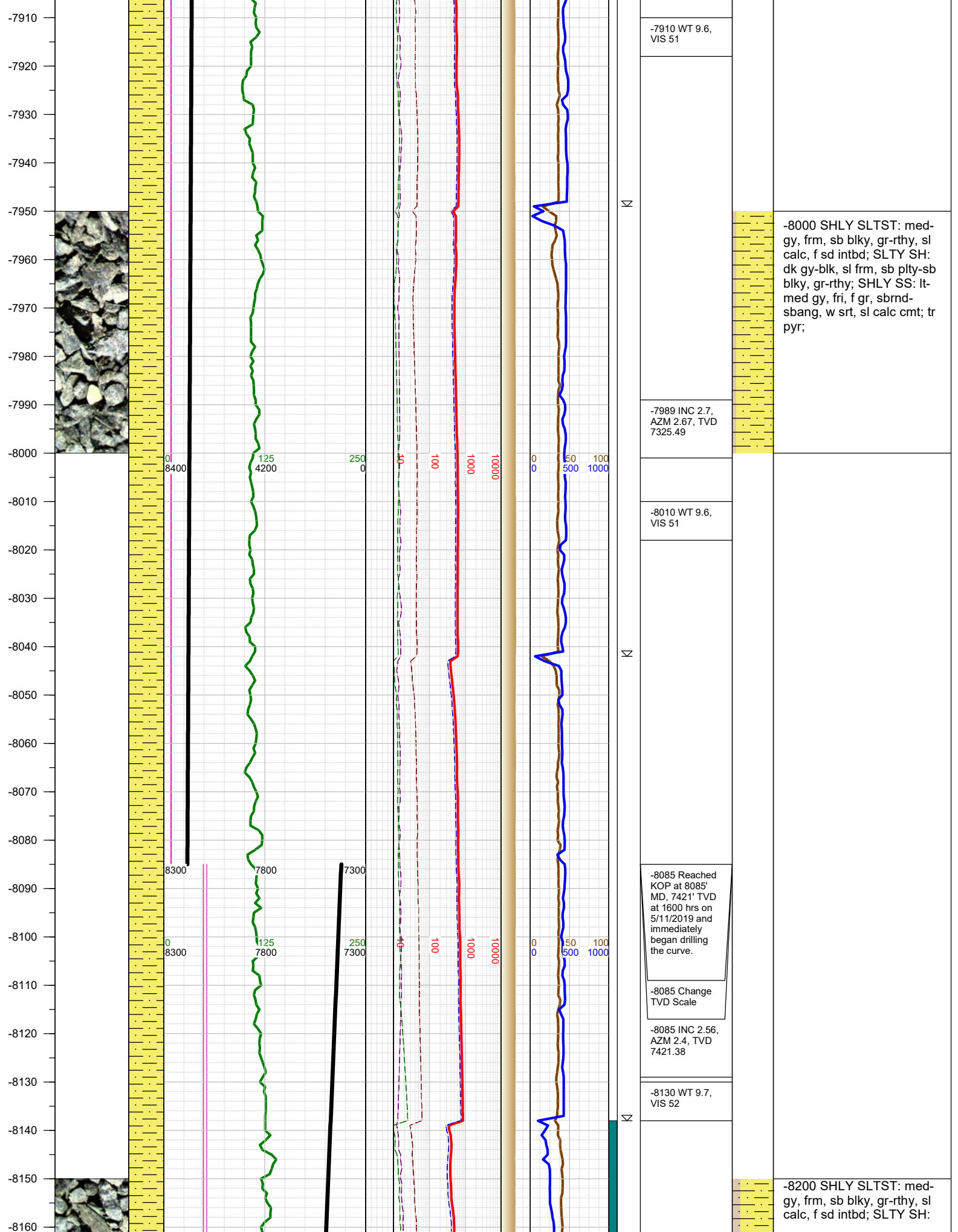


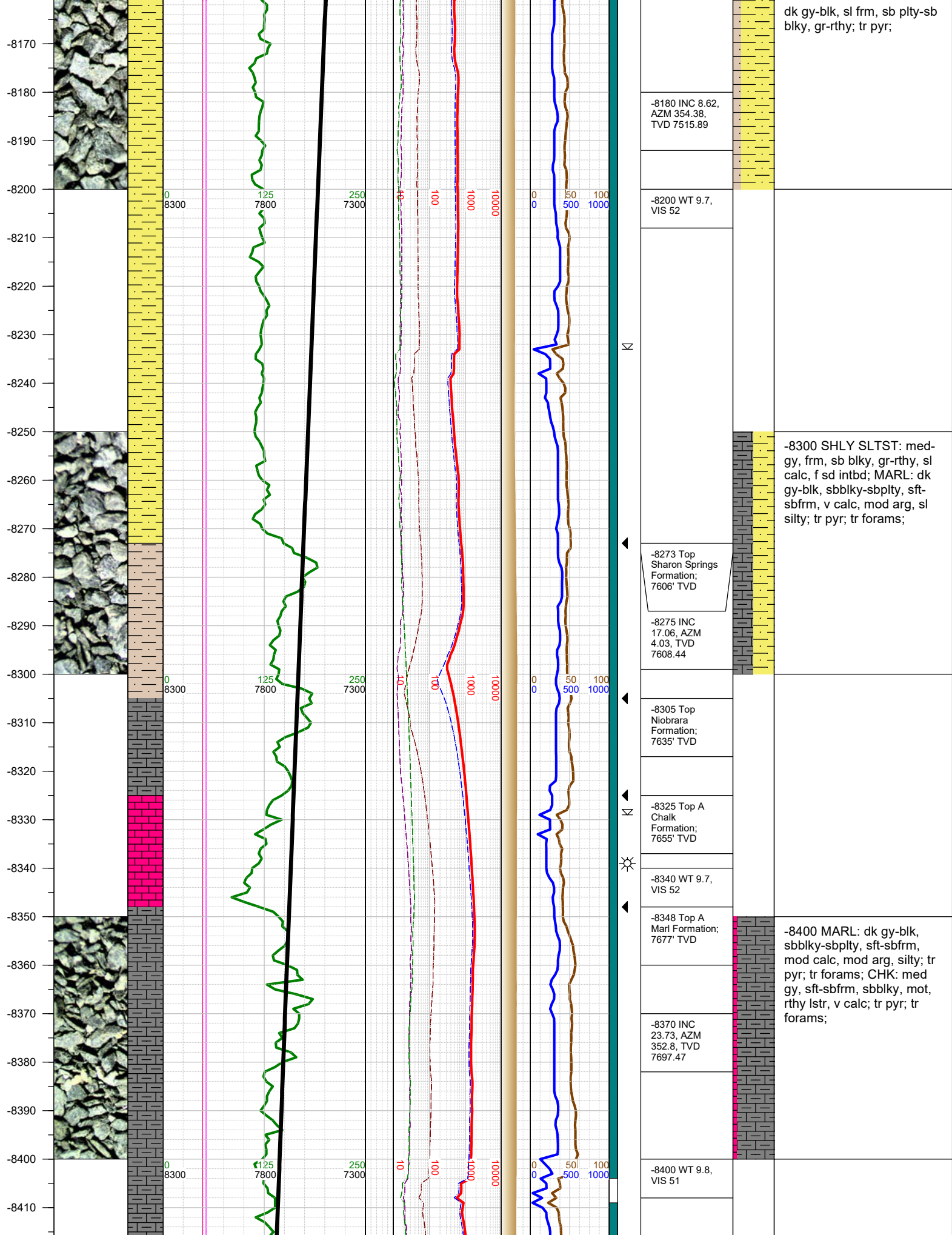


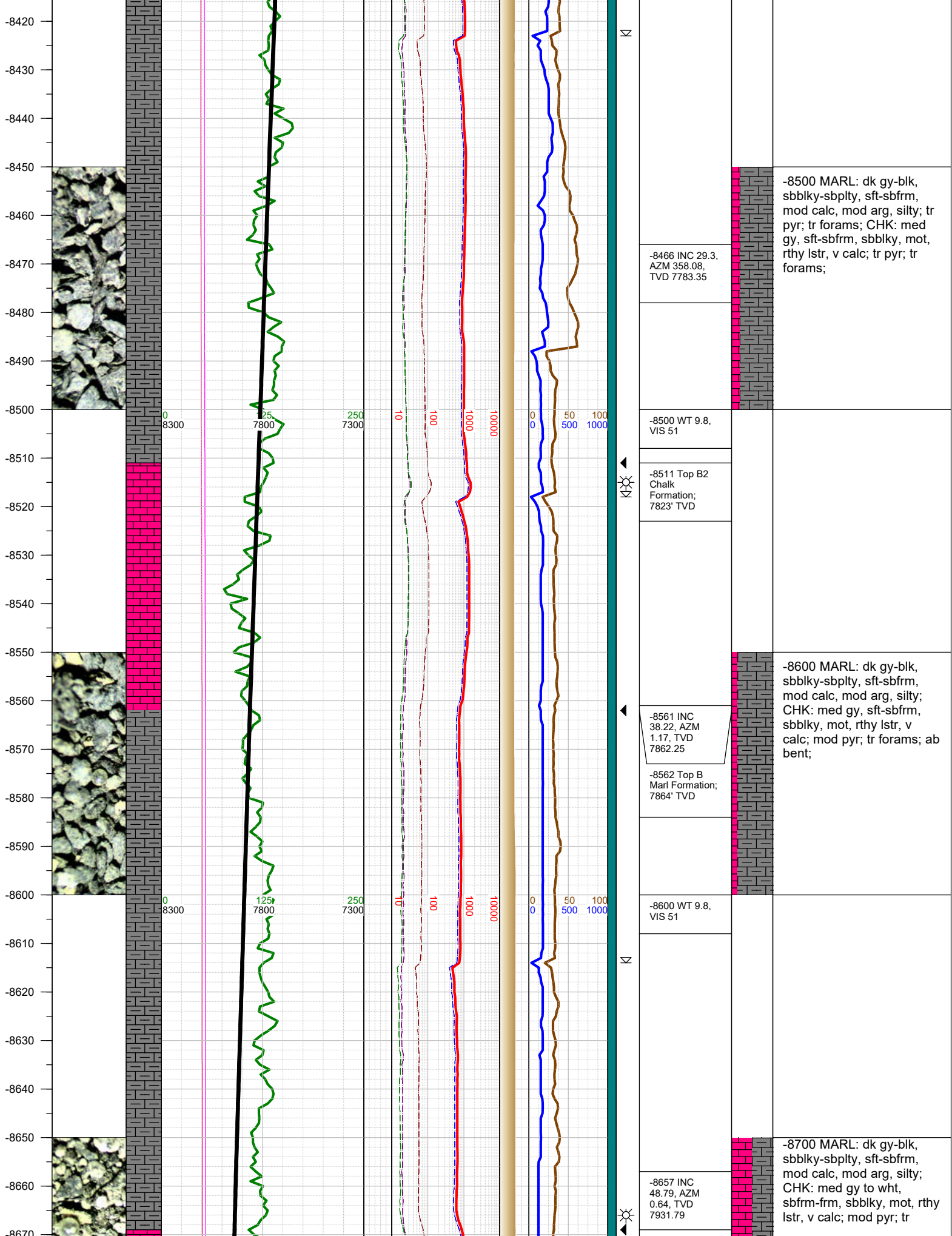


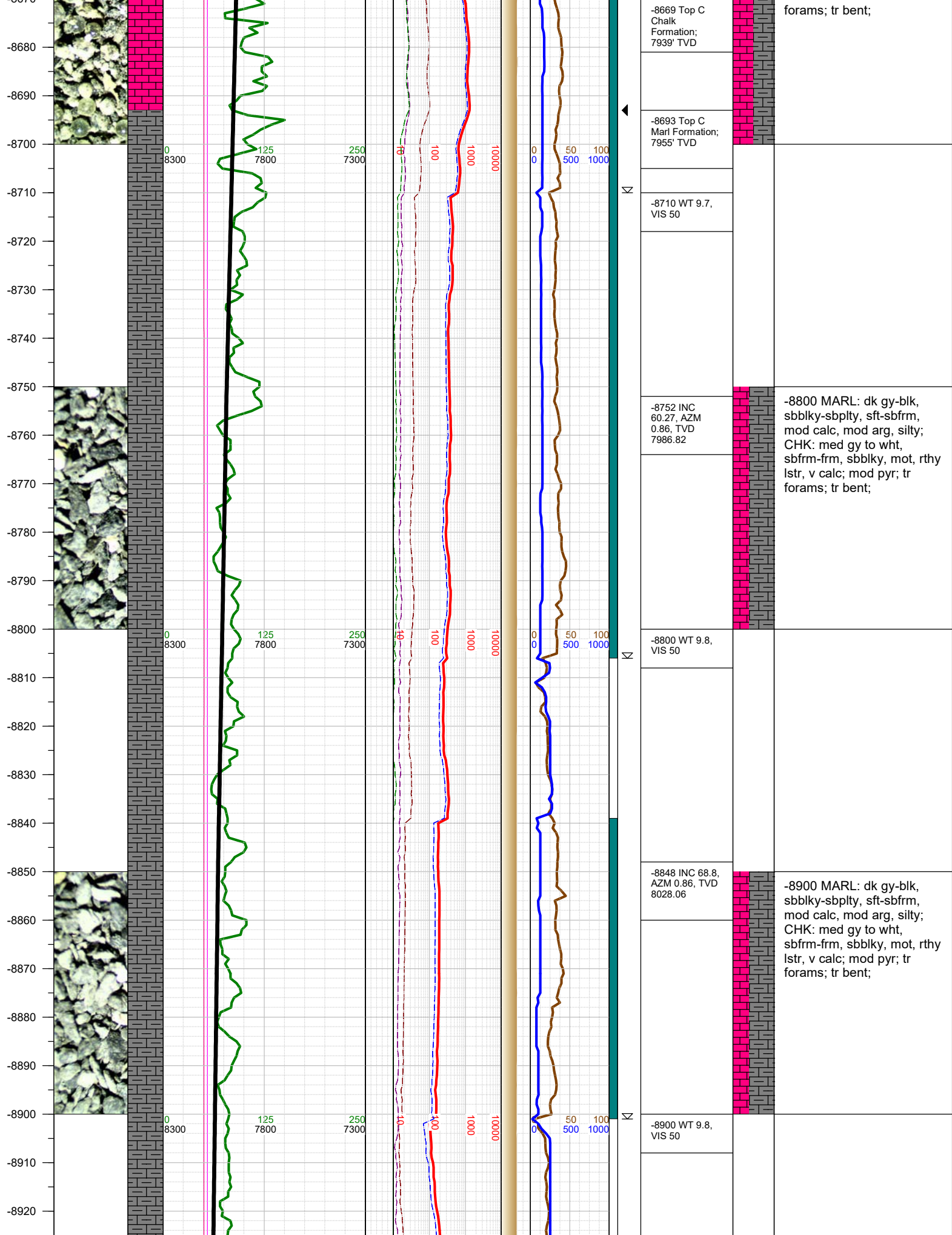


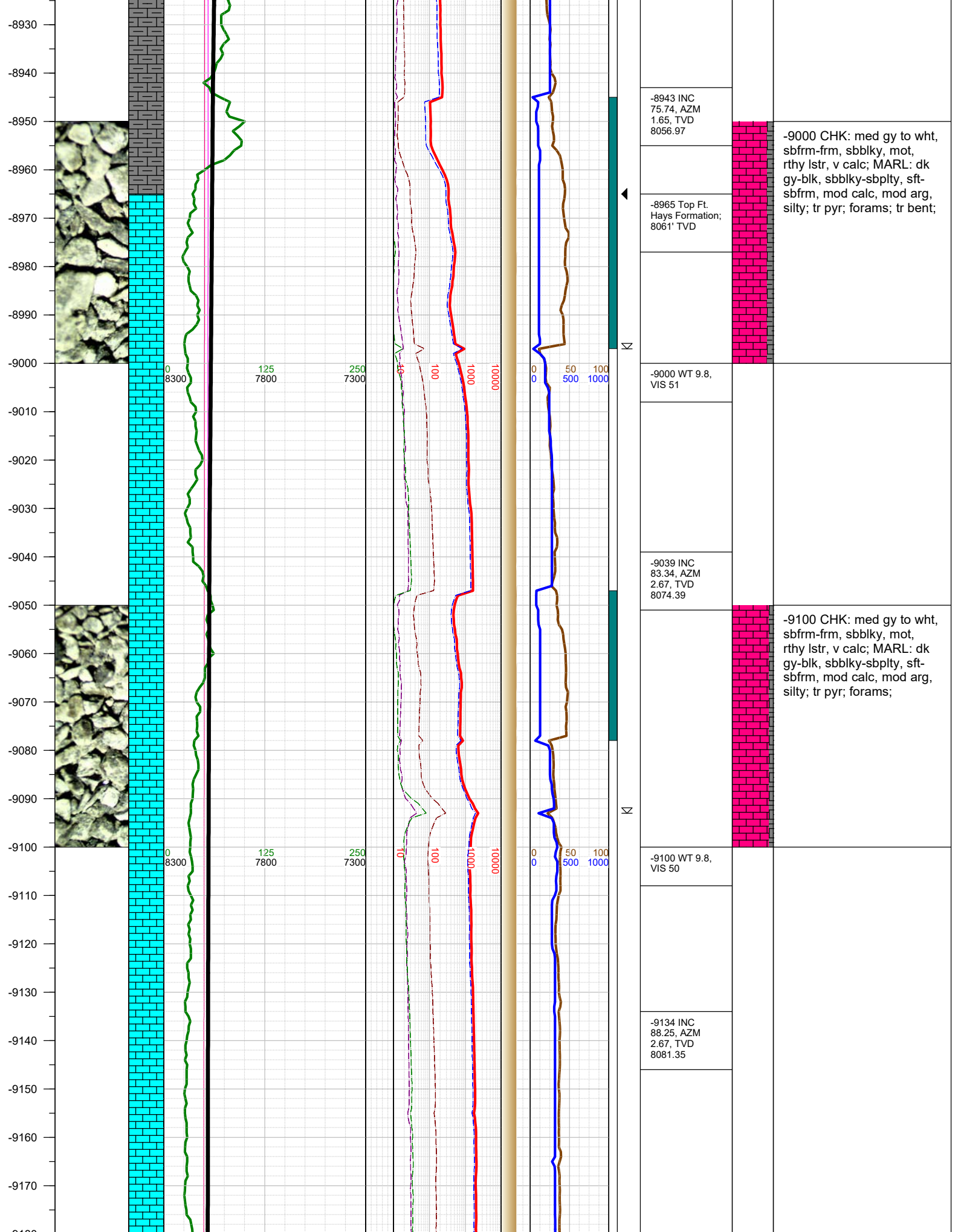


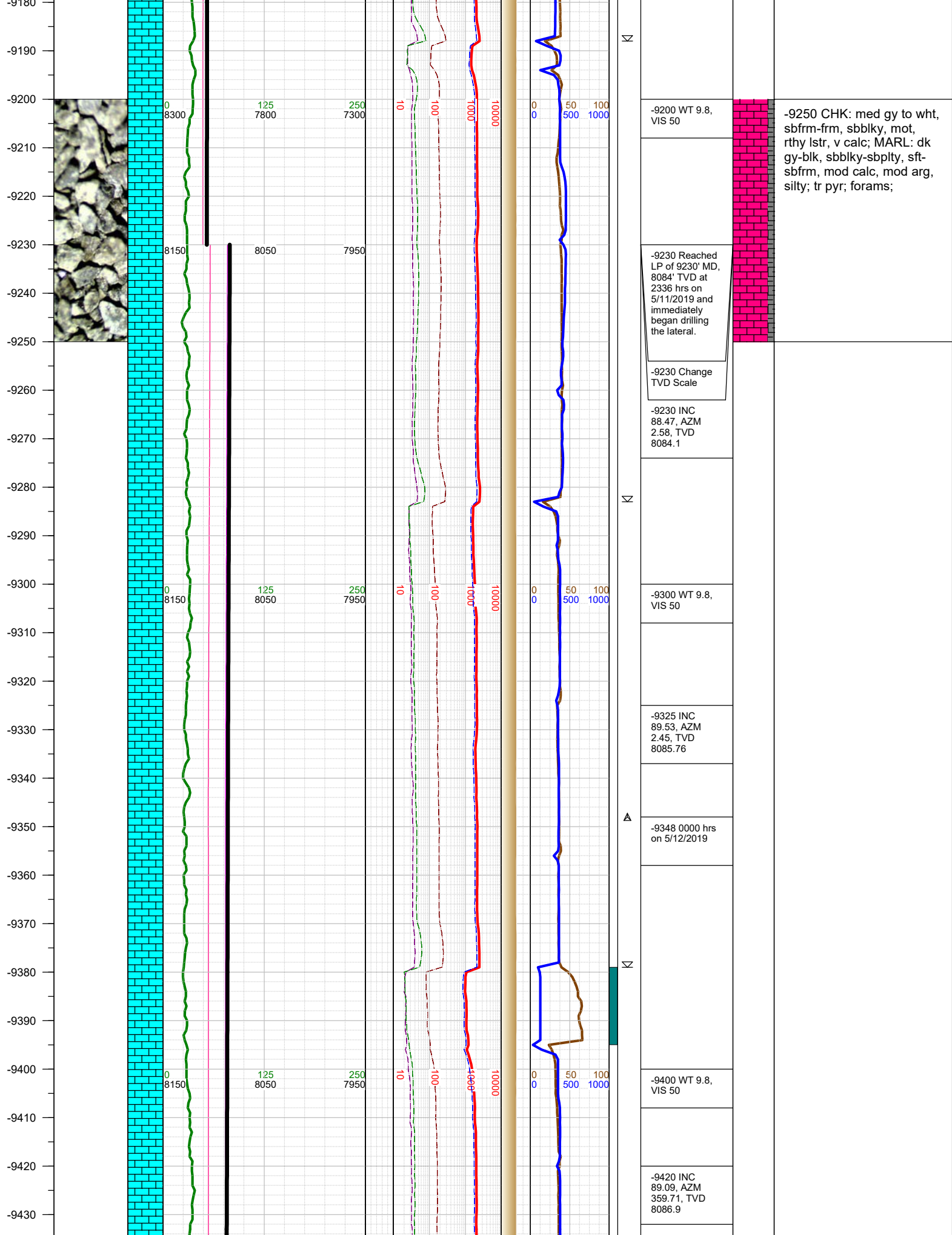


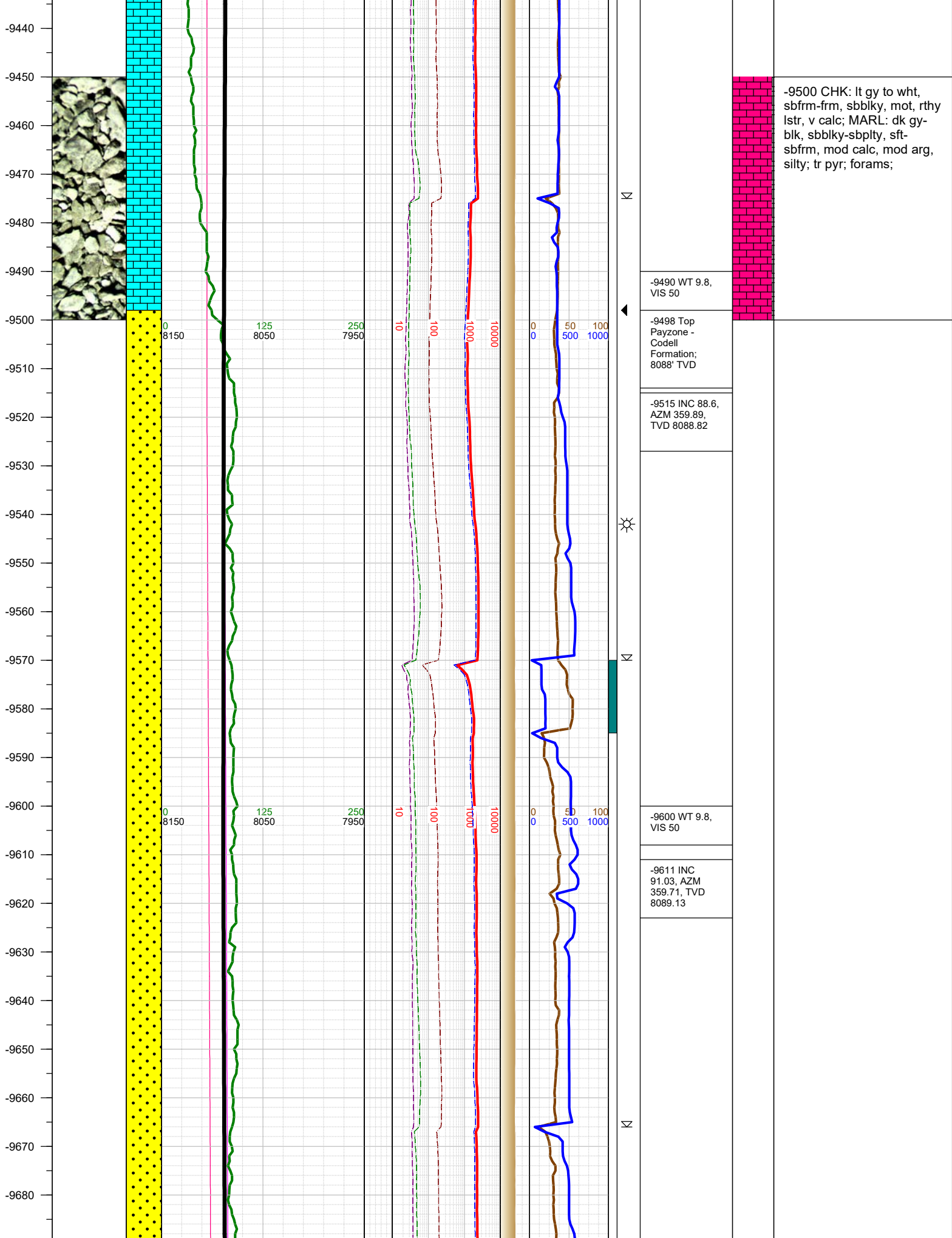


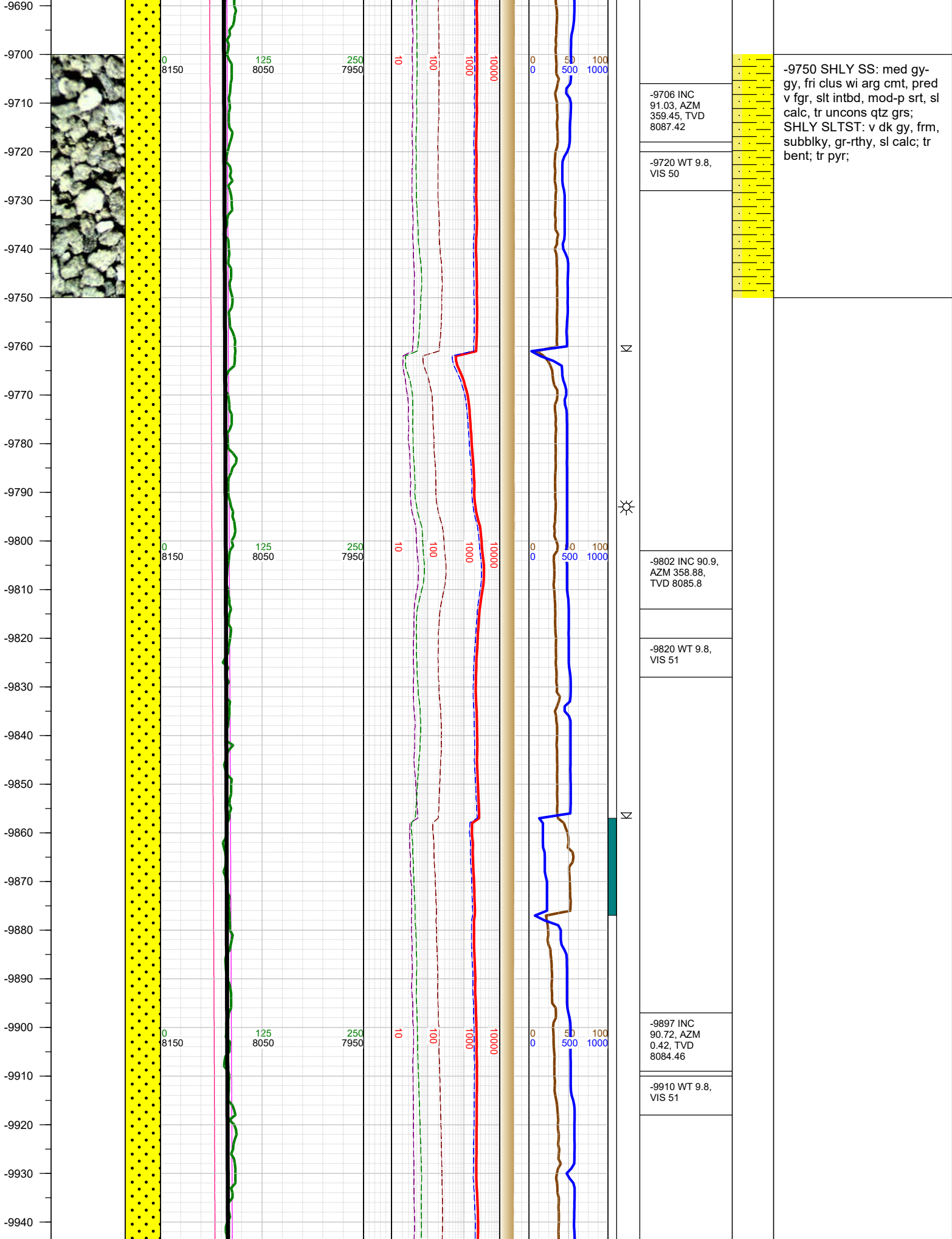




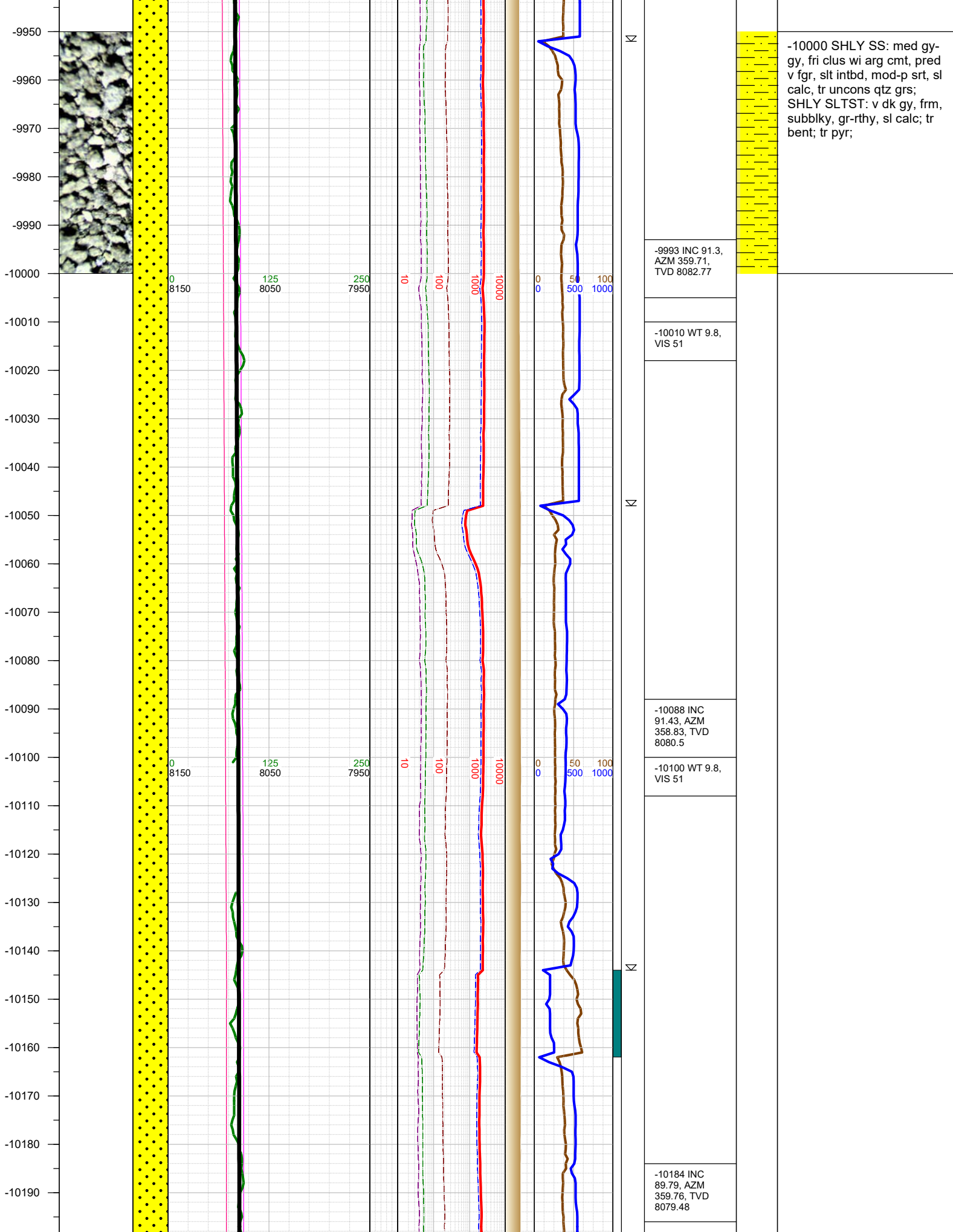


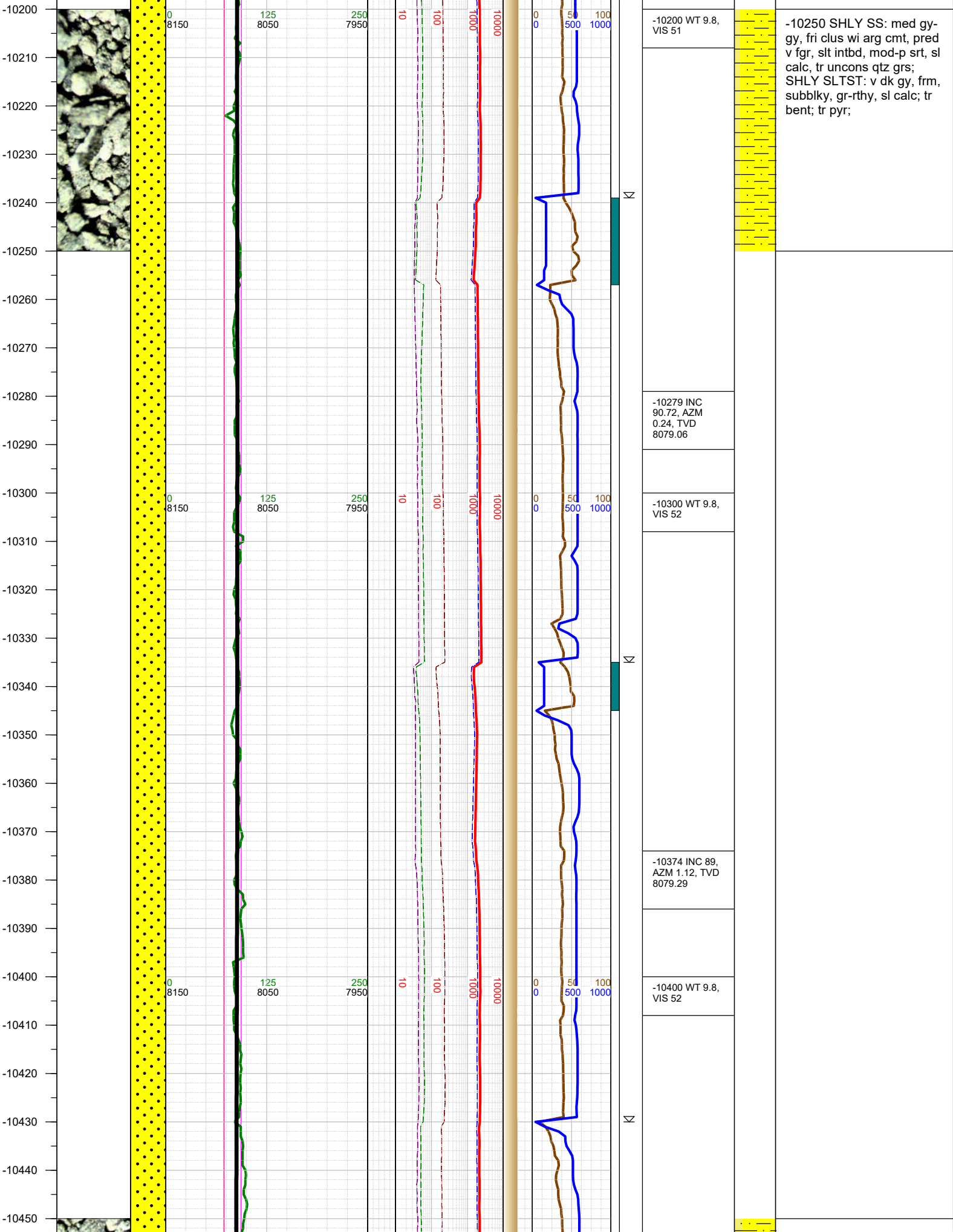


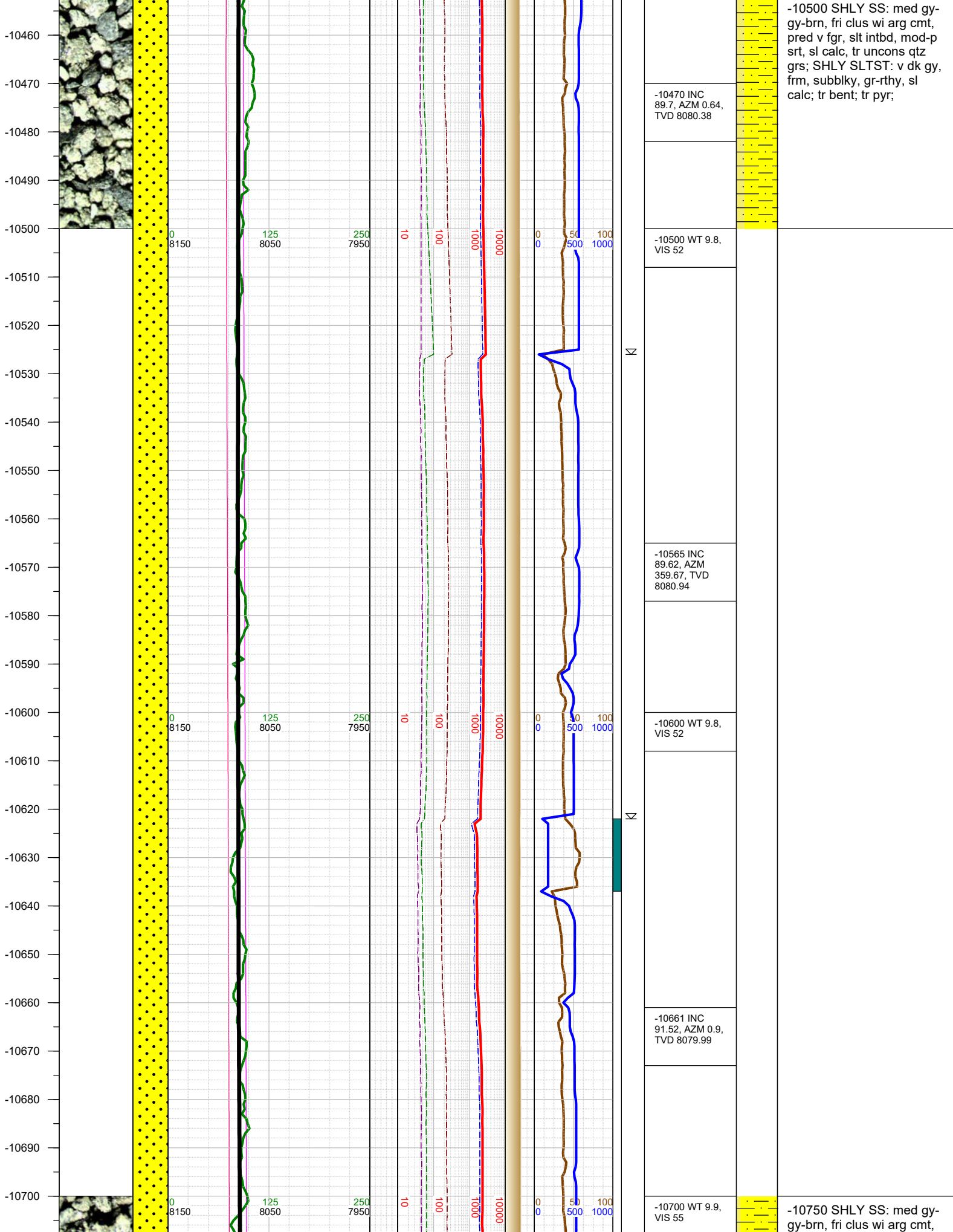


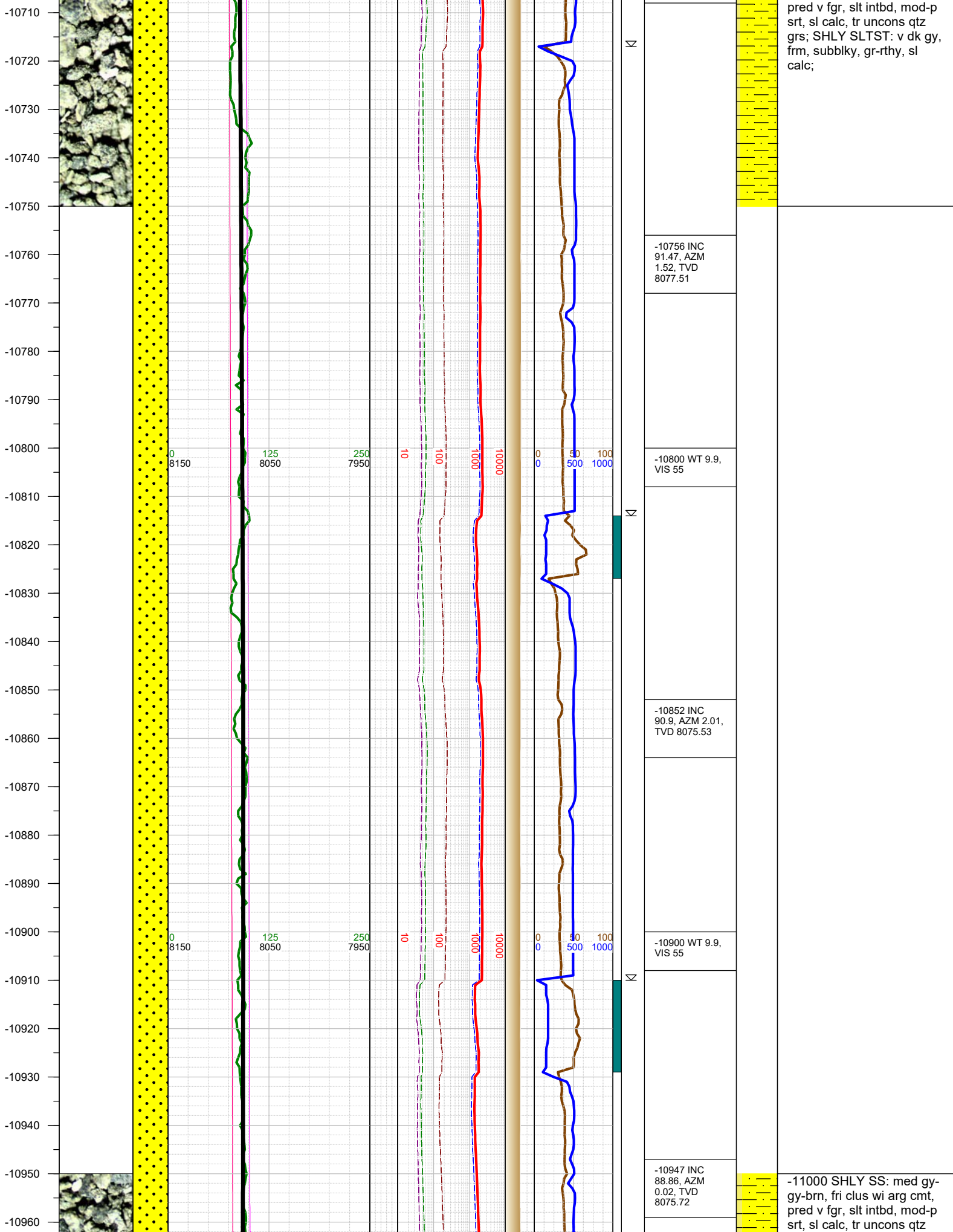


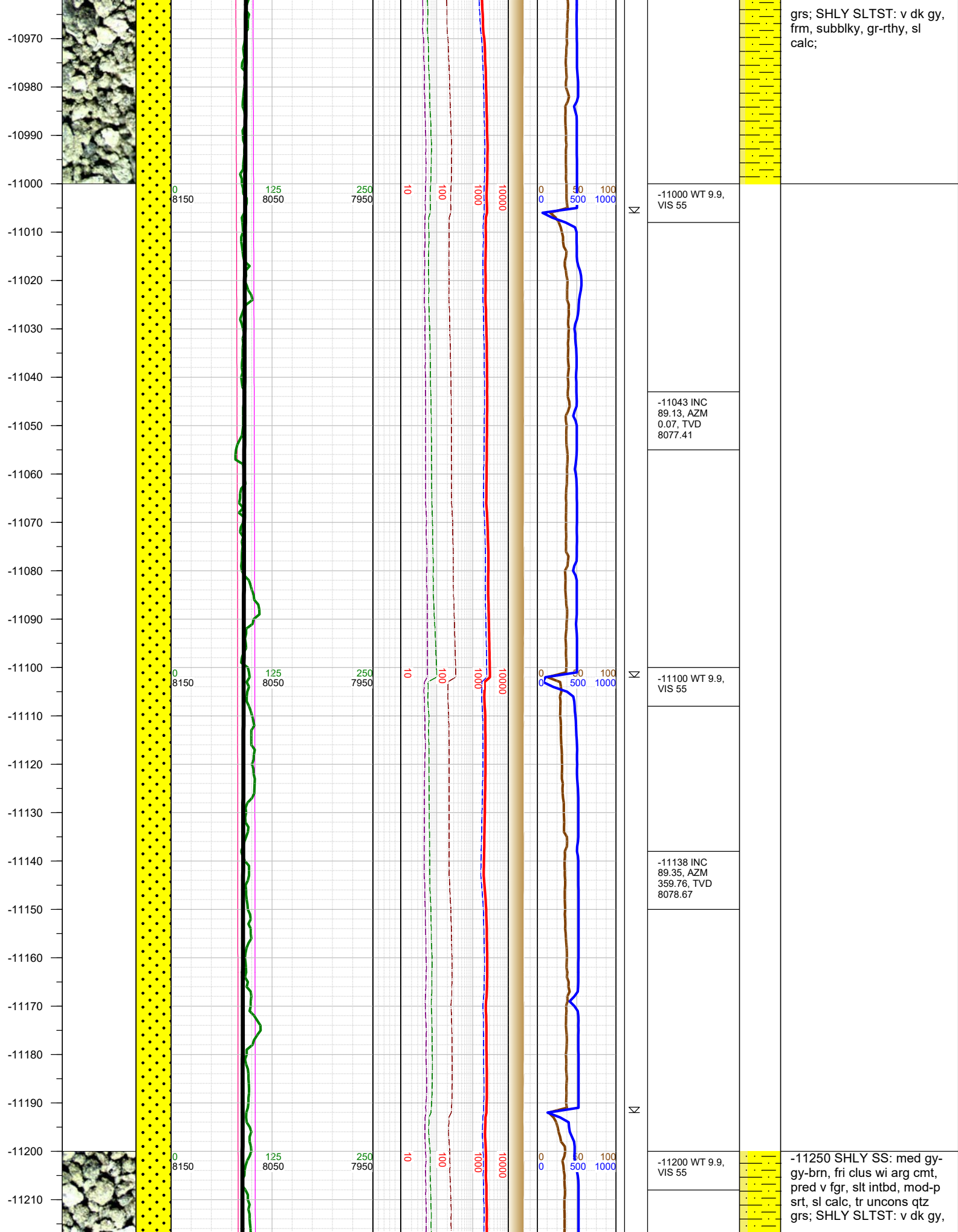
-9750 SHLY SS: med gy-gy, fri clus wi arg cmt, pred v fgr, slt intbd, mod-p srt, sl calc, tr unconcs qtz grs; SHLY SLTST: v dk gy, frm, subblky, gr-rthy, sl calc; tr bent; tr pyr;

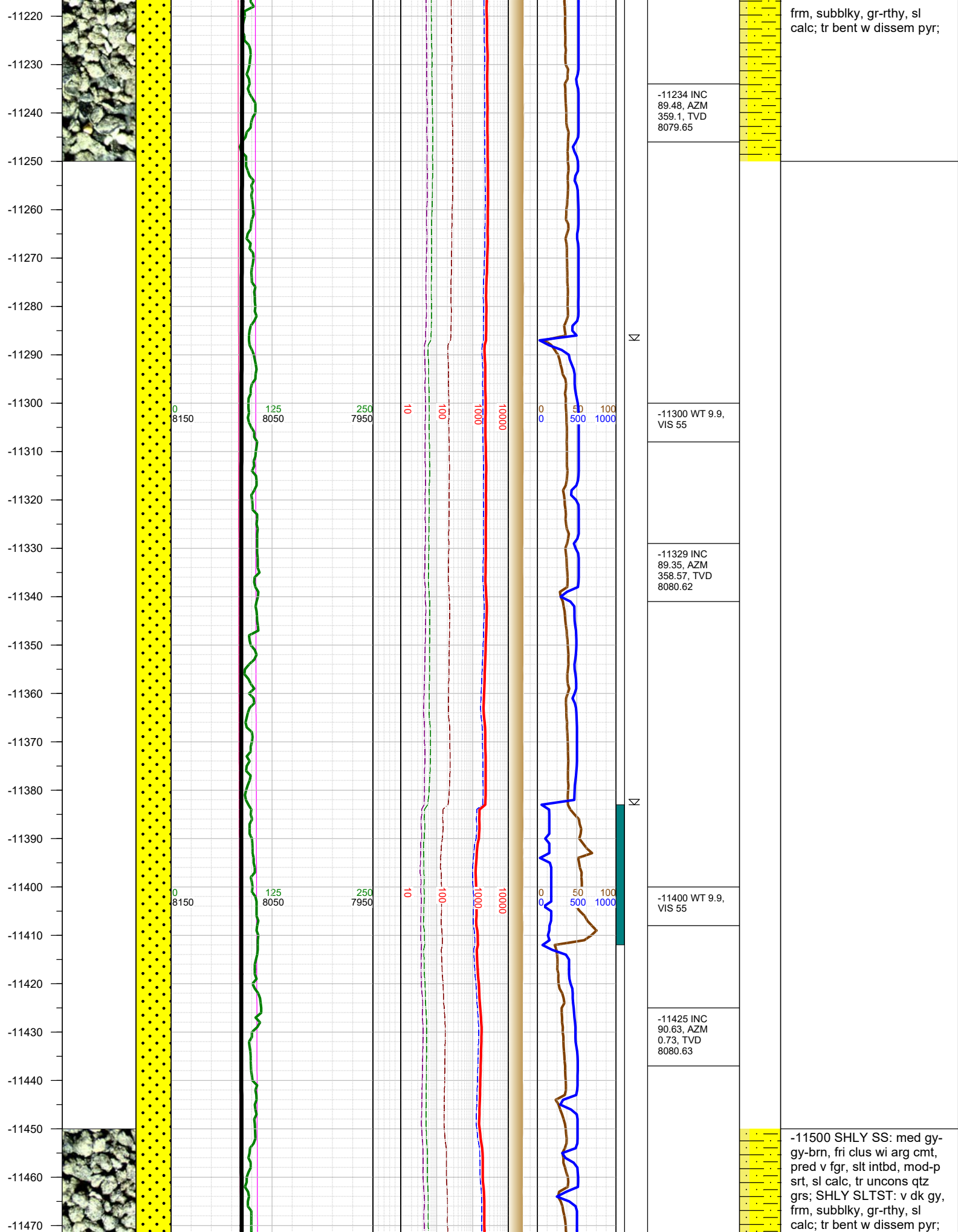






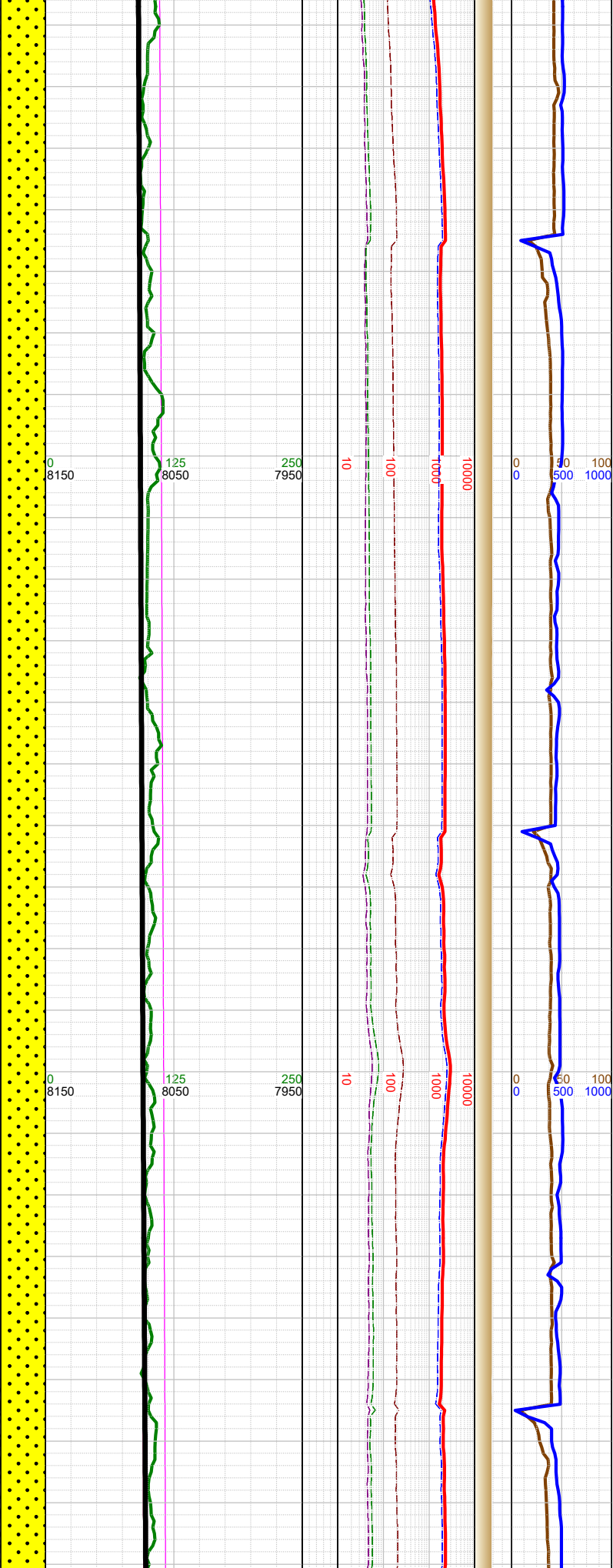
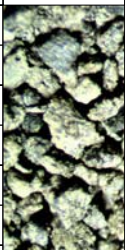
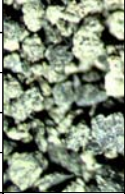








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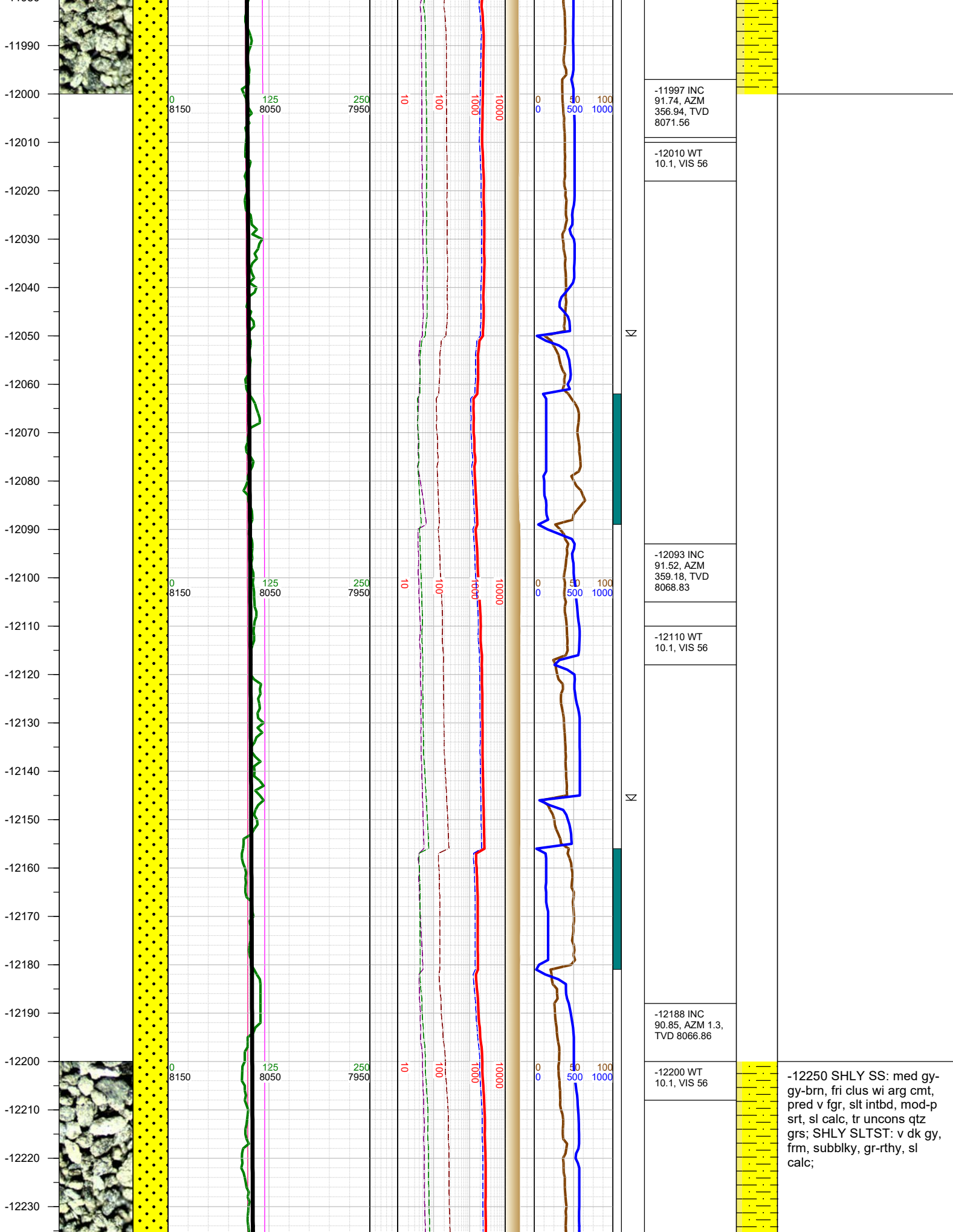


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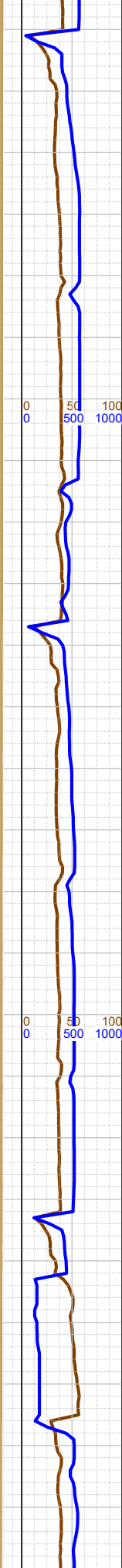
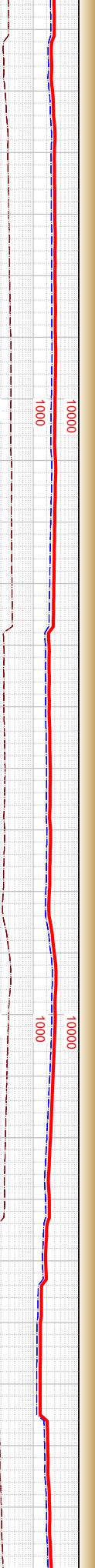
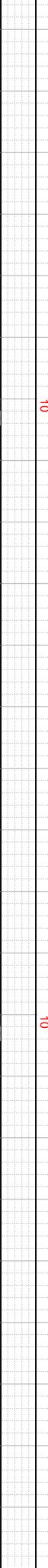
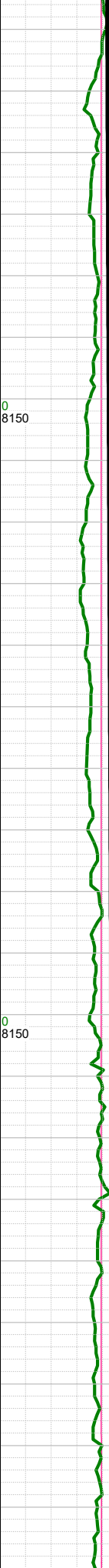
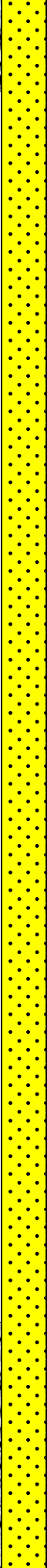
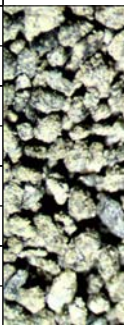
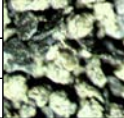
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-11820 WT 9.9, VIS 56
-11902 INC 91.3, AZM 356.94, TVD 8074.08
-11920 WT 9.9, VIS 56



-12000 SHLY SS: med gy-gy-brn, fri clus wi arg cmt, pred v fgr, slt intbd, mod-p srt, sl calc, tr uncons qtz grs; SHLY SLTST: v dk gy, frm, subblky, gr-rthy, sl calc;



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-12283 INC  
91.12, AZM  
0.33, TVD  
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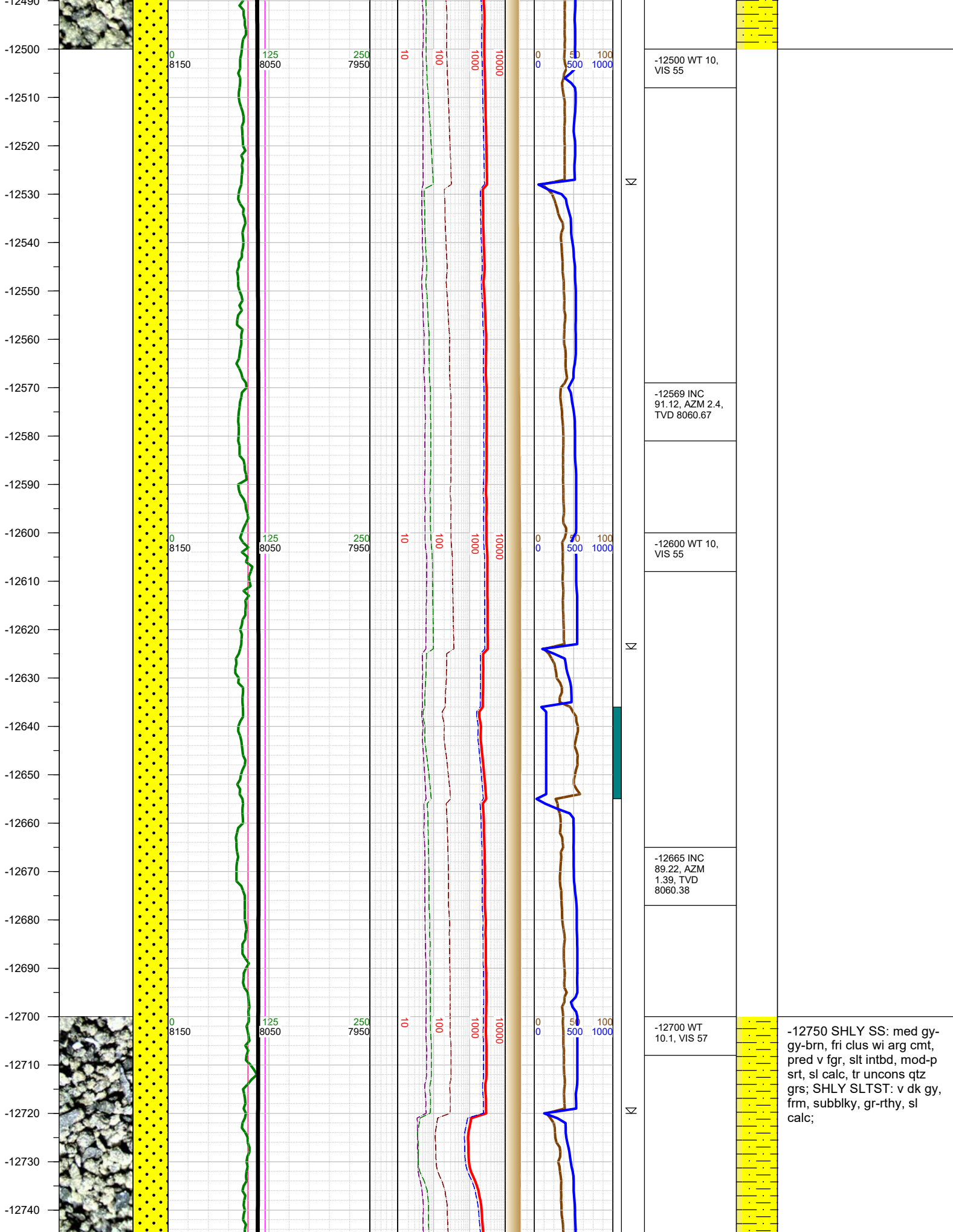
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-12379 INC  
91.21, AZM  
359.85, TVD  
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-12400 WT  
10.1, VIS 56

-12474 INC  
90.41, AZM  
2.58, TVD  
8061.93

-12500 SHLY SS: med gy-  
gy-brn, fri clus wi arg cmt,  
pred v fgr, slt intbd, mod-p  
srt, sl calc, tr unconsl qtz  
grs; SHLY SLTST: v dk gy,  
frm, subblky, gr-rthy, sl  
calc;



-12500 WT 10,  
VIS 55

-12569 INC  
91.12, AZM 2.4,  
TVD 8060.67

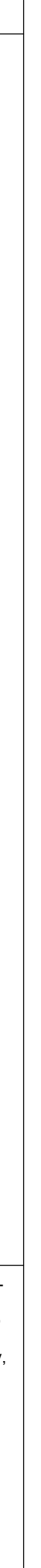
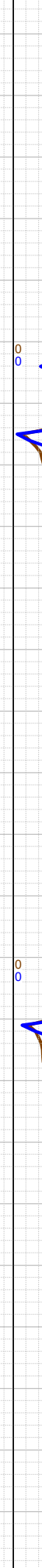
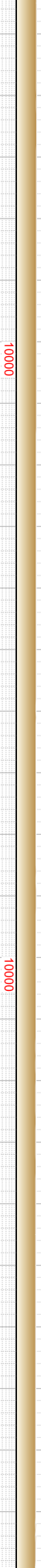
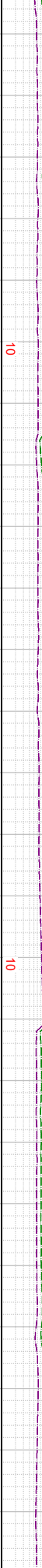
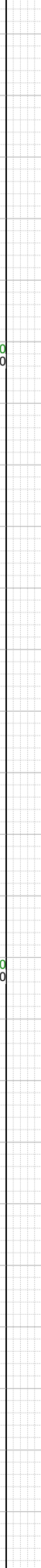
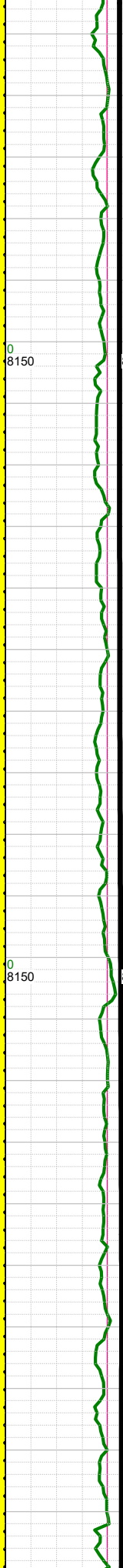
-12600 WT 10,  
VIS 55

-12665 INC  
89.22, AZM  
1.39, TVD  
8060.38

-12700 WT  
10.1, VIS 57

-12750 SHLY SS: med gy-  
gy-brn, fri clus wi arg cmt,  
pred v fgr, slt intbd, mod-p  
srt, sl calc, tr uncons qtz  
grs; SHLY SLTST: v dk gy,  
frm, subblky, gr-rthy, sl  
calc;

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-12760 INC  
89.7, AZM 1.21,  
TVD 8061.28

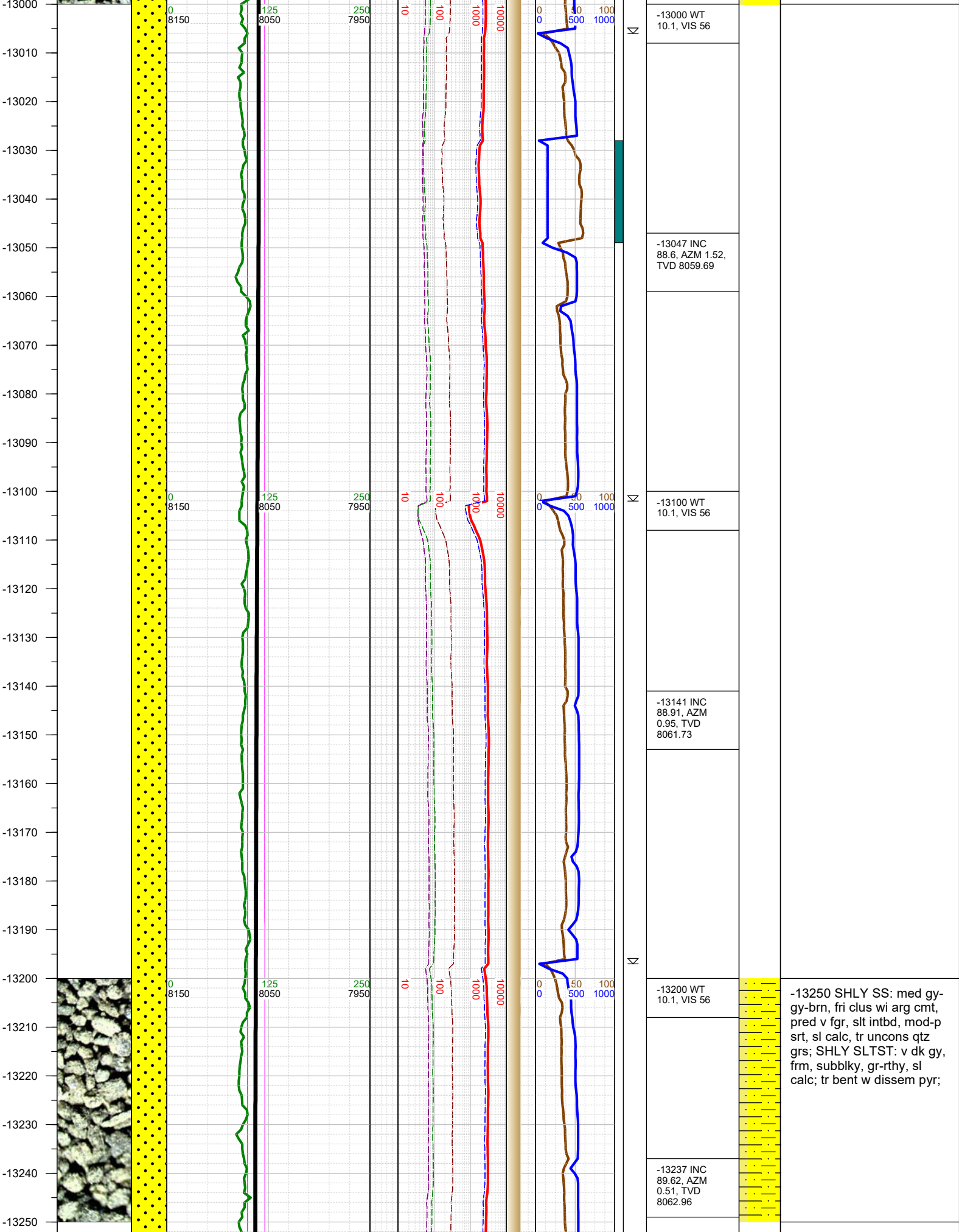
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-12855 INC  
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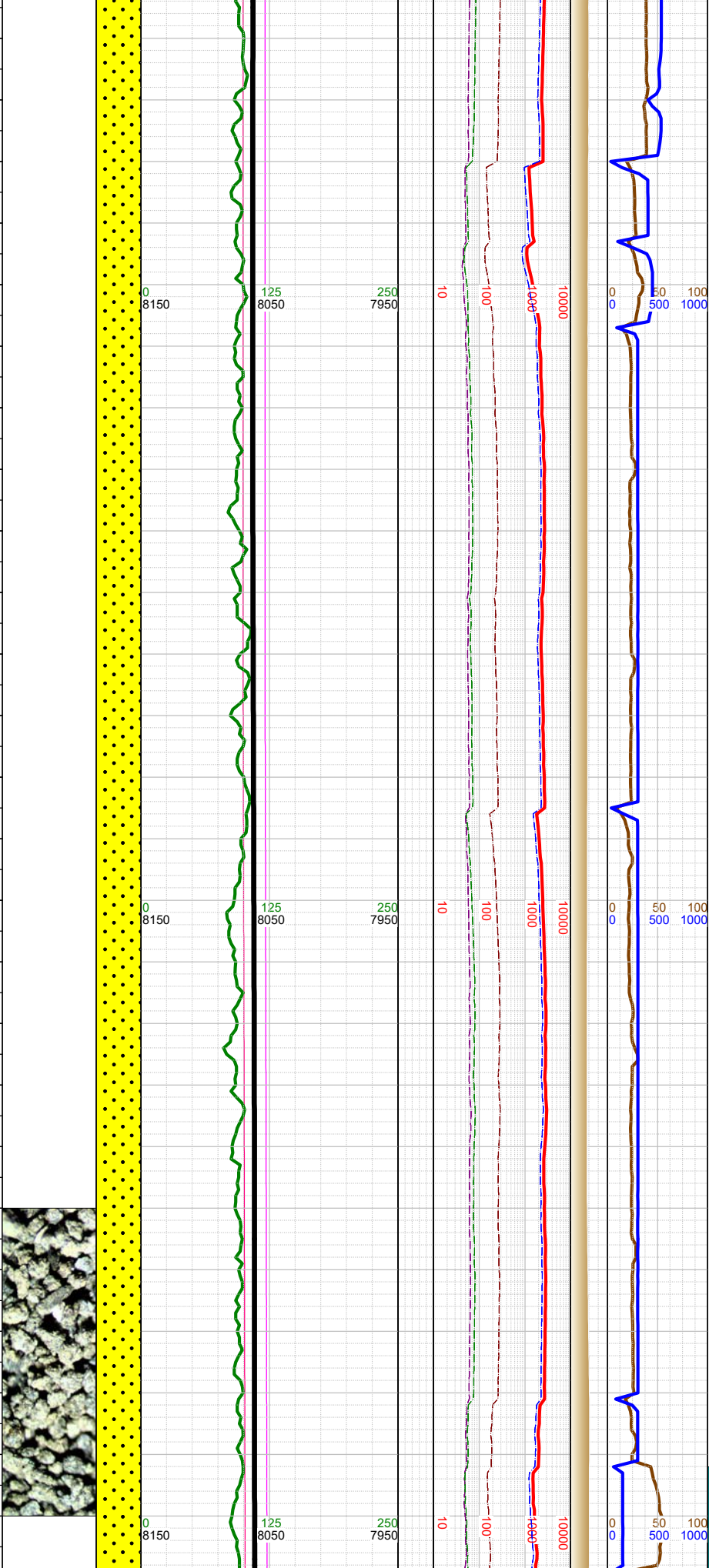
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-12951 INC  
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-13000 SHLY SS: med gy-  
gy-brn, fri clus wi arg cmt,  
pred v fgr, slt intbd, mod-p  
srt, sl calc, tr uncons qtz  
grs; SHLY SLTST: v dk gy,  
frm, subblky, gr-rthy, sl  
calc;



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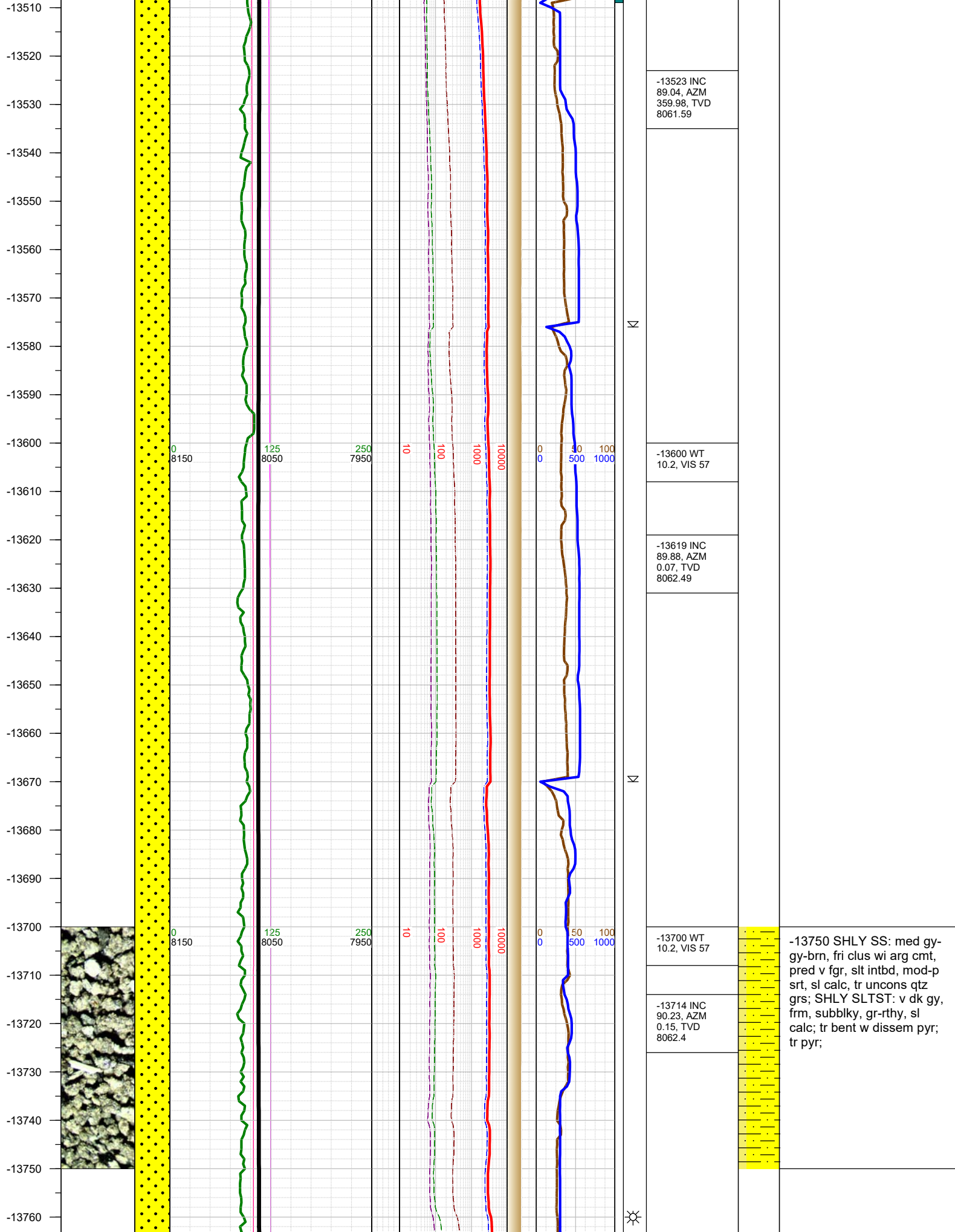
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0.33, TVD  
8063.12

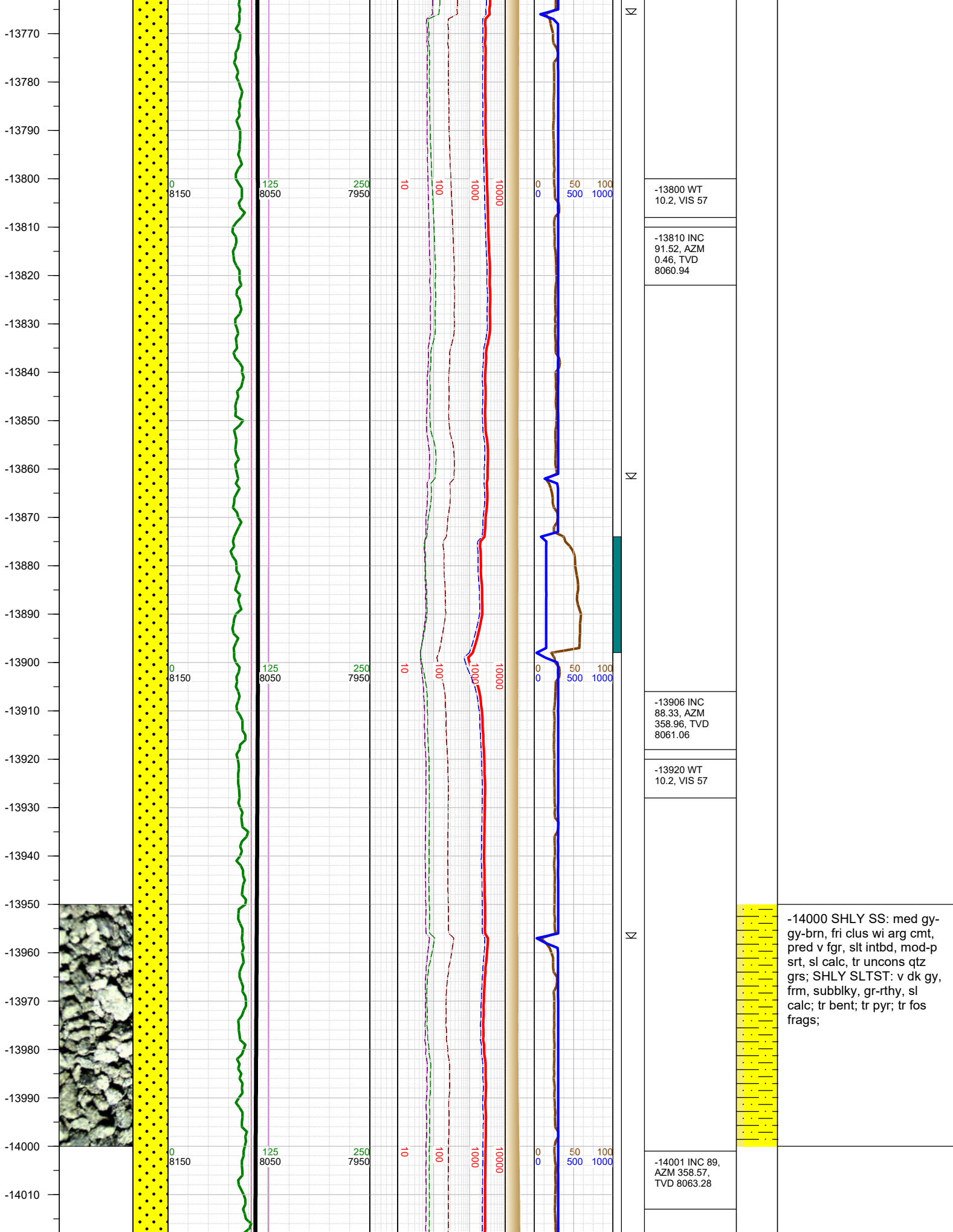
-13400 WT  
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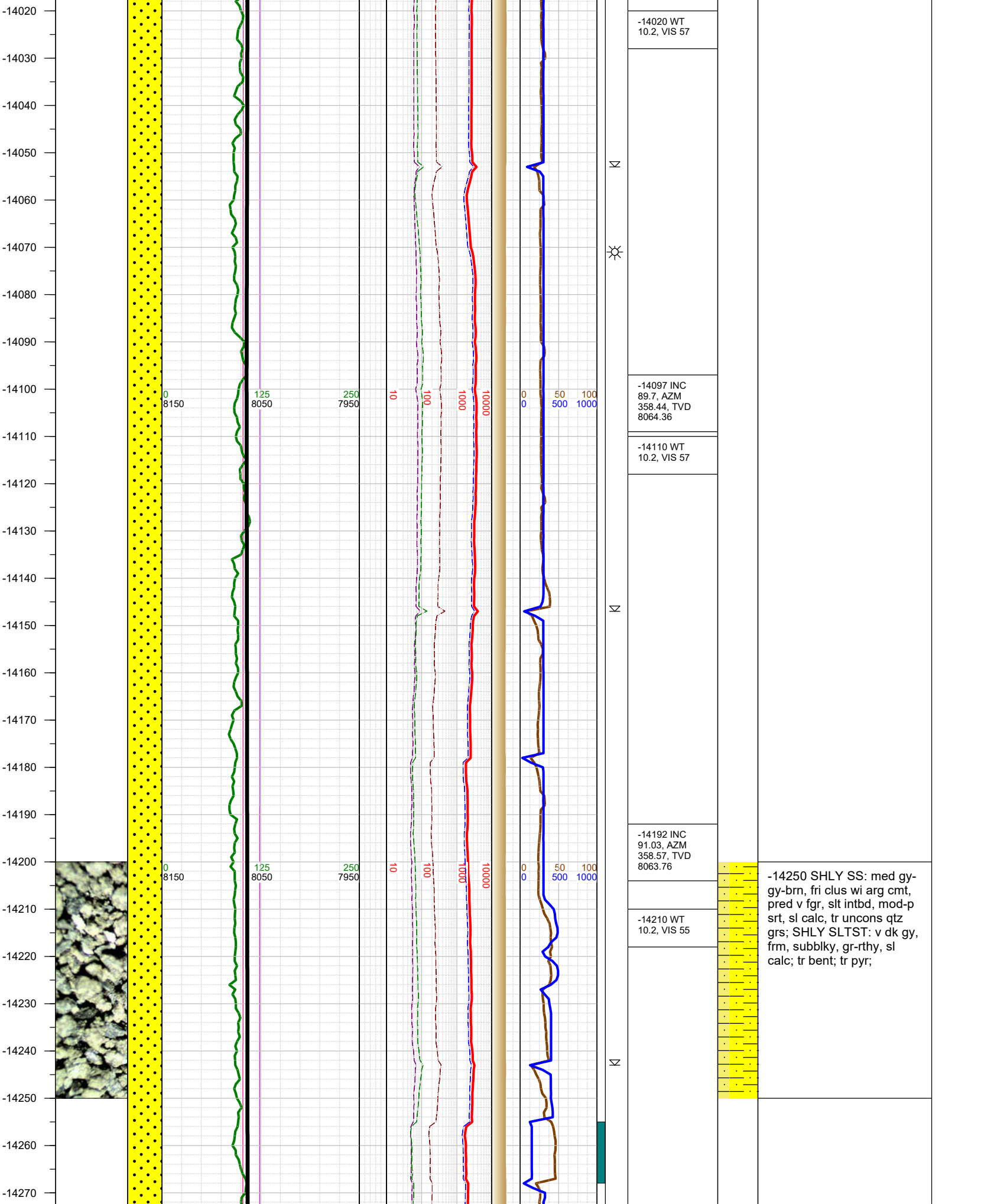
-13428 INC  
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TVD 8061.87

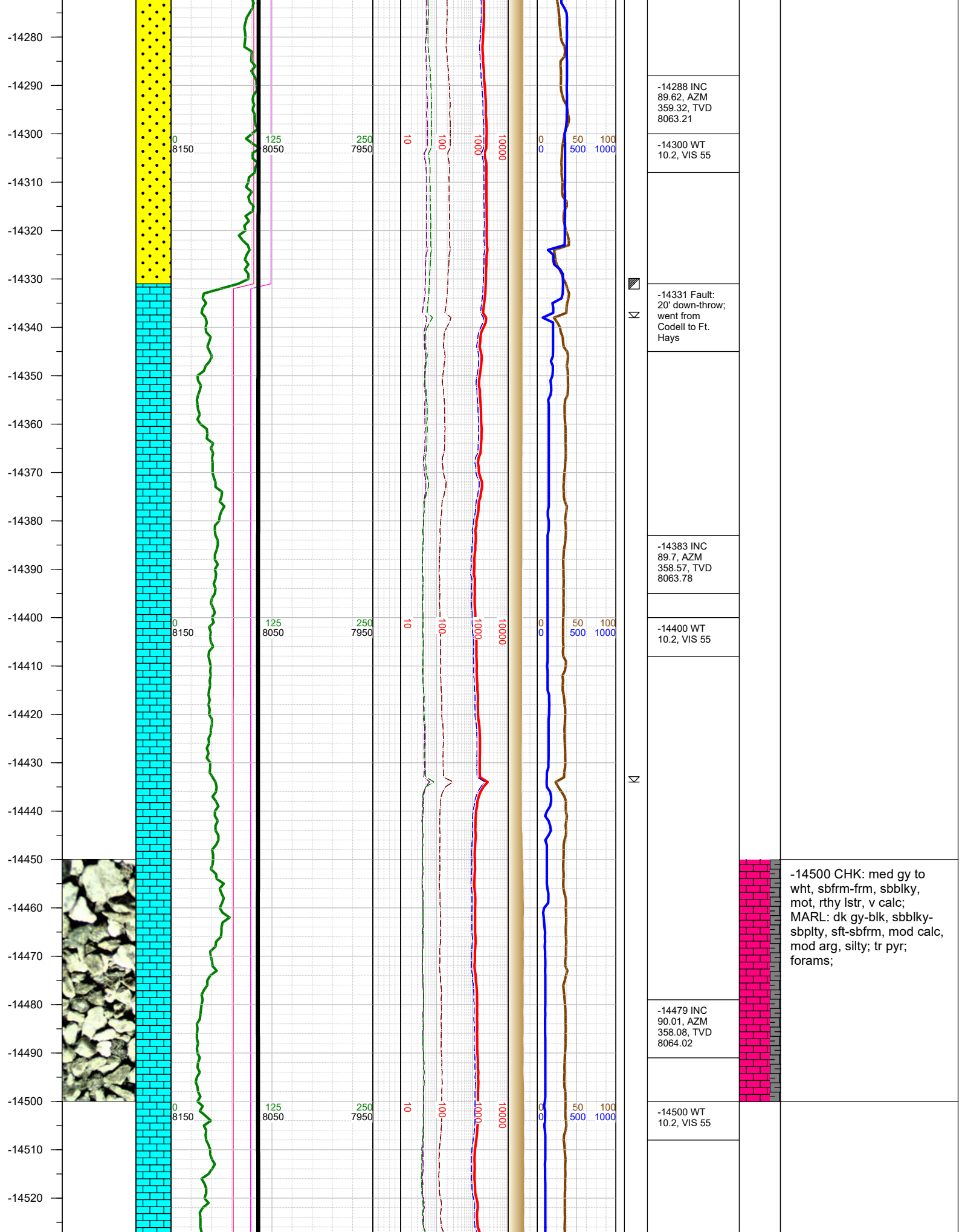
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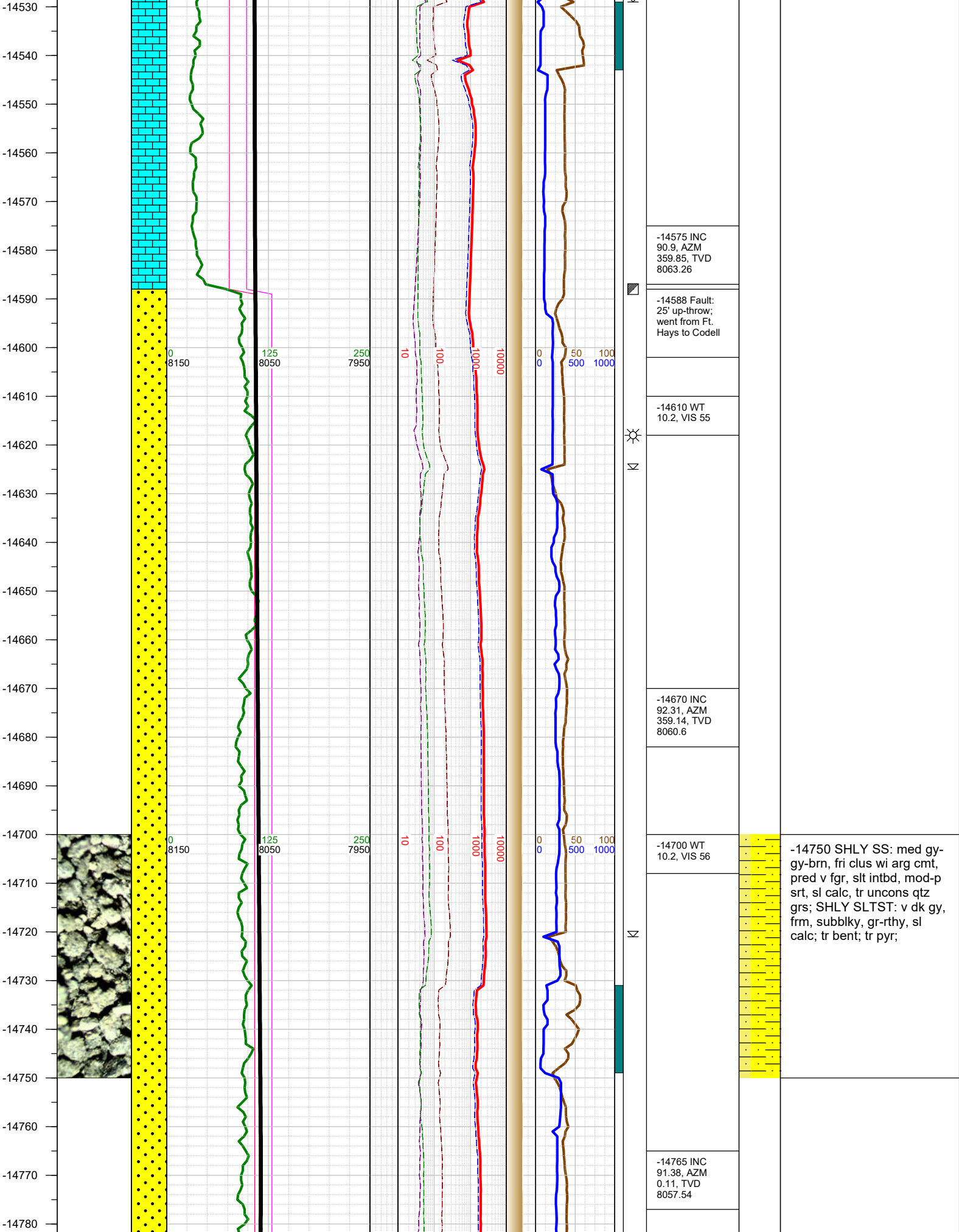
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gy-brn, fri clus wi arg cmt,  
pred v fgr, slt intbd, mod-p  
srt, sl calc, tr uncons qtz  
grs; SHLY SLTST: v dk gy,  
frm, subblky, gr-rthy, sl  
calc; tr bent w dissem pyr;  
tr pyr;

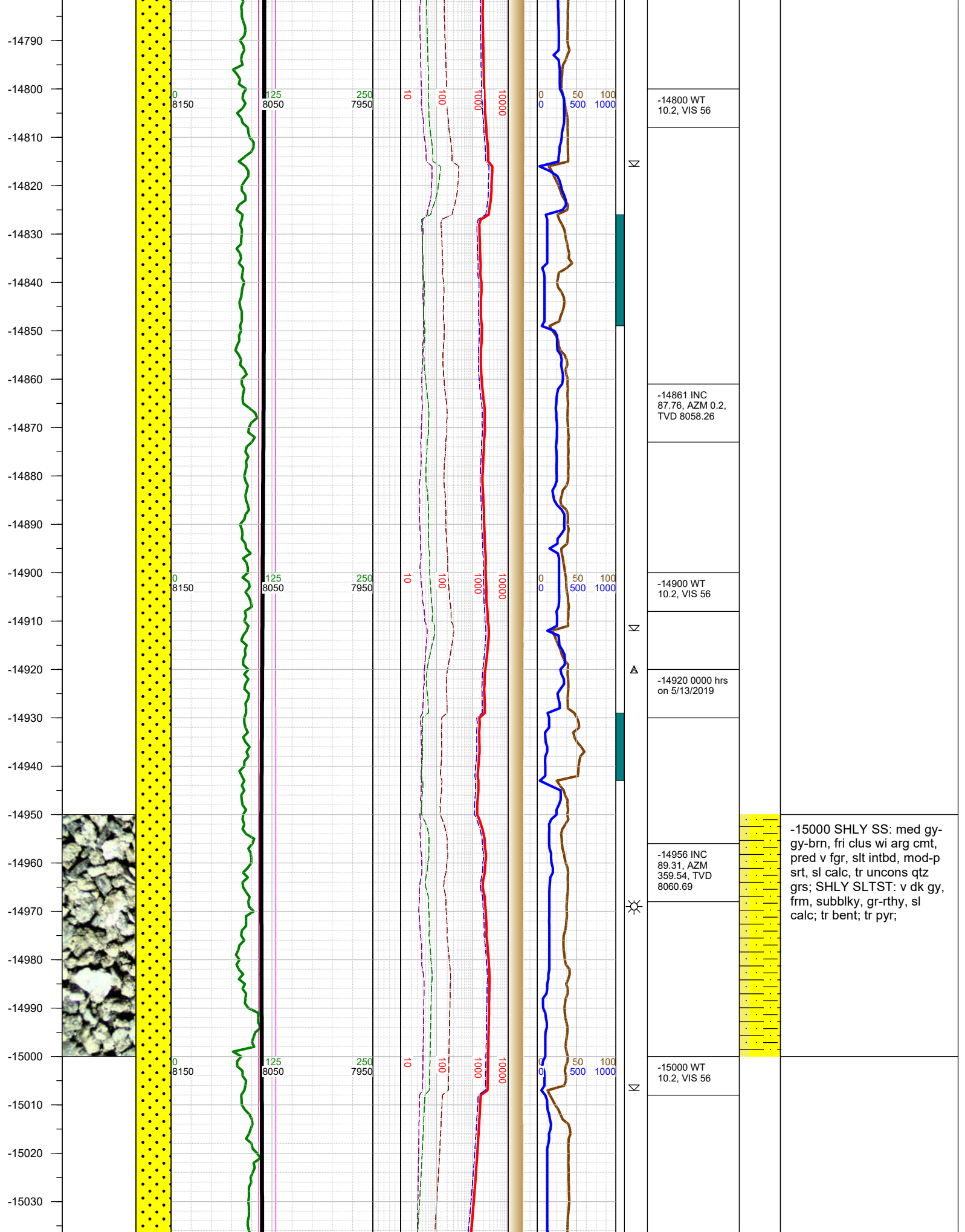


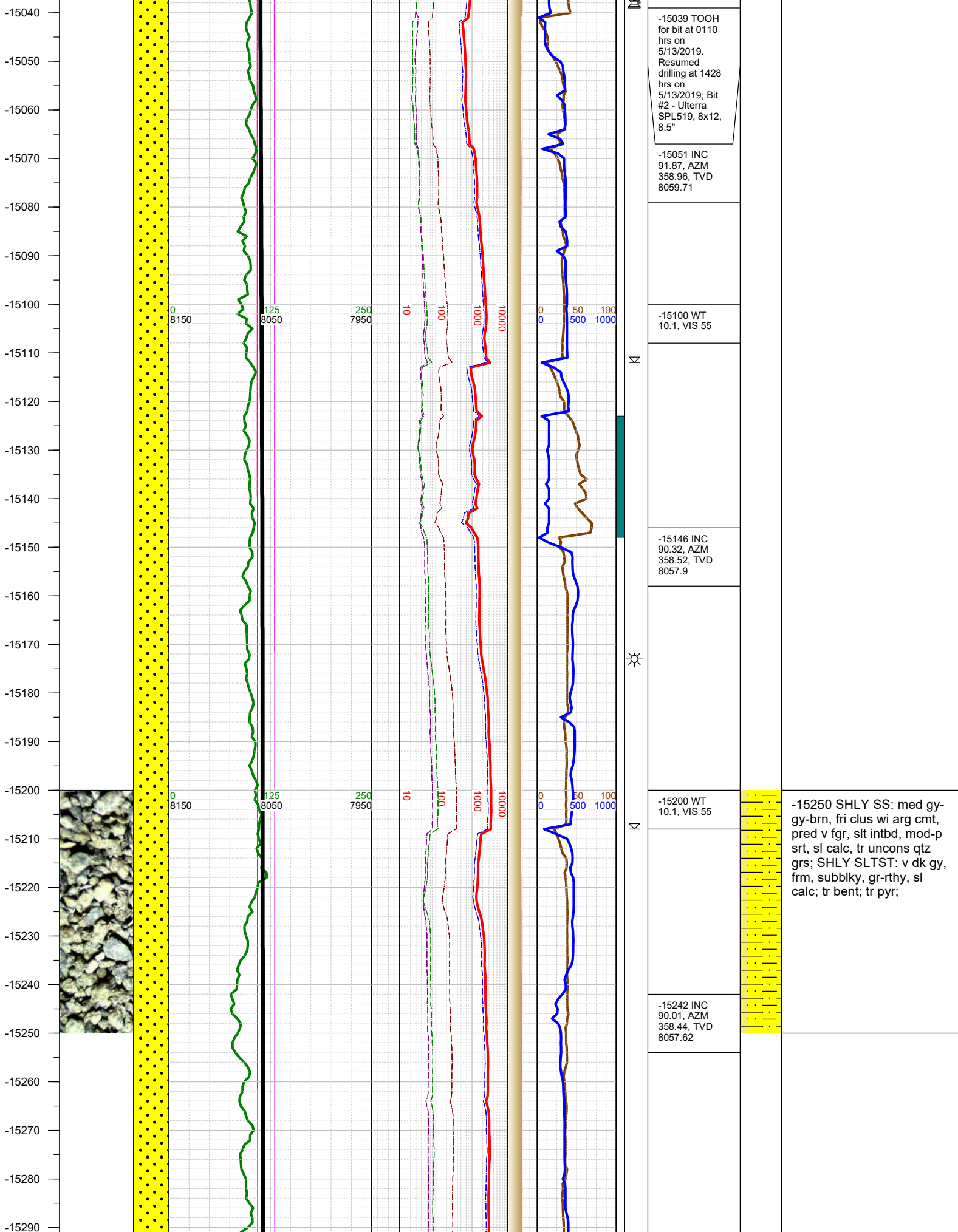












-15039 TOOH  
for bit at 0110  
hrs on  
5/13/2019.  
Resumed  
drilling at 1428  
hrs on  
5/13/2019; Bit  
#2 - Ulterra  
SPL519, 8x12,  
8.5"

-15051 INC  
91.87, AZM  
358.96, TVD  
8059.71

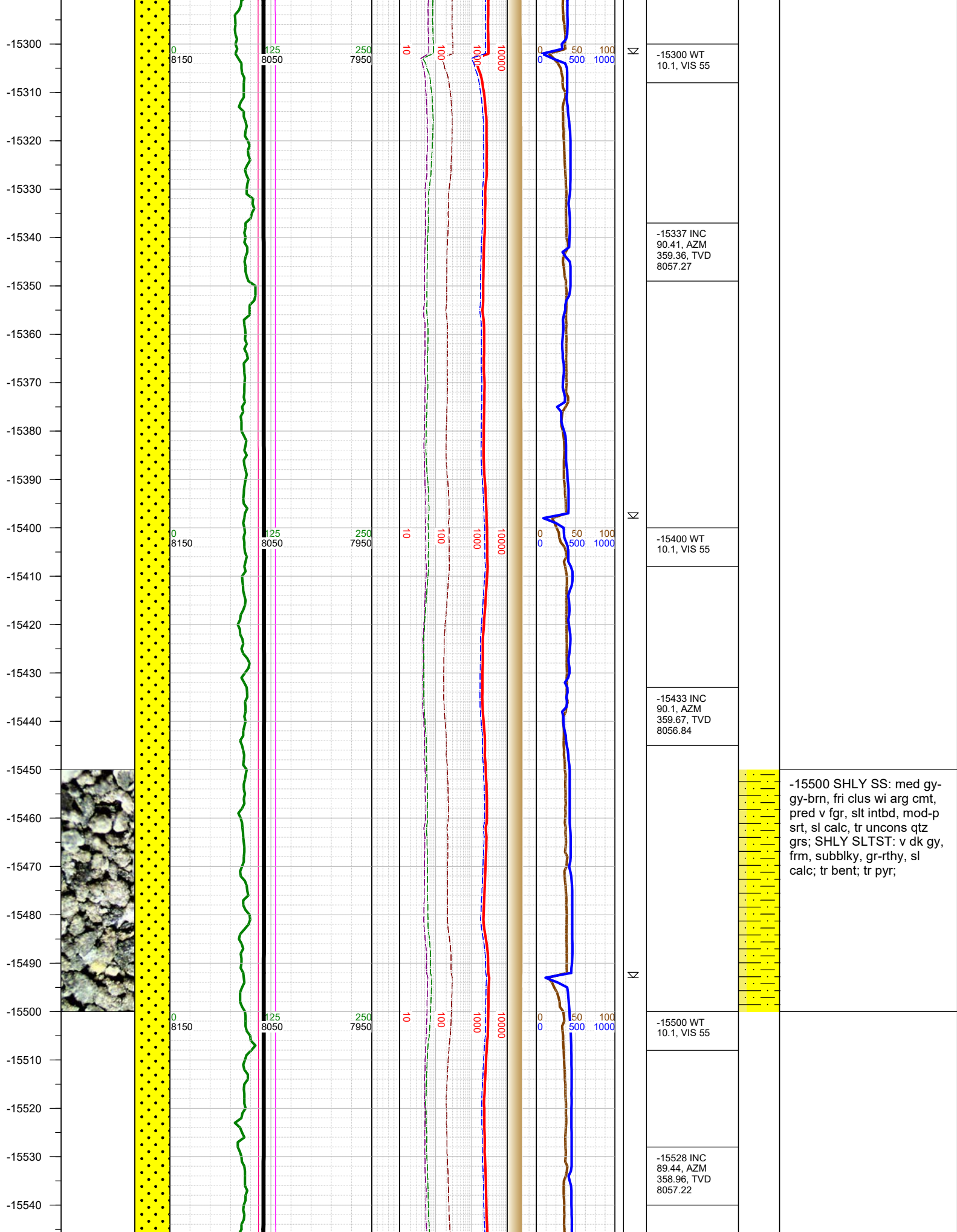
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-15146 INC  
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358.52, TVD  
8057.9

-15200 WT  
10.1, VIS 55

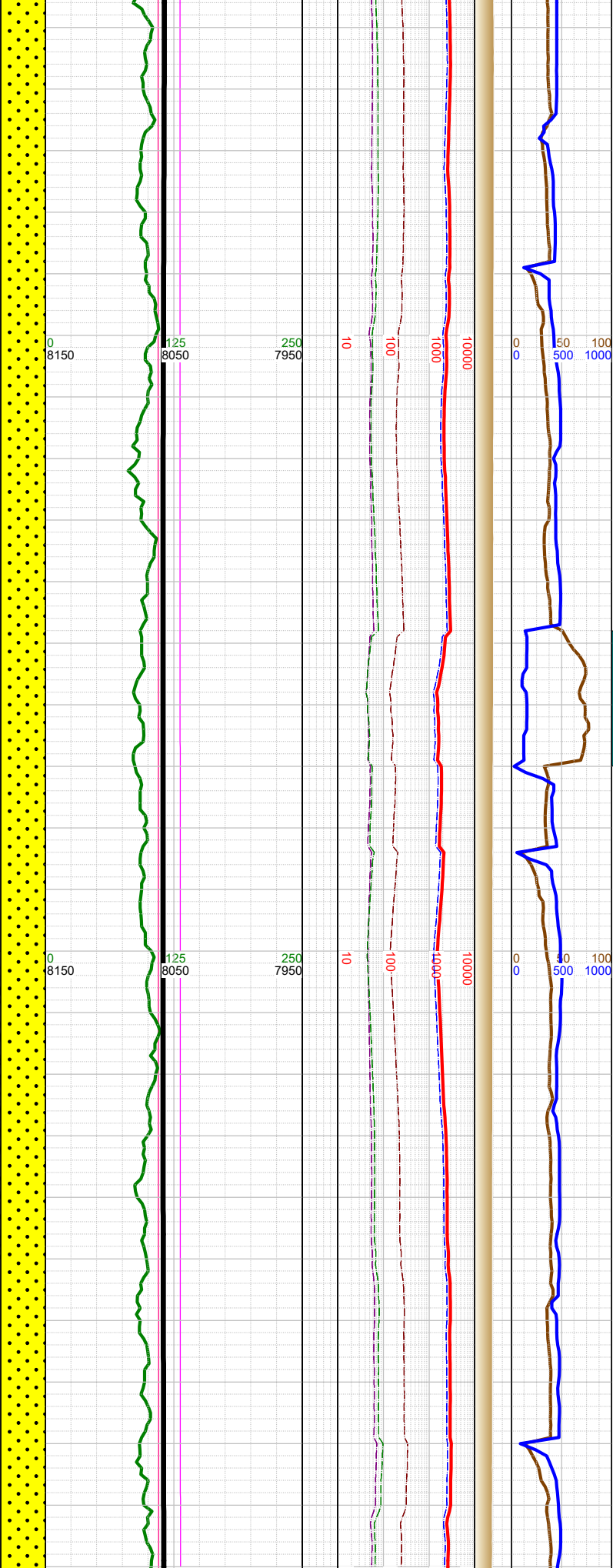
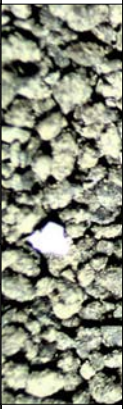
-15242 INC  
90.01, AZM  
358.44, TVD  
8057.62

-15250 SHLY SS: med gy-  
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pred v fgr, slt intbd, mod-p  
srt, sl calc, tr uncons qtz  
grs; SHLY SLTST: v dk gy,  
frm, subblky, gr-rthy, sl  
calc; tr bent; tr pyr;



-15500 SHLY SS: med gy-gy-brn, fri clus wi arg cmt, pred v fgr, slt intbd, mod-p srt, sl calc, tr uncons qtz grs; SHLY SLTST: v dk gy, frm, subblky, gr-rthy, sl calc; tr bent; tr pyr;

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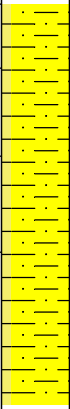


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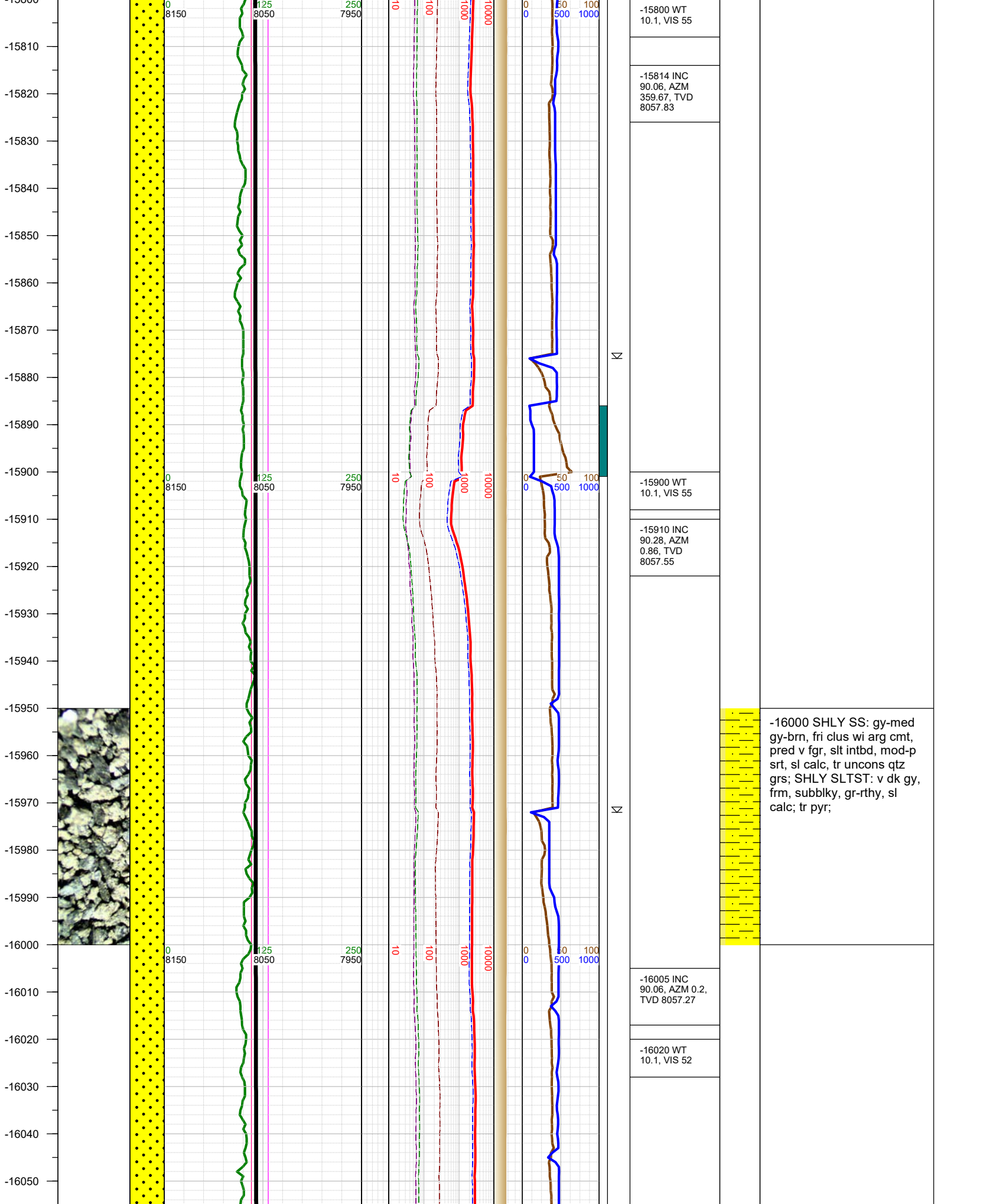
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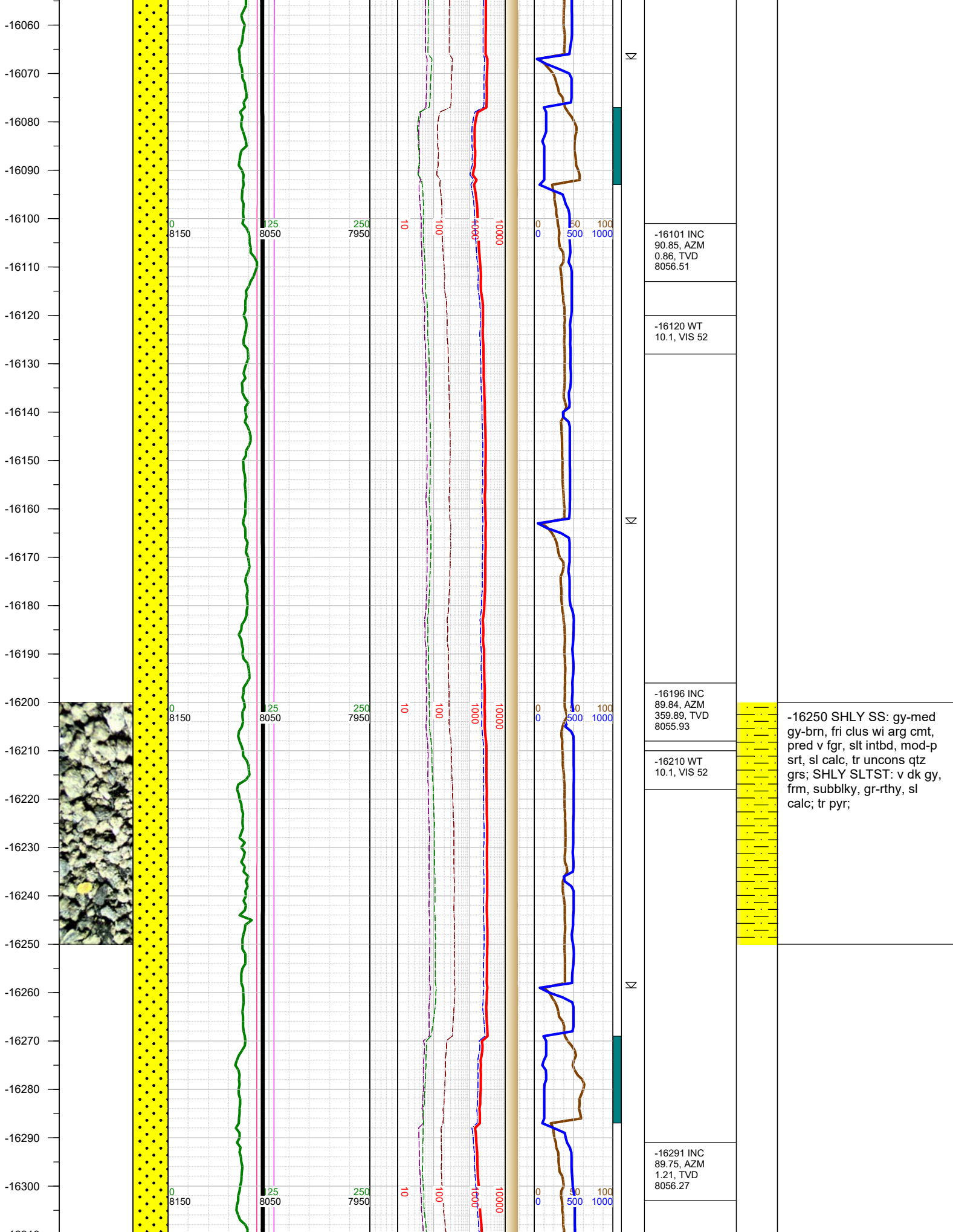
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	-15600 WT 10.1, VIS 55
	-15624 INC 89.04, AZM 358.22, TVD 8058.5
	-15700 WT 10.1, VIS 55
	-15719 INC 90.85, AZM 0.11, TVD 8058.59

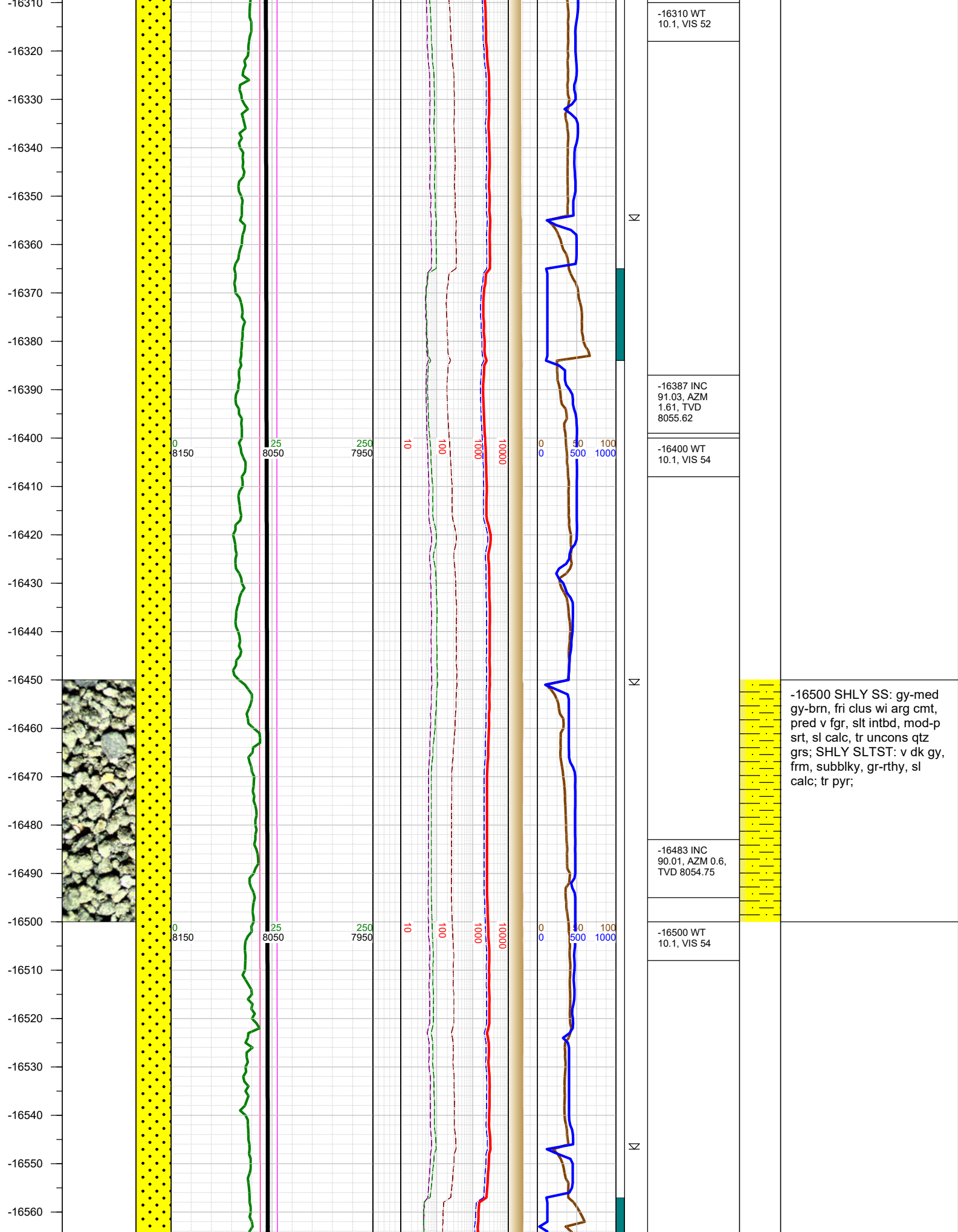


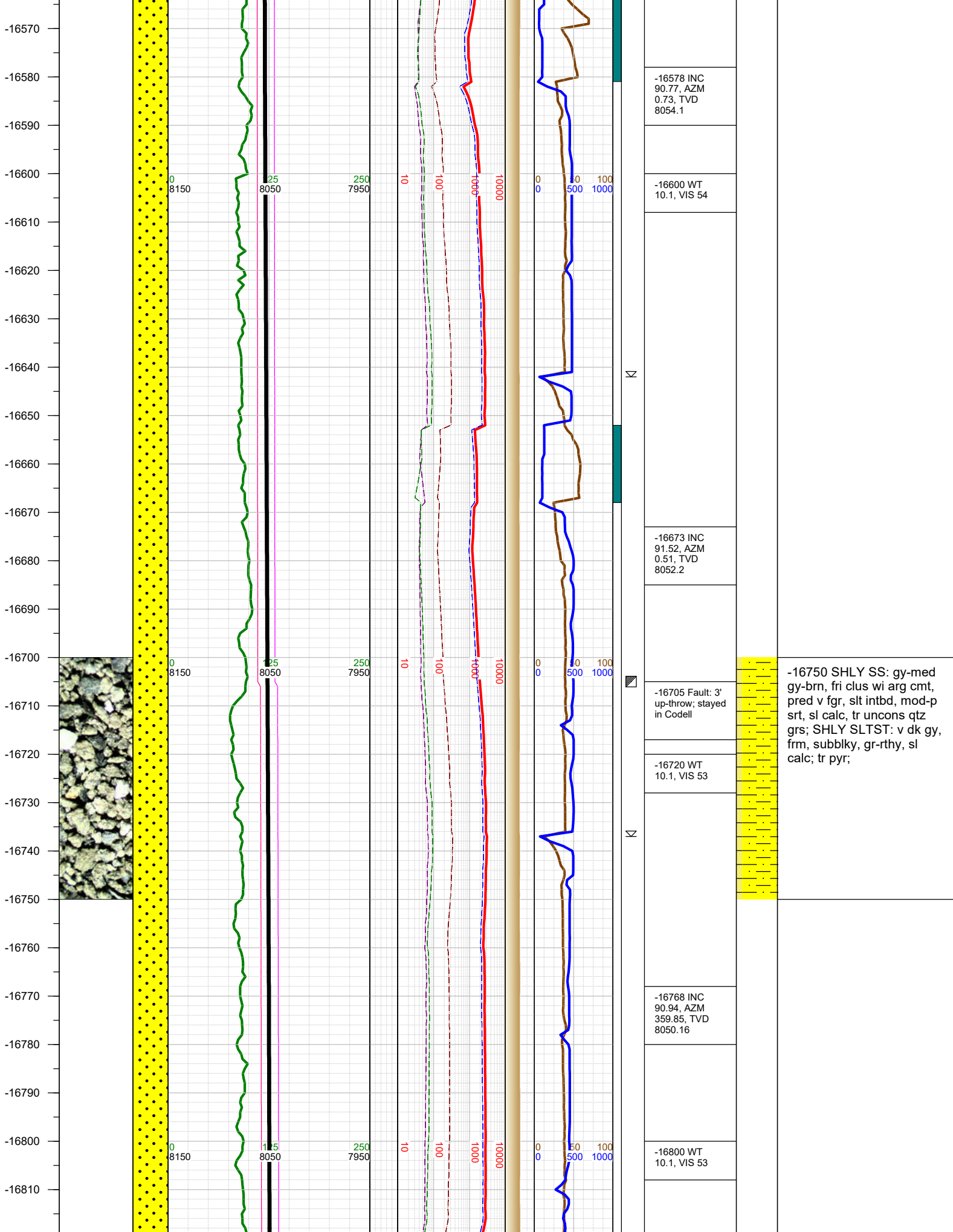
-15750 SHLY SS: med gy-gy-brn, fri clus wi arg cmt, pred v fgr, slt intbd, mod-p srt, sl calc, tr uncons qtz grs; SHLY SLTST: v dk gy, frm, subblky, gr-rthy, sl calc;

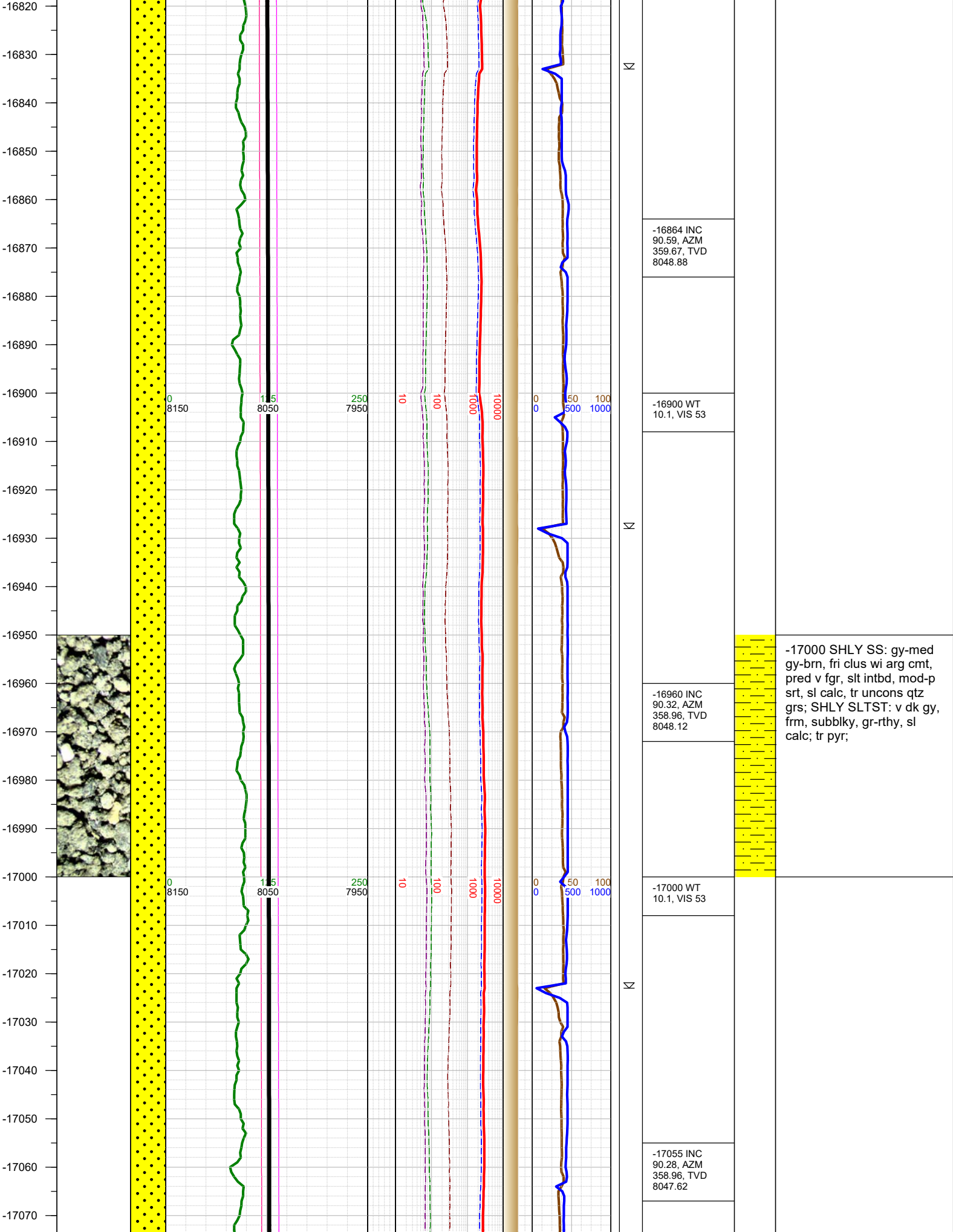




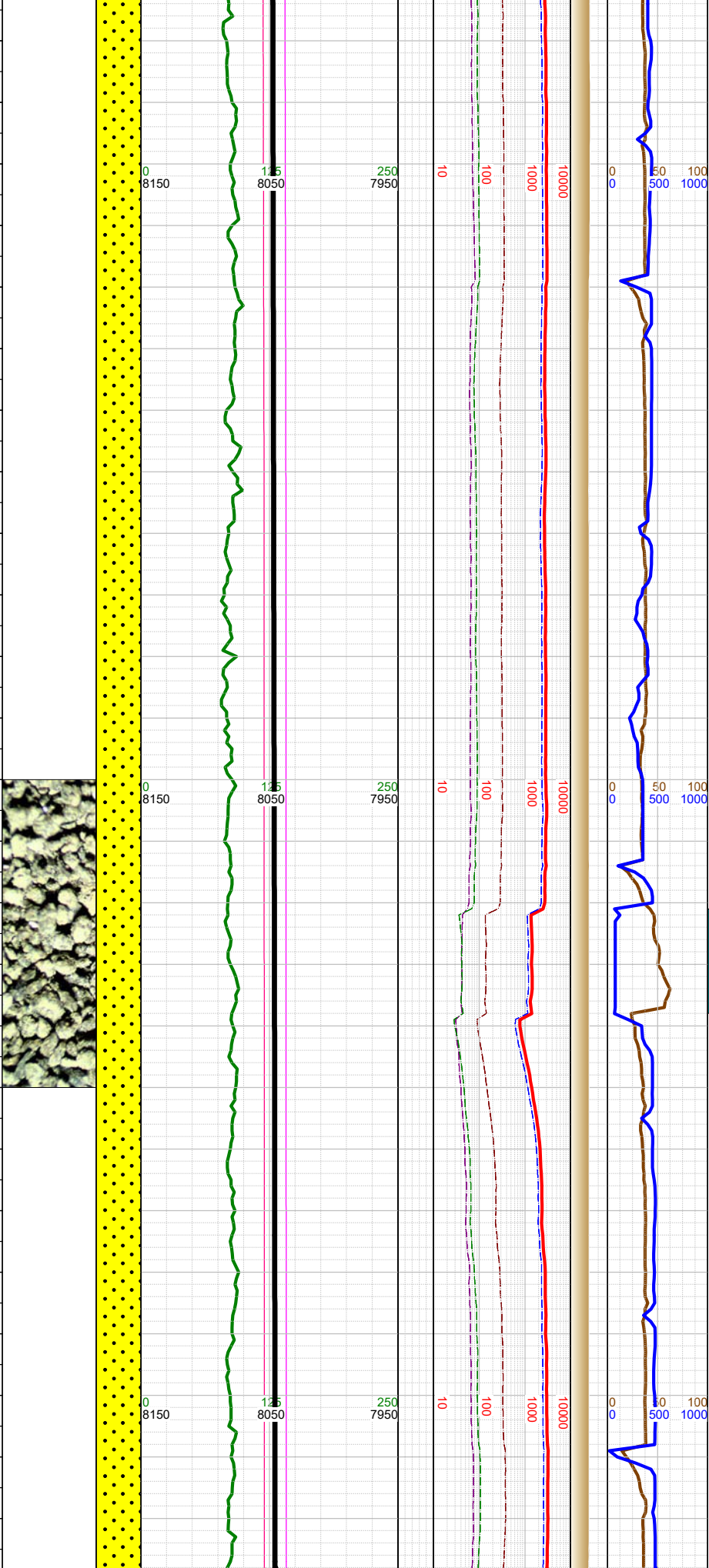
-16250 SHLY SS: gy-med gy-brn, fri clus wi arg cmt, pred v fgr, slt intbd, mod-p srt, sl calc, tr uncons qtz grs; SHLY SLTST: v dk gy, frm, subblky, gr-rthy, sl calc; tr pyr;







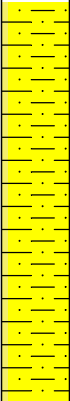
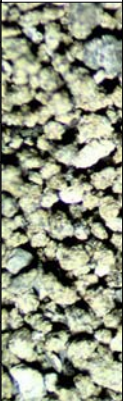
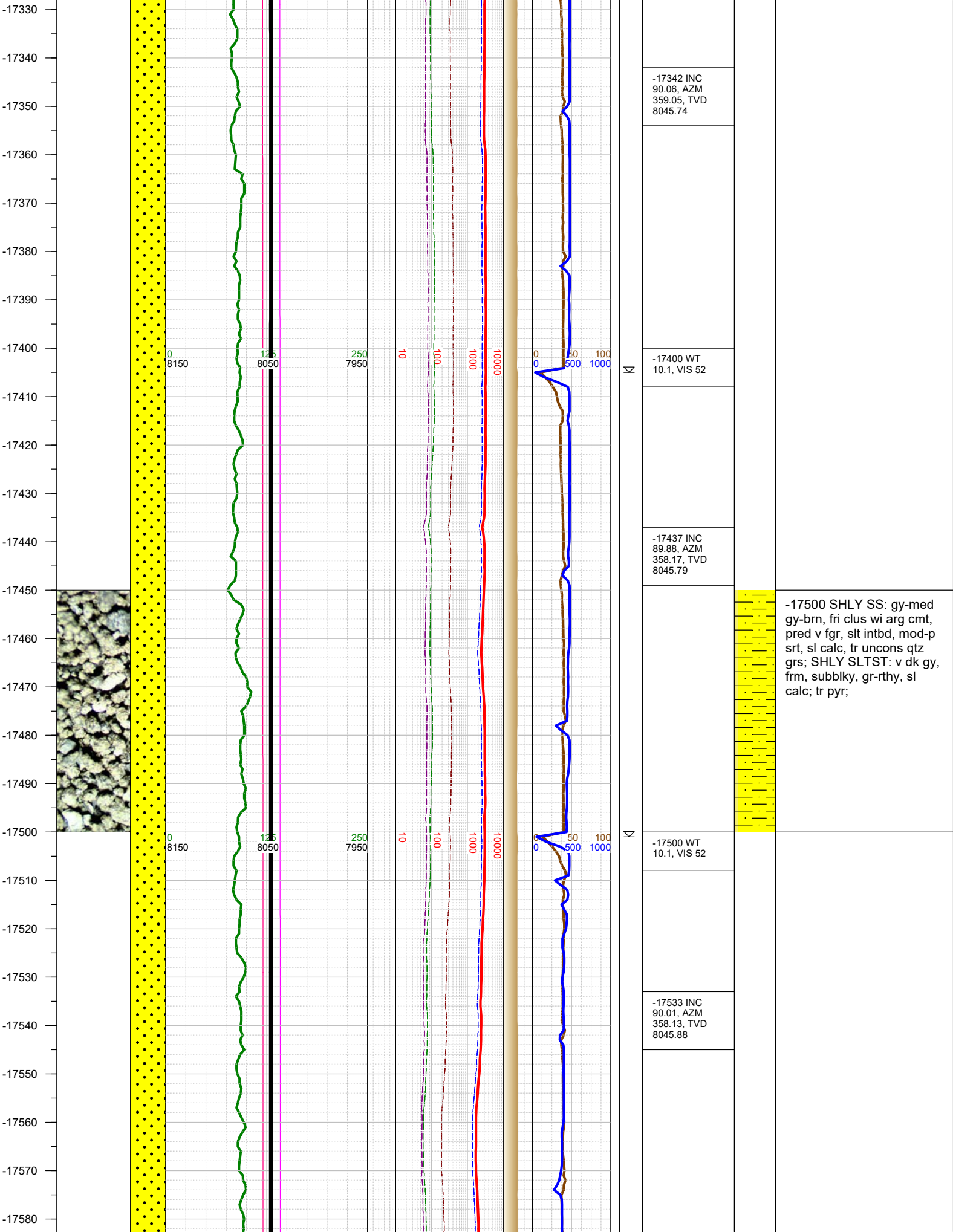
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-17150  
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-17170  
-17180  
-17190  
-17200  
-17210  
-17220  
-17230  
-17240  
-17250  
-17260  
-17270  
-17280  
-17290  
-17300  
-17310  
-17320



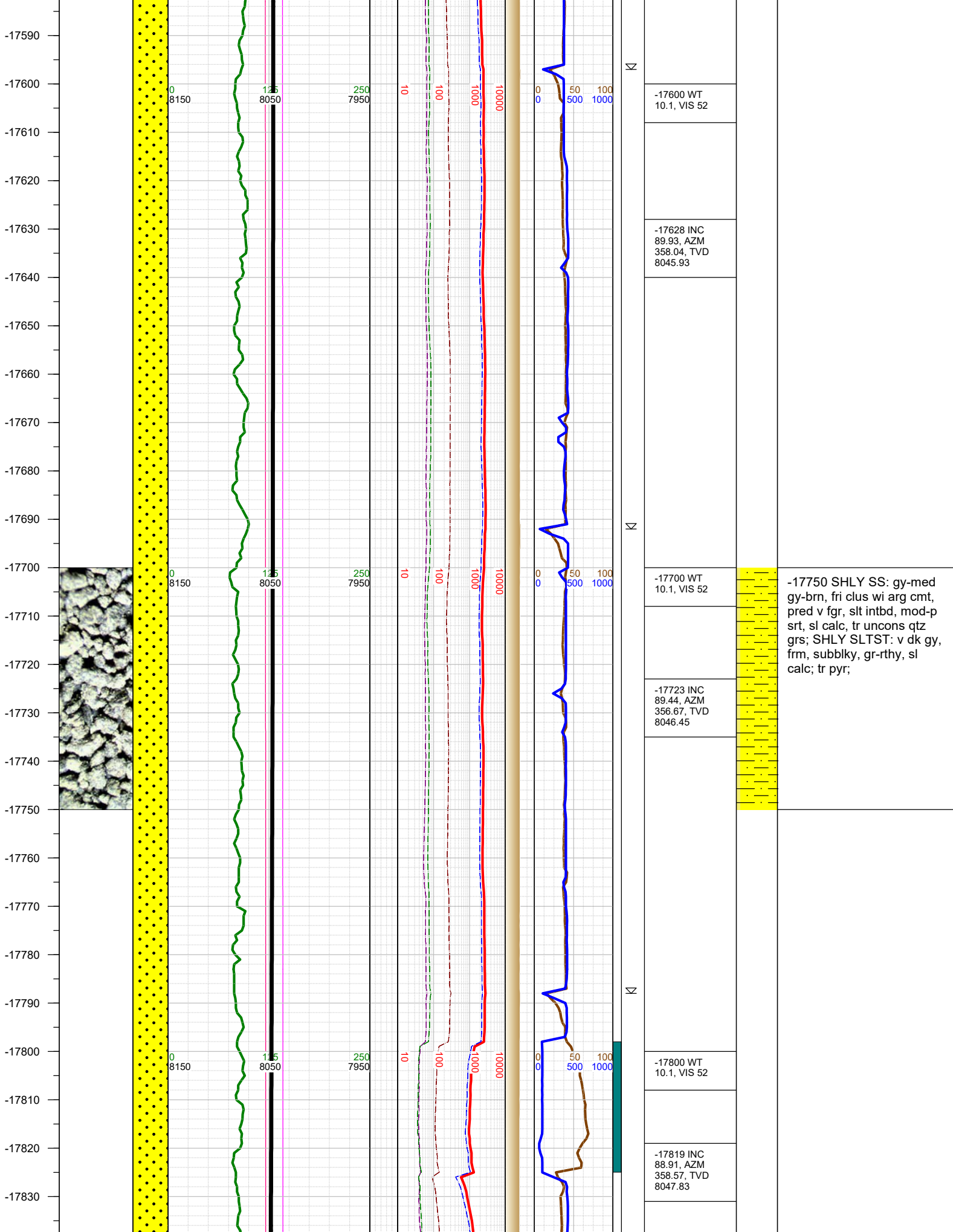
	-17100 WT 10.1, VIS 53
Σ	
	-17150 INC 90.59, AZM 358.88, TVD 8046.9
Σ	-17200 WT 10.1, VIS 53
Δ	-17220 0000 hrs on 5/14/2019
	-17246 INC 90.37, AZM 0.07, TVD 8046.1
Σ	-17300 WT 10.1, VIS 53



-17250 SHLY SS: gy-med  
gy-brn, fri clus wi arg cmt,  
pred v fgr, slt intbd, mod-p  
srt, sl calc, tr uncons qtz  
grs; SHLY SLTST: v dk gy,  
frm, subblky, gr-rthy, sl  
calc; tr pyr;

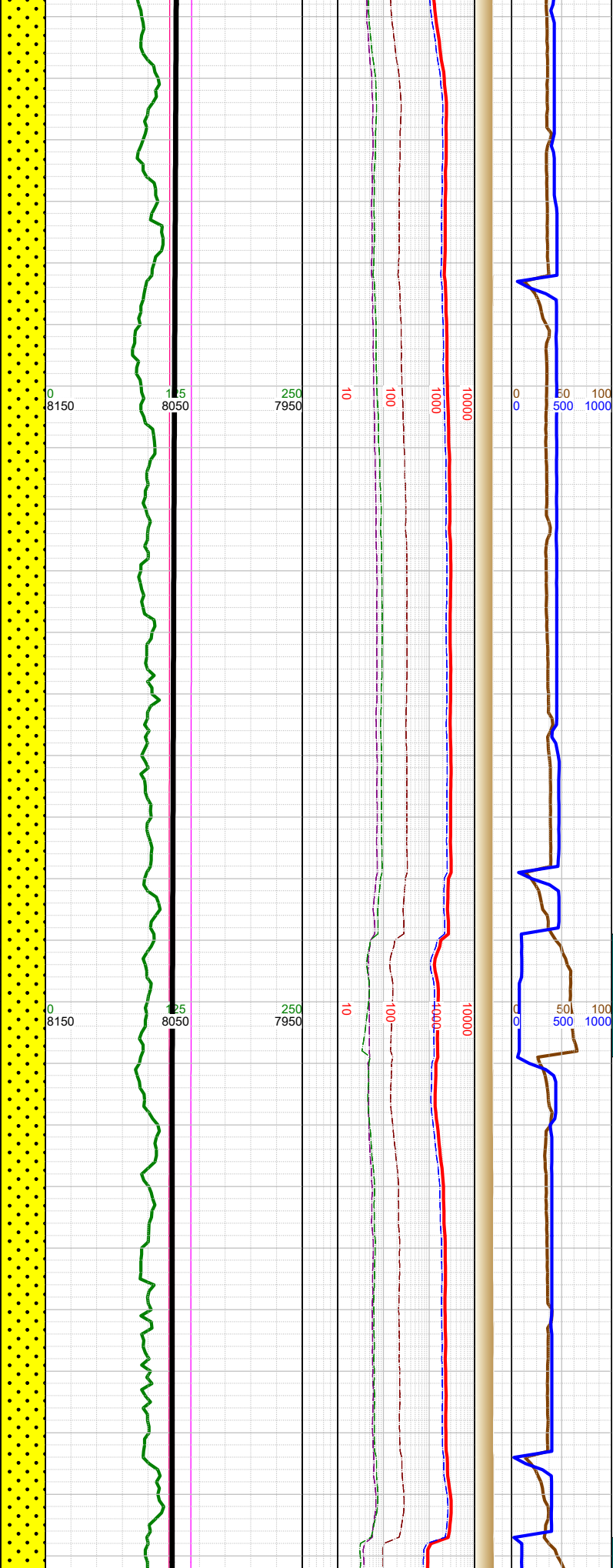
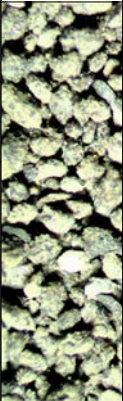


-17500 SHLY SS: gy-med gy-brn, fri clus wi arg cmt, pred v fgr, slt intbd, mod-p srt, sl calc, tr uncons qtz grs; SHLY SLTST: v dk gy, frm, subblky, gr-rthy, sl calc; tr pyr;



-17750 SHLY SS: gy-med gy-brn, fri clus wi arg cmt, pred v fgr, slt intbd, mod-p srt, sl calc, tr uncons qtz grs; SHLY SLTST: v dk gy, frm, subblky, gr-rthy, sl calc; tr pyr;

-17840  
-17850  
-17860  
-17870  
-17880  
-17890  
-17900  
-17910  
-17920  
-17930  
-17940  
-17950  
-17960  
-17970  
-17980  
-17990  
-18000  
-18010  
-18020  
-18030  
-18040  
-18050  
-18060  
-18070  
-18080  
-18090



N

N

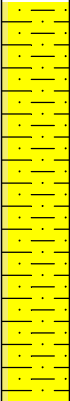
N

-17900 WT  
10.1, VIS 52

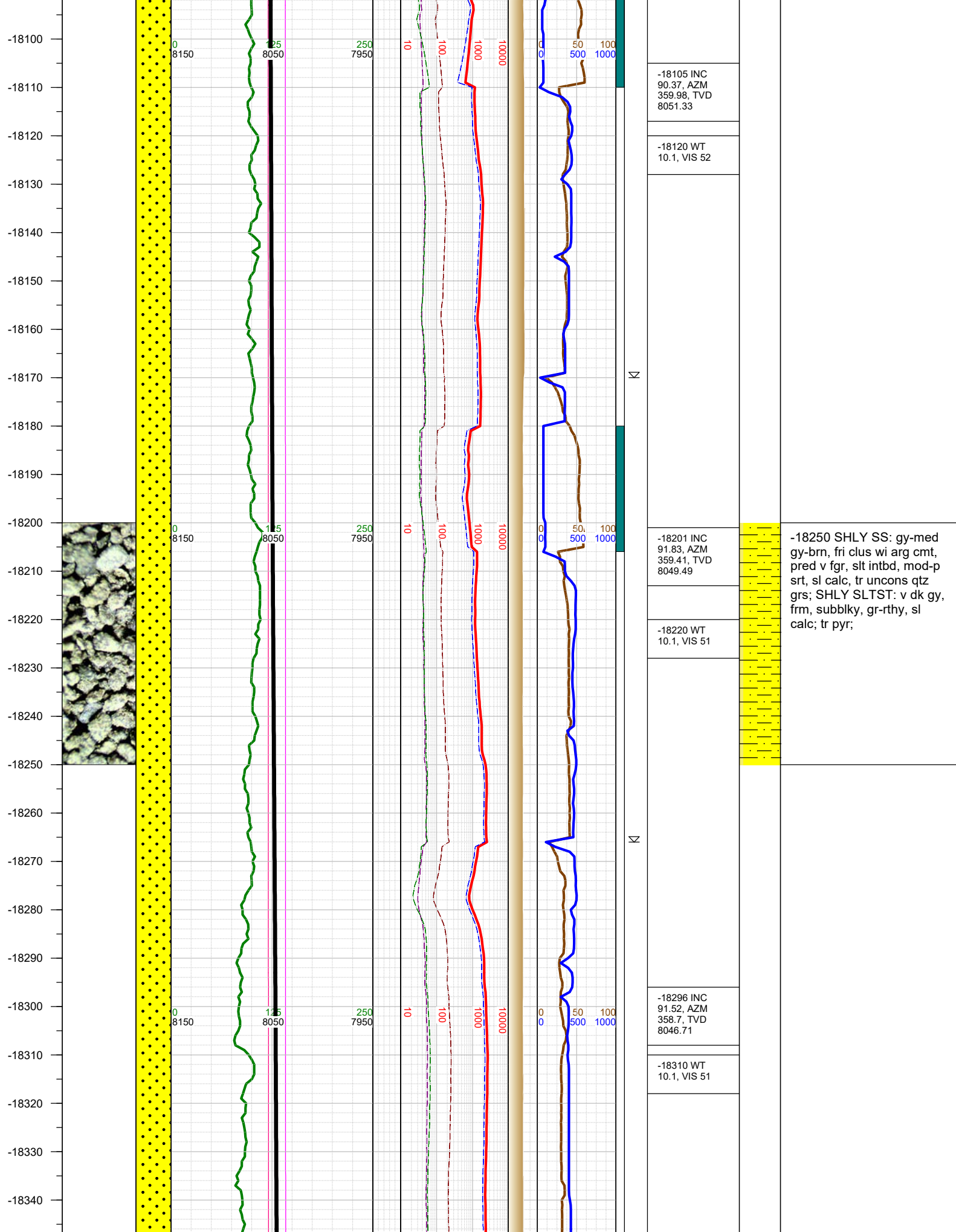
-17914 INC  
88.6, AZM  
358.39, TVD  
8049.9

-18000 WT  
10.1, VIS 52

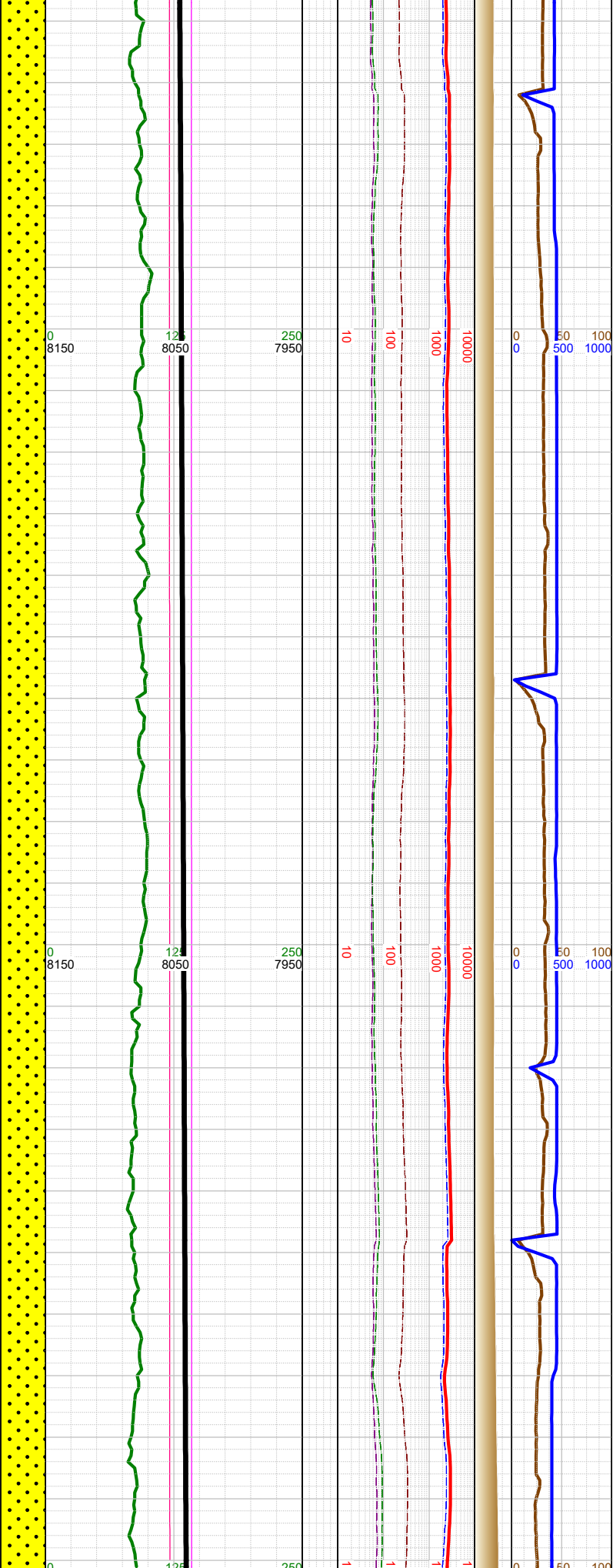
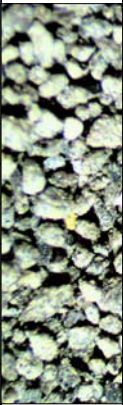
-18010 INC  
89.66, AZM  
359.32, TVD  
8051.36



-18000 SHLY SS: gy-med  
gy-brn, fri clus wi arg cmt,  
pred v fgr, slt intbd, mod-p  
srt, sl calc, tr uncons qtz  
grs; SHLY SLTST: v dk gy,  
frm, subblky, gr-rthy, sl  
calc; tr pyr;



-18350  
-18360  
-18370  
-18380  
-18390  
-18400  
-18410  
-18420  
-18430  
-18440  
-18450  
-18460  
-18470  
-18480  
-18490  
-18500  
-18510  
-18520  
-18530  
-18540  
-18550  
-18560  
-18570  
-18580  
-18590  
-18600



Σ  
Σ  
Σ

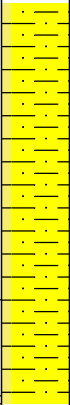
-18391 INC  
91.25, AZM  
358.35, TVD  
8044.41

-18410 WT 10,  
VIS 51

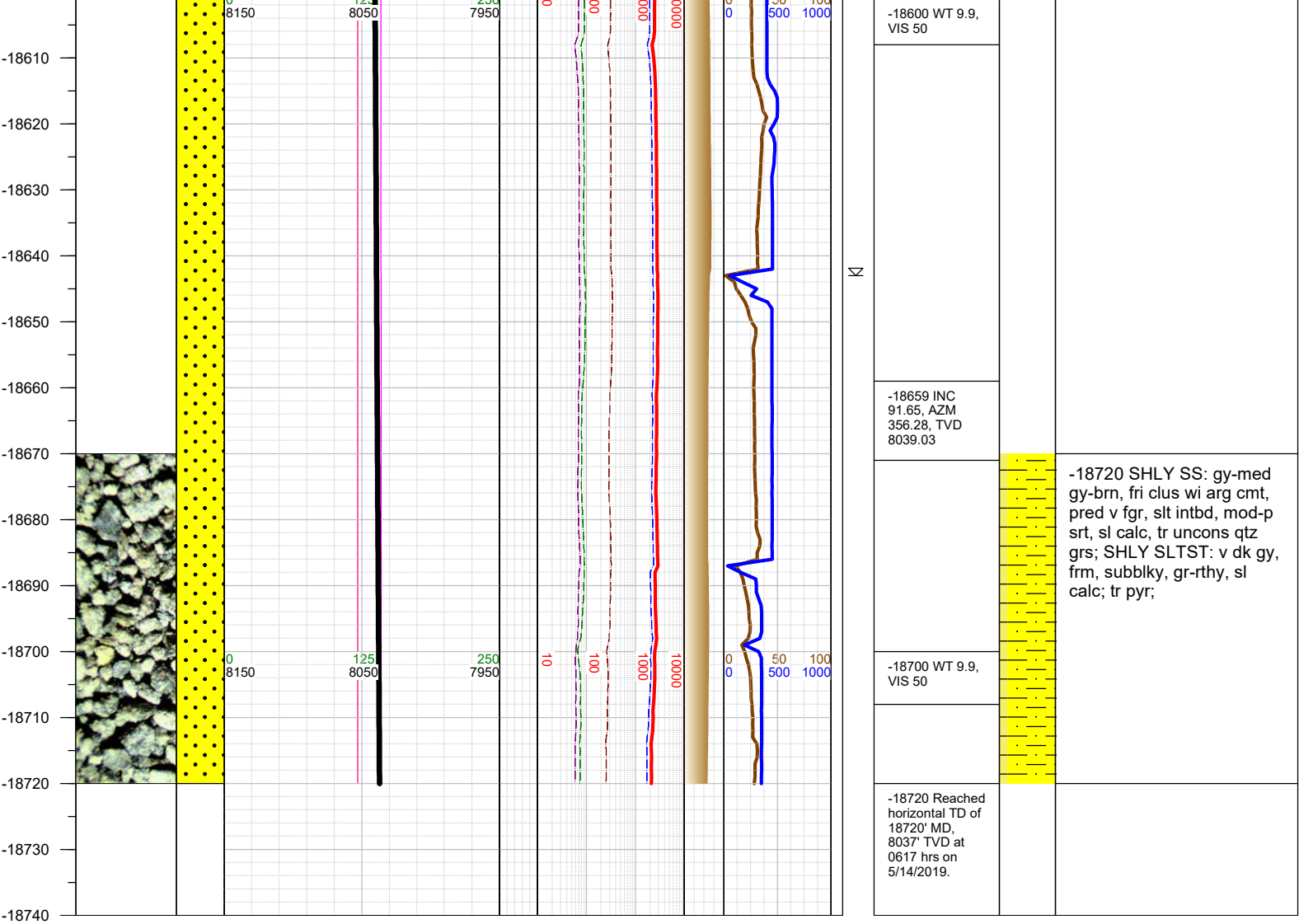
-18487 INC  
90.81, AZM  
357.38, TVD  
8042.69

-18500 WT 9.9,  
VIS 50

-18582 INC  
91.25, AZM  
356.81, TVD  
8040.98



-18500 SHLY SS: gy-med  
gy-brn, fri clus wi arg cmt,  
pred v fgr, slt intbd, mod-p  
srt, sl calc, tr unconsl qtz  
grs; SHLY SLTST: v dk gy,  
frm, subblky, gr-rthy, sl  
calc; tr pyr;



TOTAL DEPTH = 18720'

Thank you for using Earth Science Agency