

OPERATOR: **Extraction Oil & Gas**

WELL NAME: **TC Aims 4-9-11**

FIELD NAME: DJ Basin - Wattenberg

DRILLING RIG: Patterson 341

API #: 05-123-43749

LAT/LONG: 40.41403, -104.79866

SURFACE HOLE: SENE S8-T5N-R66W, 2616' FSL, 1190' FEL

BOTTOM HOLE: S11-T5N-R66W, 1979' FSL, 2500' FWL



Earth Science Agency, LLC

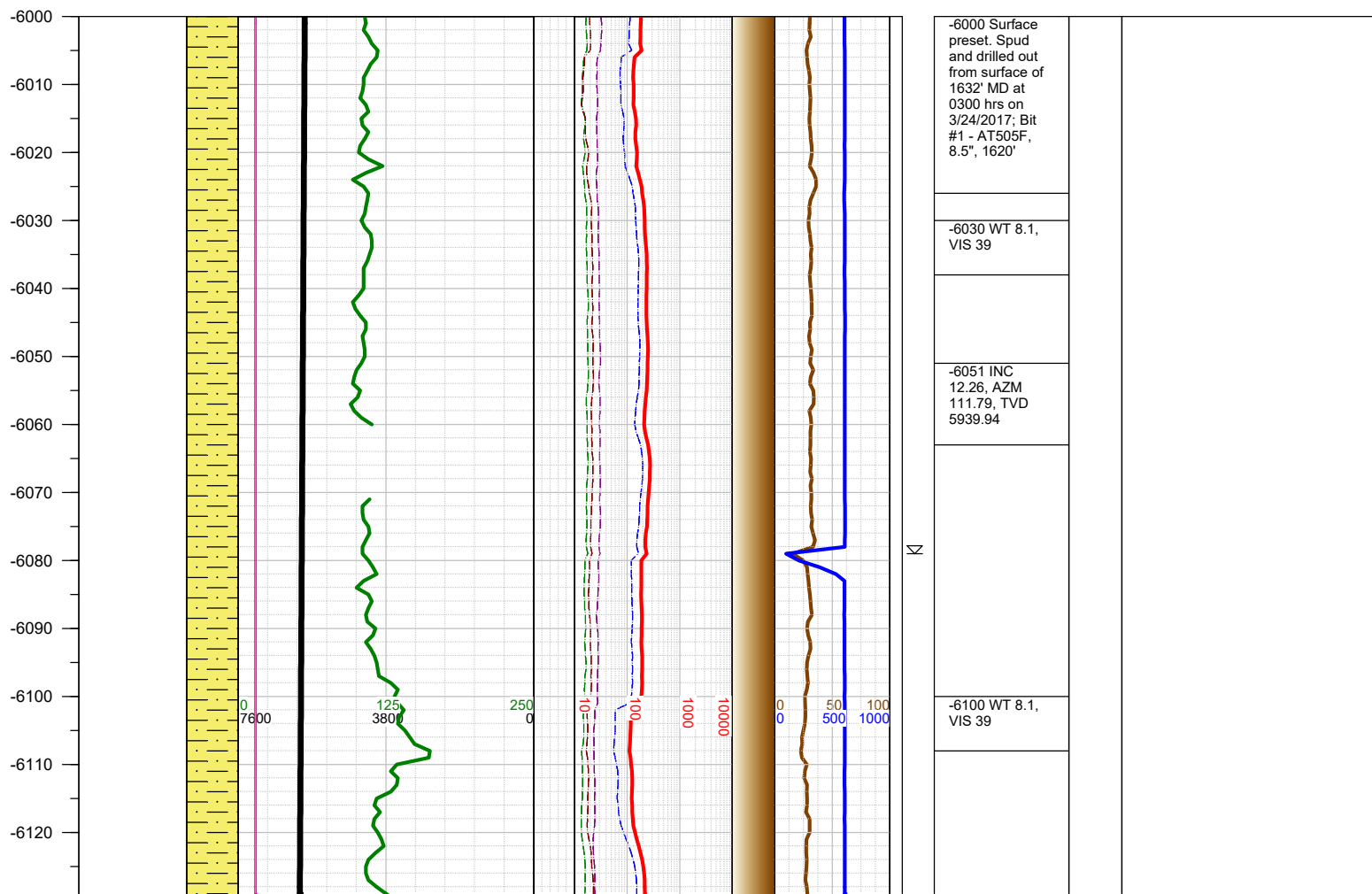
COUNTY: Weld
STATE: Colorado
GROUND ELEVATION: 4791'
KELLY BUSHING: 4816'
DRILLING FLUID: OBM
TVD VS. MD: 7149' / 20195'
SPUD DATE: March 24, 2017
TD DATE: March 30, 2017

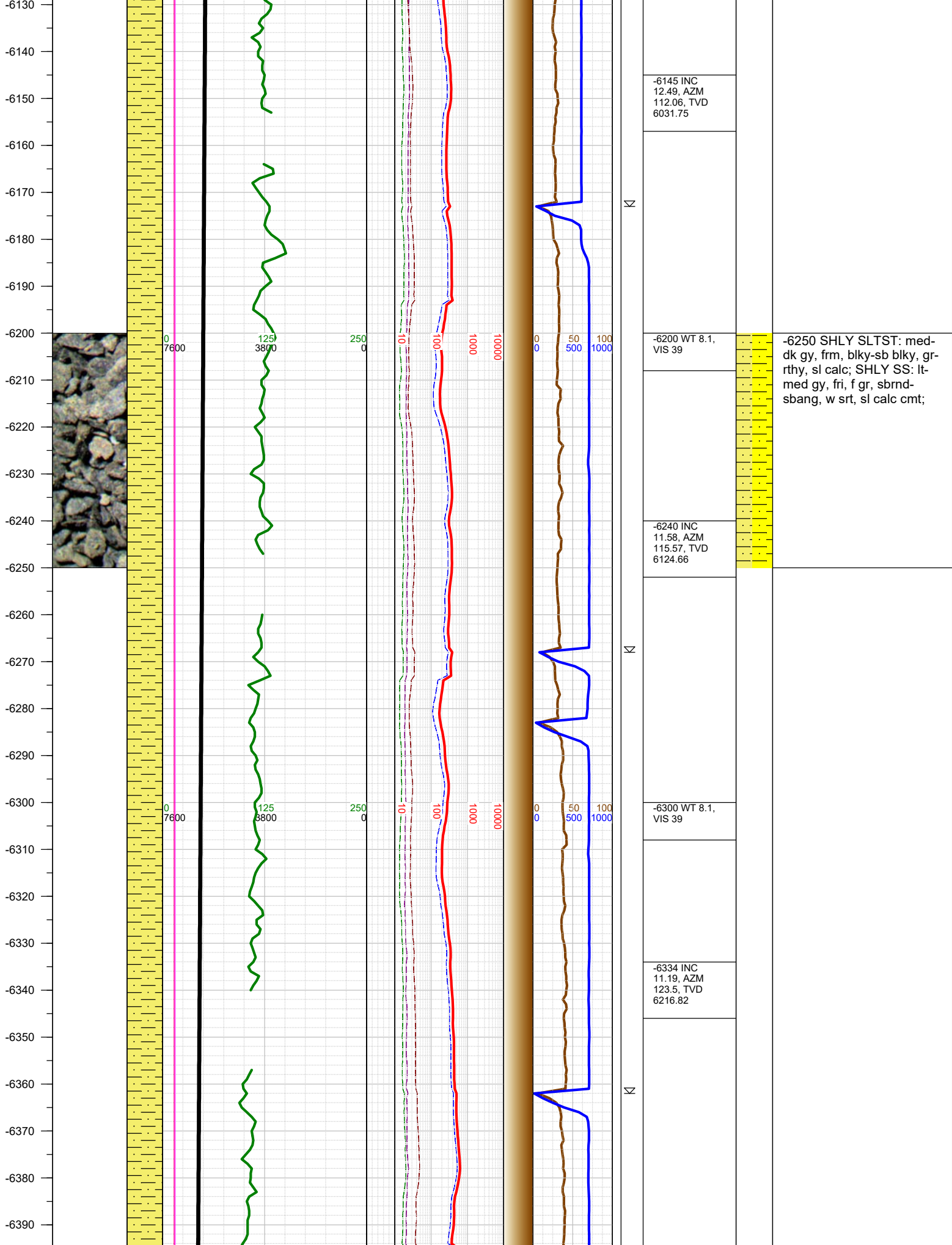
DEPTHS LOGGED: 6000' - 20195'
DATES LOGGED: March 24, 2017 - March 30, 2017
GEOLOGISTS: Dominic Pitre, Blake Eatherton
SCALE: 5" = 100'

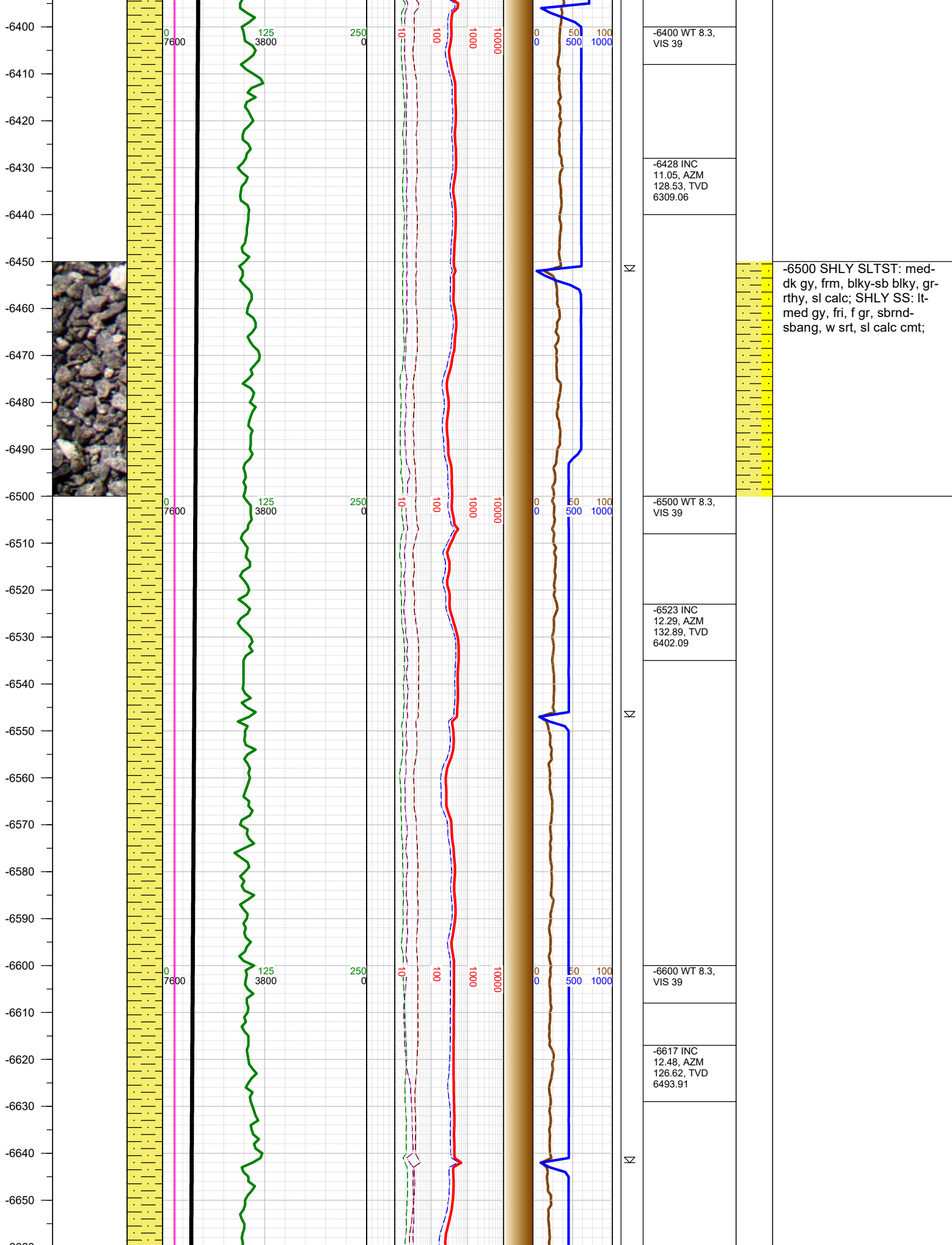
LEGEND

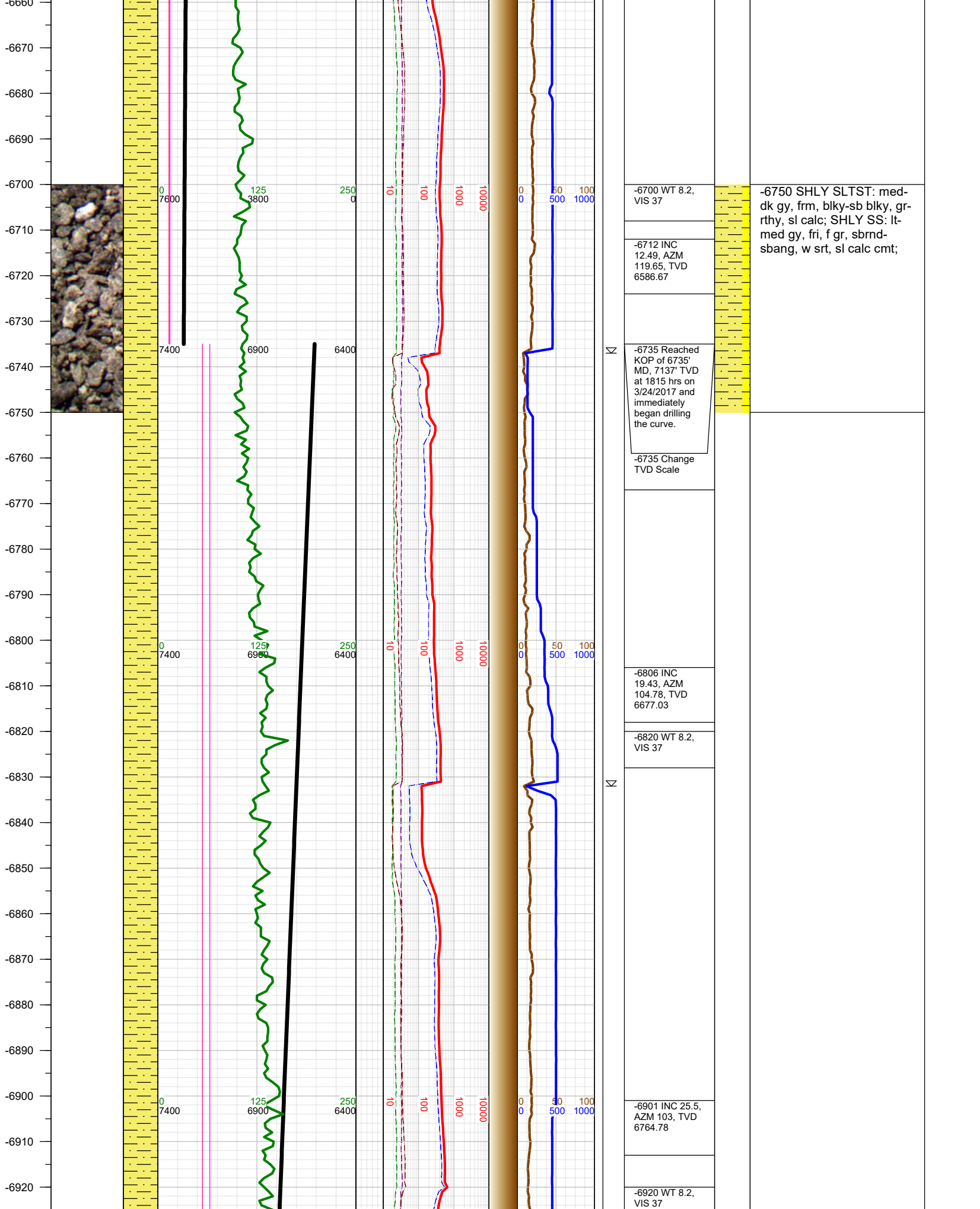


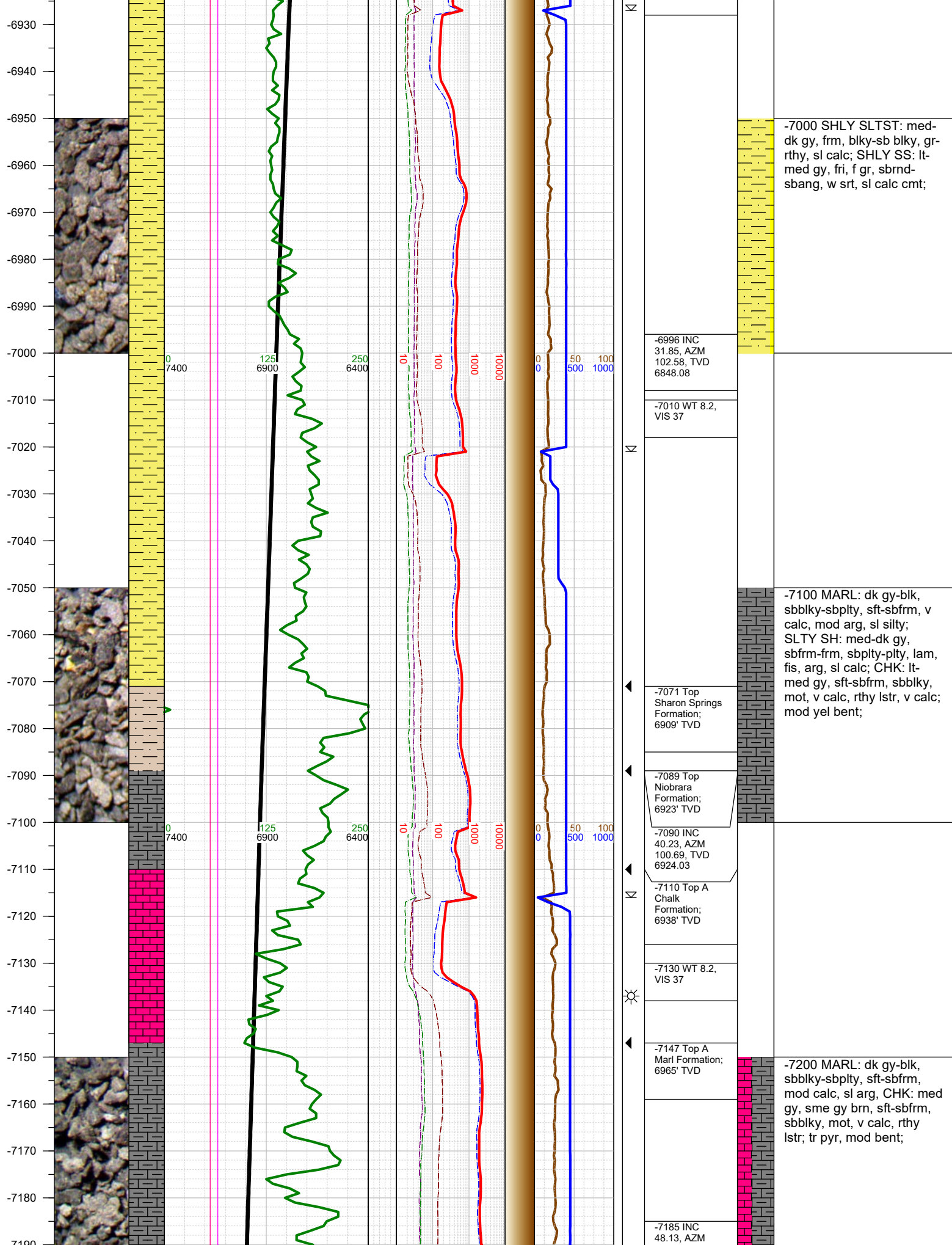
FORMATION CONNECTION MIDNIGHT NEW BIT GAS SHOW FAULT

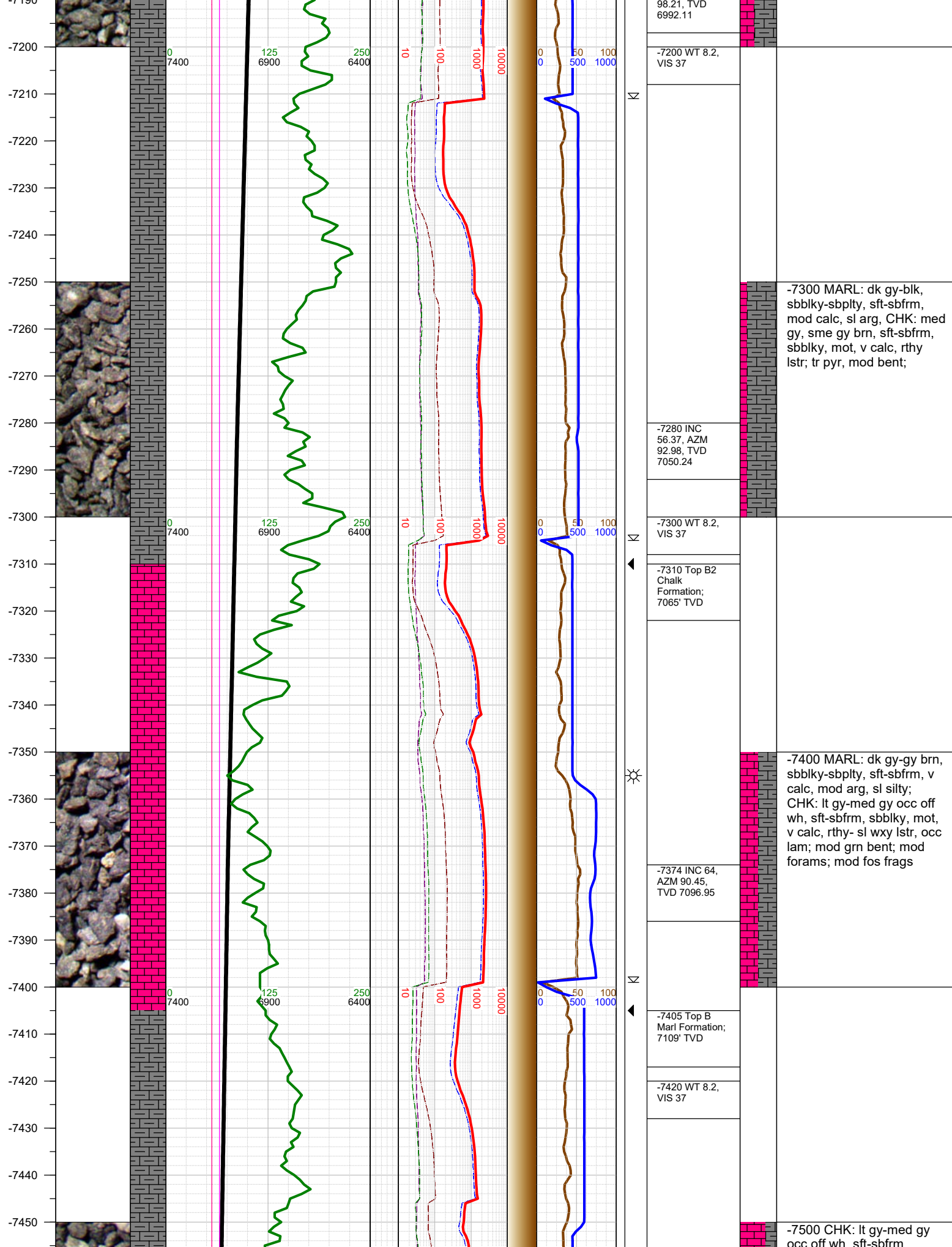


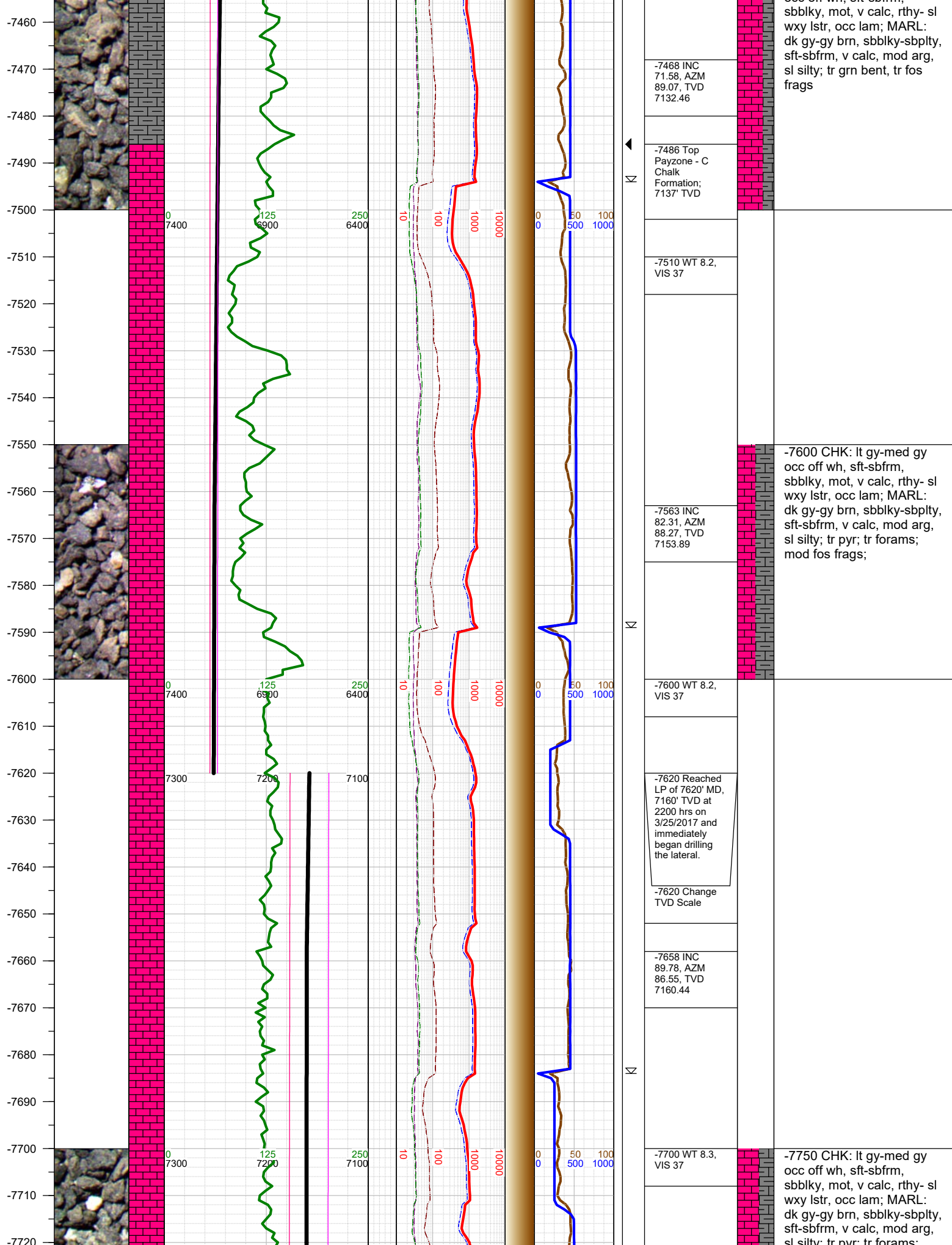


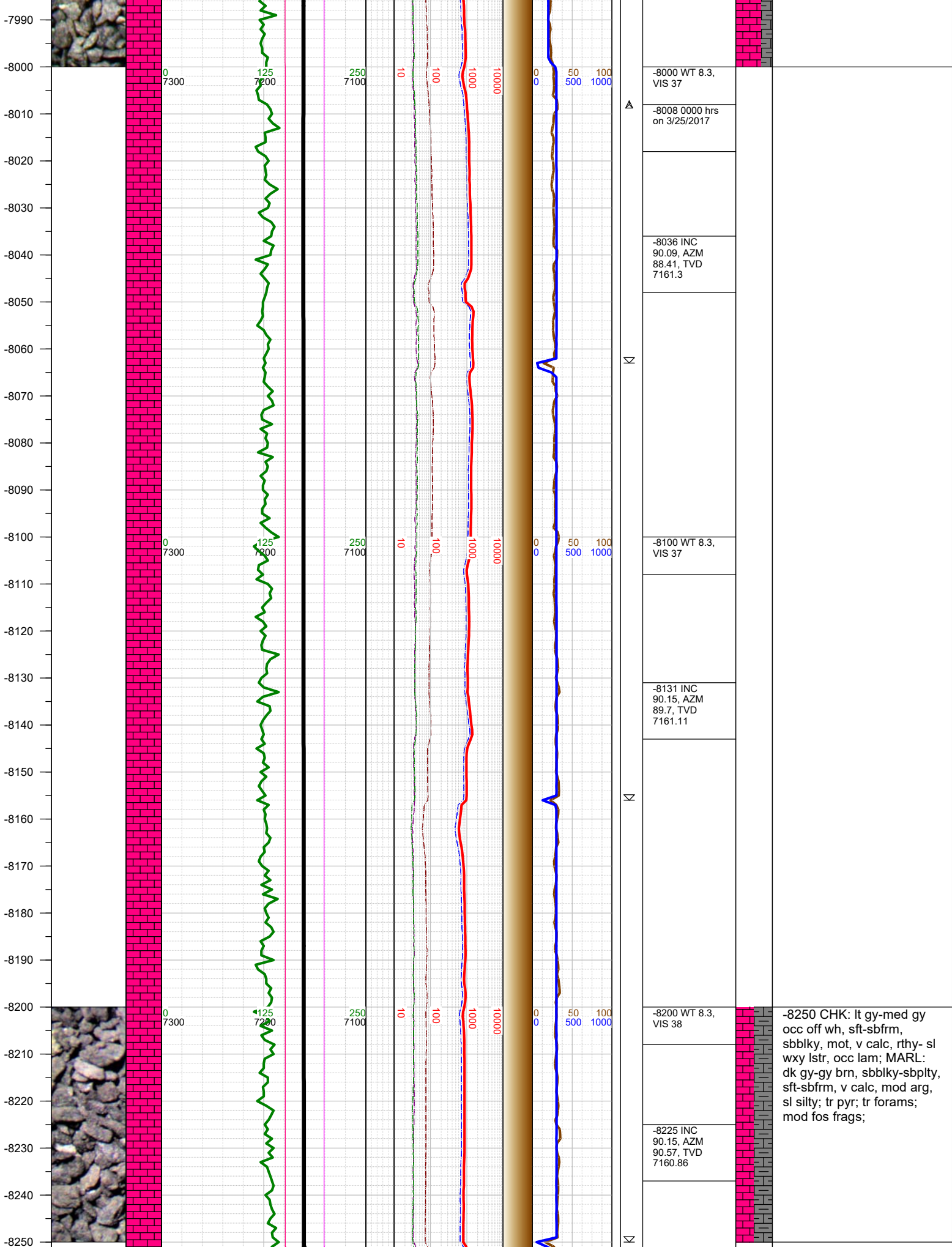




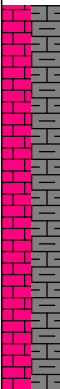
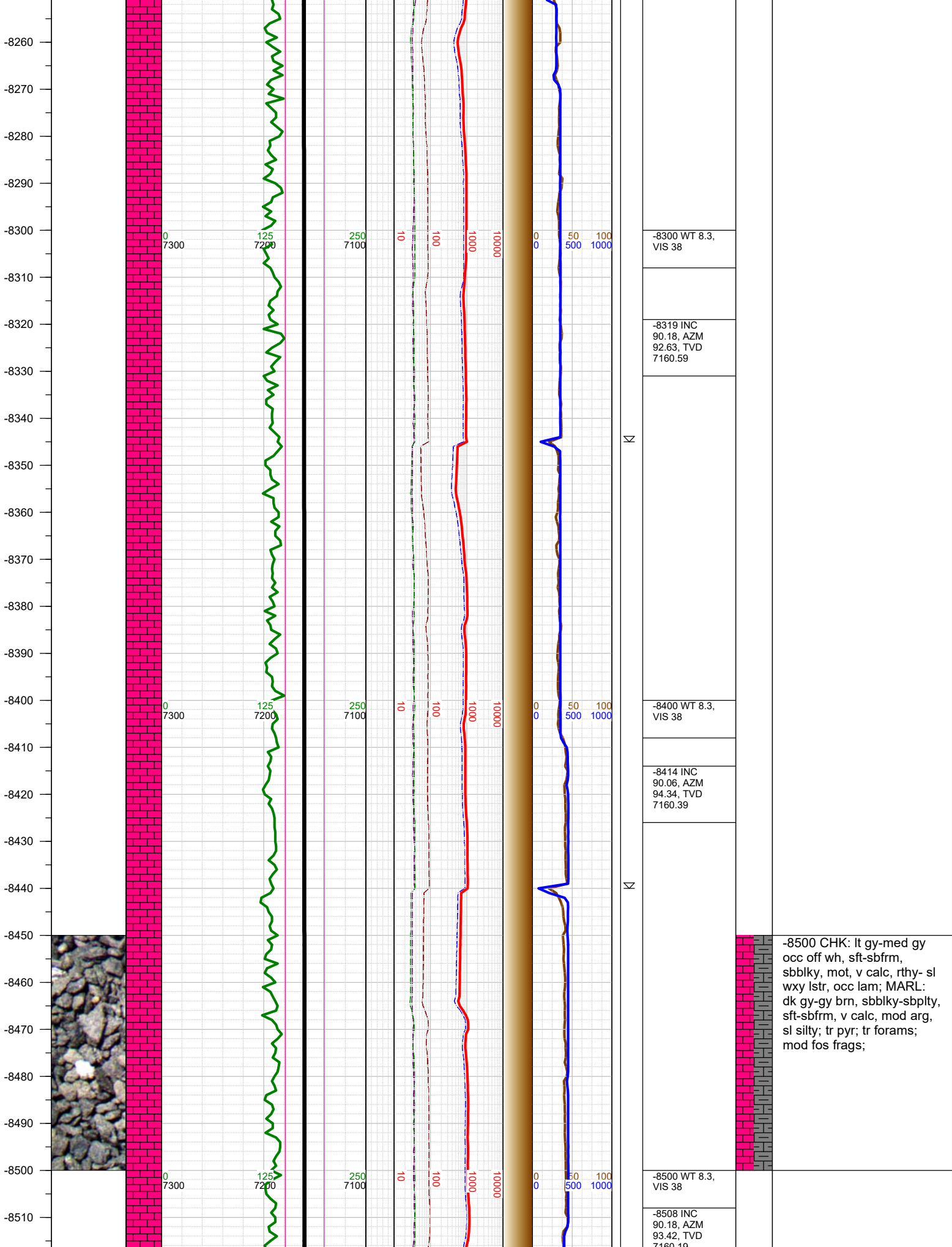






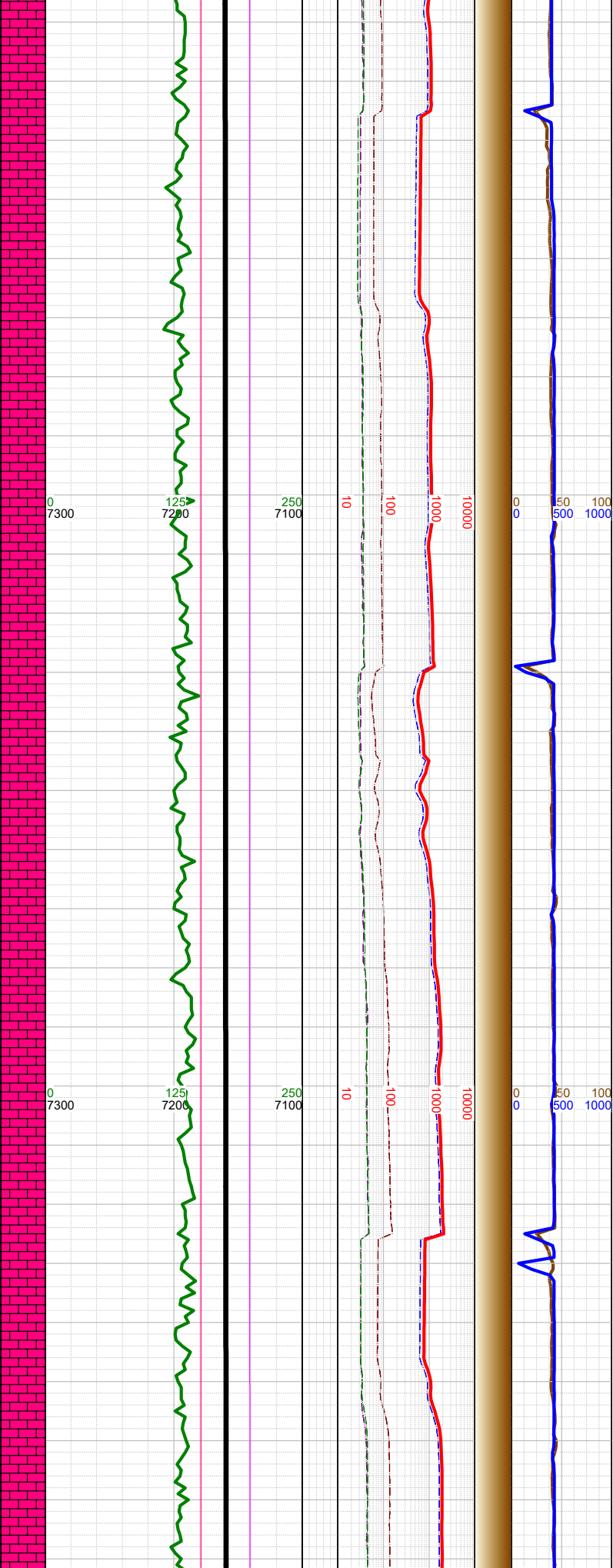


-8250 CHK: lt gy-med gy
occ off wh, sft-sbfrm,
sbbiky, mot, v calc, rthy- sl
wxy lstr, occ lam; MARL:
dk gy-gy brn, sbbiky-sbplty,
sft-sbfrm, v calc, mod arg,
sl silty; tr pyr; tr forams;
mod fos frags;

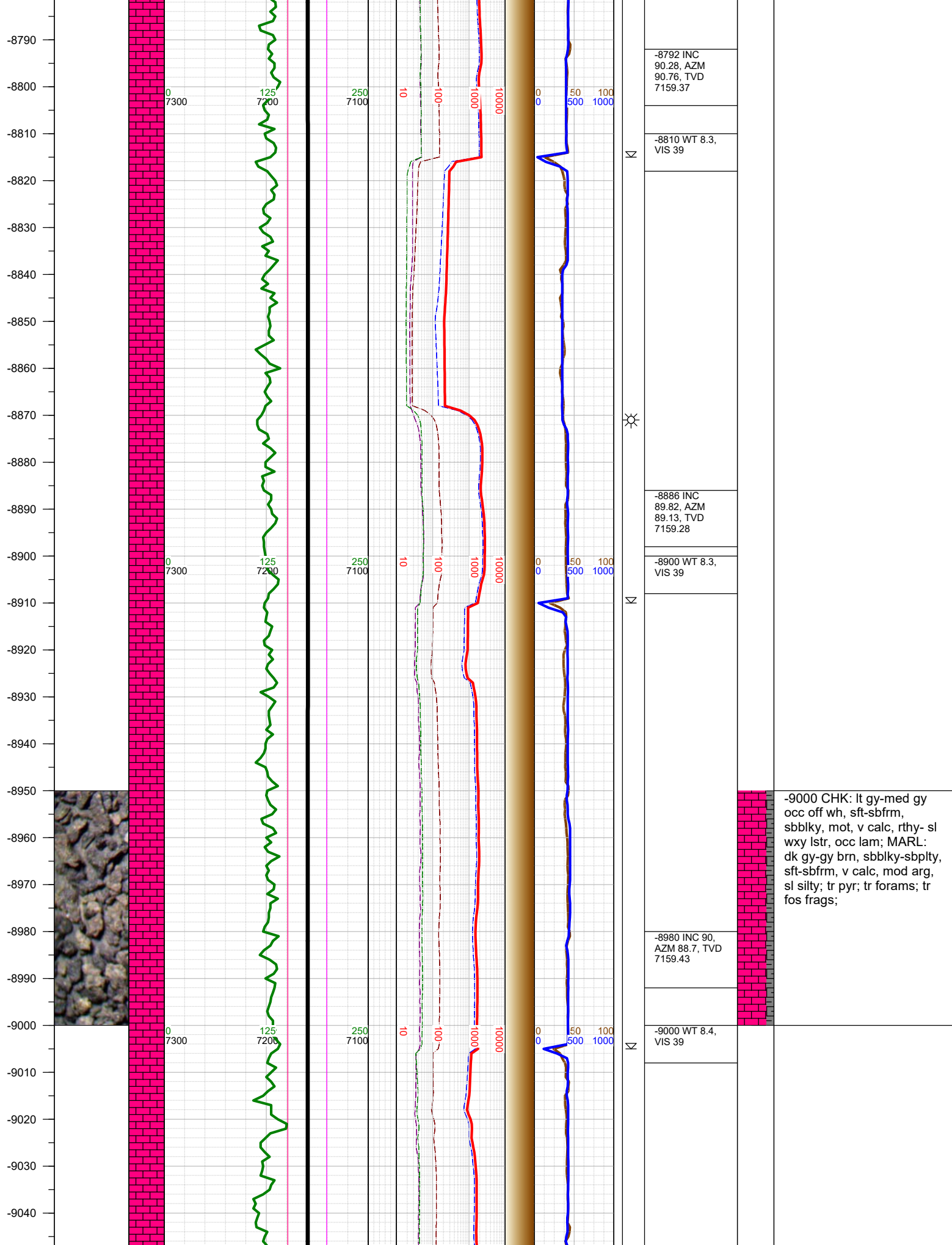


-8500 CHK: lt gy-med gy
occ off wh, sft-sbfrm,
sbbly, mot, v calc, rthy- sl
wxy lstr, occ lam; MARL:
dk gy-gy brn, sbbly-sbply,
sft-sbfrm, v calc, mod arg,
sl silty; tr pyr; tr forams;
mod fos frags;

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|---|---|---------|
| N | | 7100.19 |
| | -8603 INC 90.12, AZM 92.85, TVD 7159.94 | |
| | -8620 WT 8.3, VIS 38 | |
| N | | |
| | -8697 INC 90.15, AZM 91.83, TVD 7159.72 | |
| | -8710 WT 8.3, VIS 39 | |
| N | | |
| | -8750 CHK: lt gy-med gy occ off wh, sft-sbfrm, sbblky, mot, v calc, rthy- sl wxy lstr, occ lam; MARL: dk gy-gy brn, sbblky-sbplty, sft-sbfrm, v calc, mod arg, sl silty; tr pyr; tr forams; mod fos frags; | |



-8792 INC
90.28, AZM
90.76, TVD
7159.37

-8810 WT 8.3,
VIS 39

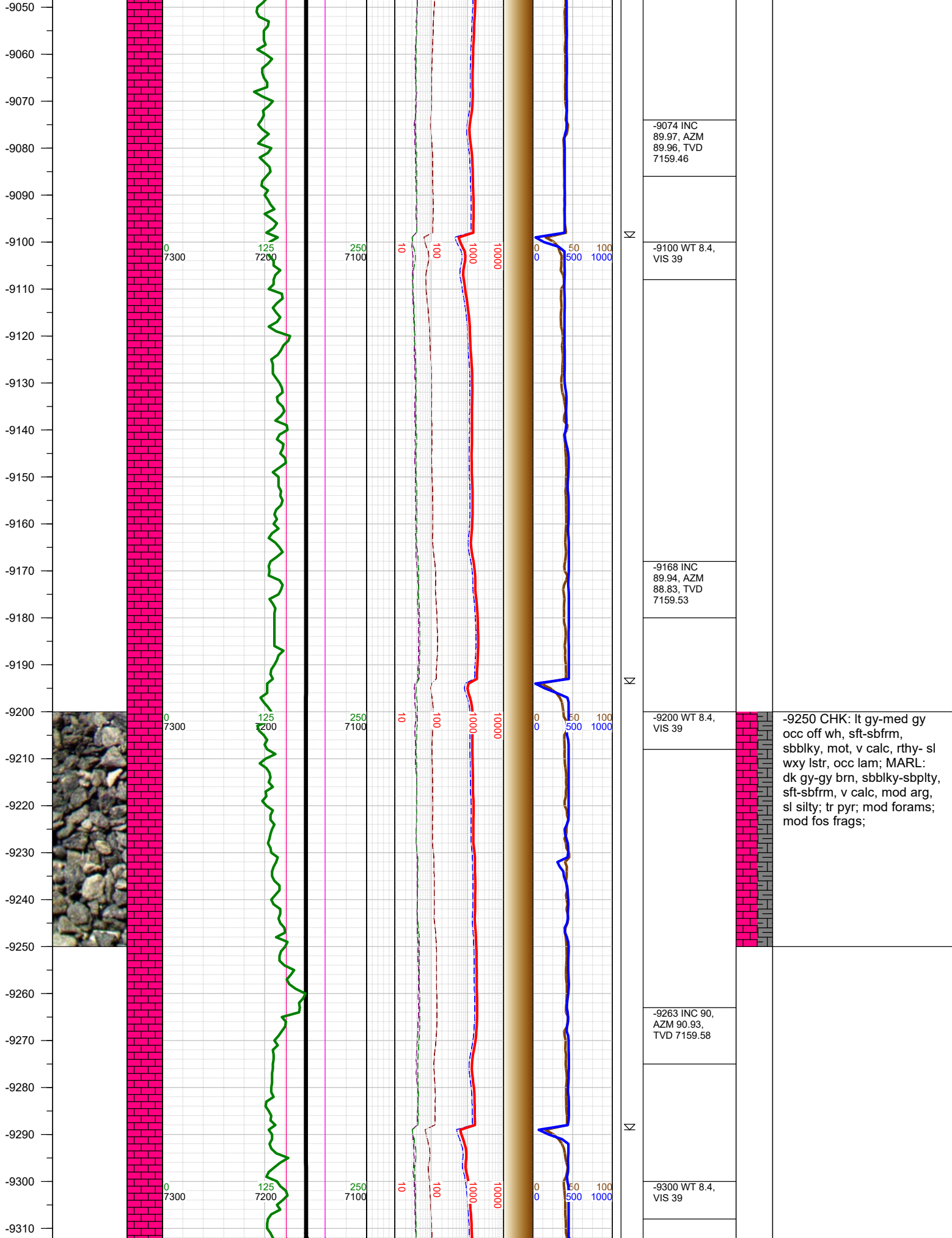
-8886 INC
89.82, AZM
89.13, TVD
7159.28

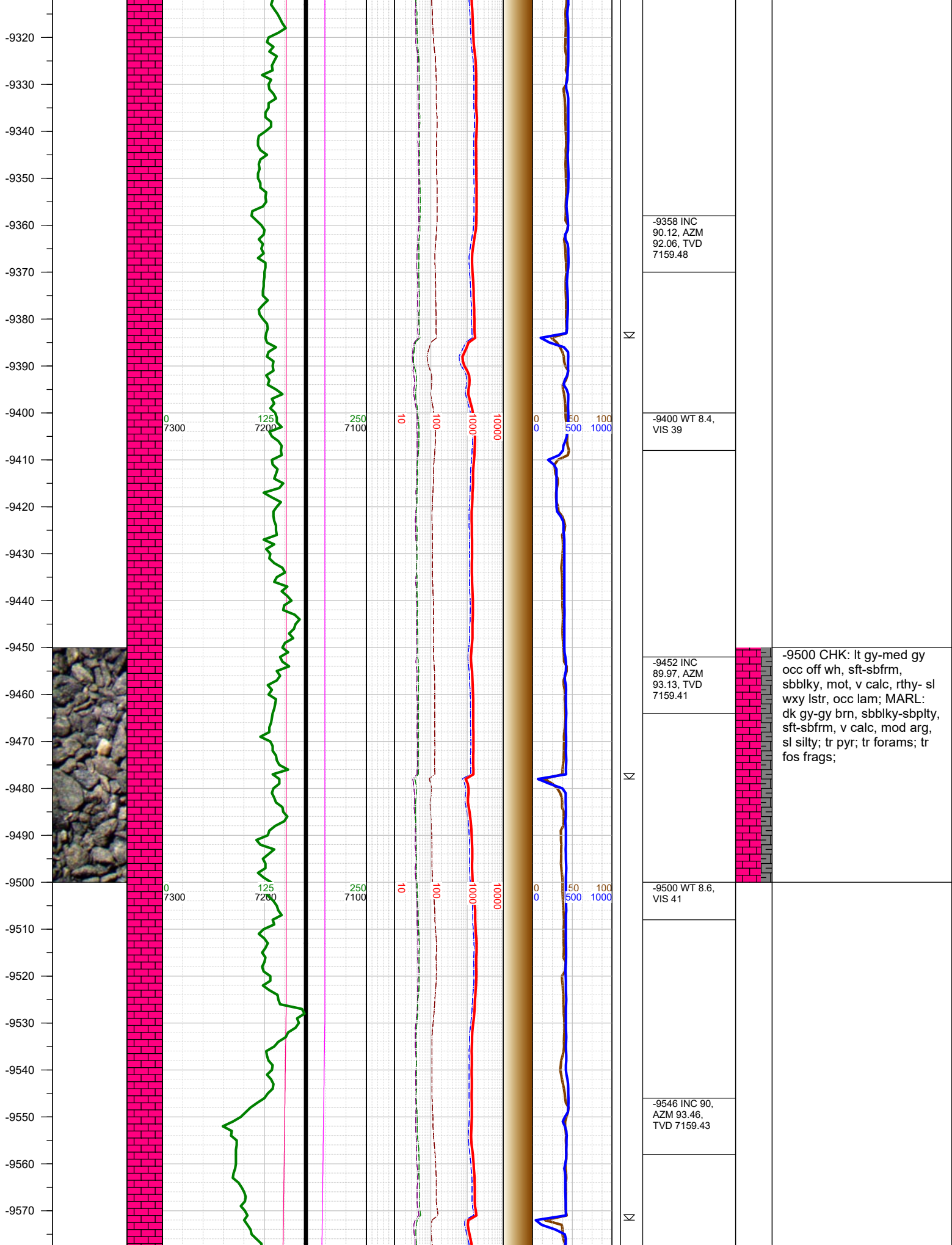
-8900 WT 8.3,
VIS 39

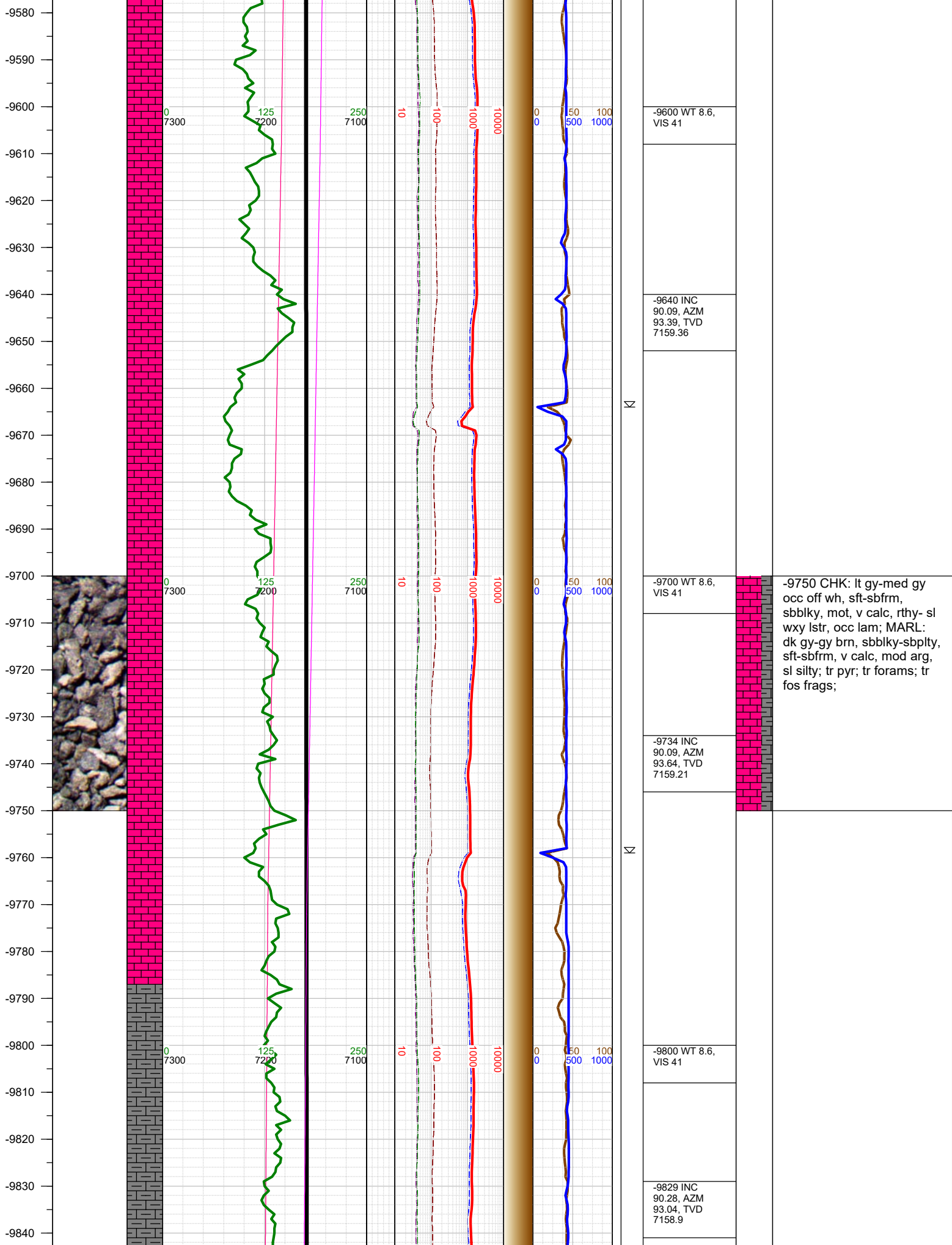
-8980 INC 90,
AZM 88.7, TVD
7159.43

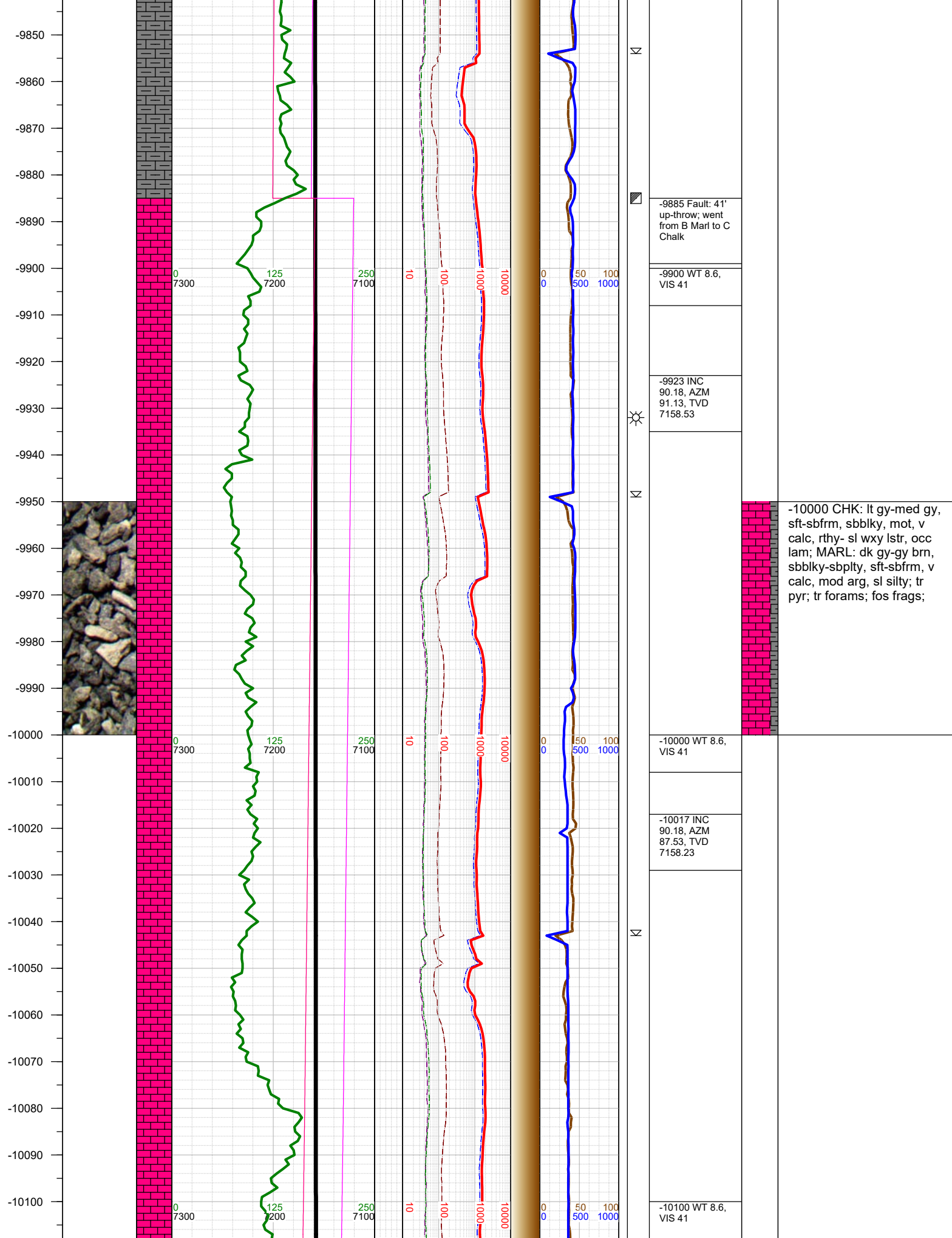
-9000 WT 8.4,
VIS 39

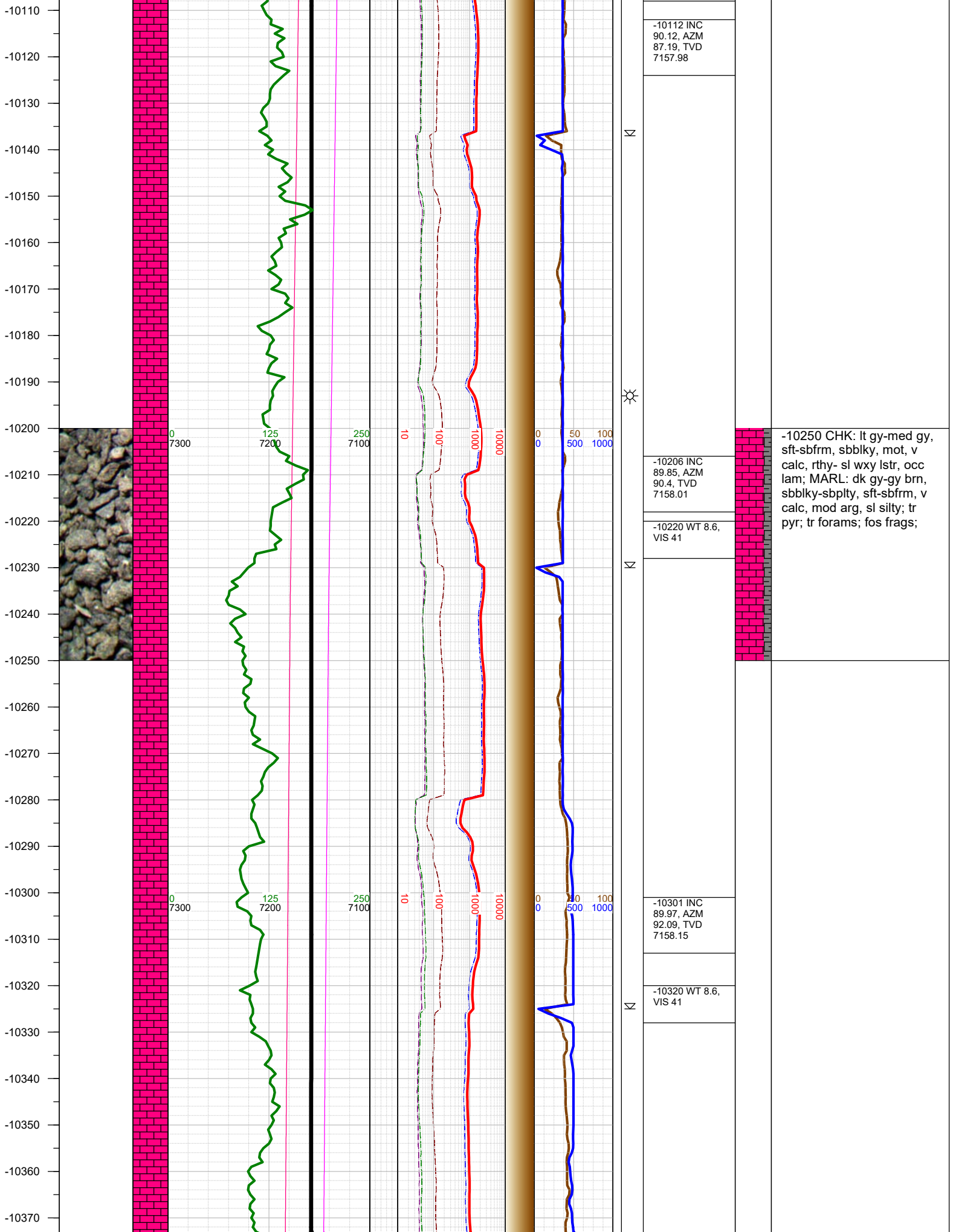
-9000 CHK: lt gy-med gy
occ off wh, sft-sbfrm,
sbblky, mot, v calc, rthy- sl
wxy lstr, occ lam; MARL:
dk gy-gy brn, sbblky-sbplty,
sft-sbfrm, v calc, mod arg,
sl silty; tr pyr; tr forams; tr
fos frags;

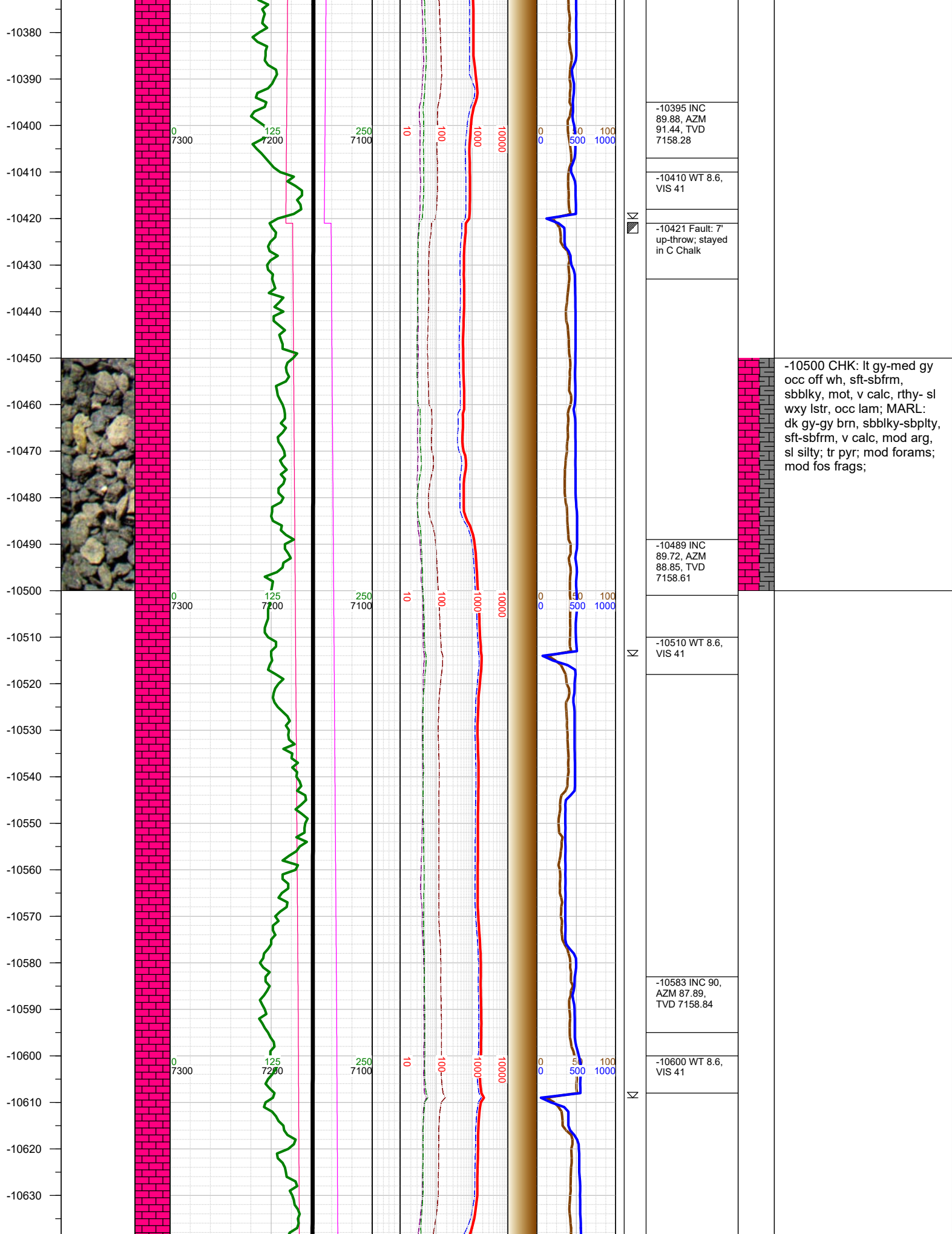


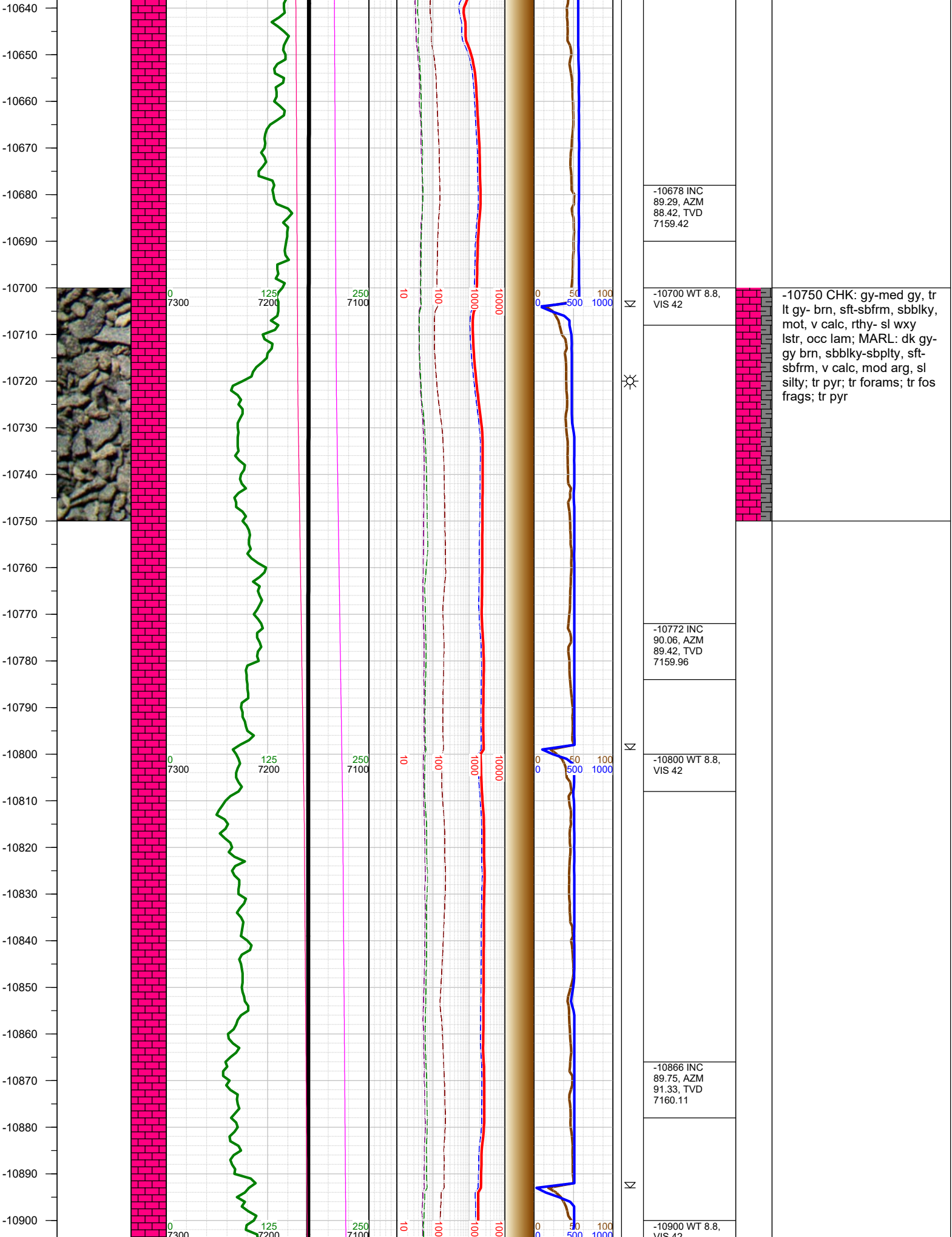


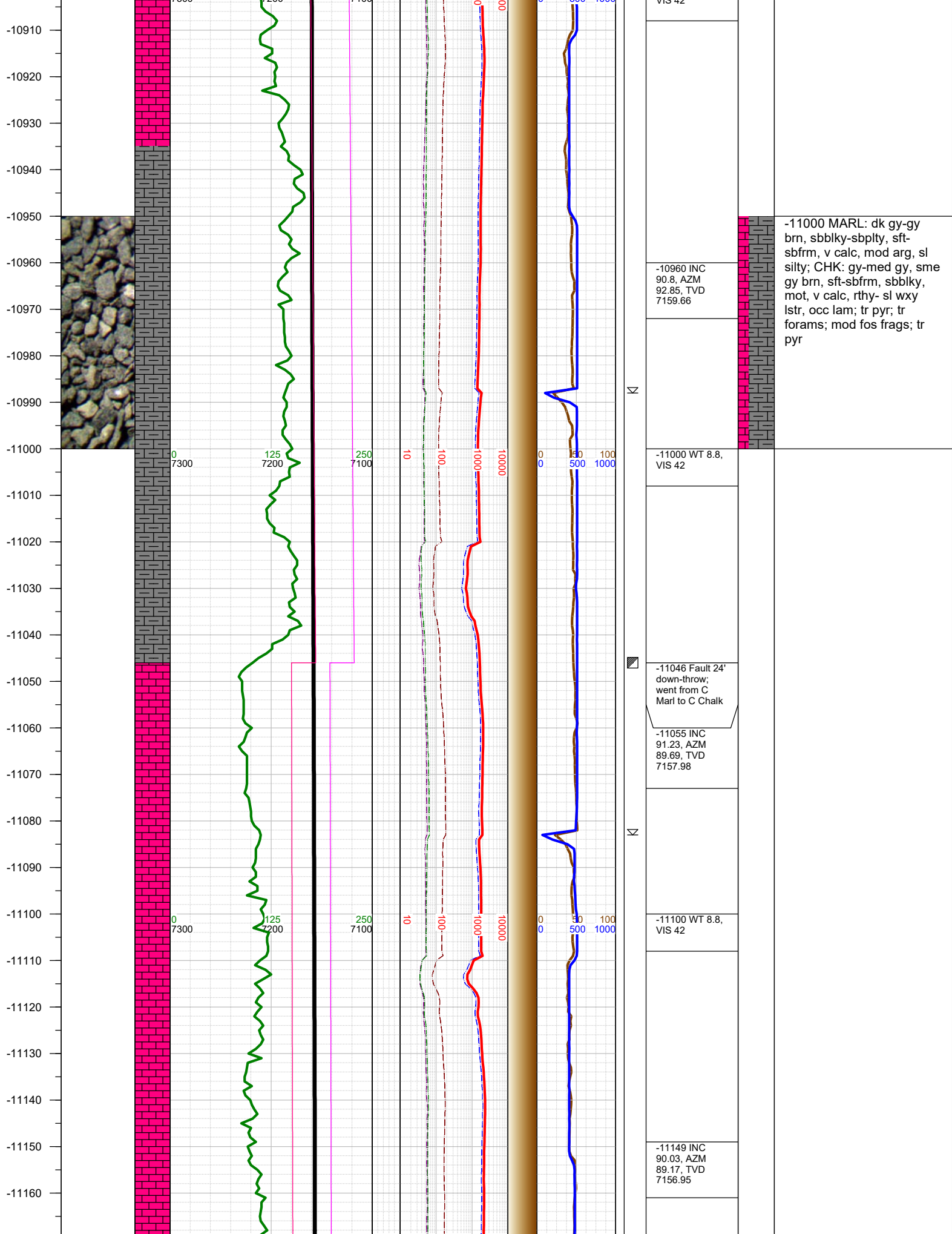


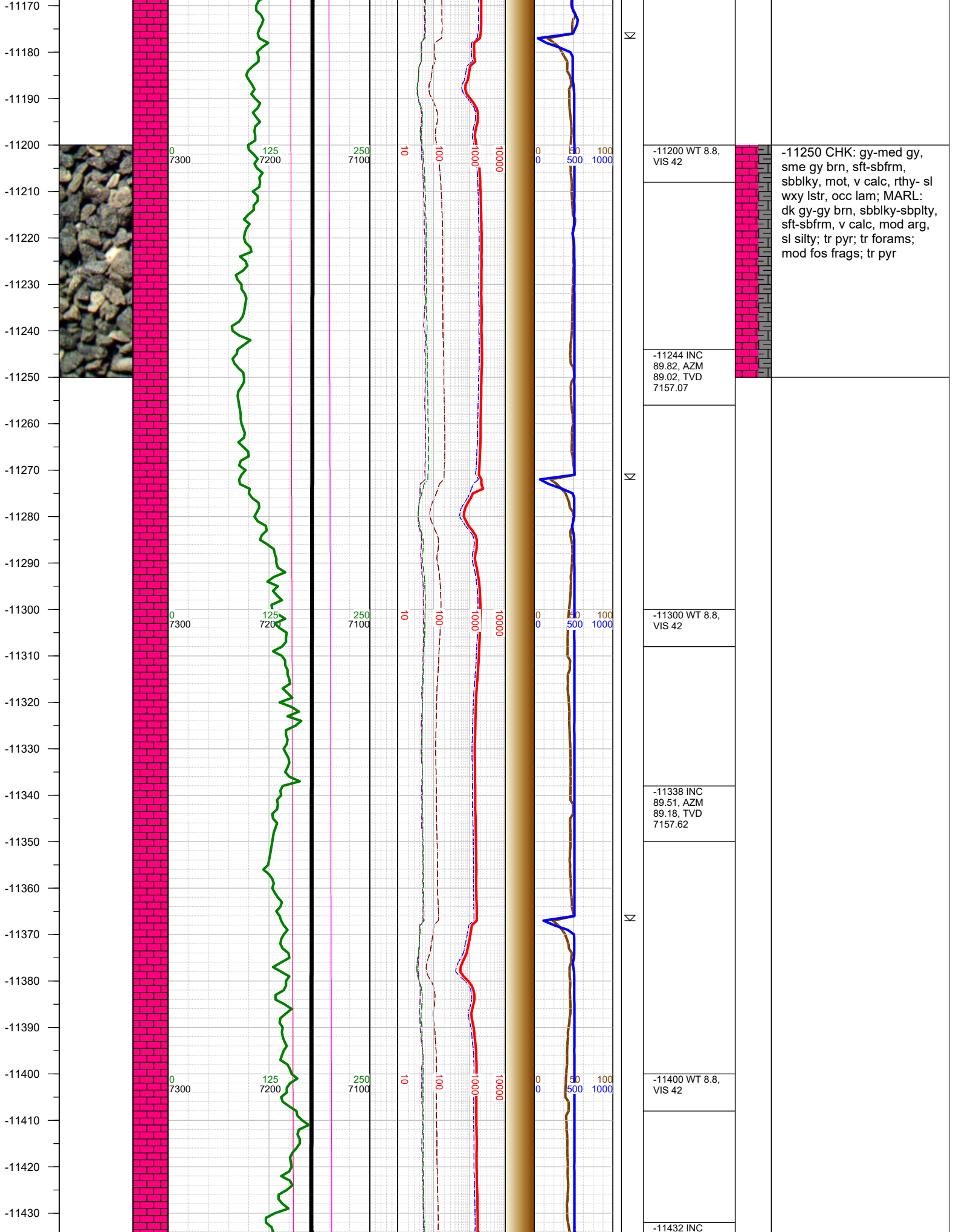




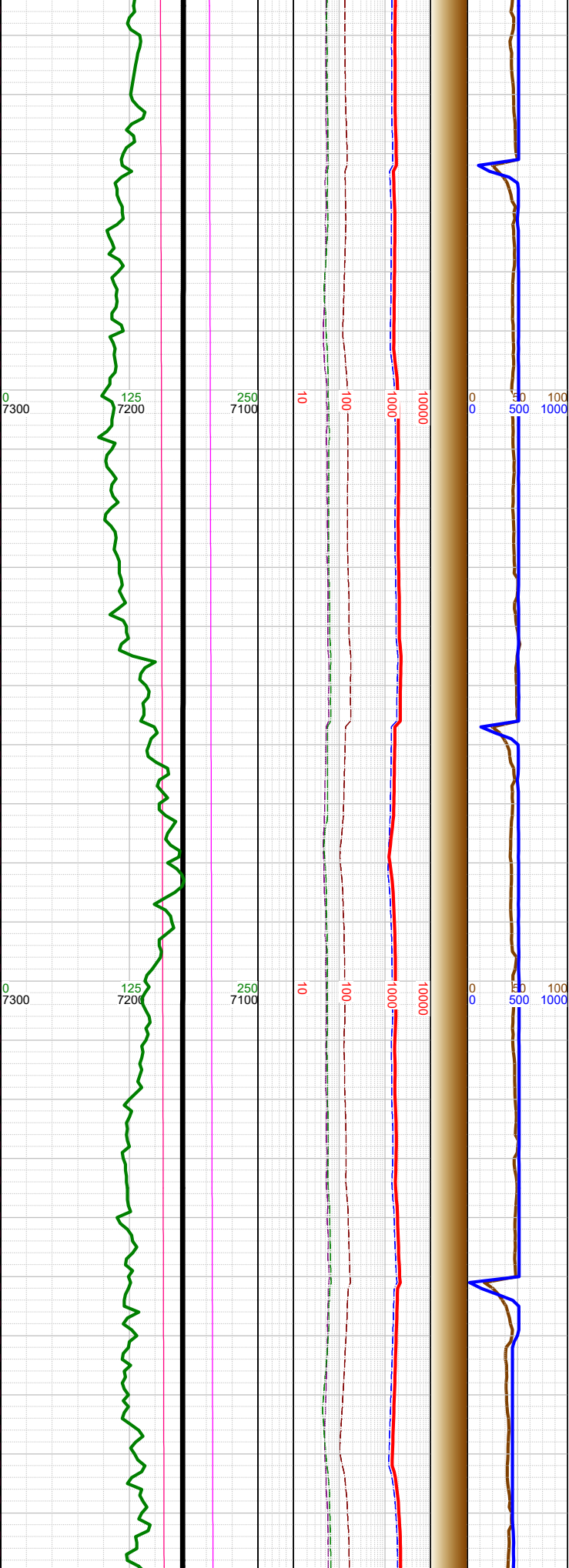
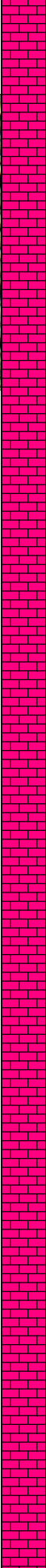






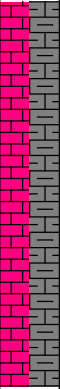


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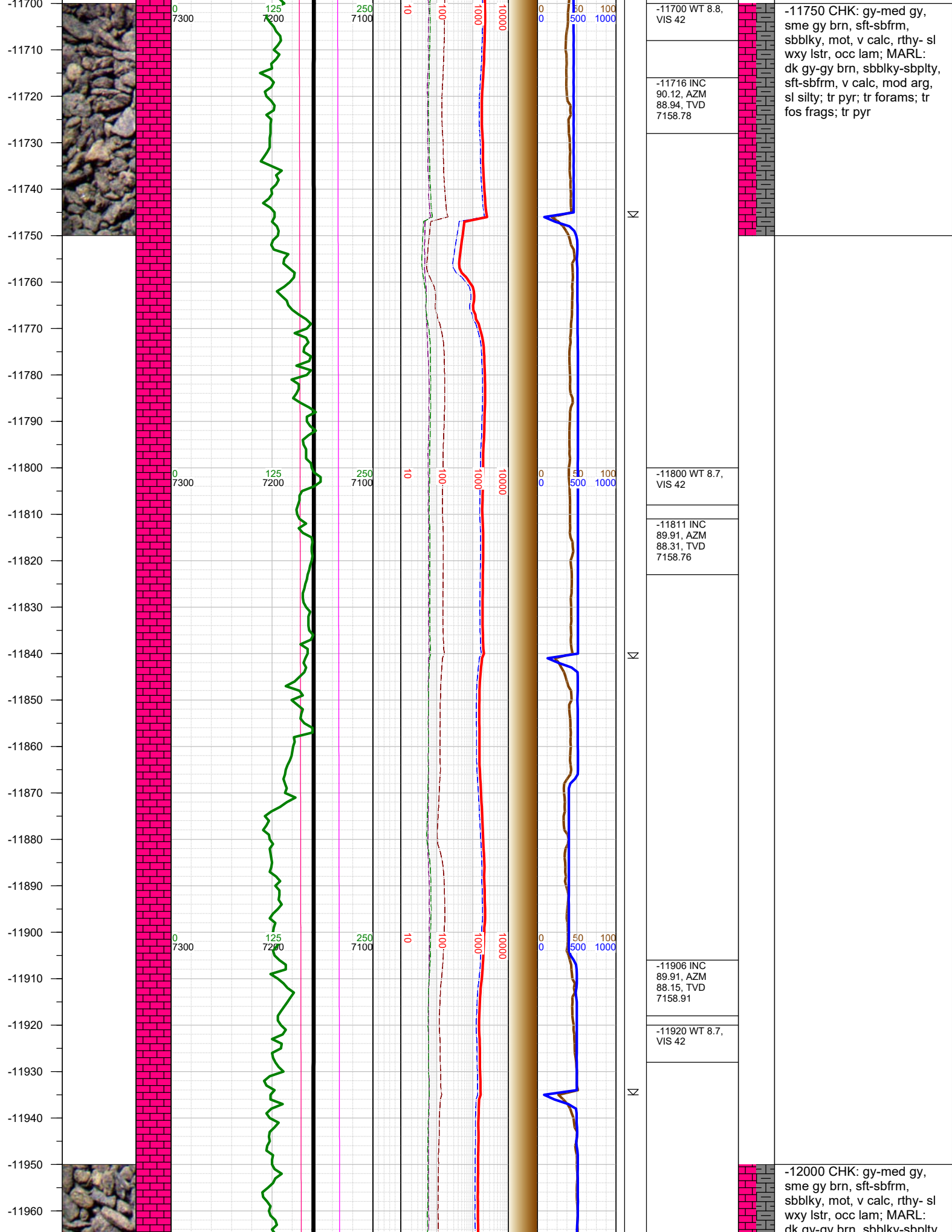


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| 89.91, AZM 88.64, TVD 7158.1 |
| -11500 WT 8.8, VIS 42 |
| -11526 INC 89.85, AZM 89.42, TVD 7158.29 |
| -11600 WT 8.8, VIS 42 |
| -11621 INC 89.72, AZM 88.96, TVD 7158.65 |



-11500 CHK: gy-med gy,
sme gy brn, sft-sbfrm,
sbbiky, mot, v calc, rthy- sl
wxy lstr, occ lam; MARL:
dk gy-gy brn, sbbiky-sbplty,
sft-sbfrm, v calc, mod arg,
sl silty; tr pyr; tr forams; tr
fos frags; tr pyr



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-12180
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-12210
-12220
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7100

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-12000 INC
89.75, AZM
88.35, TVD
7159.18

-12020 WT 8.7,
VIS 42

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-12095 INC
90.12, AZM
88.36, TVD
7159.29

-12095 Fault:
94' down-throw;
went from C
Chalk to B2
Chalk

Σ

-12130 WT 8.7,
VIS 42

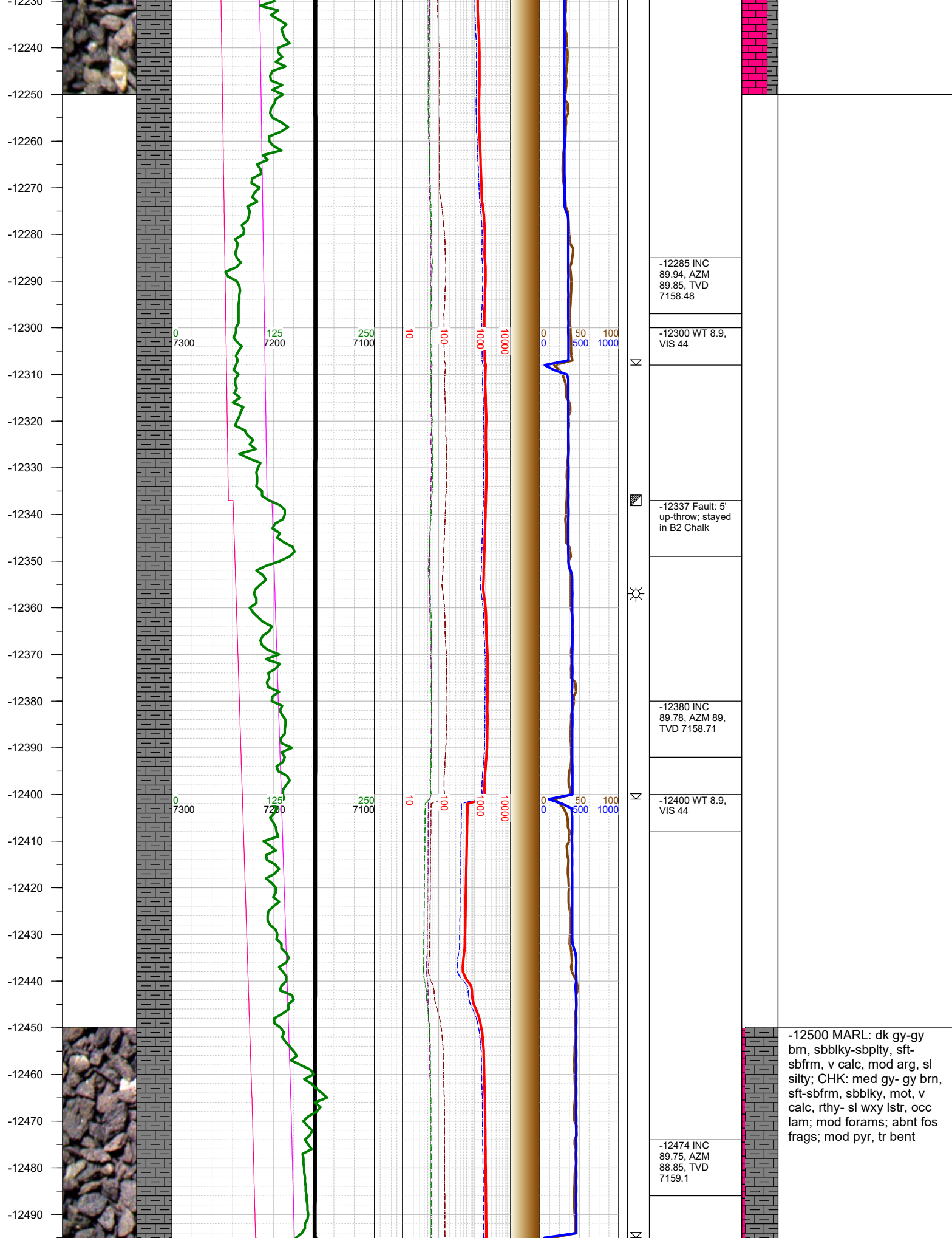
-12190 INC
90.46, AZM
89.08, TVD
7158.81

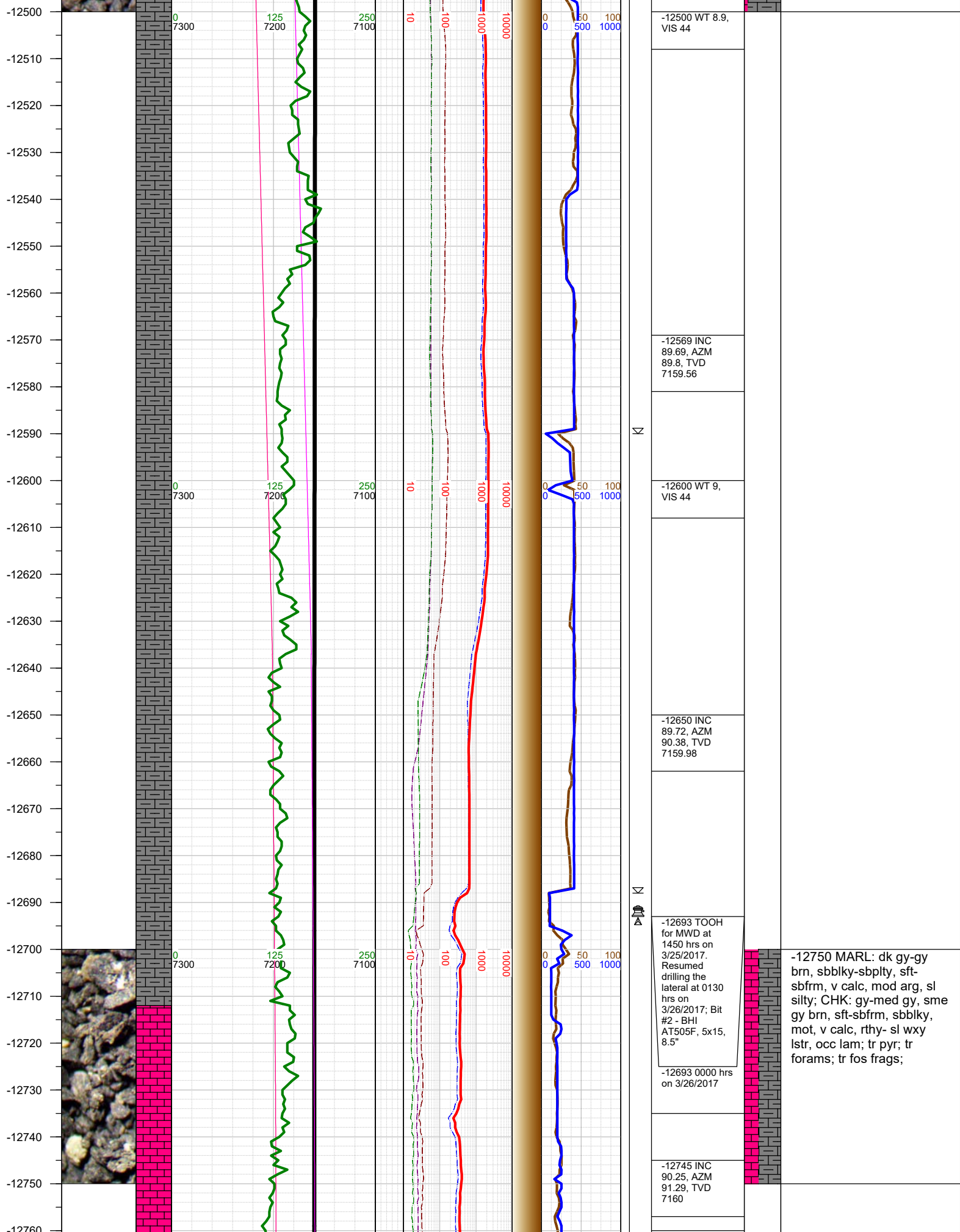
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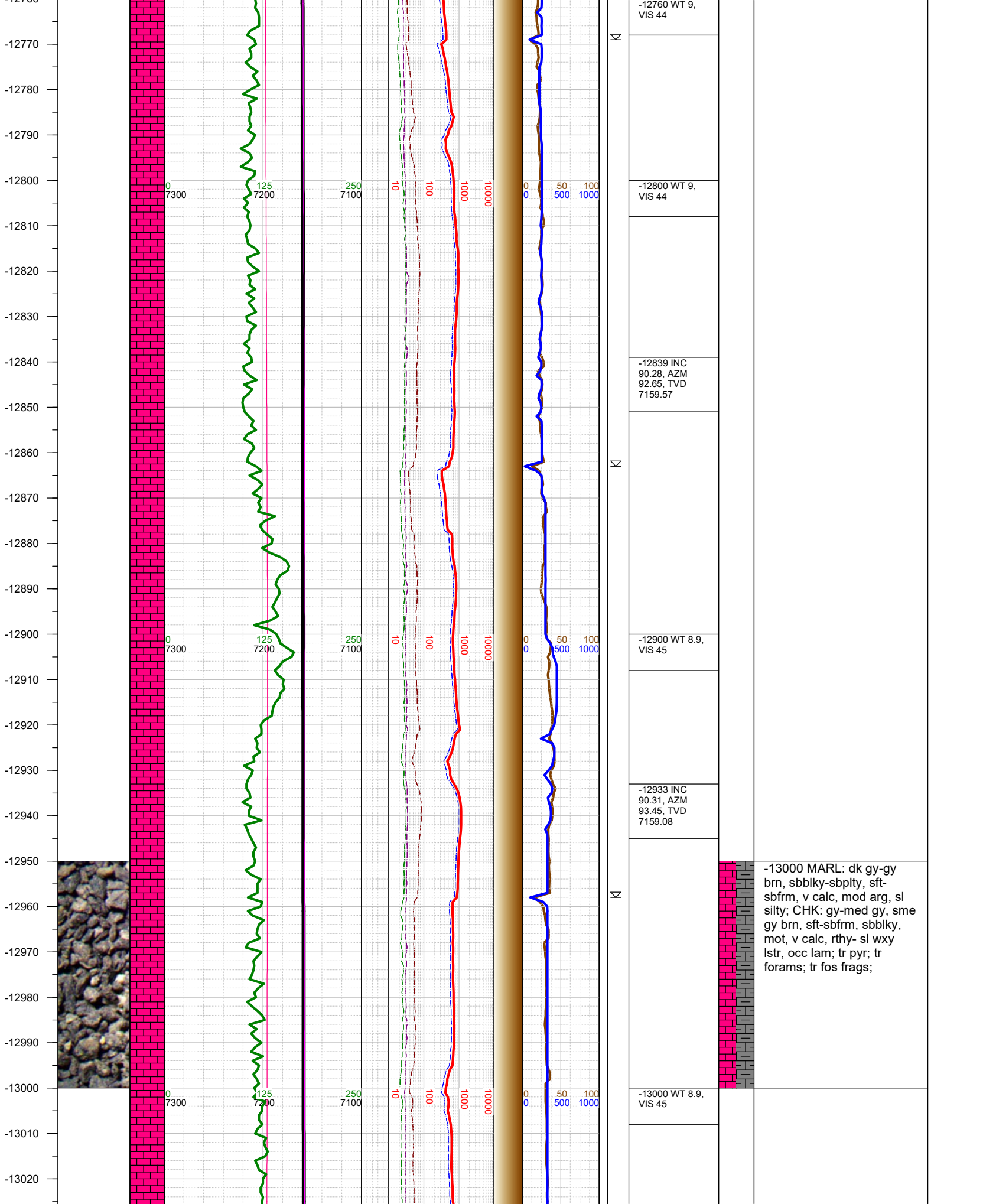
-12210 WT 8.9,
VIS 44

dk gy-gy brn, sbblky sbplty,
sft-sbfrm, v calc, mod arg,
sl silty; tr pyr; tr forams; tr
fos frags; tr pyr

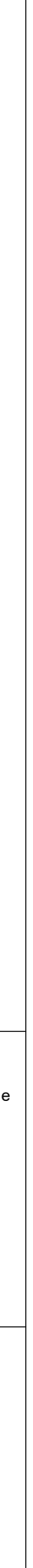
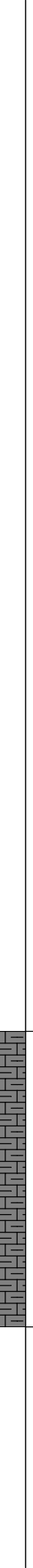
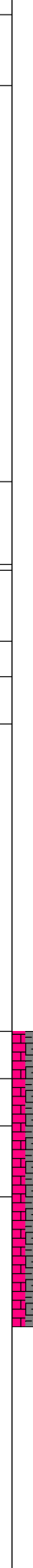
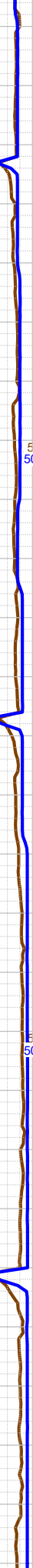
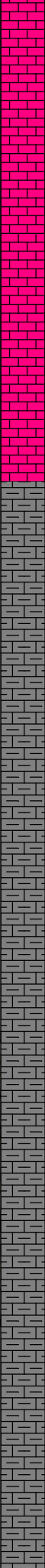
-12250 CHK: lt gy-med gy
occ off wh, sft-sbfrm,
sbblky, mot, v calc, rthy- sl
wxy lstr, occ lam; MARL:
dk gy-gy brn, sbblky-sbplty,
sft-sbfrm, v calc, mod arg,
sl silty; tr forams; tr fos
frags







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-13028 INC
90.15, AZM
93.17, TVD
7158.7

-13107 Fault:
20' down-throw;
went from C
Chalk to B Marl

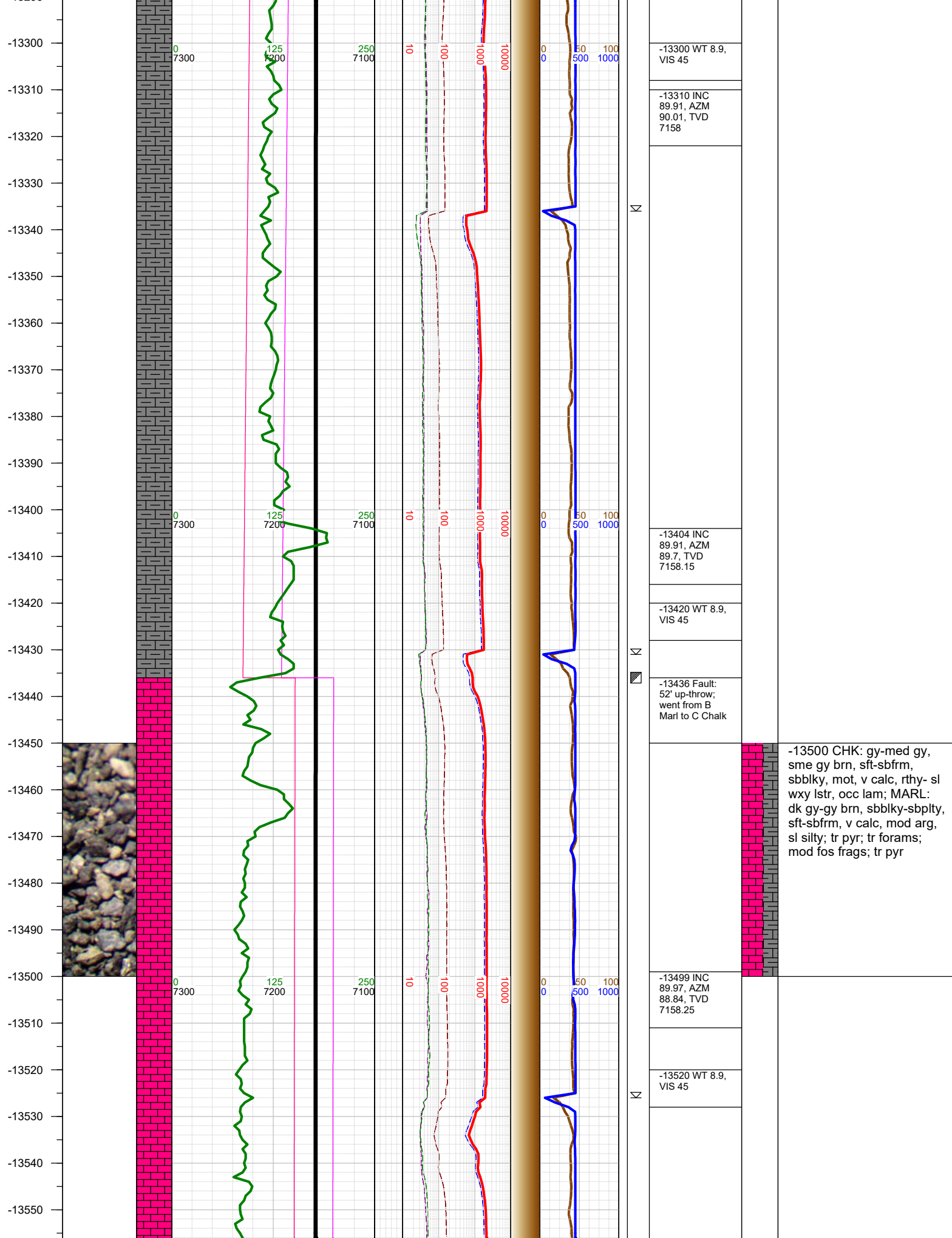
-13122 INC
90.22, AZM 92,
TVD 7158.4

-13140 WT 8.9,
VIS 45

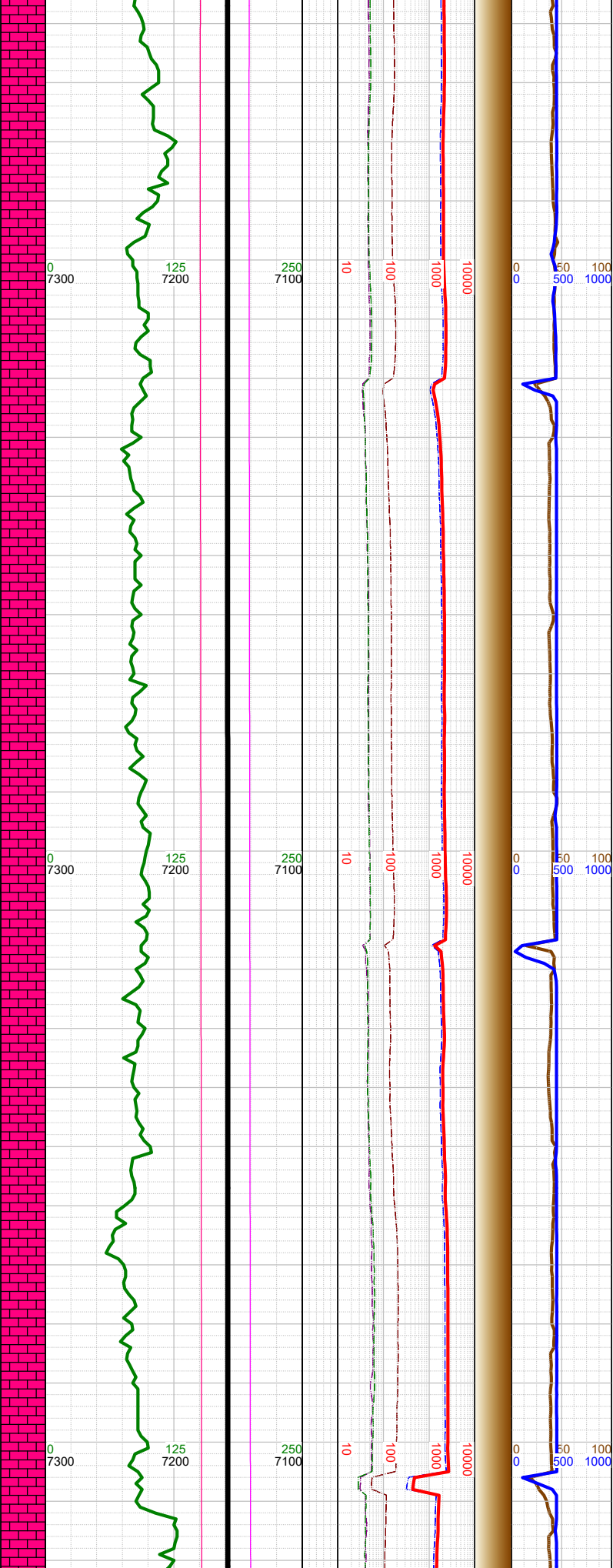
-13200 WT 8.9,
VIS 45

-13216 INC
90.18, AZM
90.87, TVD
7158.07

-13250 MARL: dk gy-gy
brn, sbblky-sbply, sft-
sbfrm, v calc, mod arg, sl
silty; CHK: gy-med gy, sme
gy brn, sft-sbfrm, sbblky,
mot, v calc, rthy- sl wxy
lstr, occ lam; tr pyr; tr
forams;



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| N | -13593 INC 90, AZM 88.61, TVD 7158.27 | |
| | -13610 WT 8.9, VIS 46 | |
| | -13687 INC 90.09, AZM 89.81, TVD 7158.2 | |
| N | -13700 WT 8.9, VIS 46 | -13750 CHK: gy-med gy, sme gy brn, sft-sbfrm, sbbiky, mot, v calc, rthy- sl wxy lstr, occ lam; MARL: dk gy-gy brn, sbbiky-sbpity, sft-sbfrm, v calc, mod arg, sl silty; tr pyr; tr forams; mod fos frags; |
| | -13800 WT 8.9, VIS 46 | |

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-14080



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7200

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100

500

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-13876 INC
89.97, AZM
90.98, TVD
7158.1

-13900 WT 8.9,
VIS 46

Σ

-13970 INC
90.03, AZM
91.87, TVD
7158.1

-14020 WT 8.9,
VIS 46

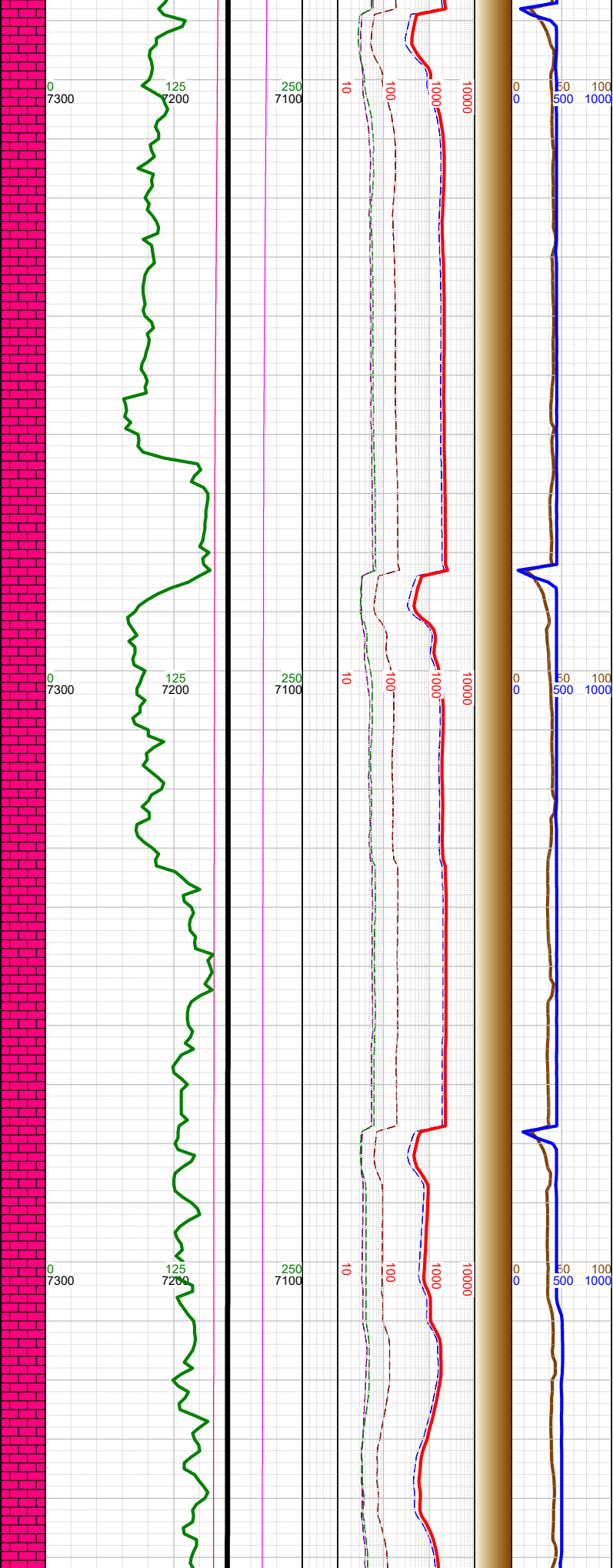
▨

-14007 Fault:
14' up-throw;
stayed in C
Chalk

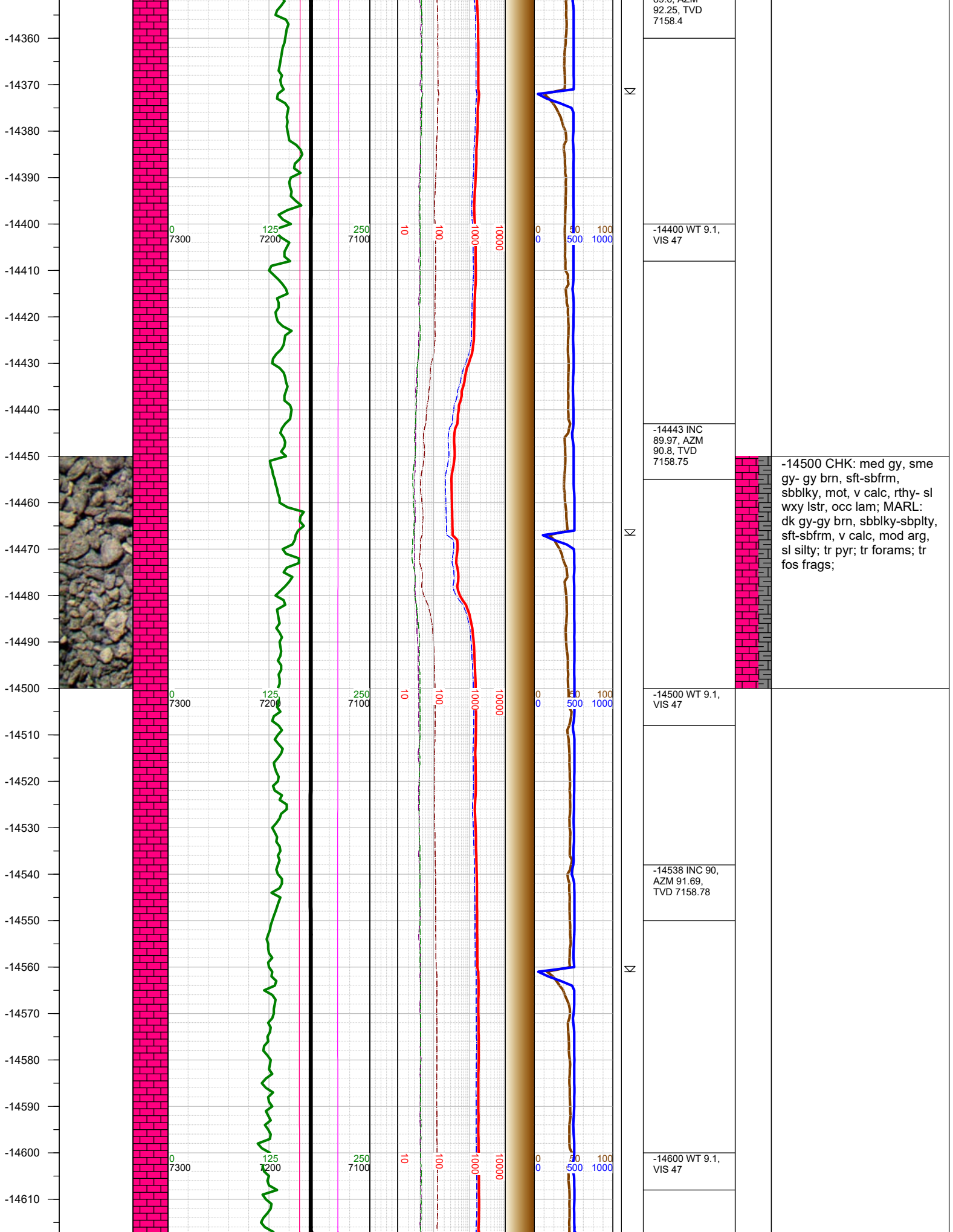
-14065 INC
90.09, AZM
92.19, TVD
7158

-14000 CHK: gy-med gy,
sme gy brn, sft-sbfrm,
sbblky, mot, v calc, rthy- sl
wxy lstr, occ lam; MARL:
dk gy-gy brn, sbblky-sbplty,
sft-sbfrm, v calc, mod arg,
sl silty; tr pyr; tr forams; tr
fos frags;

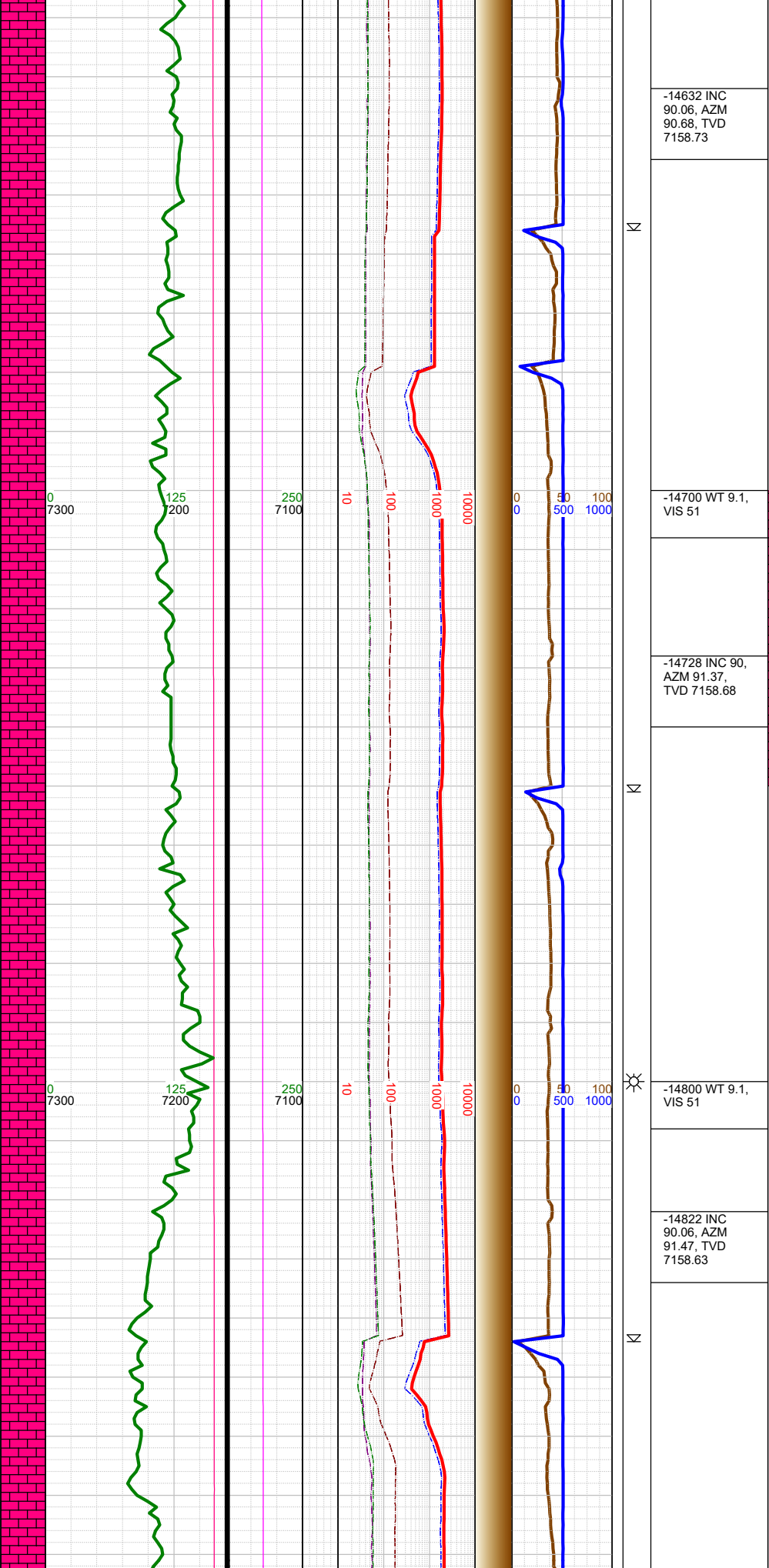
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|---|---|---|--|
| N | -14100 WT 9.1, VIS 47 | | |
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| N | -14160 INC 90.06, AZM 92.04, TVD 7157.87 | | |
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| N | -14200 WT 9.1, VIS 47 | -14250 CHK: gy-med gy, sme gy brn, sft-sbfrm, sbbiky, mot, v calc, rthy- sl wxy lstr, occ lam; MARL: dk gy-gy brn, sbbiky-sbplty, sft-sbfrm, v calc, mod arg, sl silty; tr pyr; tr forams; tr fos frags; | |
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| N | -14254 INC 89.85, AZM 91.81, TVD 7157.95 | | |
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| N | -14300 WT 9.1, VIS 47 | | |
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| N | -14348 INC 89.6, AZM | | |
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-14632 INC
90.06, AZM
90.68, TVD
7158.73

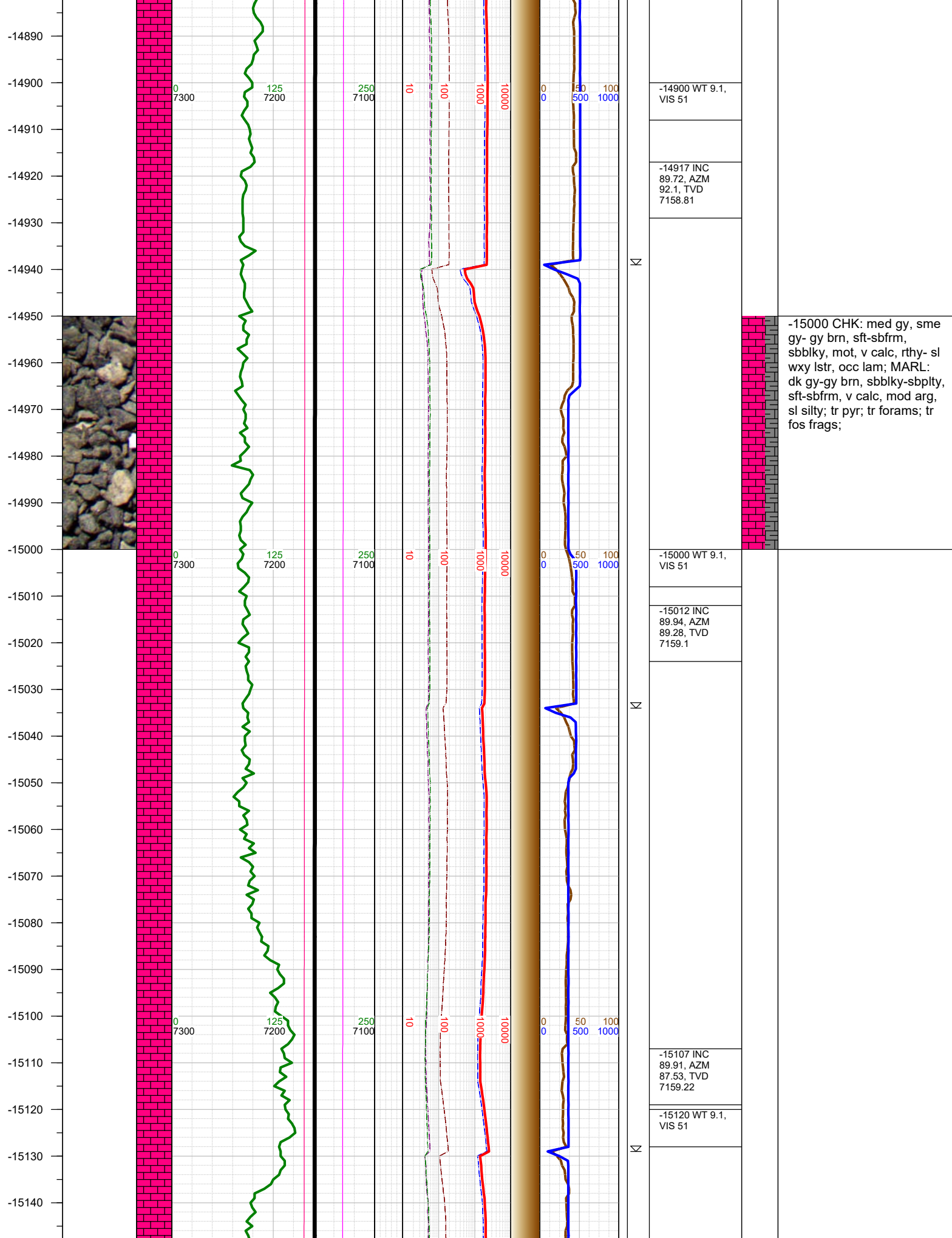
-14700 WT 9.1,
VIS 51

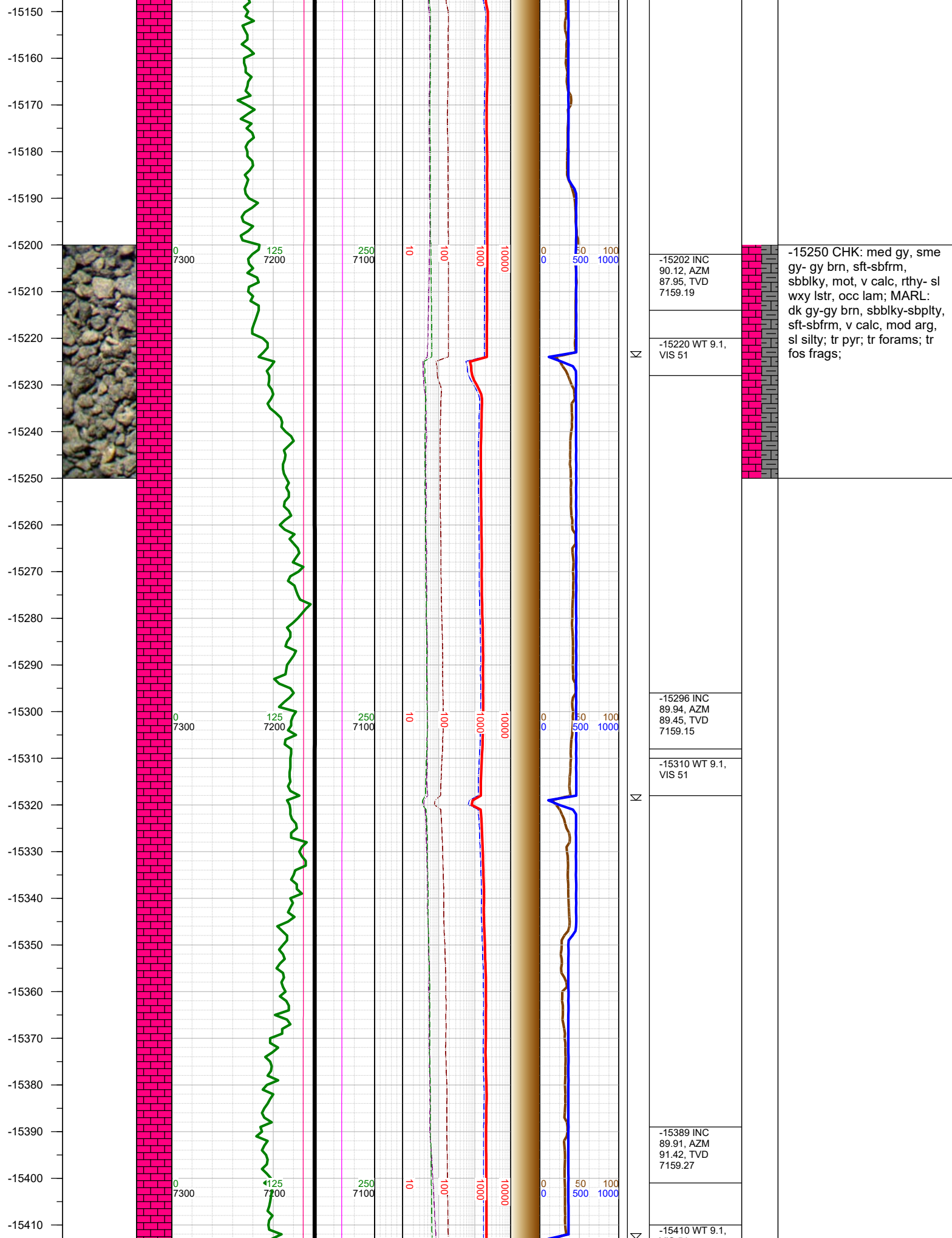
-14728 INC 90,
AZM 91.37,
TVD 7158.68

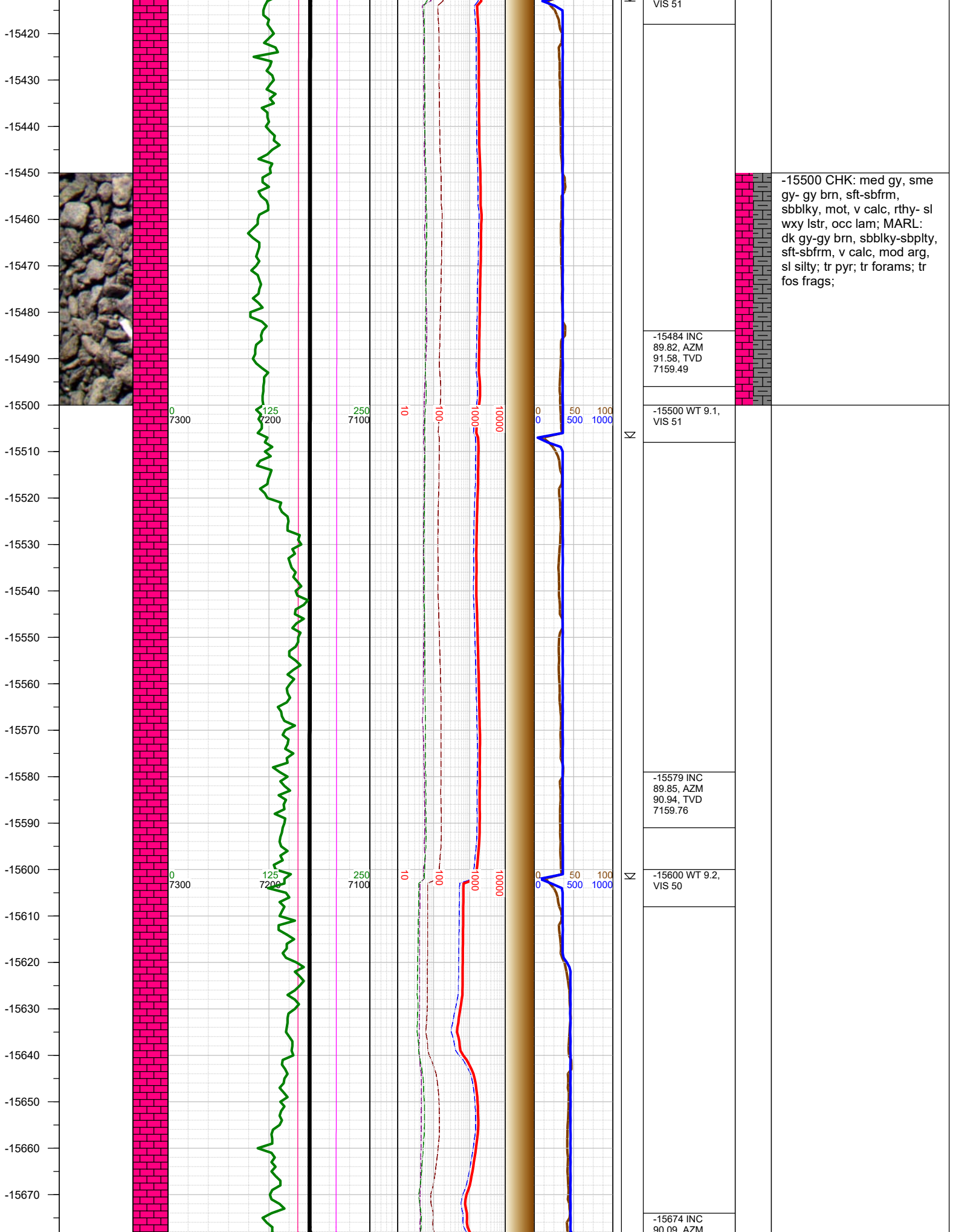
-14800 WT 9.1,
VIS 51

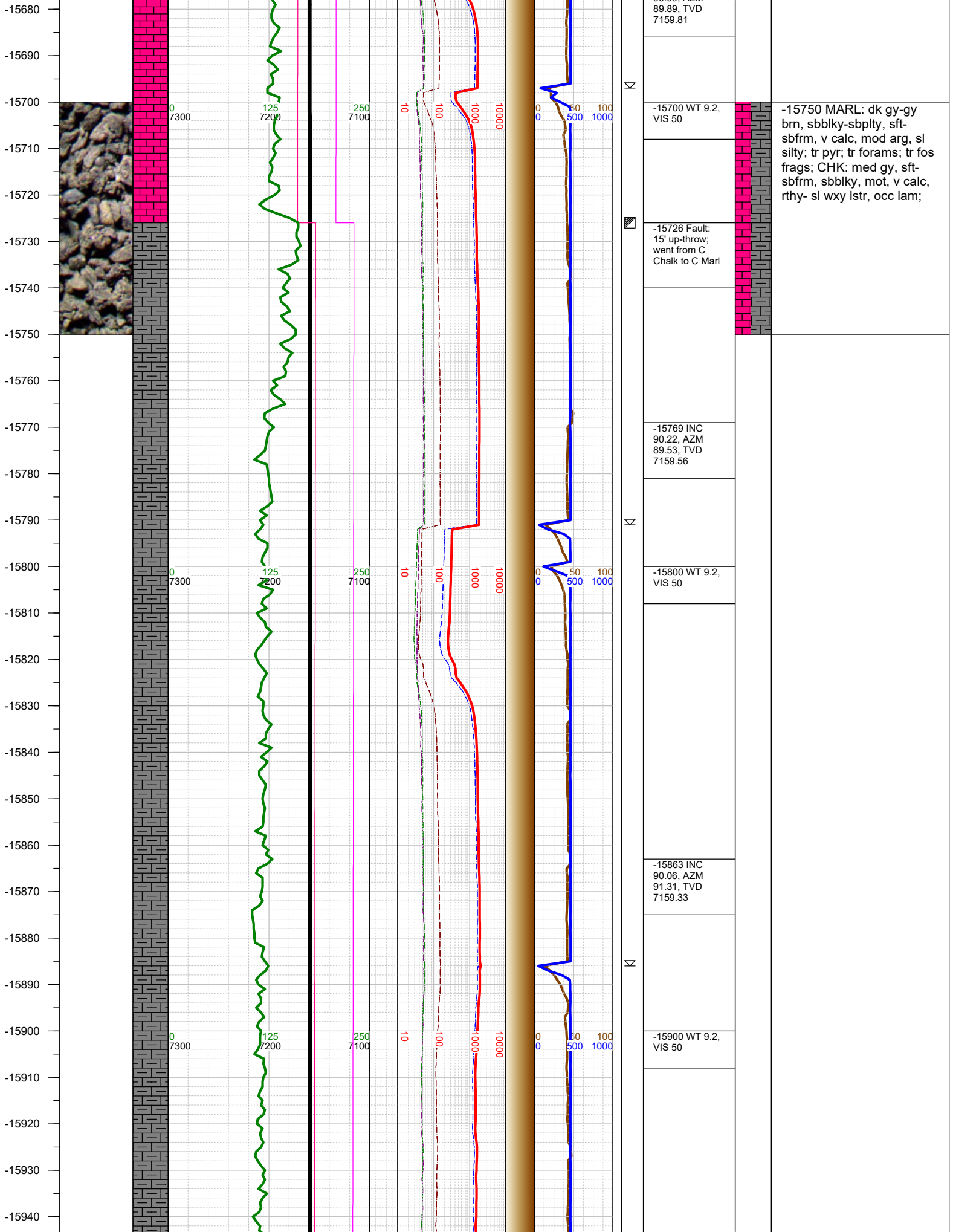
-14822 INC
90.06, AZM
91.47, TVD
7158.63

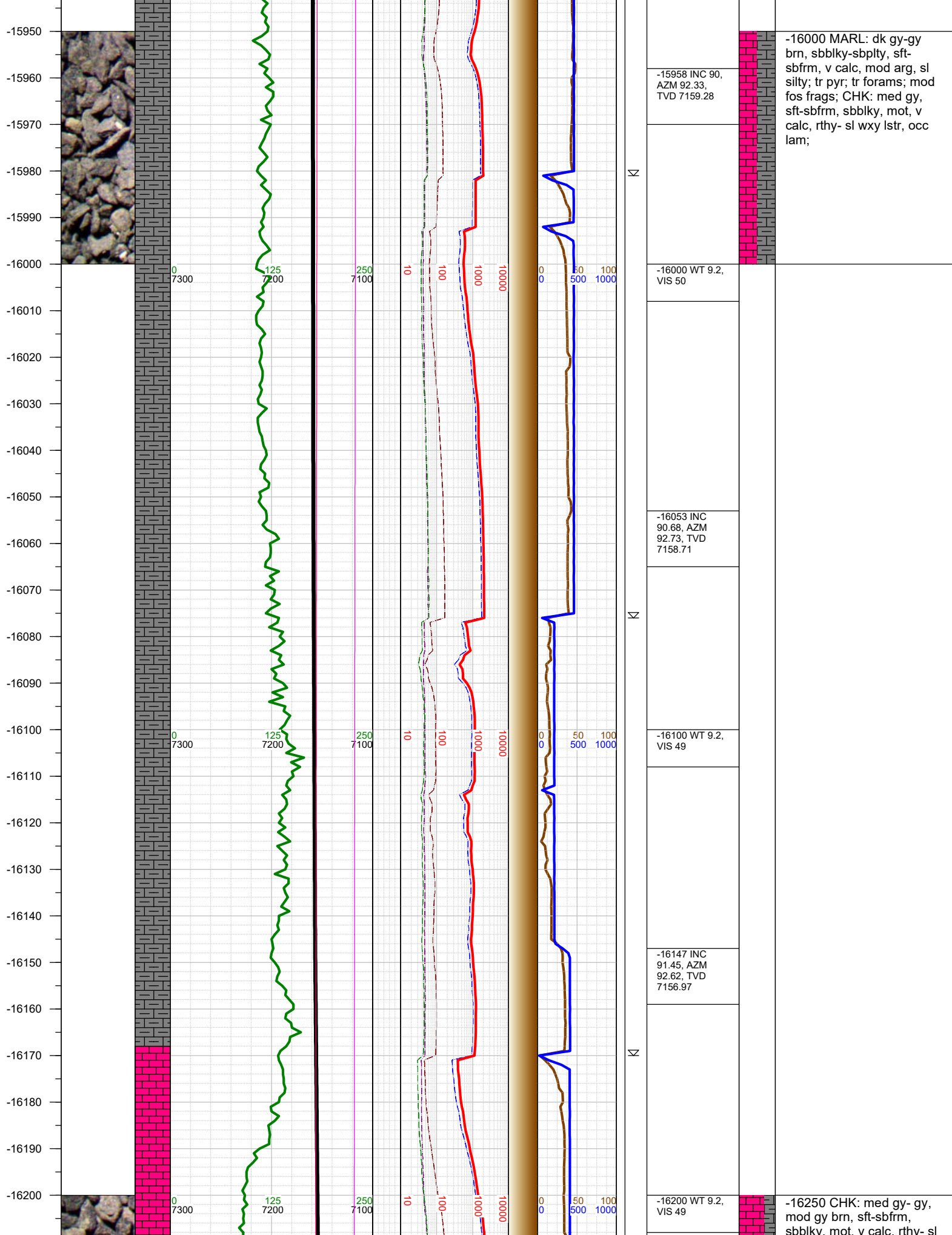
-14750 CHK: med gy, sme
gy- gy brn, sft-sbfrm,
sbbly, mot, v calc, rthy- sl
wxy lstr, occ lam; MARL:
dk gy-gy brn, sbbly-sbply,
sft-sbfrm, v calc, mod arg,
sl silty; tr pyr; tr forams; tr
fos frags;

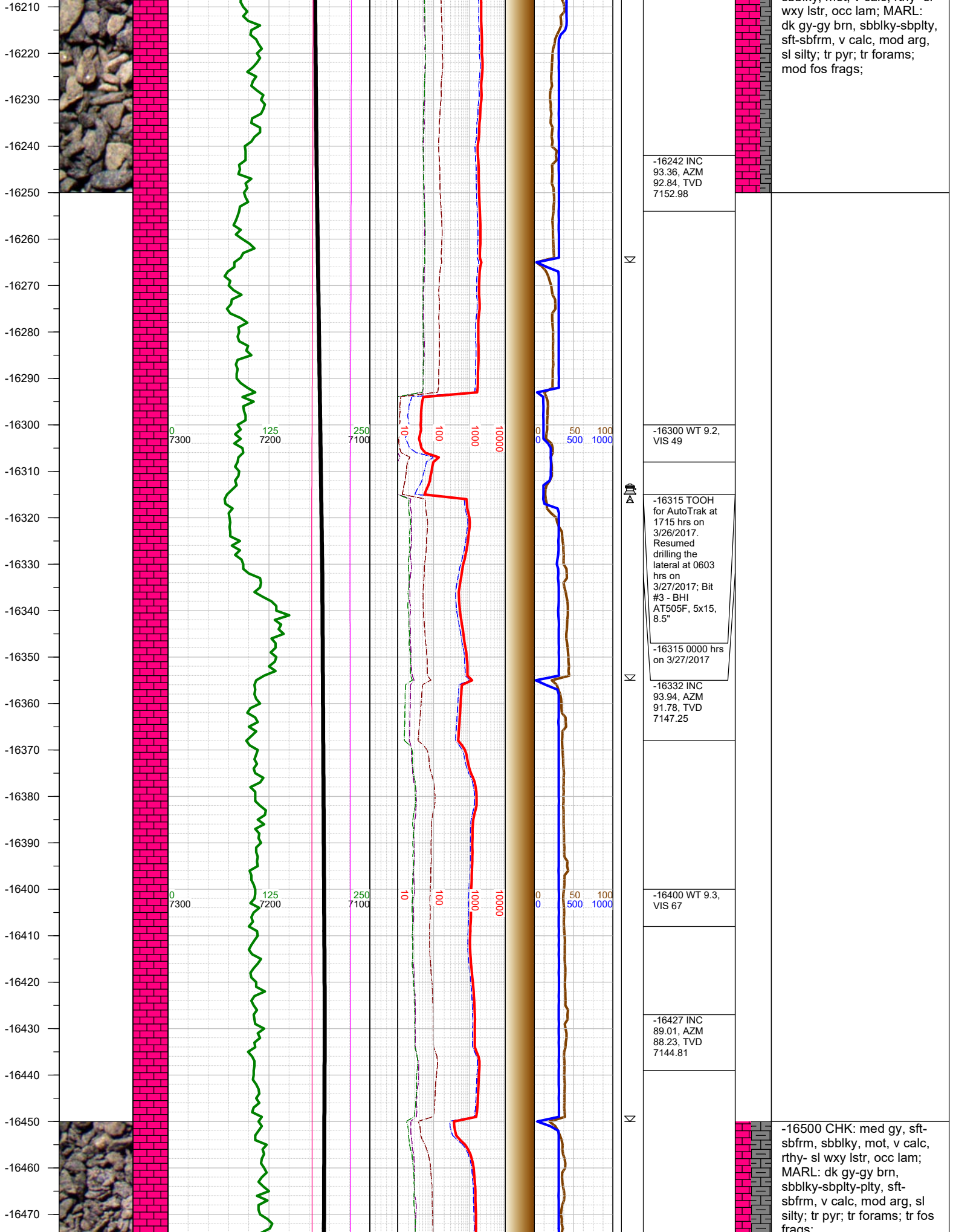


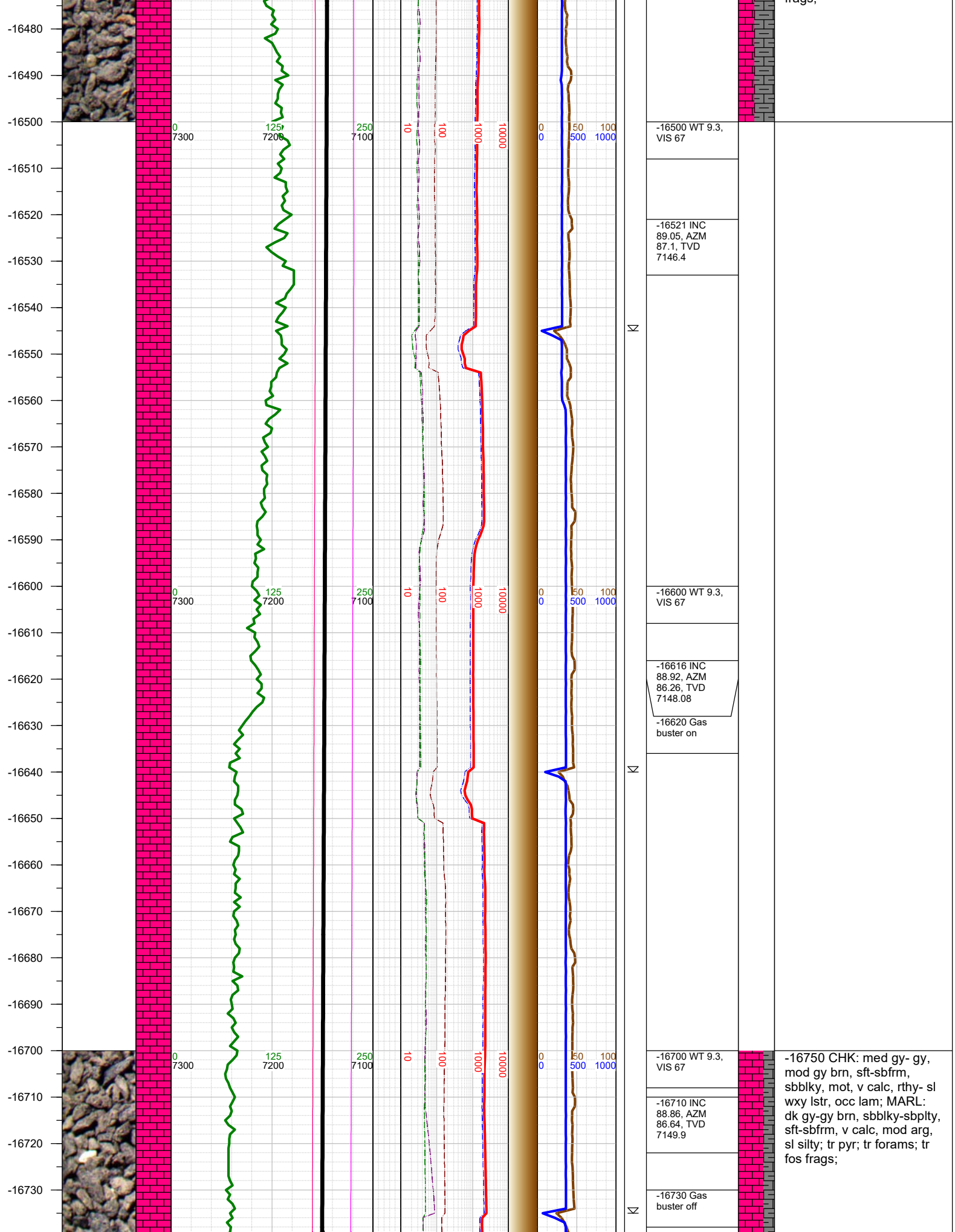


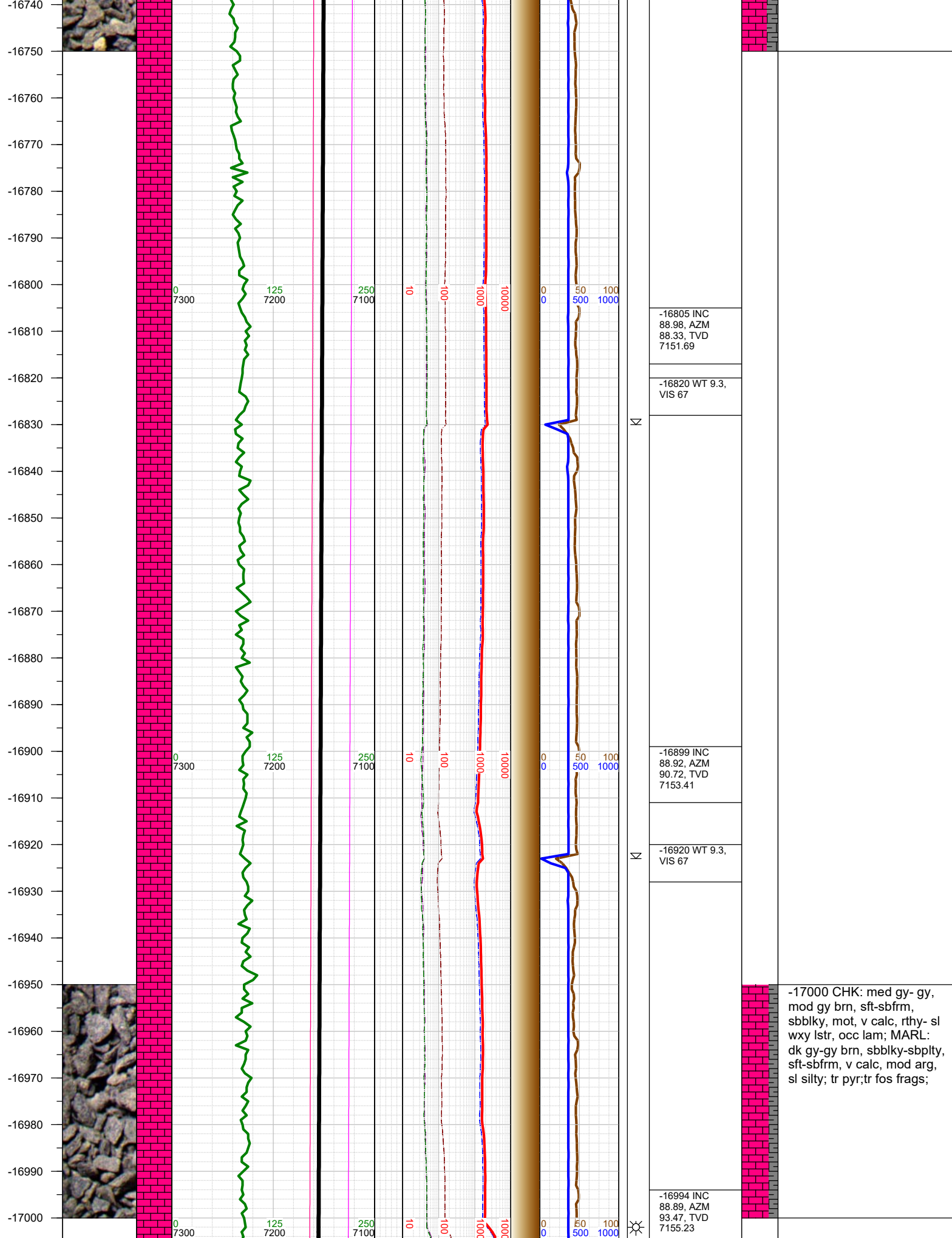


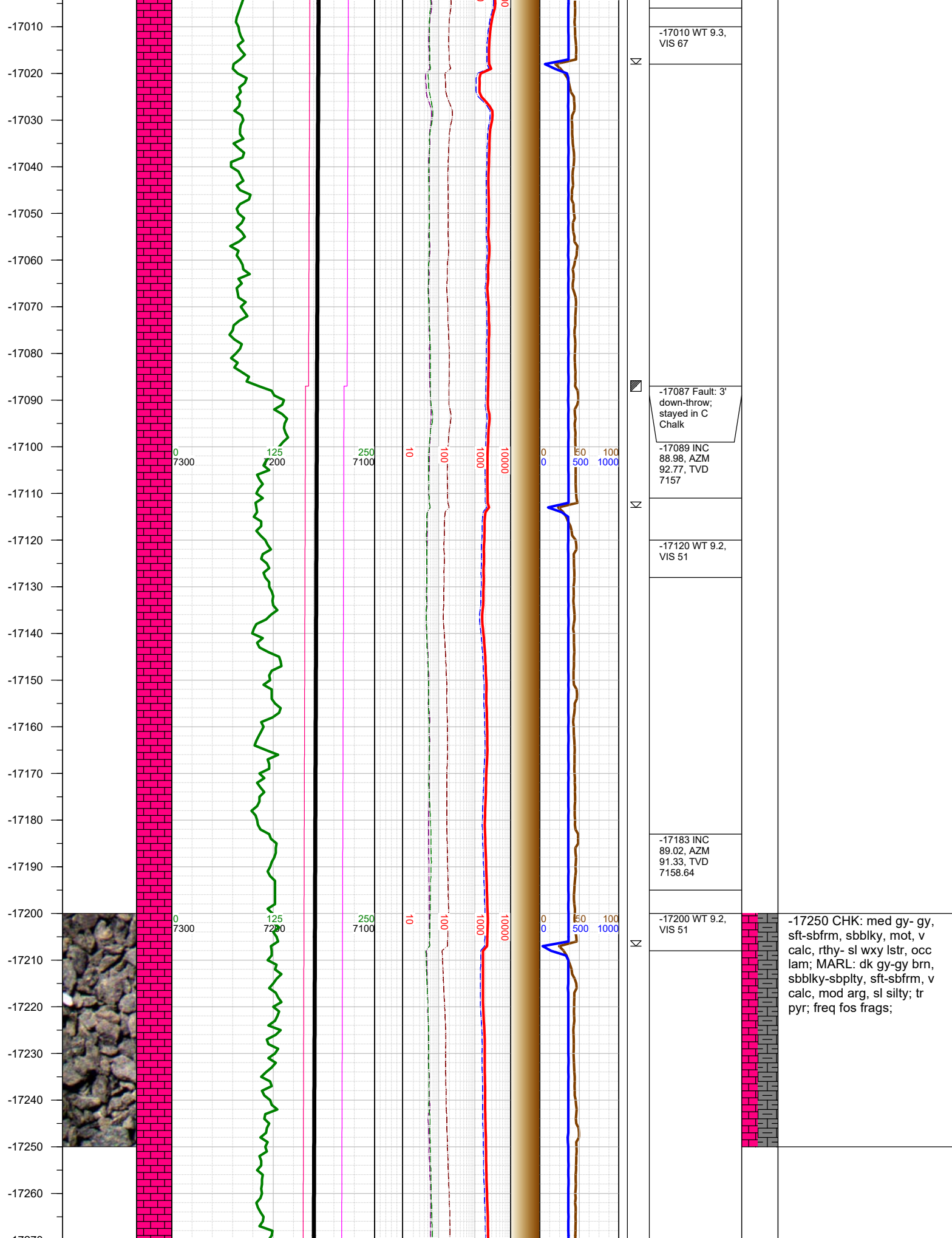




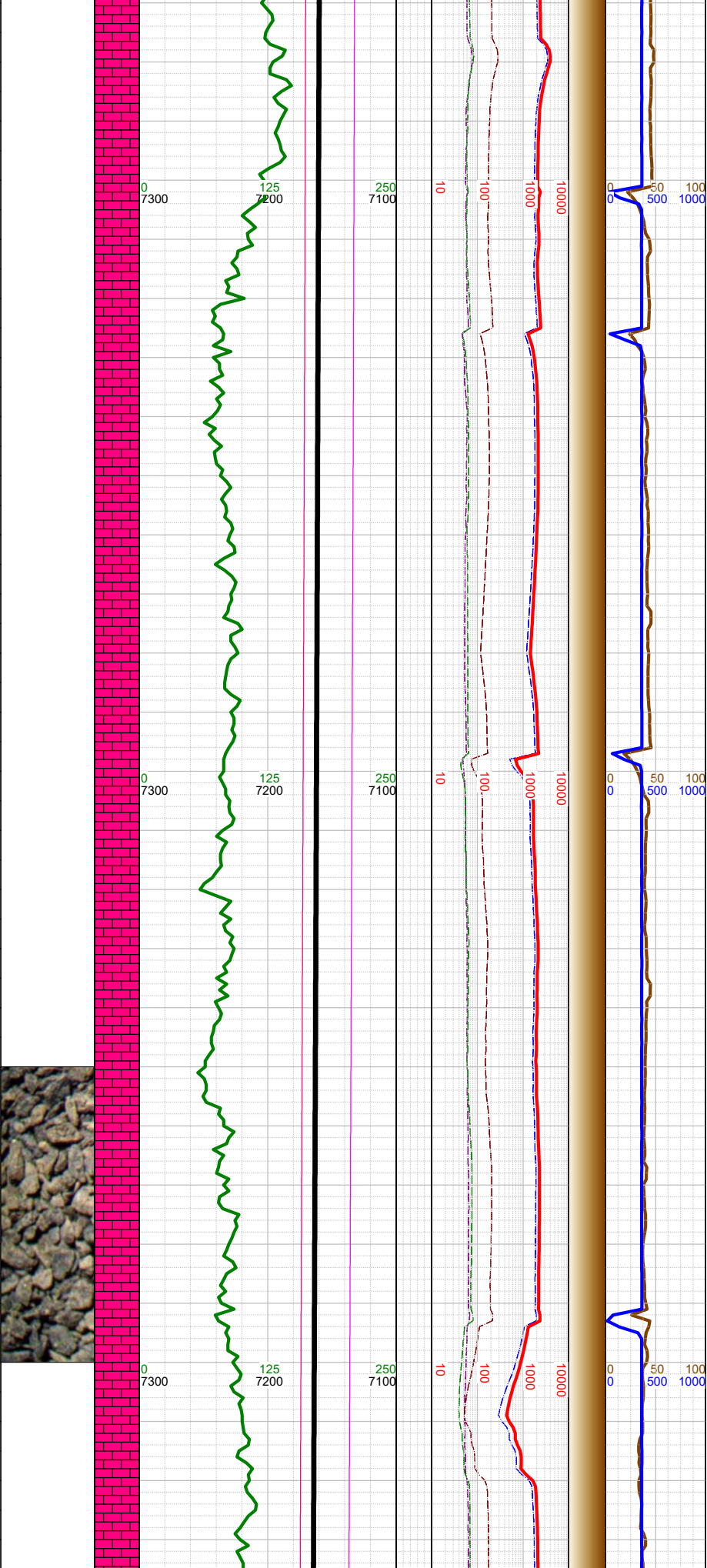




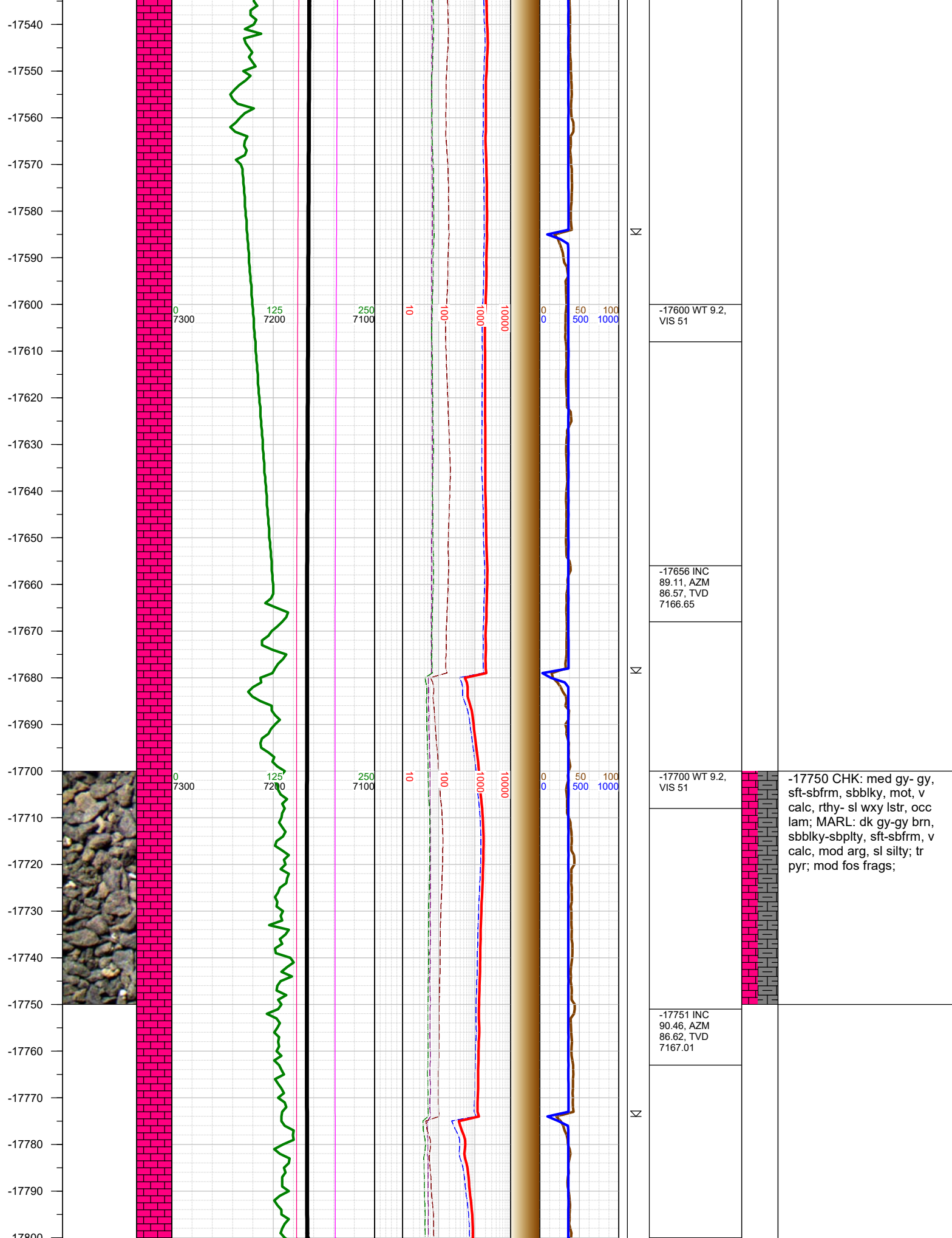


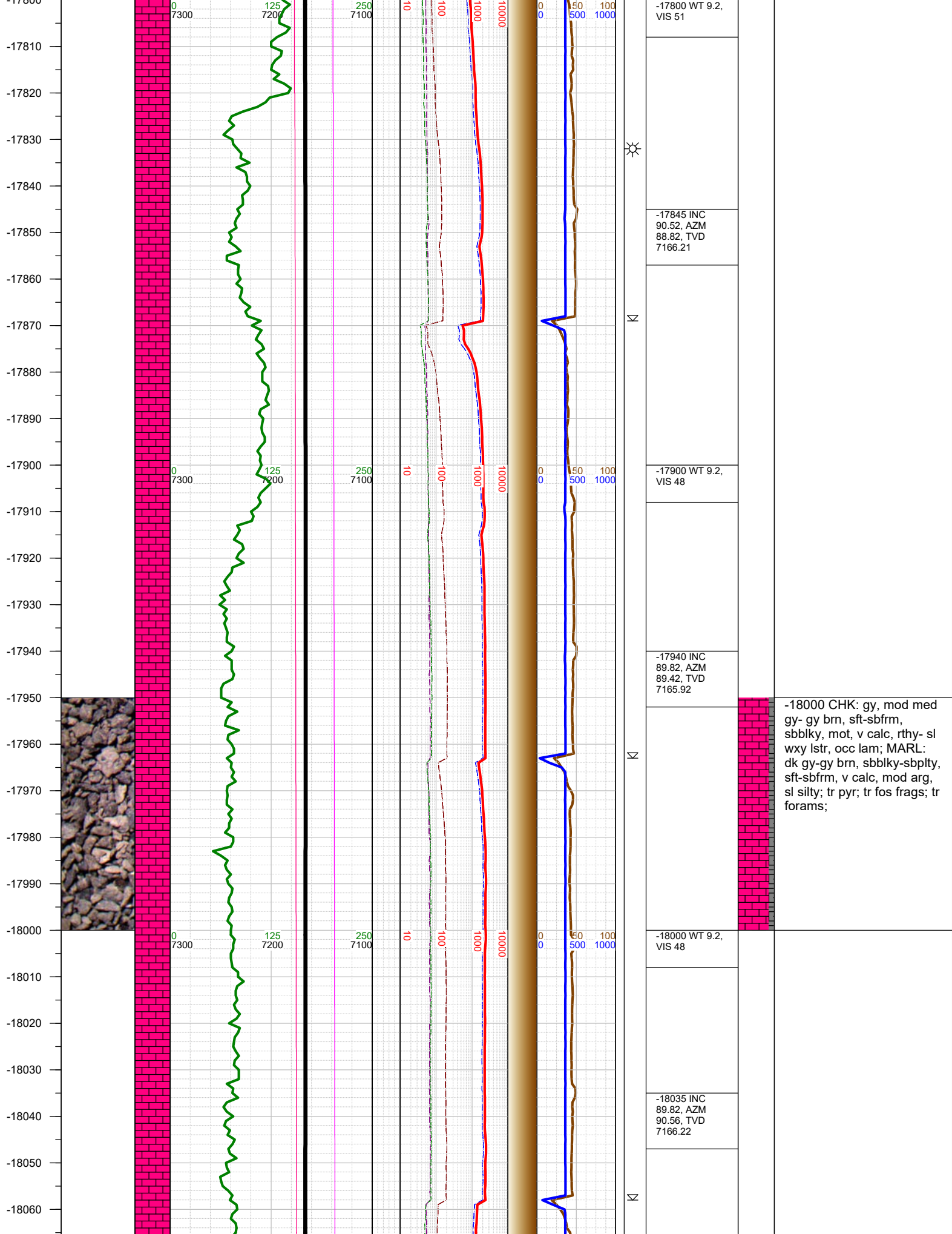


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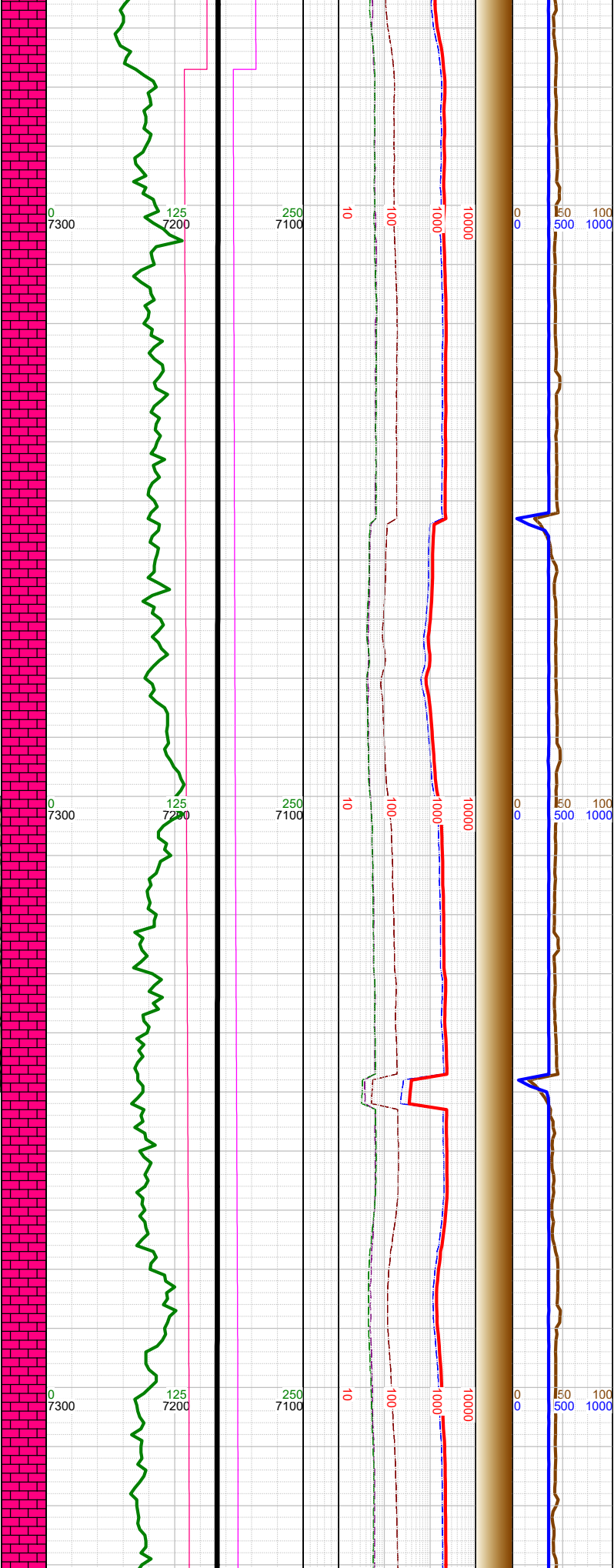
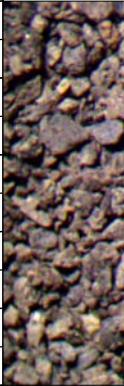


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|---|---|--|
| Σ | -17278 INC 89.08, AZM 88.29, TVD 7160.21 | |
| | -17300 WT 9.2, VIS 51 | |
| Σ | -17372 INC 89.11, AZM 86.94, TVD 7161.7 | |
| | -17400 WT 9.2, VIS 51 | |
| Σ | -17467 INC 88.89, AZM 86.39, TVD 7163.35 | -17500 CHK: gy- med gy, mod gy brn, sft-sbfrm, sblbky, mot, v calc, rthy- sl wxy lstr, occ lam; MARL: dk gy-gy brn, sblbky-sbplty, sft-sbfrm, v calc, mod arg, sl silty; tr pyr; tr fos frags; tr forams; |
| | -17500 WT 9.2, VIS 51 | |



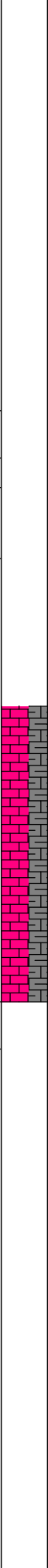
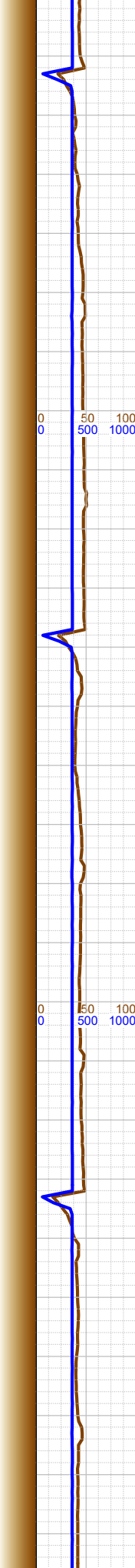
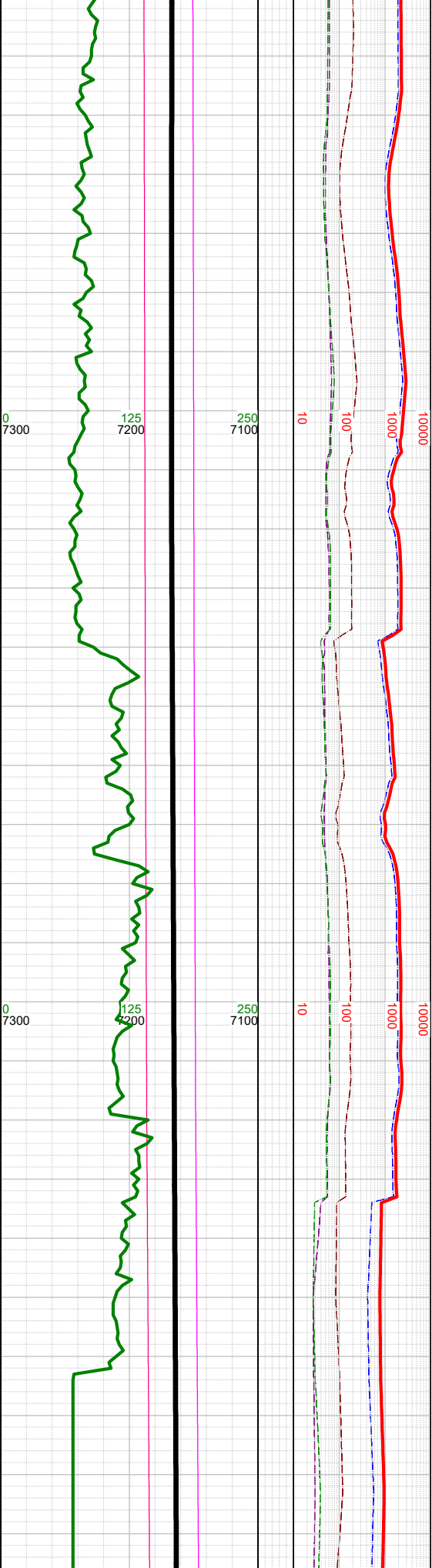
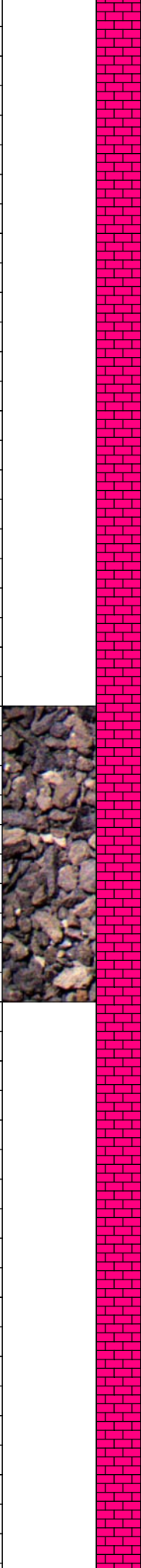


-18070
-18080
-18090
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-18130
-18140
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-18170
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-18310
-18320
-18330



| | |
|--|--|
| | -18077 Fault: 19' down-throw; stayed in C Chalk |
| | |
| | -18100 WT 9.2, VIS 48 |
| | |
| | -18130 INC 89.82, AZM 91.34, TVD 7166.52 |
| | |
| | -18200 WT 9.2, VIS 48 |
| | -18250 CHK: gy, mod med gy- gy brn, sft-sbfrm, sbblky, mot, v calc, rthy- sl wxy lstr, occ lam; MARL: dk gy-gy brn, sbblky-sbplty, sft-sbfrm, v calc, mod arg, sl silty; tr pyr; tr fos frags; |
| | |
| | -18224 INC 89.85, AZM 92.38, TVD 7166.79 |
| | |
| | |
| | -18300 WT 9.2, VIS 48 |
| | |
| | -18318 INC 89.78, AZM 94.15, TVD 7167.1 |

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-18350
-18360
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-18400
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-18450
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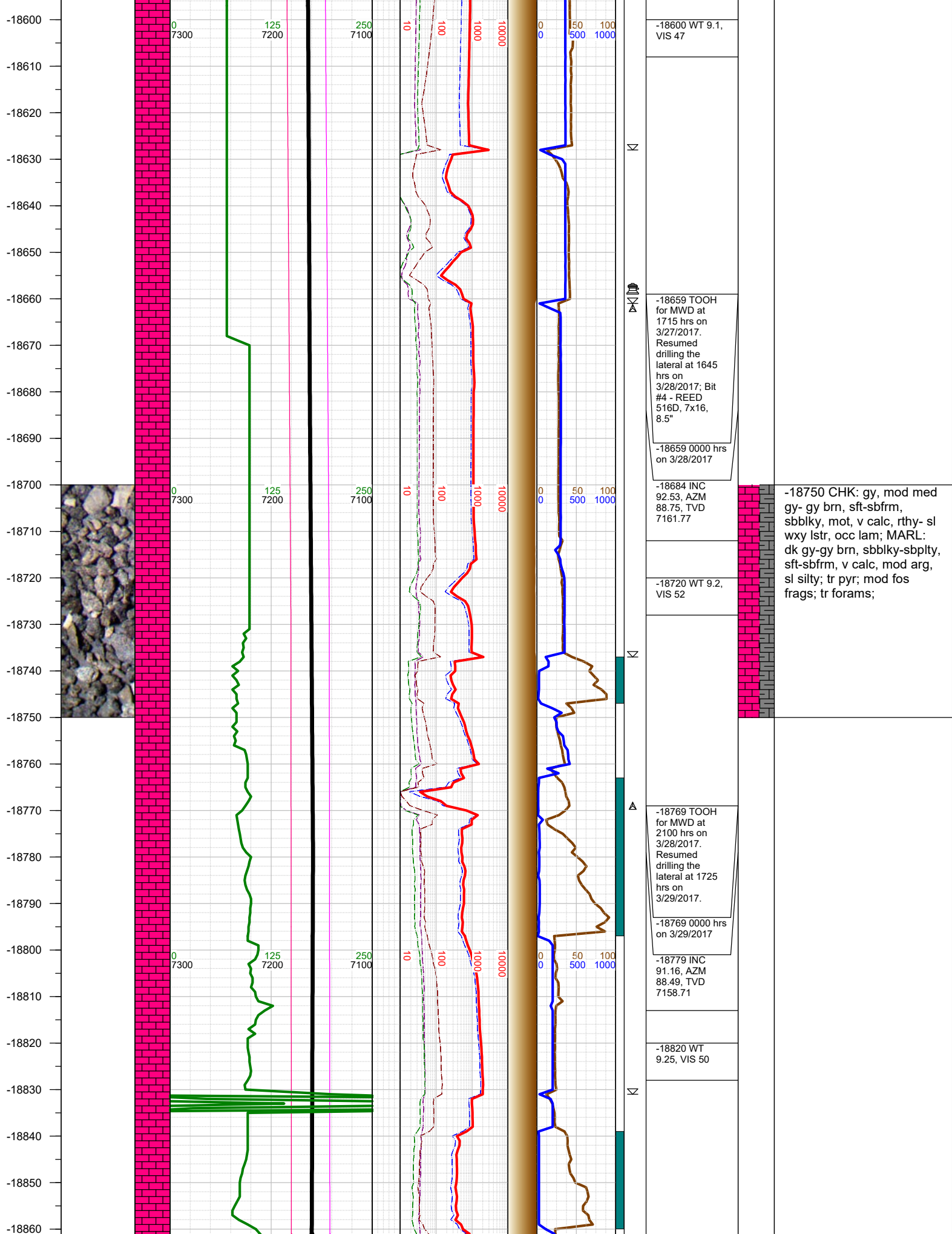


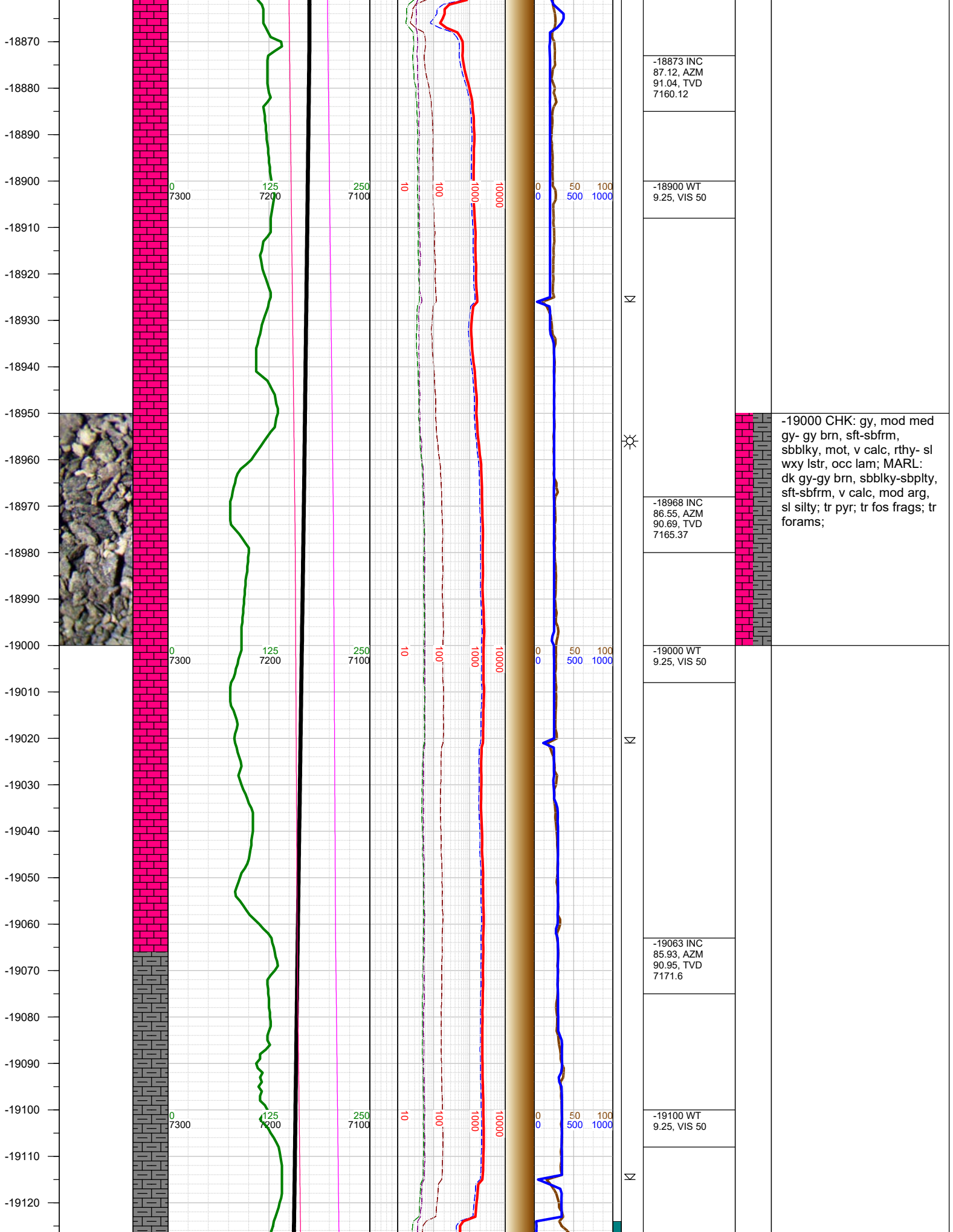
-18400 WT 9.2,
VIS 48

-18413 INC
89.85, AZM
93.94, TVD
7167.4

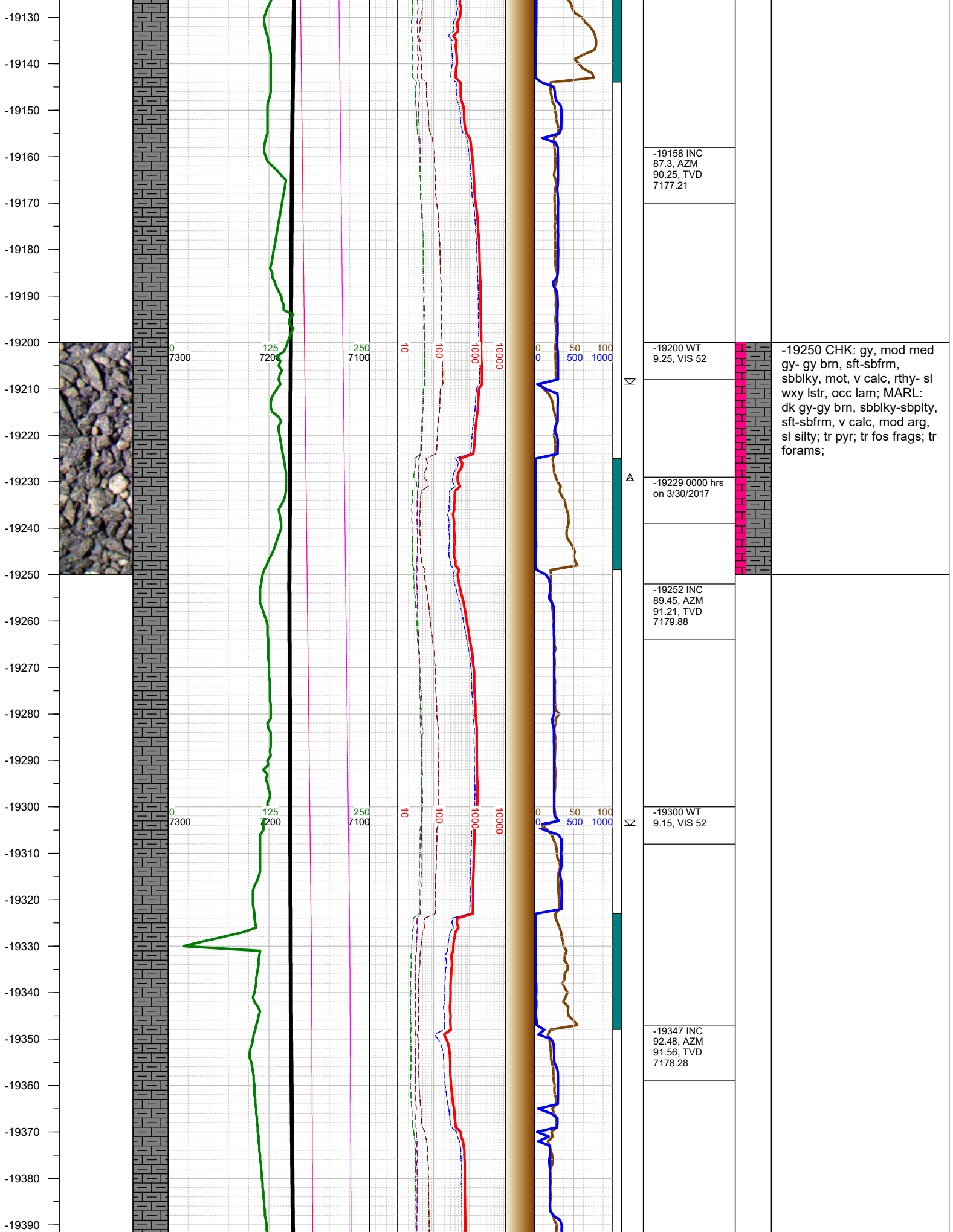
-18500 CHK: gy, mod med
gy- gy brn, sft-sbfrm,
sbbiky, mot, v calc, rthy- sl
wxy lstr, occ lam; MARL:
dk gy-gy brn, sbbiky-sbplty,
sft-sbfrm, v calc, mod arg,
sl silty; tr pyr; mod fos
frags; mod forams;

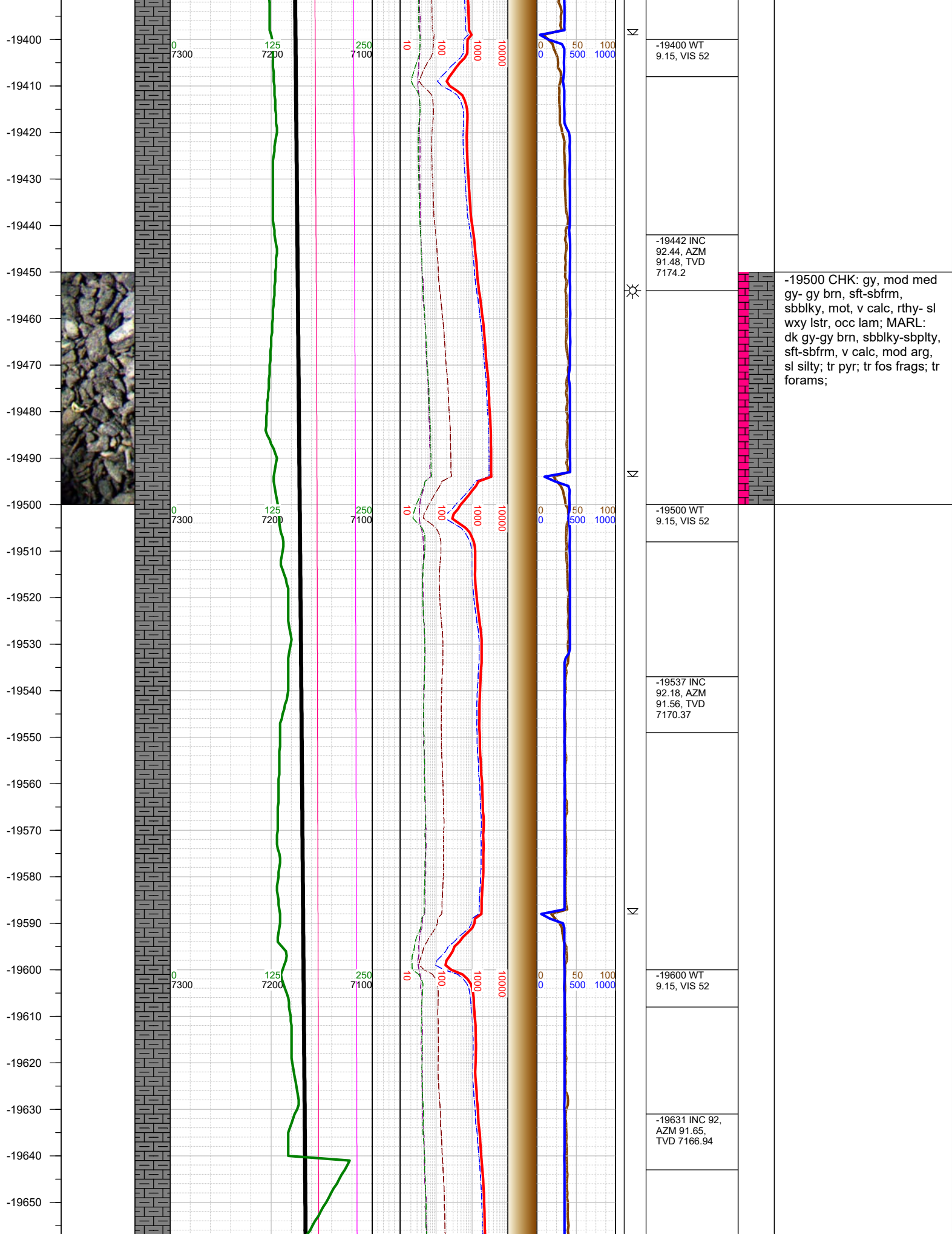
-18500 WT 9.2,
VIS 48



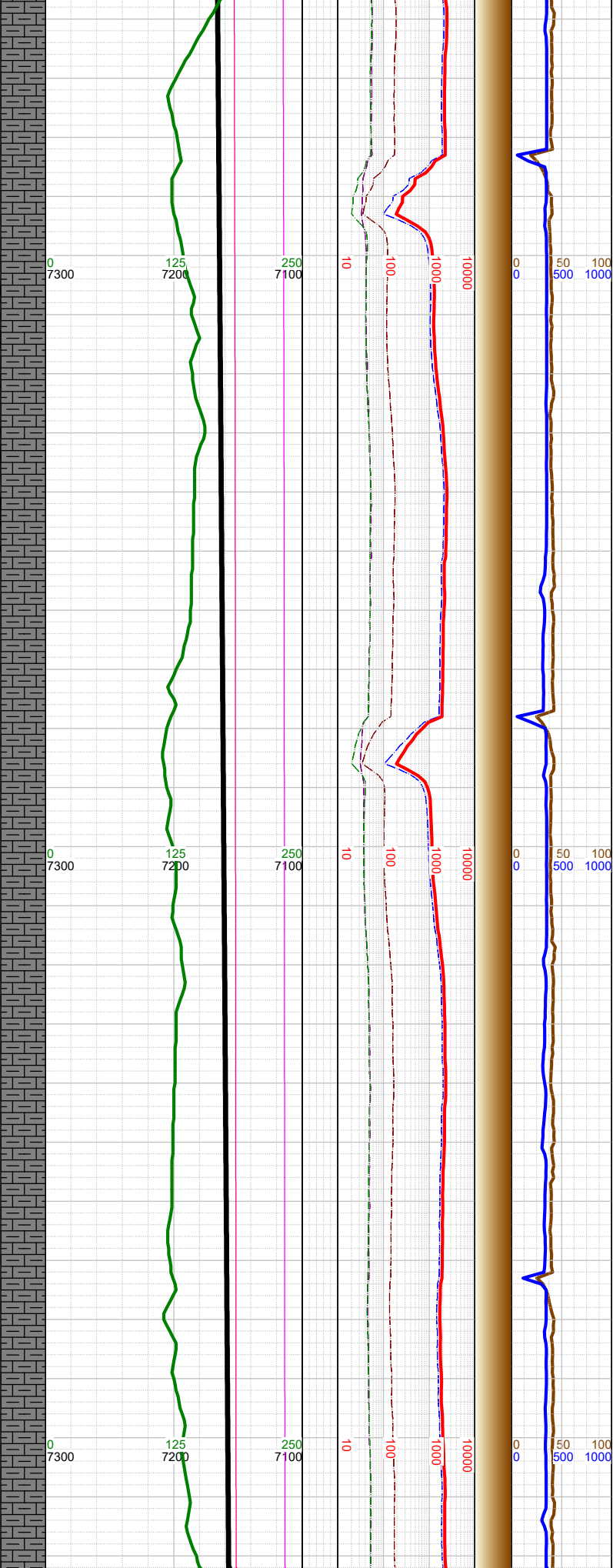


-19000 CHK: gy, mod med
gy- gy brn, sft-sbfrm,
sbblky, mot, v calc, rthy- sl
wxy lstr, occ lam; MARL:
dk gy-gy brn, sbblky-sbplty,
sft-sbfrm, v calc, mod arg,
sl silty; tr pyr; tr fos frags; tr
forams;

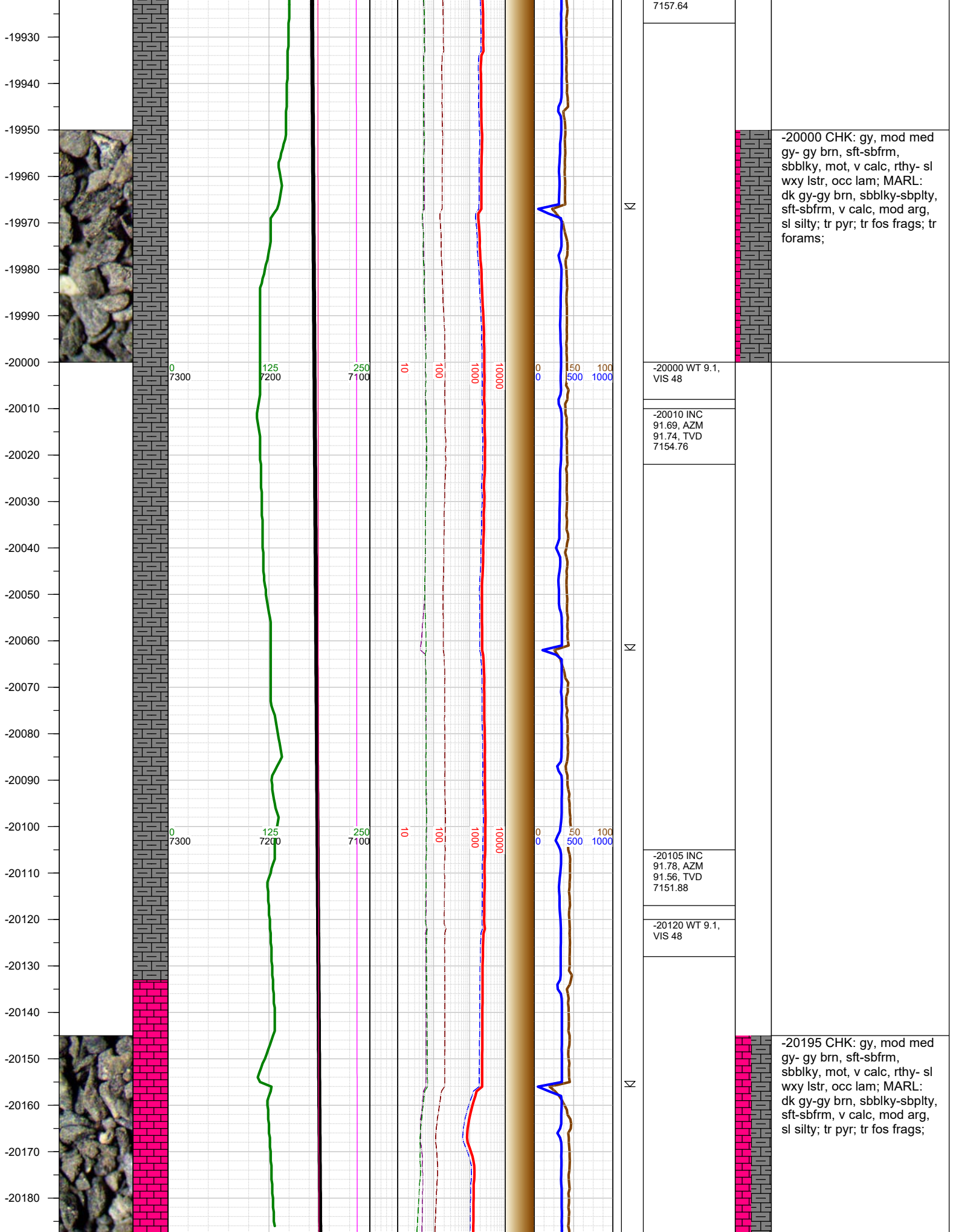


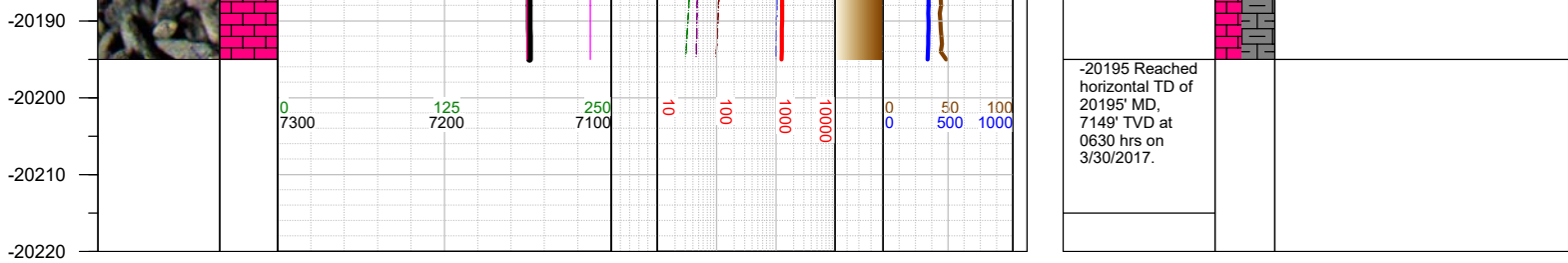


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-19670
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-19800
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-19920



| | | |
|---|--|---|
| -19700 WT 9.15, VIS 52 | | -19750 CHK: gy- gy brn, sft-sbfrm, sbblky, mot, v calc, rthy- sl wxy lstr, occ lam; MARL: dk gy-gy brn, sbblky-sbplty, sft-sbfrm, v calc, mod arg, sl silty; tr fos frags; tr forams; |
| | | |
| | | |
| -19726 INC 91.96, AZM 91.39, TVD 7163.66 | | |
| -19800 WT 9.1, VIS 48 | | |
| -19821 INC 91.78, AZM 91.48, TVD 7160.56 | | |
| -19900 WT 9.1, VIS 48 | | |
| -19915 INC 91.78, AZM 91.56, TVD | | |





TOTAL DEPTH = 20195'

Thank you for using Earth Science Agency