



Empirica

Scale: 5" / 100'
Measured Depth Log

Well Name Nelson Farm1_ST_Lat_Extraction.mplot

Location Sec.28-T07N-R67W

State CO

Country USA

API Number 05 123 39961 00

Region DJ Basin

Spud Date 8/27/2014

Surface Coordinates N 1,443,979.89'

E 3,164,958.28'

Lat 40°33'2.192" N

Long 104°54'23" W

Bottom Hole Coordinates X 3172351.64'

Y 1444658.69'

Lat 40°33'8.3982" N

Long 104°52'47.1612" W

Ground Elevation 4975'

Logged Interval 6400'

Formation Codell

Type of Drilling Fluid Water based mud

County Weld

Rig Number Xtreme7

Field Wattenberg

Drilling Completed 9/12/2014

K.B. Elevation 4991'

Total Depth 14630'

Company Extraction Oil & Gas
Address 1888 Sherman St
Denver, CO 80202

Name Hana Waldbaus
Company ALS Empirica
Address 6360 W Sam Houston
Suite 100
Houston, TX 77063

Logging start date:
Logging end date:
2 man logging service



Operator

Gas

003 Suite 500

Geologist

erova & Edward Knight

uston Pkwy N

041

Other

9/5/2014

9/12/2014

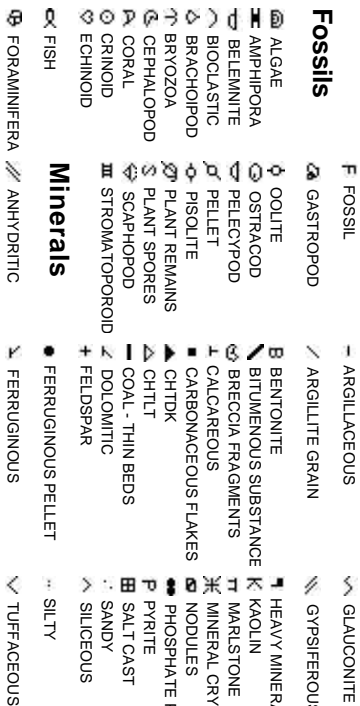
ML-131

Rock Types



Accessories

Fossils



Stringer



Other Symbols

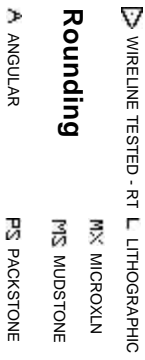
Oil Show



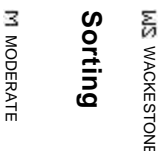
Engineering



Rounding



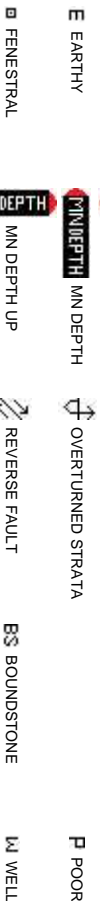
Sorting



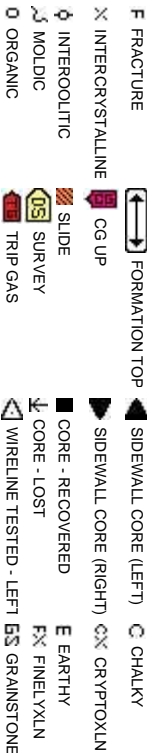
Porosity



Textures



SILTY SHALE



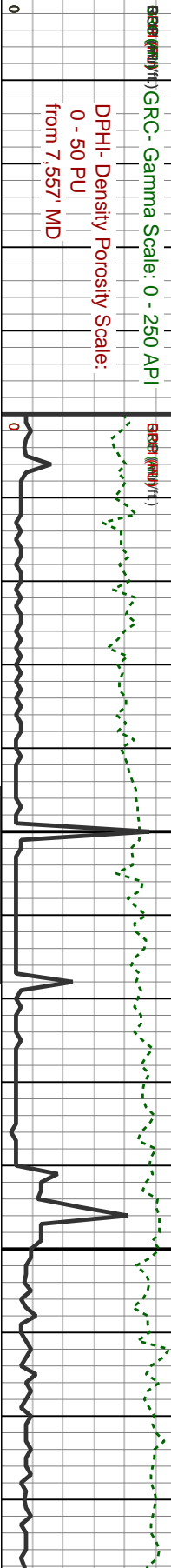
EXTRACTION OIL & GAS
NELSON FARM 1 SIDE TRACK

ROP
ROF
GRC
DPH

ROP Scale = 0 - 5 min/ft
GRC (API) Gamma Scale: 0 - 250 API
DPH- Density Porosity Scale:
0 - 50 PU
from 7,557' MD

WOB: 31 K
RPM: 51
PP: 3322
SPM: 59/59
MW 10
VIS 38
Bit #: 4
Type: Smith 611
Size: 8 3/4
S/N: JJ2941

MW 9.9
VIS 35

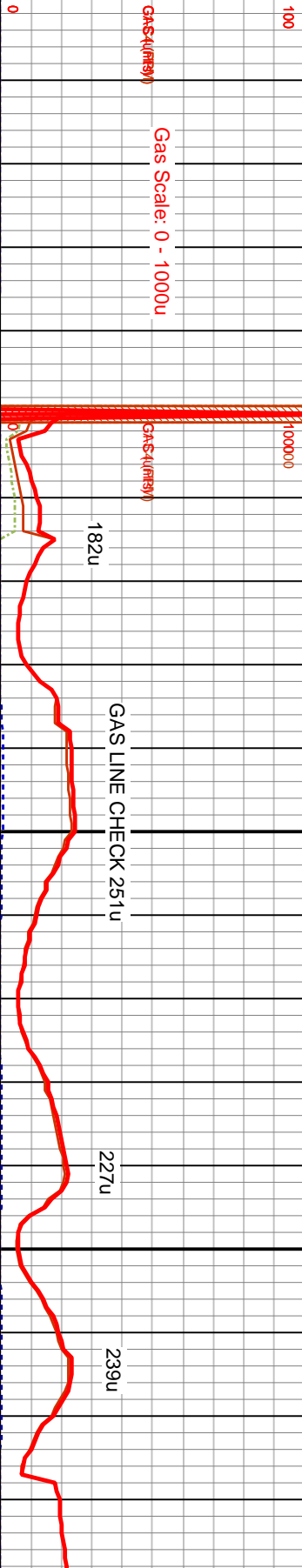


Slide/Rotate

Depth Labels

Total Gas & Chromatograph

GAS
C1
C2
C3
C4



Images



TVD Scale = 6,000' - 7,000'

MD: 6,417'
Inclination: 8.7°
Azimuth: 32.84°
TVD: 6,373.5°
VS: -258.1°

MD: 6,502'
Inclination: 5.4°
Azimuth: 62.2°
TVD: 6,457.8°
VS: -250.3°

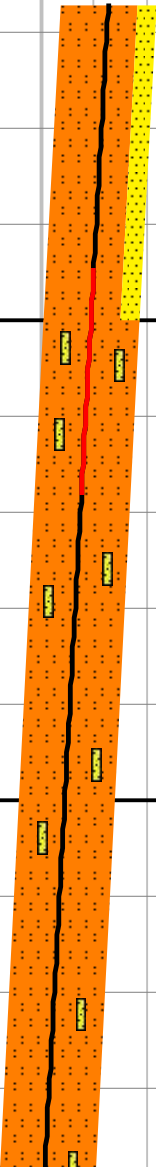
Well Bore
TVD

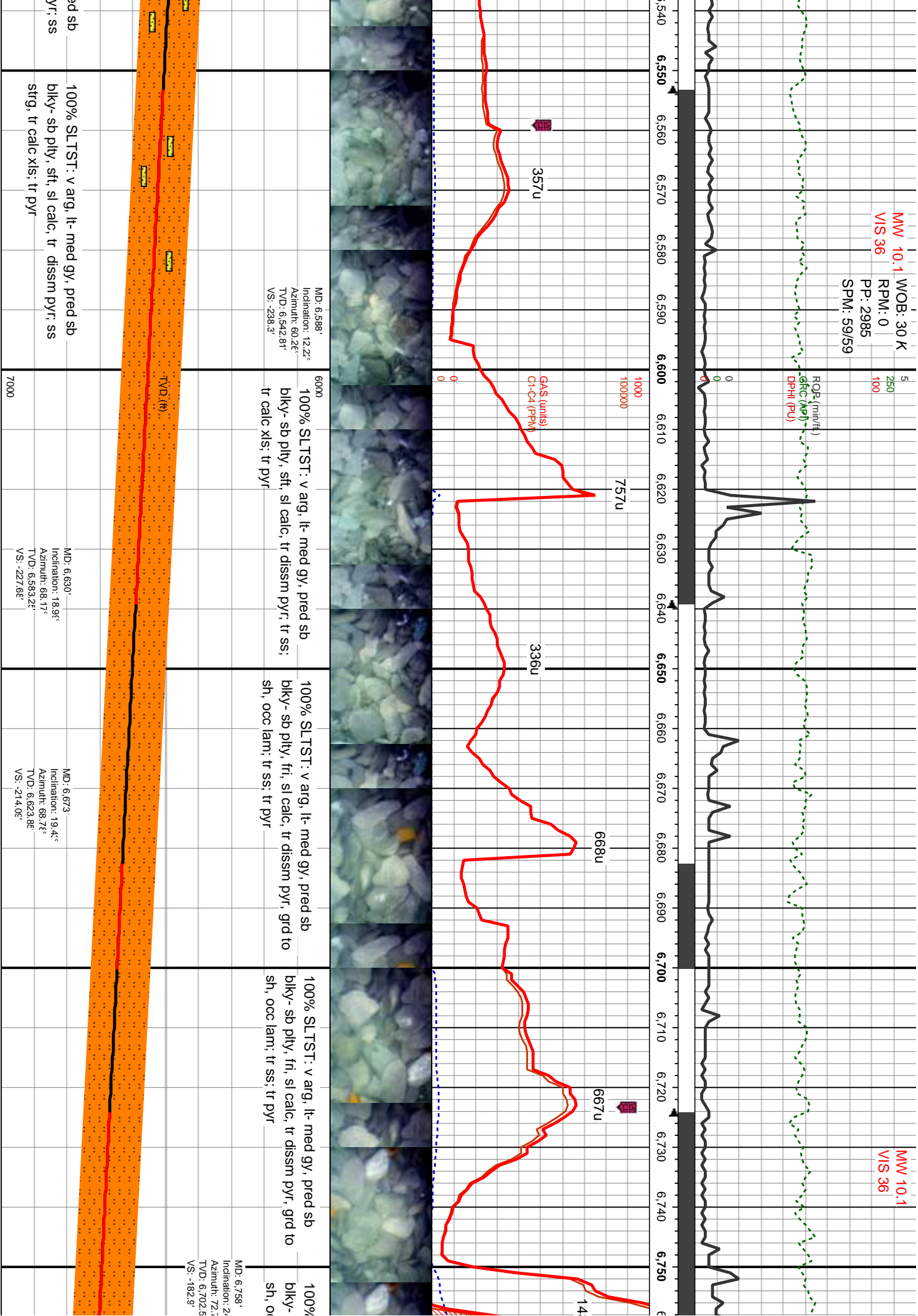
Nelson Farm1. ST
Weid Co, CO
Spud date: 8/27/2014
Surface Casing @ 813'
2 Manned Logging Continued:
9/5/2014 @ 6,400' MD

20% SS: off wh, wh, lt gy, s&p, frm- hcd- w
cons, sb ang-sb md, v-f-gf, calc cnt, mod-
w srt, arg, tr glau: 80% SLTST: arg, lt- med
gy, pred sb blk- sb pty, sft, sl calc, tr
dissm pyr, intbd with ss, occ lam

100% SLTST: v arg, lt- med gy, pred sb
blk- sb pty, sft, sl calc, tr dissm pyr, occ
lam, ss strg, tr calc xls

100% SLTST: v arg, lt- med gy, pred sb
blk- sb pty, sft, sl calc, tr dissm p
strg, tr calc xls; tr pyr





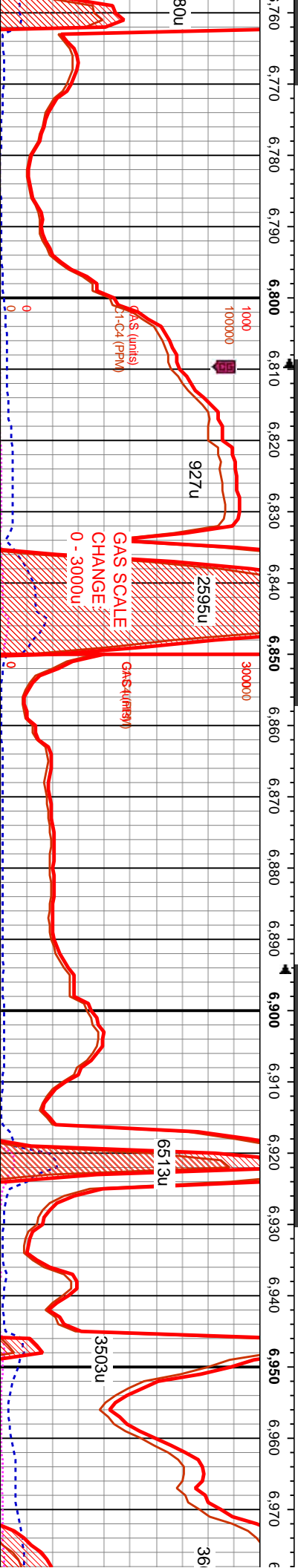
WOB: 29 K
RPM: 36
PP: 3605
SPM: 64/64

5
250
100
RDP (units)
GRC (API)
DPHI (PU)

MW 10.2
VIS 38

Sharon Springs @ 6,923' MD 6,848' TVD

Niobrara A @ 6,968' MD 6,885' TVD



SLTST: v arg, lt- med gy, pred sb
sb ply, fri, sl calc, tr dissim pyr, grd to
occ lam; tr ss; tr pyr; tr calc xls

100% SLTST: v arg, lt- med gy, pred sb
biky- sb ply, fri, sl calc, tr dissim pyr, grd to
sh, occ lam; tr ss; tr pyr; tr calc xls

100% SLTST: v arg, lt- med gy, pred sb
biky- sb ply, fri, sl calc, tr dissim pyr, grd to
sh, occ lam; tr ss; tr pyr

100% SLTST: v arg, lt- med gy, pred sb
biky- sb ply, fri, sl calc, tr dissim pyr, grd to
sh, occ lam; tr ss; tr pyr; sh strg

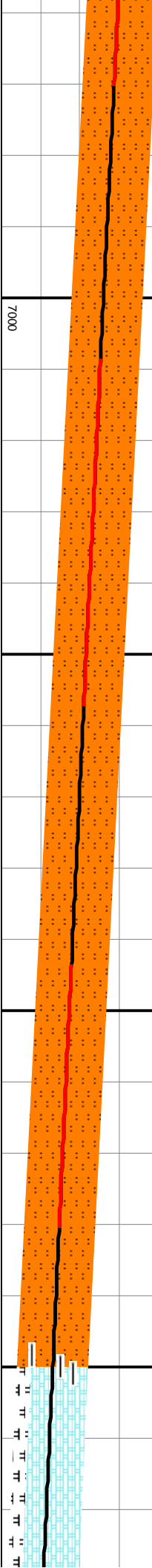
80% CHK: lt- med gy, lt- med
pred sb ang- sb biky, crp
20% MRLST: med- dk gy
calc, arg, biky- ply, com
tr pyr; tr ss; tr dk sh

MD: 6,843'
Inclination: 27.8°
Azimuth: 76.52°
TVD: 6,778.65'
VS: -145.6°

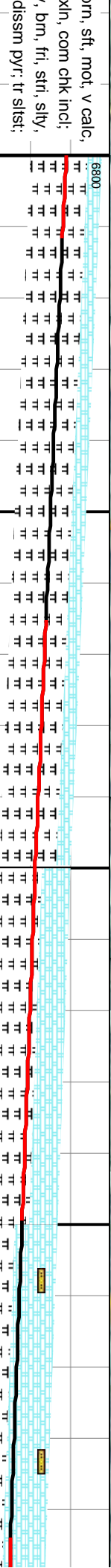
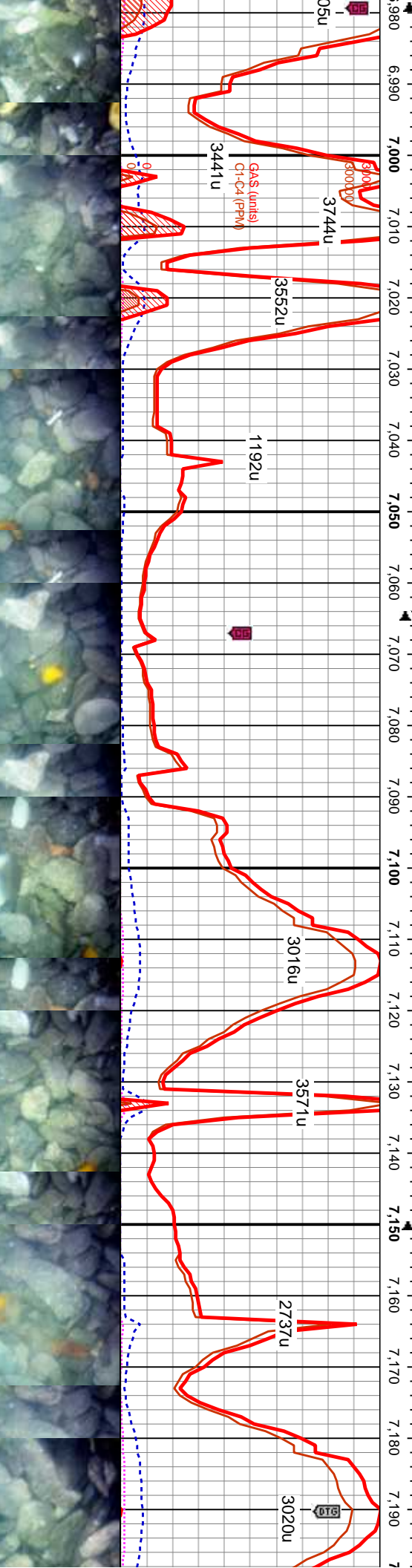
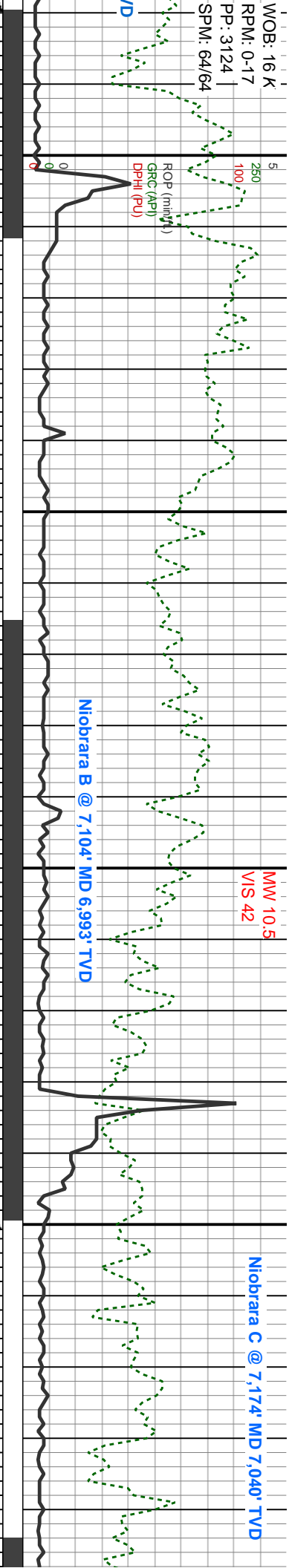
TVD (ft)

MD: 6,928'
Inclination: 33.4°
Azimuth: 83.64°
TVD: 6,851.72'
VS: -102.4°

TV
6.4



WOB: 16 K
RPM: 0-17
PP: 3124 |
SPM: 64/64



om, sft, mot, v calc,
xin, com chk inci;
, bm, fit, slti, slty,
dissem pyr; tr slstst;

VD Scale Change:
300' - 7,800'

MD: 7,013'	
Inclination: 35.7°	
Azimuth: 81.27°	
TVD: 6,921.7'	
VS: -54.27'	
TVD (ft)	

MD: 7,099'
Inclination: 42.4°
Azimuth: 82.67°
TVD: 6,989.12'
VS: -2.51'

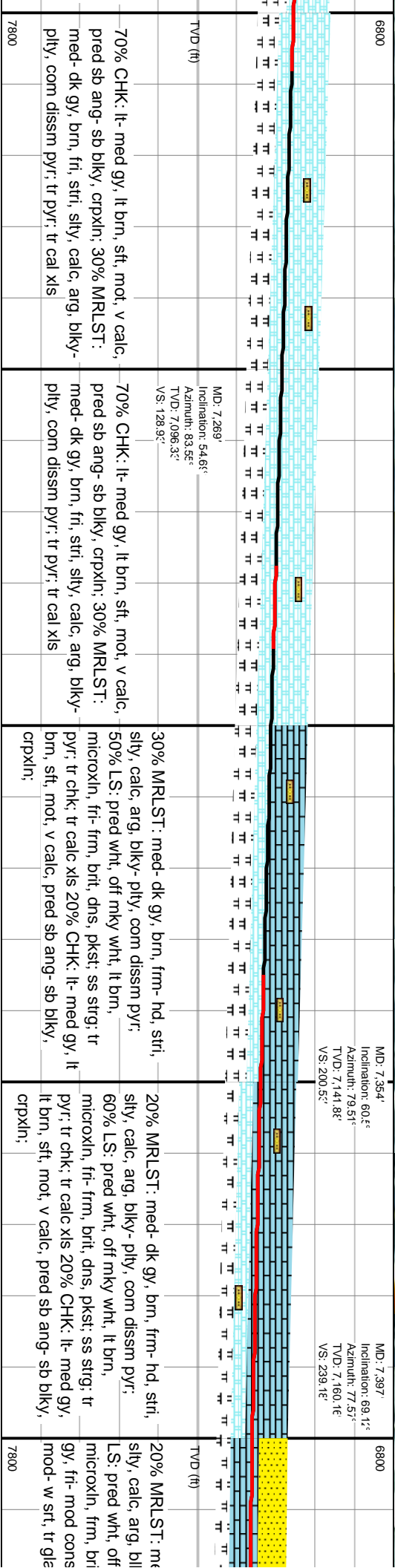
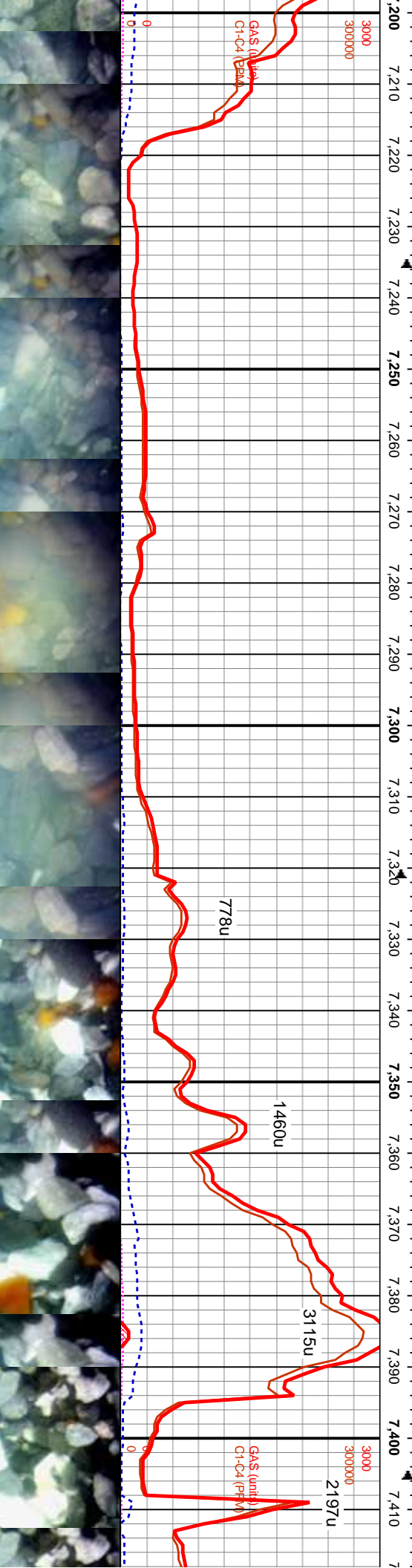
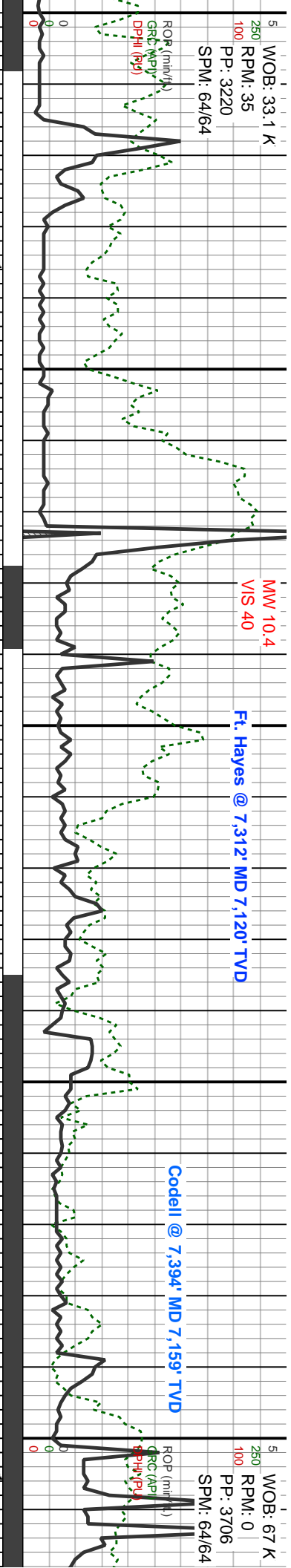
MD: 7,184'
Inclination: 53.0.°
Azimuth: 84.17°
TVD: 7,046.2'
VS: 60.2'

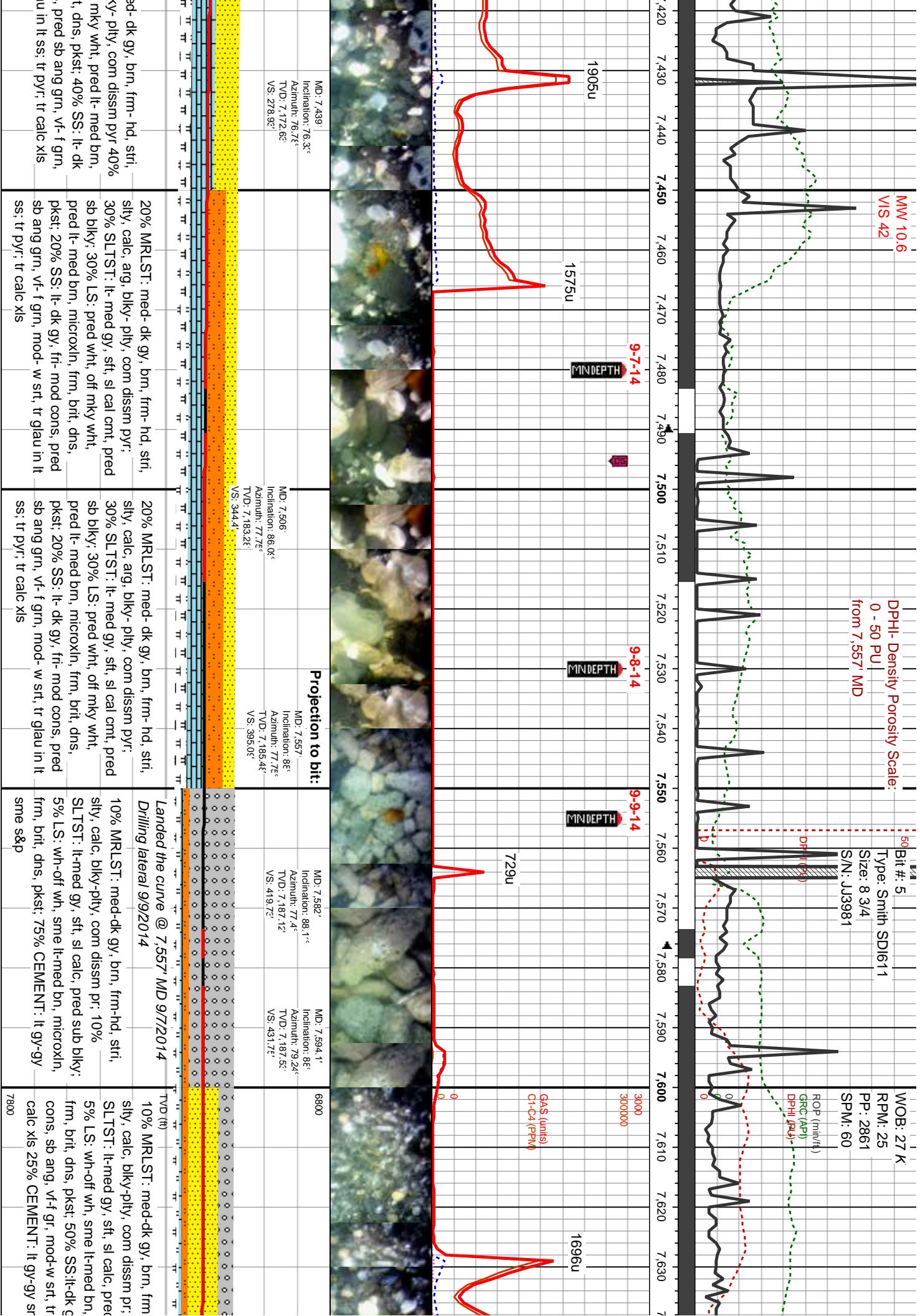
20% CHK: lt- med gy, lt brn, sft, mot, v calc, pred sb ang- sb bkly, cpxln; 80% MR.LST: med- dk gy, brn, fri, stri, slty, calc, arg, bkly- ply, com dlsm pyr; tr pyr; tr cal xls

20% CHK: lt-med gy, lt brn, sft, mot, v calc, pred sb ang-sb blk, cpxln; 80% MRLST: med-dk gy, brn, frt, stri, slty, calc, arg, blk-pty, com dissim pyr; tr pyr; tr cal xls

40% CHK: lt-med gy, lt brn, sft, mot, v calc,
pred sb ang-sb blyk, crpxln; 60% MRLST:
med-dk gy, brn, fti, stri, slty, calc, arg, blyk-
ply, com dissn pyr; tr pyr; tr cal xls

60% CH₂Cl₂: It- med gy, lt brn, sft, mot, v calc, pred sb ang- sb blk, crpxln; 40% MRLST: med- dk gy, brn, frt, stri, slty, calc, arg, blk- ply, com dissn pyr, tr pyr, tr cal xls



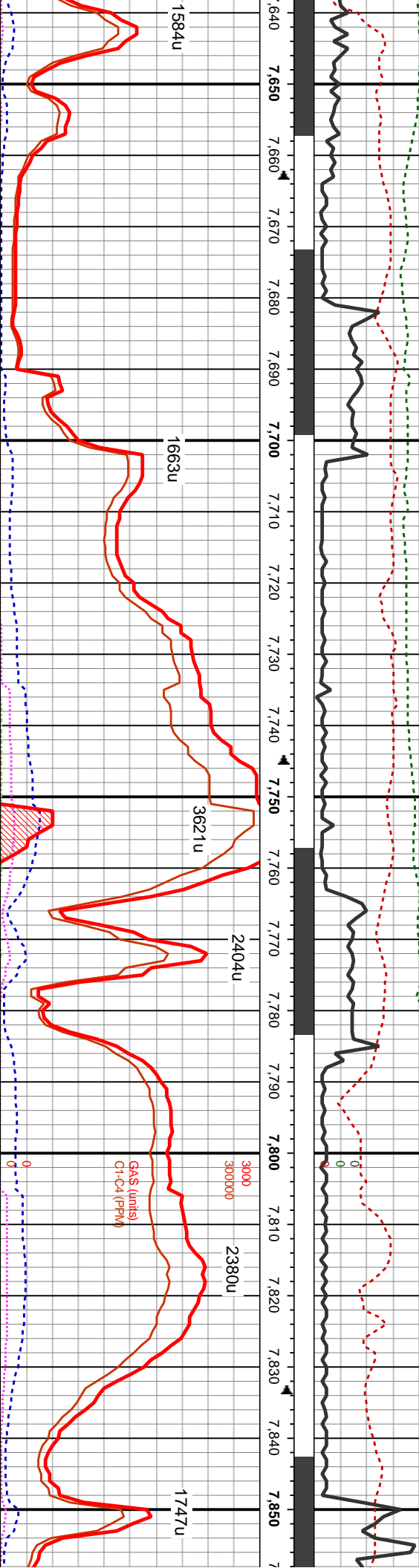


MW 9.2
VIS 33

WOB: 21 K
RPM: 39
PP: 2716
SPM: 59

MW 9.2
VIS 38

ROP (inib/ft)
GAS (API)
DPH (psi)



MD: 7.668'
Inclination: 87.7°
Azimuth: 80.3°
TVD: 7.190.27'
VS: 505.34'

MD: 7.753'
Inclination: 88.4°
Azimuth: 82.1°
TVD: 7.193.02'
VS: 590.02'

MD: 7.838'
Inclination: 88.1°
Azimuth: 85.13°
TVD: 7.195.57'
VS: 674.95'

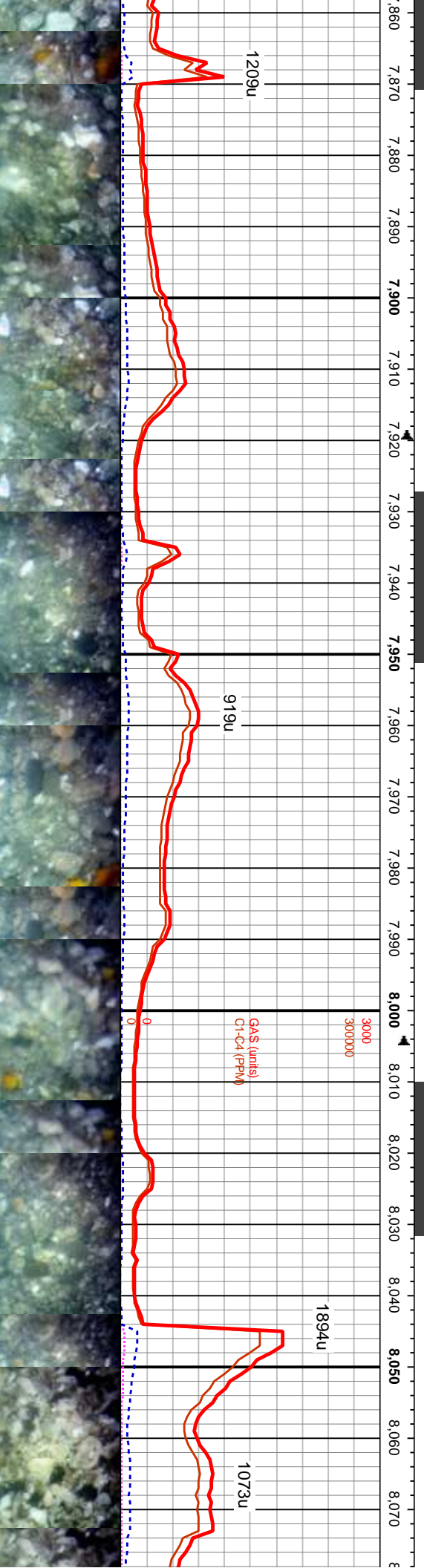
hd, strti, 10% d sub blkly; microxin, y, fri-mod pyr, sl tr s&p	10% MRLST: med-dk gy, brn, frm-hd, strti, silty, calc, blkly-ply, com dissim pr; 10% SLTST: lt-med gy, sft, sl calc, pred sub blkly; 5% LS: wh-off wh, sme lt-med bn, microxin, frm, brti, dns, pkst; 50% SS:lt-dk gy, fri-mod cons, sb ang, vf-f gr, mod-w srt, tr pyr, sl tr calc xls 25% CEMENT : lt gy-gy sme s&p	10% MRLST: med-dk gy, brn, frm-hd, strti, silty, calc, blkly-ply, com dissim pr; 20% SLTST: lt-med gy, sft, sl calc, pred sub blkly; 70% SS:lt-dk gy, fri-mod cons, sb ang, vf-f gr, mod-w srt, tr pyr, sl tr calc xls	20% SLTST: lt-med gy, sft, sl calc, pred sub blkly; 80% SS:lt-dk gy, fri-mod cons, sb ang, vf-f gr, mod-w srt, tr pyr, sl tr calc xls	20% SLTST: lt-med gy, sft, sl calc, pred sub blkly; 80% SS:lt-dk gy, fri-mod cons, sb ang, vf-f gr, mod-w srt, tr pyr, sl tr calc xls	10% S blkly; 9y, vf-f gr,
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2

MW 9.3
VIS 40

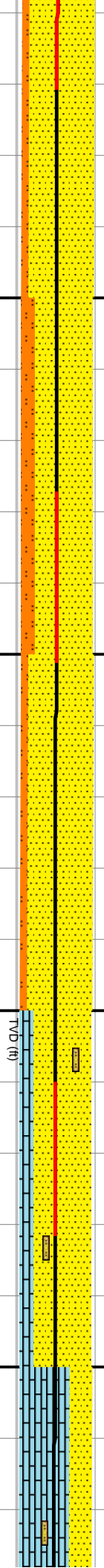
WOB: 25 K
RPM: 41
PP: 3276
SPM: 65

ROP (min/ft)
GAC (API)
DpHt (Ft)



MD: 7,924'
Inclination: 87.7°
Azimuth: 88.03°
TVD: 7,198.67'
VS: 760.87'

6800
MD: 8,009'
Inclination: 87.7°
Azimuth: 90.56°
TVD: 7,201.95'
VS: 846.51'



20% SLTST: lt-med gy, sft, sl calc, pred sub	20% SLTST: lt-med gy, sft, sl calc, pred sub	10% SLTST: lt-med gy, sft, sl calc, pred sub	20% LS: wh-off wh, lt bn, microxn, fri-frn, brit, dns, pkst, tr calc xls, 80% SS: lt-dk gy, fri-mod cons, sb ang, vf-f gr, mod-w srt, tr pyr, sl tr calc xls	70% LS: wh-off wh, lt bn, brit, dns, pkst, tr calc xls, fri-mod cons, sb ang, vf-f gr, mod-w srt, tr pyr, tr calc xls, tr SLTST
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MW 9.1
VIS 38

WOB: 21 K
RPM: 45
PP: 3137
SPM: 66

ROP (min/ft)
GRC (API)
DPHI (PU)

9-10-14

MINDEPTH

365u

1196u

1454u

762u

1188u

GAS (units)
C1-C4 (PPM)

MD: 8,094'
Inclination: 88.51°
Azimuth: 91.9°
TVD: 7,204.72'
VS: 929.86'

MD: 8,179'
Inclination: 89.61°
Azimuth: 92.51°
TVD: 7,206.03'
VS: 1,014.12'

6800

MD: 8,265'
Inclination: 89.01°
Azimuth: 93.22°
TVD: 7,206.96'
VS: 1,099.22'

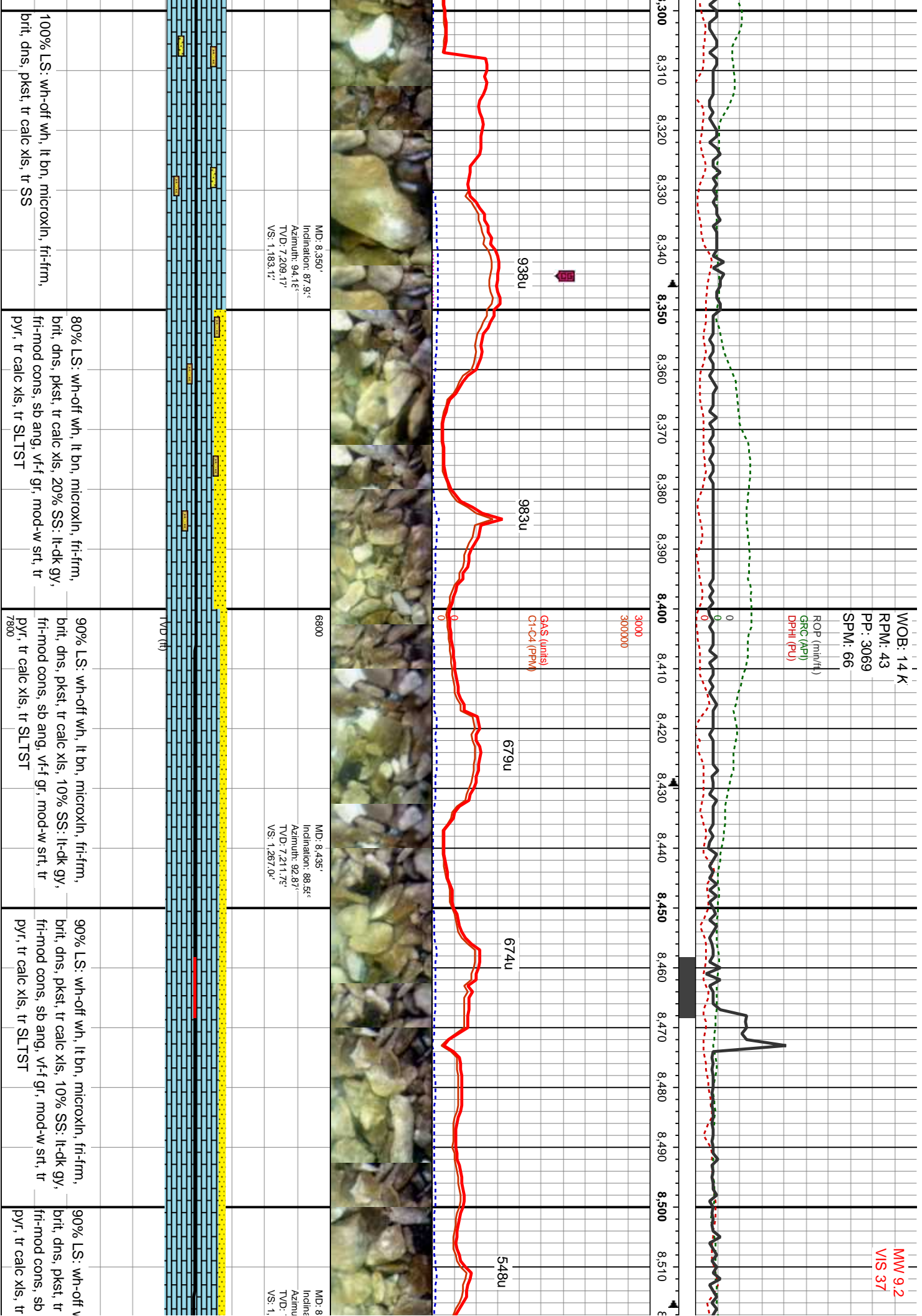
microxln, fri-frn,
90% SS: lt-dk gy,
gr, mod-w srl, tr
pyr, tr calc xls, tr SLTST

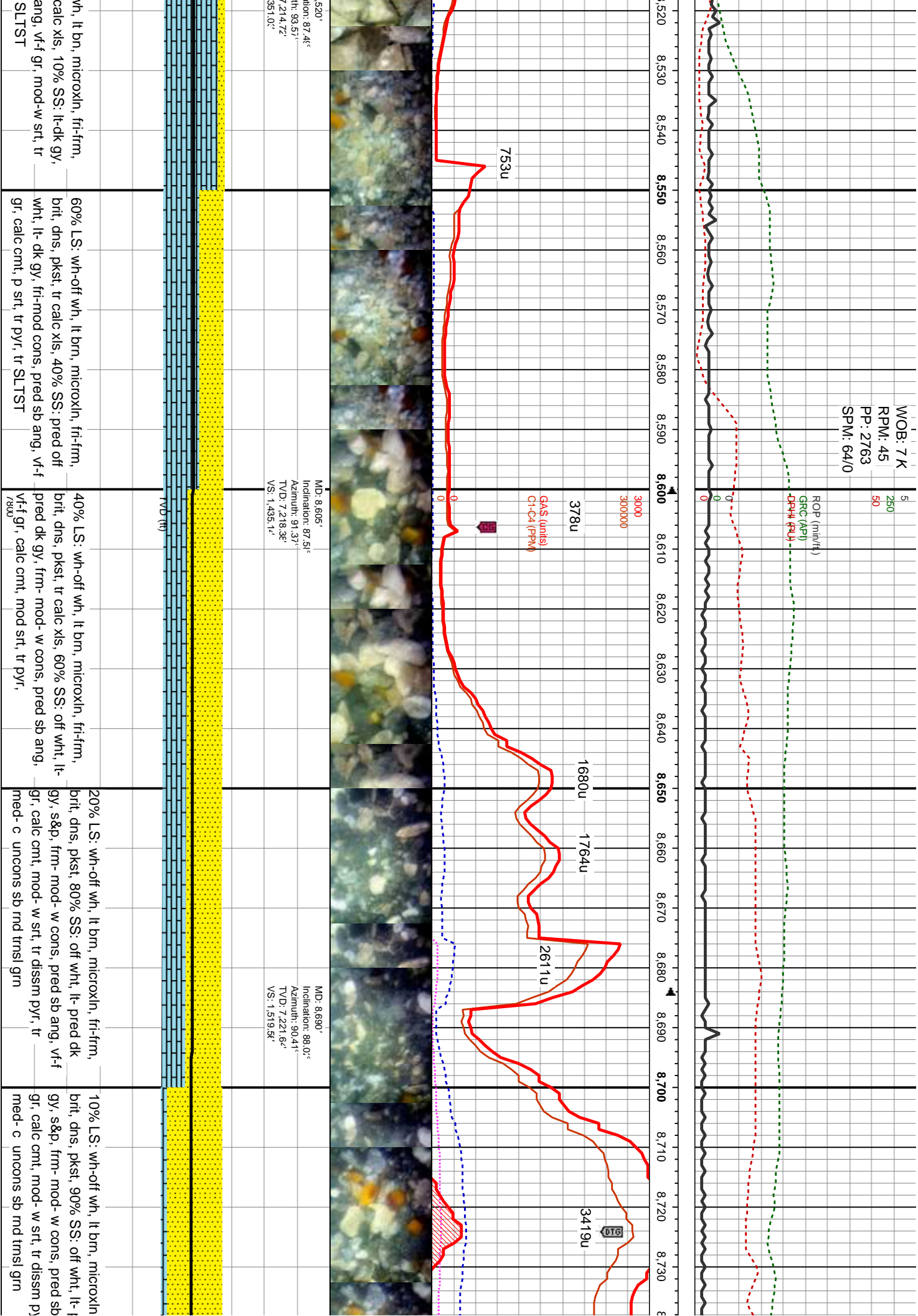
90% LS: wh-off wh, lt bn, microxln, fri-frn,
brit, dns, pkst, tr calc xls, 10% SS: lt-dk gy,
fri-mod cons, sb ang, vf-f gr, mod-w srl, tr
pyr, tr calc xls, tr SLTST

90% LS: wh-off wh, lt bn, microxln, fri-frn,
brit, dns, pkst, tr calc xls, 10% SS: lt-dk gy,
fri-mod cons, sb ang, vf-f gr, mod-w srl, tr
pyr, tr calc xls, tr SLTST

100% LS: wh-off wh, lt bn, microxln, fri-frn,
brit, dns, pkst, tr calc xls, tr SS, tr siltsn

TVD (ft)

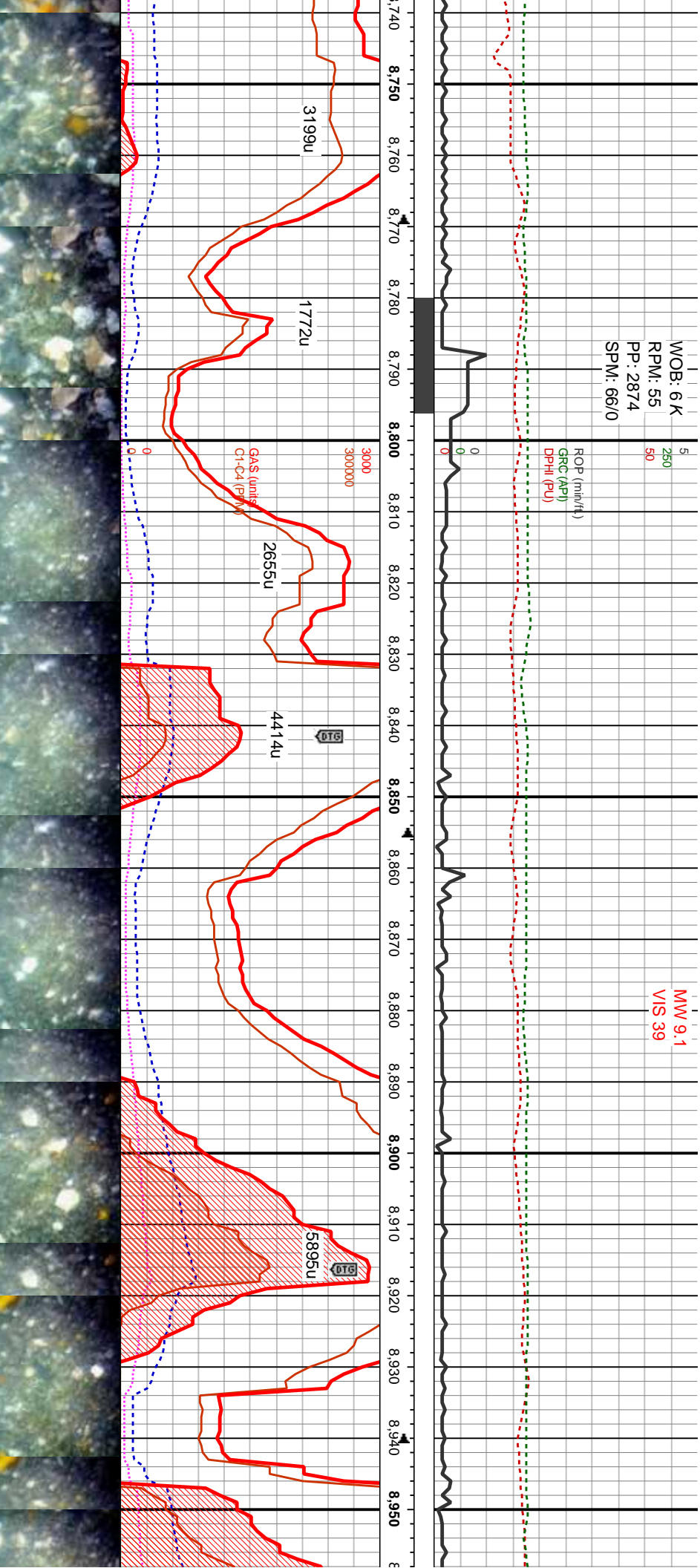




WOB: 6 K
RPM: 55
PP: 2874
SPM: 66/0

ROP (min/ft)
GRC (API)
DPHI (PU)

MW 9.1
VIS 39



MD: 8.776'
Inclination: 87.7°
Azimuth: 90.67°
TVD: 7.224.81'
VS: 1.605.04'

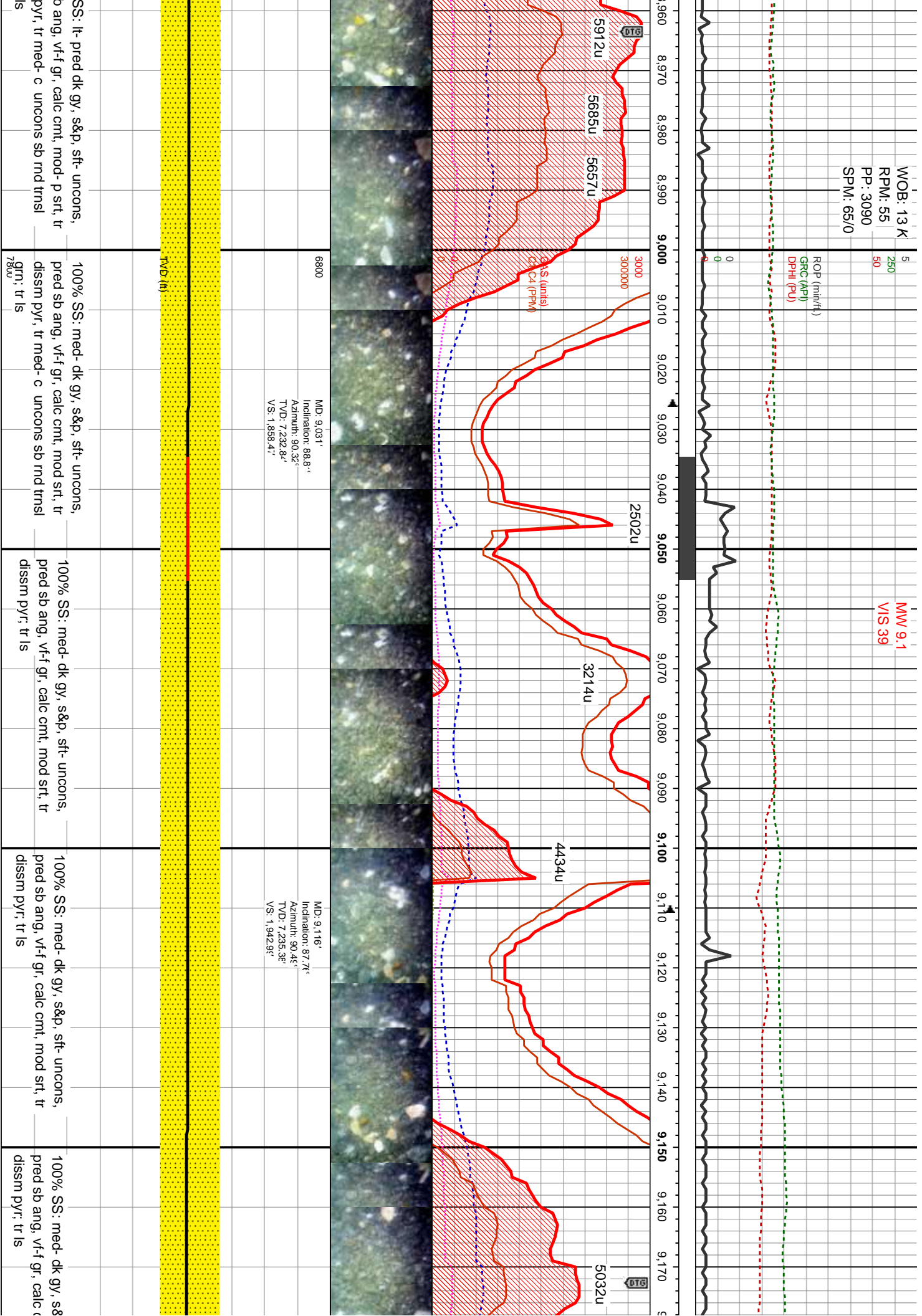
6800

MD: 8.861'
Inclination: 87.9°
Azimuth: 90.76°
TVD: 7.228'
VS: 1.689.46'

MD: 8.946'
Inclination: 88.3°
Azimuth: 90.76°
TVD: 7.230.75'
VS: 1.773.96'

TVD: (ft)

fri-firm, pred dk ang, vf-f tr	100% SS: off wht, lt- pred dk gy, s&p, fri- mod- p cons, pred sb ang, vf-f gr, calc cnt, mod- w srt, tr dissim pyr, tr med- c unconcs sb rnd trnsl grn, LS strg	100% SS: lt- pred dk gy, s&p, sft- unconcs, pred sb ang, vf-f gr, calc cnt, mod- p srt, tr dissim pyr, tr med- c unconcs sb rnd trnsl grn, LS strg	100% SS: lt- pred dk gy, s&p, sft- unconcs, pred sb ang, vf-f gr, calc cnt, mod- p srt, tr dissim pyr, tr med- c unconcs sb rnd trnsl grn, tr ls	100% SS: lt- pred dk gy, s&p, sft- unconcs, pred sb ang, vf-f gr, calc cnt, mod- p srt, tr dissim pyr, tr med- c unconcs sb rnd trnsl grn, tr ls	100% pred si dissim grn, tr
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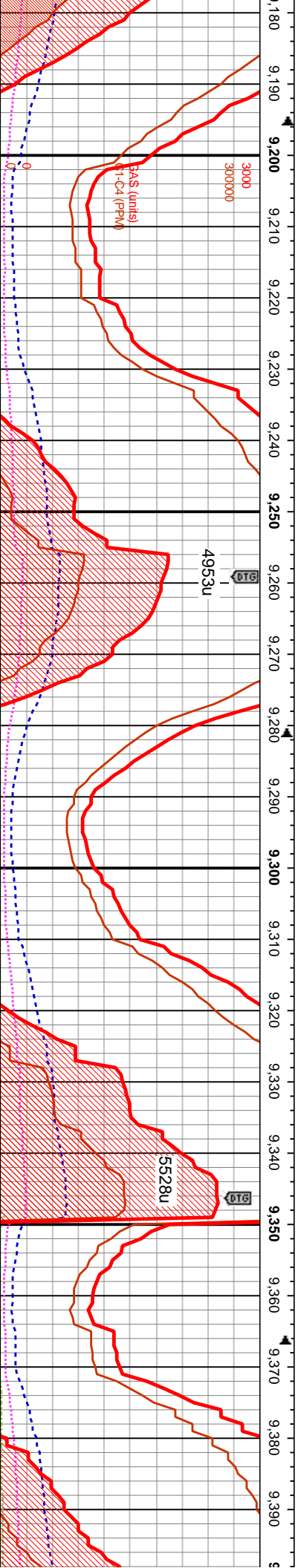


WOB: 13 K
RPM: 65
PP: 3047
SPM: 66/0

MW 9.2
VIS 38

WOB: 15 K
RPM: 65
PP: 3249
SPM: 66/0

ROP (min/ft)
GRC (API)
GRH (ft)



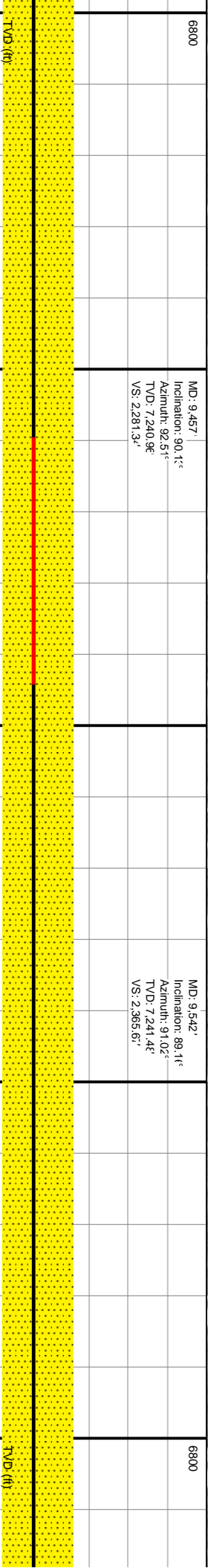
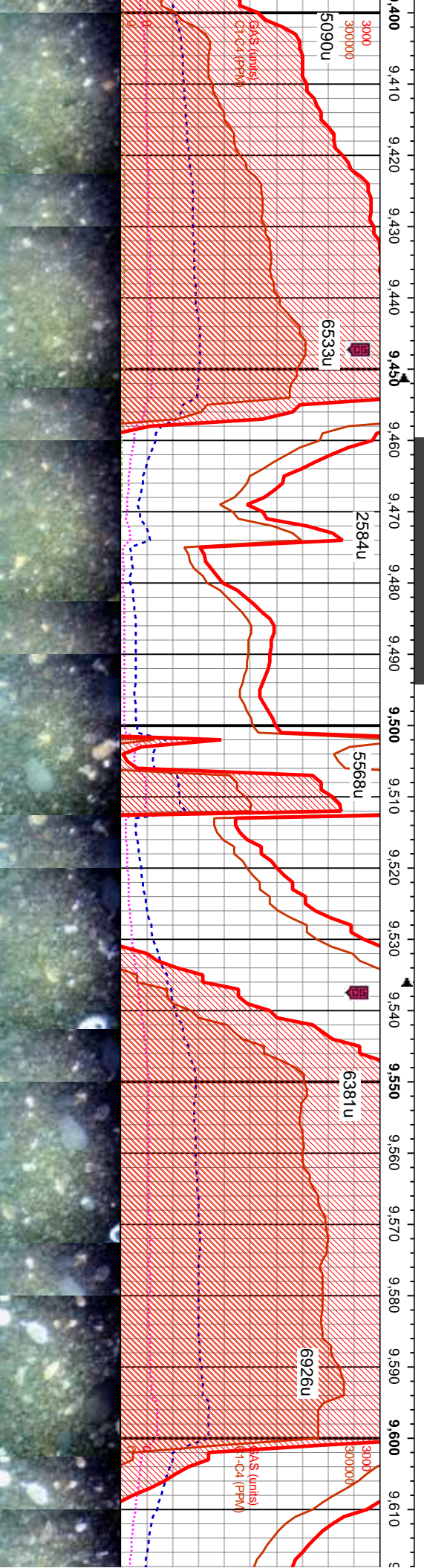
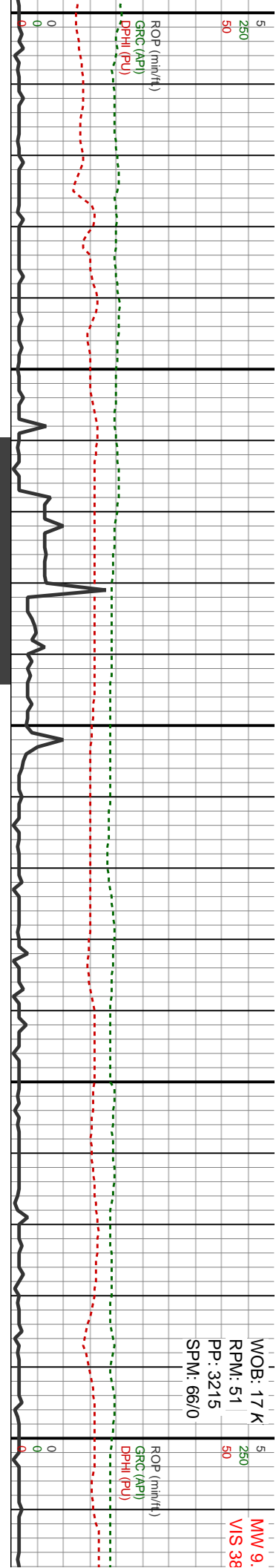
MD: 9,202.800
Inclination: 88.6°
Azimuth: 90.9°
TVD: 7,238.05'
VS: 2,028.41'

MD: 9,287'
Inclination: 89.1°
Azimuth: 91.6°
TVD: 7,239.72'
VS: 2,112.86'

MD: 9,372'
Inclination: 89.5°
Azimuth: 92.3°
TVD: 7,240.7'
VS: 2,197.1°

TVD (ft)

100% SS: lt- pred dk gy, s&p, sft- unconcs, pred sb ang, vf-f gr, calc cnt, mod srt, tr dissim pyr; ls strg; tr mlst; tr slst	100% SS: lt- pred dk gy, s&p, sft- unconcs, pred sb ang, vf-f gr, calc cnt, mod srt, tr dissim pyr; ls strg; tr mlst; tr slst	100% SS: lt- pred dk gy, s&p, sft- unconcs, pred sb ang, vf-f gr, calc cnt, mod srt, tr dissim pyr; tr ls; tr calc xls	100% SS: lt- pred dk gy, s&p, sft- unconcs, pred sb ang, vf-f gr, calc cnt, mod srt, tr dissim pyr; tr ls; tr calc xls
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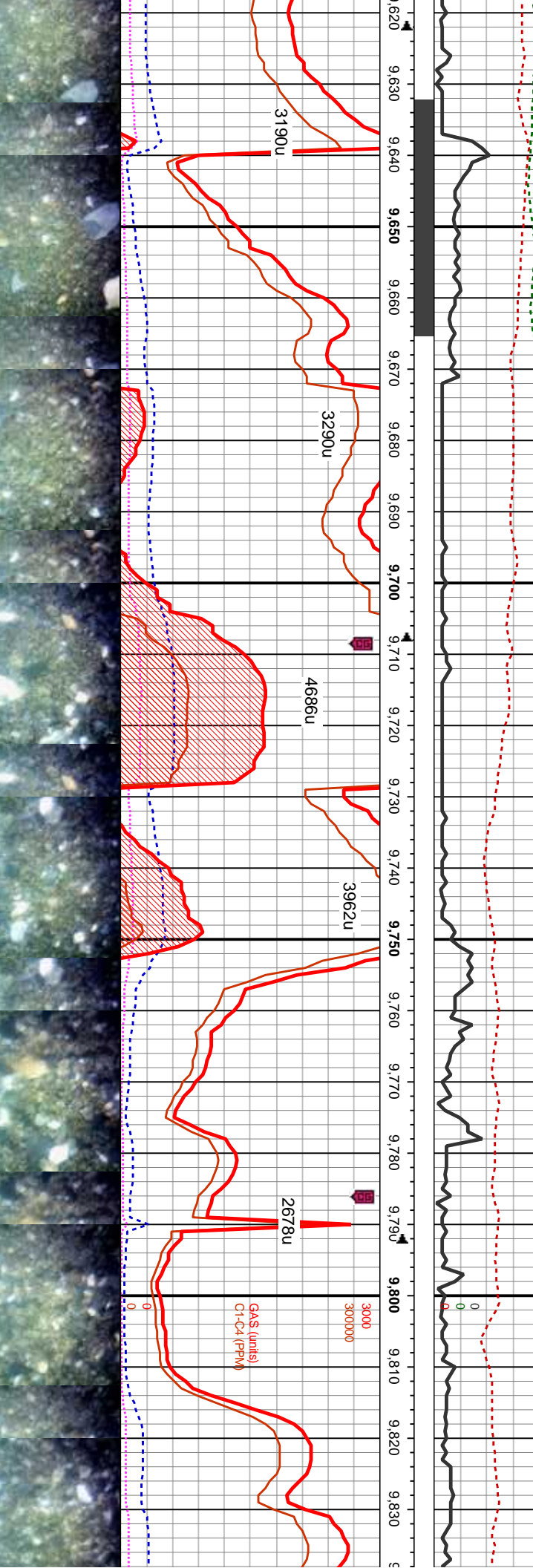
6800	MD: 9.457 Inclination: 90.1° Azimuth: 92.5° TVD: 7.240.96' VS: 2.281.34'	MD: 9.542' Inclination: 89.1° Azimuth: 91.02° TVD: 7.241.48' VS: 2.365.67'	6800
100% SS: med- dk gy, s&p, sft- unconcs, pred sb ang, vf-f gr, calc cnt, mod srt, tr dissim pyr	100% SS: med- dk gy, s&p, sft- unconcs, pred sb ang, vf-f gr, calc cnt, mod srt, tr dissim pyr	100% SS: med- dk gy, s&p, sft- unconcs, pred sb ang, vf-f gr, calc cnt, mod srt, tr dissim pyr; tr ls; tr siltst	100% SS: med- dk gy, s&p, sft- unconcs, pred sb ang, vf-f gr, calc cnt, mod srt, tr dissim pyr

2+

WOB: 19 K
RPM: 38
PP: 3282
SPM: 66/0

MW 9.2
VIS 40

ROP (min/ft)
GRC (AP)
-PSH (PU)



MD: 9,628'
Inclination: 89.8°
Azimuth: 91.1°
TVD: 7,242.21'
VS: 2,451.12'

MD: 9,713'
Inclination: 87.5°
Azimuth: 90.2°
TVD: 7,244.1'
VS: 2,535.6''

MD: 9,798'
Inclination: 88.5°
Azimuth: 89.4°
TVD: 7,246.97'
VS: 2,620.2'

6800

dk gy, brn, s&p, sft- p cons,
gr, calc cnt, mod- w srt, tr

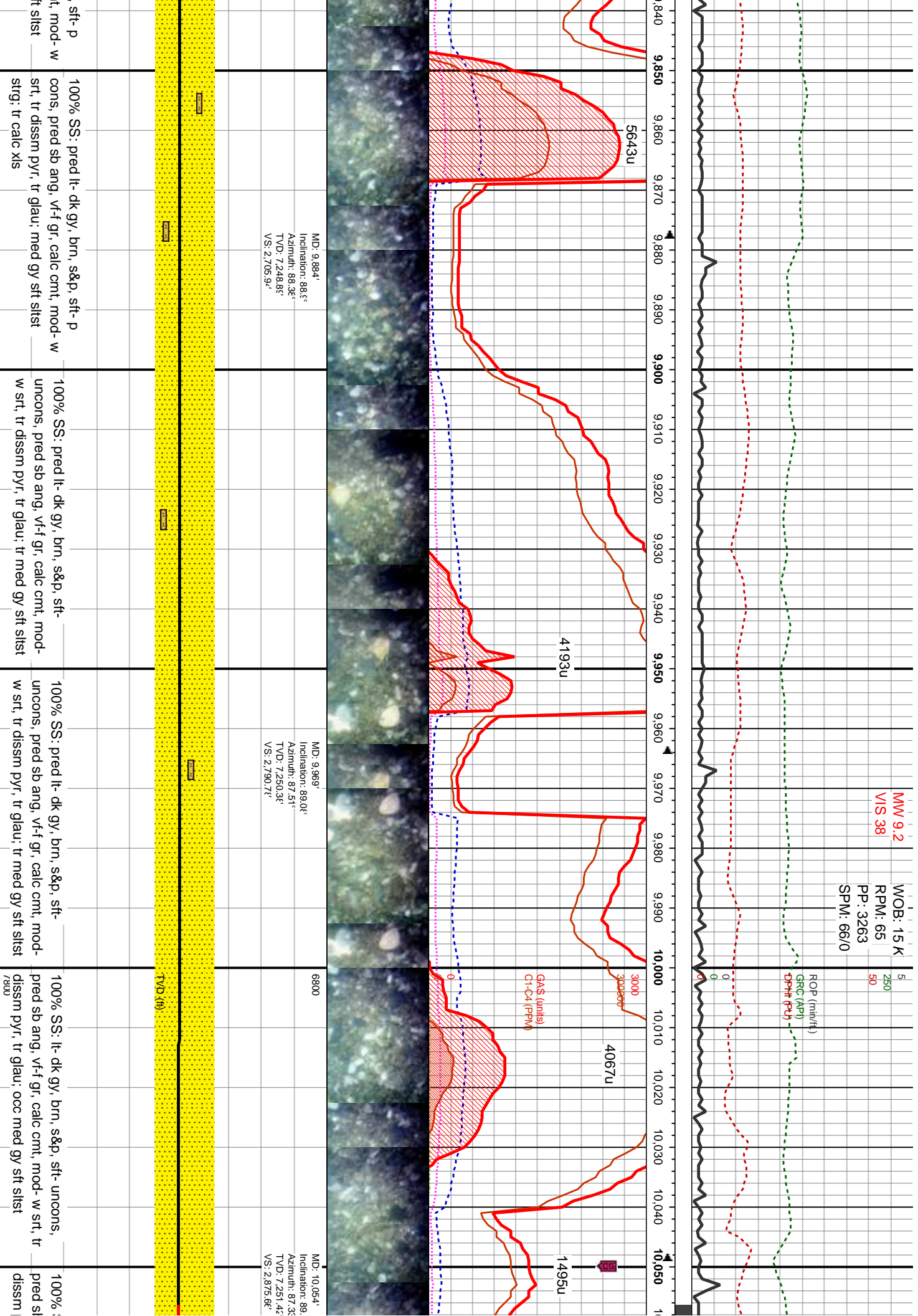
100% SS: med- dk gy, brn, s&p, sft- p cons,
pred sb ang, vf-f gr, calc cnt, mod- w srt, tr
dissm pyr, tr glau

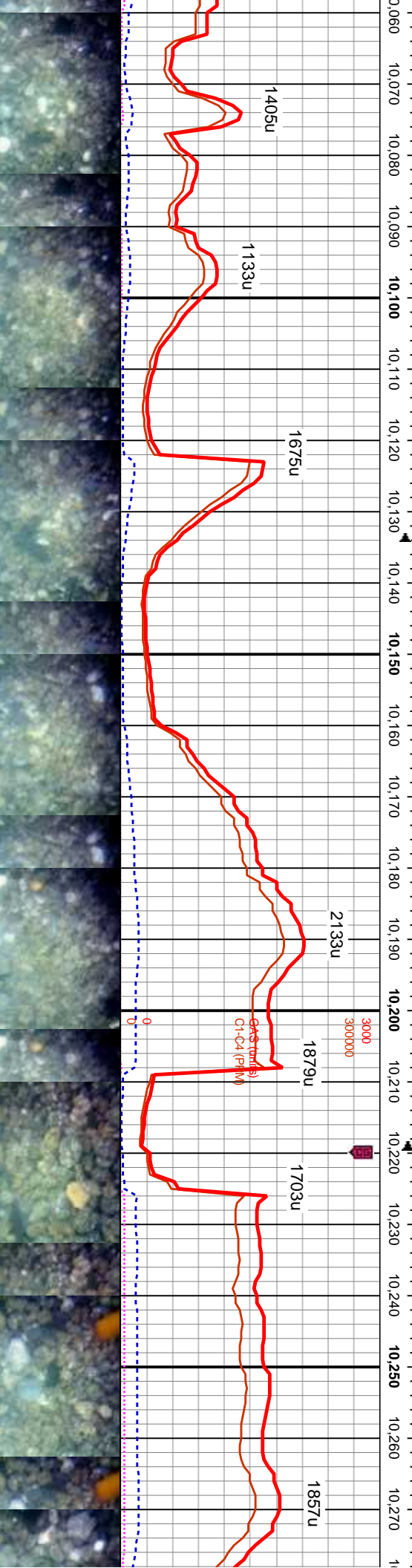
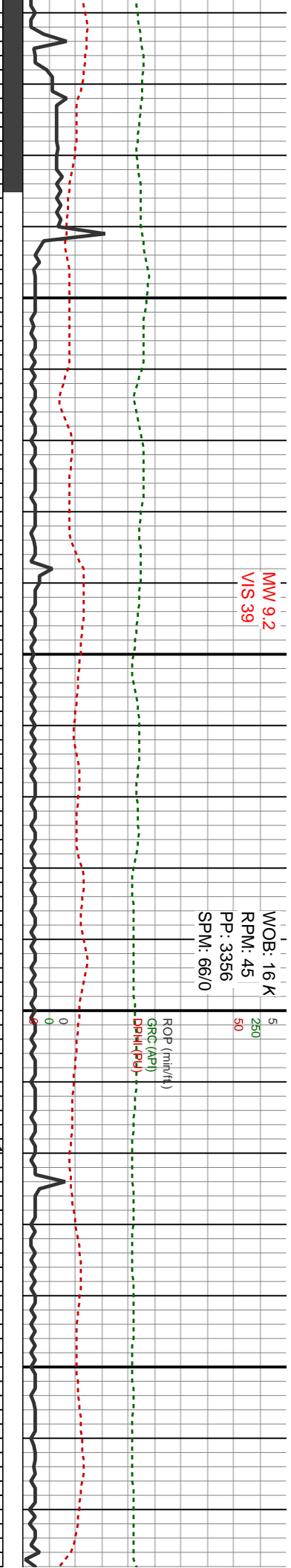
100% SS: med- dk gy, brn, s&p, sft- p cons,
pred sb ang, vf-f gr, calc cnt, mod- w srt, tr
dissm pyr, tr glau; med gy sft slst strg

100% SS: lt- dk gy, brn, s&p, sft- p cons,
pred sb ang, vf-f gr, calc cnt, mod- w srt, tr
dissm pyr, tr glau; med gy sft slst strg

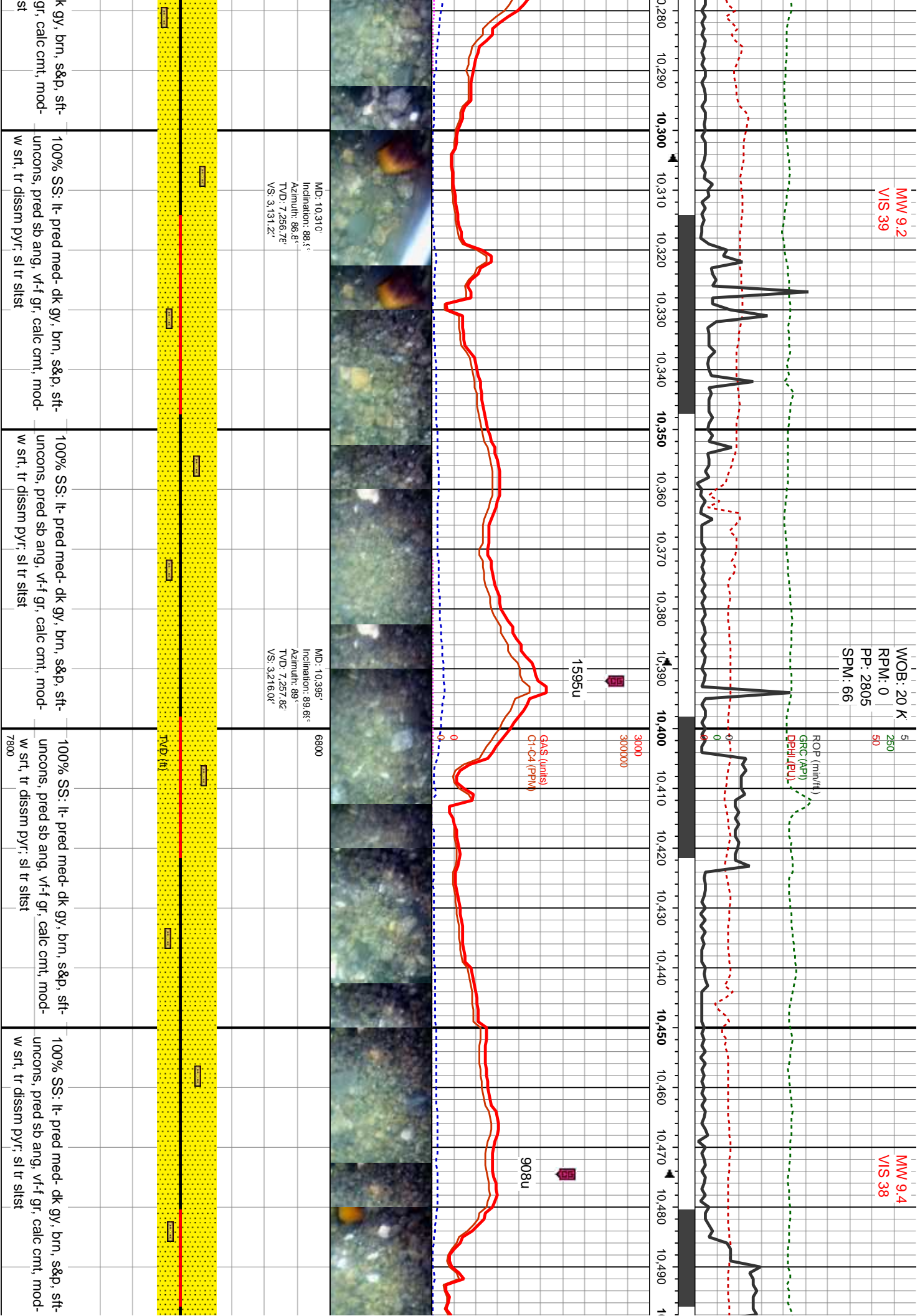
100% SS: pred lt- dk gy, brn, s&p
cons, pred sb ang, vf-f gr, calc cm
srt, tr dissm pyr, tr glau; med gy s
strg; tr calc xls
7600

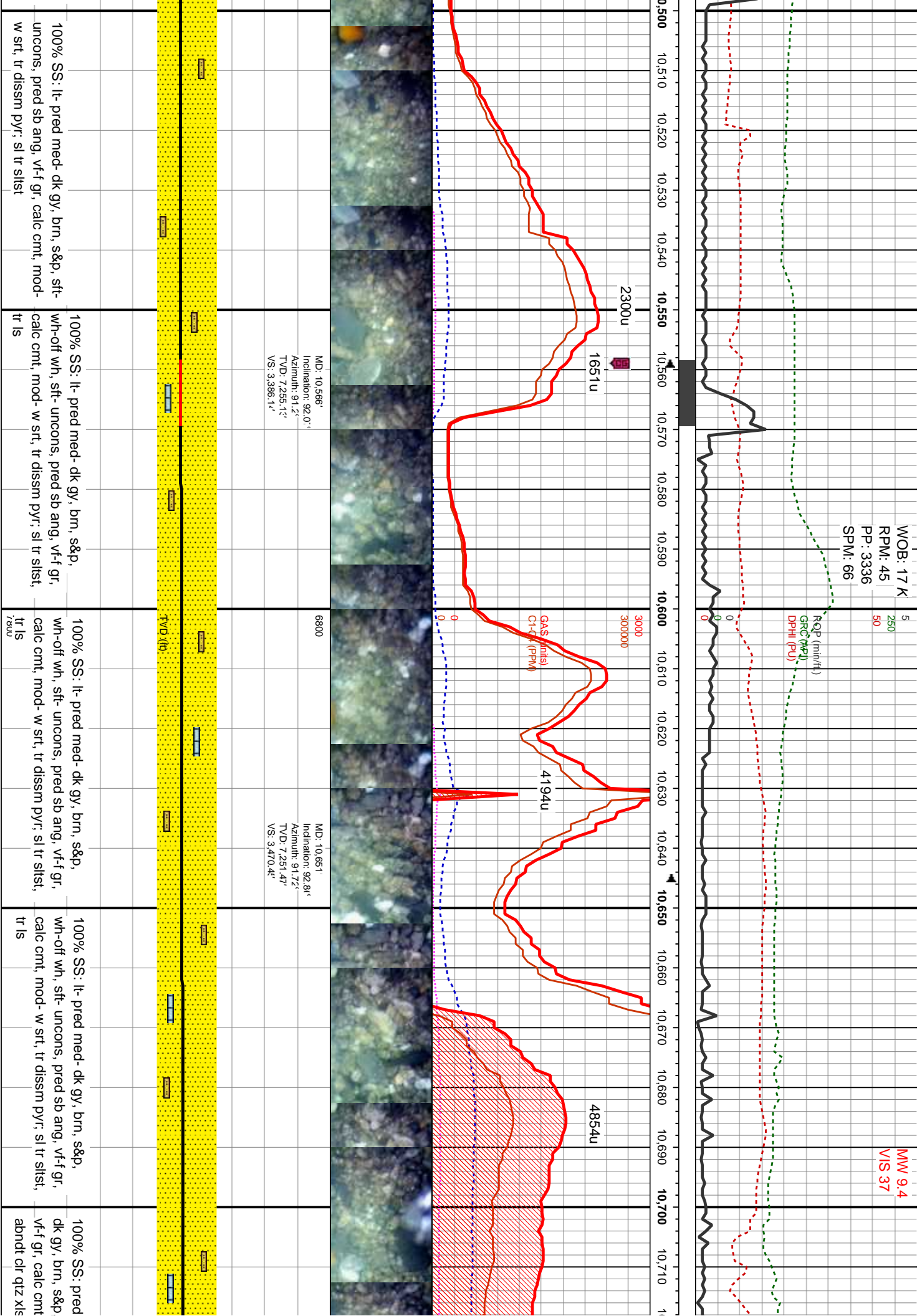
TVD (ft)

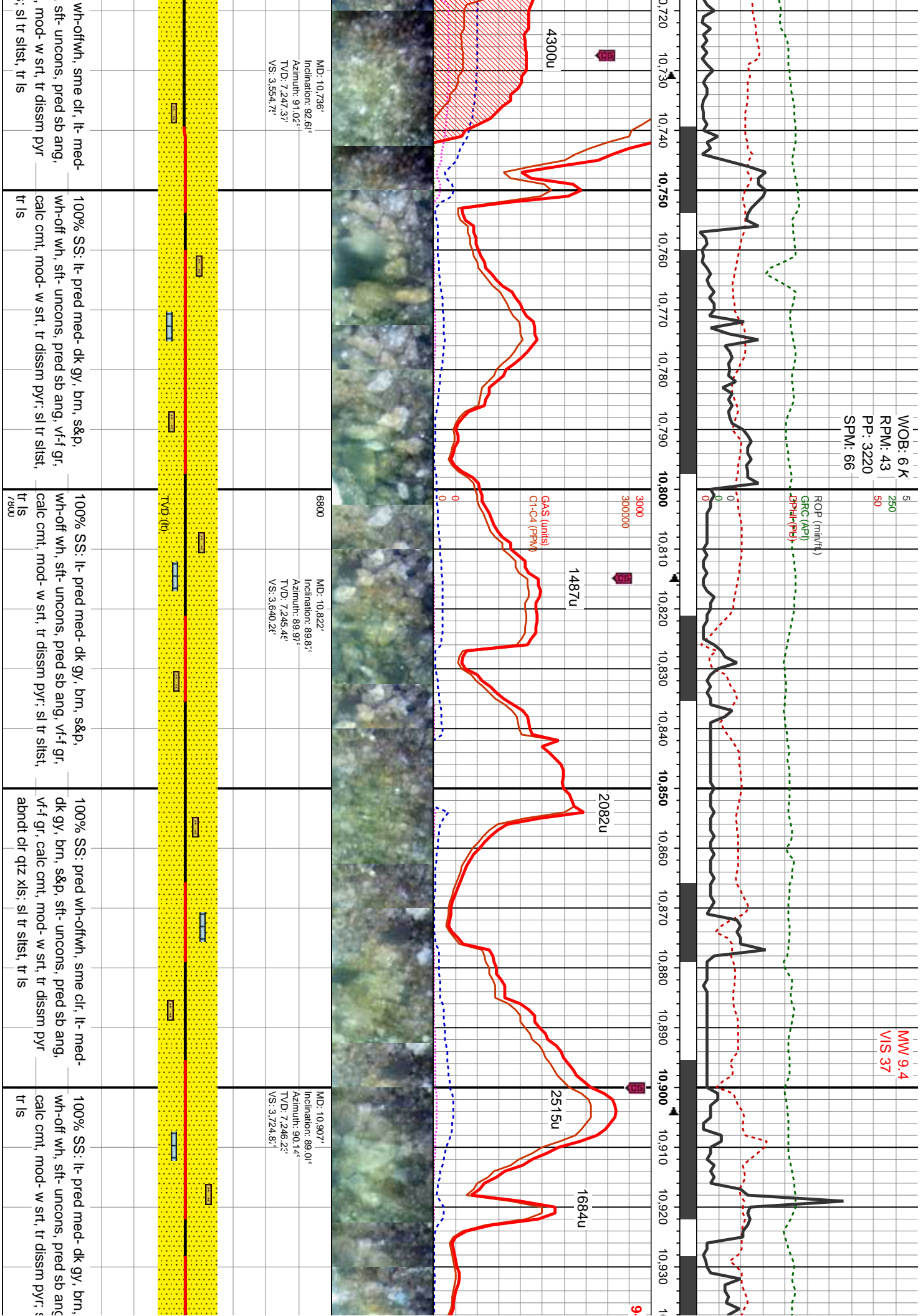




SS: lt- dk gy, brn, s&p, sft- unconcs, mod- w srt, tr pyr, tr glau; occ med gy sft slst	100% SS: lt- pred med- dk gy, brn, s&p, sft- unconcs, pred sb ang, vf- f gr, calc cmt, mod- w srt, tr dissim pyr, occ slst	100% SS: lt- pred med- dk gy, brn, s&p, sft- unconcs, pred sb ang, vf- f gr, calc cmt, mod- w srt, tr dissim pyr, occ slst	100% SS: lt- pred med- dk gy, brn, s&p, sft- unconcs, pred sb ang, vf- f gr, calc cmt, mod- w srt, tr dissim pyr, sl tr slst
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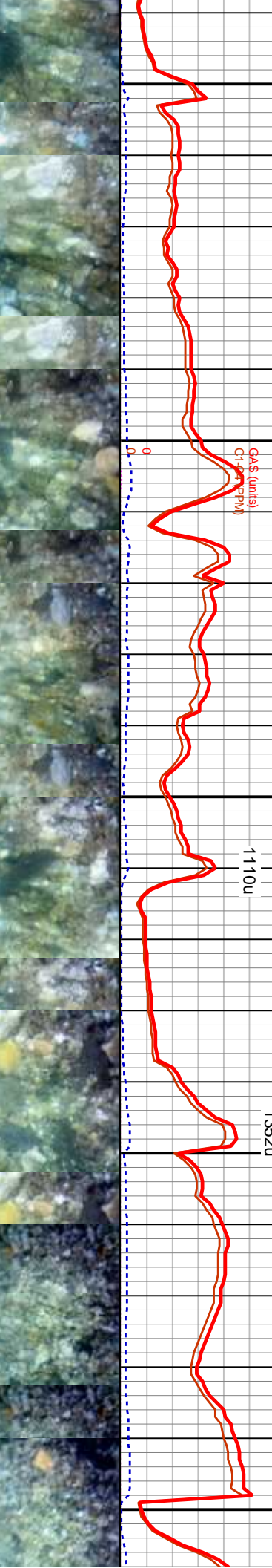
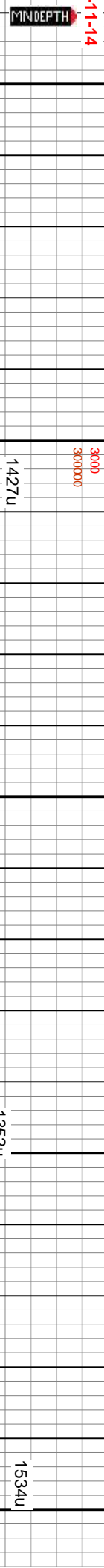
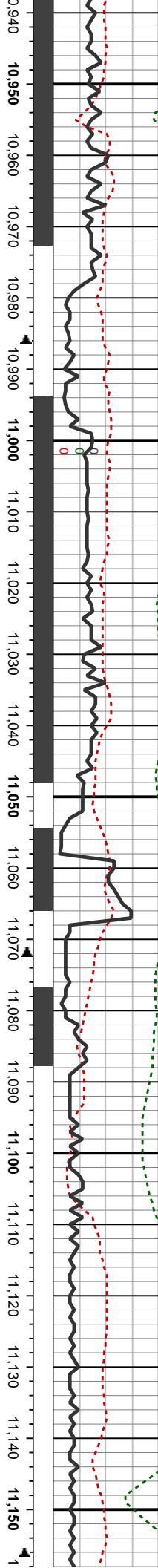




WOB: 21 K
RPM: 45
PP: 3629
SPM: 65

MW 9.4
VIS 37

ROP (min/ft)
GRC (AP)
DPH (ft)



MD: 10,992
Inclination: 89.7°
Azimuth: 90.67°
TVD: 7,247.06'
VS: 3,809.42'

MD: 11,077
Inclination: 88.5°
Azimuth: 91.46°
TVD: 7,248.31'
VS: 3,893.81'

TVD (ft)

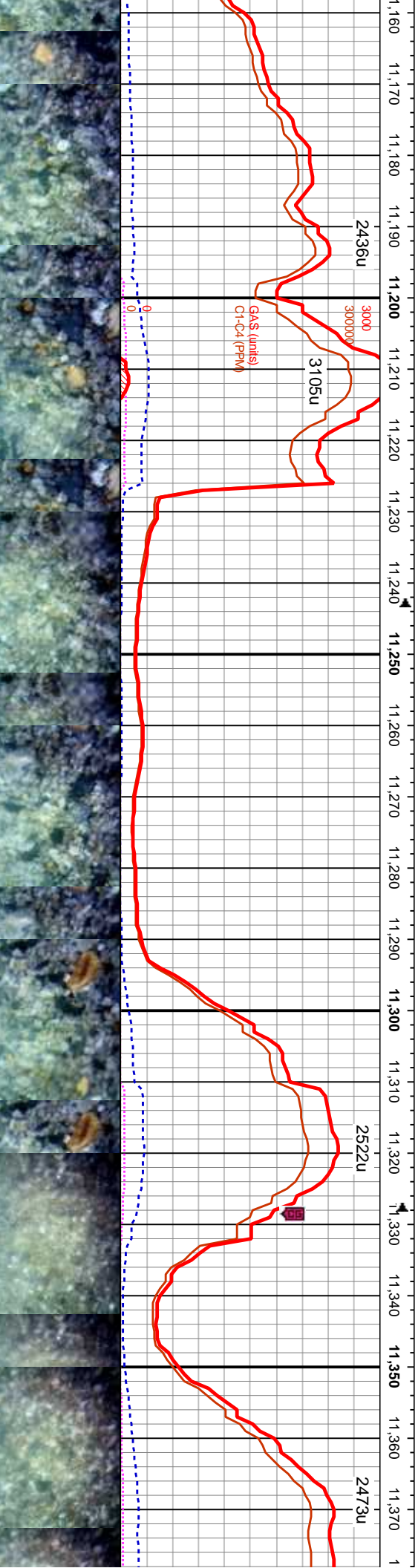
s&p, v-f-f gr, sl tr slst	100% SS: lt- pred med- dk gy, brn, s&p, wh-off wh, sft- unconcs, pred sb ang, v-f-f gr, calc cnt, mod- w srt, tr dissn pyr, sl tr slst	100% SS: lt- med dk gy, brn, s&p, wh-off wh, sft- unconcs, pred sb ang, v-f-f gr, calc cnt, mod- w srt, tr dissn pyr, sl tr slst	100% SS: lt- med dk gy, brn, s&p, wh-off wh, sft- unconcs, pred sb ang, v-f-f gr, calc cnt, mod- w srt, tr dissn pyr, sl tr slst	100% SS: lt- med dk gy, brn, s&p, wh-off wh, sft- unconcs, pred sb ang, v-f-f gr, calc cnt, mod- w srt, tr dissn pyr, sl tr slst
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WOB: 15 K
RPM: 43
PP: 3419
SPM: 65

5
250
50

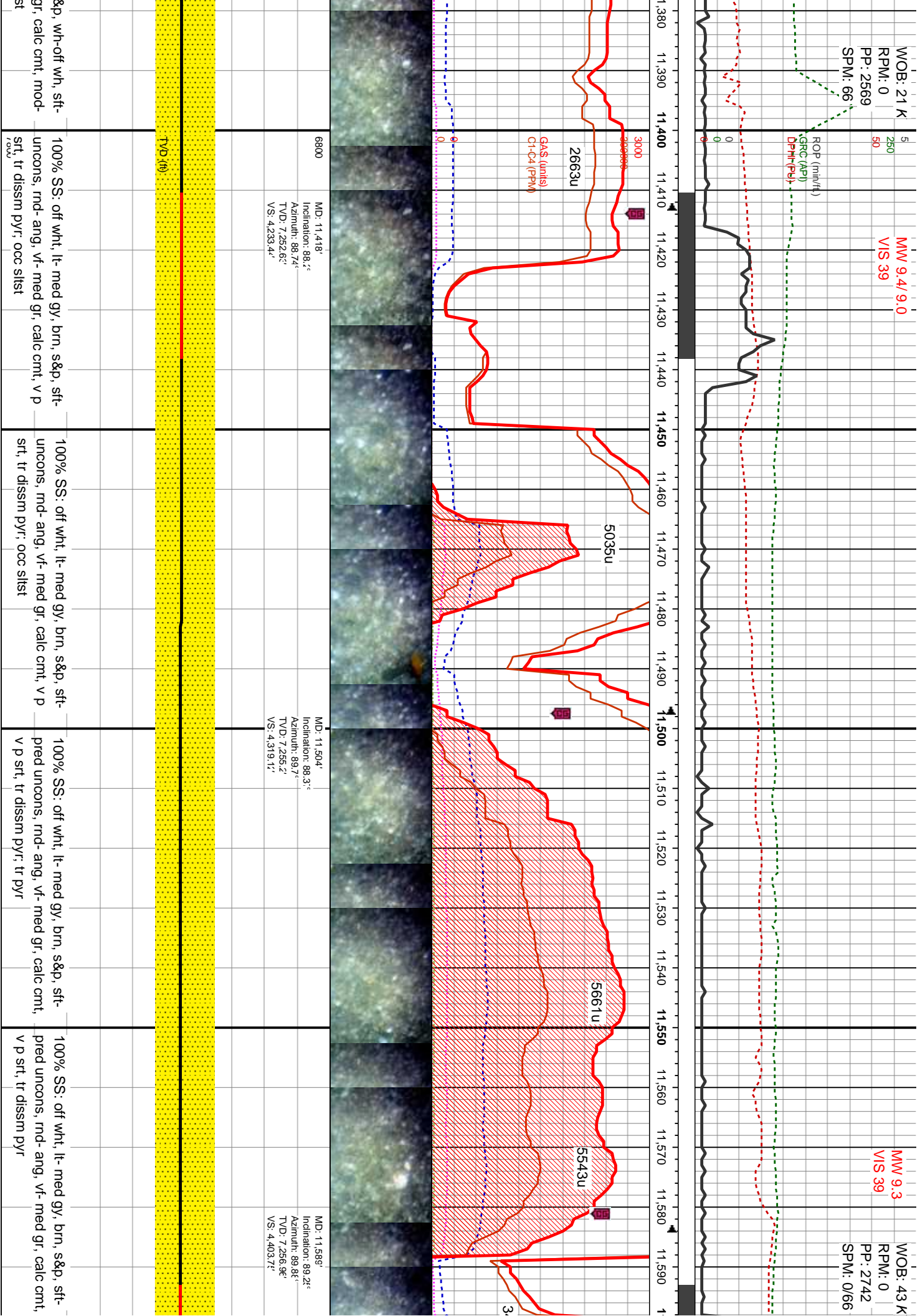
ROP (min/ft)
GRC (API)
TCPH (K)

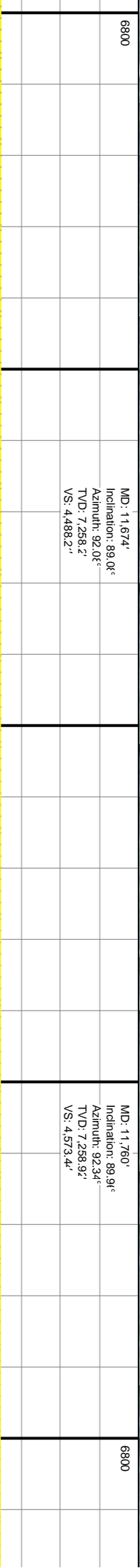
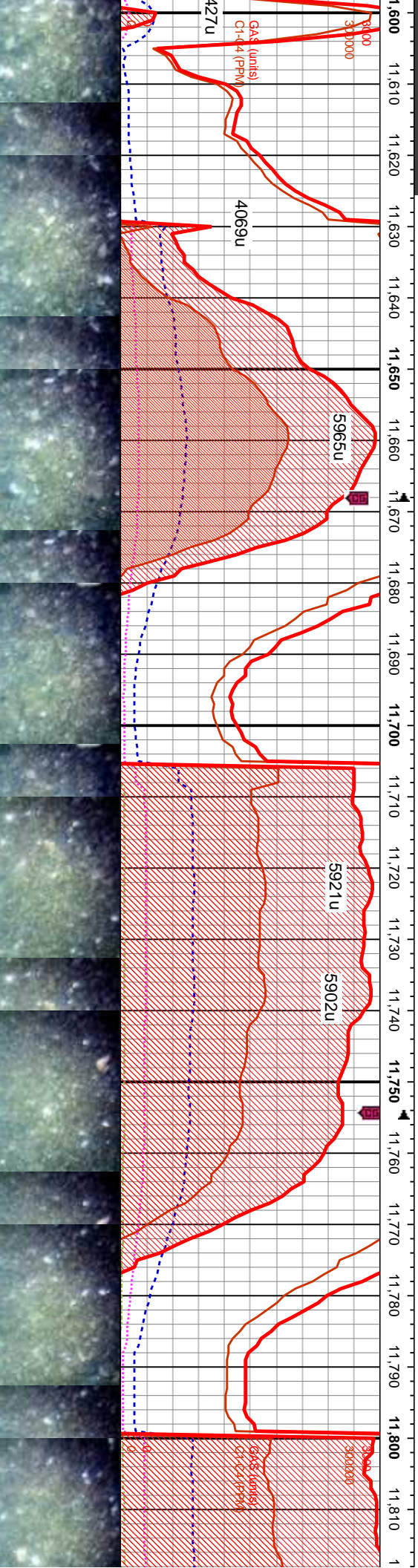
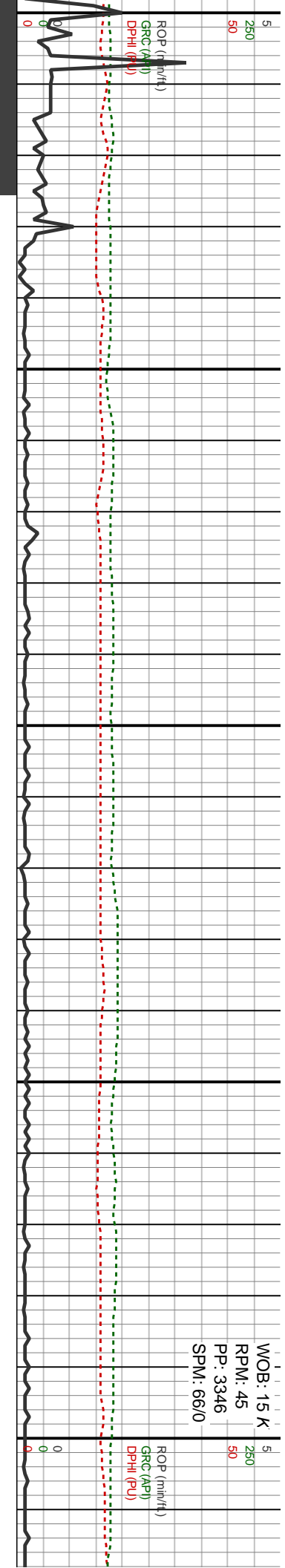
MW 9.4
VIS 39



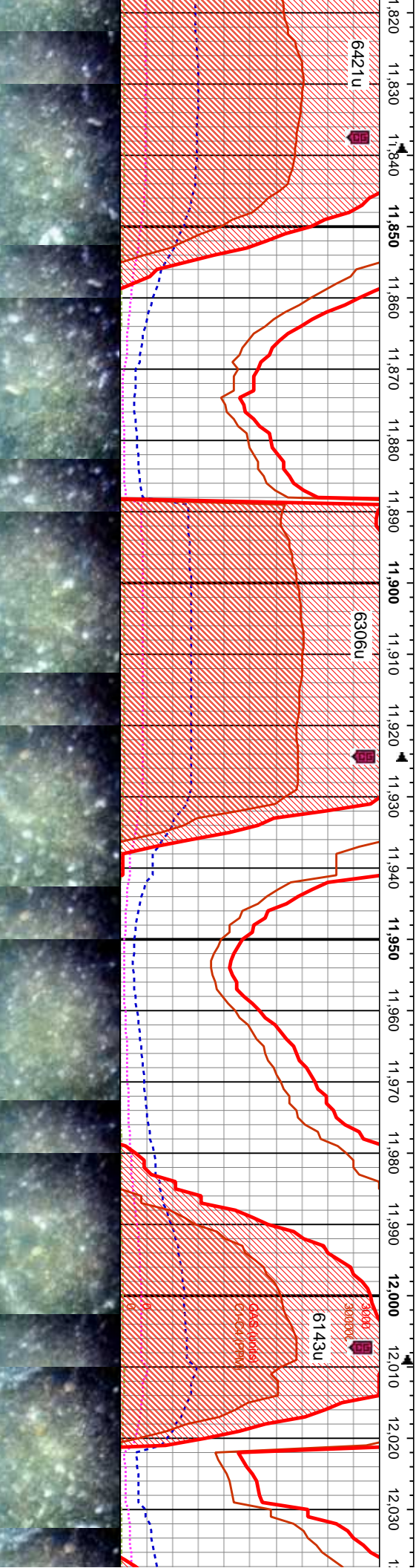
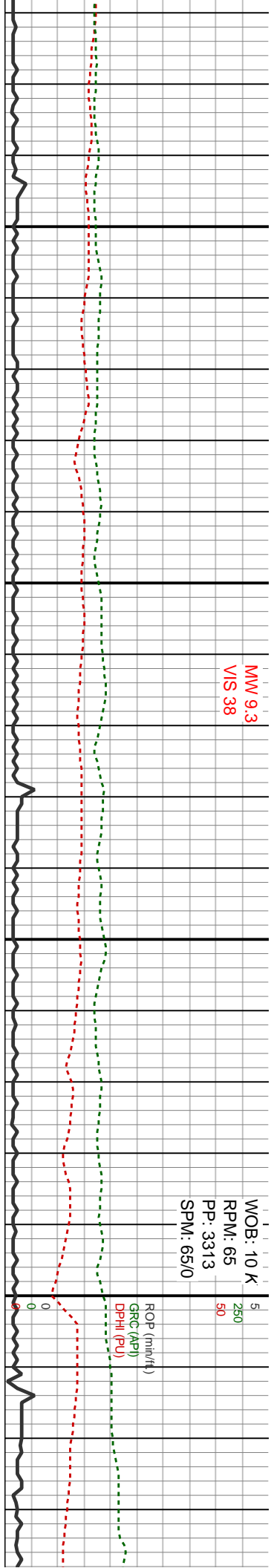
MD: 11.162° Inclination: 89.6° Azimuth: 90.9° TVD: 7.249.6° VS: 3.978.2°	MD: 11.248° Inclination: 90.1° Azimuth: 89.8° TVD: 7.249.7° VS: 4.063.8°	MD: 11.333° Inclination: 88.6° Azimuth: 87.3° TVD: 7.250.4° VS: 4.148.6°
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SS: lt- med dk gy, brn, s&p, wh-off uncons, pred sb ang, vf-f gr, calc mod- w srt, tr dissim pyr; sl tr slst	100% SS: lt- med dk gy, brn, s&p, wh-off wh, sft- uncons, pred sb ang, vf-f gr, calc cmt, mod- w srt, tr dissim pyr; sl tr slst	100% SS: lt- med dk gy, brn, s&p, wh-off wh, sft- uncons, pred sb ang, vf-f gr, calc cmt, mod- w srt, tr dissim pyr; sl tr slst	100% SS: lt- pred med- dk gy, brn, s&p, wh-off wh, sft- uncons, pred sb ang, vf-f gr, calc cmt, mod- w srt, tr dissim pyr; sl tr slst	100% SS: lt- dk gy, brn, s uncons, pred sb ang, vf-f w srt, tr dissim pyr; sl tr slst
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6800	MD: 11.674° Inclination: 89.0° Azimuth: 92.0° TVD: 7.258.2° VS: 4.488.2°	MD: 11.760° Inclination: 89.9° Azimuth: 92.34° TVD: 7.258.9° VS: 4.573.4°	6800
100% SS: off wht, lt- pred med gy, brn, s&p, sft- pred uncons, md- ang gr, vf- med gr, calc cmnt, v p srt, tr dissim pyr	100% SS: off wht, lt- pred med gy, brn, s&p, sft- pred uncons, md- ang gr, vf- med gr, calc cmnt, v p srt, tr dissim pyr	100% SS: lt- pred med- dk gy, brn, s&p, sft- pred uncons, md- ang gr, vf- med gr, calc cmnt, v p srt, tr dissim pyr; tr calc xls	100% SS: lt- pred med- dk gy, brn, s&p, sft- pred uncons, md- ang gr, vf- med gr, calc cmnt, v p srt, tr dissim pyr; tr calc xls
100% SS: off wht, lt- pred med gy, brn, s&p, sft- pred uncons, md- ang gr, vf- med gr, calc cmnt, v p srt, tr dissim pyr	100% SS: off wht, lt- pred med gy, brn, s&p, sft- pred uncons, md- ang gr, vf- med gr, calc cmnt, v p srt, tr dissim pyr	100% SS: lt- pred med- dk gy, brn, s&p, sft- pred uncons, md- ang gr, vf- med gr, calc cmnt, v p srt, tr dissim pyr; tr calc xls	100% SS: lt- pred med- dk gy, brn, s&p, sft- pred uncons, md- ang gr, vf- med gr, calc cmnt, v p srt, tr dissim pyr; tr calc xls



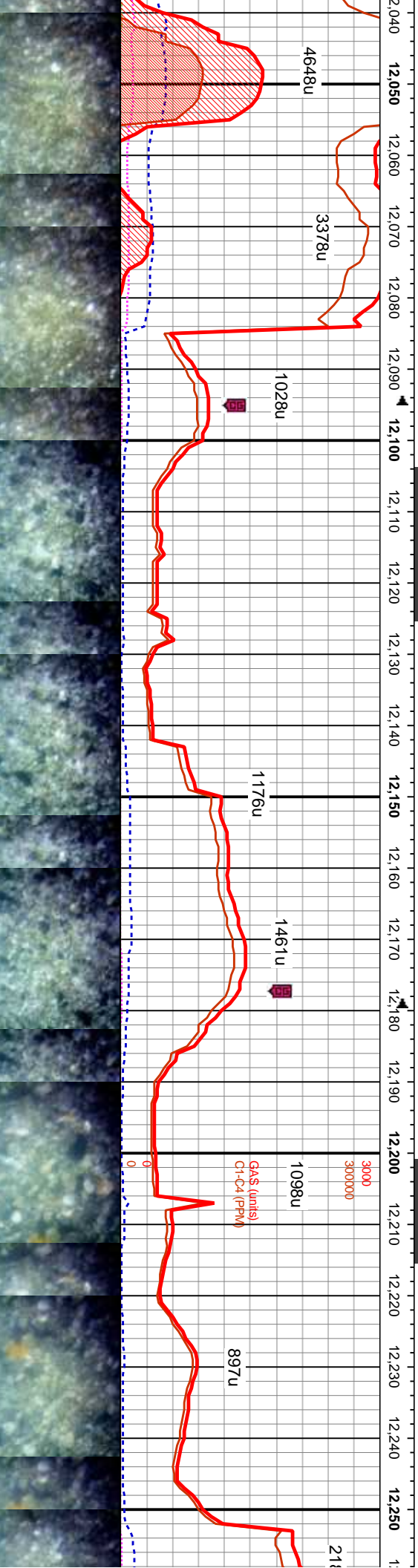
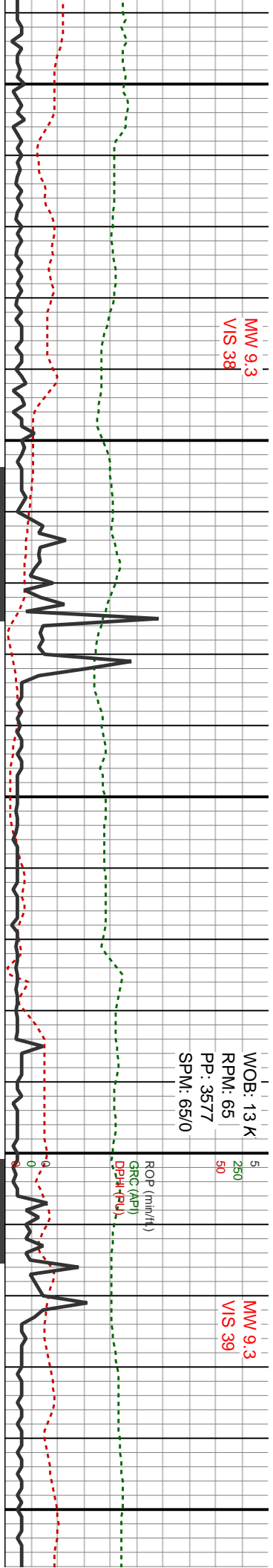
MD: 11.945'
Inclination: 90.6°
Azimuth: 92.6°
TVD: 7,258.46'
VS: 4,657.6'

MD: 11.930'
Inclination: 91.6°
Azimuth: 92.2°
TVD: 7,256.77'
VS: 4,741.8'

MD: 12.015'
Inclination: 91.9°
Azimuth: 92.1°
TVD: 7,254.05'
VS: 4,826.0'

TVD (ft):

d med- dk gy, brn, s&p, sft-
- ang gr, vf- med gr, calc
100% SS: lt- pred med- dk gy, brn, s&p, sft-
pred uncons, rnd- ang gr, vf- med gr, calc
cnt, p srt, tr dissim pyr, tr glau
100% SS: lt- pred med- dk gy, brn, s&p, sft-
pred uncons, rnd- ang gr, vf- med gr, calc
cnt, v p srt, tr dissim pyr, occ calc xls
100% SS: lt- pred med- dk gy, brn, s&p, sft-
pred uncons, rnd- ang gr, vf- med gr, calc
cnt, v p srt, tr dissim pyr, occ calc xls
7800



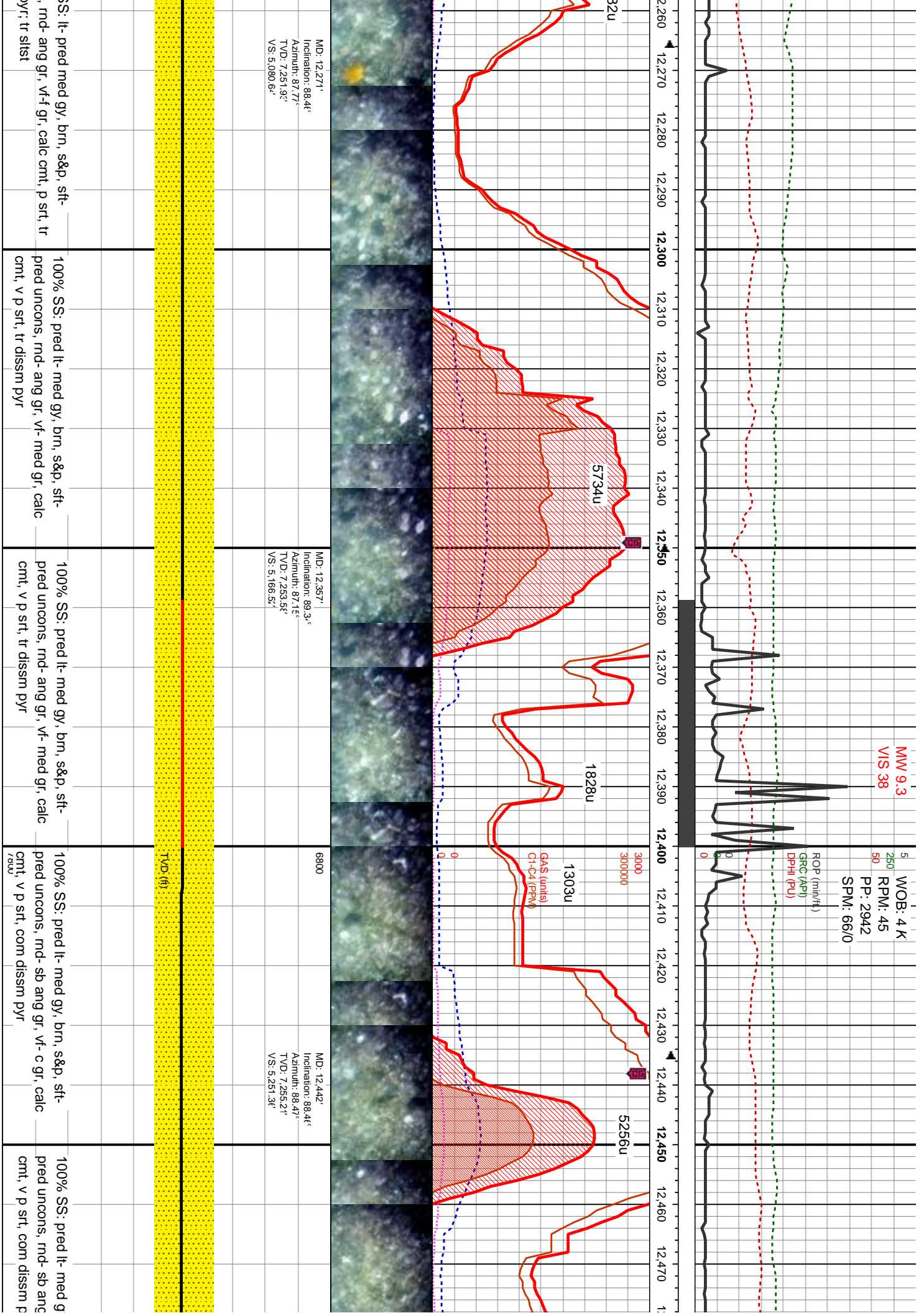
MD: 12,100'
Inclination: 91.8°
Azimuth: 91.6°
TVD: 7,251.2'
VS: 4.9102°

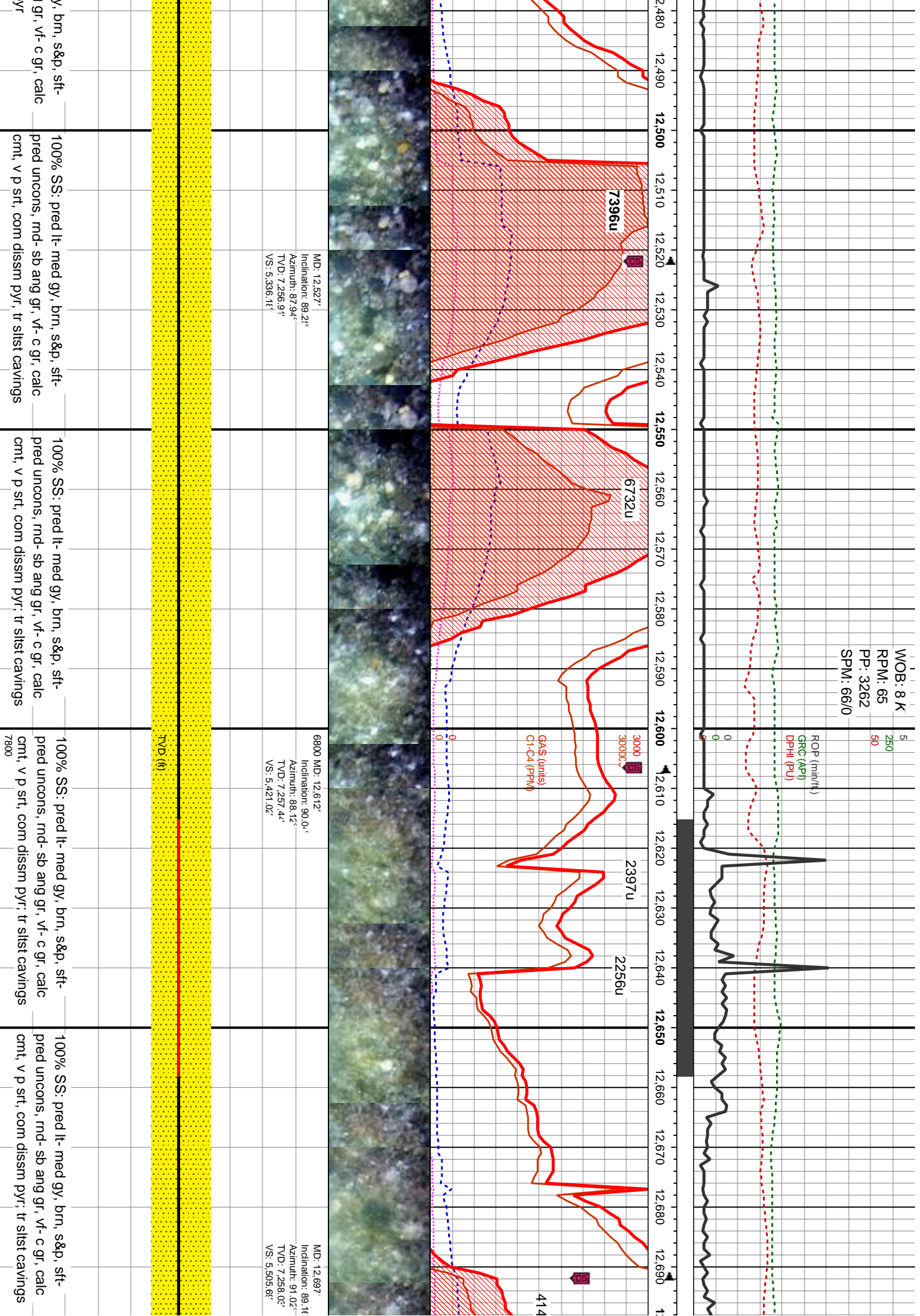
MD: 12,186'
Inclination: 89.3°
Azimuth: 88.9°
TVD: 7,250.3'
VS: 4.9958°

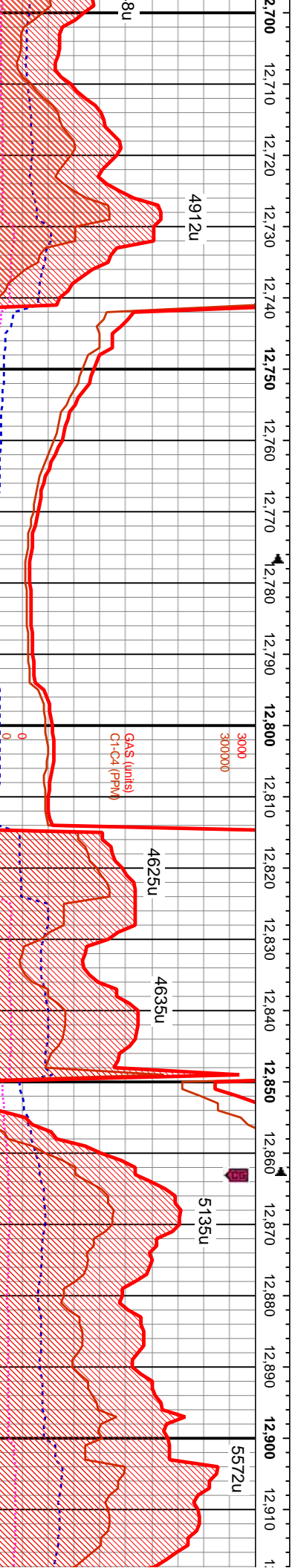
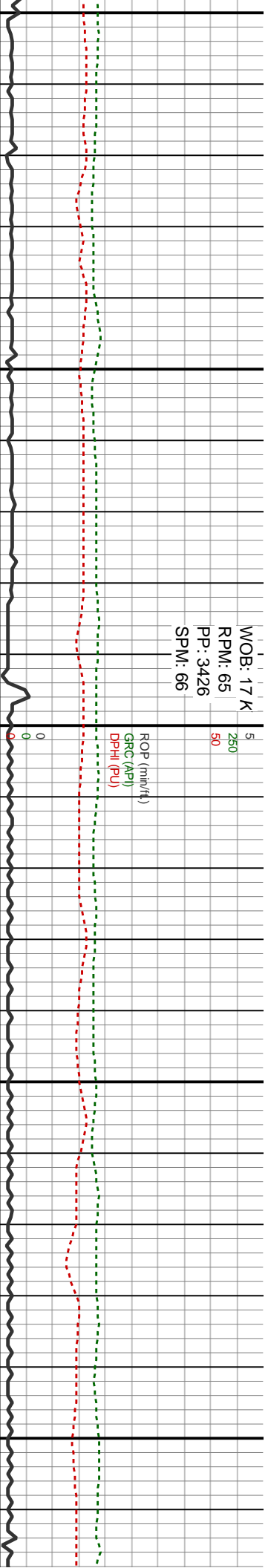
6800

TVD (ft)

s&p, sft- gr, calc	100% SS: lt- pred med- dk gy, brn, s&p, sft- pred unconcs, md- ang gr, vf- med gr, calc cmt, v p srt, tr dissim pyr, tr glau	100% SS: pred lt- dk gy, brn, s&p, sft- pred unconcs, md- ang gr, vf- med gr, calc cmt, v p srt, tr dissim pyr, SLTST strg	100% SS: pred lt- dk gy, brn, s&p, sft- pred unconcs, md- ang gr, vf- med gr, calc cmt, v p srt, tr dissim pyr, SLTST strg	100% SS: lt- pred med gy, brn, s&p, sft- unconcs, md- ang gr, vf- f-gr, calc cmt, p srt, tr dissim pyr, tr siltst	100% SS: lt- pred med gy, brn, s&p, sft- unconcs, md- ang gr, vf- f-gr, calc cmt, p srt, tr dissim pyr, tr siltst
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MD: 12.783'
Inclination: 89.96°
Azimuth: 91.02°
TVD: 7,258.65'
VS: 5,591.14'

MD: 12,868'
Inclination: 90.6°
Azimuth: 91.2°
TVD: 7,258.2'
VS: 5,675.5'

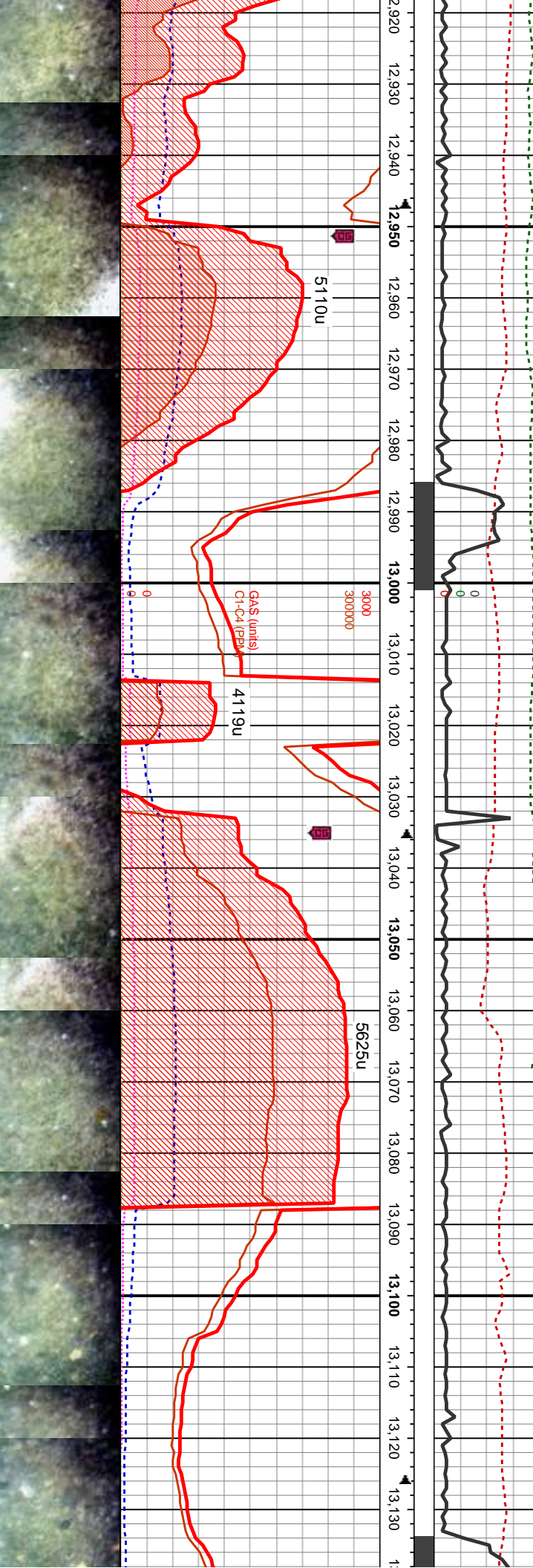
$$\text{TVD}(\mathbf{f}) =$$

MW 9.3
VIS 40

WOB: 9 K
RPM: 65
PP: 3267
SPM: 66

MW 9.3
VIS 38

ROP (min/ft)
GRC (API)
DPH (PU)



MD: 12,957
Inclination: 91.3°
Azimuth: 90.67°
TVD: 7,256.66'
VS: 5,764.07'

MD: 13,046
Inclination: 90.6°
Azimuth: 91.81°
TVD: 7,255.05'
VS: 5,852.47'

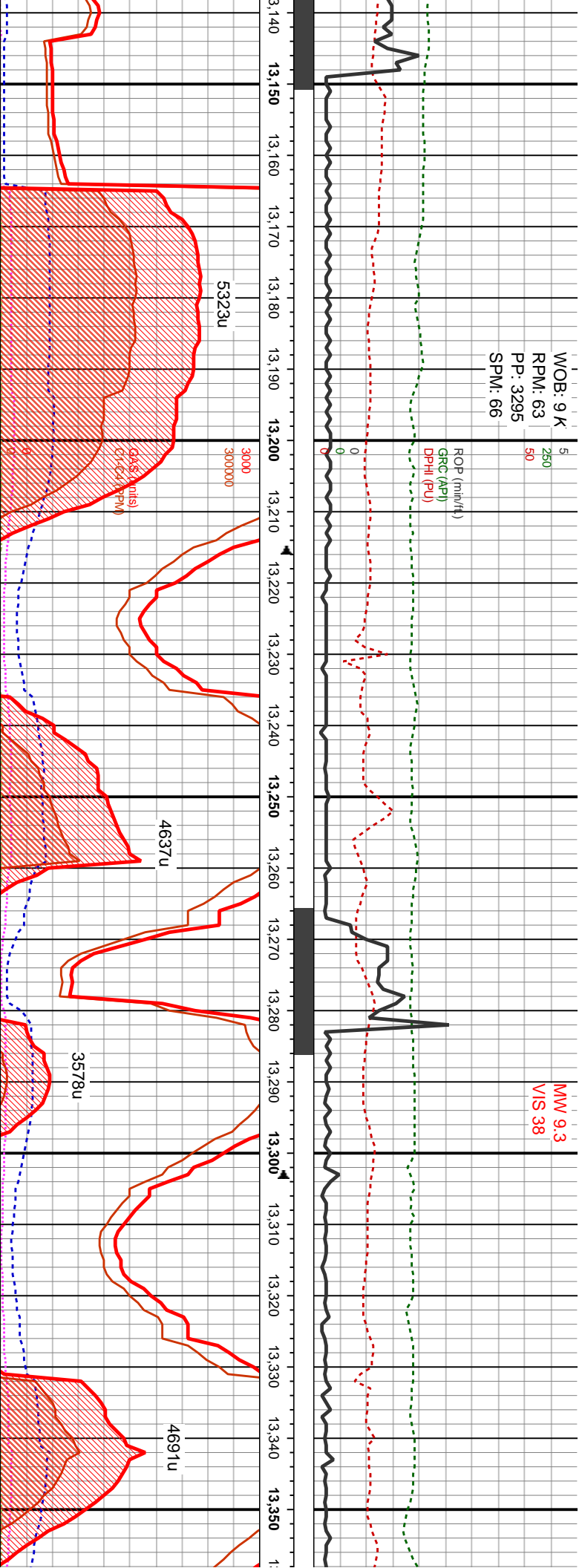
MD: 13,131
Inclination: 90.6°
Azimuth: 91.81°
TVD: 7,255.05'
VS: 5,852.47'

lt- med gy, brn, s&p, sft- d- sb ang gr, vf- c gr, calc dissm pyr, tr slst cavings	100% SS: pred lt- med gy, brn, s&p, sme off wh-wh, occ clr qtz xls sft- pred uncon, md- sb ang gr, vf- c gr, calc cnt, v p srt, com dissm pyr	100% SS: pred lt- med gy, brn, s&p, sft- pred uncon, md- sb ang gr, vf- c gr, calc cnt, v p srt, com dissm pyr	100% SS: pred lt- med gy, brn, s&p, sft- pred uncon, md- sb ang gr, vf- c gr, calc cnt, v p srt, com dissm pyr	100% SS: off wht, lt- pred dk gy, s&p mod- p cons, pred sb ang, vf-f gr, c mod- w srt, tr dissm pyr, tr med- c
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WOB: 9 K
RPM: 63
PP: 3295
SPM: 66

MW 9.3
VIS 38

ROP (min/ft)
GRC (API)
DPHI (PU)



5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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TVD (ft)

p, fri- alc cmt, uncons	100% SS: pred lt- med gy, brn, s&p, sft- pred uncons, md- sb ang gr, vf- c gr, calc cmt, v p srt, com dissim pyr	100% SS: pred lt- med gy, brn, s&p, sme off wh-wh, occ clr qtz xls sft- pred uncons, rnd- sb ang gr, vf- c gr, calc cmt, v p srt, com dissim pyr	100% SS: off wht. lt- pred dk gy, s&p, fri- mod- p cons, pred sb ang, vf-f gr, calc cmt, mod- w srt, tr dissim pyr, tr med- c uncons sb md tmsl grn	100% SS: pred lt- med gy, brn, s&p, sme off wh-wh, occ clr qtz xls sft- pred uncons, rnd- sb ang gr, vf- c gr, calc cmt, v p srt, com dissim pyr	100% pred l cmt, v
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WOB: 9 K
RPM: 65
PP: 3304
SPM: 65

ROP (min/ft)
GRC (API)
DPH (PU)

MW 9.3
VIS 39

9-12-14
MINDEPTH

Clean
Inspect and
Repair Gas
Trap

1650u

MD: 13,402'
Inclination: 88.1°
Azimuth: 95.1°
TVD: 7,256.74'
VS: 6,204.97'

MD: 13,491'
Inclination: 89.3°
Azimuth: 94.1°
TVD: 7,258.1'
VS: 6,292.56'

MD: 13,561'
Inclination: 89.3°
Azimuth: 94.1°
TVD: 7,258.1'
VS: 6,380'

TVD (ft)

SS: pred lt- med gy, brn, s&p, sft-
uncons, rnd- sb ang gr, vf- c gr, calc
p srt, com dissim pyr

100% SS: pred lt- med gy, brn, s&p, sme off
wh-wh, occ clr qtz xls sft- pred uncons, rnd-
sb ang gr, vf- c gr, calc cnt, v p srt, com
dissim pyr

100% SS: pred lt- med gy, brn, s&p, sft-
pred uncons, rnd- sb ang gr, vf- c gr, calc
cnt, v p srt, com dissim pyr

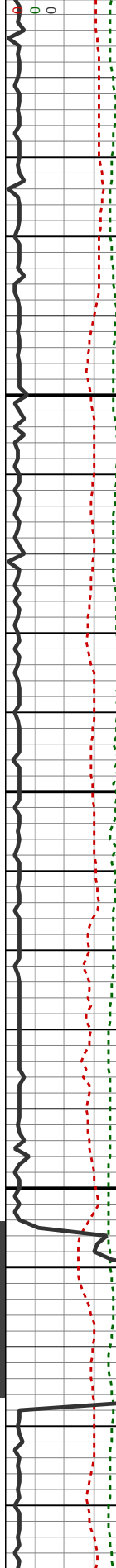
100% SS: pred lt- med gy, brn, s&p, sft-
pred uncons, rnd- sb ang gr, vf- c gr, calc
cnt, v p srt, com dissim pyr

100% SS: pred lt- med gy
wh-wh, occ clr qtz xls sft-
sb ang gr, vf- c gr, calc cnt

WOB: 12 K
RPM: 65
PP: 3290
SPM: 65

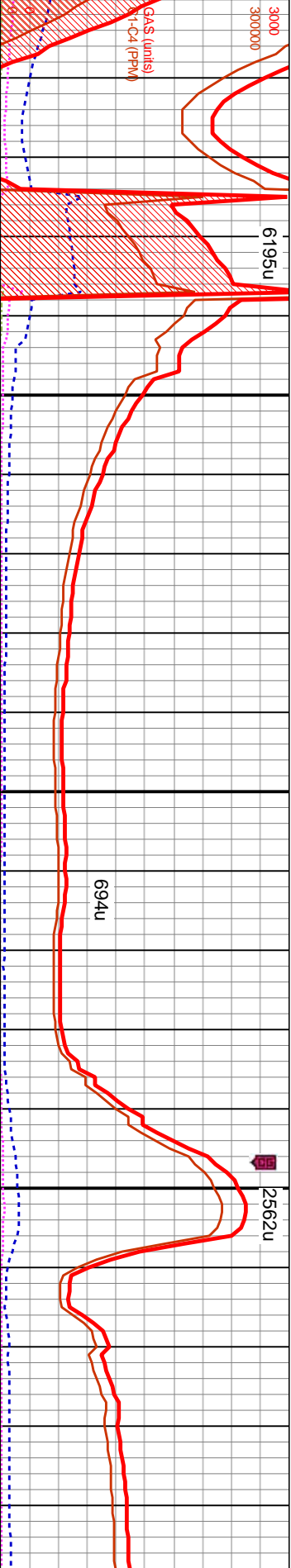
WOB: 13 K
RPM: 63
PP: 3200
SPM: 0/66

ROP (min/ft)
GRG (API)
DPHI (PU)

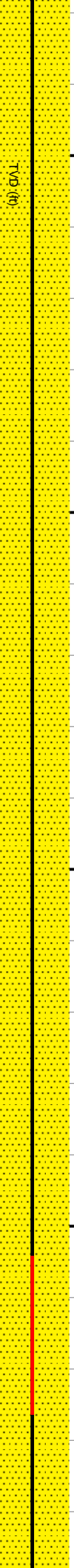


MW 9.3
VIS 41

MW 9.3
VIS 41



0	6800	MD: 13,665' Inclination: 90.5° Azimuth: 91.9° TVD: 7,259.0° VS: 6,464.8°	MD: 13,750' Inclination: 90.5° Azimuth: 91.3° TVD: 7,258.2° VS: 6,549.1°
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brn, s&p, sme off pred unconcs, rnd- t, v p srt, com	100% SS: pred lt- med gy, brn, s&p, sme off wh-wh, occ clr qtz xls sft- pred unconcs, rnd- sb ang gr, vf- c gr, calc cnt, v p srt, com dissm pyr	100% SS: pred lt- med gy, brn, s&p, sme off wh-wh, occ clr qtz xls sft- pred unconcs, rnd- sb ang gr, vf- c gr, calc cnt, v p srt, com dissm pyr	100% SS: pred lt- med gy, brn, s&p, sme off wh-wh, occ clr qtz xls sft- pred unconcs, rnd- sb ang gr, vf- c gr, calc cnt, v p srt, com dissm pyr
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