



FORMATION EVALUATION LOG

15/6-11 S Dougal



FROM (m) : 100

TO (m) : 4043

SCALE : 1/ 500

Well Name: 15/6-11 S

OPERATOR : STATOIL
COUNTRY : NORWAY
BLOCK : 15/6
RIG : OCEAN VANGUARD
SPUDD DATE: 27/10/2010
DATE TD : 12/12/2010
DEPTH REFERENCE RT
DATE FORMAT : DD/MM/YY

COORDINATES (m)

LONGITUDE : 01deg 42' 10.61" E
LATITUDE : 58 deg 34' 08.62" N
UTM X : 6 492 946m
UTM Y : 424 552m
RT-LAT : 22m
RT/SEABED: 115.7m
TOTAL DEPTH : 4042m
FINAL TVD : 3966.5m

ABBREVIATIONS and UNITS

BGG : Background Gas
FG : Formation Gas
TG : Trip Gas
CG : Pipe Connection Gas
RG : Recycling Gas
POG : Pump Off Gas
SWG : Swabbing gas

WOB : Weight On Bit (t)
TDRPM : Rotary Speed Surface(rpm)
M.RPM: Mud Motor Rotary Speed (rpm)
FLOW : Flow Rate (lpm)
SPP : Pump Pressure (psi)
TRQ : Rotating Torque (klbs*ft)
MW : Mud Weight (sg)
PV : Plastic Viscosity (cP)
FV : Funnel Viscosity (s)

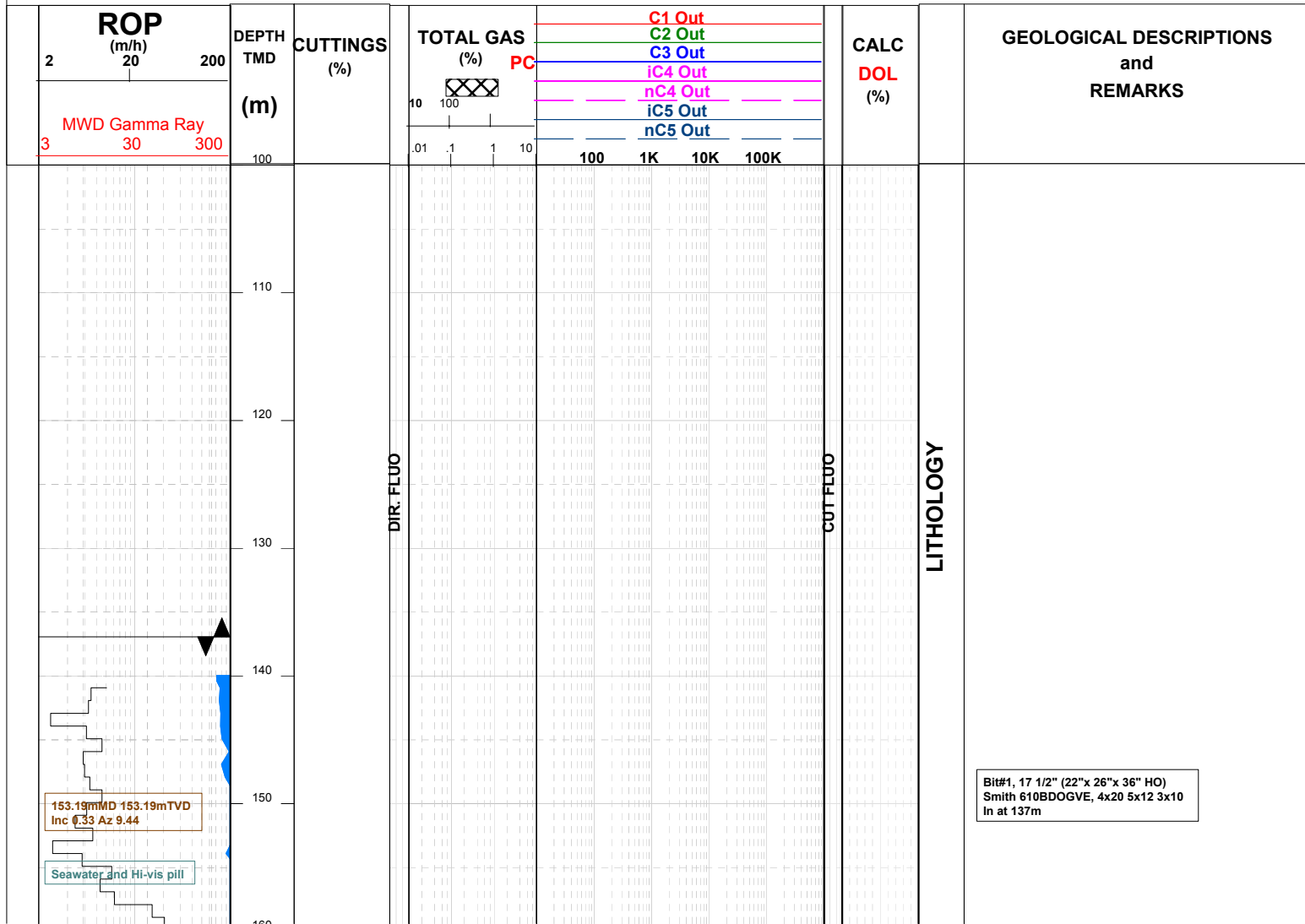
LEGEND and SYMBOLS

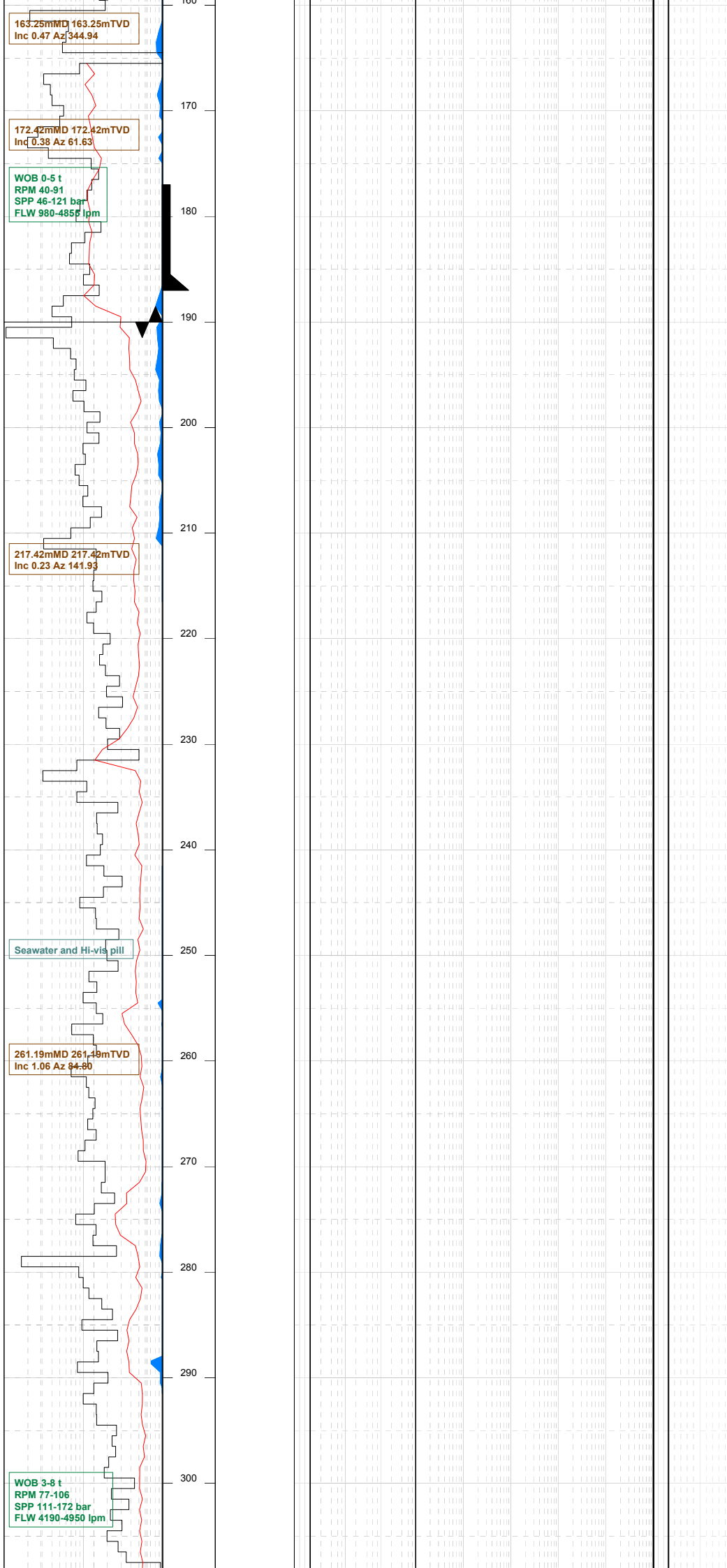
	Clay-shale		Plastic clay-shale		Calcareous clay-shal		Dolomitic clay-shale		Silty clay-shale
	Organic clay-shale		Siltstone		Fine sandstone		Medium sandstone		Coarse sandstone
	Quartzite		Chert		Conglomerate		Breccia		Dolomite
	Limestone		Dolomitic limestone		Sandy limestone		Chalk		Halite
	Anhydrite		Gypsum		Volcanic rock		Volcanic cinder, tuf		Metamorphic rock
	Coal-lignite		Fossils		Pyrite		Glauconite		Core
	Casing shoe		Survey						

GAS TRAP : GZG

GAS ANALYSER : RESERVAL

PICFILE : Masterlog_A4.UPF





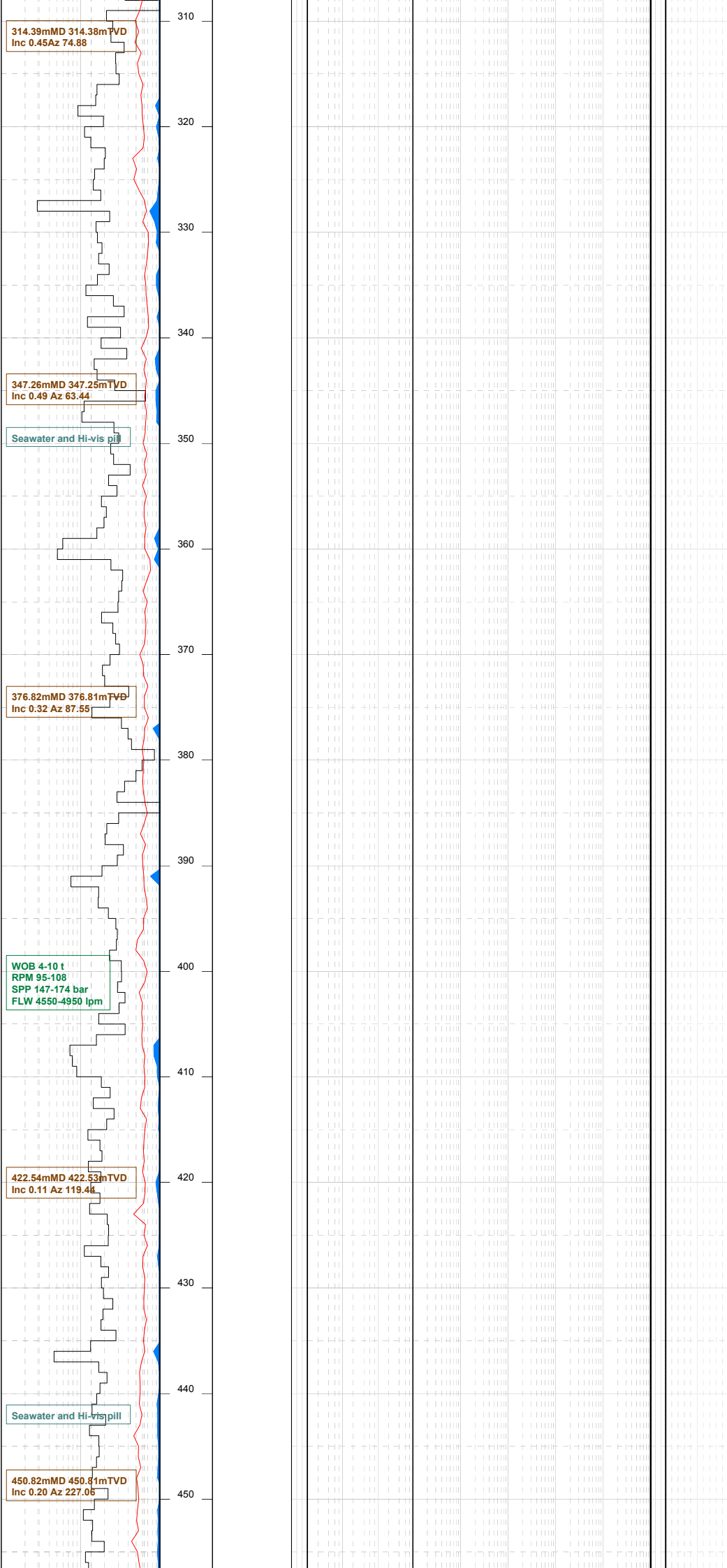
Bit#1, 17 1/2" (22"x 26"x 36" HO)
made 53m in 6.0 hr
28 krev, out at 190m
Grade: 1-1-WT-AE-I-NO-TD

30" Conductor shoe at
187mMD, 187mTVD

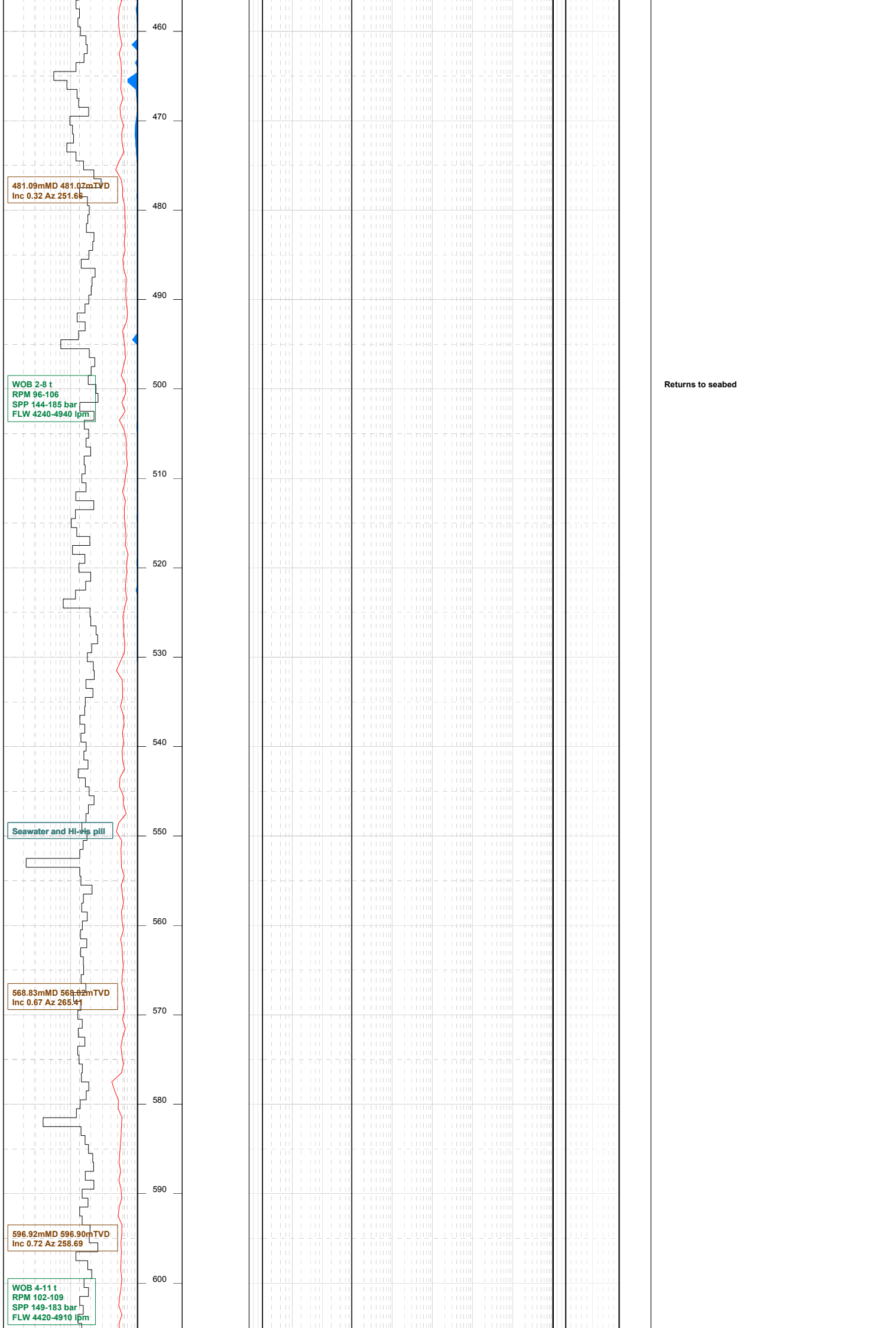
Bit#2, 26"
Hycalog T11, 3x20
In at 190m

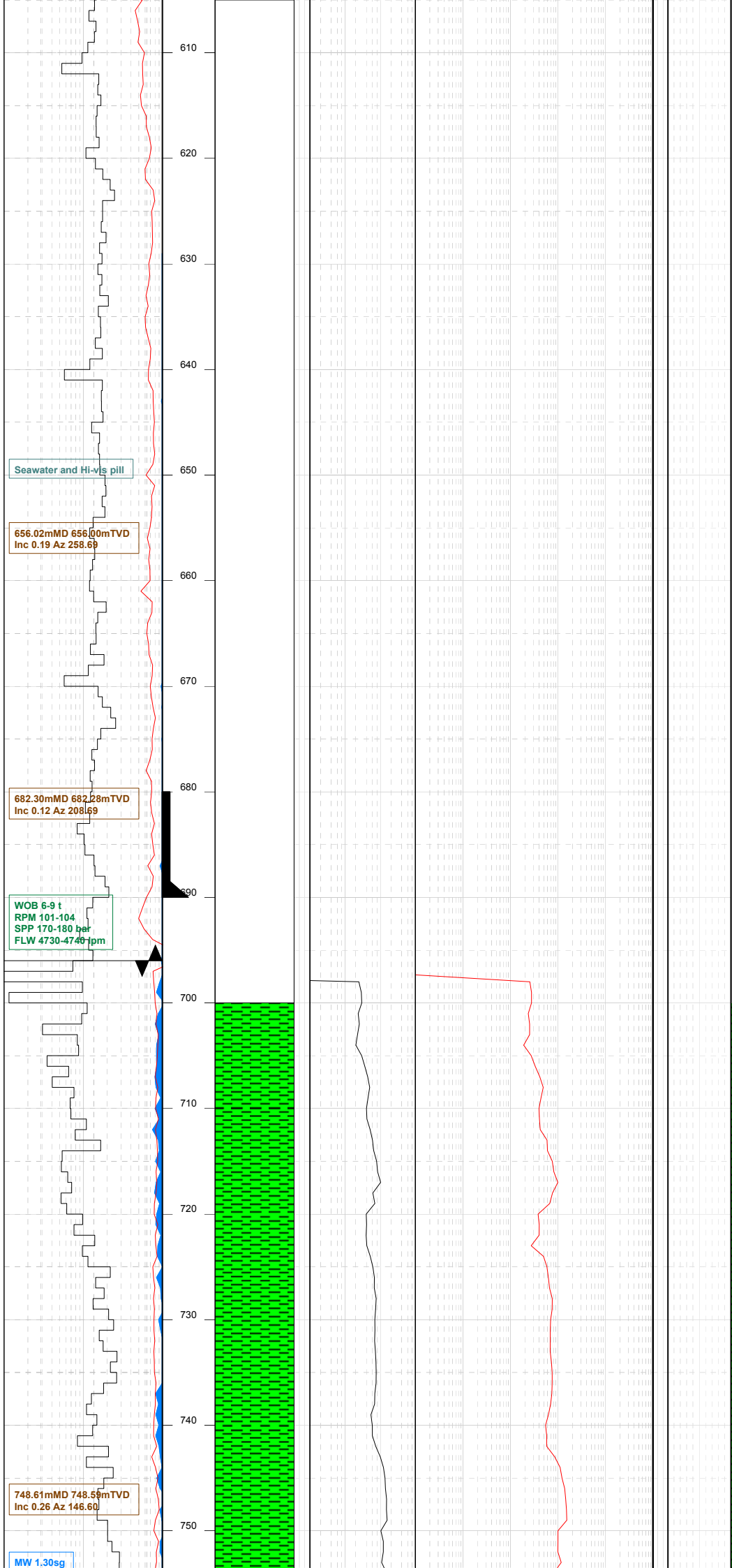
Returns to seabed

Returns to seabed



returns to seabed





Bit#2, 26" T11
made 506m in 18.3 hr
112 krev, out at 696m
Grade: 1-1-WT-AE-I-NO-TD

20" Casing shoe
689.9mMD, 69mTVD

Bit#3, 17 1/2"
Smith MDI619, 9x14
In at 696m

Cist: lt gry, sft, stky, v slty, v sl calc,
tr-com Pyr.Tr lmst

PV 21cp
YP 7.2Pa
Gels 1.9/2.8

777.99mMD 777.91mTVD
Inc 0.17 Az 202.00

836.93mMD 836.91mTVD
Inc 0.22 Az 243.63

MW 4-31sg
PV 22cp
YP 6.2Pa
Gels 2.8/3.8

893.44mMD 893.44mTVD
Inc 0.31 Az 177.20

WOB 2-5
RPM 86-116
SPP 126-193 bar

SST: lse Qtz, clr, trsl, f-m crs, occ crs,
sbrnd-sbang, mod-p srtld, w/lt gry
clymtx, sl-mod calc, Tr glauc

LST: Yelsh gry, mod hd, cryoxln,
Tr Foram-foss frag

SST: lse Qtz, clr, trsl, f-m gr,
occ crs, sbrnd-sbang, mod-p srtld,
w lt gry, cly mtx, sl-mod calc, Tr glauc, arg,
occ v crs gr

SST: lse Qtz, clr-trsl, f-occ crs gr, p srtld,
sbrnd-ang, abd lt gry, stky cly mtx, glauc

Bit#3, 17 1/2" MDI619
made 198m in 13.0h
111 krev, out at 894m
Grade: 1-1-LT-NX-1-CT-WO

SST: lse Qtz, clr, f-m r crs, mod srtld,
sbrnd-sbang, abd lt gry, stky, cly mtx, glauc

FLW 3300-4230 lpm

Bit#4, 17 1/2"
Smith T1 3DH, 3x22, 1x18
In at 894m

SST: Lse Qtz, trsl, f-crs,p srtld,sbrnd-sbang, arg

SST: lse Qtz, clr, f, v wl srtld

MW 1.31sg
PV 20cp
YP 5.7Pa
Gels 1.4/1.9

981.71mMD 981.68mTVD
Inc 0.21 Az 202.48

WOB 4-15 t
RPM 114-121
SPP 123-207 bsc
FLW 3270-4430 lpm

1011.17mMD 1011.15mTVD
Inc 0.15 Az 174.83

CLST: dk gry, sft frm, blkly, mic, stky, sli slty

CLST: gry, sft, blkly, micromic

MW 1.31sg
PV 20cp
YP 5.7Pa
Gels 1.4/1.9

PV 25cp
YP 7.2Pa
Gels 1.9/2.4

1068.90mMD 1068.88mTVD
Inc 0.12 Az 179.49

WOB 6-10 t
RPM 111-121
SPP 121-181 bar
FLW 3130-4010 lpm

1125.44mMD 1125.42mTVD
Inc 0.23 Az 43.45

1155.05mMD 1155.03mTVD
Inc 0.29 Az 30.67

MW 1.34sg
PV 24cp
YP 8.1Pa
Gels 1.9/2.4

CLST: Ol gry, med gry, sft, stky, v sily,
occ v sdy, mod calc

SST: lse Qtz, clr, op, lt yel, trsl, f-occ
v crs, p srt, sbnd-sbang, abd lt gry,
stky, cly mtz, occ aggs, wh-lt gry,
sft, fri, f-g, mod-wl srt, w-wh
cl (kaol) mtz

WOB 6-11 t
RPM 113-116
SPP 184-211 bar
FLW 3830-4260 lpm

1213.17mMD 1213.14mTVD
Inc 0.17 Az 20.18

MW 1.35sg
PV 23cp
YP 8.6Pa
Gels 1.9/2.4

1270.25mMD 1270.23mTVD
Inc 0.34 Az 16.60

WOB 7-11 t
RPM 111-131
SPP 133-216 bar
FLW 3200-4260 lpm

MW 1.35sg
PV 24cp
YP 8.6Pa
Gels 1.9/2.4

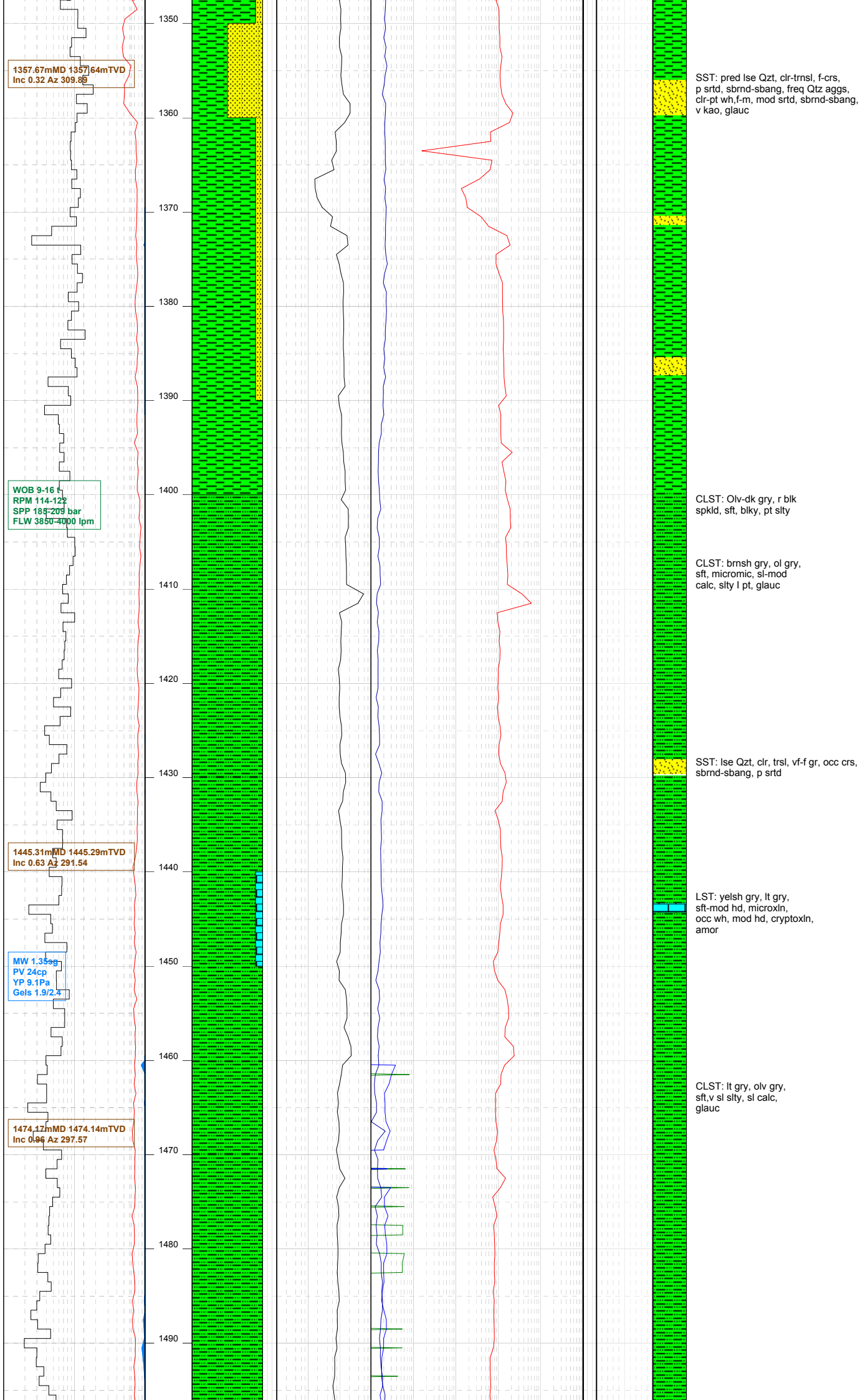
CLST: lt gry, med gry, sft, stky, v slity,
sl-mod calc

Cist: dk gry, sft, blkly, micromic

SST: lse Qtz, clr, vf-f crs, mod srtd, sbmnd

CLST: lt gry, sft, blkly, pt slity

SST: lse Qtz, clr,f crs, w srtd,
sbang, pt kao, glauc



WOB 12-17 t
RPM 98-120
SPP 153-219 bar
FLW 3310-4010 lpm

Bit#4, 17 1/2" T1 3DH
made 624m in 41.0 hr
275 krev, out at 1518m
Grade: 2-2-CT-AE-I/8-WT-PR

CLST: Pred olv gry,
occ gmsh gry, sft frm,
blky, r carb

SST: brnsh gry, vf-f,
pt grad slst, w srtd,
sbrnd, sft frm, glauc

Bit#5, 17 1/2"
Smith MD1619LHBPX, 9x14
in at 1518m

CLST: lt gry, olv gry, sft,
v sl slty, sl calc l.p.,
glauc

CLST: Lt olv gry, sft,
sl calc, micromic,
non slty

LST: yelsh gry, sft frm, microxln

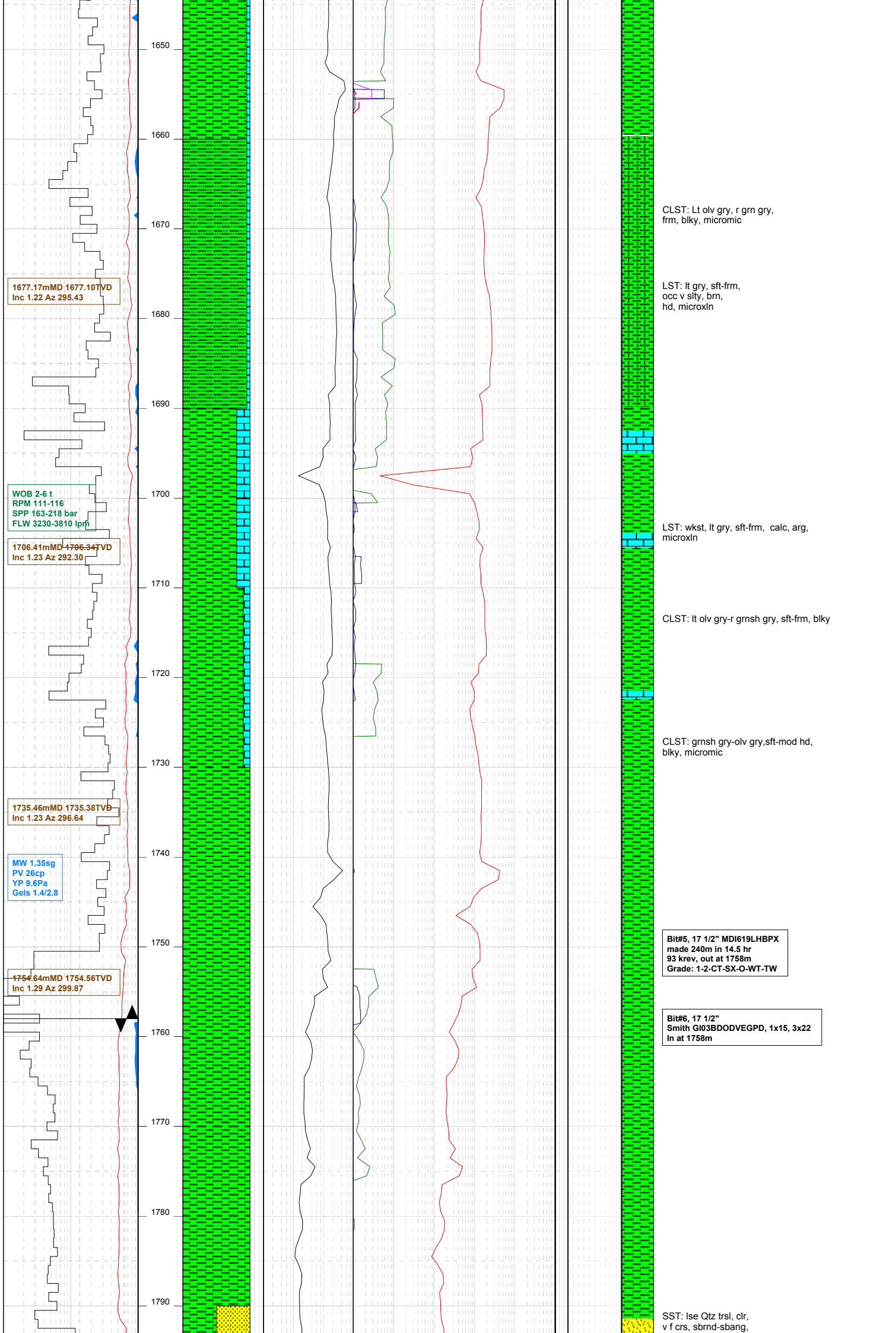
CLST: lt olv gry, olv gry, occ gm gry,
sft, microxln

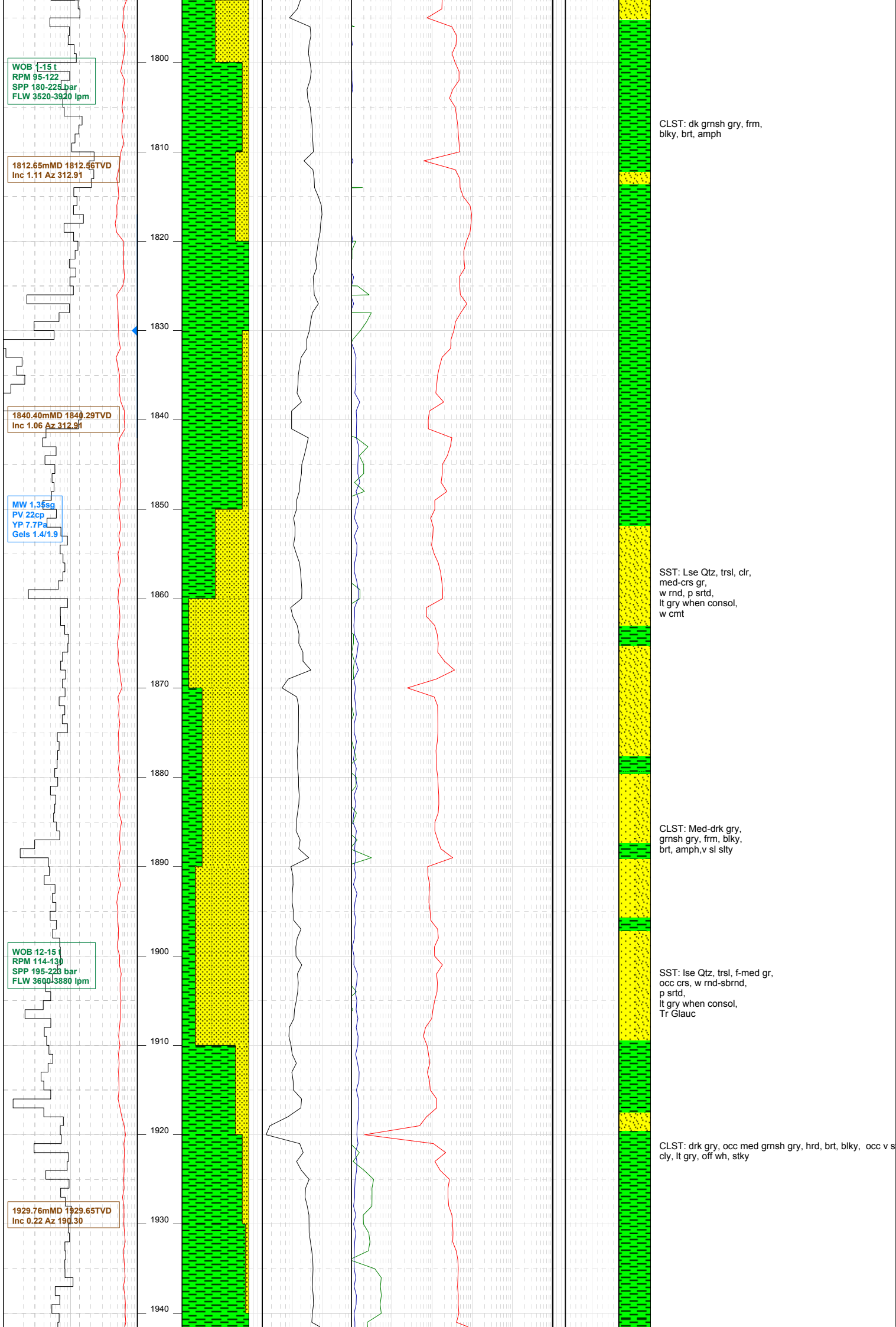
MW 1.35sg
PV 24cp
YP 10.5Pa
Gels 2.4/2.8

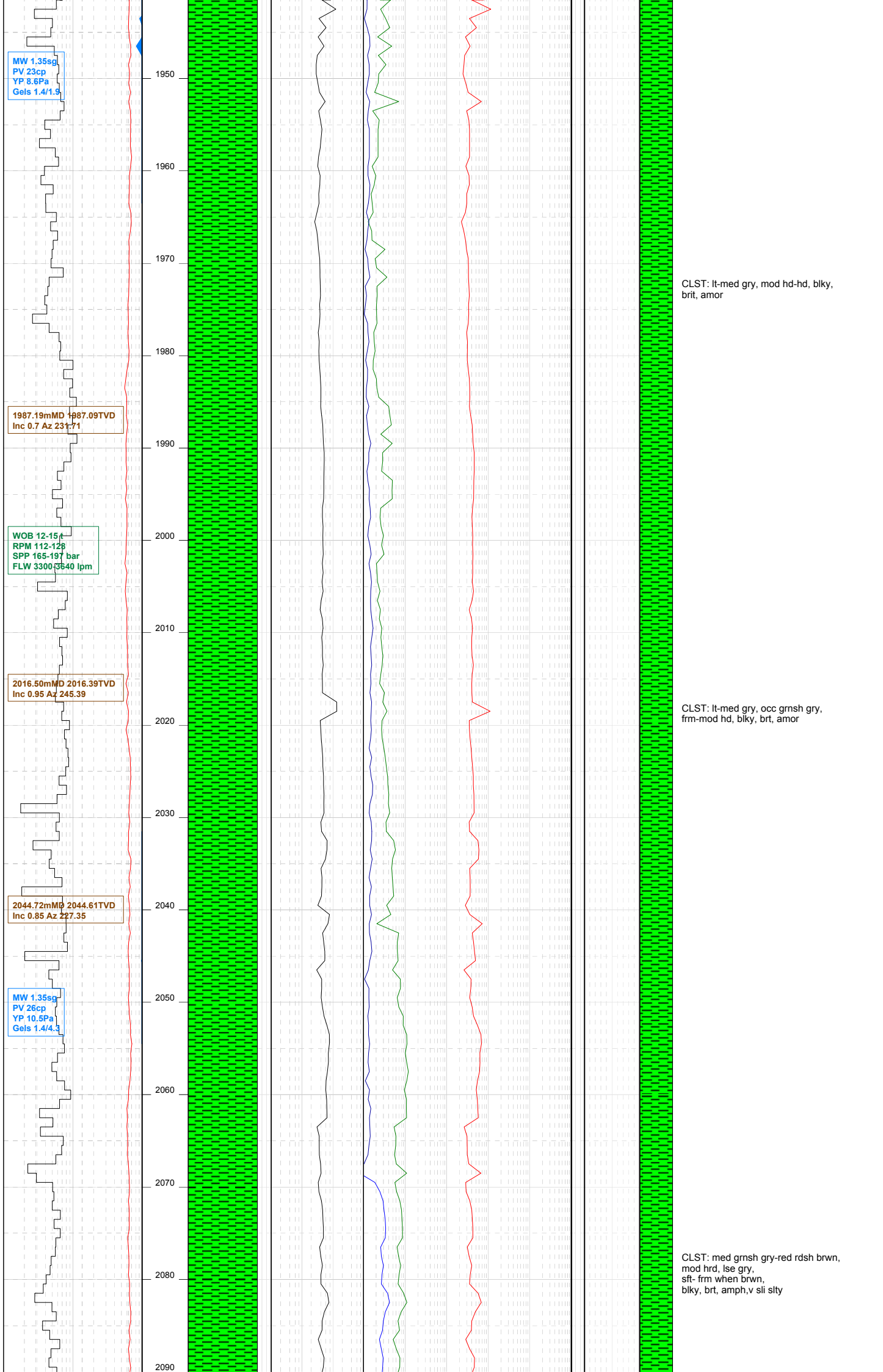
1562.24mMD 1562.19mTVD
Inc 1.12 Az 309.25

WOB 2-4 t
RPM 111-125
SPP 184-219 bar
FLW 3510-3900 lpm

1617.65mMD 1617.59mTVD
Inc 0.99 Az 299.88







CLST: lt-med gry, mod hd-hd, blk, brit, amor

CLST: lt-med gry, occ grnsh gry, frm-mod hd, blk, brt, amor

CLST: med grnsh gry-red rdsh brwn, mod hrd, lse gry, sft- frm when brwn, blk, brt, amphi, v sli slty

WOB 11-18
RPM 112-21
SPP 177-213 bar
FLW 3240-3630 lpm

2103.61mMD 2103.48TVD
Inc 1.51 Az 224.3

2133.70mMD 2133.56TVD
Inc 1.48 Az 227.17

2163.30mMD 2163.15TVD
Inc 1.53 Az 226.59

2172.69mMD 2172.53TVD
Inc 1.49 Az 225.85

2218.00mMD 2217.93TVD
Inc 1.54 Az 196.70

MW 1.23sg
PV 23cp
YP 10.5Pa
Gels 5.2/6.2

CLST: lt gry, lt blsh gry, rdsh brw,grnsh gry,
frm-mod hd, sft. blkly, brt, sl stly I.P

Top of 9 5/8" Liner
2129mMD, 2128.9mTVD

LST: off wht, lt gry, hd-v hd, microxln

CLST: lt gry, rdsh brw, grnsh gry,
frm-sft, blkly, brt,
when lt gry stly, sli calc

Bit#6, 17 1/2" GI03BDODVEGPD
made 432m in 54.1 hr
362 krev, out at 2190m
Grade: 2-1-LT-A-E-O-BT-TD

13 3/8" Casing shoe
2181.5mMD, 2181.5mTVD

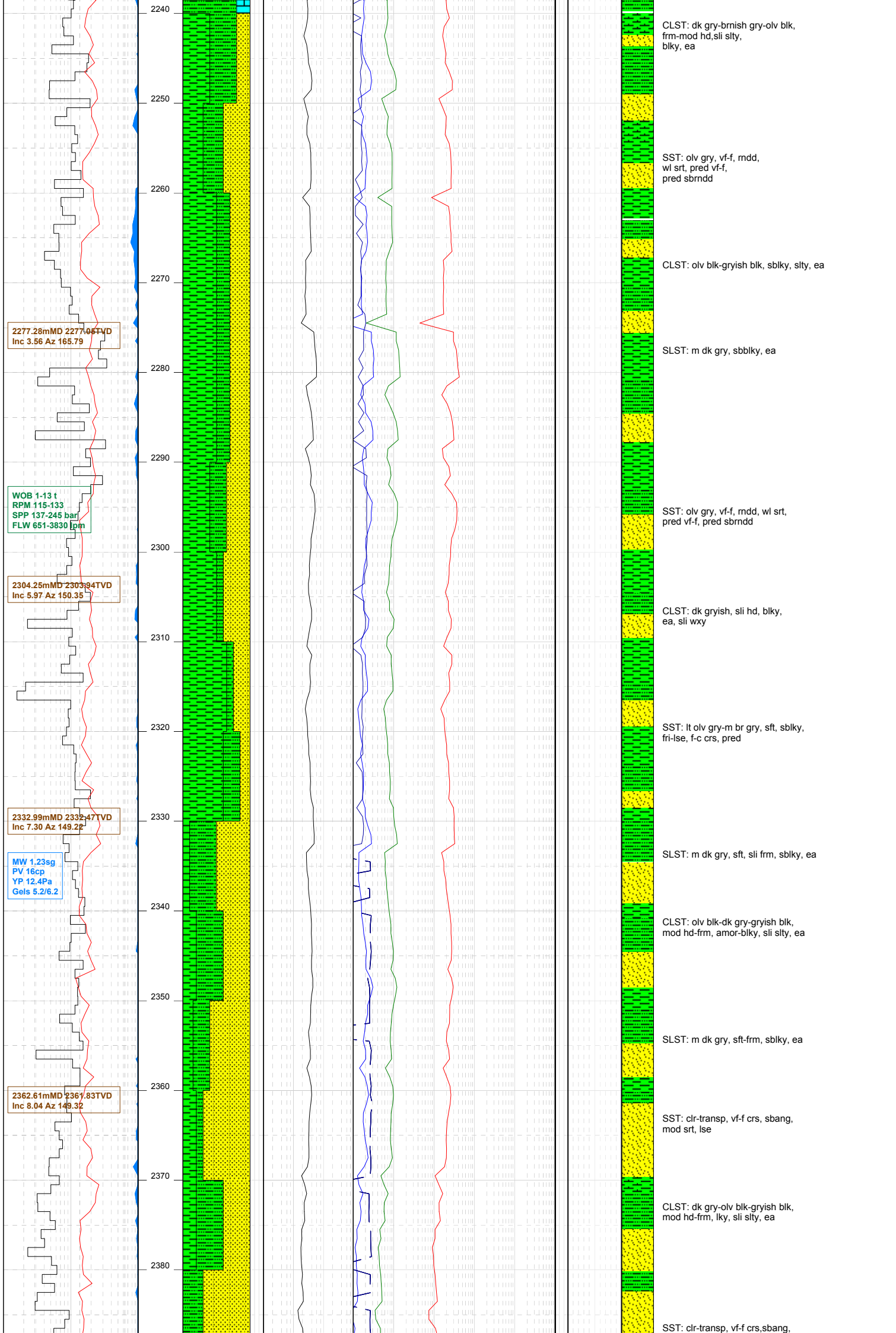
CLST: dk gry-brnsh gry-olv blk,
frm-mod hd, amor-blky-sbbkly, ea

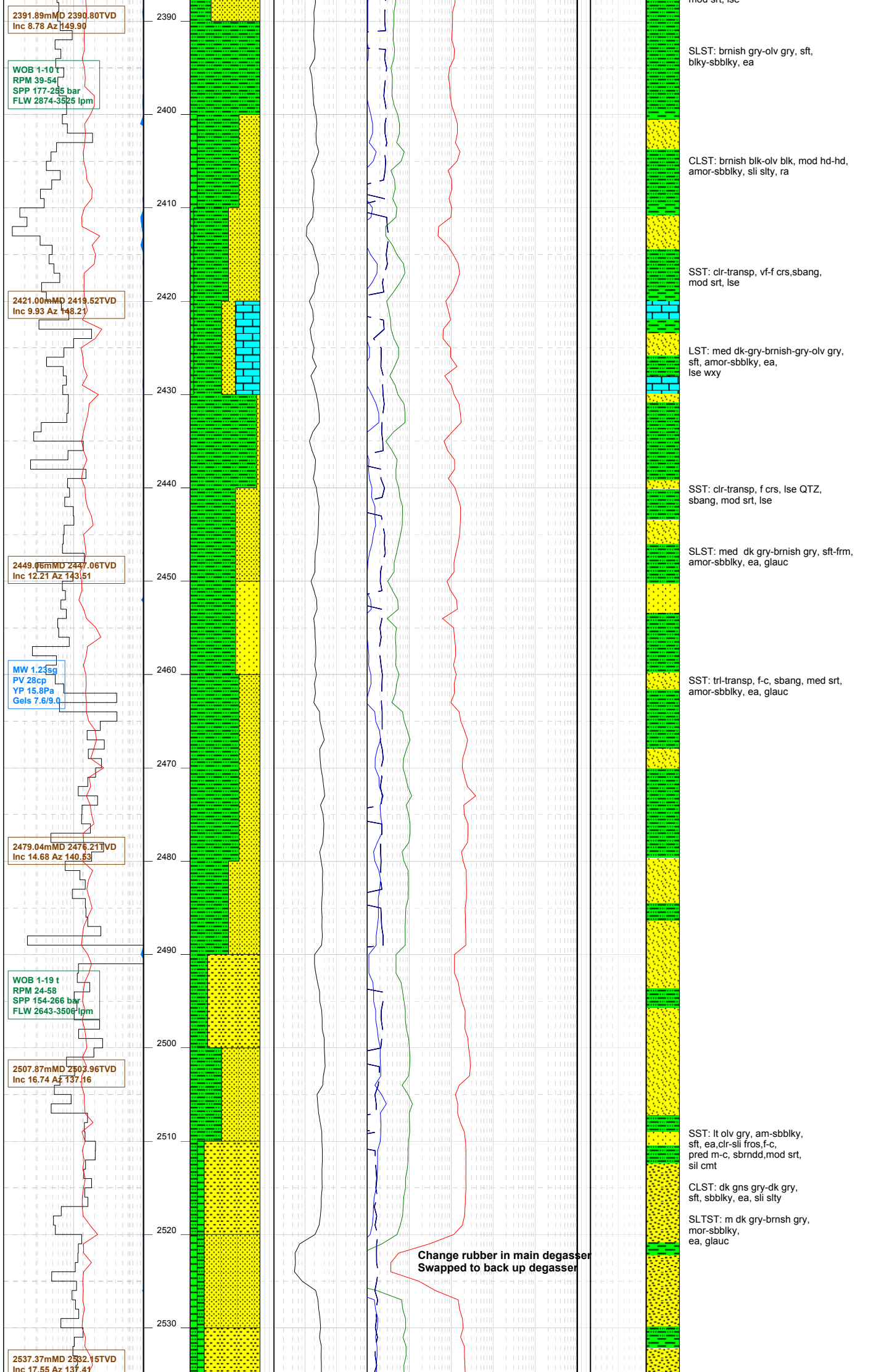
Bit#7, 12 1/4" MDSI716LHBPX
7x12,3x11 In at 2190m
+DH Motor

CLST: dk gry-brnsh gry-olv blk,
frm-mod hd, sli stly, blkly

SLST: brnsh gry, frm-mod hd,
amor-sbbkly, ea

LST: v lt gry-pinkish gry-yelish gry,
mod hd, amor-blky, ea,microxln





mod srt, lse

SLST: brnsh gry-olv gry, sft, blkly-sbbkly, ea

CLST: brnsh blk-olv blk, mod hd-hd, amor-sbbkly, sli sity, ra

SST: clr-transp, vf-f crs, sbang, mod srt, lse

LST: med dk gry-brnsh gry-olv gry, sft, amor-sbbkly, ea, lse wxy

SST: clr-transp, f crs, lse QTZ, sbang, mod srt, lse

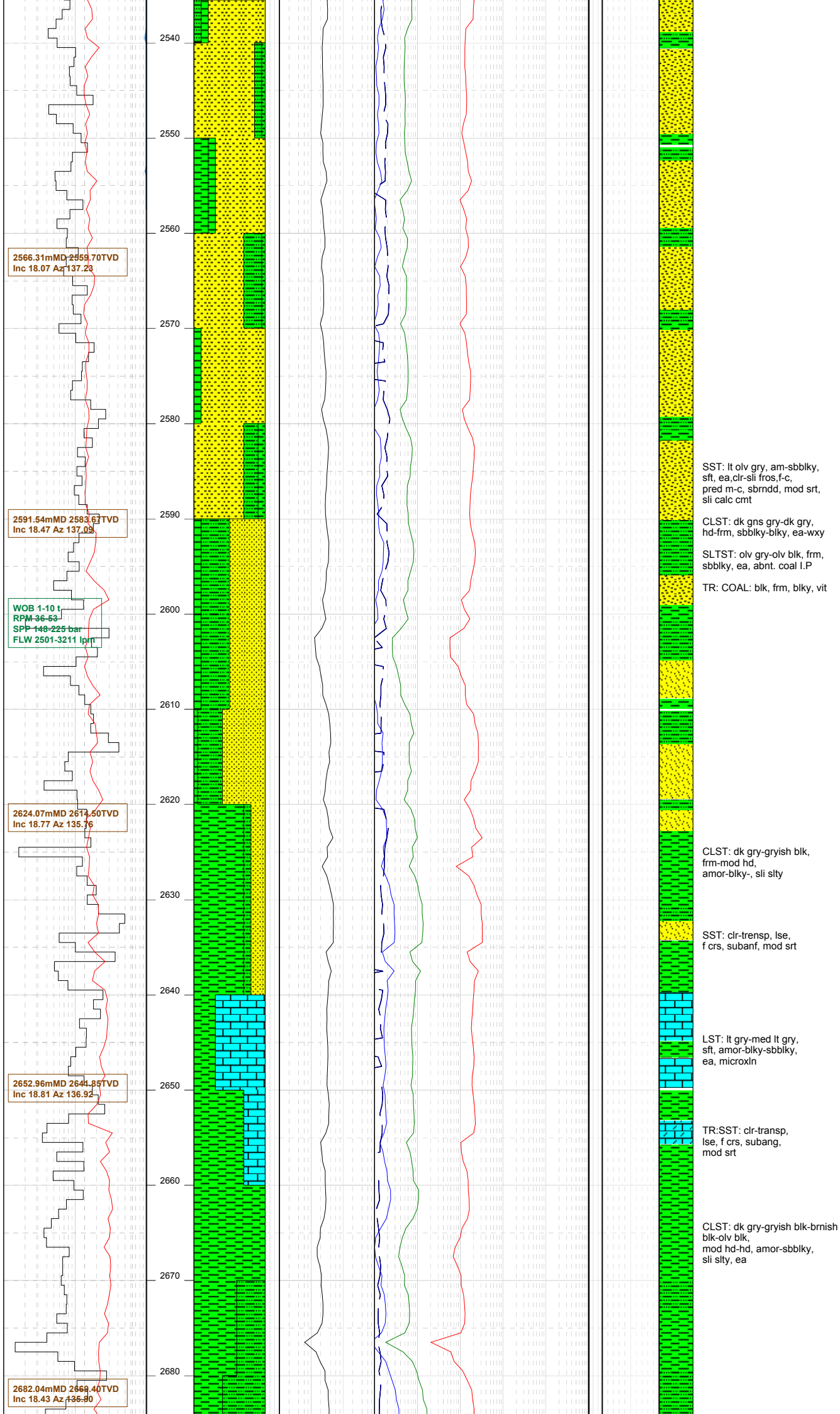
SLST: med dk gry-brnsh gry, sft-frn, amor-sbbkly, ea, glauc

SST: tri-transp, f-c, sbang, med srt, amor-sbbkly, ea, glauc

SST: lt olv gry, am-sbbkly, sft, ea, clr-sil fros, f-c, pred m-c, sbrnnd, mod srt, sil cmt

CLST: dk gns gry-dk gry, sft, sbbkly, ea, sli sity

SLTST: m dk gry-brnsh gry, mor-sbbkly, ea, glauc



SST: lt olv gry, am-sbbiky,
sft, ea,clr-sli fros,f-c,
pred m-c, sbrnnd, mod srt,
sli calc cmt

CLST: dk gns gry-dk gry,
hd frm, sbbiky-blky, ea-wxy

SLTST: olv gry-olv blk, frm,
sbbiky, ea, abnt. coal l.P

TR: COAL: blk, frm, blkly, vit

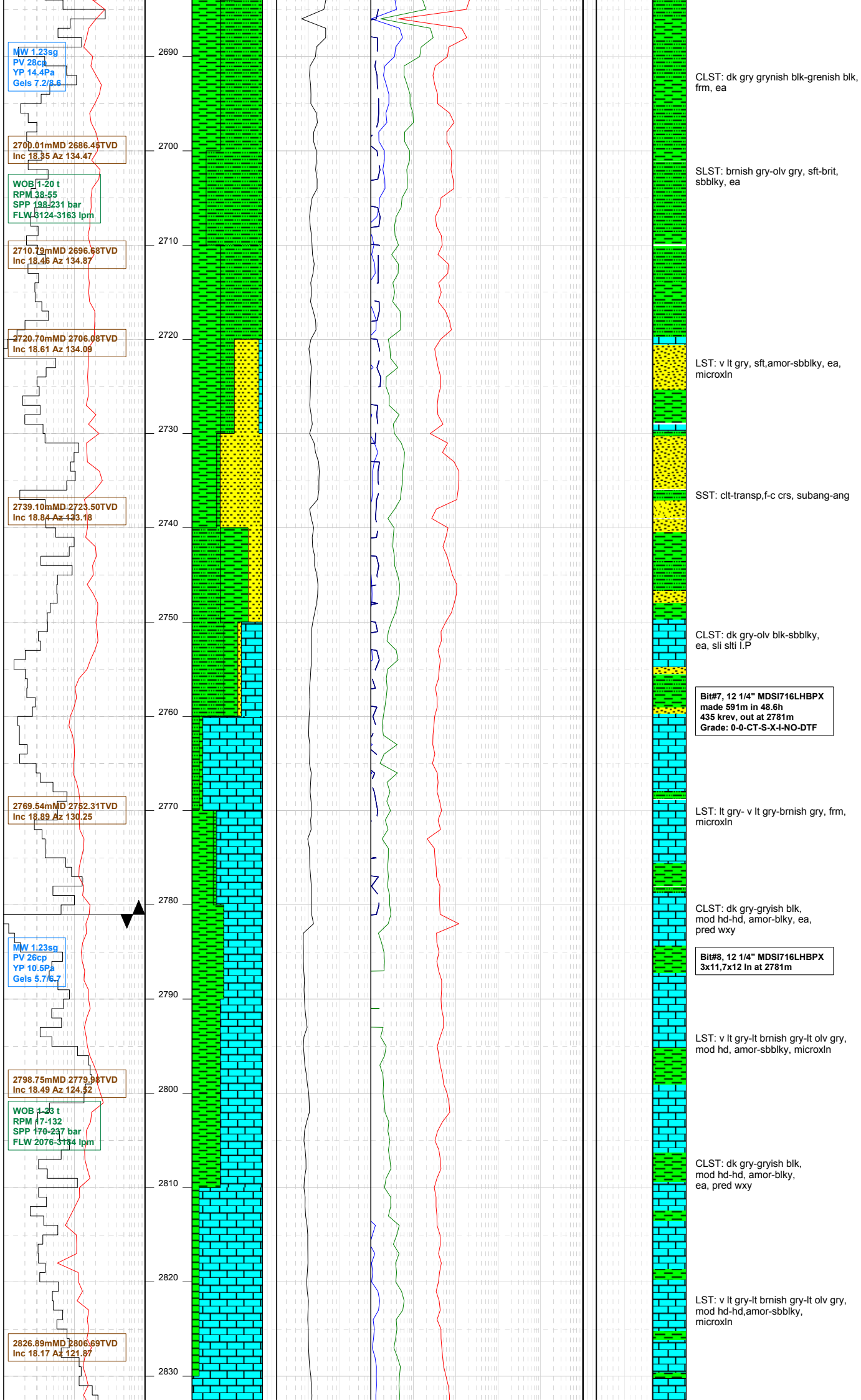
CLST: dk gry-gryish blk,
frm-mod hd,
amor-blky-, sli slty

SST: clr-treng, lse,
f crs, subanf, mod srt

LST: lt gry-med lt gry,
sft, amor-blky-sbbiky,
ea, microxin

TR:SST: clr-transp,
lse, f crs, subang,
mod srt

CLST: dk gry-gryish blk-brnsh
blk-olv blk,
mod hd-hd, amor-sbbiky,
sli slty, ea



MW 1.23sq
PV 28cp
YP 14.4Pa
Gels 7.2/8.6

2700.01mMD 2686.45TVD
Inc 18.35 Az 134.47

WOB 1.20 t
RPM 38.55
SPP 198.231 bar
FLW 3124-3163 lpm

2710.79mMD 2696.68TVD
Inc 18.46 Az 134.87

2720.70mMD 2706.08TVD
Inc 18.61 Az 134.09

2739.10mMD 2723.50TVD
Inc 18.84 Az 133.18

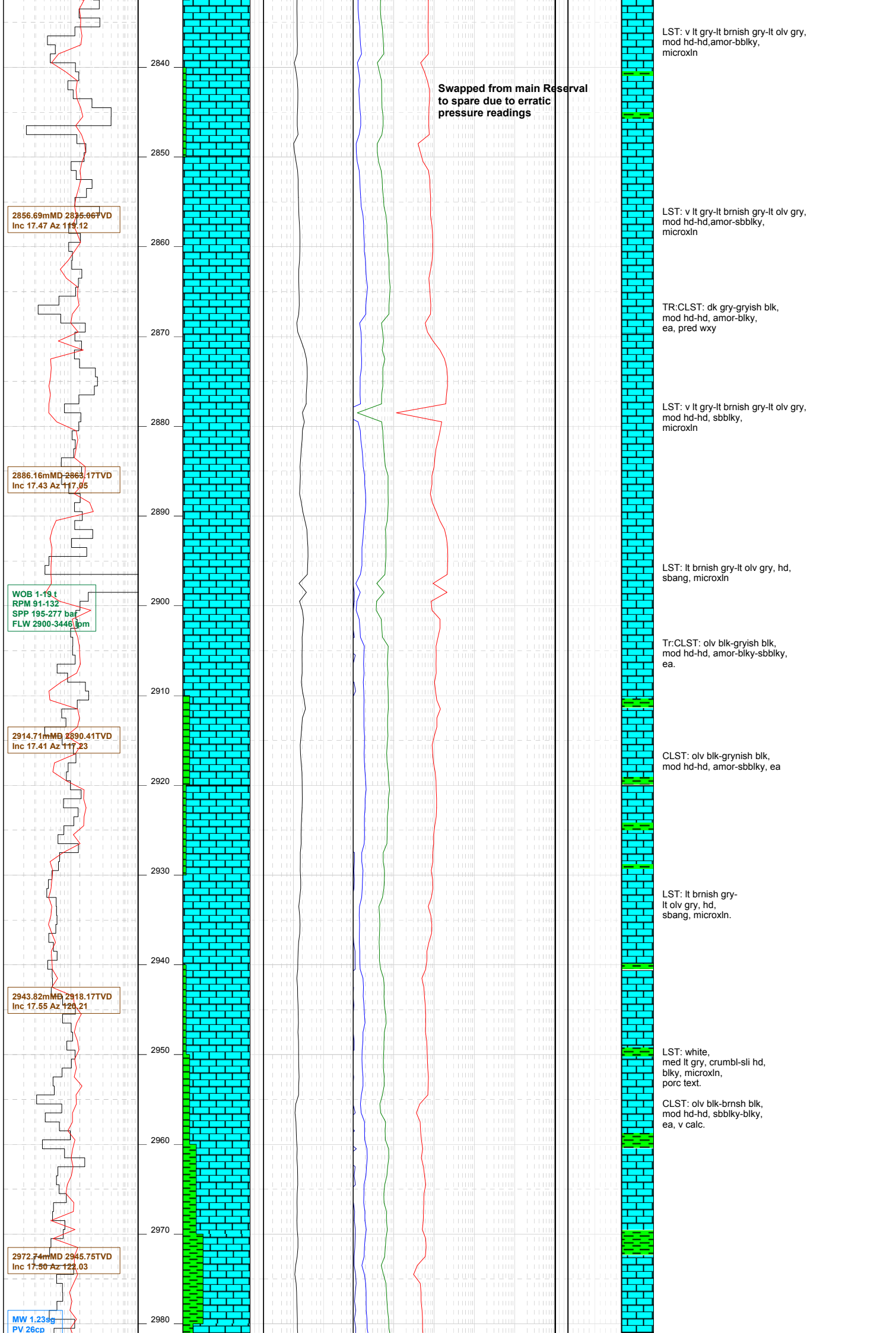
2769.54mMD 2752.31TVD
Inc 18.89 Az 130.25

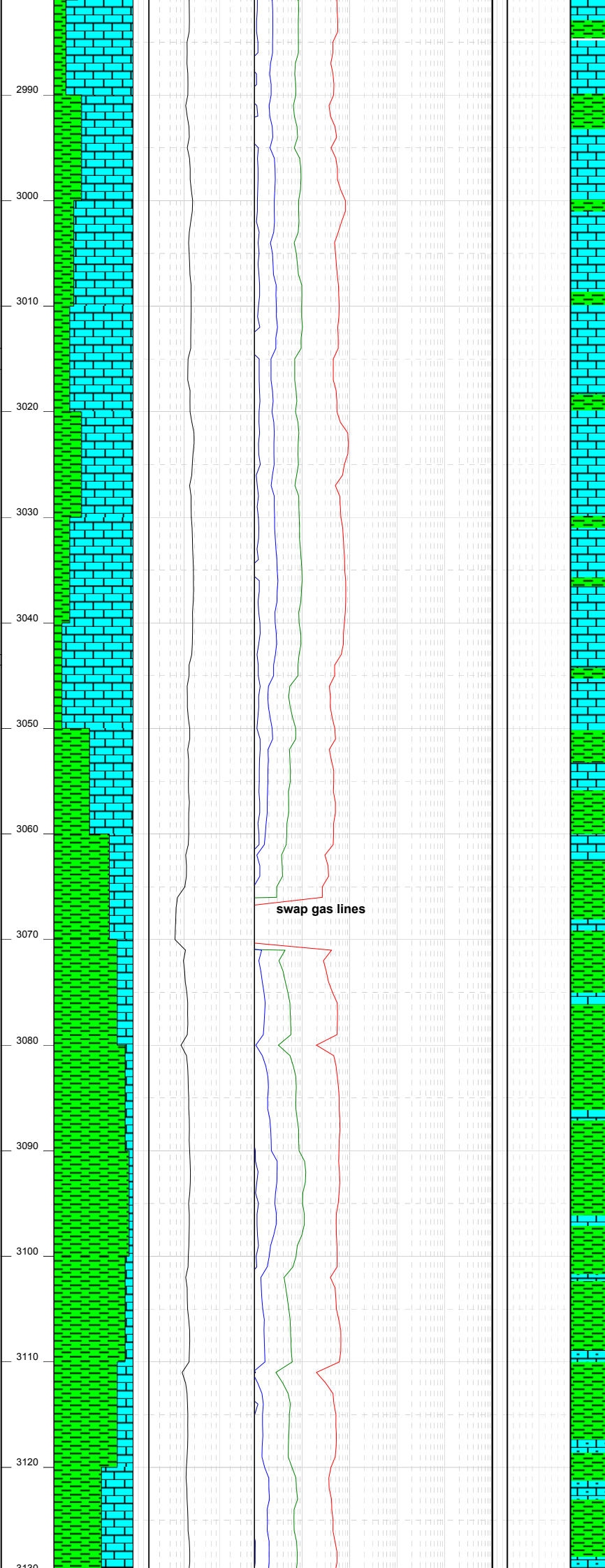
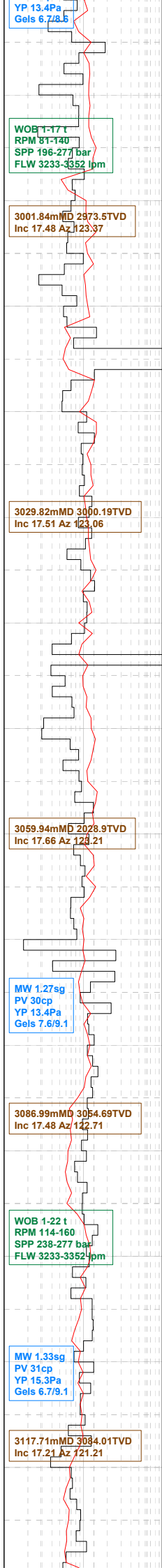
MW 1.23sq
PV 26cp
YP 10.5Pa
Gels 5.7/6.7

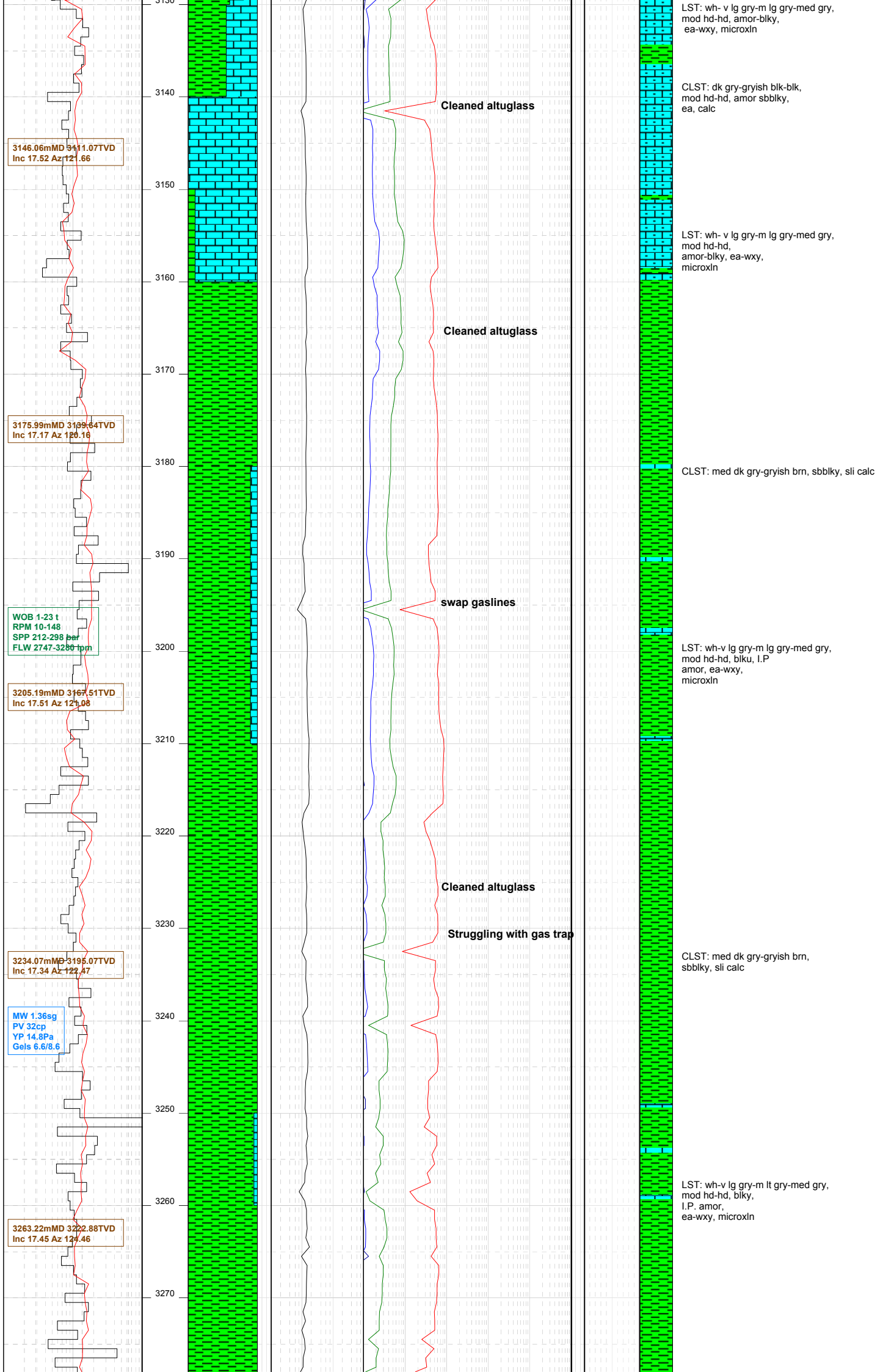
2798.75mMD 2779.98TVD
Inc 18.49 Az 124.52

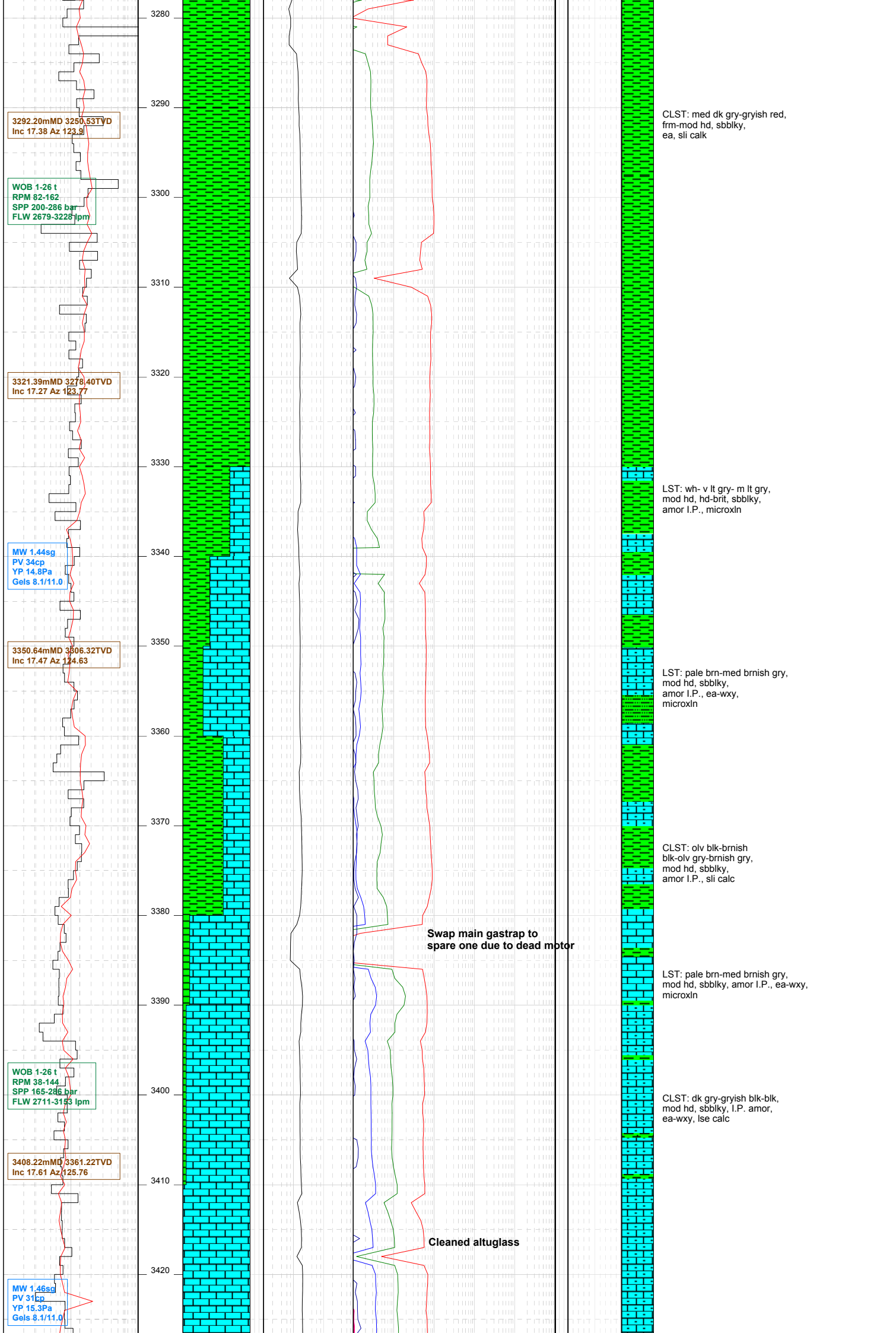
WOB 1.23 t
RPM 47.132
SPP 176.237 bar
FLW 2076-3134 lpm

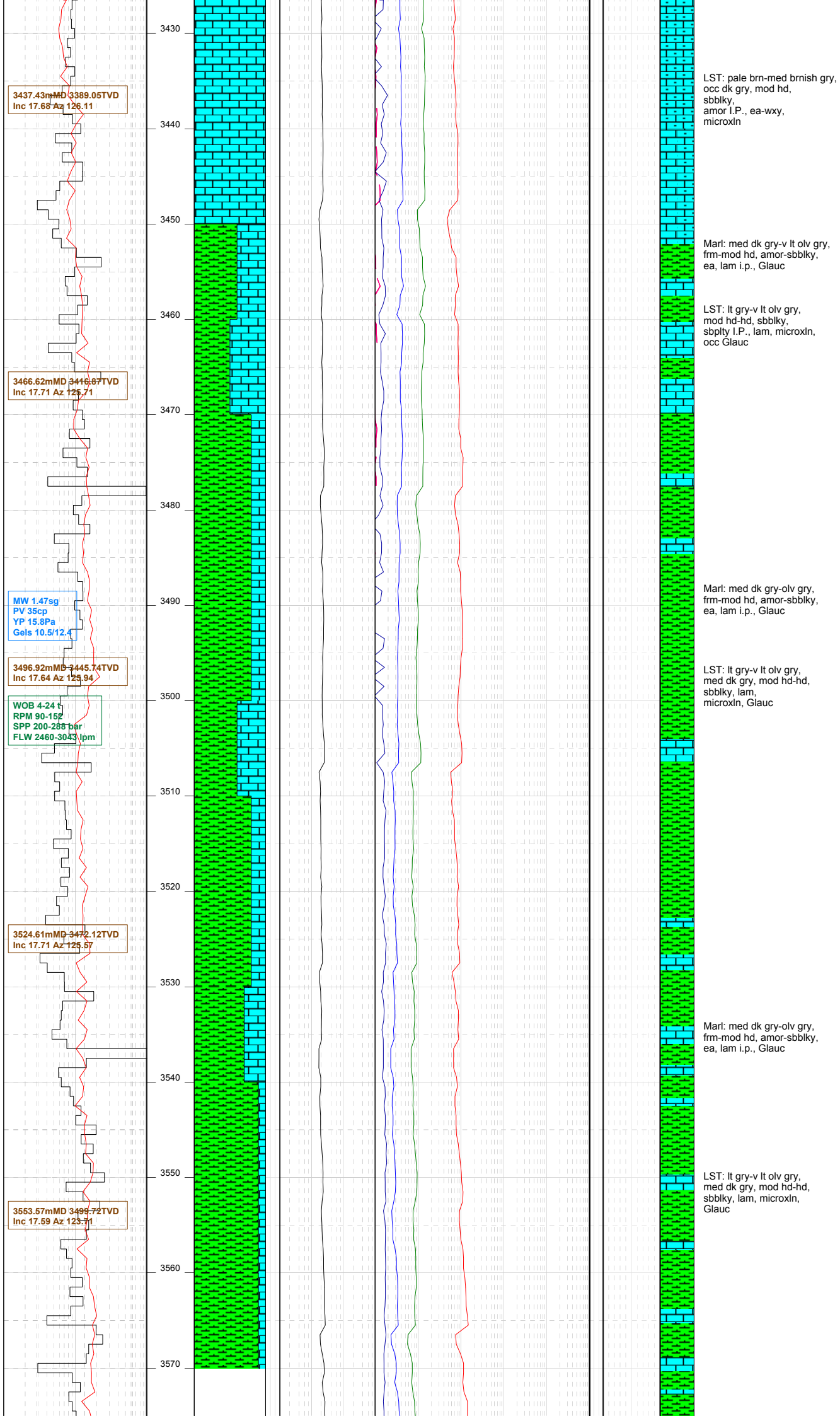
2826.89mMD 2806.69TVD
Inc 18.17 Az 121.87

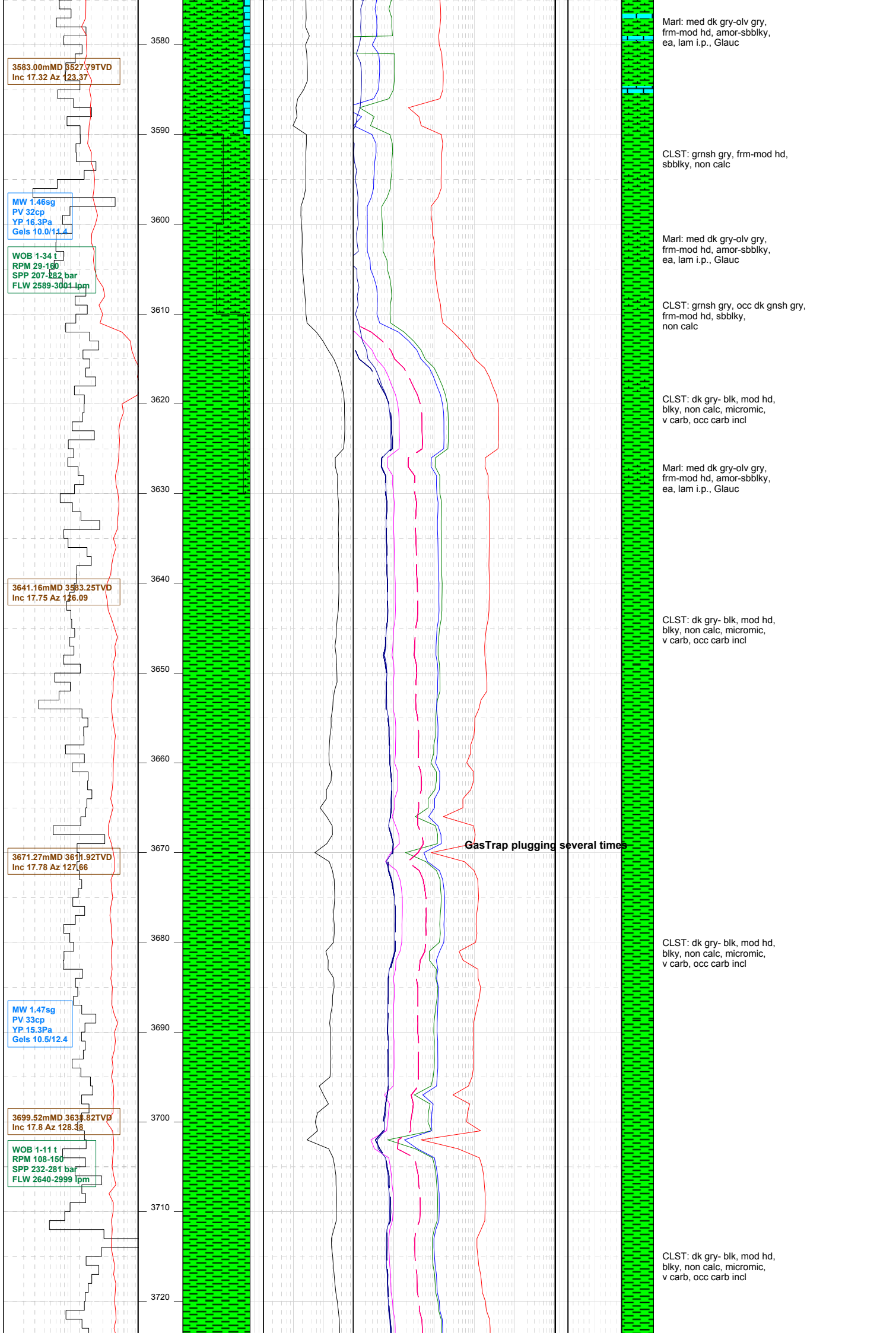












3729.25mMD 3667.12TVD
Inc 17.9 Az 127.89

3758.38mMD 3694.84TVD
Inc 17.88 Az 125.73

3777.51mMD 3713.08TVD
Inc 17.34 Az 124.92

MW 1.46sg
PV 33cp
YP 16.3Pa
Gels 10.5/12.2

WOB 11-18 t
RPM 112-121
SPP 177-213 bar
FLW 3240-3630 lpm

MW 1.46sg
PV 29cp
YP 12.4Pa
Gels 7.1/8.1

WOB 6-17 t
RPM 110-160
SPP 226-240 bar
FLW 2152-2193 lpm

MW 1.46sg
PV 29cp
YP 14.4Pa
Gels 8.1/9.5

3867.80mMD 3799.45TVD
Inc 16.59 Az 122.393

3730
3740
3750
3760
3770
3780
3790
3800
3810
3820
3830
3840
3850
3860
3870

3799.45mMD 3799.45TVD
Inc 16.59 Az 122.393

Plugged degasser

Swapping gaslines

Reserval replaced

swapped degasser

degasser plugged by cuttings

CLST: dk gry- blk, mod hd,
blky, non calc, micromic,
v carb, occ carb incl

CLST: brnsh gry, tr grn gry,
mod hd, blky, sill calc,
micromic, v carb,
occ carb incl

CLST: dk gry- blk, mod hd,
blky, non calc, micromic,
v carb, occ carb incl

SLTST: med dk gry, sft-mod hd,
sbbiky, v carb, micromic

Bit#8, 12 1/4" MDSI716LHBPX
made 1036m in 60.4h
335.5 krev, out at 3817m
Grade: 0-0-CT-N-X-I-NO-TD

9 5/8" Liner shoe at
3817mMD, 3750.8mTVD

Bit#9RR 8 1/2" QD506X
4x12,1x13,1x11
In at 3817m

CLST: brnsh blk- olv blk,
frm, ea, sbbiky,
Tr Micropyr, Tr carb Mat,
micromic, slty,
silly calc

LST: lt gry, olv gry, yelsh gry, mod hd,
sft-frm, brit i.P., bblky,
microxln, arg i.P

LST: lt olv gry, olv gry,
yelsh gray, sft, v sdy,
grad to calc SST,
arg i.P

