



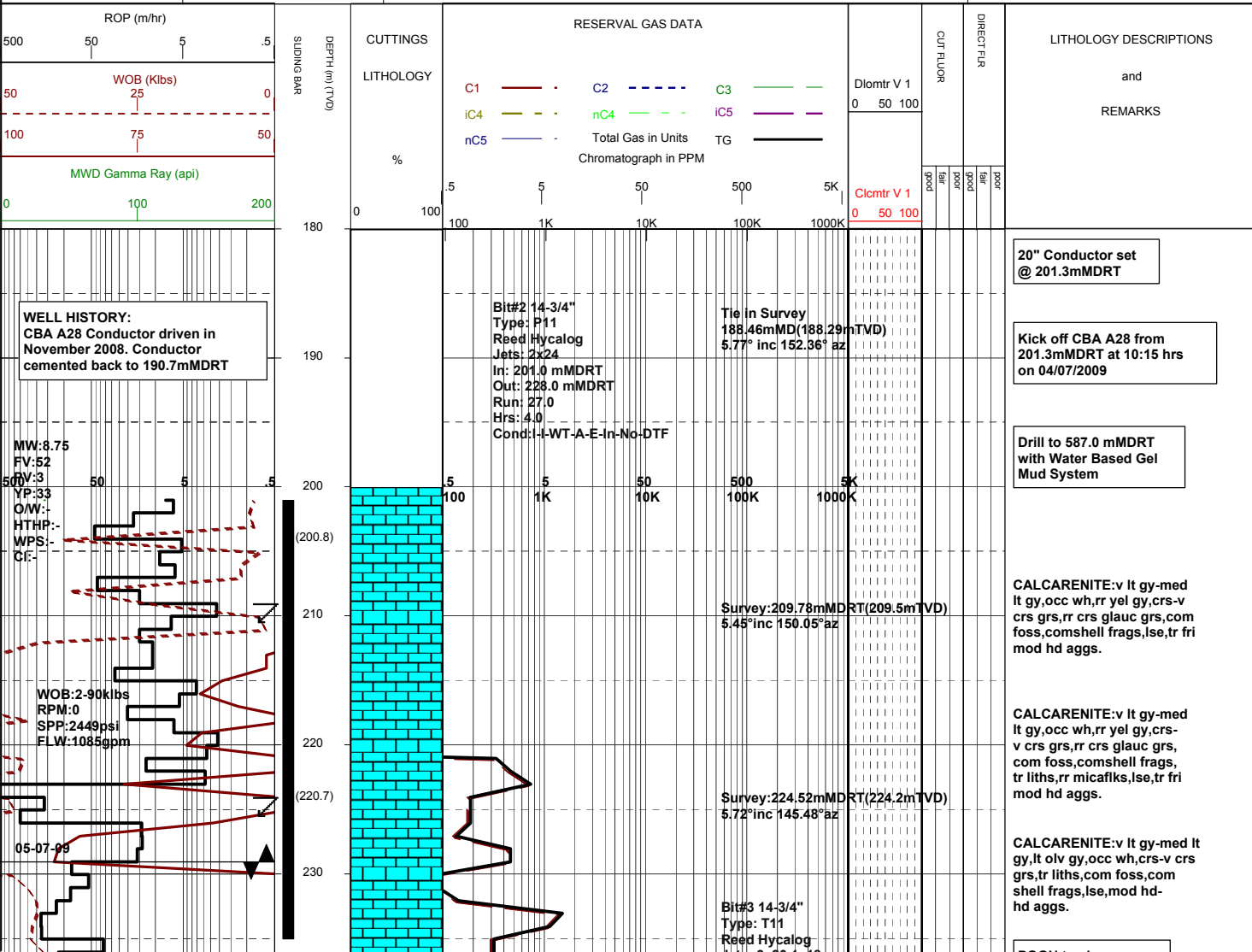
MASTERLOG

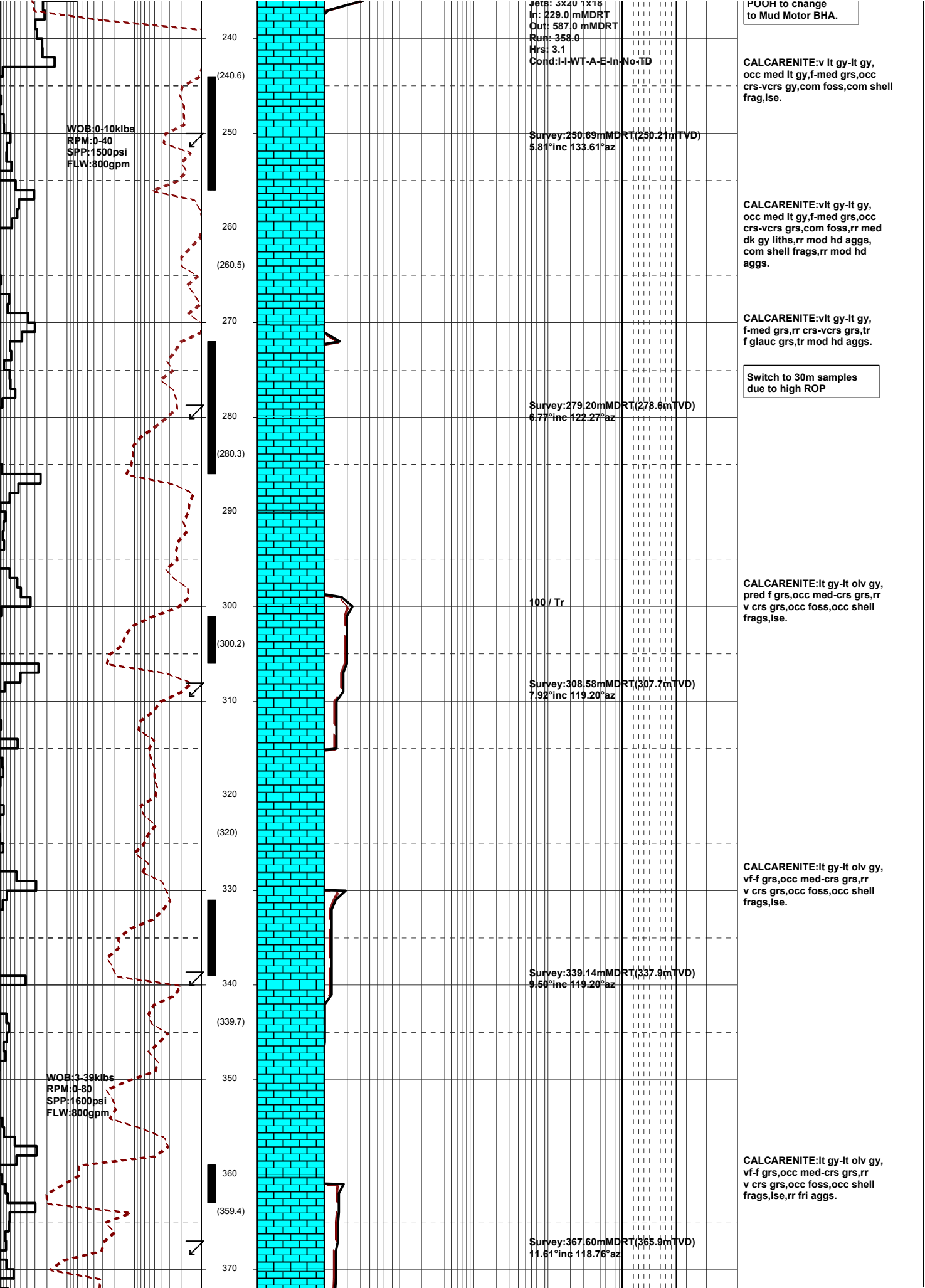
Cobia A28

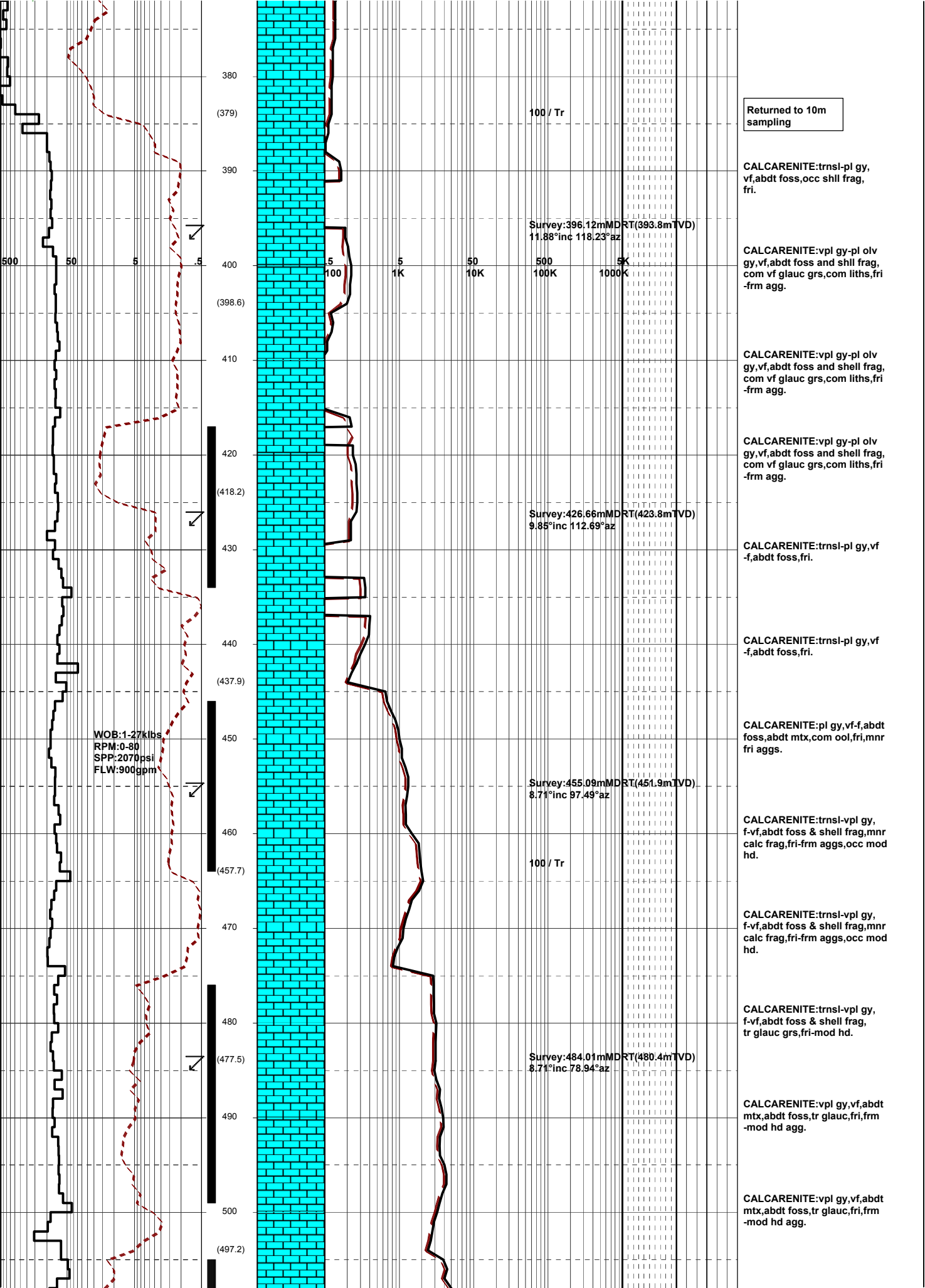


GENERAL	SURFACE POSITION	HOLE / CASING INFO	DATE / DEPTH	ENGINEERS
Country : AUSTRALIA	Longitude : 148°18'32.995" E		Kick off Date: 04/07/2009	Gareth Munro
Permit : VIC / L5	Latitude : 38°26'57.456" S			Phil Rady
Field : HALIBUT	MGA Co-ord X : 614238.70 mE	20" Conductor at 201.3 mMDRT		Colin Chadwick
Basin : GIPPSLAND	MGA Co-ord Y : 5743521.13 mN	10-3/4" Surface Csg at 584.96 mMDRT		Kepa O'Reilly
Well Type : DEVELOPMENT	RT to MSL : 41.0 m		Log Scale : 1/ 500	Adam Sullivan
Rig Name : Nabors 175	RT to Sea Bed : 120.0 m			

ABBREVIATIONS		LITHOLOGY LEGEND				ENGINEERING LEGEND			
MW	Mud Weight	WOB	Weight on Bit (klbs)	Claystone	Marl	Bryozoa	Glauconite	Casing shoe	Sidewall core
FV	Funnel Viscosity	RPM	Rotations Per Min	Siltstone	Limestone	Radiolariae	Pyrite	Casing top	Core
PV	Plastic Viscosity	FLW	Flow Rate (gpm)	Sandstone	Dolomite	Echinoids		Survey	Mud gain
YP	Yield Point	SPP	Pump Pressure (psi)	Shale	Coal-lignite	Foraminiferae		MDT	Mud loss
O/W	Oil/Water Ratio	RR	Re-Run Bit	Conglomerate	Volcanics	Cement			
WPS	Aq. Phase Salinity	TG	Trip Gas						
HPHT	Fluid Loss	CG	Connection Gas						
CI	Chlorides	BG	Background Gas						
Incl	Inclination	DGP	Drilled Gas Peak						
Az	Azimuth	MM	Mud Motor						







Returned to 10m sampling

100 / Tr

CALCARENITE:trnsi-pl gy, vf,abdt foss,occ shll frag, fri.

Survey:396.12mMDRT(393.8mTVD)
11.88°inc 118.23°az

CALCARENITE:vpl gy-pl olv gy,vf,abdt foss and shll frag, com vf glauc grs,com liths,fri -frm agg.

CALCARENITE:vpl gy-pl olv gy,vf,abdt foss and shell frag, com vf glauc grs,com liths,fri -frm agg.

CALCARENITE:vpl gy-pl olv gy,vf,abdt foss and shell frag, com vf glauc grs,com liths,fri -frm agg.

Survey:426.66mMDRT(423.8mTVD)
9.85°inc 112.69°az

CALCARENITE:trnsi-pl gy,vf -f,abdt foss,fri.

CALCARENITE:trnsi-pl gy,vf -f,abdt foss,fri.

CALCARENITE:pl gy,vf-f,abdt foss,abdt mtx,com ool,fri,mnr fri aggs.

Survey:455.09mMDRT(451.9mTVD)
8.71°inc 97.49°az

CALCARENITE:trnsi-vpl gy, f-vf,abdt foss & shell frag,mnr calc frag,fri-frm aggs,occ mod hd.

100 / Tr

CALCARENITE:trnsi-vpl gy, f-vf,abdt foss & shell frag,mnr calc frag,fri-frm aggs,occ mod hd.

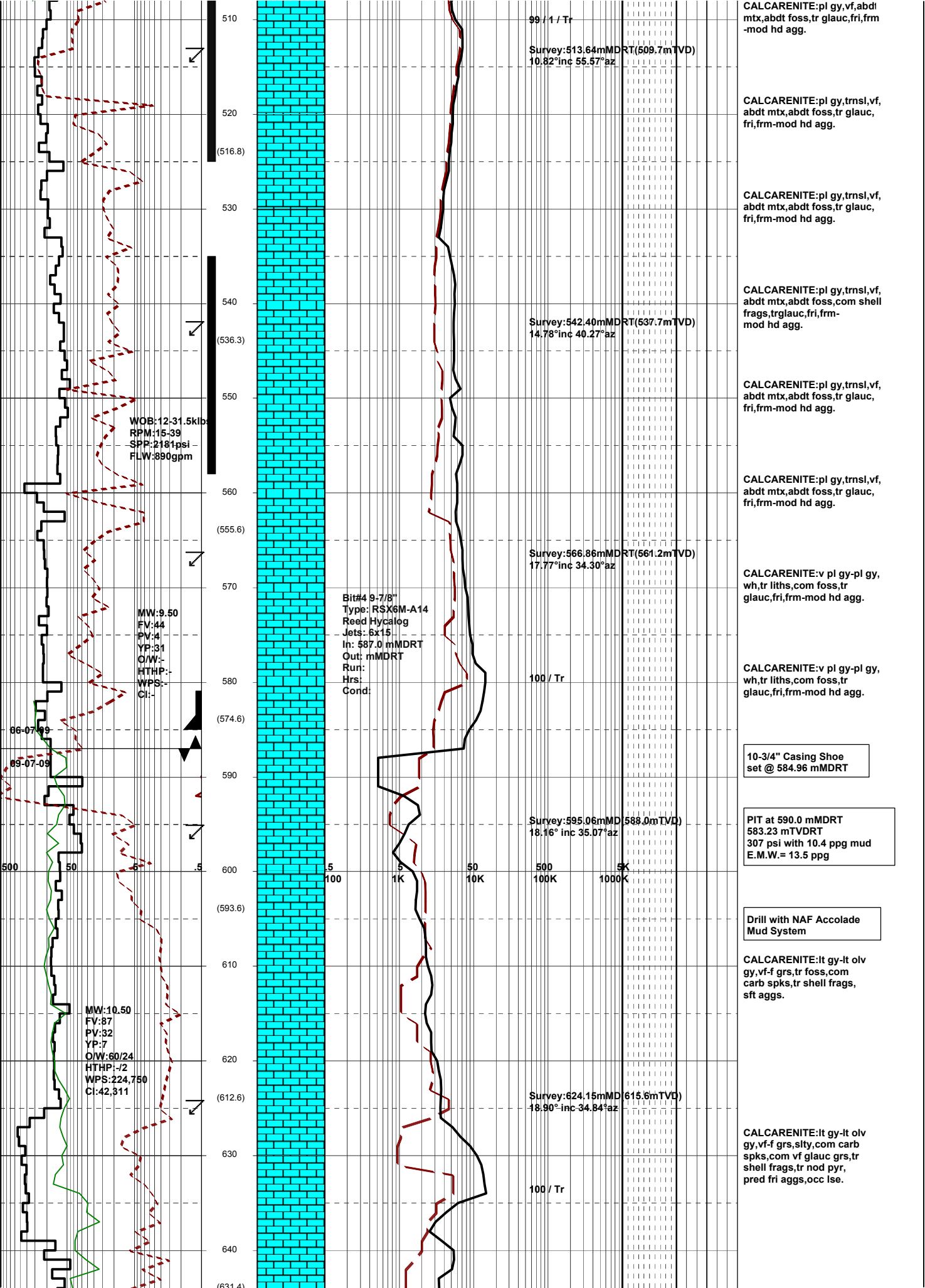
CALCARENITE:trnsi-vpl gy, f-vf,abdt foss & shell frag, tr glauc grs,fri-mod hd.

Survey:484.01mMDRT(480.4mTVD)
8.71°inc 78.94°az

CALCARENITE:vpl gy,vf,abdt mtx,abdt foss,tr glauc,fri,frm -mod hd agg.

CALCARENITE:vpl gy,vf,abdt mtx,abdt foss,tr glauc,fri,frm -mod hd agg.

WOB:1.27klbs
RPM:0-80
SPP:2070psi
FLW:900gpm



WOB:12-31.5klb
RPM:15-39
SPP:218¹psi
FLW:890gpm

MW:9.50
FV:44
PV:4
YP:31
O/W:-
HTHP:-
WPS:-
CI:-

Bit#4 9-7/8"
Type:RSX6M-A14
Reed Hycalog
Jets: 6x15
In: 587.0 mMDRT
Out: mMDRT
Run:
Hrs:
Cond:

MW:10.50
FV:87
PV:32
YP:7
O/W:60/24
HTHP:-/2
WPS:224,750
CI:42,311

99 / 1 / Tr
Survey:513.64mMDRT(509.7mTVD)
10.82°inc 55.57°az

Survey:542.40mMDRT(537.7mTVD)
14.78°inc 40.27°az

Survey:566.86mMDRT(561.2mTVD)
17.77°inc 34.30°az

Survey:595.06mMDRT(588.0mTVD)
18.16°inc 35.07°az

Survey:624.15mMDRT(615.6mTVD)
18.90°inc 34.84°az

CALCARENITE:pl gy,vf,abdt
mtx,abdt foss,tr glauc,fri,frm
-mod hd agg.

CALCARENITE:pl gy,trnsl,vf,
abdt mtx,abdt foss,tr glauc,
fri,frm-mod hd agg.

CALCARENITE:pl gy,trnsl,vf,
abdt mtx,abdt foss,tr glauc,
fri,frm-mod hd agg.

CALCARENITE:pl gy,trnsl,vf,
abdt mtx,abdt foss,com shell
frags,trglauc,fri,frm-
mod hd agg.

CALCARENITE:pl gy,trnsl,vf,
abdt mtx,abdt foss,tr glauc,
fri,frm-mod hd agg.

CALCARENITE:pl gy,trnsl,vf,
abdt mtx,abdt foss,tr glauc,
fri,frm-mod hd agg.

CALCARENITE:v pl gy-pl gy,
wh,tr liths,com foss,tr
glauc,fri,frm-mod hd agg.

CALCARENITE:v pl gy-pl gy,
wh,tr liths,com foss,tr
glauc,fri,frm-mod hd agg.

10-3/4" Casing Shoe
set @ 584.96 mMDRT

PIT at 590.0 mMDRT
583.23 mTVDRT
307 psi with 10.4 ppg mud
E.M.W.= 13.5 ppg

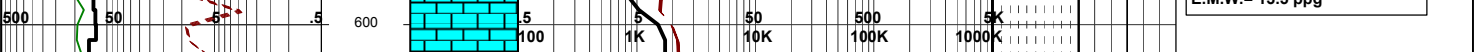
Drill with NAF Accolade
Mud System

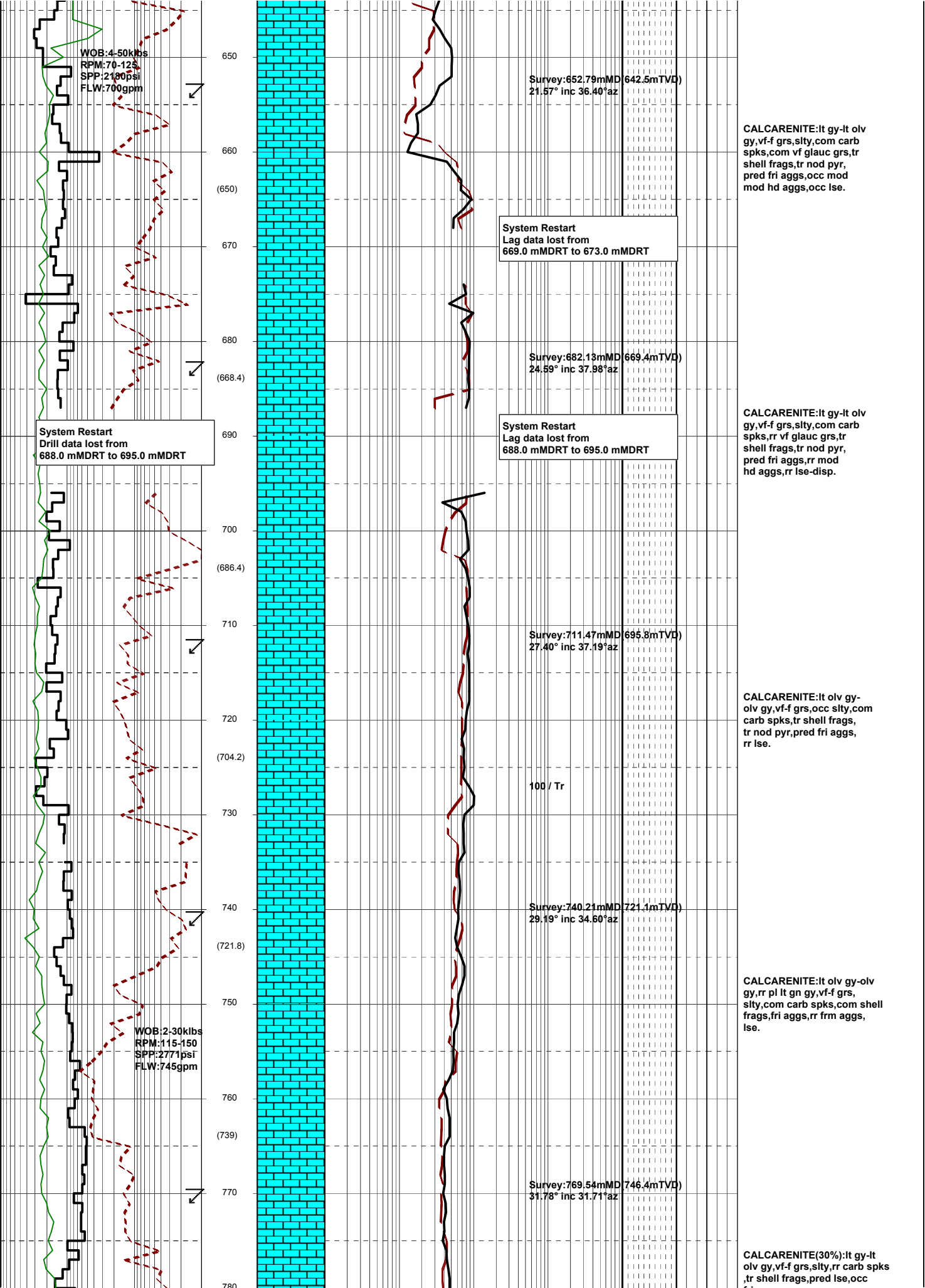
CALCARENITE:lt gy-lt olv
gy,vf-f grs,tr foss,com
carb spks,tr shell frags,
sft aggs.

CALCARENITE:lt gy-lt olv
gy,vf-f grs,slty,com carb
spks,com vf glauc grs,tr
shell frags,tr nod pyr,
pred fri aggs,occ lse.

100 / Tr

100 / Tr





WOB:4-50klbs
RPM:70-125
SPP:2180psi
FLW:700gpm

Survey:652.79mMD (642.5mTVD)
21.57° inc 36.40°az

CALCARENITE:lt gy-lt olv gy,vf-f grs,silty,com carb spks,com vf glauc grs,tr shell frags,tr nod pyr, pred fri aggs,occ mod mod hd aggs,occ lse.

System Restart
Lag data lost from
669.0 mMDRT to 673.0 mMDRT

Survey:682.13mMD (669.4mTVD)
24.59° inc 37.98°az

CALCARENITE:lt gy-lt olv gy,vf-f grs,silty,com carb spks,rr vf glauc grs,tr shell frags,tr nod pyr, pred fri aggs,rr mod hd aggs,rr lse-disp.

System Restart
Drill data lost from
688.0 mMDRT to 695.0 mMDRT

System Restart
Lag data lost from
688.0 mMDRT to 695.0 mMDRT

Survey:711.47mMD (695.8mTVD)
27.40° inc 37.19°az

CALCARENITE:lt olv gy-olv gy,vf-f grs,occ silty,com carb spks,tr shell frags, tr nod pyr,pred fri aggs, rr lse.

100 / Tr

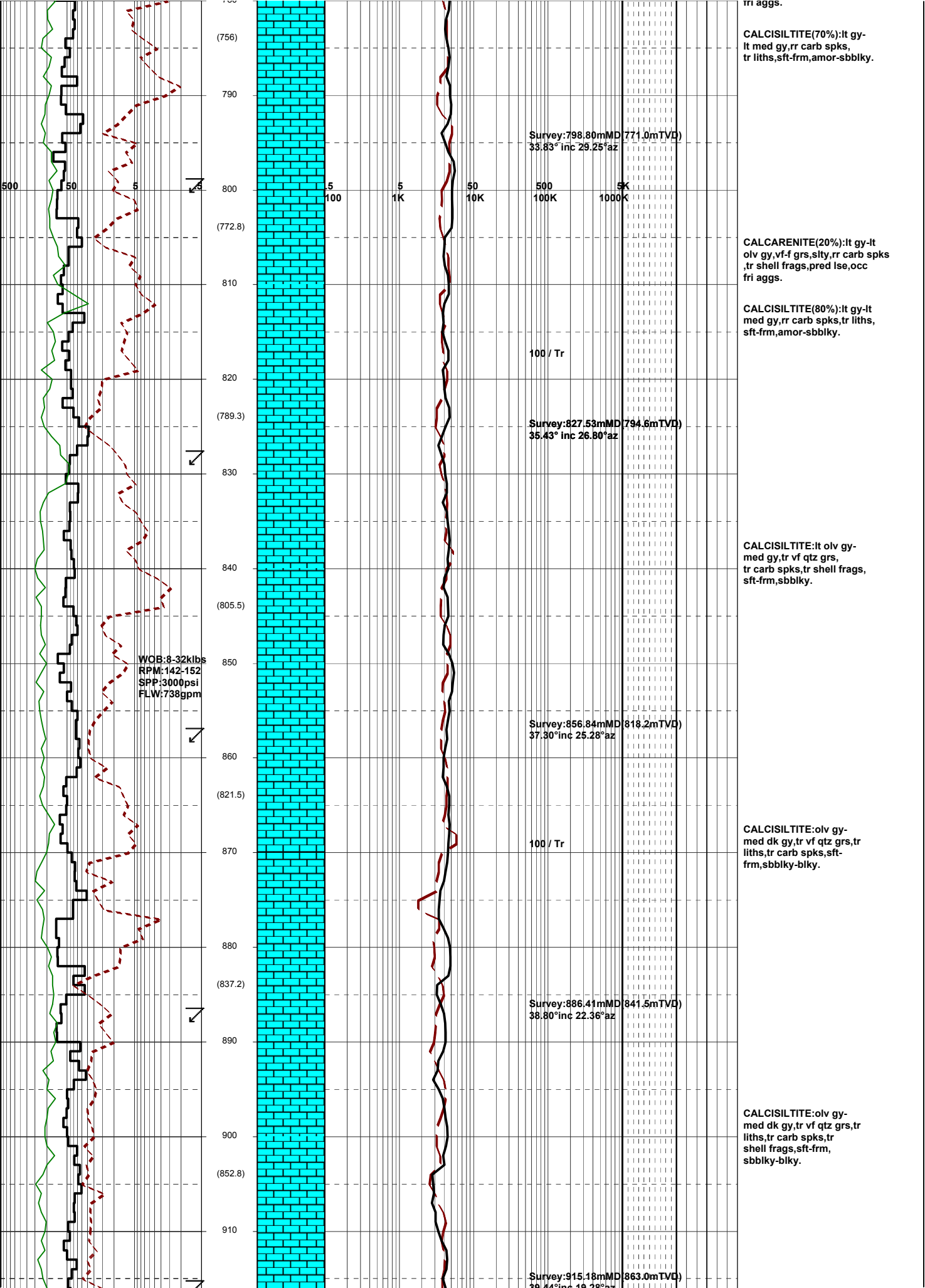
Survey:740.21mMD (721.1mTVD)
29.19° inc 34.60°az

CALCARENITE:lt olv gy-olv gy,rr pl lt gn gy,vf-f grs, silty,com carb spks,com shell frags,fri aggs,rr frm aggs, lse.

WOB:2-30klbs
RPM:115-150
SPP:2771psi
FLW:745gpm

Survey:769.54mMD (746.4mTVD)
31.78° inc 31.71°az

CALCARENITE(30%):lt gy-lt olv gy,vf-f grs,silty,rr carb spks,rr shell frags,pred lse,occ



(756)
790
800
(772.8)
810
(789.3)
830
(805.5)
850
(821.5)
870
(837.2)
890
900
(852.8)
910

Survey: 798.80mMD (771.0mTVD)
33.83° inc 29.25° az

Survey: 827.53mMD (794.6mTVD)
35.43° inc 26.80° az

Survey: 856.84mMD (818.2mTVD)
37.30° inc 25.28° az

Survey: 886.41mMD (841.5mTVD)
38.80° inc 22.36° az

Survey: 915.18mMD (863.0mTVD)
39.44° inc 19.28° az

WOB: 8-32klbs
RPM: 142-152
SPP: 3000psi
FLW: 738gpm

tr aggs.
CALCISILTITE(70%): lt gy-
lt med gy, rr carb spks,
tr liths, sft frm, amor-sbbkly.

CALCARENITE(20%): lt gy-
lt olv gy, vf-grs, slty, rr carb spks
, tr shell frags, pred lse, occ
fri aggs.

CALCISILTITE(80%): lt gy-
lt med gy, rr carb spks, tr liths,
sft frm, amor-sbbkly.

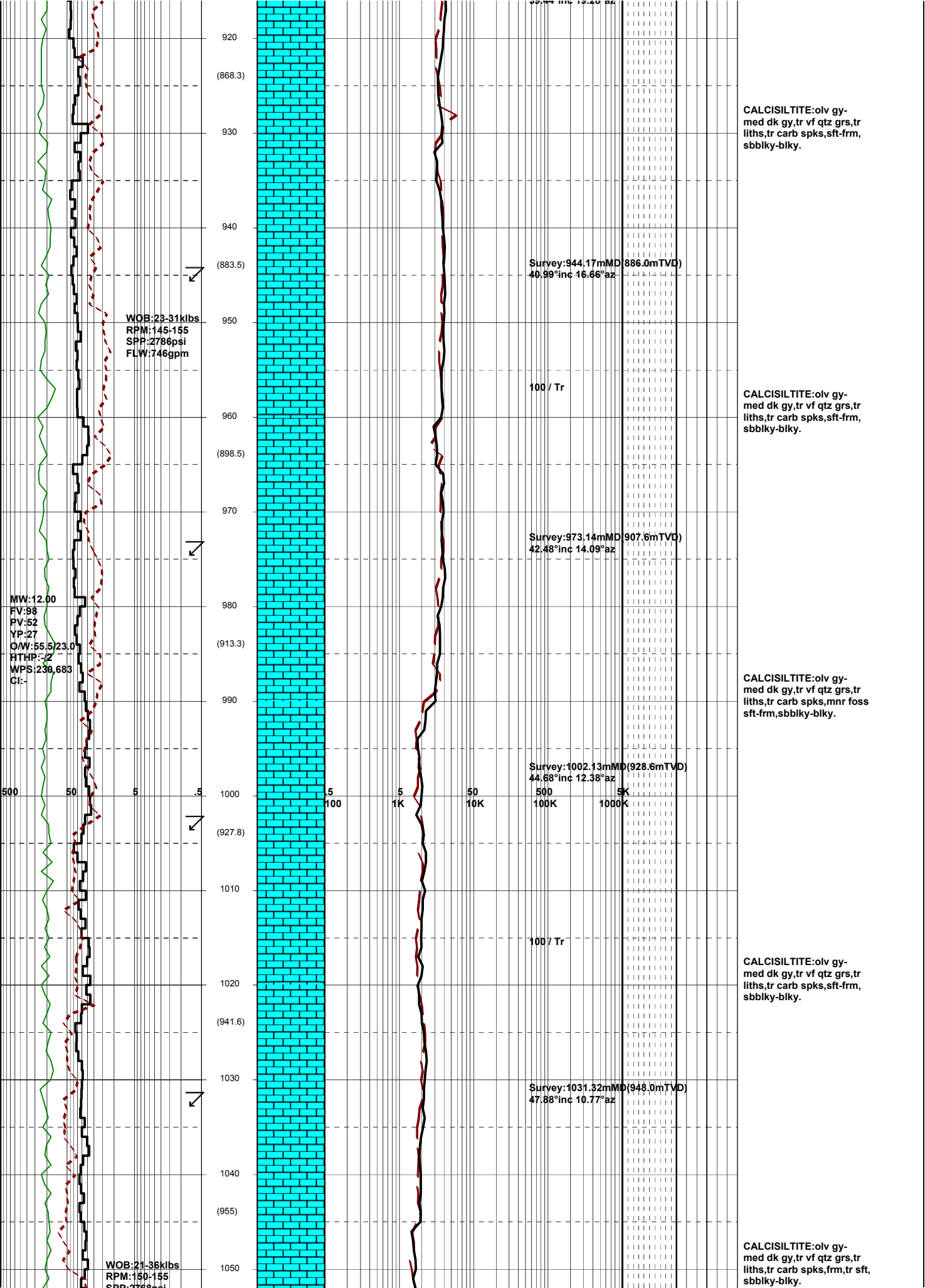
100 / Tr

CALCISILTITE: lt olv gy-
med gy, tr vf qtz grs,
tr carb spks, tr shell frags,
sft frm, sbbkly.

100 / Tr

CALCISILTITE: olv gy-
med dk gy, tr vf qtz grs, tr
liths, tr carb spks, sft-
frm, sbbkly-blky.

CALCISILTITE: olv gy-
med dk gy, tr vf qtz grs, tr
liths, tr carb spks, tr
shell frags, sft frm,
sbbkly-blky.



920
(868.3)
930
940
(883.5)
950
960
(898.5)
970
980
(913.3)
990
1000
(927.8)
1010
1020
(941.6)
1030
1040
(955)
1050

WOB:23-31klbs
RPM:145-155
SPP:2786psi
FLW:746gpm

MW:12.00
FV:98
PV:52
YP:27
O/W:55.5/23.0
HTHP:12
WPS:230,683
CI:-

WOB:21-36klbs
RPM:150-155
SPP:2786psi

Survey:944.17mMD(886.0mTVD)
40.99°inc 16.66°az

100 / Tr

Survey:973.14mMD(907.6mTVD)
42.48°inc 14.09°az

Survey:1002.13mMD(928.6mTVD)
44.68°inc 12.38°az

100 / Tr

Survey:1031.32mMD(948.0mTVD)
47.88°inc 10.77°az

CALCISILTITE:olv gy-med dk gy,tr vf qtz grs,tr liths,tr carb spks,sft frm,sbbkly-blky.

CALCISILTITE:olv gy-med dk gy,tr vf qtz grs,tr liths,tr carb spks,sft frm,sbbkly-blky.

CALCISILTITE:olv gy-med dk gy,tr vf qtz grs,tr liths,tr carb spks,mnr foss sft frm,sbbkly-blky.

CALCISILTITE:olv gy-med dk gy,tr vf qtz grs,tr liths,tr carb spks,sft frm,sbbkly-blky.

CALCISILTITE:olv gy-med dk gy,tr vf qtz grs,tr liths,tr carb spks,frm,fr sft,sbbkly-blky.

500 50 5 .5

5 100 5 1K 50 10K 500 100K 5K 1000K

SPP:2700psi
FLW:734gpm

10-07-09

MW:11.95
FV:88
PV:49
YP:28
OAW:71.5/28.5
HTHP:-/2
WPS:229,204
CI:39,782

WOB:25-37klbs
RPM:150-155
SPP:2856psi
FLW:743gpm

1060
(967.9)
1070
1080
(979.8)
1090
1100
(991.3)
1110
1120
(1002.4)
1130
1140
(1013.1)
1150
1160
(1023.5)
1170
1180
(1033.7)

Survey:1060.50mMD(967.6mTVD)
51.75°inc 10.77°az

100 / Tr

Survey:1089.43mMD(984.8mTVD)
55.01°inc 10.88°az

Survey:1118.25mMD(1001.0mTVD)
56.91°inc 12.44°az

100 / Tr

Survey:1147.62mMD(1016.7mTVD)
58.45°inc 15.37°az

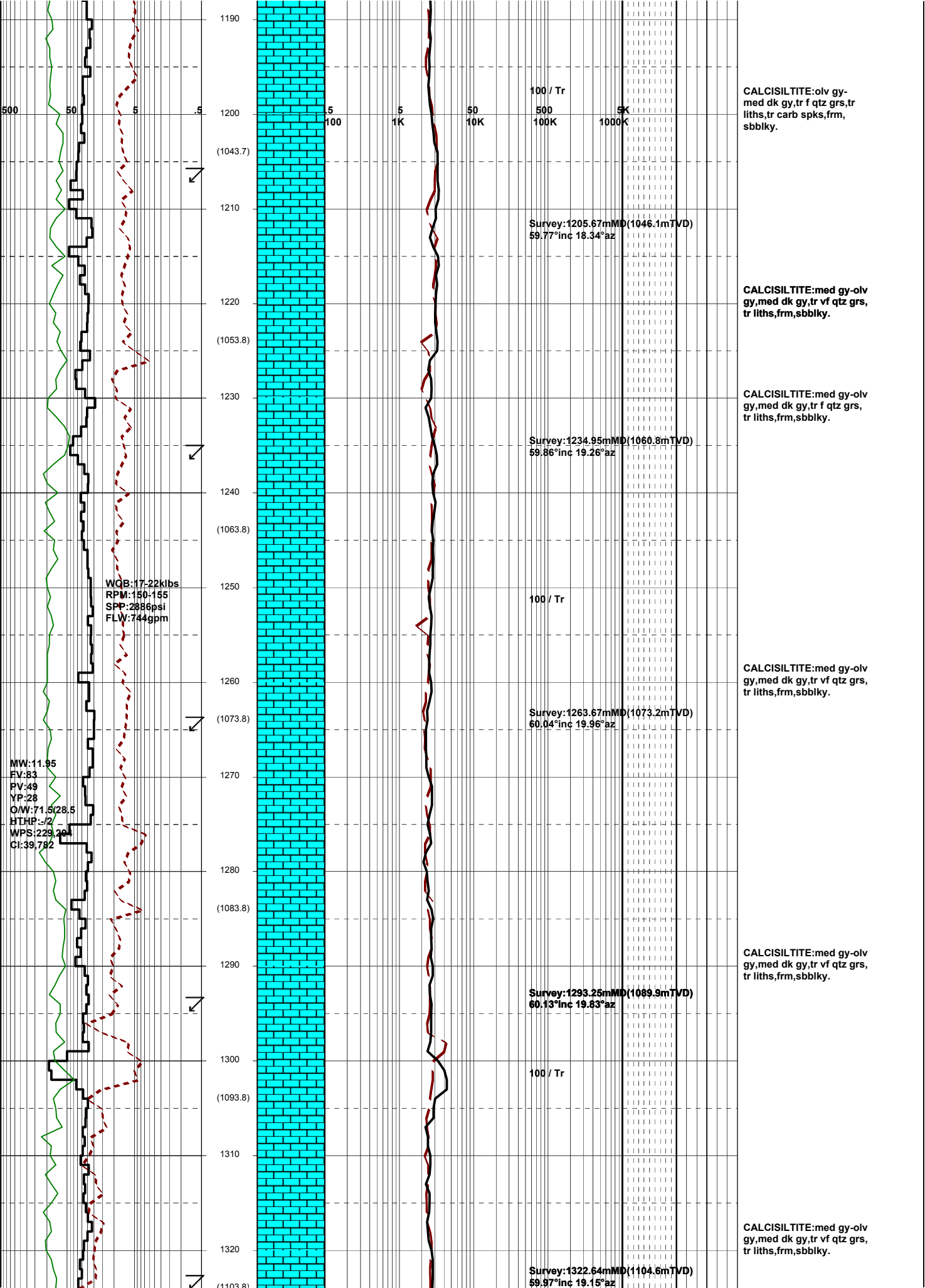
Survey:1176.30mMD(1031.3mTVD)
60.04°inc 18.59°az

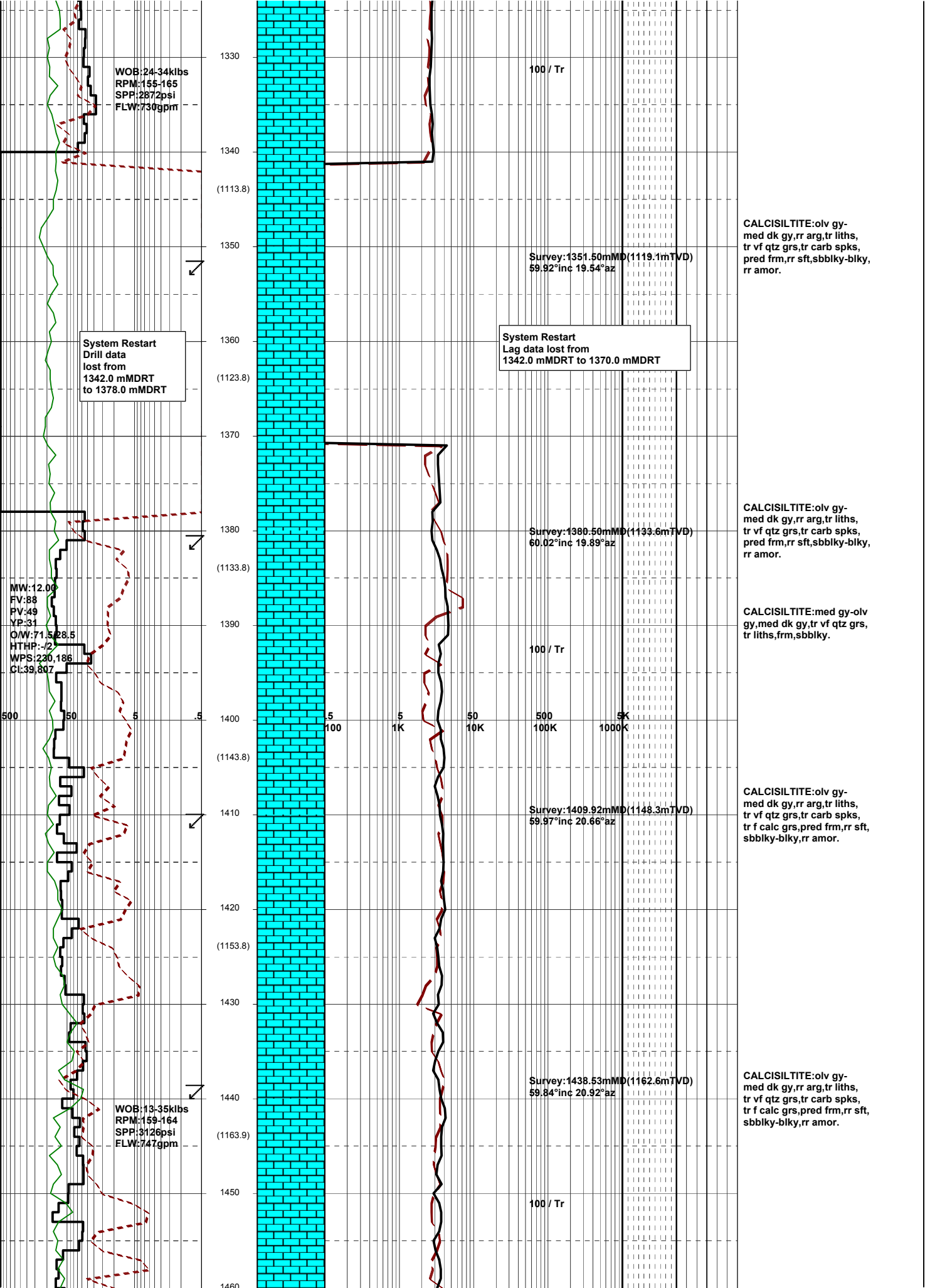
CALCISILTITE:olv gy-
med dk gy,tr vf qtz grs,tr
liths,tr carb spks,frm,tr sft,
sbbiky-blky.

CALCISILTITE:olv gy-
med dk gy,tr vf qtz grs,tr
liths,tr carb spks,frm,tr sft,
sbbiky-blky.

CALCISILTITE:olv gy-
med dk gy,tr f qtz grs,tr
liths,tr carb spks,frm,
sbbiky.

CALCISILTITE:olv gy-
med dk gy,tr f qtz grs,tr
liths,frm,sbbiky.





WOB:24-34klbs
 RPM:155-165
 SPP:2872psi
 FLW:730gpm

100 / Tr

CALCISILTITE:olv gy-med dk gy,rr arg,tr liths, tr vf qtz grs,tr carb spks, pred frm,rr sft,sbbkly-blky, rr amor.

Survey:1351.50mMD(1119.1mTVD)
 59.92°inc 19.54°az

System Restart
 Drill data
 lost from
 1342.0 mMDRT
 to 1378.0 mMDRT

System Restart
 Lag data lost from
 1342.0 mMDRT to 1370.0 mMDRT

CALCISILTITE:olv gy-med dk gy,rr arg,tr liths, tr vf qtz grs,tr carb spks, pred frm,rr sft,sbbkly-blky, rr amor.

Survey:1380.50mMD(1133.6mTVD)
 60.02°inc 19.89°az

MW:12.00
 FV:88
 PV:49
 YP:31
 O/W:71.5/28.5
 HTHP:-/2
 WPS:230,186
 CL:39,807

CALCISILTITE:med gy-olv gy,med dk gy,tr vf qtz grs, tr liths,frm,sbbkly.

100 / Tr

CALCISILTITE:olv gy-med dk gy,rr arg,tr liths, tr vf qtz grs,tr carb spks, tr f calc grs,pred frm,rr sft, sbbkly-blky,rr amor.

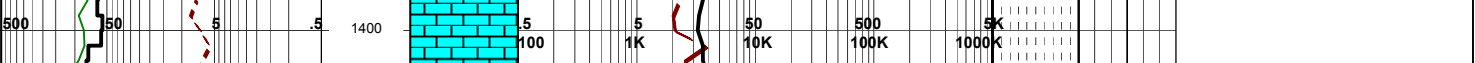
Survey:1409.92mMD(1148.3mTVD)
 59.97°inc 20.66°az

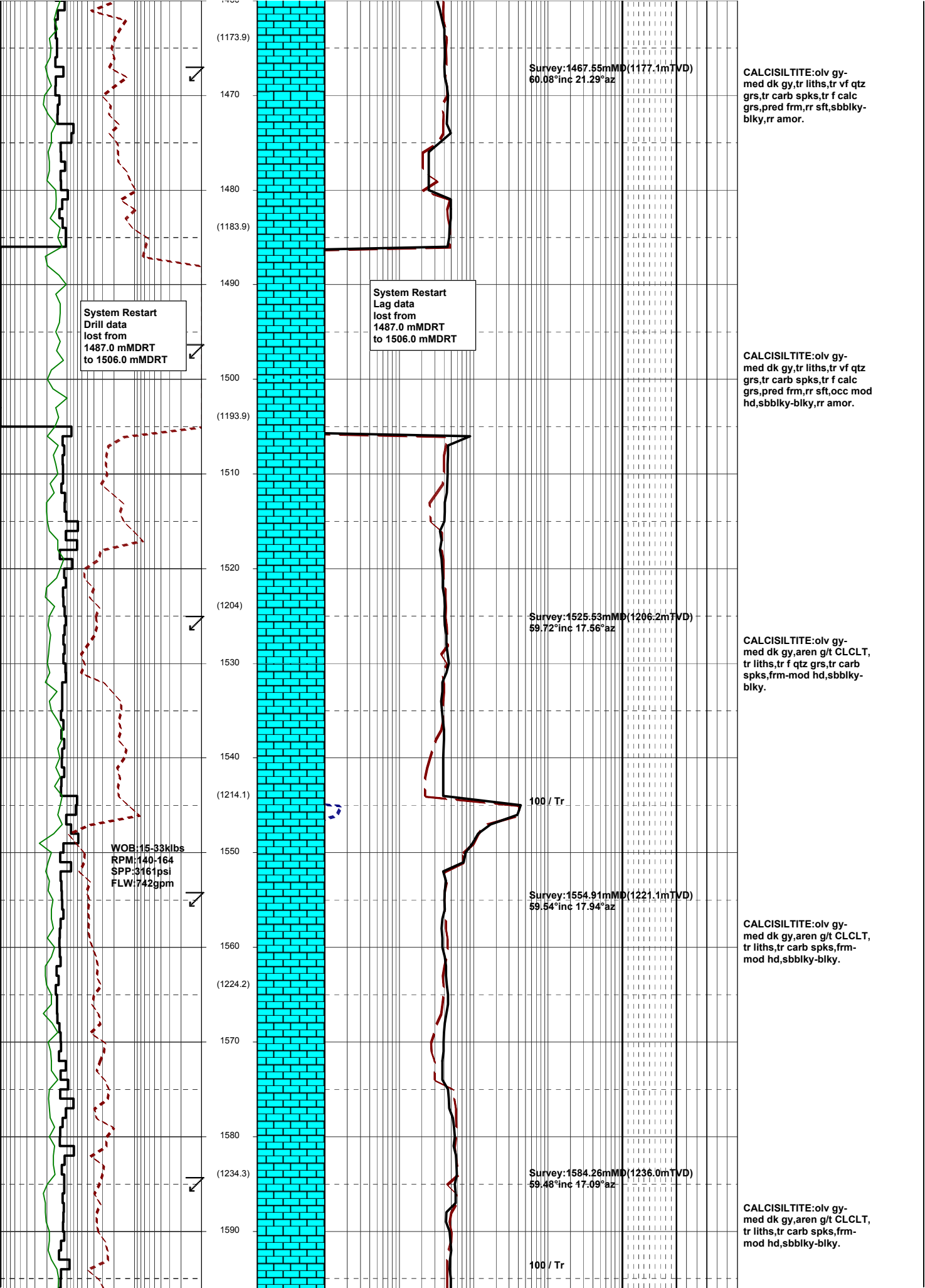
WOB:13-35klbs
 RPM:159-164
 SPP:3126psi
 ELW:747gpm

Survey:1438.53mMD(1162.6mTVD)
 59.84°inc 20.92°az

CALCISILTITE:olv gy-med dk gy,rr arg,tr liths, tr vf qtz grs,tr carb spks, tr f calc grs,pred frm,rr sft, sbbkly-blky,rr amor.

100 / Tr





(1173.9)

1470

1480

(1183.9)

1490

System Restart
Drill data
lost from
1487.0 mMDRT
to 1506.0 mMDRT

1500

(1193.9)

1510

1520

(1204)

1530

1540

(1214.1)

WOB: 15-33klbs
RPM: 140-164
SPP: 3161psi
FLW: 742gpm

1550

1560

(1224.2)

1570

1580

(1234.3)

1590

Survey: 1467.55mMD (1177.1mTVD)
60.08°inc 21.29°az

CALCISILTITE: olv gy-
med dk gy, tr liths, tr vf qtz
grs, tr carb spks, tr f calc
grs, pred frm, rr sft, sbblky-
blky, rr amor.

System Restart
Lag data
lost from
1487.0 mMDRT
to 1506.0 mMDRT

CALCISILTITE: olv gy-
med dk gy, tr liths, tr vf qtz
grs, tr carb spks, tr f calc
grs, pred frm, rr sft, occ mod
hd, sbblky-blky, rr amor.

Survey: 1525.53mMD (1206.2mTVD)
59.72°inc 17.56°az

CALCISILTITE: olv gy-
med dk gy, aren g/t CLCLT,
tr liths, tr f qtz grs, tr carb
spks, frm-mod hd, sbblky-
blky.

100 / Tr

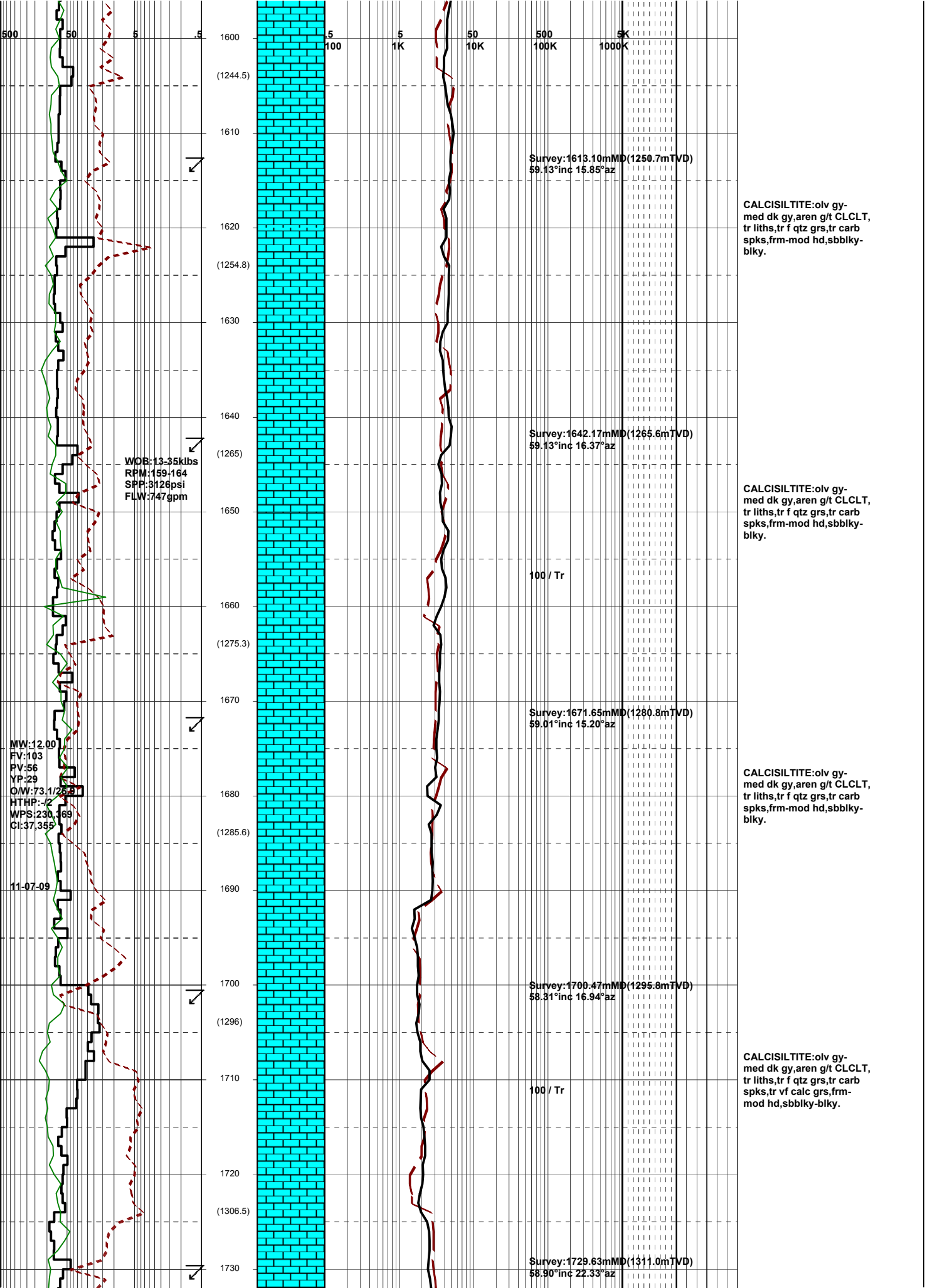
Survey: 1554.91mMD (1221.1mTVD)
59.54°inc 17.94°az

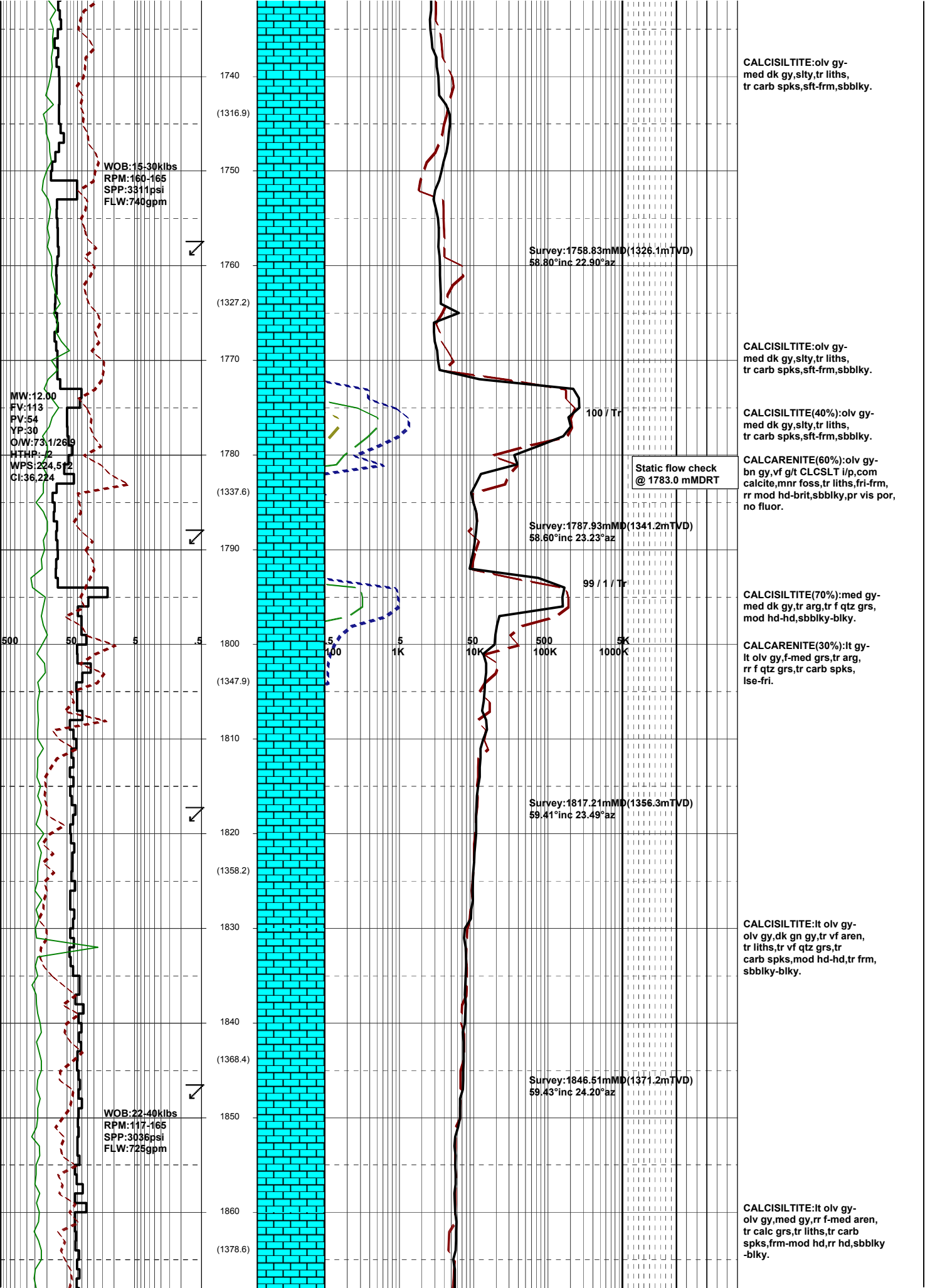
CALCISILTITE: olv gy-
med dk gy, aren g/t CLCLT,
tr liths, tr carb spks, frm-
mod hd, sbblky-blky.

Survey: 1584.26mMD (1236.0mTVD)
59.48°inc 17.09°az

CALCISILTITE: olv gy-
med dk gy, aren g/t CLCLT,
tr liths, tr carb spks, frm-
mod hd, sbblky-blky.

100 / Tr





WOB:15-30kilbs
 RPM:160-165
 SPP:3311psi
 FLW:740gpm

MW:12.00
 FV:113
 PV:54
 YP:30
 O/W:73.1/26.9
 HTHP:2
 WPS:224.5
 CI:36.224

500 50 5 .5
 100 1K 50 10K 500 5K 1000K

WOB:22-40kilbs
 RPM:117-165
 SPP:3036psi
 FLW:725gpm

Survey:1758.83mMD(1326.1mTVD)
 58.60°inc 22.90°az

Survey:1787.93mMD(1341.2mTVD)
 58.60°inc 23.23°az

Survey:1817.21mMD(1356.3mTVD)
 59.41°inc 23.49°az

Survey:1846.51mMD(1371.2mTVD)
 59.43°inc 24.20°az

Static flow check
 @ 1783.0 mMDRT

CALCISILTITE:olv gy-med dk gy,silty,tr liths, tr carb spks,sft-frm,sbbiky.

CALCISILTITE:olv gy-med dk gy,silty,tr liths, tr carb spks,sft-frm,sbbiky.

CALCISILTITE(40%):olv gy-med dk gy,silty,tr liths, tr carb spks,sft-frm,sbbiky.

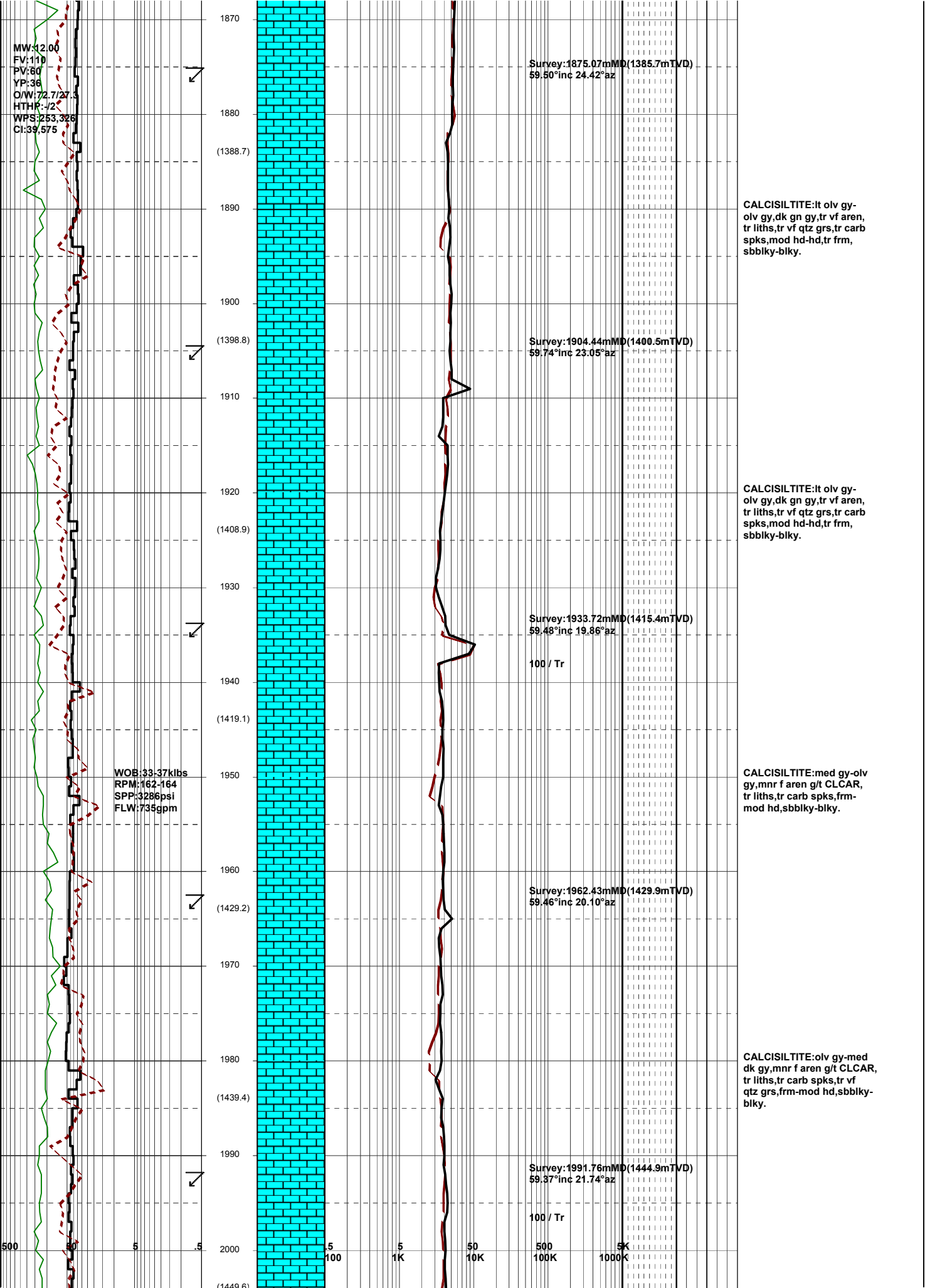
CALCARENITE(60%):olv gbn gy,vf g/t CLCSLT i/p,com calcite,mnr foss,tr liths,fri-frm, rr mod hd-brit,sbbiky,pr vis por, no fluor.

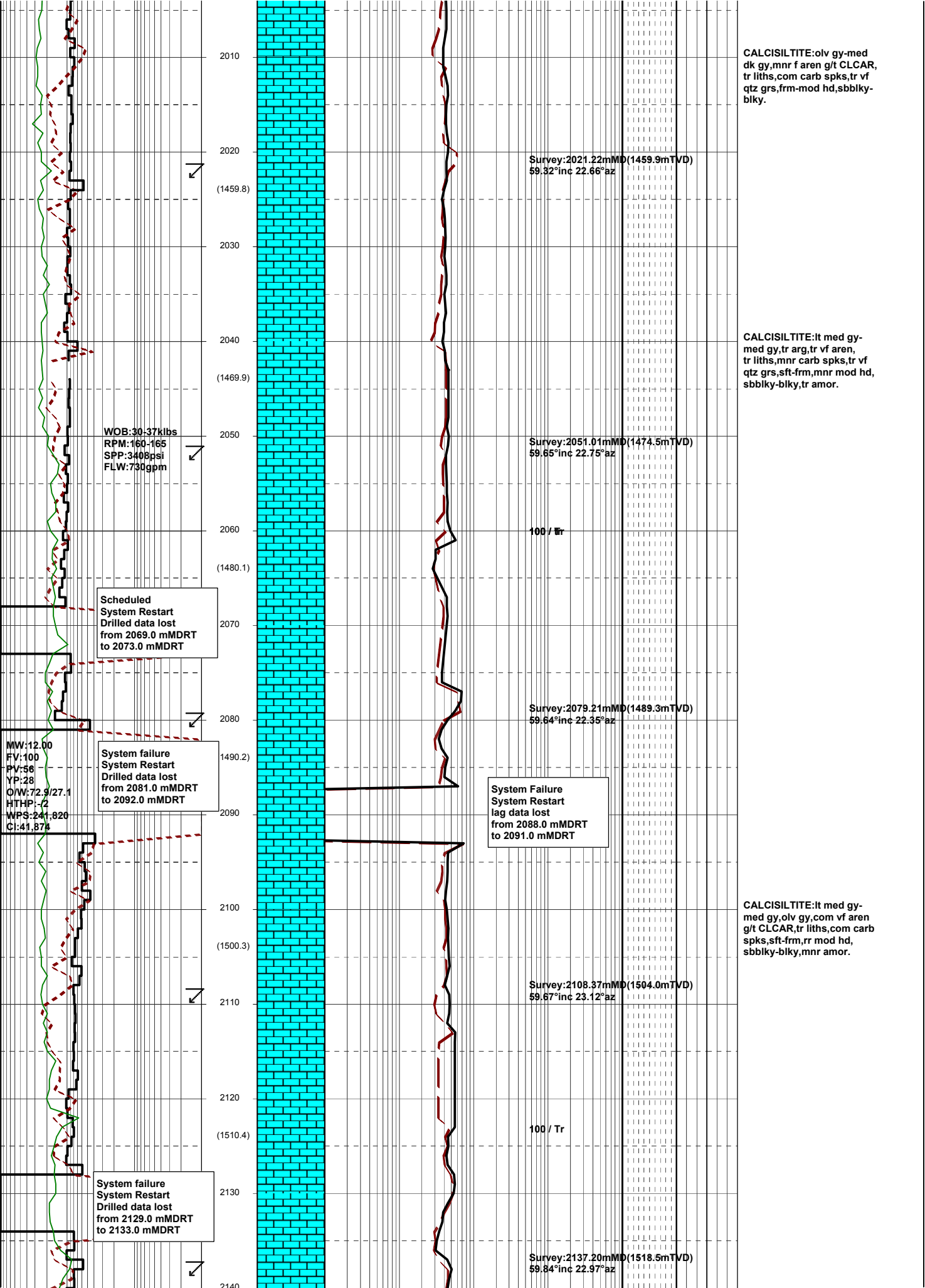
CALCISILTITE(70%):med gy-med dk gy,tr arg,tr f qtz grs, mod hd-hd,sbbiky-blky.

CALCARENITE(30%):lt gy-lt olv gy,f-med grs,tr arg, rr f qtz grs,tr carb spks, lse-fri.

CALCISILTITE:lt olv gy-olv gy,dk gn gy,tr vf aren, tr liths,tr vf qtz grs, tr carb spks,mod hd-hd,tr frm, sbbiky-blky.

CALCISILTITE:lt olv gy-olv gy,med gy,rr f-med aren, tr calc grs,tr liths,tr carb spks,frm-mod hd,rr hd,sbbiky-blky.





CALCISILTITE:olv gy-med dk gy,mnr f aren g/t CLCAR, tr liths,com carb spks,tr vf qtz grs,frm-mod hd,sbbiky-blky.

CALCISILTITE:lt med gy-med gy,tr arg,tr vf aren, tr liths,mnr carb spks,tr vf qtz grs,sft-frm,mnr mod hd, sbbiky-blky,tr amor.

CALCISILTITE:lt med gy-med gy,olv gy,com vf aren g/t CLCAR,tr liths,com carb spks,sft-frm,rr mod hd, sbbiky-blky,mnr amor.

2010
2020
2030
2040
2050
2060
2070
2080
2090
2100
2110
2120
2130
2140

WOB:30-37klbs
RPM:160-165
SPP:3408psi
FLW:730gpm

Scheduled System Restart
Drilled data lost from 2069.0 mMDRT to 2073.0 mMDRT

System failure System Restart
Drilled data lost from 2081.0 mMDRT to 2092.0 mMDRT

MW:12.00
FV:100
PV:56
YP:28
Q/W:72.9/27.1
HTHP:-2
WPS:241,820
C:41,874

System failure System Restart
Drilled data lost from 2129.0 mMDRT to 2133.0 mMDRT

Survey:2021.22mMD(1459.9mTVD)
59.32°inc 22.66°az

Survey:2051.01mMD(1474.5mTVD)
59.65°inc 22.75°az

100 / Tr

Survey:2079.21mMD(1489.3mTVD)
59.64°inc 22.35°az

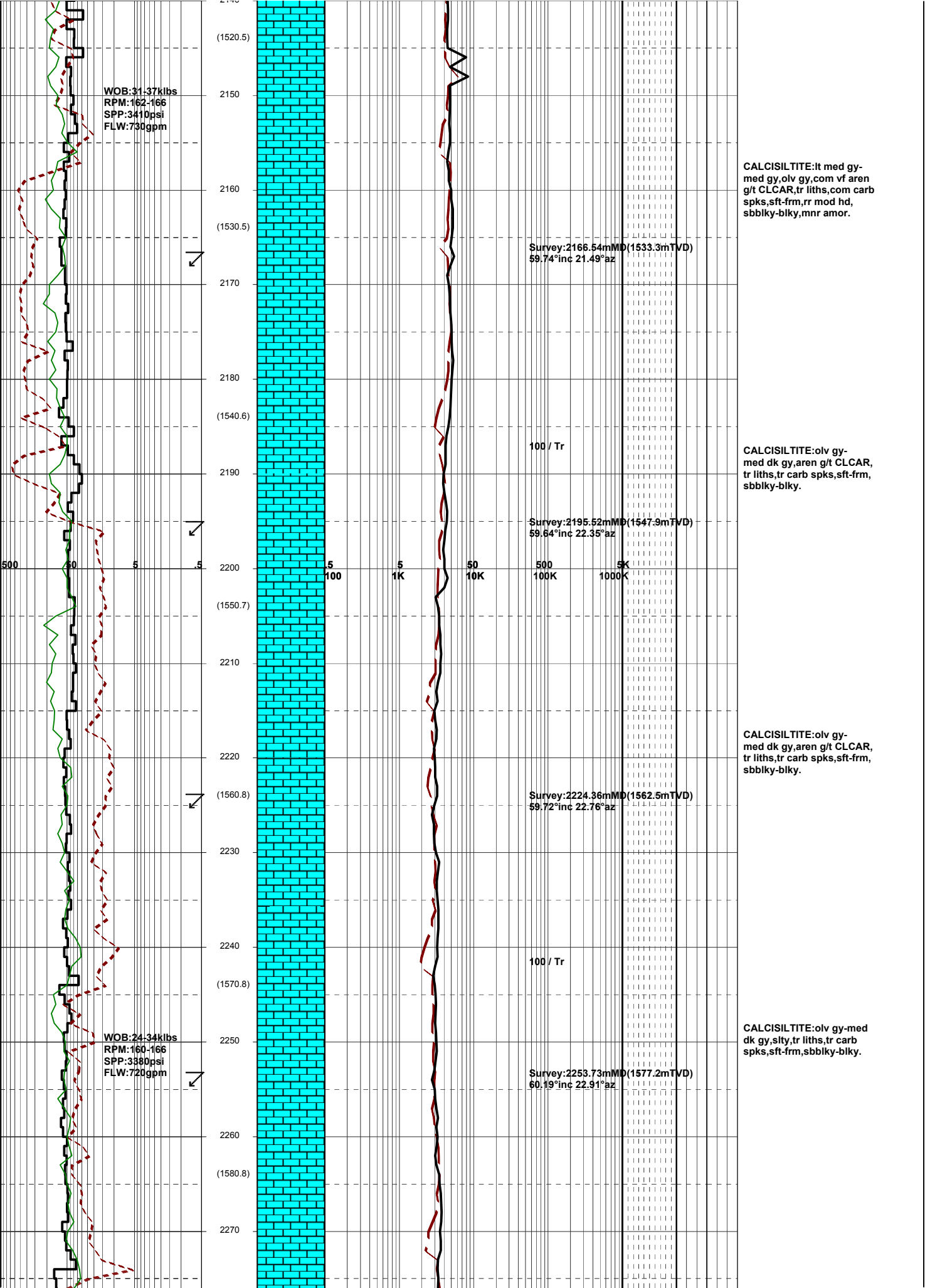
System Failure System Restart
lag data lost from 2088.0 mMDRT to 2091.0 mMDRT

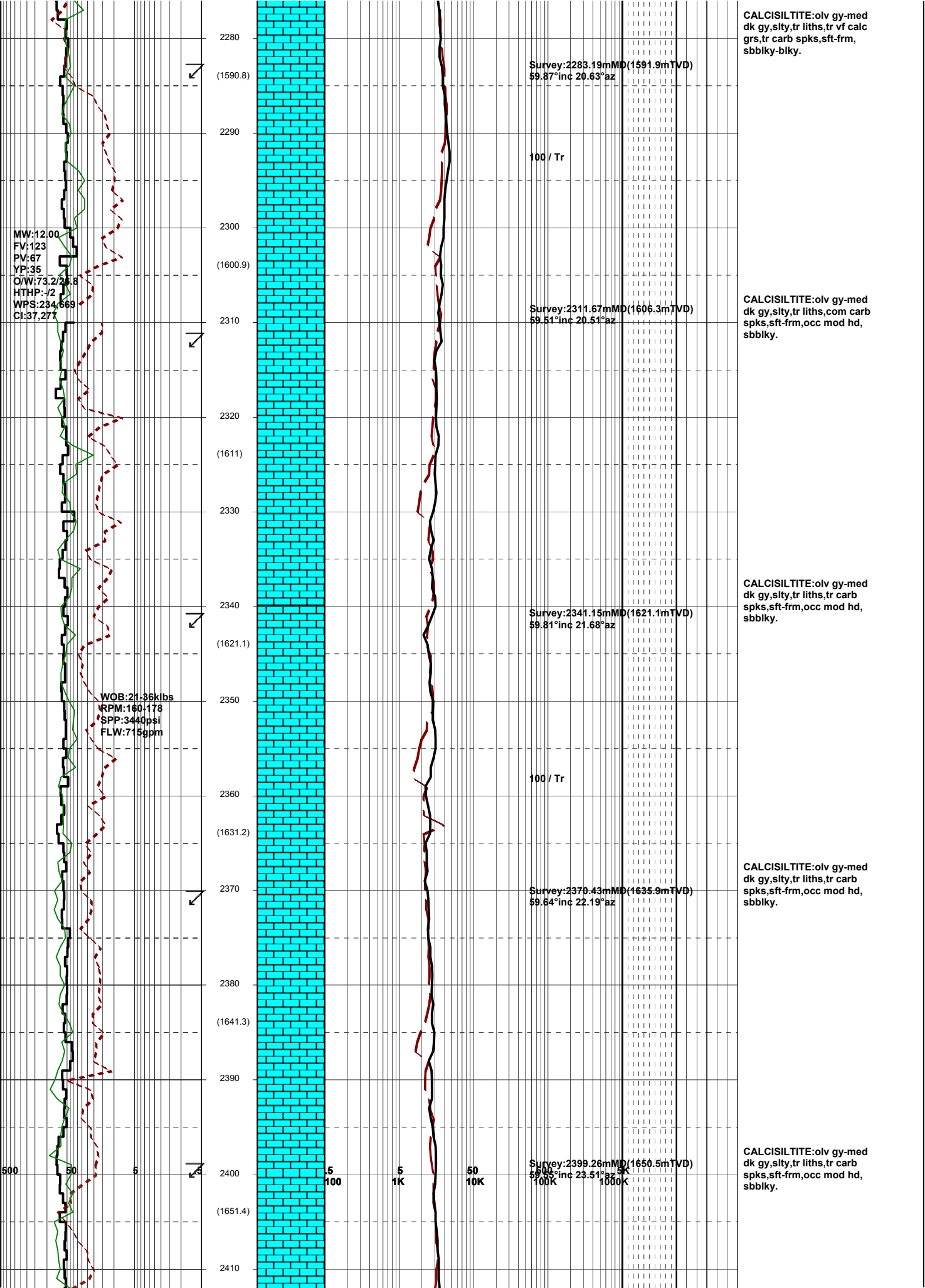
Survey:2108.37mMD(1504.0mTVD)
59.67°inc 23.12°az

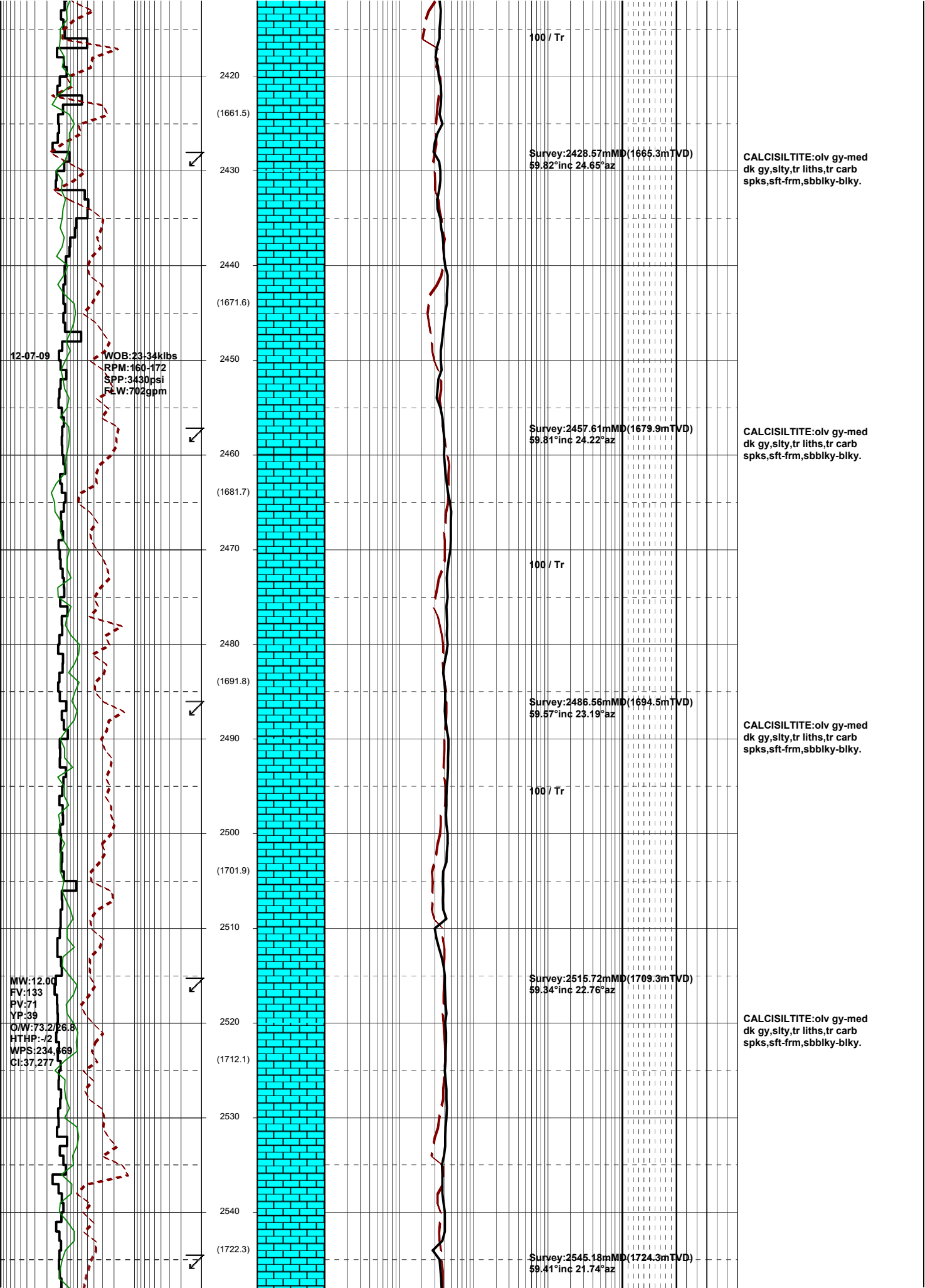
100 / Tr

Survey:2137.20mMD(1518.5mTVD)
59.64°inc 22.97°az









WOB:24-31klbs
RPM:162-166
SPP:3480psi
FLW:697gpm

2550
2560
(1732.5)
2570
2580
(1743.2)
2590
2600
(1753.4)
2610
2620
(1763.6)
2630
2640
(1773.8)
2650
2660
(1783.9)
2670
2680



WOB:19-36klbs
RPM:157-171
SPP:3442psi
FLW:637gpm

100 / Tr

Survey:2573.92mMD(1739.0mTVD)
59.27°inc 21.70°az

Survey:2603.41mMD(1754.0mTVD)
59.40°inc 22.85°az

100 / Tr

Survey:2632.84mMD(1769.0mTVD)
59.38°inc 24.62°az

100 / Tr

Survey:2661.62mMD(1783.7mTVD)
59.50°inc 25.34°az

CALCISILTITE:olv gy-med dk gy,med lt gy,tr vf aren g/t CLCAR,tr liths,tr carb spks,tr vf calc grs,sft-frm,occ mod hd,sbbiky -biky.

CALCISILTITE(20%):med gy-med dk gy,tr liths,tr carb spks,sft-frm,occ mod hd, sbbiky-biky.

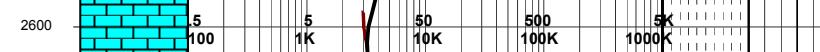
CALCILUTITE(80%):v lt gy-lt gy,sity g/t CLCSLT, tr liths,tr carb spks, sft-frm,amor-sbbiky.

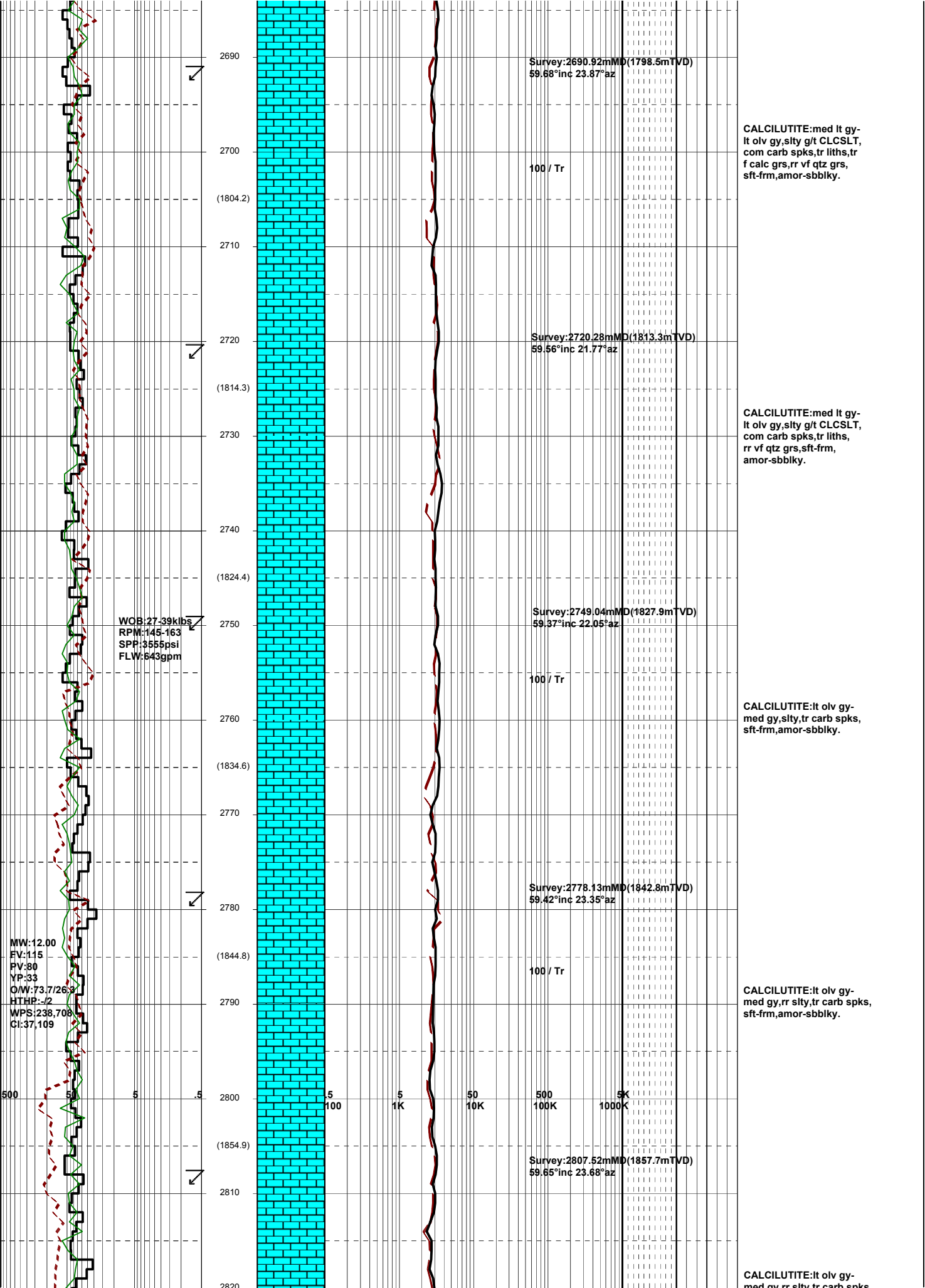
CALCISILTITE(10%):med gy-med dk gy,tr liths,tr carb spks,sft-frm,occ mod hd, sbbiky-biky.

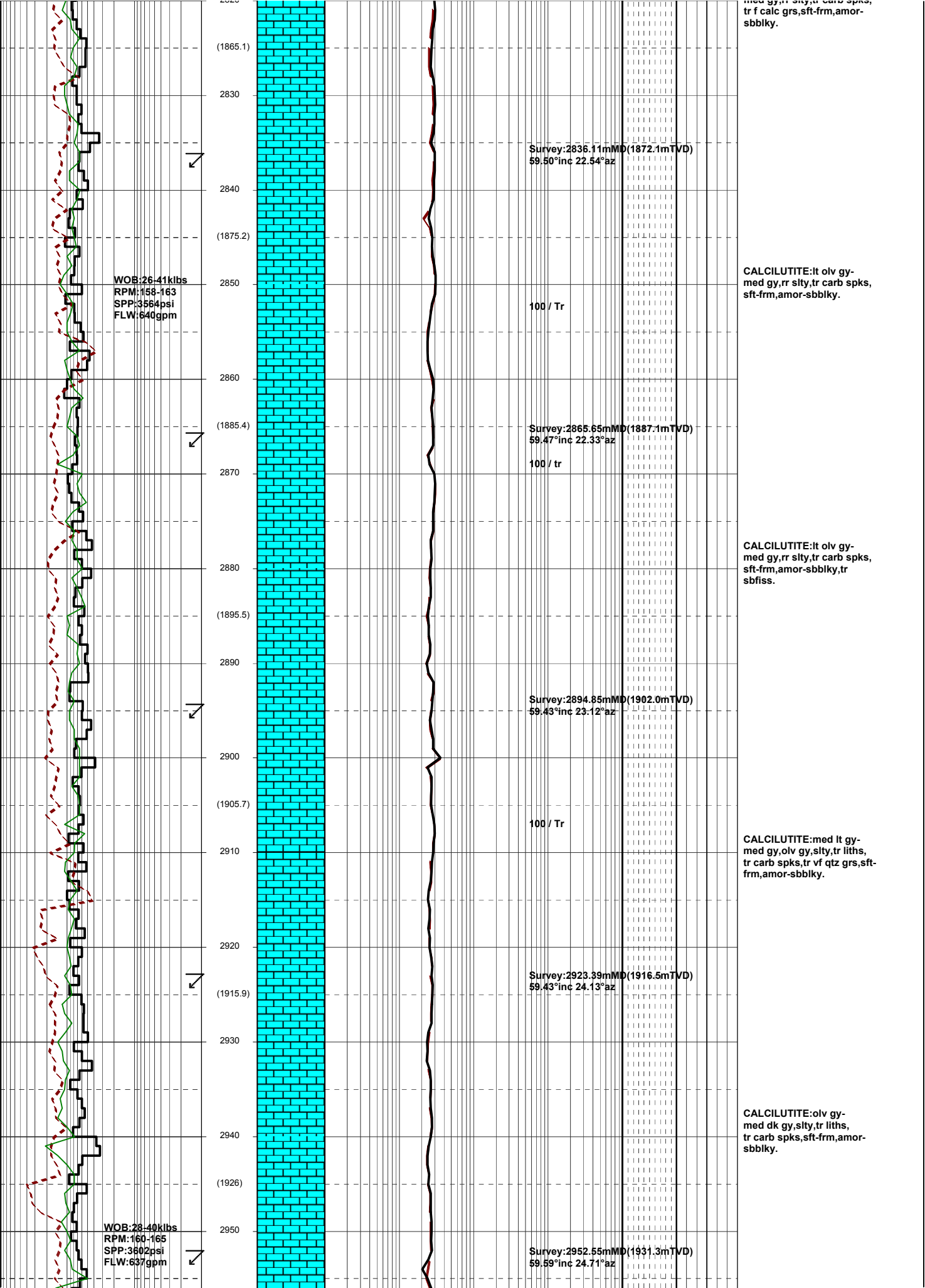
CALCILUTITE(90%):v lt gy-lt gy,sity g/t CLCSLT, tr liths,tr carb spks, sft-frm,amor-sbbiky.

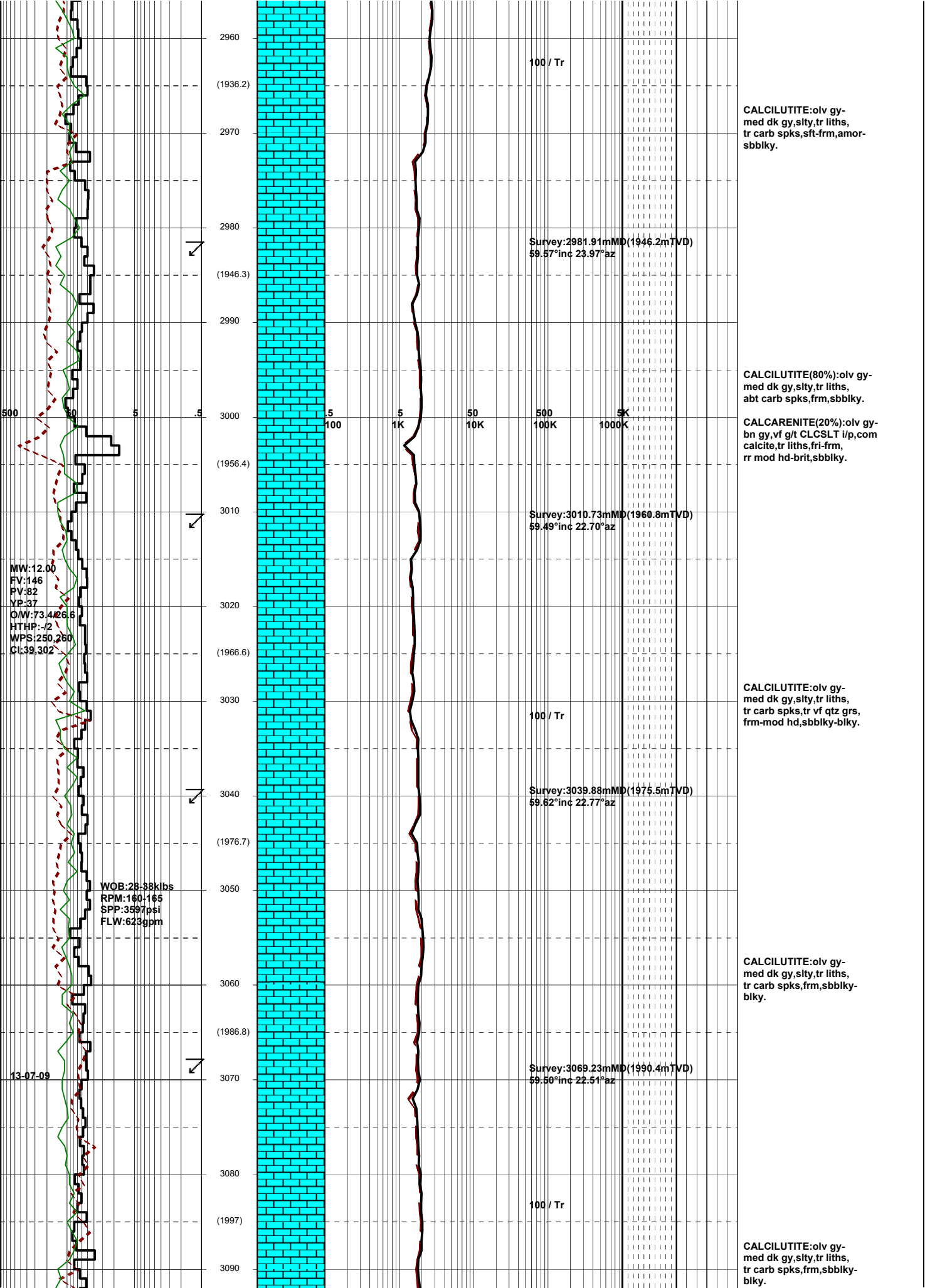
CALCILUTITE:med lt gy-lt olv gy,sity g/t CLCSLT, com carb spks,tr liths, rr vf qtz grs,sft-frm, amor-sbbiky.

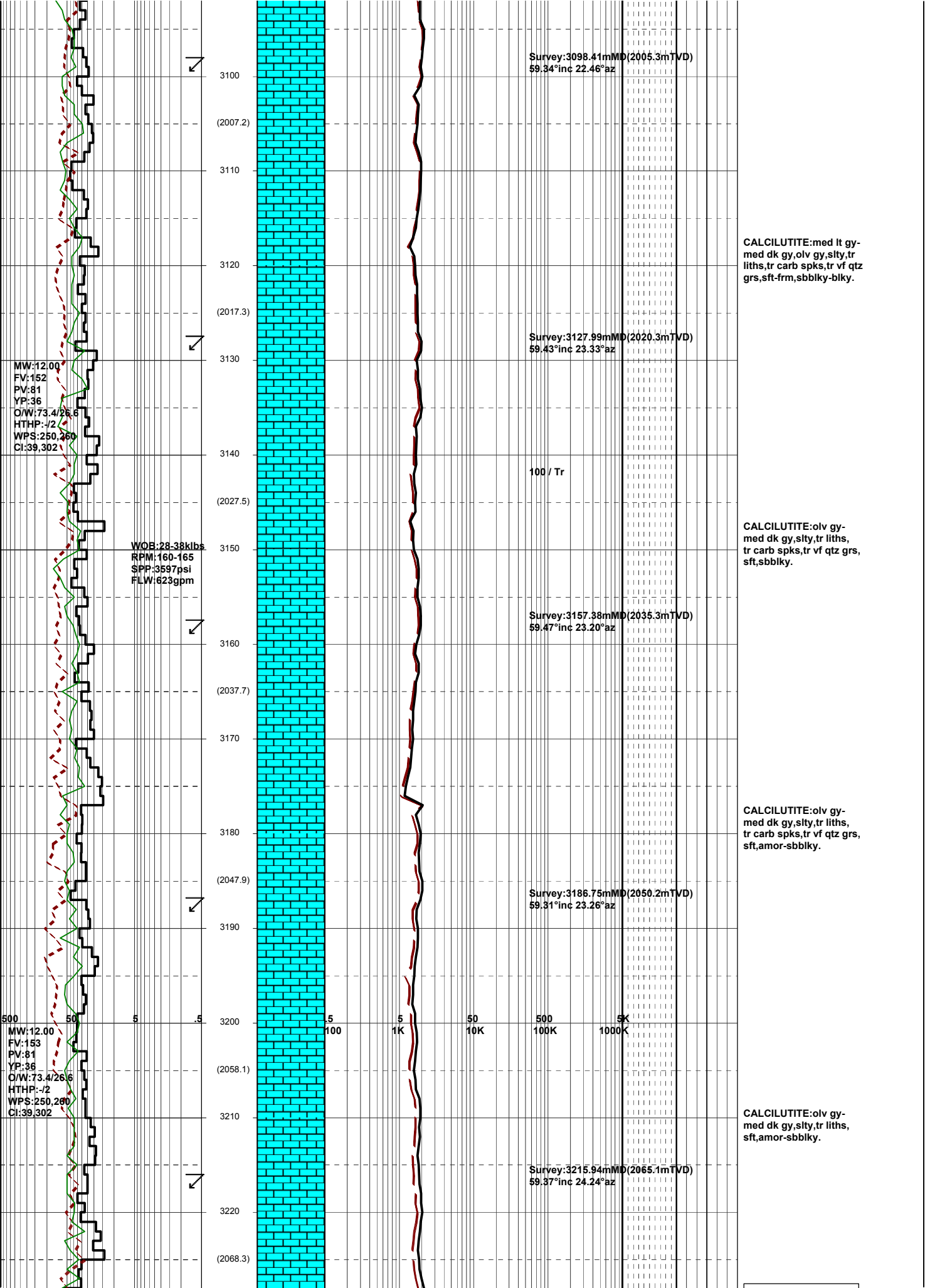
CALCILUTITE:med lt gy-lt olv gy,sity g/t CLCSLT, com carb spks,tr liths, rr vf qtz grs,sft-frm, amor-sbbiky.

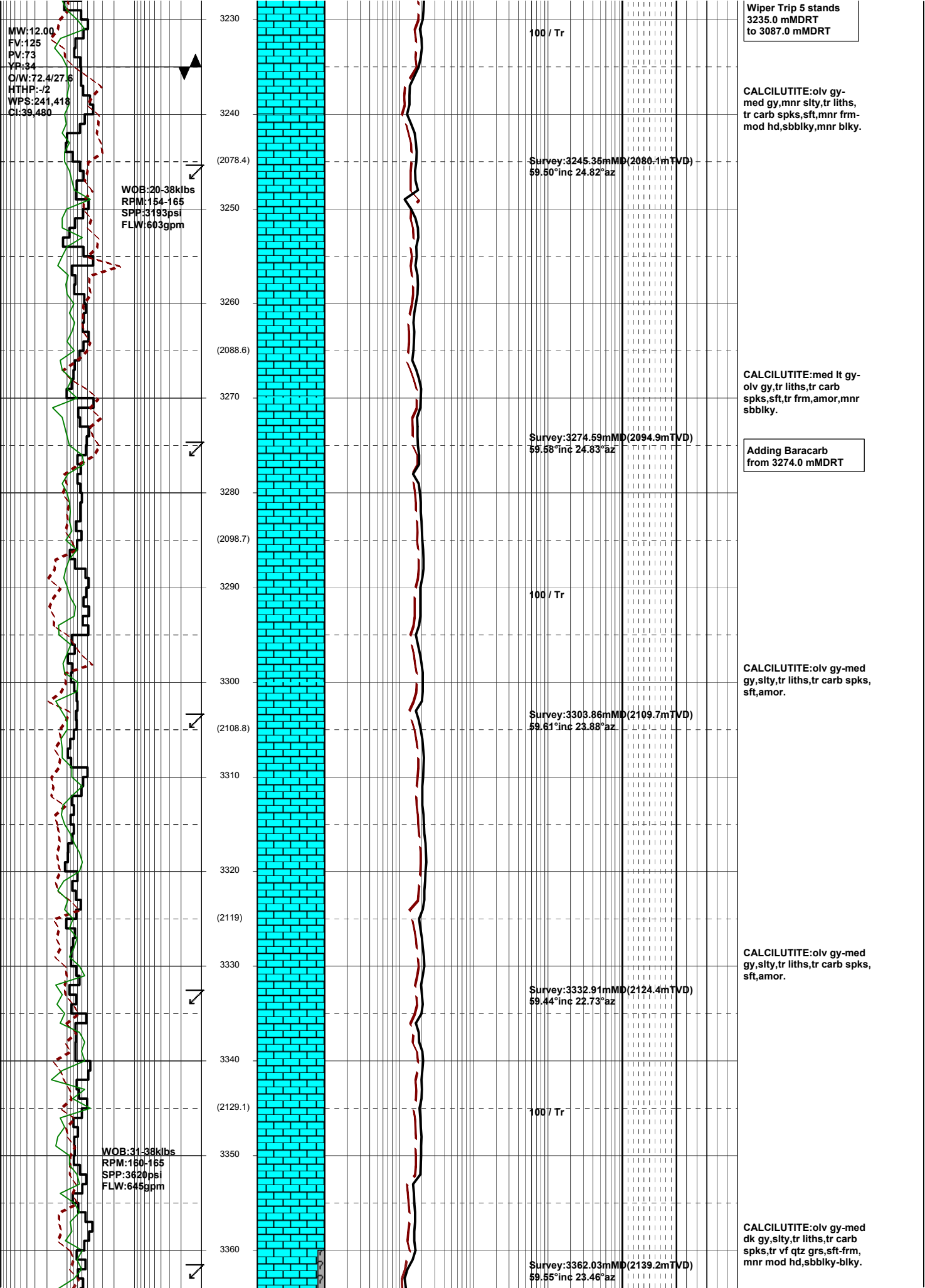












MW:12.00
 FV:125
 PV:73
 YP:34
 O/W:72.4/27.6
 HTHP:-2
 WPS:241,418
 CI:39,480

WOB:20-38klbs
 RFM:154-165
 SPP:3193psi
 FLW:603gpm

WOB:31-38klbs
 RPM:180-165
 SPP:3620psi
 FLW:645gpm

100 / Tr

Survey:3245.35mMD(2080.1mTVD)
 59.50°inc 24.82°az

Survey:3274.59mMD(2094.9mTVD)
 59.58°inc 24.83°az

100 / Tr

Survey:3303.86mMD(2109.7mTVD)
 59.61°inc 23.88°az

Survey:3332.91mMD(2124.4mTVD)
 59.44°inc 22.73°az

100 / Tr

Survey:3362.03mMD(2139.2mTVD)
 59.55°inc 23.46°az

Wiper Trip 5 stands
 3235.0 mMVRT
 to 3087.0 mMVRT

CALCILUTITE: olv gy-
 med gy, mnr slty, tr liths,
 tr carb spks, sft, mnr frm-
 mod hd, sbbkly, mnr blkly.

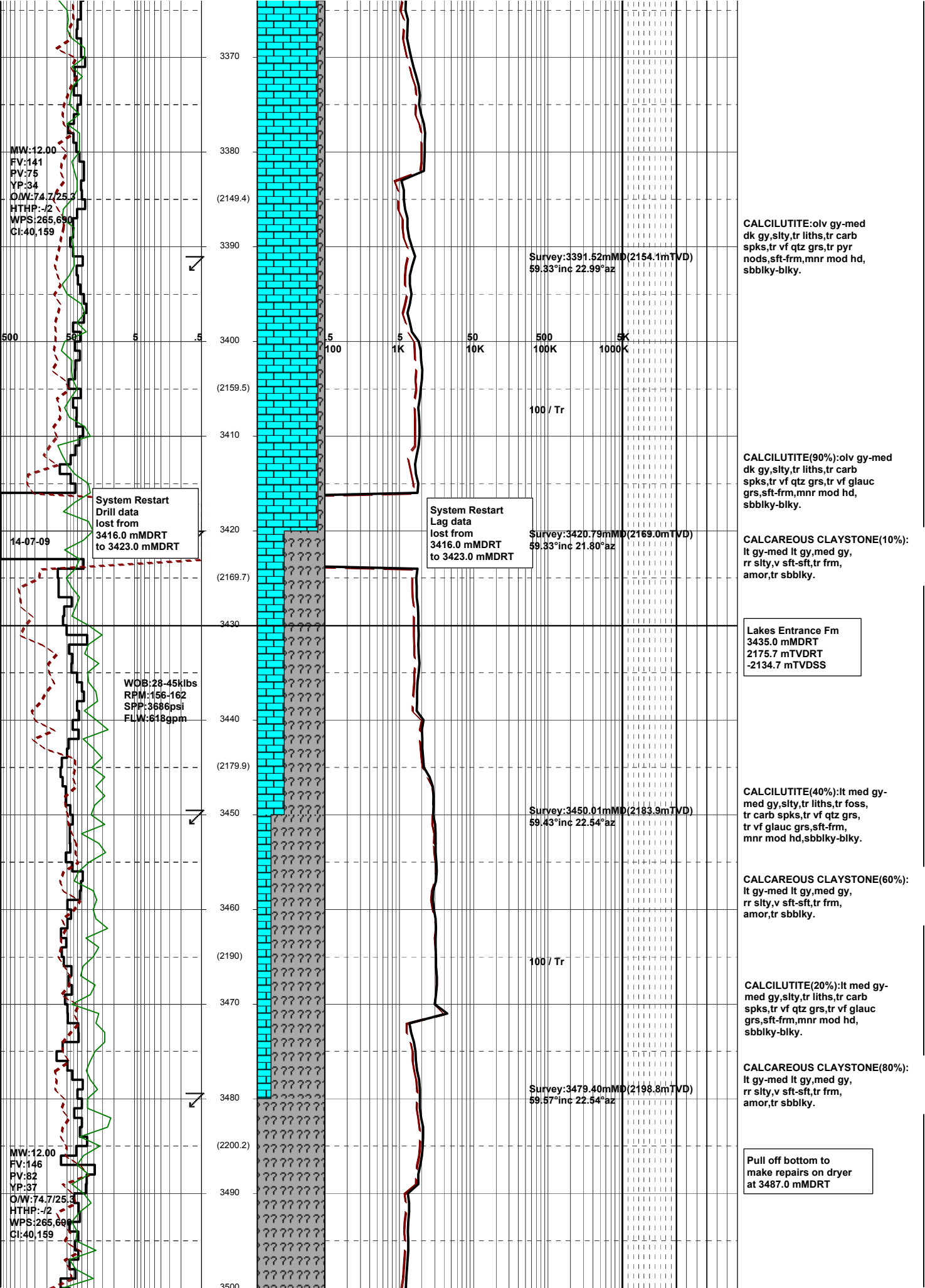
CALCILUTITE: med lt gy-
 olv gy, tr liths, tr carb
 spks, sft, tr frm, amor, mnr
 sbbkly.

Adding Baracarb
 from 3274.0 mMVRT

CALCILUTITE: olv gy-med
 gy, slty, tr liths, tr carb spks,
 sft, amor.

CALCILUTITE: olv gy-med
 gy, slty, tr liths, tr carb spks,
 sft, amor.

CALCILUTITE: olv gy-med
 dk gy, slty, tr liths, tr carb
 spks, tr vf qtz grs, sft-frm,
 mnr mod hd, sbbkly-blky.



MW:12.00
 FV:141
 PV:75
 YP:34
 OAW:74.7/25.3
 HTHP:-/2
 WPS:265,690
 CI:40,159

14-07-09

System Restart
 Drill data
 lost from
 3416.0 mMDRT
 to 3423.0 mMDRT

WOB:28-45kibs
 RPM:156-162
 SPP:3686psi
 FLW:618gpm

MW:12.00
 FV:146
 PV:82
 YP:37
 OAW:74.7/25.3
 HTHP:-/2
 WPS:265,690
 CI:40,159

3370
 3380
 (2149.4)
 3390
 3400
 (2159.5)
 3410
 3420
 (2169.7)
 3430
 3440
 (2179.9)
 3450
 3460
 (2190)
 3470
 3480
 (2200.2)
 3490
 3500

100 1K 50 10K 500 1000K

System Restart
 Lag data
 lost from
 3416.0 mMDRT
 to 3423.0 mMDRT

Survey:3391.52mMD(2154.1mTVD)
 59.33°inc 22.99°az

Survey:3420.79mMD(2169.0mTVD)
 59.33°inc 21.80°az

Survey:3450.01mMD(2183.9mTVD)
 59.43°inc 22.54°az

Survey:3479.40mMD(2198.8mTVD)
 59.57°inc 22.54°az

CALCILUTITE:olv gy-med
 dk gy,silty,tr liths,tr carb
 spks,tr vf qtz grs,tr pyr
 nods,sft frm,mnr mod hd,
 sbbiky-blky.

CALCILUTITE(90%):olv gy-med
 dk gy,silty,tr liths,tr carb
 spks,tr vf qtz grs,tr vf glauc
 grs,sft frm,mnr mod hd,
 sbbiky-blky.

CALCAREOUS CLAYSTONE(10%):
 lt gy-med lt gy,med gy,
 rr silty,v sft-sft,tr frm,
 amor,tr sbbiky.

Lakes Entrance Fm
 3435.0 mMDRT
 2175.7 mTVDRT
 -2134.7 mTVDSS

CALCILUTITE(40%):lt med gy-
 med gy,silty,tr liths,tr foss,
 tr carb spks,tr vf qtz grs,
 tr vf glauc grs,sft frm,
 mnr mod hd,sbbiky-blky.

CALCAREOUS CLAYSTONE(60%):
 lt gy-med lt gy,med gy,
 rr silty,v sft-sft,tr frm,
 amor,tr sbbiky.

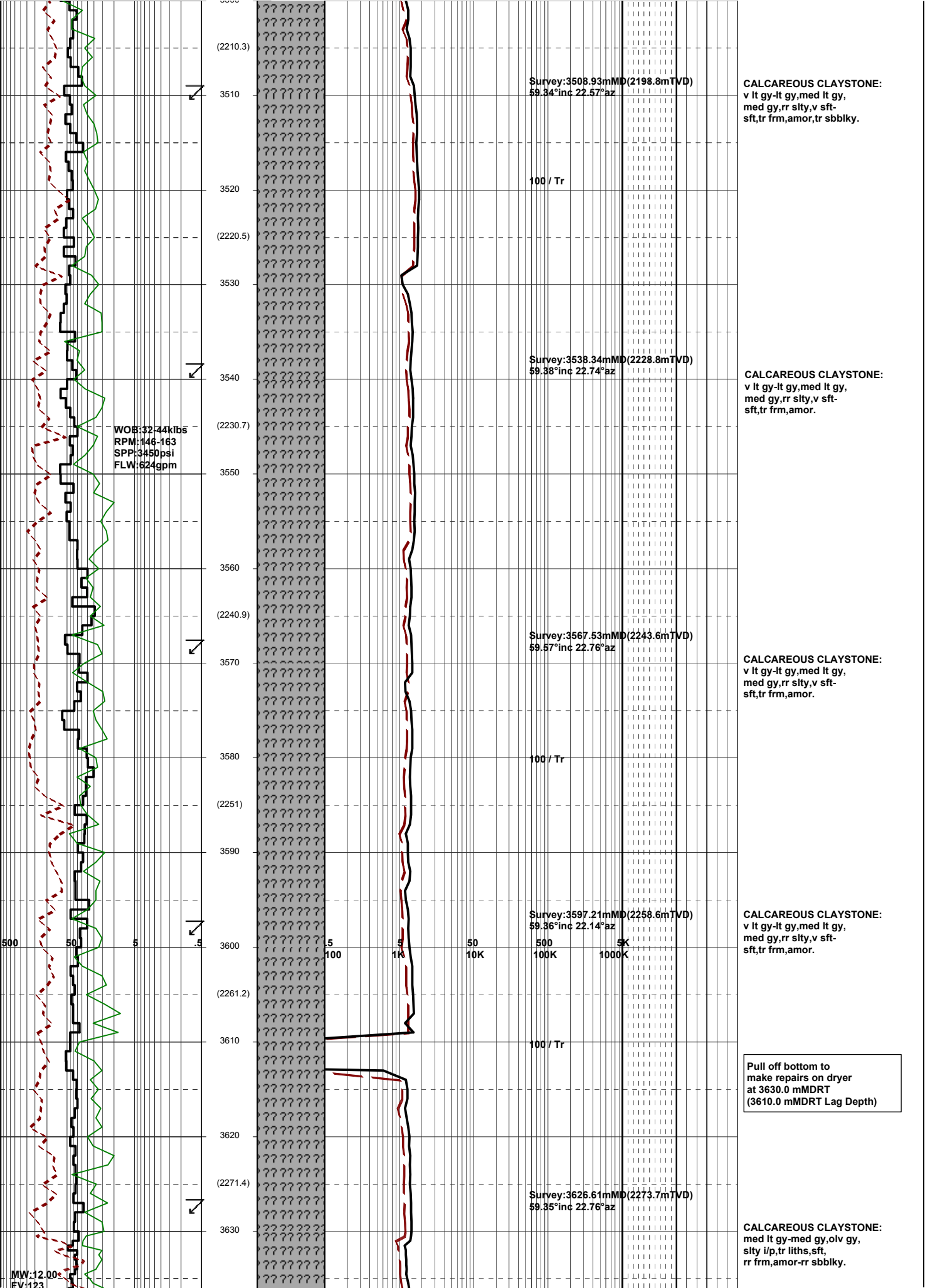
CALCILUTITE(20%):lt med gy-
 med gy,silty,tr liths,tr carb
 spks,tr vf qtz grs,tr vf glauc
 grs,sft frm,mnr mod hd,
 sbbiky-blky.

CALCAREOUS CLAYSTONE(80%):
 lt gy-med lt gy,med gy,
 rr silty,v sft-sft,tr frm,
 amor,tr sbbiky.

Pull off bottom to
 make repairs on dryer
 at 3487.0 mMDRT

100 / Tr

100 / Tr



PV:76
YP:31
O/W:74.3/25.7
HTHP:-12
WPS:256.228
CI:39.219

WOB:37-41kbs
RPM:159-163
SPP:3548psi
FLW:624gpm

WOB:30-41kbs
RPM:117-162
SPP:3530psi
FLW:623gpm

3640
(2281.6)
3650
3660
(2291.8)
3670
3680
(2301.9)
3690
3700
(2312.2)
3710
3720
(2322.2)
3730
3740
(2332.3)
3750
3760
(2342.5)
3770

Survey:3655.73mMD(2288.5mTVD)
59.40°inc 23.88°az

Survey:3684.88mMD(2303.3mTVD)
59.57°inc 23.82°az

Survey:3714.32mMD(2318.2mTVD)
59.44°inc 23.09°az

Survey:3743.32mMD(2333.0mTVD)
59.51°inc 23.42°az

Survey:3770.5mMD(2347.4mTVD)
59.51°inc 23.42°az

Circulate
bottoms up
@ 3646.0 mMDRT

CALCAREOUS CLAYSTONE:
med lt gy-med gy,olv gy,
rr lt bn gy-bn gy,sity i/p,
tr liths,sft,rr frm,amor-rr sbbiky.

Pull off bottom to
make repairs on dryer
at 3695.0 mMDRT
(3675.0 mMDRT Lag Depth)

CALCAREOUS CLAYSTONE:
med lt gy-med gy,olv gy,
rr lt bn gy-bn gy,sity i/p,
tr liths,sft,rr frm,amor-rr sbbiky.

CALCAREOUS CLAYSTONE:
med gy,lt olv gy-olv gy,rr lt gy,
sity i/p,tr liths,sft-rr frm,
amor-sbbiky.

CALCAREOUS CLAYSTONE:
med gy,lt olv gy-olv gy,rr lt gy,
sity i/p,tr liths,sft-rr frm,
amor-sbbiky.

CALCAREOUS CLAYSTONE:
med gy,lt olv gy-olv gy,rr lt gy,
sity i/p,tr liths,tr vf calc grs,
sft-rr frm,amor-sbbiky.

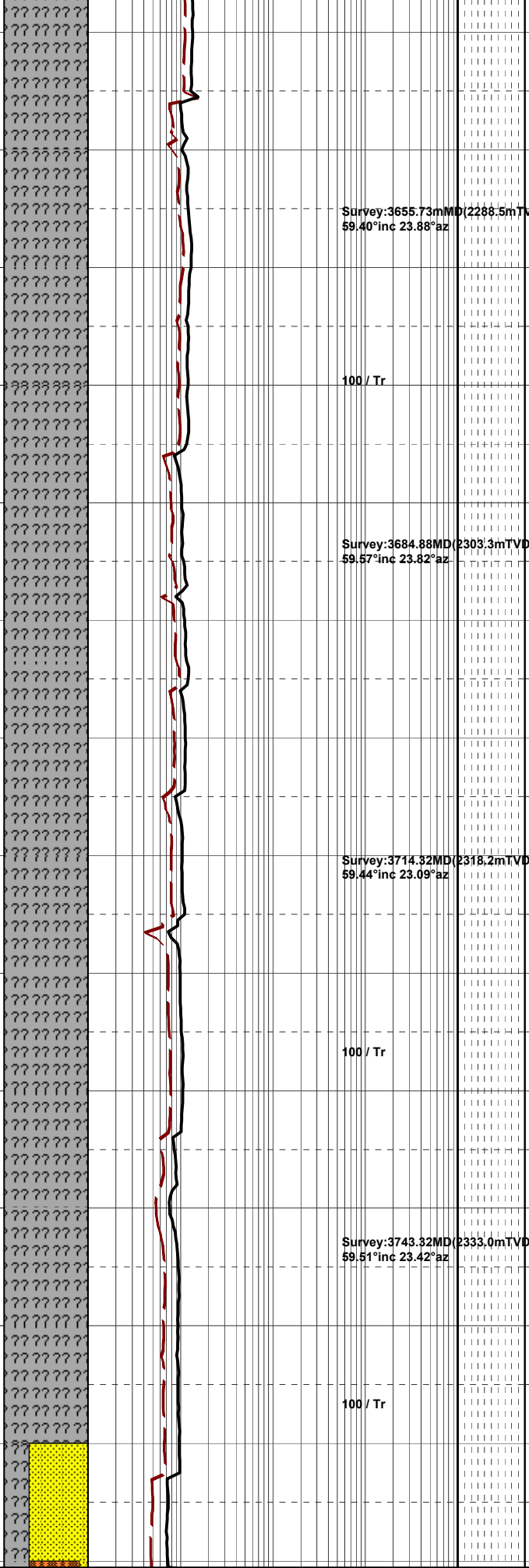
CALCAREOUS CLAYSTONE:
med gy,lt olv gy-olv gy,rr lt gy,
sity i/p,tr liths,sft-rr frm,amor.

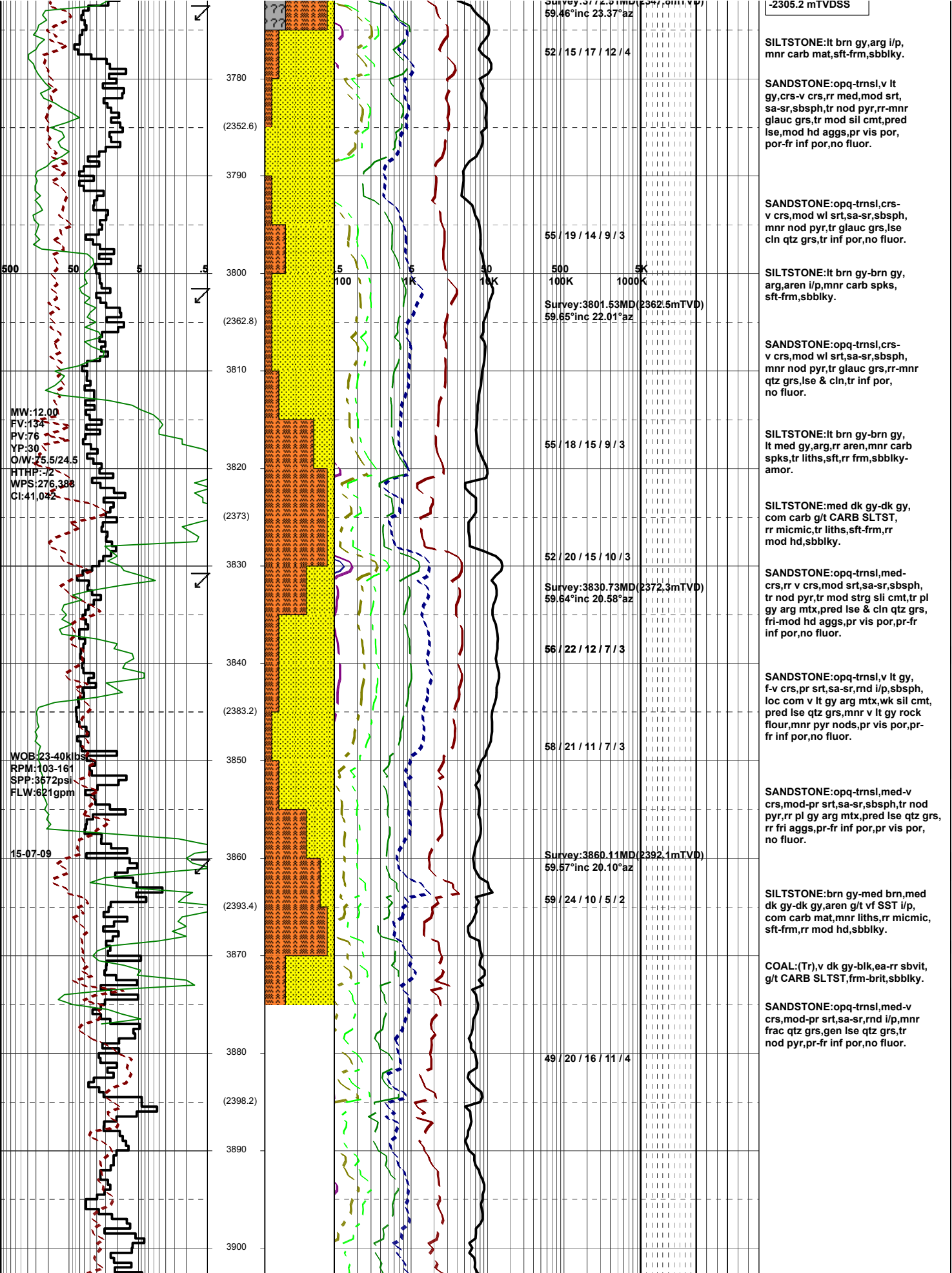
CALCAREOUS CLAYSTONE:
lt olv gy-olv gy,v lt gy,med gy,
sity i/p,mod calc,tr liths,sft-v sft,
disp i/p,stky,amor-sbbiky.

CALCAREOUS CLAYSTONE:
lt olv gy-olv gy,v lt gy,med gy,
sity i/p,mod calc,tr liths,frm-sft,
biky-sbbiky.

SANDSTONE:opq-trmsl,v lt
gy,med-crs,sa-rr sr,sbsph,tr
nod pyr,tr glauc,lse,pr-fr inf
por,no fluor.

Latrobe Group
3770.5 mMDRT
2346.2 mTVDRT





MW:12.00
 FV:134
 FV:76
 YP:30
 O/W:75.5/24.5
 HTHP:72
 WPS:276,388
 CI:41,042

WOB:23-40klbs
 RPM:1103-161
 SPP:3672psi
 FLW:621gpm

15-07-09

Survey:3772.9MD(2367.0mTVDD)
 59.46°inc 23.37°az

52 / 15 / 17 / 12 / 4

55 / 19 / 14 / 9 / 3

500 5K
 100K 1000K

Survey:3801.53MD(2362.5mTVDD)
 59.65°inc 22.01°az

55 / 18 / 15 / 9 / 3

Survey:3830.73MD(2372.3mTVDD)
 59.64°inc 20.58°az

56 / 22 / 12 / 7 / 3

Survey:3860.11MD(2392.1mTVDD)
 59.57°inc 20.10°az

59 / 24 / 10 / 5 / 2

49 / 20 / 16 / 11 / 4

-2305.2 mTVDDSS

SILTSTONE:lt brn gy,arg i/p,
 mnr carb mat,sft frm,sbbkly.

SANDSTONE:opq-trnsl,v lt
 gy,crs-v crs,rr med,mod srt,
 sa-sr,sbsph,tr nod pyr,rr-mnr
 glauc grs,tr mod sil cmt,pred
 lse,mod hd aggs,pr vis por,
 por-fr inf por,no fluor.

SANDSTONE:opq-trnsl,crs-
 v crs,mod wl srt,sa-sr,sbsph,
 mnr nod pyr,tr glauc grs,lse
 clin qtz grs,tr inf por,no fluor.

SILTSTONE:lt brn gy-brn gy,
 arg,aren i/p,mnr carb spks,
 sft frm,sbbkly.

SANDSTONE:opq-trnsl,crs-
 v crs,mod wl srt,sa-sr,sbsph,
 mnr nod pyr,tr glauc grs,rr-mnr
 qtz grs,lse & clin,tr inf por,
 no fluor.

SILTSTONE:lt brn gy-brn gy,
 lt med gy,arg,rr aren,mnr carb
 spks,rr liths,sft,rr frm,sbbkly-
 amor.

SILTSTONE:med dk gy-dk gy,
 com carb g/t CARB SLTST,
 rr micmic,tr liths,sft frm,rr
 mod hd,sbbkly.

SANDSTONE:opq-trnsl,med-
 crs,rr v crs,mod srt,sa-sr,sbsph,
 tr nod pyr,tr mod strg sli cmt,pr
 pl gy arg mtx,pred lse & clin qtz grs,
 fri-mod hd aggs,pr vis por,pr-fr
 inf por,no fluor.

SANDSTONE:opq-trnsl,v lt gy,
 f-v crs,pr srt,sa-sr,md i/p,sbsph,
 loc com v lt gy arg mtx,wk sil cmt,
 pred lse qtz grs,mnr v lt gy rock
 flour,mnr pyr nods,pr vis por,pr-
 fr inf por,no fluor.

SANDSTONE:opq-trnsl,med-v
 crs,mod-pr srt,sa-sr,sbsph,tr nod
 pyr,rr pl gy arg mtx,pred lse qtz grs,
 rr fri aggs,pr-fr inf por,pr vis por,
 no fluor.

SILTSTONE:brn gy-med brn,med
 dk gy-dk gy,aren g/t vf SST i/p,
 com carb mat,mnr liths,rr micmic,
 sft frm,rr mod hd,sbbkly.

COAL:(Tr),v dk gy-blk,ea-rr sbvit,
 g/t CARB SLTST,frm-brit,sbbkly.

SANDSTONE:opq-trnsl,med-v
 crs,mod-pr srt,sa-sr,md i/p,mnr
 frac qtz grs,gen lse qtz grs,tr
 nod pyr,pr-fr inf por,no fluor.