MASTERLOG

CBA F35

GENERAL	SURFACE POSITION	HOLE / CASING INFO	DATE / DEPTH	ENGINEERS
Country : AUSTRALIA	Longitude : E 148 18 33.002	14-3/4" Hole to 683.0 mMDRT	Kick off Date: 31/08/2009	Gareth Munro
Permit : VIC / L5	Latitude : S 38 26 57.534	9-7/8" Hole to 4573.0 mMDRT	Total Depth Date: 10/09/2009	Phil Rady
Field : FTA / HLA	MGA Co-ord X :614238.832 mE	20" Conductor at 201.3 mMDRT	Total Depth: 4573.00 mMDRT	Colin Chadwick
Basin : GIPPSLAND	MGA Co-ord Y : 5743518.996 mN	10-3/4" Surface Csg at 678.5 mMDRT	True Vertical Depth: 2463.83 mTVDRT	Mark Smith
Well Type :DEVELOPMENT	RT to MSL : 40.99 m	7" Production Csg at 4569.8 mMDRT	Log Scale : 1/ 500	Leigh Dower
Rig Name : Nabors 175	RT to Sea Bed : 120.0 m			Adam Sullivan

ABBREVIATIONS

MW	Mud Weight	WOB	Weight on Bit (klbs)
FV	Funnel Viscosity	RPM	Rotations Per Min
PV	Plastic Viscosity	FLW	Flow Rate (gpm)
YP	Yield Point	SPP	Pump Pressure (psi)
O/W	Oil/Water Ratio	RR	Re-Run Bit
WPS	Aq. Phase Salinity	TG	Trip Gas
HPHT	Fluid Loss	CG	Connection Gas
Cl	Chlorides	BG	Background Gas
Incl	Inclination	DGP	Drilled Gas Peak
Az	Azimuth	MM	Mud Motor

LITHOLOGY LEGEND

Claystone, Marl, Bryozoae, Glauconite
Siltstone, Limestone, Radiolariae, Pyrite
Sandstone, Dolomite, Echinoids
Shale, Coal-lignite, Foraminiferae
Conglomerate, Volcanics, Cement

ENGINEERING LEGEND

Casing shoe, Sidewall core
Casing top, Core
Survey, Mud gain
MDT, Mud loss

ROP (m/hr) 500 50 5 .5
WOB (Klbs) 50 25 0
100 75 50
MWD Gamma Ray (api) 0 100 200
SLIDING BAR
DEPTH (m) (TVD)
CUTTINGS LITHOLOGY
%
RESERVAL GAS DATA
C1 C2 C3
iC4 nC4 iC5
nC5 Total Gas in Units TG
Chromatograph in PPM
.5 5 50 500 5K
0 100 100 1K 10K 100K 1000K
Dlomtr V 1 0 50 100
Clcmtr V 1 0 50 100
CUT FLUOR good fair poor
DIRECT FLR good fair poor
LITHOLOGY DESCRIPTIONS and REMARKS

180
190
200
(201.7)
210
220
(221.6)
230

WELL HISTORY:
CBA F35 Conductor driven in November 2008. Conductor cemented back to 192.0 mMDRT

31-08-09

MW:8.80
FV:52
PV:3
YP:22
O/W :-/96.0
HTHP:

Bit#2RR 14-3/4"
Type: T11
Reed Hycalog
Jets: 2x24
In: 201.3 mMDRT
Out: 405.0 mMDRT
Run: 203.7 m
Hrs: 4.9
Cond:1-1-WT-A-E-E-E-IN-NO-BHA

Tie in Survey
187.86mMD(187.64mTVD)
6.40° inc 170.12° az

Survey:195.02mMD(194.8mTVD)
6.51° inc 171.85° az

Survey:198.10mMD(197.8mTVD)
6.51° inc 175.71° az

Survey:210.60mMDRT(210.2mTVD)
6.69°inc 168.77°az

Survey:226.13mMD(225.7mTVD)
6.95° inc 152.77° az

Adjust GZ11 Degasser

20" Conductor Shoe set @ 201.3 mMDRT

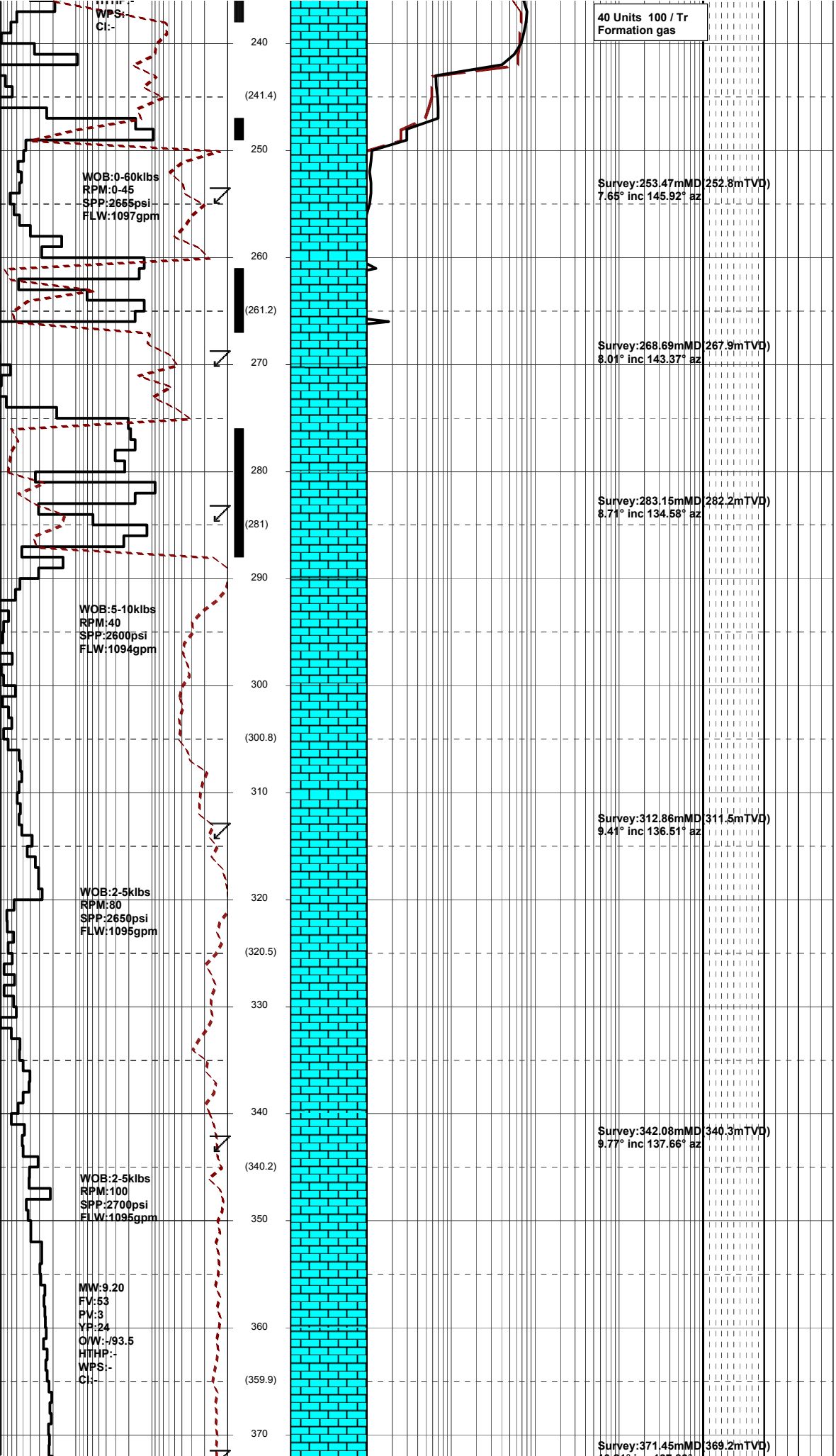
Kick off CBA F35 from 199.0 mMDRT at 05:30 hrs on 31/08/2009

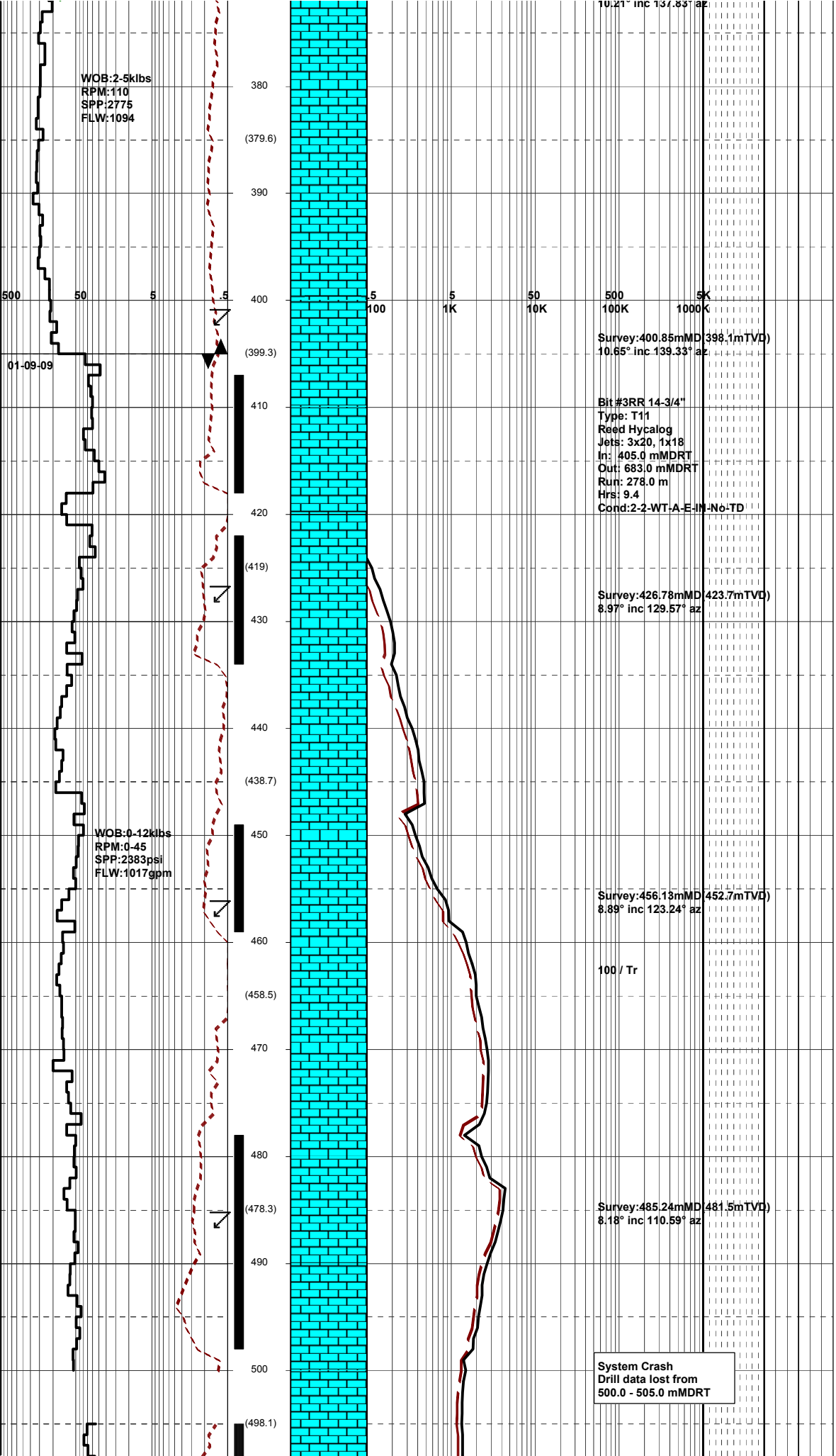
Drill to 683.0 mMDRT with Water Based Gel Mud System

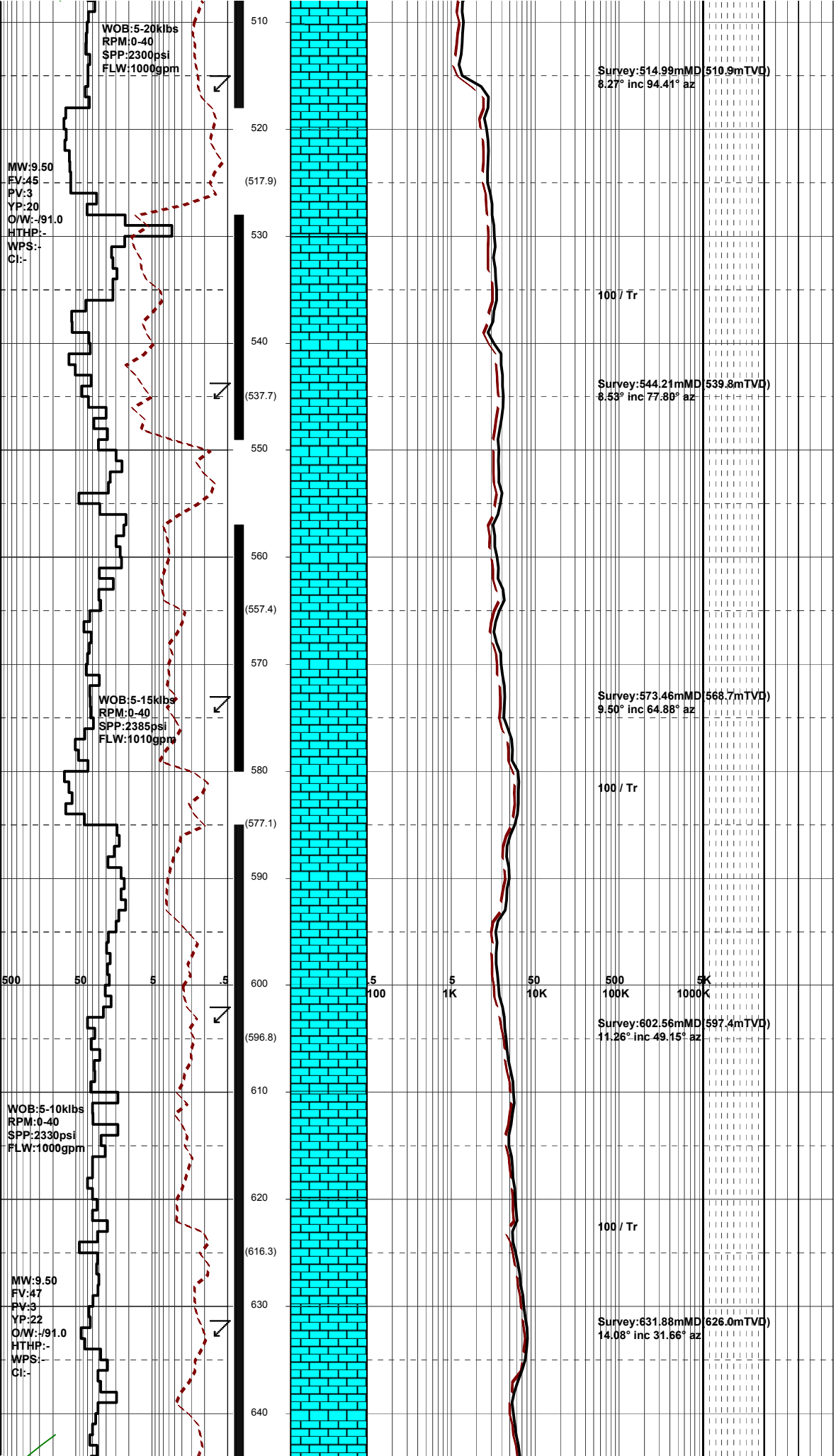
CALCARENITE:v lt gy-med gy,occ wh,tr med dk gy, tr lt brn gy,med-crs grs,rr crs glauc grs,com foss,com shell frags,lse,com fri-mod hd aggs.

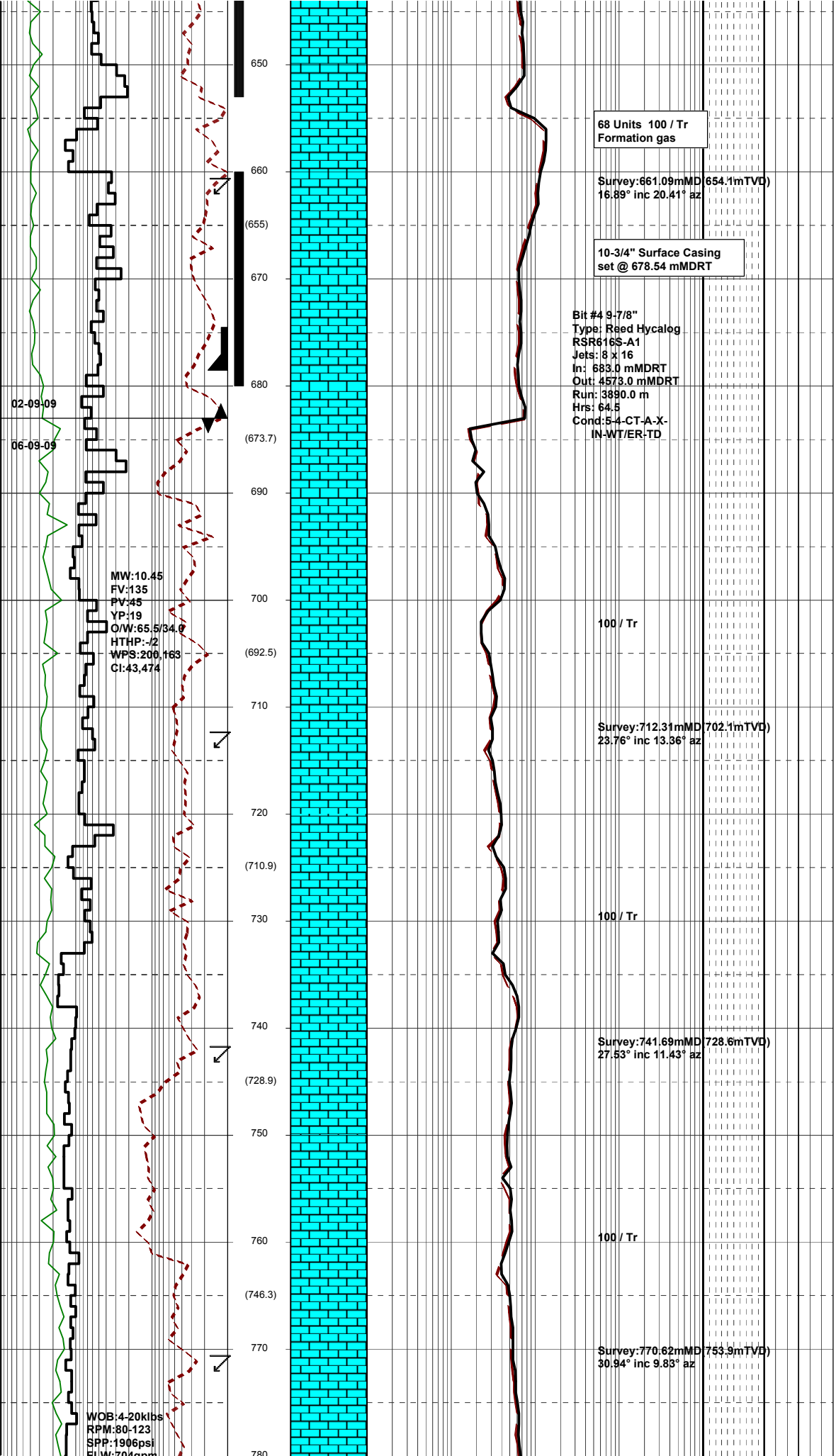
CALCARENITE:v lt gy-med gy,occ wh,com lt yel gy, tr lt brn gy,med-crs grs,tr crs glauc grs,com foss,com shell frags,lse,com fri-mod hd aggs.

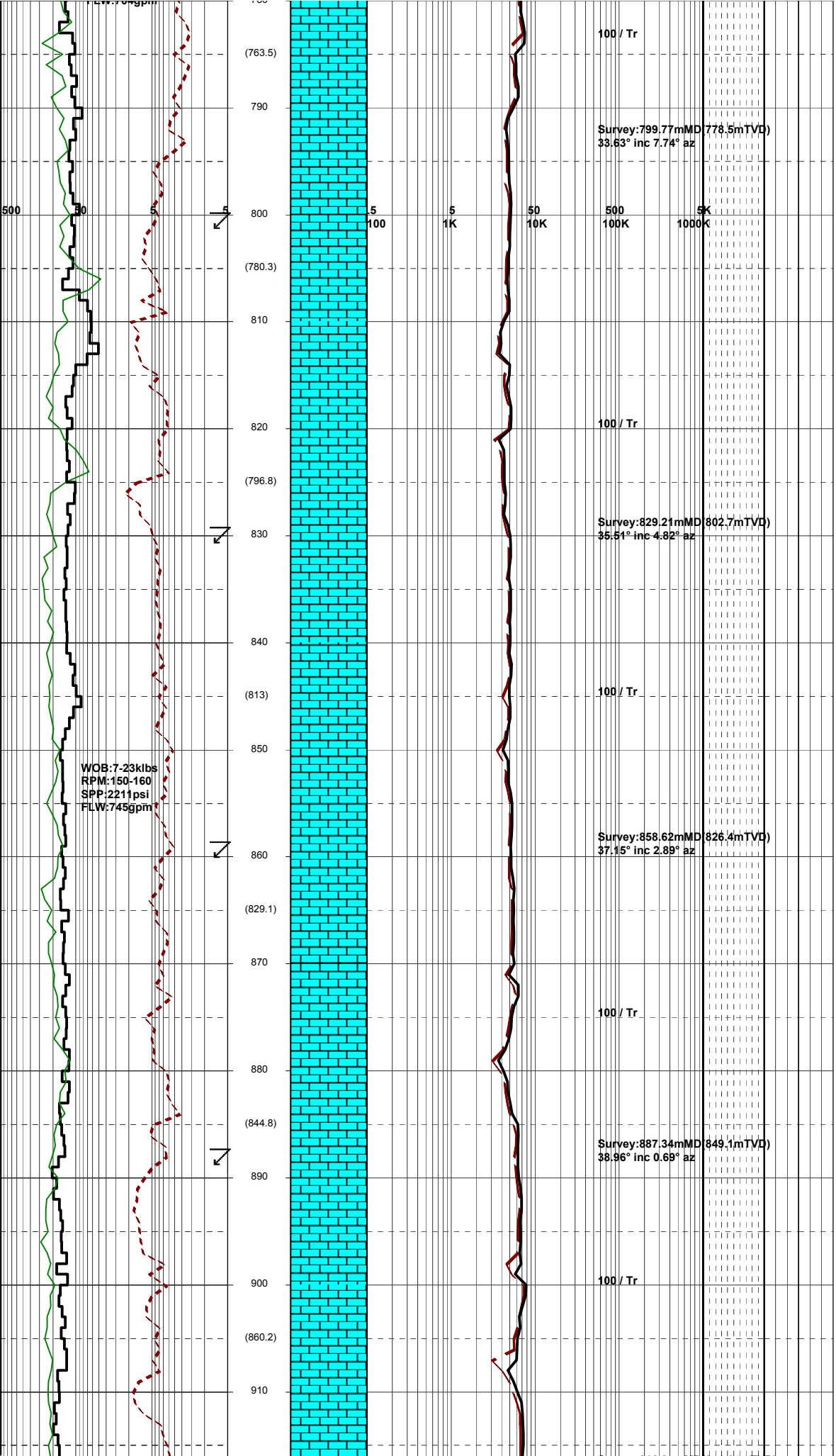
CALCARENITE:v lt gy-med gy,occ wh,com lt yel gy, tr lt brn gy,med-crs grs,tr crs glauc grs,com foss,com shell frags,lse,com fri-mod hd aggs.


WPS:-
Cl:-
240
(241.4)
250
WOB:0-60klbs
RPM:0-45
SPP:2665psi
FLW:1097gpm
260
(261.2)
270
280
(281)
290
WOB:5-10klbs
RPM:40
SPP:2600psi
FLW:1094gpm
300
(300.8)
310
WOB:2-5klbs
RPM:80
SPP:2650psi
FLW:1095gpm
320
(320.5)
330
340
(340.2)
WOB:2-5klbs
RPM:100
SPP:2700psi
FLW:1095gpm
350
MW:9.20
FV:53
PV:3
YP:24
O/W:-/93.5
HTHP:-
WPS:-
Cl:-
360
(359.9)
370
40 Units 100 / Tr
Formation gas
Survey:253.47mMD 252.8mTVD)
7.65° inc 145.92° az
Survey:268.69mMD 267.9mTVD)
8.01° inc 143.37° az
Survey:283.15mMD 282.2mTVD)
8.71° inc 134.58° az
Survey:312.86mMD 311.5mTVD)
9.41° inc 136.51° az
Survey:342.08mMD 340.3mTVD)
9.77° inc 137.66° az
Survey:371.45mMD 369.2mTVD)
CALCARENITE:lt yel gy-
lt med gy,com wh,mnr med gy,
med-crs grs,mnr v crs,tr crs
glauc grs,abdt foss,com shell
frags,lse,com fri-mod hd aggs.
CALCARENITE:lt yel gy-
lt med gy,com wh,mnr med gy,
med-crs grs,mnr v crs,tr crs
glauc grs,abdt foss,com shell
frags,lse,com fri-mod hd aggs.
CALCARENITE:v lt gy-
lt med gy,com wh,com lt yel gy,
mnr med gy,med-crs grs,mnr v
crs,tr crs glauc grs,com foss,
com shell frags,lse,com fri-
mod hd aggs.
CALCARENITE:vlt gy-lt
gy,mnr wh,f-med grs,rr crs grs,
tr f glauc grs,tr foss,tr shell
frags,lse,tr mod hd aggs.
CALCARENITE:vlt gy-lt
gy,mnr wh,f-med grs,rr crs grs,
tr f glauc grs,tr foss,com shell
frags,lse,tr mod hd aggs.
CALCARENITE:vlt gy-lt
gy,mnr wh,f-med grs,rr crs grs,
tr f glauc grs,tr foss,tr shell
frags,lse,tr mod hd aggs.
CALCARENITE:lt gy-lt
olv gy,vf-f grs,mnr med grs,tr
foss,tr shell frags,lse.
CALCARENITE:lt gy-lt
olv gy,vf-f grs,mnr med grs,tr
foss,tr shell frags,lse.
CALCARENITE:lt gy-lt
olv gy,vf-f grs,mnr med grs,tr
foss,tr shell frags,lse.
CALCARENITE:lt gy-lt
olv gy,mnr wh,vf-f grs,tr med
grs,tr foss,tr shell frags,lse-
rr fri aggs.
CALCARENITE:lt gy-lt
olv gy,mnr wh,vf-f grs,mnr med-
crs grs,tr foss,tr shell frags,
lse-mnr fri aggs.


10.21° inc 137.83° az
CALCARENITE:lt gy-lt olv gy,mnr wh,vf-f grs,mnr med-crs grs,tr foss,tr shell frags, lse-mnr fri aggs.
WOB:2-5klbs
RPM:110
SPP:2775
FLW:1094
380
(379.6)
390
CALCARENITE:lt gy-lt olv gy,mnr wh,vf-f grs,mnr med-crs grs,tr foss,com shell frags, lse-mnr fri aggs.
500
50
5
.5
400
.5
100
5
1K
50
10K
500
100K
5K
1000K
Survey:400.85mMD 398.1mTVD)
10.65° inc 139.33° az
(399.3)
01-09-09
410
CALCARENITE:lt gy-lt olv gy,mnr wh,tr med dk gy, vf-f grs,com foss,com shell frags,lse-mnr fri aggs.
Bit #3RR 14-3/4"
Type: T11
Reed Hycalog
Jets: 3x20, 1x18
In: 405.0 mMDRT
Out: 683.0 mMDRT
Run: 278.0 m
Hrs: 9.4
Cond:2-2-WT-A-E-IN-No-TD
420
CALCARENITE:lt gy-lt olv gy,mnr wh,tr med dk gy, vf-f grs,tr foss,tr shell frags, lse-mnr fri aggs.
(419)
Survey:426.78mMD 423.7mTVD)
8.97° inc 129.57° az
430
CALCARENITE:lt gy-lt olv gy,mnr wh,tr med dk gy, vf-f grs,rr foss,rr shell frags, lse-com fri aggs.
440
CALCARENITE:lt gy-lt olv gy,mnr wh,tr med dk gy, vf-f grs,rr foss,rr shell frags, lse-com fri aggs.
(438.7)
WOB:0-12klbs
RPM:0-45
SPP:2383psi
FLW:1017gpm
450
CALCARENITE:lt gy-lt olv gy.tr wh,tr trnsl,tr med dk gy,vf-f grs,mnr med-crs grs, tr foss,rr shell frags,lse-com fri aggs.
Survey:456.13mMD 452.7mTVD)
8.89° inc 123.24° az
460
CALCARENITE:lt gy-lt olv gy,com trnsl,tr med dk gy, rr wh,vf-f grs,mnr med-crs grs, tr foss,tr shell frags,lse-com fri aggs.
100 / Tr
(458.5)
470
CALCARENITE:lt gy-lt olv gy,com trnsl,tr med dk gy, rr wh,vf-f grs,mnr med-crs grs, tr foss,tr shell frags,lse-com fri aggs.
480
CALCARENITE:vpl gy-trnsl, lt gy-olv gy i/p,rr wh,tr orng, vf-f grs,mnr med crs grs,tr foss, rr shell frags,lse-com fri aggs.
(478.3)
Survey:485.24mMD 481.5mTVD)
8.18° inc 110.59° az
490
CALCARENITE:vpl gy-trnsl, lt gy-olv gy i/p,rr wh,tr orng, vf-f grs,mnr med crs grs,tr foss, rr shell frags,lse-com fri aggs.
System Crash
Drill data lost from
500.0 - 505.0 mMDRT
500
CALCARENITE:vpl gy,com trnsl,vf-f,abdt mtx,tr foss,tr glauc,uncons,lse i/p,rr fri aggs.
(498.1)


WOB:5-20klbs
RPM:0-40
SPP:2300psi
FLW:1000gpm
MW:9.50
FV:45
PV:3
YP:20
O/W:-/91.0
HTHP:-
WPS:-
Cl:-
WOB:5-15klbs
RPM:0-40
SPP:2385psi
FLW:1010gpm
WOB:5-10klbs
RPM:0-40
SPP:2330psi
FLW:1000gpm
MW:9.50
FV:47
PV:3
YP:22
O/W:-/91.0
HTHP:-
WPS:-
Cl:-
510
520
(517.9)
530
540
(537.7)
550
560
(557.4)
570
580
(577.1)
590
600
(596.8)
610
620
(616.3)
630
640
500
50
5
.5
.5
5
50
500
5K
100
1K
10K
100K
1000K
Survey:514.99mMD 510.9mTVD)
8.27° inc 94.41° az
100 / Tr
Survey:544.21mMD 539.8mTVD)
8.53° inc 77.80° az
Survey:573.46mMD 568.7mTVD)
9.50° inc 64.88° az
100 / Tr
Survey:602.56mMD 597.4mTVD)
11.26° inc 49.15° az
100 / Tr
Survey:631.88mMD 626.0mTVD)
14.08° inc 31.66° az
CALCARENITE:vpl gy,com trnsl,vf-f grs,tr crs-v crs grs,abdt mtx,rr foss,tr glauc, uncons,lse i/p,tr fri-mod hd aggs.
CALCARENITE:vpl gy,com trnsl,vf-f grs,tr crs-v crs grs,abdt mtx,rr foss,tr glauc, uncons,lse i/p,tr fri-mod hd aggs.
CALCARENITE:vpl gy,com trnsl,vf-f,abdt mtx,rr foss,tr glauc,uncons,lse i/p.
CALCARENITE:vpl gy,com trnsl,vf-f,abdt mtx,rr foss,tr glauc,uncons,lse i/p.
CALCARENITE:pl gy,trnsl, vf,abdt mtx,rr foss,tr glauc, sft-uncons aggs.
CALCARENITE:pl gy,trnsl, vf,abdt mtx,tr foss,tr glauc, sft-uncons aggs.
CALCARENITE:pl gy,trnsl, vf,abdt mtx,com foss,tr glauc, sft-uncons aggs.
CALCARENITE:pl gy,trnsl, vf,abdt mtx,com foss,tr glauc, sft-uncons aggs.
CALCARENITE:pl gy,trnsl, vf,abdt mtx,com foss,tr glauc, sft-uncons aggs.
CALCARENITE:lt gy-lt olv gy, vf-f grs,arg,tr shell frags, lse-uncons,tr fri aggs.
CALCARENITE:lt gy-lt olv gy, vf-f grs,arg,tr shell frags, lse-uncons,tr fri aggs.
CALCARENITE:lt gy-lt olv gy, vf-f grs,arg,tr shell frags, lse-uncons,tr fri aggs.
CALCARENITE:lt gy-lt olv gy, vf-f grs,arg,tr shell frags, abdt carb spks,tr vf glauc grs, lse-uncons,tr fri aggs.
CALCARENITE:lt gy-lt olv gy, vf-f grs,arg,tr shell frags, abdt carb spks,tr vf glauc grs, lse-uncons,tr fri aggs.


650
660
(655)
670
680
02-09-09
06-09-09
(673.7)
690
MW:10.45
FV:135
PV:45
YP:19
O/W:65.5/34.0
HTHP:-/2
WPS:200,163
Cl:43,474
700
(692.5)
710
720
(710.9)
730
740
(728.9)
750
760
(746.3)
770
WOB:4-20klbs
RPM:80-123
SPP:1906psi
780
68 Units 100 / Tr
Formation gas
Survey:661.09mMD 654.1mTVD)
16.89° inc 20.41° az
10-3/4" Surface Casing
set @ 678.54 mMDRT
Bit #4 9-7/8"
Type: Reed Hycalog
RSR616S-A1
Jets: 8 x 16
In: 683.0 mMDRT
Out: 4573.0 mMDRT
Run: 3890.0 m
Hrs: 64.5
Cond:5-4-CT-A-X-
IN-WT/ER-TD
100 / Tr
Survey:712.31mMD 702.1mTVD)
23.76° inc 13.36° az
100 / Tr
Survey:741.69mMD 728.6mTVD)
27.53° inc 11.43° az
100 / Tr
Survey:770.62mMD 753.9mTVD)
30.94° inc 9.83° az
CALCARENITE:lt gy-lt olv gy, vf-f grs,arg,tr shell frags, abdt carb spks,mnr vf glauc grs,tr nod pyr,lse-uncons, tr fri aggs.
CALCARENITE:lt gy-lt olv gy, vf-f grs,arg,tr shell frags, abdt carb spks,mnr vf glauc grs,lse-uncons,com fri aggs.
CALCARENITE:lt gy-lt olv gy, vf-f grs,arg,tr shell frags, abdt carb spks,mnr vf glauc grs,lse-uncons,com fri aggs.
CALCARENITE:lt gy-lt olv gy, vf-f grs,arg,tr shell frags, abdt carb spks,mnr vf glauc grs,tr nod pyr,lse-uncons, com fri aggs.
Drill with NAF Accolade Mud System
CALCARENITE:lt olv gy-gn gy,f-med grs,mnr carb spks,com lse,com fri aggs.
PIT at 686.5 mMDRT
678.2 mTVDRT
356 psi with 10.5 ppg mud
E.M.W.= 13.6 ppg
CALCARENITE:lt olv gy-gn gy,f-med grs,mnr carb spks,com lse,com fri aggs.
CALCARENITE(20%):lt olv gy-gn gy,f-med grs,mnr carb spks,com lse,com fri aggs.
CALCILUTITE(80%):lt olv gy-olv gy,lt med gy-med gy,mnr carb spks,tr-rr vf qtz grs,tr liths,sft,stky,sbblky.
CALCILUTITE:lt olv gy-



olv gy,lt med gy-med gy,mnr carb spks,tr-rr vf qtz grs,tr liths,sft,stky,sbblky.

CALCILUTITE(80%):lt olv gy-olv gy,lt med gy-med gy,tr v lt gy,tr yel gy,mnr carb spks, tr-rr vf qtz grs,tr liths,sft, stky,sbblky.

CALCARENITE(20%):lt olv gy-gn gy,f-med grs,mnr carb spks,com lse,com fri aggs.

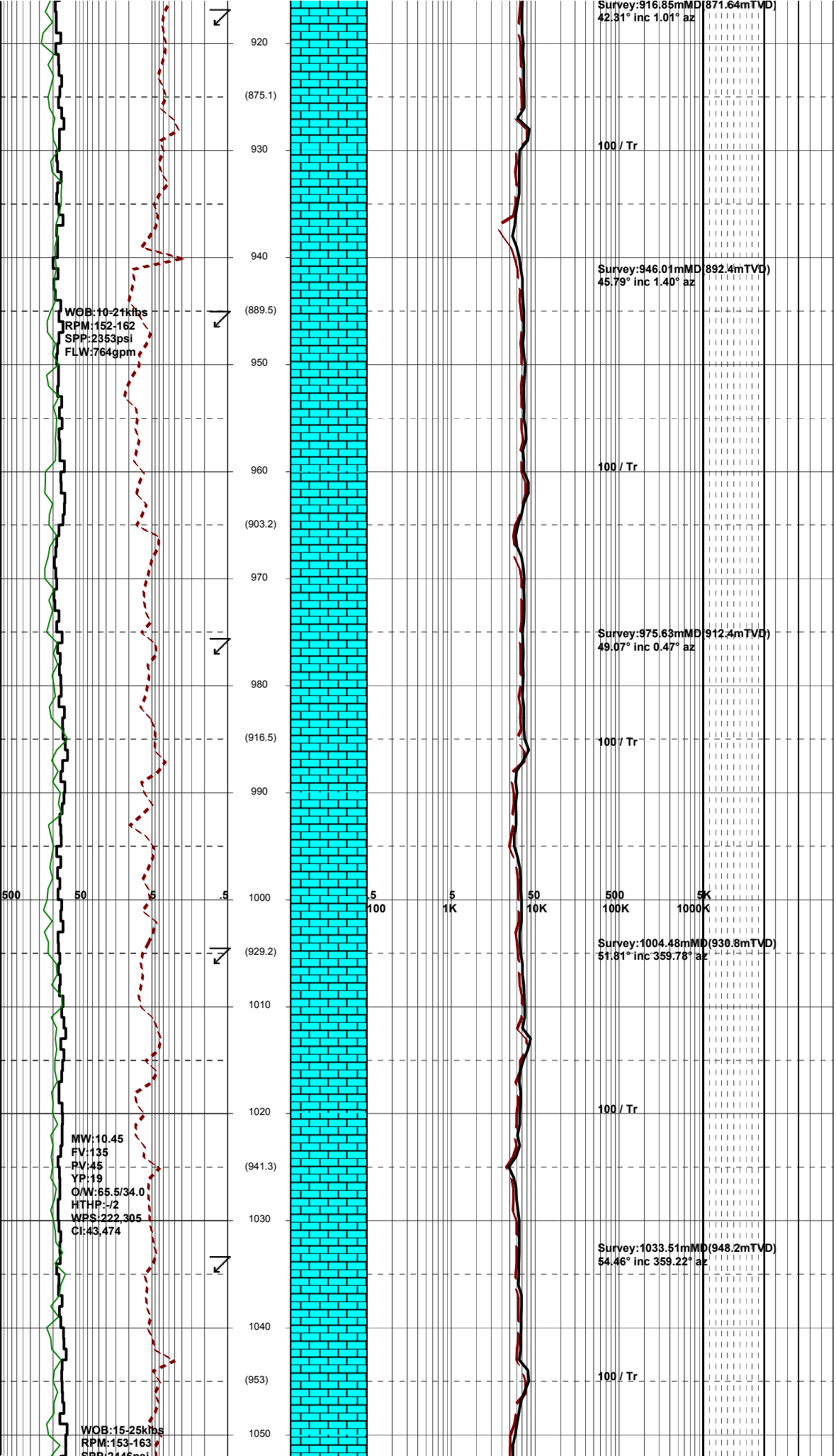
CALCILUTITE(80%):lt olv gy-olv gy,lt med gy-med gy,tr v lt gy,tr yel gy,mnr carb spks, tr-rr vf qtz grs,tr liths,tr foss,sft,stky,sbblky.

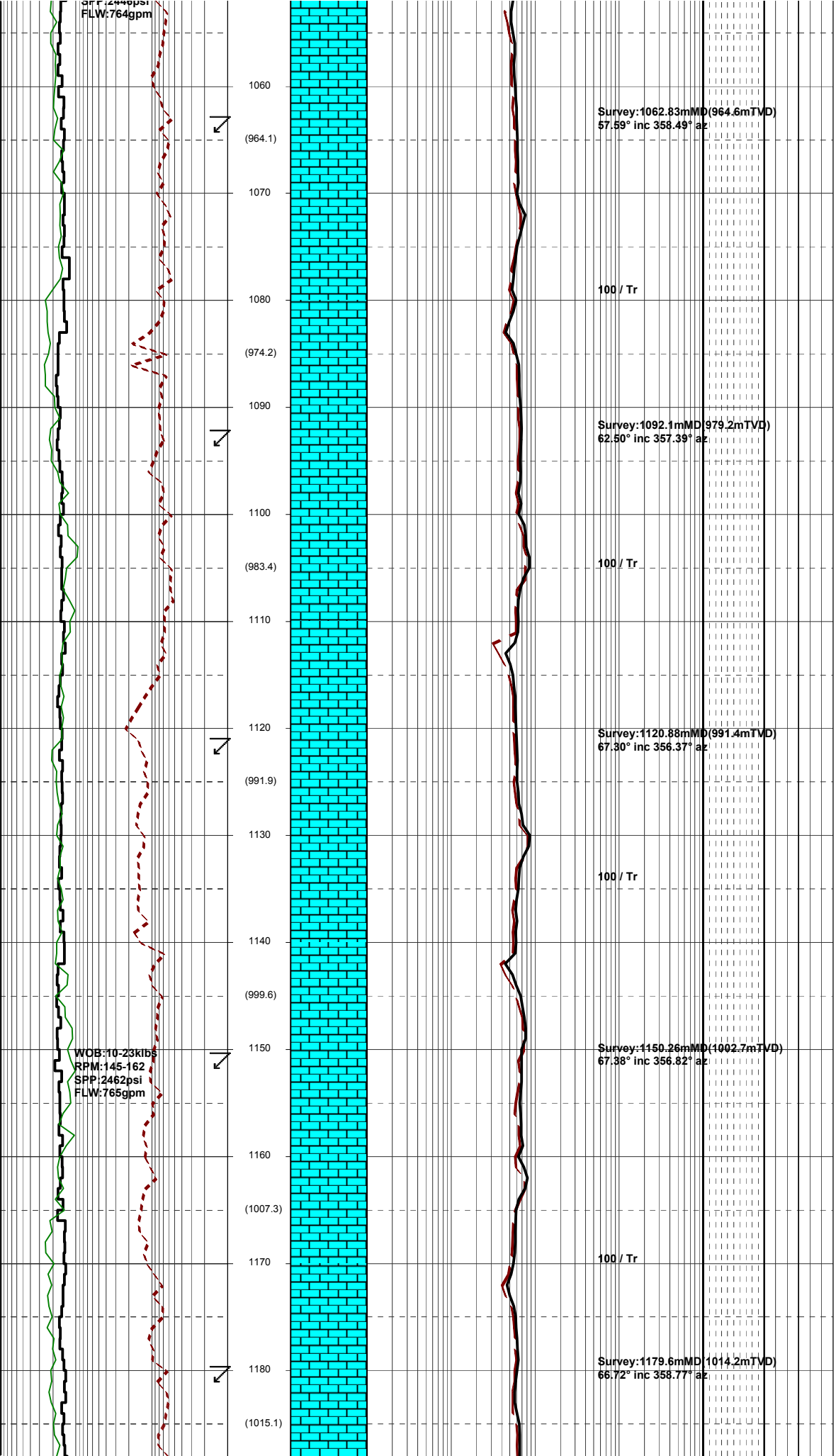
CALCISILTITE(20%):lt olv gy, lt med gy,g/t CLCST i/p,mnr carb spks,rr vf qtz grs,tr liths, sft-frm,sbblky.

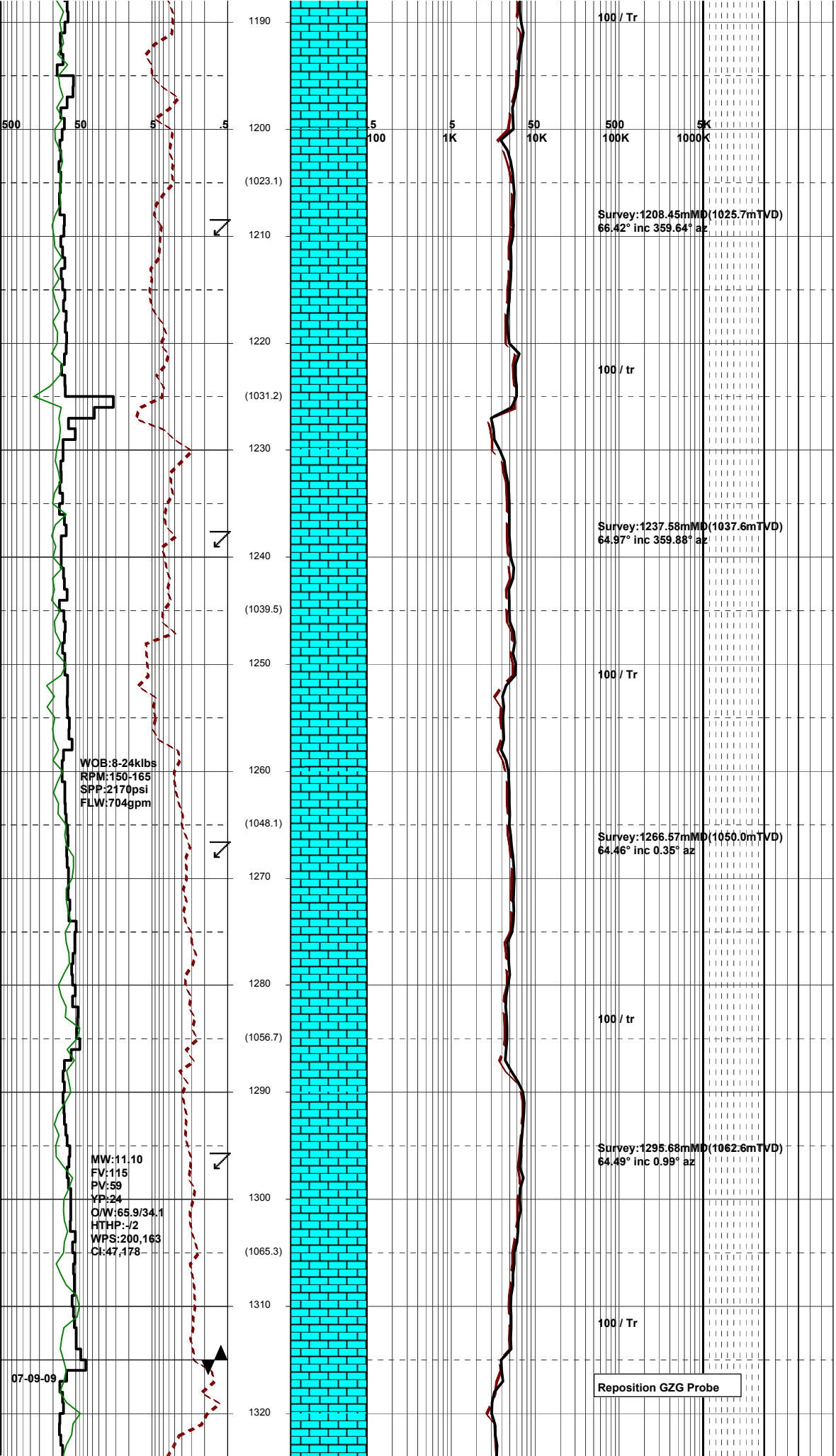
CALCILUTITE(20%):lt olv gy-olv gy,lt med gy-med gy,tr v lt gy,tr yel gy,mnr carb spks, tr-rr vf qtz grs,tr liths,tr foss,sft,stky,sbblky.

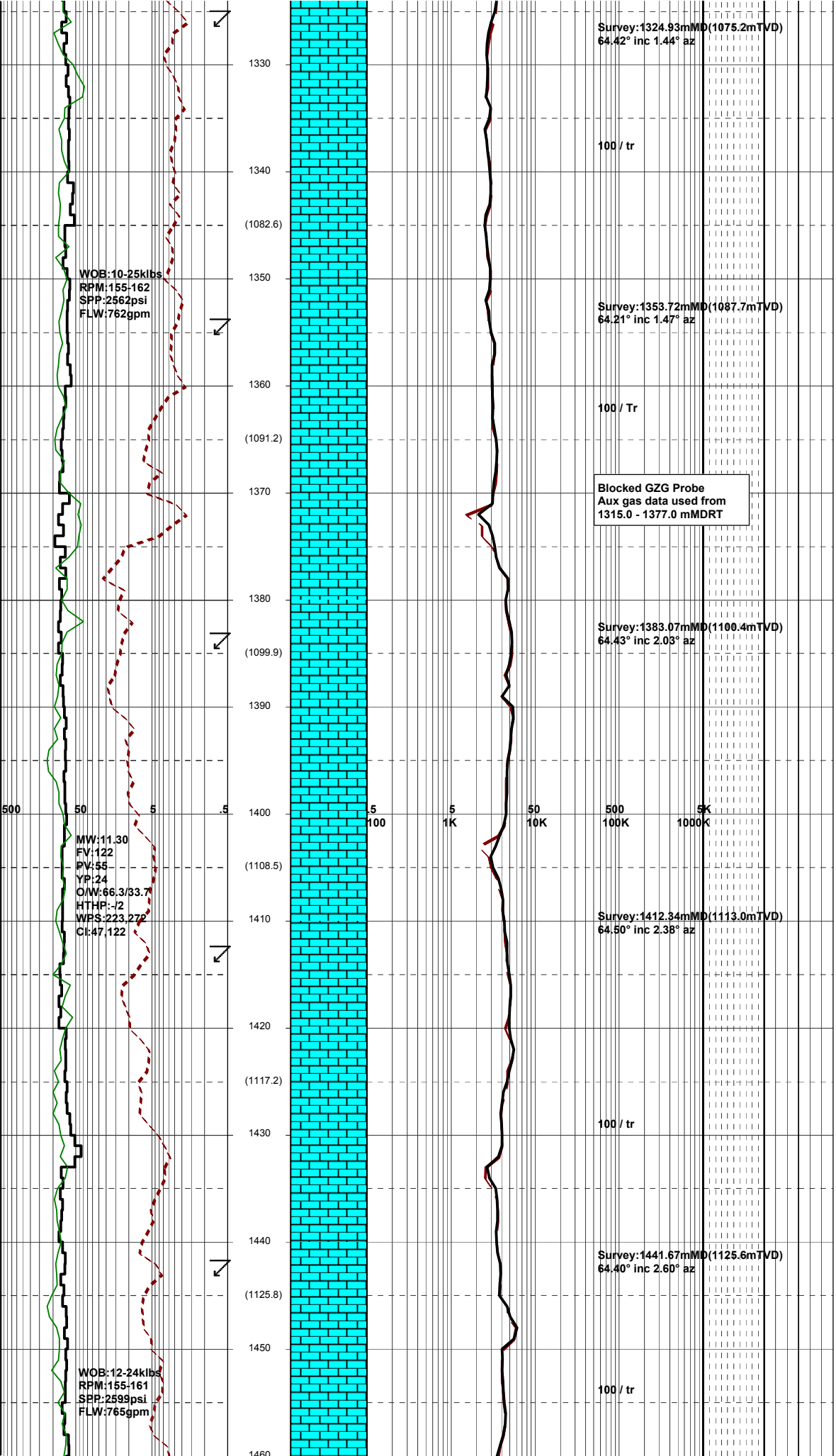
CALCISILTITE(80%):lt olv gy, lt med gy,g/t CLCST i/p,mnr carb spks,rr vf qtz grs,tr calc frags,tr liths,sft-frm,sbblky.

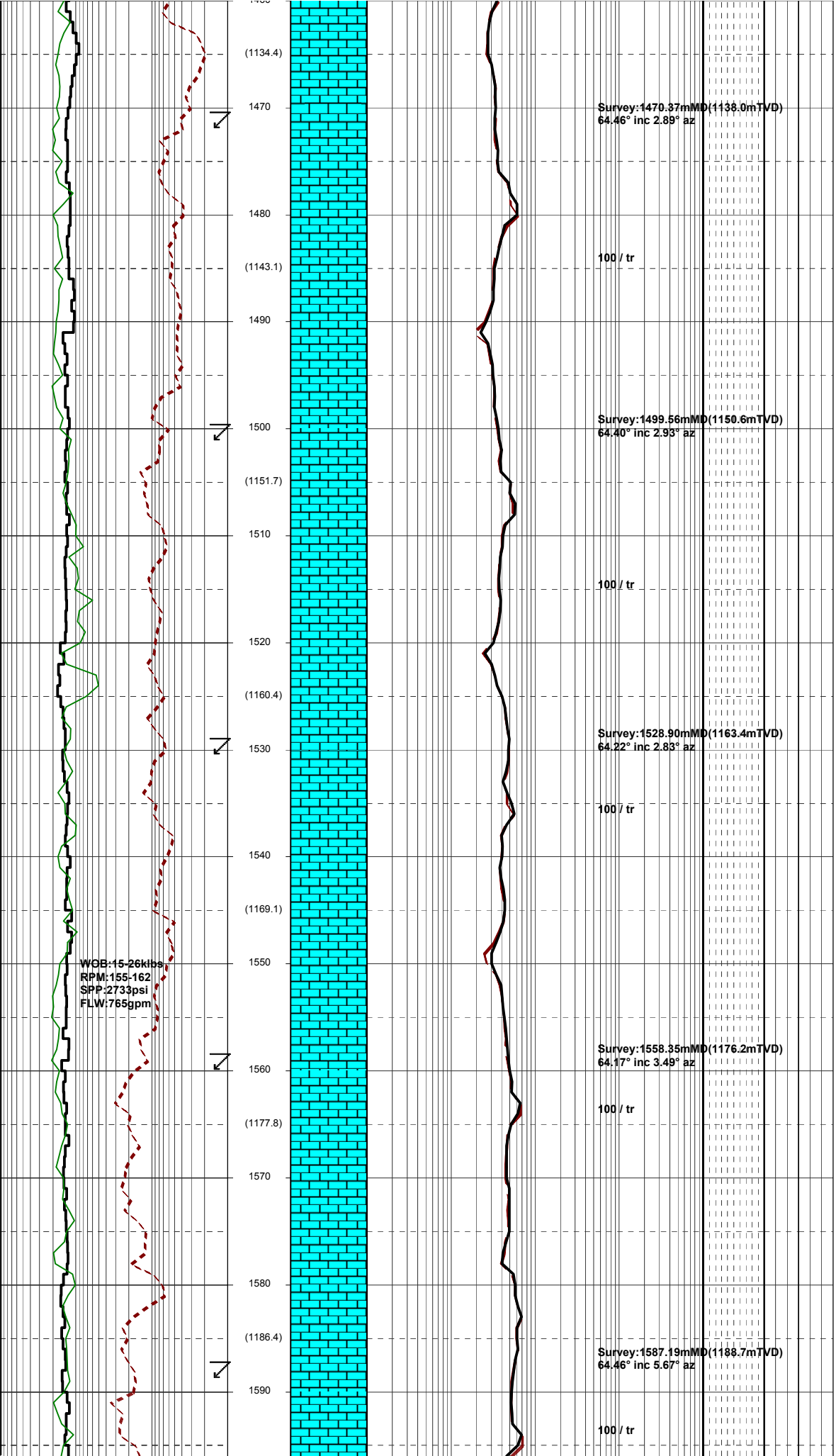
CALCISILTITE:lt olv gy-olv gy,lt med gy,aren g/t CLCAR i/p,mnr carb spks,rr vf qtz grs,rr liths,sft-frm,sbblky.


Survey:916.85mMD(871.64mTVD)
42.31° inc 1.01° az
100 / Tr
CALCISILTITE:lt olv gy-olv gy,lt med gy,aren g/t CLCARi/p,slty i/p g/t CLCSLT,mnr carb spks,rr vf qtz grs,rr liths,sft-frm,sbblky.
Survey:946.01mMD(892.4mTVD)
45.79° inc 1.40° az
WOB:10-21klbs
RPM:152-162
SPP:2353psi
FLW:764gpm
100 / Tr
CALCISILTITE(90%):lt olv gy-olv gy,lt med gy,aren g/t CLCARi/p,slty i/p g/t CLCSLT,mnr carb spks,rr vf qtz grs,rr liths,sft-frm,sbblky.
CALCILUTITE(10%):lt olv gy-olv gy,brn gy,g/t CLCSLT i/p,mnr carb spks,mnr liths,sft,sbblky.
Survey:975.63mMD(912.4mTVD)
49.07° inc 0.47° az
100 / Tr
CALCISILTITE(90%):lt olv gy-olv gy,lt med gy,aren g/t CLCARi/p,slty i/p g/t CLCSLT,mnr carb spks,rr vf qtz grs,rr liths,sft-frm,sbblky.
CALCARENITE(10%):olv gy,rr lt olv gy,med gy,vf g/t CLCSLT,mnr carb spks,mnr liths,tr calc,frm-tr mod hd,sbblky.
500
50
5
.5
.5
5
50
500
5K
100
1K
10K
100K
1000K
Survey:1004.48mMD(930.8mTVD)
51.81° inc 359.78° az
CALCISILTITE(70%):lt olv gy-olv gy,lt med gy,aren g/t CLCARi/p,slty i/p g/t CLCSLT,mnr carb spks,rr vf qtz grs,rr liths,sft-frm,sbblky.
100 / Tr
MW:10.45
FV:135
PV:45
YP:19
O/W:65.5/34.0
HTHP:-/2
WPS:222,305
Cl:43,474
CALCARENITE(30%):olv gy,rr lt olv gy,med gy,vf g/t CLCSLT,mnr carb spks,mnr liths,tr calc,frm-tr mod hd,sbblky.
Survey:1033.51mMD(948.2mTVD)
54.46° inc 359.22° az
100 / Tr
WOB:15-25klbs
RPM:153-163
CALCISILTITE:lt olv gy-olv gy,lt med gy,aren g/t
920
(875.1)
930
940
(889.5)
950
960
(903.2)
970
980
(916.5)
990
1000
(929.2)
1010
1020
(941.3)
1030
1040
(953)
1050


SPP:2446psi
FLW:764gpm
1060
(964.1)
1070
1080
(974.2)
1090
1100
(983.4)
1110
1120
(991.9)
1130
1140
(999.6)
1150
WOB:10-23klbs
RPM:145-162
SPP:2462psi
FLW:765gpm
1160
(1007.3)
1170
1180
(1015.1)
Survey:1062.83mMD(964.6mTVD)
57.59° inc 358.49° az
100 / Tr
Survey:1092.1mMD(979.2mTVD)
62.50° inc 357.39° az
100 / Tr
Survey:1120.88mMD(991.4mTVD)
67.30° inc 356.37° az
100 / Tr
Survey:1150.26mMD(1002.7mTVD)
67.38° inc 356.82° az
100 / Tr
Survey:1179.6mMD(1014.2mTVD)
66.72° inc 358.77° az
CLCAR,mnr liths,rr carb
spks,tr calc frags,pred frm,
rr sft,rr mod hd,sbblky.
CALCISILTITE:lt olv gy-
olv gy,lt med gy,aren g/t
CLCAR,mnr liths,rr carb
spks,tr calc frags,pred frm,
rr sft,rr mod hd,sbblky.
CALCISILTITE:lt olv gy-
olv gy,lt med gy,aren g/t
CLCAR,mnr liths,rr carb
spks,tr calc frags,pred frm,
rr sft,rr mod hd,sbblky.
CALCILUTITE(40%):olv gy-med
gy,lt med gy,g/t CLCSLT i/p,rr
liths,rr carb spks,sft,stky,rr
frm,sbblky.
CALCISILTITE(60%):lt olv gy-
olv gy,lt med gy,aren g/t
CLCAR,mnr liths,rr carb spks,
tr calc frags,pred frm,rr sft,
rr mod hd,sbblky.
CALCILUTITE(10%):olv gy-med
gy,lt med gy,g/t CLCSLT i/p,rr
liths,rr carb spks,sft,stky,rr
frm,sbblky.
CALCISILTITE(90%):lt olv gy-
olv gy,lt med gy,aren g/t
CLCAR,mnr liths,rr carb spks,
tr calc frags,pred frm,rr sft,
rr mod hd,sbblky.


500
50
5
.5
.5
5
50
500
5K
100
1K
10K
100K
1000K
1190
1200
(1023.1)
1210
1220
(1031.2)
1230
1240
(1039.5)
1250
1260
(1048.1)
1270
1280
(1056.7)
1290
1300
(1065.3)
1310
1320
100 / Tr
Survey:1208.45mMD(1025.7mTVD)
66.42° inc 359.64° az
100 / tr
Survey:1237.58mMD(1037.6mTVD)
64.97° inc 359.88° az
100 / Tr
Survey:1266.57mMD(1050.0mTVD)
64.46° inc 0.35° az
100 / tr
Survey:1295.68mMD(1062.6mTVD)
64.49° inc 0.99° az
100 / Tr
Reposition GZG Probe
WOB:8-24klbs
RPM:150-165
SPP:2170psi
FLW:704gpm
MW:11.10
FV:115
PV:59
YP:24
O/W:65.9/34.1
HTHP:-/2
WPS:200,163
Cl:47,178
07-09-09
CALCISILTITE:lt olv gy-olv gy,lt med gy,aren g/t CLCAR,mnr liths,rr carb spks, tr calc frags,pred frm,rr sft, rr mod hd,sbblky.
CALCISILTITE(90%):olv gy-med gy,tr liths,tr carb spks, tr vf qtz grs,sft-frm, sbblky,tr blky.
CALCARENITE(10%):lt gy-med lt gy,vf-f grs,tr carb spks,fri aggs.
CALCISILTITE:olv gy-med gy,tr vf aren,tr liths,tr carb spks,tr vf qtz grs,sft-frm, sbblky,tr blky.
CALCISILTITE(80%):olv gy-med gy,tr liths,tr carb,spks, tr vf qtz grs,sft-frm,sbblky, tr blky.
CALCARENITE(20%):lt gy-med lt gy,vf-f grs,tr shell frags,carb spks,lse-fri aggs.
Wiper trip @ 1315.0 mMDRT back to 800.0 mMDRT
CALCISILTITE:med dk gy-olv gy,dk gn gy,tr vf aren,tr vf qtz grs,tr vf calc grs,tr carb spks,tr liths,sft-frm,mnr mod


hd,sbblky-blky.
Survey:1324.93mMD(1075.2mTVD)
64.42° inc 1.44° az
100 / tr
1330
1340
(1082.6)
WOB:10-25klbs
RPM:155-162
SPP:2562psi
FLW:762gpm
1350
CALCISILTITE:med dk gy-olv gy,dk gn gy,tr vf aren,tr vf qtz grs,tr liths,sft-frm, sbblky-blky.
Survey:1353.72mMD(1087.7mTVD)
64.21° inc 1.47° az
1360
100 / Tr
(1091.2)
Blocked GZG Probe
Aux gas data used from
1315.0 - 1377.0 mMDRT
1370
1380
CALCISILTITE:med dk gy-olv gy,dk gn gy,tr vf aren,tr vf qtz grs,tr liths,sft-frm, mnr mod hd,sbblky-blky.
Survey:1383.07mMD(1100.4mTVD)
64.43° inc 2.03° az
(1099.9)
1390
500
50
5
.5
1400
.5
5
50
500
5K
100
1K
10K
100K
1000K
MW:11.30
FV:122
PV:55
YP:24
O/W:66.3/33.7
HTHP:-/2
WPS:223,272
Cl:47,122
(1108.5)
1410
Survey:1412.34mMD(1113.0mTVD)
64.50° inc 2.38° az
CALCISILTITE:med dk gy-olv gy,dk gn gy,tr vf aren,tr vf qtz grs,tr liths,sft-frm, mnr mod hd,sbblky-blky.
1420
(1117.2)
100 / tr
1430
1440
CALCISILTITE:med dk gy-olv gy,dk gn gy,tr vf aren,tr vf qtz grs,tr liths,sft-frm, mnr mod hd,sbblky-blky.
Survey:1441.67mMD(1125.6mTVD)
64.40° inc 2.60° az
(1125.8)
1450
WOB:12-24klbs
RPM:155-161
SPP:2599psi
FLW:765gpm
100 / tr
1460



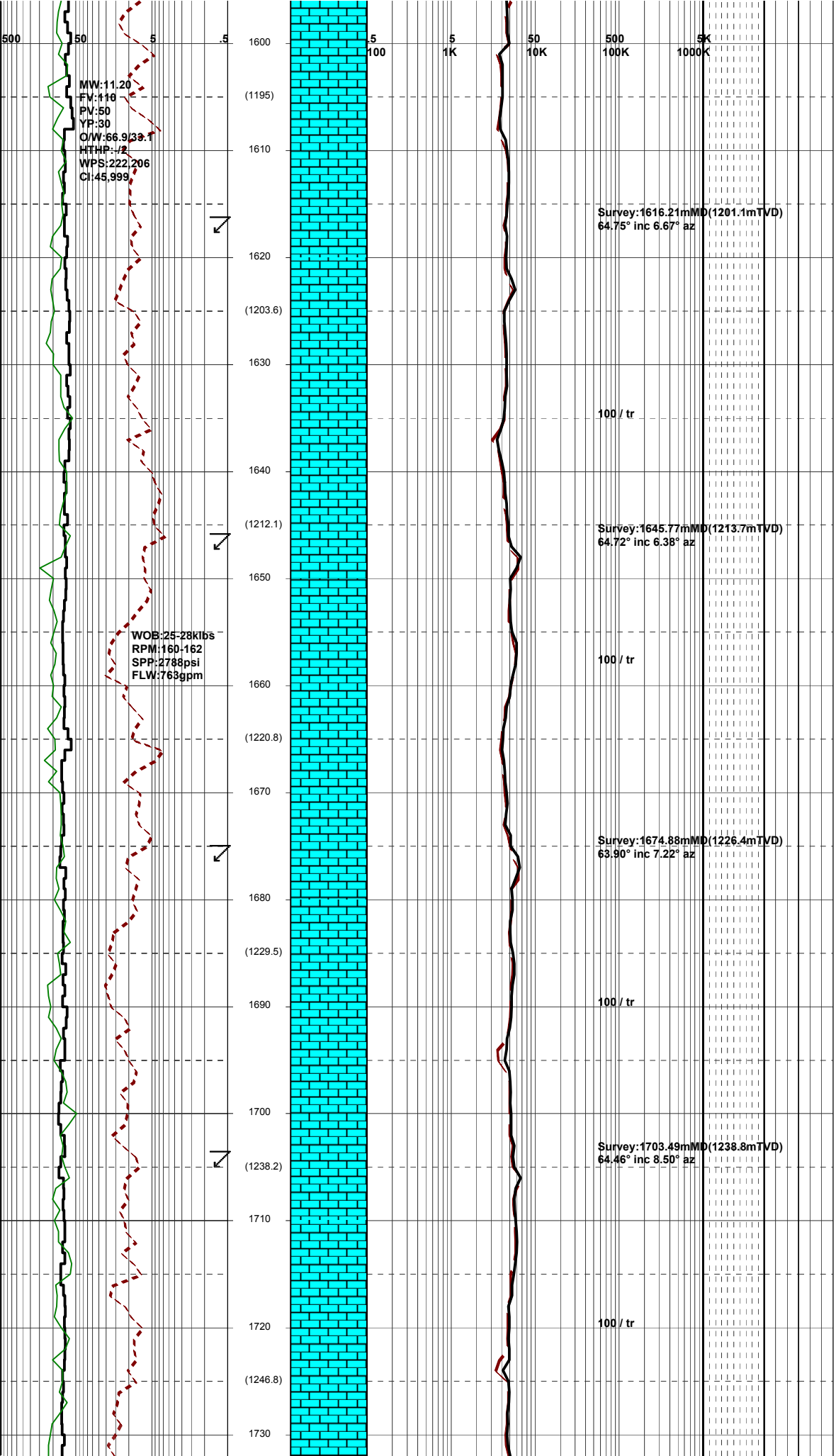
CALCISILTITE:med dk gy-olv gy,dk gn gy,tr vf aren,tr vf qtz grs,tr liths,sft-frm, mnr mod hd,sbblky-blky.

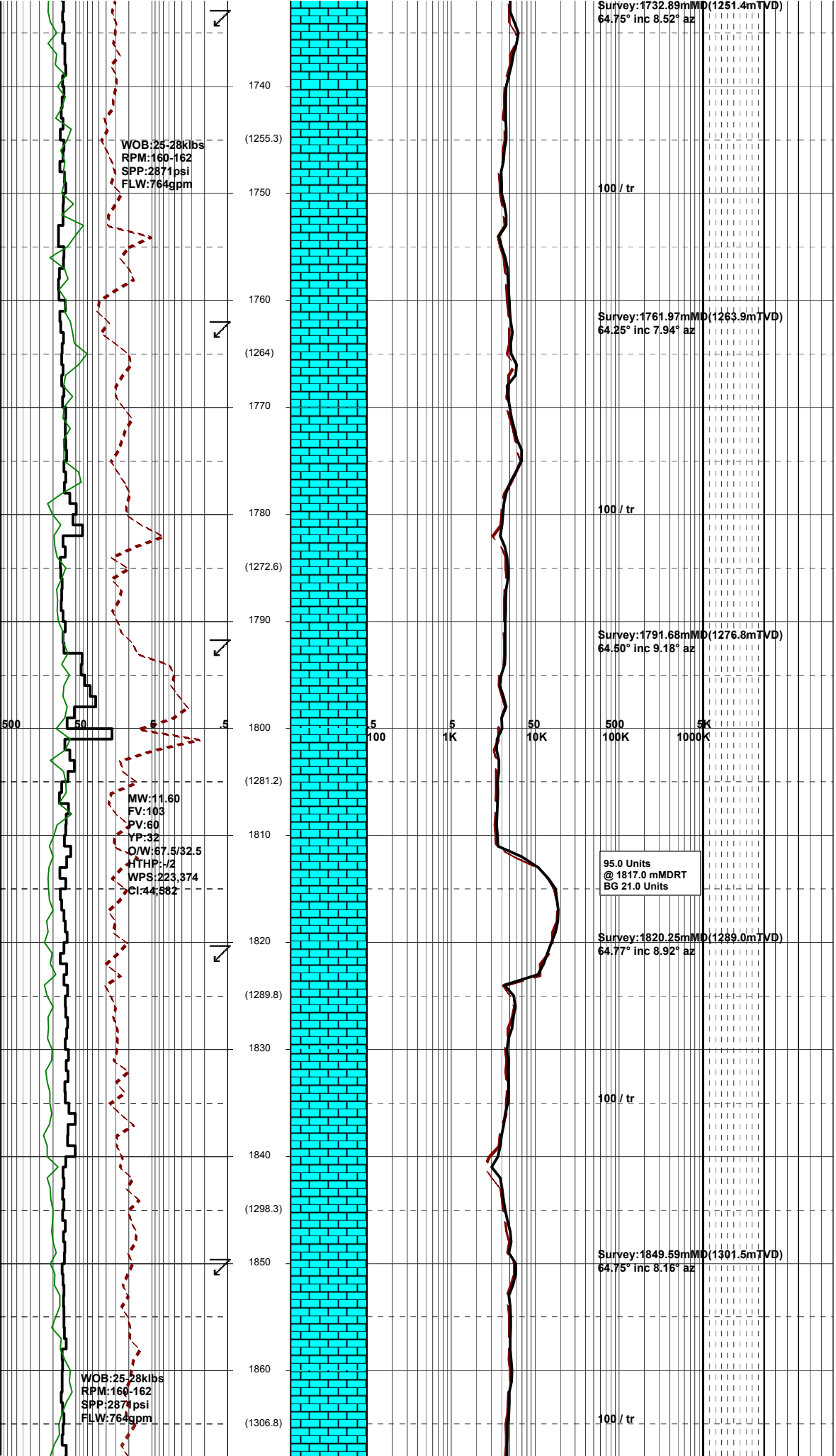
CALCISILTITE:med dk gy-olv gy,dk gn gy,rr arg g/t CLSLT i/p,tr vf qtz grs,tr liths,sft-frm,mnr mod hd, sbblky-blky.

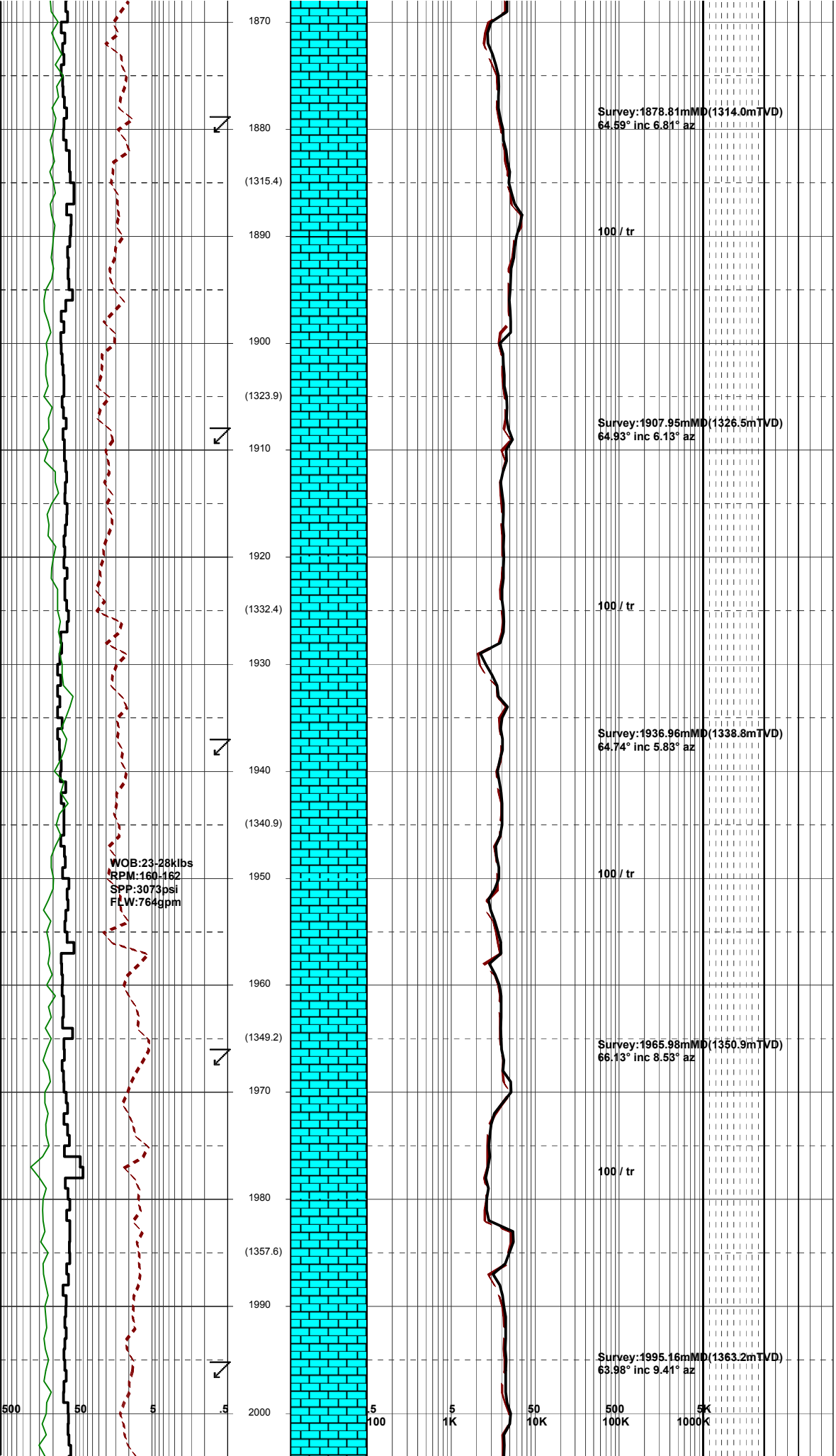
CALCISILTITE:med dk gy-mnr olv gy,tr vf aren,tr liths, tr qtz grs,frm,rr mod hd,sbblky-blky.

CALCISILTITE:med dk gy-mnr olv gy,tr vf aren,tr liths, tr qtz grs,tr med calcite grs, frm,rr mod hd,sbblky-blky.

CALCISILTITE:med dk gy-mnr olv gy,tr vf aren,tr liths, tr qtz grs,tr med calcite grs, frm,rr mod hd,sbblky-blky.


500
50
5
.5
.5
5
50
500
5K
100
1K
10K
100K
1000K
1600
(1195)
1610
1620
(1203.6)
1630
1640
(1212.1)
1650
1660
(1220.8)
1670
1680
(1229.5)
1690
1700
(1238.2)
1710
1720
(1246.8)
1730
MW:11.20
FV:110
PV:50
YP:30
O/W:66.9/33.1
HTHP: /2
WPS:222,206
Cl:45,999
WOB:25-28klbs
RPM:160-162
SPP:2788psi
FLW:763gpm
Survey:1616.21mMD(1201.1mTVD)
64.75° inc 6.67° az
100 / tr
Survey:1645.77mMD(1213.7mTVD)
64.72° inc 6.38° az
100 / tr
Survey:1674.88mMD(1226.4mTVD)
63.90° inc 7.22° az
100 / tr
Survey:1703.49mMD(1238.8mTVD)
64.46° inc 8.50° az
100 / tr
CALCISILTITE:med dk gy-mnr olv gy,tr vf aren,tr liths, tr qtz grs,tr med calcite grs, frm,rr mod hd,sbblky-blky.
CALCISILTITE:med dk gy-mnr olv gy,tr v lt gy,tr vf aren,tr liths,tr qtz grs,tr med calcite grs,frm,rr mod hd, sbblky-blky.
CALCISILTITE:med dk gy-mnr olv gy,tr v lt gy,tr vf aren,tr liths,tr qtz grs,tr med calcite grs,tr foss,frm, rr mod hd,sbblky-blky.
CALCISILTITE:med dk gy-mnr olv gy,tr v lt gy,tr vf aren,tr liths,tr qtz grs,tr med calcite grs,frm,rr mod hd, sbblky-blky.


Survey:1732.89mMD(1251.4mTVD)
64.75° inc 8.52° az
1740
(1255.3)
WOB:25-28klbs
RPM:160-162
SPP:2871psi
FLW:764gpm
1750
100 / tr
1760
Survey:1761.97mMD(1263.9mTVD)
64.25° inc 7.94° az
(1264)
1770
1780
100 / tr
(1272.6)
1790
Survey:1791.68mMD(1276.8mTVD)
64.50° inc 9.18° az
500
50
6
.5
1800
.5
5
50
500
5K
100
1K
10K
100K
1000K
(1281.2)
MW:11.60
FV:103
PV:60
YP:32
O/W:67.5/32.5
HTHP:-/2
WPS:223,374
Cl:44,582
1810
95.0 Units
@ 1817.0 mMDRT
BG 21.0 Units
1820
Survey:1820.25mMD(1289.0mTVD)
64.77° inc 8.92° az
(1289.8)
1830
100 / tr
1840
(1298.3)
1850
Survey:1849.59mMD(1301.5mTVD)
64.75° inc 8.16° az
1860
WOB:25-28klbs
RPM:160-162
SPP:2871psi
FLW:764gpm
(1306.8)
100 / tr
CALCISILTITE:med dk gy-lt gy,mnr olv gy,rr v lt gy,tr vf aren,tr liths,tr qtz grs,tr med calcite grs,frm,tr sft, rr mod hd,sbblky-blky.
CALCISILTITE:med dk gy-lt gy,mnr olv gy,rr v lt gy,tr vf aren g/t CLCAR,tr liths, tr qtz grs,tr med calcite grs, frm,tr sft,rr mod hd,sbblky-blky.
CALCISILTITE:med dk gy-lt gy,mnr olv gy,rr v lt gy,tr vf aren g/t CLCAR,tr liths, tr qtz grs,tr med calcite grs, frm,tr sft,rr mod hd,sbblky-blky.
CALCARENITE(50%):olv gy-lt olv,brn gy,vf-tr f,rr liths, tr carb spks,frm-rr mod hd, sbblky.
CALCISILTITE(50%):med dk gy-lt gy,mnr olv gy,rr v lt gy, tr vf aren g/t CLCAR,tr liths, tr qtz grs,tr med calcite grs, frm,tr sft,rr mod hd,sbblky-blky.
CALCARENITE(20%):olv gy-lt olv,brn gy,vf-tr f,rr liths, tr carb spks,frm-rr mod hd, sbblky.
CALCISILTITE(80%):med dk gy-lt gy,mnr olv gy,rr v lt gy, tr vf aren g/t CLCAR,tr liths, tr qtz grs,tr med calcite grs, frm,tr sft,rr mod hd,sbblky-blky.
CALCISILTITE:med dk gy-lt gy,mnr olv gy,rr v lt gy,tr vf aren g/t CLCAR,tr liths, tr qtz grs,tr med calcite grs, frm,tr sft,rr mod hd,sbblky-blky.



CALCISILTITE:med dk gy-lt gy,mnr olv gy,rr v lt gy,tr vf aren g/t CLCAR,tr liths, tr qtz grs,tr med calcite grs, frm,tr sft,rr mod hd,sbblky-blky.

CALCISILTITE(90%):med dk gy-lt gy,mnr olv gy,rr v lt gy, tr vf aren g/t CLCAR,tr liths, tr qtz grs,tr med calcite grs, frm,tr sft,rr mod hd,sbblky-blky.

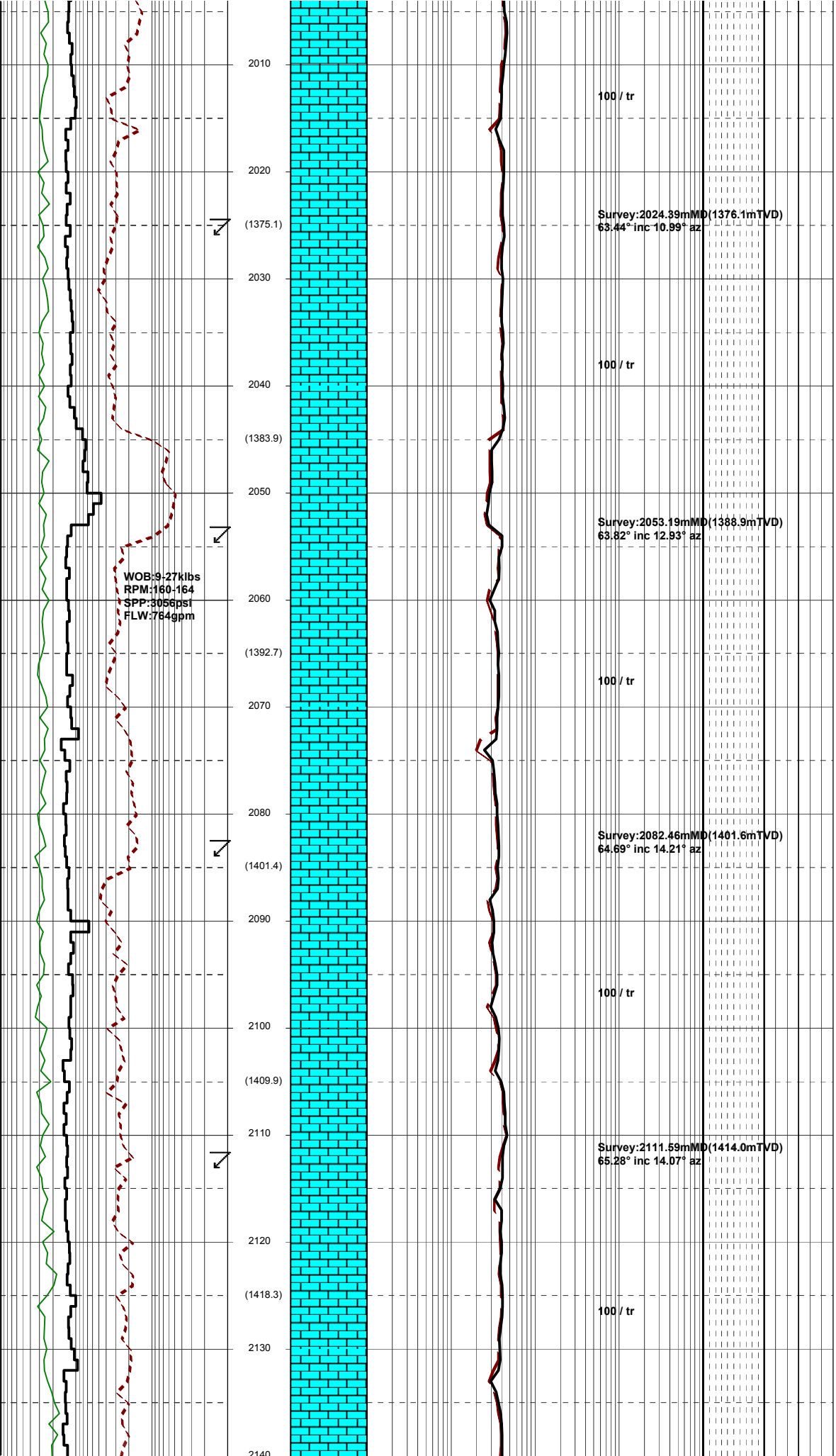
CALCARENITE(10%):olv gy-lt olv,med lt gy,vf-tr f,tr liths, rr carb spks,frm-mod hd,brit i/p,sbblky.

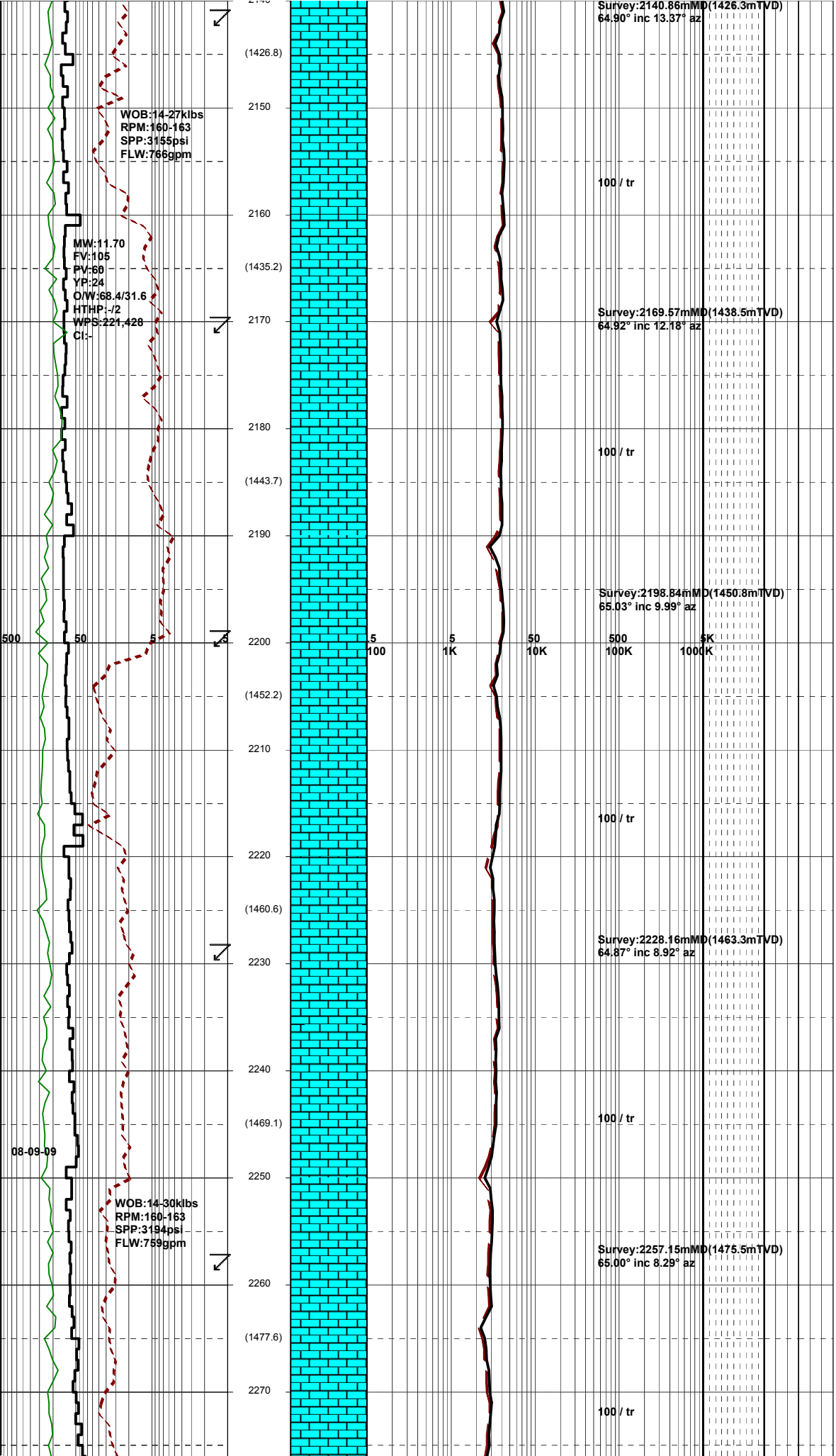
CALCARENITE(20%):olv gy-lt olv,med lt gy,vf-tr f,tr liths, rr carb spks,frm-mod hd,brit i/p,sbblky.

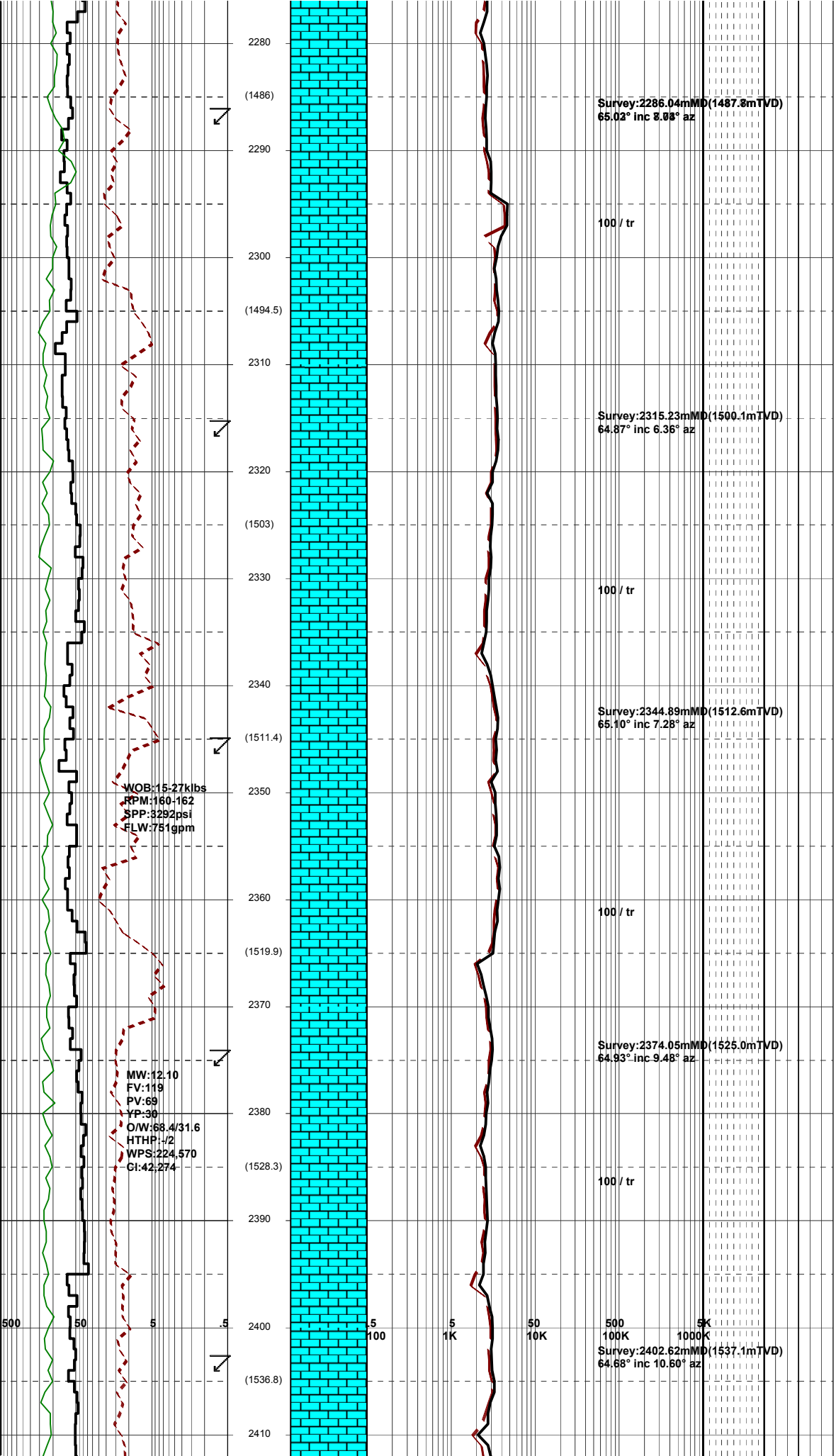
CALCISILTITE(80%):med dk gy-lt gy,mnr olv gy,rr v lt gy, tr vf aren g/t CLCAR,tr liths, tr qtz grs,tr med calcite grs, frm,tr sft,rr mod hd,sbblky-blky.

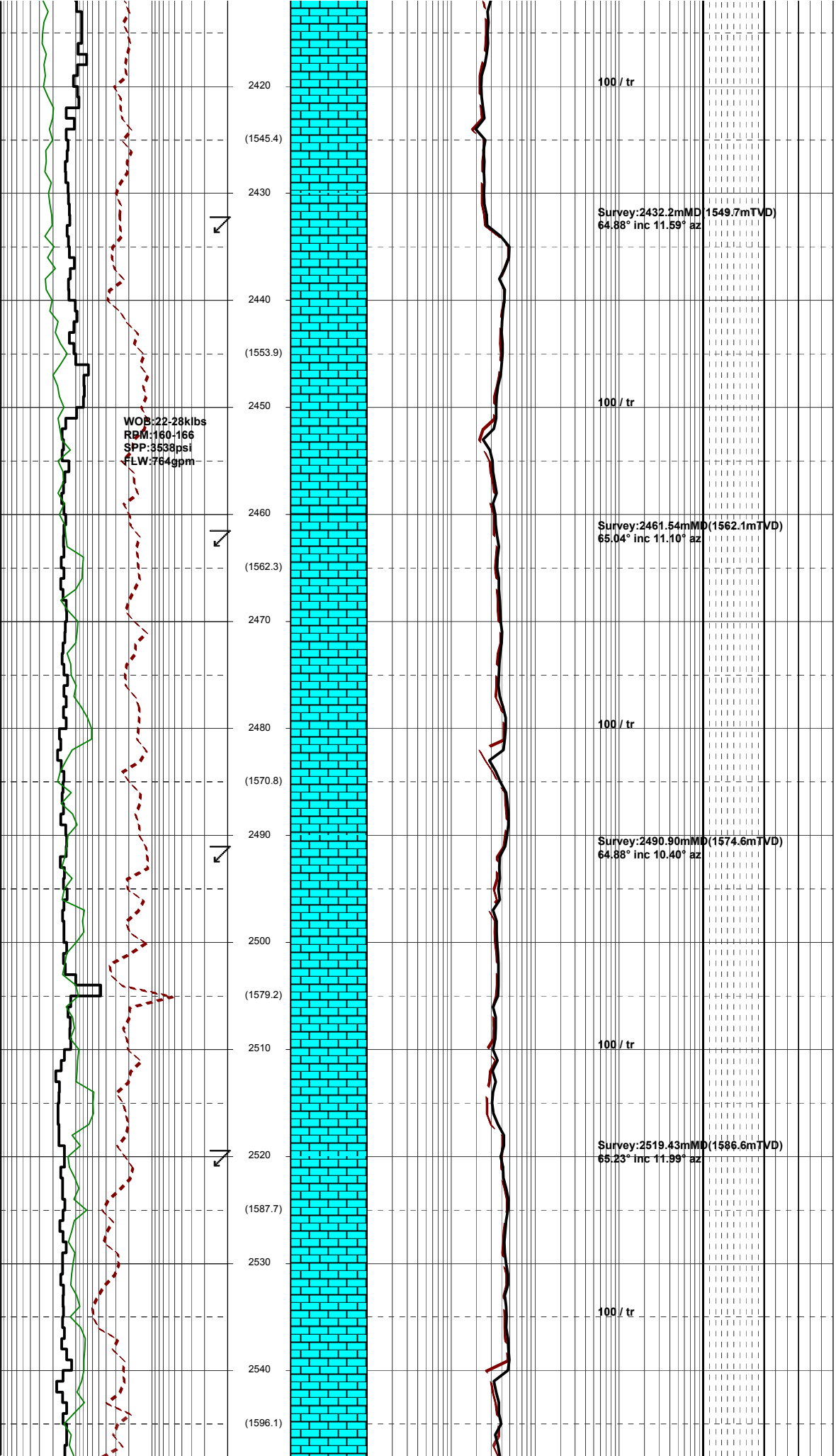
CALCARENITE(10%):olv gy-lt olv,med lt gy,vf-tr f,tr liths, rr carb spks,frm-mod hd,brit i/p,sbblky.

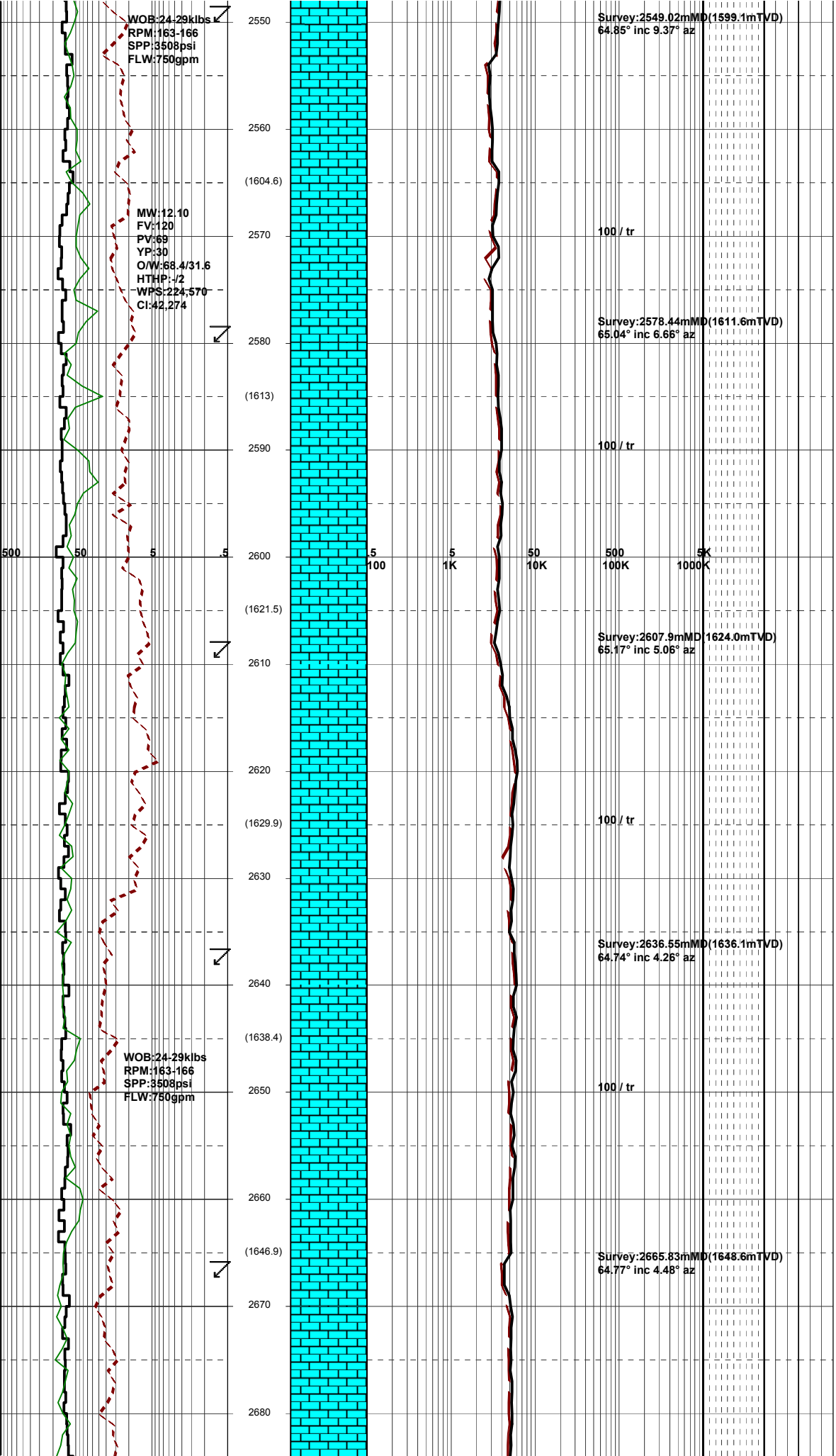
CALCISILTITE(90%):med dk gy-lt gy,mnr olv gy,rr v lt gy, tr vf aren g/t CLCAR,tr liths, tr qtz grs,tr med calcite grs, frm,tr sft,rr mod hd,sbblky-blky.

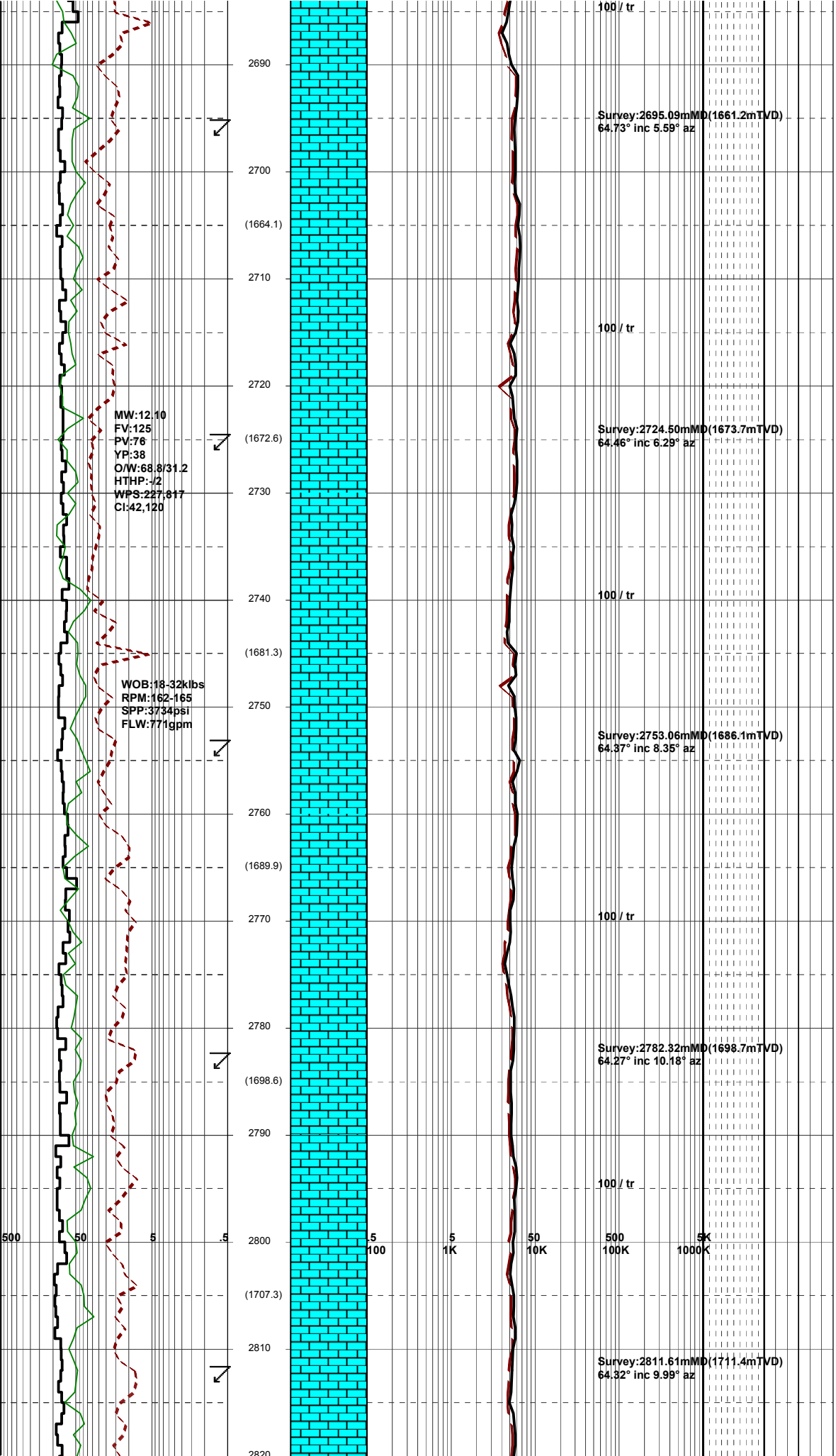

2010
2020
(1375.1)
2030
2040
(1383.9)
2050
2060
(1392.7)
2070
2080
(1401.4)
2090
2100
(1409.9)
2110
2120
(1418.3)
2130
2140
WOB:9-27klbs
RPM:160-164
SPP:3056psi
FLW:764gpm
100 / tr
Survey:2024.39mMD(1376.1mTVD)
63.44° inc 10.99° az
100 / tr
Survey:2053.19mMD(1388.9mTVD)
63.82° inc 12.93° az
100 / tr
Survey:2082.46mMD(1401.6mTVD)
64.69° inc 14.21° az
100 / tr
Survey:2111.59mMD(1414.0mTVD)
65.28° inc 14.07° az
100 / tr
CALCISILTITE:med gy-olv gy,tr liths,tr carb spks,tr vf qtz grs,frm-mod hd,rr hd,sbblky-blky.
CALCISILTITE:med gy-olv gy,tr vf aren,tr liths, tr carb spks,tr vf qtz grs, frm-mod hd,rr hd,sbblky-blky.
CALCISILTITE:med gy-lt gy, lt olv gy,vf aren g/t CLCAR i/p,rr liths,tr carb spks & incls, rr qtz grs,frm-mod hd,rr hd, sbblky.
CALCISILTITE:med gy-lt gy, lt olv gy,vf aren g/t CLCAR i/p,rr liths,tr carb spks & incls, rr qtz grs,frm-mod hd,rr hd, sbblky.
CALCISILTITE:med gy-lt gy, lt olv gy,vf aren g/t CLCAR i/p,rr liths,tr carb spks & incls, rr qtz grs,frm-mod hd,rr hd, sbblky.

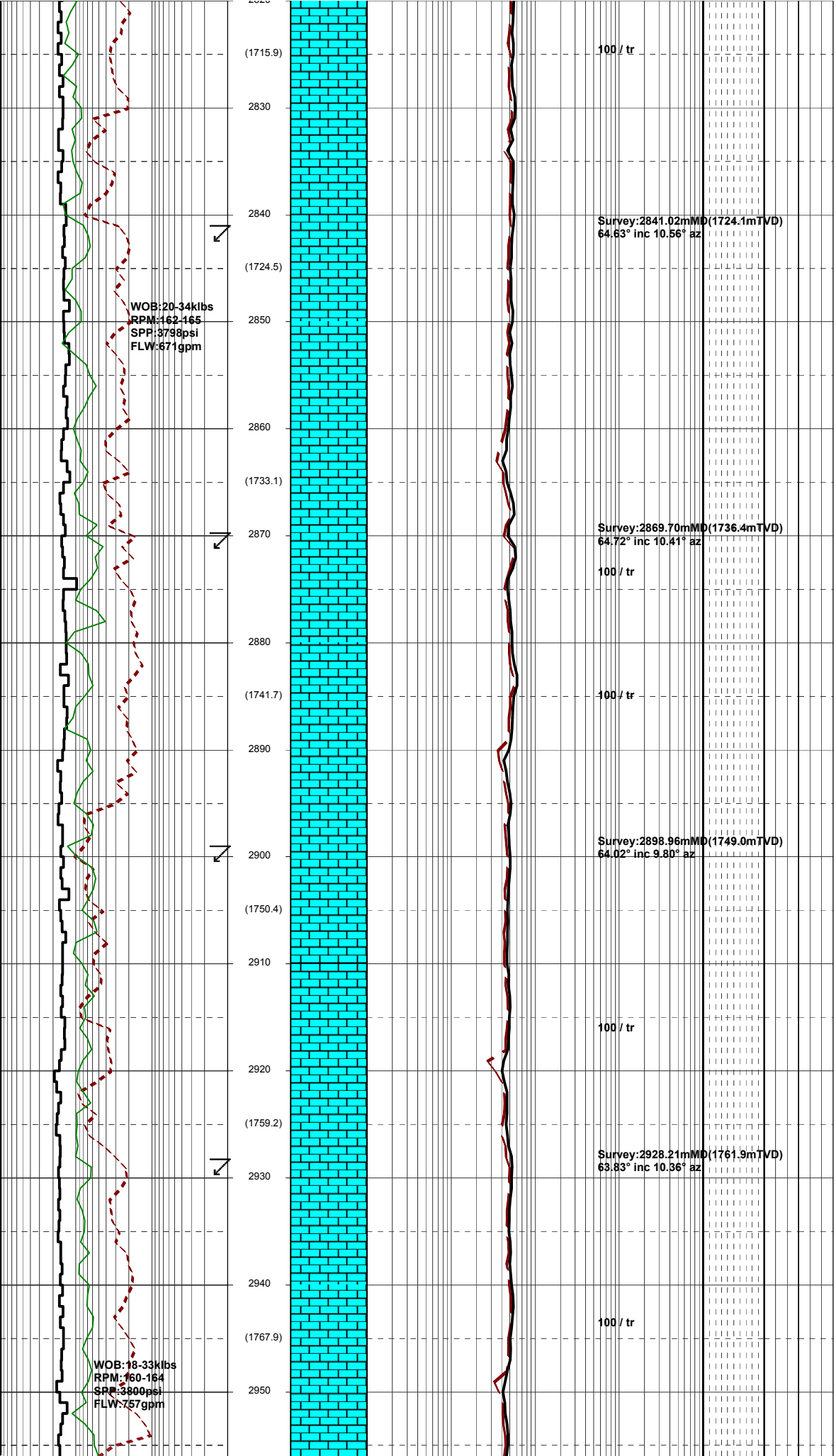

(1426.8)
2150
WOB:14-27klbs
RPM:160-163
SPP:3155psi
FLW:766gpm
MW:11.70
FV:105
PV:60
YP:24
O/W:68.4/31.6
HTHP:-/2
WPS:221,428
Cl:-
2160
(1435.2)
2170
2180
(1443.7)
2190
500
50
5
2200
.5
100
5
1K
50
10K
500
100K
5K
1000K
(1452.2)
2210
2220
(1460.6)
2230
2240
(1469.1)
08-09-09
2250
WOB:14-30klbs
RPM:160-163
SPP:3194psi
FLW:759gpm
2260
(1477.6)
2270
Survey:2140.86mMD(1426.3mTVD)
64.90° inc 13.37° az
100 / tr
Survey:2169.57mMD(1438.5mTVD)
64.92° inc 12.18° az
100 / tr
Survey:2198.84mMD(1450.8mTVD)
65.03° inc 9.99° az
100 / tr
Survey:2228.16mMD(1463.3mTVD)
64.87° inc 8.92° az
100 / tr
Survey:2257.15mMD(1475.5mTVD)
65.00° inc 8.29° az
100 / tr
CALCISILTITE:med gy-lt gy, lt olv gy,vf aren g/t CLCAR i/p,rr liths,tr carb spks & incls, rr qtz grs,frm-mod hd,rr hd, sbblky.
CALCISILTITE:med gy-olv gy,med dk gy,tr liths,tr carb spks,tr med qtz grs, frm-mod hd,tr hd,sbblky.
CALCISILTITE:med gy-olv gy,med dk gy,tr liths,tr carb spks,tr med qtz grs, frm-mod hd,tr hd,sbblky.
CALCISILTITE:med gy-olv gy,med dk gy,tr liths, tr vf qtz grs,frm-mod hd, rr hd,sbblky.

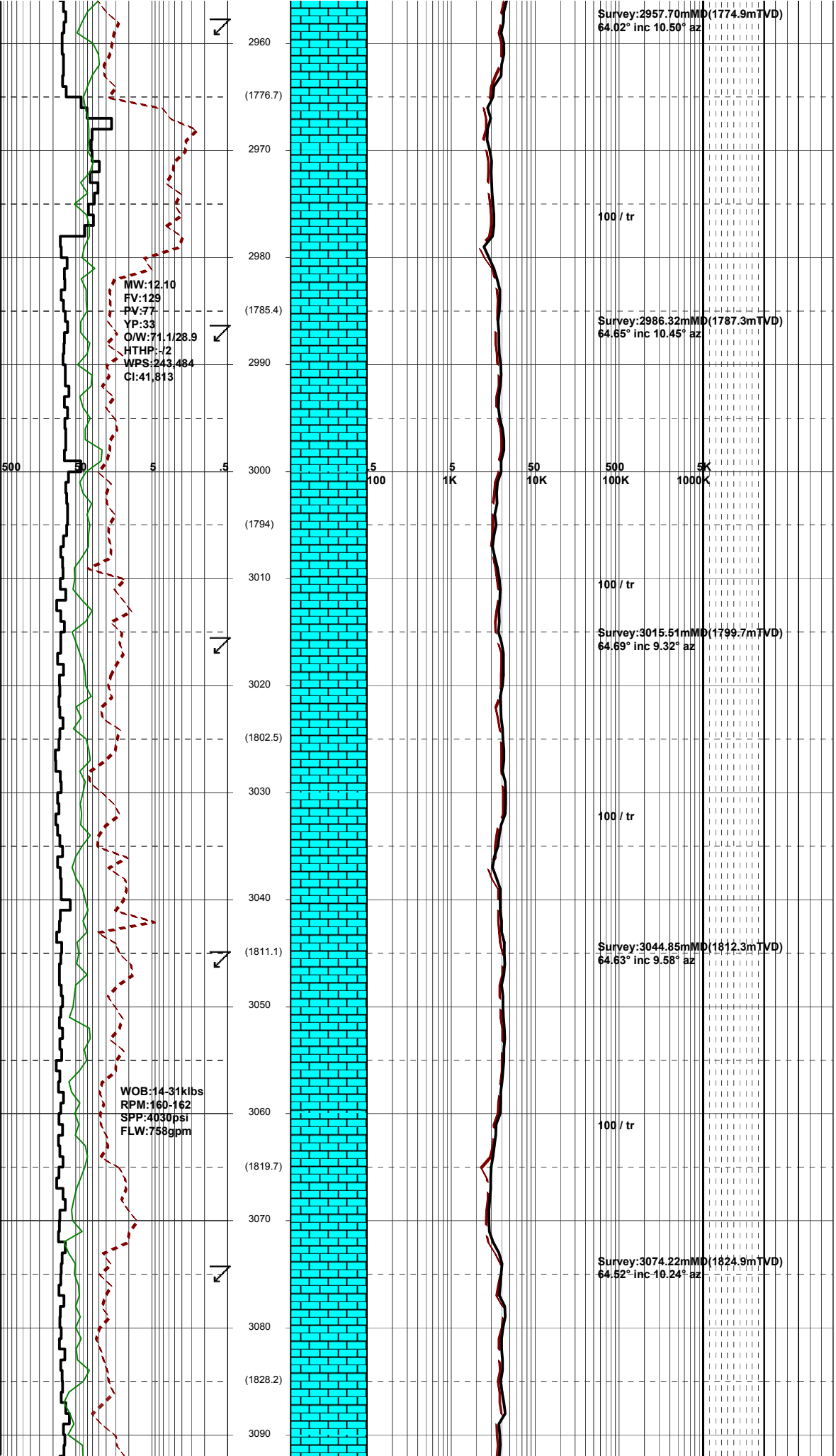

2280
(1486)
2290
2300
(1494.5)
2310
2320
(1503)
2330
2340
(1511.4)
2350
2360
(1519.9)
2370
2380
(1528.3)
2390
2400
(1536.8)
2410
WOB:15-27klbs
RPM:160-162
SPP:3292psi
FLW:751gpm
MW:12.10
FV:119
PV:69
YP:30
O/W:68.4/31.6
HTHP:-/2
WPS:224,570
Cl:42,274
Survey:2286.04mMD(1487.8mTVD)
65.02° inc 8.03° az
100 / tr
Survey:2315.23mMD(1500.1mTVD)
64.87° inc 6.36° az
100 / tr
Survey:2344.89mMD(1512.6mTVD)
65.10° inc 7.28° az
100 / tr
Survey:2374.05mMD(1525.0mTVD)
64.93° inc 9.48° az
100 / tr
Survey:2402.62mMD(1537.1mTVD)
64.68° inc 10.60° az
500
50
5
.5
.5
5
50
500
5K
100
1K
10K
100K
1000K
CALCISILTITE:med gy-olv gy,med dk gy,tr liths, tr vf qtz grs,frm-mod hd, rr hd,sbblky.
CALCISILTITE:med lt gy-lt olv gy,olv gy,tr liths, tr vf qtz grs,frm-mod hd, rr hd,sbblky-blky.
CALCISILTITE:med lt gy-lt olv gy,olv gy,tr liths, tr vf qtz grs,frm-mod hd, rr hd,sbblky-blky.
CALCISILTITE:med lt gy-lt olv gy,olv gy,tr liths, tr vf qtz grs,tr vf calcite grs tr carbs spks,frm-mod hd, rr hd,sbblky-blky.
CALCISILTITE:med lt gy-lt olv gy,olv gy,tr liths, tr vf qtz grs,tr carbs spks, frm-mod hd,rr hd,sbblky-blky.

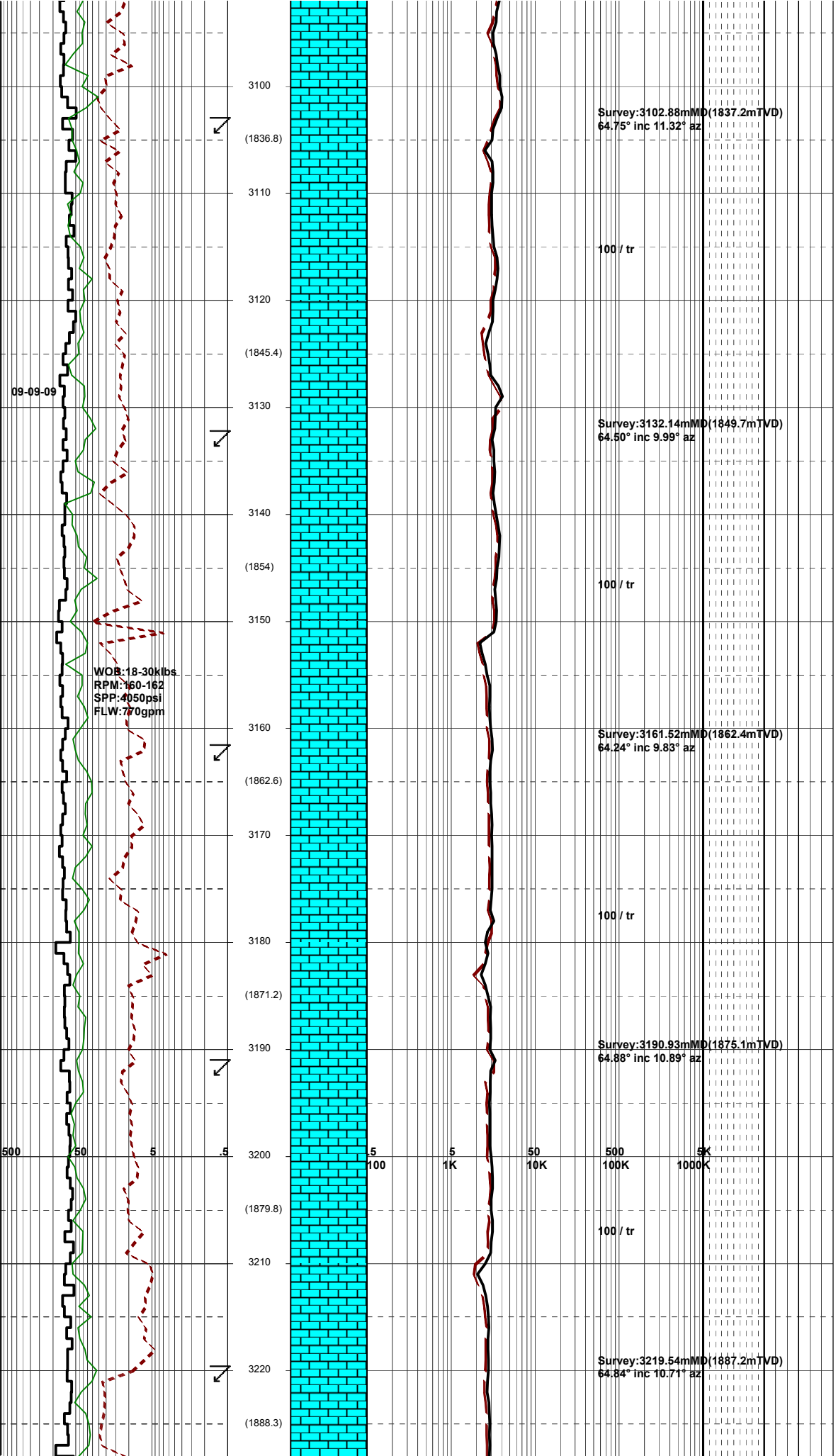

2420
(1545.4)
2430
2440
(1553.9)
2450
2460
(1562.3)
2470
2480
(1570.8)
2490
2500
(1579.2)
2510
2520
(1587.7)
2530
2540
(1596.1)
WOB:22-28klbs
RPM:160-166
SPP:3538psi
FLW:764gpm
100 / tr
Survey:2432.2mMD(1549.7mTVD)
64.88° inc 11.59° az
100 / tr
Survey:2461.54mMD(1562.1mTVD)
65.04° inc 11.10° az
100 / tr
Survey:2490.90mMD(1574.6mTVD)
64.88° inc 10.40° az
100 / tr
Survey:2519.43mMD(1586.6mTVD)
65.23° inc 11.99° az
100 / tr
CALCISILTITE:med lt gy-lt olv gy,olv gy,tr liths, tr vf qtz grs,tr carbs spks, frm-mod hd,rr hd,sbblky-blky.
CALCISILTITE:med lt gy-lt olv gy,olv gy,tr liths, tr vf qtz grs,tr carbs spks, frm-mod hd,rr hd,sbblky-blky.
CALCISILTITE:med lt gy-lt olv gy,olv gy,tr liths, tr vf qtz grs,tr carbs spks, frm-mod hd,rr hd,sbblky-blky.
CALCISILTITE:med lt gy-lt olv gy,g/t CLCLT i/p,tr liths,tr vf qtz grs,tr carbs spks,frm-sft,tr mod hd, sbblky-blky.
CALCISILTITE(90%):med lt gy-lt olv gy,g/t CLCLT i/p,tr

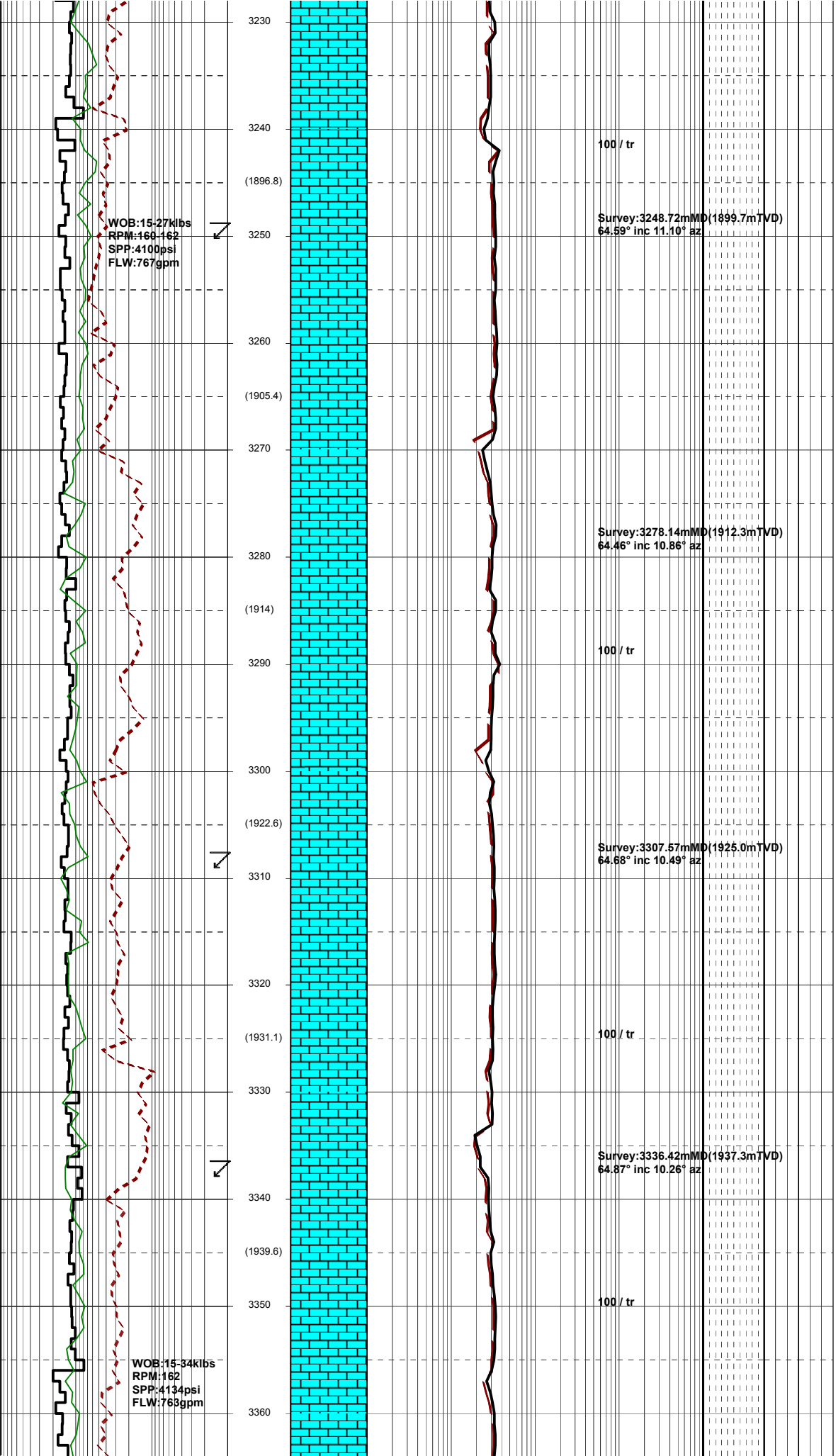

WOB:24-29klbs
RPM:163-166
SPP:3508psi
FLW:750gpm
MW:12.10
FV:120
PV:69
YP:30
O/W:68.4/31.6
HTHP:-/2
WPS:224,570
Cl:42,274
WOB:24-29klbs
RPM:163-166
SPP:3508psi
FLW:750gpm
2550
2560
(1604.6)
2570
2580
(1613)
2590
2600
(1621.5)
2610
2620
(1629.9)
2630
2640
(1638.4)
2650
2660
(1646.9)
2670
2680
500
50
5
.5
.5
5
50
500
5K
100
1K
10K
100K
1000K
Survey:2549.02mMD(1599.1mTVD)
64.85° inc 9.37° az
100 / tr
Survey:2578.44mMD(1611.6mTVD)
65.04° inc 6.66° az
100 / tr
Survey:2607.9mMD(1624.0mTVD)
65.17° inc 5.06° az
100 / tr
Survey:2636.55mMD(1636.1mTVD)
64.74° inc 4.26° az
100 / tr
Survey:2665.83mMD(1648.6mTVD)
64.77° inc 4.48° az
liths,tr vf qtz grs,tr carbs
spks,mnr micro lams,frm-sft,
tr mod hd,sbblky-blky.
CALCILUTITE(10%):olv gy,
lt med gy-med gy,tr liths,sft-
rr frm,sbblky.
CALCISILTITE(70%):med lt
gy-lt olv gy,g/t CLCLT i/p,tr
liths,tr vf qtz grs,tr carbs
spks,mnr micro lams,frm-sft,
tr mod hd,sbblky-blky.
CALCILUTITE(30%):olv gy,
lt med gy-med gy,tr liths,sft-
rr frm,sbblky.
CALCISILTITE(80%):med lt
gy-lt olv gy,g/t CLCLT i/p,tr
liths,tr vf qtz grs,tr carbs
spks,mnr micro lams,frm-sft,
tr mod hd,sbblky-blky.
CALCILUTITE(20%):olv gy,
lt med gy-med gy,tr liths,sft-
rr frm,sbblky.
CALCISILTITE(60%):med lt
gy-lt olv gy,g/t CLCLT i/p,tr
liths,tr vf qtz grs,tr carbs
spks,mnr micro lams,frm-sft,
tr mod hd,sbblky-blky.
CALCILUTITE(40%):olv gy,
lt med gy-med gy,tr liths,sft-
rr frm,sbblky.
CALCISILTITE(80%):med lt
gy-lt olv gy,g/t CLCLT i/p,tr
liths,tr vf qtz grs,tr carbs
spks,mnr micro lams,frm-sft,
tr mod hd,sbblky-blky.
CALCILUTITE(20%):olv gy,
lt med gy-med gy,tr liths,sft-
rr frm,sbblky.

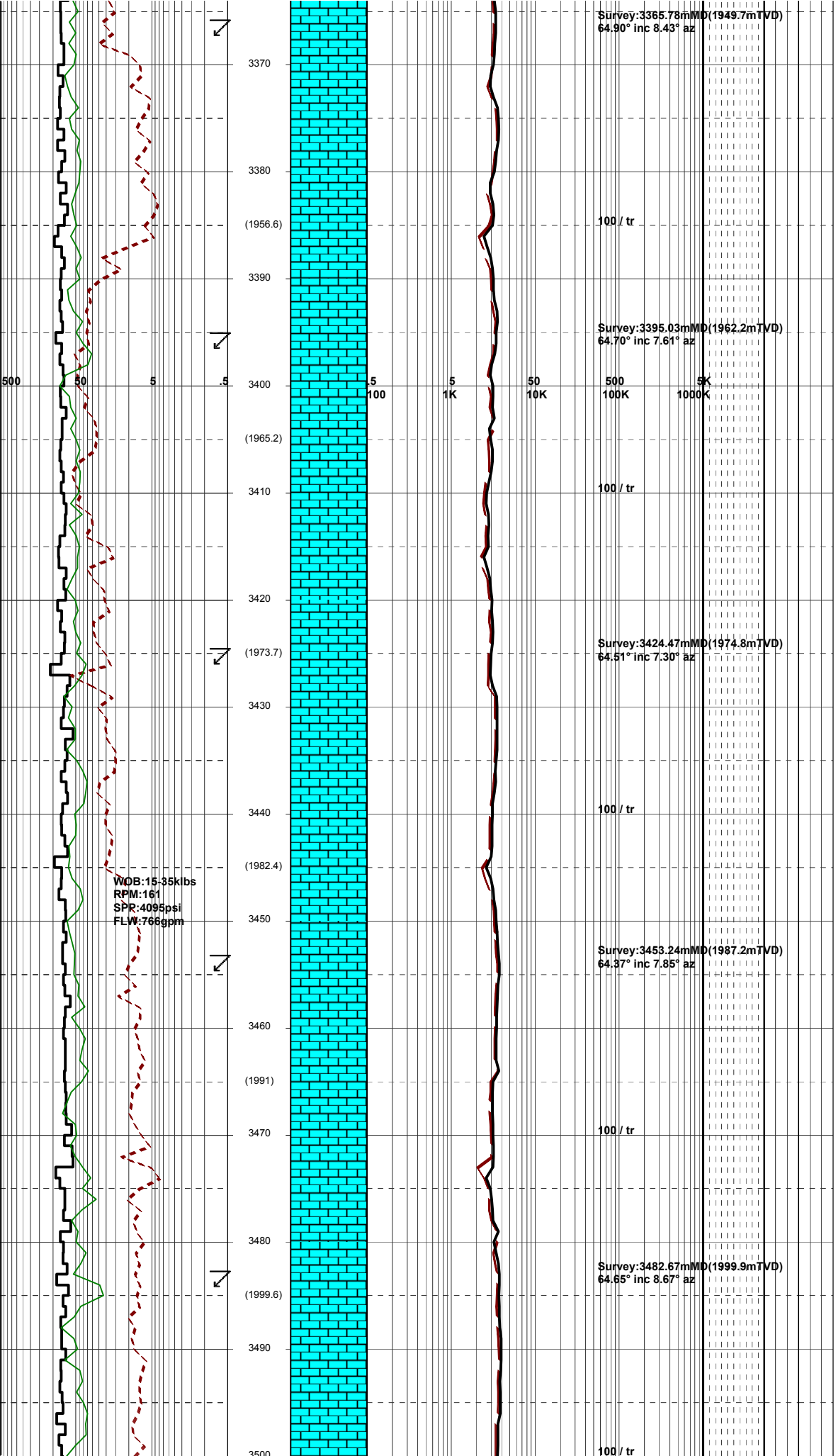

100 / tr
2690
Survey:2695.09mMD(1661.2mTVD)
64.73° inc 5.59° az
CALCISILTITE(80%):med lt gy-lt olv gy,g/t CLCLT i/p,tr liths,tr vf qtz grs,tr carbs spks,mnr micro lams,frm-sft, tr mod hd,sbblky-blky.
2700
(1664.1)
CALCILUTITE(20%):olv gy, lt med gy-med gy,tr liths,sft-rr frm,sbblky.
2710
100 / tr
2720
MW:12.10
FV:125
PV:76
YP:38
O/W:68.8/31.2
HTHP:-/2
WPS:227,817
Cl:42,120
Survey:2724.50mMD(1673.7mTVD)
64.46° inc 6.29° az
CALCISILTITE(80%):med lt gy-lt olv gy,g/t CLCLT i/p,tr liths,tr vf qtz grs,tr carbs spks,mnr micro lams,frm-sft, tr mod hd,sbblky-blky.
(1672.6)
2730
CALCILUTITE(20%):olv gy, lt med gy-med gy,tr liths,sft-rr frm,sbblky.
2740
100 / tr
(1681.3)
WOB:18-32klbs
RPM:162-165
SPP:3734psi
FLW:771gpm
2750
Survey:2753.06mMD(1686.1mTVD)
64.37° inc 8.35° az
CALCILUTITE(10%):olv gy, lt med gy-med gy,tr liths,sft-rr frm,sbblky.
2760
CALCISILTITE(90%):olv gy-lt olv gy,med gy,g/t CLCLT i/p,tr liths,tr microlams,sft-frm,rr mod hd,sbblky.
(1689.9)
2770
100 / tr
2780
Survey:2782.32mMD(1698.7mTVD)
64.27° inc 10.18° az
CALCILUTITE(10%):olv gy, lt med gy-med gy,tr liths,sft-rr frm,sbblky.
(1698.6)
2790
CALCISILTITE(90%):olv gy-lt olv gy,med gy,g/t CLCLT i/p,tr liths,tr microlams,sft-frm,rr mod hd,sbblky.
100 / tr
500
50
5
.5
2800
.5
5
50
500
5K
100
1K
10K
100K
1000K
(1707.3)
2810
Survey:2811.61mMD(1711.4mTVD)
64.32° inc 9.99° az
CALCILUTITE(30%):olv gy, lt med gy-med gy,tr liths,sft-rr frm,sbblky.
2820

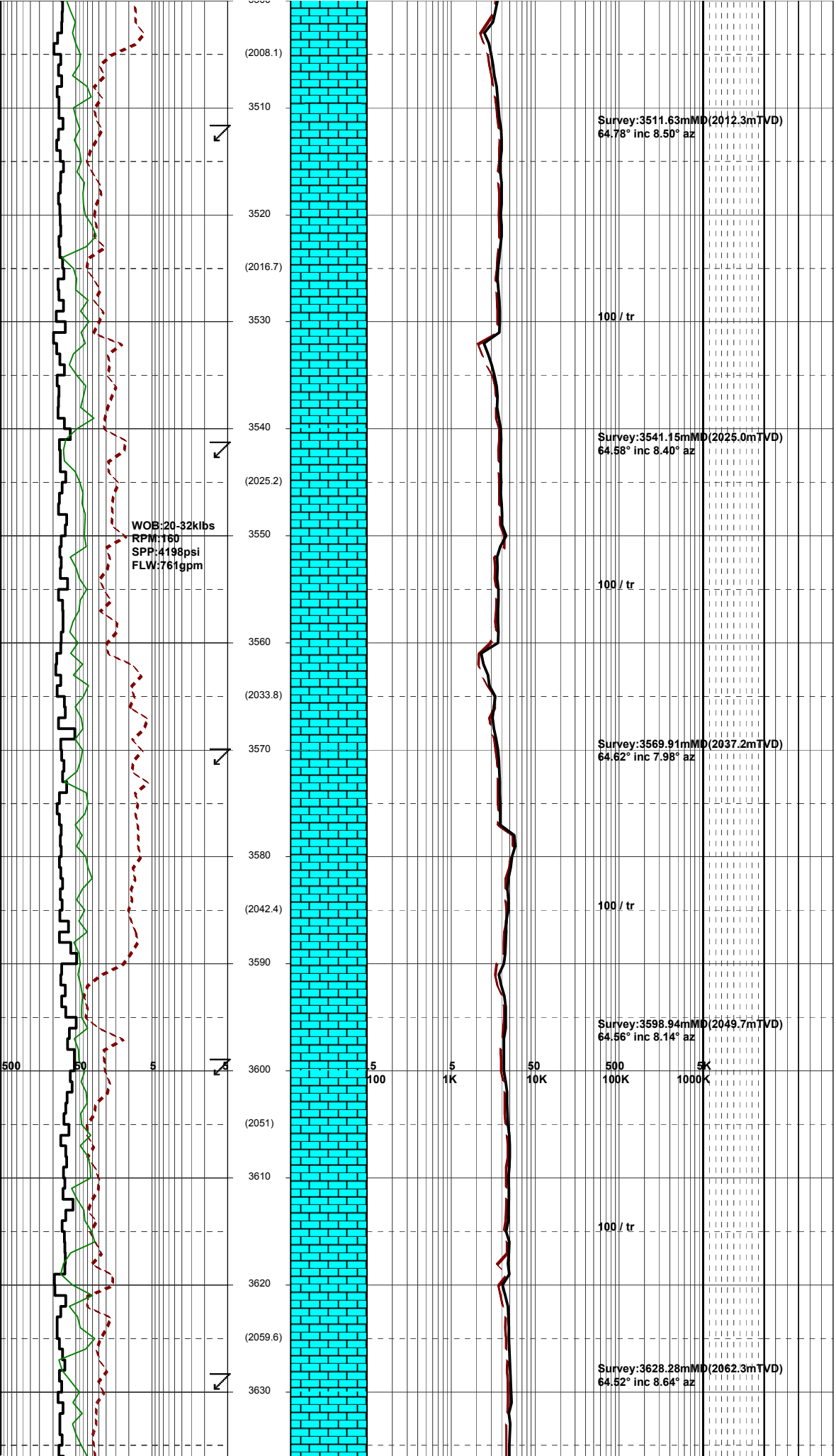

(1715.9)
2830
2840
(1724.5)
2850
2860
(1733.1)
2870
2880
(1741.7)
2890
2900
(1750.4)
2910
2920
(1759.2)
2930
2940
(1767.9)
2950
WOB:20-34klbs
RPM:162-165
SPP:3798psi
FLW:671gpm
WOB:18-33klbs
RPM:160-164
SPP:3800psi
FLW:757gpm
100 / tr
Survey:2841.02mMD(1724.1mTVD)
64.63° inc 10.56° az
Survey:2869.70mMD(1736.4mTVD)
64.72° inc 10.41° az
Survey:2898.96mMD(1749.0mTVD)
64.02° inc 9.80° az
Survey:2928.21mMD(1761.9mTVD)
63.83° inc 10.36° az
CALCISILTITE(70%):olv gy-lt olv gy,med gy,g/t CLCLT i/p,tr liths,tr microlams,sft-frm,rr mod hd,sbblky.
CALCILUTITE(10%):olv gy, lt med gy-med gy,tr liths,sft-rr frm,sbblky.
CALCISILTITE(90%):olv gy-lt olv gy,med gy,g/t CLCLT i/p,tr liths,tr microlams,sft-frm,rr mod hd,sbblky.
CALCILUTITE:med gy-med dk gy,olv gy,slty g/t CLCSLT i/p,tr liths,tr carb spks,pred sft,rr frm, amor-sbblky.
CALCILUTITE:med gy-med dk gy,olv gy,slty g/t CLCSLT i/p,tr liths,tr vf qtz grs,pred sft,rr frm,amor-sbblky.
CALCILUTITE:med gy-med dk gy,olv gy,slty g/t CLCSLT i/p,tr liths,tr vf qtz grs,pred sft,rr frm,amor-sbblky.

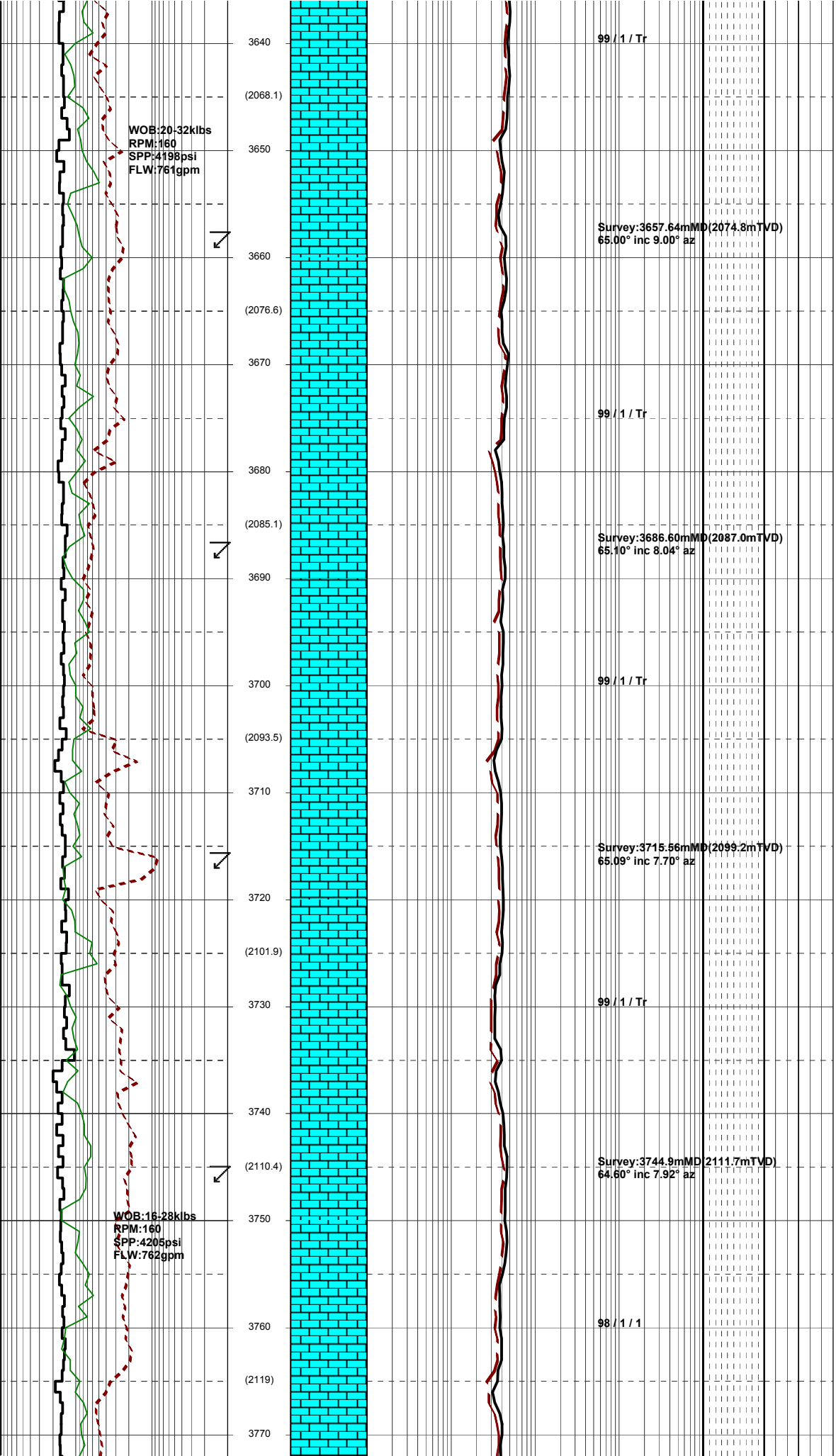

Survey:2957.70mMD(1774.9mTVD)
64.02° inc 10.50° az
2960
(1776.7)
2970
100 / tr
2980
MW:12.10
FV:129
PV:77
YP:33
O/W:71.1/28.9
HTHP:-/2
WPS:243,484
Cl:41,813
(1785.4)
Survey:2986.32mMD(1787.3mTVD)
64.65° inc 10.45° az
2990
500
50
5
.5
3000
.5
5
50
500
5K
100
1K
10K
100K
1000K
(1794)
3010
100 / tr
Survey:3015.51mMD(1799.7mTVD)
64.69° inc 9.32° az
3020
(1802.5)
3030
100 / tr
3040
(1811.1)
Survey:3044.85mMD(1812.3mTVD)
64.63° inc 9.58° az
3050
WOB:14-31klbs
RPM:160-162
SPP:4030psi
FLW:758gpm
3060
100 / tr
(1819.7)
3070
Survey:3074.22mMD(1824.9mTVD)
64.52° inc 10.24° az
3080
(1828.2)
3090
CALCILUTITE:med gy-
med dk gy,olv gy,slty g/t
CLCSLT i/p,tr liths,tr
vf qtz grs,tr calcite grs,
pred sft,rr frm,amor-sbblky.
CALCILUTITE:med gy-
med dk gy,olv gy,slty g/t
CLCSLT i/p,tr liths,tr
vf qtz grs,tr calcite grs,
pred sft,rr frm,amor-sbblky.
CALCILUTITE:med gy-
med dk gy,olv gy,slty g/t
CLCSLT i/p,tr liths,tr
vf qtz grs,pred sft,rr frm,
amor-sbblky.
CALCILUTITE:med gy-
med dk gy,olv gy,slty g/t
CLCSLT i/p,tr liths,tr
vf qtz grs,tr carb spks,
pred sft,rr frm,amor-
sbblky.
CALCISILTITE(80%):med gy-
med dk gy,tr liths,tr carb spks,

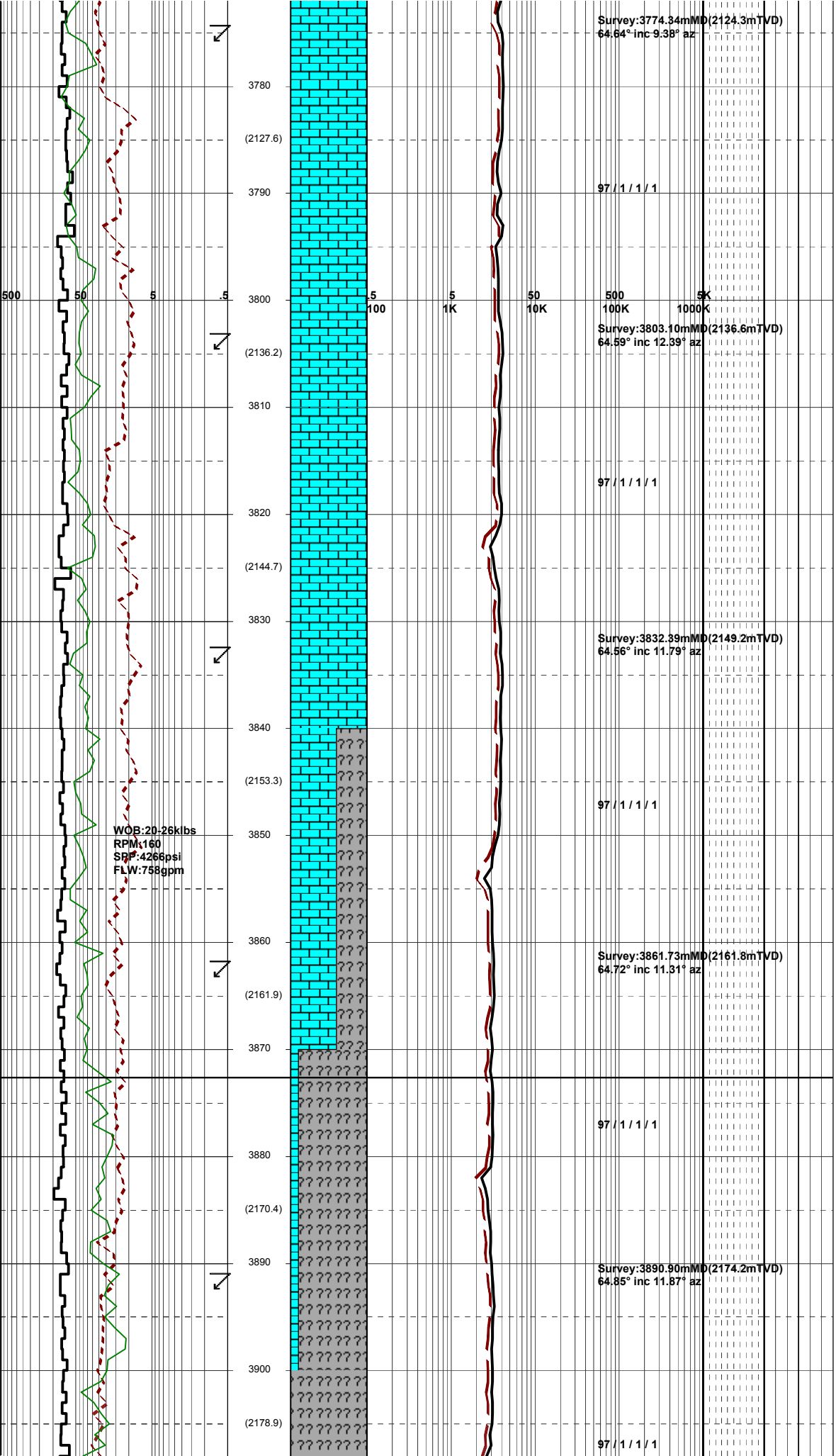

3100
(1836.8)
3110
3120
(1845.4)
09-09-09
3130
3140
(1854)
3150
3160
(1862.6)
3170
3180
(1871.2)
3190
3200
(1879.8)
3210
3220
(1888.3)
WOB:18-30klbs
RPM:160-162
SPP:4050psi
FLW:770gpm
Survey:3102.88mMD(1837.2mTVD)
64.75° inc 11.32° az
100 / tr
Survey:3132.14mMD(1849.7mTVD)
64.50° inc 9.99° az
100 / tr
Survey:3161.52mMD(1862.4mTVD)
64.24° inc 9.83° az
100 / tr
Survey:3190.93mMD(1875.1mTVD)
64.88° inc 10.89° az
Survey:3219.54mMD(1887.2mTVD)
64.84° inc 10.71° az
500
50
5
.5
.5
5
50
500
5K
100
1K
10K
100K
1000K
frm-mod hd,tr hd,sbblky-blky.
CALCILUTITE(20%):med lt gy-med gy,tr liths,tr carb spks, sft-frm,amor-sbblky.
CALCISILTITE(50%):med gy-med dk gy,tr liths,tr carb spks, frm-mod hd,tr hd,sbblky-blky.
CALCILUTITE(50%):med lt gy-med gy,tr liths,tr carb spks, sft-frm,amor-sbblky.
CALCISILTITE(50%):med gy-med dk gy,tr liths,tr carb spks, frm-mod hd,tr hd,sbblky-blky.
CALCILUTITE(50%):med lt gy-med gy,tr liths,tr carb spks, sft-frm,amor-sbblky.
CALCISILTITE(20%):med gy-med dk gy,tr liths,tr carb spks, frm-mod hd,tr hd,sbblky-blky.
CALCILUTITE(80%):med lt gy-med gy,tr liths,tr carb spks, sft-frm,amor-sbblky.
CALCISILTITE(10%):med gy-med dk gy,tr liths,tr carb spks, frm-mod hd,tr hd,sbblky-blky.
CALCILUTITE(90%):med lt gy-med gy,tr liths,tr carb spks, sft-frm,amor-sbblky.


3230
3240
(1896.8)
3250
3260
(1905.4)
3270
3280
(1914)
3290
3300
(1922.6)
3310
3320
(1931.1)
3330
3340
(1939.6)
3350
3360
WOB:15-27klbs
RPM:160-162
SPP:4100psi
FLW:767gpm
WOB:15-34klbs
RPM:162
SPP:4134psi
FLW:763gpm
100 / tr
Survey:3248.72mMD(1899.7mTVD)
64.59° inc 11.10° az
Survey:3278.14mMD(1912.3mTVD)
64.46° inc 10.86° az
100 / tr
Survey:3307.57mMD(1925.0mTVD)
64.68° inc 10.49° az
100 / tr
Survey:3336.42mMD(1937.3mTVD)
64.87° inc 10.26° az
100 / tr
CALCISILTITE:med dk gy-olv gy,mnr arg g/t CLCLT i/p,tr liths,tr carb spks, tr foss,frm-mod hd,rr sft, amor-sbblky.
CALCISILTITE(80%):med dk gy-olv gy,mnr arg g/t CLCLT i/p,tr liths,tr carb spks, frm-mod hd,rr sft,amor-sbblky.
CALCILUTITE(20%):lt olv gy-olv gy,med gy,g/t CLCSLT i/p,tr liths,tr carb spks, sft,sbblky,rr amor.
CALCISILTITE(70%):med dk gy-olv gy,mnr arg g/t CLCLT i/p,tr liths,tr carb spks, frm-mod hd,rr sft,amor-sbblky.
CALCILUTITE(30%):lt olv gy-olv gy,med gy,g/t CLCSLT i/p,tr liths,tr carb spks, tr vf calcite grs,sft,sbblky, rr amor.
CALCISILTITE(80%):med dk gy-olv gy,mnr arg g/t CLCLT i/p,tr liths,tr carb spks, frm-mod hd,rr sft,amor-sbblky.
CALCILUTITE(20%):lt olv gy-olv gy,med gy,g/t CLCSLT i/p,tr liths,tr carb spks, tr vf-rr med calcite grs,sft, sbblky,rr amor.
CALCISILTITE(80%):med dk gy-olv gy,mnr arg g/t CLCLT i/p,tr liths,tr carb spks, frm-mod hd,rr sft,amor-sbblky.
CALCILUTITE(20%):lt olv gy


3370
3380
(1956.6)
3390
3400
(1965.2)
3410
3420
(1973.7)
3430
3440
(1982.4)
3450
3460
(1991)
3470
3480
(1999.6)
3490
3500
500
50
5
.5
.5
5
50
500
5K
100
1K
10K
100K
1000K
WOB:15-35klbs
RPM:161
SPP:4095psi
FLW:766gpm
Survey:3365.78mMD(1949.7mTVD)
64.90° inc 8.43° az
100 / tr
Survey:3395.03mMD(1962.2mTVD)
64.70° inc 7.61° az
100 / tr
Survey:3424.47mMD(1974.8mTVD)
64.51° inc 7.30° az
100 / tr
Survey:3453.24mMD(1987.2mTVD)
64.37° inc 7.85° az
100 / tr
Survey:3482.67mMD(1999.9mTVD)
64.65° inc 8.67° az
100 / tr
olv gy,med gy,g/t CLCSLT
i/p,tr liths,tr carb spks,
tr vf-rr med calcite grs,sft,
sbblky,rr amor.
CALCISILTITE(80%):med dk
gy-olv gy,mnr arg g/t CLCLT
i/p,tr liths,tr carb spks,
frm-mod hd,rr sft,amor-
sbblky.
CALCILUTITE(20%):lt olv gy-
olv gy,med gy,g/t CLCSLT
i/p,tr liths,tr carb spks,
tr vf-rr med calcite grs,sft,
sbblky,rr amor.
CALCILUTITE(60%):lt olv
gy,olv gy,lt med gy,tr liths,
tr carb spks,sft-rr frm,sbblky-
sbfiss.
CALCISILTITE(40%):olv gy,
med gy,rr lt med gy,com arg g/t
CLCLT,tr liths,tr carb spks,tr
microlams,sft-frm,sbblky.
CALCILUTITE(80%):lt olv
gy,olv gy,lt med gy,tr liths,
tr carb spks,sft-rr frm,sbblky-
sbfiss.
CALCISILTITE(20%):olv gy,
med gy,rr lt med gy,com arg g/t
CLCLT,tr liths,tr carb spks,tr
microlams,sft-frm,sbblky.
CALCILUTITE(90%):lt olv
gy,olv gy,lt med gy,tr liths,
tr carb spks,sft-rr frm,sbblky-
sbfiss.
CALCISILTITE(10%):olv gy,
med gy,rr lt med gy,com arg g/t
CLCLT,tr liths,tr carb spks,tr
microlams,sft-frm,sbblky.


(2008.1)
3510
Survey:3511.63mMD(2012.3mTVD)
64.78° inc 8.50° az
CALCILUTITE(70%):lt olv gy,olv gy,lt med gy,tr liths, tr carb spks,sft-rr frm,sbblky-sbfiss.
CALCISILTITE(30%):olv gy, med gy,rr lt med gy,com arg g/t CLCLT,tr liths,tr carb spks,tr microlams,sft-frm,sbblky.
3520
(2016.7)
3530
100 / tr
3540
Survey:3541.15mMD(2025.0mTVD)
64.58° inc 8.40° az
CALCILUTITE(60%):lt olv gy,olv gy,lt med gy,tr liths, tr carb spks,sft-rr frm,sbblky-sbfiss.
CALCISILTITE(40%):olv gy, med gy,rr lt med gy,com arg g/t CLCLT,tr liths,tr carb spks,tr microlams,sft-frm,sbblky.
(2025.2)
3550
WOB:20-32klbs
RPM:160
SPP:4198psi
FLW:761gpm
100 / tr
3560
CALCILUTITE(90%):lt olv gy,olv gy,lt med gy,tr liths, tr carb spks,sft-rr frm,sbblky-sbfiss.
(2033.8)
3570
Survey:3569.91mMD(2037.2mTVD)
64.62° inc 7.98° az
CALCISILTITE(10%):olv gy, med gy,rr lt med gy,com arg g/t CLCLT,tr liths,tr carb spks,tr microlams,sft-frm,sbblky.
3580
100 / tr
(2042.4)
3590
CALCILUTITE(80%):lt olv gy,olv gy,lt med gy,tr liths, tr carb spks,sft-rr frm,sbblky-sbfiss.
Survey:3598.94mMD(2049.7mTVD)
64.56° inc 8.14° az
500
50
5
.5
3600
.5
100
5
1K
50
10K
500
100K
5K
1000K
CALCISILTITE(20%):olv gy, med gy,rr lt med gy,com arg g/t CLCLT,tr liths,tr carb spks,tr microlams,sft-frm,sbblky.
(2051)
3610
100 / tr
3620
CALCILUTITE(40%):lt olv gy,olv gy,lt med gy,tr liths, tr carb spks,sft-rr frm,sbblky-sbfiss.
(2059.6)
Survey:3628.28mMD(2062.3mTVD)
64.52° inc 8.64° az
3630
CALCISILTITE(60%):olv gy, med gy,rr lt med gy,com arg g/t CLCLT,tr liths,tr carb spks,tr


3640
(2068.1)
3650
3660
(2076.6)
3670
3680
(2085.1)
3690
3700
(2093.5)
3710
3720
(2101.9)
3730
3740
(2110.4)
3750
3760
(2119)
3770
WOB:20-32klbs
RPM:160
SPP:4198psi
FLW:761gpm
WOB:16-28klbs
RPM:160
SPP:4205psi
FLW:762gpm
99 / 1 / Tr
Survey:3657.64mMD(2074.8mTVD)
65.00° inc 9.00° az
99 / 1 / Tr
Survey:3686.60mMD(2087.0mTVD)
65.10° inc 8.04° az
99 / 1 / Tr
Survey:3715.56mMD(2099.2mTVD)
65.09° inc 7.70° az
99 / 1 / Tr
Survey:3744.9mMD(2111.7mTVD)
64.60° inc 7.92° az
98 / 1 / 1
microlams,sft-frm,sbblky.
CALCILUTITE(70%):lt olv gy,olv gy,lt med gy,tr liths, tr carb spks,sft-rr frm,sbblky-sbfiss.
CALCISILTITE(30%):olv gy, med gy,rr lt med gy,com arg g/t CLCLT,tr liths,tr carb spks,tr microlams,sft-frm,sbblky.
CALCILUTITE(80%):lt olv gy,olv gy,lt med gy,tr liths, tr carb spks,sft-rr frm,sbblky-sbfiss.
CALCISILTITE(20%):olv gy, med gy,rr lt med gy,com arg g/t CLCLT,tr liths,tr carb spks,tr microlams,sft-frm,sbblky.
CALCILUTITE(70%):lt olv gy,olv gy,lt med gy,tr liths, tr carb spks,sft-rr frm,sbblky-sbfiss.
CALCISILTITE(30%):olv gy, med gy,rr lt med gy,com arg g/t CLCLT,tr liths,tr carb spks,tr microlams,sft-frm,sbblky.
Adding Baracarb from 3750.0 mMDRT
CALCILUTITE(90%):lt olv gy,olv gy,lt med gy,tr liths, tr carb spks,sft-rr frm,sbblky-sbfiss.
CALCISILTITE(10%):olv gy, med gy,rr lt med gy,com arg g/t CLCLT,tr liths,tr carb spks,tr microlams,sft-frm,sbblky.



CALCILUTITE(80%):lt olv gy,olv gy,lt med gy,tr liths, tr carb spks,sft-rr frm,sbblky-sbfiss.

CALCISILTITE(20%):olv gy, med gy,rr lt med gy,com arg g/t CLCLT,tr liths,tr carb spks,tr microlams,sft-frm,sbblky.

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

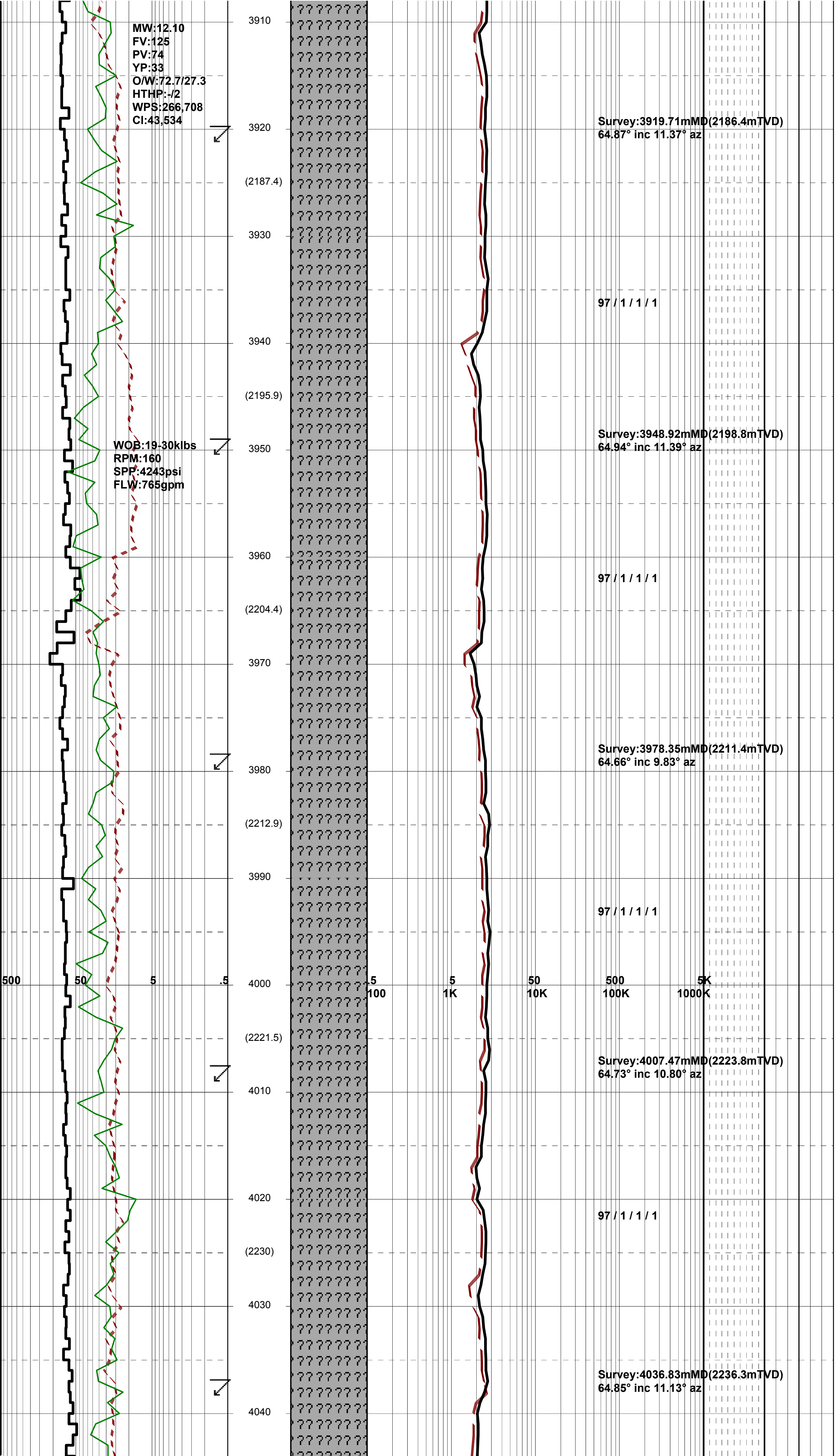
CALCILUTITE:olv gy-lt olv gy,lt med gy,tr carb spks, tr liths,sft-rr frm,sbblky-rr amor.

Lakes Entrance Fm: 3872.6mMDRT 2166.4TVDRT (-2125.4mTVDSS)

CALCAREOUS CLAYSTONE: med gy-med dk gy,mod calc,tr liths,tr carb spks,sft-frm,sbblky.

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

CALCAREOUS CLAYSTONE: med gy-med dk gy,mod clac, tr liths,tr carb spks,tr vf qtz grs,sft-frm,amor-sbblky.

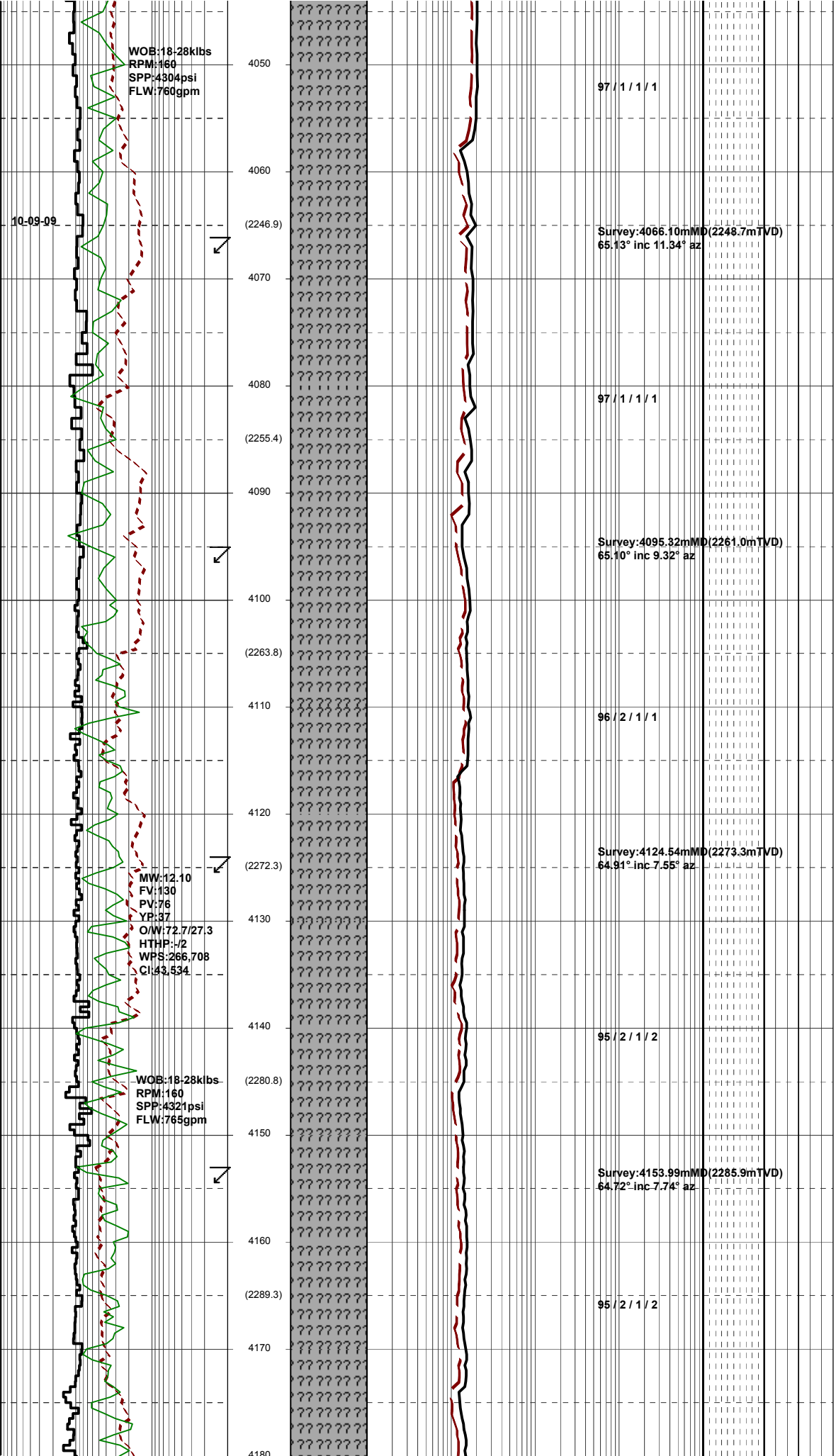


CALCAREOUS CLAYSTONE:
med gy-med dk gy,med lt gy,
mod calc,tr liths,tr carb spks,
tr vf qtz grs,pred sft,mnr frm,
amor,rr sbblky.

CALCAREOUS CLAYSTONE:
med gy-med dk gy,med lt gy,
mod calc,tr liths,tr carb spks,
tr vf qtz grs,pred sft,mnr frm,
amor,rr sbblky.

CALCAREOUS CLAYSTONE:
med gy-med dk gy,med lt gy,
mod calc,tr liths,tr carb spks,
tr vf qtz grs,pred sft,mnr frm,
amor,rr sbblky.

CALCAREOUS CLAYSTONE:
med gy-med dk gy,med lt gy,
mod calc,tr liths,tr carb spks,
tr vf qtz grs,pred sft,mnr frm,
amor,rr sbblky.



CALCAREOUS CLAYSTONE: med gy-med dk gy,med lt gy, mod calc,tr liths,tr carb spks, tr vf qtz grs,pred sft,mnr frm, amor,rr sbblky.

Control drill below 50 m/hr from 4056.0 mMDRT.

CALCAREOUS CLAYSTONE: med gy,mnr med dk gy,lt gy i/p,mod calc,rr off wh & lt brn liths,tr carb spks,tr vf qtz grs, dom sft,tr frm,blky.

Change GZG rubber @ 4086.0 mMDRT in preparation for Reservoir

Circulate at 4091.0 mMDRT for repairs to mud pump.

Change database to 0.5m at 4100.0 mMDRT for Reservoir evaluation

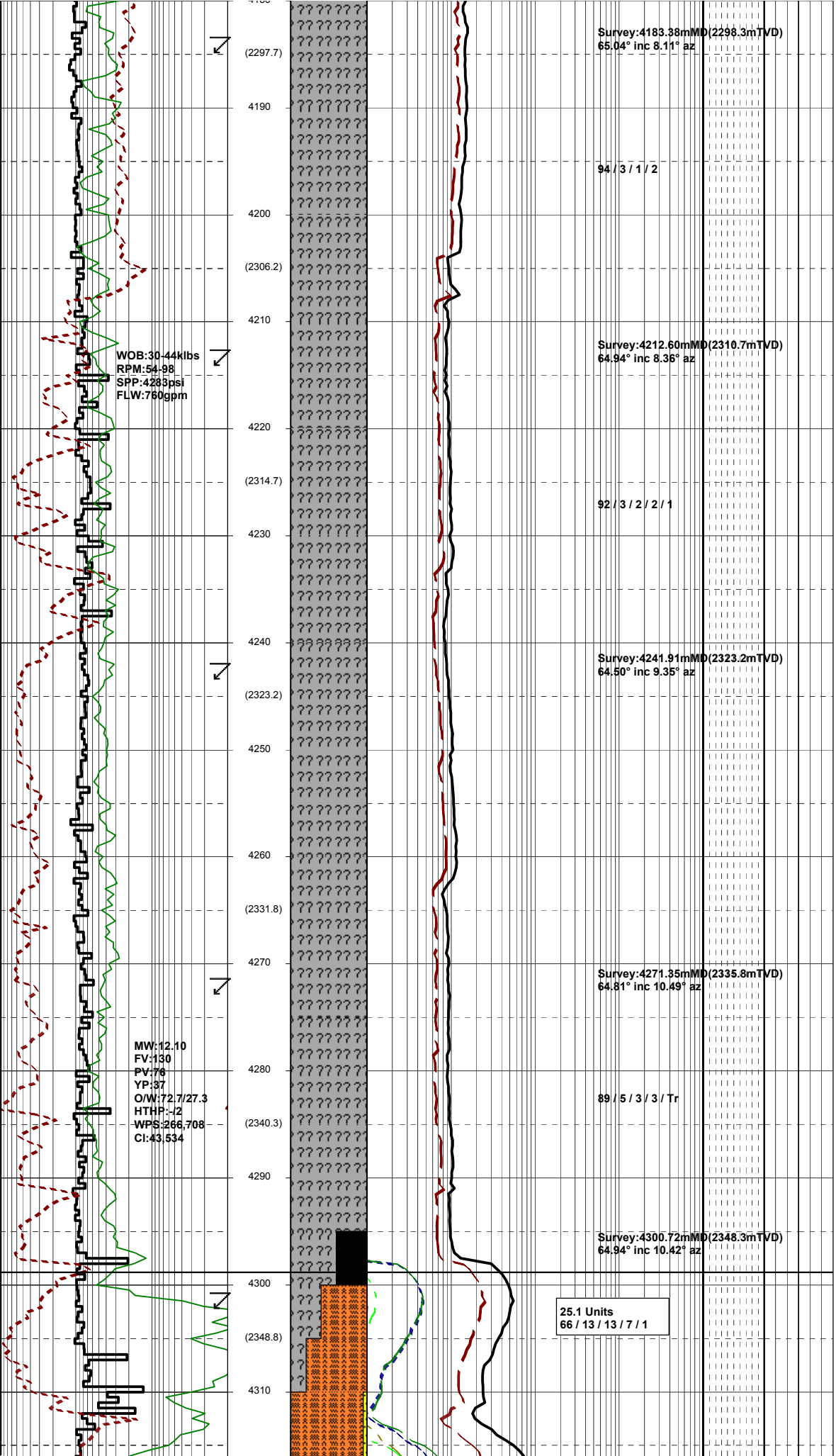
CALCAREOUS CLAYSTONE: med olv gy,med dk gy,lt brn i/p, mod-wk calc,rr-mnr liths,tr carb spks,sft,rr frm,blky-amor.

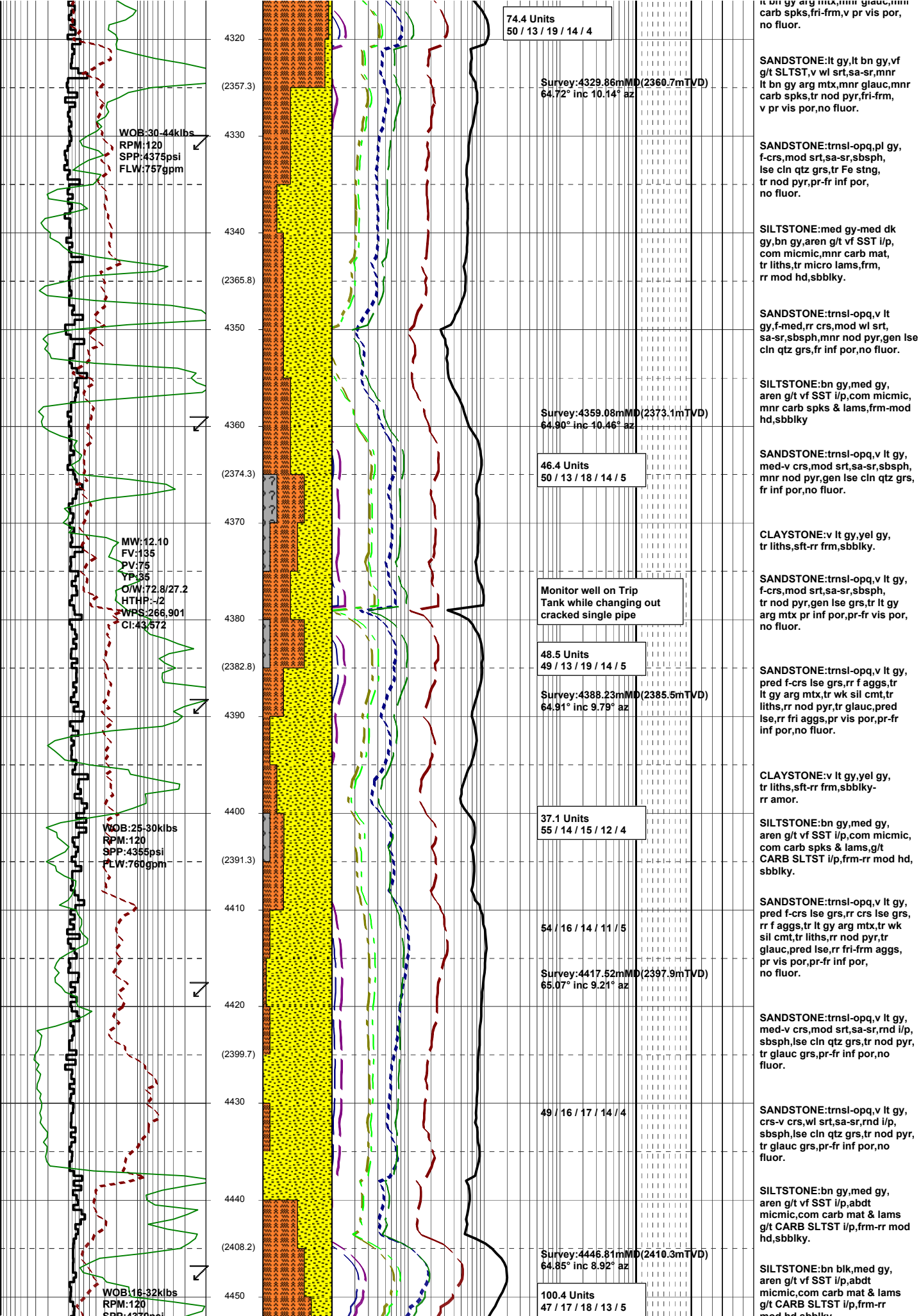
CALCAREOUS CLAYSTONE: med gy,med dk gy,mod-wk calc,tr vf qtz grs,tr glauc grs,rr carb spks,sft-rr frm, blky.

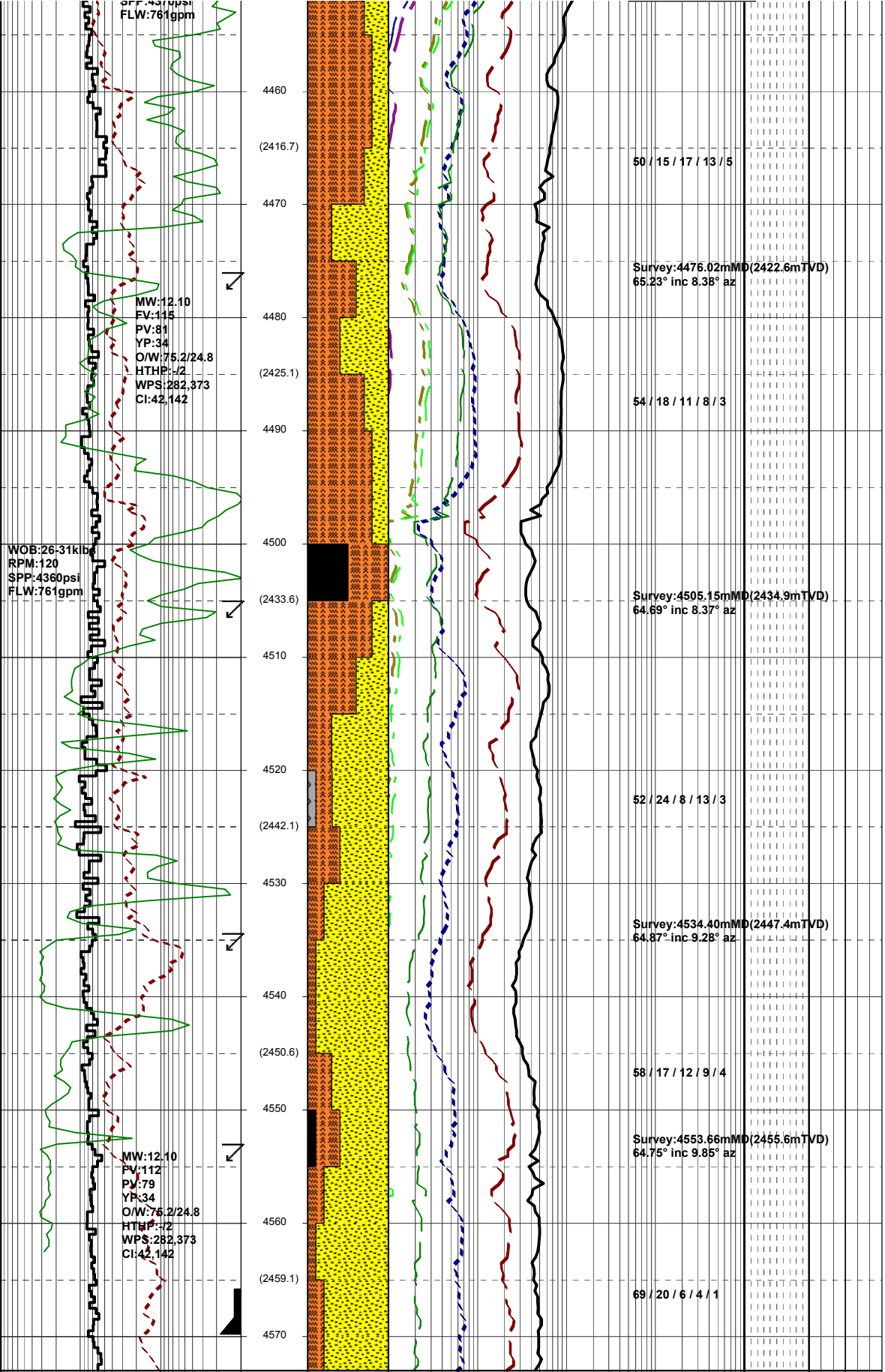
CALCAREOUS CLAYSTONE: med gy,lt-med olv gy,wk calc, rr liths,tr vf qtz grs,rr-tr carb spks,sft,blky.

CALCAREOUS CLAYSTONE: olv gy-med dk gy,lt gy-med gy, wk-mod calc,tr vf qtz grs, tr liths,tr carb spks,sft,sblky-amor.

CALCAREOUS CLAYSTONE: olv gy-med dk gy,lt gy-med gy, wk-mod calc,tr vf qtz grs, tr liths,tr carb spks,sft,sblky-amor.


Survey:4183.38mMD(2298.3mTVD)
65.04° inc 8.11° az
(2297.7)
4190
94 / 3 / 1 / 2
4200
Circulate bottoms up
at 4203.0 mMDRT
(2306.2)
4210
CALCAREOUS CLAYSTONE:
olv gy,lt gy-med dk gy,
mod calc,tr liths,tr carb
spks,sft-frm,sblky.
WOB:30-44klbs
RPM:54-98
SPP:4283psi
FLW:760gpm
Survey:4212.60mMD(2310.7mTVD)
64.94° inc 8.36° az
4220
(2314.7)
92 / 3 / 2 / 2 / 1
CALCAREOUS CLAYSTONE:
olv gy,lt gy-med dk gy,mod
calc,tr liths,tr carb spks,tr
dissem pyr,sft-frm,sblky.
4230
4240
Survey:4241.91mMD(2323.2mTVD)
64.50° inc 9.35° az
(2323.2)
4250
4260
CALCAREOUS CLAYSTONE:
olv gy-lt olv gy,med gy,mod
calc,tr liths,tr dissem & nod
pyr,sft-frm,sblky.
(2331.8)
4270
Survey:4271.35mMD(2335.8mTVD)
64.81° inc 10.49° az
CALCAREOUS CLAYSTONE:
olv gy-med dk gy,mod calc,
rr aren g/t CALC SLTST,
tr dissem pyr,tr liths,frm,
sft i/p,sbblky.
MW:12.10
FV:130
PV:76
YP:37
O/W:72.7/27.3
HTHP:-/2
WPS:266,708
Cl:43,534
4280
89 / 5 / 3 / 3 / Tr
CALCAREOUS CLAYSTONE:
olv gy-med dk gy,mod calc,
rr aren g/t CALC SLTST,
tr dissem pyr,tr liths,tr glauc,
frm,sft i/p,sbblky.
(2340.3)
4290
COAL:v dk gy-blk,v dk bn,
sbvit,mnr dissem pyr,brit,
frm-mod hd,unevn-hkly frac.
Survey:4300.72mMD(2348.3mTVD)
64.94° inc 10.42° az
4300
Latrobe Group:
4298.8mMDRT 2347.5mTVDRT
(-2306.5mTVDSS)
25.1 Units
66 / 13 / 13 / 7 / 1
(2348.8)
4310
SILTSTONE:med gy-med dk gy,
arg g/t CLYST i/p,rr liths,
sft-pred frm,sbblky
SANDSTONE:lt gy,lt bn gy,vf
g/t SLTST,v wl srt,sa-sr,mnr


4320
(2357.3)
4330
4340
(2365.8)
4350
4360
(2374.3)
4370
4380
(2382.8)
4390
4400
(2391.3)
4410
4420
(2399.7)
4430
4440
(2408.2)
4450
WOB:30-44klbs
RPM:120
SPP:4375psi
FLW:757gpm
MW:12.10
FV:135
PV:75
YP:35
O/W:72.8/27.2
HTHP:-/2
WPS:266,901
Cl:43,572
WOB:25-30klbs
RPM:120
SPP:4355psi
PLW:760gpm
WOB:16-32klbs
RPM:120
74.4 Units
50 / 13 / 19 / 14 / 4
Survey:4329.86mMD(2360.7mTVD)
64.72° inc 10.14° az
Survey:4359.08mMD(2373.1mTVD)
64.90° inc 10.46° az
46.4 Units
50 / 13 / 18 / 14 / 5
Monitor well on Trip
Tank while changing out
cracked single pipe
48.5 Units
49 / 13 / 19 / 14 / 5
Survey:4388.23mMD(2385.5mTVD)
64.91° inc 9.79° az
37.1 Units
55 / 14 / 15 / 12 / 4
54 / 16 / 14 / 11 / 5
Survey:4417.52mMD(2397.9mTVD)
65.07° inc 9.21° az
49 / 16 / 17 / 14 / 4
Survey:4445.81mMD(2410.3mTVD)
64.85° inc 8.92° az
100.4 Units
47 / 17 / 18 / 13 / 5
lt bn gy arg mtx,mnr glauc,mnr carb spks,fri-frm,v pr vis por, no fluor.
SANDSTONE:lt gy,lt bn gy,vf g/t SLTST,v wl srt,sa-sr,mnr lt bn gy arg mtx,mnr glauc,mnr carb spks,tr nod pyr,fri-frm, v pr vis por,no fluor.
SANDSTONE:trnsl-opq,pl gy, f-crs,mod srt,sa-sr,sbsph, lse cln qtz grs,tr Fe stng, tr nod pyr,pr-fr inf por, no fluor.
SILTSTONE:med gy-med dk gy,bn gy,aren g/t vf SST i/p, com micmic,mnr carb mat, tr liths,tr micro lams,frm, rr mod hd,sbblky.
SANDSTONE:trnsl-opq,v lt gy,f-med,rr crs,mod wl srt, sa-sr,sbsph,mnr nod pyr,gen lse cln qtz grs,fr inf por,no fluor.
SILTSTONE:bn gy,med gy, aren g/t vf SST i/p,com micmic, mnr carb spks & lams,frm-mod hd,sbblky
SANDSTONE:trnsl-opq,v lt gy, med-v crs,mod srt,sa-sr,sbsph, mnr nod pyr,gen lse cln qtz grs, fr inf por,no fluor.
CLAYSTONE:v lt gy,yel gy, tr liths,sft-rr frm,sbblky.
SANDSTONE:trnsl-opq,v lt gy, f-crs,mod srt,sa-sr,sbsph, tr nod pyr,gen lse grs,tr lt gy arg mtx pr inf por,pr-fr vis por, no fluor.
SANDSTONE:trnsl-opq,v lt gy, pred f-crs lse grs,rr f aggs,tr lt gy arg mtx,tr wk sil cmt,tr liths,rr nod pyr,tr glauc,pred lse,rr fri aggs,pr vis por,pr-fr inf por,no fluor.
CLAYSTONE:v lt gy,yel gy, tr liths,sft-rr frm,sbblky- rr amor.
SILTSTONE:bn gy,med gy, aren g/t vf SST i/p,com micmic, com carb spks & lams,g/t CARB SLTST i/p,frm-rr mod hd, sbblky.
SANDSTONE:trnsl-opq,v lt gy, pred f-crs lse grs,rr crs lse grs, rr f aggs,tr lt gy arg mtx,tr wk sil cmt,tr liths,rr nod pyr,tr glauc,pred lse,rr fri-frm aggs, pr vis por,pr-fr inf por, no fluor.
SANDSTONE:trnsl-opq,v lt gy, med-v crs,mod srt,sa-sr,rnd i/p, sbsph,lse cln qtz grs,tr nod pyr, tr glauc grs,pr-fr inf por,no fluor.
SANDSTONE:trnsl-opq,v lt gy, crs-v crs,wl srt,sa-sr,rnd i/p, sbsph,lse cln qtz grs,tr nod pyr, tr glauc grs,pr-fr inf por,no fluor.
SILTSTONE:bn gy,med gy, aren g/t vf SST i/p,abdt micmic,com carb mat & lams g/t CARB SLTST i/p,frm-rr mod hd,sbblky.
SILTSTONE:bn blk,med gy, aren g/t vf SST i/p,abdt micmic,com carb mat & lams g/t CARB SLTST i/p,frm-rr



mod hd,sbblky.

SANDSTONE:trnsl-opq,v lt gy, f-v crs,pred crs,pr srt,sa-sr, tr frac grs,tr qtz ovgrths,gen lse & cln grs,fr-pr inf por,no fluor.

SILTSTONE:med dk gy,gy blk, vf aren,abdt micmic,com carb mat & lams g/t CARB SLTST i/p,frm,sbblky.

SANDSTONE:trnsl-opq,v lt gy, vf-crs,pred med,tr vf crs,pr-mod srt,sa-sr,lse & cln grs,fr-pr inf por,no fluor.

SILTSTONE:med dk gy,gy blk, vf aren,abdt micmic,abdt carb mat & lams g/t CARB SLTST i/p,frm,sbblky.

SANDSTONE:trnsl-opq,v lt gy, pred crs-v crs,rr med,mod srt, sa-sr,tr frac grs,tr qtz ovgrths, lse & cln grs,tr Fe stng,pr-fr inf por,no fluor.

SILTSTONE:med dk gy,gy blk, vf aren,abdt micmic,com carb mat & lams g/t CARB SLTST i/p,frm,sbblky.

COAL:v dk gy-blk,v dk bn, sbvit,brit,frm i/p,unevn-rr hackly frac.

SILTSTONE:med gy,brn gy, rr lt gy,aren g/t vf SST i/p,com micmic,com carb mat & lams g/t CARB SLTST i/p,frm-mod hd,sbblky.

SANDSTONE:opq-trnsl,crs-v crs,wl srt,sa-rnd,sbsph,lse cln qtz grs,tr frac grs,tr Fe stng,fr inf por,no fluor.

CLAYSTONE:v lt gy-med gy, tr liths,sft,sbblky-rr amor.

SANDSTONE:opq-trnsl,crs-v crs,wl srt,sa-rnd,sbsph,lse cln qtz grs,tr frac grs,tr Fe stng,fr inf por,no fluor.

SILTSTONE:med gy,brn gy, rr lt gy,aren g/t vf SST i/p,com micmic,com carb mat & lams g/t CARB SLTST i/p,frm-mod hd,sbblky.

SANDSTONE:opq-trnsl,crs-v crs,wl srt,sr-rnd,rr sa,sbsph, lse cln qtz grs,tr frac grs,tr nod pyr,fr inf por,no fluor.

COAL:v dk gy-blk,v dk bn, sbvit,brit,frm i/p,unevn-rr hackly frac.

SILTSTONE:med gy,brn gy, rr brn blk,aren g/t vf SST i/p, com micmic,com carb mat g/t CARB SLTST i/p,frm-mod hd, sbblky.

SANDSTONE:opq-trnsl,med-crs,mod wl srt,sa-rnd,lse cln qtz grs,tr frac grs,tr nod pyr,tr Fe stng,fr inf por,no fluor.