



Scale: 5" / 100'
Measured Depth Log

Well Name Herbers 1F-20H-B167

Location Sec. 20 T1N R67W

State Colorado

County Weld

Country USA

Rig Number Ensign 153

API Number 05-123-49792

AFE # 16192328.1

Geographic Region Rockies

Field Wattenberg

Spud Date 3/17/2020

Drilling Completed 3/23/2020

Surface Coordinates Lat/Long (NAD83): 40.041523/-104.913368

SHL: Sec 20 T1N R67W
Footage: 830 FNL 2332 FEL

Bottom Hole Coordinates Proposed BHL: Sec 29 T1N R67W
Footage: 2172 FNL 1210 FEL

Ground Elevation 5,107'

K.B. Elevation 5,130'

Logged Interval 6,831' **To** 15,122'

Total Depth 15,122'

Formation B Chalk

Type of Drilling Fluid Oil Based Mud

Operator

Company Crestone Peak Resources

Address 1801 California Street, Suite 2500
Denver, CO 80202



CRESTONE PEAK
RESOURCES

Geologist

Color Coding

Geologist

Name John Ready

Company Crestone Peak Resources

Address 1801 California Street, Suite 2500
Denver, CO 80202



Color Coding

Oil	Condensate	Gas
Note	Core	Pressure
Error	Water	Seal

Other

Loggers: Tom Yull, Tom Anderson

Services Provided: 2-Man Mudlogging

Equipment: ML-608 & ML 568

Contractor: Reservoir Group
14103 Interdrive
W. Houston, Texas, 77032

Service Start Date: 03/17/2020

Service End Date: 03/25/2020

Job # Job #0161 RKC

Rock Types

UNKNOWN	CHERT	SILTSTONE	IGNEOUS
ANHYDRITE	COAL	SANDSTONE	METAMORPHIC
GYPSUM	MARLSTONE	CONGLOMERATE	CEMENT
SALT	CHALK	BRECCIA	No Sample
SIDERITE or LIMONITE	SHALE	TILL	
LIMESTONE	SHALE GRAY	BENTONITE	
DOLOMITE	SHALE COLORED	TUFF	

Accessories

Fossils

ALGAE
AMPHIPORA
BELEMNITE
BIOCLASTIC
BRACHIOPOD
BRYOZOA
CEPHALOPOD
CORAL
CRINOID
ECHINOID

F FOSSIL

GASTROPOD
OOLITE
OSTRACOD
PELECYPOD
PELLET
PISOLITE
PLANT REMAINS
PLANT SPORES
SCAPHOPOD
STROMATOPOROID

ARGILLACEOUS



ARGILLITE GRAIN
BENTONITE
BITUMENOUS SUBSTANCE
BRECCIA FRAGMENTS
CALCAREOUS
CARBONACEOUS FLAKES
CHTDK
CHLT
COAL - THIN BEDS
DOLOMITIC
FELDSPAR

GLAUCONITE



GYPSIFEROUS
HEAVY MINERAL
KAOLIN
MARLSTONE
MINERAL CRYSTALS
NODULES
PHOSPHATE PELLETS
PYRITE
SALT CAST
SANDY
SILICEOUS



Stringer

ANHYDRITE STRINGER
BENTONITE STRINGER
COAL STRINGER
DOLOMITE STRINGER
GYPSUM STRINGER
LIMESTONE STRINGER
MARLSTONE (CALC) STRG
MARLSTONE (DOL) STRG
SANDSTONE STRINGER
SHALE STRINGER

 FISH
 FORAMINIFERA

Minerals
 ANHYDRITIC





 FERRUGINOUS PELLET
 FERRUGINOUS

 SILTY
 TUFFACEOUS

 SILTSTONE STRINGER




Other Symbols

Oil Show










 DEAD
 EVEN
 QUESTIONABLE
 SPOTTED STAINING

Porosity

 EARTHY
 FENESTRAL
 FRACTURE
 INTERCRYSTALLINE
 INTEROOLITIC
 MOLDIC

 ORGANIC
 PINPOINT
 VUGGY

Engineering


 BIT
 CASING
 CONNECTION (LEFT)
 CONNECTION (RIGHT)
 CONNECTION GAS
 CORE - LOST
 CORE - RECOVERED
 DST INTERVAL
 FAULT

 FORMATION TOP

 GAS SHOW

 MN DEPTH


 NORMAL FAULT

 OIL SHOW

 OVERTURNED STRATA

 REVERSE FAULT


 SIDEWALL CORE (LEFT)

 SIDEWALL CORE (RIGHT)

 SLIDE





 SURVEY

 TRIP GAS

 WIRELINE TESTED - LEFT

 WIRELINE TESTED - RT

Rounding


 ANGULAR
 ROUNDED
 SUBANG
 SUBRND

Textures

 BOUNDSTONE
 CHALKY
 CRYPTOXLN
 EARTHY
 FINELYXLN
 GRAINSTONE

 LITHOGRAPHIC




 MICROXLN

 MUDSTONE

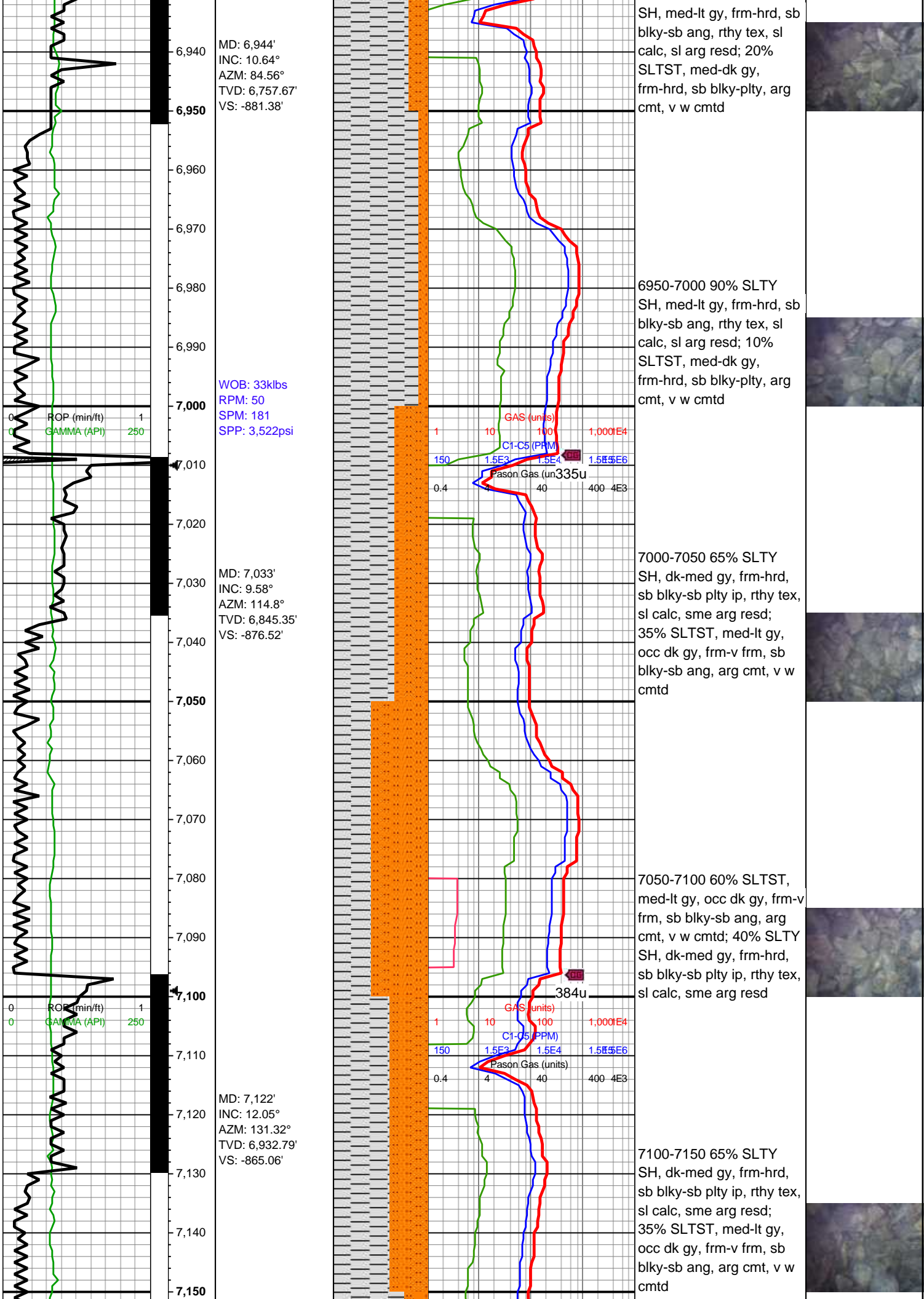
 PACKSTONE

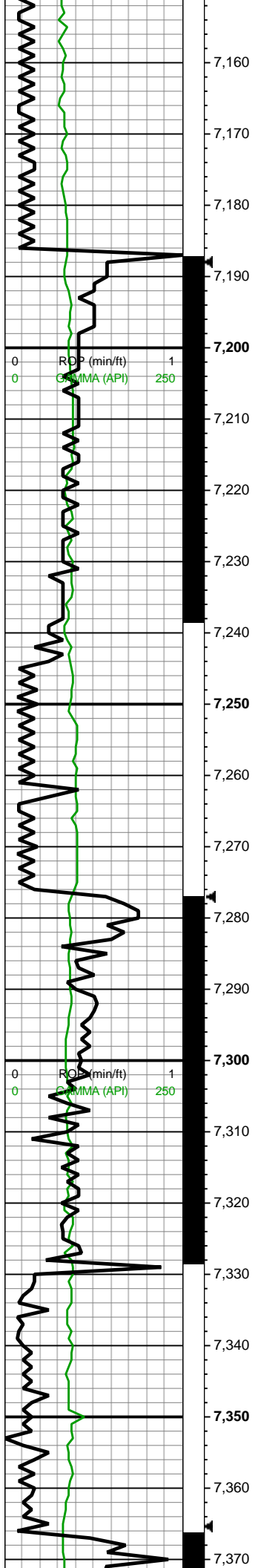
 WACKESTONE

Sorting

 MODERATE
 POOR
 WELL

Slide/Rotate	Depth Labels	Notes	% Lith	Total Gas		Lithology Descriptions	Images
				GAS	C1-C5		
ROP							
ROP							
GAMMA							
Crestone Peak Resources Herbers 1F-20H-B167	6,740						
Weld County, CO Spud Date: 10/17/2019	6,750						
Surface Casing: 9.625"	6,760	Bit #: 2					
Set @ 2548' MD	6,770	Type: Ultrerra					
2 Man Logging Began on 03/19/2020 15:42hrs MST	6,780	Size: 8.5					
Loggers Were Rigged Up and Ready on 3/17/2020	6,790	Depth In: 2,548'					
	6,800	Depth Out: 12,357'					
	6,810	Hours: 38.7 hrs					
	6,820	Avg Ft/Hr: 253 '/h					
	6,830	Jets: 6X13					
	6,840	S/N: 51010					
	6,850	WOB: 30klbs					
	6,860	RPM: 50					
	6,870	SPM: 181					
	6,880	SPP: 3,315psi					
	6,890						
	6,900						
	6,910						
	6,920						
	6,930						





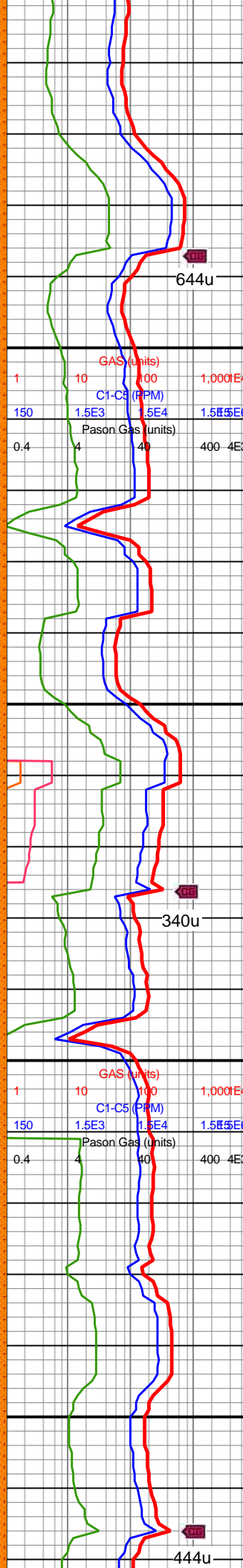
MW IN: 9.6
VIS IN: 40
MW OUT: 9.6
VIS OUT: 38

WOB: 19klbs
RPM: 7
SPM: 180
SPP: 2,738psi

MD: 7,212'
INC: 15.48°
AZM: 145.74°
TVD: 7,020.21'
VS: -846.79'

MW IN: 9.6
VIS IN: 40
MW OUT: 9.6
VIS OUT: 38

MD: 7,301'
INC: 20.93°
AZM: 156.46°
TVD: 7,104.75'
VS: -820.49'



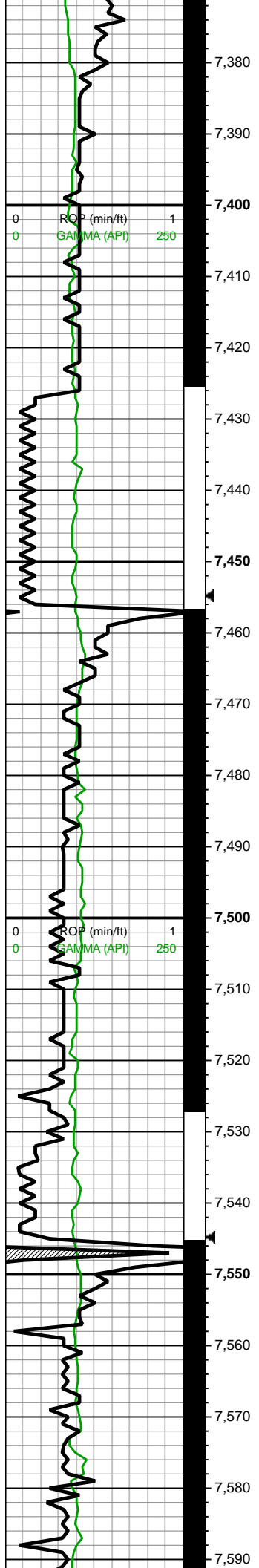
7150-7200 75% SLTY
SH, dk-med gy, frm-hrd,
sb blk-y-sb plty ip, rthy tex,
non calc, sme arg resd;
25% SLTST, med-dk gy,
sme lt gy ip, frm-v frm, sb
blk-y-sb ang, arg cmt, v w
cmtd, non calc

7150-7200 75% SLTY
SH, dk-med gy, frm-hrd,
sb blk-y-sb plty ip, rthy tex,
non calc, sme arg resd;
25% SLTST, med-dk gy,
sme lt gy ip, frm-v frm, sb
blk-y-sb ang, arg cmt, v w
cmtd, non calc

7100-7250 70% SLTY
SH, dk-med gy, frm-hrd,
sb blk-y-sb plty ip, rthy tex,
non calc, sme arg resd;
30% SLTST, med-dk gy,
sme lt gy ip, frm-v frm, sb
blk-y-sb ang, arg cmt, v w
cmtd, non calc

7300-7350 60% SLTST,
med-dk gy, lt gy ip, sl hd-v
frm, sb blk-y-sb ang, arg
cmt, v w cmtd, non calc;
40% SLTY SH, dk-med
gy, frm-hrd, sb blk-y-sb
plty ip, rthy tex, non-sl
calc, sme arg resd





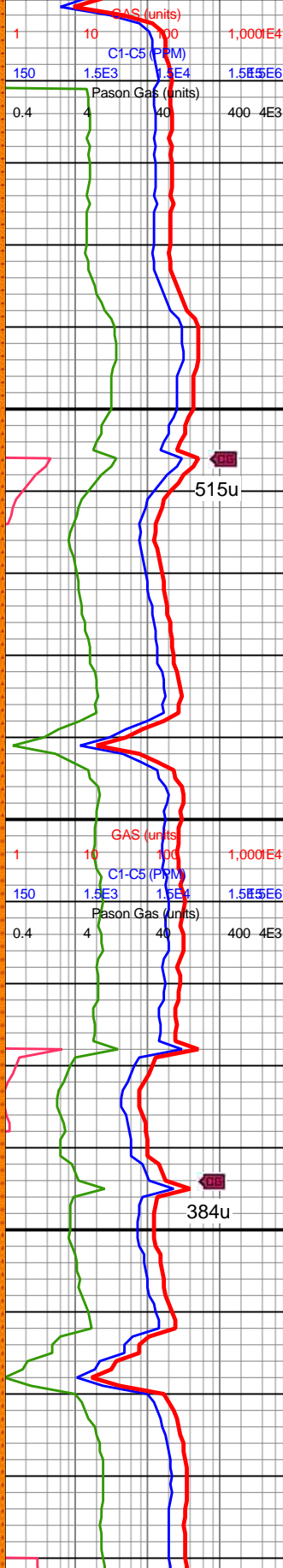
MD: 7,390'
INC: 25.5°
AZM: 164.9°
TVD: 7,186.55'
VS: -785.94'

WOB: 24klbs
RPM: 7
SPM: 180
SPP: 2,720psi

MD: 7,479'
INC: 32.36°
AZM: 167.53°
TVD: 7,264.4'
VS: -743.01'

MW IN: 9.6
VIS IN: 40
MW OUT: 9.6
VIS OUT: 39

MD: 7,568'
INC: 42.82°
AZM: 168.41°
TVD: 7,334.82'
VS: -688.83'



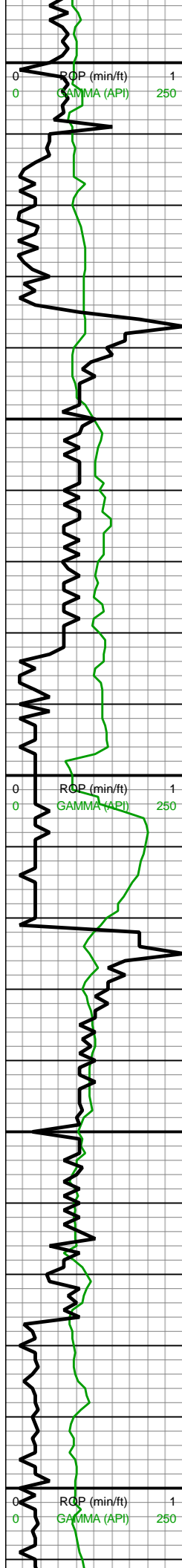
7350-7400 50% SLTST,
med-dk gy, lt gy ip, sl hd-v
frm, sb blkly-sb ang, arg
cmt, v w cmtD, non calc;
50% SLTY SH, dk-med
gy, frm-hrd, sb blkly-sb
plty ip, rthy tex, non-sl
calc, sme arg resd

7400-7450 80% SLTST,
med-dk gy, lt gy ip, sl hd-v
frm, sb blkly-sb ang, arg
cmt, v w cmtD, non calc;
20% SLTY SH, dk-med
gy, frm-hrd, sb blkly-sb
plty ip, rthy tex, non calc,
sme arg resd

7450-7500 65% SLTST,
med-dk gy, lt gy ip, sl hd-v
frm, sb blkly-sb ang, arg
cmt, v w cmtD, non calc;
35% SLTY SH, dk-med
gy, frm-hrd, sb blkly-sb
plty ip, rthy tex, non calc,
sme arg resd

7500-7550 55% SLTST,
med-dk gy, lt gy ip, sl hd-v
frm, sb blkly-sb ang, arg
cmt, v w cmtD, non calc;
45% SLTY SH, dk-med
gy, com lt gy, frm-hrd, occ
sft-fri, sb blkly-sb plty, plty
ip, rthy tex, non calc, occ
wt vf pp pyr incl

7550-7600 60% SLTST,
med-dk gy, lt gy ip, sl hd-v
frm, sb blkly-sb ang, arg
cmt, v w cmtD, non calc;
40% SLTY SH, dk-med
gy, com lt gy, frm-hrd, occ



WOB: 24klbs
RPM: 7
SPM: 184
SPP: 2,781psi

Sharon Springs
7,650'MD
7,391'TVD

MD: 7,657'
INC: 52.41°
AZM: 168.59°
TVD: 7,394.75'
VS: -623.2'

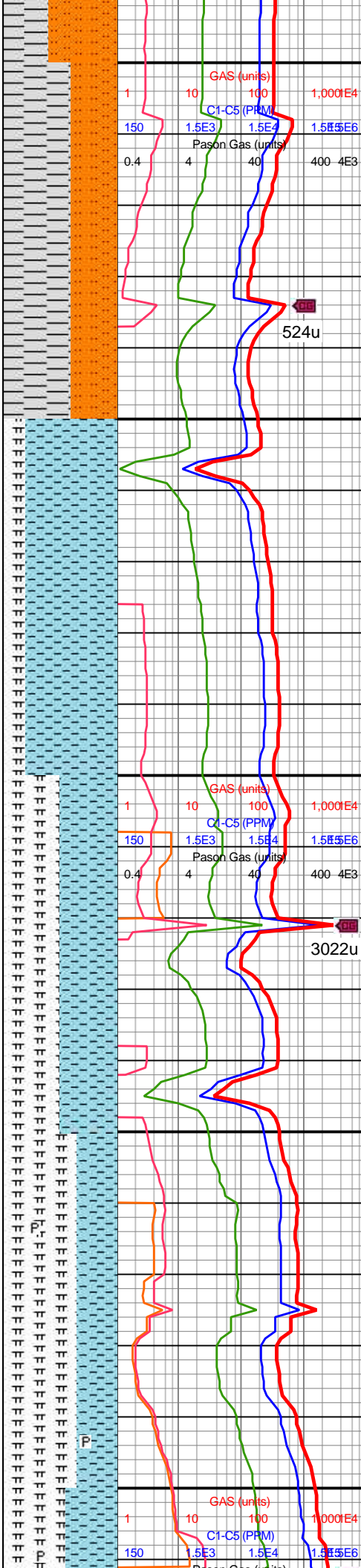
MW IN: 9.6
VIS IN: 41
MW OUT: 9.6
VIS OUT: 39

Nio A Chalk
7,692'MD
7,415'TVD

MD: 7,746'
INC: 59.09°
AZM: 171.23°
TVD: 7,444.82'
VS: -549.68'

MW IN: 9.7
VIS IN: 41
MW OUT: 9.6
VIS OUT: 39

WOB: 35klbs
RPM: 30
SPM: 181
SPP: 3,405psi



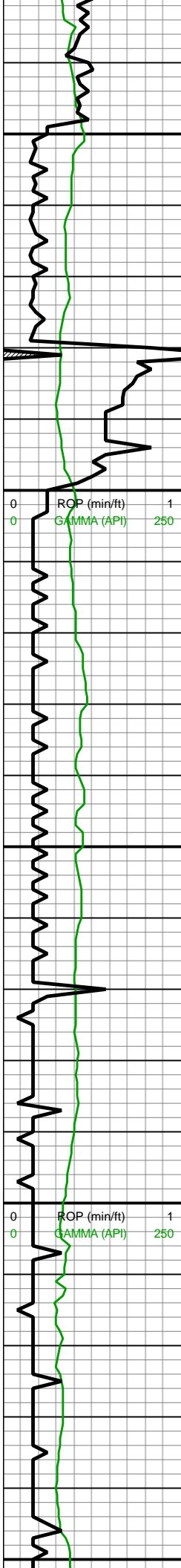
sft-tri, sb blkly-sb pity, pity
ip, rthy tex, non calc, occ
wt vf pp pyr incl

7550-7650 60% SLTY
SH, predy dk gy, med gy,
frm-hrd, sb blkly-plty, rthy
tex, non calc; 40%
SLTST, med-dk gy, lt gy
ip, sl hd-v frm, sb blkly-sb
ang, arg cmt, v w cmt, d,
non calc

7650-7700 80% CHK:
med-dk bnshgy, med gy,
micxln-vf xln, sl fri-frm,
ang-sb ang, rthy tex, v
calc, arg ip; 20% MRLST:
med-dk gy, micxln-vf xln,
frm-hd, sb blkly-ang, rthy
tex, calc, arg

7700-7750 50% MRLST:
med-dk gy, micxln-vf xln,
frm-hd, sb blkly-ang, rthy
tex, calc, arg; 50% CHK:
med-dk bnshgy, med gy,
micxln-vf xln, sl fri-frm,
ang-sb ang, rthy tex, v
calc, arg ip

7750-7800 65% MRLST:
med-dk gy, micxln-vf xln,
frm-hd, sb blkly-ang, rthy
tex, calc, arg; 35% CHK:
med-dk gy, occ med
bnshgy micxln-vf xln, sl
fri-frm, ang-sb ang, rthy
tex, v calc, arg ip, occ pyr
incl



8,040
8,050
8,060
8,070
8,080
8,090
8,100
8,110
8,120
8,130
8,140
8,150
8,160
8,170
8,180
8,190
8,200
8,210
8,220
8,230
8,240
8,250

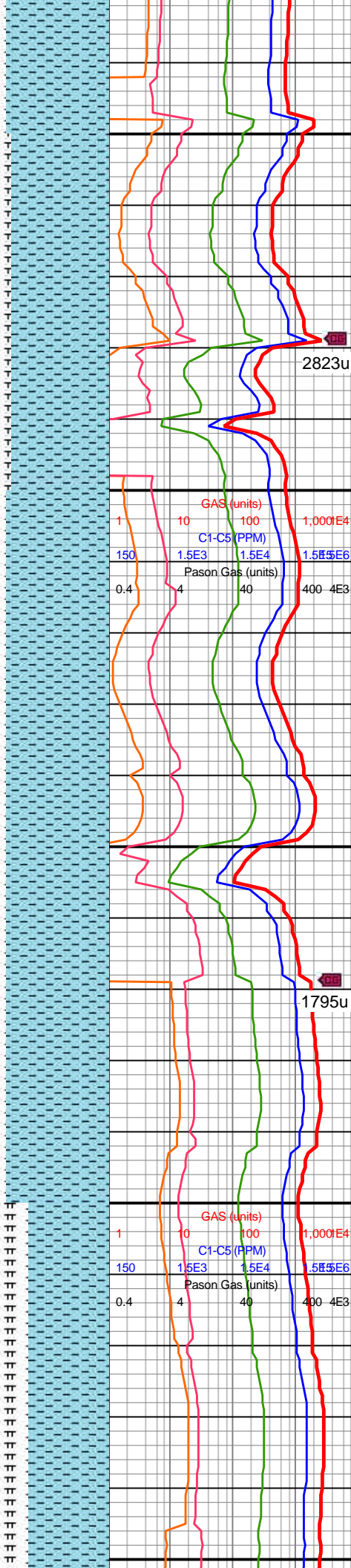
Nio B Chalk
8,056'MD
7,537'TVD

MW IN: 9.9
VIS IN: 41
MW OUT: 9.8
VIS OUT: 39

Landed @
8,098'MD

MD: 8,103'
INC: 89.08°
AZM: 177.73°
TVD: 7,539.41'
VS: -211.65'

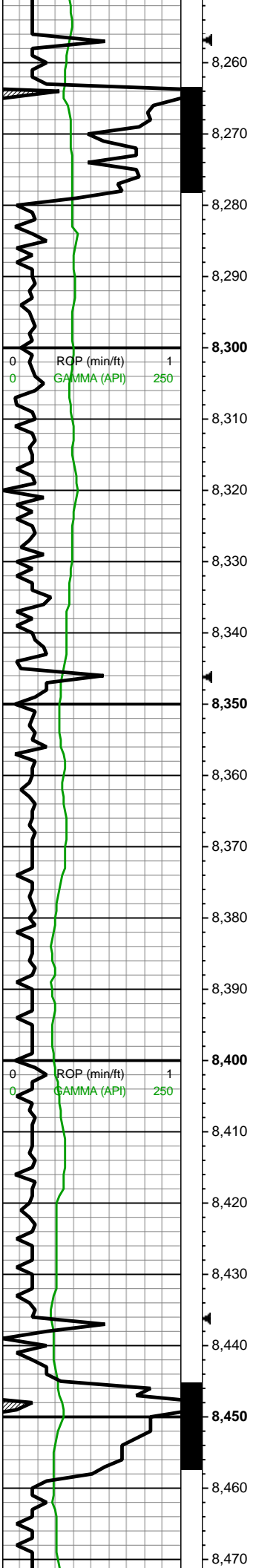
WOB: 34klbs
RPM: 59
SPM: 182
SPP: 3,434psi



fri-frm, ang-sb ang, rthy
tex, v calc, sl arg ip; 10%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg

8050-8100 85% CHK:
med-lt gy, micxln-vf xln, sl
fri-frm, ang-sb ang, rthy
tex, v calc, sl arg ip; 15%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg

8100-8200 90% CHK:
med-lt gy, occ med
bnshgy, micxln-vf xln, sl
fri-frm, ang-sb ang, rthy
tex, v calc, sl arg ip; 10%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg



MW IN: 9.9
VIS IN: 41
MW OUT: 9.9
VIS OUT: 39

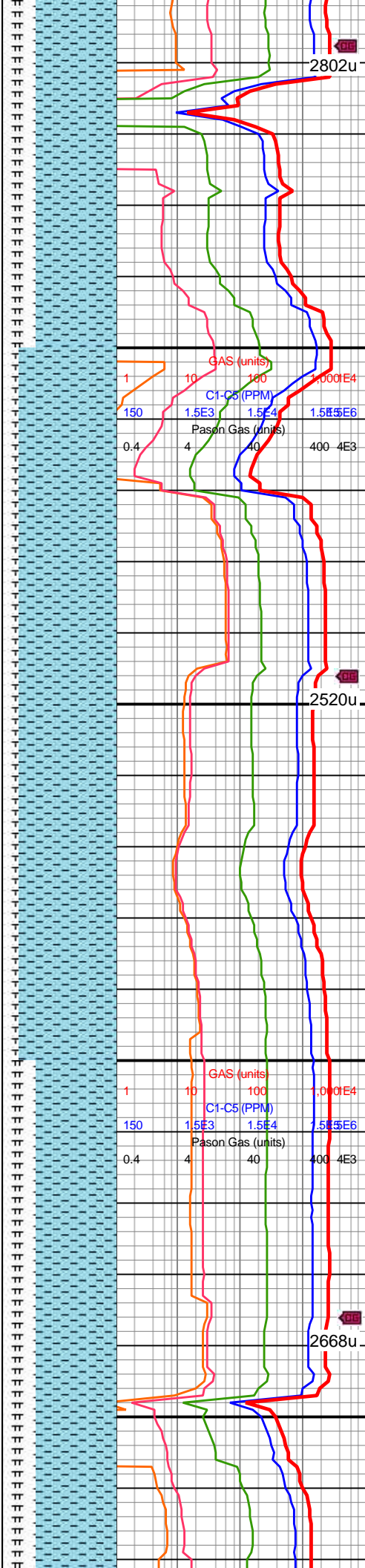
MD: 8,281'
INC: 90.13°
AZM: 178.61°
TVD: 7,542.01'
VS: -35.2'

MW IN: 9.9
VIS IN: 41
MW OUT: 9.9
VIS OUT: 39

MD: 8,370'
INC: 90.4°
AZM: 177.9°
TVD: 7,541.6'
VS: 52.9'

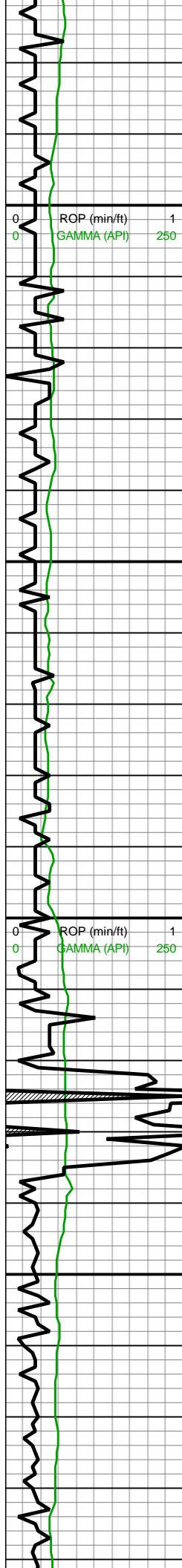
WOB: 35klbs
RPM: 59
SPM: 183
SPP: 3,473psi

MD: 8,459'
INC: 90.04°
AZM: 179.31°
TVD: 7,541.26'
VS: 140.93'



8200-8300 70% CHK:
med-lt gy, occ med
bnshgy, micxln-vf xln, sl
fri-frm, ang-sb ang, rthy
tex, v calc, sl arg ip; 30%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, tr pyr incl

8300-8400 85% CHK:
med-dk gy, occ lt gy,
micxln-vf xln, sl fri-frm,
ang-sb ang, rthy tex, v
calc, sl arg ip; 15%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, tr pyr incl



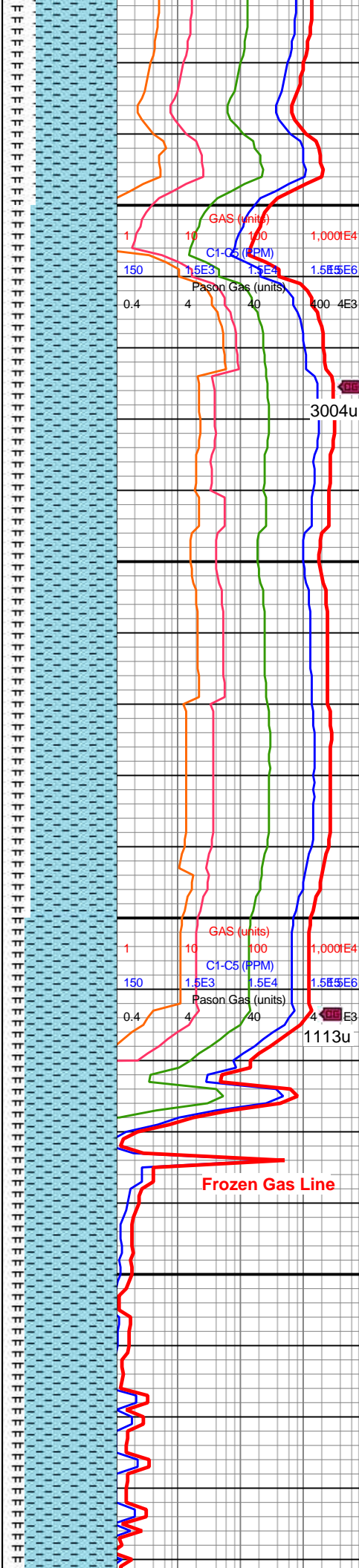
8,480
8,490
8,500
8,510
8,520
8,530
8,540
8,550
8,560
8,570
8,580
8,590
8,600
8,610
8,620
8,630
8,640
8,650
8,660
8,670
8,680
8,690

MW IN: 10+
VIS IN: 42
MW OUT: 10
VIS OUT: 40

MD: 8,548'
INC: 90.4°
AZM: 178.78°
TVD: 7,540.92'
VS: 228.84'

WOB: 33klbs
RPM: 59
SPM: 180
SPP: 3,355psi

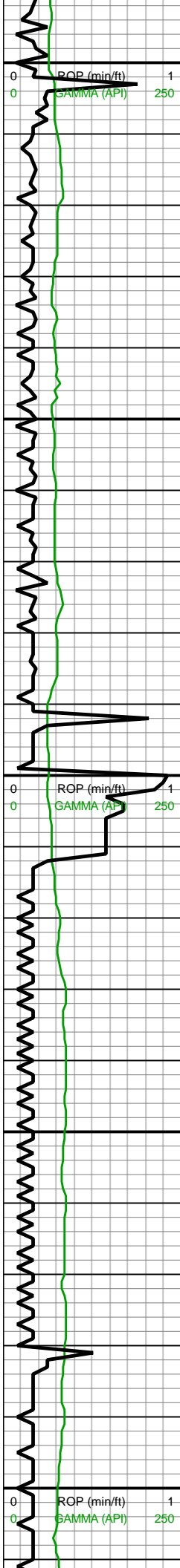
MD: 8,637'
INC: 90.75°
AZM: 180.01°
TVD: 7,540.02'
VS: 316.67'



8400-8500 70% CHK:
med-dk gy, occ lt gy,
micxln-vf xln, sl fri-hrd,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg ip;
30% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, tr anhy

8500-8600 75% CHK:
med-dk gy, occ lt gy,
micxln-vf xln, sl fri-hrd,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg ip;
25% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, tr anhy

8600-8700 80% CHK:
med-dk gy, occ lt gy,
micxln-vf xln, sl fri-hrd,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg ip;
20% MRLST: med-dk gy,



8,700
8,710
8,720
8,730
8,740
8,750
8,760
8,770
8,780
8,790
8,800
8,810
8,820
8,830
8,840
8,850
8,860
8,870
8,880
8,890
8,900
8,910

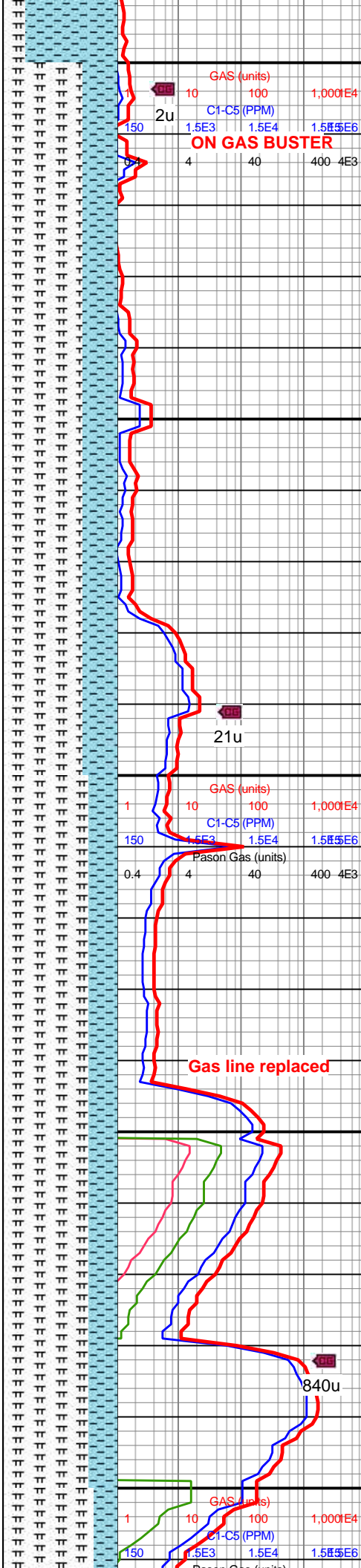
MD: 8,727'
INC: 91.1°
AZM: 179.66°
TVD: 7,538.57'
VS: 405.37'

MW IN: 10
VIS IN: 41
MW OUT: 10
VIS OUT: 39

WOB: 31klbs
RPM: 20
SPM: 187
SPP: 3,582psi

MD: 8,816'
INC: 89.78°
AZM: 180.37°
TVD: 7,537.89'
VS: 493.04'

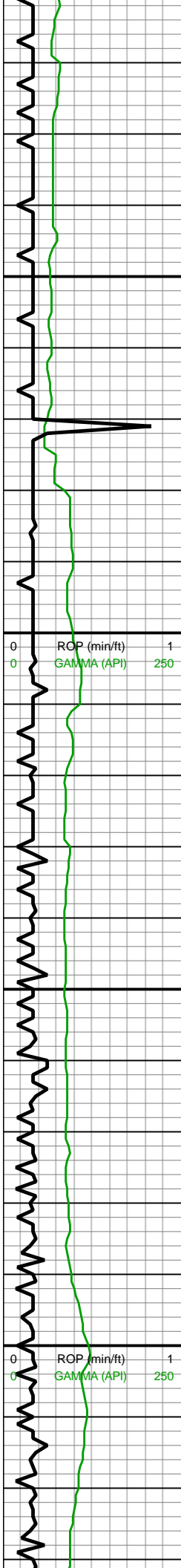
MD: 8,905'
INC: 90.31°
AZM: 181.24°
TVD: 7,537.82'
VS: 580.49'



micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, tr anhy

8700-8800 70% MRLST:
med-dk gy, micxln-vf xln,
frm-hd, sb blky-ang, rthy
tex, sl calc, arg, chk incl
ip; 30% CHK: med-dk gy,
occ lt gy, micxln-vf xln, sl
fri-hrd, dns struc, ang-sb
ang, rthy tex, v calc, sl arg
ip, tr anhy

8800-8900 75% MRLST:
med-dk gy, micxln-vf xln,
frm-hd, sb blky-ang, rthy
tex, sl calc, arg, chk incl
ip; 25% CHK: med-dk gy,
occ lt gy, micxln-vf xln, sl
fri-hrd, dns struc, ang-sb
ang, rthy tex, v calc, sl arg
ip, tr anhy



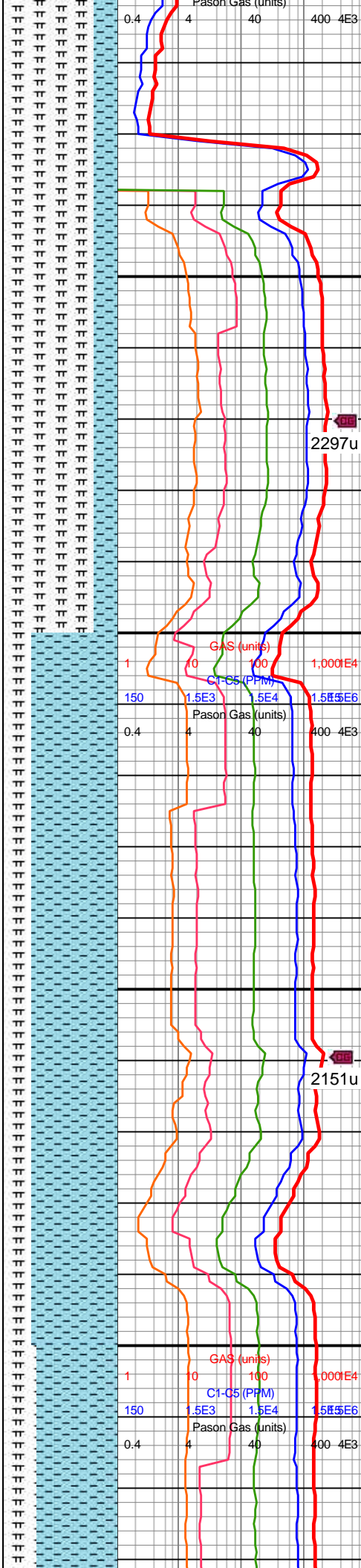
8,920
8,930
8,940
8,950
8,960
8,970
8,980
8,990
9,000
9,010
9,020
9,030
9,040
9,050
9,060
9,070
9,080
9,090
9,100
9,110
9,120
9,130

MW IN: 10
VIS IN: 41
MW OUT: 10
VIS OUT: 39

MD: 8,994'
INC: 90.48°
AZM: 180.54°
TVD: 7,537.2'
VS: 667.91'

WOB: 30kibs
RPM: 59
SPM: 198
SPP: 3,981psi

MD: 9,083'
INC: 90.22°
AZM: 179.14°
TVD: 7,536.66'
VS: 755.63'

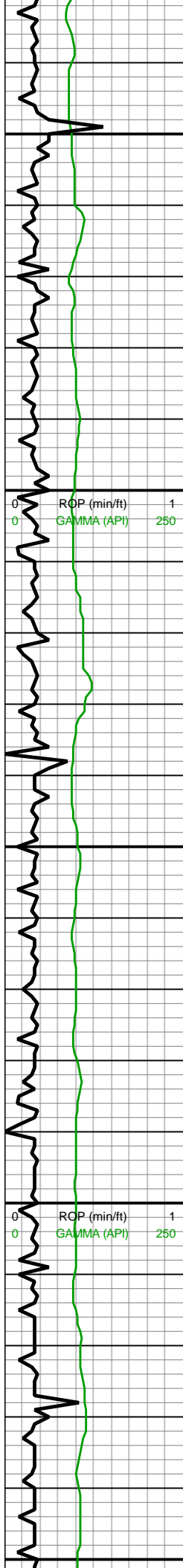


2297u

8900-9000 80% MRLST:
med-dk gy, micxln-vf xln,
frm-hd, sb blk-ang, rthy
tex, sl calc, arg, chk incl
ip; 20% CHK: med-dk gy,
occ lt gy, micxln-vf xln, sl
fri-hrd, dns struc, ang-sb
ang, rthy tex, v calc, sl arg
ip, tr anhy

2151u

9100-9200 75% CHK:
med-dk gy, occ lt gy,
micxln-vf xln, sl fri-hrd,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg ip;
25% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blk-ang, rthy tex, calc,
arg, tr anhy



9,140
9,150
9,160
9,170
9,180
9,190
9,200
9,210
9,220
9,230
9,240
9,250
9,260
9,270
9,280
9,290
9,300
9,310
9,320
9,330
9,340
9,350

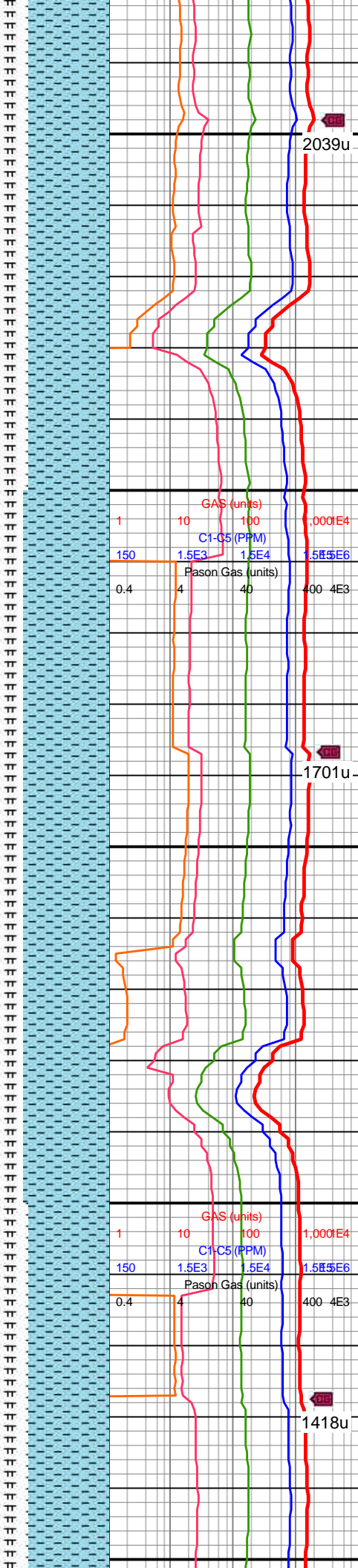
MD: 9,172'
INC: 89.78°
AZM: 179.31°
TVD: 7,536.66'
VS: 843.51'

MW IN: 10
VIS IN: 41
MW OUT: 10
VIS OUT: 38

WOB: 34klbs
RPM: 60
SPM: 198
SPP: 4,015psi

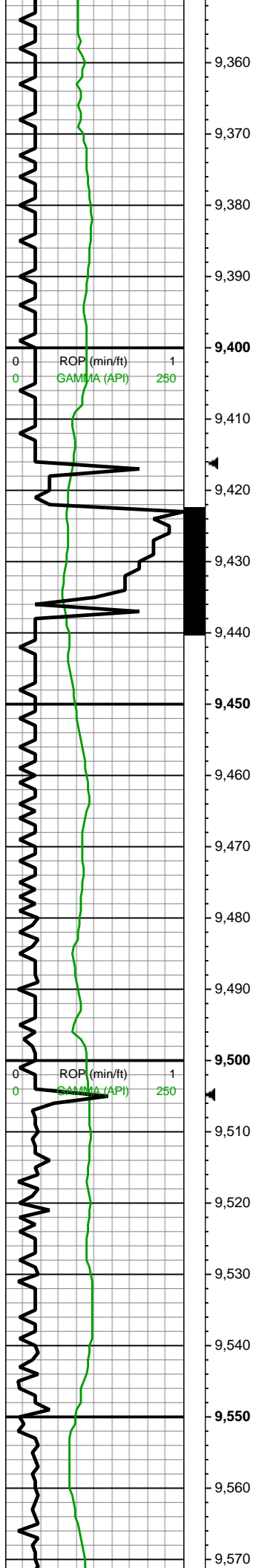
MD: 9,261'
INC: 89.43°
AZM: 179.14°
TVD: 7,537.27'
VS: 931.38'

MD: 9,350'
INC: 89.08°
AZM: 178.61°



9100-9200 70% CHK:
med-dk gy, occ lt gy,
micxln-vf xln, sl fri-hrd,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg ip;
30% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, tr anhy

9200-9300 75% CHK:
med-dk gy, occ lt gy,
micxln-vf xln, sl fri-hrd,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg ip;
25% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, tr anhy



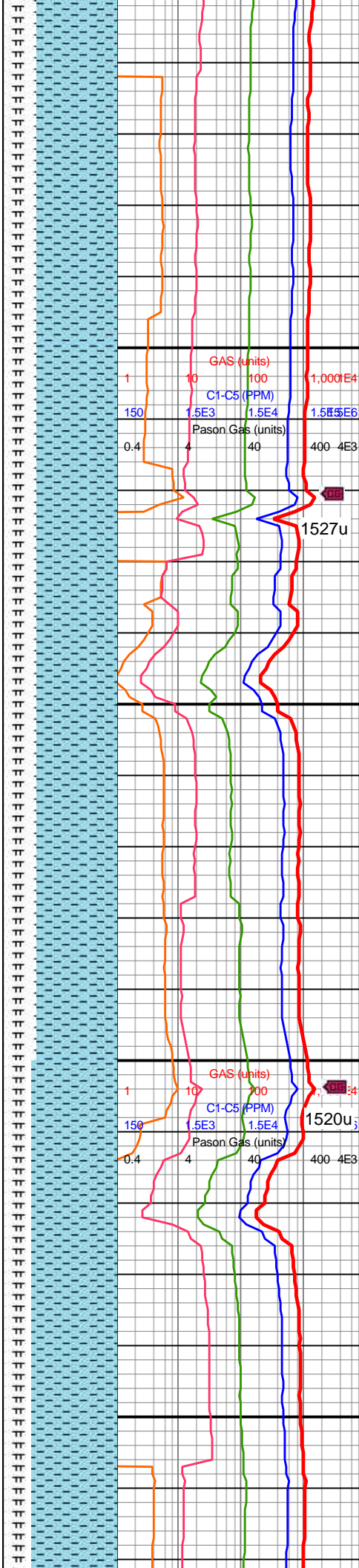
TVD: 7,538.43'
VS: 1,019.33'

WOB: 35klbs
RPM: 59
SPM: 190
SPP: 3,806psi

MW IN: 10
VIS IN: 41
MW OUT: 10
VIS OUT: 39

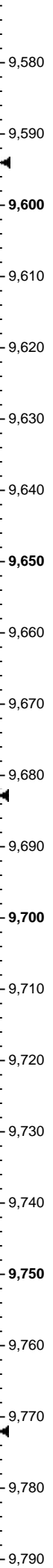
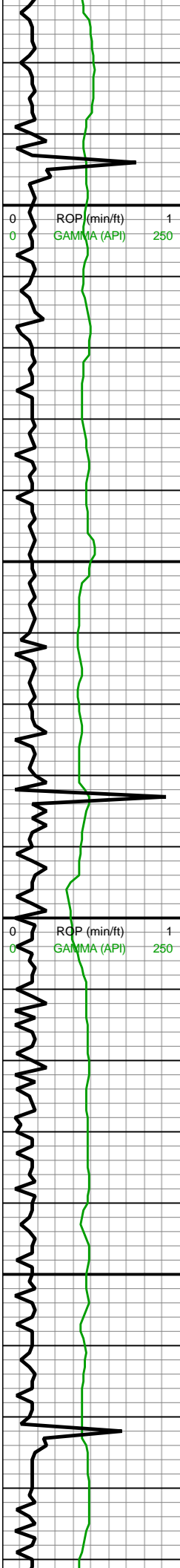
MD: 9,439'
INC: 90.31°
AZM: 180.19°
TVD: 7,538.9'
VS: 1,107.16'

MD: 9,528'
INC: 90.4°
AZM: 179.84°
TVD: 7,538.35'
VS: 1,194.83'



9300-9400 70% CHK:
med-dk gy, occ lt gy,
micxln-vf xln, sl fri-hrd,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg ip;
30% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, tr pp pyr & pyr nod

9400-9500 70% CHK:
med-dk gy, occ lt gy,
micxln-vf xln, sl fri-hrd,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg ip;
30% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, tr pp pyr & pyr nod



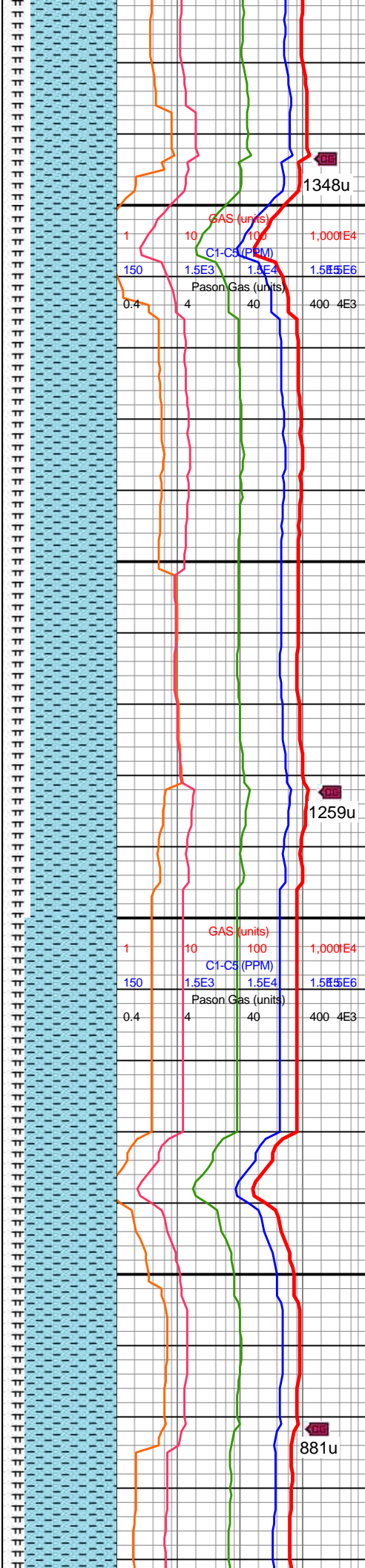
WOB: 25klbs
RPM: 60
SPM: 190
SPP: 3,601psi

MD: 9,618'
INC: 90.04°
AZM: 179.66°
TVD: 7,538.01'
VS: 1,283.56'

MW IN: 10
VIS IN: 41
MW OUT: 10
VIS OUT: 39

MD: 9,707'
INC: 89.87°
AZM: 179.49°
TVD: 7,538.08'
VS: 1,371.35'

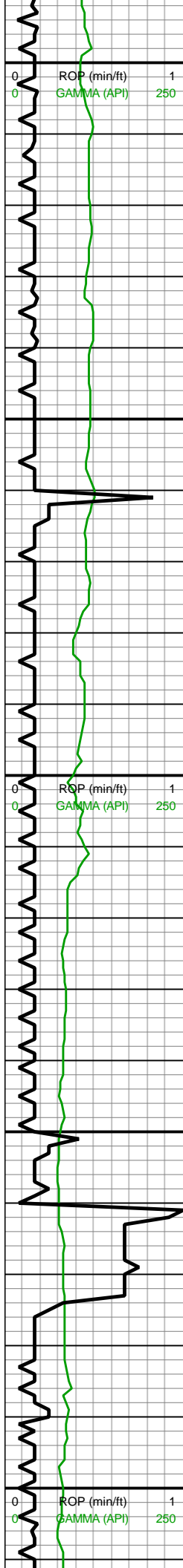
MD: 9,796'
INC: 89.6°
AZM: 179.31°
TVD: 7,538.49'
VS: 1,459.18'



9500-9600 75% CHK:
med-dk gy, occ lt gy,
micxln-vf xln, sl fri-hrd,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg ip;
25% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, tr pp pyr & pyr nod

9600-9700 75% CHK:
med-dk gy, occ lt gy,
micxln-vf xln, sl fri-hrd,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg ip;
25% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, tr pp pyr & pyr nod

9700-9800 80% CHK:
med-dk gy, occ lt gy,
micxln-vf xln, sl fri-hrd,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg ip;
20% MRLST: med-dk gy,



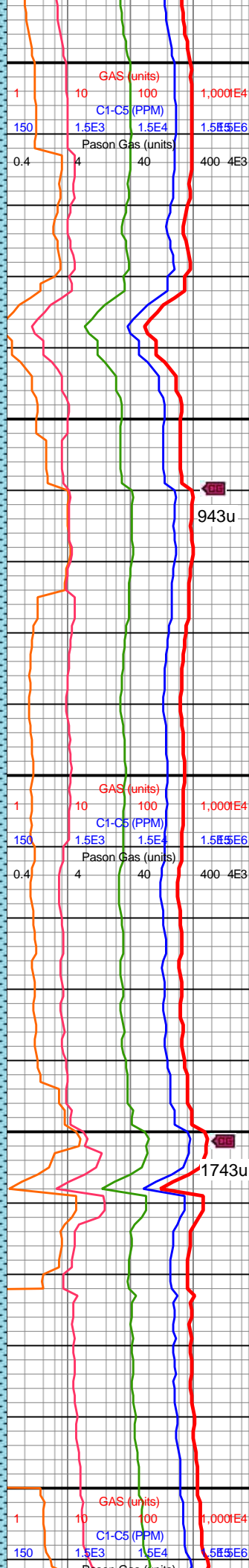
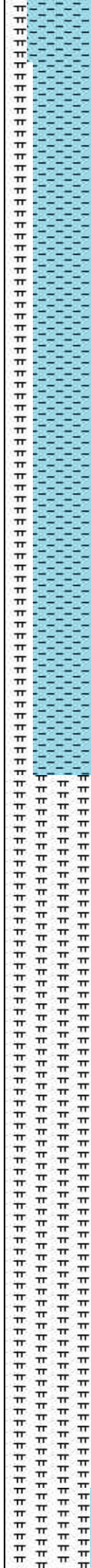
WOB: 33klbs
RPM: 60
SPM: 192
SPP: 3,972psi

MW IN: 10
VIS IN: 41
MW OUT: 10
VIS OUT: 39

MD: 9,885'
INC: 89.43°
AZM: 178.08°
TVD: 7,539.24'
VS: 1,547.18'

MD: 9,974'
INC: 89.34°
AZM: 179.14°
TVD: 7,540.2'
VS: 1,635.19'

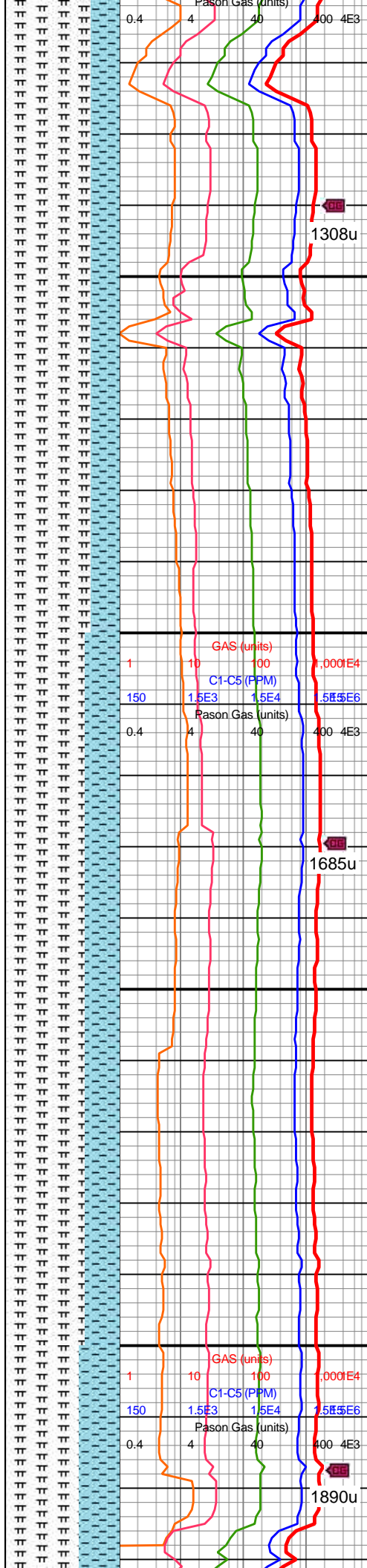
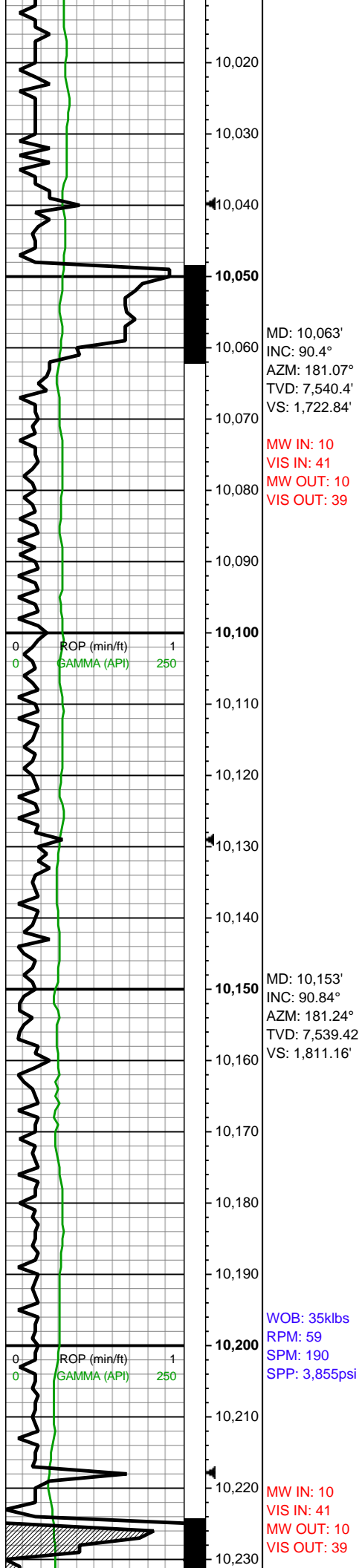
WOB: 35klbs
RPM: 59
SPM: 191
SPP: 4,017psi



micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, tr pp pyr & pyr nod

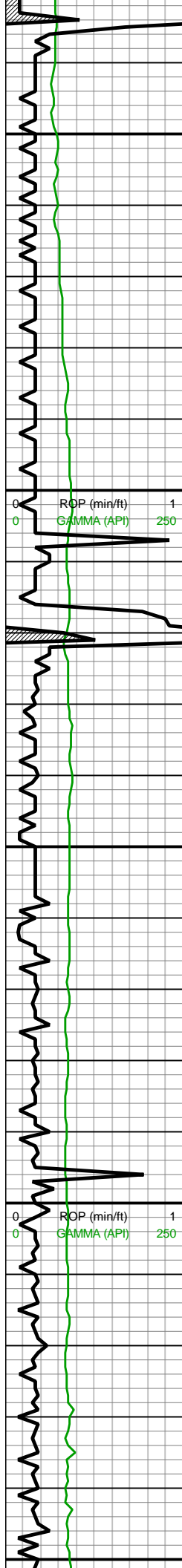
9800-9900 75% CHK:
med-dk gy, occ lt gy,
micxln-vf xln, sl fri-hrd,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg ip;
25% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, tr pp pyr & pyr nod

9900-10000 80%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, sl calc,
arg, chk incl ip; 20%
CHK: med-dk gy, occ lt
gy, micxln-vf xln, sl fri-hrd,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg ip, tr
pyr nod



10000-10100 75%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, sl calc,
arg, chk incl ip; 25%
CHK: med-dk gy, occ lt
gy, micxln-vf xln, sl fri-hrd,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg ip, tr
pyr nod

10100-10200 70%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, sl calc,
arg, chk incl ip; 30%
CHK: med-dk gy, occ lt
gy, micxln-vf xln, sl fri-hrd,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg ip, tr
pyr nod



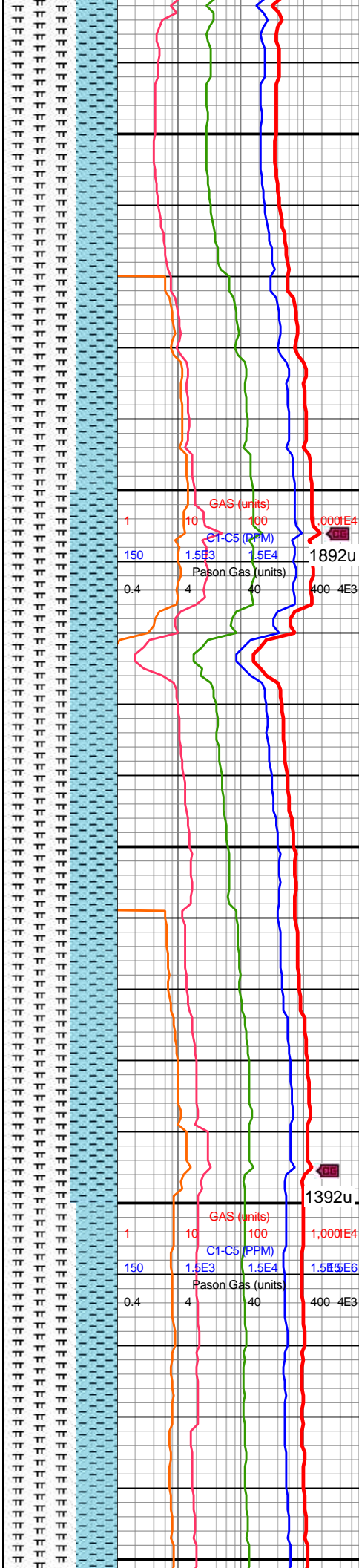
MD: 10,242'
INC: 89.6°
AZM: 180.19°
TVD: 7,539.08'
VS: 1,898.64'

MD: 10,331'
INC: 88.9°
AZM: 179.84°
TVD: 7,540.25'
VS: 1,986.31'

WOB: 19klbs
RPM: 60
SPM: 191
SPP: 3,310psi

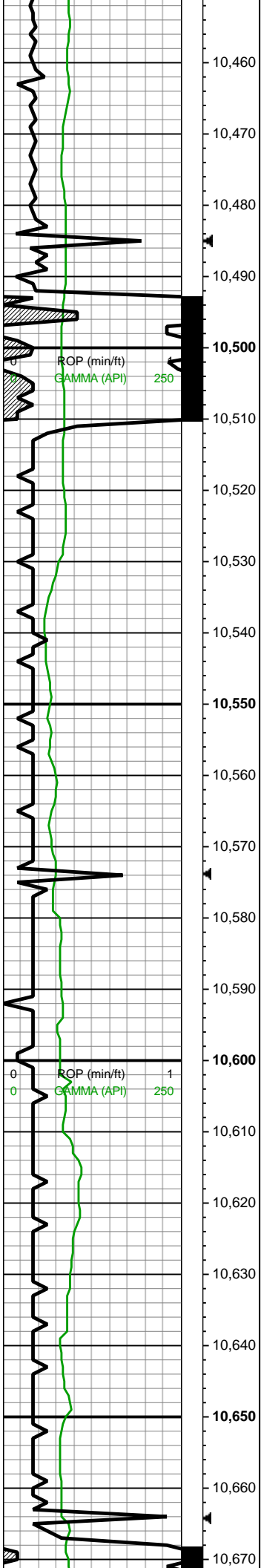
MD: 10,420'
INC: 87.67°
AZM: 178.96°
TVD: 7,542.91'
VS: 2,074.1'

MW IN: 10
VIS IN: 41
MW OUT: 10
VIS OUT: 39



10200-10300 65%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, sl calc,
arg, chk incl ip; 35%
CHK: med-dk gy, occ lt
gy, micxln-vf xln, sl fri-hrd,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg ip, tr
pyr nod

10300-10400 60%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, sl calc,
arg, chk incl ip; 40%
CHK: med-dk gy, occ lt
gy, micxln-vf xln, sl fri-hrd,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg ip, tr
pyr nod

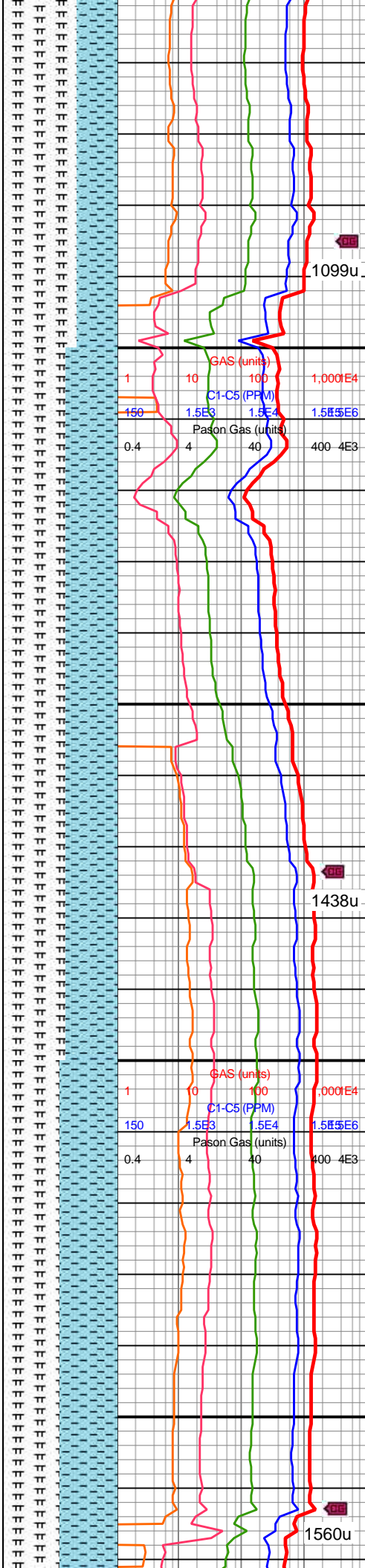


MD: 10,509'
INC: 89.08°
AZM: 180.89°
TVD: 7,545.44'
VS: 2,161.75'

MW IN: 10
VIS IN: 41
MW OUT: 10
VIS OUT: 39

MD: 10,598'
INC: 90.13°
AZM: 181.24°
TVD: 7,546.05'
VS: 2,249.13'

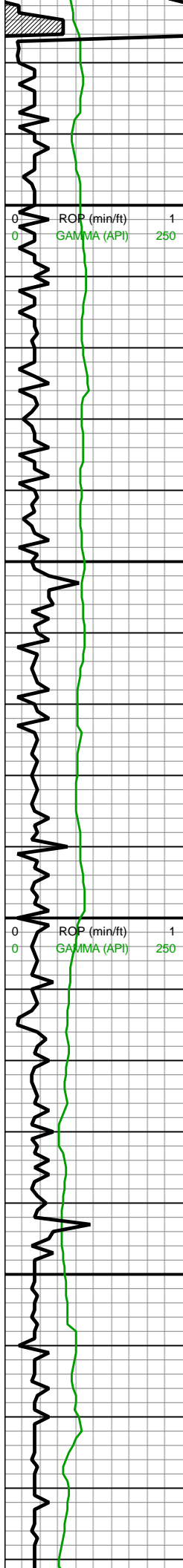
WOB: 33klbs
RPM: 60
SPM: 192
SPP: 3,872psi



10400-10500 65%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, sl calc,
arg, chk incl ip; 35%
CHK: med-dk gy, occ lt
gy, micxln-vf xln, sl fri-hrd,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg ip, tr
pyr nod

10500-10600 55%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, sl calc,
arg, chk incl ip; 45%
CHK: med-dk gy, occ lt
gy, micxln-vf xln, sl fri-sl
hrd, sl dns struc, ang-sb
ang, rthy tex, v calc, sl arg
ip, tr f pyr incl

10600-10700 50%



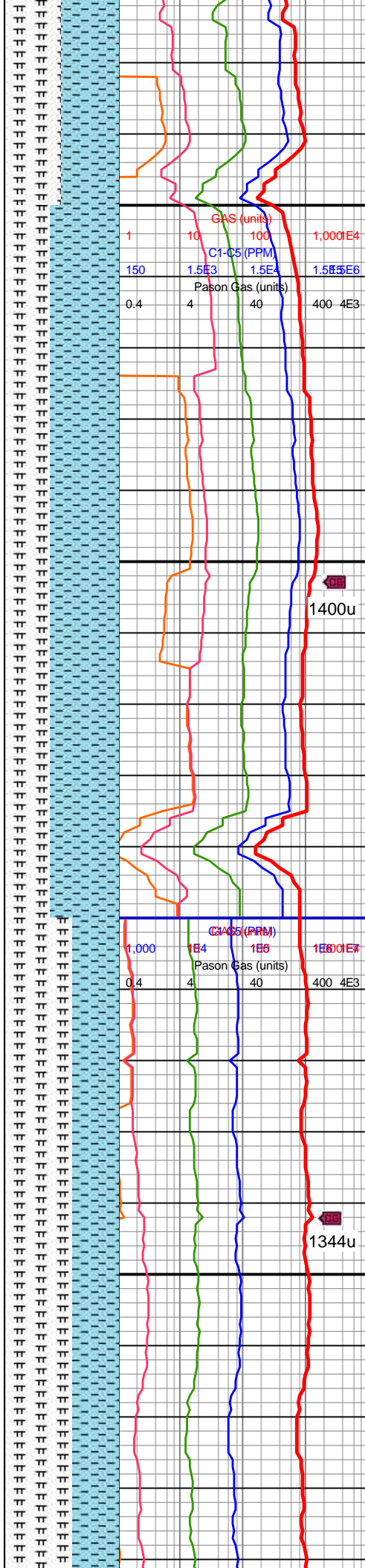
MD: 10,687'
INC: 88.9°
AZM: 180.01°
TVD: 7,546.8'
VS: 2,336.63'

MW IN: 10
VIS IN: 41
MW OUT: 10
VIS OUT: 39

MD: 10,776'
INC: 88.64°
AZM: 180.01°
TVD: 7,548.71'
VS: 2,424.28'

WOB: 35klbs
RPM: 59
SPM: 192
SPP: 3,901psi

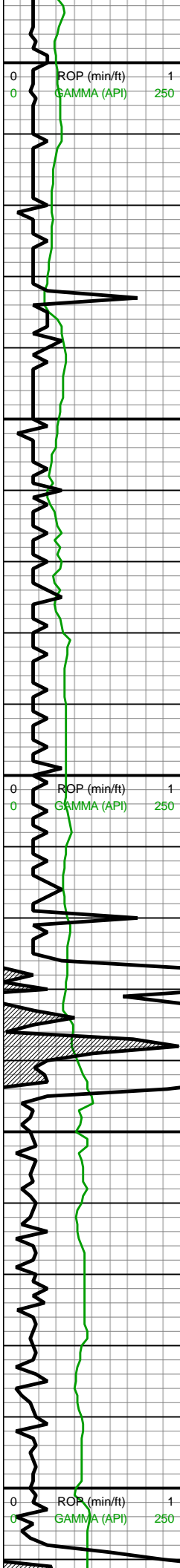
MD: 10,865'
INC: 88.11°
AZM: 179.84°
TVD: 7,551.24'
VS: 2,511.94'



MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, sl calc,
arg, chk incl ip; 50%
CHK: med-dk gy, occ lt
gy, micxln-vf xln, sl fri-sl
hrd, sl dns struc, ang-sb
ang, rthy tex, v calc, sl arg
ip, tr f pyr incl

10700-10800 60% CHK:
med-dk gy, occ lt gy,
micxln-vf xln, sl fri-sl hrd,
sl dns struc, ang-sb ang,
rthy tex, v calc, sl arg ip;
40% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, sl calc,
arg, chk incl ip, scat f pyr
incl

10800-10900 60%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, sl calc,
arg, chk incl ip; 40%
CHK: med-dk gy, occ lt
gy, micxln-vf xln, sl fri-sl



10,900
10,910
10,920
10,930
10,940
10,950
10,960
10,970
10,980
10,990
11,000
11,010
11,020
11,030
11,040
11,050
11,060
11,070
11,080
11,090
11,100
11,110

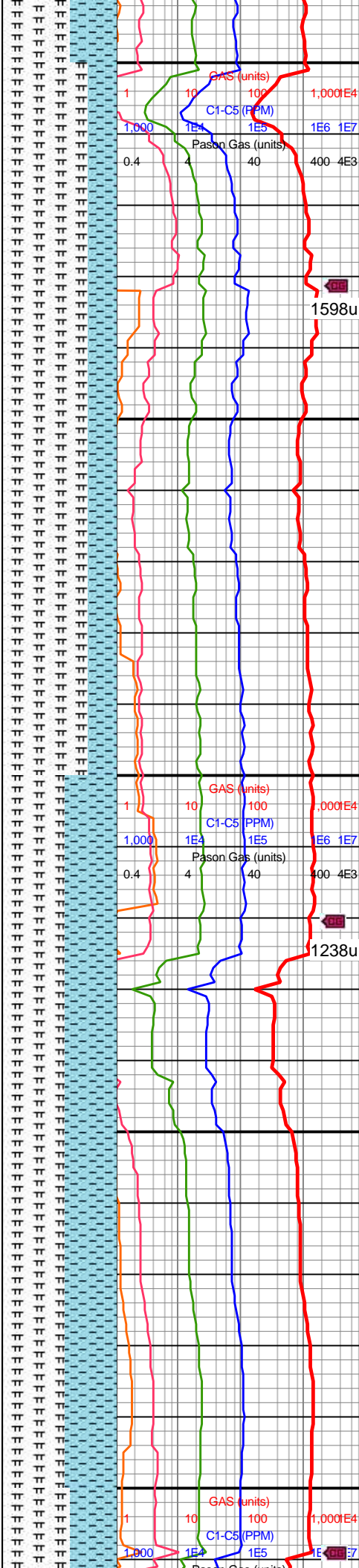
MW IN: 10
VIS IN: 41
MW OUT: 10
VIS OUT: 39

MD: 10,955'
INC: 87.49°
AZM: 180.01°
TVD: 7,554.69'
VS: 2,600.56'

WOB: 34klbs
RPM: 59
SPM: 192
SPP: 3,936psi

MW IN: 10
VIS IN: 41
MW OUT: 10
VIS OUT: 39

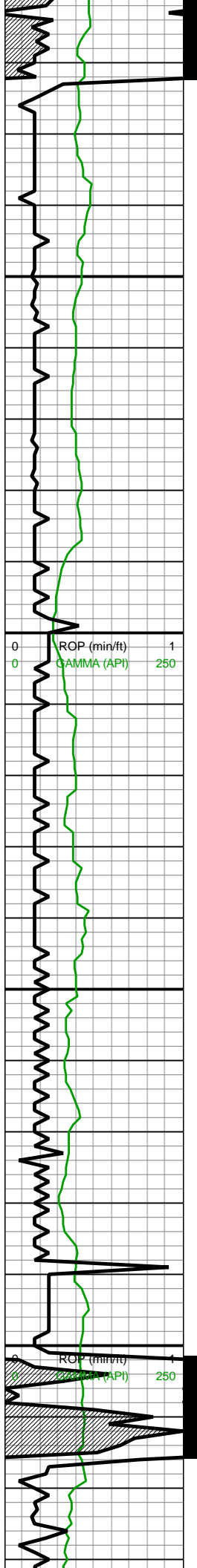
MD: 11,044'
INC: 88.55°
AZM: 178.78°
TVD: 7,557.77'
VS: 2,688.34'



hrd, sl dns struc, ang-sb
ang, rthy tex, v calc, sl arg
ip, occ f pyr incl

10900-11000 75%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, sl calc,
arg, chk incl ip; 25%
CHK: med-dk gy, occ lt
gy, micxln-vf xln, sl fri-sl
hrd, sl dns struc, ang-sb
ang, rthy tex, v calc, sl arg
ip

11000-11100 55%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, sme chk incl; 45%
CHK: med-dk gy, occ lt
gy, micxln-vf xln, sl fri-sl
hrd, sl dns struc, ang-sb
ang, rthy tex, v calc, sl arg



MW IN: 10
VIS IN: 42
MW OUT: 10
VIS OUT: 40

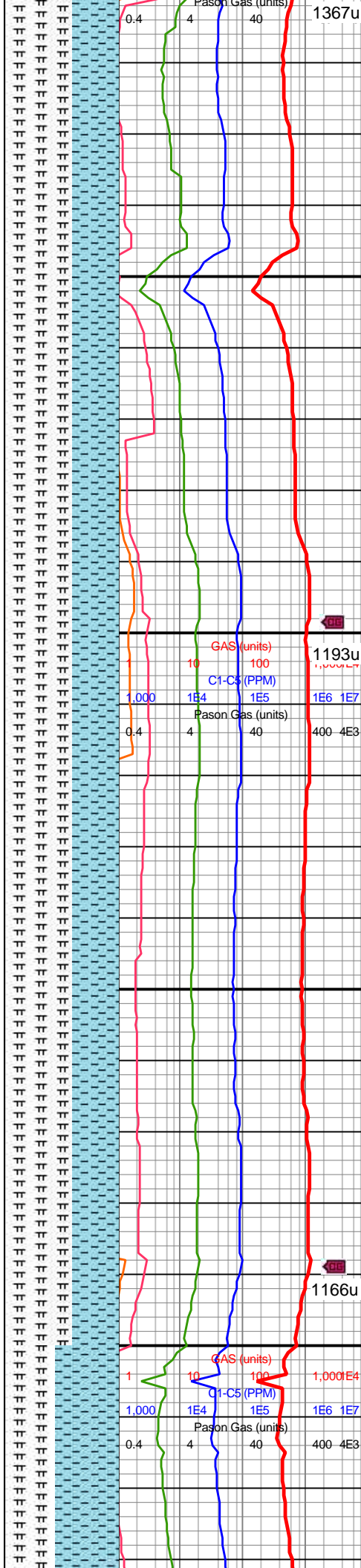
MD: 11,133'
INC: 90.31°
AZM: 179.49°
TVD: 7,558.65'
VS: 2,776.23'

WOB: 34klbs
RPM: 59
SPM: 191
SPP: 3,858psi

MD: 11,222'
INC: 89.34°
AZM: 179.49°
TVD: 7,558.92'
VS: 2,864.04'

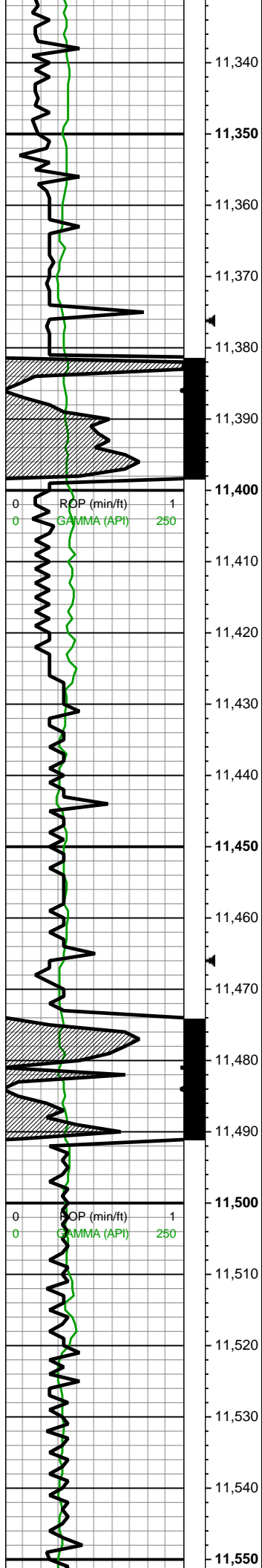
MW IN: 10
VIS IN: 42
MW OUT: 10
VIS OUT: 40

MD: 11,311'
INC: 89.08°
AZM: 178.61°
TVD: 7,560.15'
VS: 2,951.95'



11100-11200 60%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, sme chk incl; 40%
CHK: med-dk gy, occ lt
gy, micxln-vf xln, sl fri-sl
hrd, sl dns struc, ang-sb
ang, rthy tex, v calc, sl arg

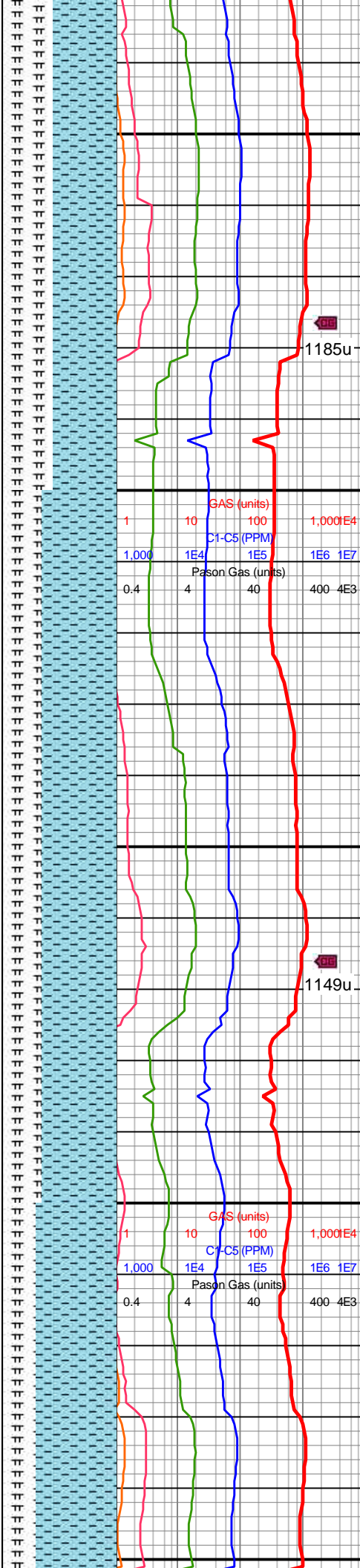
11200-11300 60%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, sme chk incl; 40%
CHK: med-dk gy, occ lt
gy, micxln-vf xln, sl fri-sl
hrd, sl dns struc, ang-sb
ang, rthy tex, v calc, sl arg



MW IN: 10
VIS IN: 42
MW OUT: 10
VIS OUT: 40

MD: 11,400'
INC: 88.99°
AZM: 180.19°
TVD: 7,561.65'
VS: 3,039.76'

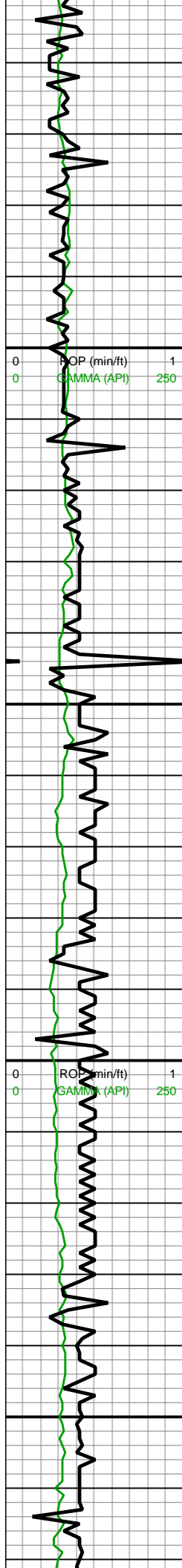
MD: 11,489'
INC: 90.57°
AZM: 180.37°
TVD: 7,561.99'
VS: 3,127.36'



11300-11400 55% CHK:
med-dk gy, occ lt gy,
micxln-vf xln, sl fri-sl hrd,
sl dns struc, ang-sb ang,
rthy tex, v calc, sl arg;
45% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, sme chk incl, tr pyr
incl

11400-11500 65% CHK:
med-dk gy, occ lt gy ip,
micxln-vf xln, sl fri-sl hrd,
sl dns struc, ang-sb ang,
rthy tex, v calc, sl arg;
35% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, sme chk incl





MW IN: 10
VIS IN: 42
MW OUT: 10
VIS OUT: 40

MD: 11,579'
INC: 91.01°
AZM: 180.54°
TVD: 7,560.75'
VS: 3,215.89'

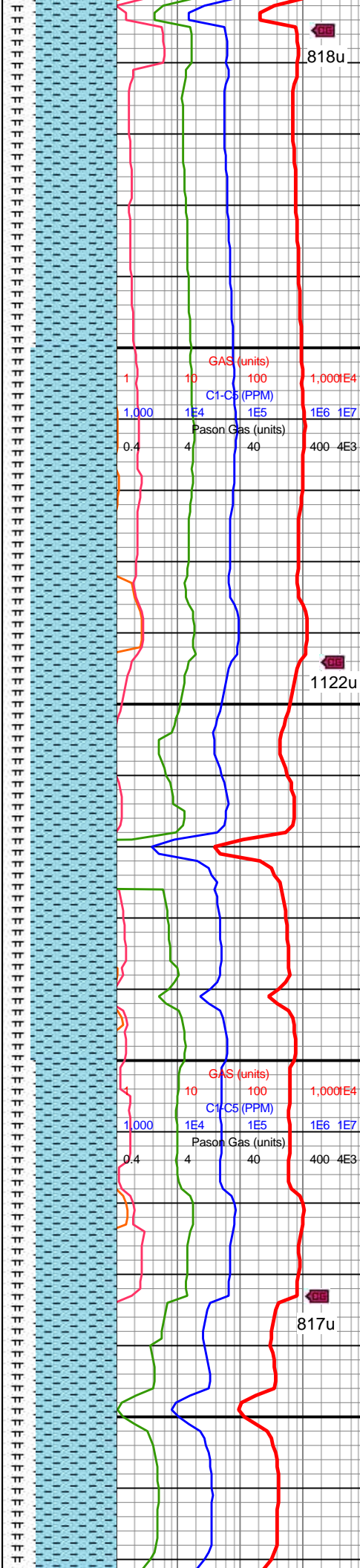
WOB: 35klbs
RPM: 60
SPM: 191
SPP: 3,559psi

MW IN: 10
VIS IN: 43
MW OUT: 10
VIS OUT: 41

MD: 11,668'
INC: 90.66°
AZM: 179.31°
TVD: 7,559.45'
VS: 3,303.58'

MINDEPTH 3/21/2020

MD: 11,757'
INC: 90.22°
AZM: 177.9°
TVD: 7,558.77'
VS: 3,391.59'



818u

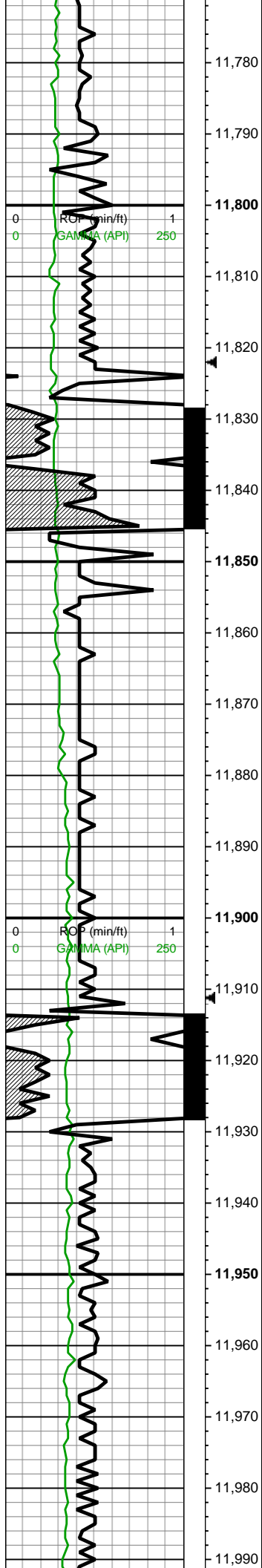
11600-11700 70% CHK:
med-dk gy, sme lt
bnshgy ip, micxln-vf xln,
sl fri-sl hrd, sl dns struc,
ang-sb ang, rthy tex, v
calc, sl arg; 30% MRLST:
med-dk gy, micxln-vf xln,
frm-hd, sb blk-ang, rthy
tex, calc, arg, sme chk
incl

1122u

11600-11700 75% CHK:
med-dk gy, sme lt
bnshgy ip, micxln-vf xln,
sl fri-sl hrd, sl dns struc,
ang-sb ang, rthy tex, v
calc, sl arg; 25% MRLST:
med-dk gy, micxln-vf xln,
frm-hd, sb blk-ang, rthy
tex, calc, arg, sme chk
incl, occ f pyr nod

817u

11700-11800 70% CHK:



WOB: 34klbs
RPM: 60
SPM: 196
SPP: 3,585psi

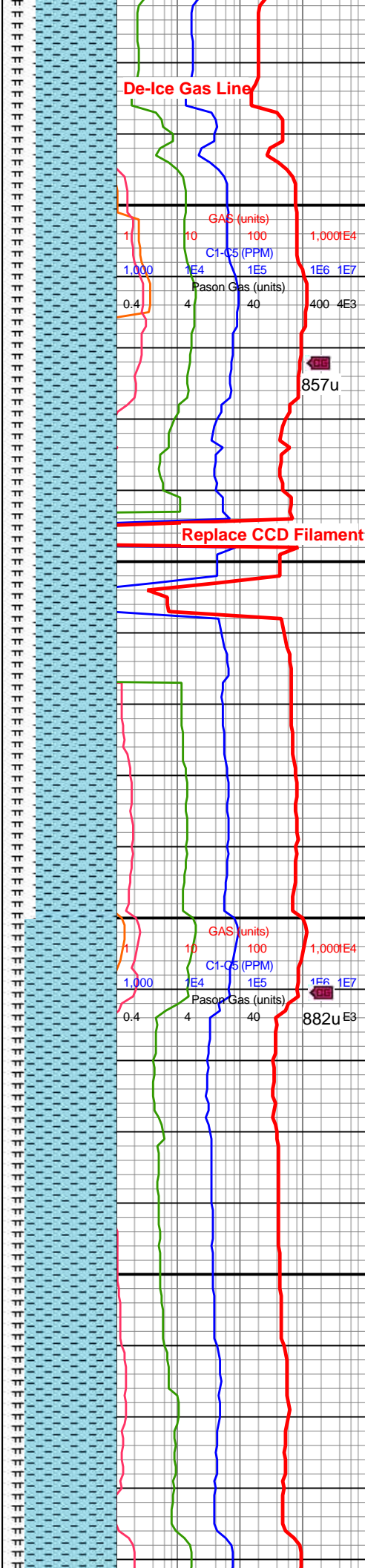
MW IN: 10
VIS IN: 42
MW OUT: 10
VIS OUT: 40

MD: 11,846'
INC: 89.78°
AZM: 178.96°
TVD: 7,558.77'
VS: 3,479.66'

MW IN: 10
VIS IN: 42
MW OUT: 10
VIS OUT: 40

MD: 11,935'
INC: 89.08°
AZM: 180.72°
TVD: 7,559.66'
VS: 3,567.37'

MW IN: 10
VIS IN: 42
MW OUT: 10
VIS OUT: 40



De-Ice Gas Line

GAS (units)

C1-C5 (PPM)

Pason Gas (units)

857u

Replace CCD Filament

GAS (units)

C1-C5 (PPM)

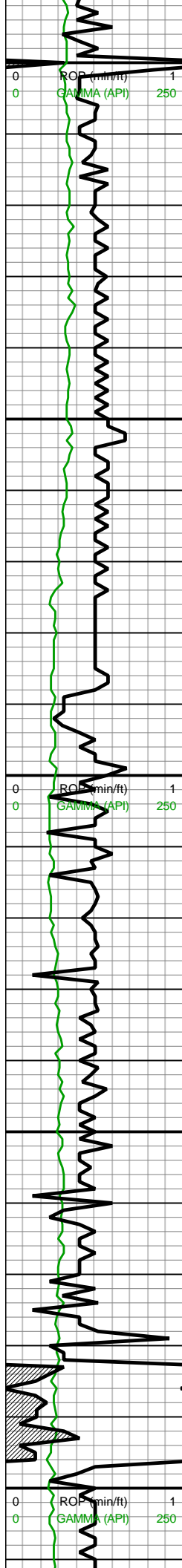
Pason Gas (units)

882u

med-dk gy, sme lt
bnshgy ip, micxln-vf xln,
sl fri-sl hrd, sl dns struc,
ang-sb ang, rthy tex, v
calc, sl arg; 30% MRLST:
med-dk gy, micxln-vf xln,
frm-hd, sb blk-ang, rthy
tex, calc, arg, sme chk
incl

11800-11900 70% CHK:
med-dk gy, sme lt gy ip,
micxln-vf xln, sl fri-sl hrd,
sl dns struc, ang-sb ang,
rthy tex, v calc, sl arg;
30% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blk-ang, rthy tex, calc,
arg, sme chk incl

11900-12000 80% CHK:
med-dk gy, sl lt gy ip,
micxln-vf xln, sl fri-sl hrd,
sl dns struc, ang-sb ang,
rthy tex, v calc, sl arg;
20% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb



WOB: 34klbs
RPM: 60
SPM: 196
SPP: 3,584psi

MD: 12,024'
INC: 90.13°
AZM: 180.37°
TVD: 7,560.27'
VS: 3,654.89'

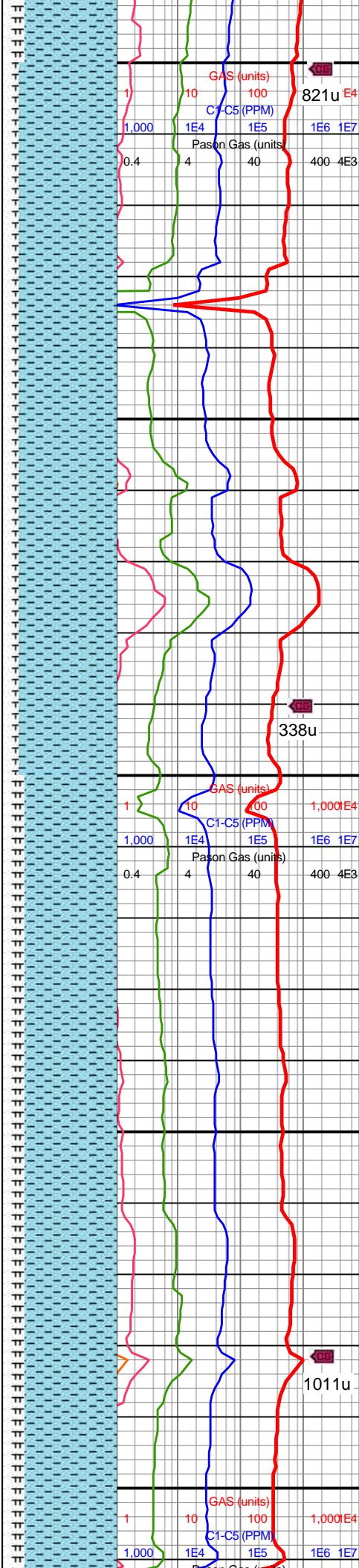
MW IN: 10
VIS IN: 42
MW OUT: 10
VIS OUT: 40

MD: 12,114'
INC: 90.4°
AZM: 178.96°
TVD: 7,559.85'
VS: 3,743.64'

MW IN: 10
VIS IN: 42
MW OUT: 10
VIS OUT: 40

WOB: 32klbs
RPM: 60
SPM: 197
SPP: 3,660psi

MD: 12,203'



blky-ang, rthy tex, calc,
arg, sme chk incl, tr lt gy
SS

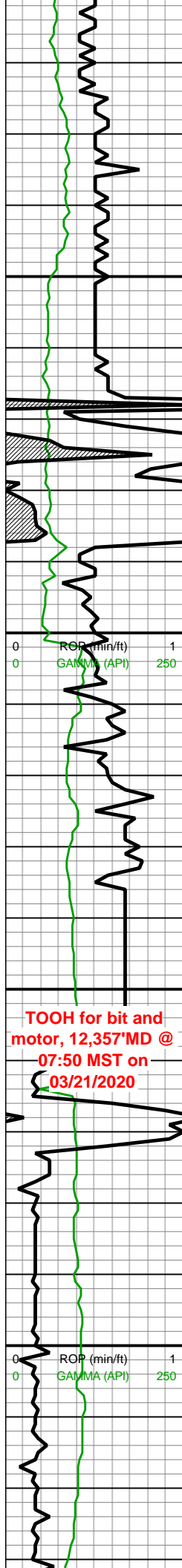
821u E4

12000-12100 85% CHK:
med-dk gy, sl lt gy ip,
micxln-vf xln, sl fri-sl hrd,
sl dns struc, ang-sb ang,
rthy tex, v calc, sl arg;
15% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, sme chk incl, tr lt gy
SS

338u

12100-12200 80% CHK:
med-dk gy, sl lt gy ip,
micxln-vf xln, sl fri-sl hrd,
sl dns struc, ang-sb ang,
rthy tex, v calc, sl arg;
20% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, sme chk incl, tr lt gy
SS

1011u



INC: 90.57°
AZM: 180.72°
TVD: 7,559.1'
VS: 3,831.35'

MW IN: 10
VIS IN: 41
MW OUT: 10
VIS OUT: 39

12,220

12,230

12,240

12,250

12,260

12,270

12,280

12,290

12,300

12,310

12,320

12,330

12,340

12,350

12,360

12,370

12,380

12,390

12,400

12,410

12,420

12,430

MD: 12,292'
INC: 88.99°
AZM: 179.66°
TVD: 7,559.44'
VS: 3,918.98'

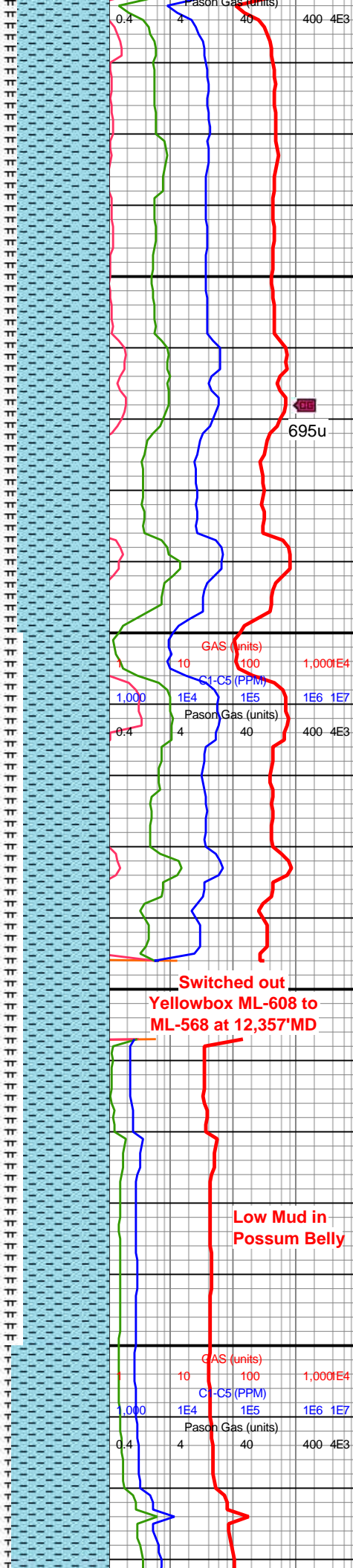
Bit #: 3
Type: Ultrerra
Size: 8.5
Depth In: 12,357'
Depth Out: 15,122'
Hours: 11.8 hrs
Avg Ft/Hr: 234 ' /h
Jets: 6x13
S/N: 52213

MW IN: 10
VIS IN: 41
MW OUT: 10
VIS OUT: 39

MIN DEPT 3/22/2020

MD: 12,381'
INC: 88.46°
AZM: 179.84°
TVD: 7,561.42'
VS: 4,006.7'

WOB: 34klbs
RPM: 60
SPM: 196
SPP: 4,216psi

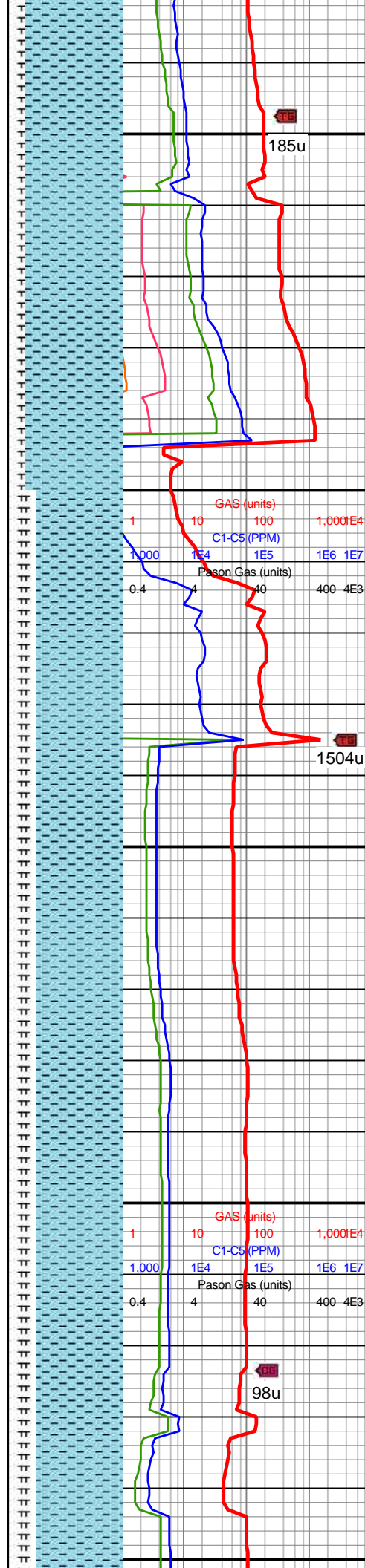
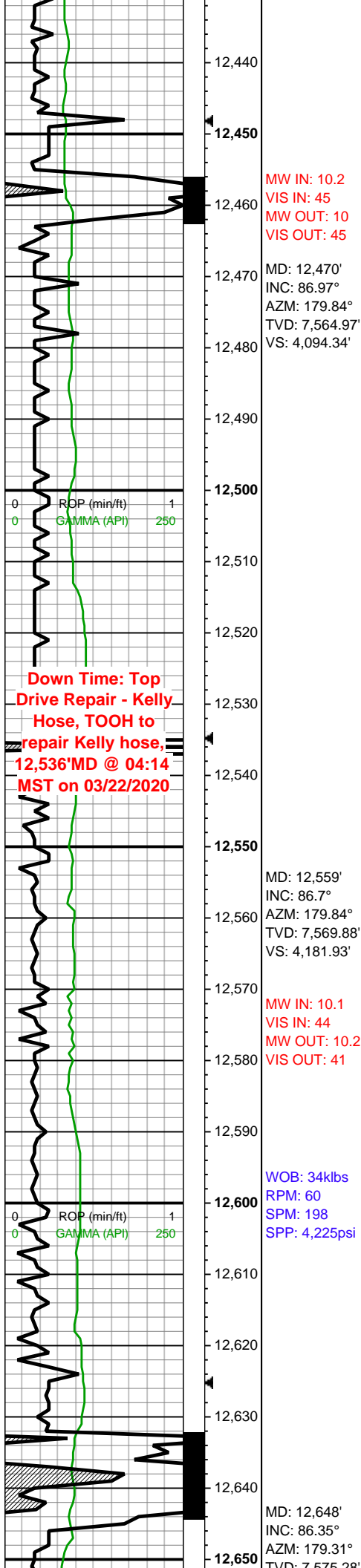


12200-12300 80% CHK:
med-dk gy, sme lt gy ip,
micxln-vf xln, sl fri-v frm,
sme wt sl dns struc,
ang-sb ang, rthy tex, v
calc, sl arg; 20% MRLST:
med-dk gy, micxln-vf xln,
frm-hd, sb blk-ang, rthy
tex, calc, arg, occ wht chk
incl

Switched out
Yellowbox ML-608 to
ML-568 at 12,357'MD

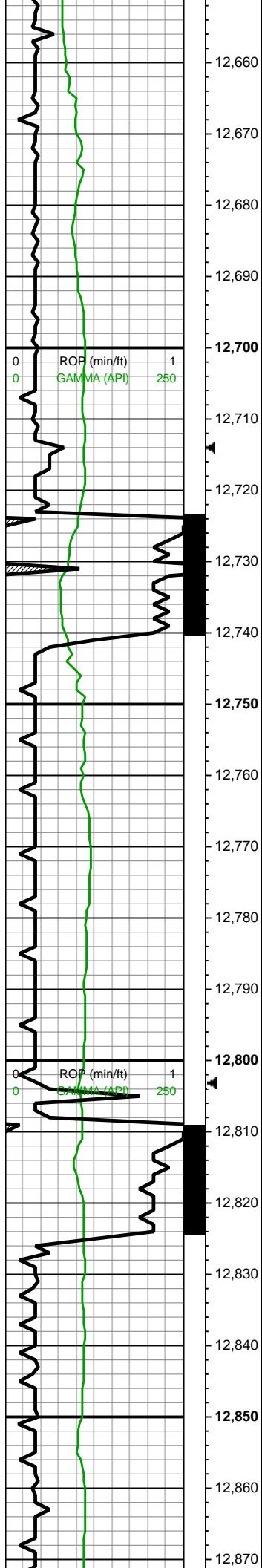
Low Mud in
Possum Belly

12300-12400 75% CHK:
med-dk gy, sme lt gy-wht
ip, micxln-vf xln, sl fri-v
frm, sme wt sl dns struc,
ang-sb ang, rthy tex, v
calc, sl arg; 25% MRLST:
med-dk gy, micxln-vf xln,
frm-hd, sb blk-ang, rthy
tex, calc, arg, occ wht chk
incl



12400-12500 85% CHK:
med-dk gy, sme lt gy-wht
ip, micxln-vf xln, sl fri-v
frm, sme wt sl dns struc,
ang-sb ang, rthy tex, v
calc, sl arg; 15% MRLST:
med-dk gy, micxln-vf xln,
frm-hd, sb blk-ang, rthy
tex, calc, arg, sme scat
wht chk incl

12500-12600 75% CHK:
med-dk gy, micxln-vf xln,
sl fri-v frm, sme wt sl dns
struc, ang-sb ang, rthy
tex, v calc, sl arg; 25%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blk-ang, rthy tex, calc,
arg, sme chk incl



VD: 7,315.28'
VS: 4,269.56'

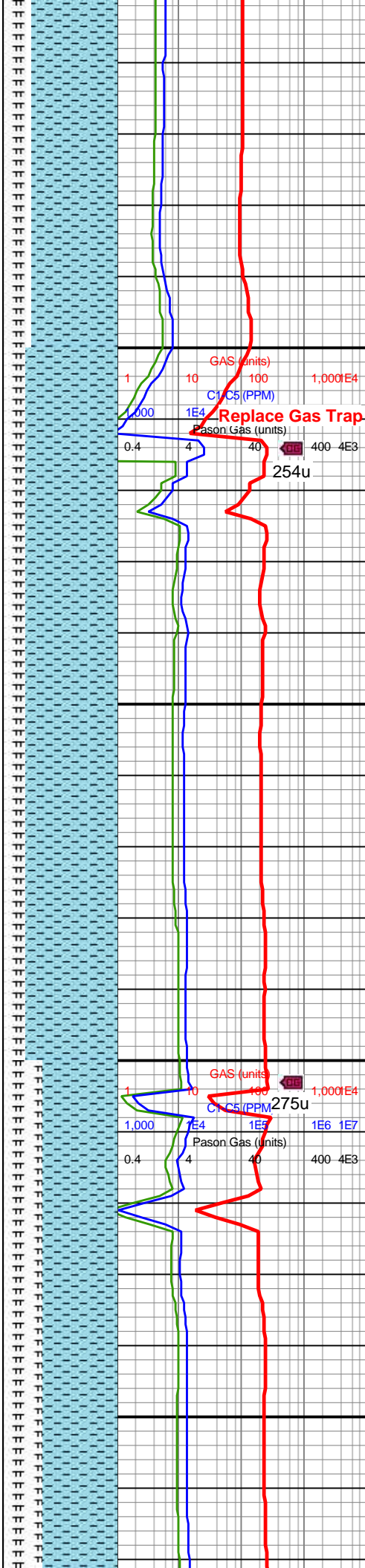
MW IN: 10.2
VIS IN: 44
MW OUT: 10.1
VIS OUT: 41

MD: 12,737'
INC: 87.67°
AZM: 178.61°
TVD: 7,579.92'
VS: 4,357.37'

WOB: 35klbs
RPM: 60
SPM: 198
SPP: 4,234psi

MW IN: 10.2
VIS IN: 42
MW OUT: 10.2
VIS OUT: 42

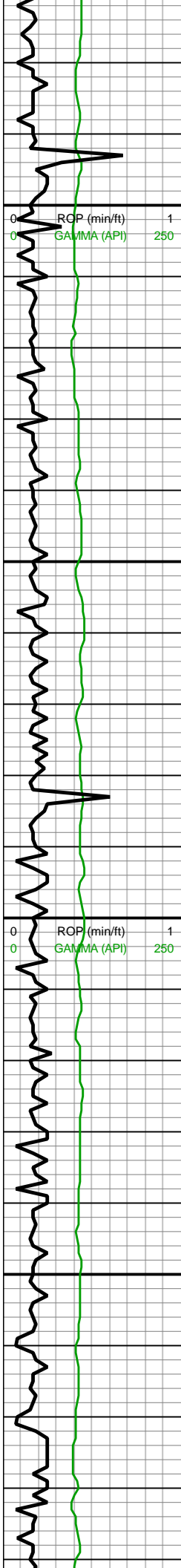
MD: 12,827'
INC: 88.81°
AZM: 180.01°
TVD: 7,582.68'
VS: 4,446.17'



12600-12700 75% CHK:
med-dk gy, micxln-vf xln,
sl fri-v frm, sme wt sl dns
struc, ang-sb ang, rthy
tex, v calc, sl arg; 25%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, sme chk incl

12700-12800 80% CHK:
med-dk gy, micxln-vf xln,
sl fri-v frm, sme wt sl dns
struc, ang-sb ang, rthy
tex, v calc, sl arg; 20%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, sme chk incl





12,880
12,890
12,900
12,910
12,920
12,930
12,940
12,950
12,960
12,970
12,980
12,990
13,000
13,010
13,020
13,030
13,040
13,050
13,060
13,070
13,080
13,090

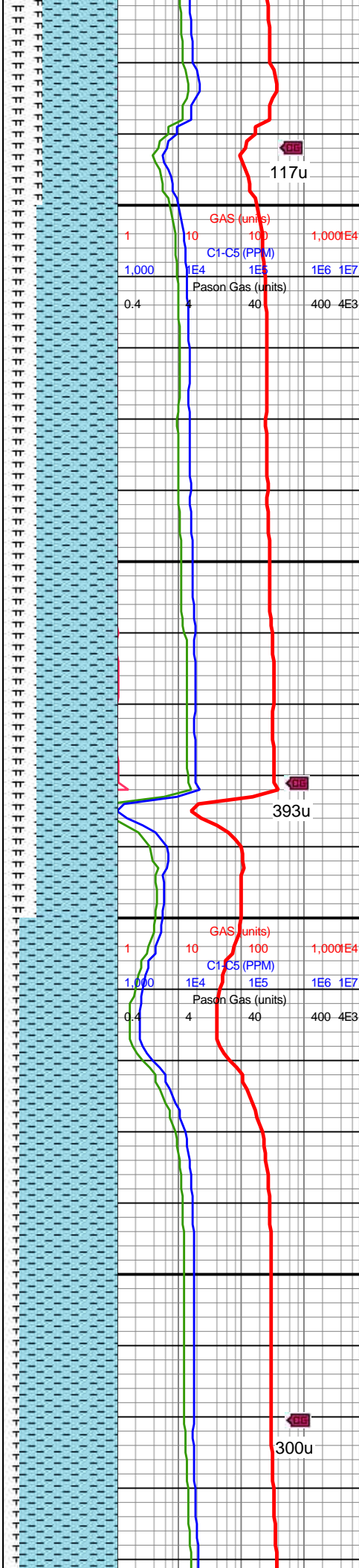
MD: 12,916'
INC: 88.72°
AZM: 179.84°
TVD: 7,584.6'
VS: 4,533.85'

WOB: 35klbs
RPM: 60
SPM: 197
SPP: 4,253psi

MD: 13,005'
INC: 88.9°
AZM: 179.66°
TVD: 7,586.45'
VS: 4,621.57'

MW IN: 10.2
VIS IN: 43
MW OUT: 10.2
VIS OUT: 41

MD: 13,094'



117u

393u

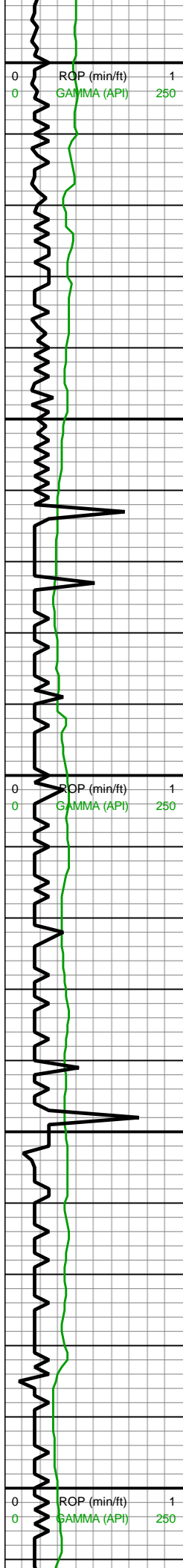
300u

12800-12900 65% CHK:
med-dk gy, micxln-vf xln,
sl fri-v frm, occ sl dns
struc, ang-sb ang, rthy
tex, v calc, sl arg; 35%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, sme chk incl

12900-13000 70% CHK:
med-dk gy, micxln-vf xln,
sl fri-v frm, occ sl dns
struc, ang-sb ang, rthy
tex, v calc, sl arg; 30%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, sme chk incl

13000-13100 85% CHK:
med-dk gy, med bnshgy,
micxln-vf xln, sl fri-v frm,
occ sl dns struc, ang-sb
ang, rthy tex, v calc, sl
arg; 15% MRLST:
med-dk gy, micxln-vf xln,
frm-hd, sb blky-ang, rthy
tex, calc, arg, sme chk incl





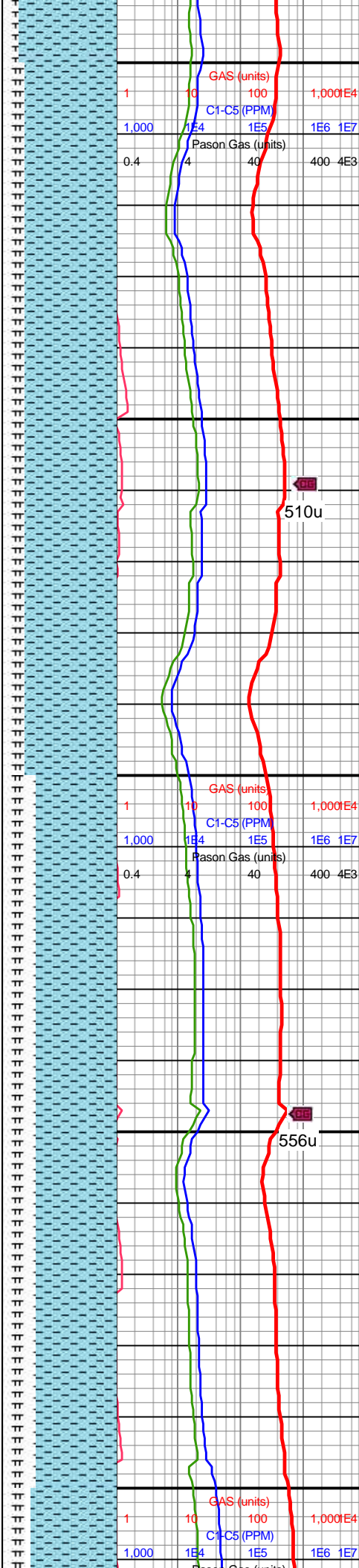
INC: 88.99°
AZM: 179.31°
TVD: 7,588.09'
VS: 4,709.37'

MW IN: 10.2
VIS IN: 43
MW OUT: 10.2
VIS OUT: 40

MD: 13,183'
INC: 88.55°
AZM: 179.31°
TVD: 7,590'
VS: 4,797.2'

WOB: 35klbs
RPM: 60
SPM: 197
SPP: 4,280psi

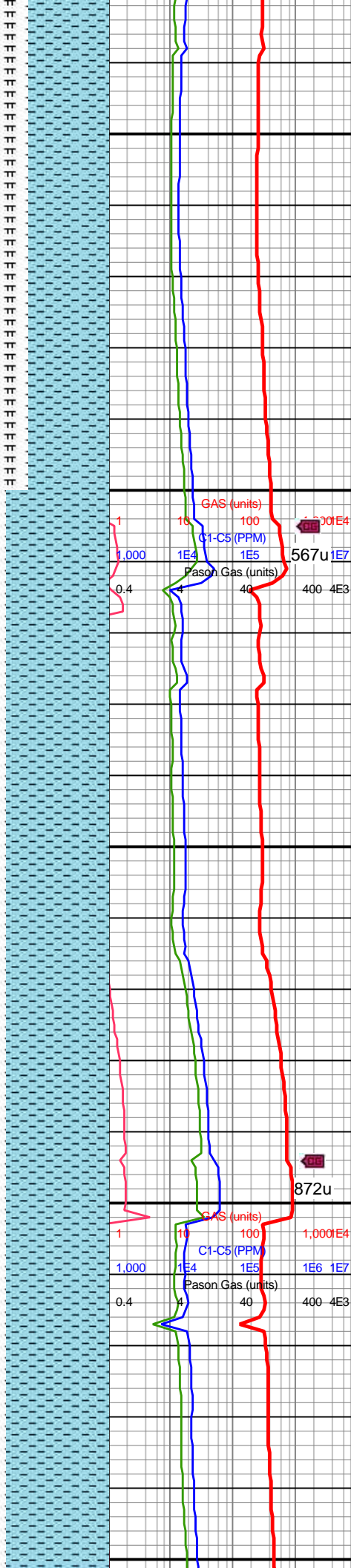
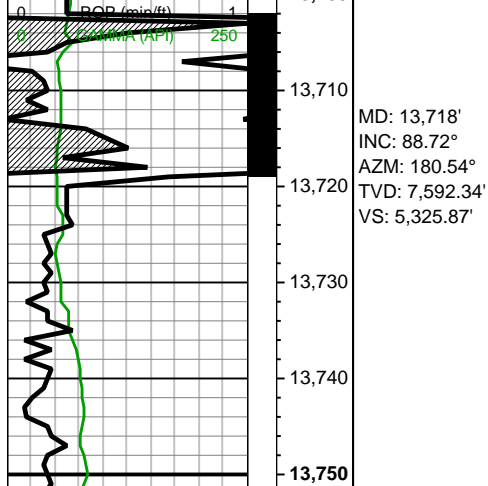
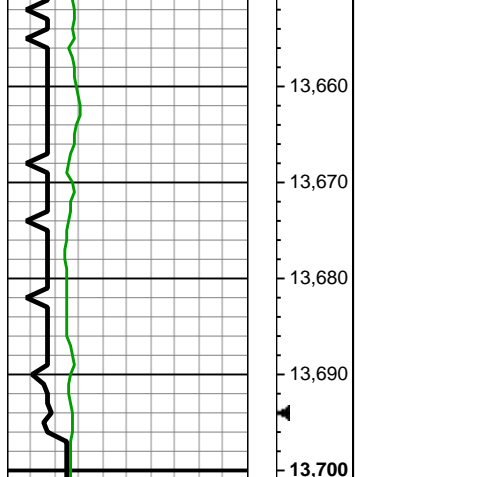
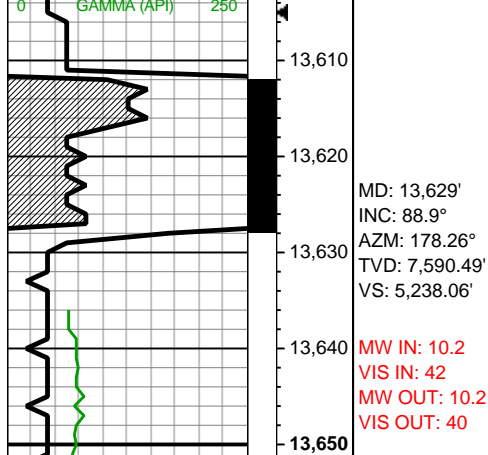
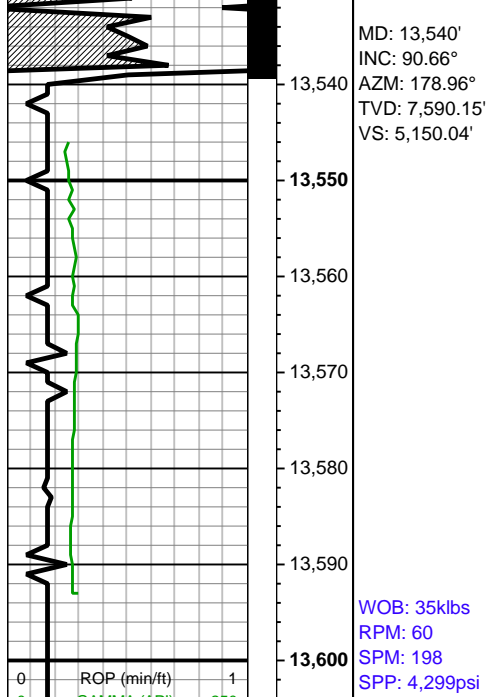
MD: 13,273'
INC: 89.08°
AZM: 178.96°
TVD: 7,591.86'
VS: 4,886.07'



frm-hd, sb blk-ang, rthy
tex, calc, arg, sme chk
incl

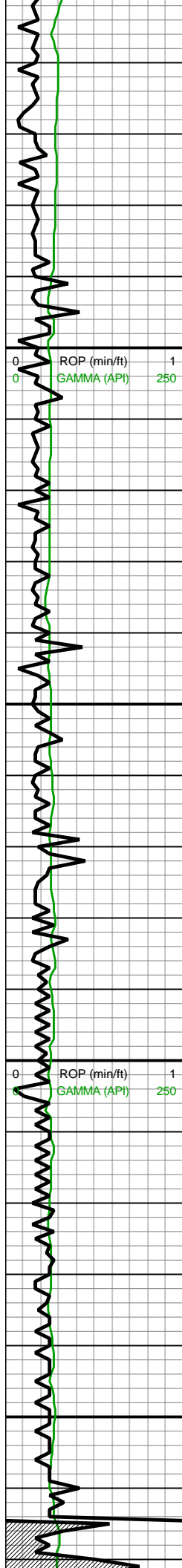
13100-13200 80% CHK:
med-dk gy, micxln-vf xln,
sl fri-v frm, occ sl dns
struc, ang-sb ang, rthy
tex, v calc, sl arg; 20%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blk-ang, rthy tex, calc,
arg, occ wht chk incl

13200-13300 70% CHK:
med-dk gy, micxln-vf xln,
sl fri-v frm, occ sl dns
struc, ang-sb ang, rthy
tex, v calc, sl arg; 30%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blk-ang, rthy tex, calc,
arg, occ f wht xln chk incl



13500-13600 70% CHK:
med-dk gy, med bnshgy
ip, micxln-vf xln, sl fri-v
frm, occ sl dns struc,
ang-sb ang, rthy tex, v
calc, sl arg; 30% MRLST:
med-dk gy, micxln-vf xln,
frm-hd, sb blkly-ang, rthy
tex, calc, arg, scat f wht
chk incl

13600-13700 90% CHK:
med-lt gy, med-lt bnshgy
ip, micxln-vf xln, sl fri-v
frm, occ sl dns struc,
ang-sb ang, rthy tex, v
calc, sl arg; 10% MRLST:
med-dk gy, micxln-vf xln,
frm-hd, sb blkly-ang, rthy
tex, calc, arg, scat f wht
chk incl



13,760
13,770
13,780
13,790
13,800
13,810
13,820
13,830
13,840
13,850
13,860
13,870
13,880
13,890
13,900
13,910
13,920
13,930
13,940
13,950
13,960
13,970

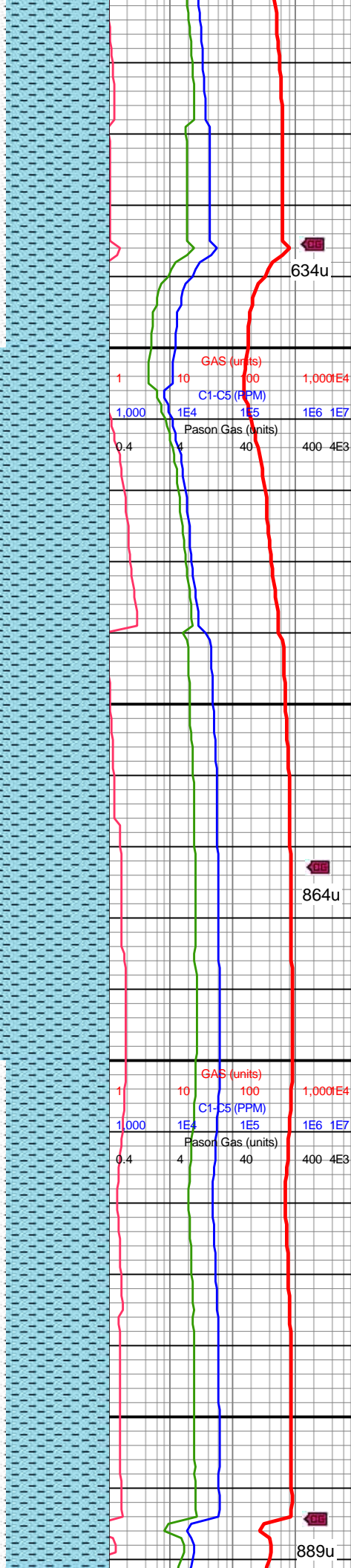
MW IN: 10.2
VIS IN: 43
MW OUT: 10.2
VIS OUT: 41

WOB: 36klbs
RPM: 60
SPM: 197
SPP: 4,191psi

MD: 13,807'
INC: 89.43°
AZM: 180.72°
TVD: 7,593.78'
VS: 5,413.36'

MD: 13,896'
INC: 90.13°
AZM: 180.19°
TVD: 7,594.12'
VS: 5,500.91'

MW IN: 10.2
VIS IN: 43
MW OUT: 10.2
VIS OUT: 41



13700-13800 90% CHK:
predy mot med-lt gy,
med-lt bnshgy, micxln-vf
xln, sl fri-v frm, occ sl dns
struc, ang-sb ang, rthy
tex, v calc, sl arg; 10%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, scat f wht chk incl

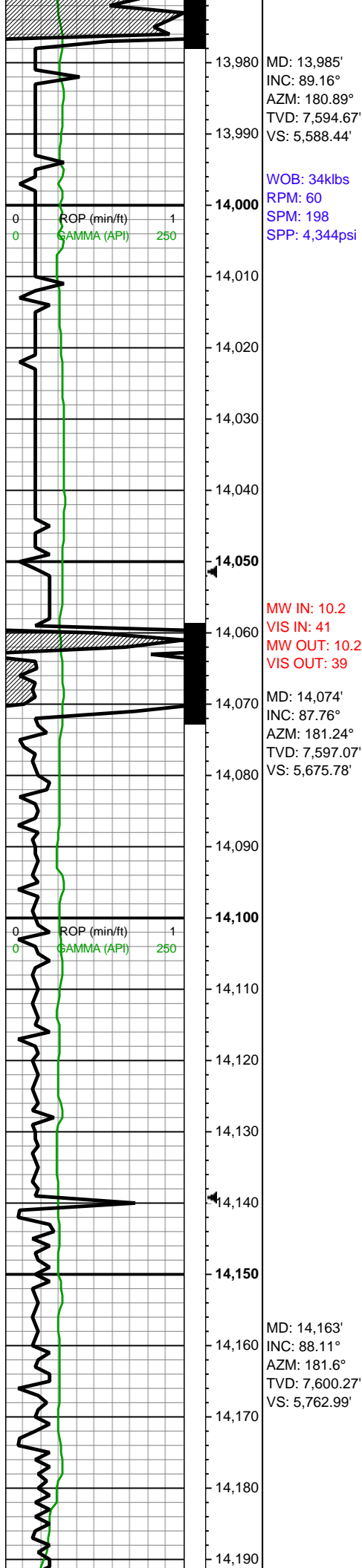
634u

13800-13900 95% CHK:
predy mot med-lt gy,
med-lt bnshgy, micxln-vf
xln, sl fri-v frm, occ sl dns
struc, ang-sb ang, rthy
tex, v calc, sl arg; 5%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, calc,
arg, scat f wht chk incl

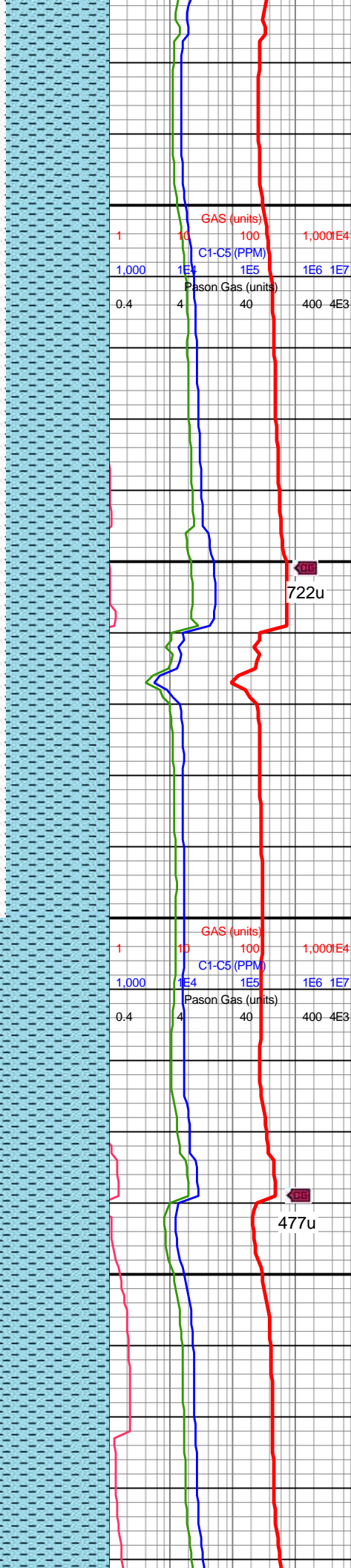
864u

13900-14000 90% CHK:
predy mot med-lt gy,

889u



MW IN: 10.2
VIS IN: 41
MW OUT: 10.2
VIS OUT: 39

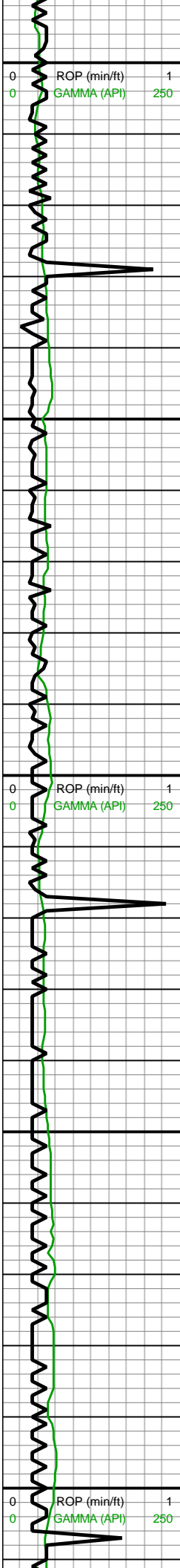


med-lt bnshgy, tr wh,
micxln-vf xln, sl fri-v frm,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg;
10% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, mod
calc, arg, scat f wht chk
incl

14000-14100 90% CHK:
predy mot med-lt gy,
med-lt bnshgy, tr wh,
micxln-vf xln, sl fri-v frm,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg;
10% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, mod
calc, arg, scat f wht chk
incl

14100-14200 95% CHK:
predy mot med-lt gy,
med-lt bnshgy, tr wh,
micxln-vf xln, sl fri-v frm,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg; 5%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb





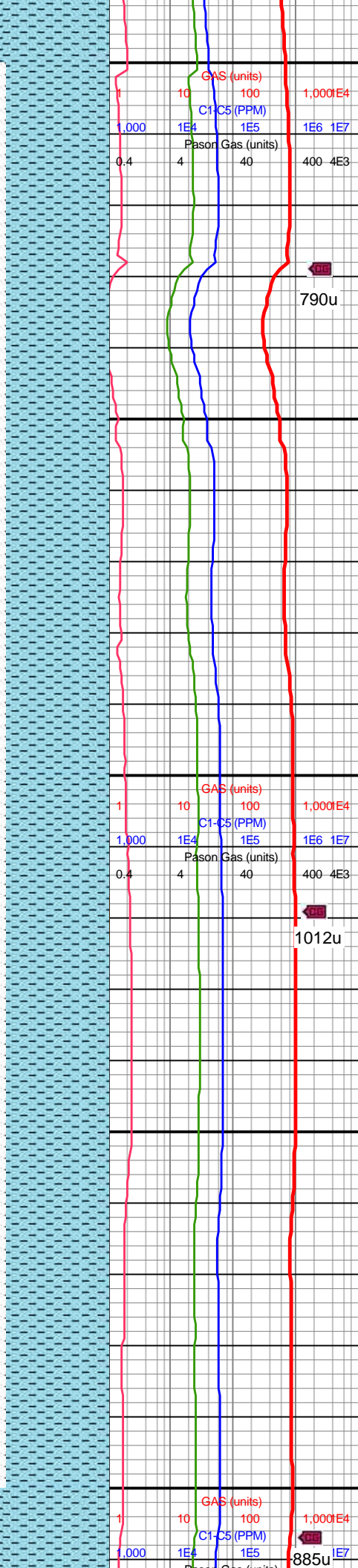
WOB: 33klbs
RPM: 60
SPM: 198
SPP: 4,115psi

MW IN: 10.2
VIS IN: 40
MW OUT: 10.2
VIS OUT: 38

MD: 14,252'
INC: 88.99°
AZM: 181.07°
TVD: 7,602.52'
VS: 5,850.26'

MD: 14,342'
INC: 89.25°
AZM: 180.54°
TVD: 7,603.91'
VS: 5,938.69'

WOB: 33klbs
RPM: 60
SPM: 198
SPP: 4,330psi

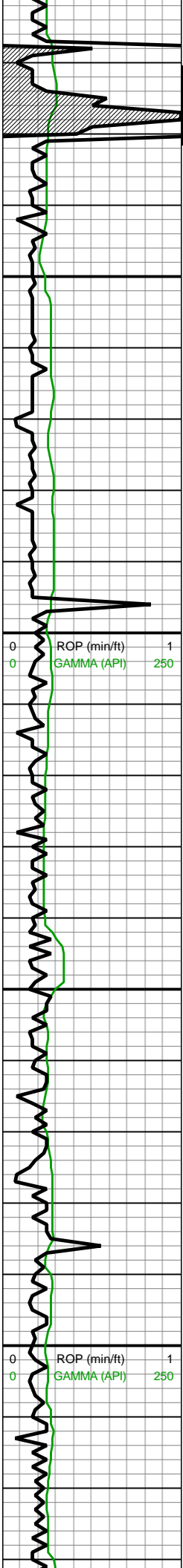


blky-ang, rthy tex, mod
calc, arg, scat f wht chk
incl

14200-14300 90% CHK:
predy mot med-lt gy,
med-lt bnshgy, tr wh,
micxln-vf xln, sl fri-v frm,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg;
10% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, mod
calc, arg, scat f wht chk
incl

14300-14400 90% CHK:
predy mot med-lt gy,
med-lt bnshgy, tr wh,
micxln-vf xln, sl fri-v frm,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg;
10% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, mod
calc, arg, scat f wht chk
incl





MW IN: 10.2
VIS IN: 40
MW OUT: 10.2
VIS OUT: 38

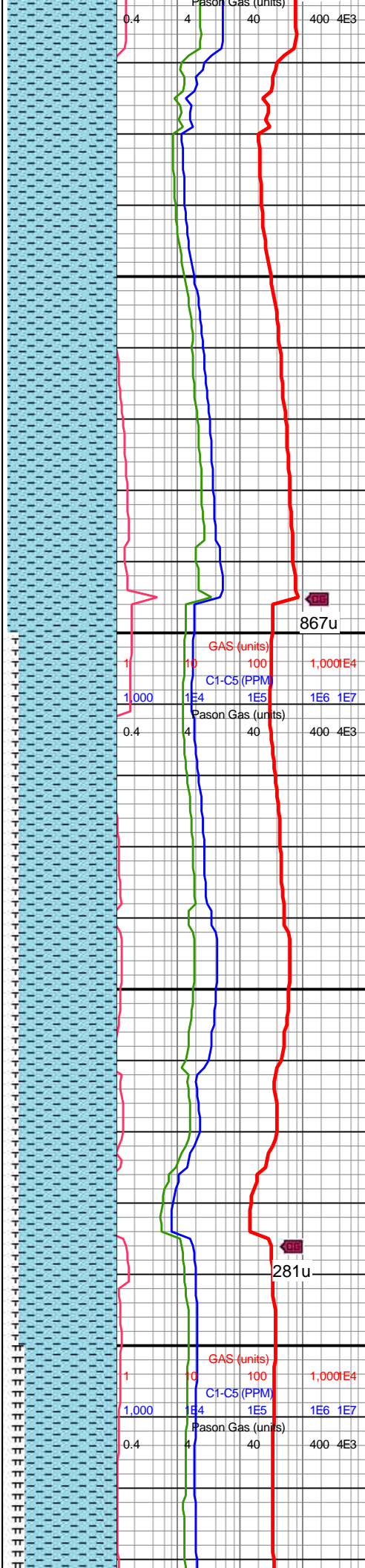
MD: 14,431'
INC: 87.85°
AZM: 180.01°
TVD: 7,606.16'
VS: 6,026.26'

MD: 14,520'
INC: 88.02°
AZM: 180.01°
TVD: 7,609.37'
VS: 6,113.88'

MW IN: 10.2
VIS IN: 40
MW OUT: 10.2
VIS OUT: 38

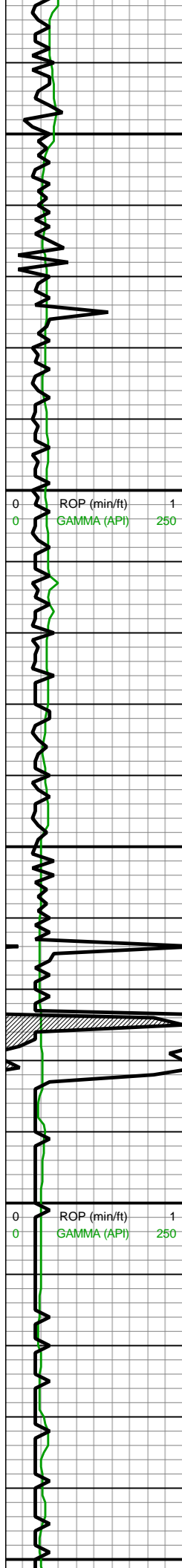
WOB: 33klbs
RPM: 60
SPM: 198
SPP: 4,295psi

MD: 14,610'
INC: 88.02°
AZM: 179.84°
TVD: 7,612.47'
VS: 6,202.51'



14400-14500 95% CHK:
predy mot med-lt gy,
med-lt bnshgy, tr wh,
micxln-vf xln, sl fri-v frm,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg; 5%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, mod
calc, arg, scat f wht chk
incl

14500-14600 85% CHK:
predy mot med-lt gy,
med-lt bnshgy, tr wh,
micxln-vf xln, sl fri-v frm,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg;
15% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, mod
calc, arg, scat f wht chk
incl, v tr pp pyr



14,640
14,650
14,660
14,670
14,680
14,690
14,700
14,710
14,720
14,730
14,740
14,750
14,760
14,770
14,780
14,790
14,800
14,810
14,820
14,830
14,840
14,850

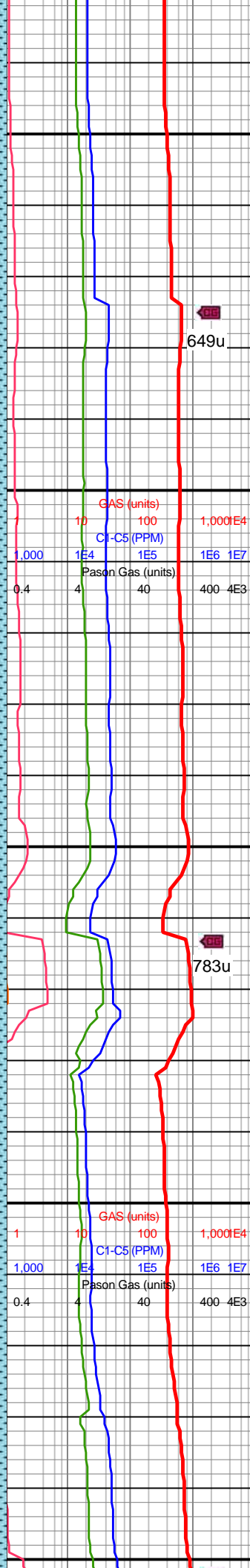
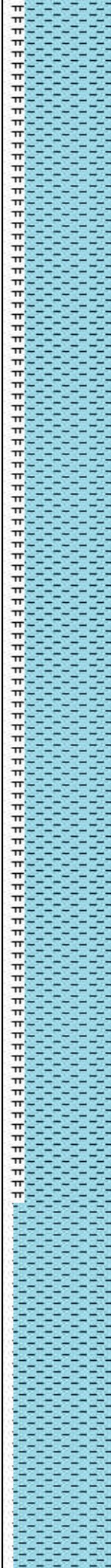
MD: 14,699'
INC: 88.64°
AZM: 179.14°
TVD: 7,615.07'
VS: 6,290.28'

MW IN: 10.2
VIS IN: 40
MW OUT: 10.2
VIS OUT: 39

MD: 14,788'
INC: 88.37°
AZM: 179.14°
TVD: 7,617.39'
VS: 6,378.15'

WOB: 29klbs
RPM: 60
SPM: 198
SPP: 4,301psi

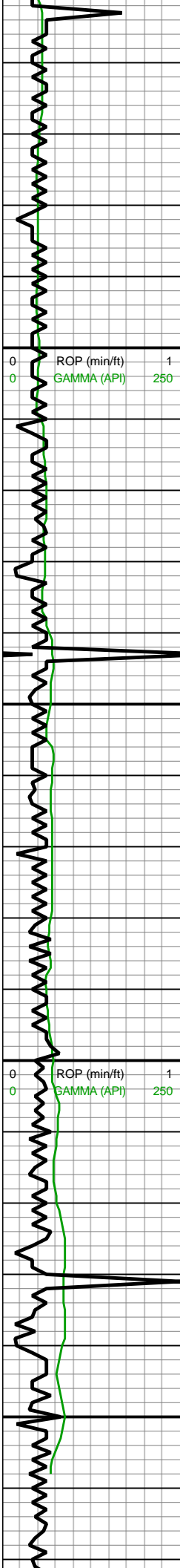
MW IN: 10.2
VIS IN: 41
MW OUT: 10.2
VIS OUT: 39



14600-14700 80% CHK:
predy mot med-lt gy,
med-lt bnshgy, tr wh,
micxln-vf xln, sl fri-v frm,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg;
20% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, mod
calc, arg, scat f wht chk
incl, v tr pp pyr

14700-14800 80% CHK:
predy mot med-lt gy,
med-lt bnshgy, tr wh,
micxln-vf xln, sl fri-v frm,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg;
20% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, mod
calc, arg, scat f wht chk
incl, v tr pp pyr





14,860
14,870
14,880
14,890
14,900
14,910
14,920
14,930
14,940
14,950
14,960
14,970
14,980
14,990
15,000
15,010
15,020
15,030
15,040
15,050
15,060
15,070

MD: 14,877'
INC: 89.52°
AZM: 180.54°
TVD: 7,619.03'
VS: 6,465.85'

MD: 14,966'
INC: 90.31°
AZM: 180.54°
TVD: 7,619.16'
VS: 6,553.38'

MW IN: 10.2
VIS IN: 41
MW OUT: 10.2
VIS OUT: 39

WOB: 32klbs
RPM: 60
SPM: 198
SPP: 4,215psi

MD: 15,057'
INC: 90.92°
AZM: 180.19°
TVD: 7,618.18'
VS: 6,642.92'

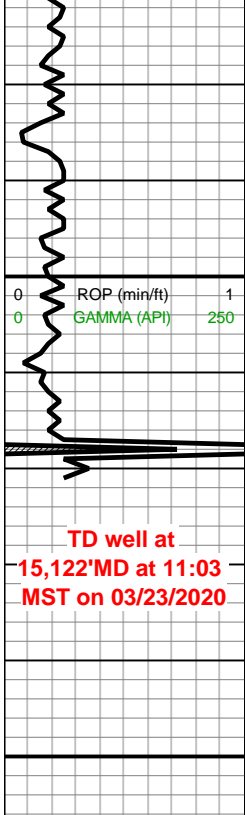


14800-14900 90% CHK:
predy mot med-lt gy,
med-lt bnshgy, tr wh,
micxln-vf xln, sl fri-v frm,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg;
10% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, mod
calc, arg, scat f wht chk
incl

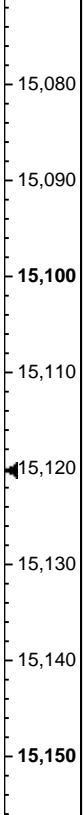
14900-15000 95% CHK:
predy mot med-lt gy,
med-lt bnshgy, tr wh,
micxln-vf xln, sl fri-v frm,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg;
15% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, mod
calc, arg, scat f wht chk
incl

15000-15100 90% CHK:
predy mot med-lt gy,

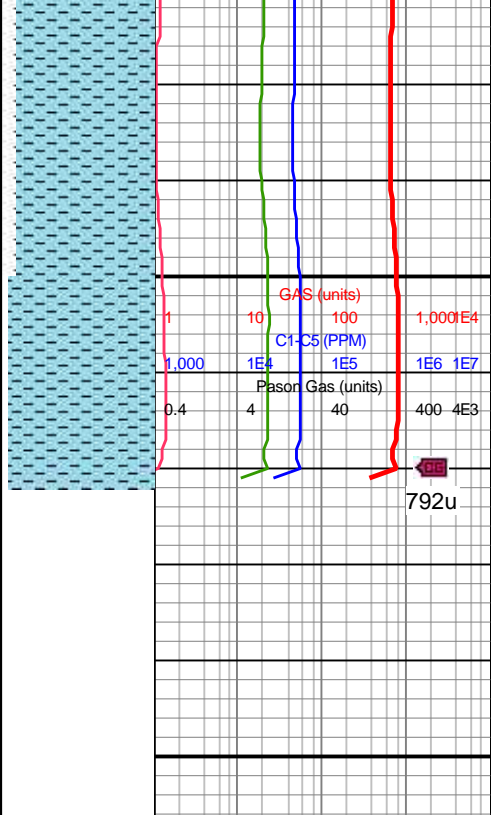




TD well at
15,122' MD at 11:03
MST on 03/23/2020



Projection to bit
MD: 15,122'
INC: 90.92°
AZM: 180.19°
TVD: 7,617.14'
VS: 6,706.91'



med-lt bnshgy, tr wh,
micxln-vf xln, sl fri-v frm,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg;
10% MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, mod
calc, arg, scat f wht chk
incl

15100-15122 95% CHK:
predy mot med-lt gy,
med-lt bnshgy, tr wh,
micxln-vf xln, sl fri-v frm,
dns struc, ang-sb ang,
rthy tex, v calc, sl arg; 5%
MRLST: med-dk gy,
micxln-vf xln, frm-hd, sb
blky-ang, rthy tex, mod
calc, arg, scat f wht chk
incl

