

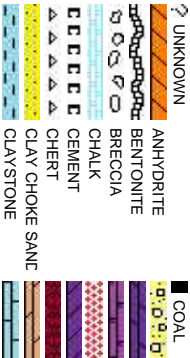


Scale: 5" / 100'
Measured Depth Log

Well Name	5123205360000 DEEPE34C-27HZ(HORZ)		
Location	SEC 22; TWP 2N; R 67W		
State	COLORADO	County	WELD
Country	USA		
API Number	051233856200	Rig Number	PRECISION 595
Region	DJ BASIN	Field	WATTENBERG
Spud Date	6/1/2014	Drilling Completed	6/13/2014
Surface Coordinates	531 FNL 2140 FWL		
Bottom Hole Coordinates	460FNL 2305 FWL		
Ground Elevation	5,007'	K.B. Elevation	5,032'
Logged Interval	7050'	To	17,208
Formation	Codell SS	Total Depth	17,208
Type of Drilling Fluid	LSND/PHNA		

Company Anadarko Petroleum
Address Granite Tower
1099 18th St. #1800
Denver, CO 80202
(JG)(JS)

Name Kevin Donahue
Company COLUMBINE LOGGING
Address 2385 S. Lipan Street
Denver, CO 80223
Phone: 303-289-77



Operator

n Corporation

Geologist

ING INC.

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Rock Types

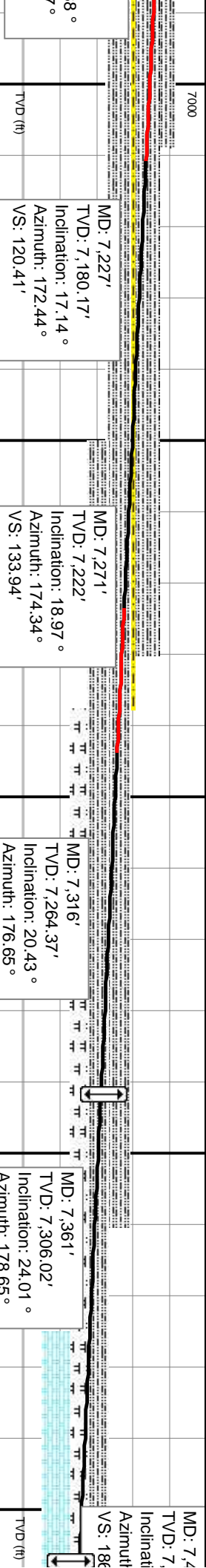
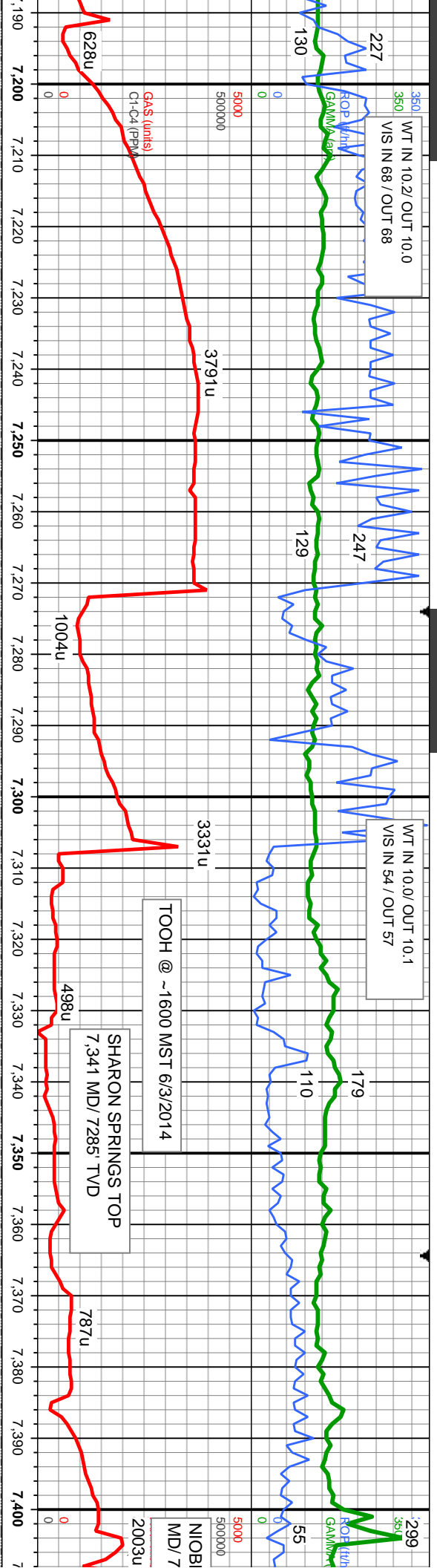
	CONGLOMERATE		MARLSTONE
	DOLomite		METAMORPHIC
	DOLomitic LIMESTONE		NO SAMPLE
	GRANITE		SALT
	GNeous		SANDSTONE
	SIDERite or LIMONITE		SALT-PEPPER SANC
	LIMESTONE		SHALE
			SHALE COLORED
			SHALE GRAY
			SHAL Y SANDSTONE
			SHAL Y SILTSTONE
			SILTY SHALE
			SILTSTONE
			TUFF
			WELDED TUFF

Accessories

Fossils	GASTROPOD	ARGILLITE GRAIN	HEAVY MINERAL	Stringer
	INOCERAMUS	B BENTONITE	K KAOLIN	ANHYDRITE STRINGER
	ALGAE	O OOLITE	M MARCASITE	BENTONITE STRINGER
	AMPHIPORA	O OSTRACOD	BRECCIA FRAGMENTS	COAL STRINGER
	BELEMNITE	P PELECYPOD	C CALCAREOUS	MICACEOUS
	BIOCLASTIC	P PELLET	CARBONACEOUS FLAKES	MINERAL CRYSTALS
	BRACHIOPOD	P PISOLITE	C CHERT	N NODULES
	BRYOZOA	P PLANT REMAINS	COAL - THIN BEDS	PHOSPHATE PELLETS
	CEPHALOPOD	P PLANT SPORES	D DOLOMITIC	P PYRITE
	CORAL	S SCAPHOPOD	F FELDSPAR	S SALT CAST
	CRINOID	S STROMATOPOROID	F FERRUGINOUS PELLET	S SANDY
	ECHINOID		F FERRUGINOUS	S SIDERITE
	F FISH	Minerals	G GLAUCONITE	S SILTY
	FORAMINIFERA	A ANHYDRITIC	G GYPSIFEROUS	T TUFFACEOUS
	F FOSSIL	A ARGILLACEOUS		

Other Symbols

Oil Show	P PINPOINT	WIRELINE TESTED - LEFT	E EARTHY
	V VUGGY	WIRELINE TESTED - RT	Fx FINELYXLN
			DST DRILL STEM TEST
D DEAD		GAS SHOW	MN DEPTH
EVEN		OIL SHOW	L LITHOGRAPHIC
QUESTIONABLE	BIT		Mx MICROXLN
SPOTTED STAINING	CONNECTION (UP)	Rounding	MS MUDSTONE
		CONNECTION (DOWN)	A ANGULAR
Porosity	CONNECTION GAS	NORMAL FAULT	PS PACKSTONE
E EARTHY	CONNECTION GAS (LEFT)	OVERTURNED STRATA	B SUBANG
F FENESTRAL	TRIP GAS	REVERSE FAULT	r SUBRND
F FRACTURE	TRIP GAS (LEFT)	CASING	
INTERCRYSTALLINE	DOWN TIME GAS	SIDEWALL CORE (LEFT)	Textures
INTEROOLITIC	DOWN TIME GAS (LEFT)	SLIDE	P POOR
MOLDIC	CORE - LOST	SIDEWALL CORE (RIGHT)	W WELL
ORGANIC	CORE - RECOVERED	SURVEY	Cx CRYPTOXLN



MD: 7,227' TVD: 7,180.17' Inclination: 17.14° Azimuth: 172.44° VS: 120.41'	SLTY SH: med gy-med-dk gy-blk, sb blk- ply - ply, frm- mod frm, occ sft, sl fri, silty, sl gt ip, tr ss strg: SH SS: med - dk brn, gy brn, clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm - frm, w srt, difse stmg dul bl cut, thn dul bl resdl ring
MD: 7,271' TVD: 7,222' Inclination: 18.97° Azimuth: 174.34° VS: 133.94'	SLTY SH: med gy-med-dk gy-blk, sb blk- ply - ply, frm- mod frm, occ sft, sl fri, silty, sl gt ip, tr ss strg: SH SS: med - dk brn, gy brn, clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm - frm, w srt, difse stmg dul bl cut, thn dul bl resdl ring
MD: 7,316' TVD: 7,264.37' Inclination: 20.43° Azimuth: 176.65° VS: 149.05'	SLTY SH: med gy-med-dk gy-blk, sb blk- ply - ply, frm- mod frm, occ sft, sl fri, silty, sl gt ip, tr ss strg, rr bent: mod stmg dul bl cut, thn dul bl resdl ring
MD: 7,361' TVD: 7,306.02' Inclination: 24.01° Azimuth: 178.65° VS: 166.04'	SLTY SH: med gy-med-dk gy-blk, sb blk- ply - ply, frm- mod frm, occ sft, sl fri, silty, sl gt ip: MRLST: med-dk gy, sb blk- frm, arg- sl silty, v calc: mod stmg dul bl cut, thn dul bl resdl ring



WT IN 10.2/ OUT 10.2
VIS IN 50 / OUT 51

WT IN 10.2/ OUT 10.2
VIS IN 46 / OUT 48

126

128

170

184

3719u

3817u

1914u

3893u

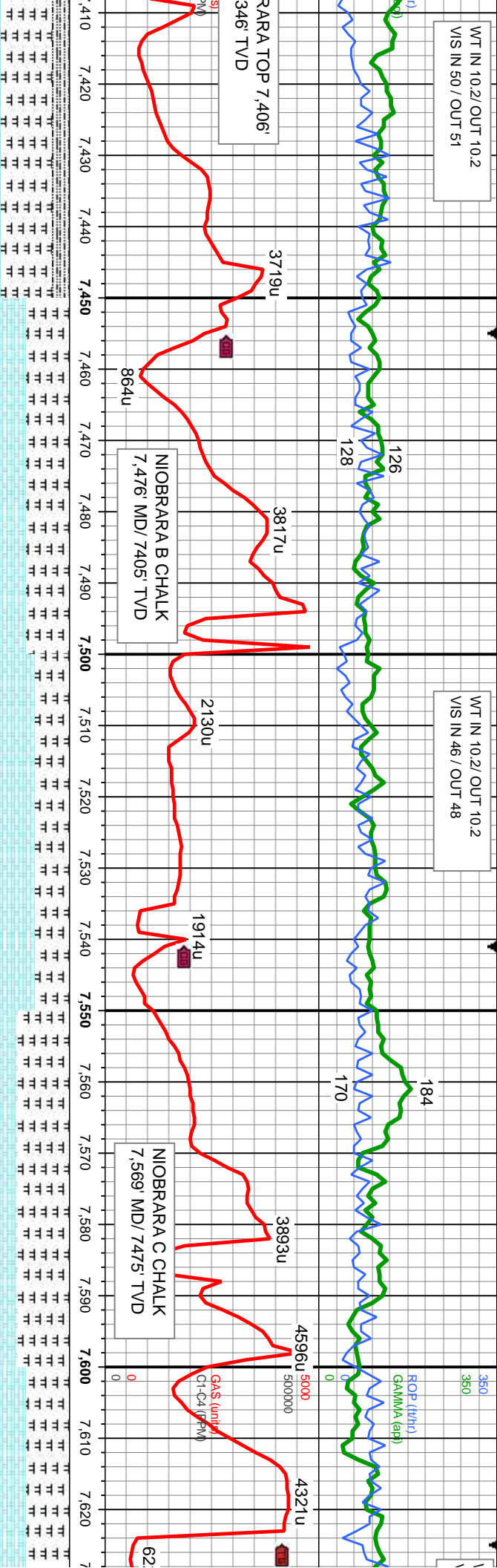
4596u

4321u

NIORARA B CHALK
7,476' MD/ 7405' TVD

NIORARA C CHALK
7,569' MD/ 7475' TVD

GAS (unit)
C1-C4 (ppmv)



MD: 7,451'
TVD: 7,384.86'
Inclination: 33.32°
Azimuth: 177.05°
VS: 209.2'

MD: 7,496'
TVD: 7,421.42'
Inclination: 37.97°
Azimuth: 174.6°
VS: 235.32'

MD: 7,541'
TVD: 7,455.59'
Inclination: 43.18°
Azimuth: 174.21°
VS: 264.42'

MD: 7,585'
TVD: 7,486.51'
Inclination: 47.51°
Azimuth: 175.92°
VS: 295.57'

MD: 7,631'
TVD: 7,531.42'
Inclination: 47.51°
Azimuth: 175.92°
VS: 329.57'

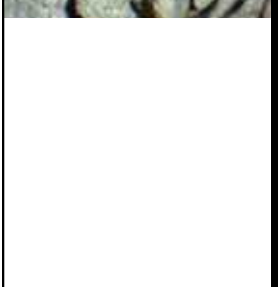
T: med-dk gy, sb blk-y-sb ply, frm, arg-si slty, v calc; CHK: brn, gy-brn, mot dk - frm, brit - fri ip, sb blk-y, sb wxy - rthy arg calc mtx, v calc, tr bent; mod stmg cut, thn bl-wh resdl ring

MRLST: med-dk gy, sb blk-y-sb ply, frm, arg-si slty, v calc; CHK: brn, gy-brn, mot dk gy, sft - frm, brit - fri ip, sb blk-y, sb wxy - rthy tex, arg calc mtx, v calc, tr bent; fst stmg bl-wh cut, bri bl-wh resdl ring

CHK: lt gy-med gy, occ gy brn, sl mot tex, sb blk-y-sb ply, sft-si frm, tr fos, tr bent, v calc; MRLST: med-dk gy, sb blk-y-sb ply, frm, arg-si slty, v calc; fst stmg bl-wh cut, bri bl-wh resdl ring

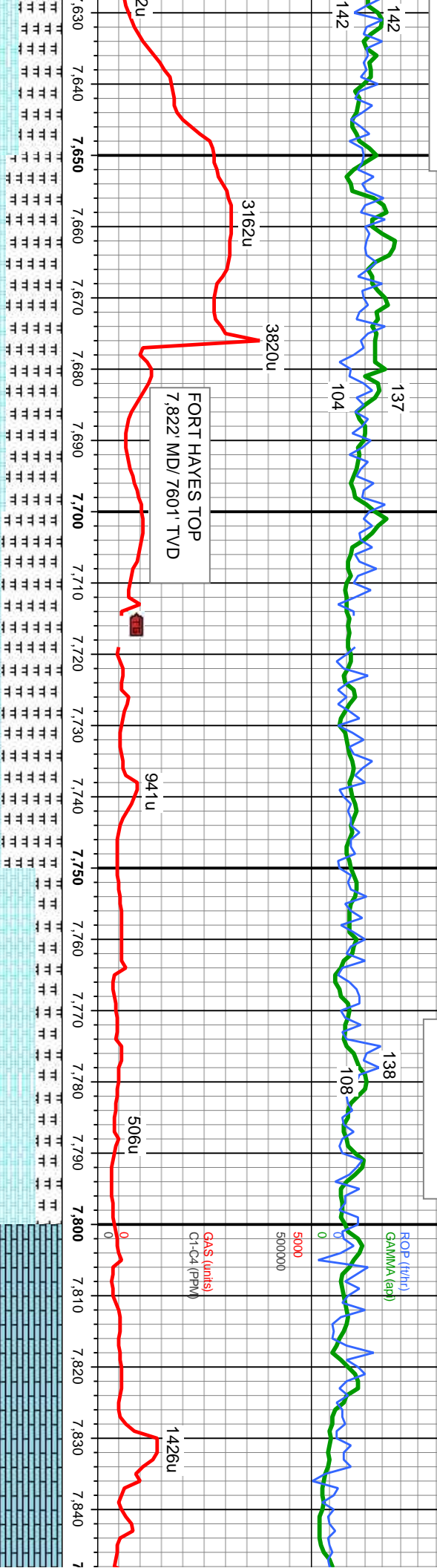
MRLST: med-dk gy, sb blk-y-sb ply, frm, arg-si slty, v calc; CHK: bf - brn, gy-wh brn, mot dk gy, sft - frm, brit - fri ip, sb blk-y, sb wxy - rthy tex, arg calc mtx, v calc, tr fos frag; mod stmg wi mod-g bl-wh cut, mod fst, thn bl-wh resdl ring

CHK: bf - brn, gy-wh brn, brit - fri ip, sb blk-y, sb wxy - rthy tex, arg calc mtx, v calc, tr fos frag; MRLST: med-dk gy, sb blk-y-sb ply, frm, arg-si slty, v calc; mod stmg wi mod-g bl-wh cut, mod fst, thn bl-wh resdl ring



MT IN 10.2/ OUT 10.2
/IS IN 44 / OUT 47

WT IN 10.2/ OUT 10.2
VIS IN 44 / OUT 47



MD: 7,675'
TVD: 7,540.9'
Inclination: 58.2 °
Azimuth: 178.07 °
VS: 366.98'

MD: 7,720'
TVD: 7,562.72'
Inclination: 63.77 °
Azimuth: 178.41 °
VS: 406.29'

CHK: wh - brn, occ crm col, mot dk gy, sft - frm ip, brit - fri, sb blk, sb wxy tex, arg calc - sily mt, MRLST: med gy - blk, frm, brit, gt tex, sb ply - sb blk, arg - sily mt, v calc, tr fos frag Inoc, occ bent w/ diss pyr, com bri yel flr, mod - fast dfse, stmg, bri bl wh mky cut

L.S: offwht - crm, bf - brn, mod frm - hd, brit, ply - sb blk, v wxy tex, sl sily, CHK: crm - bf, lt gy, hd, brit, sb ply - sb blk, wxy tex, arg calc mt, v calc, tr mlst, tr diss pyr, bent; com bri yel flr, mod - fast dfse, stmg, bri bl wh mky cut

MD: 7,765'
TVD: 7,581.1'
Inclination: 67.99 °
Azimuth: 177.57 °
VS: 447.31'

MD: 7,810'
TVD: 7,596.68'
Inclination: 71.5 °
Azimuth: 178.67 °
VS: 489.48'

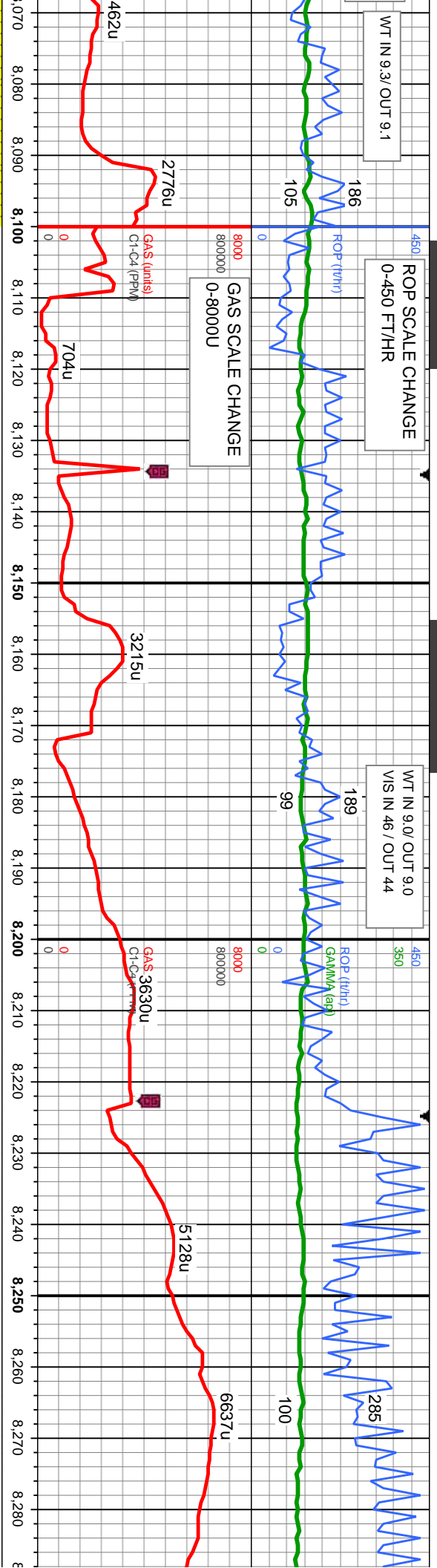
MRLST: med-dk gy, sb blk-sb ply, frm, arg-si sily, v calc; CHK: lgy - crm, medgy, mot dk gy, sft - frm, brit - fri ip, sb blk, sb wxy - rthy tex, arg calc mt, v calc, tr fos frag; mod stmg w/ mod-g bl-wh cut, mod fst, thn bl-wh resd ring

MRLST: med-dk gy, sb blk-sb ply, frm, arg-si sily, v calc; CHK: lgy - crm, medgy, mot dk gy, sft - frm, brit - fri ip, sb blk, sb wxy - rthy tex, arg calc mt, v calc, tr fos frag; mod stmg w/ mod-g bl-wh cut, mod fst, thn bl-wh resd ring



ROP SCALE CHANGE
0-450 FT/HR

WT IN 9.0/ OUT 9.0
VIS IN 46 / OUT 44



l, gy brn, trns l - clr gr, f - vf gr,
v hd, sb blk, mod frm - frm,
cmt; bri lt bl - wh mky cut,
n, fnt od

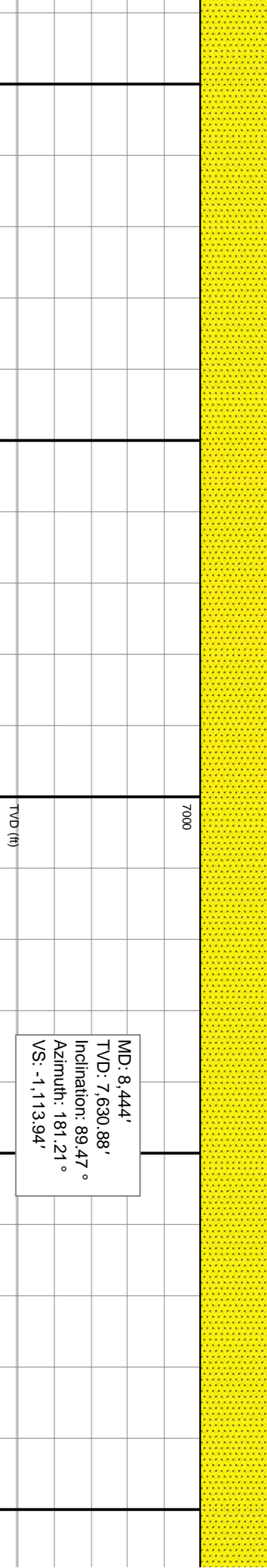
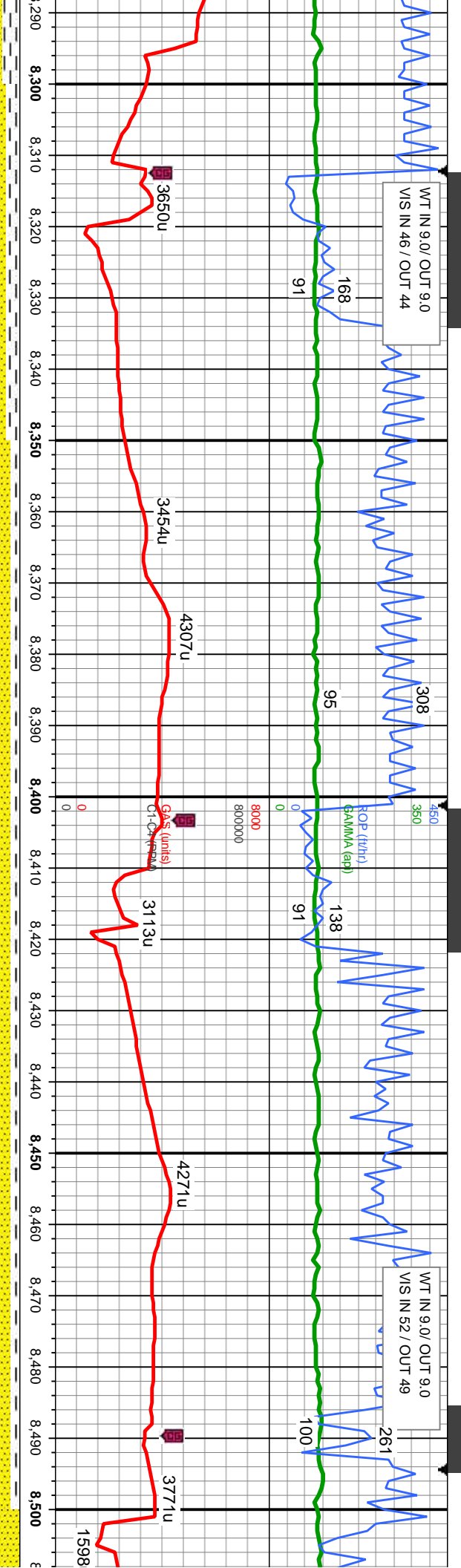
MD: 8,085'
TVD: 7,635.3'
Inclination: 89.85 °
Azimuth: 182.35 °
VS: -755.27'

SS: med - dk brn, gy brn, trns l - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
occ sb blk, gt tex, arg - silty mtx, bri lt bl - wh mky cut, slow stmg, no stn, fnt od

SS: med - dk brn, gy brn, trns l - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod
frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply
occ sb blk, gt tex, arg - silty mtx, bri lt bl - wh mky cut, slow stmg, no stn, fnt od

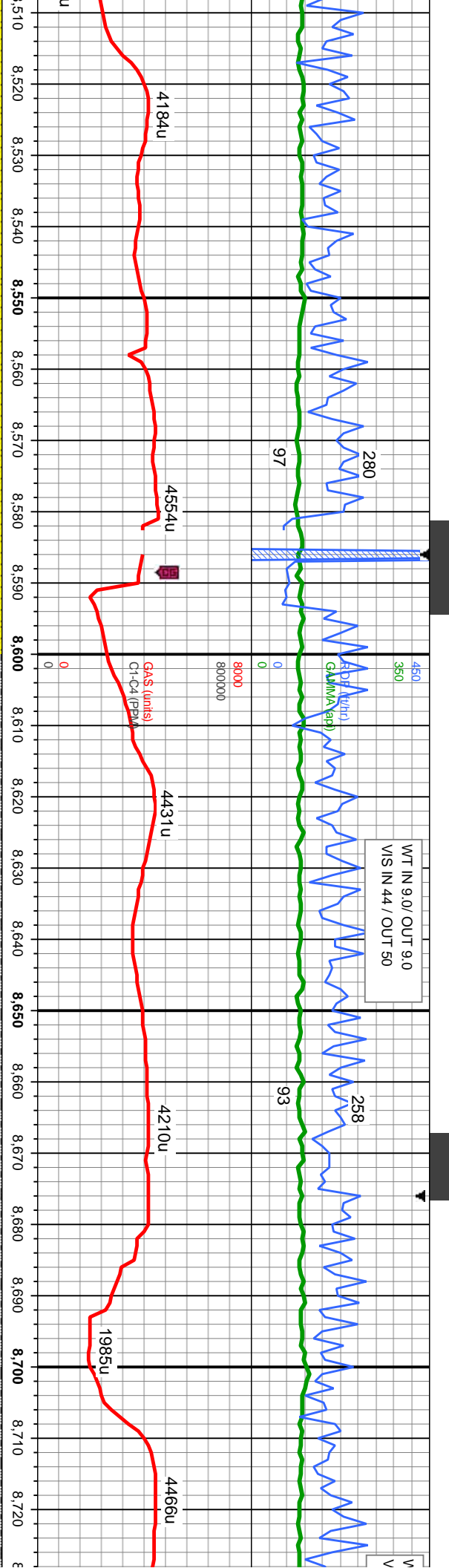
MD: 8,265'
TVD: 7,632.78'
Inclination: 91.75 °
Azimuth: 182.74 °
VS: -935.07'





frm - sb plty,	SS: med - dk brn, gy brn, trnsi - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm - frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred plty - sb plty, occ sb blk, gt tex, arg - stly mt, bri lt bl - wh mky cut, slow string, no str, fnt od	SS: med - dk brn, gy brn, trnsi - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm - frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred plty - sb plty, occ sb blk, gt tex, arg - stly mt, bri lt bl - wh mky cut, slow string, no str, fnt od	SS: n frm, v occ s
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MD: 8,624'
TVD: 7,634.13'
Inclination: 88.46 °
Azimuth: 180.76 °
VS: -1,293.88'

TVD (ft)

med - dk brn, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
occ sb blk, gt tex, arg - silty mtx, bri lt bl - wh mky cut, slow stmg, no str, fnt od

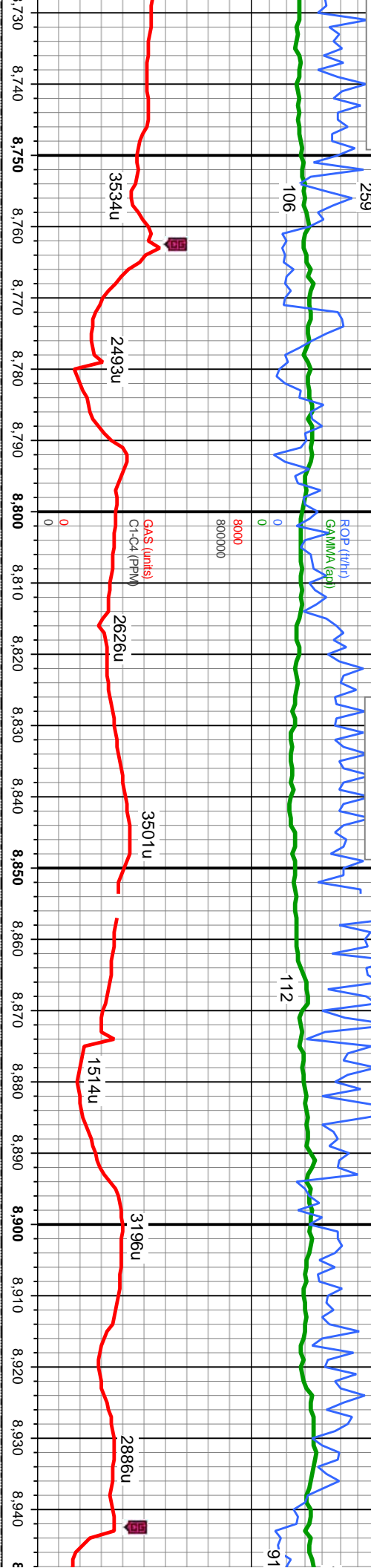
SS: med - dk brn, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
occ sb blk, gt tex, arg - silty mtx, bri lt bl - wh mky cut, slow stmg, no str, fnt od

SS: med - dk brn, gy brn
frm, w srt, w cons, sil cmt
occ sb blk, gt tex, arg -



IT IN 9.0/ OUT 9.0
IS IN 44 / OUT 50

WT IN 9.0/ OUT 9.0
VIS IN 44 / OUT 50



MD: 8,804'
TVD: 7,638.24'
Inclination: 88.92 °
Azimuth: 179.93 °
VS: -1,473.83'

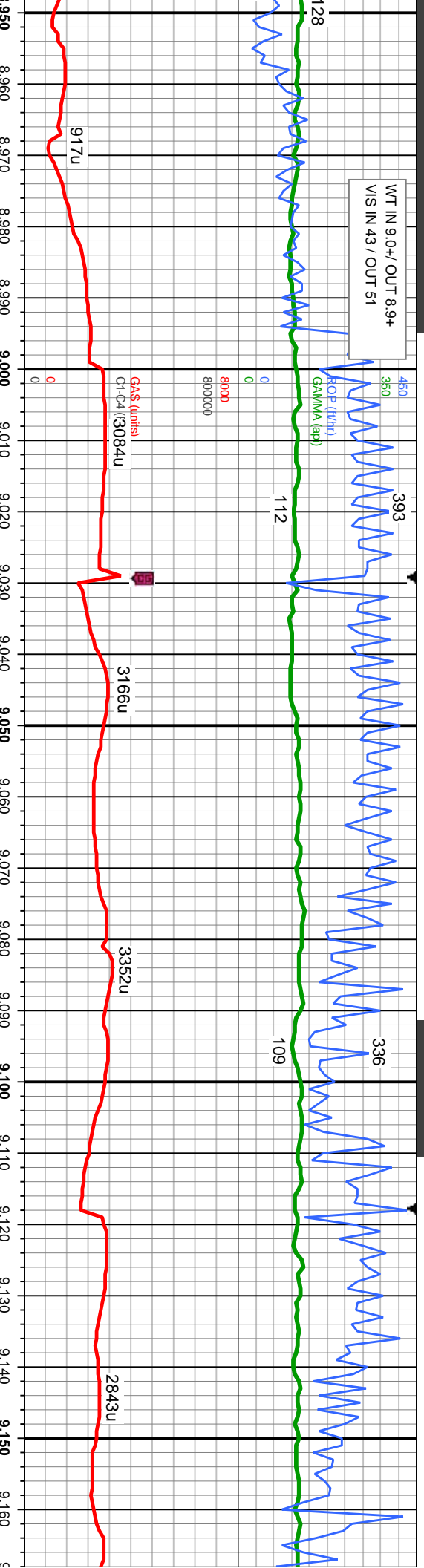
trnsl - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
it: SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
sily mtx, bri lt bl - wh mky cut, slow stmg, no stn, frt od

SS: med - dk brn, gy brn, trnsl - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
occ sb blk, gt tex, arg - sily mtx, bri lt bl - wh mky cut, slow stmg, no stn, frt od

SS: med - dk brn, gy brn, trnsl - clr gr, f - vf
frm, w srt, w cons, sil cmt; SLTY SH: med -
occ sb blk, gt tex, arg - sily mtx, bri lt bl - w



WT IN 9.0+ / OUT 8.9+
VIS IN 43 / OUT 51



MD: 8.984'
TVD: 7,640.52'
Inclination: 89.63 °
Azimuth: 178.83 °
VS: -1,653.8'

TVD (ft)

7000

gr, sb rnd - sb ang, v hd, sb blk, mod frm -
dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
h mky cut, slow stmg, no stn, frt od

SS: med - dk brn, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
occ sb blk, gt tex, arg - slty mix, bri lt bl - wh mky cut, fst stmg, mod yel-bl stn, frt od

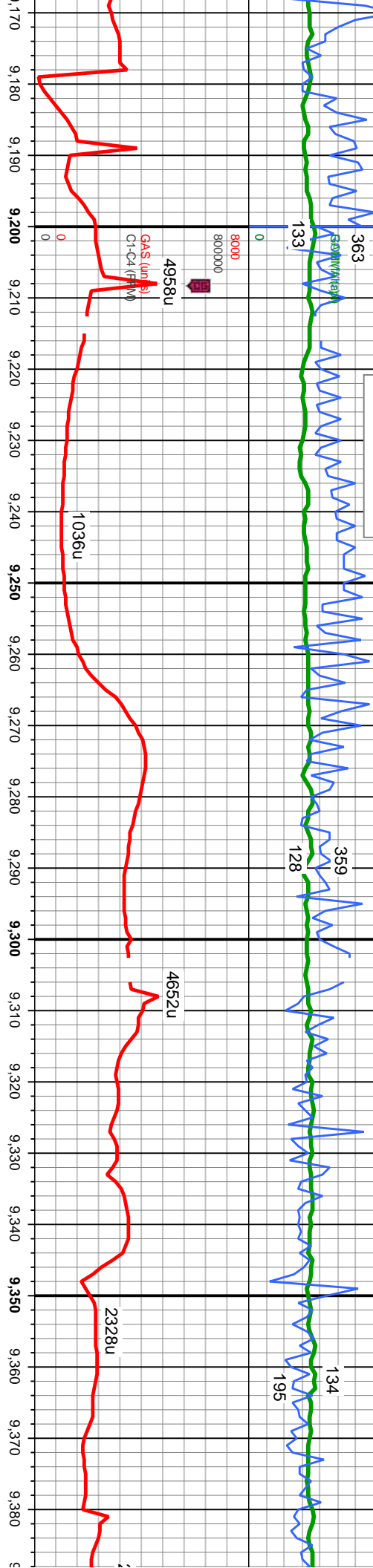
MD: 9.165'
TVD: 7,640
Inclination: :
Azimuth: 17
VS: -1,834.7

SS: med - dk brn, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang
frm, w srt, w cons, sil cmt, SLTY SH: med - dk gy, occ blk, v f
occ sb blk, gt tex, arg - slty mix, bri lt bl cut, mod stmg, mod



ROP Scale Change

WT IN 9.1/ OUT 9.0
VIS IN 42 / OUT 53



7000

TVD (ft)

MD: 9.343'
TVD: 7,640.38'
Inclination: 89.78 °
Azimuth: 177.33 °
VS: -2,012.62'

57'
90.34 °
8.42 °
4'

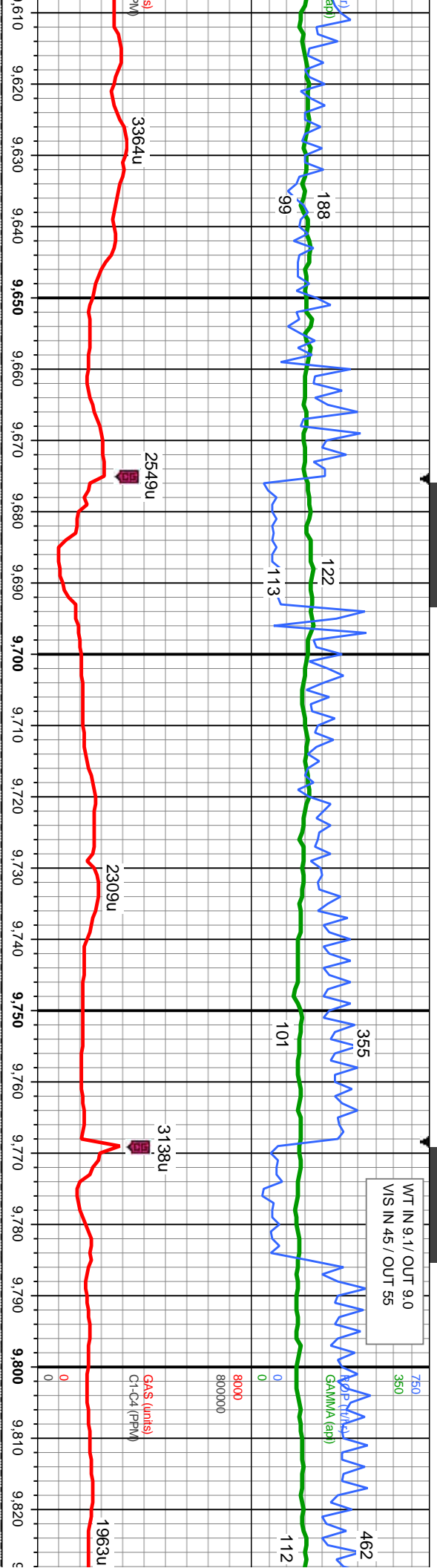
SS: med - dk brn, gy brn, trmsl - clr gr, f - vf gr, sb md - sb ang, v hd, sb blk, mod frm - frm, w srt, w cons, sil cnt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply, occ sb blk, gt tex, arg - silty mtx, bri bl - wh cut, fst string, lt yel str, fnt od

SS: med - dk brn, gy brn, trmsl - clr gr, f - vf gr, sb md - sb ang, v hd, sb blk, mo frm, w srt, w cons, sil cnt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply, occ sb blk, gt tex, arg - silty mtx, lt bl - wh cut, slw string, mod yel str, fnt od

8000



WT IN 9.1 / OUT 9.0
VIS IN 45 / OUT 55



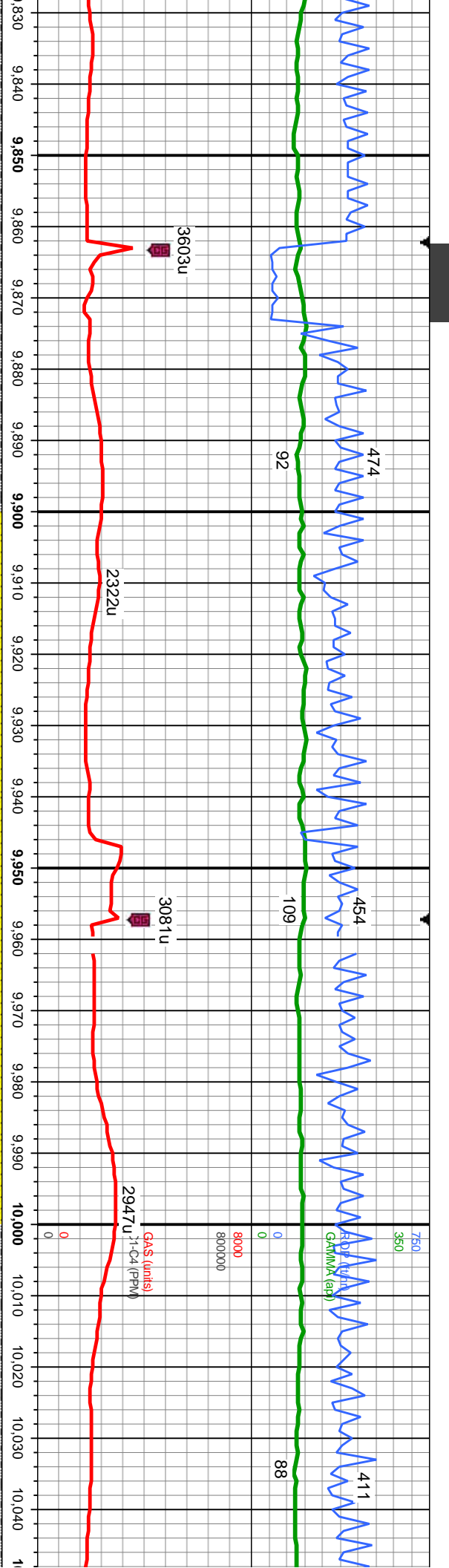
MD: 9.721'
TVD: 7,638.32'
Inclination: 90.43 °
Azimuth: 179.89 °
VS: -2,390.54'

h. med - dk brn, gy brn, trmsl - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm
w srt, w cons, sil cnt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb
occ sb blk, gt tex, arg - silty mtk, bl - wh cut, mod stmg, mod yel stn, frt od

SS: med - dk brn, gy brn, trmsl - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cnt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
occ sb blk, gt tex, arg - silty mtk, bri lt bl cut, fst stmg, mod yel-bl stn, frt od

SS: med - dk brn, gy brn
frm, w srt, w cons, sil cnt
occ sb blk, gt tex, arg -





MD: 9,909'
TVD: 7,638.32'
Inclination: 89.57°
Azimuth: 182.15°
VS: -2,578.49'

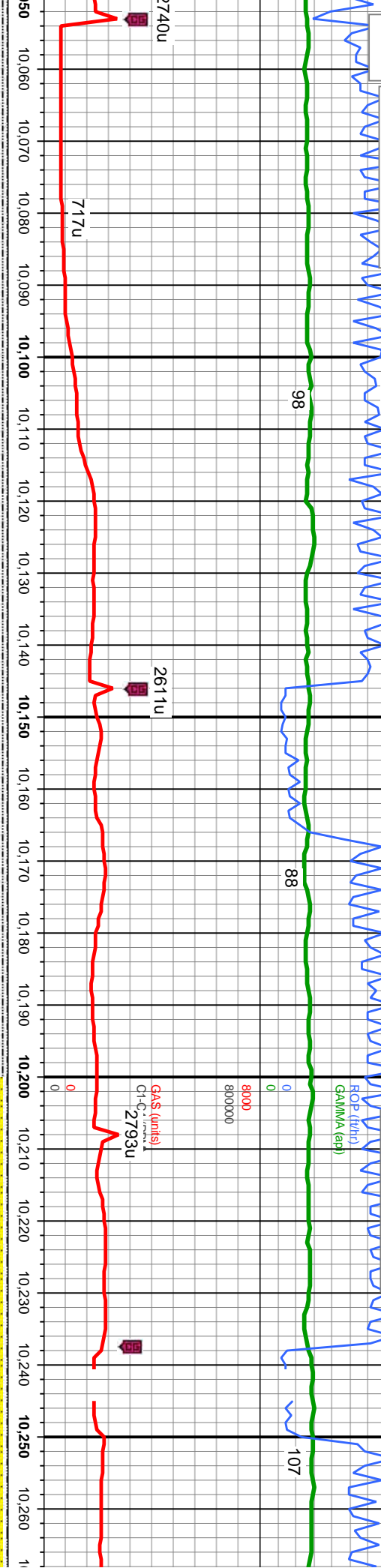
tnsl - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
it: SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
sily mix, bri lt bl cut, sl fst stmg, mod yel-bl stn, fnt od

SS: med - dk brn, gy brn, tnsl - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm - frm,
w srt, w cons, sil cmt; tr SLTY SH, bri bl - wh cut, mod stmg, yel-bl stn, fnt od



MINDEPTH
6/8/14
WT IN 9.15/ OUT 9.05
VIS IN 45 / OUT 55

750
350
WT IN 9.15/ OUT 9.05
VIS IN 45 / OUT 55



MD: 10,098'
TVD: 7,638.67'
Inclination: 90.22 °
Azimuth: 179.49 °
VS: -2,767.46'

gr, sb rnd - sb ang, v hd, sb blk, mod frm - frm,
occ blk, v f gr ip, frm, pred ply - sb ply, occ
od stmg, mod yel-bi stn, fnt od

SS: med - dk bm, gy bm, trnsf - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
occ sb blk, gt tex, arg - silty mix, bl - wh mky cut, slw stmg, yel-bi stn, fnt od

SS: med - dk bm, gy bm, trnsf - clr gr, f - vf gr, sb rnd - sb ang
frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f
occ sb blk, gt tex, arg - silty mix, bl - wh cut, slw stmg, mod yel



WT IN 9.2/ OUT 9.1 VIS
IN 50 / OUT 55

WT
VIS

100
115

494
114

750
350
0
8000
800000

GAS (units)
C1-C4 (PPM)

2341u

2922u

2331u

709u

1081u

2577u

MD: 10,287'
TVD: 7,637.28'
Inclination: 90.62 °
Azimuth: 182.94 °
VS: -2,956.38'

TVD (ft)

MD: 10,471'
TVD: 7,635.84'
Inclination: 90.28 °
Azimuth: 183.49 °
VS: -3,140.08'

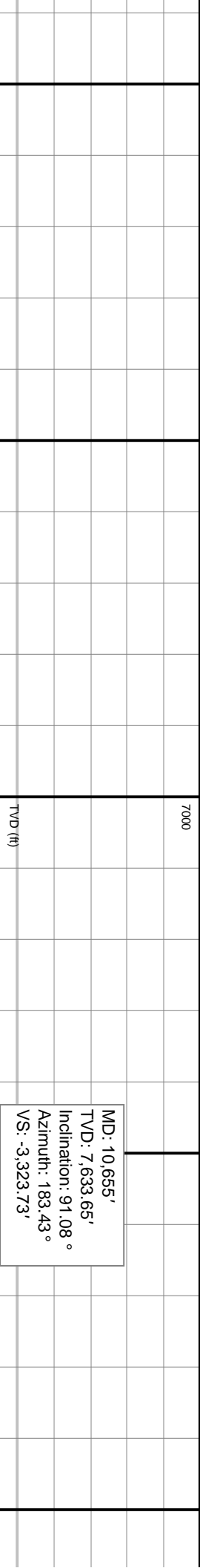
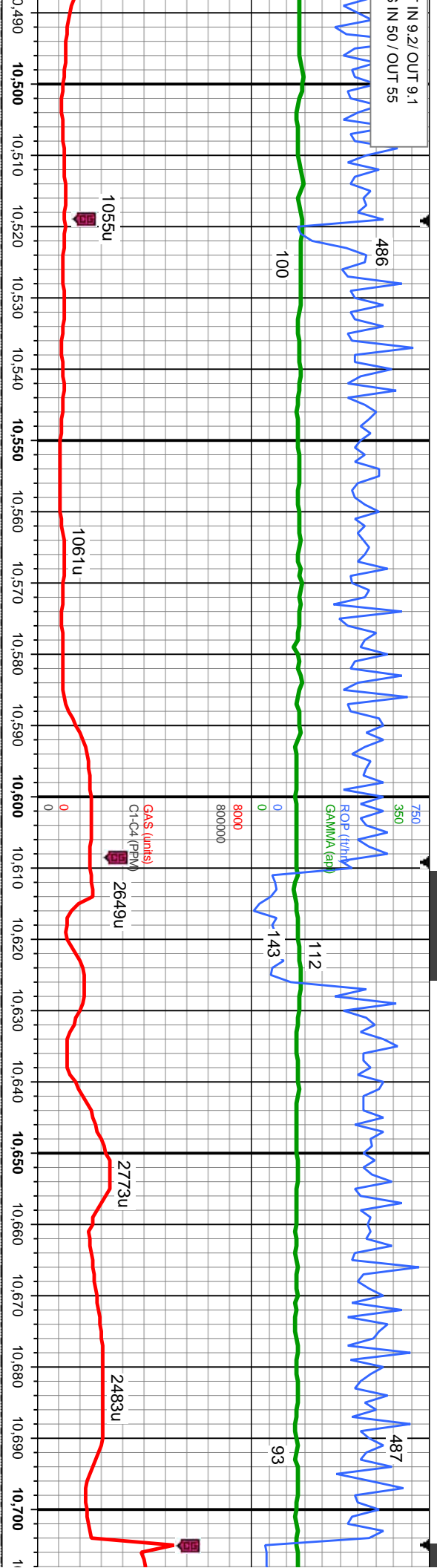
v hd, sb blk, mod frm -
v ip, frm, pred ply - sb ply,
l-bl strn, fnt od

SS: med - dk brn, gy brn, trns l - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cnt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
occ sb blk, gt tex, arg - silty mtx, bri lt bl - wh mky cut, fst strng, mod yel-bl strn, fnt od

SS: med - dk brn, gy brn, trns l - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cnt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
occ sb blk, gt tex, arg - silty mtx, bri lt bl - wh mky cut, fst strng, mod yel-bl strn, fnt od



IN 9.2/ OUT 9.1
IN 50 / OUT 55



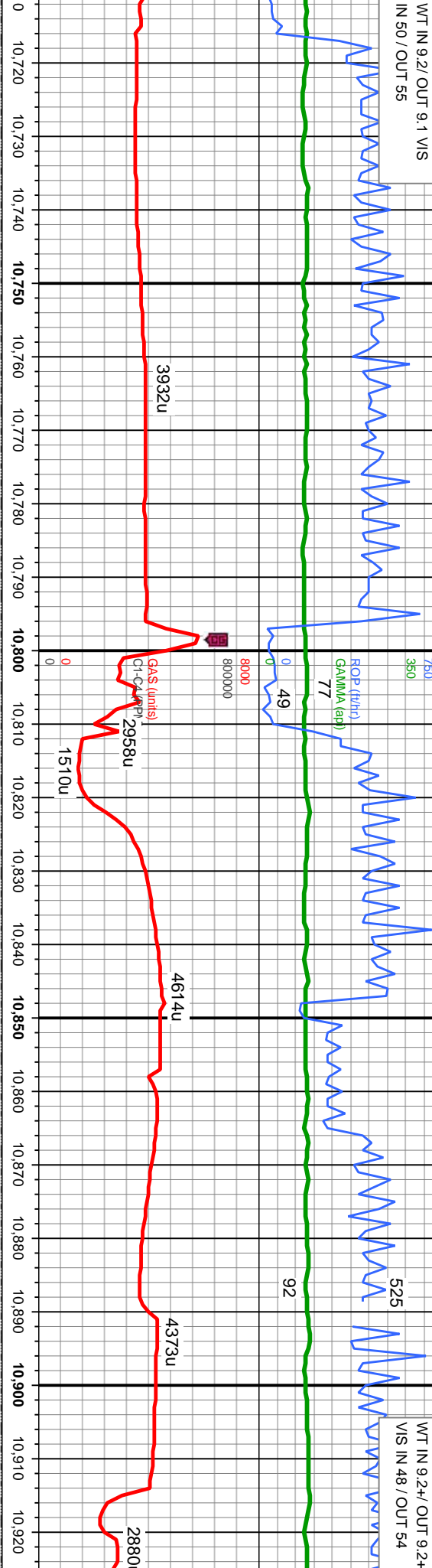
MD: 10,655'
TVD: 7,633.65'
Inclination: 91.08 °
Azimuth: 183.43 °
VS: -3,323.73'

Depth (ft)	Description
10,490 - 10,500	SS: med - dk brn, gy brn, trns - clr gr, f - vf gr, sb md - sb ang, v hd, sb blk, mod frm - frm, w srl, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply, occ sb blk, gt tex, arg - silty mt, bri lt bl - wh mky cut, fst stmg, mod yel-bl stn, fnt od
10,500 - 10,600	SS: med - dk brn, gy brn, trns - clr gr, f - vf gr, sb md - sb ang, v hd, sb blk, mod frm - frm, w srl, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply, occ sb blk, gt tex, arg - silty mt, bri lt bl - wh mky cut, fst stmg, mod yel-bl stn, fnt od
10,600 - 10,700	SS: med - dk brn, gy brn, trns - clr gr, f - vf gr, sb md - sb ang, v hd, sb blk, mod frm - frm, w srl, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply, occ sb blk, gt tex, arg - silty mt, bri lt bl - wh mky cut, fst stmg, mod yel-bl stn, fnt od



WT IN 9.2/ OUT 9.1 VS
IN 50 / OUT 55

WT IN 9.2+ / OUT 9.2+
VIS IN 48 / OUT 54



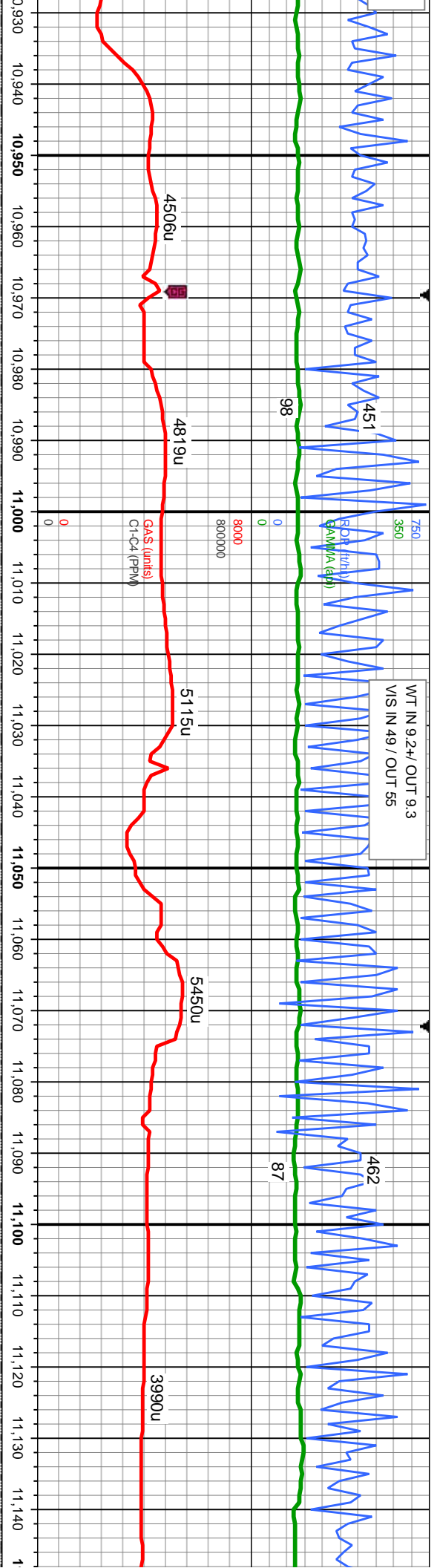
MD: 10,747'
TVD: 7,632.88'
Inclination: 89.88 °
Azimuth: 182.78 °
VS: -3,415.59'

TVD (ft)

MD: 10
TVD: 7
Inclina
Azimut
VS: -3,

med - dk brn, gy brn, trnsl - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
occ sb blk, gt tex, arg - silty mix, bri bl - wh mky cut, v fst string, mod yel-bl str, mod od





633.17'
lon: 89.94 °
n: 180.95 °
5599.49'

TVD (ft)

MD: 11,115'
TVD: 7,632.53'
Inclination: 90.46 °
Azimuth: 180.53 °
VS: -3,783.47'

tnsl - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
occ sb blk, gt tex, arg - silty mtx, bri bl - wh mky cut, v fst string, mod yel-bl stn, mod od

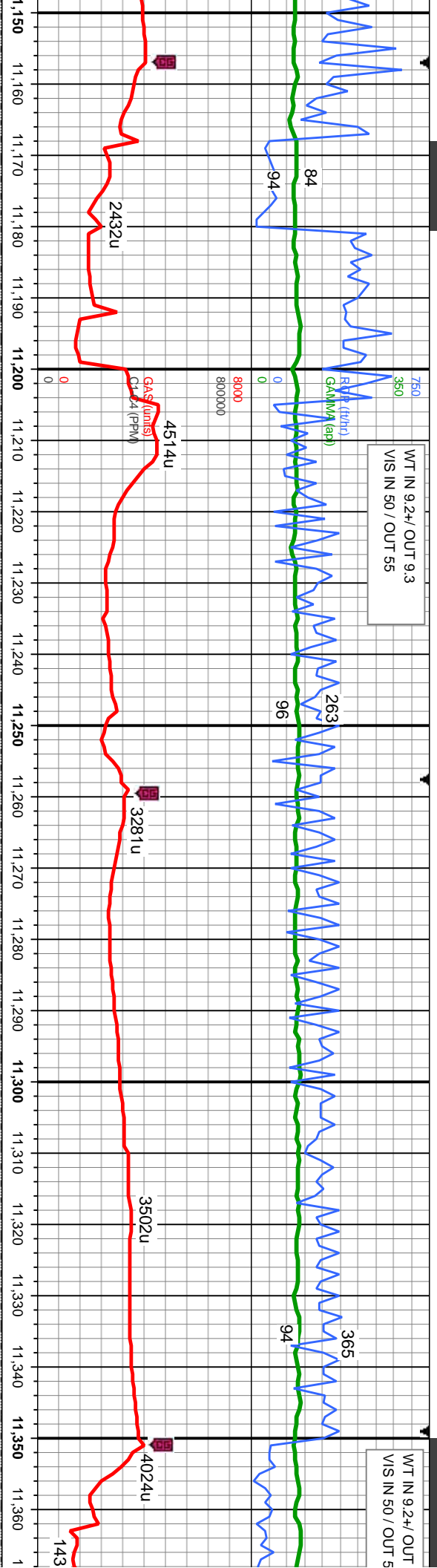
SS: med - dk brn, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
occ sb blk, gt tex, arg - silty mtx, bri bl - wh mky cut, v fst string, mod yel-bl stn, mod od

SS: med - dk brn, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
occ sb blk, gt tex, arg - silty mtx, bri bl - wh mky cut, v fst string, mod yel-bl stn, mod od



WT IN 9.2+ / OUT 9.3
VIS IN 50 / OUT 55

WT IN 9.2+ / OUT 9.3
VIS IN 50 / OUT 55



MD: 11,208'
TVD: 7,632.71'
Inclination: 89.32 °
Azimuth: 180.1 °
VS: -3,876.47'

gr, sb rnd - sb ang, v hd, sb blk, mod frm -
dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
wh mky cut, fst string, mod yel-bl stn, fnt od

SS: med - dk brn, gy brn, trns - clr gr, f - v f gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
occ sb blk, gt tex, arg - silty mtx, bri lt bl - wh mky cut, fst string, mod yel-bl stn, fnt od

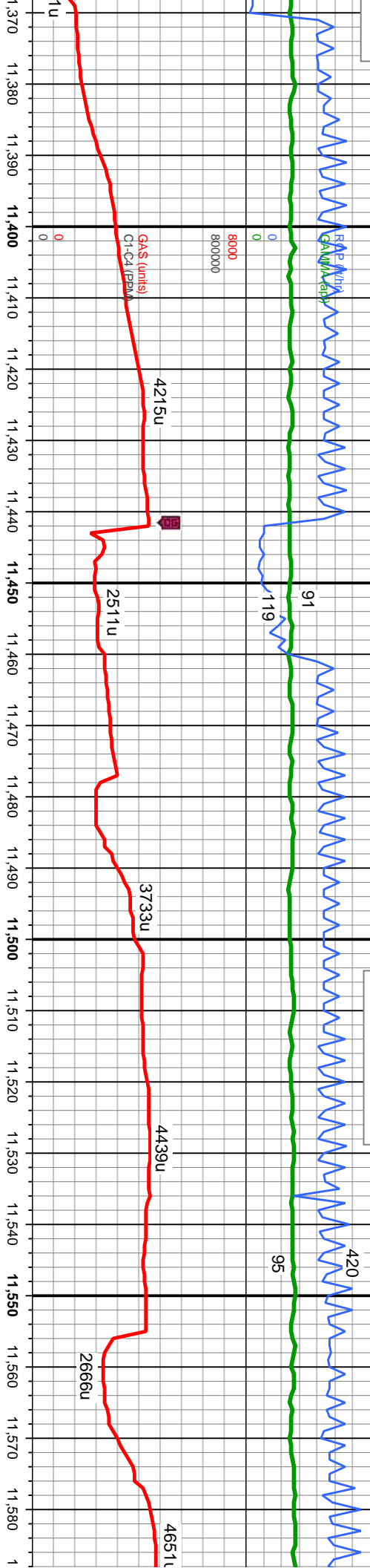
SS: med - dk brn, gy brn, trns - clr gr, f - v f gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
occ sb blk, gt tex, arg - silty mtx, bri lt bl - wh mky cut, fst string, mod yel-bl stn, fnt od



9.3
5

750
350

WT IN 9.3 / OUT 9.3
VIS IN 48 / OUT 55



MD: 11,391'
TVD: 7,633.11'
Inclination: 90.43°
Azimuth: 180.3°
VS: -4,059.46'

D (ft)

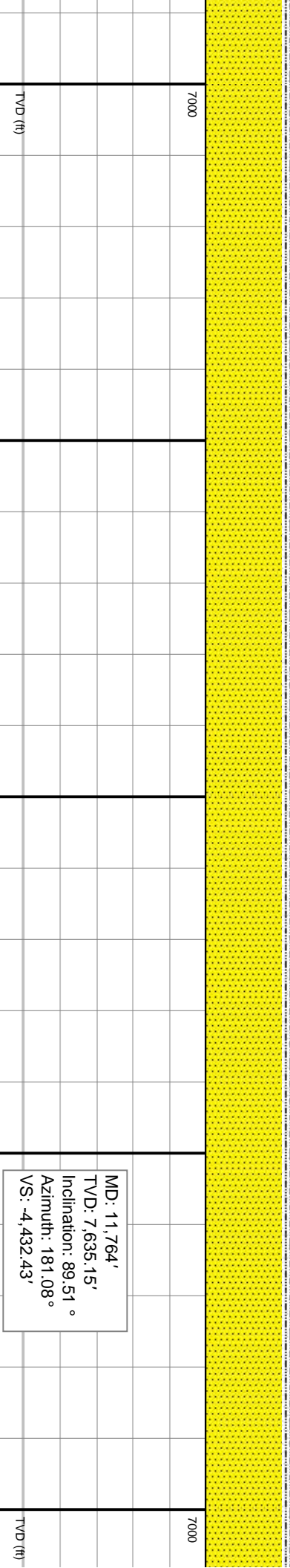
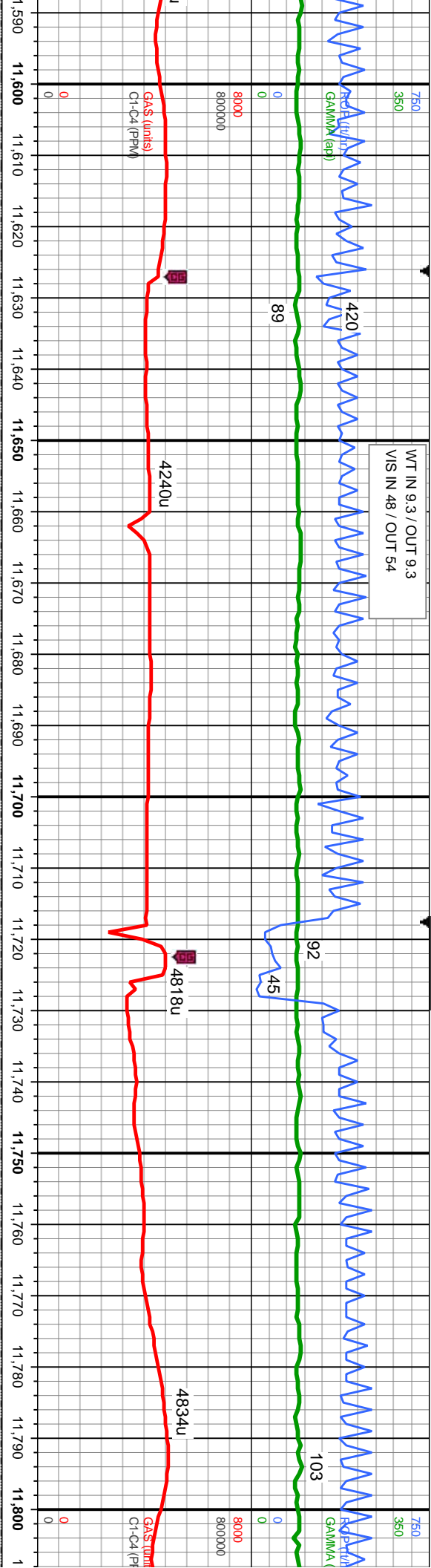
v hd, sb blk, mod frm -
fr ip, frm, pred ply - sb ply,
mod yel-bl stn, fnt od

SS: med - dk brn, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cnt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
80- occ sb blk, gt tex, arg - silty mtx, bri lt bl - wh mky cut, fst stmg, mod yel-bl stn, fnt od

SS: med - dk brn, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, moc
frm, w srt, w cons, sil cnt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply
occ sb blk, gt tex, arg - silty mtx, bri lt bl - wh mky cut, fst stmg, mod yel-bl stn, fnt

MD: 11,575'
TVD: 7,633.36'
Inclination: 89.41°
Azimuth: 180.5°
VS: -4,243.46'

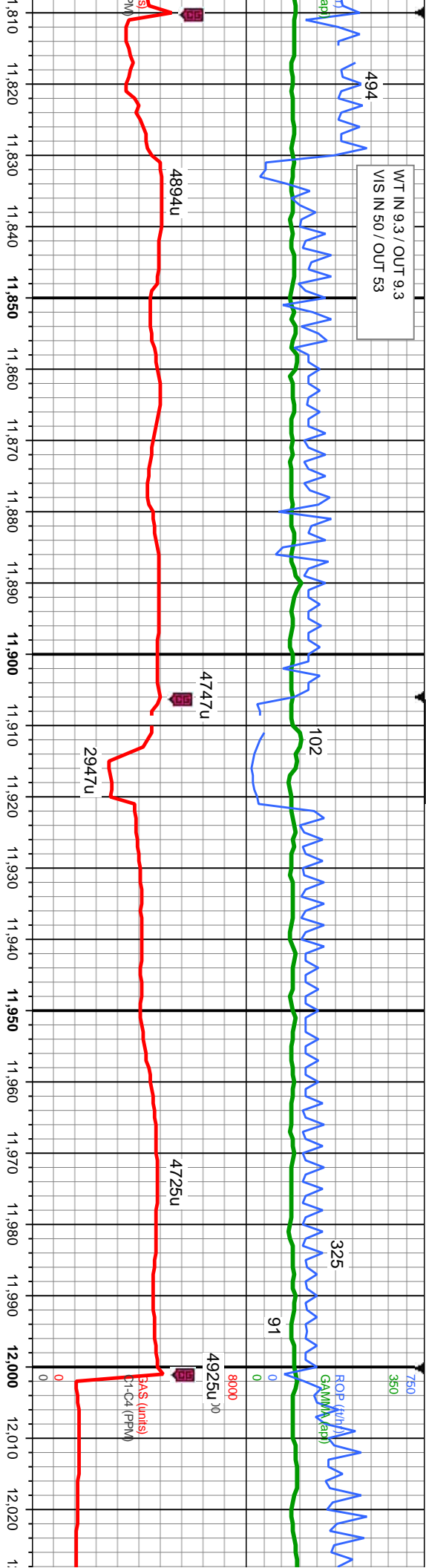




SS: med - dk brn, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm - frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred pty - sb pty, occ sb blk, gt tex, arg - silty mtx, bri bl - wh mky cut, v fst string, mod yel-bl stn, mod od	SS: med - dk brn, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm - frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred pty - sb pty, occ sb blk, gt tex, arg - silty mtx, bri bl - wh mky cut, v fst string, mod yel-bl stn, mod od
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WT IN 9.3 / OUT 9.3
VIS IN 50 / OUT 53



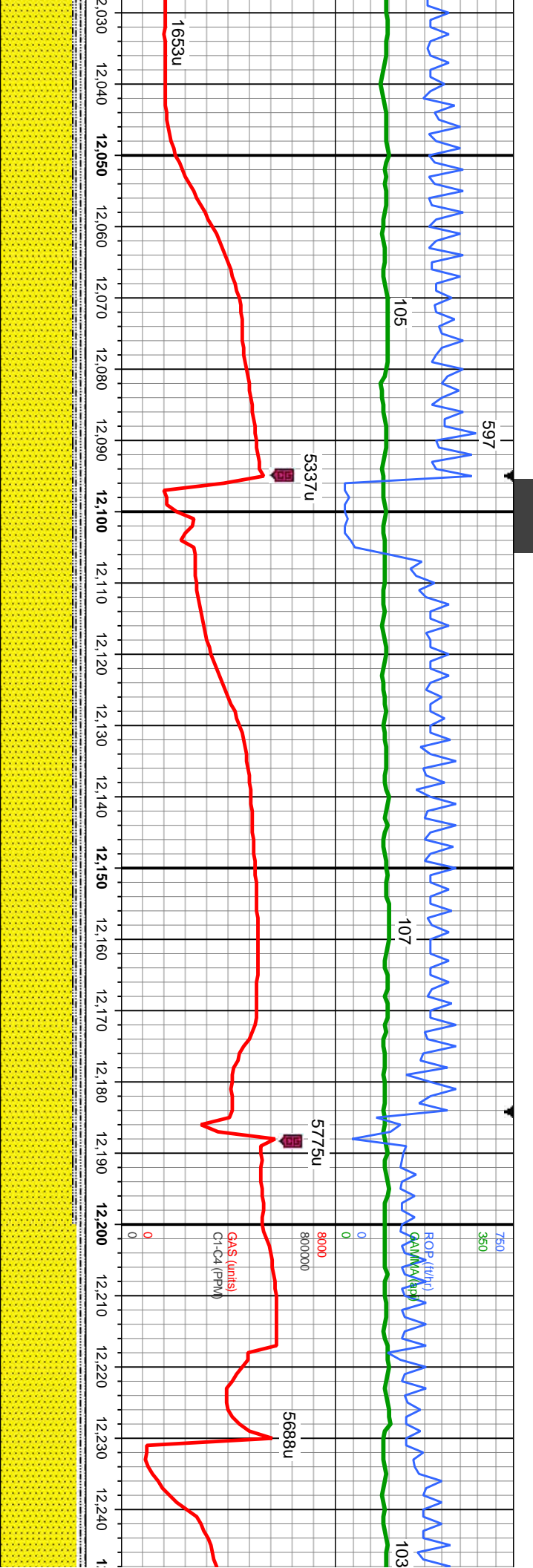
MD: 11,963'
TVD: 7,637.59'
Inclination: 89.01°
Azimuth: 179.85°
VS: -4,621.4'

med - dk brn, gy brn, trnsf - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
o blk, gt tex, arg - silty mix, brl bl - wh cut, fst string, mod yel stn, sl od

SS: med - dk brn, gy brn, trnsf - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
occ sb blk, gt tex, arg - silty mix, bl - wh mky cut, fst string, mod yel stn, sl od

SS: med - dk brn, gy brn
frm, w srt, w cons, sil cmt
occ sb blk, gt tex, arg -





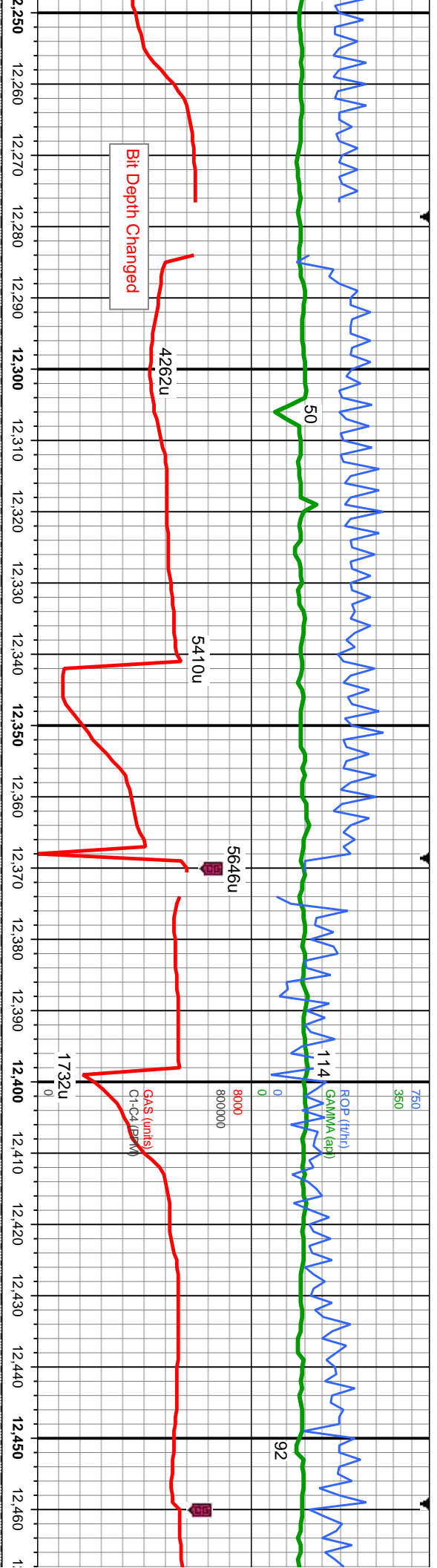
MD: 12,137'
TVD: 7,640.65'
Inclination: 89.08 °
Azimuth: 180.23 °
VS: -4,805.38'

trnsl - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
it: SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
sily mt, bl - wh mky cut, fst string, mod yel str, sl od

SS: med - dk brn, gy brn, trnsl - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
occ sb blk, gt tex, arg - sily mt, bl - wh cut, v fst string, mod yel str, sl od

SS: med - dk brn, gy brn, trnsl - clr gr, f - vf
frm, w srt, w cons, sil cmt; SLTY SH: med -
occ sb blk, gt tex, arg - sily mt, bl - wh cu





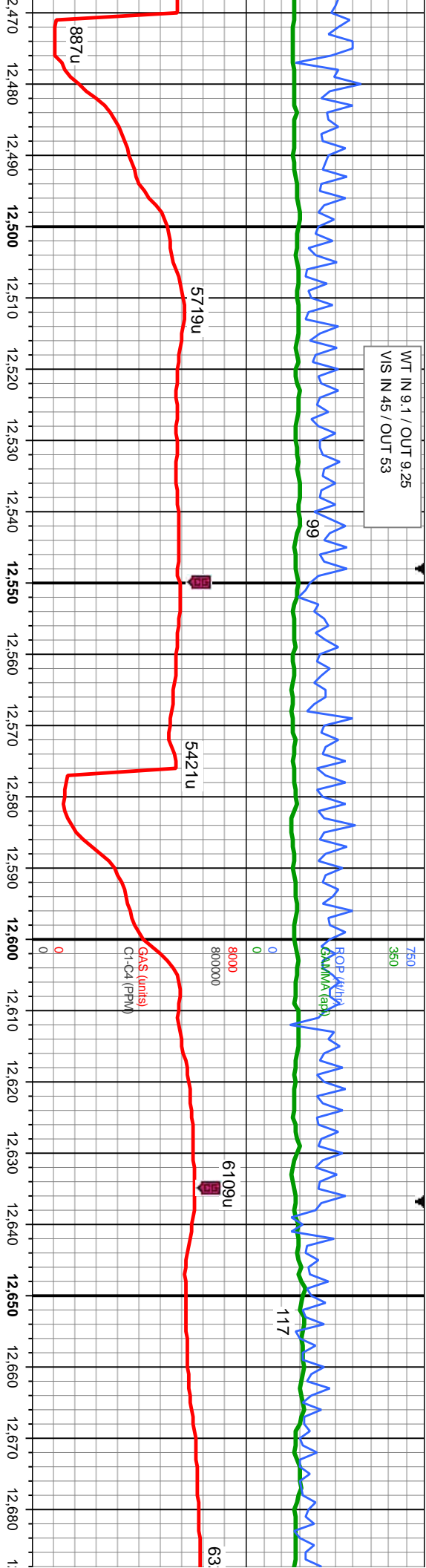
MD: 12,321'
TVD: 7,642.13'
Inclination: 90.0°
Azimuth: 180.51°
VS: -4,989.36'

MD: 12,411'
TVD: 7,641.6'
Inclination: 90.68°
Azimuth: 180.93°
VS: -5,079.35'

gr, sb rnd - sb ang, v hd, sb blk, mod frm - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply, t, mod stmg, sl yel stn, sl od	SS: med - dk brn, gy brn, trns - clr gr, f - v f gr, sb rnd - sb ang, v hd, sb blk, mod frm - frm, w srt, w cons, sil cmt, SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply, occ sb blk, gt tex, arg - silty mtx, bri bl - wh mky cut, mod stmg, mod yel sin, sl od	SS: med - dk gry, gy brn, trns - clr gr, f - v f gr, sb rnd - sb ang, v hd, sb blk, mod frm - w srt, w cons, sil cmt, SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply, 8c, sb blk, gt tex, arg - silty mtx, bl - wh cut, mod stmg, mod yel st
--	---	--



WT IN 9.1 / OUT 9.25
VIS IN 45 / OUT 53



MD: 12,501'
TVD: 7,640.65'
Inclination: 90.52 °
Azimuth: 180.4 °
VS: -5,169.34'

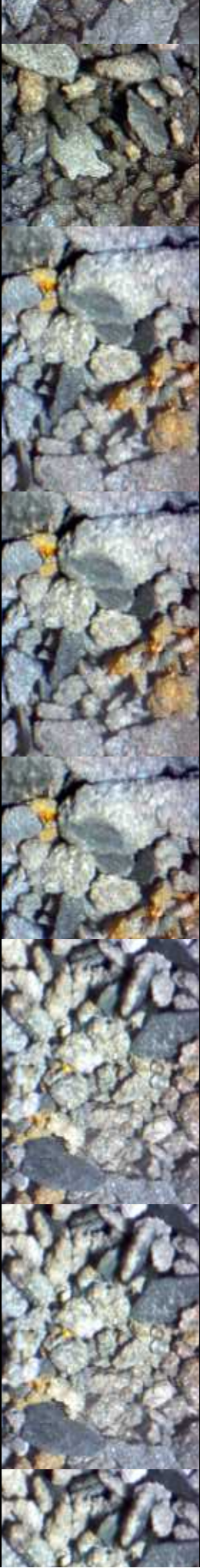
TVD (ft)

MD: 12,680'
TVD: 7,639.75'
Inclination: 90.06 °
Azimuth: 178.53 °
VS: -5,348.33'

v hd, sb blk, mod frm - frm,
frm, pred ply - sb ply, occ
n, sl od

SS: med - dk gry, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm - frm,
w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply, occ
sb blk, gt tex, arg - silv mtx, bl - wh cut, mod stmg, mod yel stn, sl od

SS: med - dk gry, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod
w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb p
sb blk, gt tex, arg - silv mtx, bl - wh cut, mod stmg, mod yel stn, sl od



WT IN 9.3 / OUT 9.0
VIS IN 44 / OUT 52

WT IN 9.3 / OUT 9.15
VIS IN 44 / OUT 53

MD: 12,941'
TVD: 7,637.43'
Inclination: 90.77°
Azimuth: 180.43°
VS: -5,609.28'

TVD (ft)

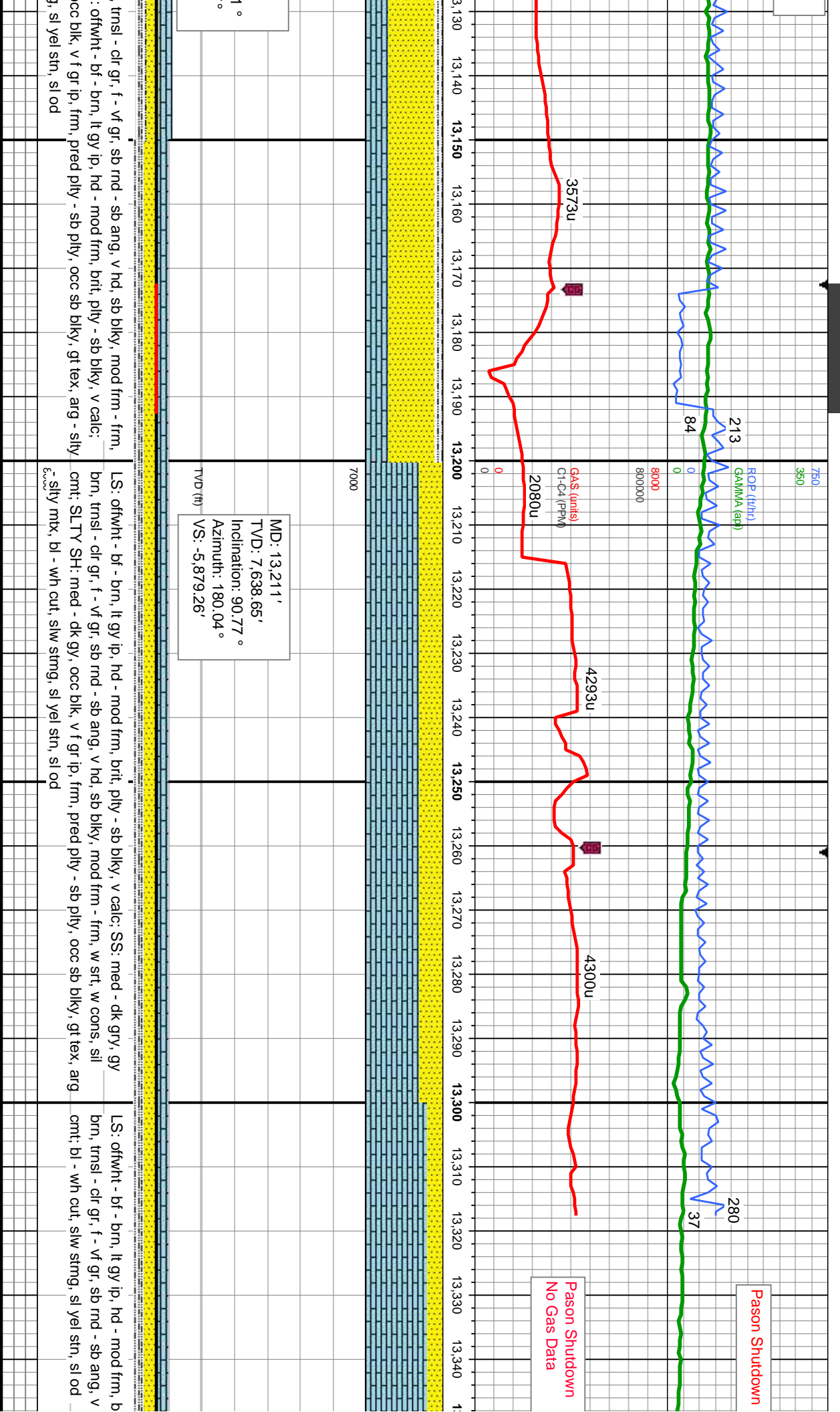
MD: 13,121'
TVD: 7,638.25'
Inclination: 88.7°
Azimuth: 179.47°
VS: -5,789.27'

sed - dk gry, gy brn, trns l - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm - frm, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply, occ

SS: med - dk gry, gy brn, trns l - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm - frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply, occ

SS: med - dk gry, gy brn w srt, w cons, sil cmt; LS SLTY SH: med - dk gy, c mt, bl - wh cut, slw strng





MD: 13,211'
TVD: 7,638.65'
Inclination: 90.77°
Azimuth: 180.04°
VS: -5,879.26'

tnsl - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm - frm, : ofwht - bf - brn, lt gy ip, hd - mod frm, brit, ply - sb blk, v calc; occ blk, v f gr ip, frm, pred ply - sb ply, occ sb blk, gt tex, arg - stly j, sl yel stn, sl od

LS: ofwht - bf - brn, lt gy ip, hd - mod frm, brit, ply - sb blk, v calc; SS: med - dk gry, gy brn, tnsl - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm - frm, w srl, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply, occ sb blk, gt tex, arg cmt; bl - wh cut, slw stng, sl yel stn, sl od

LS: ofwht - bf - brn, lt gy ip, hd - mod frm, b brn, tnsl - clr gr, f - vf gr, sb rnd - sb ang, v cmt; bl - wh cut, slw stng, sl yel stn, sl od



WT IN 9.3 / OUT 9.2
VIS IN 44 / OUT 55

750
350

ROP (ft/hr)
GAMMA (api)

215

14

80000
800000

4223u

3253u

GAS (mcf/d)
Cl-C4 (PPM)

4516u

3892u

4936u

23

234

1498u

WT IN 9.3+ / OUT 9.2
VIS IN 41 / OUT 45

MD: 13,390'
TVD: 7,636.87'
Inclination: 90.37°
Azimuth: 180.63°
VS: -6,058.25'

TVD (ft)

7000

8000

brt, pily - sb blkly, v calc; SS: med - dk gry, gy
brn, sb blkly, mod frm - frm, w str, w cons, sil

LS: oftwht - bf - brn, lt gy ip, hd - mod frm, brt, pily - sb blkly, v calc; SS: med - dk gry, gy
brn, trns - clr gr, f - vf gr, sb md - sb ang, v hd, sb blkly, mod frm - frm, w str, w cons, sil
cmt; bl - wh cut, slw string, sl yel str, sl od

LS: oftwht - bf - brn, lt gy ip, hd - mod frm, brt, pily - sb blkly, v
brn, trns - clr gr, f - vf gr, sb md - sb ang, v hd, sb blkly, mod frm
cmt; bl - wh cut, slw string, sl yel str, sl od

MD: 13,
TVD: 7,
Inclinati
Azimut
VS: -6.2



9.3

750
350

ROP (ft/hr)
GAMMA (api)

0
8000
800000

218
63

208
22

WT IN 9.3+ / OUT 9.3+
VIS IN 41 / OUT 46

GAS (units)
GFC4 (PPM)

3991u

4797u

1816u

3786u

2986u

3038

13,570 13,580 13,590 13,600 13,610 13,620 13,630 13,640 13,650 13,660 13,670 13,680 13,690 13,700 13,710 13,720 13,730 13,740 13,750 13,760 13,770 13,780

7000

570'
6334.78'
on: 90.96 °
: 181.09 °
38.21'

TVD (ft)

MD: 13,749'
TVD: 7,634.35'
Inclination: 89.32 °
Azimuth: 183.49 °
VS: -6.417.05'

calc: SS: med - dk gry, gy
n - frm, w stf, w cons, sil

LS: offwht - bf - brn, lt gy ip, hd - mod frm, brit, pily - sb blk, v calc; bl - wh cut, slw stmg, sl
yel stn, sl od

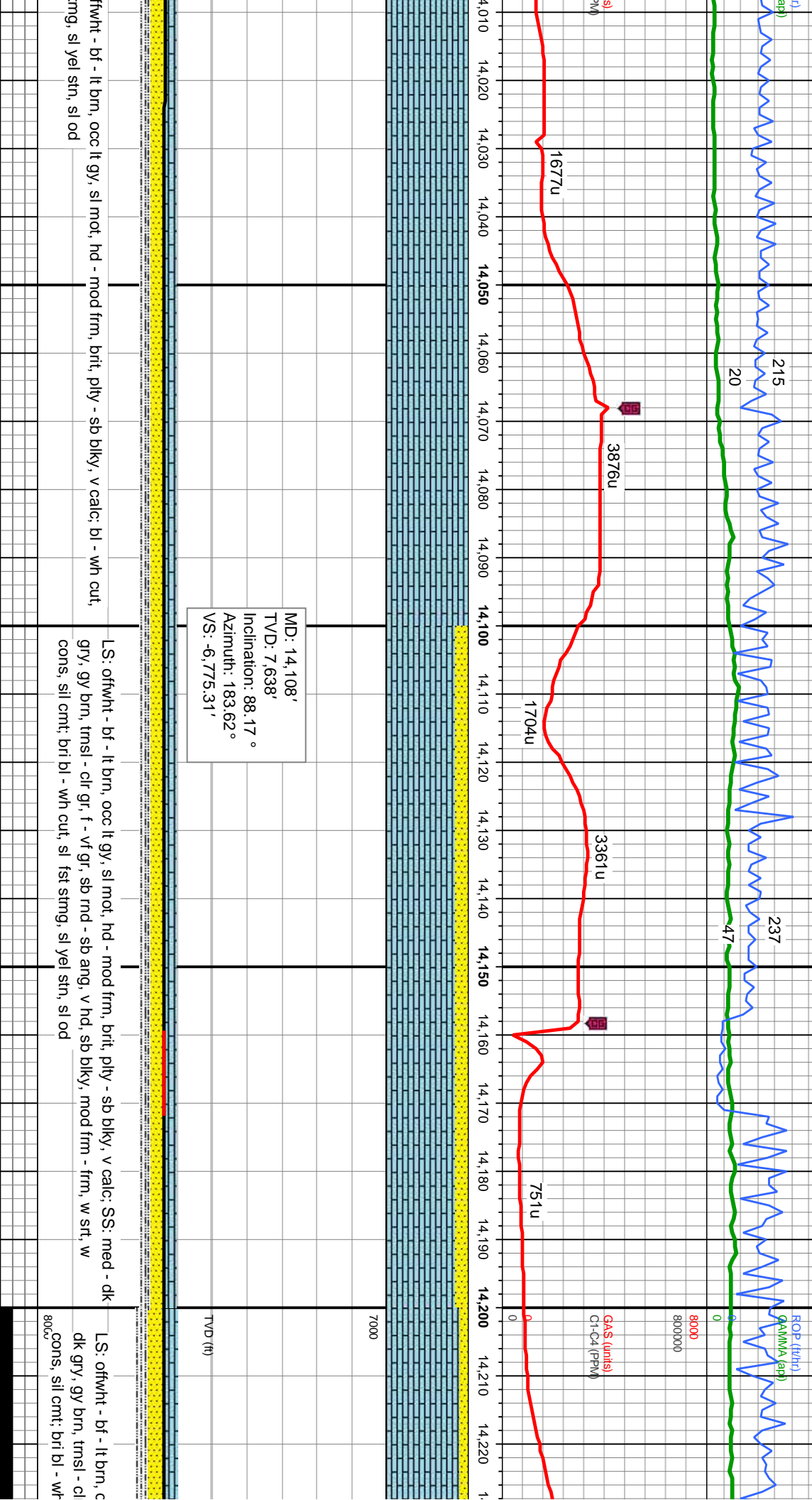
LS: offwht - bf - lt brn, occ lt gy, sl mot, hd - mod frm, brit, pily - sb blk, v calc; bl -
slw stmg, sl yel stn, sl od

8000

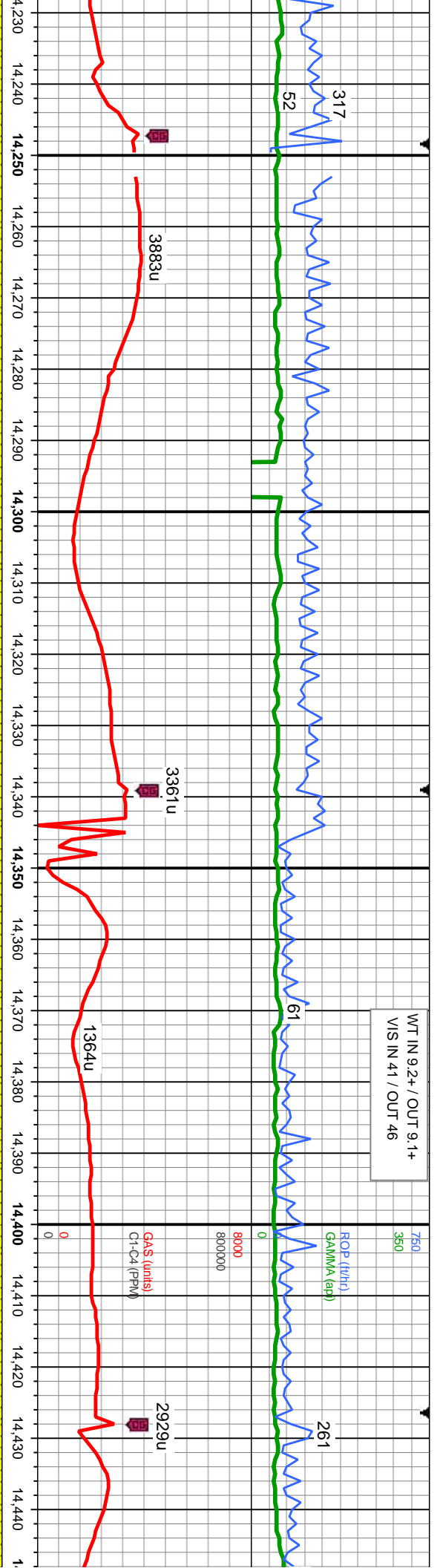


IN 9.3 / OUT 9.3
IN 41 / OUT 43

WT IN 9.3 / OUT 9.2
VIS IN 41 / OUT 47



WT IN 9.2+ / OUT 9.1+
VIS IN 41 / OUT 46



MD: 14,287'
TVD: 7,641.48'
Inclination: 89.6°
Azimuth: 180.97°
VS: -6,954.12'

occ lt gy, sl mot, hd - mod frm, brit, pty - sb blk, v calc; SS: med -
gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm - frm, w srt, w
cut, mod stmg, mod yel stn, sl od

LS: offwht - bf - lt brn, occ lt gy, sl mot, hd - mod frm, brit, pty - sb blk, v calc; SS:
med - dk gry, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cnt; bl - wh cut, mod stmg, sl yel stn, sl od

LS: offwht - bf - lt brn, occ lt gy, sl mot, hd - n
gry, gy brn, trns - clr gr, f - vf gr, sb rnd - sb e
cons, sil cnt; fnt bl cut, mod slw stmg, sl yel i



WT IN 9.25 / OUT 9.3
VIS IN 42 / OUT 40

750
350

ROP (ft/hr)
GAMMA (api)

8000
800000

2751u
GAC-1 (u)
C1-C4 (u)

0
0

1386u

63 34 191 47 73

930u 2851u 1050u

MD: 14,467'
TVD: 7,640.95'
Inclination: 90.74 °
Azimuth: 178.65 °
VS: -7,134.1'

TVD (ft)

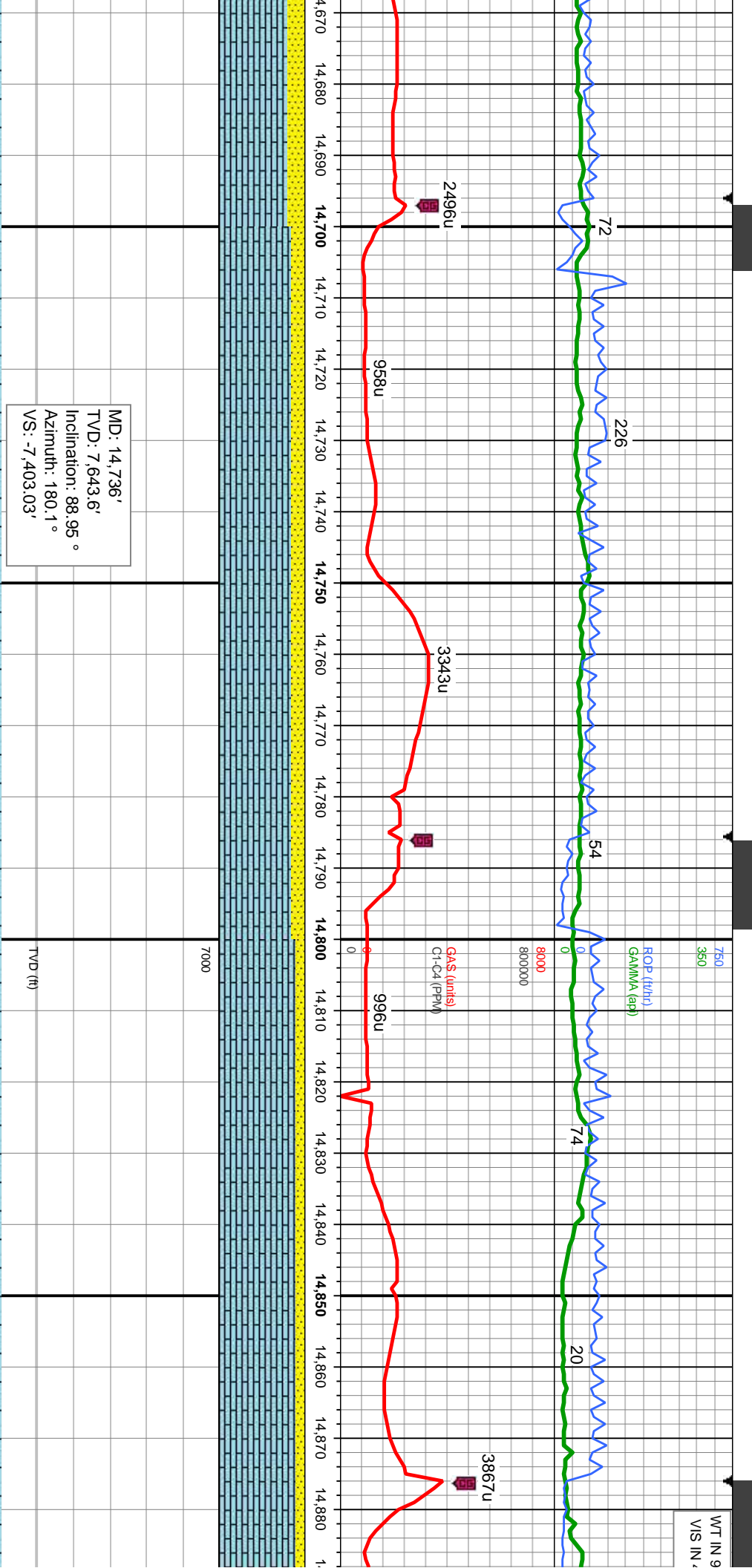
MD: 14,646'
TVD: 7,641.78'
Inclination: 88.73 °
Azimuth: 179.02 °
VS: -7,313.05'

mod frm, brit, pily - sb blk, v calc; SS: med - dk
ang, v hd, sb blk, mod frm - frm, w srt, w
stn, sl od

LS: offwht - bf - lt brn, occ lt gy, sl mot, hd - mod frm, brit, pily - sb blk, v calc; SS: med
- dk gry, gy brn, trns - clr gr, f - vf gr, sb md - sb ang, v hd, sb blk, mod frm - frm, w
srt, w cons, sil cmt; bl cut, slw stng, sl yel stn, sl od

LS: offwht - bf - lt brn, occ lt gy, sl mot, hd - mod frm, brit
med - dk gry, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang
frm, w srt, w cons, sil cmt; bri bl - wh cut, mod stng, moc





ply - sb blkly, v calc; SS:
g, v hd, sb blkly, mod frm -
yel stn, sl od

LS: offwht - bf - lt brn, occ lt gy, sl mot, hd - mod frm, brit, ply - sb blkly, v calc; SS:
med - dk gry, gy brn, tmsl - clr gr, f - vf gr, sb md - sb ang, v hd, sb blkly, mod frm -
frm, w srl, w cons, sil cnt; bri wh mlky cut, fst stng, mod yel stn, sl od

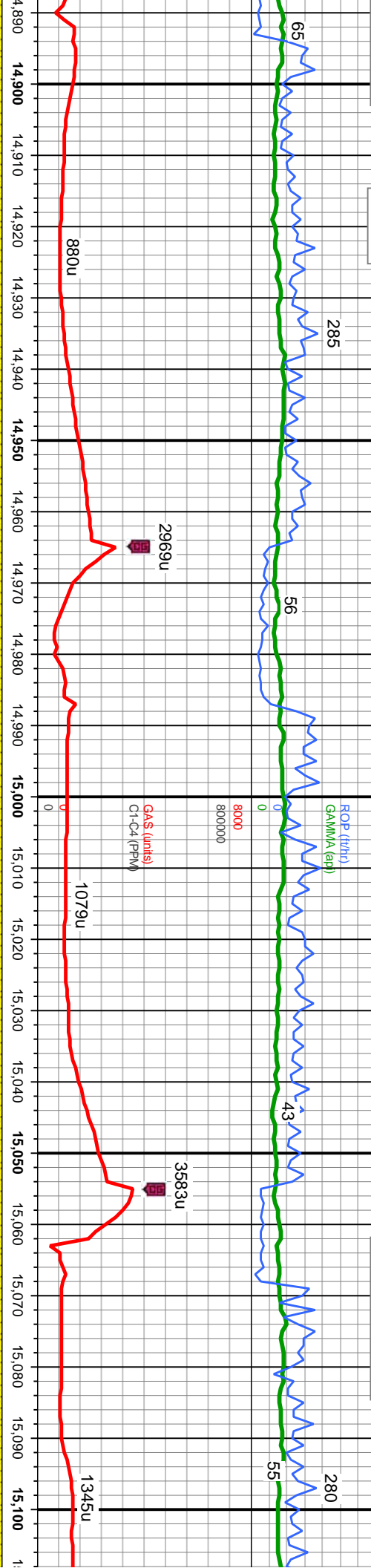
LS: offwht - bf - lt brn, occ lt gy, sl mot, hd - mod frm, brit, ply - sb blkly, v calc; S
dk gry, gy brn, tmsl - clr gr, f - vf gr, sb md - sb ang, v hd, sb blkly, mod frm - frm,
cons, sil cnt; bl - wh cut, mod stng, sl yel stn, sl od



3 / OUT 9.25
11 / OUT 43

6/11/14

WT IN 9.3 / OUT 9.25
VIS IN 43 / OUT 44



MD: 14,916'
TVD: 7,645.2'
Inclination: 90.03 °
Azimuth: 181.14 °
VS: -7,583.01'

TVD (ft)

MD: 15,095'
TVD: 7,645.39'
Inclination: 89.85 °
Azimuth: 182.62 °
VS: -7,761.9'

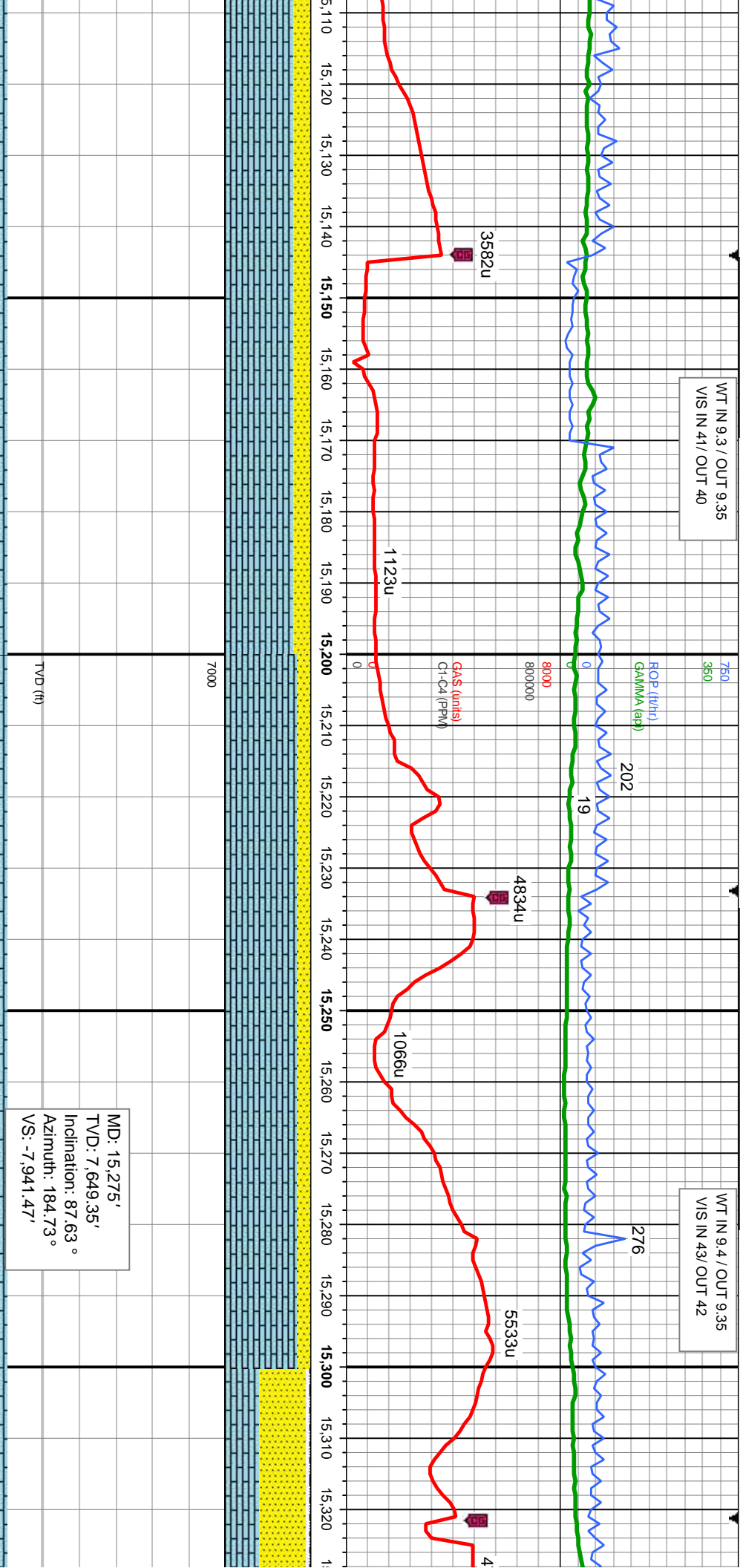
LS: offwht - bf - lt brn, occ lt gy, sl mot, hd - mod frm, brit, pily - sb blk, v calc; SS: med - dk gry, gy brn, trnsi - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm - frm, w srt, w cons, sil cnt; bri bl - wh cut, sl fst stmg, mod yel stn, sl od

LS: offwht - bf - lt brn, occ lt gy, sl mot, hd - mod frm, brit, pily - sb blk, v calc; SS: med - dk gry, gy brn, trnsi - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm - frm, w srt, w cons, sil cnt, bent; bri bl - wh cut, fst stmg, mod yel stn, sl od



WT IN 9.3 / OUT 9.35
VIS IN 41 / OUT 40

WT IN 9.4 / OUT 9.35
VIS IN 43 / OUT 42



SS: offwht - bf - lt brn, occ lt gy, sl mot, hd - mod frm, brit, pty - sb blk, v calc;
SS: med - dk gry, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod
fm - frm, w srt, w cons, sil cnt; bl - wh cut, slw strng, sl yel str, sl od

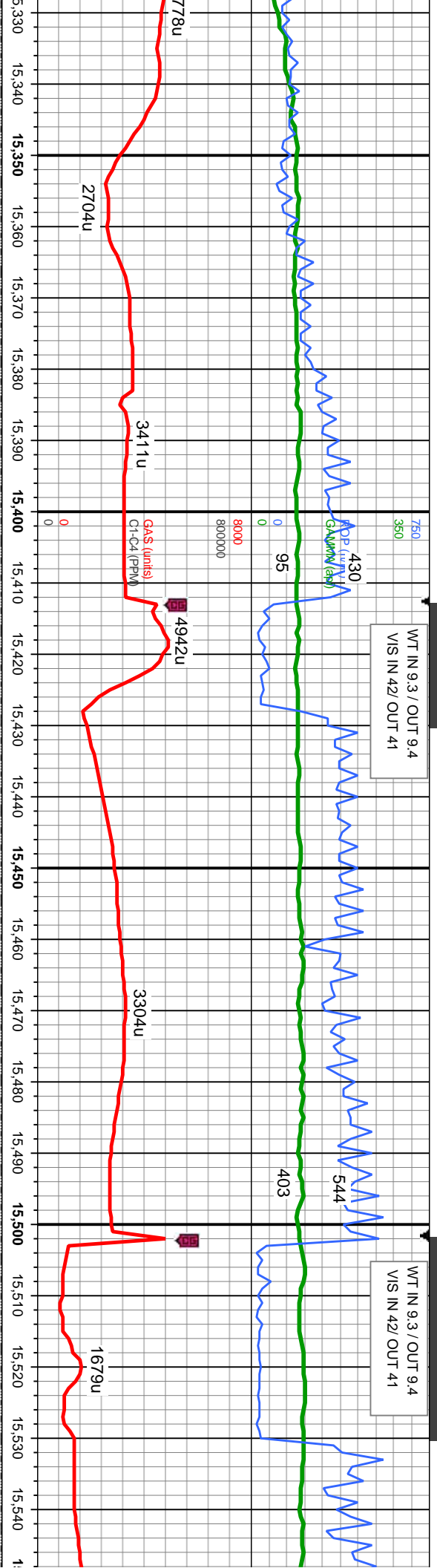
LS: offwht - bf - lt brn, occ lt gy, sl mot, hd - mod frm, brit, pty - sb blk, v calc; SS:
med - dk gry, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cnt; bl - wh cut, slw strng, sl yel str, sl od

SS: med - dk gry, gy
frm - frm, w srt, w
frm, brit, pty - sb b



WT IN 9.3 / OUT 9.4
VIS IN 42/ OUT 41

WT IN 9.3 / OUT 9.4
VIS IN 42/ OUT 41



7000
TVD (ft)

MD: 15,455'
TVD: 7,656.84'
Inclination: 87.6°
Azimuth: 184.97°
VS: -8,120.67'

ssy brn, trnsl - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod
cons, sil cmt; LS: offwht - bf - lt brn, occ lt gy, sl mot, hd - mod
lky, v calc; bl - wh cut, mod fst stmg, yel-bl str, sl od

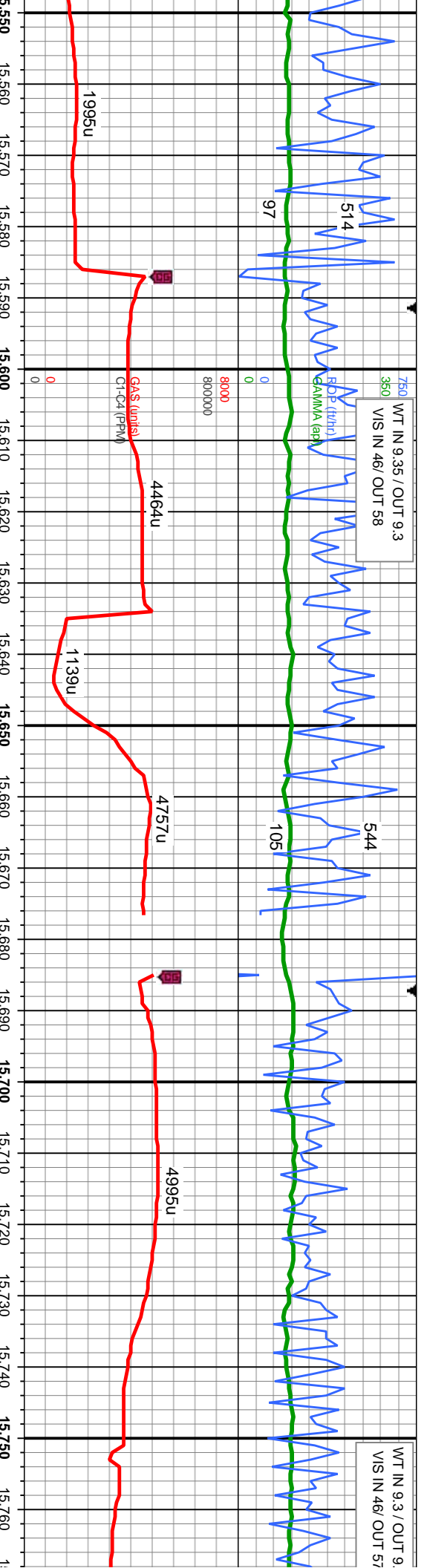
SS: med - dk gry, gy brn, trnsl - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cmt; LS: offwht - bf - lt brn, occ lt gy, sl mot, hd - mod frm, brit,
ply - sb blk, v calc; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
occ sb blk, gt tex, arg - silty mt; bl - wh cut, mod fst stmg, bri yel-bl str, sl od

SS: med - dk gry, gy brn, trnsl - clr gr, f -
frm, w srt, w cons, sil cmt; LS: offwht - b
ply - sb blk, v calc; SLTY SH: med - dk
occ sb blk, gt tex, arg - silty mt; bl - wh



WT IN 9.35 / OUT 9.3
VIS IN 46/ OUT 58

WT IN 9.3 / OUT 9.3
VIS IN 46/ OUT 57



MD: 15,634'
TVD: 7,661.6'
Inclination: 89.35 °
Azimuth: 183.21 °
VS: -8,299.14'

vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
f - lt brn, occ lt gy, sl mot, hd - mod frm, brit,
k gy, occ blk, v f gr ip, frm, pred ply - sb ply,
cut, mod fst string, bri yel-bl stn, sl od

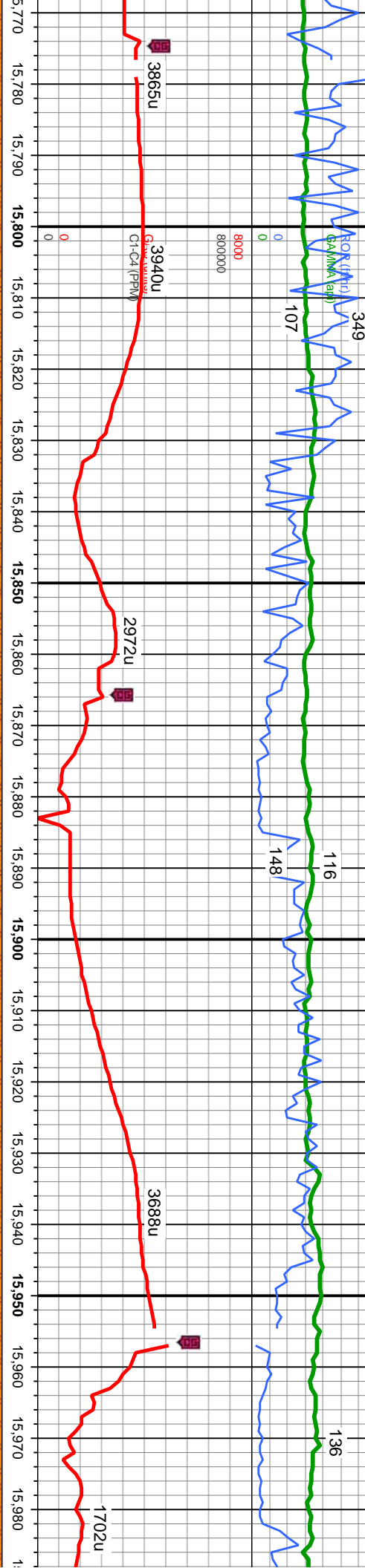
SS: med - dk gry, gy brn, tmsl - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srl, w cons, sil cnt; LS: offwht - bf - lt brn, occ lt gy, sl mot, hd - mod frm, brit,
ply - sb blk, v calc; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred ply - sb ply,
occ sb blk, gt tex, arg - silty mt; bl - wh cut, mod fst string, bri yel-bl stn, sl od

SS: med - dk gry, gy brn, tmsl - clr gr, f - vf gr, sb rnd - sb
frm, w srl, w cons, sil cnt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred
tex, arg - silty mt; bl - wh cut, mod fst string, bri yel-bl stn,



35
750
350
349
107
116
148
136
1702u

WT IN 9.35 / OUT 9.4
VIS IN 48/ OUT 55



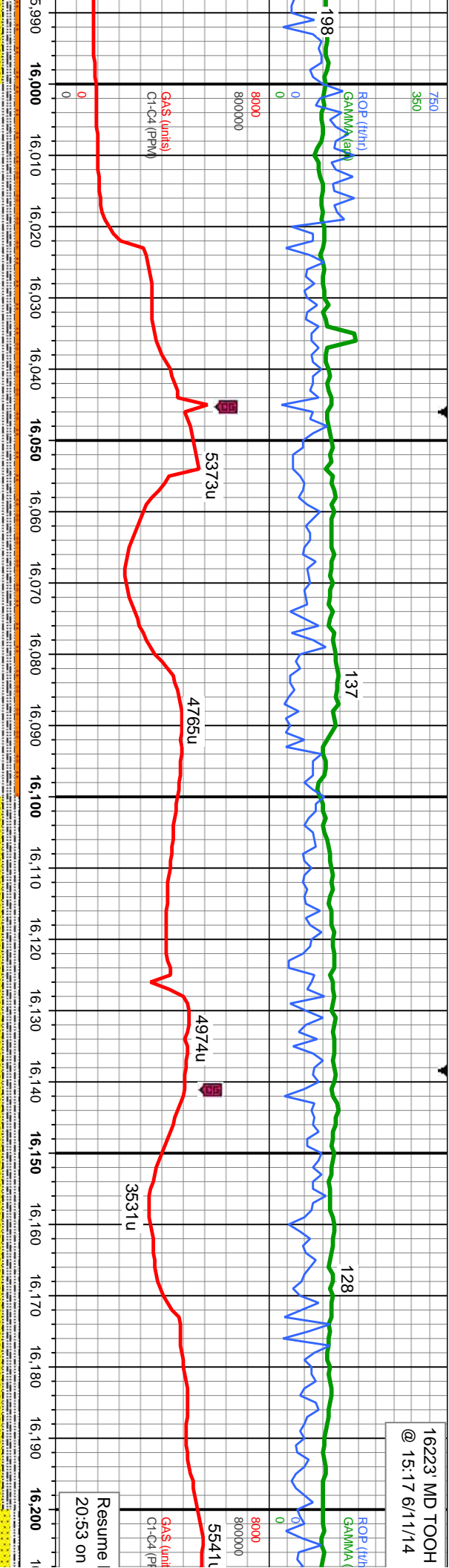
MD: 15,814'
TVD: 7,663.65'
Inclination: 89.35 °
Azimuth: 184.24 °
TVD VS: -8,478.74'

ang, v hd, sb blk, mod frm -
srt, sb pty-pty, hd-frm, brit,
st od
SS: med - dk gry, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cmt; SLT STN: lt-med gy, vfn grn, w srt, sb pty-pty, hd-frm, brit,
sil calc; SLTY SH: med - dk gy, occ blk, v f gr lp, frm, pred pty - sb pty, occ sb blk, gt
tex, arg - silty mt; bl - wh cut, mod fst stmg, bri yel-bl stn, sl od

SS: med - dk gry, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cmt; SLT STN: lt-med gy, vfn grn, w srt, sb pty-pty, hd-frm, brit,
sil calc; SLTY SH: med - dk gy, occ blk, v f gr lp, frm, pred pty - sb pty, occ sb blk, gt
tex, arg - silty mt; bl - wh cut, mod fst stmg, bri yel-bl stn, sl od

MD: 15,814'
TVD: 7,663.65'
Inclination: 89.35 °
Azimuth: 184.24 °
TVD VS: -8,478.74'





Resume
20:53 on

5,993'
7,663.94'
ation: 90.46 °
th: 180.52 °
.657.55'

TVD (ft)

SS: med - dk gry, gy brn, tmsl - clr gr, f - vf gr, sb md - sb ang, v hd, sb blk, mod frm - frm, w srt, w cons, sil cmt; SLT STN: lt-med gy, vfn grn, w srt, sb ply-pty, hd-frm, brt, sl calc; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred pty - sb ply, occ sb blk, gt tex, arg - silty mt; bri bl - wh cut, mod fst stmg, sl yel-bl stn, sl od

SS: med - dk gry, gy brn, tmsl - clr gr, f - vf gr, sb md - sb ang, v hd, sb blk, mod frm - frm, w srt, w cons, sil cmt; SLTY SH: med - dk gy, occ blk, v f gr ip, frm, pred pty - sb ply, occ sb blk, gt tex, arg - silty mt; bl - wh cut, sl fst stmg, yel-bl stn, sl od

MD: 16,173'
TVD: 7,663.61'
Inclination: 89.75 °
Azimuth: 180.78 °
VS: -8,837.54'

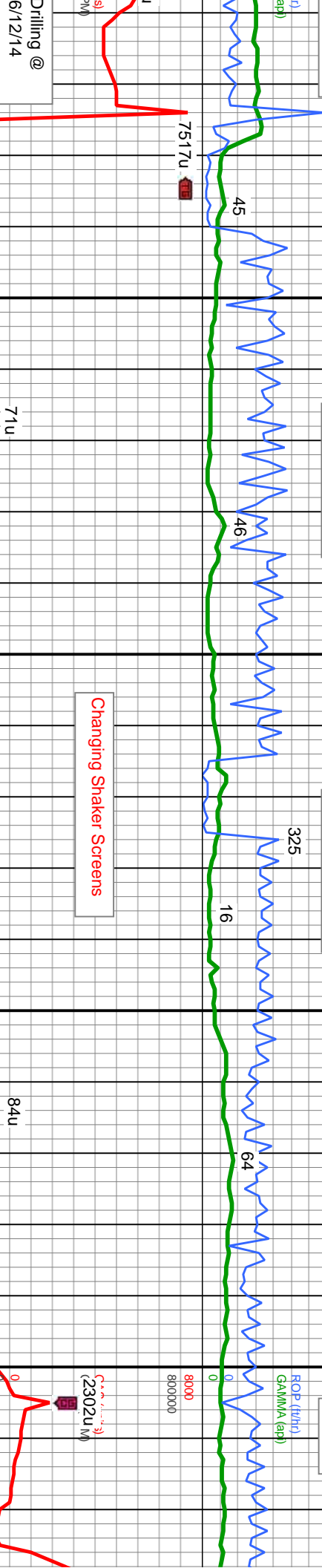


For New Bit

WT IN 9.3 / OUT 9.3
VIS IN 50/ OUT 52

WT IN 9.3 / OUT 9.15
VIS IN 50/ OUT 53

MINDEPTH
6/13/14



Changing Shaker Screens

MD: 16,353'
TVD: 7,663.03'
Inclination: 90.62 °
Azimuth: 180.62 °
VS: -9,017.52'

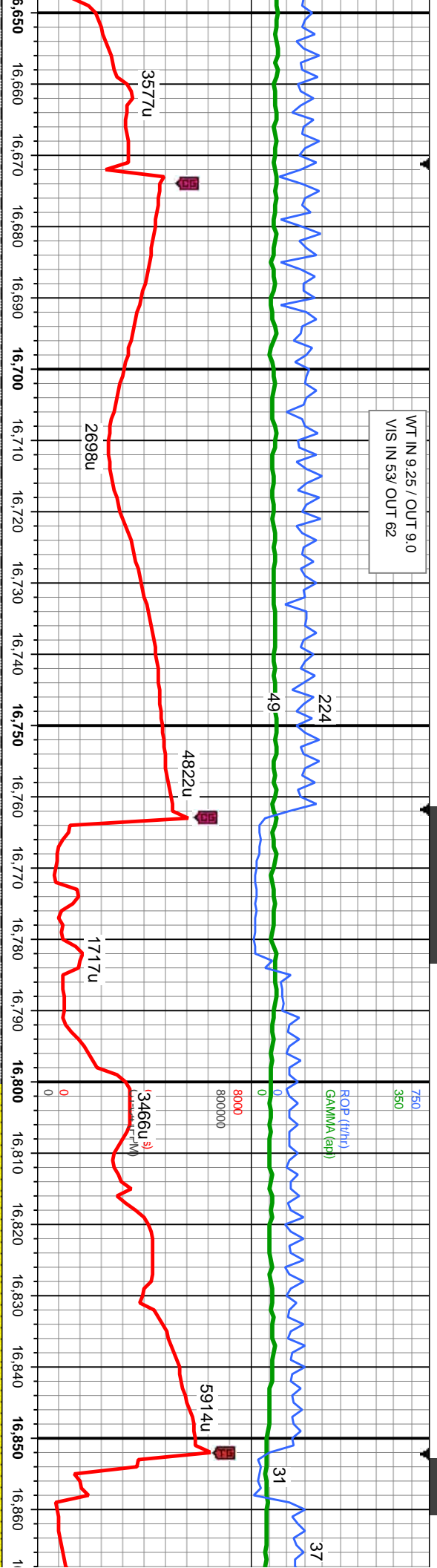
SS: med - dk gry, gy brn, trns l - clr gr, f - vt gr, sb rnd - sb ang, v hd, sb blk, mod frm frm, w srt, w cons, sil cnt; LS: offwht - bf - lt brn, occ lt gy, sl mot, hd - mod frm, brit, ty - sb blk, v calc; SLTY SH: med - dk gy, occ blk, v f gr lp, frm, pred pty - sb pty, occ sb blk, gt tex, arg - silty mtx; bri bl - wh cut, mod stmg, bri ye-bl stn, sl od

SS: med - dk gry, gy brn, trns l - clr gr, f - vt gr, sb rnd - sb ang, v hd, sb blk, mod frm frm, w srt, w cons, sil cnt; LS: offwht - bf - lt brn, occ lt gy, sl mot, hd - mod frm, brit, pty - sb blk, v calc; SLTY SH: med - dk gy, occ blk, v f gr lp, frm, pred pty - sb pty, occ sb blk, gt tex, arg - silty mtx; wh mky cut, mod slw stmg, sl ye-bl stn, sl od

SS: med - dk gry, gy frm, w srt, w cons, sil pty - sb blk, v calc; occ sb blk, gt tex, ar



WT IN 9.25 / OUT 9.0
VIS IN 53/ OUT 62



MD: 16,712'
TVD: 7,656.39'
Inclination: 91.02 °
Azimuth: 182.61 °
VS: -9.376.4'

MD: 16,801'
TVD: 7,655.86'
Inclination: 89.66 °
Azimuth: 181.71 °
VS: -9,465.33'

d - mod frm, brit, pty - sb blk, v calc; SS:
f, sb rnd - sb ang, v hd, sb blk, mod frm -
d - dk gy, occ blk, v f gr ip, frm, pred pty - sb
wh cut, slw stmg, yel-bl stn, sl od

LS: offwht - bf - lt brn, occ lt gy, sl mot, hd - mod frm, brit, pty - sb blk, v calc; SS:
med - dk gry, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w str, w cons, sil cnt, bl - wh cut, slw stmg, yel-bl stn, sl od

LS: offwht - bf - lt brn, occ lt gy, sl mot, hd - mod frm, brit, pty - sb blk, v calc; SS:
med - dk gry, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w str, w cons, sil cnt, bl - wh cut, slw stmg, yel-bl stn, sl od



WT IN 9.4 / OUT 9.3
VIS IN 5.4 / OUT 6.5

750
350

ROP (ft/hr)
GAMMA (api)

196
34

8000
800000

GAS (units)
Ct-C4 (ppm)

2267u

5066u

6051u

3466u

MD: 16,981'
TVD: 7,656.93'
Inclination: 89.66 °
Azimuth: 180.64 °
VS: -9,645.29'

TVD (ft)

7000

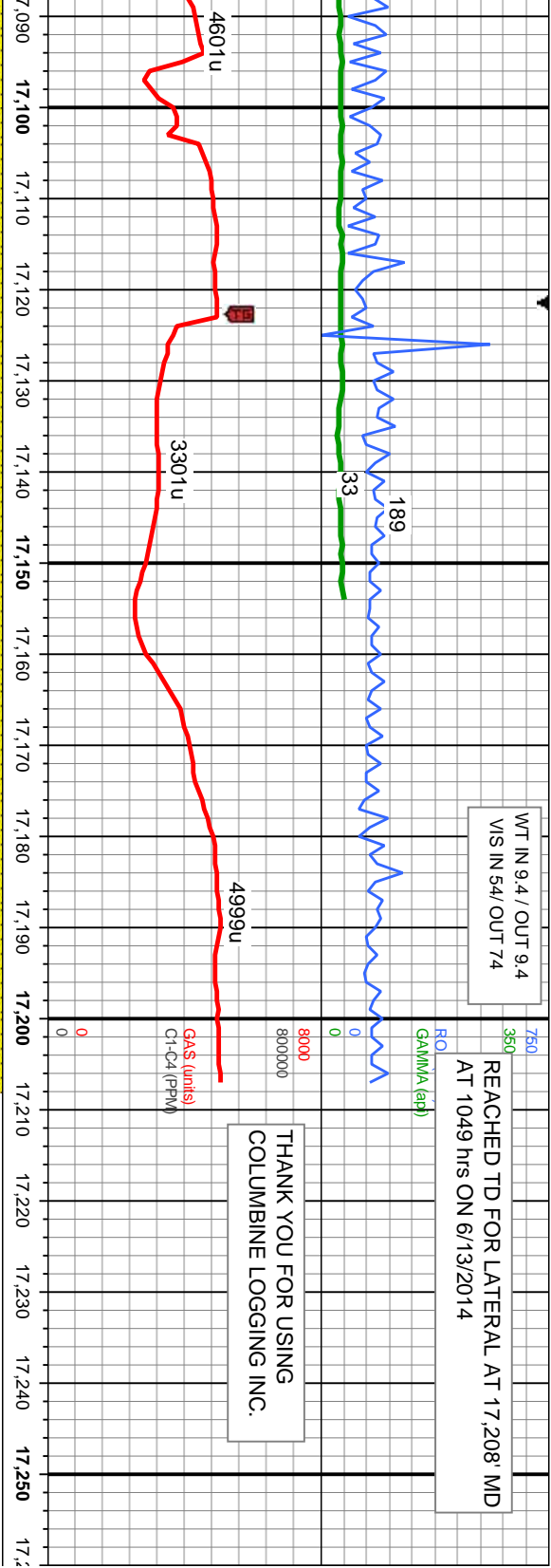
LS: oftwht - bf - lt brn, occ lt gy, sl mot, hd - mod frm, brit, pty - sb blk, v calc: SS:
med - dk gry, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srt, w cons, sil cnt; bl - wh cut, slw stmg, yel-bl str, sl od

LS: oftwht - bf - lt brn, occ lt gy, sl mot, hd - mod frm, brit, pty - sb blk, v c
med - dk gry, gy brn, trns - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, m
frm, w srt, w cons, sil cnt; bl - wh cut, slw stmg, yel-bl str, sl od

8000

blly - sb blk, v calc: SS:
v hd, sb blk, mod frm -
sl od





THANK YOU FOR USING
COLUMBINE LOGGING INC.

MD: 17,163'
TVD: 7,657.6'
Inclination: 89.89 °
Azimuth: 181 °
VS: -9,817.27'

MD: 17,208'
TVD: 7,658.19'
Inclination: 88.89 °
Azimuth: 181 °
VS: -9,872.25'

PROJECTED TO BIT

LS: offwht - bf - lt brn, occ lt gy, sl mot, hd - mod frm, brit, ply - sb blk, v calc; SS:
med - dk gry, gy brn, tmsl - clr gr, f - vf gr, sb rnd - sb ang, v hd, sb blk, mod frm -
frm, w srl, w cons, sil cmt; bl - wh cut, slw string, yel-bl stn, sl od

