



Scale: 5" / 100'
Measured Depth Log

Well Name State Seventy Holes A11-E14-3HNC

Location NWNW SEC 3 T4N R62W

State CO

County WELD

Country USA

Rig Number 26

API Number 05-123-38885-00

AFE # 14009

Region DJ BASIN

Field WATTENBERG

Spud Date 3/3/2014

Drilling Completed 3/10/2014

Surface Coordinates 444 FNL x 634 FWL (LAT: 40.347710, 104.319748)

Bottom Hole Coordinates (Projected)470 FSL x 329 FWL (Lat: 40.335393, 104.319883)

Ground Elevation 4534'

K.B. Elevation 4551'

Logged Interval 5950' To 10925'

Total Depth 10925'

Formation NIOBRARA C-CHALK

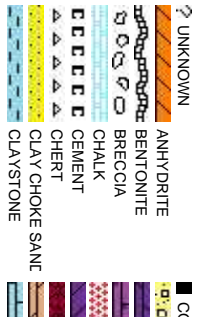
Type of Drilling Fluid LSND, H2O

Company Bonanza Creek

Name Paul McKay

Company Bonanza Creek

Address 410 17th Street
Denver, CO 80202



Operator

Energy Inc.

Geologist

Energy Inc.

, Suite 1500
202

Rock Types

CONGLOMERATE	MARLSTONE	SHALY SANDSTONE
DOLOMITE	METAMORPHIC	SHALY SILTSTONE
DOLOMITIC LIMESTONE	NO SAMPLE	SILTY SHALE
GRANITE	SALT	SILTSTONE
GYPSUM	SANDSTONE	TUFF
IGNEOUS	SALT-PEPPER SAND	WELDED TUFF
SIDERITE or LIMONITE	SHALE	
LIMESTONE	SHALE COLORED	
	SHALE GRAY	

Accessories

Fossils	GASTROPOD	ARGILLITE GRAIN	HEAVY MINERAL
INOCERAMUS	B BENTONITE	K KAOLIN	ANHYDRITE STRINGER
ALGAE	O OOLITE	BIT BITUMENOUS SUBSTANCE	B BENTONITE STRINGER
AMPHIPORA	O OSTRACOD	B BRECCIA FRAGMENTS	COAL STRINGER
BELEMNITE	P PELECYPOD	C CALCAREOUS	DOLOMITE STRINGER
BIOCLASTIC	P PELLET	C CARBONACEOUS FLAKES	G GYPSUM STRINGER
BRACHIOPOD	P PISOLITE	CHT CHERT	LIMESTONE STRINGER
BRYOZOA	P PLANT REMAINS	COAL - THIN BEDS	MARLSTONE (CALC) STRG
CEPHALOPOD	S PLANT SPORES	DOLOMITIC	MARLSTONE (DOL) STRG
CORAL	S SCAPHOPOD	F FELDSPAR	SANDSTONE STRINGER
CRINOID	S STROMATOPOROD	F FERRUGINOUS PELLET	SHALE STRINGER
ECHINOID		F FERRUGINOUS	S SILTY
FISH	Minerals	T TUFFACEOUS	SILTSTONE STRINGER
FORAMINIFERA	A ANHYDRITIC	G GLAUCONITE	
F FOSSIL	A ARGILLACEOUS	G GYPSIFEROUS	Stringer

Other Symbols

Oil Show	P PINPOINT	DST INTERVAL	W WIRELINE TESTED - LEFT	E EARTHY
V VUGGY	FAULT	W WIRELINE TESTED - RT	F FINELY XLN	
D DEAD	FORMATION TOP	D DRILL STEM TEST	G GRAINSTONE	
E EVEN	GAS SHOW	MN DEPTH	L LITHOGRAPHIC	
Q QUESTIONABLE	BIT	OIL SHOW	M MICRO XLN	
S SPOTTED STAINING	C CONNECTION (UP)	Rounding	M MUDSTONE	
	C CONNECTION (DOWN)	A ANGULAR	P PACKSTONE	
Porosity	C CONNECTION GAS	N NORMAL FAULT	W WACKESTONE	
E EARTHY	C CONNECTION GAS (LEFT)	O OVERTURNED STRATA		
F FENESTRAL	T TRIP GAS	R REVERSE FAULT	S SUBSAND	
F FRACTURE	T TRIP GAS (LEFT)	C CASING		Sorting
I INTERCRYSTALLINE	D DOWN TIME GAS	S SIDEWALL CORE (LEFT)	M MODERATE	
I INTERCRYSTALLINE	D DOWN TIME GAS (LEFT)	S SIDEWALL CORE (RIGHT)	P POOR	
M MOLDIC	C CORE - LOST	S SLIDE	W WELL	
O ORGANIC	C CORE - RECOVERED	S SURVEY	C CRYPTOXLN	

ROP
ROF
GAMMA

Bit Data
Bit #: 3
Type: HEO4JMRS
Size: 8.75
Depth In: 5,750'
Hours: 10 hrs
Jets: 3x20
S/N: 1387659

Sharon Springs Top
5988' MD 5932' TVD

Sharon Springs #1 Spike
MD: 6059' TVD: 5995'

Sharon Springs #2 Spike
MD: 6106' TVD: 6033'

Total Gas & Chromatograph

GAS
C1
C2
C3
C4

COLUMBINE LOGGING RIGGED UP
ON 3/6/2014 MANNED 2-PERSON
LOGGING WITH BLOODHOUND GAS
CHROMATOGRAPH UNIT #0077
BEGAN ON 3/7/2014, 6:00 MST at
6000' MD

Depth Labels

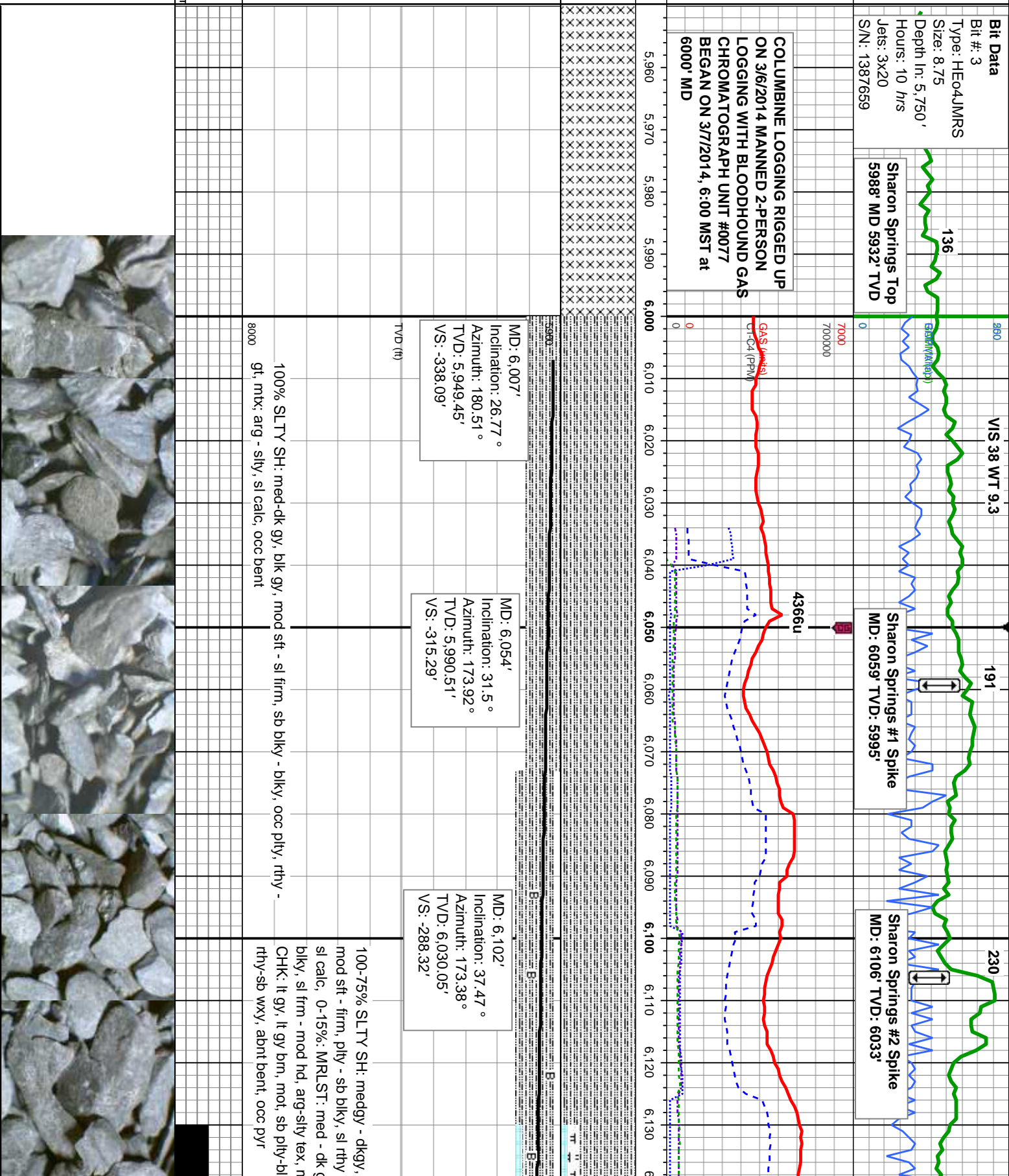
% Lith

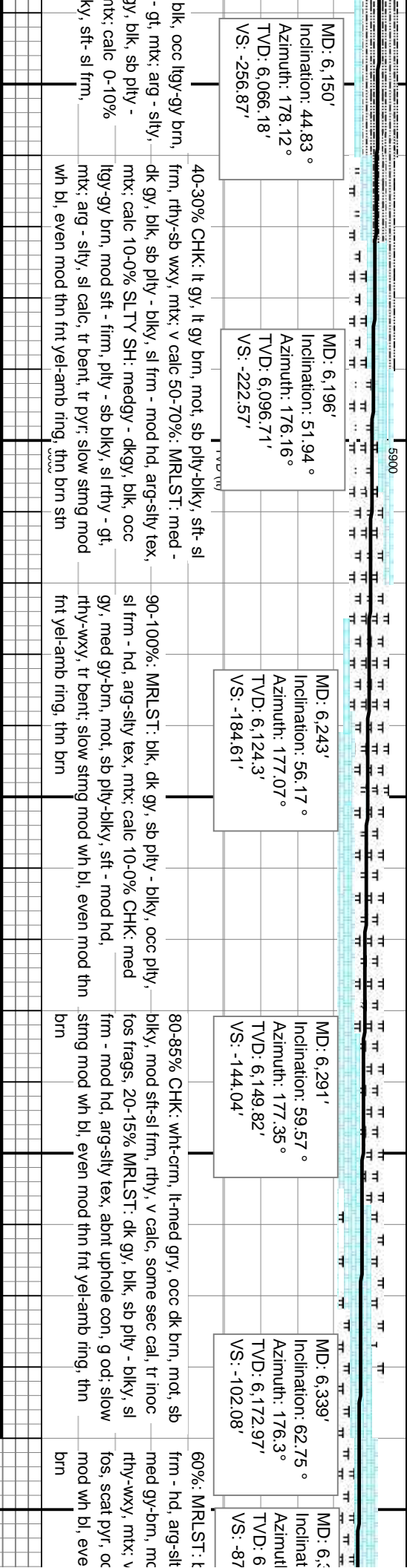
Well Bore
TVD

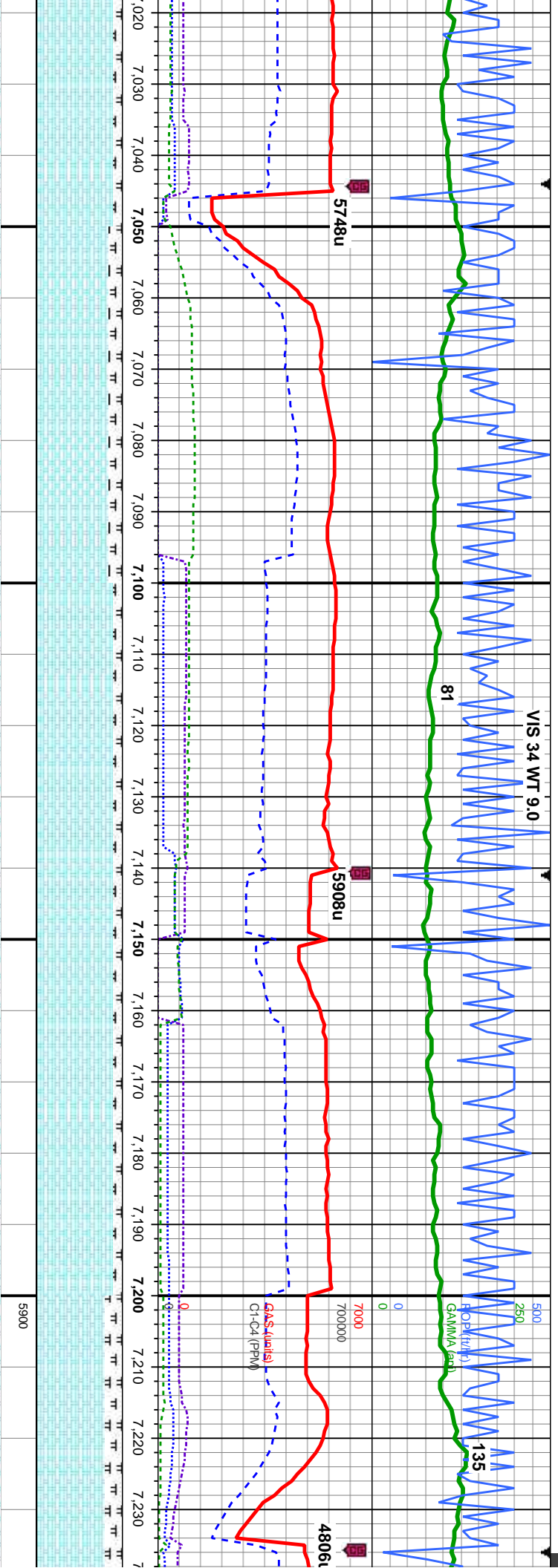
Oil Show

ESTIMATE

Images

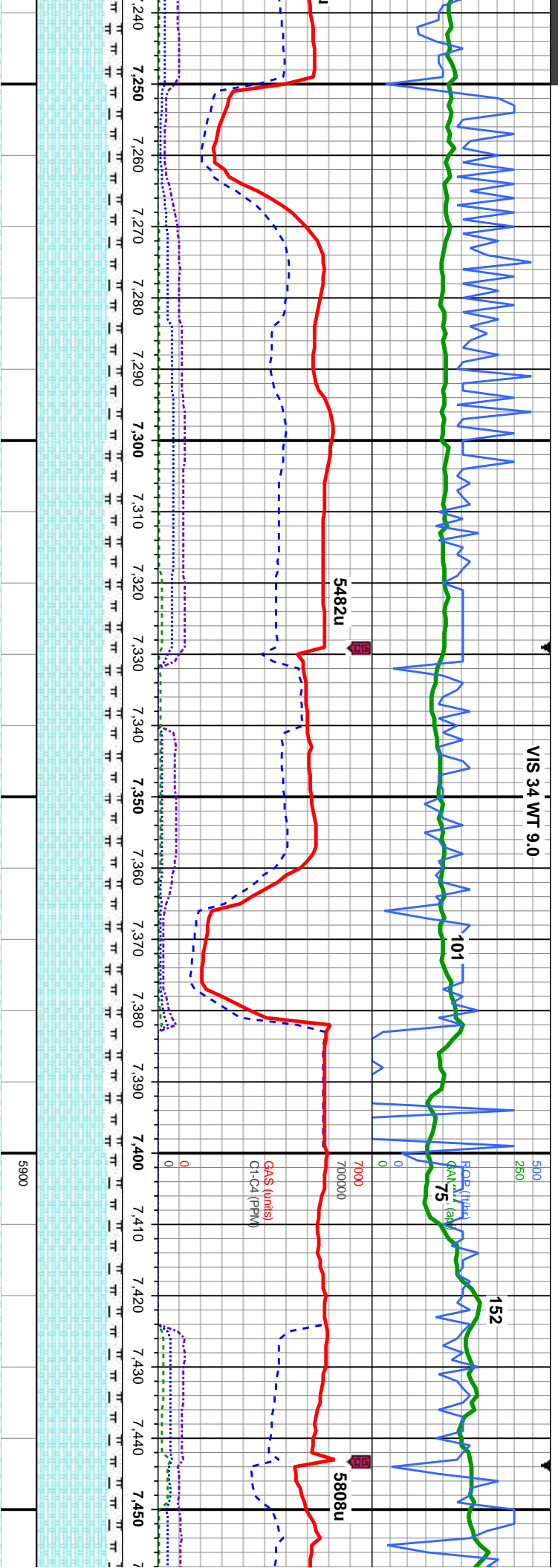






MD: 7,083' Inclination: 89.63 ° Azimuth: 175.21 ° TVD: 6,232.23' VS: 630.24'		85% CHK: med-gy, med brn, mot, sb blk-y-sb rthy-wxy, mtk: v calc, occ calc pity, sft-mod hd, rthy-wxy, mtk: v calc, occ calc concs 15% MRLST: dk gy, blk, sb blk-y - blk-y, occ sb pity, sl frm-hd, arg-sily tex, tr inoc fos, mod od, mod chk flor, fst sting bri wh bl, even thk bri yel-amb ring, g brn stn	90% CHK: med-gy, med brn, mot, sb blk-y-sb pity, sft-mod hd, rthy-wxy, mtk: v calc, occ calc concs 10% MRLST: dk gy, blk, sb blk-y - blk-y, occ sb pity, sl frm-hd, arg-sily tex, tr inoc fos, mod od, mod chk flor, fst sting bri wh bl, even mod thk bri yel-amb ring, mod brn stn	90% CHK: med-gy, med brn, mot, sb blk-y-sb pity, sft-mod hd, rthy-wxy, mtk: v calc, occ calc concs 10% MRLST: dk gy, blk, sb blk-y - blk-y, occ sb pity, sl frm-hd, arg-sily tex, tr inoc fos, mod od, mod chk flor, fst sting bri wh bl, even mod thk bri yel-amb ring, mod brn stn	80% CHK: med-gy, med brn, mot, sb blk-y-sb pity, sft-mod hd, rthy-wxy, r occ calc concs 20% MRLST: dk gy blk-y - blk-y, occ sb pity, sl frm-hd, arg-sily tex, tr inoc fos, mod od, mod chk flor, fst wh bl, even mod thk bri yel-amb rin brn stn
TVD (ft)					



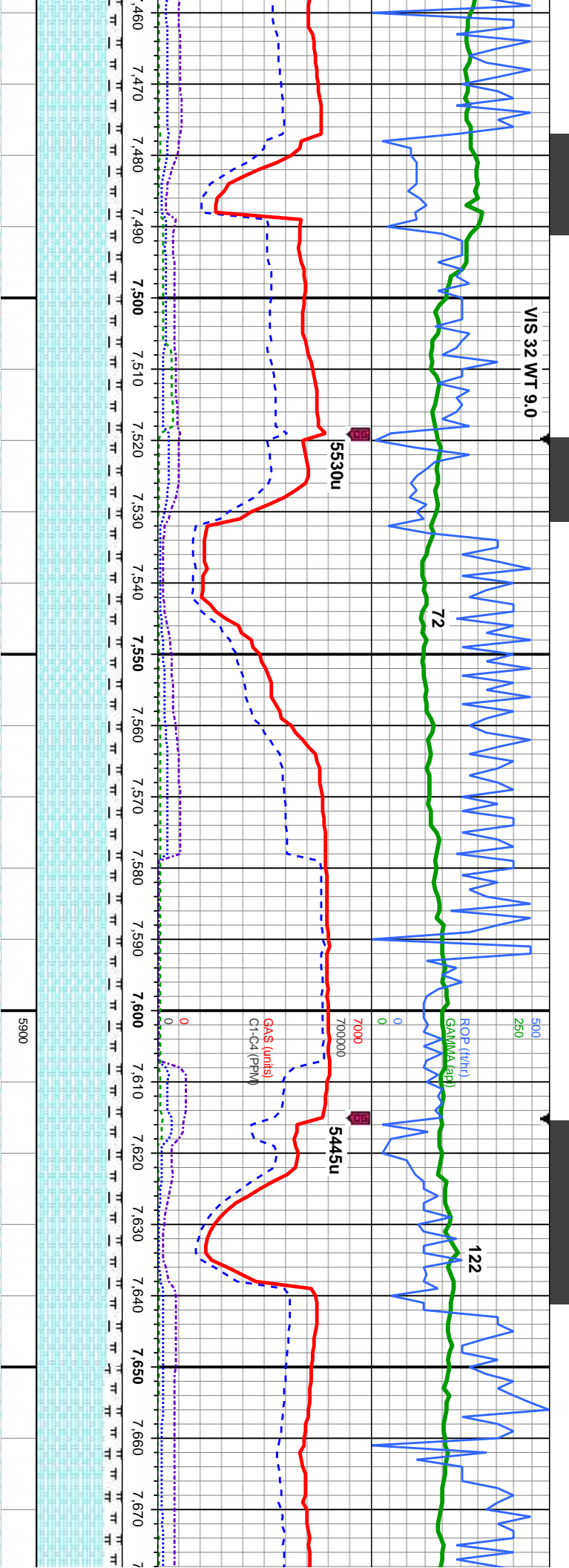


MD: 7,273'
Inclination: 90.71 °
Azimuth: 175.3°
TVD: 6,230.82'
VS: 819.47'

MD: 7,368'
Inclination: 88.24 °
Azimuth: 174.89°
TVD: 6,231.69'
VS: 914.04'

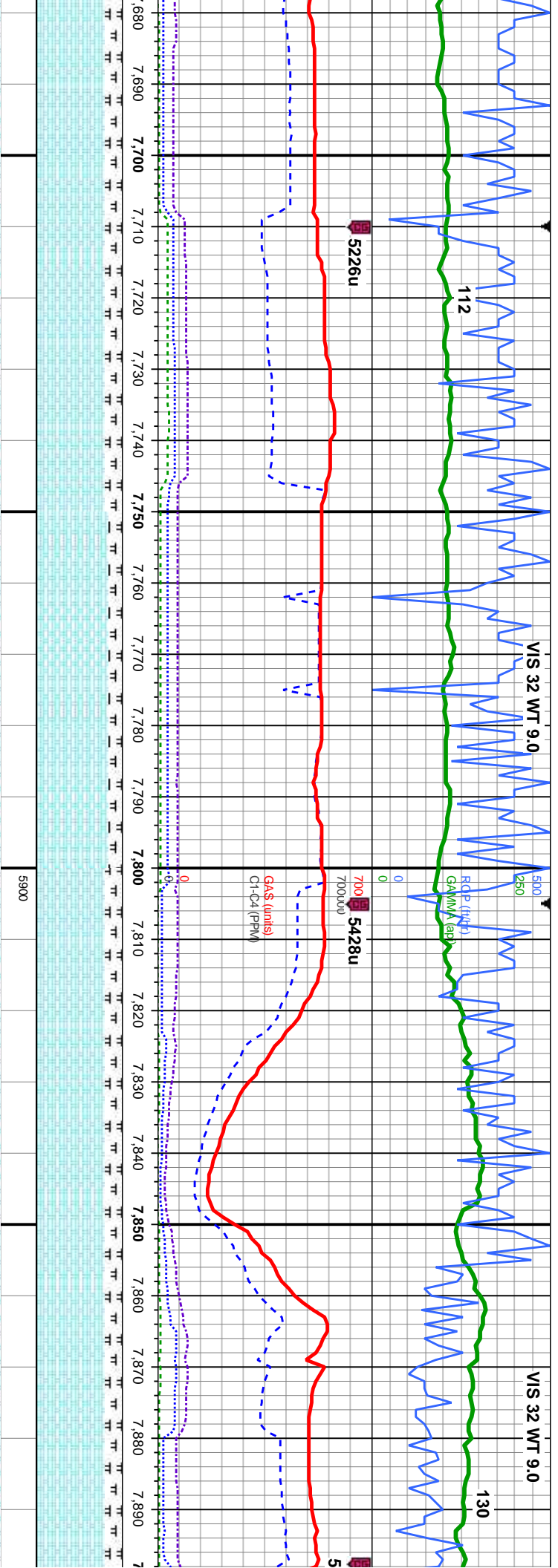
sb	85% CHK: med-gy, med brn, mot, sb	80% CHK: lt- med gy, occ med brn, mot, sb	80% CHK: med gy, occ med brn and lt gry, mot, sb blk-y-sb pily, sft-mod hd, rthy-wxy, mtx: v calc, occ calc concs, 20% MRLST: dk gy, blk, sb blk-y - blk-y, occ sb pily, sl frm-hd, arg-sily tex, tr inoc fos, mod od, mod chk flor, fst sting bri wh bl, even mod thk bri yel-amb ring, mod brn stn	85% CHK: med gy, occ med brn and lt gry, mot, sb blk-y-sb pily, sft-mod hd, rthy-wxy, mtx: v calc 15% MRLST: dk gy, blk, sb blk-y - blk-y, occ sb pily, sl frm-hd, arg-sily tex, some inoc fos frags and imbd cal, sl chk flor, mod-fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb stn	85% CHK: med gy, occ med brn and lt gry, mot, sb blk-y-sb pily, sft-mod hd, rthy-wxy, calc 15% MRLST: dk gy, blk, sb blk-y - blk-y, occ sb pily, sl frm-hd, arg-sily tex, some inoc fos frags and imbd cal, sl chk flor, mod-fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb stn
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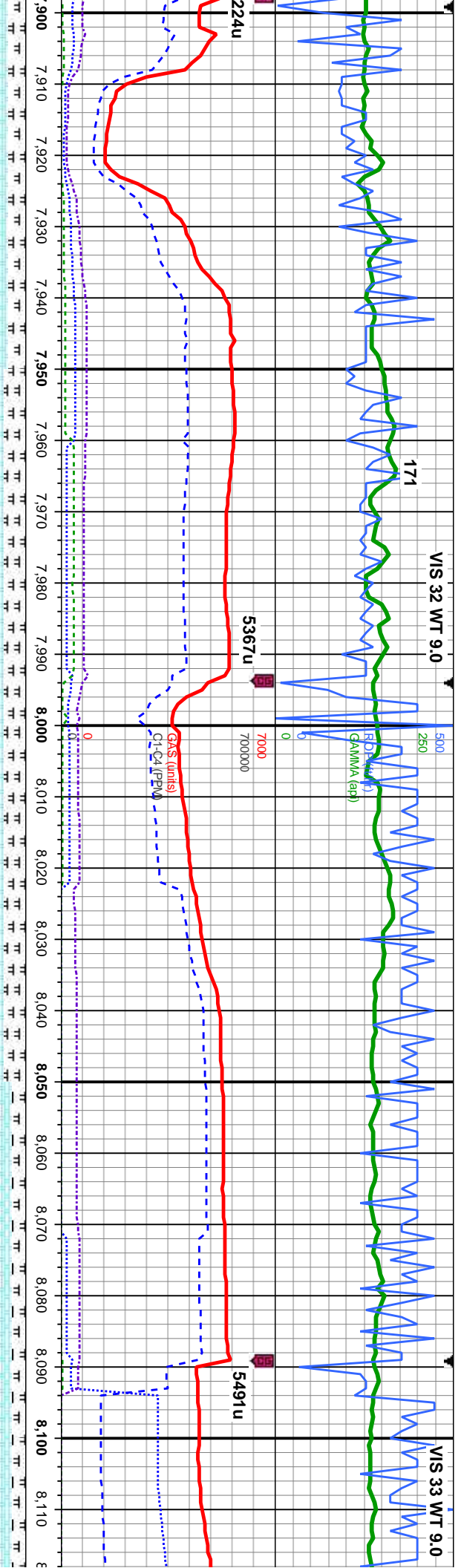
: 7,463' Inclination: 88.36 ° imuth: 175.84 ° D: 6,234.51' 1,008.62'	CHK: lt-med gy, occ med brn, mot, sb biky-sb pily, sft-mod hd, rthy-wxy, mtk; v 15% MRLST: dk gy, blk, sb biky - biky, arg-sily tex, tr inoc and imbd cal, sl chk flor, last sting bri wh bl, even mod thk bri ring, mod brn amb stn	85% CHK: lt-med gy, occ med brn, mot, sb biky-sb pily, sft-mod hd, rthy-wxy, mtk; v calc 15% MRLST: dk gy, blk, sb biky - biky, occ sb pily, sl frm-hd, arg-sily tex, tr inoc fos frags and imbd cal, sl chk flor, mod-fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb stn	MD: 7,558' Inclination: 88.83 ° Azimuth: 176.21 ° TVD: 6,236.84' VS: 1,103.3'	TVD (ft)	85% CHK: lt-med gy, occ med brn, mot, sb biky-sb pily, sft-mod hd, rthy-wxy, mtk; v calc 15% MRLST: dk gy, blk, sb biky - biky, occ sb pily, sl frm-hd, arg-sily tex, tr inoc fos frags and imbd cal, sl chk flor, mod-fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb stn	80% CHK: lt-med gy, occ biky-sb pily, sft-mod hd, 20% MRLST: dk gy, blk, sb pily, sl frm-hd, arg-sily frags and imbd cal, sl chi sting bri wh bl, even moco ring, mod brn amb stn





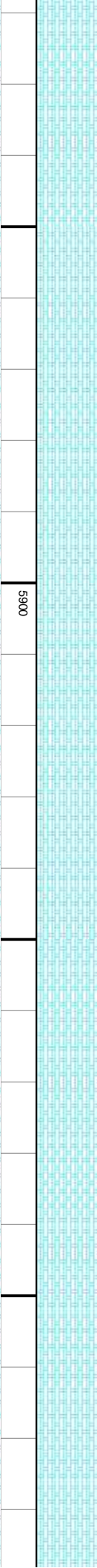
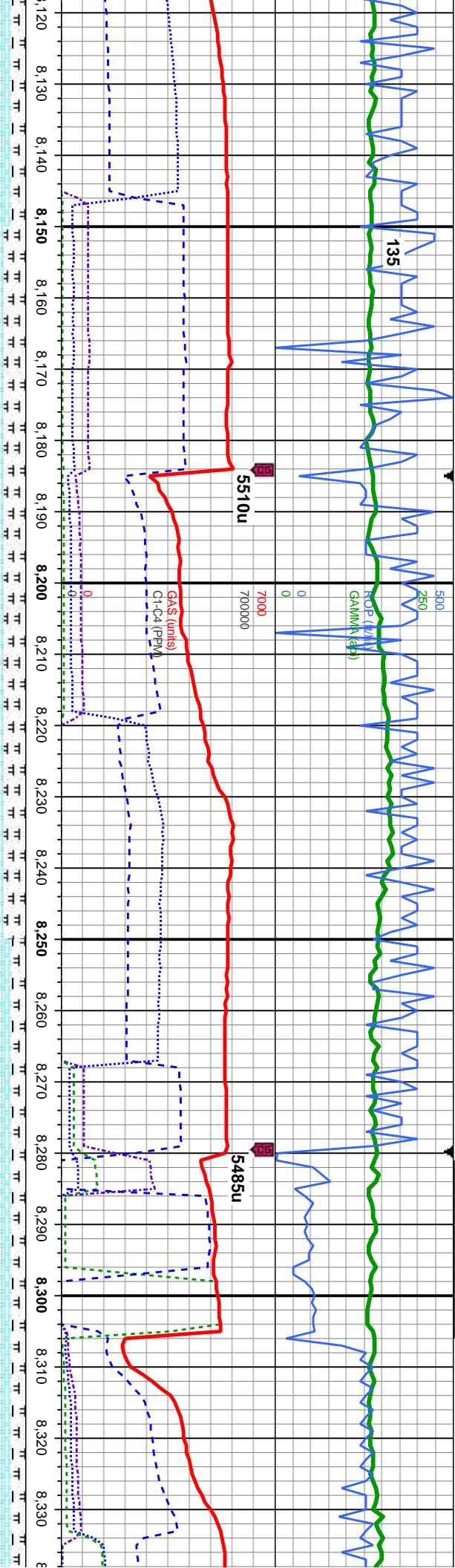
MD: 7,748' Inclination: 90.59 ° Azimuth: 177.06 ° TVD: 6,236.7' VS: 1,292.89'		80% CHK: lt-med gy, occ med bm, mot, sb biky-sb pily, sft-mod hd, rthy-wxy, mtz: v calc 20% MRLST: dk gy, blk, sb biky - biky, occ sb pily, sl frm-hd, arg-sily tex, tr inoc fos frags and imbd cal, sl chk flor, mod sting bri wh bl, even mod bri yel-amb ring, fr yel brn sin	85% CHK: lt-med gy, occ med bm, mot, sb biky-sb pily, sft-mod hd, rthy-wxy, mtz: v calc 15% MRLST: dk gy, blk, sb biky - biky, occ sb pily, sl frm-hd, arg-sily tex, some inoc fos frags and imbd cal, sl chk flor, mod sting bri wh bl, even mod bri yel-amb ring, fr yel brn stin
MD: 7,843' Inclination: 90.28 ° Azimuth: 176.7 ° TVD: 6,235.98' VS: 1,387.69'		80% CHK: lt-med gy, occ med bm, mot, sb biky-sb pily, sft-mod hd, rthy-wxy, mtz: v calc 20% MRLST: dk gy, blk, sb biky - biky, occ sb pily, sl frm-hd, arg-sily tex, tr inoc fos frags and imbd cal, sl chk flor, mod-fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb sin	80% CHK: lt-med gy, occ med bm, mot, sb biky-sb pily, sft-mod hd, rthy-wxy, mtz: v calc 20% MRLST: dk gy, blk, sb biky - biky, occ s pily, sl frm-hd, arg-sily tex, tr inoc fos frags and imbd cal, sl chk flor, mod-fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb sin





MD: 7,938' Inclination: 90.03 ° Azimuth: 176.49 ° TVD: 6,235.72' VS: 1,482.47'		MD: 8,033' Inclination: 89.78 ° Azimuth: 176.96 ° TVD: 6,235.88' VS: 1,577.27'	
80% CHK: lt-med gy, occ med brn, mot, sb biky-sb pily, sft-mod hd, rthy-wxy, mtx; v calc 20% MRLST: dk gy, blk, sb biky - biky, occ sb pily, sl frm-hd, arg-sily tex, tr inoc fos frags and imbd cal, sl chk flor, mod-fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb sin	75% CHK: lt-med gy, occ med brn, mot, sb biky-sb pily, sft-mod hd, rthy-wxy, mtx; v calc 25% MRLST: dk gy, blk, sb biky - biky, occ sb pily, sl frm-hd, arg-sily tex, some inoc fos frags and imbd cal, sl chk flor, mod-fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb sin	75% CHK: lt-med gy, occ med brn, mot, sb biky-sb pily, sft-mod hd, rthy-wxy, mtx; v calc 25% MRLST: dk gy, blk, sb biky - biky, occ sb pily, sl frm-hd, arg-sily tex, some inoc fos frags and imbd cal, sl chk flor, mod-fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb sin	85% CHK: lt-med gy, occ med brn, mot, sb biky-sb pily, sft-mod hd, rthy-wxy, mtx; v calc 15% MRLST: dk gy, blk, sb biky - biky, occ sb pily, sl frm-hd, arg-sily tex, scatt inoc fos frags and imbd cal, sl chk flor, mod-fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb sin

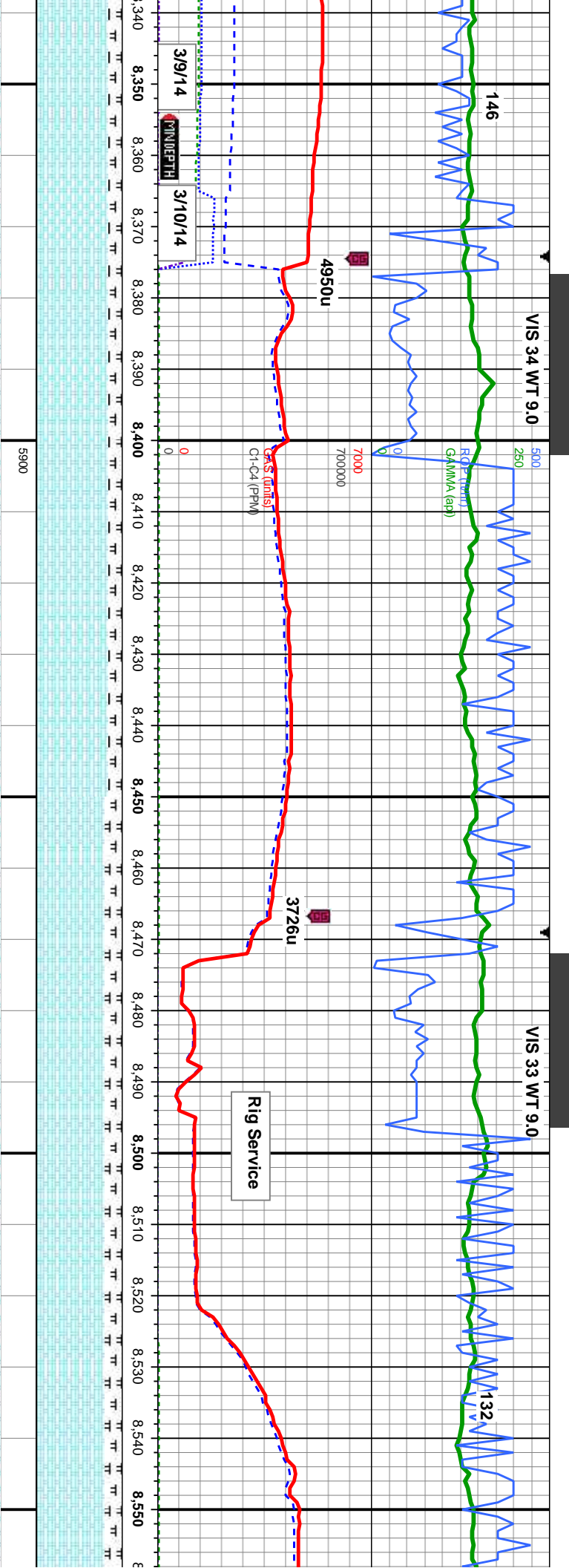




MD: 8,128' Inclination: 90.5 ° Azimuth: 176.46 ° TVD: 6,235.65' VS: 1,672.06'		MD: 8,222' Inclination: 90.09 ° Azimuth: 175.02 ° TVD: 6,235.17' VS: 1,765.73'		MD: 8,318' Inclination: 91.36 ° Azimuth: 177.35 ° TVD: 6,233.95' VS: 1,861.45'	
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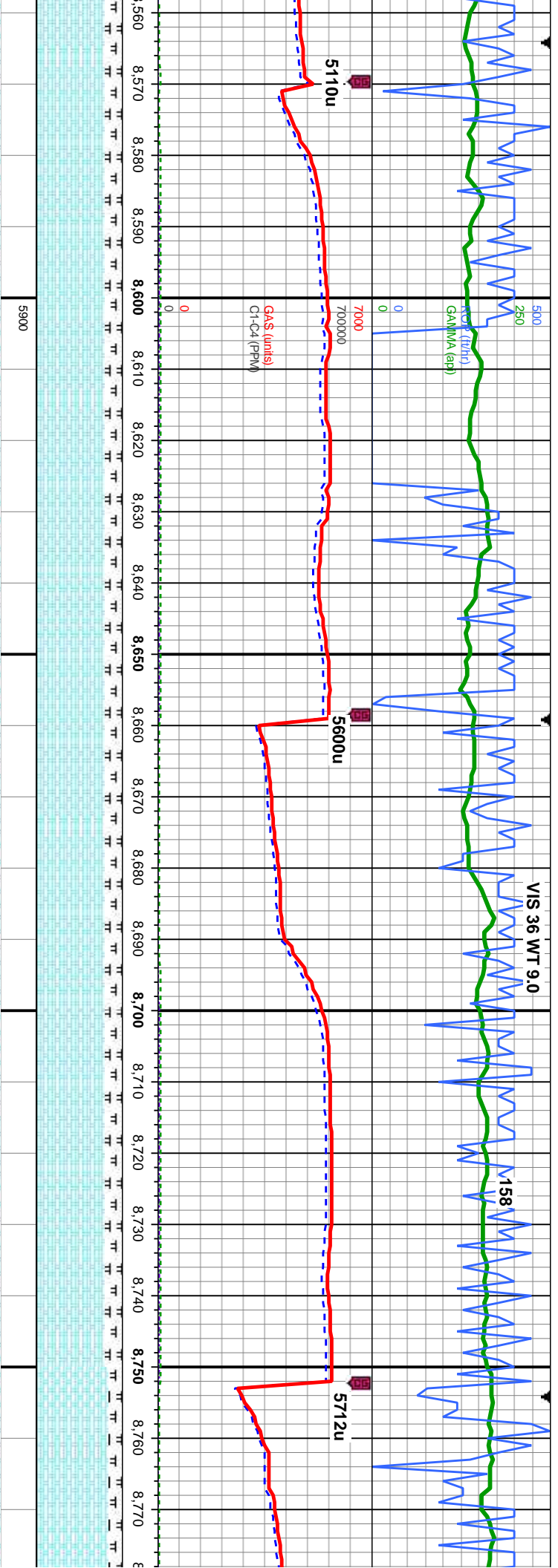
d gy, occ med bm, mot, sb mod hd, rthy-wxy, mtx: v calc gy, blk, sb blkly - blkly, occ sb arg-sily tex, tr inoc fos frags chck flor, mod-fast sting bri thk bri yel-amb ring, mod	85% CHK: med gy, occ med brn and lt gry, mot, sb blkly-sb pily, sft-mod hd, rthy-wxy, mtx: v calc 15% MRLST: dk gy, blk, sb blkly - blkly, occ sb pily, sl frm-hd, arg-sily tex, tr inoc fos frags and imbd cal, sl chk flor, mod-fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb stn	75% CHK: med gy, occ med brn and lt gry, mot, sb blkly-sb pily, sft-mod hd, rthy-wxy, mtx: v calc 25% MRLST: dk gy, blk, sb blkly - blkly, occ sb pily, sl frm-hd, arg-sily tex, tr inoc fos frags and imbd cal, sl chk flor, mod sting bri wh bl, even mod bri yel-amb ring, mod brn amb stn	85% CHK: med gy, occ med brn and lt gry, mot, sb blkly-sb pily, sft-mod hd, rthy-wxy, mtx: v calc, 15% MRLST: dk gy, blk, sb blkly - blkly, occ sb pily, sl frm-hd, arg-sily tex, tr inoc fos frags and imbd cal, sl chk flor, mod sting bri wh bl, even mod bri yel-amb ring, mod brn amb stn	85% CHK: med gy, occ med brn and lt gry, mot, sb blkly-sb pily, sft-mod hd, rthy-wxy, mtx: v calc, 15% MRLST: dk gy, blk, sb blkly - blkly, occ sb pily, sl frm-hd, arg-sily tex, tr inoc fos frags and imbd cal, sl chk flor, fast-v fast sting bri wh bl, even mod yel-amb ring, mod brn amb stn
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MD: 8,412' Inclination: 91.39 ° Azimuth: 178.21 ° TVD: 6,231.7' VS: 1,955.31'		85% CHK: med gy, occ med brn and lt gry, mot, sb blk-y-sb ply, sft-mod hd, rthy-wxy, mtvx: v calc, 15% MRLST: dk gy, blk, sb blk-y-bkly, occ sb ply, sl frm-hd, arg-sily tex, tr bent, tr inoc fos frags and imbd cal, mod chk flr, fast-v fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb stn	85% CHK: med gy, occ med brn and lt gry, mot, sb blk-y-sb ply, sft-mod hd, rthy-wxy, mtvx: v calc, 15% MRLST: dk gy, blk, sb blk-y-bkly, occ sb ply, sl frm-hd, arg-sily tex, tr bent, tr inoc fos frags and imbd cal, mod chk flr, fast-v fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb stn	80% CHK: med gy, occ med brn and lt gry, mot, sb blk-y-sb ply, sft-mod hd, rthy-wxy, mtvx: v calc, 20% MRLST: dk gy, blk, sb blk-y-bkly, occ sb ply, sl frm-hd, arg-sily tex, tr bent, tr inoc fos frags and imbd cal, fr od, mod sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb stn	MD: 8,508' Inclination: 89.66 ° Azimuth: 178.63 ° TVD: 6,230.82' VS: 2,051.24'	80% CHK: med gy, occ med brn and lt gry, mot, sb blk-y-sb ply, sft-mod hd, rthy-wxy, mtvx: v calc, 20% MRLST: dk gy, blk, sb blk-y-bkly, occ sb ply, sl frm-hd, arg-sily tex, tr bent, tr inoc fos frags and imbd cal, fr od, fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb stn	80% CHK: med gy, occ med brn and lt gry, mot, sb blk-y-sb ply, sft-mod hd, rthy-wxy, mtvx: v calc, 20% MRLST: dk gy, blk, sb blk-y-bkly, occ sb ply, sl frm-hd, arg-sily tex, tr bent, tr inoc fos frags and imbd cal, fr od, fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb stn
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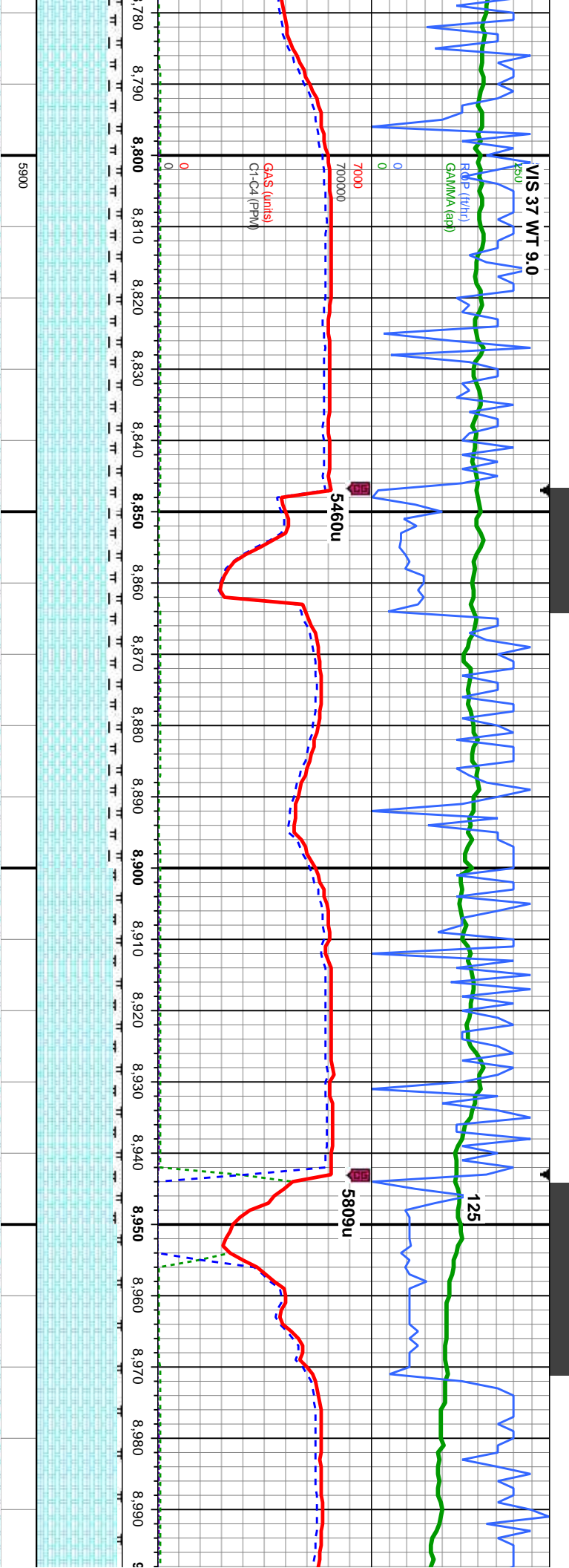


MD: 8.602'
Inclination: 89.41 °
Azimuth: 178.3°
TVD: 6,231.58'
VS: 2,145.18'

MD: 8.697'
Inclination: 89.72 °
Azimuth: 178.17°
TVD: 6,232.3'
VS: 2,240.11'

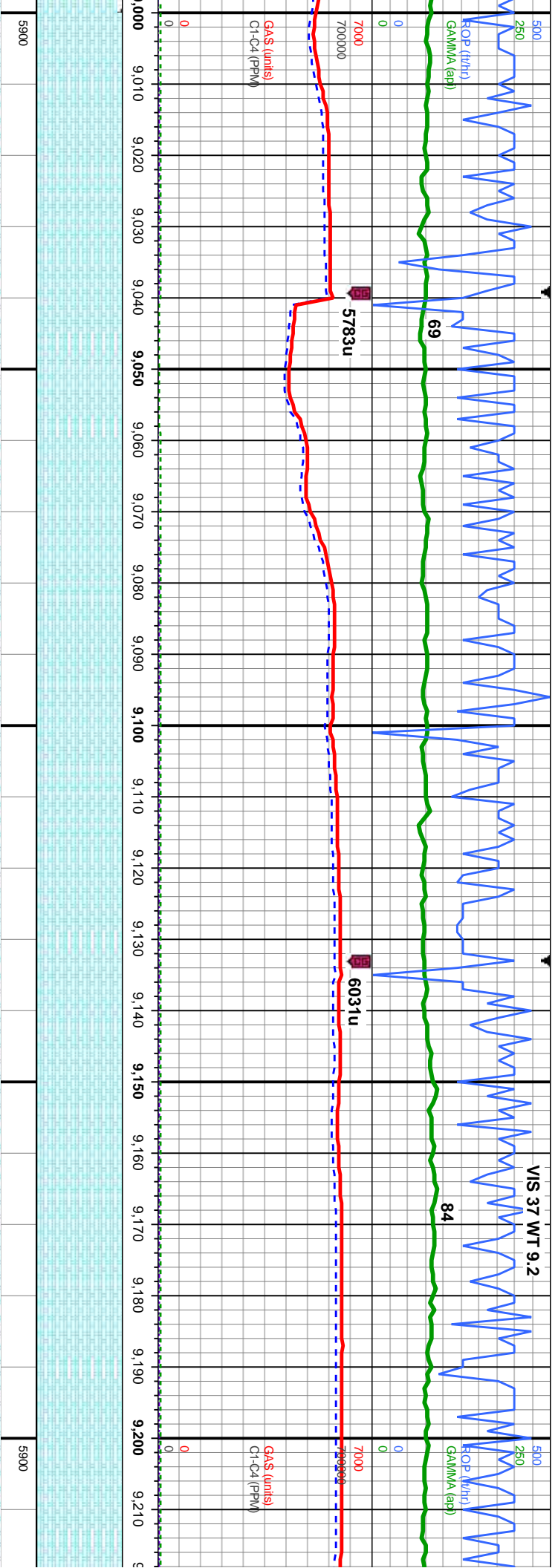
CHK: med gy, occ med brn and lt gry, mot, sb blk-y-sb ply, sft-mod hd, rthy-wxy, calc, 20% MRLST: dk gy, blk, sb blk-y-sb ply, sl frm-hd, arg-sily tex, tr	80% CHK: med gy, occ med brn and lt gry, mot, sb blk-y-sb ply, sft-mod hd, rthy-wxy, mtx: v calc, 20% MRLST: dk gy, blk, sb blk-y-sb ply, sl frm-hd, arg-sily tex, tr	80% CHK: med gy, occ med brn and lt gry, mot, sb blk-y-sb ply, sft-mod hd, rthy-wxy, mtx: v calc, 20% MRLST: dk gy, blk, sb blk-y-sb ply, sl frm-hd, arg-sily tex, tr	80% CHK: med gy, occ med brn and lt gry, mot, sb blk-y-sb ply, sft-mod hd, rthy-wxy, mtx: v calc, 20% MRLST: dk gy, blk, sb blk-y-sb ply, sl frm-hd, arg-sily tex, tr
occ sb ply, sl frm-hd, arg-sily tex, tr	occ sb ply, sl frm-hd, arg-sily tex, tr	occ sb ply, sl frm-hd, arg-sily tex, tr	occ sb ply, sl frm-hd, arg-sily tex, tr
frag and imbd cal, fr od, fast string	frag and imbd cal, fr od, fast string	frag and imbd cal, fr od, fast string	frag and imbd cal, fr od, fast string
brl, even mod thk bri yel-amb ring,	brl, even mod thk bri yel-amb ring,	brl, even mod thk bri yel-amb ring,	brl, even mod thk bri yel-amb ring,
ring, mod brn amb sin	ring, mod brn amb sin	ring, mod brn amb sin	ring, mod brn amb sin





MD: 8,792' Inclination: 90.03 ° Azimuth: 178.4 ° TVD: 6,232.51' VS: 2,335.03'		mod brn and lt gry, mod hd, rthy-wxy, dk gy, blk, sb blkly - arg-sily tex, tr imbd cal, fr od, mod thk bri	85% CHK: med gy, occ med brn and lt gry, mot, sb blkly-sb pily, sft-mod hd, rthy-wxy, mtx; v calc, 15% MRLST: dk gy, blk, sb blkly - blkly, occ sb pily, sl frm-hd, arg-sily tex, tr bent, tr inoc fos frags and imbd cal, fr od, fast sting bri wh bl, even mod thk bri	85% CHK: med gy, occ med brn and lt gry, mot, sb blkly-sb pily, sft-mod hd, rthy-wxy, mtx; v calc, 15% MRLST: dk gy, blk, sb blkly - blkly, occ sb pily, sl frm-hd, arg-sily tex, tr bent, tr inoc fos frags and imbd cal, fr od, fast sting bri wh bl, even mod thk bri	90% CHK: med gy, occ med brn and lt gry, mot, sb blkly-sb pily, sft-mod hd, rthy-wxy, mtx; v calc, 10% MRLST: dk gy, blk, sb blkly - blkly, occ sb pily, sl frm-hd, arg-sily tex, tr inoc fos frags and imbd cal, mod od, fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb stn	95% CHK: med gy, occ med brn and lt gry, mot, sb blkly-sb pily, sft-mod hd, rthy-wxy, mtx; v calc, 5% MRLST: dk gy, blk, sb blkly - blkly, occ sb pily, sl frm-hd, arg-sily tex, tr inoc fos frags and imbd cal, g od, g chk flor, fast sting bri wh bl, even mod thk bri
MD: 8,887' Inclination: 91.05 ° Azimuth: 178.16 ° TVD: 6,231.61' VS: 2,429.96'						
MD: 8,982' Inclination: 90.06 ° Azimuth: 175.89 ° TVD: 6,230.69' VS: 2,524.77'						

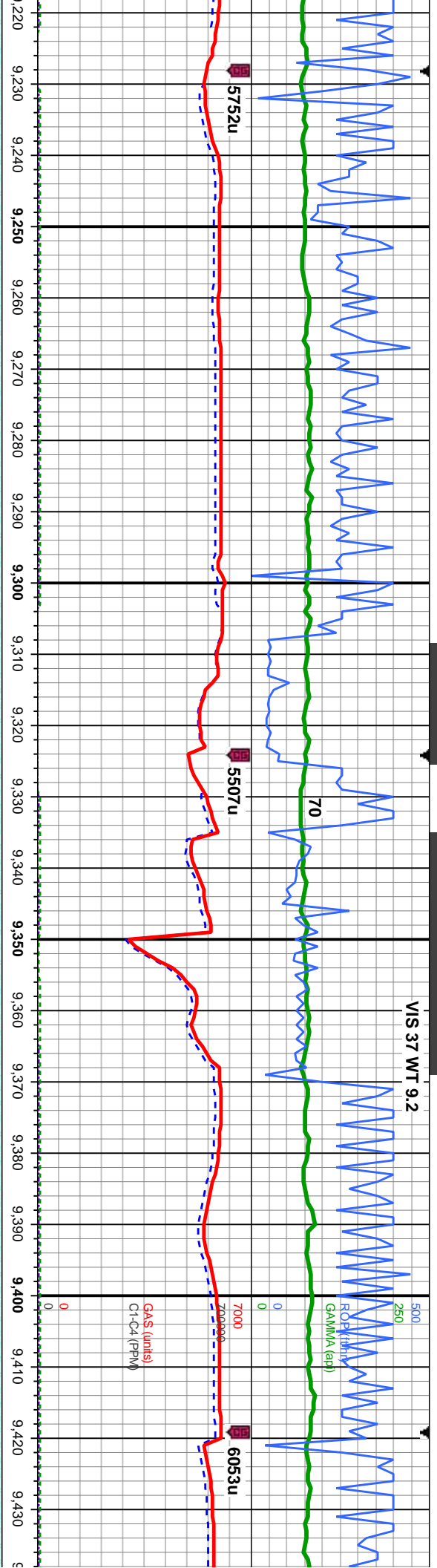




MD: 9,077' Inclination: 89.69 ° Azimuth: 175 ° TVD: 6,230.9' VS: 2,619.4'	
100% CHK: wht-crm, lt gy, occ med bm, mot, sb blk-y-sb pily, sift-mod hd, rthy-wxy, mx; v calc, tr inoc fos frags and imbd cal, g od, g chk flor, fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb sin	100% CHK: wht-crm, lt gy, occ med bm, mot, sb blk-y-sb pily, sift-mod hd, rthy-wxy, mx; v calc, tr inoc fos frags and imbd cal, g od, g chk flor, fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb sin
100% CHK: wht-crm, lt gy, occ med bm, mot, sb blk-y-sb pily, sift-mod hd, rthy-wxy, mx; v calc, tr inoc fos frags and imbd cal, g od, g chk flor, fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb sin	100% CHK: wht-crm, lt gy, occ med bm, mot, sb blk-y-sb pily, sift-mod hd, rthy-wxy, mx; v calc, occ imbd cal, g od, g chk flor, fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb sin
MD: 9,172' Inclination: 90.03 ° Azimuth: 174.69 ° TVD: 6,231.13' VS: 2,713.94'	100% CHK: wht-crm, lt gy, occ med bm, mot, sb blk-y-sb pily, sift-mod hd, rthy-wxy, mx; v calc, occ imbd cal, g od, g chk flor, fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb sin
100% CHK: wht-crm, lt gy, occ med bm, mot, sb blk-y-sb pily, sift-mod hd, rthy-wxy, mx; v calc, tr inoc fos frags and imbd cal, g od, g chk flor, fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb sin	100% CHK: wht-crm, lt gy, occ med bm, mot, sb blk-y-sb pily, sift-mod hd, rthy-wxy, mx; v calc, tr inoc fos frags and imbd cal, g od, g chk flor, fast sting bri wh bl, even mod thk bri yel-amb ring, mod brn amb sin



VIS 37 WT 9.2

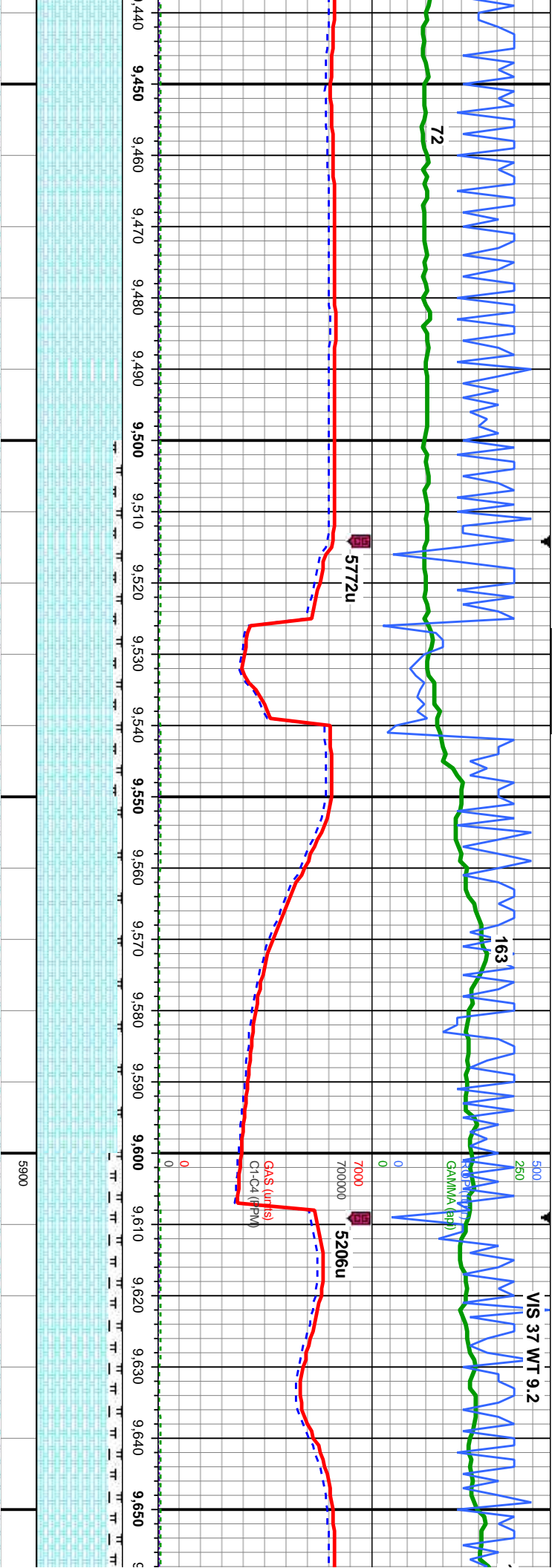


MD: 9,267'
Inclination: 89.94 °
Azimuth: 173.87 °
TVD: 6,231.16'
VS: 2,808.38'

MD: 9,362'
Inclination: 90 °
Azimuth: 177.22 °
TVD: 6,231.21'
VS: 2,903.02'

cm, lt-med gy, occ med	100% CHK: wht-crm, lt-med gy, occ med	100% CHK: wht-crm, lt-med gy, occ med	100% CHK: wht-crm, lt-med gy, occ med
-sb ply, sft-mod hd,	brn, mot, sb blk-y-sb ply, sft-mod hd,	brn, mot, sb blk-y-sb ply, sft-mod hd,	sb blk-y-sb ply, sft-mod hd, rthy-wx
calc, occ imbd cal conc, g od,	rthy-wxy, mtx; v calc, occ imbd cal conc, g od,	rthy-wxy, mtx; v calc, occ imbd cal conc, g od,	calc, scat imbd cal conc, mod od, n
mod brn amb stn	g chk flor, fast sting bri wh bl, even mod thk	mod thk bri yel-amb ring, mod brn amb sin	flor; fast sting bri wh bl, even mod t
			yel amb ring, mod yel brn





MD: 9,457'
Inclination: 90.43 °
Azimuth: 177.2 °
TVD: 6,230.85'
VS: 2,997.86'

100% CHK: lt-med gy, some wht-crm, mot, sb blk-y-sb ply, sft-mod hd, rthy-wxy, mtx: v calc, scat imbd cal conc, mod od, mod chk flor; fast sting bri wh bl, even mod thk mod yel amb ring, mod yel brn

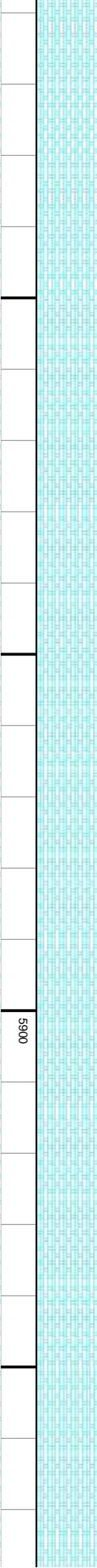
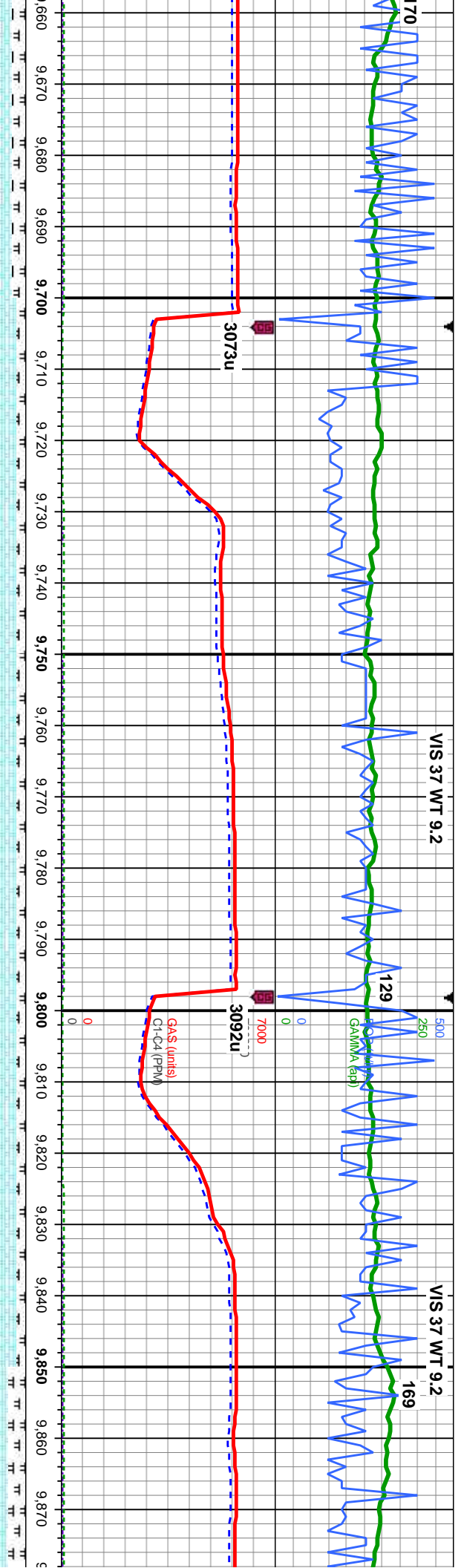
MD: 9,552'
Inclination: 89.08 °
Azimuth: 176.43 °
TVD: 6,231.26'
VS: 3,092.66'

90% CHK: lt-med gy, occ dk gry, mot, sb blk-y-sb ply, sft-mod hd, rthy-wxy, mtx: v calc, 10% MRLST: dk gy, blk, sb blk-y - blk-y, occ sb ply, sl frm-hd, arg-sily tex, tr inoc fos frags and imbd cal, mod od, mod chk flor; fast sting bri wh bl, even mod thk mod wh yel ring, mod yel brn

MD: 9,647'
Inclination: 88.8 °
Azimuth: 176.5 °
TVD: 6,233.01'
VS: 3,187.41'

85% CHK: med-dk gry, mot, sb blk-y-sb ply, sft-mod hd, rthy-wxy, mtx: v calc, 15% MRLST: dk gy, blk, sb blk-y - blk-y, occ sb ply, sl frm-hd, arg-sily tex, tr inoc fos frags and imbd cal, tr bent, mod od; fast sting bri wh bl, even mod thk mod yel amb ring, mod yel brn



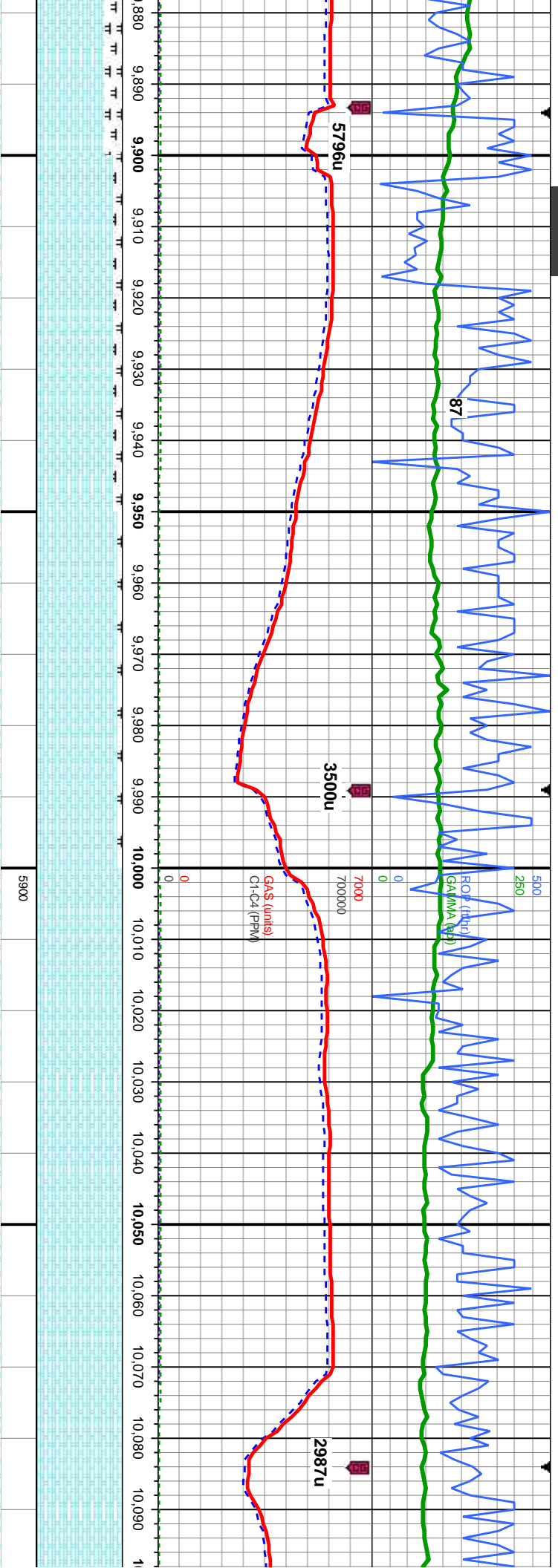


MD: 9,742'
Inclination: 89.01 °
Azimuth: 176.93°
TVD: 6,234.83'
VS: 3,282.19'

MD: 9,838'
Inclination: 89.07 °
Azimuth: 176.72°
TVD: 6,236.44'
VS: 3,377.98'

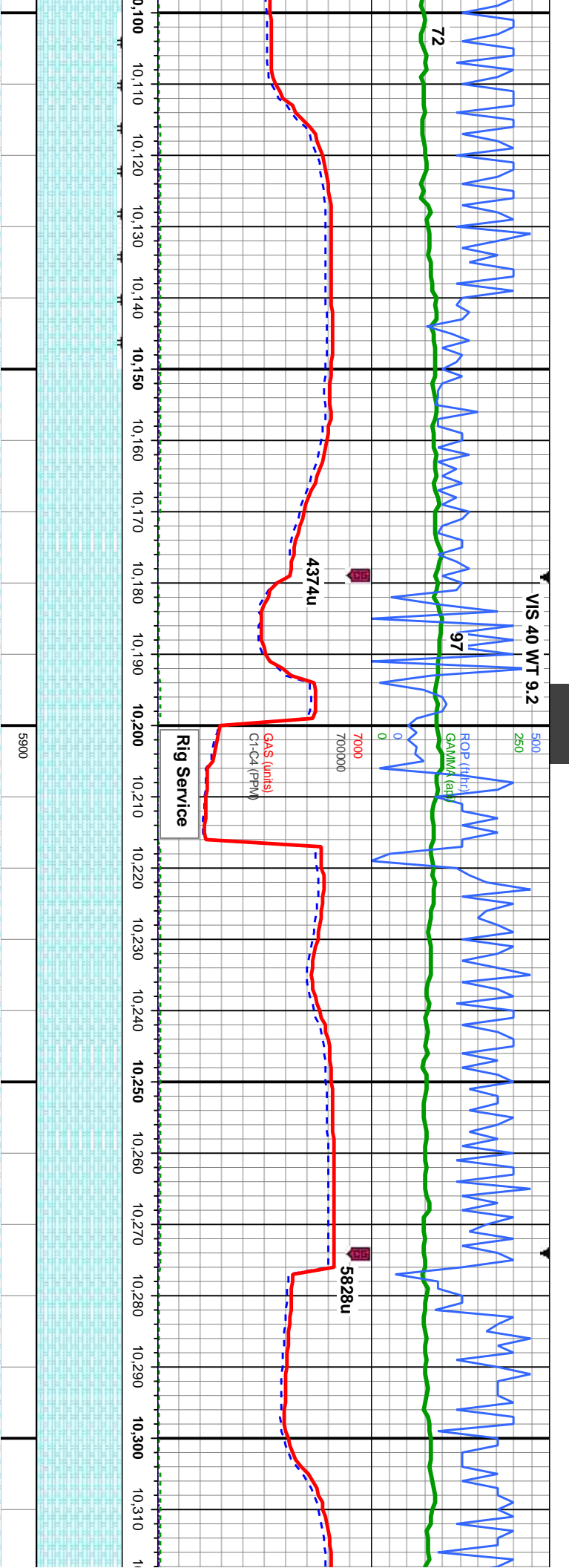
HK: med-dk gry, mot, sb blk-y-sb pty, rthy-wxy, mtz: v calc, 15% dk gy, blk, sb blk-y - blk-y, occ sb pty, arg-sily tex, tr inoc fos frags and bent, mod ocl, fast string bri wh	90% CHK: med-dk gry, mot, sb blk-y-sb pty, sft-mod hd, rthy-wxy, mtz: v calc, 10% MRLST: dk gy, blk, sb blk-y - blk-y, occ sb pty, arg-sily tex, tr inoc fos frags and bent, mod ocl, mod string bri wh bl, even mod thk mod wh yel ring, mod yel brn	90% CHK: med-dk gry, mot, sb blk-y-sb pty, sft-mod hd, rthy-wxy, mtz: v calc, 10% MRLST: dk gy, blk, sb blk-y - blk-y, occ sb pty, arg-sily tex, tr inoc fos frags and imbd cal, tr bent, tr pyr, mod ocl, mod string bri wh bl, even mod thk mod wh yel ring, mod yel brn	90% CHK: med-dk gry, mot, sb blk-y-sb pty, sft-mod hd, rthy-wxy, mtz: v calc, 10% MRLST: dk gy, blk, sb blk-y - blk-y, occ sb pty, arg-sily tex, tr inoc fos frags and imbd cal, tr bent, mod ocl, fast string bri wh bl, even mod thk bri wh yel ring, mod yel brn	95% CHK: med-dk gry, mot, sb blk-y-sb pty, sft-mod hd, rthy-wxy, mtz: v calc, 10% MRLST: dk gy, blk, sb blk-y - blk-y, occ sb pty, arg-sily tex, tr inoc fos frags and imbd cal, mod ocl, fast string bri wh yel ring, mod yel brn
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ot, sb blk-y-sb pily, pily, sft-mod hd, rthy-wxy, mt; v calc, 5% MRLST: c tos frags and g bri wh bl, even od yel brn	<div>MD: 9,933' Inclination: 90.37 ° Azimuth: 176.93 ° TVD: 6,236.9' VS: 3,472.78'</div> <div>90% CHK: lt-med gry, dk gry, mot, sb blk-y-sb pily, sft-mod hd, rthy-wxy, mt; v calc, 10% MRLST: dk gy, blk, sb blk-y - blk-y, occ sb pily, sl frm-hd, arg-sily tex, tr inoc tos frags, occ imbd cal, tr bent, mod od; fst sting bri wh bl, even mod thk mod wh yel ring, thk yel brn</div>	<div>MD: 9,933' Inclination: 90.37 ° Azimuth: 176.93 ° TVD: 6,236.9' VS: 3,472.78'</div> <div>95% CHK: lt-med gry, dk gry, mot, sb blk-y-sb pily, sft-mod hd, rthy-wxy, mt; v calc, 5% MRLST: dk gy, blk, sb blk-y - blk-y, occ sb pily, sl frm-hd, arg-sily tex, tr inoc tos frags, occ imbd cal, tr bent, mod od; fst sting bri wh bl, even mod thk mod wh yel ring, thk yel brn</div>	<div>MD: 10,028' Inclination: 89.44 ° Azimuth: 176.85 ° TVD: 6,237.06' VS: 3,567.59'</div> <div>100% CHK: lt-med gry, gry brn, mot, sb blk-y-sb pily, sft-mod hd, rthy-wxy, mt; v calc, occ imbd cal, g od, g chk flor; fst sting bri wh bl, even thk bri wh yel ring, v thk yel brn</div>	<div>MD: 10,028' Inclination: 89.44 ° Azimuth: 176.85 ° TVD: 6,237.06' VS: 3,567.59'</div> <div>100% CHK: lt-med gry, gry brn, mot, sb blk-y-sb pily, sft-mod hd, rthy-wxy, mt; v calc, occ imbd cal, g od, g chk flor; fst sting bri wh bl, even thk bri wh yel ring, v thk yel brn</div>
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MD: 10,123'
Inclination: 91.08 °
Azimuth: 177.68 °
TVD: 6,236.63'
VS: 3,662.44'

95% CHK: lt-med gry, gry brn, mot, sb
biky-sb pily, sft-mod hd, rthy-wxy, mtx: v calc,
5% MRLST: dk gy, blk, sb biky - biky, occ sb
pily, sl frm-hd, arg-sily tex, tr inoc fos frags,
occ imbd cal, g od, g chk flor, fst sting bri wh
bl, even mod thk mod wh yel ring, mod yel
brn

MD: 10,218'
Inclination: 89.82 °
Azimuth: 176.47 °
TVD: 6,235.88'
VS: 3,757.26'

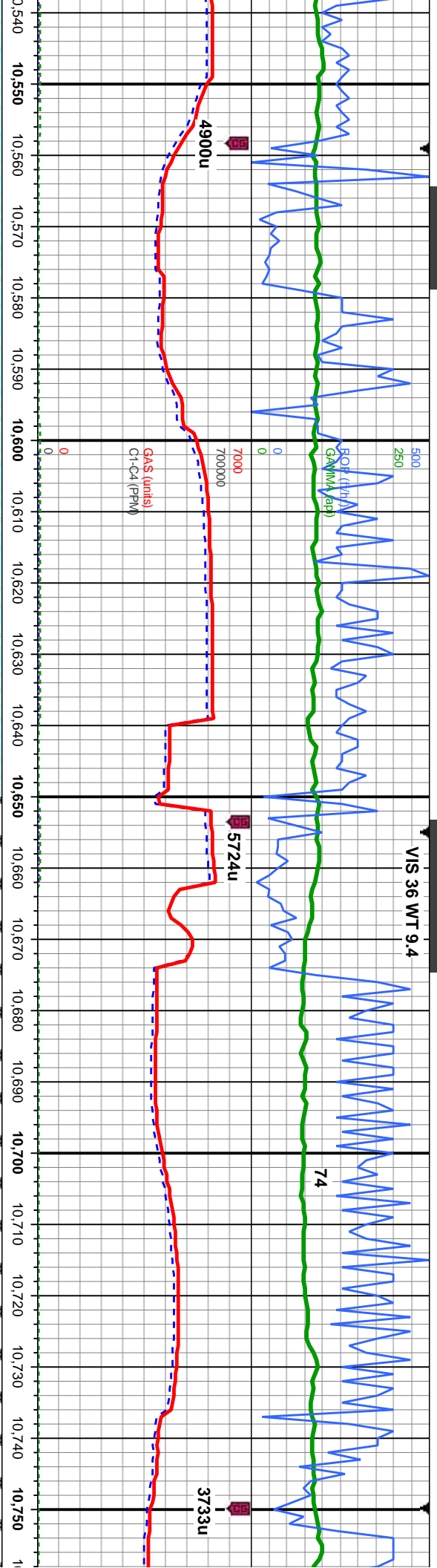
100% CHK: lt-med gry, gry brn, mot, sb
biky-sb pily, sft-mod hd, rthy-wxy, mtx: v calc,
occ imbd cal,g od, g chk flor, fst sting bri wh
bl, even mod thk mod wh yel ring, mod yel
brn

MD: 10,313'
Inclination: 90
Azimuth: 177.
TVD: 6,235.7'
VS: 3,852.06'

100% CHK: lt-m
biky-sb pily, sft-
occ imbd cal, tr
sting bri wh bl, e
ring, mod yel brn



VIS 36 WT 9.4

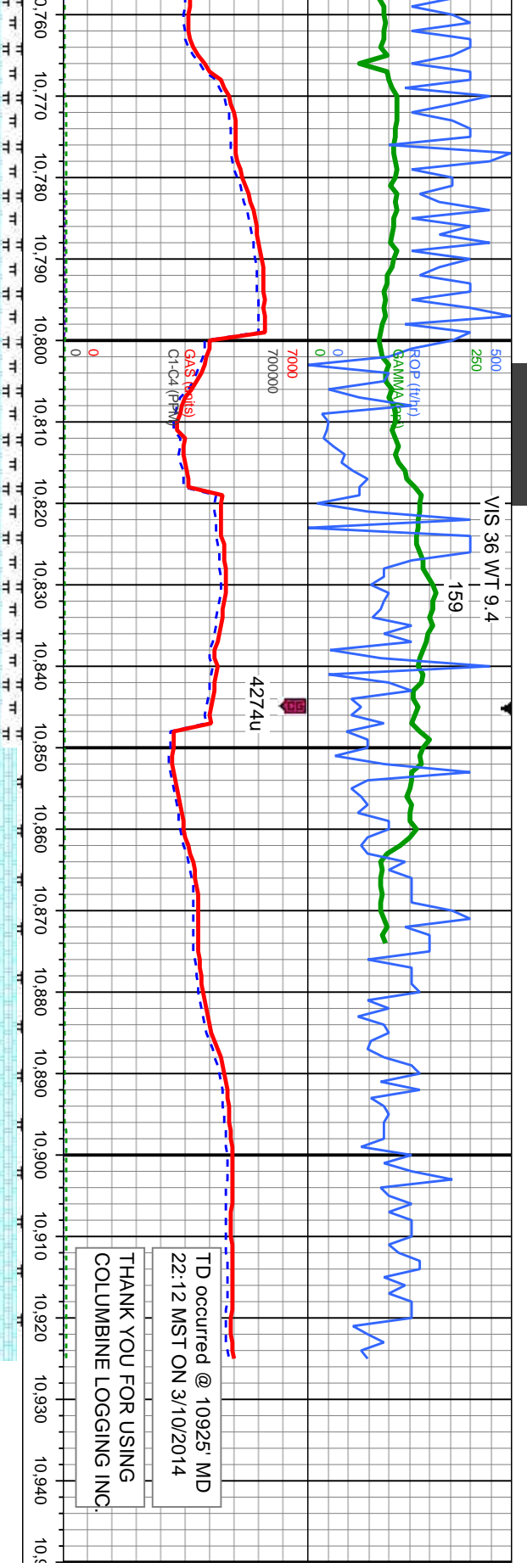


MD: 10,598'
Inclination: 90.65 °
Azimuth: 176.6 °
TVD: 6,232.42'
VS: 4,136.64'

MD: 10,693'
Inclination: 89.26 °
Azimuth: 176.33 °
TVD: 6,232.5'
VS: 4,231.41'

sb	100% CHK: lt-med gry, gry brn, mot, sb	100% CHK: lt-med gry, gry brn, mot, sb	95% CHK: lt-med gry, gry brn, mot, sb	95% CHK: lt-med gry, gry brn, mot, sb	80% C
tx: v calc,	blky-sb ply, sft-mod hd, rthy-wxy, mtx: v calc,	blky-sb ply, sft-mod hd, rthy-wxy, mtx: v calc,	blky-sb ply, sft-mod hd, rthy-wxy, mtx: v calc,	blky-sb ply, sft-mod hd, rthy-wxy, mtx: v calc,	blky-sb
r; fst	occ imbd cal, tr bent, g od, g chk flor; fst	occ imbd cal, g od, g chk flor; fst stmg bri wh	ply, sl frm-hd, arg-sily tex, tr imbd cal, g od,	ply, sl frm-hd, arg-sily tex, tr imbd cal, g od,	20% M
stng, v thk	stmg bri wh bl, even thk bri wh yel ring, v thk	bl, even mod thk mod wh yel ring, mod yel	g chk flor; fst stmg bri wh bl, even mod thk	g chk flor; fst stmg bri wh bl, even mod thk	od, g c
	yel brn	brn	mod wh yel ring, mod yel brn	mod wh yel ring, mod yel brn	thk mo





MD: 10,788'
Inclination: 88.86°
Azimuth: 176.29°
TVD: 6,234.07'
VS: 4,326.14'

80% CHK: lt-med gry, gry brn, mot, sb
biky-sb ply, sft-mod hd, rthy-wxy, mt; v calc,
20% MRLST: dk gy, blk, sb biky - biky, occ
sb ply, sl frm-hd, arg-sily tex, tr imbd cal, g
od, g chk flor, fst sting bri wh bl, even mod
thk mod wh yel ring, mod yel brn stn

MD: 10,869'
Inclination: 90.19°
Azimuth: 176.63°
TVD: 6,234.75'
VS: 4,406.93'

95% CHK: lt-med gry, gry brn, mot, sb biky-sb ply, sft-mod hd,
rthy-wxy, mt; v calc, 5% MRLST: dk gy, blk, sb biky - biky, occ sb
ply, sl frm-hd, arg-sily tex, tr imbd cal, g od, g chk flor, fst sting bri
wh bl, even thk mod wh yel ring, mod yel brn stn

Projection to Bit:
MD: 10925
INC: 90.19
AZI: 176.63
VS: 4462.81
2.56' Low and 2.64' Left

