



Scale: 5" / 100'
Measured Depth Log

Well Name Wells Ranch AE19-649 Horz

Location NWSW 20 6N 62W 6 PM

State COLORADO

County WELD

Country UNITED STATES

Rig Number H&P 330

API Number 05-123-39635

Field WATTENBERG

Region DJ BASIN

Drilling Completed 1/24/2015

Spud Date 1/15/2015

Surface Coordinates NWSW 20 6N 62W 6 PM

1723 FSL 65 FWL

Lat/Long: 40.46969/-104.35586

Bottom Hole Coordinates Planned Location

Sec: 24 Twp: 6N 63W

Footages: 2570 FFSL 235 FFELL

Ground Elevation 4,786'

K.B. Elevation 4,816'

Logged Interval 2,000' To 11,772'

Total Depth 11,772'

Formation NIOBRARA

Type of Drilling Fluid WATER BASED MUD, LSND

Operator

Company NOBLE ENERGY INC.

Address 1625 Broadway Suite 2200
Denver, CO 80202

Geologist

Name Teresa Malesardi

Company Noble Energy Inc

Address 1625 Broadway Suite 2200
Denver, CO 80202

tmalesardi@nobleenergyinc.com

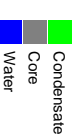
Other

Well Site Logging Company Columbine Logging Inc.

Well Site Geologist (Days) Brad Wilson

Well Site Geologist (Nights) Jason Bell

Zone Color Coding



Rock Types

UNKNOWN	COAL	MARLSTONE	SHALY SANDSTONE
ANHYDRITE	CONGLOMERATE	METAMORPHIC	SHALY SILTSTONE
BENTONITE	DOLOMITE	NO SAMPLE	SILTY SHALE
BRECCIA	DOLOMITIC LIMESTONE	SALT	SILTSTONE
CHALK	GRANITE	SANDSTONE	TILL
CEMENT	GYPSUM	SALT-PEPPER SAND	TUFF
CHERT	GNEOUS	SHALE	WELDED TUFF
CLAY CHOKE SAND	SIDERITE or LIMONITE	SHALE COLORED	
CLAYSTONE	LIMESTONE	SHALE GRAY	

Accessories

GASTROPOD	ARGILLITE GRAIN	HEAVY MINERAL	
INOCERAMUS	B BENTONITE	K KAOLIN	
ALGAE	BITUMENOUS SUBSTANCE	M MARCASTITE	ANHYDRITE STRINGER
AMPHIPORA	BRECCIA FRAGMENTS	M MARLSTONE	BENTONITE STRINGER
BELEMNITE	C CALCAREOUS	M MICACEOUS	COAL STRINGER
BIOCLASTIC	CARBONACEOUS FLAKES	MINERAL CRYSTALS	DOLOMITE STRINGER
BRACHIOPOD	C CHERT	N NODULES	GYPSUM STRINGER
BRYOZOA	C CHERT	PHOSPHATE PELLETS	LIMESTONE STRINGER
CEPHALOPOD	COAL - THIN BEDS	P PYRITE	MARLSTONE (CALC) STRG
CORAL	D DOLOMITIC	S SALT CAST	MARLSTONE (DOL) STRG
CRINOID	F FELDSPAR	S SANDY	SANDSTONE STRINGER
ECHINOID	FERRUGINOUS PELLET	S SIDERITE	SHALE STRINGER
FISH	F FERRUGINOUS	S SILICEOUS	SILTSTONE STRINGER
FORAMINIFERA	A ANHYDRITIC	S SILTY	
F FOSSIL	A ARGILLACEOUS	T TUFFACEOUS	

Oil Show

P PINPOINT
V VUG






































Engineering

D DEAD
E EVEN
Q QUESTIONABLE
B BIT
S SPOTTED STAINING
C CONNECTION (UP)

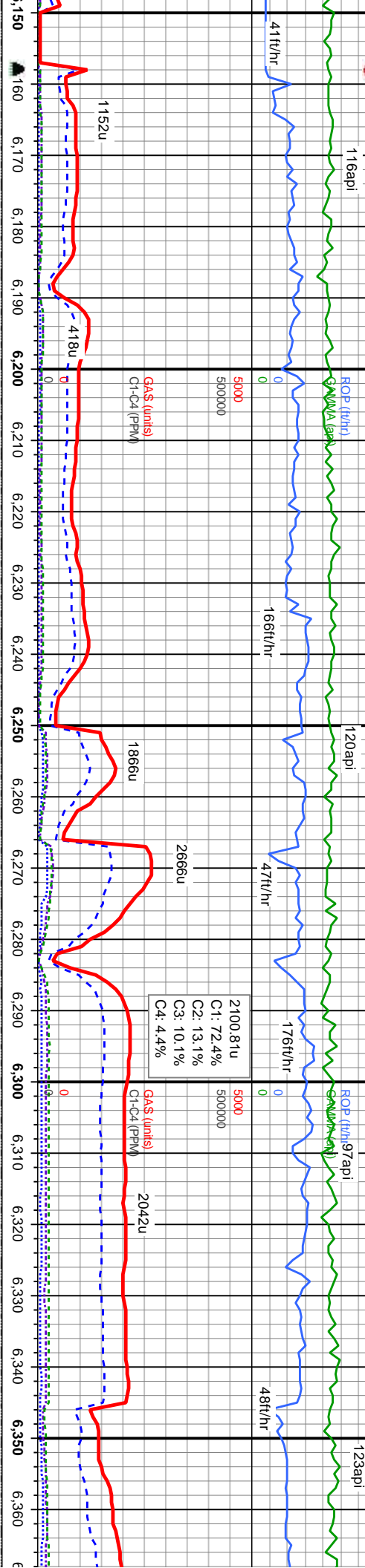
Porosity

C CONNECTION (DOWN)
C CONNECTION GAS
E EARTHY
F FENESTRAL
T TRIP GAS
F FRACTURE
T TRIP GAS (LEFT)
I INTERCRYSTALLINE
D DOWN TIME GAS
I INTEROILITE
D DOWN TIME GAS
M MOLDIC
L CORE - LOST
O ORGANIC
R CORE - RECOVERED

Other Symbols

	DST INTERVAL		WIRELINE TESTED - LEFT		E EARTHY
	FAULT		WIRELINE TESTED - RT		FX FINELYXLN
	FORMATION TOP		DRILL STEM TEST		GS GRAINSTONE
	GAS SHOW		MIN DEPTH		L LITHOGRAPHIC
	OIL SHOW				MX MICROXLN
	MIN DEPTH UP	Rounding			
					MS MUDSTONE
	MIN DEPTH (DOWN)		ANGULAR		PS PACKSTONE
	NORMAL FAULT		ROUNDED		WS WACKSTONE
	OVERTURNED STRATA		SUBANG		
	REVERSE FAULT		SUBRND	Sorting	
	CASING				M MODERATE
Textures					
	SIDEWALL CORE (LEFT)				P POOR
	SIDEWALL CORE (RIGHT)		BS BOUNDSTONE		W WELL
	SLIDE		CHALKY		
	SURVEY		CRYPTOXLN		

Slide/Rotate		COLUMBINE LOGGING RIGGED UP ON 1/10/15 MANNED 2-PERSON	
ROP ROP — GAMMA —		ROP DATA IMPORTED FROM PASON EDR	
Total Gas & Chromatograph GAS — C1 — C2 — C3 — C4 —		MUDLOG CONTINUED FROM "Wells Ranch AE19-649.mpioi"	
Depth Labels		GAS DATA FROM BLOODHOUND CHROMATOGRAPH UNIT #273 JOB NUMBER 162 via IBALL GAS CHART DATA BASE "AE19_649.mdb"	
% Lith		SURVEY AND GAMMA DATA PROVIDED BY PATHFINDER ENERGY SERVICES	
Well Bore TVD —		Mud Report @ 5946MD Wt 10.7 Gel 13/25 Vis 47 YP 12 pH 9.0 Hard 80	
Oil Show		SLTY SH: med - dk gy, sb blk-y -sb pily, sl sft- frm, silt tex, sl rthy lstr, pried aren, non calc, no bent SS: lity-wh occ s&p-ity brn, sb rnd-sb ang, frm-sl brlt, aren, occ bdd w/ sh, sl calc; no bent, no oil flor	
Images		TOOH @ 6155 Resum	



Due to Poor Build Rate
3MD 05:50pm MST 1/19/15
ed drilling @ 9:15am MST 1/20/15

MD: 6.195'
TVD: 6,102.97'
Inclination: 14.25°
Azimuth: 271.77°
VS: 420.24'

5900

SLTY SH: med - dk gy, sl sft - mod frm, slt tex, sb
biky -sb ply, sl rthy lstr, pred aren sl arg, non calc,
no bent
SS: ilgy-wh occ s&p-ilgy brn, sb md-sb ang, frm-sl
brit, aren, sl calc; tr dim gn oil flwr, no bent

TVD (ft)

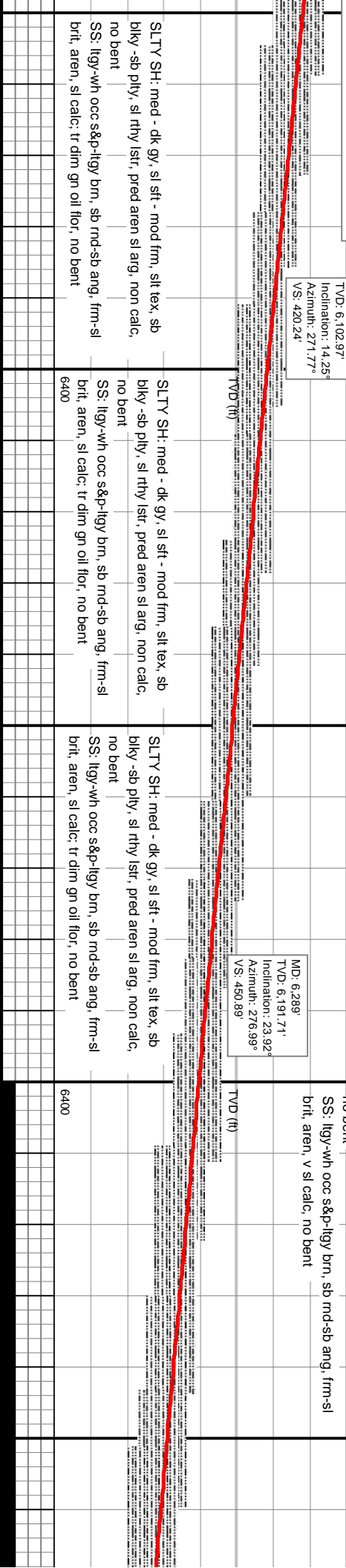
MD: 6.289'
TVD: 6,191.71'
Inclination: 23.92°
Azimuth: 276.99°
VS: 450.89'

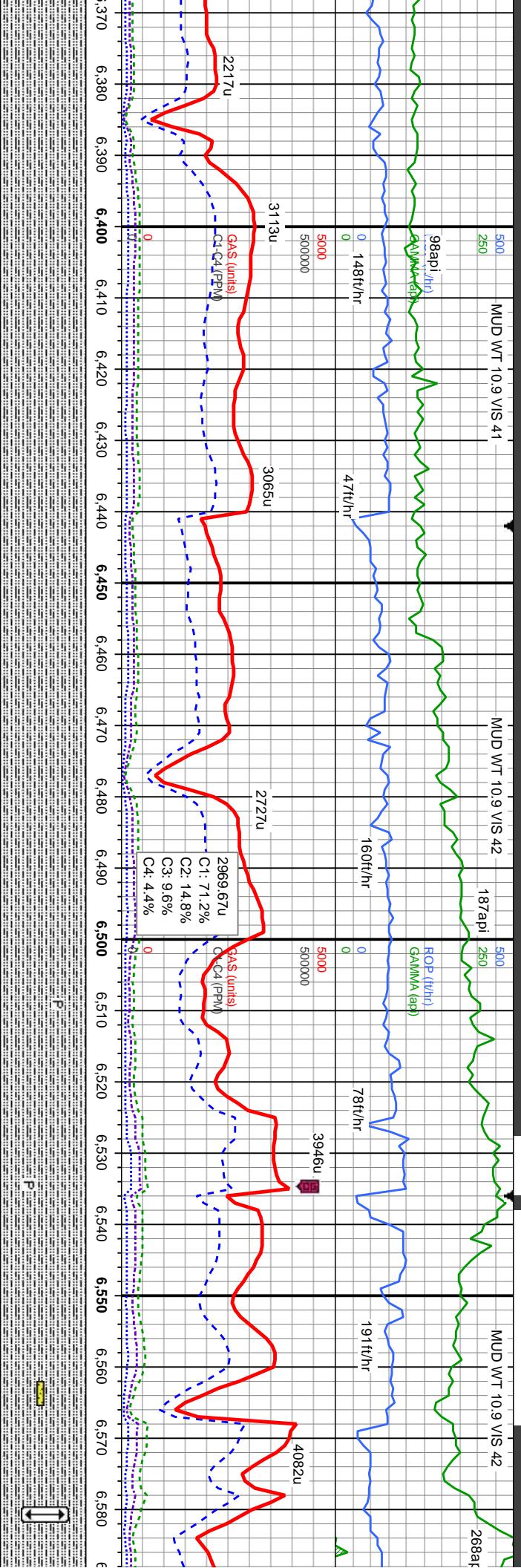
5900

SLTY SH: med - dk gy, sl sft - mod frm, slt tex, sb
biky -sb ply, sl rthy lstr, pred aren sl arg, non calc,
no bent
SS: ilgy-wh occ s&p-ilgy brn, sb md-sb ang, frm-sl
brit, aren, v sl calc, no bent

TVD (ft)

SLTY SH: med - d
biky -sb ply, sl rth
no bent





k gy, sl sft - mod frm, silt tex, sb
/lstr, pred aren sl arg, non calc.

MD: 6.384'
TVD: 6.273.96'
Inclination: 35.79°
Azimuth: 273.24°
VS: 498.05'

SCALE CHANGE
TVD 6250-6550'

SLTY SH: med - dk gy, sl sft - mod frm, silt tex, sb
biky -sb plty, sl rthy lstr, pred aren sl arg, non calc,
no bent, tr ss

SLTY SH: med - dk gy, sl sft - mod frm, silt tex, sb
biky -sb plty, sl rthy lstr, pred aren sl arg, non calc,
tr bent

MD: 6.478'
TVD: 6.342.53'
Inclination: 50.21°
Azimuth: 273.16°
VS: 561.86'

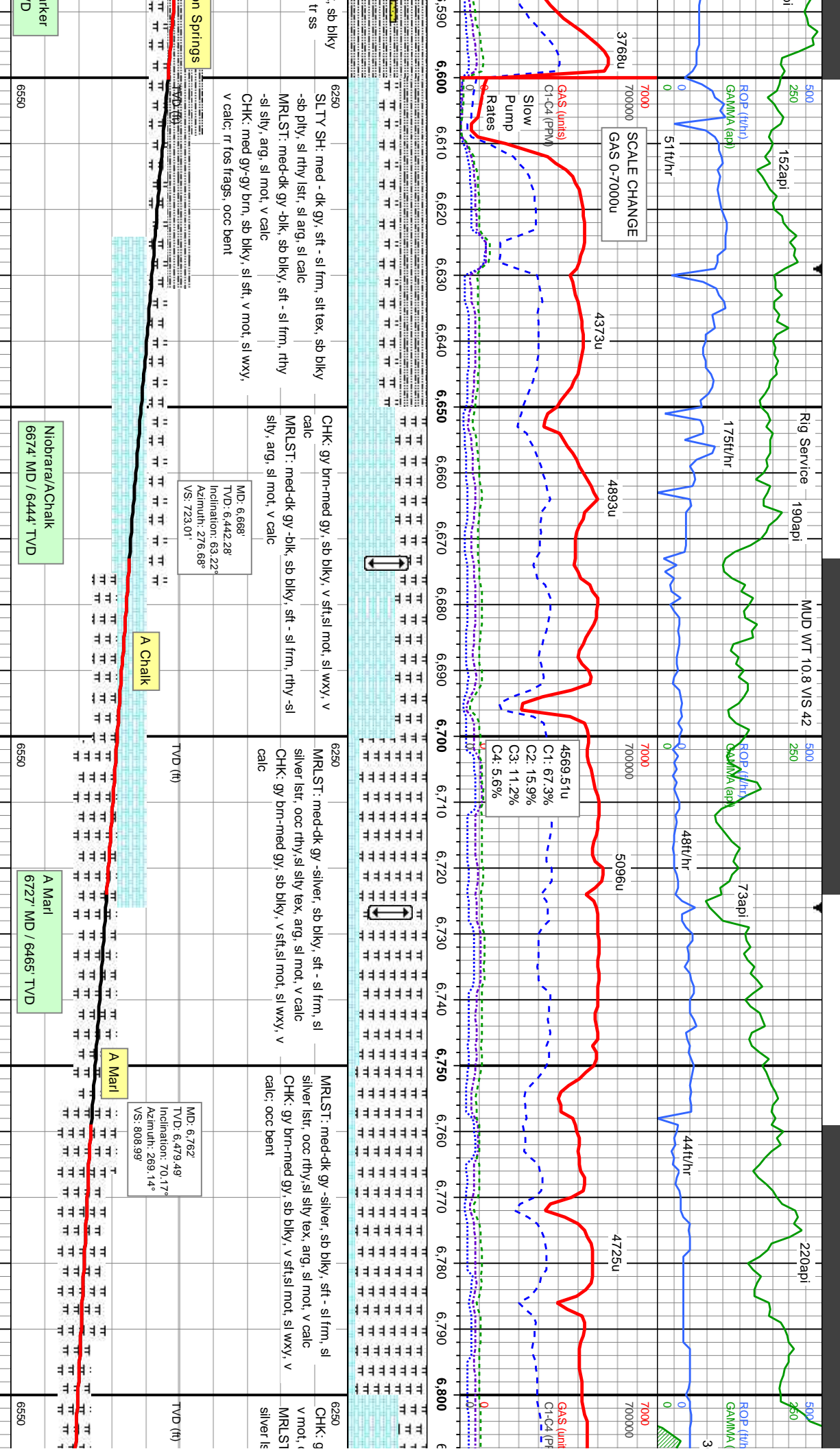
Mud Report @ 6535MD
Wt 10.9 Gel 6/17 API 7.4/1 Sand 0.2%
YP 11 pH 8.4 Hard 80

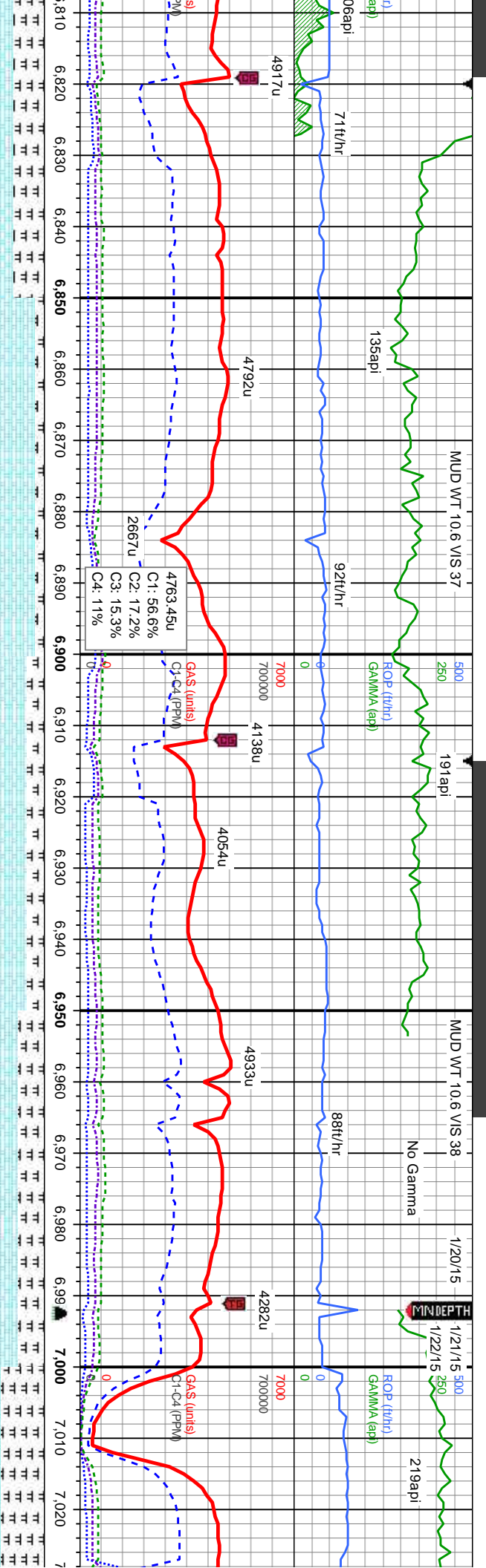
MD: 6.573'
TVD: 6.396.96'
Inclination: 59.79°
Azimuth: 276.36°
VS: 639.63'

SLTY SH: med - dk gy, sl sft - mod frm, silt tex, sb
biky -sb plty, sl rthy lstr, sl arg, non calc; tr bent, tr
lse pyr

Sharon Springs Me
6580 MD / 6399 TV







CHK: gy brn, med gy-dk brn, sb blk, v sft-si frm, v mot, occ sl wxy, v calc, g oil od
MRLST: med-dk gy-silver, sb blk, sft-si frm, sl silver lst, occ rthy, sl silty tex, arg, sl mot, v calc

CHK: gy brn, med gy-dk brn, sb blk, v sft-si frm, v mot, occ sl wxy, v calc, g oil od
MRLST: med-dk gy-silver, sb blk, sft-si frm, sl silver lst, occ rthy, sl silty tex, arg, sl mot, v calc

CHK: gy brn, med gy-dk brn, sb blk, v sft-si frm, v mot, occ sl wxy, v calc, g oil od
MRLST: med-dk gy-silver, sb blk, sft-si frm, sl silver lst, occ rthy, sl silty tex, arg, sl mot, v calc

MD: 6,857'
TVD: 6,505.83'
Inclination: 77.65°
Azimuth: 262.44°
VS: 898.45'

MD: 6,934'
TVD: 6,518.64'
Inclination: 83.19°
Azimuth: 263.58°
VS: 972.16'

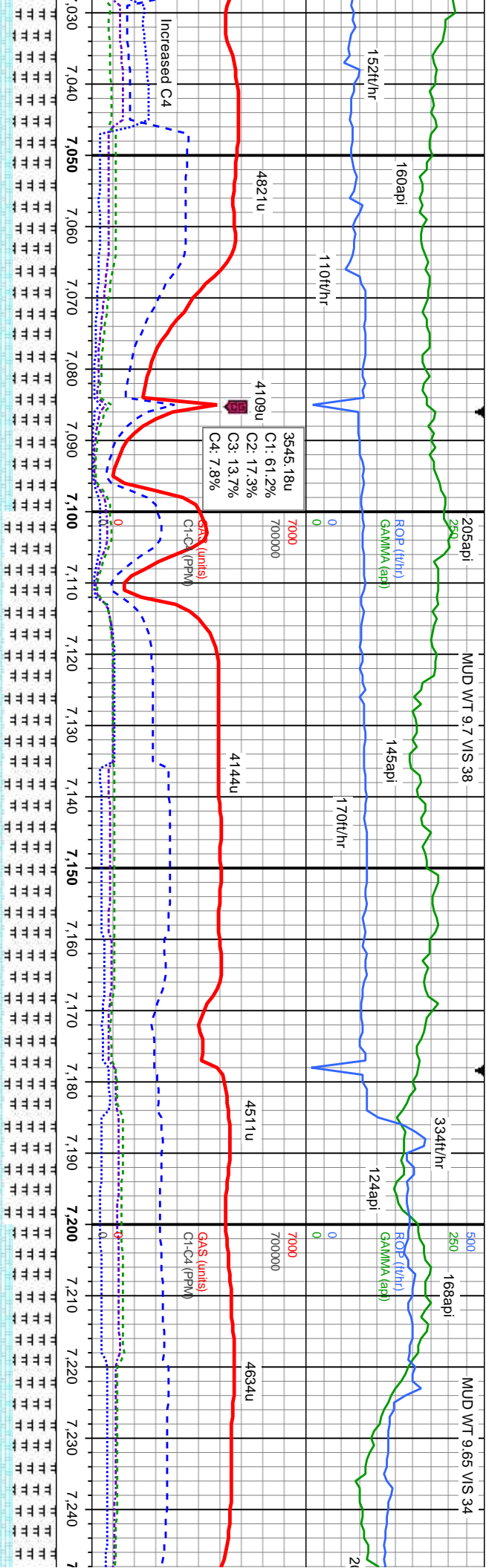
TD Curve and TOOH for 7" Casing
@ 6992MD 10:04pm MST 1/20/15
Resumed drilling @ 10:00am MST 1/22/15

MD: 7,024'
TVD: 6,527.19'
Inclination: 85.5°
Azimuth: 264.9°
VS: 1,059.61'

CHK: med gy brn, med gy-dk frm, mot, occ sl wxy, v calc, v marks
MRLST: med-dk gy-silver, sb silver lst, occ rthy, sl silty tex, arg, sl mot, v calc

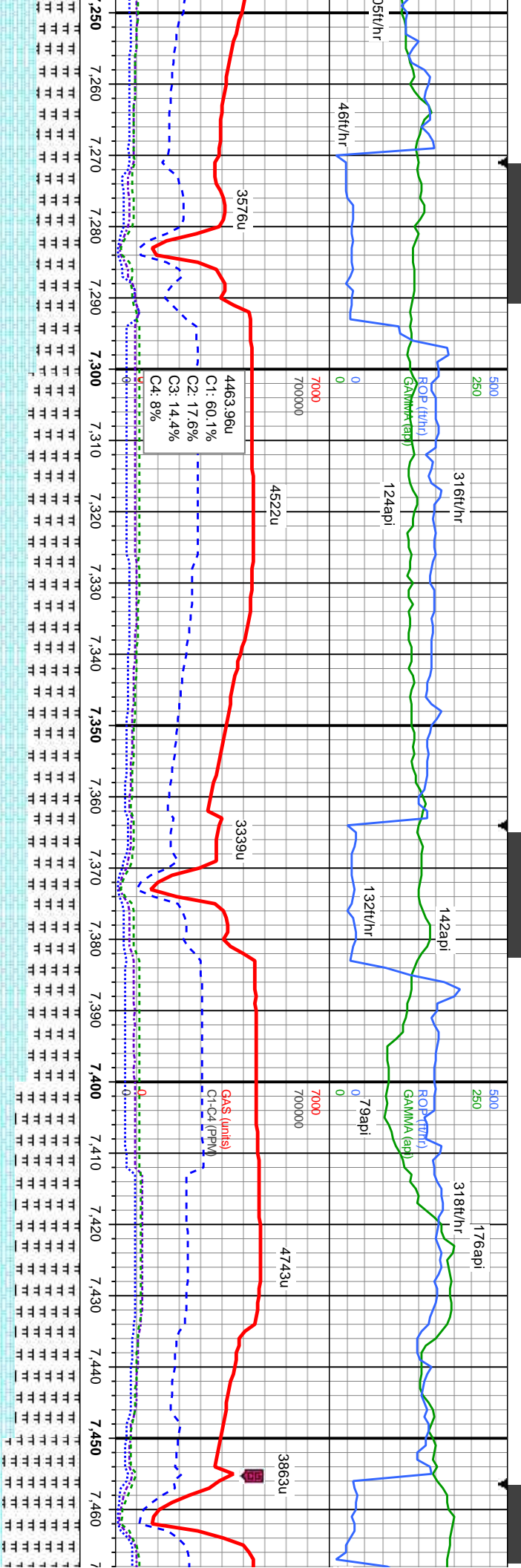
B Chalk





brn, sb blkly, v sft -sl	CHK: med gy brn, med gy- dk brn, sb blkly, v sft -sl	MD: 7.117 TVD: 6,533.82° Inclination: 85.91° Azimuth: 263.6° VS: 1,150.16'	brn, sb blkly, v sft -sl	CHK: med gy brn, med gy- dk brn, sb blkly, v sft -sl	MD: 7.210° TVD: 6,539.88° Inclination: 86.61° Azimuth: 263.9° VS: 1,240.57'
frn, mot, occ sl wxy, v calc, v dirty ch w/ cutter	frn, mot, occ sl wxy, v calc, v dirty ch w/ cutter		frn, mot, occ sl wxy, v calc, v dirty ch w/ cutter	frn, mot, occ sl wxy, v calc, v dirty ch w/ cutter	
MRSLST: med-dk gy -silver, sb blkly, sft - sl frm, sl	MRSLST: med-dk gy -silver, sb blkly, sft - sl frm, sl		MRSLST: med-dk gy -silver, sb blkly, sft - sl frm, sl	MRSLST: med-dk gy -silver, sb blkly, sft - sl frm, sl	
blkly, sft - sl frm, sl	blkly, sft - sl frm, sl		blkly, sft - sl frm, sl	blkly, sft - sl frm, sl	
arg, sl mot, v calc	arg, sl mot, v calc		arg, sl mot, v calc	arg, sl mot, v calc	
6600	6600		6600	6600	

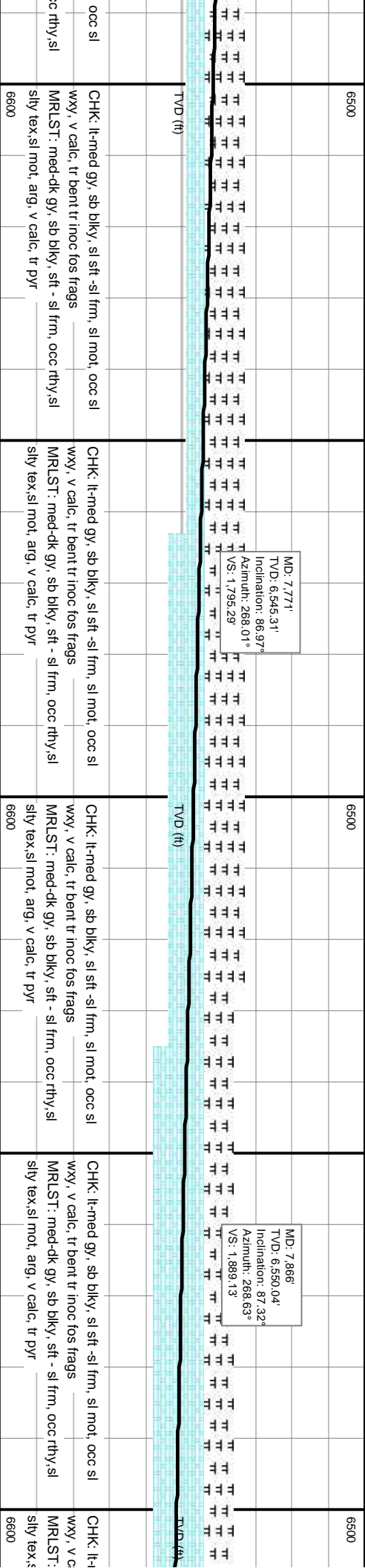
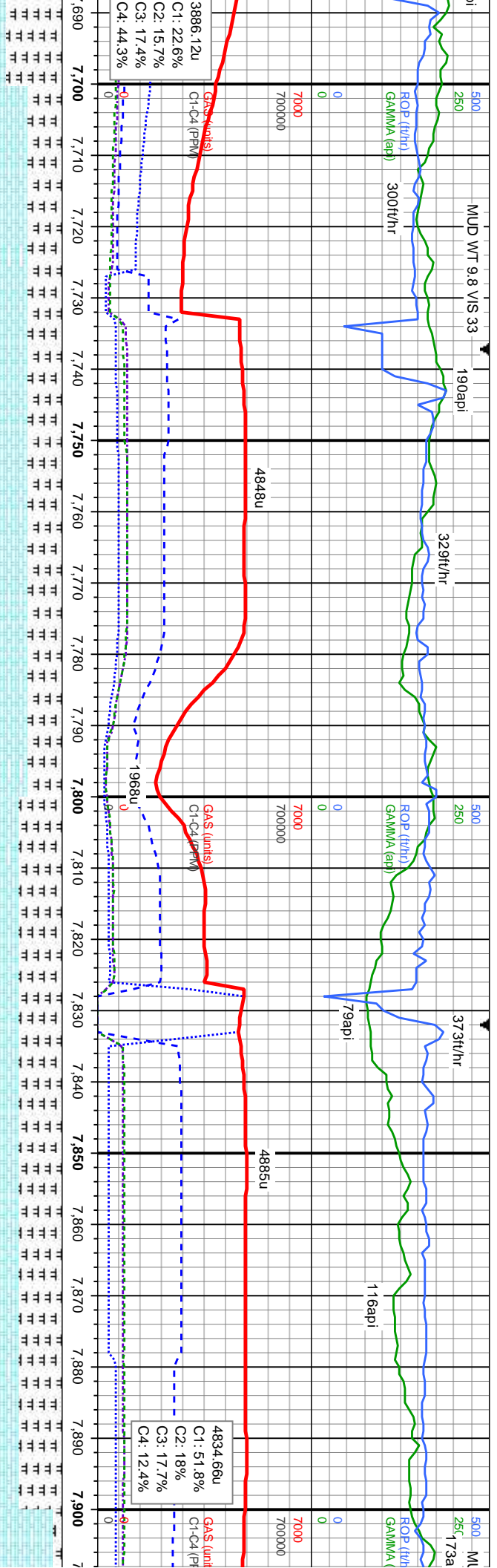


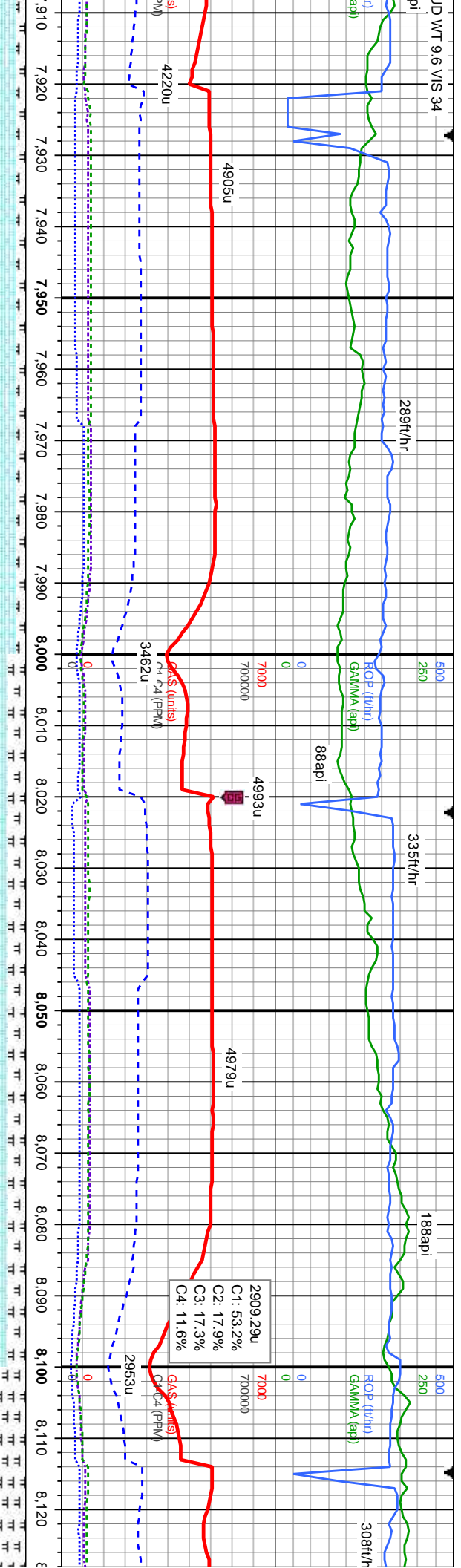


MD: 7,303'
TVD: 6,543.6'
Inclination: 88.81°
Azimuth: 266.73°
VS: 1,331.62'

MD: 7,397'
TVD: 6,543.03'
Inclination: 91.89
Azimuth: 269.4°
VS: 1,424.5'

[illegible]



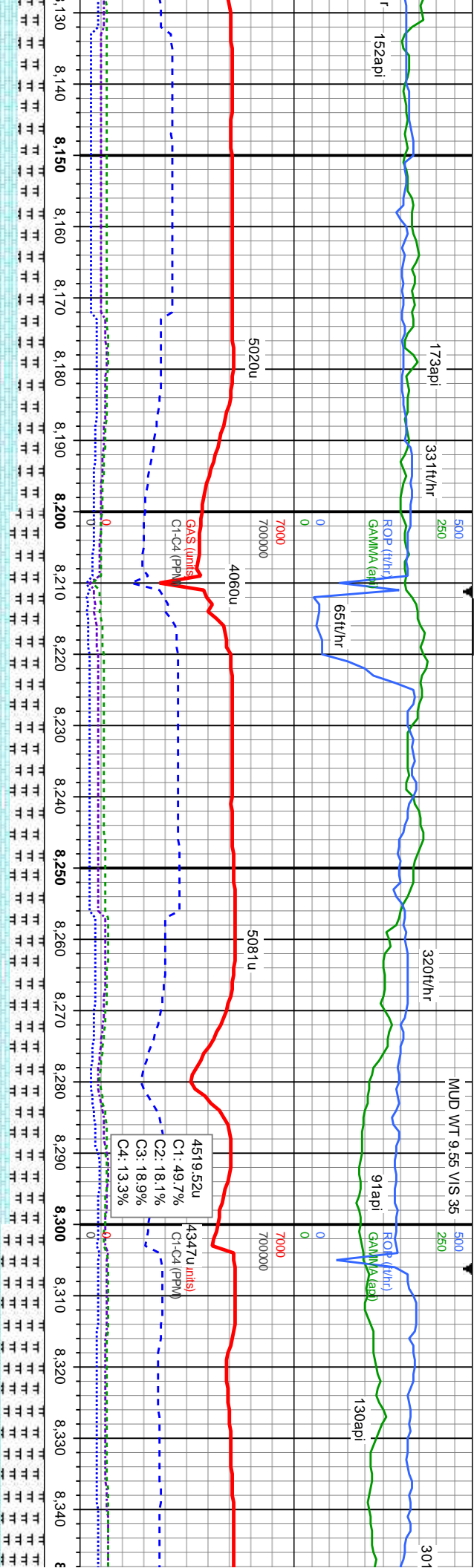


med gy, sb blkly, sl sft -sl frm, sl mot, occ sl	CHK: lt-med gy, sb blkly, sl sft -sl frm, sl mot, occ sl	MD: 7.961' TVD: 6.553.97' Inclination: 87.93° Azimuth: 267.4° VS: 1.982.94
alc, tr bent, tr inoc fos frags, dul gn flor	wxy, v calc, tr bent, tr inoc fos frags, dul gn flor	
med-dk gy, sb blkly, sft - sl frm, occ rthy,sl	MRLST: med-dk gy, sb blkly, sft - sl frm, occ rthy,sl	
sl mot, arg, v calc, tr pyr	slty tex,sl mot, arg, v calc, tr pyr	

B Chalk

med gy, sb blkly, sl sft -sl frm, sl mot, occ sl	CHK: lt-med gy, sb blkly, sl sft -sl frm, sl mot, occ sl	MD: 8.055' TVD: 6.557.07' Inclination: 88.29° Azimuth: 267.35° VS: 2.075.62'
alc, tr bent, tr inoc fos frags, dul gn flor	wxy, v calc, tr bent, tr inoc fos frags, fnt gn flor	
med-dk gy, sb blkly, sft - sl frm, occ rthy,sl	MRLST: med-dk gy, sb blkly, sft - sl frm, occ rthy,sl	
sl mot, arg, v calc, tr pyr	slty tex,sl mot, arg, v calc, tr pyr	





MD: 8,150'
TVD: 6,559.55'
Inclination: 88.72°
Azimuth: 266.98°
VS: 2,169.24'

MD: 8,245'
TVD: 6,559.49'
Inclination: 91.36°
Azimuth: 268.06°
VS: 2,262.99'

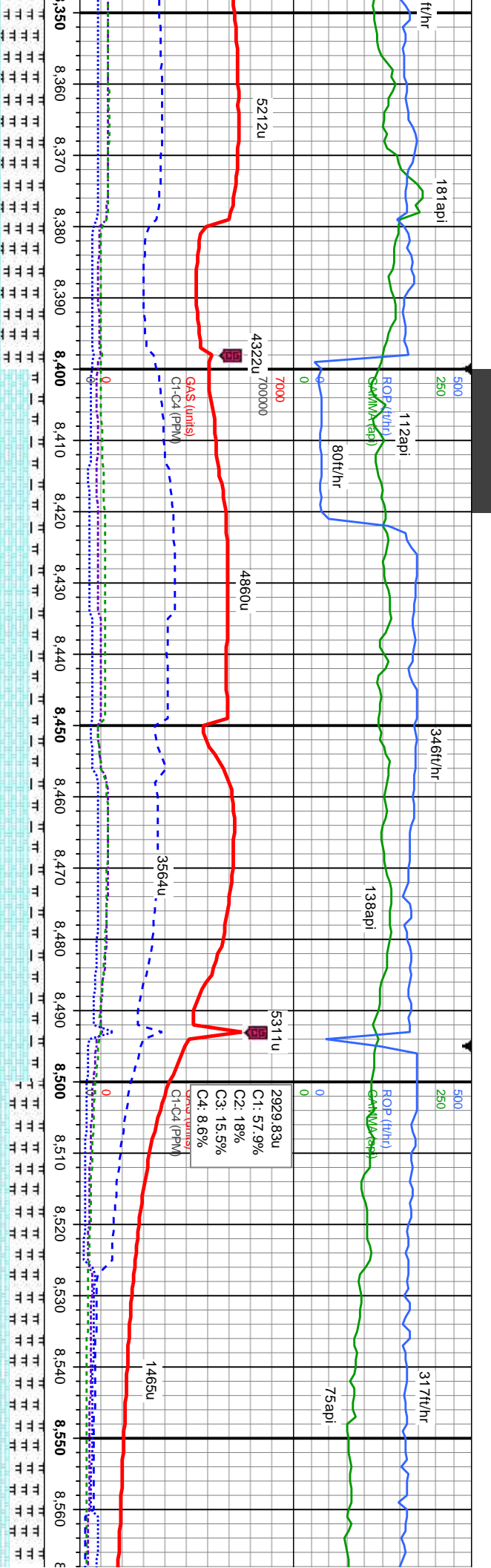
4519.52u
C1: 49.7%
C2: 18.1%
C3: 18.9%
C4: 13.3%
4347u (m/s)
C1-C4 (PPM)

MD: 8,339'
TVD: 6,556.9'
Inclination: 91.8°
Azimuth: 267.74°
VS: 2,355.83'

B Chalk

sl frm, sl mot, occ sl	CHK: lt-med gy, sb blk, sl sft - sl frm, sl mot, occ sl	CHK: lt-med gy, sb blk, sl sft - sl frm, sl mot, occ sl	CHK: lt-med gy, sb blk, sl sft - sl frm, sl mot, occ sl
frag, frt gn flr,	wxy, v calc, tr bent, tr inoc fos frags, frt gn flr,	wxy, v calc, tr bent, tr inoc fos frags, dul gn flr,	wxy, v calc, tr bent, tr inoc fos frags, dul gn flr,
sl frm, occ rthy, sl	MRSLST: med-dk gy, sb blk, sft - sl frm, occ rthy, sl	MRSLST: med-dk gy, sb blk, sft - sl frm, occ rthy, sl	MRSLST: med-dk gy, sb blk, sft - sl frm, occ rthy, sl
stly tex, sl mot, arg, v calc, tr pyr	stly tex, sl mot, arg, v calc, tr pyr	stly tex, sl mot, arg, v calc, tr pyr	stly tex, sl mot, arg, v calc, tr pyr





MD: 8.434'
TVD: 6,555.07'
Inclination: 90.4°
Azimuth: 269.49°
VS: 2.449.83'

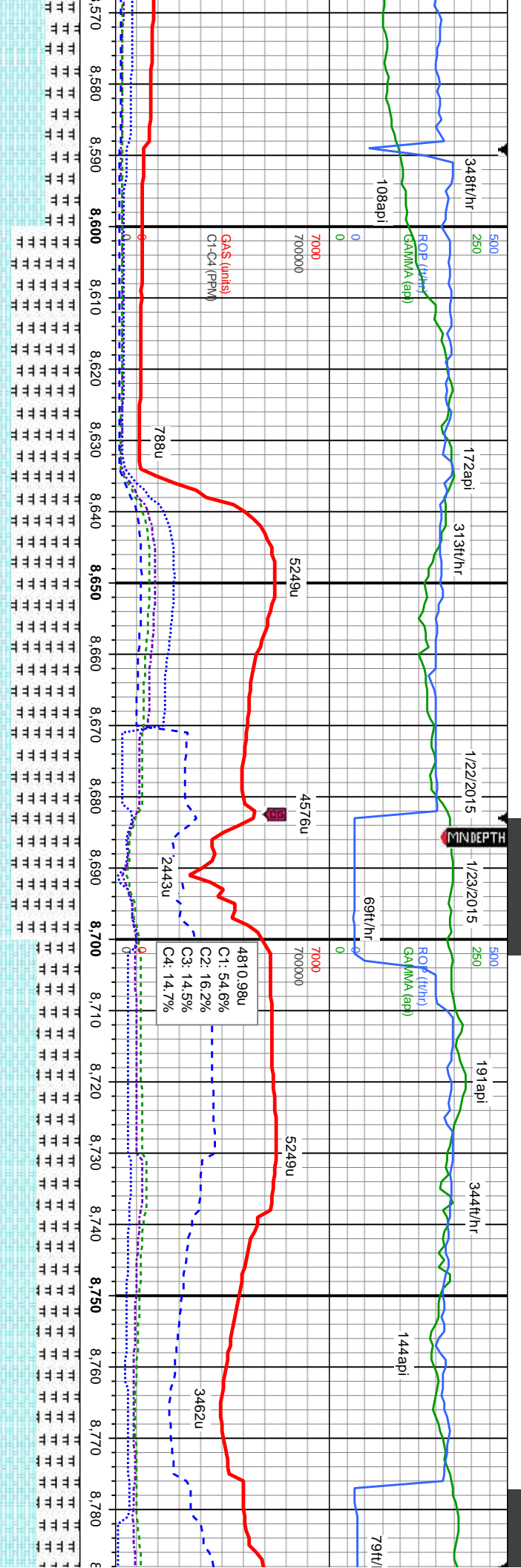
MD: 8.528'
TVD: 6,554.35'
Inclination: 90.48°
Azimuth: 268.37°
VS: 2.542.94'

Mud Report @ 8543MD
Wt 9.5
Gel 4/14
Vis 35
YP 9
pH 8.6
API 10/1
Sand 0.1%
Hard 120

B Chalk

CHK: lt-med gy, sb blk, sl sft - sl frm, sl mot, occ sl	CHK: lt-med gy, sb blk, sl sft - sl frm, sl mot, occ sl	CHK: lt-med gy, sb blk, sl sft - sl frm, sl mot, occ sl	CHK: lt-med gy, sb blk, sl sft - sl frm, sl mot, occ sl
wxy, v calc, tr bent, tr inoc fos frags, dul gn flr,	wxy, v calc, tr inoc fos frags, dul gn flr	wxy, v calc, tr inoc fos frags, dul gn flr	wxy, v calc, tr inoc fos frags, dul gn flr
abund clay	MRLST: med-dk gy, sb blk, sft - sl frm, occ rthy, sl	MRLST: med-dk gy, sb blk, sft - sl frm, occ rthy, sl	MRLST: med-dk gy, sb blk, sft - sl frm, occ rthy, sl
MRLST: med-dk gy, sb blk, sft - sl frm, occ rthy, sl	slty tex, sl mot, arg, v calc, tr pyr	slty tex, sl mot, arg, v calc, tr pyr	slty tex, sl mot, arg, v calc, tr pyr
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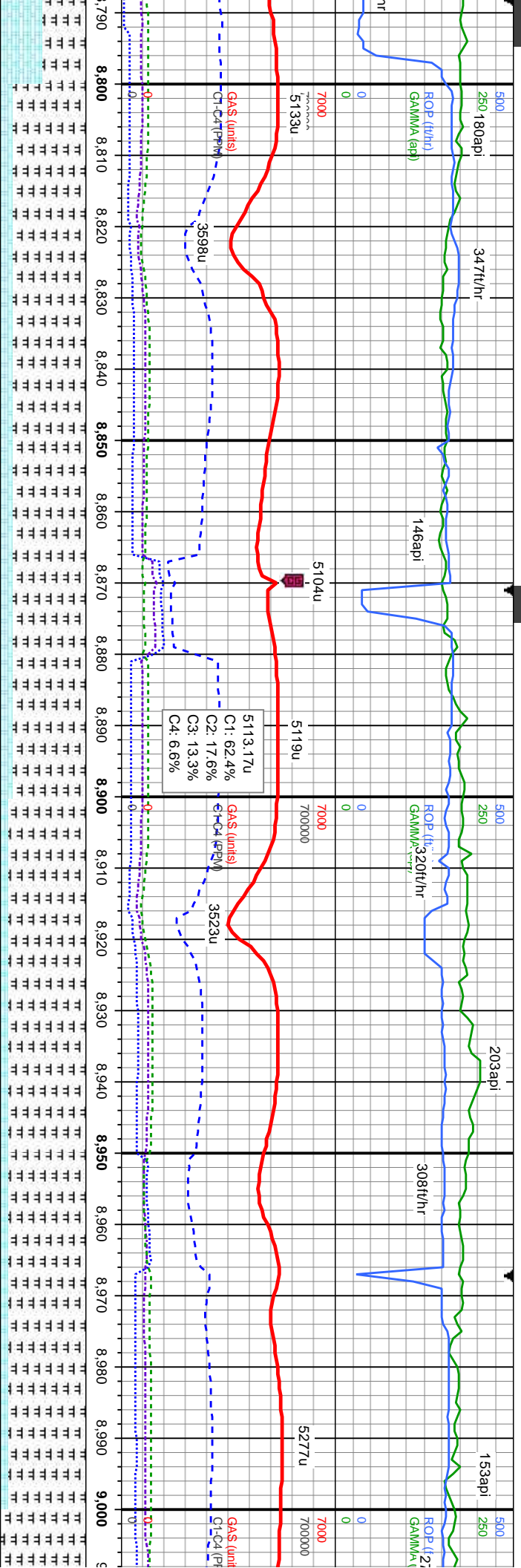


MD: 8,622'
TVD: 6,552.48'
Inclination: 91.8°
Azimuth: 268.27°
VS: 2,635.9'

MD: 8,717'
TVD: 6,549.93'
Inclination: 91.28°
Azimuth: 269.41°
VS: 2,729.94'

sb blkly, sft - sl frm, sl mot, occ sl	MRLST: med-dk gy, sb blkly, sft - sl frm, occ rthy, sl	MRLST: med-dk gy, sb blkly, sft - sl frm, occ rthy, sl	CHK: lt-med gy, sb blkly, sl sft - sl frm, sl mot, occ sl	CHK: lt-med gy, sb blkly, sl sft - sl frm, sl mot, occ sl	CHK: lt-med gy, sb blkly, sft - sl frm, occ rthy, sl	CHK: lt-med gy, sb blkly, sft - sl frm, occ rthy, sl
os frags, dul gn flor, abunt clay	sily tex sl mot, arg, v calc	sily tex sl mot, arg, v calc	wxy, v calc, tr inoc fos frags, tr dul gn flor, abunt	wxy, v calc, tr inoc fos frags, tr dul gn flor, abunt	wxy, v calc, tr inoc fos frags, tr dul gn flor, abunt	wxy, v calc, tr inoc fos frags, tr dul gn flor, abunt
sb blkly, sft - sl frm, occ rthy, sl	CHK: lt-med gy, sb blkly, sl sft - sl frm, sl mot, occ sl	CHK: lt-med gy, sb blkly, sl sft - sl frm, sl mot, occ sl	MRLST: med-dk gy, sb blkly, sft - sl frm, occ rthy, sl	MRLST: med-dk gy, sb blkly, sft - sl frm, occ rthy, sl	MRLST: med-dk gy, sb blkly, sft - sl frm, occ rthy, sl	MRLST: med-dk gy, sb blkly, sft - sl frm, occ rthy, sl
v calc, tr pyr	day	day	sily tex, sl mot, arg, v calc	sily tex, sl mot, arg, v calc	sily tex, sl mot, arg, v calc	sily tex, sl mot, arg, v calc





MD: 8.812
TVD: 6,549.7'
Inclination: 88.99°
Azimuth: 269.86°
VS: 2.824.2

A Marl

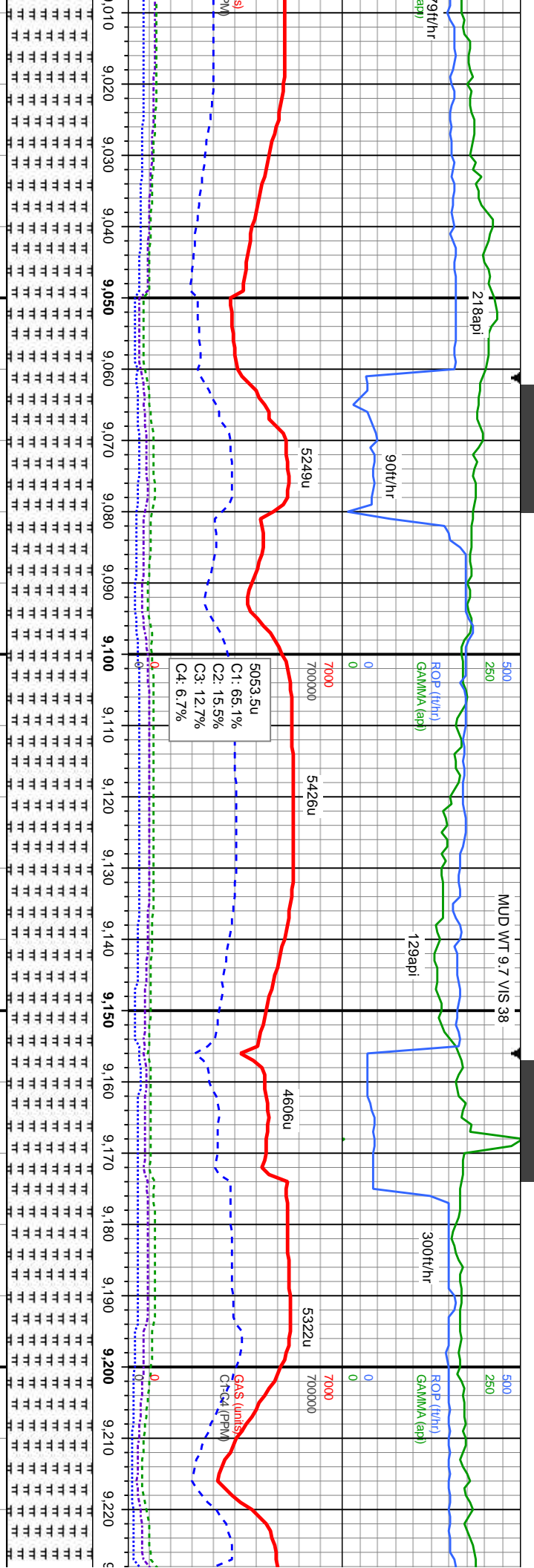
MD: 8.906
TVD: 6,550.06'
Inclination: 90.57°
Azimuth: 270.05°
VS: 2.917.52

A Marl

MD: 9.000
TVD: 6,547.97'
Inclination: 91.98°
Azimuth: 269.39°
VS: 3.010.78

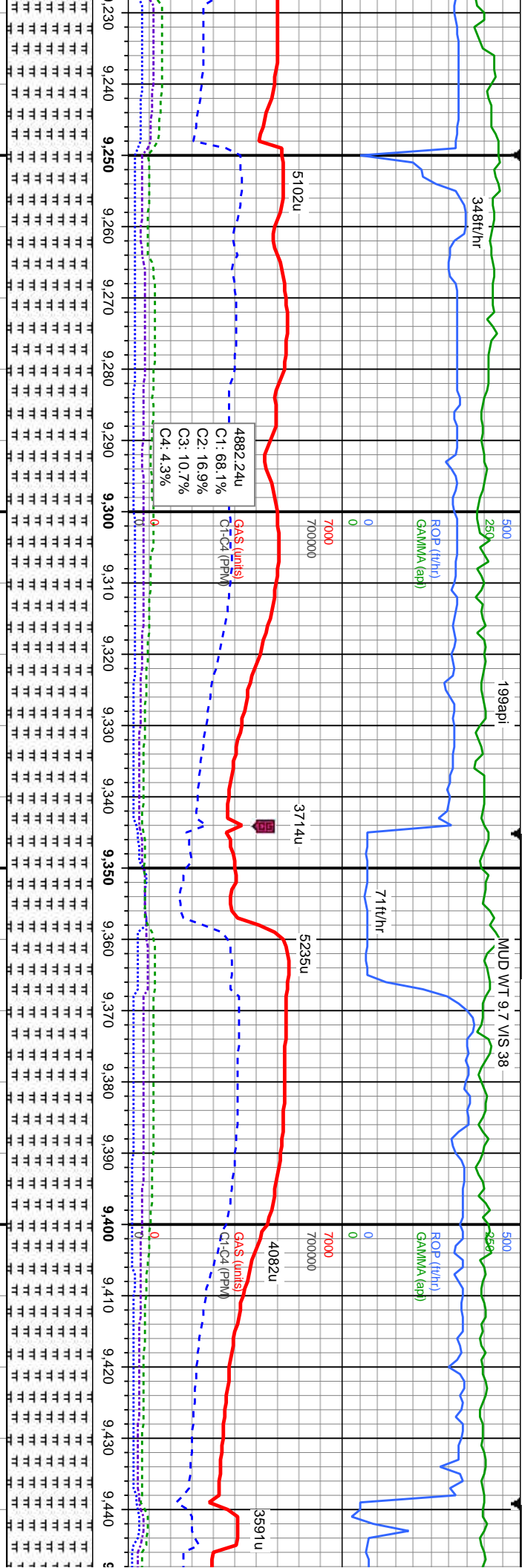
occ sl	MRLST: med-dk gy, sb blk, sft - sl frm, occ rthy, sl	MRLST: med-dk gy, sb blk, sft - sl frm, occ rthy, sl	MRLST: med-dk gy, sb blk, sft - sl frm, occ rthy, sl	MRLST: med-dk gy, sb blk, sft - sl frm, occ rthy, sl
bunt	sly tex, sl mot, arg, v calc	sly tex, sl mot, arg, v calc	sly tex, sl mot, arg, v calc	sly tex, sl mot, arg, v calc
c rthy, sl	CHK: med gy, sb blk, sl sft - sl frm, sl mot, occ sl wxy, v calc, tr inoc fos frags	CHK: med gy, sb blk, sl sft - sl frm, sl mot, occ sl wxy, v calc, tr inoc fos frags	CHK: med gy, sb blk, sl sft - sl frm, sl mot, occ sl wxy, v calc, tr inoc fos frags	CHK: med gy, sb blk, sl sft - sl frm, sl mot, occ sl wxy, v calc, tr inoc fos frags
	6600	6600	6600	6600





med-dk gy, sb blk, sft - sl frm, occ rthy, sl	MRLST: med-dk gy- sl silver, sb blk, sft - sl frm, occ rthy, sl silty tex, mot, arg, v calc, rr bent	MRLST: med-dk gy- sl silver, sb blk, sft - sl frm, occ rthy, sl silty tex, mot, arg, v calc, rr pyr	MRLST: med-dk gy- sl silver, sb blk, sft - sl frm, occ rthy, sl silty tex, mot, arg, v calc, rr pyr
6600	6600	6600	6600





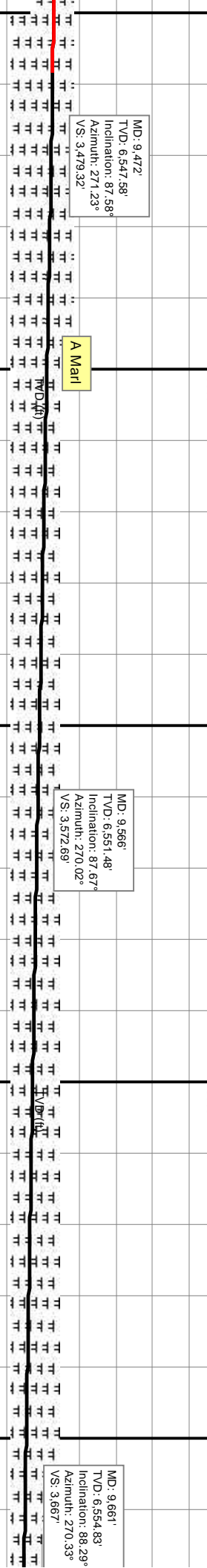
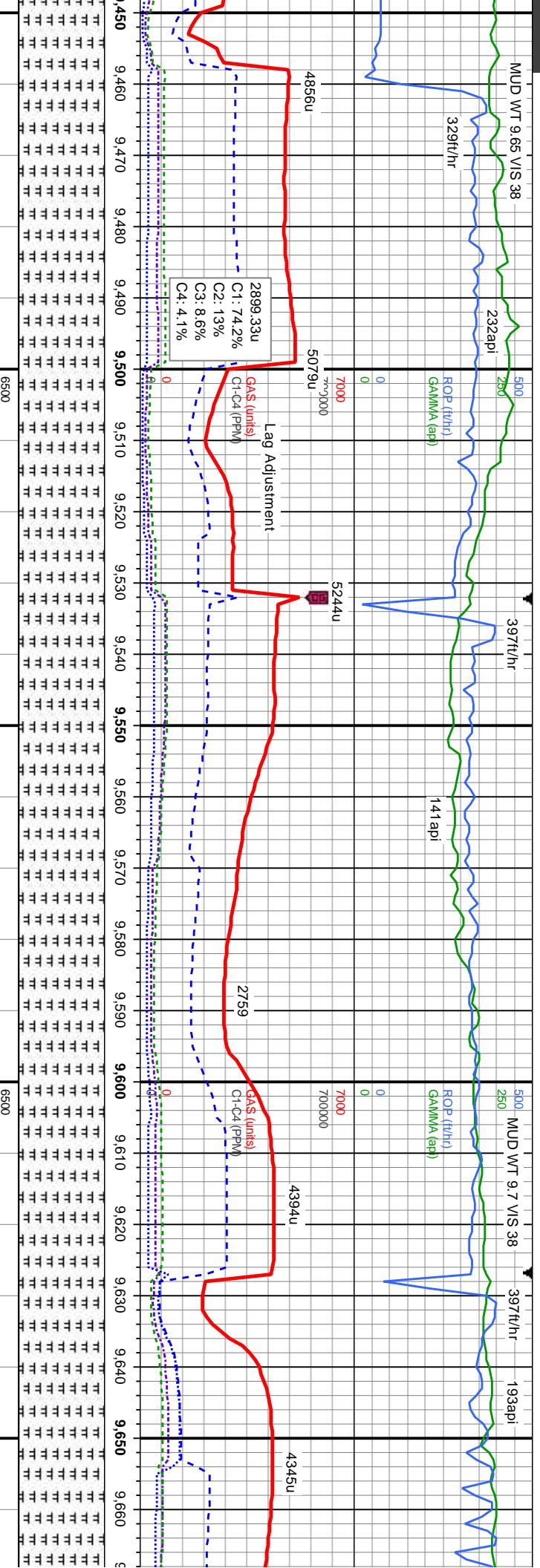
A Mail

MD: 9,284'
TVD: 6,544.91'
Inclination: 90.84°
Azimuth: 269.76°
VS: 3,292.55'

MD: 9,378'
TVD: 6,544.91'
Inclination: 89.16°
Azimuth: 270.25°
VS: 3,385.89'

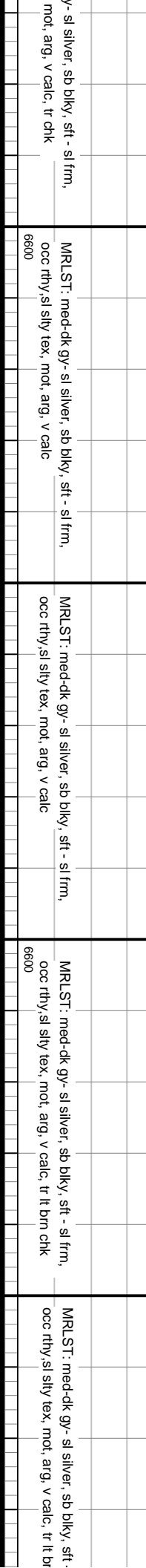
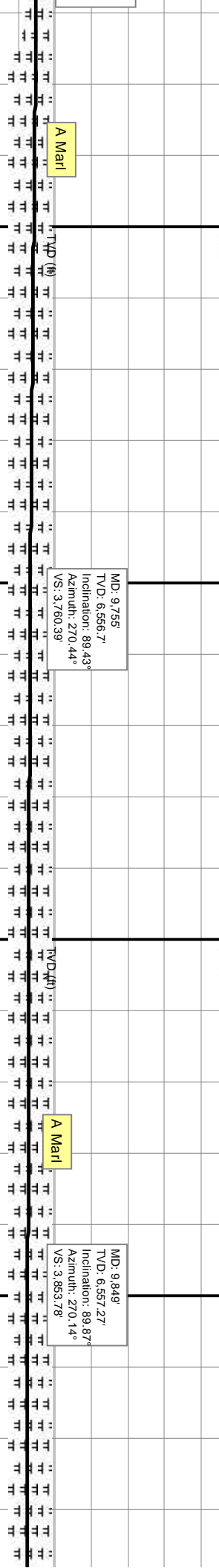
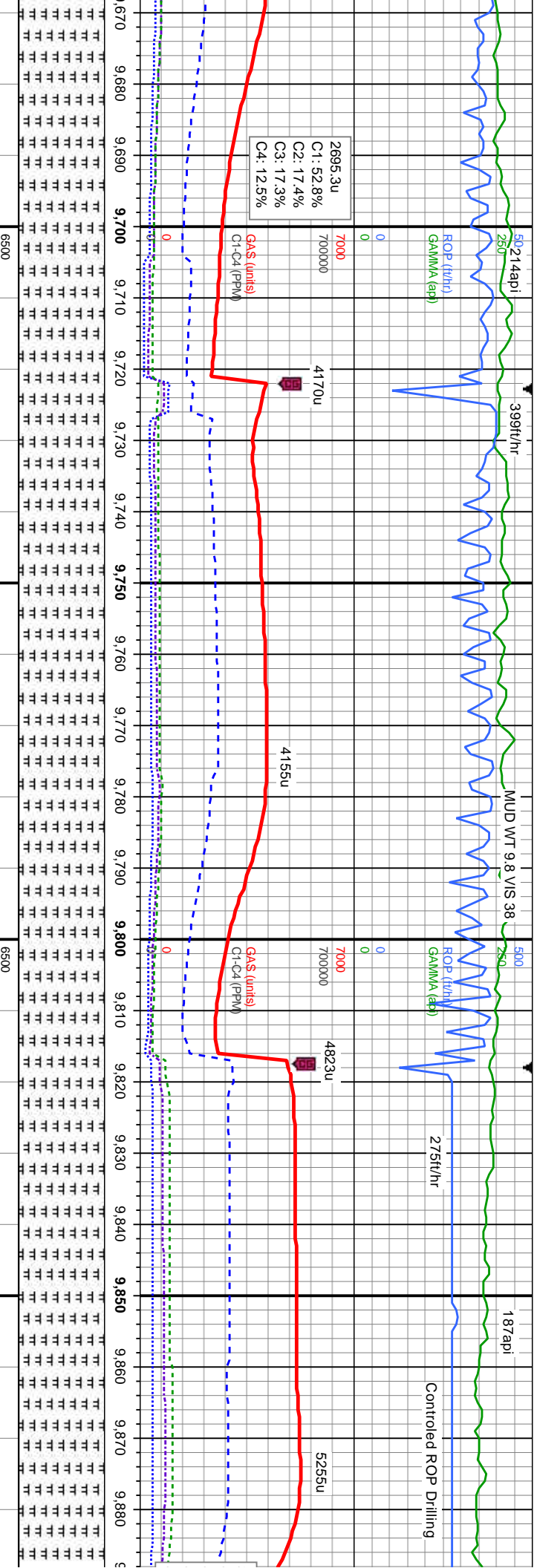
sb blk, sft - sl frm,	MRSLT: med-dk gy- sl silver, sb blk, sft - sl frm,	MRSLT: med-dk gy- sl silver, sb blk, sft - sl frm,	MRSLT: med-dk gy- sl silver, sb blk, sft - sl frm,
calc, rr pyr	occ rthy, sl silty tex, mot, arg, v calc, rr pyr	occ rthy, sl silty tex, mot, arg, v calc, rr pyr	occ rthy, sl silty tex, mot, arg, v calc
	6600	6600	6600

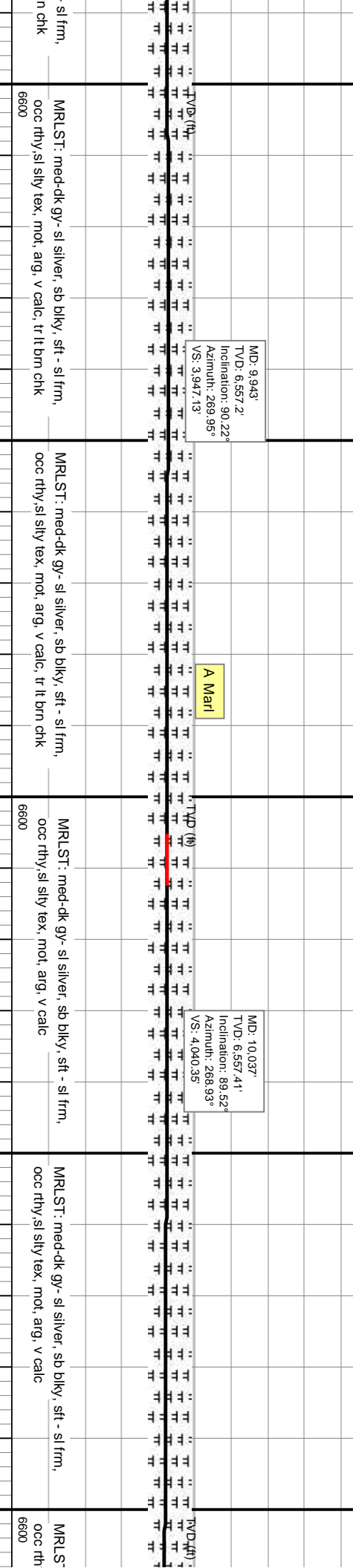


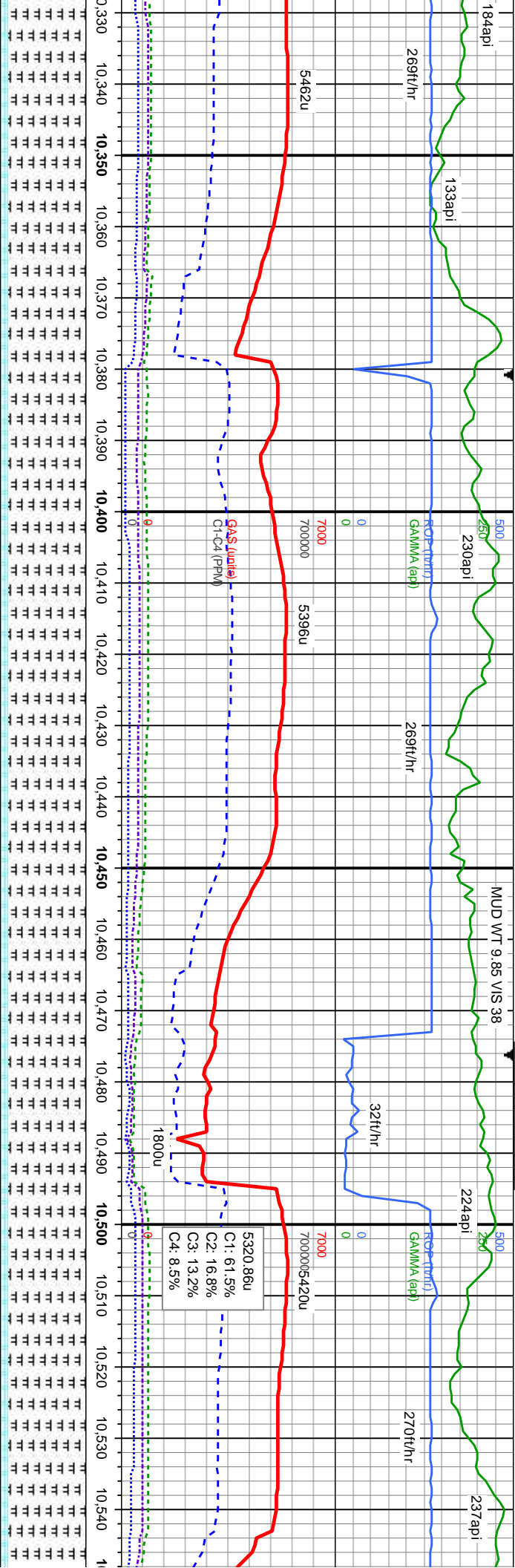


MRLST: med-dk gy- sl silver, sb biky, sft - sl frm, occ rthy, sl silty tex, mot, arg, v calc	MRLST: med-dk gy- sl silver, sb biky, sft - sl frm, occ rthy, sl silty tex, mot, arg, v calc, tr chk	MRLST: med-dk gy- sl silver, sb biky, sft - sl frm, occ rthy, sl silty tex, mot, arg, v calc, tr chk	MRLST: med-dk gy- sl silver, sb biky, sft - sl frm, occ rthy, sl silty tex, mot, arg, v calc, tr chk
6600	6600	6600	6600









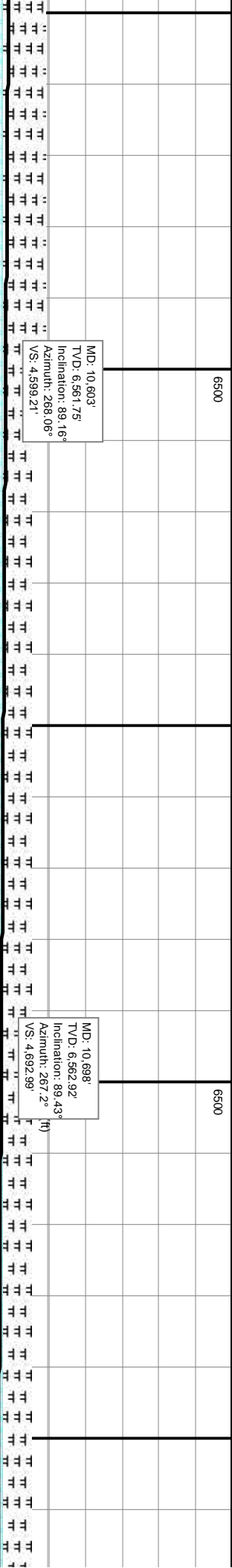
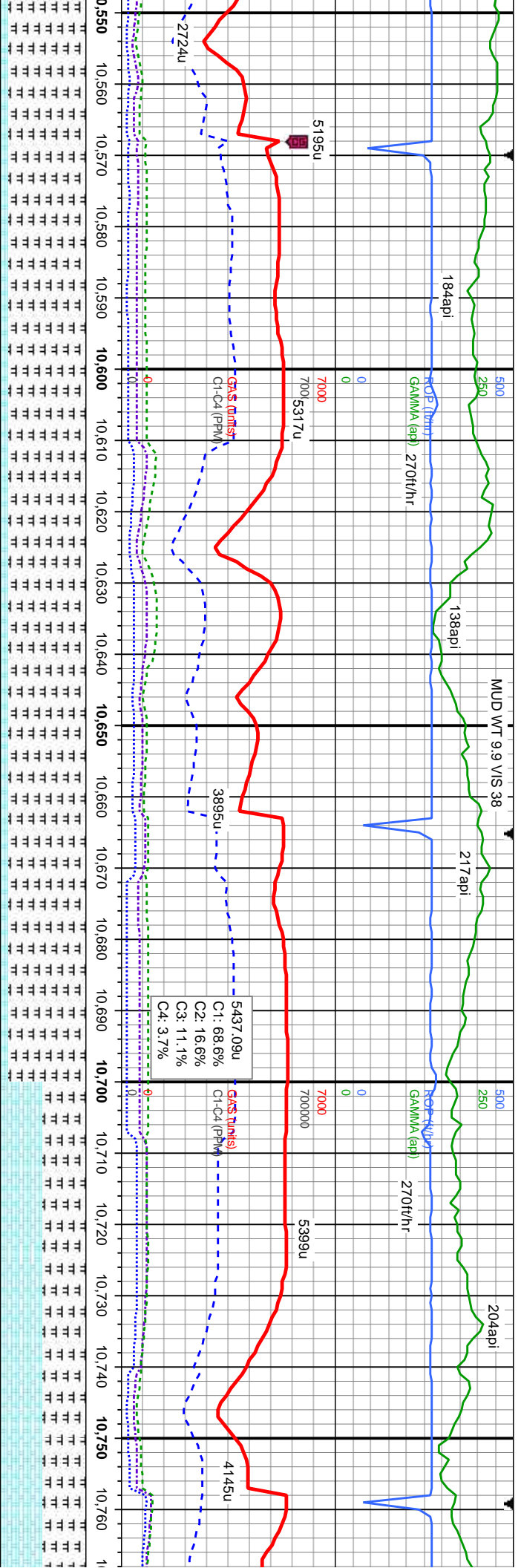
A Marl

Fracturing / Faulting

MD: 10.415'
TVD: 6,559.86'
Inclination: 90.22°
Azimuth: 267.06°
VS: 4.413.59

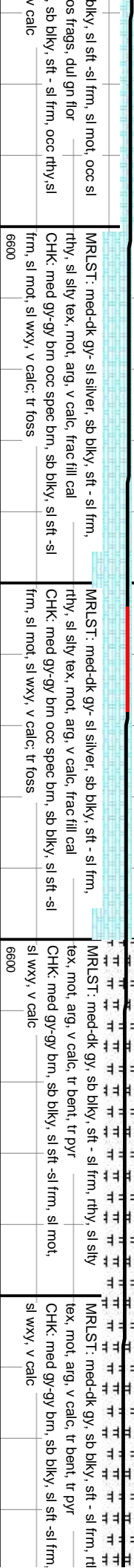
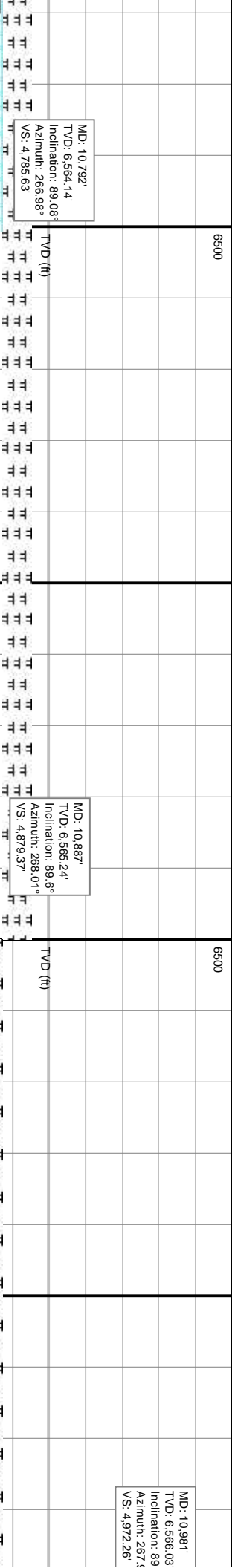
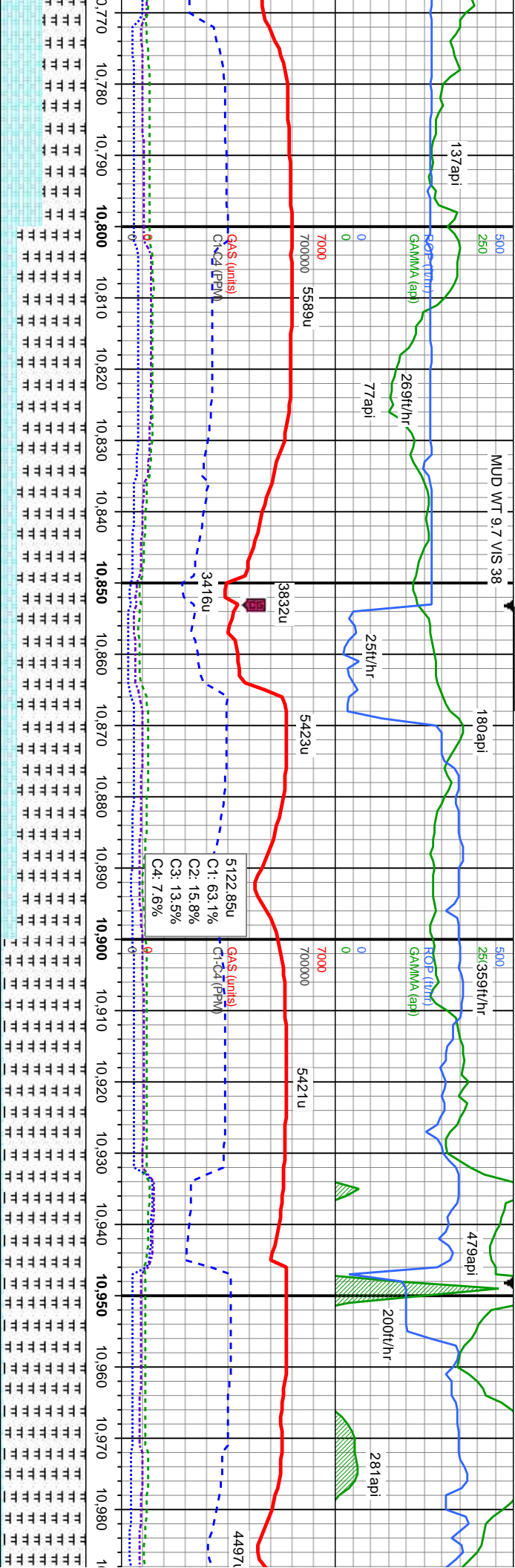
sb blkly, sft - sl frm,	MRLST: med-dk gy- sl silver, sb blkly, sft - sl frm,	MRLST: med-dk gy- sl silver, sb blkly, sft - sl frm,	MRLST: med-dk gy- sl silver, sb blkly, sft - sl frm,
brn, sb blkly, sl sft	rthy, sl silty tex, mot, arg, v calc CHK: med gy-gy brn occ spec brn, sb blkly, sl sft -sl frm, sl mot, sl wxy, v calc	rthy, sl silty tex, mot, arg, v calc, frac fill cal CHK: med gy-gy brn occ spec brn, sb blkly, sl sft -sl frm, sl mot, sl wxy, v calc, tr foss	rthy, sl silty tex, mot, arg, v calc, frac fill cal CHK: med gy-gy brn occ spec brn, sb blkly, sl sft -sl frm, sl mot, sl wxy, v calc, tr foss

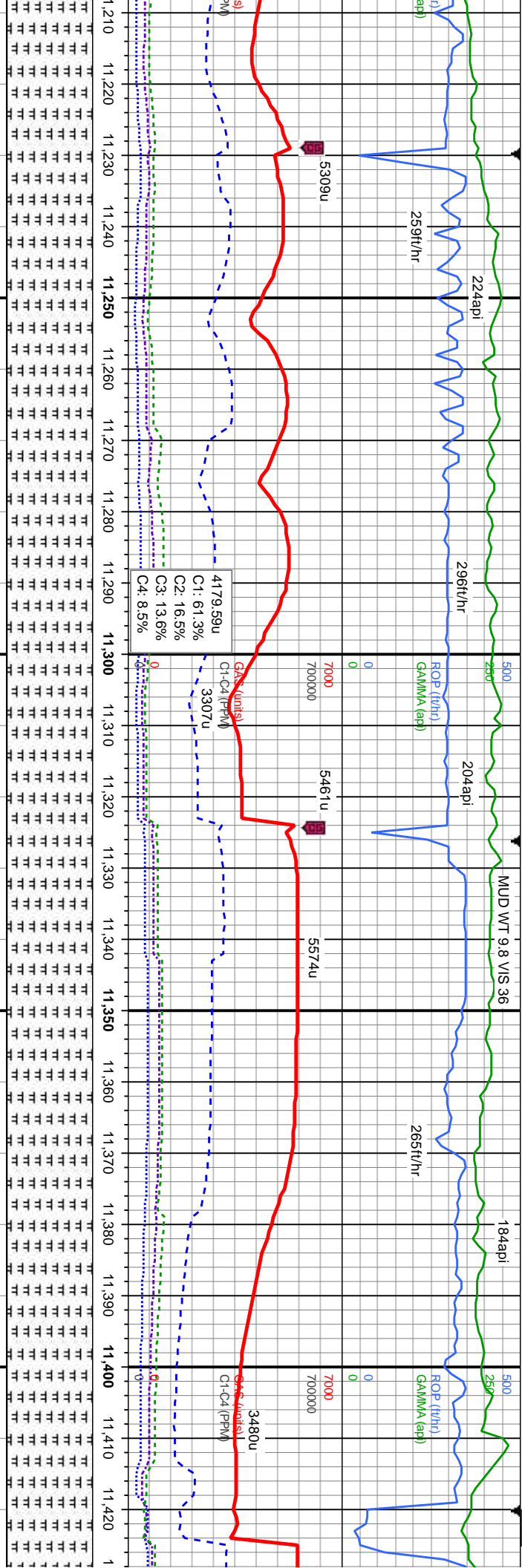




MD: 10.603' TVD: 6,561.75' Inclination: 89.16° Azimuth: 268.06° VS: 4,599.21'	
MRSLST: med-dk gy- sl silver, sb blk, sft - sl frm, rthy, sl sily tex, mot, arg, v calc, frac fill cal	MRSLST: med-dk gy- sl silver, sb blk, sft - sl frm, rthy, sl sily tex, mot, arg, v calc, frac fill cal
CHK: med gy-gy brn occ spec brn, sb blk, sl sft - sl frm, sl mot, sl wxy, v calc, tr foss	CHK: med gy-gy brn occ spec brn, sb blk, sl sft - sl frm, sl mot, sl wxy, v calc, tr foss







A Marl

MD: 11,265'
TVD: 6,566.45'
Inclination: 90.4°
Azimuth: 266.77°
VS: 5,252.29'

TVD (ft)

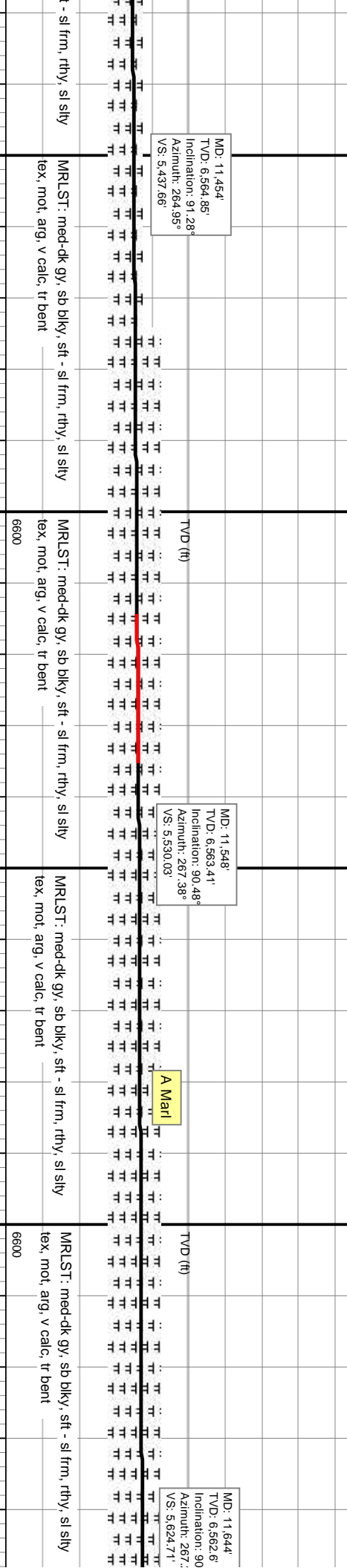
MD: 11,359'
TVD: 6,566.02'
Inclination: 90.13°
Azimuth: 265.32°
VS: 5,344.63'

TVD (ft)

A Marl

med-dk gy, sb blk, sft - sl frm, rthy, sl silty	MRLST: med-dk gy, sb blk, sft - sl frm, rthy, sl silty
arg, v calc, tr bent	tex, mot, arg, v calc, tr bent
	6600







Projection to Bit

MD: 11,772'
TVD: 6,559.78'
Inclination: 91.54°
Azimuth: 267.25°
VS: 5,750.91'

[illegible]