



Scale: 5" / 100'  
Measured Depth Log

Well Name North Platte E-A 24HNC

Location SESW SECTION 24, T5N, R63W

State COLORADO

County WELD

Country USA

Rig Number CADE 25

API Number 05-123-39517

Region DJ BASIN

Field WATTENBERG

Spud Date 7/26/2014

Drilling Completed 8/2/2014

Surface Coordinates 461' FSL x 1359' FWL

Bottom Hole Coordinates 457' FNL x 215' FWL

Ground Elevation 4568'

K.B. Elevation 4585'

Logged Interval 6140' To 11278'

Total Depth 11278'

Formation NIOBRARA C CHALK

Type of Drilling Fluid FW LSND

Company Bonanza Creek  
Address 410 17th STRE  
DENVER, CO 8

Name BRANT LOGAN  
Company BONANZA CRE  
Address 410 17th STRE  
DENVER, CO 8

COLUMBINE LOGGING, INC  
WELL SITE GEOLOGISTS

Operator

Energy Inc.

ET, SUITE 1500  
0202

Geologist

EEK ENERGY INC.

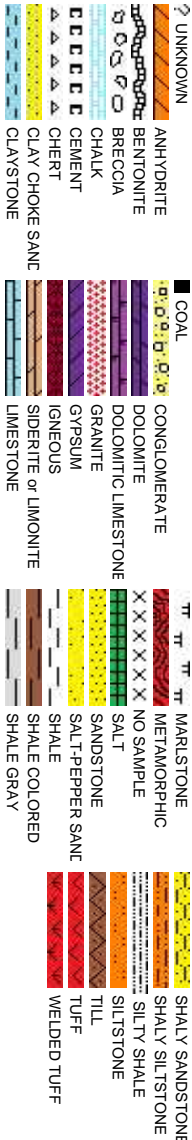
ET, SUITE 1500  
0202

Other

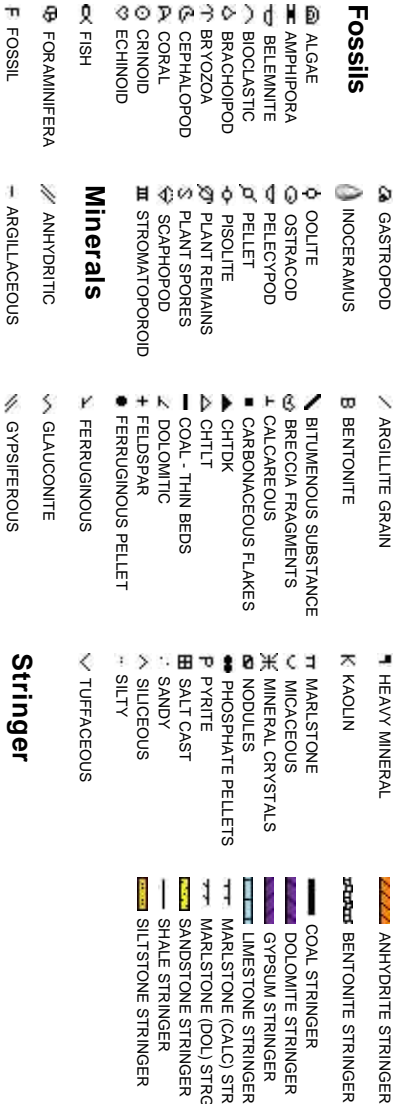
2385 S. LIPAN ST.  
DENVER, CO 80223

JOEY LUCE  
JEFF LACY

Rock Types

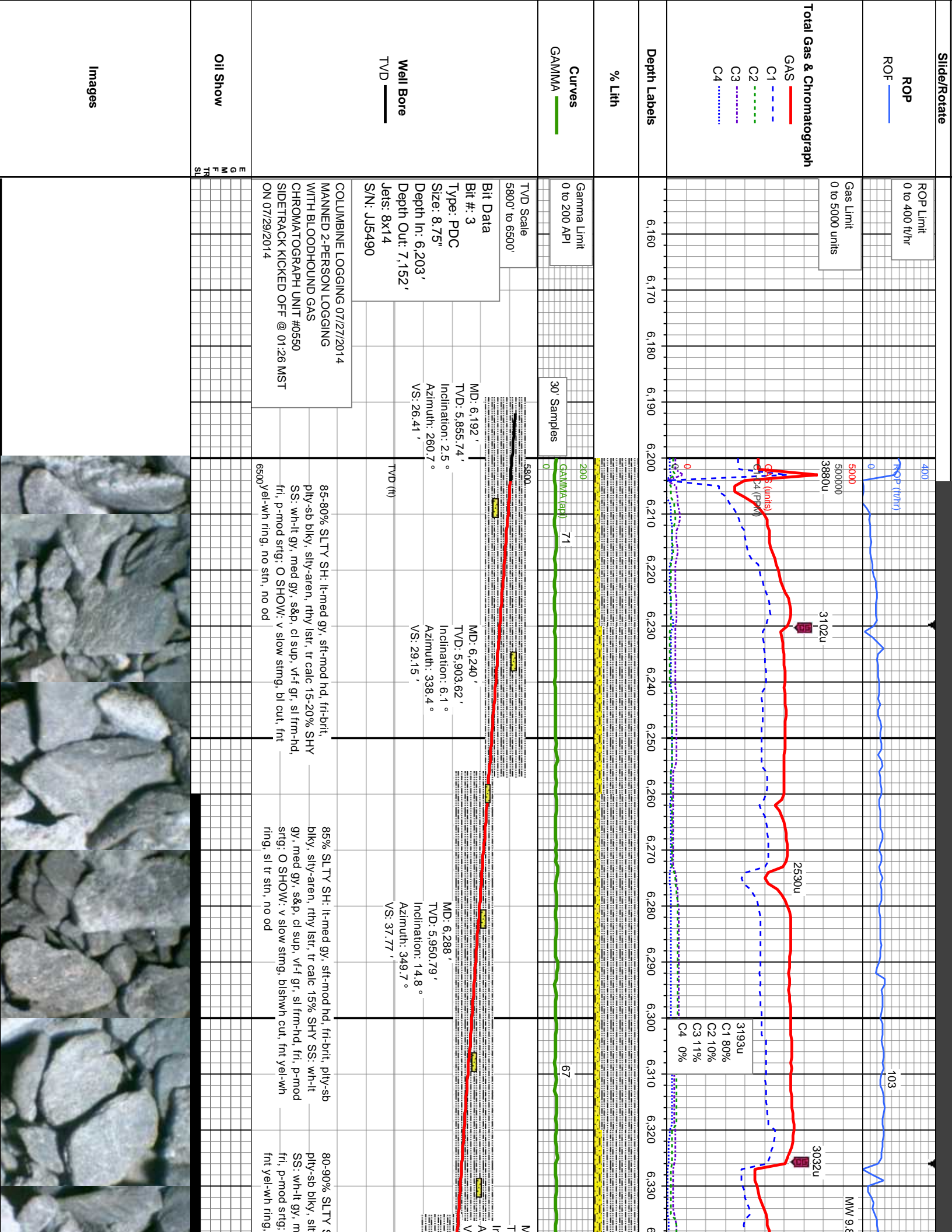


Accessories

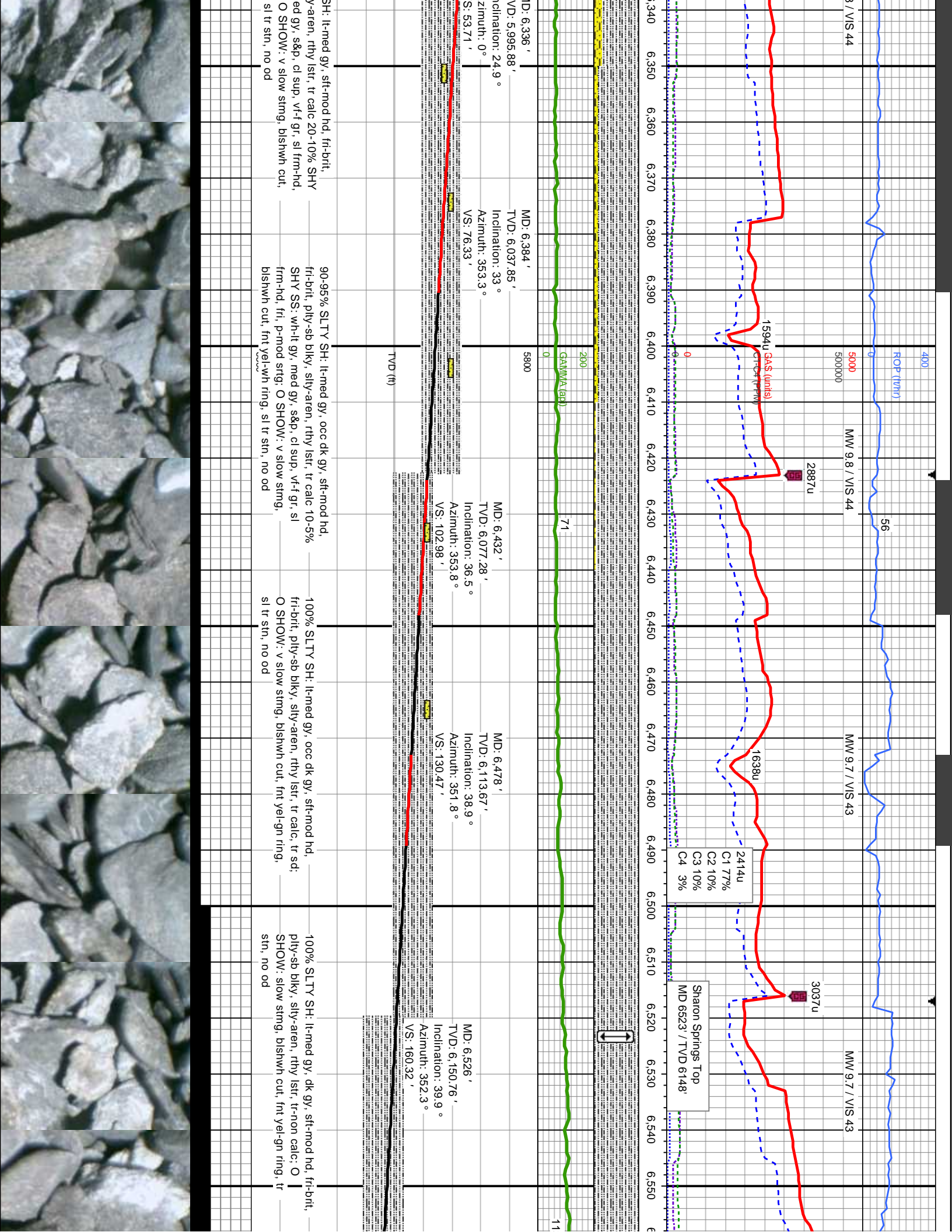


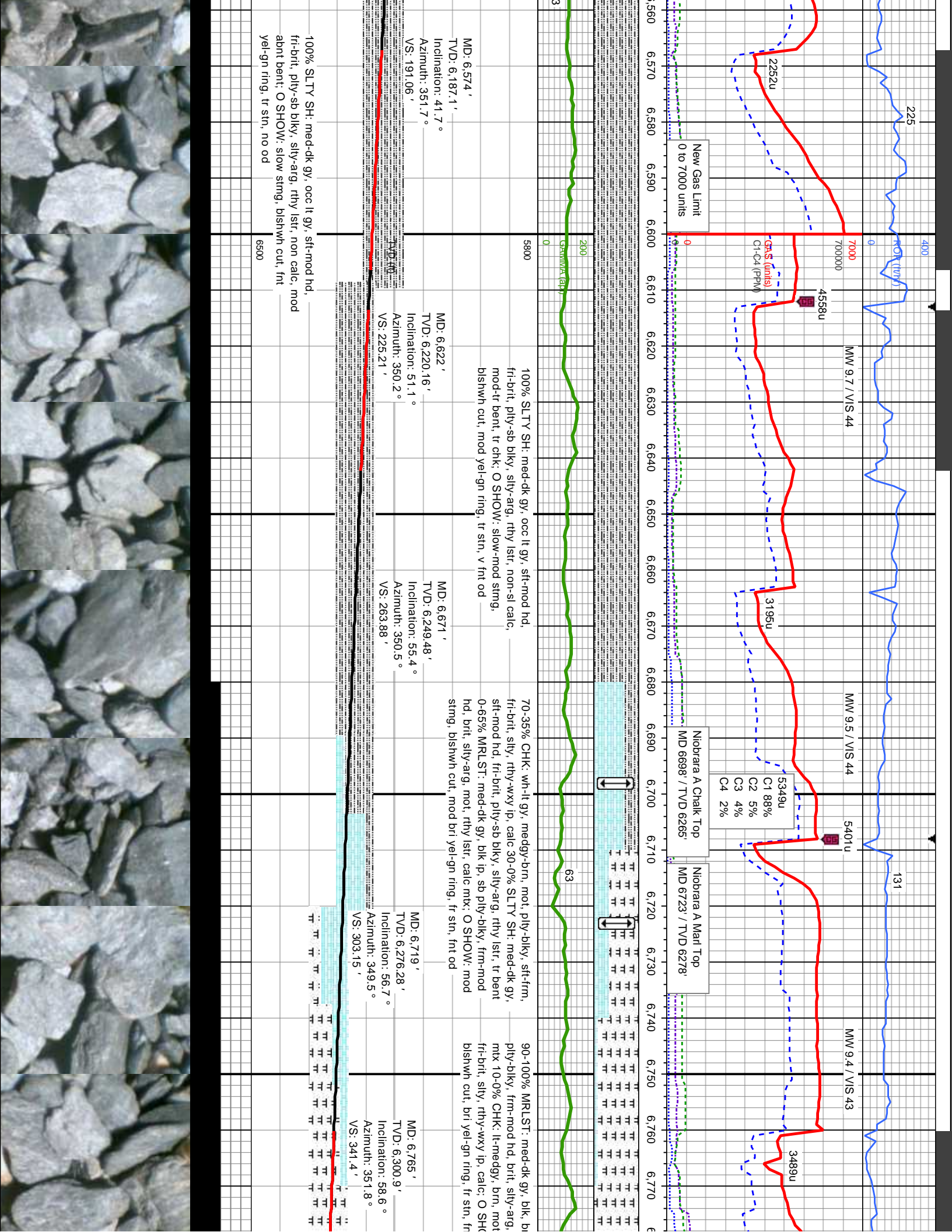
# Other Symbols

<b>Oil Show</b>	P PINPOINT V VUGGY	DST INTERVAL FAULT FORMATION TOP GAS SHOW OIL SHOW	WIREFLINE TESTED - LEFT WIREFLINE TESTED - RT DRILL STEM TEST MN DEPTH	E EARTHY FX FINELYXLN GS GRAINSTONE L LITHOGRAPHIC MX MICROXLN
<b>Engineering</b>	D DEAD ● EVEN ○ QUESTIONABLE BIT SPOTTED STAINING ▲ CONNECTION (UP)	MINDEPTH MINDEPTH MN DEPTH UP	<b>Rounding</b>	MS MUDSTONE
<b>Porosity</b>	▼ CONNECTION (DOWN) CONNECTION GAS CONNECTION GAS (LEFT) TRIP GAS FRACTURE TRIP GAS (LEFT) INTERCRYSTALLINE INTEROOLITIC MOLDIC ORGANIC	NORMAL FAULT OVERTURNED STRATA REVERSE FAULT CASING SIDEWALL CORE (LEFT) SIDEWALL CORE (RIGHT) SLIDE SURVEY	ANGULAR ROUNDED SUBANG SUBRND	PS PACKSTONE WS WACKSTONE
			<b>Textures</b>	<b>Sorting</b>
			BOUNDSTONE CHALKY CRYPTOXLN	M MODERATE P POOR W WELL

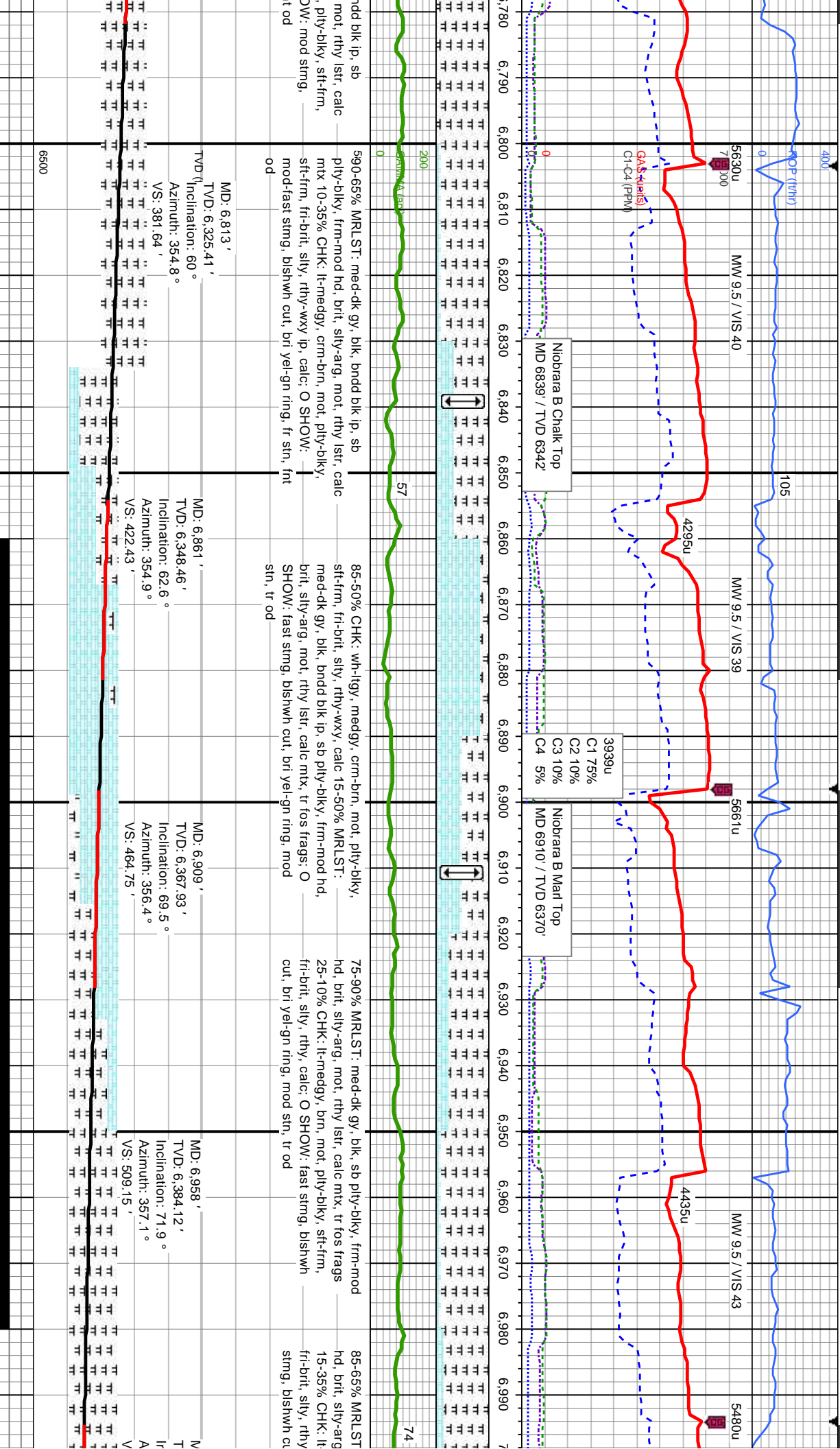


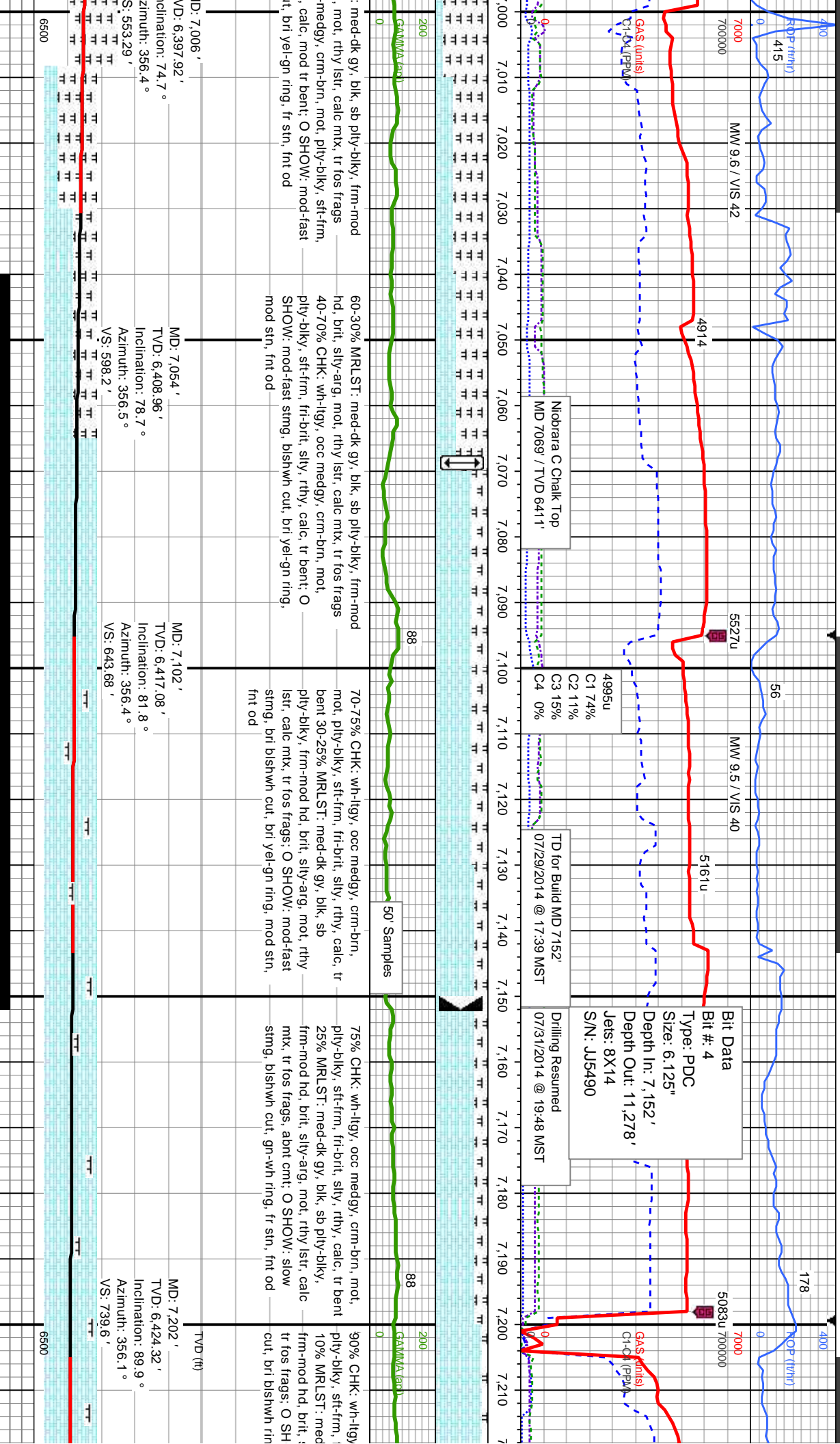




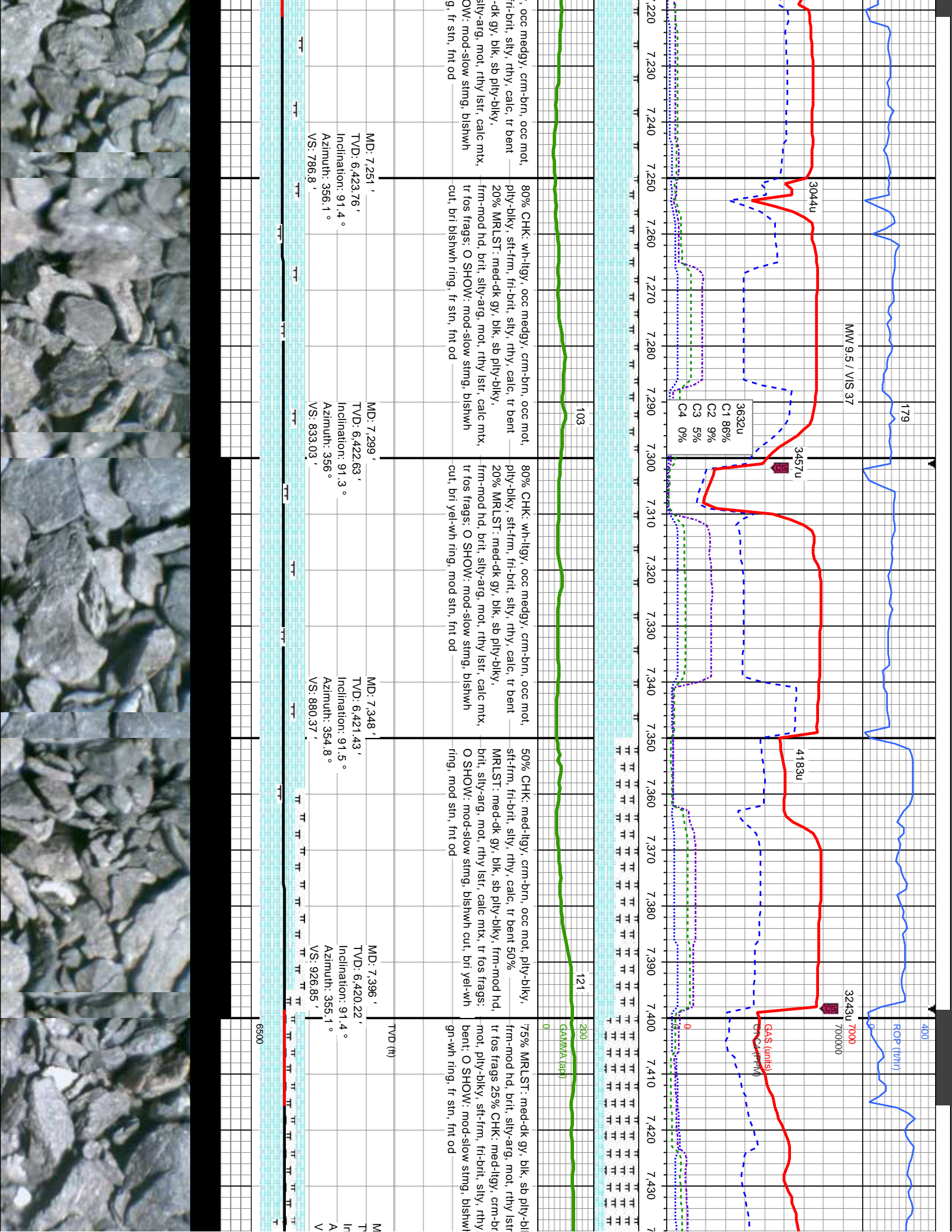


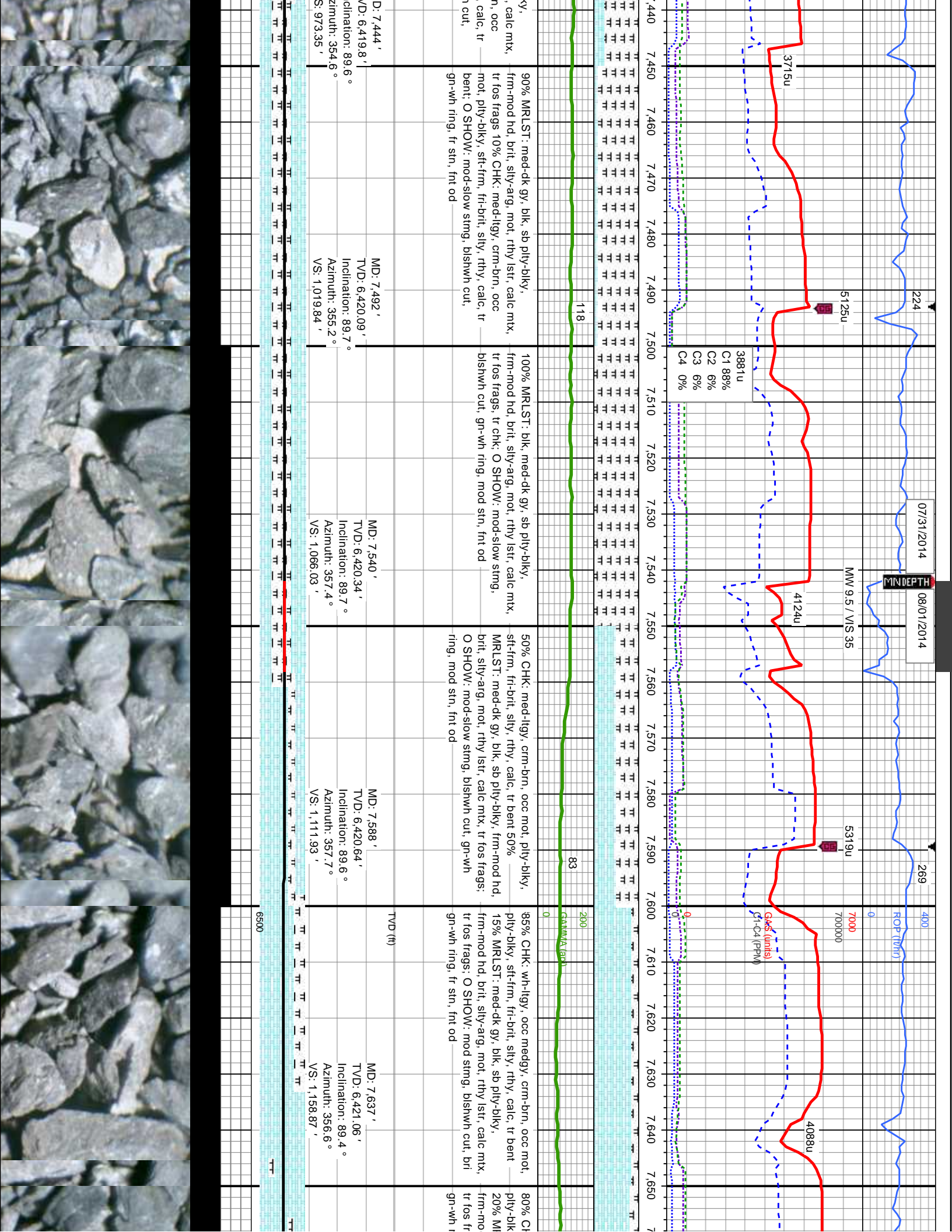








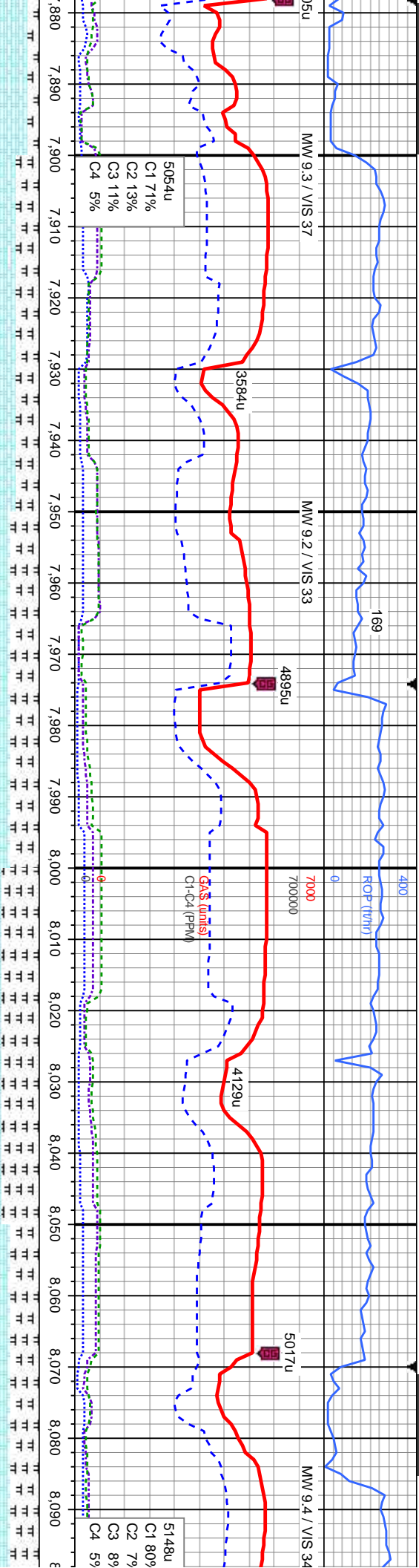






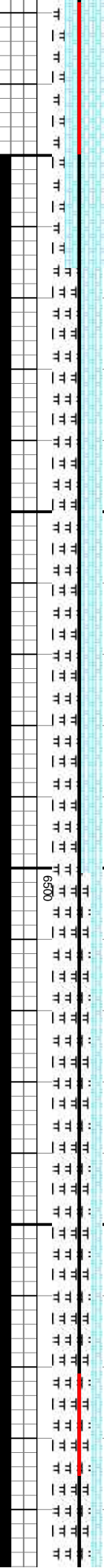






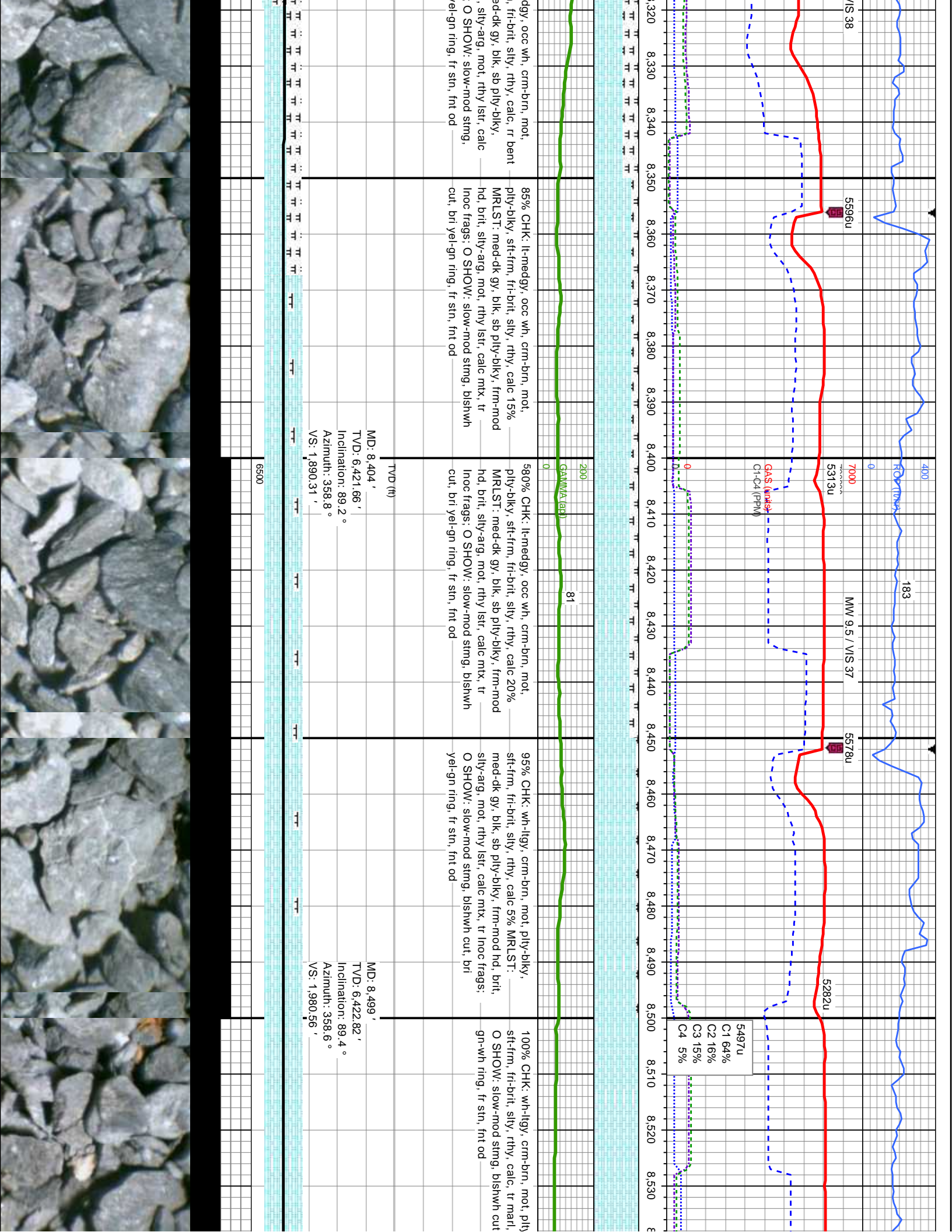
cm-brn, mot, y, rthy, calc 20% ply-biky, frm-mod stf, calc mix, tr fos bshwn cut, gn-wh	60% CHK: lt-medgy, cm-brn, mot, ply-biky, sft-frm, fri-brit, silty, rthy, calc, r bent 40% MRLST: med-dk gy, blk, sb ply-biky, frm-mod hd, brit, silty-arg, mot, rthy lstr, calc mix, tr fos frags; O SHOW: mod stimg, bshwn cut, mod bri yel ring, mod sin, fnt od	50% CHK: lt-medgy, cm-brn, mot, ply-biky, sft-frm, fri-brit, silty, rthy, calc, r bent 50% MRLST: med-dk gy, blk, sb ply-biky, frm-mod hd, brit, silty-arg, mot, rthy lstr, calc mix, tr fos frags; O SHOW: mod stimg, bshwn cut, mod bri yel ring, mod sin, fnt od	565% MRLST: med-dk gy, blk, sb ply-biky, frm-mod hd, brit, silty-arg, mot, rthy lstr, calc mix, tr fos frags 35% CHK: lt-medgy, cm-brn, mot, ply-biky, sft-frm, fri-brit, silty, rthy, calc, r bent; O SHOW: mod stimg, bshwn cut, mod bri yel ring, mod sin, fnt od	50% CHK: lt-medgy, cm-brn, mot, ply-biky, sft-frm, fri-brit, silty, rthy, calc, r bent 50% MRLST: med-dk gy, blk, sb ply-biky, frm-mod hd, brit, silty-arg, mot, rthy lstr, calc mix, tr fos frags; O SHOW: mod stimg, bshwn cut, mod bri yel ring, mod sin, fnt od
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MD: 7.924 ' TVD: 6,419.14 ' Inclination: 89.2 ° Azimuth: 359.4 ° VS: 1,432.83 '	MD: 7.972 ' TVD: 6,419.69 ' Inclination: 89.5 ° Azimuth: 358.5 ° VS: 1,478.37 '	MD: 8.021 ' TVD: 6,419.65 ' Inclination: 90.6 ° Azimuth: 358.3 ° VS: 1,525 '
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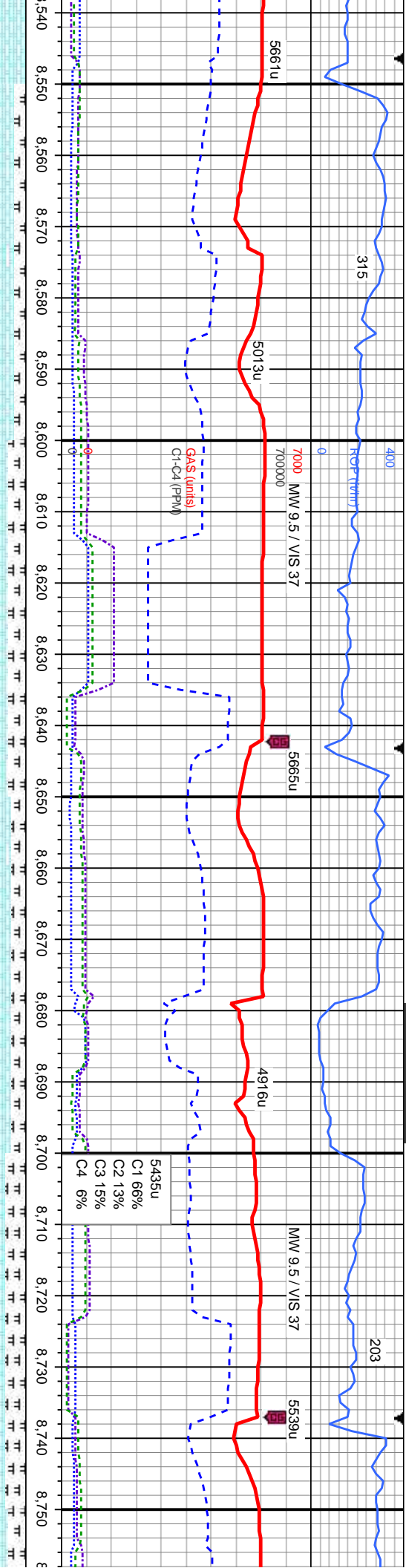






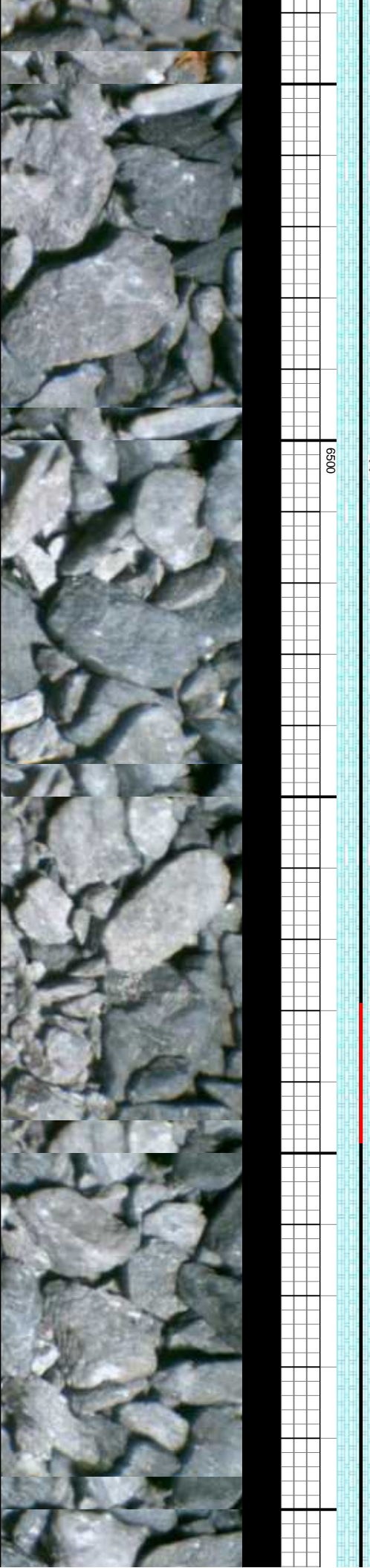


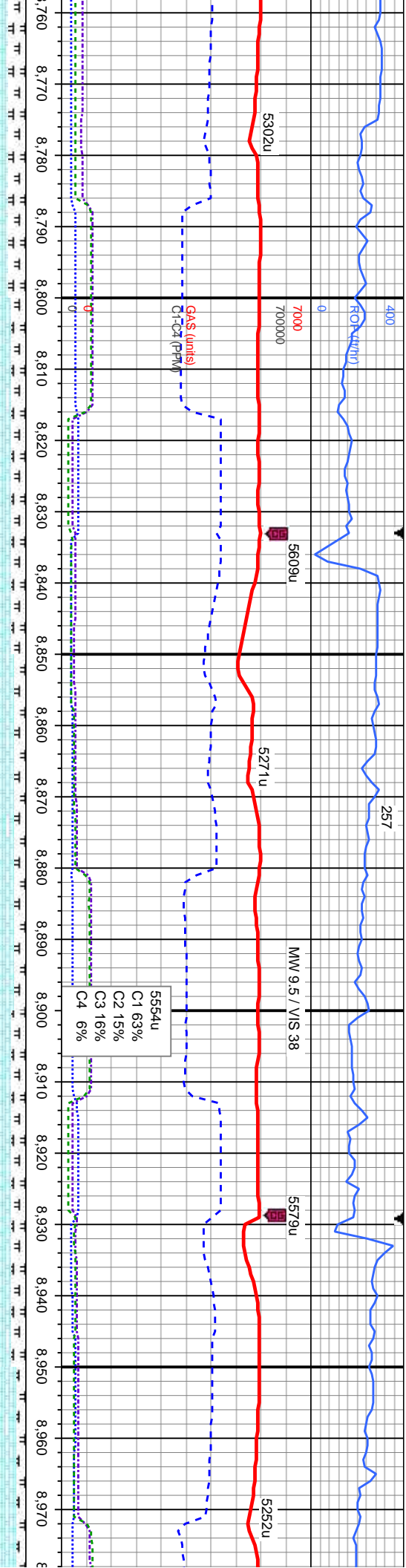




Depth (ft)	61	0	200	77	70%
8540	80% CHK: wh-llgy, crm-brn, mot, pily-biky, sft-frm, fri-brit, silty, rthy, calc 20% MRLST: med-dk gy, blk, sb pily-biky, frm-mod hd, brit, silty-arg, mot, rthy lstr, calc mix, tr inoc frags; O SHOW: slow-mod string, bishwh cut, bri gn-wh ring, fr str, tr od	570% CHK: wh-llgy, crm-brn, mot, pily-biky, sft-frm, fri-brit, silty, rthy, calc 30% MRLST: med-dk gy, blk, sb pily-biky, frm-mod hd, brit, silty-arg, mot, rthy lstr, calc mix, tr inoc frags; O SHOW: mod string, bishwh cut, bri gn-wh ring, fr str, tr od	75% CHK: wh-llgy, crm-brn, mot, pily-biky, sft-frm, fri-brit, silty, rthy, calc 25% MRLST: med-dk gy, blk, sb pily-biky, frm-mod hd, brit, silty-arg, mot, rthy lstr, calc mix, tr inoc frags; O SHOW: mod string, bishwh cut, bri gn-wh ring, fr str, tr od	65% CHK: wh-llgy, crm-brn, mot, pily-biky, sft-frm, fri-brit, silty, rthy, calc 35% MRLST: med-dk gy, blk, sb pily-biky, frm-mod hd, brit, silty-arg, mot, rthy lstr, calc mix, tr inoc frags; O SHOW: mod string, bishwh cut, bri gn-wh ring, fr str, tr od	70% CHK: wh-llgy, crm-brn, mot, pily-biky, sft-frm, fri-brit, silty, rthy, calc 35% MRLST: med-dk gy, blk, sb pily-biky, frm-mod hd, brit, silty-arg, mot, rthy lstr, calc mix, tr inoc frags; O SHOW: mod string, bishwh cut, bri gn-wh ring, fr str, tr od

MD: 8,595'	MD: 8,690'
TVD: 6,422.15'	TVD: 6,420.91'
Inclination: 91.4°	Inclination: 90.1°
Azimuth: 359°	Azimuth: 359.6°
VS: 2,071.71'	VS: 2,161.64'





CHK: wh-llgy, crm-brn, mot, ply-biky, sft-frn, frt-brt, sily, rthy, calc 30% MRLST: med-dk gy, blk, sb ply-biky, frm-mod hd, brit, sily-arg, mot, rthy lstr, calc mtx, rr inoc frags: O SHOW: mod stmg, blshwh cut, bri gn-wh fr stn, fr od	5875% CHK: wh-llgy, crm-brn, mot, ply-biky, sft-frn, frt-brt, sily, rthy, calc 25% MRLST: med-dk gy, blk, sb ply-biky, frm-mod hd, brit, sily-arg, mot, rthy lstr, calc mtx, rr inoc frags: O SHOW: mod stmg, blshwh cut, bri gn-wh fring, mod stn, frt od	80% CHK: wh-llgy, crm-brn, mot, ply-biky, sft-frn, frt-brt, sily, rthy, calc 20% MRLST: med-dk gy, blk, sb ply-biky, frm-mod hd, brit, sily-arg, mot, rthy lstr, calc mtx, rr inoc frags: O SHOW: mod stmg, blshwh cut, bri gn-wh fring, mod stn, frt od	75% CHK: wh-llgy, crm-brn, mot, ply-biky, sft-frn, frt-brt, sily, rthy, calc 25% MRLST: med-dk gy, blk, sb ply-biky, frm-mod hd, brit, sily-arg, mot, rthy lstr, calc mtx, rr inoc frags: O SHOW: mod-fast stmg, blshwh cut, frt yel-gn ring, fr stn, frt od	85% CHK: wh-llgy, crm-brn, mot, ply-biky, sft-frn, frt-brt, sily, rthy, calc 25% MRLST: med-dk gy, blk, sb ply-biky, frm-mod hd, brit, sily-arg, mot, rthy lstr, calc mtx, rr inoc frags: O SHOW: mod-fast stmg, blshwh cut, frt yel-gn ring, fr stn, frt od
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MD: 8,786 '  
TVD: 6,421.24 '  
Inclination: 89.5 °  
Azimuth: 358.9 °  
VS: 2,252.55 '

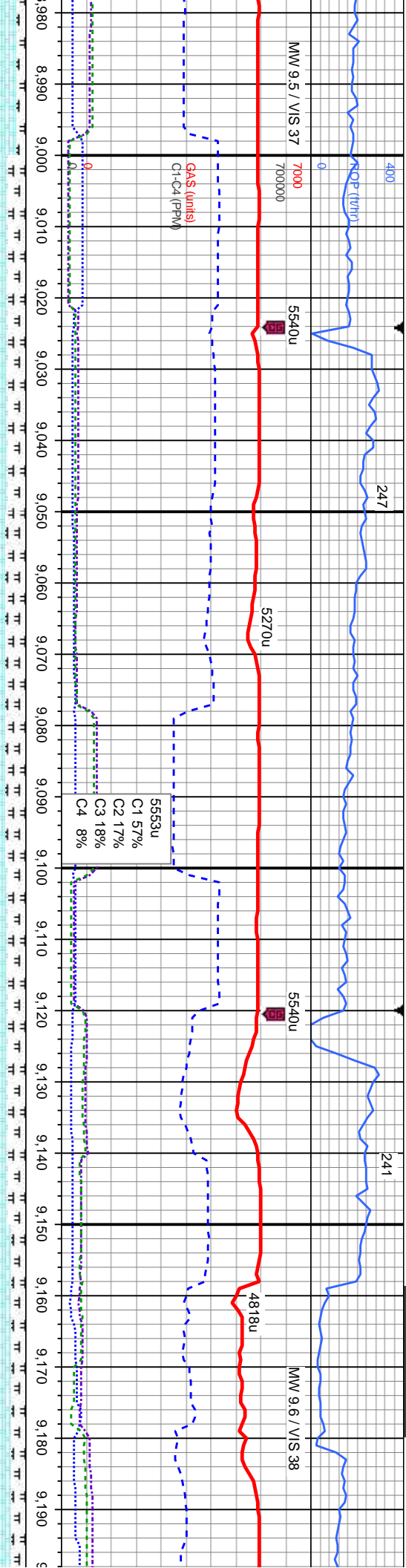
TVD (ft)

6500

MD: 8,882 '  
TVD: 6,421.07 '  
Inclination: 90.7 °  
Azimuth: 359.4 °  
VS: 2,343.52 '







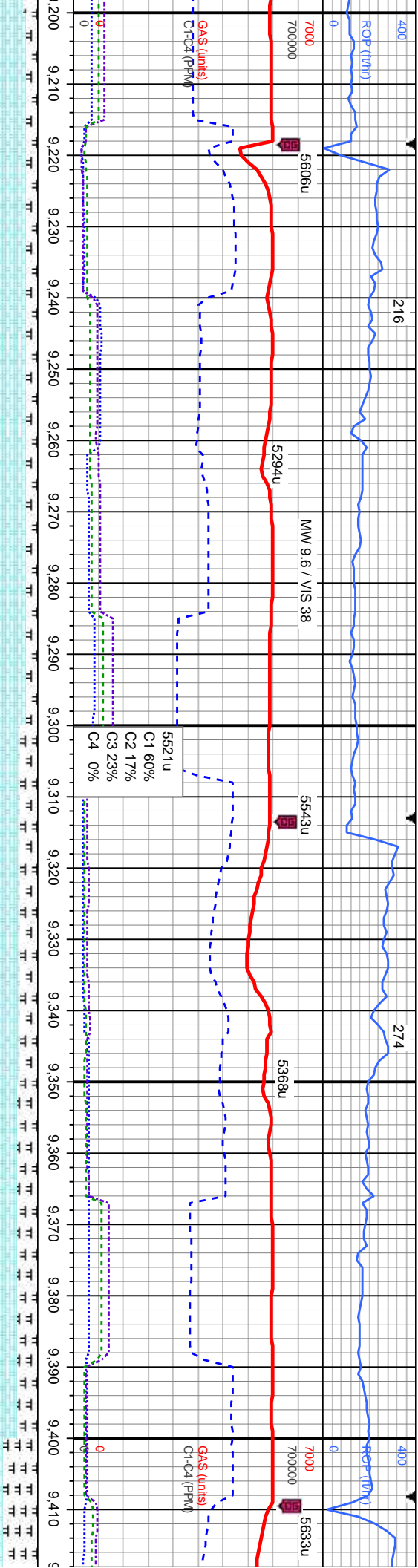
l, mot, ply-biky, calc 15% MRLST: firm-mod hd, brit, mtx, tr inoc frags; blshwh cut, fnt	570% CHK: wh-llgy, crm-brn, mot, ply-biky, sft frm, fr-brit, sily, rthy, calc 30% MRLST: med-dk gy, blk, sb ply-biky, firm-mod hd, brit, sily-arg, mot, rthy lstr, calc mtx, tr inoc frags; O SHOW: mod-fast string, blshwh cut, fr stn, fnt od	65% CHK: wh-llgy, medgy, crm-brn, mot, ply-biky, sft frm, fr-brit, sily, rthy, calc 35% MRLST: med-dk gy, blk, sb ply-biky, firm-mod hd, brit, sily-arg, mot, rthy lstr, calc mtx, tr inoc frags; O SHOW: mod-fast string, blshwh cut, gn-wh ring, fr stn, fnt od	70% CHK: wh-llgy, medgy, crm-brn, mot, ply-biky, sft frm, fr-brit, sily, rthy, calc 30% MRLST: med-dk gy, blk, sb ply-biky, firm-mod hd, brit, sily-arg, mot, rthy lstr, calc mtx, tr inoc frags; O SHOW: mod-fast string, blshwh cut, fnt yel-gn ring, fr stn, fnt od	75% CHK: wh-llgy, medgy, crm-brn, mot, ply-biky, sft frm, fr-brit, sily, rthy, calc 25% MRLST: med-dk gy, blk, sb ply-biky, firm-mod hd, brit, sily-arg, mot, rthy lstr, calc mtx, tr inoc frags; O SHOW: mod-fast string, blshwh cut, fnt yel-gn ring, fr stn, fnt od
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66' 89.8° 57.1°	MD: 9.073' TVD: 6,420.66' Inclination: 90.2° Azimuth: 356.7° VS: 2,526.1'	MD: 9.168' TVD: 6,420.91' Inclination: 89.5° Azimuth: 357.8° VS: 2,617.08'
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6500	6500
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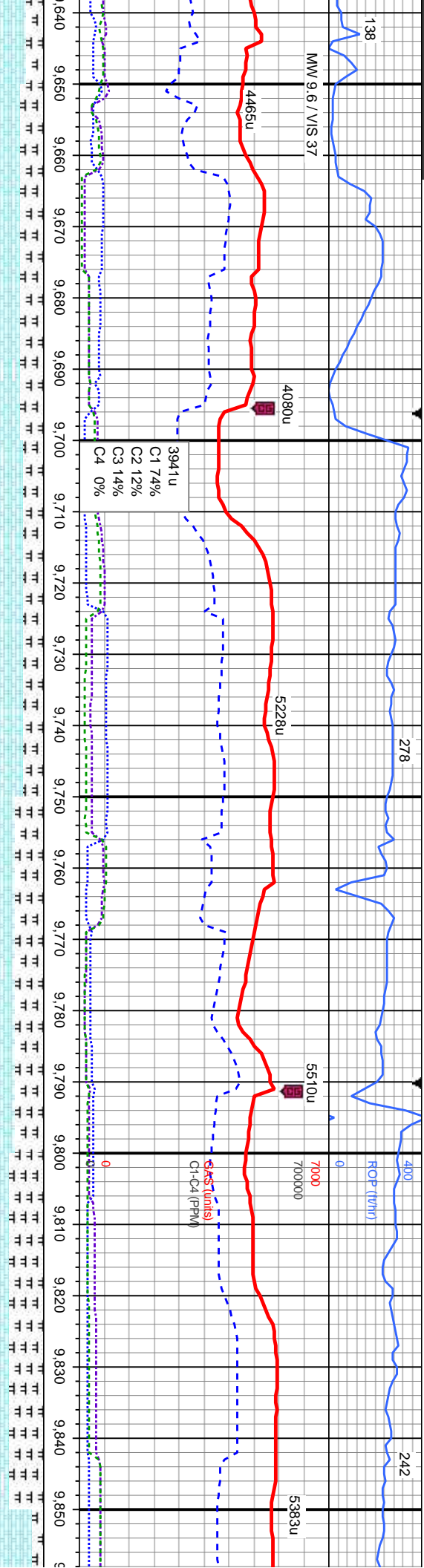


58-80% CHK: wh-llgy, medgy, crm-brn, mot, pily-biky, sft-frn, fr-brit, sily, rthy, calc 20% MRLST: med-dk gy, blk, sb pily-biky, frm-mod hd, brit, sily-arg, mot, rthy lst, calc mtx, rr inoc frags; O SHOW: mod-fast stmg, blshwh cut, bri gn-wh ring, fr stn, fnt od	62	80% CHK: wh-llgy, medgy, crm-brn, mot, pily-biky, sft-frn, fr-brit, sily, rthy, calc 20% MRLST: med-dk gy, blk, sb pily-biky, frm-mod hd, brit, sily-arg, mot, rthy lst, calc mtx, rr inoc frags; O SHOW: mod-fast stmg, blshwh cut, bri gn-wh ring, fr stn, fnt od	76	65% CHK: wh-llgy, medgy, crm-brn, mot, pily-biky, sft-frn, fr-brit, sily, rthy, calc 35% MRLST: med-dk gy, blk, sb pily-biky, frm-mod hd, brit, sily-arg, mot, rthy lst, calc mtx, rr inoc frags; O SHOW: mod-fast stmg, blshwh cut, fnt yel-wh ring, mod sin, fnt od	58-60% MRLST: m, frm-mod hd, brit, r inoc frag crm-brn, mot, p rthy, calc; O SH cut, fnt yel-wh r
TVD (ft)					TVD (ft)
		MD: 9,264 ' TVD: 6,420.82 ' Inclination: 90.6 ° Azimuth: 358.4 ° VS: 2,708.59 '		MD: 9,359 ' TVD: 6,419.58 ' Inclination: 90.9 ° Azimuth: 357.8 ° VS: 2,799.15 '	
6500					6500



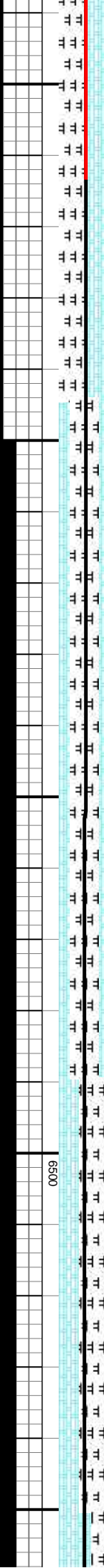






67	60% CHK: wh-llgy, medgy, crm-brn, mot, pily-biky, stf-frn, frt-brit, silty, rthy, calc 40% MRLST: med-dk gy, blk, sb pily-biky, frm-mod hd, brit, silty-arg, mot, rthy lstf, calc mtx: O SHOW: mod-slow string, blshwh cut, gn-yel ring, fr sin, fnt od	76	65% CHK: wh-llgy, medgy, crm-brn, mot, pily-biky, stf-frn, frt-brit, silty, rthy, calc 35% MRLST: med-dk gy, blk, sb pily-biky, frm-mod hd, brit, silty-arg, mot, rthy lstf, calc mtx: O SHOW: mod-slow string, blshwh cut, gn-wh ring, mod sin, fnt od	83	50% CHK: wh-llgy, medgy, crm-brn, mot, pily-biky, stf-frn, frt-brit, silty, rthy, calc 50% MRLST: med-dk gy, blk, sb pily-biky, frm-mod hd, brit, silty-arg, mot, rthy lstf, calc mtx: O SHOW: mod-slow string, blshwh cut, gn-wh ring, mod sin, fnt od	83	50% MRLST: med-dk gy, blk, sb pily-biky, frm-mod hd, brit, silty-arg, mot, rthy lstf, calc crm-brn, mot, pily-biky, stf-frn, frt-brit, silty, rthy, calc: O SHOW: mod-slow string, blshwh cut, gn-wh ring, mod sin, fnt od	80%	pily-biky, stf-frn, frt-brit, silty, rthy, calc 40% MRLST: med-dk gy, blk, sb pily-biky, frm-mod hd, brit, silty-arg, mot, rthy lstf, calc mtx: O SHOW: mod-slow string, blshwh cut, gn-wh ring, mod sin, fnt od
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ID: 9.646 '	MD: 9.741 '
VD: 6.416.08 '	TVD: 6.417.65 '
Inclination: 90.1 °	Inclination: 88 °
azimuth: 357.2 °	Azimuth: 357.8 °
S: 3.072.92 '	VS: 3.163.76 '



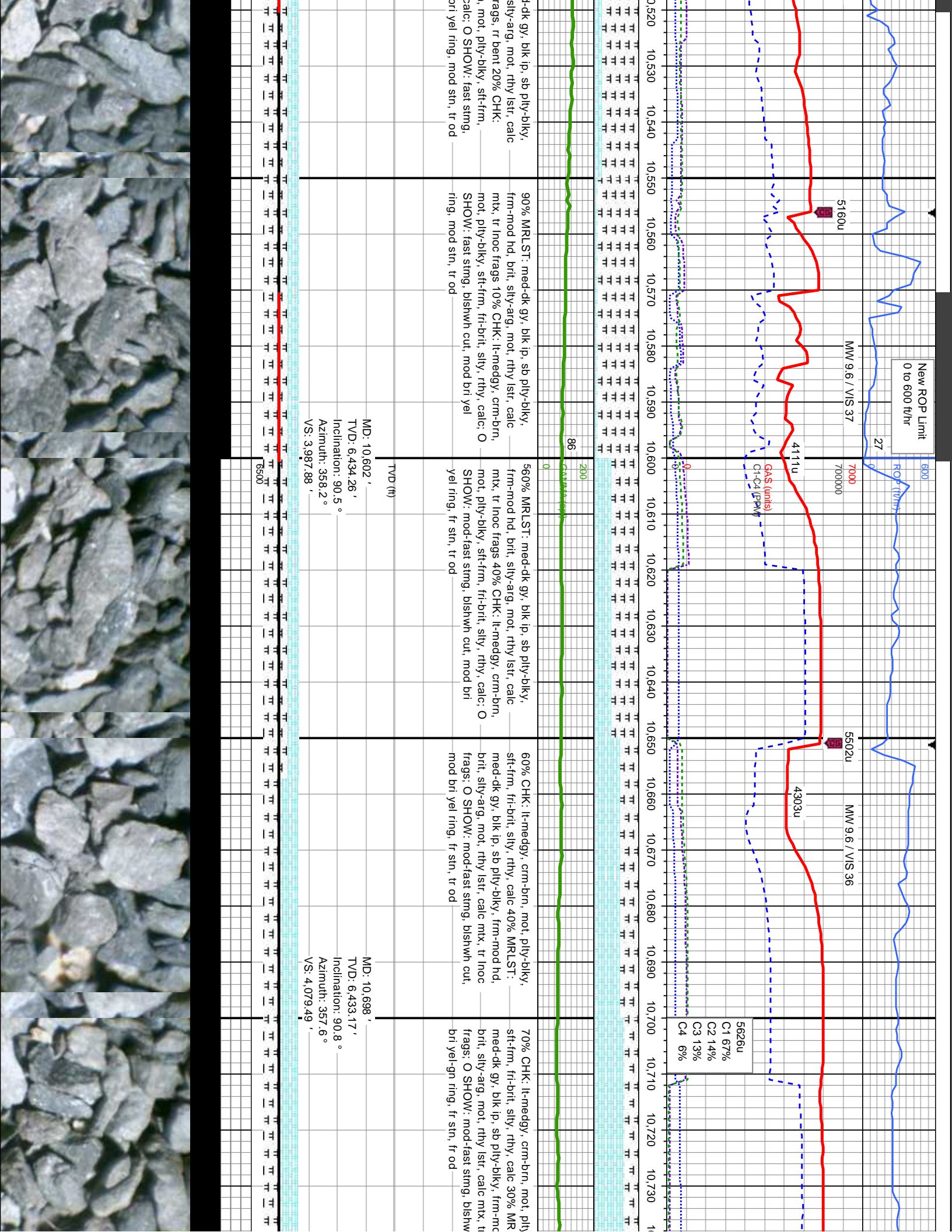




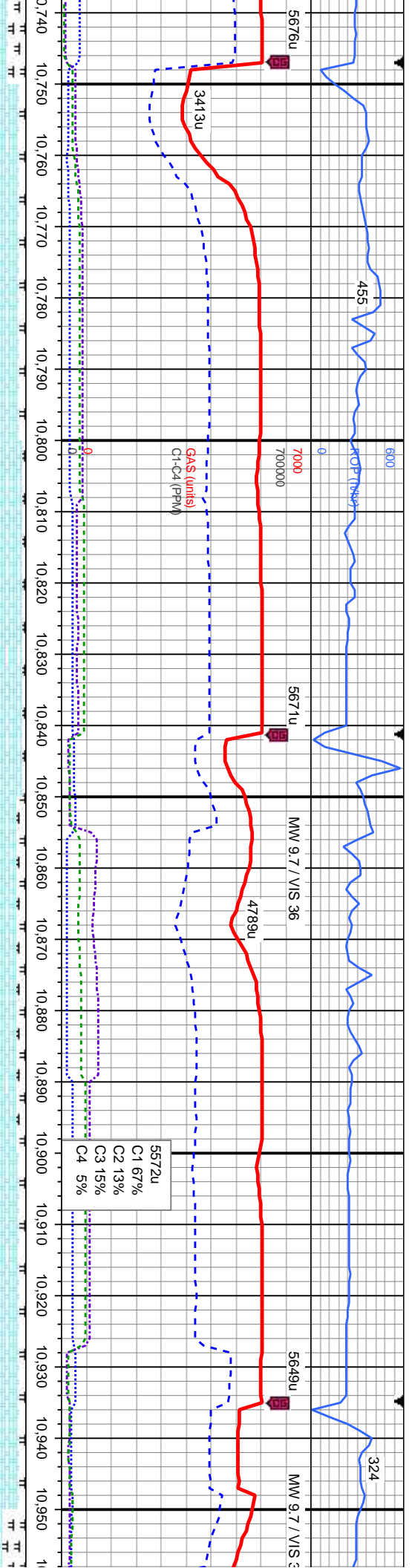




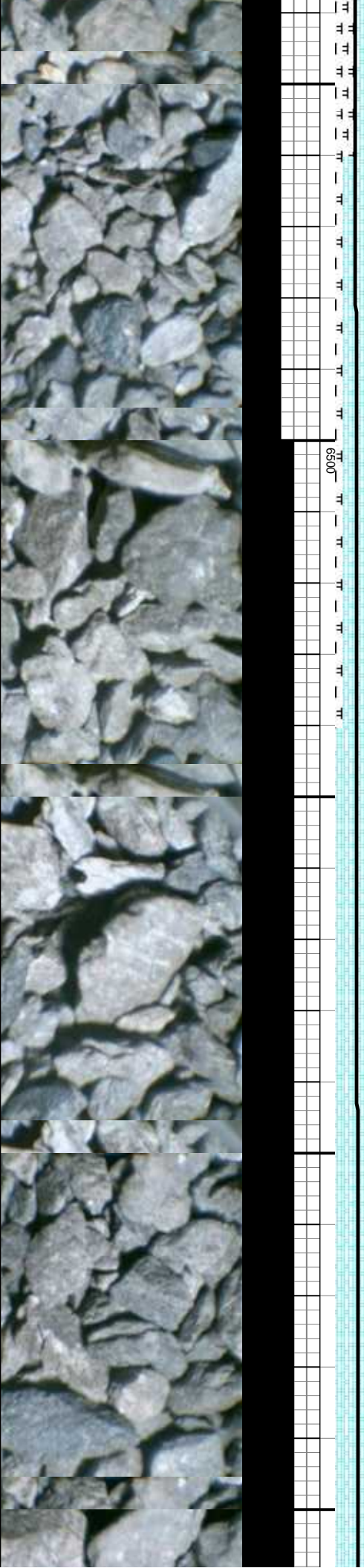


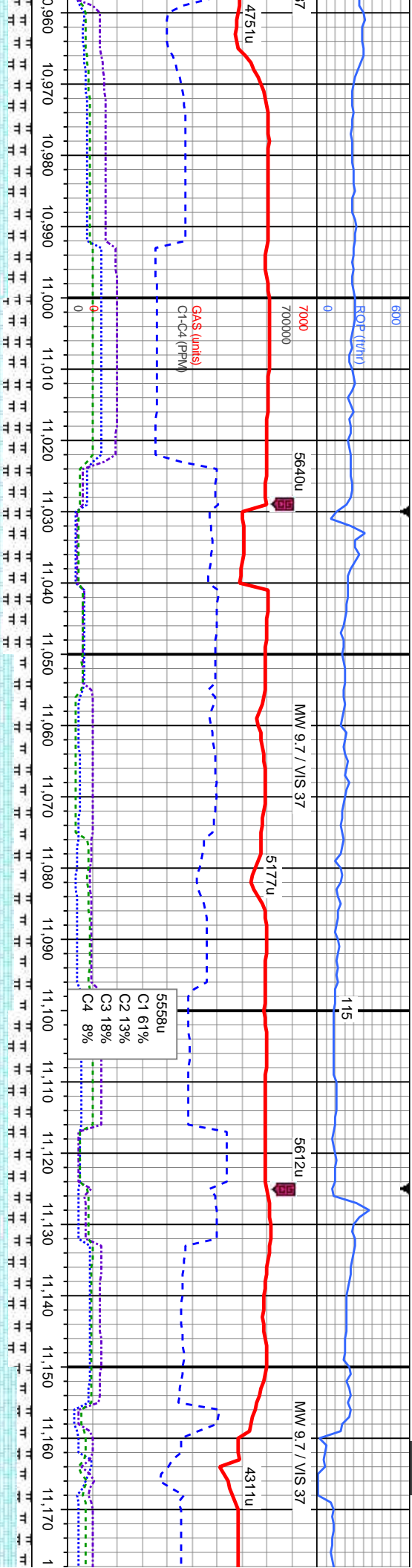






90% CHK: wh-ilty, crm-brn, mot, pily-biky, st-frm, fr-brit, silty, rthy, calc 10% MRLST: med-dk gy, blk ip, sb pily-biky, frm-mod hd, brit, silty-arg, mot, rthy lstr, calc mix, rr inoc frags: O SHOW: mod-fast stmg, blshwh cut, bri yel-gn ring, fr stn, fr od	58% CHK: wh-ilty, crm-brn, mot, pily-biky, st-frm, fr-brit, silty, rthy, calc 5% MRLST: med-dk gy, blk ip, sb pily-biky, frm-mod hd, brit, silty-arg, mot, rthy lstr, calc mix, rr inoc frags: O SHOW: mod-fast stmg, blshwh cut, bri yel-gn ring, mod stn, fr od	85% CHK: wh-ilty, crm-brn, mot, pily-biky, st-frm, fr-brit, silty, rthy, calc 15% MRLST: med-dk gy, blk ip, sb pily-biky, frm-mod hd, brit, silty-arg, mot, rthy lstr, calc mix, rr inoc frags: O SHOW: mod-fast stmg, blshwh cut, bri yel-gn ring, mod stn, fr od	90% CHK: wh-ilty, crm-brn, mot, pily-biky, st-frm, fr-brit, silty, rthy, calc 10% MRLST: med-dk gy, blk ip, sb pily-biky, frm-mod hd, brit, silty-arg, mot, rthy lstr, calc mix, rr inoc frags: O SHOW: mod-fast stmg, blshwh cut, bri yel-gn ring, mod stn, fr od
MD: 10,792' TVD: 6,431.45' Inclination: 91.3° Azimuth: 357.4° VS: 4,169.37'	MD: 10,886' TVD: 6,429.15' Inclination: 91.5° Azimuth: 356.6° VS: 4,259.48'		





Depth (ft)	Description
0 - 11,030	HK: wh-llgy, medgy, crm-brn, mot, sly, sft-frn, fr-brit, silty, rthy, calc, intbd arl 40% MRLST: med-dk gy, blk ip, sb ply-biky, frm-mod hd, brit, silty-arg, mot, rthy
11,030 - 11,070	550% CHK: wh-llgy, medgy, crm-brn, mot, ply-biky, sft-frn, fr-brit, silty, rthy, calc, intbd ip wi marl 50% MRLST: med-dk gy, blk ip, sb ply-biky, frm-mod hd, brit, silty-arg, mot, rthy
11,070 - 11,120	70% CHK: wh-llgy, medgy, crm-brn, mot, ply-biky, sft-frn, fr-brit, silty, rthy, calc 30% MRLST: med-dk gy, blk ip, sb ply-biky, frm-mod hd, brit, silty-arg, mot, rthy
11,120 - 11,170	60% CHK: lt-medgy, crm-brn, mot, ply-biky, sft-frn, fr-brit, silty, rthy, calc 40% MRLST: med-dk gy, blk ip, sb ply-biky, frm-mod hd, brit, silty-arg, mot, rthy
11,170 - 11,200	75% CHK: lt-medgy, crm-brn, mot, ply-biky, sft-frn, fr-brit, silty, rthy, calc 40% MRLST: med-dk gy, blk ip, sb ply-biky, frm-mod hd, brit, silty-arg, mot, rthy

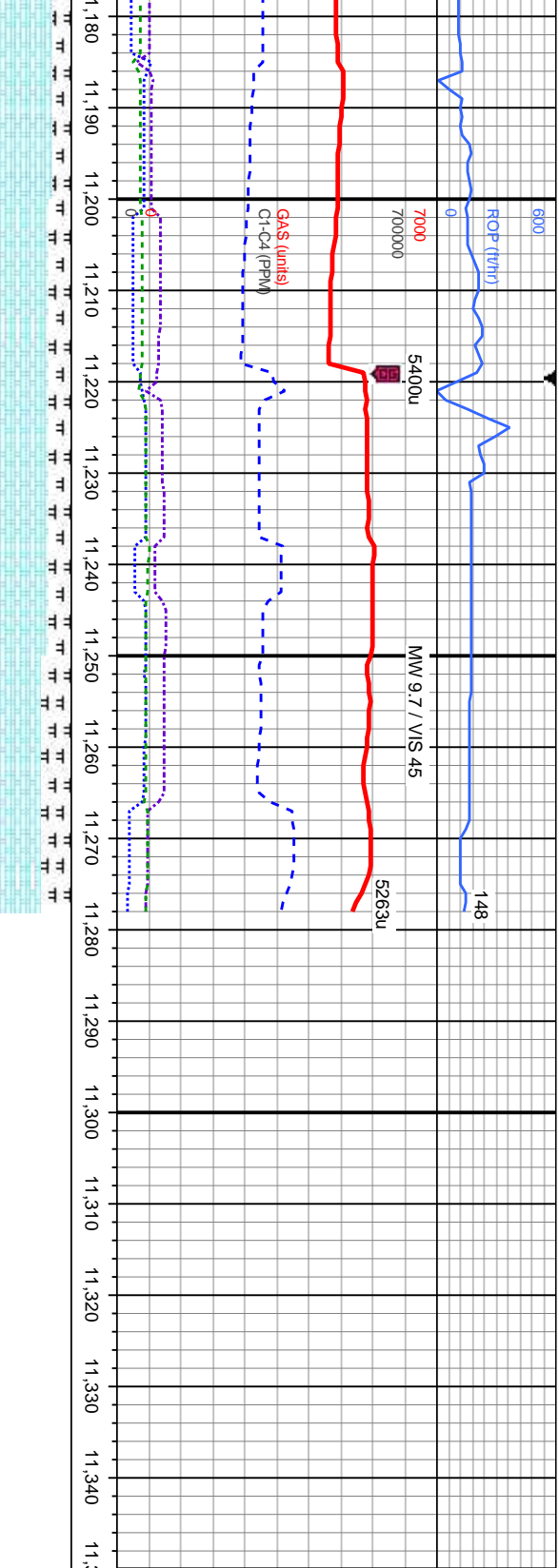
MD: 10,981 '  
TVD: 6,426.17 '  
Inclination: 92.1 °  
Azimuth: 356.2 °  
VS: 4,350.81 '

MD: 11,077 '  
TVD: 6,422.07 '  
Inclination: 92.8 °  
Azimuth: 365.5 °  
VS: 4,443.31 '

MD: 11,172 '  
TVD: 6,416.35 '  
Inclination: 94 °  
Azimuth: 356. °  
VS: 4,534.79 '







0, mot, pily-biky, c 25% MRLST: ky, frm-mod hd, calc mtx, tr inoc bishwh cut, bri	5870% CHK: lt-medgy, crm-brn, mot, pily-biky, sft-frm, frt-brt, sily, rthy, calc 30% MRLST: med-dk gy, blk ip, sb pily-biky, frm-mod hd, brt, sily-arg, mot, rthy lstr, calc mtx, tr inoc frags; O SHOW: mod string, bishwh cut, bri yel-gn ring, fr stn, frt od	60% CHK: lt-medgy, crm-brn, mot, pily-biky, sft-frm, frt-brt, sily, rthy, calc 40% MRLST: med-dk gy, blk ip, sb pily-biky, frm-mod hd, brt, sily-arg, mot, rthy lstr, calc mtx, tr inoc frags; O SHOW: mod string, bishwh cut, bri yel-gn ring, fr stn, frt od
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TVD (ft)	MD: 11,228 ' TVD: 6,412.05 ' Inclination: 94.7 ° Azimuth: 355.4 ° VS: 4,588.66 '	MD: 11,278 ' TVD: 6,407.96 ' Inclination: 94.7 ° Azimuth: 355.4 ° VS: 4,636.82 '
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6500	Projection to Bit	TD @ MD 11,278' 08/02/2014 @ 12:17 MST	Thank you for using Columbine Logging, Inc.
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