



	CHTLT		PYRITE
	COAL - THIN BED...		SALT CAST
	DOLOMITIC		SANDY
	FELDSPAR		SILICEOUS
	FERRUGINOUS PEL...		SILTY
	FERRUGINOUS		TUFFACEOUS

## Porosity

	EARTHLY		MOLDIC
	FENESTRAL		ORGANIC
	FRACTURE		PINPOINT
	INTERCRYSTALLIN...		VUGGY
	INTEROOLITIC		

## Stringer

	ANHYDRITE STRIN...		MARLSTONE (CALC...
	BENTONITE STRIN...		MARLSTONE (DOL)...
	COAL STRINGER		SANDSTONE STRIN...
	DOLOMITE STRING...		SHALE STRINGER
	GYPSUM STRINGER		SILTSTONE STRIN...
	LIMESTONE STRIN...		

## Engineering

	BIT		NORMAL FAULT
	CASING		OIL SHOW
	CONNECTION (LEF...		OVERTURNED STRA...
	CONNECTION (RIG...		REVERSE FAULT
	CONNECTION GAS		SIDEWALL CORE (...
	CORE - LOST		SIDEWALL CORE (...
	CORE - RECOVERE...		SLIDE
	DST INTERVAL		SURVEY
	FAULT		TRIP GAS
	FORMATION TOP		WIRELINE TESTED...
	GAS SHOW		WIRELINE TESTED...
	MN DEPTH		

## Rounding

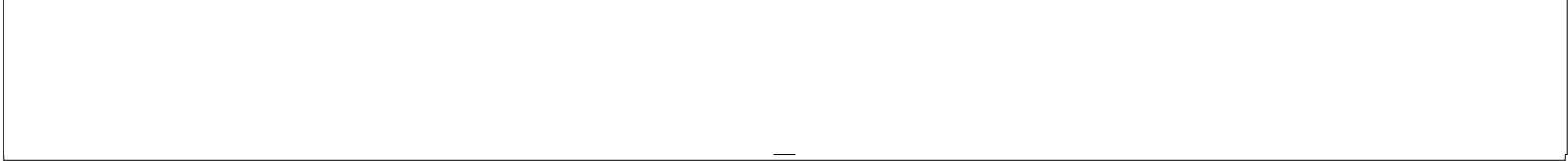
	ANGULAR		SUBANG
	ROUNDED		SUBRND

## Textures

	BOUNDSTONE		LITHOGRAPHIC
	CHALKY		MICROXLN
	CRYPTOXLN		MUDSTONE
	EARTHLY		PACKSTONE
	FINELYXLN		WACKESTONE
	GRAINSTONE		

## Sorting

	MODERATE		WELL
	POOR		



Encana Corporation

Pratt 4G-29H-P168

Spud Date: 11/26/2014

Surface Casing @ 979'

2 man Logging Began

11/29/2014 @ 5000' MD

All Depths Correspond to Driller's Pipe Tally

Bit #: 4

Type: MM54

Size: 6.12

Depth In: 8,560'

Depth Out: 12,729'

Hours: 33.9 hrs

Avg FV/Hr: 123 'h'

Jets: 5X15

S/N: 12584163

MINIDEPTH

12/3-4/2014

Drilling Resumed

8:00PM (MST) on

12/4/14

SP @ 8560'

WOB: 9.6klbs

RPM: 51

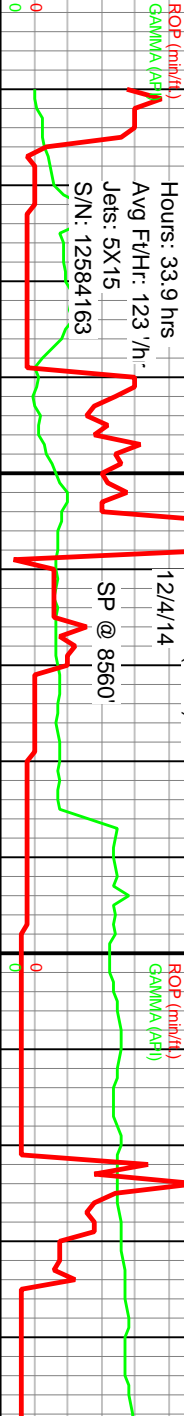
SPM: 70/0

SPP: 2,504psi

ROP

ROP

GAMMA

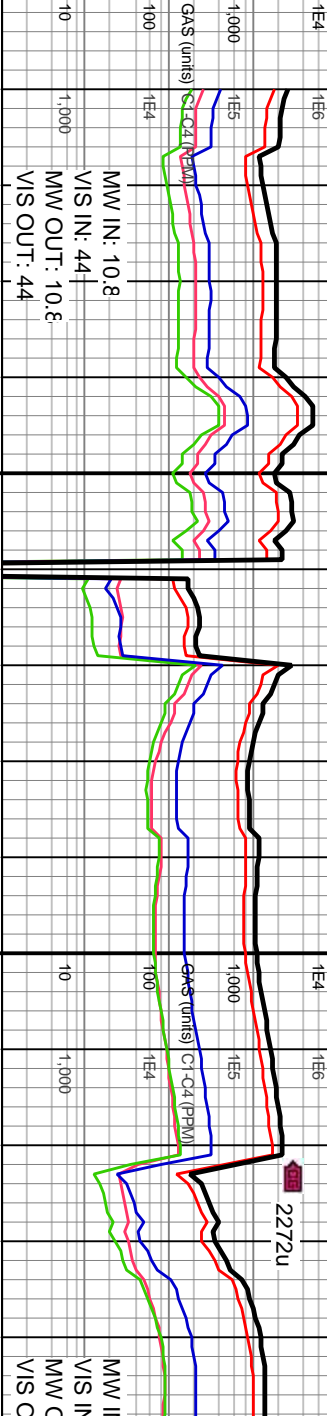


Slide/Rotate

Depth Labels

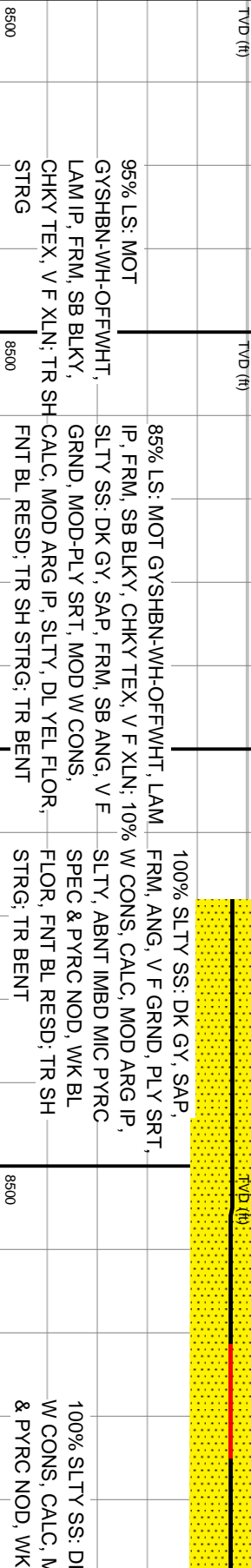
Total Gas & Chromatograph

GAS  
C1  
C2  
C3  
C4



Well Bore  
TVD

100' sample intervals described unless otherwise noted

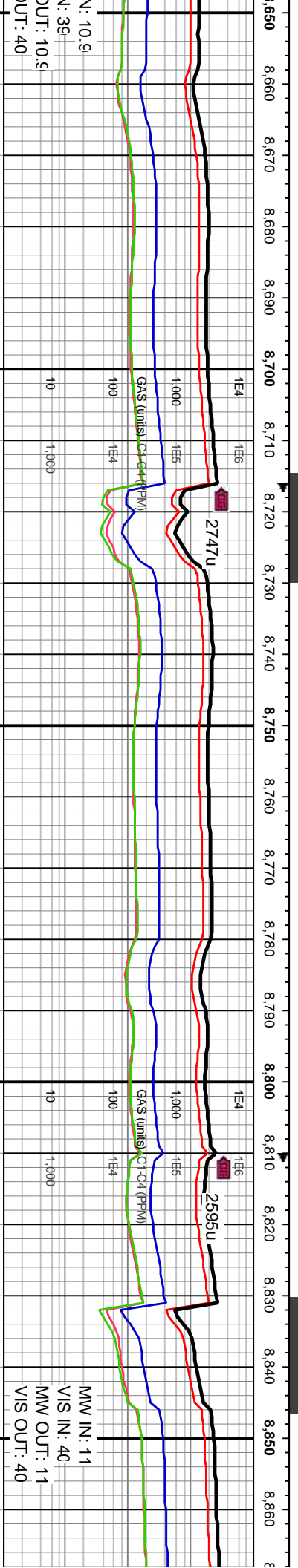
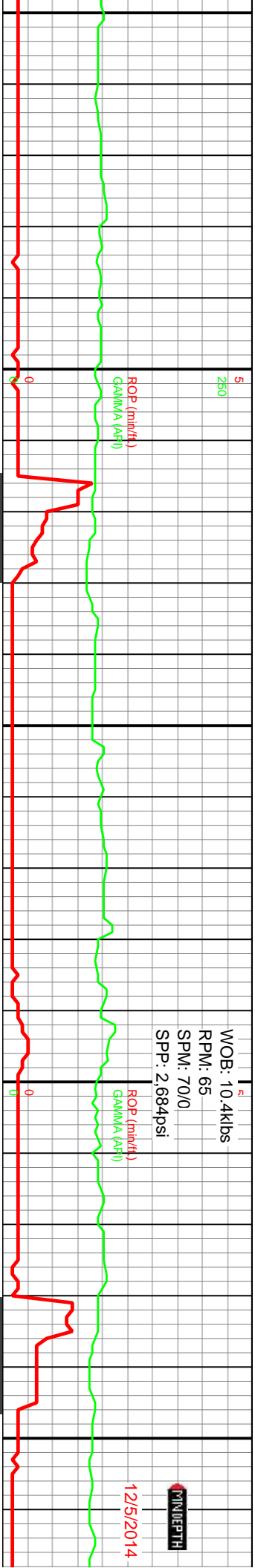


Fluorescence

Images



WOB: 10.4klbs  
RPM: 65  
SPM: 70/O  
SPP: 2.684psi

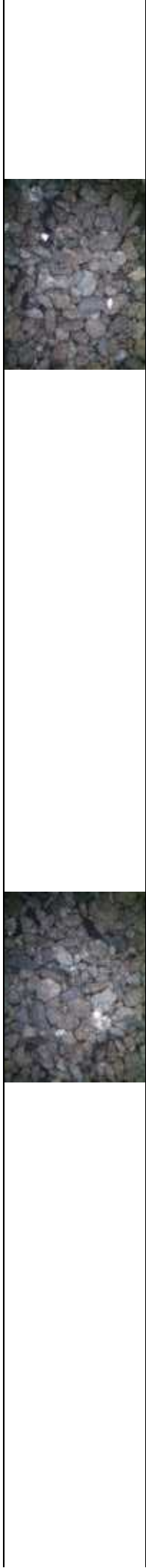


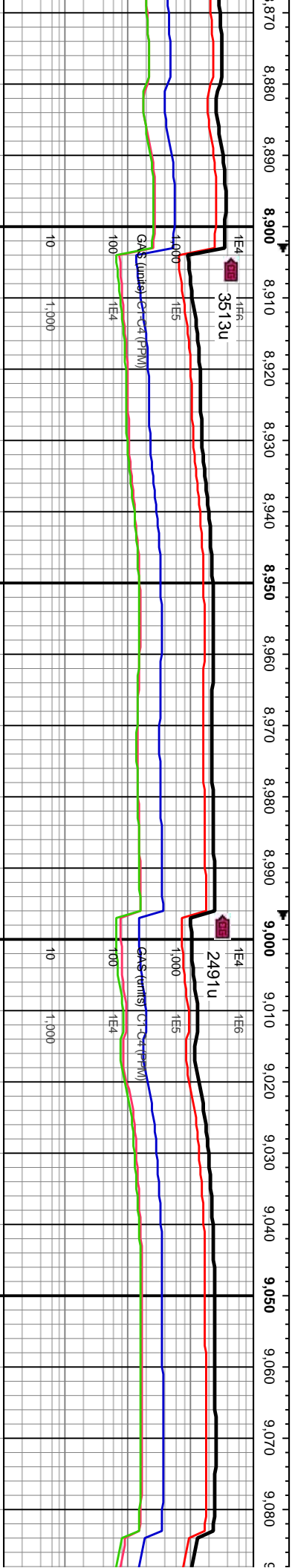
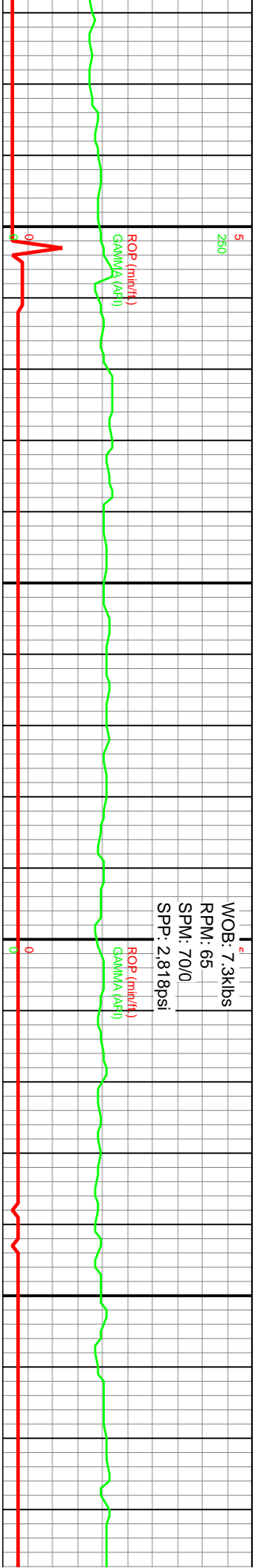
MD: 8.662'  
TVD: 8,033.93'  
Inclination: 88.5°  
Azimuth: 359.9°  
VS: 327.14'

MD: 8.755'  
TVD: 8,035.15'  
Inclination: 90°  
Azimuth: 359.8°  
VS: 420.13'

MD: 8.849'  
TVD: 8,033.84'  
Inclination: 91.6°  
Azimuth: 358.6°  
VS: 514.11'

TVD (ft)	
8500	95% SLTY SS: DK GY, SAP, FRM, ANG, V F-F GRND, PLY SRT, W CONS, CALC, MOD ARG, SLTY, ABNT IMBD MIC PYRC SPEC & PYRC NOD, YEL-BL FLOR, FNT BL RESD; 5% SLTST: DK GY, FRM, SB BLKY-PLTY, SPLT IP, SL SM TEX, ARG
8500	95% SLTY SS: DK GY, SME MED GY, SAP, FRM, ANG, CONS, CALC, MOD ARG, SLTY, ABNT IMBD MIC PYRC SPEC & PYRC NOD, YEL-BL FLOR, FNT BL RESD; 5% SLTST: DK GY, FRM, SB BLK





MD: 8.942'  
TVD: 8,031.16'  
Inclination: 91.7°  
Azimuth: 358.5°  
VS: 607.04'

MD: 9.035'  
TVD: 8,028.48'  
Inclination: 91.6°  
Azimuth: 358.1°  
VS: 699.96'

TVD: (ft)		TVD: (ft)	
V F-F GRND, PLY SRT, W SPEC & PYRC NOD, YEL-BL		100% SLTY SS: DK GY, SME MED GY, SAP, FRM, ANG, V F-F GRND, PLY SRT, W CONS, CALC, MOD ARG, SLTY, ABNT IMBD MIC PYRC SPEC & PYRC NOD, YEL-BL FLOR, FNT BL RESD, TR SLTST STRG	
Y-PLTY, SPLT IP, SL SM TEX		95% SLTY SS: DK GY-GYSHBN, SME MED GY, SAP, FRM, ANG, V F-F GRND, W CONS, CALC, MOD ARG, SLTY, ABNT IMBD MIC PYRC SPEC & PYRC N FLOR, FNT BL RESD: 5% SLTST: DK GY, FRM, SB BLKY-PLTY, SPLT IP, SL	
8500		8500	









WOB: 9.2klbs  
RPM: 70<sup>250</sup>  
SPM: 69/0  
SPP: 2,995psi

ROP (min/ft)  
GAMMA (API)

BW @ 9,558'

MW IN: 11.2  
VIS IN: 44  
MW OUT: 11.1  
VIS OUT: 42

MD: 9596.0'  
TVD: 8,017.87'  
Inclination: 90.2°  
Azimuth: 358.6°  
VS: 1,260.33'

TVD (ft)

100% SLTY SS: GYSHBN, ABNT MED GY, SAP, FRM, ANG, V-F-F  
GRND, PLY SRT, MOD W CONS, CALC, MOD ARG, SLTY, IMBD  
MIC PYRC SPEC, YEL-BL FLOR, FNT BL RESD; TR SLTST STRG

8500

100% SLTY SS: GYSHBN, ABNT MED GY, SAP, FRM, ANG, V-F-F  
GRND, PLY SRT, MOD W CONS, CALC, MOD ARG, SLTY, IMBD  
MIC PYRC SPEC, YEL-BL FLOR, FNT BL RESD; TR SLTST

8500

100% SS: GYSHBN  
GRND, PLY SRT, IM  
MIC PYRC SPEC, Y

TVD (ft)

MW IN: 11.15  
VIS IN: 49  
MW OUT: 11.2  
VIS OUT: 41

MD: 9,690'  
TVD: 8,017.21'  
Inclination: 90.6°  
Azimuth: 358.4°  
VS: 1,354.3'

TVD (ft)

100% SS: GYSHBN  
GRND, PLY SRT, IM  
MIC PYRC SPEC, Y

8500

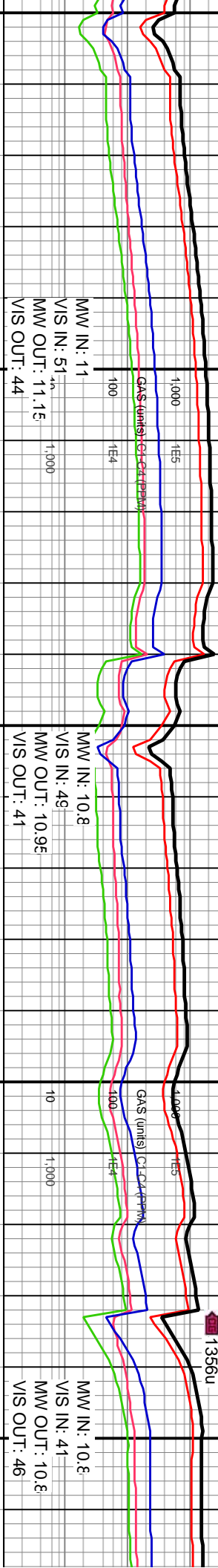
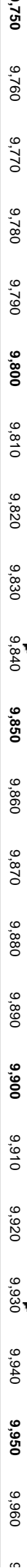
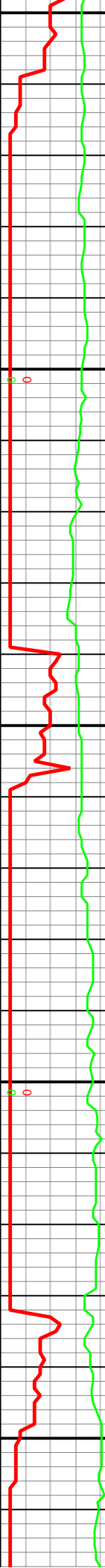
8500

8500

8500

WOB: 15.5kbs  
RPM: 75<sup>250</sup>  
SPM: 69/0  
SPP: 3,015psi

ROP (min/ft)  
GAMMA (API)



MD: 9,783'  
TVD: 8,016.97'  
Inclination: 89.7°  
Azimuth: 397.6°  
VS: 1,447.24'

MW IN: 10.8  
VIS IN: 49  
MW OUT: 10.9E  
VIS OUT: 41

MD: 9,877'  
TVD: 8,017.87'  
Inclination: 89.2°  
Azimuth: 358°  
VS: 1,541.16'

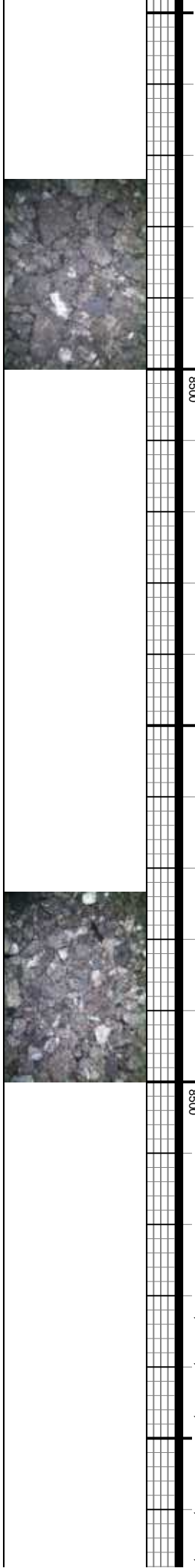
MW IN: 10.8  
VIS IN: 41  
MW OUT: 10.8  
VIS OUT: 46

MD: 9,9  
TVD: 8,  
Inclinati  
Azimuth  
VS: 1.6

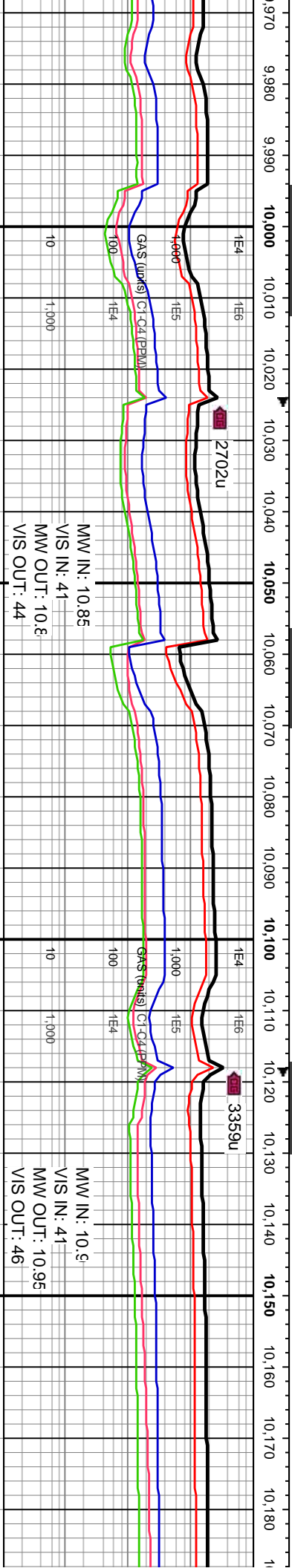
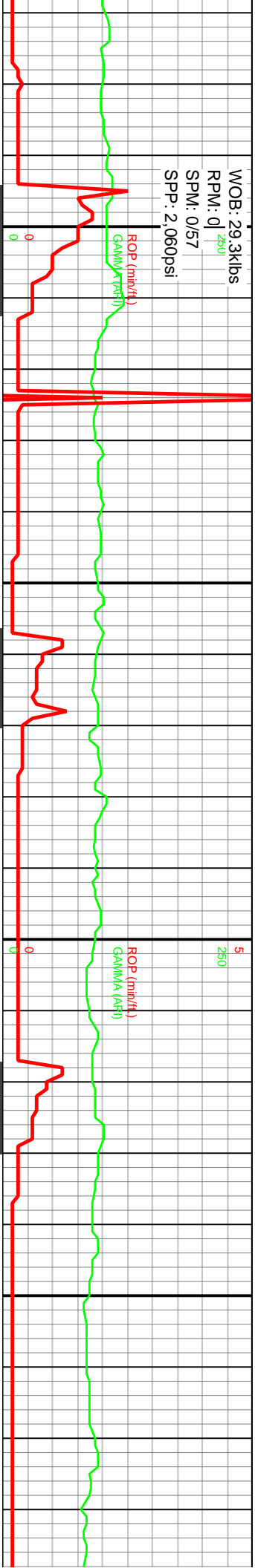
ABNT MED GY & SAP, FRM - SL FRI, V F-F  
OD W CONS, CALC, MOD ARG, SLTY, IMBD  
EL-BL FLOR, FNT BL RESD: TR SLTST

100% SS: GYSHBN, ABNT MED GY & SAP, FRM - SL FRI, V F-F  
GRND, PLTY SRT, MOD W CONS, CALC, MOD ARG, SLTY, IMBD  
MIC PYRC SPEC, YEL-BL FLOR, FNT BL RESD: TR SLTST

80% SS: GYSHBN, ABNT MED GY & SAP, FRM - SL F  
MOD W CONS, CALC, MOD ARG, SLTY, YEL-BL FLO  
SH: MED GY - DK GY, FRM, PLTY, V SL CALC, ARG,

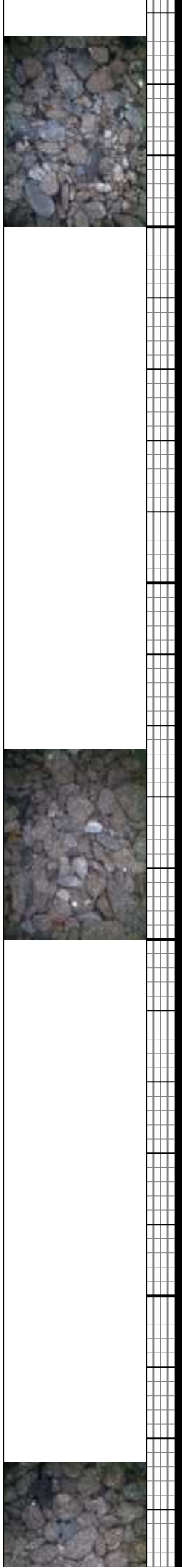
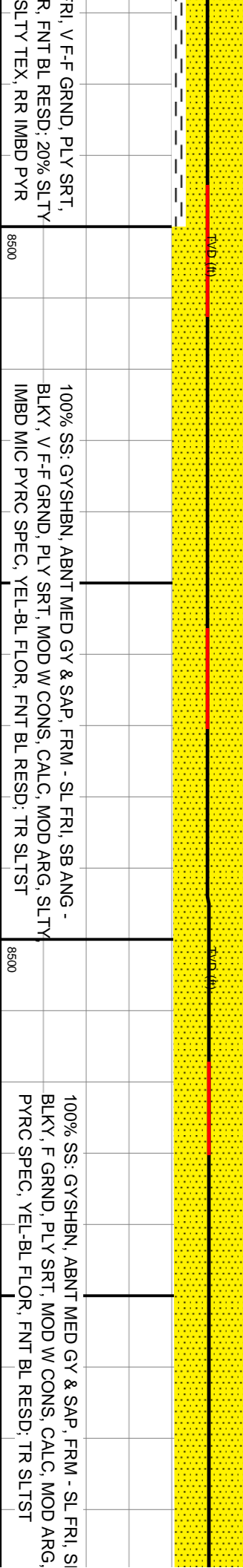


WOB: 29.3kbs  
RPM: 0  
SPM: 0/57  
SPP: 2.060psi



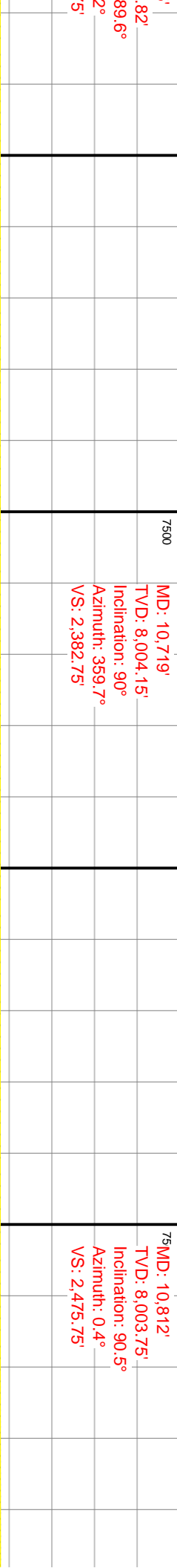
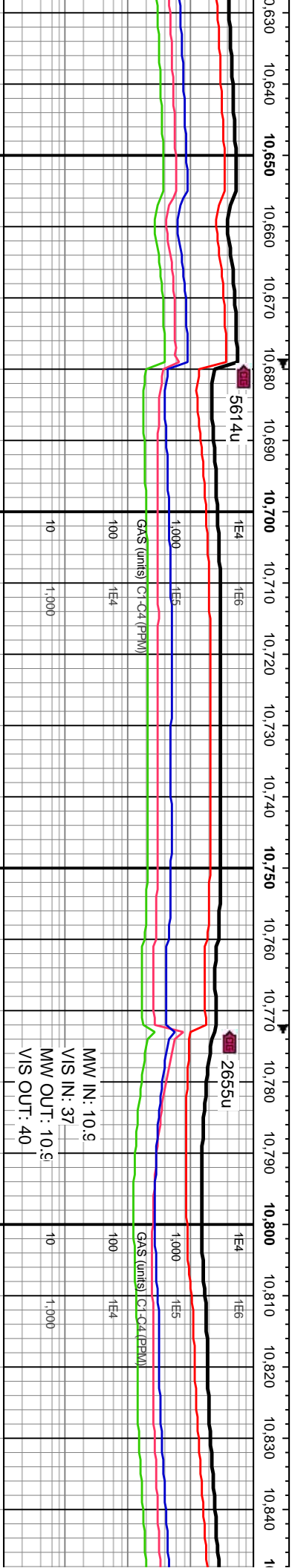
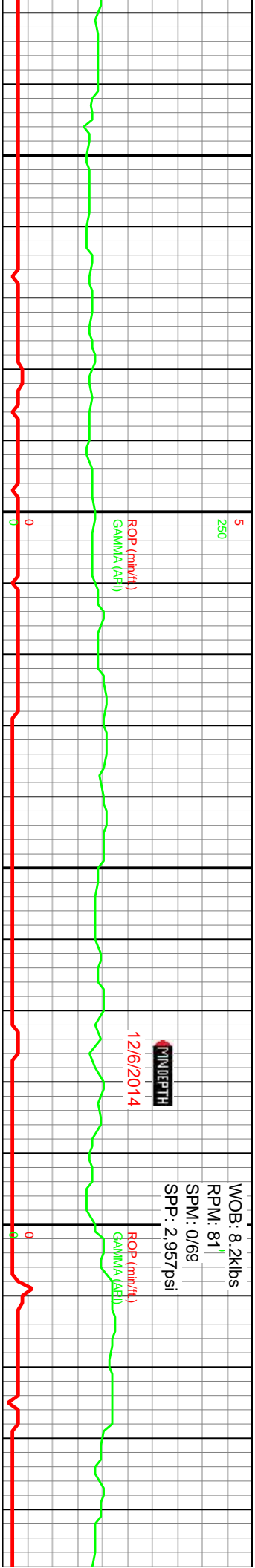
MD: 10,064'  
TVD: 8,015.98'  
Inclination: 91.3°  
Azimuth: 0.3°  
VS: 1,728.09'

MD: 10,157'  
TVD: 8,012.98'  
Inclination: 92.4°  
Azimuth: 0.4°  
VS: 1,821.03'

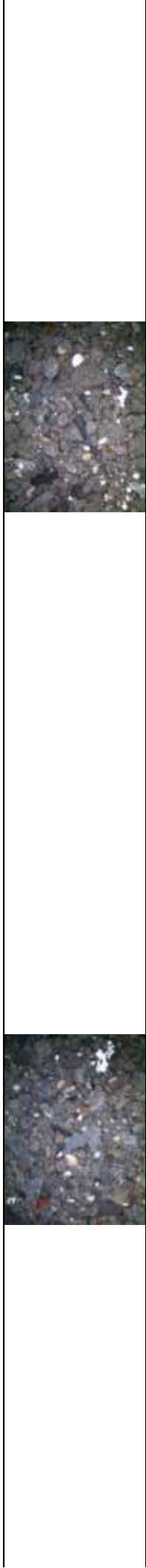




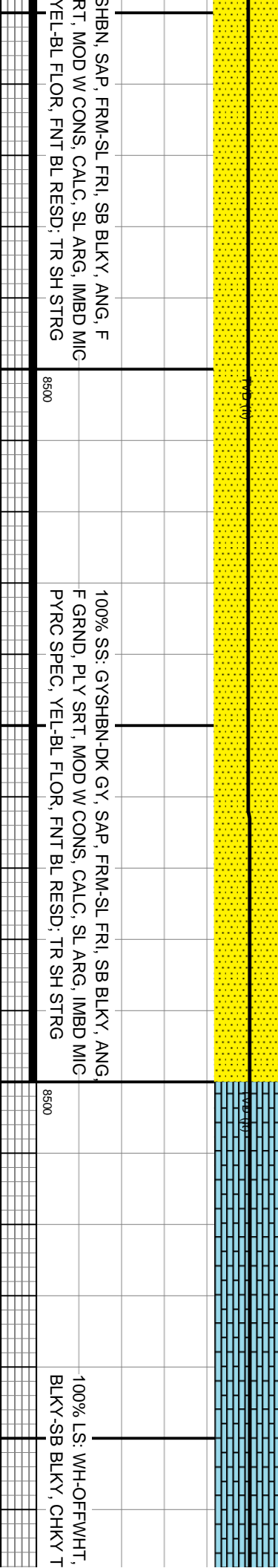
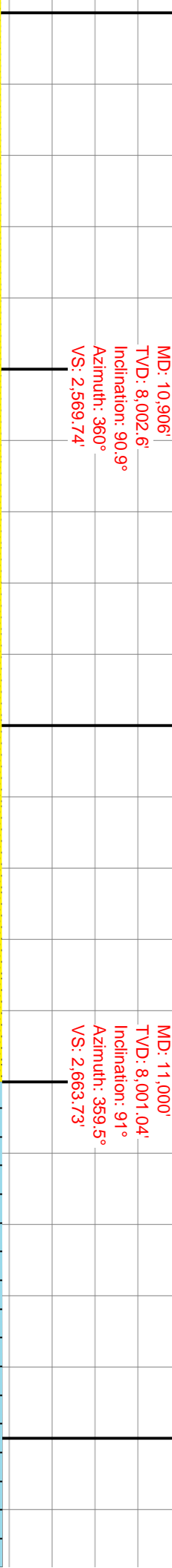
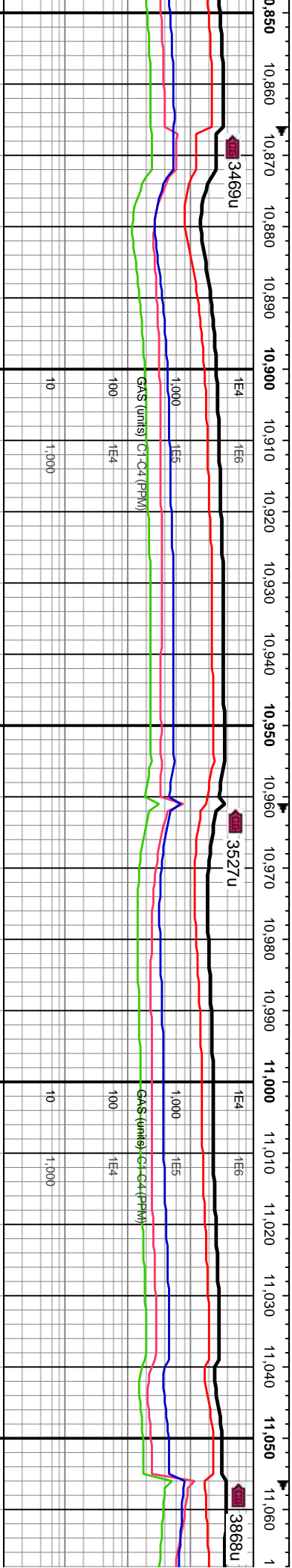
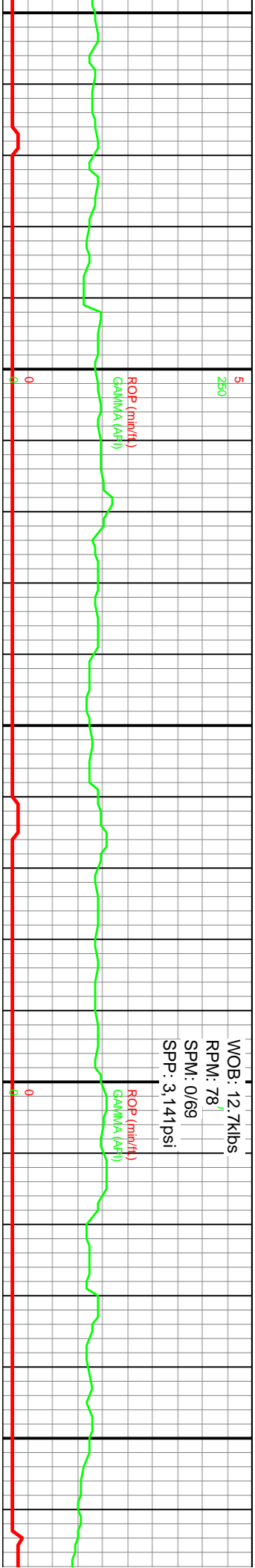


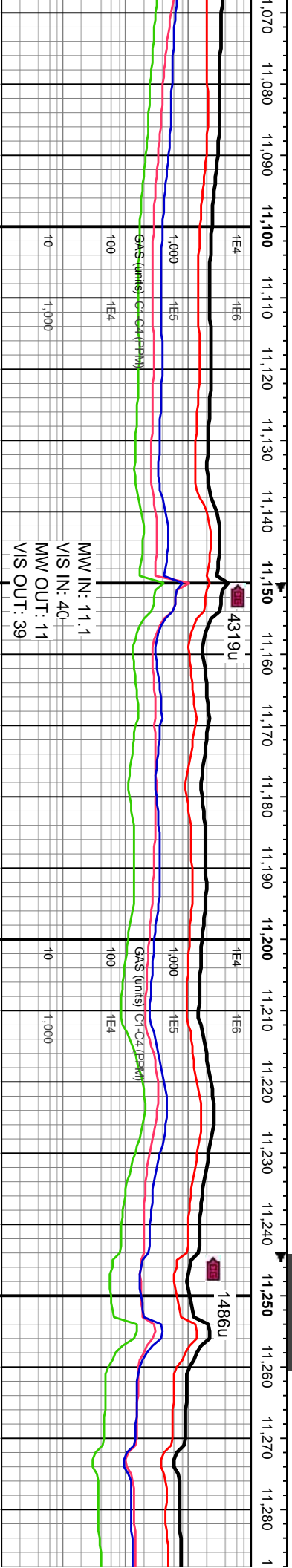
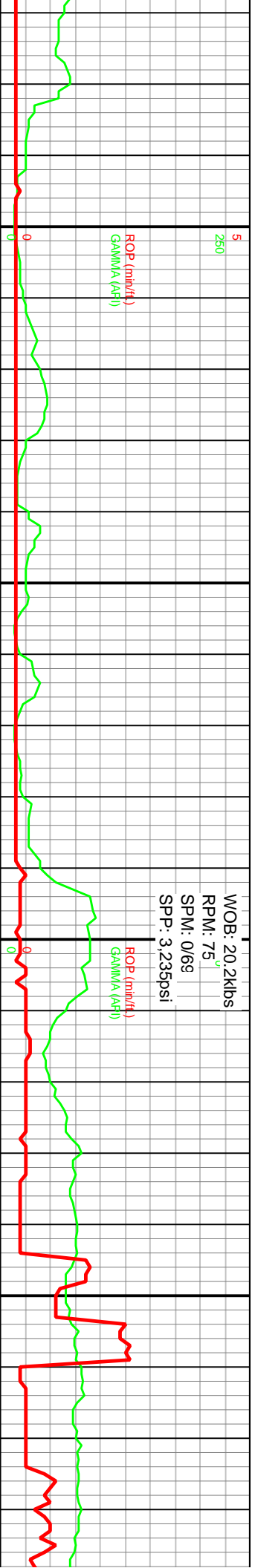


100% SS: GYSHBN, SAP, FRM-SL FRI, SB BLKY, ANG, F GRND, PLY SRT, MOD W CONS, CALC, MOD ARG, IMBD MIC PYRC SPEC, YEL-BL FLOR, FNT BL RESD	8500	80% SS: GYSHBN, SAP, FRM, V F-F GRND, PLY SRT, MOD W CONS, CALC, MOD ARG, SLTY, YEL-BL FLOR, FNT BL RESD: 20% SLTY SH: DK GY, FRM, PLTY, V SL CALC, SLTY TEX, RR IMBD PYR	8500	100% SS: GYSHBN, SAP, FRM-SL FRI, SB BLKY, ANG, F GRND, PLY SRT, MOD W CONS, CALC, MOD ARG, IMBD MIC PYRC SPEC, YEL-BL FLOR, FNT BL RESD	8500
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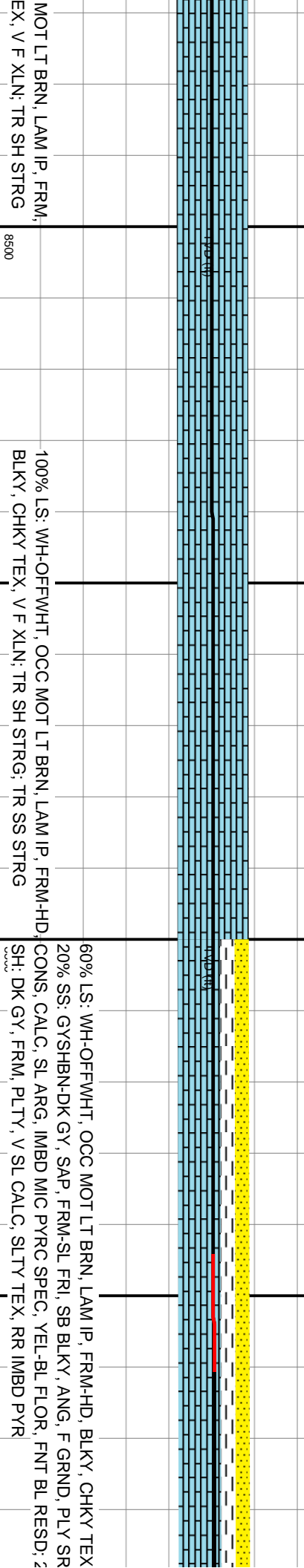




MD: 11,094'  
TV D: 7,999.48'  
Inclination: 90.9°  
Azimuth: 358.8°  
VS: 2,757.71'

MD: 11,188'  
TVD: 7,997.18'  
Inclination: 91.9°  
Azimuth: 358.5°  
VS: 2,851.65'

MD: 11,283'  
TVD: 7,994'  
Inclination: 5°  
Azimuth: 358°  
VS: 2,946.50



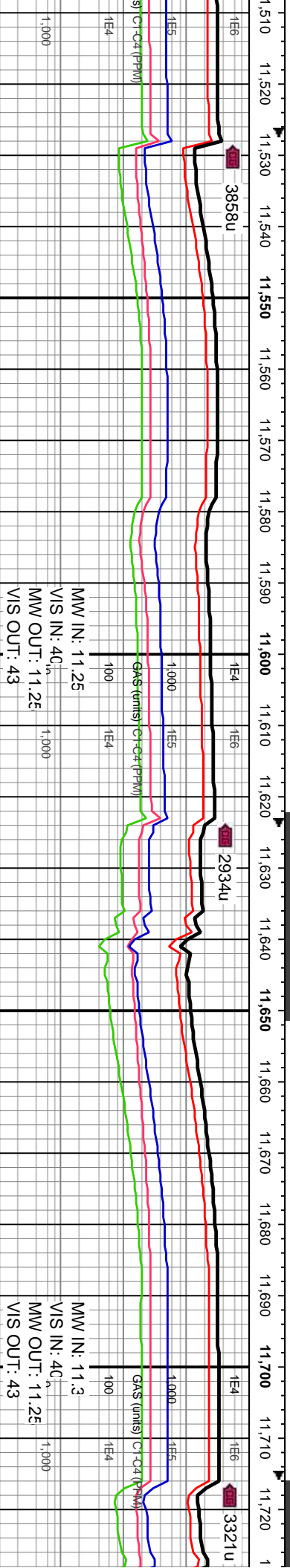
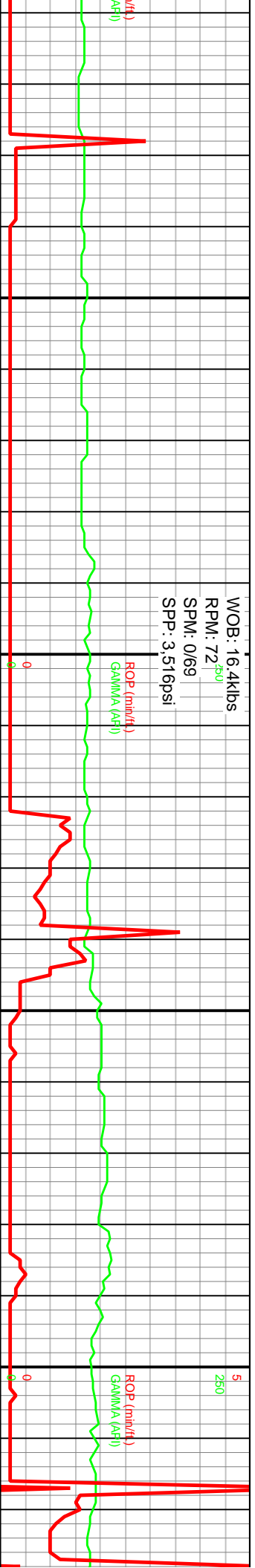
MOT LT BRN, LAM IP, FRM,  
EX, VF XLN; TR SH STRG

100% L.S: WH-OFFWHT, OCC MOT LT BRN, LAM IP, FRM-HD, BLKY, CHKY TEX, V F XLN; TR SH STRG; TR SS STRG

60% LS: WH-OFFWHT, OCC MOT LT BRN, LAM IP, FRM-HD, BLKY, CHKY TEX  
20% SS: GYSHB-DK GY, SAP, FRM-SL FRI, SB BLKY, ANG, F GRND, PLY SR  
CONS, CALC, SL ARG, IMBD MIC PYRC SPEC, YEL-BL FLOR, FNT BL RESD, 2  
SH: DK GY, FRM, PLTY, V SL CALC, SLTY TEX, RR IMBD PYR



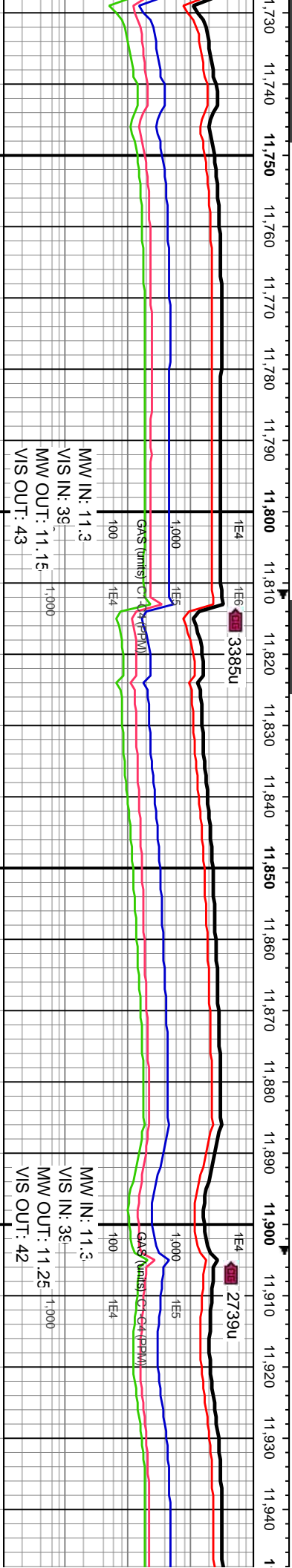
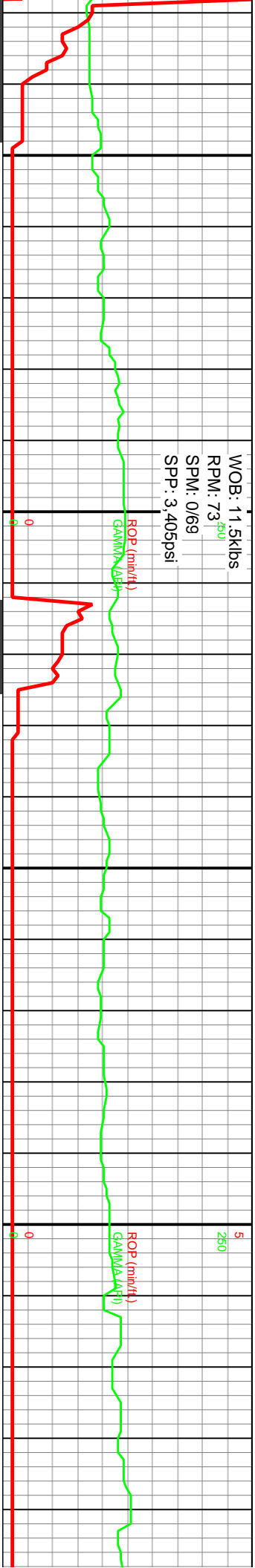




100% SS: GYSHBN-DK GY, SAI, FRM-SL FRI, SB BLKY, ANG, F GRND, PLY SRT, MOD W CONS, CALC, SL ARG, IMBD MIC PYRC SPEC, YEL-BL FLOR, FNT BL RESD, TR SH STRG, TR LS

90% S.S.: GYSHBN-DK GY, SAP, FRM-SL FRI, SB BLKY, ANG, F GRND, PLY SRT, MOD W CONS, CALC, SL ARG, IMBD MIC PYRC SPEC, YEL-BL FLOR, FNT BL RESD; 10% SLTY SH: DK GY, FRM, PLTY, V SL CALC, SLTY TEX, RR IMBD PYR

90% SS: GYSHBN  
MOD W CONS, C  
RESID; 10% SLTY

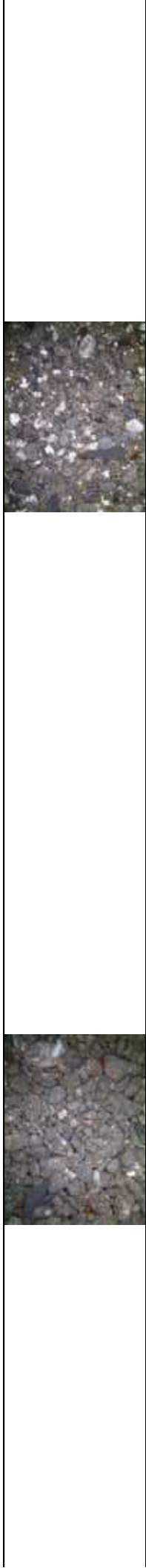


MD: 11,756'  
TVD: 7,995.71'  
Inclination: 89.7°  
Azimuth: 359.7°  
VS: 3,419.4'

MD: 11,850'  
TVD: 7,994'  
Inclination: 91.3°  
Azimuth: 0.1°  
VS: 3,513.39'

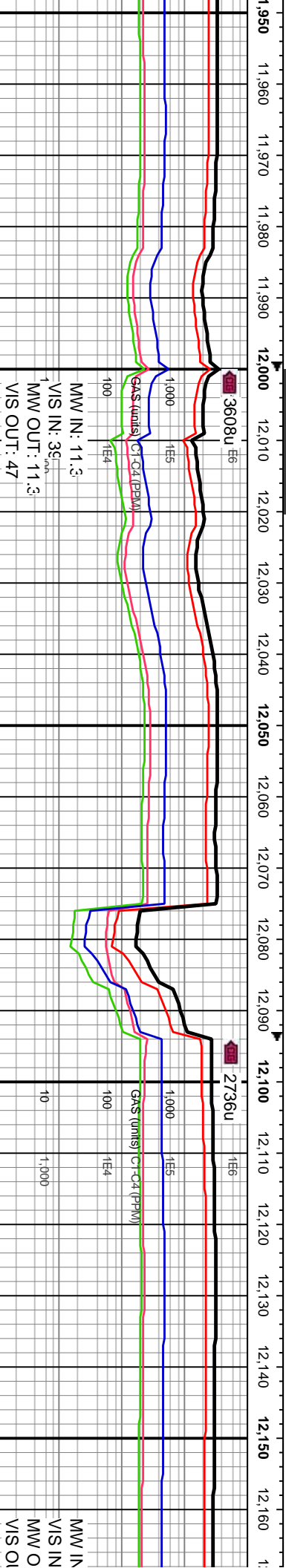
MD: 11,945'  
TVD: 7,992'  
Inclination: 91°  
Azimuth: 0.2°  
VS: 3,608.35'

100% SS: GYSHBN-DK GY, SAP, FRM-SL FRI, SB BLKY, ANG, F GRND, PLY SRT, ALC, SL ARG, IMBD MIC PYRC SPEC, YEL-BL FLOR, FNT BL SH: DK GY, FRM, PLTY, V SL CALC, SLTY TEX, RR IMBD PYR	8500	100% SS: GYSHBN-DK GY, SAP, FRM-SL FRI, SB BLKY, ANG, F GRND, PLY SRT, MOD W CONS, CALC, SL ARG, IMBD MIC PYRC SPEC, YEL-BL FLOR, FNT BL RESD, TR SH STRG, TR LS	8500	100% SS: GYSHBN-DK GY, SAP, FRM-SL FRI, SB BLKY, ANG, F GRND, PLY SRT, MOD W CONS, CALC, SL ARG, IMBD MIC PYRC SPEC, YEL-BL FLOR, FNT BL RESD, TR SH STRG, TR LS	8500
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WOB: 19.7kbs  
RPM: 0  
SPM: 0/69  
SPP: 3,061 psi



MW IN: 11.3  
VIS IN: 39.5%  
MW OUT: 11.3  
VIS OUT: 47

MD: 12,039'  
TVD: 7,991'  
Inclination: 89.6°  
Azimuth: 0.2°  
VS: 3,702.34'

GAS (units) C1-C4 (PPM)  
1,000 1E4  
10 1,000

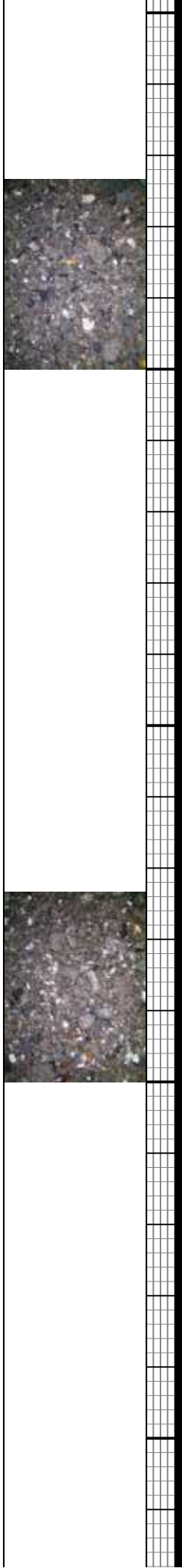
MD: 12,134'  
TVD: 7,991'  
Inclination: 90.3°  
Azimuth: 0.1°  
VS: 3,797.34'

MW IN  
VIS IN  
MW O  
VIS O

GY, SAP, FRM-SL FRI, SB BLKY, ANG, F  
-PLY CONS, CALC, SL ARG, IMBD MIC PYRG  
NNT BL RESD, TR SH STRG, TR LS

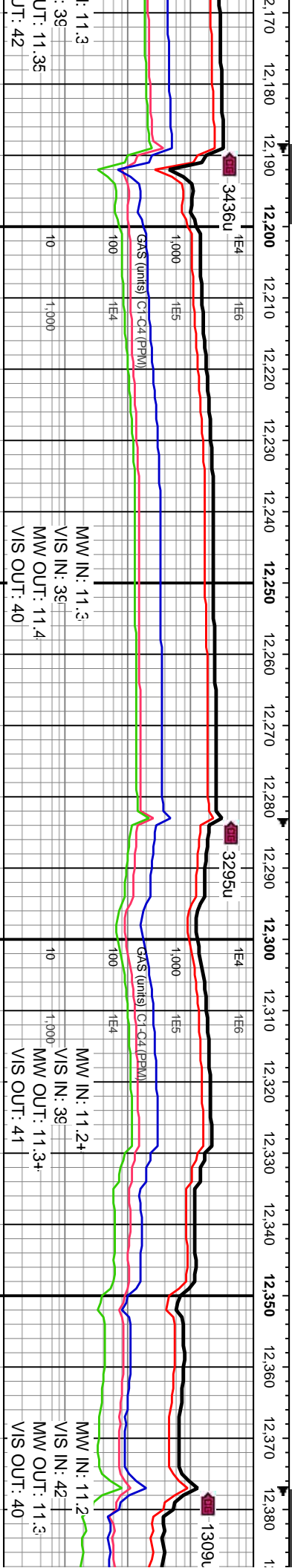
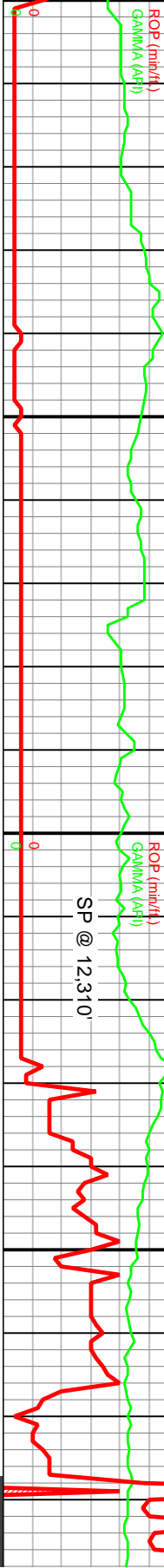
100% SS: GYSHBN-DK GY, SAP, FRM-SL FRI, SB BLKY, ANG, F  
GRND, PLY SRT, MOD - PLY CONS, CALC, SL ARG, IMBD MIC PYRG  
SPEC, YEL-BL FLOR, FNT BL RESD, TR SH STRG, TR LS

100% SS: GYSHBN-DK GY, SAP, FRM-SL  
GRND, PLY SRT, MOD - PLY CONS, CAL  
SPEC, YEL-BL FLOR, FNT BL RESD, TR





WOB: 28.3kbs  
RPM: 0  
SPM: 69/0  
SPP: 3,041psi



MD: 12,228'  
TVD: 7,991.75'  
Inclination: 89.1°  
Azimuth: 359.5°  
VS: 3,891.34'

MD: 12,323'  
TVD: 7,993.24'  
Inclination: 89.1°  
Azimuth: 359.6°  
VS: 3,986.32'

FRI, SB BLKY, ANG, F  
C, SL ARG, IMBD MIC PYRC  
SH STRG; TR LS

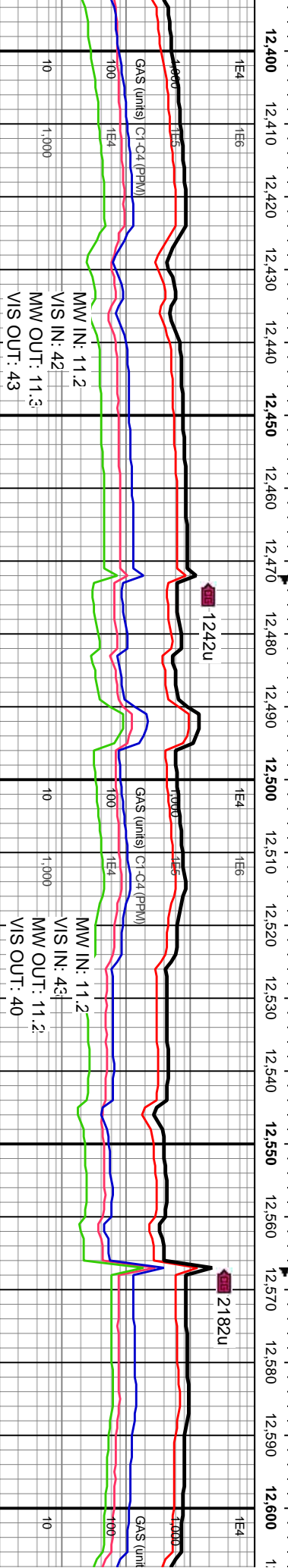
100% SS: GYSHBN-DK GY, SAP, FRM-SL FRI, SB BLKY, ANG, F-V/F  
GRND, PLY SRT, MOD-PLY CONS, CALC, SL ARG, IMBD MIC PYRC  
SPEC, V WK YEL-BL FLOR, FNT BL RESD; TR SH STRG

50% SS: GYSHBN-DK GY, SAP, FRM-SL FRI, SB BLKY, ANG, F GRND, F  
MOD W CONS, CALC, SL ARG, IMBD MIC PYRC SPEC, YEL-BL FLOR, F  
RESD, 40% SLTY SH: DK GY, FRM, PLTY, V SL CALC, SLTY TEX, RR IW  
10% BENT: LT YEL-OFFWHT, SFT, PLTY-SPLT, ABNT IMBD PYR



WOB: 21.8klbs  
RPM: 73  
SPM: 69/0  
SPP: 3,347psi

WOB: 15.5klbs			
RPM: 74	50		
SPM: 69/0			
SPP: 3,392psi			



MD: 12,417'  
TVD: 7,993.65'  
Inclination: 90.4°  
Azimuth: 359.2°  
VS: 4,080.31'

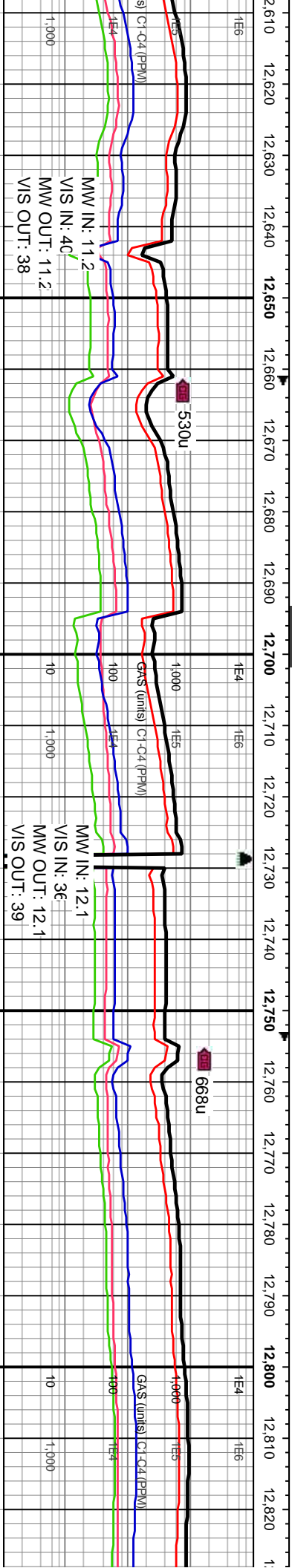
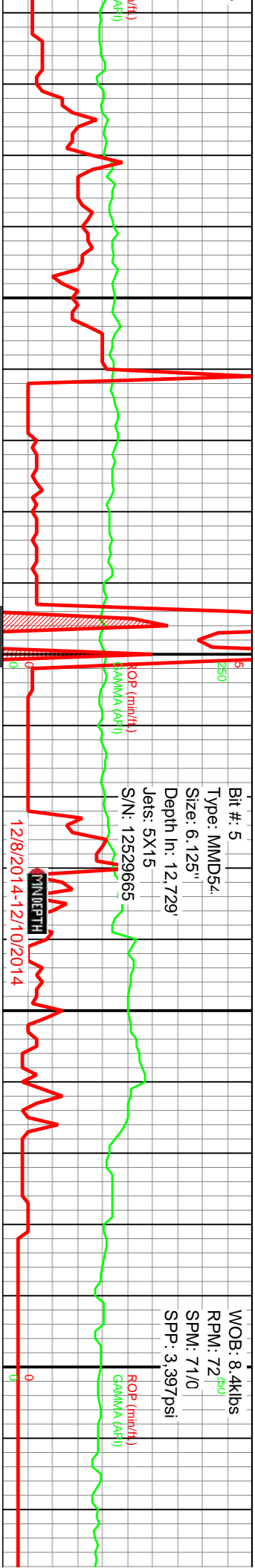
MD: 12,512'  
TVD: 7,992.9'  
Inclination: 90.5°  
Azimuth: 358.8°  
VS: 4,175.3'

MD: 12,61  
TVD: 7,99  
Inclination  
Azimuth:  
VS: 4,269

SRRT, BL PYR-	60% SLTY SH: DK GY, FRM, PLTY, V SL CALC, SLTY TEX, RR IMBD PYR; 40% SS: GYSHBN-DK GY, SAP, FRM-SL FRI, SB BLKY, ANG, F GRND, PLY SRT, MOD W CONS
85% CALC, SL ARG, IMBD MIC PYRC SPEC, YEL-BL FLOR, FNT BL RESD, TR BENT	

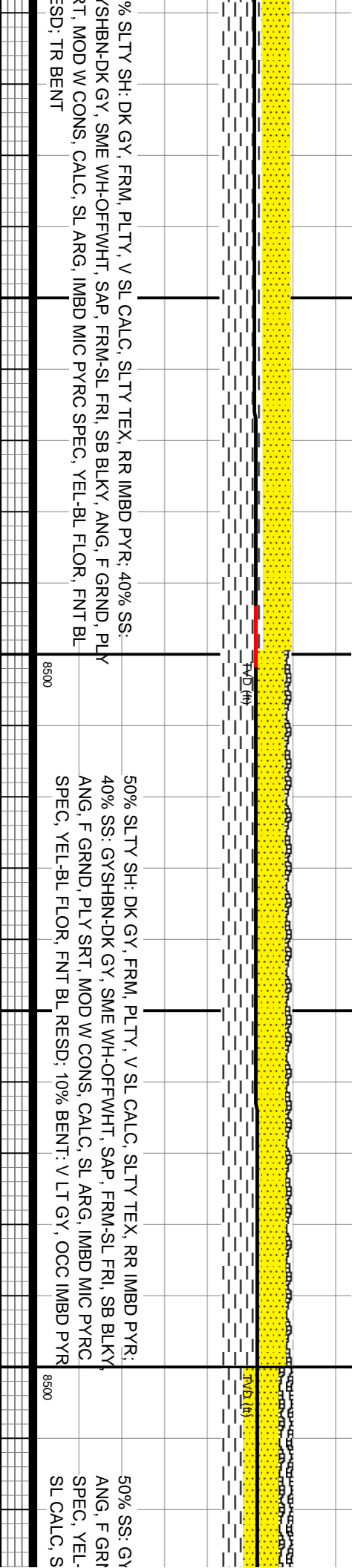
70% SLTY SH: DK GY, FRM, PLTY, V SL CALC, SLTY TEX, RR IMBD PYR: 30% SS-  
GYSHBN-DK GY, SME WH-OFFWHT, SAP, FRM-SL FRI, SB BLKY, ANG, F GRND, PL  
SRT, MOD W CONS, CALC, SL ARG, IMBD MIC PYRC SPEC, YEL-BL FLOR, FNT BL  
RESID, TR BENT

60  
G'  
SE  
RE



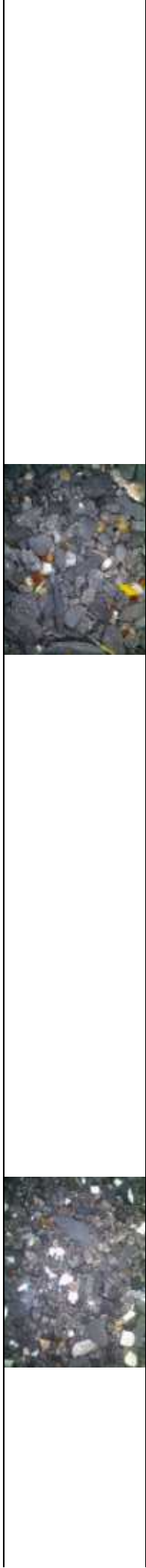
MD: 12,701'  
TVD: 7,987'  
Inclination: 91.7°  
Azimuth: 358.5°  
VS: 4,364.17'

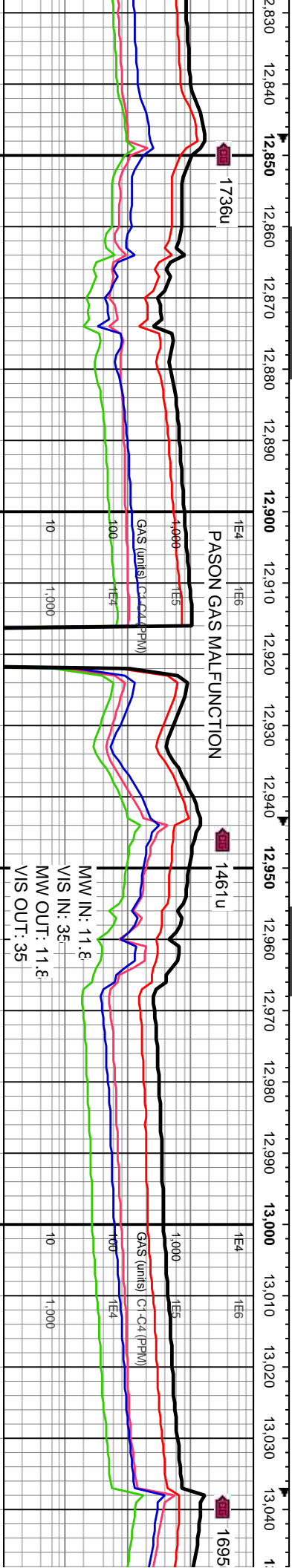
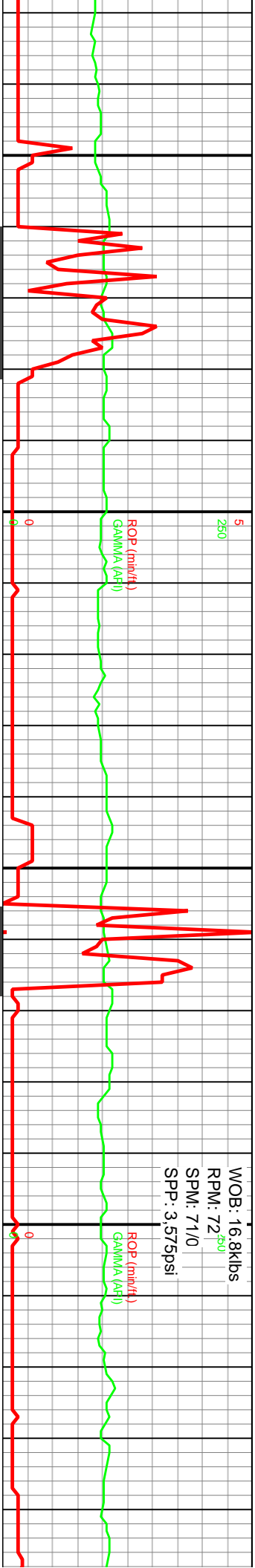
MD: 12,795'  
TVD: 7,984'  
Inclination: 91.9°  
Azimuth: 359.6°  
VS: 4,458.12'



% SLTY SH: DK GY, FRM, PLTY, V SL CALC, SLTY TEX, RR IMBD PYR; 40% SS: SHBN-DK GY, SME WH-OFFWHT, SAP, FRM-SL FRI, SB BLKY, ANG, F GRND, PLY MOD W CONS, CALC, SL ARG, IMBD MIC PYRC SPEC, YEL-BL FLOR, FNT BL SSD; TR BENT

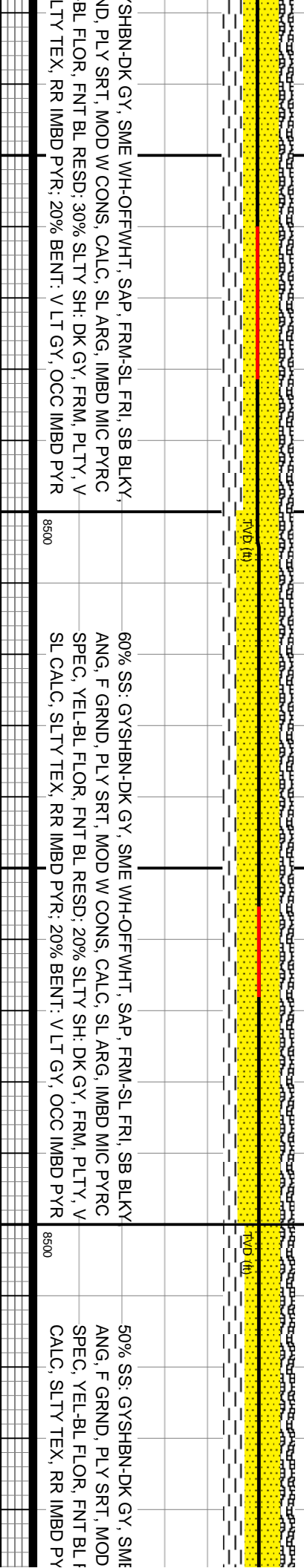
50% SLTY SH: DK GY, FRM, PLTY, V SL CALC, SLTY TEX, RR IMBD PYR; 40% SS: GYSHBN-DK GY, SME WH-OFFWHT, SAP, FRM-SL FRI, SB BLKY, ANG, F GRND, PLY SRT, MOD W CONS, CALC, SL ARG, IMBD MIC PYRC SPEC, YEL-BL FLOR, FNT BL RESD; 10% BENT: V LT GY, OCC IMBD PYR

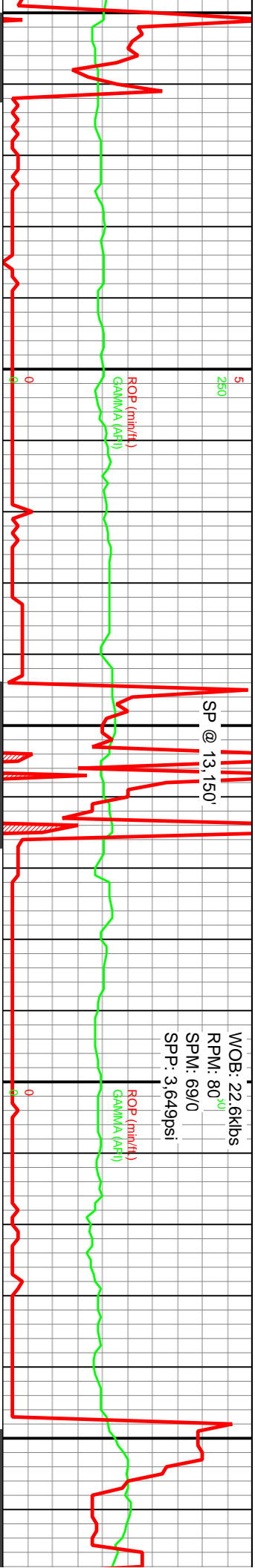




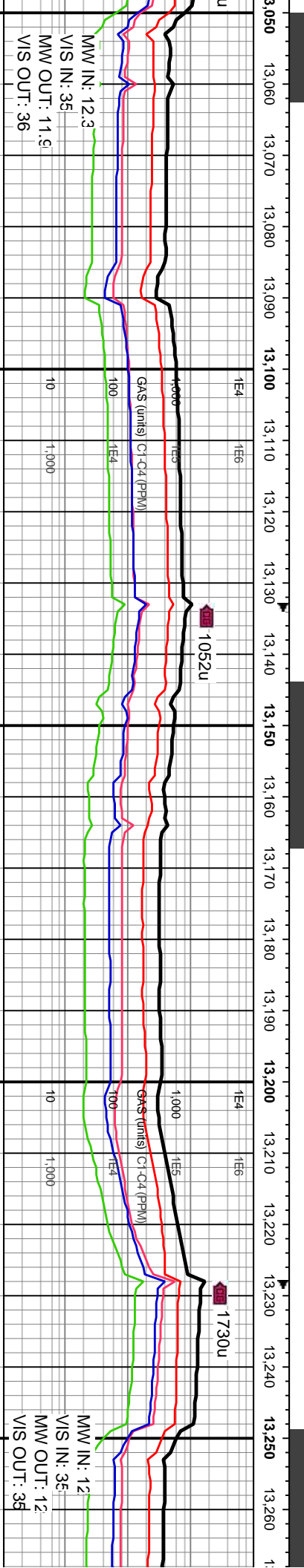
MD: 12,889'7500  
TVD: 7,982'  
Inclination: 91°  
Azimuth: 0.1°  
VS: 4,552.09'

MD: 12,984'  
TVD: 7,980'  
Inclination: 90.8°  
Azimuth: 0.2°  
VS: 4,647.07'





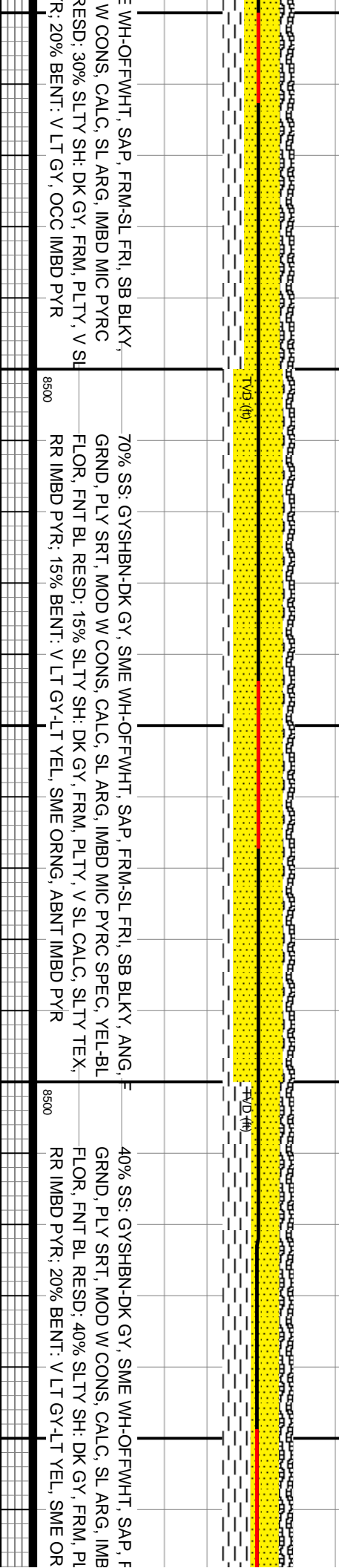
WOB: 22.6kbs  
RPM: 80<sup>30</sup>  
SPM: 69/0  
SP: 3,649psi



MD: 13,078'  
TVD: 7,979'  
Inclination: 90.5°  
Azimuth: 0.4°  
VS: 4,741.07'

MD: 13,173'  
TVD: 7,980.23'  
Inclination: 88.7°  
Azimuth: 359.9°  
VS: 4,836.06'

MD: 13,260'  
TVD: 7,980.23'  
Inclination: 88.7°  
Azimuth: 359.9°  
VS: 4,930.07'

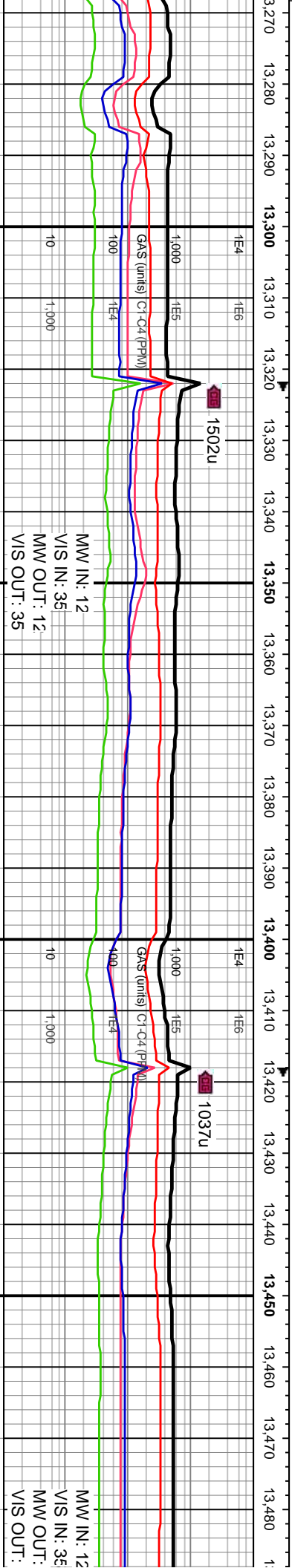
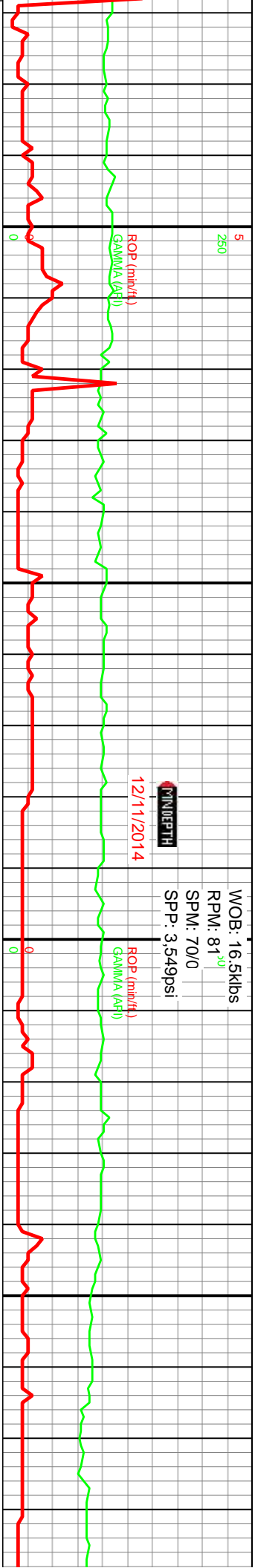


70% SS: GYSHBN-DK GY, SME WH-OFFWHT, SAP, FRM-SL FRI, SB BLKY, ANG, GRND, PLY SRT, MOD W CONS, CALC, SL ARG, IMBD MIC PYRC SPEC, YEL-BL FLOR, FNT BL RESD: 15% SLTY SH: DK GY, FRM, PLTY, V SL CALC, SLTY TEX, RR IMBD PYR, 15% BENT: V LT GY-LT YEL, SME ORNG, ABNT IMBD PYR

40% SS: GYSHBN-DK GY, SME WH-OFFWHT, SAP, FRM-SL FRI, SB BLKY, ANG, GRND, PLY SRT, MOD W CONS, CALC, SL ARG, IMBD MIC PYRC SPEC, YEL-BL FLOR, FNT BL RESD: 40% SLTY SH: DK GY, FRM, PLTY, V SL CALC, SLTY TEX, RR IMBD PYR, 20% BENT: V LT GY-LT YEL, SME ORNG, ABNT IMBD PYR







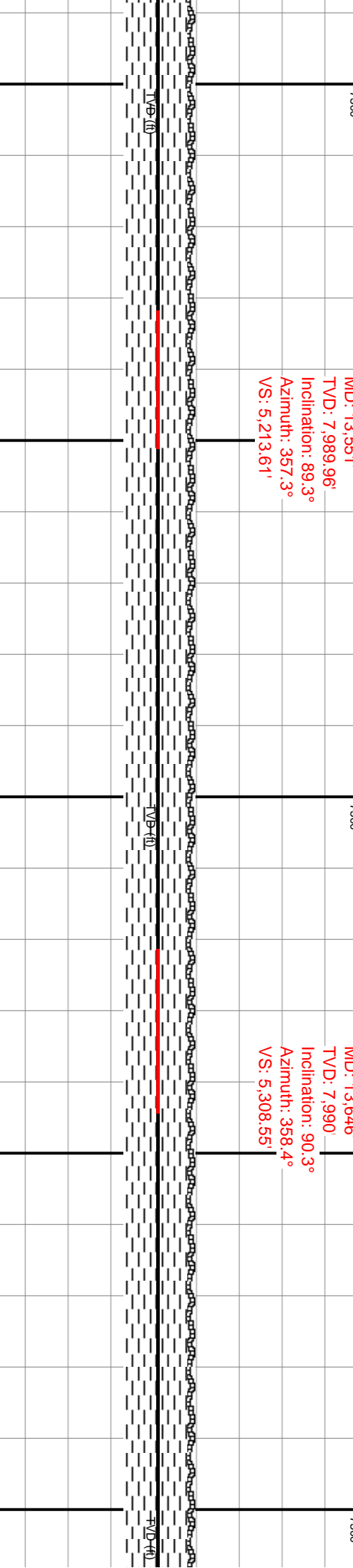
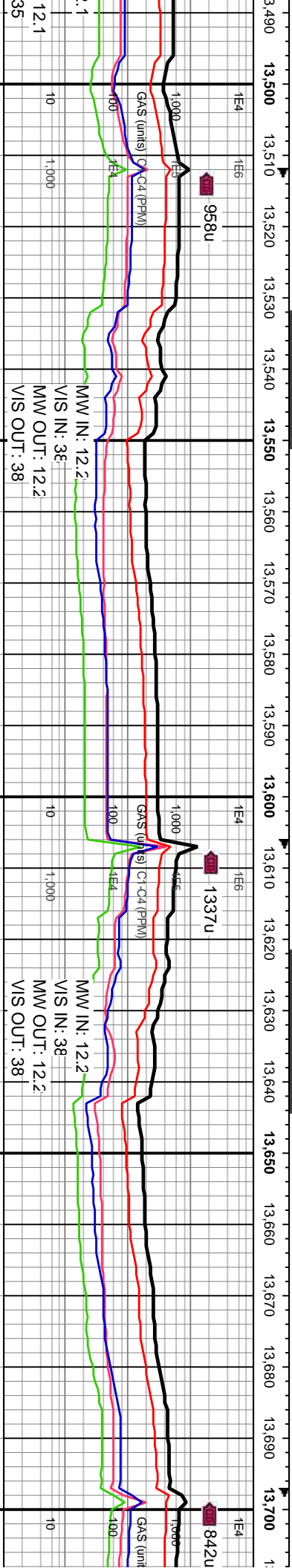
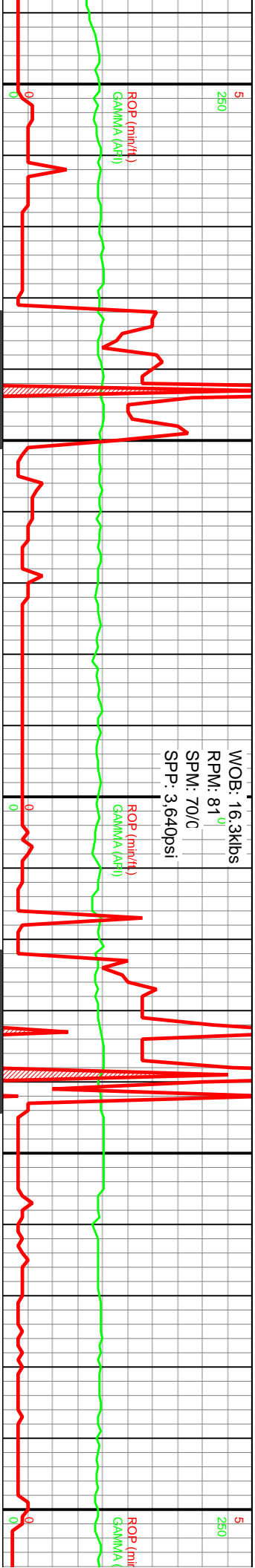
MD: 13,362'  
TVD: 7,985.92'  
Inclination: 88.4°  
Azimuth: 357.5°  
VS: 5,024.87'

MD: 13,457'  
TVD: 7,988.32'  
Inclination: 88.7°  
Azimuth: 357.2°  
VS: 5,119.74'

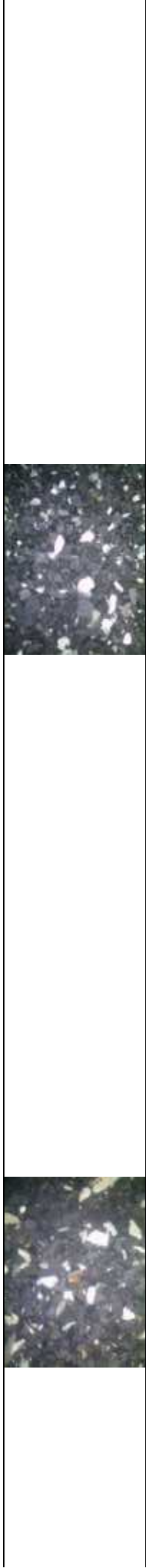
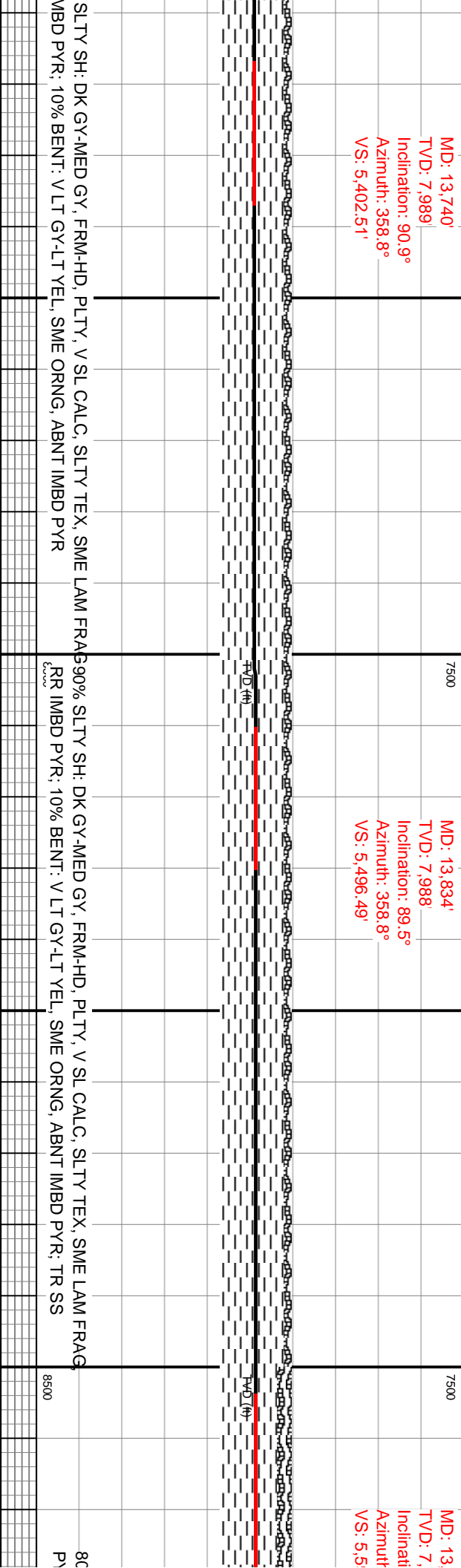
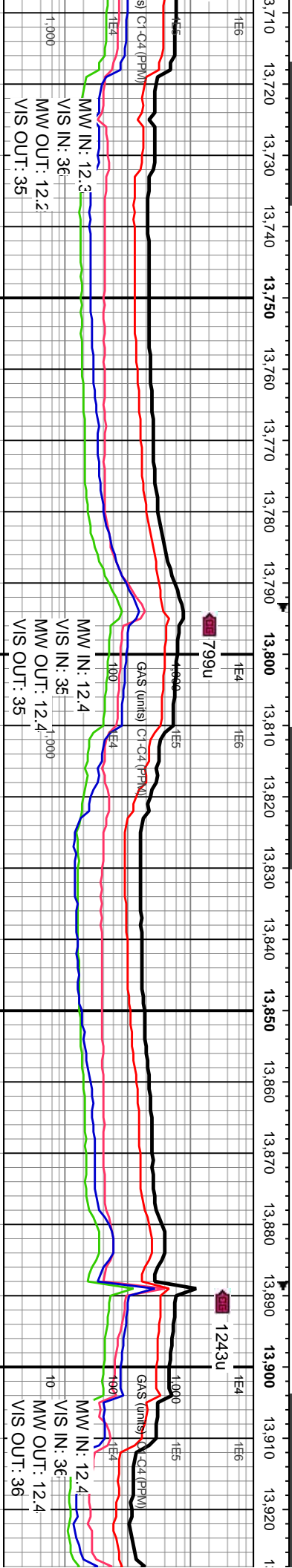
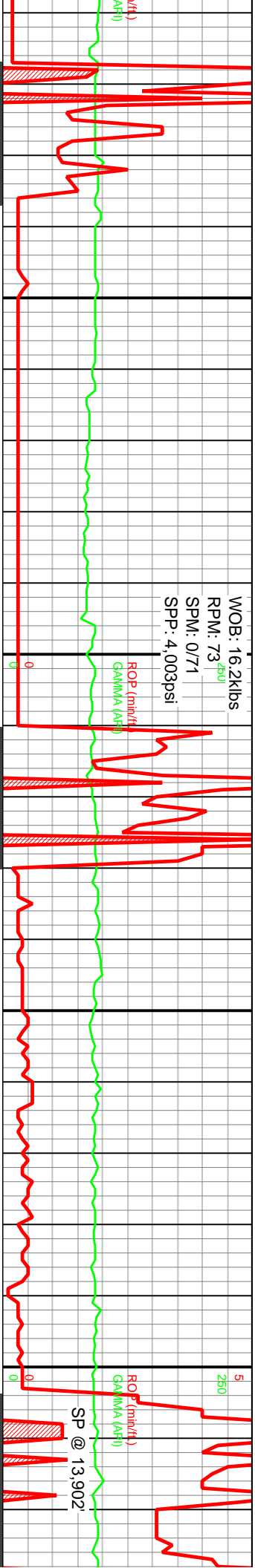
8500	8500
80% SLTY SH: DK GY, FRM, PLTY, V SL CALC, SLTY TEX, RR IMBD PYR; 10% SS: GYSHBN-DK GY, SME WH-OFFWHT, SAP, FRM-SL FRI, SB BLKY, ANG, F GRND, PLY SRT, MOD W CONS, CALC, SL ARG, IMBD MIC PYRC SPEC, YEL-BL FLOR, FNT BL RESD; 10% BENT: V LT GY-LT YEL, SME ORNG, ABNT IMBD PYR	90% SLTY SH: DK GY, FRM, PLTY, V SL CALC, SLTY TEX, RR IMBD PYR; 10% BENT: V LT GY-LT YEL, SME ORNG, ABNT IMBD PYR, TFR



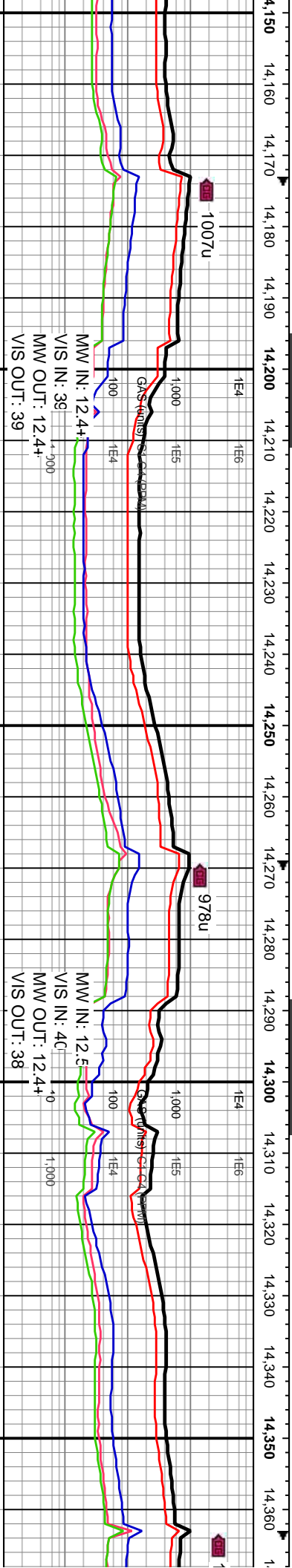
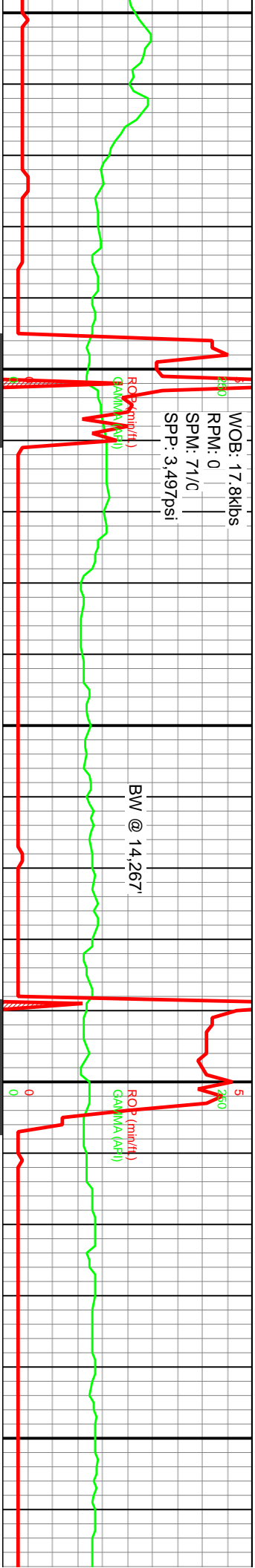




IMBD PYR, 8500	90% SLTY SH: DK GY-MED GY, FRM-HD, PLTY, V SL CALC, SLTY TEX, RR 90% SLTY SH: DK GY-MED GY, FRM-HD, PLTY, V SL CALC, SLTY TEX, SME LAM FRAG, RR 10% BENT: V LT GY-LT YEL, SME ORNG, ABNT IMBD PYR, TR SS	90% SLTY SH: DK GY-MED GY, FRM-HD, PLTY, V SL CALC, SLTY TEX, SME LAM FRAG, RR 10% BENT: V LT GY-LT YEL, SME ORNG, ABNT IMBD PYR, TR SS	90% SLTY SH: DK GY-MED GY, FRM-HD, PLTY, V SL CALC, SLTY TEX, SME LAM FRAG, RR 10% BENT: V LT GY-LT YEL, SME ORNG, ABNT IMBD PYR, TR SS
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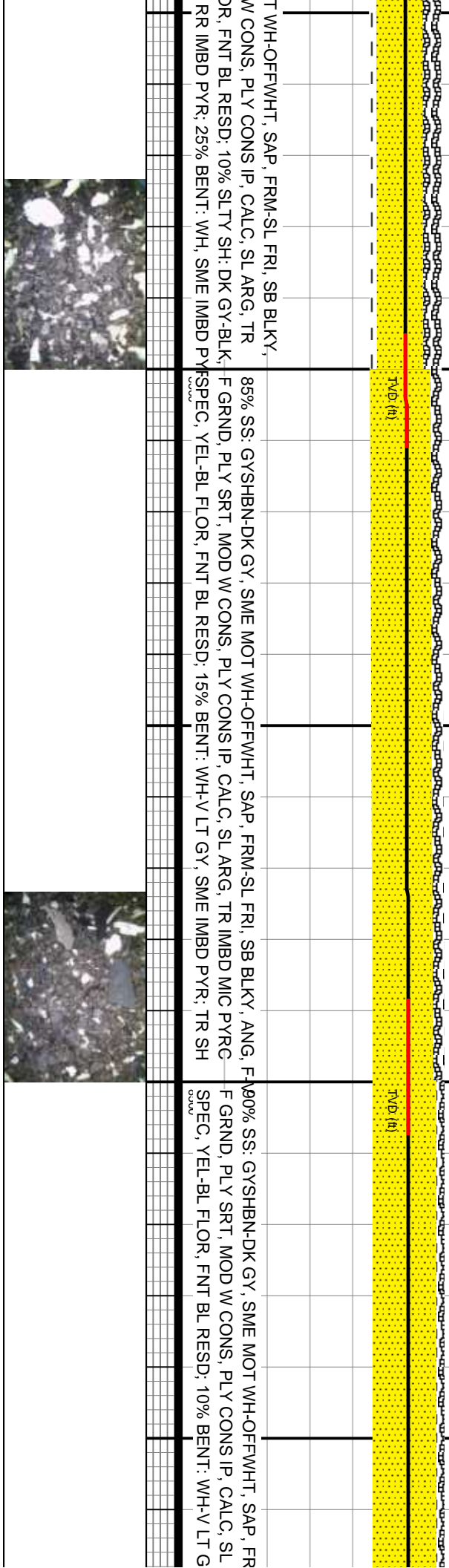


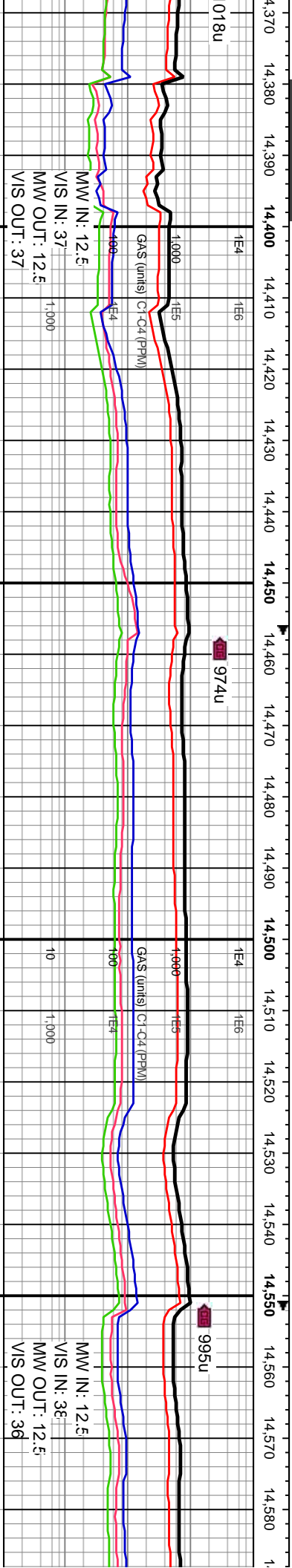
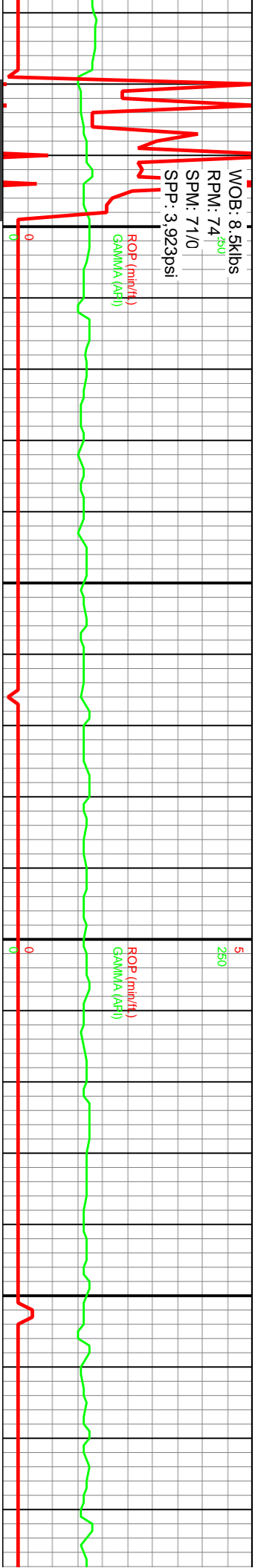




MD: 14,213'  
TVD: 7,974.53'  
Inclination: 92.8°  
Azimuth: 0.9°  
VS: 5,875.13'

MD: 14,308'  
TVD: 7,970'  
Inclination: 91.7°  
Azimuth: 0.6°  
VS: 5,970.05'



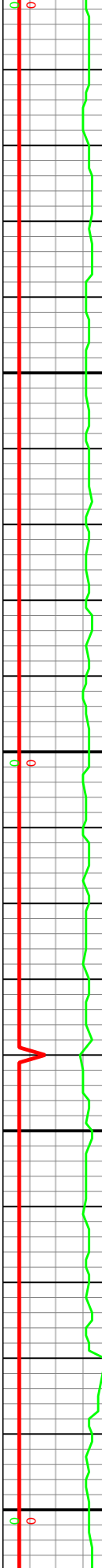


M-SL FRI, SB BLKY, ANG, F-V ARG, TR IMBD MIC PYRC Y, SME IMBD PYR; TR SH		100% SS: GYSHBN-DK GY, SME MOT WH-OFFWHT, SAP, FRM-SL FRI, SB BLKY, ANG, F-V F GRND, PLY SRT, MOD W CONS, PLY CONS IP, CALC, SL ARG, TR IMBD MIC PYRC SPEC, YEL-BL FLOR, FNT BL RESD; TR BENT; TR SH	100% SS: GYSHBN-DK GY, SME MOT WH-OFFWHT, SAP, FRM-SL FRI, SB BLKY, ANG, F-V F GRND, PLY SRT, MOD W CONS, PLY CONS IP, CALC, SL ARG, TR IMBD MIC PYRC SPEC, YEL-BL FLOR, FNT BL RESD; TR BENT; TR SH
8500		8500	8500



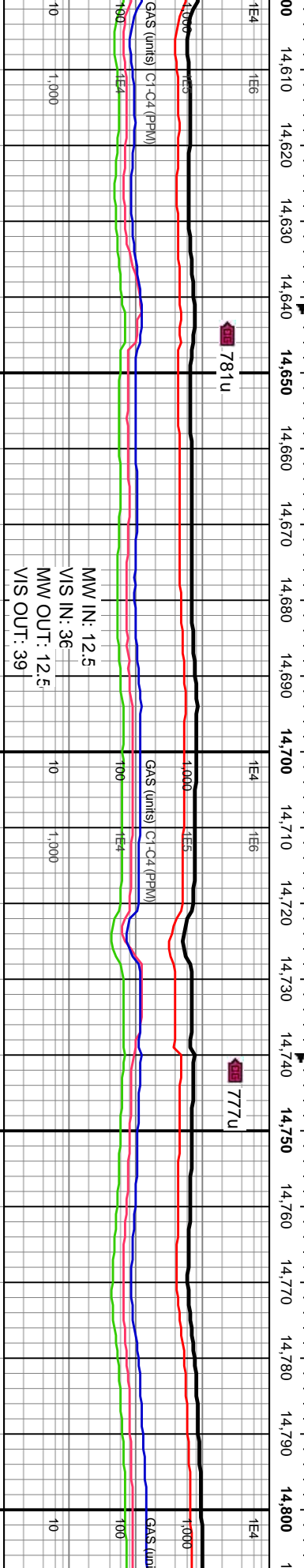
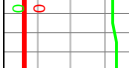
WOB: 10.7kbs  
RPM: 76<sup>250</sup>  
SPM: 71/0  
SPP: 3.856psi

ROP (min/ft)  
GAMMA (AFI)



WOB: 11.8kbs  
RPM: 74<sup>250</sup>  
SPM: 71/0  
SPP: 4.066psi

ROP (min/ft)  
GAMMA (AFI)



4,591'  
7,967'  
Inclination: 90.8°  
Azimuth: 358.9°  
VS: 252.99'

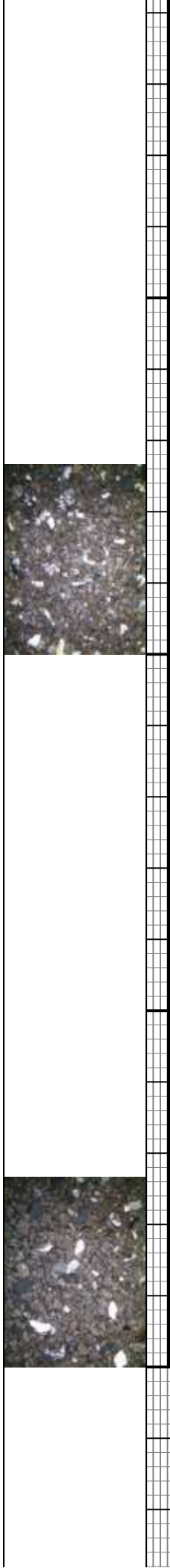
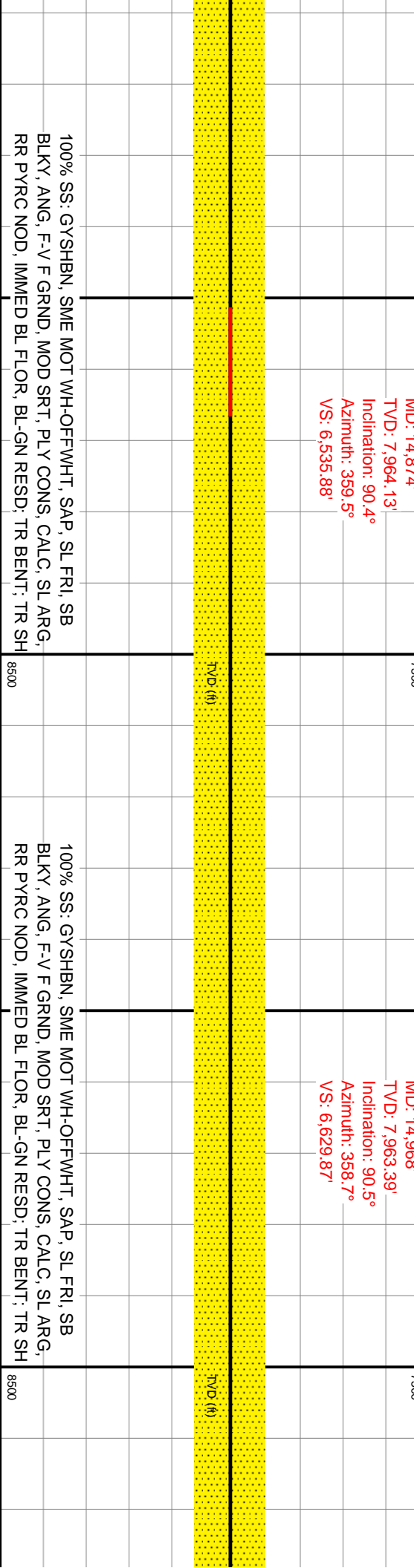
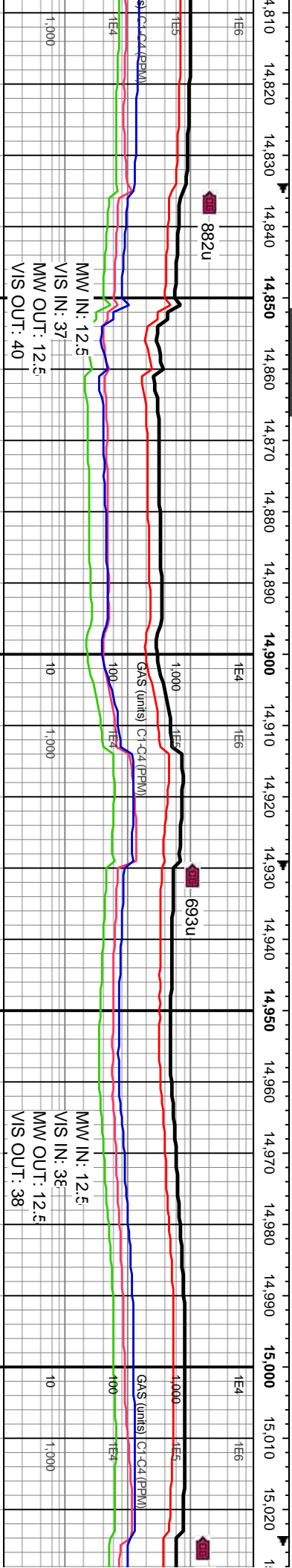
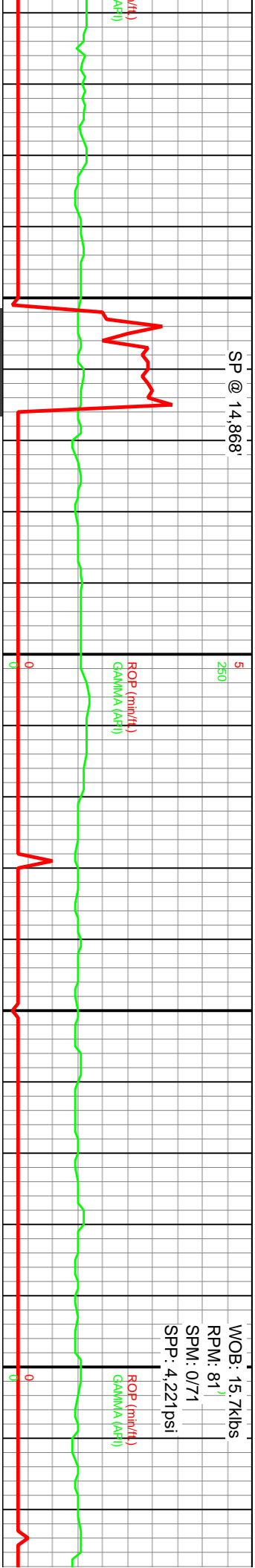
MD: 14,685'  
TVD: 7,966'  
Inclination: 90.9°  
Azimuth: 358.8°  
VS: 6,346.96'

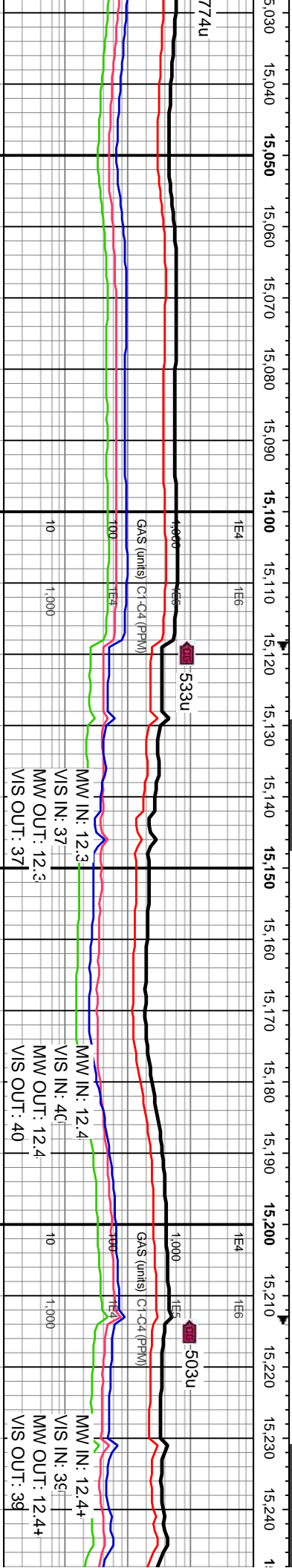
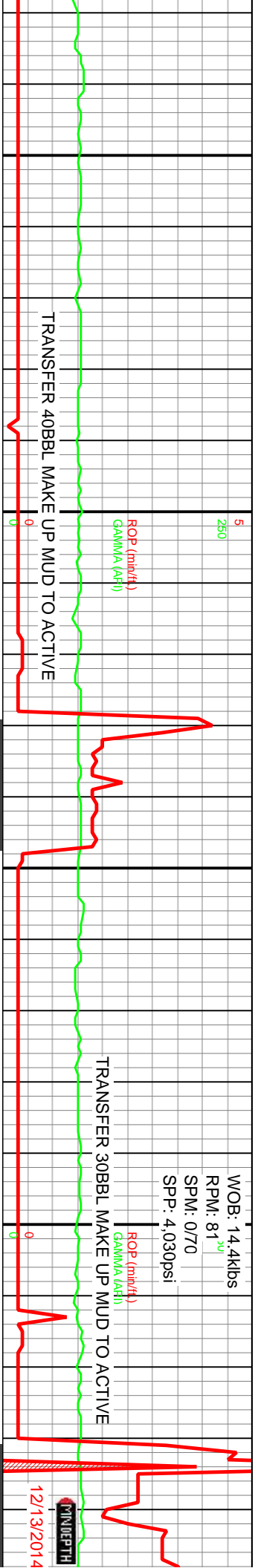
MD: 14,780'  
TVD: 7,965'  
Inclination: 90.8°  
Azimuth: 358.1°  
VS: 6,441.92'

100% SS: GYSHBN-DK GY, SME MOT WH-OFFWHT, SAP, FRM-SL FRI, SB BLKY, ANG, F-V F GRND, PLY SRT, MOD W CONS, PLY CONS IP, CALC, SL ARG, OCC PYRC NOD, YEL-BL FLOR, FNT BL RESD; TR BENT; TR SH

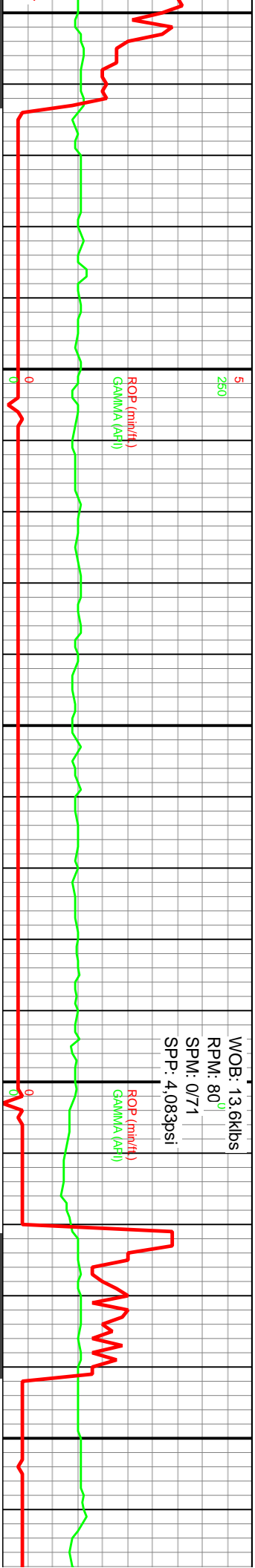
100% SS: GYSHBN-DK GY, SME WH-OFFWHT, SAP, FRM-SL FRI, SB BLKY, ANG, F GRND, MOD SRT, W CONS, CALC, SL ARG, RR PYRC NOD, YEL-BL FLOR, FNT BL RESD; TR BENT; TR SLTST



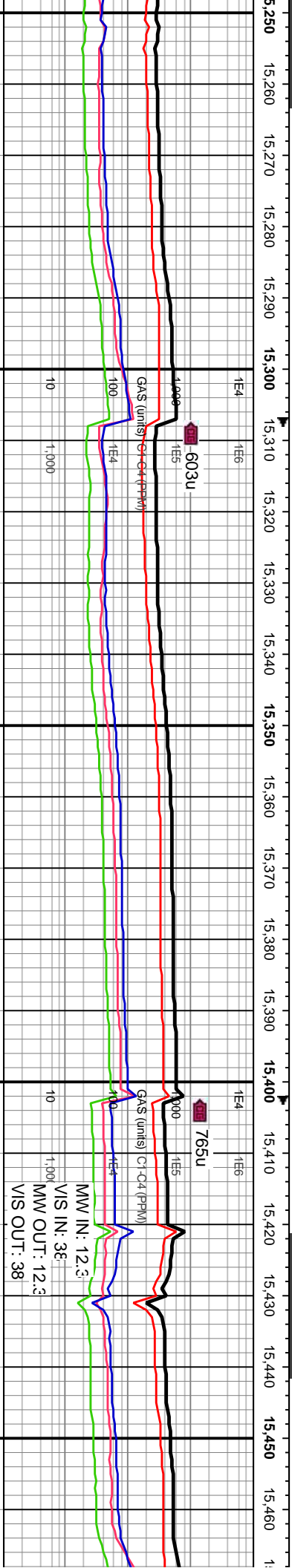




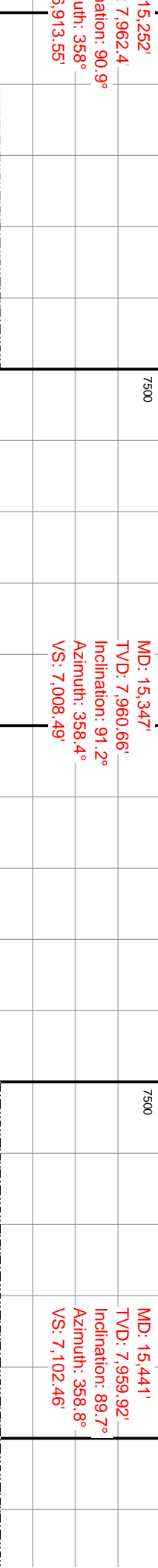
100% SS: GYSHBN, MOT WH-OFFWHT, SAP, FRI, SB BLKY, ANG, F-V F GRND, MOD-PLY SRT, MOD-PLY CONS, CALC, SL ARG, IMMED WK BL FLOR, BL-GN RESD; TR BENT; TR SH	8500	100% SS: GYSHBN, MOT WH-OFFWHT, SAP, FRI, SB BLKY, ANG, F-V F GRND, MOD-PLY SRT, MOD-PLY CONS, CALC, SL ARG, V WK BL FLOR, FNT BL-GN RESD; TR BENT; TR SH	8500	85% SS: GYSHBN, MOT W GRND, MOD-PLY SRT, MC FNT BL-GN RESD; 15% BE
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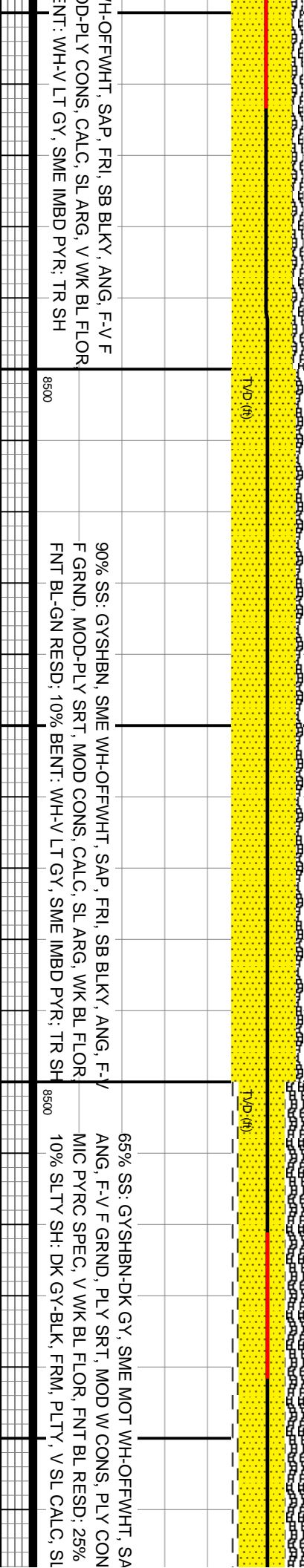
WOB: 13.6kbs  
RPM: 80<sup>9</sup>  
SPM: 0/71  
SPP: 4.083psi



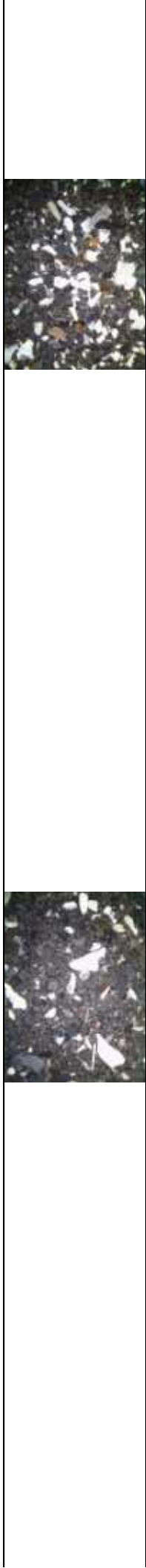
MW IN: 12.3  
VIS IN: 38  
MW OUT: 12.3  
VIS OUT: 38

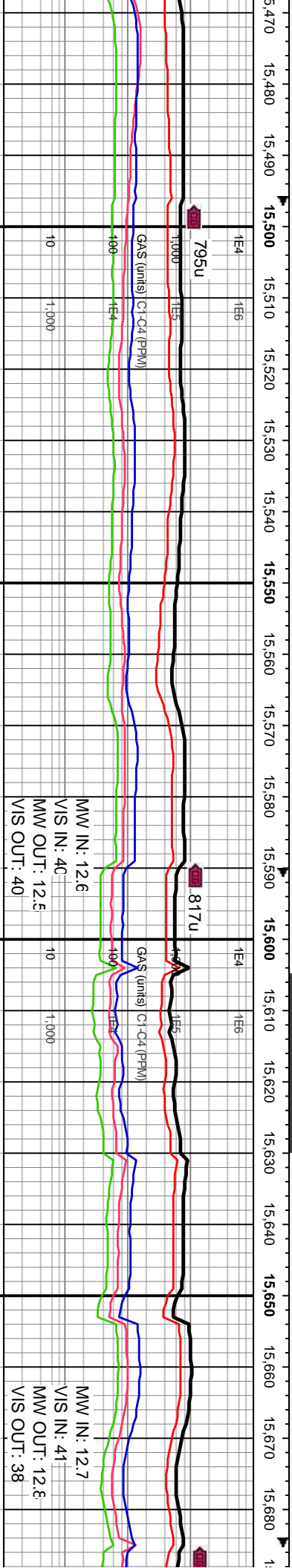
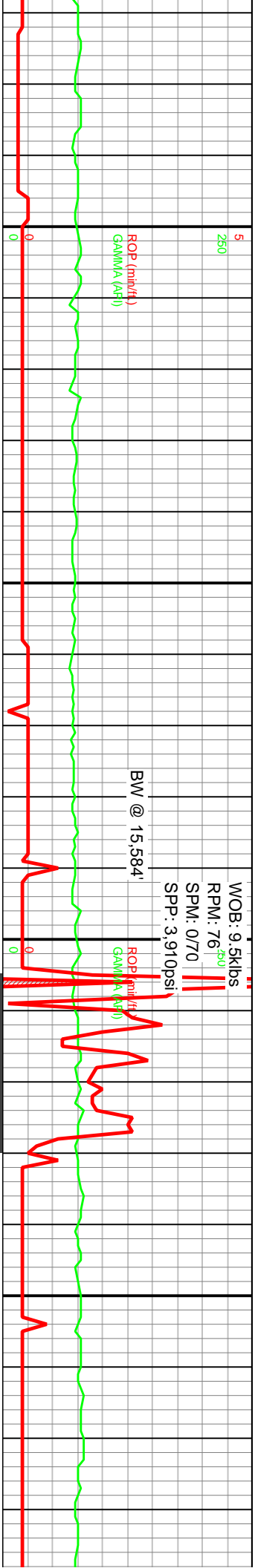


MD: 15,347'  
TVD: 7,960.66'  
Inclination: 91.2°  
Azimuth: 358.4°  
VS: 7,008.49'



MD: 15,441'  
TVD: 7,959.92'  
Inclination: 89.7°  
Azimuth: 358.8°  
VS: 7,102.46'



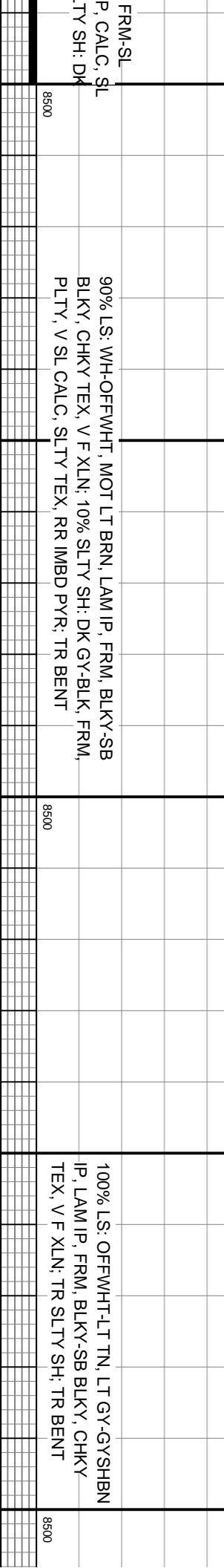
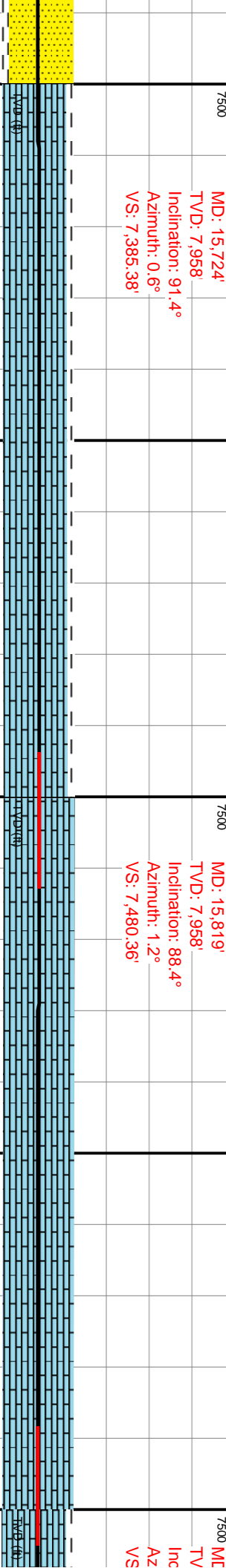
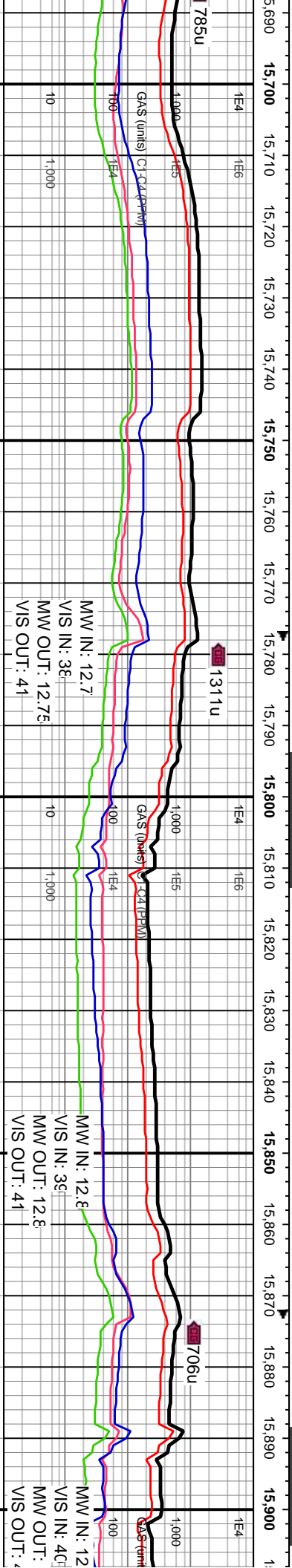
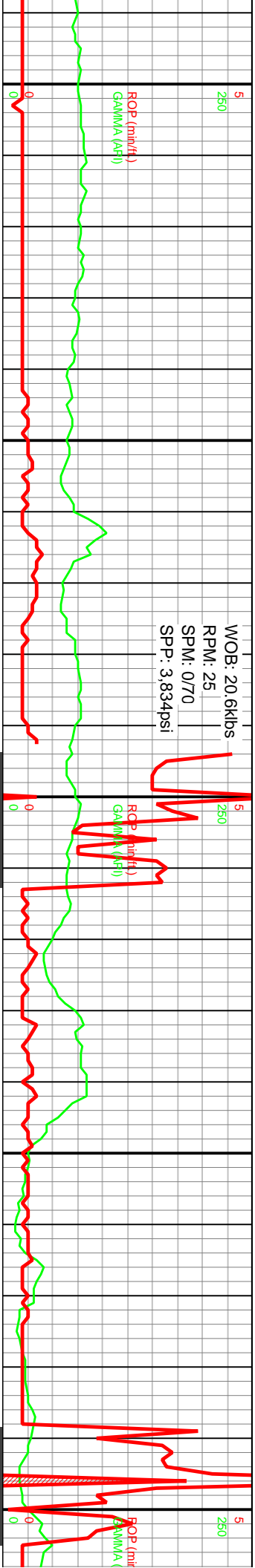


MD: 15,535'  
TVD: 7,960.58'  
Inclination: 89.5°  
Azimuth: 357.9°  
VS: 7,196.41'

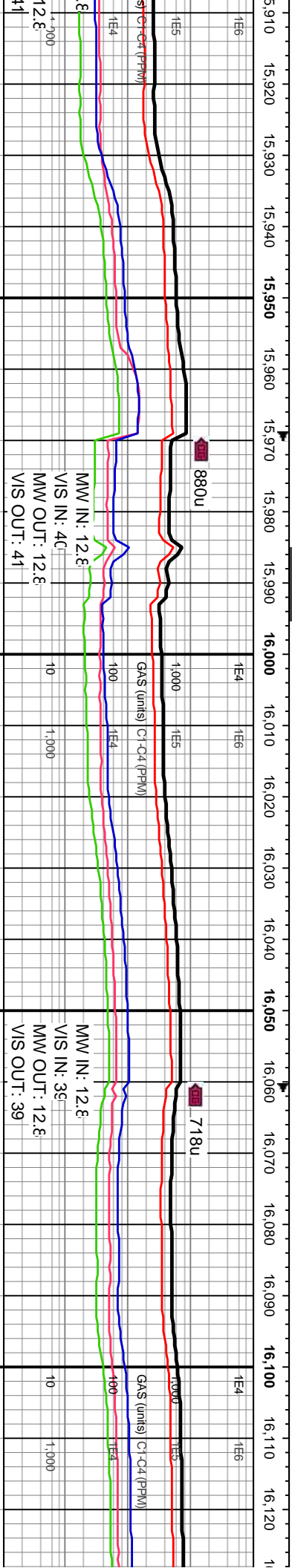
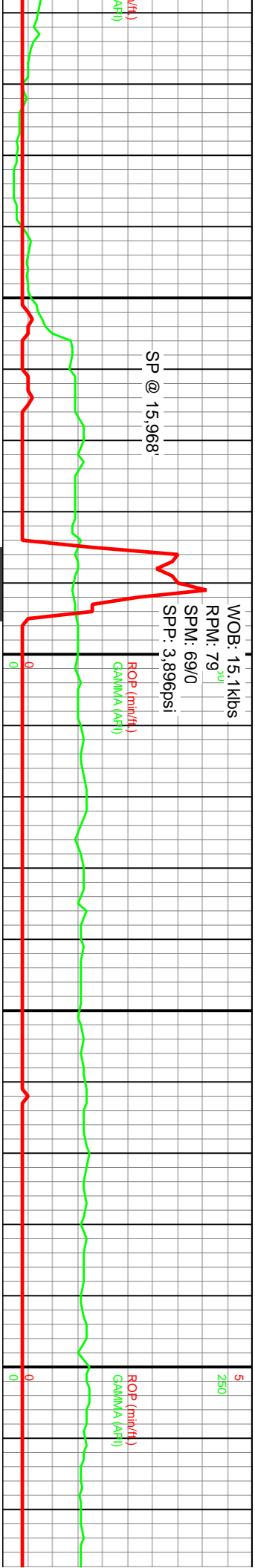
MD: 15,630'  
TVD: 7,960'  
Inclination: 90.7°  
Azimuth: 359.7°  
VS: 7,291.4'

TVD (ft)		TVD (ft)	
8500		8500	
P, FRM-SL FRI, SB BLKY, S IP, CALC, SL ARG, TR IMBD BENT: WH, SME IMBD PYR, SLTY TEX, RR IMBD PYR		90% SS: PRED DK GY, SME GYSHBN, OCC MOT WH-OFFWHT, SAP IP, FRM-SL FRI, SB BLKY, ANG, F-V F GRND, PLY SRT, MOD W CONS, PLY CONS IP, CALC, SL ARG, TR IMBD MIC PYRC SPEC, V WK BL FLOR, FNT BL RESD: 10% SLTY SH: DK GY-BLK, FRM, PLTY, V SL CALC, SLTY TEX, RR IMBD PYR, TR BENT	
8500		8500	









MD: 15,914'  
D: 7,960.93'  
Inclination: 89.1°  
Azimuth: 359.3°  
VS: 7,575.32'

MD: 16,008'  
TVD: 7,961.34'  
Inclination: 90.4°  
Azimuth: 359.2°  
VS: 7,669.31'

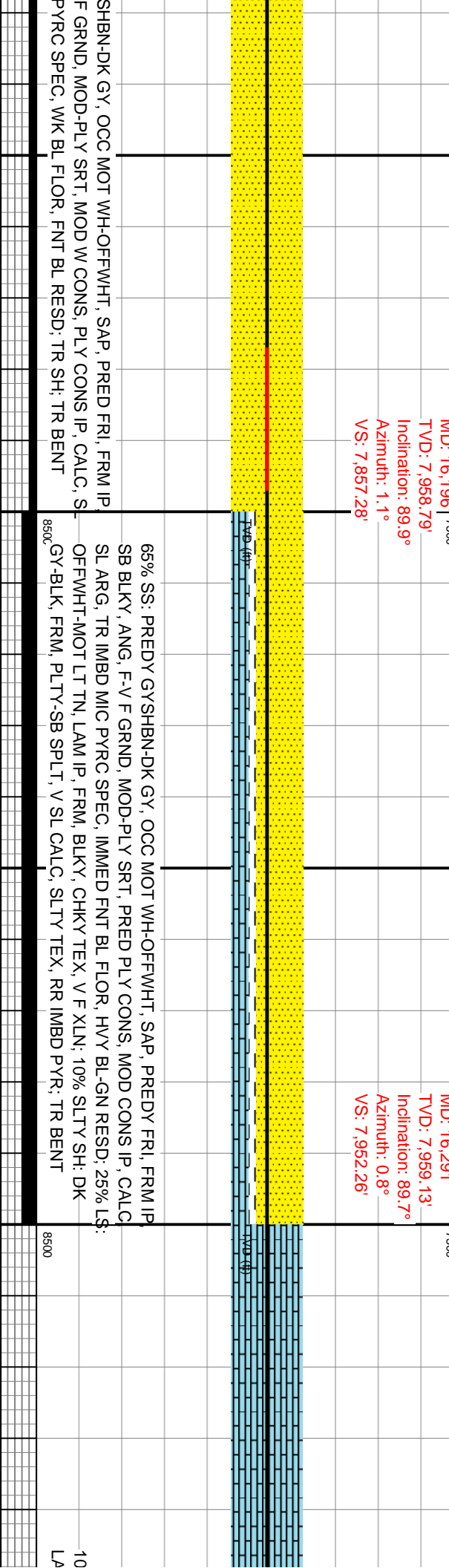
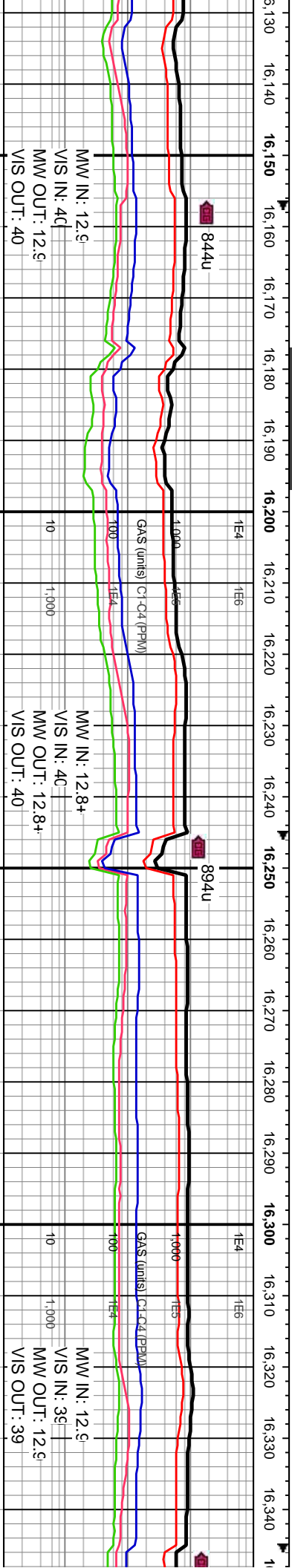
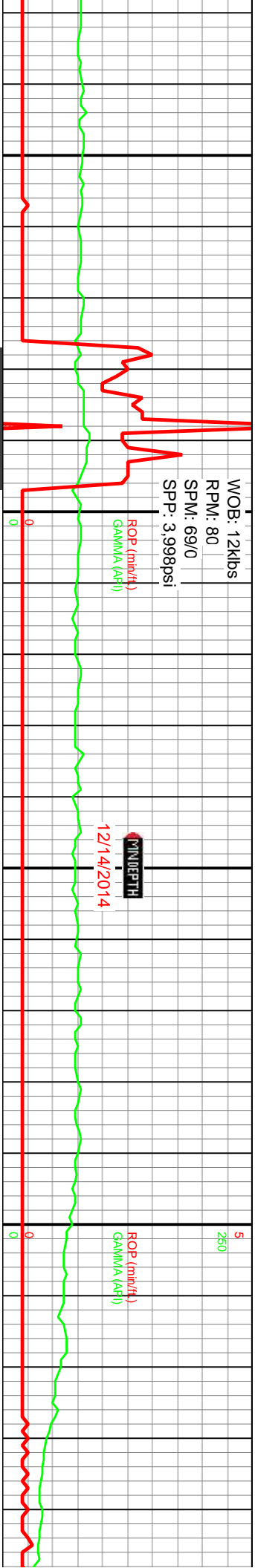
MD: 16,102'  
TVD: 7,959.86'  
Inclination: 91.4°  
Azimuth: 359.7°  
VS: 7,763.29'

90% LS: WH-OFFWHT, MOT LT BRN, LAM IP, FRM, BLKY  
CHKY TEX, V F XLN; 10% SLTY SH: DK GY-BLK, FRM,  
PLTY, V SL CALC, SLTY TEX, RR IMBD PYR; TR SS

90% SS: GYSHBN-DK GY, OCC MOT WH-OFFWHT, SAP IP, SL FRI, SB BLKY, ANG,  
F-V F GRND, MOD-PLY SRT, MOD W CONS, PLY CONS IP, CALC, SL ARG, TR  
IMBD MIC PYRC SPEC, V WK BL FLOR, FNT BL RESD; 10% SLTY SH: DK GY-BLK  
FRM, PLTY-SB SPLT, V SL CALC, SLTY TEX, RR IMBD PYR; TR BENT; TR LS

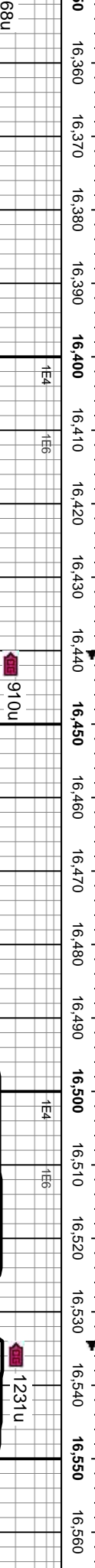
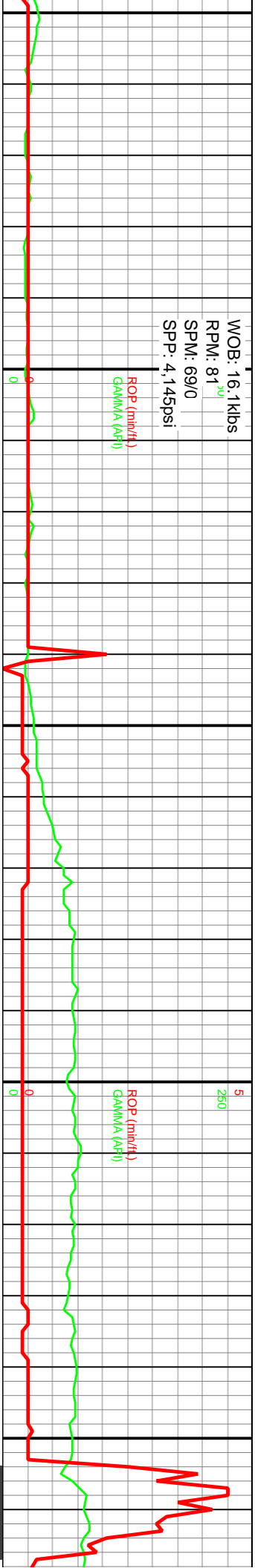
100% SS: PRED GY  
SB BLKY, ANG, F-V  
ARG, TR IMBD MIC



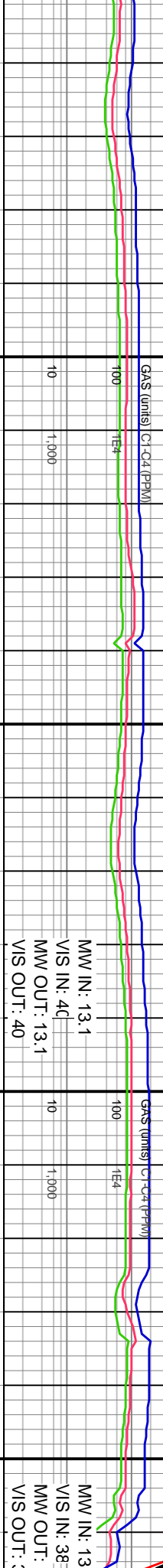


WOB: 16.1kbs  
RPM: 81  
SPM: 69/0  
SPP: 4,145psi

ROP (min/ft)  
GAMMA (API)

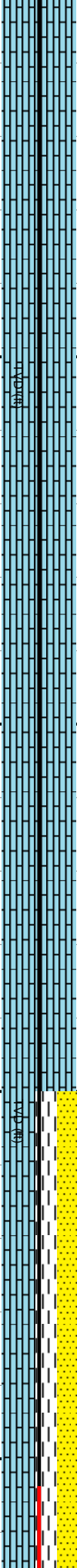


868u 910u 1231u



MD: 16,385'  
TVD: 7,959.62'  
Inclination: 89.7°  
Azimuth: 0.8°  
VS: 8,046.26'

MD: 16,480'  
TVD: 7,960.53'  
Inclination: 89.2°  
Azimuth: 0.2°  
VS: 8,141.24'



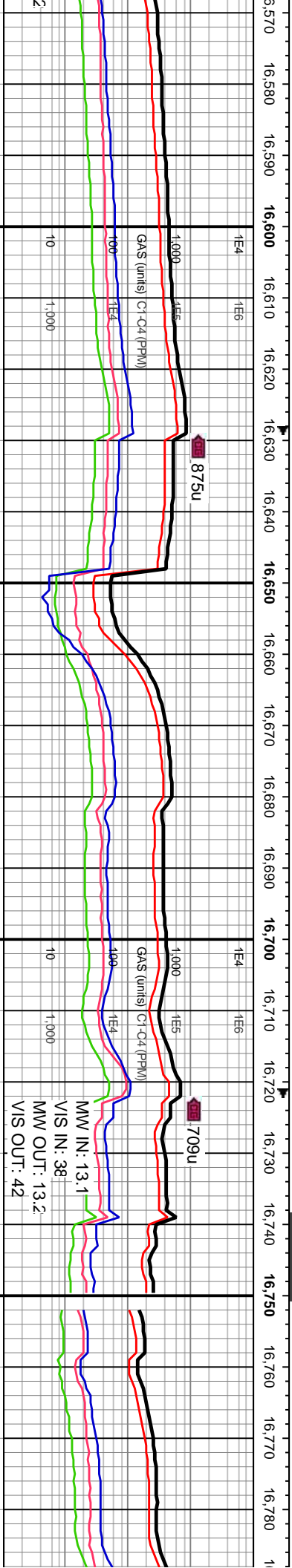
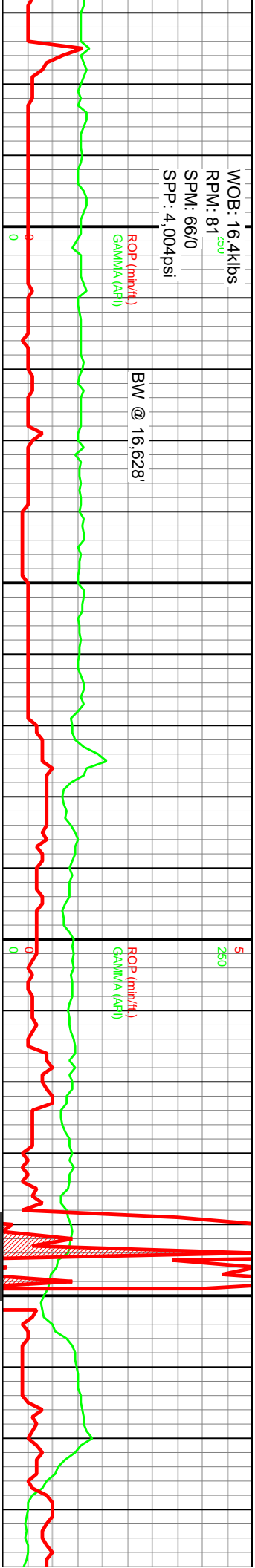
100% LS: OFFWHT-LT GY-GYSHBN, SME LAM, FRM-HD, BLKY, CHKY TEX, V F XLN, TR SH, TR SS

45% LS: OFFWHT-MOT BRN, LAM IP, FRM, BLKY, C SH: DK GY-BLK, FRM, PLTY-SB SPLT, V SL CALC, S SS: PREDY GYSHBN-DK GY, OCC MOT WH-OFFWHT-SB BLKY, ANG, F-V F GRND, PLV SRT, MOD CONS, PYRC SPEC & PYRC NOD, WK FNT BL FLOR, FNT E



WOB: 16.4kls  
RPM: 81  
SPM: 66/O  
SPP: 4.004psi

ROP (min/ft)  
GAMMA (API)  
BW @ 16,628'



D: 16,574'  
D: 7,960.04'  
Inclination: 91.4°  
Azimuth: 0.5°  
VS: 8,235.23'

MD: 16,668'  
TVD: 7,958'  
Inclination: 91.6°  
Azimuth: 1.2°  
VS: 8,329.2'

MD: 16,763'  
TVD: 7,956'  
Inclination: 89.4°  
Azimuth: 0.5°  
VS: 8,424.18'

HKY TEX, V F XLN; 30% SLTY  
LTY TEX, RR IMBD PYR; 25%  
IT, SAP, PREDY FRI, FRM IP  
CALC, SL ARG, TR IMBD MJC  
SL-GN RESD; TR BENT

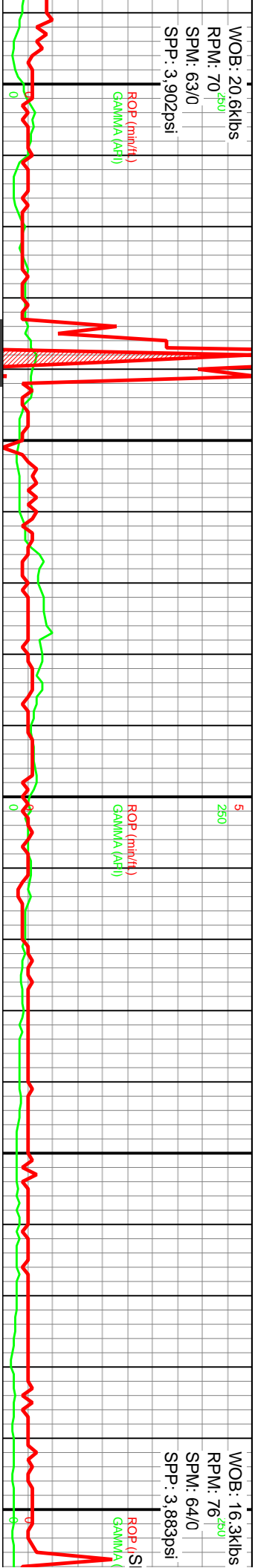
90% LS: PREDY LT GY, OFFWHT-MOT BRN IP, LAM IP, FRM,  
BLKY, CHKY TEX, V F XLN; 10% SLTY SH: DK GY-BLK, FRM,  
PLTY-SB SPLT, V SL CALC, SLTY TEX, RR IMBD PYR, TR BENT

90% LS: PREDY LT GY, OFFWHT-MOT BRN IP, LAM IP, FRM,  
CHKY TEX, V F XLN; 10% SLTY SH: DK GY-BLK, FRM, P  
SPLT, V SL CALC, SLTY TEX, RR IMBD PYR; TR BENT



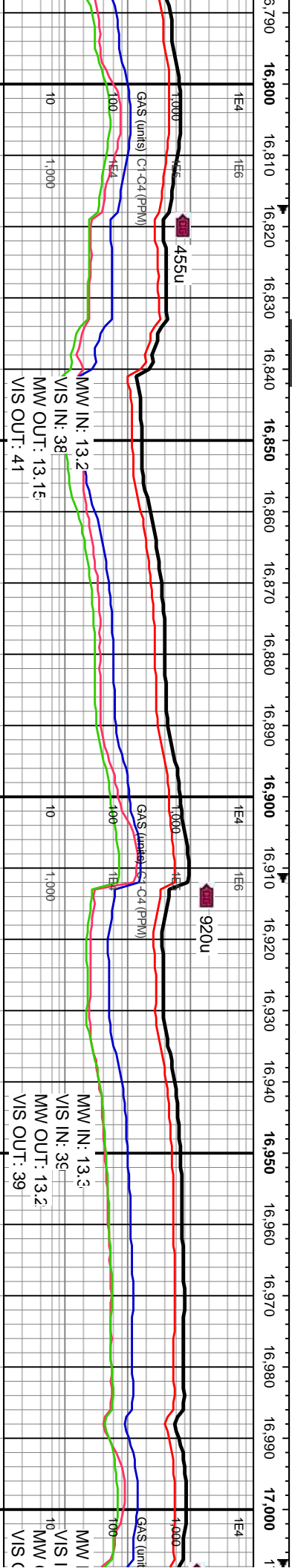
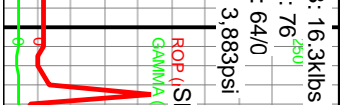
WOB: 20.6kbs  
RPM: 70<sup>250</sup>  
SPM: 63/0  
SPP: 3.902psi

ROP (min/ft)  
GAMMA (AFI)



WOB: 16.3kbs  
RPM: 76<sup>250</sup>  
SPM: 64/0  
SPP: 3.883psi

ROP (min/ft)  
GAMMA (AFI)

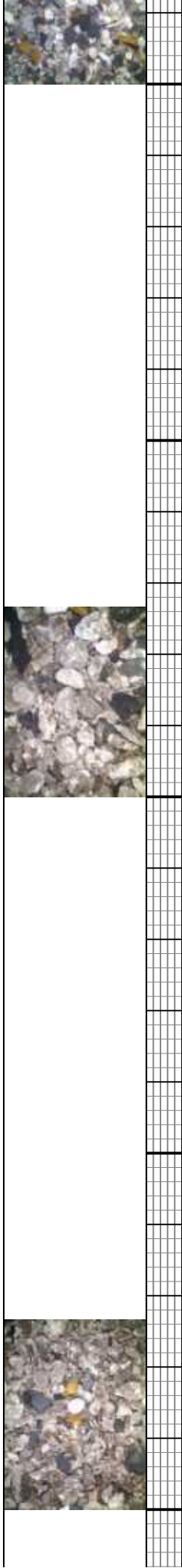


MD: 16,867'  
TVD: 7,957'  
Inclination: 90.2°  
Azimuth: 359.7°  
VS: 8,518.18'

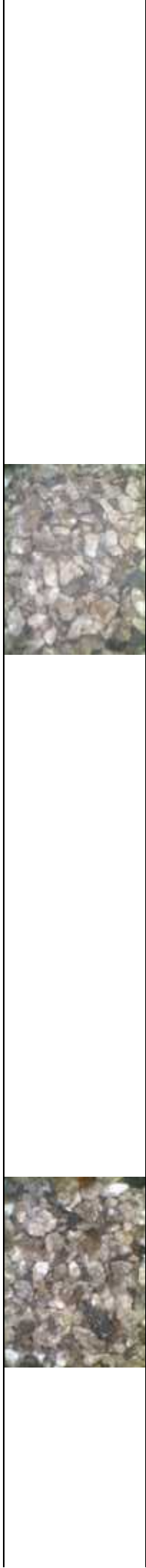
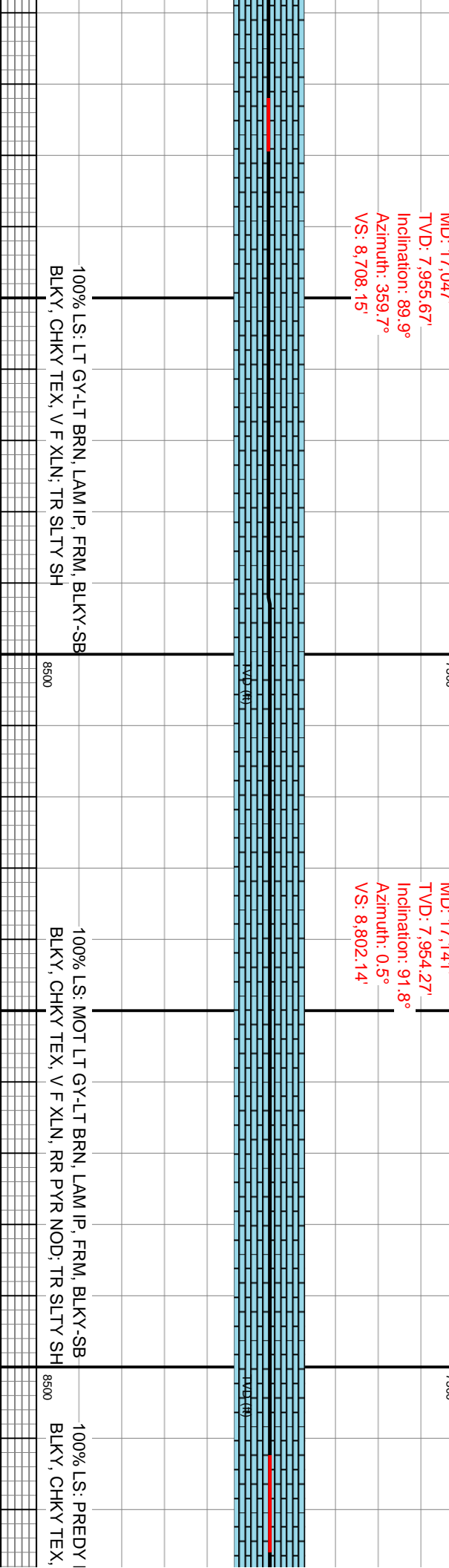
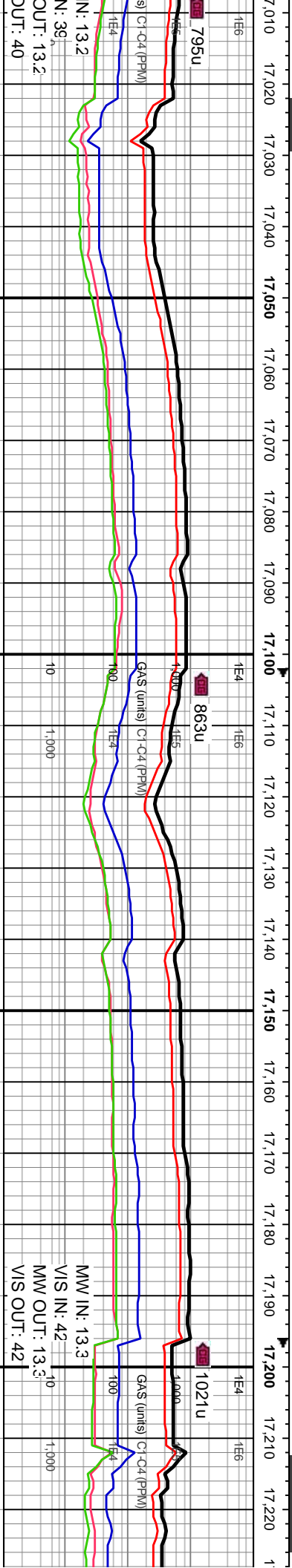
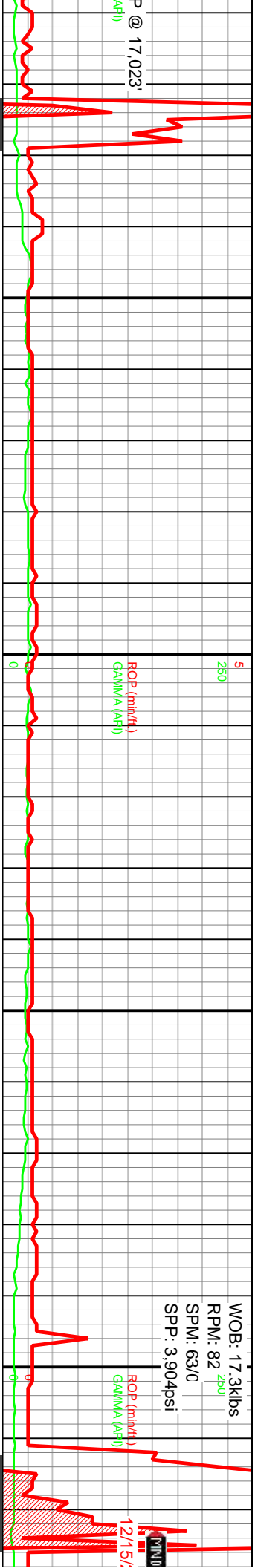
MD: 16,952'  
TVD: 7,956'  
Inclination: 90.8°  
Azimuth: 359.4°  
VS: 8,613.17'

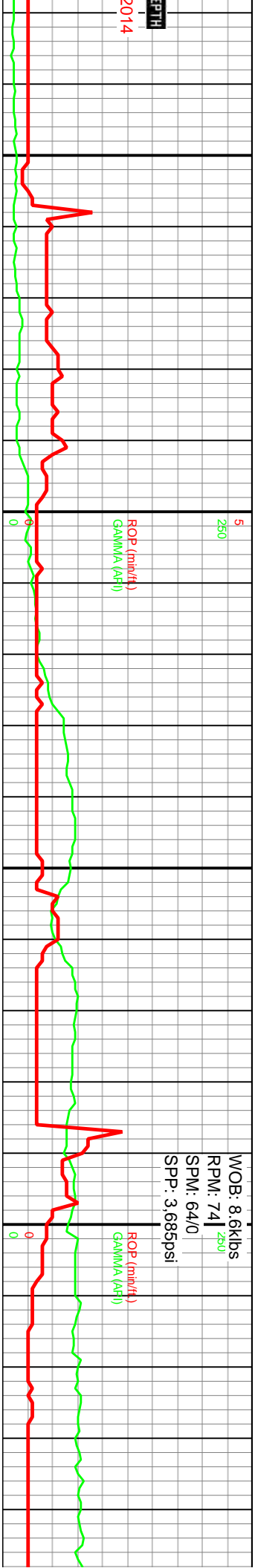
90% LS: OFFWHT-LT TN, LT GY-GYSHBN IP, LAM IP, FRM, BLKY-SB  
BLKY, CHKY TEX, V F XLN; 10% SLTY SH; DK GY-BLK, FRM, PLTY-SB  
SPLT, V SL CALC, SLTY TEX, RR IMBD PYR; TR BENT

100% LS: OFFWHT-LT TN, LT GY-GYSHBN IP, LAM IP,  
FRM, BLKY-SB BLKY, CHKY TEX, V F XLN; TR SLTY SH

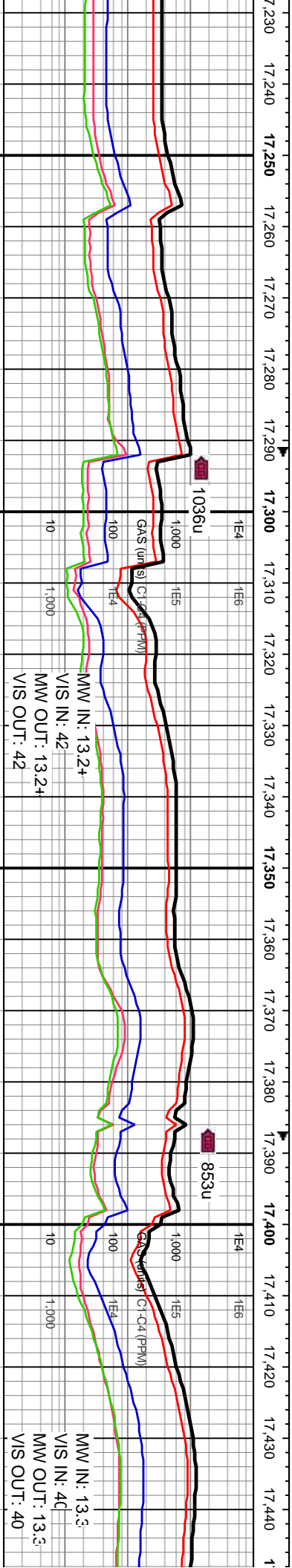




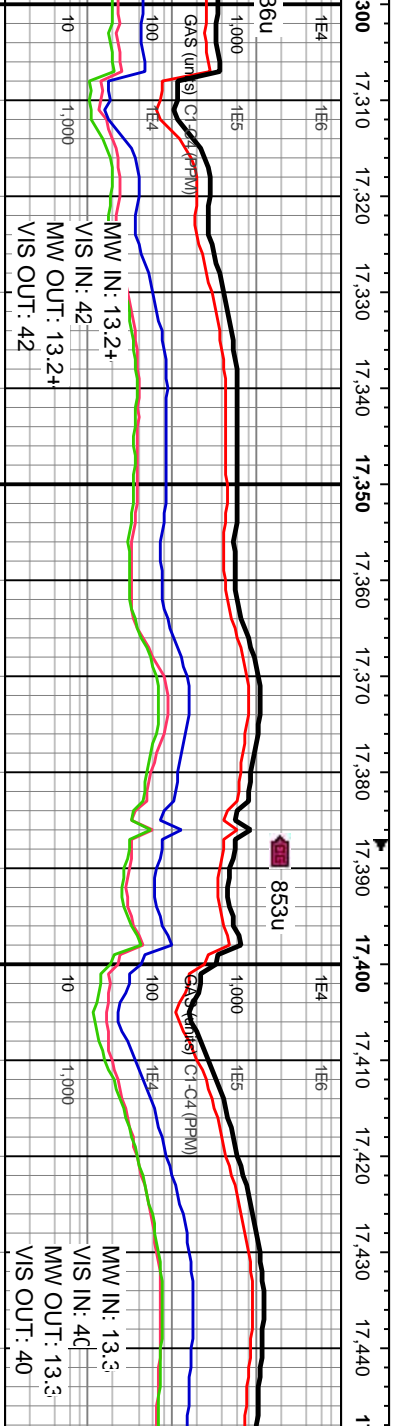




MOB: 8.6kbs  
RPM: 74  
SPM: 64/0  
SPP: 3.685psi



MD: 17,237'  
TVD: 7,952.85'  
Inclination: 89.9°  
Azimuth: 358.8°  
VS: 8,898.12'



MD: 17,332'  
TVD: 7,952.68'  
Inclination: 90.3°  
Azimuth: 359.3°  
VS: 8,993.1'

MOT LT GY-LT BRN, SME WHT-OFFWHT, LAM IP, FRM, BLKY-SB		45% LS: MOT OFFWHT-BRN, SME LAM, FRM, BLKY, CHKY TEX, PREDY V F	
PREDY V F XLN, SME MED XLN, RR PYR NOD, TR SLTY SH		XLN, ABNT C XLN FRAGS, TR PYR NOD, 45% SS: PREDY GYSHBN-DK GY, OCC WH-OFFWHT, SAP, PREDY FRI, FRM IP, SB BLKY, ANG, F-V F GRND, OCC MED GRNS, PLY SRT, MOD CONS, CALC, SL ARG, TR IMBD MIC PYRC SPEC & PYR NOD, STMG BL FLOR, Hvy BL-GN RESD: 10% SLTY SH: DK GY-BLK, FRM, PLTY-SB SPLT, V SL CALC, SLTY TEX, RR IMBD PYR, TR BEN	
8500		8500	

