



PERFORM - Drilling Mechanics

2 in / hr Time Based

Real Time Log

Company: ExxonMobil Oil Corporation

Well: Freedom Unit 197 28A8

Field: Piceance Creek

County: Rio Blanco

State: Colorado

Country: U.S.A.

Section: 28 APIN: 051031163100

Township: 1S Rig Name: H&P 215

Range: 97W Rig Type: Flex 3

FL: NAD 27 Colorado State Planes, Northern Zone

FL1: X: 1216263.00 ft Latitude: 39° 56' 4.560" N

FL2: Y: 231373.00 ft Longitude: 108° 17' 42.848" W

Log Measured From - Drill Floor: 6109.0 ft
Ground Level: 6082.0 ft



Permanent Datum - Mean Sea Level

Other Services:

Directional Drilling

Acquisition Dates: 06 May 10 to 13 May 10

Print Interval: 5/6/2010 9:00:00 PM to 5/13/2010 1:30:13 PM

Index Types: Time, Measured Depth

Index Scales: 2" / 3600 secs, 1:240 5" / 100'

Depth Source: Driller's Depth

Depth Sensor: 3rd Party Depth

Conveyance: Drill Pipe

Print Type: Final

Spud Date: 05/04/2010



Disclaimer

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Run 1

PERFORM - Drilling Mechanics

Software Version

Acquisition System		Version	
MaxWell		1.2.8706.0	
Framework Patch		FWK-BGC-20100105-1.2.8706.1067	
Application Patch		APL-SRPC-DnM-1.2.8706.1045	
Tool Elements	Description	Software Version	Firmware Version
DRILLING_SURFACE	DRILLING_SURFACE	1.2.8706.1067	

Pass Summary

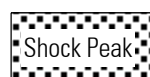
Run Name	Pass Objective	Direction	Start	Stop	Acquisition Start Date	Acquisition Start Time
Run 1	TimeLogicalAcq	Down	06-May-2010 15:13:08	09-May-2010 20:38:03	06-May-2010	15:13:08

Log

Run 1: TimeLogicalAcq 93053AAF-4E3E-429B-9CC6-71D52F2C6FD0

Description: TeleScope + ARC Drilling Mechanics Time RT Format: Log (PERFORM - Drilling Mechanics) Index Scale: 2 in per 3600 s Index Type: Time
 Creation Date: 13-May-2010 15:34:26

AJAM	TELE825:TELE825	ACQ - RT
BLKP	DRILLING_SURFACE	ACQ - RT
CRPM	TELE825:TELE825	ACQ - RT
DEPTH	DnMWorkflow	ACQ - RT
GENERIC_01	DRILLING_SURFACE	ACQ - RT
HKLA	DRILLING_SURFACE	ACQ - RT
OBTM	DnMWorkflow	ACQ - RT
ROP	DRILLING_SURFACE	ACQ - RT
SHKPK	TELE825:TELE825	ACQ - RT
SHKRSK	TELE825:TELE825	ACQ - RT
SPPA	DRILLING_SURFACE	ACQ - RT
STICK	TELE825:TELE825	ACQ - RT
STOR	DRILLING_SURFACE	ACQ - RT
SWOB	DRILLING_SURFACE	ACQ - RT
TEMP_DNI	TELE825:TELE825	ACQ - RT
TFLO	DRILLING_SURFACE	ACQ - RT
TRPM	TELE825:TELE825	ACQ - RT
VIB_LAT	TELE825:TELE825	ACQ - RT
VIB_X	TELE825:TELE825	ACQ - RT



Height of
block above
rig floor
(BLKP)

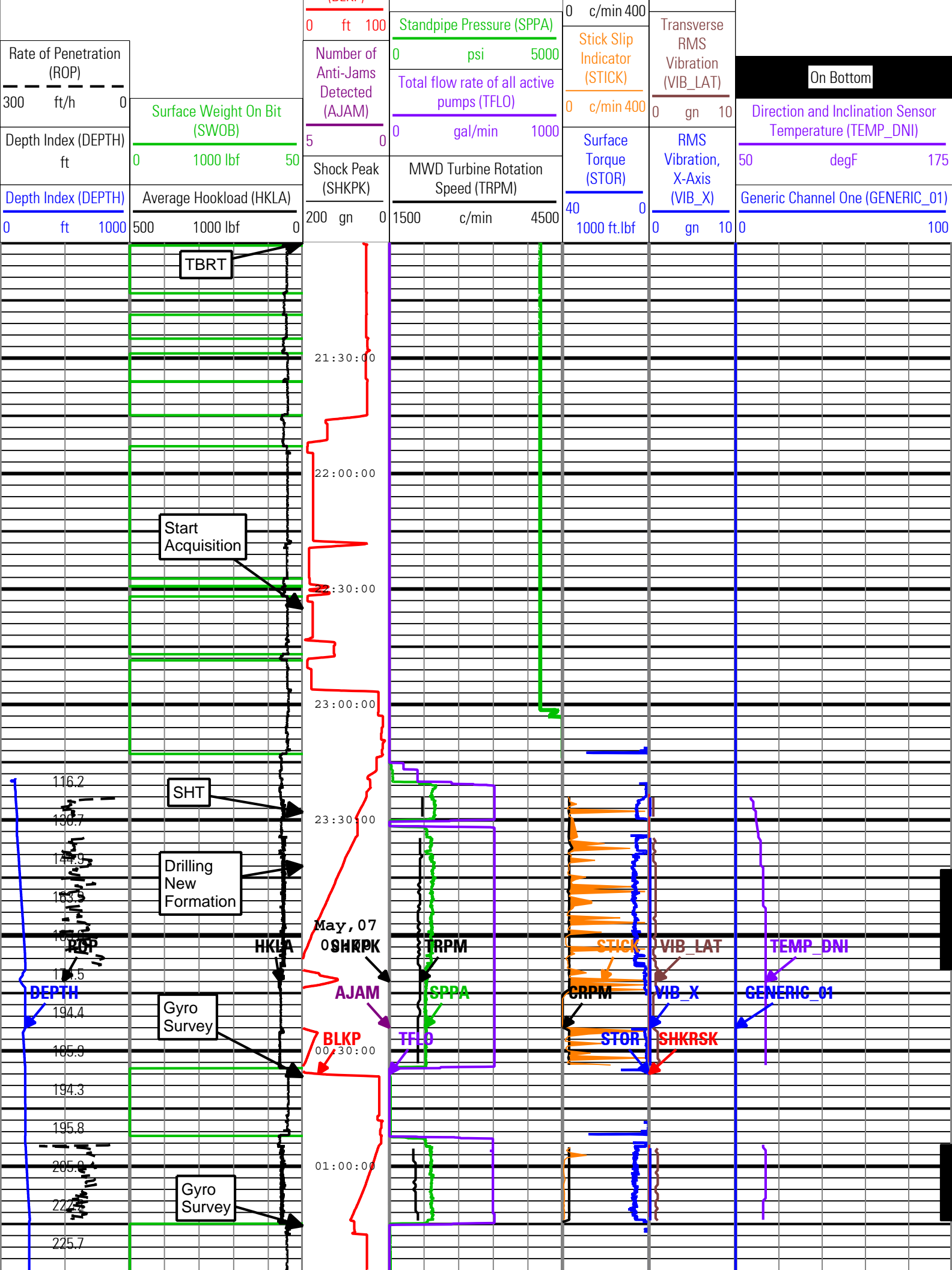


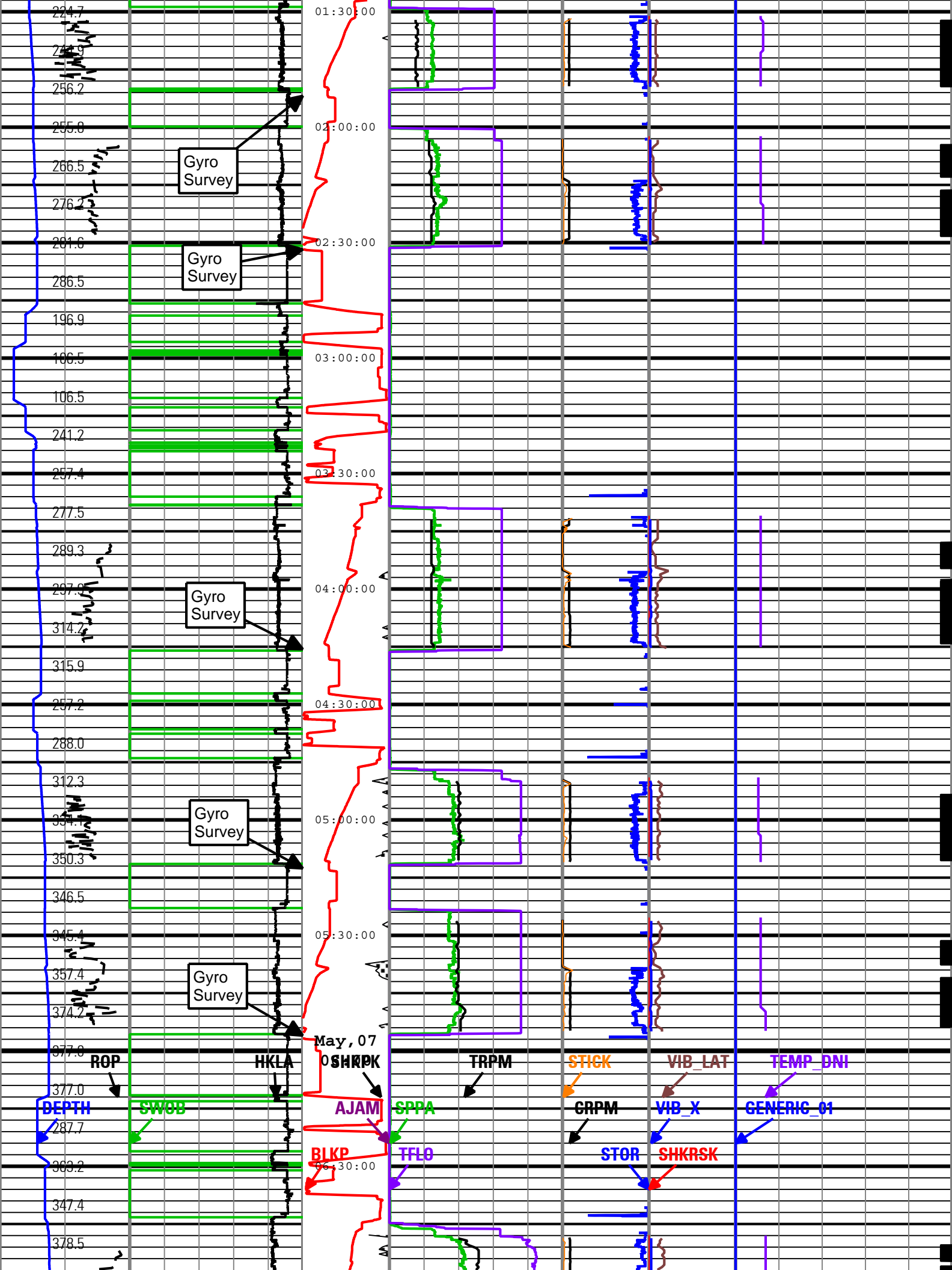
Collar
Rotational
Speed
(CRPM)

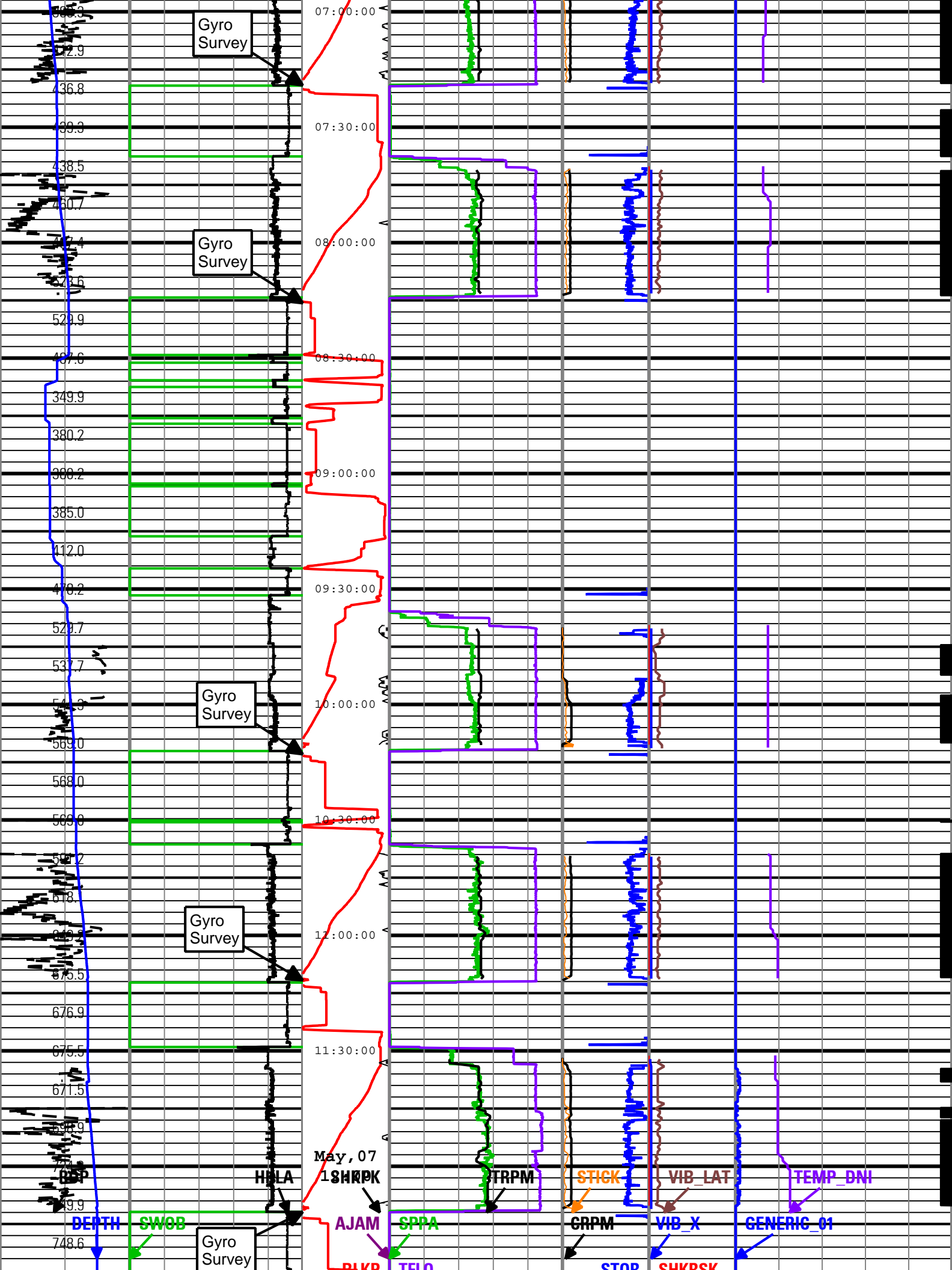


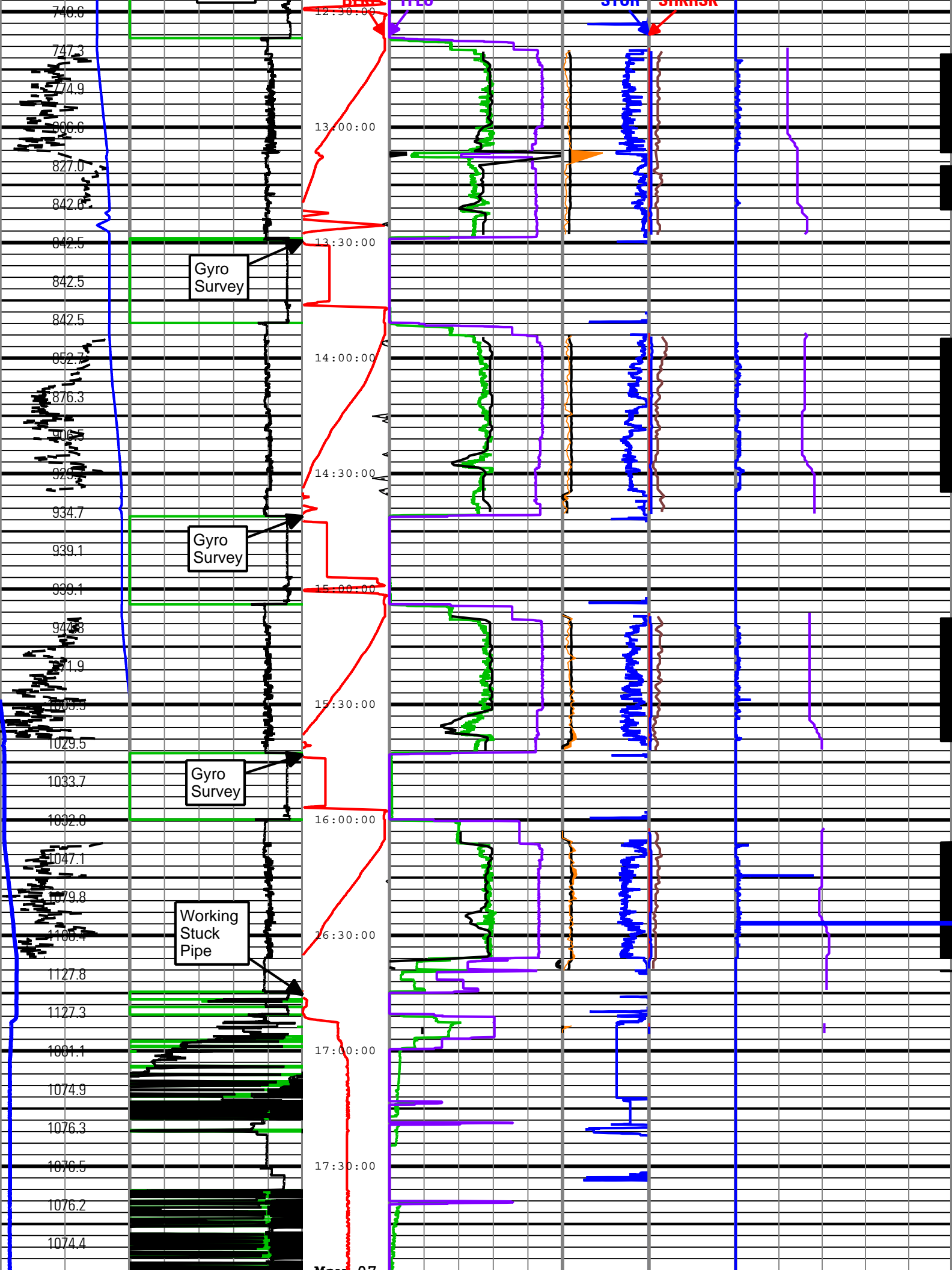
Shock Risk
(SHKRSK)

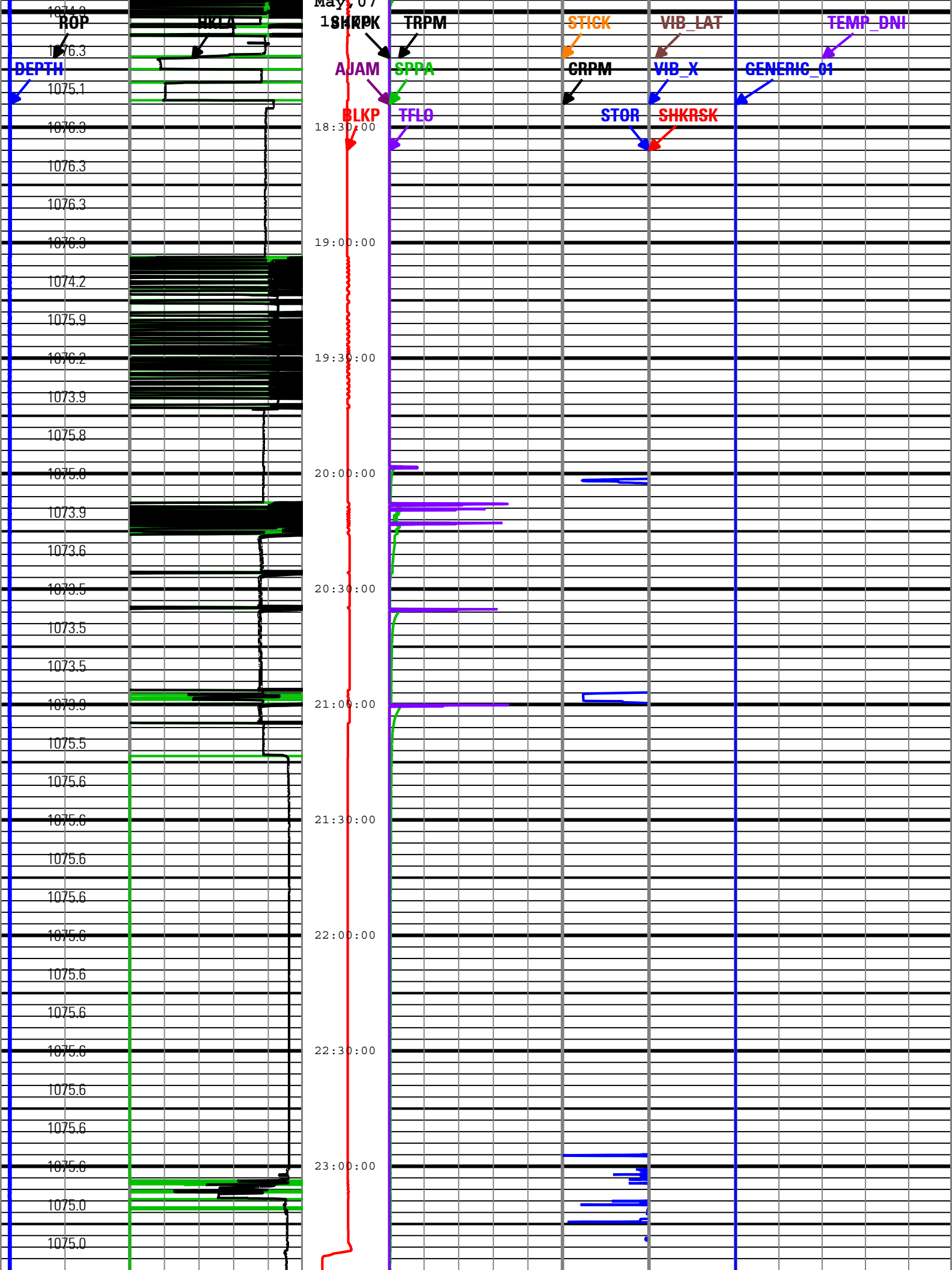
0 5

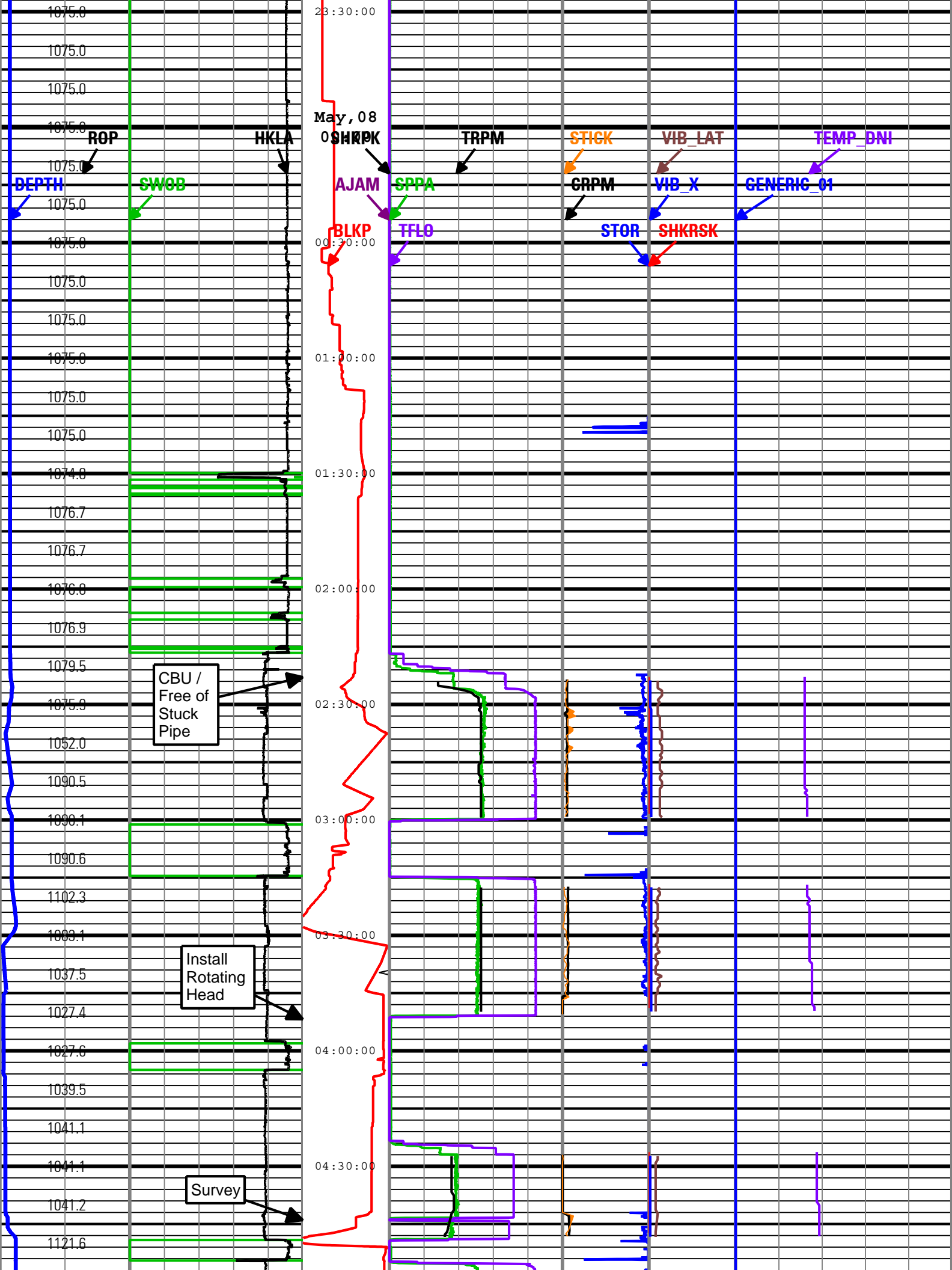


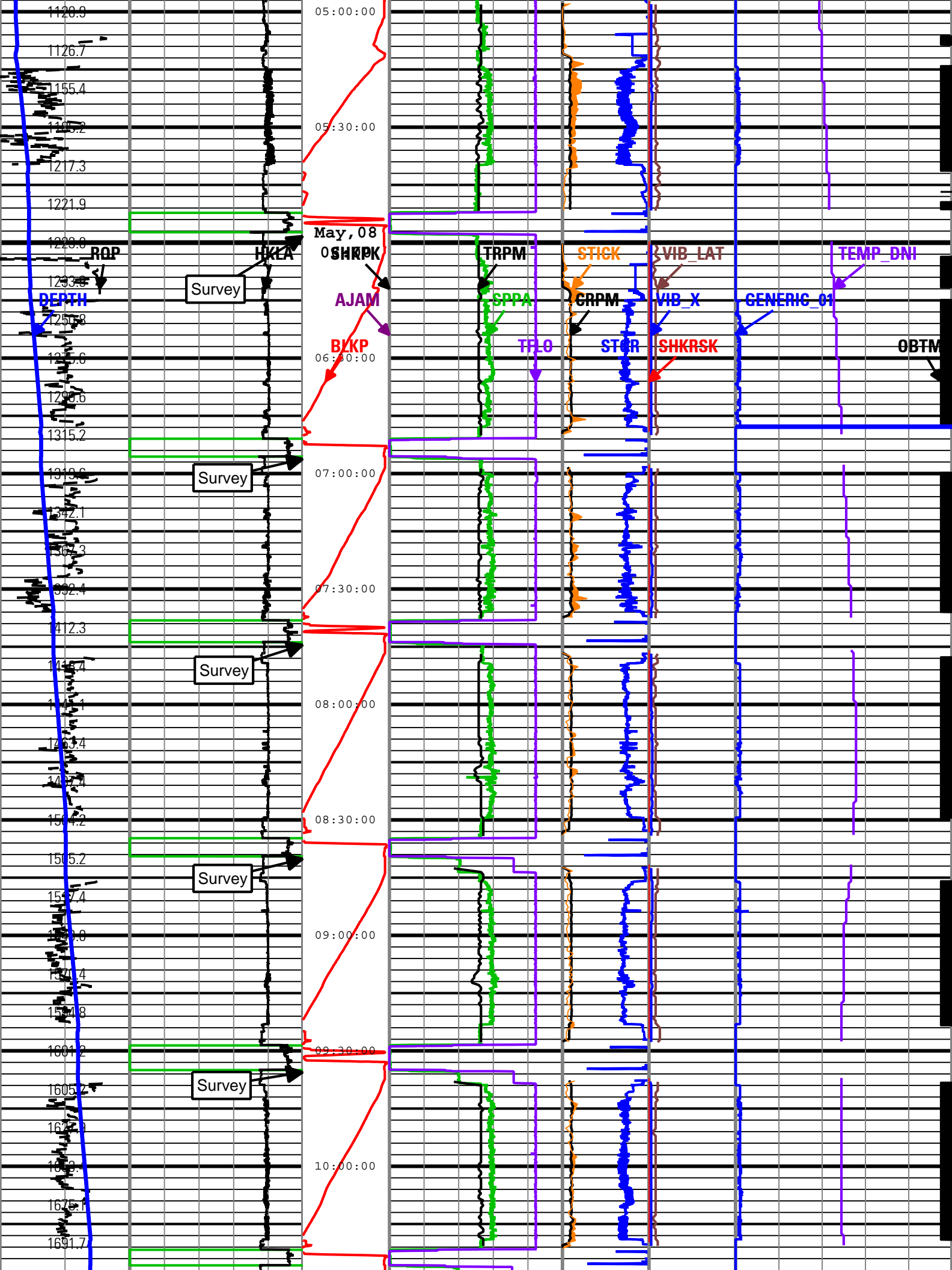


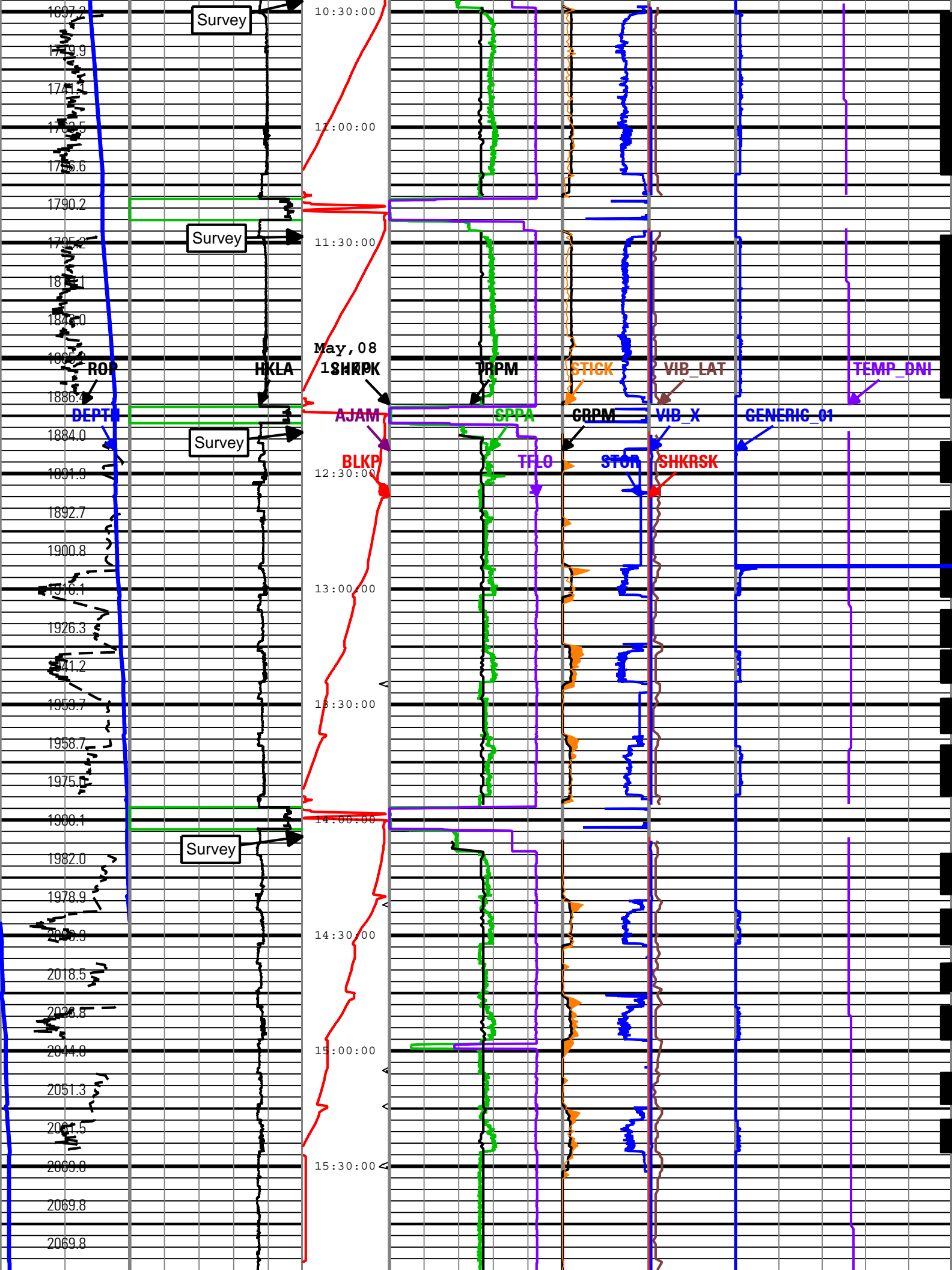


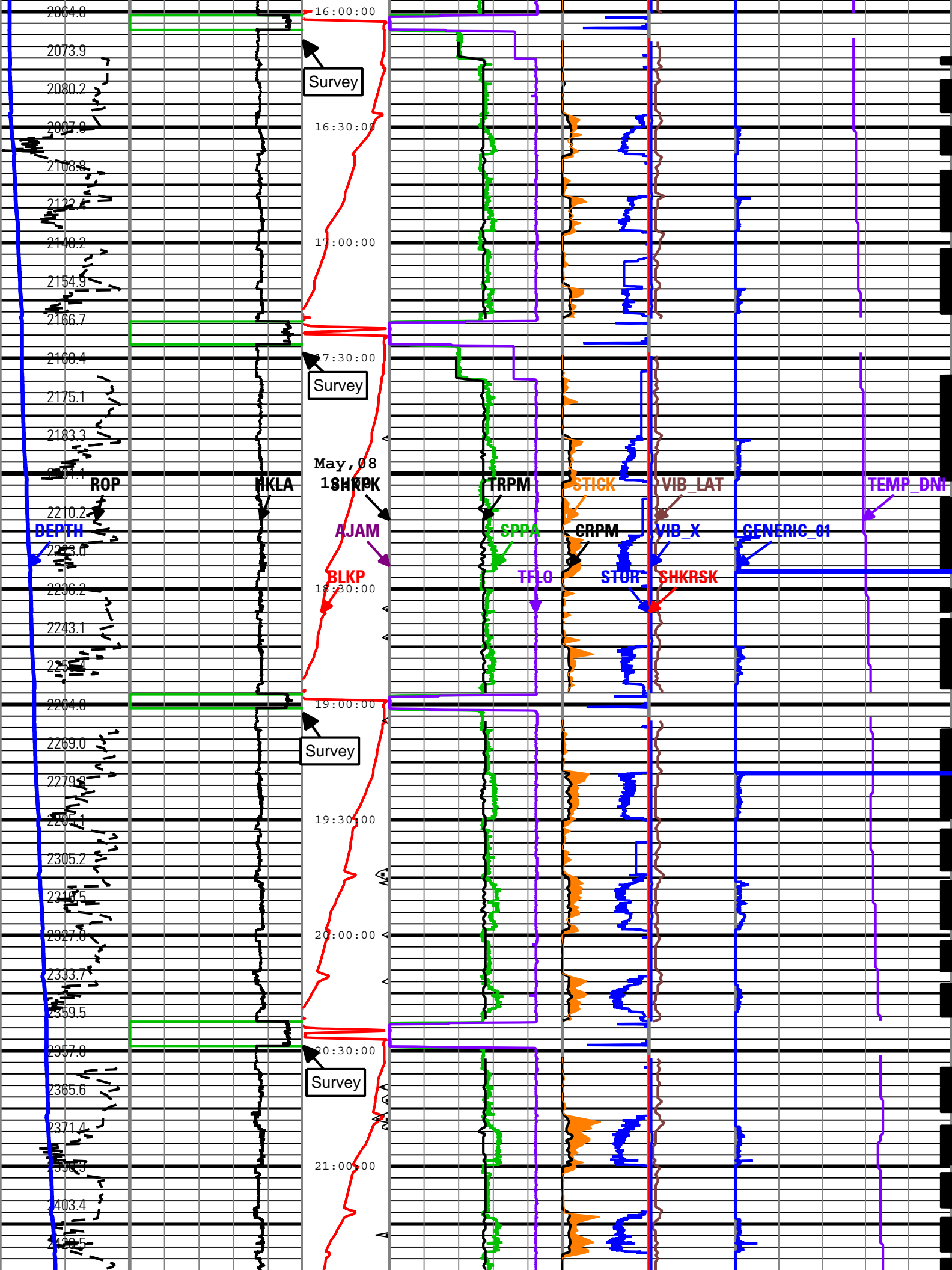


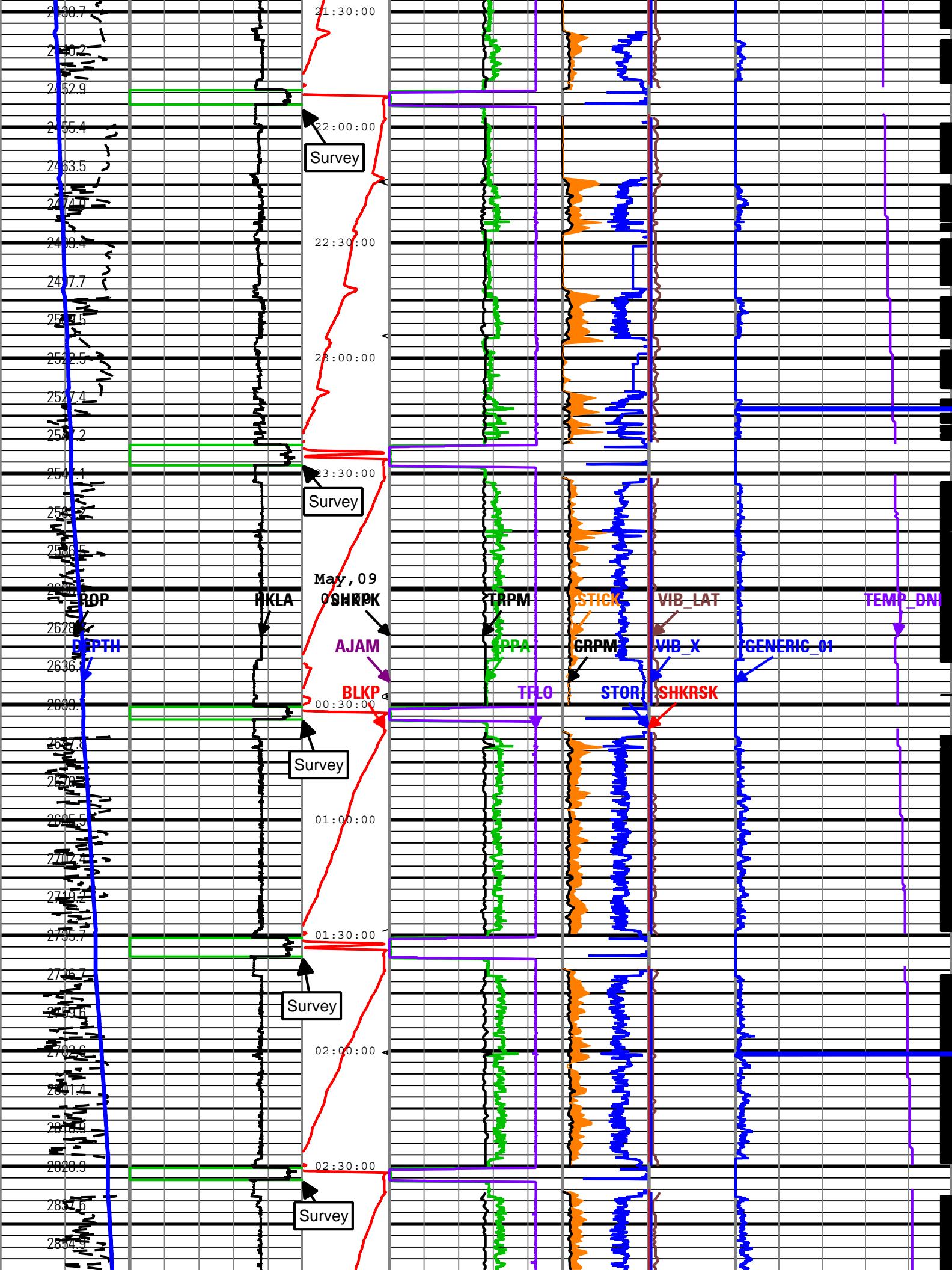


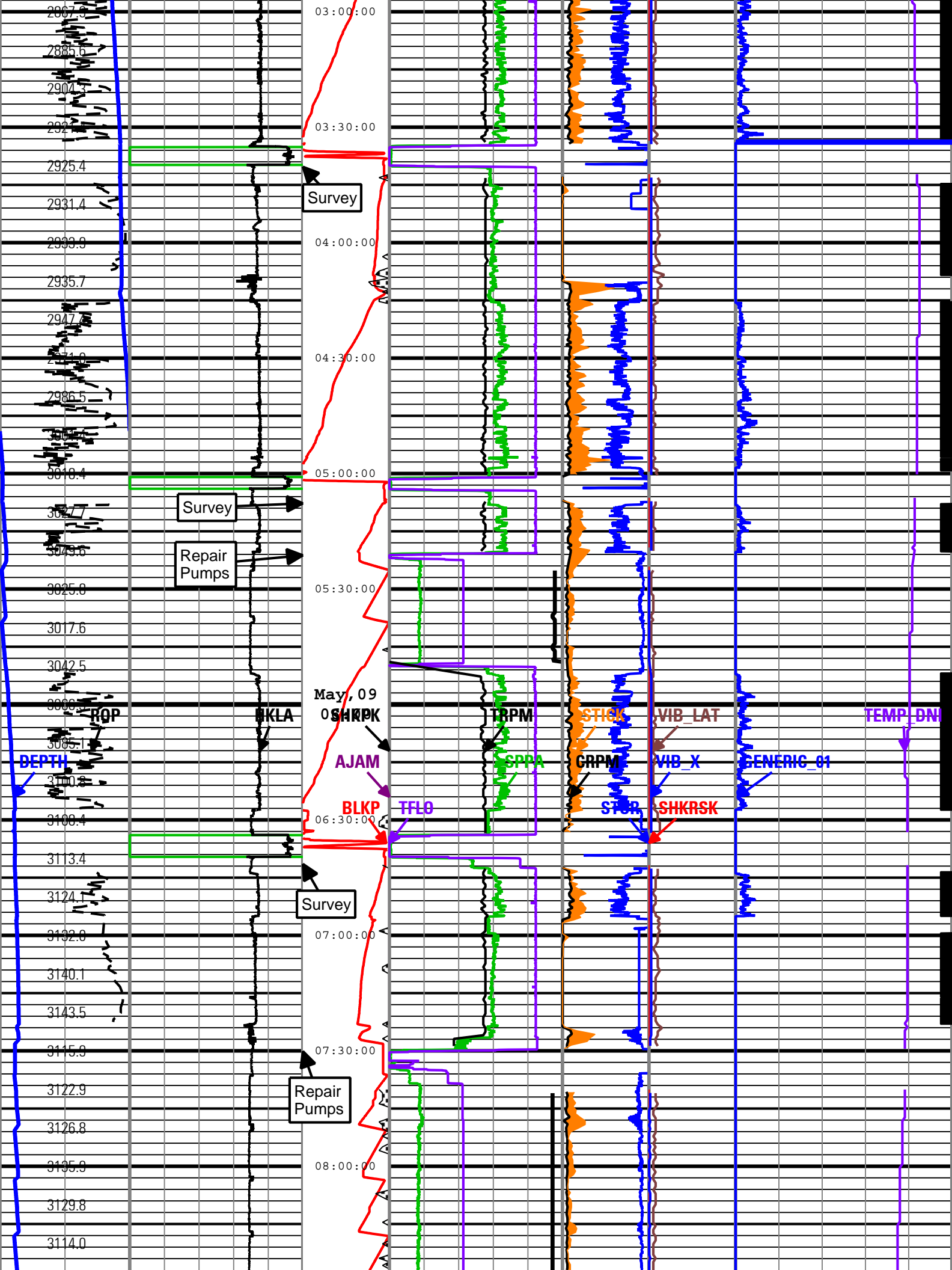


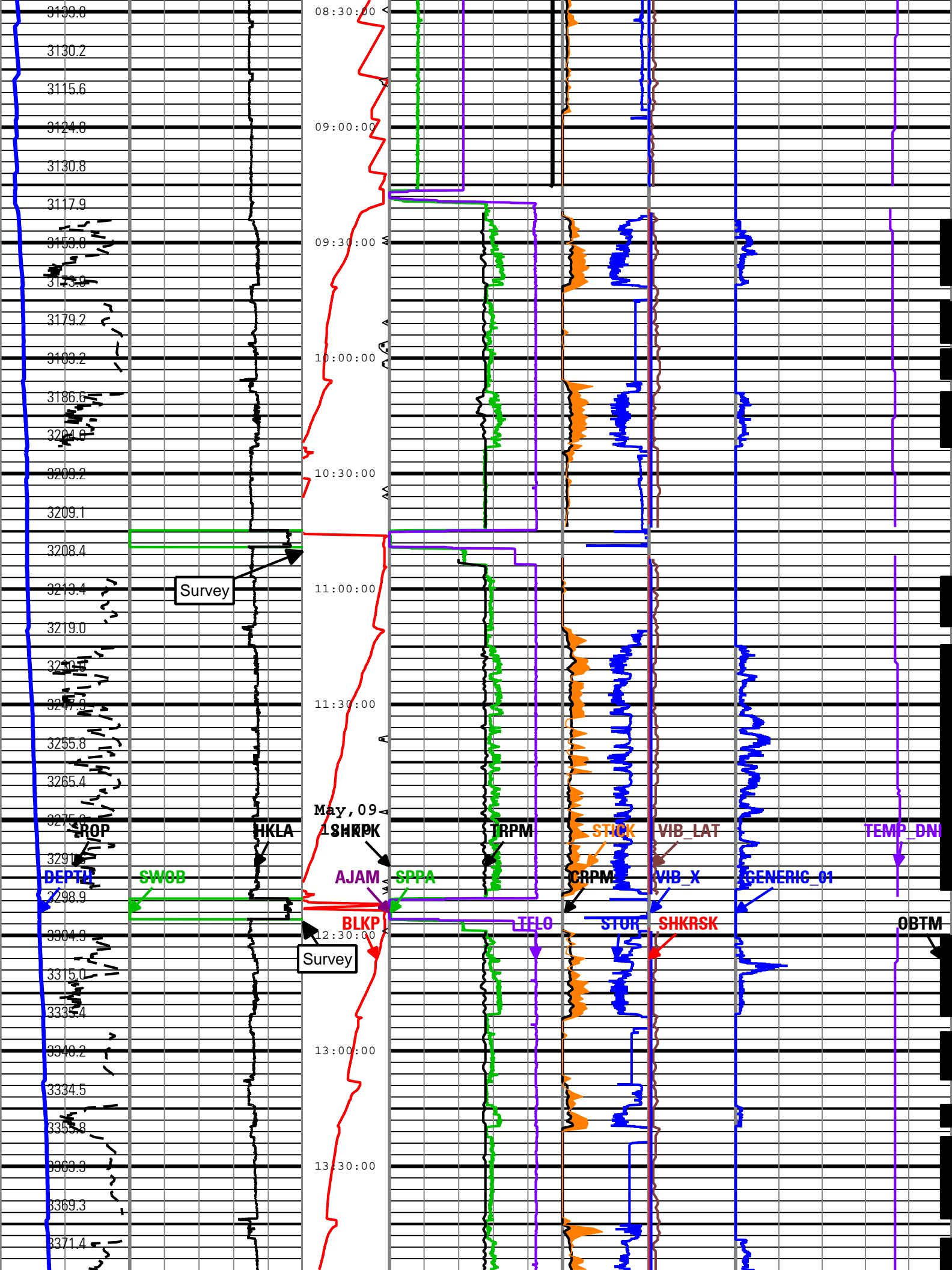


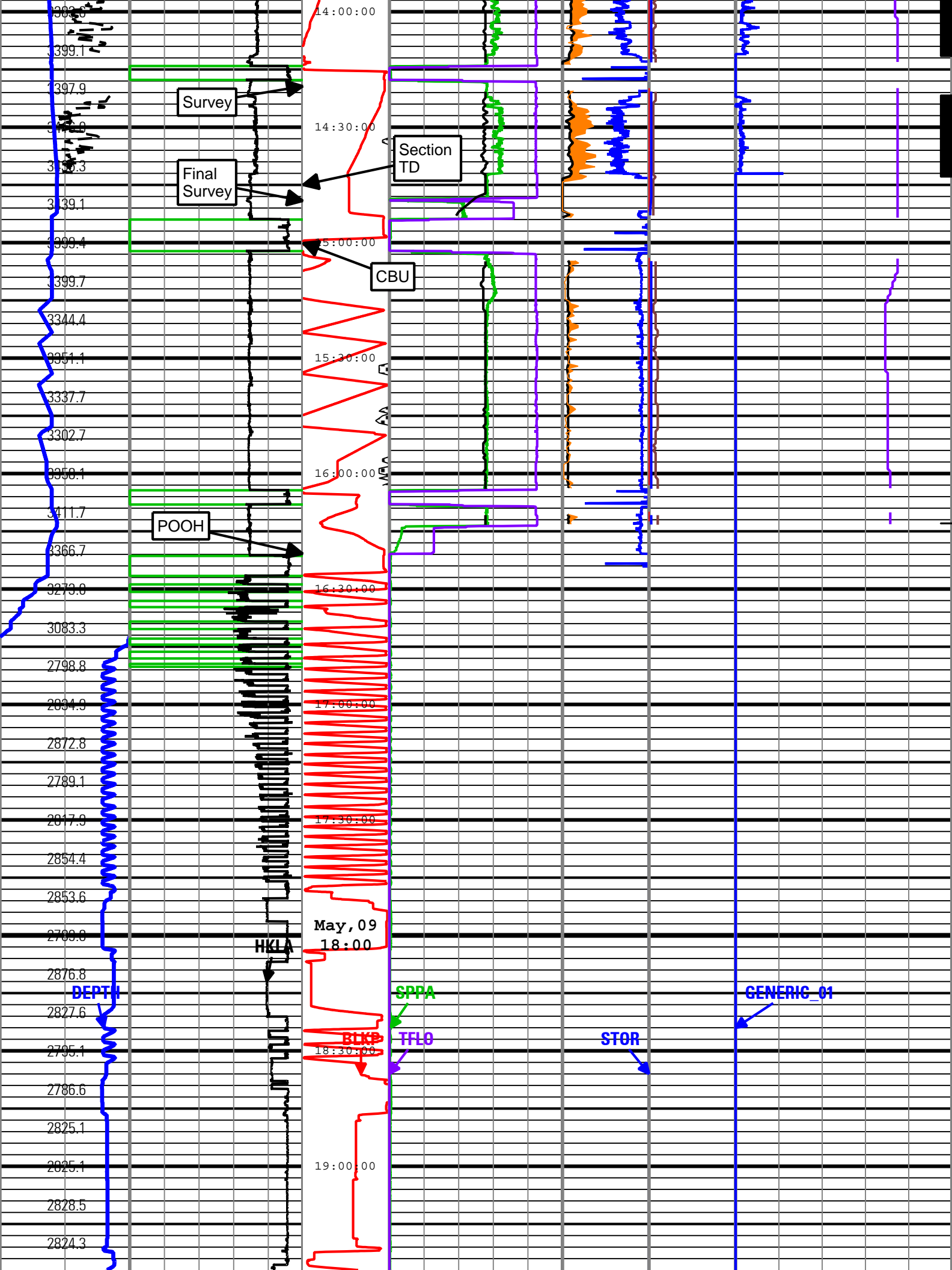


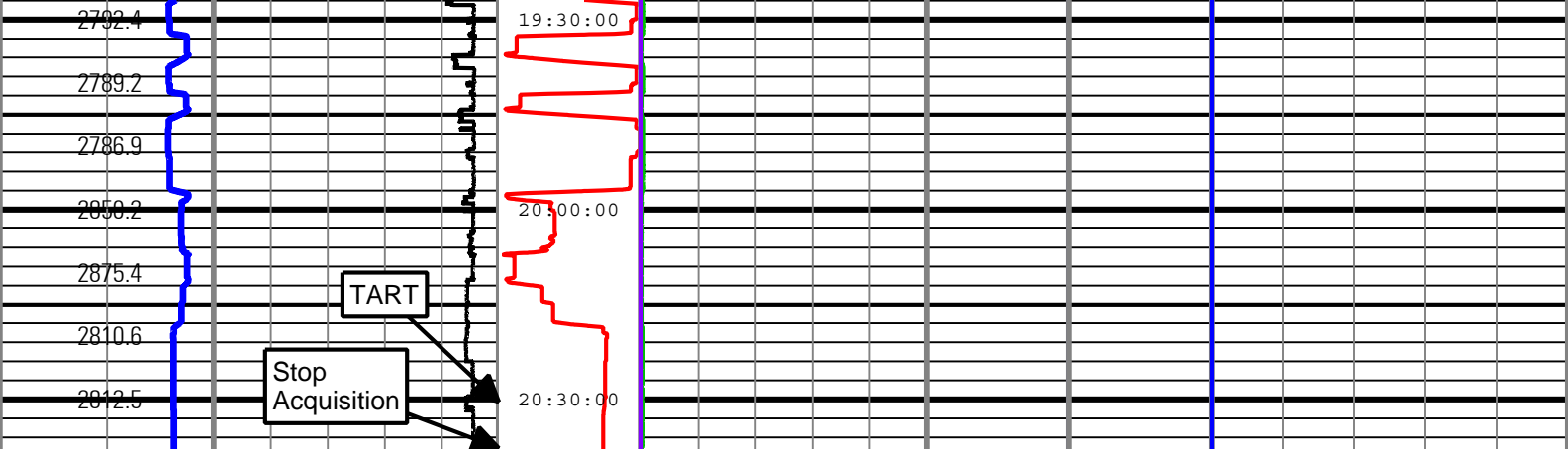












Rate of Penetration (ROP) 300 ft/h 0	Surface Weight On Bit (SWOB) 0 1000 lbf 50	Shock Peak Height of block above rig floor (BLKP) 0 ft 100	Standpipe Pressure (SPPA) 0 psi 5000	High SticknSlip	Shock Risk Shock Risk (SHKRSK) 0 5	On Bottom
Depth Index (DEPTH) ft	Average Hookload (HKLA) 500 1000 lbf 0	Number of Anti-Jams Detected (AJAM) 5 0	Total flow rate of all active pumps (TFLO) 0 gal/min 1000	Collar Rotational Speed (CRPM) 0 c/min 400	Transverse RMS Vibration (VIB_LAT) 0 gn 10	Direction and Inclination Sensor Temperature (TEMP_DNI) 50 degF 175
Depth Index (DEPTH) 0 ft 1000		Shock Peak (SHKPK) 200 gn 0	MWD Turbine Rotation Speed (TRPM) 1500 c/min 4500	Stick Slip Indicator (STICK) 0 c/min 400	RMS Vibration, X-Axis (VIB_X) 0 gn 10	Generic Channel One (GENERIC_01) 0 100
				Surface Torque (STOR) 40 0 1000 ft.lbf		

Description: TeleScope + ARC Drilling Mechanics Time RT Format: Log (PERFORM - Drilling Mechanics) Index Scale: 2 in per 3600 s Index Type: Time
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Run002

PERFORM - Drilling Mechanics

Software Version

Acquisition System		Version	
MaxWell		1.2.8706.0	
Framework Patch		FWK-BGC-20100105-1.2.8706.1067	
Application Patch		APL-SRPC-DnM-1.2.8706.1045	
Tool Elements	Description	Software Version	Firmware Version
DRILLING_SURFACE	DRILLING_SURFACE	1.2.8706.1067	

Pass Summary

Run Name	Pass Objective	Direction	Start	Stop	Acquisition Start Date	Acquisition Start Time
Run002	TimeLogicalAcq	Down	12-May-2010 03:37:11		12-May-2010	03:37:11

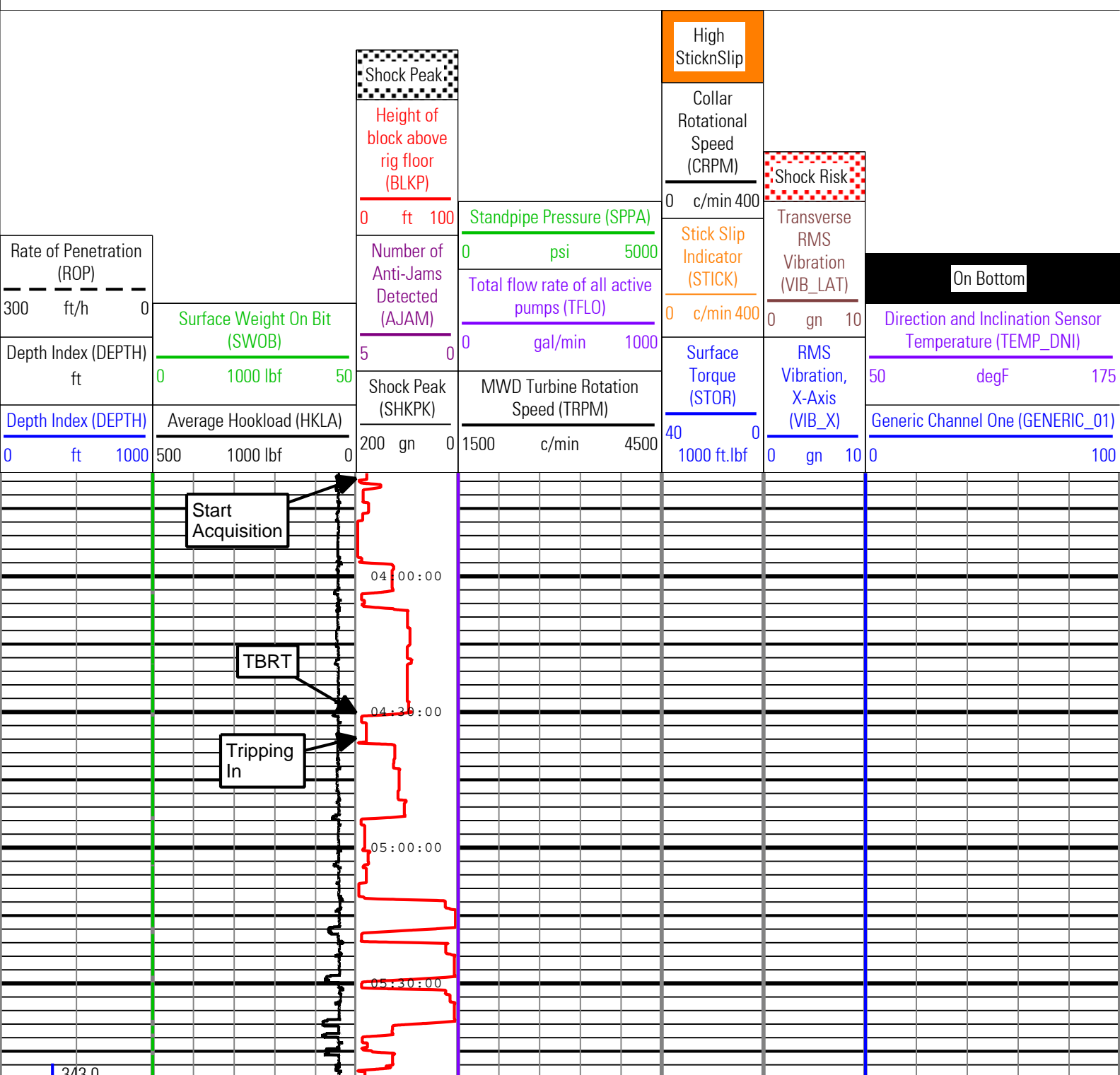
Log

Run002: TimeLogicalAcq 089F7E3C-EC6E-4A9A-AC0B-DC42312990A7

Description: TeleScope + ARC Drilling Mechanics Time RT Format: Log (PERFORM - Drilling Mechanics) Index Scale: 2 in per 3600 s Index Type: Time
 Creation Date: 13-May-2010 15:34:34

AJAM	TELE675:TELE675	ACQ - RT
BLKP	DRILLING_SURFACE	ACQ - RT
CRPM	TELE675:TELE675	ACQ - RT
DEPTH	DnMWorkflow	ACQ - RT

GENERIC_01	DRILLING_SURFACE	ACQ - RT
HKLA	DRILLING_SURFACE	ACQ - RT
OBTM	DnMWorkflow	ACQ - RT
ROP	DRILLING_SURFACE	ACQ - RT
SHKPK	TELE675:TELE675	ACQ - RT
SPPA	DRILLING_SURFACE	ACQ - RT
STICK	TELE675:TELE675	ACQ - RT
STOR	DRILLING_SURFACE	ACQ - RT
SWOB	DRILLING_SURFACE	ACQ - RT
TEMP_DNI	TELE675:TELE675	ACQ - RT
TFLO	DRILLING_SURFACE	ACQ - RT
TRPM	TELE675:TELE675	ACQ - RT
VIB_LAT	TELE675:TELE675	ACQ - RT
VIB_X	TELE675:TELE675	ACQ - RT



Start Acquisition

TBRT

Tripping In

Shock Peak

Height of block above rig floor (BLKP)

Number of Anti-Jams Detected (AJAM)

Shock Peak (SHKPK)

High SticknSlip

Collar Rotational Speed (CRPM)

Stick Slip Indicator (STICK)

Surface Torque (STOR)

Shock Risk

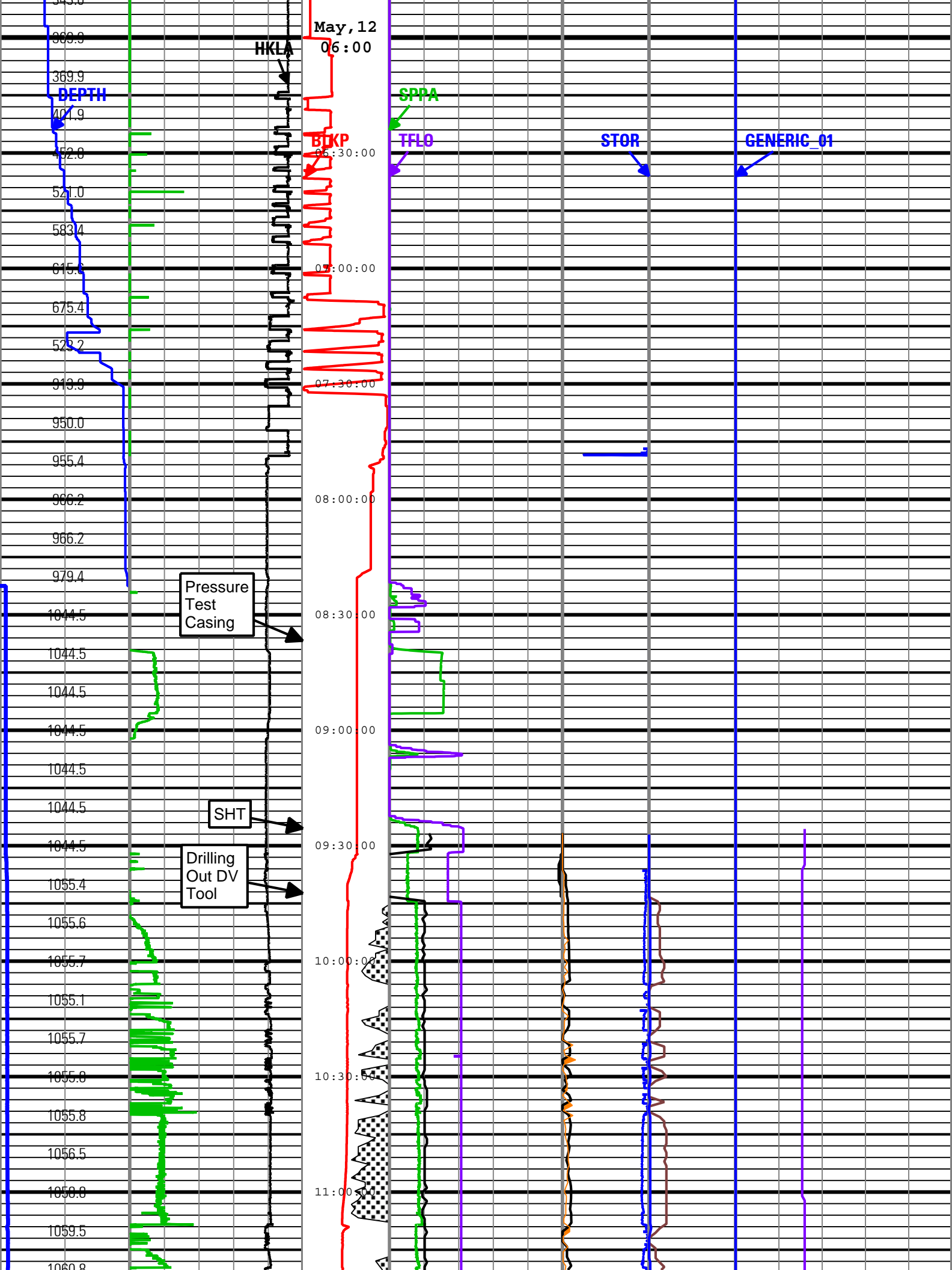
Transverse RMS Vibration (VIB_LAT)

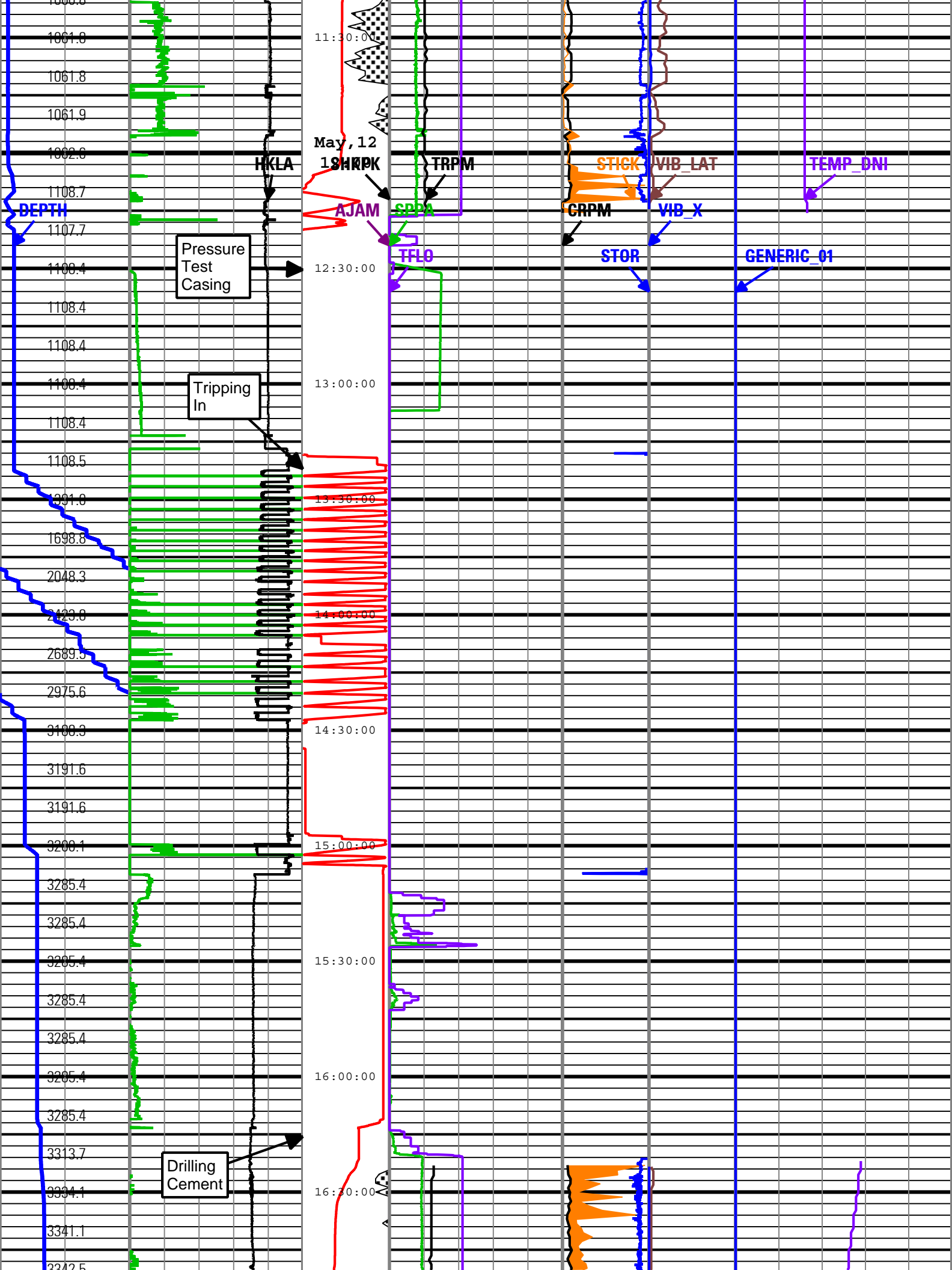
RMS Vibration, X-Axis (VIB_X)

On Bottom

Direction and Inclination Sensor Temperature (TEMP_DNI)

Generic Channel One (GENERIC_01)





DEPTH

Pressure Test Casing

Tripping In

Drilling Cement

May, 12

HKLA

AJAM

TRPM

SPDA

TFLO

STICK

VIB_LAT

VIB_X

CRPM

STOR

GENERIC_01

TEMP_DWI

11:30:00

12:30:00

13:00:00

13:30:00

14:00:00

14:30:00

15:00:00

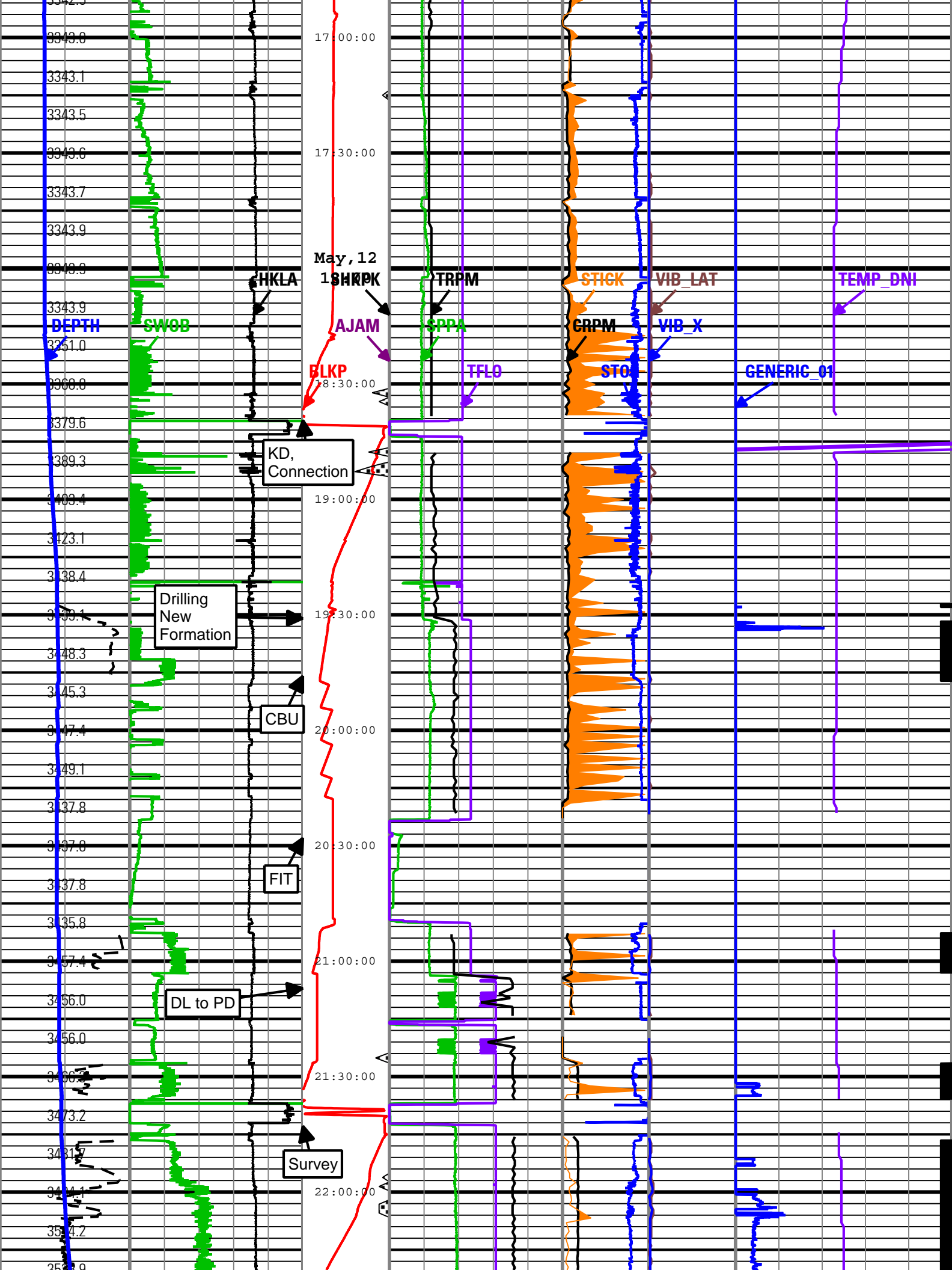
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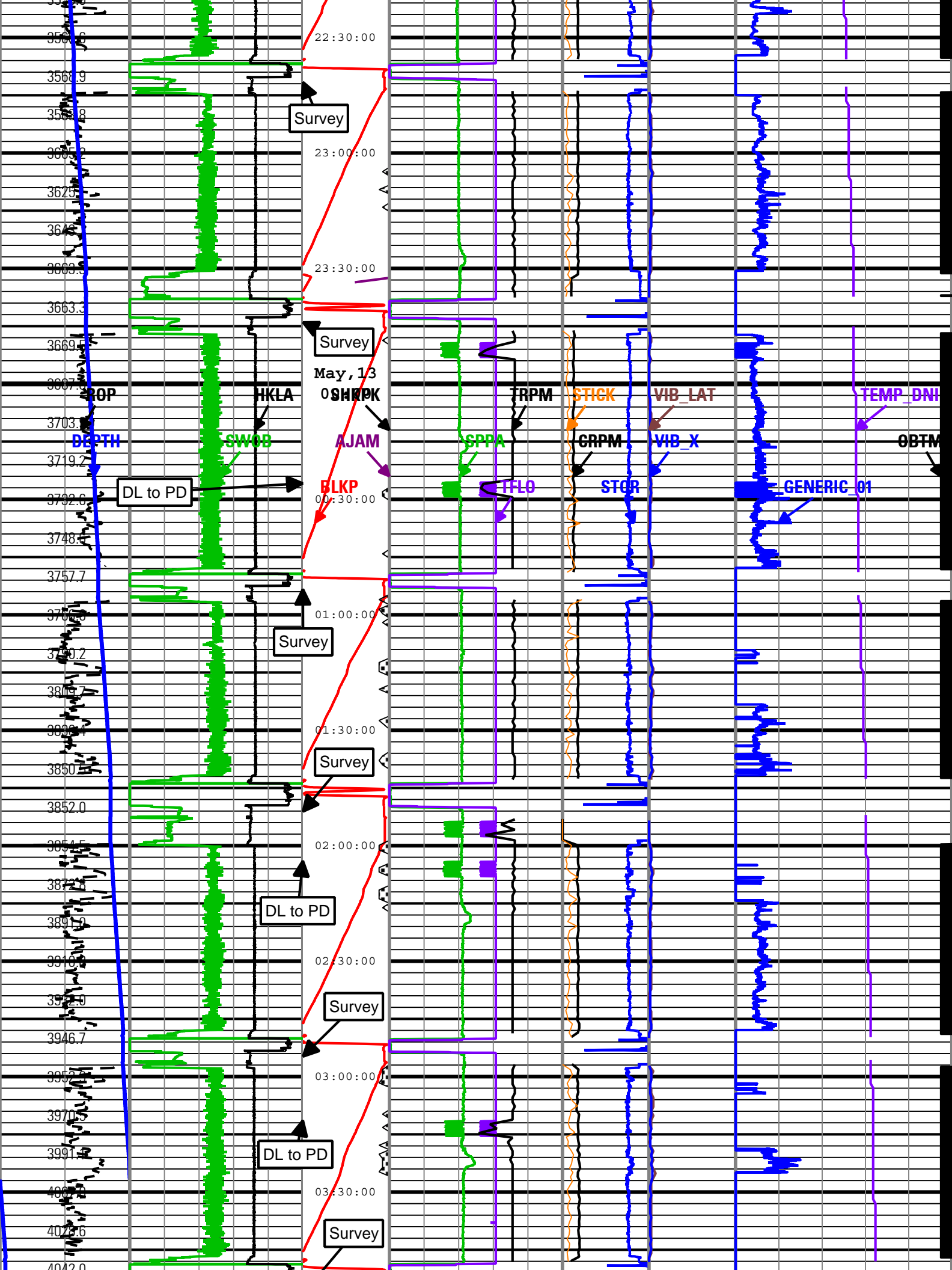
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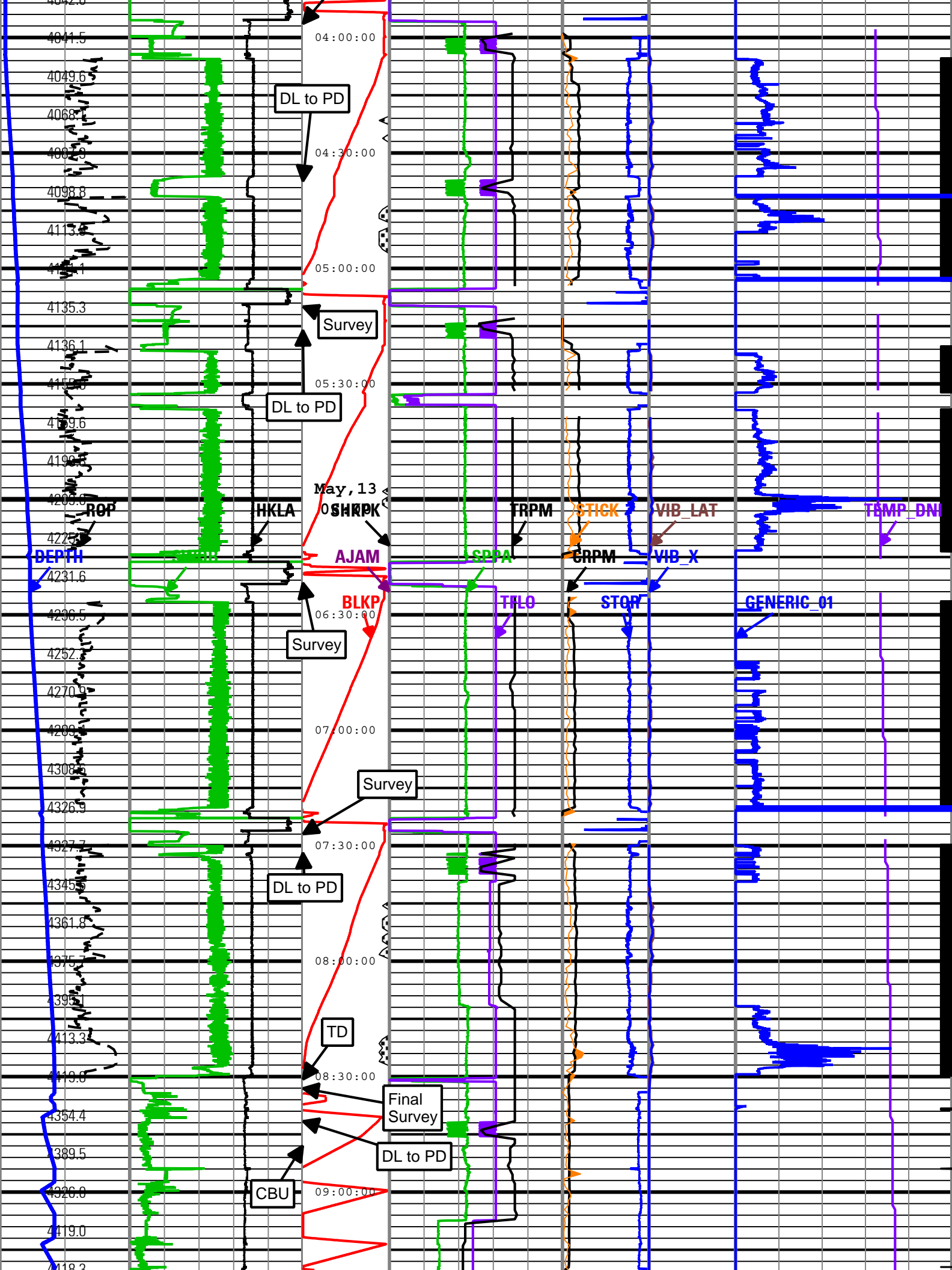
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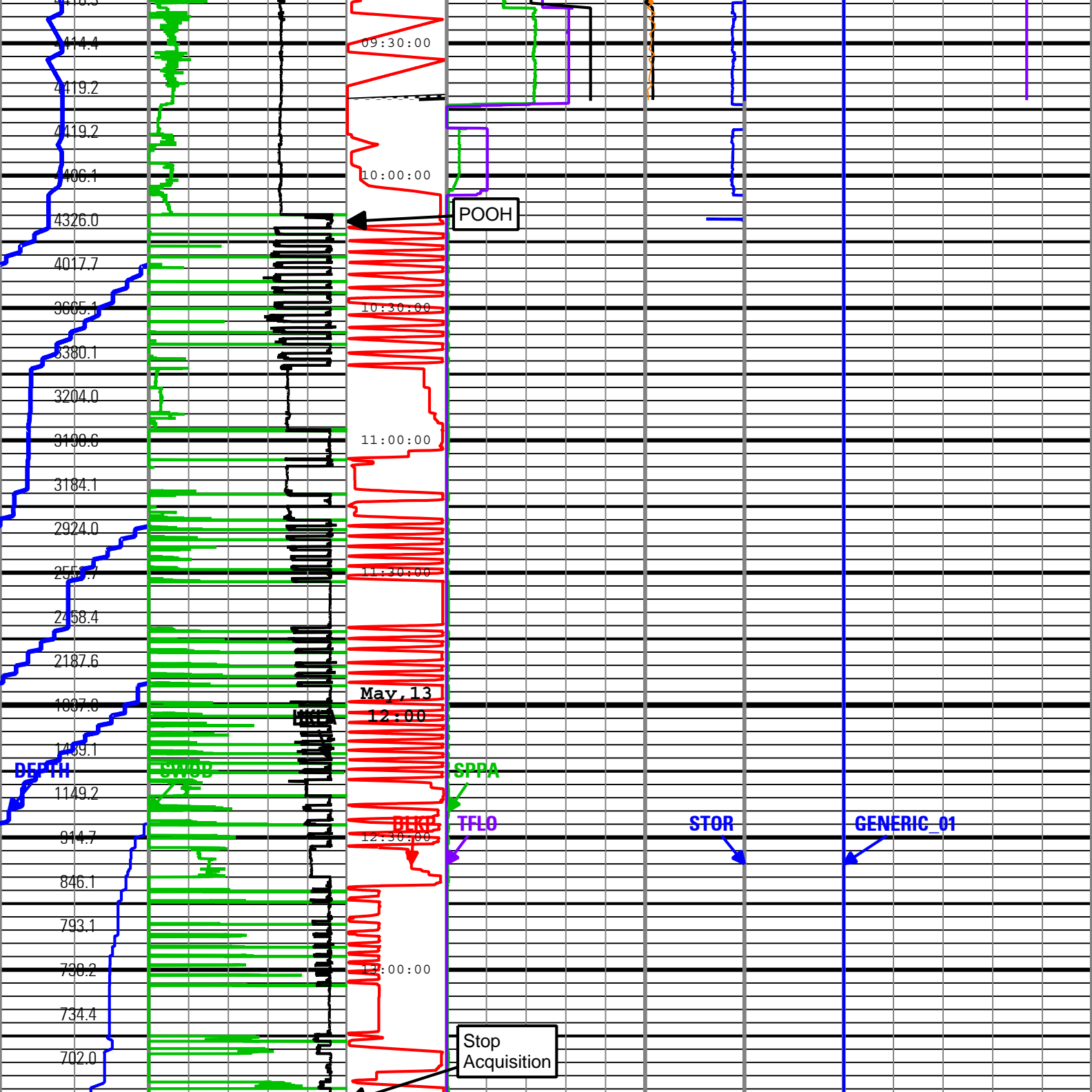
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3191.6
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15:30:00
16:00:00
16:30:00









Rate of Penetration (ROP) 300 ft/h 0	Surface Weight On Bit (SWOB) 0 1000 lbf 50	Shock Peak Height of block above rig floor (BLKP) 0 ft 100	Standpipe Pressure (SPPA) 0 psi 5000	High StickSlip Collar Rotational Speed (CRPM) 0 c/min 400	Shock Risk Transverse RMS Vibration (VIB_LAT) 0 gn 10	On Bottom Direction and Inclination Sensor Temperature (TEMP_DNI) 50 degF 175
Depth Index (DEPTH) ft	Average Hookload (HKLA) 500 1000 lbf 0	Number of Anti-Jams Detected (AJAM) 5 0	Total flow rate of all active pumps (TFLO) 0 gal/min 1000	Stick Slip Indicator (STICK) 0 c/min 400	RMS Vibration, X-Axis (VIB_X) 0 gn 10	Generic Channel One (GENERIC_01) 0 100
Depth Index (DEPTH) 0 ft 1000		Shock Peak (SHKPK)	MWD Turbine Rotation Speed (TRPM) 1500 c/min 4500	Surface Temperature		

(STOR)
200 gn 0

Torque
(STOR)
40 0
1000 ft.lbf

Description: TeleScope + ARC Drilling Mechanics Time RT Format: Log (PERFORM - Drilling Mechanics) Index Scale: 2 in per 3600 s Index Type: Time
Creation Date: 13-May-2010 15:34:34

Company: ExxonMobil Oil Corporation

Well: Freedom Unit 197 28A8

Field: Piceance Creek

County: Rio Blanco

State: Colorado

Country: U.S.A.



Schlumberger

PERFORM - Drilling Mechanics

2 in / hr Time Based

Real Time Log