

Company: Esso Australia Pty Ltd

Well: Tuna A7

Field: Prod 4 / Crane

Rig: Tuna

Country: Australia

2-1/8" Powerspirol with MWPT
4-1/2" MPBT Plug setting Record
09-01-2010

Rig: Tuna
Field: Prod 4 / Crane
Location: Gippsland
Well: Tuna A7
Company: Esso Australia Pty Ltd

LOCATION			
Gippsland	Basin Bass Strait	Elev.:	K.B. 32.90 m
			G.L. -59.00 m
			D.F. 32.90 m
Permanent Datum:	Mean Sea Level		
Log Measured From:	Drill floor		
Drilling Measured From:	Drill floor		
State: Victoria	Max. Well Deviation 52.1 deg		Longitude 148°25' 05.59"E
			Latitude 38°10'16.00"S

Logging Date 9-Jan-2010

Run Number 2 through 6

Depth Driller 2971 m

Schlumberger Depth 2750 m

Bottom Log Interval 2690.5 m

Top Log Interval 2689.2 m

Casing Fluid Type Production fluids

Salinity

Density

Fluid Level

BIT/CASING/TUBING STRING

Bit Size 8.500 in

From 1897 m

To 2918 m

Casing/Tubing Size 4.500 in

Weight 11.6 lbm/ft

Grade 13CR

From 1756 m

To 2812 m

Maximum Recorded Temperatures 221 degF

Logger On Bottom 9-Jan-2010 8:30

Unit Number 889 Location AU\$

Recorded By Shannon Gilbert

Witnessed By Greg Rimmer

Run 1

Oil Density
Water Salinity
Gas Gravity
Bo
Bw
1/Bg
Bubble Point Pressure
Bubble Point Temperature
Solution GOR
Maximum Deviation
CEMENTING DATA
Primary/Squeeze
Casing String No
Lead Cement Type
Volume
Density
Water Loss
Additives
Tail Cement Type
Volume
Density
Water Loss
Additives

52.1 deg

Primary

Expected Cement Top

Logging Date

Run Number

Depth Driller

Schlumberger Depth

Bottom Log Interval

Top Log Interval

Casing Fluid Type

Salinity

Density

Fluid Level

BIT/CASING/TUBING STRING

Bit Size

From

To

Casing/Tubing Size

Weight

Grade

From

To

Maximum Recorded Temperatures

Logger On Bottom 889 Location

Unit Number

Recorded By

Witnessed By

DEPTH SUMMARY LISTING

Date Created: 7-JAN-2010 9:42:32

Depth System Equipment

Depth Measuring Device		Tension Device	Logging Cable	
Type:	IDW-EB	Type:	2-32ZT	
Serial Number:	6373	Serial Number:	208558	
Calibration Date:	9-Oct-2009	Calibration Date:	4-1-2010	
Calibrator Serial Number:	30	Calibrator Serial Number:	854	
Calibration Cable Type:	2-32ZT	Number of Calibration Points:	10	
Wheel Correction 1:	0	Calibration RMS:	277	
Wheel Correction 2:	2	Calibration Peak Error:	324	
			Conveyance Method:	Wireline
			Rig Type:	Offshore Fixed

Depth Control Parameters

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	Tuna A7
Reference Log Run Number:	
Reference Log Date:	17-Feb-2008
Subsequent Trip Down Log Correction:	

Depth Control Remarks

1. Correlated to ExxonMobil solar composite log provided by client
2. Used IDW as primary depth control
3. Used Z-Chart as secondary depth control
4.
5.
6.

DISCLAIMER

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OTHER SERVICES1
OS1: PLT-RST SIGMA Mode


















REMARKS: RUN NUMBER 1
Correlated to ExxonMobile solar composite log.
Objective # 1: Perforate well
Prepare 1.3m of 2-1/8" 6spf,45 deg phased enerjet gun with MWPT.
RIH correlate and place gun over interval 2689.2m - 2690.5m MDKB,
Top Shot @ 2689.2m MDKB
CCL to Top Shot = 3.4m
CCL Stop Depth = 2695.8

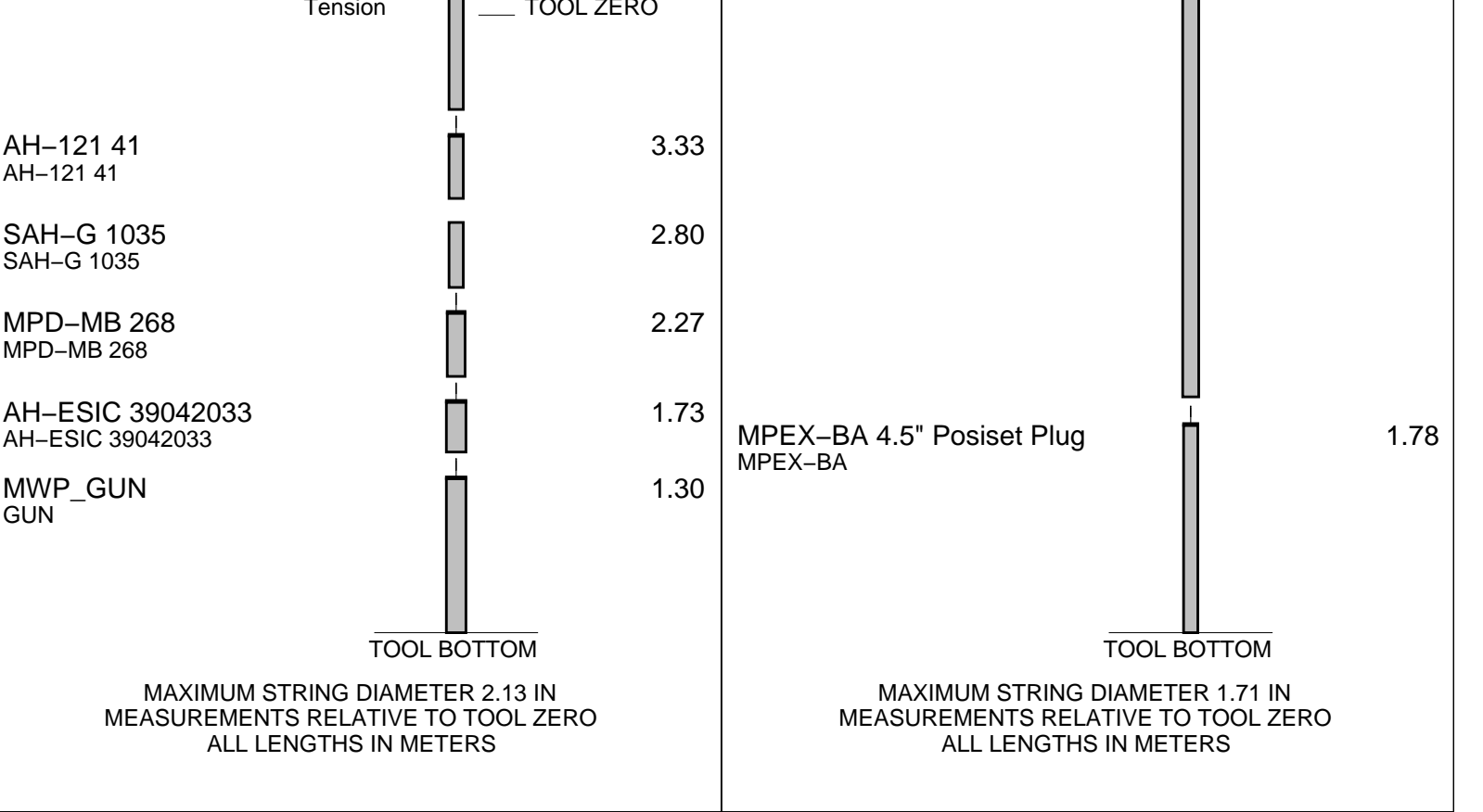
CCL Stop Depth = 2085.8					
SBHP = 2454Psia, SBHT = 216DegF / FBHP = 2452Psia, FBHT 218DegF.					
Objective 2: Make up dummy MPBT plug with GR/CCL and RIH to ensure access to 2750m MDKB.					
Prepare MPBT setting tool with 4 1/2" MPBT plug suitable for lbs casing, RIH					
and set plug with top sealing element positioned @ 2725m MDKB.					
Top of Seal @ 2725m MDKB					
CCL To Top of Seal = 6.65m					
CCL Stop Depth = 2718.35					
Objective 3 :Make up dump bailer toolstring RIH and dump fresh water then approximately 1.4m of Cement on top of the Plug.					
Crew:					
Gary M , Andrew M & Peter L					

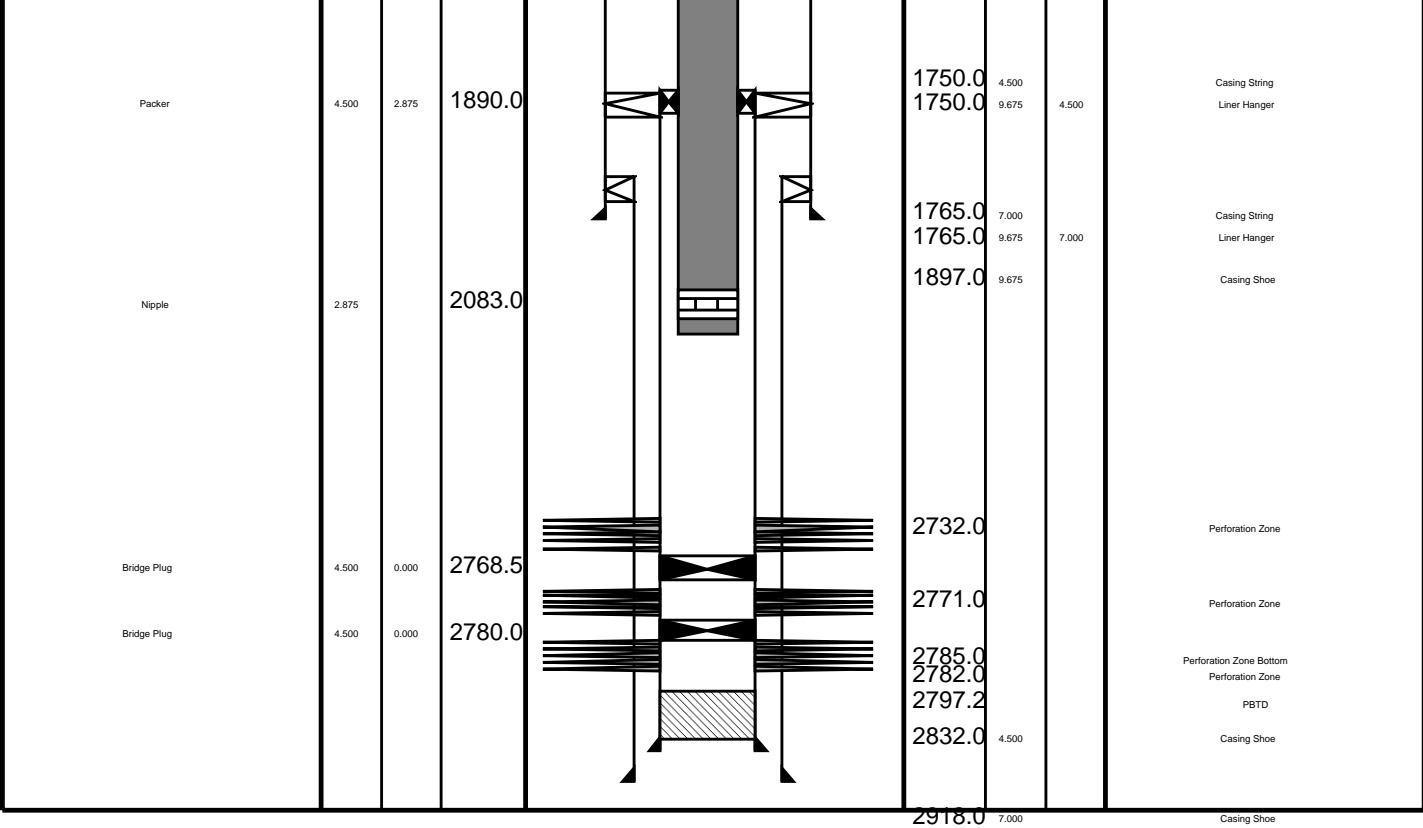
RUN 1					
SERVICE ORDER #:		B69I-00015			
PROGRAM VERSION:		17C0-154			
FLUID LEVEL:					
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		

SURFACE EQUIPMENT			SURFACE EQUIPMENT		
MWPM-AA			MPBM 165		

DOWNHOLE EQUIPMENT			DOWNHOLE EQUIPMENT		
SWBS-B 785		11.07	SWBS-B 785		12.18
SWBS-B 786		10.42	SWBS-B 786		11.54
SWBS-B 787		9.78	SWBS-B 787		10.89
SWBS-B 788		9.13	SWBS-B 788		10.25
SWBS-B 789		8.49	SWBS-B 789		9.60
SWBH 759		7.84	SWBH 759		8.96
AH-124 7002		7.36	CCL-PCCL CCL-PCCL		TOOL ZERO8.48
MWGT-AA MWPG-AA 69 MWGH-AA 69		7.13	MPSU-BA 20 MPSU-BA 20		8.02
	MWPG GR	2.41			
MWPT-CA MWPH-AA 74 MWPS-AA 74		6.15			
	CCL SMWP Pres SMWP Temp				





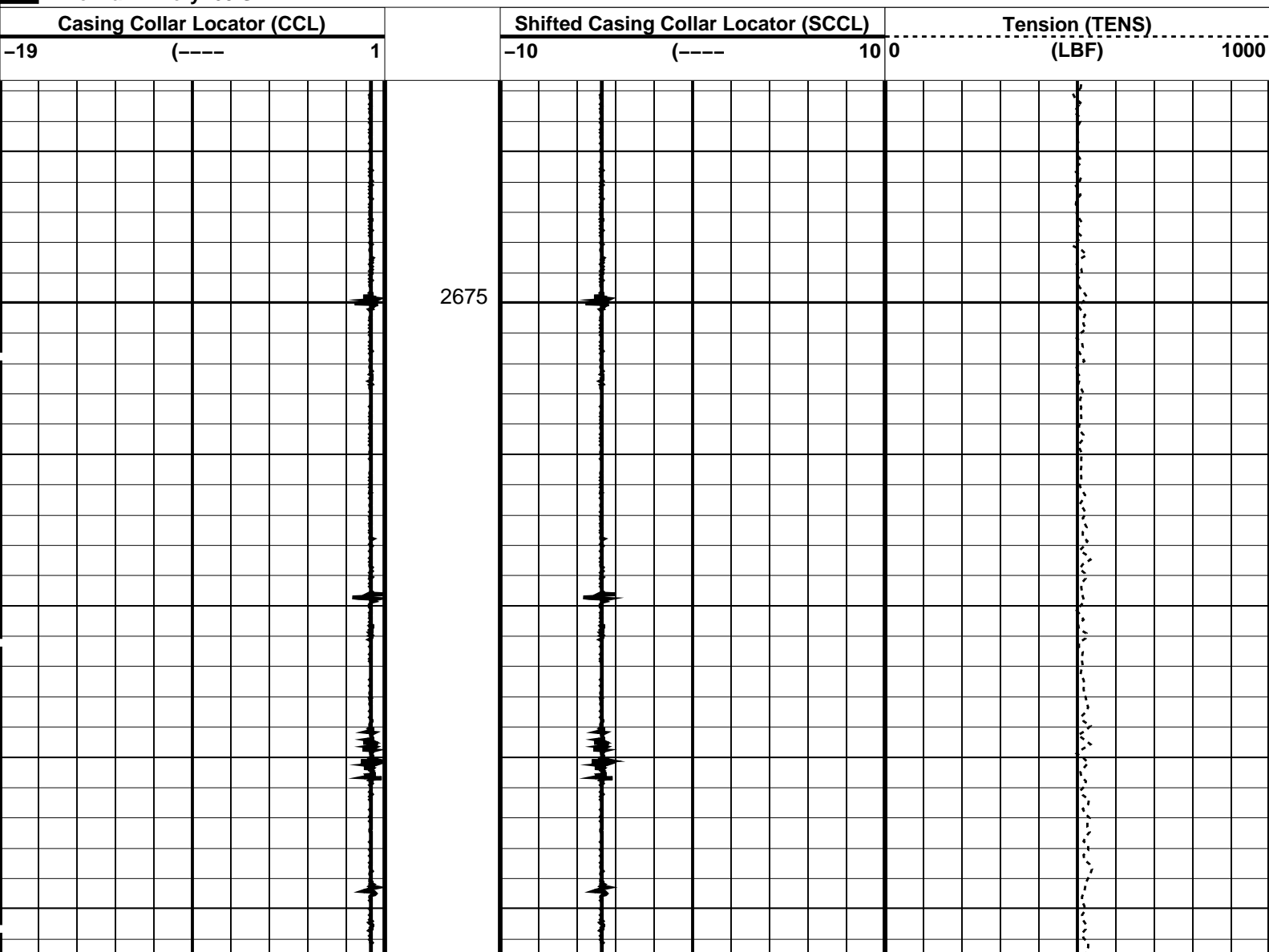
Schlumberger

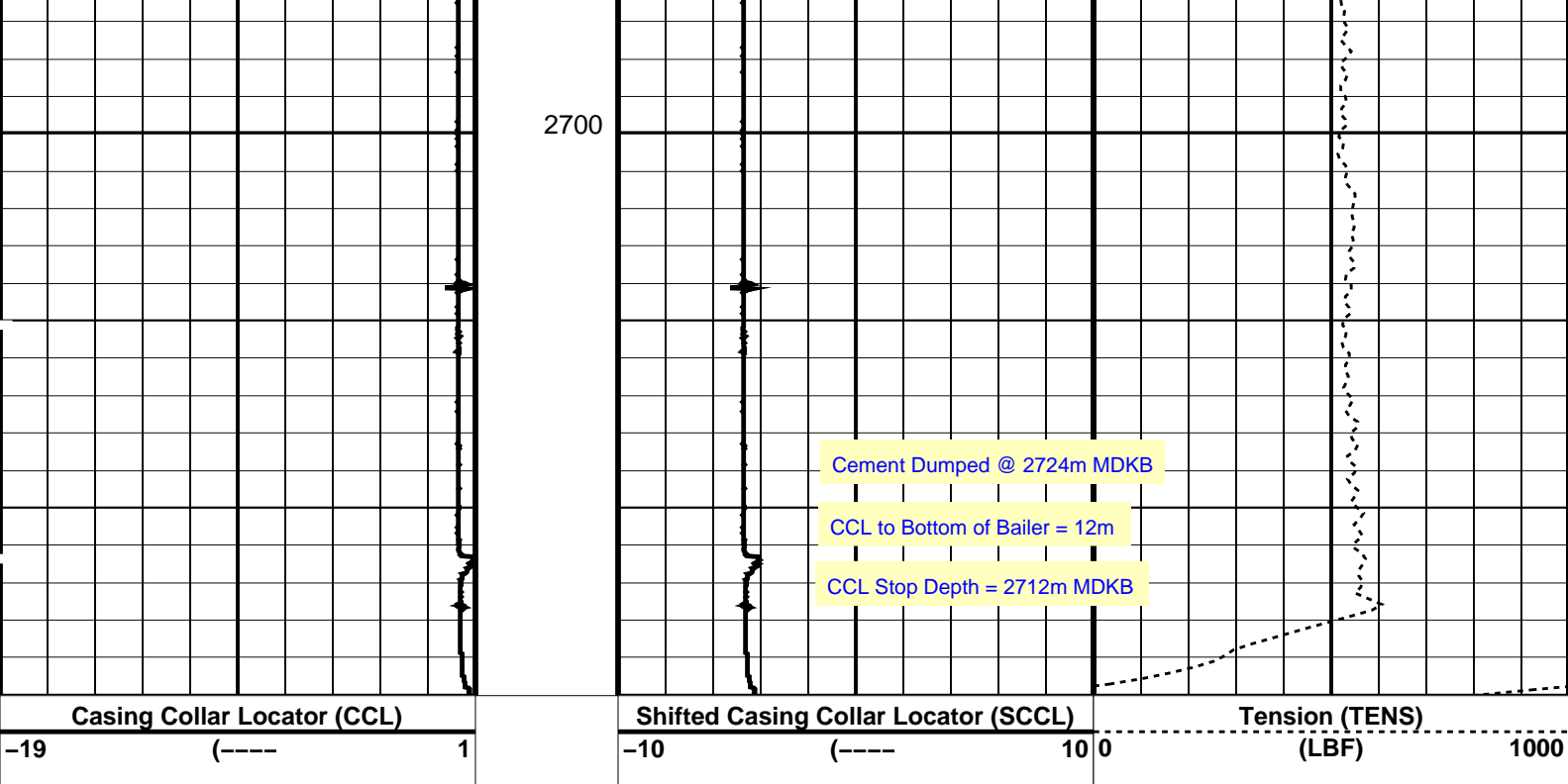
Job Events Summary

MAXIS Field Log

Schlumberger Job Event Summary

	Time	Elapsed Time	Depth (M)	File
Log Pass (up)	9-Jan-2010 8:41	000:04	2711.3 - 2668.8	PERFO_019LUP
Log Pass (up)	9-Jan-2010 8:47	000:49	2705.1 - 2647.0	PERFO_020LUP
Station Log	9-Jan-2010 8:51	000:39	2685.8	PERFO_021LTP
Log Pass (up)	9-Jan-2010 11:19	000:39	2749.4 - 2041.7	PERFO_025LUP
Log Pass (up)	9-Jan-2010 14:56	000:04	2708.5 - 2673.6	MPBT_043LUP
Simulated Log	9-Jan-2010 15:06	000:15		MPBT_044LUP
Log Pass (up)	9-Jan-2010 15:21	000:05	2718.2 - 2672.3	MPBT_045LUP
Log Pass (up)	10-Jan-2010 7:41	000:05	2714.5 - 2671.9	PERFO_053LUP
Log Pass (up)	10-Jan-2010 9:19	000:09	2716.1 - 2668.7	PERFO_057LUP





PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
CCLD	CCL-PCCL: Casing Collar Locator	12 IN
CCLT	CCL reset delay	0.3 V
	CCL Detection Level	
DO	System and Miscellaneous	
PP	Depth Offset for Playback	-1.0 M
	Playback Processing	NORMAL

Format: PERFO Vertical Scale: 1:200

Graphics File Created: 10-Jan-2010 09:29

OP System Version: 17C0-154

SHM_GUN 17C0-154 CCL-PCCL 17C0-154

Input DLIS Files

DEFAULT PERFO_057LUP FN:56 PRODUCER 10-Jan-2010 09:19 2716.1 M 2668.7 M

Output DLIS Files

DEFAULT PERFO_058PUP FN:57 PRODUCER 10-Jan-2010 09:29

Schlumberger

2-1/8" Dump Bailer
Water Dump

MAXIS Field Log

Input DLIS Files

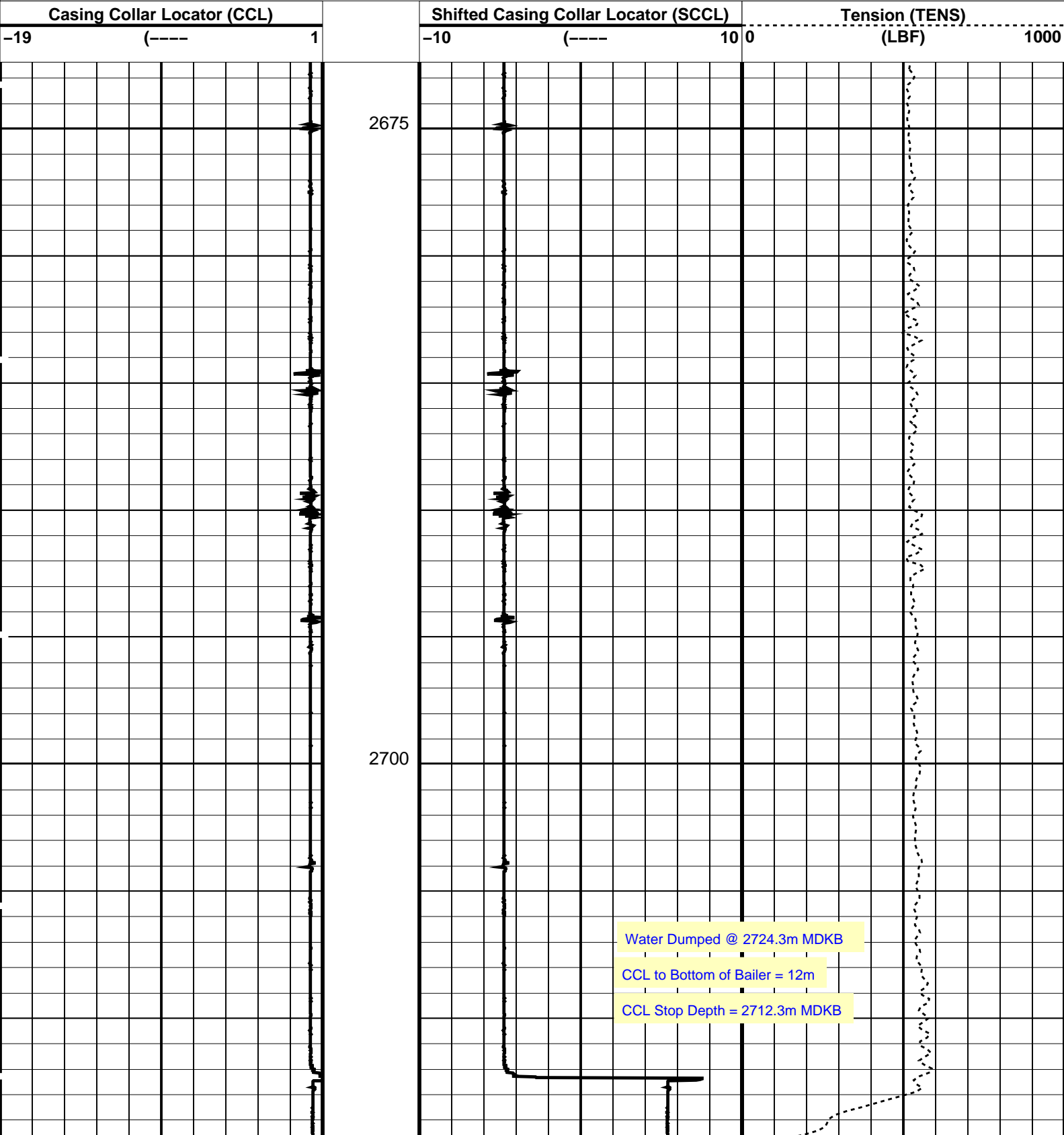
Output DLIS Files

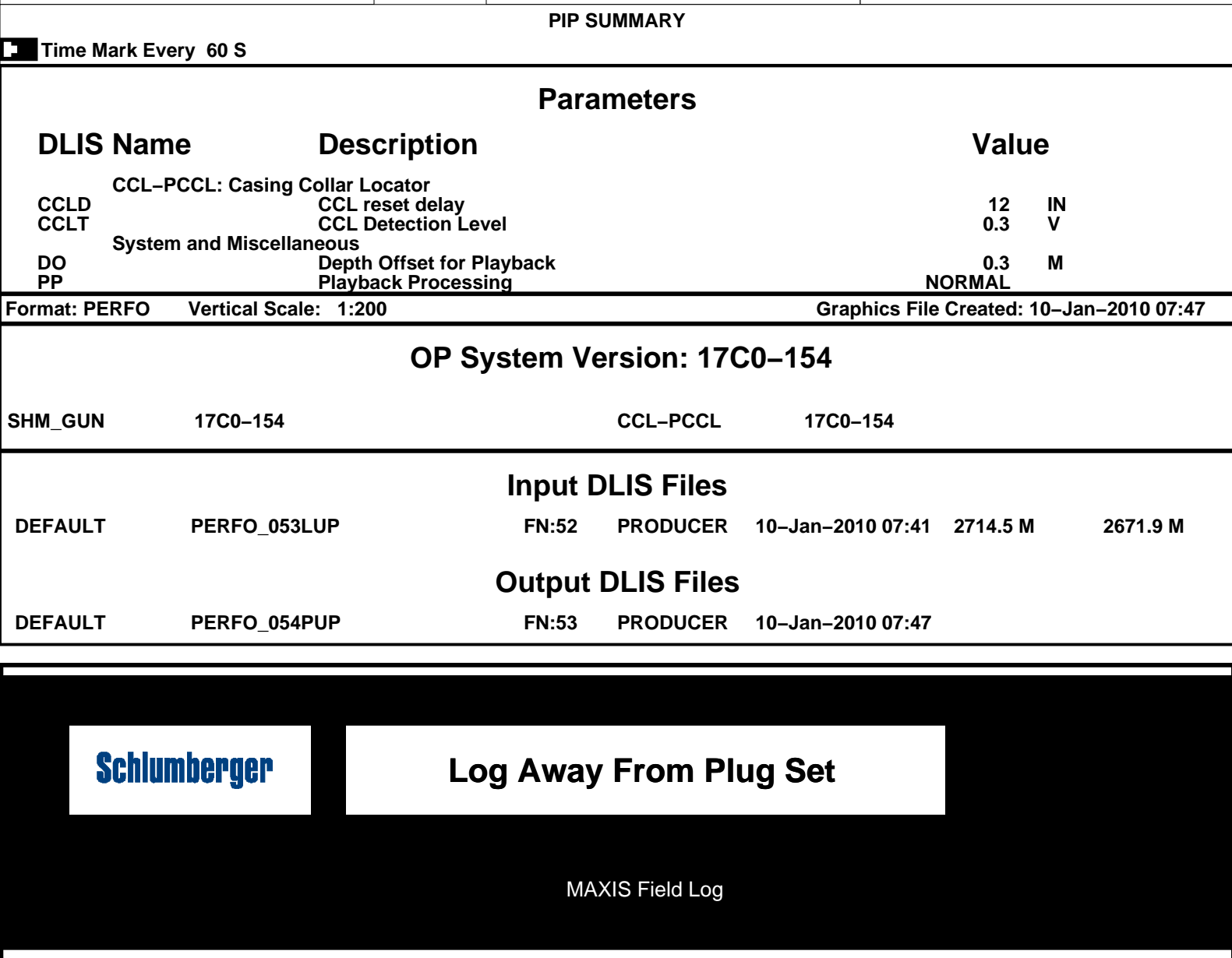
OP System Version: 17C0-154

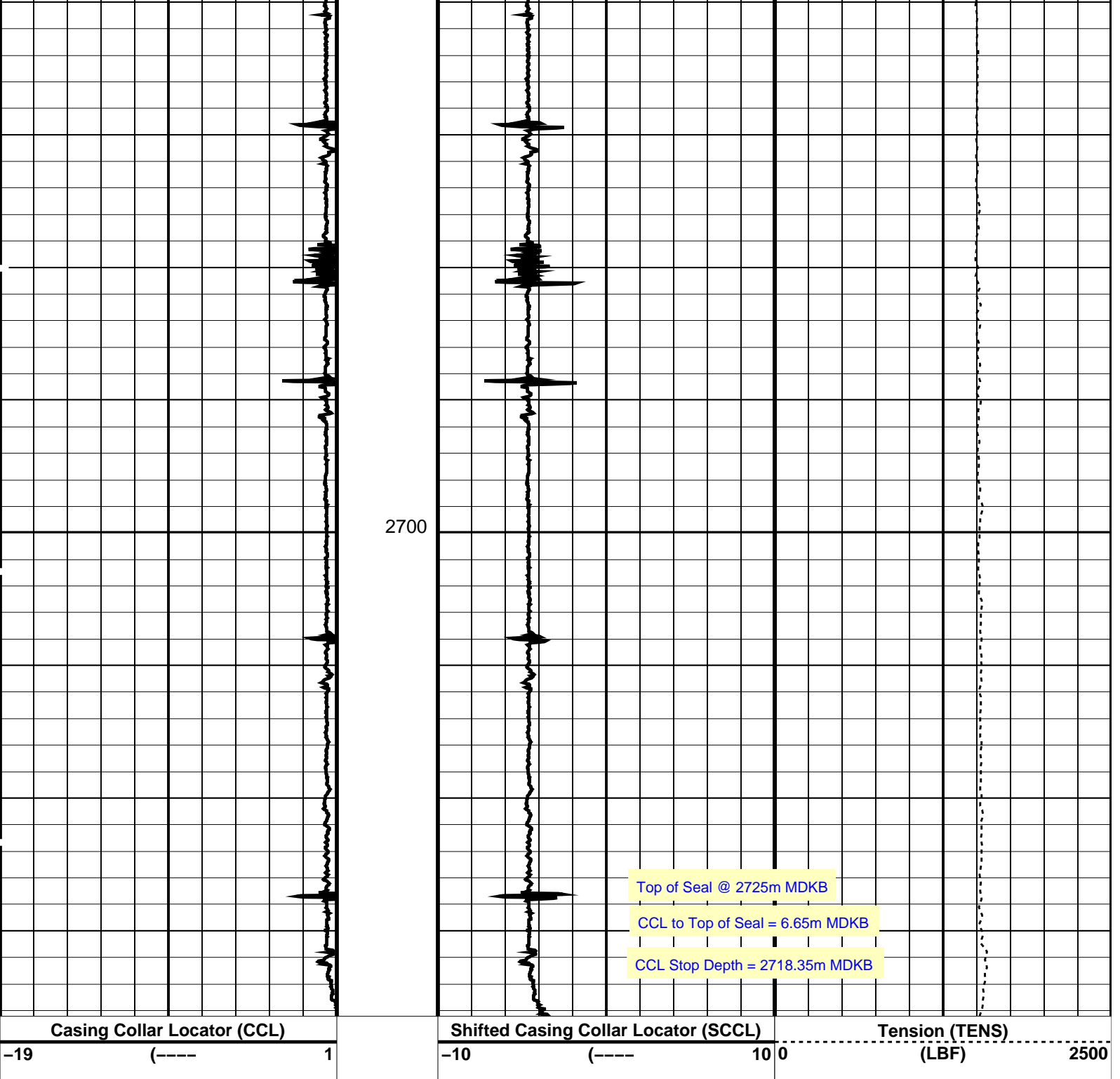
SHM_GUN17C0-154CCL-PCCL17C0-154

PIP SUMMARY

Time Mark Every 60 S







PIP SUMMARY

Time Mark Every 60 S

Parameters		
DLIS Name	Description	Value
CCLD	CCL-PCCL: Casing Collar Locator	
CCLT	CCL reset delay	12 IN
	CCL Detection Level	0.3 V

Format: PERFO Vertical Scale: 1:200 Graphics File Created: 09-Jan-2010 15:21

OP System Version: 17C0-154			
MPEX-BA	17C0-154	MPSU-BA	17C0-154
CCL-PCCL	17C0-154		

Output DLIS Files



4-1/2" MPBT Posiset Plug

Setting Record

MAXIS Field Log

Output DLIS Files

OP System Version: 17C0-154

MPEX-BA17C0-154

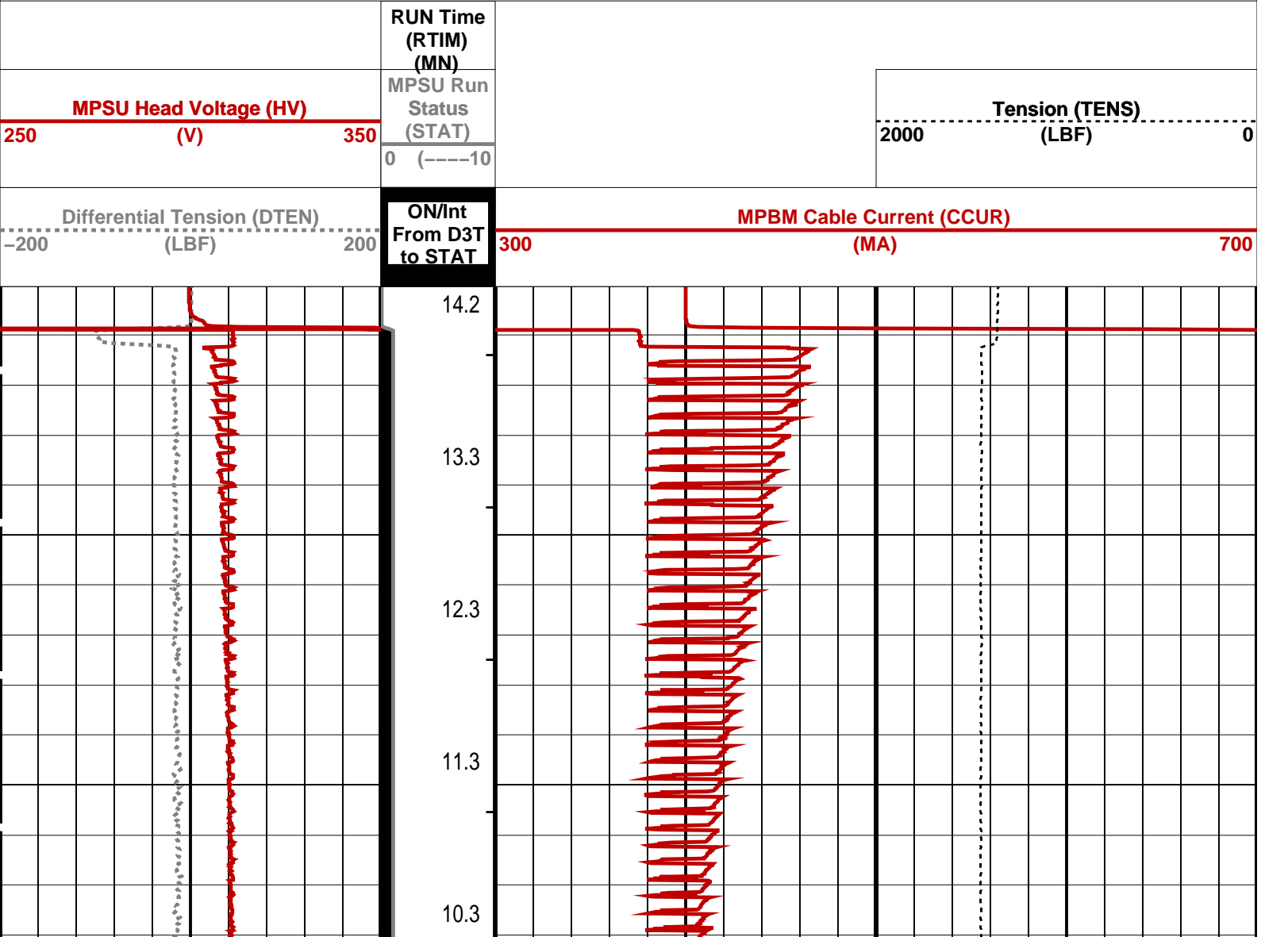
CCL-PCCL17C0-154

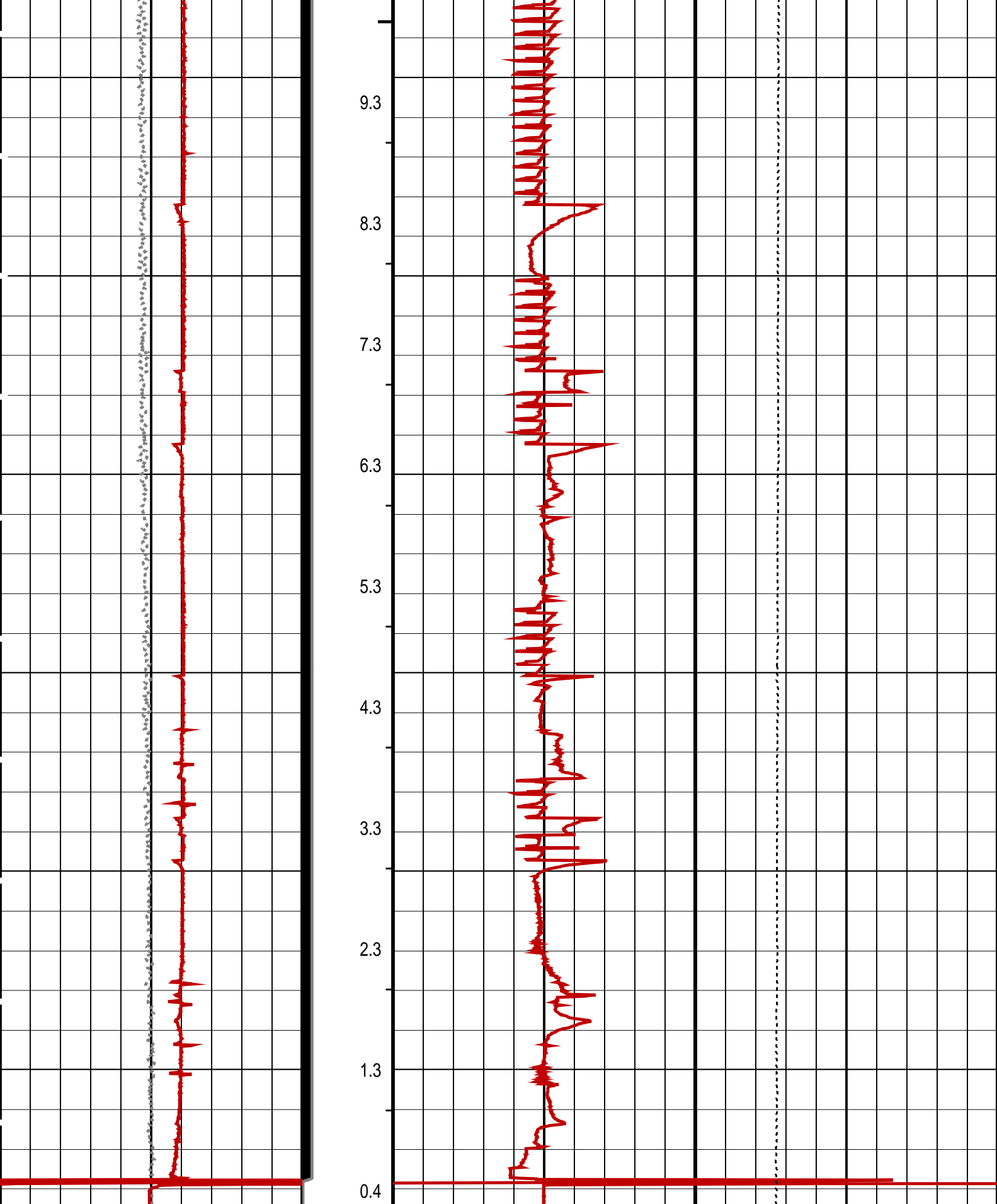
MPSU-BA17C0-154

PIP SUMMARY

- ➔ MPSU Run Time Every 1 MN
- ➔ MPSU Run Time Every 10 MN

Time Mark Every 60 S





Differential Tension (DTEN) (LBF)	ON/Int From D3T to STAT	MPBM Cable Current (CCUR) (MA)	Tension (TENS)
-200		300	
200		700	

MPSU Head Voltage (HV)	MPSU Run Status (STAT)	Tension (TENS)
0.4		

350	(V)	350	(STAT)	2000	(LBF)	0
			0 (----10			
			RUN Time (RTIM) (MN)			

PIP SUMMARY

- MPSU Run Time Every 1 MN
- MPSU Run Time Every 10 MN

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
MPSU-BA: MECHANICAL PLUGBACK SETTING UNIT IPUMP	Intensifier Pump	TRUE

Format: MPBT Vertical Scale: 1:600 Graphics File Created: 09-Jan-2010 15:06

OP System Version: 17C0-154

MPEX-BA	17C0-154	MPSU-BA	17C0-154
CCL-PCCL	17C0-154		

Output DLIS Files

DEFAULT MPBT_044LUP FN:43 PRODUCER 09-Jan-2010 15:06

Schlumberger

4-1/2" MPBT Posiset Plug
Correlation Pass

MAXIS Field Log

Output DLIS Files

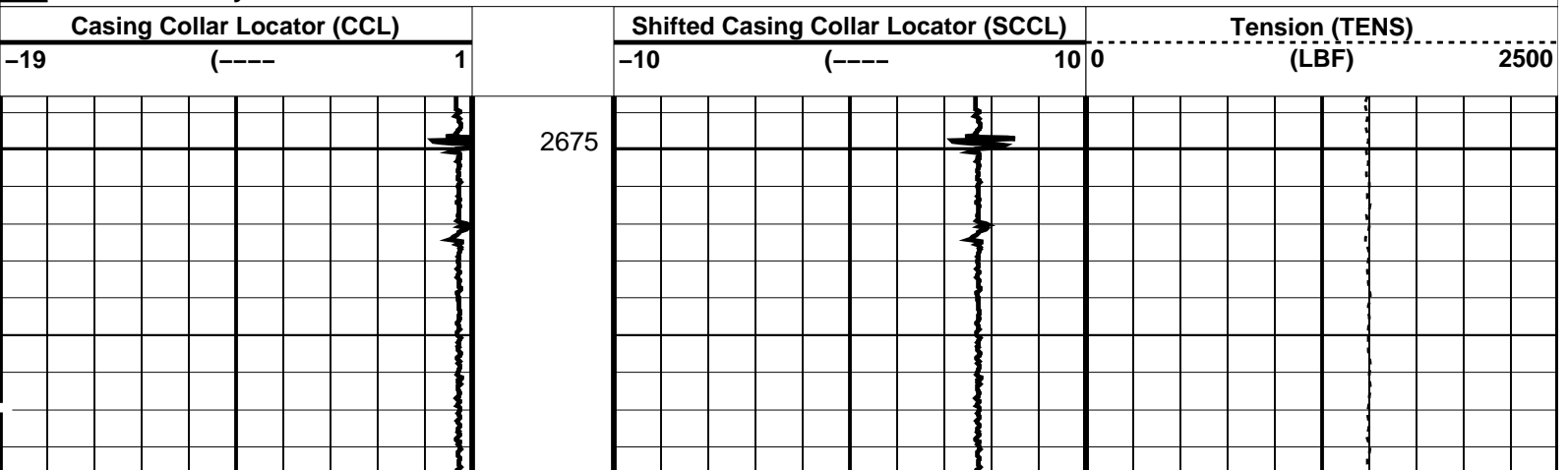
DEFAULT MPBT_043LUP FN:42 PRODUCER 09-Jan-2010 14:56 2708.5 M 2673.6 M

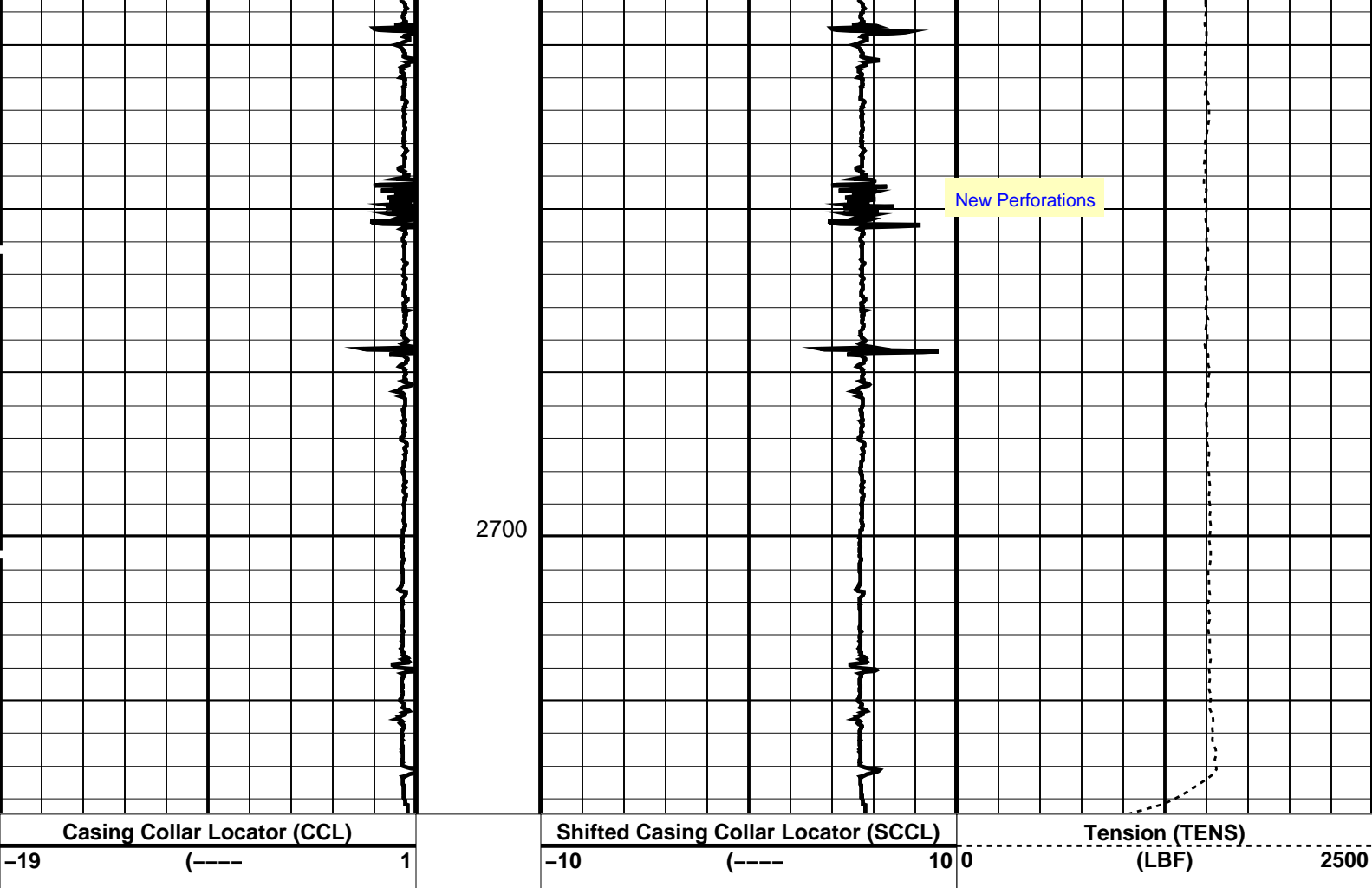
OP System Version: 17C0-154

MPEX-BA	17C0-154	MPSU-BA	17C0-154
CCL-PCCL	17C0-154		

PIP SUMMARY

Time Mark Every 60 S





PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
CCLD	CCL-PCCL: Casing Collar Locator	
CCLT	CCL reset delay	12 IN
	CCL Detection Level	0.3 V

Format: PERFO Vertical Scale: 1:200 Graphics File Created: 09-Jan-2010 14:56

OP System Version: 17C0-154

MPEX-BA	17C0-154	MPSU-BA	17C0-154
CCL-PCCL	17C0-154		

Output DLIS Files

DEFAULT MPBT_043LUP FN:42 PRODUCER 09-Jan-2010 14:56

Schlumberger

1 11/16" Dummy Plug
Correlation Pass

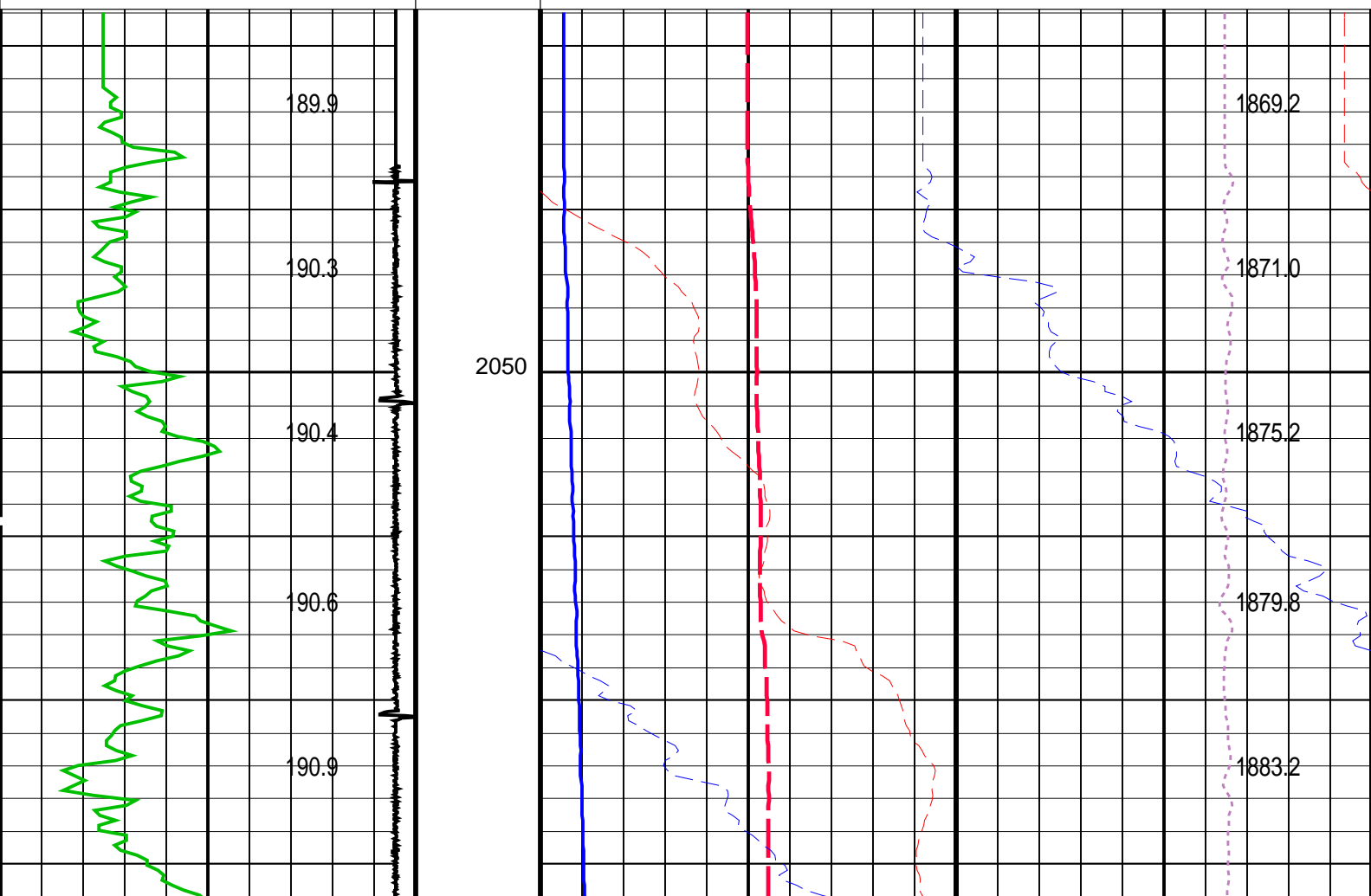
MAXIS Field Log

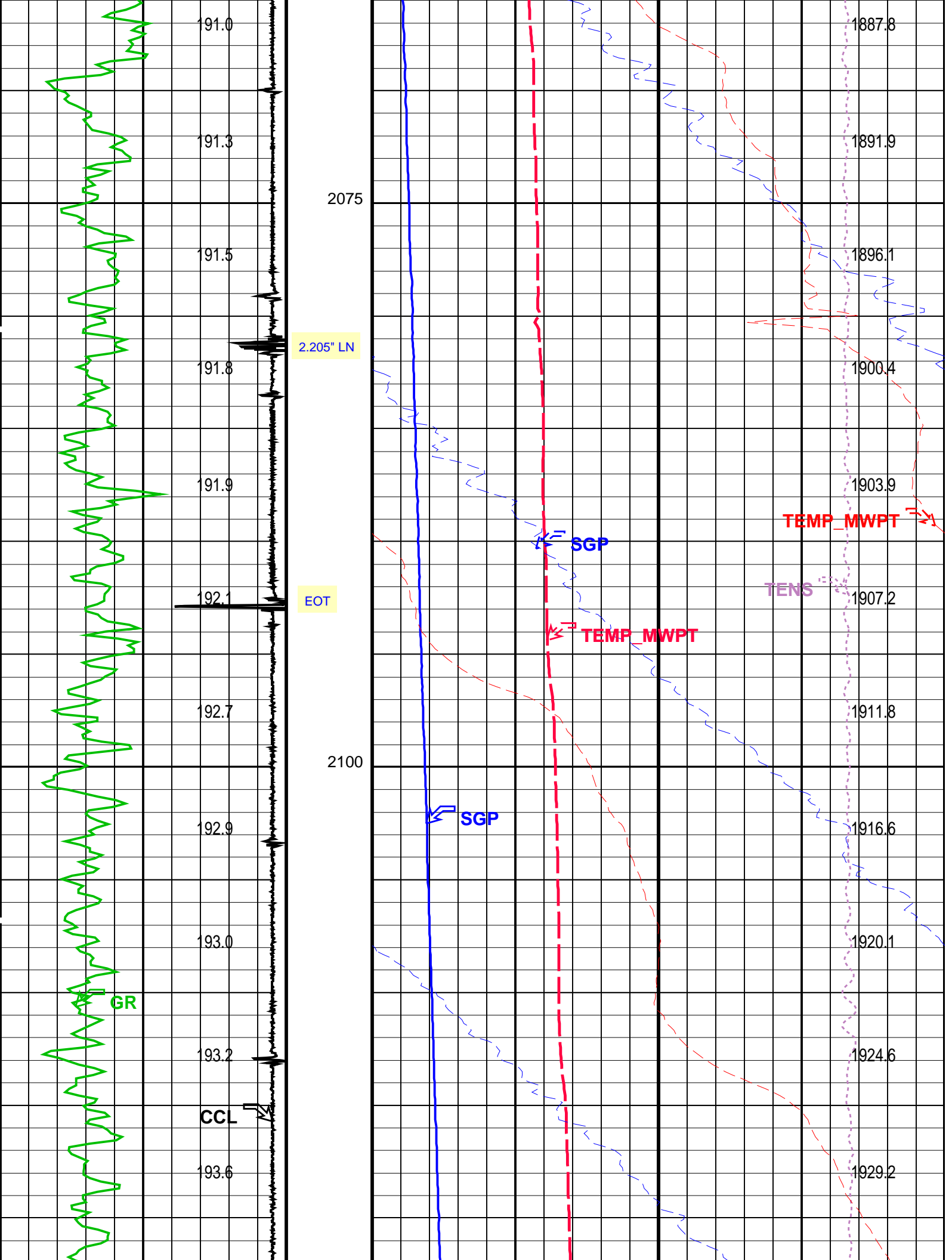
Input DLIS Files					
DEFAULT	PERFO_025LUP	FN:24	PRODUCER	09-Jan-2010 11:19	2749.4 M 2041.7 M
Output DLIS Files					
DEFAULT	PERFO_026PUP	FN:25	PRODUCER	09-Jan-2010 11:58	2749.0 M 2038.8 M

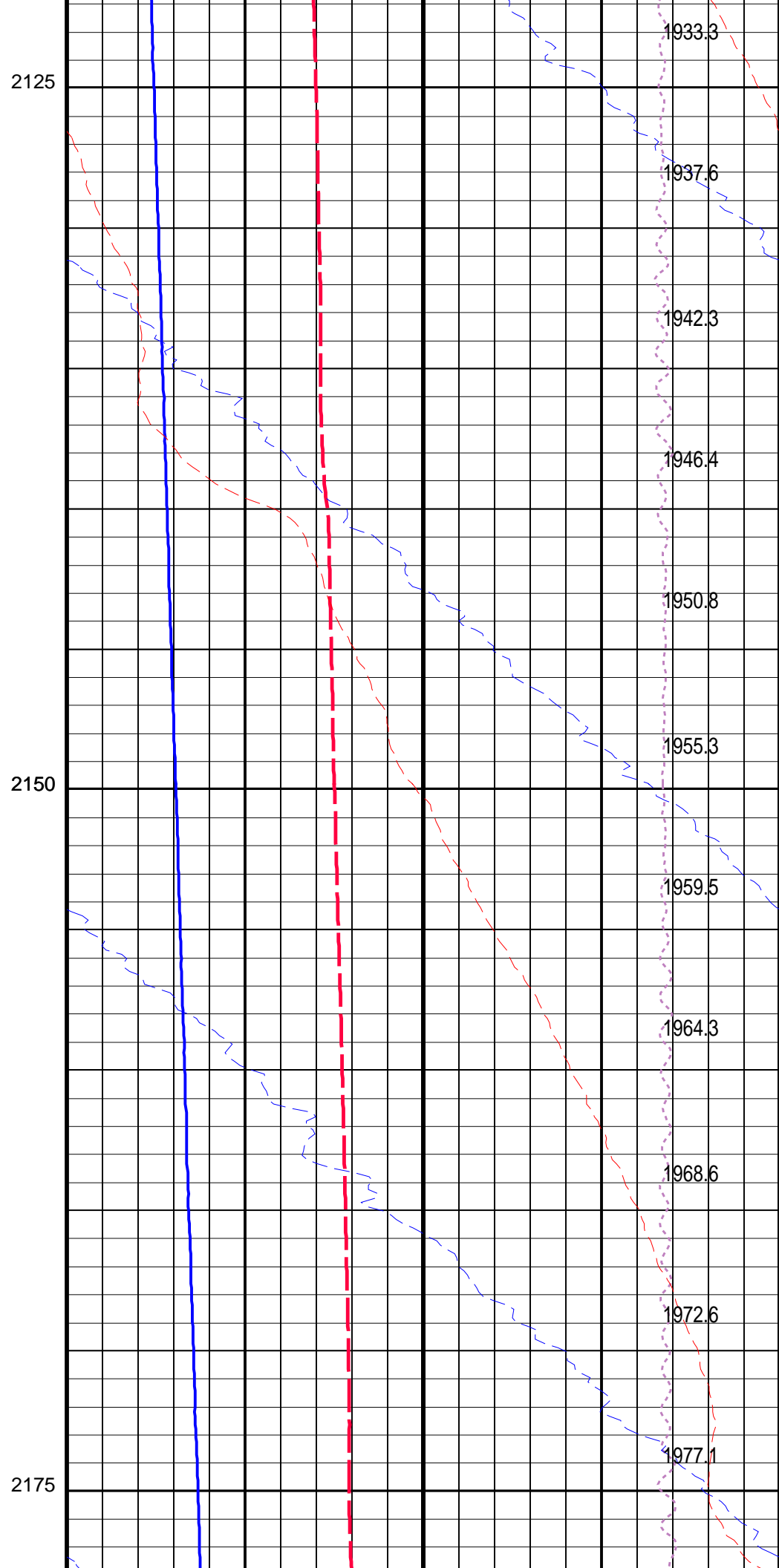
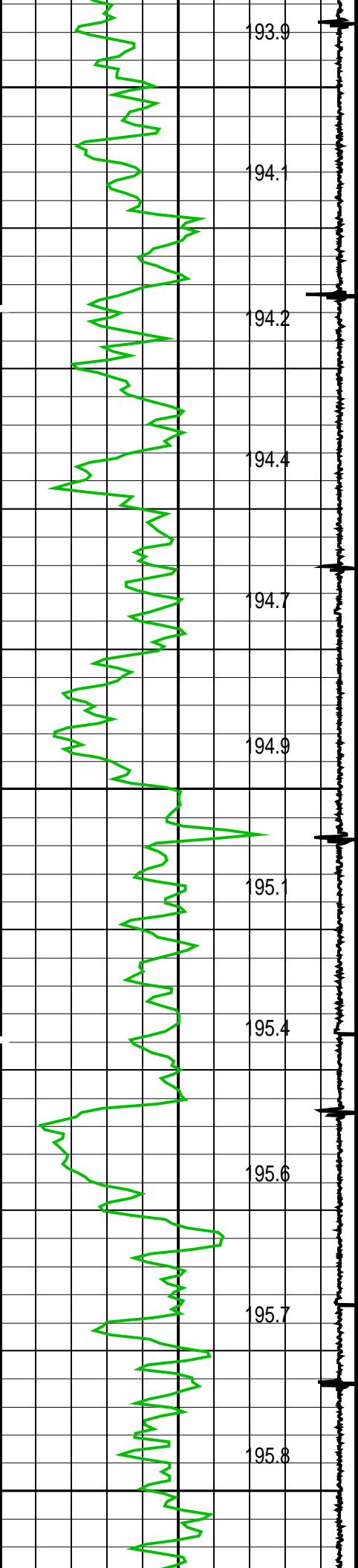
OP System Version: 17C0-154					
MWP_GUN	17C0-154	MWPT-CA	17C0-154		
MWGT-AA	17C0-154				

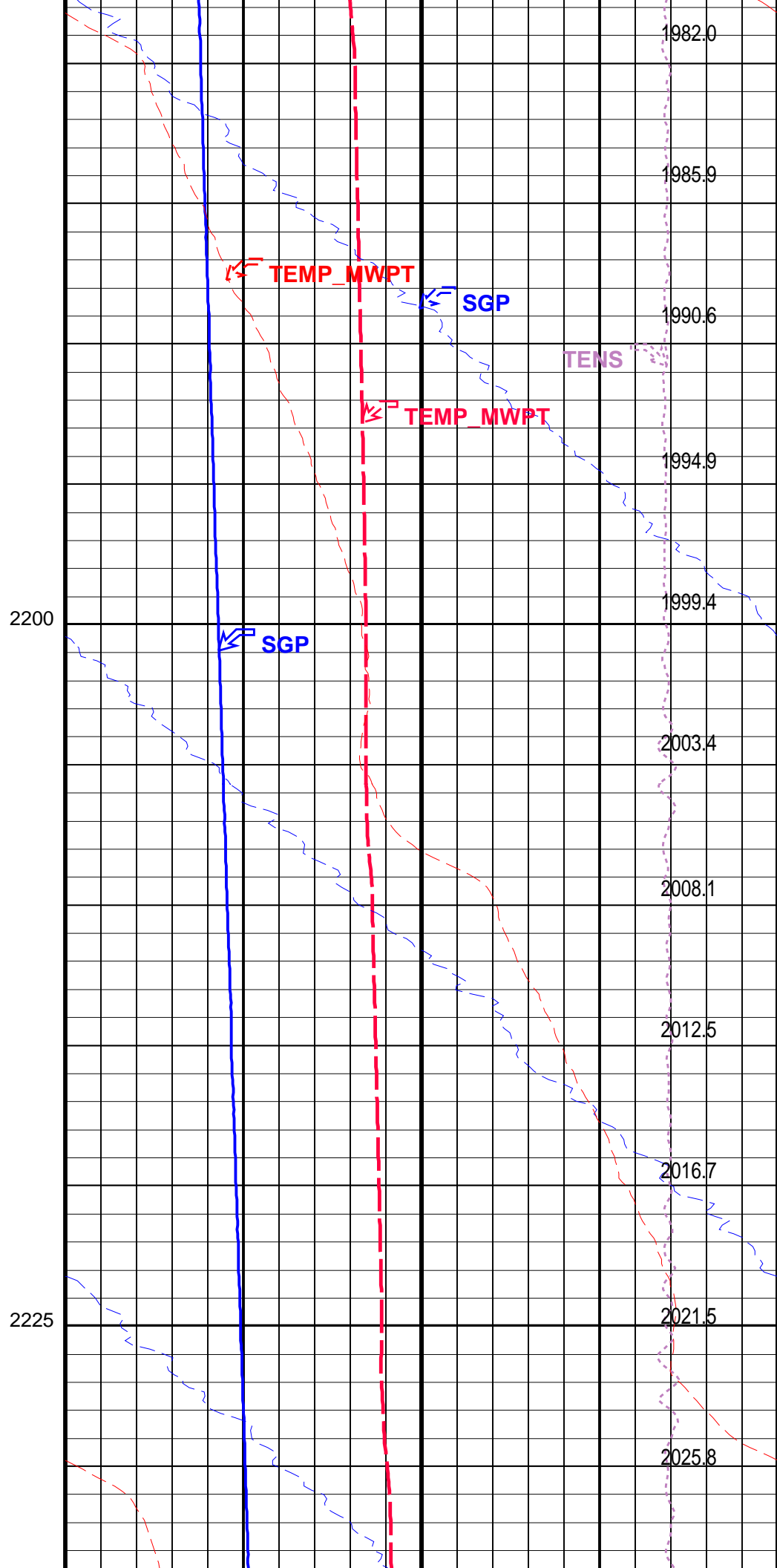
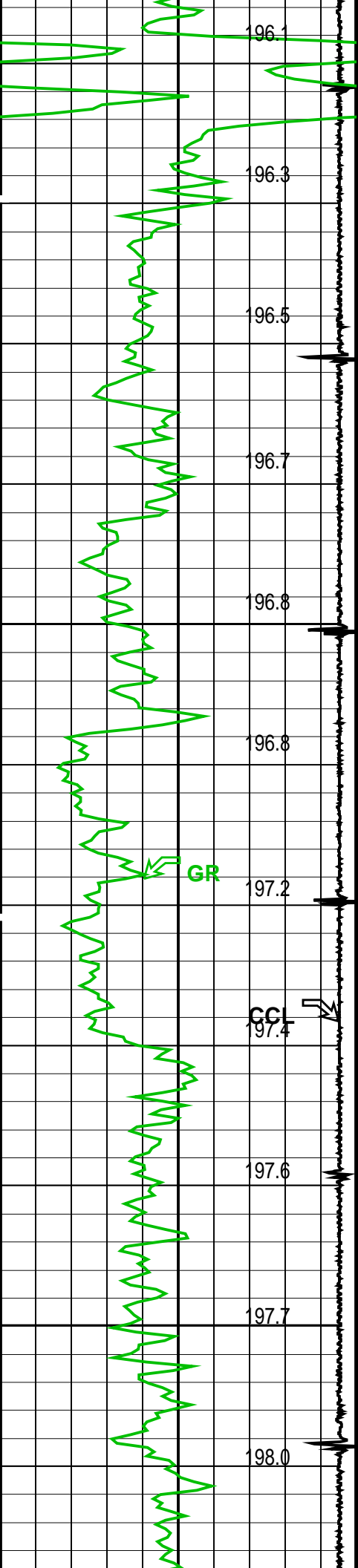
PIP SUMMARY	
<input type="checkbox"/> Time Mark Every 60 S	

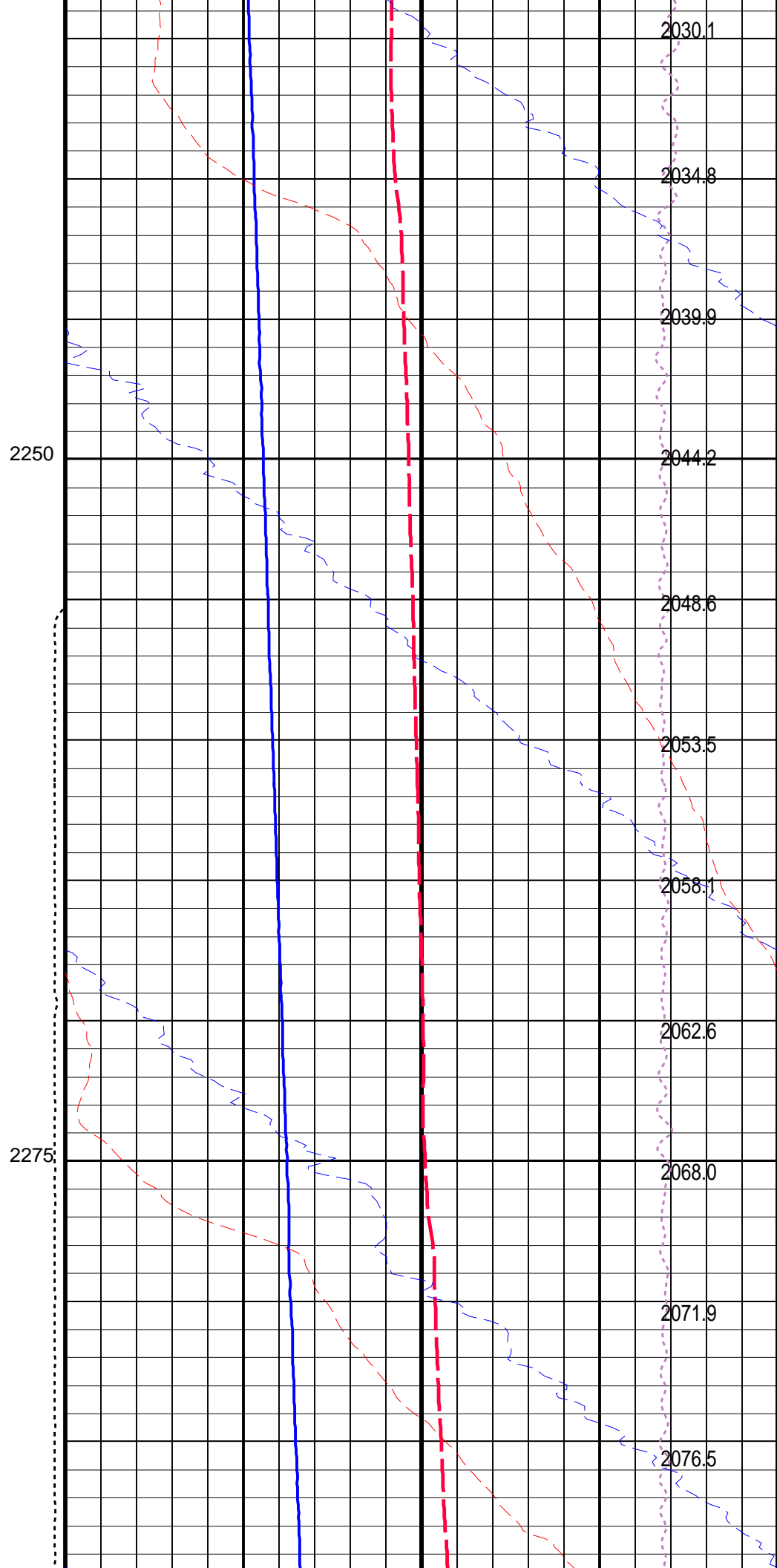
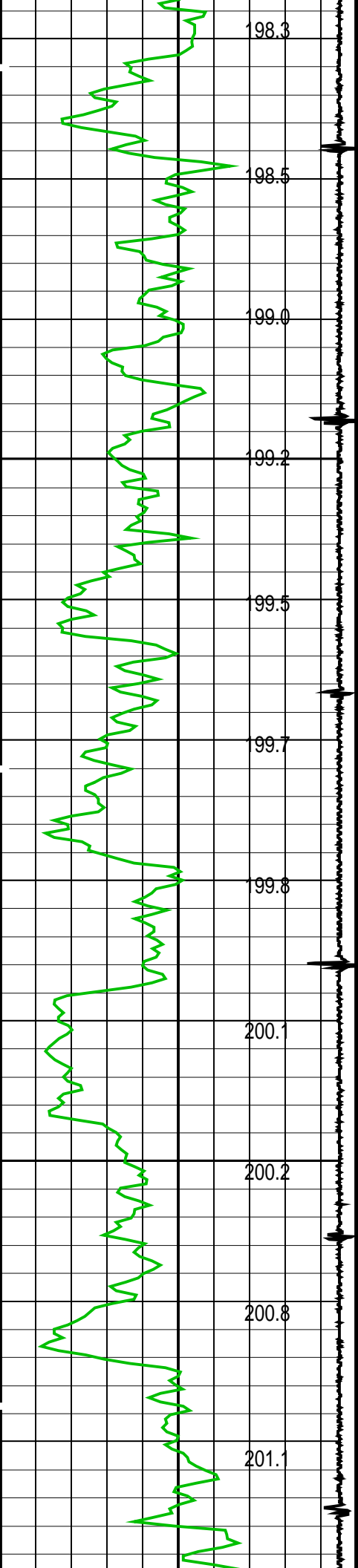
<div>Temperature (TEMP_MWPT) (DEGF)</div> <div>CCL From CCL to T1</div> <div>Gamma Ray (GR) (GAPI)</div> <div>Casing Collar Locator (CCL) (----)</div>		Pressure (SGP) (PSIA)	
		Tension (TENS) (LBF)	
		Temperature (TEMP_MWPT) (DEGF)	
		Strain Gauge Pressure (SGP) (PSIA)	
0 150		0 2000	
180 220		0 20	
-19 1		1850 2550	
Cable Speed (CS) (F/HR)		Strain Gauge Pressure (SGP) (PSIA)	
0 5000			

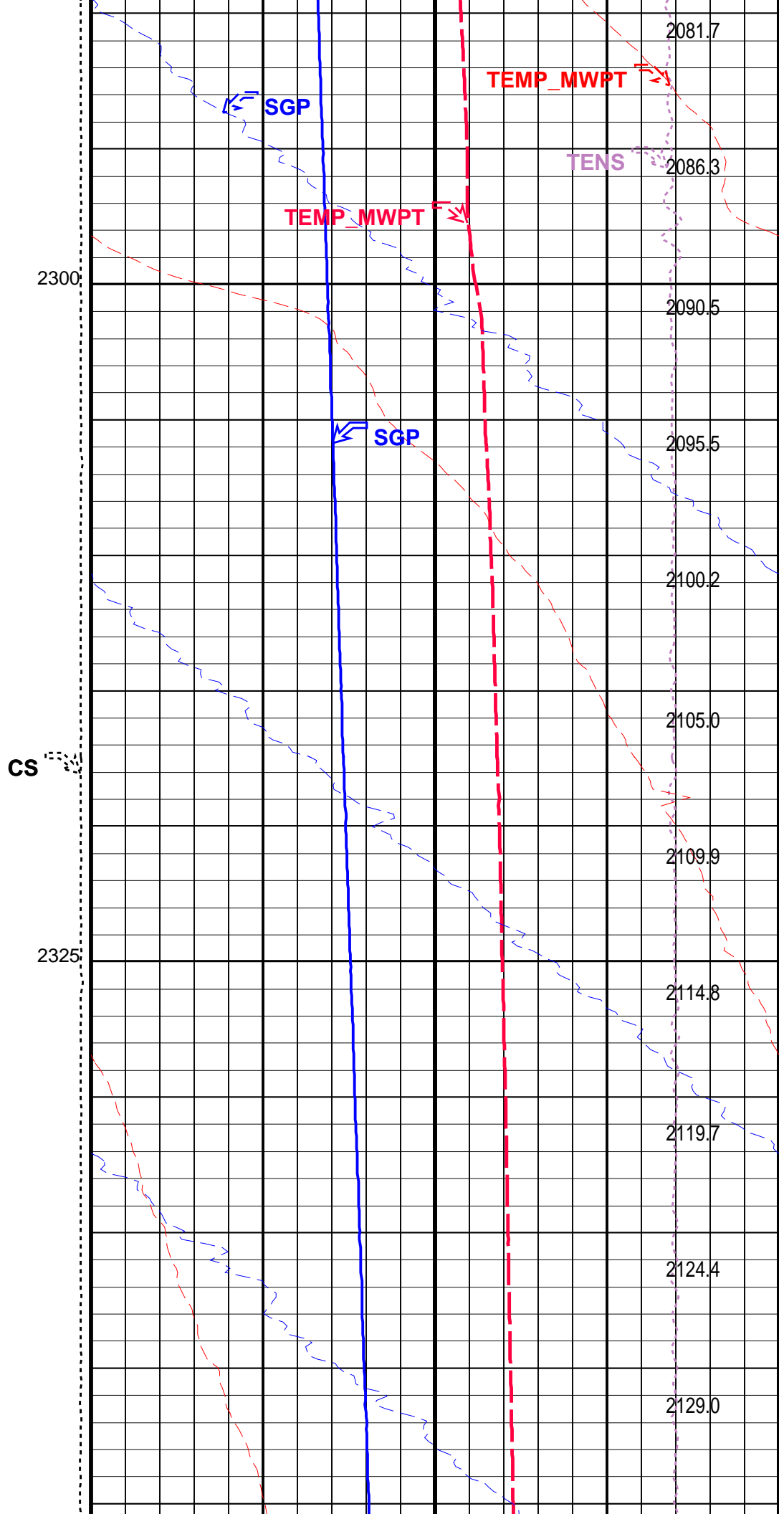
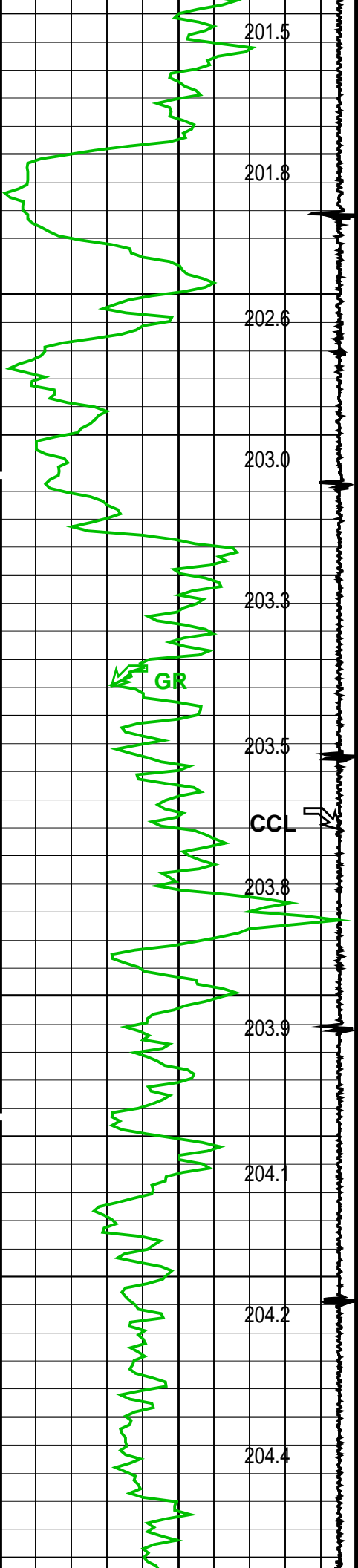


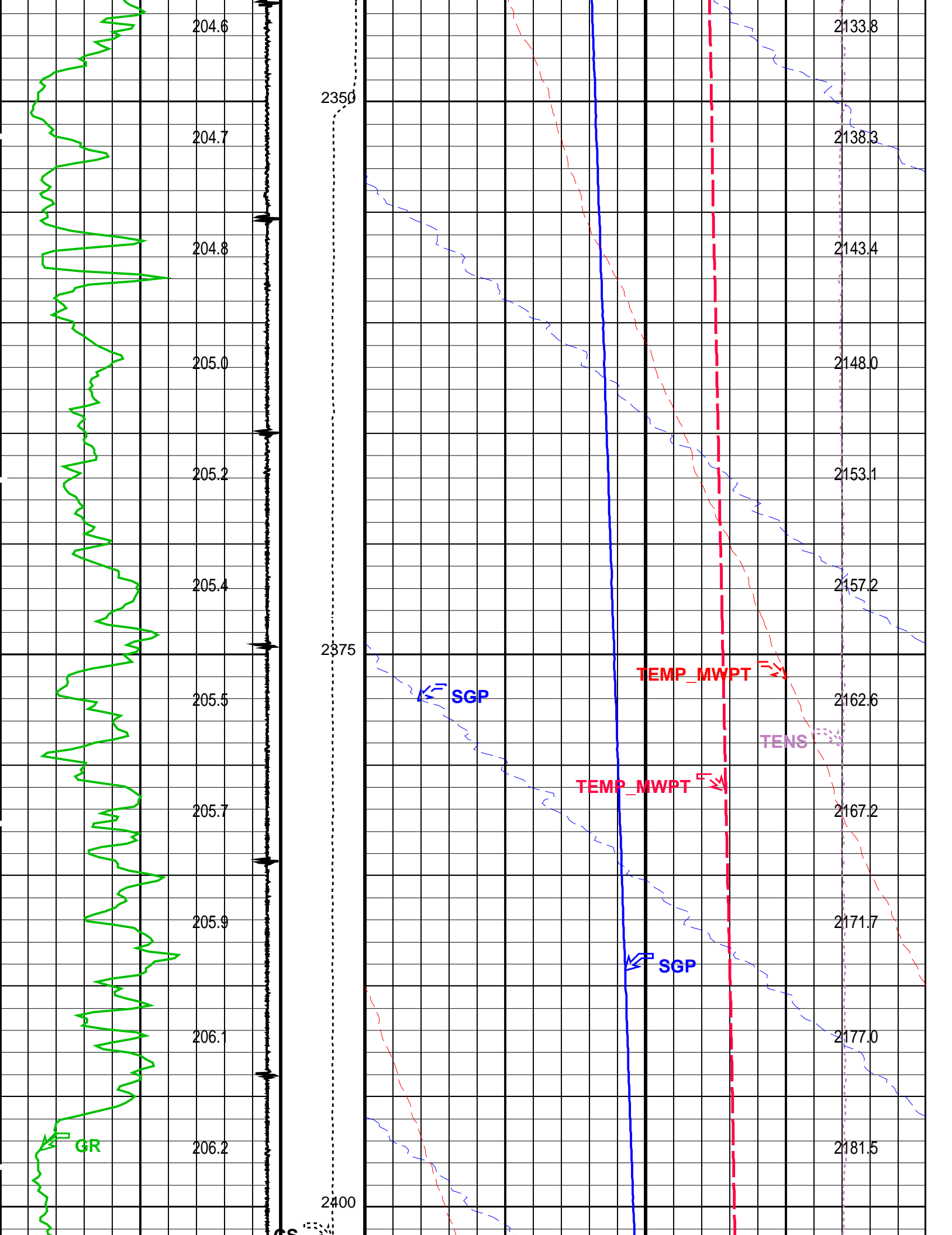


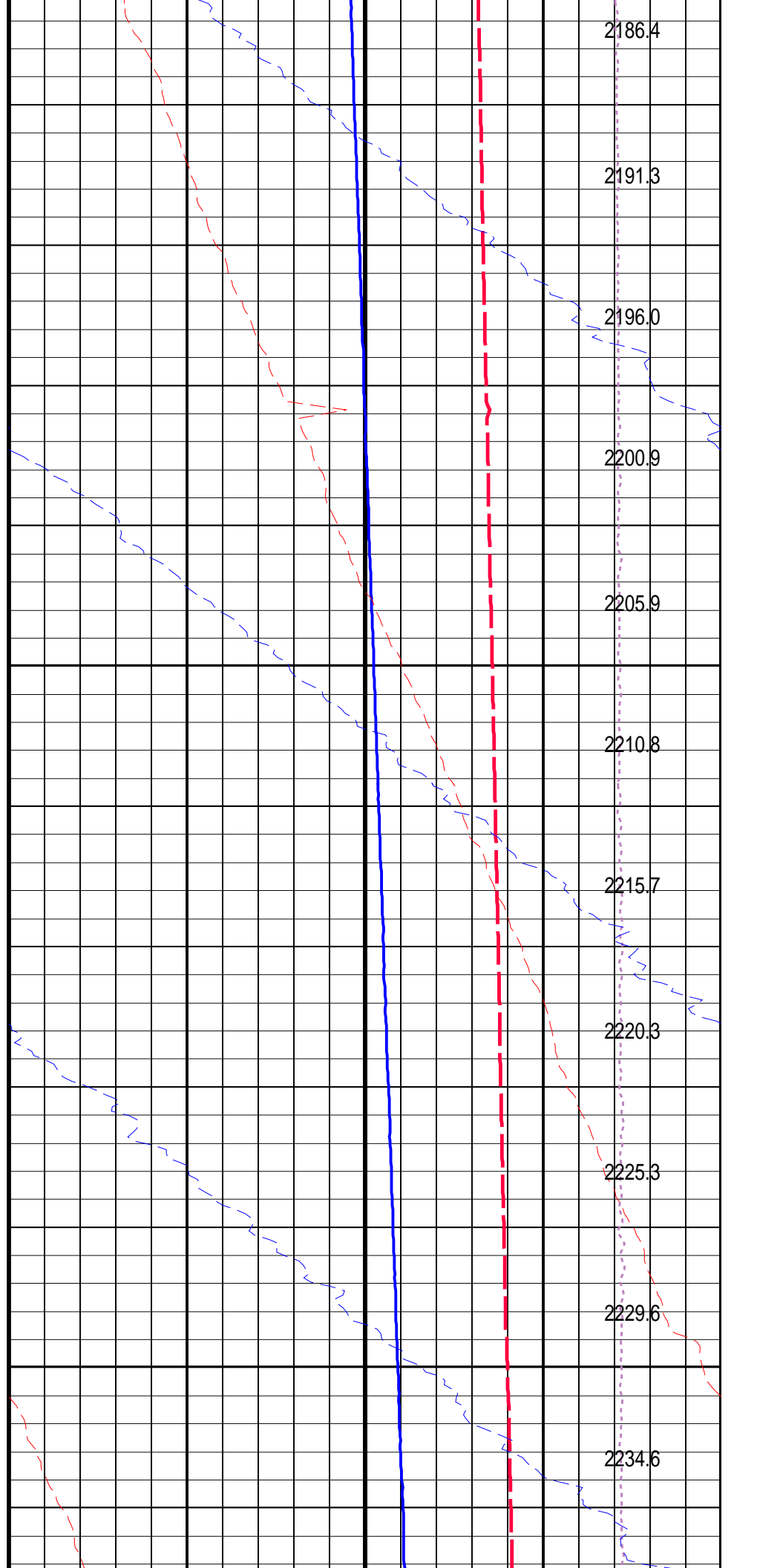
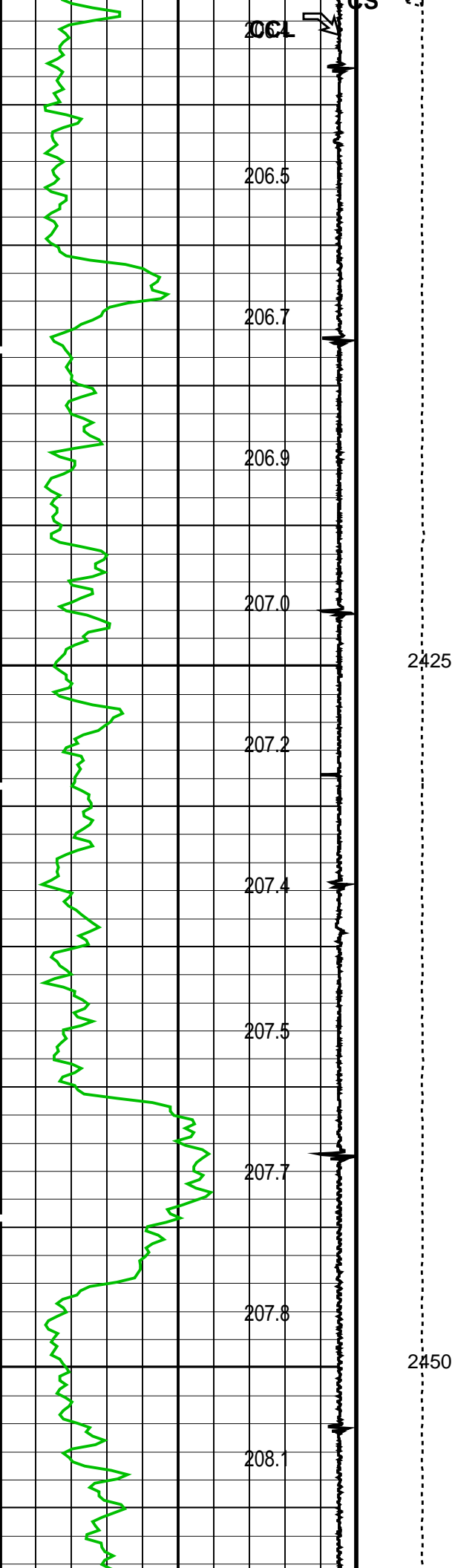


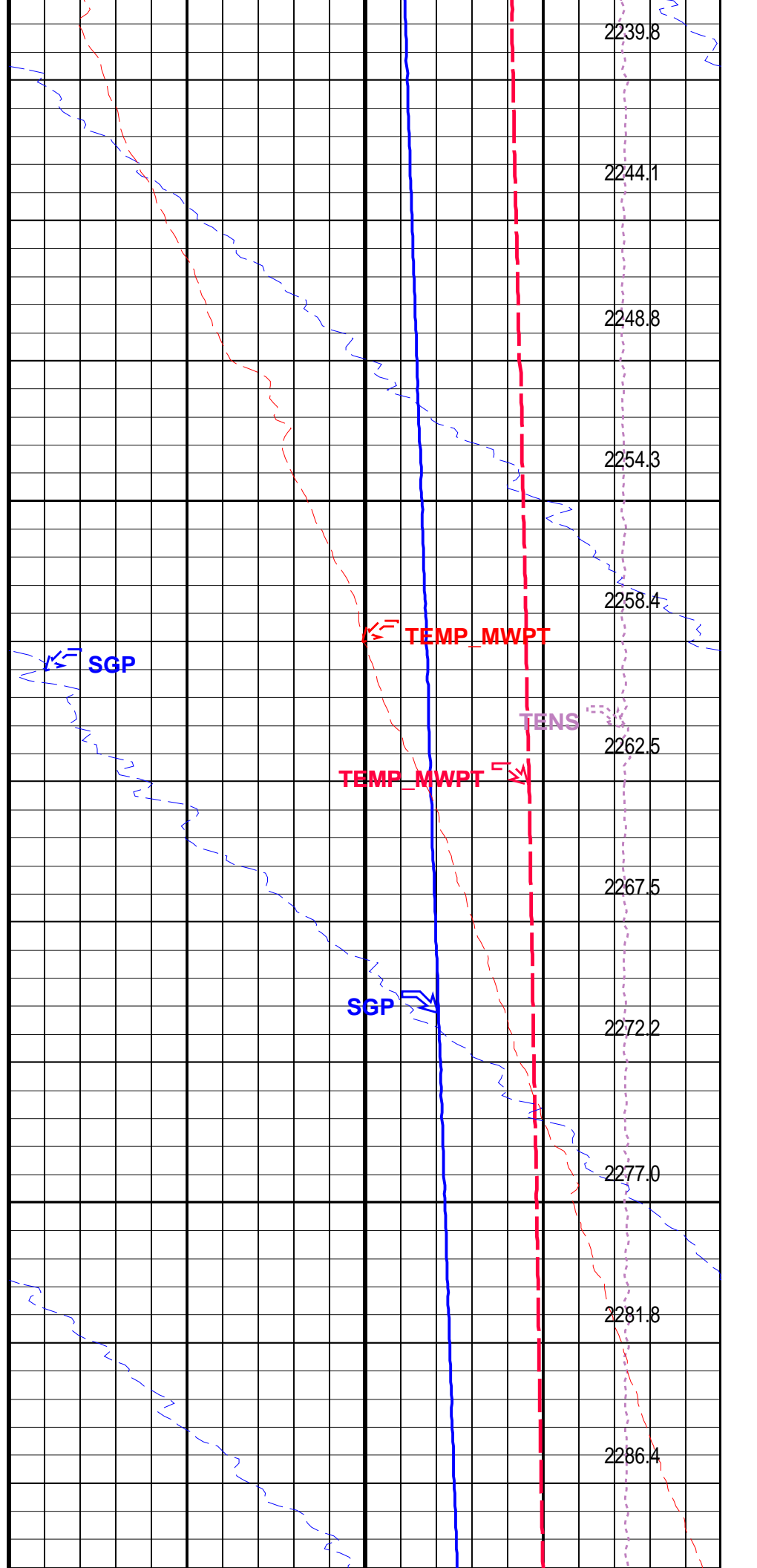
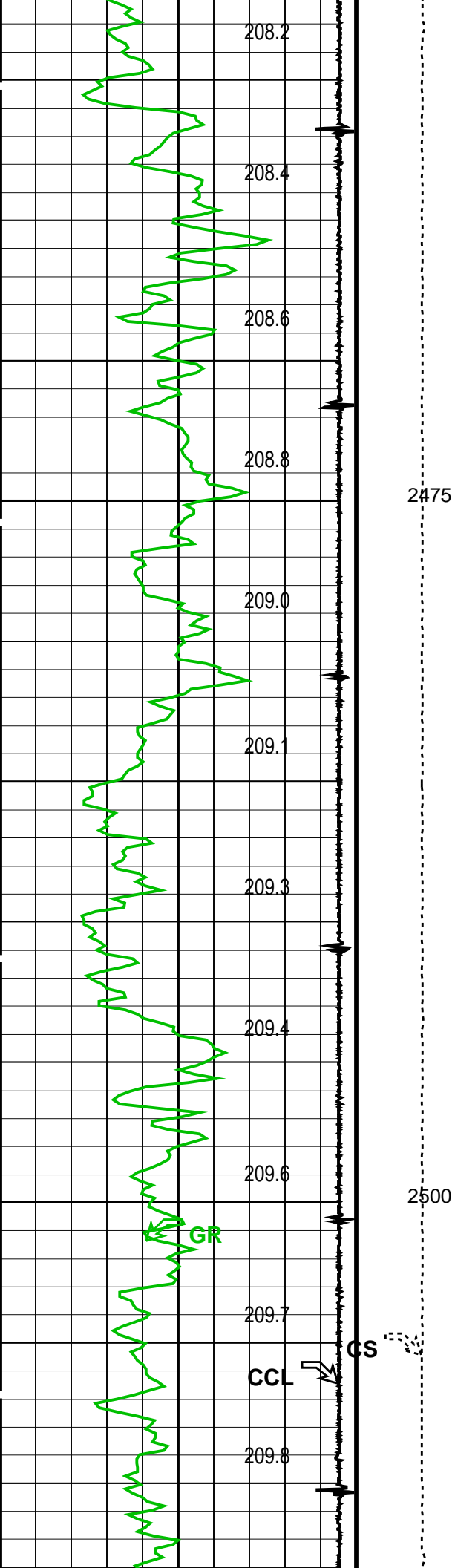


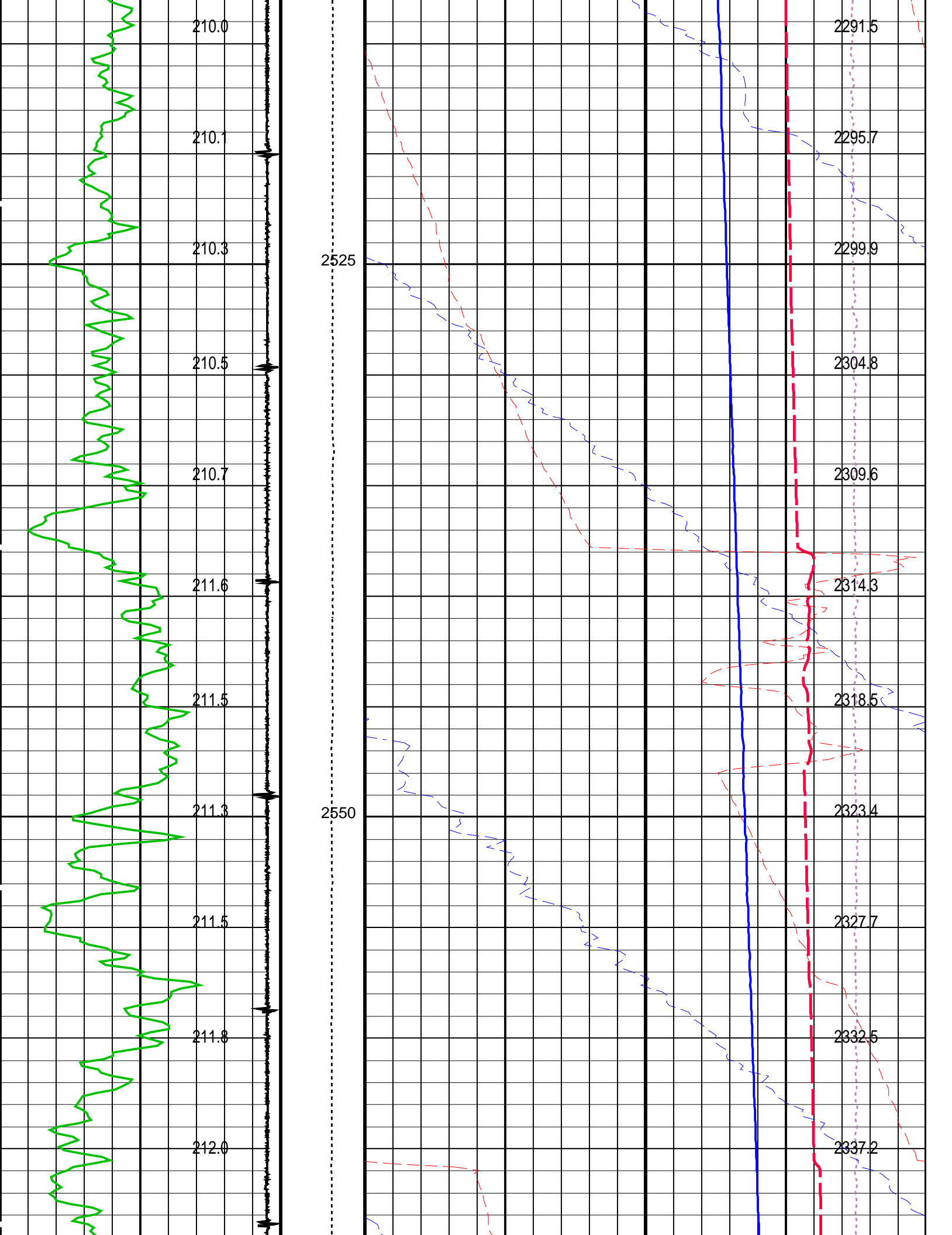


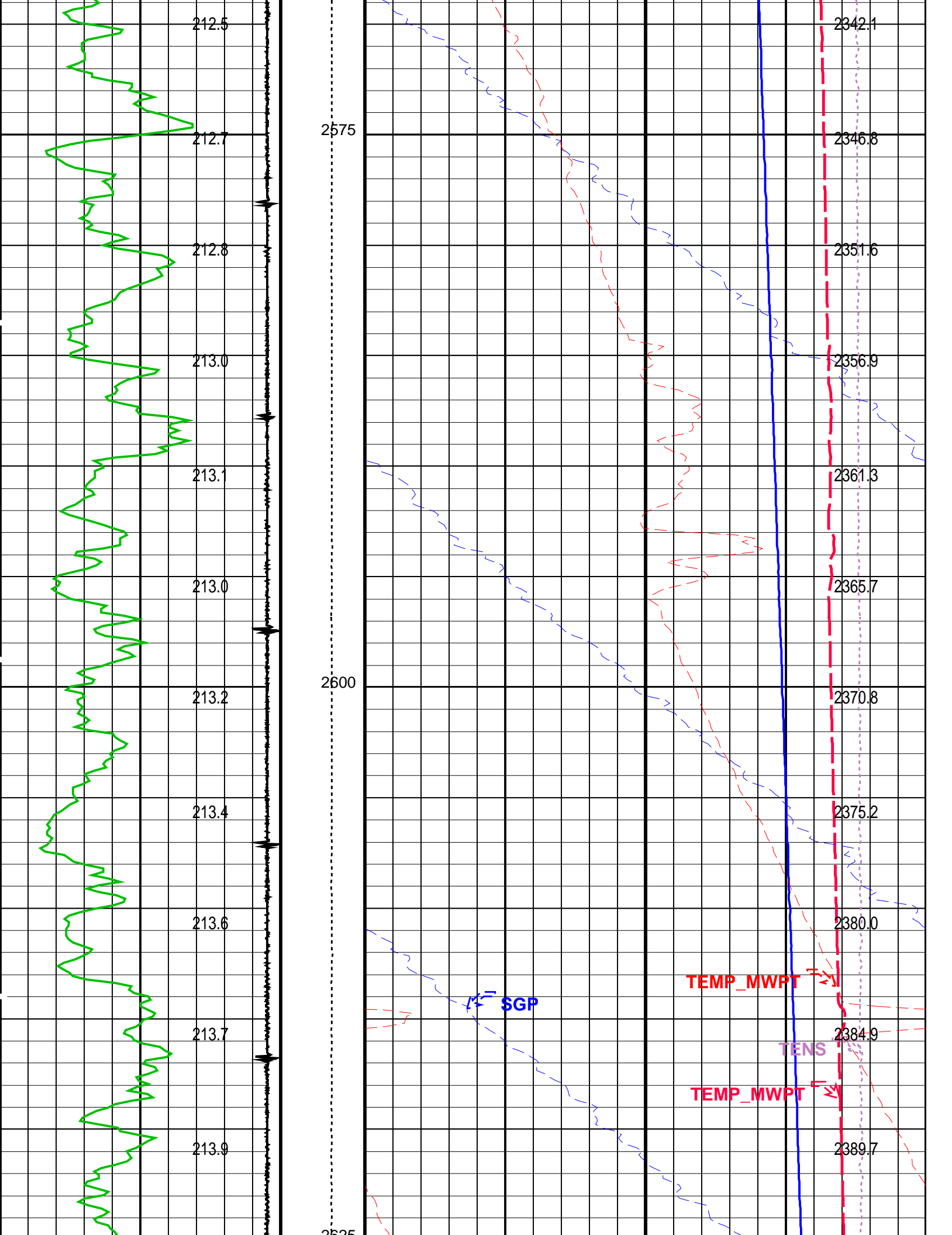


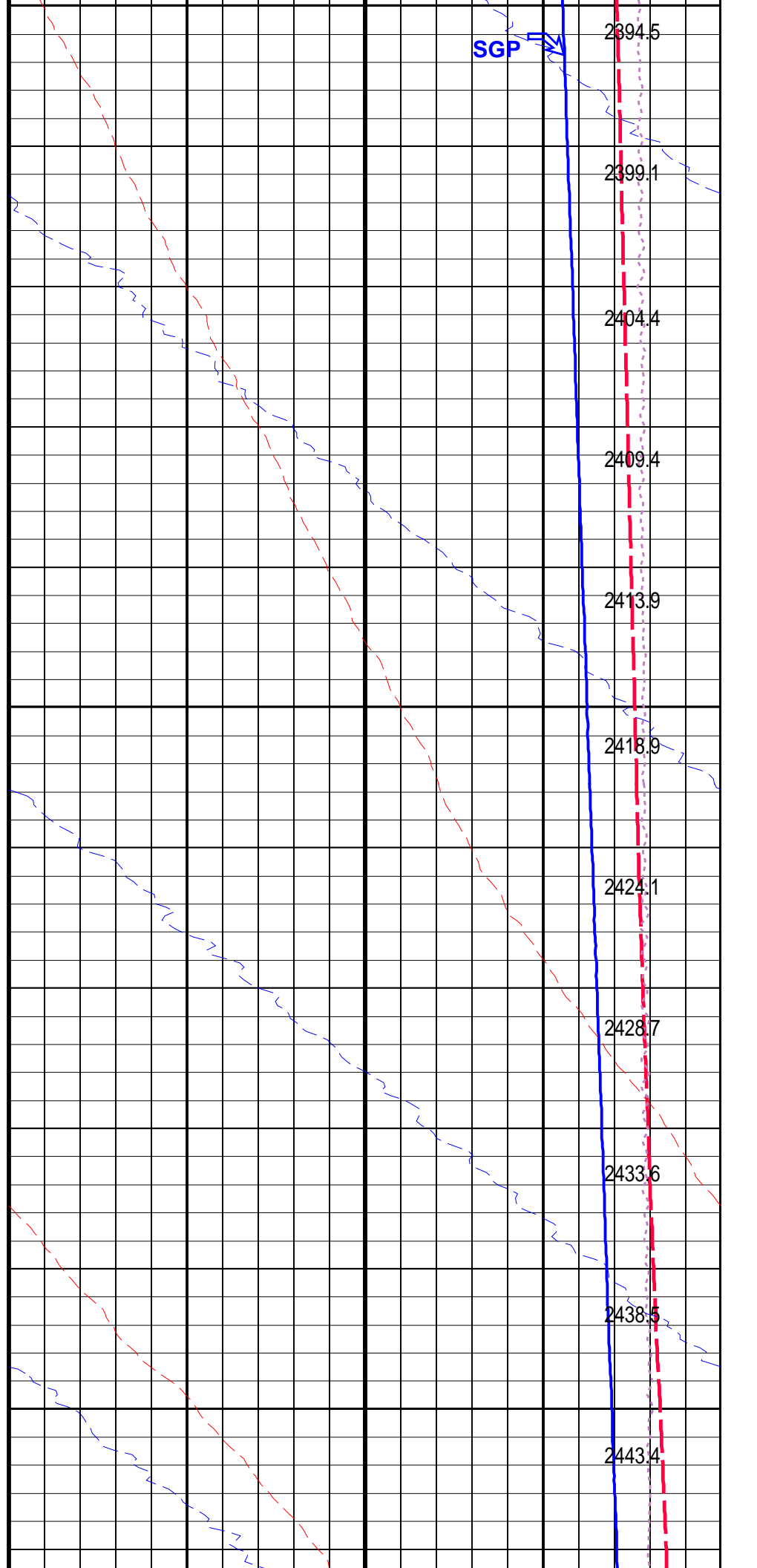
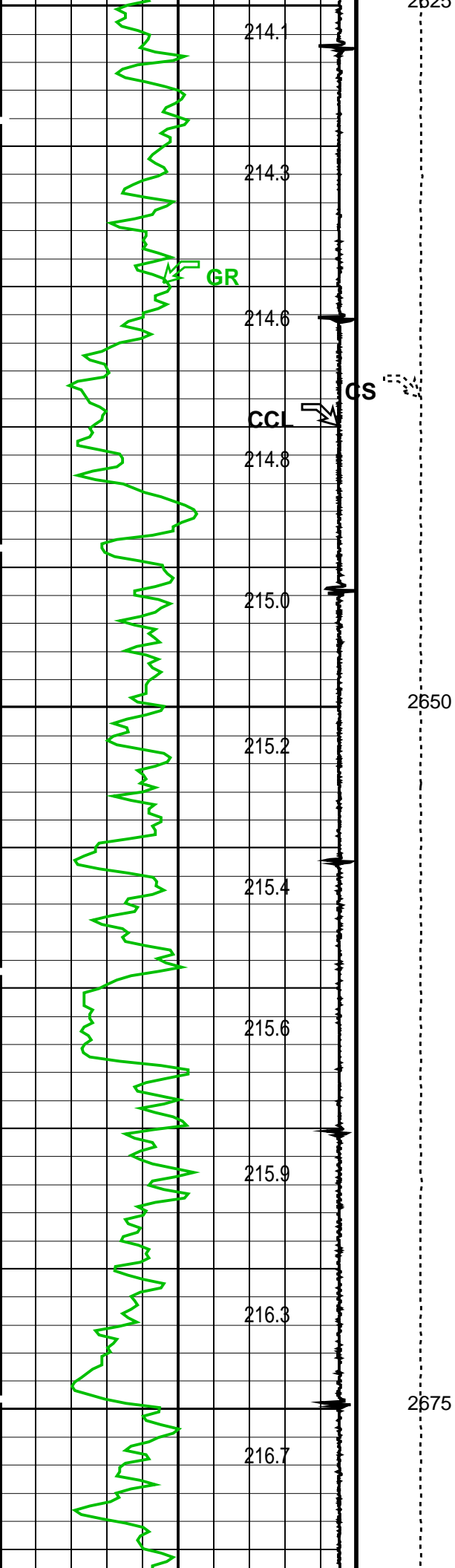


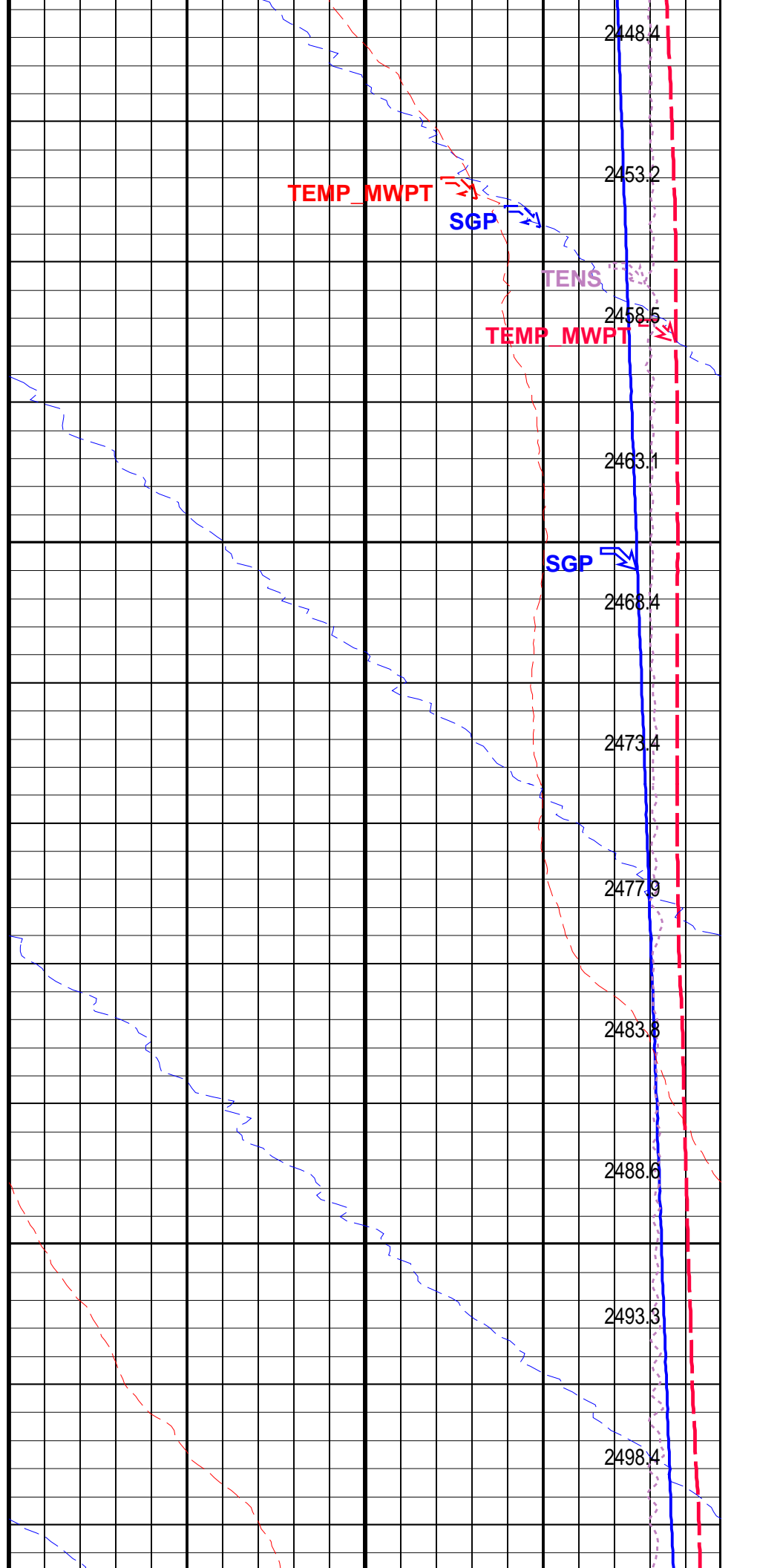
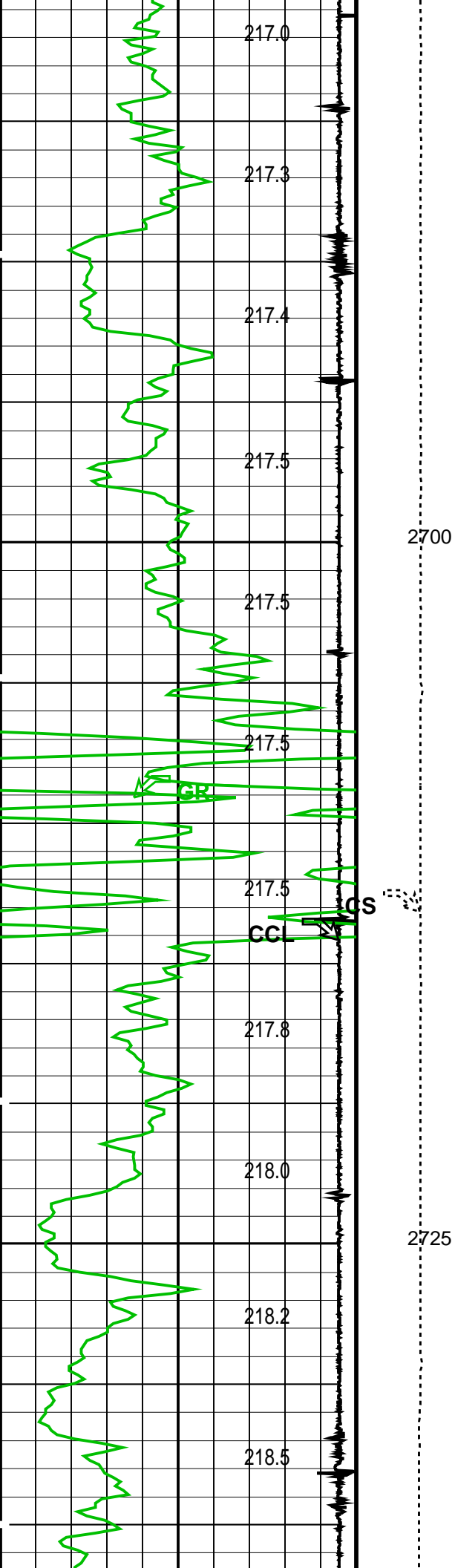


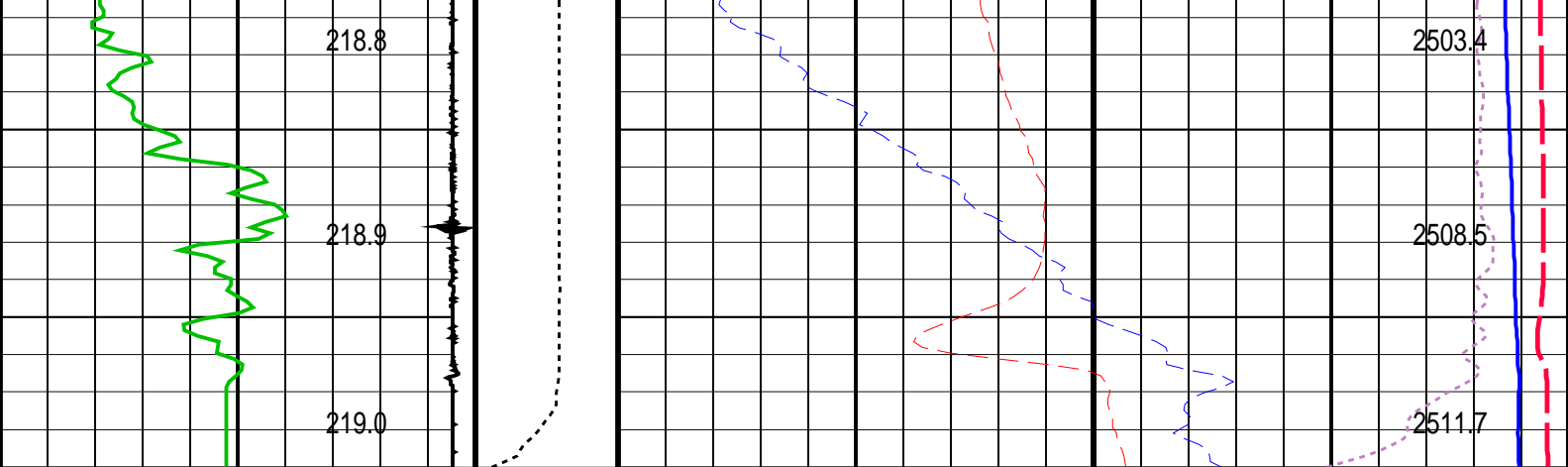












Casing Collar Locator (CCL)		Cable Speed (CS) (F/HR) 05000	Strain Gauge Pressure (SGP)	
-19	(----		1850	2550
			(PSIA)	
	1			
Gamma Ray (GR)			Temperature (TEMP_MWPT)	
0	(GAPI)		180	220
	150		(DEGF)	
CCL From CCL to T1			Strain Gauge Pressure (SGP)	
			0	20
			(PSIA)	
	Temperature (TEMP_MWPT) (DEGF)		Temperature (TEMP_MWPT)	
			0	2
			(DEGF)	
			Tension (TENS)	
			0	2000
			(LBF)	
			Pressure (SGP)	
			(PSIA)	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
MWPT-CA: MEASUREMENT WHILE PERFORATING TOOL			
DEVI_FL_CORR	Deviation Angle for Flow Line Correction	0	DEG
FLD	Flow Line Density	1	G/C3
MWPT_NULL_SOURCE	MWPT NULL Temperature Source	TEMS	
MWPT_NULL_TEMP	MWPT NULL Temperature	0.0	DEGC
System and Miscellaneous			
DO	Depth Offset for Playback	-0.4	M
PP	Playback Processing	NORMAL	

Format: MWP Vertical Scale: 1:200 Graphics File Created: 09-Jan-2010 11:58

OP System Version: 17C0-154

MWP_GUN	17C0-154	MWPT-CA	17C0-154
MWGT-AA	17C0-154		

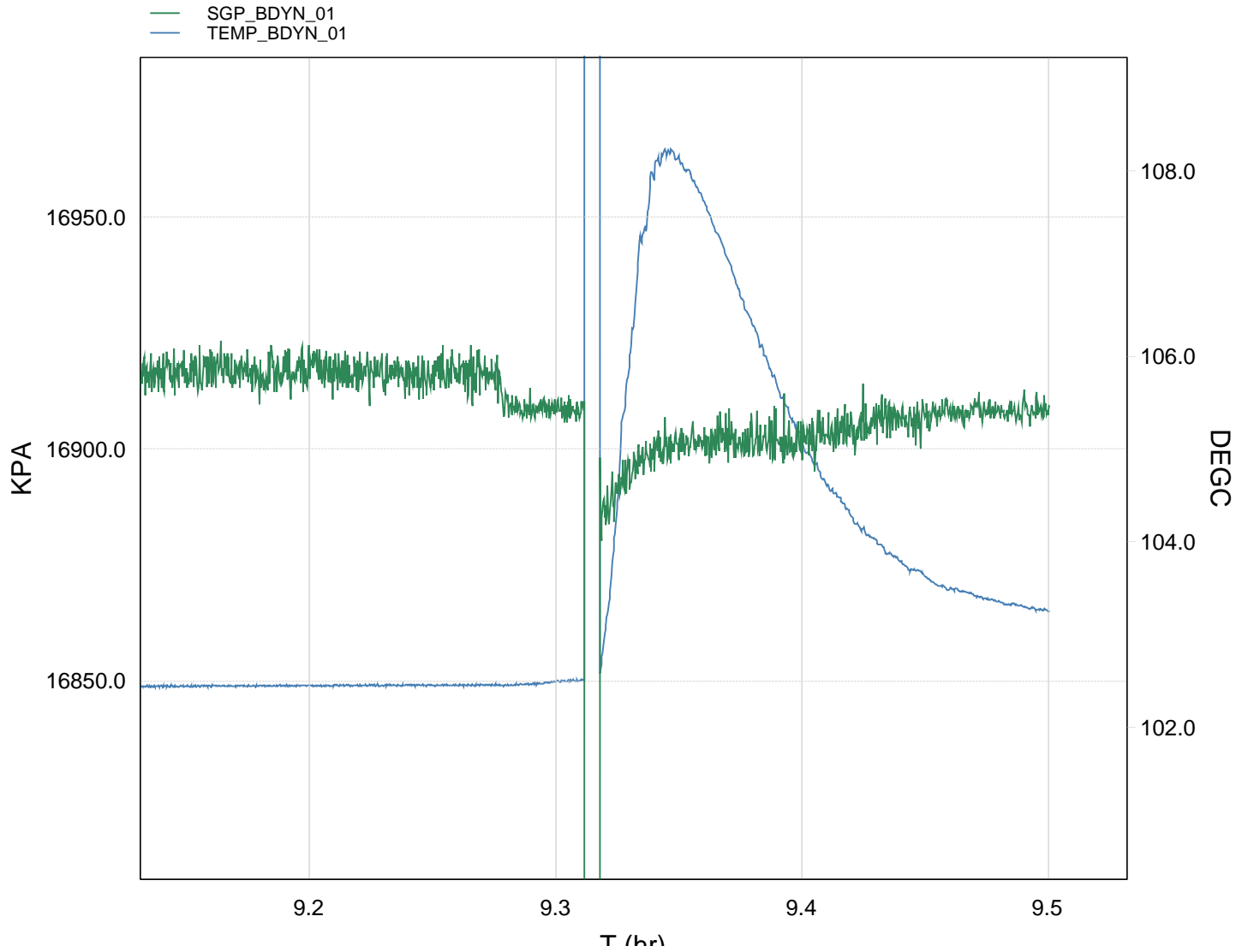
Input DLIS Files

DEFAULT	PERFO_025LUP	FN:24	PRODUCER	09-Jan-2010 11:19	2749.4 M	2041.7 M
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Output DLIS Files

DEFAULT	PERFO_026PUP	FN:25	PRODUCER	09-Jan-2010 11:58
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MAXIS Field Log



TIME	KPA	PSIA	DEGF
3960.0	16913.3561	2453.0792	216.3860
4020.0	16916.6986	2453.5640	216.3951
4080.0	16917.2620	2453.6457	216.3980
4140.0	16919.2208	2453.9298	216.4007
4200.0	16915.1426	2453.3383	216.3994
4260.0	16916.9686	2453.6031	216.3994
4320.0	16915.4576	2453.3840	216.4107
4380.0	16919.5133	2453.9722	216.4140
4440.0	16910.8074	2452.7095	216.4086
4500.0	16916.6650	2453.5591	216.4152
4560.0	16911.3371	2452.7863	216.4095
4620.0	16908.6906	2452.4025	216.4729
4680.0	-999999.9999	-999999.9999	220120.4844 Gun Fired

4740.0	16899.0477	2451.0039	222.3750
4800.0	16903.2562	2451.6143	226.7690
4860.0	16904.6315	2451.8138	225.5346
4920.0	16904.0387	2451.7278	223.5115
4980.0	16902.4361	2451.4953	221.5841
5040.0	16906.1460	2452.0334	220.1879
5100.0	16907.9176	2452.2904	219.2564
5160.0	16907.4665	2452.2250	218.6460
5220.0	16907.1940	2452.1854	218.2921
5280.0	16908.4836	2452.3725	218.0426
5340.0	16908.4576	2452.3687	217.8883

Schlumberger

2-1/8" Power Spirol – MWPT
Shooting Pass

MAXIS Field Log

Company: Esso Australia Pty Ltd

Well: TNA A7

Output DLIS Files

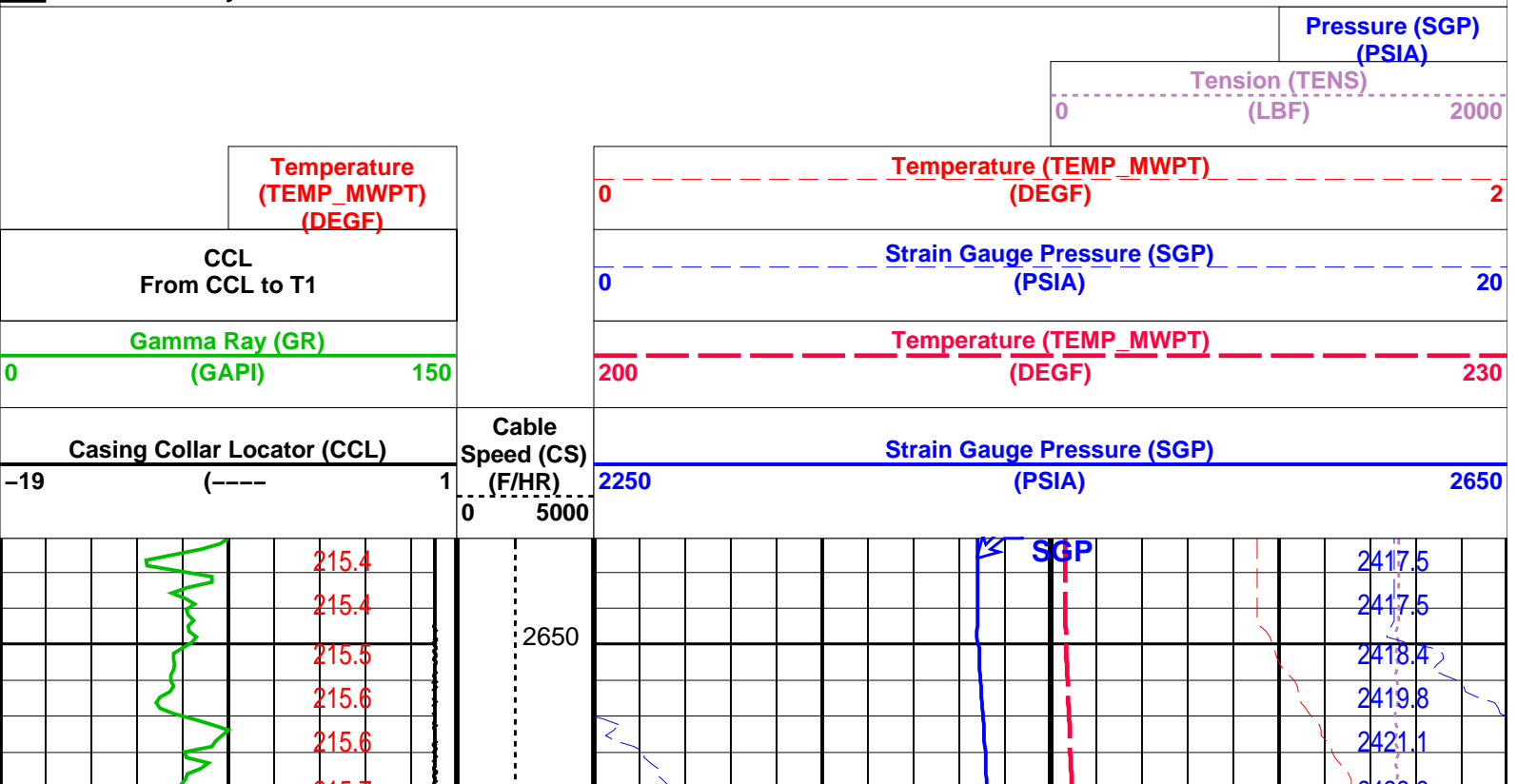
DEFAULT PERFO_020LUP FN:19 PRODUCER 09-Jan-2010 08:47 2705.1 M 2647.0 M

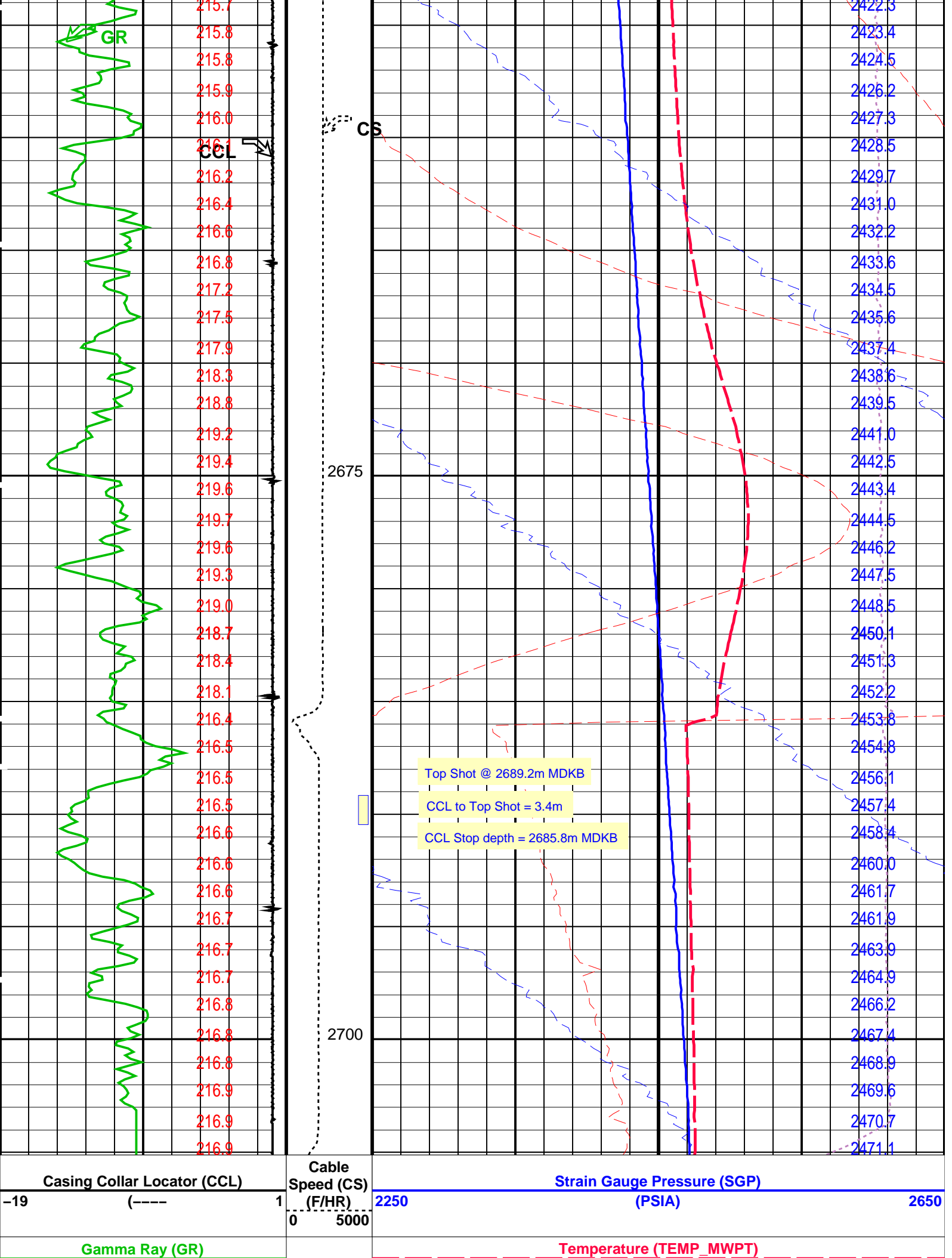
OP System Version: 17C0-154

MWP_GUN 17C0-154 MWPT-CA 17C0-154
MWGT-AA 17C0-154

PIP SUMMARY

Time Mark Every 60 S





0	(GAPI)	150	200	(DEGF)	230
CCL From CCL to T1			Strain Gauge Pressure (SGP) (PSIA)		
			0		20
Temperature (TEMP_MWPT) (DEGF)			Temperature (TEMP_MWPT) (DEGF)		
			0		2
			Tension (TENS) (LBF)		
			0		2000
			Pressure (SGP) (PSIA)		

PIP SUMMARY					
Time Mark Every 60 S					

Parameters			
DLIS Name	Description	Value	
MWPT-CA: MEASUREMENT WHILE PERFORATING TOOL			
DEVI_FL_CORR	Deviation Angle for Flow Line Correction	0	DEG
FLD	Flow Line Density	1	G/C3
MWPT_NULL_SOURCE	MWPT NULL Temperature Source	TEMS	
MWPT_NULL_TEMP	MWPT NULL Temperature	0.0	DEGC
Format: MWP	Vertical Scale: 1:200	Graphics File Created: 09-Jan-2010 08:47	

OP System Version: 17C0-154				
MWP_GUN	17C0-154	MWPT-CA	17C0-154	
MWGT-AA	17C0-154			
Output DLIS Files				
DEFAULT	PERFO_020LUP	FN:19	PRODUCER	09-Jan-2010 08:47

<div> <div>Schlumberger</div> <div>2-1/8" Power Spirol – MWPT Correlation Pass</div> </div>					
MAXIS Field Log					

Company: Esso Australia Pty Ltd						Well: TNA A7	
Output DLIS Files							
DEFAULT	PERFO_019LUP	FN:18	PRODUCER	09-Jan-2010 08:41	2711.3 M	2668.8 M	
OP System Version: 17C0-154							
MWP_GUN	17C0-154	MWPT-CA		17C0-154			
MWGT-AA	17C0-154						
PIP SUMMARY							
<div>Time Mark Every 60 S</div>							
					Pressure (SGP) (PSIA)		
					Tension (TENS) (LBF)		
					0	2000	
Temperature (TEMP_MWPT) (DEGF)		Temperature (TEMP_MWPT) (DEGF)					

Gamma Ray (GR) (GAPI) 150		Temperature (TEMP_MWPT) (DEGF) 200 230	
CCL From CCL to T1		Strain Gauge Pressure (SGP) (PSIA) 0 20	
Temperature (TEMP_MWPT) (DEGF)		Temperature (TEMP_MWPT) (DEGF) 0 2	
		Tension (TENS) (LBF) 0 2000	
		Pressure (SGP) (PSIA)	

PIP SUMMARY			
Time Mark Every 60 S			

Parameters			
DLIS Name	Description	Value	
MWPT-CA: MEASUREMENT WHILE PERFORATING TOOL			
DEVI_FL_CORR	Deviation Angle for Flow Line Correction	0	DEG
FLD	Flow Line Density	1	G/C3
MWPT_NULL_SOURCE	MWPT NULL Temperature Source	TEMS	
MWPT_NULL_TEMP	MWPT NULL Temperature	0.0	DEGC

Format: MWP	Vertical Scale: 1:200	Graphics File Created: 09-Jan-2010 08:41
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OP System Version: 17C0-154			
MWP_GUN	17C0-154	MWPT-CA	17C0-154
MWGT-AA	17C0-154		

Output DLIS Files			
DEFAULT	PERFO_019LUP	FN:18	PRODUCER 09-Jan-2010 08:41

Schlumberger

MWPT Calibration Listing







MAXIS Field Log

Calibration and Check Summary							
Measurement	Nominal	Master	Before	After	Change	Limit	Units
MEASUREMENT WHILE PERFORATING GAMMA RAY TOOL Wellsite Calibration – Detector Calibration							
Before: 7-Jan-2010 9:59 After: 7-Jan-2010 10:07							
Gamma Ray (Signal) Background	30.00	N/A	3.125	2.919	−0.2060	N/A	GAPI
Gamma Ray (Jig – Background)	105.4	N/A	105.4	105.9	0.4865	9.585	GAPI
Gamma Ray (Calibrated)	120.0	N/A	120.0	120.6	0.5538	15.00	GAPI

MEASUREMENT WHILE PERFORATING GAMMA RAY TOOL / Equipment Identification			
Primary Equipment: GAMMA RAY CARTRIDGE	MWPG – AA	69	

MEASUREMENT WHILE PERFORATING GAMMA RAY TOOL Wellsite Calibration

Detector Calibration

Detector Calibration								
Phase	Gamma Ray (Signal) Background GAPI	Value	Phase	Gamma Ray (Jig – Background) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		3.125	Before		105.4	Before		120.0
After		2.919	After		105.9	After		120.6
0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)			95.85 (Minimum) 105.4 (Nominal) 115.0 (Maximum)			105.0 (Minimum) 120.0 (Nominal) 135.0 (Maximum)		
Before: 7-Jan-2010 9:59			After: 7-Jan-2010 10:07					

Company: **Esso Australia Pty Ltd****Schlumberger**Well: **Tuna A7**Field: **Prod 4 / Crane**Rig: **Tuna**Country: **Australia**

2-1/8" PowerSpirol with MWPT
 4-1/2" MPBT Plug setting Record
 09-01-2010