

Company: Esso Australia Pty Ltd.

Well: A-20a

Field: Hailbut

Rig: Crane

Country: Australia

2 1/8" Phased Powerjet MWPT
Perforation Record
4.5" Posiset Plug Setting Record

Crane
Halibut
Gippsland
A-20a
Esso Australia Pty Ltd.

LOCATION			
Gippsland		Elev.:	K.B. 29.45 m
Basin			G.L. -73 m
Bass Strait			D.F. 29.45 m
Permanent Datum:	M.S.L.	Elev.:	0 m
Log Measured From:	K.B.	29.5 m	above Perm. Datum
Drilling Measured From:	K.B.		
State:	Max. Well Deviation	Longitude	Latitude
Victoria	37 deg	148°19' 07.62"E	38°24' 20.36"S

Logging Date	23-Jan-2008
Run Number	1 through 5
Depth Driller	2786 m
Schlumberger Depth	2645 m
Bottom Log Interval	2645 m
Top Log Interval	2000 m
Casing Fluid Type	Production Fluids
Salinity	
Density	
Fluid Level	0 m
BIT/CASING/TUBING STRING	
Bit Size	6.000 in
From	
To	
Casing/Tubing Size	4.500 in
Weight	12.6 lbm/ft
Grade	13 Cr
From	2009.54 m
To	2785 m
Maximum Recorded Temperatures	224 degF
Logger On Bottom	23-Jan-2008
Unit Number	889
Recorded By	S Gilbert, R Sani
Witnessed By	B White

Run 1	
Oil Density	
Water Salinity	
Gas Gravity	
Bo	
Bw	
1/Bg	
Bubble Point Pressure	
Bubble Point Temperature	
Solution GOR	
Maximum Deviation	37 deg
CEMENTING DATA	
Primary/Squeeze	Primary
Casing String No	
Lead Cement Type	
Volume	
Density	
Water Loss	
Additives	
Tail Cement Type	
Volume	
Density	
Water Loss	
Additives	
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	
Unit Number	
Recorded By	
Witnessed By	

DEPTH SUMMARY LISTING

Date Created: 15-JAN-2008 13:25:00

Depth System Equipment

Depth Measuring Device	Tension Device	Logging Cable
Type: IDW-EB Serial Number: 6373 Calibration Date: 04-Jan-2007 Calibrator Serial Number: 9 Calibration Cable Type: 2-32ZT Wheel Correction 1: -2 Wheel Correction 2: -4	Type: PSDS/OSDS Serial Number: 325357 Calibration Date: 15-Jan-2008 Calibrator Serial Number: 1174 Calibration Gain: 0.91 Calibration Offset: 220.00	Type: 2-32ZT Serial Number: 24425 Length: 5299.86 M Conveyance Method: Wireline Rig Type: Rigless

Depth Control Parameters

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	ExxonMobil Petrophysical Analysis

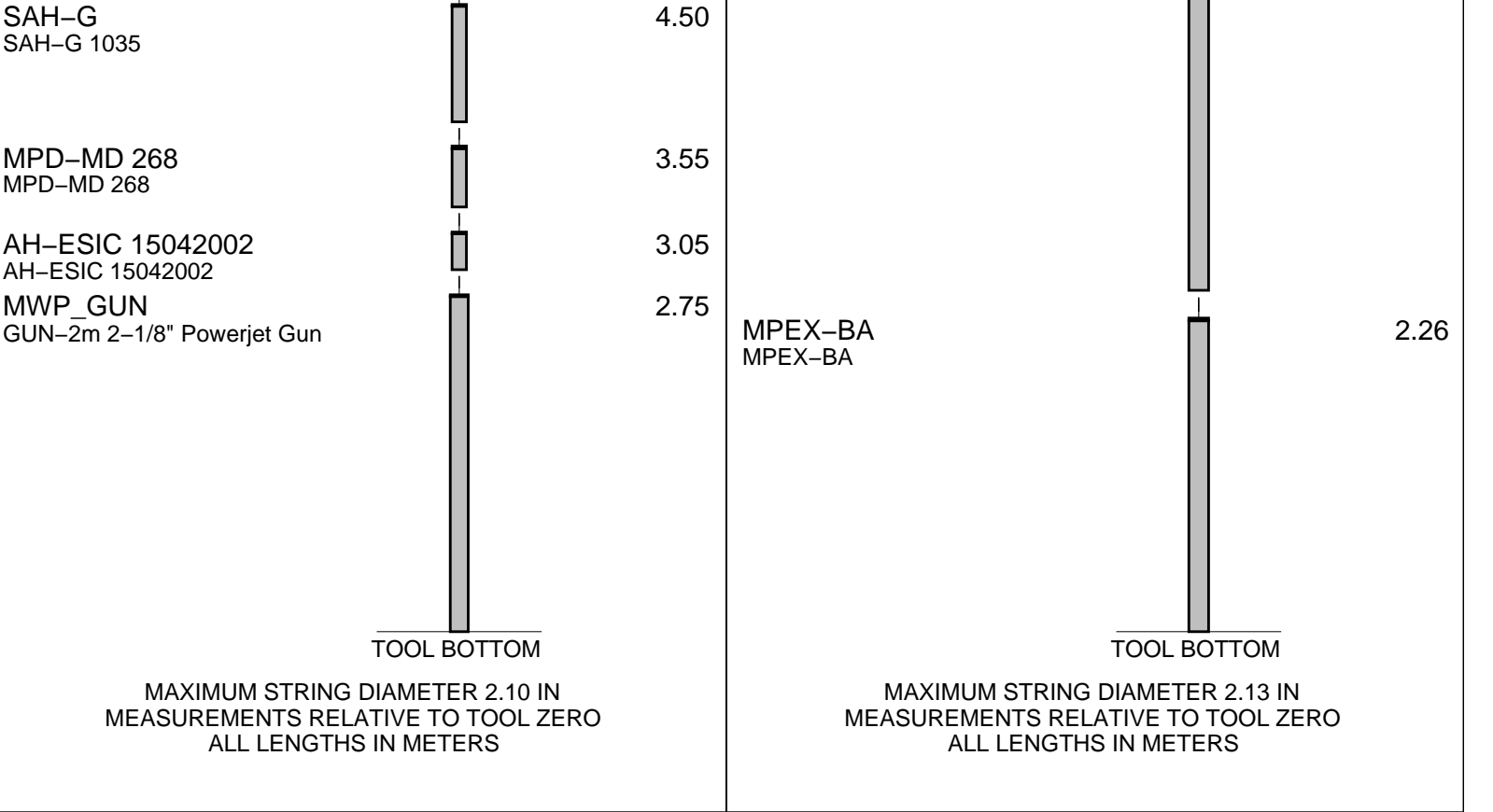
Depth Control Remarks

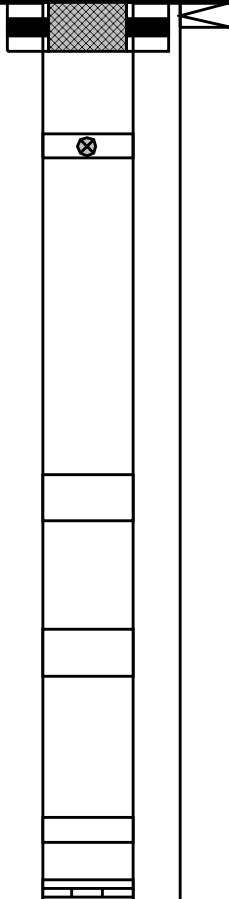
1. IDW used as primary depth control. 2. Z-chart used as back up. 3. 4. 5. 6.
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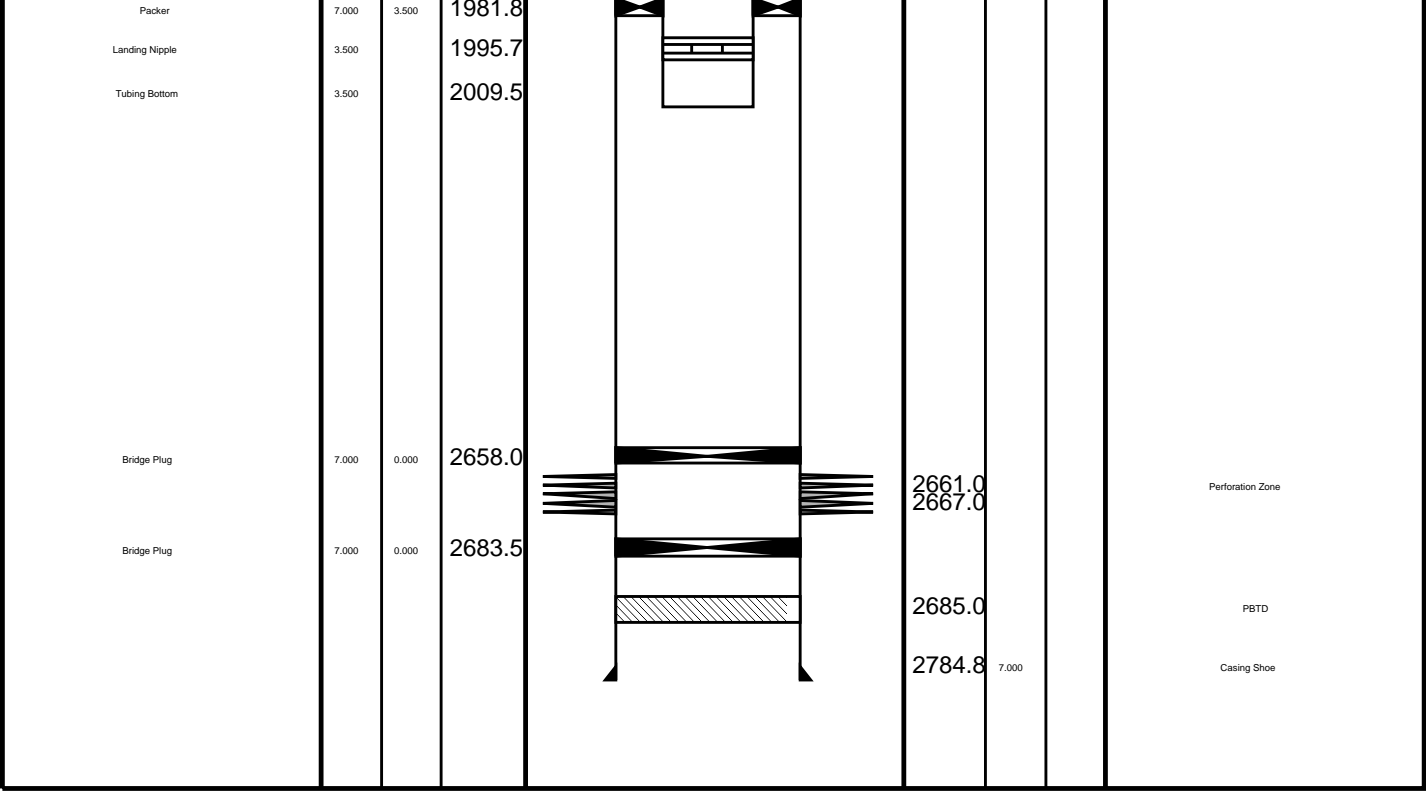
DISCLAIMER

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OTHER SERVICES1 OS1: None OS2: OS3: OS4: OS5:
REMARKS: RUN NUMBER 1
Log correlated to ExxonMobil Composite supplied with logging program.
Objective: RIH with dummy toolstring to ensure access through minimum restrictions.
Perforate the interval 2638m to 2640m MDKB using 2-1/8" 6spf, 45 deg phased Powerjet perforating guns with MWPT.
Set 4.5" posiset Plug with top of Seal @ 2642m MDKB , then Dump approx 1m of Cement on top .
HUD: 2645m MDKB (top of FISH)
Before Gun SBHP: 3410.3 psia SBHT: 226.3 degf



Production String	(in)		(m)	Well Schematic	(m)	(in)		Casing String
	OD	ID	MD		MD	OD	ID	
Tubing Hanger	6.151	2.992	12.2		11.9	10.750		Casing String
Tubing	3.500		12.2		11.9	7.000	10.750	Liner Hanger
					11.9	7.000		Casing String
SSSV Landing Nipple	3.500		145.5					
					549.3	10.750		Casing Shoe
Side Pocket Mandrel	3.500		840.2					
Side Pocket Mandrel	3.500		1275.5					
Side Pocket Mandrel	3.500		1749.3					
Landing Nipple	3.500		1966.2					



Job Event Summary

MAXIS Field Log

Schlumberger Job Event Summary

	Time	Elapsed Time	Depth (M)	File
Log Pass (up)	23-Jan-2008 9:20	001:04	2647.9 – 1984.2	PSP_014LUP
Log Pass (up)	23-Jan-2008 13:01	000:07	2638.7 – 2571.8	PERFO_030LUP
Log Pass (down)	23-Jan-2008 18:50	000:08	2541.6 – 2617.2	MPBT_039LDP
Log Pass (down)	23-Jan-2008 19:05	000:10	2549.0 – 2635.1	MPBT_040LDP
Simulated Log	23-Jan-2008 19:18	000:18		MPBT_041LUP
Log Pass (up)	23-Jan-2008 22:03	000:11	2632.7 – 2579.7	PERFO_049LUP
Log Pass (up)	23-Jan-2008 23:39	000:08	2632.9 – 2589.6	PERFO_052LUP



Cement Dump Pass

MAXIS Field Log

Output DLIS Files

DEFAULT PERFO_052LUP FN:51 PRODUCER 23-Jan-2008 23:39 2632.9 M 2589.6 M

OP System Version: 15C0-309
MCM

SHM_GUN SRPC-3474-Q4_2007 CCL-L 15C0-309

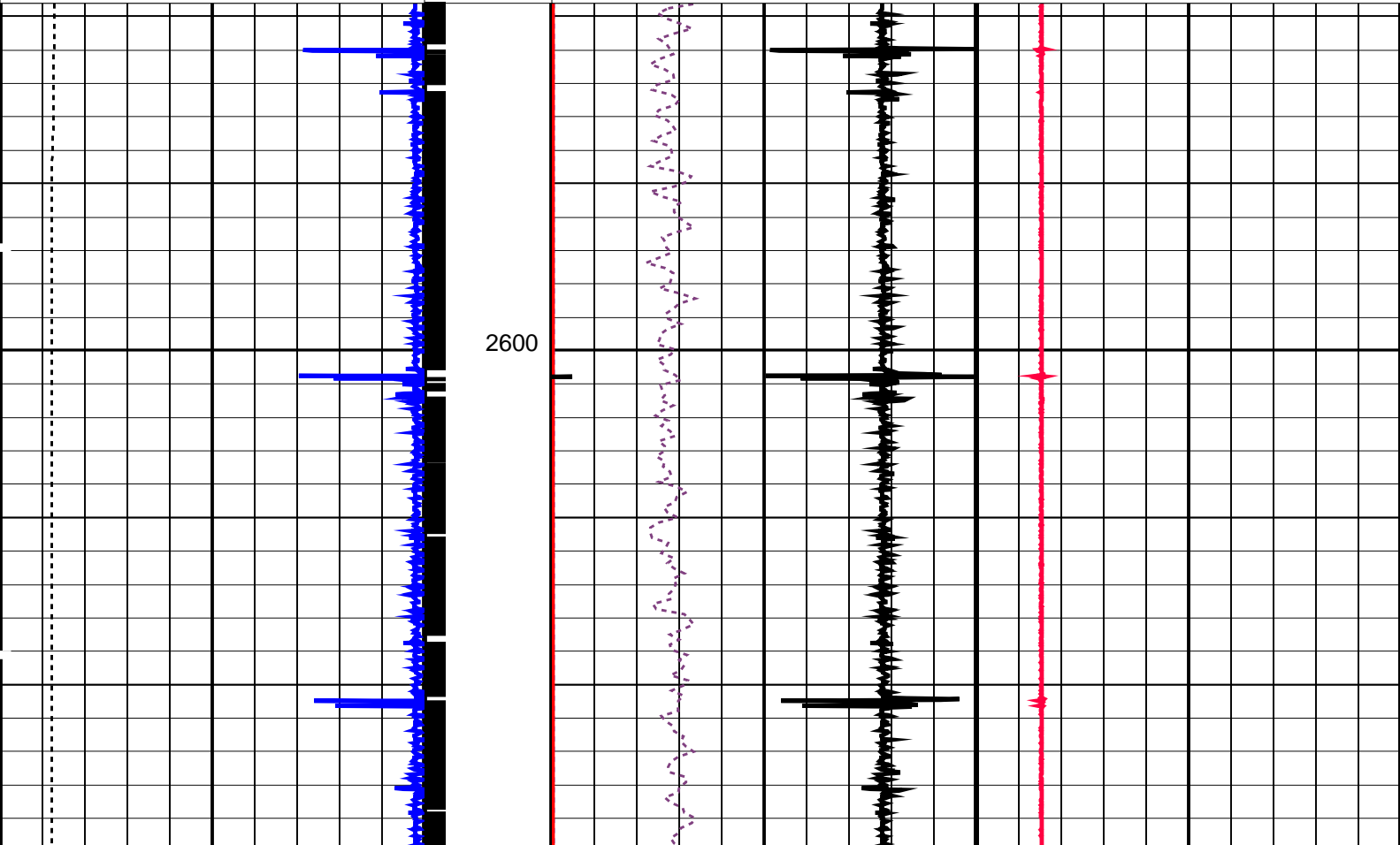
PIP SUMMARY

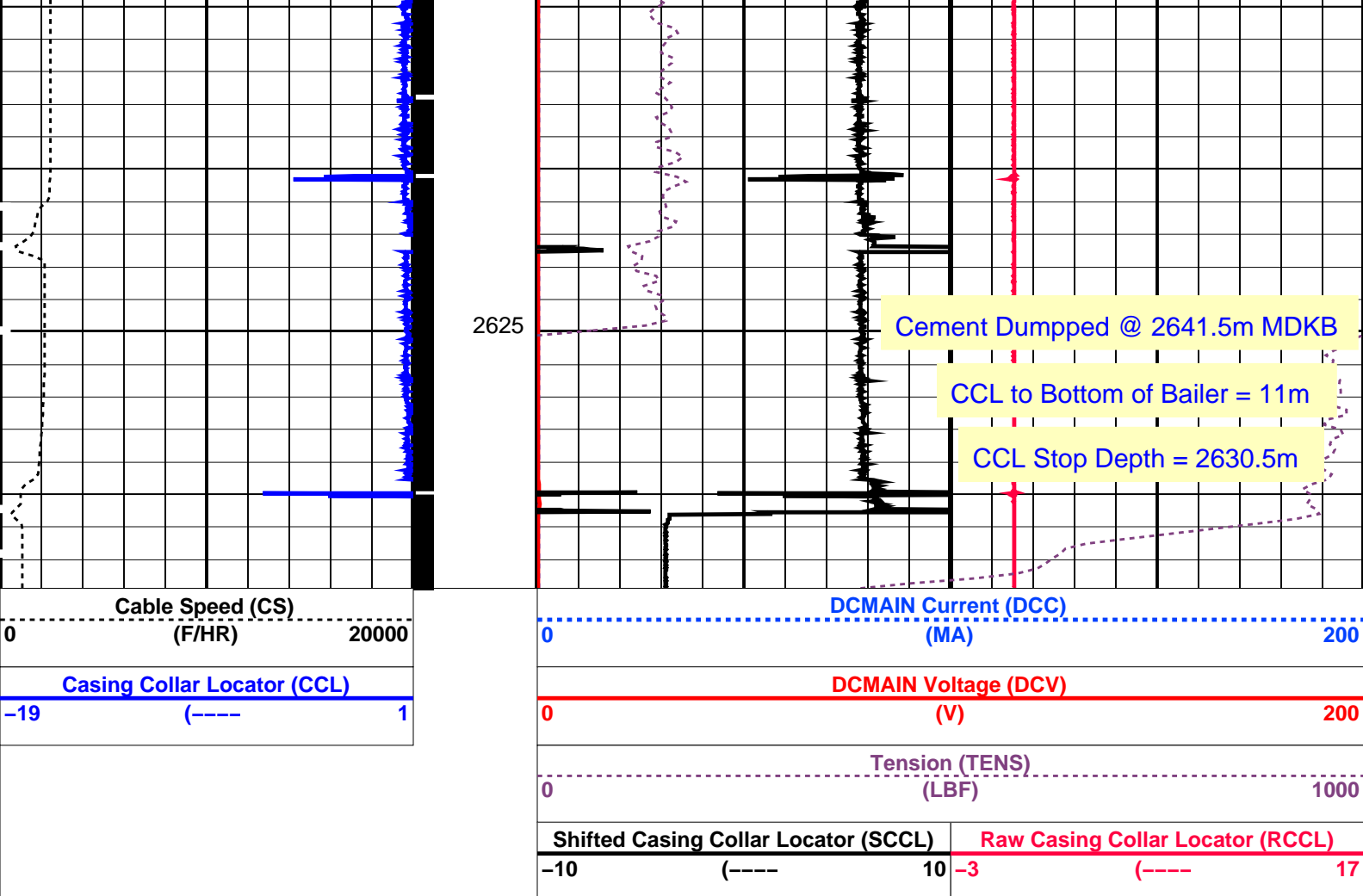
└─ Casing Collars

Time Mark Every 60 S

		Shifted Casing Collar Locator (SCCL)		Raw Casing Collar Locator (RCCL)		
		-10	(----	10	-3 (----	17
		Tension (TENS)				
		(LBF)				
		0				1000
		DCMAIN Voltage (DCV)				
		(V)				
		0				200
		DCMAIN Current (DCC)				
		(MA)				
		0				200

Casing Collar Locator (CCL)		
-19	(----	1
Cable Speed (CS)		
(F/HR)		
0		20000





PIP SUMMARY

└─ Casing Collars

Time Mark Every 60 S

Parameters

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

Format: PERFO Vertical Scale: 1:200

Graphics File Created: 23-Jan-2008 23:39

OP System Version: 15C0-309
MCM

SHM_GUN SRPC-3474-Q4_2007 CCL-L 15C0-309

Output DLIS Files

DEFAULT PERFO_052LUP FN:51 PRODUCER 23-Jan-2008 23:39

Schlumberger

Water Dump Pass

Output DLIS Files

DEFAULT PERFO_049LUP FN:48 PRODUCER 23-Jan-2008 22:03 2632.7 M 2579.7 M

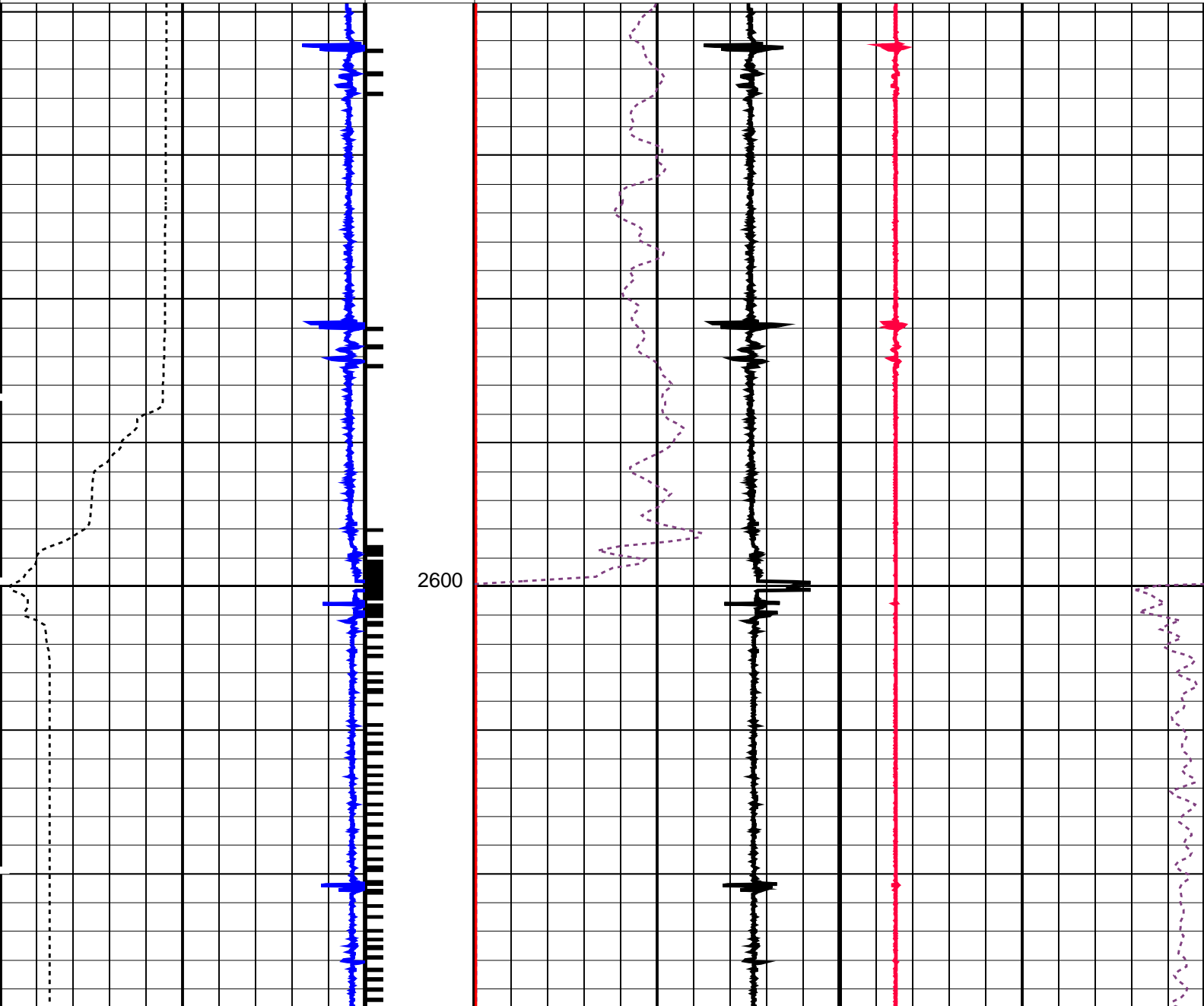
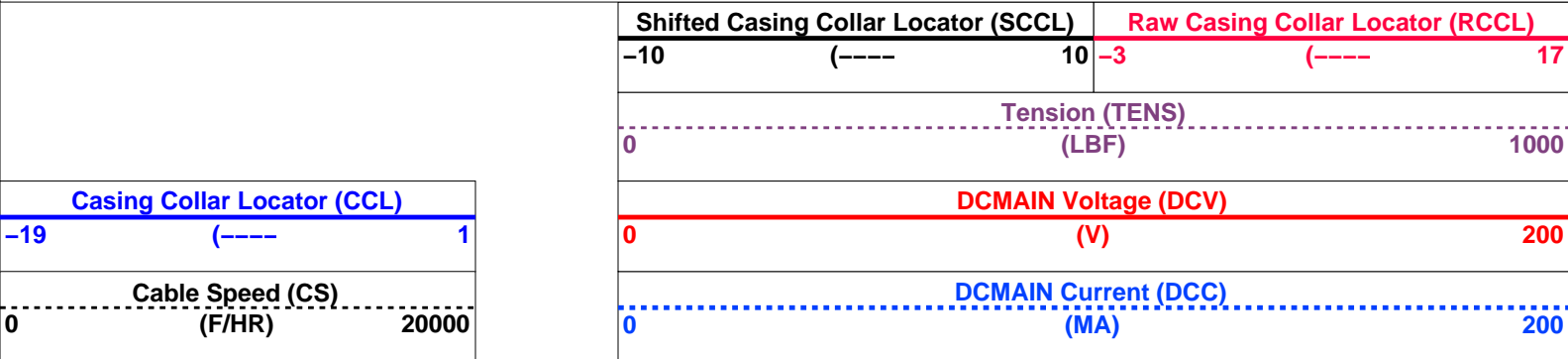
OP System Version: 15C0-309
MCM

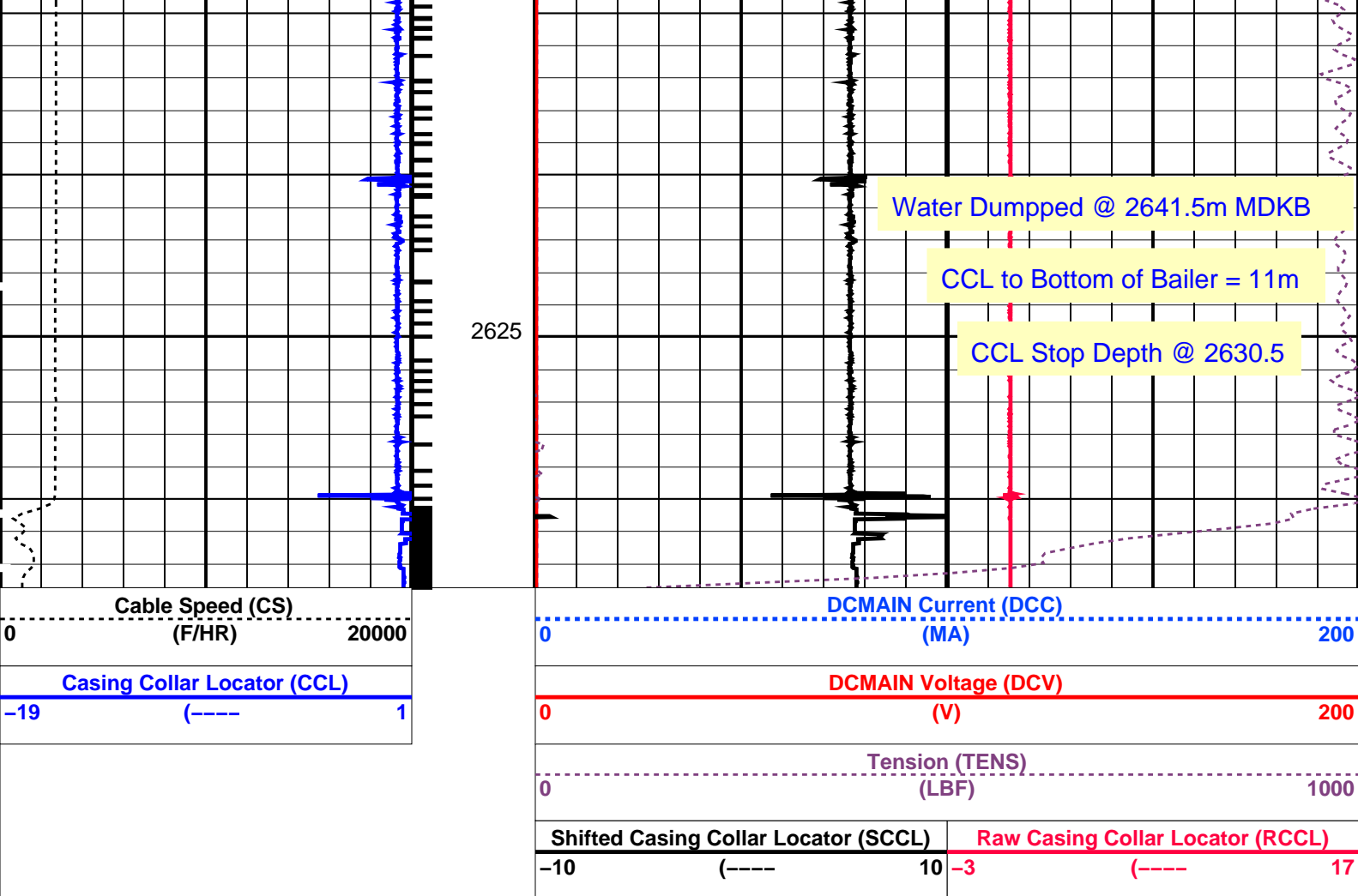
SHM_GUN SRPC-3474-Q4_2007 CCL-L 15C0-309

PIP SUMMARY

└─ Casing Collars

Time Mark Every 60 S





PIP SUMMARY

Time Mark Every 60 S

Casing Collars

Parameters

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

Format: PERFO Vertical Scale: 1:200 Graphics File Created: 23-Jan-2008 22:03

OP System Version: 15C0-309
MCM

SHM_GUN SRPC-3474-Q4_2007 CCL-L 15C0-309

Output DLIS Files

DEFAULT PERFO_049LUP FN:48 PRODUCER 23-Jan-2008 22:03

Schlumberger

4.5" Posiset Plug
@ 2642m MDKB

Output DLIS Files

DEFAULT

MPBT_041LUP

FN:40

PRODUCER

23-Jan-2008 19:18

OP System Version: 15C0-309

MCM

MPEX-BA
CCL-L

SRPC-3474-Q4_2007
15C0-309

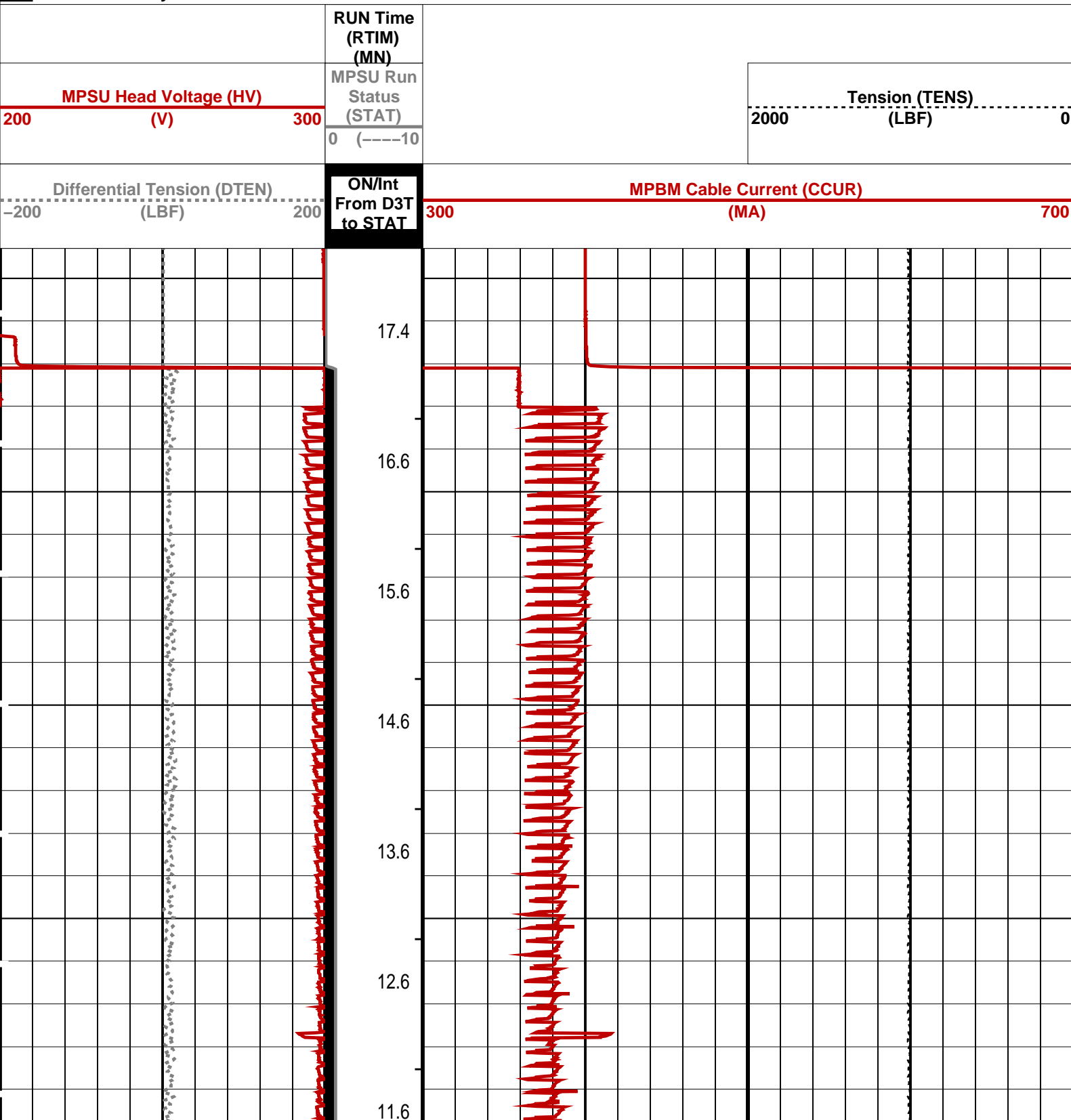
MPSU-CA

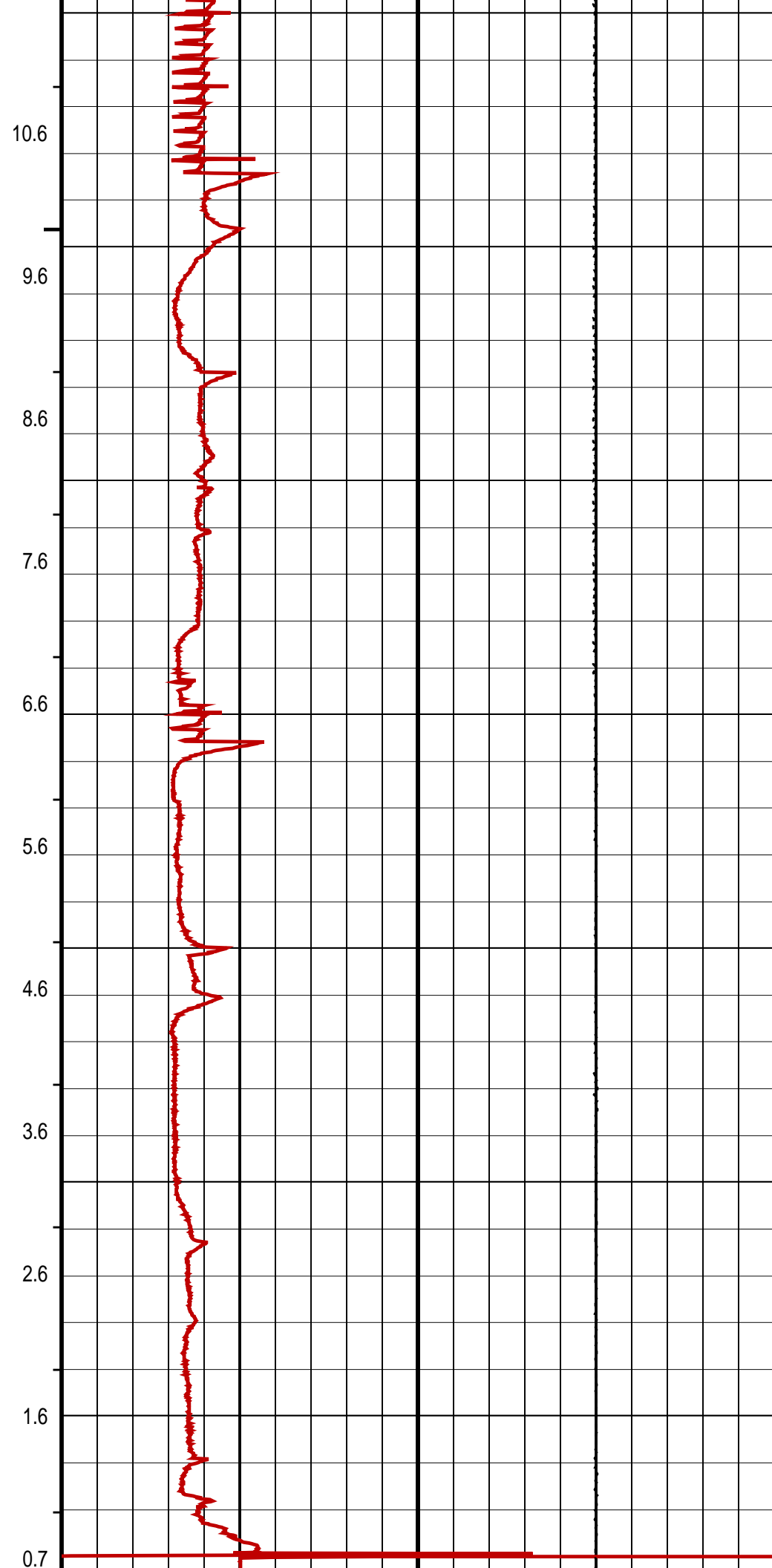
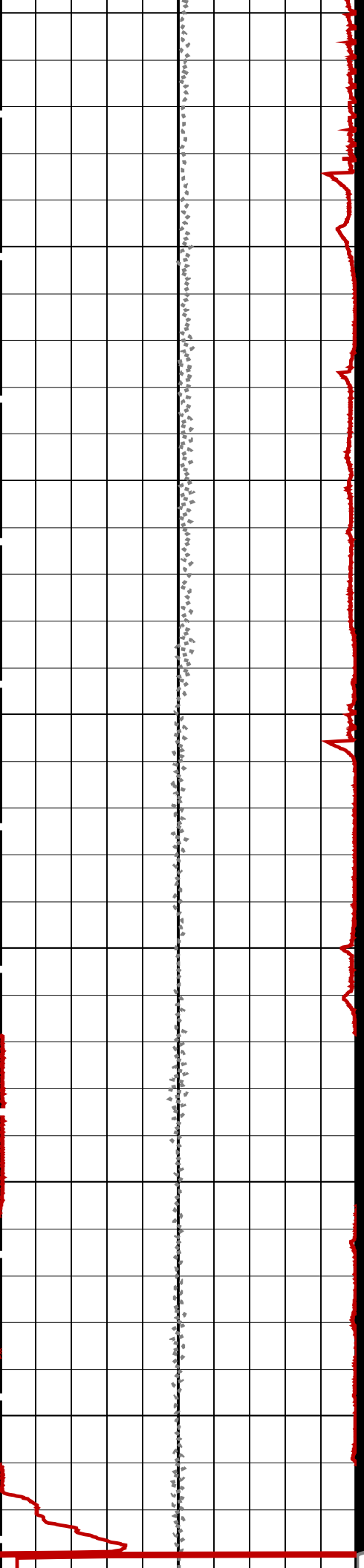
SRPC-3474-Q4_2007

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)	
-200	200		300	700
MPSU Head Voltage (HV) (V)		MPSU Run Status (STAT)	Tension (TENS) (LBF)	
200	300	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
IPUMP	MPSU-CA: MECHANICAL PLUGBACK SETTING UNIT Intensifier Pump	TRUE
Format: MPBT Vertical Scale: 1:600 Graphics File Created: 23-Jan-2008 19:18		

OP System Version: 15C0-309			
MCM			
MPEX-BA CCL-L	SRPC-3474-Q4_2007 15C0-309	MPSU-CA	SRPC-3474-Q4_2007

Output DLIS Files			
DEFAULT	MPBT_041LUP	FN:40 PRODUCER	23-Jan-2008 19:18

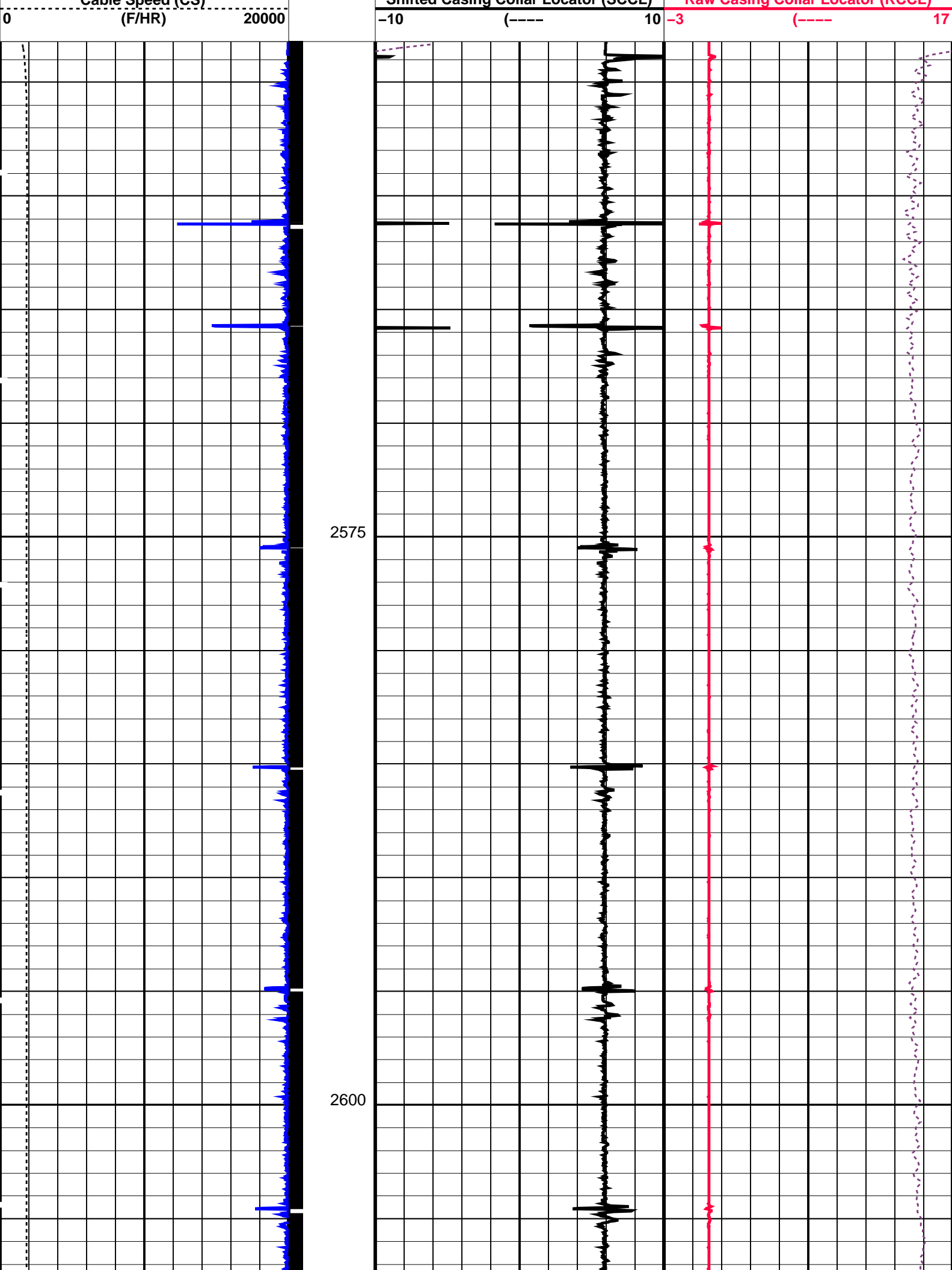
		Plug Setting Pass
MAXIS Field Log		

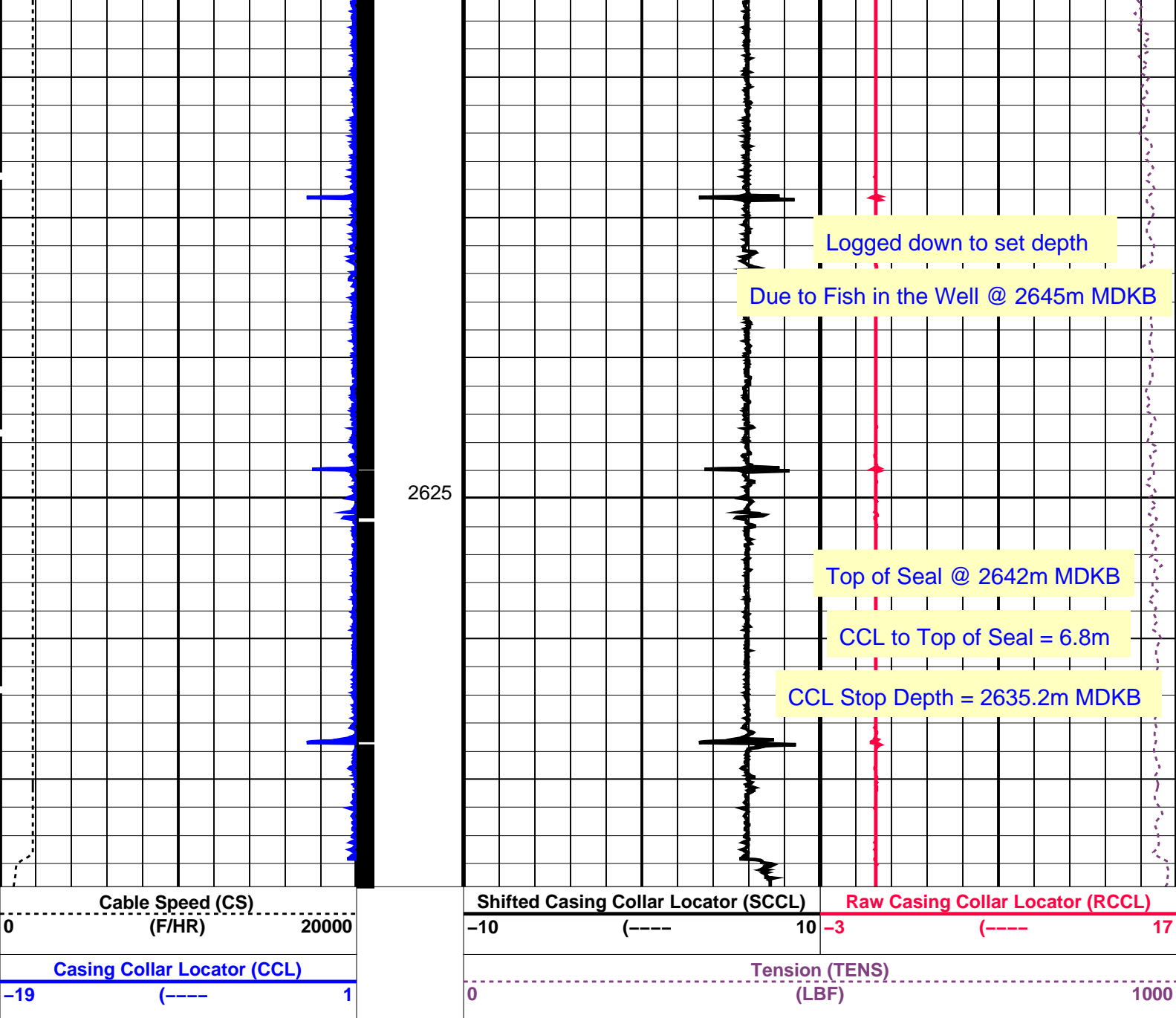
Input DLIS Files					
DEFAULT	Flip_MPBT_056LUP	PRODUCER	23-Jan-2008 23:54	2635.1 M	2549.0 M
Output DLIS Files					
DEFAULT	PERFO_058PUP	FN:54 PRODUCER	23-Jan-2008 23:55	2638.8 M	2553.2 M

OP System Version: 15C0-309			
MCM			
SHM_GUN	SRPC-3474-Q4_2007	CCL-L	15C0-309

PIP SUMMARY			
Casing Collars			
Time Mark Every 60 S			

Casing Collar Locator (CCL) (LBF)		Tension (TENS) (LBF)	
-19 (----1		0	1000
Cable Speed (CS)		Shifted Casing Collar Locator (SCCL)	Raw Casing Collar Locator (RCCL)





PIP SUMMARY

Time Mark Every 60 S

Casing Collars

Parameters

DLIS Name	Description	Value
CCLD	CCL-L: Casing Collar Locator	12 IN
CCLT	CCL reset delay	0.3 V
DO	CCL Detection Level	3.6 M
PP	System and Miscellaneous	NORMAL
	Depth Offset for Playback	
	Playback Processing	

Format: PERFO Vertical Scale: 1:200

Graphics File Created: 23-Jan-2008 23:55

OP System Version: 15C0-309

MCM

SHM_GUN SRPC-3474-Q4_2007 CCL-L 15C0-309

Input DLIS Files

DEFAULT Flip_MPBT_056LUP PRODUCER 23-Jan-2008 23:54 2635.1 M 2549.0 M

Output DLIS Files

DEFAULT

PERFO_058PUP

FN:54

PRODUCER

23-Jan-2008 23:55



Plug Correlation Pass

MAXIS Field Log

Input DLIS Files

DEFAULT

Flip_MPBT_055LUP

PRODUCER

23-Jan-2008 23:53

2617.2 M

2541.6 M

Output DLIS Files

DEFAULT

PERFO_057PUP

FN:53

PRODUCER

23-Jan-2008 23:54

2620.8 M

2545.7 M

OP System Version: 15C0-309
MCM

SHM_GUN

SRPC-3474-Q4_2007

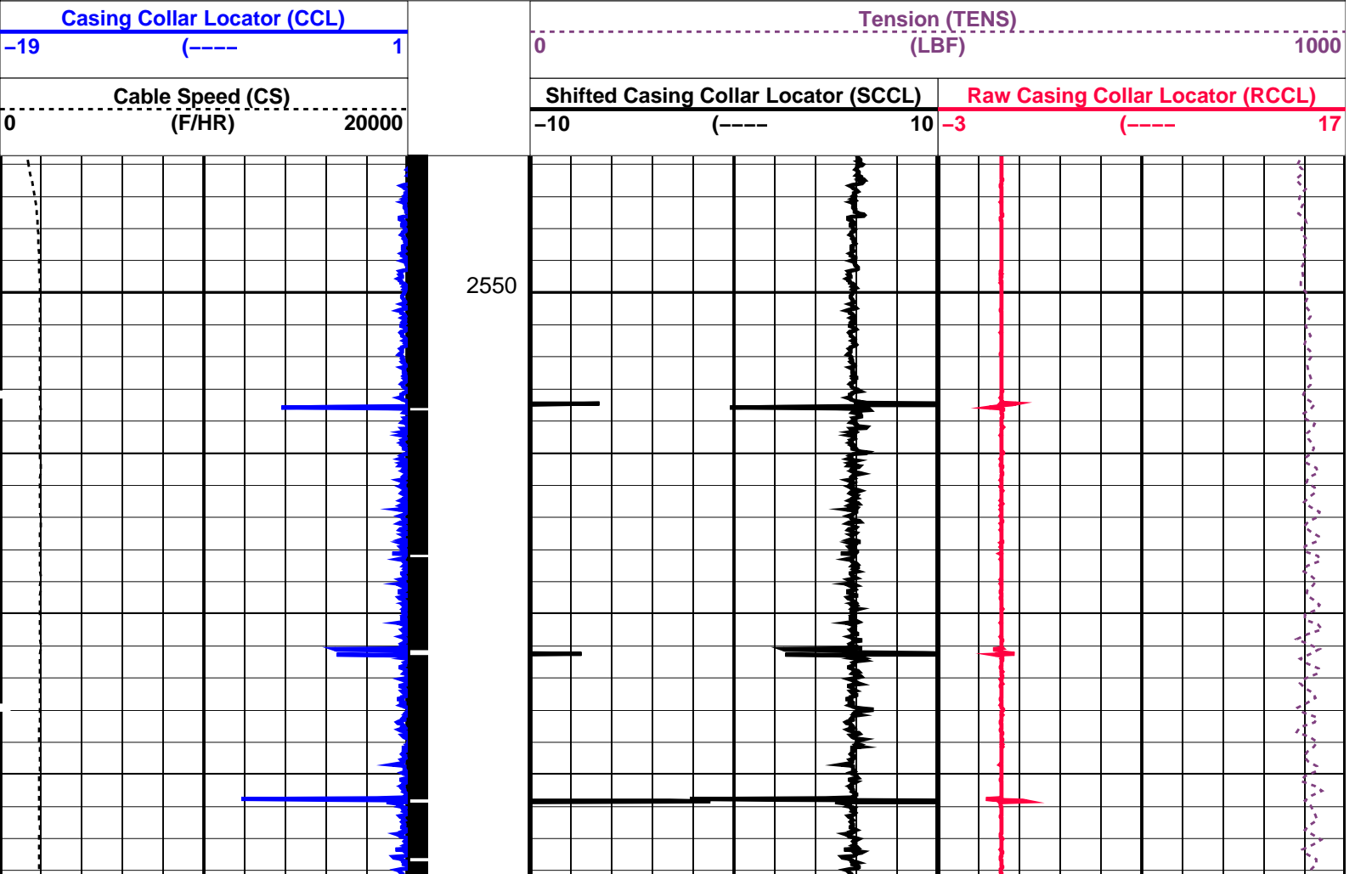
CCL-L

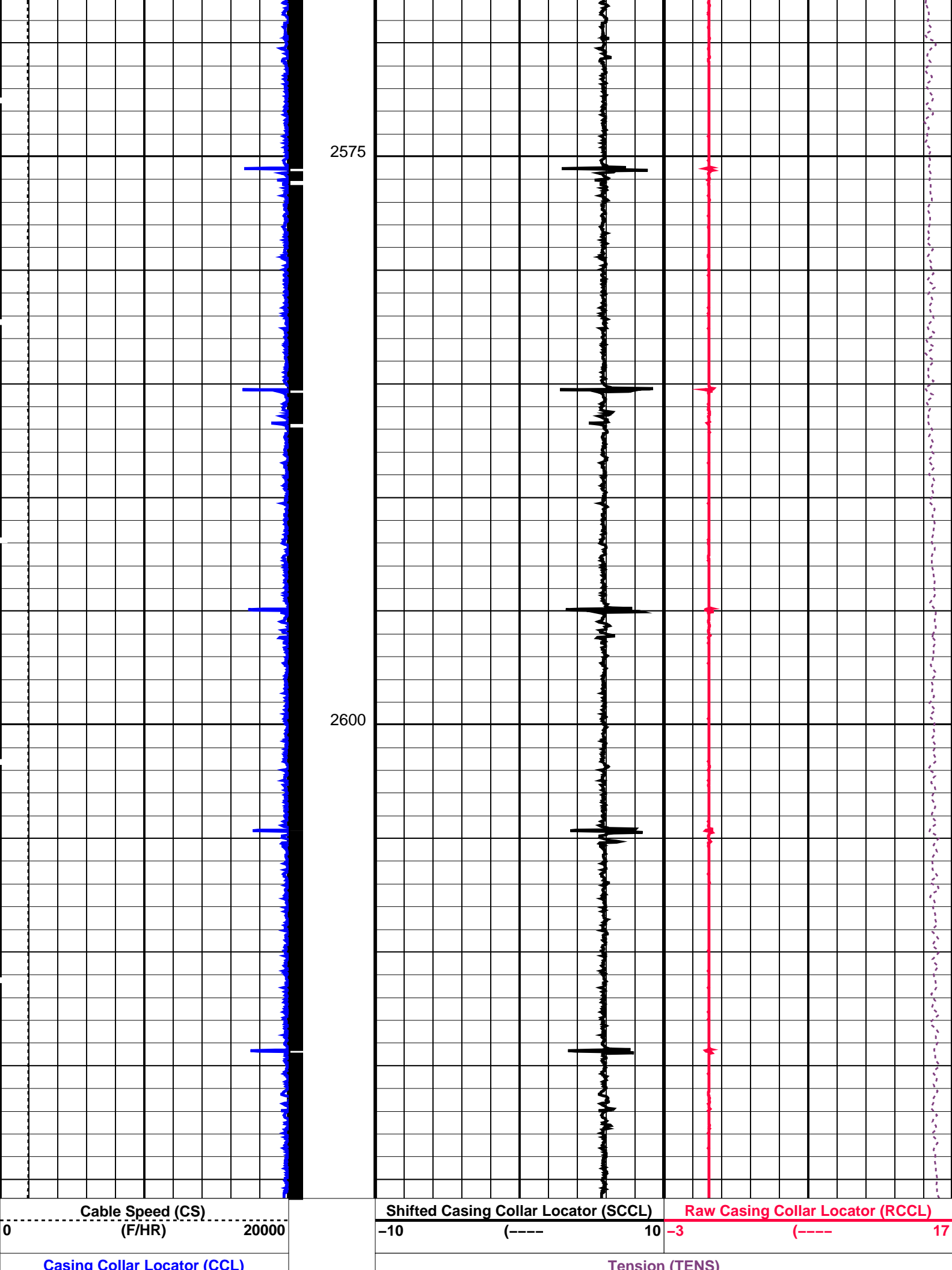
15C0-309

PIP SUMMARY

└─ Casing Collars

Time Mark Every 60 S





PIP SUMMARY

Time Mark Every 60 S

Casing Collars

Parameters			
DLIS Name	Description	Value	
CCLD	CCL-L: Casing Collar Locator	12	IN
CCLT	CCL reset delay	0.3	V
	CCL Detection Level		
DO	System and Miscellaneous	3.6	M
PP	Depth Offset for Playback		
	Playback Processing	NORMAL	

Format: PERFO

Vertical Scale: 1:200

Graphics File Created: 23-Jan-2008 23:54

OP System Version: 15C0-309

MCM

SHM_GUN

SRPC-3474-Q4_2007

CCL-L

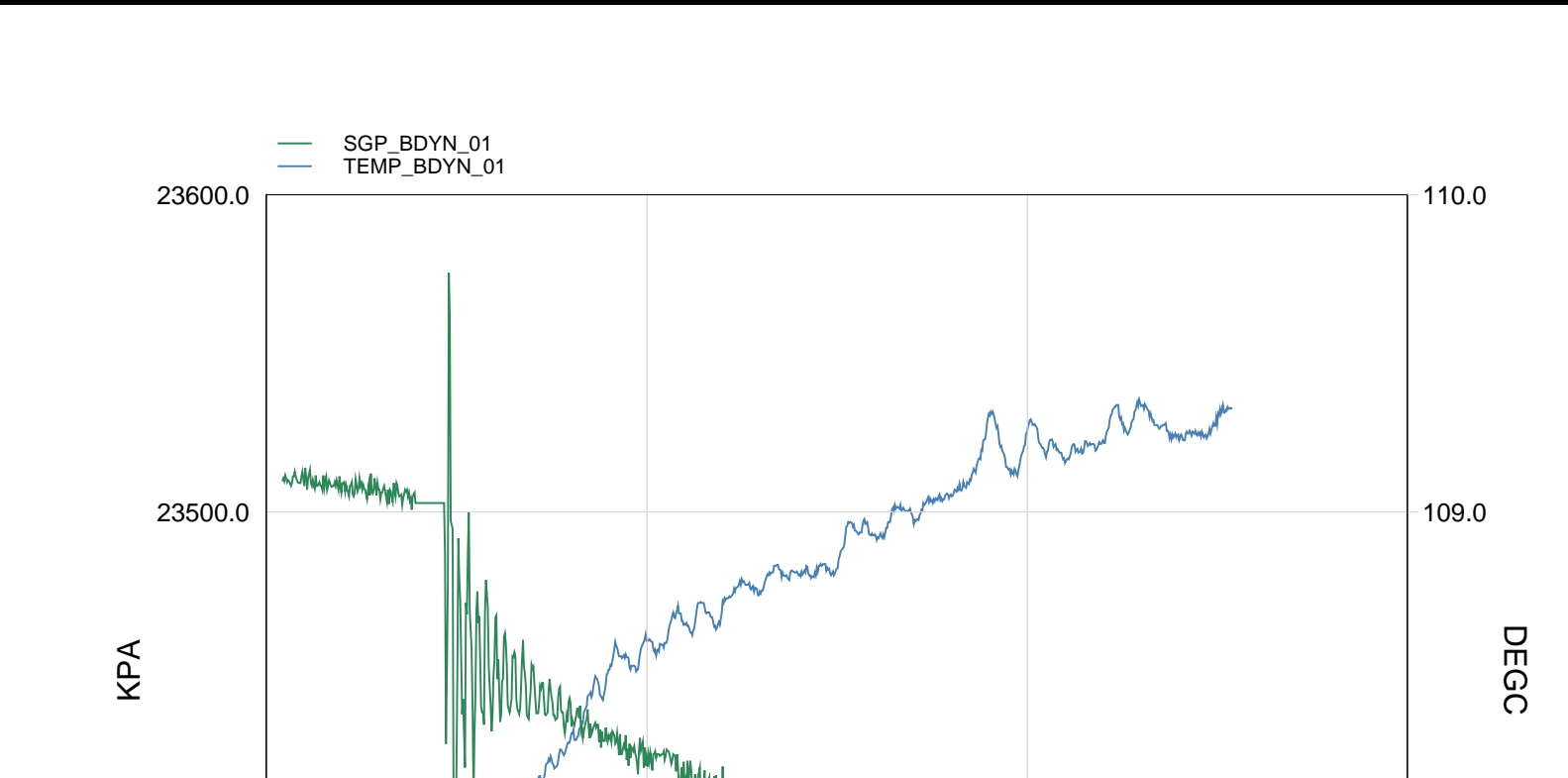
15C0-309

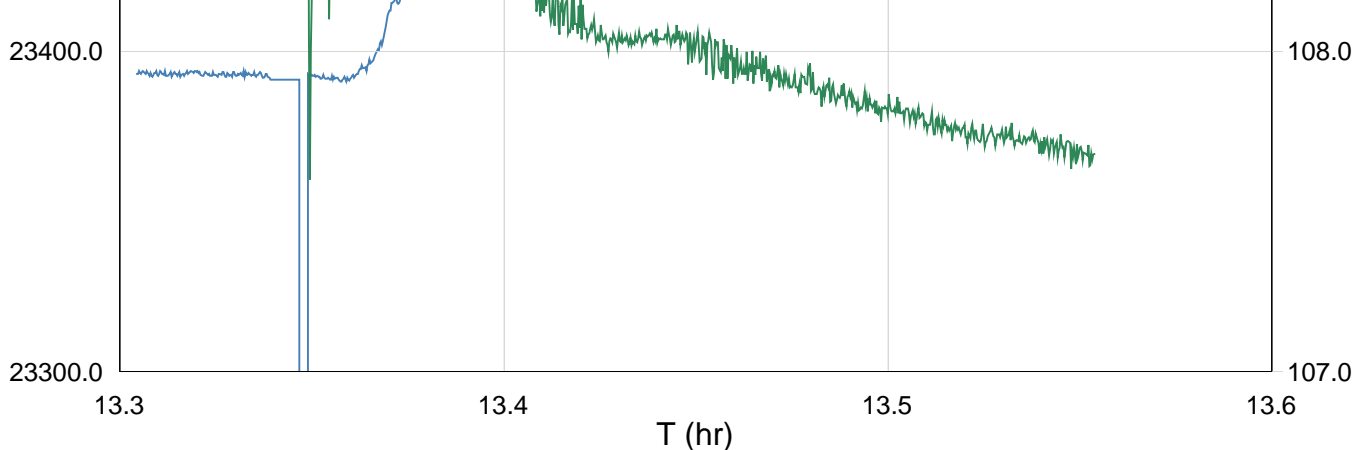
Input DLIS Files					
DEFAULT	Flip_MPBT_055LUP	PRODUCER	23-Jan-2008 23:53	2617.2 M	2541.6 M
Output DLIS Files					
DEFAULT	PERFO_057PUP	FN:53	PRODUCER	23-Jan-2008 23:54	

Schlumberger

Bordyn Plot
@2638 m MDKB

MAXIS Field Log





TIME	DegF	PSIA
2700.0	226.27	3410.310
2760.0	226.29	3409.654
2820.0	226.27	3409.210
2880.0	226.25	3406.942
2940.0	226.62	3401.251
3000.0	227.27	3398.507
3060.0	227.41	3397.093
3120.0	227.69	3395.893
3180.0	227.84	3394.525
3240.0	228.14	3394.462
3300.0	228.16	3392.719
3360.0	228.46	3391.916
3420.0	228.59	3391.065
3480.0	228.61	3390.529
3540.0	228.66	3389.766
3600.0	228.78	3389.199

Schlumberger

2-1/8" Powerjet Gun
Shooting Pass

MAXIS Field Log

Company: Esso Australia Pty Ltd.

Well: A-20a

Output DLIS Files

DEFAULT	PERFO_031LUP	FN:30	PRODUCER	23-Jan-2008 13:11	2639.1 M	2571.1 M
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OP System Version: 15C0-309

MCM

MWP_GUN	SRPC-3474-Q4_2007	MWPT-CA	SRPC-3474-Q4_2007
MWGT-AA	SRPC-3474-Q4_2007		

PIP SUMMARY

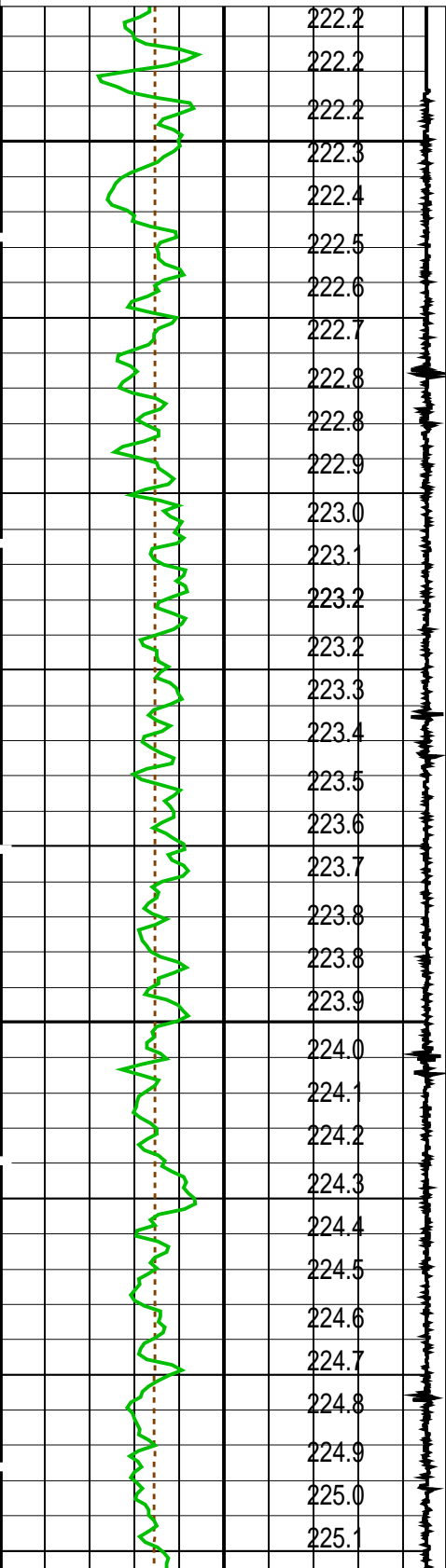
Time Mark Every 60 S

Pressure (SGP)
(PSIA)

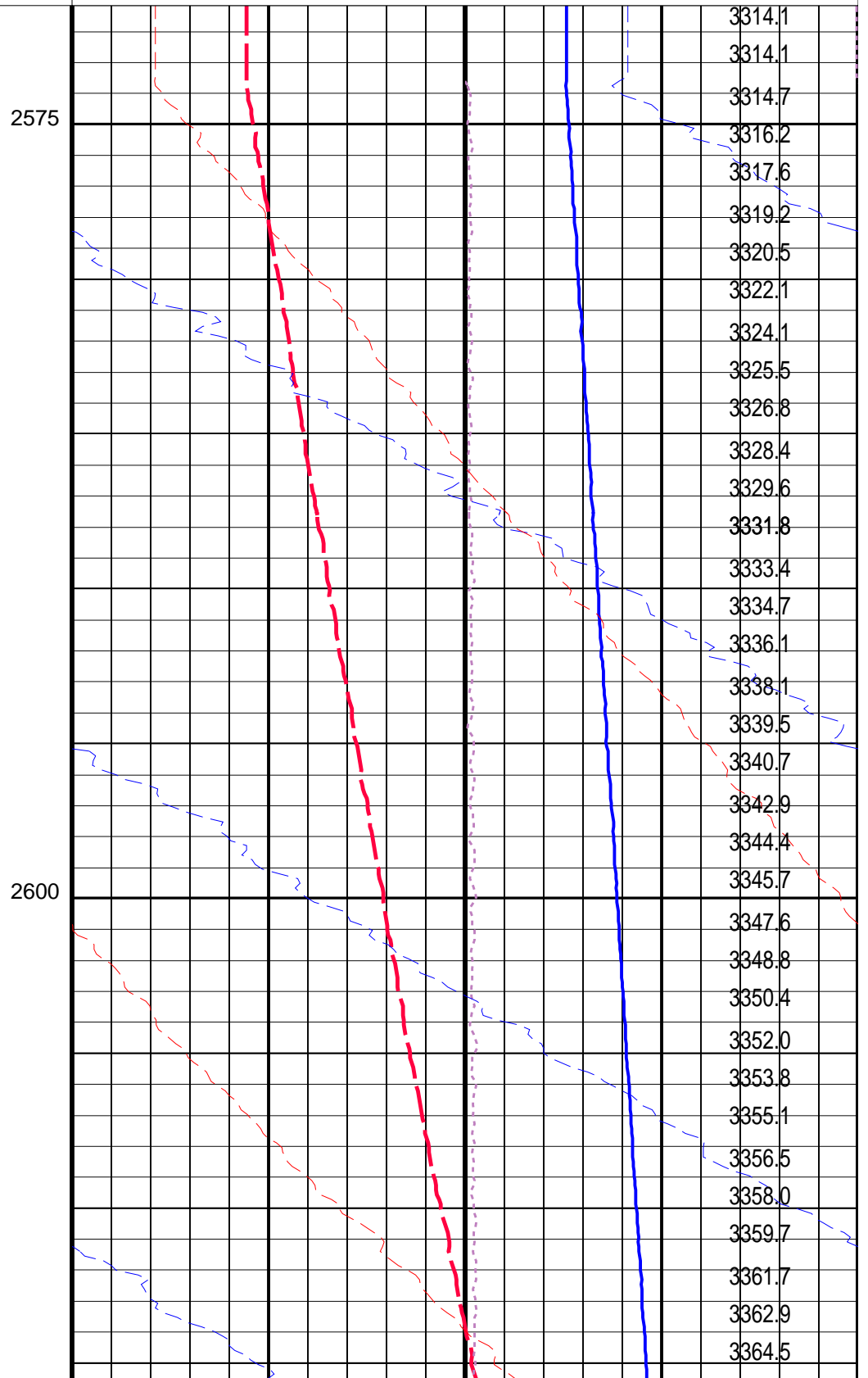
Temperature

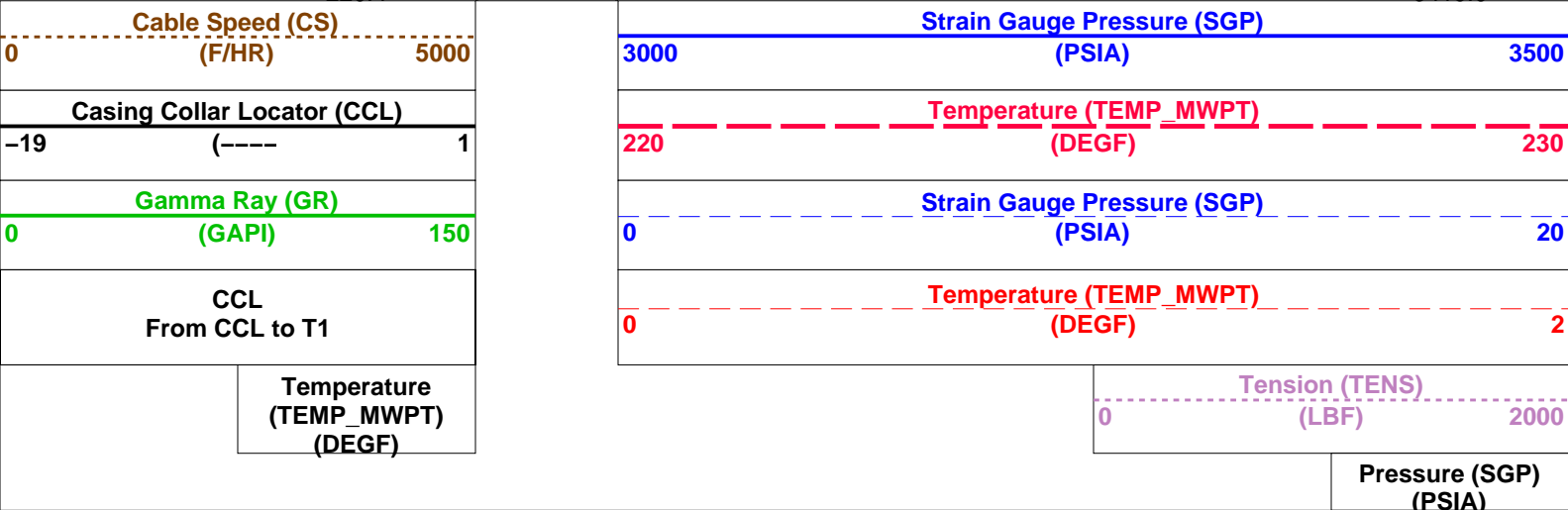
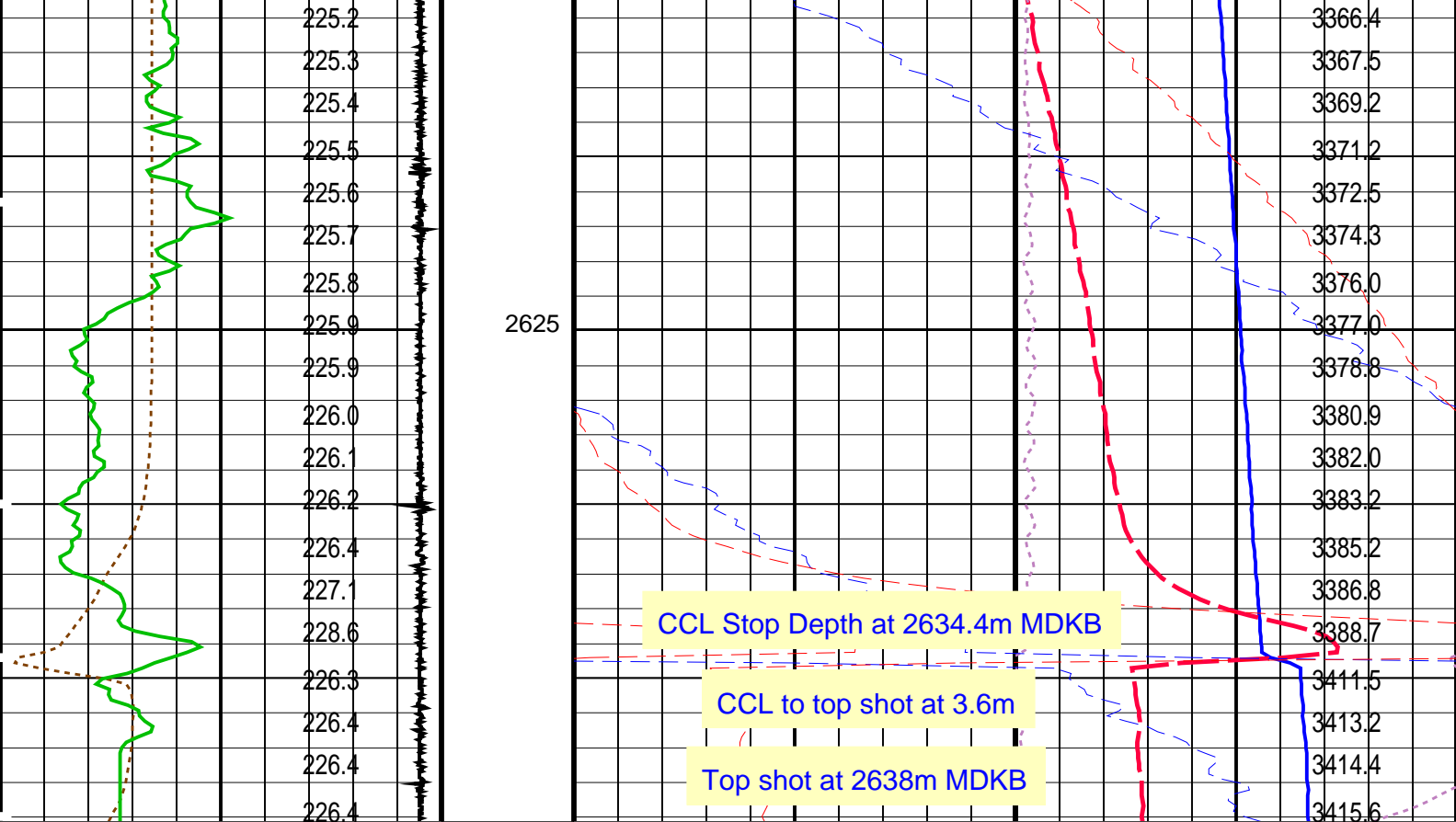
Tension (TENS)

Temperature (TEMP_MWPT) (DEGF)	
CCL From CCL to T1	
Gamma Ray (GR) (GAPI)	
0	150
Casing Collar Locator (CCL)	
-19	1
Cable Speed (CS) (F/HR)	
0	5000



Tension (TENS) (LBF)	
0	2000
Temperature (TEMP_MWPT) (DEGF)	
0	2
Strain Gauge Pressure (SGP) (PSIA)	
0	20
Temperature (TEMP_MWPT) (DEGF)	
220	230
Strain Gauge Pressure (SGP) (PSIA)	
3000	3500





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: 23-Jan-2008 13:11

OP System Version: 15C0-309

MCM

MWP_GUN SRPC-3474-Q4_2007 MWPT-CA SRPC-3474-Q4_2007
MWGT-AA SRPC-3474-Q4_2007

Output DLIS Files

DEFAULT PERFO_031LUP FN:30 PRODUCER 23-Jan-2008 13:11

Company: Esso Australia Pty Ltd.

Well: A-20a

Output DLIS Files

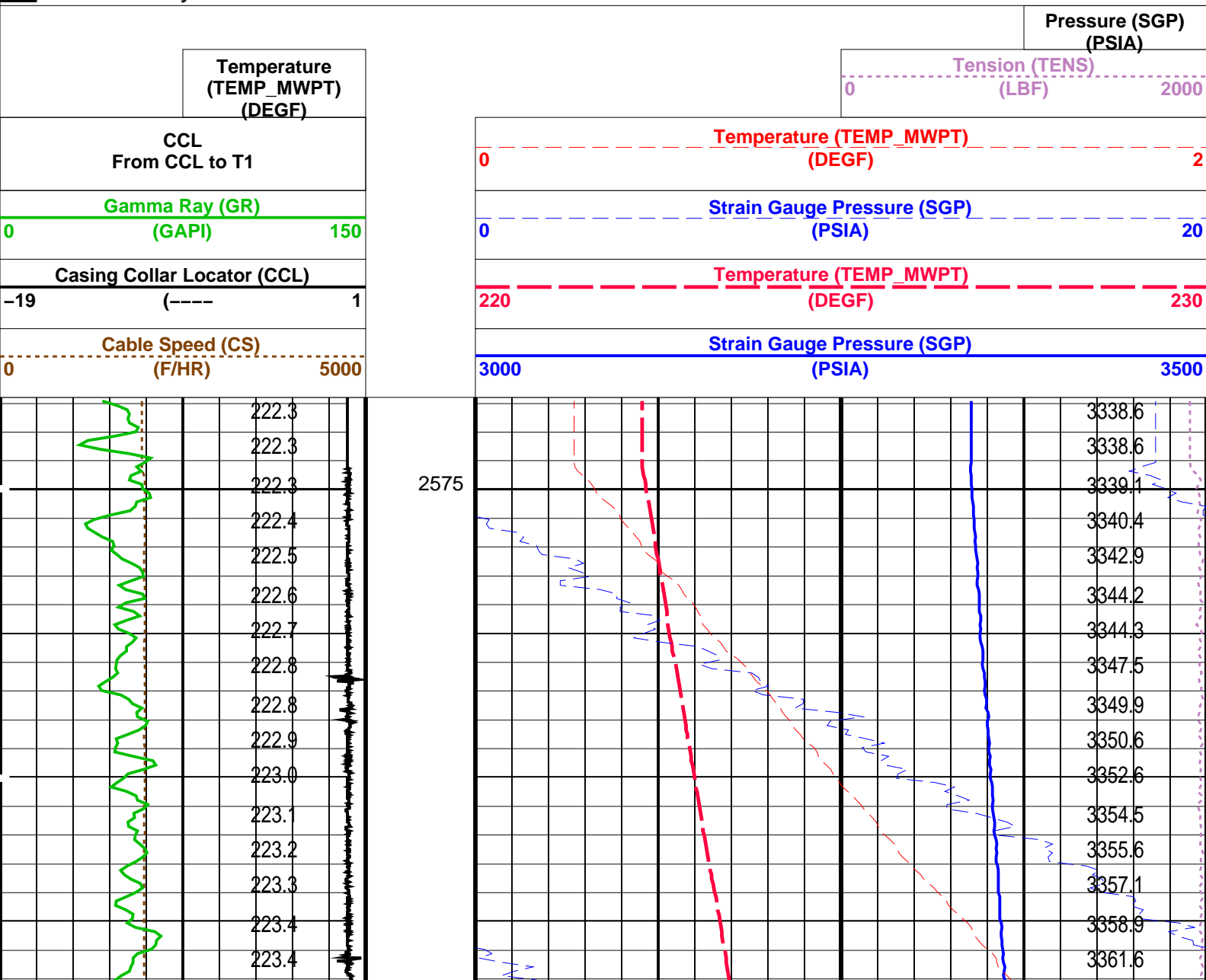
DEFAULT PERFO_030LUP FN:29 PRODUCER 23-Jan-2008 13:01

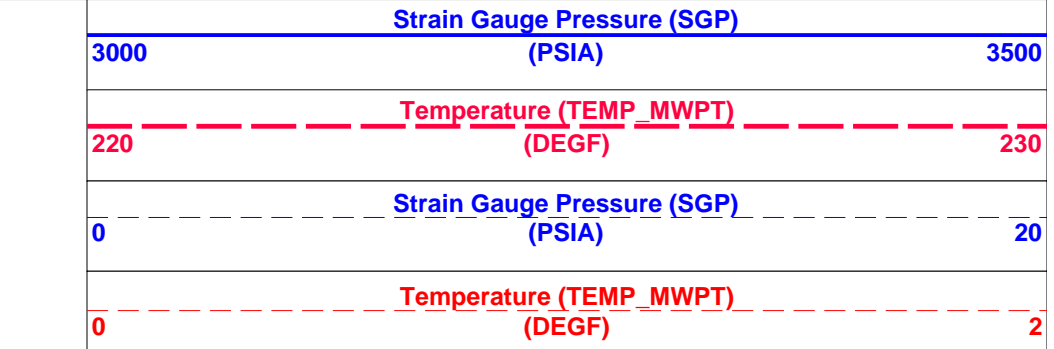
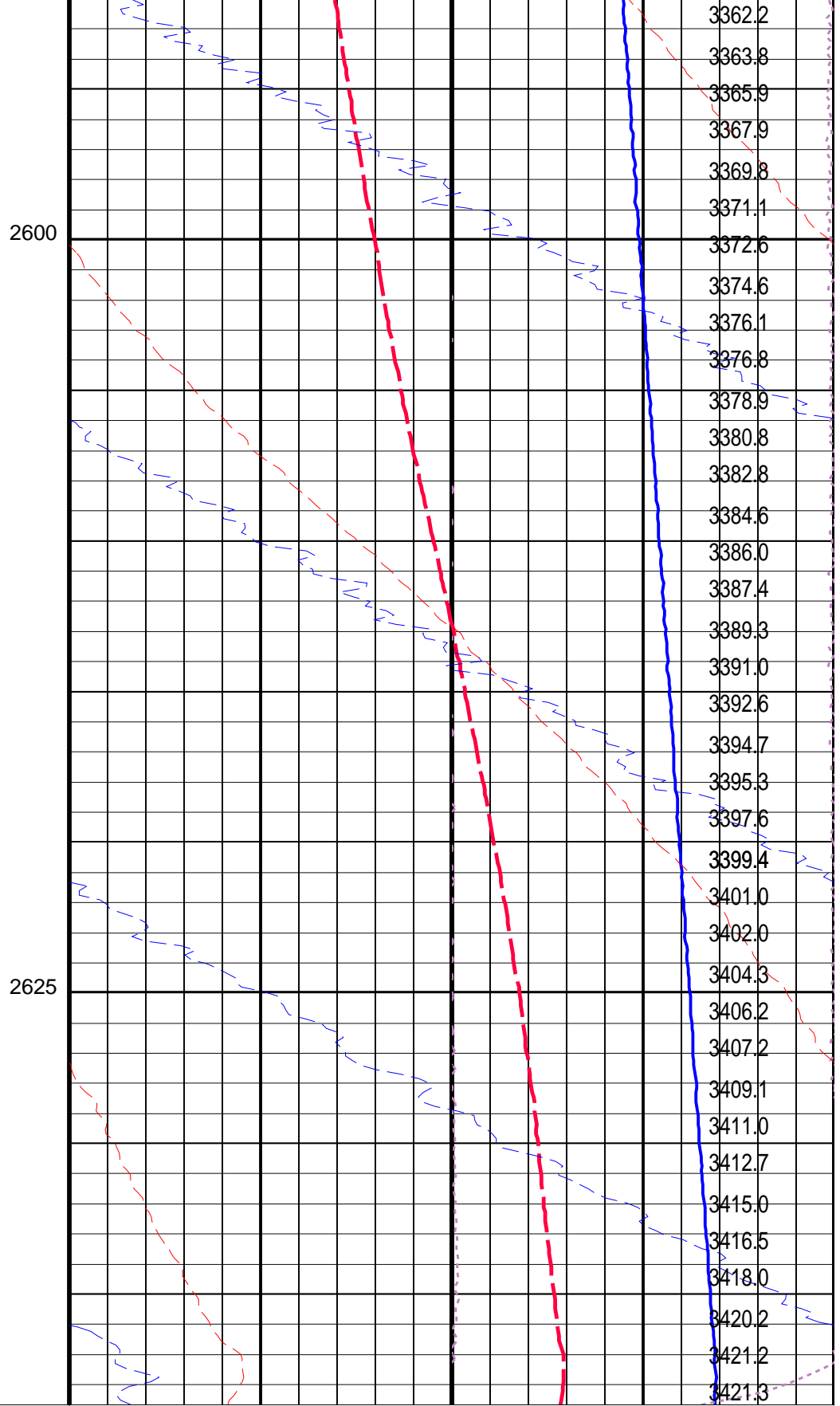
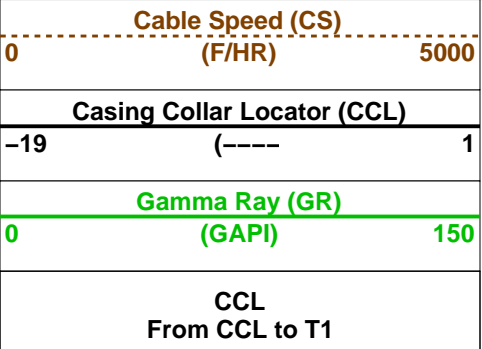
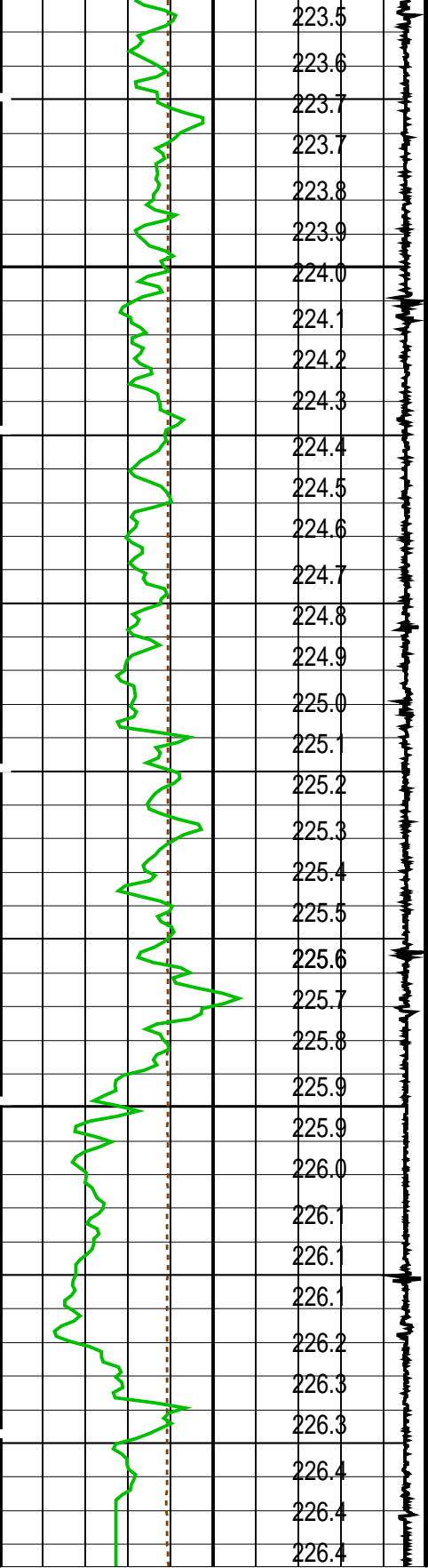
OP System Version: 15C0-309
MCM

MWP_GUN SRPC-3474-Q4_2007 MWPT-CA SRPC-3474-Q4_2007
MWGT-AA SRPC-3474-Q4_2007

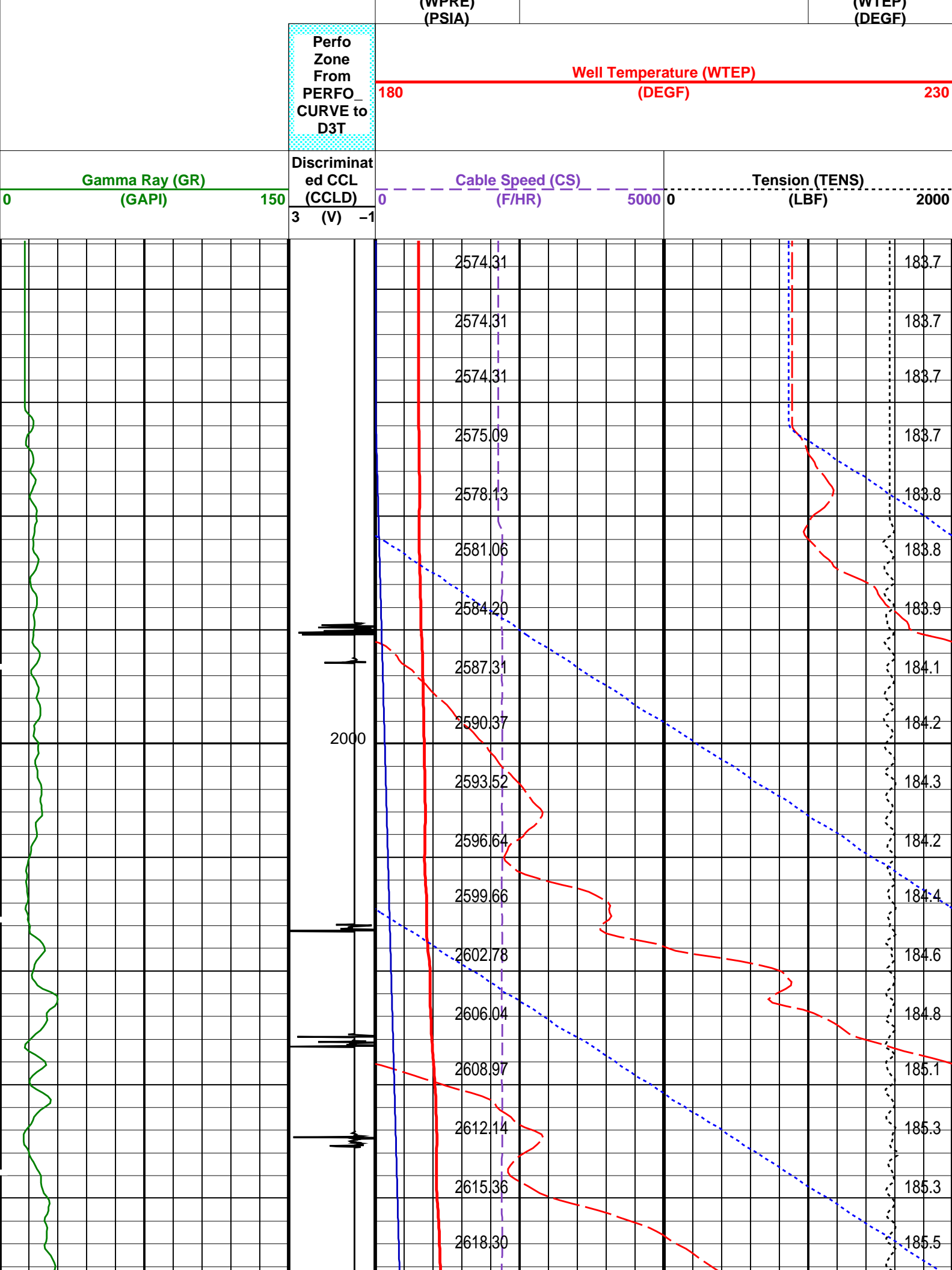
PIP SUMMARY

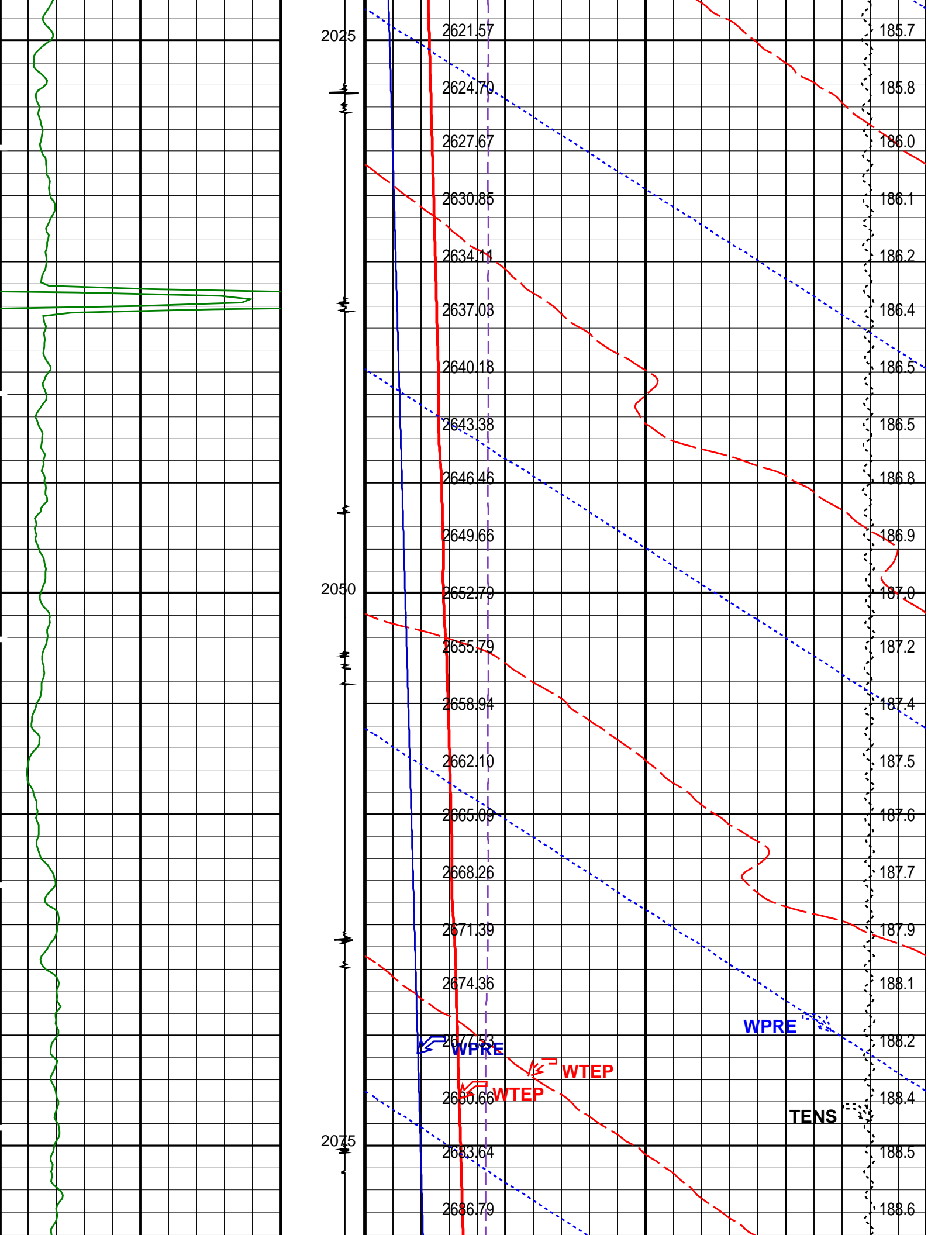
Time Mark Every 60 S

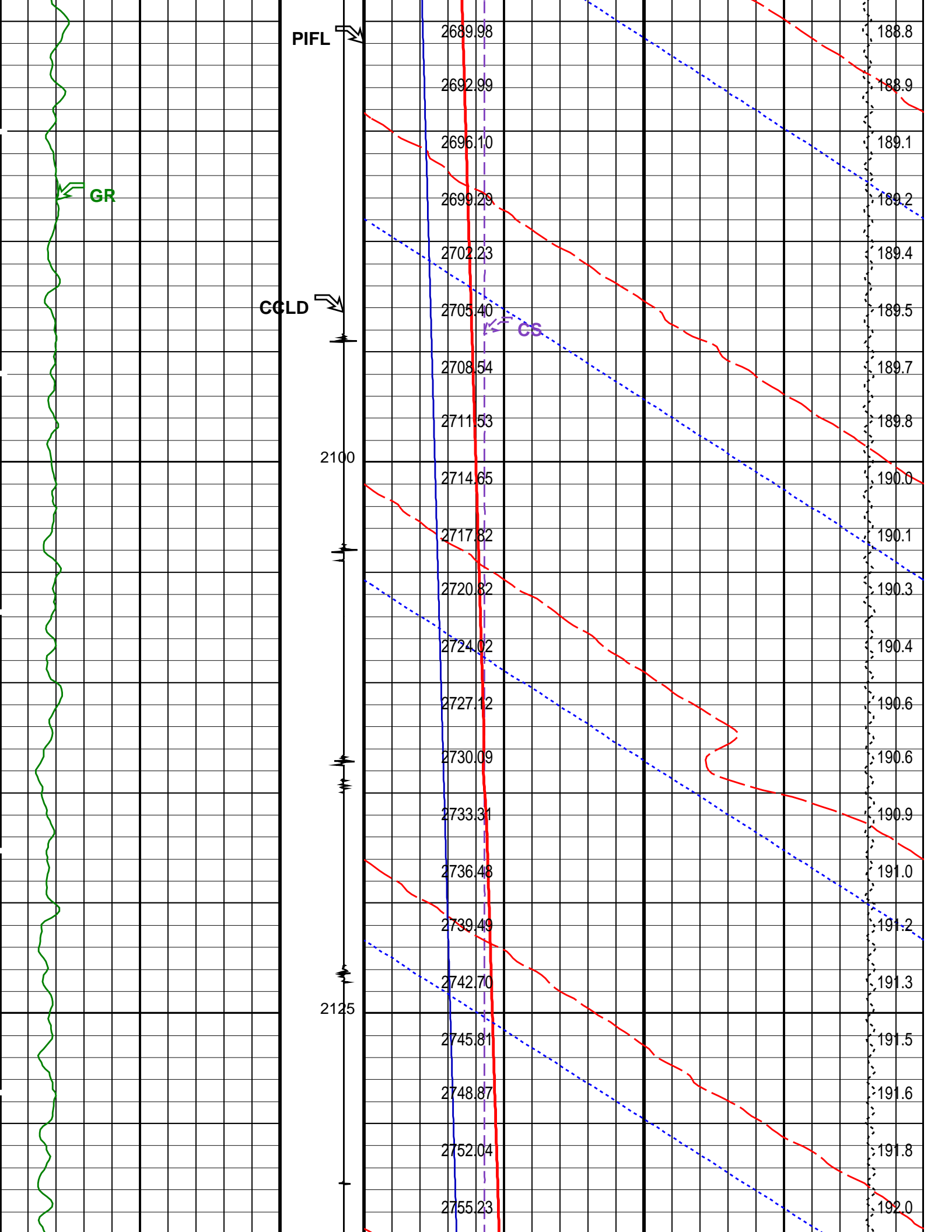


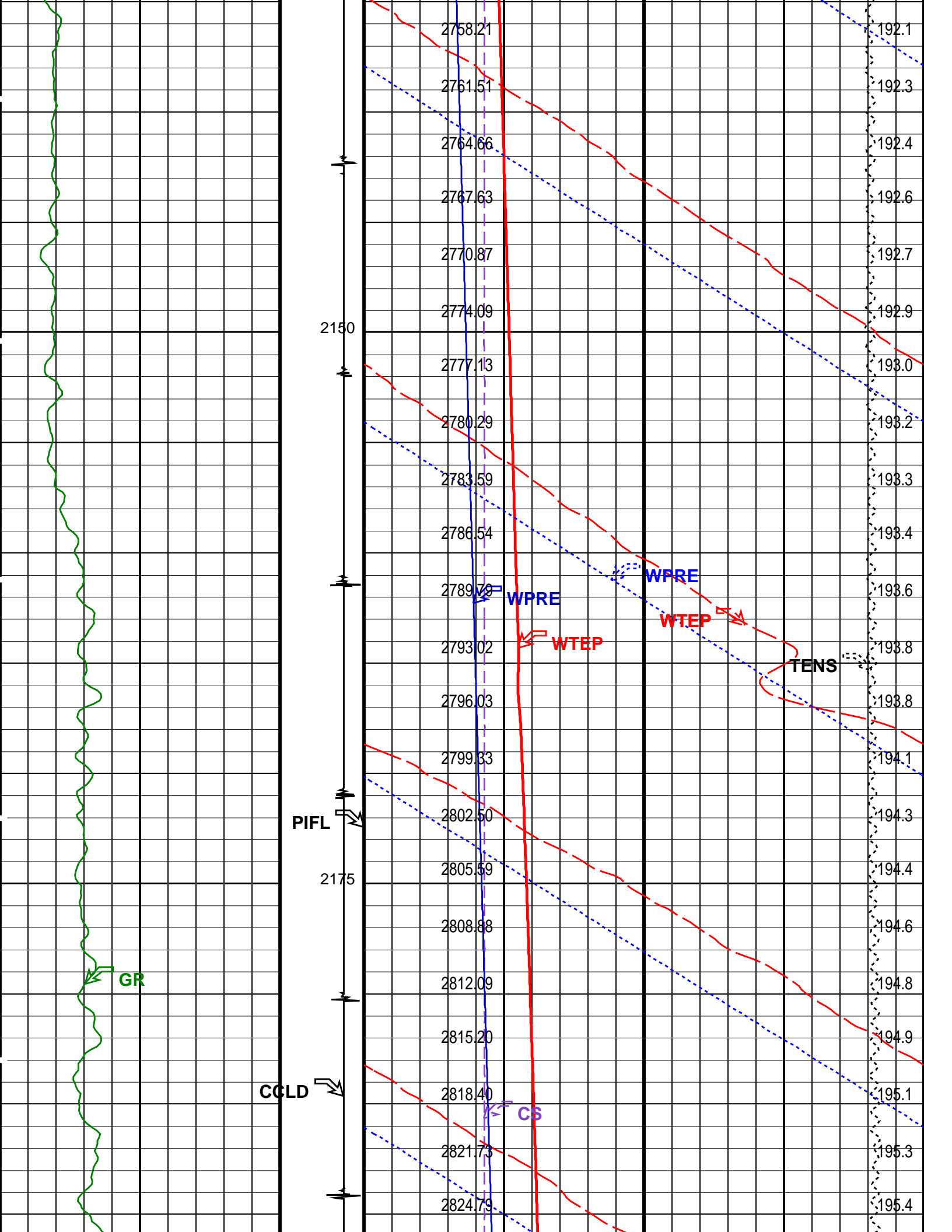


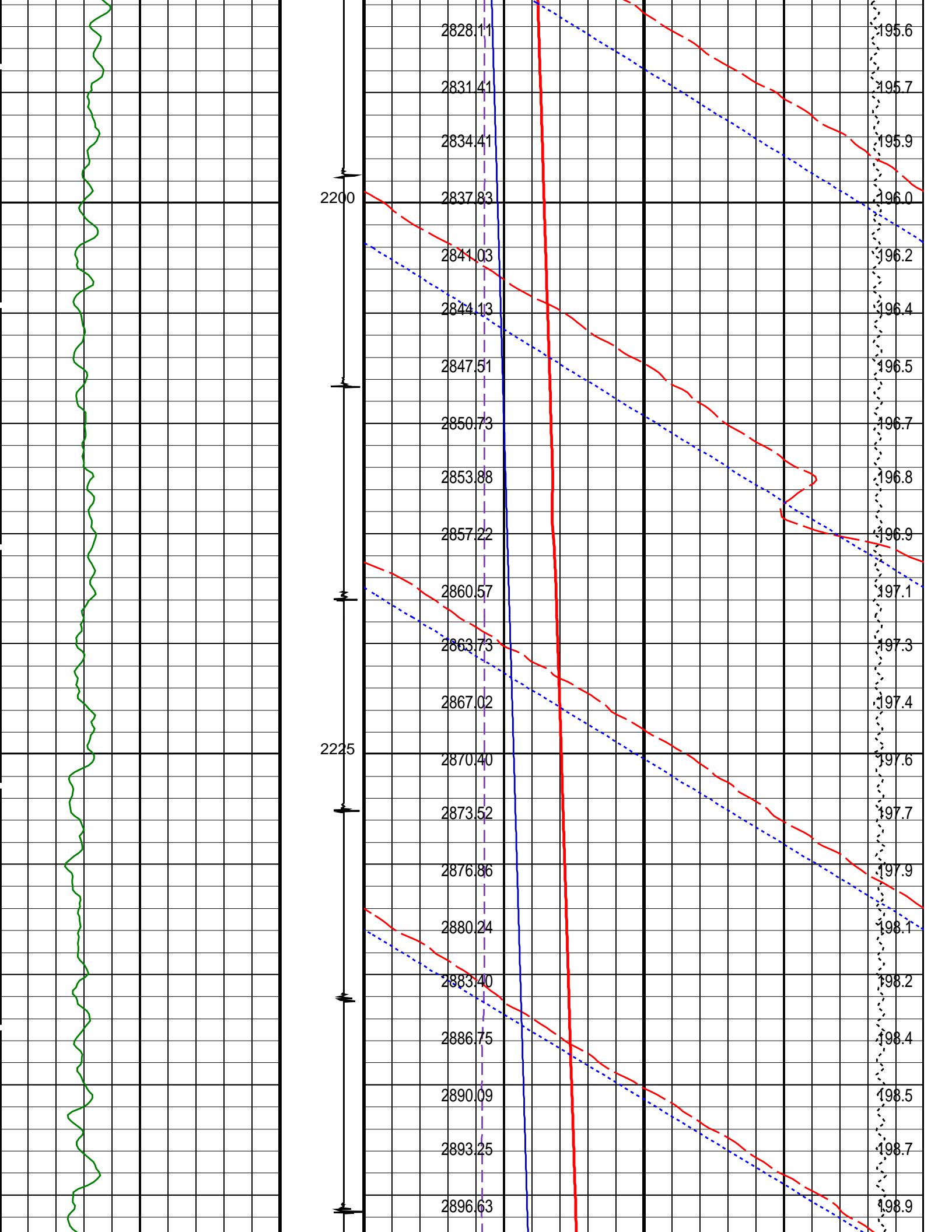
Temperature (TEMP_MWPT) (DEGF)		Tension (TENS) (LBF)		2000	
				Pressure (SGP) (PSIA)	
PIP SUMMARY					
Time Mark Every 60 S					
Parameters					
DLIS Name		Description		Value	
MWPT-CA: MEASUREMENT WHILE PERFORATING TOOL					
DEVI_FL_CORR		Deviation Angle for Flow Line Correction		0	DEG
FLD		Flow Line 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: 23-Jan-2008 13:01	
OP System Version: 15C0-309					
MCM					
MWP_GUN		SRPC-3474-Q4_2007		MWPT-CA SRPC-3474-Q4_2007	
MWGT-AA		SRPC-3474-Q4_2007			
Output DLIS Files					
DEFAULT		PERFO_030LUP		FN:29 PRODUCER 23-Jan-2008 13:01	
<div><div>Schlumberger</div><div>Dummy Plug Pass</div></div>					
MAXIS Field Log					
Company: Esso Australia Pty Ltd. Well: A-20a					
Input DLIS Files					
DEFAULT		PSP_014LUP		FN:13 PRODUCER 23-Jan-2008 09:20 2647.9 M 1984.2 M	
Output DLIS Files					
DEFAULT		PSP_018PUP		FN:17 PRODUCER 23-Jan-2008 10:37 2647.3 M 1977.7 M	
OP System Version: 15C0-309					
MCM					
PSPT-B		SRPC-3474-Q4_2007			
PIP SUMMARY					
Time Mark Every 60 S					
		Amplified Well Pressure (WPRES)			
		0 (PSIA) 20			
		Well Pressure (WPRES)			
		2574 (PSIA) 3684			
		Well Temperature (WTEMP)			
		0 (DEGF) 1			
		Well Pressure (WPRES)		Temperature (WTEMP)	

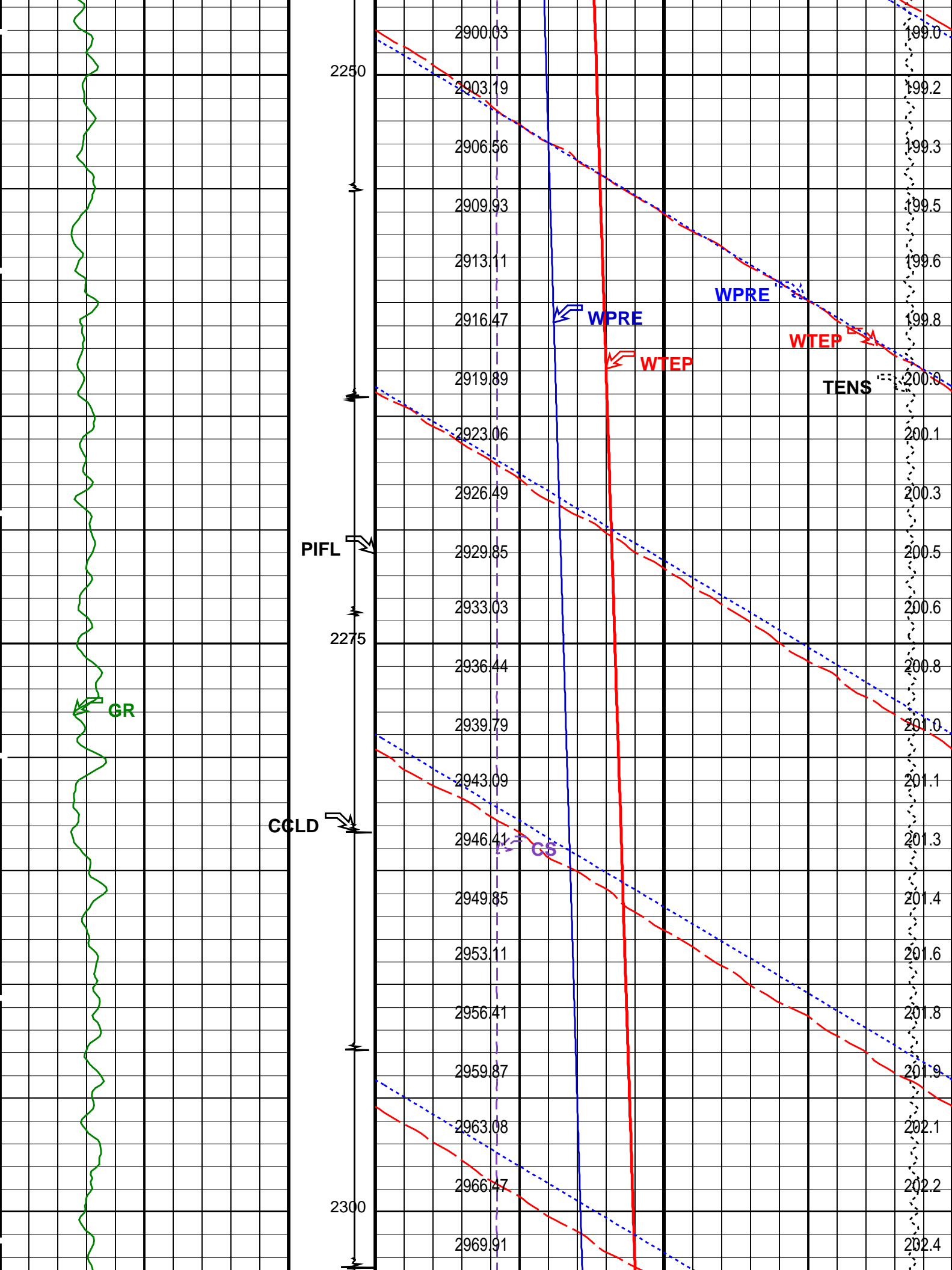


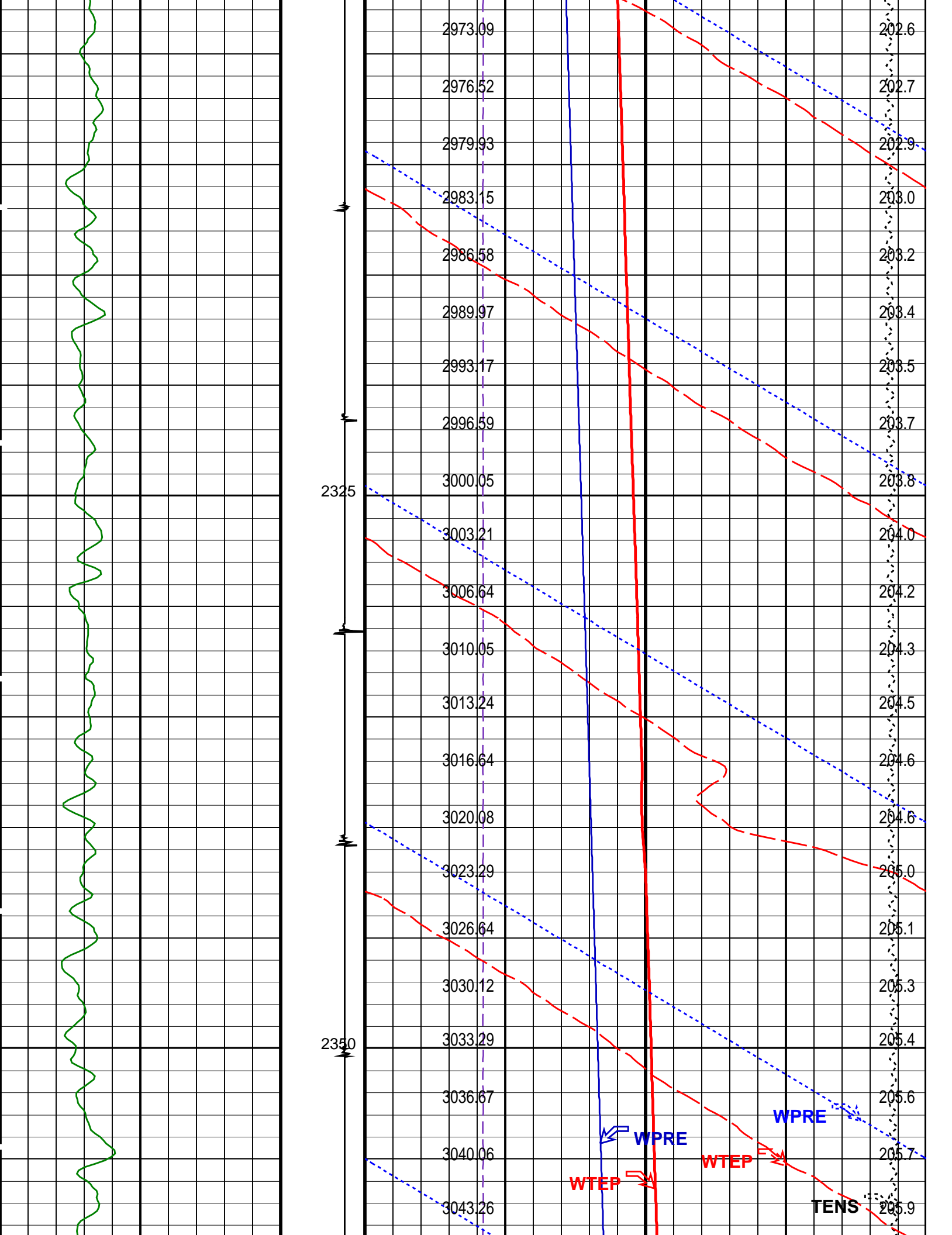


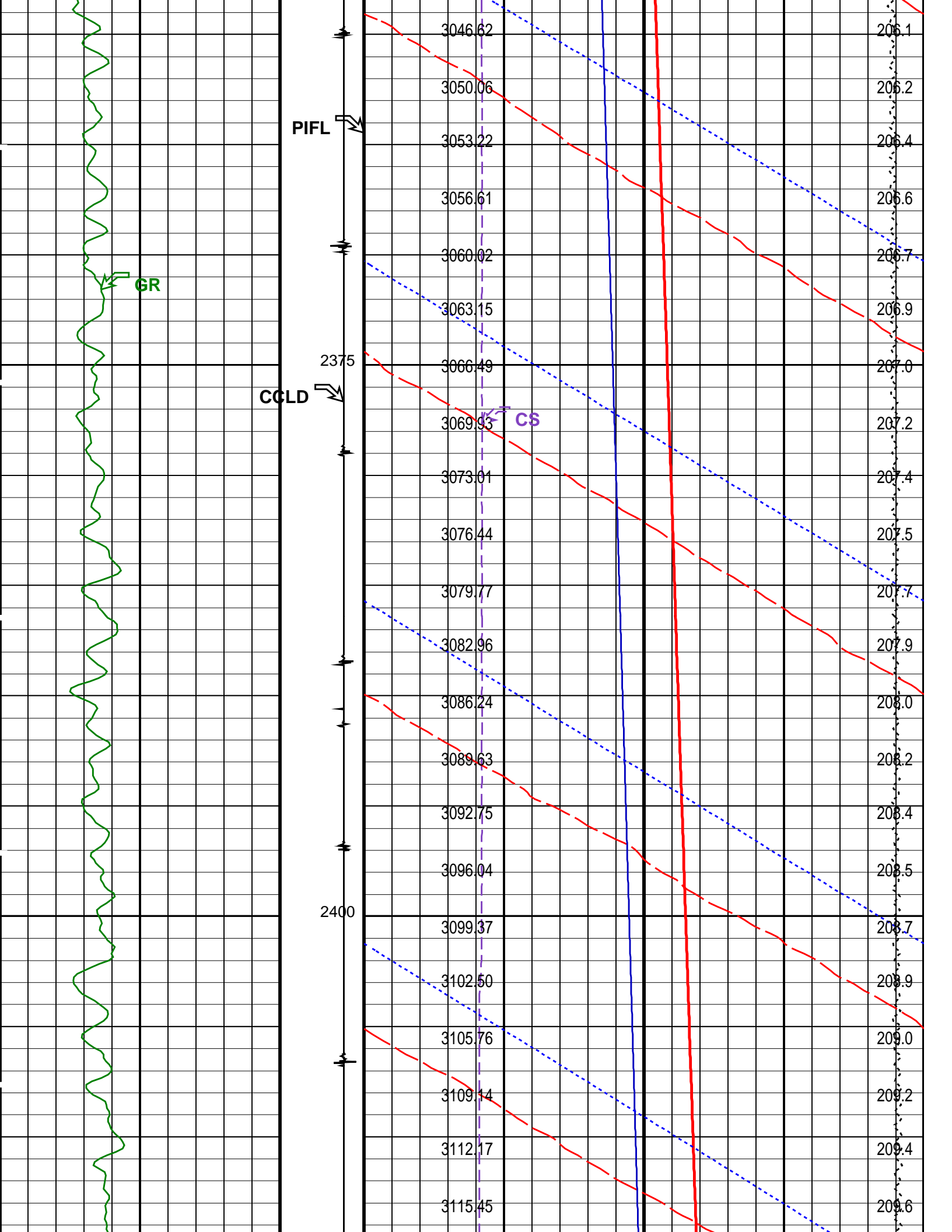


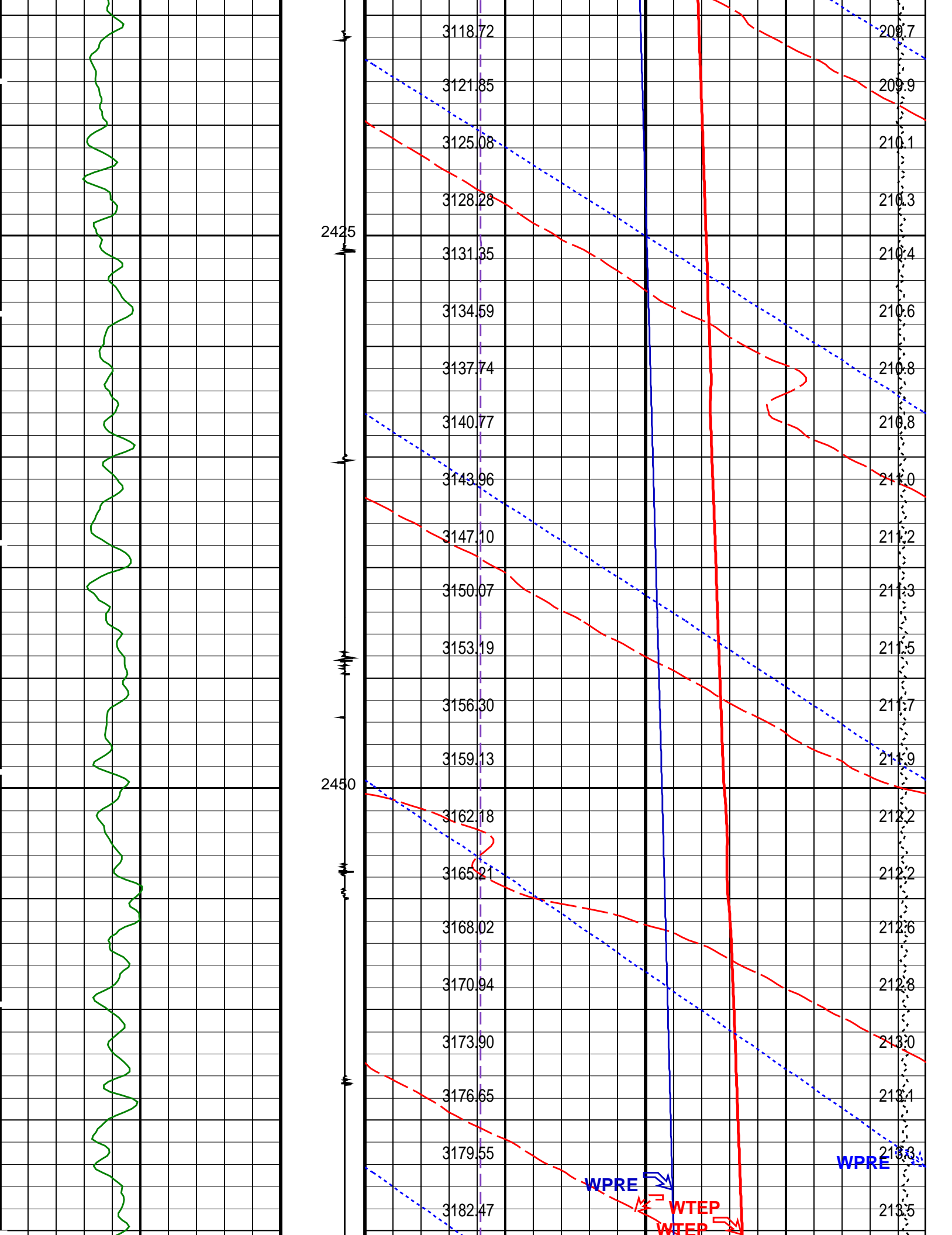


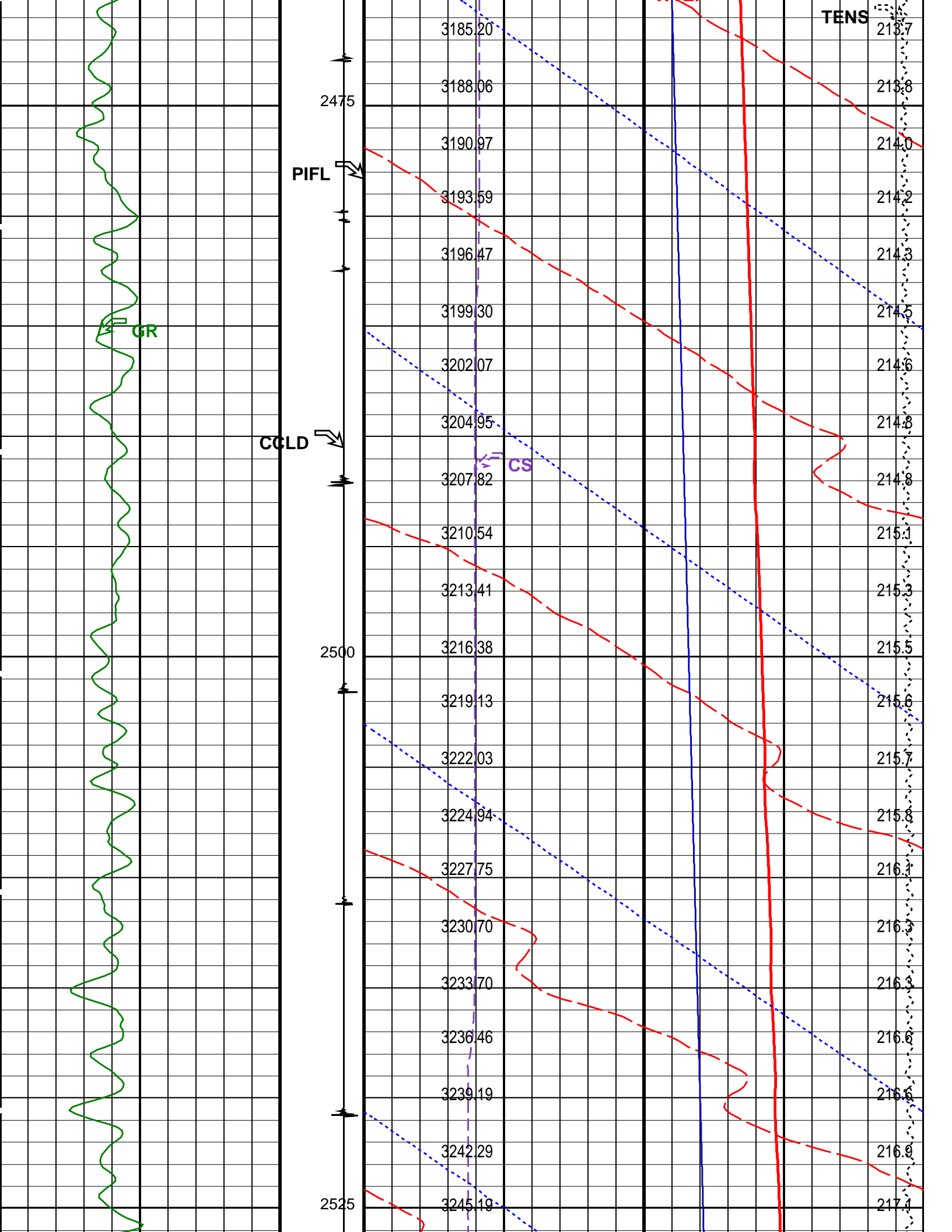


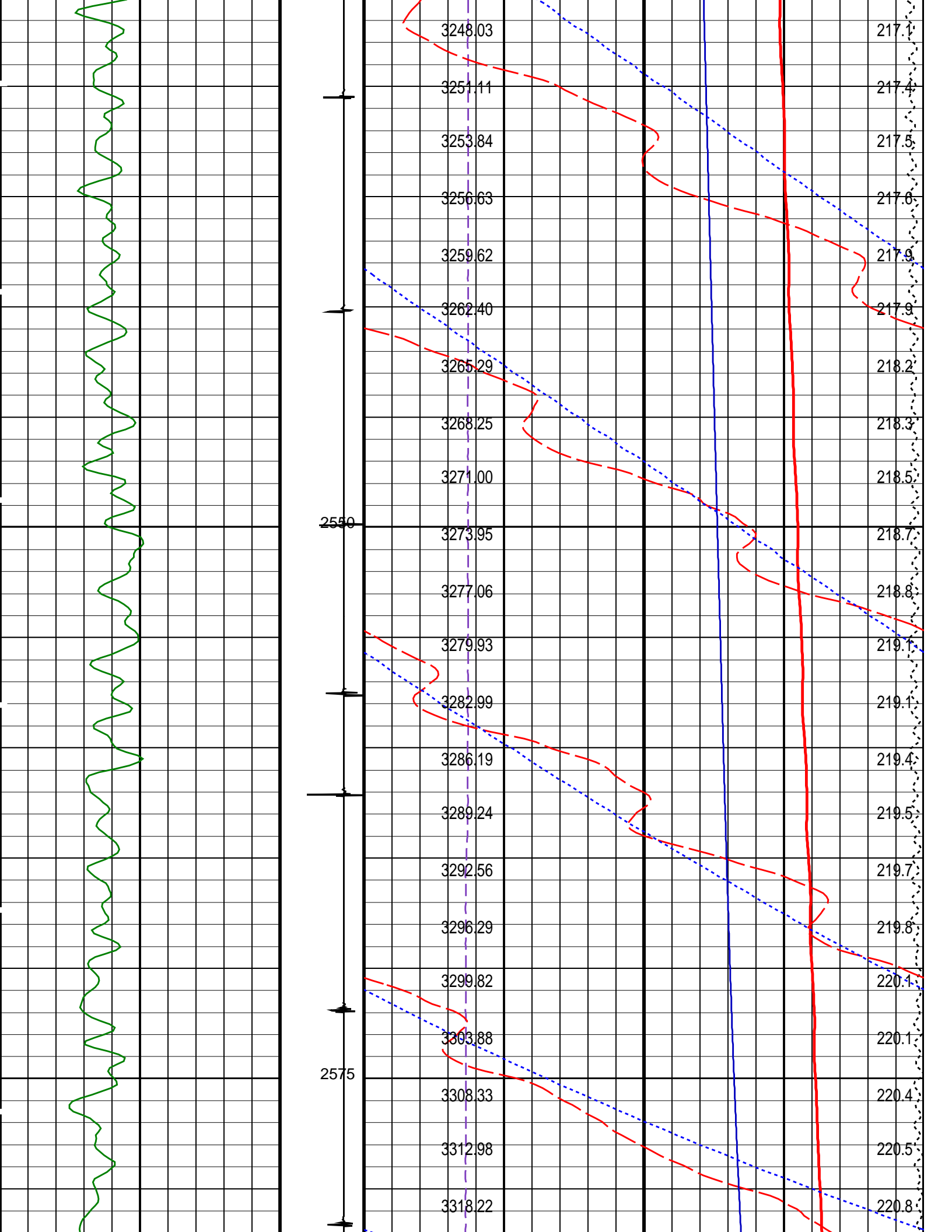


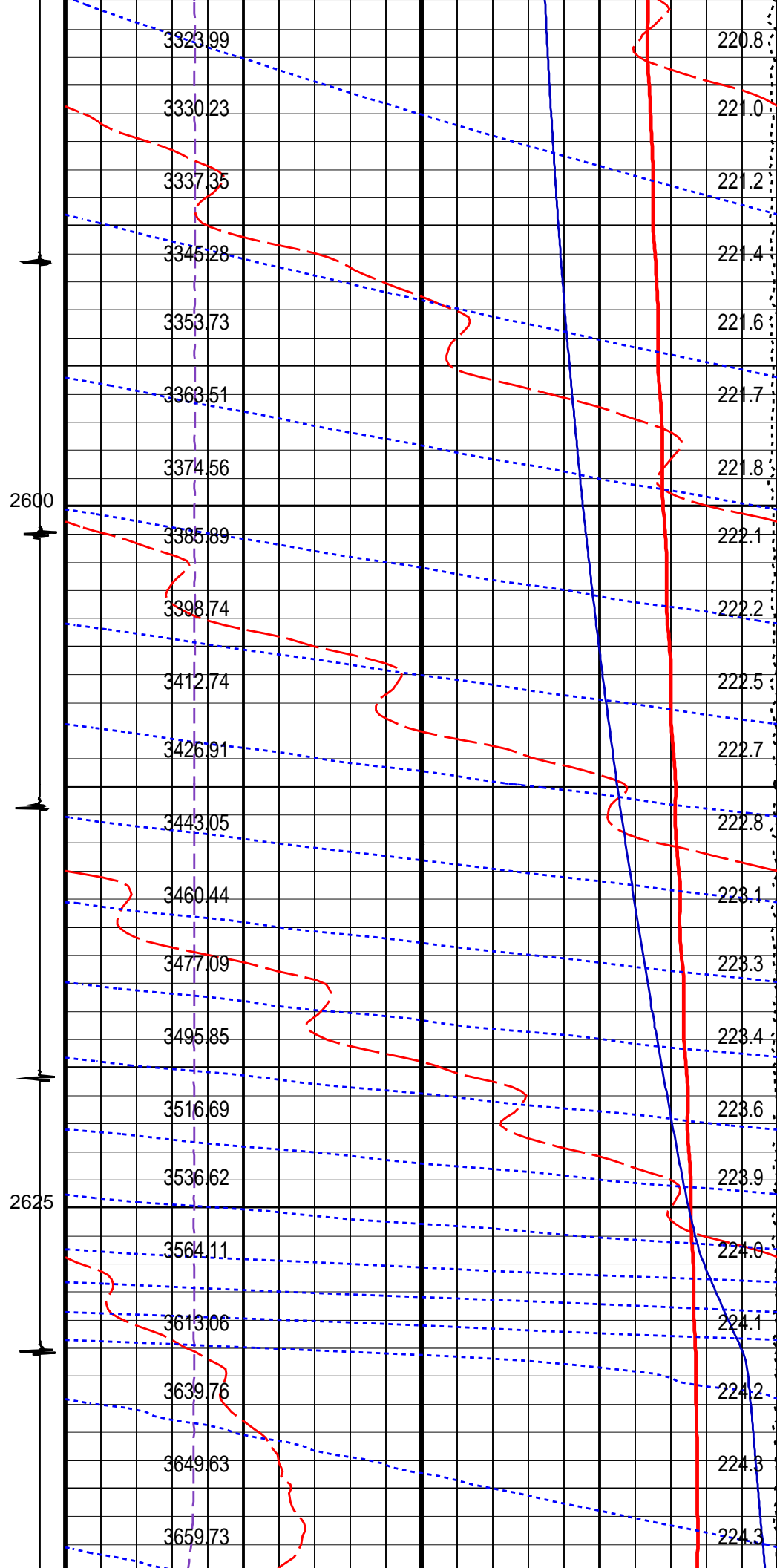
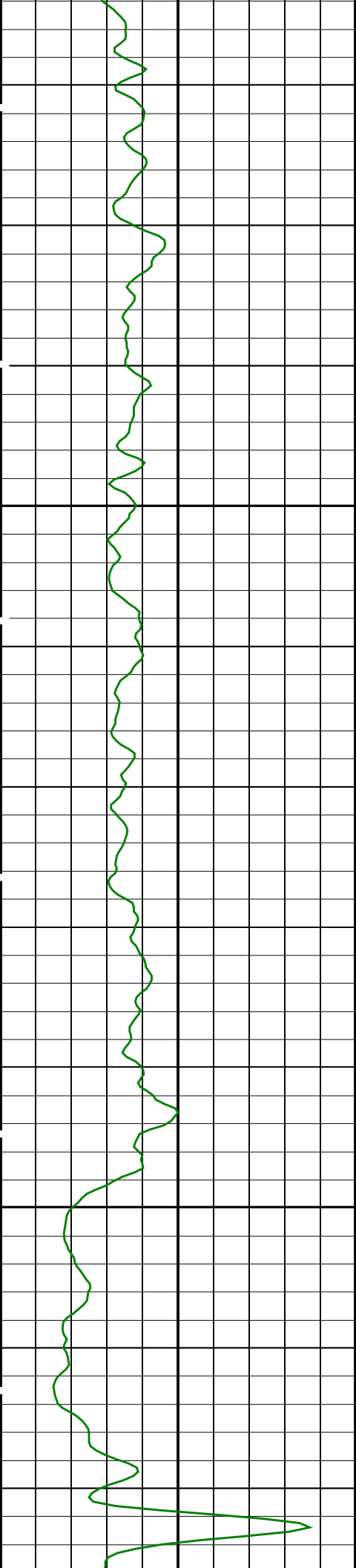


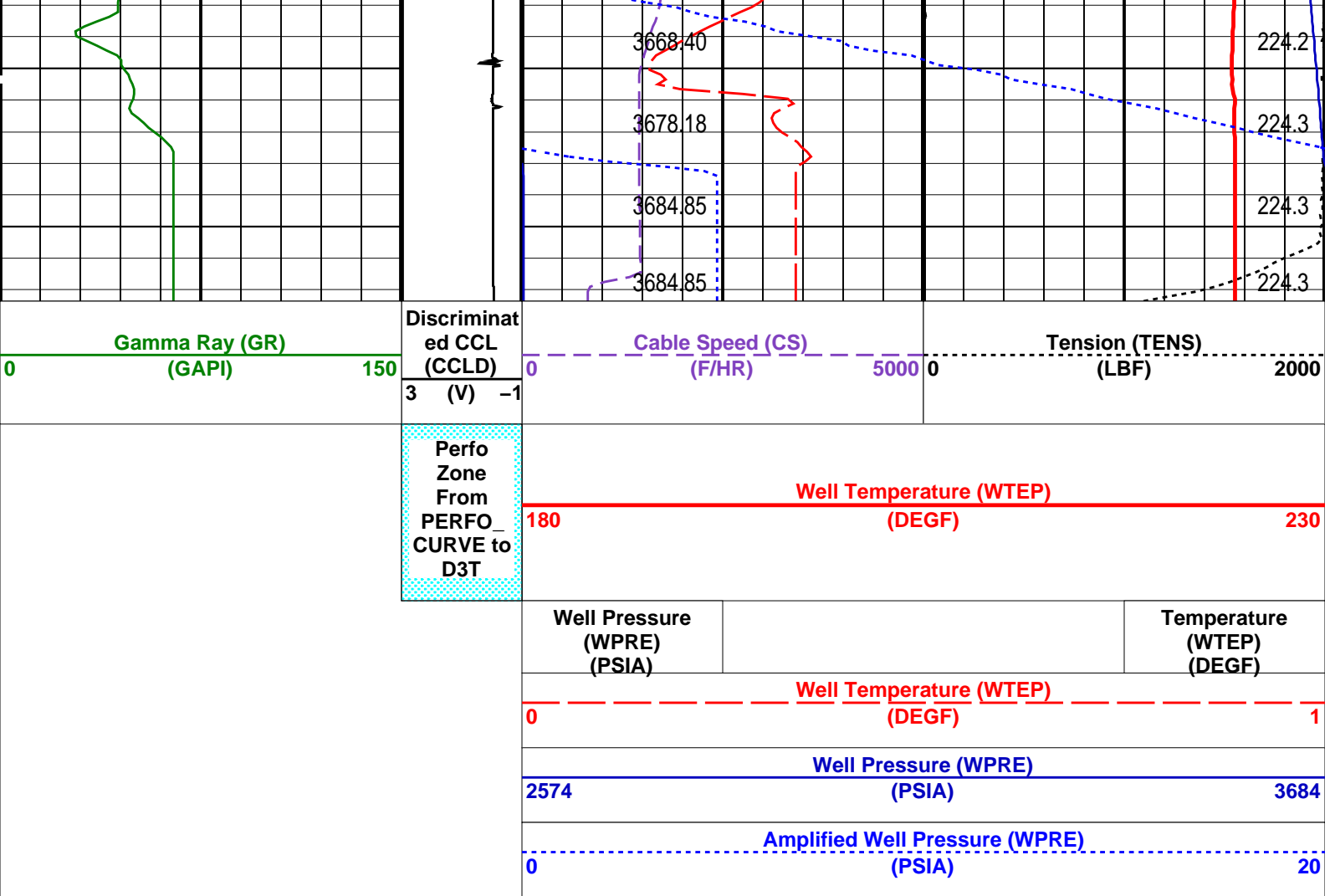












PIP SUMMARY

Time Mark Every 60 S

Format: PSP_1 Vertical Scale: 1:200

Graphics File Created: 23-Jan-2008 10:37

OP System Version: 15C0-309
MCM

PSPT-B SRPC-3474-Q4_2007

Parameters

DLIS Name	Description	Value
DO PP	System and Miscellaneous Depth Offset for Playback Playback Processing	-0.6 M NORMAL

Input DLIS Files

DEFAULT	PSP_014LUP	FN:13	PRODUCER	23-Jan-2008 09:20	2647.9 M	1984.2 M
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Output DLIS Files

DEFAULT	PSP_018PUP	FN:17	PRODUCER	23-Jan-2008 10:37
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Company: **Esso Australia Pty Ltd.**

Schlumberger

Well: **A-20a**
Field: **Halibut**
Rig: **Crane**
Country: **Australia**

2 1/8" Phased Powerjet MWPT
Perforation Record
4.5" Posiset Plug Setting Record