



Company: **Esso Australia Pty Ltd.**

Well: **A-16**

Field: **Bream A**

Rig : **Prod4 / Crane**

Country: **Australia**

**RST-C Sigma Survey**  
**2 1/8" Powerjet Perforation**  
**5 1/2" HPI Plug**

Field: **Bream A**  
 Location: **Gippsland**  
 Well: **A-16**  
 Company: **Esso Australia Pty Ltd.**

LOCATION	
Gippsland	Elev.: <b>K.B. 33.5 m</b>
Basin	<b>G.L. -59 m</b>
Bass Strait	<b>D.F. 33.5 m</b>
Permanent Datum:	<b>M.S.L.</b>
Log Measured From:	<b>D.F.</b>
Drilling Measured From:	<b>D.F.</b>
State : <b>Victoria</b>	Max. Well Deviation <b>92 deg</b>
	Longitude <b>147 46'15"E</b>
	Latitude <b>038 30'04"S</b>

Logging Date	12-Sep-2007
Run Number	1 thru 4
Depth Driller	2736 m
Schlumberger Depth	2736 m
Bottom Log Interval	2736 m
Top Log Interval	2550 m
Casing Fluid Type	Production Fluids
Salinity	
Density	
Fluid Level	340 m
BIT/CASING/TUBING STRING	
Bit Size	6.750 in
From	
To	
Casing/Tubing Size	5.500 in
Weight	17 lbm/ft
Grade	N-80
From	2422 m
To	3496 m
Maximum Recorded Temperatures	208 degF
Logger On Bottom	12-Sep-2007
Unit Number	889
Location	Prod4 / Ausl
Recorded By	G Wright.
Witnessed By	B White.

PVT DATA		Run 1
Oil Density		
Water Salinity		
Gas Gravity		
Bo		
Bw		
1/Bg		
Bubble Point Pressure		
Bubble Point Temperature		
Solution GOR		
Maximum Deviation	92 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		
Location		
Recorded By		
Witnessed By		

## DEPTH SUMMARY LISTING

Date Created: 5-SEP-2007 10:11:34

### Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-EB	Type:	PSDS/OSDS	Type:	2-32ZT
Serial Number:	6373	Serial Number:	325357	Serial Number:	24425
Calibration Date:	04-Jan-2007	Calibration Date:	05-Sep-2007	Length:	5584.85 M
Calibrator Serial Number:	9	Calibrator Serial Number:	1174	Conveyance Method: Wireline Rig Type: Offshore_Fixed	
Calibration Cable Type:	2-32ZT	Calibration Gain:	0.95		
Wheel Correction 1:	-2	Calibration Offset:	268.00		
Wheel Correction 2:	-4				

### Depth Control Parameters

Log Sequence:	Subsequent Log In the Well
Reference Log Name:	Solar composite log.
Reference Log Run Number:	
Reference Log Date:	.

### Depth Control Remarks

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

#### DISCLAIMER

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1
OS1: None
OS2:
OS3:
OS4:
OS5:

REMARKS: RUN NUMBER 1
Log correlated to ExxonMobil composite supplied with logging program.
Maximum well deviation = 92 degrees at 3398 MDKB.
Objective,RST survey,Perforate the well using a 6m 2 1/8"Phased Powerjet gun
over the interval 2707m to 2713m MDKB. Set a 5.5"HPI Plug with top of seal
@ 2718m MDKB.
Before Gun- SBHP: 2588 psia SBHT: 208 degf
After Gun- SBHP: 2602 psia SBHT: 219 degf
Top Shot @ 2707m MDKB
CC: 1.0 T: 0.1 Q: 0.1

Crew : J Light & J Annear.

DOWNHOLE EQUIPMENT			DOWNHOLE EQUIPMENT		
AH-SWBS-B AH-SWBS-B 761		12.37	AH-SWBS-B 731 AH-SWBS-B 731		15.54
AH-SWBS-B AH-SWBS-B 762		11.67	AH-SWBS-B 761 AH-SWBS-B 761		14.85
AH-SWRS-B AH-SWRS-B 759		10.97	AH-SWBS-B 762 AH-SWBS-B 762		14.16
AH-SWBS-B AH-SWBS-B 763		10.63	AH-SWBS-B 763 AH-SWBS-B 763		13.48
MH-SWHS-A MH-SWHS-A 726	Detail MT TelStatus CTEM	9.93			12.79
PSPT-B 827 PSC-A 827 PSPT-B 827 PSTC 827 PBMS-B 827 CQG_F_Mano 827 RTD_Thermometer 827 GR 827 CCL 827 PBMS 827	GR	9.54	MWGT-AA 69 MWPG-AA 69 MWGH-AA 69	MWPG GR	12.46
		9.54			12.26
			MWPT-CA 74 MWPH-AA 74 MWPS-AA 74		11.28
				CCL SMWP Pres SMWP Temp Tension	TOOL ZERO
RST-C 23 RSCH-A 23 RSC-C 23	Well_Temp CQG Manom CCL PBMS PSTC	7.02			8.46
			AH-122 7002		7.90
					7.80
					7.34
			MPD-MB 268		6.81
			AH-ESIC 15042003		

RSC-A Far  
RSC-A PNG  
RSC-A Nea  
RSX-A PNG

4.24  
4.09

Tension HV  
TOOL ZERO 0.00

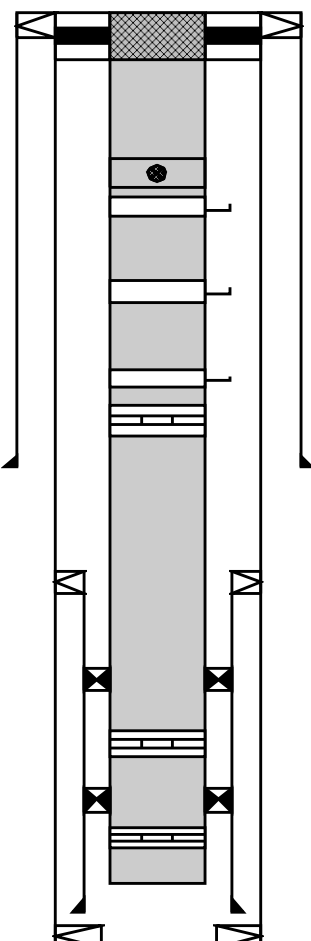
MAXIMUM STRING DIAMETER 1.72 IN  
MEASUREMENTS RELATIVE TO TOOL ZERO  
ALL LENGTHS IN METERS

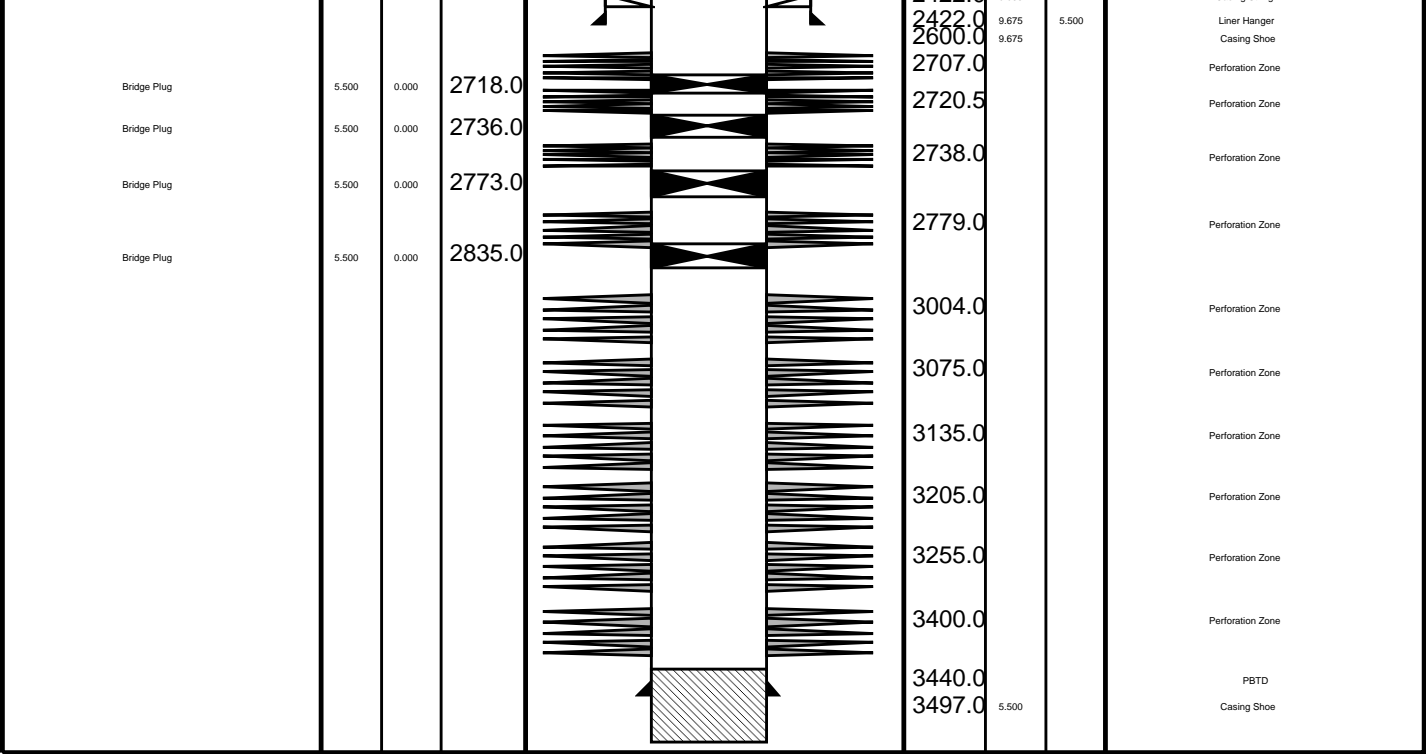
AH-ESIC 15042003  
MWP\_GUN

6.35

TOOL BOTTOM

MAXIMUM STRING DIAMETER 2.13 IN  
MEASUREMENTS RELATIVE TO TOOL ZERO  
ALL LENGTHS IN METERS

Production String	(in)		(m)	Well Schematic	(m)	(in)		Casing String
	OD	ID	MD		MD	OD	ID	
Tubing	4.500		12.4		13.0	13.375		Casing String
Tubing Hanger	9.675	4.500	12.4		13.0	9.675		Casing String
					13.0	13.375	9.675	Liner Hanger
Shutin Valve	4.500		427.0					
Gas Lift Mandrel	4.500		483.0					
Gas Lift Mandrel	4.500		810.0					
Gas Lift Mandrel	4.500		1091.0					
Nipple	4.500		1117.0		990.0	13.375		Casing Shoe
					1448.0	7.000		Casing String
					1448.0	9.675	7.000	Liner Hanger
Packer	7.000	4.500	2337.0					
Nipple	4.500		2351.0					
Nipple	4.500		2383.0		2420.0	7.000		Casing Shoe
					2422.0	5.500		Casing String



Schlumberger Job Event Summary

Time	Elapsed Time	Depth (M)	File
Before Calibration Completed 10-Sep-2007 16:04			
Simulated Log	10-Sep-2007 16:07 000:03		RST_PSP_046LUP
Simulated Log	11-Sep-2007 11:10 000:17		RST_PSP_050LUP
Simulated Log	11-Sep-2007 11:27 000:01		RST_PSP_051LDP
Log Pass (down)	11-Sep-2007 11:28 000:54	-1.4 - 2740.6	RST_PSP_052LDP
Log Pass (up)	11-Sep-2007 12:23 000:23	2744.6 - 2537.5	RST_PSP_053LUP
Log Pass (up)	11-Sep-2007 13:02 000:41	2742.6 - 2543.3	RST_PSP_054LUP

Log Pass (up) 11-Sep-2007 13:46 000:43 2745.8 - 2536.5 RST\_PSP\_055LUP  
Log Pass (up) 11-Sep-2007 14:46 000:31 1823.2 - -0.3 RST\_PSP\_059LUP  
Simulated Log 12-Sep-2007 7:53 000:02 PERFO\_062LUP  
Log Pass (down) 13-Sep-2007 7:40 001:28 -6.7 - 2496.0 PERFO\_092LDP  
Log Pass (up) 13-Sep-2007 9:09 000:60 2491.4 - -9.6 PERFO\_093LUP  
Log Pass (down) 13-Sep-2007 11:37 001:00 -6.7 - 1027.9 PERFO\_094LDP  
Log Pass (up) 13-Sep-2007 12:40 000:30 881.8 - -8.1 PERFO\_095LUP  
Log Pass (down) 13-Sep-2007 14:05 000:43 -3.0 - 2724.0 PERFO\_096LDP  
Log Pass (up) 13-Sep-2007 14:48 000:07 2722.2 - 2660.1 PERFO\_097LUP  
Log Pass (up) 13-Sep-2007 14:55 000:21 2722.0 - 2686.5 PERFO\_098LUP  
Log Pass (down) 13-Sep-2007 15:16 000:01 2683.8 - 2710.0 PERFO\_099LDP  
Log Pass (up) 13-Sep-2007 15:18 000:02 2710.0 - 2668.4 PERFO\_100LUP

Schlumberger

5.5.5" HPI Plug Tagged 2718m MDKB

MAXIS Field Log

### Output DLIS Files

DEFAULT PERFO\_100LUP FN:57 PRODUCER 13-Sep-2007 15:18 2710.0 M 2668.4 M

OP System Version: 14C0-302

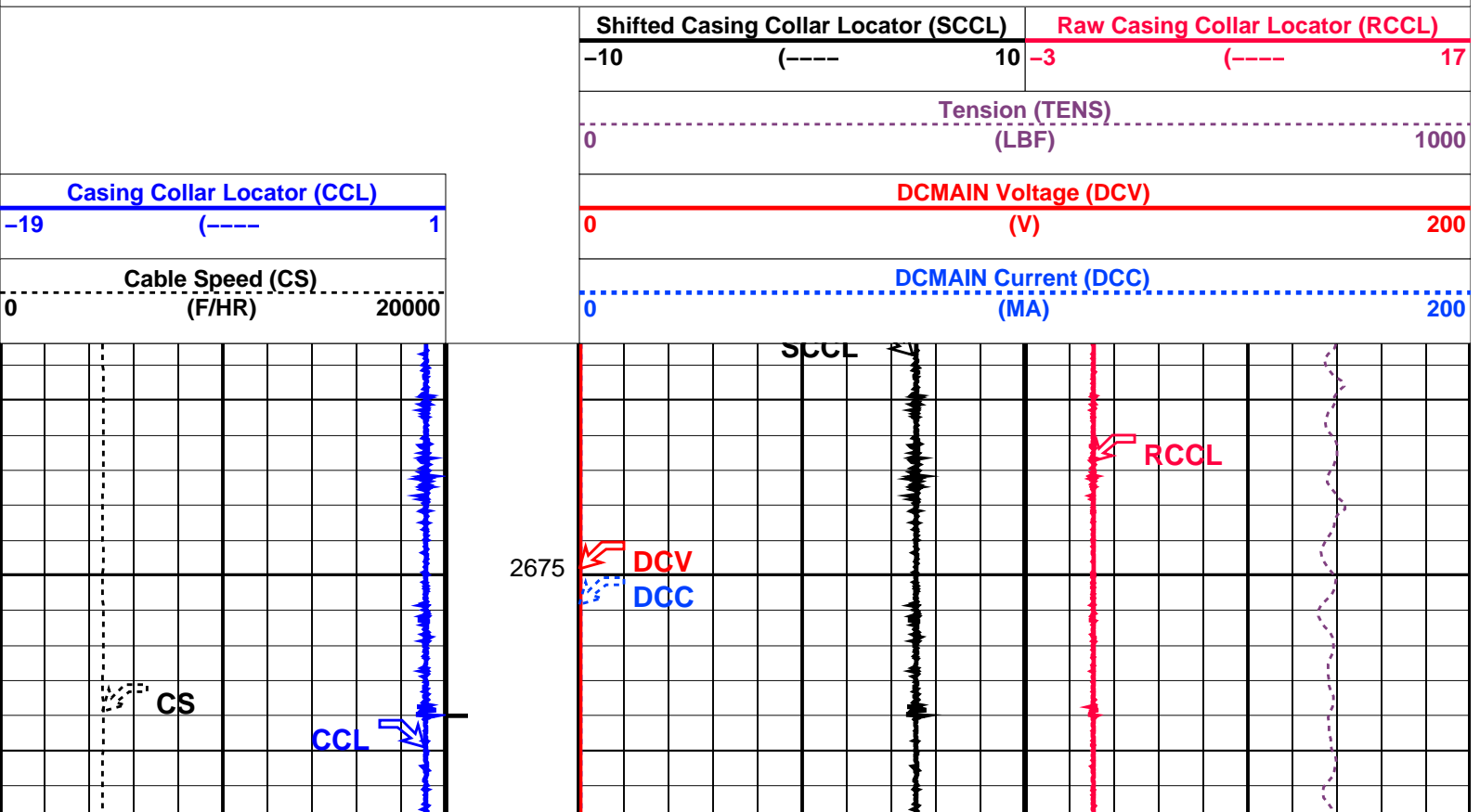
MCM

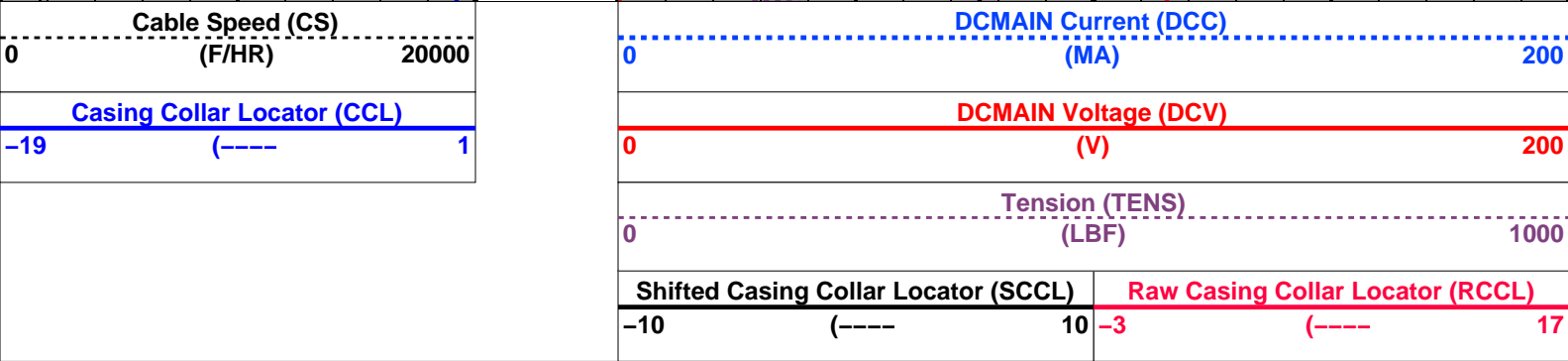
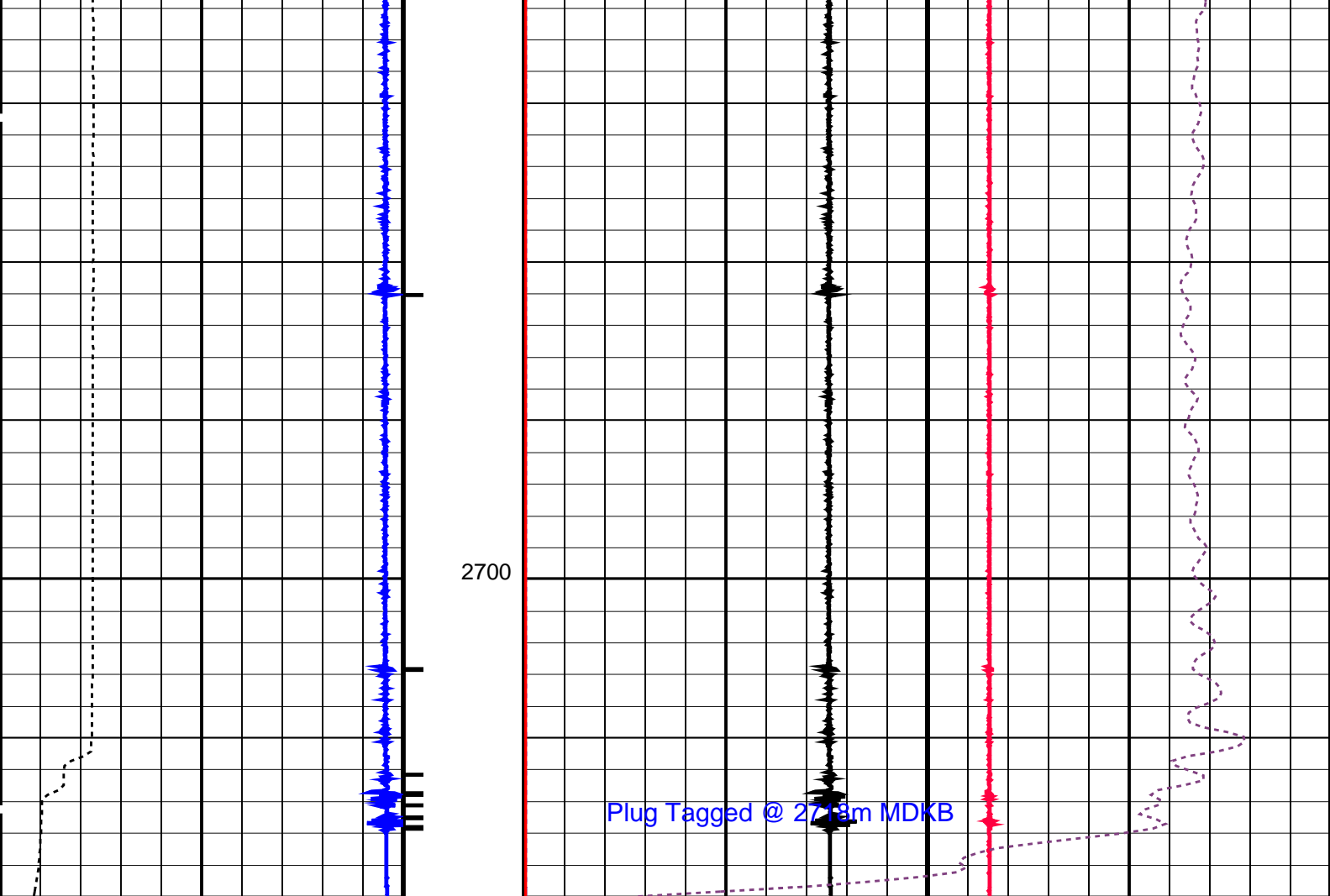
SHM\_GUN 14C0-302 CCL-L 14C0-302

### 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	

Format: PERFO Vertical Scale: 1:200 Graphics File Created: 13-Sep-2007 15:18

OP System Version: 14C0-302			
MCM			
SHM_GUN	14C0-302	CCL-L	14C0-302

Output DLIS Files			
DEFAULT	PERFO_100LUP	FN:57 PRODUCER	13-Sep-2007 15:18





5.5" HPI Plug Setting Pass

MAXIS Field Log

Output DLIS Files

DEFAULT      PERFO\_098LUP      FN:55    PRODUCER    13-Sep-2007 14:55

OP System Version: 14C0-302  
MCM

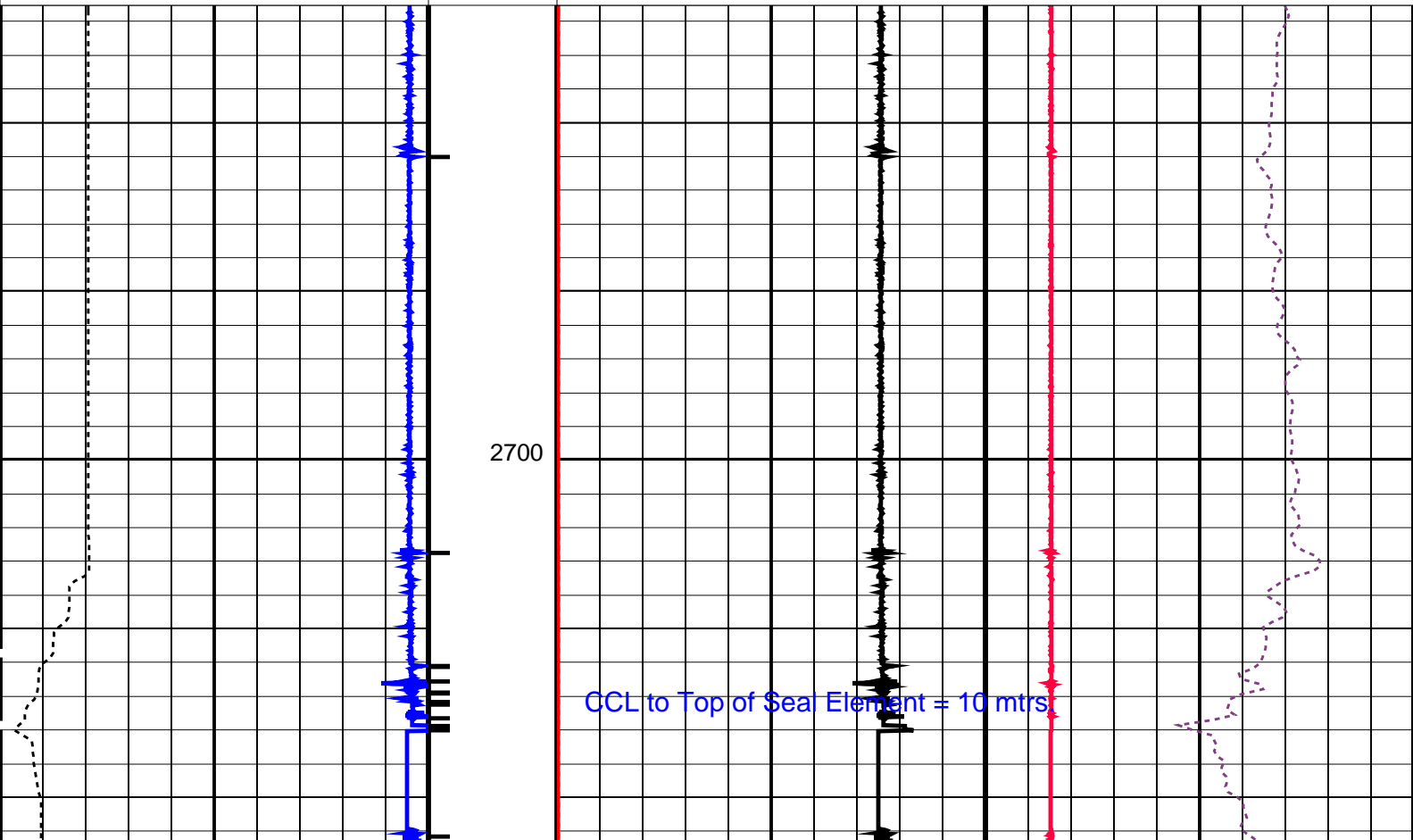
SHM\_GUN      14C0-302      CCL-L      14C0-302

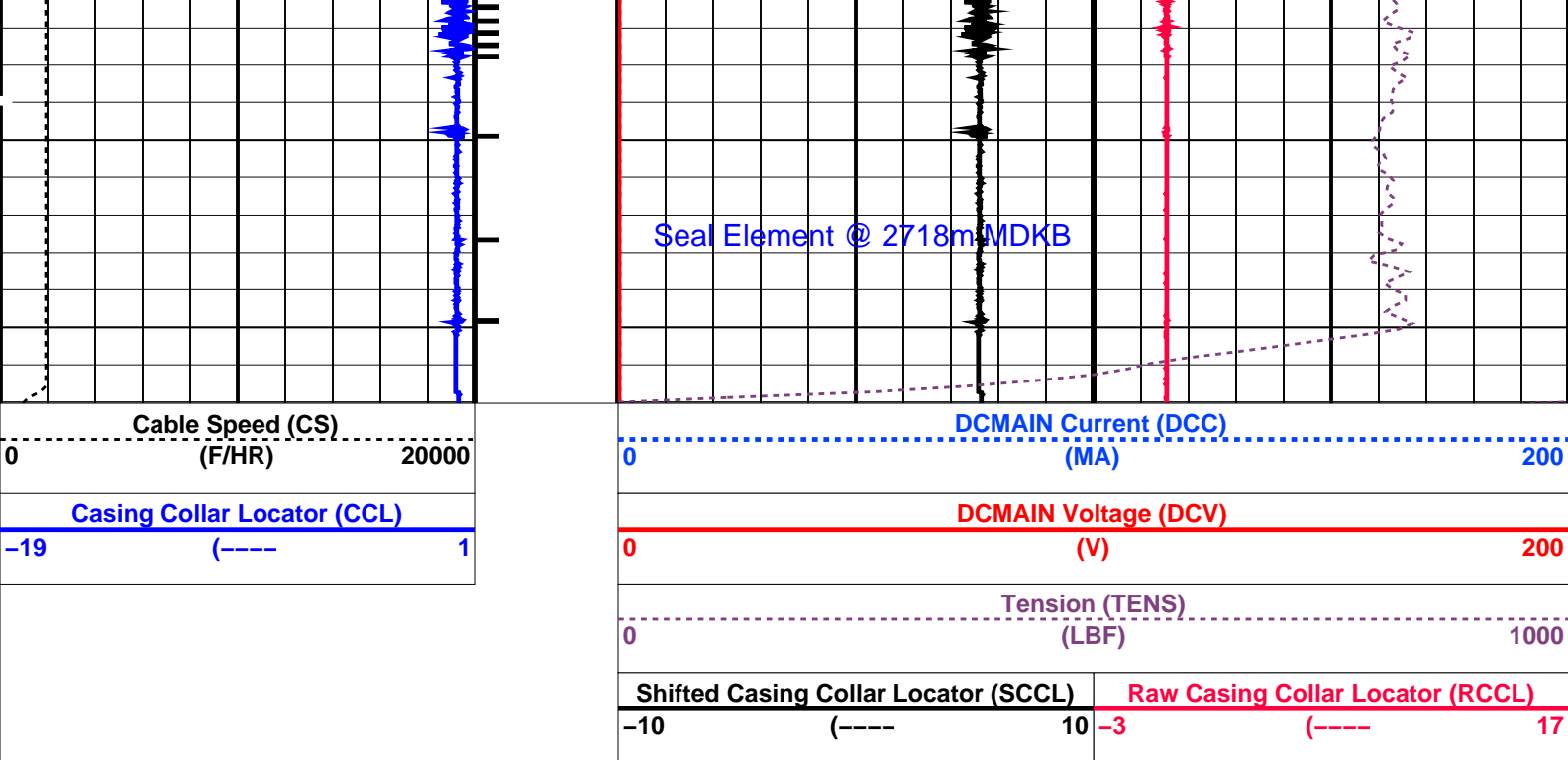
PIP SUMMARY

└─ Casing Collars

Time Mark Every 60 S

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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: 13-Sep-2007 14:55

OP System Version: 14C0-302			
MCM			
SHM_GUN	14C0-302	CCL-L	14C0-302

Output DLIS Files			
DEFAULT	PERFO_098LUP	FN:55 PRODUCER	13-Sep-2007 14:55



2.13" Dummy Plug Pass

MAXIS Field Log

Company: Esso Australia Pty Ltd. Well: A-16

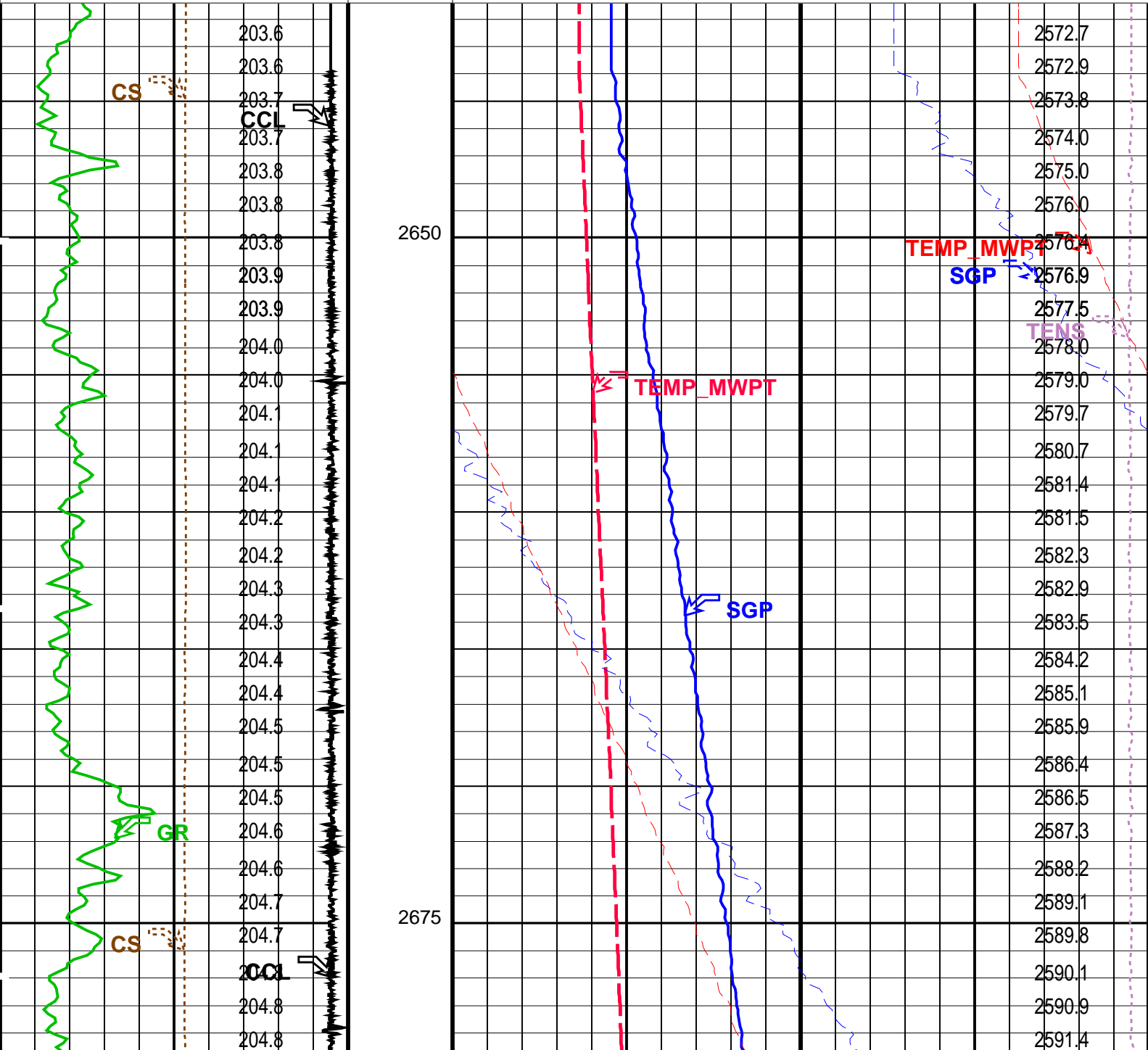
Output DLIS Files			
DEFAULT	PERFO_078LUP	FN:35 PRODUCER	12-Sep-2007 13:47

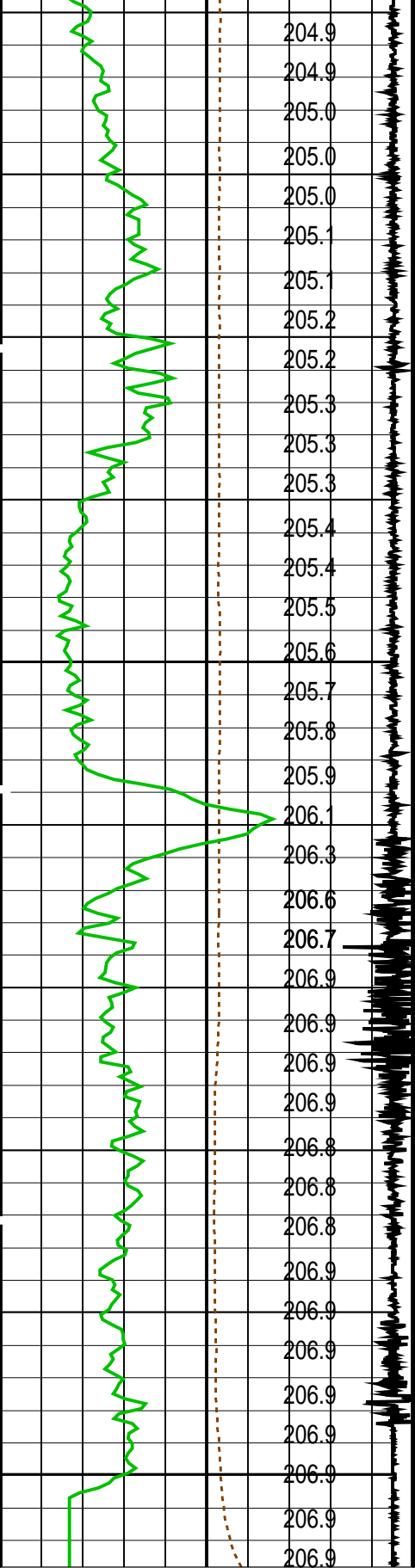
OP System Version: 14C0-302			
MCM			

PIP SUMMARY

Time Mark Every 60 S

		Pressure (SGP) (PSIA)	
Temperature (TEMP_MWPT) (DEGF)		Tension (TENS) (LBF)	
		0	2000
CCL From CCL to T1		Temperature (TEMP_MWPT) (DEGF)	
		0	2
Gamma Ray (GR) (GAPI)		Strain Gauge Pressure (SGP) (PSIA)	
0150		0	20
Casing Collar Locator (CCL)		Temperature (TEMP_MWPT) (DEGF)	
-19----		200	220
Cable Speed (CS) (F/HR)		Strain Gauge Pressure (SGP) (PSIA)	
05000		2550	2650

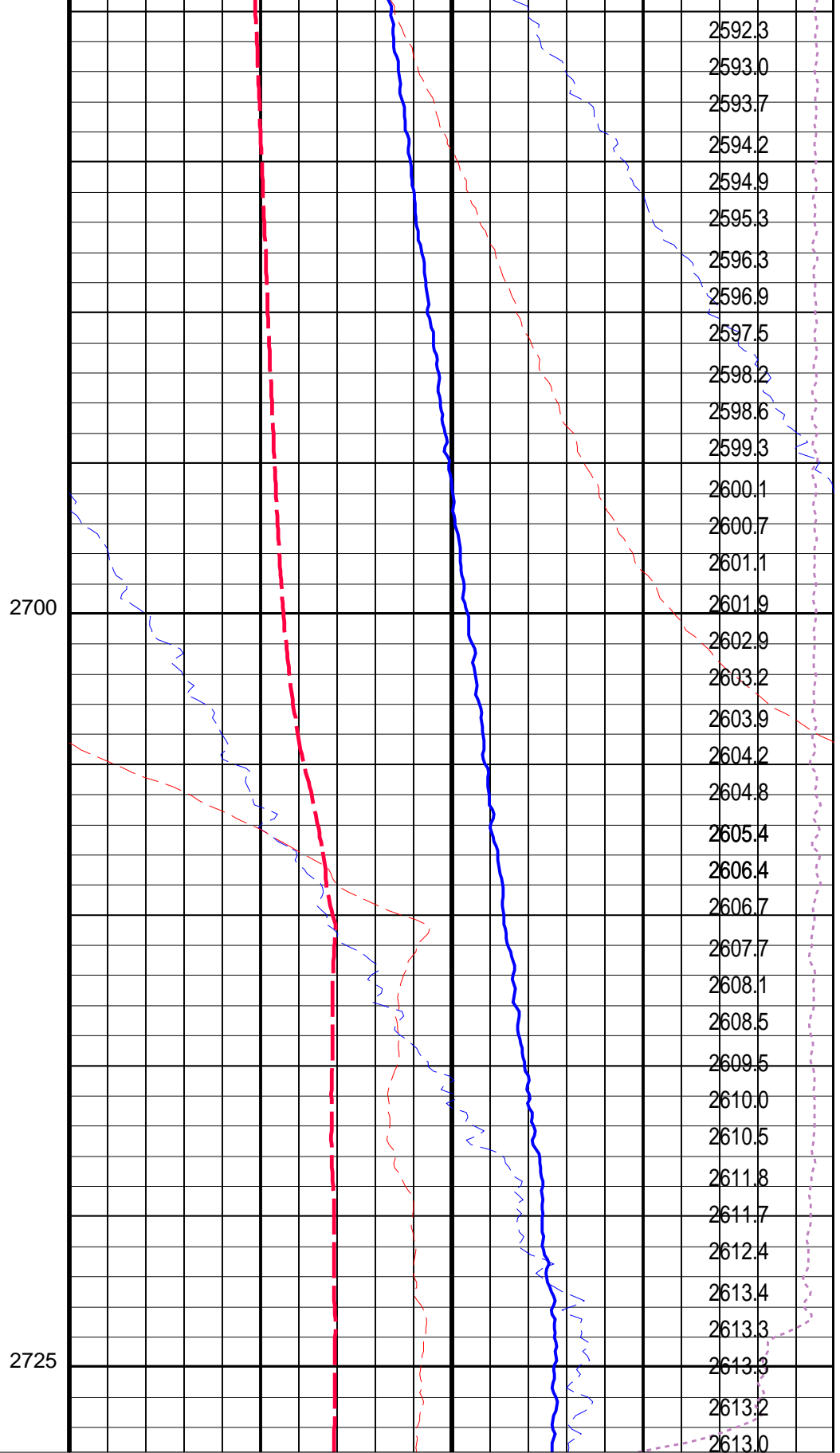




Cable Speed (CS)  
(F/HR) 0 5000

Casing Collar Locator (CCL)  
(----) -19 1

Gamma Ray (GR)  
(GAPI) 0 150



Strain Gauge Pressure (SGP)  
(PSIA) 2550 2650

Temperature (TEMP\_MWPT)  
(DEGF) 200 220

Strain Gauge Pressure (SGP)  
(PSIA) 0 20

CCL From CCL to T1	Temperature (TEMP_MWPT) (DEGF)	0	2
Temperature (TEMP_MWPT) (DEGF)	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: 12-Sep-2007 13:47
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OP System Version: 14C0-302			
MCM			
MWPT-CA	14C0-302	MWGT-AA	14C0-302

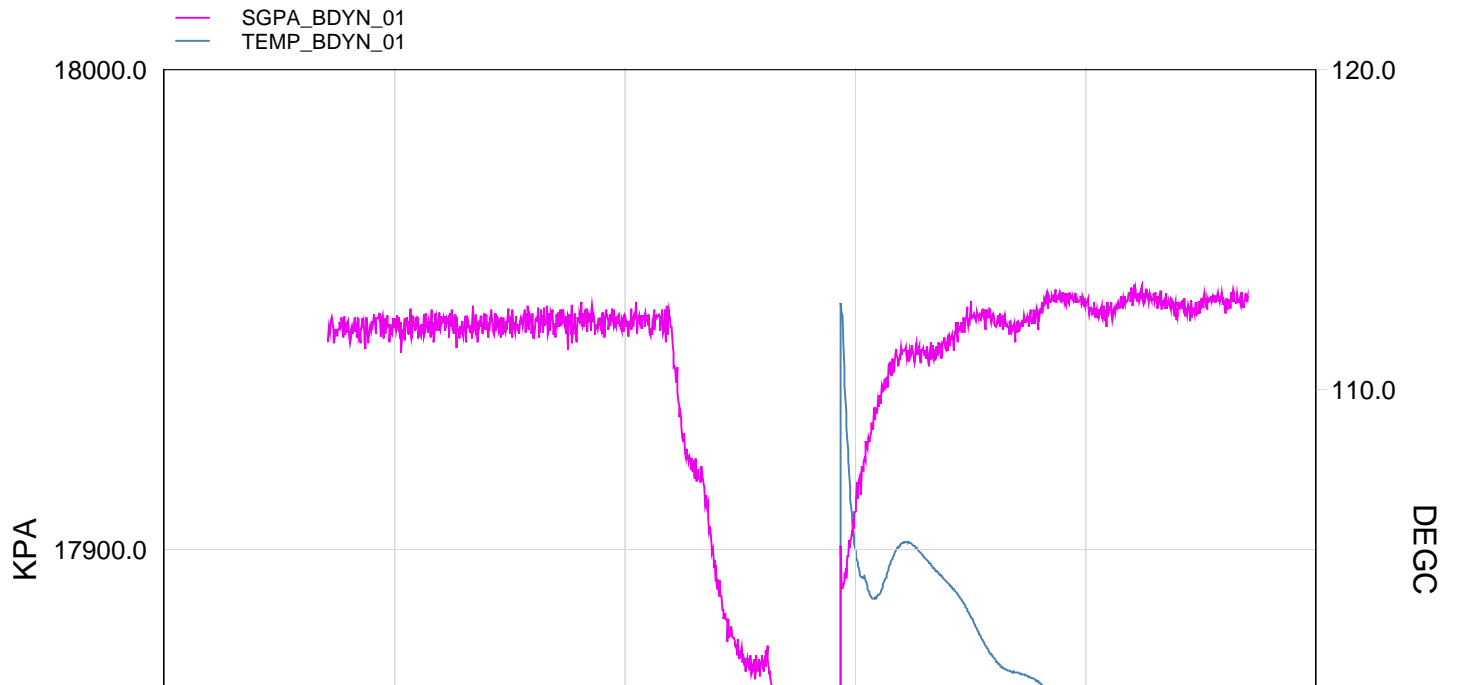
Output DLIS Files			
DEFAULT	PERFO_078LUP	FN:35	PRODUCER 12-Sep-2007 13:47

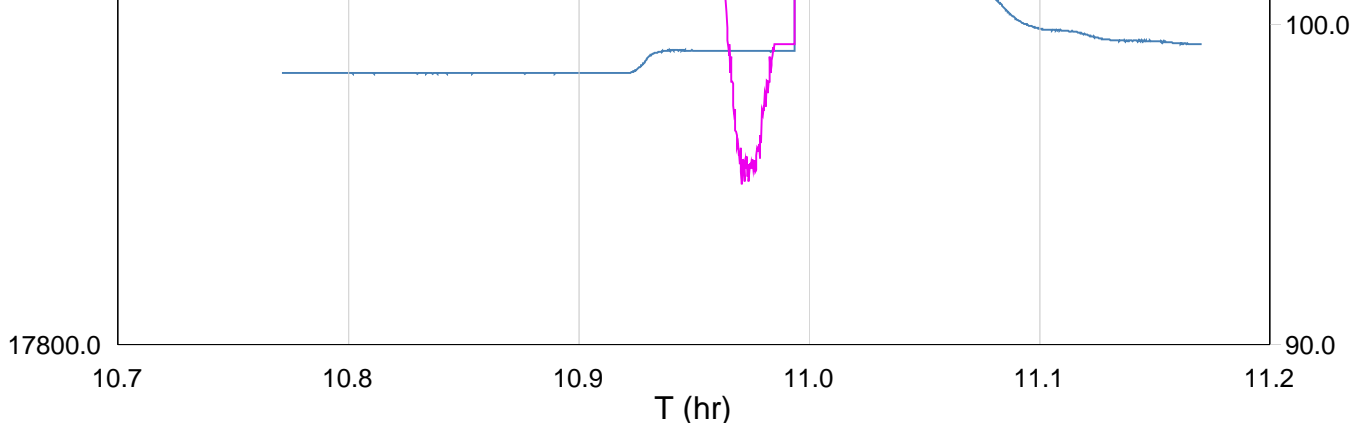


GUN # 1

2707m to 2713m MDKB

MAXIS Field Log





TIME	DEGF	PSIA
5040.0	210.96	2603.793
4980.0	211.10	2603.685
4920.0	211.27	2603.946
4860.0	211.69	2603.289
4800.0	212.16	2603.728
4740.0	213.87	2603.195
4680.0	215.19	2603.295
4620.0	218.91	2602.667
4560.0	221.23	2602.078
4500.0	218.28	2600.086
4440.0	210.51	2590.752
4380.0	210.51	2587.004
4320.0	210.51	2592.383
4260.0	210.56	2594.706
4200.0	209.50	2599.509
4140.0	209.28	2603.255
4080.0	209.28	2603.278
4020.0	209.26	2602.496
3960.0	209.28	2603.158
3900.0	209.27	2603.207
3840.0	209.28	2602.833
3780.0	209.27	2602.924
3720.0	209.27	2602.791
3660.0	209.28	2602.678

Company: Esso Australia Pty Ltd.

Well: A-16

Output DLIS Files

DEFAULT

PERFO\_068LUP

FN:25

PRODUCER

12-Sep-2007 10:37

2720.0 M

2667.9 M

OP System Version: 14C0-302

MCM

MWP\_GUN

14C0-302

MWGT-AA

14C0-302

MWPT-CA

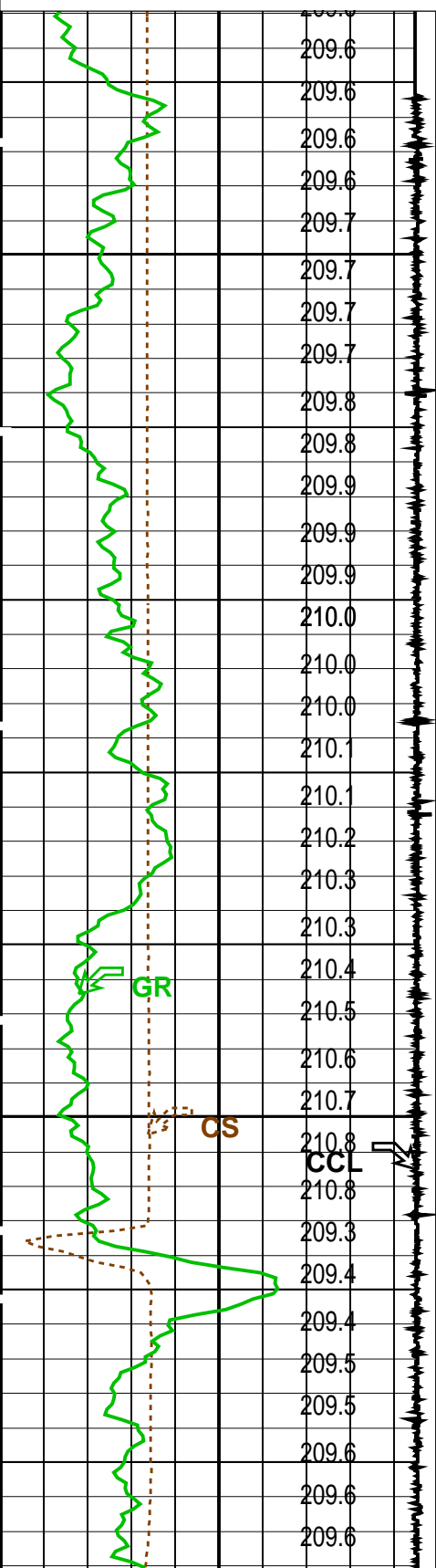
14C0-302

PIP SUMMARY

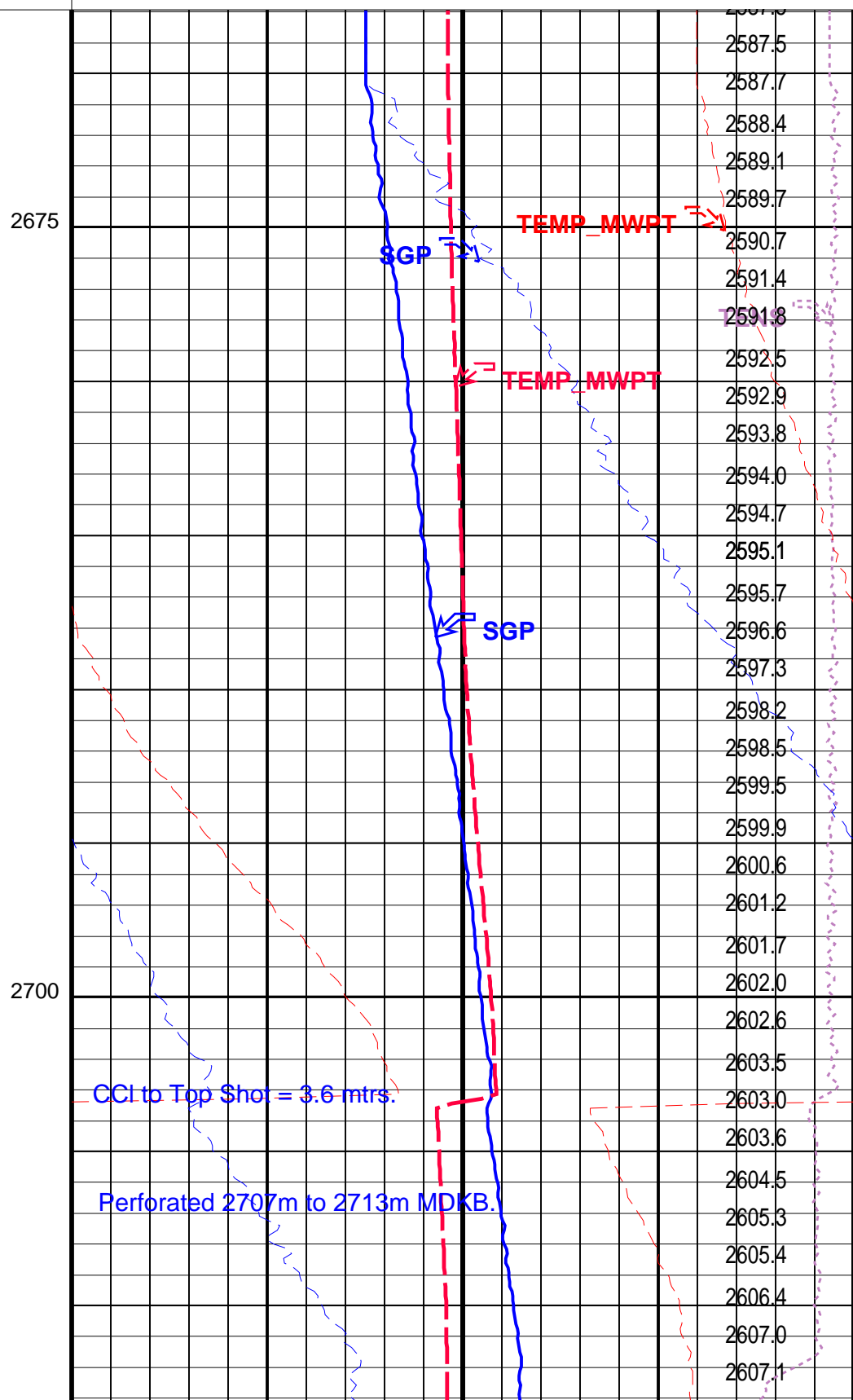
Time Mark Every 60 S

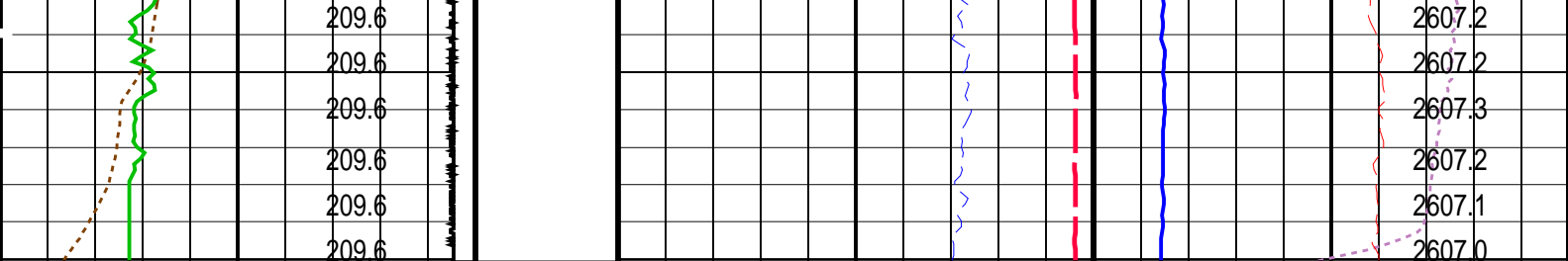
Temperature (TEMP, MWPT)		Pressure (SGP) (PSIA)	Tension (TENS) (LBE)
2000		2000	2000

(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



Temperature (TEMP_MWPT) (DEGF)		
0		2
Strain Gauge Pressure (SGP) (PSIA)		
0		20
Temperature (TEMP_MWPT) (DEGF)		
200		220
Strain Gauge Pressure (SGP) (PSIA)		
2550		2650





Cable Speed (CS) (F/HR)		0	5000	Strain Gauge Pressure (SGP) (PSIA)		2550	2650
Casing Collar Locator (CCL)		-19	1	Temperature (TEMP_MWPT) (DEGF)		200	220
Gamma Ray (GR) (GAPI)		0	150	Strain Gauge Pressure (SGP) (PSIA)		0	20
CCL From CCL to T1				Temperature (TEMP_MWPT) (DEGF)		0	2
Temperature (TEMP_MWPT) (DEGF)				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: 12-Sep-2007 10:37

OP System Version: 14C0-302			
MCM			
MWP_GUN	14C0-302	MWPT-CA	14C0-302
MWGT-AA	14C0-302		

Output DLIS Files			
DEFAULT	PERFO_068LUP	FN:25	PRODUCER 12-Sep-2007 10:37



Gun Correlation Pass

MAXIS Field Log

Company: Esso Australia Pty Ltd. Well: A-16

Input DLIS Files			
DEFAULT	PERFO_065LUP	FN:22	PRODUCER 12-Sep-2007 10:17 2723.4 M 2643.8 M
Output DLIS Files			



**OP System Version: 14C0-302**

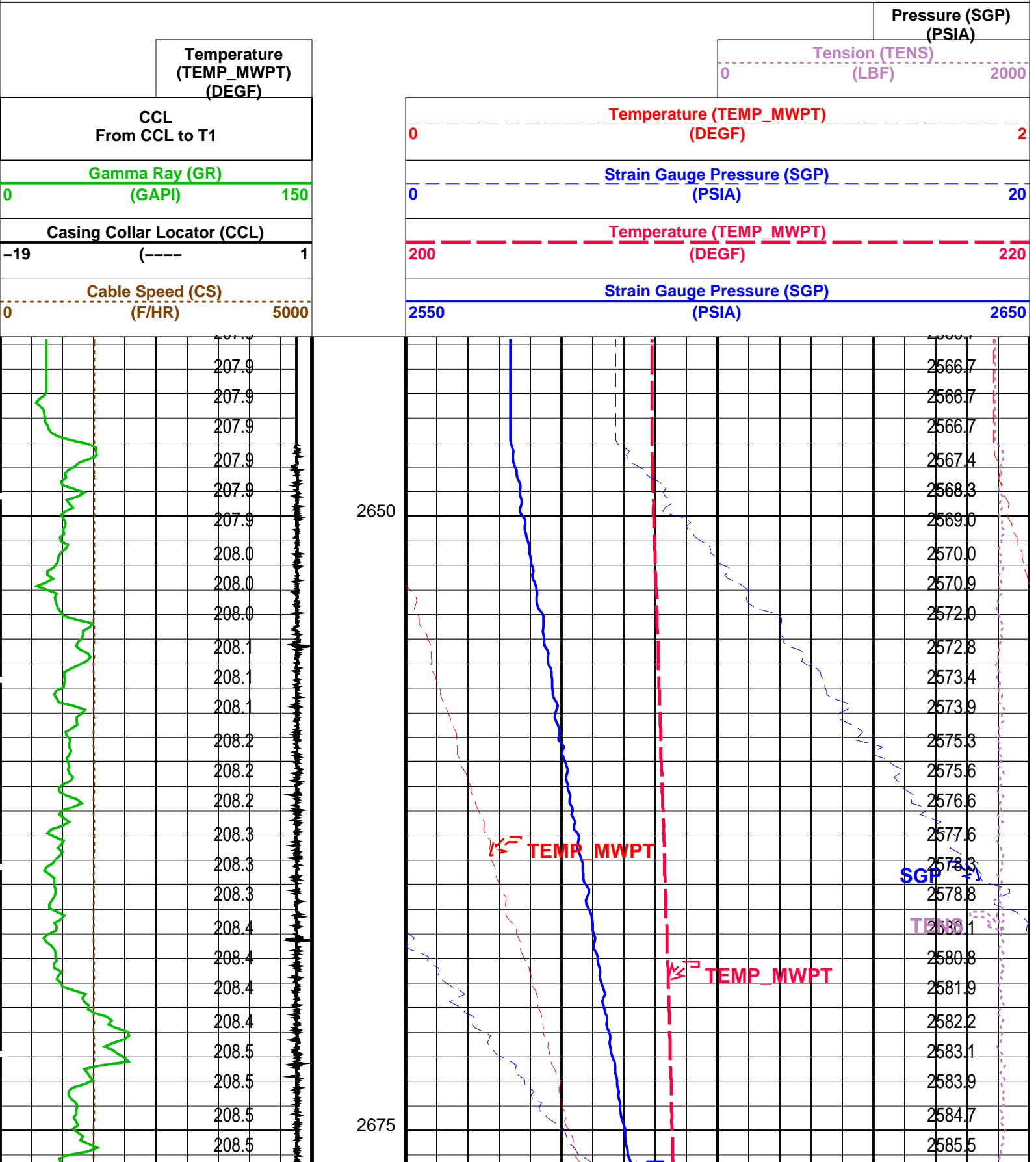
## MCM

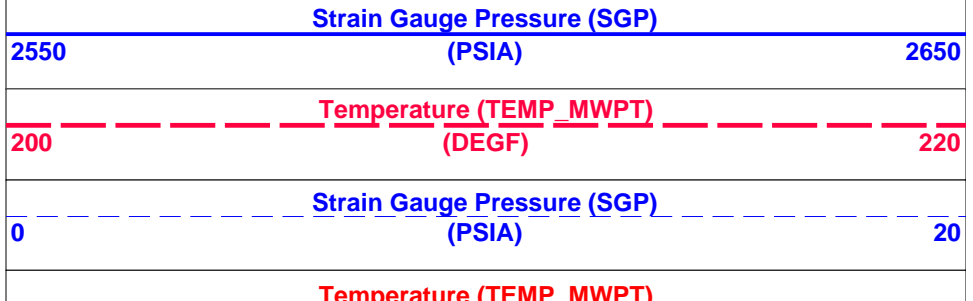
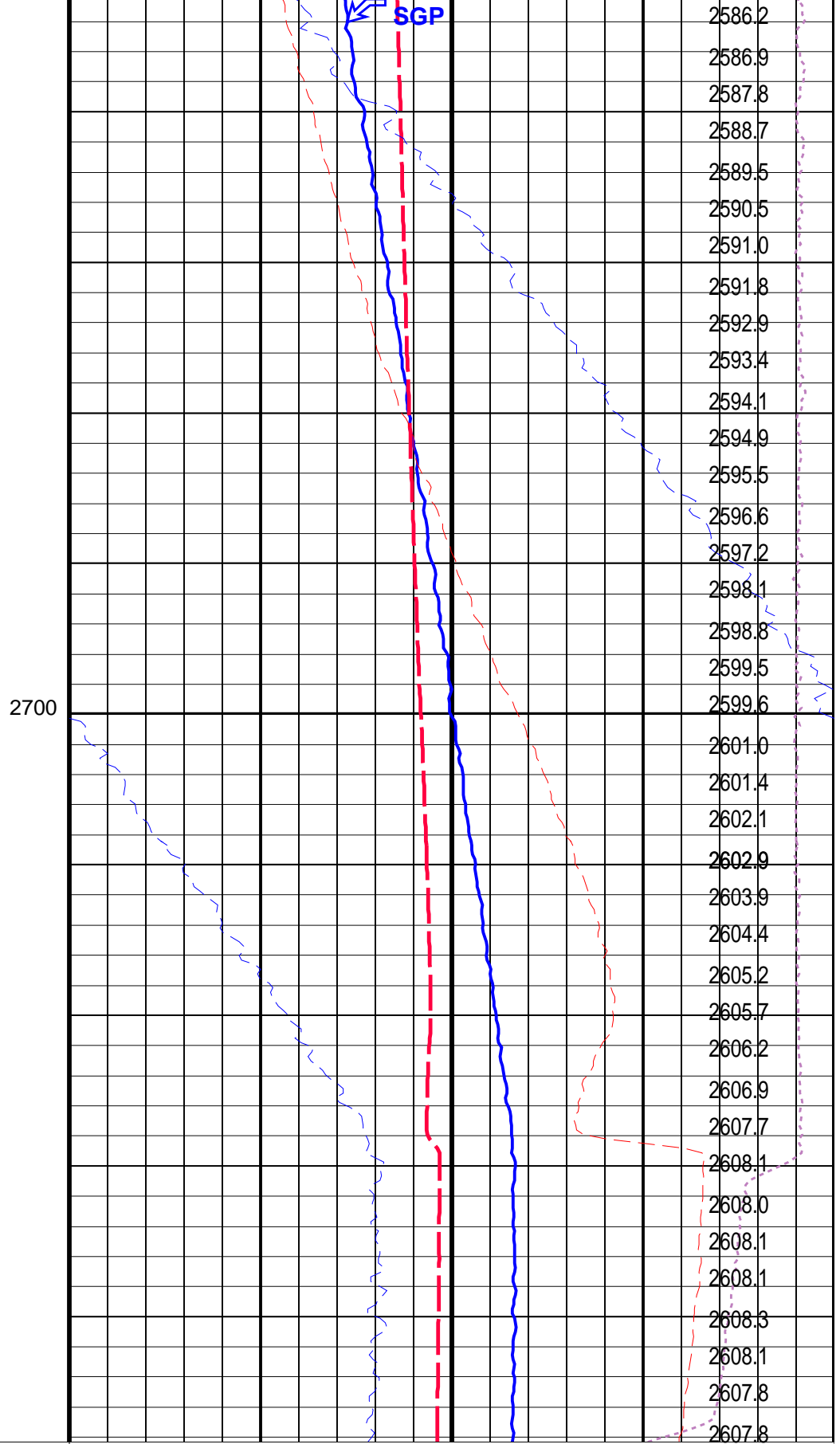
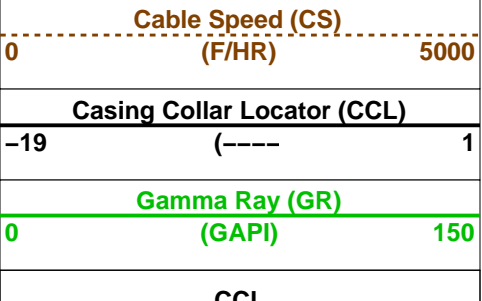
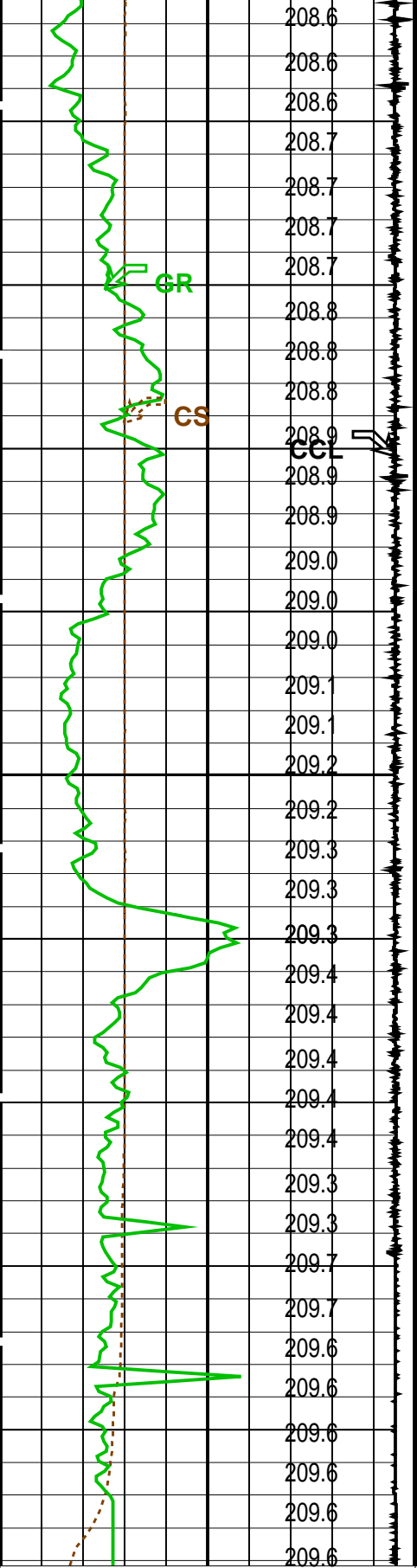
MWP_GUN	14C0-302
MWGT-AA	14C0-302

**MWPT-CA**                      **14C0-302**

## PIP SUMMARY

**Time Mark Every 60 S**





CCL From CCL to T1		Temperature (TEMP_MWPT) (DEGF)		Temperature (TEMP_MWPT) (DEGF)		Tension (TENS) (LBF)		Pressure (SGP) (PSIA)																																	
				0		0		2000																																	
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				0.8		M																																	
PP		Playback Processing				NORMAL																																			
Format: MWP		Vertical Scale: 1:200				Graphics File Created: 12-Sep-2007 10:28																																			
OP System Version: 14C0-302																																									
MCM																																									
MWP_GUN		14C0-302		MWPT-CA		14C0-302																																			
MWGT-AA		14C0-302																																							
Input DLIS Files																																									
DEFAULT		PERFO_065LUP		FN:22		PRODUCER		12-Sep-2007 10:17 2723.4 M 2643.8 M																																	
Output DLIS Files																																									
DEFAULT		PERFO_066PUP		FN:23		PRODUCER		12-Sep-2007 10:28																																	
<div><div>Schlumberger</div><div>Job Event Summary</div></div>																																									
MAXIS Field Log																																									
Schlumberger Job Event Summary																																									
<table><tr><th>Time</th><th>Elapsed Time</th><th>Depth (M)</th><th>File</th></tr><tr><td>Simulated Log</td><td>11-Sep-2007 11:10</td><td>000:17</td><td>RST_PSP_050LUP</td></tr><tr><td>Simulated Log</td><td>11-Sep-2007 11:27</td><td>000:01</td><td>RST_PSP_051LDP</td></tr><tr><td>Log Pass (down)</td><td>11-Sep-2007 11:28</td><td>000:54 -1.4 - 2740.6</td><td>RST_PSP_052LDP</td></tr><tr><td>Log Pass (up)</td><td>11-Sep-2007 12:23</td><td>000:23 2744.6 - 2537.5</td><td>RST_PSP_053LUP</td></tr><tr><td>Log Pass (up)</td><td>11-Sep-2007 13:02</td><td>000:41 2742.6 - 2543.3</td><td>RST_PSP_054LUP</td></tr><tr><td>Log Pass (up)</td><td>11-Sep-2007 13:46</td><td>000:43 2745.8 - 2536.5</td><td>RST_PSP_055LUP</td></tr><tr><td>Log Pass (up)</td><td>11-Sep-2007 14:46</td><td>000:31 1823.2 - -0.3</td><td>RST_PSP_059LUP</td></tr></table>										Time	Elapsed Time	Depth (M)	File	Simulated Log	11-Sep-2007 11:10	000:17	RST_PSP_050LUP	Simulated Log	11-Sep-2007 11:27	000:01	RST_PSP_051LDP	Log Pass (down)	11-Sep-2007 11:28	000:54 -1.4 - 2740.6	RST_PSP_052LDP	Log Pass (up)	11-Sep-2007 12:23	000:23 2744.6 - 2537.5	RST_PSP_053LUP	Log Pass (up)	11-Sep-2007 13:02	000:41 2742.6 - 2543.3	RST_PSP_054LUP	Log Pass (up)	11-Sep-2007 13:46	000:43 2745.8 - 2536.5	RST_PSP_055LUP	Log Pass (up)	11-Sep-2007 14:46	000:31 1823.2 - -0.3	RST_PSP_059LUP
Time	Elapsed Time	Depth (M)	File																																						
Simulated Log	11-Sep-2007 11:10	000:17	RST_PSP_050LUP																																						
Simulated Log	11-Sep-2007 11:27	000:01	RST_PSP_051LDP																																						
Log Pass (down)	11-Sep-2007 11:28	000:54 -1.4 - 2740.6	RST_PSP_052LDP																																						
Log Pass (up)	11-Sep-2007 12:23	000:23 2744.6 - 2537.5	RST_PSP_053LUP																																						
Log Pass (up)	11-Sep-2007 13:02	000:41 2742.6 - 2543.3	RST_PSP_054LUP																																						
Log Pass (up)	11-Sep-2007 13:46	000:43 2745.8 - 2536.5	RST_PSP_055LUP																																						
Log Pass (up)	11-Sep-2007 14:46	000:31 1823.2 - -0.3	RST_PSP_059LUP																																						

Company: Esso Australia Pty Ltd.

Well: A-16

## Input DLIS Files

DEFAULT RST\_PSP\_055LUP FN:12 PRODUCER 11-Sep-2007 13:46 2745.8 M 2536.5 M

## Output DLIS Files

DEFAULT RST\_PSP\_058PUP FN:15 PRODUCER 11-Sep-2007 14:41 2746.2 M 2532.0 M

## OP System Version: 14C0-302

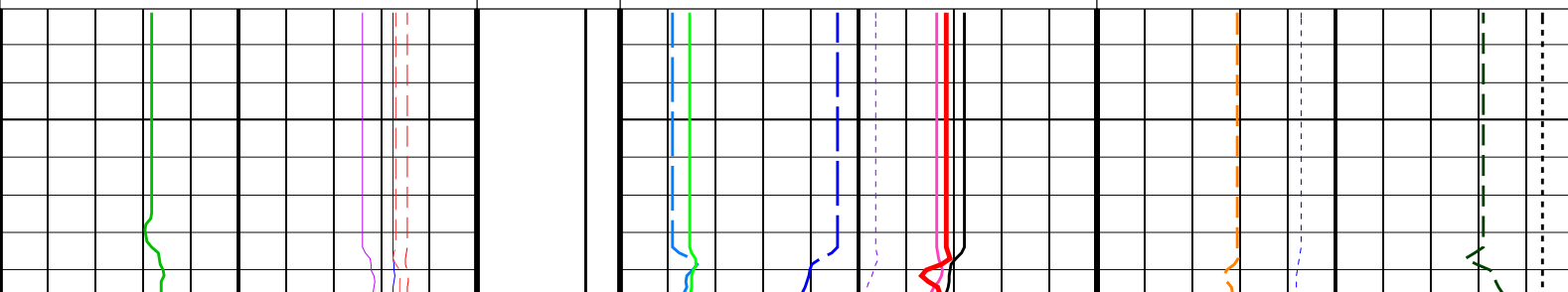
MCM

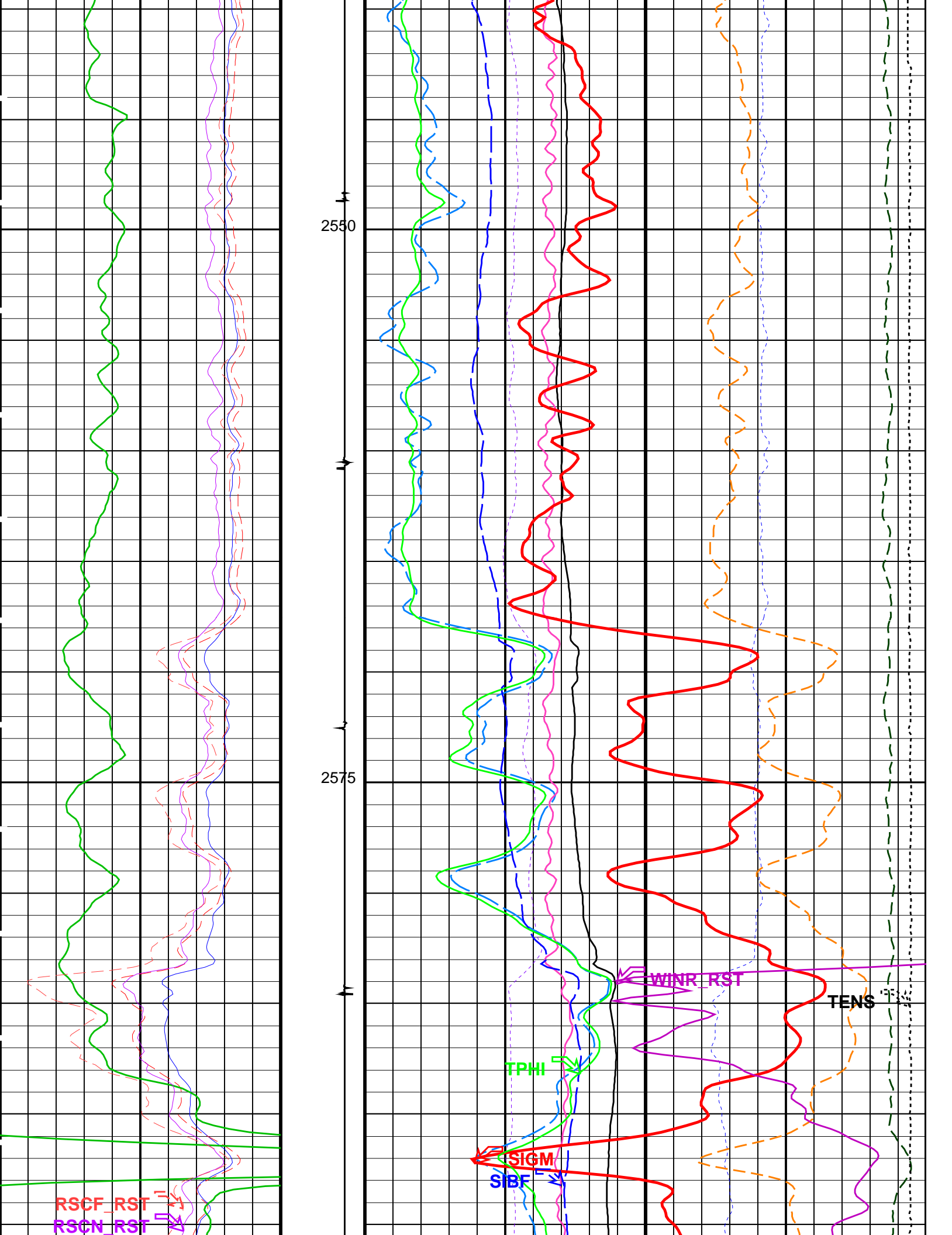
RST-C 14C0-302 PSPT-B 14C0-302

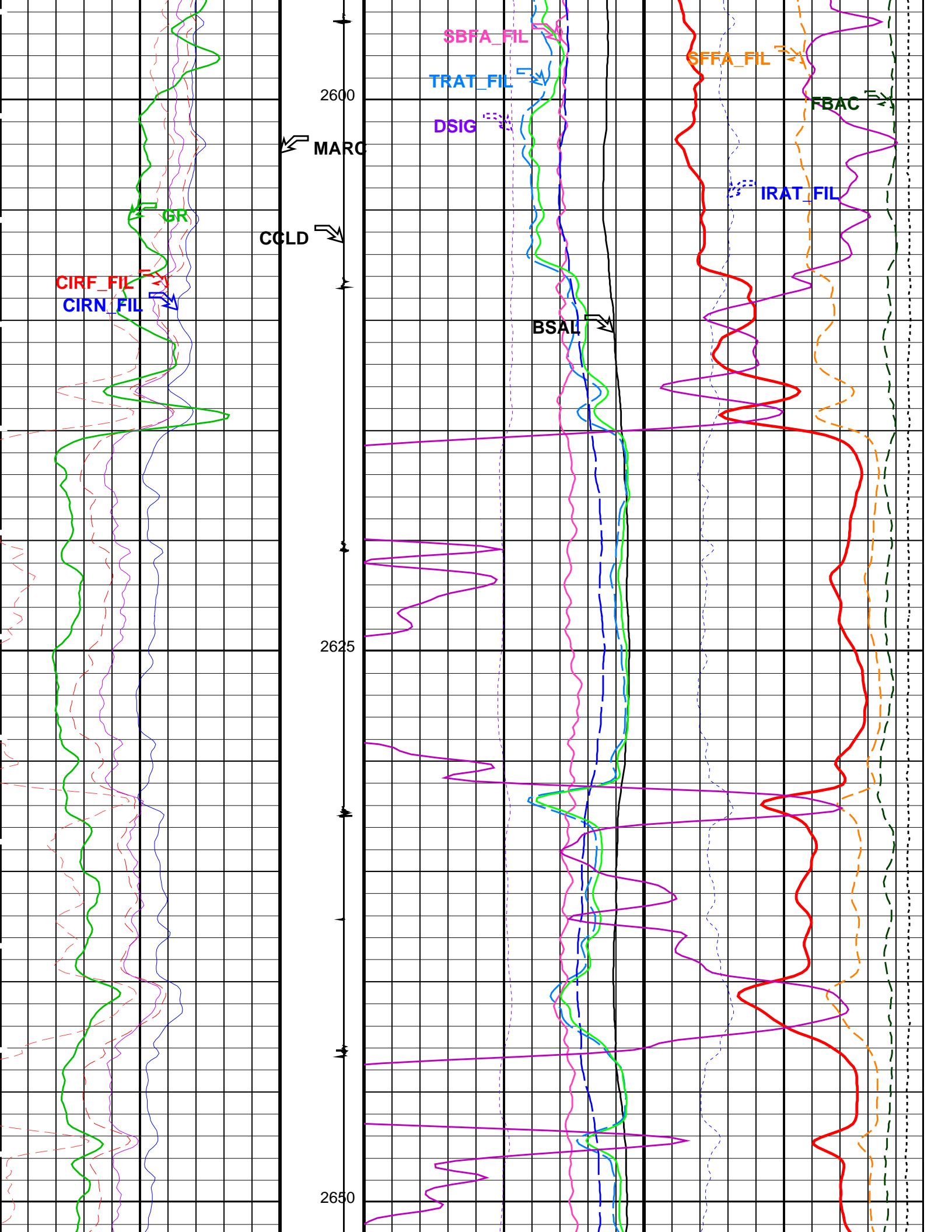
## PIP SUMMARY

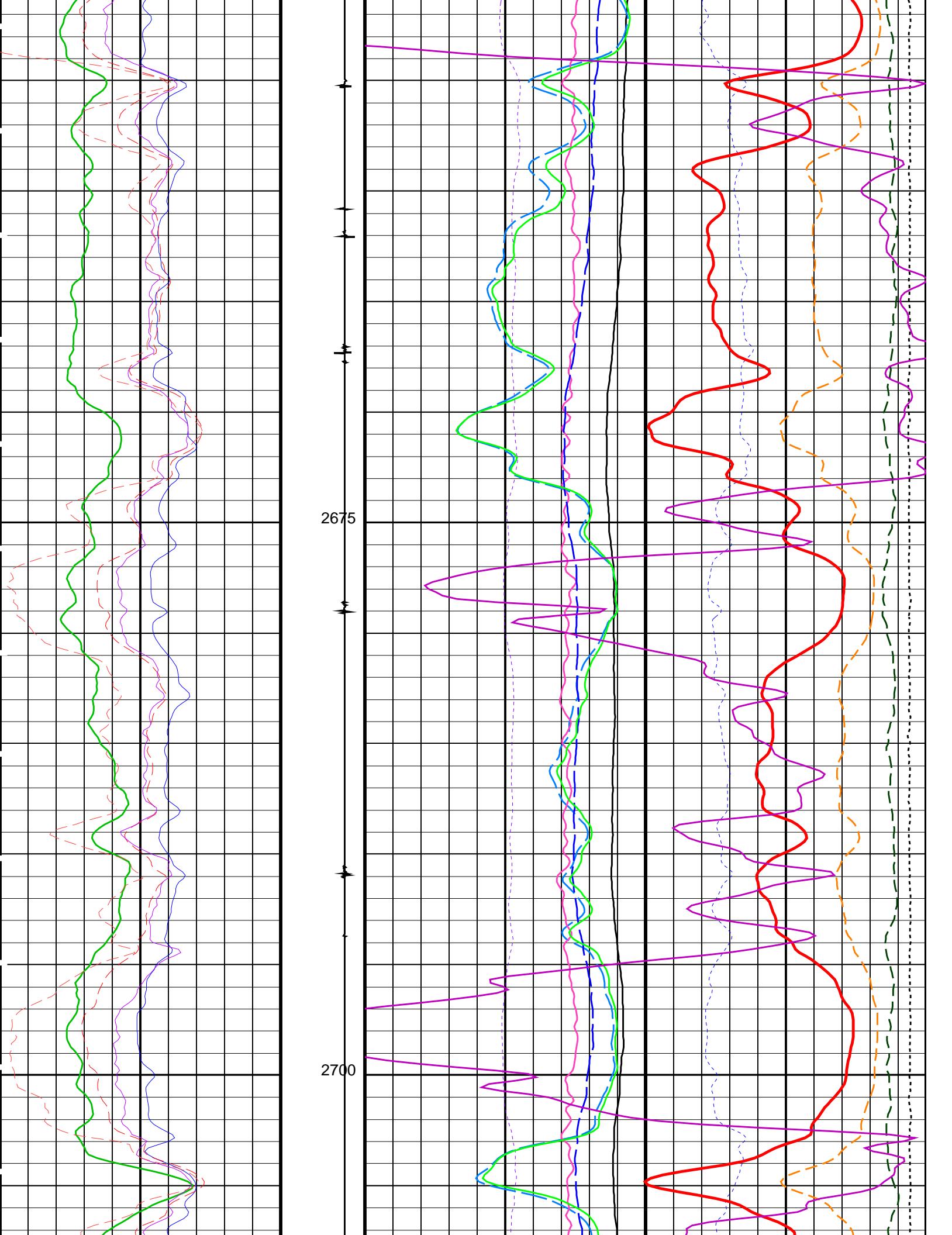
Time Mark Every 60 S

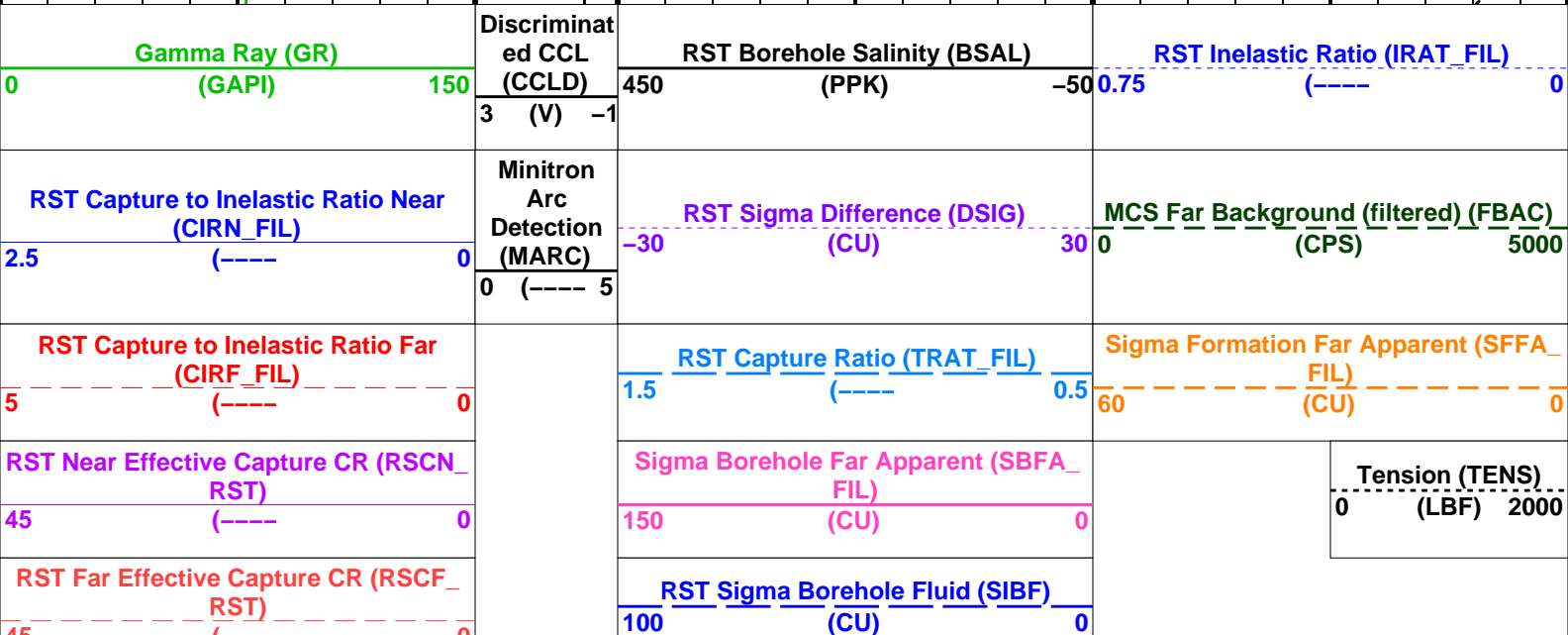
		<div>RST Sigma (SIGM)</div> <div>60 (CU) 0</div>				
		<div>RST Weighted Inelastic Ratio (WINR_RST)</div> <div>0.4 (----) 0</div>				
		<div>RST Porosity (TPHI)</div> <div>0.6 (V/V) 0</div>				
<div>RST Far Effective Capture CR (RSCF_RST)</div> <div>45 (----) 0</div>		<div>RST Sigma Borehole Fluid (SIBF)</div> <div>100 (CU) 0</div>				
<div>RST Near Effective Capture CR (RSCN_RST)</div> <div>45 (----) 0</div>		<div>Sigma Borehole Far Apparent (SBFA_FIL)</div> <div>150 (CU) 0</div>	<div>Tension (TENS)</div> <div>0 (LBF) 2000</div>			
<div>RST Capture to Inelastic Ratio Far (CIRF_FIL)</div> <div>5 (----) 0</div>		<div>RST Capture Ratio (TRAT_FIL)</div> <div>1.5 (----) 0.5</div>	<div>Sigma Formation Far Apparent (SFFA_FIL)</div> <div>60 (CU) 0</div>			
<div>RST Capture to Inelastic Ratio Near (CIRN_FIL)</div> <div>2.5 (----) 0</div>		<div>Minitron Arc Detection (MARC)</div> <div>0 (----) 5</div>	<div>RST Sigma Difference (DSIG)</div> <div>-30 (CU) 30</div>		<div>MCS Far Background (filtered) (FBAC)</div> <div>0 (CPS) 5000</div>	
<div>Gamma Ray (GR)</div> <div>0 (GAPI) 150</div>		<div>Discriminat ed CCL (CCLD)</div> <div>3 (V) -1</div>	<div>RST Borehole Salinity (BSAL)</div> <div>450 (PPK) -50</div>		<div>RST Inelastic Ratio (IRAT_FIL)</div> <div>0.75 (----) 0</div>	













	RST Porosity (TPHI)	
0.6	(V/V)	0
	RST Weighted Inelastic Ratio (WINR_RST)	
0.4	(----	0
	RST Sigma (SIGM)	
60	(CU)	0


PIP SUMMARY		
Time Mark Every 60 S		

Parameters		
DLIS Name	Description	Value
RST-C: Reservoir Saturation Pro Tool C		
AIRB	RST Air Borehole	No
BHS	Borehole Status	CASED
BSALOPT	RST Borehole Salinity Option	Unknown
BSFL	RST Borehole Salinity Filter Length	51
DFPC	RST Depth Filter Processing Constant	One
DFPC_TDTL	RST Depth Filter Processing Constant (TDT-like)	Two
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
NORM_IRAT_RST	RST Normalized Inelastic Ratio	0.48
NORM_SIGM_RST	RST Normalized Sigma	30 CU
RGAI	Near/Far Gain Calibration Ratio	1
SMBMO	RST Sigma Mode Background Minitron Off	No
TIER_SIGM	RST Sigma Acquisition Mode	0_RST_Sigma
PSPT-B: Production Services Logging Platform		
BHS	Borehole Status	CASED
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
System and Miscellaneous		
BS	Bit Size	6.750 IN
BSAL	Borehole Salinity	-50000.00 PPM
CSIZ	Current Casing Size	5.500 IN
CWEI	Casing Weight	17.00 LB/F
DO	Depth Offset for Playback	0.4 M
PP	Playback Processing	NORMAL

Format: RST_SIG_ANSW	Vertical Scale: 1:200	Graphics File Created: 11-Sep-2007 14:41
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OP System Version: 14C0-302			
MCM			
RST-C	14C0-302	PSPT-B	14C0-302

Input DLIS Files						
DEFAULT	RST_PSP_055LUP	FN:12	PRODUCER	11-Sep-2007 13:46	2745.8 M	2536.5 M
Output DLIS Files						
DEFAULT	RST_PSP_058PUP	FN:15	PRODUCER	11-Sep-2007 14:41		

		<div> PASS # 1  RST-C Sigma @ 900 ft/hr </div>
MAXIS Field Log		

Company: Esso Australia Pty Ltd.	Well: A-16
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Input DLIS Files
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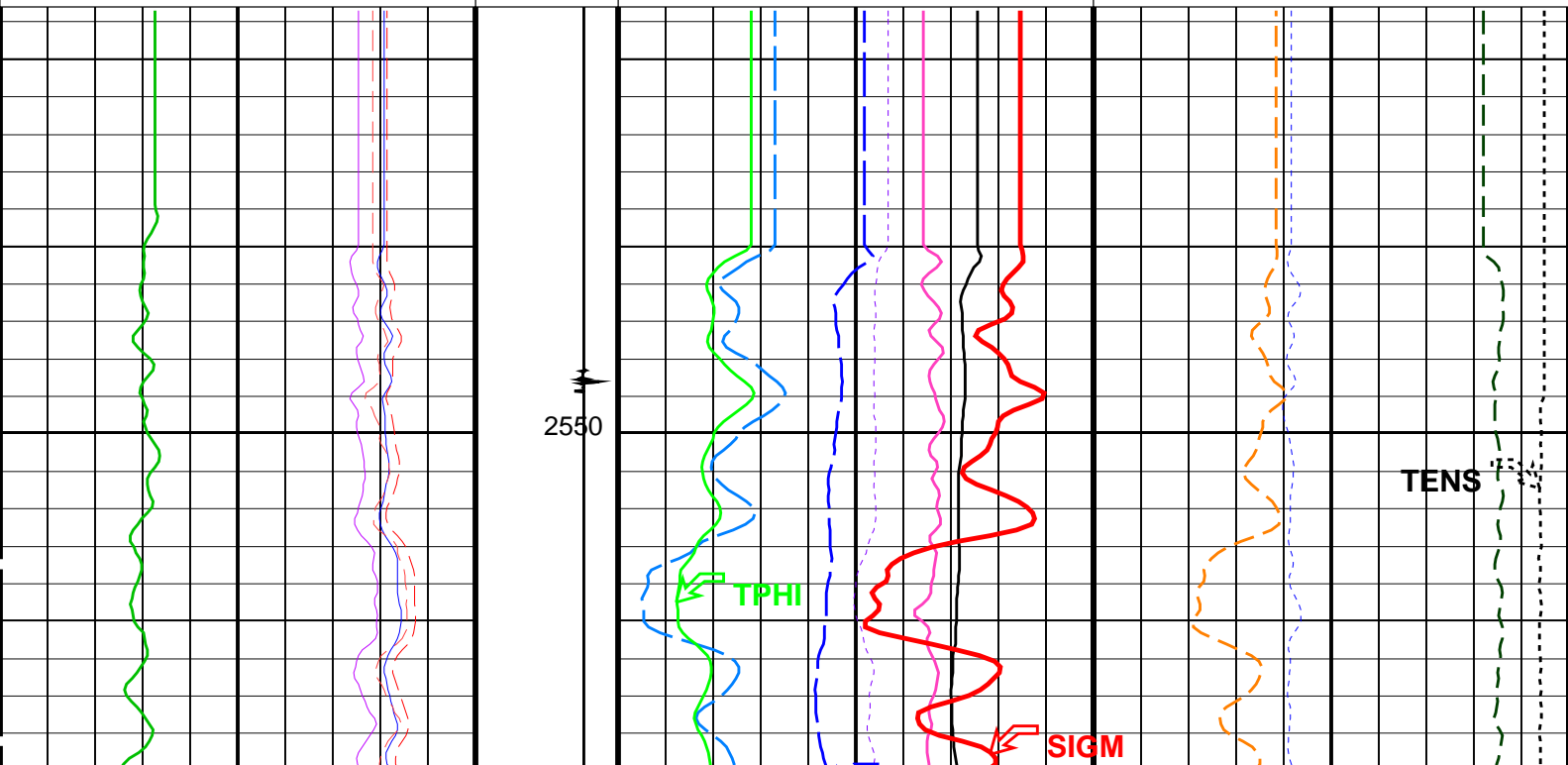
Output DLIS Files

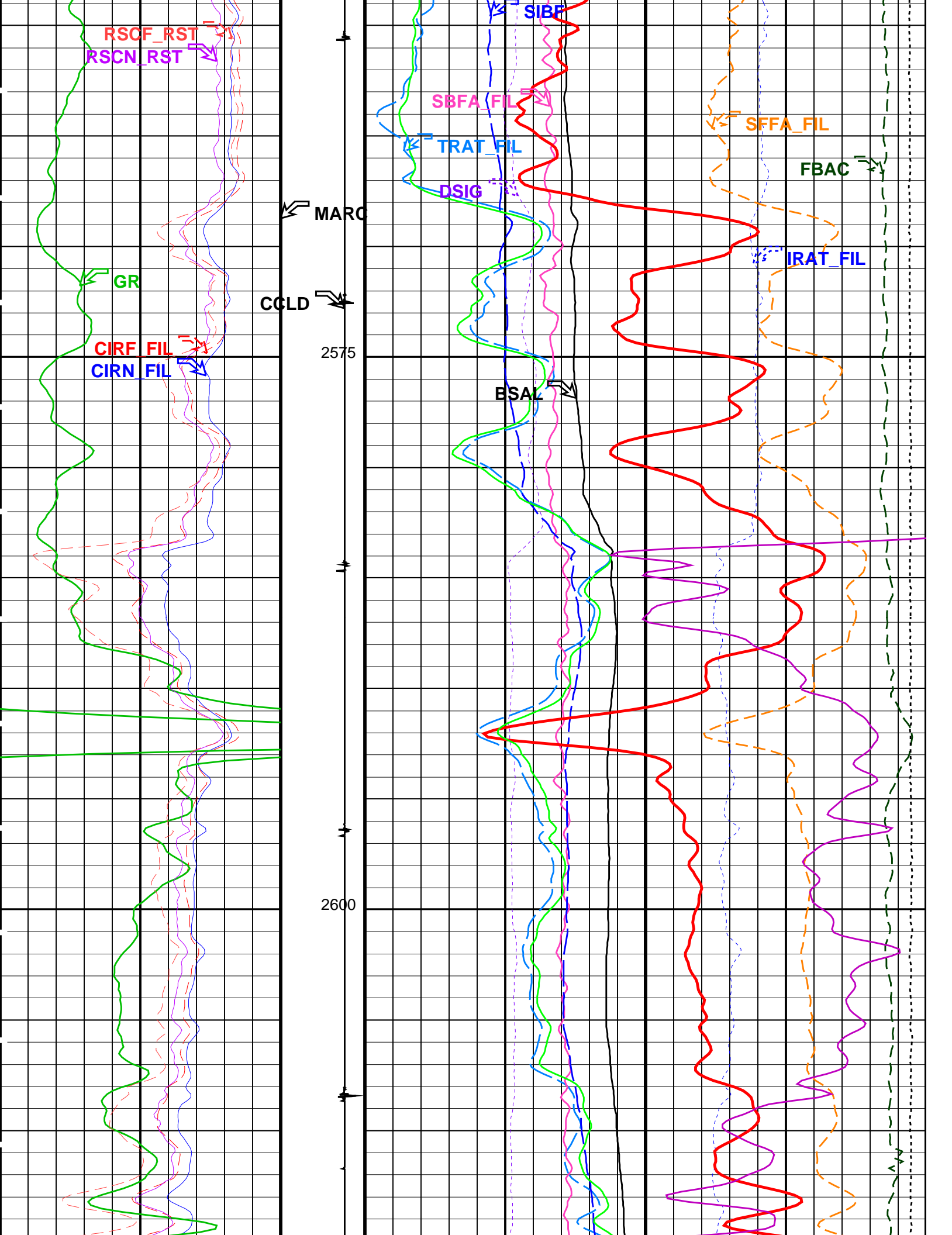
OP System Version: 14C0-302  
MCM

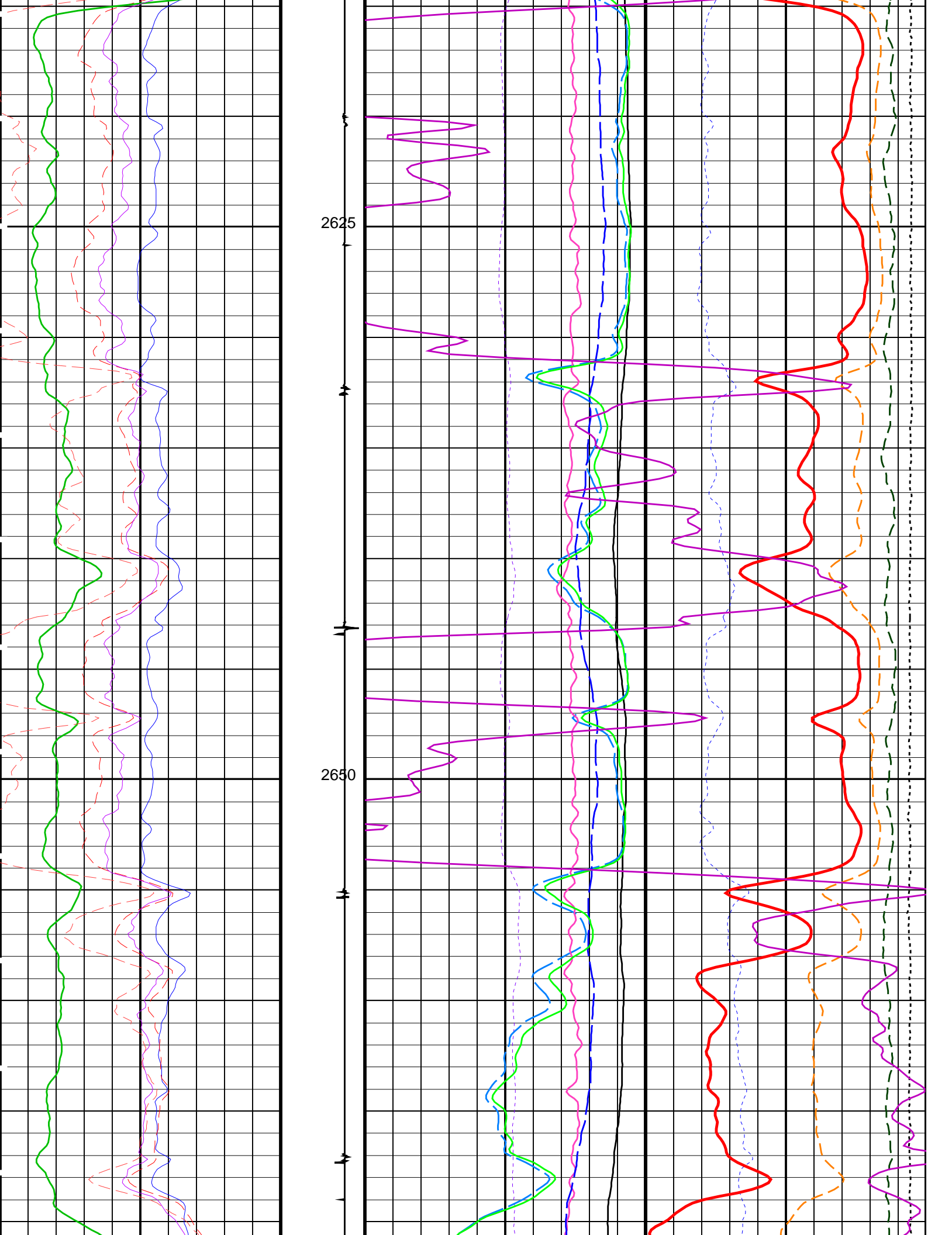
PIP SUMMARY

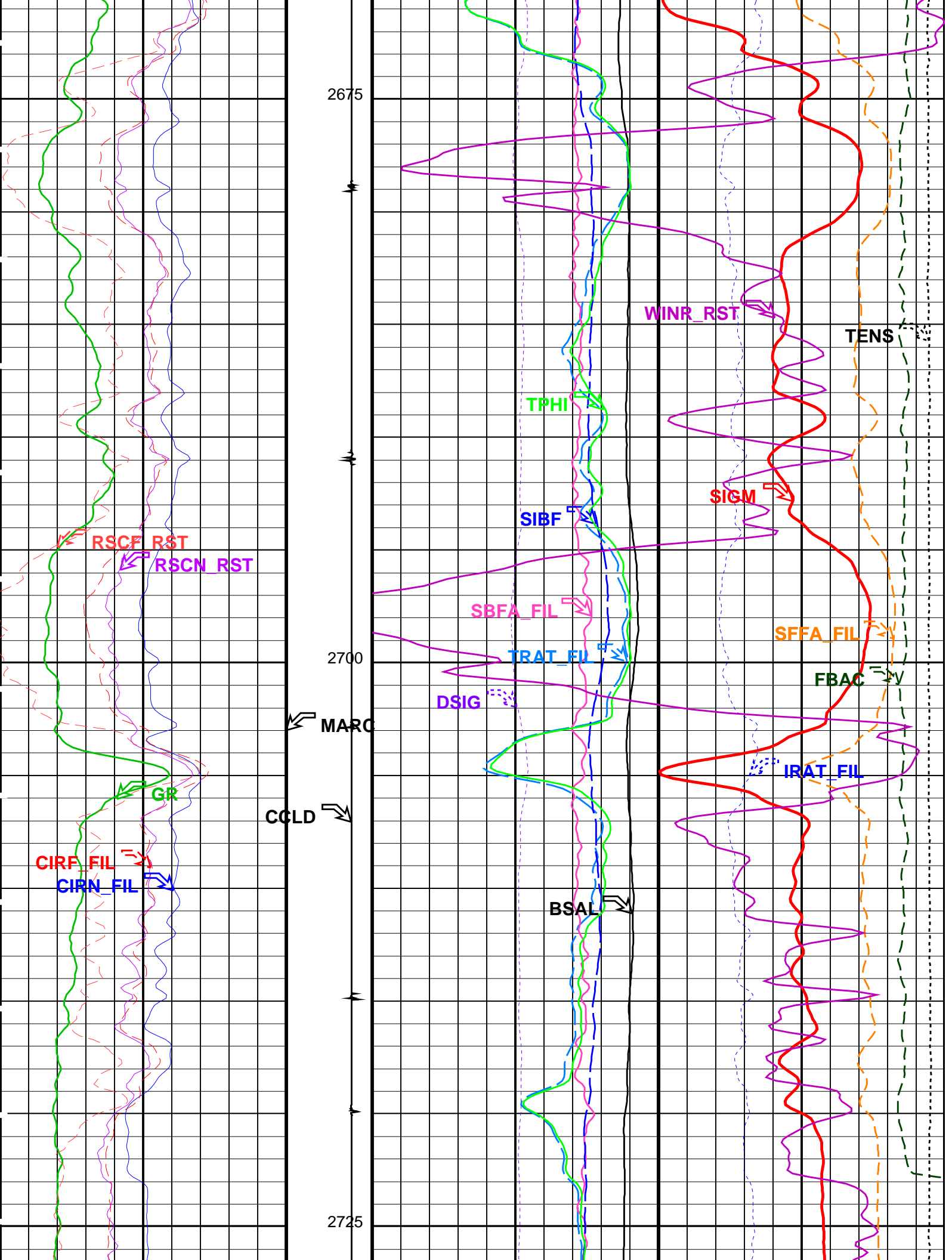
Time Mark Every 60 S

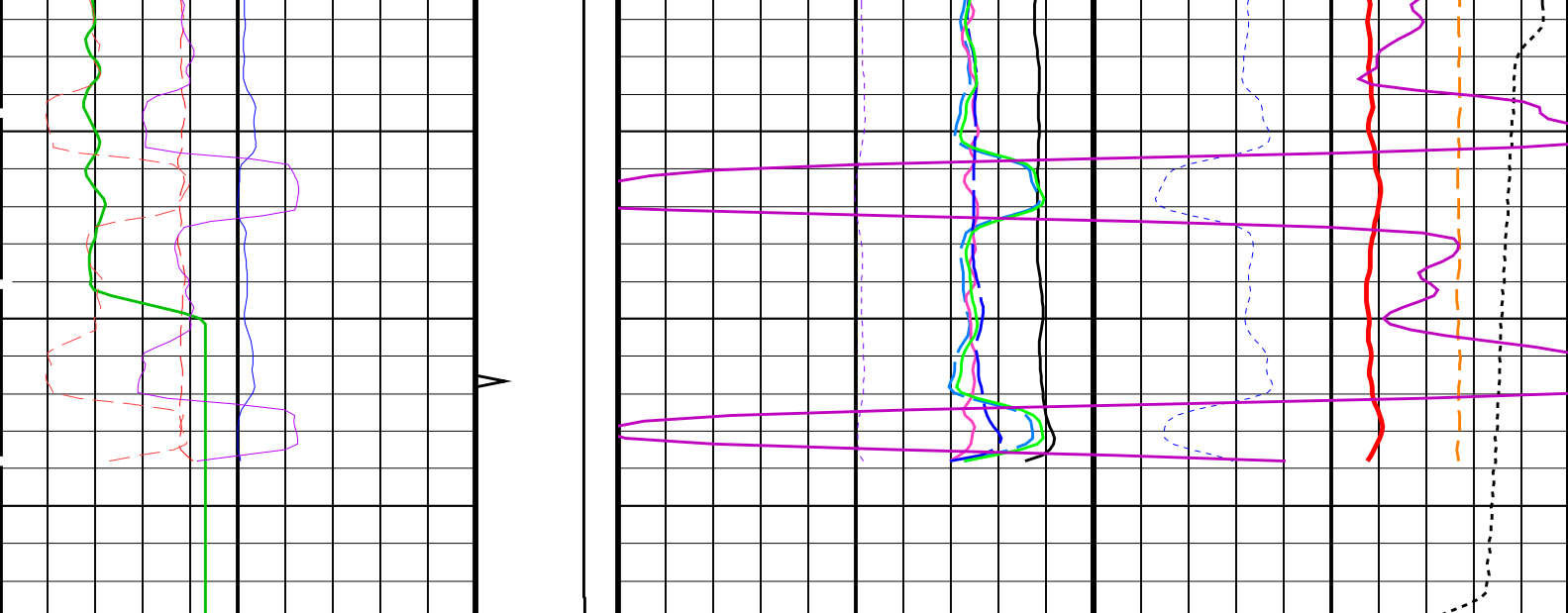
		RST Sigma (SIGM)	
60		(CU)	0
		RST Weighted Inelastic Ratio (WINR_RST)	
0.4		(----	0
		RST Porosity (TPHI)	
0.6		(V/V)	0
RST Far Effective Capture CR (RSCF_RST)		RST Sigma Borehole Fluid (SIBF)	
45	(----	100	(CU) 0
RST Near Effective Capture CR (RSCN_RST)		Sigma Borehole Far Apparent (SBFA_FIL)	
45	(----	150	(CU) 0
		Tension (TENS)	
		0 (LBF) 2000	
RST Capture to Inelastic Ratio Far (CIRF_FIL)		RST Capture Ratio (TRAT_FIL)	Sigma Formation Far Apparent (SFFA_FIL)
5	(----	1.5	(CU) 0.5 60
RST Capture to Inelastic Ratio Near (CIRN_FIL)		RST Sigma Difference (DSIG)	MCS Far Background (filtered) (FBAC)
2.5	(----	-30 (CU) 30	0 (CPS) 5000
Gamma Ray (GR)		RST Borehole Salinity (BSAL)	RST Inelastic Ratio (IRAT_FIL)
0	(GAPI) 150	450 (PPK) -50	0.75 (----) 0











<b>Gamma Ray (GR)</b> <b>(GAPI)</b> 0 150	<b>Discriminat</b> <b>ed CCL</b> <b>(CCLD)</b> 3 (V) -1	<b>RST Borehole Salinity (BSAL)</b> <b>(PPK)</b> 450 -50	<b>RST Inelastic Ratio (IRAT_FIL)</b> <b>(----)</b> 0.75 0
<b>RST Capture to Inelastic Ratio Near</b> <b>(CIRN_FIL)</b> 2.5 0	<b>Minitron</b> <b>Arc</b> <b>Detection</b> <b>(MARC)</b> 0 (---- 5	<b>RST Sigma Difference (DSIG)</b> <b>(CU)</b> -30 30	<b>MCS Far Background (filtered) (FBAC)</b> <b>(CPS)</b> 0 5000
<b>RST Capture to Inelastic Ratio Far</b> <b>(CIRF_FIL)</b> 5 0		<b>RST Capture Ratio (TRAT_FIL)</b> <b>(----)</b> 1.5 0.5	<b>Sigma Formation Far Apparent (SFFA_</b> <b>FIL)</b> <b>(CU)</b> 60 0
<b>RST Near Effective Capture CR (RSCN_</b> <b>RST)</b> 45 0		<b>Sigma Borehole Far Apparent (SBFA_</b> <b>FIL)</b> 150 0	<b>Tension (TENS)</b> 0 (LBF) 2000
<b>RST Far Effective Capture CR (RSCF_</b> <b>RST)</b> 45 0		<b>RST Sigma Borehole Fluid (SIBF)</b> <b>(CU)</b> 100 0	
		<b>RST Porosity (TPHI)</b> 0.6 (V/V) 0	
		<b>RST Weighted Inelastic Ratio (WINR_RST)</b> 0.4 (----) 0	
		<b>RST Sigma (SIGM)</b> 60 (CU) 0	

#### PIP SUMMARY

Time Mark Every 60 S

### Parameters

DLIS Name	Description	Value
RST-C: Reservoir Saturation Pro Tool C		
AIRB	RST Air Borehole	No
BHS	Borehole Status	CASED
BSALOPT	RST Borehole Salinity Option	Unknown
BSFL	RST Borehole Salinity Filter Length	51
DFPC	RST Depth Filter Processing Constant	One
DFPC_TDTL	RST Depth Filter Processing Constant (TDT-like)	Two
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
NORM_IRAT_RST	RST Normalized Inelastic Ratio	0.48
NORM_SIGM_RST	RST Normalized Sigma	30 CU
RGAI	Near/Far Gain Calibration Ratio	1
SMBMO	RST Sigma Mode Background Minitron Off	No
TIER_SIGM	RST Sigma Acquisition Mode	0_RST_Sigma


PSPT-B: Production Services Logging Platform			Cased	
BHS	Borehole Status		SANDSTONE	
MATR	Rock Matrix for Neutron Porosity Corrections			
System and Miscellaneous				
BS	Bit Size		6.750	IN
BSAL	Borehole Salinity		-50000.00	PPM
CSIZ	Current Casing Size		5.500	IN
CWEI	Casing Weight		17.00	LB/F
DO	Depth Offset for Playback		0.3	M
PP	Playback Processing		NORMAL	

Format: RST\_SIG\_ANSW

Vertical Scale: 1:200

Graphics File Created: 11-Sep-2007 14:39

OP System Version: 14C0-302							
MCM							
RST-C	14C0-302	PSPT-B		14C0-302			
Input DLIS Files							
DEFAULT	RST_PSP_054LUP	FN:11	PRODUCER	11-Sep-2007 13:02	2742.6 M	2543.3 M	
Output DLIS Files							
DEFAULT	RST_PSP_057PUP	FN:14	PRODUCER	11-Sep-2007 14:39			



Gamma-Ray Correlation Pass

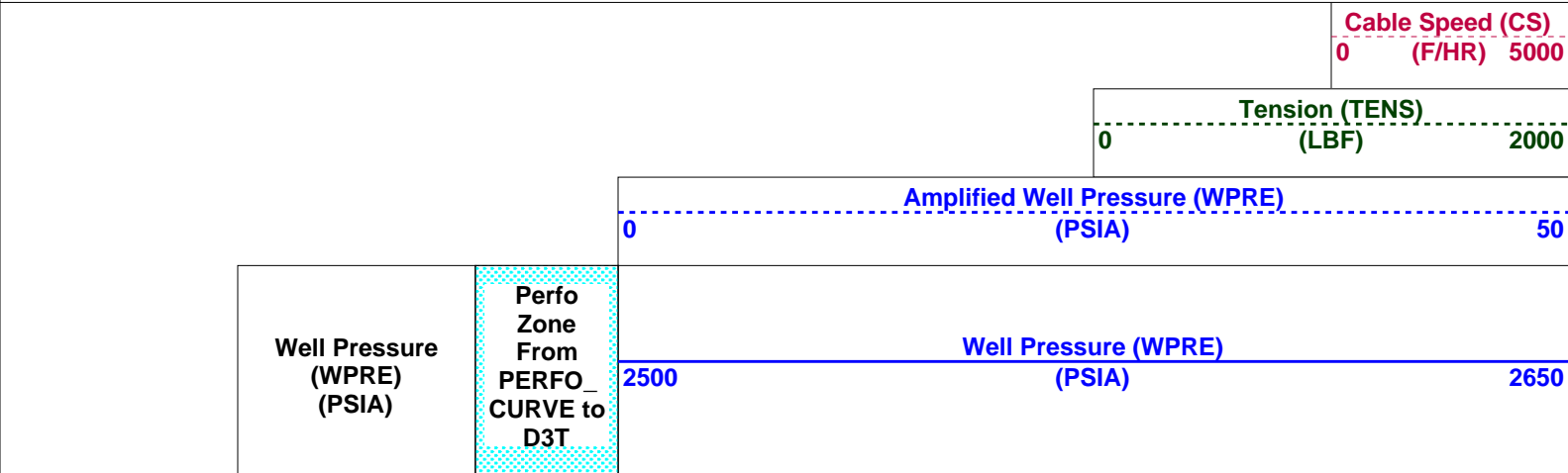
MAXIS Field Log

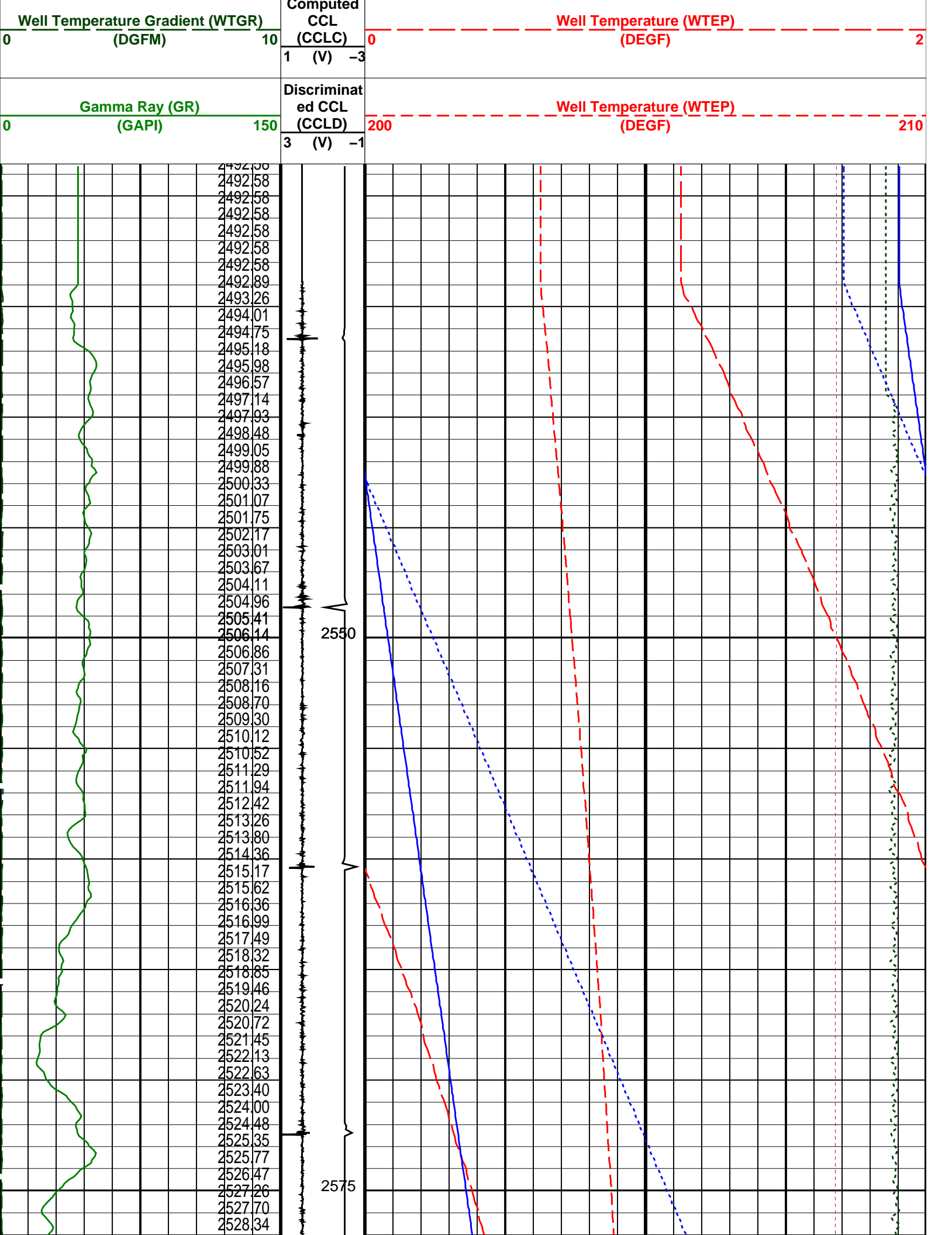
Input DLIS Files					
DEFAULT	RST_PSP_053LUP	FN:10	PRODUCER	11-Sep-2007 12:23	2744.6 M 2537.5 M
Output DLIS Files					
DEFAULT	RST_PSP_056PUP	FN:13	PRODUCER	11-Sep-2007 14:35	2740.6 M 2528.5 M

OP System Version: 14C0-302					
MCM					
RST-C	14C0-302	PSPT-B	14C0-302		

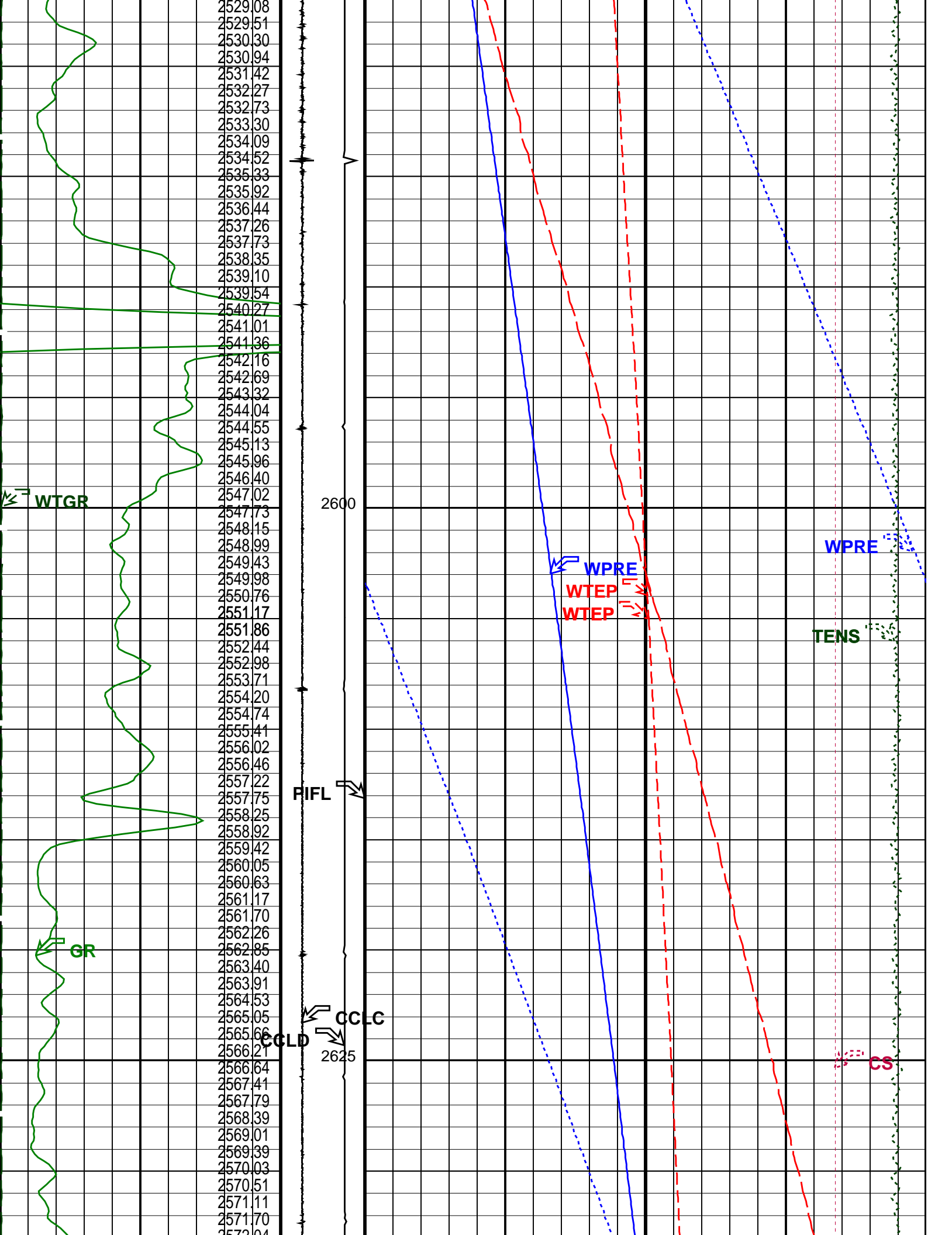
PIP SUMMARY

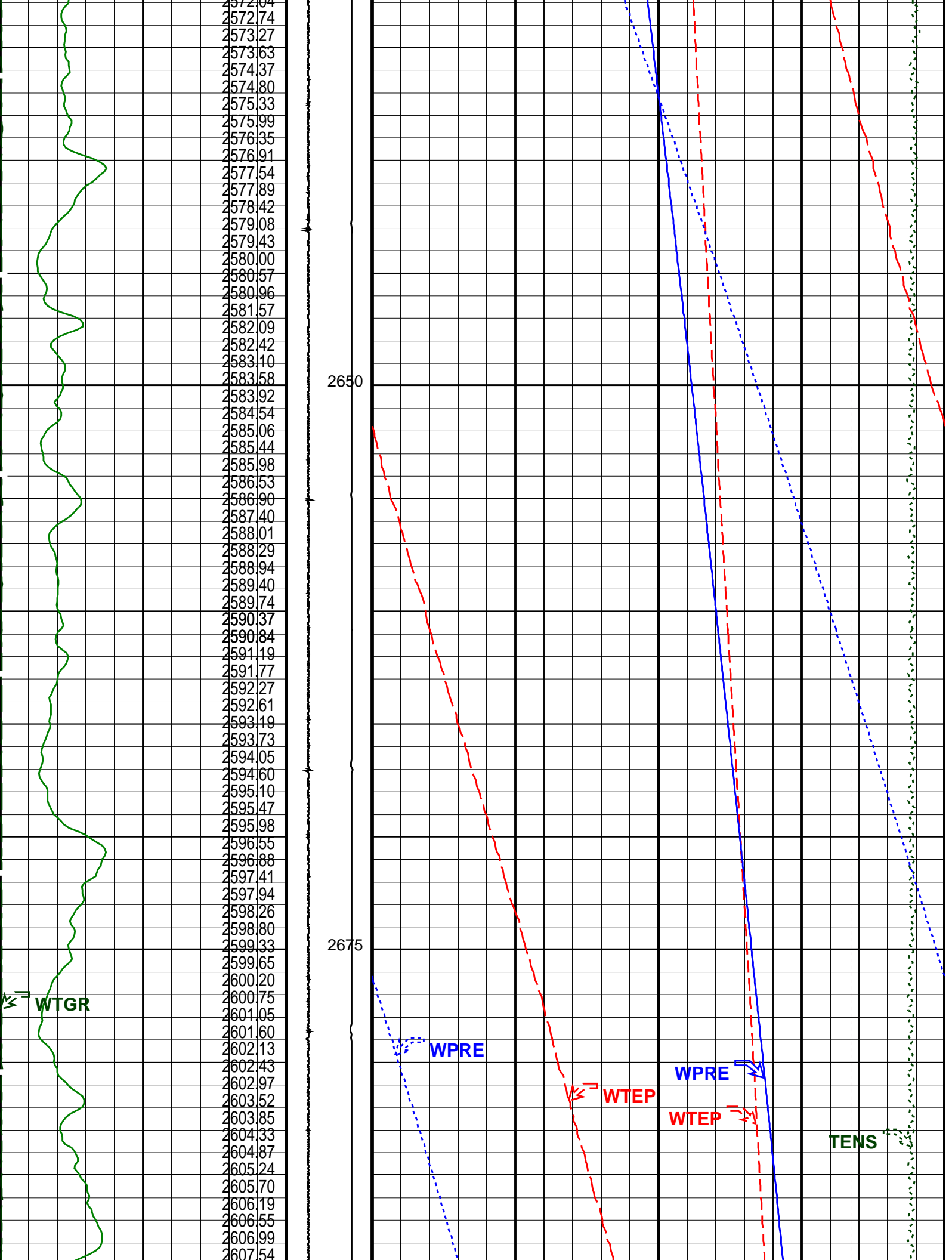
☐ Time Mark Every 60 S

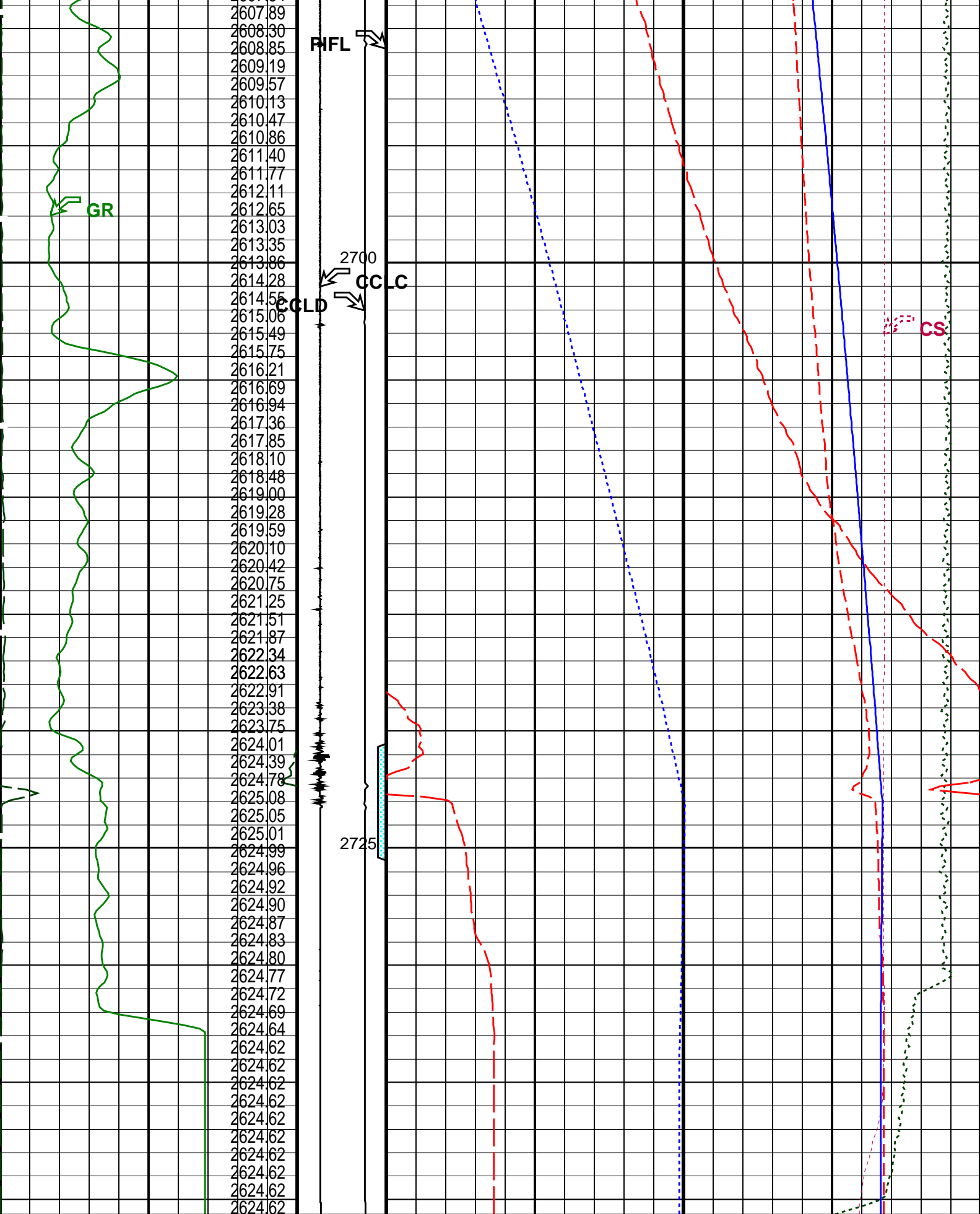


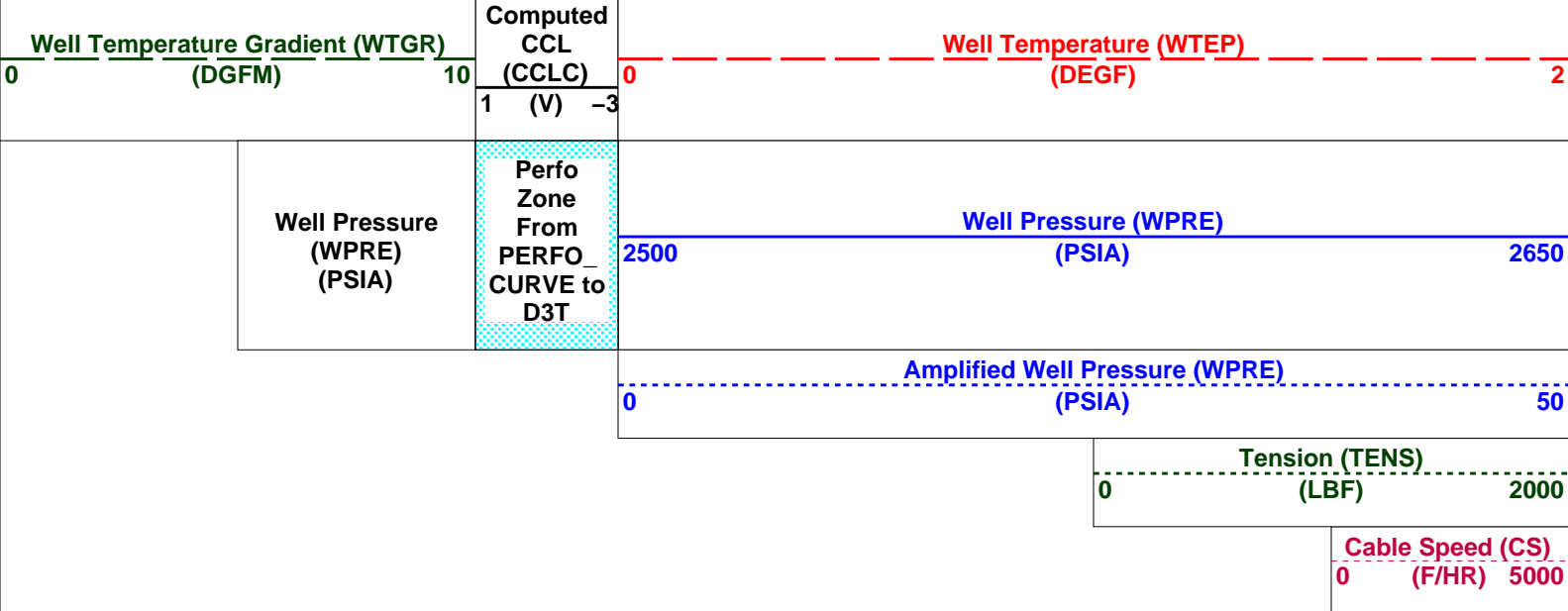












PIP SUMMARY

Time Mark Every 60 S

Format: PSP\_1\_1    Vertical Scale: 1:200    Graphics File Created: 11-Sep-2007 14:35

OP System Version: 14C0-302

MCM

RST-C

14C0-302

PSPT-B

14C0-302

Parameters							
DLIS Name		Description			Value		
System and Miscellaneous		Depth Offset for Playback Playback Processing			-4.0 M		
DO	PP				NORMAL		
Input DLIS Files							
DEFAULT	RST_PSP_053LUP	FN:10	PRODUCER	11-Sep-2007 12:23	2744.6 M	2537.5 M	
Output DLIS Files							
DEFAULT	RST_PSP_056PUP	FN:13	PRODUCER	11-Sep-2007 14:35			

Schlumberger

Calibration Listing

MAXIS Field Log

Calibration and Check Summary							
Measurement	Nominal	Master	Before	After	Change	Limit	Units
Production Services Logging Platform Wellsite Calibration – Detector Calibration							
Before: 10-Sep-2007 16:00							
Gamma-Ray Jig-Bkg	125.0	N/A	128.1	N/A	N/A	N/A	GAPI

# Production Services Logging Platform / Equipment Identification



## Primary Equipment:

Production Logging Platform (CQG-F)	PSPT – B	827	827
PSP Basic Measurement Sonde (CQG_F)	PBMS – B	827	827
PSP Basic measurement module	PBMS –	827	827
PSP CCL	CCL –	827	827
PSP GR	GR –	827	827
PSP RTD Well Temperature	RTD_ –	827	827
PSP Crystal Quartz Gauge Type F	CQG_ –	827	827
PSP Telemetry and bus master cartridge	PSTC –	827	827

## Auxiliary Equipment:

## Production Services Logging Platform Wellsite Calibration

### Detector Calibration

Phase	Gamma-Ray Background	GAPI	Value	Phase	Gamma-Ray Jig-Bkg	GAPI	Value
Before			4.803	Before			128.1
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)		110.0 (Minimum)	125.0 (Nominal)	140.0 (Maximum)

Before: 10-Sep-2007 16:00

Company: **Esso Australia Pty Ltd.**

**Schlumberger**

Well: **A-16**

Field: **Bream A**

Rig : **Prod4 / Crane**

Country: **Australia**

RST-C Sigma Survey  
2 1/8" Powerjet Perforation  
5 1/2" HPI Plug