

[illegible]

Company: Esso Australia Pty Ltd.

Well: A-5
Field: Marlin
Rig: Prod 4 / Crane
Country: Australia

RST-C	
Sigma	
Survey	
Gippsland	Elev.: K.B. 24.4 m
Basin	G.L. -59 m
Bass Strait	D.F. 24.4 m
Permanent Datum:	M.S.L.
Log Measured From:	K.B.
Drilling Measured From:	K.B.
State: Victoria	Max. Well Deviation 48 deg
	Longitude 148 13'09.81"E
	Latitude 038 13'55.49"S

Logging Date	22-Oct-2007			
Run Number	One			
Depth Driller	2045 m			
Schlumberger Depth	2045 m			
Bottom Log Interval	2045 m			
Top Log Interval	1915 m			
Casing Fluid Type	Production Fluid			
Salinity				
Density				
Fluid Level				
BIT/CASING/TUBING STRING				
Bit Size	12.500 in			
From	466.6 m			
To	2098.5 m			
Casing/Tubing Size	9.625 in			
Weight	40 lbm/ft			
Grade	N-80			
From	9.43 m			
To	2098.5 m			
Maximum Recorded Temperatures	176 degF			
Logger On Bottom	22-Oct-2007		20:30	
Unit Number	Location			
Recorded By	889	Ausl / Prod 4		
Witnessed By	G Wright,S Gilbert.			
	G Rimmer,A Smyth.			

Run 1			
Oil Density			
Water Salinity			
Gas Gravity			
PVT DATA			
Bo			
Bw			
1/Bg			
Bubble Point Pressure			
Bubble Point Temperature			
Solution GOR			
Maximum Deviation			48 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: 23-OCT-2007 7:18:03

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: 10-Oct-2007 Calibrator Serial Number: 1174 Calibration Gain: 0.89 Calibration Offset: 180.00	Type: 2-32ZT Serial Number: 24426 Length: 5584.85 M Conveyance Method: Wireline Rig Type: Rigless

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 secondary depth control

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

REMARKS: RUN NUMBER 1
Log correlated to Solar composite supplied with logging program.
Maximum well deviation = 48 degree's at 1139m MDKB.
RST-C Sigma survey with the well shut-in.
Pass one was a Gamma-Ray survey over the interval
Passes 2 and 3 were RST-C Sigma survey over the same interval.
SBHP: 1999 psia @ 1930m MDKB
SBHT: 171 degf @ 1930m MDKB
HUD: 2047m MDKB

Crew : J Light,J Annear,B Taylor,K Kerr.

RUN 1
SERVICE ORDER #: AusI07509086
PROGRAM VERSION: 14C0-302
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

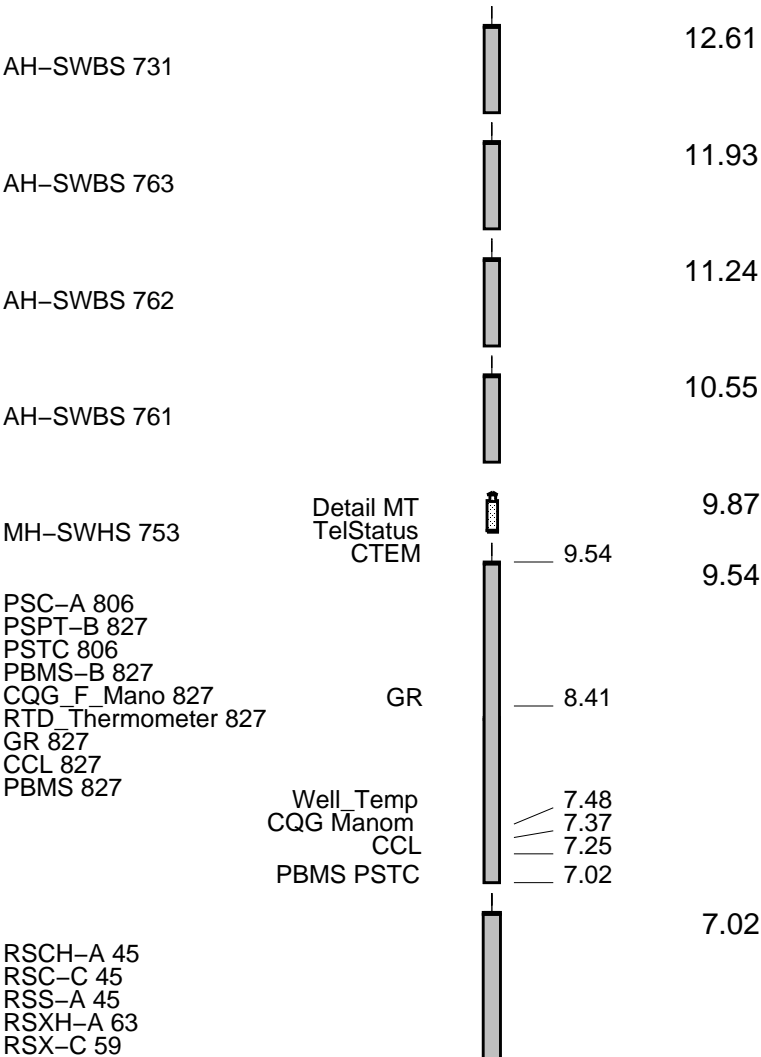
EQUIPMENT DESCRIPTION

RUN 1

SURFACE EQUIPMENT

WITM-A 806
PSC_16MHZ 827

DOWNHOLE EQUIPMENT

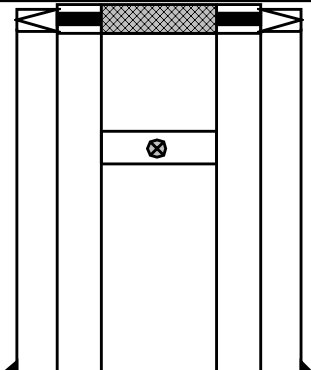


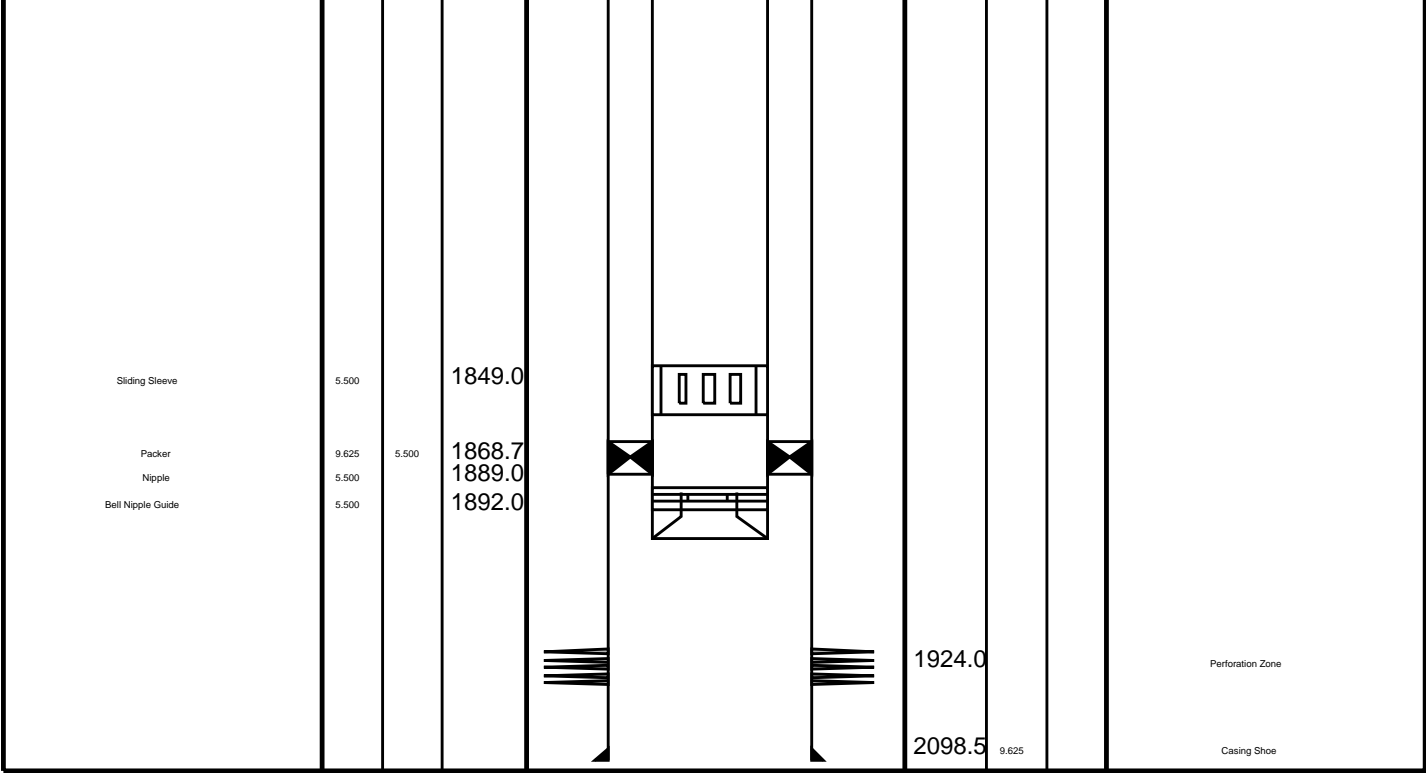
RSC-A Far
RSC-A PNG
RSC-A Nea
RSX-A PNG

4.24
4.09

Tension HV 0.00
TOOL ZERO

MAXIMUM STRING DIAMETER 1.72 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	5.500		11.7		9.4 12.5	9.625 13.375	9.625	Casing String Casing String
Shutin Valve	5.500		150.7					
					466.6	13.375		Casing Shoe



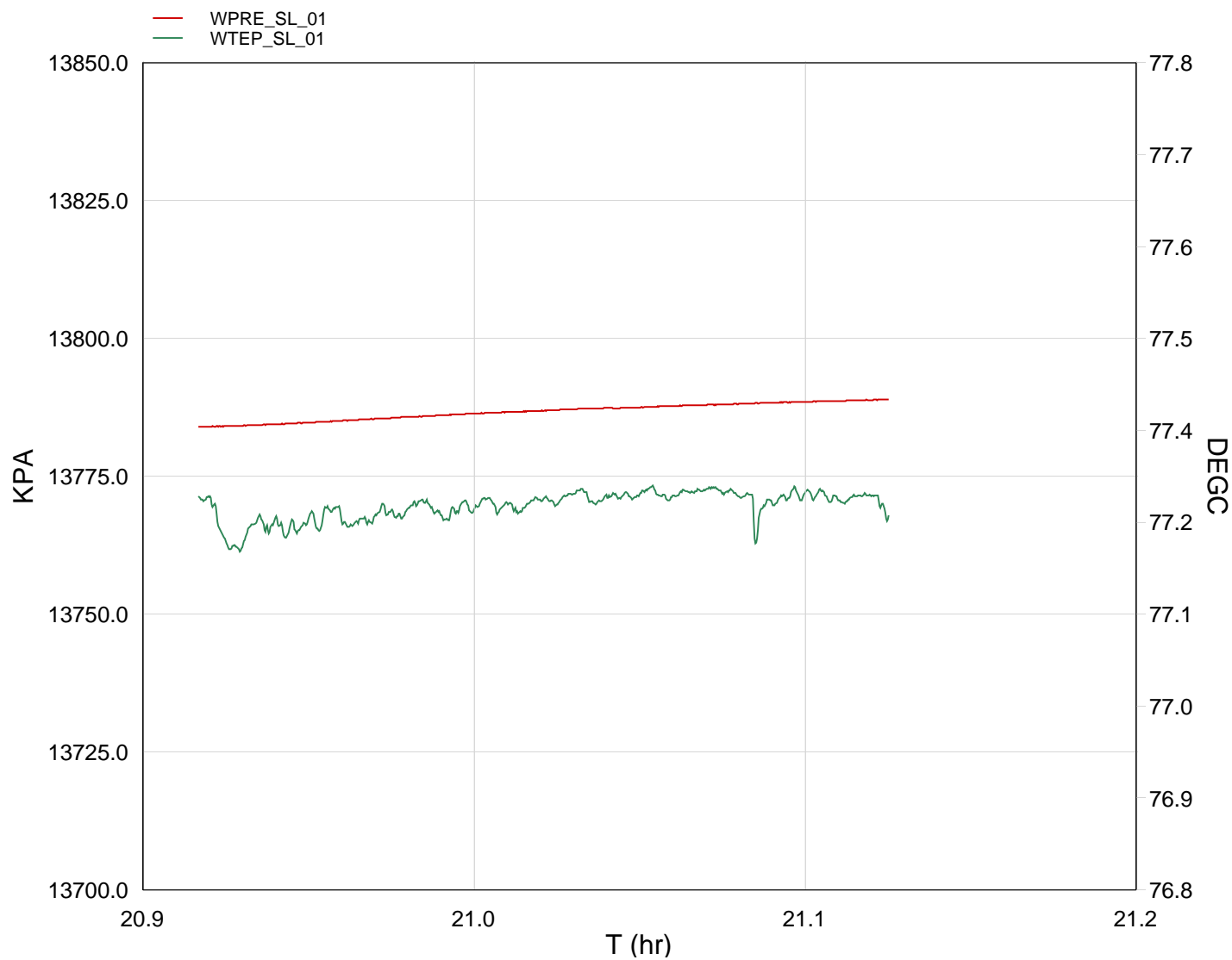
Job Event Summary

MAXIS Field Log

Schlumberger Job Event Summary

Time	Elapsed Time	Depth (M)	File
Log Pass (up)	22-Oct-2007 20:35	000:16	2050.4 – 1898.9 RST_PSP_008LUP
Station Log	22-Oct-2007 20:54	000:13	1937.3 – 1.9 RST_PSP_009LTP
Log Pass (up)	22-Oct-2007 21:21	000:32	2051.5 – 1907.1 RST_PSP_012LUP
Log Pass (up)	22-Oct-2007 22:01	000:31	2051.2 – 1905.0 RST_PSP_013LUP
Log Pass (up)	22-Oct-2007 22:41	000:26	2046.9 – 1903.6 RST_PSP_017LUP

MAXIS Field Log



TIME	TOJ	WTEP_SL	WPRE_SL
------	-----	---------	---------

6420.0000	20.9048	171.0009	1998.0734
6480.0000	20.9323	171.0315	1999.2403
6540.0000	20.9490	171.0365	1999.3030
6600.0000	20.9657	171.0482	1999.3890
6660.0000	20.9823	171.0804	1999.4673
6720.0000	20.9990	171.0617	1999.5425
6780.0000	21.0157	171.0741	1999.6042
6840.0000	21.0323	171.1128	1999.6682
6900.0000	21.0490	171.0966	1999.7050
6960.0000	21.0657	171.1071	1999.7609
7020.0000	21.0823	171.1030	1999.8049
7080.0000	21.0990	171.0898	1999.8550



RST-C Sigma Pass # 3
900ft/hr 2045m to 1915m MDKB

MAXIS Field Log

Company: Esso Australia Pty Ltd. Well: A-5

Input DLIS Files

DEFAULT RST_PSP_017LUP FN:16 PRODUCER 22-Oct-2007 22:41 2046.9 M 1903.6 M

Output DLIS Files

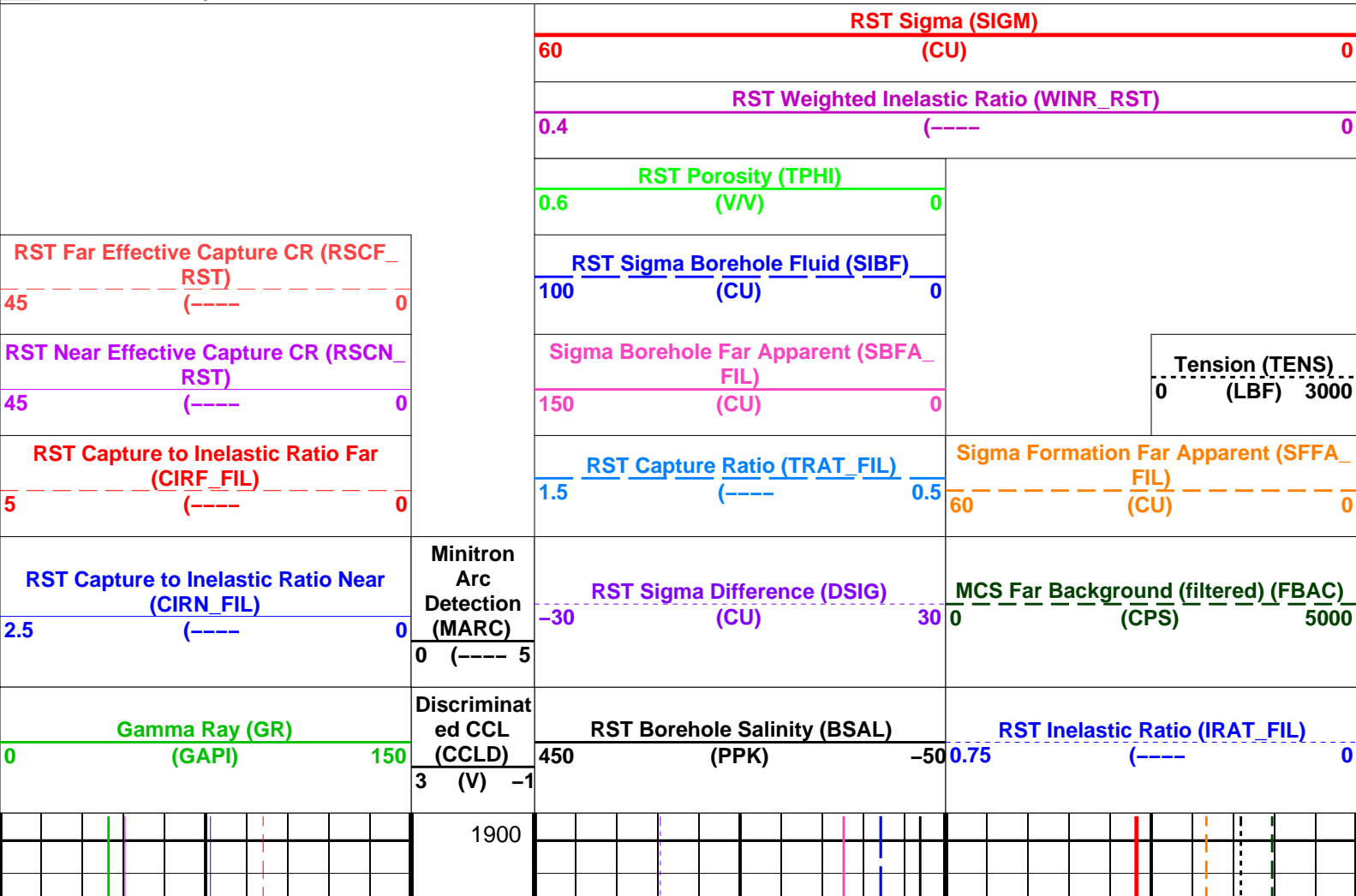
DEFAULT RST_PSP_019PUP FN:18 PRODUCER 22-Oct-2007 23:08 2047.3 M 1899.1 M

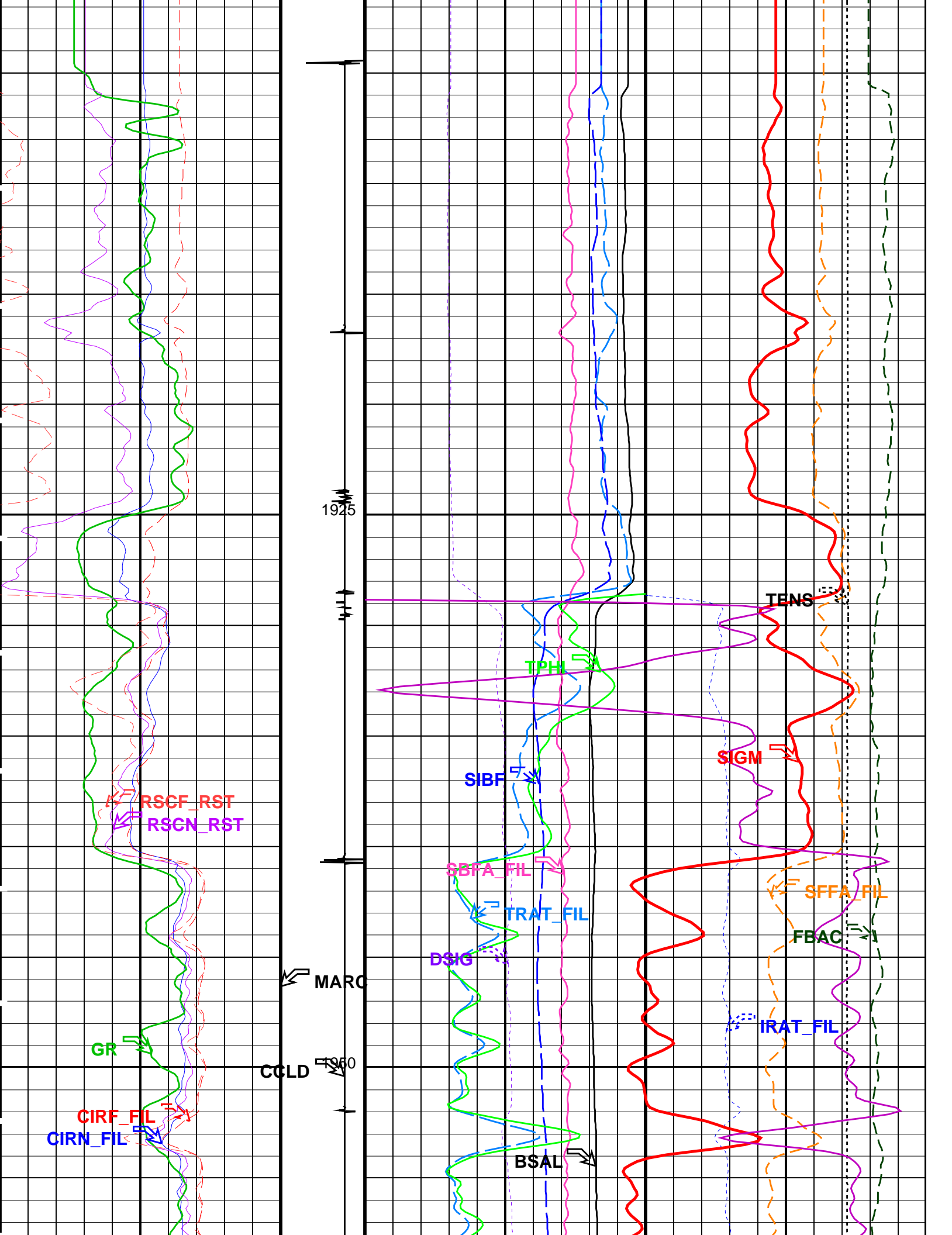
OP System Version: 14C0-302
MCM

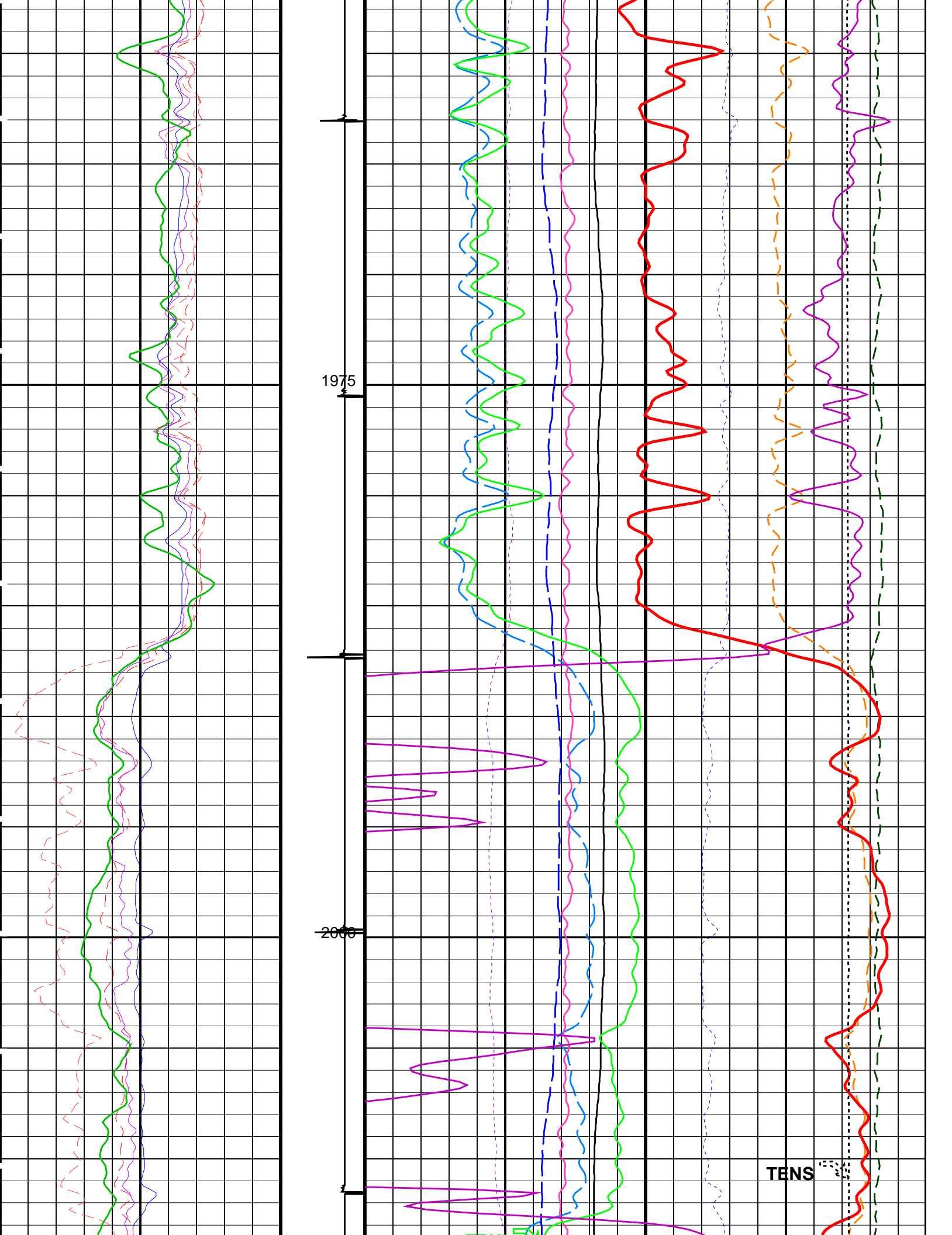
RST-C 14C0-302 PSPT-A/B 14C0-302

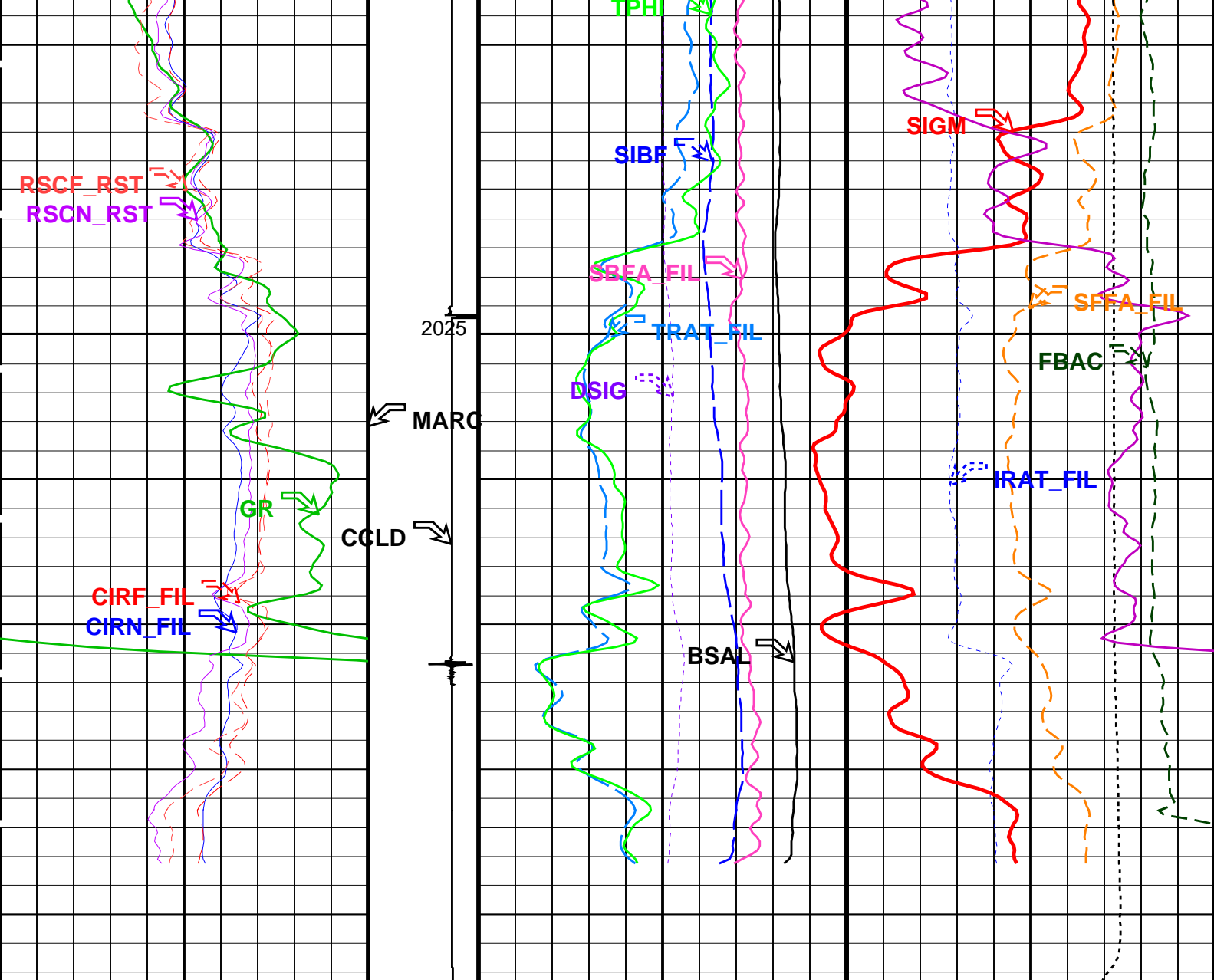
PIP SUMMARY

Time Mark Every 60 S









<div>Gamma Ray (GR) (GAPI)</div> <div>0150</div>	<div>Discriminat ed CCL (CCLD)</div> <div>3 (V) -1</div>	<div>RST Borehole Salinity (BSAL) (PPK)</div> <div>450-50</div>	<div>RST Inelastic Ratio (IRAT_FIL) (----</div> <div>0.750</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) (CU)</div> <div>-3030</div>	<div>MCS Far Background (filtered) (FBAC) (CPS)</div> <div>05000</div>
<div>RST Capture to Inelastic Ratio Far (CIRF_FIL)</div> <div>5 (----) 0</div>		<div>RST Capture Ratio (TRAT_FIL) (----</div> <div>1.50.5</div>	<div>Sigma Formation Far Apparent (SFFA_ FIL) (CU)</div> <div>600</div>
<div>RST Near Effective Capture CR (RSCN_ RST)</div> <div>45 (----) 0</div>		<div>Sigma Borehole Far Apparent (SBFA_ FIL) (CU)</div> <div>1500</div>	<div>Tension (TENS) (LBF) 3000</div> <div>0</div>
<div>RST Far Effective Capture CR (RSCF_ RST)</div> <div>45 (----) 0</div>		<div>RST Sigma Borehole Fluid (SIBF) (CU)</div> <div>1000</div>	
		<div>RST Porosity (TPHI) (V/V)</div> <div>0.60</div>	
		<div>RST Weighted Inelastic Ratio (WINR_RST) (----</div> <div>0.40</div>	

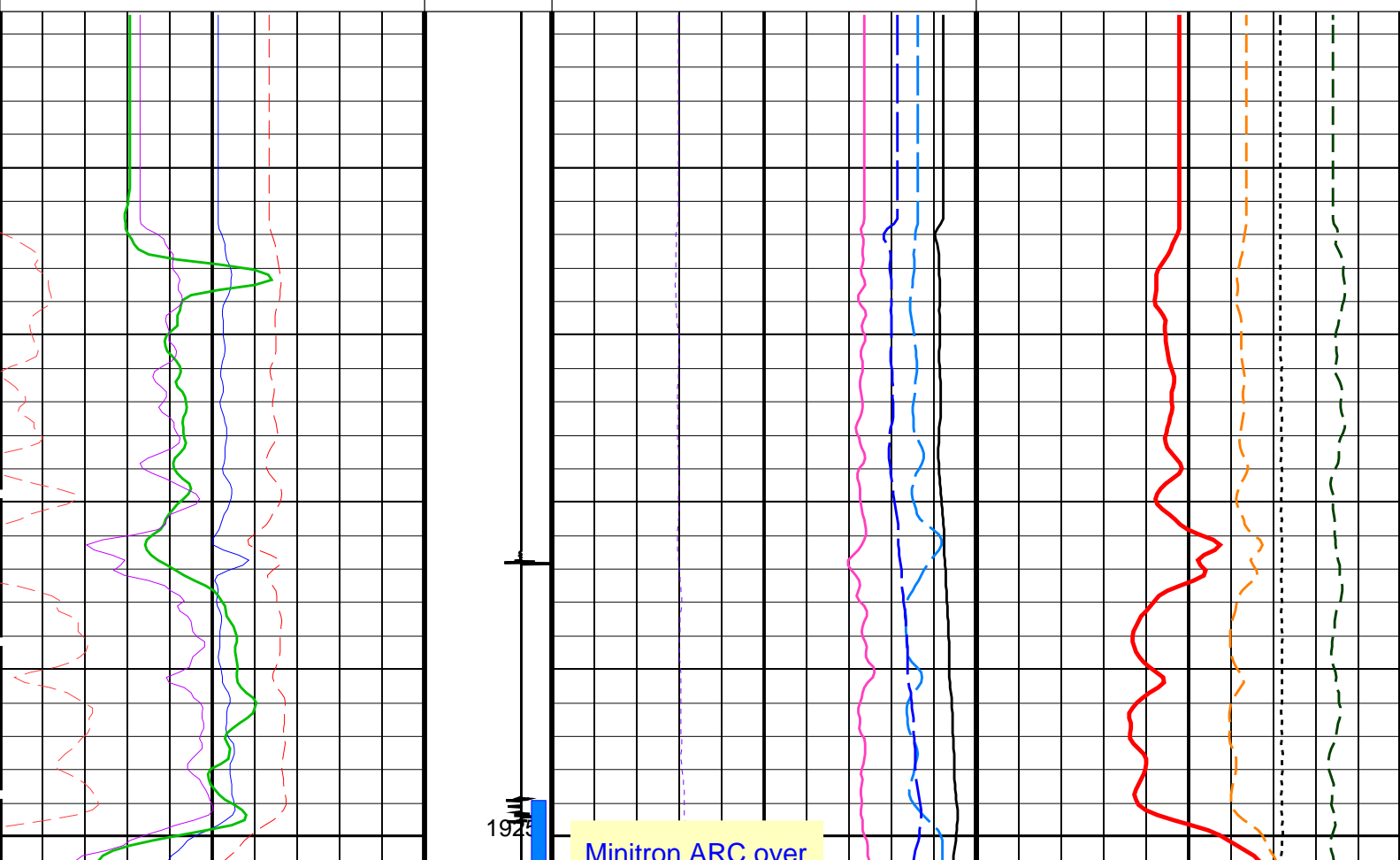
		RST Sigma (SIGM)				
		60	(CU)			0
PIP SUMMARY						
Time Mark Every 60 S						
Parameters						
DLIS Name		Description		Value		
RST-C: Reservoir Saturation Pro Tool C						
AIRB	RST Air Borehole		No			
BHS	Borehole Status		CASED			
BSALOPT	RST Borehole Salinity Option		Unknown			
BSFL	RST Borehole Salinity 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-A/B: Production Services Logging Platform						
BHS	Borehole Status		CASED			
MATR	Rock Matrix for Neutron Porosity Corrections		SANDSTONE			
System and Miscellaneous						
BS	Bit Size		12.500		IN	
BSAL	Borehole Salinity		-50000.00		PPM	
CSIZ	Current Casing Size		9.625		IN	
CWEI	Casing Weight		40.00		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: 22-Oct-2007 23:08		
OP System Version: 14C0-302						
MCM						
RST-C	14C0-302		PSPT-A/B		14C0-302	
Input DLIS Files						
DEFAULT	RST_PSP_017LUP		FN:16	PRODUCER	22-Oct-2007 22:41	2046.9 M 1903.6 M
Output DLIS Files						
DEFAULT	RST_PSP_019PUP		FN:18	PRODUCER	22-Oct-2007 23:08	
<div><div>Schlumberger</div><div>RST-C Sigma Pass # 2 900 ft/hr 2045m to 1915m MDKB</div></div>						
MAXIS Field Log						
Company: Esso Australia Pty Ltd.						
Well: A-5						
Input DLIS Files						
DEFAULT	RST_PSP_013LUP		FN:12	PRODUCER	22-Oct-2007 22:01	2051.2 M 1905.0 M
Output DLIS Files						
DEFAULT	RST_PSP_016PUP		FN:15	PRODUCER	22-Oct-2007 22:37	2051.5 M 1900.3 M

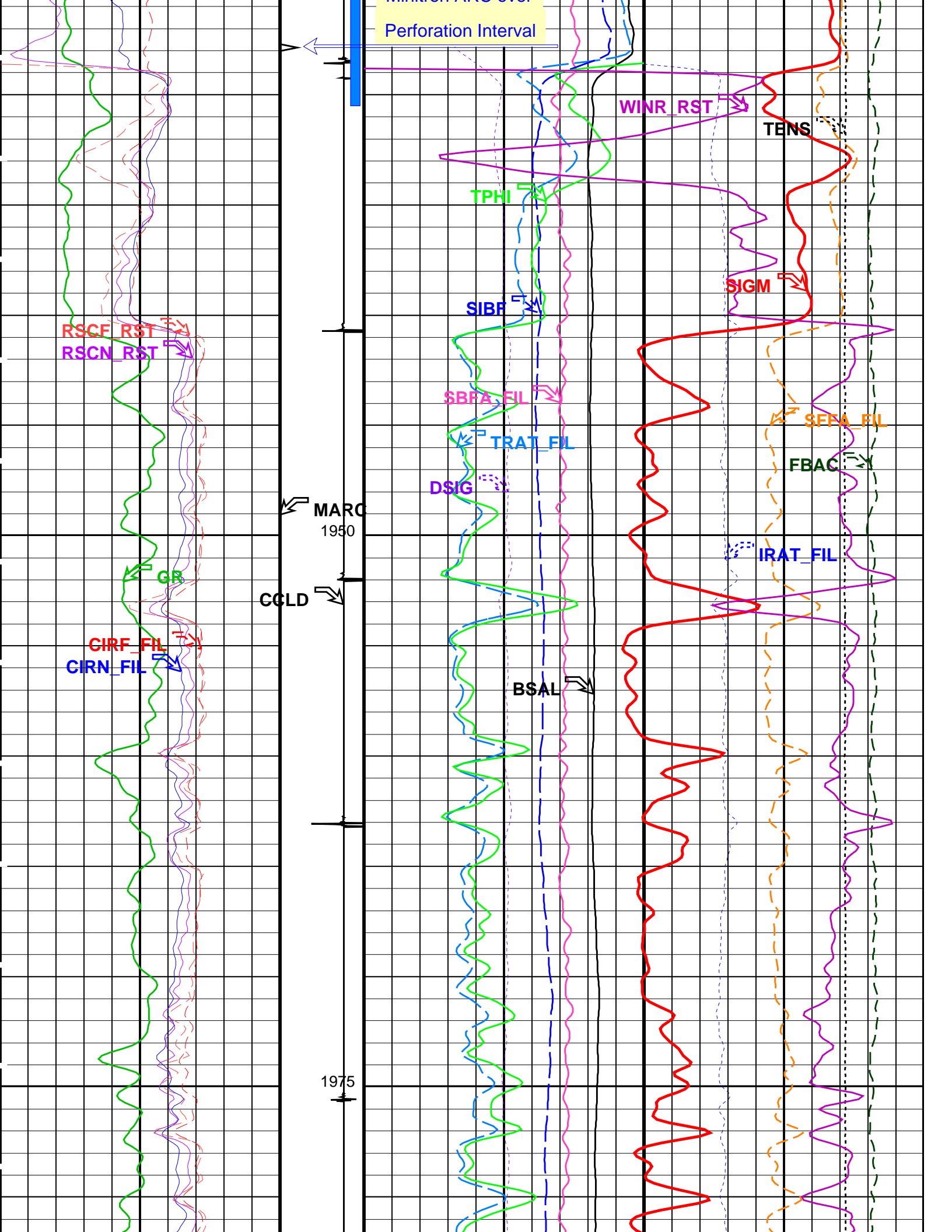
RST-C	14C0-302	PSPT-A/B	14C0-302
-------	----------	----------	----------

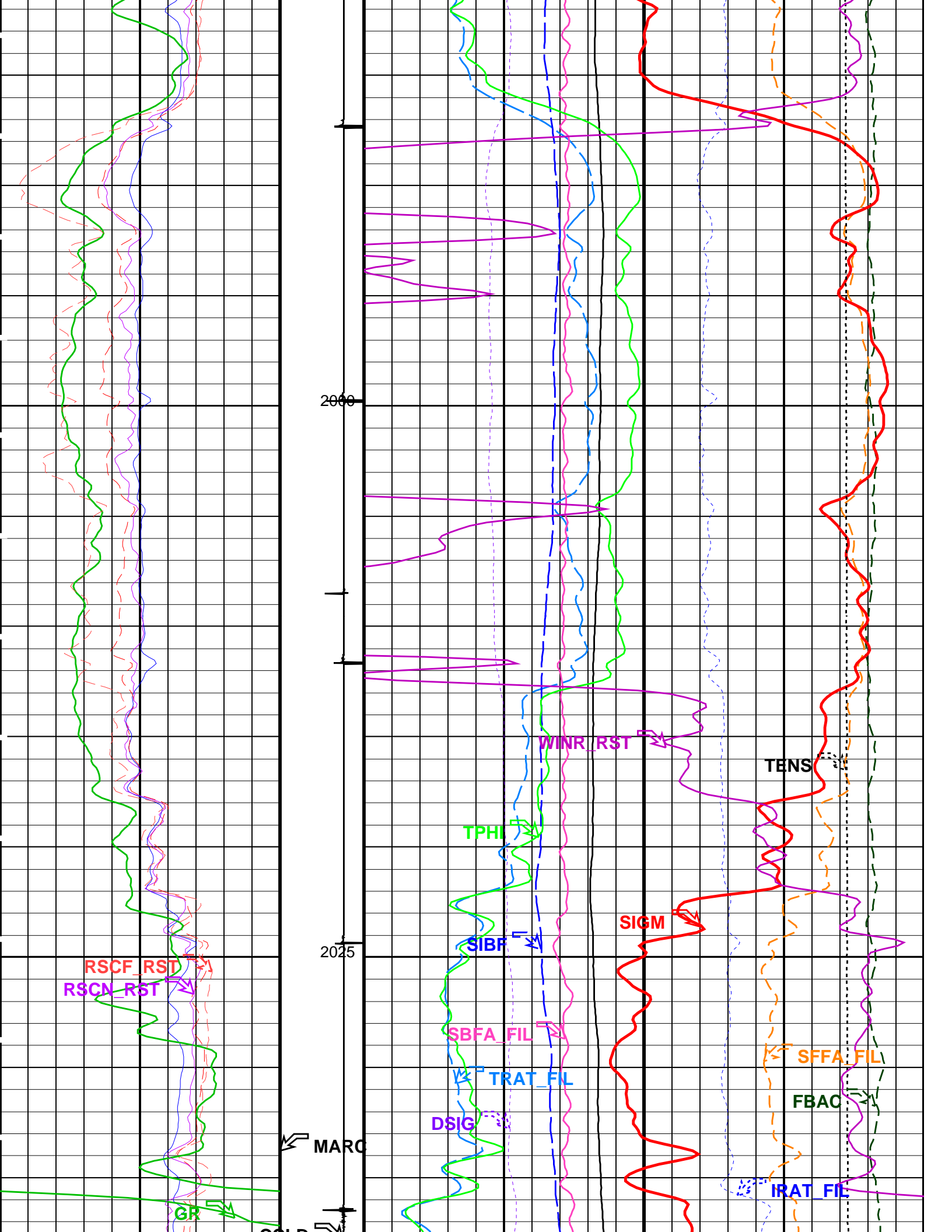
PIP SUMMARY

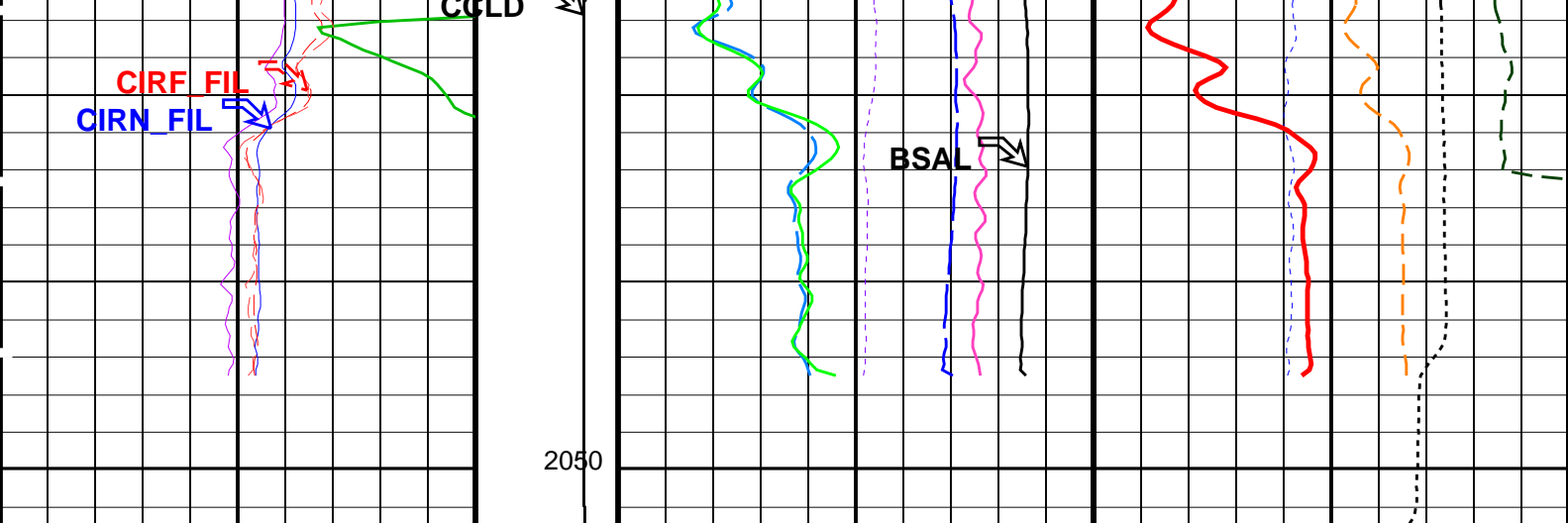
Time Mark Every 60 S

		RST Sigma (SIGM)	
		60 (CU)	0
		RST Weighted Inelastic Ratio (WINR_RST)	
		0.4 (----	0
		RST Porosity (TPHI)	
		0.6 (V/V)	0
		RST Sigma Borehole Fluid (SIBF)	
		100 (CU)	0
		Sigma Borehole Far Apparent (SBFA_FIL)	
		150 (CU)	0
		Tension (TENS)	
		0 (LBF) 3000	
		RST Capture Ratio (TRAT_FIL)	
		1.5 (----	0.5
		Sigma Formation Far Apparent (SFFA_FIL)	
		60 (CU)	
		RST Sigma Difference (DSIG)	
		-30 (CU)	30
		MCS Far Background (filtered) (FBAC)	
		0 (CPS) 5000	
		RST Borehole Salinity (BSAL)	
		450 (PPK)	-50
		RST Inelastic Ratio (IRAT_FIL)	
		0.75 (----	0









Gamma Ray (GR) (GAPI)	Discriminat ed CCL (CCLD) (V)	RST Borehole Salinity (BSAL) (PPK)	RST Inelastic Ratio (IRAT_FIL) (----
0150	3-1	450-50	0.750
RST Capture to Inelastic Ratio Near (CIRN_FIL)	Minitron Arc Detection (MARC) (----	RST Sigma Difference (DSIG) (CU)	MCS Far Background (filtered) (FBAC) (CPS)
2.50	05	-3030	05000
RST Capture to Inelastic Ratio Far (CIRF_FIL)		RST Capture Ratio (TRAT_FIL) (----	Sigma Formation Far Apparent (SFFA_ FIL) (CU)
50		1.50.5	600
RST Near Effective Capture CR (RSCN_ RST)		Sigma Borehole Far Apparent (SBFA_ FIL) (CU)	Tension (TENS) (LBF)
450		1500	03000
RST Far Effective Capture CR (RSCF_ RST)		RST Sigma Borehole Fluid (SIBF) (CU)	
450		1000	
		RST Porosity (TPHI) (V/V)	
		0.60	
		RST Weighted Inelastic Ratio (WINR_RST) (----	
		0.40	0
		RST Sigma (SIGM) (CU)	
		600	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	30CU
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-A/B: Production Services Logging Platform		
BHS	Borehole Status	CASED
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
System and Miscellaneous		

BS	Bit Size	12.500	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSIZ	Current Casing Size	9.625	IN
CWEI	Casing Weight	40.00	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: 22-Oct-2007 22:37
----------------------	-----------------------	--

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

Input DLIS Files					
DEFAULT	RST_PSP_013LUP	FN:12	PRODUCER	22-Oct-2007 22:01	2051.2 M 1905.0 M
Output DLIS Files					
DEFAULT	RST_PSP_016PUP	FN:15	PRODUCER	22-Oct-2007 22:37	



RST-C Sigma Pass # 1
900 ft/hr 2045m to 1915m MDKB

MAXIS Field Log

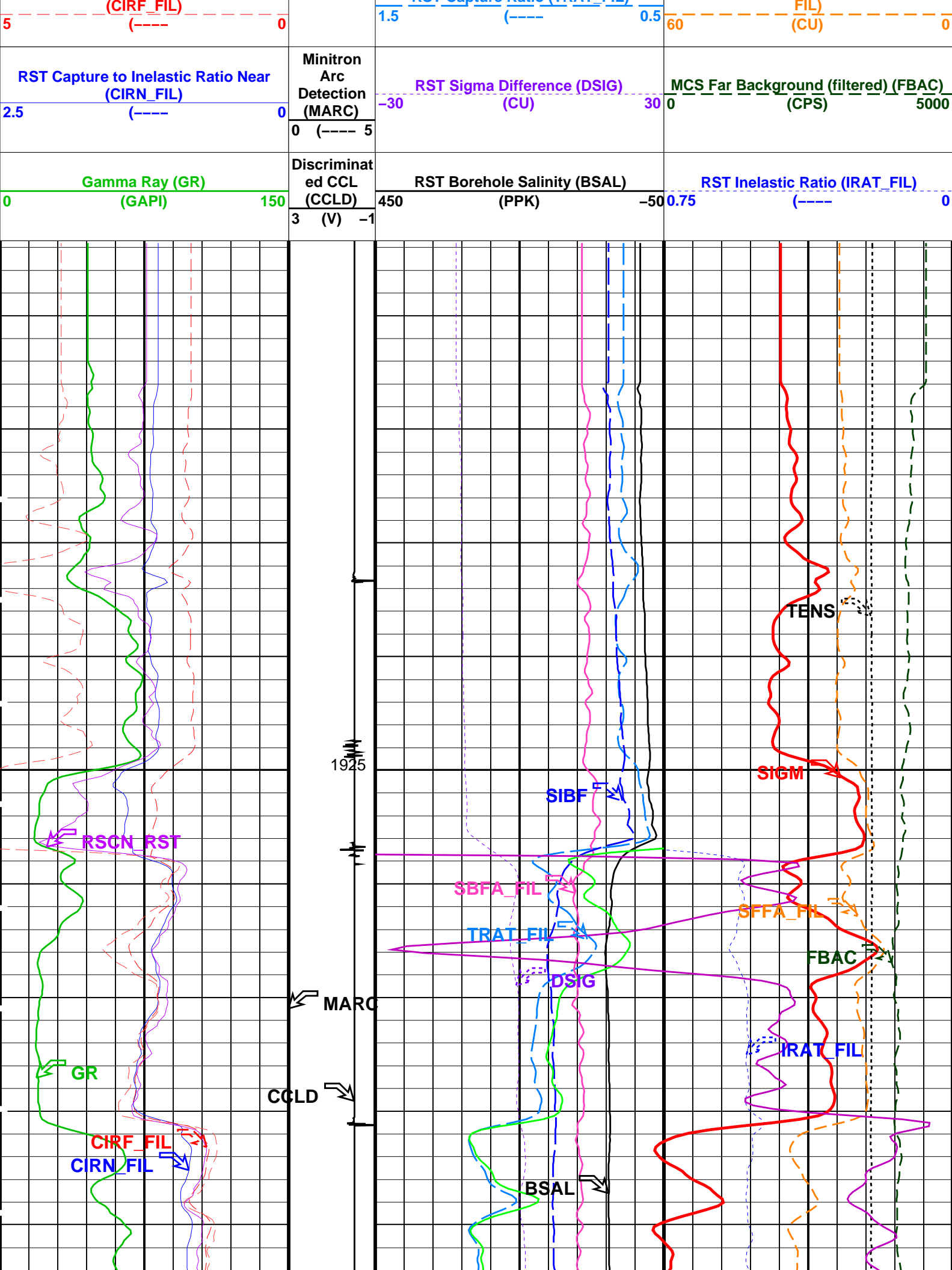
Company: Esso Australia Pty Ltd.	Well: A-5
----------------------------------	-----------

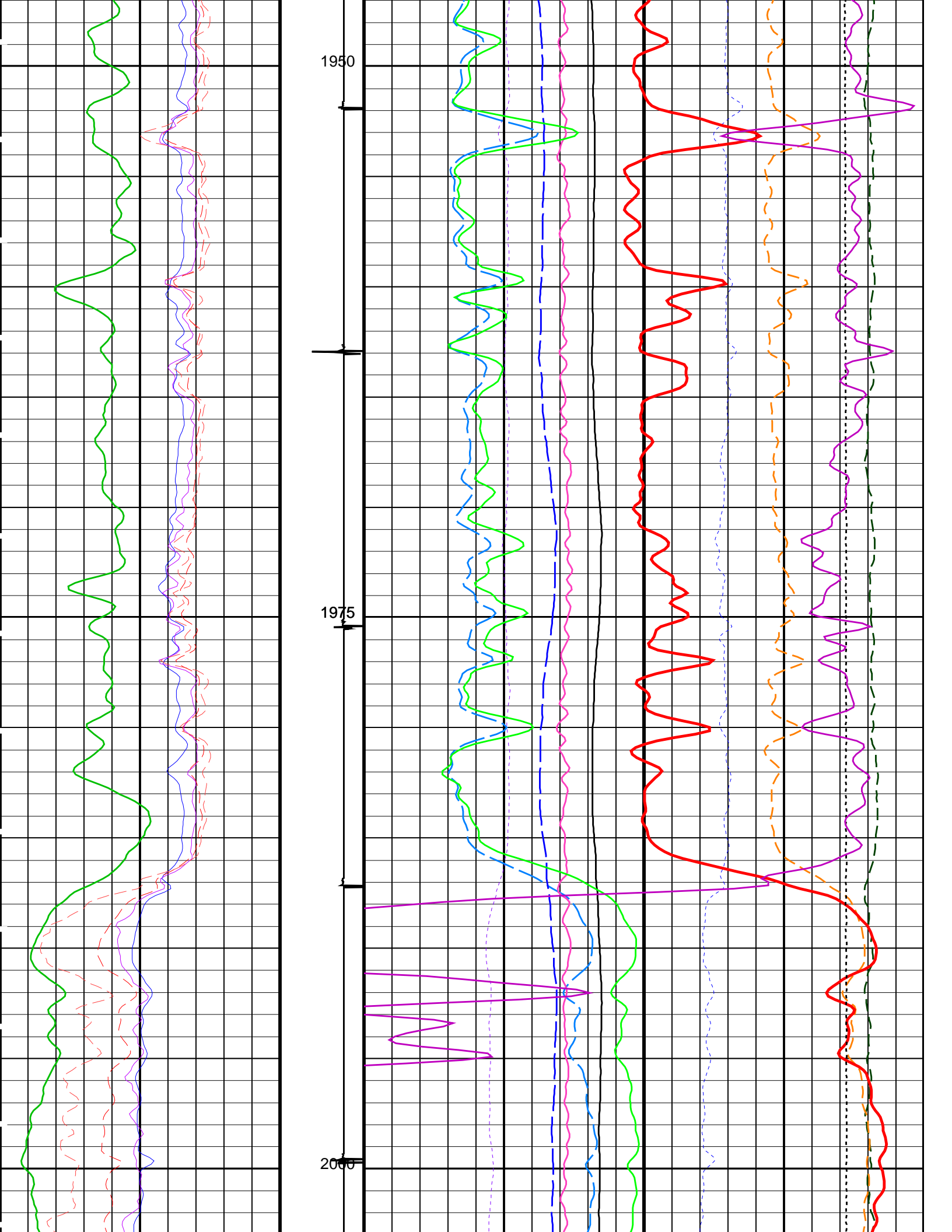
Input DLIS Files					
DEFAULT	RST_PSP_012LUP	FN:11	PRODUCER	22-Oct-2007 21:21	2051.5 M 1907.1 M
Output DLIS Files					
DEFAULT	RST_PSP_014PUP	FN:13	PRODUCER	22-Oct-2007 22:34	2051.0 M 1901.6 M

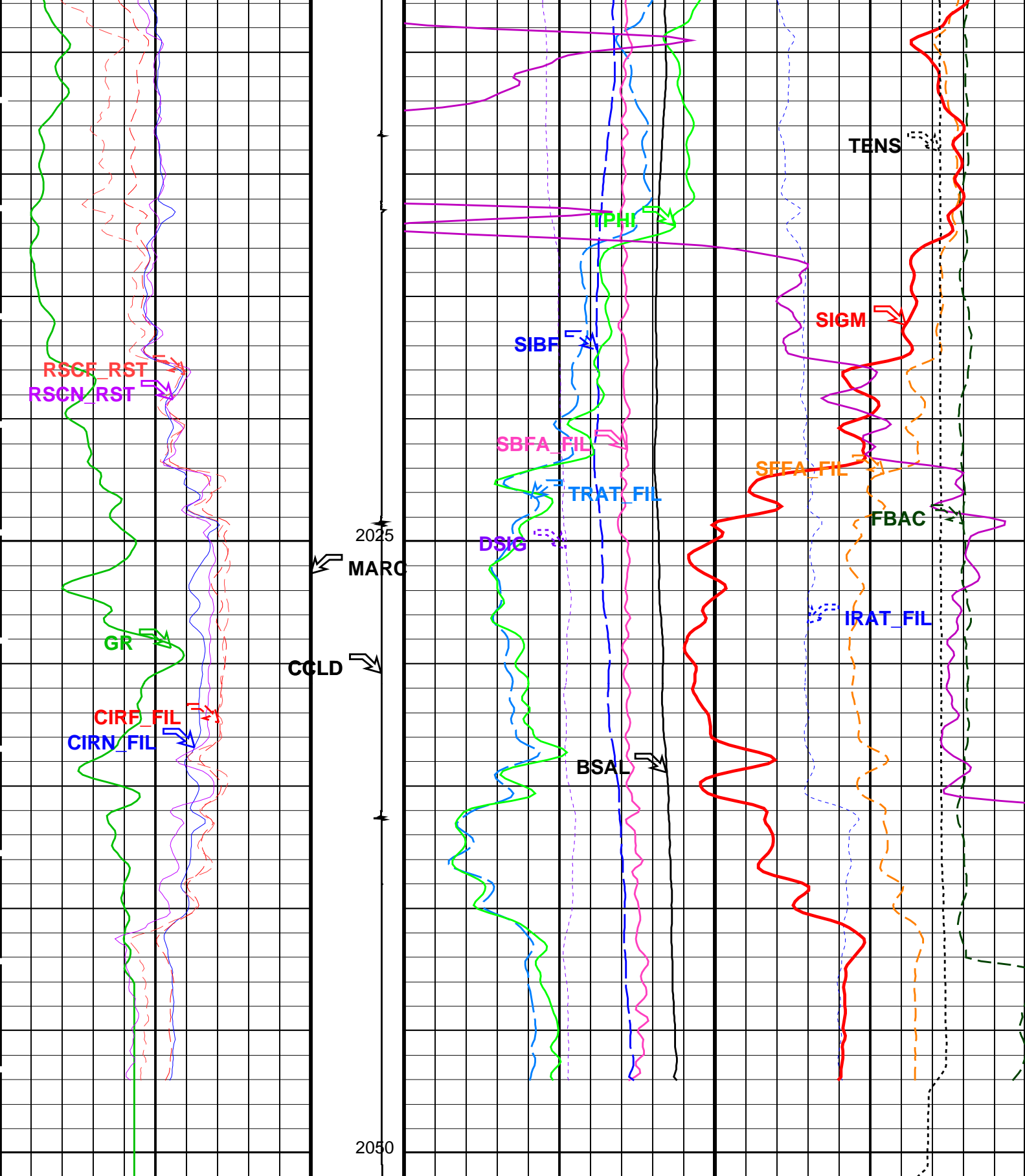
OP System Version: 14C0-302			
MCM			
RST-C	14C0-302	PSPT-A/B	14C0-302

PIP SUMMARY
Time Mark Every 60 S

<div><div>RST Far Effective Capture CR (RSCF_ RST)</div><div>45 (----) 0</div><div>RST Near Effective Capture CR (RSCN_ RST)</div><div>45 (----) 0</div><div>RST Capture to Inelastic Ratio Far</div></div>	RST Sigma (SIGM)		
	60 (CU) 0		
	RST Weighted Inelastic Ratio (WINR_RST)		
	0.4 (----) 0		
	RST Porosity (TPHI)		<div><div>Sigma Formation Far Apparent (SFFA_ FIL)</div><div>0 (LBF) 3000</div></div>
	0.6 (V/V) 0		
	RST Sigma Borehole Fluid (SIBF)		
	100 (CU) 0		
Sigma Borehole Far Apparent (SBFA_ FIL)			
150 (CU) 0			
RST Capture Ratio (TRAT_FIL)		Sigma Formation Far Apparent (SFFA_ FIL)	







Gamma Ray (GR) (GAPI)		Discriminat ed CCL (CCLD)	RST Borehole Salinity (BSAL)		RST Inelastic Ratio (IRAT_FIL)	
0	150	3 (V) -1	450	-50	0.75	0
RST Capture to Inelastic Ratio Near (CIRN_FIL)		Minitron Arc Detection (MARC)	RST Sigma Difference (DSIG)		MCS Far Background (filtered) (FBAC)	
2.5	0	0 (---- 5	-30	30	0	5000

RST Capture to Inelastic Ratio Far (CIRF_FIL) 5 (-----) 0	RST Capture Ratio (TRAT_FIL) 1.5 (-----) 0.5	Sigma Formation Far Apparent (SFFA_FIL) 60 (CU) 0
RST Near Effective Capture CR (RSCN_RST) 45 (-----) 0	Sigma Borehole Far Apparent (SBFA_FIL) 150 (CU) 0	Tension (TENS) 0 (LBF) 3000
RST Far Effective Capture CR (RSCF_RST) 45 (-----) 0	RST Sigma Borehole Fluid (SIBF) 100 (CU) 0	
	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	CU	
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		
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-A/B: Production Services Logging Platform				
BHS	Borehole Status	CASED	IN	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE		
System and Miscellaneous				
BS	Bit Size	12.500		PPM
BSAL	Borehole Salinity	-50000.00		
CSIZ	Current Casing Size	9.625		
CWEI	Casing Weight	40.00		
DO	Depth Offset for Playback	-0.5		
PP	Playback Processing	NORMAL		

Format: RST_SIG_ANSW	Vertical Scale: 1:200	Graphics File Created: 22-Oct-2007 22:34
----------------------	-----------------------	--

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

Input DLIS Files					
DEFAULT	RST_PSP_012LUP	FN:11	PRODUCER	22-Oct-2007 21:21	2051.5 M 1907.1 M
Output DLIS Files					
DEFAULT	RST_PSP_014PUP	FN:13	PRODUCER	22-Oct-2007 22:34	

		Gamma-Ray Pass
---	--	----------------

Company: Esso Australia Pty Ltd.

Well: A-5

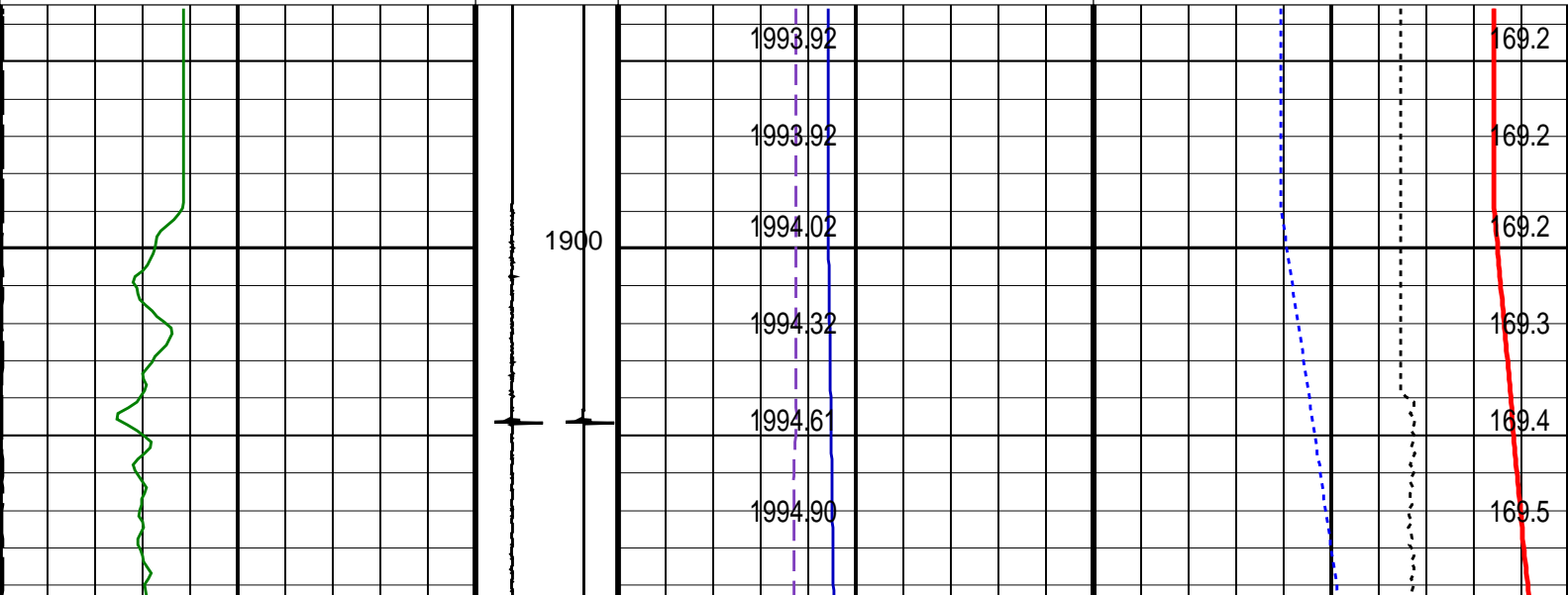
Input DLIS Files						
DEFAULT	RST_PSP_008LUP	FN:7	PRODUCER	22-Oct-2007 20:35	2050.4 M	1898.9 M
Output DLIS Files						
DEFAULT	RST_PSP_011PUP	FN:10	PRODUCER	22-Oct-2007 21:11	2049.9 M	1893.4 M

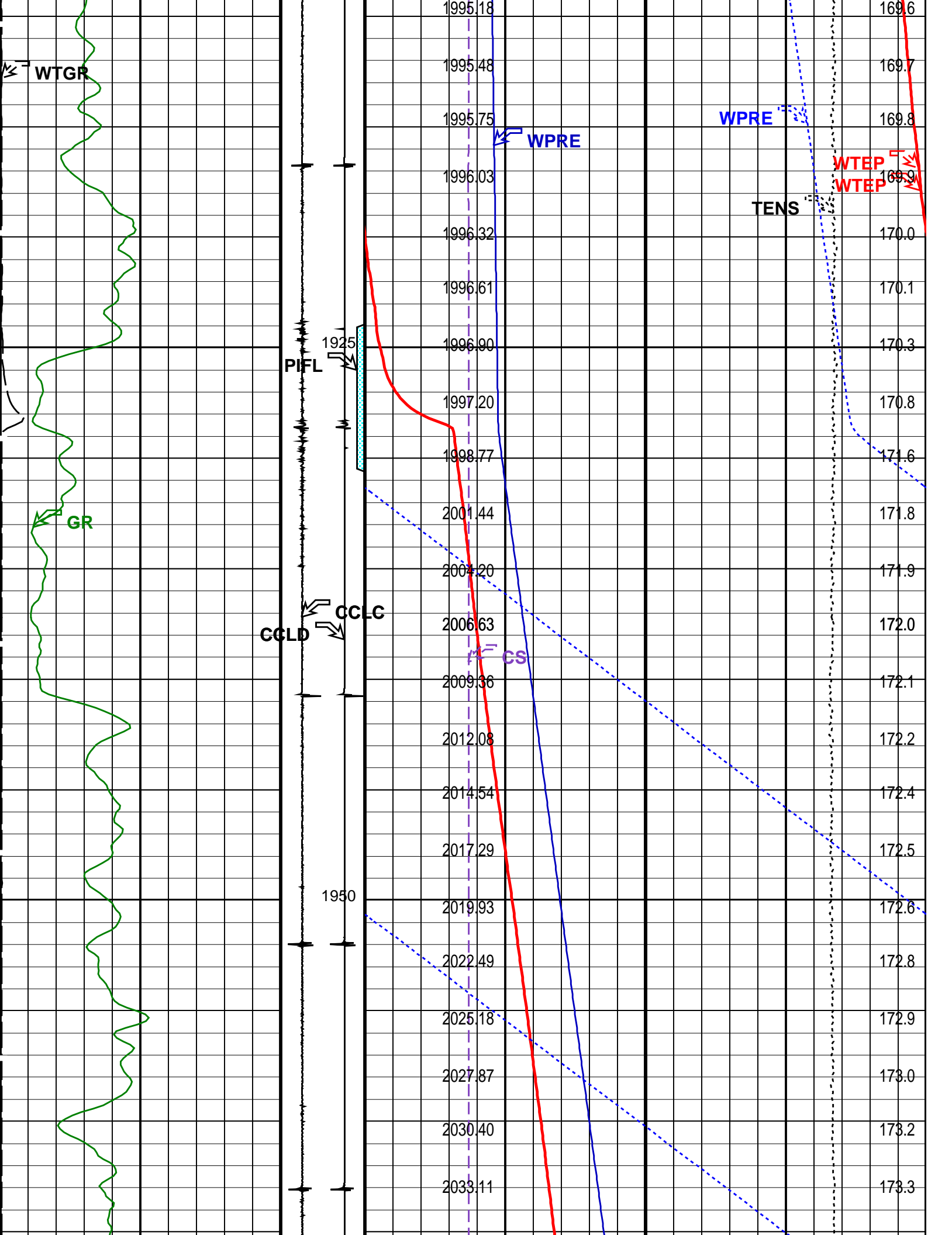
OP System Version: 14C0-302						
MCM						
RST-C	14C0-302	PSPT-A/B		14C0-302		

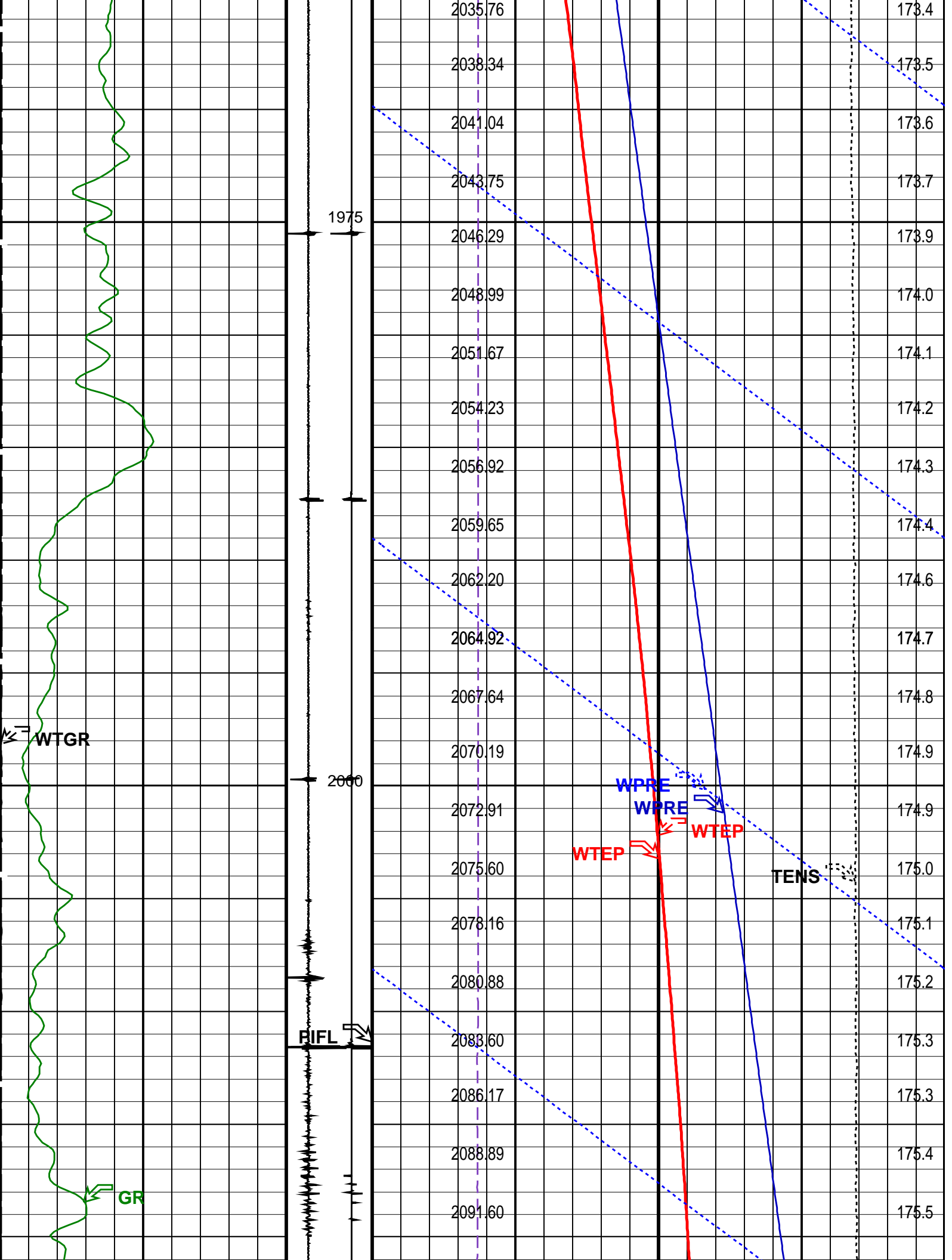
PIP SUMMARY

Time Mark Every 60 S

		Amplified Well Pressure (WPRE)		
		0 (PSIA) 20		
		Well Pressure (WPRE)		
		1950 (PSIA) 2150		
		Well Pressure (WPRE) (PSIA)		Temperature (WTEP) (DEGF)
		Perfo Zone From PERFO_CURVE to D3T	Well Temperature (WTEP) (DEGF)	
			0 10	
Well Temperature Gradient (WTGR) (DC/M)		Computed CCL (CCLC)	Well Temperature (WTEP) (DEGF)	
0 10		1 (V) -3	170 180	
		Discriminat ed CCL (CCLD)	Cable Speed (CS) (F/HR)	
Gamma Ray (GR) (GAPI)			0 5000	
0 150		3 (V) -1	Tension (TENS) (LBF)	
			0 2000	







Parameters			
DLIS Name	Description	Value	
DO PP	System and Miscellaneous		
	Depth Offset for Playback	-0.5	M
	Playback Processing	NORMAL	

Input DLIS Files						
DEFAULT	RST_PSP_008LUP	FN:7	PRODUCER	22-Oct-2007 20:35	2050.4 M	1898.9 M
Output DLIS Files						
DEFAULT	RST_PSP_011PUP	FN:10	PRODUCER	22-Oct-2007 21:11		

Company:	Esso Australia Pty Ltd.	Schlumberger	
Well:	A-5		
Field:	Marlin		
Rig:	Prod 4 / Crane		
Country:	Australia		
	RST-C		
	Sigma		
	Survey		