

Company: Esso Australia Pty Ltd.

Well: A-26
Field: Flounder
Rig: Prod 4 / Crane
Country: Australia

RST-C
Sigma
Survey

Prod 4 / Crane
Rig: Flounder
Field: Gippsland
Location: A-26
Well: Esso Australia Pty Ltd.
Company:

Logging Date		12-Feb-2007		Longitude		Latitude	
Run Number		One		Max. Well Deviation 28 deg		148 26'17.12"E	
Depth Driller		2704 m				038 18'44.65"S	
Schlumberger Depth		2699.6 m					
Bottom Log Interval		2699.6 m					
Top Log Interval		2660 m					
Casing Fluid Type		Production Fluid					
Salinity							
Density							
Fluid Level							
BIT/CASING/TUBING STRING							
Bit Size		8.500 in					
From							
To							
Casing/Tubing Size		7.000 in					
Weight		26 lbm/ft					
Grade		K 55					
From		13 m					
To		2787 m					
Maximum Recorded Temperatures		229 degF					
Logger On Bottom		12-Feb-2007				8:00	
Unit Number		Location					
Recorded By		889		Ausl / Prod 4			
Witnessed By		G Wright & S Gilbert.					
		B White & B Robinson.					

				Run 1			
Oil Density							
Water Salinity							
Gas Gravity							
Bo							
Bw							
1/Bg							
Bubble Point Pressure							
Bubble Point Temperature							
Solution GOR							
Maximum Deviation				28 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: 9-FEB-2007 11:27:21

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-EB	Type:	CMTD-B/A	Type:	2-32ZT
Serial Number:	6373	Serial Number:	325357	Serial Number:	24426
Calibration Date:	04-JAN-2007	Calibration Date:	6-FEB-2007	Length:	6600.14 M
Calibrator Serial Number:	9	Calibrator Serial Number:	1174	Conveyance Method: Wireline Rig Type: Offshore_Mobile	
Calibration Cable Type:	2-32ZT	Calibration Gain:	0.90		
Wheel Correction 1:	-2	Calibration Offset:	197.00		
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:	03-Feb-2002

Depth Control Remarks

1. IDW used as primary depth control
2. Z Chart used as secondary depth control
3.
4.
5.
6.

DISCLAIMER

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OTHER SERVICES1
OS1:
OS2:
OS3:
OS4:
OS5:
REMARKS: RUN NUMBER 1
Log correlated to Solar composite dated 03-Feb-2002.
Maximum well deviation = 28 degree's at 772m MDKB.
RST-C Sigma survey with the well shut-in.
Pass one was a Gamma-Ray survey over the interval 2699.6m to 2660m MDKB.
Passes 2 and 3 were RST-C Sigma survey over the same interval.
SBHP = 3164 psia.
SBHT = 229 degf.

Crew : J Annear & A Hall.

SERVICE ORDER #: AusI07336259
PROGRAM VERSION: 14C0-302
FLUID LEVEL: 0 m

LOGGED INTERVAL	START	STOP

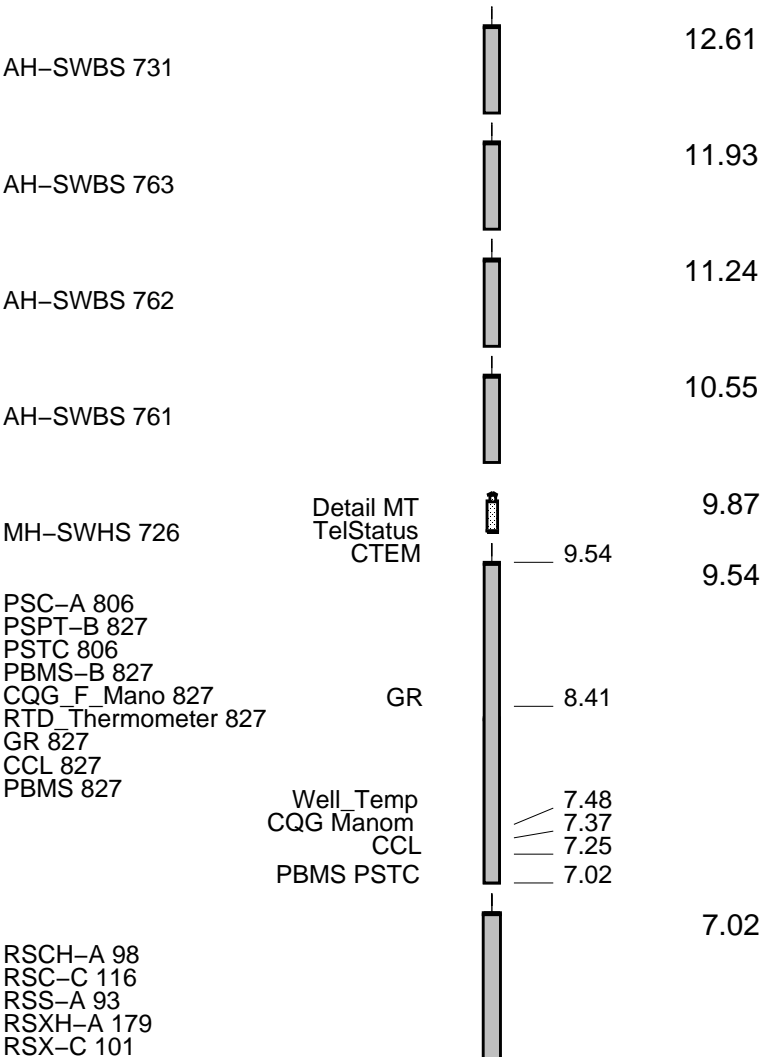
EQUIPMENT DESCRIPTION

RUN 1

SURFACE EQUIPMENT

WITM-A 806
PSC_16MHZ 827

DOWNHOLE EQUIPMENT



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

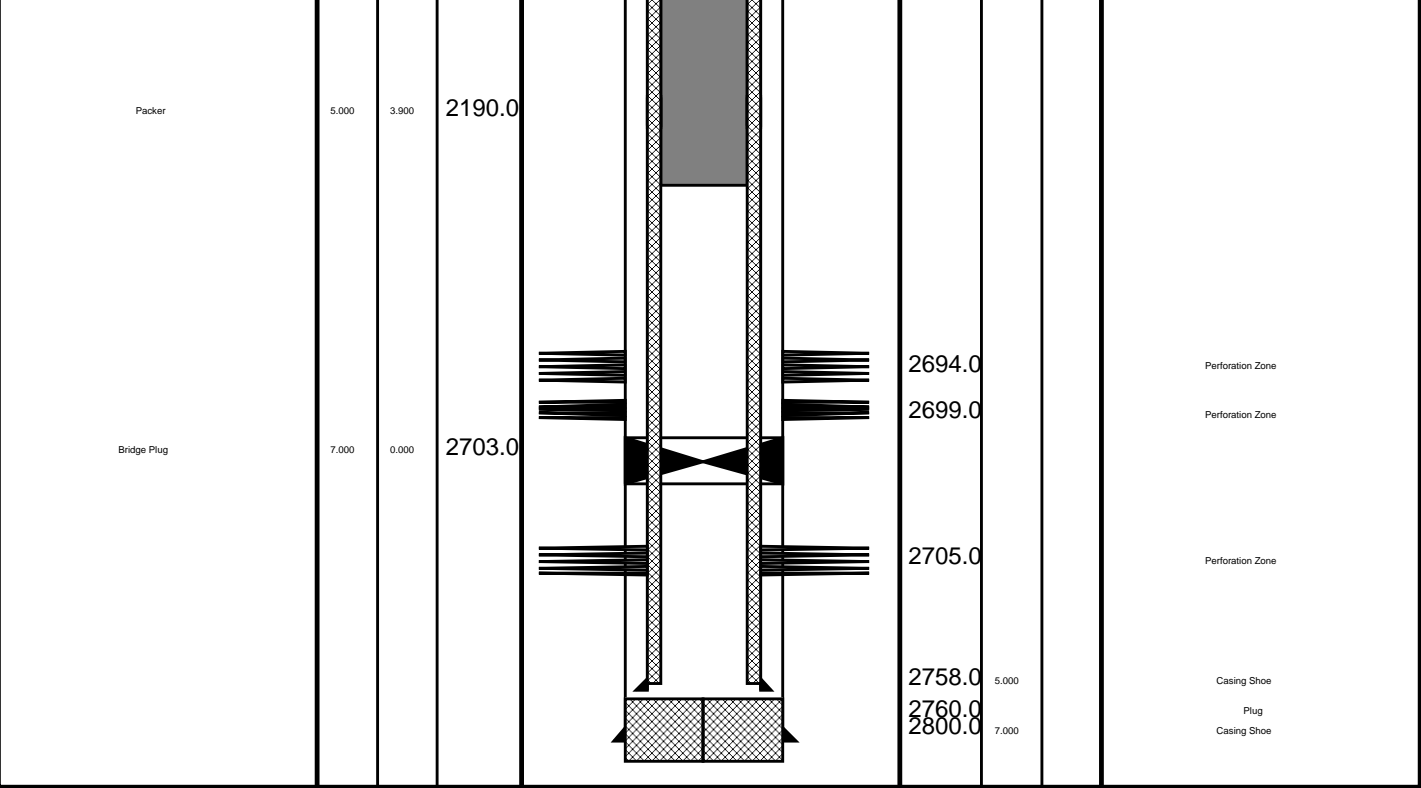
4.24

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 Hanger	6.270	3.000	12.0		13.0	12.000	10.750	<p>Booster String Liner Hanger</p> <p>Surface Casing</p> <p>Scab Liner</p>
Tubing	3.900				15.0	7.000		
SSSV	5.400	2.750	455.0		629.0	10.750		
Gas Lift Mandrel	3.900		835.0					
Gas Lift Mandrel	3.900		1201.0					
Landing Nipple	3.900		1217.0		1210.0	5.000		



Schlumberger Job Event Summary

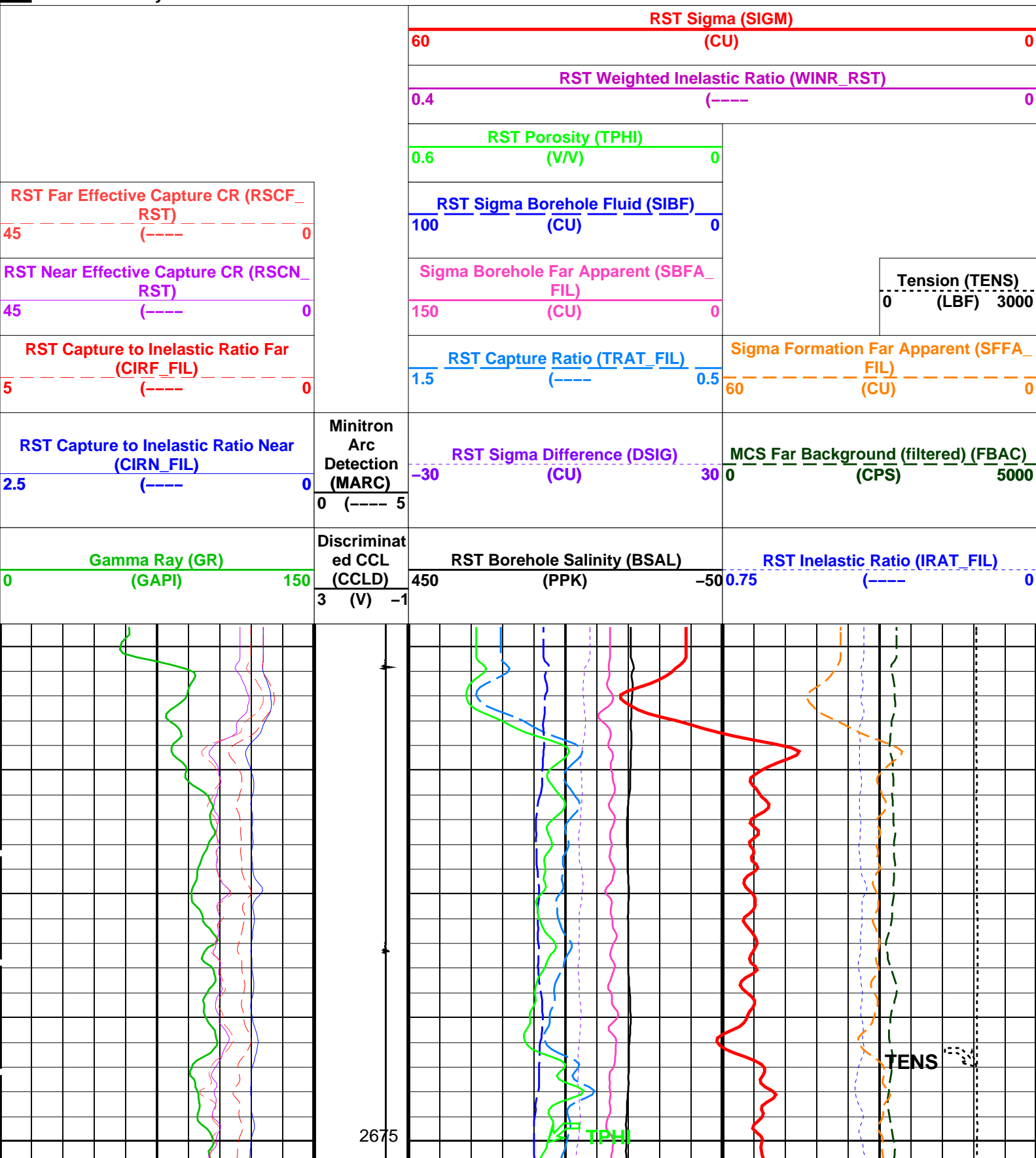
	Time	Elapsed Time	Depth (M)	File
Station Log	12-Feb-2007 5:24	001:10	4.0 – 10.6	RST_PSP_018LTP
Log Pass (down)	12-Feb-2007 6:33	000:33	9.8 – 2712.0	RST_PSP_019LDP
Log Pass (up)	12-Feb-2007 7:07	000:09	2714.9 – 2642.2	RST_PSP_020LUP
Log Pass (up)	12-Feb-2007 7:23	000:10	2701.0 – 2654.5	RST_PSP_022LUP
Log Pass (up)	12-Feb-2007 7:34	000:10	2701.0 – 2654.0	RST_PSP_023LUP

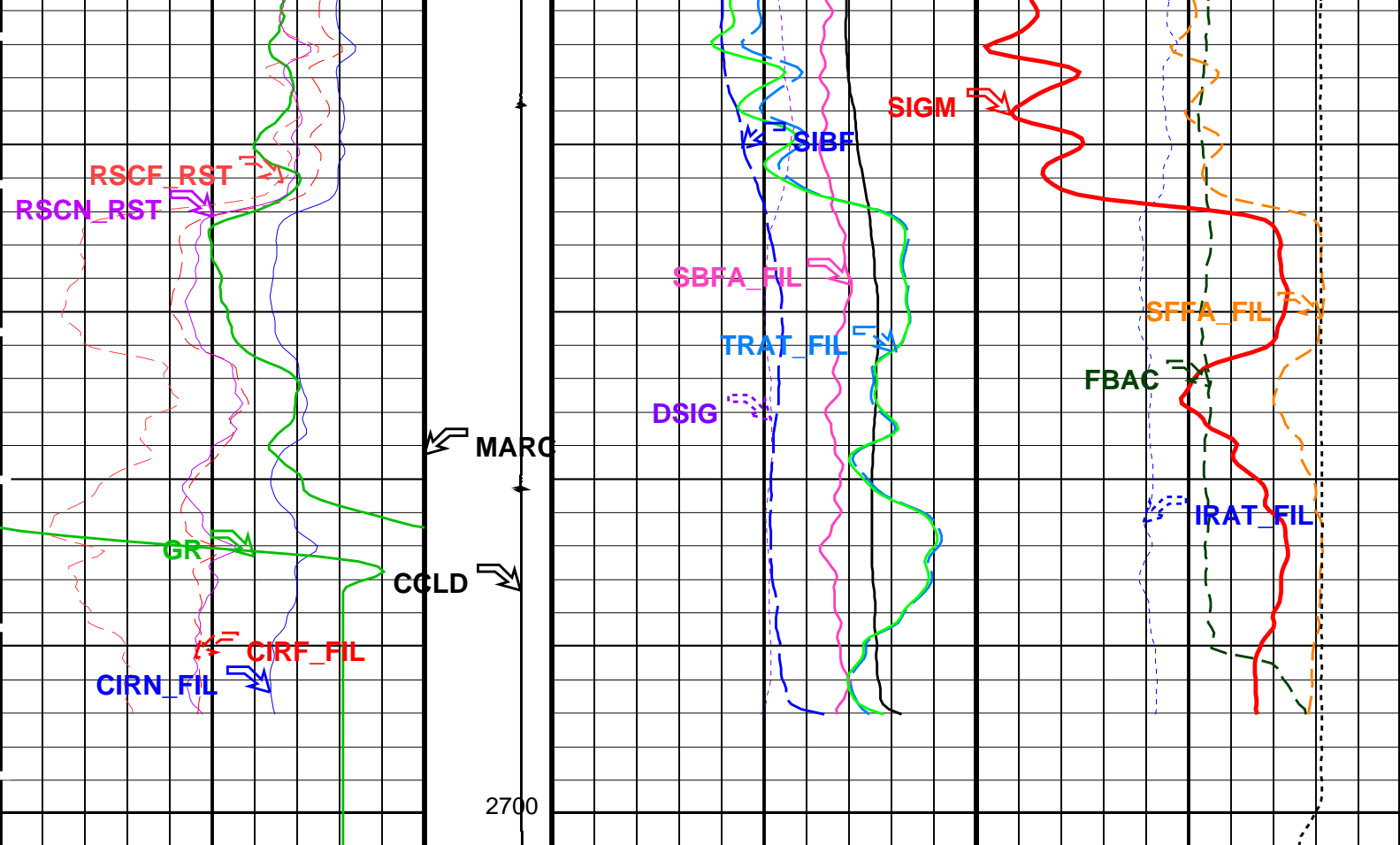


RST-C Sigma Static
Pass # 2 900 ft/hr

MAXIS Field Log

Output DLIS Files





Gamma Ray (GR) (GAPI)		Discriminat ed CCL (CCLD) 3 (V) -1	RST Borehole Salinity (BSAL) (PPK)		RST Inelastic Ratio (IRAT_FIL) (----	
0	150		450	-50	0.75	0
RST Capture to Inelastic Ratio Near (CIRN_FIL)		Minitron Arc Detection (MARC) 0 (---- 5	RST Sigma Difference (DSIG) (CU)		MCS Far Background (filtered) (FBAC) (CPS)	
2.5	0		-30	30	0	5000
RST Capture to Inelastic Ratio Far (CIRF_FIL)			RST Capture Ratio (TRAT_FIL) (----		Sigma Formation Far Apparent (SFFA_ FIL) (CU)	
5	0		1.5	0.5	60	0
RST Near Effective Capture CR (RSCN_ RST)			Sigma Borehole Far Apparent (SBFA_ FIL)		Tension (TENS) (LBF)	
45	0		150	0		
RST Far Effective Capture CR (RSCF_ RST)			RST Sigma Borehole Fluid (SIBF) (CU)			
45	0		100	0		
			RST Porosity (TPHI) (V/V)			
			0.6			
			RST Weighted Inelastic Ratio (WINR_RST) (----			
			0.4		0	
			RST Sigma (SIGM) (CU)			
			60		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	8.500	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSIZ	Current Casing Size	7.000	IN
CWEI	Casing Weight	26.00	LB/F

Format: RST_SIG_ANSW		Vertical Scale: 1:200		Graphics File Created: 12-Feb-2007 07:34	
OP System Version: 14C0-302					
MCM					
RST-C	14C0-302	PSPT-A/B		14C0-302	
Output DLIS Files					
DEFAULT	RST_PSP_023LUP	FN:22	PRODUCER	12-Feb-2007 07:34	

Schlumberger

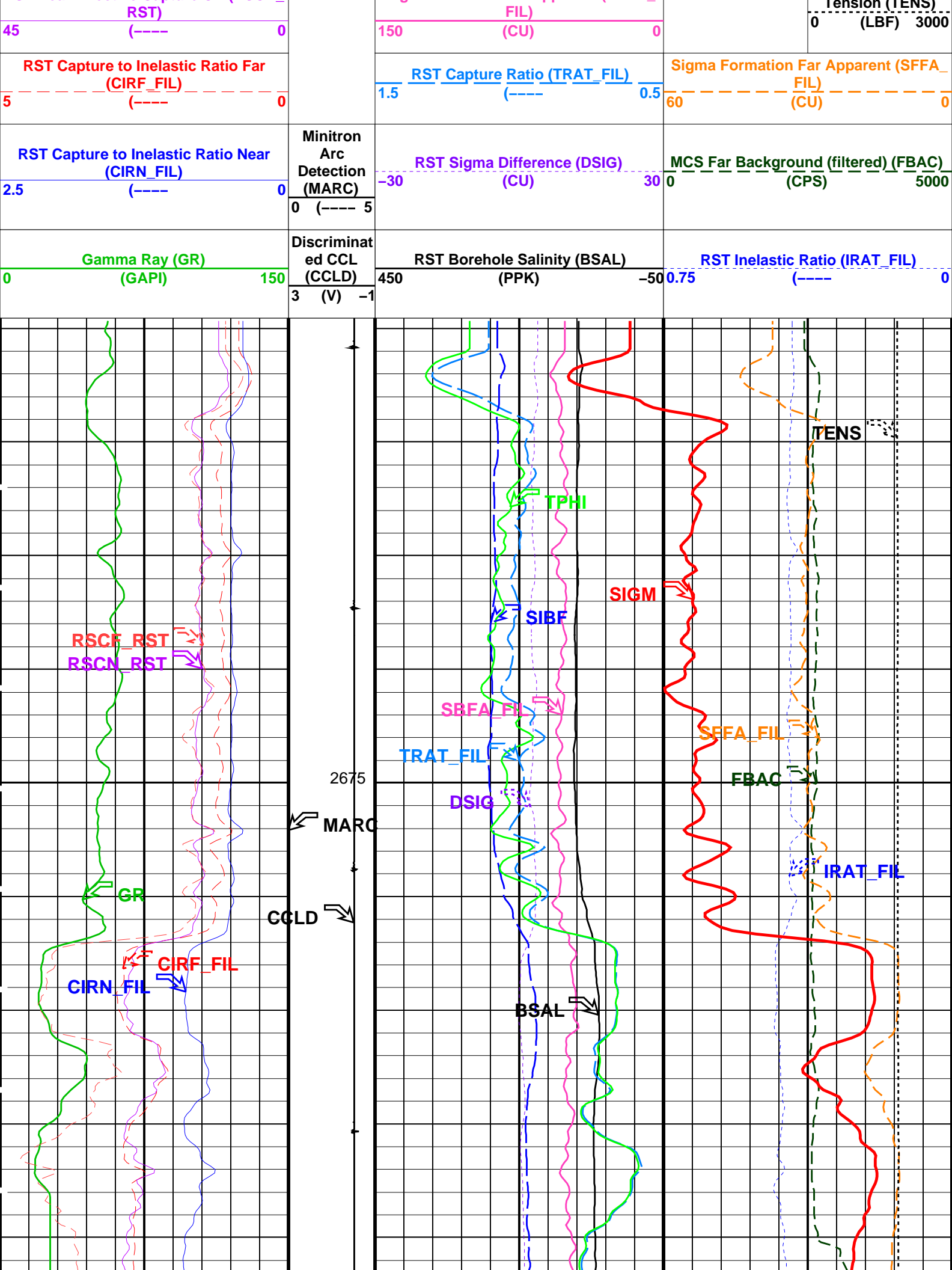
RST-C Sigma Static

Pass # 1 900 ft/hr

MAXIS Field Log

Company: Esso Australia Pty Ltd.						Well: A-26
Output DLIS Files						
DEFAULT	RST_PSP_022LUP	FN:21	PRODUCER	12-Feb-2007 07:23	2701.0 M	2654.5 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> <div> <div>RST Near Effective Capture CR (RSCN)</div> <div></div> </div>		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)	
			Tension (TENS)



			2700						
Gamma Ray (GR) (GAPI)			Discriminat ed CCL (CCLD)	RST Borehole Salinity (BSAL)			RST Inelastic Ratio (IRAT_FIL)		
0		150	3 (V) -1	450	(PPK)	-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	(CU)	30	0	(CPS)	5000
RST Capture to Inelastic Ratio Far (CIRF_FIL)				RST Capture Ratio (TRAT_FIL)			Sigma Formation Far Apparent (SFFA_		
5		0		1.5	(----	0.5	60	FIL) (CU)	0
RST Near Effective Capture CR (RSCN_				Sigma Borehole Far Apparent (SBFA_			Tension (TENS) (LBF) 3000		
45		0		150	(CU)	0			
RST Far Effective Capture CR (RSCF_				RST Sigma Borehole Fluid (SIBF)					
45		0		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	
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	8.500	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSIZ	Current Casing Size	7.000	IN
CWEI	Casing Weight	26.00	LB/F

Format: RST_SIG_ANSW Vertical Scale: 1:200 Graphics File Created: 12-Feb-2007 07:23

OP System Version: 14C0-302

MCM

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

Output DLIS Files

SchlumbergerCorrelation Pass
1800 ft/hr

MAXIS Field Log

Input DLIS Files

DEFAULT

RST_PSP_020LUP

FN:19

PRODUCER

12-Feb-2007 07:07

2714.9 M

2642.2 M

Output DLIS Files

DEFAULT

RST_PSP_021PUP

FN:20

PRODUCER

12-Feb-2007 07:17

2715.3 M

2637.6 M

OP System Version: 14C0-302

MCM

RST-C

14C0-302

PSPT-A/B

14C0-302

PIP SUMMARY

Time Mark Every 60 S

Cable Speed (CS)

0 (F/HR) 5000

Tension (TENS)

0 (LBF) 3000

Amplified Well Pressure (WPRE)

0 (PSIA) 10

Well Pressure
(WPRE)
(PSIA)Perfo
Zone
From
PERFO_
CURVE to
D3T

Well Pressure (WPRE)

3100 (PSIA) 3200

Well Temperature Gradient (WTGR)

0 (DGFM) 10

Computed
CCL
(CCLC)

Well Temperature (WTEP)

0 (DEGF) 2

1 (V) -3

Gamma Ray (GR)

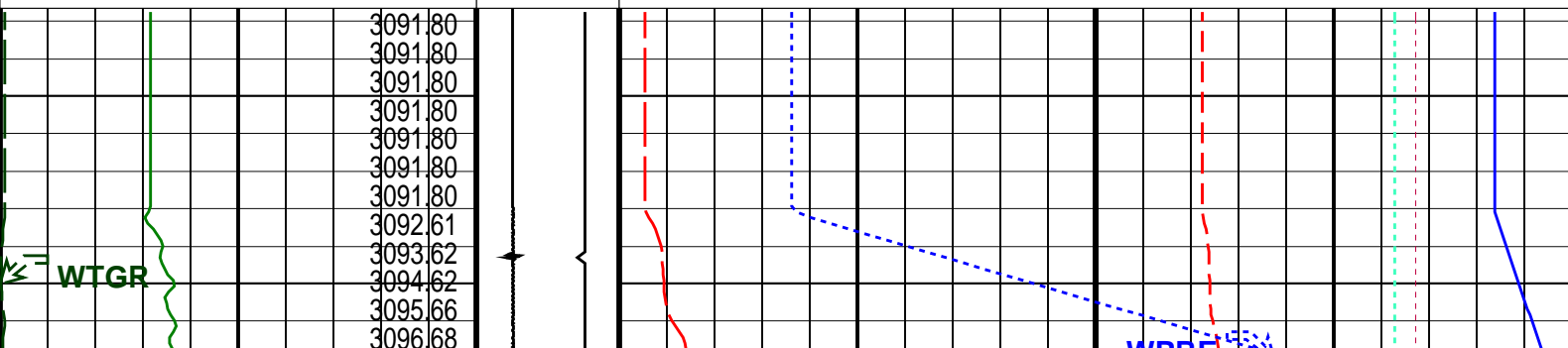
0 (GAPI) 150

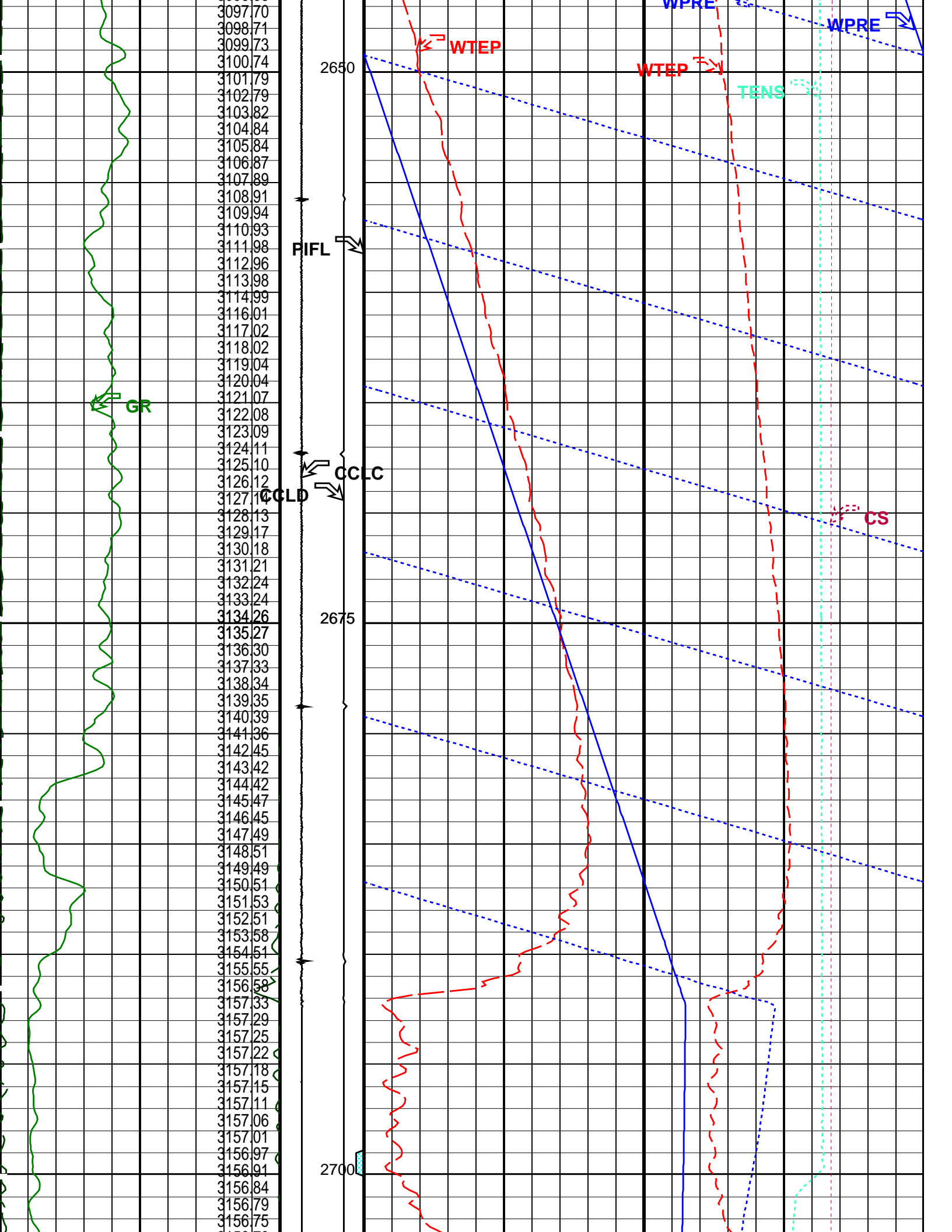
Discriminat
ed CCL
(CCLD)

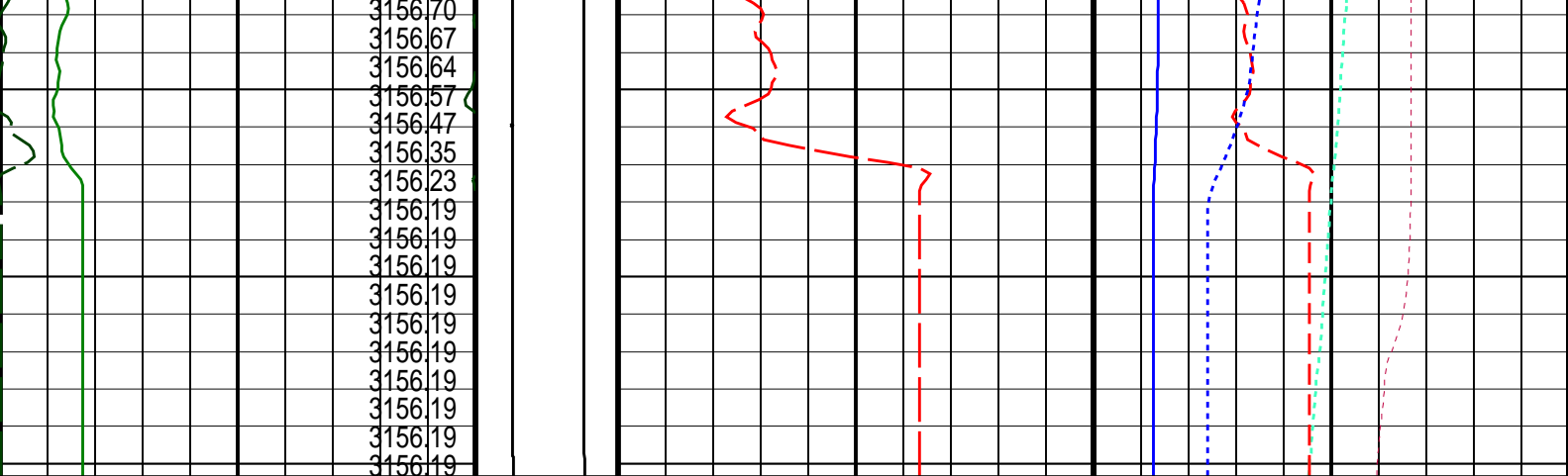
Well Temperature (WTEP)

225 (DEGF) 230

3 (V) -1







Gamma Ray (GR) (GAPI)		Discriminat ed CCL (CCLD)	Well Temperature (WTEP) (DEGF)	
0	150	3 (V) -1	225	230
Well Temperature Gradient (WTGR) (DGFM)		Computed CCL (CCLC)	Well Temperature (WTEP) (DEGF)	
0	10	1 (V) -3	0	2
Well Pressure (WPRE) (PSIA)		Perfo Zone From PERFO_ CURVE to D3T	Well Pressure (WPRE) (PSIA)	
			3100	3200
			Amplified Well Pressure (WPRE) (PSIA)	
			0	10
			Tension (TENS) (LBF)	
			0	3000
			Cable Speed (CS) (F/HR)	
			0	5000

PIP SUMMARY		
Time Mark Every 60 S		
Format: PSP_1_1	Vertical Scale: 1:200	Graphics File Created: 12-Feb-2007 07:17

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

Parameters		
DLIS Name	Description	Value
DO PP	System and Miscellaneous Depth Offset for Playback Playback Processing	0.4 M NORMAL

Input DLIS Files					
DEFAULT	RST_PSP_020LUP	FN:19	PRODUCER	12-Feb-2007 07:07	2714.9 M 2642.2 M
Output DLIS Files					
DEFAULT	RST_PSP_021PUP	FN:20	PRODUCER	12-Feb-2007 07:17	

Well: **A-26**
Field: **Flounder**
Rig: **Prod 4 / Crane**
Country: **Australia**

RST-C
Sigma
Survey