

Company: Esso Australia Ltd.

Well: B-7
Field: Bream B
Rig: Crane / Prod 4

Country: Australia

Crane / Prod 4
Bream B
Gippsland
B-7
Esso Australia Ltd.

RST-C
Sigma
Survey

LOCATION	
Gippsland	Elev.: K.B. 0 m
Basin	G.L. -61 m
Bass Strait	D.F. 47.17 m
Permanent Datum:	M.S.L. _____
Log Measured From:	D.F. _____
Drilling Measured From:	D.F. _____
Elev.: 47.17 m	
-47.2 m above Perm. Datum	

State: Victoria	Max. Well Deviation 50 deg	Longitude 147 50'16.81"E	Latitude 038 31'10.90"S
-----------------	----------------------------	--------------------------	-------------------------

Logging Date	22-Oct-2006		
Run Number	1		
Depth Driller	2554.6 m		
Schlumberger Depth	2510 m		
Bottom Log Interval	2510 m		
Top Log Interval	2410 m		
Casing Fluid Type	Production Fluids		
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	LT&C		
From	20.7 m		
To	2609.98 m		
Maximum Recorded Temperatures	213 degf		
Logger On Bottom	22-Oct-2006	Time	8:45
Unit Number	889	Location	Prod4
Recorded By	G Wright.		
Witnessed By	B White.		

Oil Density	
Water Salinity	
Gas Gravity	
Bo	
Bw	
1/Bg	
Bubble Point Pressure	
Bubble Point Temperature	
Solution GOR	
Maximum Deviation	50 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	Time
Unit Number	Location
Recorded By	
Witnessed By	

DEPTH SUMMARY LISTING

Date Created: 22-Oct-2006 12:10:45

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:	949	Serial Number:	24425
Calibration Date:	28-SEP-2006	Calibration Date:	28-SEP-2006	Length:	
Calibrator Serial Number:	1009	Calibrator Serial Number:	1174		6600.00 M
Calibration Cable Type:	2-32ZT	Calibration Gain:	1.01	Conveyance Method:	Wireline
Wheel Correction 1:	-2	Calibration Offset:	195.00	Rig Type:	
Wheel Correction 2:	-2				Offshore_Mobile

Depth Control Parameters

Log Sequence:	Subsequent Log In the Well
Reference Log Name:	Solar composite.
Reference Log Run Number:	1
Reference Log Date:	

Depth Control Remarks

1. Correlated to Solar composite log supplied with program.
2. IDW-EB 6373 used as primary depth control.
3. Z-chart used as back-up.
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: HPI PSP plug
OS2: 2 1/8" Powerjet
OS3: Perforation

REMARKS: RUN NUMBER 1
Log correlated to Solar log, dated 03-Feb-2002, provided by client.
Maximum well deviation = 50 degrees at 843m MDKB.
Objective:
RIH and correlate on depth.
Carry out 2 passes from HUD 2494m to 2410m MDKB with RST-C
in Sigma mode, with the well shut-in.

HUD = 2494m MDKB.
SBHP = 2678 psi
SBHT = 213 degf
Crew : John Light & Andy Hall.

<div> <div>RUN 1</div> <div> <div>SERVICE ORDER #:</div> <div>AUSL06328199</div> </div> <div> <div>PROGRAM VERSION:</div> <div>14C0-302</div> </div> <div> <div>FLUID LEVEL:</div> <div></div> </div> </div>		
LOGGED INTERVAL	START	STOP

RUN 1

EQUIPMENT DESCRIPTION

SURFACE EQUIPMENT			
WITM-A			
DOWNHOLE EQUIPMENT			
<div> <div>AH-SWBS 731</div> <div>AH-SWBS 731</div> </div>		<div> <div></div> <div></div> </div>	<div> <div>12.61</div> <div></div> </div>
<div> <div>AH-SWBS 761</div> <div>AH-SWBS 761</div> </div>		<div> <div></div> <div></div> </div>	<div> <div>11.93</div> <div></div> </div>
<div> <div>AH-SWBS 762</div> <div>AH-SWBS 762</div> </div>		<div> <div></div> <div></div> </div>	<div> <div>11.24</div> <div></div> </div>
<div> <div>AH-SWBS 763</div> <div>AH-SWBS 763</div> </div>		<div> <div></div> <div></div> </div>	<div> <div>10.55</div> <div></div> </div>
<div> <div>MH-SWHS-A 726</div> <div>MH-SWHS-A 726</div> </div>		<div> <div></div> <div></div> </div>	<div> <div>9.87</div> <div></div> </div>
<div> <div>PSPT-A/B 827</div> <div>PSC-A 806</div> <div>PSPT-B 827</div> <div>PSTC 806</div> <div>PBMS-B 827</div> <div>CQG_F_Mano 827</div> <div>RTD_Thermometer 827</div> <div>GR</div> <div>CCL 827</div> <div>PBMS 827</div> </div>		<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>	<div> <div>9.54</div> <div>9.54</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>
<div> <div>Detail MT</div> <div>TelStatus</div> <div>CTEM</div> </div>			
<div> <div>Well_Temp</div> <div>CQG Manom</div> <div>CCL</div> <div>PBMS PSTC</div> </div>		<div> <div></div> <div></div> <div></div> <div></div> </div>	<div> <div>7.48</div> <div>7.37</div> <div>7.25</div> <div>7.02</div> </div>
<div> <div>RST-C 45</div> <div>RSCH-A 45</div> <div>RSC-C 57</div> <div>RSS-A 45</div> <div>RSXH-A 63</div> <div>RSX-C 59</div> </div>		<div> <div></div> <div></div> </div>	<div> <div>7.02</div> <div></div> </div>

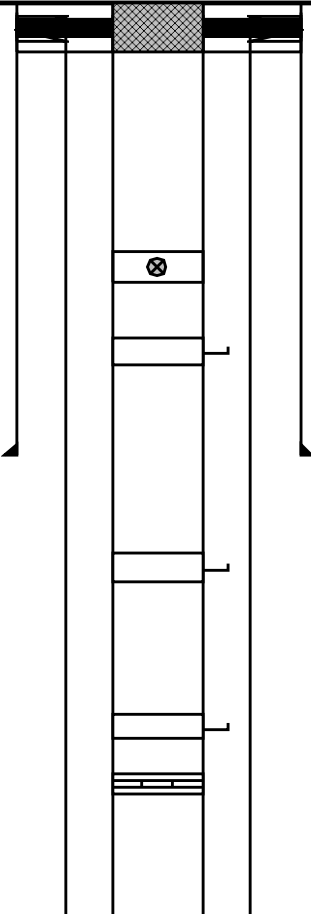
RSC-A Far
RSC-A PNG
RSC-A Nea
RSX-A PNG

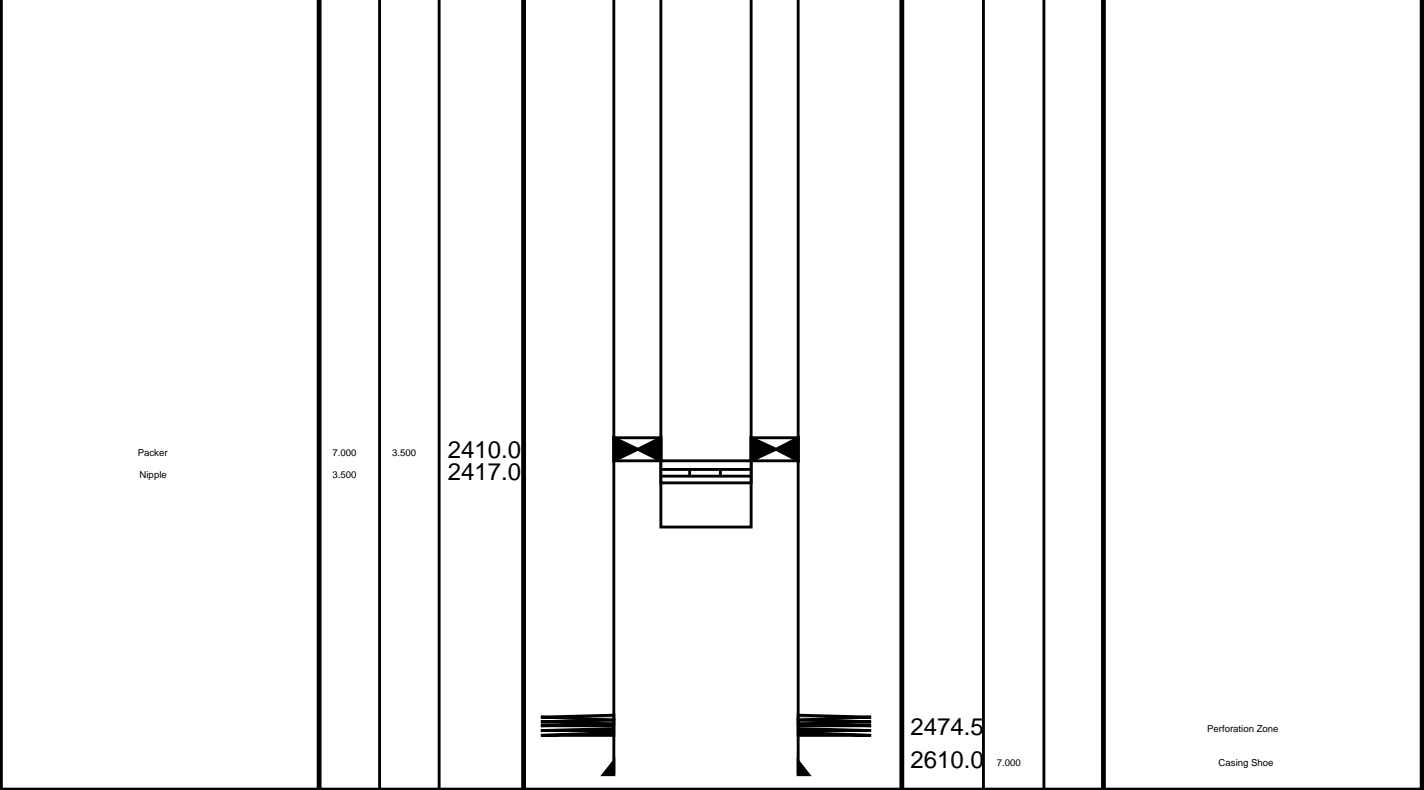
4.24

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	10.750 3.500	3.500	20.6		20.7 20.7 11.9	7.000 10.750 10.750	7.000	Casing String Liner Hanger Casing String
Shutin Valve	3.500		453.7					
Gas Lift Mandrel	3.500		538.0					
					702.5	10.750		Casing Shoe
Gas Lift Mandrel	3.500		863.0					
Gas Lift Mandrel	3.500		1189.0					
Nipple	3.500		1205.0					



RST-C Sigma
PASS # 2

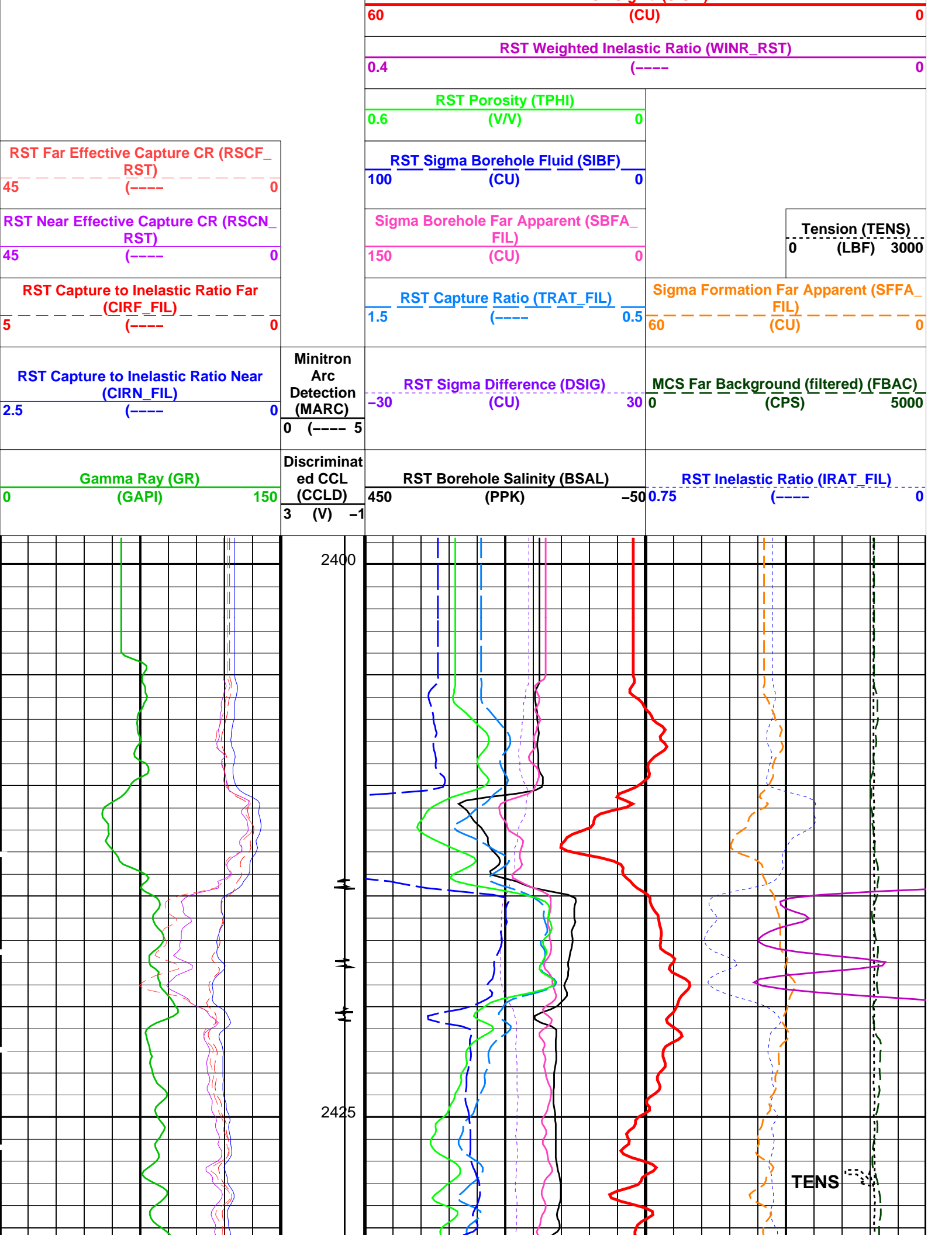
MAXIS Field Log

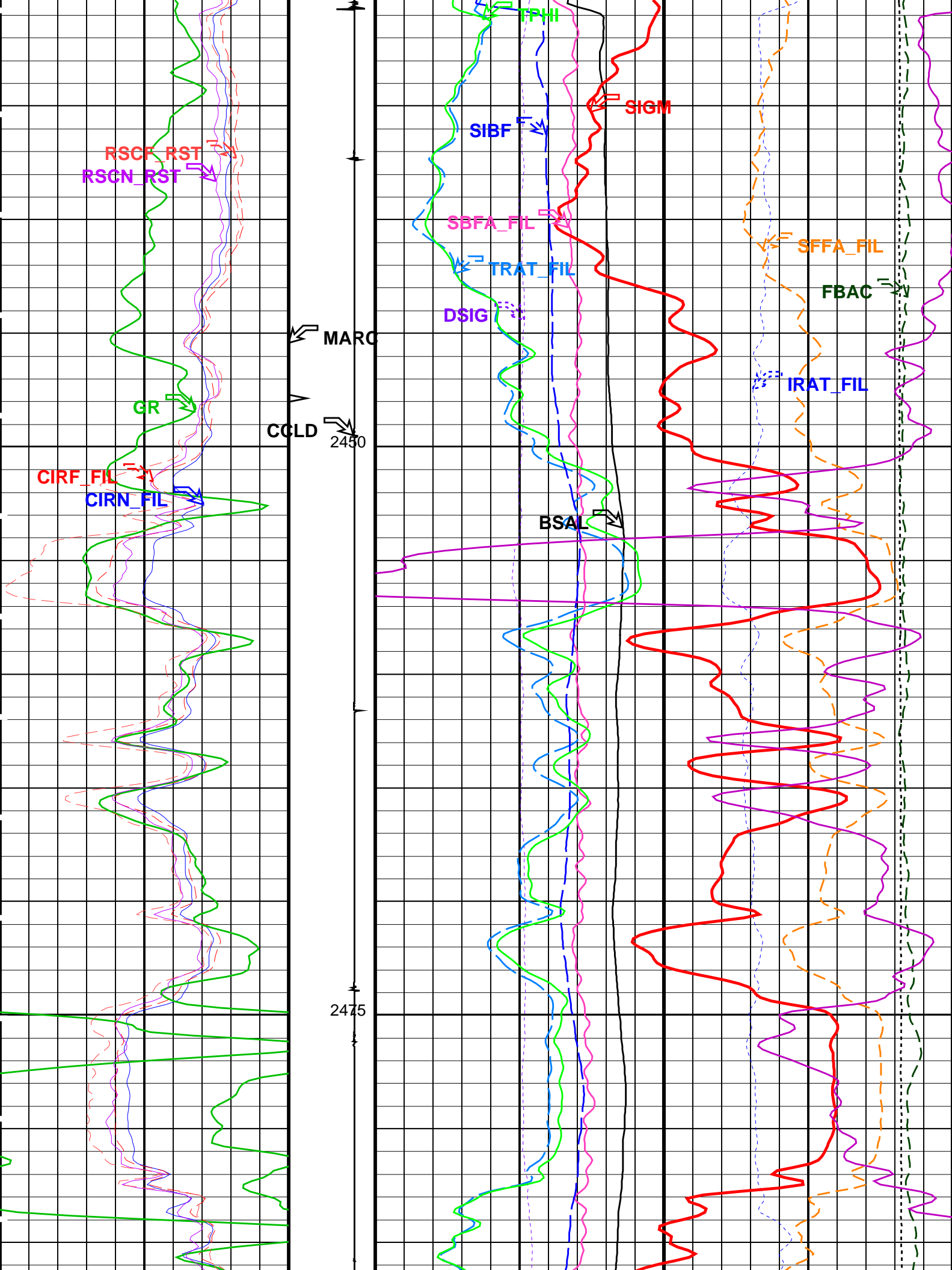
Company: Esso Australia Ltd. Well: B-7

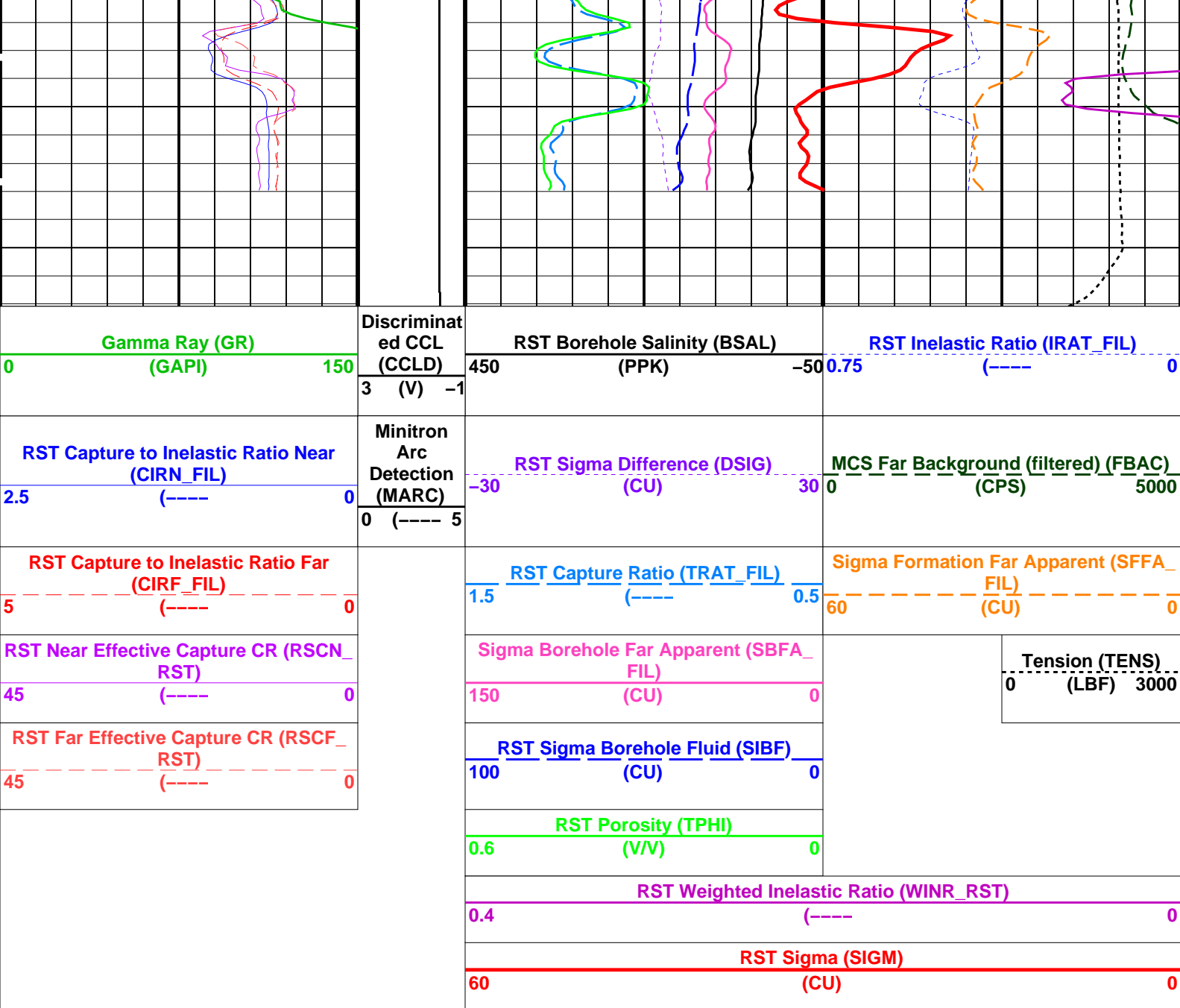
Input DLIS Files					
DEFAULT	RST_PSP_013LUP	FN:12	PRODUCER	22-Oct-2006 09:29	2495.6 M 2402.1 M
Output DLIS Files					
DEFAULT	RST_PSP_017PUP	FN:16	PRODUCER	22-Oct-2006 10:31	2497.1 M 2398.6 M
OP System Version: 14C0-302					
MCM					
RST-C	14C0-302	PSPT-A/B		14C0-302	

PIP SUMMARY

Time Mark Every 60 S







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
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
BSAL	Borehole Salinity	-50000.00
DO	Depth Offset for Playback	1.5
PP	Playback Processing	NORMAL

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-2006 09:29	2495.6 M	2402.1 M
Output DLIS Files						
DEFAULT	RST_PSP_017PUP	FN:16	PRODUCER	22-Oct-2006 10:31		

Schlumberger

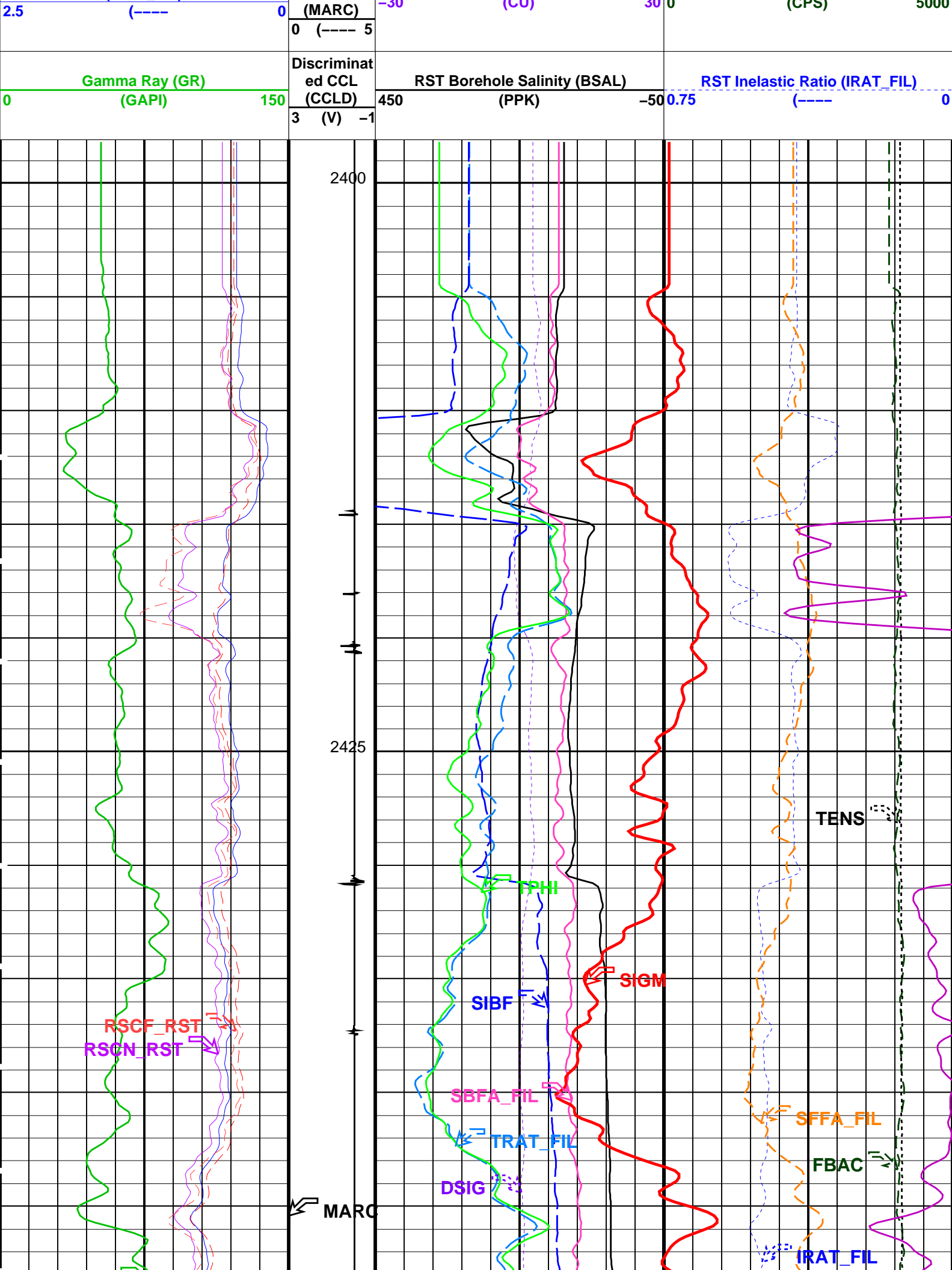
RST-C Sigma
PASS # 1

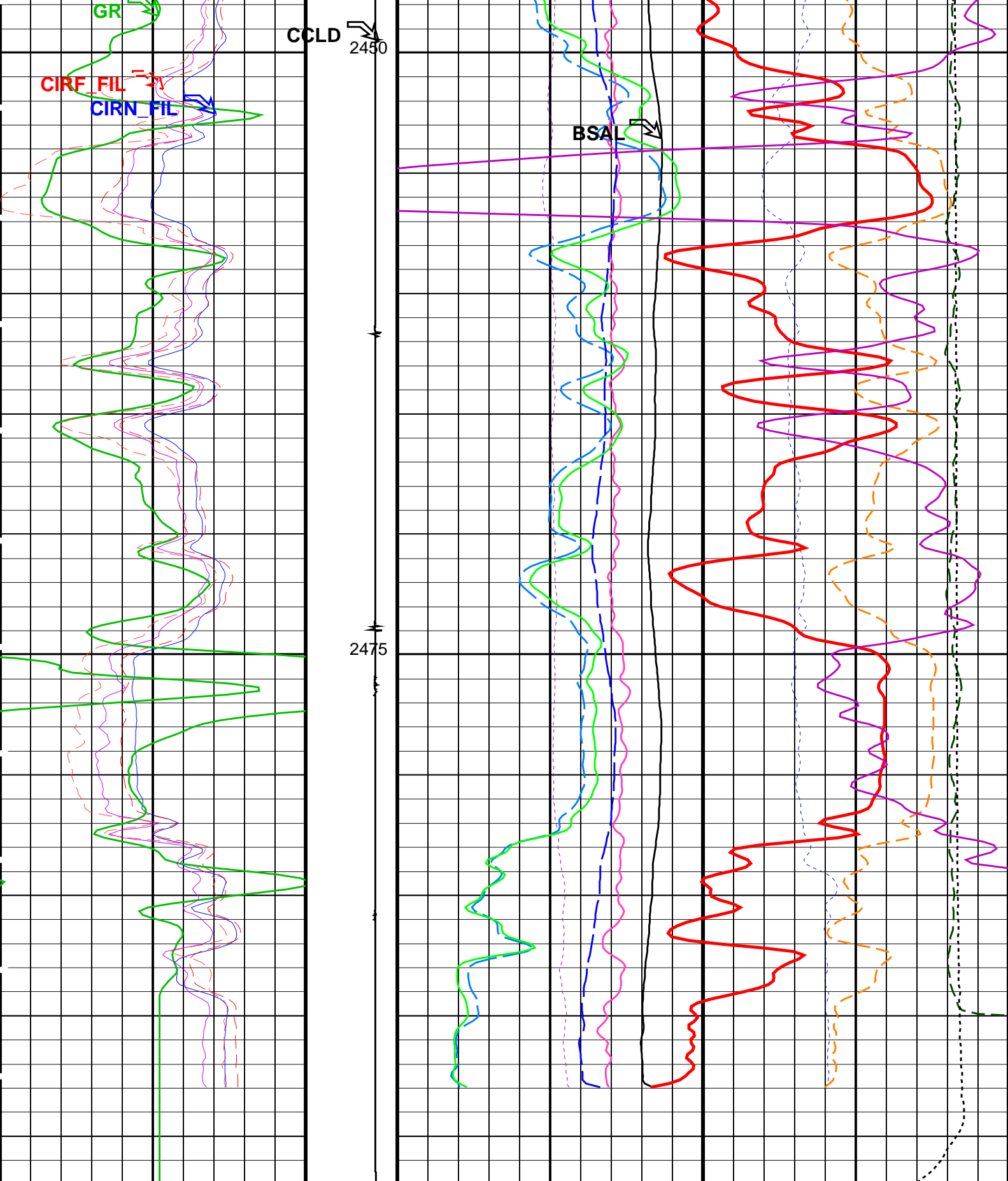
MAXIS Field Log

Company: Esso Australia Ltd.					Well: B-7	
Input DLIS Files						
DEFAULT	RST_PSP_012LUP	FN:11	PRODUCER	22-Oct-2006 09:05	2495.6 M	2401.7 M
Output DLIS Files						
DEFAULT	RST_PSP_015PUP	FN:14	PRODUCER	22-Oct-2006 10:13	2496.9 M	2398.0 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 (CIRF_FIL)</div><div>5 (----) 0</div><div>RST Capture to Inelastic Ratio Near (CIRN_FIL)</div></div> <div>Minitron Arc Detection</div>			RST Sigma (SIGM)						
			60 (CU) 0						
			RST Weighted Inelastic Ratio (WINR_RST)						
			0.4 (----) 0						
			RST Porosity (TPHI)			<div>Tension (TENS)</div> <div>0 (LBF) 3000</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)			
1.5 (----) 0.5			60 (CU) 0						
RST Sigma Difference (DSIG)			MCS Far Background (filtered) (FBAC)						
20 (CU) 20			20 (FBAC) 20						





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

	0 (MARK)		
RST Capture to Inelastic Ratio Far (CIRF_FIL)		RST Capture Ratio (TRAT_FIL)	Sigma Formation Far Apparent (SFFA_FIL)
5 (-----) 0		1.5 (-----) 0.5	60 (-----) 0 (CU)
RST Near Effective Capture CR (RSCN_RST)		Sigma Borehole Far Apparent (SBFA_FIL)	Tension (TENS) 0 (LBF) 3000
45 (-----) 0		150 (CU) 0	
RST Far Effective Capture CR (RSCF_RST)		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 Minitrone 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
DO	Depth Offset for Playback	1.4 M
PP	Playback Processing	NORMAL

Format: RST_SIG_ANSW Vertical Scale: 1:200 Graphics File Created: 22-Oct-2006 10:13

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-2006 09:05 2495.6 M 2401.7 M

Output DLIS Files

DEFAULT RST_PSP_015PUP FN:14 PRODUCER 22-Oct-2006 10:13

Company: Esso Australia Ltd.

Schlumberger

Well: B-7

Field: Bream B

Rig: **Crane / Prod 4**
Country: **Australia**

RST-C
Sigma
Survey