

Company: Esso Australia Pty. Ltd.

Well: BMA A-6a

Field: Bream

Rig: Prod 2 / ISS Rig 22 Country: Australia

2 1/8" Phased Powerjet
Perforation record
3-Feb-2007

Rig: Prod 2 / ISS Rig 22	
Field: Bream	
Location: Bass Strait	
Well: BMA A-6a	
Company: Esso Australia Pty. Ltd.	
LOCATION	
Bass Strait Gippsland Basin	Elev.: K.B. 33.5 m G.L. -69 m D.F. 33.2 m
Permanent Datum: _____	Mean Sea Level _____
Log Measured From: _____	Drill Floor _____
Drilling Measured From: _____	Drill Floor _____
State: Victoria	Max. Well Deviation 68 deg
Longitude 147°46'15"E	Latitude 38°30'4"S

Logging Date	3-Feb-2007		
Run Number	1		
Depth Driller	3254 m		
Schlumberger Depth	3157.5 m Not Tagged		
Bottom Log Interval	3101 m		
Top Log Interval	3098.2 m		
Casing Fluid Type	Produced Fluids		
Salinity			
Density	7.9 g/cm3		
Fluid Level			
BIT/CASING/TUBING STRING			
Bit Size	8.500 in		
From	850 m		
To	3253 m		
Casing/Tubing Size	7.000 in		
Weight	26 lbn/ft		
Grade	L80		
From	12 m		
To	3253 m		
Maximum Recorded Temperatures	101 degC		
Logger On Bottom	3-Feb-2007	Time	14:00
Unit Number	3827	AUSL	
Recorded By	C.Rowand, O.Darby, B.Donahoe		
Witnessed By	Mr B. Woodward / Mr M. Wilson		

	Oil Density	Run 1	Run 2	R
	Water Salinity			
	Gas Gravity			
	Bo			
	Bw			
	1/Bg			
	Bubble Point Pressure			
	Bubble Point Temperature			
	Solution GOR			
	Maximum Deviation	68 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			

Date Created: 3-FEB-2007 17:27:08

Logging Cable

Type:	2-32ZT
Serial Number:	24031
Length:	5690.01 M
Conveyance Method:	Wireline
Rig Type:	Offshore_Fixed

Log Sequence:	Subsequent Log In the Well
Reference Log Name:	Solar Composite
Reference Log Run Number:	
Reference Log Date:	Not provided

1. Log Correlated to Esso Composite Log
2. Primary depth control was the IDW
3. Secondary depth control was the Z-Chart
- 4.
- 5.
- 6.

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.

OS1:	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 2

Objective:

Correlate depth to Solar composite Log. Locate the guns at the

Required perforating depth and attempt to create an underbalance.

Perforate the interval 3098.2 5to 3101m MDPKB. Measure static

bottom hole pressure and temperature. Flow the well for 15 mins after perforating for clean up and record FBHP/FBHT . Shut in well and POOH.

CCL to top shot = 3.17m

CCL to gun bottom = 5.58m

CCL stop depth = 3095.03m MDKB

Before perforation: FBHP = 2626.2 Pisa , FBHT = 205.7 DegF

After perforation : FBHP = 2615.5 Pisa , FBHT = 213.6 DegF








Schlumberger Crew

Days: Brendan Glover (Crew chief), Max Hancock

Nights: David Stuckey (Crew chief), Simon Kiss

RUN 1			RUN 2		
SERVICE ORDER #: PROGRAM VERSION: 14C0-302 FLUID LEVEL:			SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

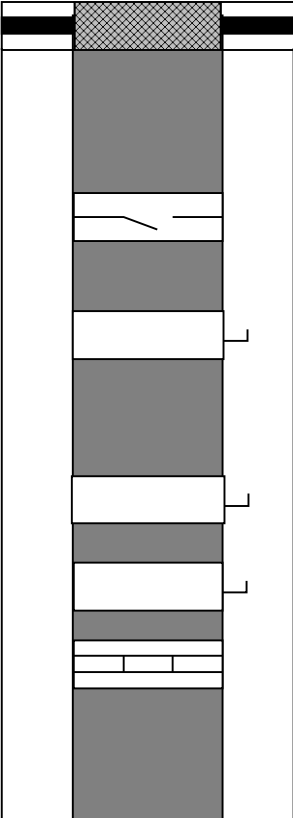
RUN 1			RUN 2		
SURFACE EQUIPMENT					
MWPM-AA 37					
DOWNHOLE EQUIPMENT					
MH-22 MH-22 759		13.41			
SAH-G		12.93			
EQF-43 EQF-43 261		12.63			
EQF-43 EQF-43 201		10.80			
AH-95		8.97			
MWGT-AA MWPG-AA 24 MWGH-AA 19	 MWPG GR	8.75 2.41			
MWPT-DA MWPH-AA 94 MWPS-AA 94		7.78			
CCL SMWP Pres SMWP Temp Tension			TOOL ZERO		

4.53



3.66

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

Production String	(in)		(ft)	Well Schematic	(ft)		(in)		Casing String
	OD	ID			MD	MD	OD	ID	
Tubing Hanger Tubing, 9.2 lbm/ft	7.000 3.500	3.500 2.992	12.0						Casing String, 26.0 lbm/ft
SSSV	3.500	2.750	449.0			7.000	6.276		
Side Pocket Mandrel	3.500	2.750	611.0						
Side Pocket Mandrel	3.500	2.750	984.0						
Side Pocket Mandrel	3.500	2.920	1271.0						
Nipple	3.500	2.750	1287.0						

Schlumberger

MWPT
Station

MAXIS Field Log

Company: Esso Australia Pty. Ltd.

Well: BMA A-6a

Output DLIS Files

DEFAULT PERFO_042LTP FN:40 PRODUCER 03-Feb-2007 16:09 3095.0 M 3.3 M

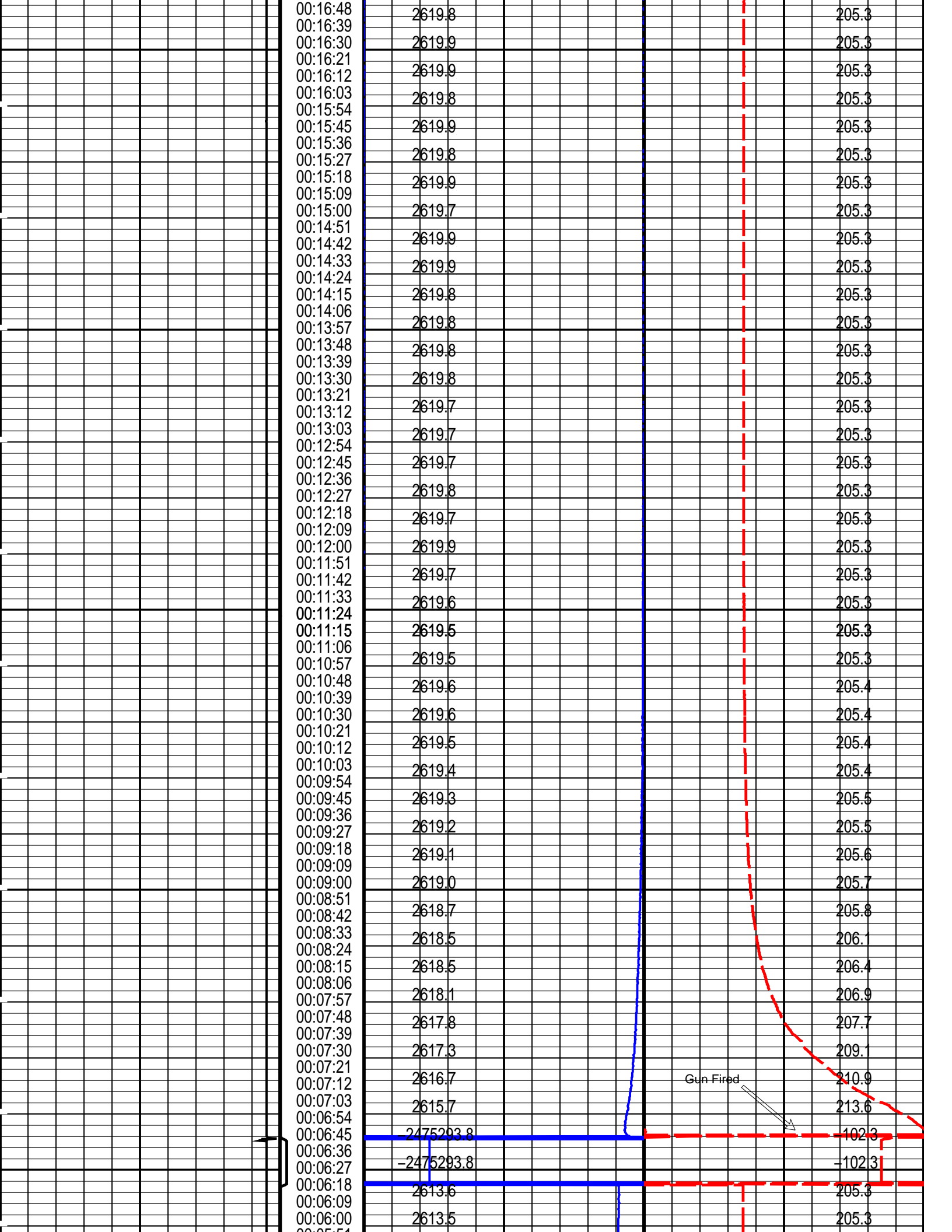
OP System Version: 14C0-302
MCM

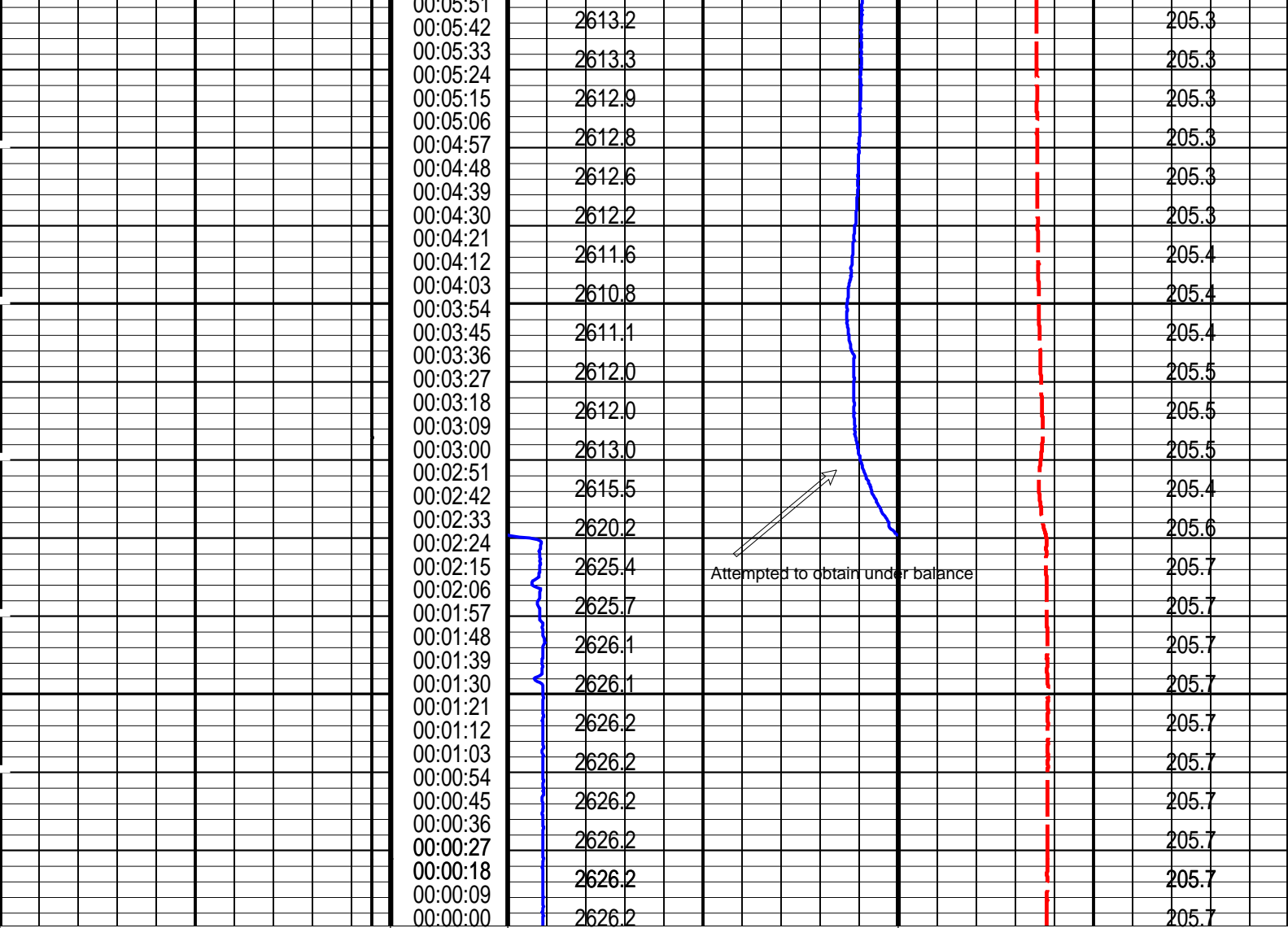
MWP_GUN 14C0-302 MWPT-DA 14C0-302
MWGT-AA 14C0-302

PIP SUMMARY

Time Mark Every 60 S

		Firing Sequence State (FSS_ SL) (----	Pressure (SGP_SL) (PSIG)			Temperature (TEMP_MWPT_SL) (DEGF)
		0	1024			
Casing Collar Locator (CCL_SL)		Elapsed Time (ETIM) (S)	Strain Gauge Pressure (SGP_SL)		Temperature (TEMP_MWPT_SL)	
-19	(----	1	2620	(PSIG)	2690	200 215
		00:21:27	2619.9			205.3
		00:21:18	2619.9			205.3
		00:21:09	2619.9			205.3
		00:21:00	2619.8			205.3
		00:20:51	2619.9			205.3
		00:20:42	2619.9			205.3
		00:20:33	2619.8			205.3
		00:20:24	2619.8			205.3
		00:20:15	2619.9			205.3
		00:20:06	2619.8			205.3
		00:19:57	2619.8			205.3
		00:19:48	2619.7			205.3
		00:19:39	2619.7			205.3
		00:19:30	2619.7			205.3
		00:19:21	2619.9			205.3
		00:19:12	2619.7			205.3
		00:19:03	2619.7			205.3
		00:18:54	2619.8			205.3
		00:18:45	2619.8			205.3
		00:18:36	2619.8			205.3
		00:18:27	2619.8			205.3
		00:18:18	2619.8			205.3
		00:18:09	2619.9			205.3
		00:18:00	2619.9			205.3
		00:17:51	2619.8			205.3
		00:17:42	2619.8			205.3
		00:17:33	2619.8			205.3
		00:17:24	2619.9			205.3
		00:17:15	2619.9			205.3
		00:17:06	2619.7			205.3
		00:16:57	2619.7			205.3





Casing Collar Locator (CCL_SL)		Elapsed Time (ETIM) (S)	Strain Gauge Pressure (SGP_SL) (PSIG)		Temperature (TEMP_MWPT_SL) (DEGF)	
-19 (----) 1			2620 2690		200 215	
		Firing Sequence State (FSS_SL) (----)	Pressure (SGP_SL) (PSIG)		Temperature (TEMP_MWPT_SL) (DEGF)	
		0 1024				

PIP SUMMARY

Time Mark Every 60 S

Parameters		
DLIS Name	Description	Value
MWPT-DA: 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_SL Vertical Scale: 1" per 60S Graphics File Created: 03-Feb-2007 16:09

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

Output DLIS Files			
DEFAULT	PERFO_0421.TP	EN-40	PRODUCER 03-Feb-2007 16:09

Schlumberger

2-1/8" Powerjet
Shooting Pass

MAXIS Field Log

PERFO2 Operational Summary Listing

Device Status Req Depth (M) Obs Depth (M) Time Used

GUN1 Used 3098.2 3098.2 16:15:05

Company: Esso Australia Pty. Ltd.

Well: BMA A-6a

Output DLIS Files

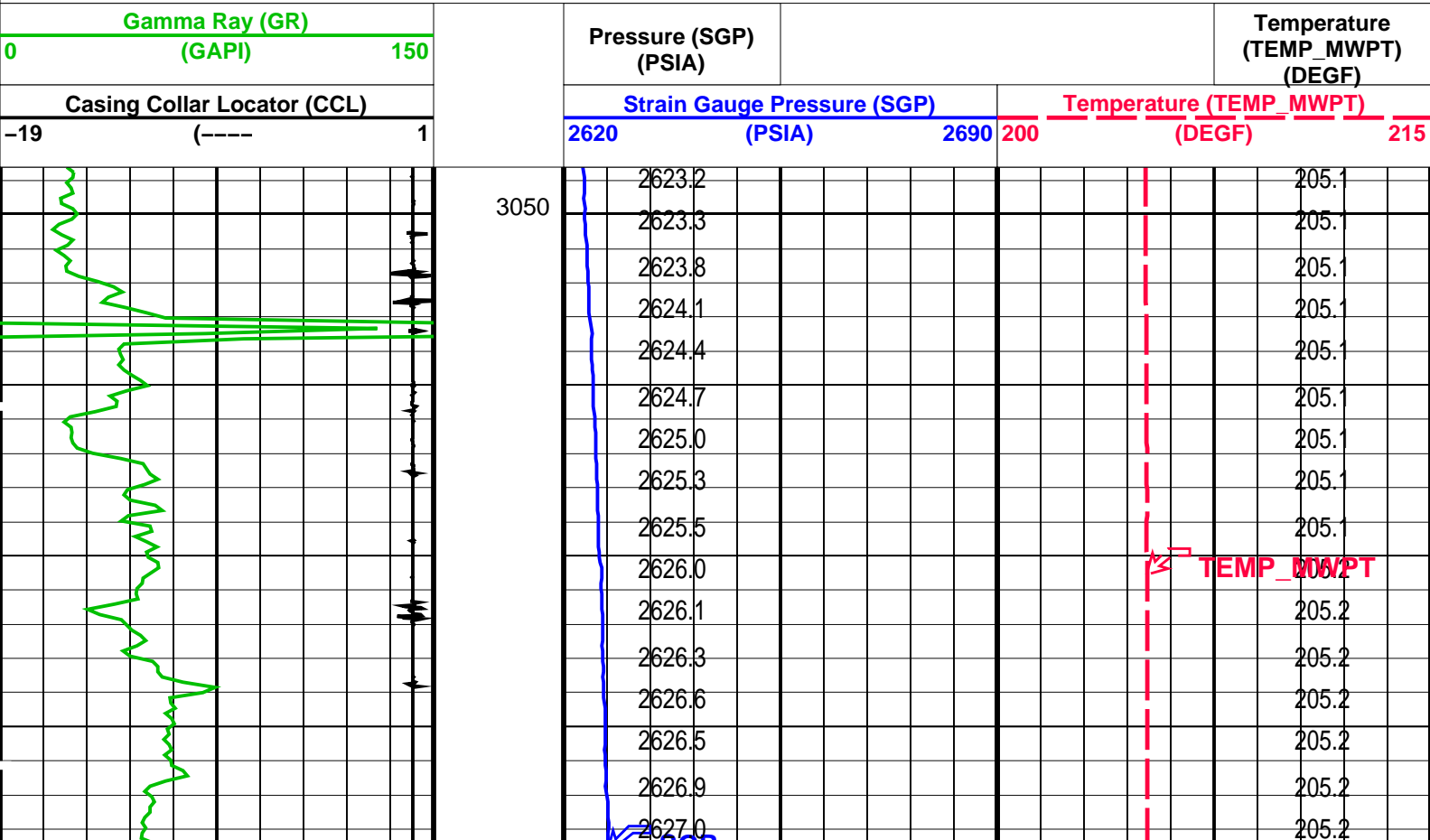
DEFAULT PERFO_040LUP FN:38 PRODUCER 03-Feb-2007 16:03 3152.2 M 3048.6 M

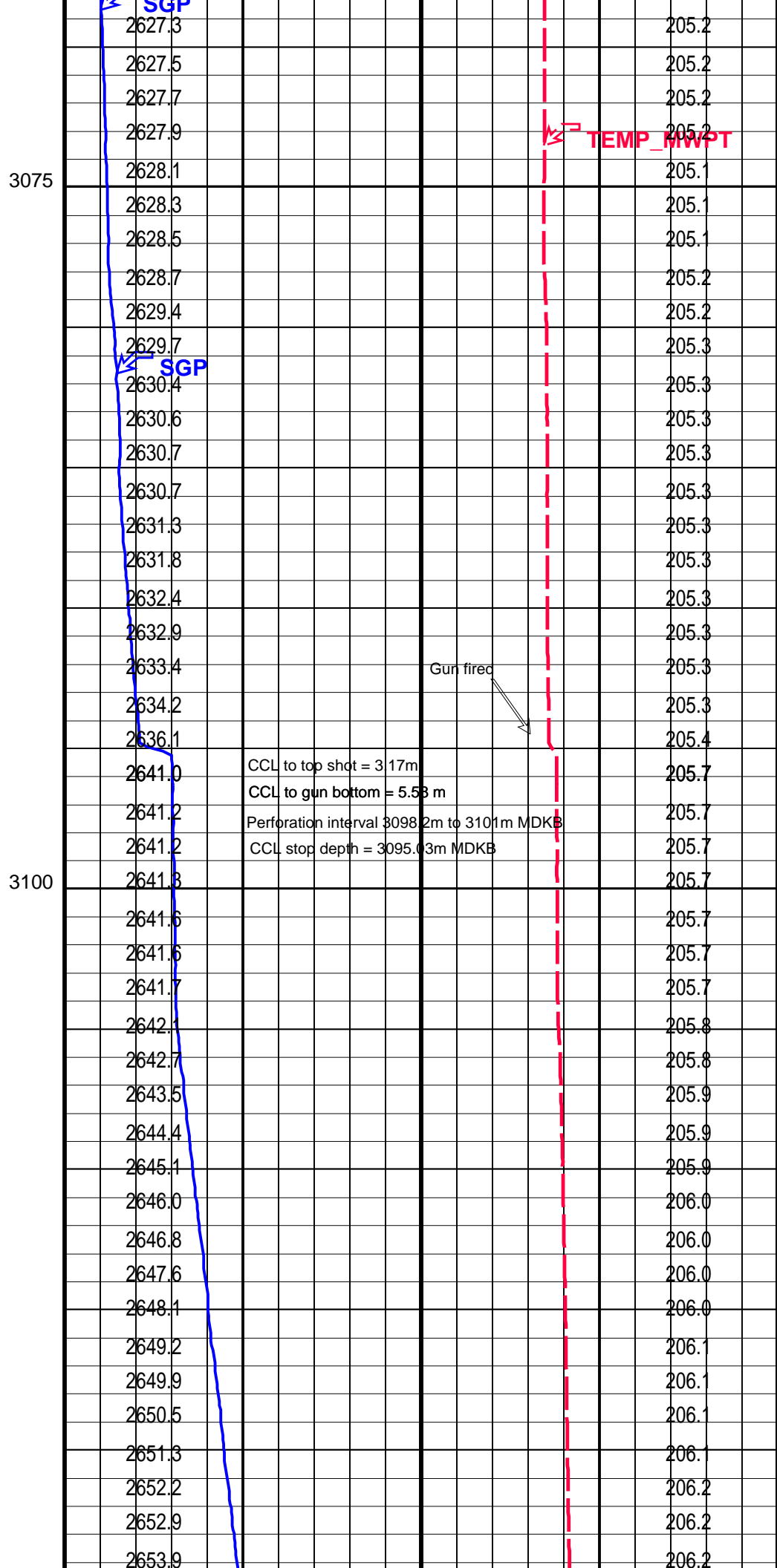
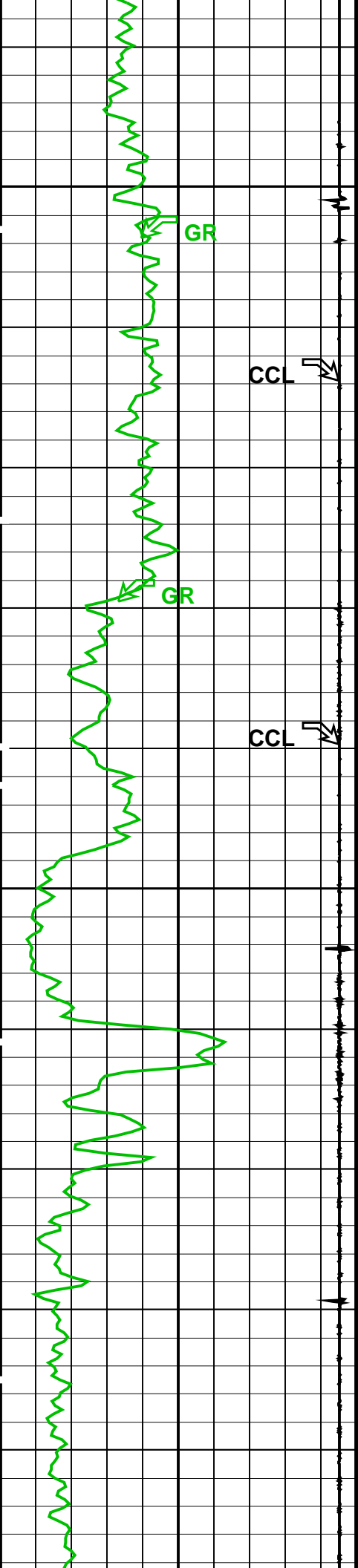
OP System Version: 14C0-302
MCM

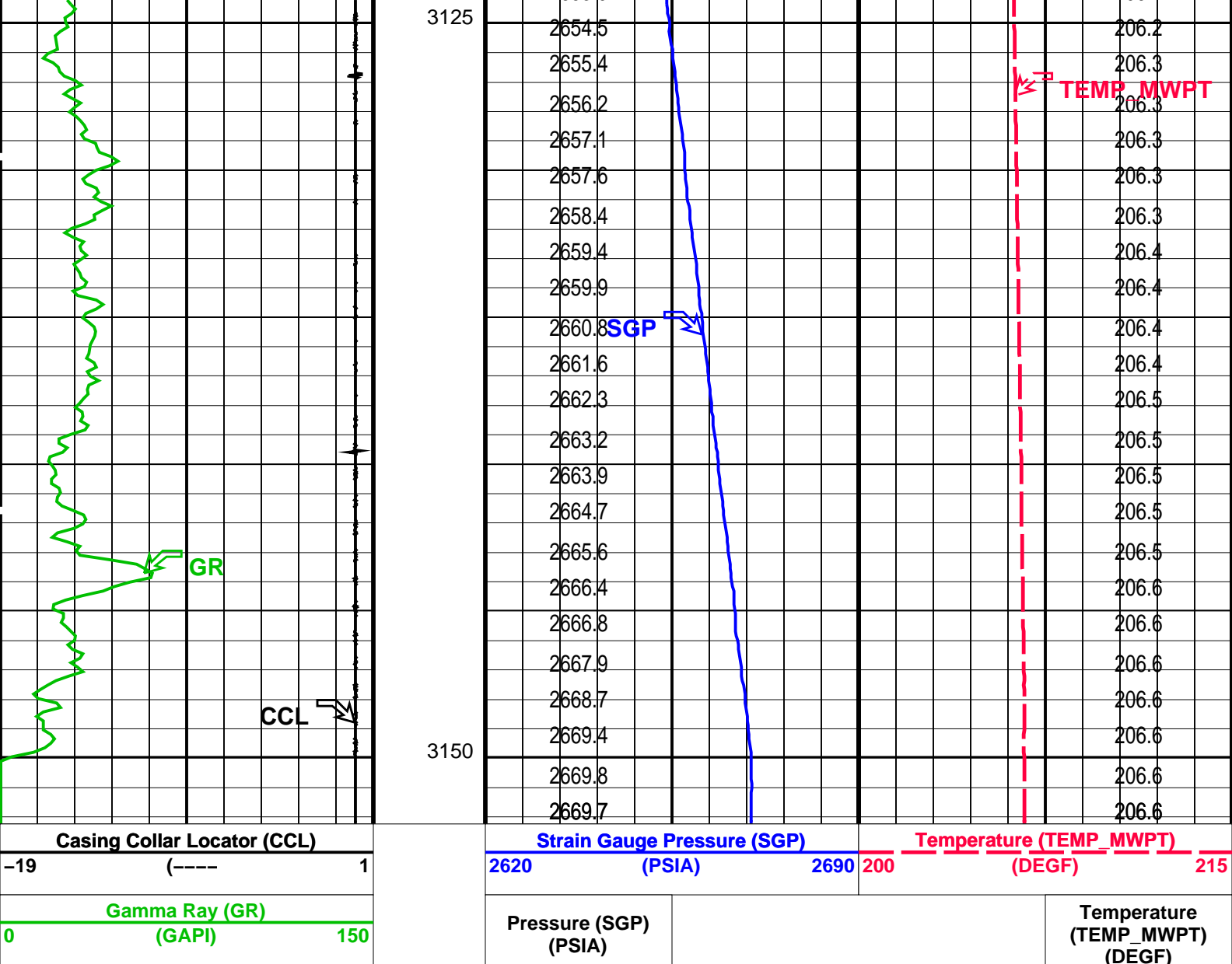
MWP_GUN 14C0-302 MWPT-DA 14C0-302
MWGT-AA 14C0-302

PIP SUMMARY

Time Mark Every 60 S







PIP SUMMARY

Time Mark Every 60 S

Parameters		
DLIS Name	Description	Value
MWPT-DA: 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: 03-Feb-2007 16:03

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

Output DLIS Files			
DEFAULT	PERFO_040LUP	FN:38 PRODUCER	03-Feb-2007 16:03

Correlation

MAXIS Field Log

Company: Esso Australia Pty. Ltd.

Well: BMA A-6a

Output DLIS Files

DEFAULT PERFO_036LUP FN:34 PRODUCER 03-Feb-2007 15:28 3157.7 M 3069.2 M

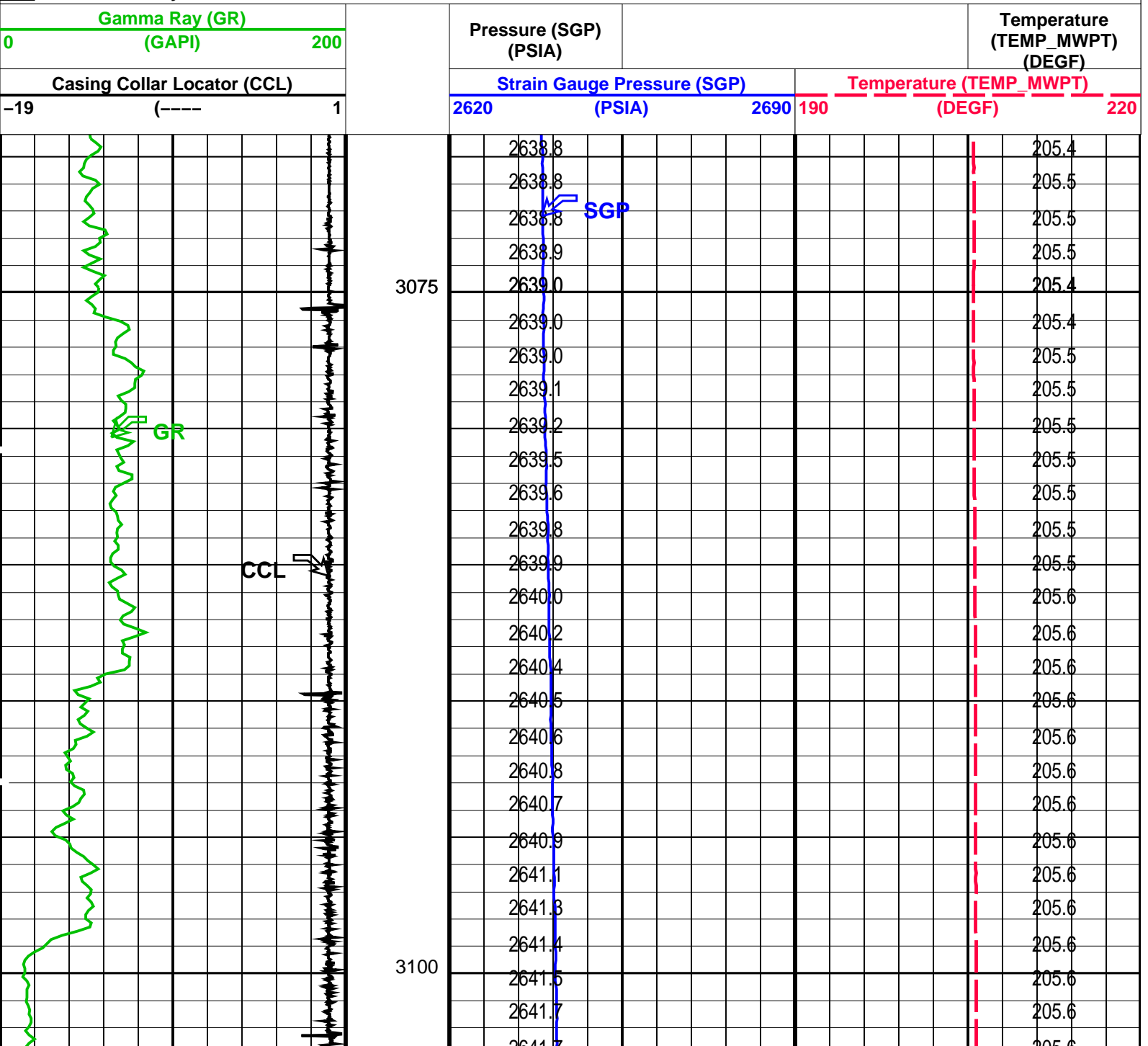
OP System Version: 14C0-302

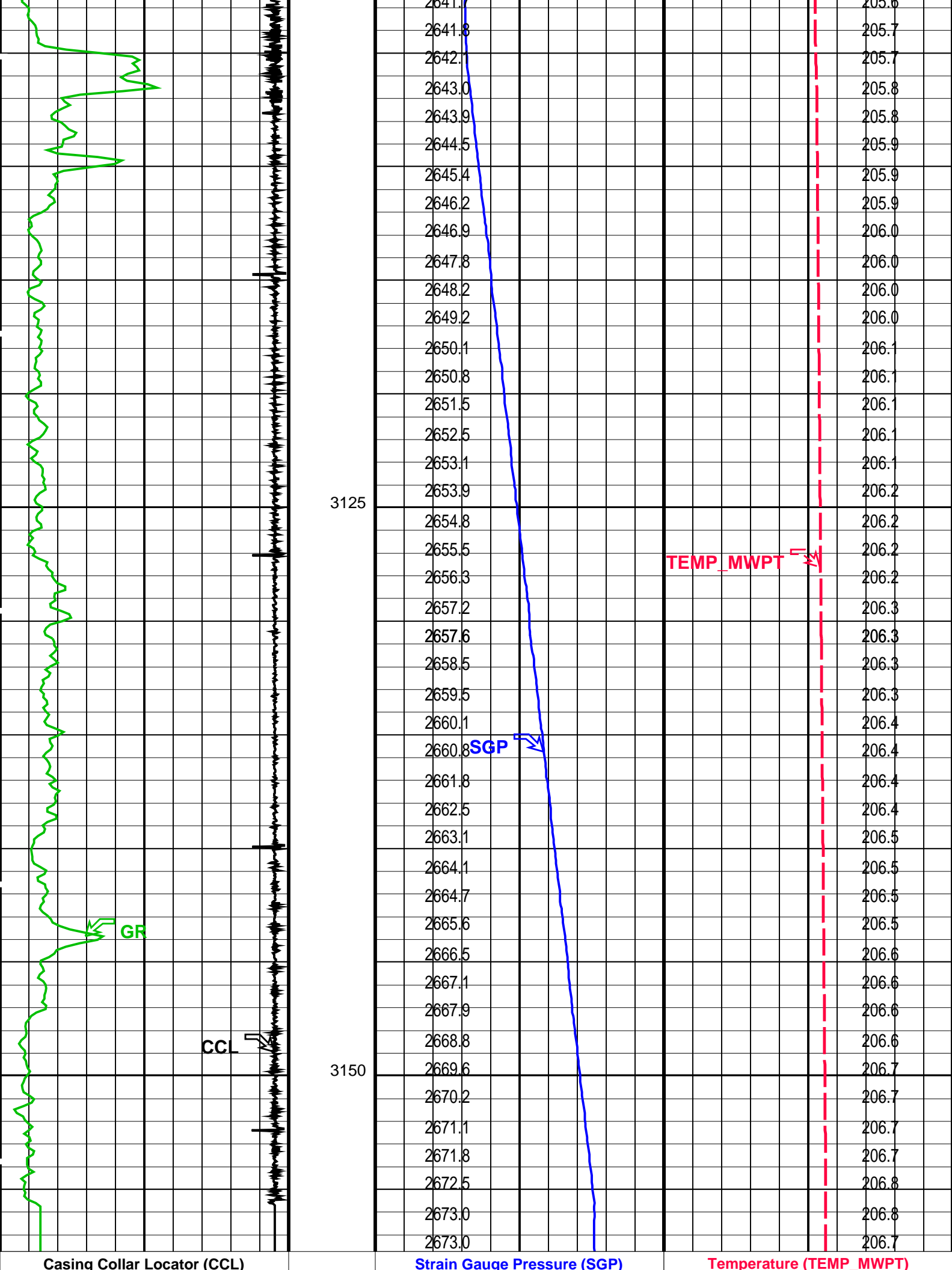
MCM

MWP_GUN 14C0-302 MWPT-DA 14C0-302
MWGT-AA 14C0-302

PIP SUMMARY

Time Mark Every 60 S





-19	(----	1	2620	(PSIA)	2690	190	(DEGF)	220
Gamma Ray (GR)			Pressure (SGP)				Temperature	
0	(GAPI)	200	(PSIA)				(TEMP_MWPT)	
							(DEGF)	


PIP SUMMARY								
Time Mark Every 60 S								

Parameters			
DLIS Name	Description	Value	
MWPT-DA: 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: 03-Feb-2007 15:28						
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OP System Version: 14C0-302			
MCM			
MWP_GUN	14C0-302	MWPT-DA	14C0-302
MWGT-AA	14C0-302		

Output DLIS Files								
DEFAULT	PERFO_036LUP	FN:34	PRODUCER	03-Feb-2007 15:28				



Before Survey Calibration

MAXIS Field Log

Calibration and Check Summary							
Measurement	Nominal	Master	Before	After	Change	Limit	Units
MEASUREMENT WHILE PERFORATING GAMMA RAY TOOL Wellsite Calibration – Detector Calibration							
Before: 3-Feb-2007 4:27							
Gamma Ray (Signal) Background	30.00	N/A	26.85	N/A	N/A	N/A	GAPI
Gamma Ray (Jig – Background)	163.2	N/A	163.2	N/A	N/A	14.83	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI

MEASUREMENT WHILE PERFORATING GAMMA RAY TOOL / Equipment Identification			
Primary Equipment:			
GAMMA RAY CARTRIDGE	MWPG – AA	24	
Auxiliary Equipment:			
GAMMA RAY HOUSING	MWGH – AA	19	

MEASUREMENT WHILE PERFORATING GAMMA RAY TOOL Wellsite Calibration									
Detector Calibration									
Phase	Gamma Ray (Signal) Background	GAPI	Value	Phase	Gamma Ray (Jig – Background)	GAPI	Value	Phase	Gamma Ray (Calibrated)
Before			26.85	Before			163.2	Before	

0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)	148.3 (Minimum)	163.2 (Nominal)	178.0 (Maximum)	150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)
Before: 3-Feb-2007 4:27								

Company:

Esso Australia Pty. Ltd.

Well:

BMA A-6a

Field:

Bream

Rig:

Prod 2 / ISS Rig 22

Country:

Australia

2 1/8" Phased Powerjet

Perforation record

3-Feb-2007

Schlumberger