

Company: Esso Australia Pty Ltd.

Well: FLA A25a

Field: Flounder

Rig: Prod 3 / Flounder Country: Australia

2-1/8" Phased Powerjet  
Perforating Record  
26-Aug-2007

Prod 3 / Flounder  
Flounder  
Bass Strait  
FLA A25a  
Esso Australia Pty Ltd.

LOCATION		State: Victoria	Max. Well Deviation 59.15 deg	Longitude 148° 06' 15.1"E	Latitude 38° 18'45.24"S
Bass Strait	Elev.: K.B. 40.8 m				
Gippsland	G.L. -94 m				
Basin	D.F. 40.8 m				
Permanent Datum:	Mean Sea Level	Elev.: 40.8 m			
Log Measured From:	Drill Floor	-40.8 m above Perm. Datum			
Drilling Measured From:	Drill Floor				

Logging Date	26-Aug-2007		
Run Number	1		
Depth Driller	3935 m		
Schlumberger Depth	3561 m		
Bottom Log Interval	3533.5 m		
Top Log Interval	3536.5 m		
Casing Fluid Type	Produced Fluids		
Salinity			
Density	1.05 g/cm3		
Fluid Level			
BIT/CASING/TUBING STRING			
Bit Size	9.875 in		
From	816 m		
To	3935 m		
Casing/Tubing Size	7.625 in		
Weight	29.7 lbm/ft		
Grade	L-80		
From	19.56 m		
To	3903 m		
Maximum Recorded Temperatures			
Logger On Bottom	26-Aug-2007	11:11	
Unit Number	93	AUSL	
Recorded By	C.Rowand, B.Donahoe		
Witnessed By	Mr M. Wilson		

PVT DATA				Run 1	Run 2	Run
Oil Density						
Water Salinity						
Gas Gravity						
Bo						
Bw						
1/Bg						
Bubble Point Pressure						
Bubble Point Temperature						
Solution GOR						
Maximum Deviation	59.15 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: 8-SEP-2007 16:30:44

## Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-H	Type:	CMTD-B/A	Type:	2-32ZT
Serial Number:	797	Serial Number:	1721	Serial Number:	24016
Calibration Date:	11-May-2007	Calibration Date:	15-Aug-2007	Length:	5299.86 M
Calibrator Serial Number:	1	Calibrator Serial Number:	1173		
Calibration Cable Type:	2-32ZT	Calibration Gain:	0.89	Conveyance Method:	Wireline
Wheel Correction 1:	-3	Calibration Offset:	-731.00	Rig Type:	Offshore_Fixed
Wheel Correction 2:	-1				

## Depth Control Parameters

Log Sequence:	Subsequent Log In the Well
Reference Log Name:	Solar Composite Correlation Log
Reference Log Run Number:	
Reference Log Date:	30-Jan-2004

## Depth Control Remarks

1. Log referenced to Solar Composite Correlation Log provided by Esso
2. Correlated to the RST Sigma Log of 25–Aug–2007
3. Correlated to CCL's as the GR is affected by high NORM activation
- 4.
- 5.
6. Tool zeroed in the Toolcatcher at 0 M

## DISCLAIMER

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OTHER SERVICES1	OTHER SERVICES2
OS1: RST Sigma	OS1:
OS2: MPBT	OS2:
OS3: Cement Bailers	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Referenced to Esso Solar Composite Log of 30–Jan–2004 provided by client .	
Correlated to RST–C Sigma Log of 25–Aug–2007	
Run#1. Interval 3533.5 to 3534m MDKB , 3535 to 3536.5m MDKB	
When pulling out of hole with Run#1 guns became stuck in tubing packer so perforations could not be confirmed therefore resulting in Run#2.	
Run#2. Interval 3533.5 to 3536.5m MDKB	

High GR observed.

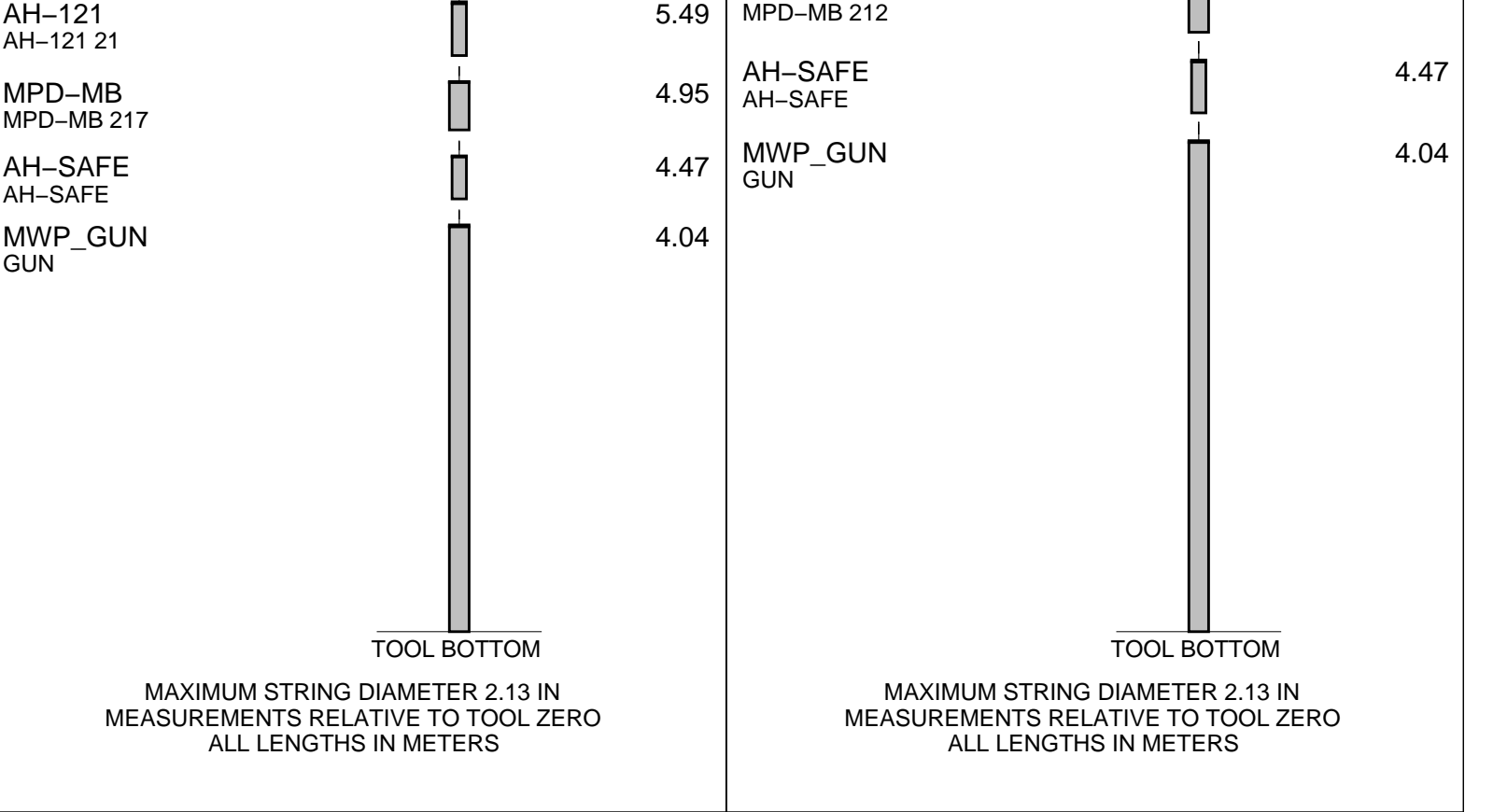
Schlumberger Crew:

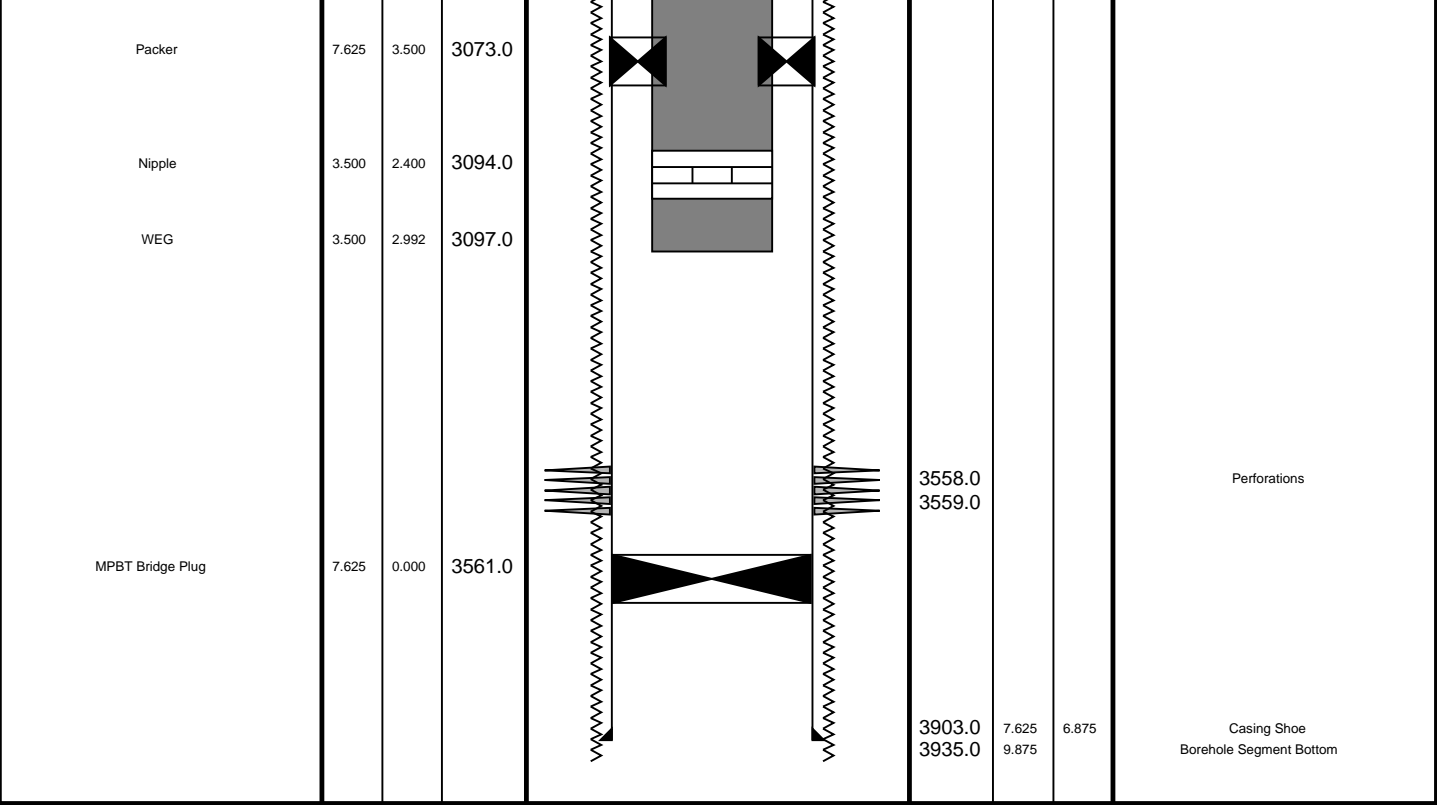
Gary Martin, Nathan Simmons, Kevin Kerr, Craig Harris

RUN 1 SERVICE ORDER #: PROGRAM VERSION: 15C0-309 FLUID LEVEL:			RUN 2 SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

[illegible]

RUN 1		RUN 2	
SURFACE EQUIPMENT		SURFACE EQUIPMENT	
MWPM-AA 37		MWPM-AA 37	
DOWNHOLE EQUIPMENT		DOWNHOLE EQUIPMENT	
MH-22 MH-22	13.93	MH-22 MH-22	11.82
SAH-G	13.47	EQF-46 EQF-46 3001	11.34
EQF-43 EQF-43 281	13.17		
EQF-43 EQF-43 2749	11.34	AH-124	9.51
		MWGT-AA MWPG-AA 19 MWGH-AA 19	9.28
		MWPG GR	2.41
AH-124	9.51	MWPT-DA MWPH-BA 90 MWPS-AA 121	8.31
MWGT-AA MWPG-AA MWGH-AA 68	9.28		
MWPG GR	2.41		
MWPT-DA MWPH-BA 10 MWPS-AA 93	8.31		
CCL SMWP Pres SMWP Temp Tension	TOOL ZERO	CCL SMWP Pres SMWP Temp Tension	TOOL ZERO
		AH-121 AH-121 31	5.49
		MPD-MB	4.95





# Station Log Gun 2

MAXIS Field Log

## PERFO2 Operational Summary Listing

Device	Status	Req Depth ( M)	Obs Depth ( M)	Time Used
Gun2	Used	3533.5	3533.5	Tue Aug 28 09:37:14 2007

Company: Esso Australia Pty Ltd.

Well: FLA A25a

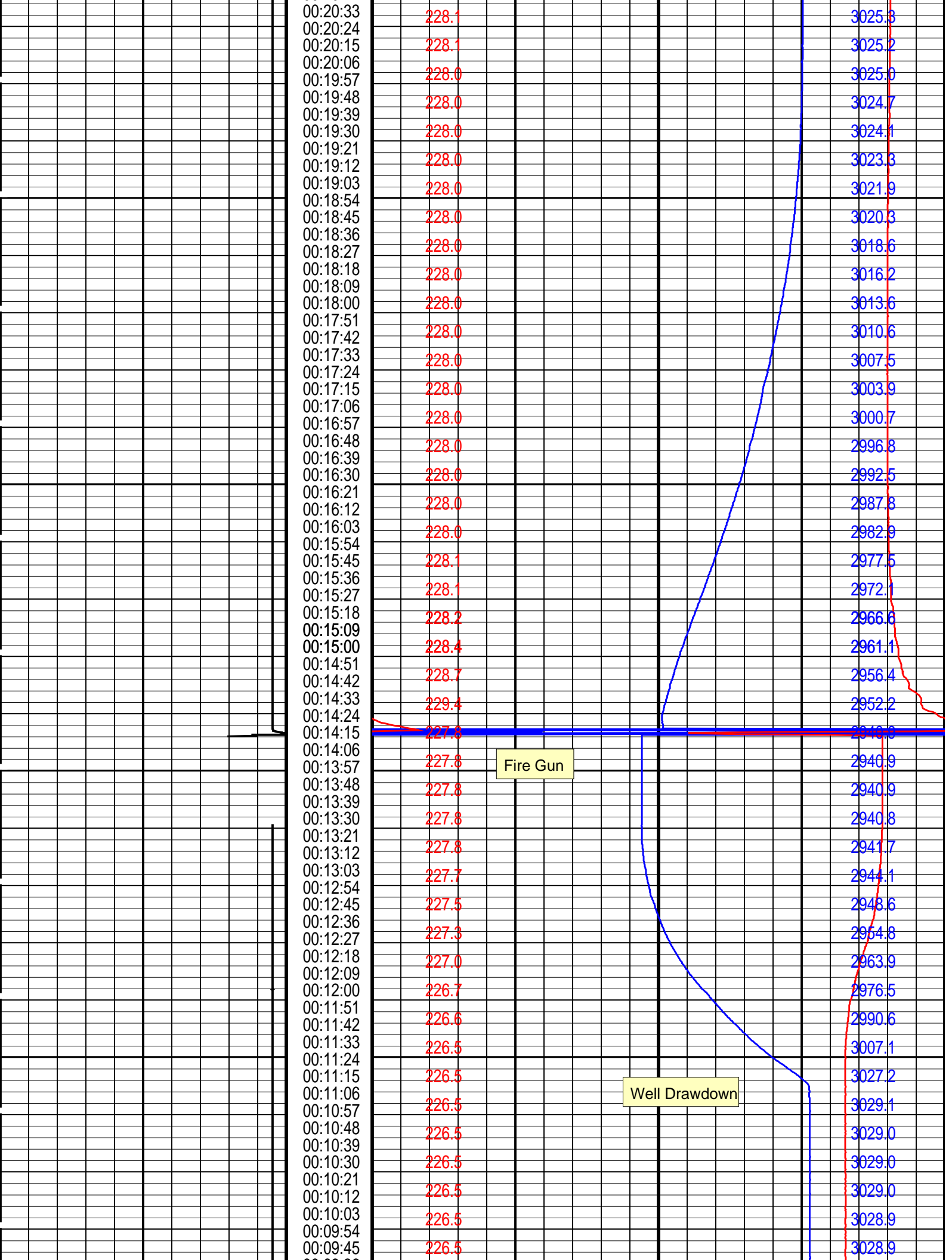
Output DLIS Files					
DEFAULT	PERFO_063LTP	FN:62	PRODUCER	28-Aug-2007 09:23	3530.5 M
4.5 M					

**15C0-309**

15C0-309  
15C0-309

**Time Mark Every 60 S**

[illegible]



[illegible]



210

(DEGF)

230

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: 28-Aug-2007 09:23

OP System Version: 15C0-309

MCM

MWP_GUN	15C0-309	MWPT-DA	15C0-309
MWGT-AA	15C0-309		

Output DLIS Files

DEFAULT	PERFO_063LTP	FN:62	PRODUCER	28-Aug-2007 09:23
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Schlumberger

Shooting Pass Gun 2

MAXIS Field Log

Company: Esso Australia Pty Ltd.    Well: FLA A25a

Output DLIS Files

DEFAULT	PERFO_062LUP	FN:61	PRODUCER	28-Aug-2007 09:19
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OP System Version: 15C0-309

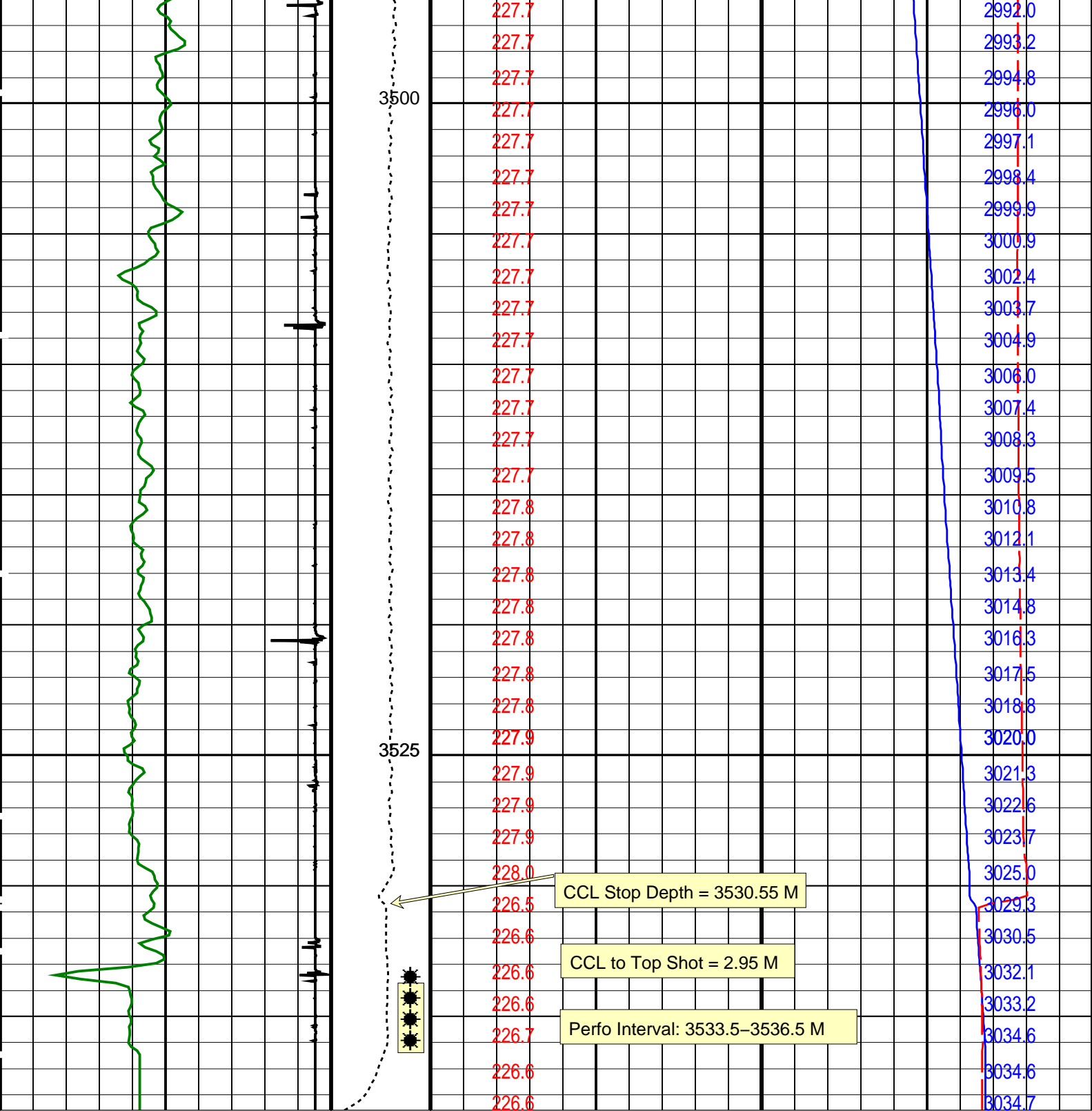
MCM

MWP_GUN	15C0-309	MWPT-DA	15C0-309
MWGT-AA	15C0-309		

PIP SUMMARY

Time Mark Every 60 S

		Temperature (TEMP_MWPT) (DEGF)	Pressure (SGP) (PSIG)
Gamma Ray (GR) (GAPI)		Temperature (TEMP_MWPT) (DEGF)	
0	2000	210	230
Casing Collar Locator (CCL) (----		Strain Gauge Pressure (SGP) (PSIG)	
-19	1	2700	3100
Tension (TENS) (LBF)			
1000			
3000			
		227.7	2987.8
		227.7	2988.0
		227.7	2989.3
		227.7	2990.8

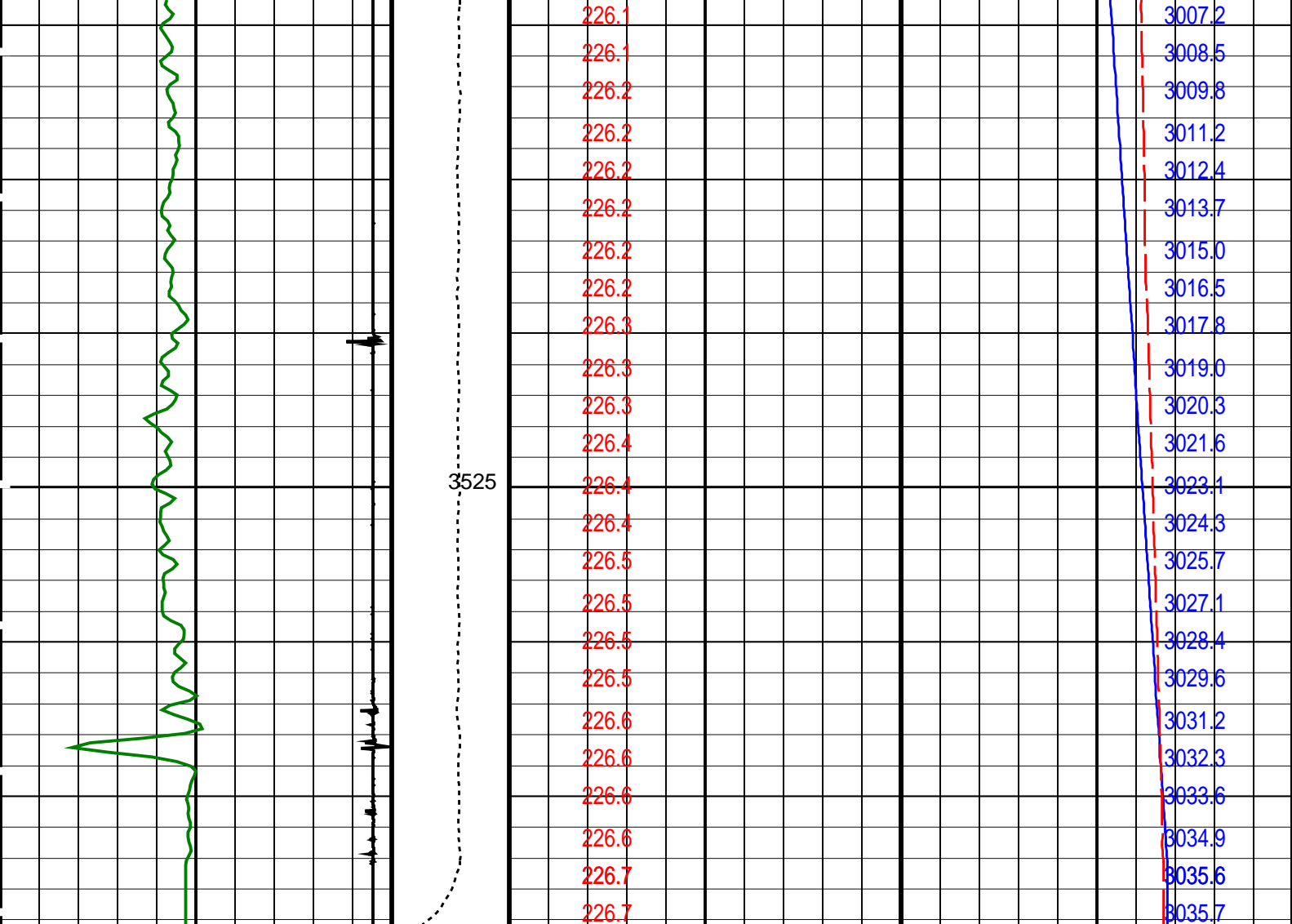


Casing Collar Locator (CCL)		Strain Gauge Pressure (SGP)	
-19	1	2700	3100
Gamma Ray (GR)		Temperature (TEMP_MWPT)	
0	2000	210	230
Tension (TENS) (LBF)		Temperature (TEMP_MWPT) (DEGF)	
1000	3000	Pressure (SGP) (PSIG)	
PIP SUMMARY			

Time Mark Every 60 S

Parameters		
DLIS Name	Description	Value





Casing Collar Locator (CCL)		Tension (TENS) (LBF)	Strain Gauge Pressure (SGP)	
-19	(----		2700	3100
Gamma Ray (GR)		Temperature (TEMP_MWPT) (DEGF)	Temperature (TEMP_MWPT) (DEGF)	
0	(GAPI) 2000		210	230
		Temperature (TEMP_MWPT) (DEGF)	Pressure (SGP) (PSIG)	

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: 28-Aug-2007 09:03

OP System Version: 15C0-309  
MCM

MWP_GUN	15C0-309	MWPT-DA	15C0-309
MWGT-AA	15C0-309		

Output DLIS Files

DEFAULT DEFEQ 001 LUP EN 00 PRODUCER 00 Aug 2007 00:00

**Schlumberger**

## Gun 2 Correlation to WEG

MAXIS Field Log

Company: Esso Australia Pty Ltd.

Well: FLA A25a

### Input DLIS Files

DEFAULT PERFO\_058LUP FN:57 PRODUCER 28-Aug-2007 08:36 3135.2 M 3086.6 M

### Output DLIS Files

DEFAULT PERFO\_058PUP FN:53 PRODUCER 29-Aug-2007 12:03 3135.2 M 3087.0 M

### OP System Version: 15C0-309

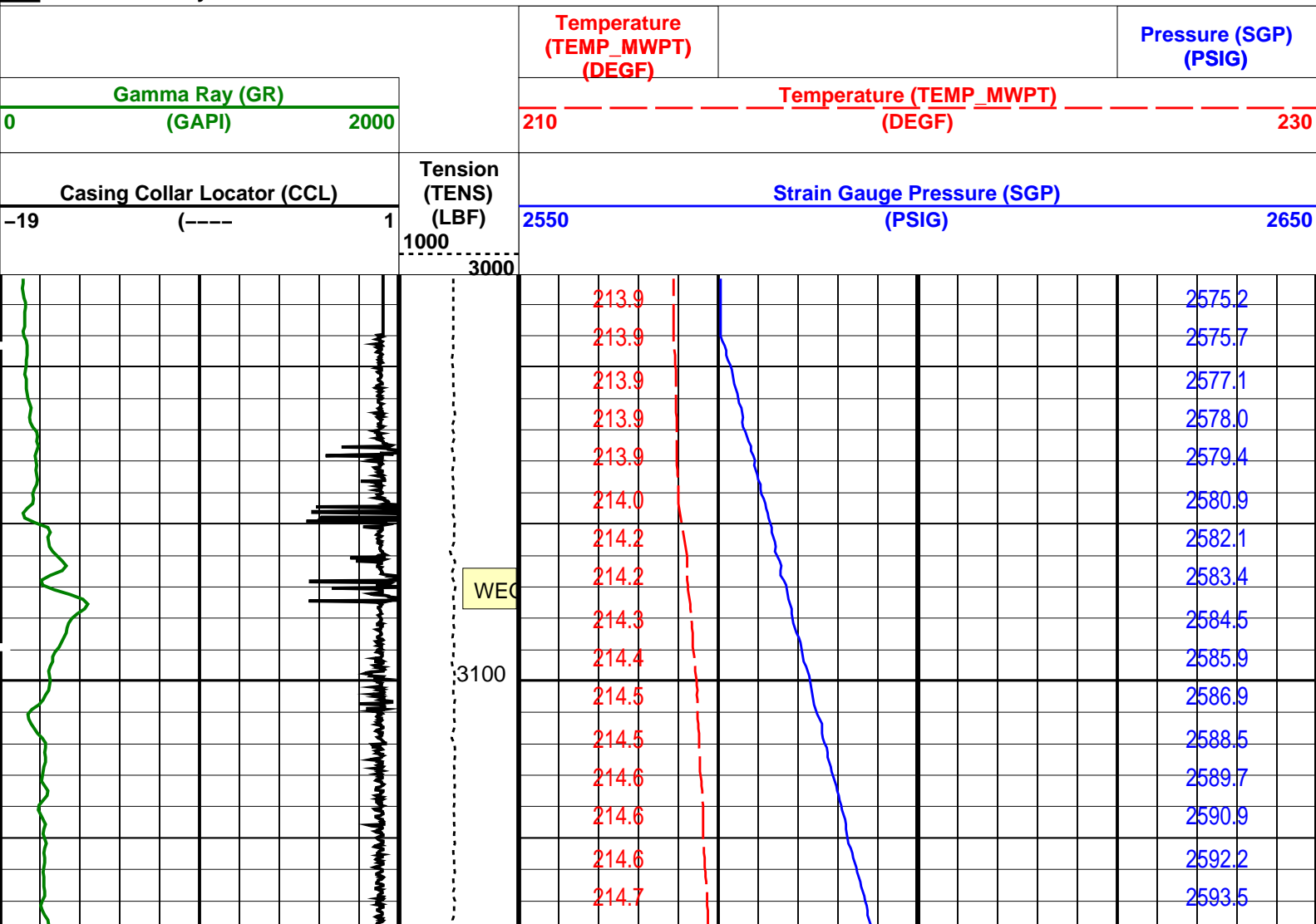
MCM

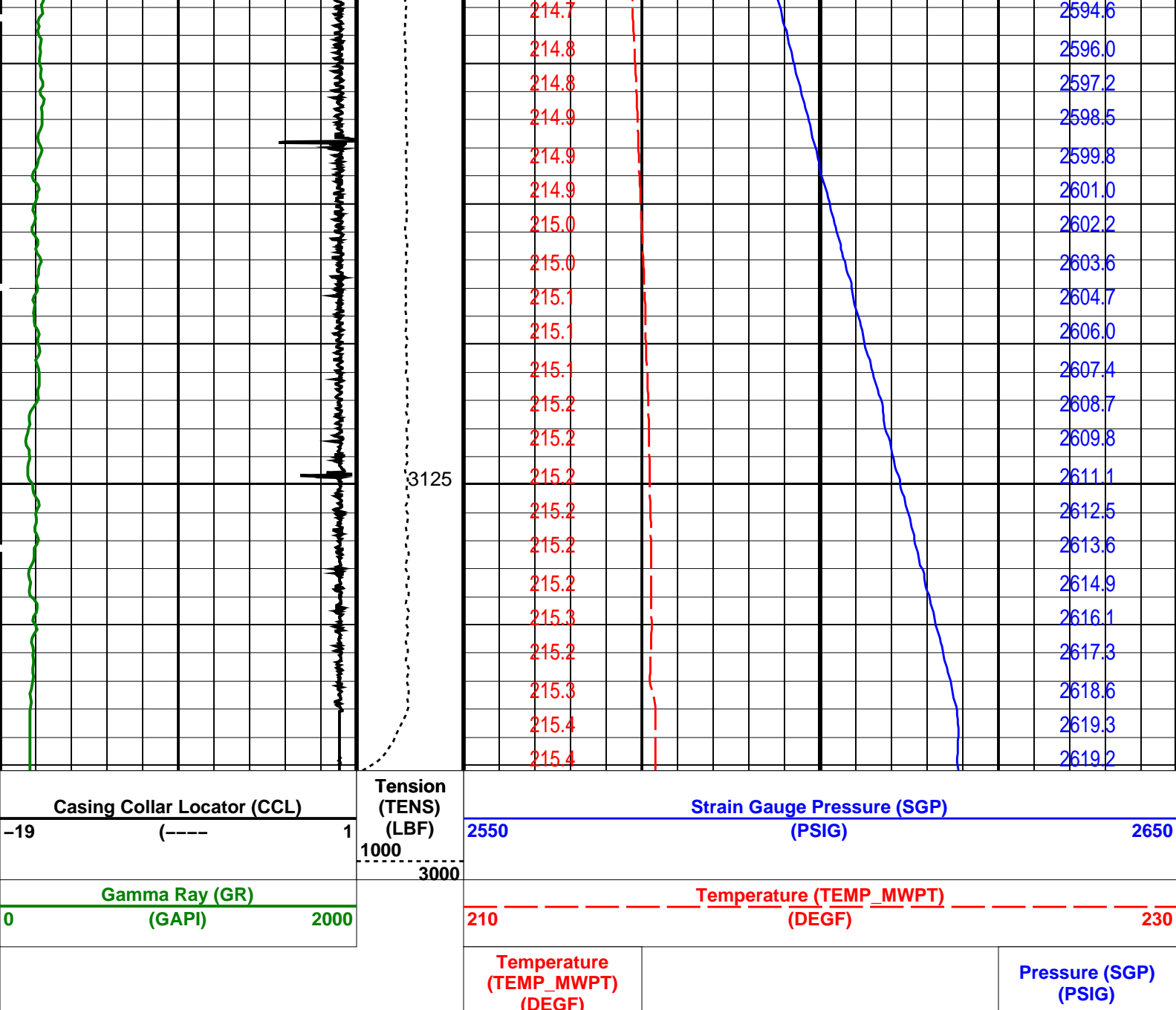
MWP\_GUN 15C0-309  
MWGT-AA 15C0-309

MWPT-DA 15C0-309

### PIP SUMMARY

Time Mark Every 60 S





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
System and Miscellaneous		
DO	Depth Offset for Playback	0.0 M
PP	Playback Processing	NORMAL

Format: MWP Vertical Scale: 1:200 Graphics File Created: 29-Aug-2007 12:03

OP System Version: 15C0-309			
MCM			
MWP_GUN	15C0-309	MWPT-DA	15C0-309
MWGT-AA	15C0-309		

Input DLIS Files					
DEFAULT	PERFO_058LUP	FN:57	PRODUCER	28-Aug-2007 08:36	3135.2 M 3086.6 M

# Output DLIS Files

DEFAULT PERFO\_058PUP FN:53 PRODUCER 29-Aug-2007 12:03

**Schlumberger**

## Station Log Gun 1

MAXIS Field Log

### PERFO2 Operational Summary Listing

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

Gun1 Used 3533.5 3533.5 Tue Aug 26 11:11:57 2007

Company: Esso Australia Pty Ltd.

Well: FLA A25a

### Input DLIS Files

DEFAULT PERFO\_035LTP FN:34 PRODUCER 26-Aug-2007 11:07 3530.7 M 1.1 M

### Output DLIS Files

DEFAULT PERFO\_035PTP FN:55 PRODUCER 29-Aug-2007 12:28 3530.7 M 1.1 M

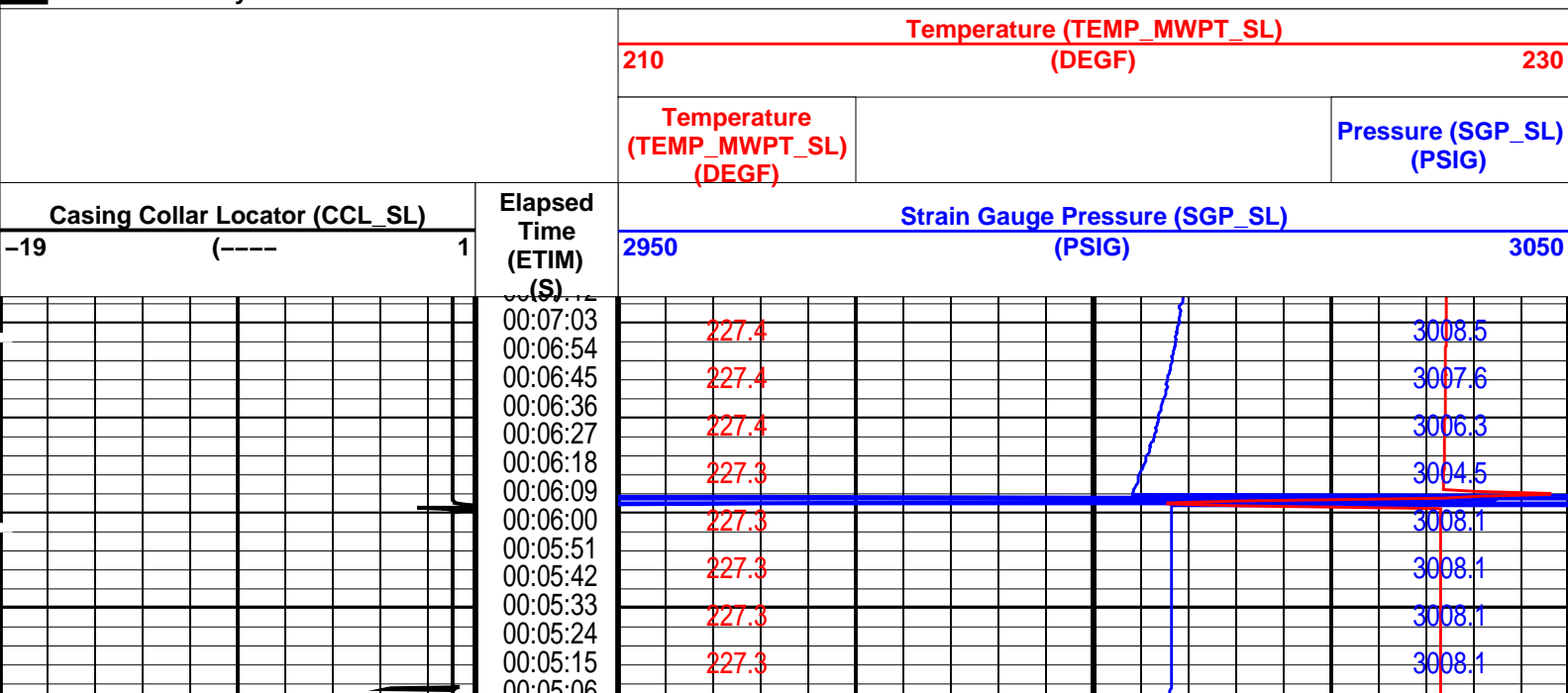
### OP System Version: 15C0-309

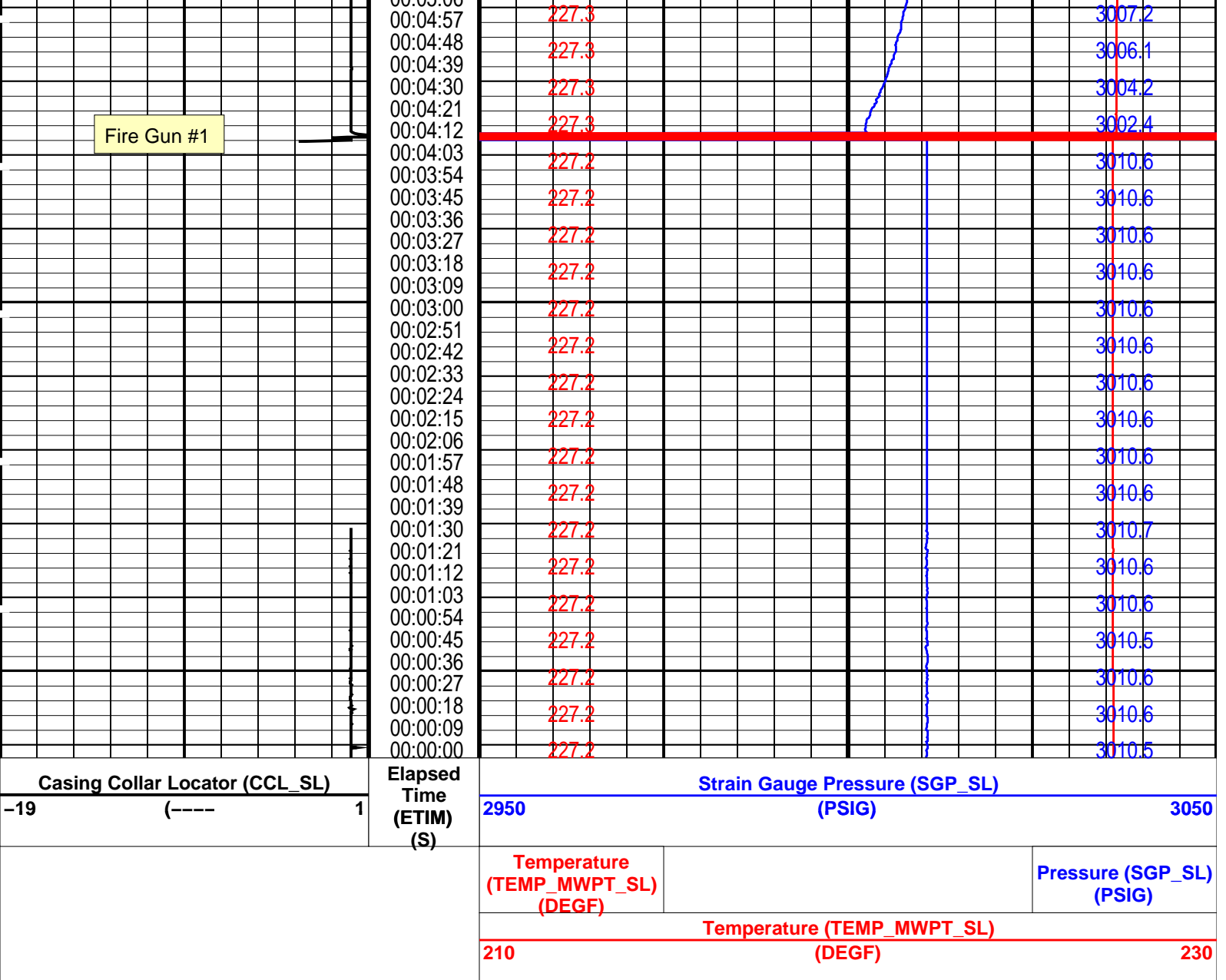
MCM

MWP\_GUN 15C0-309 MWPT-DA 15C0-309  
MWGT-AA 15C0-309

### PIP SUMMARY

Time Mark Every 60 S





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
System and Miscellaneous			
PP		Playback Processing	NORMAL
Format: MWP_SL		Vertical Scale: 1" per 60S	Graphics File Created: 29-Aug-2007 12:28
OP System Version: 15C0-309			
MCM			
MWP_GUN	15C0-309	MWPT-DA	15C0-309
MWGT-AA	15C0-309		

Input DLIS Files						
DEFAULT	PERFO_035LTP	FN:34	PRODUCER	26-Aug-2007 11:07	3530.7 M	1.1 M
Output DLIS Files						
DEFAULT	PERFO_035RTP	FN:55	PRODUCER	29-Aug-2007 12:28		



**Schlumberger**

# Shooting Pass Gun 1

MAXIS Field Log

Company: Esso Australia Pty Ltd.

Well: FLA A25a

## Input DLIS Files

DEFAULT PERFO\_034LUP FN:33 PRODUCER 26-Aug-2007 11:03 3550.9 M 3492.2 M

## Output DLIS Files

DEFAULT PERFO\_034PUP FN:120 PRODUCER 30-Aug-2007 10:50 3550.9 M 3492.7 M

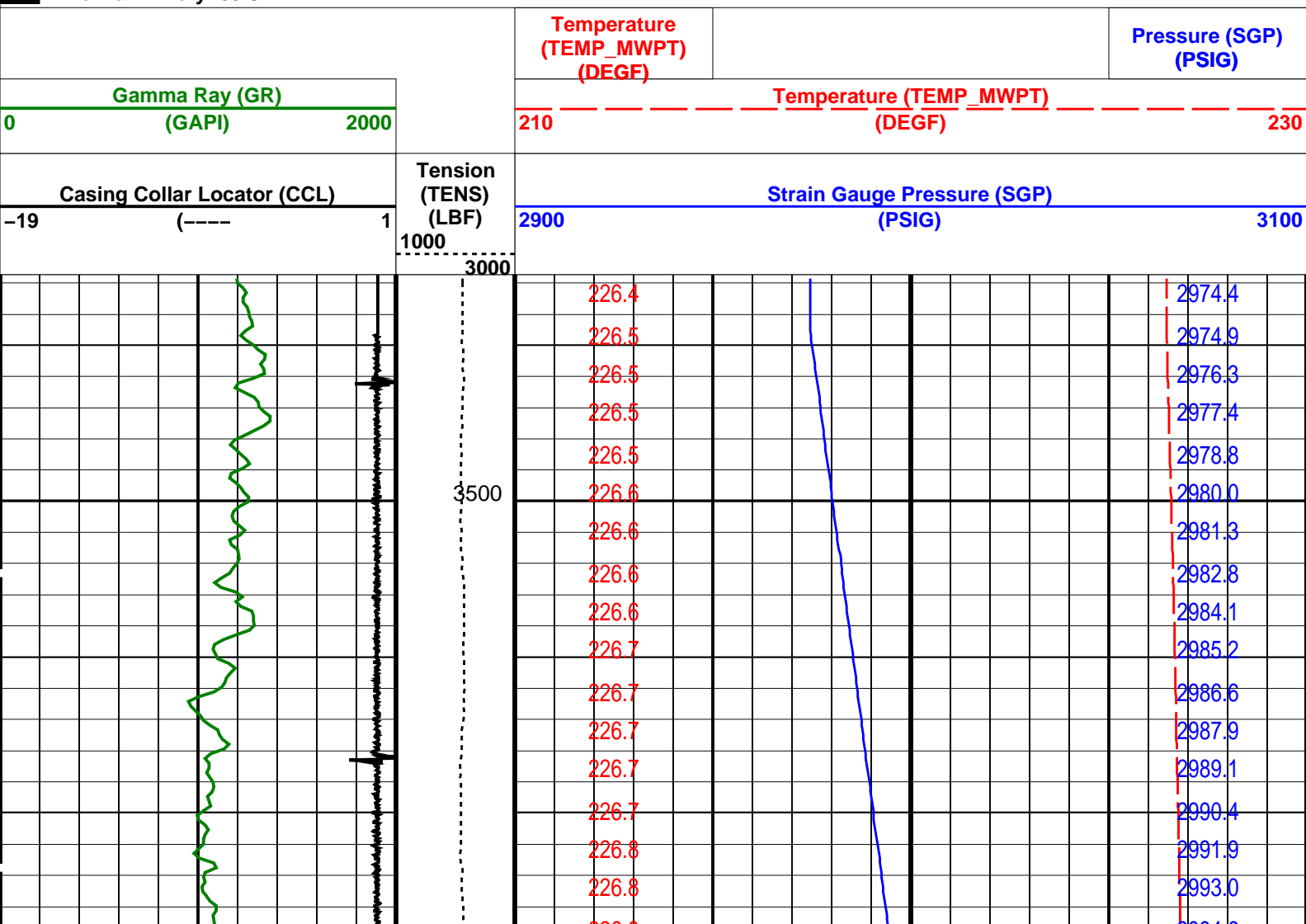
## OP System Version: 15C0-309

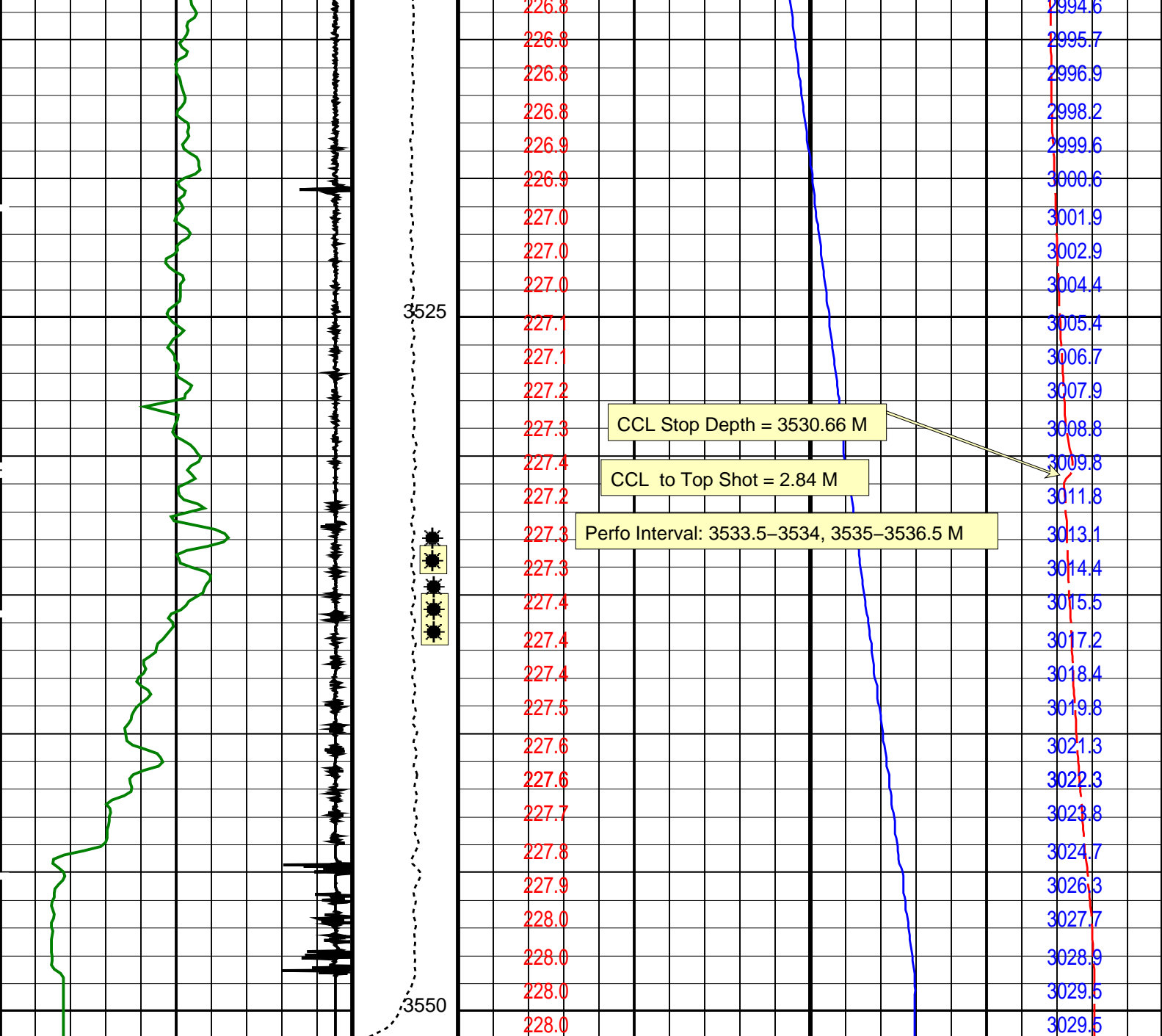
MCM

MWP\_GUN 15C0-309 MWPT-DA 15C0-309  
MWGT-AA 15C0-309

## PIP SUMMARY

Time Mark Every 60 S





Casing Collar Locator (CCL)		Tension (TENS) (LBF)	Strain Gauge Pressure (SGP)	
-19	(----) 1		2900	3100
Gamma Ray (GR)		3000 3000	Temperature (TEMP_MWPT)	
0	(GAPI) 2000		210	230
		Temperature (TEMP_MWPT) (DEGF)		Pressure (SGP) (PSIG)

PIP SUMMARY

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
System and Miscellaneous		
Depth Offset for Blockhead		0.0 M

DO  
PP

Depth Offset for Playback  
Playback Processing

0.0 M  
NORMAL

Format: MWP    Vertical Scale: 1:200    Graphics File Created: 30-Aug-2007 10:50

OP System Version: 15C0-309

MCM

MWP\_GUN    15C0-309    MWPT-DA    15C0-309

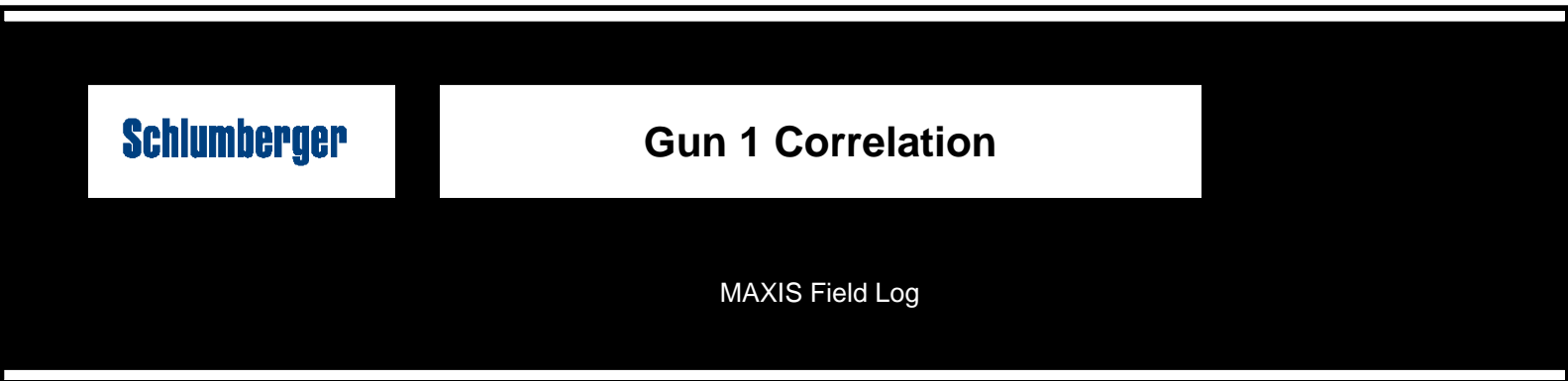
MWGT-AA    15C0-309

Input DLIS Files

DEFAULT    PERFO\_034LUP    FN:33    PRODUCER    26-Aug-2007 11:03    3550.9 M    3492.2 M

Output DLIS Files

DEFAULT    PERFO\_034PUP    FN:120    PRODUCER    30-Aug-2007 10:50



Company: Esso Australia Pty Ltd.    Well: FLA A25a

Input DLIS Files

DEFAULT    PERFO\_033LUP    FN:32    PRODUCER    26-Aug-2007 10:48    3550.6 M    3489.5 M

Output DLIS Files

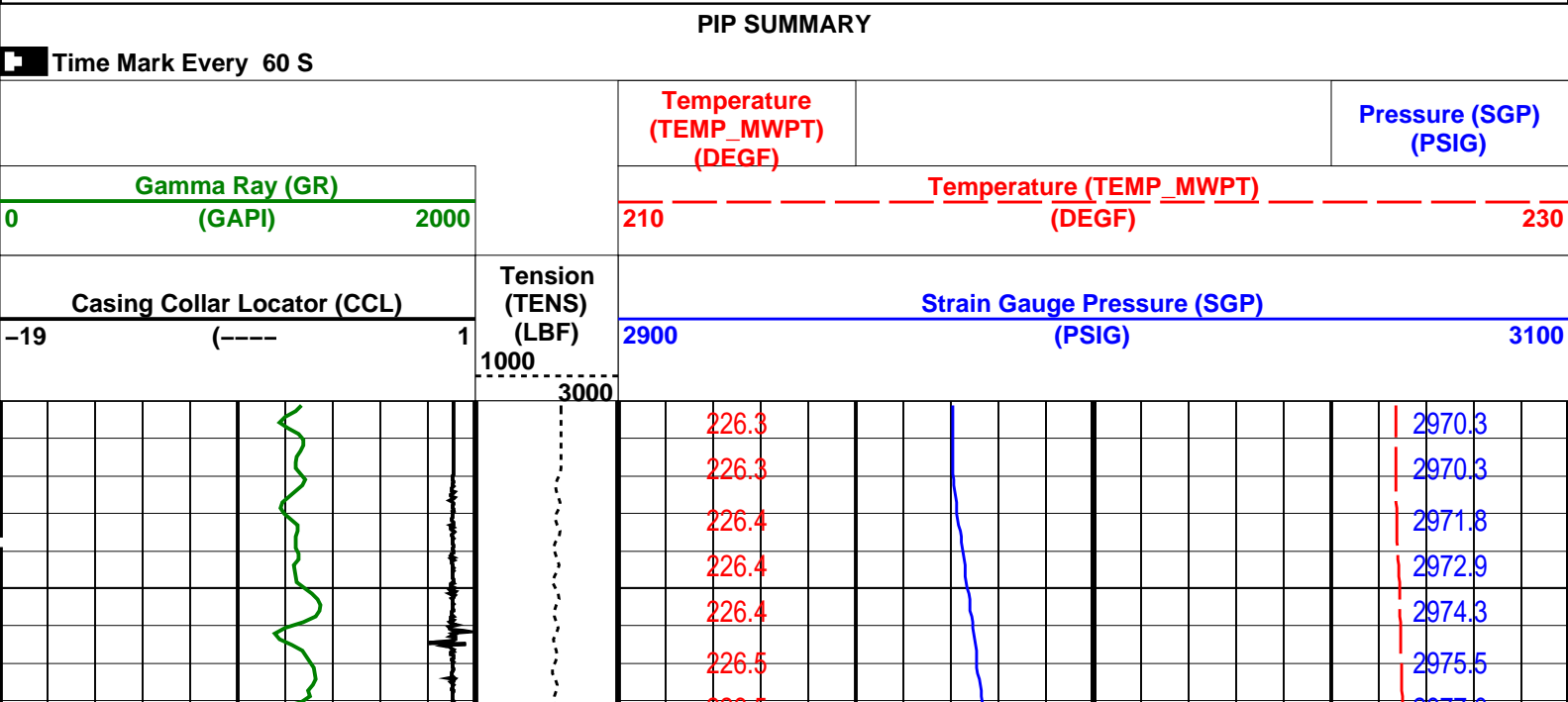
DEFAULT    PERFO\_033PUP    FN:128    PRODUCER    30-Aug-2007 14:25    3550.6 M    3490.0 M

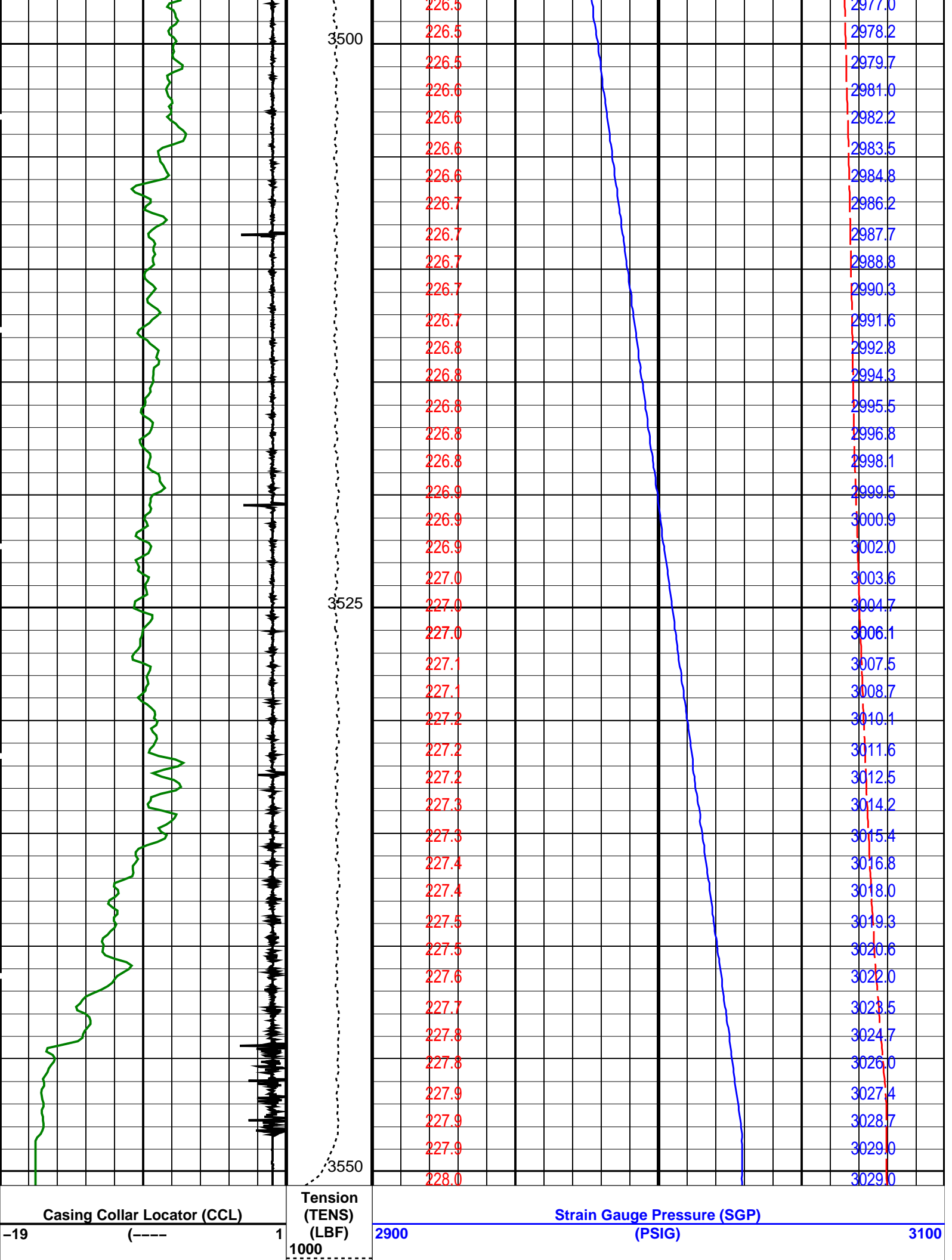
OP System Version: 15C0-309

MCM

MWP\_GUN    15C0-309    MWPT-DA    15C0-309

MWGT-AA    15C0-309





Gamma Ray (GR) (GAPI) 2000		3000	Temperature (TEMP_MWPT) (DEGF) 210 230	
		Temperature (TEMP_MWPT) (DEGF)		Pressure (SGP) (PSIG)

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
System and Miscellaneous			
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	

Format: MWP Vertical Scale: 1:200 Graphics File Created: 30-Aug-2007 14:25

OP System Version: 15C0-309			
MCM			
MWP_GUN	15C0-309	MWPT-DA	15C0-309
MWGT-AA	15C0-309		

Input DLIS Files					
DEFAULT	PERFO_033LUP	FN:32	PRODUCER	26-Aug-2007 10:48	3550.6 M 3489.5 M
Output DLIS Files					
DEFAULT	PERFO_033PUP	FN:128	PRODUCER	30-Aug-2007 14:25	



Gun 1 Correlation to WEG

MAXIS Field Log

Company: Esso Australia Pty Ltd. Well: FLA A25a

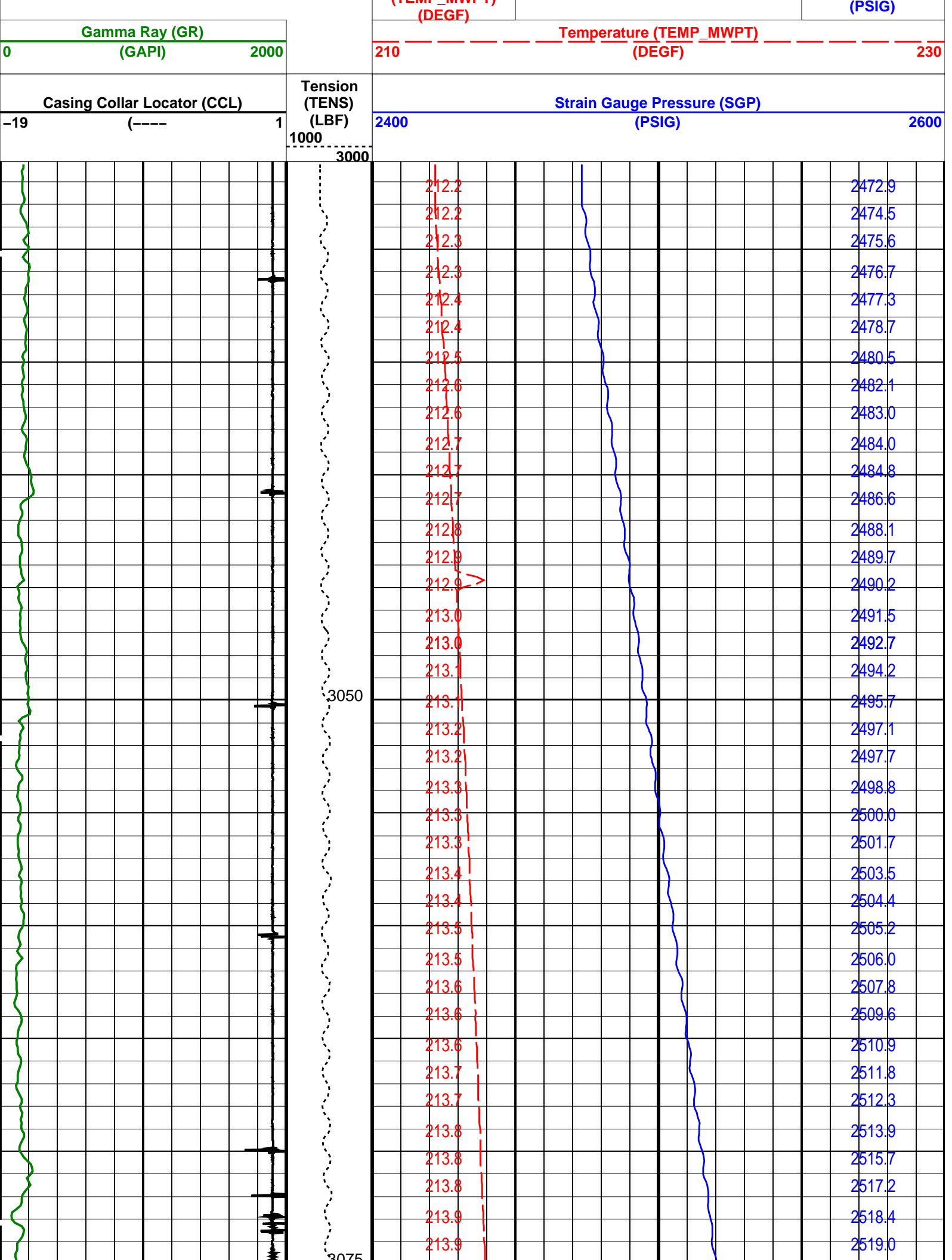
Input DLIS Files					
DEFAULT	PERFO_028LUP	FN:27	PRODUCER	26-Aug-2007 09:59	3135.5 M 3025.6 M
Output DLIS Files					
DEFAULT	PERFO_028PUP	FN:54	PRODUCER	29-Aug-2007 12:15	3135.5 M 3026.1 M

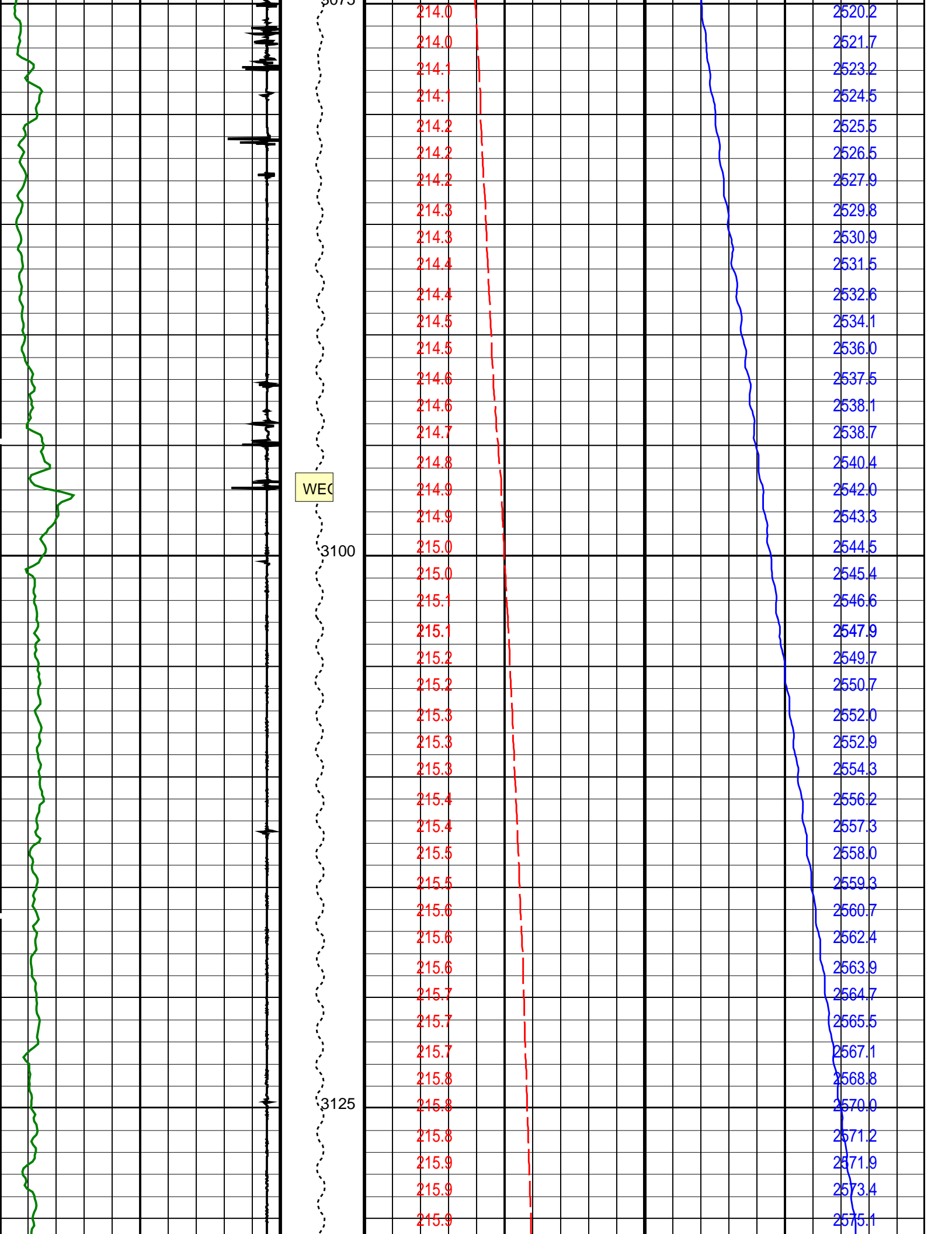
OP System Version: 15C0-309			
MCM			
MWP_GUN	15C0-309	MWPT-DA	15C0-309
MWGT-AA	15C0-309		

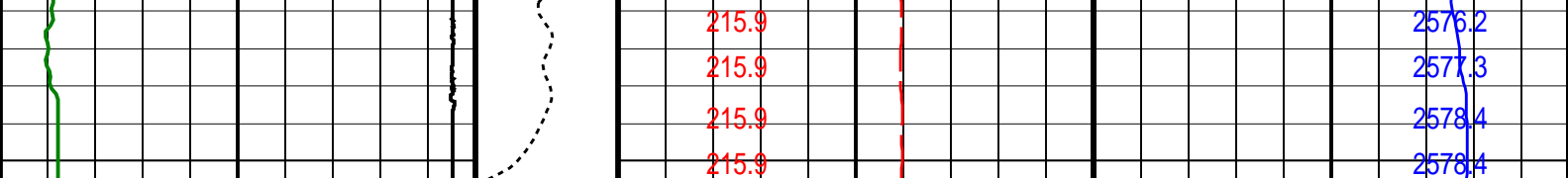
PIP SUMMARY

Time Mark Every 60 S

	Temperature (TEMP_MWPT)		Pressure (SGP)
--	----------------------------	--	----------------







Casing Collar Locator (CCL)		Tension (TENS) (LBF)	Strain Gauge Pressure (SGP)	
---	---		(PSIG)	---
-19	(----	1000	2400	2600
Gamma Ray (GR)		3000	Temperature (TEMP_MWPT)	
0	(GAPI)		210	230
			Temperature (TEMP_MWPT) (DEGF)	Pressure (SGP) (PSIG)

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
System and Miscellaneous			
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	

Format: MWP Vertical Scale: 1:200 Graphics File Created: 29-Aug-2007 12:15

OP System Version: 15C0-309			
MCM			
MWP_GUN	15C0-309	MWPT-DA	15C0-309
MWGT-AA	15C0-309		

Input DLIS Files					
DEFAULT	PERFO_028LUP	FN:27	PRODUCER	26-Aug-2007 09:59	3135.5 M 3025.6 M
Output DLIS Files					
DEFAULT	PERFO_028PUP	FN:54	PRODUCER	29-Aug-2007 12:15	



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: 27-Aug-2007 17:50							
Gamma Ray (Signal) Background	30.00	N/A	3.162	N/A	N/A	N/A	GAPI



Gamma Ray (Jig – Background)	151.0	N/A	151.0	N/A	N/A	13.73	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

19

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)	GAPI	Value
Before				3.162	Before			151.0	Before			165.0
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)			137.3 (Minimum)	151.0 (Nominal)	164.7 (Maximum)		150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)

Before: 27–Aug–2007 17:50

Company: **Esso Australia Pty Ltd.**

**Schlumberger**

Well: **FLA A25a**

Field: **Flounder**

Rig: **Prod 3 / Flounder**

Country: **Australia**

2–1/8" Phased Powerjet  
Perforating Record  
26–Aug–2007