



Company: Esso Australia Ltd.

Well: FLA A-21a
Field: Flounder
Rig: Crane/Prod 4

Country: Australia

**2 1/8" Enerjet Gun
 MWPT
 Perforating Record**

Rig: Crane/Prod 4
Field: Flounder
Location: Gippsland Basin
Well: FLA A-21a
Company: Esso Australia Ltd.

LOCATION	
Gippsland Basin Bass Strait	Elev.: K.B. 40.8 m G.L. -93 m D.F. 40.8 m
Permanent Datum: _____	Mean Sea Level _____
Log Measured From: _____	Kelly Bushing _____
Drilling Measured From: _____	Kelly Bushing _____
State: Victoria	Max. Well Deviation 60 deg
	Elev.: 0.0 m -40.8 m above Perm. Datum
	Longitude 148° 26' 17.304"S
	Latitude 038° 18' 44.786"E

Logging Date	15-Dec-2005
Run Number	1
Depth Driller	3880 m
Schlumberger Depth	3340.8 m
Bottom Log Interval	3340.8 m
Top Log Interval	3302.4 m
Casing Fluid Type	Production Fluids
Salinity	
Density	
Fluid Level	
BIT/CASING/TUBING STRING	
Bit Size	
From	
To	
Casing/Tubing Size	7.625 in
Weight	29.7 lbm/ft
Grade	L-80
From	20.43 m
To	3826 m
Maximum Recorded Temperatures	107 degC
Logger On Bottom	15-Dec-2005
Unit Number	1
Location	VEA
Time	10:45
Recorded By	Paul Tarrant & Owen Darby
Witnessed By	Barrie White

PVT DATA

Oil Density	Run 1	Run 2	Run 3
Water Salinity			
Gas Gravity			
Bo			
Bw			
1/Bq			
Bubble Point Pressure			
Bubble Point Temperature			
Solution GOR			
Maximum Deviation	60 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	
Location	
Time	
Recorded By	
Witnessed By	

DEPTH SUMMARY LISTING

Date Created: 15-Dec-2005 10:08:00

Depth System Equipment

Depth Measuring Device	Tension Device	Logging Cable
Type: IDW-H Serial Number: 797 Calibration Date: 01-May-2005 Calibrator Serial Number: 1009 Calibration Cable Type: 2-32ZT Wheel Correction 1: -3 Wheel Correction 2: 2	Type: CMTD-C Serial Number: 1037 Calibration Date: 22 Sep 05 Calibrator Serial Number: 57144 Calibration Gain: 1.29 Calibration Offset: 777.00	Type: 2-32ZT Serial Number: 22372 Length: 4799.99 M Conveyance Method: Wireline Rig Type: Offshore_Fixed

Depth Control Parameters

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	MWPT Perforation Log
Reference Log Run Number:	1
Reference Log Date:	21 Nov 2005

Depth Control Remarks

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

DISCLAIMER

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OTHER SERVICES1

OS1: MPBT
OS2: DB-TT
OS3:
OS4:
OS5:

REMARKS: RUN NUMBER 1

Log correlated to MWPT Perforation Record, Run 1, dated 21-Nov-2005 provided by client.

Objective:

To perforate well at 3335.0m to 3336.0m MDKB using 2 1/8" Enerjet Gun loaded with PowerSpiral charges.

Before perforating, obtain static FBHP and FBHT. After perforating, flow well for 15min to obtain FBHP, FBHT and also for well clean up.

Static FBHP: 330Cpsi; FBHT: 310 decF

Static: FBHP= 3300psi, FBHT= 219 degF

Flowing: FBHP= 3241psi, FBHT= 224 degF

API data: PowerSpiral Charges, UN 0441

Penetration: 27.3"

Entrance Hole: 0.25"

Specialists: Paul Tarrant & Owen Darby

Operators: Eddy Mezenberg & Jakob Annear

RUN 1			RUN 2		
PROGRAM VERSION:		AUSL05148526	PROGRAM VERSION:		
FLUID LEVEL:		13C0-300	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1 RUN 2

SURFACE EQUIPMENT
 MWPM-AA 3008

DOWNHOLE EQUIPMENT

AH-SWBS AH-SWBS 731		11.04
	-	
AH-SWBS AH-SWBS 761		10.35
	-	
AH-SWBS AH-SWBS 762		9.65
	-	
AH-SWBS AH-SWBS 763		8.95
	-	
MH-SWHS MH-SWHS 726		8.25
	-	
MWGT-AA MWGH-AA 19		7.95
	-	
		2.41
	-	
MWPT-CA MWPH-AA 74 MWPS-AA 74		6.97
	-	
		TOOL ZERO
	-	
		1.15

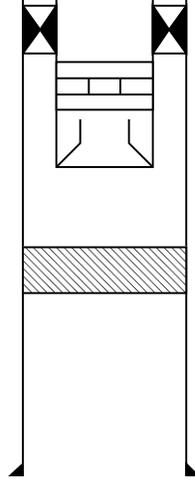
MWPG GR

CCL
SMWP Pres
SMWP Temp
Tension

TOOL ZERO

Packer
Nipple
Bell Nipple Guide

7.625	4.500	3289.0
4.500		3304.8
4.500		3306.9



3348.0

PBTD

3826.3

7.625

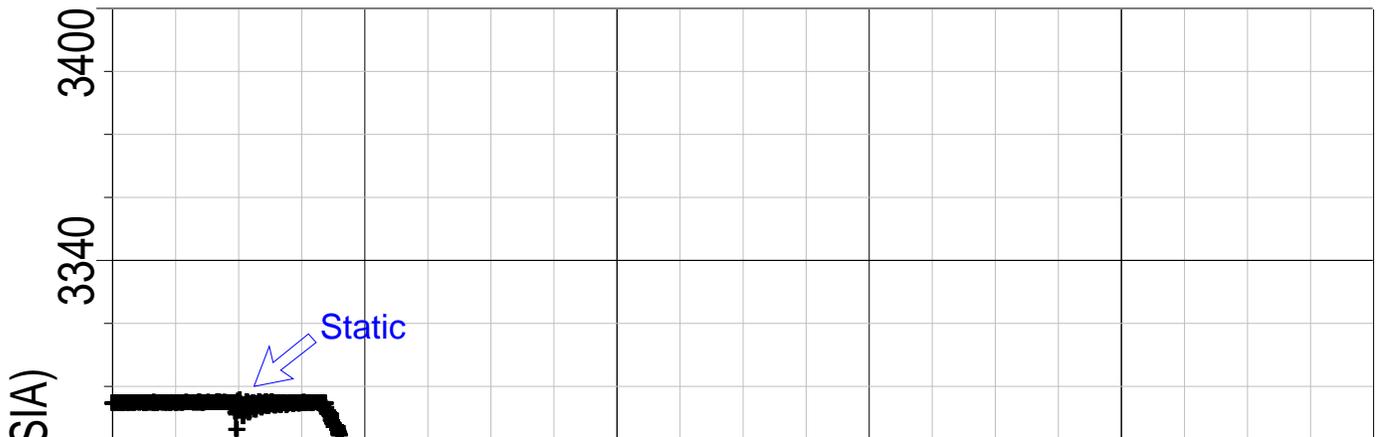
Casing Shoe

Schlumberger

MWPT 2 1/8" Enerjet Gun
Station Log

MAXIS Field Log

Index: 19984.7 – 26616.7 M





2612 Points Plotted

15-DEC-2005 14:32

Output DLIS Files

DEFAULT PERFO_021LTP FN:20 PRODUCER 15-Dec-2005 11:13 3330.4 M 3.3 M

OP System Version: 13C0-300

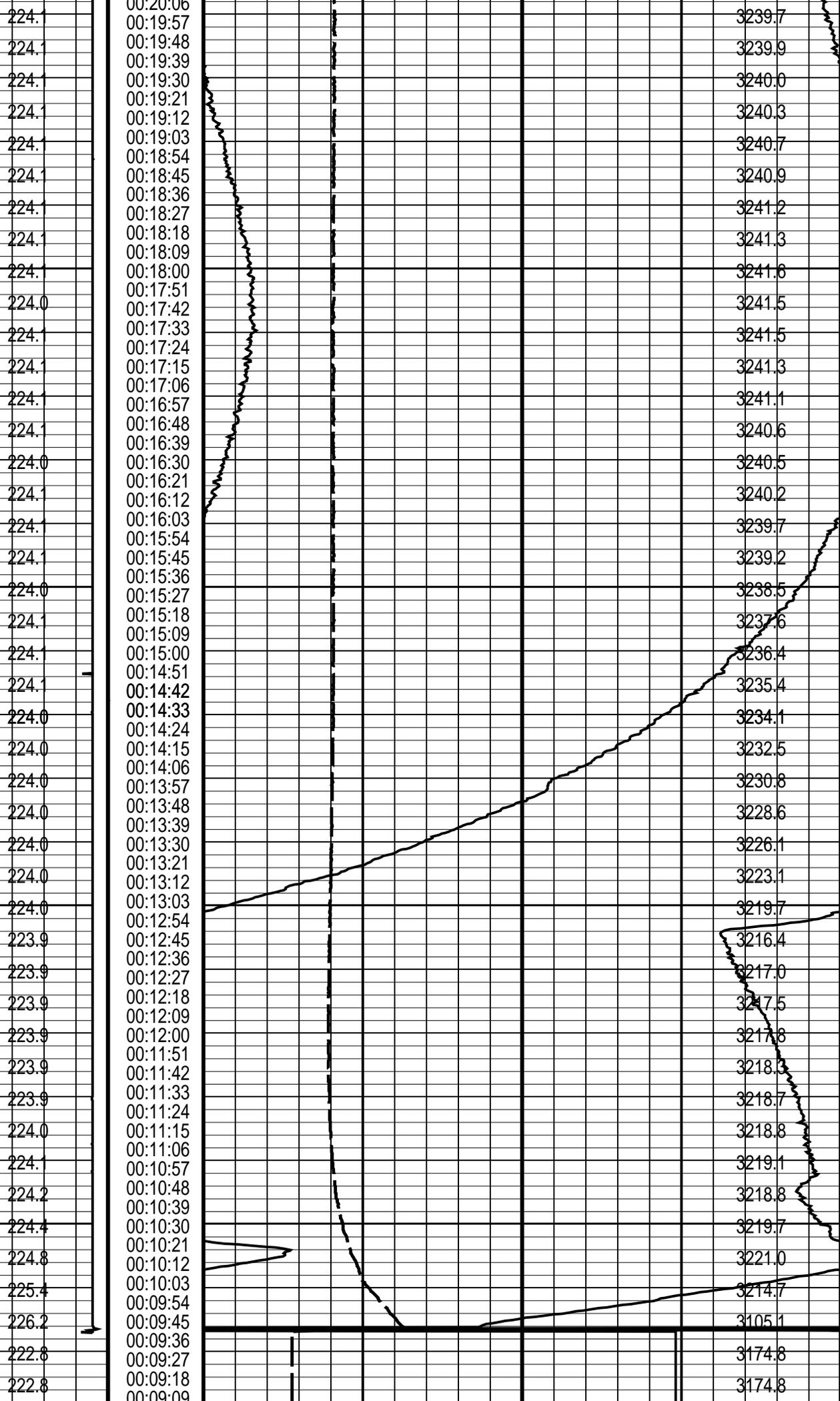
MCM

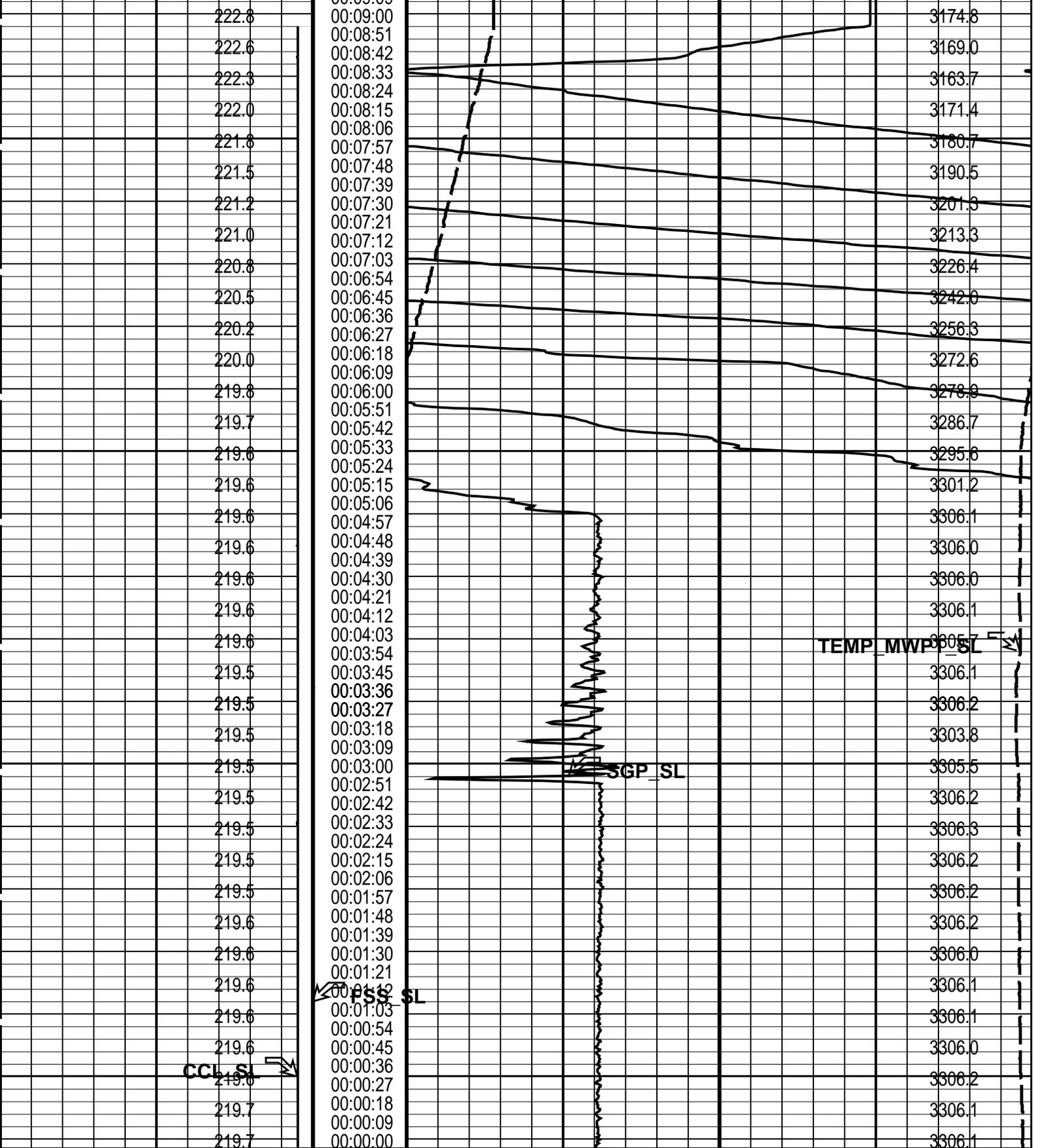
MWP_GUN SRC-2820-ASFS-WPP_1 MWPT-CA SRC-2820-ASFS-WPP_1
 MWGT-AA SRC-2820-ASFS-WPP_1

PIP SUMMARY

Time Mark Every 60 S

CCL		Temperature (TEMP_MWPT_SL) (DEGF)	Pressure (SGPA_SL) (PSIA)
From CCL to T1		Temperature (TEMP_MWPT_SL) (DEGF)	
Casing Collar Locator (CCL_SL)		Strain Gauge Pressure (SGP_SL) (PSIA)	
-19 (----) 1		Elapsed Time (ETIM) (S)	
		00:21:45	3258.0
		00:21:36	3249.1
		00:21:27	3237.7
		00:21:18	3238.9
		00:21:09	3238.5
		00:21:00	3239.1
		00:20:51	3239.4
		00:20:42	
		00:20:33	
		00:20:24	
		00:20:15	
		00:20:06	





<p>Casing Collar Locator (CCL_SL)</p> <p>-19 (----) 1</p>	<p>Elapsed Time (ETIM) (S)</p> <p>0 1024</p>	<p>Strain Gauge Pressure (SGP_SL) (PSIA)</p> <p>0 20</p>
<p>CCL From CCL to T1</p>	<p>Firing Sequence State (FSS_SL) (----)</p> <p>0 1024</p>	<p>Temperature (TEMP_MWPT_SL) (DEGF)</p> <p>0 20</p>

Temperature Pressure (SGPA_

(TEMP_MWPT_SL)
(DEGF)

SL)
(PSIA)

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
MWPT-CA	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: 15-Dec-2005 11:13

OP System Version: 13C0-300
MCM

MWP_GUN	SRC-2820-ASFS-WPP_1	MWPT-CA	SRC-2820-ASFS-WPP_1
MWGT-AA	SRC-2820-ASFS-WPP_1		

Output DLIS Files

DEFAULT	PERFO_021LTP	FN:20	PRODUCER	15-Dec-2005 11:13
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MWPT 2 1/8" Enerjet Gun
Shooting Pass

MAXIS Field Log

Output DLIS Files

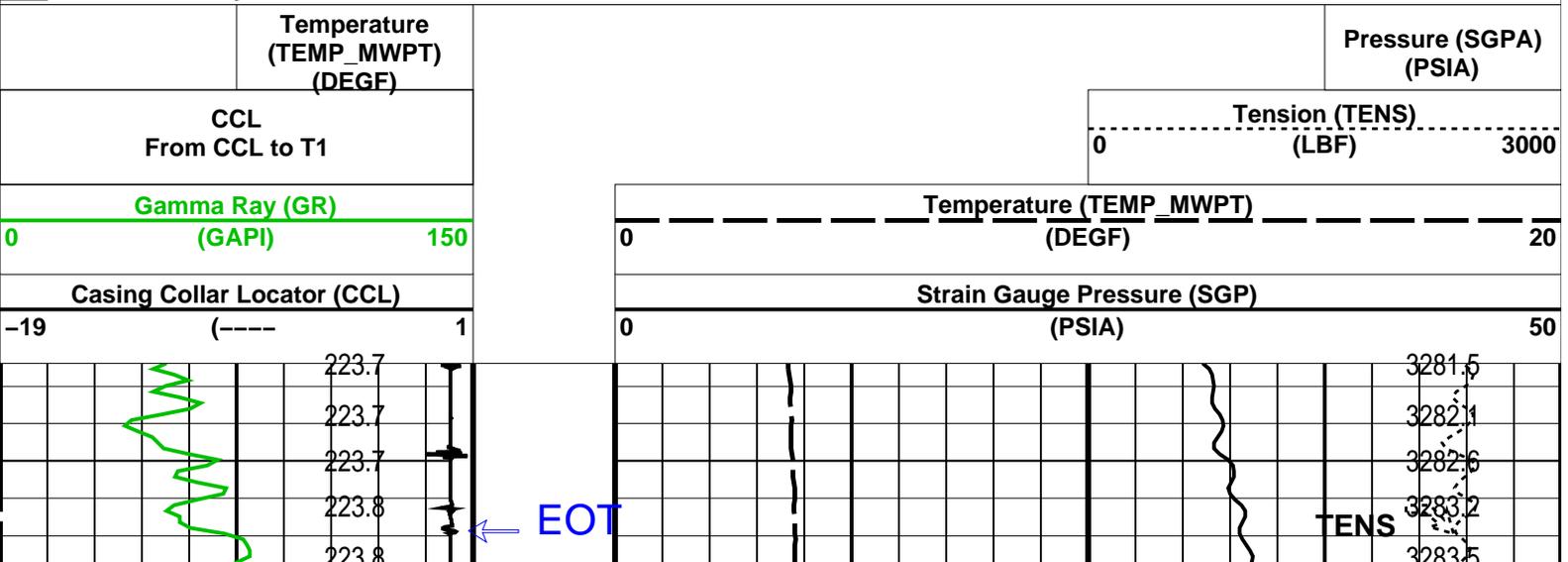
DEFAULT	PERFO_020LUP	FN:19	PRODUCER	15-Dec-2005 11:12	3340.8 M	3302.4 M
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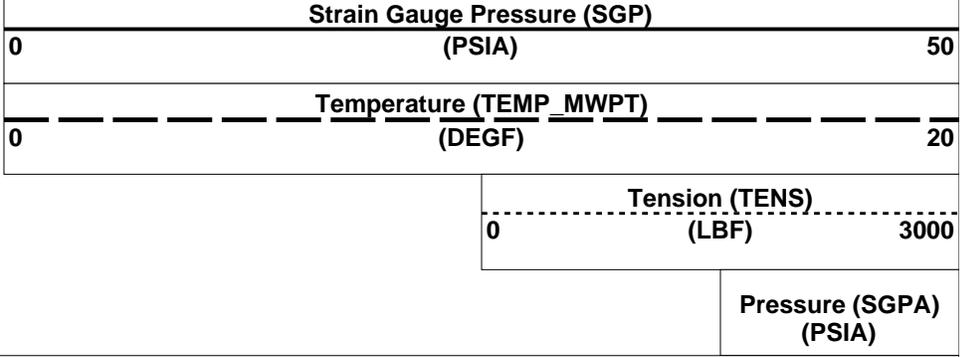
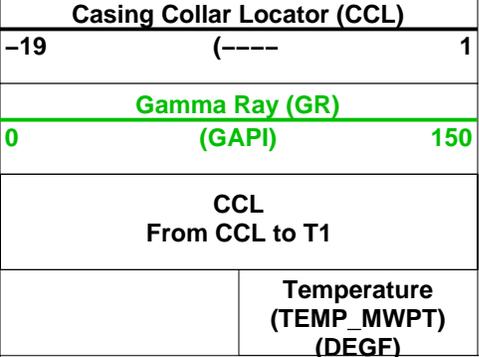
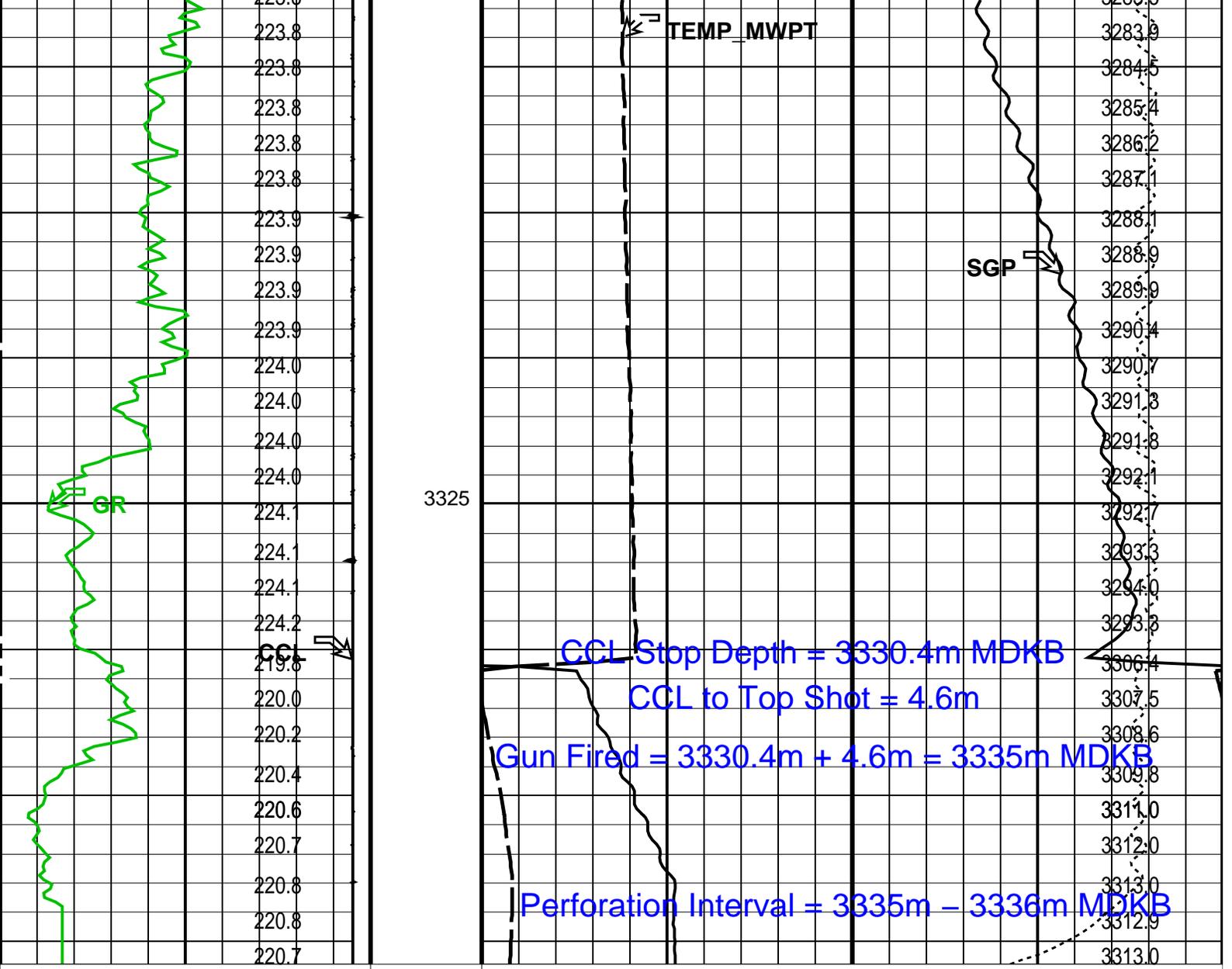
OP System Version: 13C0-300
MCM

MWP_GUN	SRC-2820-ASFS-WPP_1	MWPT-CA	SRC-2820-ASFS-WPP_1
MWGT-AA	SRC-2820-ASFS-WPP_1		

PIP SUMMARY

Time Mark Every 60 S





Time Mark Every 60 S

Parameters		Value
DLIS Name	Description	
MWPT-CA: 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: 15-Dec-2005 11:12

Output DLIS Files

DEFAULT PERFO_020LUP FN:19 PRODUCER 15-Dec-2005 11:12



MWPT 2 1/8" Enerjet Gun
Correlation Pass

MAXIS Field Log

Output DLIS Files

DEFAULT PERFO_019LUP FN:18 PRODUCER 15-Dec-2005 11:07

OP System Version: 13C0-300

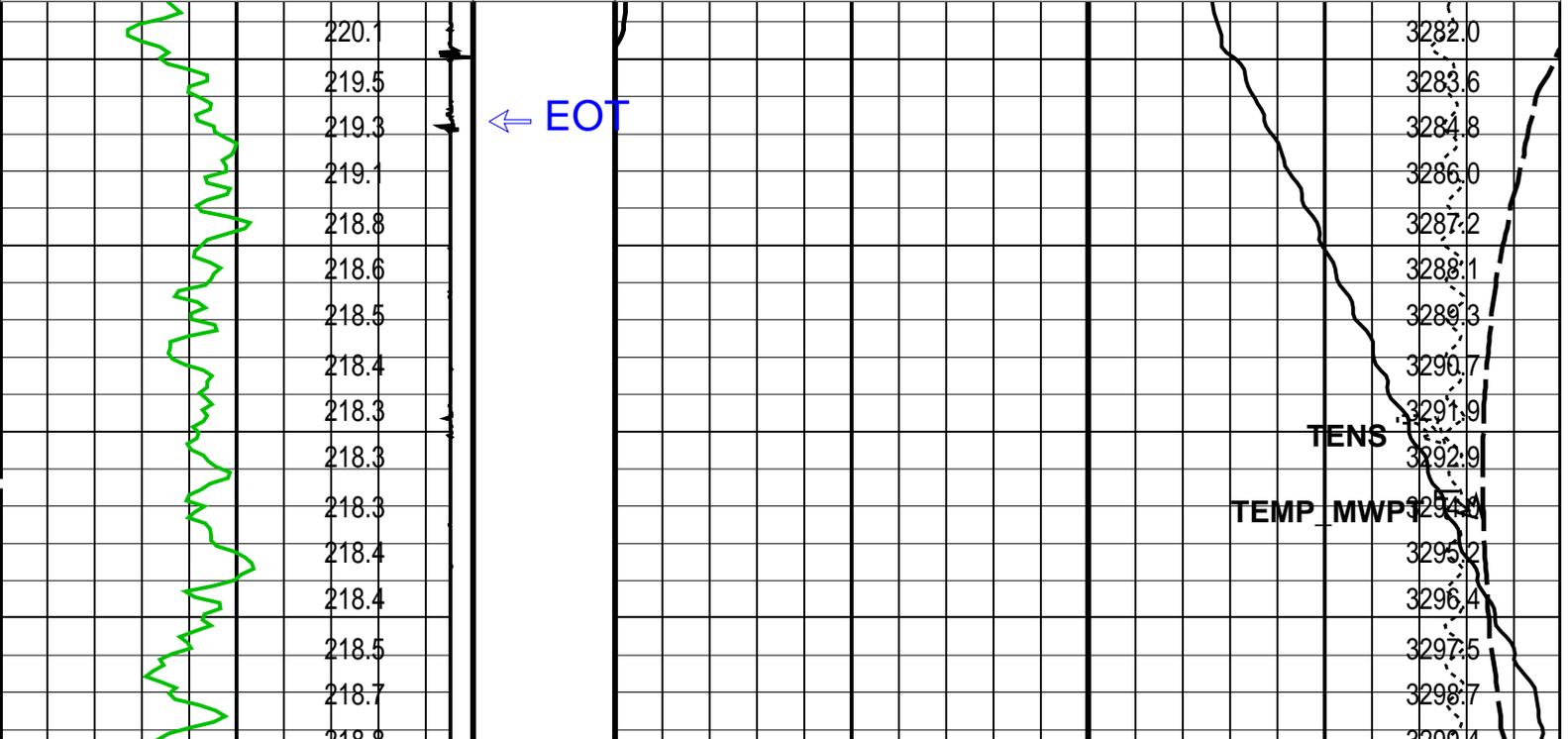
MCM

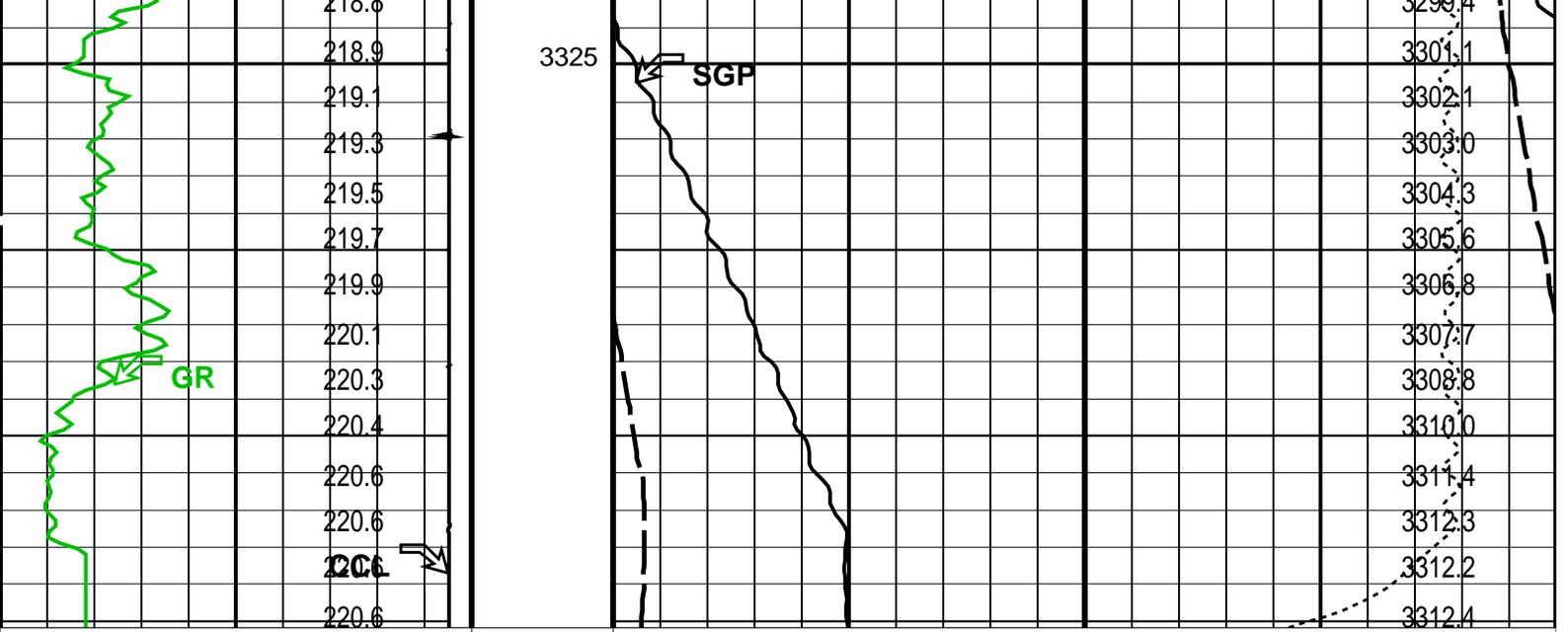
MWP_GUN SRC-2820-ASFS-WPP_k MWPT-CA SRC-2820-ASFS-WPP_k
MWGT-AA SRC-2820-ASFS-WPP_k

PIP SUMMARY

Time Mark Every 60 S

Temperature (TEMP_MWPT) (DEGF)		Pressure (SGPA) (PSIA)	
CCL From CCL to T1		Tension (TENS) (LBF)	
0 150		0 3000	
Gamma Ray (GR) (GAPI)		Temperature (TEMP_MWPT) (DEGF)	
0 150		0 20	
Casing Collar Locator (CCL) (-19) (----) 1		Strain Gauge Pressure (SGP) (PSIA)	
		0 50	





Casing Collar Locator (CCL)		Strain Gauge Pressure (SGP)	
-19	(----) 1	0	50 (PSIA)
Gamma Ray (GR)		Temperature (TEMP_MWPT)	
0	(GAPI) 150	0	20 (DEGF)
CCL From CCL to T1		Tension (TENS)	
Temperature (TEMP_MWPT) (DEGF)		0	3000 (LBF)
		Pressure (SGPA) (PSIA)	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
MWPT-CA: 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: 15-Dec-2005 11:07

OP System Version: 13C0-300

MCM

MWP_GUN SRC-2820-ASFS-WPP_1 MWPT-CA SRC-2820-ASFS-WPP_1
 MWGT-AA SRC-2820-ASFS-WPP_1

Output DLIS Files

DEFAULT PERFO_019LUP FN:18 PRODUCER 15-Dec-2005 11:07

Company: Esso Australia Ltd.



Well: FLA A-21a
 Field: Flounder
 Rig: Crane/Prod 4
 Country: Australia

2 1/8" Enerjet Gun
 MWPT

Perforating Record