

Company: Esso Australia Pty. Ltd.

Well: BMA A7

Field: Bream

Rig: Prod 2 / ISS Rig 22 **Country:** Australia

2 1/8" Phased Powerjet Perforation Record HPI Plug Setting Record

Rig: Prod 2 / ISS Rig 22
Field: Bream
Location: Bass Strait
Well: BMA A7
Company: Esso Australia Pty. Ltd.

LOCATION	
Bass Strait	Elev.: K.B. 33.5 m
Gippsland	G.L. -59 m
Basin	D.F. 33.2 m
Permanent Datum: _____	Elev.: 33.2 m _____
Log Measured From: _____	-33.2 m above Perm. Datum
Drilling Measured From: _____	
State: Victoria	Max. Well Deviation 59 deg
	Longitude 147° 46' 15.7"E
	Latitude 38° 30' 2.5"S

Logging Date	4-Feb-2007	
Run Number	1	
Depth Driller	2977 m	
Schlumberger Depth	2917 m Tagged	
Bottom Log Interval	2893 m	
Top Log Interval	2890 m	
Casing Fluid Type	Production Fluids	
Salinity		
Density		
Fluid Level		
BIT/CASING/TUBING STRING		
Bit Size	9.875 in	
From	1109 m	
To	2976 m	
Casing/Tubing Size	7.000 in	
Weight	29 lbm/ft	
Grade	N-80	
From	27 m	
To	2977 m	
Maximum Recorded Temperatures	208 degF	
Logger On Bottom	5-Feb-2007	6:30
Unit Number	3827	AUSL
Recorded By	C.Rowand, O.Darby, B.Donahoe	
Witnessed By	Mr.B. Woodward / Mr.M. Wilson	

PVT DATA

	Run 1	Run 2	Run 3
Oil Density			
Water Salinity			
Gas Gravity			
Bo			
Bw			
1/Bg			
Bubble Point Pressure			
Bubble Point Temperature			
Solution GOR			
Maximum Deviation	59 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: 4-FEB-2007 0:04:02

Depth System Equipment

Depth Measuring Device	Tension Device	Logging Cable
Type: IDW-E	Type: CMTD-B/A	Type: 2-32ZT
Serial Number: 727	Serial Number: 1711	Serial Number: 24031
Calibration Date: 23-Mar-2006	Calibration Date: 01-Dec-2006	Length: 5650.08 M
Calibrator Serial Number: 9	Calibrator Serial Number: 1173	Conveyance Method: Wireline
Calibration Cable Type: 2-32ZT	Calibration Gain: 1.01	Rig Type: Offshore_Fixed
Wheel Correction 1: -1	Calibration Offset: 695.00	
Wheel Correction 2: -2		

Depth Control Parameters

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

Depth Control Remarks

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.

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	OTHER SERVICES2
OS1: RST	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2

Correlated to Esso Solar Composite Log provided by client.

Objective:

RIH with dummy plug toolstring incorporating GR/CCL to 2896m MDKB to ensure access through minimum restrictions for HPI plug. Correlate on depth using solar composite log, POOH.

RIH with CCL toolstring and HPI plug, correlate to log made during dummy run

RIH with CCL toolstring and HPI plug, correlate to log make during dummy run, set plug with top sealing element at 2896m MDKB.

RIH with 2 1/8" Powerjet 6 spf, 45 +/- deg phased gun with MWPT, Correlate depth to Solar Composite Log. Locate guns at perforation depth and attempt to create a 300 psi underbalance. Perforate then measure static bottom hole pressure and temperature. Flow the well for 15 mins after perforating for clean up and record FBHP (=3021.6psi) / FBHT (=204.4 degf), shut in well and POOH.

Schlumberger Crew:

Days: Brendan Glover (Crew chief), Max Hancock

Nights: David Stuckey (Crew chief), Simon Kiss

RUN 1			RUN 2		
SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:			SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1		RUN 2	
SURFACE EQUIPMENT		SURFACE EQUIPMENT	
WITM (SHM)		WITM (SHM)	

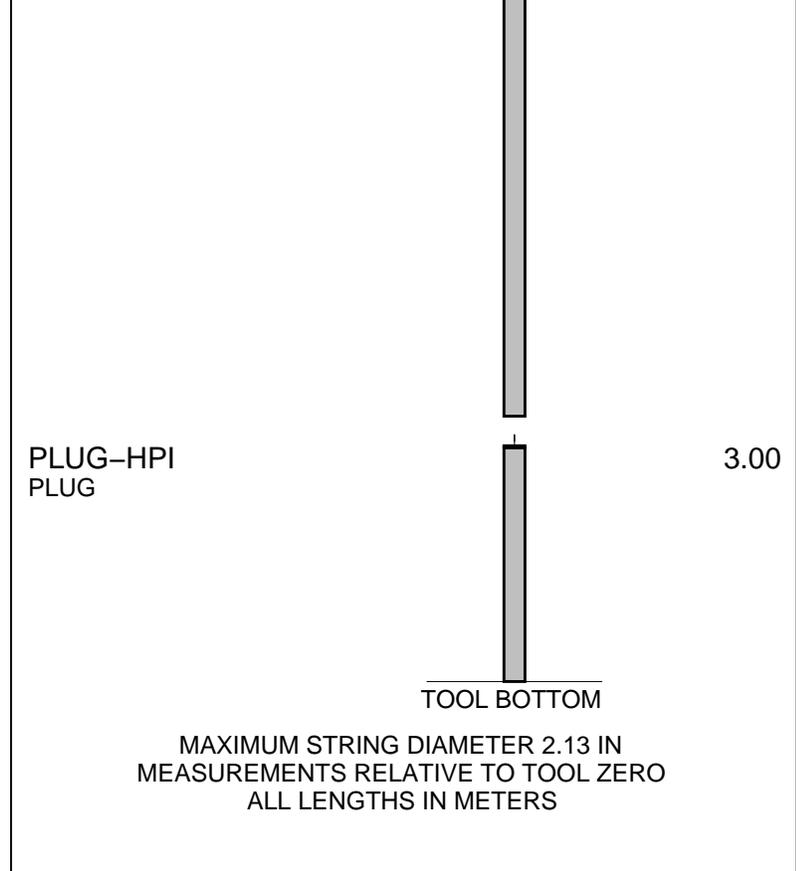
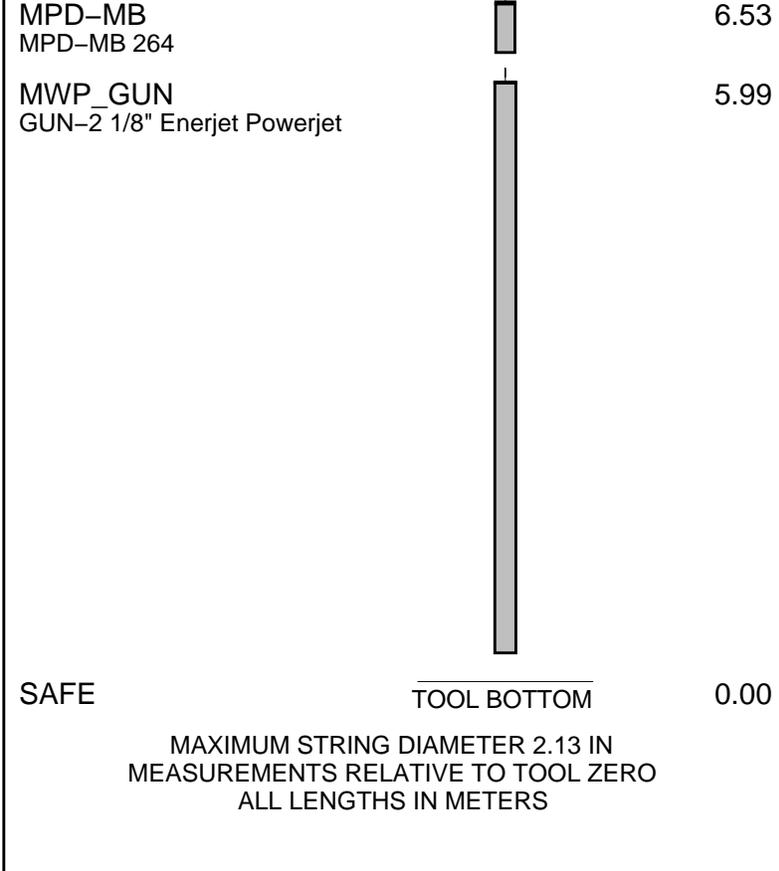
RUN 1		RUN 2	
DOWNHOLE EQUIPMENT		DOWNHOLE EQUIPMENT	
MH-SWHS MH-SWHS 759	15.53	MH-SWHS MH-SWHS 759	20.19
AH-SAH-G AH-SAH-G 1220	15.16	EQF-43 EQF-43 201	19.71
EQF-43 EQF-43 201	14.76		
		EQF-43 EQF-43 281	17.88
EQF-43 EQF-43 281	12.93		
		PGGT-CC PGGC PGGH-A	16.05
AH-124	11.10		
MWGT-BA MWPG-AA MWGH-BA 124	10.87	AH-Positive Blocker	14.10
	2.41	AH-HPI Setting Tool AH-HPI Setting Tool	13.79
MWPT-CA MWPH-AA 94 MWPS-AA	9.89		
	TOOL ZERO		
AH-FLEX JOINT AH-FLEX JOINT	7.07		

MWPG GR

CCL
SMWP Pres
SMWP Temp
Tension

Gamma Ray
Casing Co
Tension

0.48
TOOL ZERO

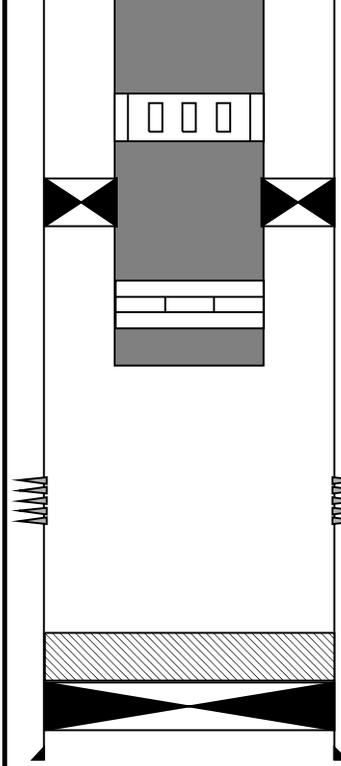


Client: Esso Australia Pty Ltd
 Well: BMA A7
 Field: Bream
 State: Victoria
 Country: Australia

Rig Name: ISS Rig 22
 Reference Datum: Mean Sea Level
 Elevation: 33.5 m

Production String	(in)		(m)	Well Schematic	(m)	(in)		Casing String
	OD	ID	MD		MD	OD	ID	
Tubing Hanger Tubing, 13.7 kg/m	7.000 3.500	3.500 2.992	3.7			7.000	5.920	Casing String, 56.7 kg/m
SSSV	3.500	2.750	136.9					
Side Pocket Mandrel	3.500	2.875	227.1					
Nipple	3.500	2.750	231.3					
Side Pocket Mandrel	3.500	2.875	587.0					
Nipple	3.500	2.750	591.3					
Side Pocket Mandrel	3.500	2.875	615.4					
Nipple	3.500	2.750	619.7					

Sliding Sleeve	3.500	2.750	848.3
Packer	7.000	3.500	852.2
Nipple	3.500	2.329	854.0
Tubing Bottom	3.500	2.992	854.4



883.8		
884.2		
888.8		
907.1	7.000	5.920

Perforation Zone
Perforation Zone Bottom

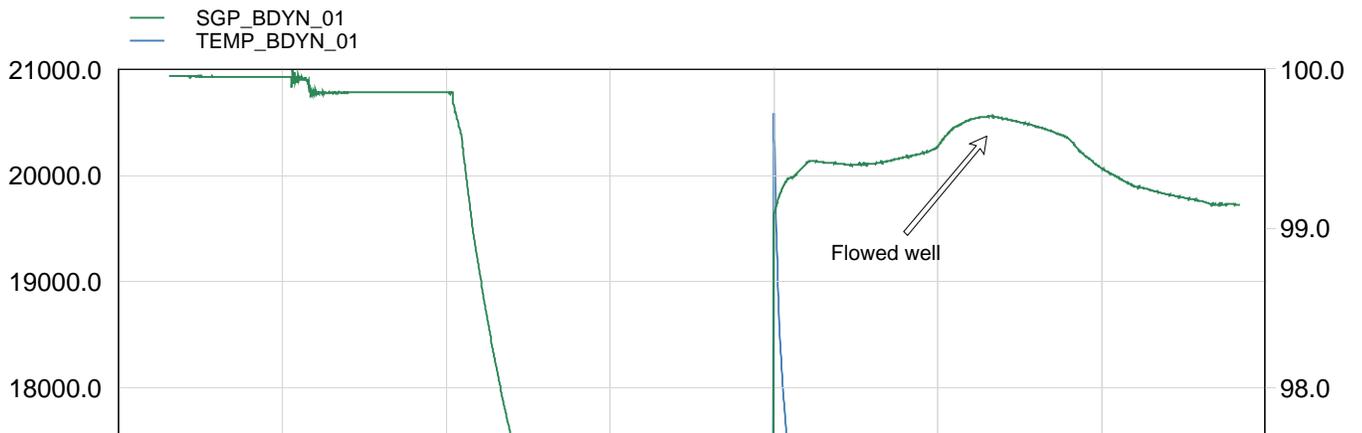
Top of Cement

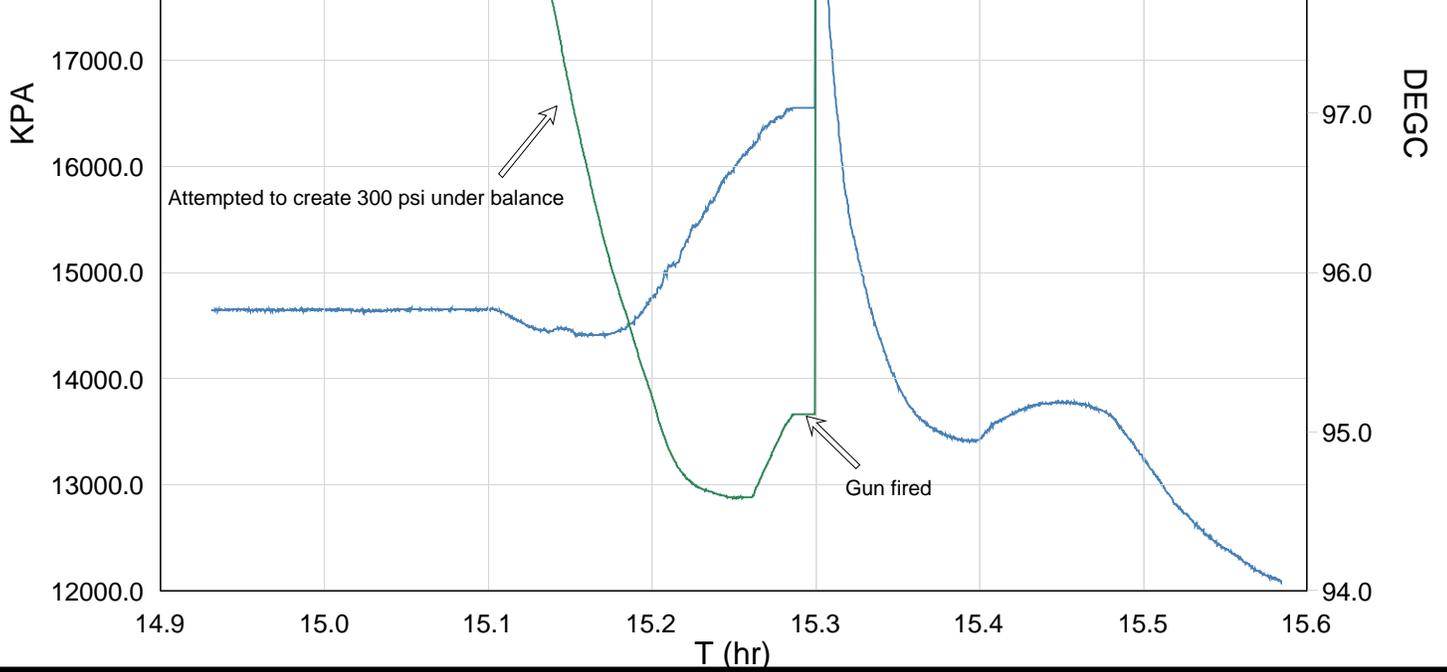
Casing Shoe



2 1/8" Enerjet Powerjet BorDyn Station Log

MAXIS Field Log





2 1/8" Enerjet PowerJet Station Logs

MAXIS Field Log

Company: Esso Australia Pty. Ltd. Well: BMA A7

Output DLIS Files

DEFAULT PERFO_055LTP FN:60 PRODUCER 05-Feb-2007 14:55 2885.2 M 6.0 M

OP System Version: 14C0-302

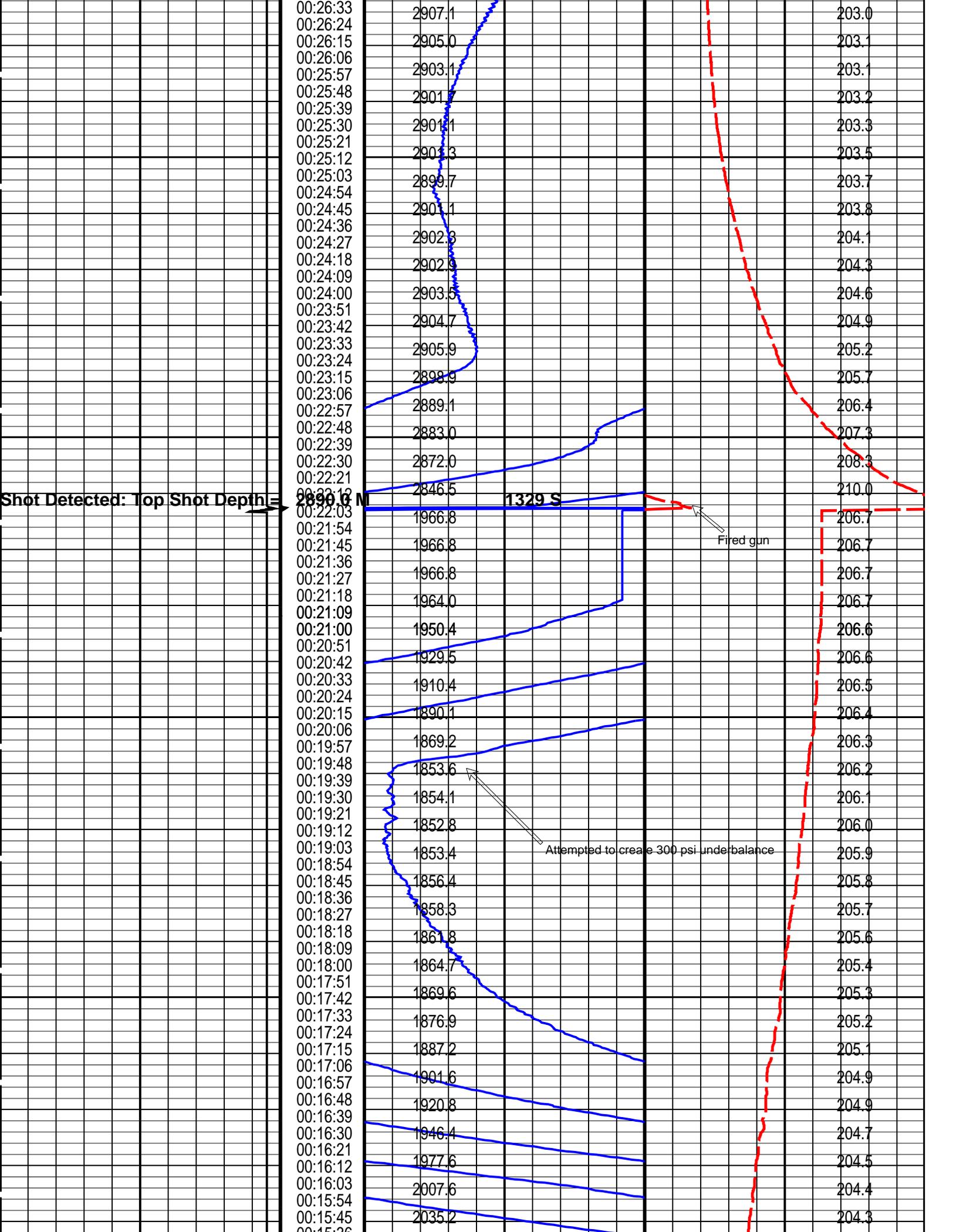
MCM

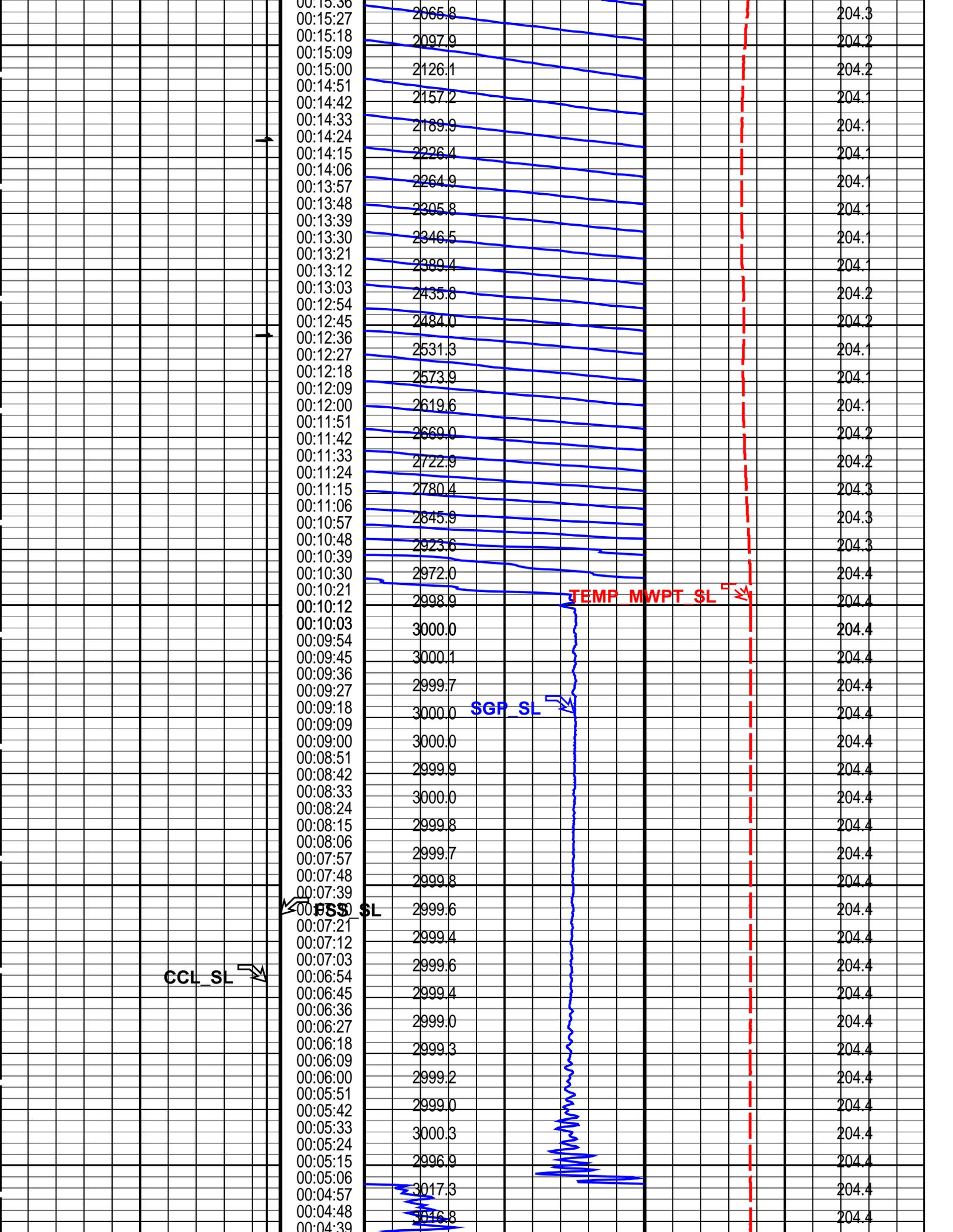
MWP_GUN PTC-3268-NUCL_b MWGT-BA PTC-3268-NUCL_b
 MWPT-DA PTC-3268-NUCL_b

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) (PSIG)	Temperature (TEMP_MWPT_SL) (DEGF)
-19 (----) 1		3010 3050	201 210
	00:39:09		
	00:39:00	2846.5	201.3
	00:38:51	2846.5	201.4
	00:38:42	2846.4	201.4
	00:38:33	2846.4	201.4
	00:38:24	2846.4	201.4
	00:38:15	2848.8	201.5
	00:37:57	2851.5	201.6
	00:37:48		
	00:37:39		





		00:04:30	3016.5			204.4
		00:04:21				
		00:04:12	3020.6			204.4
		00:04:03				
		00:03:54	3020.5			204.4
		00:03:45				
		00:03:36	3020.6			204.4
		00:03:27				
		00:03:18	3020.7			204.4
		00:03:09				
		00:03:00	3020.8			204.4
		00:02:51				
		00:02:42	3020.7			204.4
		00:02:33				
		00:02:24	3020.9			204.4
		00:02:15				
		00:02:06	3020.8			204.4
		00:01:57				
		00:01:48	3021.0			204.4
		00:01:39				
		00:01:30	3021.1			204.4
		00:01:21				
		00:01:12	3021.1			204.4
		00:01:03				
		00:00:54	3021.3			204.4
		00:00:45				
		00:00:36	3021.3			204.4
		00:00:27				
		00:00:18	3021.5			204.4
		00:00:09				
		00:00:00	3021.6			204.4

Casing Collar Locator (CCL_SL)	Elapsed Time (ETIM) (S)	Strain Gauge Pressure (SGP_SL) (PSIG)	Temperature (TEMP_MWPT_SL) (DEGF)
-19 (----) 1	3010 3050	201 210	

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: 05-Feb-2007 14:55

OP System Version: 14C0-302

MCM

MWP_GUN	PTC-3268-NUCL_b	MWGT-BA	PTC-3268-NUCL_b
MWPT-DA	PTC-3268-NUCL_b		

Output DLIS Files

DEFAULT	PERFO_055LTP	FN:60	PRODUCER	05-Feb-2007 14:55
---------	--------------	-------	----------	-------------------



2 1/8" Enerjet PowerJet Shooting Pass

PERFO2 Operational Summary Listing

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

GUN1 Used 2890.0 2890.0 Mon Feb 05 14:59:34 2007

Company: Esso Australia Pty. Ltd. Well: BMA A7

Output DLIS Files

DEFAULT PERFO_054LUP FN:59 PRODUCER 05-Feb-2007 14:51 2895.4 M 2771.5 M

OP System Version: 14C0-302

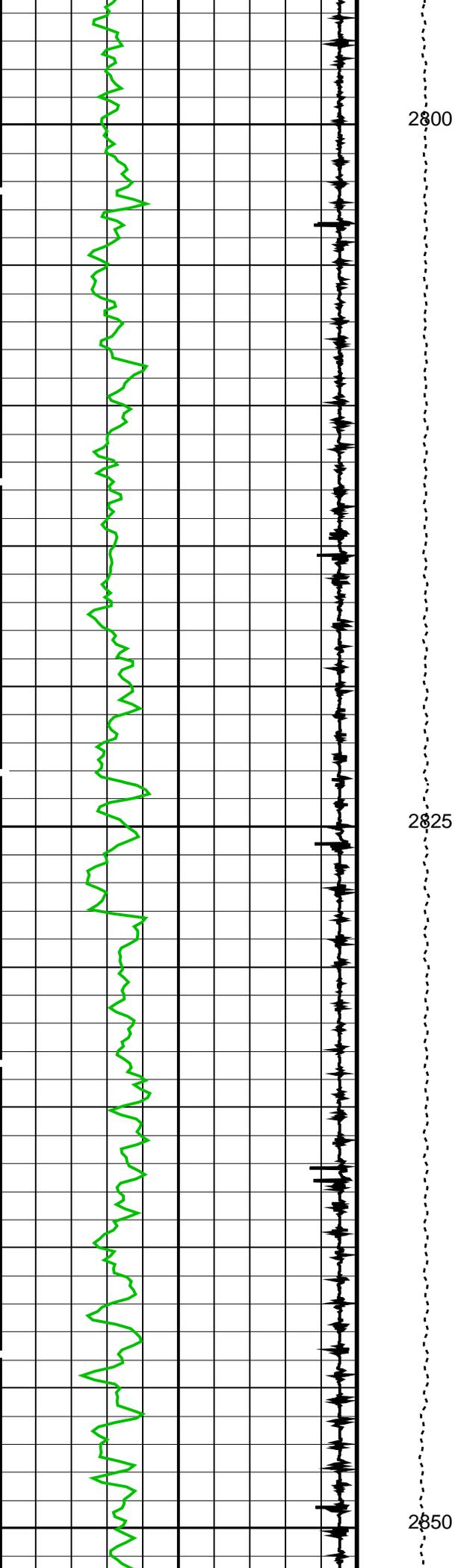
MCM

MWP_GUN PTC-3268-NUCL_b MWGT-BA PTC-3268-NUCL_b
 MWPT-DA PTC-3268-NUCL_b

PIP SUMMARY

Time Mark Every 60 S

Gamma Ray (GR) (GAPI) 150		Tension (TENS) (LBF)	Pressure (SGP) (PSIA)		Temperature (TEMP_MWPT) (DEGF)	
0			2900	3050	200	210
Casing Collar Locator (CCL) 1			Strain Gauge Pressure (SGP) (PSIA)		Temperature (TEMP_MWPT) (DEGF)	
-19 (----)			2900	3050	200	210
GR			3010.6			202.9
			3010.9			202.9
			3011.3			203.0
			3011.3			203.0
			3011.5			203.0
			3011.7			203.0
			3011.9			203.0
			3012.0			203.1
			3012.1			203.1
			3012.3			203.1
			3012.6			203.1
			3012.8			203.1
			3012.9			203.2
			3013.1			203.1
			3013.3			203.1
			3013.4			203.1
			3013.5			203.0
			3013.7			203.0
		3014.1			203.0	

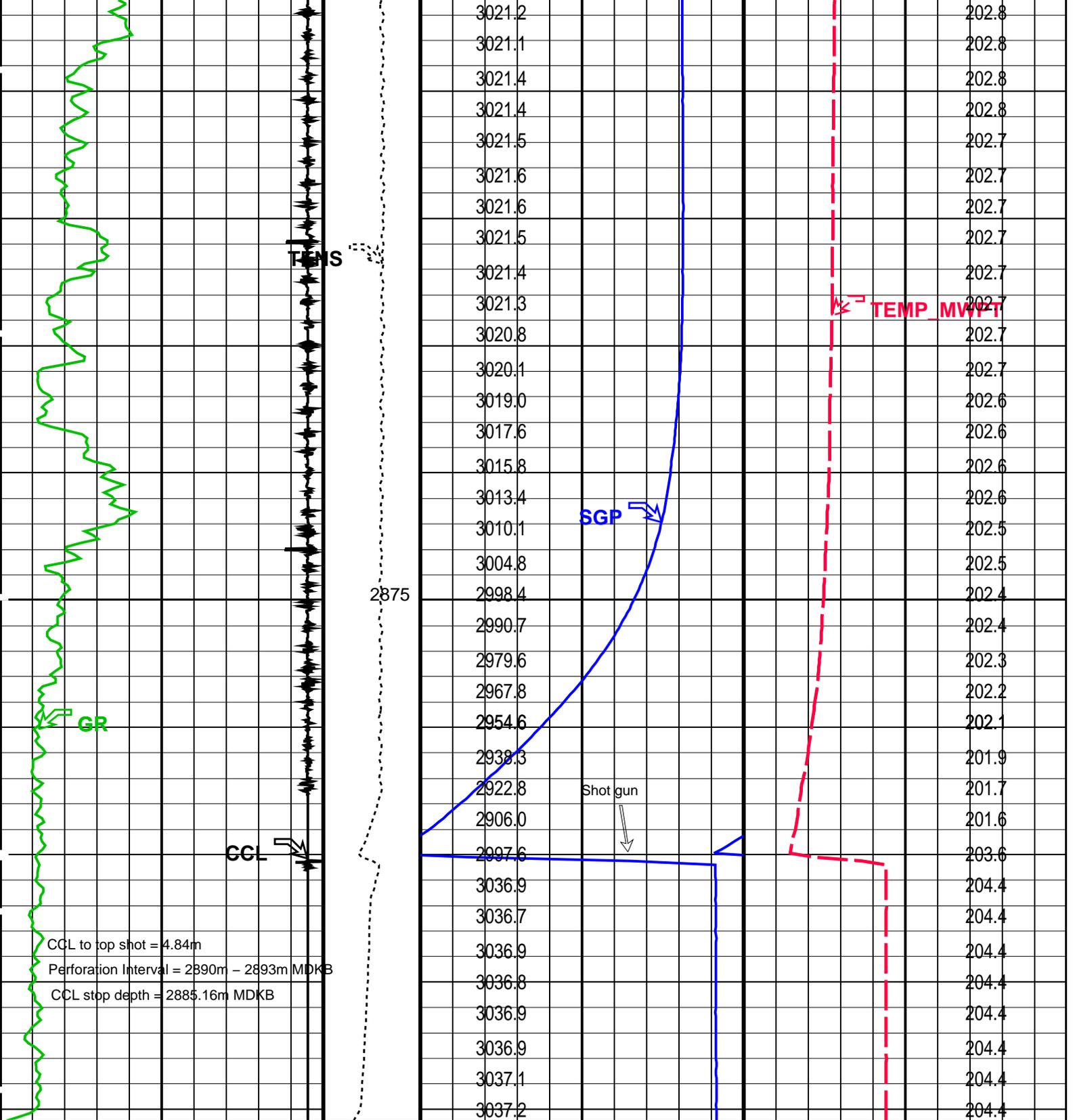


2800

2825

2850

3014.1	203.0
3014.3	203.0
3014.4	203.0
3014.8	203.0
3014.9	203.0
3015.0	203.0
3015.2	203.0
3015.4	203.0
3015.6	203.0
3015.7	203.0
3015.9	203.0
3016.1	203.0
3016.3	203.0
3016.4	203.0
3016.6	203.0
3016.7	203.0
3017.1	202.9
3017.2	203.0
3017.4	202.9
3017.5	202.9
3017.9	202.9
3017.9	202.9
3018.0	202.9
3018.0	202.9
3018.2	202.9
3018.3	202.9
3018.6	202.9
3018.8	202.9
3018.9	202.9
3019.1	202.9
3019.3	202.9
3019.5	202.9
3019.6	202.9
3019.7	202.9
3019.8	202.9
3020.0	202.9
3020.1	202.9
3020.3	202.8
3020.5	202.9
3020.5	202.8
3020.8	202.8
3020.8	202.8
3020.8	202.8
3020.9	202.8
3021.0	202.8



Casing Collar Locator (CCL)		Tension (TENS) (LBF)	Strain Gauge Pressure (SGP)		Temperature (TEMP_MWPT)	
-19	1		2900	3050	200	210
Gamma Ray (GR) (GAPI)			Pressure (SGP) (PSIA)		Temperature (TEMP_MWPT) (DEGF)	
0	150					

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
 FLD Flow Line Density
 MWPT_NULL_SOURCE MWPT NULL Temperature Source
 MWPT_NULL_TEMP MWPT NULL Temperature

0 DEG
 1 G/C3
 TEMS
 0.0 DEGC

Format: MWP Vertical Scale: 1:200 Graphics File Created: 05-Feb-2007 14:51

OP System Version: 14C0-302
 MCM

MWP_GUN PTC-3268-NUCL_b MWGT-BA PTC-3268-NUCL_b
 MWPT-DA PTC-3268-NUCL_b

Output DLIS Files

DEFAULT PERFO_054LUP FN:59 PRODUCER 05-Feb-2007 14:51



2 1/8" Enerjet PowerJet
 Correlation Pass

MAXIS Field Log

Company: Esso Australia Pty. Ltd. Well: BMA A7

Output DLIS Files

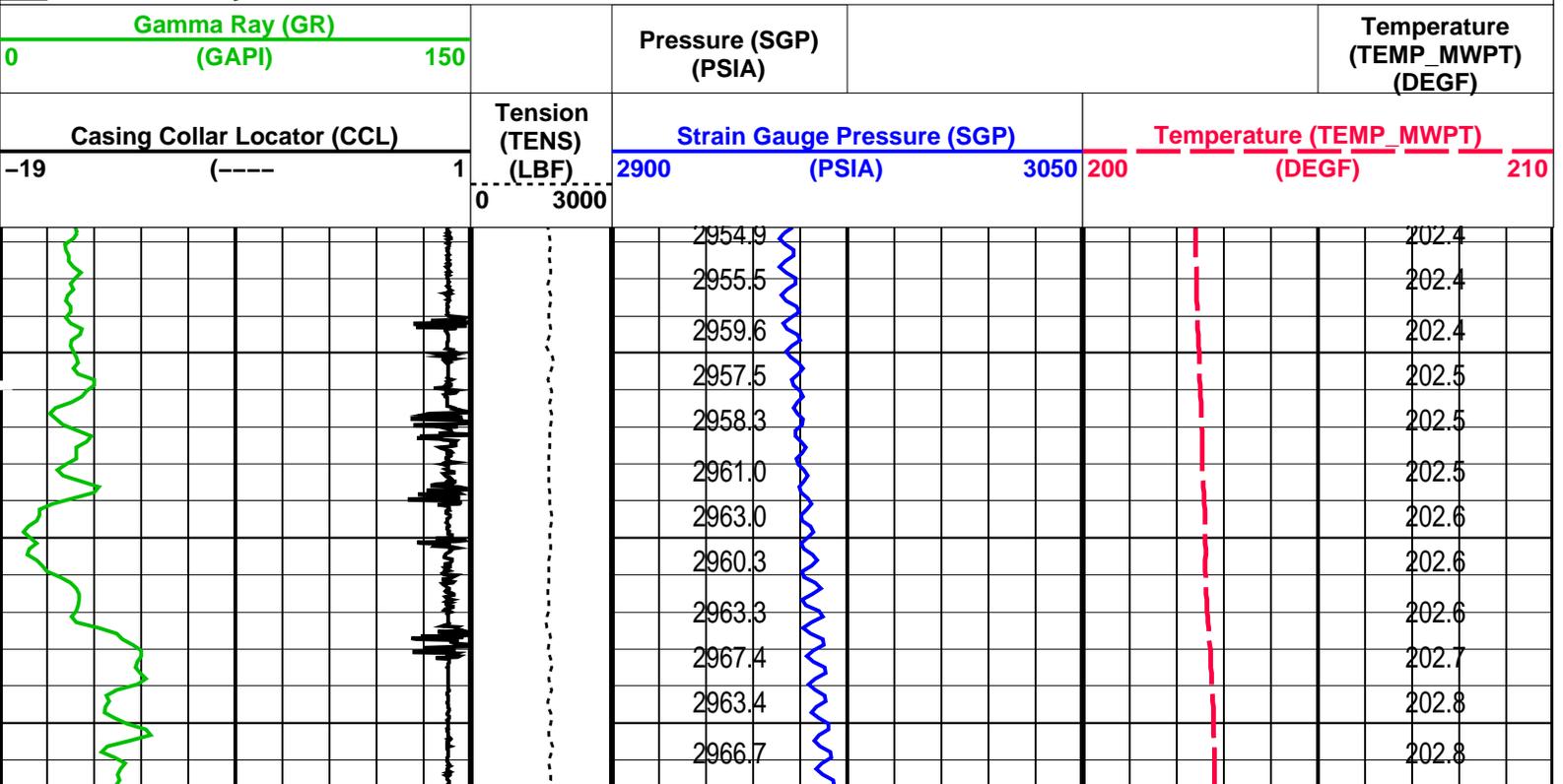
DEFAULT PERFO_052LUP FN:57 PRODUCER 05-Feb-2007 14:29 2893.9 M 2781.6 M

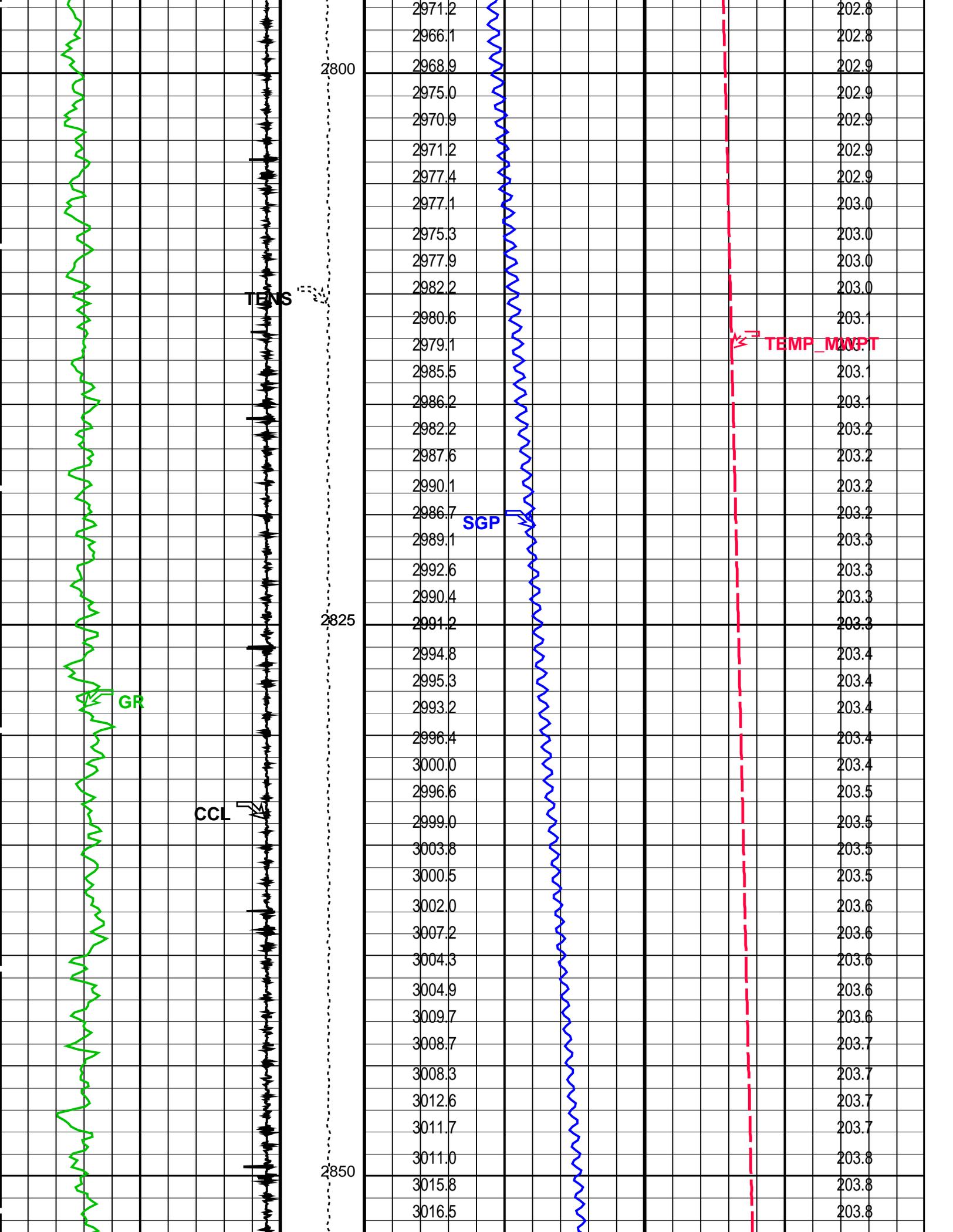
OP System Version: 14C0-302
 MCM

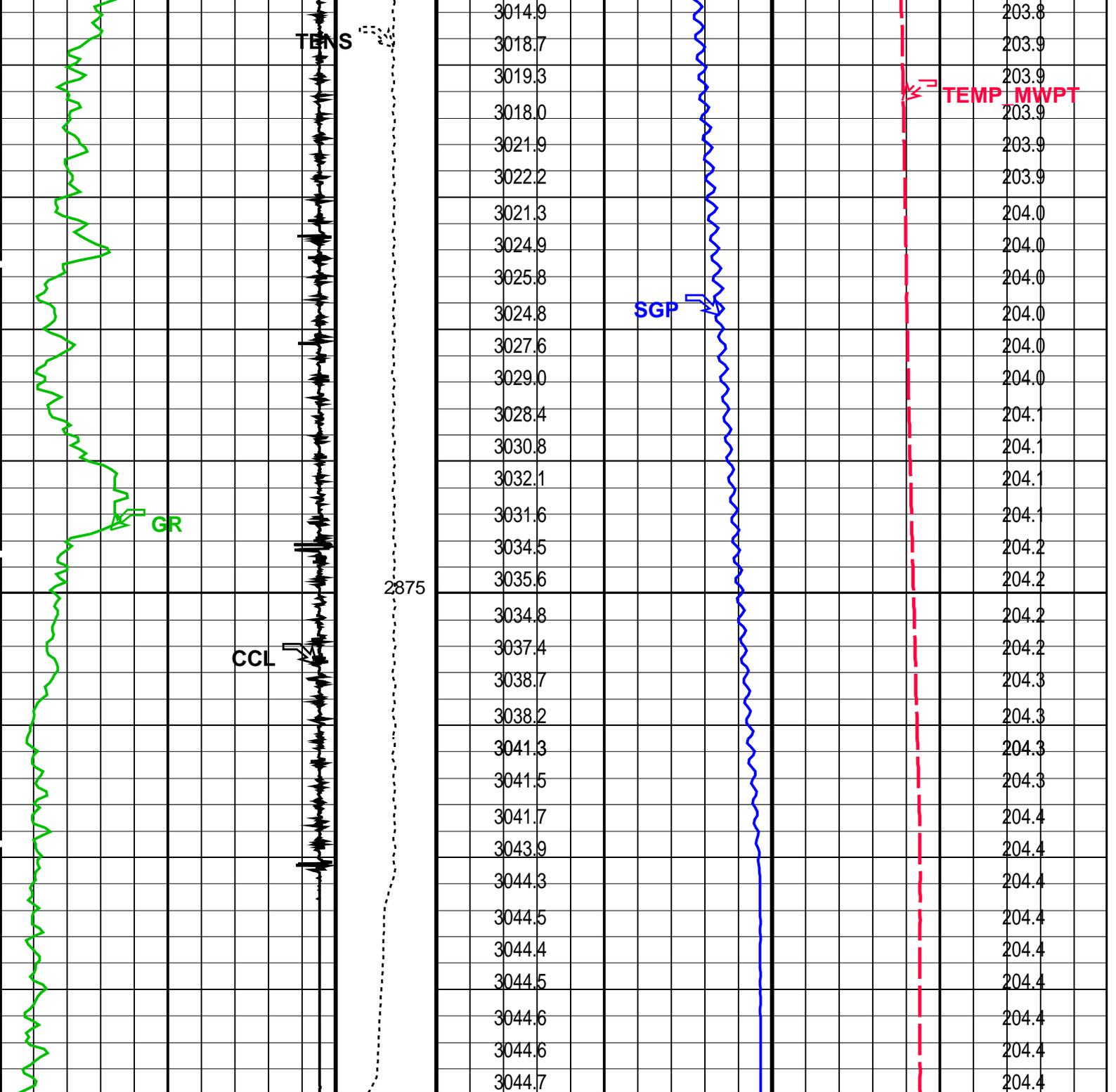
MWP_GUN PTC-3268-NUCL_b MWGT-BA PTC-3268-NUCL_b
 MWPT-DA PTC-3268-NUCL_b

PIP SUMMARY

Time Mark Every 60 S







Casing Collar Locator (CCL) -19 (----) 1	Tension (TENS) (LBF) 0 3000	Strain Gauge Pressure (SGP) (PSIA) 2900 3050	Temperature (TEMP_MWPT) (DEGF) 200 210
--	---------------------------------------	--	--

Gamma Ray (GR) (GAPI) 0 150	Pressure (SGP) (PSIA)	Temperature (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

OP System Version: 14C0-302

MCM

MWP_GUN PTC-3268-NUCL_b MWGT-BA PTC-3268-NUCL_b
 MWPT-DA PTC-3268-NUCL_b

Output DLIS Files

DEFAULT PERFO_052LUP FN:57 PRODUCER 05-Feb-2007 14:29



**7" HPI Plug
Setting Pass**

MAXIS Field Log

PERFO2 Operational Summary Listing

Device	Status	Req Depth (M)	Obs Depth (M)	Time Used
GUN1	Used	2896.5	2896.4	Mon Feb 05 06:23:34 2007

Company: Esso Australia Pty. Ltd. Well: BMA A7

Output DLIS Files

DEFAULT PERFO_034LUP FN:39 PRODUCER 05-Feb-2007 06:21 2891.6 M 2848.5 M

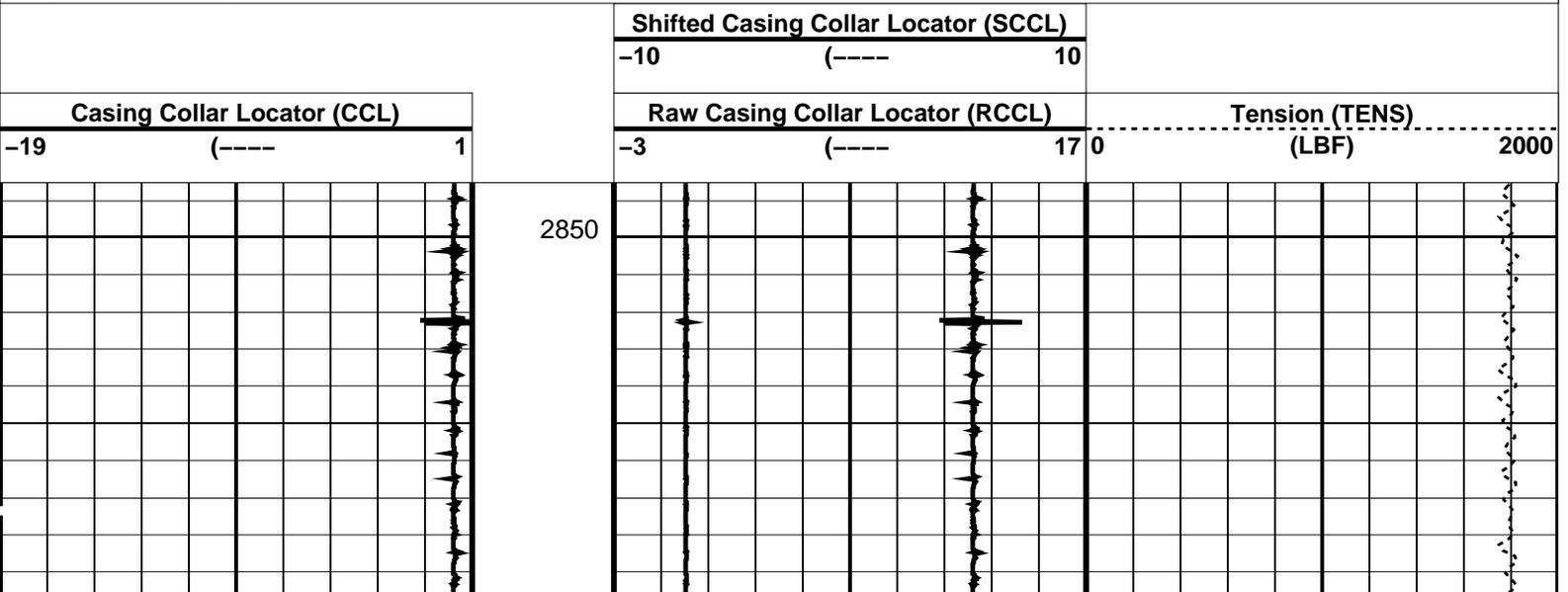
OP System Version: 14C0-302

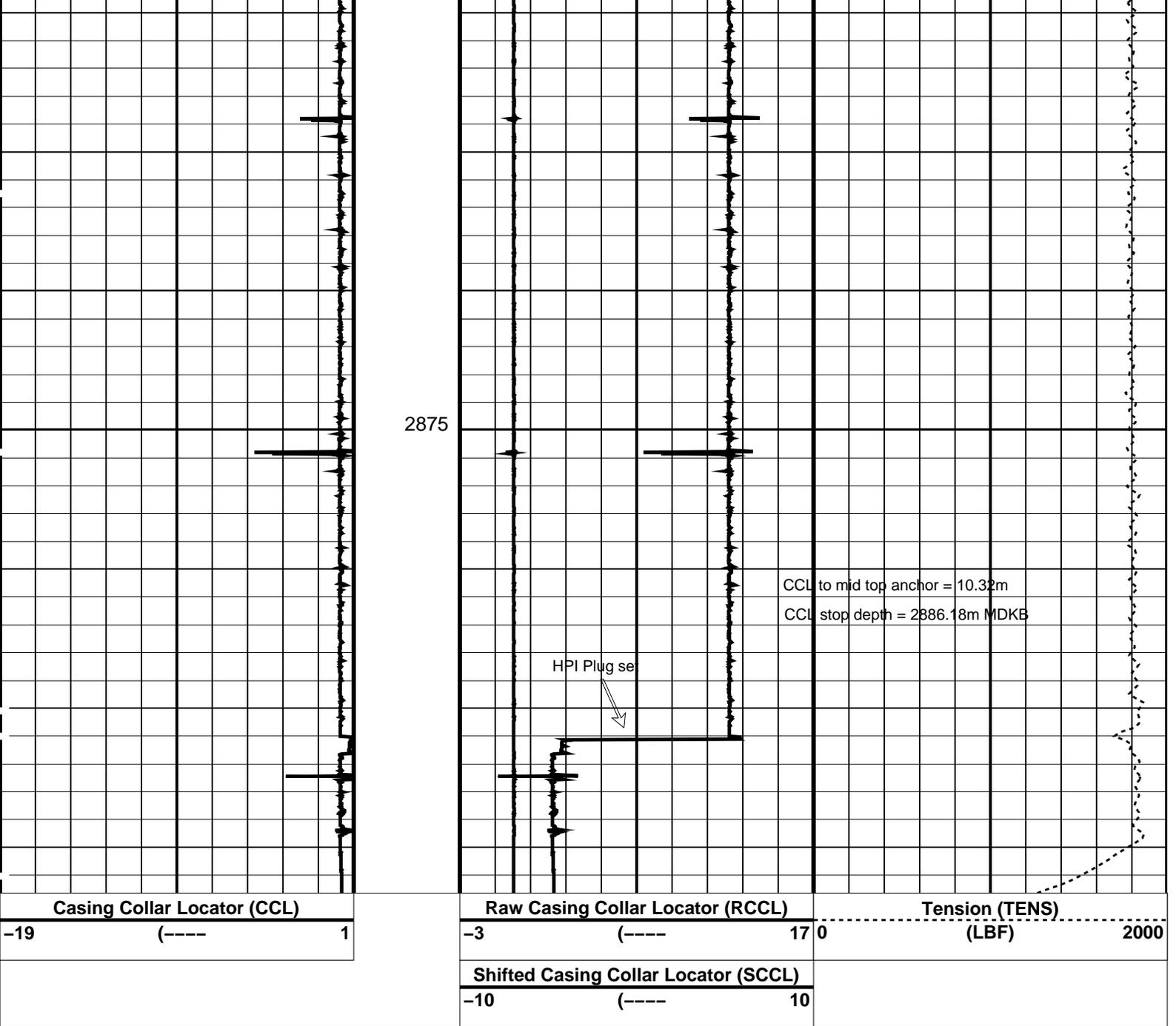
MCM

SHM_GUN PTC-3268-NUCL_b CCL-L 14C0-302

PIP SUMMARY

Time Mark Every 60 S





PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
CCLD	CCL-L: Casing Collar Locator	
CCLT	CCL reset delay	12 IN
	CCL Detection Level	0.7 V

Format: CCLLog Vertical Scale: 1:200

Graphics File Created: 05-Feb-2007 06:21

OP System Version: 14C0-302
MCM

SHM_GUN PTC-3268-NUCL_b CCL-L 14C0-302

Output DLIS Files

DEFAULT PERFO_034LUP FN:39 PRODUCER 05-Feb-2007 06:21

Company: Esso Australia Pty. Ltd. Well: BMA A7

Output DLIS Files

DEFAULT PERFO_032LUP FN:37 PRODUCER 05-Feb-2007 06:02

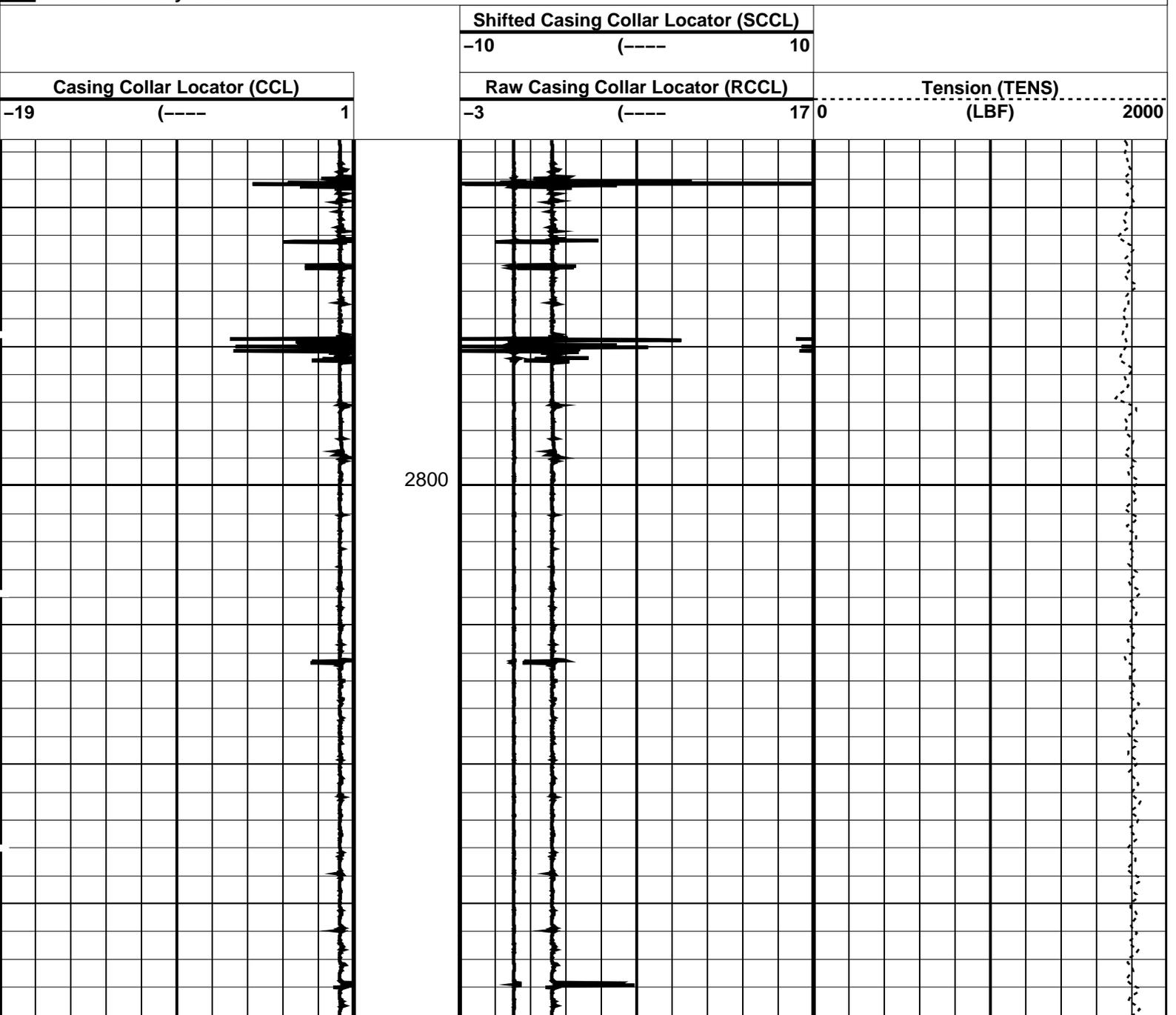
OP System Version: 14C0-302

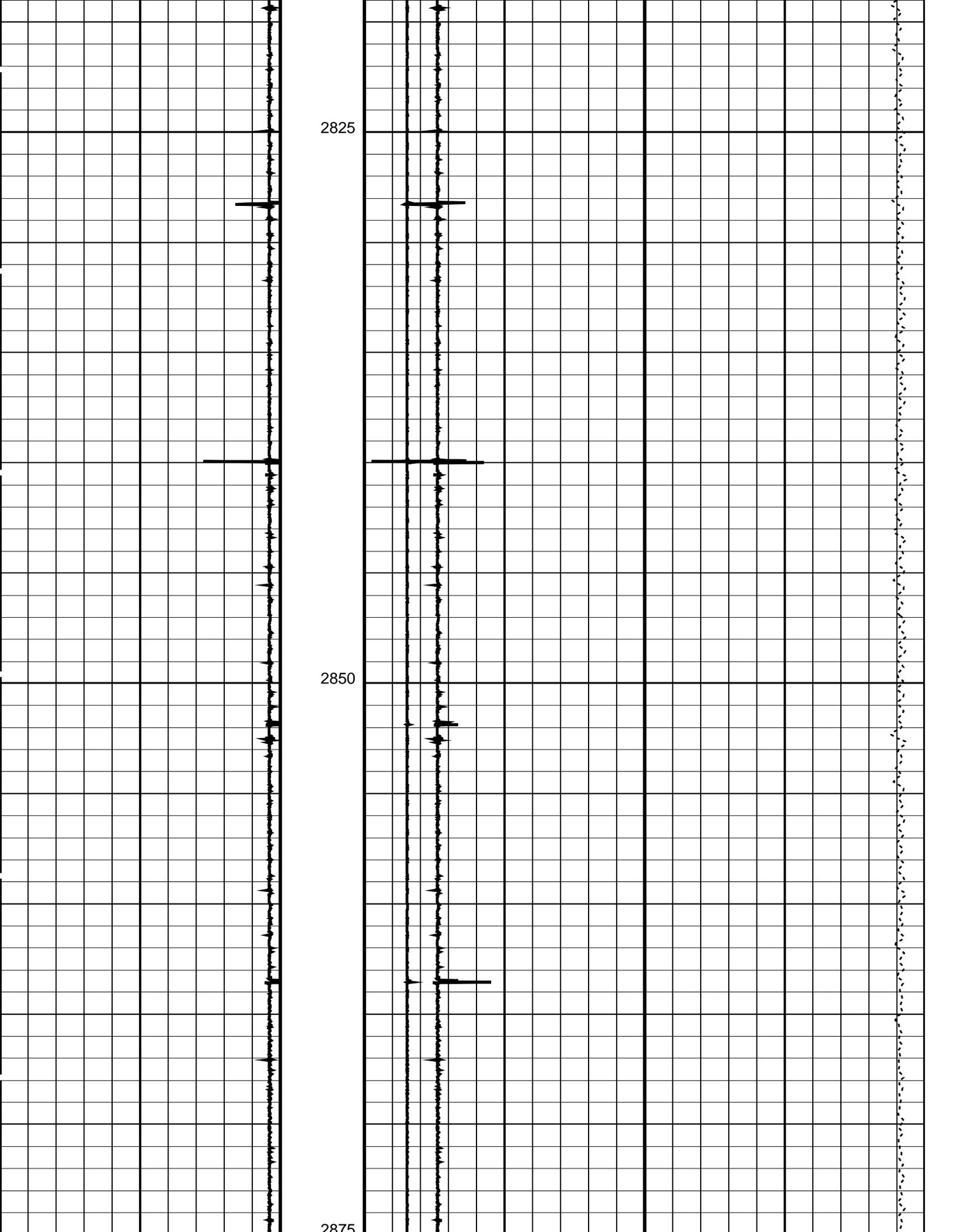
MCM

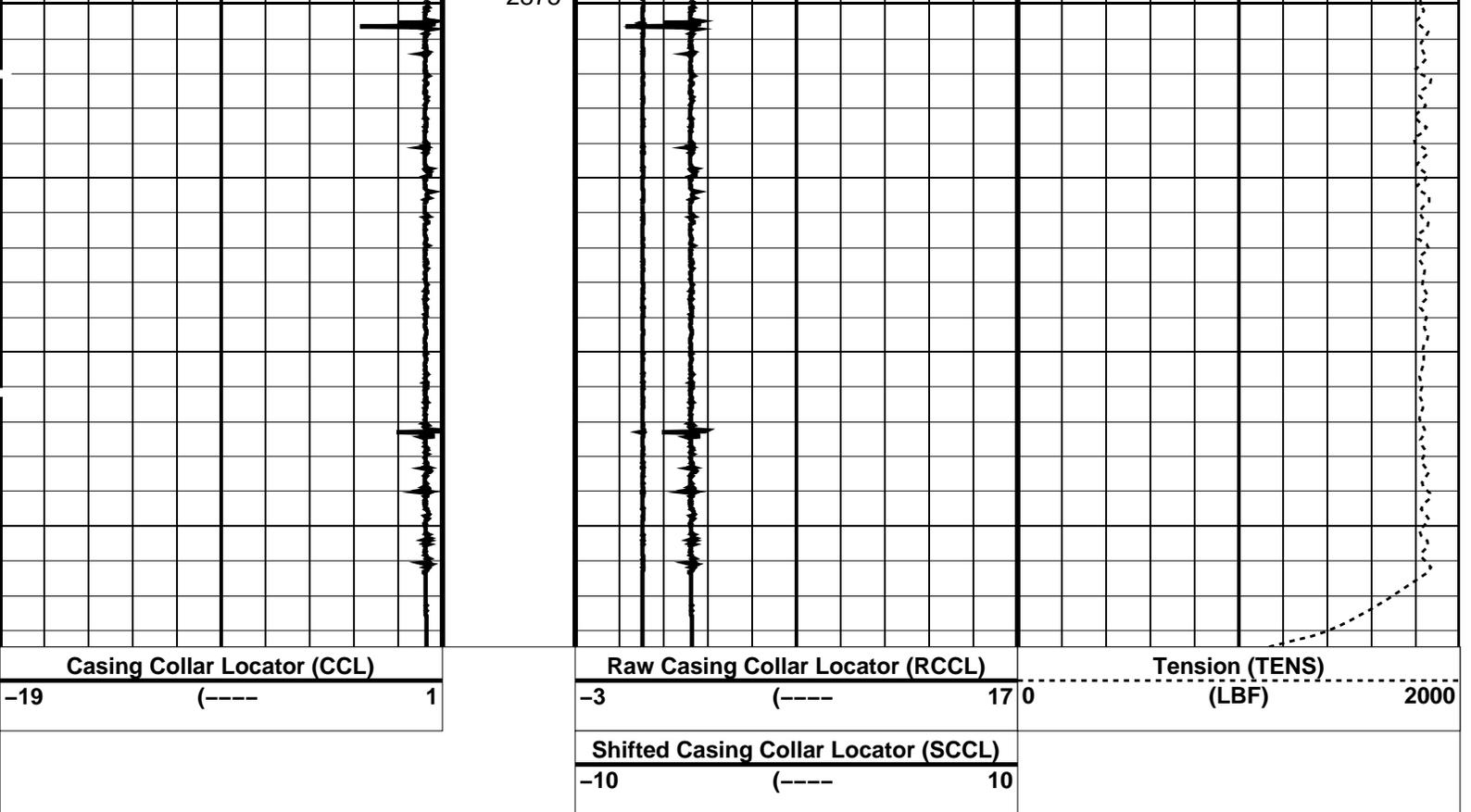
SHM_GUN PTC-3268-NUCL_b CCL-L 14C0-302

PIP SUMMARY

Time Mark Every 60 S







PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
CCLD	CCL-L: Casing Collar Locator	12 IN
CCLT	CCL reset delay	0.7 V
	CCL Detection Level	

Format: CCLLog Vertical Scale: 1:200 Graphics File Created: 05-Feb-2007 06:02

OP System Version: 14C0-302
MCM

SHM_GUN PTC-3268-NUCL_b CCL-L 14C0-302

Output DLIS Files

DEFAULT PERFO_032LUP FN:37 PRODUCER 05-Feb-2007 06:02



7" HPI Plug
Dummy Run

MAXIS Field Log

Company: Esso Australia Pty. Ltd.

Well: BMA A7

Output DLIS Files

DEFAULT PERFO_015LUP FN:14 PRODUCER 04-Feb-2007 14:22

OP System Version: 14C0-302

MCM

SHM_GUN

14C0-302

PGGT-C

14C0-302

Gamma Ray (GR)

(GAPI)

150

Casing Collar Locator (CCL)

(---

10

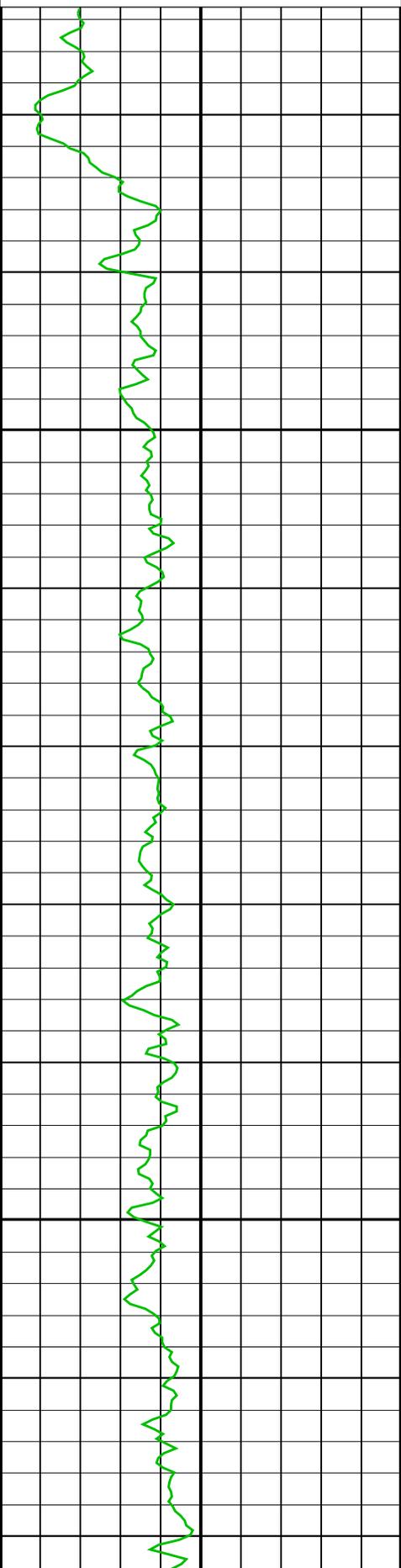
Tension (TENS)

(LBF)

3000

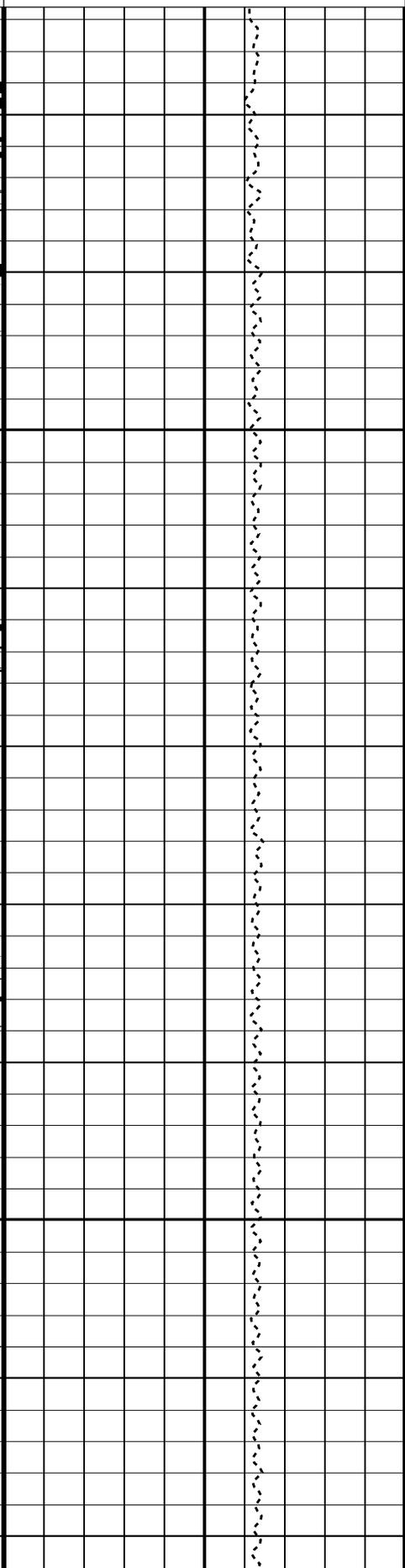
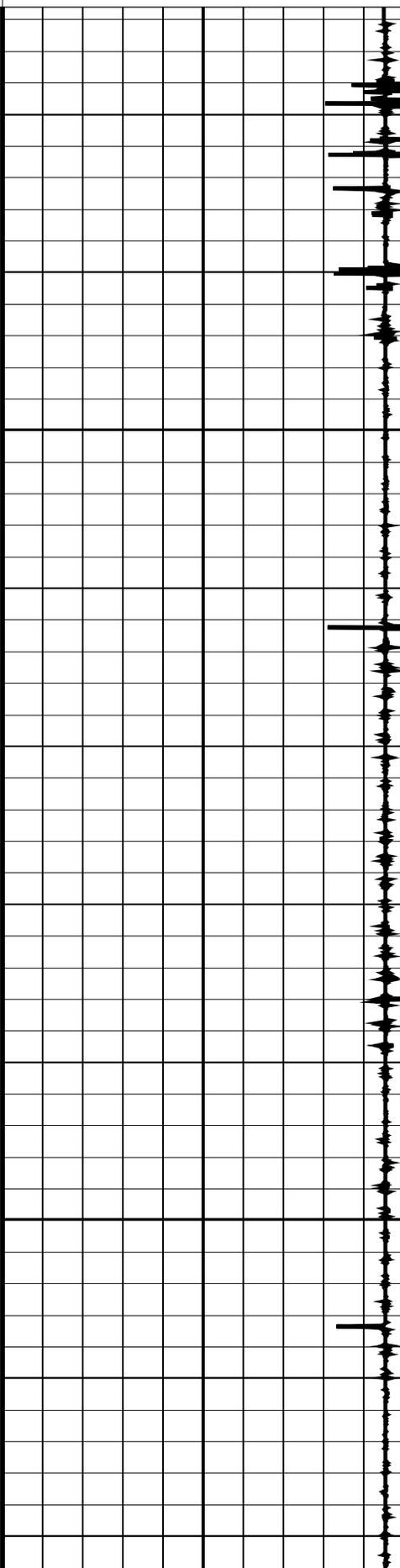
0

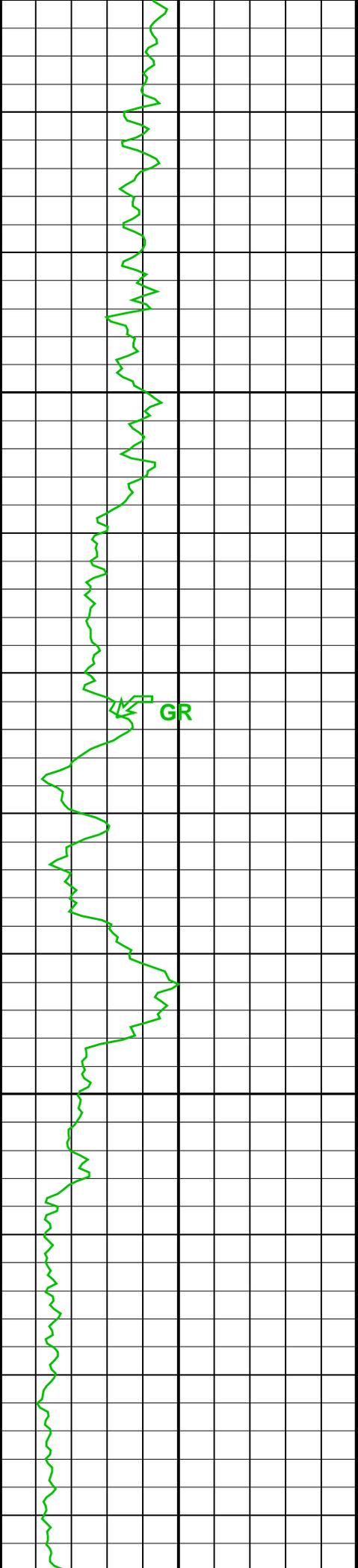
-19



2800

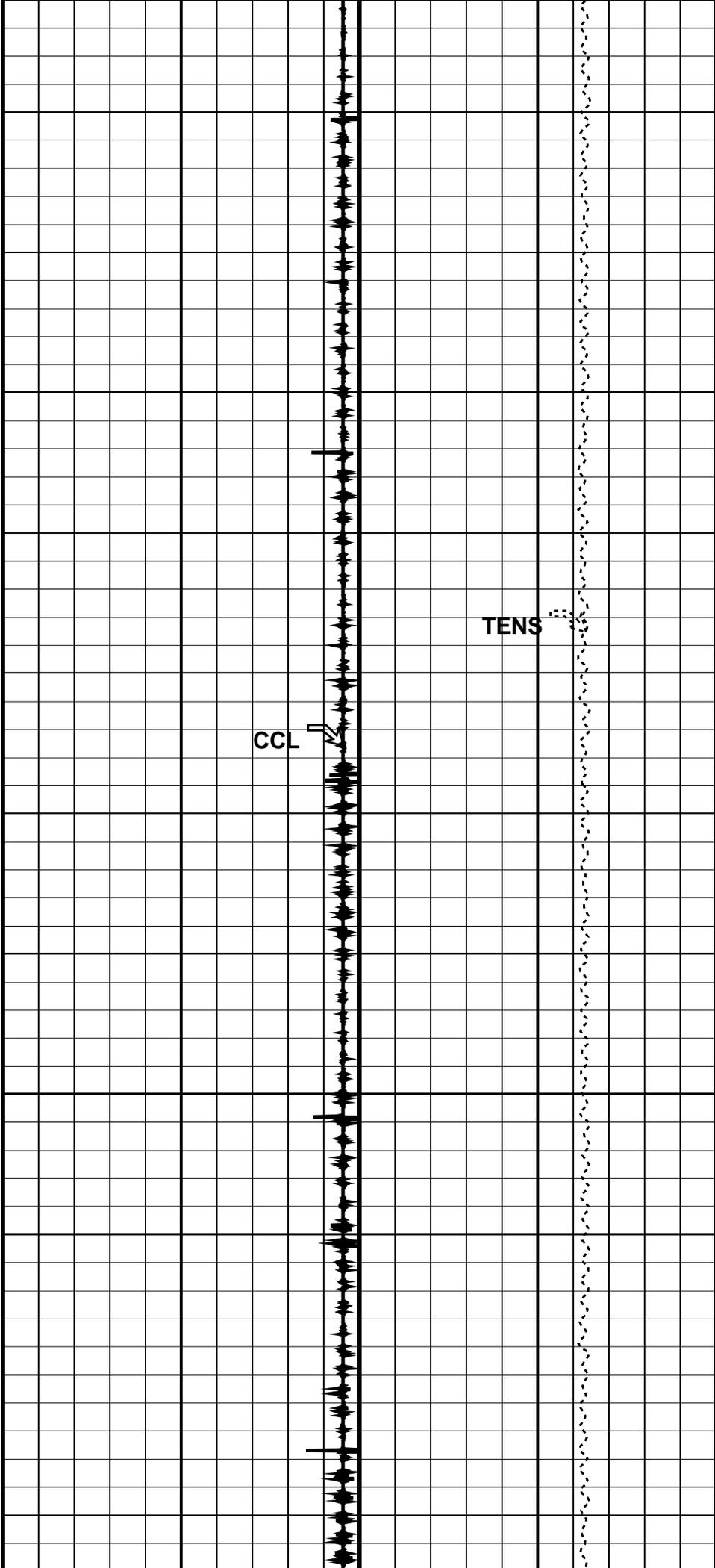
2825

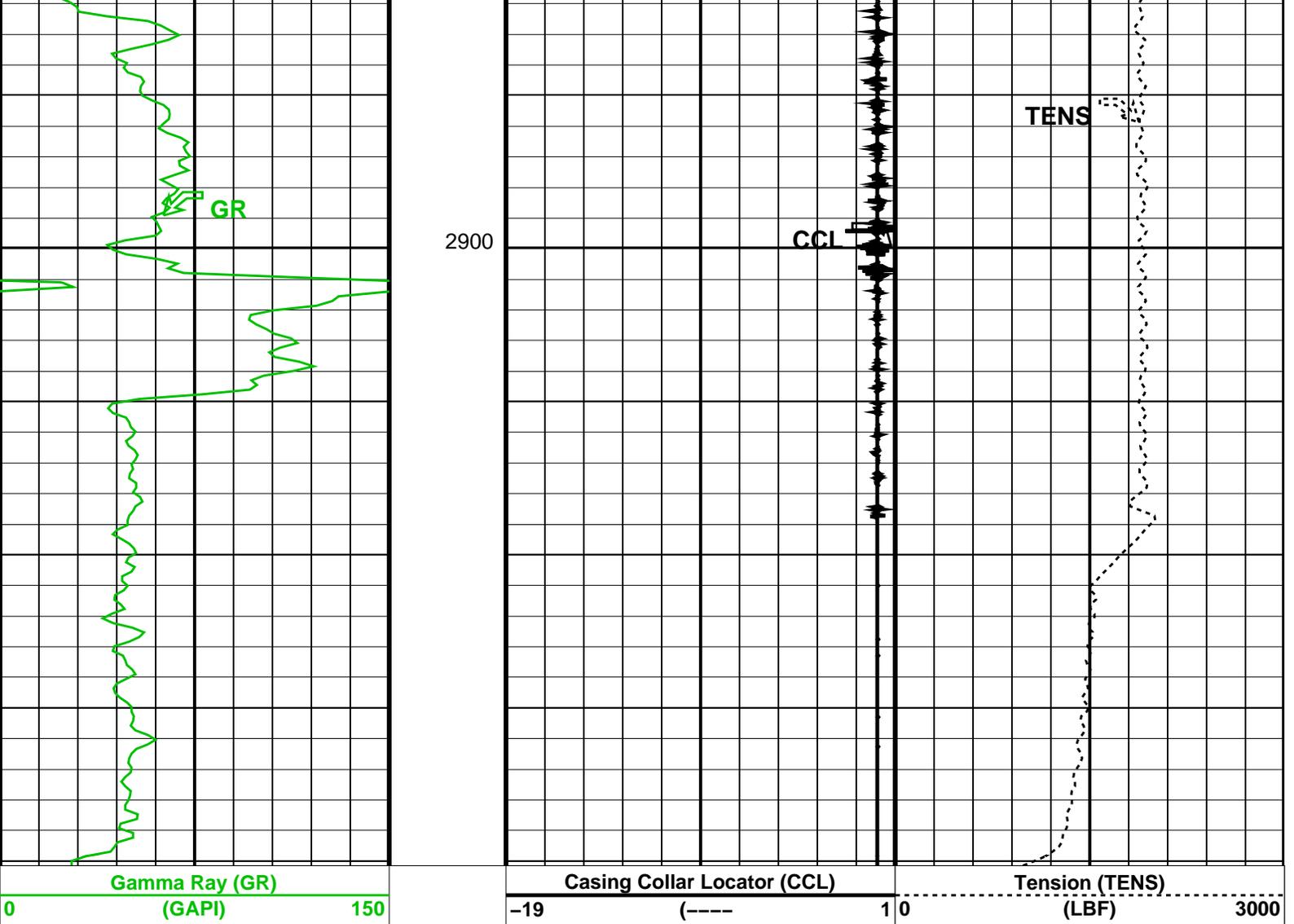




2850

2875





Format: CORRELATION Vertical Scale: 1:200 Graphics File Created: 04-Feb-2007 14:22

OP System Version: 14C0-302
MCM

SHM_GUN 14C0-302 PGGT-C 14C0-302

Output DLIS Files

DEFAULT PERFO_015LUP FN:14 PRODUCER 04-Feb-2007 14:22

Company: **Esso Australia Pty. Ltd.**



Well: **BMA A7**
Field: **Bream**
Rig: **Prod 2 / ISS Rig 22**
Country: **Australia**

2 1/8" Phased Powerjet
Perforation Record
HPI Plug Setting Record