

Company: Esso Australia Pty Ltd.

Well: BMA A-2a

Field: Bream

Rig: ISS/Rig 22

Country: Australia

7" HPI Plug Setting Record  
2-1/8" Ph Powerjet Perforation Record  
22-Feb-07

ISS/Rig 22  
Bream  
Bass Strait  
BMA A-2a  
Esso Australia Pty Ltd.

LOCATION			
Bass Strait	Elev.:	K.B.	33.5 m
Gippsland		G.L.	-59.4 m
Basin		D.F.	32 m
Permanent Datum:	Mean Sea Level	Elev.:	0 m
Log Measured From:	Rig Floor	32.0 m	above Perm. Datum
Drilling Measured From:	Kelly Bushing		
State: Victoria	Max. Well Deviation 49 deg	Longitude 147°46'15"E	Latitude 38°30'4"S

Logging Date	22-Feb-2007		
Run Number	1		
Depth Driller	2472 m		
Schlumberger Depth	2391 m		
Bottom Log Interval	2367.7 m		
Top Log Interval	2365.4 m		
Casing Fluid Type	Production Fluids		
Salinity			
Density	0.14 g/cm3		
Fluid Level	1975 m		
BIT/CASING/TUBING STRING			
Bit Size	8.500 in		
From	979 m		
To	2472 m		
Casing/Tubing Size	7.000 in		
Weight	26 lbm/ft		
Grade	L-80		
From	12 m		
To	2468.5 m		
Maximum Recorded Temperatures	208 degF		
Logger On Bottom	22-Feb-2007	19:15	
Unit Number	3827	AUSL	
Recorded By	A.Sword, C.Rowand		
Witnessed By	Mfr B.Woodward, Mfr 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	49 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						

Date Created: 22-FEB-2007 21:44:24

## Logging Cable

Type:	2-32ZT
Serial Number:	24031
Length:	5619.90 M
Conveyance Method:	Wireline
Rig Type:	Offshore Fixed

Log Sequence:	Subsequent Log In the Well
Reference Log Name:	Solar Composite Log
Reference Log Run Number:	
Reference Log Date:	No Date














1. Log Correlated to Esso solar composite log: No Date
2. IDW used as Primary depth control
3. Z-Chart used as secondary depth control
- 4.
- 5.
- 6.

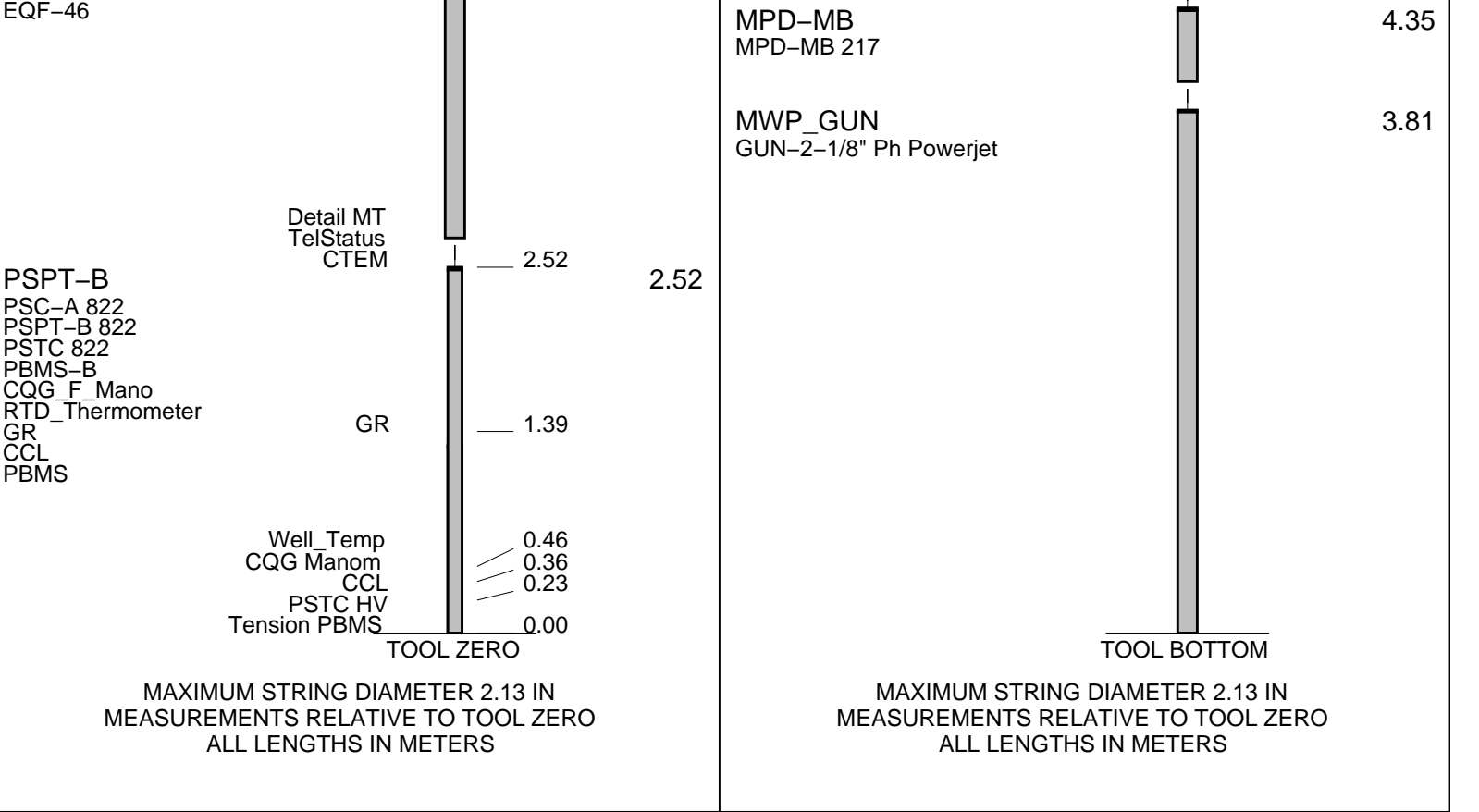
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (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.

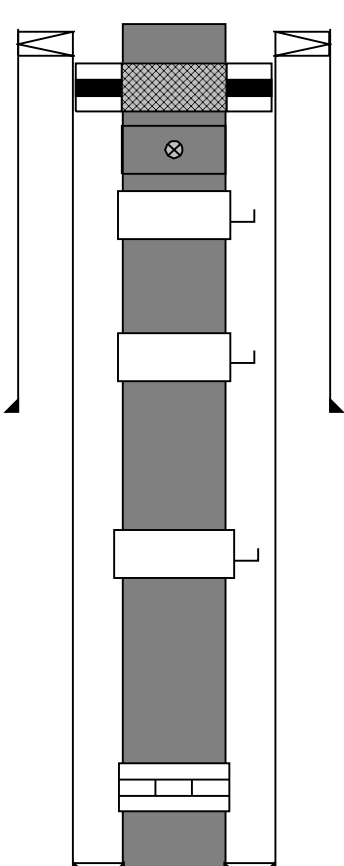
OTHER SERVICES2  
OS1:  
OS2:  
OS3:  
OS4:  
OS5:

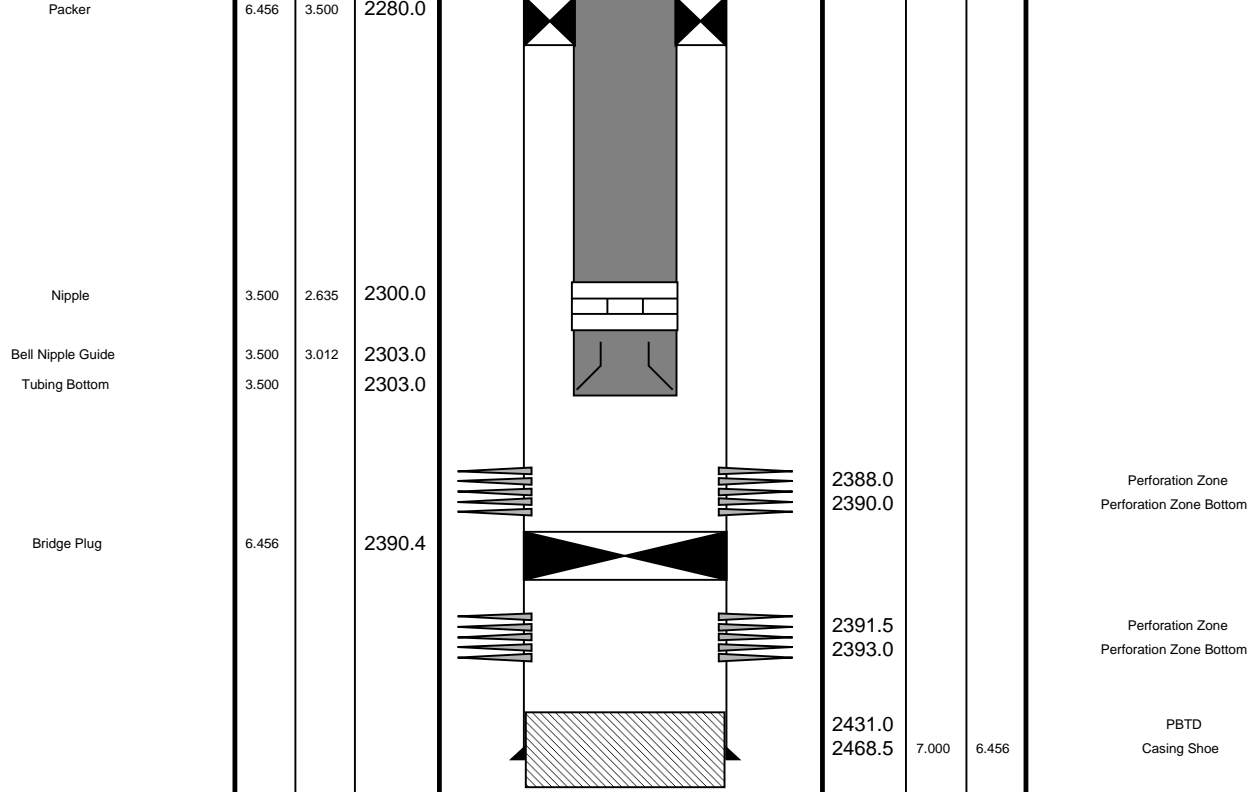
REMARKS: RUN NUMBER 2

URL Plug Anchors to CCI	10.38m
-------------------------	--------

HPI Plug Anchors to CCL = 10.28m					
2-1/8" Ph Powerjets, +/- 45 Deg, 6 spf were used to perforate 2365.4–2367.7 mMDKB.					
Gun fired using the SAFE firing system, with MWPT.					
Underbalance when fired was 600+ psi					
Days: Dave Stuckey, Simon Kiss					
Nights: Brendan Glover(Crew Chief), Max Hancock					
Performed by Schlumberger					
RUN 1			RUN 2		
SERVICE ORDER #:			SERVICE ORDER #:		
PROGRAM VERSION:			PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP
EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		
SURFACE EQUIPMENT			SURFACE EQUIPMENT		
WITM-A PSC_16MHZ			MWPM-AA 37		
DOWNHOLE EQUIPMENT			DOWNHOLE EQUIPMENT		
MH-22 MH-22		10.31	MH-22 MH-22		10.15
EQF-43 EQF-43		9.83	AH-Slotted Weight AH-Slotted Weight		9.67
			AH-Slotted Weight AH-Slotted Weight		9.36
			AH-Slotted Weight AH-Slotted Weight		9.06
			AH-124 AH-124 2		8.75
EQF-43 EQF-43		8.01	MWGT-BA MWPG-AA 10 MWGH-BA 10		8.45
			MWPG GR	— 2.41	
			MWPT-CA MWPH-AA 93 MWPS-AA 93		7.47
EQF-46 EQF-46		6.18			
			CCL SMWP Pres SMWP Temp Tension	— TOOL ZERO	
EQF-46		4.35	AH-WPSA-AA AH-WPSA-AA 4001		4.65

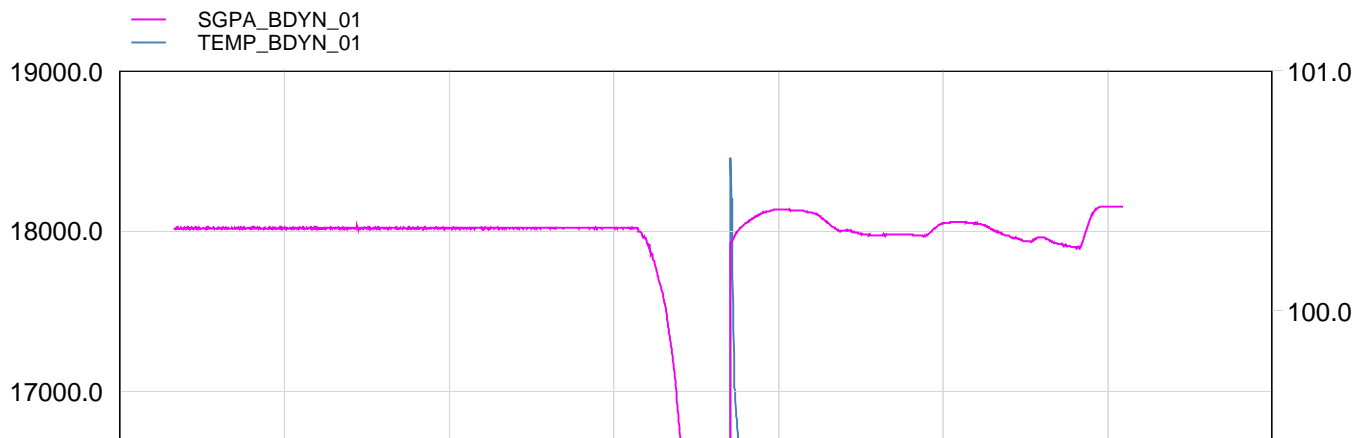


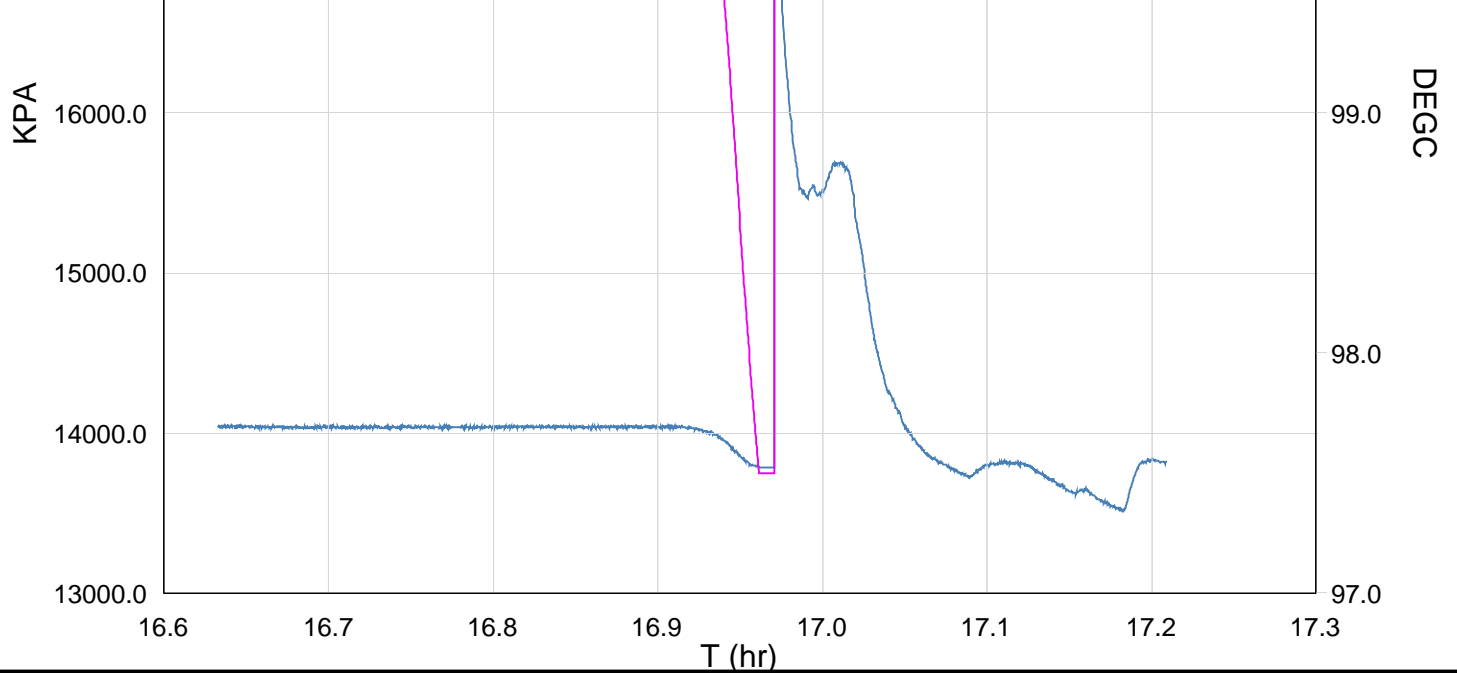
Production String	(in)			Well Schematic	(m)			Casing String
	OD	ID	MD		MD	OD	ID	
Tubing	3.500		13.0		13.0	10.750	6.456	Casing String
Tubing Hanger	6.456	3.500	11.0		13.0	10.750		Liner Hanger
SSSV	5.380	2.750	375.8		13.0	7.000		
Gas Lift Mandrel	5.900	2.920	758.0					
Gas Lift Mandrel	5.900	2.920	1444.0					
Gas Lift Mandrel	5.900	2.900	1927.0		979.3	10.750		Casing Shoe
Nipple	3.700	2.750	2273.0					



## 2-1/8" Ph Powerjet Shooting Station Plot

MAXIS Field Log





Schlumberger

## 2-1/8" Ph Powerjet Shooting Station Log

MAXIS Field Log

Company: Esso Australia Pty Ltd.

Well: BMA A-2a

### Output DLIS Files

DEFAULT PERFO\_035LTP FN:34 PRODUCER 23-Feb-2007 16:37 2361.7 M 5.3 M

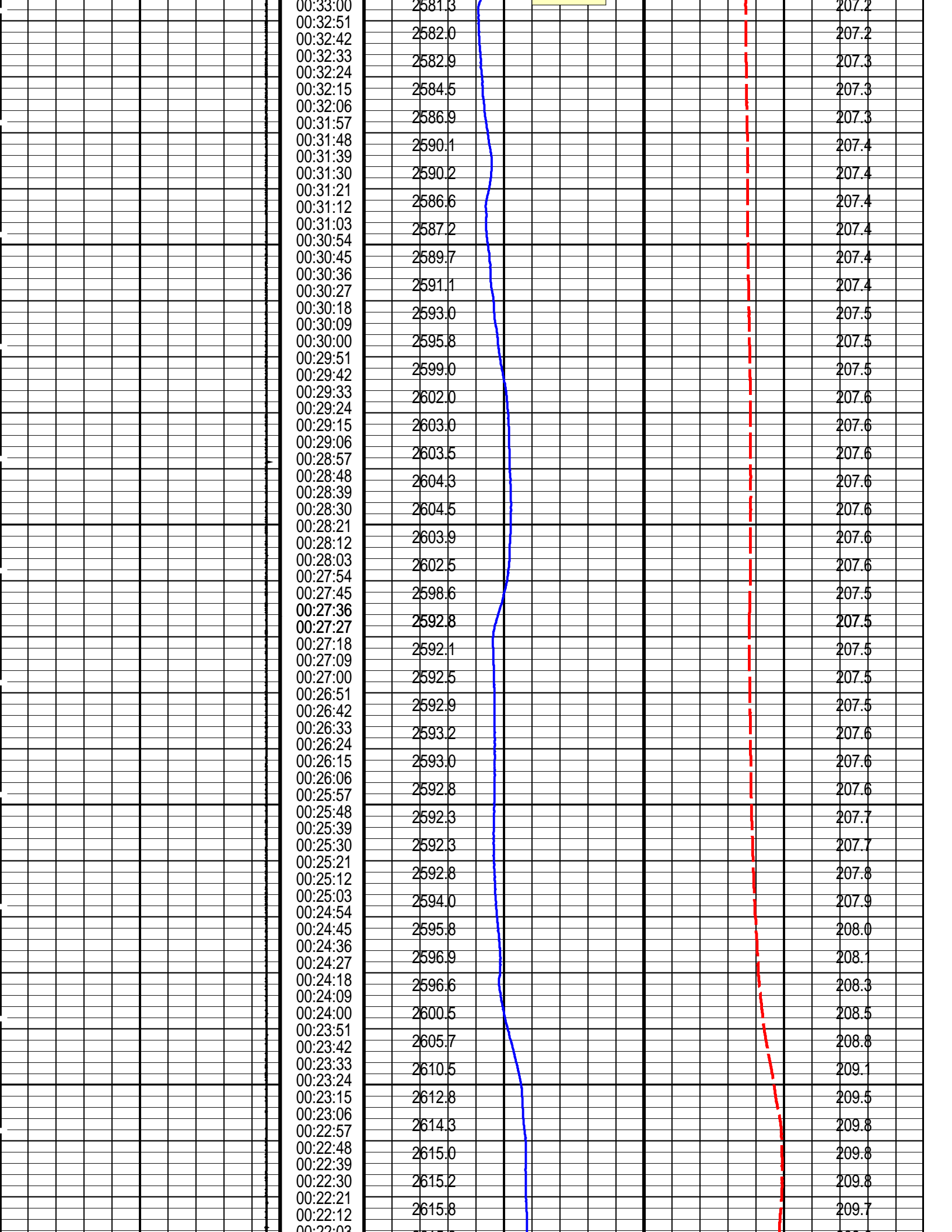
### OP System Version: 14C0-302 MCM

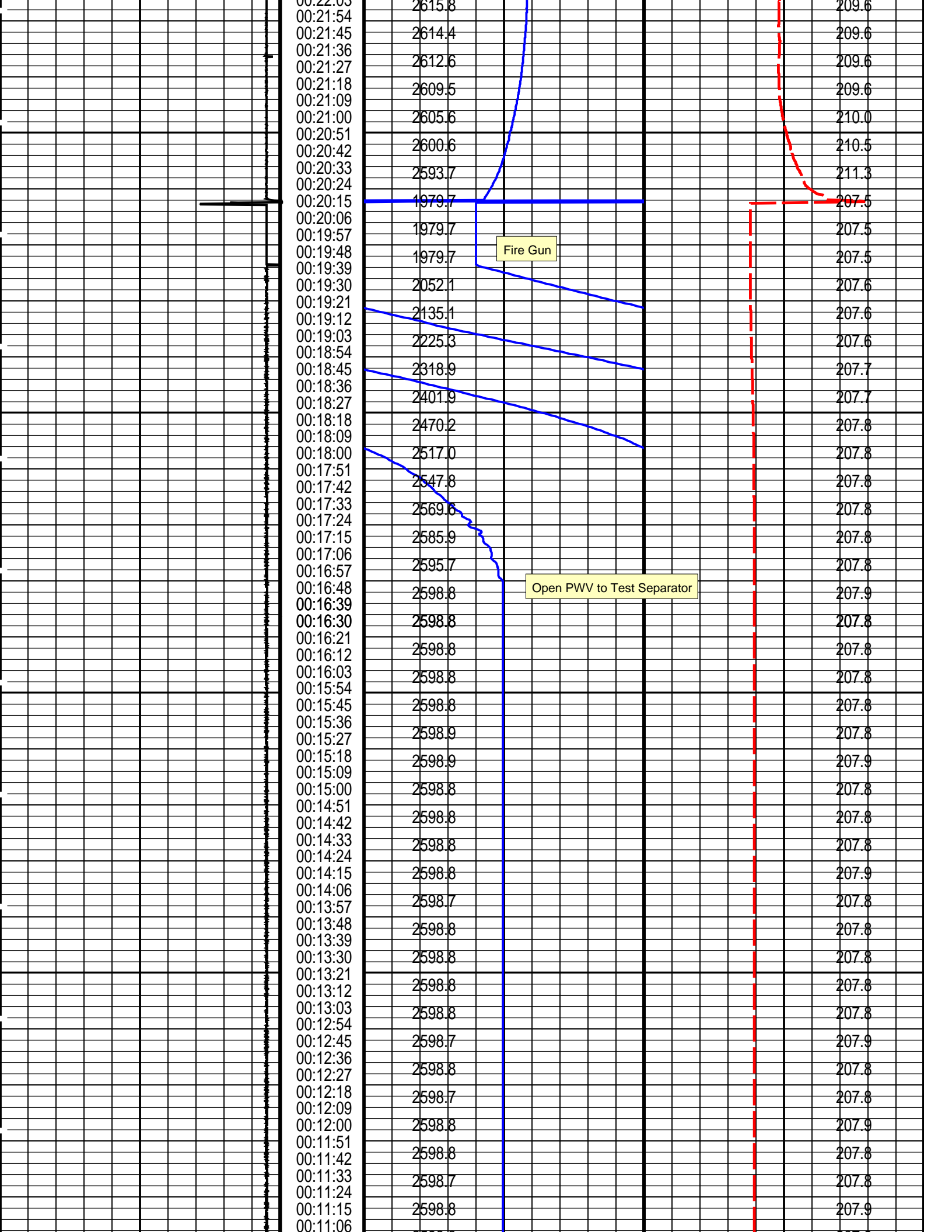
MWP\_GUN PTC-3268-NUCL\_b MWPT-CA PTC-3268-NUCL\_b  
MWGT-BA PTC-3268-NUCL\_b

### PIP SUMMARY

Time Mark Every 60 S

Casing Collar Locator (CCL_SL) (----)	Firing Sequence State (FSS_SL) (----)	Pressure (SGP_SL) (PSIG)	Temperature (TEMP_MWPT_SL) (DEGF)
0	1024		
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[illegible]

Casing Collar Locator (CCL_SL)	Elapsed Time (ETIM) (S)	Strain Gauge Pressure (SGP_SL) (PSIG)	Temperature (TEMP_MWPT_SL) (DEGF)
-19 (----) 1	00:00:00 2598.17 2700	2500 (PSIG) 2700	200 (DEGF) 220
	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-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: 23-Feb-2007 16:37

OP System Version: 14C0-302			
MCM			
MWP_GUN	PTC-3268-NUCL_b	MWPT-CA	PTC-3268-NUCL_b
MWGT-BA	PTC-3268-NUCL_b		

Output DLIS Files			
DEFAULT	PERFO_035LTP	FN:34 PRODUCER	23-Feb-2007 16:37

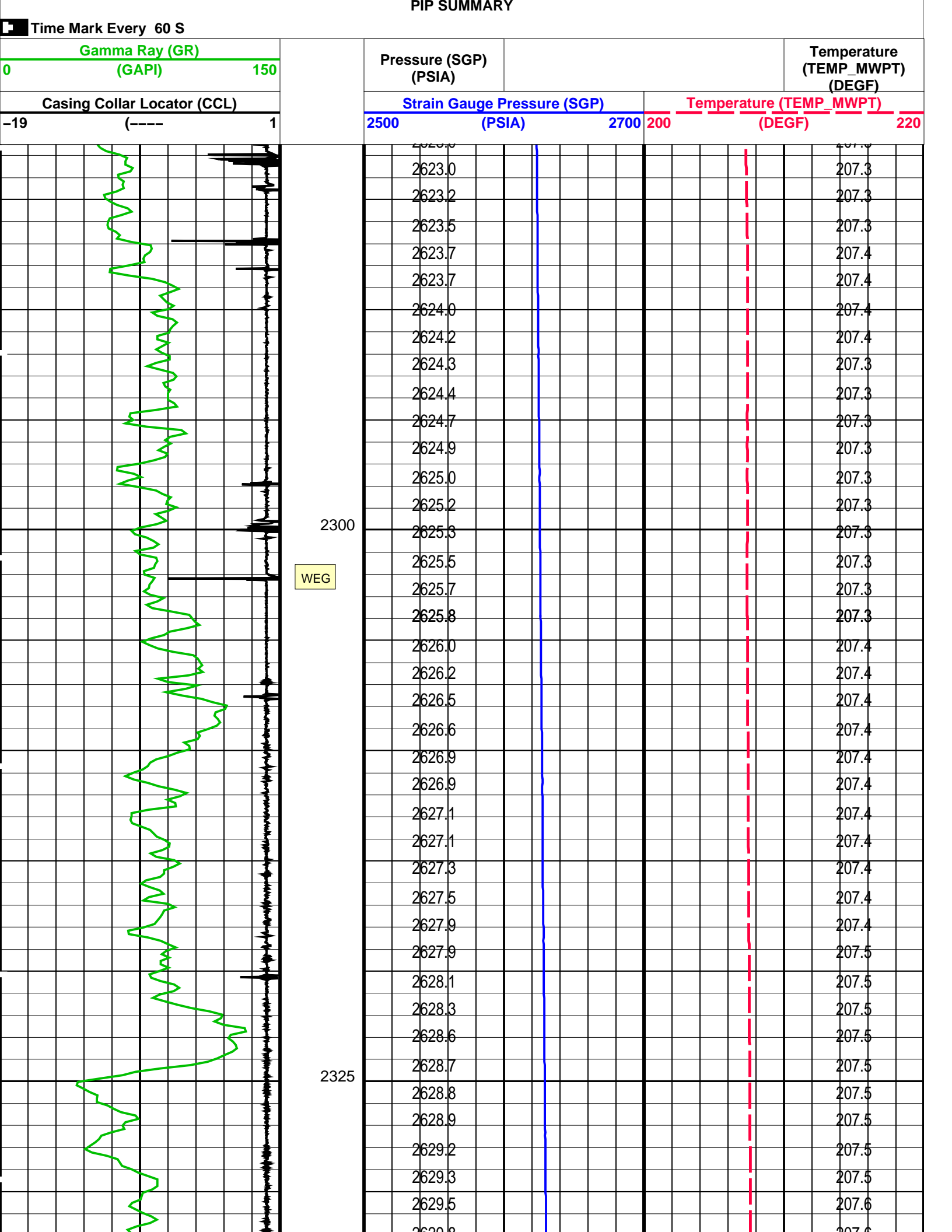
PERFO2 Operational Summary Listing				
Device	Status	Req Depth ( M)	Obs Depth ( M)	Time Used
Gun1	Used	2365.4	2365.4	Fri Feb 23 16:56:48

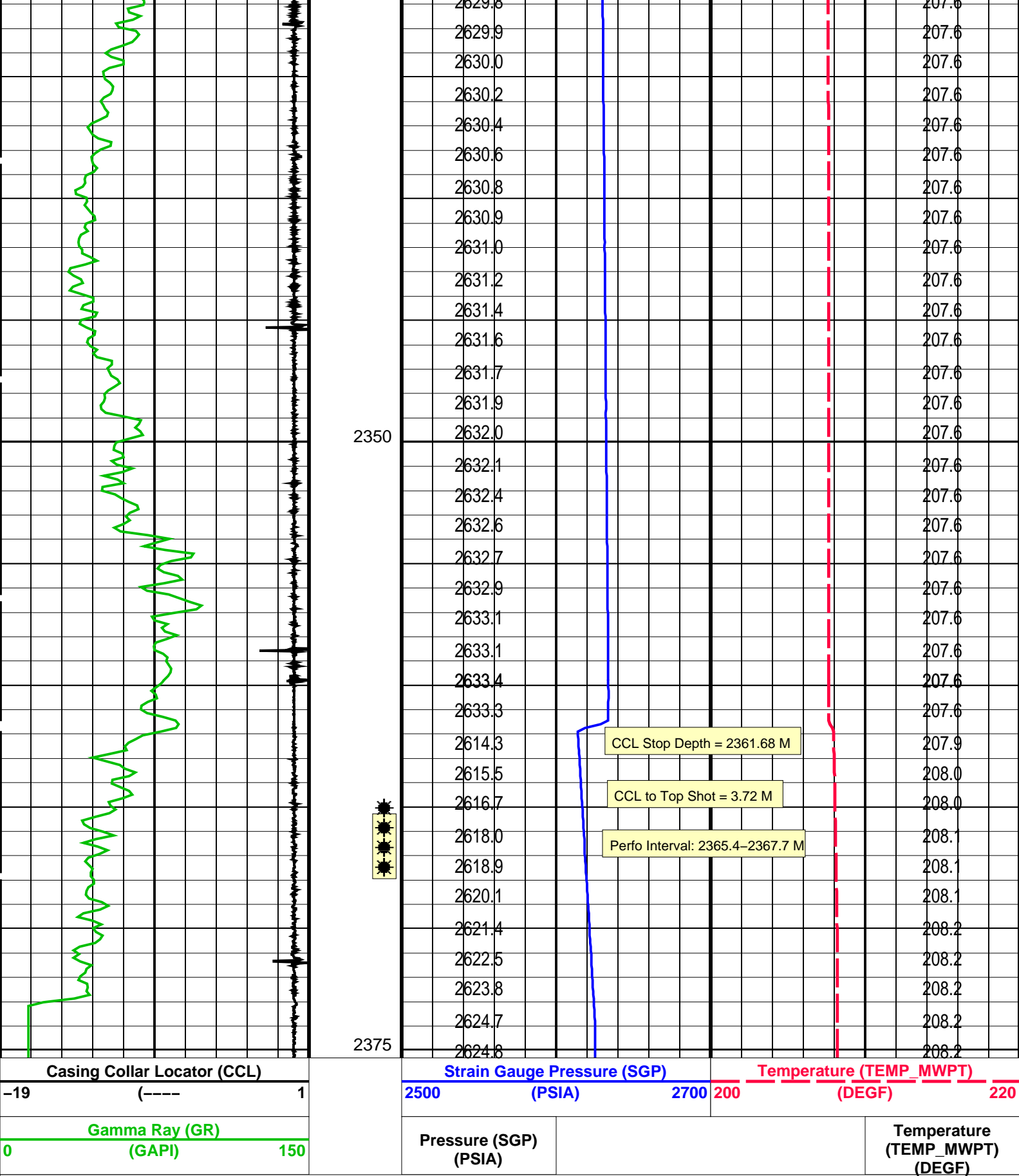


2-1/8" Ph Powerjet Shooting Record

MAXIS Field Log

Company: Esso Australia Pty Ltd.						Well: BMA A-2a
Output DLIS Files						
DEFAULT	PERFO_032LUP	FN:31	PRODUCER	23-Feb-2007 16:30	2375.3 M	2282.5 M
OP System Version: 14C0-302						
MCM						
MWP_GUN	PTC-3268-NUCL_b		MWPT-CA		PTC-3268-NUCL_b	
MWGT-BA	PTC-3268-NUCL_b					





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



2-1/8" Ph Powerjet  
Correlation Pass

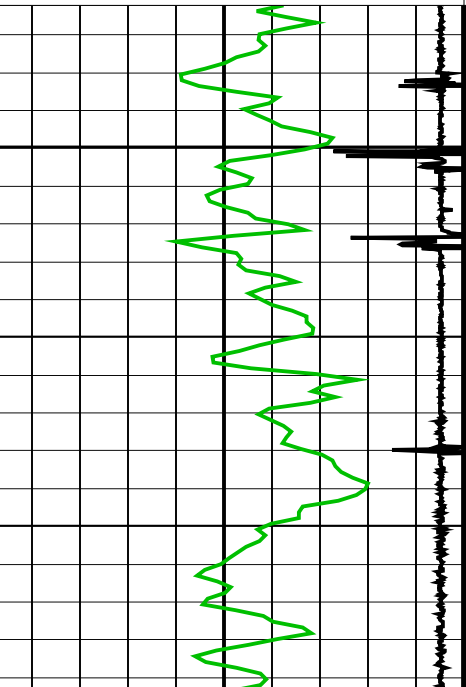
MAXIS Field Log

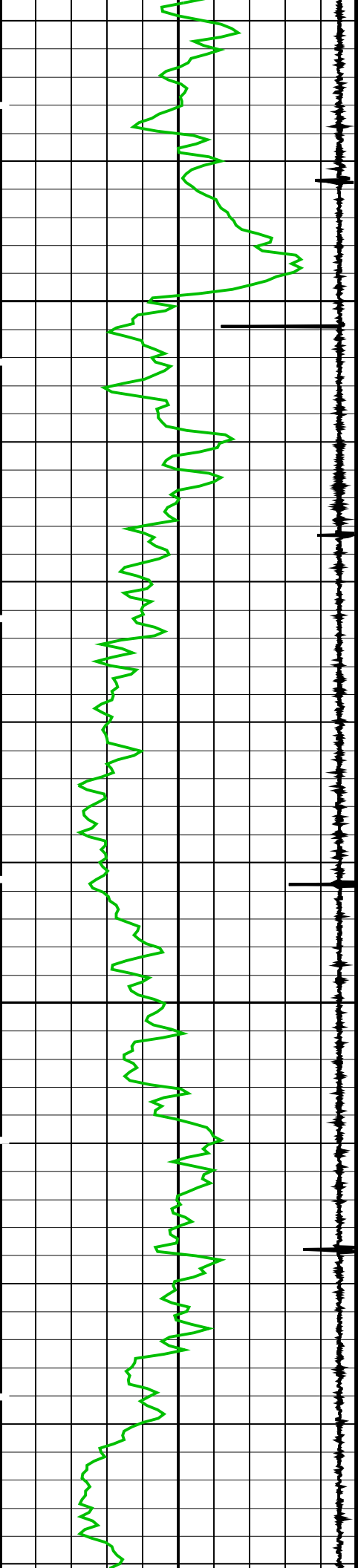
Company: Esso Australia Pty Ltd.

Well: BMA A-2a

PIP SUMMARY

☐ Time Mark Every 60 S

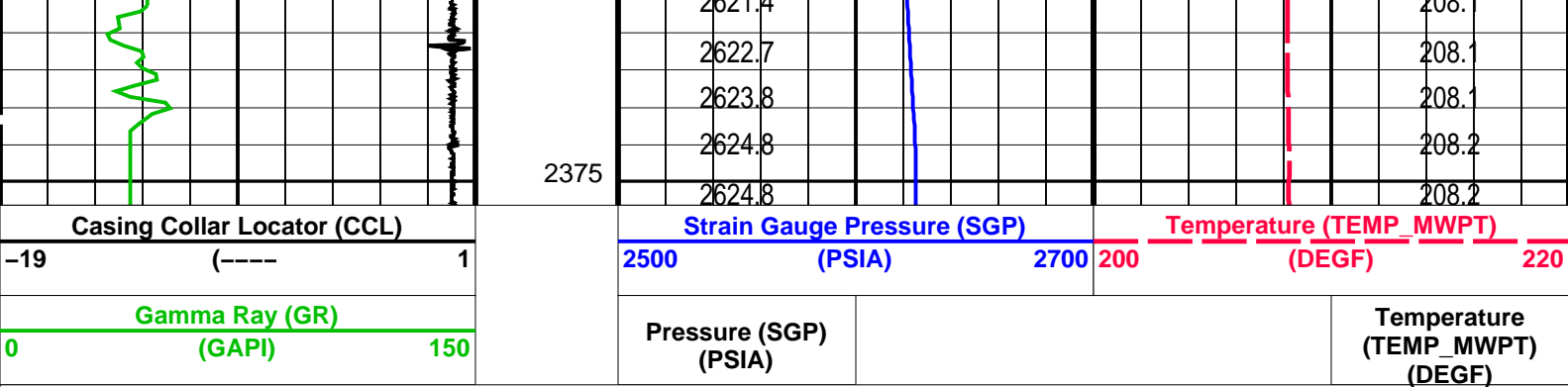
Gamma Ray (GR) (GAPI)		Pressure (SGP) (PSIA)	Temperature (TEMP_MWPT) (DEGF)	
0	150		Temperature (TEMP_MWPT) (DEGF)	
Casing Collar Locator (CCL)		Strain Gauge Pressure (SGP) (PSIA)		Temperature (TEMP_MWPT) (DEGF)
-19	1	2500	2700	200 220
	2300	2554.0		206.6
		2554.9		206.6
		2556.1		206.6
		2557.4		206.7
		2558.4		206.7
		2559.6		206.8
		2560.9		206.8
		2561.9		206.8
		2563.0		206.9
		2564.3		206.9
		2565.3		206.9
		2566.7		206.9
		2567.7		206.9
		2568.9		206.9
		2570.0		207.0



2325

2350

2570.0	207.0
2571.4	207.0
2572.4	207.0
2573.7	207.0
2574.7	207.0
2575.8	207.0
2577.1	207.1
2578.3	207.1
2579.3	207.1
2580.5	207.1
2581.8	207.2
2582.7	207.2
2584.0	207.2
2585.1	207.2
2586.3	207.2
2587.4	207.3
2588.6	207.3
2589.7	207.3
2591.1	207.3
2592.0	207.4
2593.3	207.4
2594.6	207.4
2595.7	207.5
2596.7	207.5
2598.0	207.5
2599.1	207.5
2600.2	207.6
2601.5	207.6
2602.6	207.6
2603.7	207.6
2605.0	207.7
2606.1	207.7
2607.4	207.8
2608.7	207.8
2609.6	207.9
2610.7	207.9
2612.1	207.9
2613.2	208.0
2614.5	208.0
2615.6	208.0
2616.6	208.0
2617.9	208.0
2619.1	208.1
2620.3	208.1
2621.4	208.1



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: 23-Feb-2007 16:09			

OP System Version: 14C0-302			
MCM			
MWP_GUN	PTC-3268-NUCL_b	MWPT-CA	PTC-3268-NUCL_b
MWGT-BA	PTC-3268-NUCL_b		

Output DLIS Files			
DEFAULT	PERFO_031LUP	FN:30 PRODUCER	23-Feb-2007 16:09



7" HPI Setting Pass

MAXIS Field Log

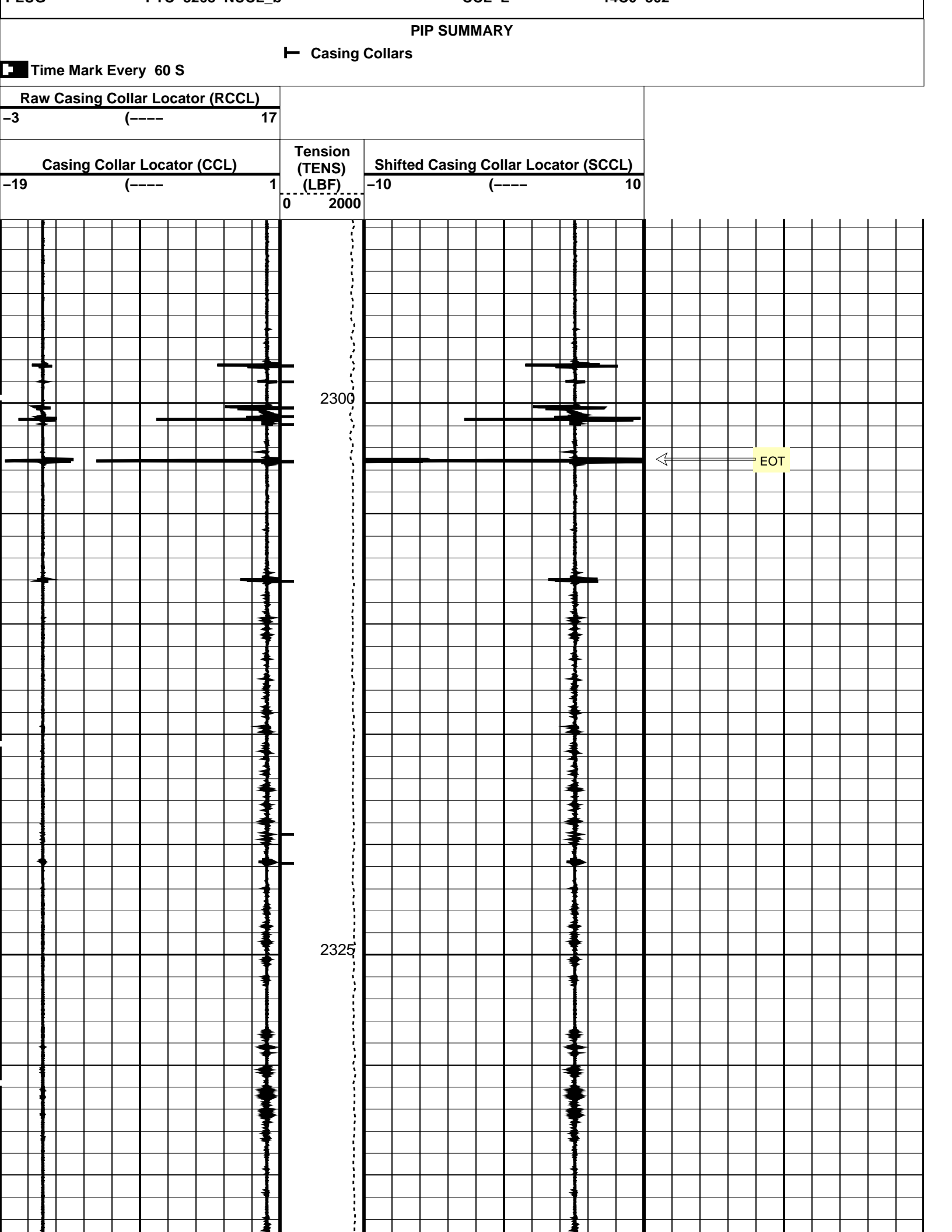
PERFO2 Operational Summary Listing

Device	Status	Req Depth ( M )	Obs Depth ( M )	Time Used
PLUG1	Used	2385.0	2385.0	Fri Feb 23 02:32:26 2007

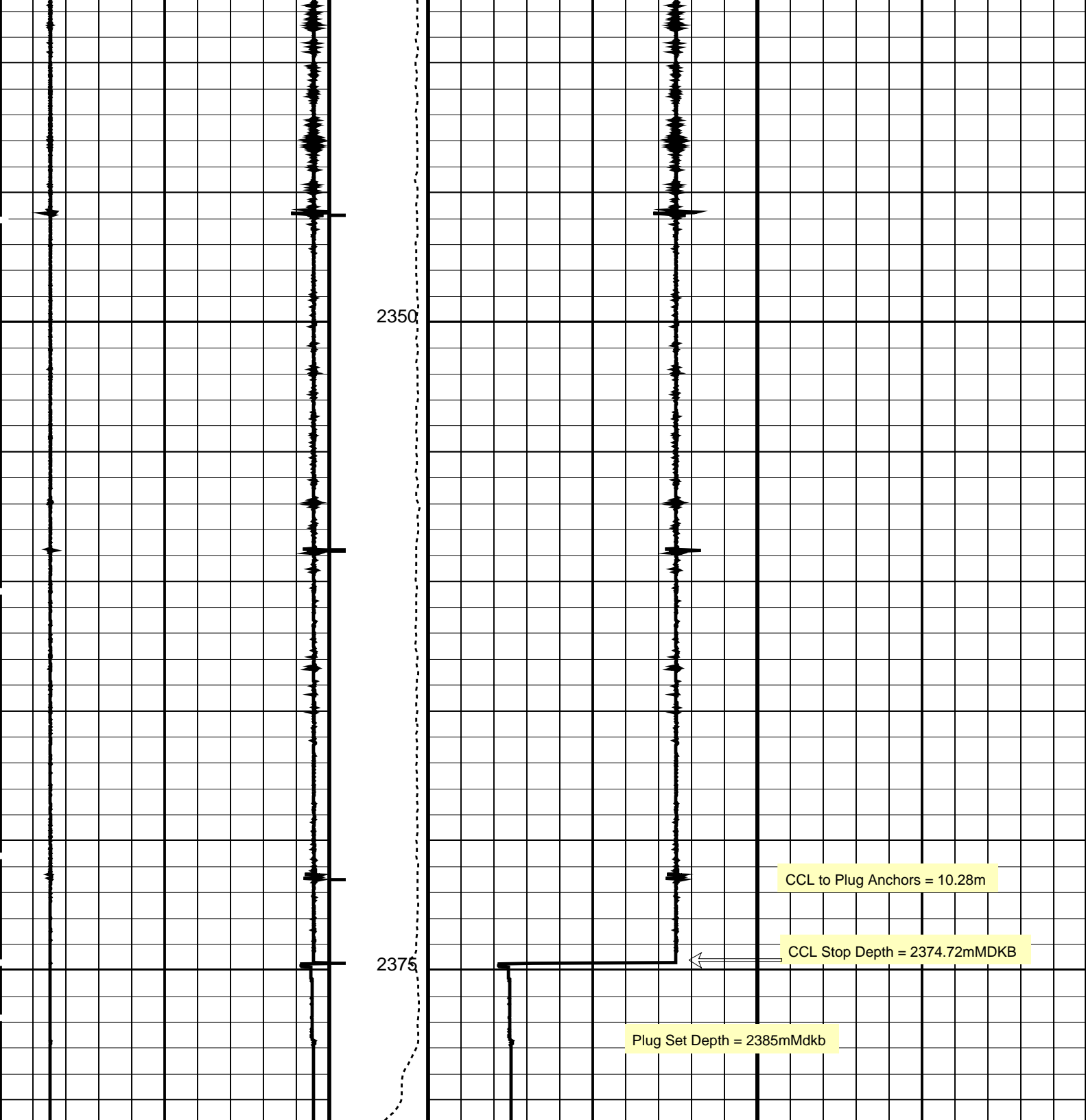
Company: Esso Australia Pty Ltd. Well: BMA A-2a

Output DLIS Files					
DEFAULT	PLUG_021LUP	FN:20	PRODUCER	23-Feb-2007 02:27	2380.8 M 2291.6 M

OP System Version: 14C0-302			
MCM			
PLUG	PTC-3268-NUCL_b	CCI-I	14C0-302







Casing Collar Locator (CCL)	Tension (TENS) (LBF)	Shifted Casing Collar Locator (SCCL)
-19 (----) 1	0 2000	-10 (----) 10
Raw Casing Collar Locator (RCCL)		
-3 (----) 17		

PIP SUMMARY		
Time Mark Every 60 S		
Casing Collars		

Parameters		
DLIS Name	Description	Value

V

**Graphics File Created: 23-Feb-2007 02:27**

## MCM

**14C0-302**

23-Feb-2007 02:27



MAXIS Field Log

Well: BMA A-2a

23-Feb-2007 02:11

## MCM

**14C0-302**

## └ Casing Collars

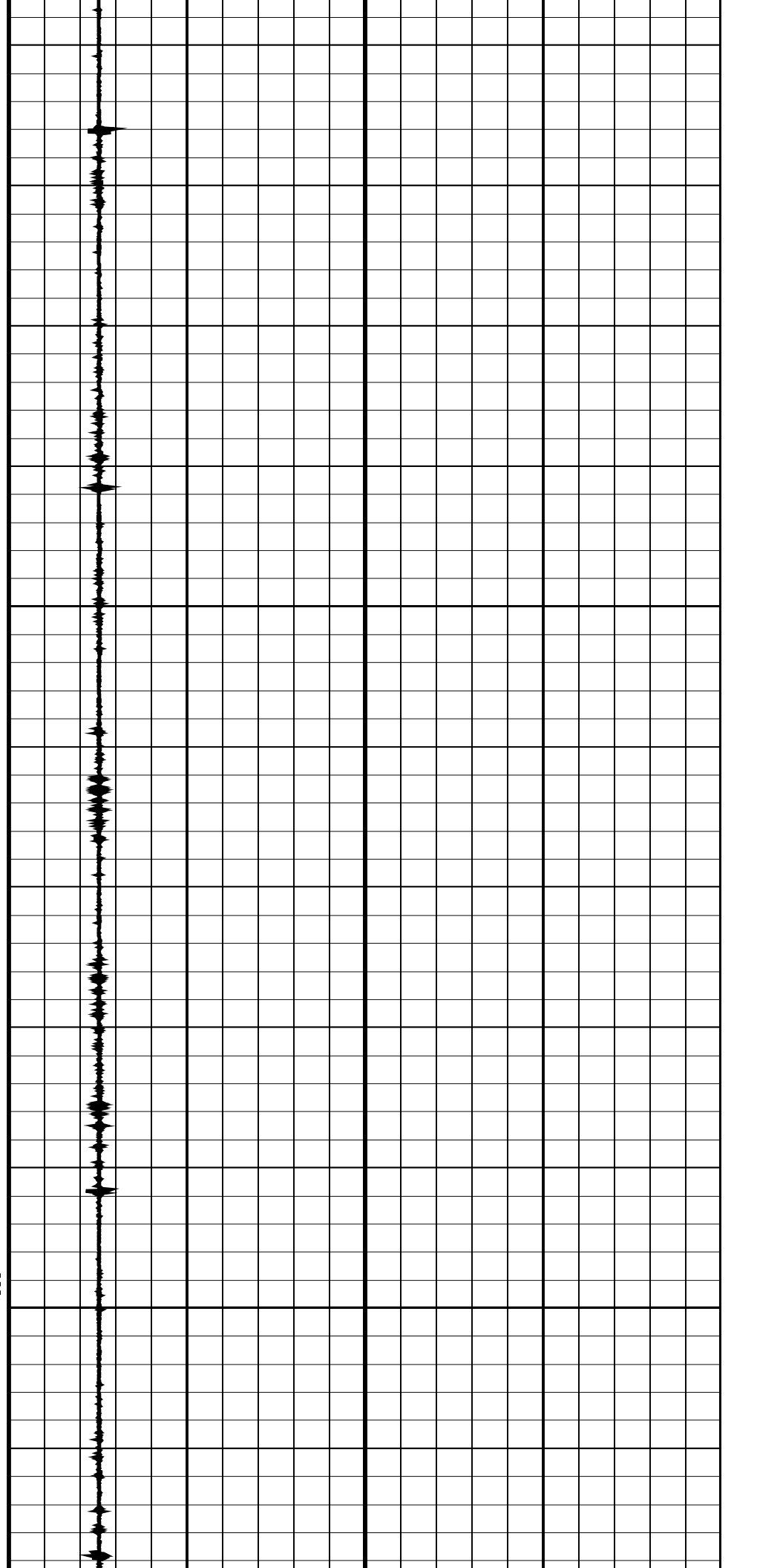
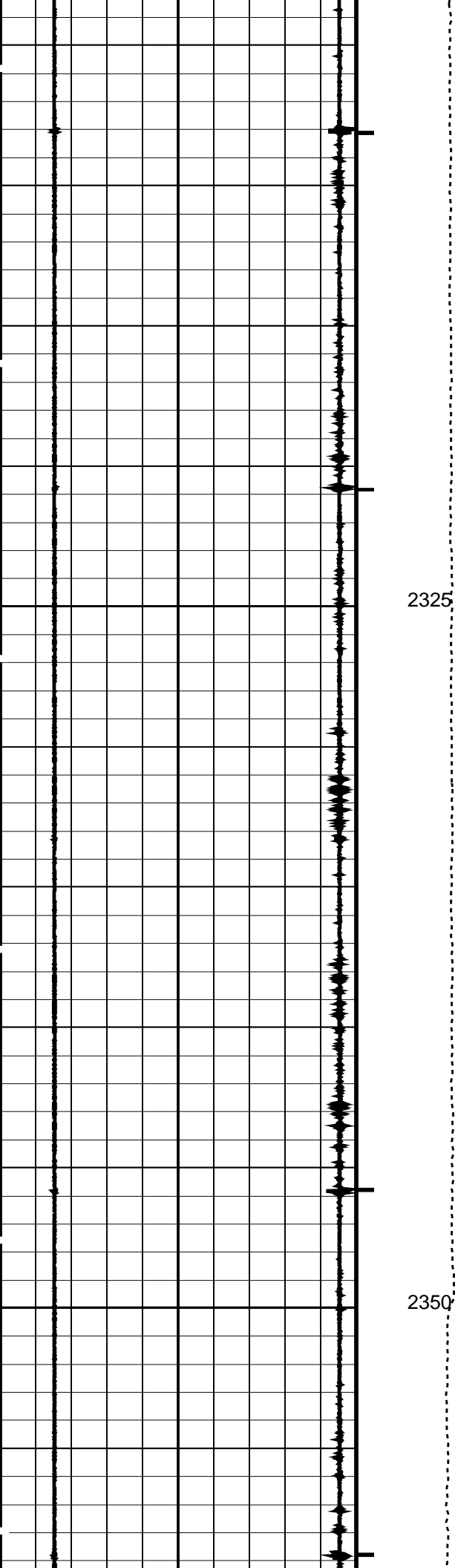
**Time Mark Every 60 S**

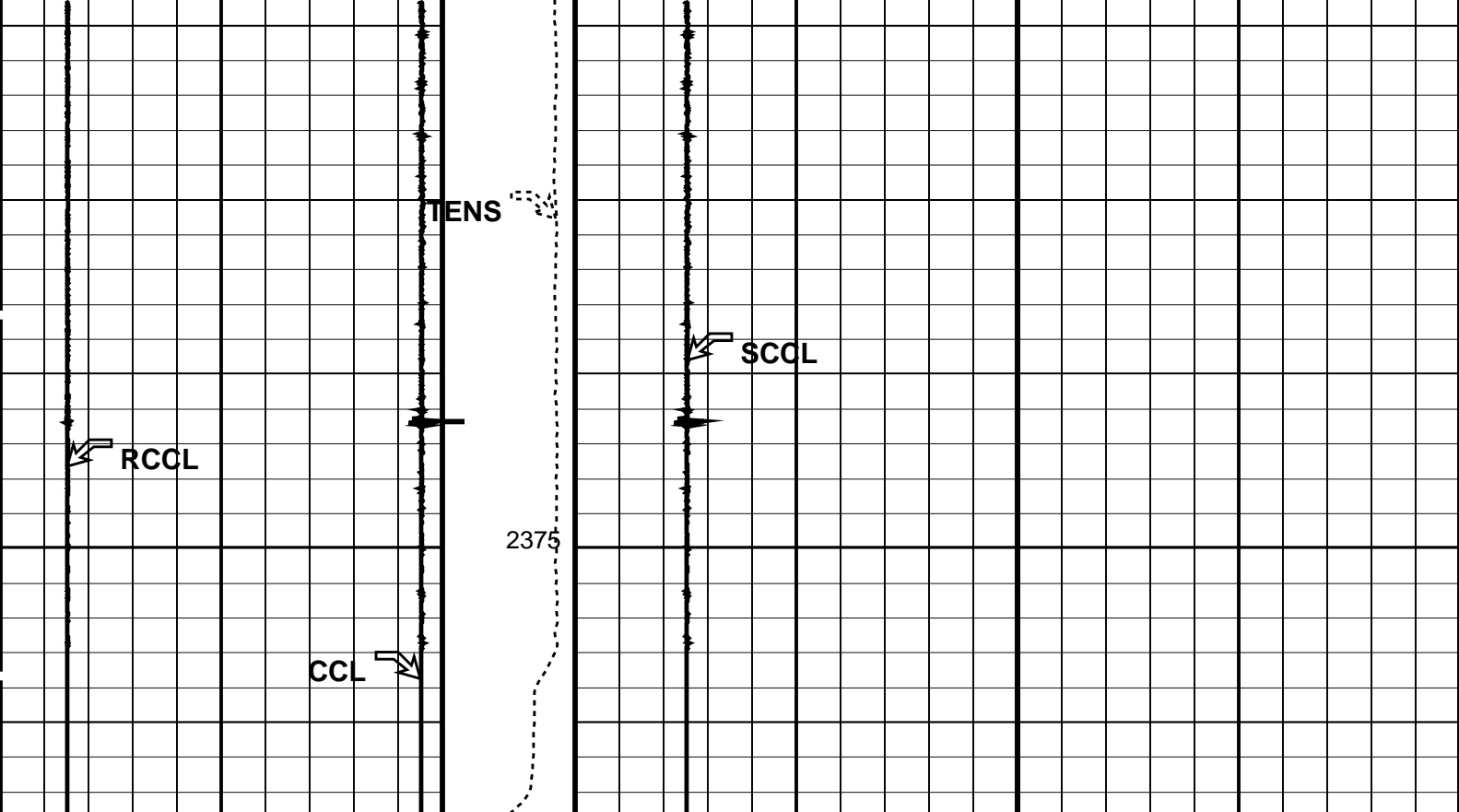
### Raw Casing Collar Locator (RCCL)

### Shifted Casing Collar Locator (SCCL)

$-10$  (-----  $10$

2300





Casing Collar Locator (CCL)	Tension (TENS) (LBF)	Shifted Casing Collar Locator (SCCL)
-19 (----) 1	0 2000	-10 (----) 10
Raw Casing Collar Locator (RCCL)		
-3 (----) 17		

#### PIP SUMMARY

← Casing Collars

Time Mark Every 60 S

#### Parameters

DLIS Name	Description	Value
CCLD	CCL-L: Casing Collar Locator	12 IN
CCLT	CCL reset delay	0.3 V
	CCL Detection Level	

Format: PERFO Vertical Scale: 1:200 Graphics File Created: 23-Feb-2007 02:12

#### OP System Version: 14C0-302

MCM

PLUG PTC-3268-NUCL\_b CCL-L 14C0-302

#### Output DLIS Files

DEFAULT PLUG\_020LUP FN:19 PRODUCER 23-Feb-2007 02:11

**Schlumberger**

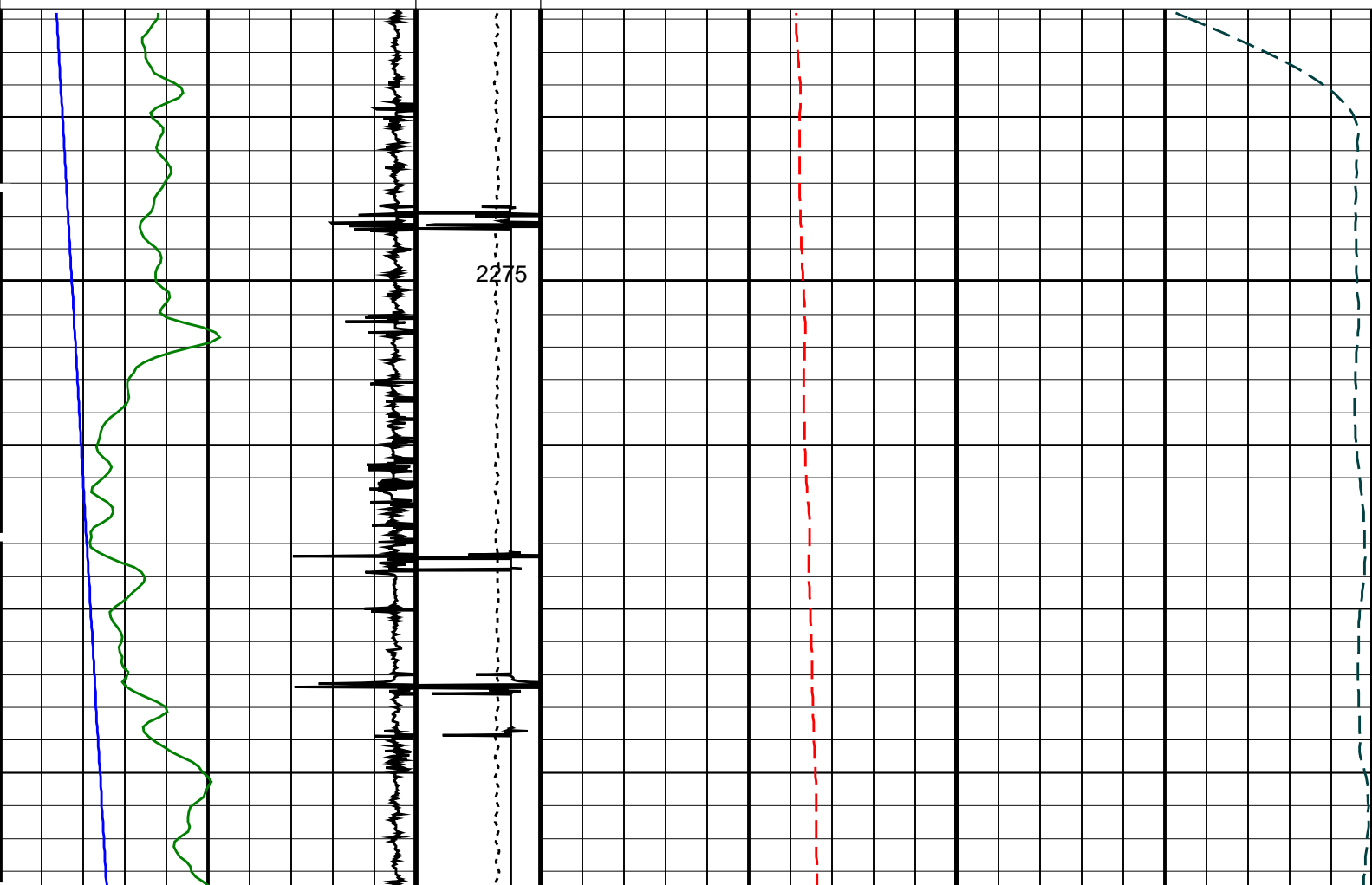
**HPI Dummy Run**

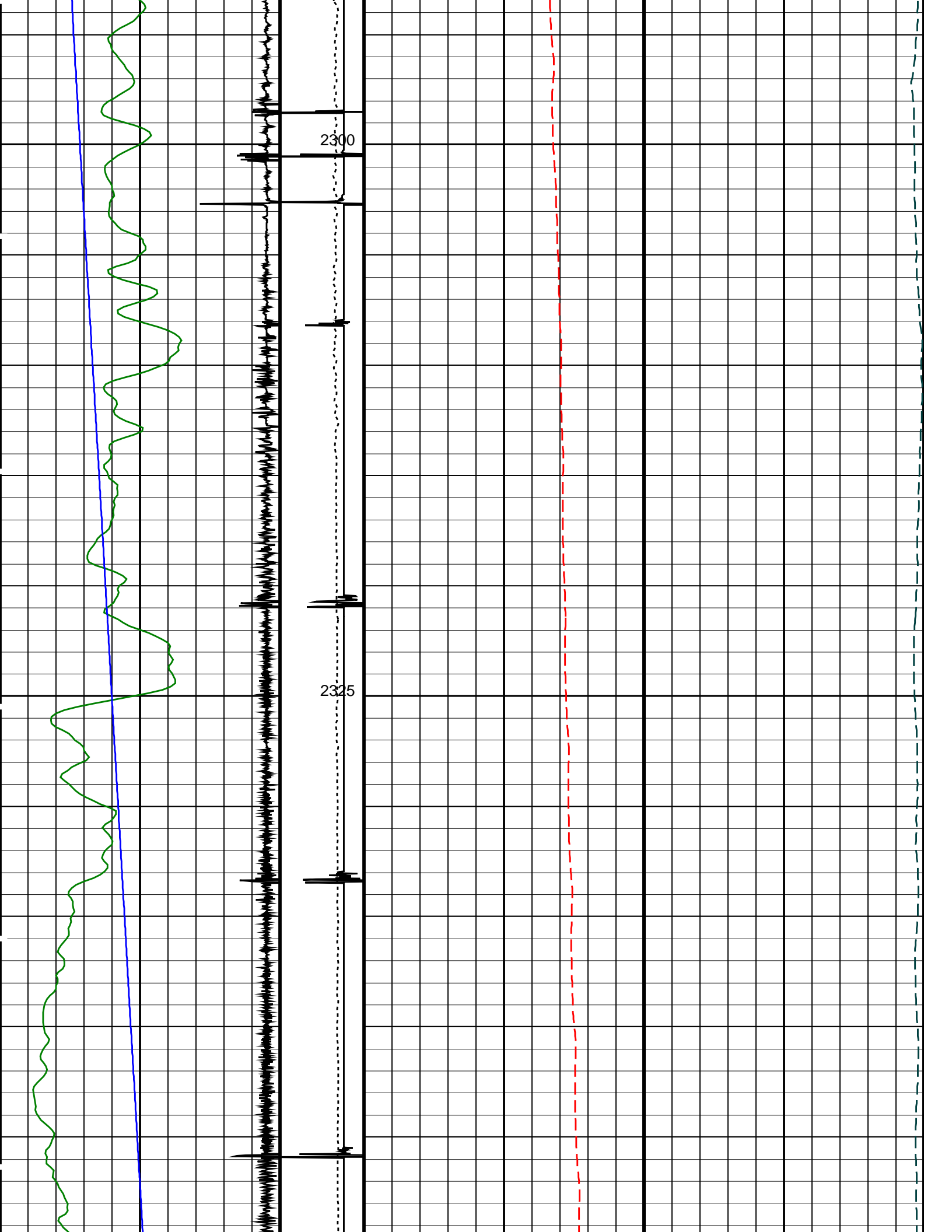
Input DLIS Files					
DEFAULT	PSP_013LUP	FN:12	PRODUCER	22-Feb-2007 19:21	2396.8 M 2266.3 M
Output DLIS Files					
DEFAULT	PSP_014PUP	FN:13	PRODUCER	22-Feb-2007 19:43	2396.6 M 2266.6 M

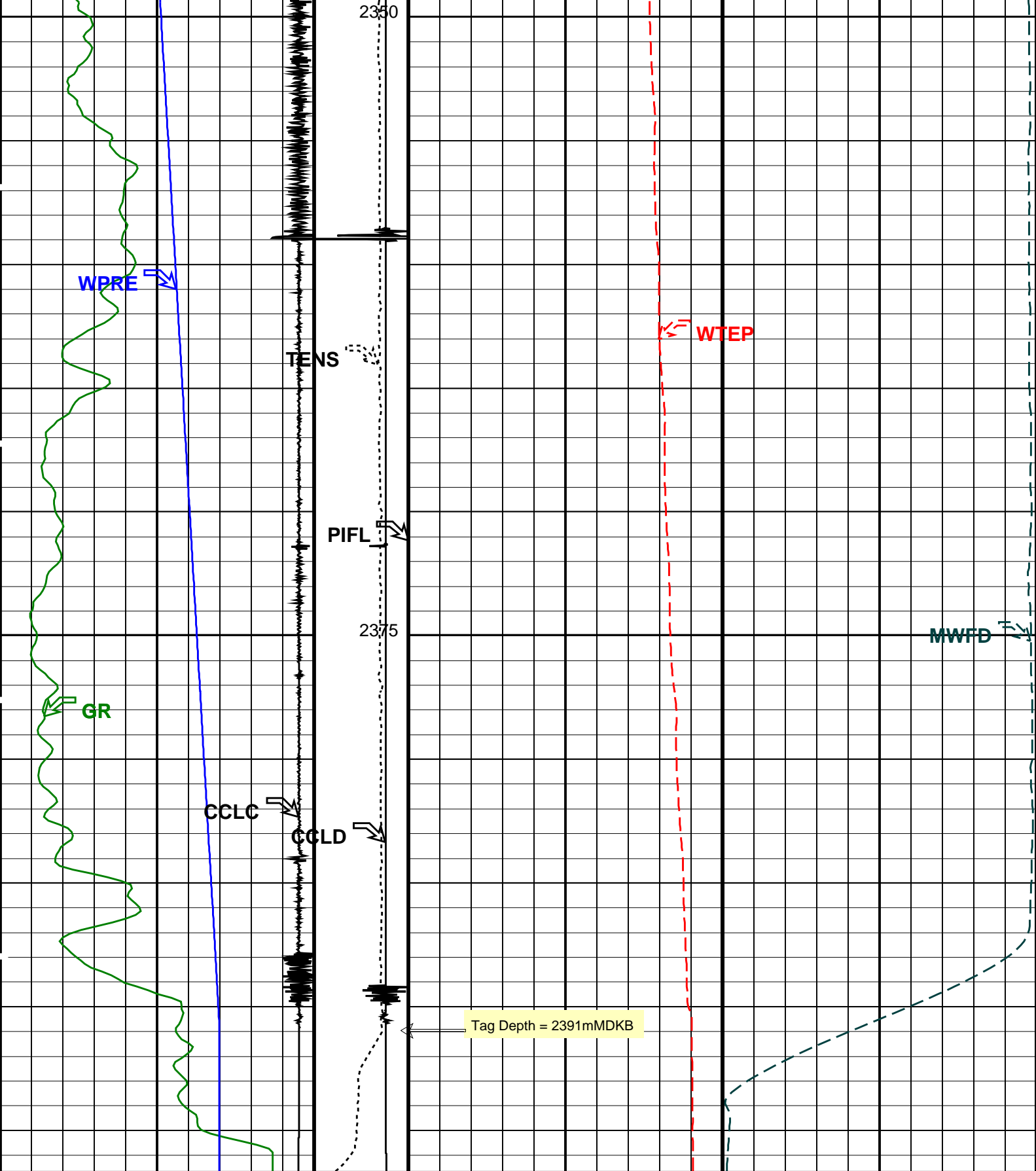
OP System Version: 14C0-302	
MCM	
PSPT-A/B	14C0-302

PIP SUMMARY	
Time Mark Every 60 S	

Well Pressure (WPRE) (PSIA)	2500 2700	Perfo Zone From PERFO_CURVE to D3T	
Gamma Ray (GR) (GAPI)	0 150	Discriminat ed CCL (CCLD) (V)	-1
Computed CCL (CCLC) (V)	-19 1	Tension (TENS) (LBF)	500 2500
		Well Temperature (WTEP) (DEGF)	200 220
		Manometer Well Fluid Density (MWFD) (G/C3)	0 1







Computed CCL (CCLC) (V)		Tension (TENS) (LBF)		Well Temperature (WTEP) (DEGF)	
-19	1	500	2500	200	220
Gamma Ray (GR) (GAPI)		Discriminat ed CCL (CCLD) (V)		Manometer Well Fluid Density (MWFD) (G/C3)	
0	150	3	-1	0	1
		Perfo			

