

Company: Esso Australia Ltd.

Well: HLA-20a

Field: Halibut

Rig: Crane / Prod 2 Country: Australia

2 1/8" Enerjet
MWPT
Perforating Record

Rig: Crane / Prod 2
Field: Halibut
Location: Gippsland
Well: HLA-20a
Company: Esso Australia Ltd.

LOCATION	
Gippsland	Elev.: K.B. 29.32 m
Basin	G.L. -90 m
Bass Strait	D.F. 29.32 m
Permanent Datum:	Mean Sea Level
Log Measured From:	Kelly Bushing
Drilling Measured From:	Kelly Bushing

State: Victoria	Max. Well Deviation 37 deg	Longitude 148 19' 07.62" E	Latitude 38 24' 20.36" S
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Logging Date	24-May-2006		
Run Number	1		
Depth Driller	2715 m		
Schlumberger Depth	2696.3 m – Not Tagged		
Bottom Log Interval	2667 m		
Top Log Interval	2661 m		
Casing Fluid Type	Production Fluids		
Salinity			
Density			
Fluid Level			
BIT/CASING/TUBING STRING			
Bit Size	6.625 in		
From	2158 m		
To	2835 m		
Casing/Tubing Size	4.500 in		
Weight	12.6 lbm/ft		
Grade	13 Cr		
From	2017.82 m		
To	2784.85 m		
Maximum Recorded Temperatures	108 degC		
Logger On Bottom	24-May-2006	7:30	
Unit Number	3827	AUSL	
Recorded By	O. Tahmisić, P. Tarrant		
Witnessed By	B. Woodward, M. Wilson		

PVT DATA			
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	37 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: 24-MAY-2006 7:27:17

Logging Cable

Type:	CMTD-B/A
Serial Number:	1711
Calibration Date:	19-Apr-2006
Calibrator Serial Number:	1173
Calibration Gain:	1.02
Calibration Offset:	306.00

Type:	2-32ZT
Serial Number:	24031
Length:	6249.92 M
Conveyance Method:	Wireline
Rig Type:	Offshore Fixed

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	Solar Log
Reference Log Run Number:	Unknown
Reference Log Date:	Unknown

1. All Schlumberger Depth Control Policies followed.
2. Gamma Ray response used for correlation.
3. Correlation log provided by Esso.
4. IDW used as Primary Depth Control.
5. Z-Chart used as Secondary Depth Control.
- 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: MPBT
OS2:
OS3:
OS4:
OS5:

Log correlated to Solar Log provided by client.

Objective:
Perforate the interval 2661m to 2667m MDKB using 2 1/8" Enerjet Gun
loaded with PowerSpirol charges.
Attempt to obtain a 300psi underbalance prior to perforating.

Maximum deviation is 37deg at 550m MDKB

API Data:

Penetration: 30.4"

Entrance Hole: 0.32"












Day crew: B. Glover and N. Simmons

Night crew: D. Stuckey and S. McGee

Performed by Schlumberger.

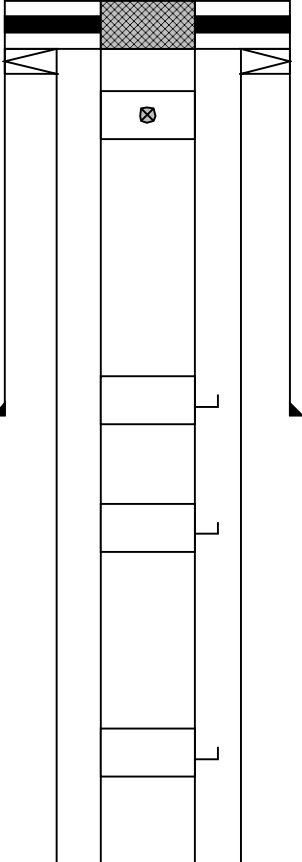
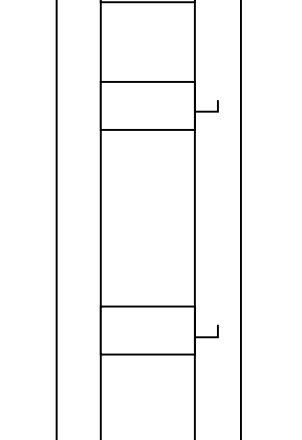
RUN 1			RUN 2		
SERVICE ORDER #: AUSL06148543 PROGRAM VERSION: 14C0-302 FLUID LEVEL:			SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

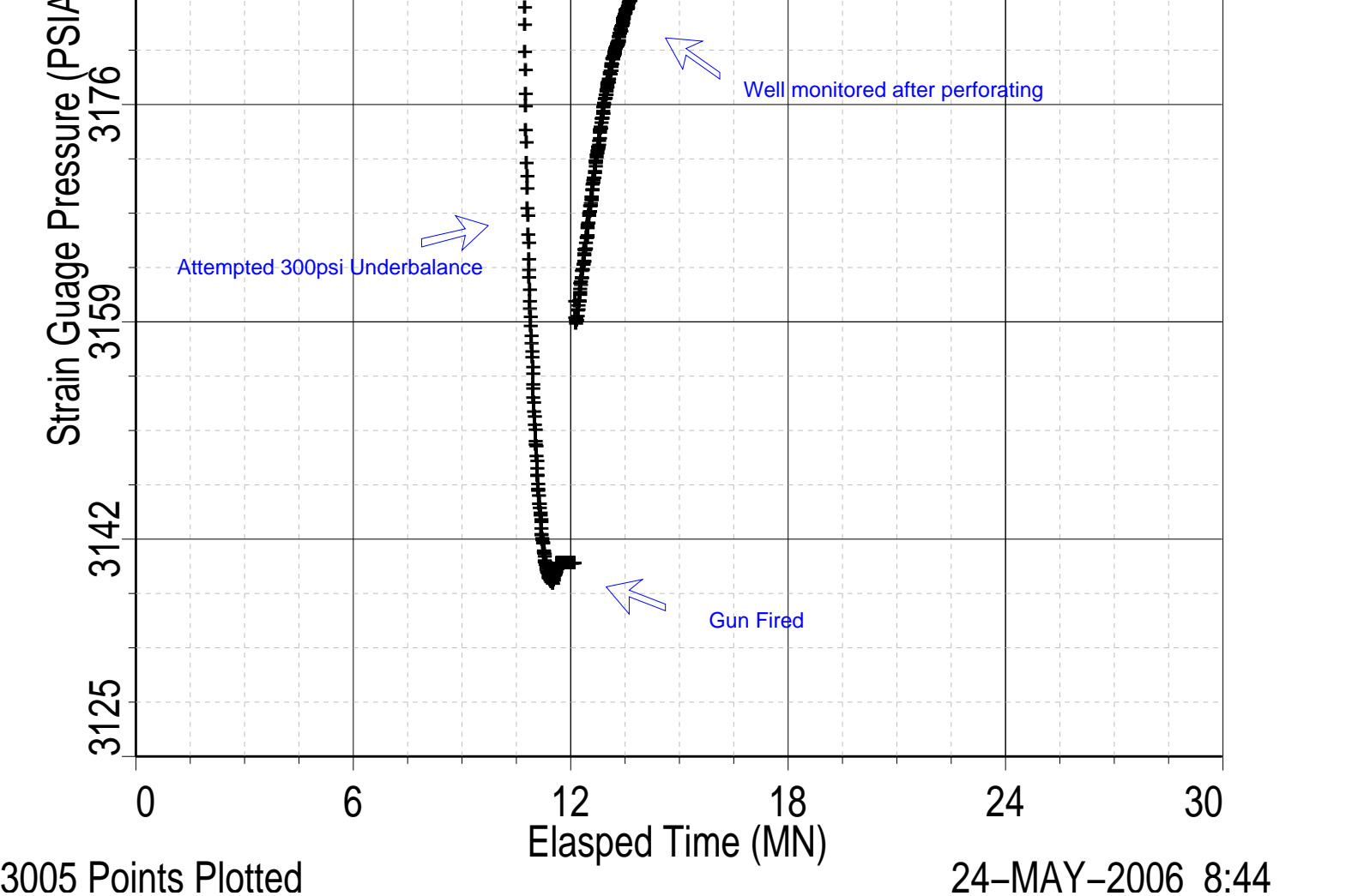
EQUIPMENT	DESCRIPTION
1	...
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100	...

RUN 1		RUN 2	
SURFACE EQUIPMENT			
MWPM-AA 3005			
DOWNHOLE EQUIPMENT			
MH-SWHS-A		15.73	
MH-SWHS-A 754			
EQF-46		15.34	
EQF-46			
AH-124 VEA		13.51	
MWGT-AA		13.30	
MWPG-AA			
MWGH-BA 68	MWPG GR	2.41	
MWPT-CA		12.32	
MWPH-BA 10			
MWPS-BA 93			
	CCL		
	SMWP Pres		
	SMWP Temp		
	Tension	TOOL ZERO	
AH-Tool Saver		9.50	
AH-Tool Saver 2			
AH-122		8.96	
AH-SAH-G		8.83	
AH-SAH-G 1220			
MPD-MB 264		8.42	
MPD-MB			
AH-ESIC		7.92	
AH-ESIC 26031944			
MWB-CLIN		7.50	

TOOL BOTTOM

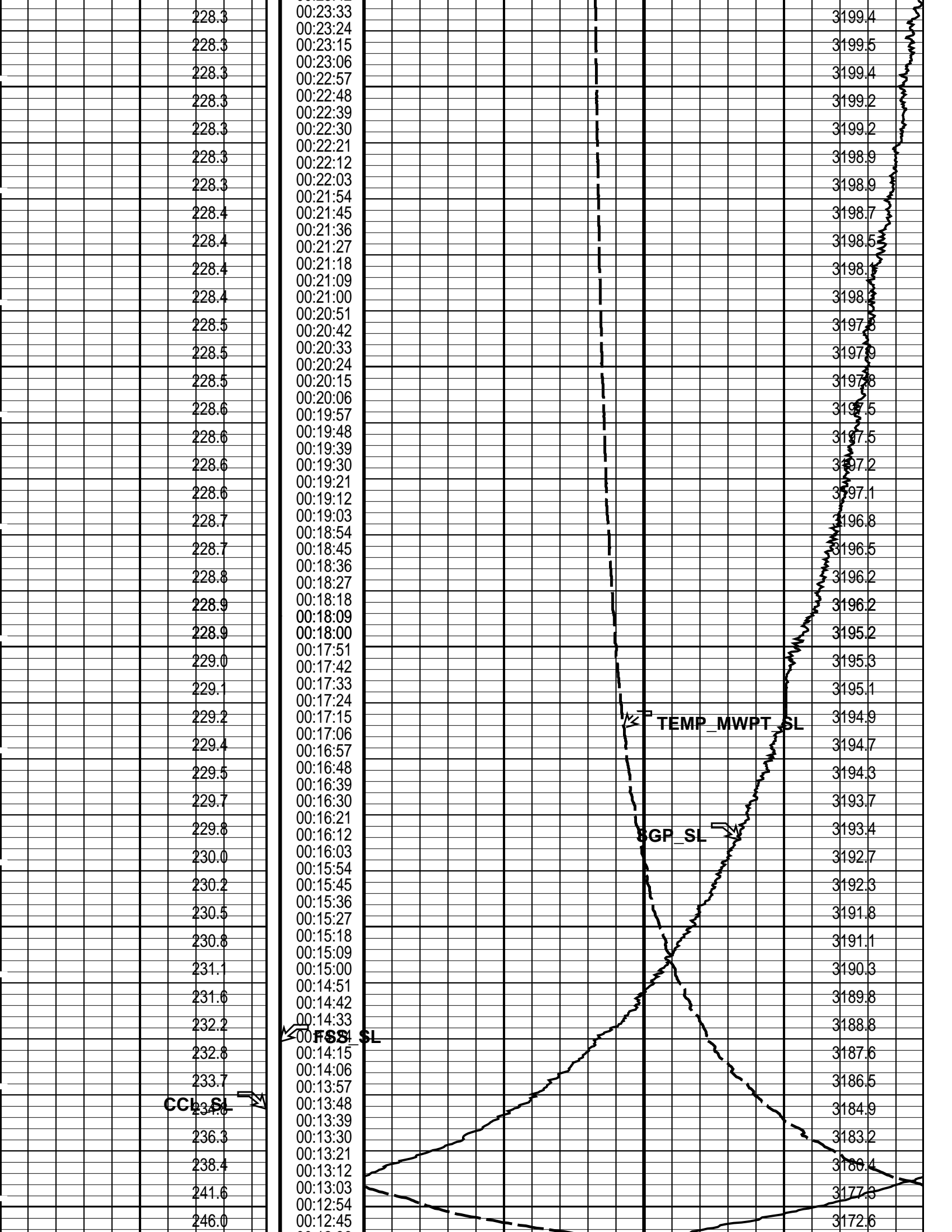
MAXIMUM STRING DIAMETER 2.13 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Production String	(in)		(m)	Well Schematic	(m)	(in)		Casing String
	OD	ID	MD		MD	OD	ID	
Tubing Hanger	10.750	3.500	12.2		11.9	10.750	7.000	Casing String Liner Hanger
Tubing	3.500		12.2		11.9	10.750	7.000	
Shutin Valve	3.500		145.5					
Gas Lift Mandrel	3.500		840.2		548.8	10.750		Casing Shoe
Gas Lift Mandrel	3.500		1275.5					
Gas Lift Mandrel	3.500		1749.3					



Output DLIS Files						
DEFAULT	PERFO_012LTP	FN:11	PRODUCER	24-May-2006 08:07	2657.6 M	3.8 M
OP System Version: 14C0-302						
MCM						
MWP_GUN	14C0-302	MWPT-CA		14C0-302		
MWGT-AA	14C0-302					

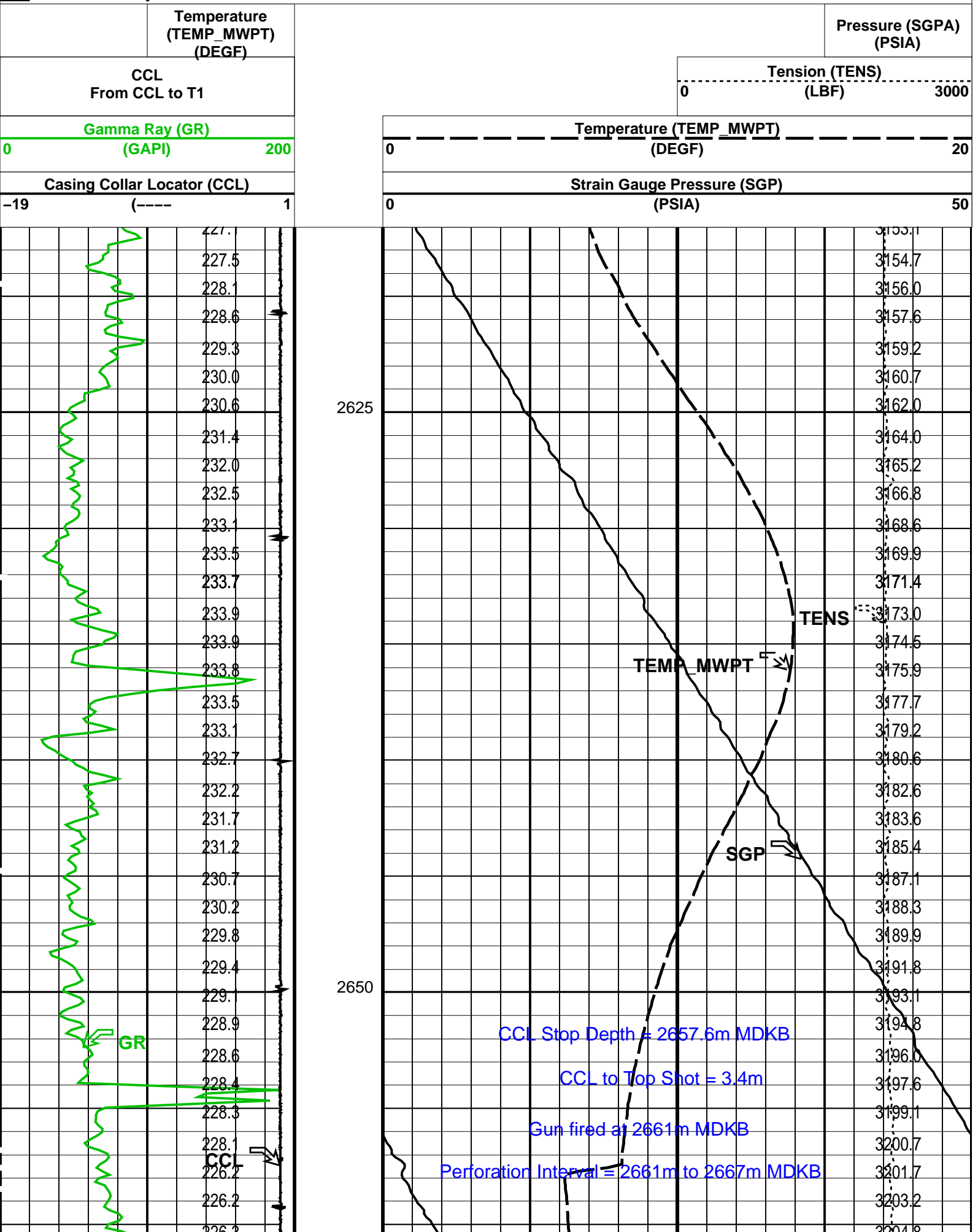
PIP SUMMARY													
Time Mark Every 60 S													
				Temperature (TEMP_MWPT_SL) (DEGF)				Pressure (SGPA_SL) (PSIA)					
CCL From CCL to T1				Firing Sequence State (FSS SL) (----	Temperature (TEMP_MWPT_SL) (DEGF)								
				0	20								
				0	1024								
Casing Collar Locator (CCL_SL)				Elapsed Time (ETIM) (S)	Strain Gauge Pressure (SGP_SL) (PSIA)								
-19 (-----) 1					0 20								

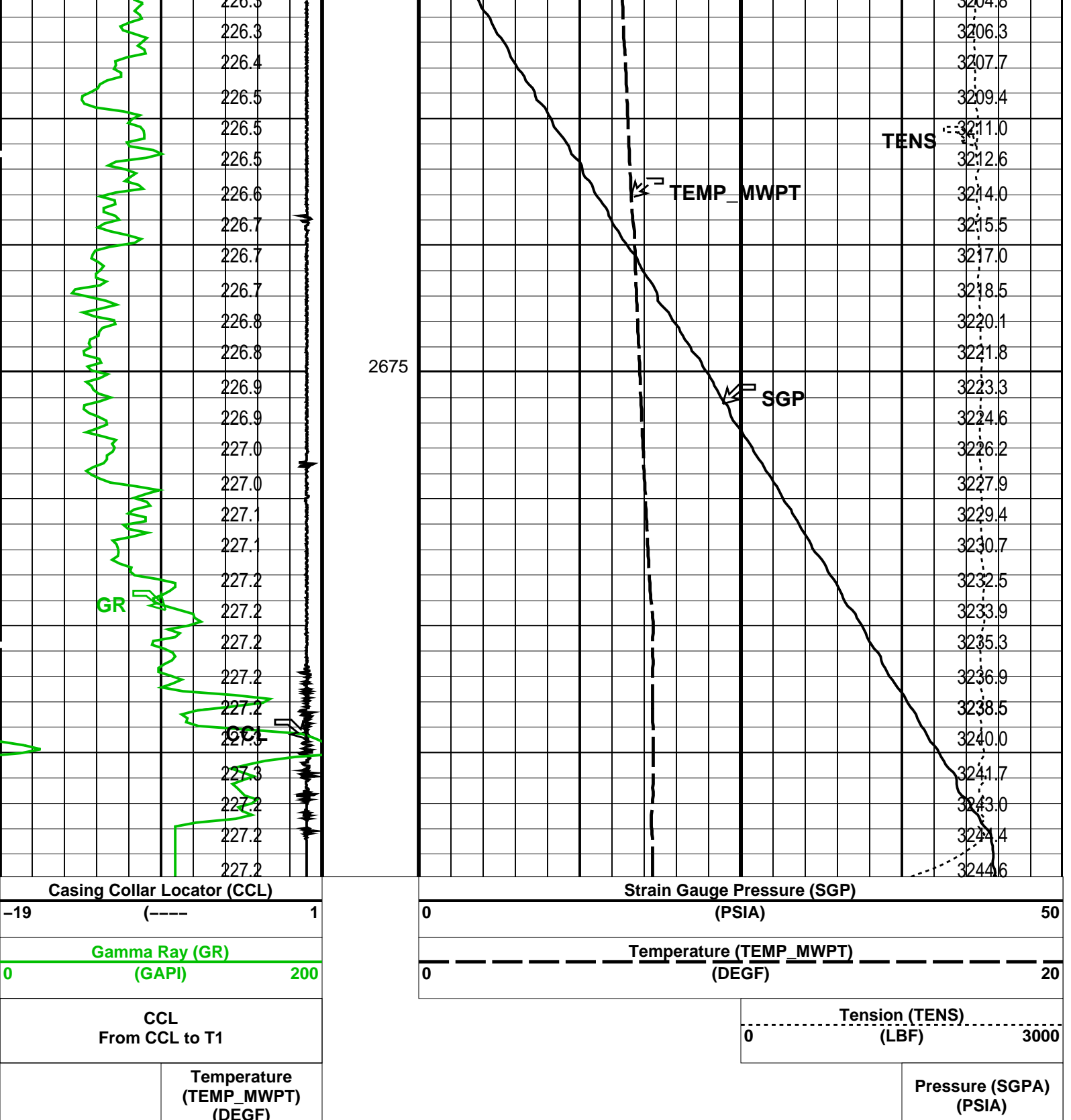


Time	Value	Value
00:12:36	253.5	3166.7
00:12:27	263.0	3164.2
00:12:18	226.4	3140.2
00:12:09	226.4	3140.2
00:12:00	226.4	3138.7
00:11:51	226.3	3141.3
00:11:42	226.2	3152.2
00:11:33	226.1	3179.1
00:11:24	226.1	3201.3
00:11:15	226.1	3201.4
00:11:06	226.1	3201.4
00:10:57	226.1	3201.5
00:10:48	226.1	3201.5
00:10:39	226.1	3201.5
00:10:30	226.1	3201.4
00:10:21	226.1	3201.5
00:10:12	226.1	3201.4
00:10:03	226.1	3201.3
00:09:54	226.1	3201.5
00:09:45	226.1	3201.5
00:09:36	226.1	3201.5
00:09:27	226.1	3201.4
00:09:18	226.1	3201.5
00:09:09	226.1	3201.4
00:09:00	226.1	3201.5
00:08:51	226.1	3201.4
00:08:42	226.1	3201.3
00:08:33	226.1	3201.2
00:08:24	226.1	3201.2
00:08:15	226.1	3201.4
00:08:06	226.1	3201.4
00:07:57	226.1	3201.5
00:07:48	226.1	3201.3
00:07:39	226.1	3201.3
00:07:30	226.1	3201.4
00:07:21	226.1	3201.4
00:07:12	226.1	3201.3
00:07:03	226.1	3201.5
00:06:54	226.1	3201.5
00:06:45	226.1	3201.3
00:06:36	226.1	3201.3
00:06:27	226.1	3201.4
00:06:18	226.1	3201.4
00:06:09	226.1	3201.3
00:06:00	226.1	3201.4
00:05:51	226.1	3201.3
00:05:42	226.1	3201.4
00:05:33	226.1	3201.4
00:05:24	226.1	3201.3
00:05:15	226.1	3201.4
00:05:06	226.1	3201.4
00:04:57	226.1	3201.4
00:04:48	226.1	3201.4
00:04:39	226.1	3201.4
00:04:30	226.1	3201.1
00:04:21	226.1	3201.3
00:04:12	226.1	3201.3
00:04:03	226.1	3201.3
00:03:54	226.1	3201.4
00:03:45	226.1	3201.3
00:03:36	226.1	3201.3
00:03:27	226.1	3201.3
00:03:18	226.1	3201.4
00:03:09	226.1	3201.4
00:03:00	226.1	3201.4
00:02:51	226.1	3201.4
00:02:42	226.1	3201.4
00:02:33	226.1	3201.4
00:02:24	226.1	3201.4
00:02:15	226.1	3201.3
00:02:06	226.1	3201.3
00:01:57	226.1	3201.3
00:01:48	226.1	3201.3
00:01:39	226.1	3201.3

PIP SUMMARY

Time Mark Every 60 S





PIP SUMMARY			
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: 24-May-2006 07:58	

MCM

MWP_GUN 14C0-302
MWGT-AA 14C0-302

MWPT-CA

14C0-302

Output DLIS Files

DEFAULT PERFO_011LUP FN:10 PRODUCER 24-May-2006 07:58

Schlumberger

2 1/8" MWPT Enerjet Gun
Correlation Pass

MAXIS Field Log

Output DLIS Files

DEFAULT PERFO_010LUP FN:9 PRODUCER 24-May-2006 07:44 2696.1 M 2625.4 M

OP System Version: 14C0-302

MCM

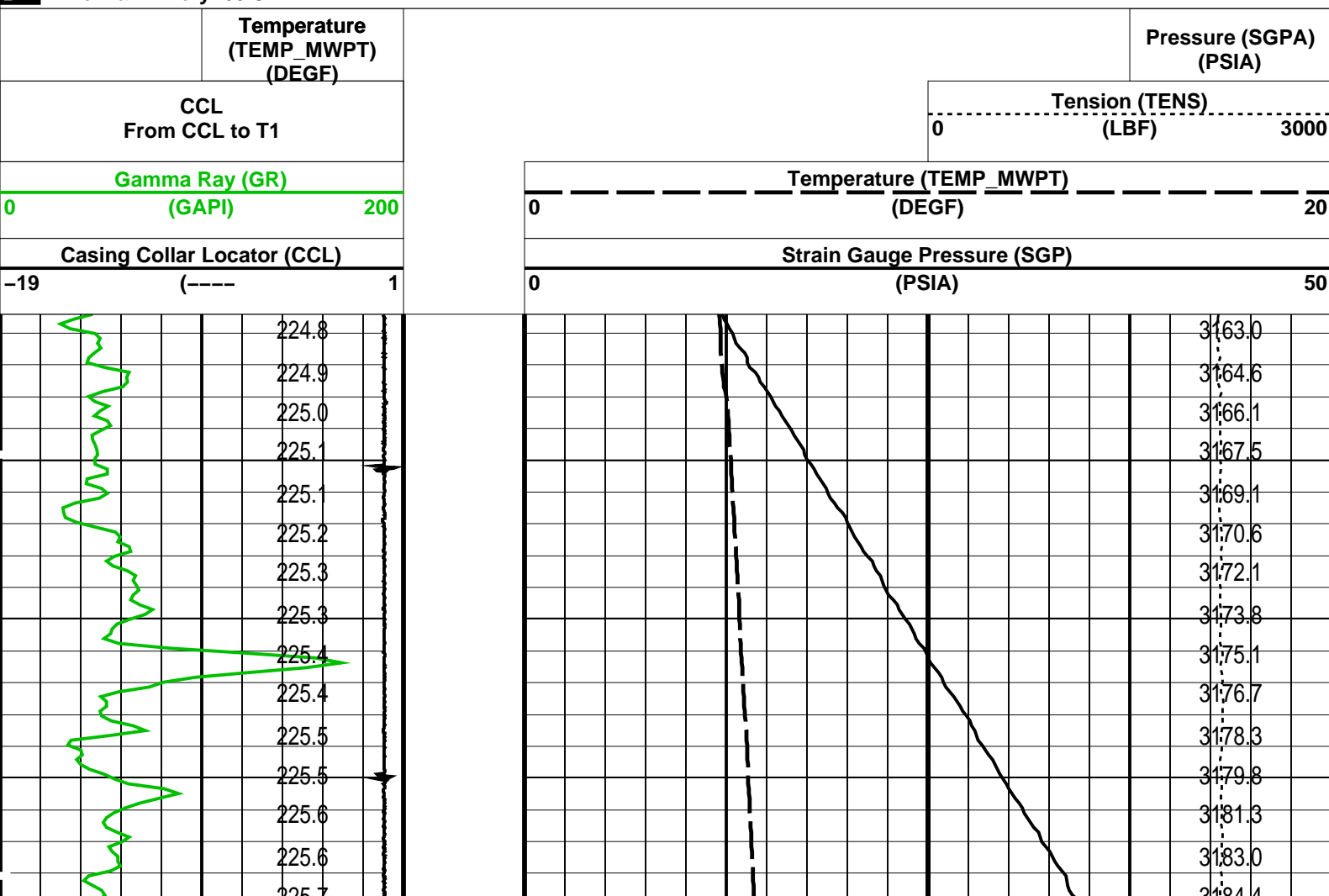
MWP_GUN 14C0-302
MWGT-AA 14C0-302

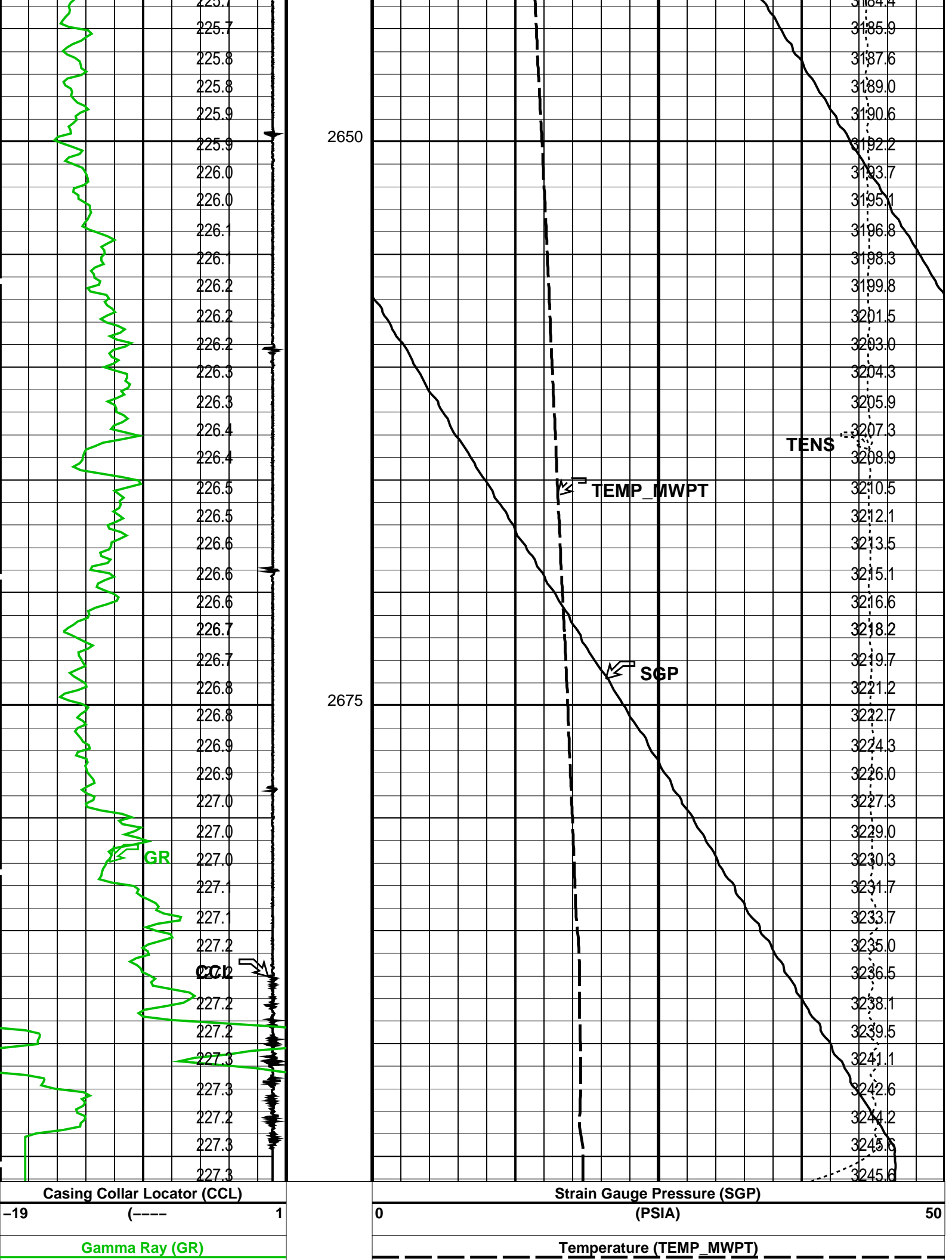
MWPT-CA

14C0-302

PIP SUMMARY

☒ Time Mark Every 60 S





0	(DEGF)	20
	<div> <div>Tension (TENS)</div> <div>0 (LBF) 3000</div> </div>	
		<div>Pressure (SGPA)</div> <div>(PSIA)</div>


Time Mark Every 60 S

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: 24-May-2006 07:44

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

DEFAULT	PERFO_010LUP	FN:9	PRODUCER	24-May-2006 07:44
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Company:	Esso Australia Ltd.	
Well:	HLA-20a	
Field:	Halibut	
Rig:	Crane / Prod 2	
Country:	Australia	

2 1/8" Enerjet MWPT Perforating Record
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