Bio: Grape / Prod 4

Schlumberger

Company: **ExxonMobil**

Well: **MLA A−1**
Field: **Marlin**
Rig: **Crane / Prod 4** Country: **Australia**

Rig: Crane / Prod 4
Field: Marlin
Location: Gippsland Basin
Well: MLA A−1
Company: ExxonMobil

2 1/8" Enerjet Gun
MWPT
Perforating Record

LOCATION

Gippsland Basin Bass Strait		Elev.: K.B.	27.4 m
		G.L.	−59 m
		D.F.	27.4 m
Permanent Datum:	Mean Sea Level	Elev.:	0.0 m
Log Measured From:	Kelly Bushing	27.4 m	above Perm. Datum
Drilling Measured From:	Kelly Bushing		

State:	Max. Well Deviation	Longitude	Latitude
Victoria	0 deg	148 13' 09.81" E	38 13' 55.49" S

Logging Date		29−Dec−2005						
Run Number		1						
Depth Driller		1647.4 m						
Schlumberger Depth		1609.5 m − Not Tagged						
Bottom Log Interval		1599.3 m						
Top Log Interval		1549.9 m						
Casing Fluid Type		Inhibited Brine						
Salinity								
Density								
Fluid Level								
BIT/CASING/TUBING STRING								
Bit Size		12.500 in						
From								
To								
Casing/Tubing Size		7.000 in						
Weight		29 lbm/ft						
Grade		L−80						
From		1021.74 m						
To		1625.5 m						
Maximum Recorded Temperatures		86 degC						
Logger On Bottom	Time	29−Dec−2005	16:00					
Unit Number	Location	1	AUSL					
Recorded By		Paul Tarrant						
Witnessed By		Greg Rimmer						

		Run 1	Run 2	Run 3
PVT DATA	Oil Density			
	Water Salinity			
	Gas Gravity			
	Bo			
	Bw			
	1/Bg			
	Bubble Point Pressure			
	Bubble Point Temperature			
	Solution GOR			
	Maximum Deviation	0 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	Time							
Unit Number	Location							
Recorded By								
Witnessed By								

Run 4

DEPTH SUMMARY LISTING

Date Created: 29−DEC−2005 7:11:56

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−H	Type:	CMTD−C	Type:	2−32ZT
Serial Number:	797	Serial Number:	1037	Serial Number:	22372
Calibration Date:	01−May−2005	Calibration Date:	22 Sep 05	Length:	5099.91 M
Calibrator Serial Number:	1009	Calibrator Serial Number:	57144	Conveyance Method:	Wireline
Calibration Cable Type:	2−32ZT	Calibration Gain:	1.29	Rig Type:	Offshore_Fixed
Wheel Correction 1:	−3	Calibration Offset:	777.00		
Wheel Correction 2:	2				

Depth Control Parameters

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

Depth Control Remarks

1.
2.
3.
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
OS1: None
OS2:
OS3:
OS4:
OS5:

REMARKS: RUN NUMBER 1
Log correlated to Solar log, date unknown, provided by the client.
Objective:
To perforate the well at 1588m to 1600m MDKB using two 6m 2 1/8"
Enerjet guns loaded with PowerSpiral charges.
Well was shot with a 244psi overbalance condition.
Before perforating, obtain static FBHP and FBHT. After perforating,
monitor well for 15min to obtain FBHP and FBHT.
Static: FBHP = 2524psi, FBHT = 185.4degF

After Perforating: FBHP = 2472psi, FBHT = 187.1degF

API Data: PowerSpiral charges, UN 0441
Pentration: 27.3"
Entrance Hole: 0.25 "

Specialist: Paul Tarrant
Operators: Eddy Mezenberg & John Light
Performed by Schlumberger

RUN 1			RUN 2		
PROGRAM VERSION:	AUSL05148533 13C0−300		PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1

SURFACE EQUIPMENT

MWPM−AA 37

DOWNHOLE EQUIPMENT

AH−SWBS AH−SWBS 731		14.99
AH−SWBS AH−SWBS 761		14.30
AH−SWBS AH−SWBS 762		13.61
AH−SWBS AH−SWBS 763		12.93
MH−SWHS		12.24
MWGT−AA MWPG−AA 24 MWGH−AA 19	MWPG GR	11.91 2.41
MWPT−CA MWPH−AA 74 MWPS−AA 74	CCL SMWP Pres SMWP Temp Tension	10.93 TOOL ZERO
AH−FLEX JOINT		8.12
AH−SAH−G		7.81
MPD−H MPD−H 2868		7.51
AH−ESIC		7.01
MWP GUN		6.71

RUN 2

SURFACE EQUIPMENT

MWPM−AA 37

DOWNHOLE EQUIPMENT

AH−SWBS AH−SWBS 731		14.99
AH−SWBS AH−SWBS 761		14.30
AH−SWBS AH−SWBS 762		13.61
AH−SWBS AH−SWBS 763		12.93
MH−SWHS		12.24
MWGT−AA MWPG−AA 24 MWGH−AA 19	MWPG GR	11.91 2.41
MWPT−CA MWPH−AA 74 MWPS−AA 74	CCL SMWP Pres SMWP Temp Tension	10.93 TOOL ZERO
AH−FLEX JOINT		8.12
AH−SAH−G		7.81
MPD−H MPD−H 2868		7.51
AH−ESIC		7.01
MWP GUN		6.71

MWT_GUN
GUN−Enerjet

TOOL BOTTOM

MAXIMUM STRING DIAMETER 1.69 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

MWT_GUN
GUN−Enerjet

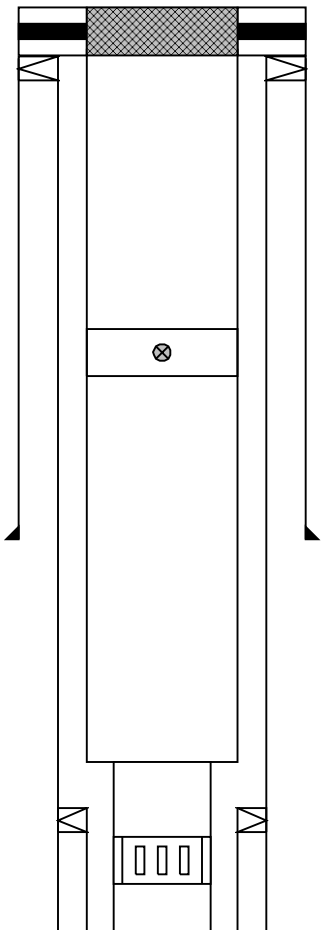
TOOL BOTTOM

MAXIMUM STRING DIAMETER 1.69 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Client: ExxonMobil
Well: MLA A−1
Field: Marlin
State: Victoria
Country: Australia

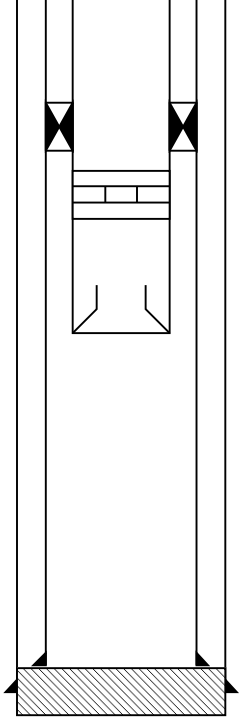
Rig Name: Marlin
Reference Datum: Kelly Bushing
Elevation: 27.4 m

Production String	(in) OD	(in) ID	(m) MD
Tubing Hanger	13.375	7.000	11.2
Tubing	7.000		11.2
Shutin Valve	7.000		404.1
Tubing	4.500		940.8
Sliding Sleeve	4.500		1014.7



(m) MD	(in) OD	(in) ID	Casing String
12.5	13.375		Casing String
12.5	13.375	9.675	Liner Hanger
609.4	13.375		Casing Shoe
1010.5	7.000		Casing String
1010.5	9.675	7.000	Liner Hanger

Packer	7.000	4.500	1029.6				
Nipple	4.500		1035.2				
Bell Nipple Guide	4.500		1039.5				
					1625.5	7.000	Casing Shoe
					1632.3	9.675	Casing Shoe

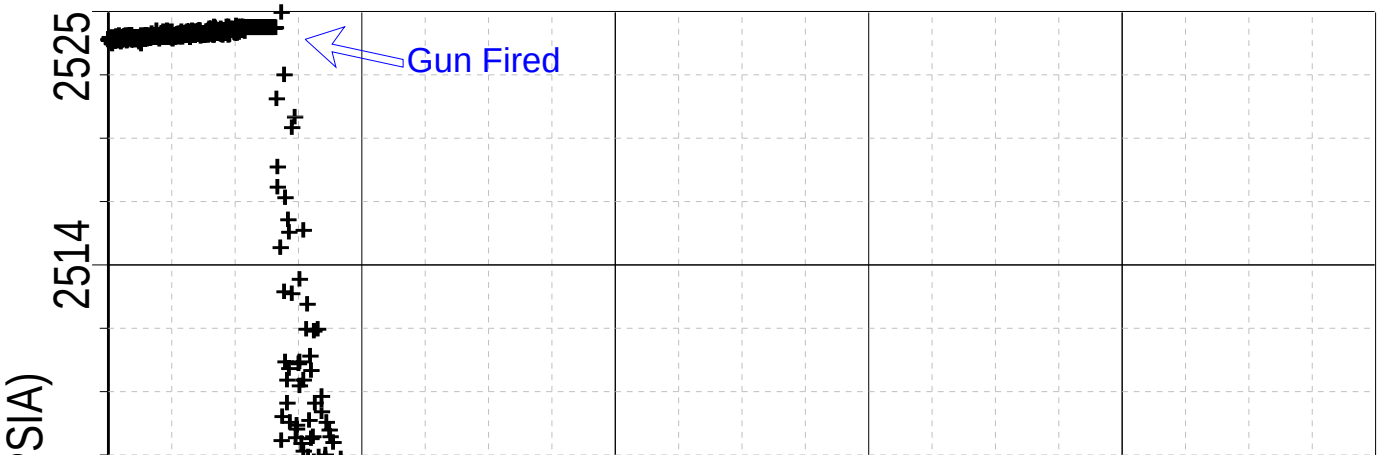


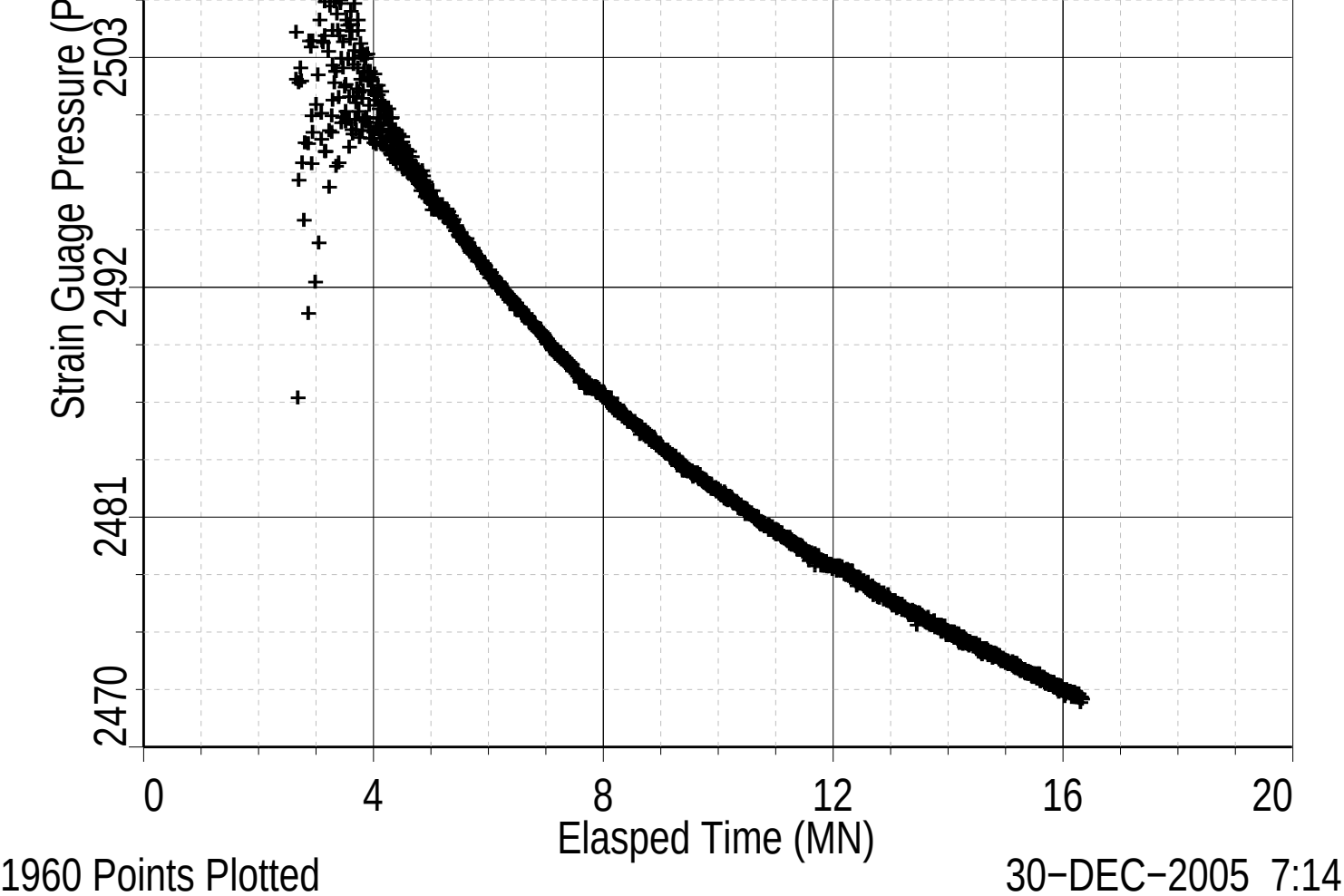
Schlumberger

MWPT 2 1/8" Enerjet Gun
Station Log − 2nd Gun

MAXIS Field Log

Index: 10927.1 − 15902.9 M





1960 Points Plotted

30−DEC−2005 7:14

Output DLIS Files

DEFAULT	PERFO_012LTP	FN:11	PRODUCER	29−Dec−2005 17:46	1584.4 M	2.6 M

OP System Version: 13C0−300

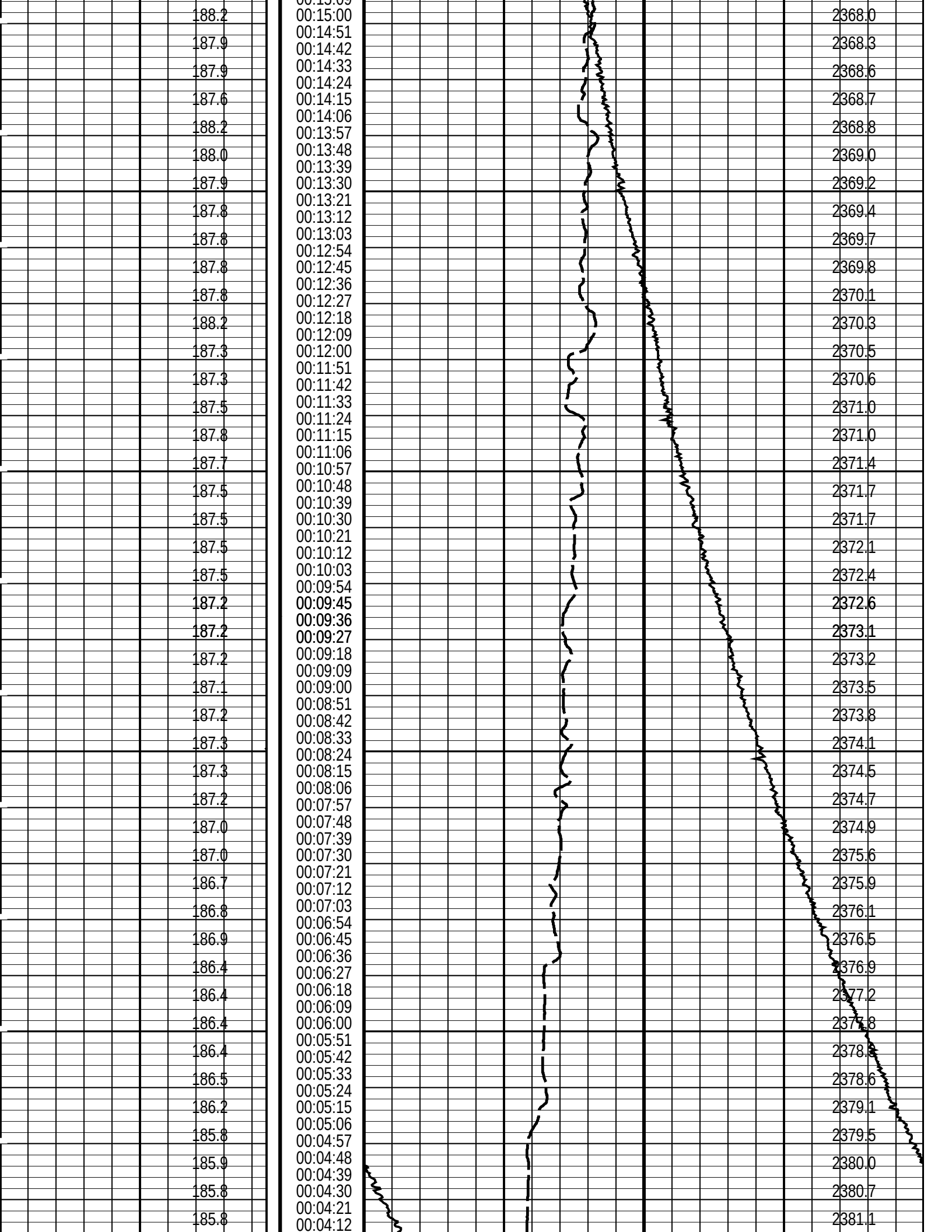
MCM

MWP_GUN	SRC−2820−ASFS−WPP_ł	MWPT−CA	SRC−2820−ASFS−WPP_ł
MWGT−AA	SRC−2820−ASFS−WPP_ł		

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) (−−−− 0 1024	Temperature (TEMP_MWPT_SL) 0 (DEGF) 20	
Casing Collar Locator (CCL_SL) −19 (−−−− 1		Elapsed Time (ETIM) (S)	Strain Gauge Pressure (SGP_SL) 0 (PSIA) 20	
	188.2	00:16:48		2366.8
	188.1	00:16:39		2366.9
	188.0	00:16:30		2367.2
	187.9	00:16:21		2367.5
	187.9	00:16:12		2367.7
	187.8	00:16:03		2367.6
	187.9	00:15:54		2367.9
		00:15:45		
		00:15:36		
		00:15:27		
		00:15:18		
		00:15:09		


188.2
187.9
187.9
187.6
188.2
188.0
187.9
187.8
187.8
187.8
187.8
188.2
187.3
187.3
187.5
187.8
187.7
187.5
187.5
187.5
187.5
187.2
187.2
187.2
187.1
187.2
187.3
187.3
187.2
187.0
187.0
186.7
186.8
186.9
186.4
186.4
186.4
186.4
186.5
186.2
185.8
185.9
185.8
185.8
00:15:00
00:14:51
00:14:42
00:14:33
00:14:24
00:14:15
00:14:06
00:13:57
00:13:48
00:13:39
00:13:30
00:13:21
00:13:12
00:13:03
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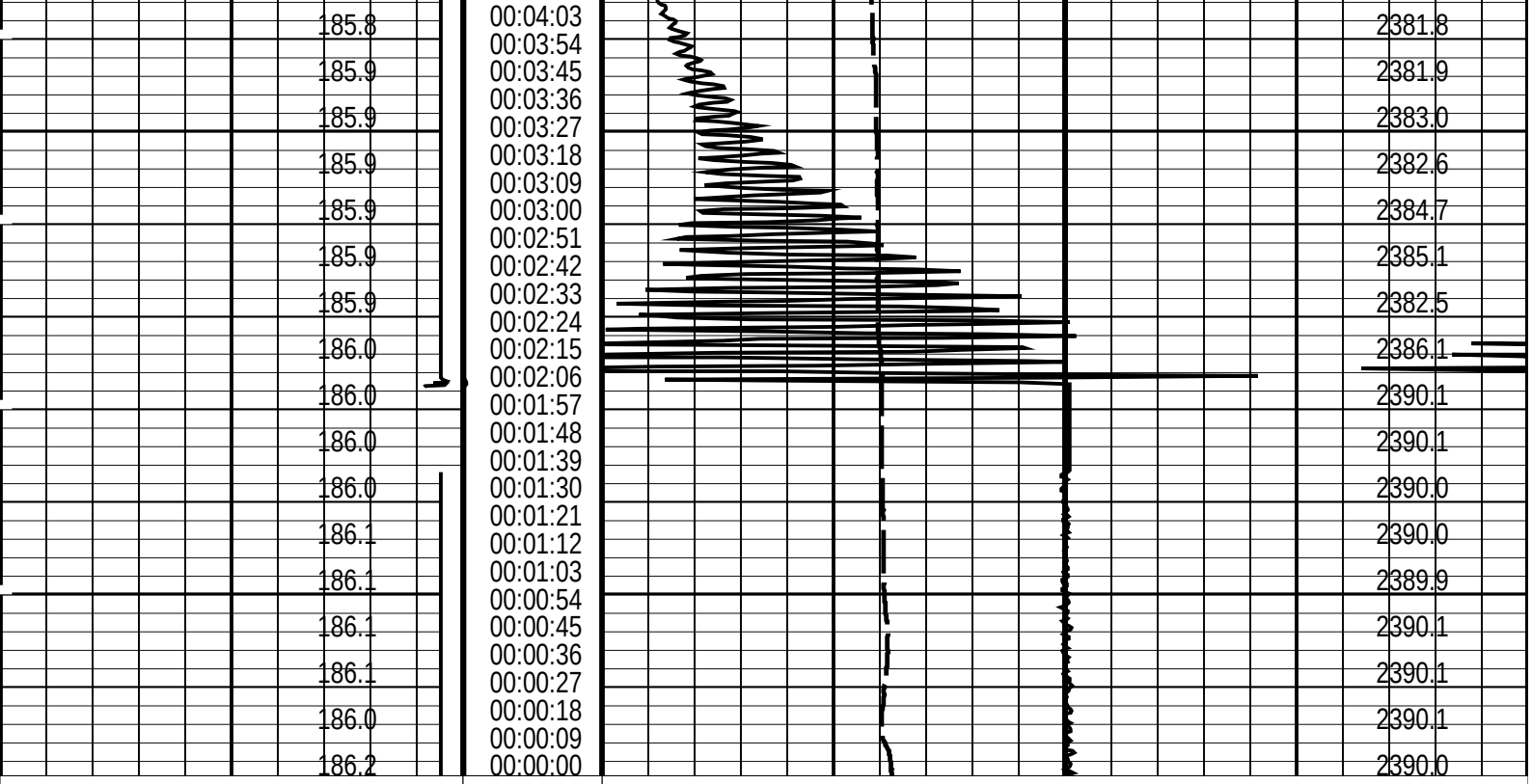
2380.7
2381.1



Casing Collar Locator (CCL_SL)	Elapsed Time (ETIM) (S)	Strain Gauge Pressure (SGP_SL)
−19 (−−−− 1		0 (PSIA) 20
CCL From CCL to T1	Firing Sequence State (FSS_SL) (−−−− 0 1024	Temperature (TEMP_MWPT_SL) 0 (DEGF) 20
Temperature (TEMP_MWPT_SL) (DEGF)		Pressure (SGPA_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: 29−Dec−2005 17:46

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		

Output DLIS Files

DEFAULT PERFO_012LTP FN:11 PRODUCER 29−Dec−2005 17:46

Schlumberger

MWPT 2 1/8" Enerjet Gun
Shooting Pass − 2nd Gun

Output DLIS Files

DEFAULT	PERFO_011LUP	FN:10	PRODUCER	29−Dec−2005 17:44	1599.7 M	1548.8 M

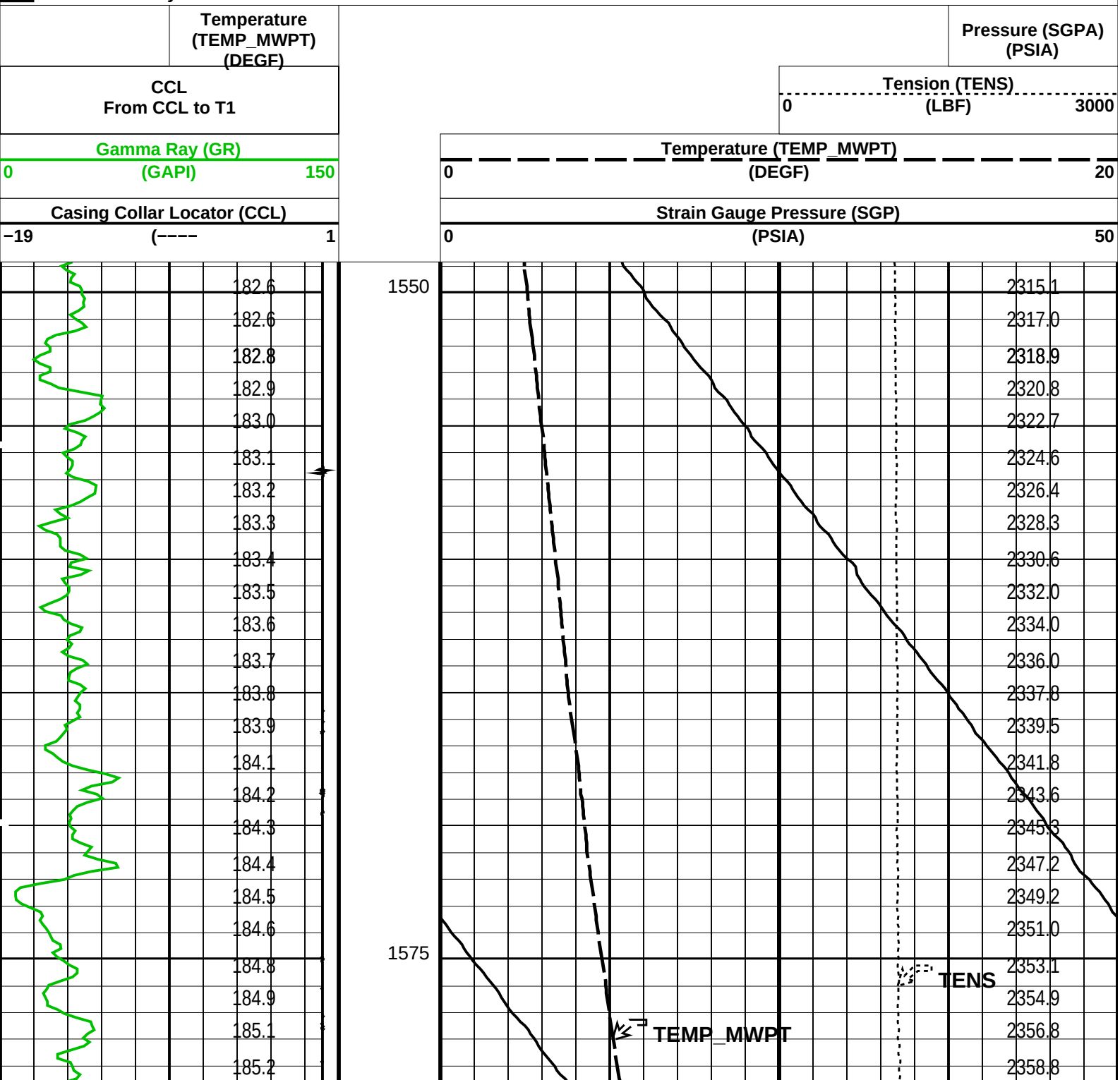
OP System Version: 13C0−300

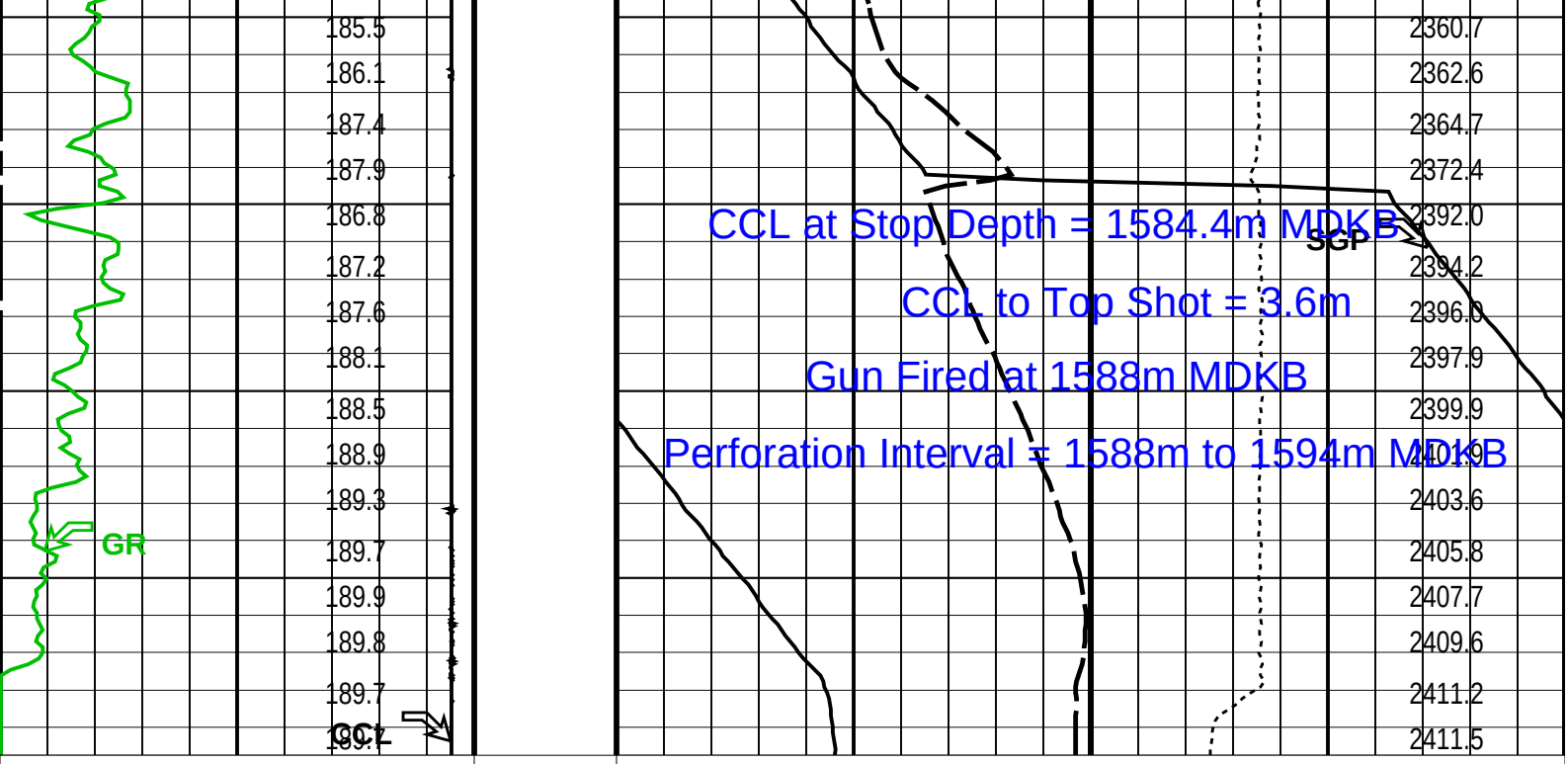
MCM

MWP_GUN	SRC−2820−ASFS−WPP_	MWPT−CA	SRC−2820−ASFS−WPP_
MWGT−AA	SRC−2820−ASFS−WPP_		

PIP SUMMARY

Time Mark Every 60 S





Casing Collar Locator (CCL)		
−19	(−−−−	1

Strain Gauge Pressure (SGP)		
0	(PSIA)	50

Gamma Ray (GR)		
0	(GAPI)	150

Temperature (TEMP_MWPT)		
0	(DEGF)	20

CCL
From CCL to T1

Tension (TENS)		
0	(LBF)	3000

Temperature (TEMP_MWPT) (DEGF)

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: 29−Dec−2005 17:44

OP System Version: 13C0−300

MCM

MWP_GUN	SRC−2820−ASFS−WPP_ł	MWPT−CA	SRC−2820−ASFS−WPP_ł
MWGT−AA	SRC−2820−ASFS−WPP_ł		

Output DLIS Files

DEFAULT PERFO_011LUP FN:10 PRODUCER 29−Dec−2005 17:44

Schlumberger

MWPT 2 1/8" Enerjet Gun
Correlation Pass − 2nd Gun

Output DLIS Files

DEFAULT **PERFO_010LUP** **FN:9** **PRODUCER** **29−Dec−2005 17:38**

OP System Version: 13C0−300

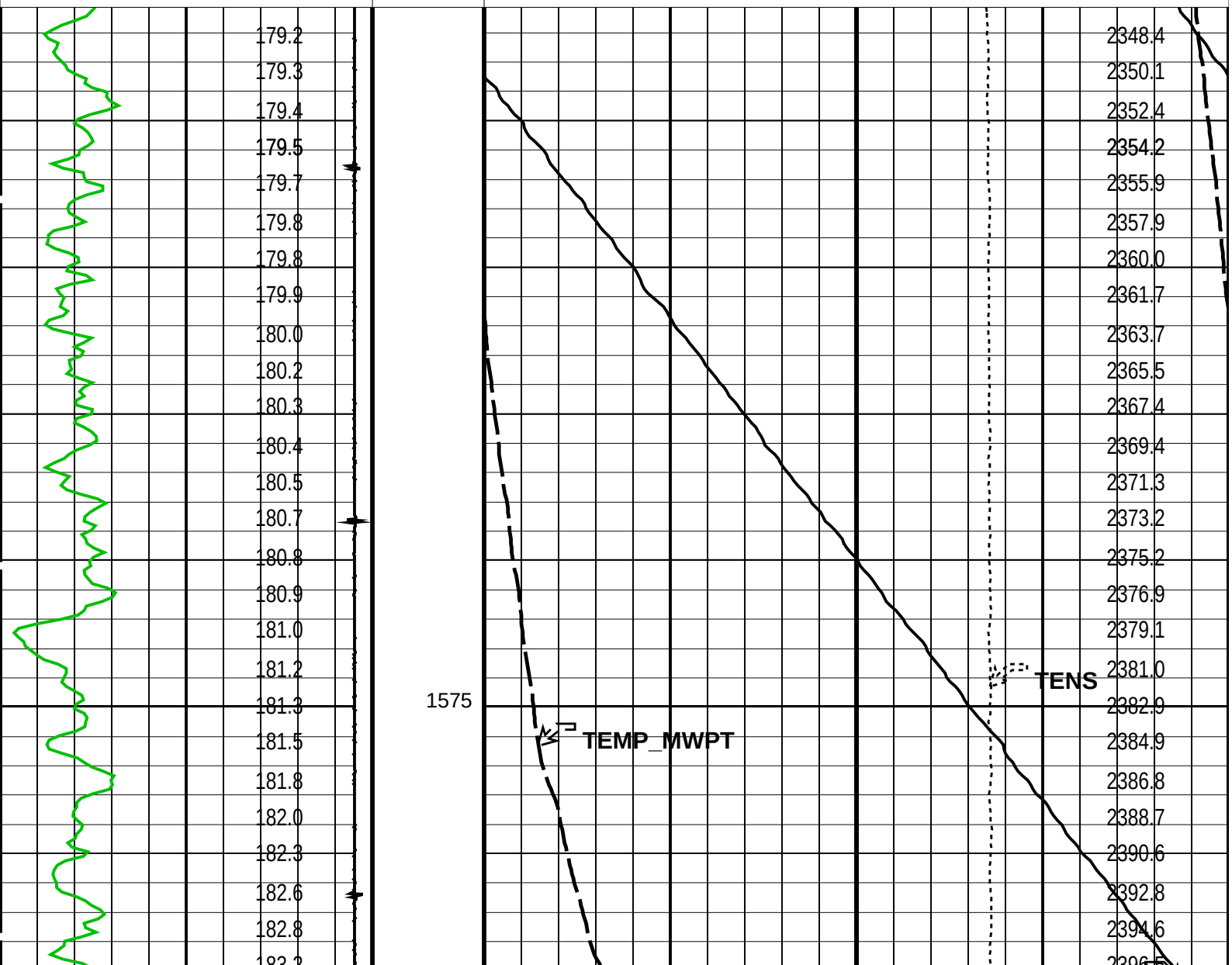
MCM

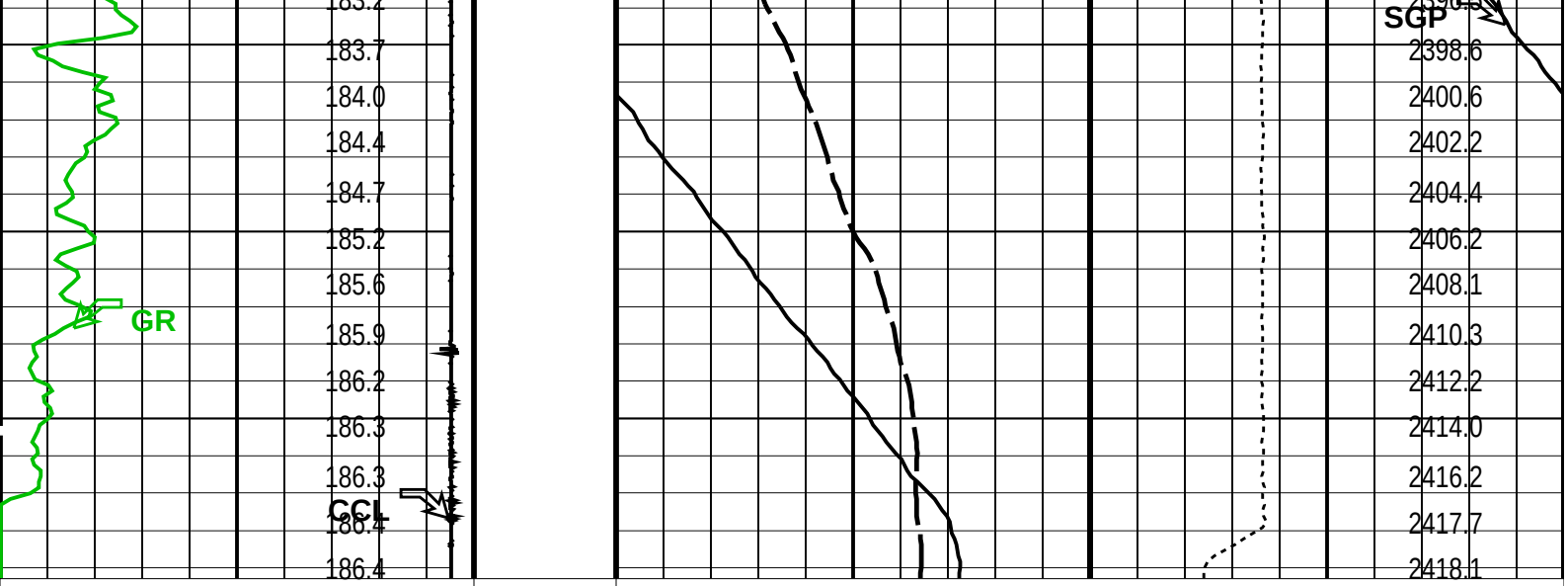
MWP_GUN	**SRC−2820−ASFS−WPP_ł**	**MWPT−CA**	**SRC−2820−ASFS−WPP_ł**
MWGT−AA	**SRC−2820−ASFS−WPP_ł**		

PIP SUMMARY

Time Mark Every 60 S

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





Casing Collar Locator (CCL)	Strain Gauge Pressure (SGP)
−19 (−−−− 1	0 (PSIA) 50
Gamma Ray (GR)	Temperature (TEMP_MWPT)
0 (GAPI) 150	0 (DEGF) 20
CCL From CCL to T1	Tension (TENS)
	0 (LBF) 3000
Temperature (TEMP_MWPT) (DEGF)	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: 29−Dec−2005 17:38

OP System Version: 13C0−300

MCM

MWP_GUN	SRC−2820−ASFS−WPP_ł	MWPT−CA	SRC−2820−ASFS−WPP_ł
MWGT−AA	SRC−2820−ASFS−WPP_ł		

Output DLIS Files

DEFAULT	PERFO_010LUP	FN:9	PRODUCER	29−Dec−2005 17:38

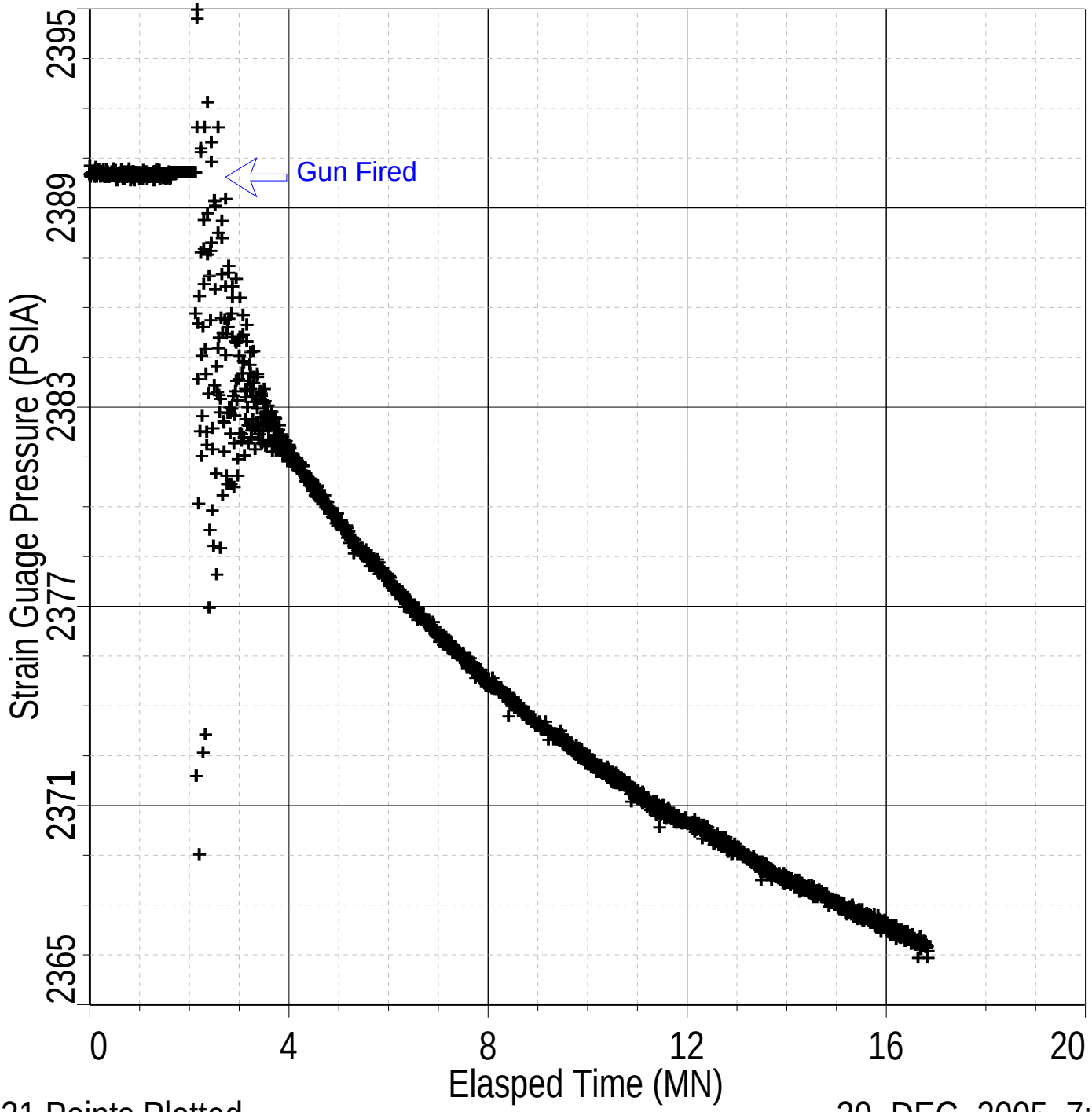
Schlumberger

MWPT 2 1/8" Enerjet Gun
Station Log − 1st Gun

MAXIS Field Log

Index: 5629.6 – 10762.0 M

Index: 5628.6 – 10762.0 M



2021 Points Plotted

30–DEC–2005 7:13

Output DLIS Files

DEFAULT	PERFO_007LTP	FN:6	PRODUCER	29–Dec–2005 16:08	1590.4 M	2.5 M

OP System Version: 13C0–300

MCM

MWP_GUN	SRC–2820–ASFS–WPP_ł	MWPT–CA	SRC–2820–ASFS–WPP_ł
MWGT–AA	SRC–2820–ASFS–WPP_ł		

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	

From CCL to T1

SL) (----

0 1024

0 (DEGF) 20

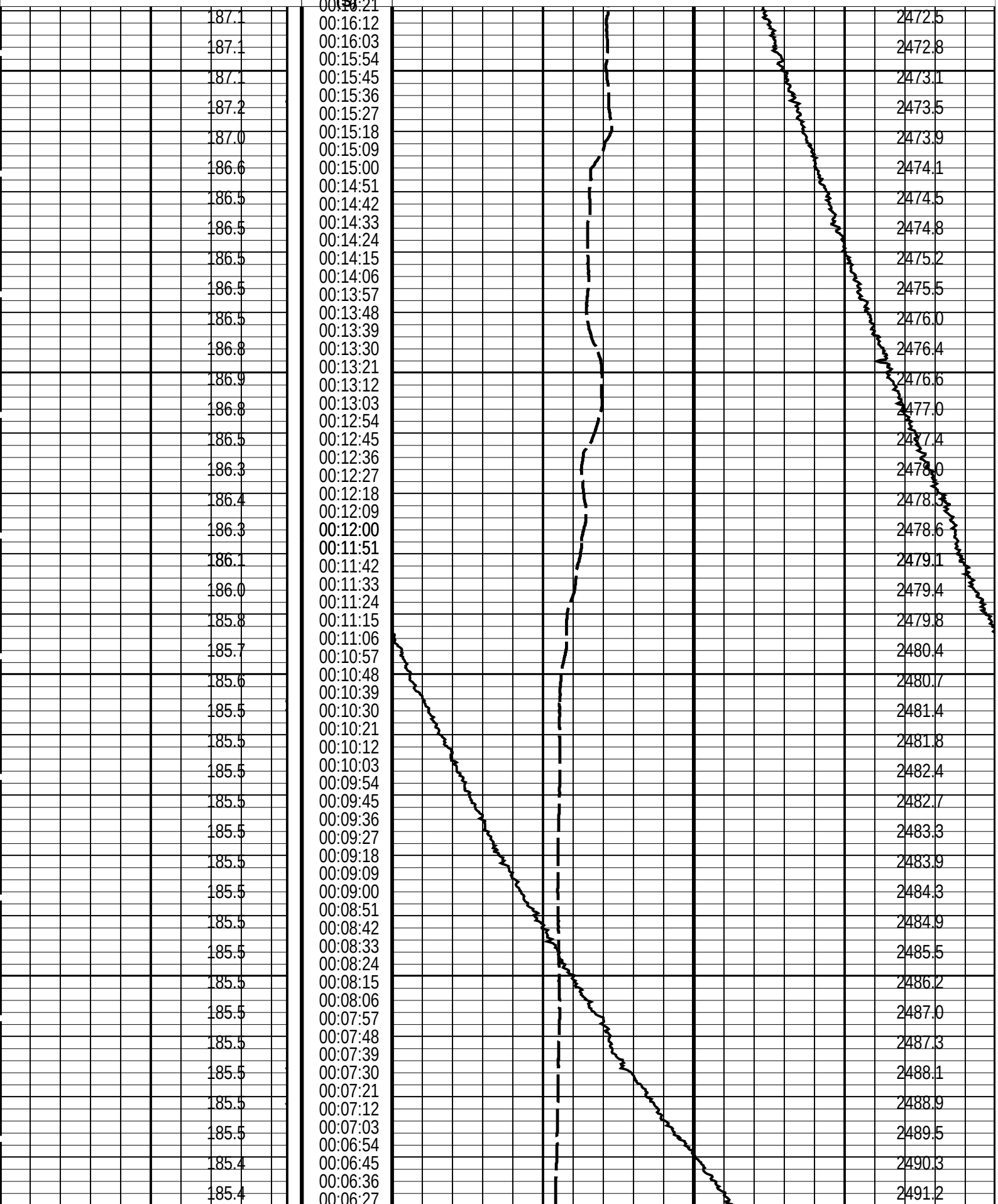
Casing Collar Locator (CCL_SL)

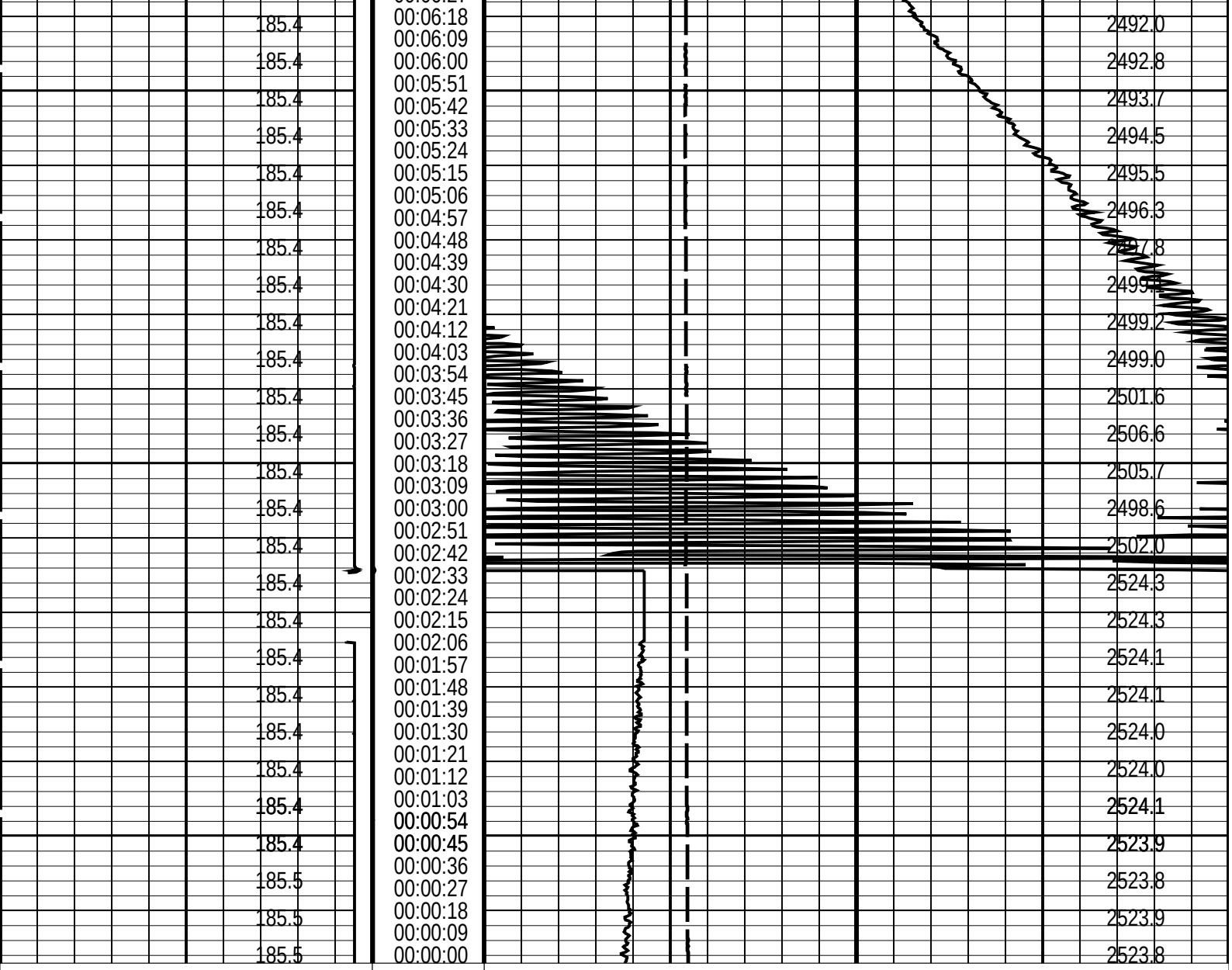
-19 (---- 1

Elapsed Time (ETIM) (S)

Strain Gauge Pressure (SGP_SL)

0 (PSIA) 20





Casing Collar Locator (CCL_SL)	Elapsed Time (ETIM) (S)	Strain Gauge Pressure (SGP_SL)
−19 (−−−− 1		0 (PSIA) 20
CCL From CCL to T1	Firing Sequence State (FSS_SL) (−−−− 0 1024	Temperature (TEMP_MWPT_SL) 0 (DEGF) 20
Temperature (TEMP_MWPT_SL) (DEGF)		Pressure (SGPA_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: 29−Dec−2005 16:08

OP System Version: 13C0−300

MCM

MWP_GUN	SRC−2820−ASFS−WPP_ł	MWPT−CA	SRC−2820−ASFS−WPP_ł
MWGT−AA	SRC−2820−ASFS−WPP_ł		

Output DLIS Files

DEFAULT	PERFO_007LTP	FN:6	PRODUCER	29−Dec−2005 16:08

Schlumberger

MWPT 2 1/8" Enerjet Gun
Shooting Pass − 1st Gun

MAXIS Field Log

Output DLIS Files

DEFAULT	PERFO_006LUP	FN:5	PRODUCER	29−Dec−2005 16:06	1600.0 M	1549.9 M

OP System Version: 13C0−300

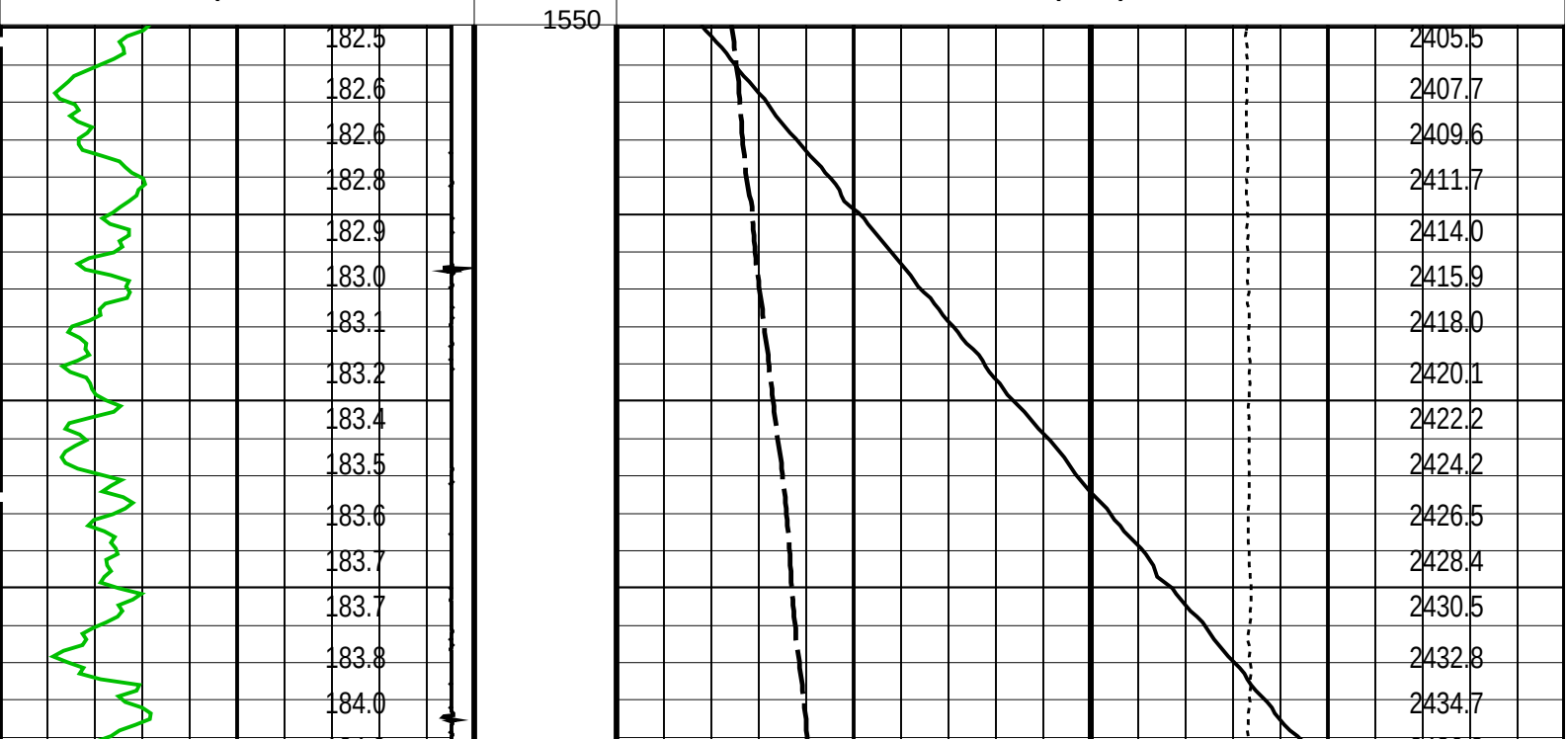
MCM

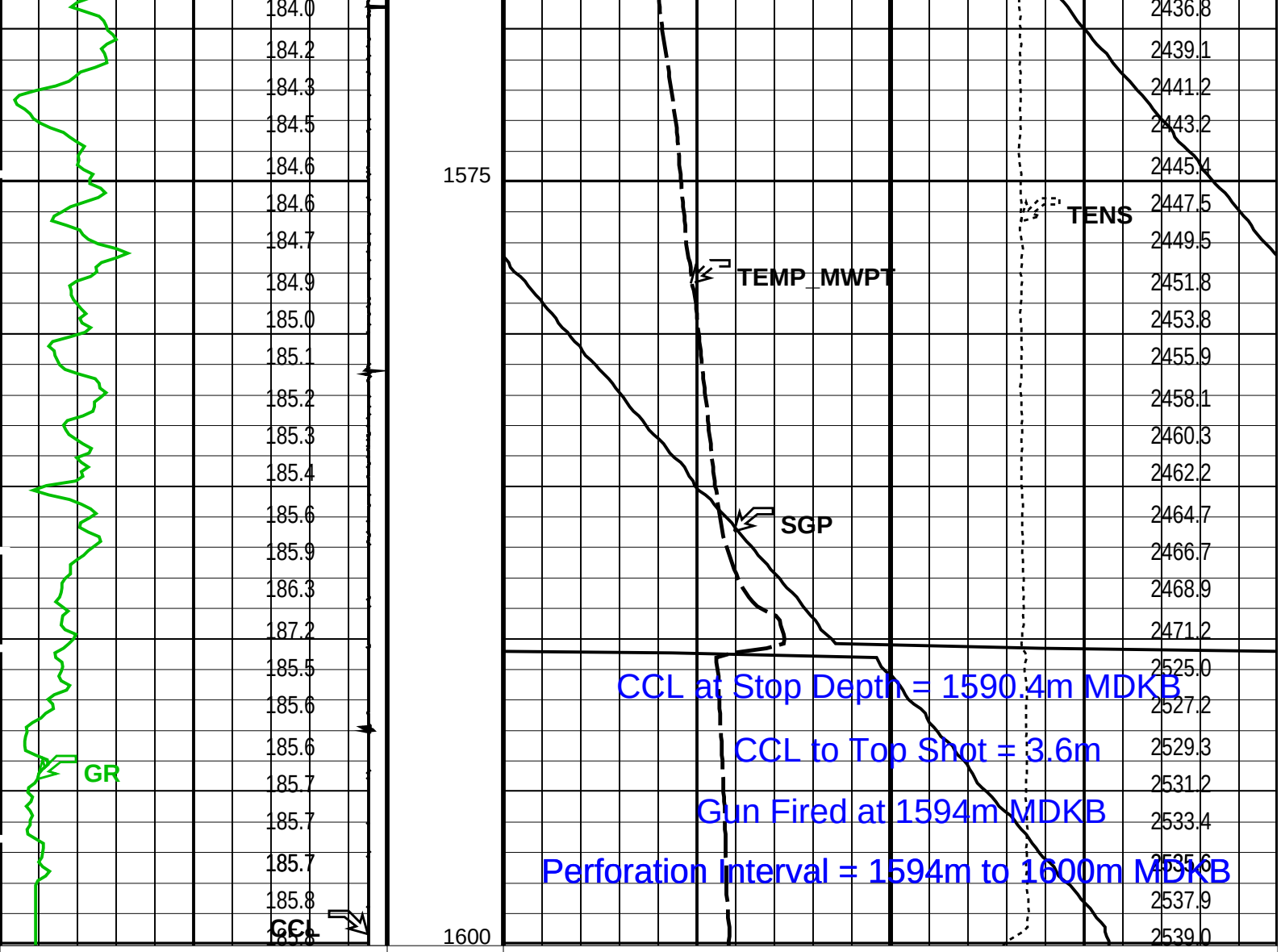
MWP_GUN	SRC−2820−ASFS−WPP_ł	MWPT−CA	SRC−2820−ASFS−WPP_ł
MWGT−AA	SRC−2820−ASFS−WPP_ł		

PIP SUMMARY

Time Mark Every 60 S

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





Casing Collar Locator (CCL)	Strain Gauge Pressure (SGP)
−19 (−−−− 1	0 (PSIA) 50
Gamma Ray (GR)	Temperature (TEMP_MWPT)
0 (GAPI) 150	0 (DEGF) 20
CCL From CCL to T1	Tension (TENS)
	0 (LBF) 3000
Temperature (TEMP_MWPT) (DEGF)	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: 29−Dec−2005 16:06

OP System Version: 13C0−300

MCM

MWP_GUN	SRC−2820−ASFS−WPP_	MWPT−CA	SRC−2820−ASFS−WPP_
MWGT−AA	SRC−2820−ASFS−WPP_		

Output DLIS Files

DEFAULT	PERFO_006LUP	FN:5	PRODUCER	29−Dec−2005 16:06

Schlumberger

MWPT 2 1/8" Enerjet Gun
Correlation Pass − 1st Gun

MAXIS Field Log

Output DLIS Files

DEFAULT	PERFO_005LUP	FN:4	PRODUCER	29−Dec−2005 15:59

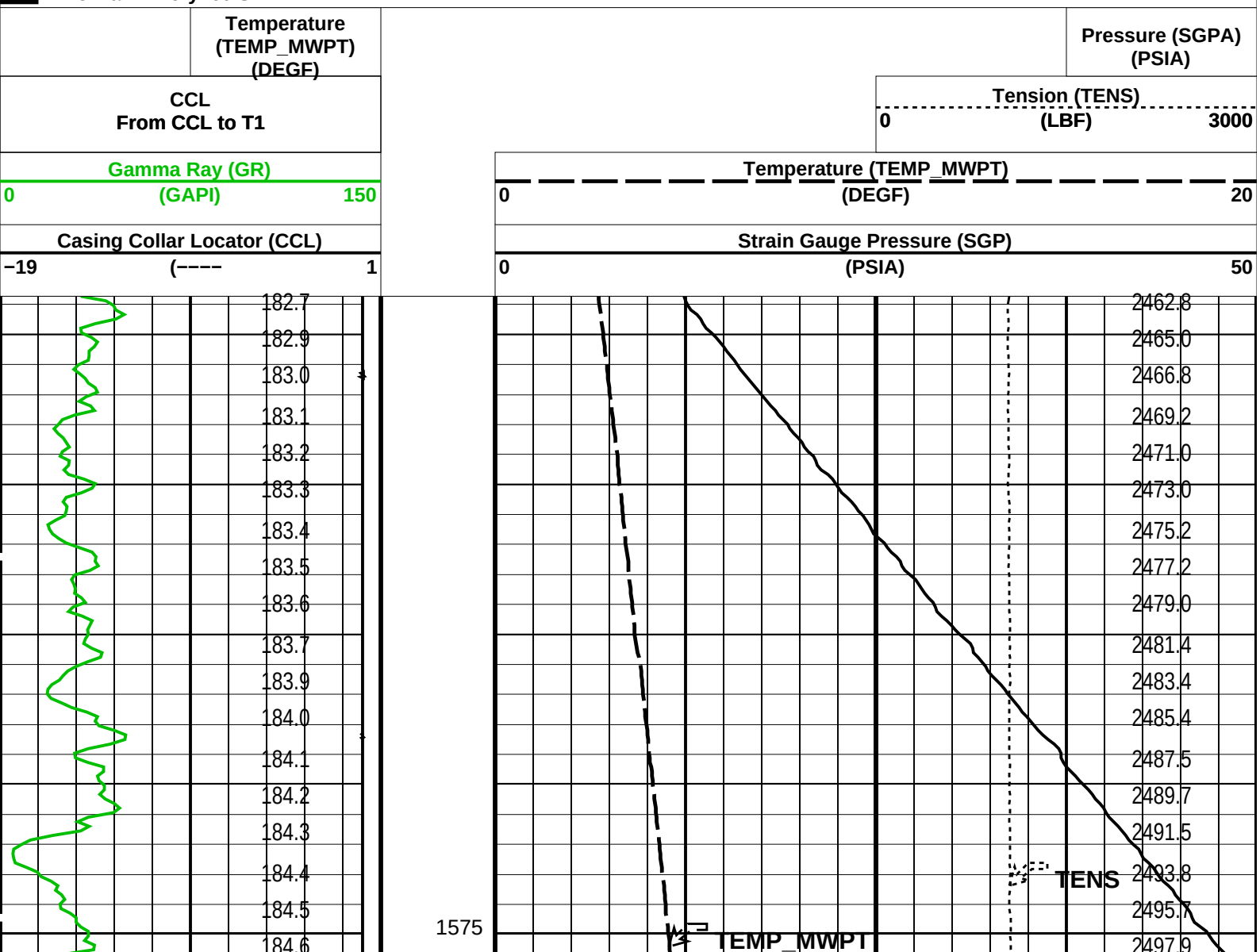
OP System Version: 13C0−300

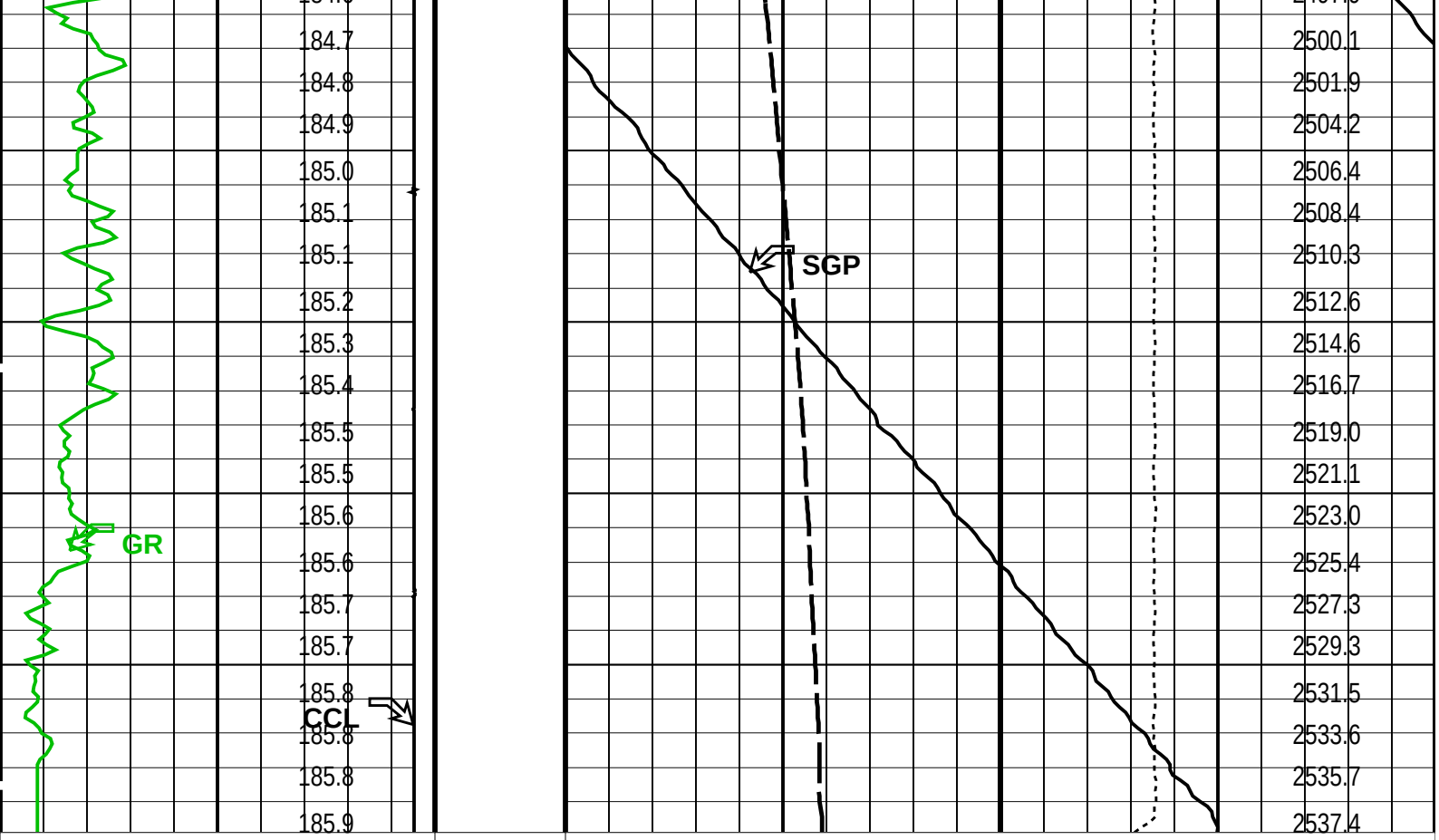
MCM

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





Casing Collar Locator (CCL)	Strain Gauge Pressure (SGP)
−19 (−−−− 1	0 (PSIA) 50
Gamma Ray (GR)	Temperature (TEMP_MWPT)
0 (GAPI) 150	0 (DEGF) 20
CCL From CCL to T1	Tension (TENS)
	0 (LBF) 3000
Temperature (TEMP_MWPT) (DEGF)	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: 29−Dec−2005 16:00

OP System Version: 13C0−300

MCM

MWP_GUN	SRC−2820−ASFS−WPP_ł	MWPT−CA	SRC−2820−ASFS−WPP_ł
MWGT−AA	SRC−2820−ASFS−WPP_ł		

Output DLIS Files

DEFAULT PERFO_005LUP FN:4 PRODUCER 29−Dec−2005 15:59

Company: **ExxonMobil**

Schlumberger

Well:	**MLA A−1**
Field:	**Marlin**
Rig:	**Crane / Prod 4**
Country:	**Australia**

2 1/8" Enerjet Gun
MWPT
Perforating Record