

[illegible]

Company: ExxonMobil

Well: MLA A-2a

Field: Marlin

Rig: Crane / Prod 4

Country: Australia

2 1/8" Enerjet Gun
MWPT
Perforating Record

Crane / Prod 4
Field: Marlin
Location: Gippsland Basin
Well: MLA A-2a
Company: ExxonMobil

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: Victoria	Max. Well Deviation 37 deg	Longitude 148 13' 09.81" E	Latitude 38 13' 55.49" S

PVT DATA			
Oil Density	Run 1	Run 2	Run 3
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

Location

Recorded By

Witnessed By

Greg Rimmer

DEPTH SUMMARY LISTING

Date Created: 5-JAN-2006 6:55:05

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: 5099.91 M Conveyance Method: Wireline Rig Type: Offshore_Fixed

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

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OTHER SERVICES1

OS1: None
OS2:
OS3:
OS4:
OS5:

REMARKS: RUN NUMBER 1

Log correlated to Solar log, date unknown, provided by client.

Objective:

To perforate the well at 1542.5m to 1552.5m MDKB using 2 1/8" Enerjet Gun loaded with PowerSpirol charges.

Before perforating, obtain static FBHP and FBHT. After perforating monitor well FBHP and FBHT for 15 min.

Static: FBHP = 1941psi, FBHT = 170degF

After Shooting: FBHP = 1981psi, FBHT = 175degF

API Data: PowerSpirol charges, UN 0441

Penetration: 27.3"

Entrance Hole: 0.25"













Specialists: Paul Tarrant & Owen Darby

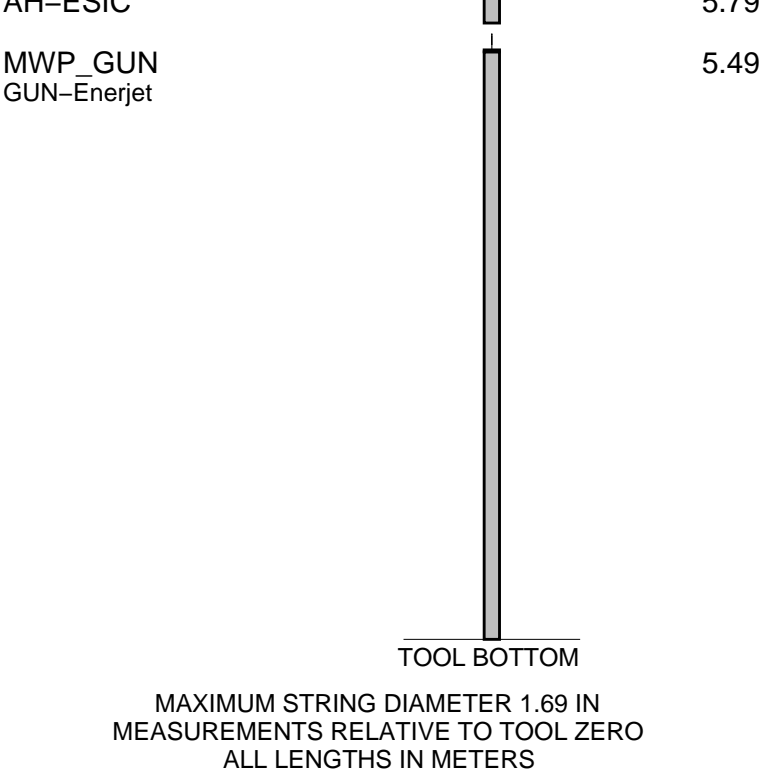
Operators: Jakob Annear & John Light

Performed by Schlumberger

RUN 1			RUN 2		
PROGRAM VERSION:		AUSL05148534	PROGRAM VERSION:		
FLUID LEVEL:		13C0-300	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

[illegible]

RUN 1		RUN 2	
SURFACE EQUIPMENT			
MWPM-AA 37			
DOWNHOLE EQUIPMENT			
AH-SWBS AH-SWBS 731		13.77	
AH-SWBS AH-SWBS 761		13.08	
AH-SWBS AH-SWBS 762		12.40	
AH-SWBS AH-SWBS 763		11.71	
MH-SWHS		11.02	
MWGT-AA MWPG-AA 24 MWGH-AA 19	MWPG GR 	10.69	2.41
MWPT-CA MWPH-AA 74 MWPS-AA 74		9.72	
	CCL SMWP Pres SMWP Temp Tension 	TOOL ZERO	
AH-FLEX JOINT		6.90	
AH-SAH-G		6.59	
MPD-H MPD-H 2868		6.29	
AH-ESIC		5.70	



Client: ExxonMobil

Well: MLA A-2a

Field: Marlin

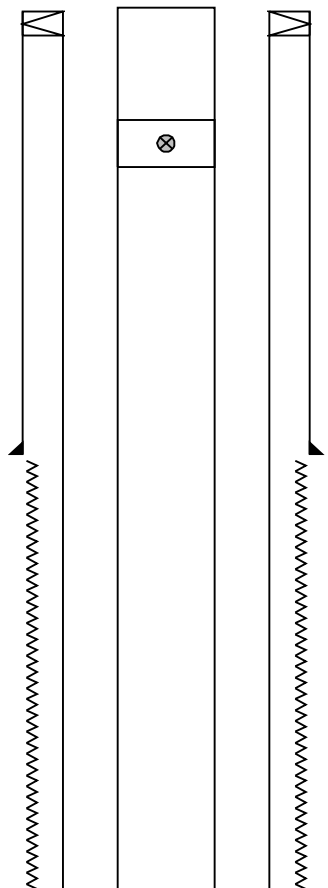
State: Victoria

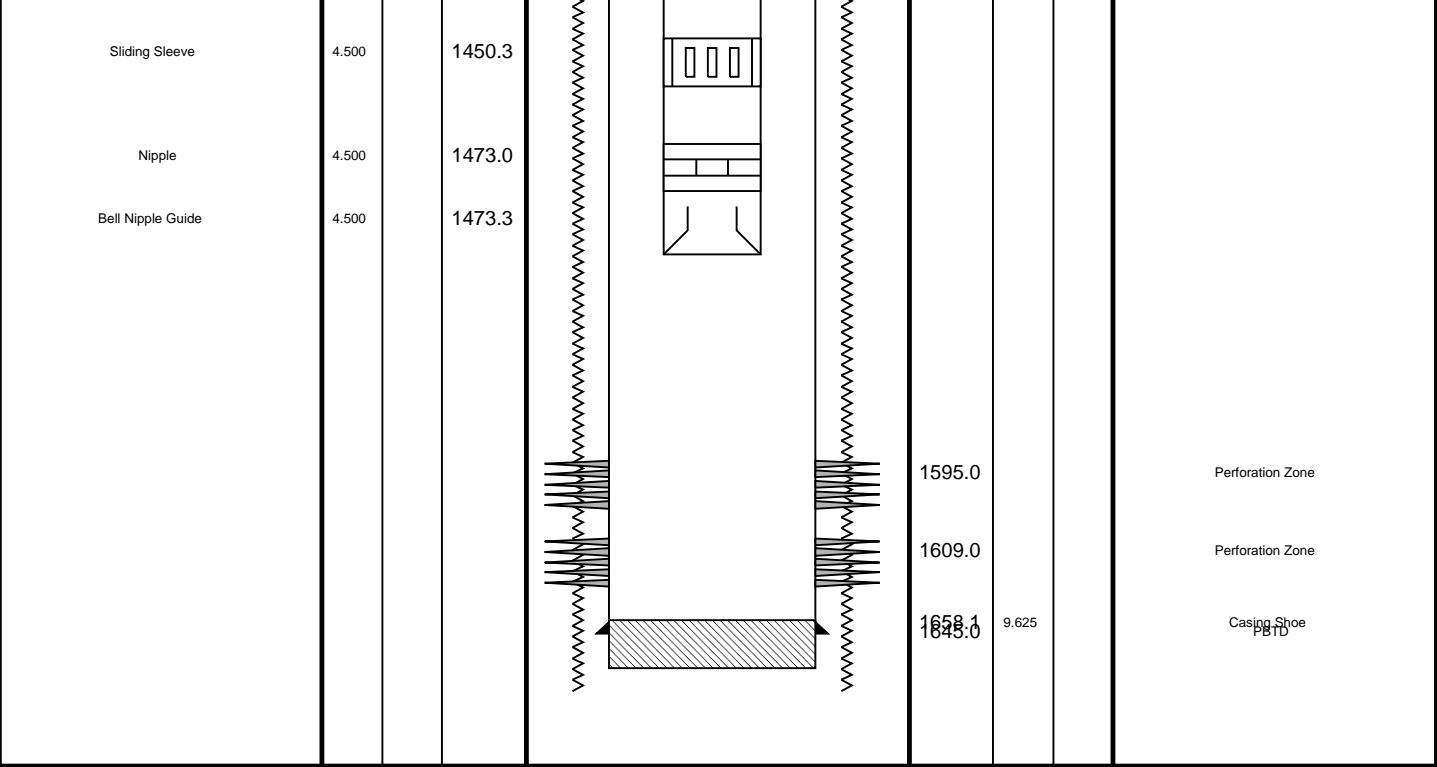
Country: Australia

Rig Name: Marlin

Reference Datum: Kelly Bushing

Elevation: 27.4 m

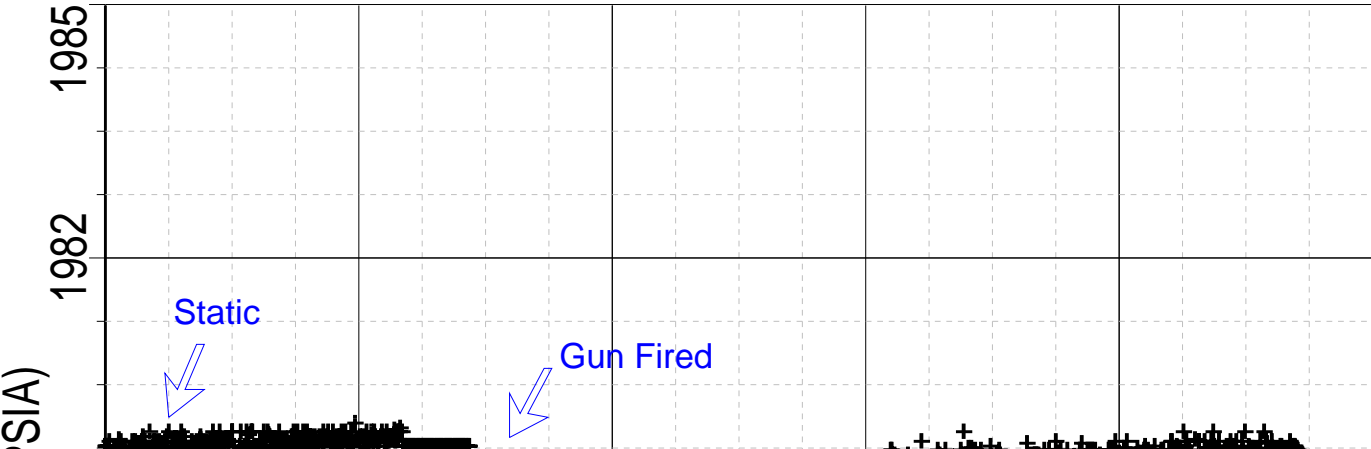
Production String	(in)		(m)	Well Schematic	(m)	(in)		Casing String
	OD	ID	MD		MD	OD	ID	
Tubing	4.500		11.7		12.5	9.625		Casing String Liner Hanger
Shutin Valve	4.500		124.3		12.5	13.375	9.625	
					642.6	13.375		Casing Shoe
					642.6	12.500		Borehole Segment

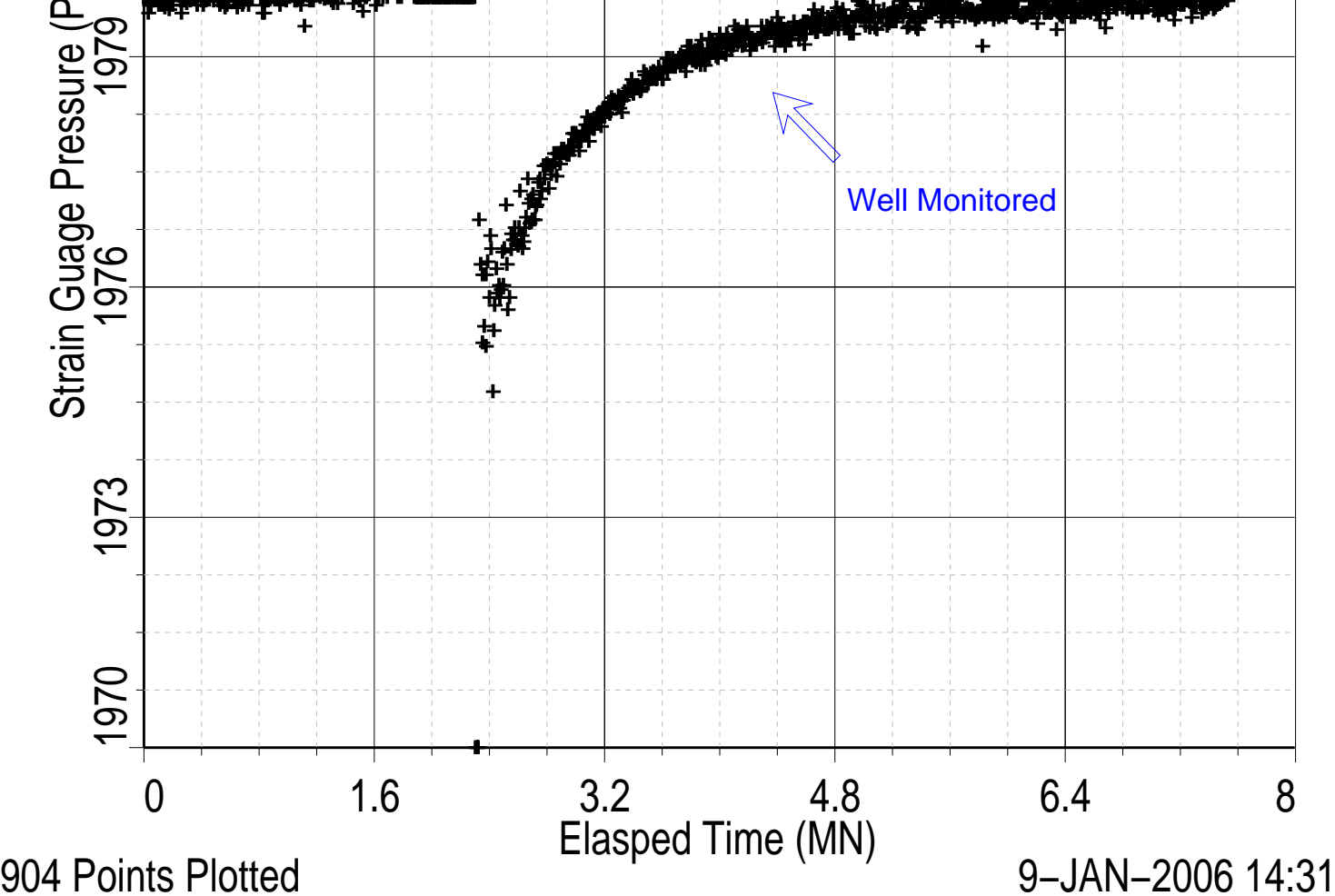


2 1/8" MWPT Enerjet Gun
Gun 2 – Station Log

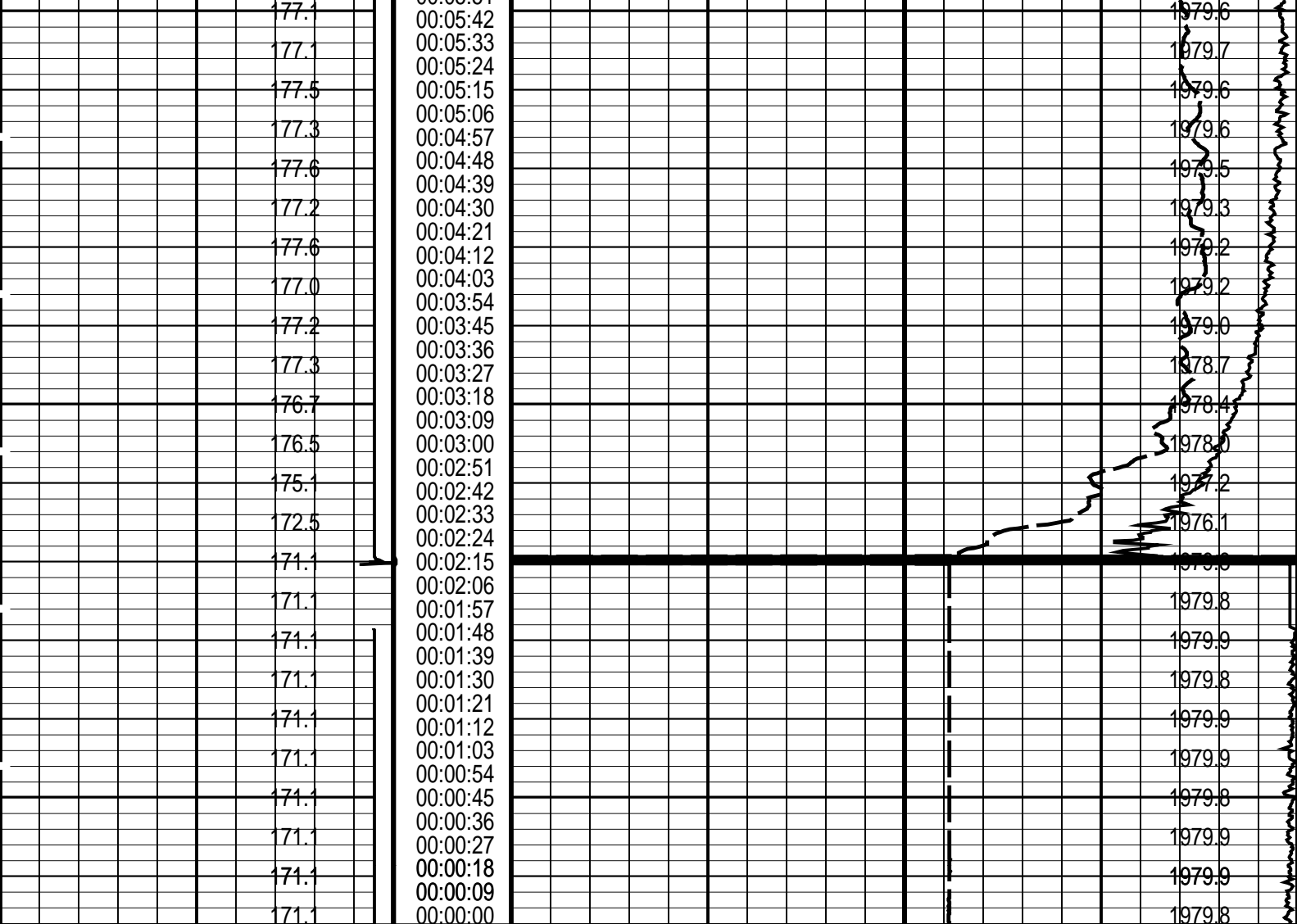
MAXIS Field Log

Index: 5577.8 – 7871.5 M





Output DLIS Files																			
DEFAULT				PERFO_045LTP				FN:43		PRODUCER		09-Jan-2006 11:53		1539.1 M		1.2 M			
OP System Version: 13C0-300																			
MCM																			
MWP_GUN				SRC-2820-ASFS-WPP_t				MWPT-CA				SRC-2820-ASFS-WPP_t							
MWGT-AA				SRC-2820-ASFS-WPP_t															
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)								0 20			
-19 (----				1															
177.1				00:07:30												1979.8			
177.2				00:07:21												1979.7			
177.4				00:07:03												1979.8			
177.3				00:06:54												1979.7			
177.0				00:06:36												1979.6			
177.2				00:06:27												1979.7			
177.0				00:06:18												1979.7			
177.0				00:06:09												1979.8			
177.0				00:06:00												1979.8			
177.0				00:05:51												1979.8			



Casing Collar Locator (CCL_SL)		Elapsed Time (ETIM) (S)	Strain Gauge Pressure (SGP_SL) (PSIA)	
-19 (----) 1			0 (PSIA) 20	
CCL From CCL to T1		Firing Sequence State (FSS SL) (----)	Temperature (TEMP_MWPT_SL) (DEGF)	
		0 1024	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: 09-Jan-2006 11:53

OP System Version: 13C0-300			
MCM			
MWP_GUN	SRC-2820-ASFS-WPP_t	MWPT-CA	SRC-2820-ASFS-WPP_t
MWGT-AA	SRC-2820-ASFS-WPP_t		

Output DLIS Files

DEFAULT

PERFO_045LTP

FN:43

PRODUCER

09-Jan-2006 11:53

Schlumberger

2 1/8" MWPT Enerjet Gun
Gun 2 – Shooting Pass

MAXIS Field Log

Output DLIS Files

DEFAULT

PERFO_044LUP

FN:42

PRODUCER

09-Jan-2006 11:50

1570.0 M

1507.5 M

OP System Version: 13C0-300
MCM

MWP_GUN
MWGT-AA

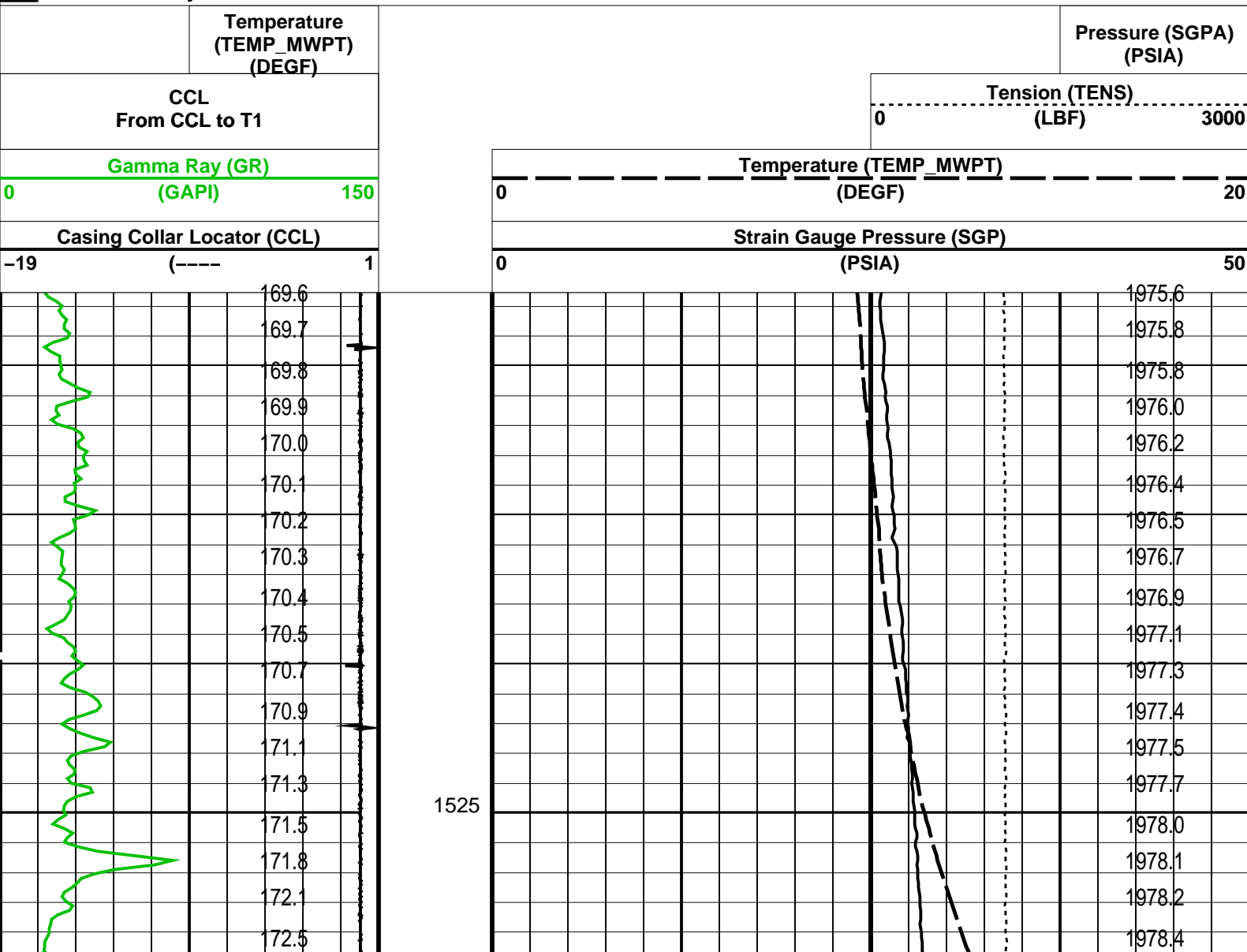
SRC-2820-ASFS-WPP_t
SRC-2820-ASFS-WPP_t

MWPT-CA

SRC-2820-ASFS-WPP_t

PIP SUMMARY

☒ Time Mark Every 60 S



MWPT-CA: MEASUREMENT WHILE PERFORATING TOOL

DEVI_FL_CORR
FLD
MWPT_NULL_SOURCE
MWPT_NULL_TEMP

Deviation Angle for Flow Line Correction
Flow Line Density
MWPT NULL Temperature Source
MWPT NULL Temperature

0
1
TEMS
0.0

DEG
G/C3

DEGC


Format: MWP Vertical Scale: 1:200 Graphics File Created: 09-Jan-2006 11:50

OP System Version: 13C0-300
MCM

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

Output DLIS Files

DEFAULT PERFO_044LUP FN:42 PRODUCER 09-Jan-2006 11:50



2 1/8" MWPT Enerjet Gun
Gun 2 – Correlation Pass

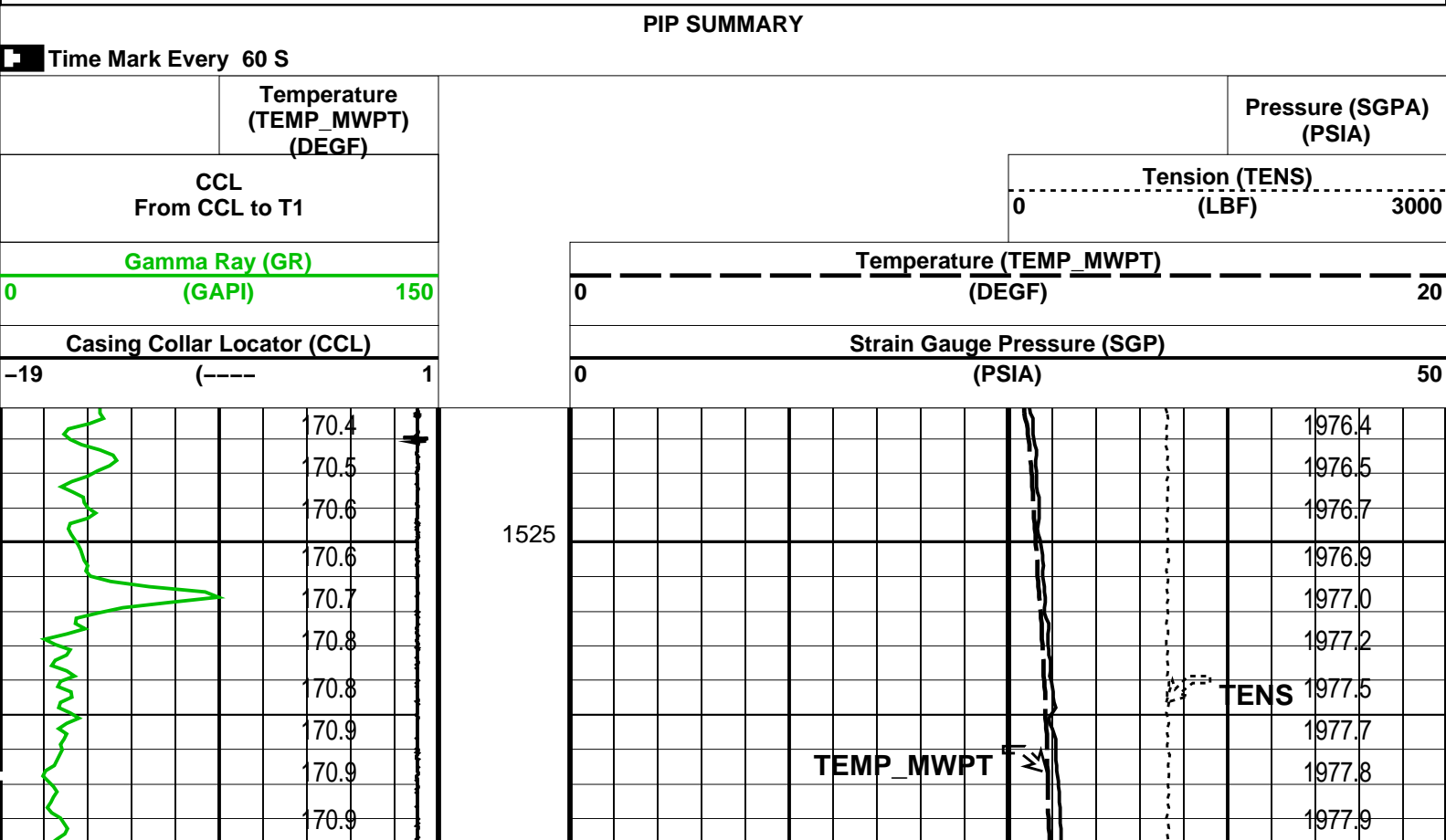
MAXIS Field Log

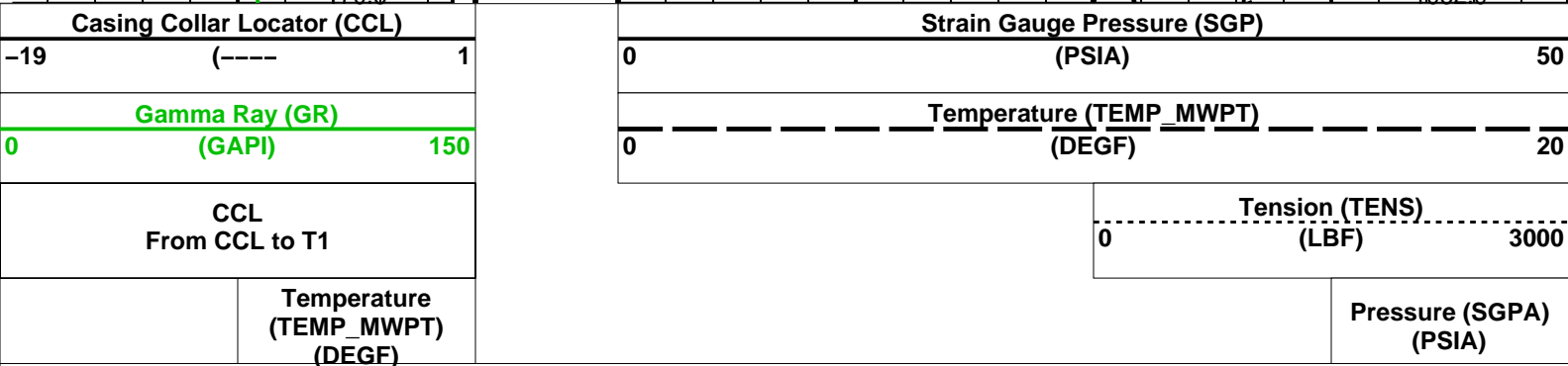
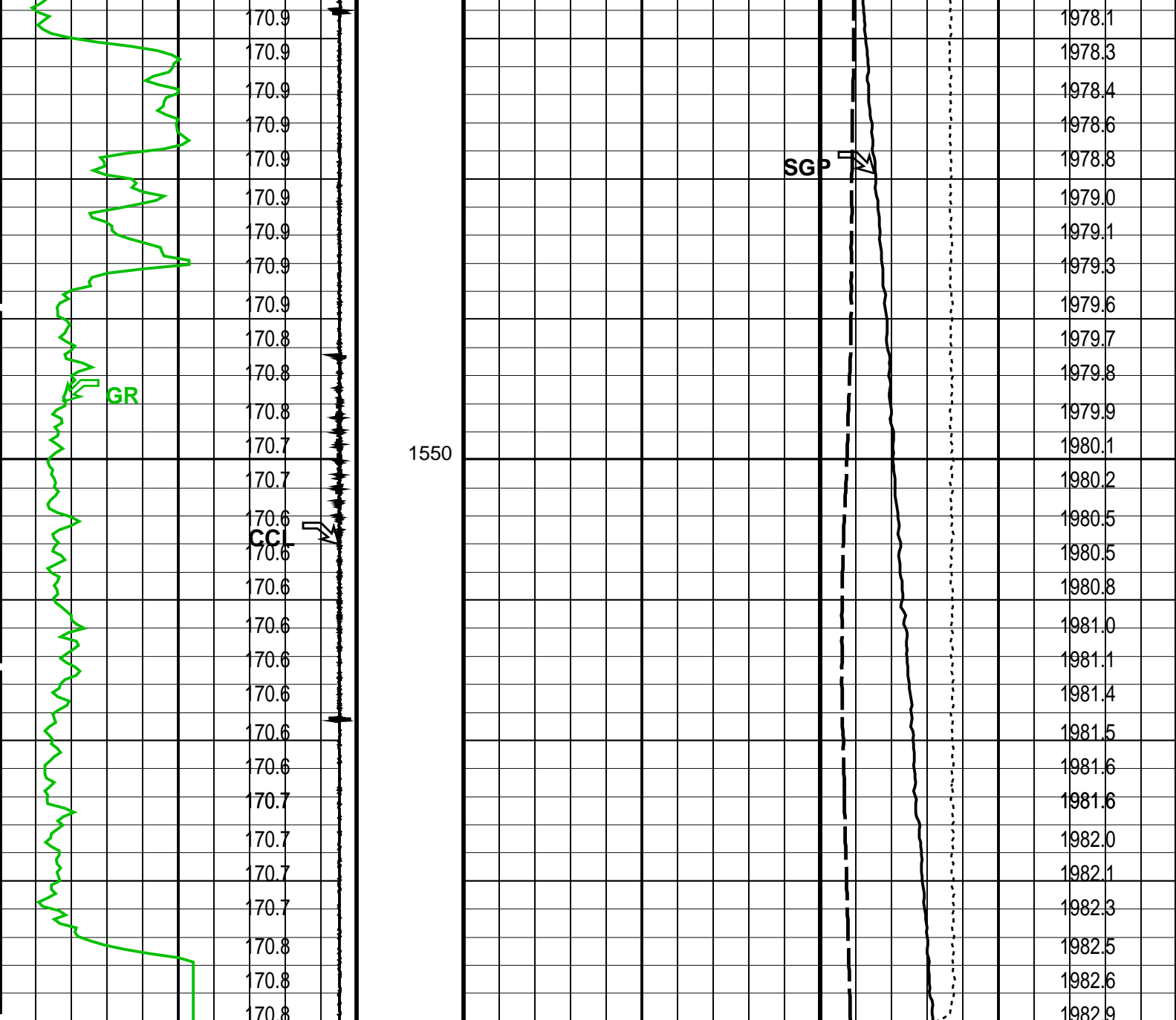
Output DLIS Files

DEFAULT PERFO_043LUP FN:41 PRODUCER 09-Jan-2006 11:43 1570.0 M 1521.1 M

OP System Version: 13C0-300
MCM

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





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

Output DLIS Files

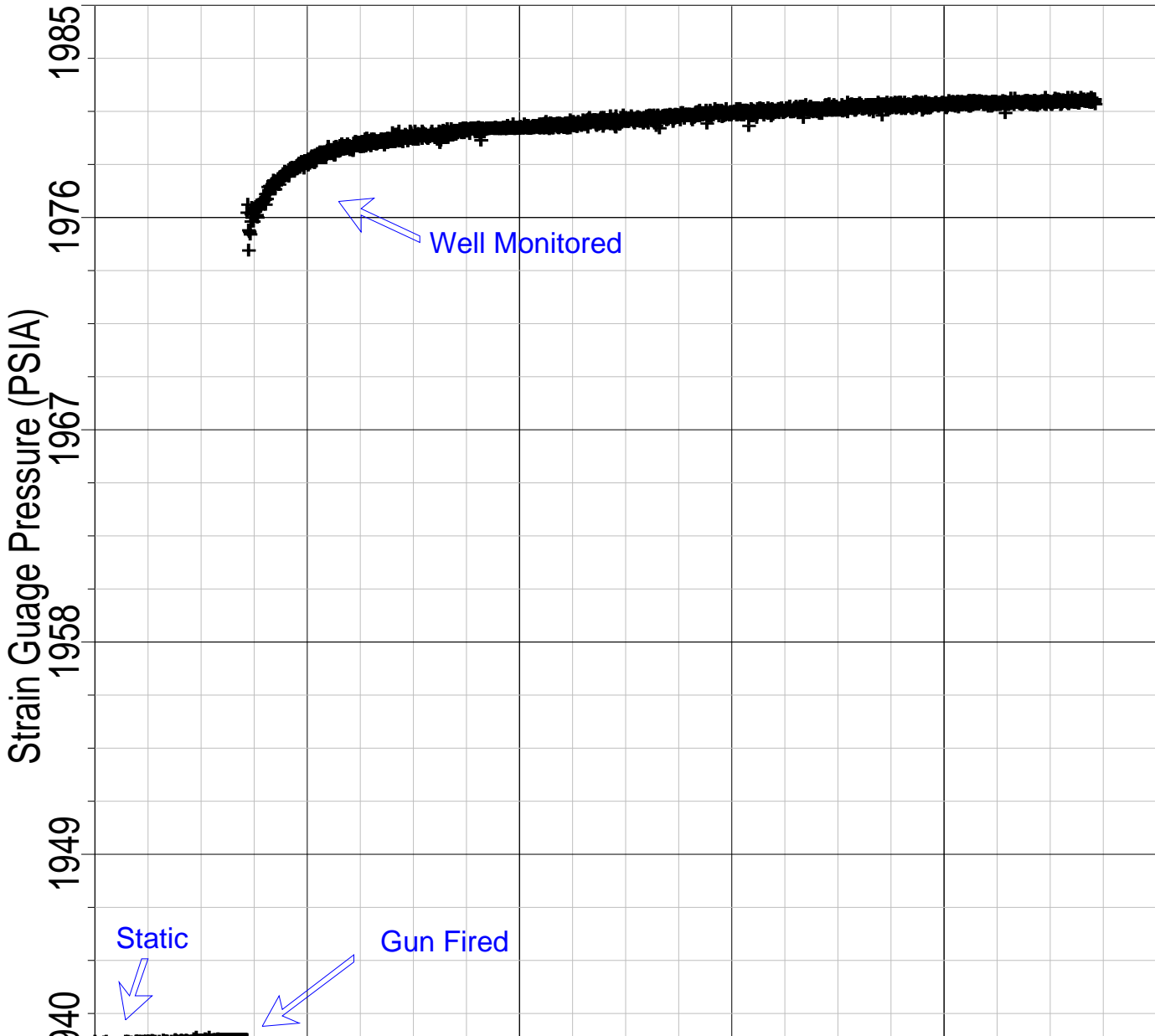
DEFAULT PERFO_043LUP FN:41 PRODUCER 09-Jan-2006 11:43

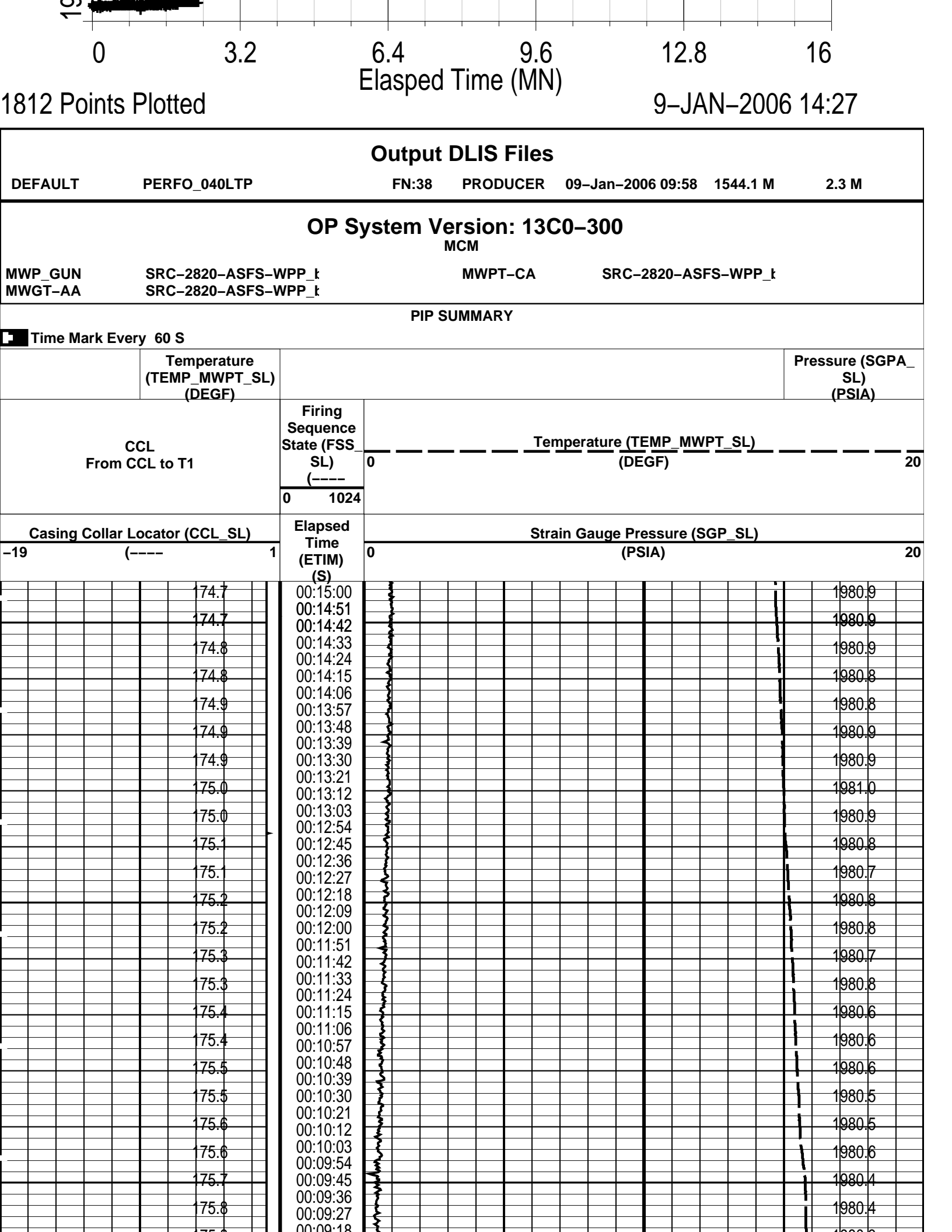


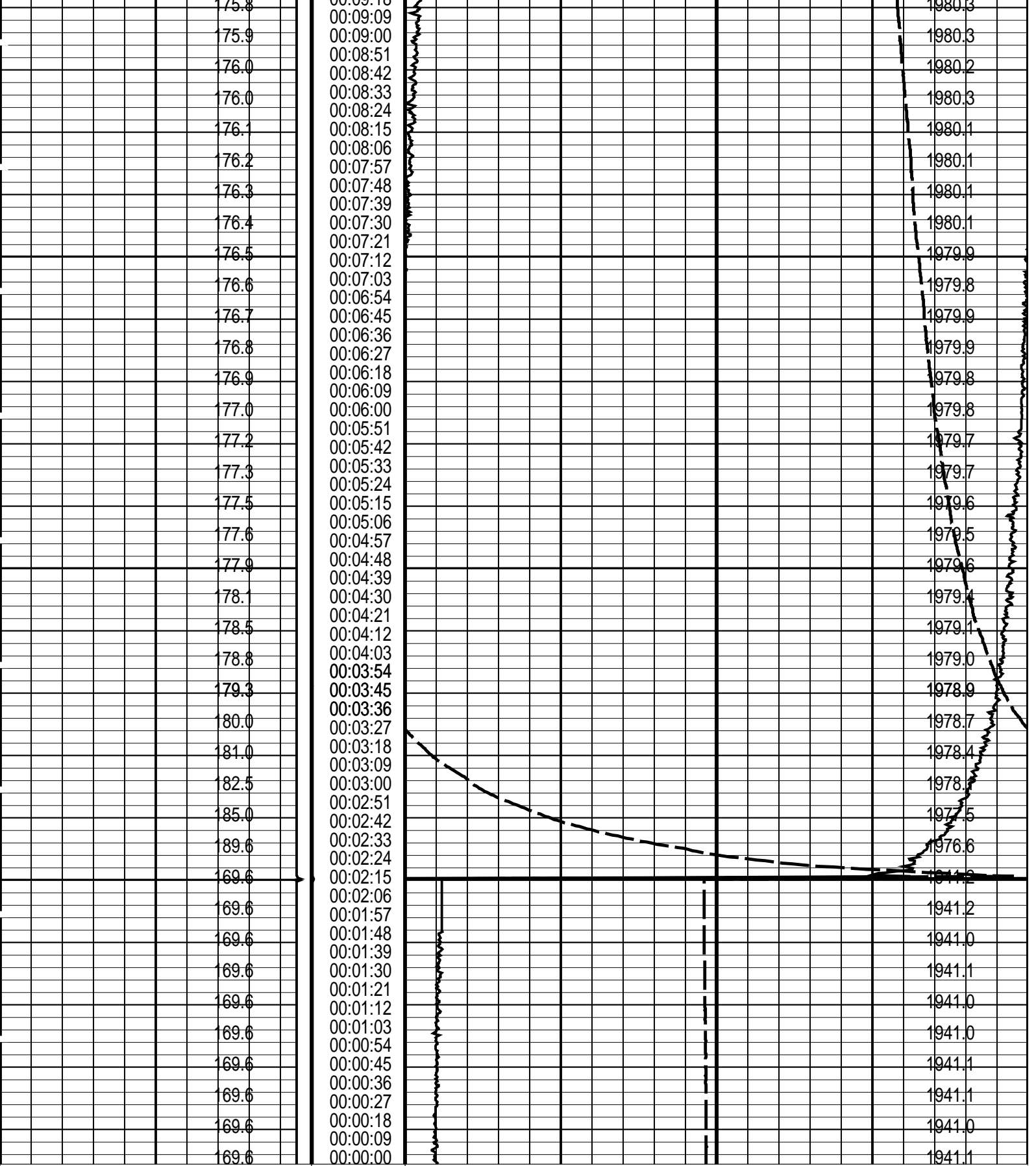
2 1/8" MWPT Enerjet Gun
Gun 1 – Station Log

MAXIS Field Log

Index: 8310.9 – 12910.8 M







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

	Temperature (TEMP_MWPT_SL) (DEGF)		Pressure (SGPA_ SL) (PSIA)
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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: 09-Jan-2006 09:58

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_040LTP FN:38 PRODUCER 09-Jan-2006 09:58

Schlumberger

2 1/8" MWPT Enerjet Gun
Gun 1 – Shooting Pass

MAXIS Field Log

Output DLIS Files

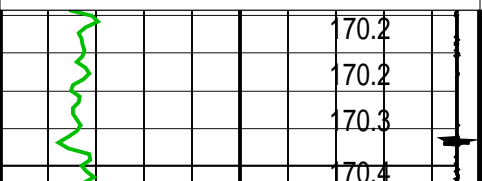
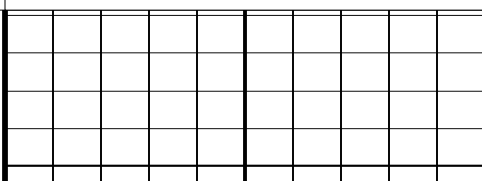
DEFAULT PERFO_039LUP FN:37 PRODUCER 09-Jan-2006 09:55 1570.0 M 1505.9 M

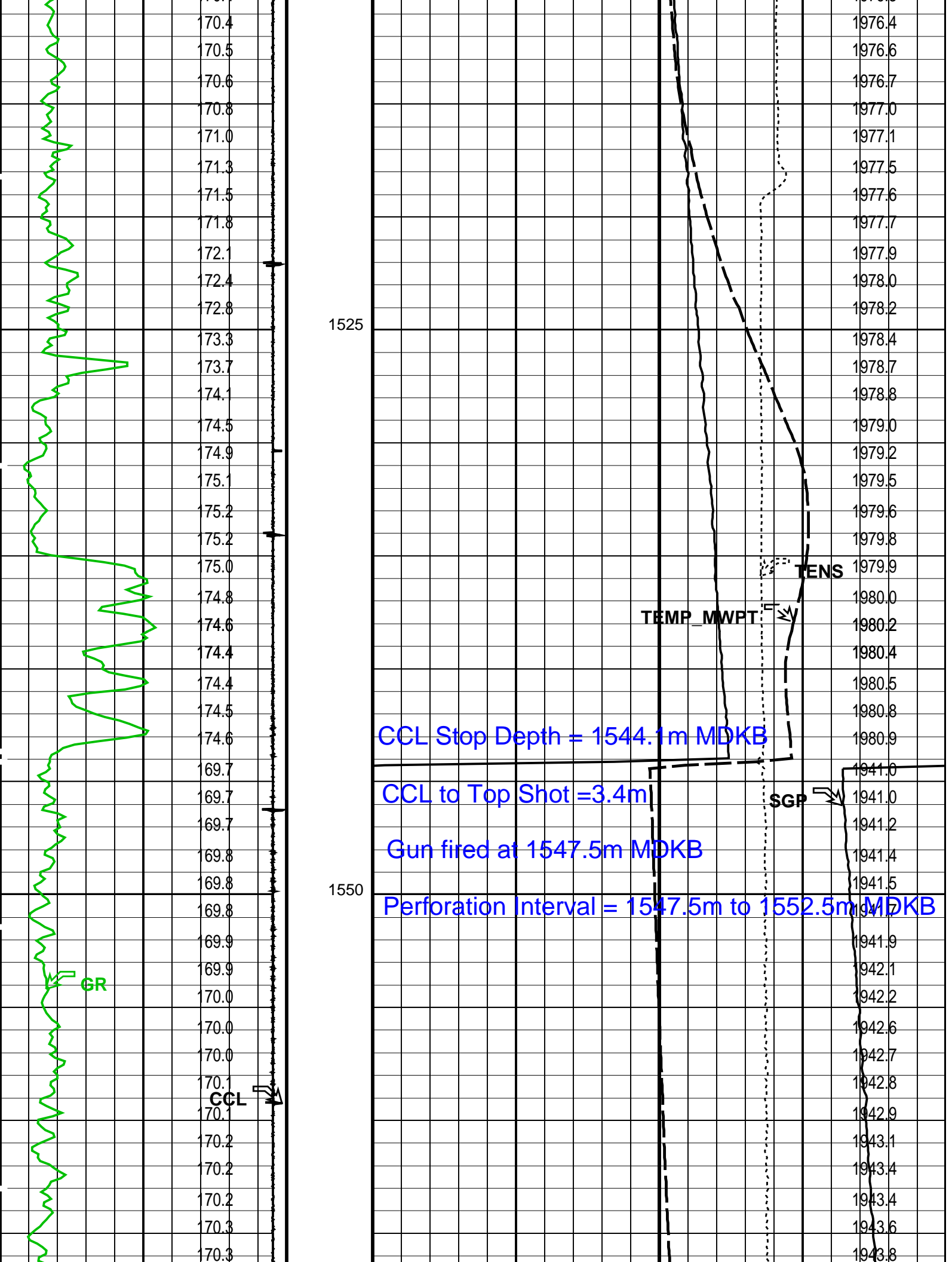
OP System Version: 13C0-300
MCM

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

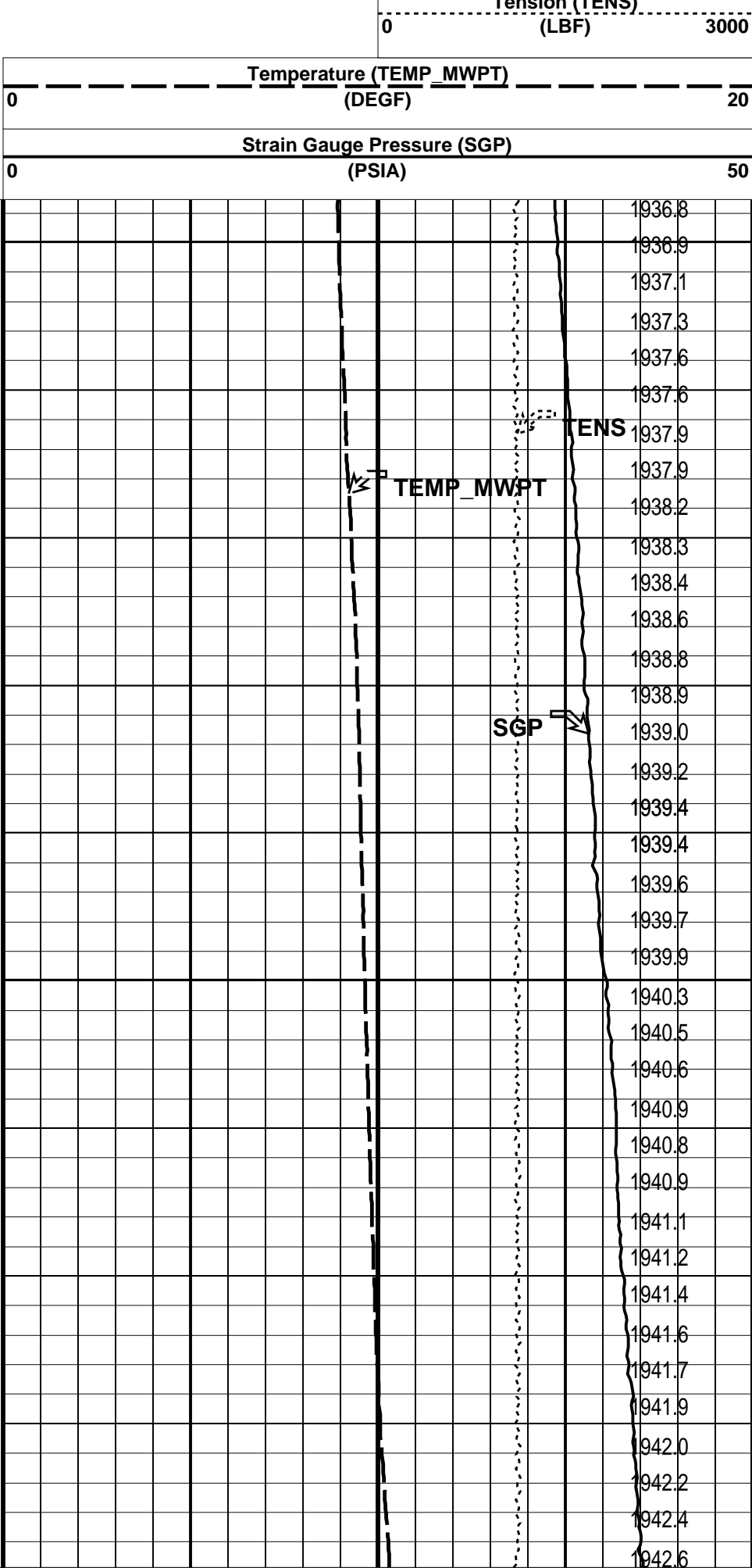
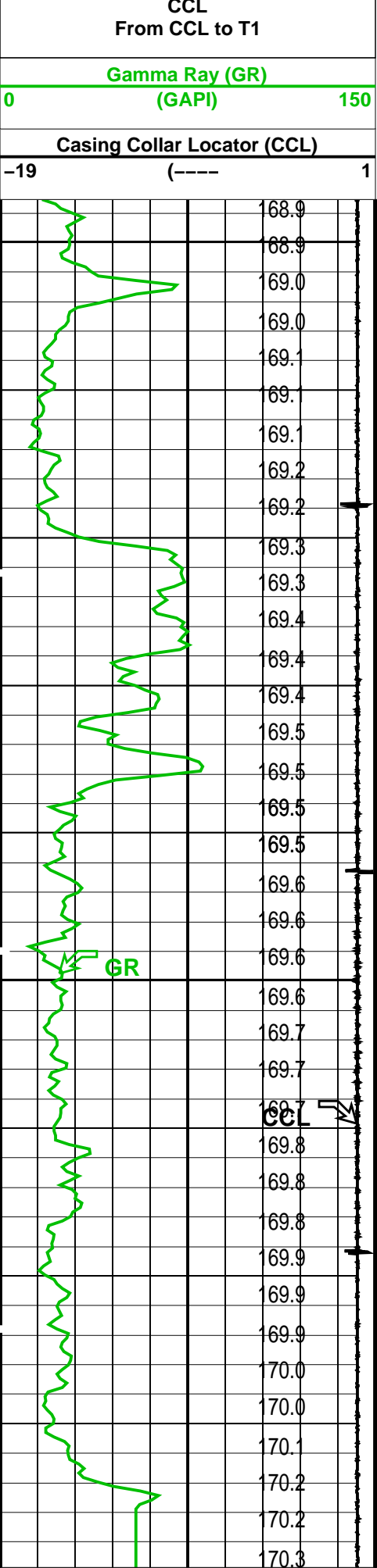
PIP SUMMARY

 Time Mark Every 60 S

	Temperature (TEMP_MWPT) (DEGF)		Pressure (SGPA) (PSIA)
CCL From CCL to T1		Tension (TENS) (LBF)	0 3000
Gamma Ray (GR) (GAPI)	0 150	Temperature (TEMP_MWPT) (DEGF)	0 20
Casing Collar Locator (CCL)	-19 1	Strain Gauge Pressure (SGP) (PSIA)	0 50
	170.2 170.2 170.3 170.4		1975.6 1975.8 1976.1 1976.3



	Temperature (TEMP_MWPT) (DEGE)		Pressure (SGPA) (PSIA)
CO ₂			Tension (TENG)



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: 09-Jan-2006 09:47
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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		

Output DLIS Files			
DEFAULT	PERFO_038LUP	FN:36	PRODUCER 09-Jan-2006 09:47

Company:	ExxonMobil	Schlumberger
Well:	MLA A-2a	
Field:	Marlin	
Rig:	Crane / Prod 4	
Country:	Australia	
2 1/8" Enerjet Gun MWPT Perforating Record		