

[illegible]

Company: ExxonMobil

Well: MLA A-6a

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-6a  
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  
Log Measured From: Kelly Bushing  
Drilling Measured From: Kelly Bushing  
Elev.: 0.0 m  
27.4 m above Perm. Datum

State: Victoria  
Max. Well Deviation 50 deg  
Longitude 148 13' 09.81" E  
Latitude 38 13' 55.49" S

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

PVT DATA

Oil Density  
Water Salinity  
Gas Gravity

Bo

Bw

1/Bg

Bubble Point Pressure

Bubble Point Temperature

Solution GOR

Maximum Deviation

CEMENTING DATA

Primary/Squeeze

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

Run 1

Run 2

Run 3

**DEPTH SUMMARY LISTING**

Date Created: 30-DEC-2005 12:41:34

**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:	31-Mar-2004

**Depth Control Remarks**

1.
2.
3.
4.
5.
6.

**DISCLAIMER**

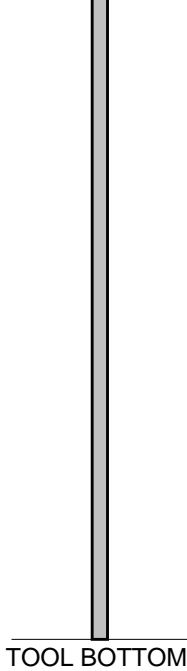
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (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, dated 31 Mar 2004, provided by the client.

Objective:
To perforate the well at 3404.5m to 3412.4m MDKB using 2 1/8" Enerjet gun loaded with PowerSpiral charges.
Before perforating, obtain static FBHP and FBHT. After perforating, monitor well for 15min to obtain FBHP and FBHT.
Static: FBHP = 3577psi, FBHT = 262degF

After Perforating: FBHP = 3655psi, FBHT = 265degF					
API Data: PowerSpiral charges, UN 0441					
Pentration: 27.3"					
Entrance Hole: 0.25"					
Specialist: Paul Tarrant					
Operators: Jakob Annear & Brendon Flyn					
Performed by Schlumberger					
RUN 1			RUN 2		
PROGRAM VERSION: FLUID LEVEL:			PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP
EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		
SURFACE EQUIPMENT					
MWPM-AA 37					
DOWNHOLE EQUIPMENT					



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

Client: ExxonMobil

Well: MLA A-6a

Field: Marlin

State: Victoria

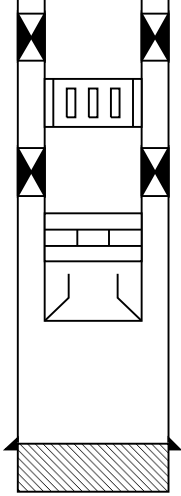
Country: Australia

Rig Name: Marlin

Reference Datum: Kelly Bushing

Elevation: 27.9 m

Production String	(in)		(m)	Well Schematic	(m)			Casing String
	OD	ID	MD		MD	OD	ID	
Tubing Hanger	13.375	4.500	11.3		10.4	13.375	7.000	Casing String Liner Hanger
Tubing	4.500		11.3					
Shutin Valve	4.500		448.9					
Gas Lift Mandrel	4.500		477.3					
Gas Lift Mandrel	4.500		746.2					
Gas Lift Mandrel	4.500		1169.8		1013.2	13.375		Casing Shoe
Gas Lift Mandrel	4.500		1303.6					
Nipple	4.500		1319.2					

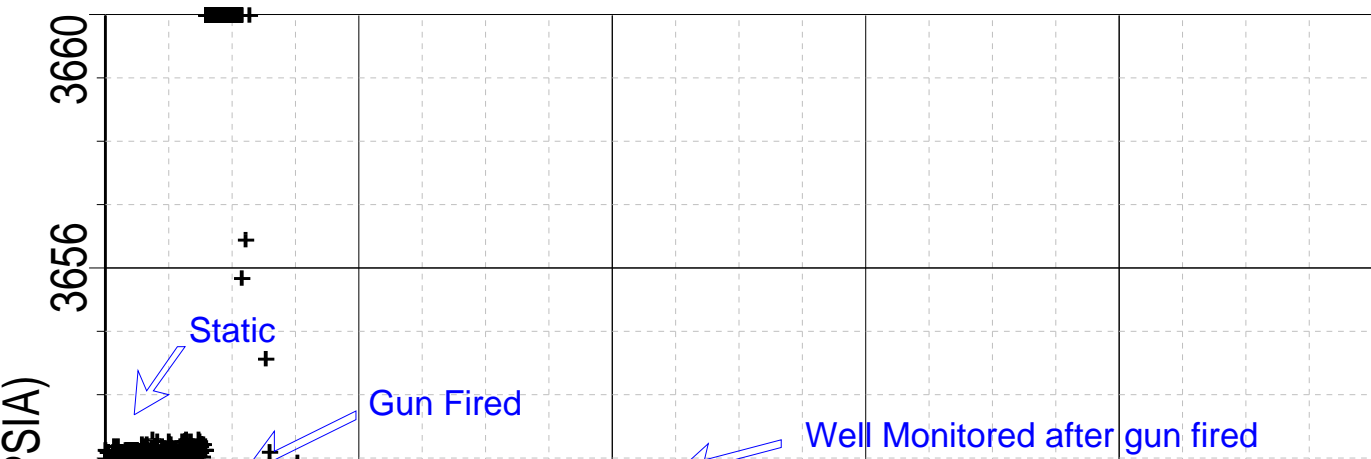
Packer	7.000	4.500	2718.0					
Sliding Sleeve	4.500		2726.6					
Packer	7.000	4.500	2788.9					
Nipple	4.500		2795.1					
Bell Nipple Guide	4.500		2799.5					
					3563.0 3526.5	7.000		Casing Shoe PBDT

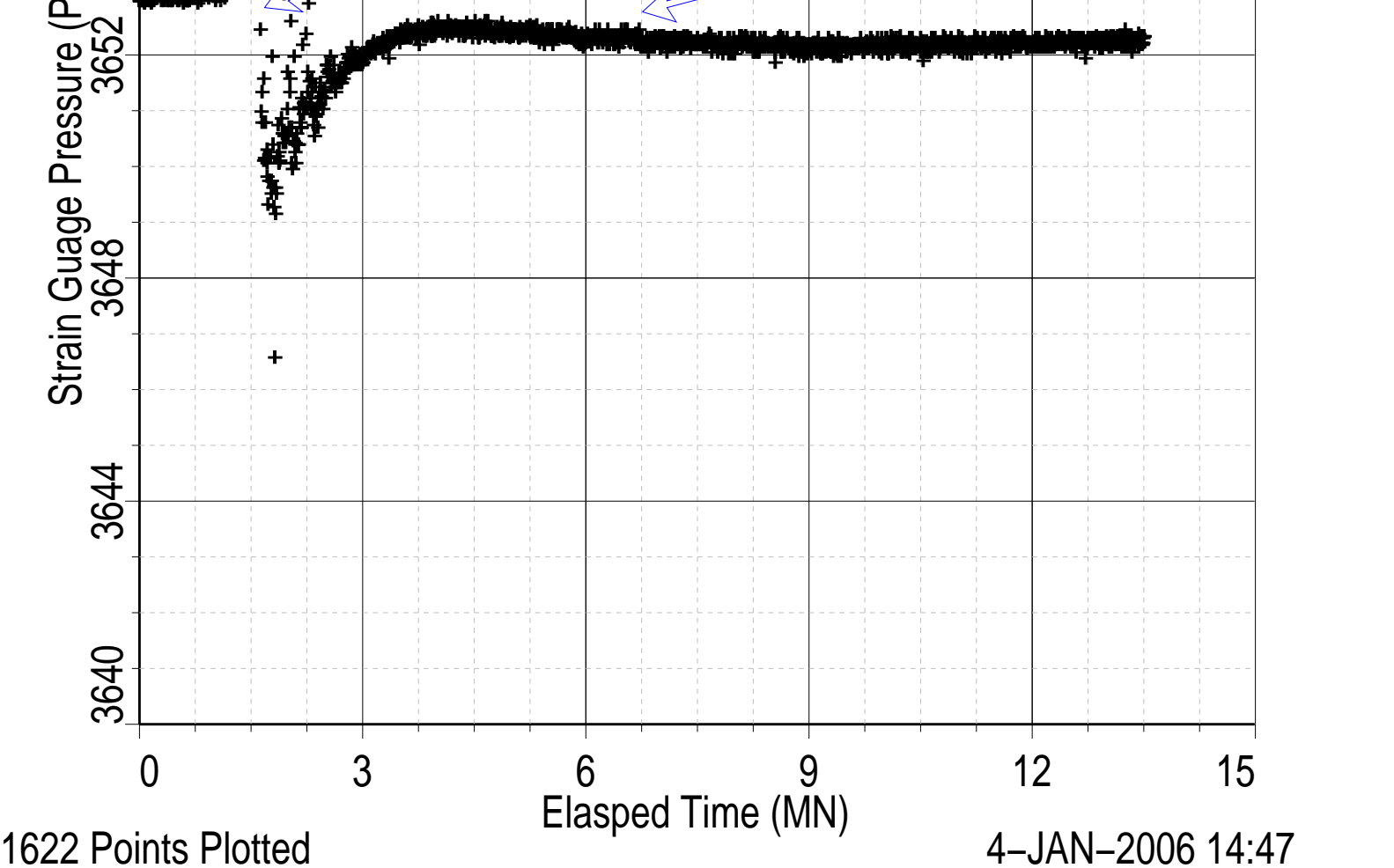


MWPT 2 1/8" Enerjet Gun  
Station Log – 2nd Gun

MAXIS Field Log

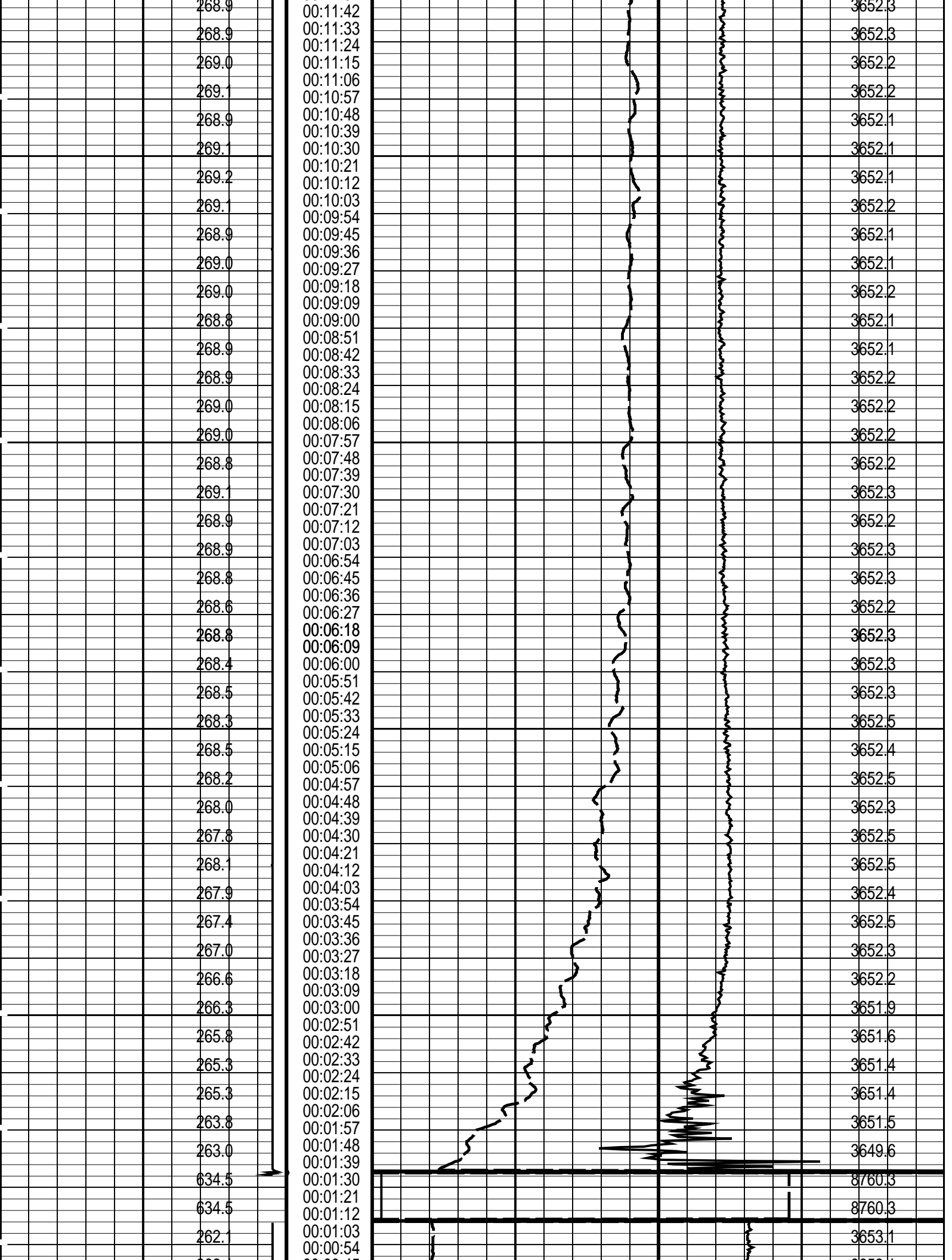
Index: 16149.3 – 20266.7 M





Output DLIS Files						
DEFAULT	PERFO_042LTP	FN:40	PRODUCER	04-Jan-2006 14:22	3401.1 M	2.1 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					

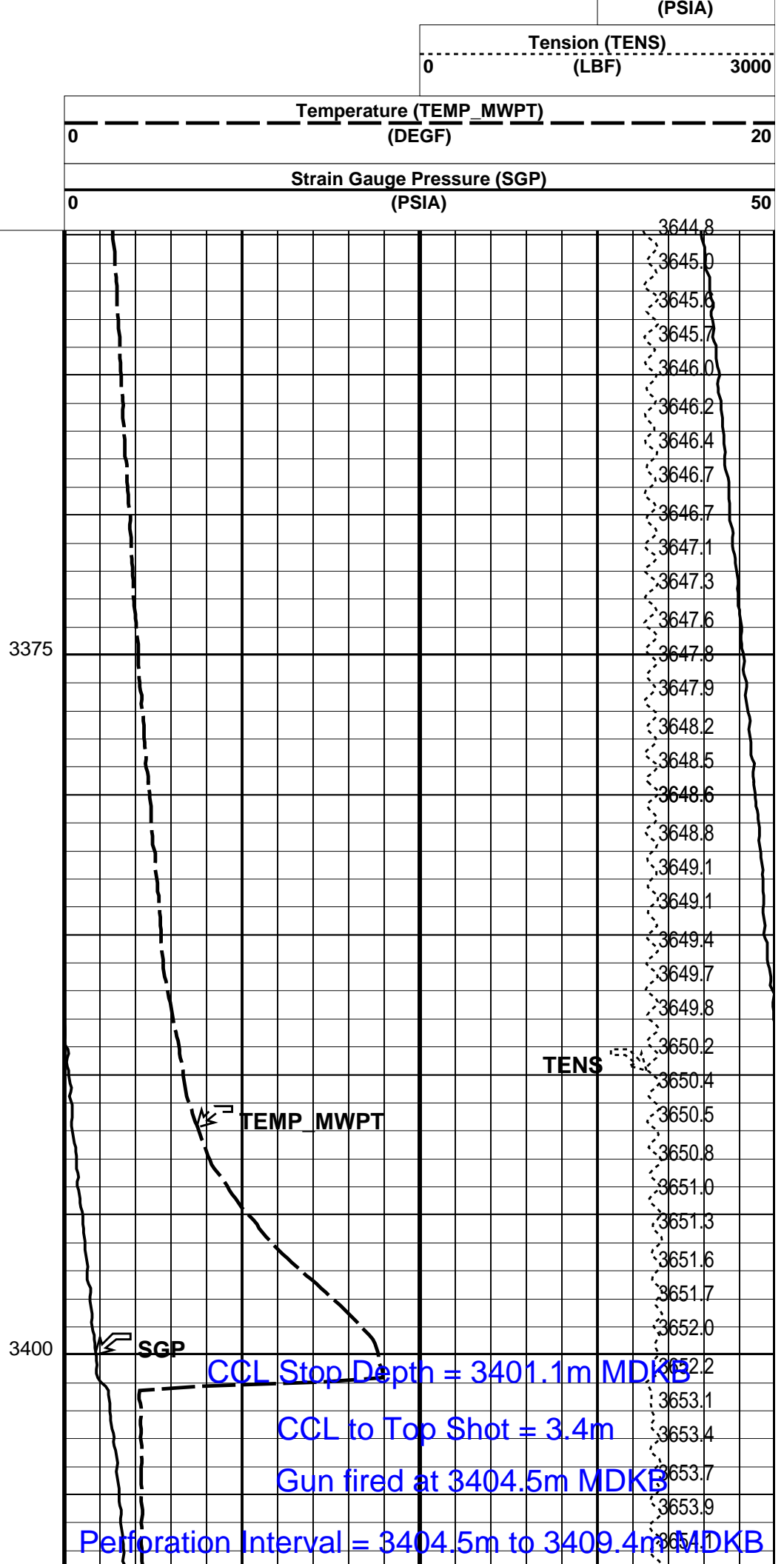
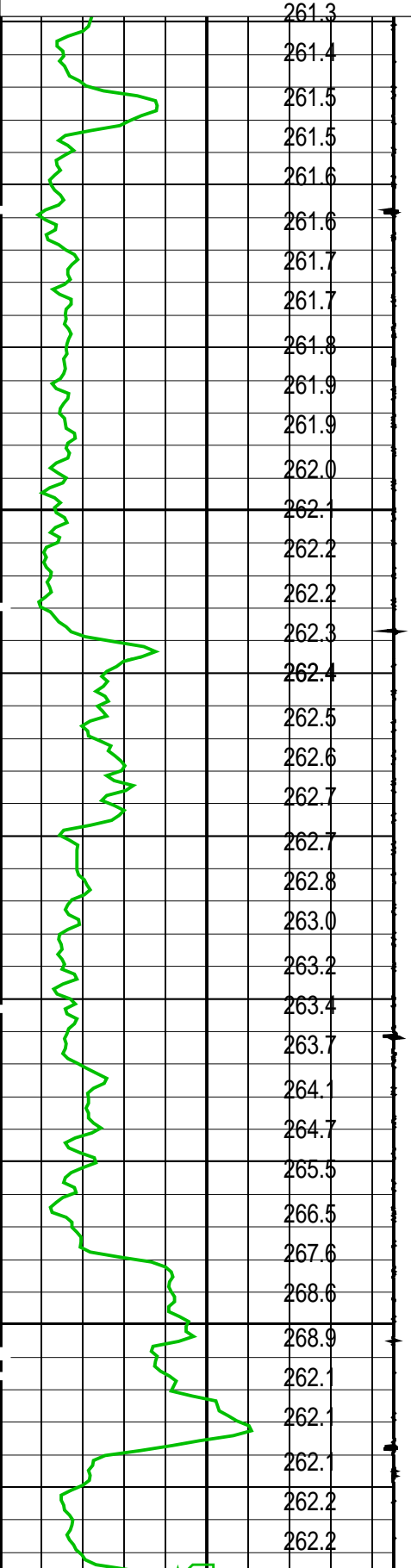
PIP SUMMARY					
Time Mark Every 60 S					
CCL From CCL to T1		Firing Sequence State (FSS SL) (----	Temperature (TEMP_MWPT_SL) (DEGF)		
		0	0 1024		
Casing Collar Locator (CCL_SL) (----		Elapsed Time (ETIM) (S)	Strain Gauge Pressure (SGP_SL) (PSIA)		
-19		1	0 20		
	269.0	00:13:30			3652.3
	269.1	00:13:21			3652.4
	269.0	00:13:12			3652.3
	269.0	00:13:03			3652.3
	269.0	00:12:54			3652.3
	269.0	00:12:45			3652.3
	269.0	00:12:36			3652.3
	269.0	00:12:27			3652.3
	269.0	00:12:18			3652.1
	269.1	00:12:09			3652.2
	269.1	00:12:00			3652.2
	269.0	00:11:51			3652.3

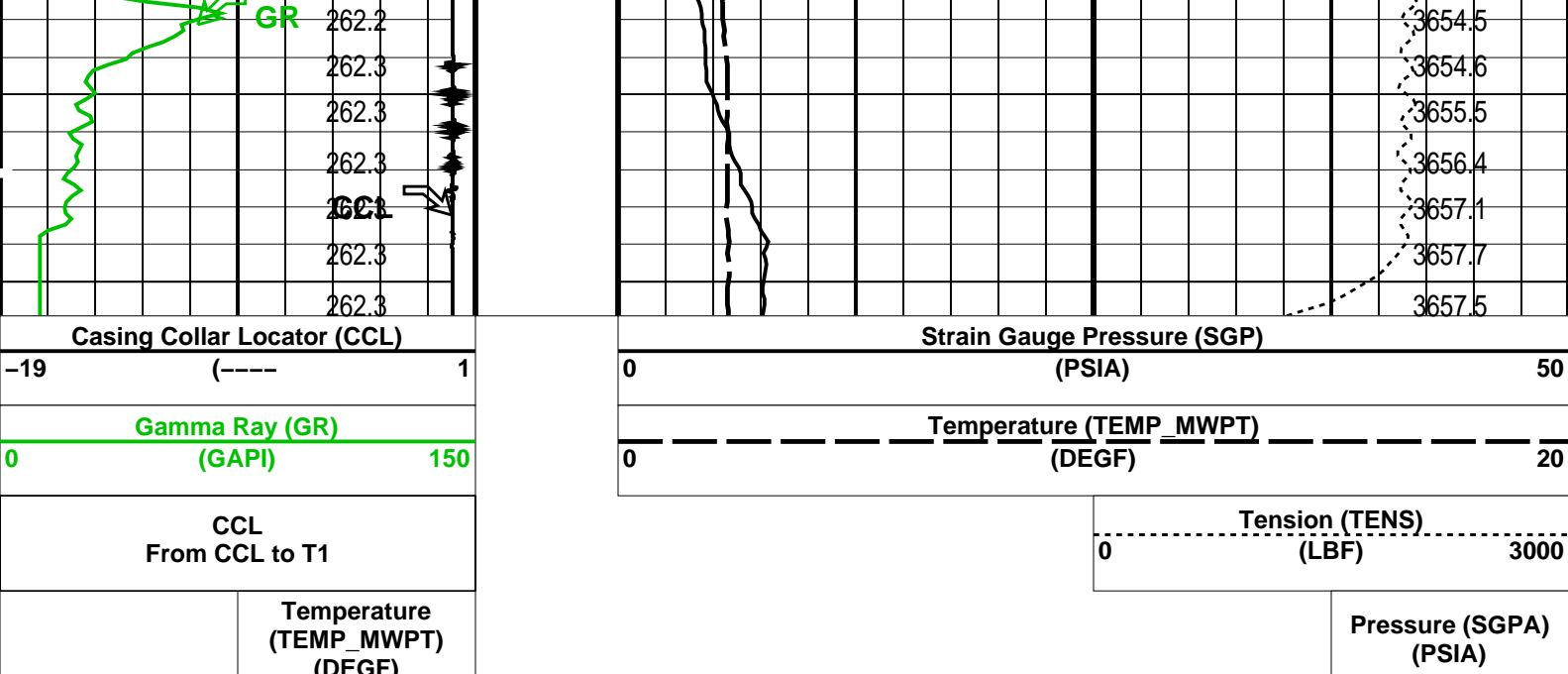




	Temperature (TEMP MWPT)		Pressure (SGPA)
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CCL From CCL to T1		
Gamma Ray (GR) (GAPI)		
0		150
Casing Collar Locator (CCL)		
-19	(----	1





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

Format: MWP Vertical Scale: 1:200 Graphics File Created: 04-Jan-2006 14:19

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		

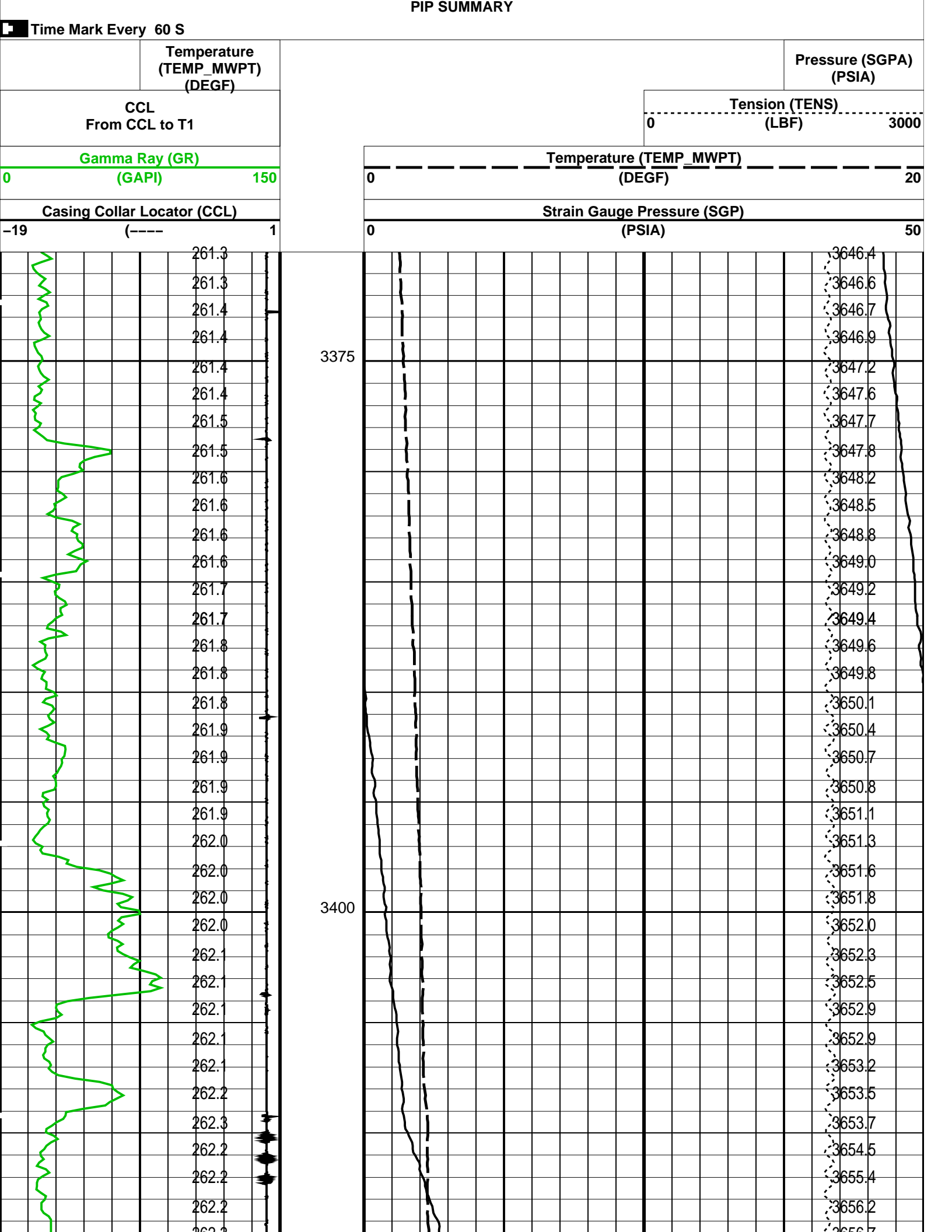
Output DLIS Files			
DEFAULT	PERFO_041LUP	FN:39	PRODUCER 04-Jan-2006 14:19



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

MAXIS Field Log

Output DLIS Files					
DEFAULT	PERFO_040LUP	FN:38	PRODUCER	04-Jan-2006 14:11	3416.0 M 3370.0 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				



262.3	262.3	3656.6	3656.6
Casing Collar Locator (CCL)		Strain Gauge Pressure (SGP)	
-19	(----	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: 04-Jan-2006 14:11
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OP System Version: 13C0-300			
MCM			
MWP_GUN	SRC-2820-ASF5-WPP_t	MWPT-CA	SRC-2820-ASF5-WPP_t
MWGT-AA	SRC-2820-ASF5-WPP_t		

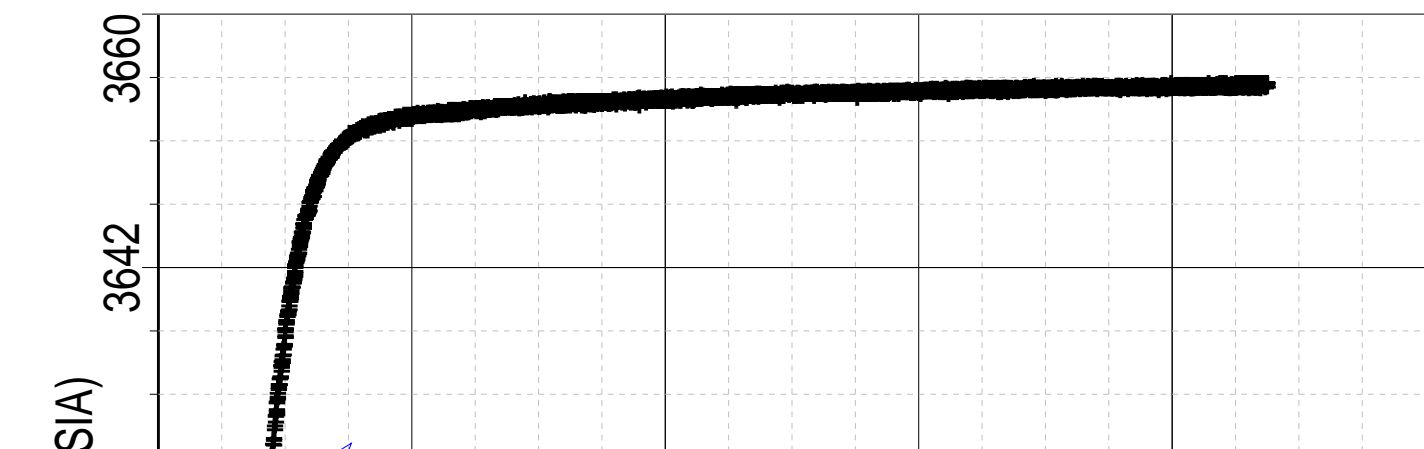
Output DLIS Files			
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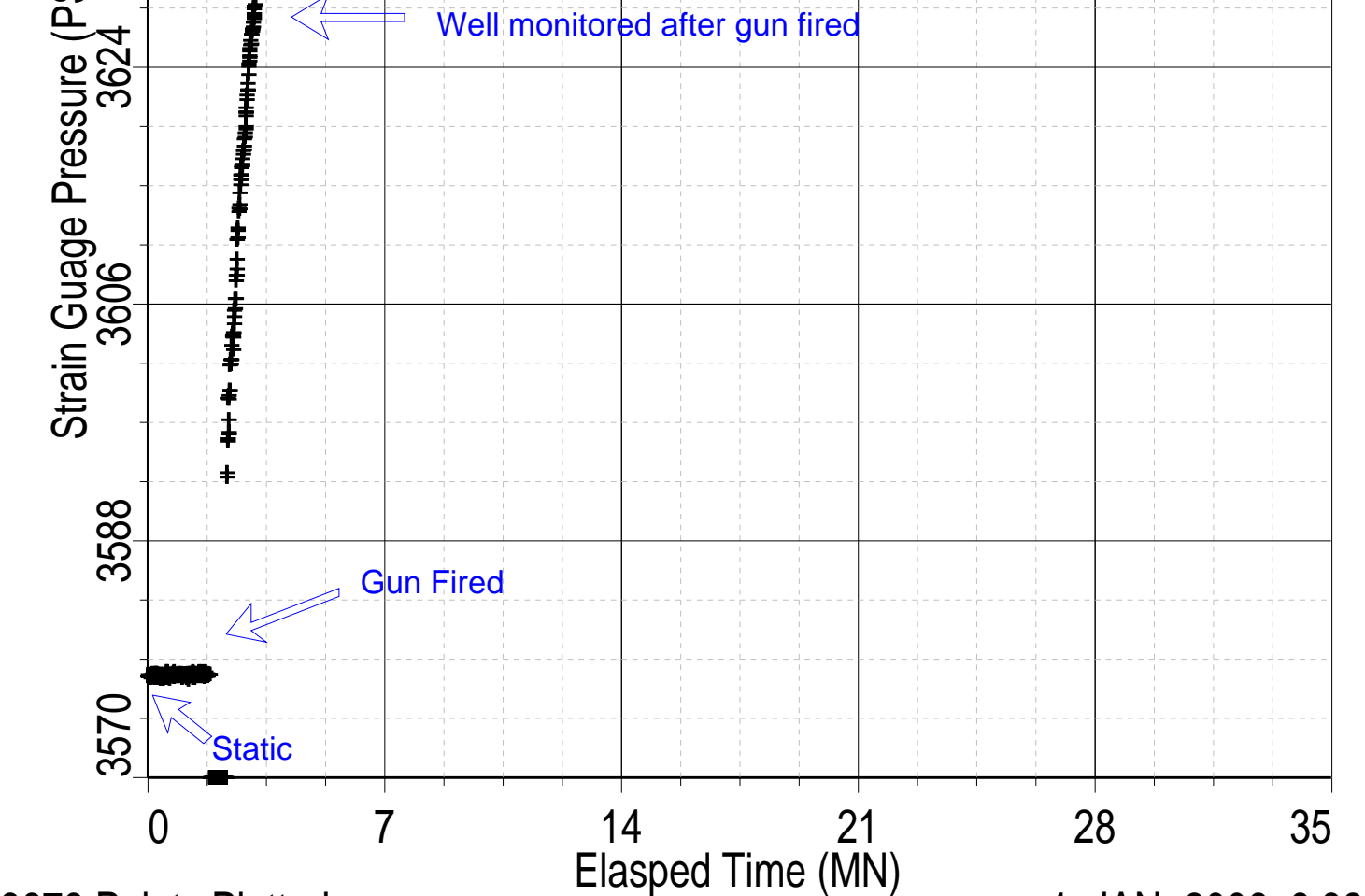


MWPT 2 1/8" Enerjet Gun  
Station Log – 1st Gun

MAXIS Field Log

Index: 16911.3 – 26250.9 M





3678 Points Plotted

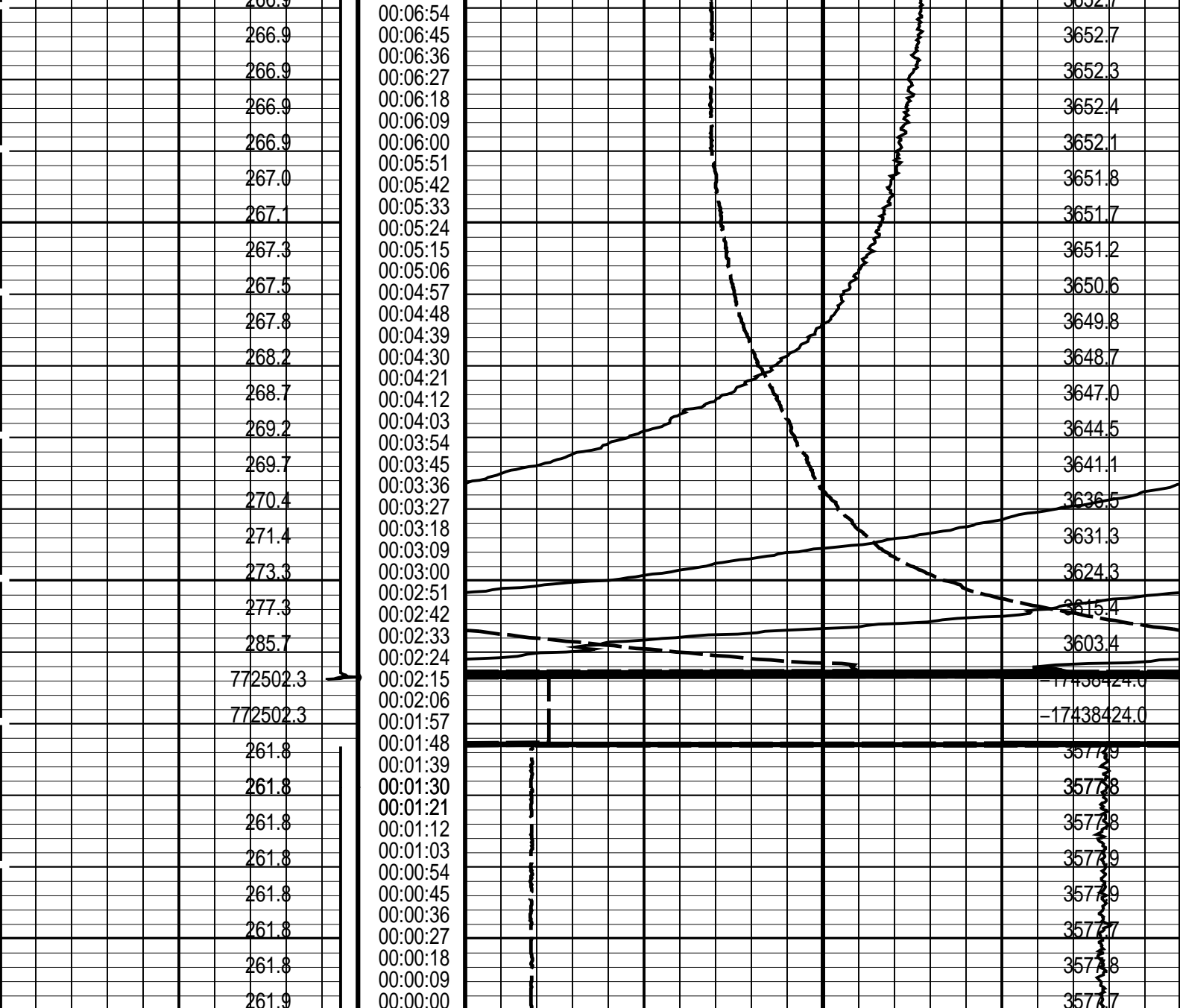
4-JAN-2006 9:32

Output DLIS Files																	
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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 1024		0 20											
Casing Collar Locator (CCL_SL)				Elapsed Time (ETIM) (S)		Strain Gauge Pressure (SGP_SL) (PSIA)											
-19 (----				1		0 20											
264.8				00:30:36		3655.1											
264.8				00:30:27		3654.9											
264.8				00:30:18		3655.1											
264.8				00:30:09		3655.1											
264.9				00:29:51		3654.9											
264.9				00:29:42		3655.0											
264.9				00:29:33		3654.8											
264.9				00:29:24		3654.8											
264.9				00:29:15		3654.8											
264.9				00:29:06		3654.8											

264.9	00:28:57	3654.9
264.9	00:28:48	3654.9
264.9	00:28:39	3654.8
264.9	00:28:30	3654.8
264.9	00:28:21	3654.8
265.0	00:28:12	3655.0
265.0	00:28:03	3654.8
265.0	00:27:54	3654.9
265.0	00:27:45	3654.8
265.0	00:27:36	3654.8
265.0	00:27:27	3654.8
265.0	00:27:18	3654.8
265.0	00:27:09	3654.8
265.0	00:27:00	3654.9
265.0	00:26:51	3654.9
265.0	00:26:42	3654.9
265.0	00:26:33	3654.8
265.0	00:26:24	3654.8
265.1	00:26:15	3654.8
265.1	00:26:06	3654.8
265.1	00:25:57	3654.8
265.1	00:25:48	3654.8
265.1	00:25:39	3654.7
265.1	00:25:30	3654.7
265.1	00:25:21	3654.7
265.1	00:25:12	3654.8
265.2	00:25:03	3654.7
265.2	00:24:54	3654.7
265.2	00:24:45	3654.8
265.2	00:24:36	3654.7
265.2	00:24:27	3654.8
265.2	00:24:18	3654.7
265.2	00:24:09	3654.8
265.2	00:24:00	3654.6
265.2	00:23:51	3654.6
265.2	00:23:42	3654.5
265.3	00:23:33	3654.6
265.3	00:23:24	3654.6
265.3	00:23:15	3654.6
265.3	00:23:06	3654.6
265.3	00:22:57	3654.6
265.3	00:22:48	3654.5
265.3	00:22:39	3654.7
265.3	00:22:30	3654.4
265.4	00:22:21	3654.7
265.4	00:22:12	3654.4
265.4	00:22:03	3654.7
265.4	00:21:54	3654.5
265.4	00:21:45	3654.5
265.4	00:21:36	3654.4
265.4	00:21:27	3654.5
265.5	00:21:18	3654.4
265.4	00:21:09	3654.4
265.4	00:21:00	3654.5
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265.6	00:19:30	3654.4
265.6	00:19:21	3654.4
265.6	00:19:12	3654.4
265.6	00:19:03	3654.4
265.7	00:18:54	3654.4
265.7	00:18:45	3654.3
265.7	00:18:36	3654.3
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265.8	00:16:57	3654.1
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266.3	00:12:45	3653.7
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266.8	00:07:39	3652.7
266.8	00:07:30	3652.7
266.8	00:07:21	3652.7
266.8	00:07:12	3652.7
266.9	00:07:03	3652.7





Casing Collar Locator (CCL_SL)		Elapsed Time (ETIM) (S)	Strain Gauge Pressure (SGP_SL) (PSIA)	
-19 (-----) 1		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)	PIP SUMMARY		Pressure (SGPA_SL) (PSIA)	

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

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\_035LTP

FN:33

PRODUCER

04-Jan-2006 08:25



MWPT 2 1/8" Enerjet Gun

Shooting Pass – 1st Gun

MAXIS Field Log

Output DLIS Files

DEFAULT

PERFO\_034LUP

FN:32

PRODUCER

04-Jan-2006 08:23

3417.9 M

3334.8 M

OP System Version: 13C0-300

MCM

MWP\_GUN

SRC-2820-ASFS-WPP\_t

MWPT-CA

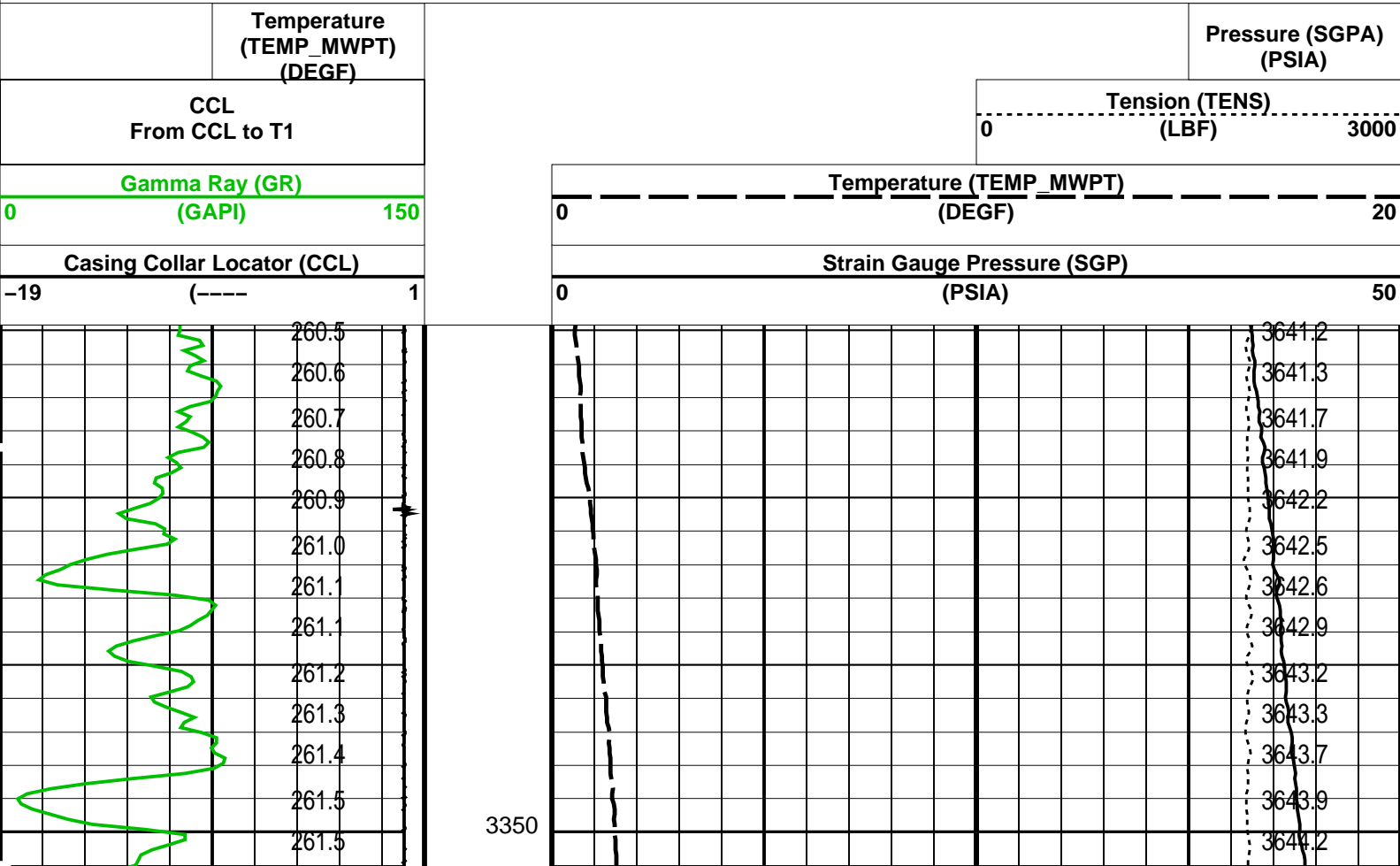
SRC-2820-ASFS-WPP\_t

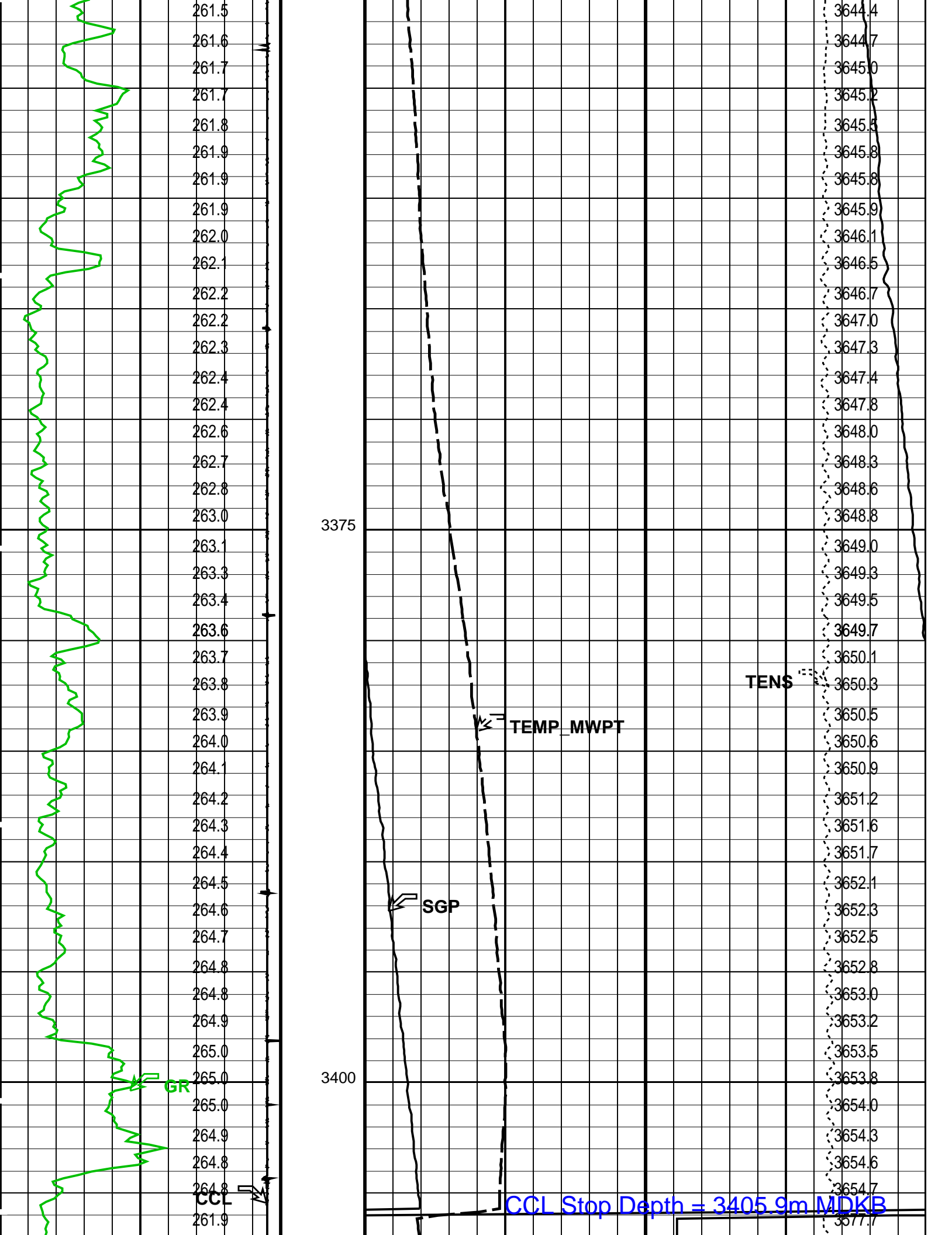
MWGT-AA

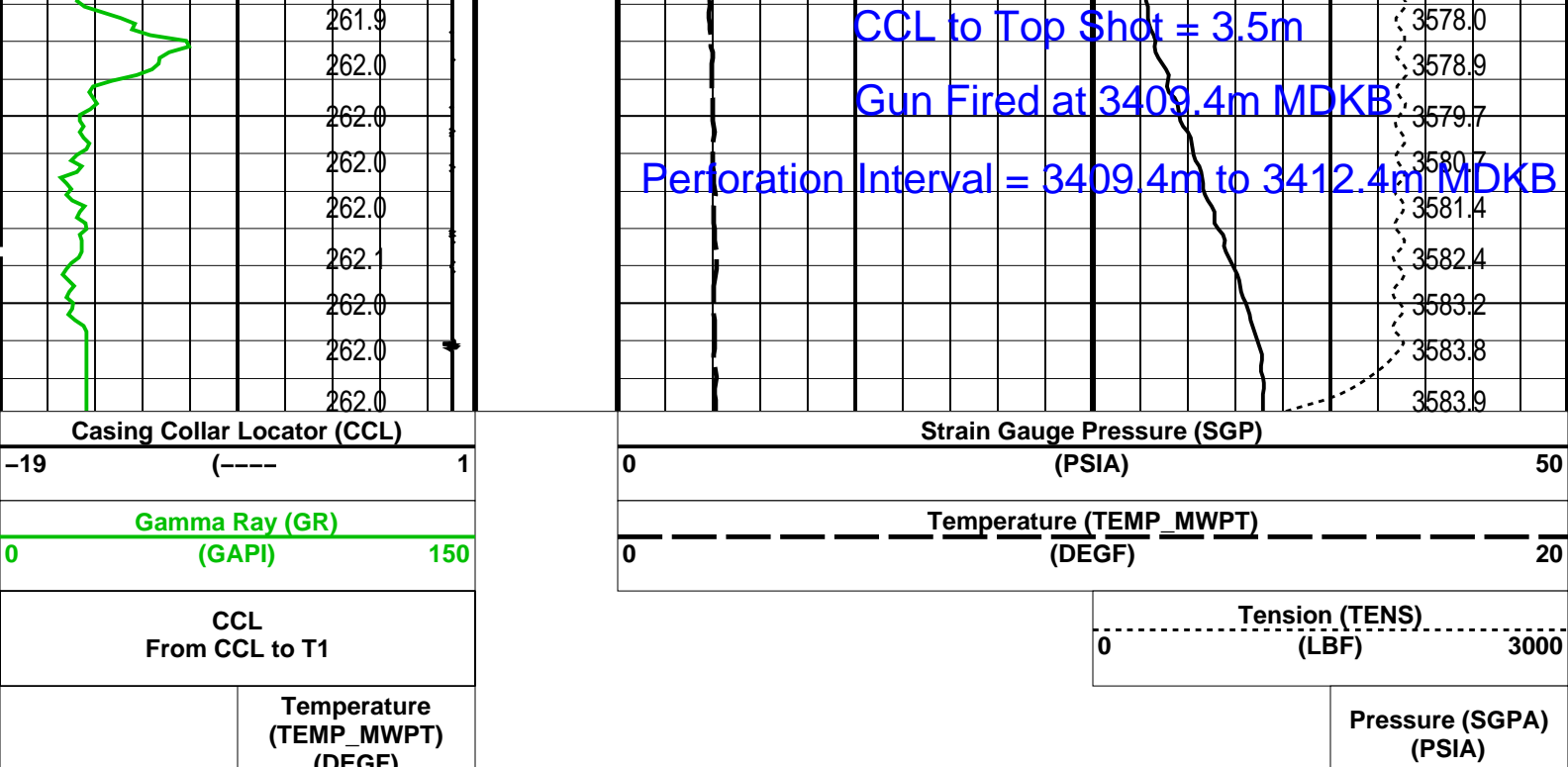
SRC-2820-ASFS-WPP\_t

PIP SUMMARY

Time Mark Every 60 S







#### 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: 04-Jan-2006 08:23

### 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_034LUP	FN:32	PRODUCER	04-Jan-2006 08:23
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**Schlumberger**

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

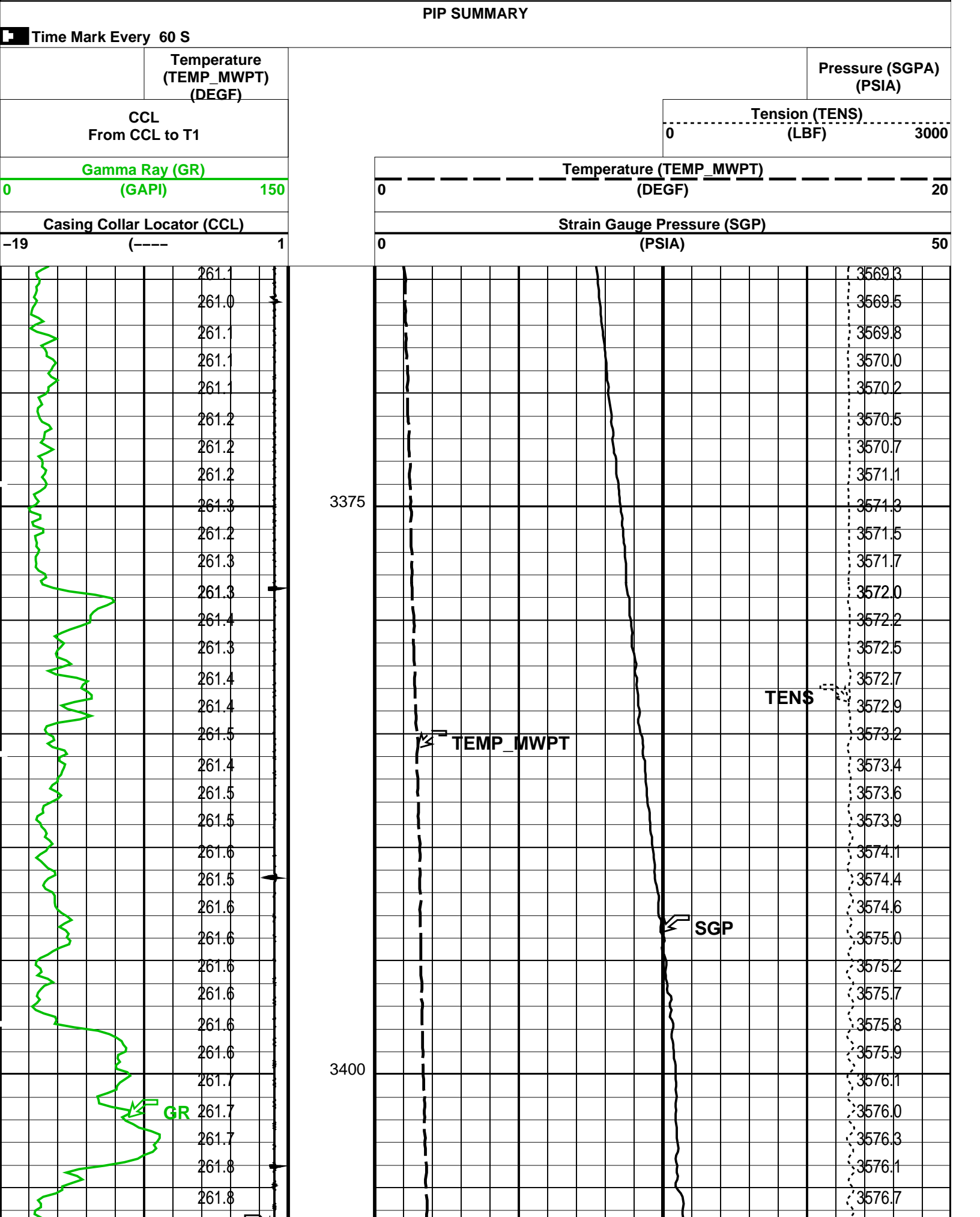
MAXIS Field Log

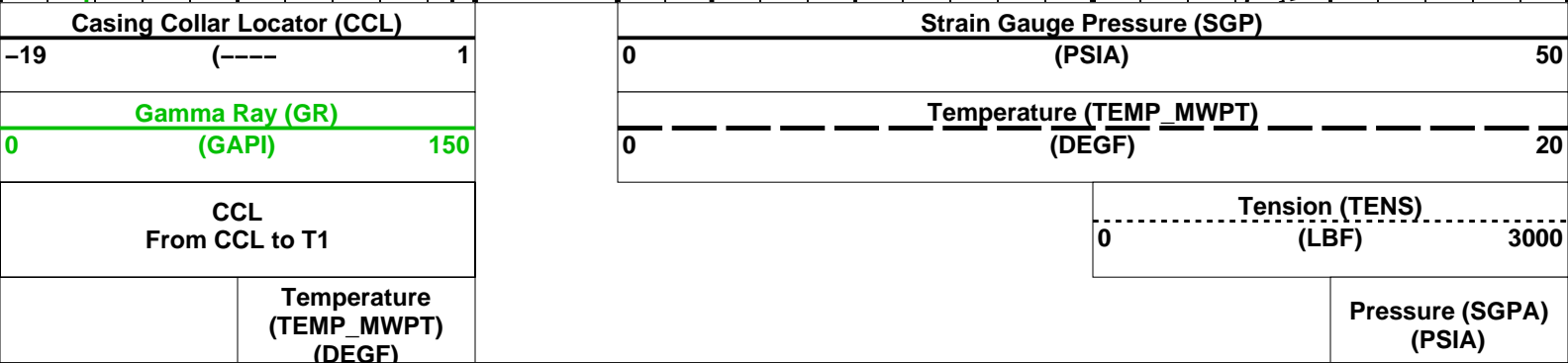
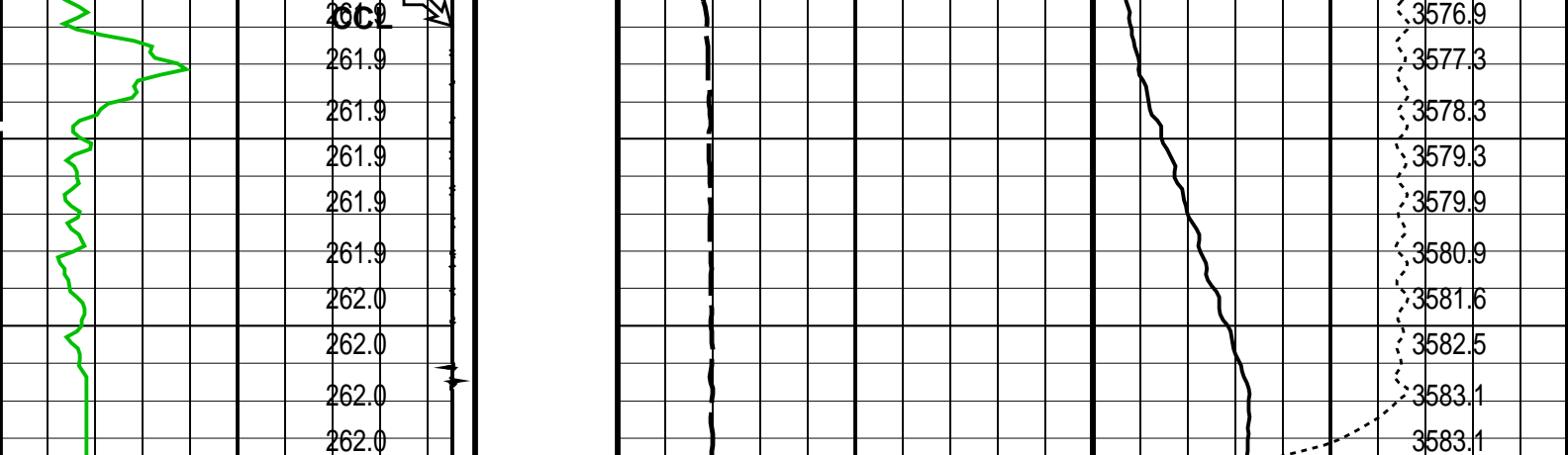
### Output DLIS Files

DEFAULT	PERFO_033LUP	FN:31	PRODUCER	04-Jan-2006 08:15	3418.5 M	3364.4 M
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### OP System Version: 13C0-300

MCM





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: 04-Jan-2006 08:15

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_033LUP	FN:31	PRODUCER 04-Jan-2006 08:15

Company: **ExxonMobil**

Well: **MLA A-6a**

Field: **Marlin**

Rig: **Crane / Prod 4**

Country: **Australia**

**Schlumberger**

2 1/8" Enerjet Gun

MWPT

Perforating Record