

Company: Esso Australia Ltd.

Well: A-20a

Field: Bream A

Rig : Prod4 / Crane

Country: Australia

2 1/8" Phased Powerjet
MWPT
Perforation Record

Prod4 / Crane
Bream A
Gippsland
A-20a
Esso Australia Ltd.

LOCATION			
State: Victoria	Gippsland	Elev.: K.B. 32.82 m	
	Basin	G.L. -59 m	
	Bass Strait	D.F. 32.82 m	
	Permanent Datum: _____ Log Measured From: D.F. _____ Drilling Measured From: D.F. _____	Elev.: 0 m 32.8 m above Perm. Datum	
	Max. Well Deviation 57 deg	Longitude 147 46'20.326" E	Latitude 038 29'58.846" S
Logging Date	4-May-2006		
Run Number	1		
Depth Driller	2253 m		
Schlumberger Depth	2245 m – Not Tagged		
Bottom Log Interval	2232 m		
Top Log Interval	2230 m		
Casing Fluid Type	Production Fluids		
Salinity			
Density			
Fluid Level	918 m		
BIT/CASING/TUBING STRING			
Bit Size	8.500 in		
From	11 m		
To	2326 m		
Casing/Tubing Size	7.000 in		
Weight	26 lbm/ft		
Grade	L-80		
From	12.2 m		
To	2309 m		
Maximum Recorded Temperatures	99 degC		
Logger On Bottom	4-May-2006	8:30	
Unit Number	1	AUSL	
Recorded By	G Wright & P Tarrant		
Witnessed By	B White & B Robinson		

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				57 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						

DEPTH SUMMARY LISTING

Date Created: 4-MAY-2006 19:00:36

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-H	Type:	CMTD-B/A	Type:	2-23ZT
Serial Number:	797	Serial Number:	1037	Serial Number:	22372
Calibration Date:	01 May 2005	Calibration Date:	01 Apr 2006	Length:	5049.93 M
Calibrator Serial Number:	1009	Calibrator Serial Number:	1174		
Calibration Cable Type:	2-32ZT	Calibration Gain:	1.37	Conveyance Method:	Wireline
Wheel Correction 1:	-3	Calibration Offset:	635.00	Rig Type:	Offshore_Fixed
Wheel Correction 2:	-3				

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: MPBT Plug

OS2:

OS3:

OS4:

OS5:

REMARKS: RUN NUMBER 1

Log correlated to ExxonMobil Solar correlation composite log supplied

by K Kuttan.

Maximum well deviation = 57 degrees at 869.3m MDKB.

Objective:


Perforate the interval 2230m to 2232m MDKB with 2 1/8" Enerjet Gun

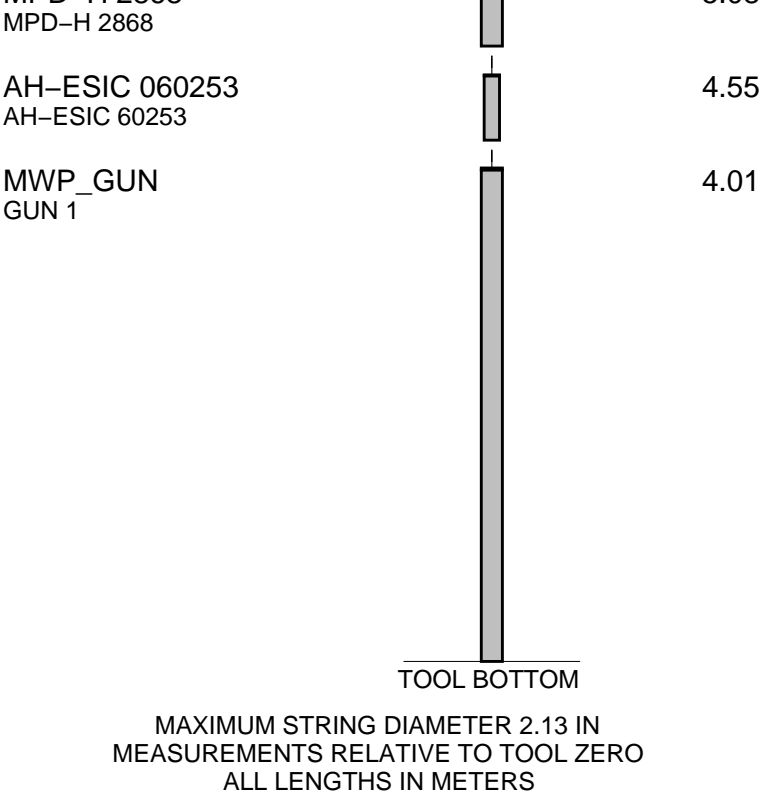
loaded with PowerSpirol charges, while attempting to obtain a 300psi

underbalance.
API Data:
Penetration: 30.4"
Entrance Hole: 0.32"
Crew :
John Light & Andy Hall (days)
Rick Murray & Kevin Kerr (nights)

RUN 1			RUN 2		
SERVICE ORDER #:		AUSL06103812	SERVICE ORDER #:		
PROGRAM VERSION:		14C0-302	PROGRAM VERSION:		
FLUID LEVEL:		918 m	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		

SURFACE EQUIPMENT					
MWPM-AA 37					
DOWNHOLE EQUIPMENT					
AH-SWBS-B AH-SWBS-B 761			12.18		
AH-SWBS-B AH-SWBS-B 762			11.50		
AH-SWBS-B AH-SWBS-B 763			10.81		
AH-SWHS-A AH-SWHS-A 726			10.13		
MWGT-AA MWPG-AA 19 MWGH-AA 19		MWPG GR	2.41		
MWPT-CA MWPH-AA 74 MWPS-AA 74			8.82		
		CCL SMWP Pres SMWP Temp Tension	TOOL ZERO		
AH-SAH-G 1047 AH-SAH-G 1047			6.00		
AH-FLEXJOINT 41 AH-FLEXJOINT 41			5.57		
MPD-H 2868			5.08		



Client: Esso Australia Ltd

Well: BMA A-20a

Field: Bream

State: Victoria

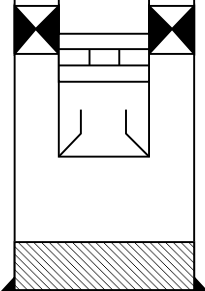
Country: Australia

Rig Name: Bream A

Reference Datum: Kelly Bushing

Elevation: 32.8 m

Production String	(in)		(m)	Well Schematic	(m)	(in)		Casing String
	OD	ID	MD		MD	OD	ID	
Tubing Hanger	10.750	2.992	11.0					Casing String Liner Hanger
Tubing	3.500		11.0		12.2	10.750	7.000	
					12.2	10.750		
Shutin Valve	3.500		450.5					
Gas Lift Mandrel	3.500		595.4					
Gas Lift Mandrel	3.500		1154.8		1123.2	10.750		
Gas Lift Mandrel	3.500		1338.0					
Nipple	3.500		1354.3					

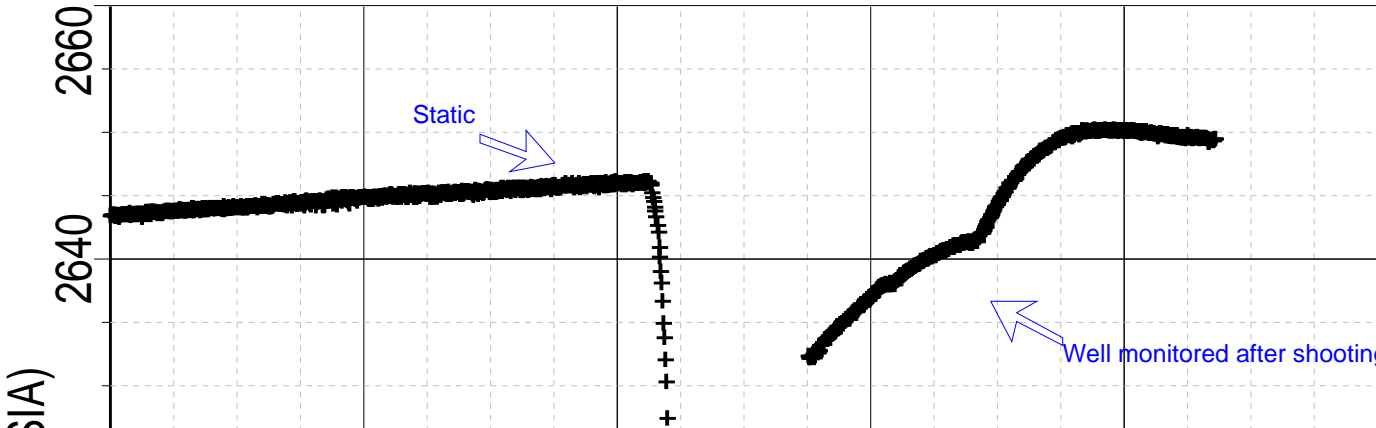
Packer Nipple	7.000	3.500	2152.8		2267.0			
	3.500		2158.3		2321.0	7.000		
Bell Nipple Guide		3.500	2172.4					PBD Casing Shoe

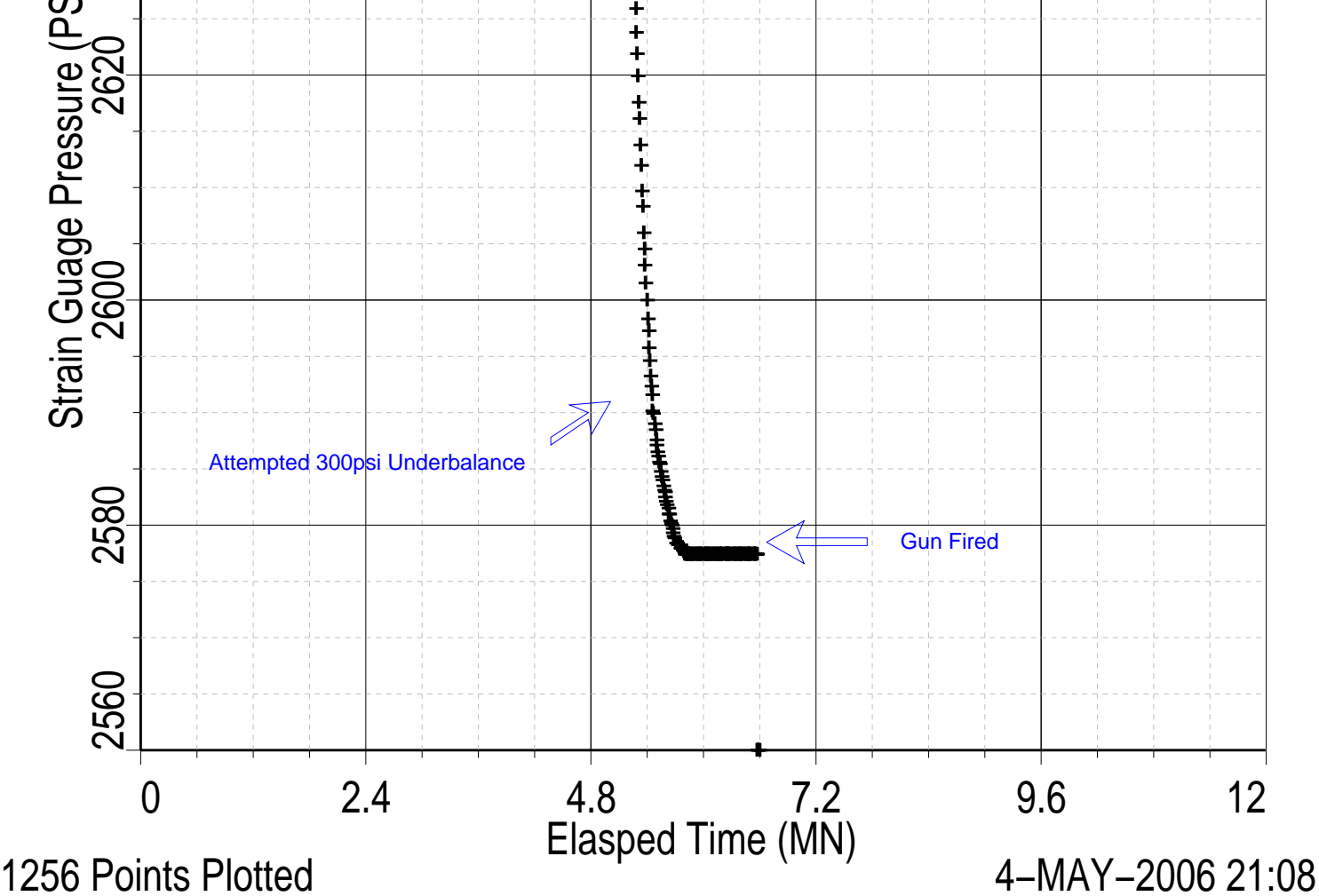
Schlumberger

2 1/8" MWPT Enerjet Gun
Station Log

MAXIS Field Log

Index: 4678.7 – 7866.4 M

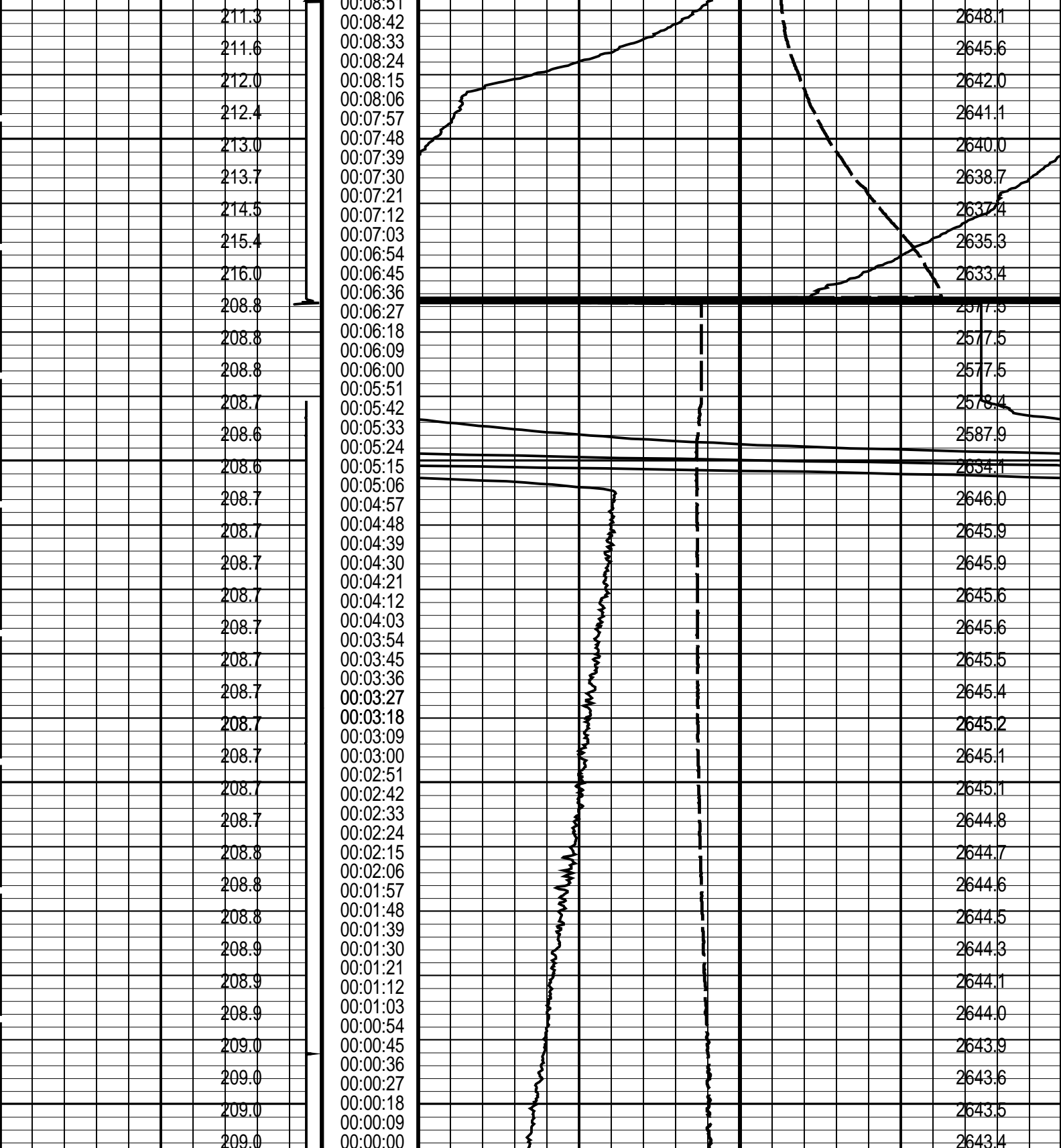




Output DLIS Files						
DEFAULT	PERFO_026LTP	FN:25	PRODUCER	04-May-2006 10:58	2226.5 M	1.6 M
OP System Version: 14C0-302						
MCM						
MWP_GUN	14C0-302	MWPT-CA		14C0-302		
MWGT-AA	14C0-302					

PIP SUMMARY	
<input type="checkbox"/> 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) (----)		Strain Gauge Pressure (SGP_SL) (PSIA)	
-19 1		0 20	
211.4	00:10:21	2649.5	
211.3	00:10:12	2649.8	
211.3	00:09:54	2650.1	
211.3	00:09:45	2650.2	
211.2	00:09:36	2650.1	
211.2	00:09:27	2649.5	
211.2	00:09:18		
211.2	00:09:09		
211.2	00:09:00		
211.2	00:08:54		



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) (----)	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: 04-May-2006 10:58

OP System Version: 14C0-302

MCM

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

Output DLIS Files

DEFAULT PERFO_026LTP FN:25 PRODUCER 04-May-2006 10:58

Schlumberger

2 1/8" MWPT Enerjet Gun Shooting Pass

MAXIS Field Log

Output DLIS Files

DEFAULT PERFO_025LUP FN:24 PRODUCER 04-May-2006 10:56 2242.9 M 2192.0 M

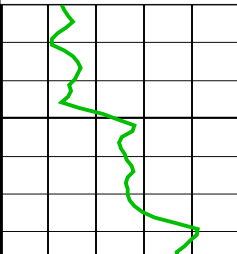
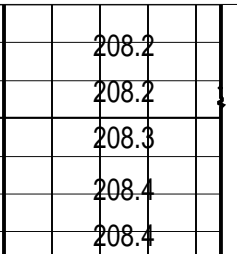
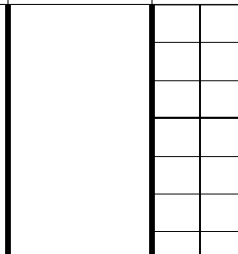
OP System Version: 14C0-302

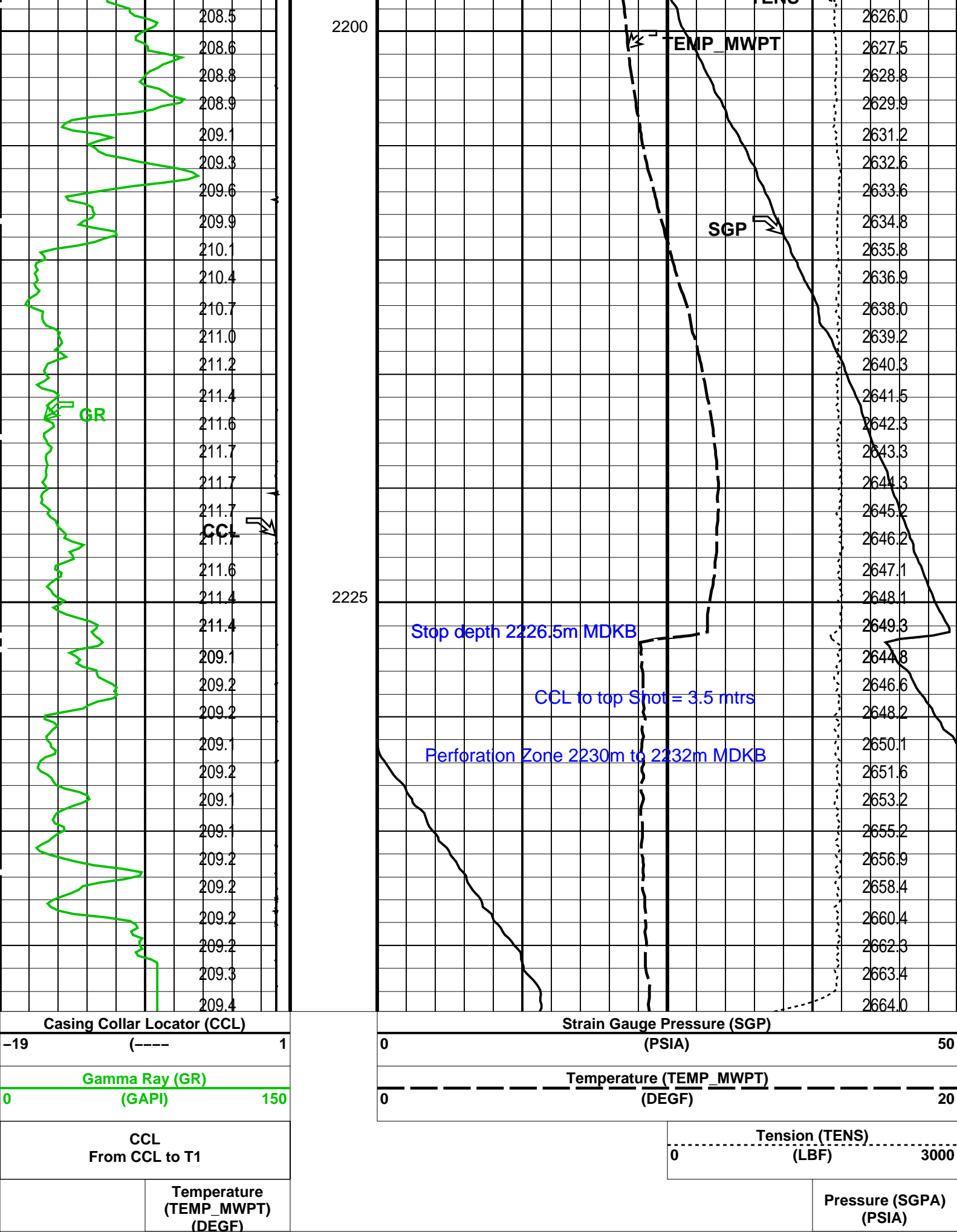
MCM

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

PIP SUMMARY

Time Mark Every 60 S

Temperature (TEMP_MWPT) (DEGF)		Pressure (SGPA) (PSIA)
CCL From CCL to T1		Tension (TENS) (LBF)
		0 3000
Gamma Ray (GR) (GAPI)	Temperature (TEMP_MWPT) (DEGF)	
0 150	0 20	
Casing Collar Locator (CCL) (----)	Strain Gauge Pressure (SGP) (PSIA)	
-19 1	0 50	
		
208.2	208.2	2620.1
208.2	208.2	2621.3
208.3	208.3	2622.4
208.4	208.4	2623.9
208.4	208.4	2625.1




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: 04-May-2006 10:56	

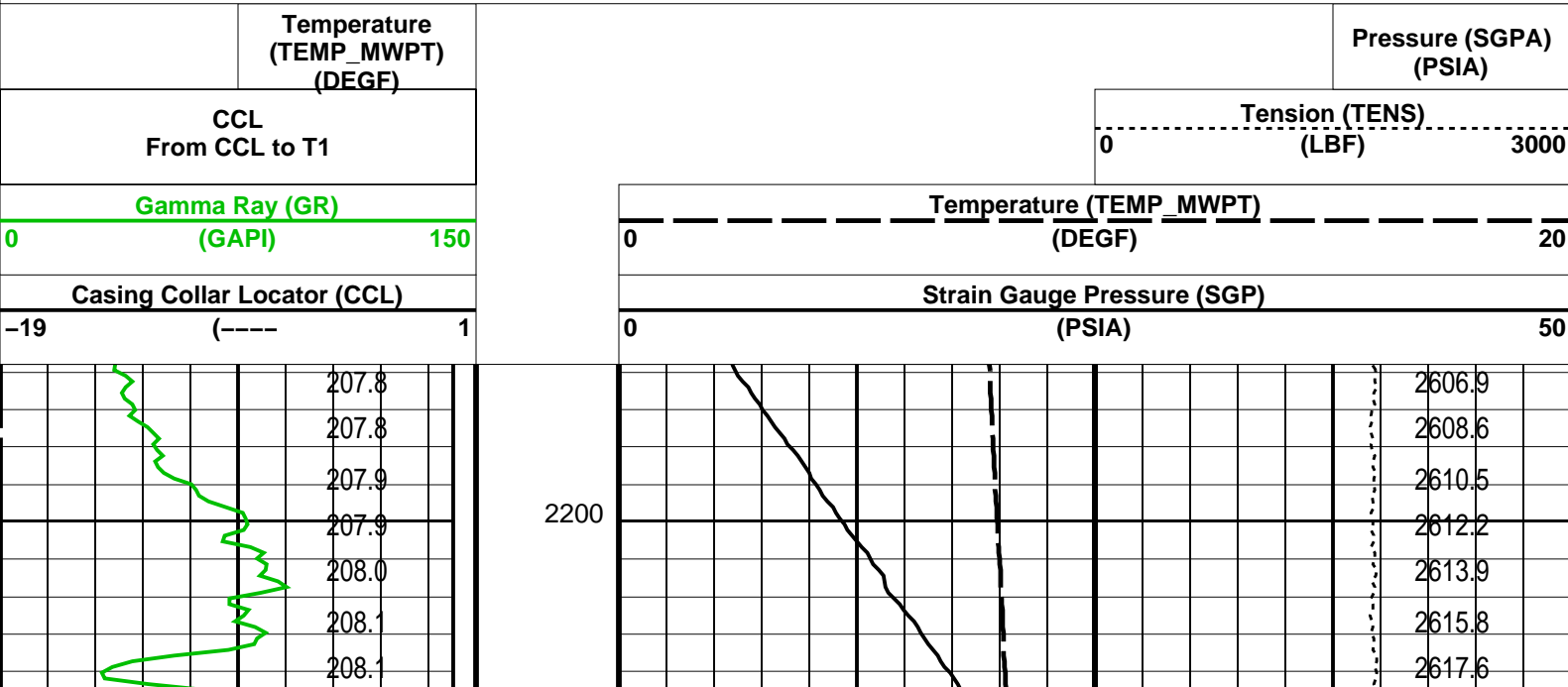
OP System Version: 14C0-302			
MCM			
MWP_GUN	14C0-302	MWPT-CA	14C0-302
MWGT-AA	14C0-302		

Output DLIS Files			
DEFAULT	PERFO_025LUP	FN:24	PRODUCER 04-May-2006 10:56

<div>  <div> 2 1/8" MWPT Enerjet Gun Correlation Pass </div> </div>			
MAXIS Field Log			

Output DLIS Files			
DEFAULT	PERFO_017LUP	FN:16	PRODUCER 04-May-2006 08:34 2246.2 M 2195.8 M
OP System Version: 14C0-302			
MCM			
MWP_GUN	14C0-302	MWPT-CA	14C0-302
MWGT-AA	14C0-302		

PIP SUMMARY	
<input checked="" type="checkbox"/>	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: 04-May-2006 08:34	
OP System Version: 14C0-302				
MCM				
MWP_GUN	14C0-302	MWPT-CA	14C0-302	
MWGT-AA	14C0-302			
Output DLIS Files				
DEFAULT	PERFO_017LUP	FN:16	PRODUCER	04-May-2006 08:34
Company: Esso Australia Ltd.				
Schlumberger				
Well:	A-20a			
Field:	Bream A			
Rig :	Prod4 / Crane			
Country:	Australia			
2 1/8" Phased Powerjet				
MWPT				
Perforation Record				