

Company: Esso Australia Pty Ltd.

Well: W-8a

Field: West Tuna

Rig: Mast / Prod 4 Country: Australia

2-1/8" Phased Powerjet MWPT
Perforation Record

Rig: Mast / Prod 4
Field: West Tuna
Location: Gippsland
Well: W-8a
Company: Esso Australia Pty Ltd.

LOCATION			
Gippsland Basin Bass Strait	Permanent Datum:	M.S.L.	Elev.: K.B. 34.7 m
	Log Measured From:	K.B.	G.L. 60 m
	Drilling Measured From:	K.B.	D.F. 34.7 m
State: Victoria	Max. Well Deviation 64 deg		Longitude 148° 25' 05.29"E
			Latitude 38° 10' 16.00"S

Logging Date 27-Feb-2008

Run Number 1

Depth Driller 3408 m

Schlumberger Depth 3408 m

Bottom Log Interval 3400 m

Top Log Interval 3250 m

Casing Fluid Type Production Fluids

Salinity

Density

Fluid Level 745 m

BIT/CASING/TUBING STRING

Bit Size 8.500 in

From 1294 m

To 3590 m

Casing/Tubing Size 4.500 in

Weight 11.6 lbm/ft

Grade 13CR

From 2143.55 m

To 3506.5 m

Maximum Recorded Temperatures 241 degF

Logger On Bottom 27-Feb-2008 11:00

Unit Number 889 Location Prod 4 / AUSL

Recorded By S Gilbert

Witnessed By B White

Run 1

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 11:00

Unit Number Location

Recorded By

Witnessed By

DEPTH SUMMARY LISTING

Date Created: 25-FEB-2008 12:48:09

Depth System Equipment

Depth Measuring Device	Tension Device	Logging Cable
Type: IDW-EB Serial Number: 6373 Calibration Date: 04-Jan-2007 Calibrator Serial Number: 9 Calibration Cable Type: 2-32ZT Wheel Correction 1: -2 Wheel Correction 2: -4	Type: PSDS/OSDS Serial Number: 325357 Calibration Date: 15-Feb-2008 Calibrator Serial Number: 1174 Calibration Gain: 0.90 Calibration Offset: 339.00	Type: 2-32ZT Serial Number: 27244 Length: 6409.94 M Conveyance Method: Wireline Rig Type: Offshore_Fixed

Depth Control Parameters

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	ExxonMobil Petrophysical Analysis
Reference Log Run Number:	
Reference Log Date:	.
Subsequent Trip Down Log Correction:	

Depth Control Remarks

1. IDW used as primary depth control
2. Z-Chart used as back-up
3.
4.
5. Rigged up utilising the MAST
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 ExxonMobil Solar Composite Log supplied with logging program.
Objectives: Perforate the well over the interval 3392m to 3397m MDKB
using a 5mt 2-1/8" 6 SPF, 45 deg phased Powerjet gun with MWPT.
Maximum Deviation = 64deg @ 1834m MDKB
Gun Fired @ 3392m to 3397m MDKB
CCI to Top Shot = 2.9 m

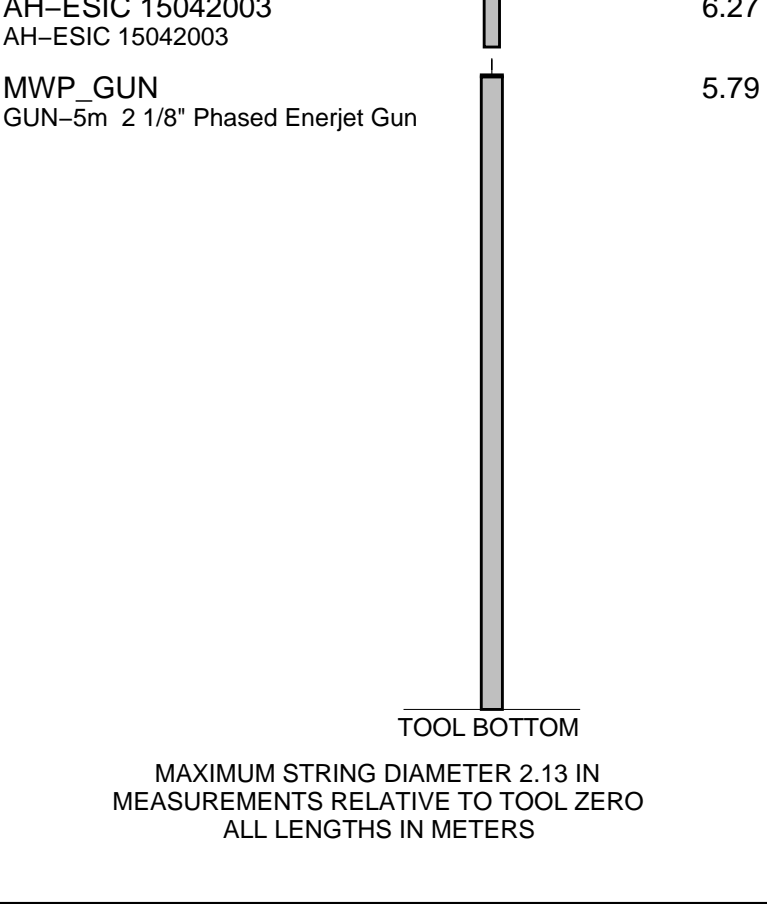
CCL Stop Depth @ 3389.1 m MDKB
Before Gun – SBHT: 213 Degf SBHP: 2230Psia
After Gun – SBHT: 215 Degf SBHP: 2135 Psia
Slick Line HUD: 3408m MDKB
HUD not tagged with Perforating Gun .

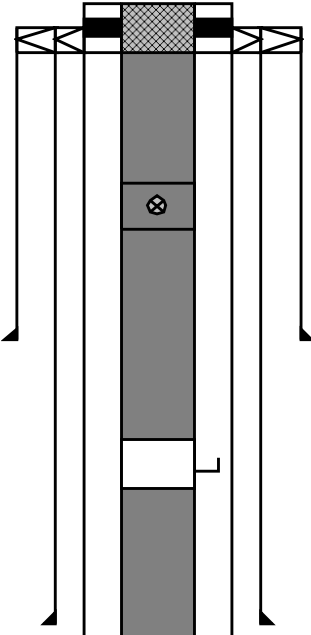
Schlumberger crews: John Light , Lake Annear

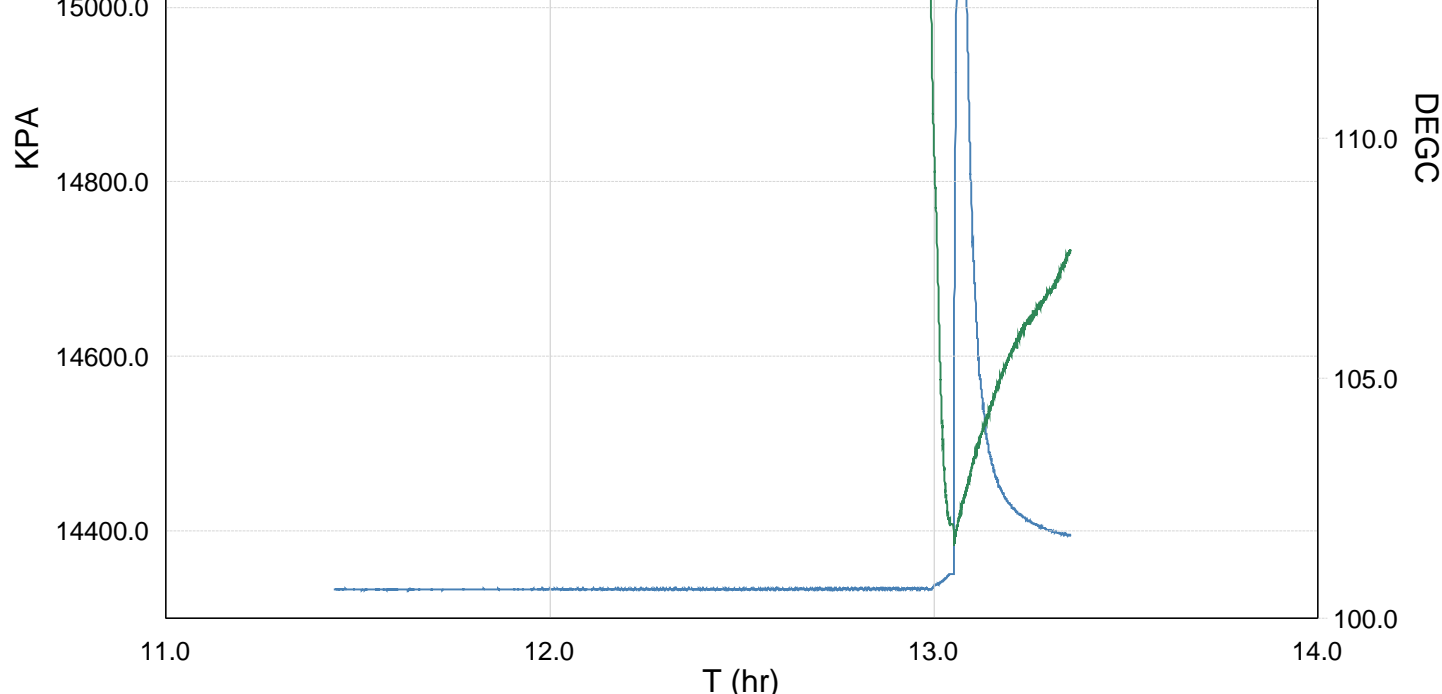
RUN 1					
SERVICE ORDER #:		AUSL07336279			
PROGRAM VERSION:		15C0-309			
FLUID LEVEL:		745 m			
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		

SURFACE EQUIPMENT					
MWPM-AA					
DOWNHOLE EQUIPMENT					
SWBS 787		13.70			
SWBS 785		13.02			
SWBS 786		12.33			
SWHS 759		11.65			
AH-124		11.29			
MWGT-AA		11.09			
MWPG-AA 69					
MWGH-AA 69					
	MWPG GR	2.41			
MWPT-CA		10.11			
MWPH-AA 74					
MWPS-AA 74					
	CCL SMWP Pres SMWP Temp Tension	TOOL ZERO			
AH-Flex-Joint 42		7.29			
SAH-G		6.81			
SAH-G 1035					
					



Production String	(in)		(m)	Well Schematic	(m)	(in)		Casing String
	OD	ID	MD		MD	OD	ID	
Tubing Hanger Tubing	7.000	3.500	12.8		17.6	13.375	12.615	Casing String Liner Hanger
	3.500		12.8		17.6	13.375	9.675	
Shut-in Valve			451.0					
					695.0	13.375	12.615	Casing Shoe
Gas Lift Mandrel			1013.0					
					1306.0	9.675		Casing Shoe



TIME	KPA	PSIA	DEGF
6480.0	15219.1318	2207.3527	210.9488
6660.0	15376.4797	2230.1741	213.0886
6840.0	15374.8372	2229.9358	213.0791
7020.0	15371.3553	2229.4308	213.0690
7200.0	15372.1896	2229.5518	213.0694
7380.0	15371.7795	2229.4924	213.0767
7560.0	15373.2052	2229.6991	213.0703
7740.0	15372.6288	2229.6156	213.0857
7920.0	15372.5127	2229.5987	213.0851
8100.0	15371.5145	2229.4539	213.0841
8280.0	15370.2410	2229.2692	213.0911
8460.0	15368.8699	2229.0704	213.0881
8640.0	15370.8941	2229.3639	213.0818
8820.0	15370.0093	2229.2356	213.0842
9000.0	15365.1667	2228.5333	213.0979
9180.0	15366.5034	2228.7271	213.0909
9360.0	15366.5326	2228.7314	213.0842
9540.0	15367.1166	2228.8161	213.0784
9720.0	15368.0560	2228.9523	213.0918
9900.0	15366.6017	2228.7414	213.0999
10080.0	15364.8031	2228.4805	213.0898
10260.0	15365.0201	2228.5120	213.0911
10440.0	15363.3666	2228.2722	213.0890
10620.0	15362.7830	2228.1875	213.0948
10800.0	15363.6735	2228.3167	213.0955
10980.0	15365.2899	2228.5511	213.0860
11160.0	15363.6985	2228.3203	213.0960
11340.0	15362.7590	2228.1841	213.0966
11520.0	15360.7416	2227.8915	213.1022
11700.0	15362.4122	2228.1338	213.1081
11880.0	15361.0979	2227.9431	213.1021
12060.0	15361.9055	2228.0603	213.1022
12240.0	14526.6397	2106.9152	213.3558
12420.0	14421.6292	2091.6847	243.8768
12600.0	14508.2448	2104.2472	220.9792

12780.0	14570.5989	2113.2909	216.9435
12960.0	14623.0002	2120.8911	215.9249
13140.0	14655.0016	2125.5325	215.4981
13320.0	14688.3627	2130.3711	215.2064

Schlumberger

Gun Shooting Pass

MAXIS Field Log

Company: Esso Australia Pty Ltd.

Well: W-8a

Output DLIS Files

DEFAULT	PERFO_018LUP	FN:17	PRODUCER	27-Feb-2008 11:20	3405.4 M	3347.2 M
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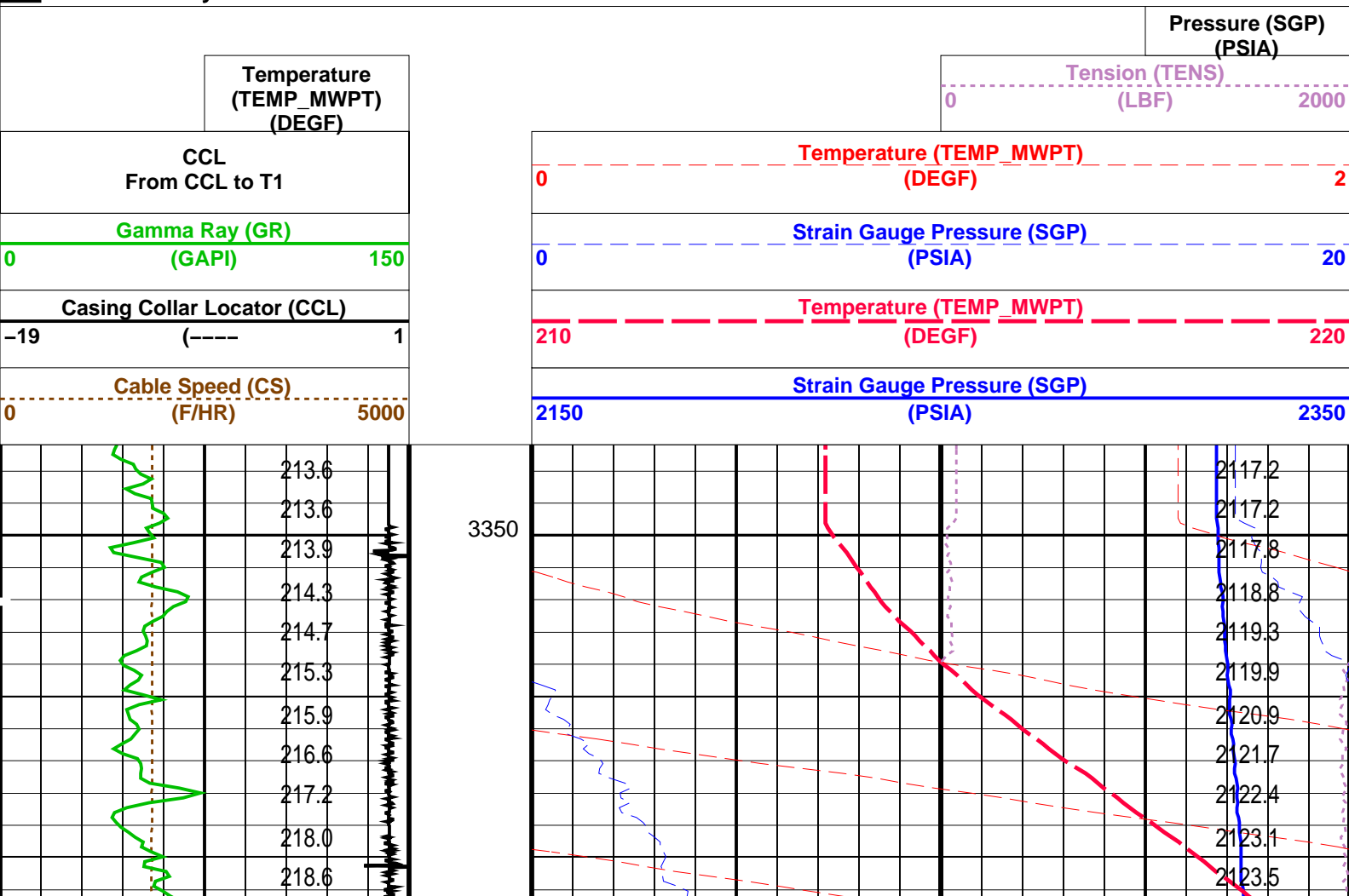
OP System Version: 15C0-309

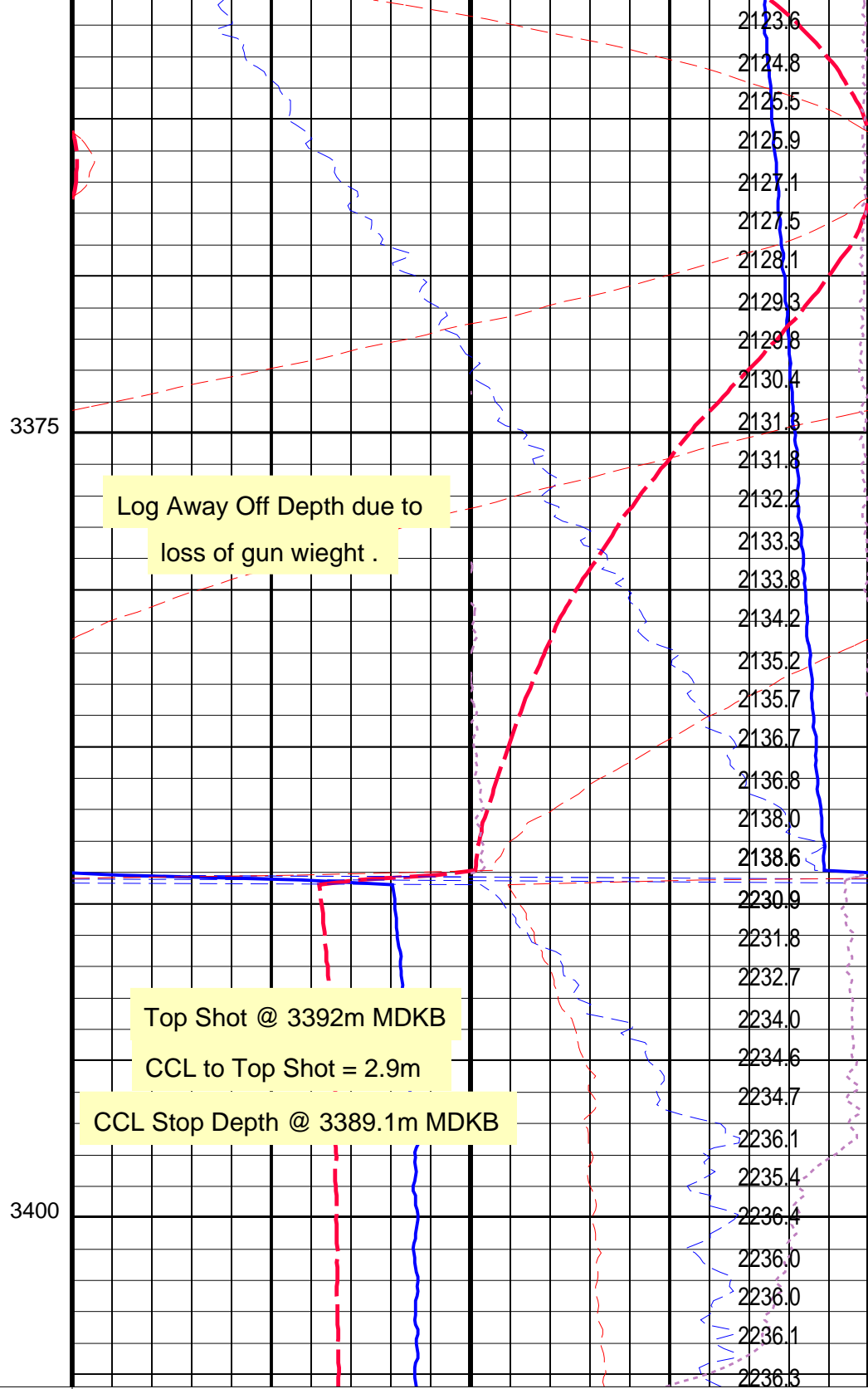
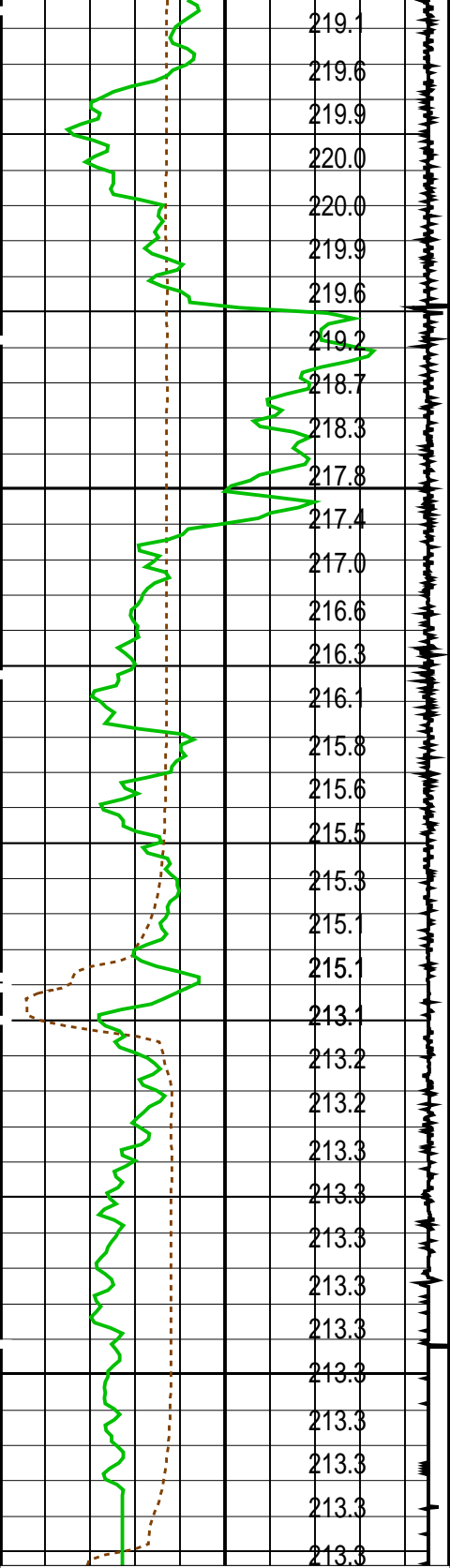
MCM


MWP_GUN	SRPC-3546-Q1_2008_OP15	MWPT-CA	SRPC-3546-Q1_2008_OP15
MWGT-AA	SRPC-3546-Q1_2008_OP15		

PIP SUMMARY

Time Mark Every 60 S





(DEGF)		Pressure (SGP) (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: 27-Feb-2008 11:20	
OP System Version: 15C0-309			
MCM			
MWP_GUN	SRPC-3546-Q1_2008_OP15	MWPT-CA	SRPC-3546-Q1_2008_OP15
MWGT-AA	SRPC-3546-Q1_2008_OP15		
Output DLIS Files			
DEFAULT	PERFO_018LUP	FN:17	PRODUCER 27-Feb-2008 11:20
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MAXIS Field Log			

Company: Esso Australia Pty Ltd.

Well: W-8a

Output DLIS Files

DEFAULTPERFO_017LUPFN:16PRODUCER27-Feb-2008 11:123402.9 M3361.0 M

OP System Version: 15C0-309

MCM

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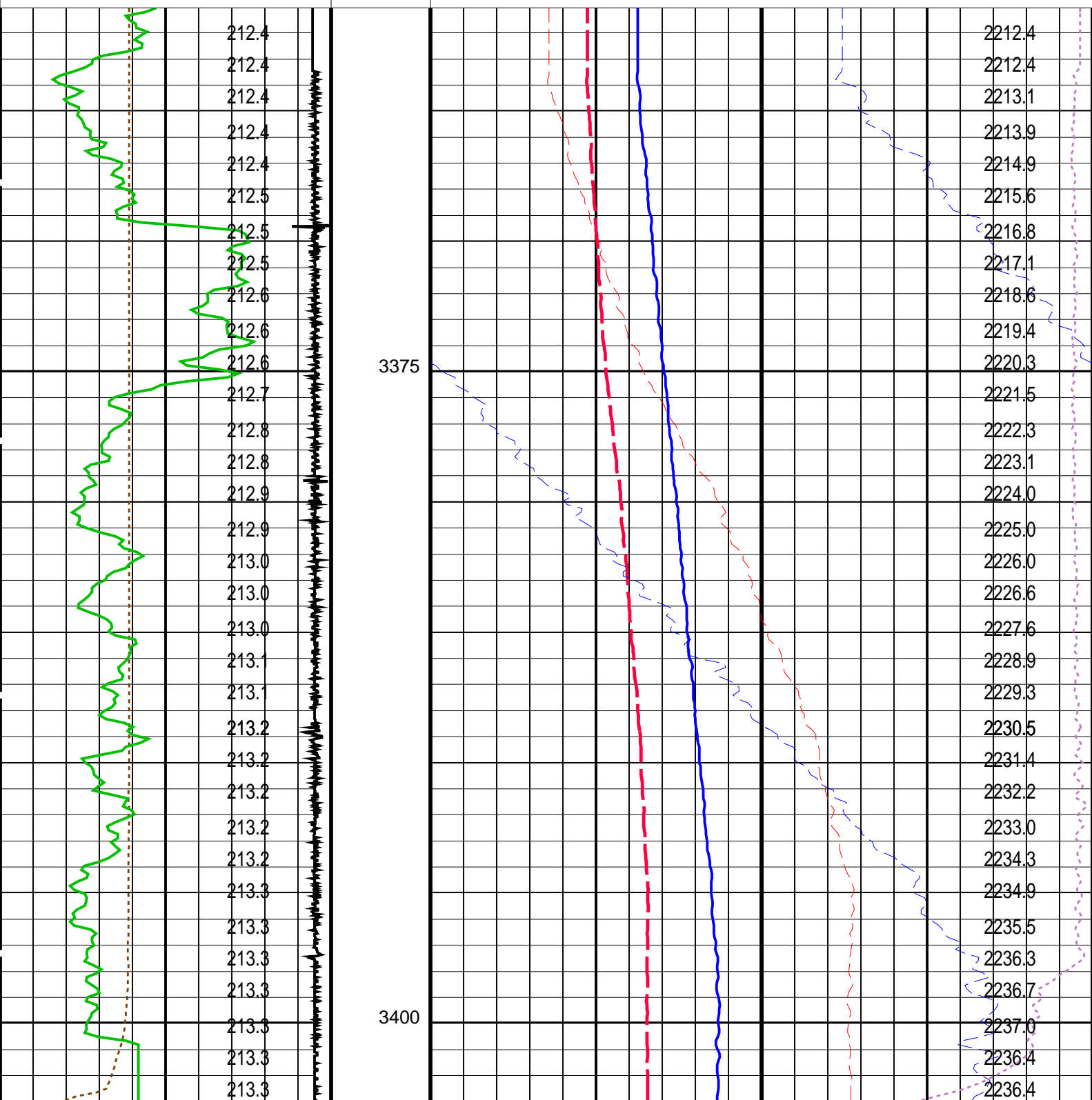
MWGT-AASRPC-3546-Q1_2008_OP15

PIP SUMMARY

Time Mark Every 60 S

	Temperature (TEMP_MWPT) (DEGF)		Pressure (SGP) (PSIA)
			Tension (TENS) (LBF)
		0	2000

CCL From CCL to T1	Temperature (TEMP_MWPT) (DEGF)	0	2
Gamma Ray (GR) (GAPI)	Strain Gauge Pressure (SGP) (PSIA)	0	20
0150			
Casing Collar Locator (CCL)	Temperature (TEMP_MWPT) (DEGF)	210	220
-19			
Cable Speed (CS) (F/HR)	Strain Gauge Pressure (SGP) (PSIA)	2150	2350
05000			



Cable Speed (CS) (F/HR)	
0	5000
Casing Collar Locator (CCL) (----	
-19	1
Gamma Ray (GR) (GAPI)	
0	150
CCL From CCL to T1	
Temperature (TEMP_MWPT) (DEGF)	

Strain Gauge Pressure (SGP) (PSIA)	
2150	2350
Temperature (TEMP_MWPT) (DEGF)	
210	220
Strain Gauge Pressure (SGP) (PSIA)	
0	20
Temperature (TEMP_MWPT) (DEGF)	
0	2
Tension (TENS) (LBF)	
0	2000
Pressure (SGP) (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: 27-Feb-2008 11:12

OP System Version: 15C0-309

MCM

MWP_GUN	SRPC-3546-Q1_2008_OP15	MWPT-CA	SRPC-3546-Q1_2008_OP15
MWGT-AA	SRPC-3546-Q1_2008_OP15		

Output DLIS Files

DEFAULT	PERFO_017LUP	FN:16	PRODUCER	27-Feb-2008 11:12
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Company: Esso Australia Pty Ltd.

Schlumberger

Well: W-8a

Field: West Tuna

Rig: Mast / Prod 4

Country: Australia

2-1/8" Phased Powerjet MWPT Perforation Record