

Company: Esso Australia Pty Ltd.

Well: A-17a

Field: Tuna

Rig: Tuna / Mast

Country: Australia

2" Powerjet HSD
MWPT Perforation Record

Rig: Tuna / Mast
Field: Tuna
Location: Gippsland
Well: A-17a
Company: Esso Australia Pty Ltd.

LOCATION	
Gippsland	Elev.: K.B. 26.6 m
Basin	G.L. 59 m
Bass Strait	D.F. 26.6 m
Permanent Datum:	M.S.L. _____
Log Measured From:	K.B. _____ 26.6 m above Perm. Datum
Drilling Measured From:	K.B. _____
State: Victoria	Max. Well Deviation 64 deg Longitude 148° 25' 05.29"E Latitude 38° 10' 16.00"S

Logging Date	20-Feb-2008
Run Number	1
Depth Driller	3351 m
Schlumberger Depth	3340 m
Bottom Log Interval	3330.5 m
Top Log Interval	3200 m
Casing Fluid Type	Production Fluids
Salinity	
Density	
Fluid Level	1700 m
BIT/CASING/TUBING STRING	
Bit Size	6.000 in
From	2783 m
To	3424 m
Casing/Tubing Size	4.500 in
Weight	12.6 lbm/ft
Grade	L-80
From	2766 m
To	3424 m
Maximum Recorded Temperatures	217 degF
Logger On Bottom	20-Feb-2008
Unit Number	889
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	64 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			

DEPTH SUMMARY LISTING

Date Created: 15-FEB-2008 12:48:09

Depth System Equipment

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

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.

DISCLAIMER

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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 ther interval 3326.5 m to 3330.5m using a 4m
2" 6spf HSD gun with Powerjet Charges .
Maximum Deviation = 64deg @ 2962m MDKB
Befor Gun : SBHP:1900Psia SBHT:214.3 Degf
After Gun : SBHP:2239Psia SBHT:214.5Degf
Gun Stop @ 3336.5m to 3330.5m MDKB

CCL to Top Shot = 4.6m					
CCL Stop Depth = 3321.9m MDKB					
HUD : Not Tagged					
Schlumberger crews: Jake Annear , Chris Shiells					
RUN 1 SERVICE ORDER #: AUSL07336280 PROGRAM VERSION: 15C0-309 FLUID LEVEL: 1700 m					
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION				
RUN 1		RUN 2		
SURFACE EQUIPMENT				
MWPM-AA 3008				
DOWNHOLE EQUIPMENT				
AH-SWHS-A 759				12.19
AH-124 7002				11.84
MWGT-AA 69				11.64
MWPG-AA 69				
MWGH-AA 69				
	MWPG GR			2.41
MWPT-CA 74				10.66
MWPH-AA 74				
MWPS-AA 74				
	CCL SMWP Pres SMWP Temp Tension			TOOL ZERO
AH-122				7.84
AH-WASP				7.71
AH-WASP				
AH-ESIC 15042003				7.14
AH-ESIC 15042003				
MWP_GUN				6.71
GUN-4m 2" powerjet HSD Gun				

TOOL BOTTOM

MAXIMUM STRING DIAMETER 2.00 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Client: ExxonMobil

Well: A-17a

Field: Tuna

State: Victoria

Country: Australia

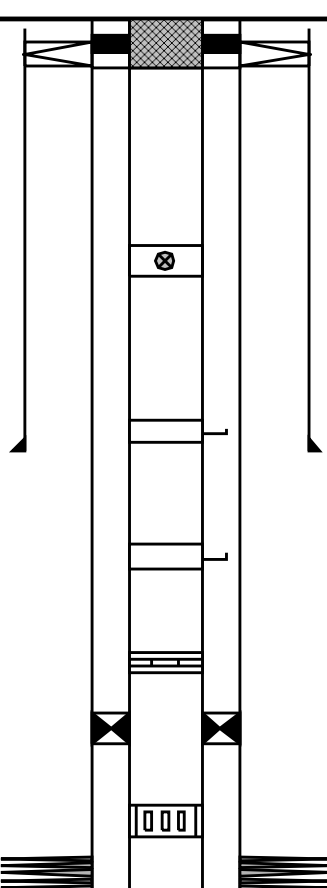
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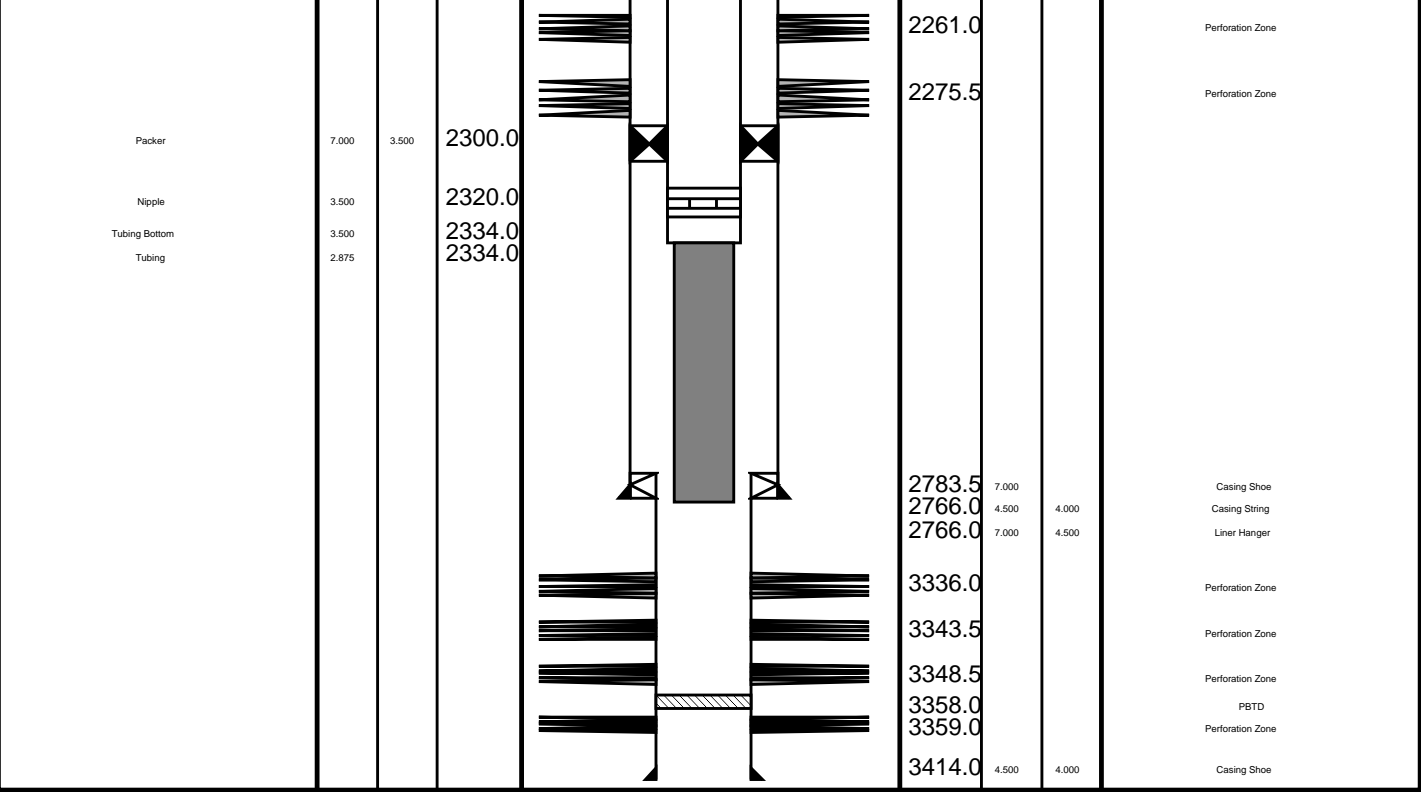
API #:

Rig Name: Tuna

Reference Datum: Kelly Bushing

Elevation:

Production String	(in)		(m)	Well Schematic	(m)	(in)		Casing String
	OD	ID	MD		MD	OD	ID	
Tubing Hanger	7.000	3.500	7.0		14.0	13.375		Casing String Casing String Liner Hanger
Tubing	3.500		9.7		12.5	7.000		
					12.5	13.375	7.000	
Shut-in Valve	3.500		450.9					
Gas Lift Mandrel	3.500		1408.0		715.2	13.375		Casing Shoe
Gas Lift Mandrel	3.500		1919.0					
Nipple	3.500		2051.0					
Packer	7.000	3.500	2077.0					
Sliding Sleeve	3.500		2185.0					
					2246.5			Perforation Zone



Job Events Summary

MAXIS Field Log

Schlumberger Job Event Summary

Time	Elapsed Time	Depth (M)	File
Log Pass (up)	20-Feb-2008 15:54	000:07	3343.0 - 3269.9 PERFO_018LUP
Log Pass (up)	20-Feb-2008 16:08	000:29	3346.9 - 3319.6 PERFO_019LUP
Station Log	20-Feb-2008 16:16	000:20	3321.9 - 3.1 PERFO_020LTP
Station Log	20-Feb-2008 16:39	000:15	3321.9 - 2.3 PERFO_021LTP
Log Pass (up)	20-Feb-2008 16:43	000:18	3321.9 - 3265.2 PERFO_022LUP

Company: Esso Australia Pty Ltd.

Well: A-17a

Output DLIS Files

DEFAULT

PERFO_022LUP

FN:21

PRODUCER

20-Feb-2008 16:43

OP System Version: 15C0-309

MCM

MWP_GUN
MWGT-AA

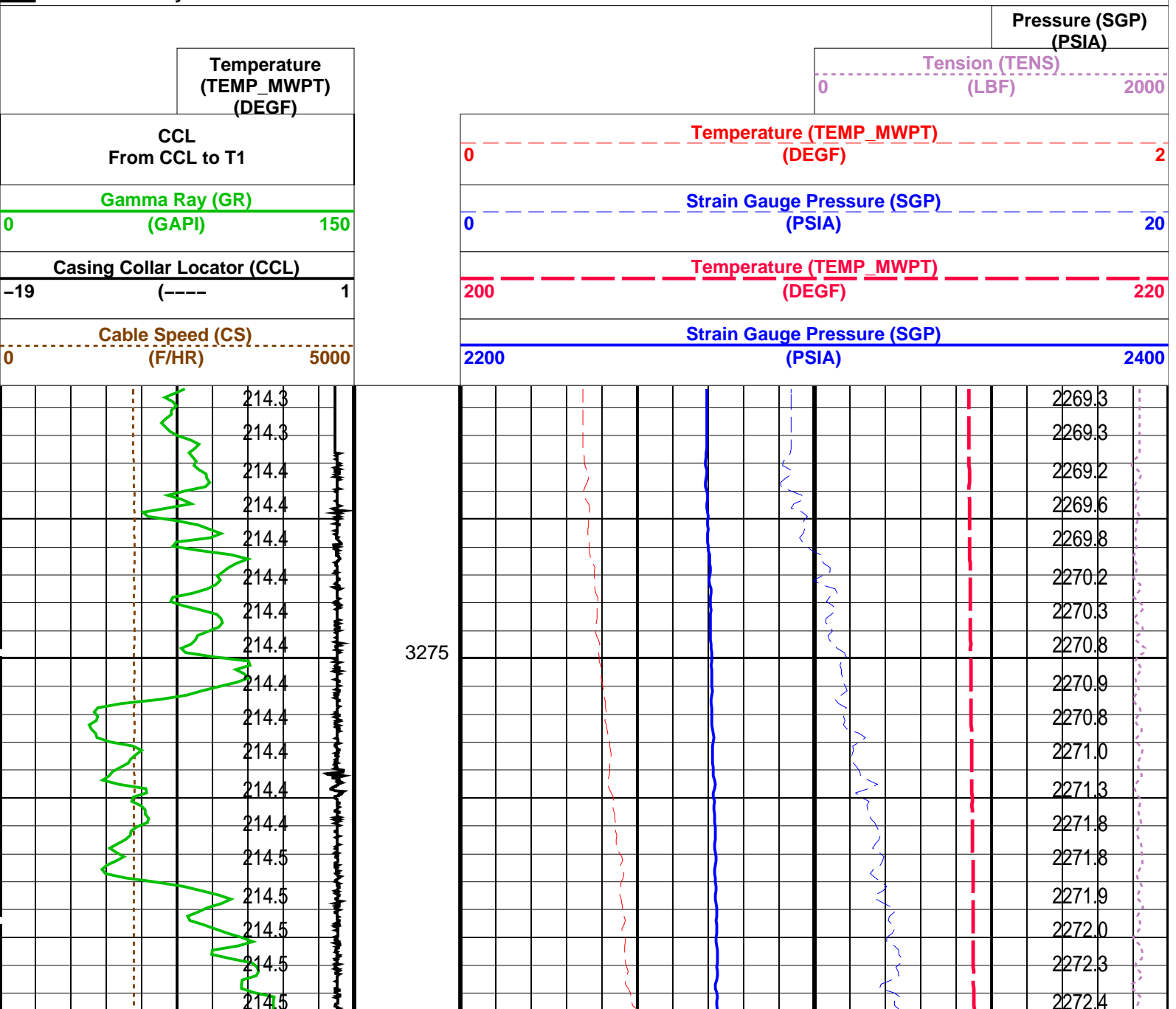
SRPC-3546-Q1_2008_OP15
SRPC-3546-Q1_2008_OP15

MWPT-CA

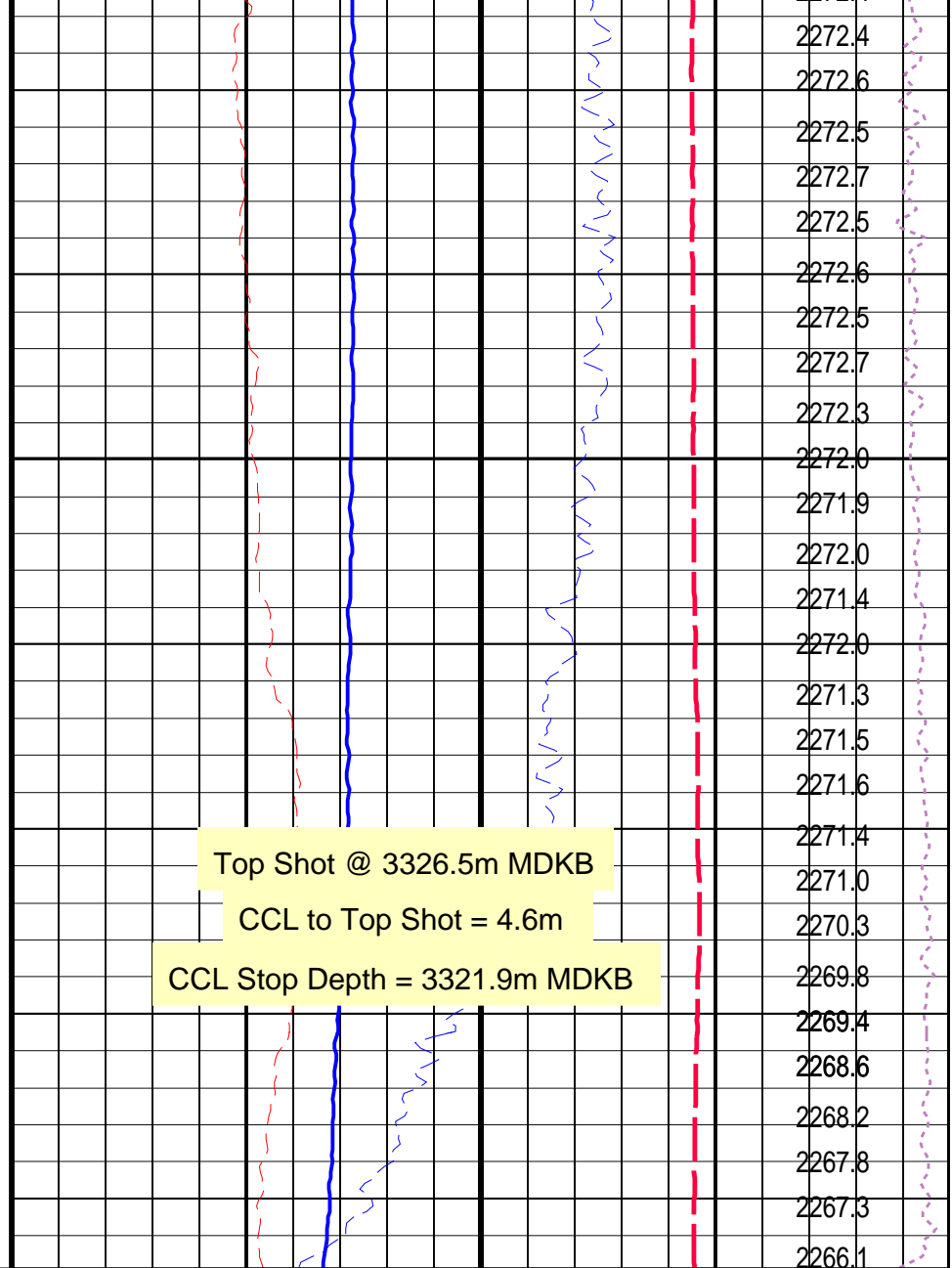
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PIP SUMMARY

Time Mark Every 60 S



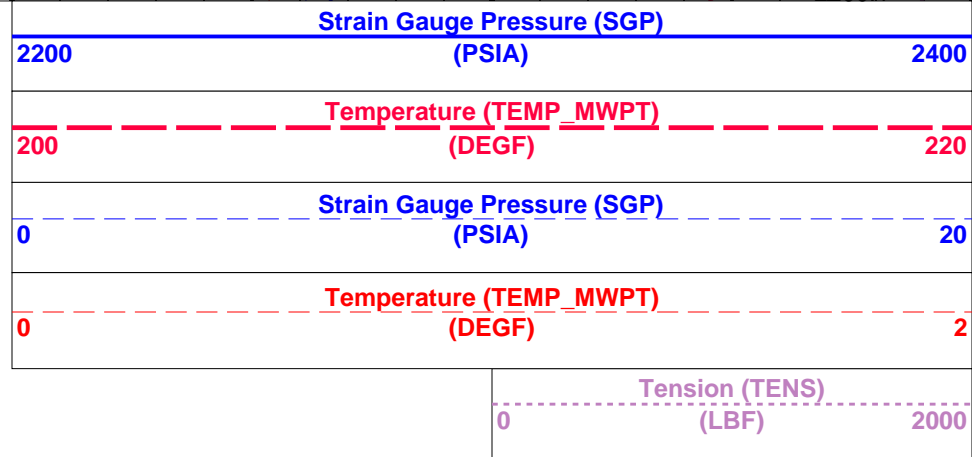
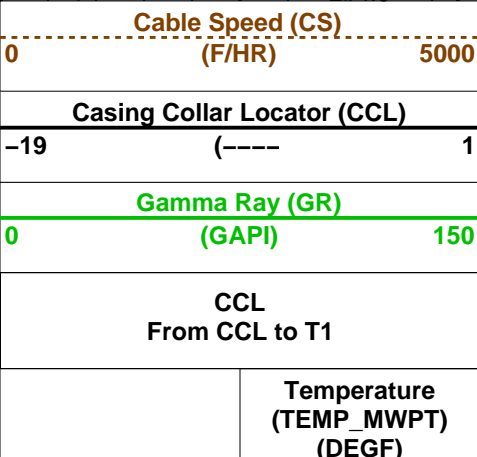
3300



Top Shot @ 3326.5m MDKB

CCL to Top Shot = 4.6m

CCL Stop Depth = 3321.9m MDKB



PIP SUMMARY

Time Mark Every 60 S

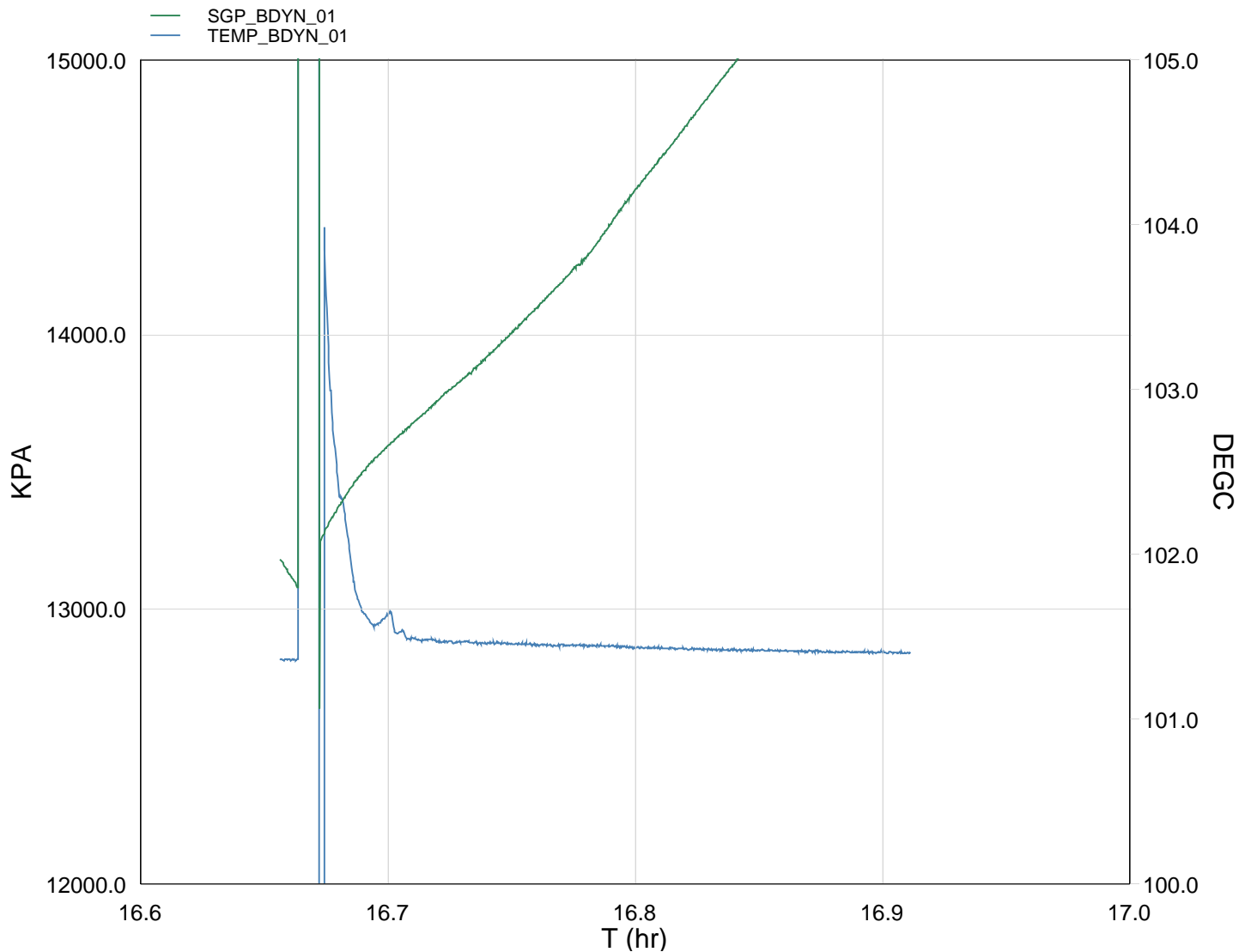
Parameters			
DLIS Name	Description	Value	
MWPT-CA: MEASUREMENT WHILE PERFORATING TOOL			
DEVI_FL_CORR	Deviation Angle for Flow Line Correction	0	DEG
FLD	Flow Line Density	1	G/C3
MWPT_NULL_SOURCE	MWPT NULL SOURCE	1	0
MWPT_NULL_TEMP	MWPT NULL TEMP	1	0

MWPT NULL SOURCE	MWPT NULL Temperature Source	TEMS	0.0	DEGC
MWPT NULL_TEMP	MWPT NULL Temperature			
Format: MWP		Vertical Scale: 1:200		Graphics File Created: 20-Feb-2008 16:43
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_022LUP	FN:21	PRODUCER	20-Feb-2008 16:43

Schlumberger

Gun Fired @
3326.5m to 3330.5m MDKB

MAXIS Field Log



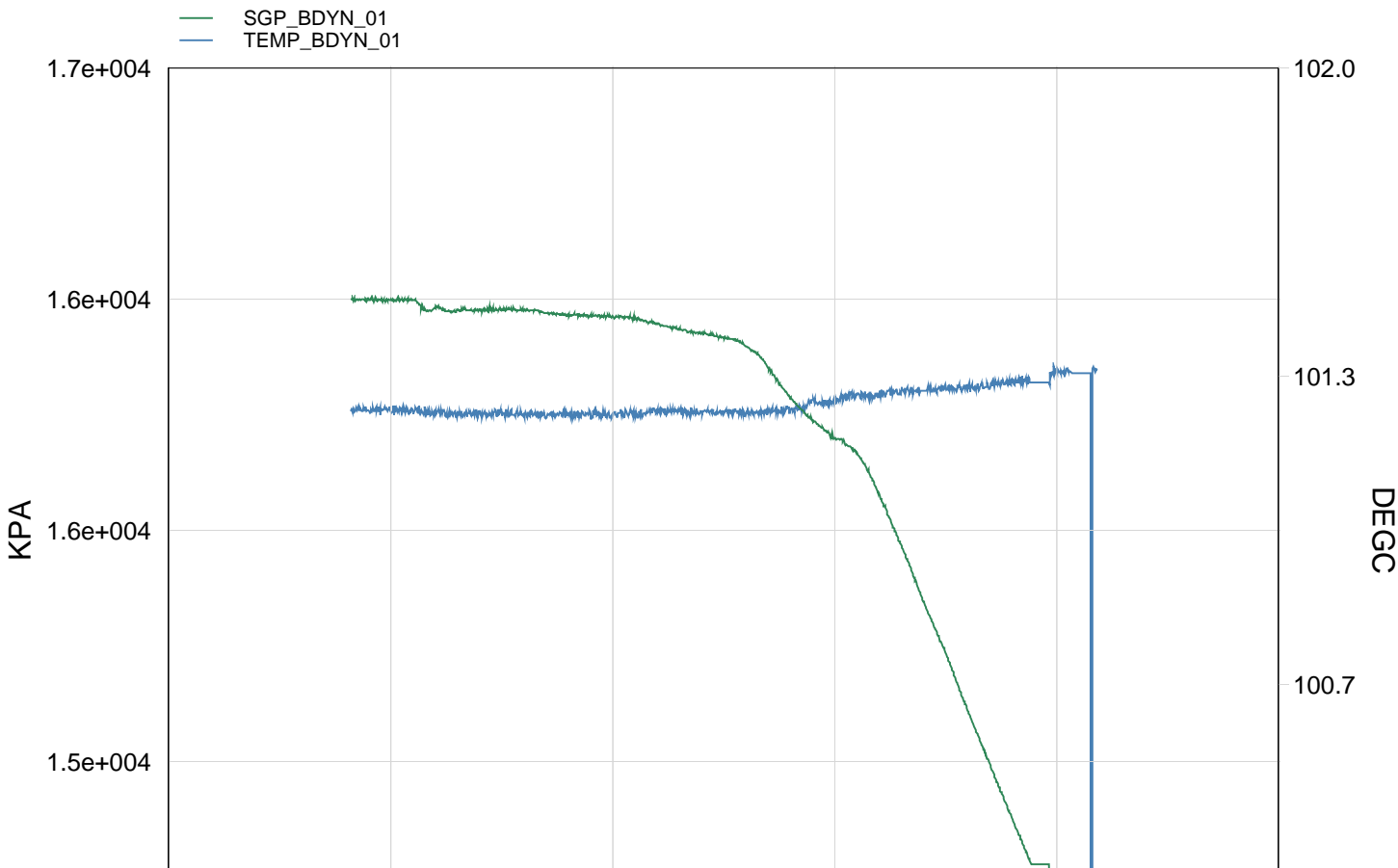
TIME PSIA KPA DEGC

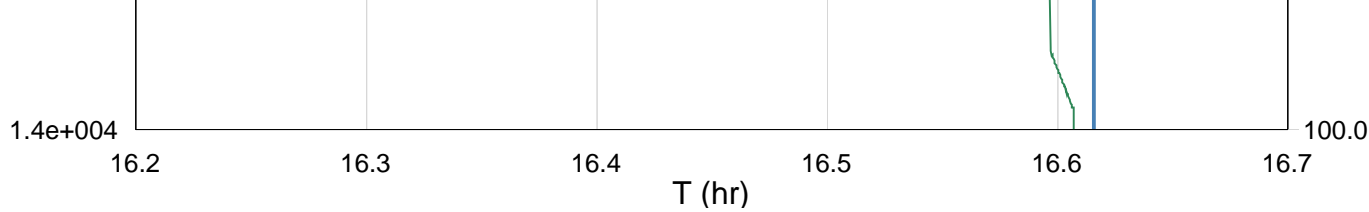
TIME	PSIA	KPA	Degf
60.0	1899.9609	13099.7412	214.4463
120.0	1937.7709	13360.4323	216.6168
180.0	1966.4529	13558.1877	214.8401
240.0	1986.5331	13696.6354	214.6607
300.0	2005.3280	13826.2221	214.6443
360.0	2025.4185	13964.7408	214.6274
420.0	2047.1304	14114.4393	214.6145
480.0	2068.5982	14262.4553	214.6002
540.0	2098.7999	14470.6880	214.5918
600.0	2126.2249	14659.7766	214.5757
660.0	2154.7269	14856.2907	214.5654
720.0	2182.4875	15047.6936	214.5535
780.0	2204.5437	15199.7656	214.5485
840.0	2223.9080	15333.2783	214.5464
900.0	2239.9787	15444.0817	214.5377

Schlumberger

Draw Down

MAXIS Field Log





TIME	PSIA	KPA	DEGF
4260.0	2357.0951	16251.5704	214.2818
4320.0	2356.6371	16248.4131	214.2595
4380.0	2352.4156	16219.3060	214.2620
4440.0	2351.6850	16214.2693	214.2521
4500.0	2352.3369	16218.7643	214.2544
4560.0	2350.0888	16203.2644	214.2481
4620.0	2349.3386	16198.0916	214.2579
4680.0	2348.2011	16190.2490	214.2406
4740.0	2344.6946	16166.0726	214.2647
4800.0	2340.9035	16139.9334	214.2666
4860.0	2337.3205	16115.2289	214.2629
4920.0	2321.2996	16004.7694	214.2614
4980.0	2301.2337	15866.4200	214.2977
5040.0	2288.3540	15777.6175	214.3268
5100.0	2259.4112	15578.0636	214.3280
5160.0	2217.7228	15290.6328	214.3422
5220.0	2175.5003	14999.5184	214.3640
5280.0	2132.0406	14699.8747	214.3654
5340.0	2091.2100	14418.3574	214.3744
5400.0	2043.3486	14088.3643	214.4172



Log up to Shoot Depth

MAXIS Field Log

Company: Esso Australia Pty Ltd. Well: A-17a

Output DLIS Files

DEFAULT PERFO_019LUP FN:18 PRODUCER 20-Feb-2008 16:08 3346.9 M 3319.6 M

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

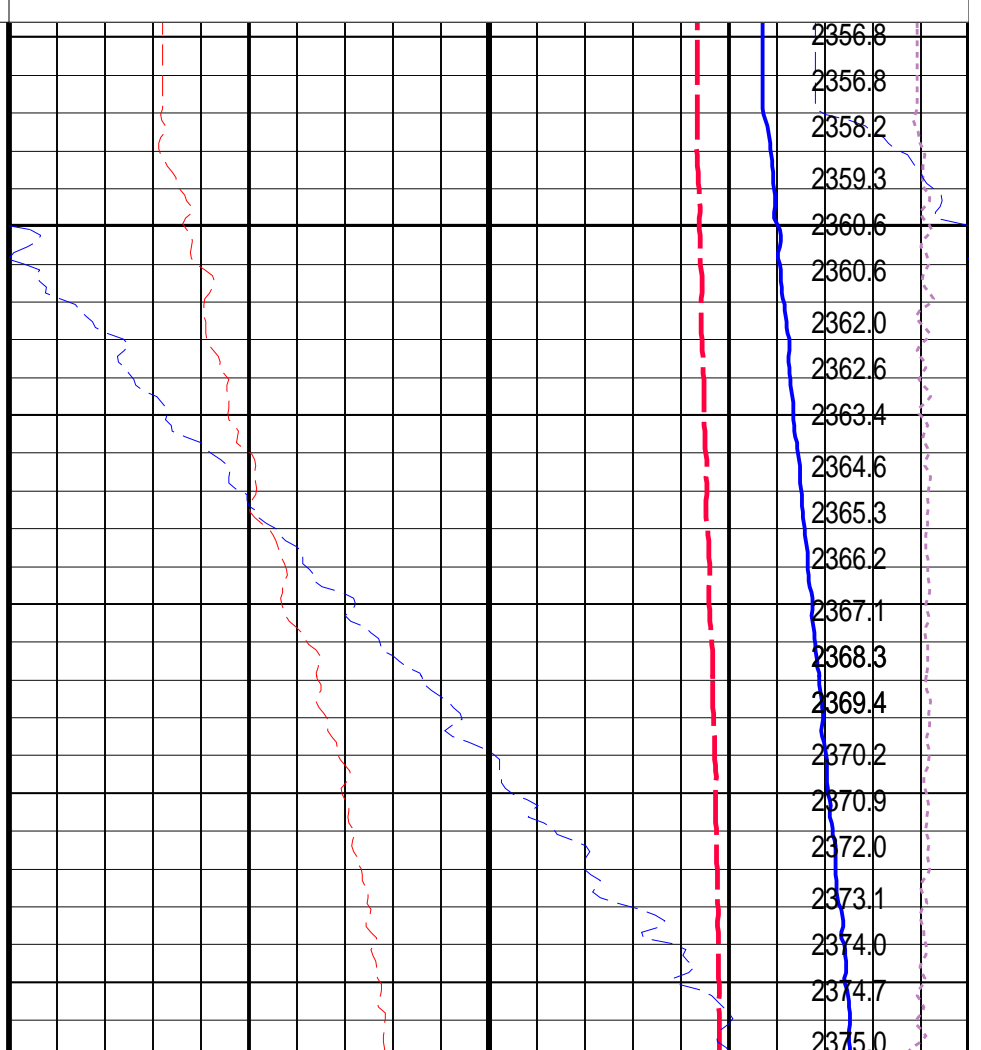
PIP SUMMARY

Time Mark Every 60 S

Temperature
(TEMP MWPT)

Pressure (SGP)
(PSIA)
Tension (TENS)
(L RE)
0 2000

Temperature (TEMP_MWPT) (DEGF)	
0	2
Strain Gauge Pressure (SGP) (PSIA)	
0	20
Temperature (TEMP_MWPT) (DEGF)	
200	220
Strain Gauge Pressure (SGP) (PSIA)	
2200	2400



Strain Gauge Pressure (SGP)	
2200	2400
(PSIA)	
Temperature (TEMP_MWPT)	
200	220
(DEGF)	
Strain Gauge Pressure (SGP)	
0	20
(PSIA)	
Temperature (TEMP_MWPT)	
0	2
(DEGF)	
Tension (TENS)	
0	2000
(LBF)	

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: 20-Feb-2008 16:08
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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		

Output DLIS Files			
DEFAULT	PERFO_019LUP	FN:18	PRODUCER 20-Feb-2008 16:08



Gun Correlation Pass

MAXIS Field Log

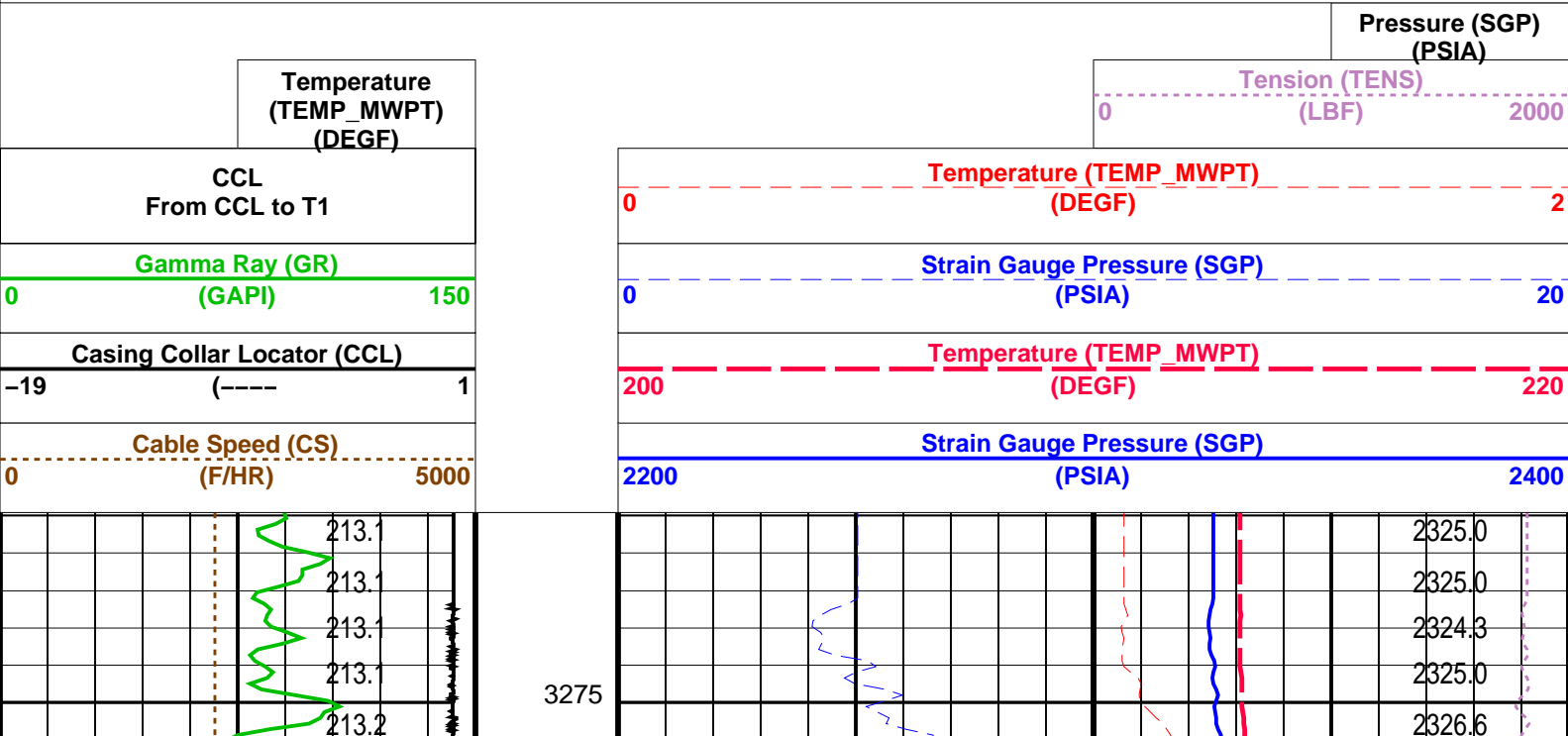
Company: Esso Australia Pty Ltd.	Well: A-17a
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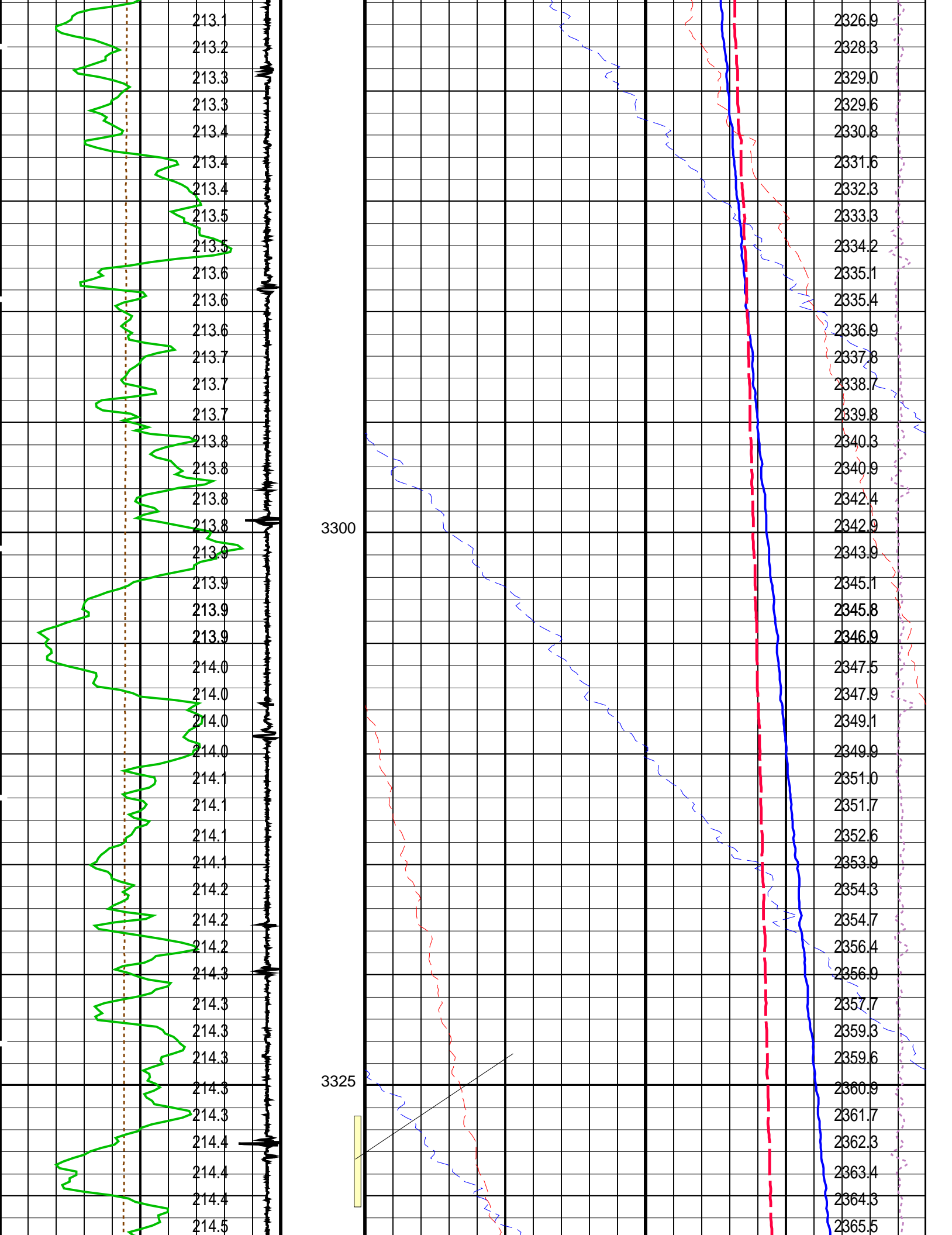
Output DLIS Files					
DEFAULT	PERFO_018LUP	FN:17	PRODUCER	20-Feb-2008 15:54	3343.0 M 3269.9 M

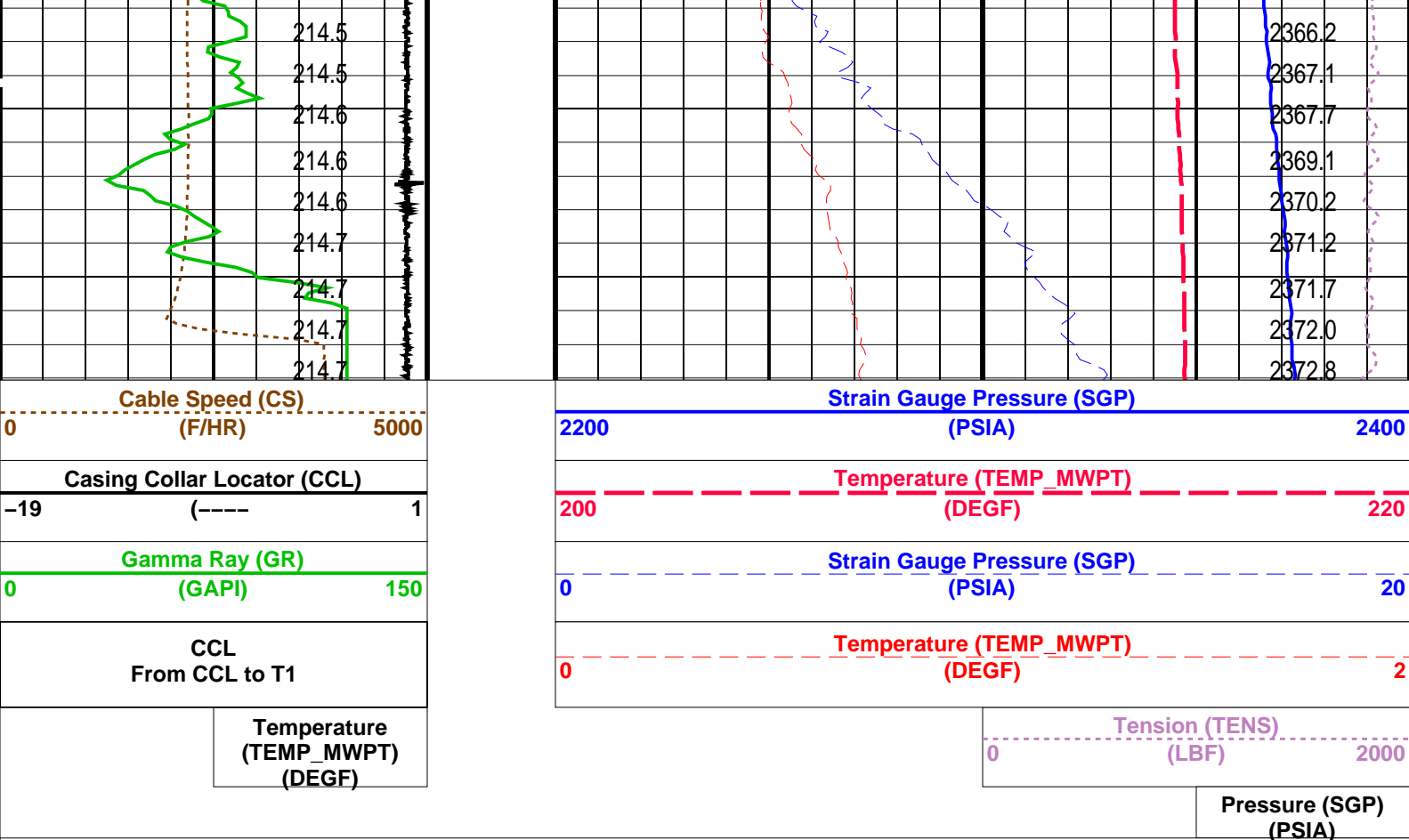
OP System Version: 15C0-309			
MCM			
MWP_GUN	SRPC-3546-Q1_2008_OP15	MWPT-CA	SRPC-3546-Q1_2008_OP15
MWGT-AA	SRPC-3546-Q1_2008_OP15		

PIP SUMMARY

☐ Time Mark Every 60 S







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: 20-Feb-2008 15:54

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	20-Feb-2008 15:54

Company: **Esso Australia Pty Ltd.**

Well: **A-17a**

Field: **Tuna**

Rig: **Tuna / Mast**

Country: **Australia**

Schlumberger

2" Powerjet HSD
MWPT Perforation Record