

Company: Esso Australia Pty Ltd.

Well: A-23a  
Field: Bream A  
Rig : Prod4

Country: Australia

2 1/8" Powerjet Perforation  
7" HPI PSP Plug  
Setting Record

Prod4  
Bream A  
Gippsland  
A-23a  
Esso Australia Pty Ltd.

LOCATION		State: Victoria	Max. Well Deviation 65 deg	Longitude 147 46'15"E	Latitude 038 30'4"S
Gippsland	Elev.: K.B. 32.82 m				
Basin	G.L. -69 m				
Bass Strait	D.F. 32.82 m				
Permanent Datum:	M.S.L.	Elev.: 0 m			
Log Measured From:	D.F.	32.8 m above Perm. Datum			
Drilling Measured From:	D.F.				

Logging Date	18-Sep-2007				
Run Number	1 through 3				
Depth Driller	3169 m				
Schlumberger Depth	3169 m				
Bottom Log Interval	3169 m				
Top Log Interval	3100 m				
Casing Fluid Type	Production Fluids				
Salinity					
Density					
Fluid Level	3105 m				
BIT/CASING/TUBING STRING					
Bit Size	8.500 in				
From					
To					
Casing/Tubing Size	7.000 in				
Weight	26 lbm/ft				
Grade	L-80				
From	10.1 m				
To	3273.5 m				
Maximum Recorded Temperatures	97 degC				
Logger On Bottom	18-Sep-2007	Time	11:00		
Unit Number	889	Location	Prod4		
Recorded By	S Gilbert				
Witnessed By	G Rimmer				

				Run 1
Oil Density				
Water Salinity				
Gas Gravity				
Bo				
Bw				
1/Bg				
Bubble Point Pressure				
Bubble Point Temperature				
Solution GOR				
Maximum Deviation				65 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: 18-SEP-2007 8:15:45

### 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:	24425
Calibration Date:	4-Jan-2007	Calibration Date:	05-Sep-2007	Length:	5584.85 M
Calibrator Serial Number:	9	Calibrator Serial Number:	1174	Conveyance Method: Wireline Rig Type: Rigless	
Calibration Cable Type:	2-23ZT	Calibration Gain:	0.95		
Wheel Correction 1:	-2	Calibration Offset:	268.00		
Wheel Correction 2:	-4				

### Depth Control Parameters

Log Sequence:	Subsequent Log In the Well
Reference Log Name:	Solar Composite Log
Reference Log Run Number:	
Reference Log Date:	.

### Depth Control Remarks

1. IDW used as primary depth control.
2. Z-chart used as secondary backup
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 composite supplied with logging program.
Maximum well deviation = 65 degree'sa at 3302m MDKB.
Objective: Set a 7" HPI Plug with Top of Seal @ 3156m MDKB to isolate existing perforations . Perforate the interval 3119m to 3125m MDKB with a 6m
2 1/8 45deg phased powerjet Gun .
PLUG - Top of Seal : 3156m MDKB HUD:3169m MDKB

CCL to Top of Seal: 11.5 m
CCL Stop Depth : 3144.5
Gun # 1
Top shot @ 3119m MDKB
CCL to Top Shot : 3.6m
CCL Stop Depth : 3115.4m MDKB
Befor gun – SBHP: 2583 psia SBHT: 208 degf
After Gun – SBHP: 2601 psia SBHT :210 degf
SLB Crew : J Light , A Hall

<div> <div>RUN 1</div> <div> <div>SERVICE ORDER #:</div> <div>PROGRAM VERSION:</div> <div>FLUID LEVEL:</div> </div> <div> <div>AusI07484977</div> <div>14C0-302</div> <div>3105 m</div> </div> </div>					
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		

SURFACE EQUIPMENT			SURFACE EQUIPMENT		
WITM (SHM) 1			MWPM-. 3000		

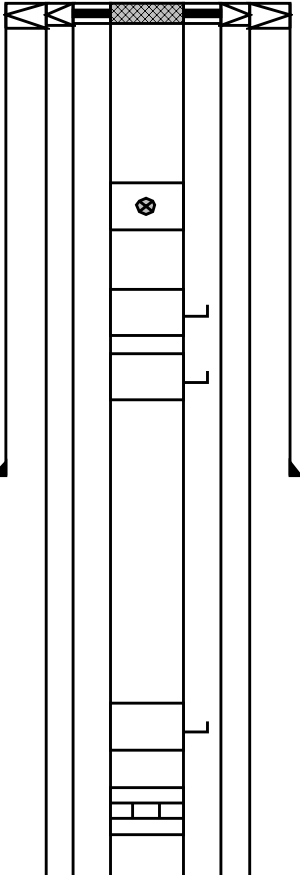
DOWNHOLE EQUIPMENT			DOWNHOLE EQUIPMENT		
<div> <div>EQF-SWBS-B 761</div> <div>EQF-SWBS-B 761</div> <div>EQF-SWBS-B 762</div> <div>EQF-SWBS-B 762</div> <div>EQF-SWBS-B 763</div> <div>EQF-SWBS-B 763</div> <div>MH-SWHS-B 726</div> <div> <div>CCL-L 4191</div> <div>Tension CCL</div> <div>CCL-L 4191</div> </div> <div>SHM_GUN 1</div> <div> <div>AH-X-Over SLB-GO 1</div> <div>AH-Electro Hydraulic Actuator 1</div> <div>AH-Electro Hydraulic Actuator 1</div> </div> <div>AH-Filter Section 1</div> <div>AH-Filter Section 1</div> <div>AH-Snorkel Section 1</div> <div>AH-Snorkel Section 1</div> <div>AH-Hydraulic Section 2</div> <div>AH-Hydraulic Section 2</div> </div>	<div> </div>	<div> <div>14.34</div> <div>13.66</div> <div>12.97</div> <div>12.29</div> <div>11.96</div> <div>11.50</div> <div>11.50</div> <div>11.35</div> <div>10.80</div> <div>10.02</div> <div>7.49</div> </div>	<div> <div>AH-SWBS-B 761</div> <div>AH-SWBS-B 761</div> <div>AH-SWBS-B 762</div> <div>AH-SWBS-B 762</div> <div>AH-SWBS-B 763</div> <div>AH-SWBS-B 763</div> <div>MH-SWHS-A 726</div> <div>AH-124 1001</div> <div> <div>MWGT-AA 69</div> <div>MWPG-AA 69</div> <div>MWGH-AA 69</div> </div> <div>MWPT-CA 74</div> <div> <div>MWPH-AA 74</div> <div>MWPS-AA 74</div> </div> <div>AH-Flex Joint 41</div> <div>AH-Flex Joint 41</div> <div>AH-122 7002</div> <div>AH-SAH-G 1047</div> <div>AH-SAH-G 1047</div> <div>MPD-MB 268</div> <div>MPD-MB 268</div> </div>	<div> </div>	<div> <div>14.85</div> <div>14.16</div> <div>13.48</div> <div>12.79</div> <div>12.46</div> <div>12.26</div> <div>2.41</div> <div>11.28</div> <div>TOOL ZERO</div> <div>8.46</div> <div>7.90</div> <div>7.80</div> <div>7.34</div> </div>

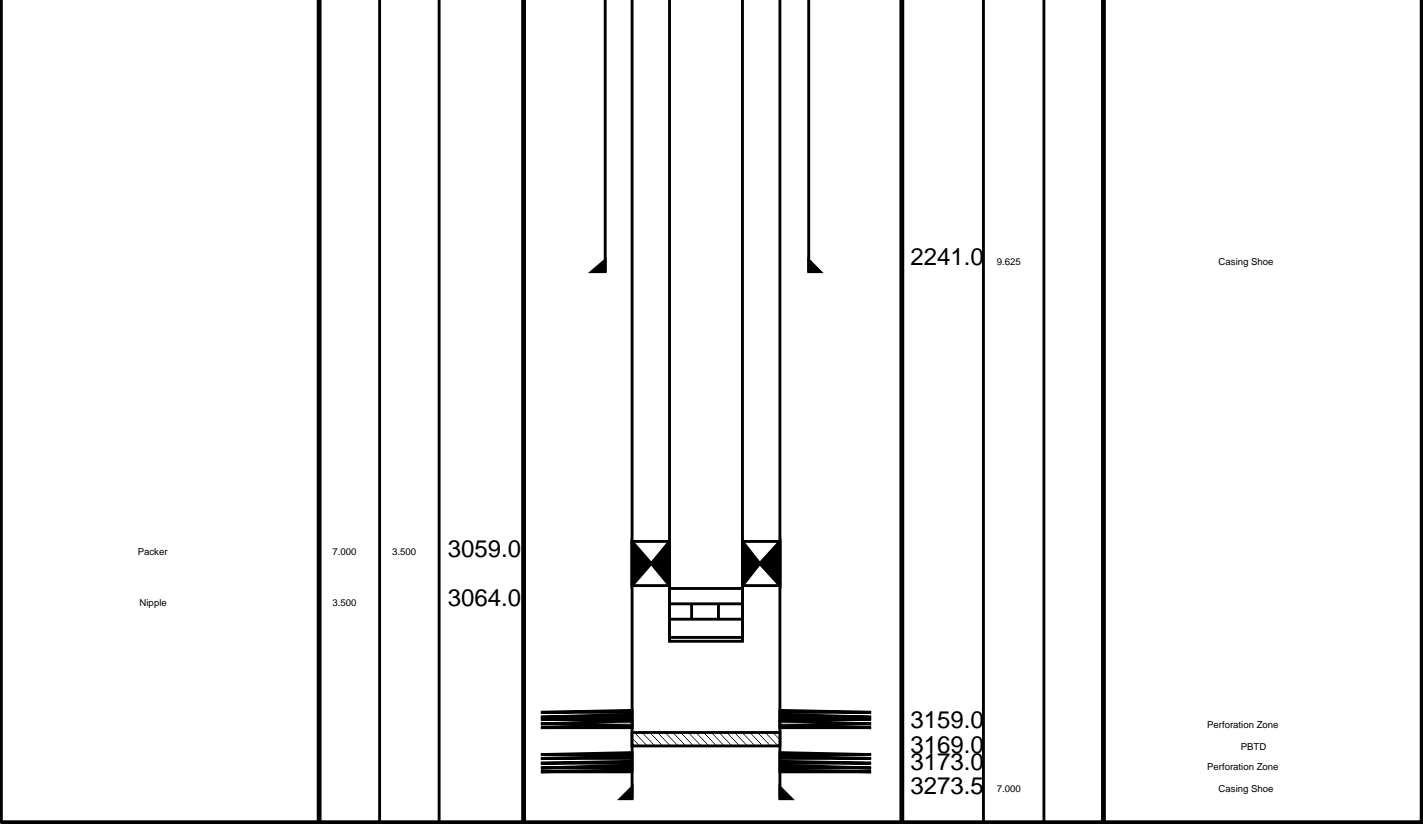
6.35

Entity	Percentage (%)
Current government	85

1000000

MAXIMUM STRING DIAMETER 2.13 IN  
MEASUREMENTS RELATIVE TO TOOL ZERO  
ALL LENGTHS IN METERS

Production String	(in)		(m)	Well Schematic	(m)		(in)	Casing String
	OD	ID	MD		MD	OD	ID	
Tubing Tubing Hanger	3.500		11.2		<del>10.0</del> 10.7	<del>13.625</del> 13.625	9.600	Casing String Liner Hanger
	7.000	3.500	10.0					
Shutin Valve	3.500		451.0					
Gas Lift Mandrel	3.500		565.0					
Gas Lift Mandrel	3.500		738.0					
					933.8	13.375		Casing Shoe
Gas Lift Mandrel	3.500		1470.0					
Nipple	3.500		1487.0					

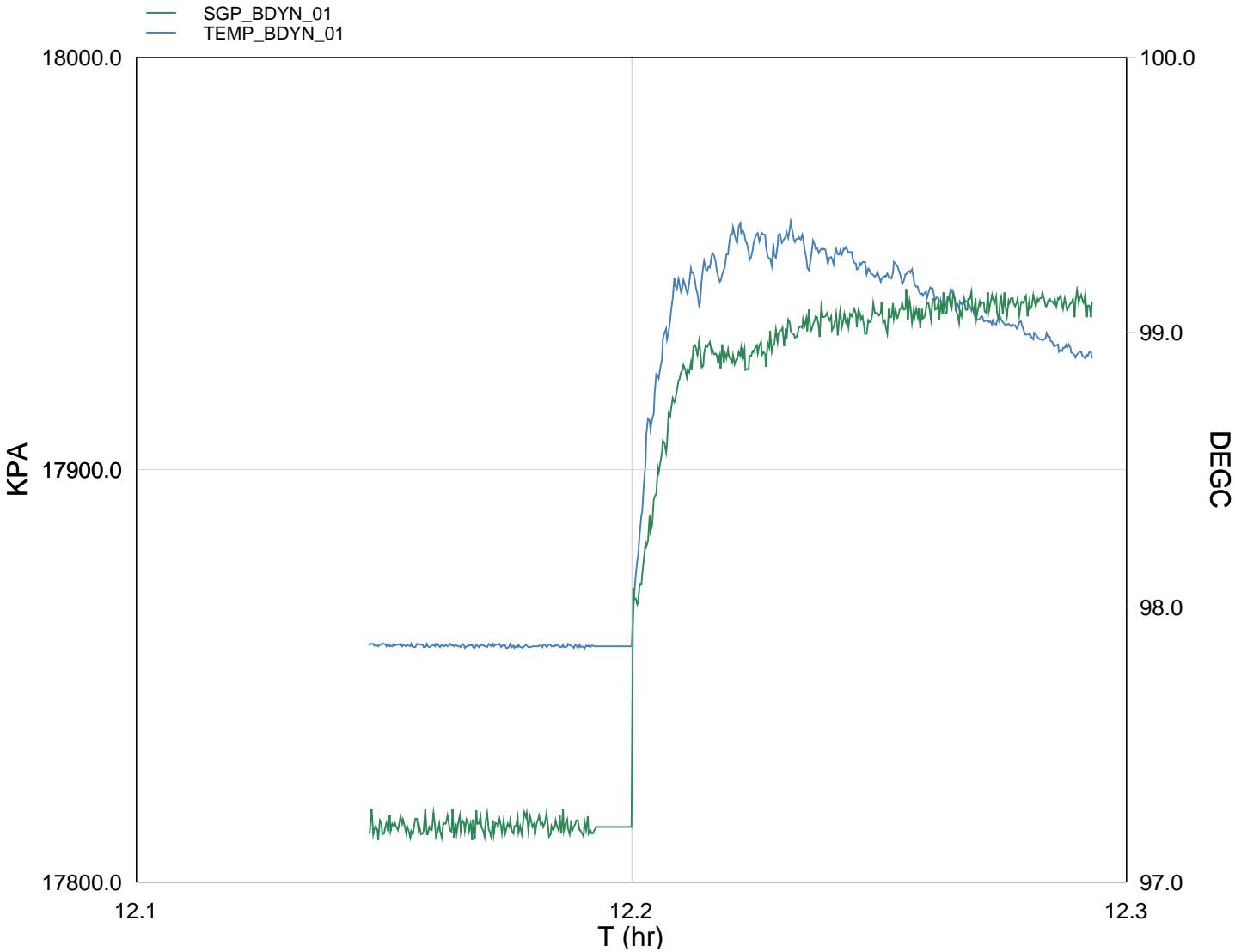


## Job Events Summary

MAXIS Field Log

### Schlumberger Job Event Summary

	Time	Elapsed Time	Depth (M)	File
Log Pass (up)	10-Sep-2007 12:33	000:14	3170.8 - 3014.5	PSP_009LUP
Log Pass (up)	18-Sep-2007 16:33	000:06	3129.1 - 3074.7	PERFO_019LUP
Log Pass (up)	18-Sep-2007 16:43	000:25	3150.4 - 3073.1	PERFO_020LUP
Log Pass (up)	19-Sep-2007 11:55	000:06	3135.2 - 3097.2	PERFO_036LUP
Log Pass (up)	19-Sep-2007 12:05	000:18	3141.6 - 3070.3	PERFO_037LUP
Station Log	19-Sep-2007 12:08	000:09	3115.4 - 1.3	PERFO_038LTP



TIME    TEMP\_MWPT\_S    SGPA\_SL

4320.0	208.15	2583.922
4380.0	208.15	2583.524
4440.0	208.16	2583.697
4500.0	208.15	2583.751
4560.0	210.02	2596.764
4620.0	210.86	2600.243
4680.0	210.69	2601.702
4740.0	210.61	2601.916
4800.0	210.26	2601.869



Gun Shoot Pass

MAXIS Field Log

Company: Esso Australia Pty Ltd. Well: A-23a

Output DLIS Files

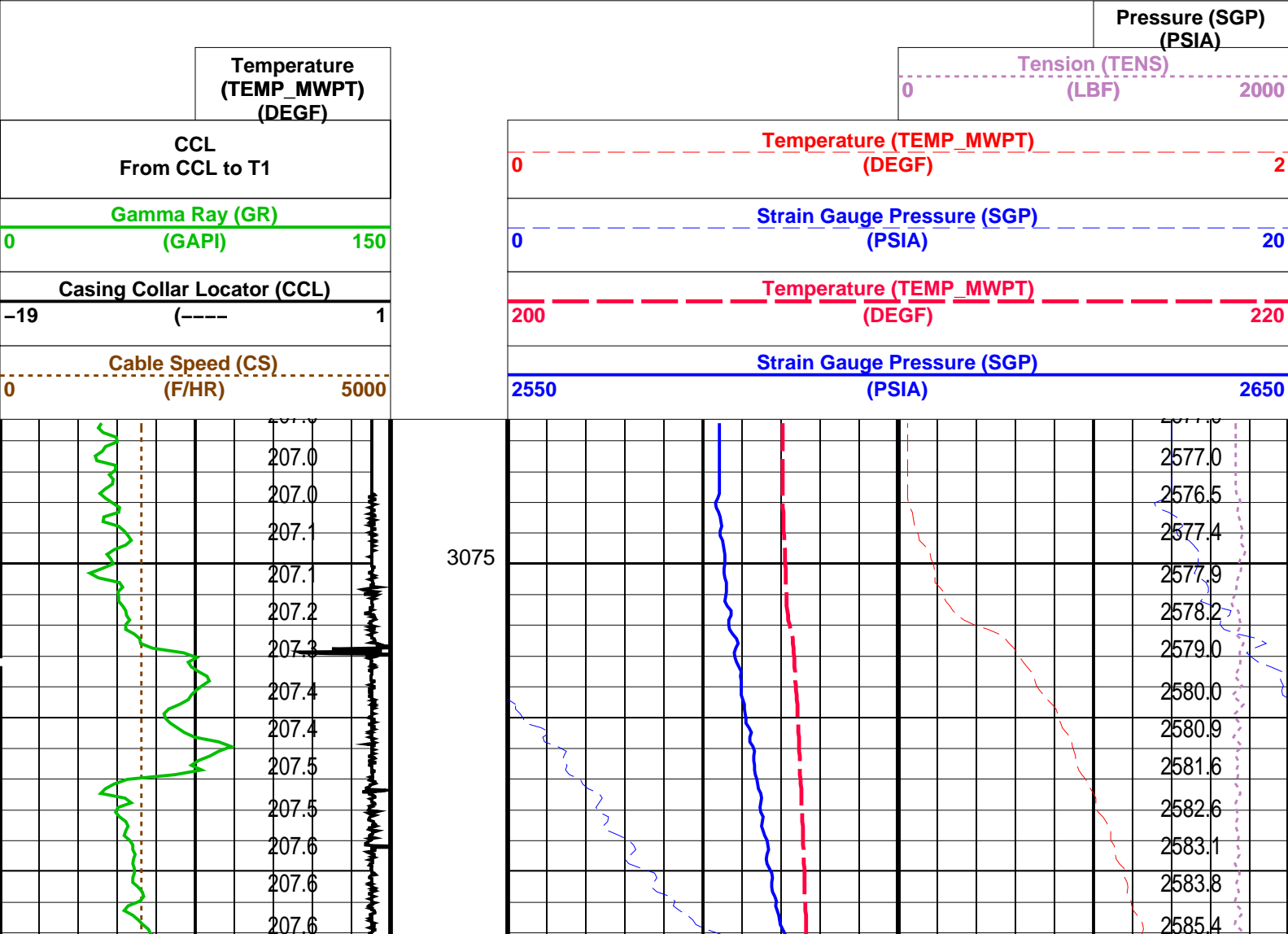
DEFAULT PERFO\_037LUP FN:36 PRODUCER 19-Sep-2007 12:05 3141.6 M 3070.3 M

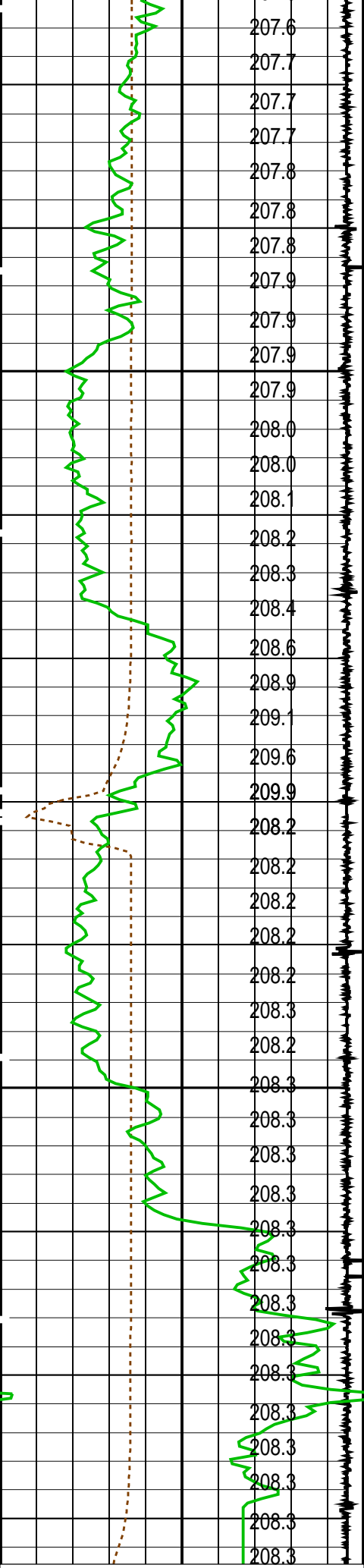
OP System Version: 14C0-302  
MCM

MWP\_GUN 14C0-302 MWPT-CA 14C0-302  
MWGT-AA 14C0-302

PIP SUMMARY

Time Mark Every 60 S

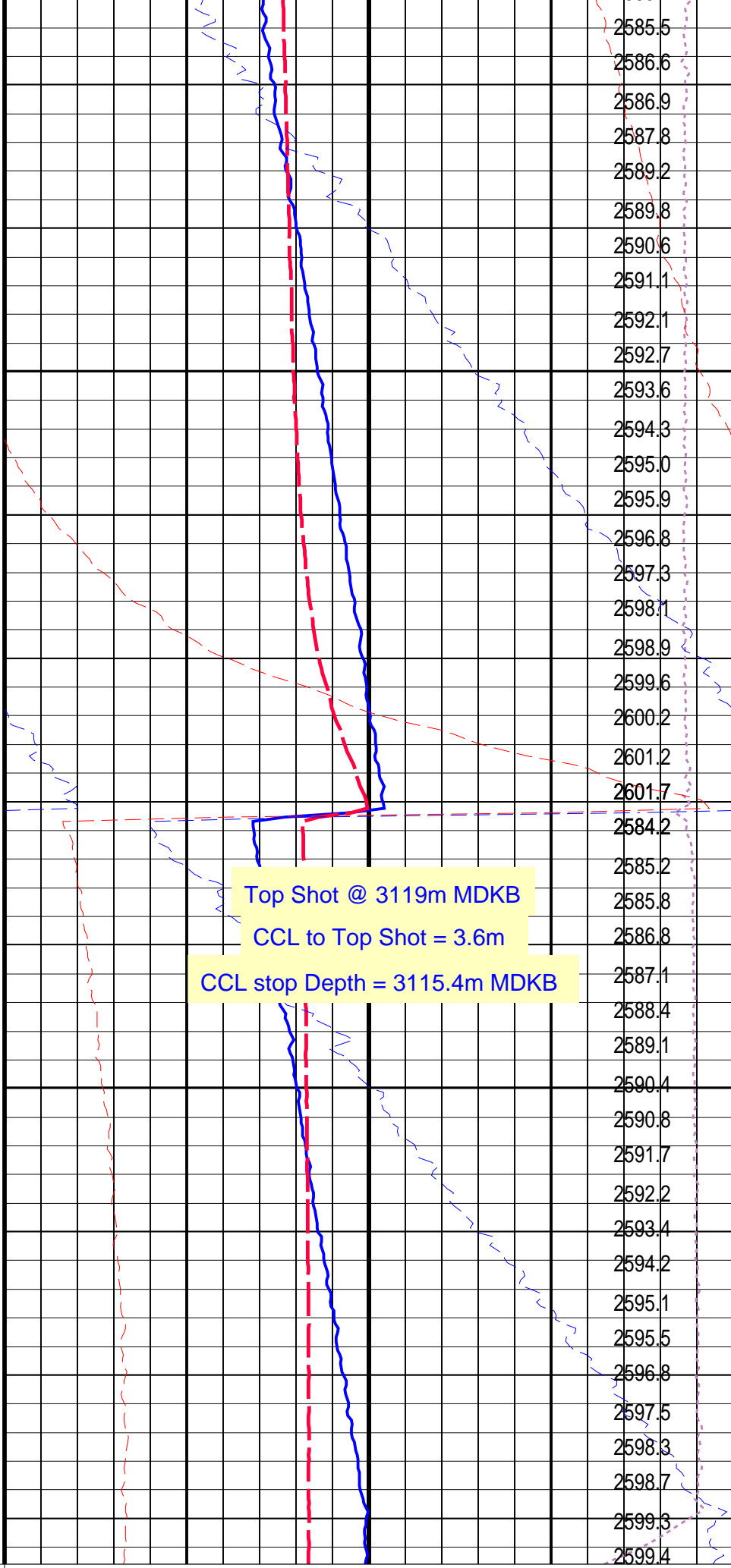




3100

3125

Top Shot @ 3119m MDKB  
CCL to Top Shot = 3.6m  
CCL stop Depth = 3115.4m MDKB



Cable Speed (CS)

Strain Gauge Pressure (SGP)



(F/RK)		5000	(PSIA)		2650
Casing Collar Locator (CCL)					
-19	(----	1	Temperature (TEMP_MWPT) (DEGF)		
Gamma Ray (GR)			Strain Gauge Pressure (SGP)		
0	(GAPI)	150	0	Temperature (TEMP_MWPT) (DEGF)	
CCL From CCL to T1			0	Tension (TENS) (LBF)	
Temperature (TEMP_MWPT) (DEGF)			0	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: 19-Sep-2007 12:05			
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OP System Version: 14C0-302				
MCM				
MWP_GUN	14C0-302	MWPT-CA	14C0-302	
MWGT-AA	14C0-302			

Output DLIS Files					
DEFAULT	PERFO_037LUP	FN:36	PRODUCER	19-Sep-2007 12:05	



Gun Correlation Pass

MAXIS Field Log

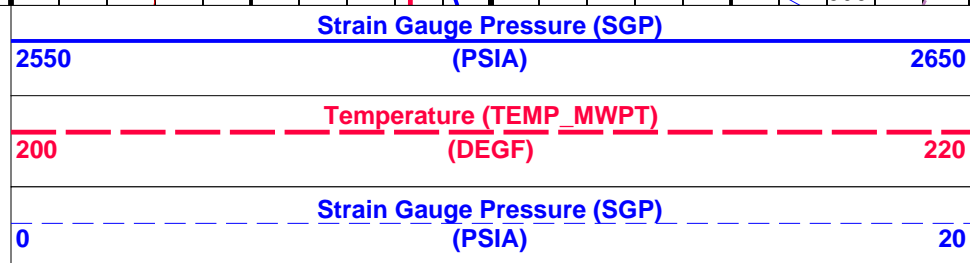
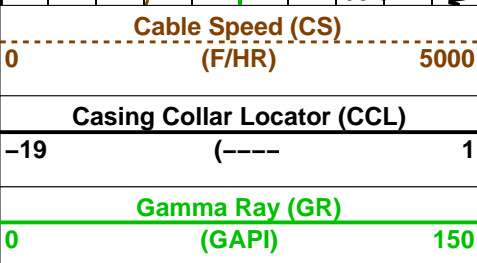
Company: Esso Australia Pty Ltd.				Well: A-23a	
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Output DLIS Files					
DEFAULT	PERFO_036LUP	FN:35	PRODUCER	19-Sep-2007 11:55	

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					

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




CCL From CCL to T1		Temperature (TEMP_MWPT) (DEGF)02	
	Temperature (TEMP_MWPT) (DEGF)	Tension (TENS) (LBF)02000	
		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: 19-Sep-2007 11:55	

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

Output DLIS Files			
DEFAULT	PERFO_036LUP	FN:35	PRODUCER 19-Sep-2007 11:55



Plug Setting Pass

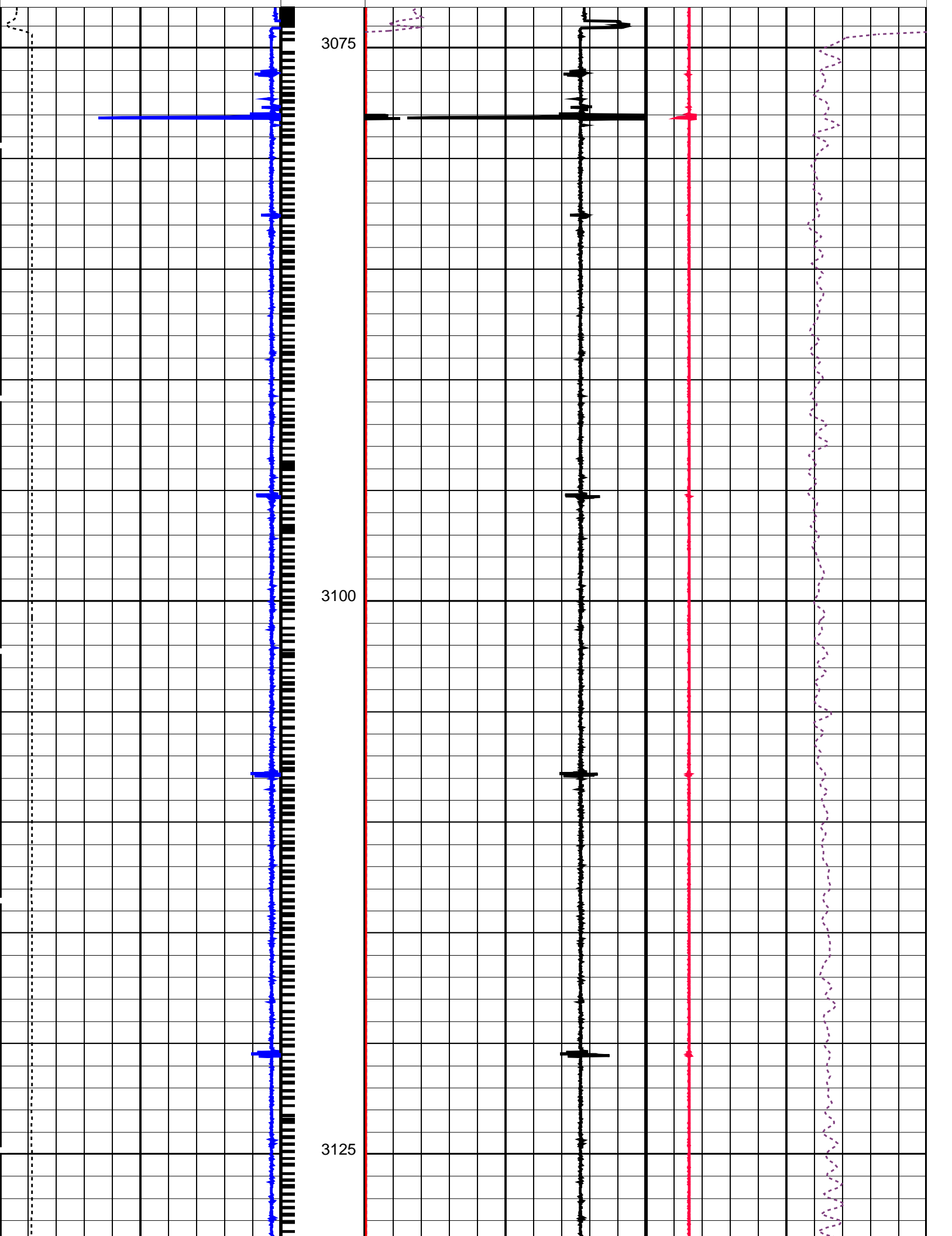
MAXIS Field Log

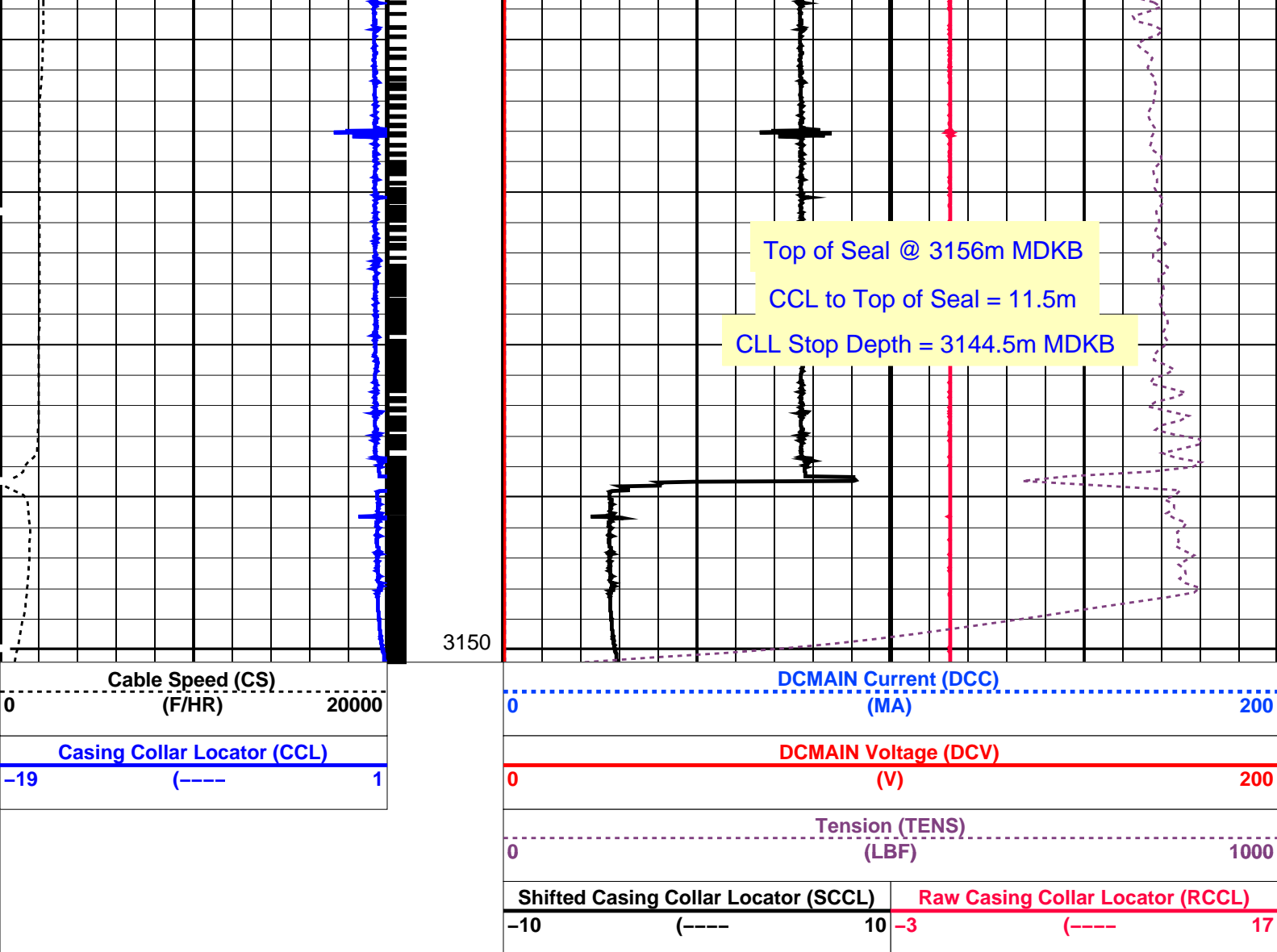
Output DLIS Files					
DEFAULT	PERFO_020LUP	FN:19	PRODUCER	18-Sep-2007 16:43	3150.4 M 3073.1 M

OP System Version: 14C0-302			
MCM			
SHM_GUN	14C0-302	CCL-L	14C0-302

PIP SUMMARY			
Casing Collars			
Time Mark Every 60 S			

<div>Casing Collar Locator (CCL)</div> <div>-19 (----) 1</div> <div>Cable Speed (CS)</div> <div>0 (F/HR) 20000</div>	Shifted Casing Collar Locator (SCCL)		Raw Casing Collar Locator (RCCL)	
	-10	(----) 10	-3	(----) 17
	Tension (TENS) (LBF)01000			
	DCMAIN Voltage (DCV) 0 (V) 200			
	DCMAIN Current (DCC) 0 (MA) 200			





### PIP SUMMARY

← Casing Collars

Time Mark Every 60 S

### Parameters

DLIS Name	Description	Value
CCL-L: Casing Collar Locator		
CCLD	CCL reset delay	12 IN
CCLT	CCL Detection Level	0.3 V

Format: PERFO Vertical Scale: 1:200 Graphics File Created: 18-Sep-2007 16:43

### OP System Version: 14C0-302

MCM

SHM\_GUN 14C0-302 CCL-L 14C0-302

### Output DLIS Files

DEFAULT PERFO\_020LUP FN:19 PRODUCER 18-Sep-2007 16:43

Schlumberger

Plug Correlation Pass

Output DLIS Files

DEFAULT      PERFO\_019LUP      FN:18    PRODUCER    18-Sep-2007 16:33    3129.1 M      3074.7 M

OP System Version: 14C0-302

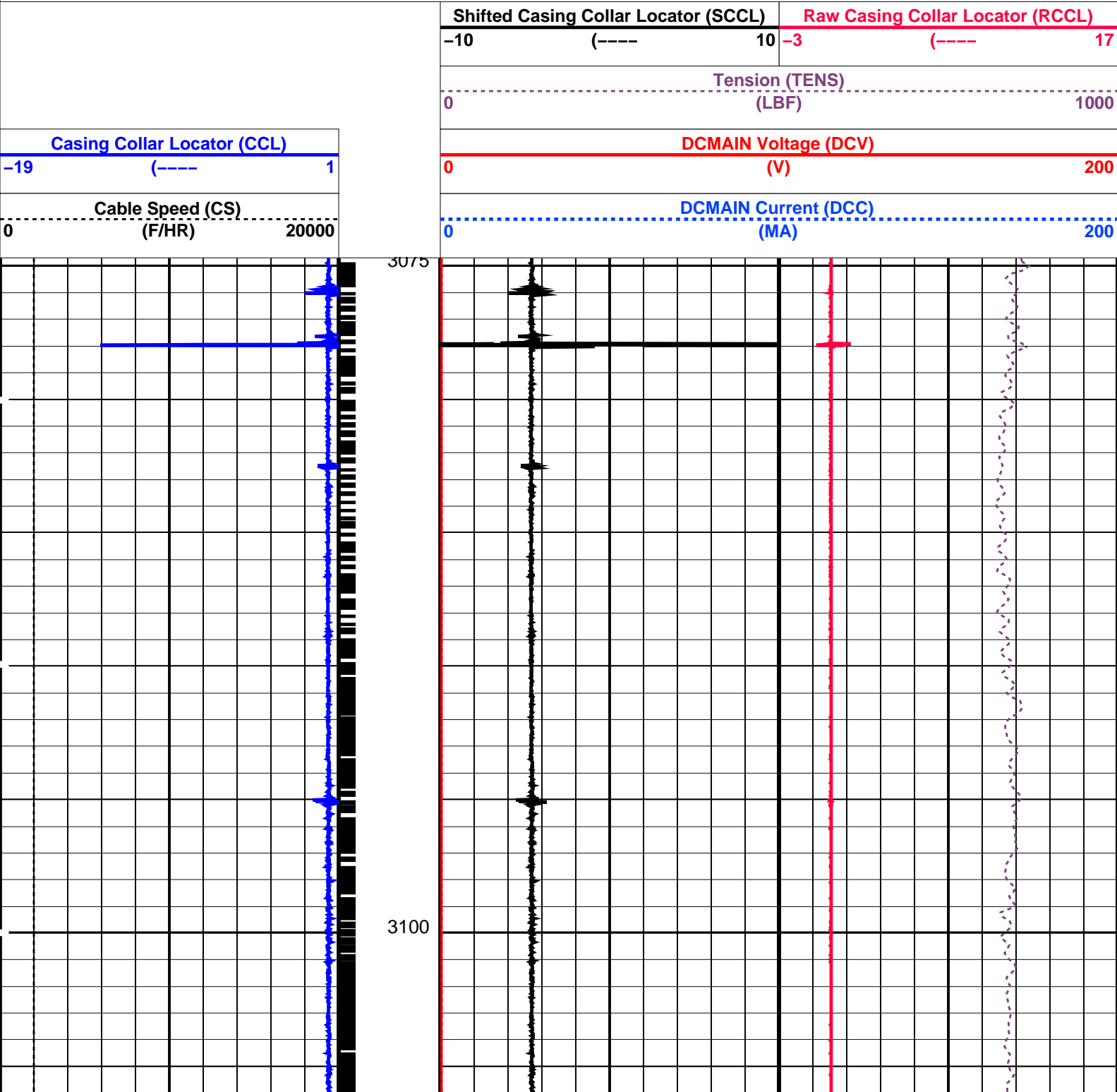
MCM

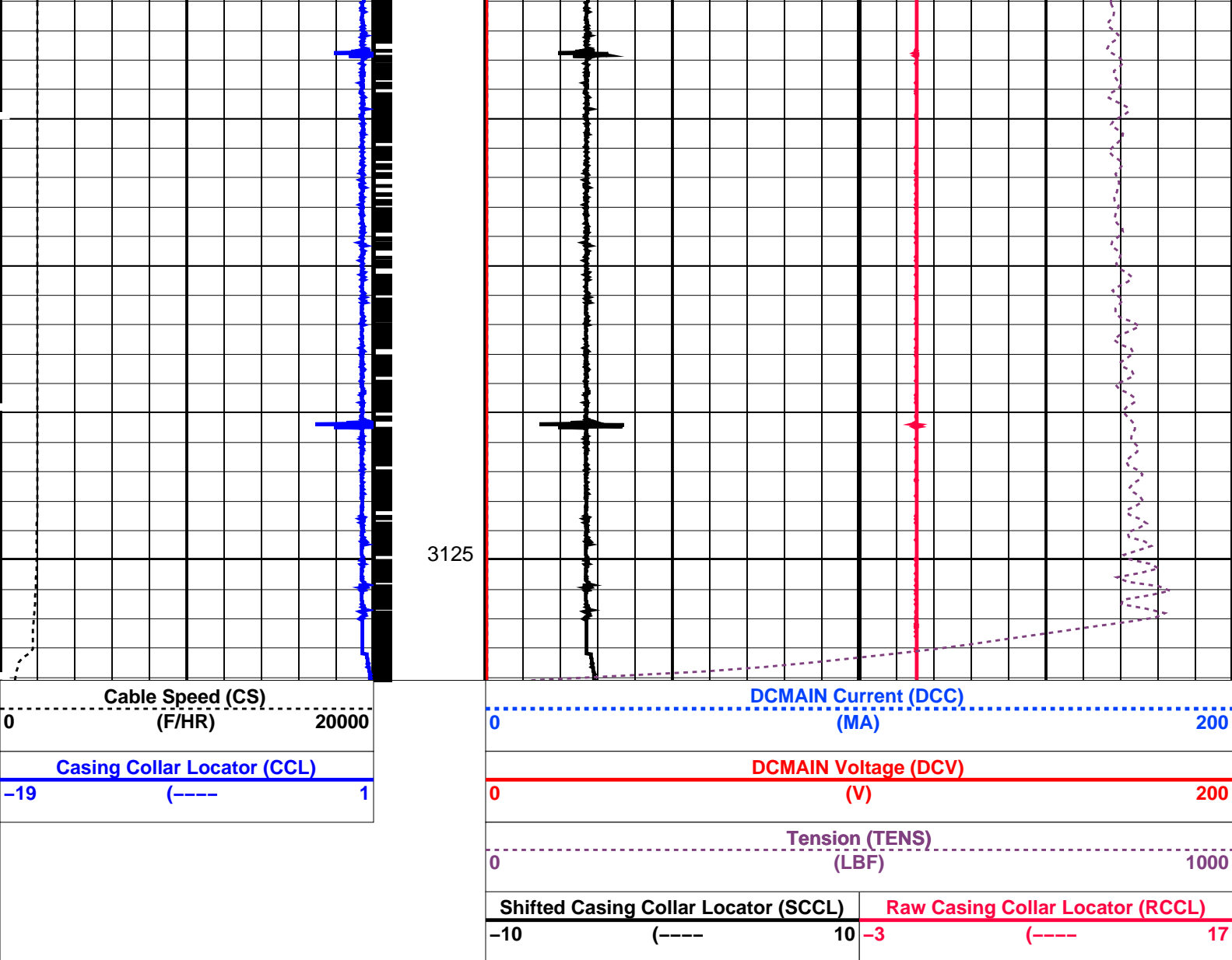
SHM\_GUN      14C0-302      CCL-L      14C0-302

PIP SUMMARY

└─ Casing Collars

Time Mark Every 60 S





#### PIP SUMMARY

Time Mark Every 60 S

Time Mark Every 60 S

#### Parameters

DLIS Name	Description	Value
CCL-L: Casing Collar Locator		
CCLD	CCL reset delay	12 IN
CCLT	CCL Detection Level	0.3 V

Format: PERFO Vertical Scale: 1:200

Graphics File Created: 18-Sep-2007 16:33

OP System Version: 14C0-302  
MCM

SHM\_GUN 14C0-302 CCL-L 14C0-302

#### Output DLIS Files

DEFAULT PERFO\_019LUP FN:18 PRODUCER 18-Sep-2007 16:33

Company: Esso Australia Pty Ltd. Well: A-23a

Input DLIS Files

DEFAULT PSP\_009LUP FN:8 PRODUCER 10-Sep-2007 12:33 3170.8 M 3014.5 M

Output DLIS Files

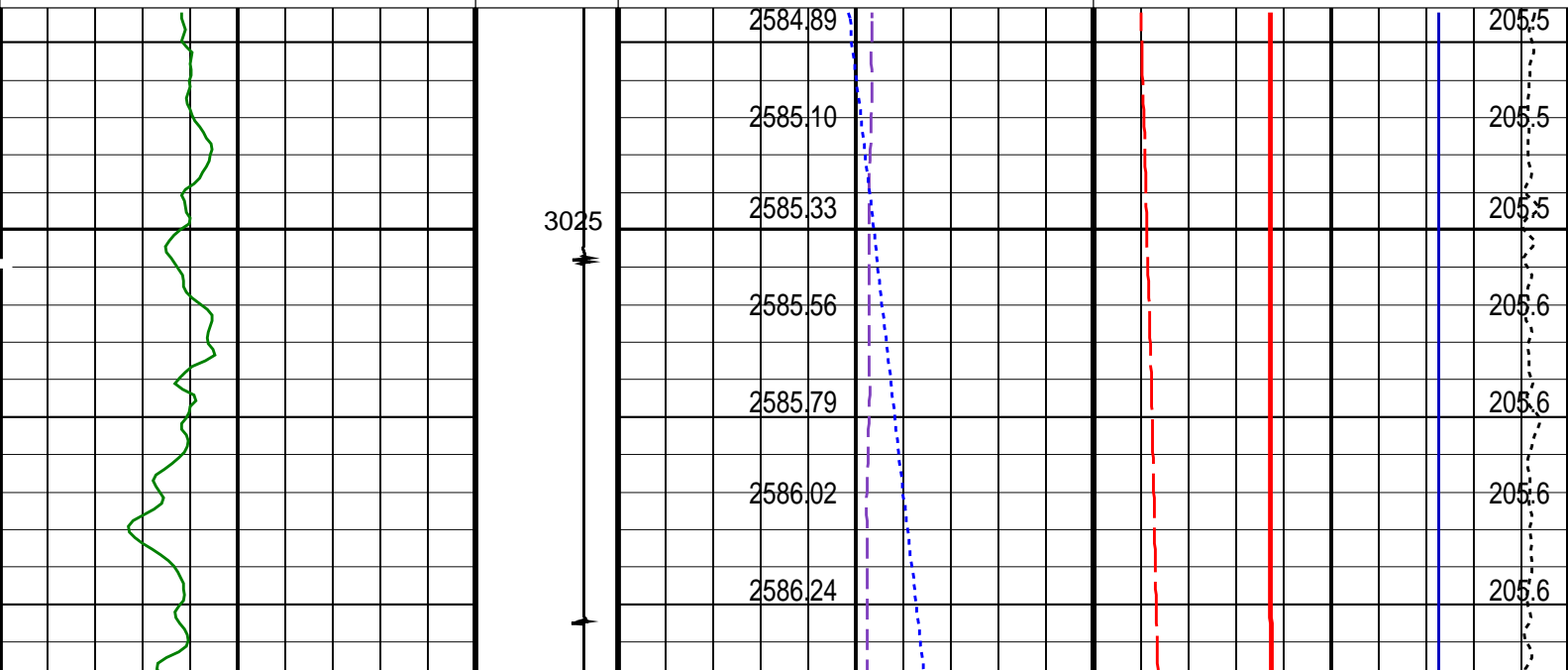
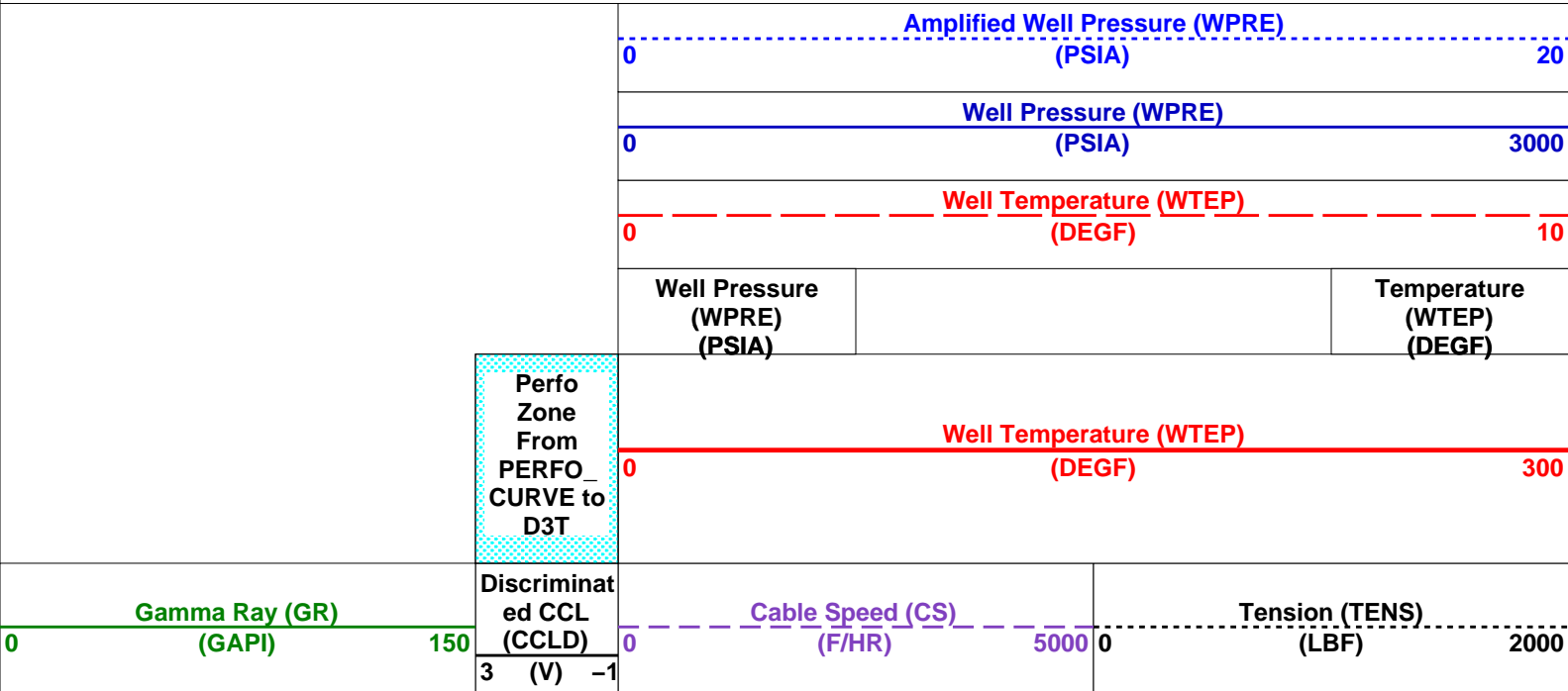
DEFAULT PSP\_010PUP FN:9 PRODUCER 10-Sep-2007 14:00 3174.9 M 3019.0 M

OP System Version: 14C0-302  
MCM

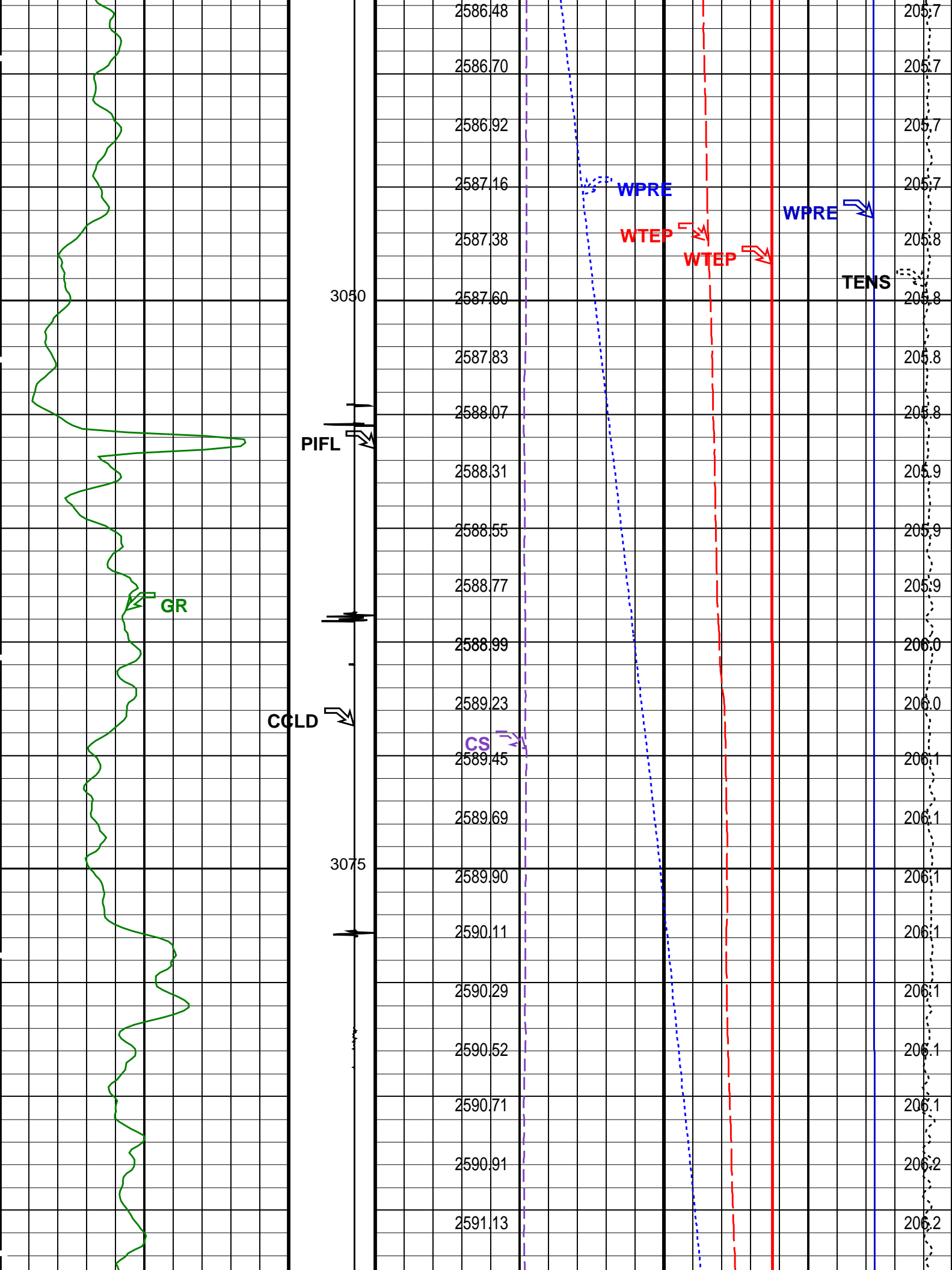
PSPT-A/B 14C0-302

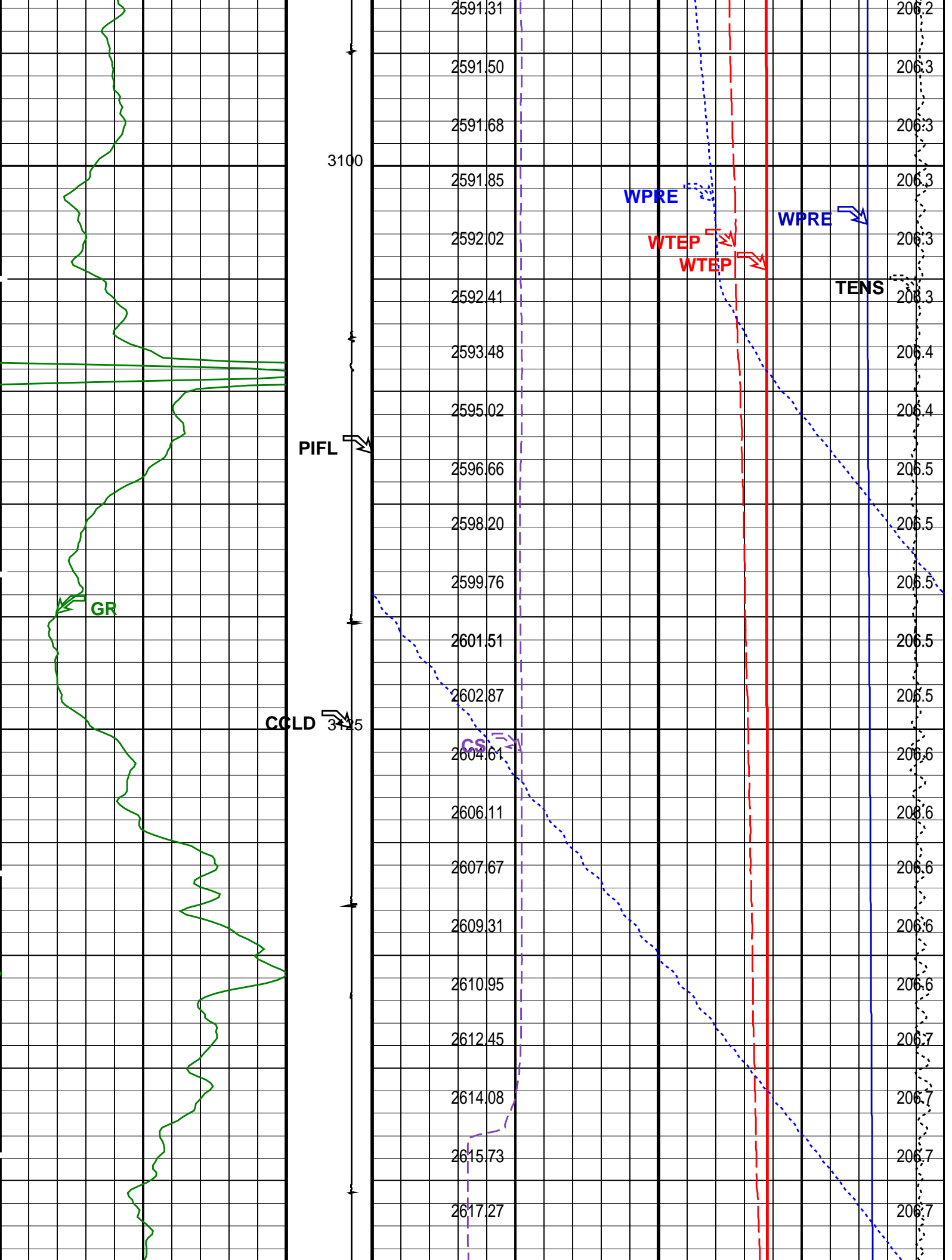
PIP SUMMARY

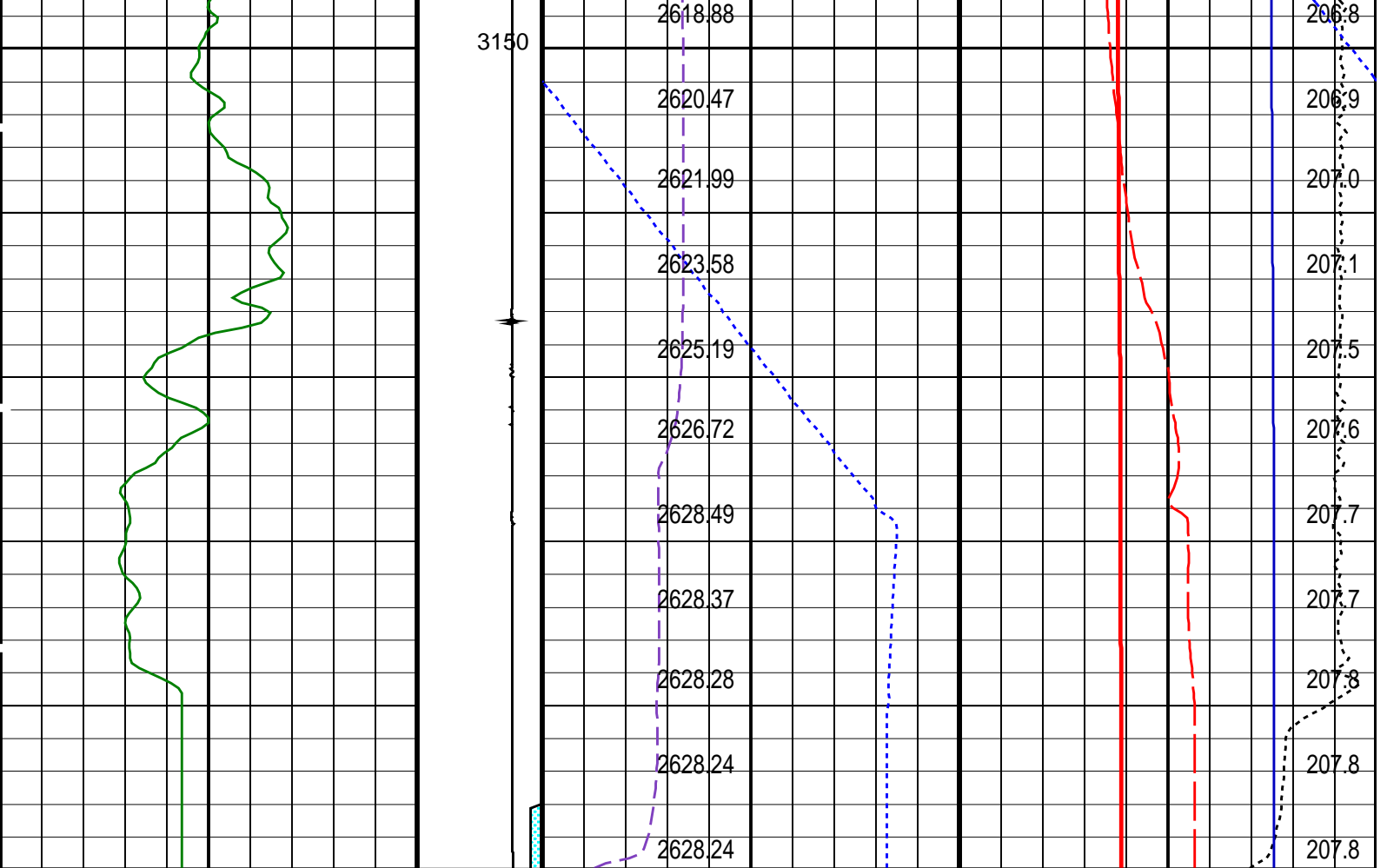
Time Mark Every 60 S











Gamma Ray (GR) (GAPI)		Discriminat ed CCL (CCLD)	Cable Speed (CS) (F/HR)	Tension (TENS) (LBF)
0	150	3 (V) -1	0	0
			5000	2000

Perfo Zone From PERFO_ CURVE to D3T	Well Temperature (WTEP) (DEGF)	
	0	300
	Well Pressure (WPRE) (PSIA)	Temperature (WTEP) (DEGF)
	Well Temperature (WTEP) (DEGF)	
	0	10
Well Pressure (WPRE) (PSIA)		
0		
Amplified Well Pressure (WPRE) (PSIA)		
0		
20		

PIP SUMMARY

Time Mark Every 60 S

Format: PSP\_1 Vertical Scale: 1:200 Graphics File Created: 10-Sep-2007 14:00

OP System Version: 14C0-302  
MCM

PSPT-A/B 14C0-302

Parameters		
DLIS Name	Description	Value

System and Miscellaneous							
DO PP	Depth Offset for Playback Playback Processing				4.1 NORMAL	M	
Input DLIS Files							
DEFAULT	PSP_009LUP	FN:8	PRODUCER	10-Sep-2007 12:33	3170.8 M	3014.5 M	
Output DLIS Files							
DEFAULT	PSP_010PUP	FN:9	PRODUCER	10-Sep-2007 14:00			

Company: **Esso Australia Pty Ltd.**

# Schlumberger

Well: **A-23a**  
Field: **Bream A**  
Rig : **Prod4**  
Country: **Australia**

2 1/8" Powerjet Perforation  
7" HPI PSP Plug  
Setting Record