

Company: Esso Australia Pty Ltd

Well: CBA A-20

Field: Cobia

Rig: Rig 22

Country: Australia

2-7/8" PURE PJO HSD
Perforation Record
24-May-2008

Gippsland		Elev.:	K.B.	32.40 m
Basin			G.L.	-79.00 m
Bass Strait			D.F.	32.40 m
Permanent Datum:	MSL	Elev.: 0.00 m		
Log Measured From:	DF	32.40 m above Perm. Datum		
Drilling Measured From:	DF			
State: Victoria	Max. Well Deviation 29 deg	Longitude 148° 18' 28.5" E	Latitude 038° 27' 03.1" S	

Logging Date	24-May-2008								
Run Number	1								
Depth Driller	2638 m								
Schlumberger Depth	2572.7 m								
Bottom Log Interval	2559 m								
Top Log Interval	2557 m								
Casing Fluid Type	Filtered Seawater								
Salinity									
Density	8.55 lbm/gal								
Fluid Level									
BIT/CASING/TUBING STRING									
Bit Size	9.875 in								
From	602 m								
To	2638 m								
Casing/Tubing Size	5.500 in								
Weight	17 lbm/ft								
Grade	K55								
From	2495 m								
To	2585 m								
Maximum Recorded Temperatures									
Logger On Bottom	24-May-2008				15:30				
Unit Number	3827	Location	AUSL						
Recorded By	C.Rowand, B. Donahue								
Witnessed By	Mr A. Smyth, Mr J. DiGiovanni								

PVT DATA	Oil Density	Run 1	Run 2	Run 3
	Water Salinity			
	Gas Gravity			
	Bo			
	Bw			
CEMENTING DATA	1/Bg			
	Bubble Point Pressure			
	Bubble Point Temperature			
	Solution GOR			
	Maximum Deviation	29 deg		
Tall Cement Type	Primary/Squeeze	Primary		
	Casing String No			
	Lead Cement Type			
	Volume			
	Density			
Water Loss	Water Loss			
	Additives			
Expected Cement Top	Tail Cement Type			
	Volume			
	Density			
	Water Loss			
	Additives			
Logging Date	Expected Cement Top			
	Run Number			
	Depth Driller			
	Schlumberger Depth			
	Bottom Log Interval			
Casing Fluid Type	Top Log Interval			
	Casing Fluid Type			
	Salinity			
	Density			
	Fluid Level			
BIT/CASING/TUBING STRING	BIT/CASING/TUBING STRING			
	Bit Size			
	From			
	To			
	Casing/Tubing Size			
Weight	Weight			
	Grade			
	From			
	To			
	Maximum Recorded Temperatures			
Logger On Bottom	Logger On Bottom			
	Unit Number	Location		
	Recorded By			
	Witnessed By			

DEPTH SUMMARY LISTING

Date Created: 23-MAY-2008 11:31:17

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-H	Type:	CMTD-B/A	Type:	2-32ZT
Serial Number:	794	Serial Number:	1711	Serial Number:	24157
Calibration Date:	8-Nov-2007	Calibration Date:	13-May-2008	Length:	6345 M
Calibrator Serial Number:	1009	Calibrator Serial Number:	1173	Conveyance Method:	Wireline
Calibration Cable Type:	2-32ZT	Calibration Gain:	1.00	Rig Type:	Offshore_Fixed
Wheel Correction 1:	-6	Calibration Offset:	0.00		
Wheel Correction 2:	-2				

Depth Control Parameters

Log Sequence:	Subsequent Log In the Well
Reference Log Name:	Petrophysical Analysis
Reference Log Run Number:	
Reference Log Date:	10-May-2007

Depth Control Remarks

1. Correlated to Petrophysical Analysis of 10-May-2007 provided by client.
2. Primary correlation over the depths 2565–2485 m
- 3.
- 4.
5. CMTD Quadratic Calibration Curve Fit Quality:
6. RMS=9 & Peak Error = 13

DISCLAIMER

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OTHER SERVICES1	OTHER SERVICES2
OS1: JB	OS1:
OS2: GR-CCL	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1

Log correlated to Petrophysical Analysis dated: 10-May-2007, provided by client.

Objective: Perforate the interval 2557.0 – 2559.0 m MDKB using 2-7/8" HSD gun with Powerjet Omega charges. 6spf, 60 degree phased. Using PURE design.

SECURE Initiated

Top Shot: 2557.0m MDKB CCL











CCL to Top Shot: 3.53m MDKB

CCL Stop Depth: 2553.47m MDKB
BHP Before Firing: 3490 Psia, BHP After Firing: 3474 Psia. PURE underbalance achieved.
Junk Basket Tagged Landing Collar @ 2572.7 m MDKB.

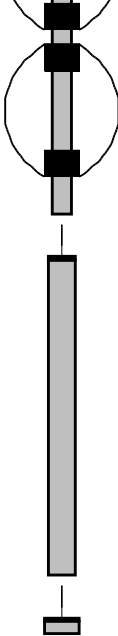
Crew: (Days) P.Battams & C.Harris
Nights: B. Glover & G.Blandford

RUN 1			RUN 2		
SERVICE ORDER #: PROGRAM VERSION: 16C0-147 FLUID LEVEL:			SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		
SURFACE EQUIPMENT			SURFACE EQUIPMENT		
WITM (SHM)			WITM (SHM)		

DOWNHOLE EQUIPMENT			DOWNHOLE EQUIPMENT		
MH-22 MH-22		7.09	MH-22 MH-22		10.21
AH-38		6.61	AH-38		9.73
EQF-43 EQF-43 201		6.52	UPCT-A UPCC-A 411 UPCH-A 494		9.65
			Gamma Ray	___ 0.79	
			Casing Co Tension	___ TOOL ZERO	
			AH-WPSA-BA AH-WPSA-BA 4003		8.28
			SHM_GUN GUN-PURE 2-7/8" PJO HSD		7.67
UPCT-A UPCC-A 411 UPCH-A 494		4.69			
	Gamma Ray	___ 0.79			
	Casing Co Tension	___ TOOL ZERO			
AH-2" Shock Subs AH-2" Shock Subs		3.33			

AH-Junk Basket
AH-Junk Basket



1.60

AH-3-1/2" Gauge Ring

0.08

SHM_GUN

TOOL BOTTOM

0.00

MAXIMUM STRING DIAMETER 3.70 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

AH-FGPT-AA
AH-FGPT-AA 87

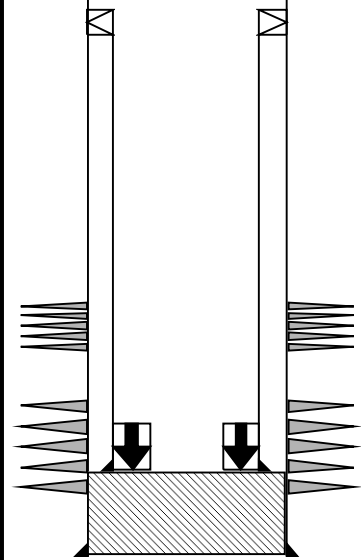


0.91

TOOL BOTTOM

MAXIMUM STRING DIAMETER 2.88 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	
					13.0	10.750	7.625	Casing String Casing String
					13.0	10.750		
					602.0	10.750		Casing Shoe



2495.5	5.500	4.959
2495.5	7.625	5.500
2559.5		
2562.5		
2565.5		
2573.7	5.500	
	5.500	4.959
2576.0		
2638.0	7.625	

Casing String
Liner Hanger

Squeezed Perforations

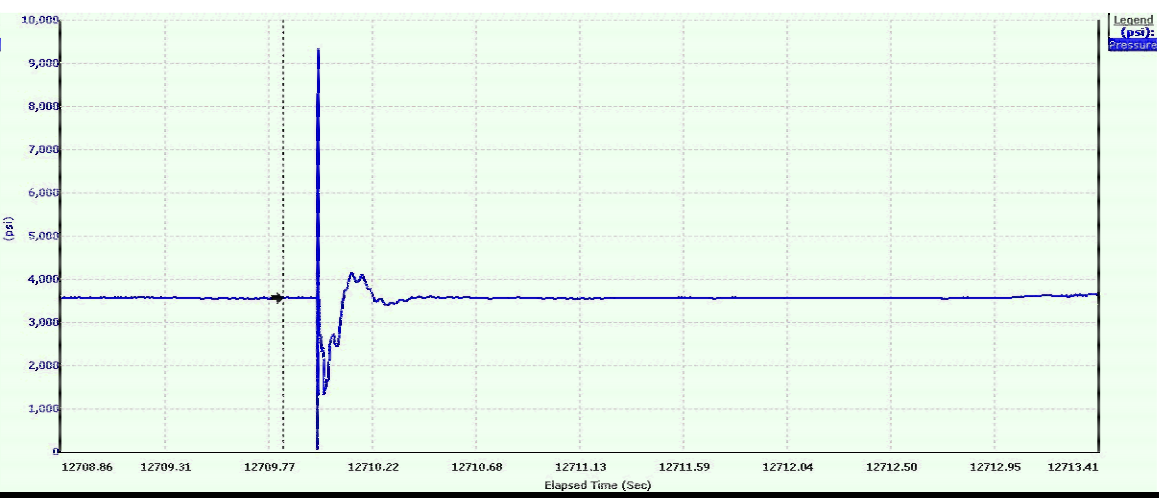
Squeezed Perforations
Landing Collar

Casing Shoe

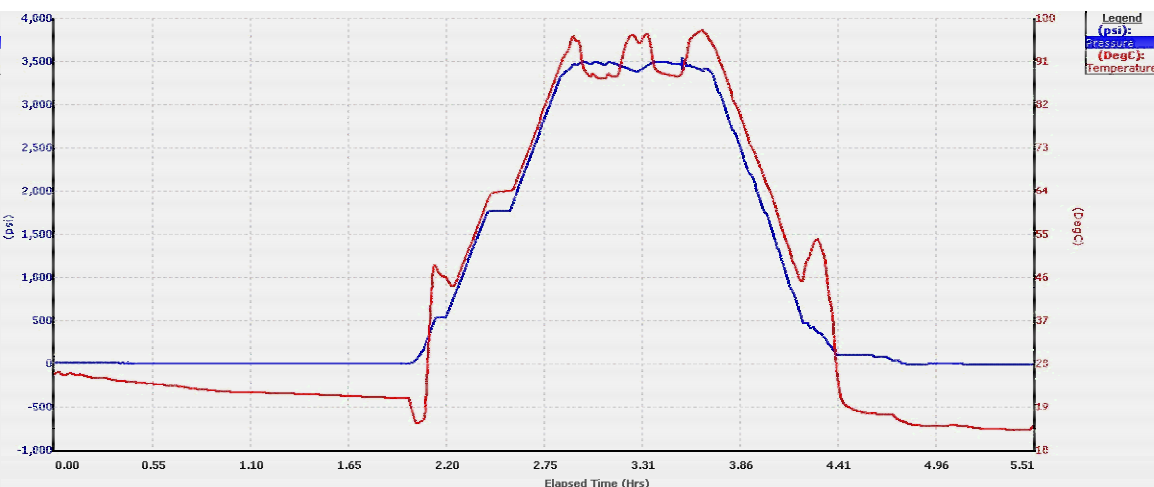
Schlumberger

Pure " Underbalnce" Pressure

MAXIS Field Log



MAXIS Field Log



MAXIS Field Log

PERFO2 Operational Summary Listing

Device Status Req Depth (M) Obs Depth (M) Time Used

GUN1 Used 2557.0 2557.0 Sat May 24 17:02:03 2008

Company: Esso Australia Pty Ltd

Well: CBA A-20

Output DLIS Files

DEFAULT PERFO_016LUP FN:19 PRODUCER 24-May-2008 16:56 2565.7 M 2484.4 M

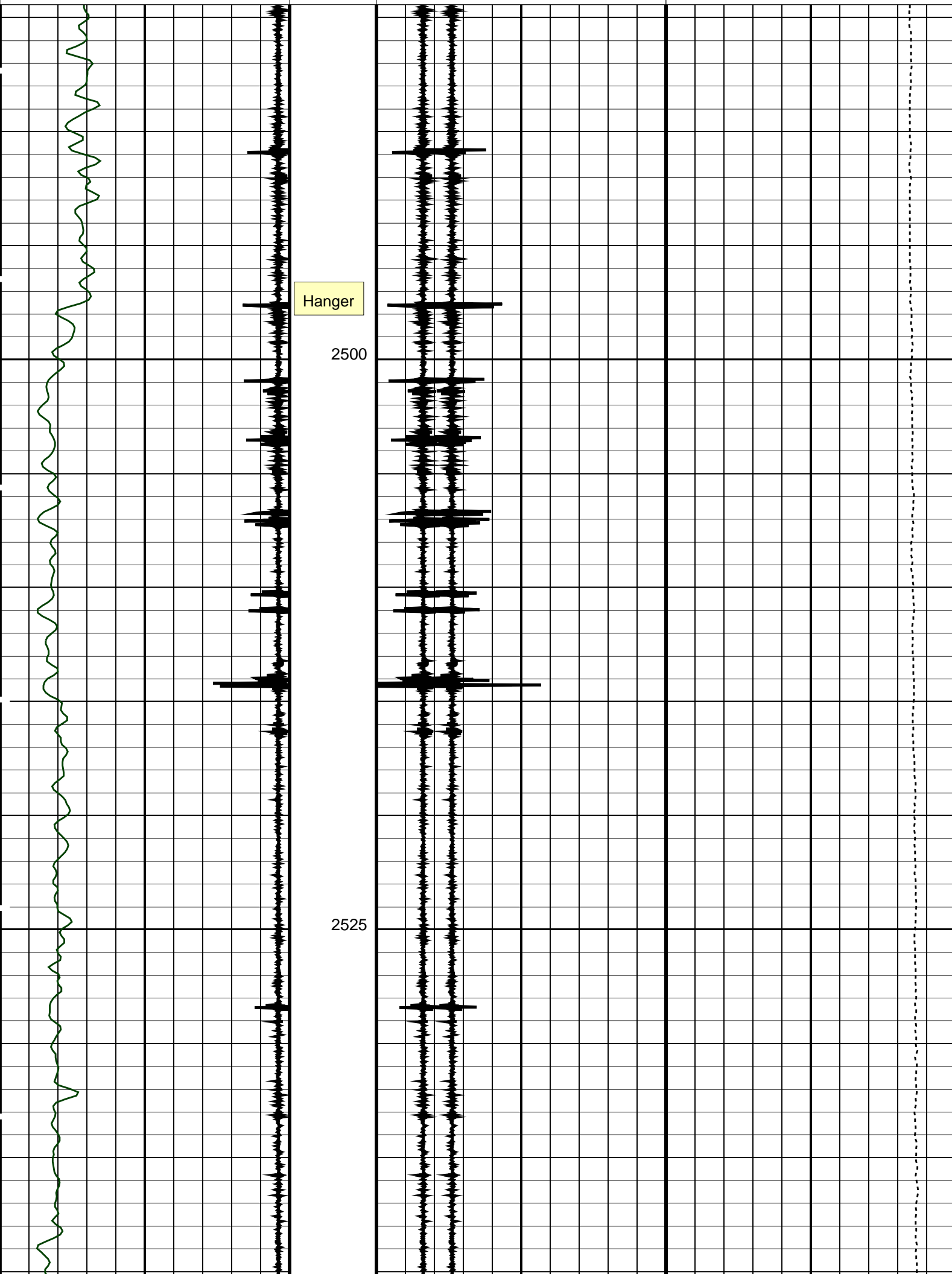
**OP System Version: 16C0-147
MCM**

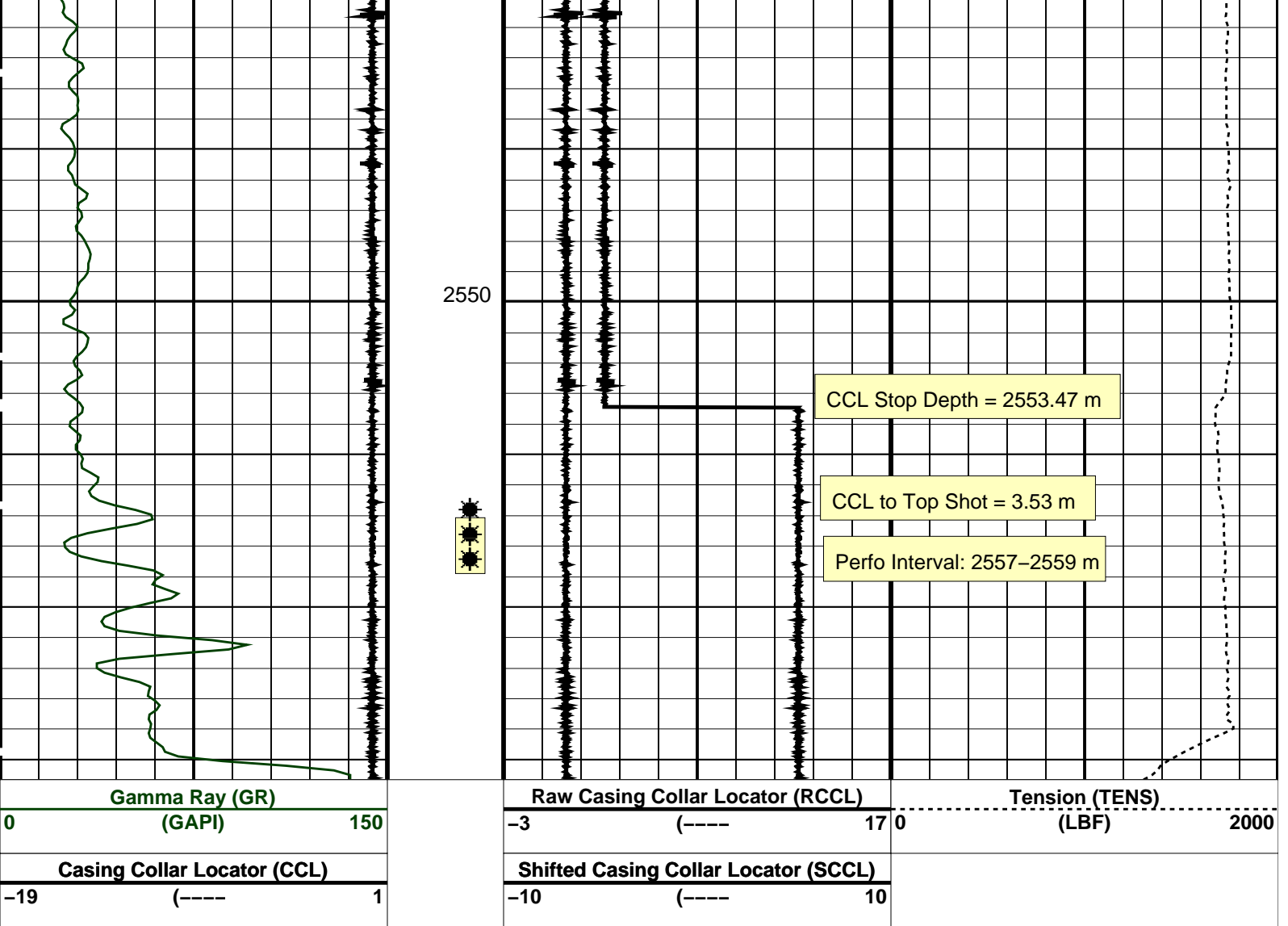
SHM_GUN SRPC-3547-Q1_2008_OP16 UPCT-A SRPC-3547-Q1_2008_OP16

PIP SUMMARY

Time Mark Every 60 S

Casing Collar Locator (CCL)			Shifted Casing Collar Locator (SCCL)			Raw Casing Collar Locator (RCCL)			Tension (TENS)		
-19	(----	1	-10	(----	10	-3	(----	17	0	-----	2000
Gamma Ray (GR)											
0	(GAPI)	150									





PIP SUMMARY

Time Mark Every 60 S

Format: CORRELATION Vertical Scale: 1:200

Graphics File Created: 24-May-2008 16:56

OP System Version: 16C0-147
MCM

SHM_GUN SRPC-3547-Q1_2008_OP16 UPCT-A SRPC-3547-Q1_2008_OP16

Output DLIS Files

DEFAULT PERFO_016LUP FN:19 PRODUCER 24-May-2008 16:56

Schlumberger

HSD Gun
Correlation

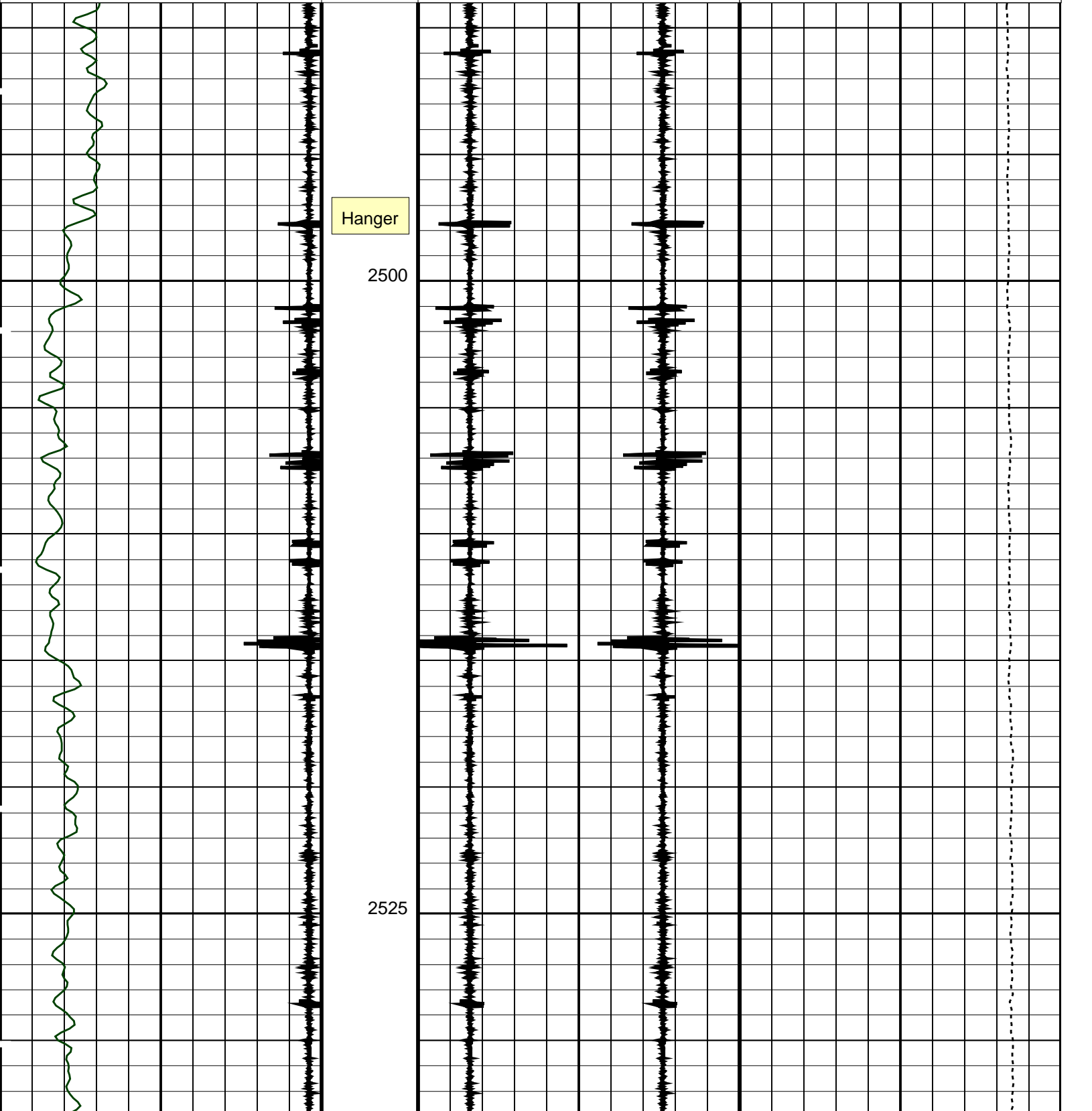
MAXIS Field Log

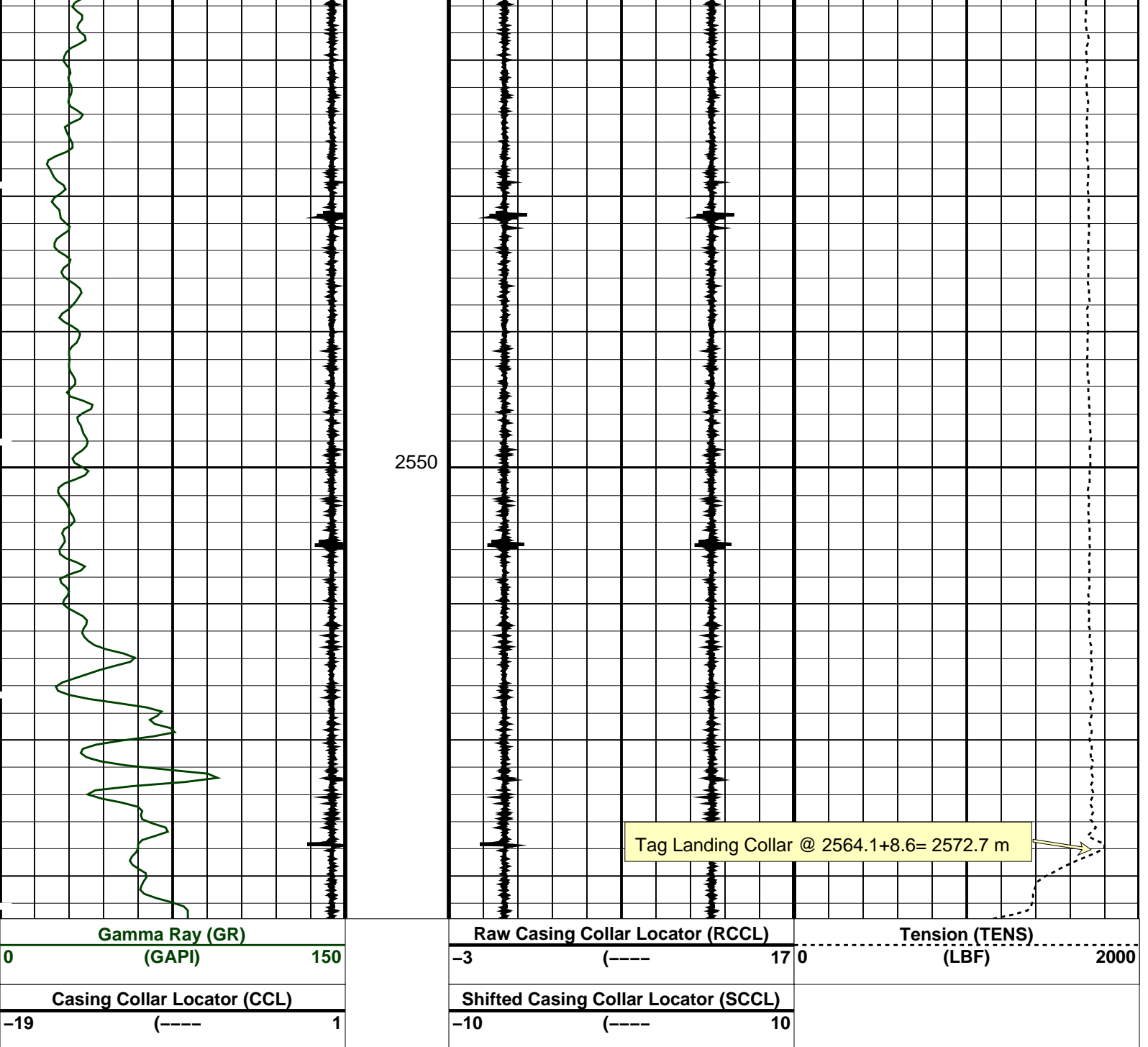
Output DLIS Files

PIP SUMMARY

Time Mark Every 60 S

Casing Collar Locator (CCL)		Shifted Casing Collar Locator (SCCL)		Raw Casing Collar Locator (RCCL)		Tension (TENS)	
-19	(----) 1	-10	(----) 10	-3	(----) 17	0	(LBF) 2000
Gamma Ray (GR) (GAPI) 0 150							





PIP SUMMARY

Time Mark Every 60 S

Format: CORRELATION Vertical Scale: 1:200

Graphics File Created: 24-May-2008 16:37

OP System Version: 16C0-147
MCM

SHM_GUN SRPC-3547-Q1_2008_OP16 UPCT-A SRPC-3547-Q1_2008_OP16

Output DLIS Files

DEFAULT PERFO_015LUP FN:18 PRODUCER 24-May-2008 16:37

Schlumberger

Junk Basket
Correlation

Company: Esso Australia Pty Ltd

Well: CBA A-20

Input DLIS Files

DEFAULT

PERFO_007LUP

FN:6

PRODUCER

23-May-2008 14:30

2578.5 M

2474.2 M

Output DLIS Files

DEFAULT

PERFO_007PUP

FN:10

PRODUCER

23-May-2008 15:13

2575.6 M

2475.4 M

OP System Version: 16C0-147

MCM

SHM_GUN

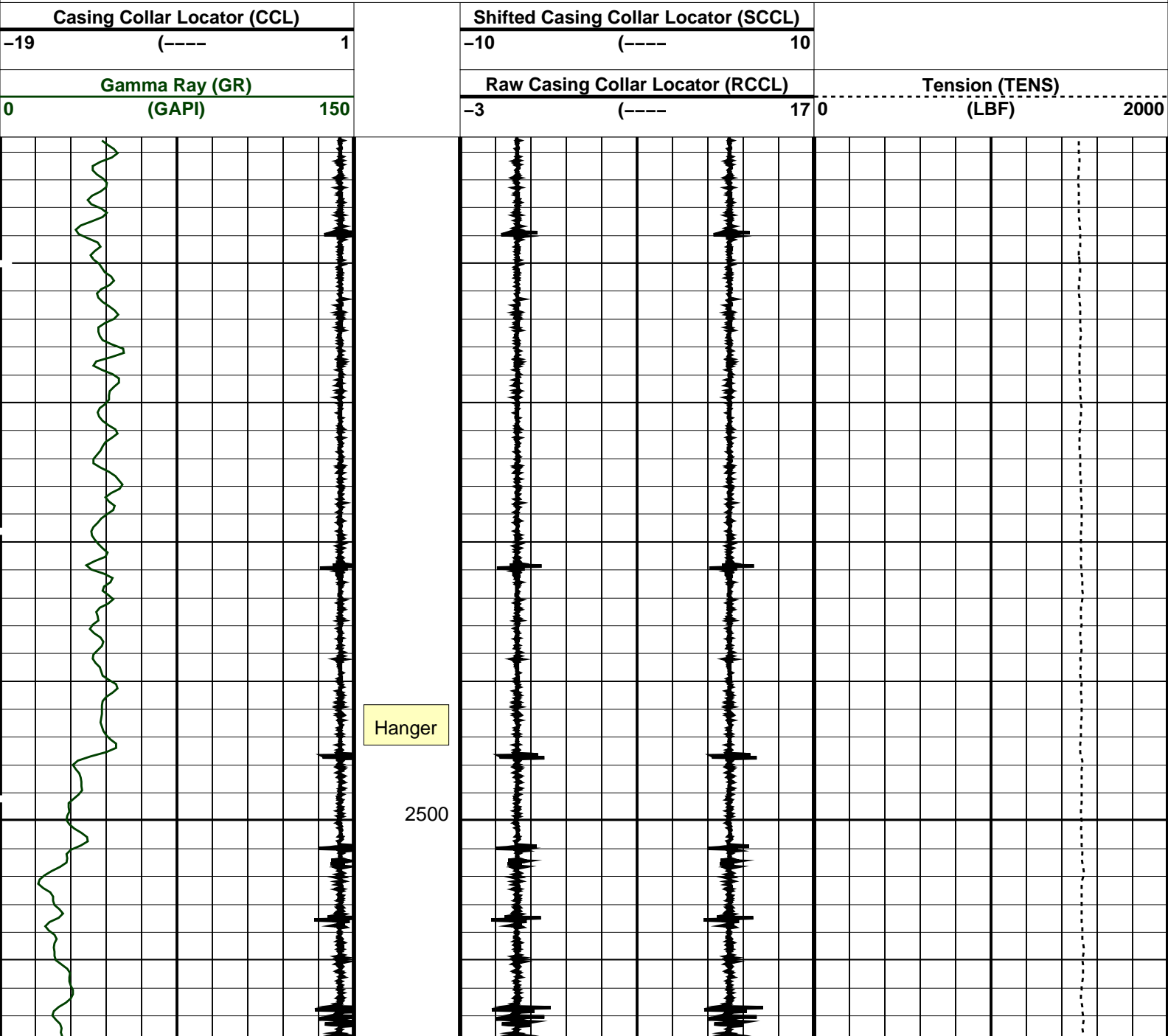
SRPC-3547-Q1_2008_OP16

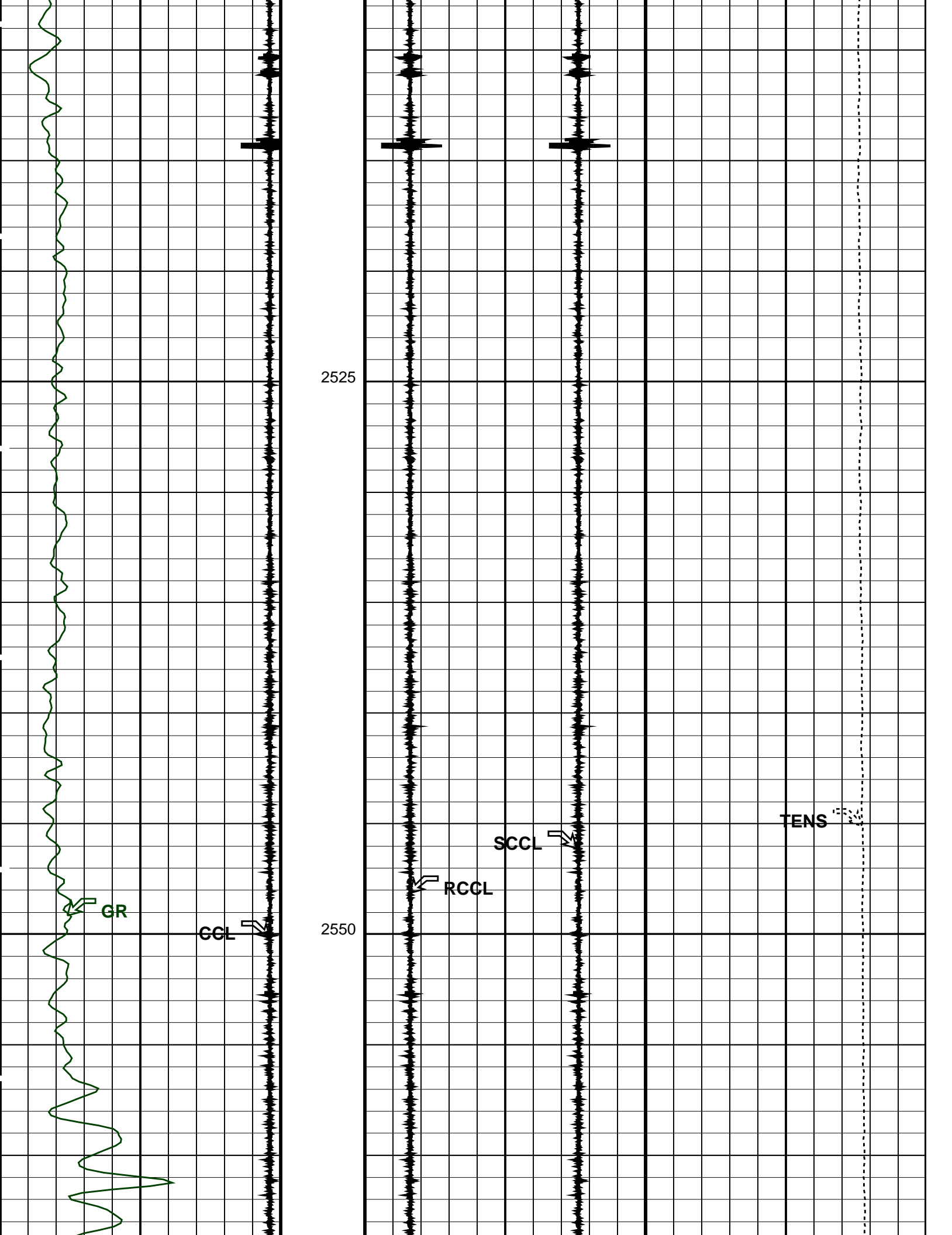
UPCT-A

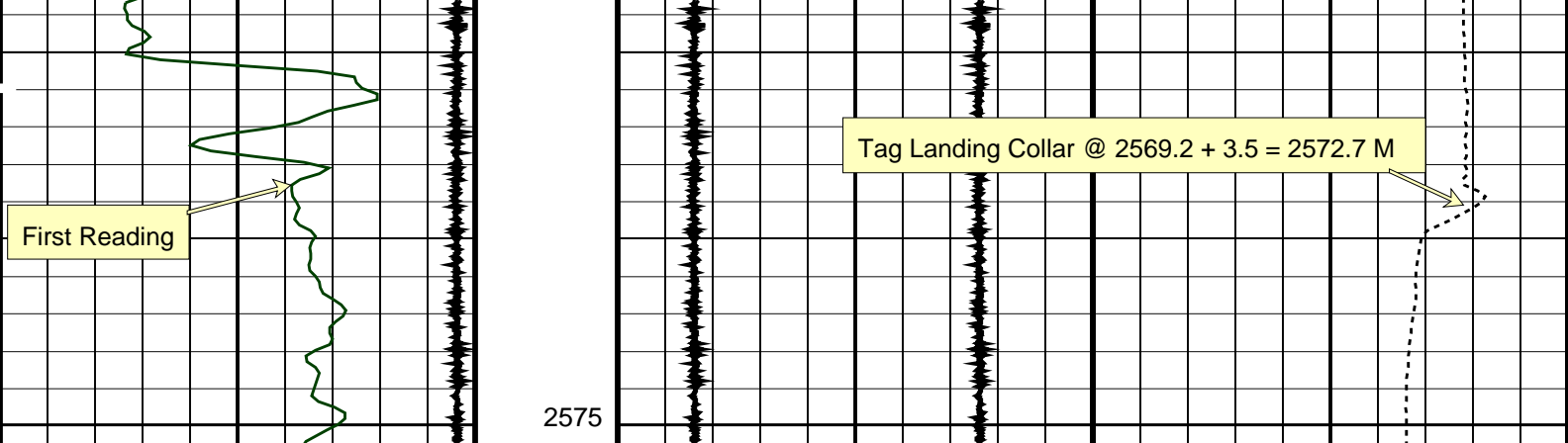
SRPC-3547-Q1_2008_OP16

PIP SUMMARY

☒ Time Mark Every 60 S







Gamma Ray (GR) (GAPI)		150	Raw Casing Collar Locator (RCCL)		17	Tension (TENS) (LBF)		2000
Casing Collar Locator (CCL)		1	Shifted Casing Collar Locator (SCCL)		10			
-19			-10					

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DO	System and Miscellaneous	
PP	Depth Offset for Playback Playback Processing	1.1 M NORMAL

Format: CORRELATION Vertical Scale: 1:200 Graphics File Created: 23-May-2008 15:13

OP System Version: 16C0-147 MCM

SHM_GUN SRPC-3547-Q1_2008_OP16 UPCT-A SRPC-3547-Q1_2008_OP16

Input DLIS Files

DEFAULT PERFO_007LUP FN:6 PRODUCER 23-May-2008 14:30 2578.5 M 2474.2 M

Output DLIS Files

DEFAULT PERFO_007PUP FN:10 PRODUCER 23-May-2008 15:13

Company: Esso Australia Pty Ltd

Schlumberger

Well: CBA A-20

Field: Cobia

Rig: Rig 22

Country: Australia

2-7/8" PURE PJO HSD
Perforation Record
24-May-2008