

Company: Esso Australia Pty Ltd.

Well: CBA F1A
Field: Cobia
Rig: ISS Rig 22

Country: Australia

5-1/2" Owen Liner Patch, GR, CCL
2-7/8 HSD Perforation Record.
7-April-2008

Rig: ISS Rig 22
Field: Cobia
Location: Gippsland
Well: CBA F1A
Company: Esso Australia Pty Ltd.

LOCATION			
Gippsland		Elev.:	K.B. 32.4 m
Basin			G.L. -79 m
Bass Strait			D.F. 32.4 m
Permanent Datum:	Mean Sea Level	Elev.:	0 m
Log Measured From:	Rig Floor	32.4 m	above Perm. Datum
Drilling Measured From:	Drill Floor		
State: Victoria	Max. Well Deviation 61 deg	Longitude 148° 18' 32.472"E	Latitude 38° 26' 57.528"S

Logging Date	7-Apr-2008								
Run Number	1								
Depth Driller	3541 m								
Schlumberger Depth	3404 m								
Bottom Log Interval	3391 m								
Top Log Interval	3389 m								
Casing Fluid Type	Seawater								
Salinity									
Density	1.02 g/cm3								
Fluid Level									
BIT/CASING/TUBING STRING									
Bit Size	6.750 in								
From	3286 m								
To	3541 m								
Casing/Tubing Size	5.500 in								
Weight	17 lbm/ft								
Grade	K-55								
From	3134.66 m								
To	3539.2 m								
Maximum Recorded Temperatures									
Logger On Bottom	Time								
Unit Number	Location								
Recorded By	3827	AUSL							
	B. Donahoe, C. Rowand								
Witnessed By	Mr D. Broomfield, Mr B. Robinson								

PVT DATA			Run 1	Run 2	R
Oil Density					
Water Salinity					
Gas Gravity					
Bo					
Bw					
1/Bg					
Bubble Point Pressure					
Bubble Point Temperature					
Solution GOR					
Maximum Deviation	61 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: 10-APR-2008 15:24:43

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-E	Type:	CMTD-B/A	Type:	2-32ZT
Serial Number:	794	Serial Number:	1711	Serial Number:	24187
Calibration Date:	08-NOV-2007	Calibration Date:	11-Mar-2008	Length:	6345.94 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 Trip To the Well
Reference Log Name:	Cobia F1A Correlation Logs
Reference Log Run Number:	Not provided
Reference Log Date:	26-Aug-1999
Subsequent Trip Down Log Correction:	2.00 M






















Depth Control Remarks

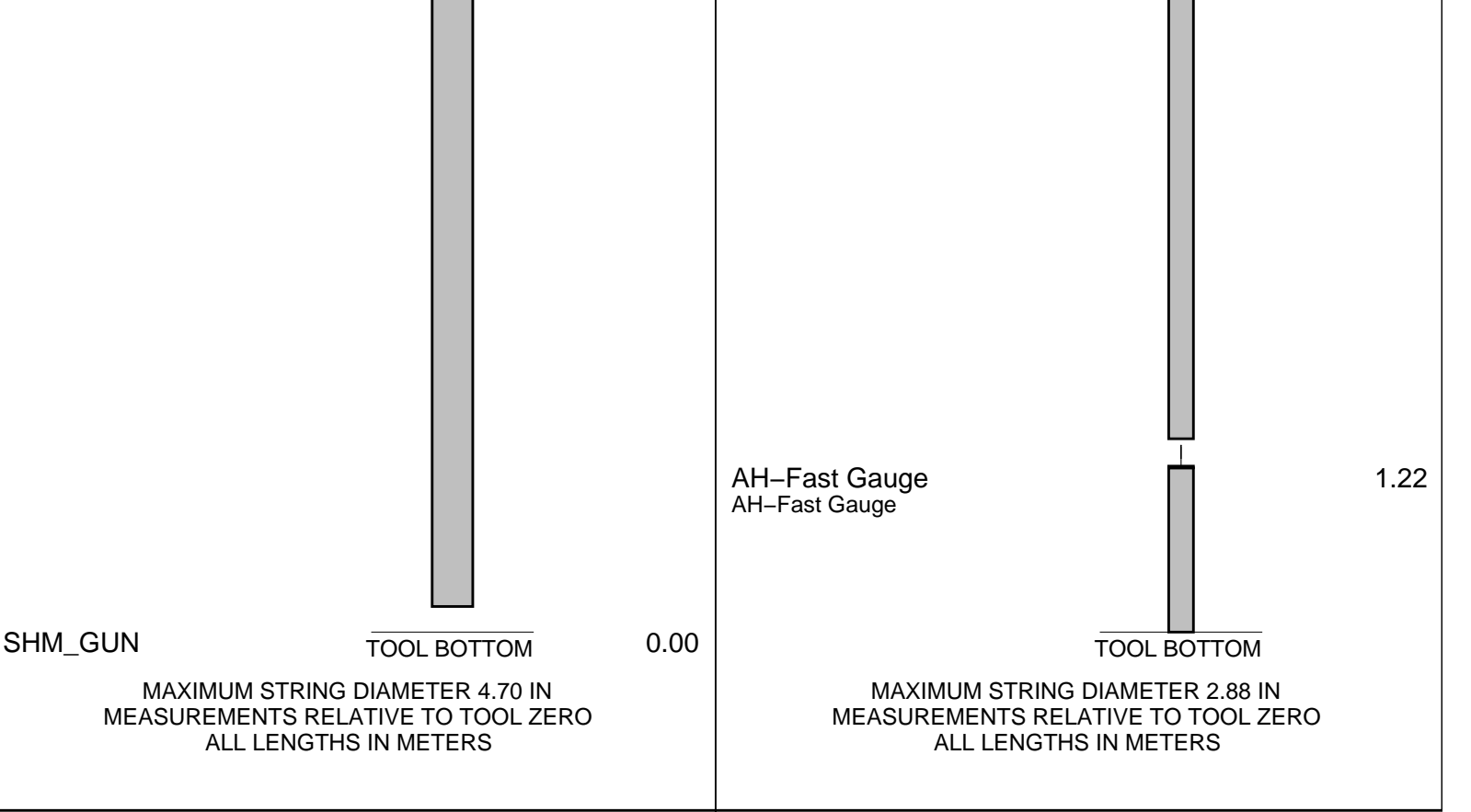
1. All Schlumberger depth policies are known and followed.
2. IDW used as primary depth control.
3. Z Chart used as secondary depth control.
- 4.
- 5.
- 6.

DISCLAIMER

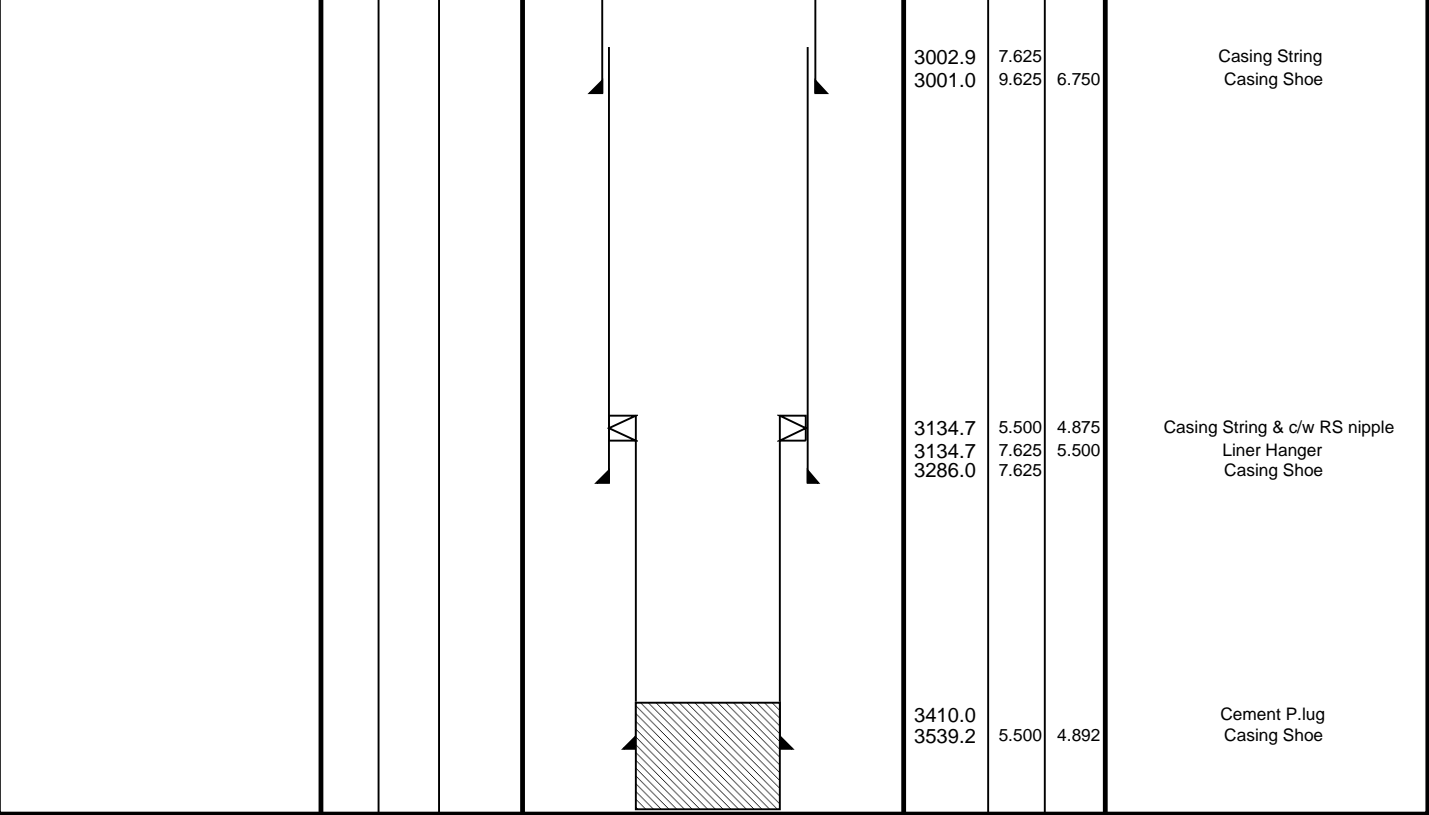
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (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	OTHER SERVICES2
OS1:	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Log correlated to Solar composite Log dated 26–Aug–99 provided by client.	
Objectives: RIH with Dummy Patch to HUD in preparation to set the 5–1/2" Owen casing Patch to isolate existing perforations	
Set the patches in two continuous runs over the following interval.	
Interval 1: 3377m to 3386.7m MDKB. Interval 2: 3358 to 3367.7m Safe used	
Run 2–7/8 HSD with Pure and perforate zone 3389 to 3391m MDKB using secure	

Run 1: Dummy Patch.					
Run 2:Casing patch.CCL to top of casing patch: 5.06 m. CCL stop depth: 3371.94 m					
Run 3:Casing Patch.CCL to top of casing patch: 5.06m.CCL stop depth: 3352.94 m					
Run 4: Dummy Gun run to HUD.					
Run 7: Perforate 3389 – 3391 with2–7/8 HSD Powerjet Omega charges with Pure charges and pressure gauge included.					
Schlumberger Crew:					
Peter Battams, Paul Flood, Dan Hiskins, Luke Doolley					
RUN 1			RUN 2		
SERVICE ORDER #: PROGRAM VERSION: 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		
PEH–A PEH–A		17.22	MH–32 MH–32		10.77
AH–64		16.67	ERS ERS–E 1107		10.46
PGGT–D PGGC 317 PGGH–D 313	Gamma Ray Casing Co Tension	 — 1.07 — TOOL ZERO	UPCT–A UPCC–A 342 UPCH–A 403	Gamma Ray Casing Co Tension	 — 0.79 — TOOL ZERO
AH–283		14.48			
AH–46		14.34			
AH–D/Port Firing Head		14.22	AH–WPSA–BA AH–WPSA–BA 4002		8.71
AH–Pressure Housing/EFI Head		13.92			
AH–SAFE Adapter		13.54			
SAFE AH–MSST AH–MSST	  	13.34 13.34	AH–Firing Head AH–Firing Head	 	8.01
			SHM_GUN GUN	 	7.57
AH–Casing Patches AH–Casing Patches	 	9.98			



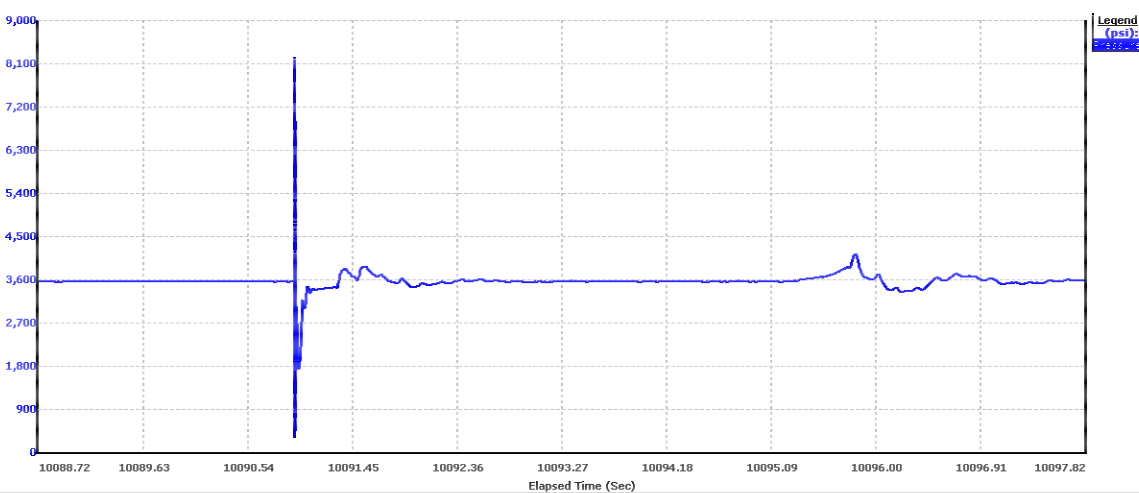
Production String	(in)		(m)		Well Schematic				(m)		(in)		Casing String
	OD	ID	MD						MD	OD	ID		
									12.7 18.0	13.375 9.625	6.750		Casing String
									948.0	13.375			Casing Shoe



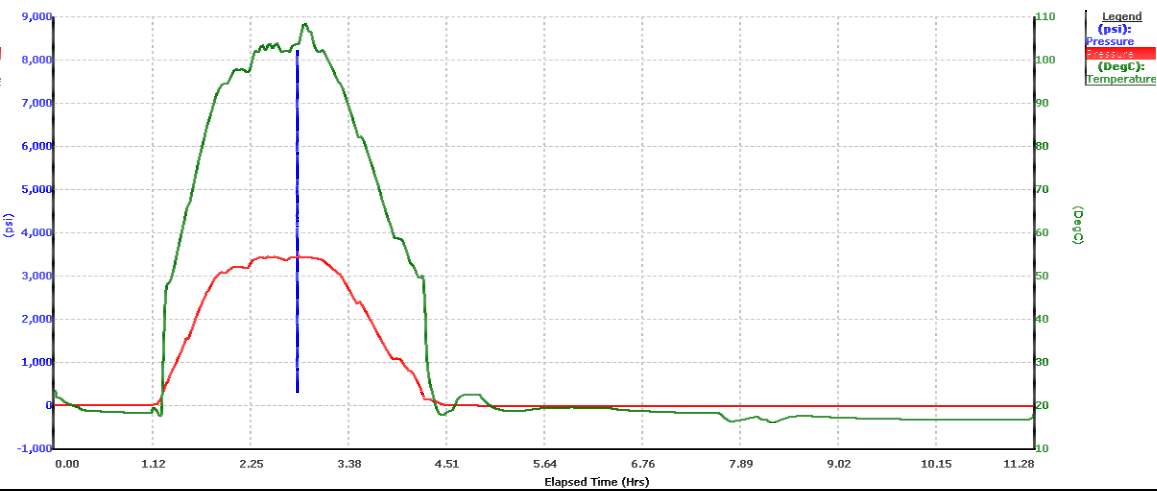
Schlumberger

Pressure Temperature Gauge Burst Data

MAXIS Field Log



MAXIS Field Log

2 7/8" HSD Pure & Powerjet Omega
Shooting Pass

MAXIS Field Log

PERFO2 Operational Summary Listing

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

GUN1 Used 3389.0 3389.0 Tue Apr 08 21:06:07 2008

Company: Esso Australia Pty Ltd.

Well: CBA F-1

Output DLIS Files

DEFAULT PERFO_218LUP FN:233 PRODUCER 08-Apr-2008 21:02 3394.1 M 3300.8 M

OP System Version: 16C0-147

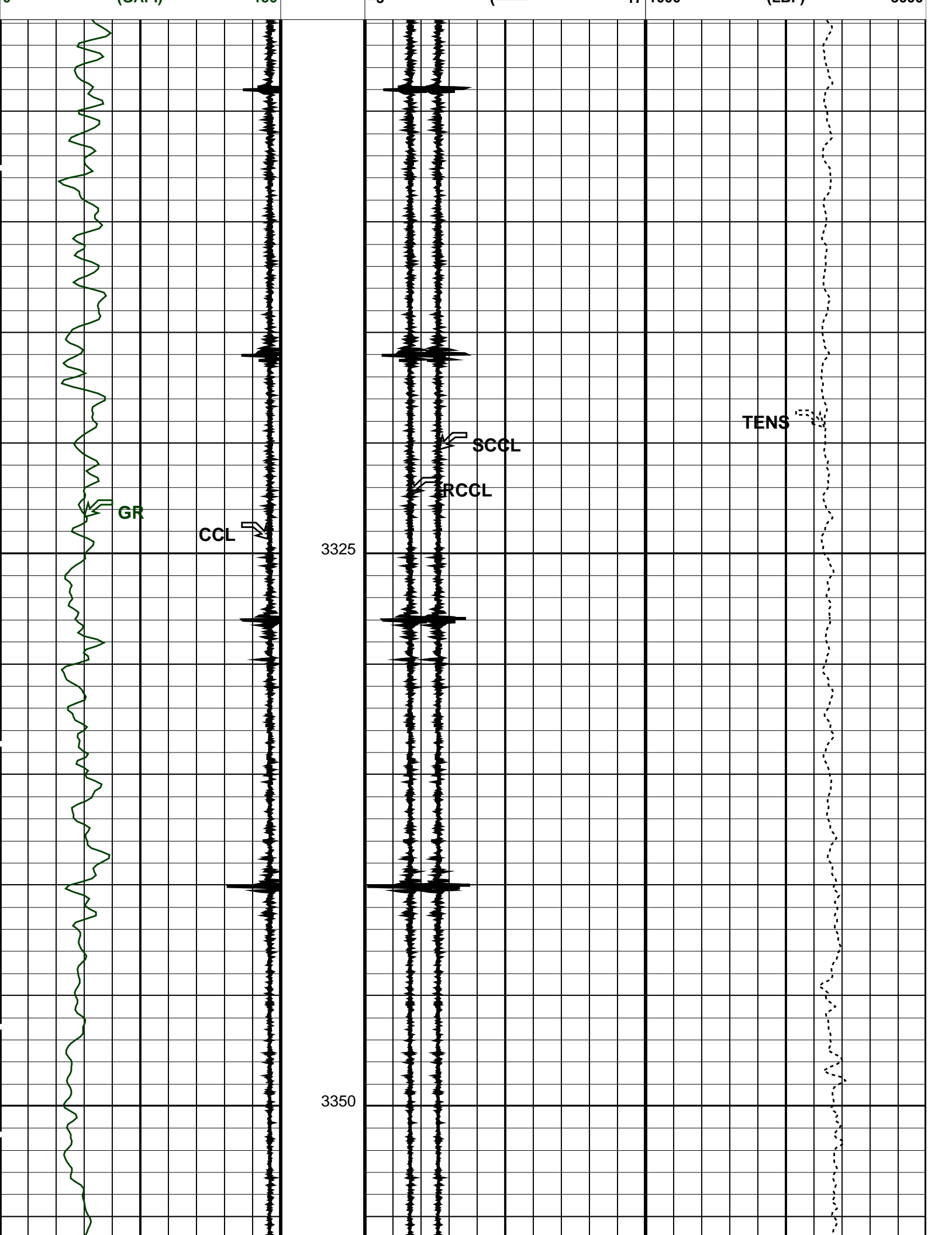
MCM

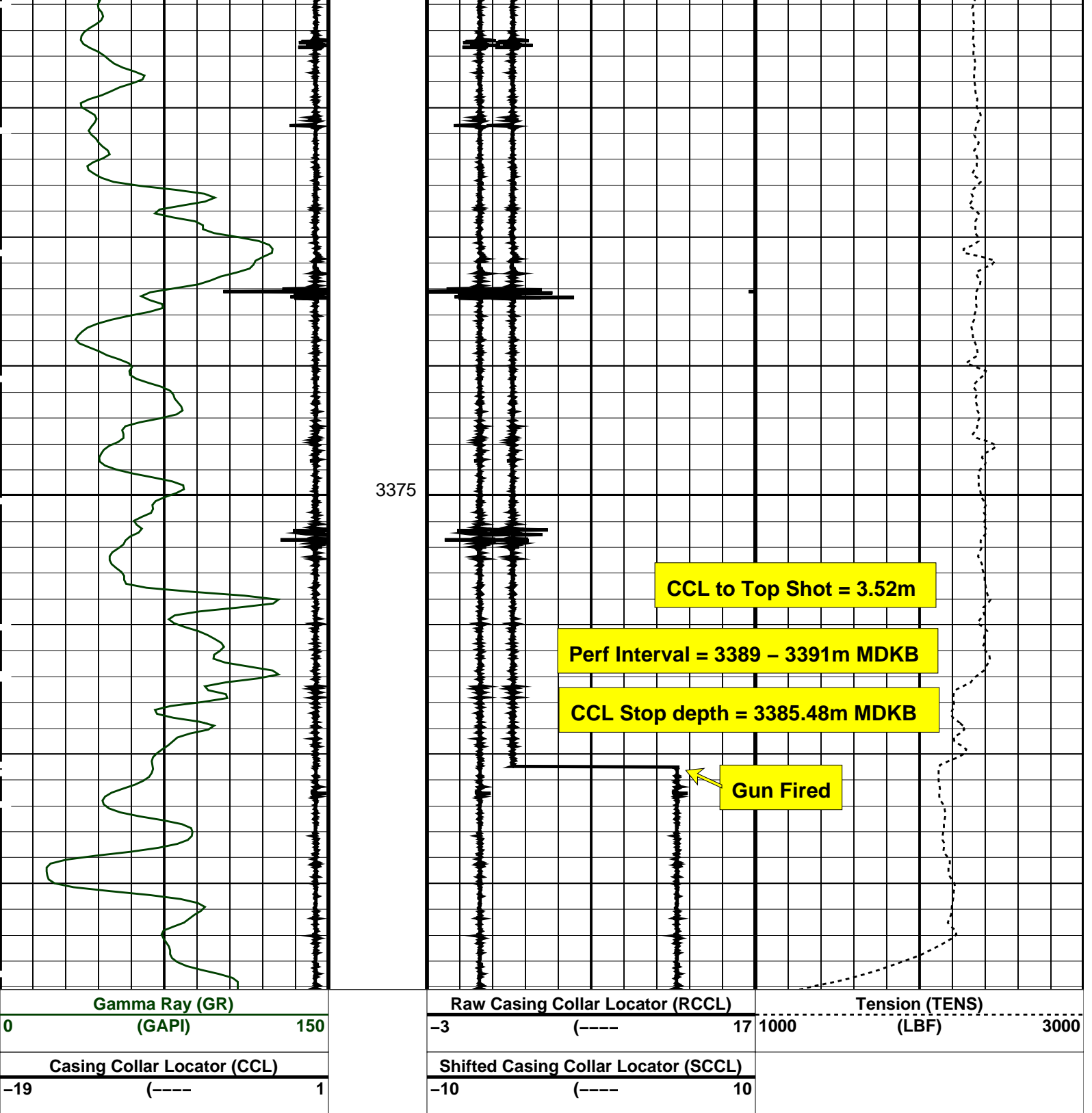
SHM_GUN 16C0-147 UPCT-A 16C0-147
ERS 16C0-147

PIP SUMMARY

Time Mark Every 60 S

Casing Collar Locator (CCL)			Shifted Casing Collar Locator (SCCL)		
-19	(----	1	-10	(----	10
Gamma Ray (GR)			Raw Casing Collar Locator (RCCL)		
0	(GAPI)	150	-3	(----	17
			Tension (TENS)		
			1000	(I BE)	3000





PIP SUMMARY

Time Mark Every 60 S

Format: CORRELATION Vertical Scale: 1:200

Graphics File Created: 08-Apr-2008 21:02

OP System Version: 16C0-147

MCM

SHM_GUN 16C0-147
ERS 16C0-147

UPCT-A

16C0-147

Output DLIS Files

DEFAULT PERFO_218LUP

FN:233 PRODUCER 08-Apr-2008 21:02

Company: Esso Australia Pty Ltd.

Well: CBA F-1

Output DLIS Files

DEFAULT PERFO_216LUP FN:231 PRODUCER 08-Apr-2008 20:49 3394.7 M 3326.3 M

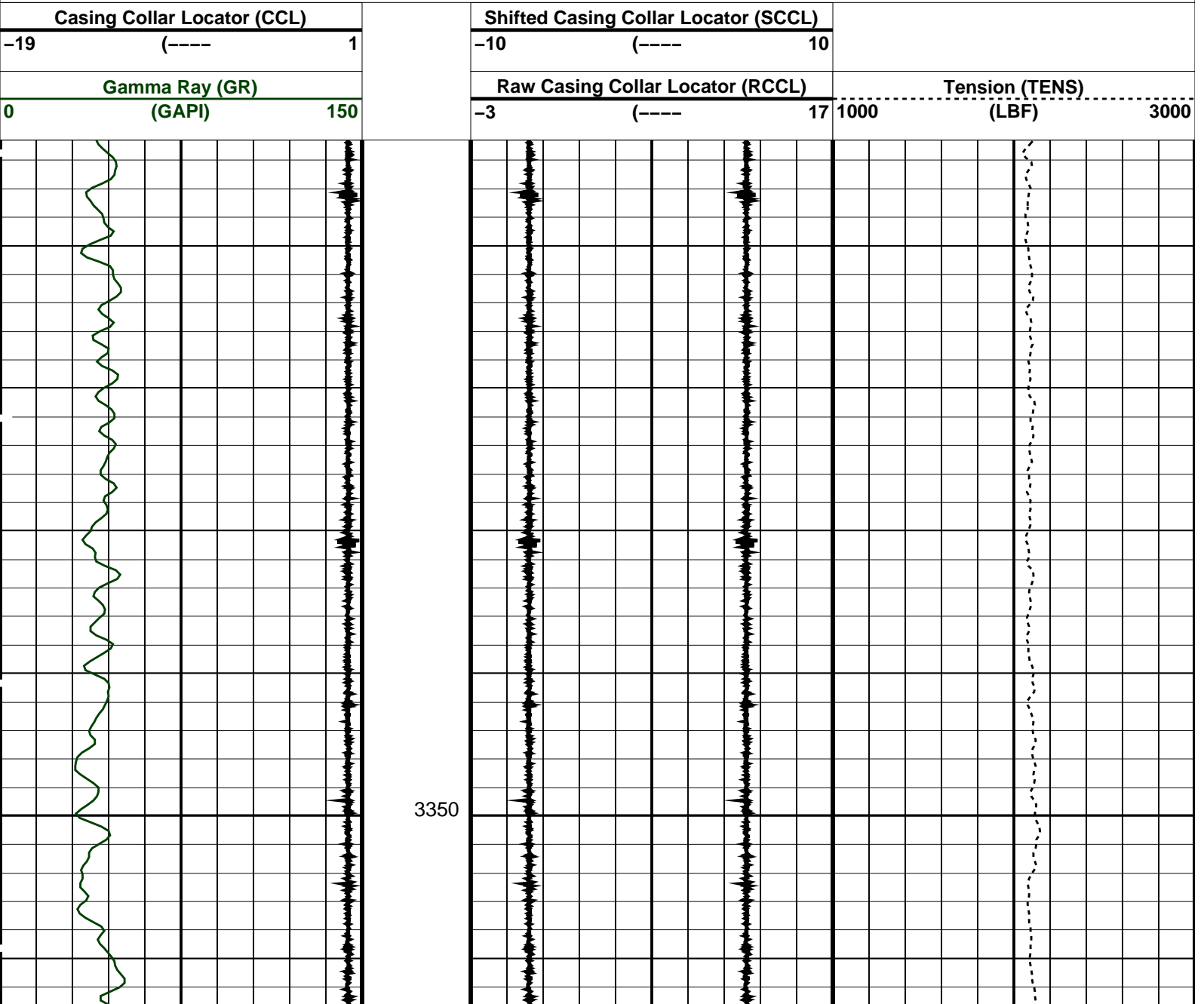
OP System Version: 16C0-147

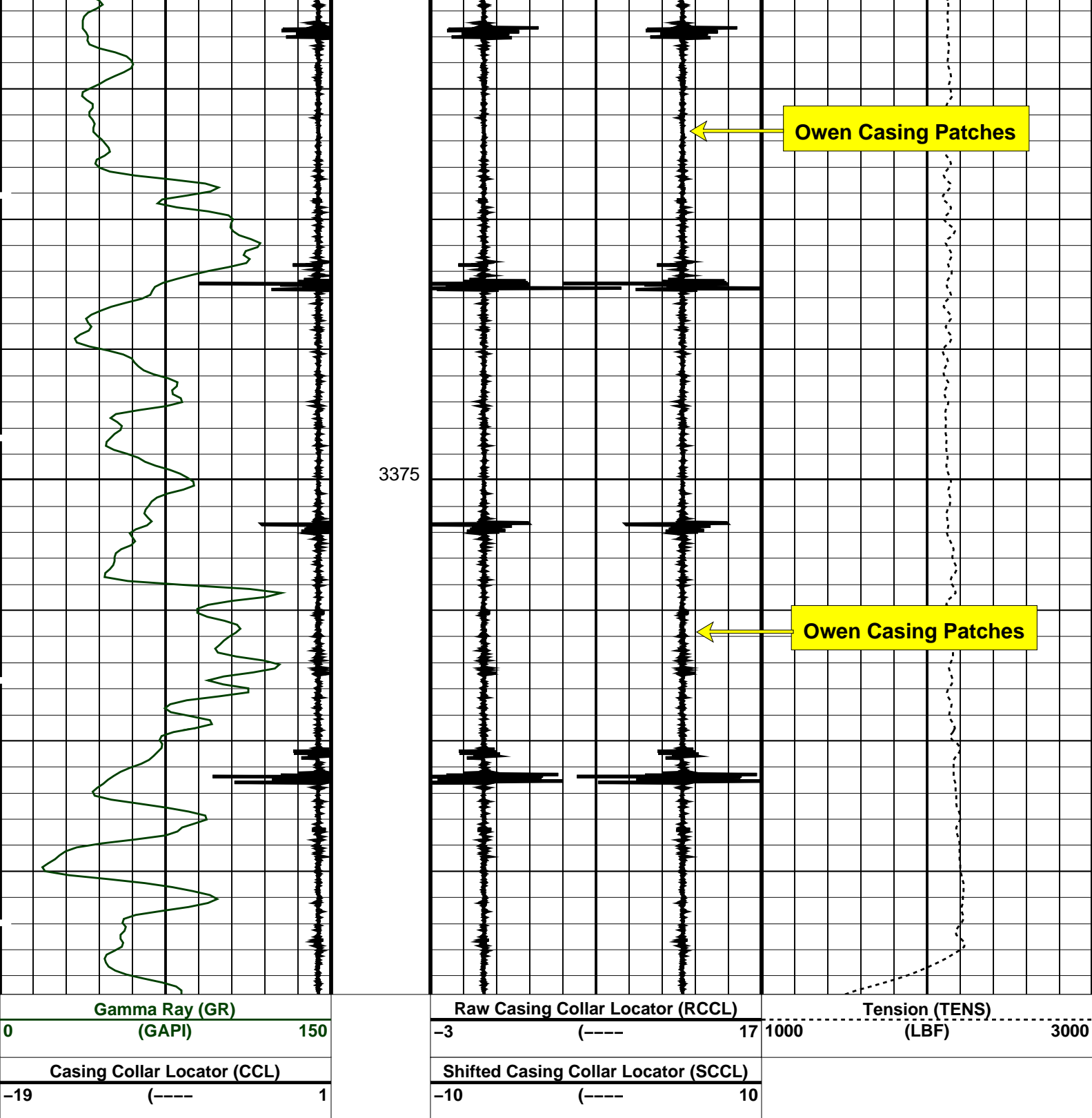
MCM

SHM_GUN 16C0-147 UPCT-A 16C0-147
ERS 16C0-147

PIP SUMMARY

Time Mark Every 60 S





PIP SUMMARY			
Time Mark Every 60 S			
Format: CORRELATION		Vertical Scale: 1:200	
Graphics File Created: 08-Apr-2008 20:49			
OP System Version: 16C0-147			
MCM			
SHM_GUN	16C0-147	UPCT-A	16C0-147
ERS	16C0-147		
Output DLIS Files			
DEFAULT	PERFO_216LUP	FN:231	PRODUCER 08-Apr-2008 20:49

2 7/8 HSD Dummy Gun Pass
Correlation

MAXIS Field Log

Company: Esso Australia Pty Ltd.

Well: CBA F-1

Input DLIS Files

DEFAULT	PERFO_204LUP	FN:211	PRODUCER	08-Apr-2008 02:38	3395.8 M	2993.7 M
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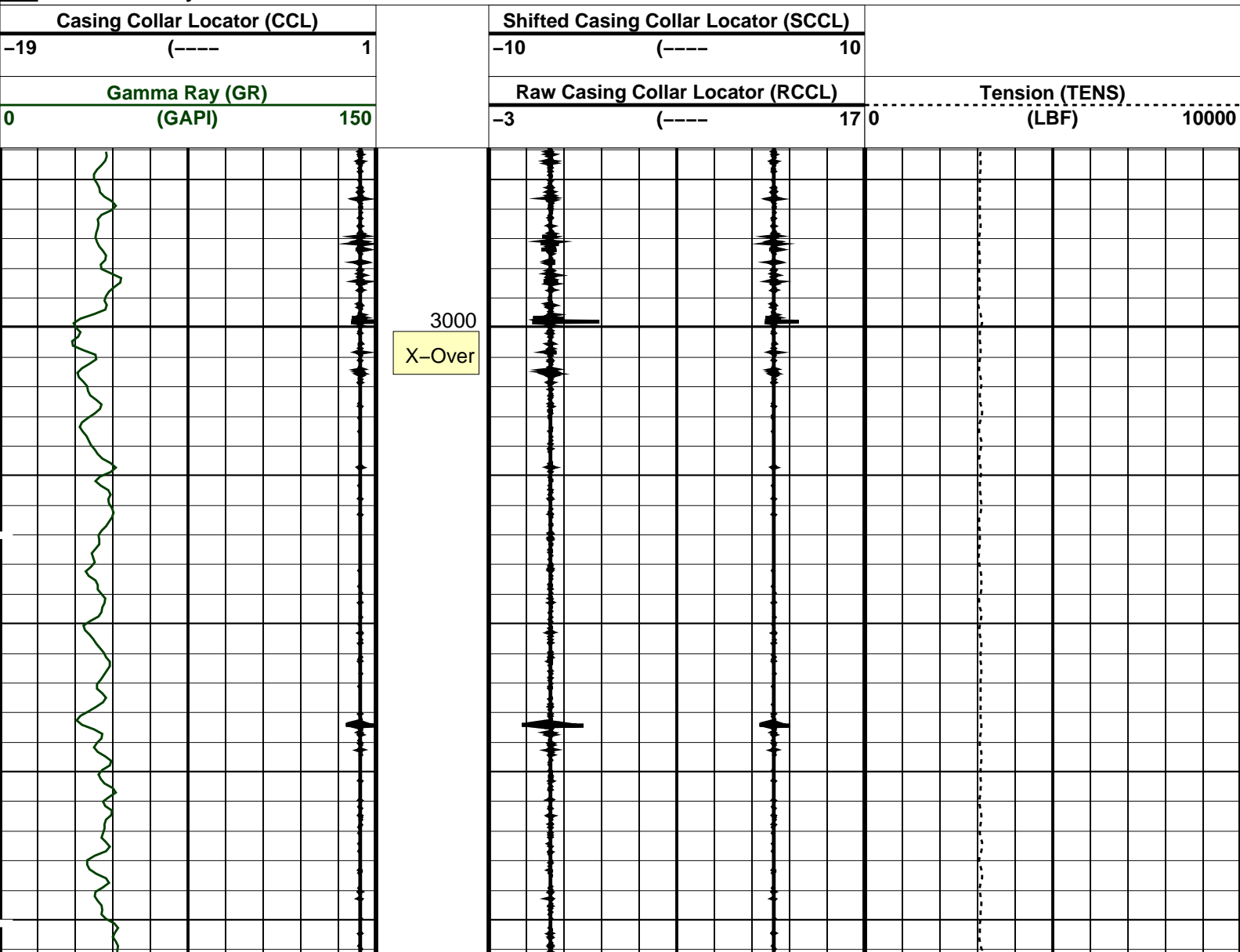
Output DLIS Files

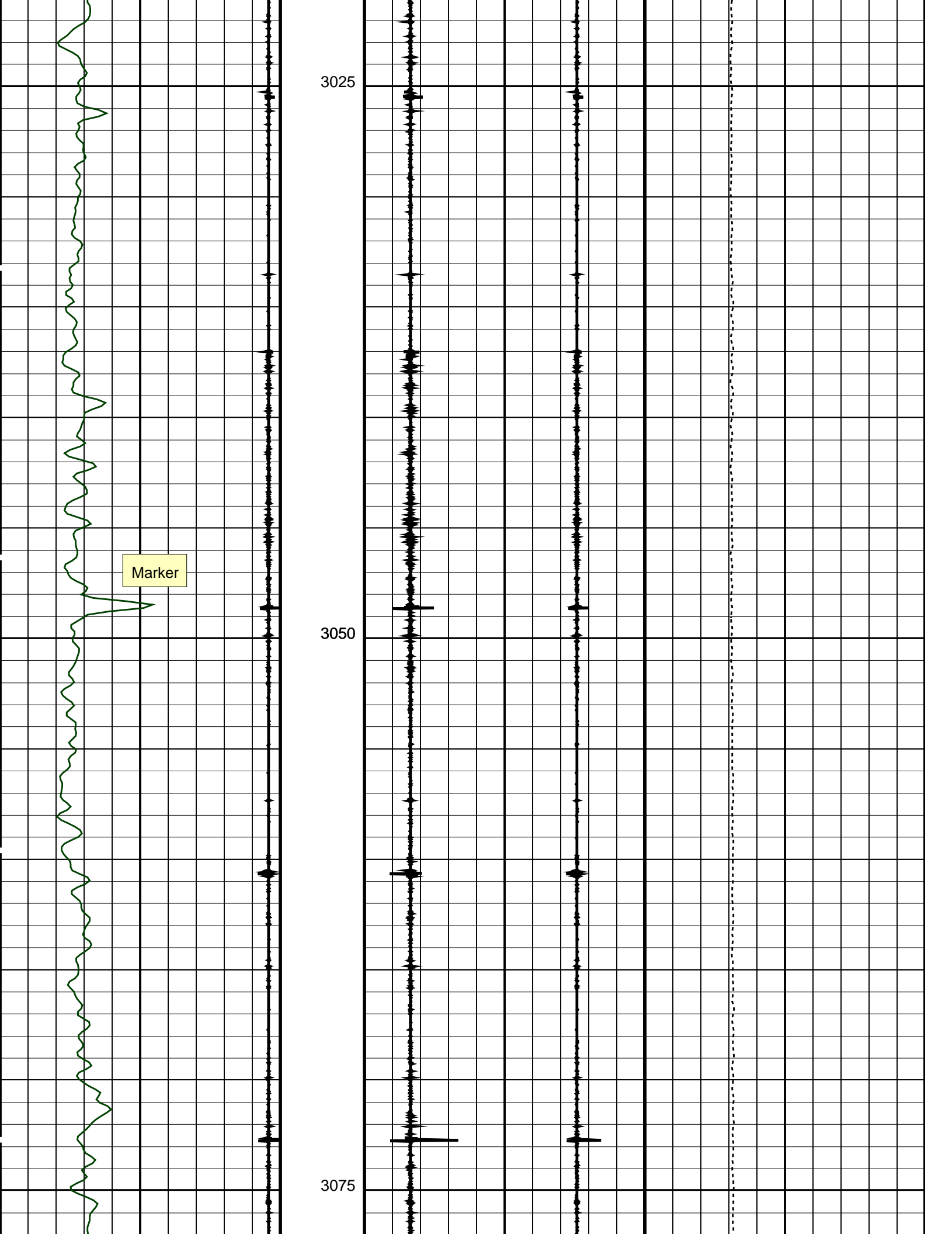
DEFAULT	PERFO_207PUP	FN:214	PRODUCER	08-Apr-2008 04:01	3395.9 M	2993.9 M
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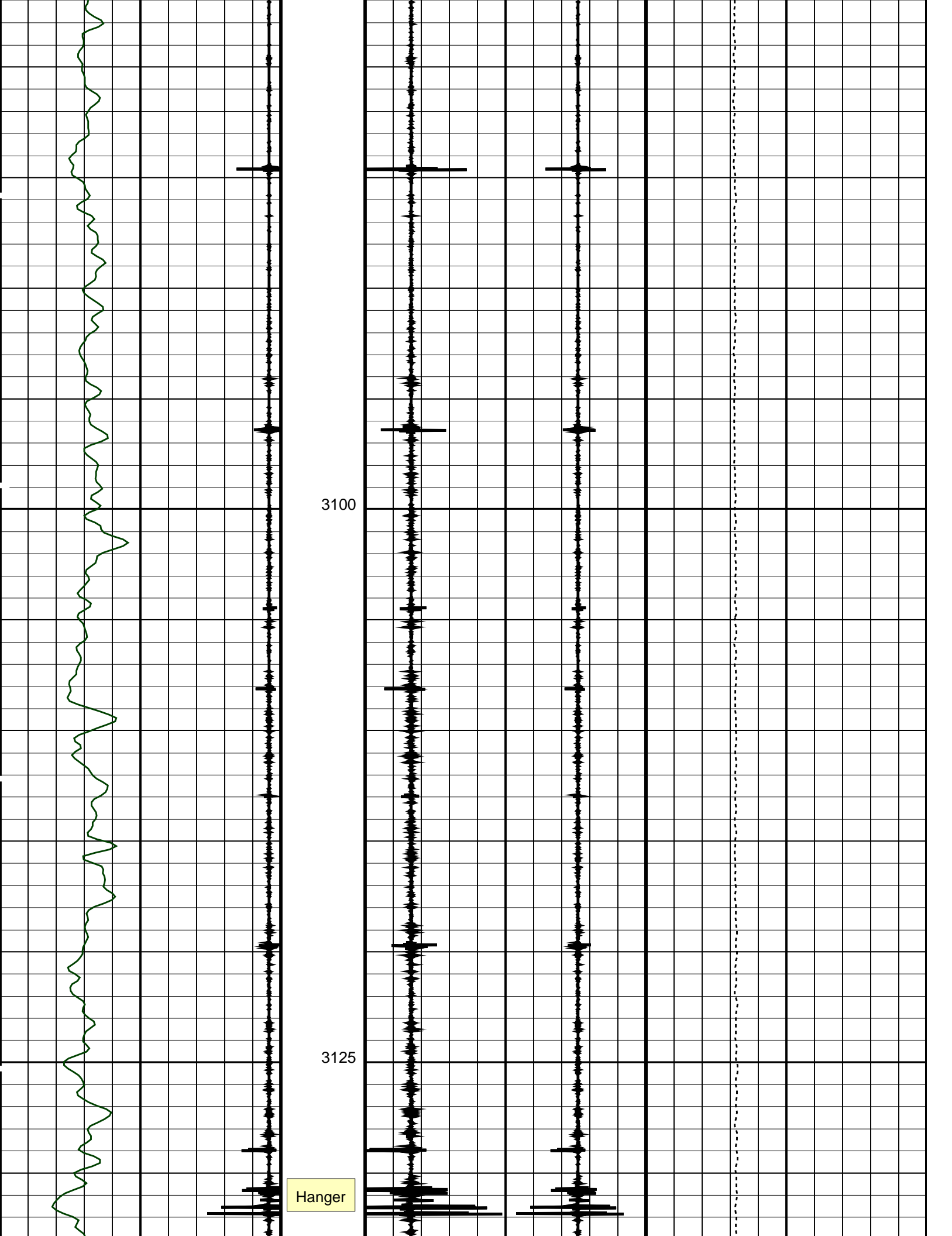
OP System Version: 16C0-147
MCM

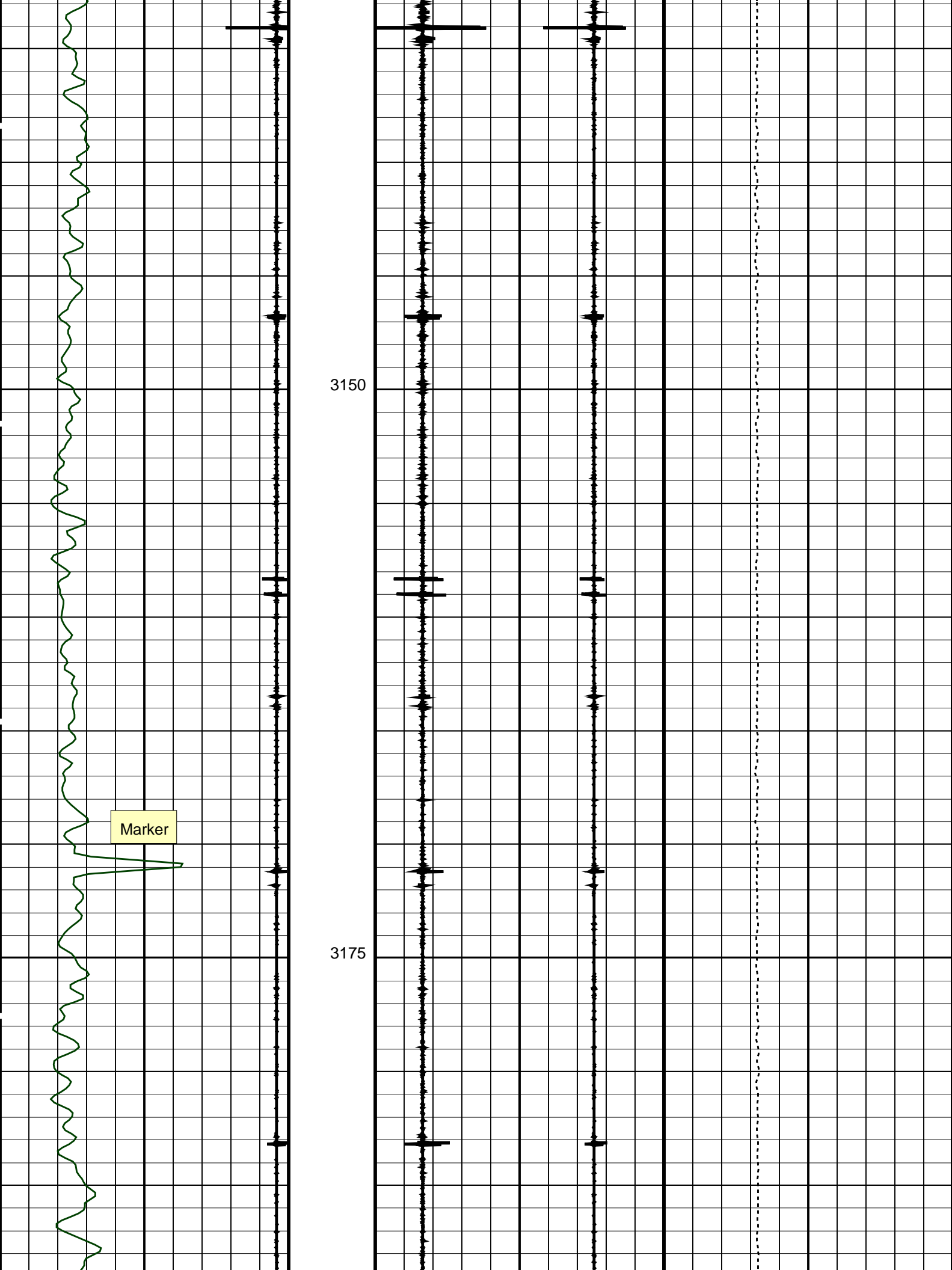
SHM_GUN	16C0-147	SAFE	16C0-147
PGGT-D	16C0-147		

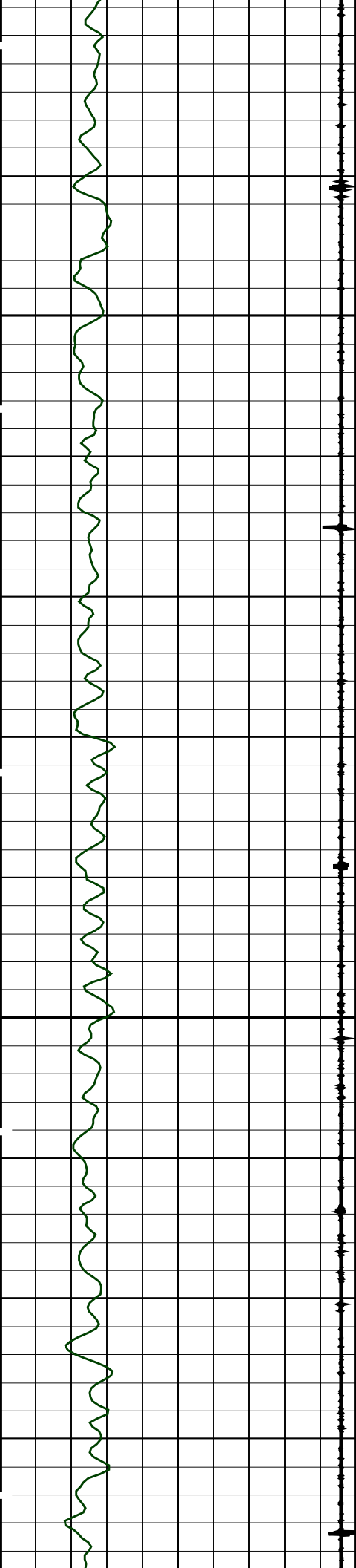
PIP SUMMARY

☒ Time Mark Every 60 S



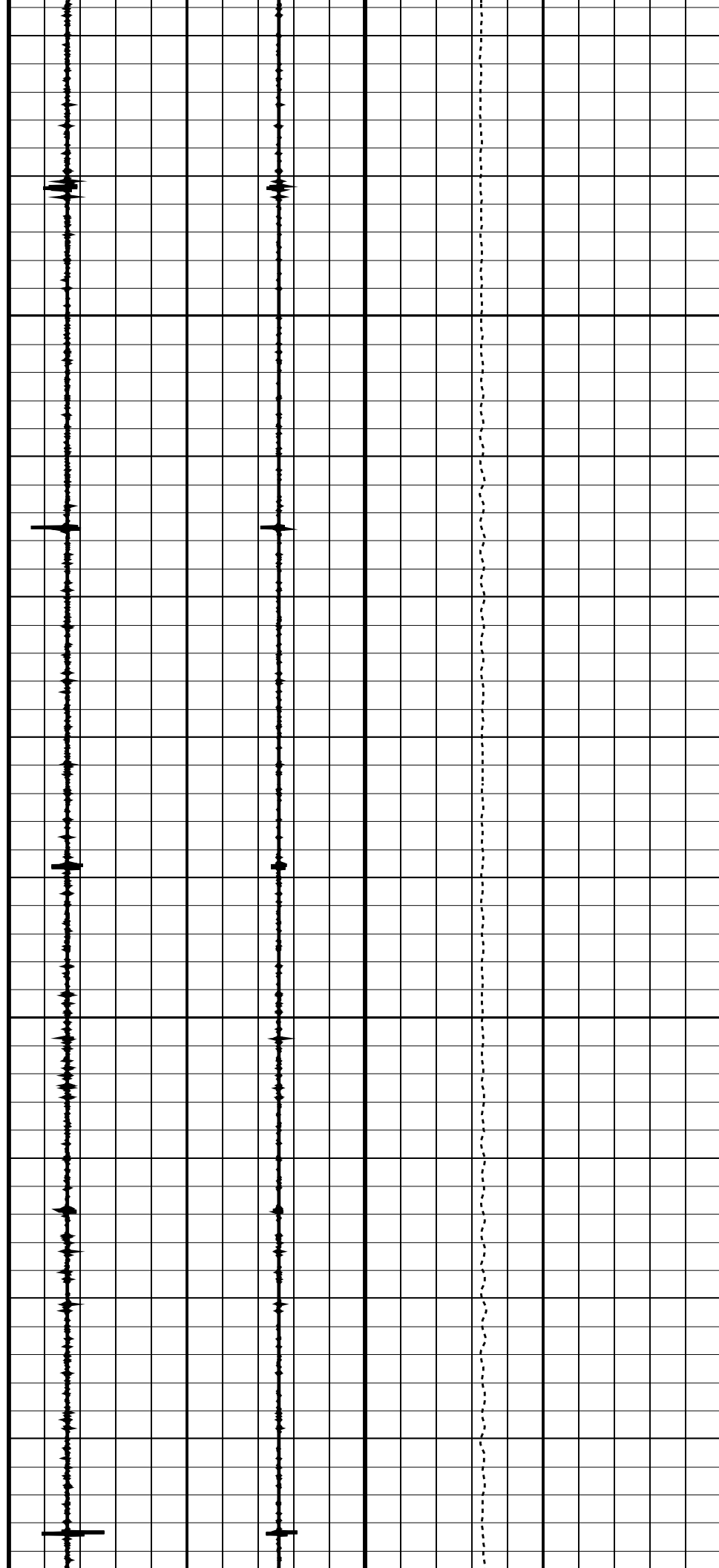


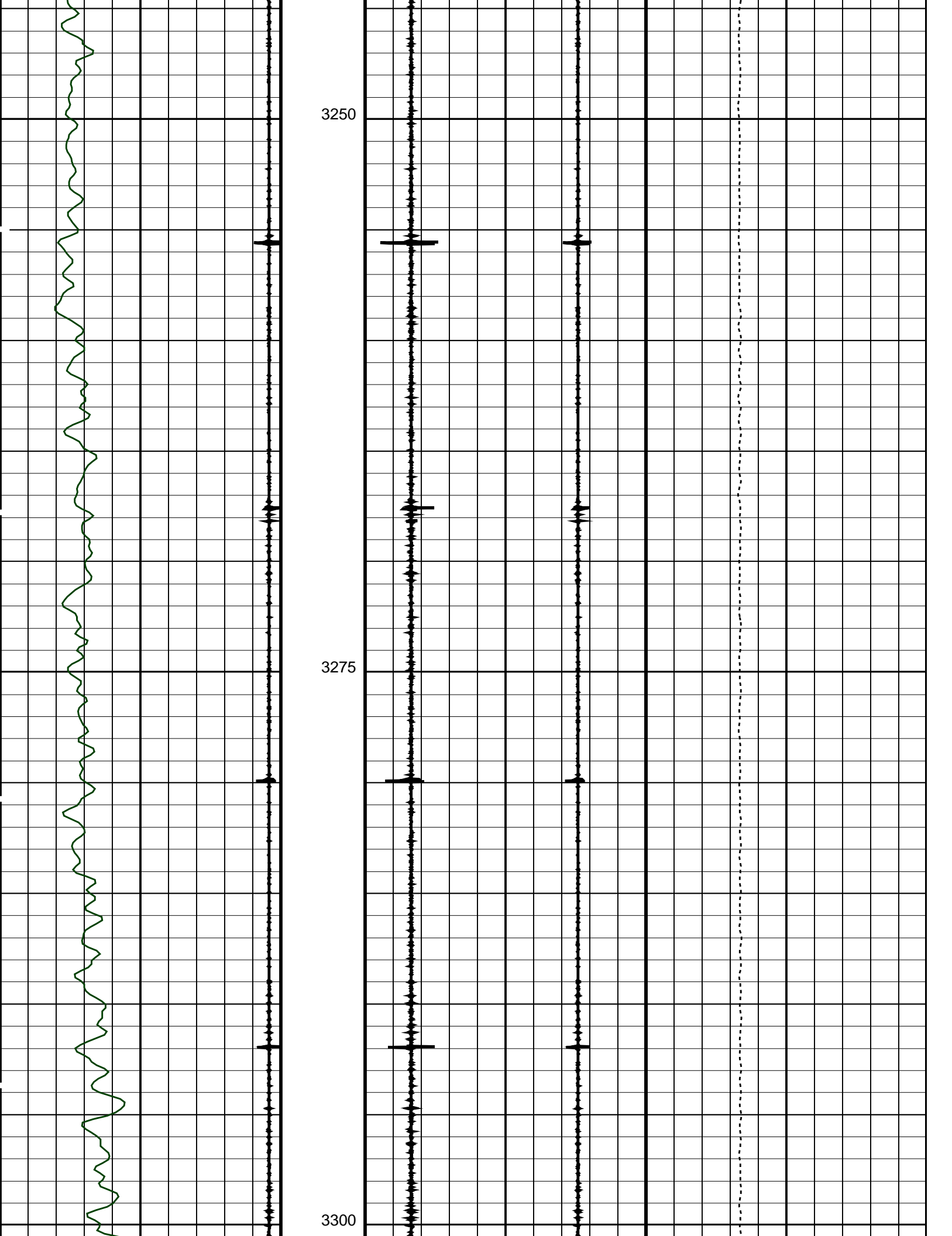


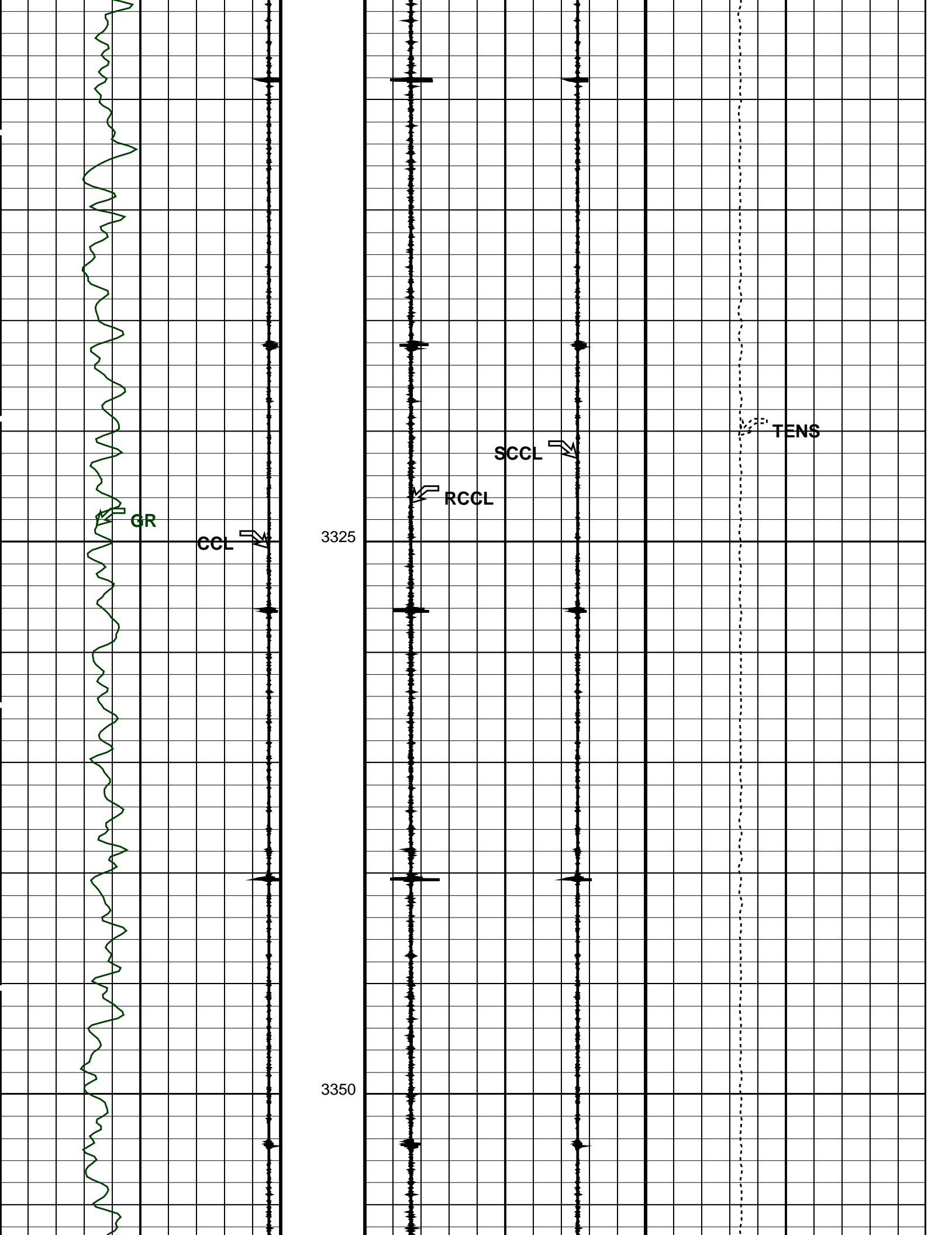


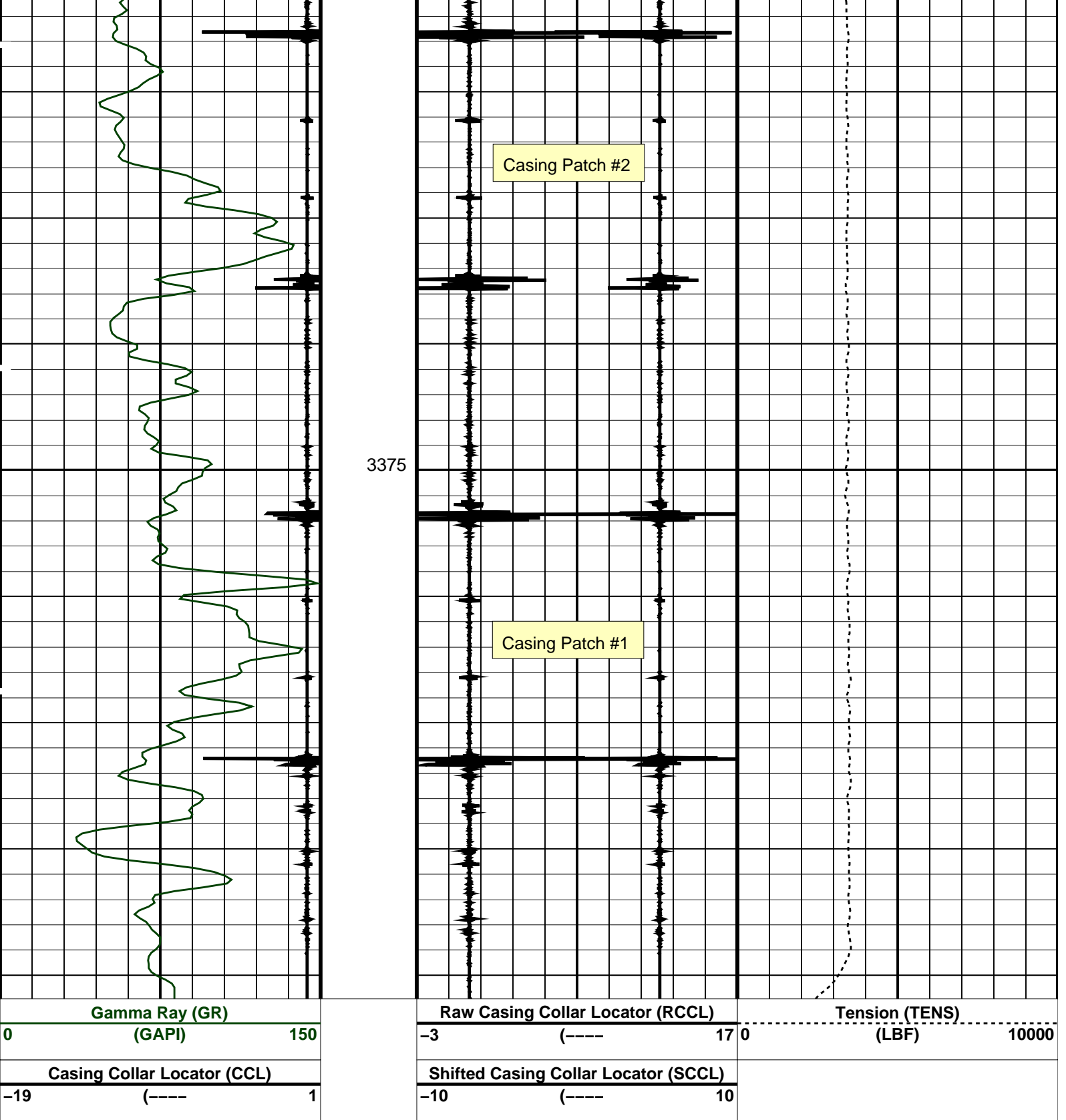
3200

3225









Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DO	System and Miscellaneous	
PP	Depth Offset for Playback Playback Processing	0.2 M NORMAL

Format: CORRELATION Vertical Scale: 1:200 Graphics File Created: 08-Apr-2008 04:02

Input DLIS Files					
DEFAULT	PERFO_204LUP	FN:211	PRODUCER	08-Apr-2008 02:38	3395.8 M 2993.7 M
Output DLIS Files					
DEFAULT	PERFO_207PUP	FN:214	PRODUCER	08-Apr-2008 04:01	



Owen Casing Patch # 2

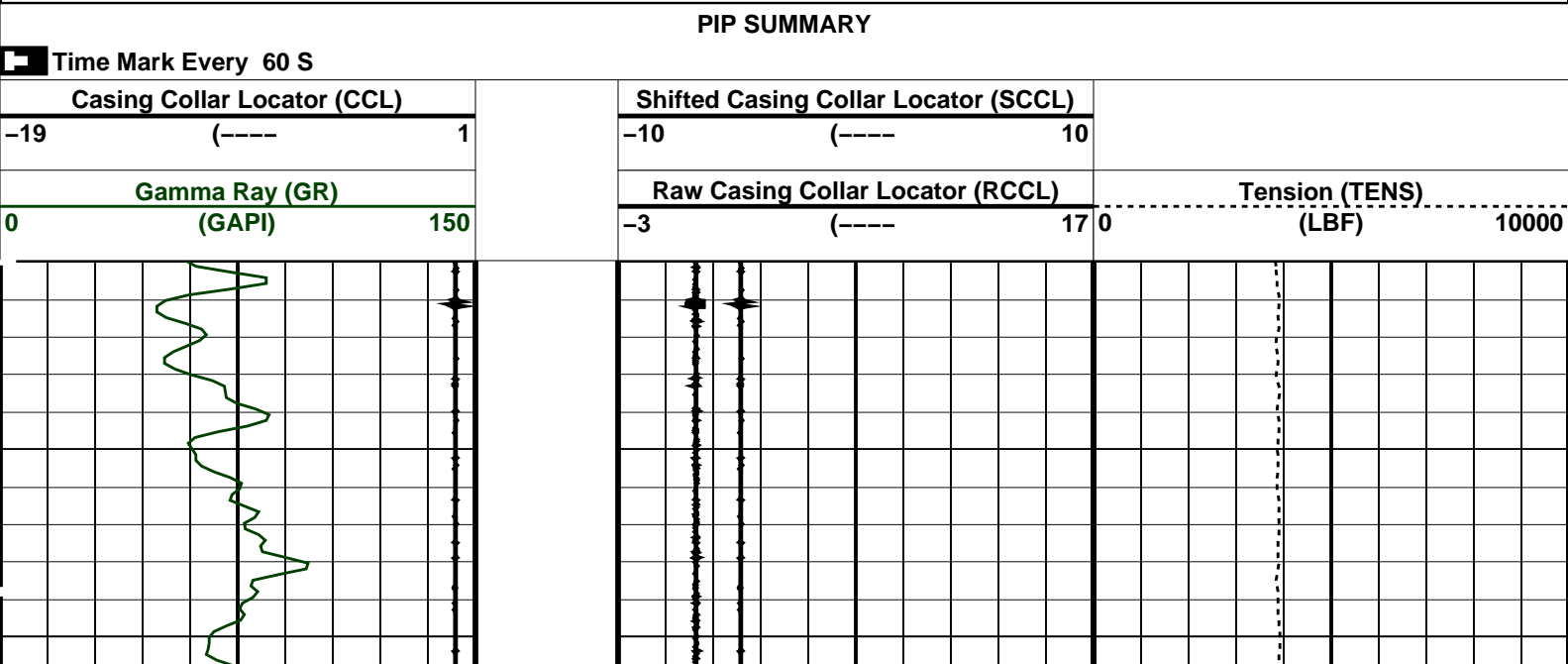
Log Out Of Position

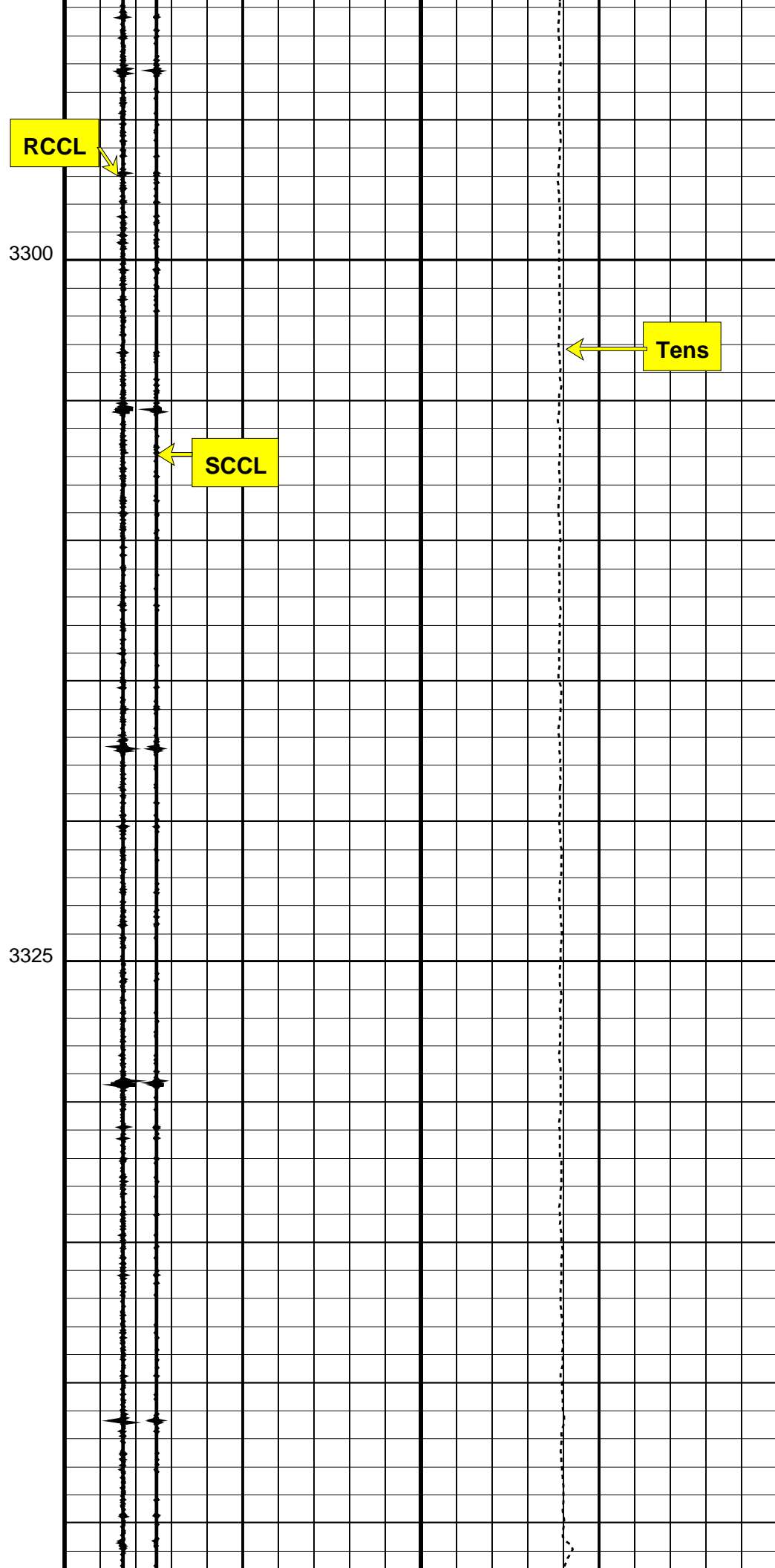
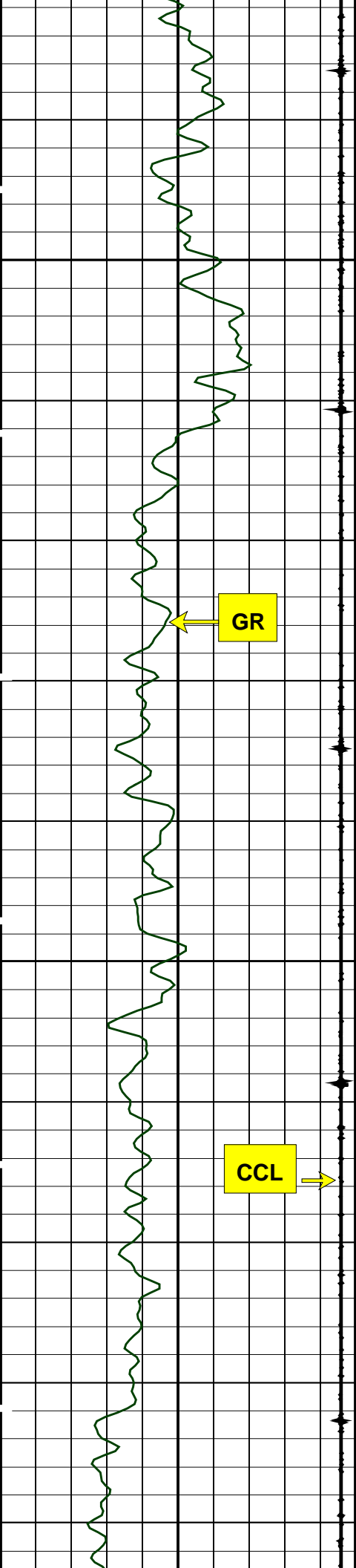
MAXIS Field Log

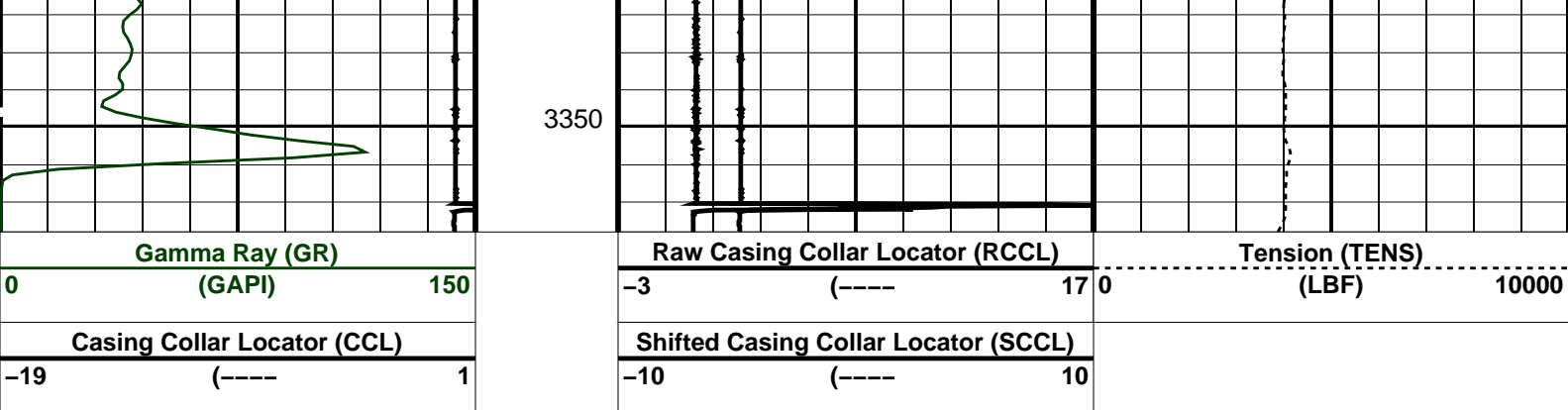
PERFO2 Operational Summary Listing

Device	Status	Req Depth (M)	Obs Depth (M)	Time Used
Casing Patch#2	Used	3358.0	3358.0	Mon Apr 07 22:23:54 2008

Output DLIS Files						
DEFAULT	PERFO_190LUP	FN:197	PRODUCER	07-Apr-2008 22:24	3352.8 M	3280.0 M
OP System Version: 16C0-147						
MCM						
SHM_GUN	16C0-147	SAFE	16C0-147			
PGGT-D	16C0-147					







PIP SUMMARY

Time Mark Every 60 S

Format: CORRELATION Vertical Scale: 1:200

Graphics File Created: 07-Apr-2008 22:24

OP System Version: 16C0-147

MCM

SHM_GUN 16C0-147 SAFE 16C0-147
PGGT-D 16C0-147

Output DLIS Files

DEFAULT PERFO_190LUP FN:197 PRODUCER 07-Apr-2008 22:24

Schlumberger

Owen Casing Patch # 2
Log Into Position

MAXIS Field Log

Company: Esso Australia Pty Ltd.

Well: CBA F-1

Output DLIS Files

DEFAULT PERFO_189LUP FN:196 PRODUCER 07-Apr-2008 22:17 3365.0 M 3353.0 M

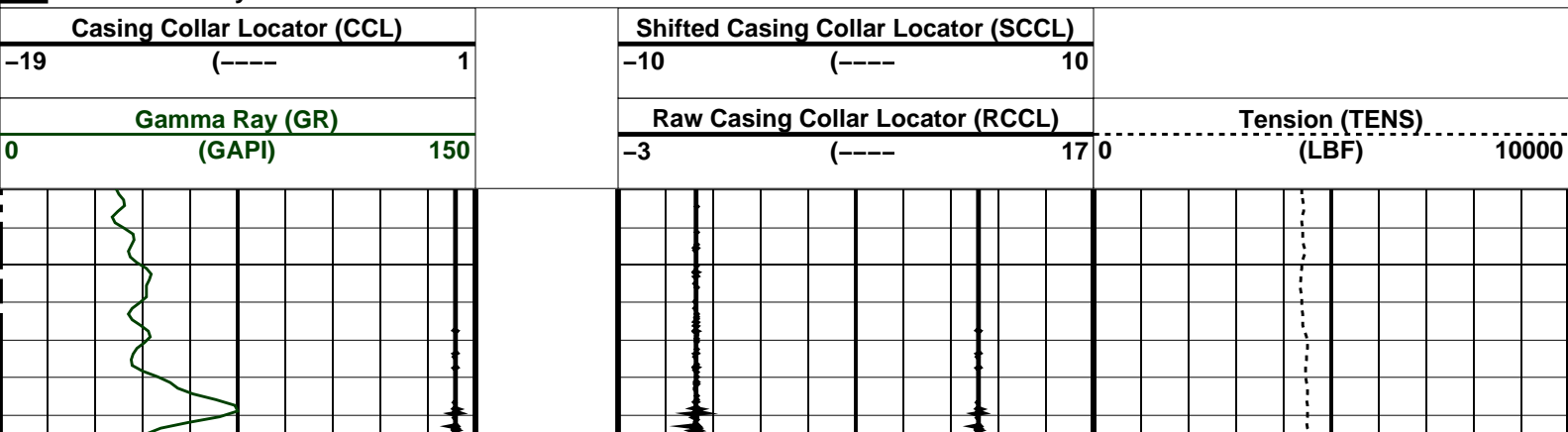
OP System Version: 16C0-147

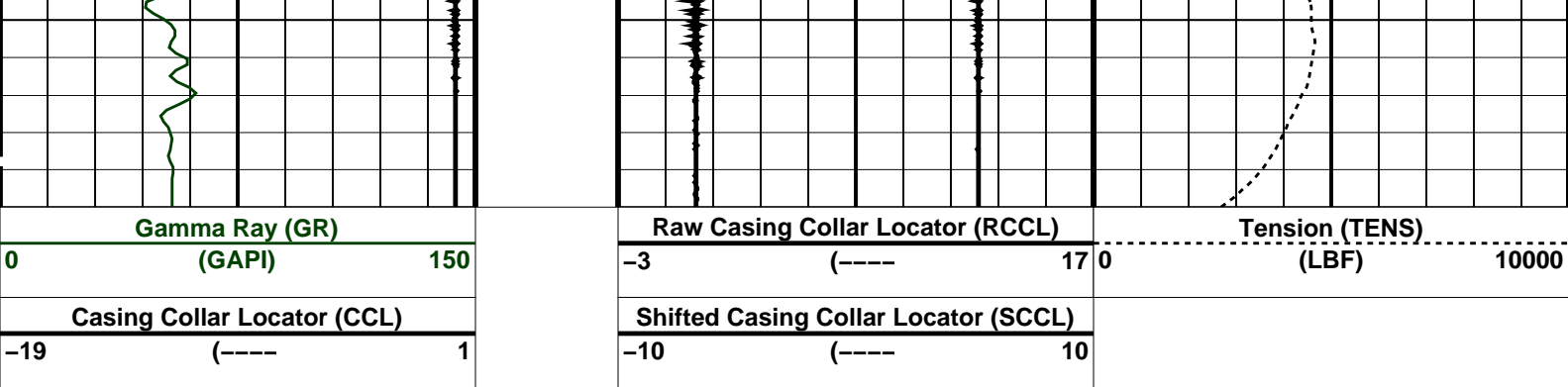
MCM

SHM_GUN 16C0-147 SAFE 16C0-147
PGGT-D 16C0-147

PIP SUMMARY

Time Mark Every 60 S





PIP SUMMARY

Time Mark Every 60 S
Format: CORRELATION Vertical Scale: 1:200 Graphics File Created: 07-Apr-2008 22:17

OP System Version: 16C0-147
MCM

SHM_GUN 16C0-147 SAFE 16C0-147
PGGT-D 16C0-147

Output DLIS Files

DEFAULT PERFO_189LUP FN:196 PRODUCER 07-Apr-2008 22:17



Owen Casing Patch # 2
Correlation

MAXIS Field Log

Company: Esso Australia Pty Ltd. Well: CBA F-1

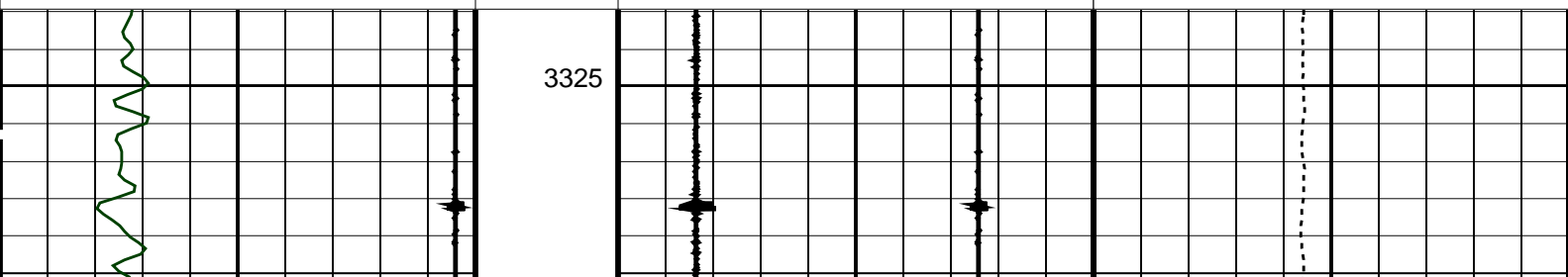
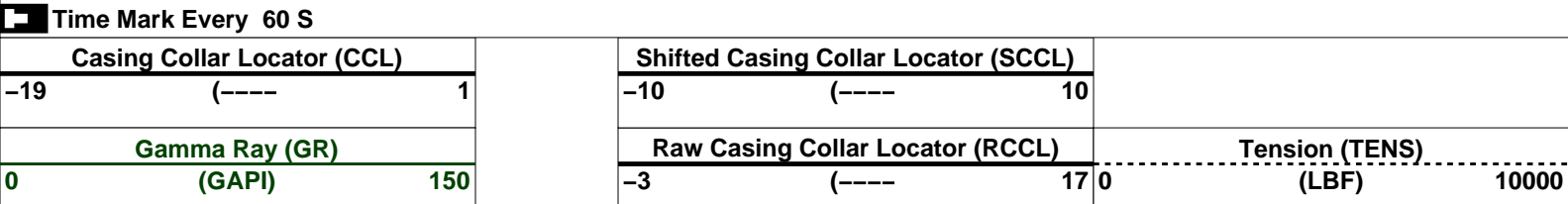
Output DLIS Files

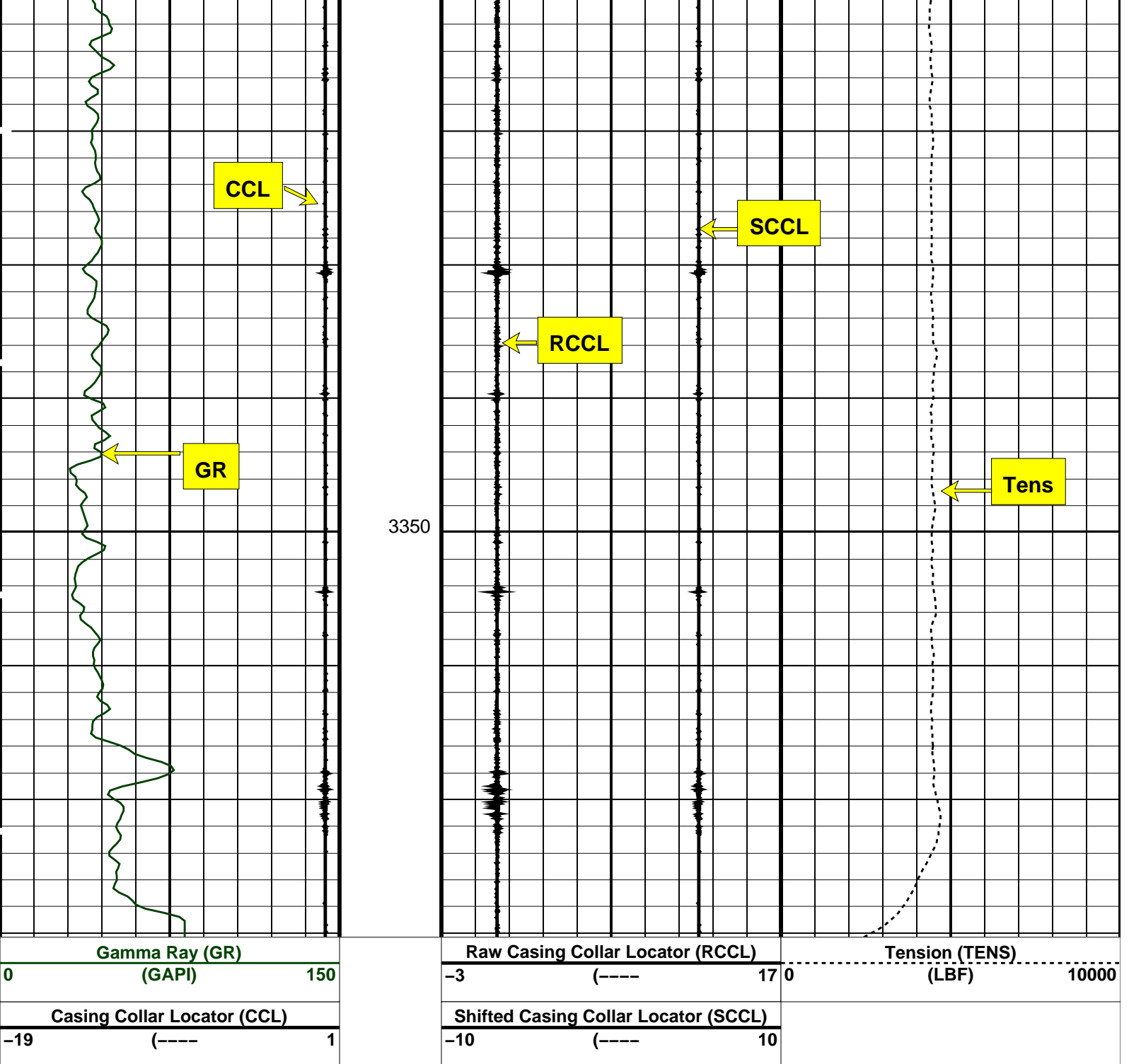
DEFAULT PERFO_187LUP FN:194 PRODUCER 07-Apr-2008 22:06 3365.1 M 3322.9 M

OP System Version: 16C0-147
MCM

SHM_GUN 16C0-147 SAFE 16C0-147
PGGT-D 16C0-147

PIP SUMMARY





PIP SUMMARY

☒ Time Mark Every 60 S

Format: CORRELATION Vertical Scale: 1:200

Graphics File Created: 07-Apr-2008 22:06

OP System Version: 16C0-147
MCM

SHM_GUN 16C0-147
PGGT-D 16C0-147

SAFE

16C0-147

Output DLIS Files

DEFAULT PERFO_187LUP

FN:194 PRODUCER 07-Apr-2008 22:06

MAXIS Field Log

Company: Esso Australia Pty Ltd.

Well: CBA F-1

Output DLIS Files

DEFAULT

PERFO_175LUP

FN:178 PRODUCER 07-Apr-2008 16:13

OP System Version: 16C0-147

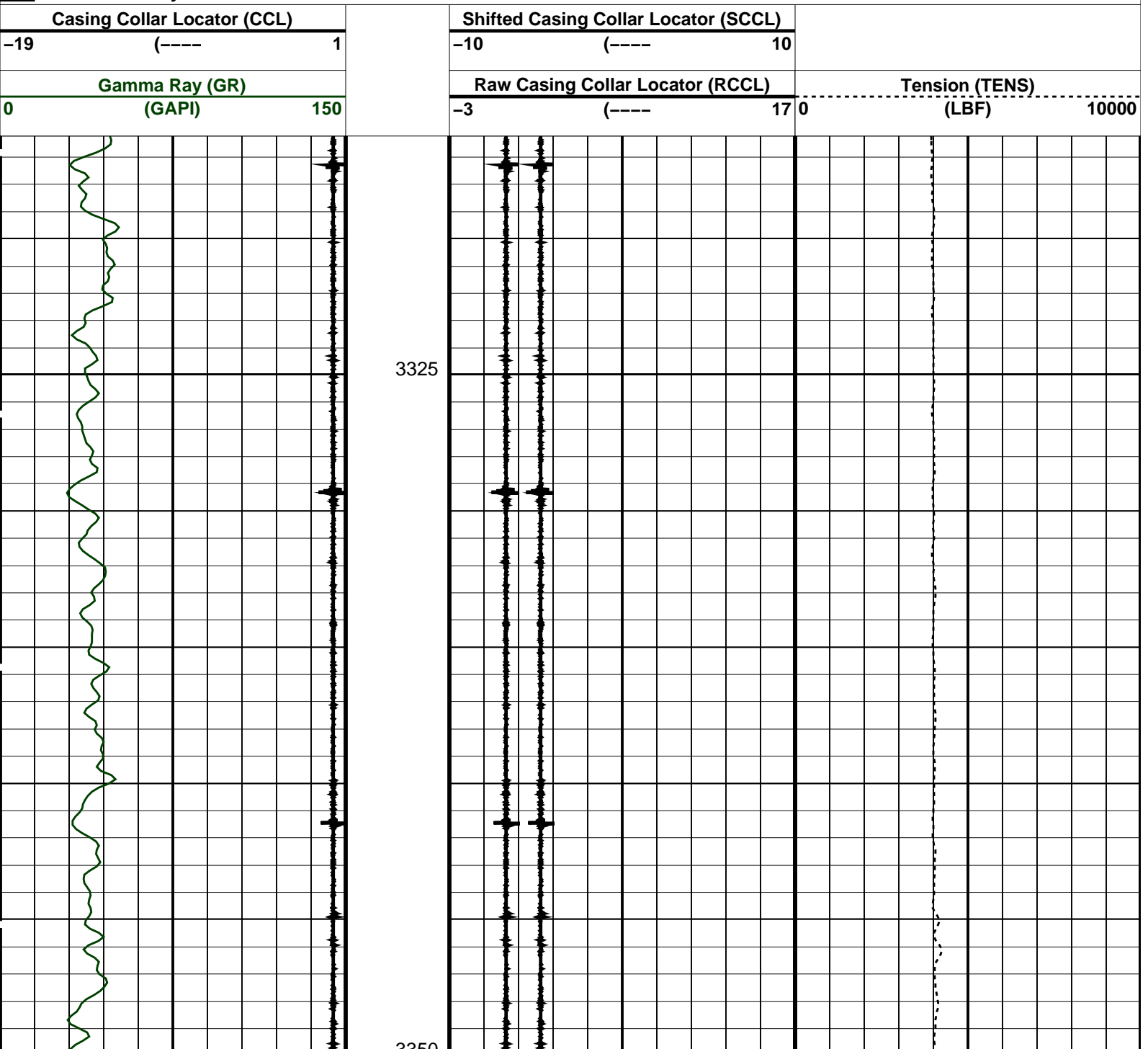
MCM

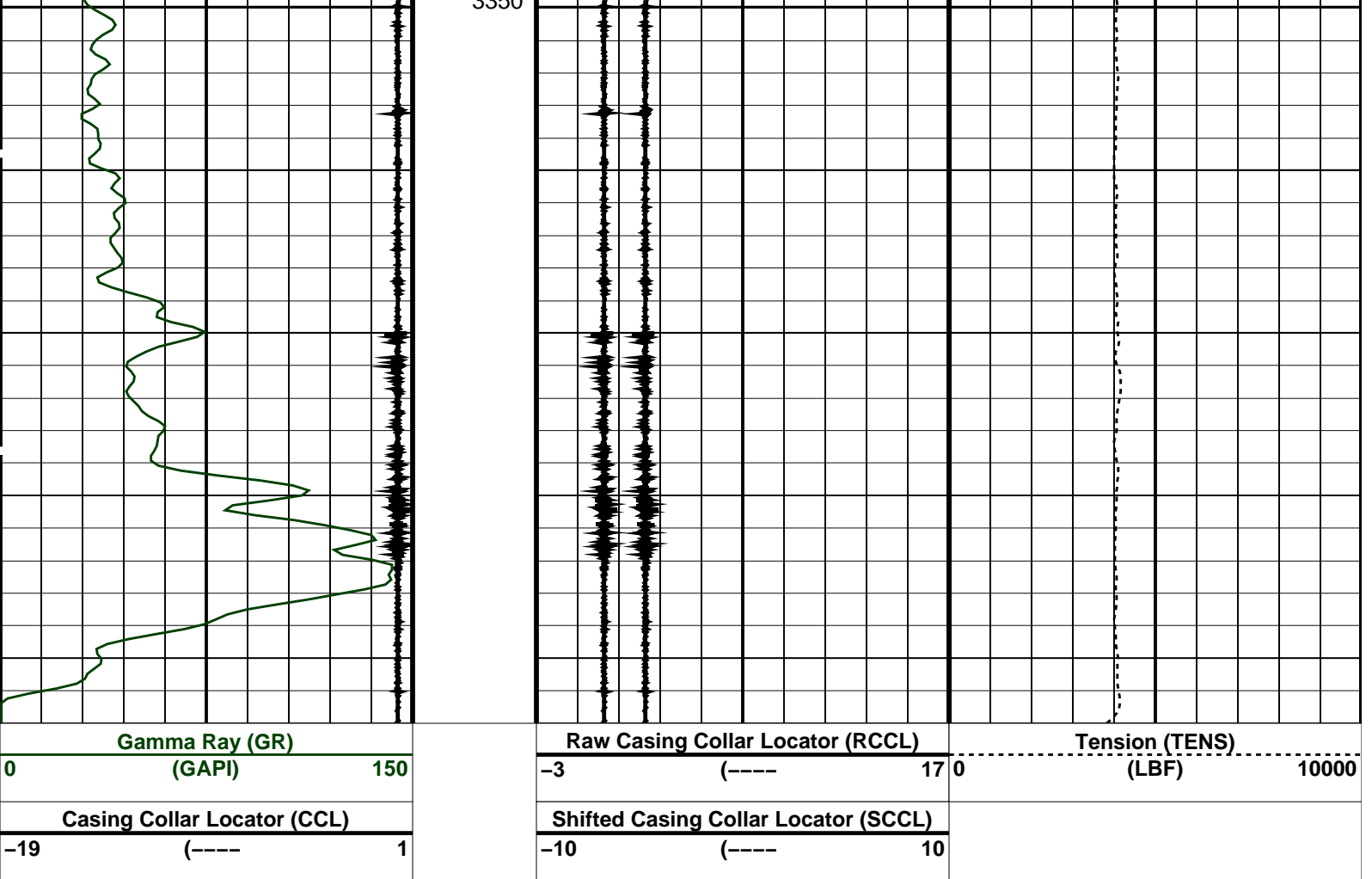
SHM_GUN
PGGT-D16C0-147
16C0-147

SAFE

16C0-147

PIP SUMMARY

☒ Time Mark Every 60 S



PIP SUMMARY

☒ Time Mark Every 60 S

Format: CORRELATION Vertical Scale: 1:200

Graphics File Created: 07-Apr-2008 16:13

OP System Version: 16C0-147

MCM

SHM_GUN 16C0-147 SAFE 16C0-147
PGGT-D 16C0-147

Output DLIS Files

DEFAULT PERFO_175LUP FN:178 PRODUCER 07-Apr-2008 16:13

Schlumberger

**Owen Casing Patch #1
ESIC Activation**

MAXIS Field Log

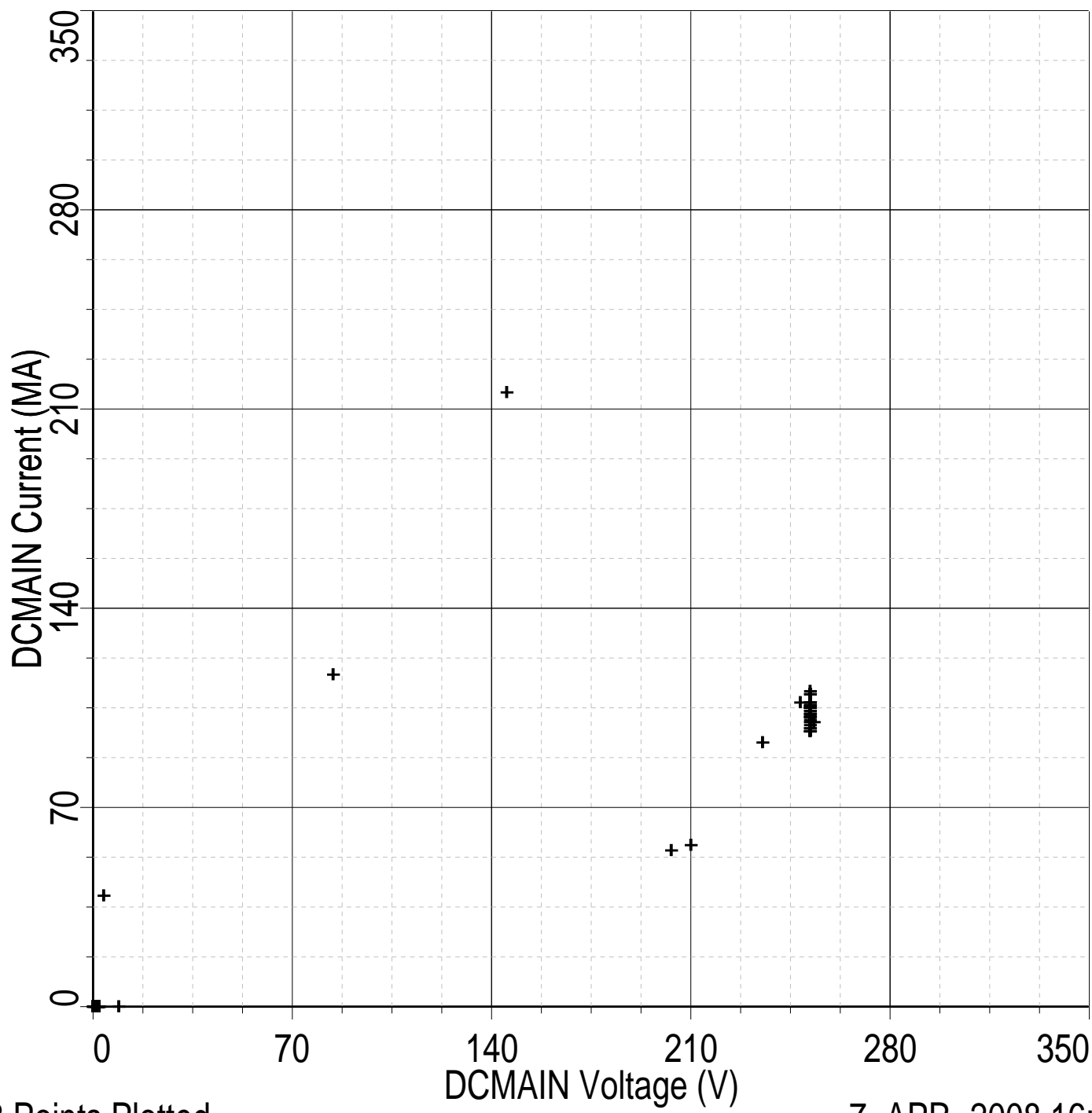
PERFO2 Operational Summary Listing

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

Owen Used 3377.1 3377.1 Mon Apr 07 16:11:56 2008

Casing
Patch #1

Index: 12192.0 – 12168.2 M

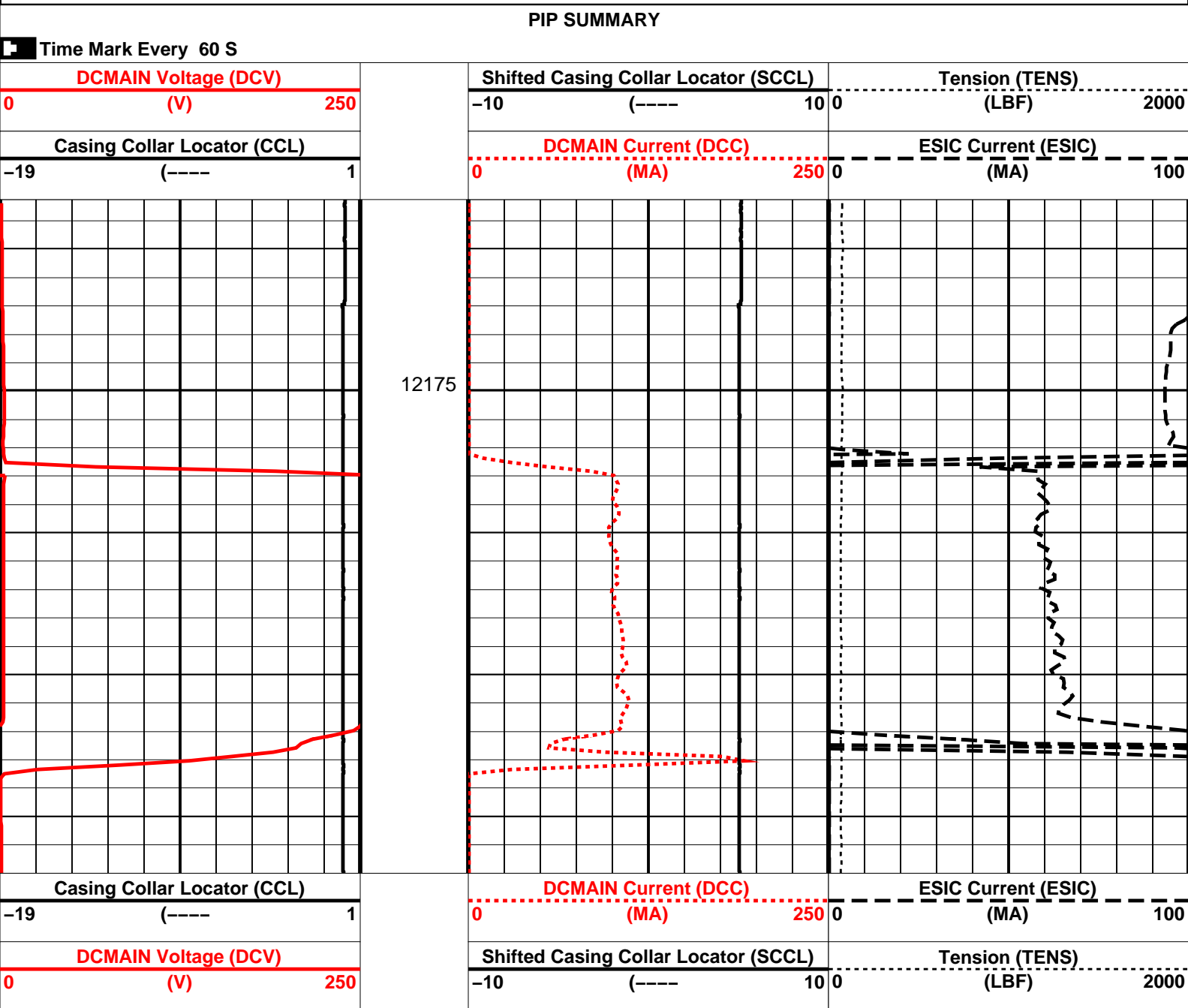


58 Points Plotted

7-APR-2008 16:29

Company: Esso Australia Pty Ltd. Well: CBA F-1

Input DLIS Files						
DEFAULT	PERFO_173LUP	FN:176	PRODUCER	07-Apr-2008 16:09	12192.0 M	12168.2 M
Output DLIS Files						
DEFAULT	PERFO_173PUP	FN:180	PRODUCER	07-Apr-2008 16:29	12192.0 M	12168.2 M



PIP SUMMARY						
Time Mark Every 60 S						
Format: PERFO		Vertical Scale: 1:200			Graphics File Created: 07-Apr-2008 16:29	
OP System Version: 16C0-147						
MCM						
SHM_GUN	16C0-147	SAFE	16C0-147			
PGGT-D	16C0-147					
Input DLIS Files						
DEFAULT	PERFO_173LUP	FN:176	PRODUCER	07-Apr-2008 16:09	12192.0 M	12168.2 M
Output DLIS Files						
DEFAULT	PERFO_173PUP	FN:180	PRODUCER	07-Apr-2008 16:29		

MAXIS Field Log

Company: Esso Australia Pty Ltd.

Well: CBA F-1

Output DLIS Files

DEFAULT PERFO_172LUP FN:175 PRODUCER 07-Apr-2008 16:04 3385.0 M 3372.2 M

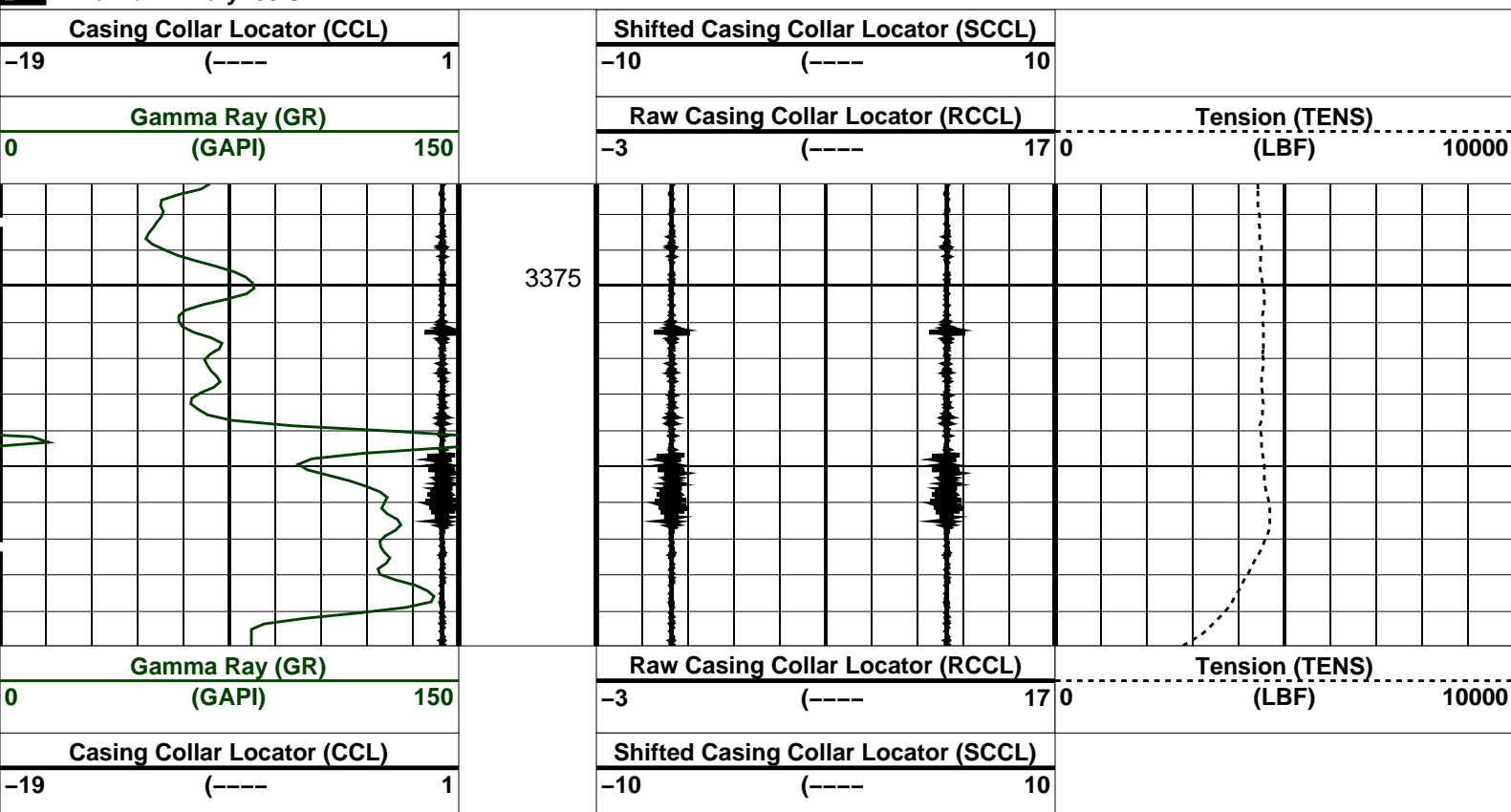
OP System Version: 16C0-147

MCM

SHM_GUN 16C0-147 SAFE 16C0-147
PGGT-D 16C0-147

PIP SUMMARY

Time Mark Every 60 S



PIP SUMMARY

Time Mark Every 60 S

Format: CORRELATION Vertical Scale: 1:200

Graphics File Created: 07-Apr-2008 16:04

OP System Version: 16C0-147

MCM

SHM_GUN 16C0-147 SAFE 16C0-147
PGGT-D 16C0-147

Output DLIS Files

DEFAULT PERFO_172LUP FN:175 PRODUCER 07-Apr-2008 16:04

MAXIS Field Log

Company: Esso Australia Pty Ltd.

Well: CBA F-1

Output DLIS Files

DEFAULT

PERFO_171LUP

FN:174

PRODUCER

07-Apr-2008 15:51

OP System Version: 16C0-147

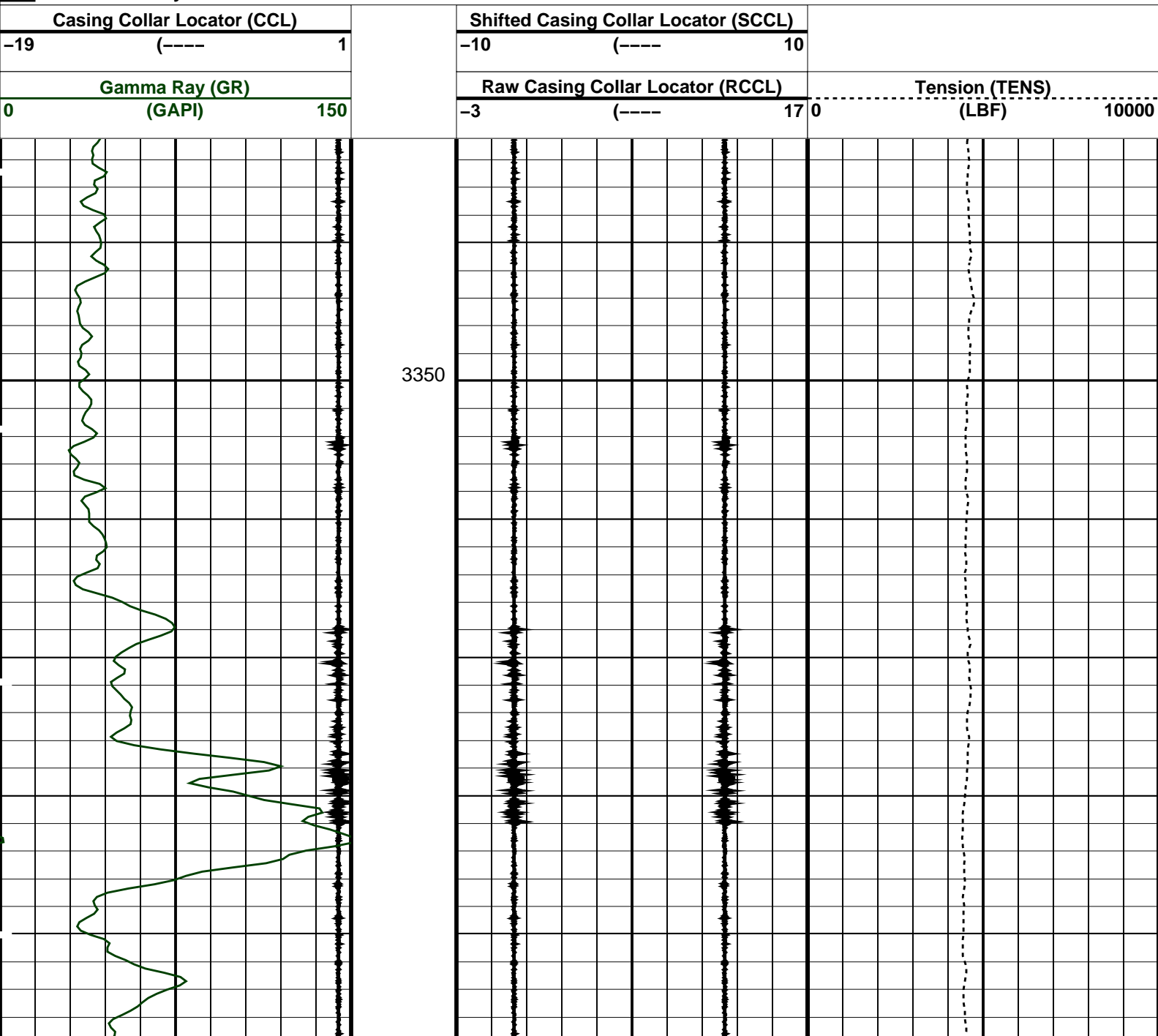
MCM

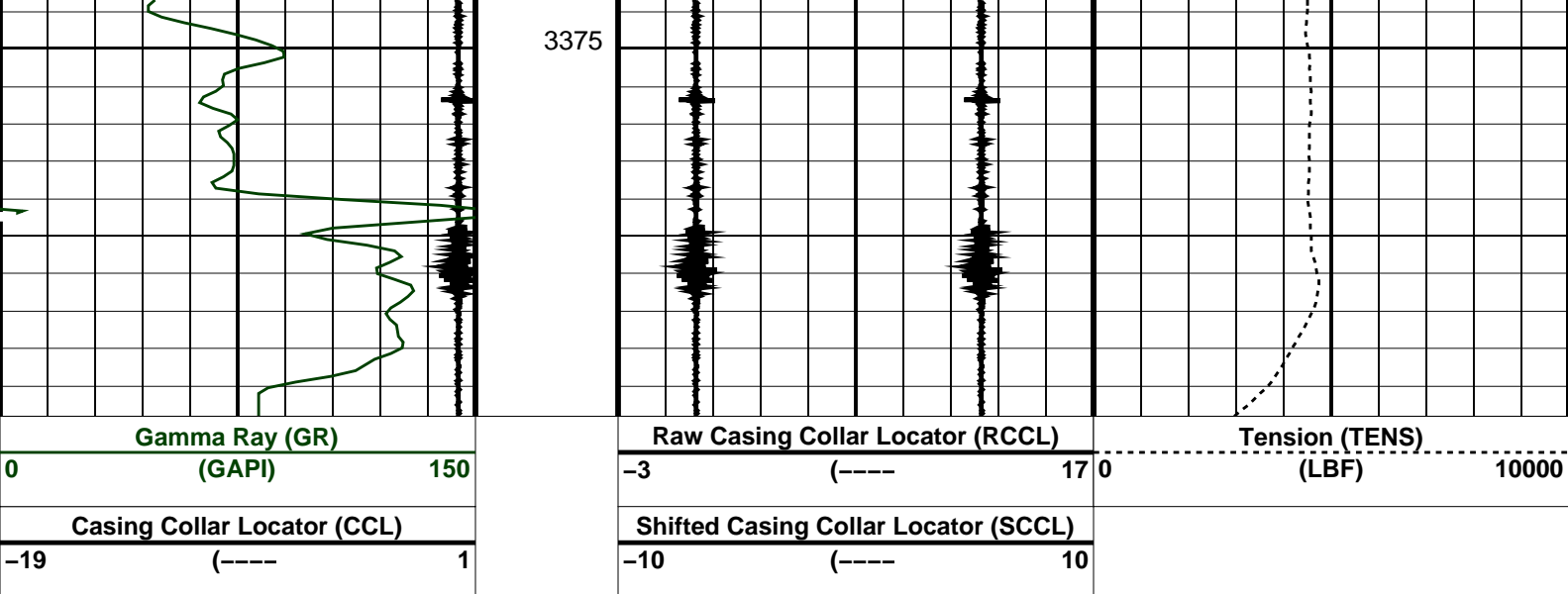
SHM_GUN
PGGT-D16C0-147
16C0-147

SAFE

16C0-147

PIP SUMMARY

☒ Time Mark Every 60 S



PIP SUMMARY

Time Mark Every 60 S

Format: CORRELATION Vertical Scale: 1:200

Graphics File Created: 07-Apr-2008 15:51

OP System Version: 16C0-147
MCM

SHM_GUN 16C0-147 SAFE 16C0-147
PGGT-D 16C0-147

Output DLIS Files

DEFAULT PERFO_171LUP FN:174 PRODUCER 07-Apr-2008 15:51

Schlumberger

**Dummy Owen Casing Patch
Correlation**

MAXIS Field Log

Company: Esso Australia Pty Ltd.

Well: CBA F-1

Input DLIS Files

DEFAULT PERFO_166LUP FN:164 PRODUCER 07-Apr-2008 09:30 3393.0 M 2971.2 M

Output DLIS Files

DEFAULT PERFO_166PUP FN:171 PRODUCER 07-Apr-2008 15:13 3394.7 M 2972.9 M

OP System Version: 16C0-147
MCM

SHM_GUN 16C0-147 SAFE 16C0-147
PGGT-D 16C0-147

PIP SUMMARY

Time Mark Every 60 S

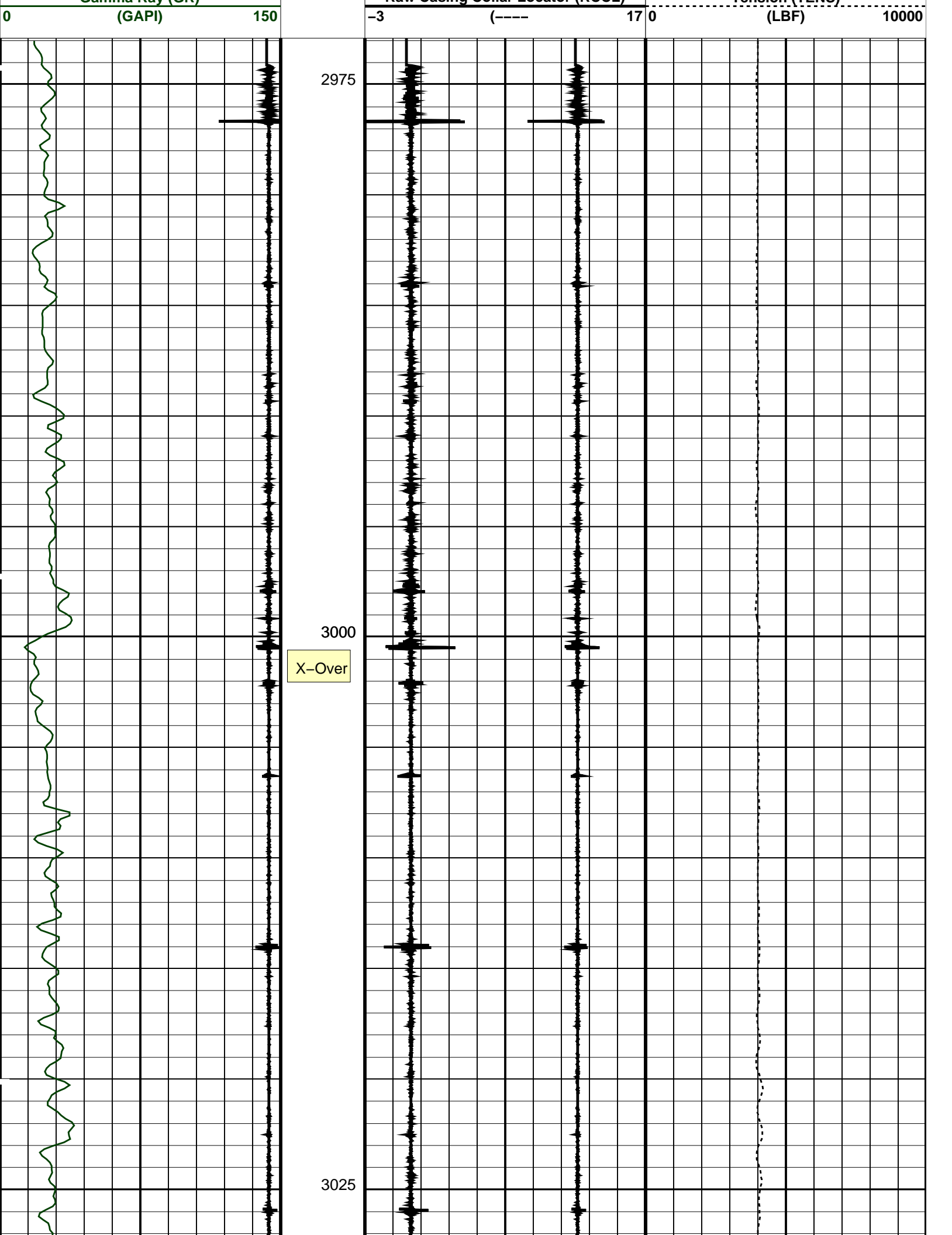
Casing Collar Locator (CCL)
-19 (----) 1

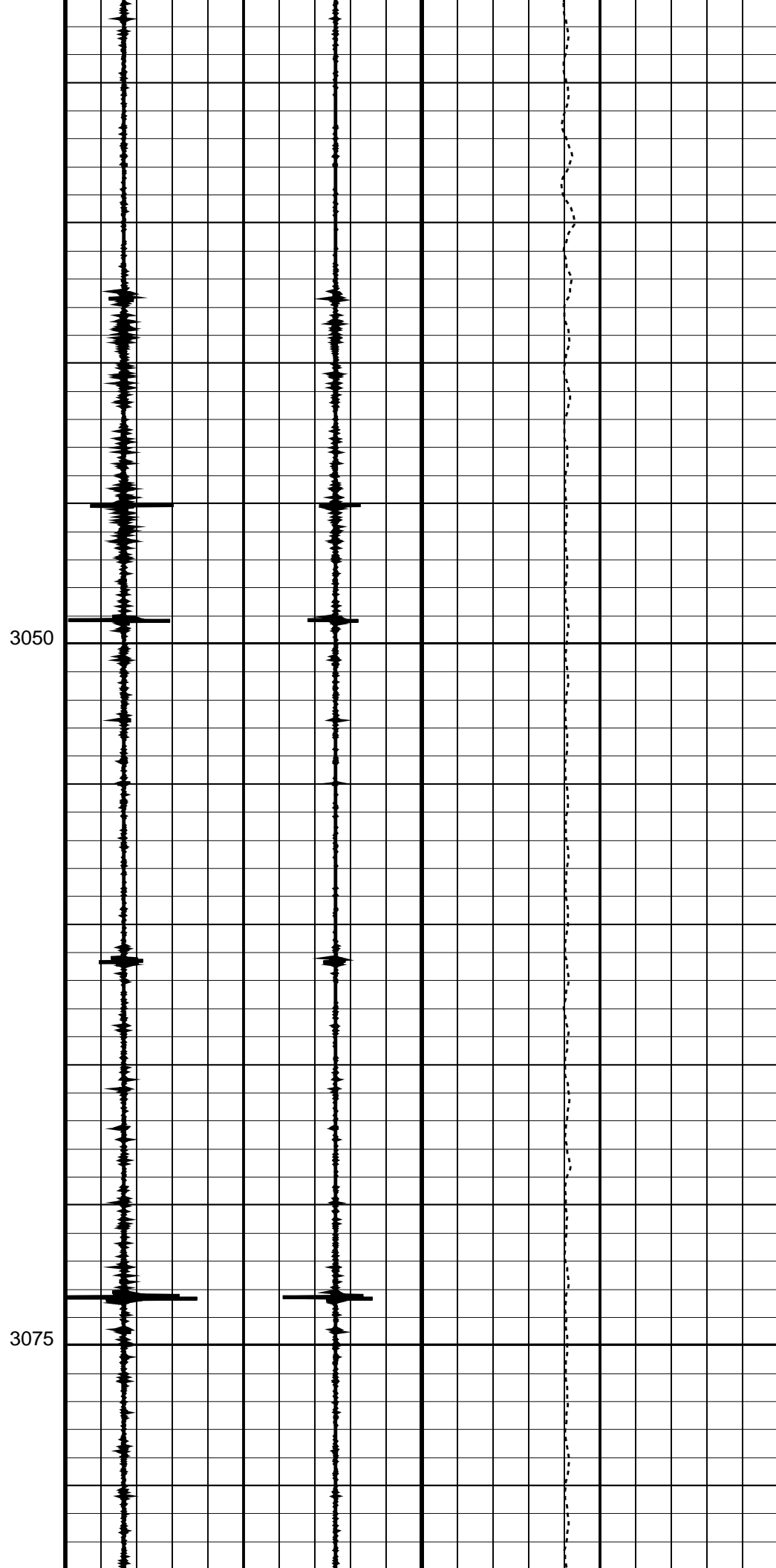
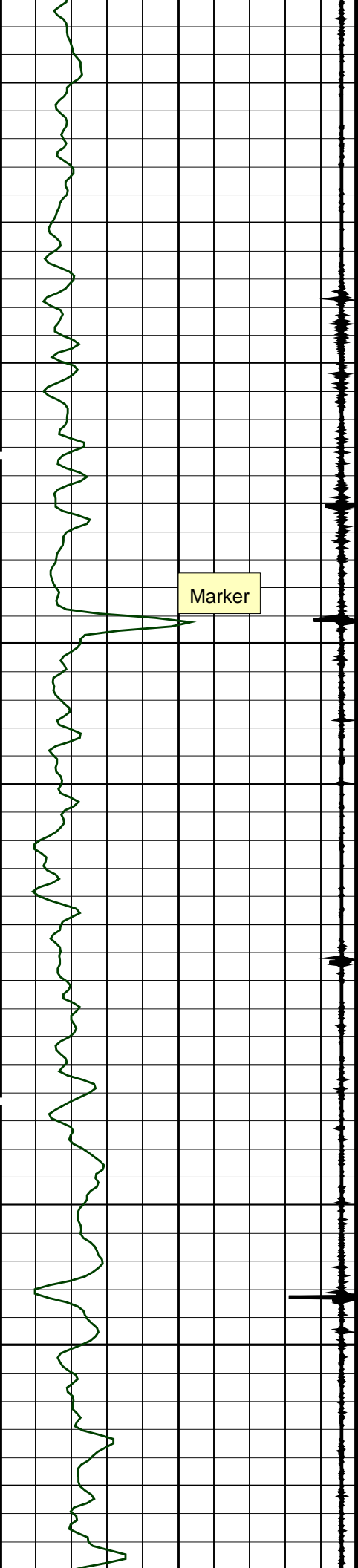
Shifted Casing Collar Locator (SCCL)
-10 (----) 10

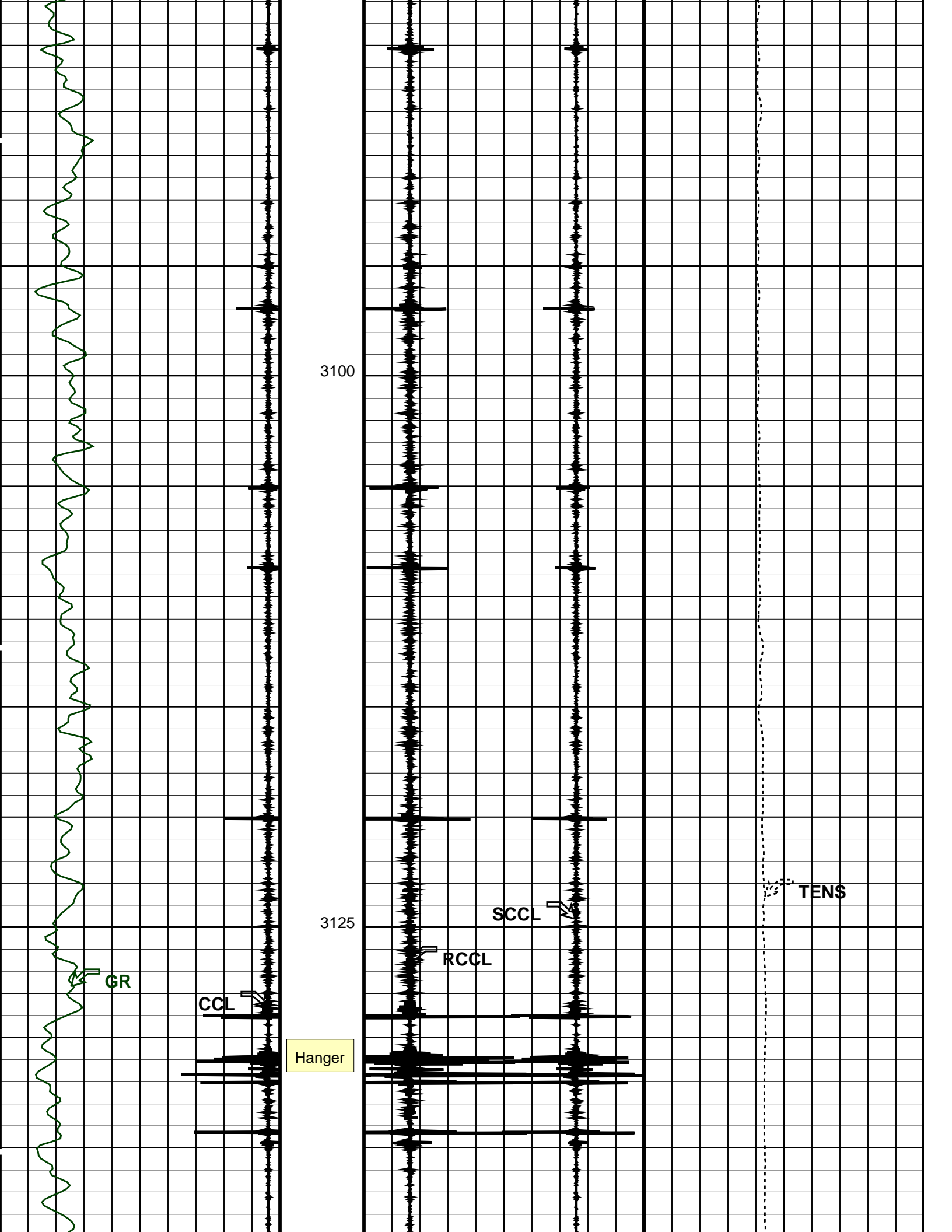
Tension (TENS)

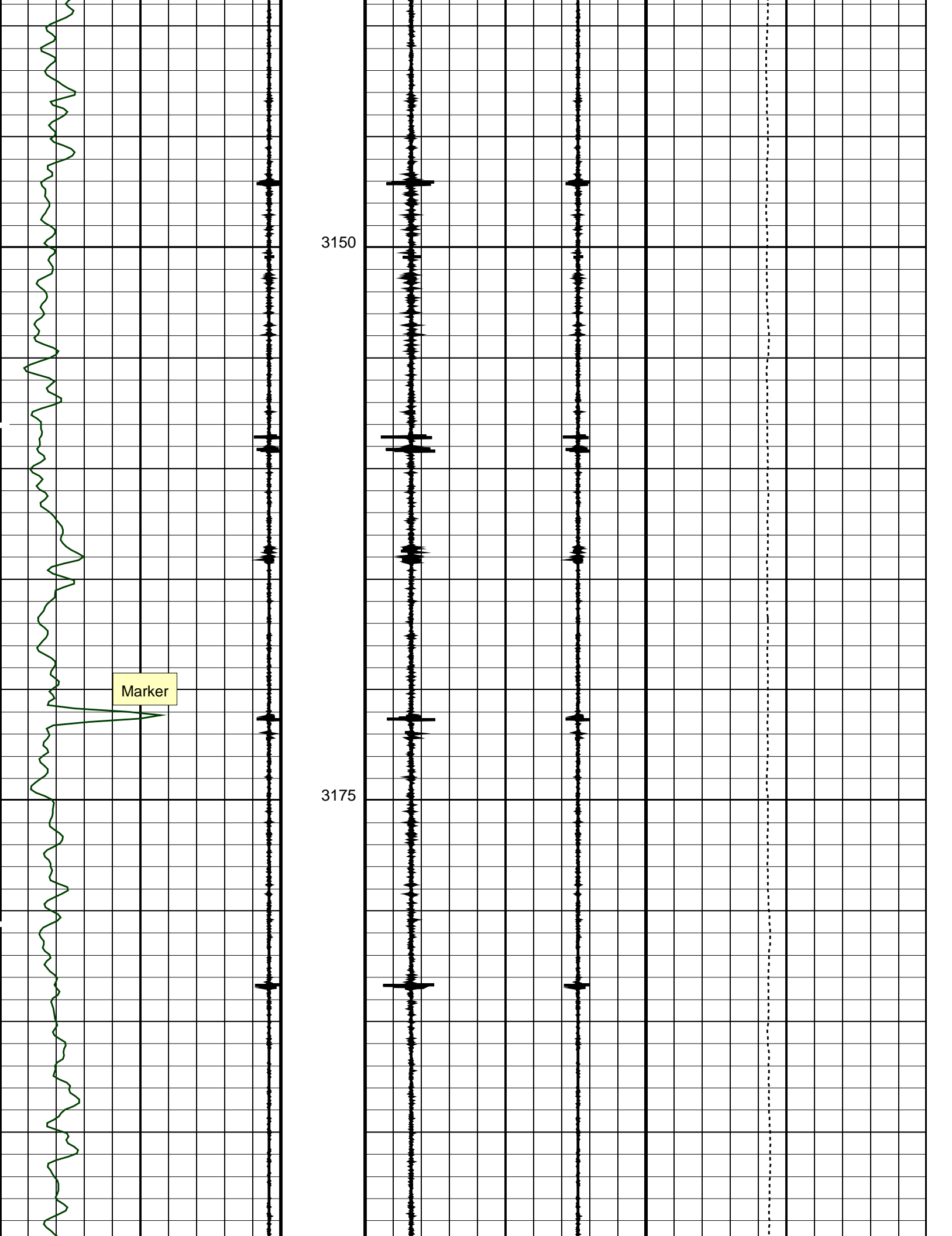
Gamma Ray (GR)

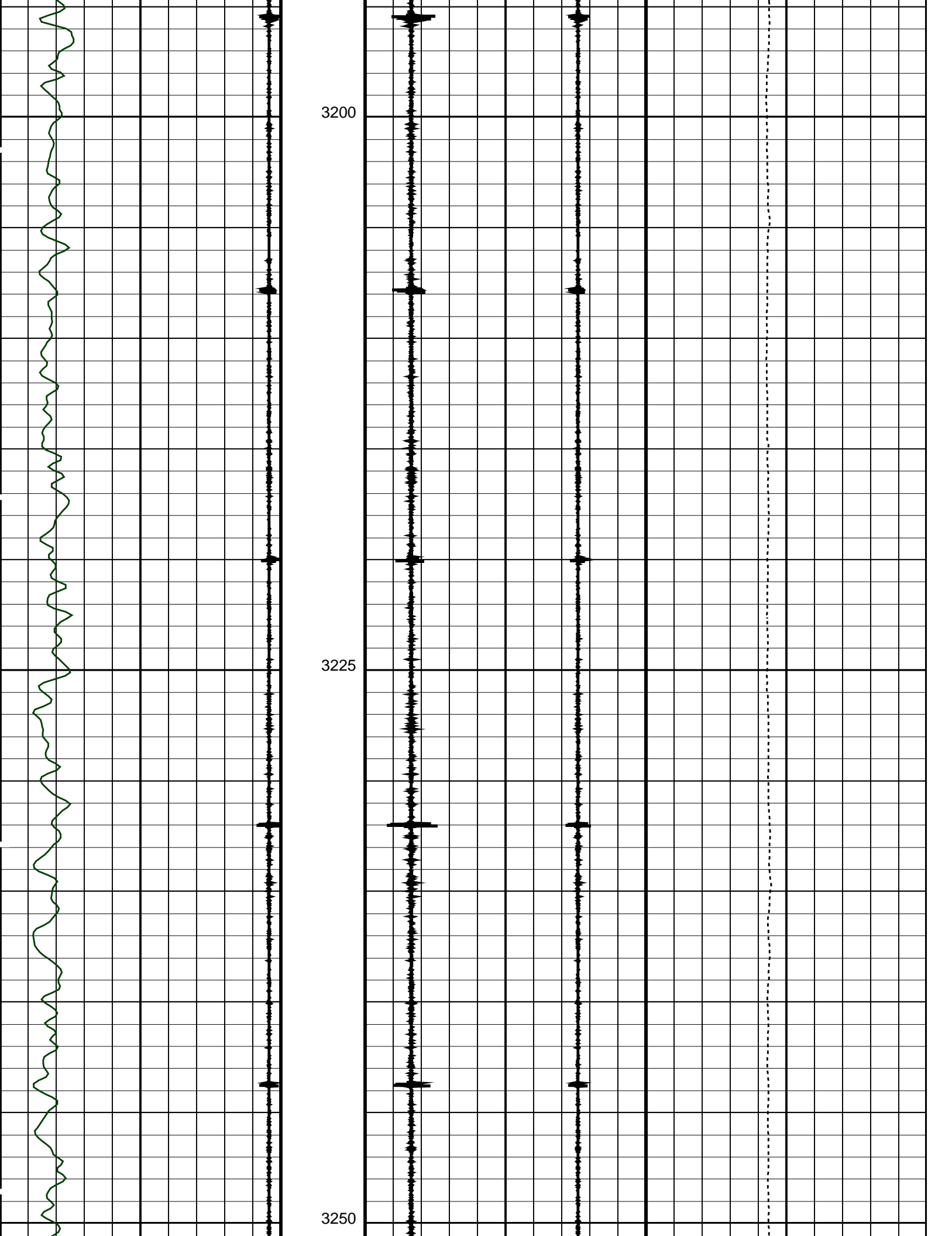
Raw Casing Collar Locator (RCCL)

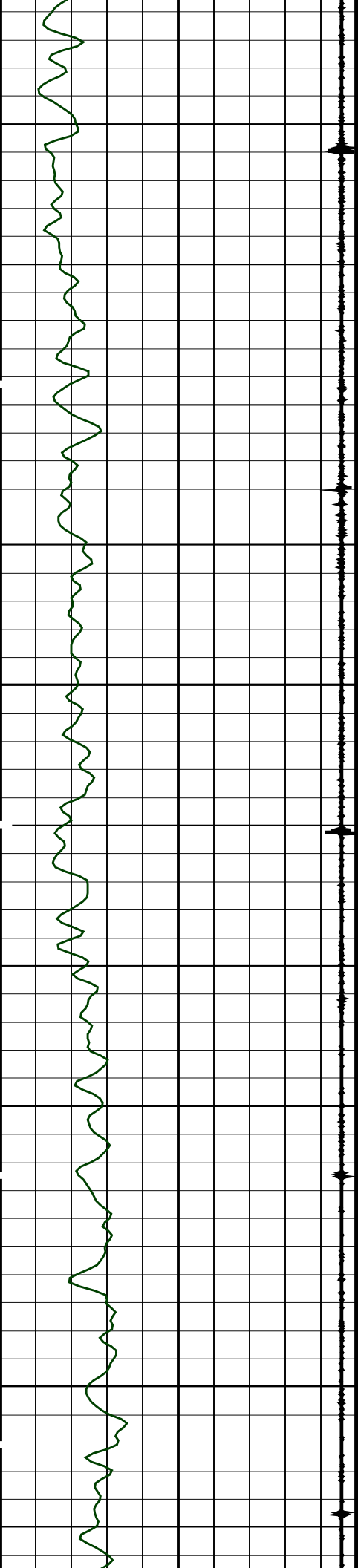






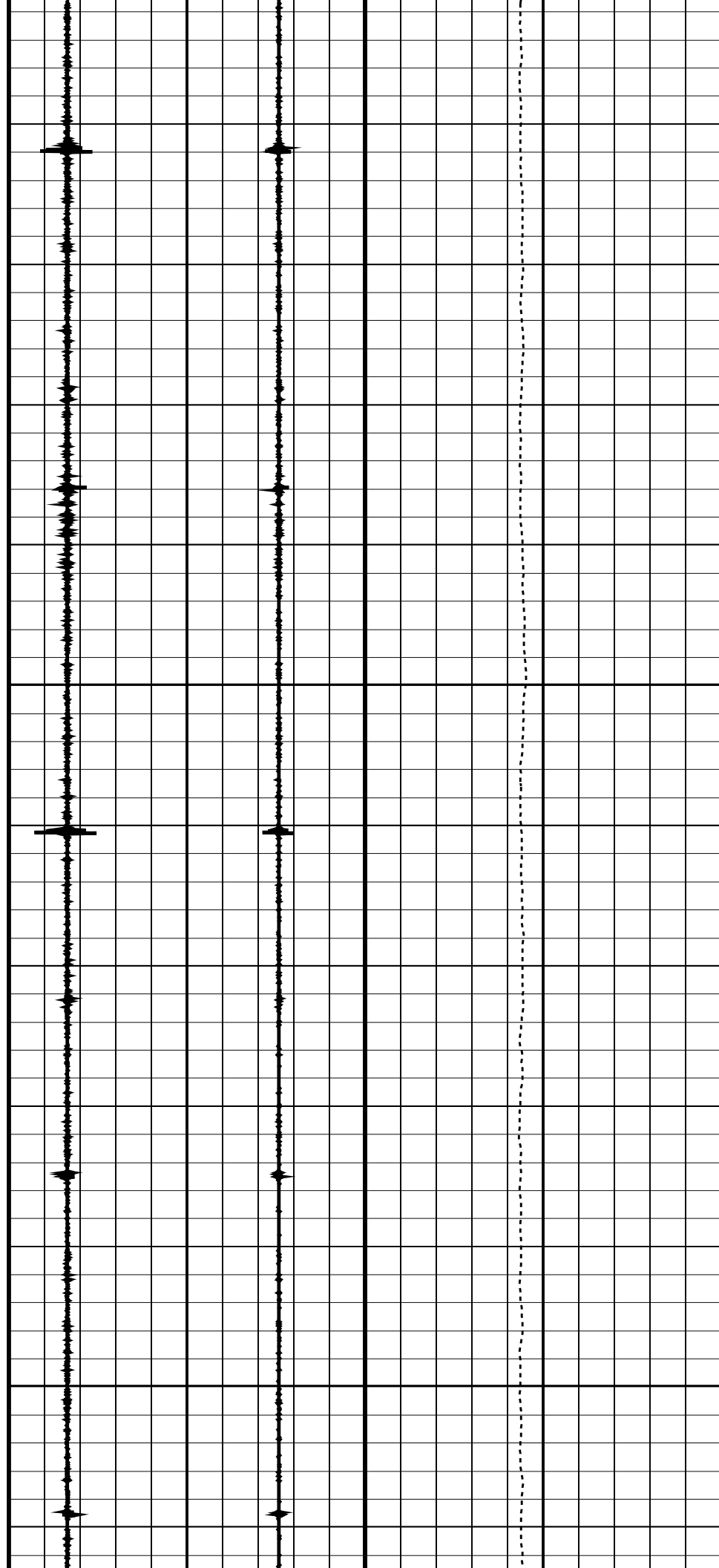


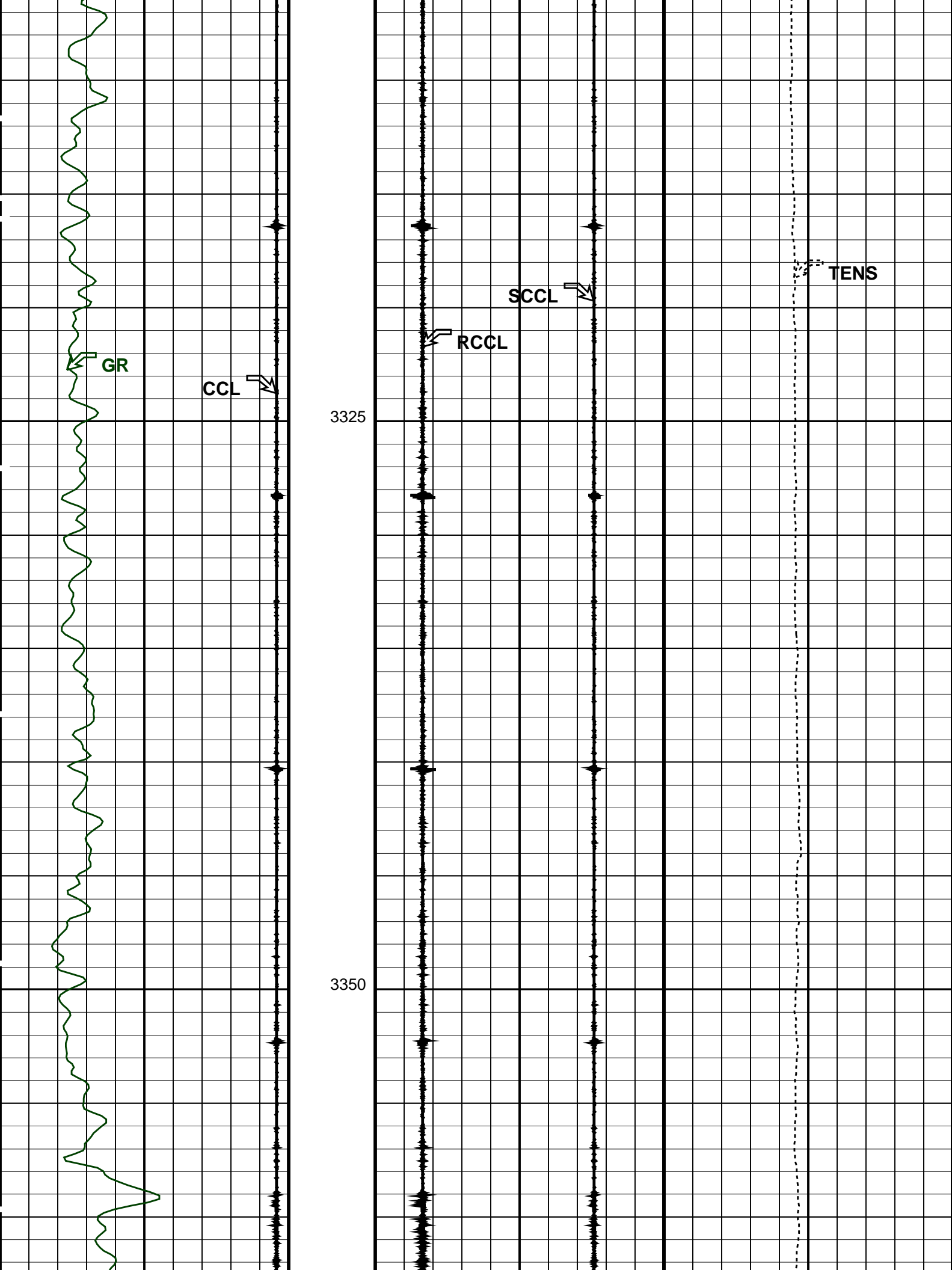


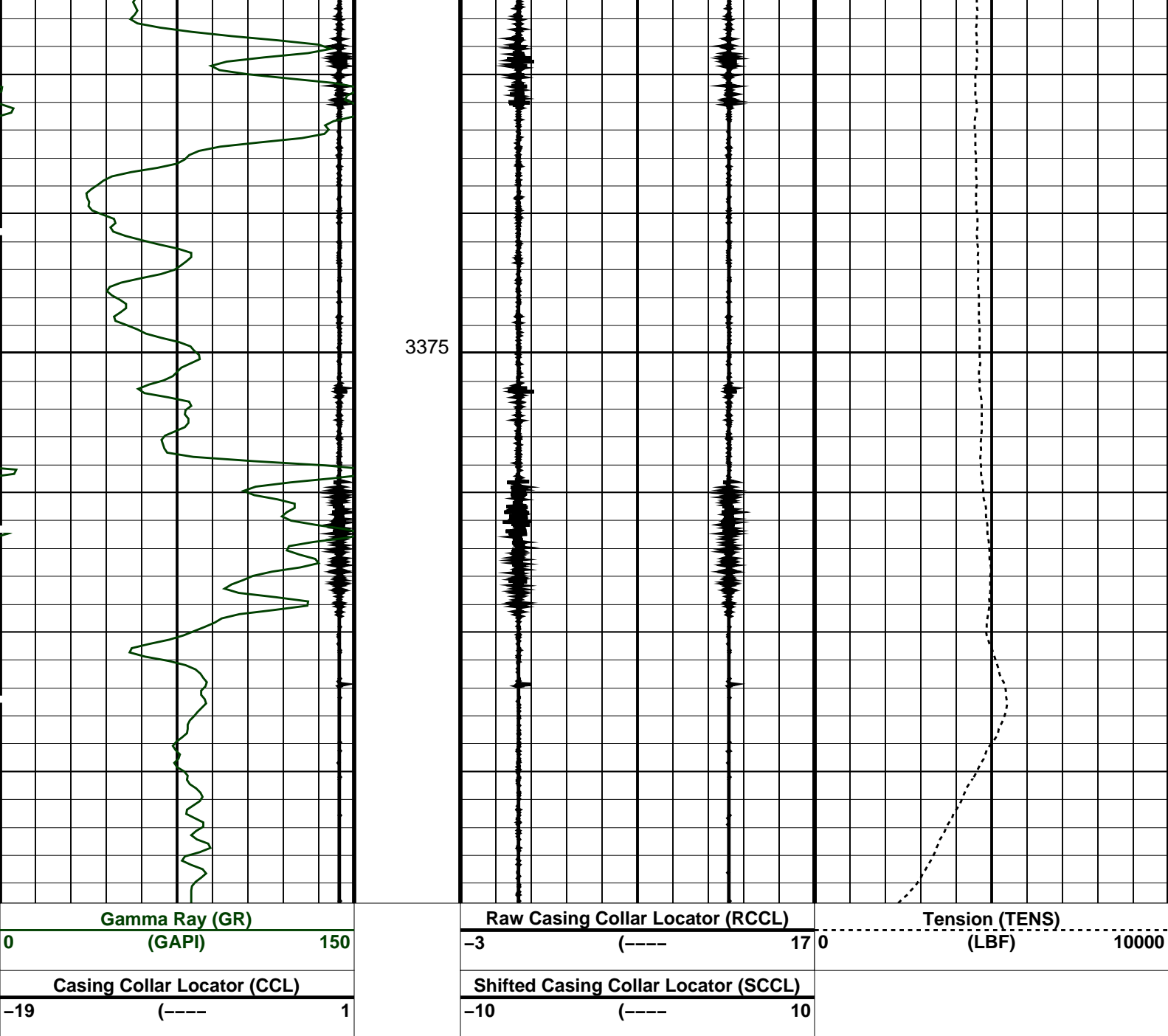


3275

3300







PIP SUMMARY

 Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
System and Miscellaneous		
DO	Depth Offset for Playback	1.7 M
PP	Playback Processing	NORMAL

Format: CORRELATION Vertical Scale: 1:200 Graphics File Created: 07-Apr-2008 15:13

OP System Version: 16C0-147
MCM

SHM_GUN	16C0-147	SAFE	16C0-147
PGGT-D	16C0-147		

Input DLIS Files

DEFAULT	PERFO_166LUP	FN:164	PRODUCER	07-Apr-2008 09:30	3393.0 M	2971.2 M
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Output DLIS Files

DEFAULT	PERFO_166PUP	FN:171	PRODUCER	07-Apr-2008 15:13
<div><div>Company: Esso Australia Pty Ltd.</div><div>Schlumberger</div><div>Well: CBA F1A</div><div>Field: Cobia</div><div>Rig: ISS Rig 22</div><div>Country: Australia</div><div>5-1/2" Owen Liner Patch, GR, CCL</div><div>2-7/8 HSD Perforation Record.</div><div>7-April-2008</div></div>				