

Company: Esso Australia Pty Ltd

Well: FTA A3  
Field: Gippsland Basin  
Rig: Prod 4 / Crane

Country: Australia

GR / PLT / Dual DEFT  
Inline and Fullbore Spinner Survey  
10-Aug-2009

LOCATION

Bass Strait  
Gippsland Basin

Elev.: K.B. 34.50 m  
G.L. -69.00 m  
D.F. 34.50 m

Permanent Datum: M.S.L.  
Log Measured From: D.F.  
Drilling Measured From: D.F.

Elev.: 69.00 m  
-69.00 m above Perm. Datum

State: Victoria

Max. Well Deviation  
56.9 deg

Longitude  
148°16'36.62"E

Latitude  
038°24'31.39"S

Rig: Prod 4 / Crane  
Field: Gippsland Basin  
Location: Bass Strait  
Well: FTA A3  
Company: Esso Australia Pty Ltd

PVT DATA			
Oil Density	Run 1	Run 2	R
Water Salinity			
Gas Gravity			
Bo			
Bw			
1/Bg			
Bubble Point Pressure			
Bubble Point Temperature			
Solution GOR			
Maximum Deviation	56.9 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	10-Aug-2009
Run Number	1
Depth Driller	3374 m
Schlumberger Depth	3284 m
Bottom Log Interval	3284 m
Top Log Interval	3245 m
Casing Fluid Type	Production fluids
Salinity	
Density	1.01 g/cm3
Fluid Level	
BIT/CASING/TUBING STRING	
Bit Size	8.500 in
From	2425.8 m
To	3374 m
Casing/Tubing Size	7.000 in
Weight	26 lbm/ft
Grade	N-80
From	2287 m
To	3372 m
Maximum Recorded Temperatures	224 degF
Logger On Bottom	10-Aug-2009
Unit Number	889
Recorded By	Owen D & Shannon G
Witnessed By	Donald Broomfield , John Digiovanni

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	

Date Created: 14-AUG-2009 17:06:50

### Logging Cable

Type:	2-32ZT
Serial Number:	207308
Length:	5100 M
Conveyance Method:	Wireline
Rig Type:	Offshore Fixed

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	FTA A3
Reference Log Run Number:	1
Reference Log Date:	
Subsequent Trip Down Log Correction:	

1. Correlated to ExxonMobil petrophysical composite log provide by client
2. Used IDW-EB # 6373 as primary depth control
3. Used Z-Chart as secondary depth control
4. Logging program was cancelled after the tools became stuck then broke free on the first logging down pass
- 5.
- 6.

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 SERVICES2  
OS1:  
OS2:  
OS3:  
OS4:  
OS5:

REMARKS: RUN NUMBER 2

**Objective:**  
Prepare PLT toolstring incorporating pressure, temperature, GR, CCL, dual DEFT inline and fullbore spinners, RIH correlate GR on depth using composite log conduct three sets of up and down shut in passes @ 5m/min, 10m/min, 20m/min and 30m/min as per ExxonMobil production logging protocol to determine the presents

of cross flow and calibrate spinners.

RIH to HUD start station log, flow well and wait for stabilization

Conduct three sets of up and down flowing passes @ 5m/min, 10m/min, 20m/min and 30m/min. POOH

-SBHT : 3303 psia, SBHP: 224 DegF @ 3280m MDKB

-FBHT : 2996 psia, FBHT: 224 DegF @ 3280m MDKB

PLT Tool's became stup on bottom after the 2nd pass , once the tool's came free the logging program was abandoned.

Results from test separator during PLT survey:

21.6 Kl/dOil , -8.6 Km3/dGas, 410.4 kl/d Water, Gas lift 42.2 Km3/d

Crew: John L & Andrew P – Nights, Nathan S & Daniel H – Days

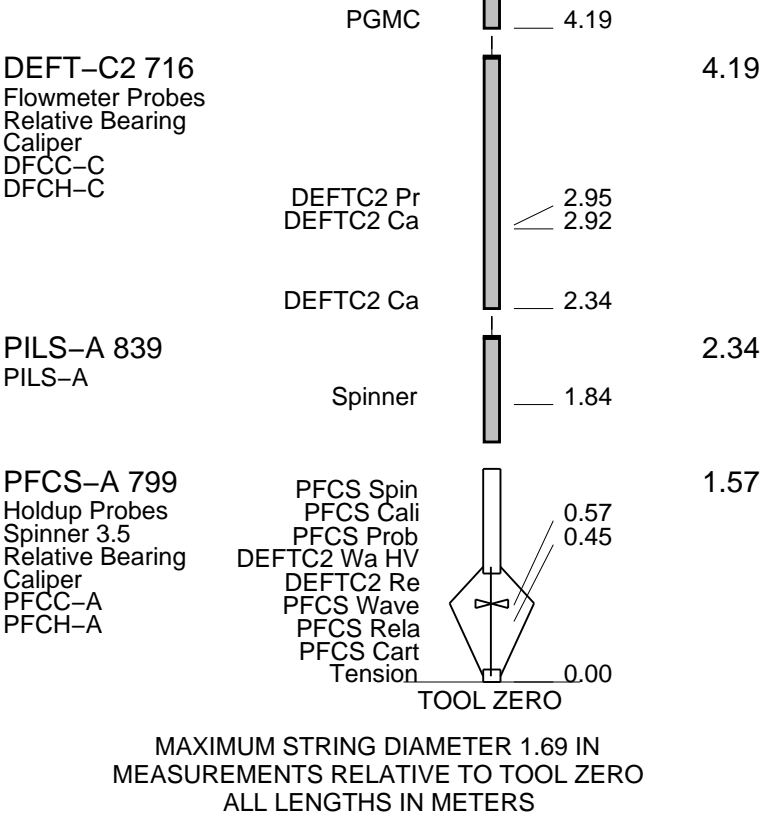
RUN 1			RUN 2		
SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:			SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
17C0-154					
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

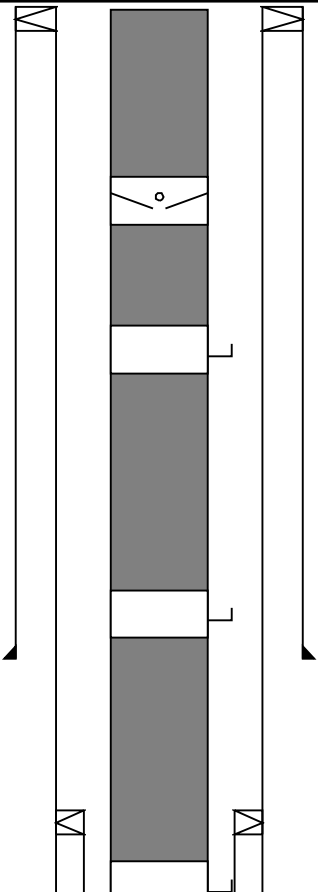

EQUIPMENT DESCRIPTION

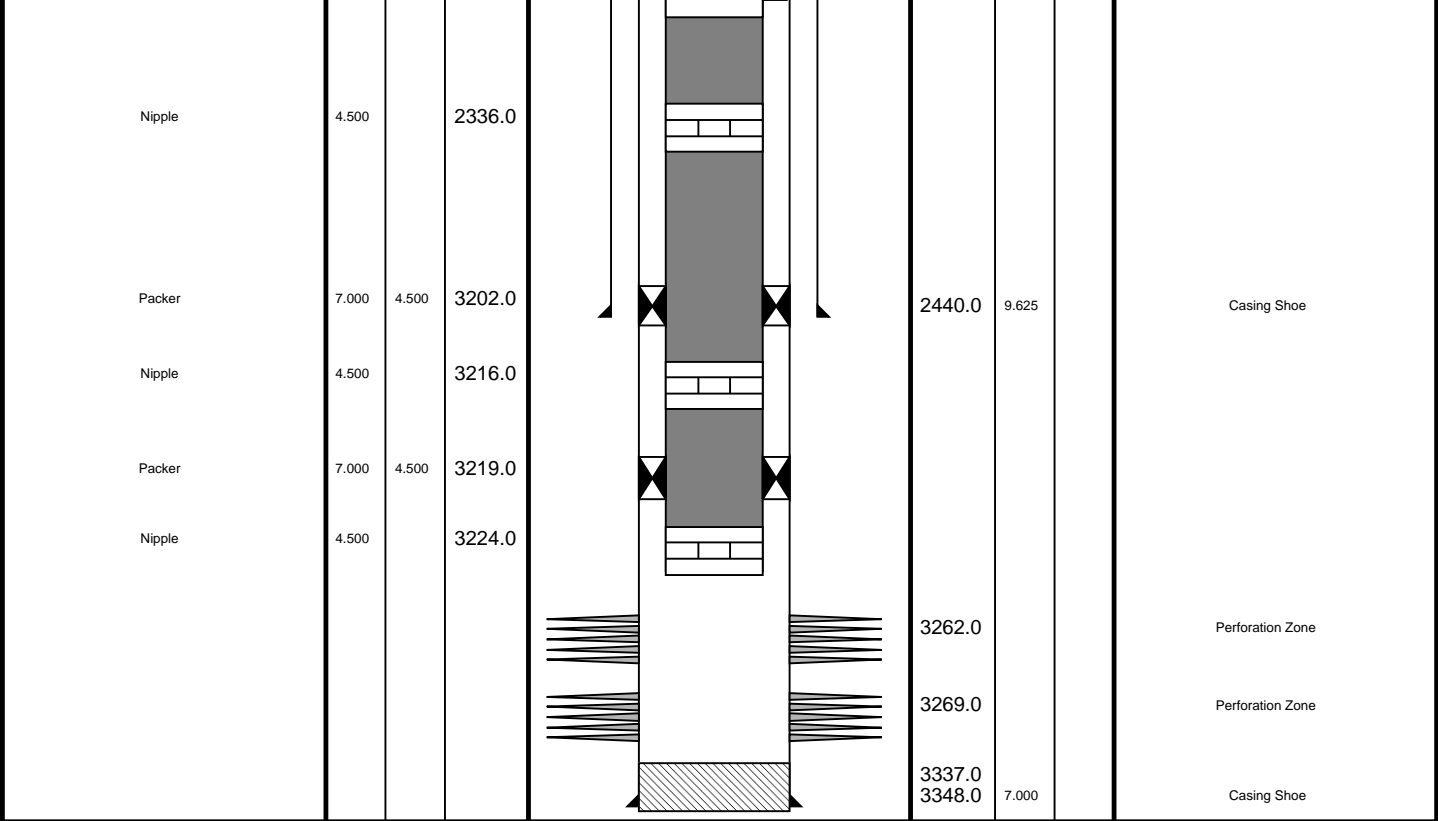
RUN 1

RUN 2

SURFACE EQUIPMENT					
WITM-A PSC_16MHZ					
DOWNHOLE EQUIPMENT					
AH-SWBS AH-SWBS 789					11.23
AH-SWBS AH-SWBS 788					10.55
AH-SWBS AH-SWBS 787					9.86
AH-SWBS AH-SWBS 786					9.17
MH-SWHS MH-SWHS 785	Detail MT TelStatus CTEM				8.49
PSPT-A/B 799			8.16		8.16
PSC-A PSPT-B PSTC PBMS-B CQG_F_Mano RTD_Thermometer GR CCL PBMS	GR		7.03		
	Well_Temp CQG Manom CCL PBMS PSTC		6.10 5.99 5.87 5.64		
PGMC-A/B 1937	ACCE Gradioman		5.18		5.64
PGMC-B Accelero PSOI_Gradio					



Production String	(in)		(m)	Well Schematic	(m)	(in)		Casing String
	OD	ID	MD		MD	OD	ID	
Tubing	4.500		13.0		14.0	13.625	9.625	Casing String Liner Hanger
					14.0	13.375		
SSSV	4.500		451.0					
Gas Lift Mandrel	4.500		752.0					
Gas Lift Mandrel	4.500		1285.0		1329.0	13.375		Casing Shoe
Gas Lift Mandrel	4.500		2322.0		2287.0	7.000		Casing String
					2287.0	9.625	7.000	Liner Hanger



Job Events Summary

MAXIS Field Log

Schlumberger Job Event Summary

	Time	Elapsed Time	Depth (M)	File
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Before Calibration Completed	9-Aug-2009 11:13			
After Calibration Completed	9-Aug-2009 11:22			
Simulated Log	9-Aug-2009 11:26	000:17		FCS_ILS_DEFT_GMS_006LUP
OP checked toolstring				
Simulated Log	10-Aug-2009 6:52	001:04		FCS_ILS_DEFT_GMS_020LUP
Pressure test				
Log Pass (down)	10-Aug-2009 10:02	000:11	3233.0 - 3290.8	FCS_ILS_DEFT_GMS_023LDP
Static log down pass @ 5m/min				
Log Pass (up)	10-Aug-2009 10:32	000:16	3290.8 - 3202.2	FCS_ILS_DEFT_GMS_025LUP
Static log up pass @ 5m/min				
Log Pass (down)	10-Aug-2009 11:09	000:09	3196.1 - 3284.7	FCS_ILS_DEFT_GMS_028LDP
Static log down pass @ 10m/min				
Log Pass (up)	10-Aug-2009 11:18	000:06	3284.5 - 3219.3	FCS_ILS_DEFT_GMS_029LUP
Static log up pass @ 10m/min				

Log Pass (down)	10-Aug-2009 11:25	000:04	3218.8	-	3284.7	FCS_ILS_DEFT_GMS_030LDP
Static log down pass @ 20m/min						
Log Pass (up)	10-Aug-2009 11:29	000:03	3284.5	-	3226.8	FCS_ILS_DEFT_GMS_031LUP
Static log up pass @ 20m/min						
Log Pass (down)	10-Aug-2009 11:32	000:02	3226.5	-	3284.5	FCS_ILS_DEFT_GMS_032LDP
Static log down pass @ 30m/min						
Log Pass (up)	10-Aug-2009 11:34	000:02	3284.5	-	3226.0	FCS_ILS_DEFT_GMS_033LUP
Static log up pass @ 30m/min						
Station Log	10-Aug-2009 11:38	002:23	3283.2			FCS_ILS_DEFT_GMS_034LTP
Station log well draw down						
Log Pass (up)	10-Aug-2009 14:03	000:11	3283.2	-	3226.8	FCS_ILS_DEFT_GMS_035LUP
Flowing log up pass @ 5m/min						
Log Pass (down)	10-Aug-2009 14:14	000:10	3226.9	-	3284.2	FCS_ILS_DEFT_GMS_036LDP
Flowing log down pass @ 5m/min						

**Schlumberger**

Flowing down log 3240m – 3281m  
5m/min (980ft/hr)

MAXIS Field Log

### Input DLIS Files

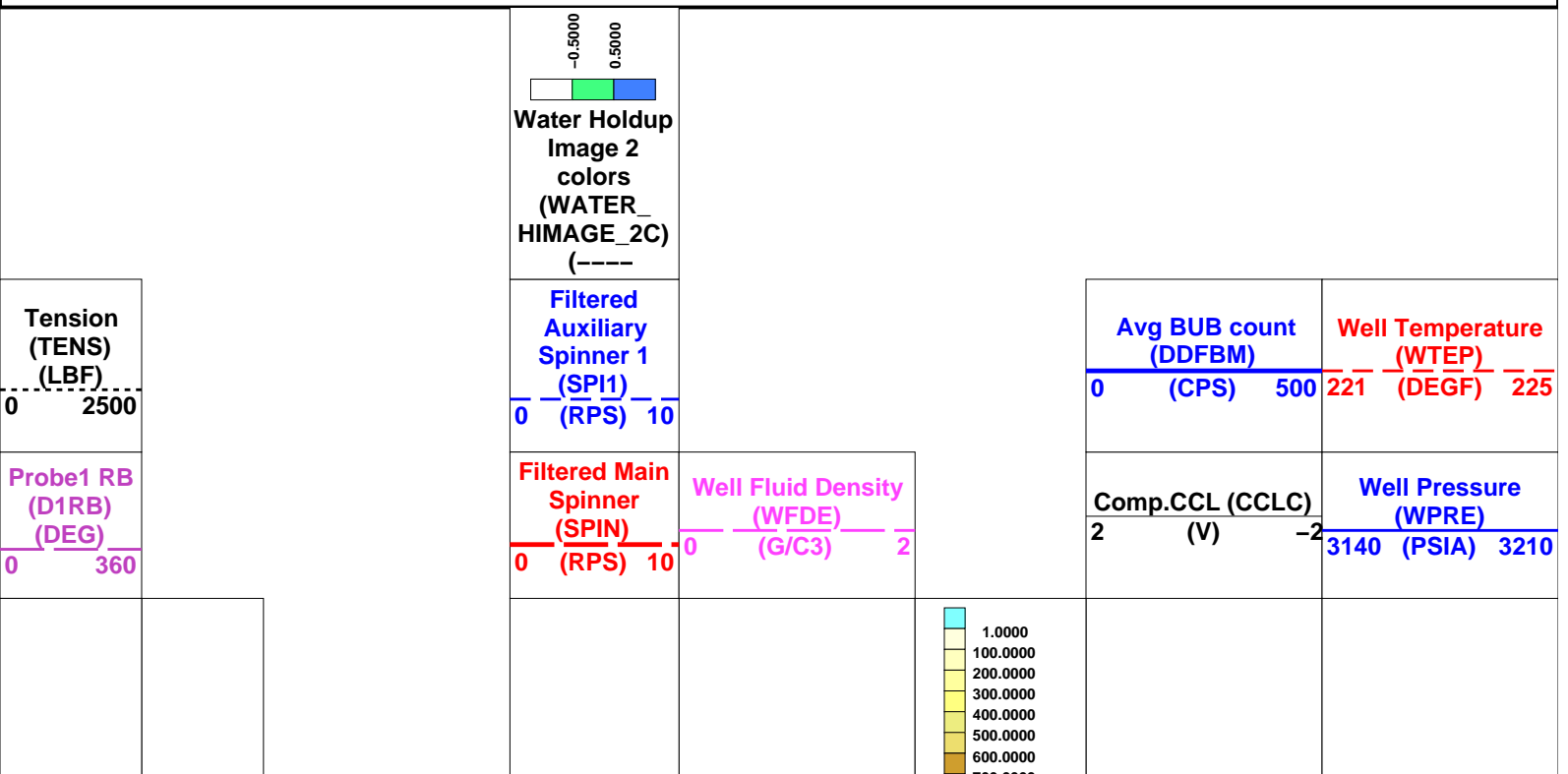
DEFAULT	FCS_ILS_DEFT_GMS_055PUP	FN:53	PRODUCER	10-Aug-2009 22:21	3281.5 M	3215.9 M
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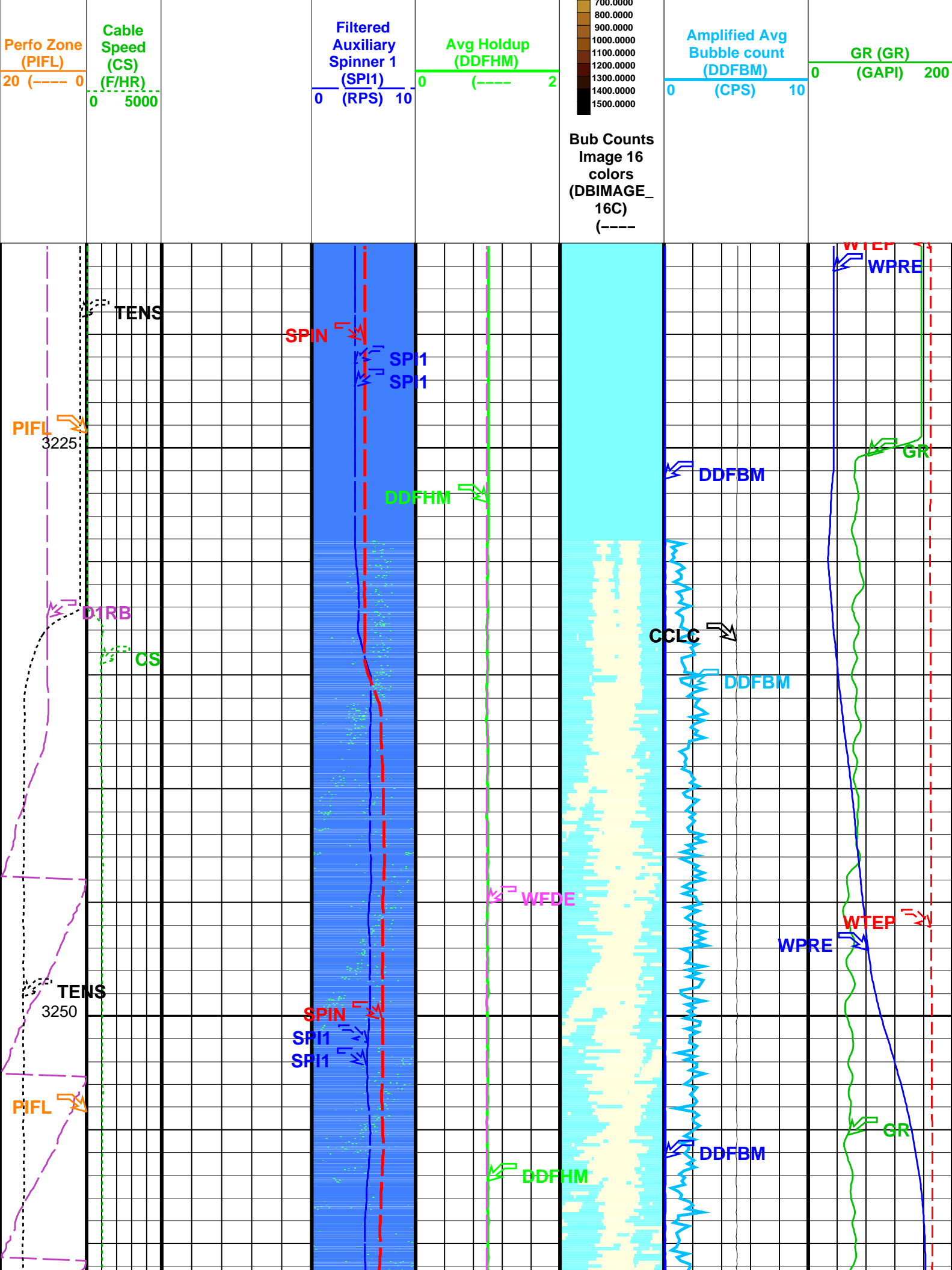
### Output DLIS Files

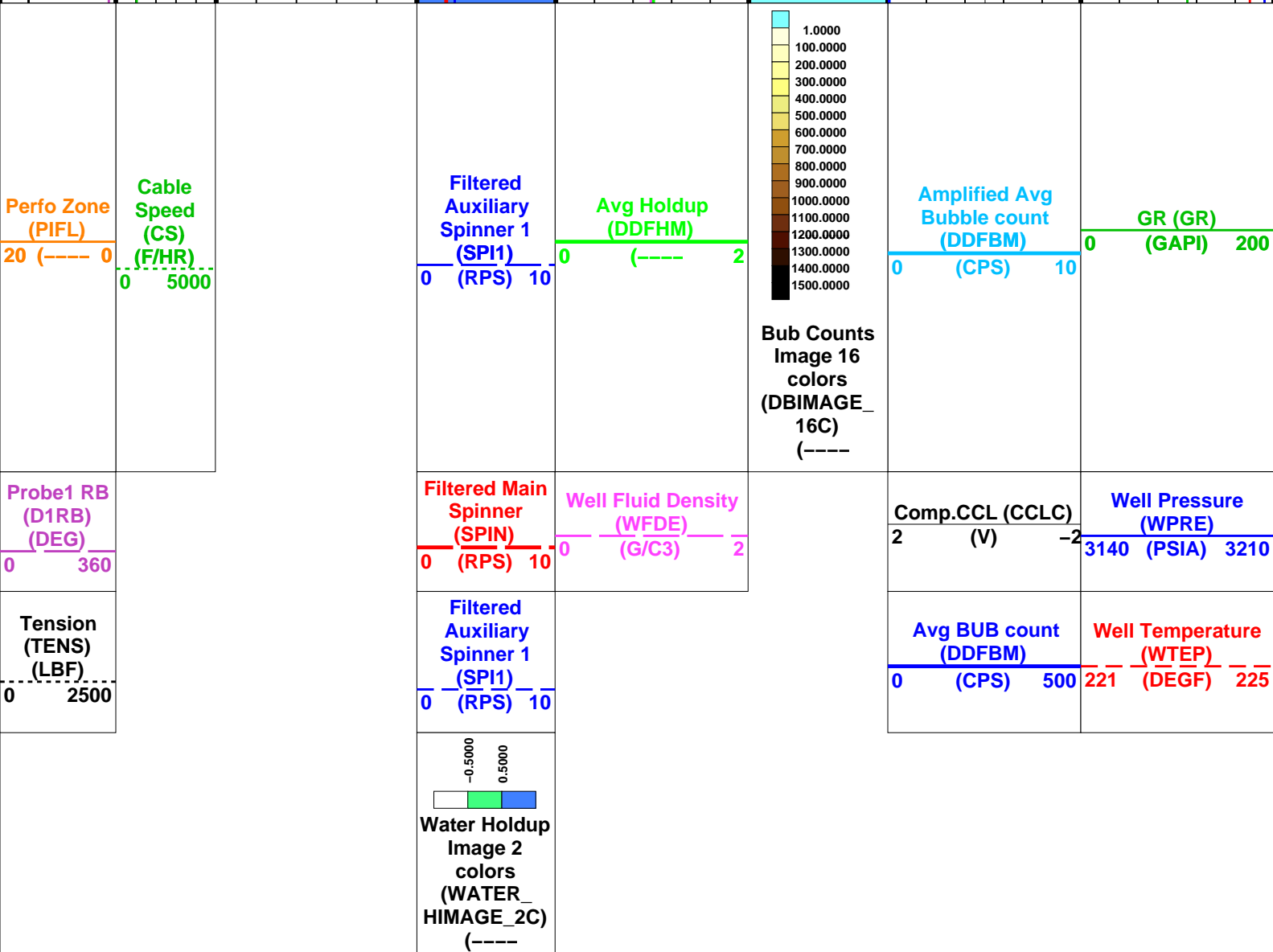
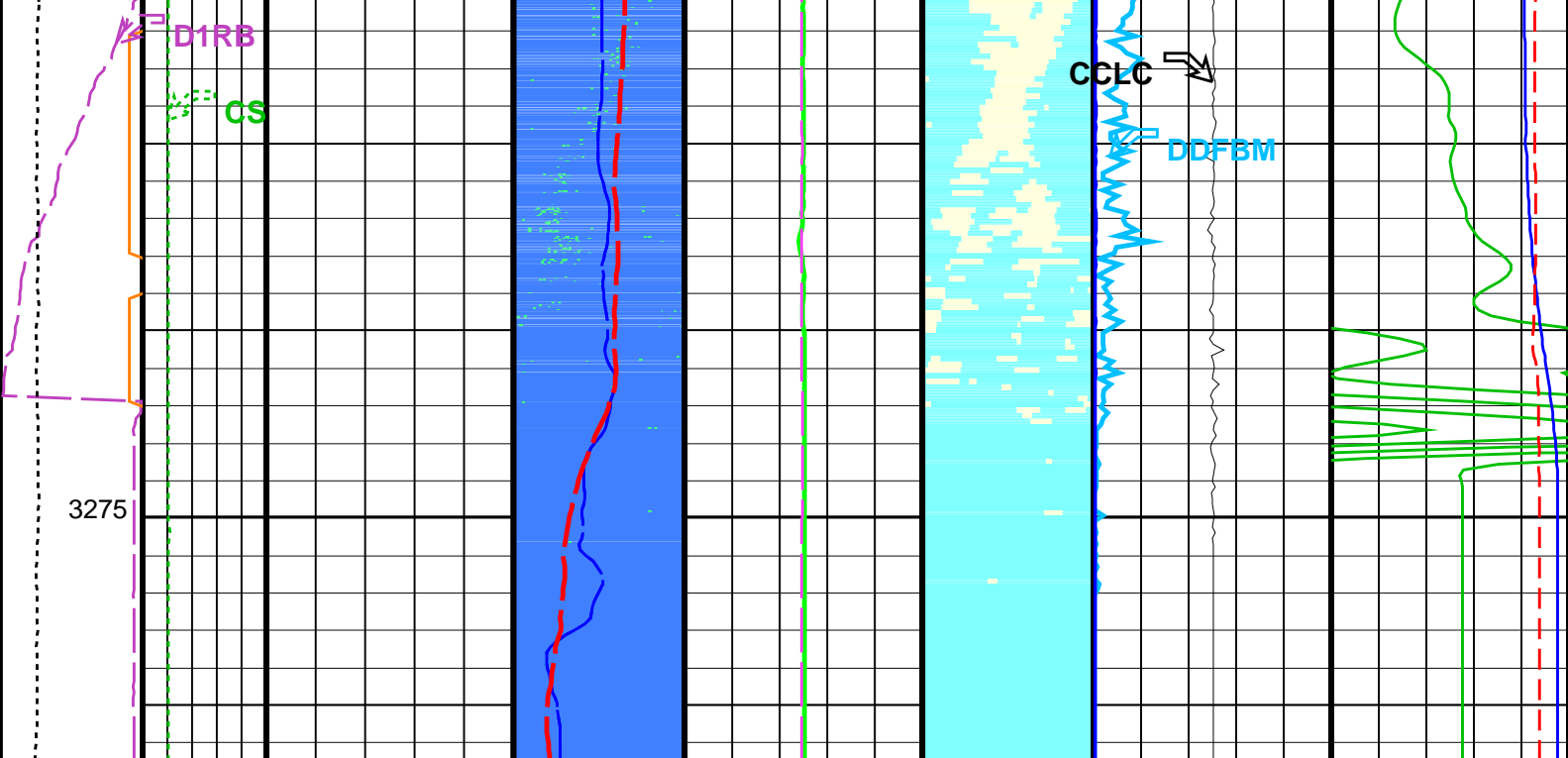
DEFAULT	FCS_ILS_DEFT_GMS_101PUP	FN:95	PRODUCER	14-Aug-2009 16:20	3281.5 M	3215.9 M
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### OP System Version: 17C0-154

PFCS-A	17C0-154	PILS-A	17C0-154
DEFT-C2	17C0-154	PGMC-A/B	17C0-154
PSPT-A/B	17C0-154		









PFCS-A	17C0-154	PILS-A	17C0-154
DEFT-C2	17C0-154	PGMC-A/B	17C0-154
PSPT-A/B	17C0-154		

Parameters			
DLIS Name	Description	Value	
PFCS-A: PSP Flow and caliper Tool			
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE	
CSID	Casing Size I.D.	6.276	IN
DDRC	Dual DEFT DELTA RB COMPUTATION	D1RB2-D1RB	
DDRS	Dual DEFT RB Source	D1RB	
DFBD	DEFT Blank Disallowed Probes	NO	
DFFI	DEFT Flip Image	NO	
DFII	DEFT Image Interpolation	YES	
DFIRS	DEFT Image Rotation Selection	TOP_MIDDLE	
DFPP	Probes Arm Position	C	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
SDCF	Spinner Depth Constant Filter	6	
SPI1	Auxiliary Spinner 1 Flowmeter Sonde	PILS-A	
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_3.5	
PILS-A: PSP In Line Spinner Flowmeter			
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE	
SDCF	Spinner Depth Constant Filter	6	
SPI1	Auxiliary Spinner 1 Flowmeter Sonde	PILS-A	
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_3.5	
DEFT-C2: DEFT_C Tool			
CSID	Casing Size I.D.	6.276	IN
DDRC	Dual DEFT DELTA RB COMPUTATION	D1RB2-D1RB	
DDRS	Dual DEFT RB Source	D1RB	
DFBD	DEFT Blank Disallowed Probes	NO	
DFFI	DEFT Flip Image	NO	
DFII	DEFT Image Interpolation	YES	
DFIRS	DEFT Image Rotation Selection	TOP_MIDDLE	
PGMC-A/B: PSP Gradiomanometer Measurement Module			
CSID	Casing Size I.D.	6.276	IN
PDSH	Gradio Correction Density Shift	0	G/C3
PSPT-A/B: Production Services Logging Platform			
CSID	Casing Size I.D.	6.276	IN
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
BORDYN: BorDyn (Well Test Validation)			
CSID	Casing Size I.D.	6.276	IN
System and Miscellaneous			
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	

Input DLIS Files						
DEFAULT	FCS_ILS_DEFT_GMS_055PUP	FN:53	PRODUCER	10-Aug-2009 22:21	3281.5 M	3215.9 M
Output DLIS Files						
DEFAULT	FCS_ILS_DEFT_GMS_101PUP	FN:95	PRODUCER	14-Aug-2009 16:20		

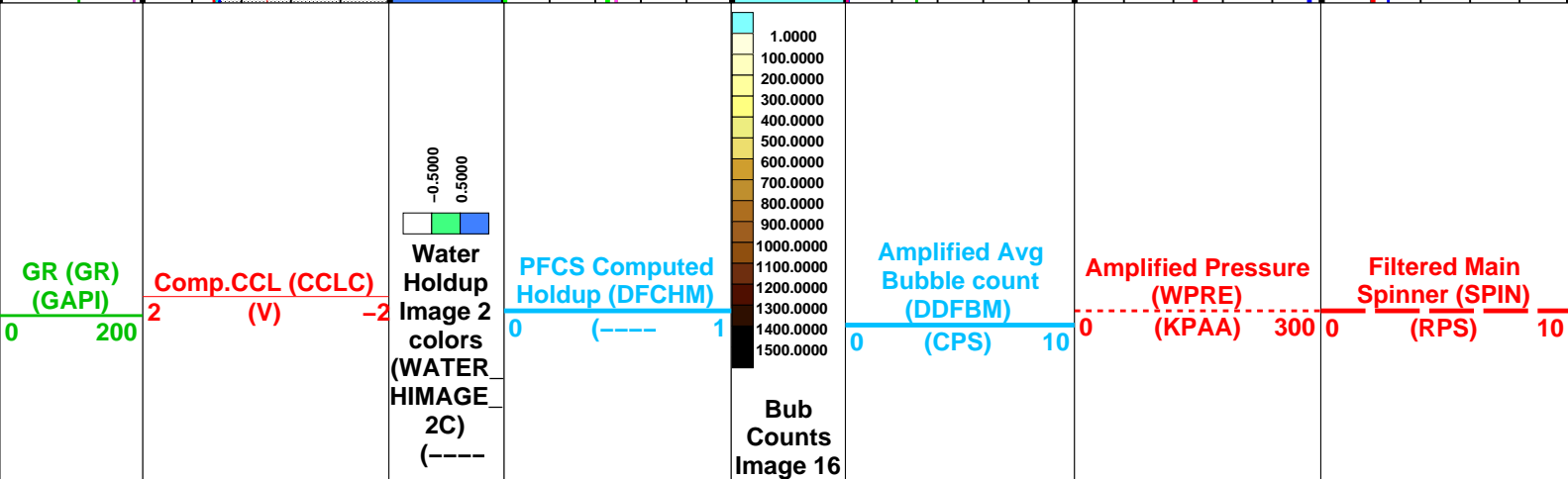
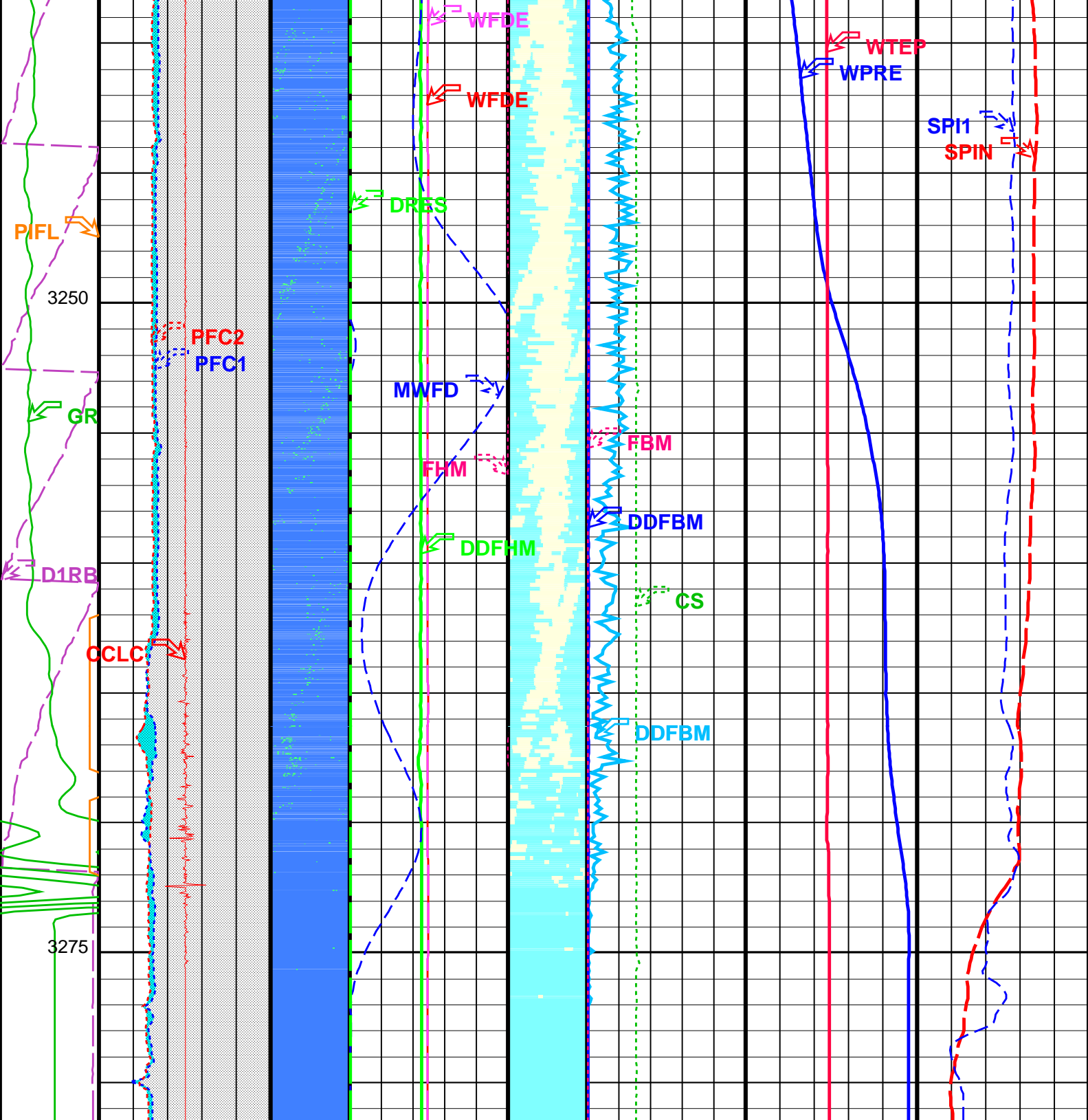
Company: Esso Australia Pty Ltd	Well: FTA A3
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Input DLIS Files						
DEFAULT	FCS_ILS_DEFT_GMS_055PUP	FN:53	PRODUCER	10-Aug-2009 22:21	3281.5 M	3215.9 M
Output DLIS Files						
DEFAULT	FCS_ILS_DEFT_GMS_101PUP	FN:95	PRODUCER	14-Aug-2009 16:20	3281.5 M	3215.9 M

OP System Version: 17C0-154			
PFCS-A	17C0-154	PILS-A	17C0-154
DEFT-C2	17C0-154	PGMC-A/B	17C0-154
PSPT-A/B	17C0-154		

	Well Fluid Density (WFDE)
	0 (G/C3) 2
	Well Fluid Density

[illegible]



				colors (DBIMAG E_16C) (-----)			
Perfo Zone (PIFL) 20 (-----) 0	PFCS Caliper X (PFC1) (IN) 8 3		Avg Holdup (DDFHM) 0.1 (-----) 2.1		Cable Speed (CS) (M/HR) 1000 0 ----- 1000	Amplified Temperature (WTEP) (DEGC) 0 ----- 1	Filtered Auxiliary Spinner 1 (SPI1) (RPS) 0 ----- 10
Probe1 RB (D1RB) (DEG) 0 360	PFCS Caliper Y (PFC2) (IN) 8 3		Filtered Water Holdup (FHM) 0 (-----) 1		Avg BUB count (DDFBM) (CPS) 500	Well Pressure (WPRE) (PSIA) 3210	
	Well Diameter From PFC1 to PFC5_T1		Manometer Well Fluid Density (MWFD) (G/C3) 0 ----- 2		Filtered Bubble Count (FBM) (CPS) 500	Well Temperature (WTEP) (DEGC) 225	
	Well Diameter From PFC2 to PFC5_T1		PFCS Fluid Resistivity (DRES) (OHMM) 360				
	Pipe Ovalisation Between PFC1 and PFC2		Well Fluid Density (WFDE) (G/C3) 2				
			Well Fluid Density (WFDE) (G/C3) 2				

Format: PFCS\_Image\_DL      Vertical Scale: 1:200      Graphics File Created: 14-Aug-2009 16:20

## OP System Version: 17C0-154

PFCS-A	17C0-154	PILS-A	17C0-154
DEFT-C2	17C0-154	PGMC-A/B	17C0-154
PSPT-A/B	17C0-154		

## Parameters

DLIS Name	Description	Value
PFCS-A: PSP Flow and caliper Tool		
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE
CSID	Casing Size I.D.	6.276 IN
DDRC	Dual DEFT DELTA RB COMPUTATION	D1RB2-D1RB
DDRS	Dual DEFT RB Source	D1RB
DFBD	DEFT Blank Disallowed Probes	NO
DFFI	DEFT Flip Image	NO
DFII	DEFT Image Interpolation	YES
DFIRS	DEFT Image Rotation Selection	TOP_MIDDLE
DFPP	Probes Arm Position	C
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
PGFC	PFCS Geometrical coefficient	1200
PFRE1	Downhole Resistor Probe 1	3000 OHMS
PFRE2	Downhole Resistor Probe 2	3000 OHMS
PFRE3	Downhole Resistor Probe 3	3000 OHMS
PFRE4	Downhole Resistor Probe 4	3000 OHMS
SDCF	Spinner Depth Constant Filter	6
SPI1	Auxiliary Spinner 1 Flowmeter Sonde	PILS-A
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_3.5
PILS-A: PSP In Line Spinner Flowmeter		
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE
SDCF	Spinner Depth Constant Filter	6
SPI1	Auxiliary Spinner 1 Flowmeter Sonde	PILS-A
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_3.5
DEFT-C2: DEFT_C Tool		
CSID	Casing Size I.D.	6.276 IN
DDRC	Dual DEFT DELTA RB COMPUTATION	D1RB2-D1RB
DDRS	Dual DEFT RB Source	D1RB
DFBD	DEFT Blank Disallowed Probes	NO
DFFI	DEFT Flip Image	NO
DFII	DEFT Image Interpolation	YES
DFIRS	DEFT Image Rotation Selection	TOP_MIDDLE

DPPP2	Probes Arm Position (2nd tool)	D	
PFGC	PFCS Geometrical coefficient	1200	
	PGMC-A/B: PSP Gradiomanometer Measurement Module		
CSID	Casing Size I.D.	6.276	IN
PDSH	Gradio Correction Density Shift	0	G/C3
	PSPT-A/B: Production Services Logging Platform		
CSID	Casing Size I.D.	6.276	IN
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
	BORDYN: BorDyn (Well Test Validation)		
CSID	Casing Size I.D.	6.276	IN
	System and Miscellaneous		
CSIZ	Current Casing Size	7.000	IN
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	

### Input DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_055PUP	FN:53	PRODUCER	10-Aug-2009 22:21	3281.5 M	3215.9 M
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### Output DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_101PUP	FN:95	PRODUCER	14-Aug-2009 16:20
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### Input DLIS Files

DEFAULT	FCS_ILS_DEFT_GMS_055PUP	FN:53	PRODUCER	10-Aug-2009 22:21	3281.5 M	3215.9 M
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### Output DLIS Files

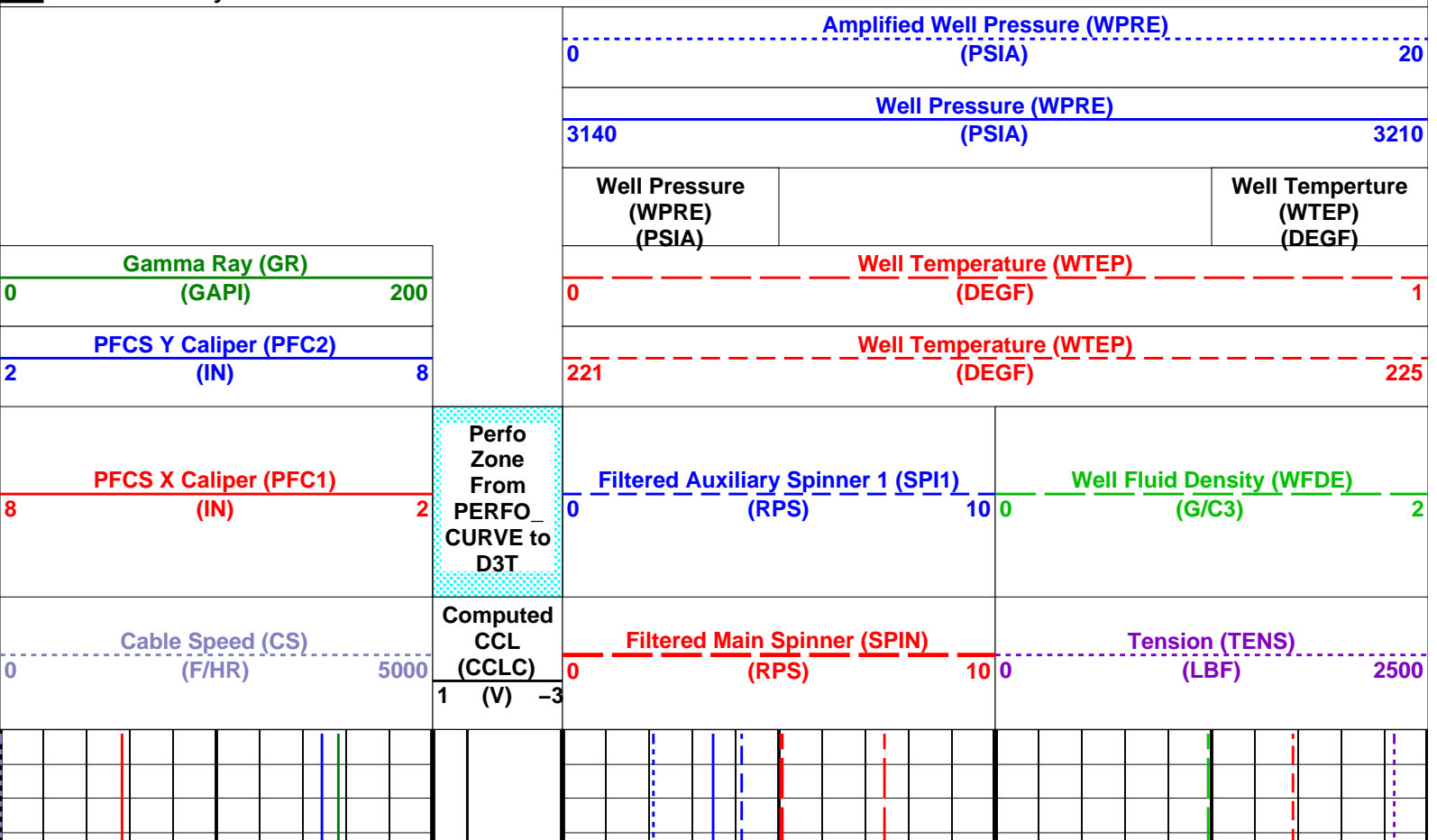
DEFAULT	FCS_ILS_DEFT_GMS_101PUP	FN:95	PRODUCER	14-Aug-2009 16:20	3281.5 M	3215.9 M
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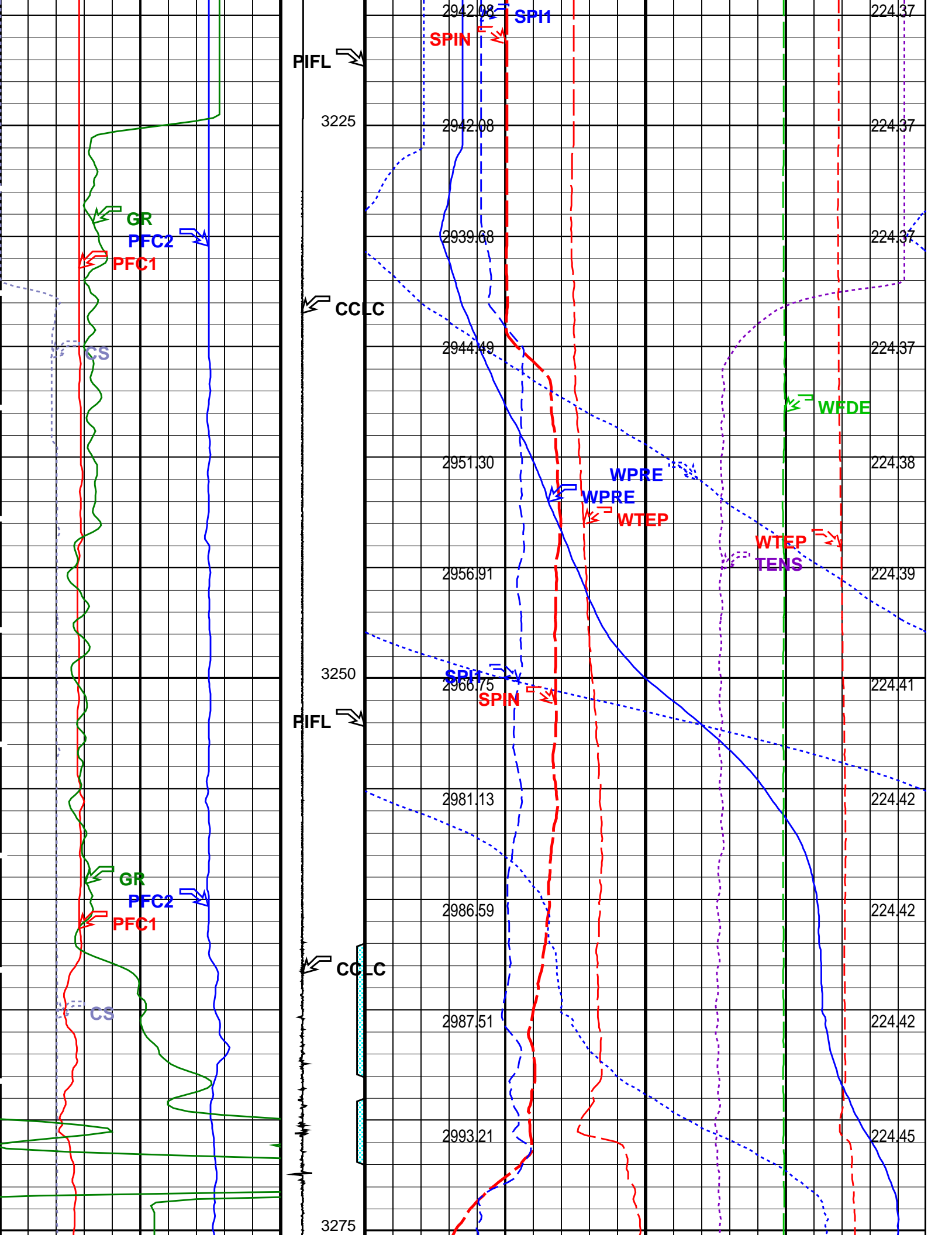
### OP System Version: 17C0-154

PFCS-A	17C0-154	PILS-A	17C0-154
DEFT-C2	17C0-154	PGMC-A/B	17C0-154
PSPT-A/B	17C0-154		

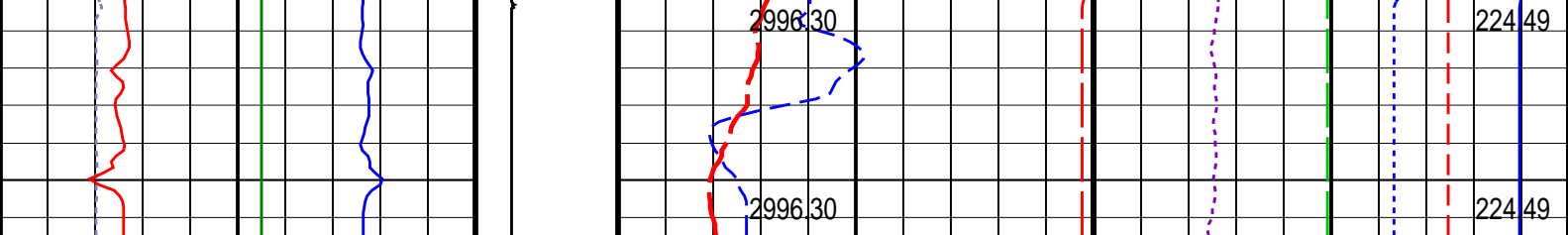
### PIP SUMMARY

☒ Time Mark Every 60 S









<div>Cable Speed (CS) (F/HR)</div> <div>05000</div>	<div>Computed CCL (CCLC) (V)</div> <div>1-3</div>	<div>Filtered Main Spinner (SPIN) (RPS)</div> <div>010</div>	<div>Tension (TENS) (LBF)</div> <div>02500</div>
<div>PFCs X Caliper (PFC1) (IN)</div> <div>82</div>	<div>Perfo Zone From PERFO_CURVE to D3T</div>	<div>Filtered Auxiliary Spinner 1 (SPI1) (RPS)</div> <div>010</div>	<div>Well Fluid Density (WFDE) (G/C3)</div> <div>02</div>
<div>PFCs Y Caliper (PFC2) (IN)</div> <div>28</div>		<div>Well Temperature (WTEP) (DEGF)</div> <div>221225</div>	<div>Well Temperature (WTEP) (DEGF)</div> <div>01</div>
<div>Gamma Ray (GR) (GAPI)</div> <div>0200</div>		<div>Well Pressure (WPRESSURE) (PSIA)</div> <div>31403210</div>	<div>Well Temperature (WTEP) (DEGF)</div> <div>01</div>
		<div>Amplified Well Pressure (WPRESSURE) (PSIA)</div> <div>020</div>	

PIP SUMMARY

Time Mark Every 60 S

Format: PSP\_1    Vertical Scale: 1:200

Graphics File Created: 14-Aug-2009 16:20

OP System Version: 17C0-154

PFCS-A	17C0-154	PILS-A	17C0-154
DEFT-C2	17C0-154	PGMC-A/B	17C0-154
PSPT-A/B	17C0-154		

Parameters

DLIS Name	Description	Value
PFCS-A: PSP Flow and caliper Tool		
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
SDCF	Spinner Depth Constant Filter	6
SPI1	Auxiliary Spinner 1 Flowmeter Sonde	PILS-A
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_3.5
PILS-A: PSP In Line Spinner Flowmeter		
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE
SDCF	Spinner Depth Constant Filter	6
SPI1	Auxiliary Spinner 1 Flowmeter Sonde	PILS-A
SPIN	Main Spinner Flowmeter Sonde	PFCS-A_3.5
PGMC-A/B: PSP Gradiomanometer Measurement Module		
PDSH	Gradio Correction Density Shift	0 G/C3
PSPT-A/B: Production Services Logging Platform		
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
System and Miscellaneous		
DO	Depth Offset for Playback	0.0 M
PP	Playback Processing	NORMAL

Input DLIS Files

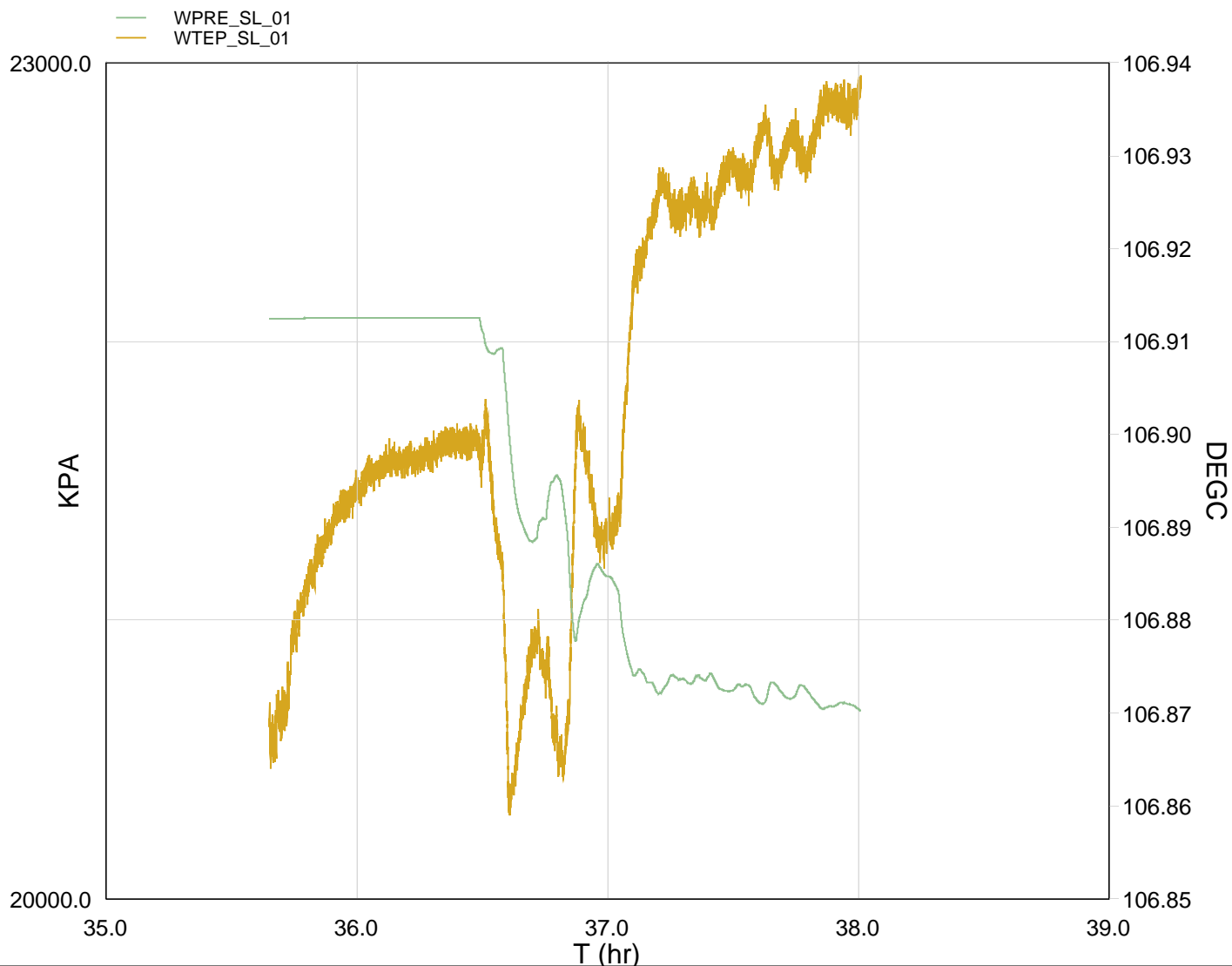
DEFAULT	FCS_ILS_DEFT_GMS_055PUP	FN:53	PRODUCER	10-Aug-2009 22:21	3281.5 M	3215.9 M
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**Schlumberger**

## Station Log @ 3181m MDKB

### Well draw down

MAXIS Field Log

**Schlumberger**

## Sensors Multipass

### Static 3240m – 3281m MDKB

MAXIS Field Log



**PLQL Passes Summary**

Pass # 1: Src: PLQL\_CS, Log: UP , Avg.CS: 5 M/MN  
Pass # 2: Src: PLQL\_CS, Log: UP , Avg.CS: 5 M/MN  
Pass # 3: Src: PLQL\_CS, Log: UP , Avg.CS: 9 M/MN  
Pass # 4: Src: PLQL\_CS, Log: UP , Avg.CS: 9 M/MN  
Pass # 5: Src: PLQL\_CS, Log: UP , Avg.CS: 10 M/MN  
Pass # 6: Src: PLQL\_CS, Log: UP , Avg.CS: 20 M/MN  
Pass # 7: Src: PLQL\_CS, Log: UP , Avg.CS: 20 M/MN  
Pass # 8: Src: PLQL\_CS, Log: UP , Avg.CS: 30 M/MN

**PLQL Data Manager Files**

Pass # 1  
Pass # 2  
Pass # 3  
Pass # 4  
Pass # 5  
Pass # 6  
Pass # 7  
Pass # 8  
Pass # 9

**Output DLIS Files**

DEFAULT FCS\_ILS\_DEFT\_GMS\_096PUP FN:90 PRODUCER 14-Aug-2009 14:58 3282.1 M 3227.4 M

**OP System Version: 17C0-154**

PFCS-A 17C0-154 PILS-A 17C0-154  
DEFT-C2 17C0-154 PGMC-A/B 17C0-154  
PSPT-A/B 17C0-154

Interpretat  
ion Zone  
From  
ZONE\_  
CURVE to  
D3T

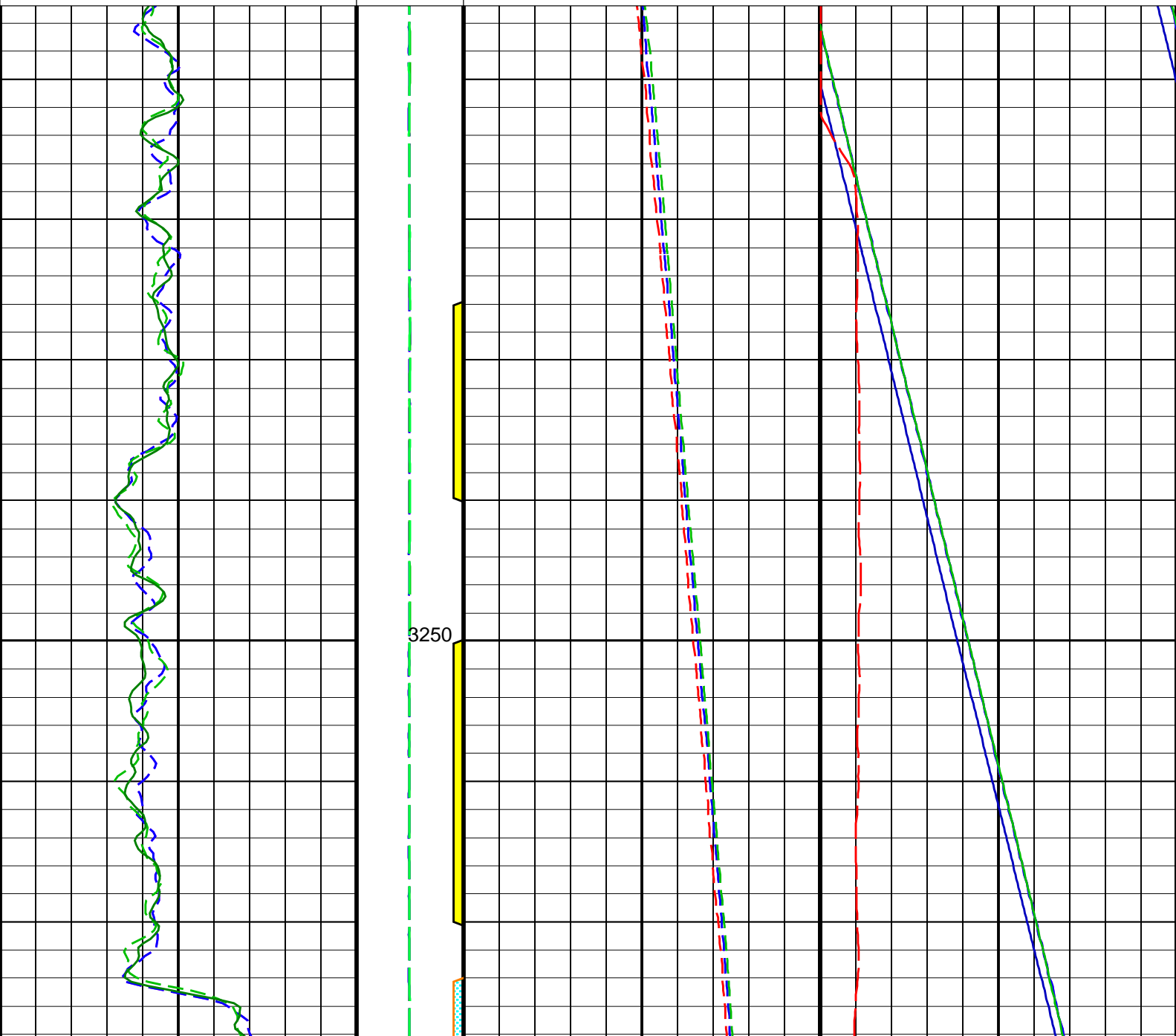
Perfo  
Zone  
From  
PERFO\_  
CURVE to  
D3T

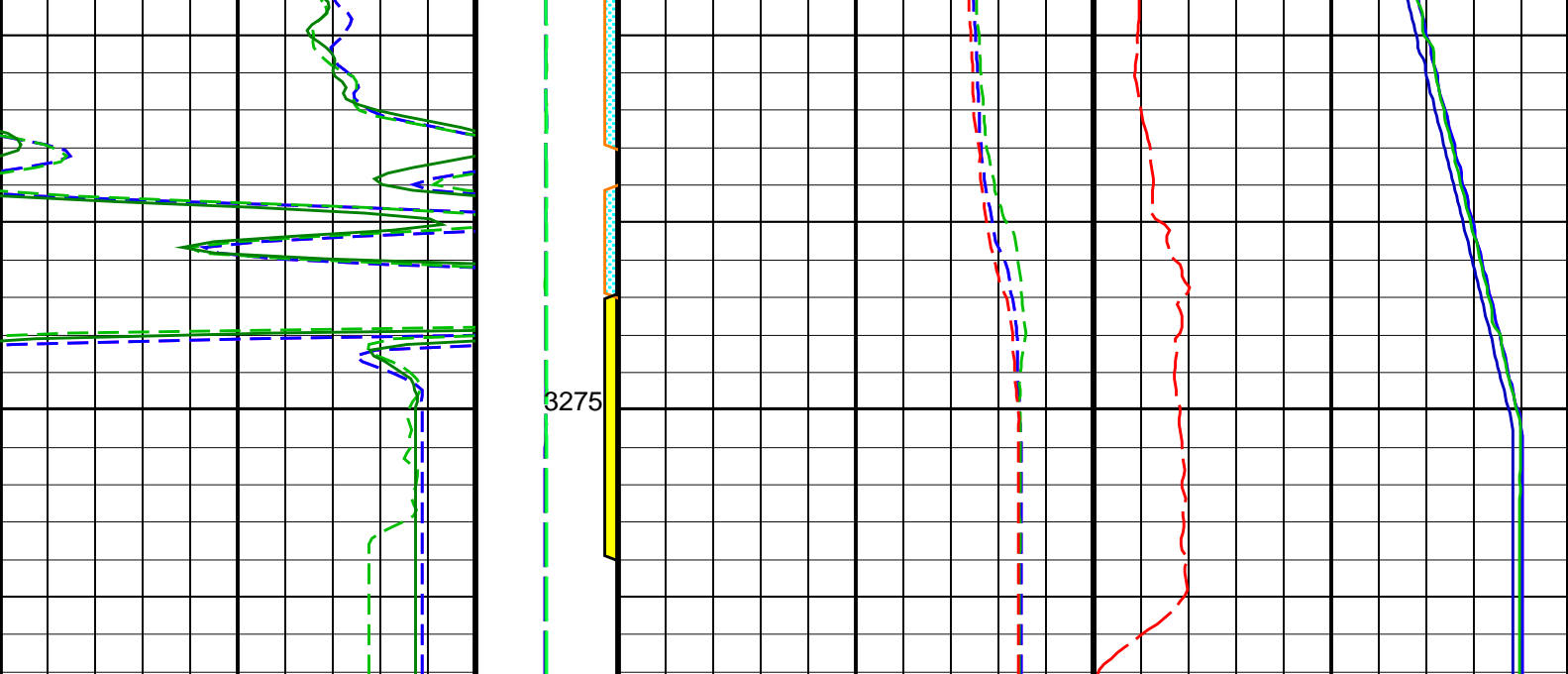
Fluid  
Density  
[01]  
(P01FDS)  
(G/C3)  
0.5 1.5

Fluid Temperature [01] (P01TMP)  
225 225  
(DEGF)

Well Pressure [01] (P01LPR)  
3140 3210  
(PSIA)

Gamma-Ray [01] (P01LGR) (GAPI)		0	150	Fluid Density [02] (P02FDS) (G/C3)	0.5	1.5	Fluid Temperature [02] (P02TMP) (DEGF)	221	225	Well Pressure [02] (P02LPR) (PSIA)	3140	3210
Gamma-Ray [02] (P02LGR) (GAPI)		0	150	Fluid Density [03] (P03FDS) (G/C3)	0.5	1.5	Fluid Temperature [03] (P03TMP) (DEGF)	221	225	Well Pressure [03] (P03LPR) (PSIA)	3140	3210
Gamma-Ray [03] (P03LGR) (GAPI)		0	150	Fluid Density [04] (P04FDS) (G/C3)	0.5	1.5	Fluid Temperature [04] (P04TMP) (DEGF)	221	225	Well Pressure [04] (P04LPR) (PSIA)	3140	3210
Gamma-Ray [04] (P04LGR) (GAPI)		0	150	Perfo Zone (PIFL_DM) 20 (----- 0)	Spinner Rotational Velocity [01] (P01SPIN) (RPS)							
					-10							10





Gamma-Ray [04] (P04LGR) (GAPI)		Perfo Zone (PIFL_DM) 20 (----- 0)	Spinner Rotational Velocity [01] (P01SPIN) (RPS)	
0 150			-10 10	
Gamma-Ray [03] (P03LGR) (GAPI)		Fluid Density [04] (P04FDS) (G/C3)	Fluid Temperature [04] (P04TMP) (DEGF)	Well Pressure [04] (P04LPR) (PSIA)
0 150		0.5 1.5	221 225	3140 3210
Gamma-Ray [02] (P02LGR) (GAPI)		Fluid Density [03] (P03FDS) (G/C3)	Fluid Temperature [03] (P03TMP) (DEGF)	Well Pressure [03] (P03LPR) (PSIA)
0 150		0.5 1.5	221 225	3140 3210
Gamma-Ray [01] (P01LGR) (GAPI)		Fluid Density [02] (P02FDS) (G/C3)	Fluid Temperature [02] (P02TMP) (DEGF)	Well Pressure [02] (P02LPR) (PSIA)
0 150		0.5 1.5	221 225	3140 3210
		Fluid Density [01] (P01FDS) (G/C3)	Fluid Temperature [01] (P01TMP) (DEGF)	Well Pressure [01] (P01LPR) (PSIA)
		0.5 1.5	221 225	3140 3210
		Perfo Zone From PERFO_CURVE to D3T		
		Interpretat ion Zone From ZONE_CURVE to D3T		

Parameters		
DI IS Name	Description	Value

DLIS Name	Description	Value	
CSID	PFCS-A: PSP Flow and caliper Tool Casing Size I.D.	6.276	IN
CSID	DEFT-C2: DEFT_C Tool Casing Size I.D.	6.276	IN
CSID	PGMC-A/B: PSP Gradiomanometer Measurement Module Casing Size I.D.	6.276	IN
CSID	PSPT-A/B: Production Services Logging Platform Casing Size I.D.	6.276	IN
CSID	BORDYN: BorDyn (Well Test Validation) Casing Size I.D.	6.276	IN
CSID	PLQL: Production Logging Quick Look CCL Selector	CCLC	
CCLS		PFC1	
FCHD	Cased Hole Diameter Selector	CVEL	
PCVS	CVEL Selector	GR	
PGRS	GR Selector	WPRE	
PGS	Pressure Gauge Selector	DFHM	
PWHS	PLQL Water HoldUp Selector	WFDE	
RHOS	Fluid Density Selector	SPIN	
SPIS	Spinner Selector	WTEP	
TMPS	Temperature Selector		

Format: SensorsMULTIPASS      Vertical Scale: 1:200      Graphics File Created: 14-Aug-2009 14:58

## OP System Version: 17C0-154

PFCS-A	17C0-154	PILS-A	17C0-154
DEFT-C2	17C0-154	PGMC-A/B	17C0-154
PSPT-A/B	17C0-154		

## Output DLIS Files

DEFAULT      FCS\_ILS\_DEFT\_GMS\_096PUP      FN:90      PRODUCER      14-Aug-2009 14:58



Spinners Multipass  
Static 3240m – 3281m MDKB

MAXIS Field Log

Company: Esso Australia Pty Ltd      Well: FTA A3

## PLQL Passes Summary

Pass # 1: Src: PLQL\_CS, Log: UP , Avg.CS: 5 M/MN  
 Pass # 2: Src: PLQL\_CS, Log: UP , Avg.CS: 5 M/MN  
 Pass # 3: Src: PLQL\_CS, Log: UP , Avg.CS: 9 M/MN  
 Pass # 4: Src: PLQL\_CS, Log: UP , Avg.CS: 9 M/MN  
 Pass # 5: Src: PLQL\_CS, Log: UP , Avg.CS: 10 M/MN  
 Pass # 6: Src: PLQL\_CS, Log: UP , Avg.CS: 20 M/MN  
 Pass # 7: Src: PLQL\_CS, Log: UP , Avg.CS: 20 M/MN  
 Pass # 8: Src: PLQL\_CS, Log: UP , Avg.CS: 30 M/MN

Company: Esso Australia Pty Ltd      Well: FTA A3

## PLQL Data Manager Files

Pass # 1

- Pass # 2
- Pass # 3
- Pass # 4
- Pass # 5
- Pass # 6
- Pass # 7
- Pass # 8
- Pass # 9

Company: Esso Australia Pty Ltd

Well: FTA A3

Output DLIS Files

DEFAULT

FCS\_ILS\_DEFT\_GMS\_096PUP

FN:90

PRODUCER

14-Aug-2009 14:58

3282.1 M

3227.4 M

OP System Version: 17C0-154

PFCs-A

17C0-154

PILS-A

17C0-154

DEFT-C2

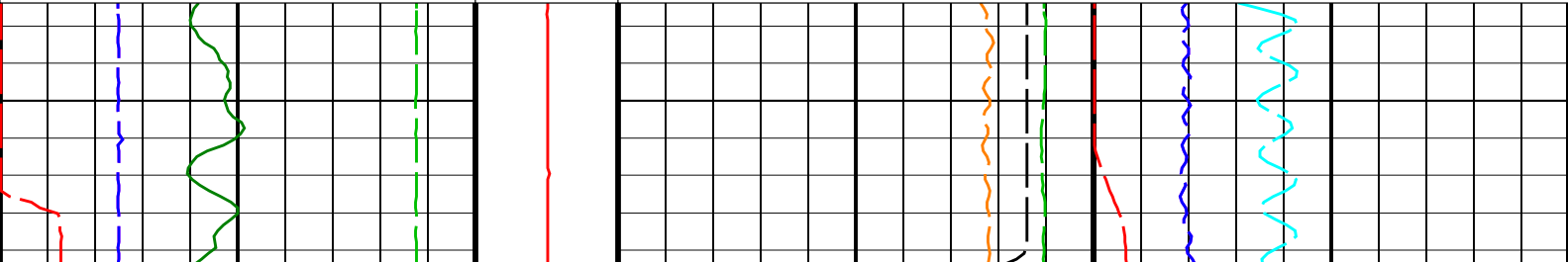
17C0-154

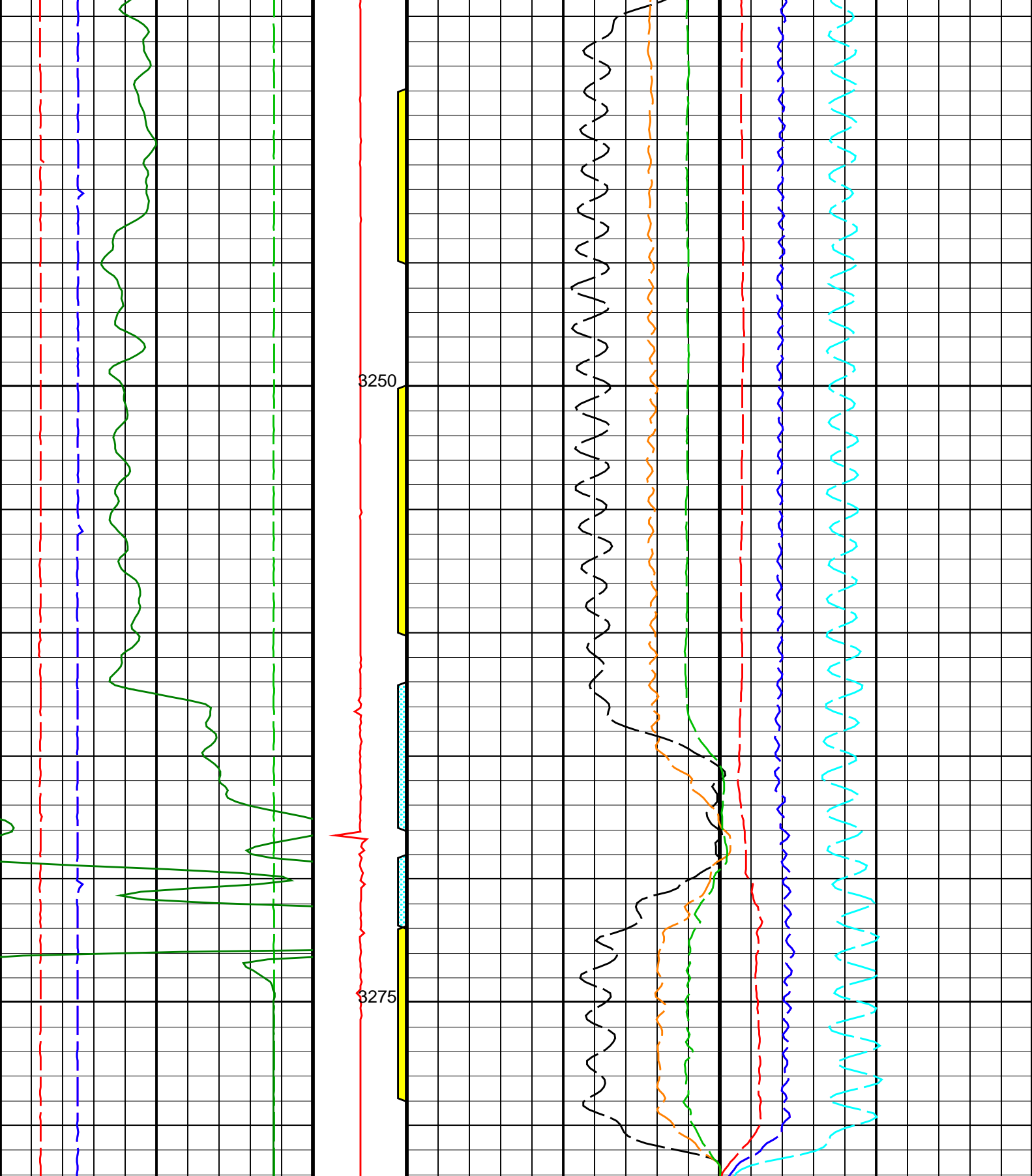
PGMC-A/B

17C0-154

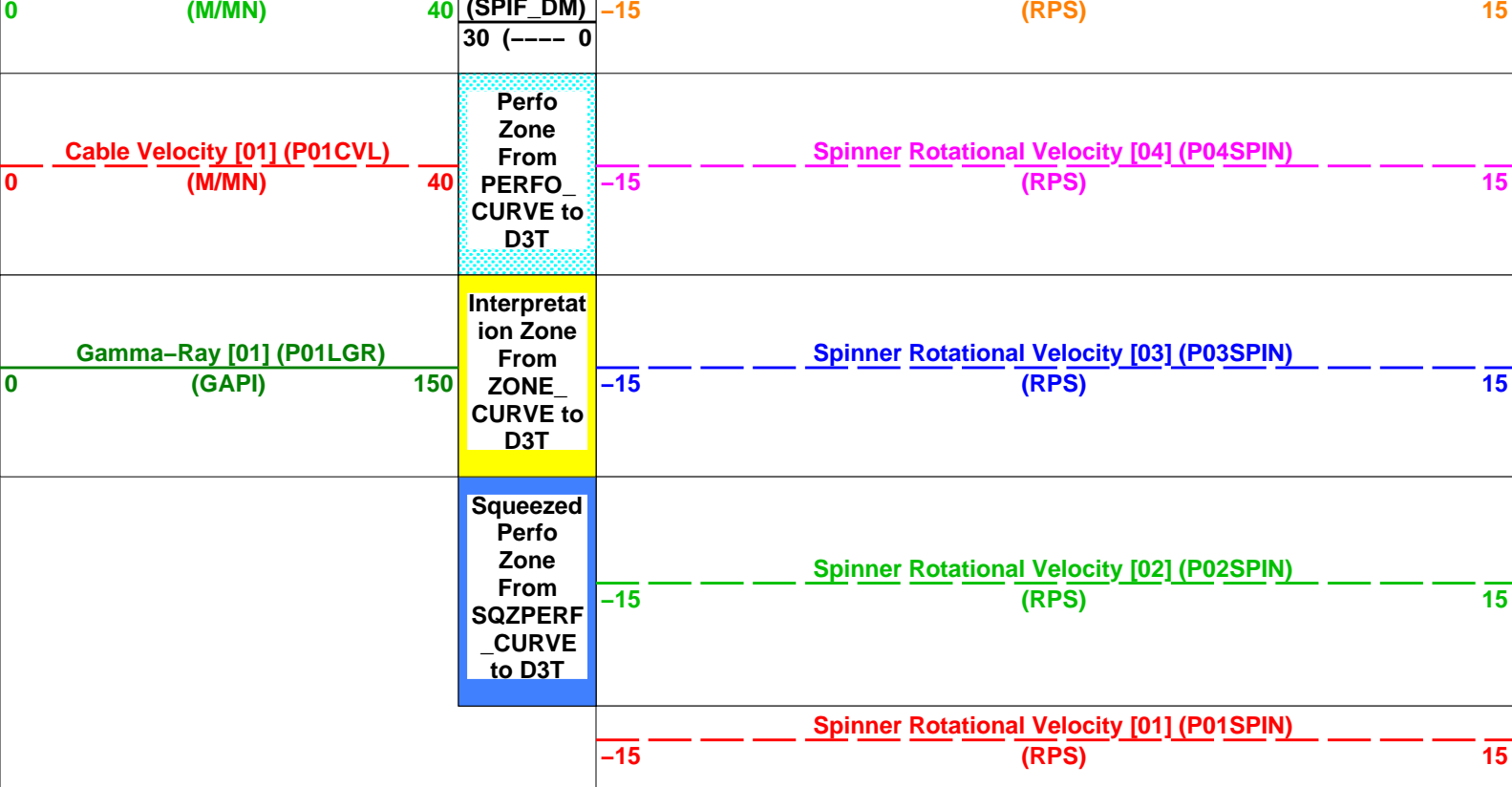
PSPT-A/B

17C0-154





<p>Cable Velocity [04] (P04CVL) (M/MN)</p> <p>0 40</p>	<p>CCL [01] (P01CCL) -3 (V) 3</p>	<p>Spinner Rotational Velocity [07] (P07SPIN) (RPS)</p> <p>-15 15</p>
<p>Cable Velocity [03] (P03CVL) (M/MN)</p> <p>0 40</p>	<p>Perfo Zone (PIFL_DM) 20 (----) 0</p>	<p>Spinner Rotational Velocity [06] (P06SPIN) (RPS)</p> <p>-15 15</p>
<p>Cable Velocity [02] (P02CVL)</p>	<p>Squeezed Perfo Zone</p>	<p>Spinner Rotational Velocity [05] (P05SPIN)</p>



## Parameters

DLIS Name	Description	Value
CSID	PFCS-A: PSP Flow and caliper Tool	6.276 IN
CSID	DEFT-C2: DEFT_C Tool	6.276 IN
CSID	PGMC-A/B: PSP Gradiomanometer Measurement Module	6.276 IN
CSID	PSPT-A/B: Production Services Logging Platform	6.276 IN
CSID	BORDYN: BorDyn (Well Test Validation)	6.276 IN
CSID	PLQL: Production Logging Quick Look	6.276 IN
CCLS	CCL Selector	CCLC
FCHD	Cased Hole Diameter Selector	PFC1
PCVS	CVEL Selector	CVEL
PGRS	GR Selector	GR
PGS	Pressure Gauge Selector	WPRE
PWHS	PLQL Water HoldUp Selector	DFHM
RHOS	Fluid Density Selector	WFDE
SPIS	Spinner Selector	SPIN
TMPS	Temperature Selector	WTEP

Format: SpinnersMULTIPASS Vertical Scale: 1:200 Graphics File Created: 14-Aug-2009 14:58

## OP System Version: 17C0-154

PFCS-A	17C0-154	PILS-A	17C0-154
DEFT-C2	17C0-154	PGMC-A/B	17C0-154
PSPT-A/B	17C0-154		

## Output DLIS Files

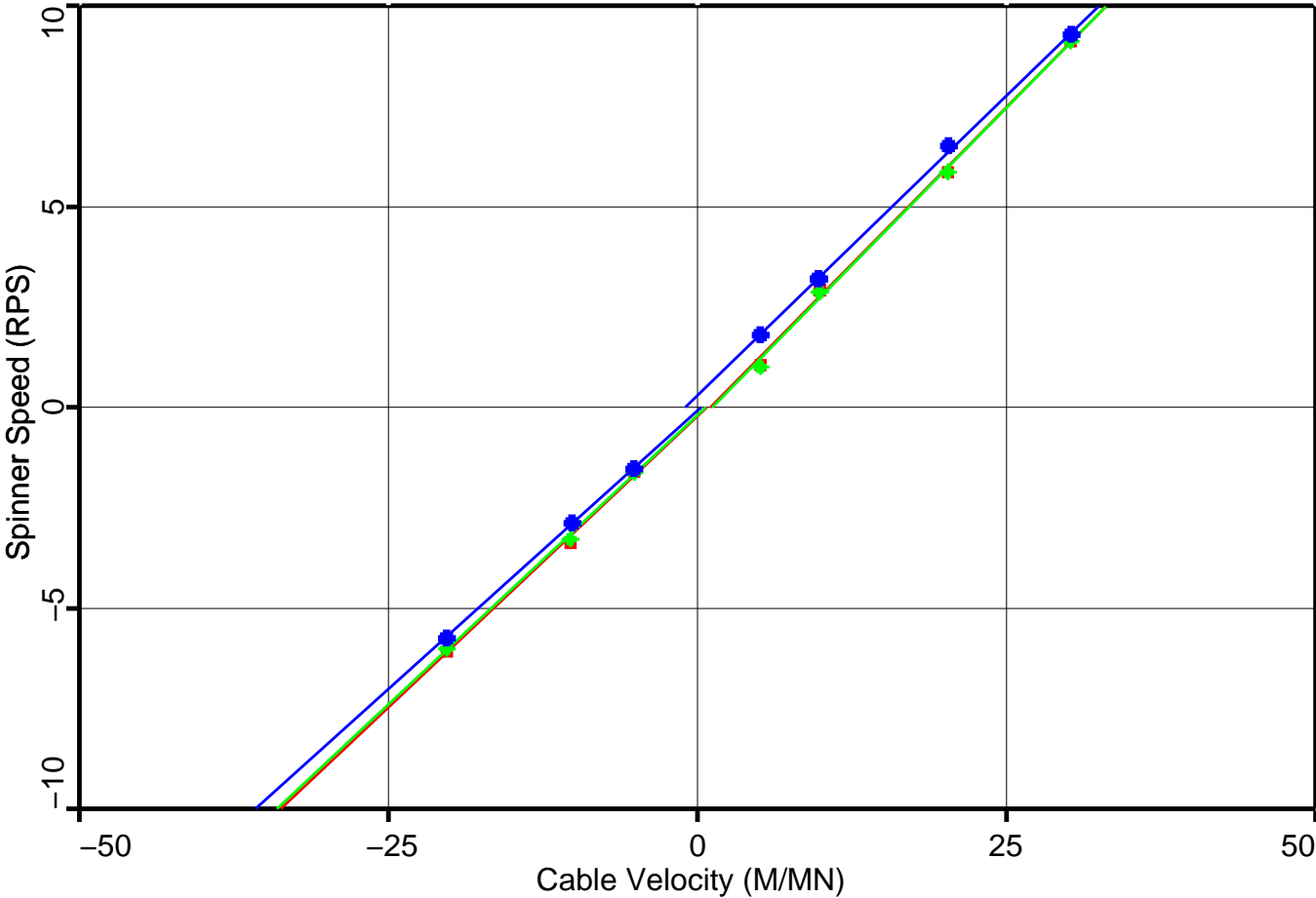
DEFAULT FCS\_ILS\_DEFT\_GMS\_096PUP FN:90 PRODUCER 14-Aug-2009 14:58



Spinner Calibration

Production Logging Quicklook Spinner Calibration

	Zone Depth	Fluid Vel.	Positive Spinner			Negative Spinner		
	(M)	(M/MN)	Slope (RSMM)	Intercept (M/MN)	Correl.	Slope (RSMM)	Intercept (M/MN)	Correl.
■	Zone 1 3245.0 – 3238.0 :	–0.6	0.313	1.1	0.999	0.2908	0.8	0.998
◆	Zone 2 3260.0 – 3250.0 :	–0.6	0.3148	1.2	0.999	0.2879	0.7	0.999
●	Zone 3 3279.0 – 3272.0 :	–0.3	0.2995	–1	1	0.2773	0.4	1



Correlation Pass



# Input DLIS Files

DEFAULT FCS\_ILS\_DEFT\_GMS\_033LUP FN:32 PRODUCER 10-Aug-2009 11:34 3284.5 M 3226.0 M

# Output DLIS Files

DEFAULT FCS\_ILS\_DEFT\_GMS\_069PUP FN:63 PRODUCER 14-Aug-2009 02:23 3284.5 M 3226.0 M

## OP System Version: 17C0-154

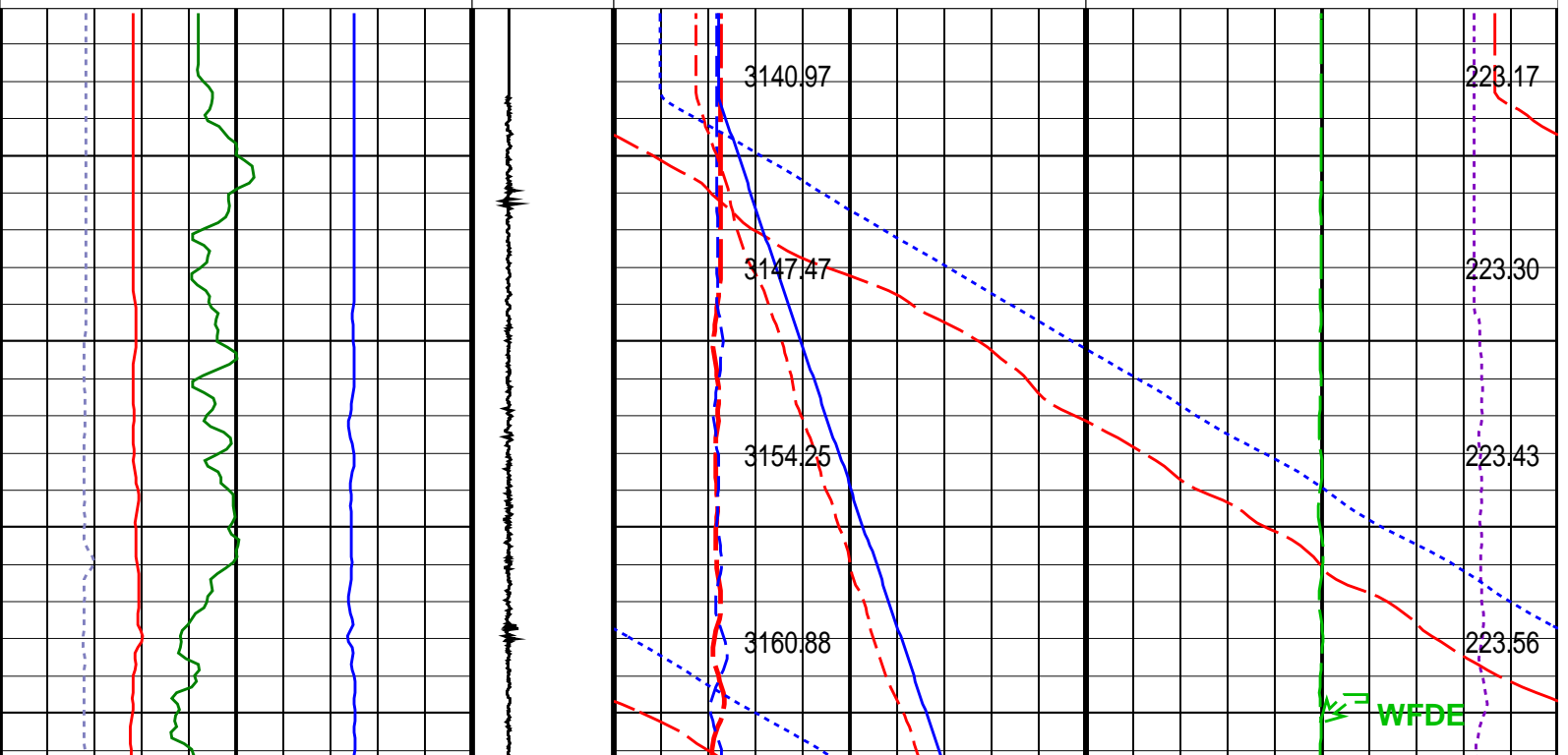
PFCS-A 17C0-154  
DEFT-C2 17C0-154  
PSPT-A/B 17C0-154

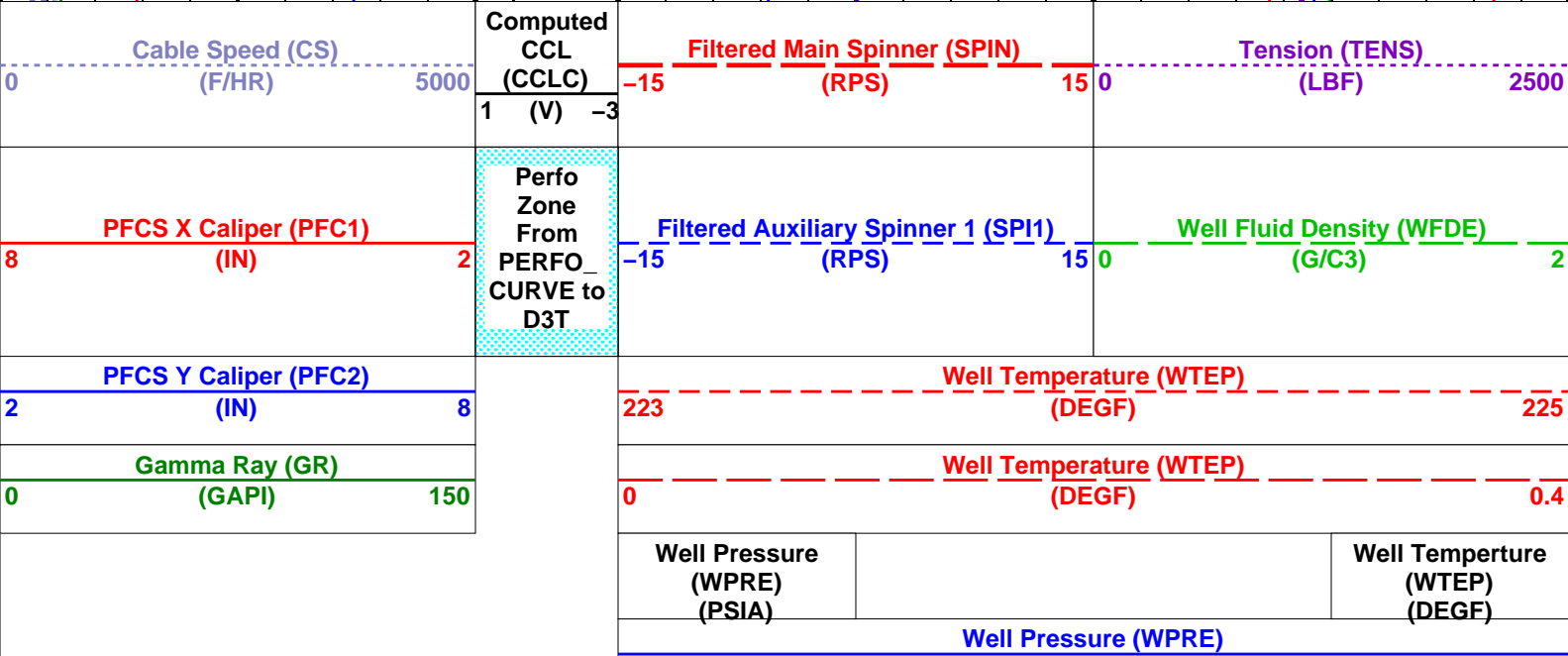
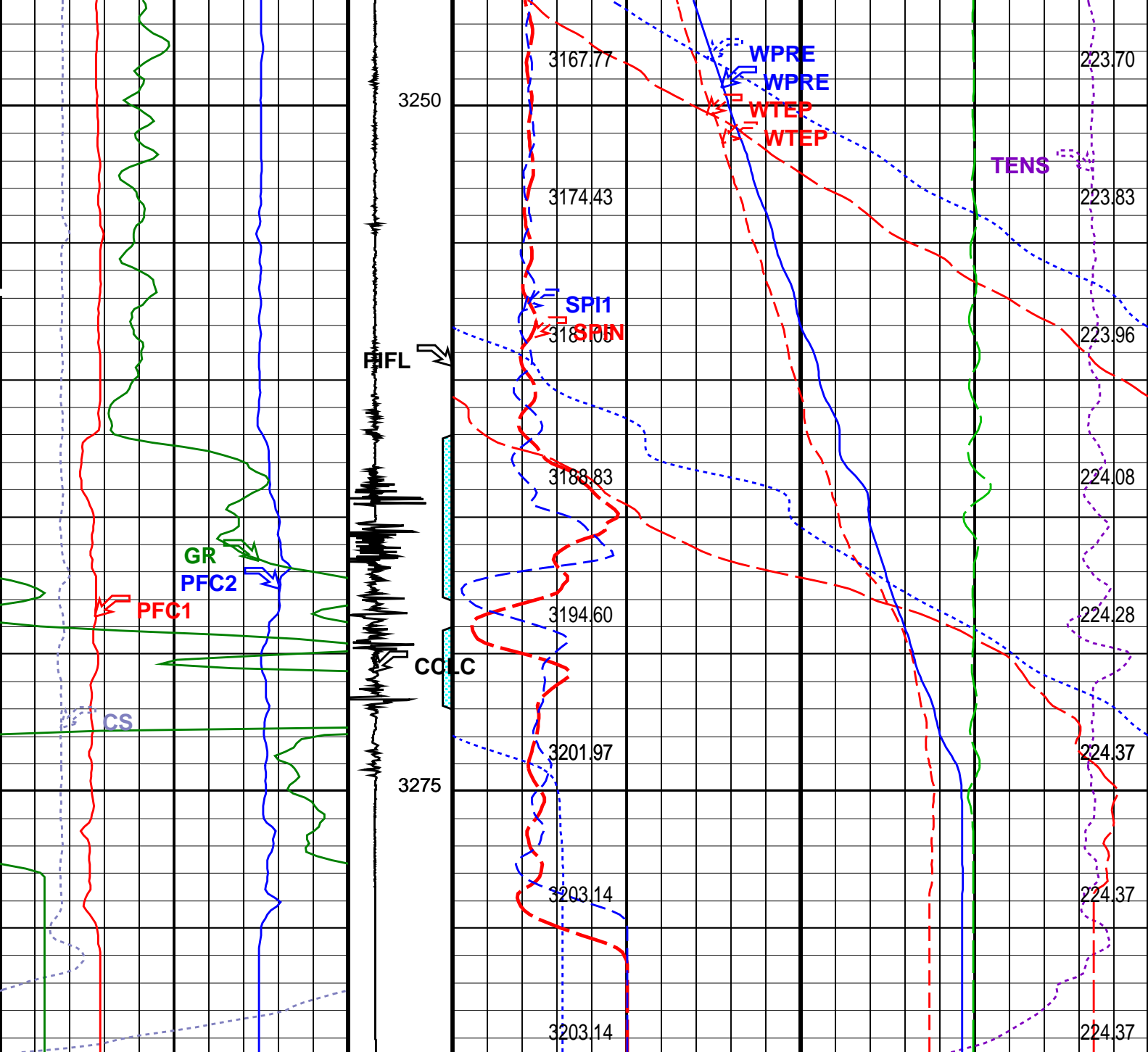
PILS-A 17C0-154  
PGMC-A/B 17C0-154

### PIP SUMMARY

Time Mark Every 60 S

		Amplified Well Pressure (WPRE) (PSIA)	
		0	20
		Well Pressure (WPRE) (PSIA)	
		3130	3230
		Well Pressure (WPRE) (PSIA)	Well Temperature (WTEP) (DEGF)
Gamma Ray (GR) (GAPI)		Well Temperature (WTEP) (DEGF)	
0		0	
150		0.4	
PFCS Y Caliper (PFC2) (IN)		Well Temperature (WTEP) (DEGF)	
2		223	
8		225	
PFCS X Caliper (PFC1) (IN)		Filtered Auxiliary Spinner 1 (SP1) (RPS)	
8		-15	
2		15	
Well Fluid Density (WFDE) (G/C3)		Well Fluid Density (WFDE) (G/C3)	
0		0	
2		2	
Cable Speed (CS) (F/HR)		Filtered Main Spinner (SPIN) (RPS)	
0		-15	
5000		15	
Tension (TENS) (LBF)		Tension (TENS) (LBF)	
0		0	
2500		2500	





		3130	(PSIA)	3230
		Amplified Well Pressure (WPRE)		
		0	(PSIA)	20
PIP SUMMARY				
Time Mark Every 60 S				
Format: PSP_1		Vertical Scale: 1:200		Graphics File Created: 14-Aug-2009 02:23
OP System Version: 17C0-154				
PFCs-A	17C0-154	PILS-A	17C0-154	
DEFT-C2	17C0-154	PGMC-A/B	17C0-154	
PSPT-A/B	17C0-154			
Parameters				
DLIS Name	Description	Value		
PFCs-A: PSP Flow and caliper Tool				
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE		
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG	
SDCF	Spinner Depth Constant Filter	6		
SPI1	Auxiliary Spinner 1 Flowmeter Sonde	PILS-A		
SPIN	Main Spinner Flowmeter Sonde	PFCs-A_3.5		
PILS-A: PSP In Line Spinner Flowmeter				
AMOD	Spinner Filter Averaging Mode	LINEAR_AVERAGE		
SDCF	Spinner Depth Constant Filter	6		
SPI1	Auxiliary Spinner 1 Flowmeter Sonde	PILS-A		
SPIN	Main Spinner Flowmeter Sonde	PFCs-A_3.5		
PGMC-A/B: PSP Gradiomanometer Measurement Module				
PDSH	Gradio Correction Density Shift	0	G/C3	
PSPT-A/B: Production Services Logging Platform				
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG	
System and Miscellaneous				
DO	Depth Offset for Playback	0.0	M	
PP	Playback Processing	NORMAL		
Input DLIS Files				
DEFAULT	FCS_ILS_DEFT_GMS_033LUP	FN:32	PRODUCER	10-Aug-2009 11:34 3284.5 M 3226.0 M
Output DLIS Files				
DEFAULT	FCS_ILS_DEFT_GMS_069PUP	FN:63	PRODUCER	14-Aug-2009 02:23



Calibration Listing

MAXIS Field Log

Calibration and Check Summary							
Measurement	Nominal	Master	Before	After	Change	Limit	Units
PSP Flow and caliper Tool Wellsite Calibration – PFCs Caliper Calibration							
Before: 9-Aug-2009 12:57 After: 9-Aug-2009 13:11							
PFCs CaliperX Small Ring	5.500	N/A	5.459	5.459	0	N/A	IN
PFCs CaliperX Large Ring	8.000	N/A	8.110	8.148	0.03788	N/A	IN
PFCs CaliperY Small Ring	5.500	N/A	3.641	3.603	−0.03788	N/A	IN
PFCs CaliperY Large Ring	8.000	N/A	6.254	6.292	0.03788	N/A	IN

DEFT\_C Tool Wellsite Calibration – DEFT\_C2 Caliper Calibration

Before: 9–Aug–2009 13:01 After: 9–Aug–2009 13:08								
DEFT–C2 Caliper Small Ring	5.500	N/A	5.615	5.615	0	N/A	IN	
DEFT–C2 Caliper Large Ring	8.000	N/A	8.045	8.045	0	N/A	IN	

Production Services Logging Platform Wellsite Calibration – Detector Calibration

Before: 9–Aug–2009 13:04 After: 9–Aug–2009 13:06								
Gamma–Ray Jig–Bkg	125.0	N/A	126.0	124.4	–1.624	N/A	GAPI	

PSP Flow and caliper Tool / Equipment Identification

Primary Equipment:		
PFCS Cartridge	PFCC – A	
PFCS Caliper	Cali –	
PFCS Relative Bearing	Rela –	
PFCS 3.5 Spinner Diameter	Spin –	
PFCS Fluid Holdup Electric Probes	Hold –	
Auxiliary Equipment:		
PFCS Cartridge Housing	PFCH – A	

PSP Flow and caliper Tool Wellsite Calibration									
PFCS Caliper Calibration									
Phase	PFCS CaliperX Small Ring IN			Value	Phase	PFCS CaliperX Large Ring IN			Value
Before				5.459	Before				8.110
After				5.459	After				8.148
	N/A (Minimum)	5.500 (Nominal)	N/A (Maximum)			N/A (Minimum)	8.000 (Nominal)	N/A (Maximum)	
Phase	PFCS CaliperY Small Ring IN			Value					
Before				3.641					
After				3.603					
	N/A (Minimum)	5.500 (Nominal)	N/A (Maximum)						
Phase	PFCS CaliperY Large Ring IN			Value					
Before				6.254					
After				6.292					
	N/A (Minimum)	8.000 (Nominal)	N/A (Maximum)						
Before: 9–Aug–2009 12:57					After: 9–Aug–2009 13:11				

DEFT\_C Tool / Equipment Identification

Primary Equipment:		
DEFTC Cartridge	DFCC – C	
DEFT_C Caliper	Cali –	
DEFT_C2 Relative Bearing	Rela –	
DEFT_C Flowmeter probes	Flow –	
Auxiliary Equipment:		
DEFTC Cartridge Housing	DFCH – C	

DEFT_C Tool Wellsite Calibration							
DEFT_C2 Caliper Calibration							
Phase	DEFT–C2 Caliper Small Ring IN		Value	Phase	DEFT–C2 Caliper Large Ring IN		Value
Before			5.615	Before			8.045
After			5.615	After			8.045
	N/A (Minimum)	5.500 (Nominal)	N/A (Maximum)		N/A (Minimum)	8.000 (Nominal)	N/A (Maximum)
Before: 9–Aug–2009 13:01				After: 9–Aug–2009 13:08			





Production Services Logging Platform / Equipment Identification

Primary Equipment:		
Production Logging Platform (CQG–F)	PSPT – B	
PSP Basic Measurement Sonde (CQG_F)	PBMS – B	
PSP Basic measurement module	PBMS –	
PSP CCL	CCL –	
PSP GR	GR –	
PSP RTD Well Temperature	RTD –	

PSP Crystal Quartz Gauge Type F  
PSP Telemetry and bus master cartridge

CQG\_ -  
PSTC -

Auxiliary Equipment:

Production Services Logging Platform Wellsite Calibration					
Detector Calibration					
Phase	Gamma-Ray Background GAPI	Value	Phase	Gamma-Ray Jig-Bkg GAPI	Value
Before		5.649	Before		126.0
After		5.555	After		124.4
0 (Minimum)		30.00 (Nominal)	110.0 (Minimum)		125.0 (Nominal)
		120.0 (Maximum)			140.0 (Maximum)
Before: 9-Aug-2009 13:04			After: 9-Aug-2009 13:06		

Company: **Esso Australia Pty Ltd**

**Schlumberger**

Well: **FTA A3**

Field: **Gippsland Basin**

Rig: **Prod 4 / Crane**

Country: **Australia**

GR / PLT / Dual DEFT

Inline and Fullbore Spinner Survey

10-Aug-2009