

Company: Esso Australia Pty Ltd

Well: TNA A13

Field: Tuna

Rig: Prod 4 / Crane

Country: Australia

RST-C
SIGMA Survey
29-12-2009

Prod 4 / Crane
Tuna
Gippsland
TNA A13
Esso Australia Pty Ltd

LOCATION	
Gippsland	Elev.: K.B. 32.90 m
Basin	G.L. -59.00 m
Bass Strait	D.F. 32.90 m
Permanent Datum:	Mean Sea Level
Log Measured From:	Drill floor
Drilling Measured From:	Drill floor
State: Victoria	Max. Well Deviation 27.3 deg
	Longitude 148°25' 05.59"E
	Latitude 38°10'16.00"S

Logging Date	29-Dec-2009		
Run Number	1		
Depth Driller	2222.4 m		
Schlumberger Depth	2082.6 m		
Bottom Log Interval	2082.6 m		
Top Log Interval	1775 m		
Casing Fluid Type	Production fluids		
Salinity			
Density			
Fluid Level			
BIT/CASING/TUBING STRING			
Bit Size	8.500 in		
From	1652 m		
To	2222.4 m		
Casing/Tubing Size	7.000 in		
Weight	34.6 lbm/ft		
Grade	K-55		
From	1540.97 m		
To	2222.4 m		
Maximum Recorded Temperatures	211 degF		
Logger On Bottom	29-Dec-2009	Time	8:30
Unit Number	889	Location	AUSL
Recorded By	Owen Darby		
Witnessed By	Barrie White		

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	27.3 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			

Date Created: 28-DEC-2009 15:43:52

Logging Cable

Type:	2-32ZT
Serial Number:	208558
Length:	6085 M
<hr/>	
Conveyance Method:	Wireline
Rig Type:	Offshore Fixed

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	Tuna A13
Reference Log Run Number:	
Reference Log Date:	2-Mar-2002
Subsequent Trip Down Log Correction:	

1. Correlated to ExxonMobil solar composite log provided by client
2. Used IDW as primary depth control
3. Used Z-Chart as secondary depth control
- 4.
- 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

interval 1775.0m – 2082.0m MDKB in SIGMA mode @ 900ft/hr.

Objective # 2 : Complete station logs @ required depths.

RIH to HUD, flow well via test separator – wait for well flow to stabilise then

record 15 min stations at the following intervals:

1) HUD 2082.6m MDKB

2) 2079.0m MDKB

3) 2073.0m MDKB

4) 2066.0m MDKB










5) 2041.0m MDKB

Crew:

Kevin Kerr & Gary Blandford

RUN 1			RUN 2		
SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:			B69I-00021 17C0-154 SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1			RUN 2		
SURFACE EQUIPMENT					
WITM-A 1864 PSC_16MHZ 1864					
DOWNHOLE EQUIPMENT					
AH-SWBS-B 785 AH-SWBS-B 785		15.07			
AH-SWBS-B 786 AH-SWBS-B 786		14.43			
AH-SWBS-B 787 AH-SWBS-B 787		13.78			
AH-SWBS-B 788 AH-SWBS-B 788		13.14			
AH-SWBS-B 789 AH-SWBS-B 789		12.49			
MH-SWBH 759 MH-SWBH 759		11.85			
EQF-43 310 EQF-43 310		11.37			
PSPT-A/B 1864 PSC-A 1864 PSPT-B 1864 PSTC 1864 PBMS-B 3918 CQG_F_Mano 3918 RTD_Thermometer 3918 GR 3918 CCL 3918 PBMS 3918	<div><div>Detail MT TelStatus CTEM</div><div>GR Well_Temp CQG Manom CCL PBMS PSTC</div></div>	<div>9.54 8.41 7.48 7.37 7.25 7.02</div> <div>9.54</div>			
RST-C		7.02			

RSCH-A 111
RSC-C 132
RSS-A 106
RSXH-A 145
RSX-C 132

RSC-A Far
RSC-A PNG
RSC-A Nea
RSX-A PNG

4.24
4.09

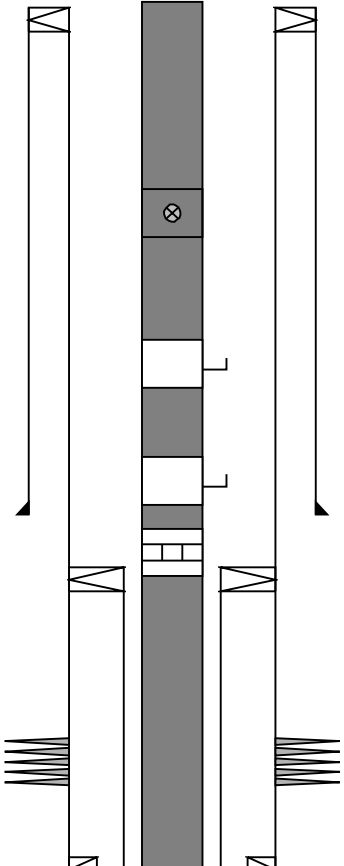
Tension HV 0.00
TOOL ZERO

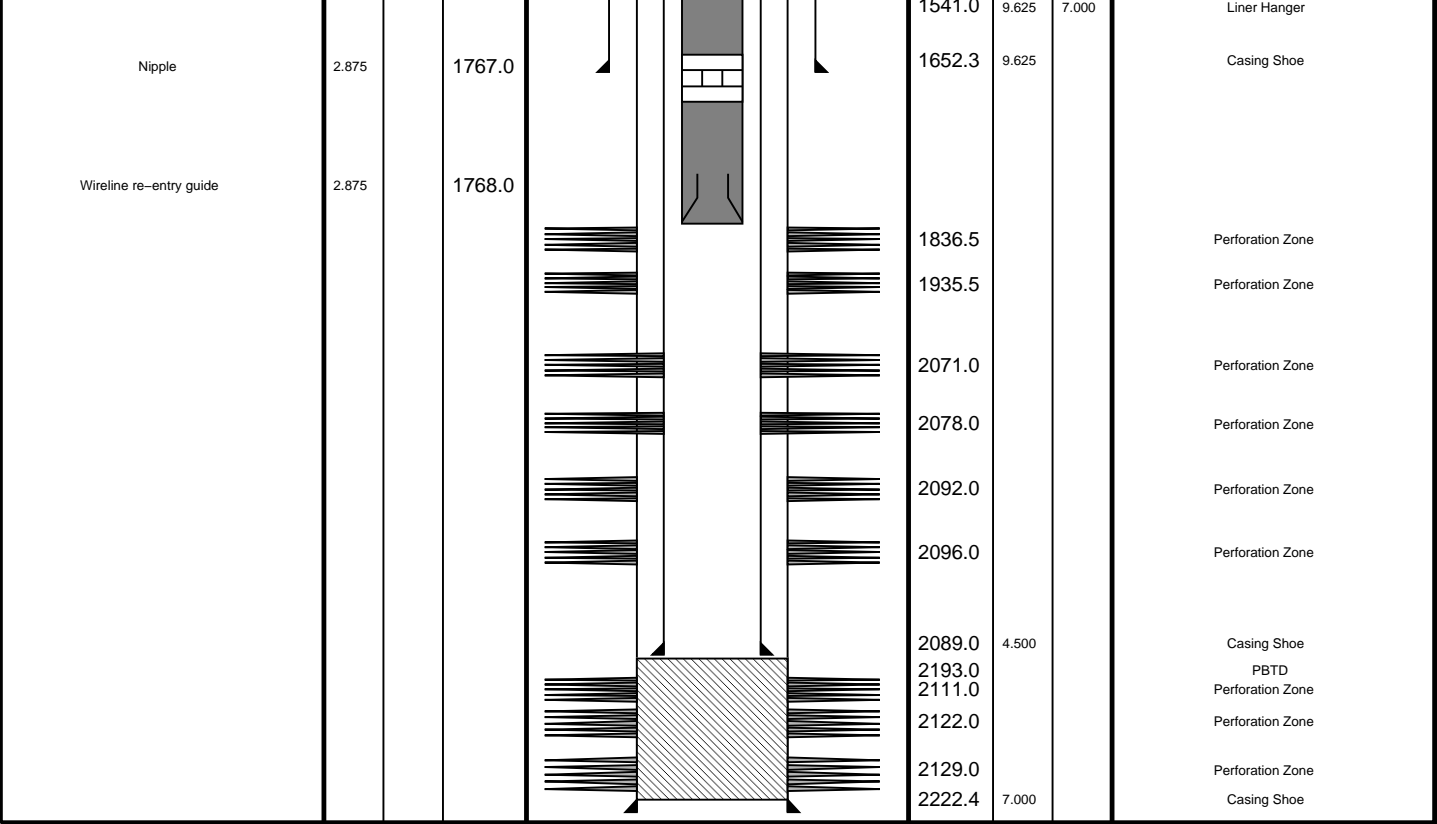
MAXIMUM STRING DIAMETER 1.72 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Client: Esso Australia Pty Ltd
Well: TNA A13
Field: Tuna
State: Victoria
Country: Australia

Drawing Date: 12/28/2009
API #:

Rig Name: Tuna
Reference Datum: Mean Sea Level
Elevation: 32.9 m

Production String	(in)		(m)	Well Schematic	(m)		(in)	Casing String
	OD	ID	MD		MD	OD	ID	
Tubing	2.875		13.6		14.3	13.375		Casing String Liner Hanger
					14.9	13.375	9.625	
					14.9	9.625		
SSSV	2.875		447.0					Casing String Liner Hanger
Gas Lift Mandrel	2.875		897.0					
Gas Lift Mandrel	2.875		1365.0					
Landing Nipple	2.875		1381.0		676.0	13.375		
					1432.0	4.500		Casing String Liner Hanger
					1432.0	9.625	4.500	
					1496.0			Perforation Zone
					1541.0	7.000		Casing String



Job Events Summary

MAXIS Field Log

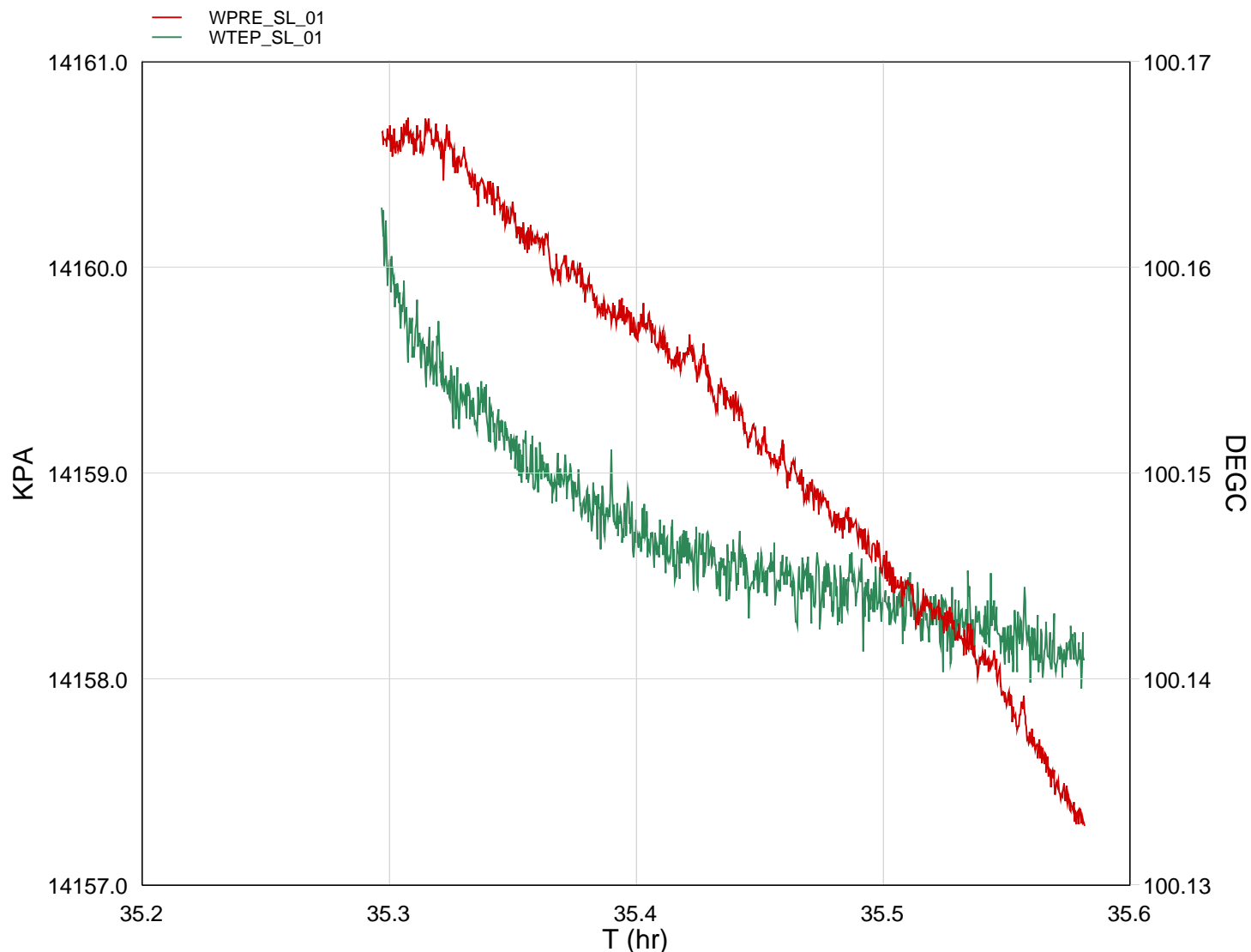
Schlumberger Job Event Summary

	Time	Elapsed Time	Depth (M)	File
Simulated Log	29-Dec-2009 6:30	000:31		RST_PSP_012LUP
OP checking RST				
Log Pass (down)	29-Dec-2009 7:29	000:17	1755.0 - 2079.2	RST_PSP_014LDP
RST - GR Baseline pass				
Log Pass (up)	29-Dec-2009 8:02	001:07	2080.6 - 1760.1	RST_PSP_019LUP
RST - SIGMA Pass				
Log Pass (up)	29-Dec-2009 9:22	000:09	2080.0 - 2029.5	RST_PSP_021LUP
RST - Repeat Analysis				
Station Log	29-Dec-2009 9:39	000:37	2080.2	RST_PSP_024LTP
Well flow record				
Station Log	29-Dec-2009 10:17	000:15	2080.2	RST_PSP_026LTP
Pressure / Temperature Station log @ 2082m MDKB				
Station Log	29-Dec-2009 10:34	000:15	2079.0	RST_PSP_027LTP
Pressure / Temperature Station log @ 2079m MDKB				

2048.7213

2680.0	0.1922	211.7748	2048.7183
2690.0	0.3589	211.7717	2048.7151
2700.0	0.5255	211.7640	2048.6921
2710.0	0.6922	211.7633	2048.6878
2720.0	0.8589	211.7554	2048.6881
2730.0	1.0255	211.7541	2048.6767
2740.0	1.1922	211.7493	2048.6729
2750.0	1.3589	211.7469	2048.6624
2760.0	1.5255	211.7443	2048.6697
2770.0	1.6922	211.7416	2048.6561
2780.0	1.8589	211.7386	2048.6487
2790.0	2.0255	211.7354	2048.6361
2800.0	2.1922	211.7347	2048.6339
2810.0	2.3589	211.7302	2048.6415
2820.0	2.5255	211.7296	2048.6177
2830.0	2.6922	211.7289	2048.6158
2840.0	2.8589	211.7262	2048.6108
2850.0	3.0255	211.7226	2048.6038
2860.0	3.1922	211.7227	2048.5970
2870.0	3.3589	211.7223	2048.5952
2880.0	3.5255	211.7175	2048.5937
2890.0	3.6922	211.7185	2048.5824
2900.0	3.8589	211.7155	2048.5737
2910.0	4.0255	211.7148	2048.5694
2920.0	4.1922	211.7142	2048.5572
2930.0	4.3589	211.7108	2048.5661
2940.0	4.5255	211.7107	2048.5622
2950.0	4.6922	211.7100	2048.5570
2960.0	4.8589	211.7090	2048.5651
2970.0	5.0255	211.7064	2048.5578
2980.0	5.1922	211.7074	2048.5597
2990.0	5.3589	211.7042	2048.5543
3000.0	5.5255	211.7056	2048.5723
3010.0	5.6922	211.7037	2048.5669
3020.0	5.8589	211.7028	2048.5686
3030.0	6.0255	211.7027	2048.5685
3040.0	6.1922	211.7009	2048.5684
3050.0	6.3589	211.7009	2048.5625
3060.0	6.5255	211.6979	2048.5611
3070.0	6.6922	211.6977	2048.5636
3080.0	6.8589	211.6984	2048.5565
3090.0	7.0255	211.6968	2048.5636
3100.0	7.1922	211.6941	2048.5611
3110.0	7.3589	211.6959	2048.5625
3120.0	7.5255	211.6970	2048.5722
3130.0	7.6922	211.6949	2048.5714
3140.0	7.8589	211.6937	2048.5642
3150.0	8.0255	211.6944	2048.5653
3160.0	8.1922	211.6921	2048.5650
3170.0	8.3589	211.6907	2048.5581
3180.0	8.5255	211.6904	2048.5506
3190.0	8.6922	211.6880	2048.5455
3200.0	8.8589	211.6893	2048.5287
3210.0	9.0255	211.6894	2048.5445
3220.0	9.1922	211.6879	2048.5318
3230.0	9.3589	211.6870	2048.5347
3240.0	9.5255	211.6855	2048.5293
3250.0	9.6922	211.6868	2048.5224
3260.0	9.8589	211.6873	2048.5423
3270.0	10.0255	211.6851	2048.5389
3280.0	10.1922	211.6862	2048.5372

3290.0	10.3589	211.6851	2048.5410
3300.0	10.5255	211.6863	2048.5288
3310.0	10.6922	211.6829	2048.5277
3320.0	10.8589	211.6848	2048.5205
3330.0	11.0255	211.6832	2048.5147
3340.0	11.1922	211.6828	2048.5188
3350.0	11.3589	211.6816	2048.5150
3360.0	11.5255	211.6820	2048.5193
3370.0	11.6922	211.6814	2048.5144
3380.0	11.8589	211.6823	2048.5067
3390.0	12.0255	211.6814	2048.5029
3400.0	12.1922	211.6809	2048.4952
3410.0	12.3589	211.6788	2048.5015
3420.0	12.5255	211.6777	2048.5060
3430.0	12.6922	211.6775	2048.4979
3440.0	12.8589	211.6775	2048.4967
3450.0	13.0255	211.6786	2048.4974
3460.0	13.1922	211.6770	2048.4874
3470.0	13.3589	211.6761	2048.5009
3480.0	13.5255	211.6769	2048.4877
3490.0	13.6922	211.6743	2048.4844
3500.0	13.8589	211.6759	2048.4799
3510.0	14.0255	211.6756	2048.4742
3520.0	14.1922	211.6766	2048.4616
3530.0	14.3589	211.6742	2048.4764
3540.0	14.5255	211.6734	2048.4755
3550.0	14.6922	211.6753	2048.4579
3560.0	14.8589	211.6716	2048.4703
3570.0	15.0255	211.6712	2048.4696
3580.0	15.1922	211.6743	2048.4820
3590.0	15.3589	211.6742	2048.4851
3600.0	15.5255	211.6743	2048.5052
3610.0	15.6922	211.6718	2048.5111
3620.0	15.8589	211.6728	2048.5235
3630.0	16.0255	211.6714	2048.5496
3640.0	16.1922	211.6727	2048.5775
3650.0	16.3589	211.6744	2048.5915
3660.0	16.5255	211.6706	2048.5861
3670.0	16.6922	211.6734	2048.6029
3680.0	16.8589	211.6731	2048.6183
3690.0	17.0255	211.6701	2048.6044
3700.0	17.1922	211.6675	2048.6219
3710.0	17.3589	211.6713	2048.6255
3720.0	17.5255	211.6701	2048.6209
3730.0	17.6922	211.6700	2048.6256
3740.0	17.8589	211.6678	2048.6200
3750.0	18.0255	211.6680	2048.6307



TIME	TIME-Min	WTEP_SL	WPRE_SL
1370.0	0.0000	211.7252	2047.3592
1380.0	0.0945	212.2911	2053.8240
1390.0	0.2612	212.2879	2053.8166
1400.0	0.4278	212.2855	2053.8204
1410.0	0.5945	212.2842	2053.8342
1420.0	0.7612	212.2807	2053.8276
1430.0	0.9278	212.2817	2053.8291
1440.0	1.0945	212.2799	2053.8330
1450.0	1.2612	212.2784	2053.8201
1460.0	1.4278	212.2794	2053.8218
1470.0	1.5945	212.2771	2053.8284
1480.0	1.7612	212.2781	2053.8169
1490.0	1.9278	212.2773	2053.8054
1500.0	2.0945	212.2771	2053.8002
1510.0	2.2612	212.2747	2053.7958
1520.0	2.4278	212.2767	2053.7948
1530.0	2.5945	212.2731	2053.7938
1540.0	2.7612	212.2723	2053.7807
1550.0	2.9278	212.2745	2053.7780
1560.0	3.0945	212.2727	2053.7677
1570.0	3.2612	212.2720	2053.7652

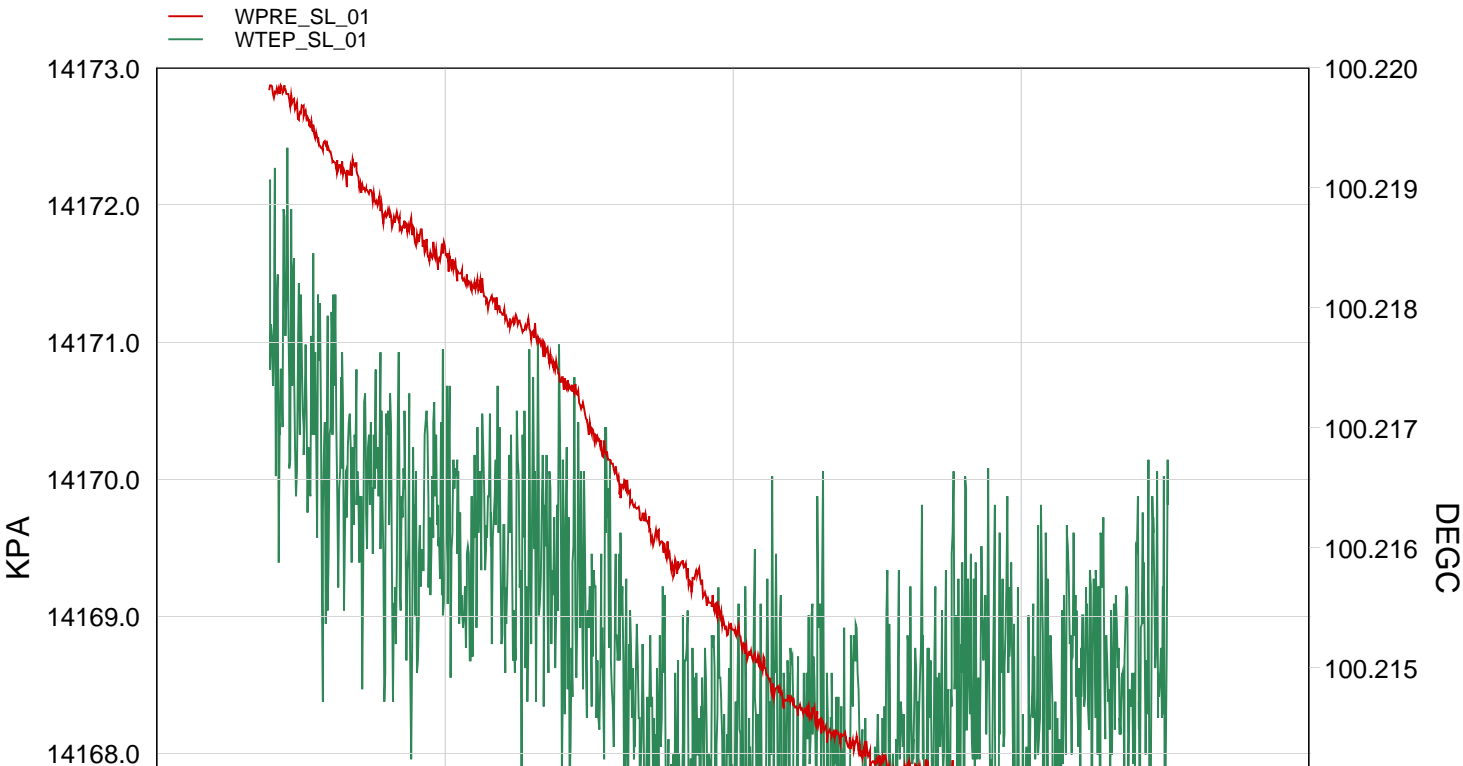
1570.0	3.2612	212.2720	2053.7652
1580.0	3.4278	212.2706	2053.7520
1590.0	3.5945	212.2700	2053.7539
1600.0	3.7612	212.2722	2053.7545
1610.0	3.9278	212.2706	2053.7439
1620.0	4.0945	212.2691	2053.7352
1630.0	4.2612	212.2693	2053.7380
1640.0	4.4278	212.2693	2053.7409
1650.0	4.5945	212.2704	2053.7303
1660.0	4.7612	212.2682	2053.7300
1670.0	4.9278	212.2669	2053.7192
1680.0	5.0945	212.2654	2053.7217
1690.0	5.2612	212.2675	2053.7016
1700.0	5.4278	212.2657	2053.7005
1710.0	5.5945	212.2695	2053.6970
1720.0	5.7612	212.2657	2053.6973
1730.0	5.9278	212.2656	2053.6962
1740.0	6.0945	212.2647	2053.6883
1750.0	6.2612	212.2646	2053.6900
1760.0	6.4278	212.2651	2053.6934
1770.0	6.5945	212.2637	2053.6902
1780.0	6.7612	212.2648	2053.6852
1790.0	6.9278	212.2644	2053.6797
1800.0	7.0945	212.2628	2053.6657
1810.0	7.2612	212.2644	2053.6622
1820.0	7.4278	212.2636	2053.6750
1830.0	7.5945	212.2617	2053.6731
1840.0	7.7612	212.2632	2053.6663
1850.0	7.9278	212.2646	2053.6580
1860.0	8.0945	212.2625	2053.6389
1870.0	8.2612	212.2620	2053.6533
1880.0	8.4278	212.2623	2053.6397
1890.0	8.5945	212.2623	2053.6439
1900.0	8.7612	212.2630	2053.6311
1910.0	8.9278	212.2591	2053.6143
1920.0	9.0945	212.2614	2053.6127
1930.0	9.2612	212.2607	2053.6138
1940.0	9.4278	212.2615	2053.6028
1950.0	9.5945	212.2601	2053.5963
1960.0	9.7612	212.2612	2053.6055
1970.0	9.9278	212.2618	2053.5897
1980.0	10.0945	212.2567	2053.5853
1990.0	10.2612	212.2608	2053.5725
2000.0	10.4278	212.2583	2053.5780
2010.0	10.5945	212.2625	2053.5775
2020.0	10.7612	212.2615	2053.5710
2030.0	10.9278	212.2587	2053.5526
2040.0	11.0945	212.2577	2053.5601
2050.0	11.2612	212.2594	2053.5558
2060.0	11.4278	212.2613	2053.5529
2070.0	11.5945	212.2610	2053.5465
2080.0	11.7612	212.2595	2053.5436
2090.0	11.9278	212.2591	2053.5388
2100.0	12.0945	212.2607	2053.5344
2110.0	12.2612	212.2587	2053.5290
2120.0	12.4278	212.2582	2053.5173
2130.0	12.5945	212.2587	2053.5097
2140.0	12.7612	212.2591	2053.5112
2150.0	12.9278	212.2577	2053.4939
2160.0	13.0945	212.2560	2053.4931
2170.0	13.2612	212.2570	2053.4983
2180.0	13.4278	212.2583	2053.4904

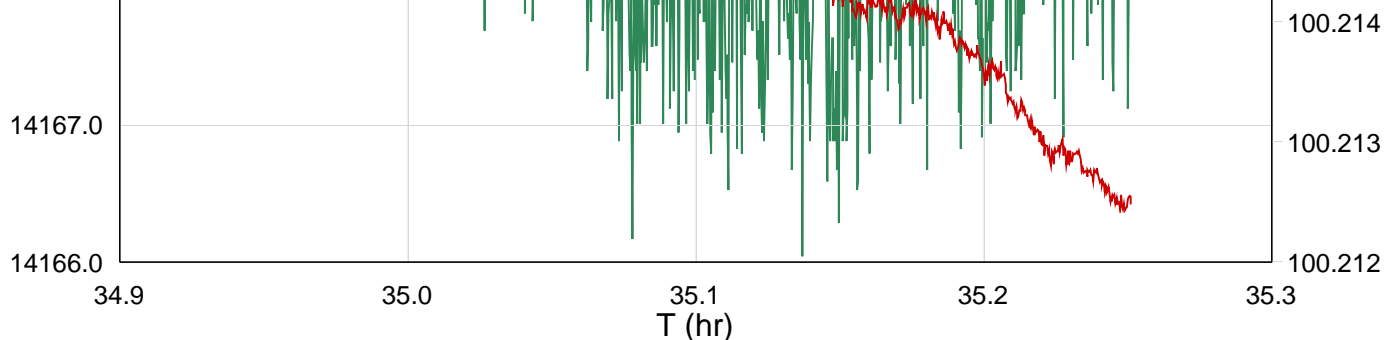
2180.0	13.4278	212.2583	2053.4904
2190.0	13.5945	212.2579	2053.4874
2200.0	13.7612	212.2552	2053.4807
2210.0	13.9278	212.2584	2053.4728
2220.0	14.0945	212.2581	2053.4725
2230.0	14.2612	212.2599	2053.4650
2240.0	14.4278	212.2578	2053.4562
2250.0	14.5945	212.2561	2053.4615
2260.0	14.7612	212.2552	2053.4491
2270.0	14.9278	212.2577	2053.4554
2280.0	15.0945	212.2561	2053.4341
2290.0	15.2612	212.2549	2053.4270
2300.0	15.4278	212.2536	2053.4105
2310.0	15.5945	212.2570	2053.4288
2320.0	15.7612	212.2530	2053.4022
2330.0	15.9278	212.2568	2053.3967
2340.0	16.0945	212.2539	2053.3855
2350.0	16.2612	212.2531	2053.3719
2360.0	16.4278	212.2542	2053.3709
2370.0	16.5945	212.2540	2053.3621
2380.0	16.7612	212.2557	2053.3554
2390.0	16.9278	212.2547	2053.3446



Pressure / Temperature Station Log
2073.0m MDKB

MAXIS Field Log





TIME	TIME-Min	WTEP_SL	WPRE_SL
90.0	0.0740	212.3916	2055.5964
100.0	0.2407	212.3909	2055.5953
110.0	0.4074	212.3918	2055.5890
120.0	0.5740	212.3897	2055.5798
130.0	0.7407	212.3904	2055.5701
140.0	0.9074	212.3916	2055.5531
150.0	1.0740	212.3917	2055.5361
160.0	1.2407	212.3882	2055.5356
170.0	1.4074	212.3901	2055.5164
180.0	1.5740	212.3883	2055.5101
190.0	1.7407	212.3894	2055.5131
200.0	1.9074	212.3891	2055.4925
210.0	2.0740	212.3903	2055.4871
220.0	2.2407	212.3903	2055.4779
230.0	2.4074	212.3866	2055.4660
240.0	2.5740	212.3875	2055.4521
250.0	2.7407	212.3880	2055.4495
260.0	2.9074	212.3898	2055.4504
270.0	3.0740	212.3886	2055.4369
280.0	3.2407	212.3896	2055.4303
290.0	3.4074	212.3894	2055.4202
300.0	3.5740	212.3893	2055.4183
310.0	3.7407	212.3888	2055.4149
320.0	3.9074	212.3899	2055.3989
330.0	4.0740	212.3879	2055.3950
340.0	4.2407	212.3876	2055.3892
350.0	4.4074	212.3892	2055.3885
360.0	4.5740	212.3895	2055.3670
370.0	4.7407	212.3893	2055.3708
380.0	4.9074	212.3881	2055.3599
390.0	5.0740	212.3880	2055.3524
400.0	5.2407	212.3883	2055.3497
410.0	5.4074	212.3889	2055.3509
420.0	5.5740	212.3875	2055.3328
430.0	5.7407	212.3877	2055.3293
440.0	5.9074	212.3882	2055.3043
450.0	6.0740	212.3898	2055.2872
460.0	6.2407	212.3886	2055.2834
470.0	6.4074	212.3872	2055.2745
480.0	6.5740	212.3894	2055.2573
490.0	6.7407	212.3880	2055.2379
500.0	6.9074	212.3876	2055.2219
510.0	7.0740	212.3886	2055.2052
520.0	7.2407	212.3874	2055.1950
530.0	7.4074	212.3859	2055.1786
540.0	7.5740	212.3868	2055.1612

550.0	7.7407	212.3857	2055.1461
560.0	7.9074	212.3860	2055.1384
570.0	8.0740	212.3848	2055.1272
580.0	8.2407	212.3869	2055.1111
590.0	8.4074	212.3851	2055.0917
600.0	8.5740	212.3854	2055.0919
610.0	8.7407	212.3877	2055.0873
620.0	8.9074	212.3861	2055.0861
630.0	9.0740	212.3855	2055.0608
640.0	9.2407	212.3869	2055.0517
650.0	9.4074	212.3868	2055.0422
660.0	9.5740	212.3858	2055.0194
670.0	9.7407	212.3860	2055.0217
680.0	9.9074	212.3844	2055.0109
690.0	10.0740	212.3847	2054.9995
700.0	10.2407	212.3856	2054.9895
710.0	10.4074	212.3876	2054.9761
720.0	10.5740	212.3877	2054.9622
730.0	10.7407	212.3860	2054.9463
740.0	10.9074	212.3871	2054.9535
750.0	11.0740	212.3842	2054.9440
760.0	11.2407	212.3860	2054.9364
770.0	11.4074	212.3853	2054.9240
780.0	11.5740	212.3879	2054.9240
790.0	11.7407	212.3865	2054.9142
800.0	11.9074	212.3832	2054.9082
810.0	12.0740	212.3838	2054.9033
820.0	12.2407	212.3873	2054.9069
830.0	12.4074	212.3837	2054.8986
840.0	12.5740	212.3836	2054.8841
850.0	12.7407	212.3845	2054.8843
860.0	12.9074	212.3875	2054.8789
870.0	13.0740	212.3841	2054.8754
880.0	13.2407	212.3861	2054.8623
890.0	13.4074	212.3859	2054.8755
900.0	13.5740	212.3865	2054.8749
910.0	13.7407	212.3862	2054.8815
920.0	13.9074	212.3864	2054.8502
930.0	14.0740	212.3855	2054.8724
940.0	14.2407	212.3874	2054.8747
950.0	14.4074	212.3854	2054.8718
960.0	14.5740	212.3870	2054.8630
970.0	14.7407	212.3876	2054.8529
980.0	14.9074	212.3873	2054.8569
990.0	15.0740	212.3853	2054.8352
1000.0	15.2407	212.3876	2054.8370
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1020.0	15.5740	212.3849	2054.8246
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1040.0	15.9074	212.3864	2054.8086
1050.0	16.0740	212.3876	2054.8023
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1070.0	16.4074	212.3852	2054.7644
1080.0	16.5740	212.3874	2054.7565
1090.0	16.7407	212.3871	2054.7442
1100.0	16.9074	212.3862	2054.7326
1110.0	17.0740	212.3862	2054.7121
1120.0	17.2407	212.3882	2054.7240
1130.0	17.4074	212.3864	2054.7167
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2056 0709

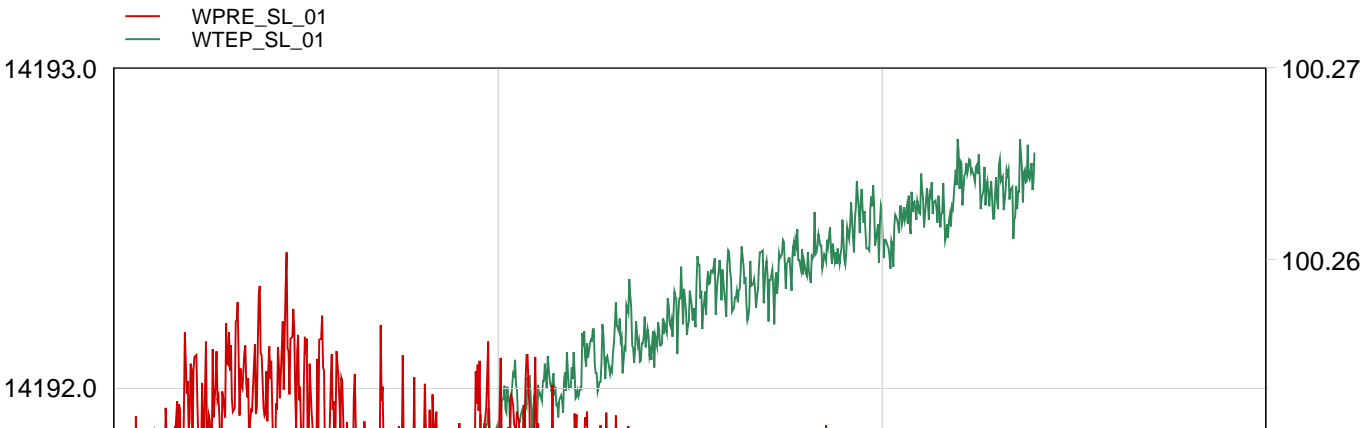
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3360.0	0.7759	212.4798	2058.2078
3370.0	0.9426	212.4816	2058.1742
3380.0	1.1092	212.4818	2058.2134
3390.0	1.2759	212.4811	2058.1824
3400.0	1.4426	212.4842	2058.1962
3410.0	1.6092	212.4787	2058.2071
3420.0	1.7759	212.4843	2058.1689
3430.0	1.9426	212.4832	2058.2002
3440.0	2.1092	212.4796	2058.1496
3450.0	2.2759	212.4800	2058.2018
3460.0	2.4426	212.4840	2058.1578
3470.0	2.6092	212.4838	2058.1598
3480.0	2.7759	212.4831	2058.1663
3490.0	2.9426	212.4831	2058.1889
3500.0	3.1092	212.4843	2058.1651
3510.0	3.2759	212.4847	2058.1646
3520.0	3.4426	212.4841	2058.1866
3530.0	3.6092	212.4839	2058.1702
3540.0	3.7759	212.4828	2058.1461
3550.0	3.9426	212.4856	2058.1737
3560.0	4.1092	212.4819	2058.1714
3570.0	4.2759	212.4826	2058.1513
3580.0	4.4426	212.4828	2058.1354
3590.0	4.6092	212.4855	2058.1704
3600.0	4.7759	212.4843	2058.1112
3610.0	4.9426	212.4835	2058.1601
3620.0	5.1092	212.4867	2058.1547
3630.0	5.2759	212.4850	2058.1609
3640.0	5.4426	212.4876	2058.1307
3650.0	5.6092	212.4871	2058.1156
3660.0	5.7759	212.4869	2058.1506
3670.0	5.9426	212.4861	2058.1128
3680.0	6.1092	212.4894	2058.1387
3690.0	6.2759	212.4878	2058.1328
3700.0	6.4426	212.4880	2058.0857
3710.0	6.6092	212.4876	2058.1544
3720.0	6.7759	212.4865	2058.1174
3730.0	6.9426	212.4901	2058.1602
3740.0	7.1092	212.4866	2058.1427
3750.0	7.2759	212.4882	2058.1141
3760.0	7.4426	212.4873	2058.1115
3770.0	7.6092	212.4886	2058.1045
3780.0	7.7759	212.4879	2058.1435
3790.0	7.9426	212.4868	2058.1238
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3810.0	8.2759	212.4875	2058.0966
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3830.0	8.6092	212.4866	2058.0952
3840.0	8.7759	212.4870	2058.1489
3850.0	8.9426	212.4886	2058.1475
3860.0	9.1092	212.4869	2058.1304
3870.0	9.2759	212.4895	2058.1270
3880.0	9.4426	212.4908	2058.1433
3890.0	9.6092	212.4892	2058.1282
3900.0	9.7759	212.4870	2058.1200
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3920.0	10.1092	212.4898	2058.1261

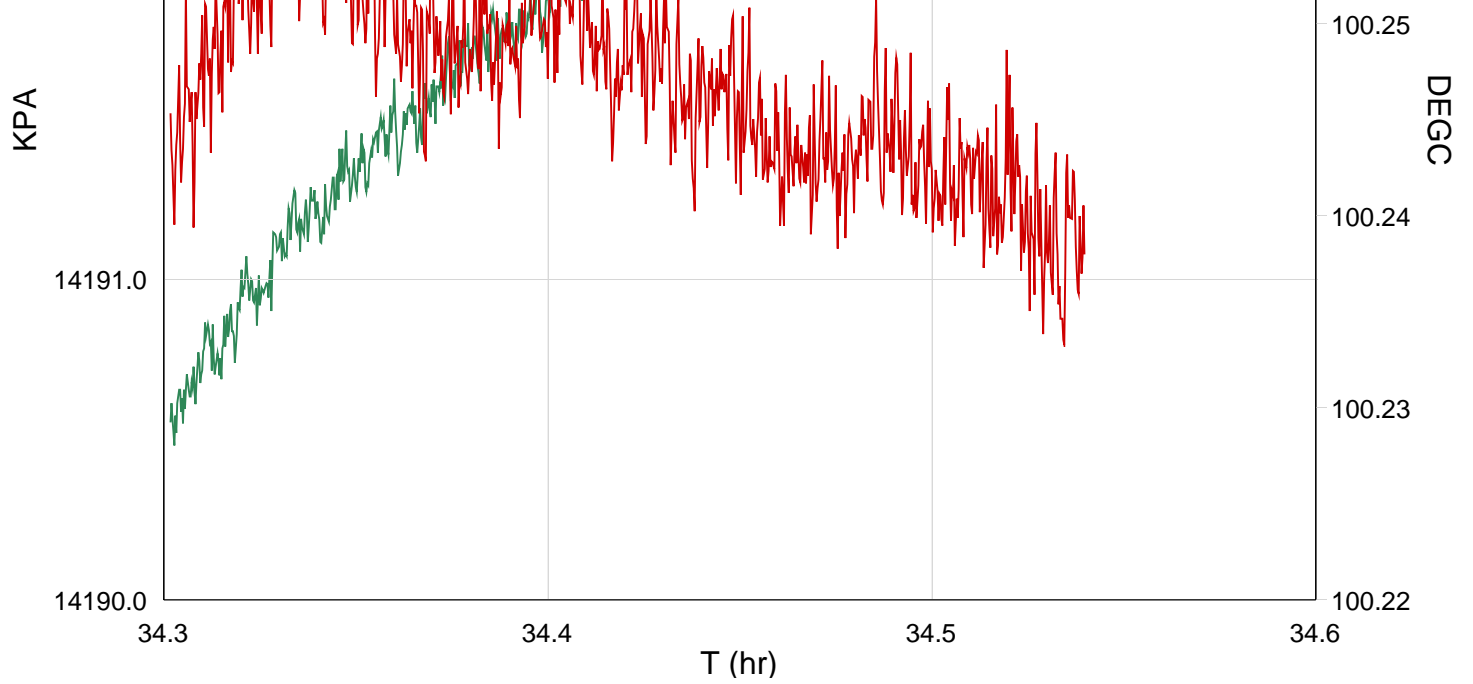
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3960.0	10.7759	212.4877	2058.0763
3970.0	10.9426	212.4887	2058.1008
3980.0	11.1092	212.4871	2058.1160
3990.0	11.2759	212.4871	2058.0872
4000.0	11.4426	212.4895	2058.0929
4010.0	11.6092	212.4855	2058.0828
4020.0	11.7759	212.4874	2058.0746
4030.0	11.9426	212.4878	2058.0871
4040.0	12.1092	212.4886	2058.1246
4050.0	12.2759	212.4893	2058.0841
4060.0	12.4426	212.4886	2058.0855
4070.0	12.6092	212.4882	2058.0944
4080.0	12.7759	212.4868	2058.0653
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4100.0	13.1092	212.4864	2058.1154
4110.0	13.2759	212.4882	2058.0502
4120.0	13.4426	212.4874	2058.1104
4130.0	13.6092	212.4842	2058.0853
4140.0	13.7759	212.4886	2058.1025
4150.0	13.9426	212.4904	2058.1105
4160.0	14.1092	212.4882	2058.0885
4170.0	14.2759	212.4872	2058.0803
4180.0	14.4426	212.4893	2058.0991
4190.0	14.6092	212.4897	2058.0723
4200.0	14.7759	212.4890	2058.1114
4210.0	14.9426	212.4892	2058.0956
4220.0	15.1092	212.4891	2058.0905
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Schlumberger

Pressure / Temperature Station Log
2082.0m MDKB

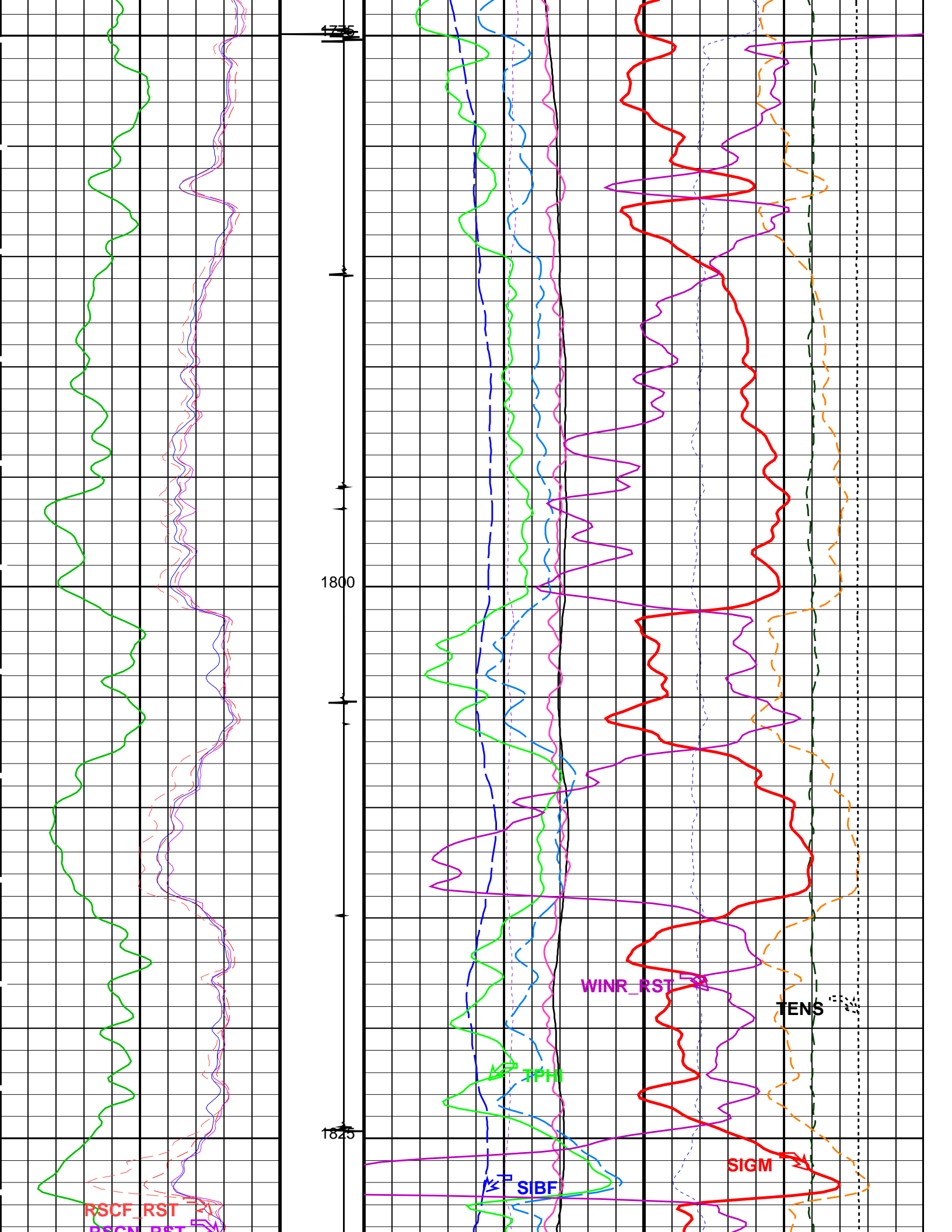
MAXIS Field Log

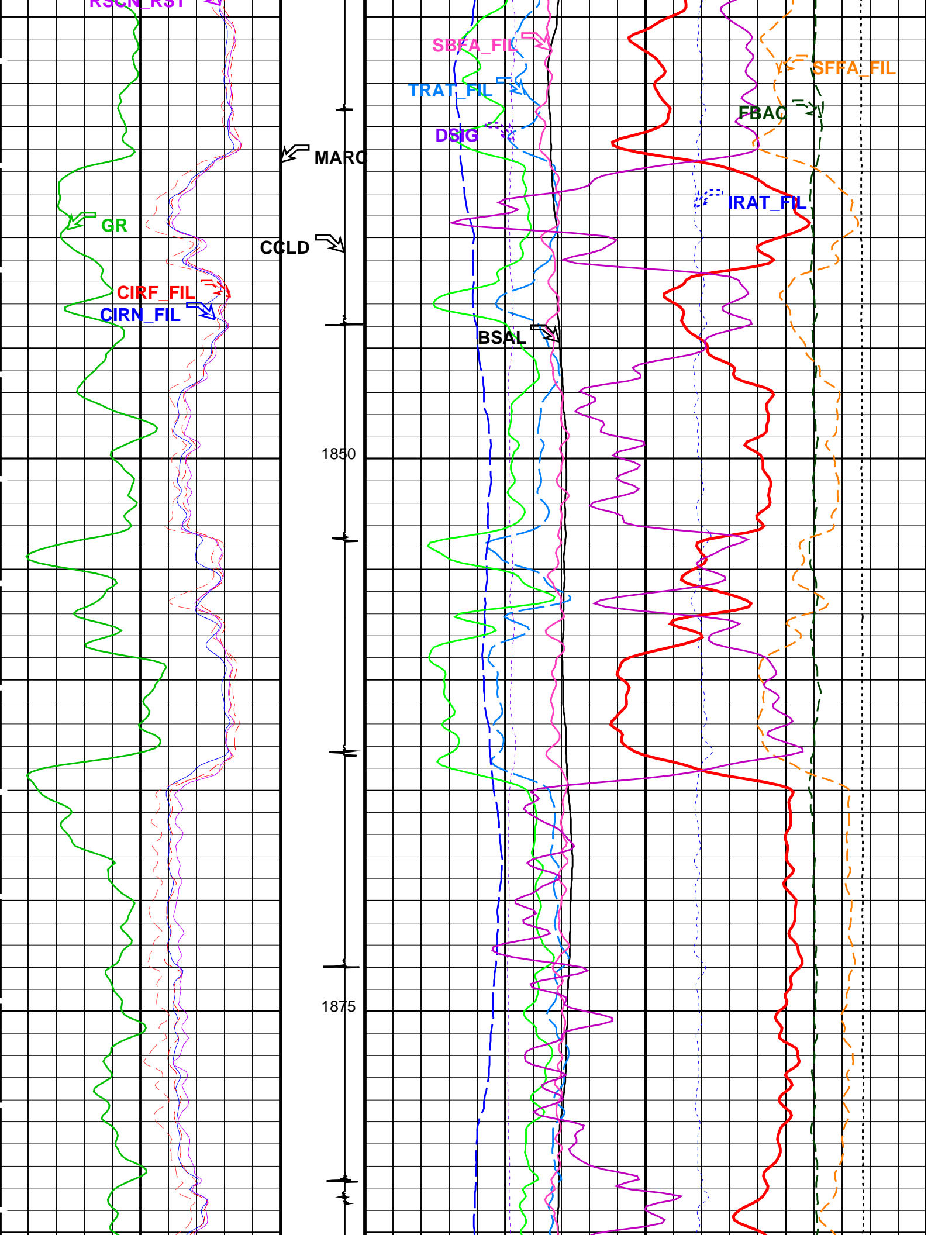


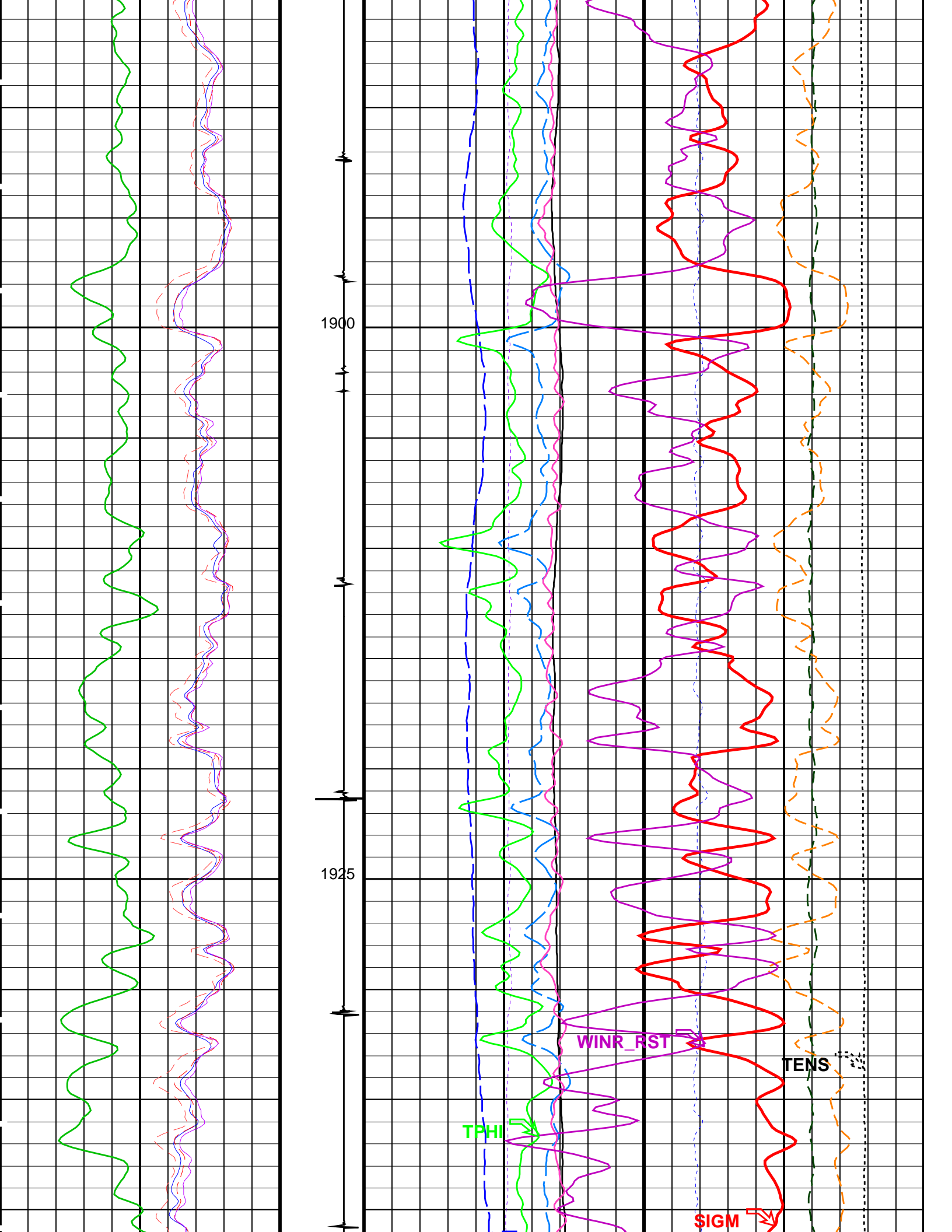


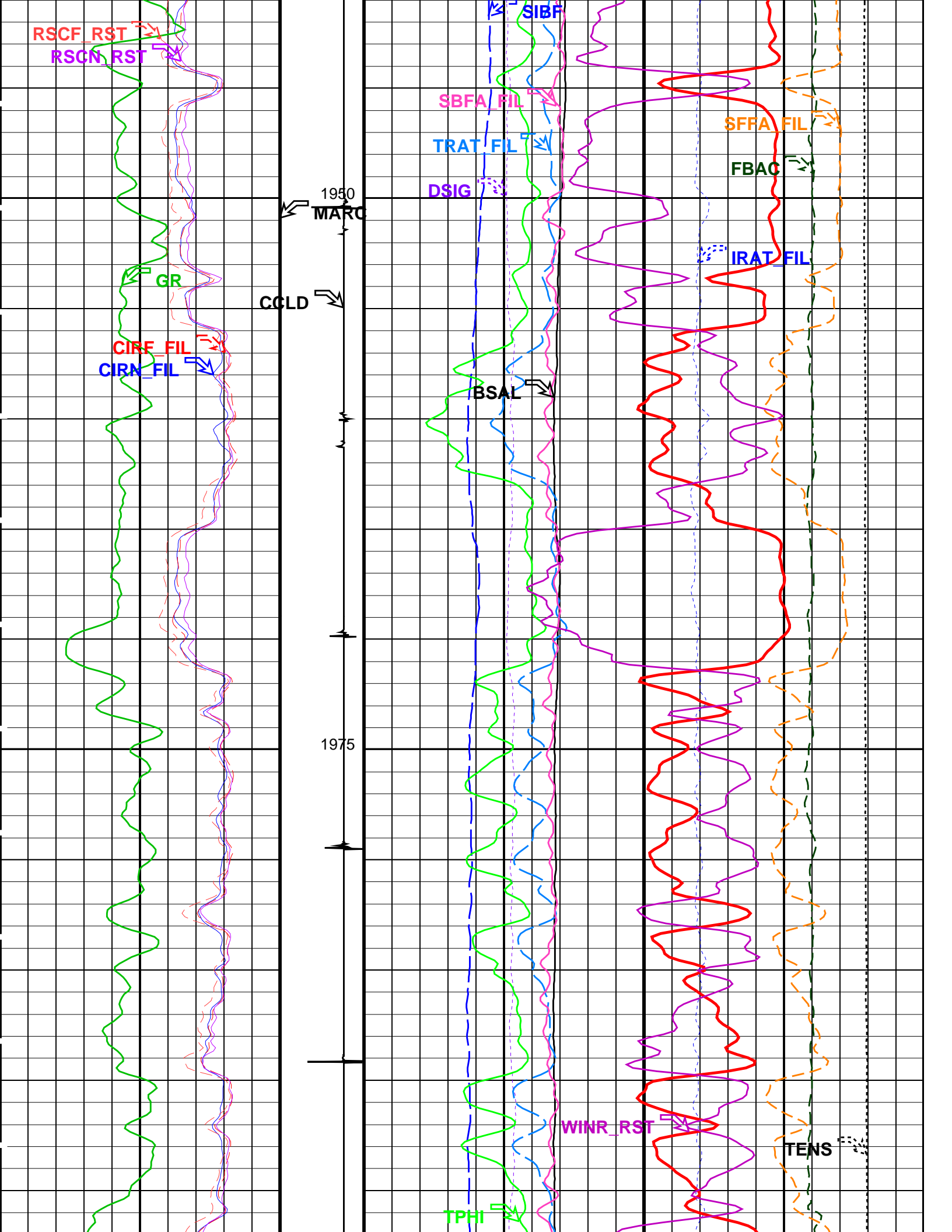
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2360.0	0.5460	212.4214	2058.3417
2370.0	0.7127	212.4177	2058.3585
2380.0	0.8794	212.4221	2058.3653
2390.0	1.0460	212.4232	2058.3768
2400.0	1.2127	212.4258	2058.3564
2410.0	1.3794	212.4258	2058.3552
2420.0	1.5460	212.4257	2058.3639
2430.0	1.7127	212.4300	2058.3867
2440.0	1.8794	212.4303	2058.3785
2450.0	2.0460	212.4309	2058.3635
2460.0	2.2127	212.4337	2058.3898
2470.0	2.3794	212.4313	2058.3561
2480.0	2.5460	212.4355	2058.3814
2490.0	2.7127	212.4353	2058.4034
2500.0	2.8794	212.4360	2058.3932
2510.0	3.0460	212.4354	2058.3393
2520.0	3.2127	212.4397	2058.3196
2530.0	3.3794	212.4391	2058.3836
2540.0	3.5460	212.4388	2058.3528
2550.0	3.7127	212.4417	2058.3384
2560.0	3.8794	212.4398	2058.3162
2570.0	4.0460	212.4421	2058.3432
2580.0	4.2127	212.4443	2058.3447
2590.0	4.3794	212.4434	2058.3097
2600.0	4.5460	212.4452	2058.3336
2610.0	4.7127	212.4475	2058.3251
2620.0	4.8794	212.4494	2058.3636
2630.0	5.0460	212.4511	2058.3241
2640.0	5.2127	212.4486	2058.3438
2650.0	5.3794	212.4473	2058.3277
2660.0	5.5460	212.4489	2058.3732
2670.0	5.7127	212.4521	2058.3652
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2690.0	6.0460	212.4555	2058.3375

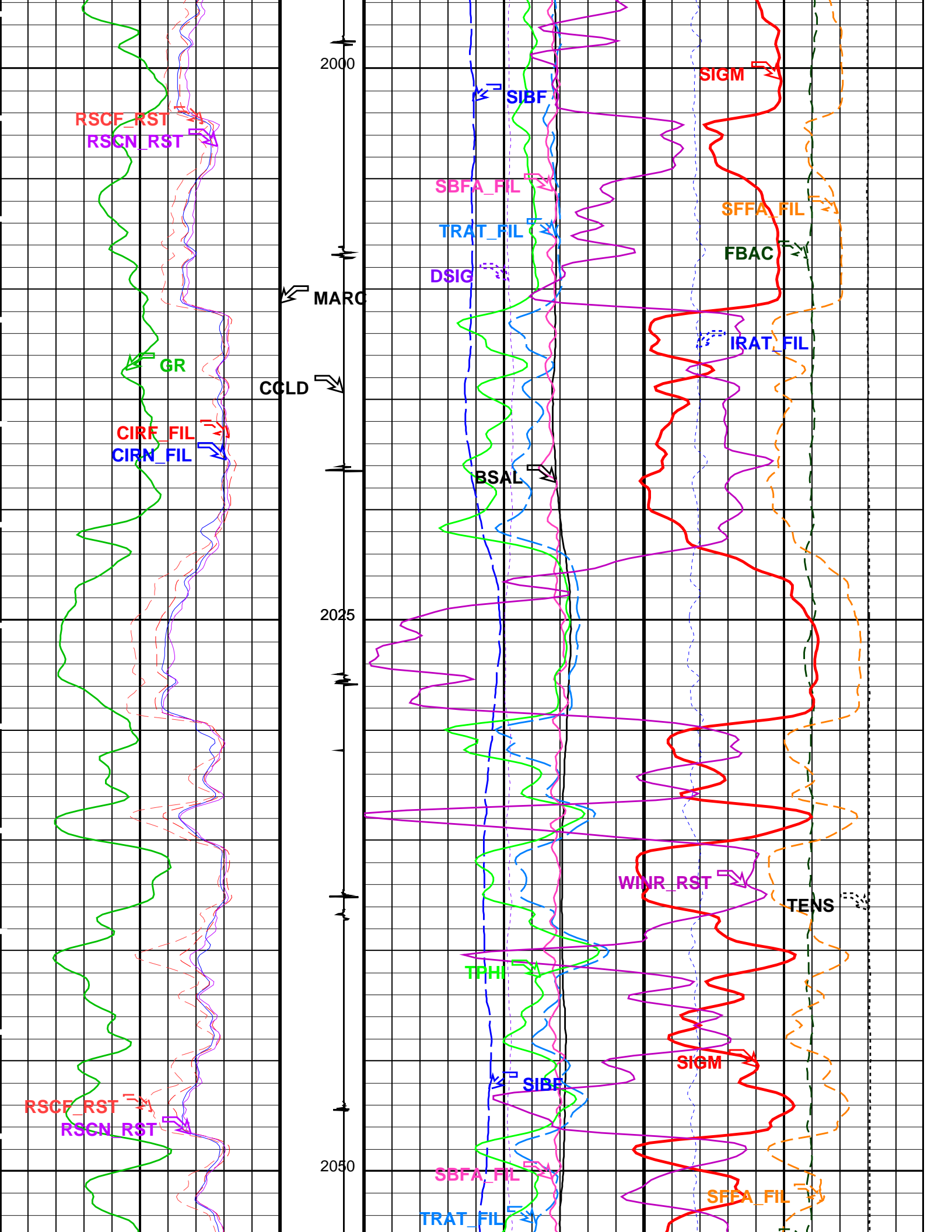
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2720.0	6.5460	212.4555	2058.3502
2730.0	6.7127	212.4570	2058.3342
2740.0	6.8794	212.4552	2058.3162
2750.0	7.0460	212.4574	2058.3165
2760.0	7.2127	212.4599	2058.3358
2770.0	7.3794	212.4612	2058.3343
2780.0	7.5460	212.4612	2058.3124
2790.0	7.7127	212.4599	2058.3533
2800.0	7.8794	212.4595	2058.2956
2810.0	8.0460	212.4592	2058.2994
2820.0	8.2127	212.4605	2058.2931
2830.0	8.3794	212.4601	2058.2891
2840.0	8.5460	212.4636	2058.3171
2850.0	8.7127	212.4618	2058.2874
2860.0	8.8794	212.4621	2058.3149
2870.0	9.0460	212.4675	2058.3483
2880.0	9.2127	212.4658	2058.3209
2890.0	9.3794	212.4672	2058.2844
2900.0	9.5460	212.4664	2058.2632
2910.0	9.7127	212.4686	2058.2860
2920.0	9.8794	212.4657	2058.2833
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2940.0	10.2127	212.4627	2058.2848
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2970.0	10.7127	212.4669	2058.2876
2980.0	10.8794	212.4686	2058.2882
2990.0	11.0460	212.4694	2058.3325
3000.0	11.2127	212.4687	2058.2941
3010.0	11.3794	212.4702	2058.2946
3020.0	11.5460	212.4710	2058.2984
3030.0	11.7127	212.4718	2058.2907
3040.0	11.8794	212.4727	2058.2892
3050.0	12.0460	212.4691	2058.2598
3060.0	12.2127	212.4717	2058.2671
3070.0	12.3794	212.4729	2058.2738
3080.0	12.5460	212.4739	2058.2826
3090.0	12.7127	212.4731	2058.2487
3100.0	12.8794	212.4710	2058.2593
3110.0	13.0460	212.4762	2058.2807
3120.0	13.2127	212.4768	2058.2885
3130.0	13.3794	212.4768	2058.2756
3140.0	13.5460	212.4752	2058.2829
3150.0	13.7127	212.4730	2058.2387
3160.0	13.8794	212.4763	2058.2240
3170.0	14.0460	212.4743	2058.2622
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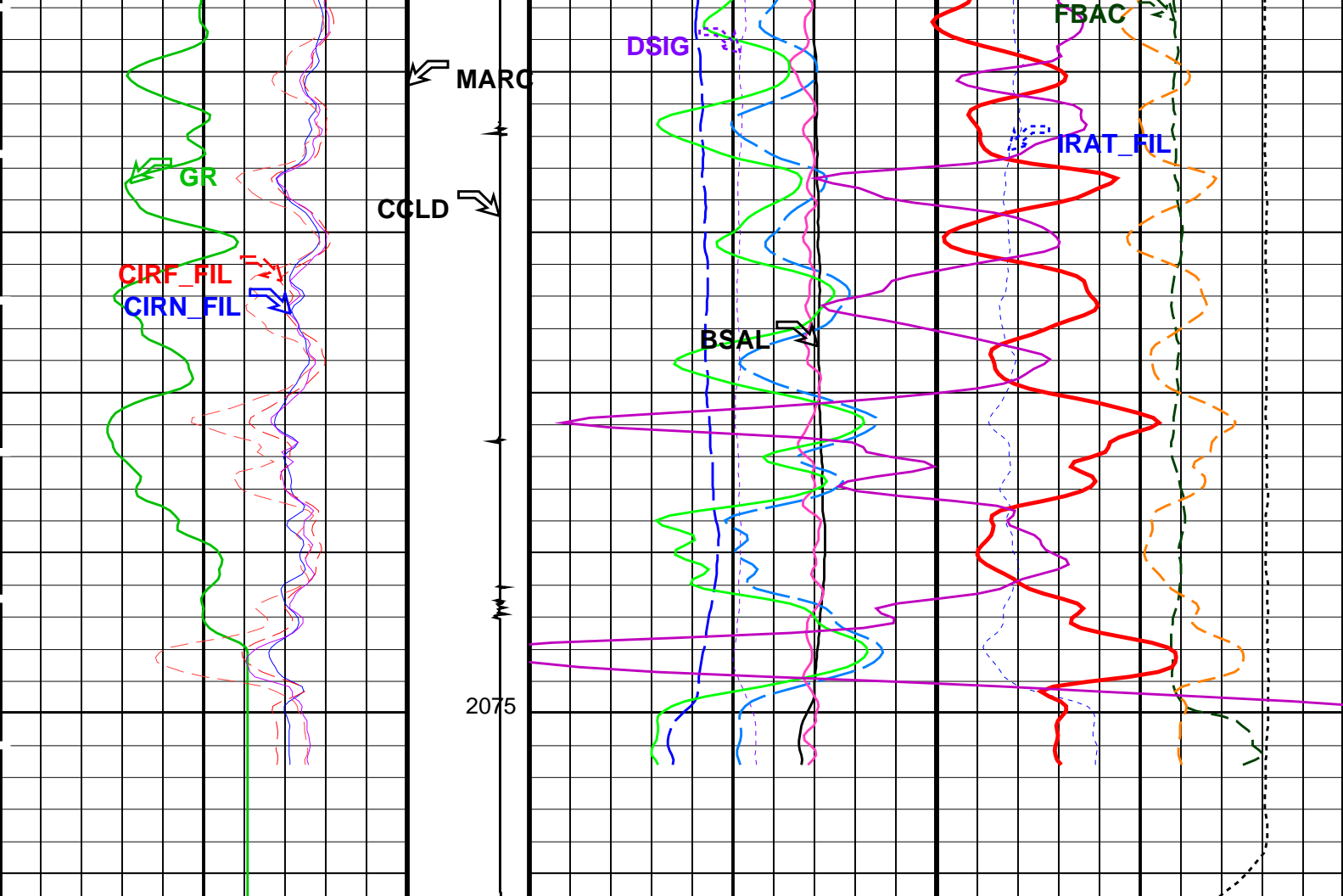













<div>Gamma Ray (GR)</div> <div>(GAPI)</div> <div>0150</div>	<div>Discriminat</div> <div>ed CCL</div> <div>(CCLD)</div> <div>3 (V) -1</div>	<div>RST Borehole Salinity (BSAL)</div> <div>(PPK)</div> <div>450-50</div>	<div>RST Inelastic Ratio (IRAT_FIL)</div> <div>(----</div> <div>0.750</div>
<div>RST Capture to Inelastic Ratio Near</div> <div>(CIRN_FIL)</div> <div>2.5 (----) 0</div>	<div>Minitron</div> <div>Arc</div> <div>Detection</div> <div>(MARC)</div> <div>0 (---- 5</div>	<div>RST Sigma Difference (DSIG)</div> <div>(CU)</div> <div>-3030</div>	<div>MCS Far Background (filtered) (FBAC)</div> <div>(CPS)</div> <div>05000</div>
<div>RST Capture to Inelastic Ratio Far</div> <div>(CIRF_FIL)</div> <div>5 (----) 0</div>		<div>RST Capture Ratio (TRAT_FIL)</div> <div>(----</div> <div>1.50.5</div>	<div>Sigma Formation Far Apparent (SFFA_</div> <div>FIL)</div> <div>(CU)</div> <div>600</div>
<div>RST Near Effective Capture CR (RSCN_</div> <div>RST)</div> <div>45 (----) 0</div>		<div>Sigma Borehole Far Apparent (SBFA_</div> <div>FIL)</div> <div>(CU)</div> <div>1500</div>	<div>Tension (TENS)</div> <div>(LBF)</div> <div>03000</div>
<div>RST Far Effective Capture CR (RSCF_</div> <div>RST)</div> <div>45 (----) 0</div>		<div>RST Sigma Borehole Fluid (SIBF)</div> <div>(CU)</div> <div>1000</div>	
		<div>RST Porosity (TPHI)</div> <div>(V/V)</div> <div>0.60</div>	
		<div>RST Weighted Inelastic Ratio (WINR_RST)</div> <div>(----</div> <div>0.40</div>	
		<div>RST Sigma (SIGM)</div> <div>(CU)</div> <div>600</div>	

PIP SUMMARY

Time Mark Every 60 S

Parameters		
DLIS Name	Description	Value
RST-C: Reservoir Saturation Pro Tool C		
AIRB	RST Air Borehole	No
BHS	Borehole Status	OPEN
BSALOPT	RST Borehole Salinity Option	Unknown
BSFL	RST Borehole Salinity Filter Length	51
DFPC	RST Depth Filter Processing Constant	One
DFPC_TDTL	RST Depth Filter Processing Constant (TDT-like)	Two
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
NORM_IRAT_RST	RST Normalized Inelastic Ratio	0.48
NORM_SIGM_RST	RST Normalized Sigma	30
RGAI	Near/Far Gain Calibration Ratio	1
TIER_SIGM	RST Sigma Acquisition Mode	0_RST_Sigma
PSPT-A/B: Production Services Logging Platform		
BHS	Borehole Status	OPEN
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
System and Miscellaneous		
BS	Bit Size	8.500 IN
BSAL	Borehole Salinity	-50000.00 PPM
CSIZ	Current Casing Size	7.000 IN
CWEI	Casing Weight	34.60 LB/F
DO	Depth Offset for Playback	0.1 M
PP	Playback Processing	NORMAL

Format: RST_SIG_ANSW		Vertical Scale: 1:200		Graphics File Created: 29-Dec-2009 09:21	
OP System Version: 17C0-154					
RST-C	17C0-154	PSPT-A/B	17C0-154		
Input DLIS Files					
	RST_PSP_019LUP	FN:18	29-Dec-2009 09:14	2080.6 M	1760.1 M
Output DLIS Files					
DEFAULT	RST_PSP_006PUP	FN:4	PRODUCER	29-Dec-2009 09:21	

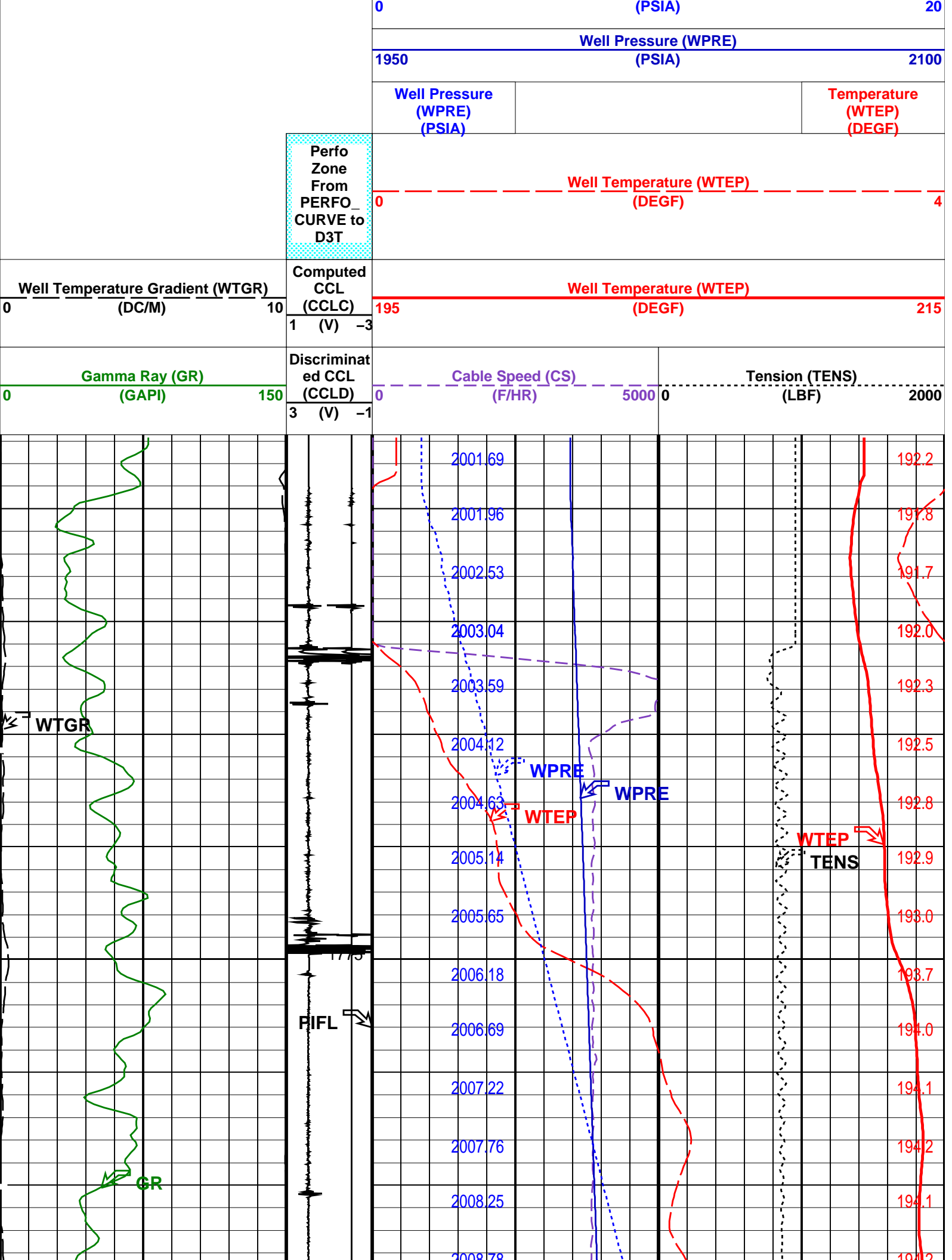


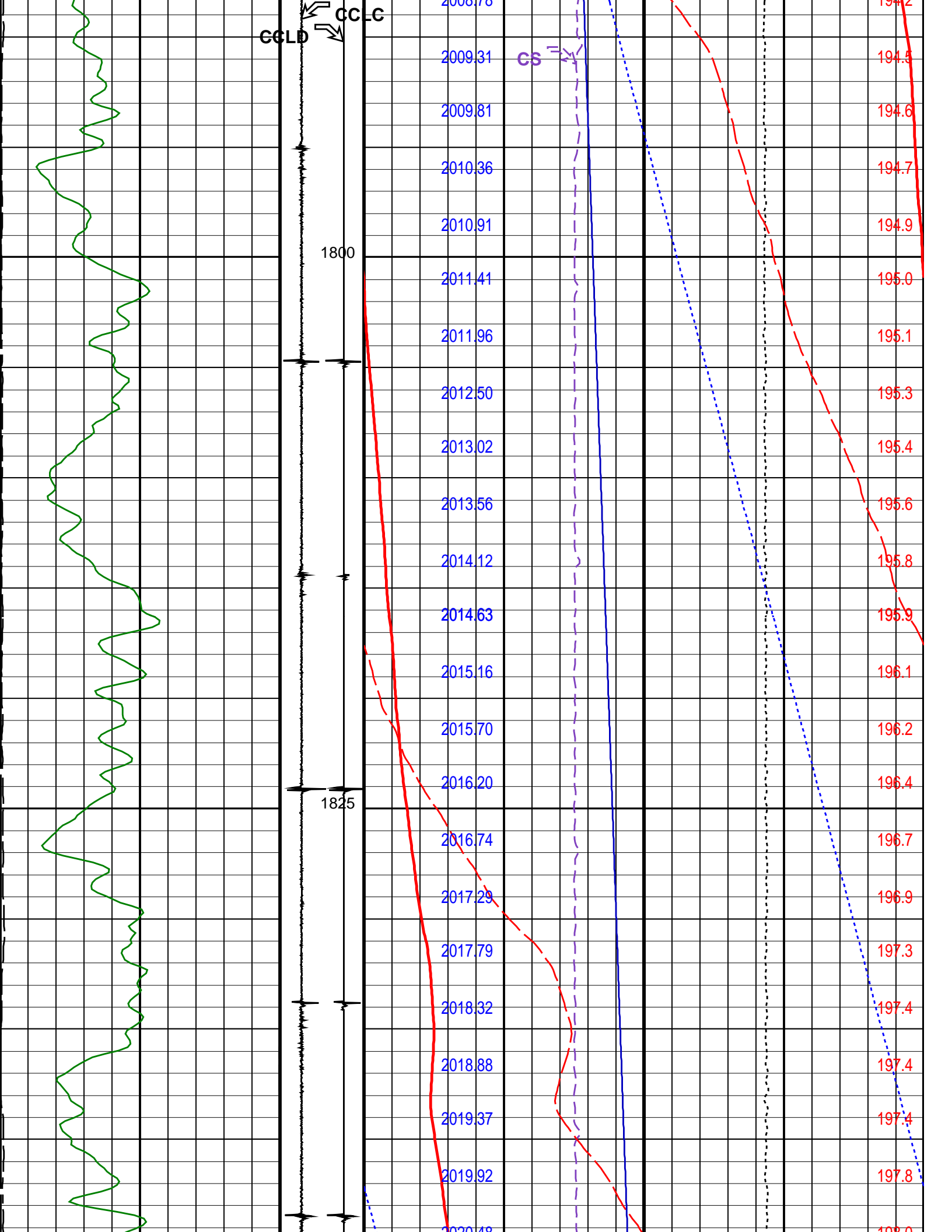
GR Baseline

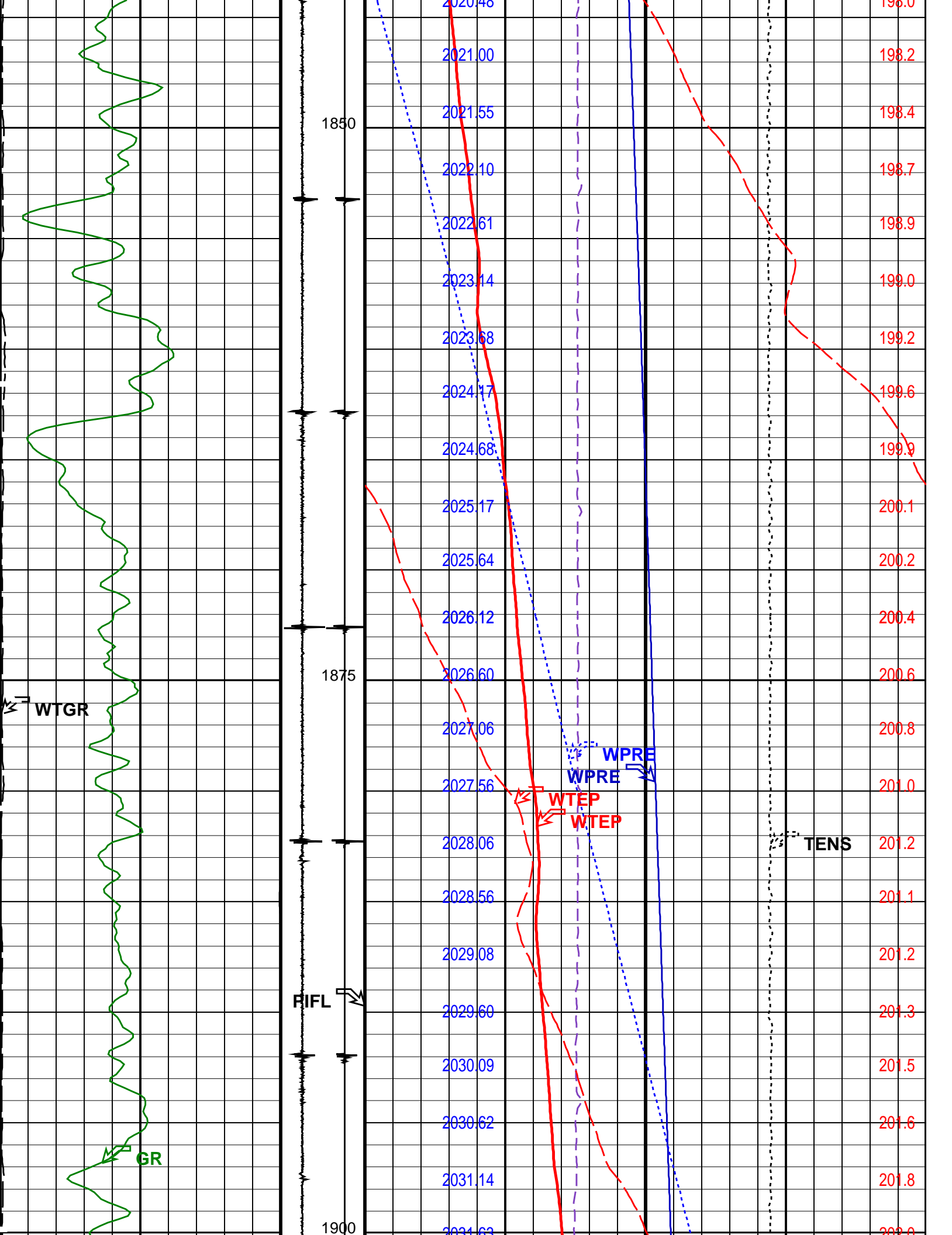
1775 – 2079m MDKB

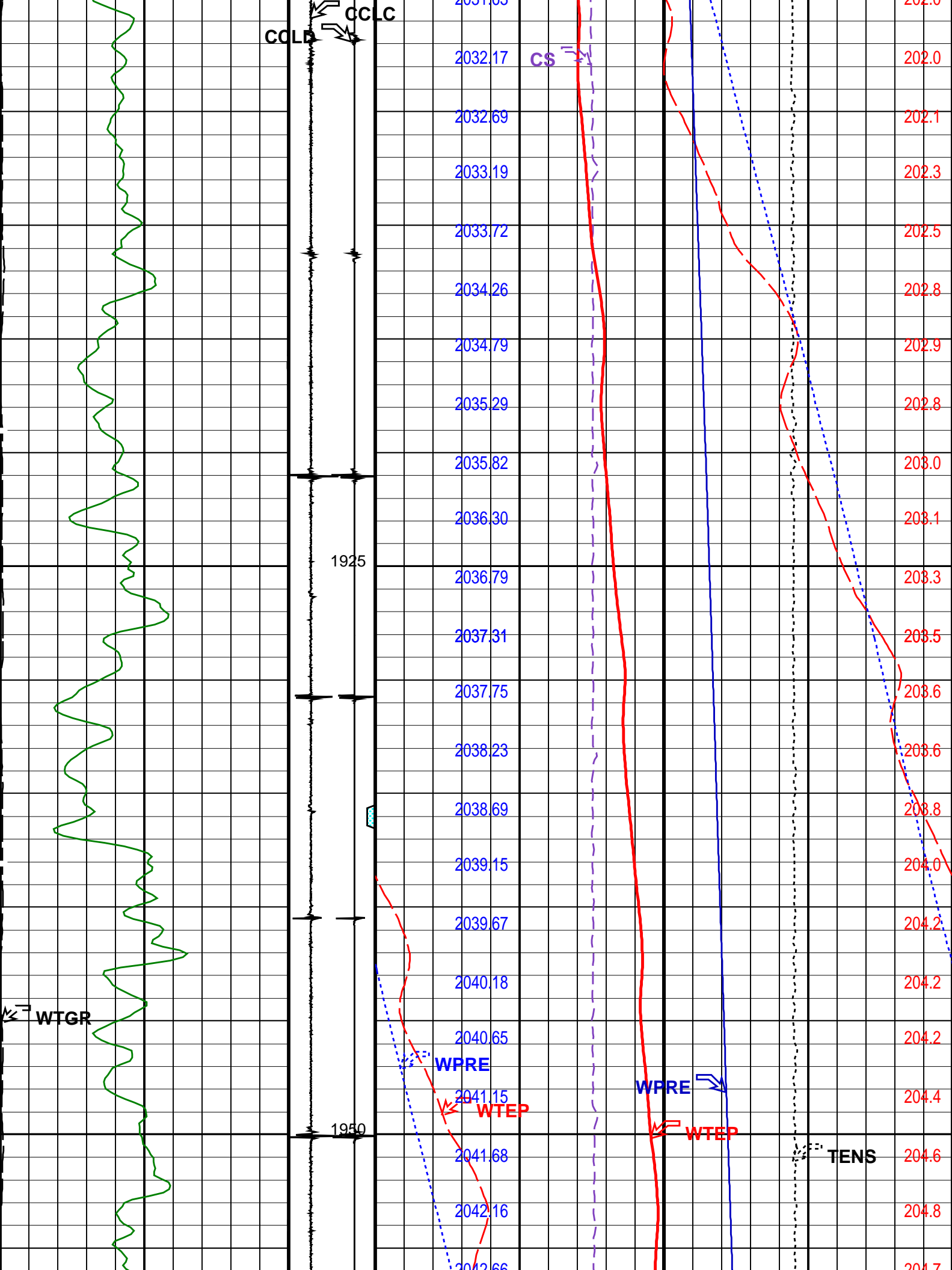
MAXIS Field Log

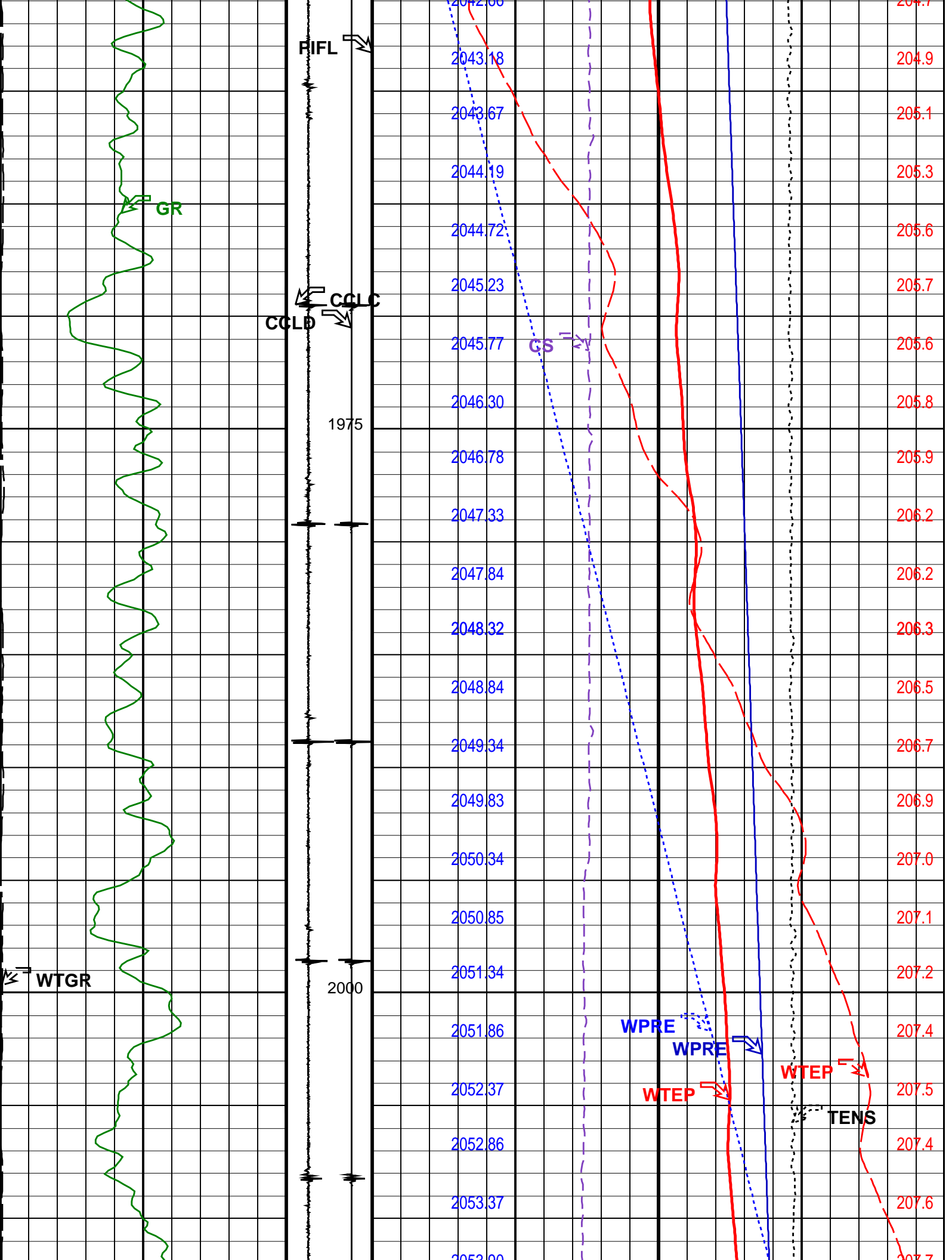
Company: Esso Australia Pty Ltd				Well: TNA A13		
Input DLIS Files						
DEFAULT	Flip_RST_PSP_002LUP	PRODUCER	29-Dec-2009 08:13			
Output DLIS Files						
DEFAULT	RST_PSP_004PUP	FN:2	PRODUCER	29-Dec-2009 08:23	2075.8 M	1751.7 M
OP System Version: 17C0-154						
RST-C	17C0-154	PSPT-A/B	17C0-154			
PIP SUMMARY						
<div>Time Mark Every 60 S</div>						

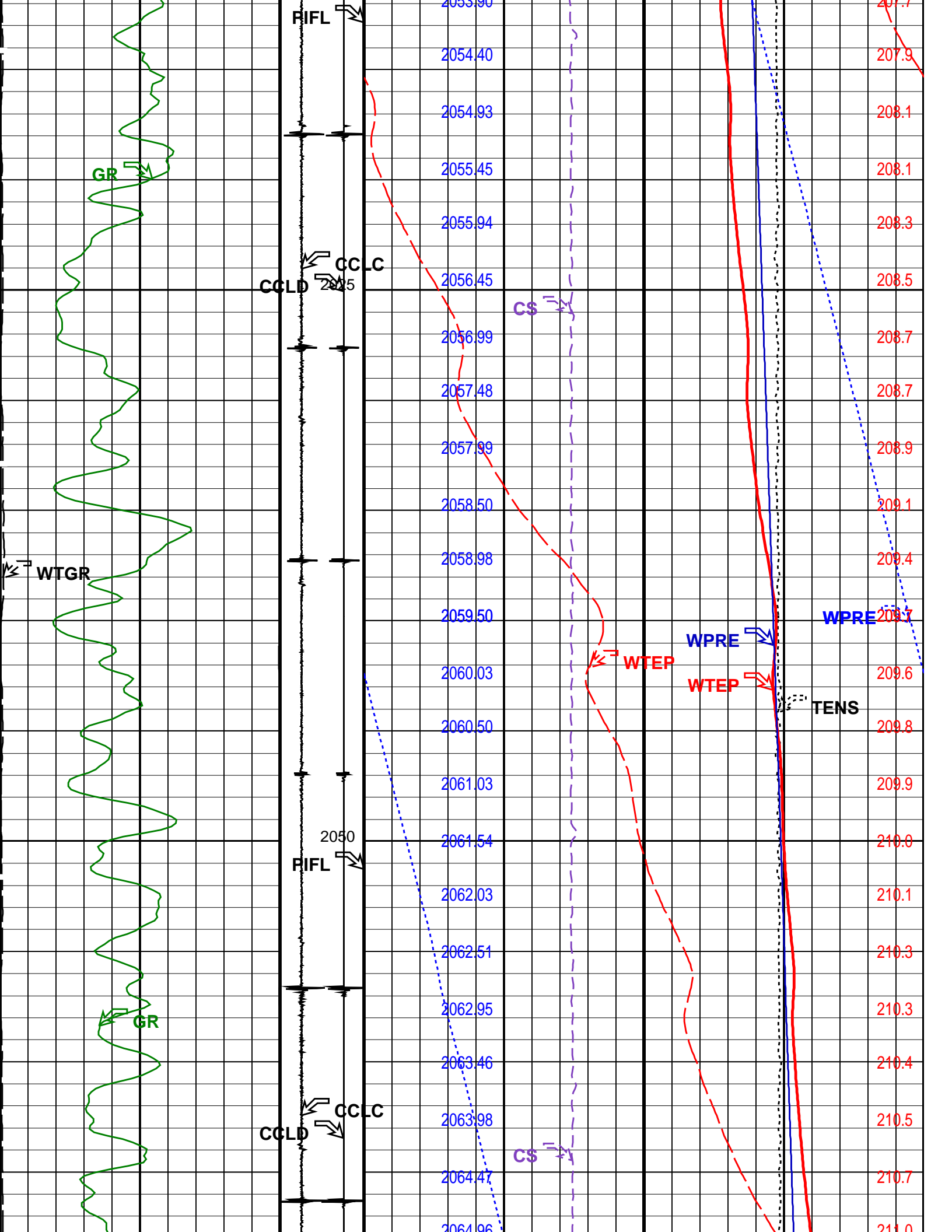


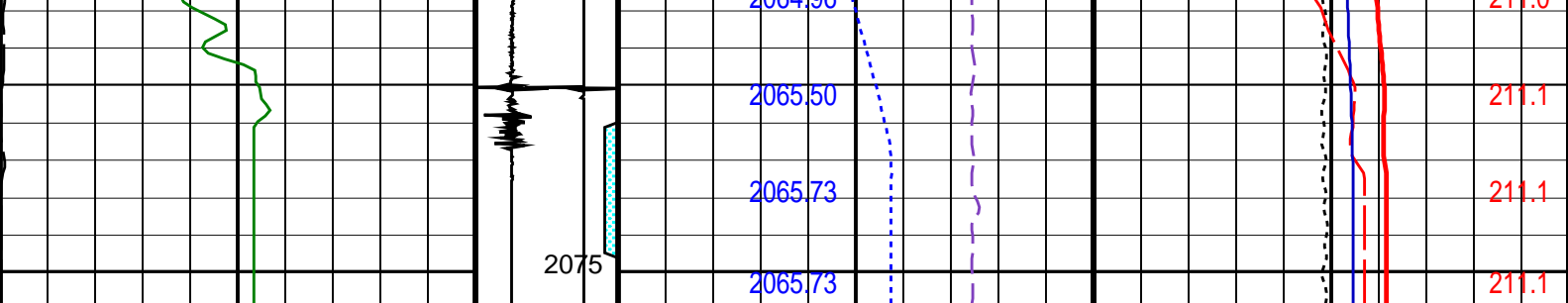












Gamma Ray (GR) (GAPI)		Discriminat ed CCL (CCLD)	Cable Speed (CS) (F/HR)		Tension (TENS) (LBF)	
0	150	3 (V) -1	0	5000	0	2000
Well Temperature Gradient (WTGR) (DC/M)		Computed CCL (CCLC)	Well Temperature (WTEP) (DEGF)			
0	10	1 (V) -3	195			215
		Perfo Zone From PERFO_ CURVE to D3T	Well Temperature (WTEP) (DEGF)			
			0			4
			Well Pressure (WPRE) (PSIA)		Temperature (WTEP) (DEGF)	
			Well Pressure (WPRE) (PSIA)			
			1950			2100
			Amplified Well Pressure (WPRE) (PSIA)			
			0			20

PIP SUMMARY

Time Mark Every 60 S

Format: PSP_1 Vertical Scale: 1:200

Graphics File Created: 29-Dec-2009 08:23

OP System Version: 17C0-154

RST-C 17C0-154 PSPT-A/B 17C0-154

Parameters

DLIS Name	Description	Value
DO	System and Miscellaneous	
PP	Depth Offset for Playback Playback Processing	-3.4 M NORMAL

Input DLIS Files

DEFAULT Flip_RST_PSP_002LUP PRODUCER 29-Dec-2009 08:13

Output DLIS Files

DEFAULT RST_PSP_004PUP FN:2 PRODUCER 29-Dec-2009 08:23

Schlumberger

**RST- C
Repeat Analysis**

Company: Esso Australia Pty Ltd

Well: TNA A13

Input DLIS Files

	RST_PSP_006PUP	FN:4		29-Dec-2009 09:26	2080.7 M	1760.2 M
DEFAULT	RST_PSP_021LUP	FN:20	PRODUCER	29-Dec-2009 09:22	2080.0 M	2029.5 M

Output DLIS Files

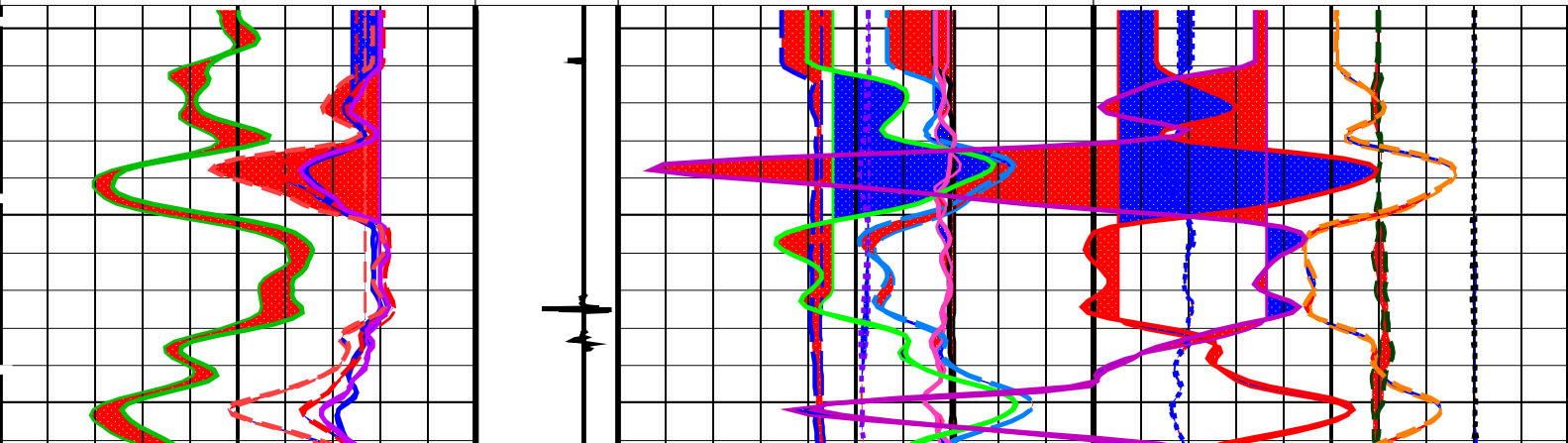
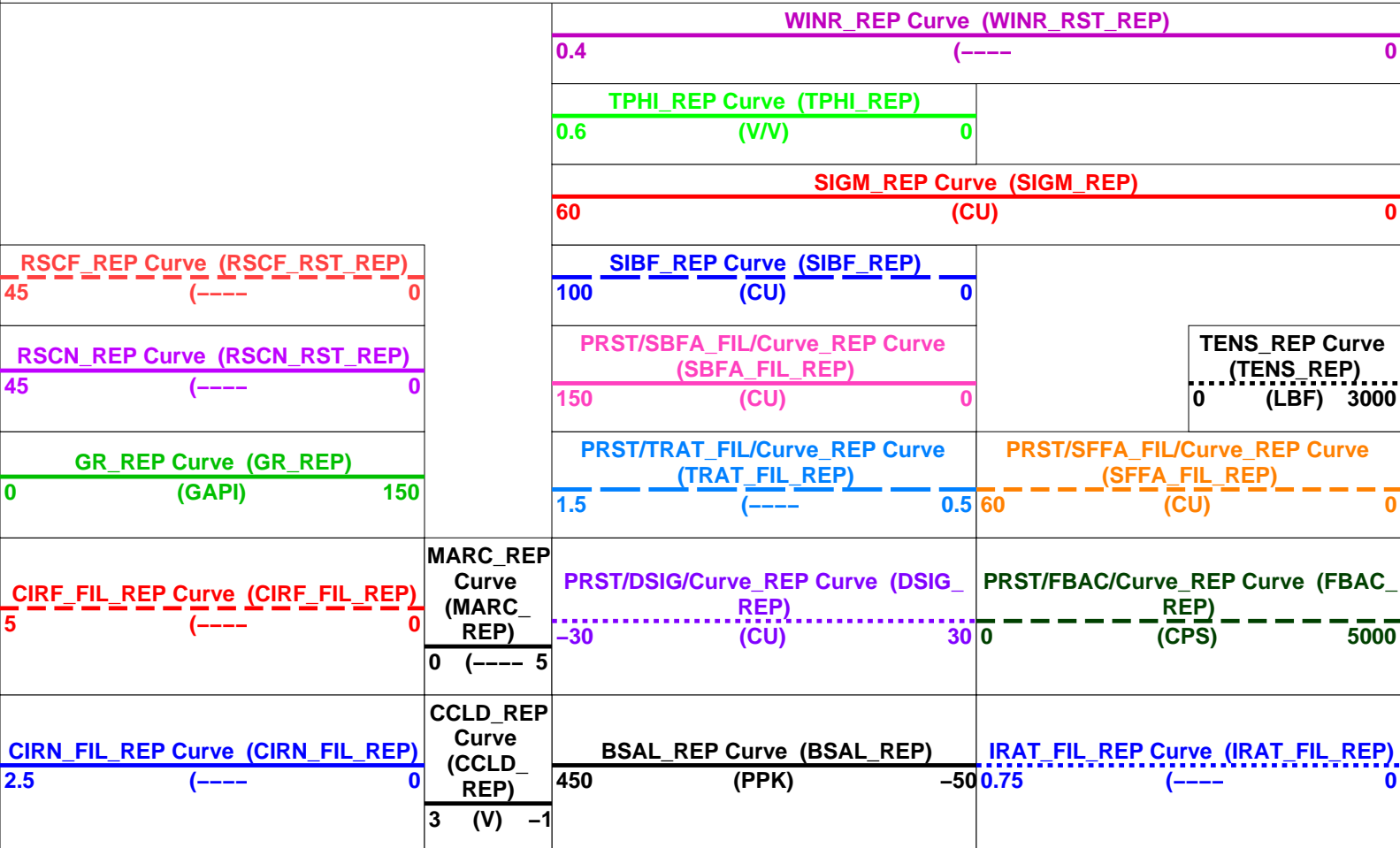
DEFAULT	RST_PSP_035PUP	FN:34	PRODUCER	29-Dec-2009 12:34
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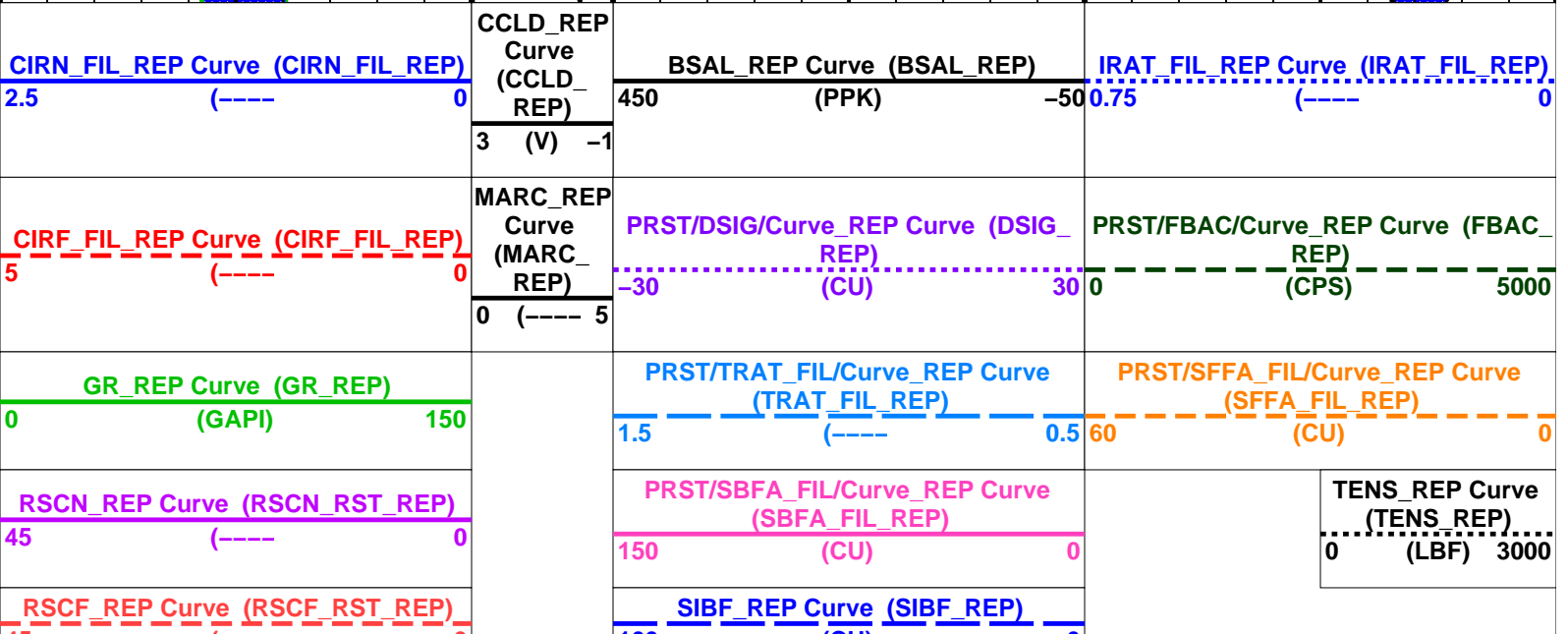
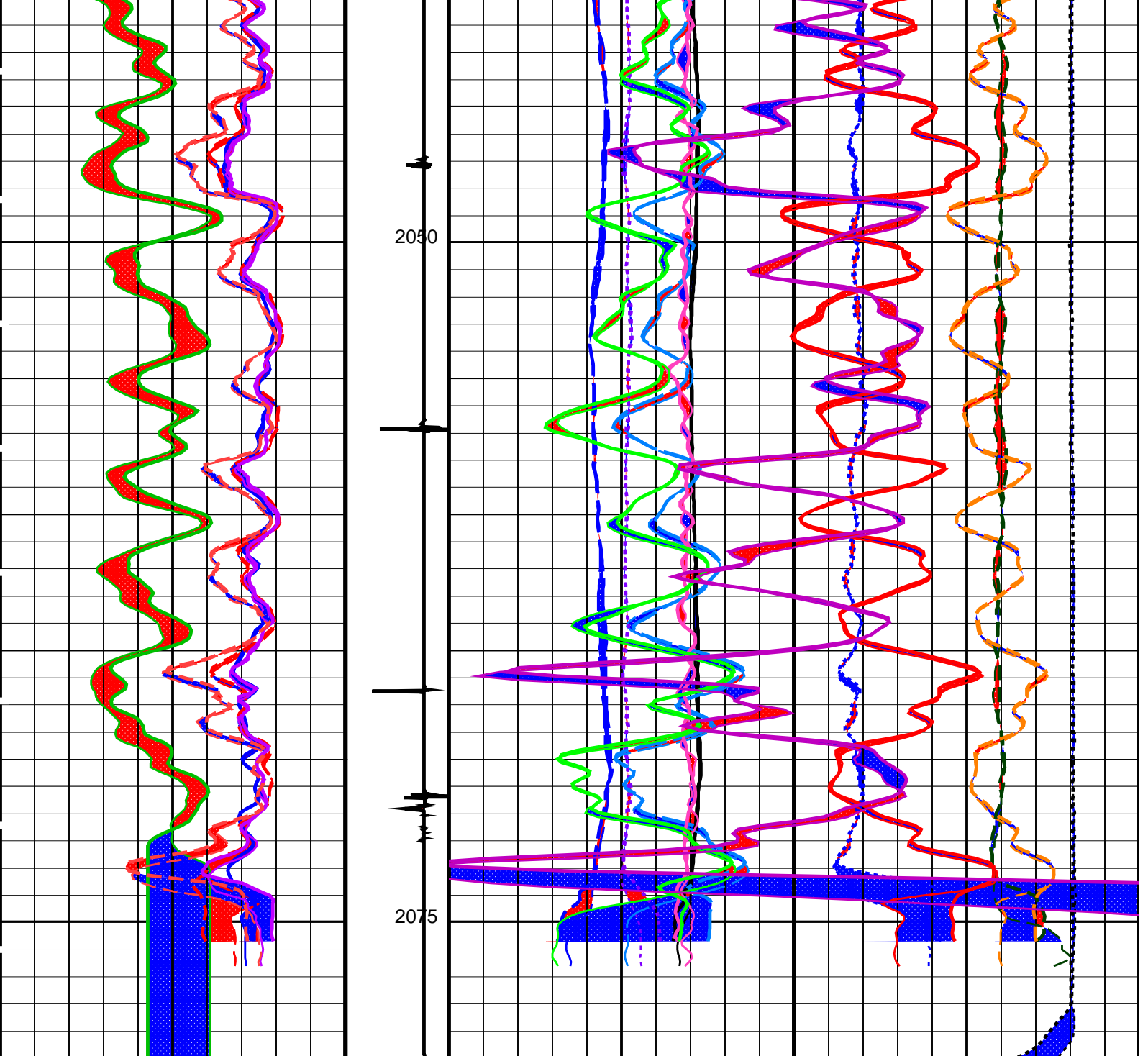
OP System Version: 17C0-154

RST-C	17C0-154	PSPT-A/B	17C0-154
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PIP SUMMARY

Time Mark Every 60 S





45	(----	0	100	(CU)	0
SIGM_REP Curve (SIGM_REP)					
60	(CU)				0
TPHI_REP Curve (TPHI_REP)					
0.6	(V/V)				0
WINR_REP Curve (WINR_RST_REP)					
0.4	(----				0

PIP SUMMARY					
Time Mark Every 60 S					

Parameters			
DLIS Name	Description	Value	
RST-C: Reservoir Saturation Pro Tool C			
AIRB	RST Air Borehole	No	
BHS	Borehole Status	OPEN	
BSALOPT	RST Borehole Salinity Option	Unknown	
BSFL	RST Borehole Salinity Filter Length	51	
DFPC	RST Depth Filter Processing Constant	One	
DFPC_TDTL	RST Depth Filter Processing Constant (TDT-like)	Two	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
NORM_IRAT_RST	RST Normalized Inelastic Ratio	0.48	
NORM_SIGM_RST	RST Normalized Sigma	30	CU
RGAI	Near/Far Gain Calibration Ratio	1	
TIER_SIGM	RST Sigma Acquisition Mode	0_RST_Sigma	
PSPT-A/B: Production Services Logging Platform			
BHS	Borehole Status	OPEN	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
System and Miscellaneous			
BS	Bit Size	8.500	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSIZ	Current Casing Size	7.000	IN
DO	Depth Offset for Playback	0.0	M
DORL	Depth Offset for Repeat Analysis	0.0	M
PP	Playback Processing	NORMAL	

Format: RST_SIG_ANSW_REP	Vertical Scale: 1:200	Graphics File Created: 29-Dec-2009 12:34
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OP System Version: 17C0-154			
RST-C	17C0-154	PSPT-A/B	17C0-154

Input DLIS Files					
DEFAULT	RST_PSP_006PUP	FN:4		29-Dec-2009 09:26	2080.7 M
					1760.2 M
DEFAULT	RST_PSP_021LUP	FN:20	PRODUCER	29-Dec-2009 09:22	2080.0 M
					2029.5 M
Output DLIS Files					
DEFAULT	RST_PSP_035PUP	FN:34	PRODUCER	29-Dec-2009 12:34	

Company:	Esso Australia Pty Ltd	Schlumberger			
Well:	TNA A13				
Field:	Tuna				
Rig:	Prod 4 / Crane				
Country:	Australia				
	RST-C				
	SIGMA Survey				
	29-12-2009				