

Company: **Santos Ltd./Strike Oil**

Well: Casino-1

Field: VIC/P 44

Rig: Ocean Bounty

State:

Victoria

CDR – ISONIC
Measured Depth 1:500
Recorded Mode

CDR – ISONIC Measured Depth 1:500 Recorded Mode																									
Rig: Ocean Bounty Field: VIC/P 44 Location: Otway Basin Well: Casino–1 Company: Santos Ltd./Strike Oil																									
<table border="1"> <tr> <th colspan="4">Location</th> </tr> <tr> <td rowspan="4"> API serial no. X = 647 654.91 mE Y = 5 705 323.87 mN </td> <td colspan="2"> Total depth: 2118 m </td> <td rowspan="4"> K.B. Top Drive G.L. –70.5 m D.F. 25 m </td> </tr> <tr> <td colspan="2"> Spud date: 25 Aug 02 </td> </tr> <tr> <td colspan="2"> Runs: 1 To 4 </td> </tr> <tr> <td colspan="2"> Elevation </td> </tr> <tr> <td></td> <td> Permanent datum: LAT _____ Log measured from: Rotary Table _____ Depth reference: Driller's Depth _____ </td> <td> Elev.: 25 m above Perm. datum 70.5 m </td> <td></td> </tr> <tr> <td></td> <td> Longitude 142°42'0.287" E Latitude 38°47'18.502" S </td> <td></td> <td></td> </tr> </table>				Location				API serial no. X = 647 654.91 mE Y = 5 705 323.87 mN	Total depth: 2118 m		K.B. Top Drive G.L. –70.5 m D.F. 25 m	Spud date: 25 Aug 02		Runs: 1 To 4		Elevation			Permanent datum: LAT _____ Log measured from: Rotary Table _____ Depth reference: Driller's Depth _____	Elev.: 25 m above Perm. datum 70.5 m			Longitude 142°42'0.287" E Latitude 38°47'18.502" S		
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Depth logged: 752 m		To 1792 m		Mag decl: 10.86 deg.		Other services:	
Date logged: 30 Aug 02		To 12 Sep 02		Mag dip: -70.02 deg.		MWD Survey	
Bore hole record				Casing record			
Hole size	from	to	Size	Density	from	to	
914 mm/36 in.	Seabed	130 m	762 mm	461 kg/m	Wellhead m.	128 m	
445 mm/17.5 in.	130 m	752 m	340 mm	101 kg/m	Wellhead m.	743 m	
311 mm/12.25 in.	752 m	2118 m					
Mud record				Borehole deviation record			
Type	from	to	Min	Max	from	to	
Seawater	Seabed	752 m	0 deg.	0.6 deg.	Seabed	752 m	
KCl/PHPA/Glyc	752 m	2118 m	0.26 deg.	4.38 deg.	752 m	1797 m	
Surface equipment				Software record			
Unit	OLU-JC902	IDEAL w/s	id7_OC_02				
Depth system	Geolograph, GTE	SPM	id7_2c_09				
		LWD	6.0B12				
		MWD	6.1C00				

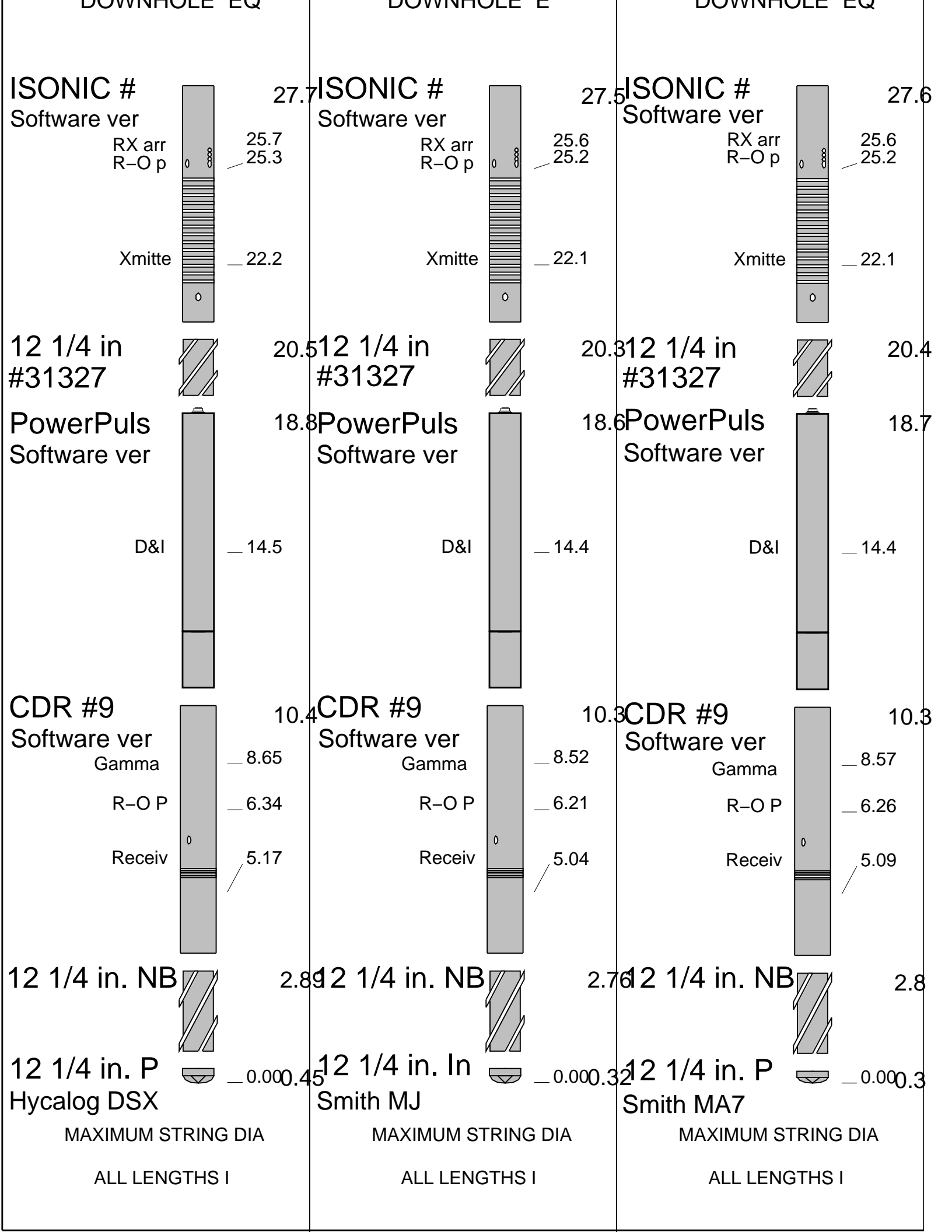
Bit Run Summary

Run number		1	2	3	4						
Bit size	in.	12.25	12.25	12.25	12.25						
Bit start depth	m	752	1056	1400	1797						
Bit end depth	m	1056	1400	1797	1797						
Top interval logged	m	726	1050	1395	1792						
Bottom interval logged	m	1050	1395	1792	1792						
Begin log: time		9:00	15:30	14:30	1:30						
Begin log: date		30 Aug 02	31 Aug 02	02 Sep 02	04 Sep 02						
End log: time		11:00	23:00	9:00	2:00						
End log: date		31 Aug 02	01 Sep 02	03 Sep 02	12 Sep 02						
Mud data											
Depth	m	1056	1400	1797	1797						
Type		KCl/PHPA/Gly	KCl/PHPA/Gly	KCl/PHPA/Gly	KCl/PHPA/Gly						
Mud weight	ppg	8.80	8.80	9.90	10.3						
Solids	%	1.63	2.01	5.67	7.28						
Chlorides	mg/L	29000	28000	29000	30000						
Rm	ohmm@degC	0.132@22	0.135@21	0.165@20	n/a						
Rmf	ohmm@degC	0.125@22	0.127@20	0.145@21	n/a						
Rmc	ohmm@degC	0.182@21	0.190@21	0.207@20	n/a						

Potassium	mg/L	37800	37800	32400	32400						
Environmental data											
GR											
Mud weight	ppg	8.80	8.80	9.90	10.3						
Bit size	in.	12.25	12.25	12.25	12.25						
Resistivity											
Neutron porosity											
Hole Size	in.	12.25	12.25	12.25	12.25						
Mud weight	ppg	8.80	8.80	9.90	10.3						
Borehole Temperature	degC	45	58	59	n/a						
Mud salinity		n/a	n/a	n/a	n/a						
Formation salinity		n/a	n/a	n/a	n/a						
Recording rate 1	SEC	10	10	10	10	GR/Res Sonic Array					
Recording rate 2	SEC	10	10	10	10						
Filtering GR		3	3	3	3						
Filtering density		n/a	n/a	n/a	n/a						
Filtering Neutron		n/a	n/a	n/a	n/a						
Company representative		H.Flink, W.Bertheux	S.Hodgetts C.Tue	R. Subramanian O.Radicevic							
Anadrill personnel											

<p style="text-align: center;">DISCLAIMER</p> <p>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.</p>		
OTHER SERVICES FOR RUN1 MWD Surveys Interact	OTHER SERVICES FOR RUN2 MWD Surveys Interact	OTHER SERVICES FOR RUN3 MWD Surveys Interact
REMARKS: RUN NUMBER 1 <p>The data presented is from the tool memory. There was barrite in the mud. CDR gamma ray is corrected for mud weight, bit size and tool size, but not environmentally corrected for potassium content in mud. CDR resitivity is bore hole compensated but not environmentally corrected.</p> <p>ISONIC measurements are borehole compensated, but not environmentally corrected.</p> <p>Interval drilled from 752m to 1056m. Interval logged from 726m to 1050m. Depth is Driller's Depth. Sensor offsets are described in Toolskech.</p> <p>Processed ISONIC data without receiver 4 Receiver 4 signal weak</p> <p>Run objective : drill vertically to TD. POOH : to change bit due to low ROP.</p>	REMARKS: RUN NUMBER 2 <p>The data presented is from the tool memory. There was barrite in the mud. CDR gamma ray is corrected for mud weight, bit size and tool size, but not environmentally corrected for potassium content in mud. CDR resitivity is bore hole compensated but not environmentally corrected.</p> <p>ISONIC measurements are borehole compensated, but not environmentally corrected.</p> <p>Interval drilled from 1056m to 1400m. Interval logged from 1050m to 1395m. Depth is Driller's Depth. Sensor offsets are described in Toolskech.</p> <p>Processed ISONIC data without receiver 4 Receiver 4 signal weak</p> <p>Run objective : drill vertically to TD. POOH : to change bit due to low ROP.</p>	REMARKS: RUN NUMBER 3 <p>The data presented is from the tool memory. There was barrite in the mud. CDR gamma ray is corrected for mud weight, bit size and tool size, but not environmentally corrected for potassium content in mud. CDR resitivity is bore hole compensated but not environmentally corrected.</p> <p>ISONIC measurements are borehole compensated, but not environmentally corrected.</p> <p>Interval drilled from 1400m to 1797m. Interval logged from 1395m to 1792m. Depth is Driller's Depth. Sensor offsets are described in Toolskech.</p> <p>Processed ISONIC data without receiver 4 Receiver 4 signal weak</p> <p>Run objective : drill vertically to TD. POOH : to change bit due to low ROP.</p>


EQUIPMENT DESCRIPTION		
RUN1	RUN2	RUN3

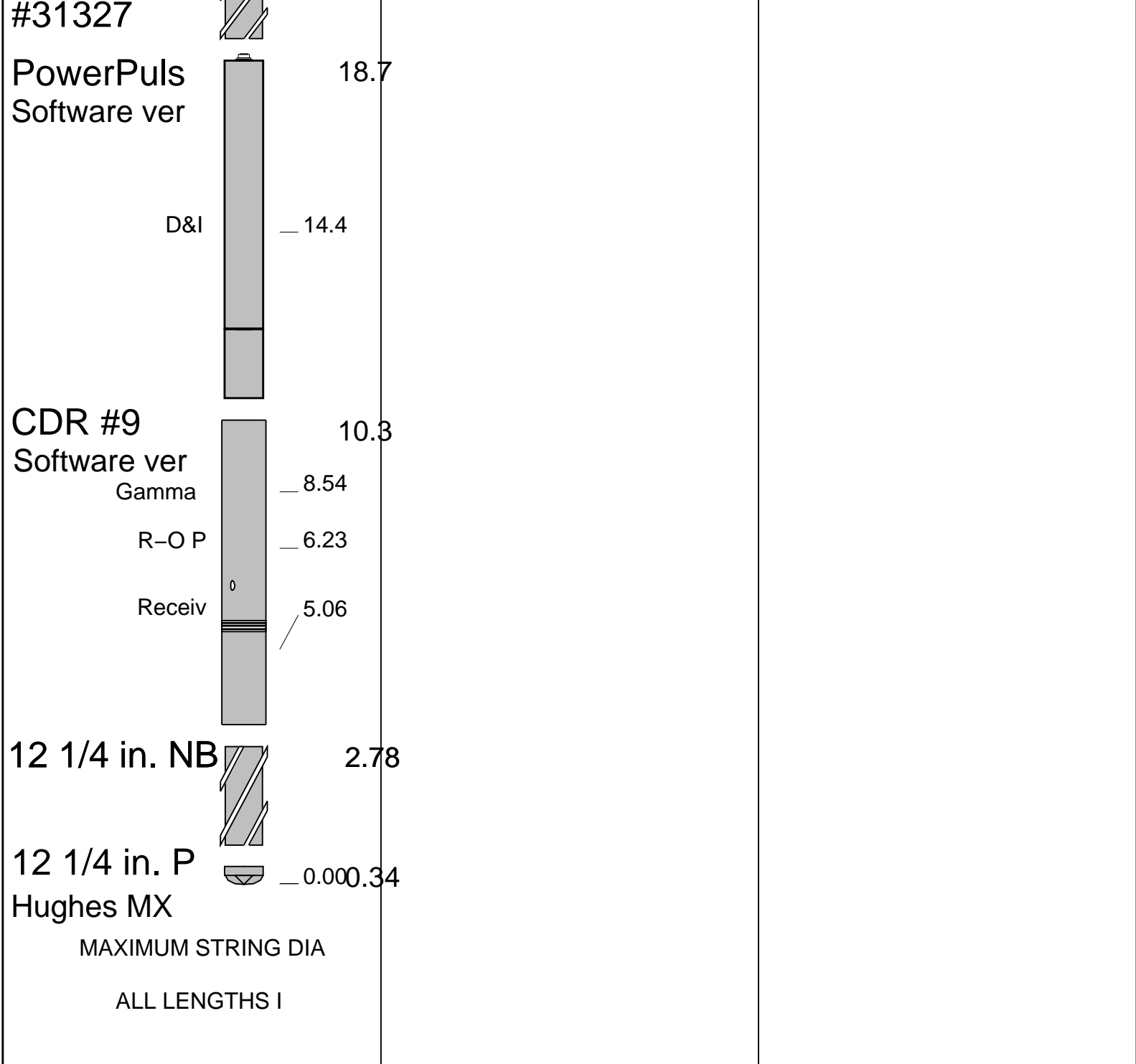


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OTHER SERVICES FOR RUN4 MWD Surveys Interact	OTHER SERVICES FOR RUN	OTHER SERVICES FOR RUN
REMARKS: RUN NUMBER 4 Gale force wind and high swell forced the rig to stop RIH, hang off the BHA in BOP and disconnect the riser. After 7 days the weather improved and the BHA was pulled out of hole. Next BHA was run to assess hole condition without MWD/LWD tools. Hole was in good condition and decision was made to drill ahead. TD was reached at 2118 m.	REMARKS: RUN NUMBER	REMARKS: RUN NUMBER

EQUIPMENT DESCRIPTION		
RUN4	RUN	RUN
<p>DOWNHOLE EQ</p> <p>ISONIC # 27.6</p> <p>Software ver</p> <p>RX arr 25.5</p> <p>R-O p 25.1</p> <p>Xmitte 22.0</p> <p>12 1/4 in 20.4</p> 		



IDEAL Version: ID7_0C_02
IDF

CDR SON825	IDEAL Version: ID7_0C_02 IDEAL Version: ID7_0C_02	MWD_10	IDEAL Version: ID7_0C_02
Format: CDR ISONIC 500		Vertical Scale: 1:500	Graphics File Created: 18-Sep-2002 15:10

Parameters

DLIS Name	Description	Value
DO	Depth Offset	0.0 m
MW_RM	Mud Weight (RM)	9.900 lbm/gal
PLATEAU	CDR: Plateau GR sensor	YES

PIP SUMMARY

- ± CDR Resistivity Samples
- ± CDR Gamma Ray Samples

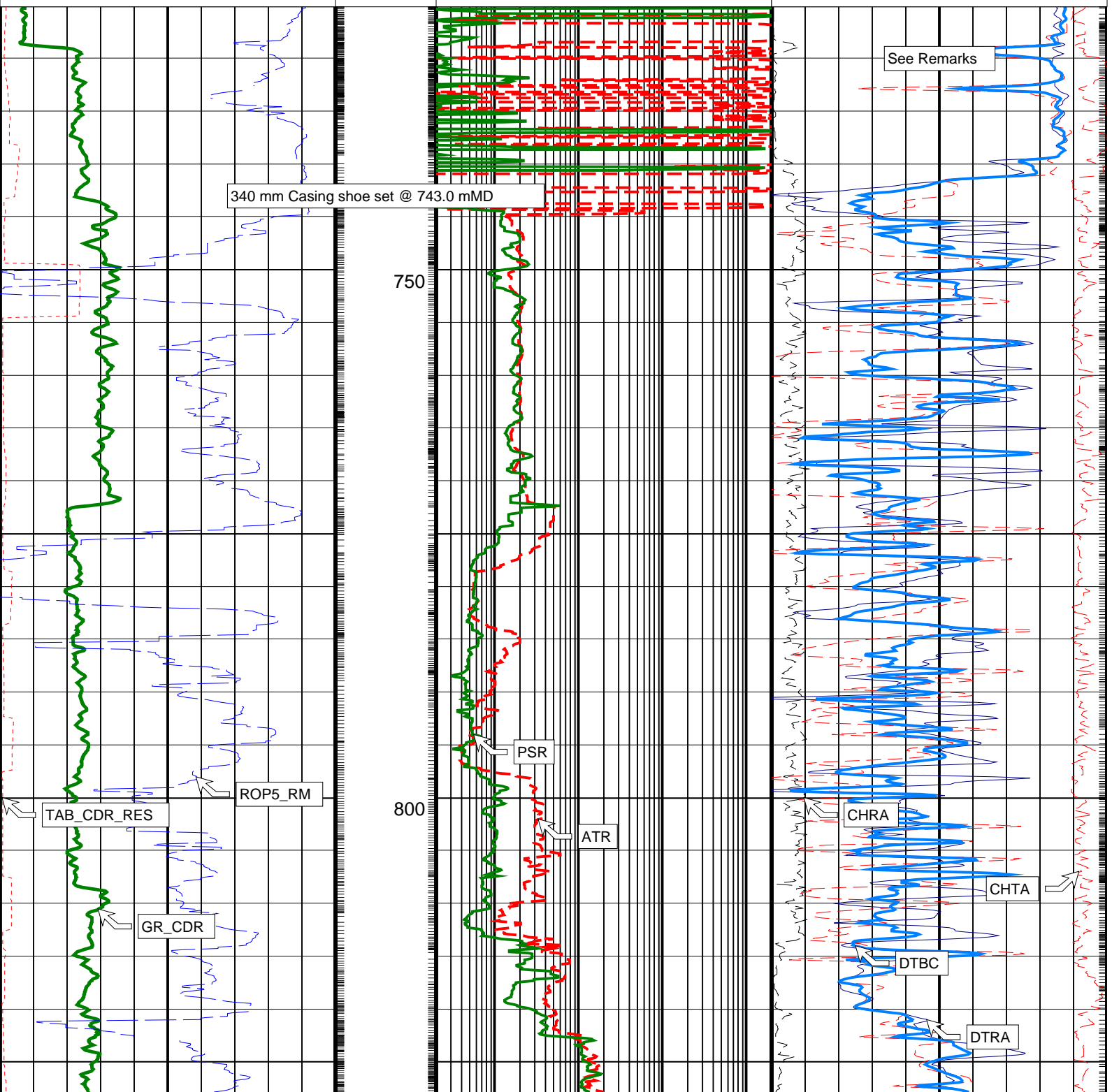
ISONIC Samples ±

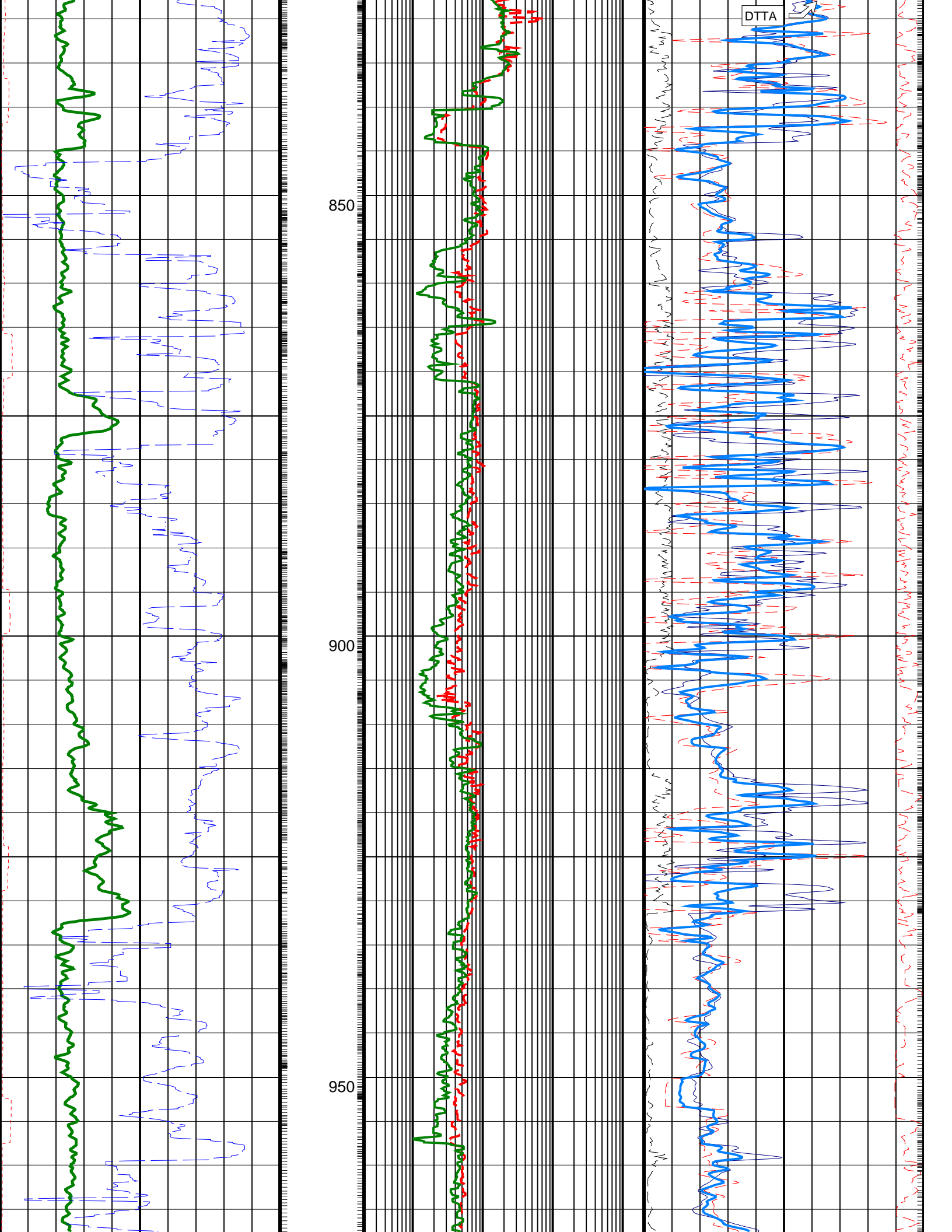
Delta-T Compressional Borehole

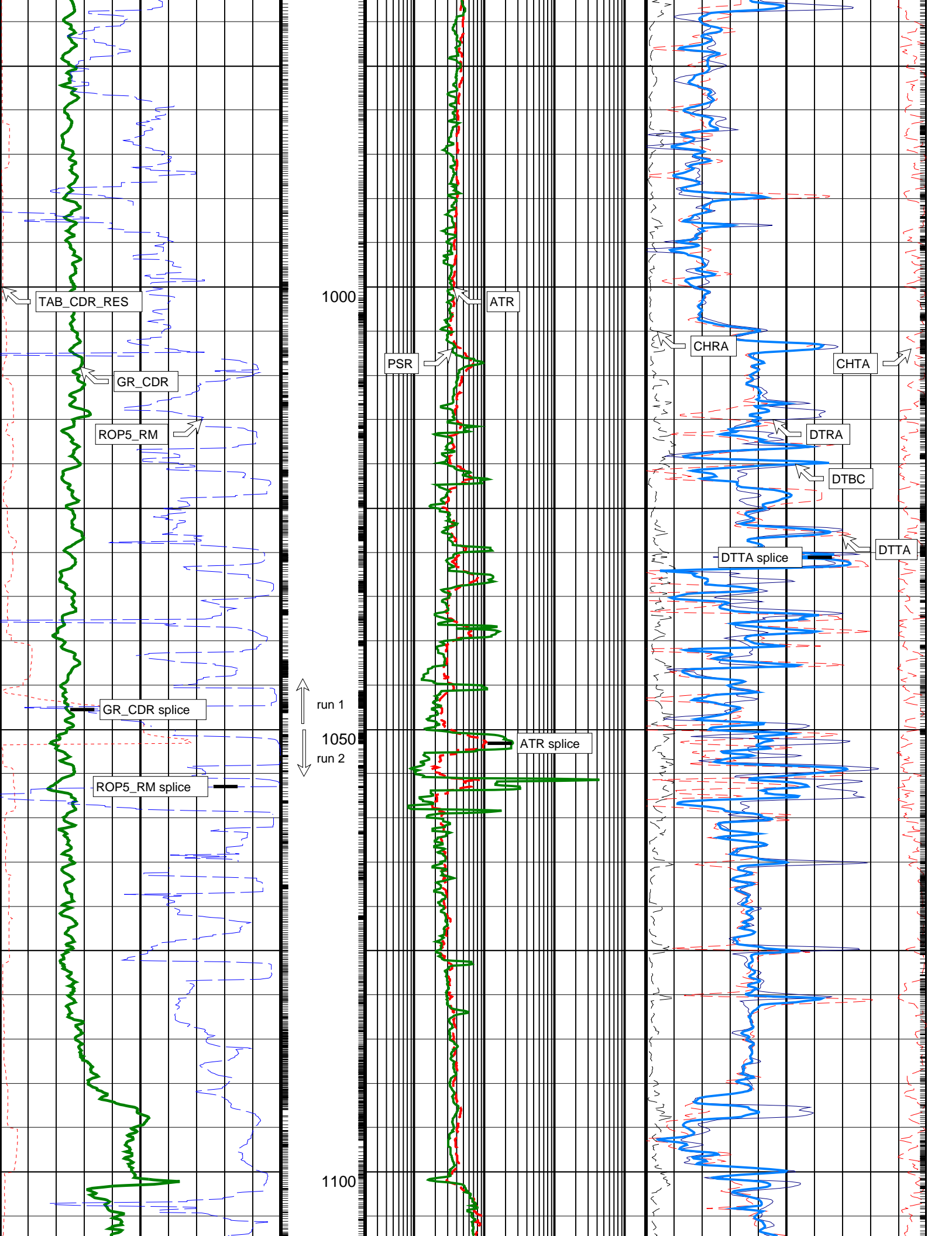
Rate of Penetration, Averaged over Last 5ft (ROP5_RM)		
200	(M/HR)	0
CDR Resistivity Time After Bit (TAB_CDR_RES)		
0	(HR)	10
CDR Gamma Ray (GR_CDR)		
0	(GAPI)	200

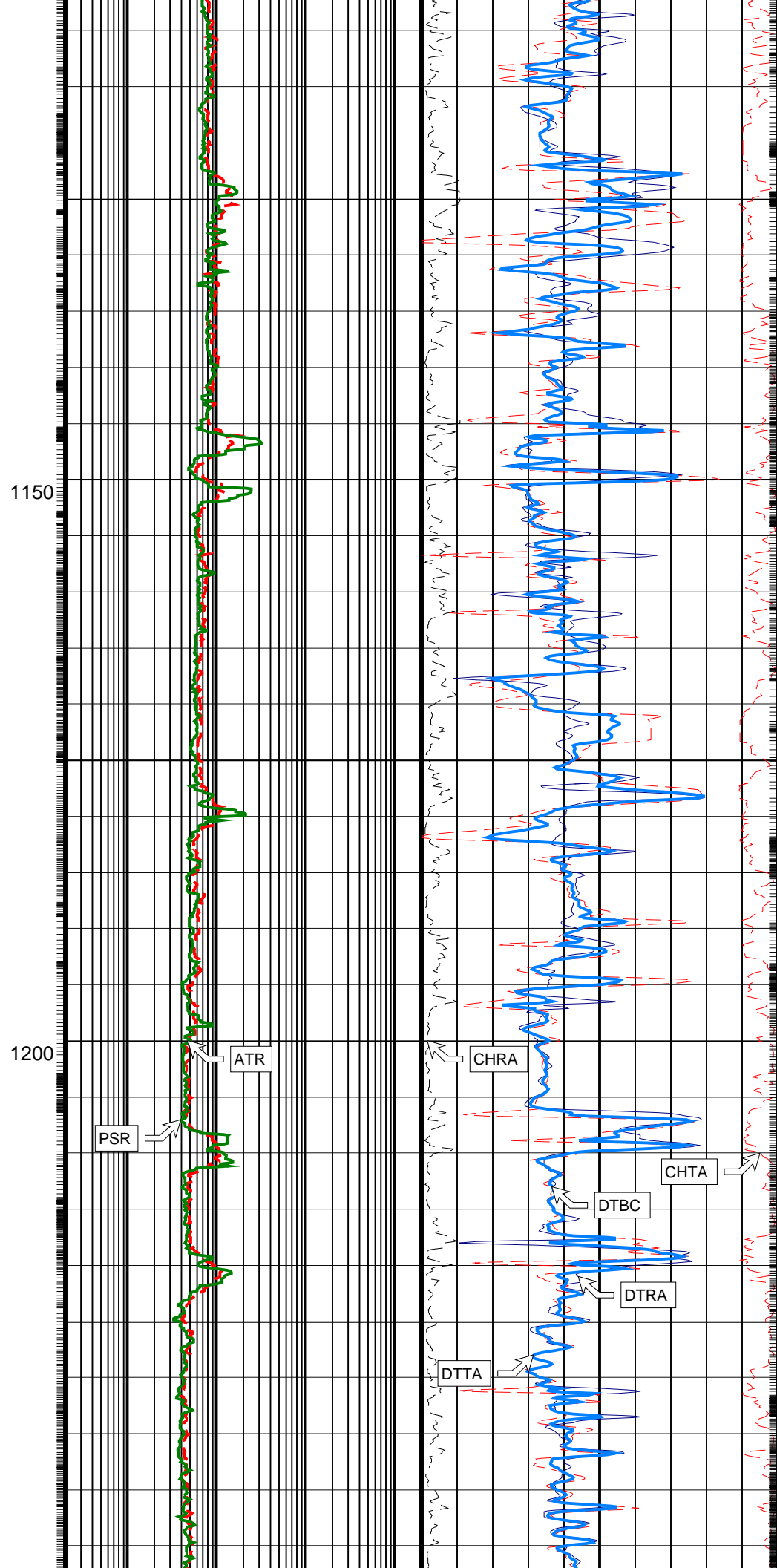
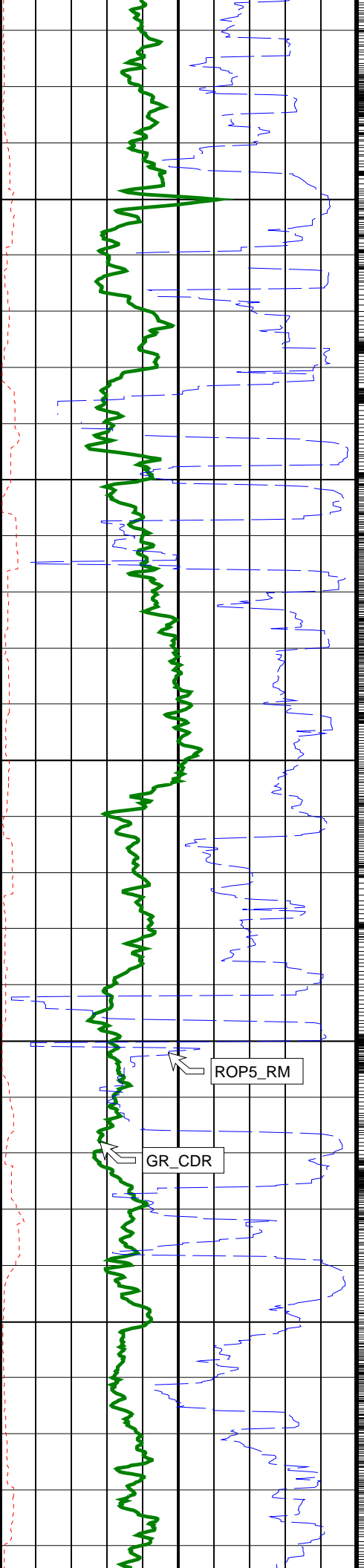
Uncorrected Phase Shift Resistivity (PSR)		
0.2	(OHMM)	2000
Uncorrected Attenuation Resistivity (ATR)		
0.2	(OHMM)	2000

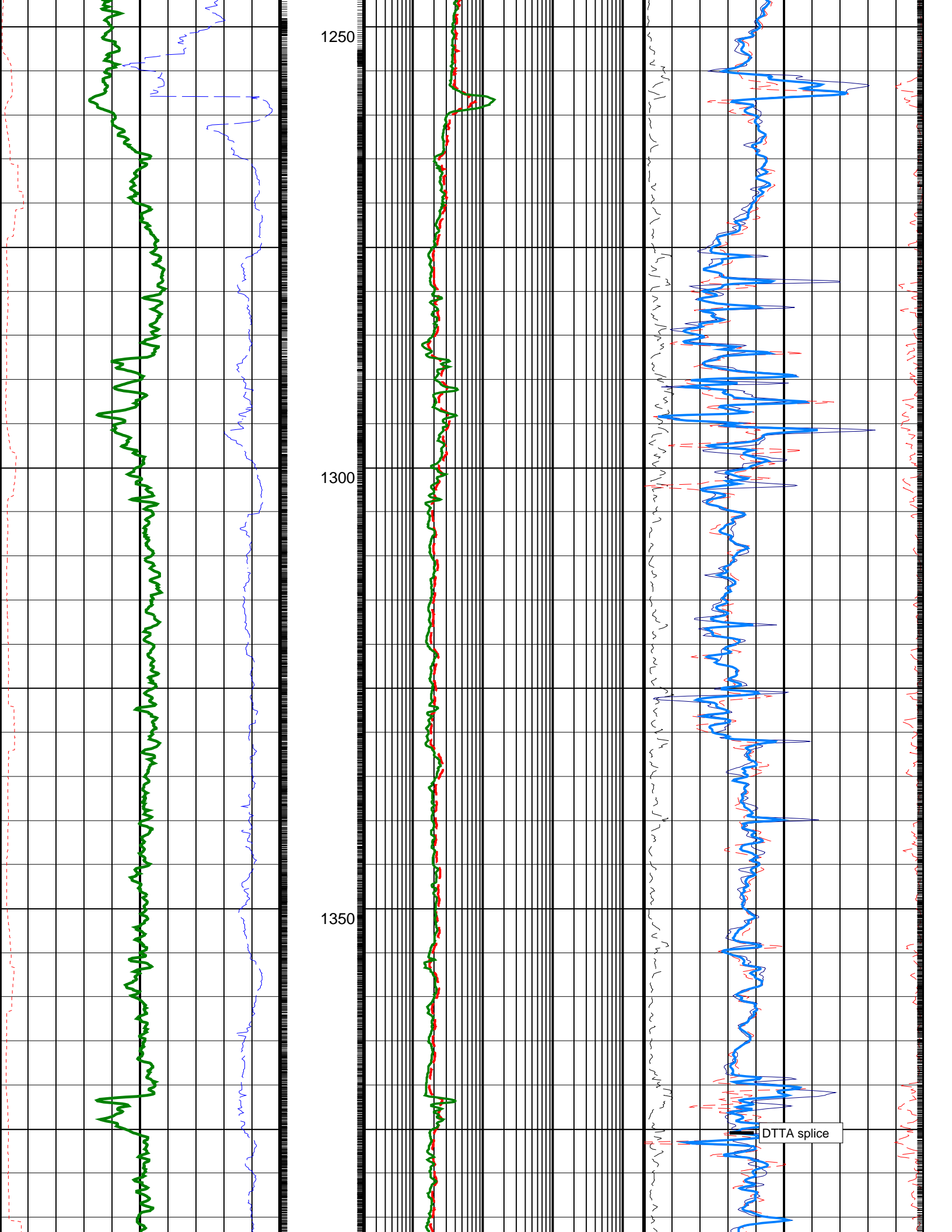
Compensated (Depth Derived) (DTBC)		
140	(US/F)	40
Delta-T Compressional from Transmitter Array (DTTA)		
140	(US/F)	40
Delta-T Compressional from Receiver Array (DTRA)		
140	(US/F)	40
Coherence at Compressional Peak for the Transmitter Array (CHTA)		
-4	(----	1
Coherence at Compressional Peak for the Receiver Array (CHRA)		
1	(----	-4

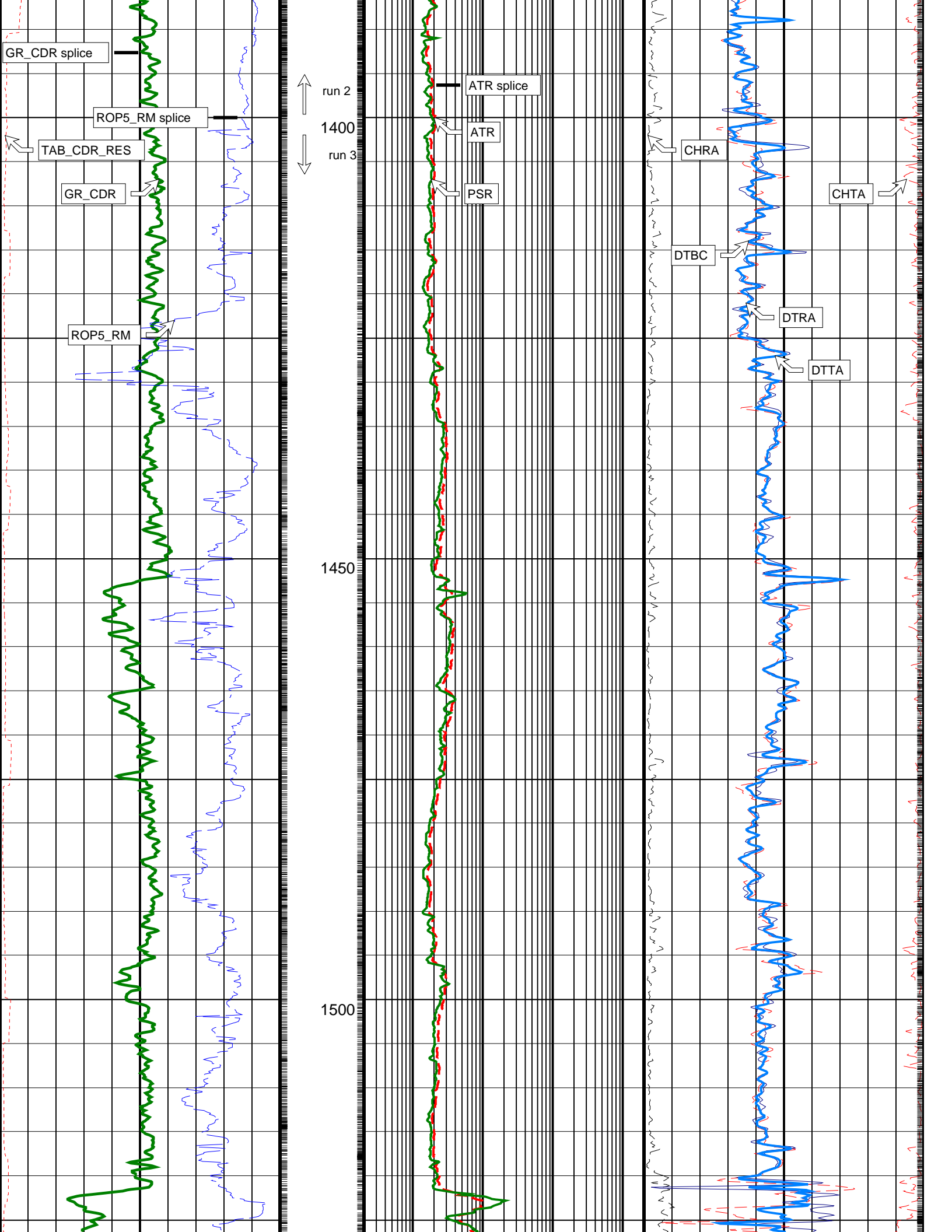


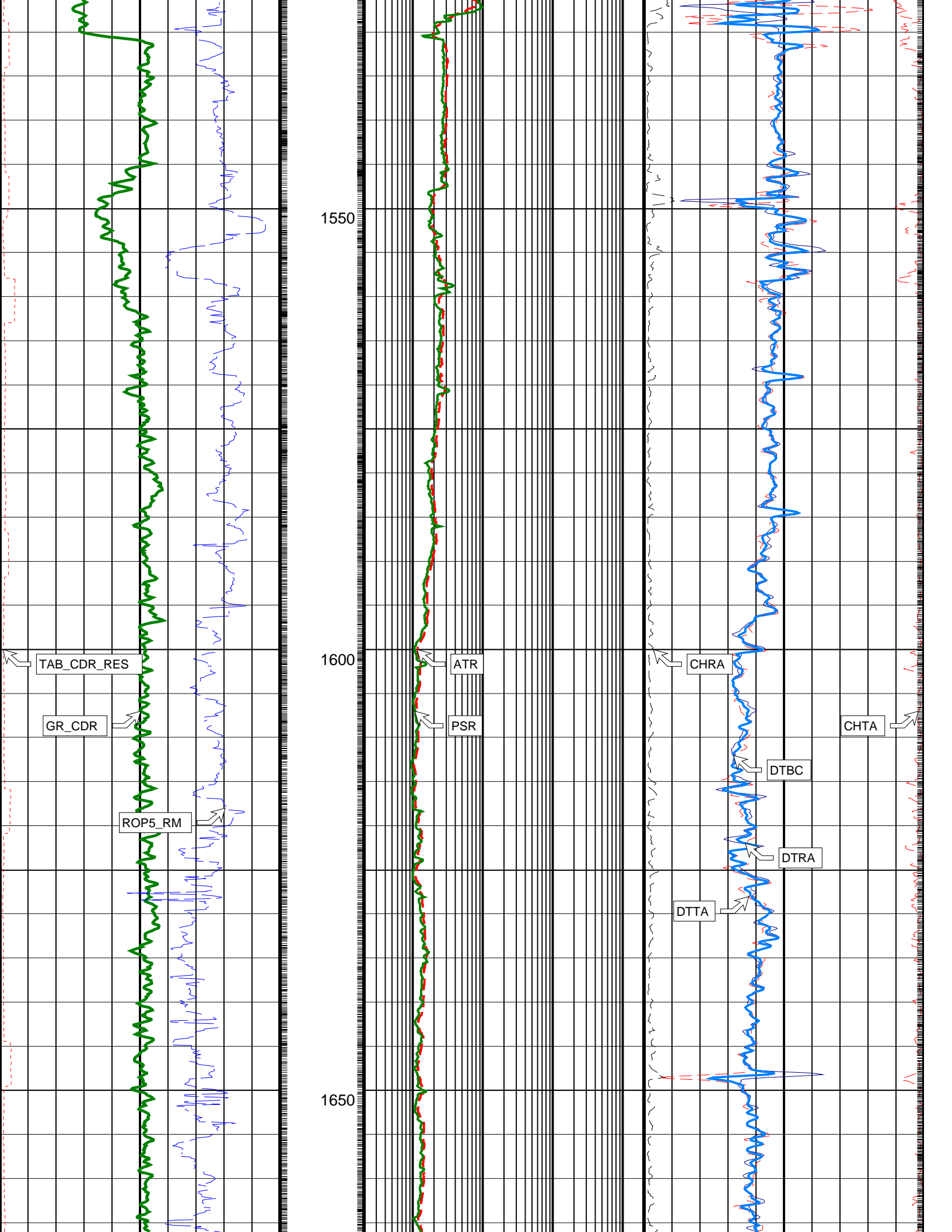


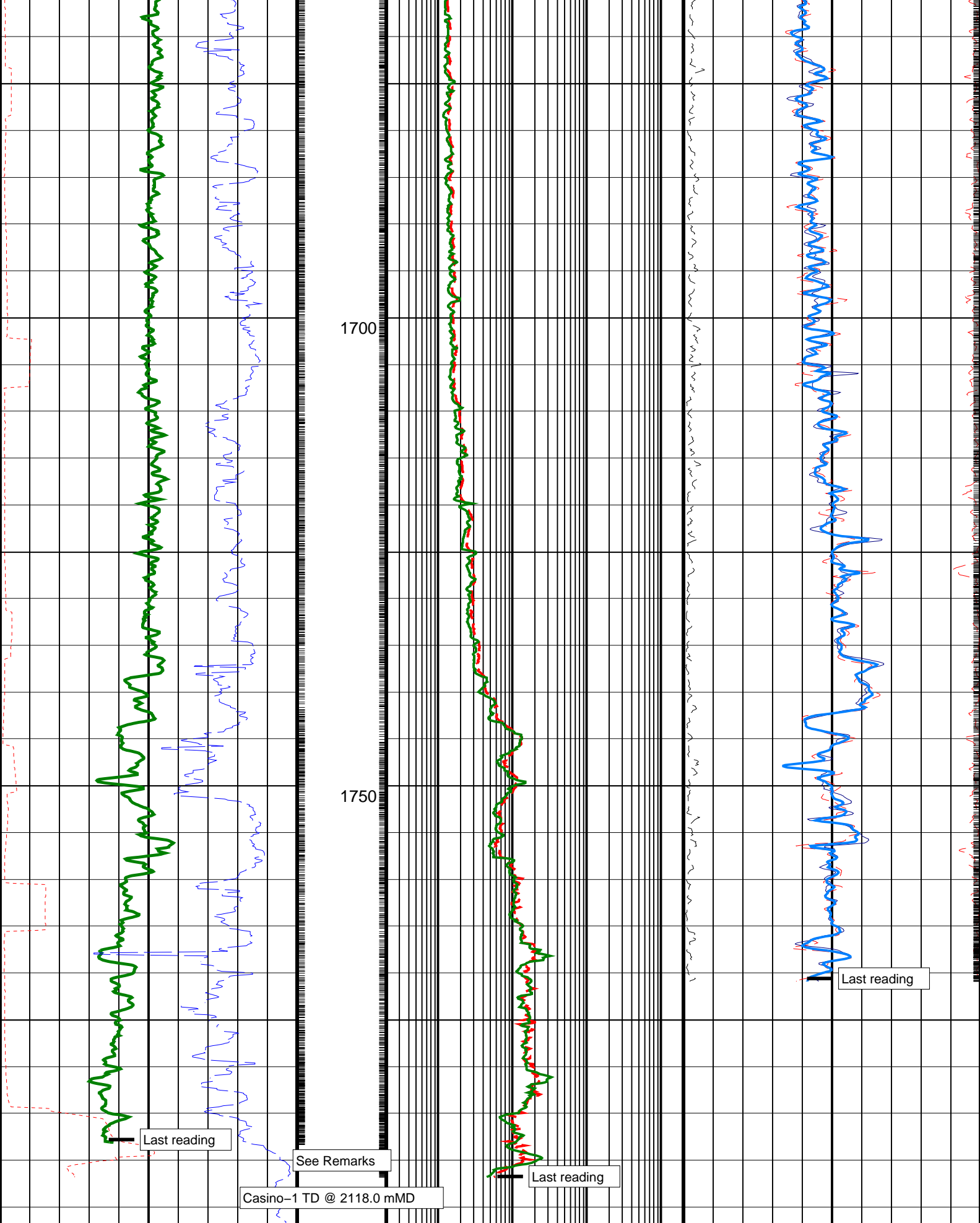












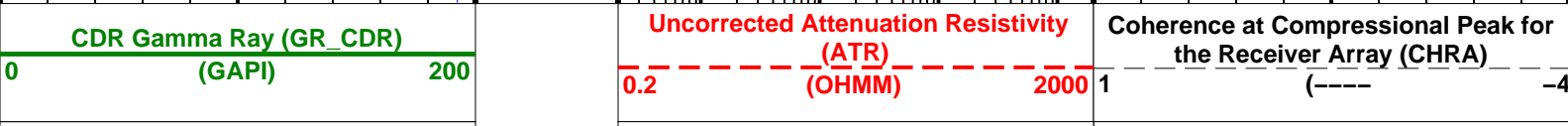
Casino-1 TD @ 2118.0 mMD

See Remarks

Last reading

Last reading

Last reading



CDR Resistivity Time After Bit (TAB_			Uncorrected Phase Shift Resistivity			Coherence at Compressional Peak for		
CDR_RES)			(PSR)			the Transmitter Array (CHTA)		
0	(HR)	10	0.2	(OHMM)	2000	-4	(----	1
Rate of Penetration, Averaged over Last 5ft (ROP5_RM)						Delta-T Compressional from Receiver Array (DTRA)		
						140 (US/F) 40		
						Delta-T Compressional from Transmitter Array (DTTA)		
						140 (US/F) 40		
						Delta-T Compressional Borehole Compensated (Depth Derived) (DTBC)		
200 (M/HR) 0						140 (US/F) 40		

<div> <div>PIP SUMMARY</div> <div> <div> <div>+</div> <div>CDR Resistivity Samples</div> </div> <div> <div>+</div> <div>CDR Gamma Ray Samples</div> </div> <div> <div>+</div> <div>ISONIC Samples</div> </div> </div> </div>								
<div>IDEAL Version: ID7_OC_02</div> <div>IDF</div> <div> <div>CDR</div> <div>SON825</div> </div> <div> <div>IDEAL Version: ID7_OC_02</div> <div>IDEAL Version: ID7_OC_02</div> </div> <div> <div>MWD_10</div> </div> <div> <div>IDEAL Version: ID7_OC_02</div> </div>								

9.50-in. Compensated Dual Resistivity / Equipment Identification			
Primary Equipment:			
Tool Name and Serial Number		RGS9 – AA	9556
Gamma Ray Type		Plat – GR	
Calibration Status		Valid	

Master: 17-Aug-2002 0:16											
9.50-in. Compensated Dual Resistivity Calibration											
Resistivity: Air											
Phase	Attenuation down	DB	Value	Phase	Attenuation up	DB	Value	Phase	BHC attenuation	DB	Value
Master			3.920	Master			3.912	Master			3.916
	3.290 (Minimum)				3.290 (Minimum)				3.790 (Minimum)		
	3.890 (Nominal)				3.890 (Nominal)				3.890 (Nominal)		
	4.490 (Maximum)				4.490 (Maximum)				3.990 (Maximum)		

Master: 17-Aug-2002 0:16											
9.50-in. Compensated Dual Resistivity Calibration											
Resistivity: Air											
Phase	Phase shift down	DEG	Value	Phase	Phase shift up	DEG	Value	Phase	BHC phase shift	DEG	Value
Master			-0.4190	Master			0.5240	Master			0.05250
	-2.400 (Minimum)				-2.400 (Minimum)				-0.9000 (Minimum)		
	0.1000 (Nominal)				0.1000 (Nominal)				0.1000 (Nominal)		
	2.600 (Maximum)				2.600 (Maximum)				1.100 (Maximum)		

Master: 18-Aug-2002 0:27											
9.50-in. Compensated Dual Resistivity Calibration											
Gamma Ray: Blanket											
Phase	Gain								Value		
Master									0.8800		
	0.8000 (Minimum)										
	1.000 (Nominal)										
	1.200 (Maximum)										

ANADRILL			
SCHLUMBERGER			
Survey report	13-Sep-2002 12:11:21	Page	1 of 2
Client.....: Santos			
Field.....: Exploration			
Well.....: asino-1	Spud date.....: 25-Aug-02		

Well name.....: Casino 1
API number.....: Engineer.....: W. Bertheux, C. Tue, C. Borbas
COUNTY:.....: Ocean Bountyy
STATE:.....: Victoria

Spad date.....: 29-Sep-02
Last survey date.....: 09-Sep-02
Total accepted surveys...: 16
MD of first survey.....: 0.00 m
MD of last survey.....: 1797.00 m

----- Survey calculation methods-----
Method for positions.....: Minimum curvature
Method for DLS.....: Mason & Taylor

----- Depth reference -----
Permanent datum.....: LAT
Depth reference.....: Driller's Depth
GL above permanent.....: -70.50 m
KB above permanent.....: 0.00 m
DF above permanent.....: 25.00 m

----- Vertical section origin-----
Latitude (+N/S-).....: 0.00 m
Departure (+E/W-).....: 0.00 m

----- Platform reference point-----
Latitude (+N/S-).....: 0.00 m
Departure (+E/W-).....: 0.00 m

Azimuth from rotary table to target: 0.00 degrees

----- Geomagnetic data -----
Magnetic model.....: BGGM version 2002
Magnetic date.....: 29-Aug-2002
Magnetic field strength...: 1220.75 HCNT
Magnetic dec (+E/W-).....: 10.87 degrees
Magnetic dip.....: -70.06 degrees

----- MWD survey Reference Criteria -----
Reference G.....: 1000.08 mGal
Reference H.....: 1220.75 HCNT
Reference Dip.....: -70.06 degrees
Tolerance of G.....: (+/-) 2.50 mGal
Tolerance of H.....: (+/-) 6.00 HCNT
Tolerance of Dip.....: (+/-) 0.45 degrees

----- Corrections -----
Magnetic dec (+E/W-).....: 10.87 degrees
Grid convergence (+E/W-)..: -1.07 degrees
Total az corr (+E/W-).....: 11.94 degrees
(Total az corr = magnetic dec - grid conv)
Sag applied (Y/N).....: No degree: 0.00

[(c)2002 Anadrill IDEAL ID7_OC_02]
ANADRILL SCHLUMBERGER Survey Report

13-Sep-2002 12:11:21

Page 2 of 2

Seq #	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/ 10m)	Srvy tool type	Tool qual type
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIP	-
2	766.75	0.60	342.17	766.75	766.74	3.82	3.82	-1.23	4.01	342.17	0.01	MWD	6-axis
3	855.00	0.26	216.64	88.25	854.98	4.10	4.10	-1.49	4.36	340.03	0.09	MWD	6-axis
4	912.40	0.54	155.43	57.40	912.38	3.75	3.75	-1.46	4.02	338.79	0.08	MWD	6-axis
5	969.94	0.83	135.97	57.54	969.92	3.20	3.20	-1.05	3.37	341.81	0.06	MWD	6-axis
6	1041.08	1.20	191.94	71.14	1041.05	2.11	2.11	-0.85	2.27	338.03	0.14	MWD	6-axis
7	1084.57	1.29	209.06	43.49	1084.53	1.23	1.23	-1.18	1.71	316.20	0.09	MWD	6-axis
8	1170.44	0.93	192.51	85.87	1170.38	-0.29	-0.29	-1.80	1.83	260.74	0.06	MWD	6-axis
9	1256.72	1.44	181.17	86.28	1256.64	-2.06	-2.06	-1.98	2.85	223.78	0.06	MWD	6-axis
10	1382.12	1.87	182.17	125.40	1381.99	-5.68	-5.68	-2.08	6.05	200.15	0.03	MWD	6-axis
11	1458.48	2.13	183.87	76.36	1458.31	-8.34	-8.34	-2.23	8.63	194.95	0.03	MWD	6-axis
12	1546.07	2.74	185.63	87.59	1545.82	-12.05	-12.05	-2.54	12.31	191.92	0.07	MWD	6-axis
13	1605.53	3.09	184.83	59.46	1605.20	-15.06	-15.06	-2.82	15.32	190.60	0.06	MWD	6-axis
14	1690.72	3.44	188.91	85.19	1690.25	-19.87	-19.87	-3.41	20.16	189.73	0.05	MWD	6-axis
15	1775.86	4.38	192.34	85.14	1775.19	-25.57	-25.57	-4.50	25.97	189.97	0.11	MWD	6-axis

[(c)2002 Anadrill IDEAL ID7_OC_02]

Company: Santos Ltd./Strike Oil

Schlumberger

Well: Casino-1

Field: VIC/P 44

Rig: Ocean Bounty

State: Victoria

CDR - ISONIC

Measured Depth 1:500

Recorded Mode

