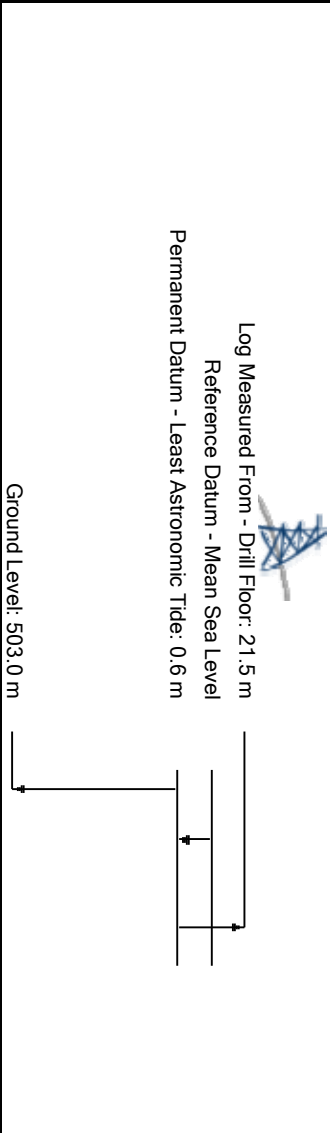


Company: Woodside Energy Ltd

Well: Somerset-1  
Field: T34P  
Rig Name: Ocean Patriot  
State: Tasmania  
Country: Australia

Latitude:	39° 20' 36.76" S	UWID:	n.a
Longitude:	142° 44' 56.14" E	Rig Name:	Ocean Patriot
Block:	n.a	Rig Type:	Semi-Submersible
FL:	Otway Basin		
FL1:			
FL2:			



Acquisition Dates:	24 Oct 09	Other Services:	
Print Interval:	1275.0(m) to 2569.5(m)	Directional Surveys	
Index Types:	Measured Depth	Shock and Vibrations	
Index Scales:	1:1000	Annulus Temperature and Pressure	
Depth Source:	Driller's Depth		
Depth Sensor:	DES		
Conveyance:	Drill Pipe		
Print Type:	Field		
Spud Date:	19-Oct-2009		

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 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.

Contents

- 1. Header
- 2. Disclaimer
- 3. Contents
- 4. Survey Record
- 5. Run 2
  - 5.1 Software Version
  - 5.2 Pass Summary
  - 5.3 Log ( RT Quad Combo - SADN8 Woodside )
  - 5.4 Parameter Listing
- 6. Tail

Survey Record

Survey Calculation			
Method :	Minimum Radius of Curvature	DLS Method :	Lubinski
North Reference :	Grid North	Total Correction Formula :	Magnetic Dec - Grid Convergence
Grid Convergence :	-1.11 deg		

Rig Location			
Latitude :	39° 20' 36.76" S	Longitude :	142° 44' 56.14" E

Tie In Point					
Measured Depth:	0.00 m	Inclination:	0.00 deg	Azimuth:	0.00 deg
True Vertical Depth:	0.00 m	North Displacement:	0.00 m	East Displacement:	0.00 m
N/-S VSec Origin:	0.00 m	E/-W VSec Origin:	0.00 m	Vertical Section Azimuth:	0.00 deg

D&I Inits Computed and Values Used - Run 1			
Geomagnetic Model :	BGGM 2009	Geomagnetic Date :	20-Oct-2009
Computed Location B :	61074.75 nT +/- 300.00nT	Used Location B :	61074.75 nT +/- 300.00nT
Computed Location G :	999.45 mgn +/- 2.50mgn	Used Location G :	999.45 mgn +/- 2.50mgn
Computed Magnetic Dip :	-70.38 deg +/- 0.45deg	Used Magnetic Dip :	-70.38 deg +/- 0.45deg
Computed Magnetic Dec :	11.03 deg	Used Magnetic Dec :	11.03 deg
Computed Total Correction :	12.14 deg	Used Total Correction :	12.14 deg

D&I Inits Computed and Values Used - Run 2			
Geomagnetic Model :	BGGM 2009	Geomagnetic Date :	24-Oct-2009
Computed Location B :	61074.62 nT +/- 300.00nT	Used Location B :	61074.62 nT +/- 300.00nT
Computed Location G :	999.45 mgn +/- 2.50mgn	Used Location G :	999.45 mgn +/- 2.50mgn
Computed Magnetic Dip :	-70.38 deg +/- 0.45deg	Used Magnetic Dip :	-70.38 deg +/- 0.45deg
Computed Magnetic Dec :	11.03 deg	Used Magnetic Dec :	11.03 deg
Computed Total Correction :	12.14 deg	Used Total Correction :	12.14 deg

Survey Quality Index		
0 : Long, passed all criteria	2 : Long, failed mag criteria	10 : DMAG-Corrected

Survey Correction Index														
0 : No correction														

Seq	MD (m)	Incl (deg)	Azim (deg)	Course (m)	TVD (m)	V Sec (m)	N/ -S (m)	E/ -W (m)	Closure (m)	at Azi (deg)	DLS deg/30m	Tool Type	QI	CI
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00	0.00	TIP		
2	599.08	0.58	120.59	599.08	599.07	-1.54	-1.54	2.61	3.03	120.59	0.03	Manual	10	
3	684.35	0.43	120.90	85.27	684.34	-1.93	-1.93	3.26	3.78	120.62	0.05	Manual	10	
4	713.04	0.53	133.63	28.69	713.03	-2.07	-2.07	3.44	4.02	121.05	0.15	Manual	10	
5	972.34	0.91	95.08	259.30	972.31	-3.08	-3.08	6.36	7.07	115.85	0.07	Manual	10	
6	1001.37	0.91	84.18	29.03	1001.33	-3.08	-3.08	6.82	7.49	114.30	0.18	Manual	10	
7	1059.78	0.95	75.47	58.41	1059.73	-2.91	-2.91	7.75	8.28	110.59	0.08	Manual	10	
8	1090.08	0.78	51.04	30.30	1090.03	-2.72	-2.72	8.16	8.60	108.44	0.40	Manual	10	
9	1117.31	0.70	46.36	27.23	1117.26	-2.49	-2.49	8.42	8.78	106.46	0.11	Manual	10	
10	1203.66	0.94	59.46	86.35	1203.60	-1.76	-1.76	9.41	9.58	100.62	0.11	Manual	10	
11	1251.88	0.96	60.07	48.22	1251.81	-1.36	-1.36	10.10	10.19	97.68	0.01	Manual	10	

12	1395.50	0.44	87.23	143.62	1395.42	-0.73	-0.73	11.69	11.72	93.60	0.13	TeleScope	2	0
13	1423.48	0.35	95.19	27.98	1423.40	-0.74	-0.74	11.89	11.91	93.55	0.11	TeleScope	2	0
14	1450.69	0.32	100.66	27.21	1450.62	-0.76	-0.76	12.04	12.07	93.61	0.05	TeleScope	2	0
15	1739.63	0.22	152.34	288.93	1739.55	-1.39	-1.39	13.09	13.17	96.08	0.03	TeleScope	0	0
16	1855.31	0.00	12.14	115.68	1855.23	-1.59	-1.59	13.20	13.29	96.87	0.06	TeleScope	2	0
17	1885.00	0.43	189.27	29.69	1884.92	-1.70	-1.70	13.18	13.29	97.34	0.43	TeleScope	2	0
18	1933.81	0.33	335.46	48.81	1933.72	-1.75	-1.75	13.09	13.21	97.62	0.44	TeleScope	2	0
19	2029.52	0.80	194.45	95.72	2029.44	-2.15	-2.15	12.81	12.99	99.51	0.33	TeleScope	0	0
20	2086.65	0.81	197.53	57.12	2086.56	-2.91	-2.91	12.59	12.92	103.03	0.02	TeleScope	0	0
21	2201.88	0.95	192.05	115.24	2201.78	-4.63	-4.63	12.15	13.00	110.86	0.04	TeleScope	2	0
22	2288.48	0.99	182.79	86.60	2288.37	-6.08	-6.08	11.96	13.42	116.94	0.06	TeleScope	2	0
23	2316.76	1.04	183.07	28.27	2316.63	-6.58	-6.58	11.93	13.63	118.86	0.05	TeleScope	2	0
24	2345.02	1.11	183.92	28.26	2344.89	-7.10	-7.10	11.90	13.86	120.83	0.08	TeleScope	2	0
25	2374.64	1.29	186.60	29.62	2374.50	-7.72	-7.72	11.84	14.14	123.10	0.20	TeleScope	2	0
26	2403.54	1.34	188.03	28.90	2403.40	-8.38	-8.38	11.76	14.44	125.47	0.06	TeleScope	2	0
27	2518.96	1.53	189.94	115.42	2518.78	-11.23	-11.23	11.31	15.93	134.80	0.05	TeleScope	2	0
28	2546.16	1.43	187.93	27.20	2545.97	-11.92	-11.92	11.20	16.35	136.80	0.12	TeleScope	2	0

Run 2														

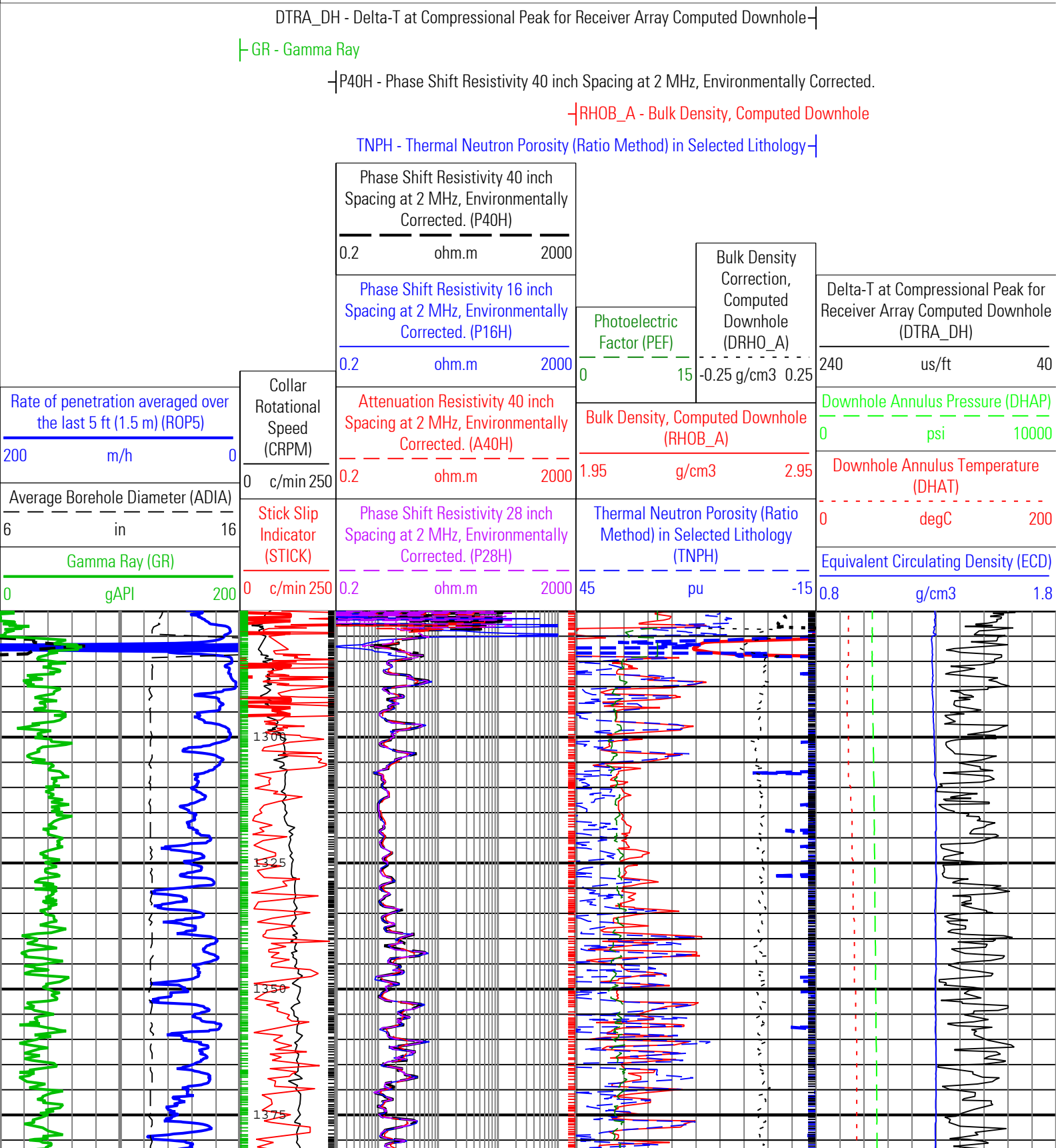
Software Version														
Acquisition System									Version					
MaxWell									1.2.8706.0					
Framework Patch									FWK-BGC-20090918-1.2.8706.1030					
Application Patch									APL-BGC-DnM-1.2.8706.1021					
Computation			Description									Version		
NEUTRON_PROC			Neutron Processing, ADN									1.2.8706.0		
ARC8GammaRayComput ation			ARC8 Gamma Ray Computation Package for both Real-time and Recorded Mode									1.2.8706.1021		
ARC8PressureComputatio			ARC8 Pressure Computation Package for both Real-time and Recorded Mode									1.2.8706.1021		
ARCResistivity			ARC Resistivity Computation Package for ARC Tool Family									1.2.8706.1021		
Tool Elements			Description						Software Version			Firmware Version		
ARDC			ARC 8.25 Inch Tool Drilling Collar						1.2.8706.1021					
DRILLING_SURFACE			DRILLING_SURFACE						1.2.8706.1030					
ADNP			Azimuth Neutron Detector Package						1.2.8706.0			8.3		

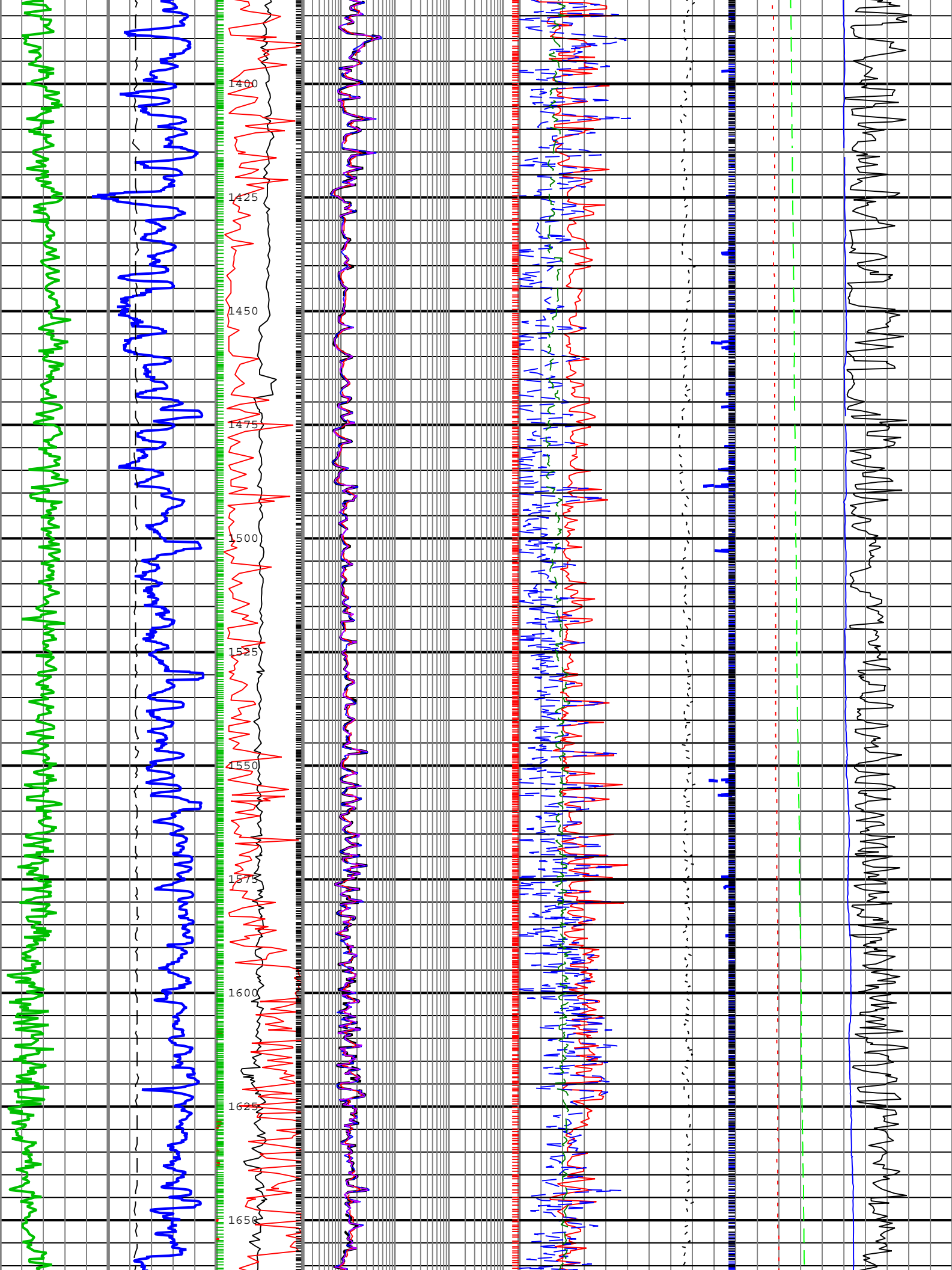
Pass Summary						
Run Name	Pass Objective	Direction	Top	Bottom	Acquisition Start Date	Acquisition Start Time
Run 2	Drilling	Down	1274.72 m		24-Oct-2009	19:34:49
All depths are referenced to toolstring zero						

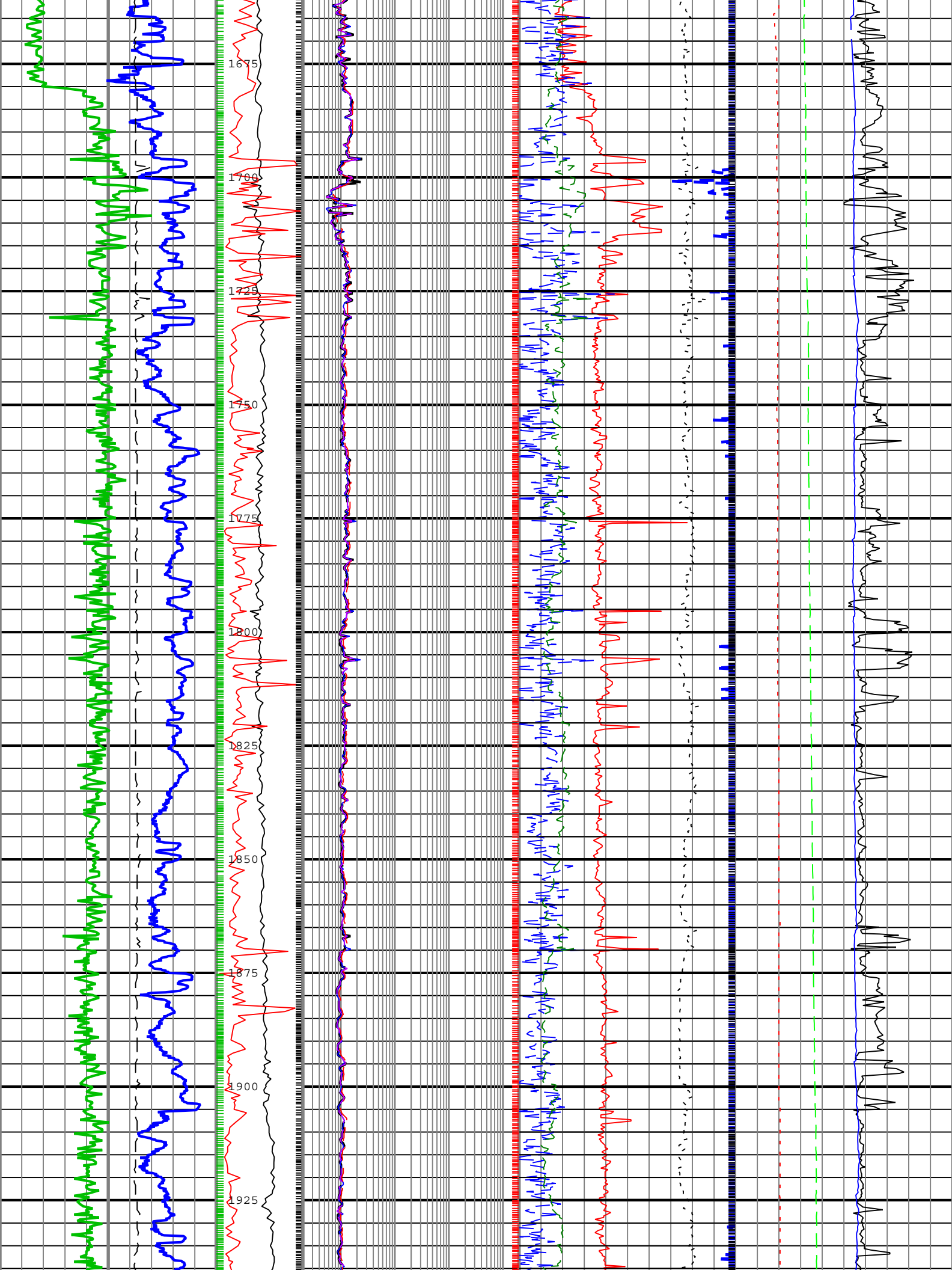
Log	Run 2: Drilling E2100D83-971D-4474-8039-4856F35B64ED													
Description: ARC Dual Frequency 3-Log Resistivity    Format: Log ( RT Quad Combo - SADN8 Woodside )    Index Scale: 1:1000    Index Unit: m    Index Type: Measured Depth    Creation Date: 27-Oct-2009 08:57:13														

A40H	ARC8:ARC8:ARDC	6in - RT
ADIA	SADN8:SADN8	6in - RT
CRPM	TELE825:TELE825	6in - RT
DHAP	ARC8:ARC8	6in - RT
DHAT	ARC8:ARC8	6in - RT
DRHO_A	SADN8:SADN8	6in - RT
DTRA_DH	SONICVISION8:SONICVISION8	6in - RT
ECD	ARC8:ARC8:ARDC	6in - RT

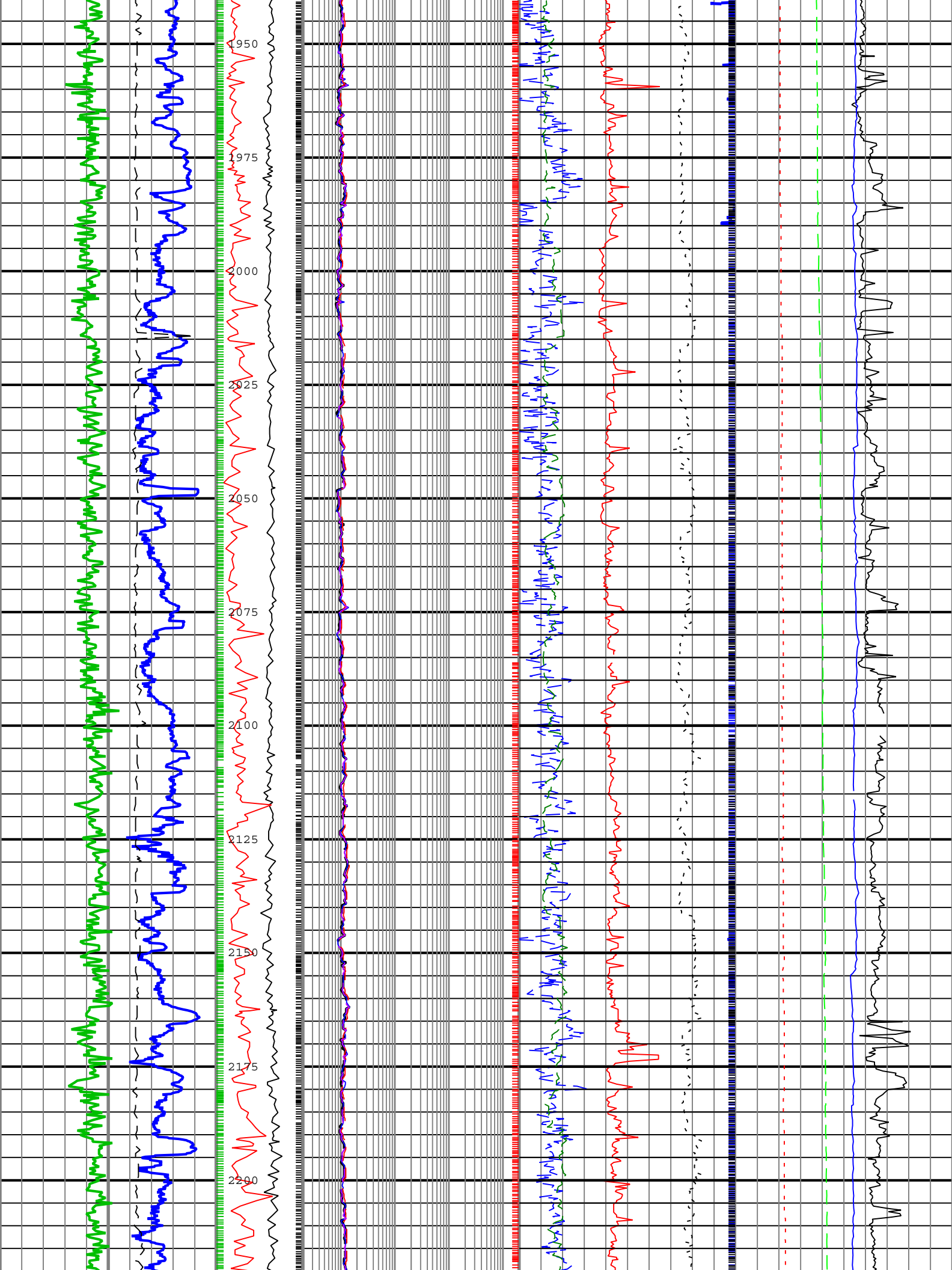
GR	ARC8:ARC8:ARDC	6in - RT
P16H	ARC8:ARC8:ARDC	6in - RT
P28H	ARC8:ARC8:ARDC	6in - RT
P40H	ARC8:ARC8:ARDC	6in - RT
PEF	SADN8:SADN8	6in - RT
RHOB_A	SADN8:SADN8	6in - RT
ROP5	DRILLING_SURFACE	6in - RT
STICK	TELE825:TELE825	6in - RT
TNPH	SADN8:SADN8:ADNP	6in - RT

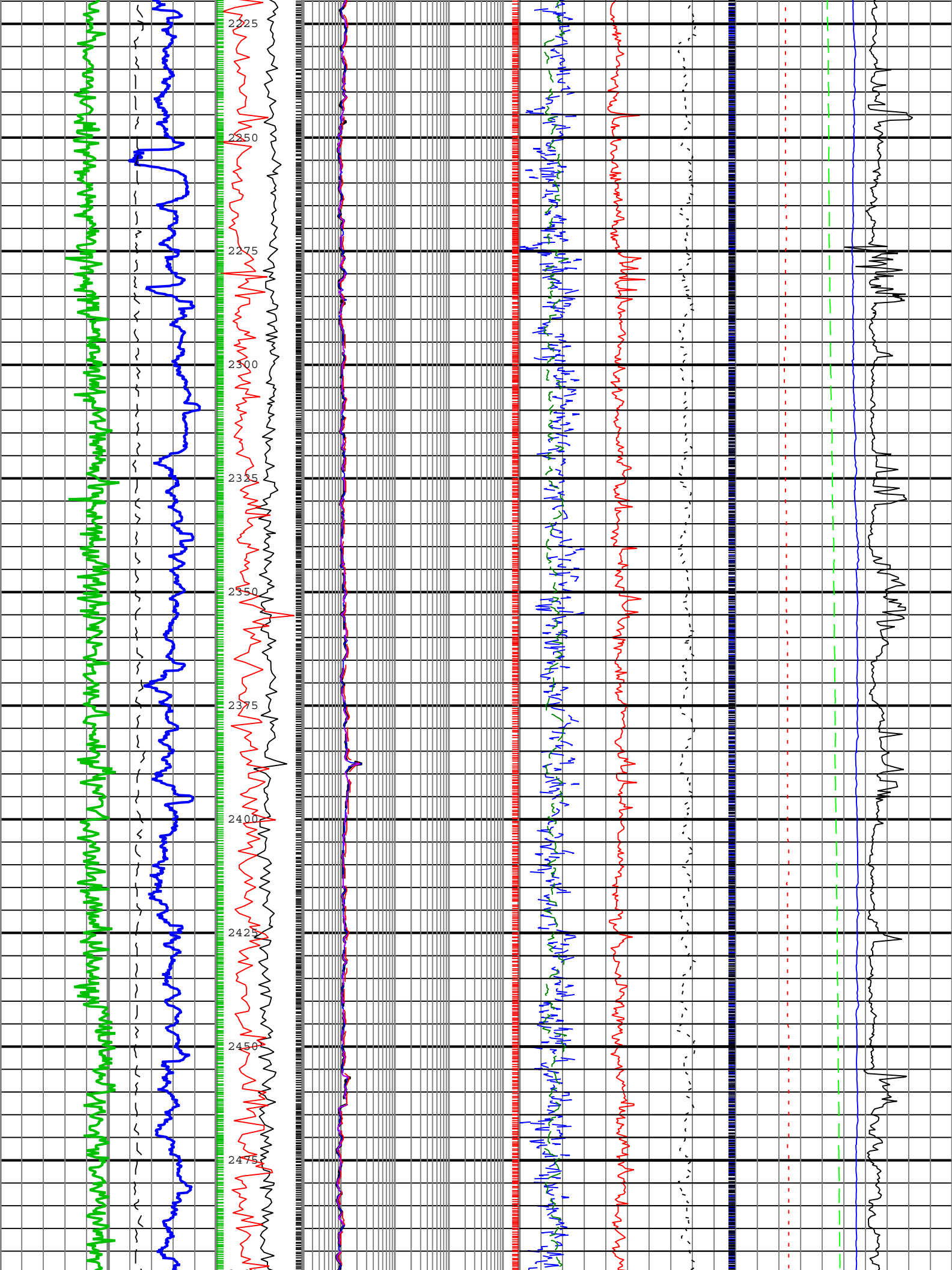




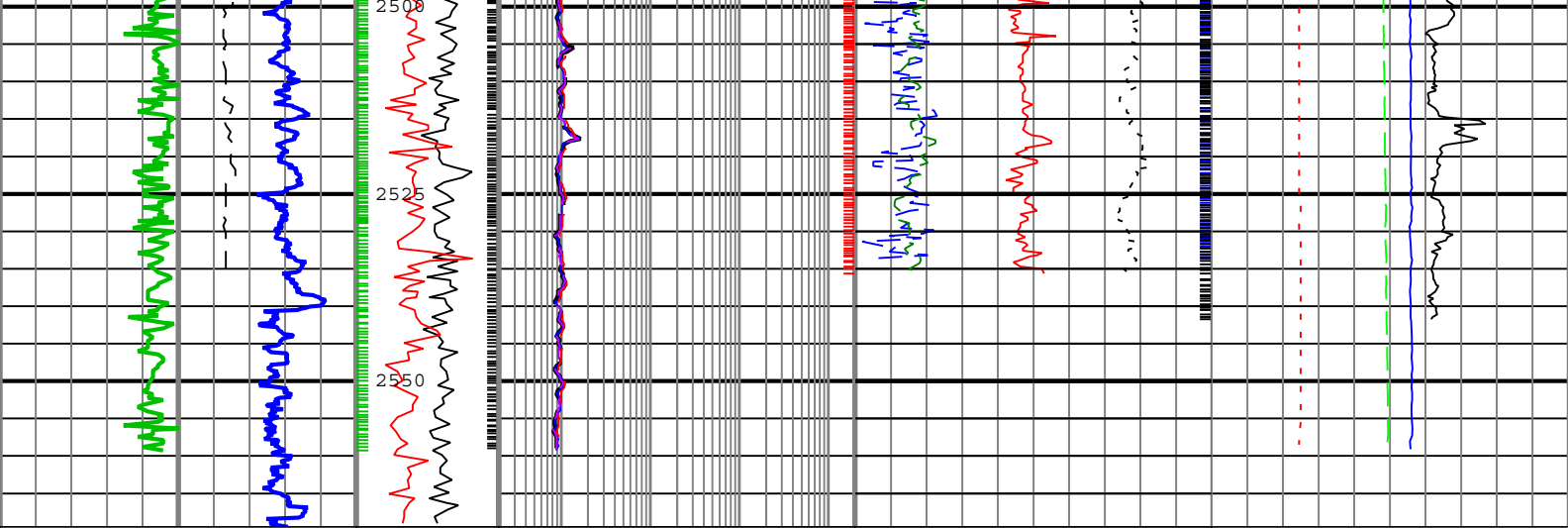












Rate of penetration averaged over the last 5 ft (1.5 m) (ROP5)		Collar Rotational Speed (CRPM)	Phase Shift Resistivity 40 inch Spacing at 2 MHz, Environmentally Corrected. (P40H)		Bulk Density, Computed Downhole (RHOB_A)		Delta-T at Compressional Peak for Receiver Array Computed Downhole (DTRA_DH)					
200	m/h		0	0.2	ohm.m	2000	1.95	g/cm3	2.95	240	us/ft	40
Average Borehole Diameter (ADIA)			0	Phase Shift Resistivity 16 inch Spacing at 2 MHz, Environmentally Corrected. (P16H)		Thermal Neutron Porosity (Ratio Method) in Selected Lithology (TNPH)		Downhole Annulus Pressure (DHAP)				
6	in		16	0.2	ohm.m	2000	45	pu	-15	0	psi	10000
Gamma Ray (GR)		Stick Slip Indicator (STICK)	Attenuation Resistivity 40 inch Spacing at 2 MHz, Environmentally Corrected. (A40H)		Photoelectric Factor (PEF)	Bulk Density Correction, Computed Downhole (DRHO_A)	Downhole Annulus Temperature (DHAT)					
0	gAPI		200	0.2			ohm.m	2000	0	degC	200	
			0	Phase Shift Resistivity 28 inch Spacing at 2 MHz, Environmentally Corrected. (P28H)			Equivalent Circulating Density (ECD)					
			0	0.2			ohm.m	2000	0.8	g/cm3	1.8	

TNPH - Thermal Neutron Porosity (Ratio Method) in Selected Lithology

RHOB\_A - Bulk Density, Computed Downhole

P40H - Phase Shift Resistivity 40 inch Spacing at 2 MHz, Environmentally Corrected.

GR - Gamma Ray

DTRA\_DH - Delta-T at Compressional Peak for Receiver Array Computed Downhole

Description: ARC Dual Frequency 3-Log Resistivity Format: Log ( RT Quad Combo - SADN8 Woodside ) Index Scale: 1:1000 Index Unit: m Index Type: Measured Depth Creation Date: 27-Oct-2009 08:57:13

## Channel Processing Parameters

Parameter	Description	ToolPath	Value	Unit
BHK	Drilling Fluid Potassium Concentration	Borehole	Time Zoned	%
BHT	Bottom Hole Temperature	Borehole	40	degC
BS	Bit Size	COMPLETION	Depth Zoned	in
DFD	Drilling Fluid Density	Borehole	Time Zoned	g/cm3
DFT	Drilling Fluid Type	Borehole	Water	
FLEV	Depth of Drilling Fluid Level to LMF (Log Measured From)	Borehole	2.44	m
GGRD	Geothermal Gradient	Borehole	1.1	degF/100ft
GRSE	Generalized Mud Resistivity Selection	Borehole	Computed (GEN-9)	
GTSE	Generalized Temperature Selection	Borehole	Gradient From Surface	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	LIMESTONE	
MST	Mud Sample Temperature	Borehole	Time Zoned	degC
RHO_SEAWATER	Density of the Sea Water	Borehole	1.02	g/cm3

RMS	Resistivity of Mud Sample	Borehole	Time Zoned	ohm.m
SF_FLAG	Mud Return to Sea Floor (No Riser)?	Borehole	No	
SHT	Surface Hole Temperature	Borehole	10	degC

Depth Zone Parameters			
Parameter	Value	Start ( m )	Stop ( m )
BS	17.5	1275	1280
BS	12.25	1280	
All depth are actual.			

Time Zone Parameters					
Parameter	Value	Start Time	Stop Time	Start Depth ( m )	Stop Depth ( m )
BHK	5.77	24-Oct-2009 19:34:49	26-Oct-2009 02:52:07	1274.72	1626.46
BHK	5.77	26-Oct-2009 02:52:07	27-Oct-2009 05:09:59	1626.46	2451.68
BHK	4.52	27-Oct-2009 05:09:59		2451.68	
DFD	1.29	24-Oct-2009 19:34:49	26-Oct-2009 02:52:31	1274.72	1626.54
DFD	1.26	26-Oct-2009 02:52:31	27-Oct-2009 05:10:29	1626.54	2451.68
DFD	1.3	27-Oct-2009 05:10:29		2451.68	
MST	19.4	24-Oct-2009 19:34:49	26-Oct-2009 04:24:53	1274.72	1673.78
MST	18.8	26-Oct-2009 04:24:53	27-Oct-2009 01:55:15	1673.78	2342.67
MST	20	27-Oct-2009 01:55:15		2342.67	
RMS	0.08	24-Oct-2009 19:34:49	26-Oct-2009 04:24:53	1274.72	1673.78
RMS	0.09	26-Oct-2009 04:24:53	27-Oct-2009 01:55:15	1673.78	2342.67
RMS	0.1	27-Oct-2009 01:55:15		2342.67	
All depth are at tool zero.					

Tool Control Parameters				
Parameter	Description	ToolPath	Value	Unit
OFFBTM_TH	Threshold for deciding whether the bit is off bottom	DnMWorkflow	Time Zoned	m

Time Zone Parameters					
Parameter	Value	Start Time	Stop Time	Start Depth ( m )	Stop Depth ( m )
OFFBTM_TH	0.6	24-Oct-2009 19:34:49	25-Oct-2009 23:15:02	1274.72	1529.56
OFFBTM_TH	0.5	25-Oct-2009 23:15:02	26-Oct-2009 00:11:46	1529.56	1558.04
OFFBTM_TH	0.4	26-Oct-2009 00:11:46	26-Oct-2009 18:26:10	1558.04	2126.79
OFFBTM_TH	0.5	26-Oct-2009 18:26:10	26-Oct-2009 18:26:39	2126.79	2127.1
OFFBTM_TH	0.6	26-Oct-2009 18:26:39	26-Oct-2009 18:36:19	2127.1	2132.63
OFFBTM_TH	0.4	26-Oct-2009 18:36:19		2132.63	
All depth are at tool zero.					

Company:	Woodside Energy Ltd			
Well:	Somerset-1			
Field:	T34P			
Rig Name:	Ocean Patriot			
State:	Tasmania			
Country:	Australia			

