

Depth logged:	1942.0 m	To	3047.1 m
Date logged:	02-Jun-08	To	04-Jun-08
		Mag dip:	-71.86 deg.
		Mag decl:	12.45 deg.
		Other services:	
		See Remarks	

Bore hole record				Casing record			
Hole size	from	to	Size	Density	from	to	
36.0 in.	597.0 m	645.0 m	30.0 in.	310.0 lb/ft	597.0 m	642.0 m	
26.0 in.	645.0 m	1407.0 m	20.0 in.	133.0 lb/ft	597.0 m	1399.0 m	
17.5 in.	1407.0 m	1947.0 m	13.375 in.	68.0 lb/ft	597.0 m	1942.0 m	
12.25 in.	1947.0 m	3062.0 m					
Type	Mud record from	to	Borehole deviation record				
KCL/PPH/PA/Glycol	1385.0 m	3062.0 m	Min	Max	from	to	
			0.11 deg.	1.42 deg.	645.0 m	1407.0 m	
			0.10 deg.	0.41 deg.	1407.0 m	1947.0 m	
			0.28 deg.	0.46 deg.	1947.0 m	3062.0 m	
Surface equipment			Software record				
Unit	A3518-1/06	IDEAL Wis	ID13_0C_08				
Depth system	Geolograph + GTE + CLT	SPM	HSPM13_0C_03				
		LWD	See Remarks				
		MWD	See Remarks				

## Bit Run Summary

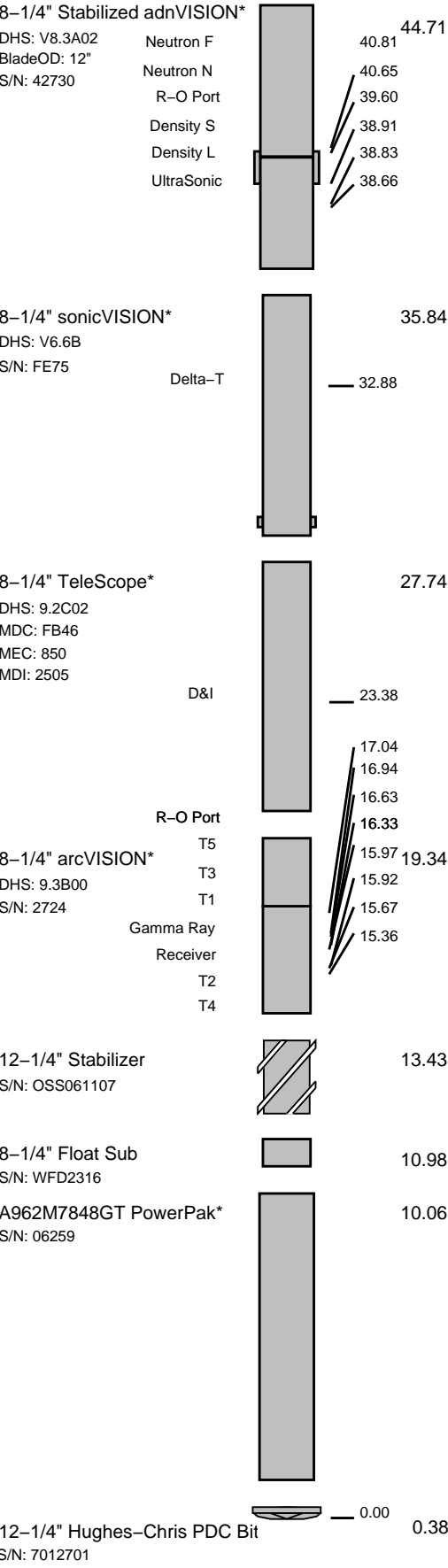
Run number		4								
Bit size	in.	12.25								
Bit start depth	m	1947.0								
Bit end depth	m	3062.0								
Top interval logged	m	1942.0								
Bottom interval logged	m	3047.1								
Begin log: time		08:17								
Begin log: date		02-Jun-08								
End log: time		07:22								
End log: date		04-Jun-08								
Mud data										
Depth	m	3062.0								
Type		KCL/PHPA/Glycol								
Mud weight	ppg	10.4								
Solids	%	7.9								
Chlorides	mg/L	55,000								
Rm	Ohm.m@°C	0.0865 @21.5								
Rmf	Ohm.m@°C	0.0777 @21.4								
Rmc	Ohm.m@°C	0.1772 @22.6								

Potassium	%	4.303									
<b>Environmental data</b>											
<b>GR</b>											
Mud weight	ppg	10.4									
Bit size	in.	12.25									
<b>Resistivity</b>											
<b>Neutron porosity</b>											
Hole Size	in.	12.25									
Mud weight	ppg	10.4									
Temperature	°C	45.5									
Mud salinity	ppk	104.2									
Formation salinity		n/a									
Recording rate 1	SEC	5 (ADN), 10 (SON)									
Recording rate 2	SEC	6 (ARC)									
Filtering GR		3 pts									
Filtering density		3 pts									
Filtering Neutron		3 pts									
Company representative	C. Roots	N. Peri									
Anadrill personnel	M. Lu	J. Oldridge	J. Lovell	D. Priestley							

<p style="text-align: center;"><b>DISCLAIMER</b></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>		
<b>OTHER SERVICES FOR RUN4</b> Directional Surveys Shock and Vibrations		
<b>REMARKS: RUN NUMBER 4</b> Depth is referenced to Driller's Depth.  Gamma Ray is corrected for mud weight, tool size, bit size and potassium content in the mud.  Resistivity is borehole compensated and environmentally corrected.  Neutron Porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity and mud hydrogen index (a factor of mud weight, mud temperature and pressure).  Neutron Porosity is calculated using a limestone matrix of 2.71 g/cm3.  Delta-T is borehole compensated.  POOH due to TD of Jarver-1.		

<b>EQUIPMENT DESCRIPTION</b>		
RUN4		
DOWNHOLE EQUIPMENT		

DOWNHOLE EQUIPMENT



Maximum string diameter 12-1/4".  
All lengths in Meters

Variable Name	Variable Description	Run Name & Value	
	Run Number		4
	General Information		
BHT_RM	Bottom Hole Temperature (RM)	DEGC	45.489
BSAL_RM	Mud Salinity (RM)	PPK	104.160
BS_RM	Bit Size (RM)	IN	12.250
COEF_M	User Defined FEXP in Clean Sand	----	1.650
C_WS	Overpressure correction to Sw and M	----	1.000
FEXP	Formation Factor Exponent (RM)	----	2.000
FNUM	Formation Factor Enumerator (RM)	----	1.000
FPHI_RM	Formation Factor Porosity Source (RM)	----	XPLOT
MST_RM	Mud Sample temperature (RM)	DEGC	21.500
MW_RM	Mud Weight (RM)	LB/G	10.400
OBMF_RM	Oil Based Mud (RM)	----	NO
RHOF_RM	Mud Filtrate Density (RM)	G/C3	1.000
RHOM_RM	Matrix density (RM)	G/C3	2.710
RMS_RM	Resistivity of Mud Sample (RM)	OHMM	0.086
RWA_COMP_M	Rwa computation model		
RWA_DEN_AD	Rwa Density Input ADN		
RWA_DEN_CD	Rwa Density Input CDN		
RWA_DEN_IN	Rwa Density Input		
RWA_FORM_M	Rwa computation formation model		
RWA_RES_IN	Rwa computation resistivity input		
RWS_RM	Resistivity of Connate Water (RM)	OHMM	1.000
SHT_RM	Ground Level Temperature (Mud-Line When Offshore ) (RM)	DEGC	10.000
TD_RM	Total Measured Depth (RM)	M	3062.000
TWS_RM	Temperature of Connate Water (RM)	DEGC	23.889
VF_ILLI	Fraction of illite in shales	----	0.500
VF_KAOL	Fraction of kaolinite in shales	----	0.500
VF_MONT	Fraction of montmorillonite in shales	----	0.000
XPDM_RM	Cross plot density porosity multiplier	----	0.675
XPNM_RM	Cross plot neutron porosity multiplier	----	0.325
	ARC		
A12A	ARC Air Cal Attenuation From T1 at 2 MHz	DB	8.251
A14A	ARC Air Cal Attenuation From T1 at 400 KHz	DB	8.204
A22A	ARC Air Cal Attenuation From T2 at 2 MHz	DB	6.386
A24A	ARC Air Cal Attenuation From T2 at 400 KHz	DB	6.445
A32A	ARC Air Cal Attenuation From T3 at 2 MHz	DB	4.975
A34A	ARC Air Cal Attenuation From T3 at 400 KHz	DB	4.920
A42A	ARC Air Cal Attenuation From T4 at 2 MHz	DB	4.351
A44A	ARC Air Cal Attenuation From T4 at 400 KHz	DB	4.399
A52A	ARC Air Cal Attenuation From T5 at 2 MHz	DB	3.563
A54A	ARC Air Cal Attenuation From T5 at 400 KHz	DB	3.517
ABNT	Abnormal Transmitter Indicator	----	No_Tx_Failed
ADHS	ARC Down Hole Software Version	----	9.3b00
AM2A	ARC Air Cal Amplitude Offset at 2 MHz	----	-50000.000
ANISO_COMPUTE	Anisotropy Computation Option	----	YES
APICG	ARC5 Gamma Ray Gain Factor	----	1.086
APIG	ARC Gamma Ray API Gain Factor	----	-1.000
ARC_DATA_FIX	ARC: Create A Corrected ARC Time Data File	----	NO
ARC_DATA_LTB	ARC: Create An ARC LTB Data File	----	NO
ATMP_ARC	ARC Select Temperature Channel	----	Annulus_Temp
ATRN	ARC Tool Run Number	----	3
ATSN	ARC Tool Serial Number	----	2724
AZMF	Formation DIP Azimuth	DEG	0.000
BH_COMPUTE	Borehole Inversion Computation Option	----	YES
CALG	ARC Gamma Ray Cal Gain Factor	----	1.086
CALI_SLCT_ARC	ARC Caliper Selection	----	BITSIZE
CDPTH_ARC	Process Start Depth	M	30.480
DIELEC_COMPUTE	Dielectric Computation Option	----	YES
DIPF	Formation DIP Angle	DEG	0.000
ERRCT	Percentage Error Cutoff	----	4.500
GRSH	GR Shale (Invasion Computation Cutoff)	GAPI	1000.000
HIGH_BLEND	High Resistivity Threshold for Blending	OHMM	2.000
INCLIN_B0	ARC Bias Constant (mg)	----	0.000
INCLIN_B1	ARC Bias First-order Coefficient (mg/degC)	----	0.000
INCLIN_B2	ARC Bias Secod-order Coeeficient (mg/degC)	----	0.000
INCLIN_B3	ARC Bias Third-order Coeeficient (mg/degC)	----	0.000
INCLIN_C0	ARC Current Scale Factor Constant (mA/g)	----	1.000
INCLIN_C1	ARC Scale First-order Coeeficient (mA/g/degC)	----	0.000
INCLIN_C2	ARC Scale Second-order Coeeficient (mA/g/degC)	----	0.000
INCLIN_C3	ARC Scale Third-order Coeeficient (mA/g/degC)	----	0.000
INVAS_COMPUTE	Invasion Computation Option	----	YES
JSD_ARC	ARC Acquisition start date	----	1-June-08
KPER	Potassium Concentration (RM)	----	4.303
LOW_BLEND	Low Resistivity Threshold for Blending	OHMM	1.000
MSWS	ARC Wizard Model Switch Window	M	1.524
MULTIEFFECT_COM	Multi Effect Option	----	YES
P11AC_RM	ARC: Air Calibration For Phase T1 to R1	DEG	-999.250
P12A	ARC Air Cal Phase-Shift From T1 at 2 MHz	DEG	-1.208
P14A	ARC Air Cal Phase-Shift From T1 at 400 KHz	DEG	1.677
P22A	ARC Air Cal Phase-Shift From T2 at 2 MHz	DEG	1.258
P24A	ARC Air Cal Phase-Shift From T2 at 400 KHz	DEG	-1.716
P32A	ARC Air Cal Phase-Shift From T3 at 2 MHz	DEG	-1.291
P34A	ARC Air Cal Phase-Shift From T3 at 400 KHz	DEG	1.691
P42A	ARC Air Cal Phase-Shift From T4 at 2 MHz	DEG	1.240
P44A	ARC Air Cal Phase-Shift From T4 at 400 KHz	DEG	-1.702
P52A	ARC Air Cal Phase-Shift From T5 at 2 MHz	DEG	-1.297
P54A	ARC Air Cal Phase-Shift From T5 at 400 KHz	DEG	1.629

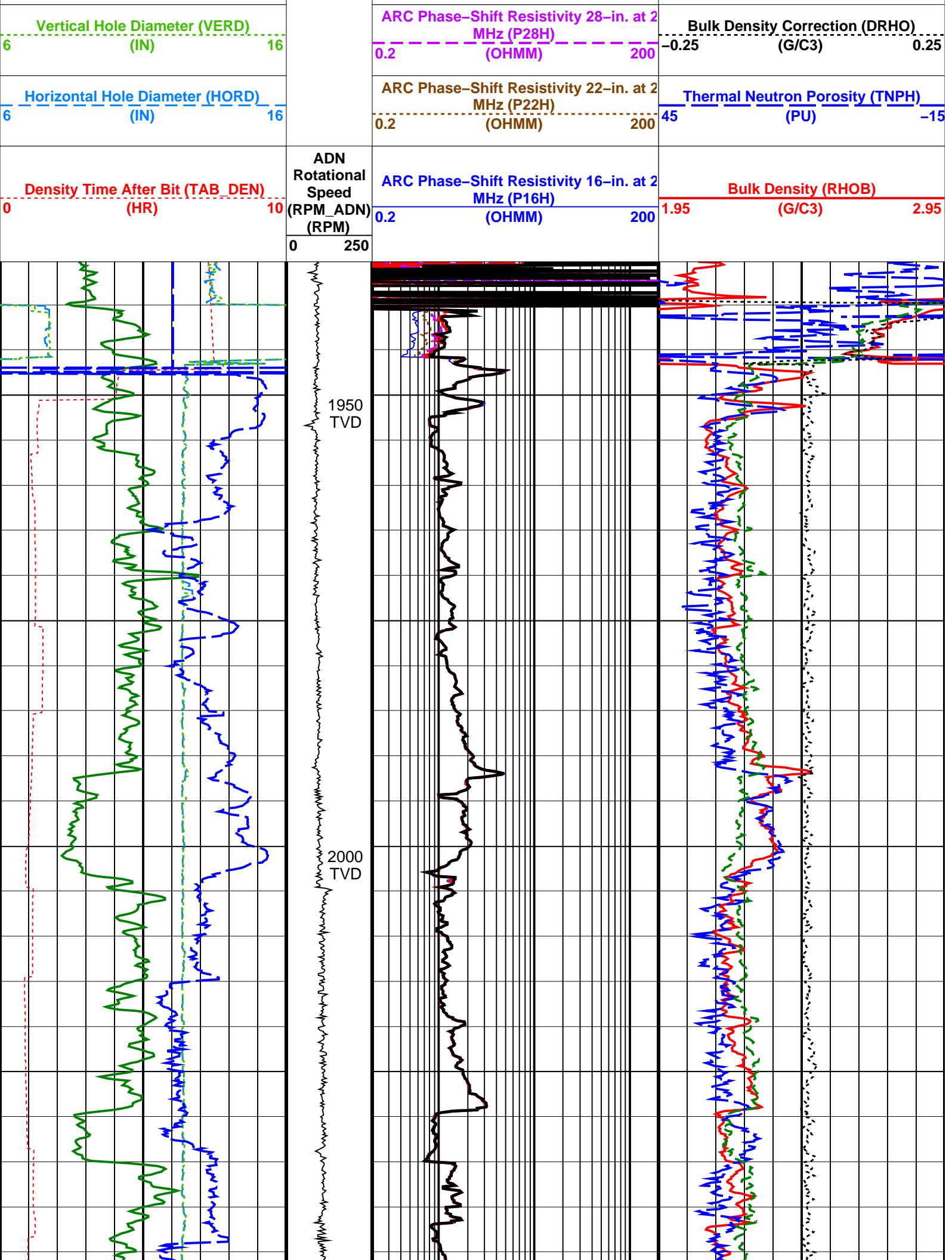
POFFSET_ARC	ARC: Pressure Offset	PSI	0.000
PRTD	Preferred Resistivity Log for Rt Display while Multi-Effects	----	P34B
PSOF_ADJ_T1	ARC: User Input Phase offset	DEG	0.000
RESTIK	ARC resistivity tick source	----	Phase
RSD	LWD run start date dd-mm-yy	----	1-June-08
RWA_COMP_MOD	Rwa computation model	----	BASIC
RWA_DEN_ADN	Rwa Density Input	----	RHOB
RWA_DEN_CDN	Rwa Density Input	----	RHOB
RWA_DEN_INPUT	Rwa Density Input	----	RHOB
RWA_FORM_MOD	Rwa computation formation model	----	CLASTIC
RWA_RES_INPUT	Rwa computation resistivity input	----	P34H
SHIG	ARC High Shock Risk Level	CPS	0.500
SMED	ARC Medium Shock Risk Level	CPS	0.330
SMIN	ARC Minimum Shock Risk Level	CPS	0.160
SUPD	ARC Real Time Shock Update Rate	S	30.000
TCODE_ARC	ARC Tool File Code	S	30.000
TSIZ_ARC	ARC Tool Size	IN	8.250
UNIFORM_COMPUTE	Uniform Rock Option	----	YES
VERS_ARC	ARC Down hole software version Number	----	9.300
WRK	to Report Potassium Concentration (RM)	----	K_by_Wgt_%
SAD			
ADN_CHASSIS_STR	Type String	Chassis	ADN
ADN_COLLAR_STR	Type String	Collar	ADN
ADN_DATA_FIX	ADN: Create A Corrected ADN Time Data File	----	NO
ADN_DATA_LTB	ADN: Create An ADN LTB Data File	----	NO
ADN_STAB_STR	ADN Stabilizer Type String	----	NO
ALPHA_COMPUTE_D	Perform Density Enhanced Vertical Resolution process ?	----	YES
ALPHA_COMPUTE_N	Perform Neutron Enhanced Vertical Resolution process ?	----	NO
AVE_ADN	ADN/Array Channels: perform averaging(RM) :	----	YES
A_DHS	ADN Down Hole Software Version String	----	YES
CHI_RM	Caliper High limit from BS (RM)	IN	3.000
CLO_RM	Caliper Low limit from BS (RM)	IN	0.000
DEVI	Well Section Deviation	DEG	0.463
DTIK_SEL	ADN: Density Tick Channel Name	----	LSAZ
DTMUD	Delta-T for Mud	US/F	179.160
DYN_IMG_COMPUTE	Generate Dynamic Normalized Image?	----	YES
ENVCOR	Neutron Processing: Environmental Correction?	----	YES
EVRL	EVR Process averaging number of samples (RM)	----	49
FAZ1_AVAIL	ADN8 Neutron Far Tube 1 Available?	----	YES
FAZ2_AVAIL	ADN8 Neutron Far Tube 2 Available?	----	YES
FAZ3_AVAIL	ADN8 Neutron Far Tube 3 Available?	----	YES
FCD	Future Casing (Outer) Diameter	IN	0.000
GCSE	Generalized Caliper Selection	----	BS
IDQT	Image Derived Quality Threshold	----	2.000
IHVS	Integrated Hole Volume Start Value(RM)	F3	0.000
IMAGE_MAX_SOA	Image SOA (Quadrant) Right Scale	IN	2.500
IMAGE_MAX_SPEF	Image PEF(Segment) Right Scale	----	6.000
IMAGE_MAX_SRHOB	Image RHOB(Segment) Right Scale	G/C3	2.650
IMAGE_MIN_SOA	Image SOA (Quadrant) Left Scale	IN	0.000
IMAGE_MIN_SPEF	Image PEF(Segment) Left Scale	----	2.000
IMAGE_MIN_SRHOB	Image RHOB(Segment) Left Scale	G/C3	2.050
JSD_ADN	ADN Acquisition start date	----	1-Jun-08
LITHO_TYPE_ADN	Lithology (RM)	----	LIME
N1FTU_6_RM	ADN: Neutron Bank 1 Far Tubes used :	----	1-2-3
N2FTU_6_RM	ADN: Neutron Bank 2 Far Tubes used :	----	1-2-3
NNTU_8_RM	ADN: Neutron Near Tube used :	----	1-2-3
NTIK_SEL	ADN: Neutron Tick Channel Name	----	FAZ1
SOCNL	Standoff Distance of the CNL Tool	----	1.000
SSIZ_ADN	ADN Stabilizer Size	IN	12.000
STOH	ADN Density Top of Hole Sector (Left Boundary):	----	SECTOR_0
TRPM_RM	Average Tool Rotational Speed	RPM	20.000
USMIN_RM	ADN:Minimum Ultrasonic standoff (RM)	IN	0.180
USWF_RM	ADN:Process Ultrasonic Waveform?	----	YES
VERS_ADN	ADN Downhole Software Version	----	8.300
WSDI	Window Size of Dynamic Normalization Image	M	4.572
Schlumberger Drilling & Measurements			
ID13 Parameter Insert Header Software vers:			

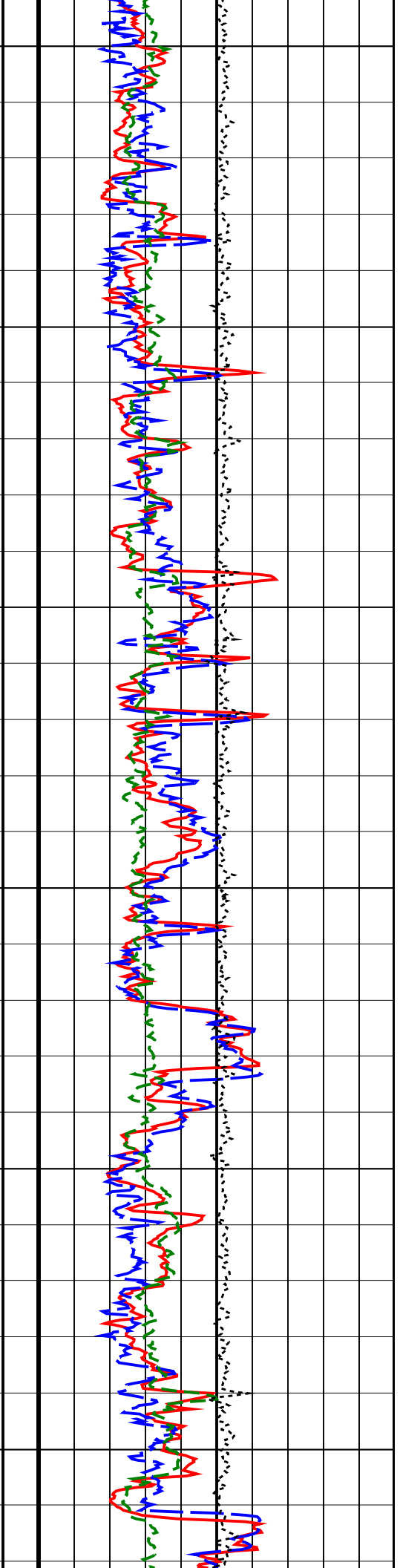
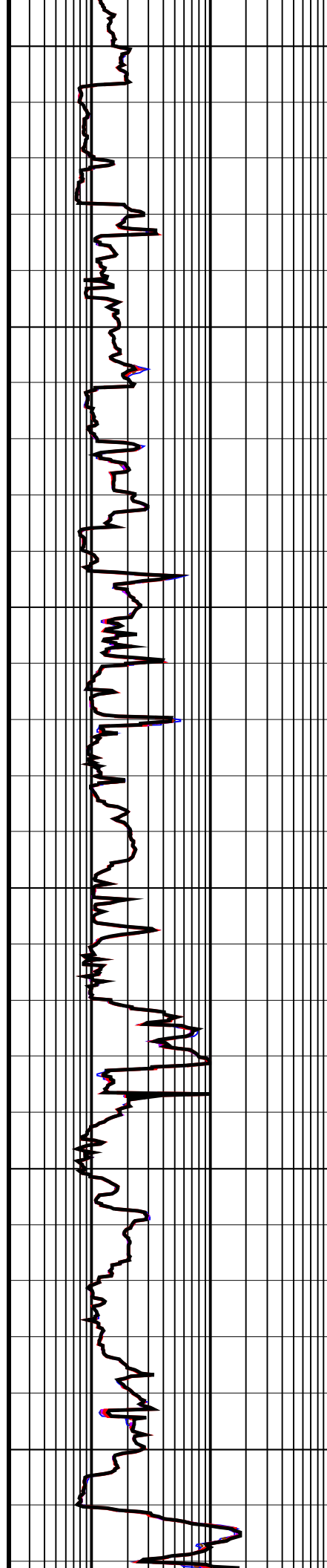
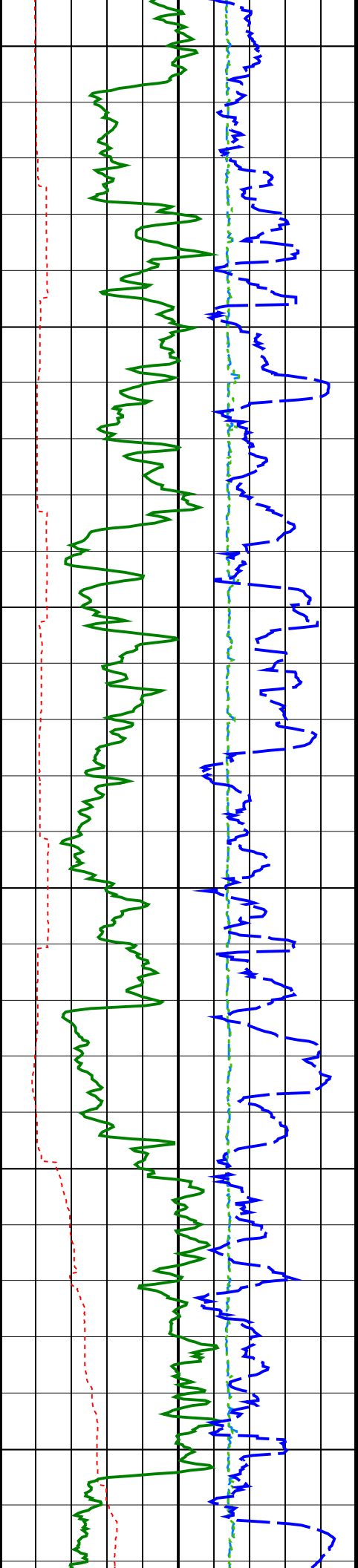
## True Vertical Depth Log

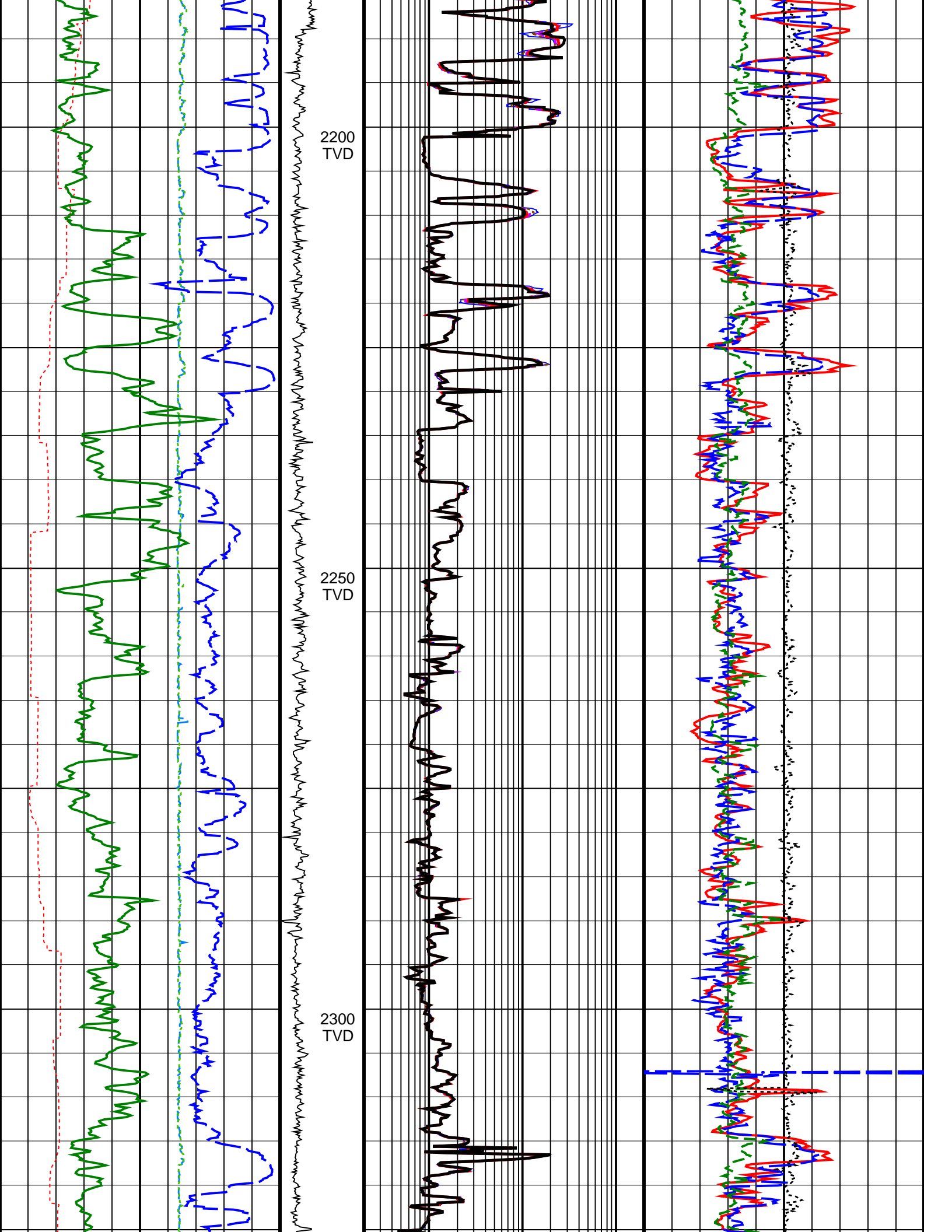
### Jarver-1 LWD RM 500TVD

ARC8A-AA

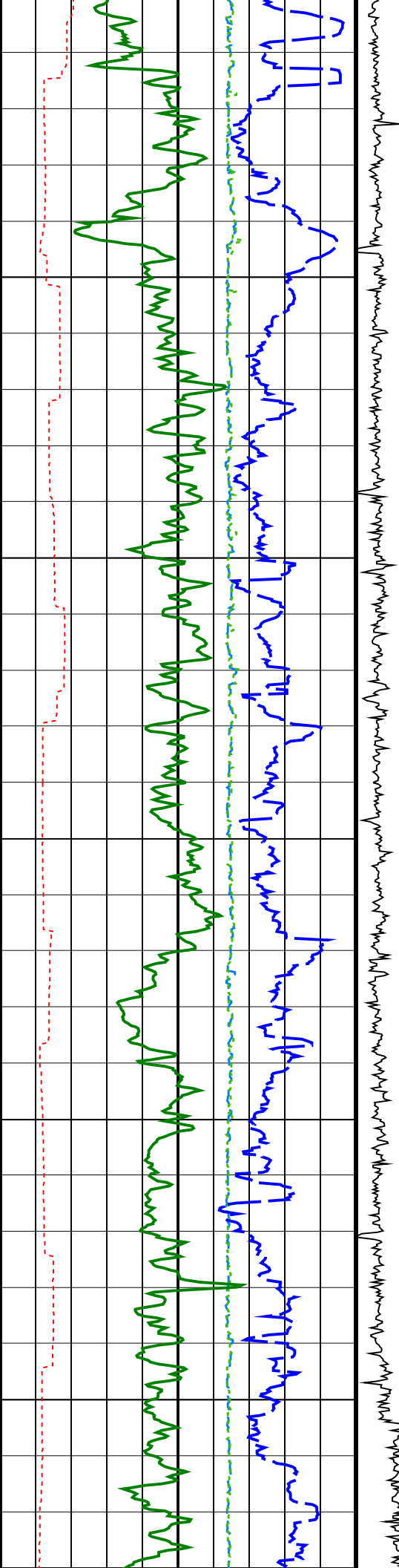
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Rate of Penetration, Averaged over Last 5ft (ROP5_RM)		ARC Phase-Shift Resistivity 40-in. at 2 MHz (P40H)			
200	(M/HR)	0	0.2	(OHMM)	200
ARC Gamma Ray (GR_ARC)		ARC Phase-Shift Resistivity 34-in. at 2 MHz (P34H)			
0	(GAPI)	200	0.2	(OHMM)	200







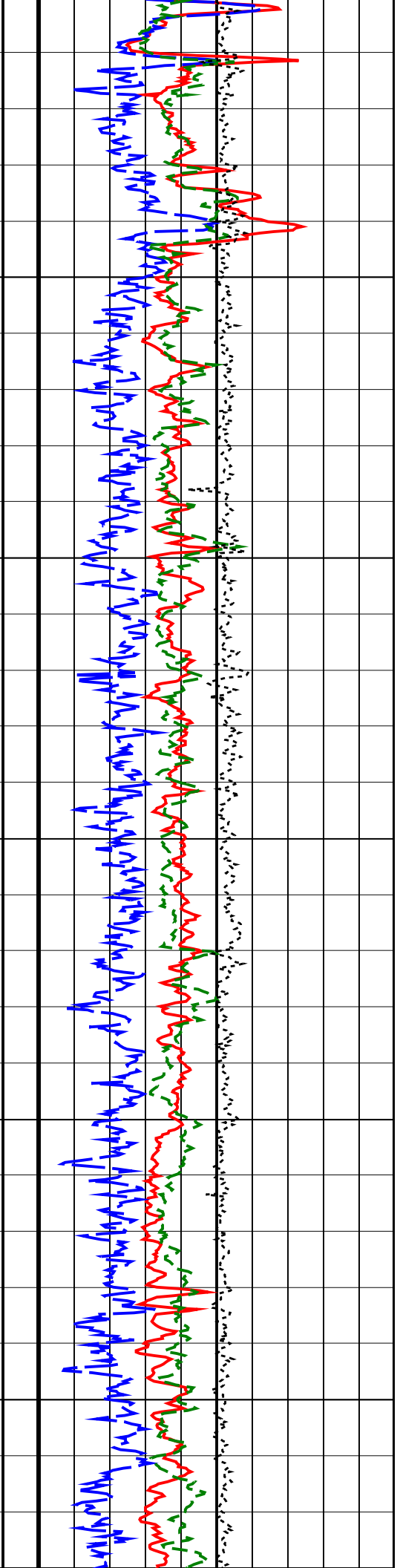
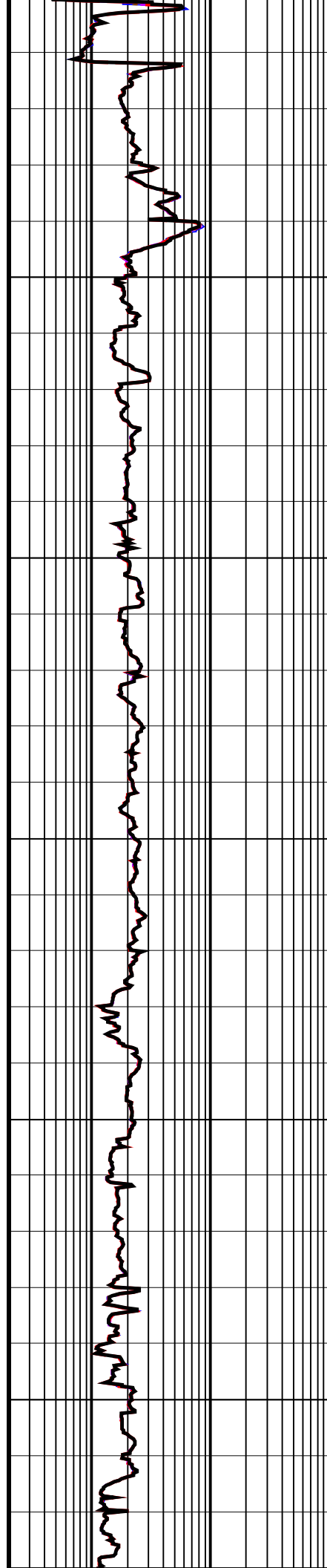


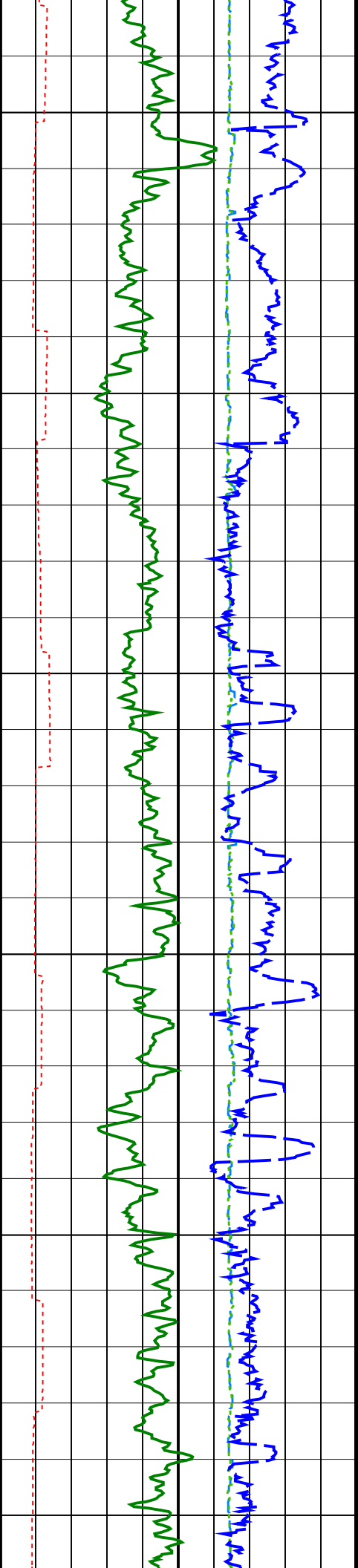


2350  
TVD

2400  
TVD

2450  
TVD

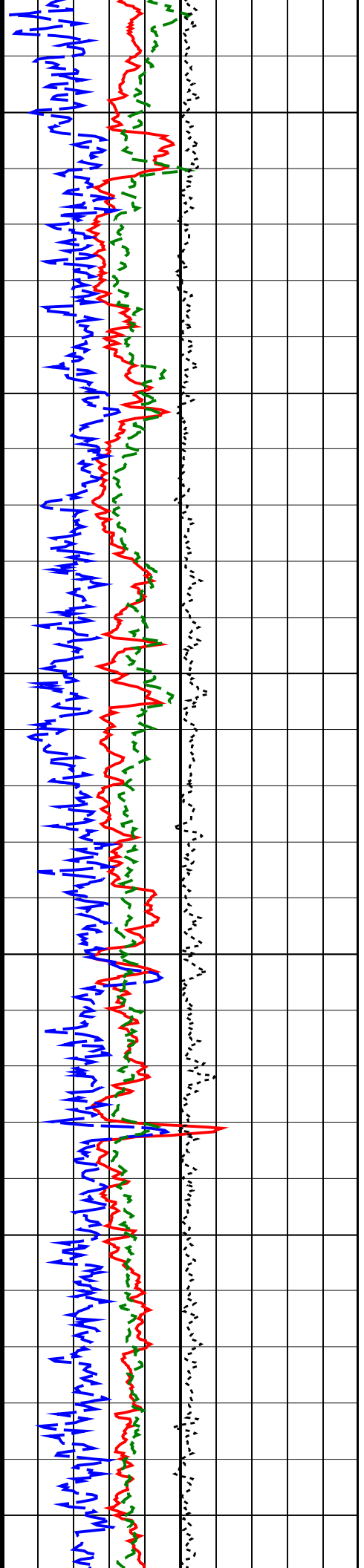
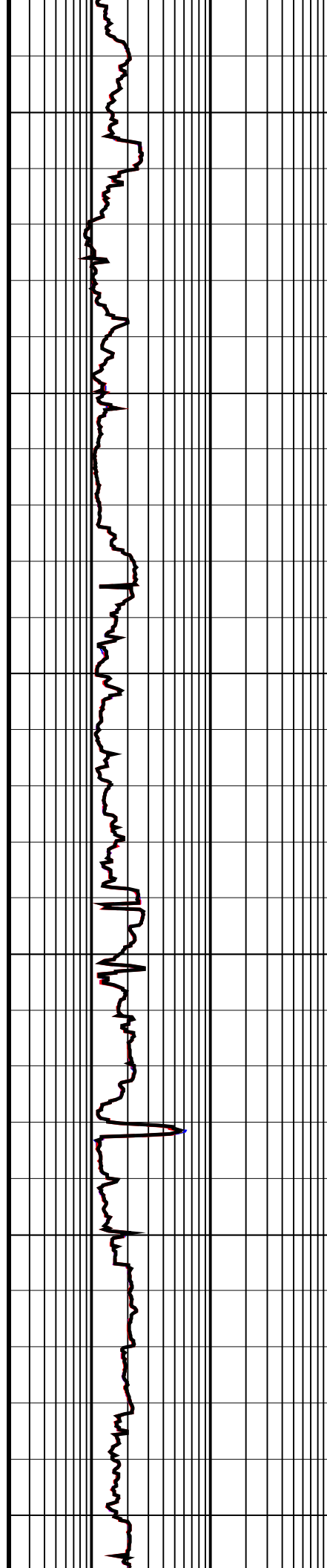


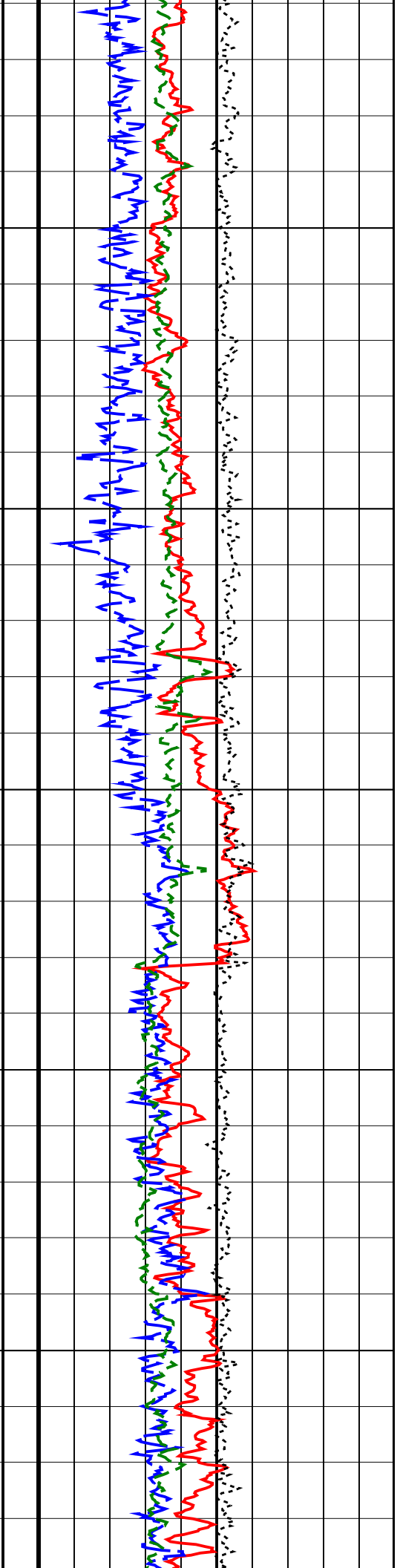
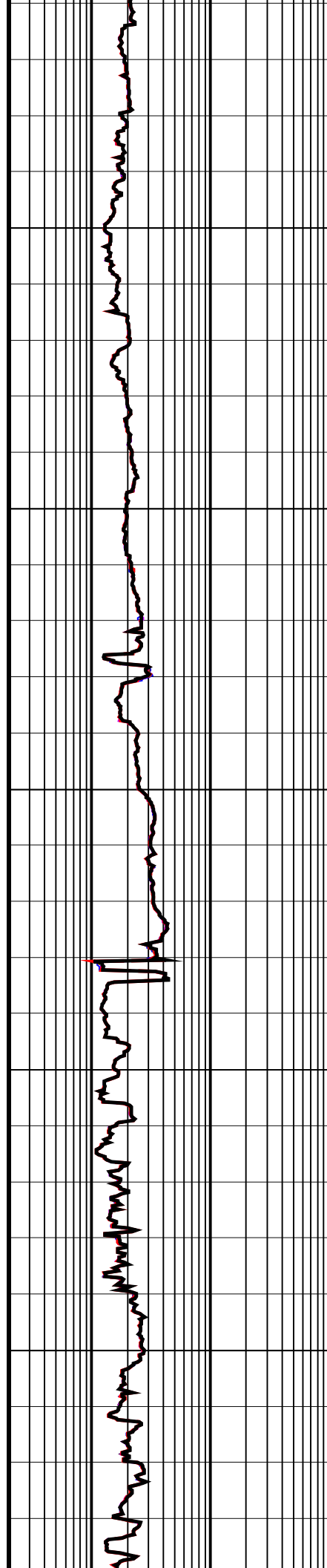
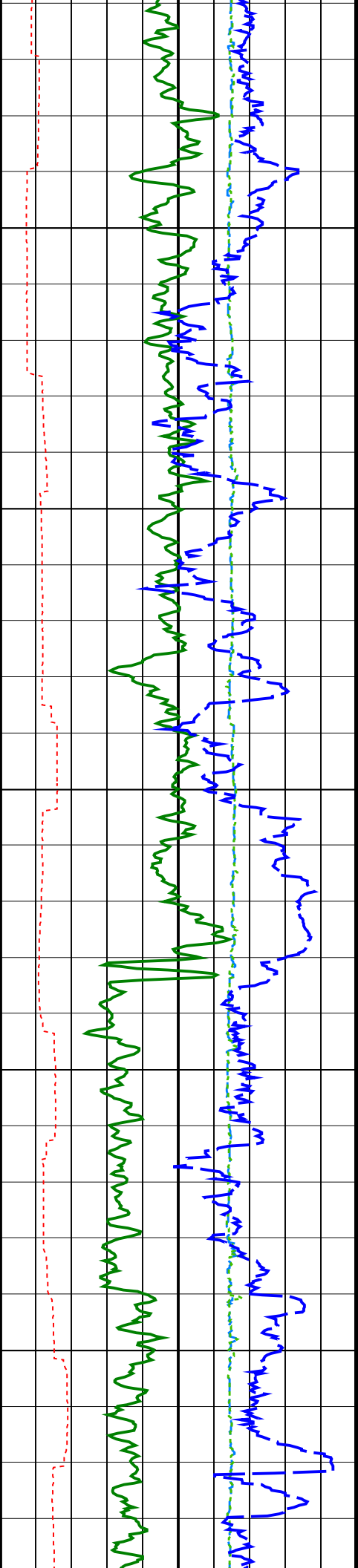


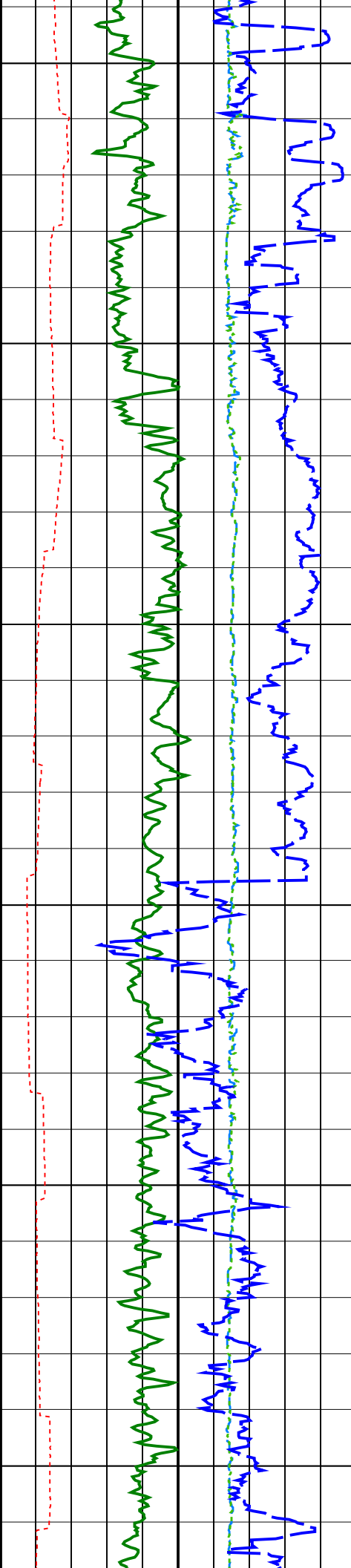
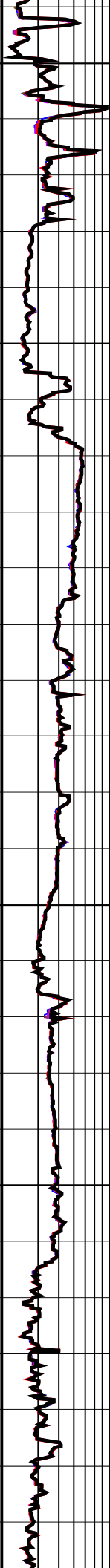
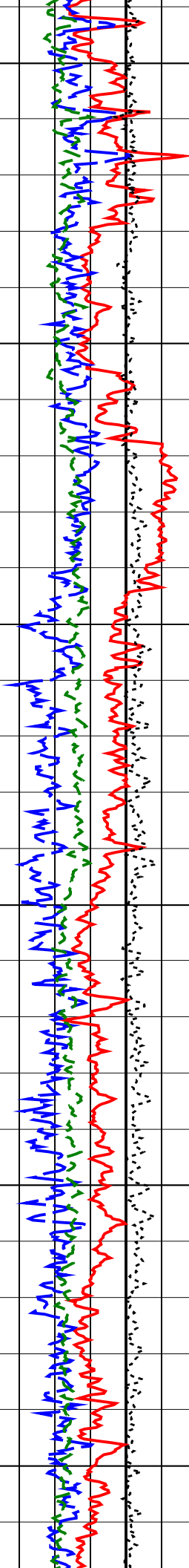
500  
TVD

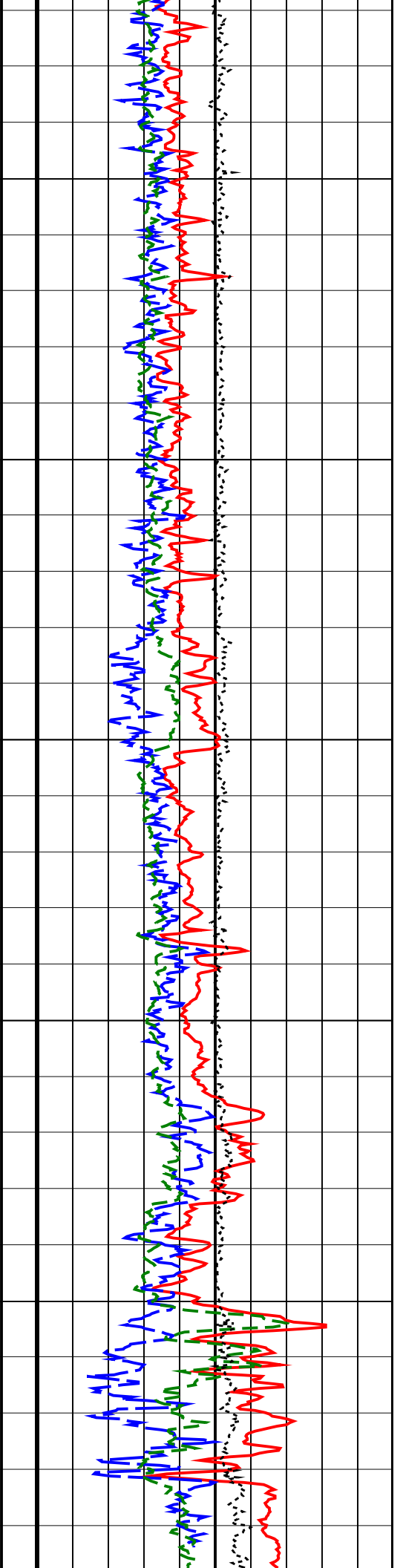
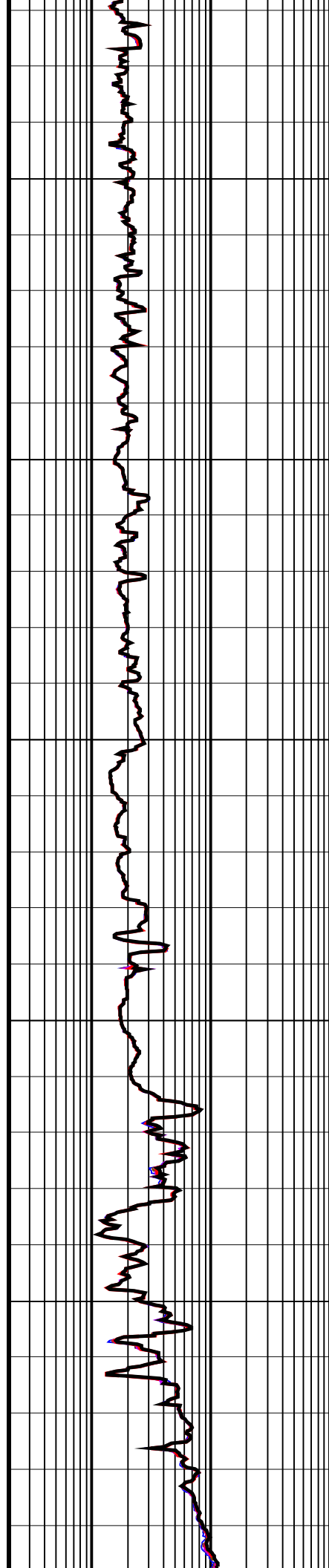
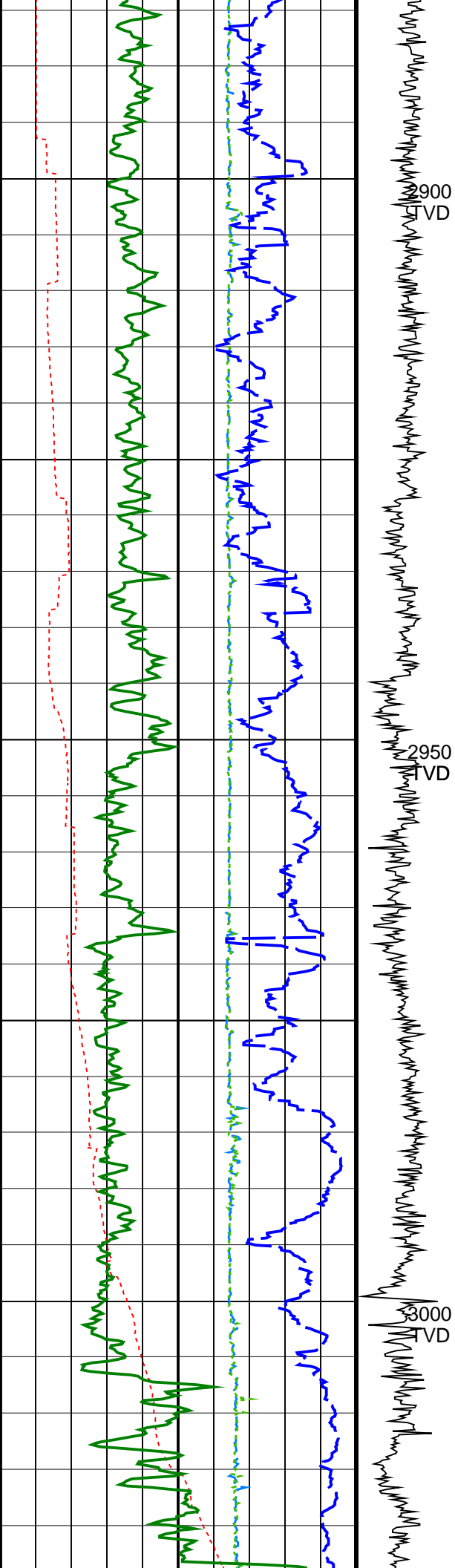
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TVD

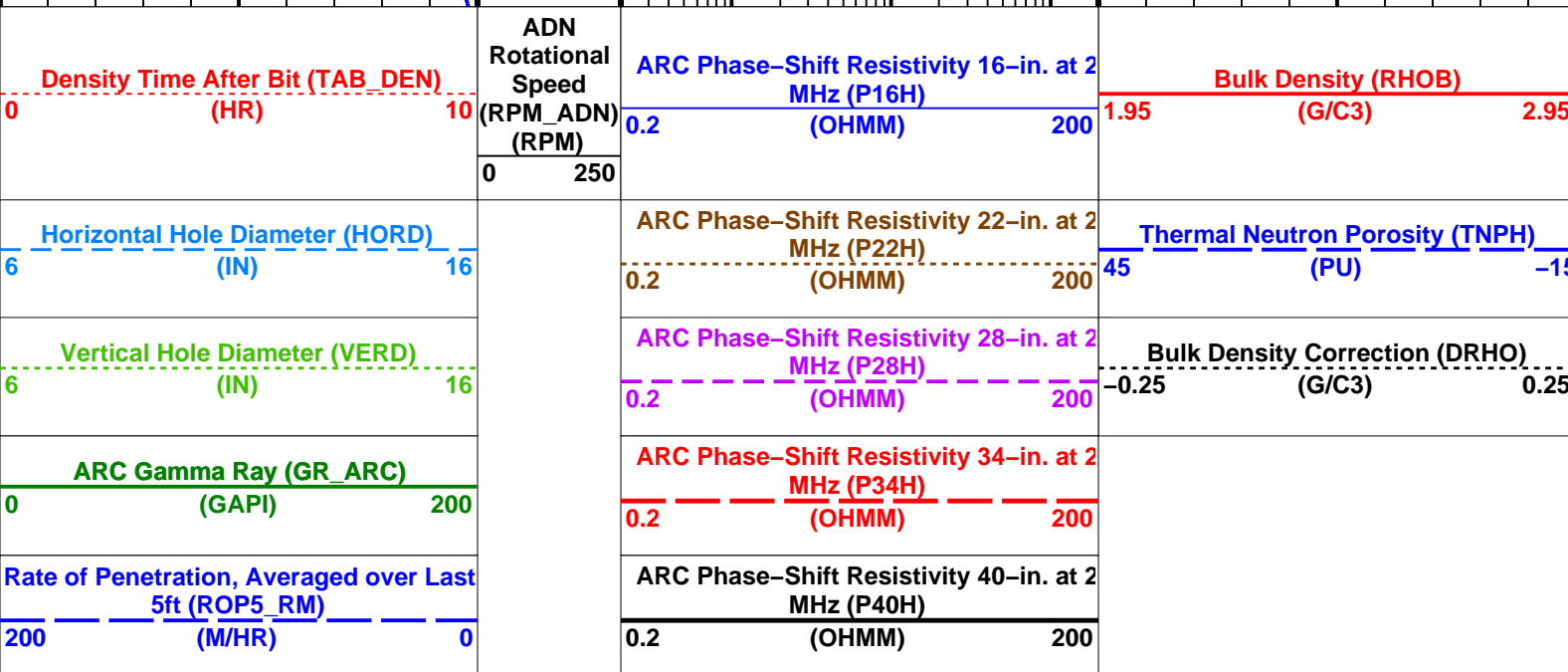
600  
TVD











**ARC8A-AA**

## True Vertical Depth Log

Primary Equipment:




- Tool Name and Serial Number
- Collar Type and Serial Number
- Chassis Type and Serial Number
- Stabilizer Type and Serial Number
- Neutron Logging Source
- Density Logging Source
- Stabilizer Size
- Calibration Status

SADN - AA  
NDDC - CA  
ADSE - GA  
IBS  
NSR - C956  
GSR - A2089  
12.0 - in.  
Valid

Master: 5-Apr-2008 18:59



8.25-in. Stabilized Azimuthal Density Neutron Calibration



Density: Magnesium Block



Phase	LS window 3 – Mg CPS	Value	Phase	SS window 1 – Mg CPS	Value	Phase	SS window 3 – Mg CPS	Value
Master		943.4	Master		4395	Master		4002
	40.00 (Minimum)			300.0 (Minimum)			2880 (Minimum)	
	700.0 (Nominal)			3620 (Nominal)			2880 (Nominal)	
	1400 (Maximum)			7000 (Maximum)			5000 (Maximum)	













Master: 5-Apr-2008 18:59


8.25-in. Stabilized Azimuthal Density Neutron Calibration

Density: Aluminum Block									
Phase	LS window 3 – Al CPS			Value	Phase	SS window 1 – Al CPS			Value
Master				149.5	Master				2075
	10.00 (Minimum)	110.0 (Nominal)	200.0 (Maximum)			200.0 (Minimum)	1650 (Nominal)	3000 (Maximum)	

Master: 5–Apr–2008 18:59									
8.25–in. Stabilized Azimuthal Density Neutron Calibration									
Density: Background									
Phase	LS window 3 – Background CPS			Value	Phase	SS window 1 – Background CPS			Value
Master				71.07	Master				103.4
	17.00 (Minimum)	90.00 (Nominal)	170.0 (Maximum)			20.00 (Minimum)	120.0 (Nominal)	200.0 (Maximum)	

Master: 5–Apr–2008 18:59									
8.25–in. Stabilized Azimuthal Density Neutron Calibration									
Density: Water Block Check									
Phase	Long spacing water density G/C3			Value	Phase	Short spacing water density G/C3			Value
Master				1.075	Master				1.367
	1.047 (Minimum)	1.062 (Nominal)	1.077 (Maximum)			1.336 (Minimum)	1.393 (Nominal)	1.450 (Maximum)	

Master: 5–Apr–2008 18:59									
8.25–in. Stabilized Azimuthal Density Neutron Calibration									
Neutron: 3–Point Calibration									
Phase	Far Tube 1 Air Point Measure CPS			Value	Phase	Far Tube 1 Rod Point Measure CPS			Value
Master				149.1	Master				52.04
	100.0 (Minimum)	152.1 (Nominal)	190.0 (Maximum)			35.00 (Minimum)	55.33 (Nominal)	69.00 (Maximum)	
Phase	Far Tube 2 Air Point Measure CPS			Value	Phase	Far Tube 2 Rod Point Measure CPS			Value
Master				144.8	Master				51.86
	100.0 (Minimum)	152.1 (Nominal)	190.0 (Maximum)			35.00 (Minimum)	55.33 (Nominal)	69.00 (Maximum)	
Phase	Far Tube 3 Air Point Measure CPS			Value	Phase	Far Tube 3 Rod Point Measure CPS			Value
Master				145.3	Master				51.48
	100.0 (Minimum)	152.1 (Nominal)	190.0 (Maximum)			35.00 (Minimum)	55.33 (Nominal)	69.00 (Maximum)	
Phase	Near Tube 1 Air Point Measure CPS			Value	Phase	Near Tube 1 Rod Point Measure CPS			Value
Master				1523	Master				1567
	1100 (Minimum)	1462 (Nominal)	2000 (Maximum)			1200 (Minimum)	1519 (Nominal)	2000 (Maximum)	
Phase	Near Tube 2 Air Point Measure CPS			Value	Phase	Near Tube 2 Rod Point Measure CPS			Value
Master				1470	Master				1528
	1100 (Minimum)	1462 (Nominal)	2000 (Maximum)			1200 (Minimum)	1519 (Nominal)	2000 (Maximum)	
Phase	Near Tube 3 Air Point Measure CPS			Value	Phase	Near Tube 3 Rod Point Measure CPS			Value
Master				1487	Master				1532
	1100 (Minimum)	1462 (Nominal)	2000 (Maximum)			1200 (Minimum)	1519 (Nominal)	2000 (Maximum)	

Master: 5–Apr–2008 18:59									
8.25–in. Stabilized Azimuthal Density Neutron Calibration									
Neutron: Water Block Check									
Phase	Far Neutron water porosity PU						Value		
Master							81.50		
	60.00 (Minimum)		100.0 (Nominal)		120.0 (Maximum)				

8.25–in. Array Resistivity Compensated / Equipment Identification

## Primary Equipment:

Tool Name and Serial Number

ARC8 – AA

8316

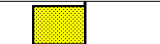
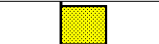
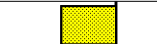

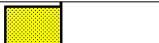





ARC825 Calibration Status

Valid

Master: 3–May–2008 1:32

## 8.25–in. Array Resistivity Compensated Calibration











Resistivity: Air

Phase	Phase-Shift T1	Value	Phase	Phase-Shift T2	Value	Phase	Phase-Shift T3	Value	
Master		-1.208	Master		1.258	Master		-1.291	
	-3.900 (Minimum)	0.1000 (Nominal)	4.100 (Maximum)	-3.900 (Minimum)	0.1000 (Nominal)	4.100 (Maximum)	-3.900 (Minimum)	0.1000 (Nominal)	4.100 (Maximum)
Phase	Phase-Shift T4	Value	Phase	Phase-Shift T5	Value	Phase	Phase-Shift T1 at 400KHz	Value	
Master		1.240	Master		-1.297	Master		1.677	
	-3.900 (Minimum)	0.1000 (Nominal)	4.100 (Maximum)	-3.900 (Minimum)	0.1000 (Nominal)	4.100 (Maximum)	-3.900 (Minimum)	0.1000 (Nominal)	4.100 (Maximum)
Phase	Phase-Shift T2 at 400KHz	Value	Phase	Phase-Shift T3 at 400KHz	Value	Phase	Phase-Shift T4 at 400KHz	Value	
Master		-1.716	Master		1.691	Master		-1.702	
	-3.900 (Minimum)	0.1000 (Nominal)	4.100 (Maximum)	-3.900 (Minimum)	0.1000 (Nominal)	4.100 (Maximum)	-3.900 (Minimum)	0.1000 (Nominal)	4.100 (Maximum)
Phase	Phase-Shift T5 at 400KHz	Value							
Master		1.629							
	-3.900 (Minimum)	0.1000 (Nominal)	4.100 (Maximum)						

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## 8.25–in. Array Resistivity Compensated Calibration


Resistivity: Air

Phase	Attenuation T1		Value	Phase	Attenuation T2		Value	Phase	Attenuation T3		Value
Master			8.251	Master			6.386	Master			4.975
	6.500 (Minimum)	8.500 (Nominal)	10.50 (Maximum)		4.500 (Minimum)	6.500 (Nominal)	8.500 (Maximum)		2.500 (Minimum)	4.500 (Nominal)	6.500 (Maximum)
Phase	Attenuation T4		Value	Phase	Attenuation T5		Value	Phase	Attenuation T1 at 400KHz		Value
Master			4.351	Master			3.563	Master			8.204
	2.600 (Minimum)	4.600 (Nominal)	6.600 (Maximum)		1.600 (Minimum)	3.600 (Nominal)	5.600 (Maximum)		6.500 (Minimum)	8.500 (Nominal)	10.50 (Maximum)
Phase	Attenuation T2 at 400KHz		Value	Phase	Attenuation T3 at 400KHz		Value	Phase	Attenuation T4 at 400KHz		Value
Master			6.445	Master			4.920	Master			4.399
	4.500 (Minimum)	6.500 (Nominal)	8.500 (Maximum)		2.500 (Minimum)	4.500 (Nominal)	6.500 (Maximum)		2.600 (Minimum)	4.600 (Nominal)	6.600 (Maximum)
Phase	Attenuation T5 at 400KHz		Value								
Master			3.517								
	1.600 (Minimum)	3.600 (Nominal)	5.600 (Maximum)								

Master: 5–May–2008 5:56

## 8.25–in. Array Resistivity Compensated Calibration

Gamma Ray: Blanket

Phase	Gamma ray factor (equals Calibration Gain multiplied by API Gain Factor)	CPS	Value
Master			7.822
	4.960 (Minimum)	7.200 (Nominal)	9.650 (Maximum)

SCHLUMBERGER

Survey report

4–Jun–2008 15:47:33

Page 1 of 3

Client..... Santos Ltd  
Field..... Sorell Basin

Well..... Jarver-1  
Service No..... 08ASQ0002  
Engineer..... ML/JO/JL

Spud date..... 16–May–08  
Last survey date..... 04–Jun–08  
Total accepted surveys... 58  
MD of first survey..... 0.00 m



RIG:.....: Ocean Patriot  
STATE:.....: Tasmania

MD of last survey.....: 3062.00 m

----- Survey calculation methods-----

Method for positions.....: Minimum curvature  
Method for DLS.....: Mason & Taylor

----- Depth reference -----

Permanent datum.....: Australian Height Datum  
Depth reference.....: Driller's Depth  
GL above permanent.....: -576.85 m  
KB above permanent.....: Top Drive  
DF above permanent.....: 20.85 m

----- Vertical section origin-----

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

----- Platform reference point-----

Latitude (+N/S-).....: ----  
Departure (+E/W-).....: ----

Azimuth from Vsect Origin to target: 112.20 degrees

----- Geomagnetic data -----

Magnetic model.....: BGGM version 2007  
Magnetic date.....: 21-May-2008  
Magnetic field strength...: 1236.28 HCNT  
Magnetic dec (+E/W-).....: 12.45 degrees  
Magnetic dip.....: -71.86 degrees

----- MWD survey Reference Criteria -----

Reference G.....: 1000.31 mGal  
Reference H.....: 1236.28 HCNT  
Reference Dip.....: -71.86 degrees  
Tolerance of G.....: (+/-) 2.50 mGal  
Tolerance of H.....: (+/-) 6.00 HCNT  
Tolerance of Dip.....: (+/-) 0.45 degrees

----- Corrections -----

Magnetic dec (+E/W-).....: 12.45 degrees  
Grid convergence (+E/W-)..: -2.14 degrees  
Total az corr (+E/W-).....: 14.59 degrees  
(Total az corr = magnetic dec - grid conv)  
Survey Correction Type ...:  
I=Sag Corrected Inclination  
M=Schlumberger Magnetic Correction  
S=Shell Magnetic Correction  
F=Failed Axis Correction  
R=Magnetic Resonance Tool Correction  
D=Dmag Magnetic Correction

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SCHLUMBERGER Survey Report

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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/100f)	Srvy tool type	Tool Corr (deg)
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIP	None
2	625.22	0.78	111.45	625.22	625.20	4.26	-1.56	3.96	4.26	111.45	0.04	MS	None
3	653.95	0.79	307.22	28.73	653.93	4.26	-1.51	3.99	4.26	110.73	1.65	MS	None
4	682.81	0.66	70.44	28.86	682.79	4.19	-1.33	3.98	4.20	108.49	1.35	MS	None
5	711.59	0.76	163.99	28.78	711.57	4.43	-1.46	4.19	4.44	109.20	1.10	MS	None
6	769.05	0.69	31.48	57.46	769.03	4.72	-1.53	4.48	4.73	108.88	0.70	MS	None
7	797.65	0.62	126.90	28.60	797.62	4.90	-1.48	4.69	4.92	107.48	1.03	MS	None
8	826.52	1.42	110.88	28.87	826.49	5.41	-1.70	5.15	5.42	108.25	0.89	MS	None
9	855.24	1.18	327.80	28.72	855.21	5.53	-1.58	5.33	5.55	106.48	2.62	MS	None
10	884.16	0.61	113.14	28.92	884.12	5.44	-1.38	5.31	5.49	104.61	1.81	MS	None
11	913.05	0.58	214.02	28.89	913.01	5.56	-1.57	5.37	5.59	106.26	0.97	MS	None
12	941.83	0.70	74.64	28.78	941.79	5.67	-1.64	5.46	5.70	106.72	1.27	MS	None
13	970.76	0.64	91.36	28.93	970.72	5.96	-1.60	5.79	6.00	105.42	0.21	MS	None
14	999.56	0.80	139.54	28.80	999.52	6.29	-1.75	6.08	6.33	106.09	0.64	MS	None
15	1028.45	0.46	115.68	28.89	1028.41	6.59	-1.96	6.31	6.61	107.22	0.45	MS	None
16	1057.36	0.62	109.10	28.91	1057.32	6.86	-2.06	6.57	6.88	107.40	0.18	MS	None
17	1086.13	0.59	71.18	28.77	1086.08	7.13	-2.06	6.85	7.16	106.74	0.42	MS	None
18	1115.06	0.67	143.53	28.93	1115.01	7.38	-2.15	7.10	7.41	106.85	0.79	MS	None
19	1144.00	0.68	139.77	28.94	1143.95	7.68	-2.42	7.31	7.70	108.30	0.05	MS	None
20	1172.93	0.58	138.87	28.93	1172.88	7.96	-2.66	7.51	7.97	109.48	0.11	MS	None
21	1201.85	0.45	160.27	28.92	1201.80	8.17	-2.88	7.65	8.17	110.60	0.24	MS	None
22	1230.68	0.67	137.73	28.83	1230.63	8.40	-3.11	7.80	8.40	111.71	0.32	MS	None
23	1259.58	0.29	168.59	28.90	1259.53	8.59	-3.30	7.93	8.59	112.62	0.47	MS	None
24	1288.49	0.11	130.28	28.91	1288.44	8.66	-3.39	7.96	8.66	113.07	0.23	MS	None
25	1317.41	0.23	108.83	28.92	1317.36	8.74	-3.43	8.04	8.74	113.10	0.14	MS	None
26	1346.30	0.29	95.15	28.89	1346.24	8.87	-3.45	8.17	8.87	112.93	0.09	MS	None
27	1375.23	0.41	87.00	28.93	1375.17	9.03	-3.46	8.34	9.03	112.50	0.14	MS	None
28	1398.40	0.32	101.81	23.17	1398.34	9.17	-3.46	8.49	9.17	112.20	0.17	MS	None
29	1436.48	0.21	345.43	38.08	1436.42	9.23	-3.42	8.58	9.23	111.73	0.36	PUP	None
30	1466.32	0.29	343.15	29.84	1466.26	9.15	-3.29	8.54	9.15	111.09	0.08	PUP	None

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SCHLUMBERGER Survey Report

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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/100f)	Srvy tool type	Tool Corr (deg)
31	1523.81	0.26	327.52	57.49	1523.75	8.96	-3.04	8.43	8.96	109.86	0.04	PUP	None
32	1552.31	0.15	306.71	28.50	1552.25	8.87	-2.97	8.37	8.88	109.53	0.14	PUP	None
33	1610.49	0.20	273.09	58.18	1610.43	8.70	-2.92	8.20	8.71	109.58	0.06	PUP	None
34	1667.70	0.10	327.45	57.21	1667.64	8.56	-2.87	8.08	8.57	109.56	0.09	PUP	None
35	1753.02	0.15	85.88	85.32	1752.96	8.60	-2.80	8.15	8.61	108.96	0.08	PUP	None
36	1782.05	0.17	30.71	29.03	1781.99	8.64	-2.76	8.21	8.66	108.58	0.16	PUP	None
37	1811.44	0.22	22.53	29.39	1811.38	8.65	-2.67	8.25	8.67	107.93	0.06	PUP	None
38	1840.13	0.41	23.27	28.69	1840.07	8.65	-2.52	8.31	8.69	106.89	0.20	PUP	None
39	1896.95	0.36	21.42	56.82	1896.89	8.65	-2.17	8.46	8.73	104.40	0.03	PUP	None
40	1928.28	0.40	341.32	31.33	1928.22	8.58	-1.98	8.46	8.69	103.15	0.26	PUP	None
41	1960.02	0.46	333.87	31.74	1959.96	8.41	-1.76	8.37	8.55	101.86	0.08	PUP	None
42	1988.76	0.36	339.99	28.74	1988.70	8.26	-1.57	8.29	8.43	100.72	0.12	PUP	None
43	2017.29	0.35	330.35	28.53	2017.23	8.14	-1.41	8.21	8.33	99.73	0.06	PUP	None
44	2046.82	0.40	345.32	29.53	2046.76	8.00	-1.23	8.14	8.23	98.59	0.11	PUP	None
45	2076.60	0.30	339.19	29.78	2076.54	7.89	-1.06	8.09	8.16	97.44	0.11	PUP	None
46	2105.86	0.28	331.18	29.26	2105.80	7.78	-0.92	8.03	8.08	96.56	0.05	PUP	None
47	2163.31	0.34	338.86	57.45	2163.24	7.55	-0.64	7.90	7.92	94.64	0.04	PUP	None
48	2192.25	0.32	344.83	28.94	2192.18	7.45	-0.48	7.84	7.86	93.52	0.04	PUP	None
49	2219.96	0.41	332.65	27.71	2219.89	7.32	-0.32	7.78	7.79	92.35	0.13	PUP	None

50	2278.23	0.35	333.64	58.27	2278.16	7.03	0.03	7.60	7.60	89.81	0.03	PUP	None
51	2335.93	0.45	317.58	57.70	2335.86	6.69	0.35	7.37	7.38	87.28	0.08	PUP	None
52	2421.85	0.36	319.82	85.92	2421.78	6.15	0.81	6.97	7.02	83.41	0.03	PUP	None
53	2508.06	0.43	323.34	86.21	2507.99	5.63	1.27	6.60	6.72	79.10	0.03	PUP	None
54	2594.16	0.37	325.91	86.10	2594.08	5.13	1.76	6.25	6.50	74.27	0.02	PUP	None
55	2768.83	0.44	309.07	174.67	2768.75	4.01	2.65	5.42	6.03	63.92	0.02	PUP	None
56	2827.34	0.37	280.23	58.51	2827.26	3.61	2.83	5.06	5.79	60.80	0.11	PUP	None
57	2940.58	0.37	309.92	113.24	2940.50	2.91	3.13	4.42	5.41	54.71	0.05	PUP	None
58	3062.00	0.37	309.92	121.42	3061.91	2.16	3.63	3.82	5.27	46.44	0.00	Projection to TD	
[(c)2008 IDEAL ID13 OC 08]													

Company: Santos Ltd

Well: Jarver–1

Field: Sorell Basin

Rig: Ocean Patriot

State: Tasmania

Schlumberger

12.25 in. Section

VISION Service  
1:500 True Vertical Depth  
Recorded Mode Log