



PRECISION
ENERGY SERVICES

Vp Vs Slowness Log
Compensated Sonic
1:200 MD

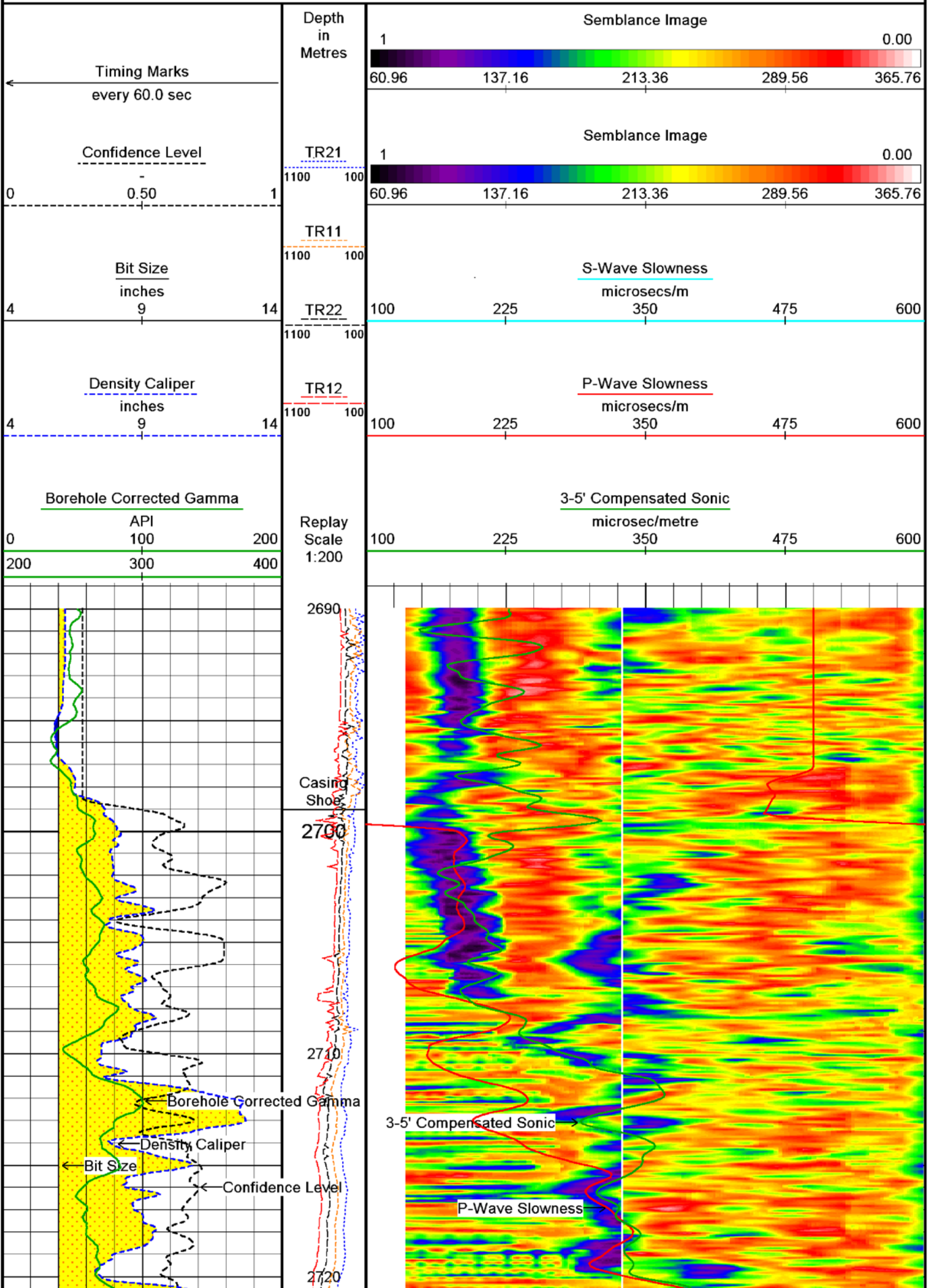
COMPANY	ESSO AUSTRALIA PTY LTD		
WELL	BREAM A22A ST		
FIELD	BREAM		
PROVINCE/COUNTY	BASS STRAIT		
COUNTRY/STATE	AUSTRALIA		
LOCATION	S 38 29 58.910, E 147 46 20.232 N 5738457.640 m, E 567342.490 m		
LSD	SEC	TWP	RGE
API Number	Other Services		
Permit Number			
Permanent Datum MSL	, Elevation 0.0 metres		
Log Measured From RT @ 32.82 M	above Permanent Datum		
Drilling Measured From RT			
Date	23-SEP-2005		
Run Number	ONE		
Depth Driller	3364.00	metres	
Depth Logger	3356.10	metres	
First Reading	3342.80	metres	
Last Reading	2699.00	metres	
Casing Driller	2698.00	metres	
Casing Logger	2699.00	metres	
Bit Size	6.00	inches	
Hole Fluid Type	KCL/GYL/POLY		
Density / Viscosity	10.20 lb/USg	73.00 CP	
PH / Fluid Loss	9.10	2.10 ml/30Min	
Sample Source	FLOWLINE		
Rm @ Measured Temp	0.154 @ 25.0	ohm-m	
Rmf @ Measured Temp	0.099 @ 25.0	ohm-m	
Rmc @ Measured Temp	0.283 @ 25.0	ohm-m	
Source Rmf / Rmc	PRESS	PRESS	
Rm @ BHT	0.063 @ 93.5	ohm-m	
Time Since Circulation	26 HRS		
Max Recorded Temp	95.00	deg C	
Equipment Name	3" CWS/CML		
Equipment / Base	1	SALE	
Recorded By	G.McMANUS, R.TENCH		
Witnessed By	TREVOR LOBO		
CIRC STOPPED	01:15 22-SEP		
			Last Line

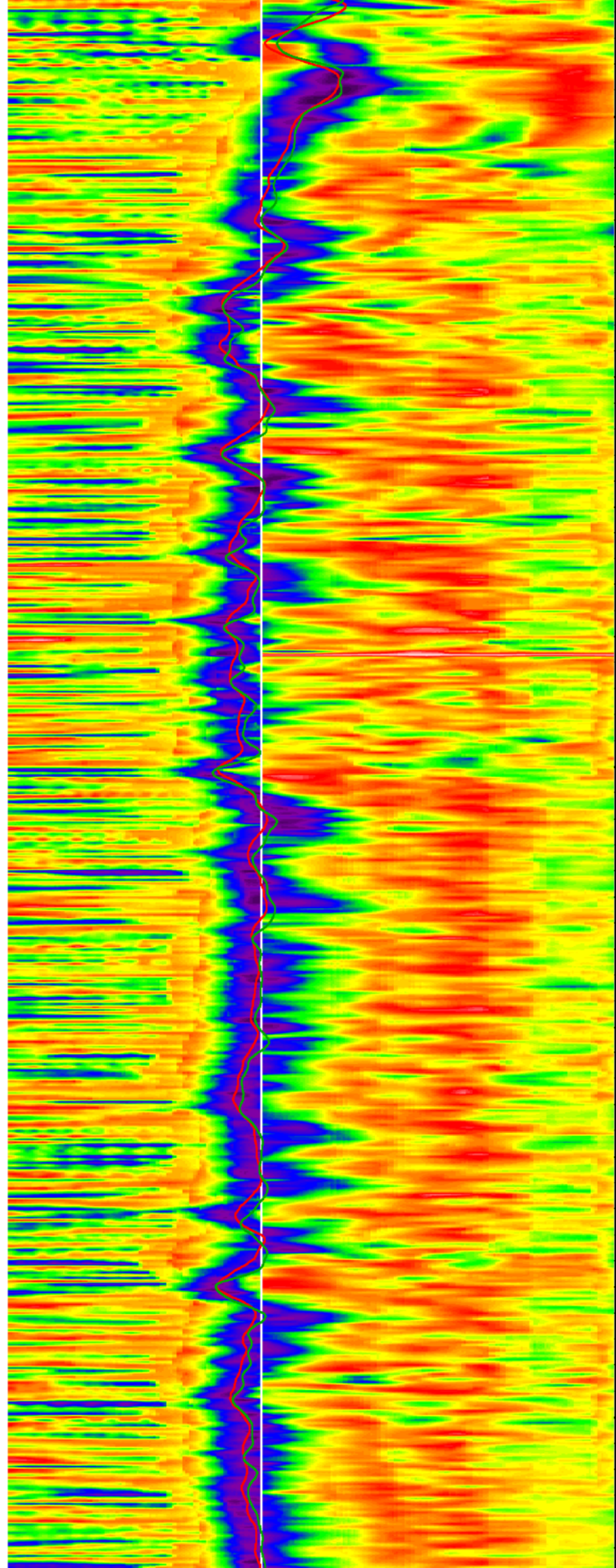
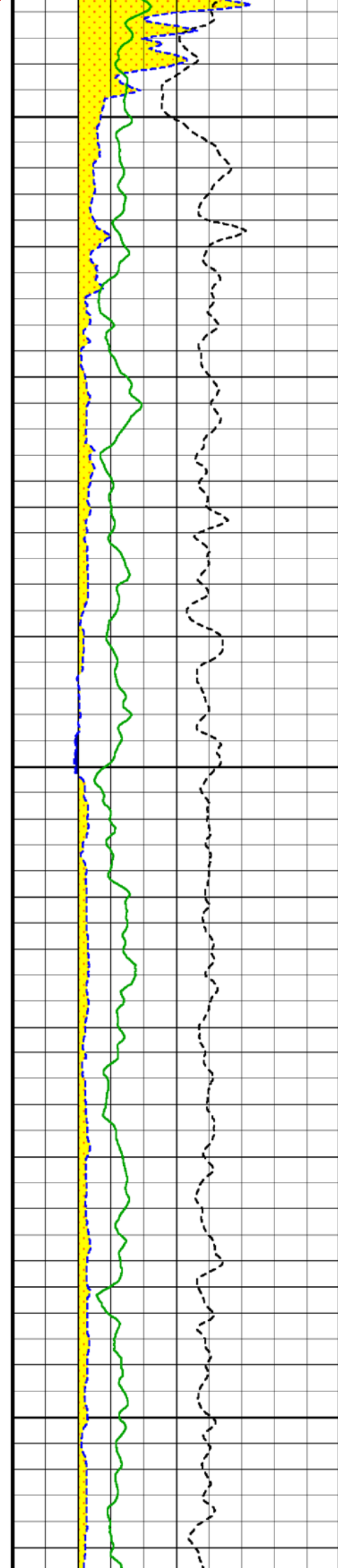
COMPACT
FINAL PRINT

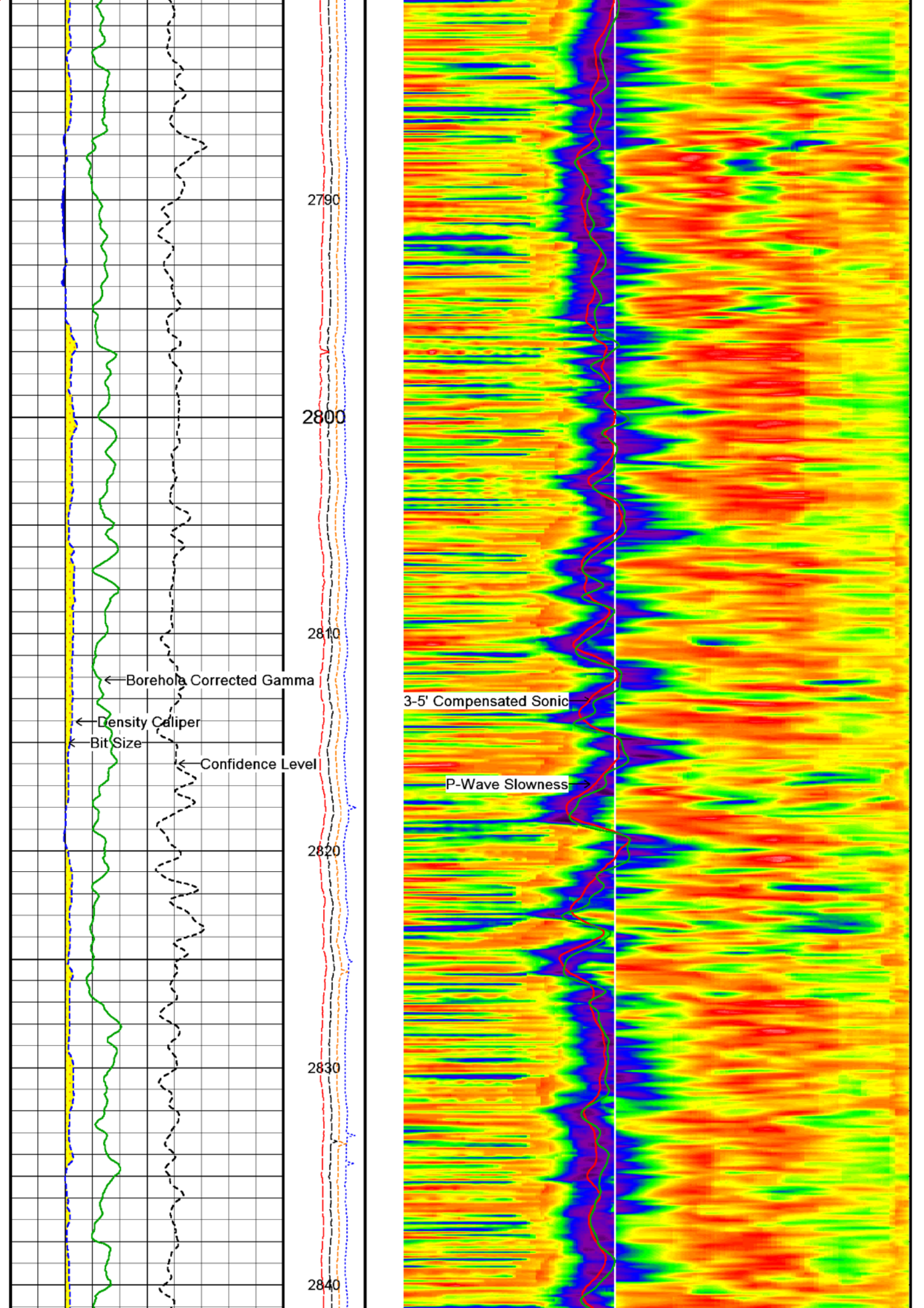
BOREHOLE RECORD					Last Edited: 7-OCT-2005 16:28
Bit Size inches		Depth From metres		Depth To metres	
6.000		2699.00		3364.00	
CASING RECORD					
Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft	
K55	10.750	0.00	1346.00	40.50	
K55	7.000	0.00	2698.00	26.00	

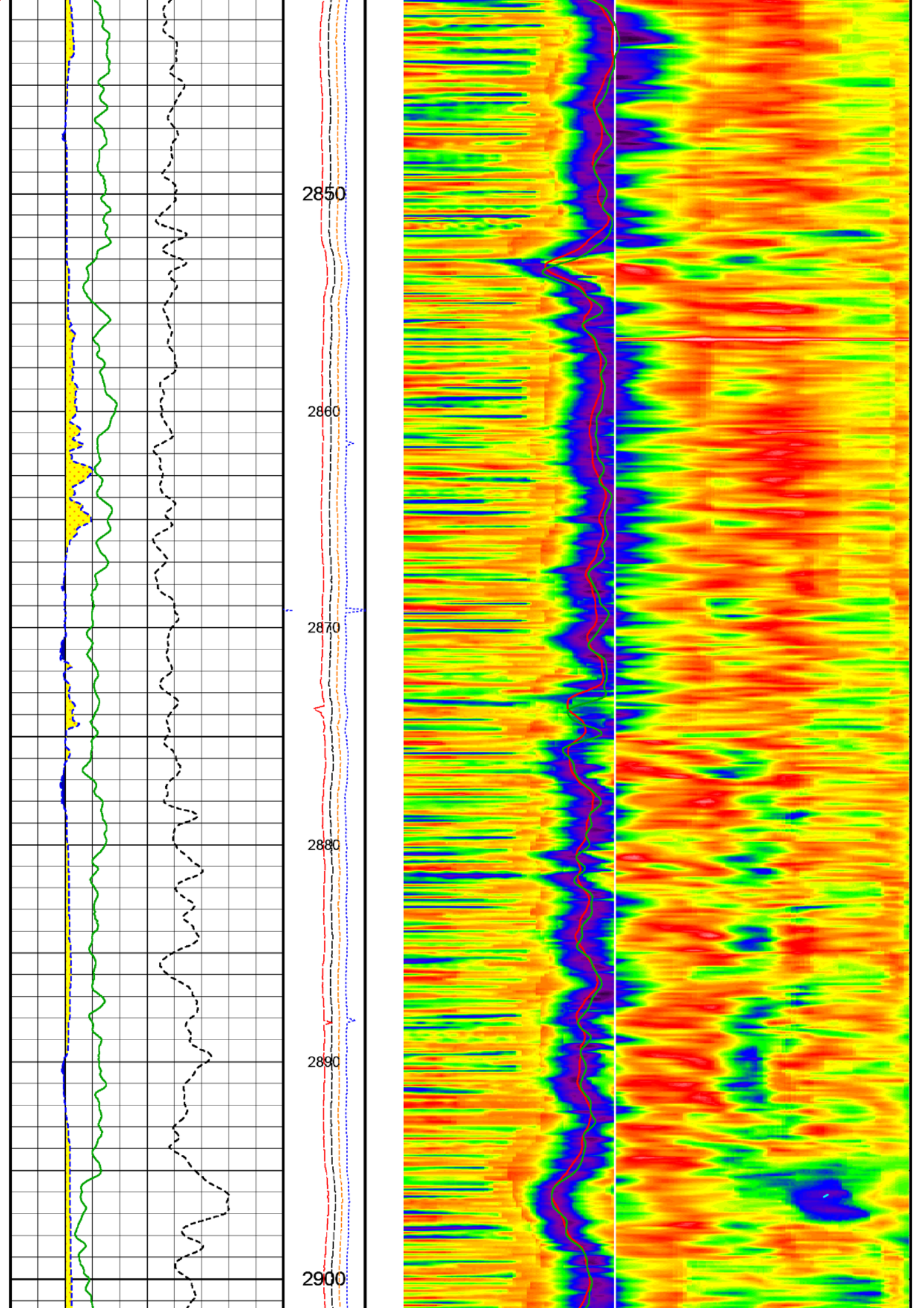
REMARKS
RIG: NABORS 453
3.5" SHUTTLE/MEMORY COMPACT OPERATION.
MAX. TEMPERATURE: 95.0 DEG C AT 3314.80 m MD
MAX. INCLINATION: 69.5 DEG AT 3335.0m MD
MAX. DOGLEG SERVERITY: 5.24 DEG/30m AT 2875.5m MD
DEPLOYMENT ANGLE:69.4 DEG
P-Wave Slowness derived from First Break arrival on the waveforms.
S-Wave Slowness derived from P-Wave Guided Semblance Map.
Confidence Level cut-off of 0.8 used.
Left hand Semblance Image scale value = 60.96 (equivalent to true 100 microsecs/metre).
Right hand Semblance Image scale value = 365.76 (equivalent to true 600 microsecs/metre).

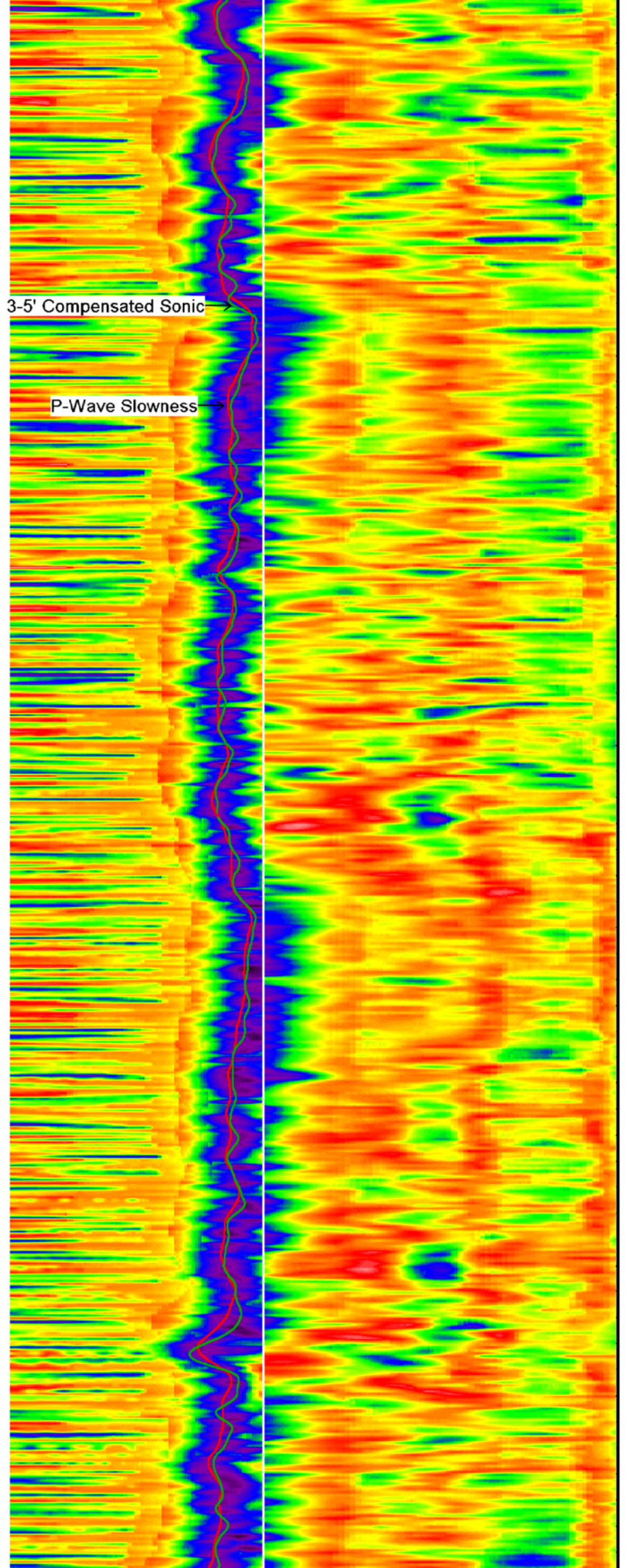
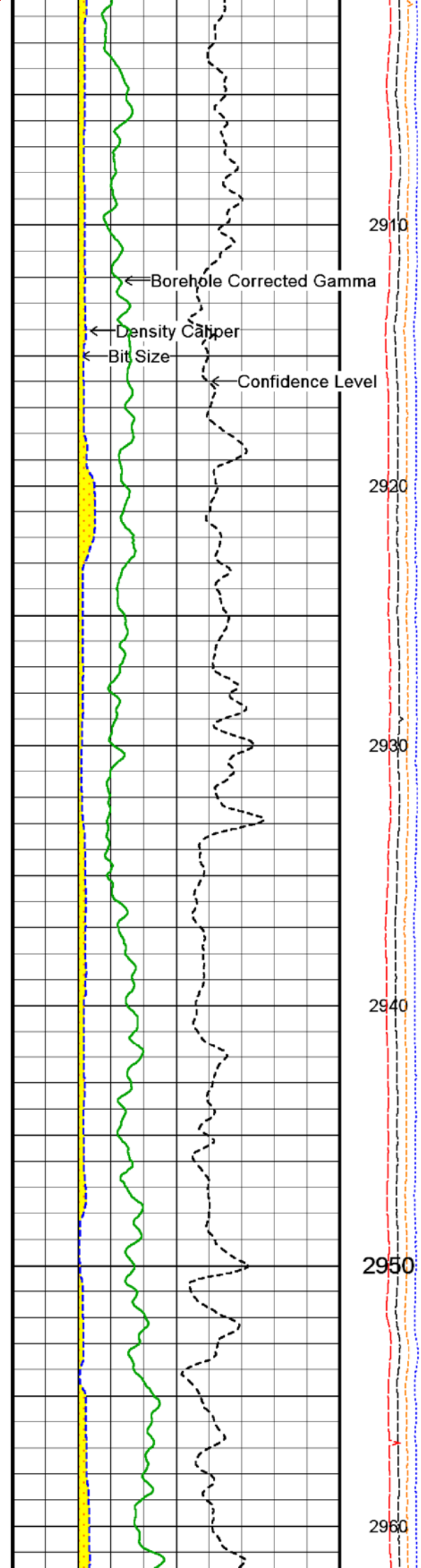
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions in our price schedule.

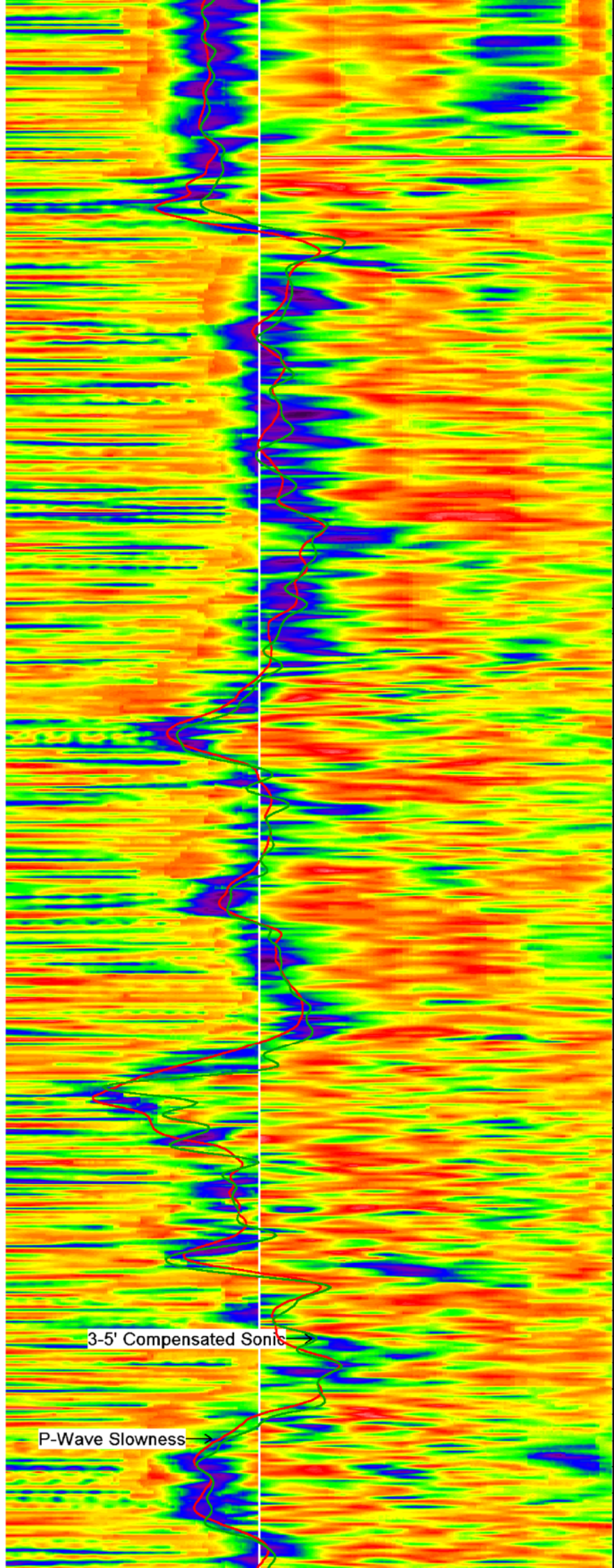
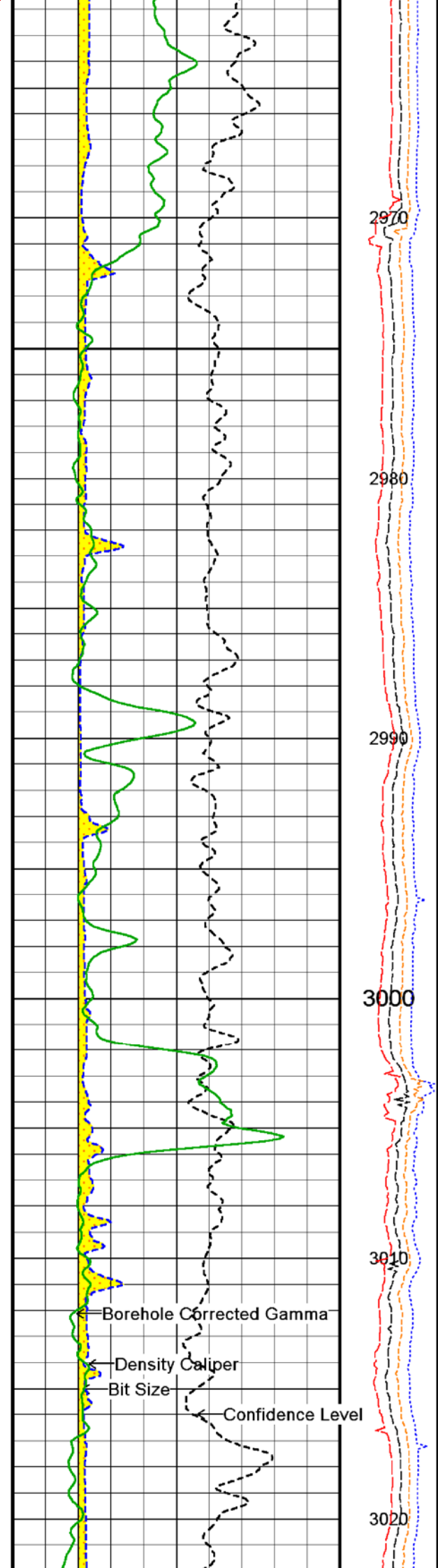


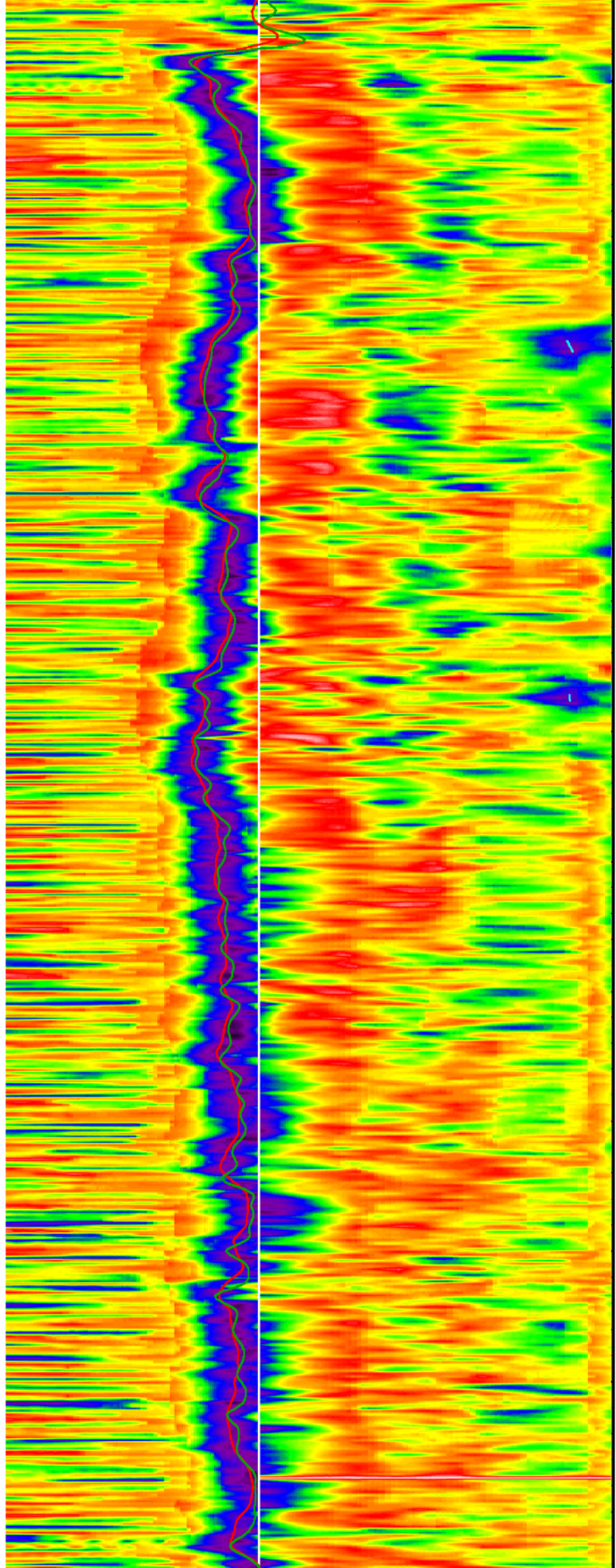
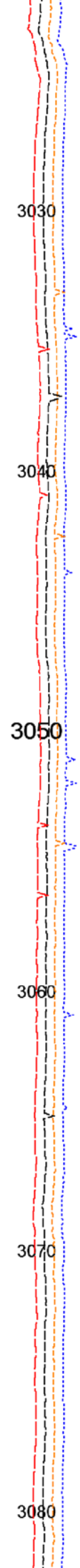
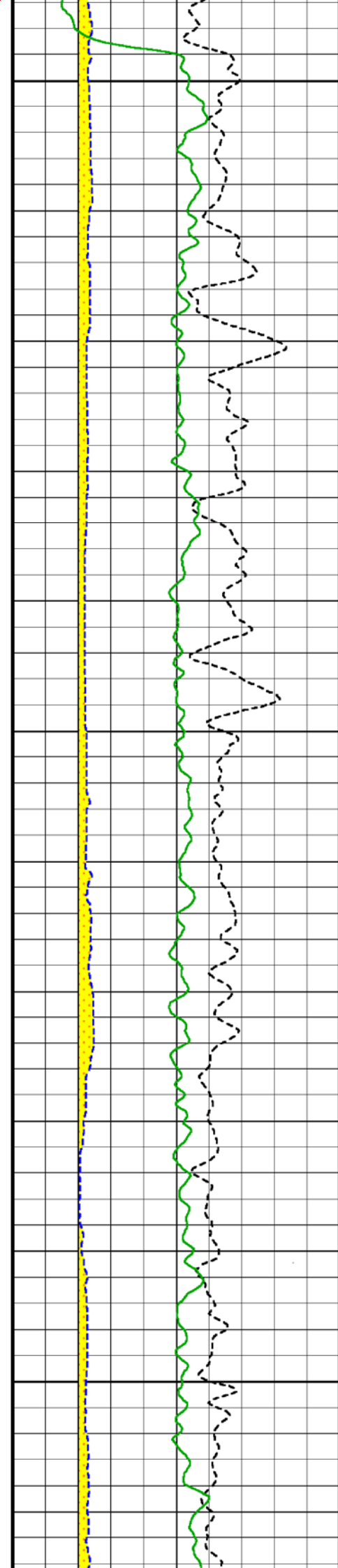


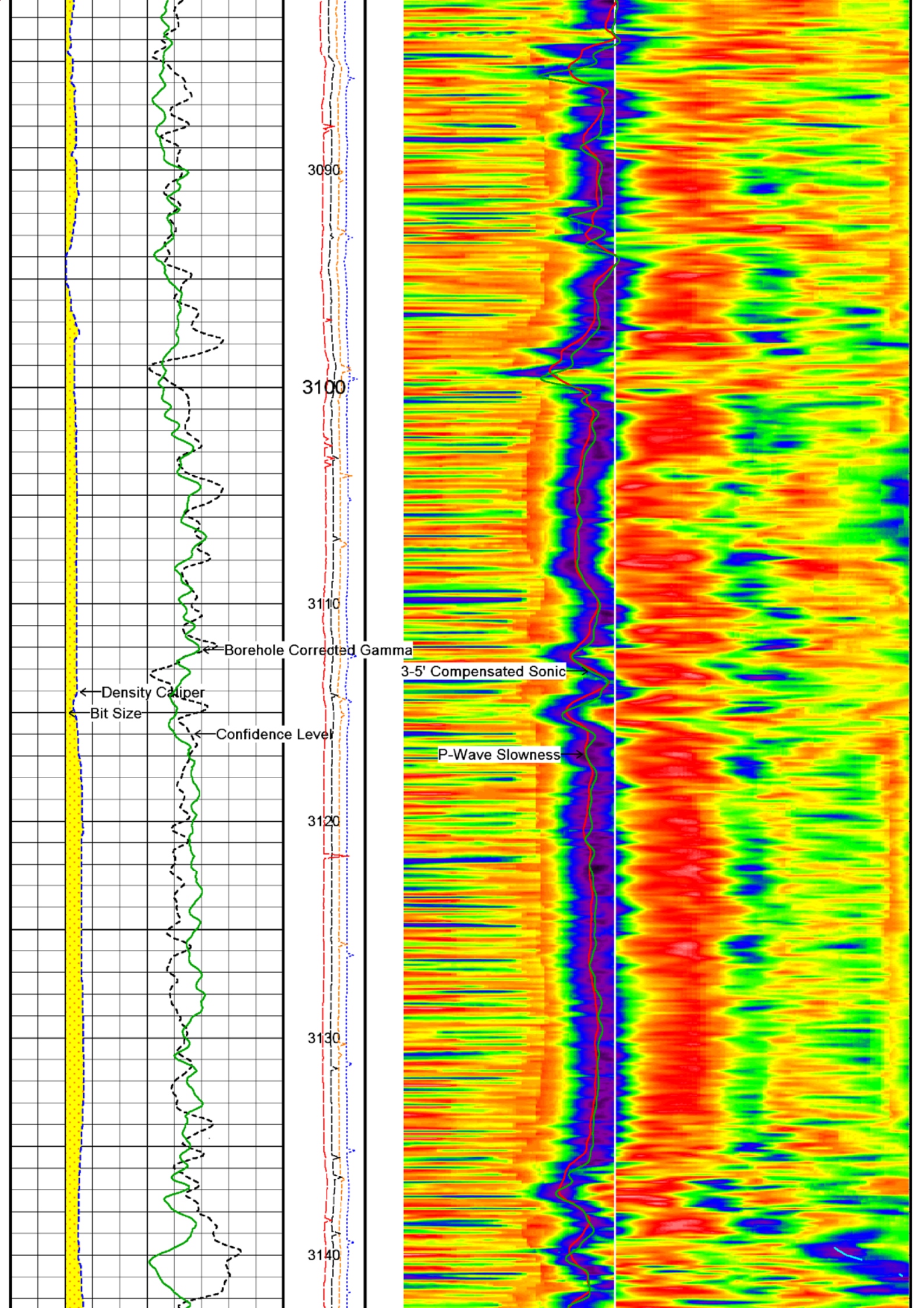


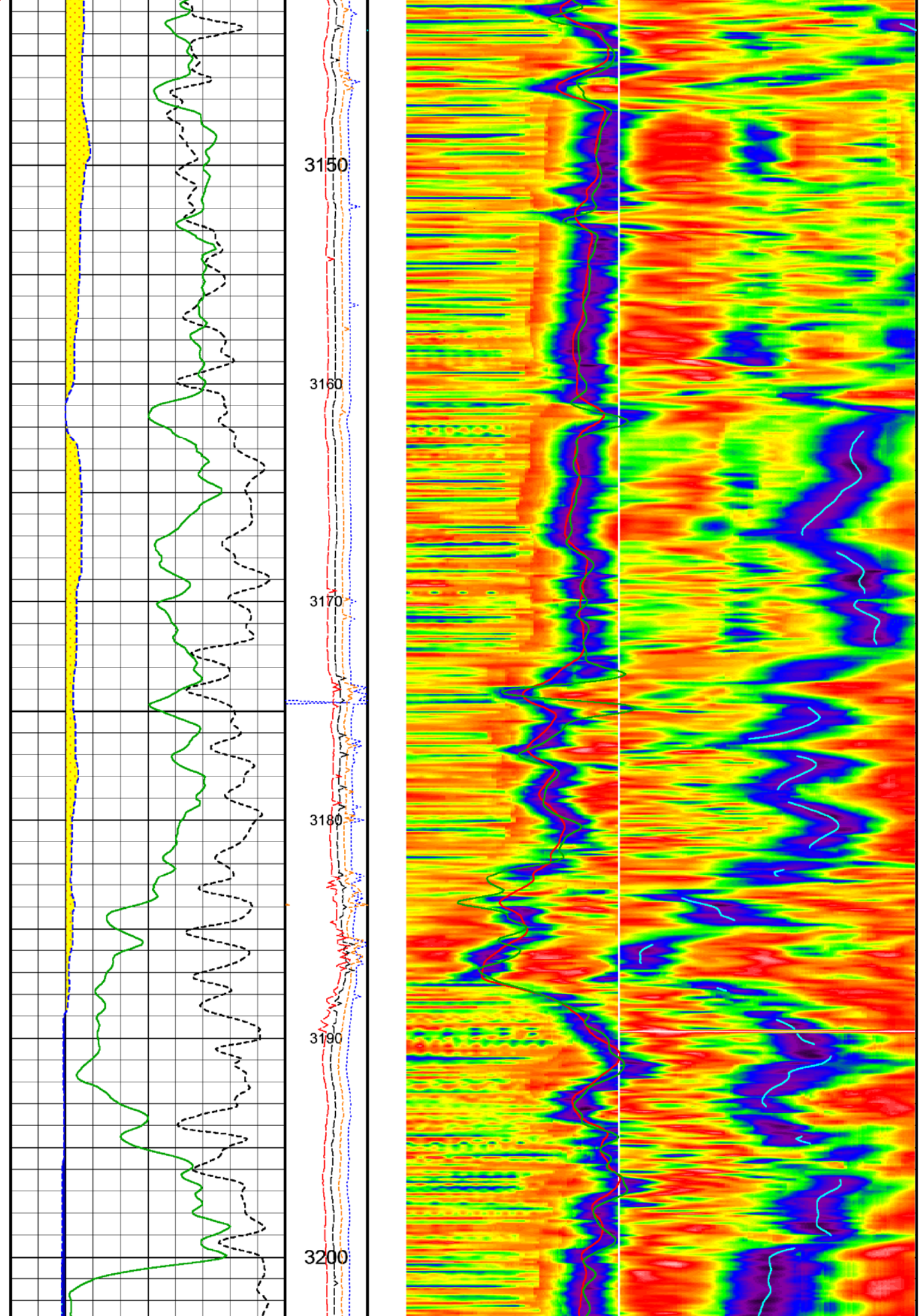


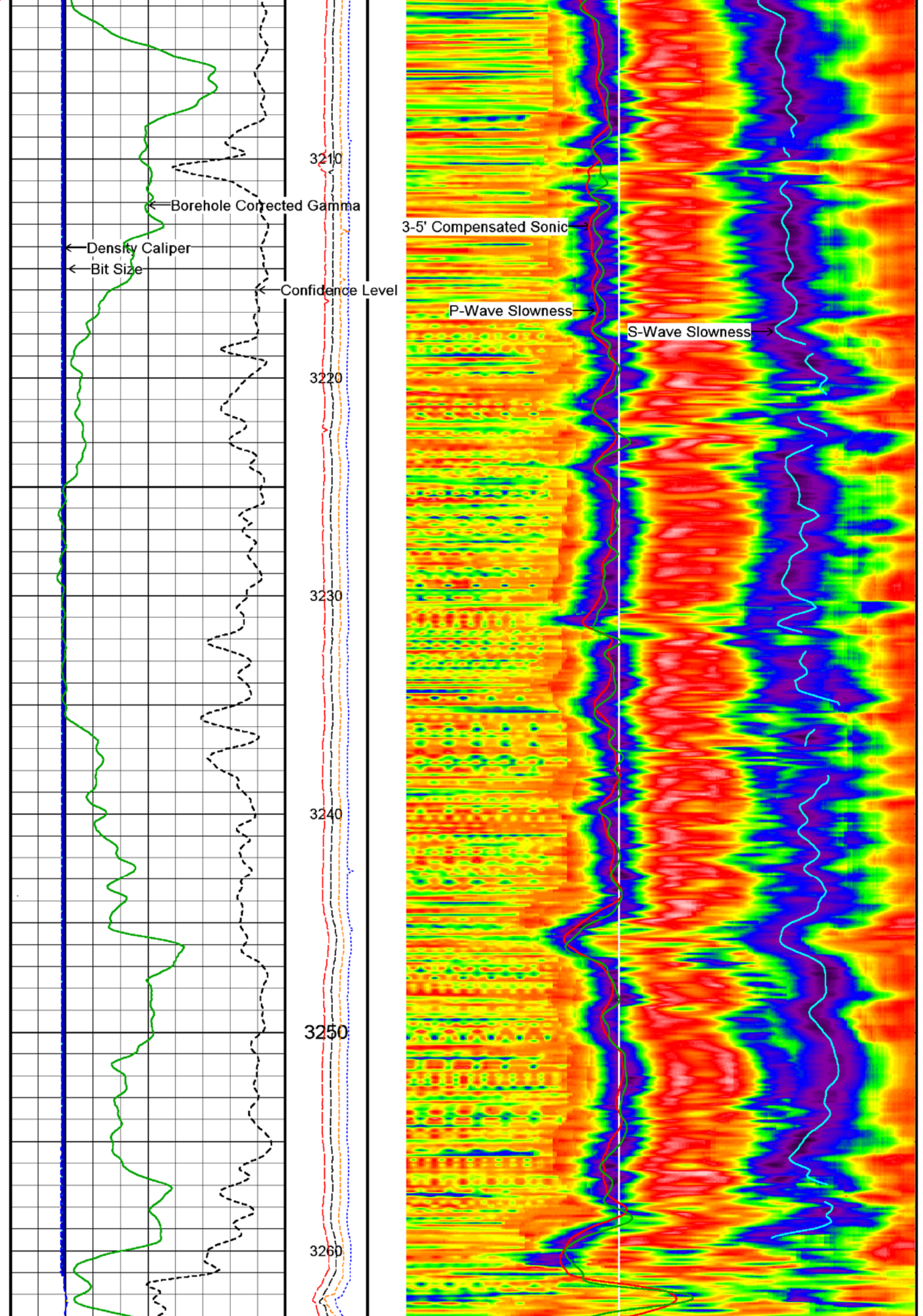


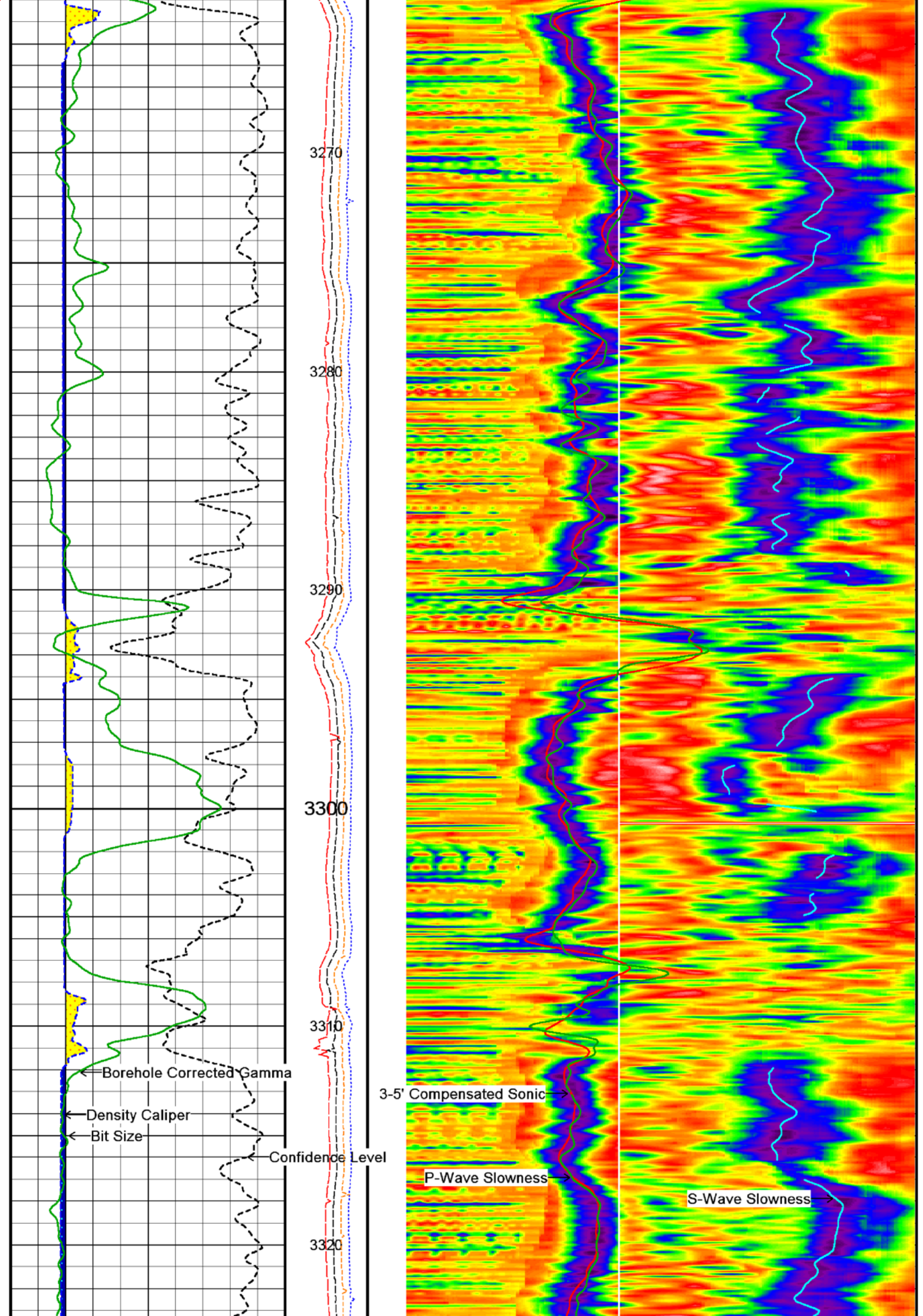


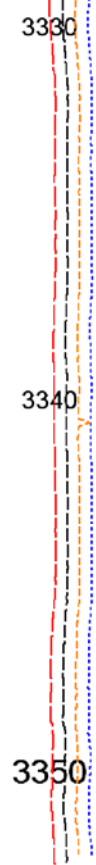
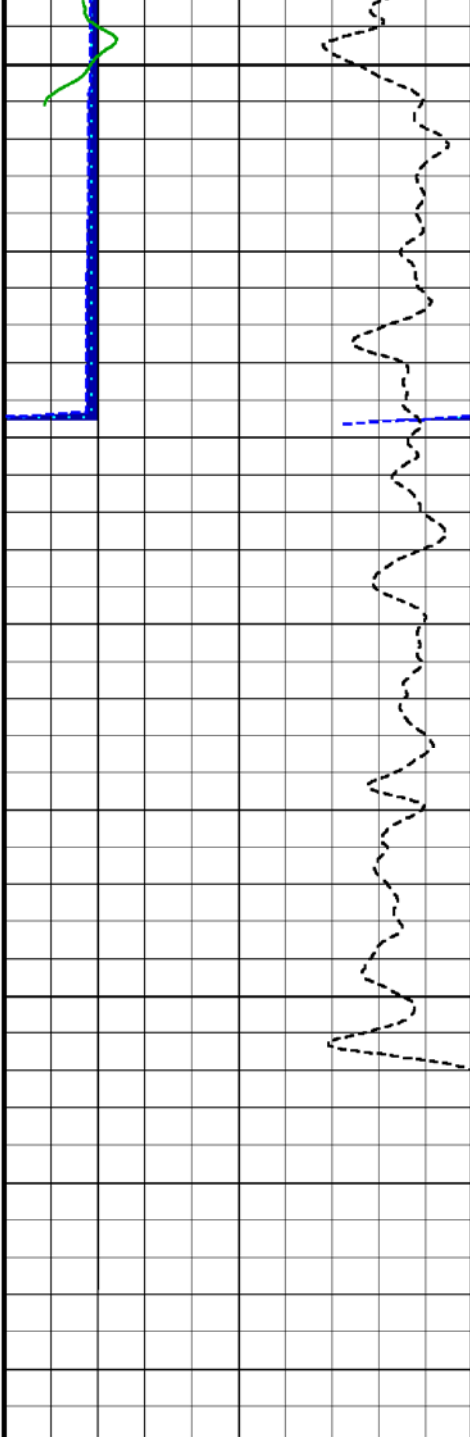












Timing Marks
every 60.0 sec

Confidence Level

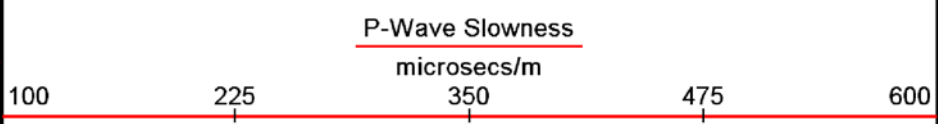
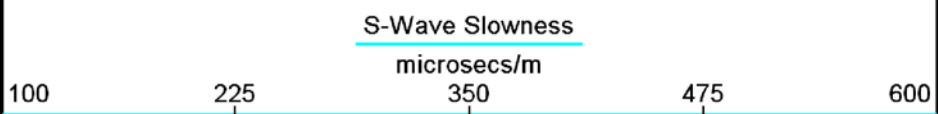
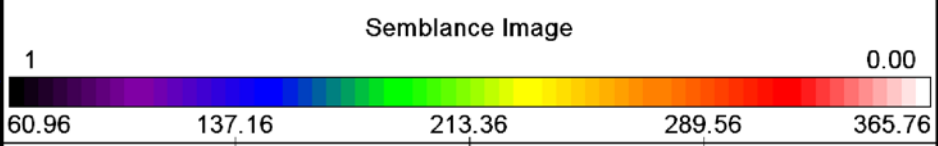
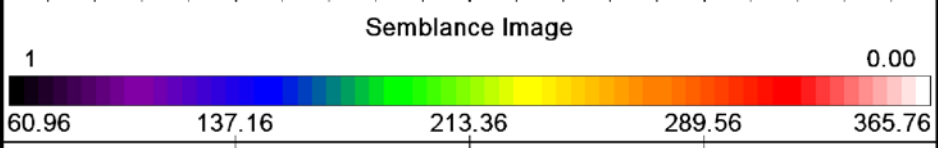
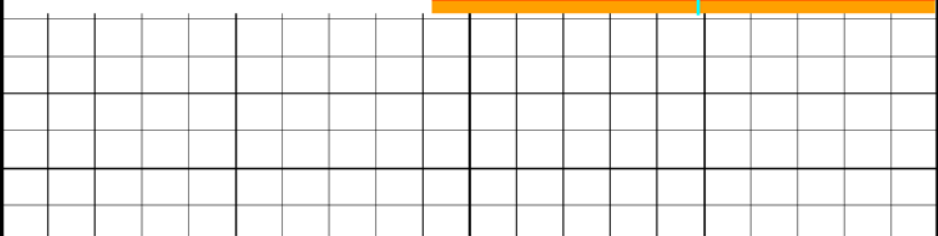
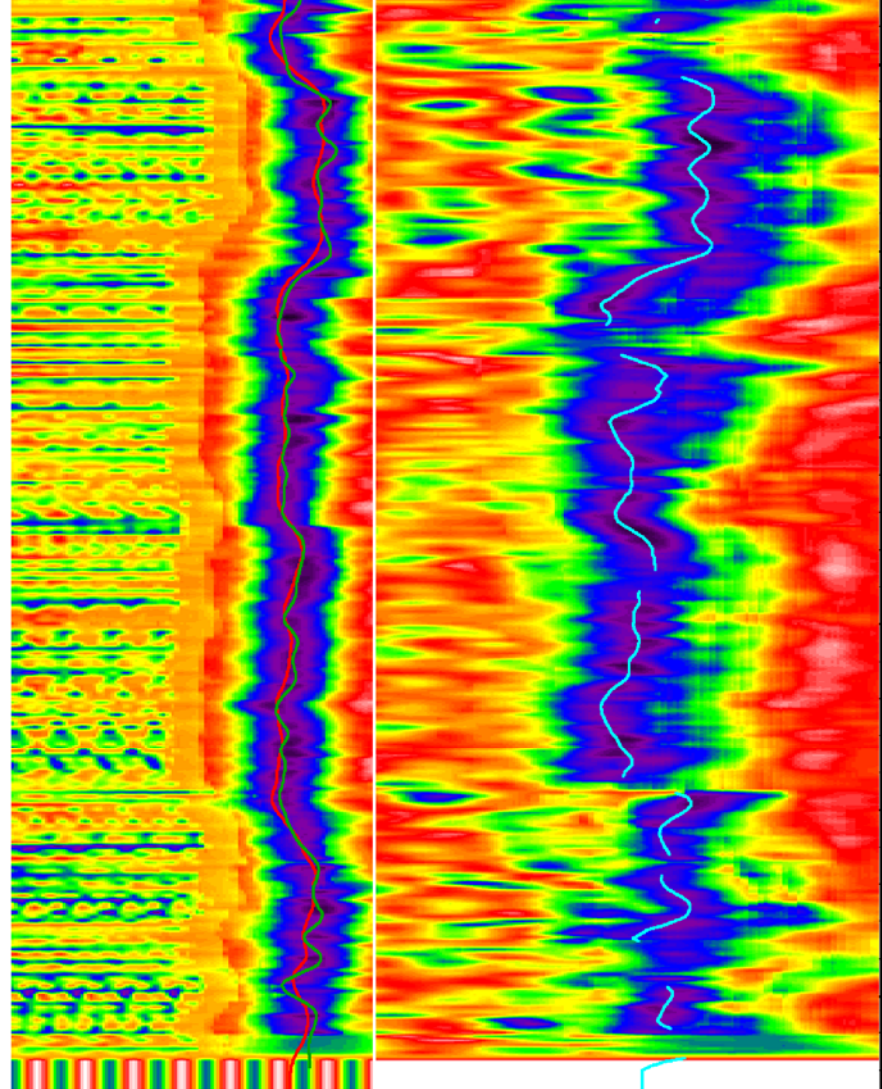
0 0.50 1

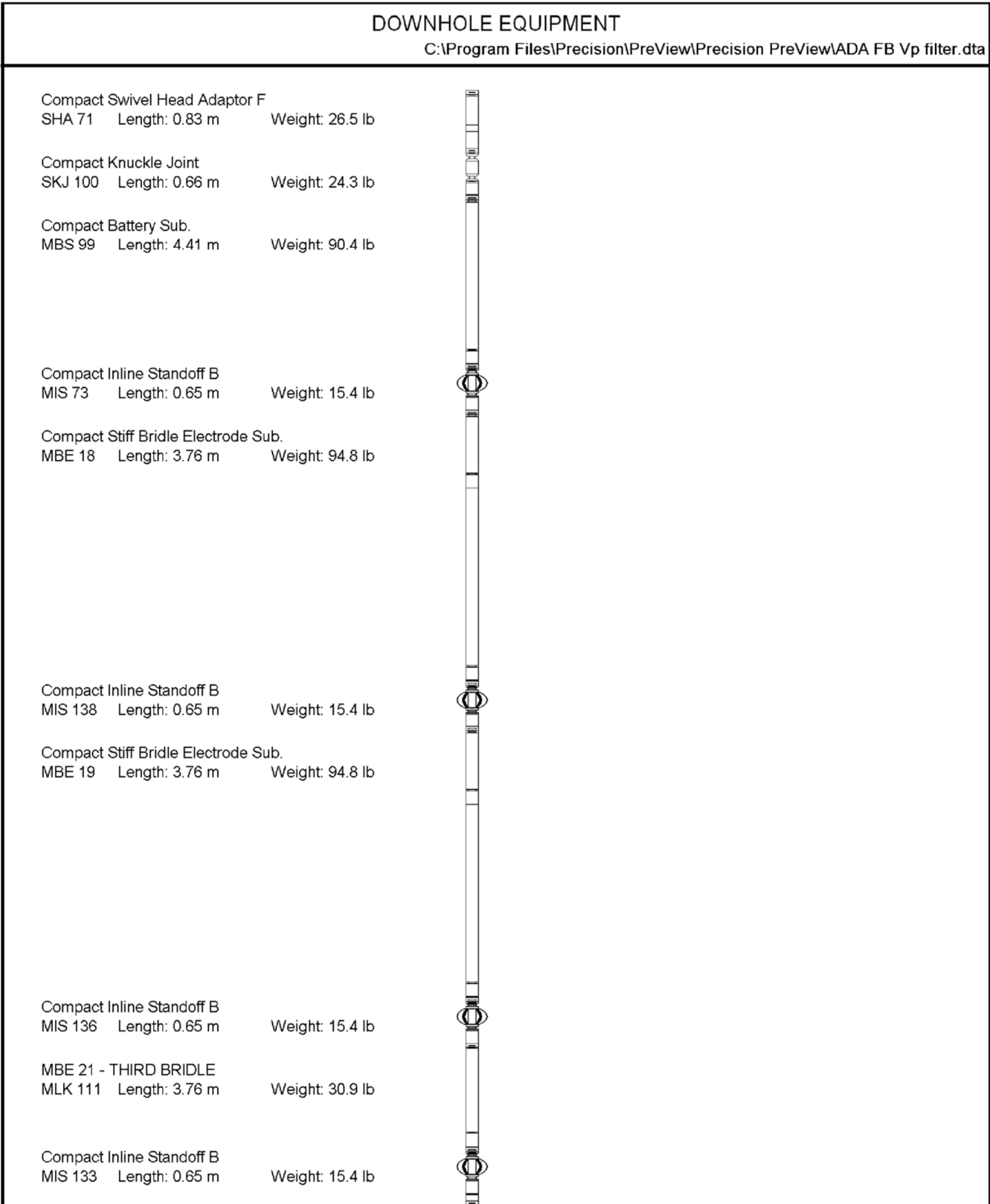
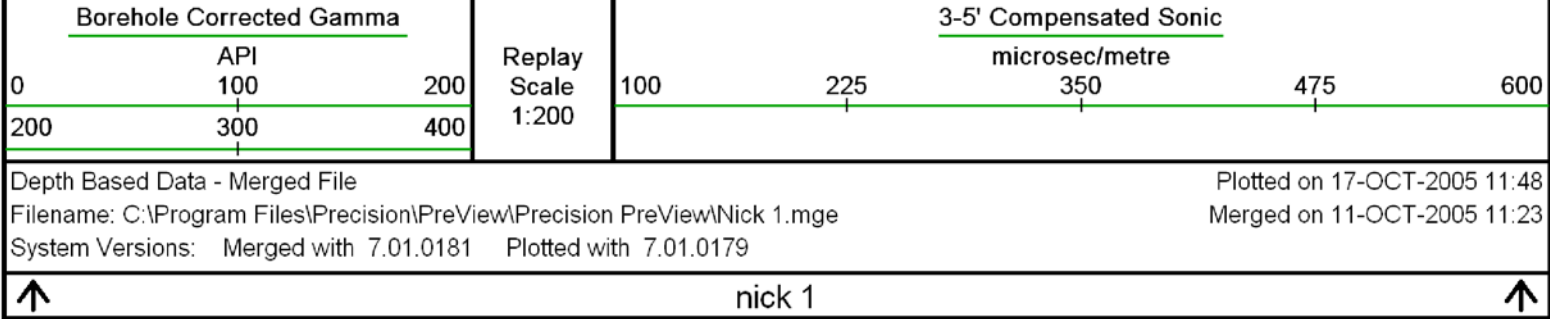
Bit Size
inches

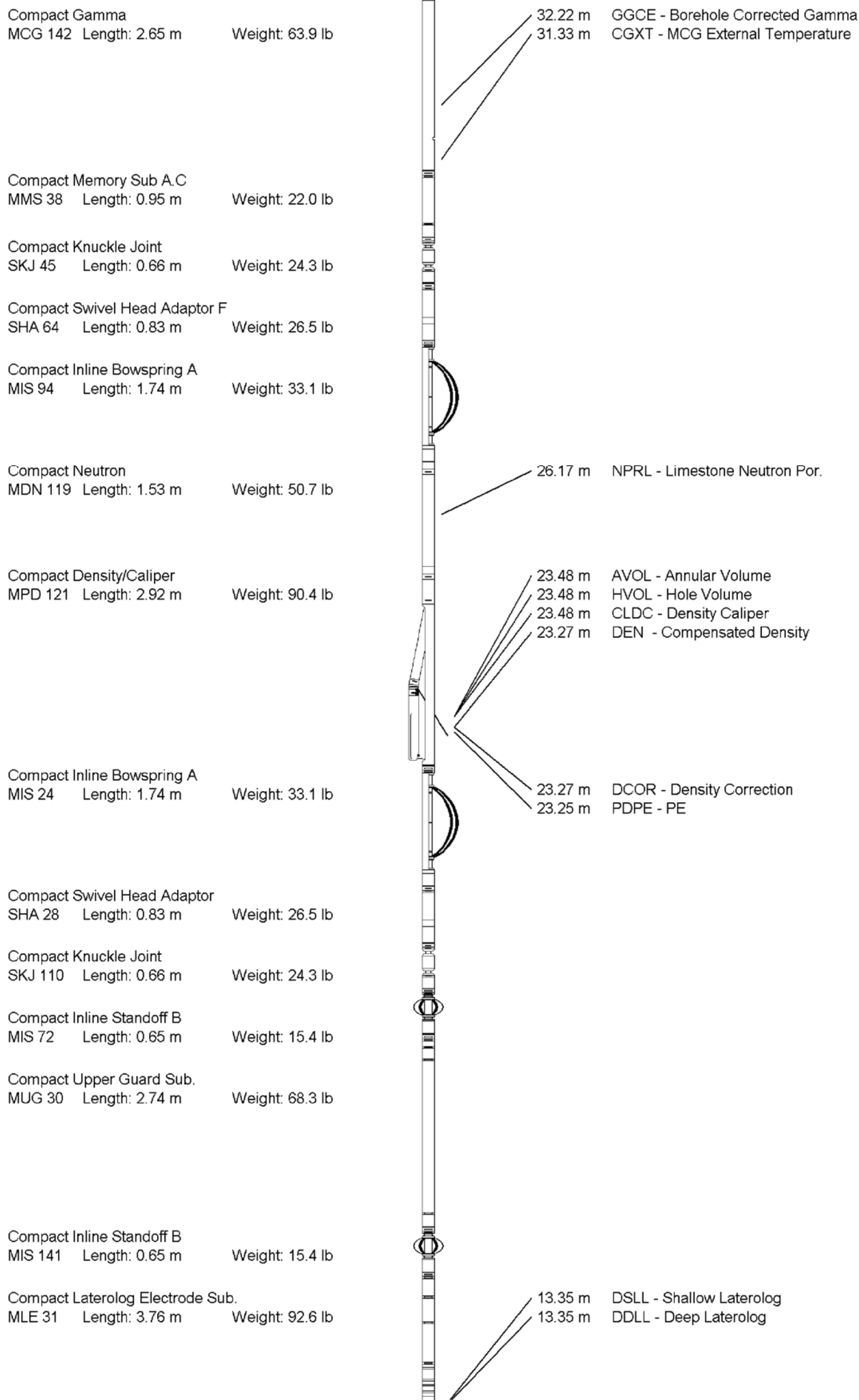
4 9 14

Density Caliper
inches

4 9 14







Compact Inline Standoff B
MIS 127 Length: 0.65 m Weight: 15.4 lb

Compact Lower Guard Sub.
MLG 11 Length: 2.44 m Weight: 55.1 lb

Compact Inline Standoff B
MIS 129 Length: 0.65 m Weight: 15.4 lb

Compact Sonic
MSS 66 Length: 3.82 m Weight: 72.8 lb

Compact Inline Standoff B
MIS 128 Length: 0.65 m Weight: 15.4 lb

Compact Induction
MAI 39 Length: 3.29 m Weight: 48.5 lb

Induction Standoff
HFS 4 Length: 0.40 m Weight: 6.6 lb

Total Length: 54.01 m Weight: 1239.0 lb



Tool Zero (0.44m from bottom)

All measurements relative to tool zero.

BEFORE SURVEY CALIBRATION

C:\Program Files\Precision\PreView\Precision PreView\ADA FB Vp filter.dta

General Constants All 000

Last Edited on 23-SEP-2005,22:35

General Parameters

Mud Resistivity	0.154	ohm-metres
Mud Resistivity Temperature	25.000	degrees C
Water Level	0.000	metres
Density/Neutron Processing	Wet Hole	

Hole/Annular Volume and Differential Caliper Parameters

HVOL Caliper 1	Density Caliper	
HVOL Caliper 2	Density Caliper	
Annular Volume Diameter	4.500	inches
Caliper for Differential Caliper	Density Caliper	

Rwa Parameters

Porosity used	Base Density Porosity
Resistivity used	Deep Induction
RWA Constant A	0.610
RWA Constant M	2.150

SP Calibration MCG 142

Field Calibration on 11-AUG-2005,02:45

	Measured	Calibrated (mV)
Reference 1	1575.0	1575.0
Reference 2	-1575.0	-1575.0

Gamma Calibration MCG 142

Field Calibration on 5-SEP-2005 23:01

	Measured	Calibrated (API)
Background	12	8
Calibrator (Gross)	1377	917
Calibrator (Net)	1365	909

Gamma Constants MCG 142

Last Edited on 23-SEP-2005,09:01

Gamma Calibrator Number	060	
Mud Density	1.22	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

High Resolution Temperature Calibration MCG 142

Field Calibration on 5-SEP-2005,23:01

	Measured	Calibrated(Deg C)
Lower	0.00	0.00
Upper	100.00	100.00

High Resolution Temperature Constants MCG 142

Pre-filter Length	11
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Neutron Calibration MDN 119

Base Calibration on 29-AUG-2005 10:25

Field Check on 5-SEP-2005 23:55

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	3014	92	3714	110
Ratio	32.750		33.764	

Field Calibrator at Base

	Calibrated (cps)
	1652 2362
Ratio	0.700

Field Check

	Calibrated (cps)
	1688 2391
Ratio	0.706

Neutron Constants MDN 119

Last Edited on 23-SEP-2005,09:02

Neutron Source Id	NSN-E-739	
Neutron Jig Number	NEC-C-052	
Epithermal Neutron	No	
Caliper Source for Processing	Density Caliper	
Stand-off	0.00	inches
Mud Density	1.22	gm/cc
Limestone Sigma	7.10	cu
Sandstone Sigma	4.26	cu
Dolomite Sigma	4.70	cu
Formation Pressure Source	None	
Formation Pressure	N/A	kpsi
Temperature Source	MCG External Temperature	
Temperature	N/A	degrees C
Mud Salinity	41.60	kppm
Formation Fluid Salinity Source	None	
Formation Fluid Salinity	N/A	kppm
Barite Mud Correction	Not Applied	

Caliper Calibration MPD 121

Base Calibration on 28-AUG-2005 12:50

Field Calibration on 5-SEP-2005 23:48

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	13771	4.01
2	23304	5.99
3	33232	7.98
4	43152	9.94
5	54512	12.01
6	N/A	N/A

Field Calibration		Measured Caliper (in)		Actual Caliper (in)	
		7.98		7.98	
Photo Density Calibration MPD 121				Base Calibration on 28-AUG-2005 13:10 Field Check on 5-SEP-2005 23:45	
Density Calibration					
Base Calibration		Measured		Calibrated (sdu)	
		Near	Far	Near	Far
Reference 1		48651	17848	53111	19310
Reference 2		22977	2933	24951	2530
Field Check at Base					
		1319.5	1672.9		
Field Check					
		1319.2	1667.5		
PE Calibration					
Base Calibration		Measured		Calibrated	
	WS	WH	Ratio	Ratio	
Background	237	1176			
Reference 1	16056	48462	0.335	0.320	
Reference 2	6122	22823	0.272	0.273	
Field Check at Base					
	236.9	1175.9			
Field Check					
	236.6	1175.4			
Density Constants MPD 121				Last Edited on 23-SEP-2005,09:02	
Density Source Id		NSD-L-242			
Nylon Calibrator Number		DNC-D-536			
Aluminium/Fe Calibrator Number		DAC-D-526			
Density Shoe Profile		4 inch			
Caliper Source for Processing		Density Caliper			
PE Correction to Density		Not Applied			
Mud Density		1.22	gm/cc		
Mud Density Z/A Correction		1.11			
Mud Filtrate Density		1.00	gm/cc		
Dry Hole Mud Filtrate Density		1.00	gm/cc		
DNCT		0.00	gm/cc		
CRCT		0.00	gm/cc		
Matrix Density (gm/cc)		Depth (m)			
	2.71	0.00			
	0.00	0.00			
	0.00	0.00			
	0.00	0.00			
	0.00	0.00			
	0.00	0.00			
	0.00	0.00			
	0.00	0.00			
SP Calibration MLE 031					
		Measured		Calibrated (mV)	
Reference 1		1628.7		1626.0	
Reference 2		-1625.0		-1626.0	
Laterolog Calibration MLE 031				Base Calibration on 27-AUG-2005 11:17 Field Check on 6-SEP-2005,01:10	
Base Calibration					
		Measured		Calibrated (ohm-m)	
Channel	Resistor 1	Resistor 2	Resistor 1	Resistor 2	
Shallow	9.8	976.8	13.2	1321.0	
Deep	9.8	977.0	7.5	755.0	
Groningen	9.8	977.4	8.5	854.0	
Channel	Base Check (ohm-m)		Field Check (ohm-m)		
Shallow	48.6		48.6		
Deep	27.8		27.8		
Groningen	251.4		251.4		
Laterolog Constants MLE 031				Last Edited on 27-AUG-2005,11:33	

Squasher Start	40000	ohm-m
Shallow Laterolog K Factor	1.3210	
Deep Laterolog K Factor	0.7550	
Groningen Laterolog K Factor	0.8540	
Interference Rejection	50 Hz	
SP Connection	SP Bridle Electrode	
Groningen Connection	Groningen Electrode	
Borehole Correction Constants		
Stand-off	0	
Caliper Source	0	
Hole Size	0.000	0
Mud Resistivity Source	0	
Temp. for Rm Corr.	0	

Sonic Constants MSS 066				Last Edited on 23-SEP-2005,09:04	
Maximum Boundary Contrast	328.08	micro-sec/m			
Fluid Transit Time	620.08	micro-sec/m			
Limestone Transit Time	155.84	micro-sec/m			
Sandstone Transit Time	182.09	micro-sec/m			
Dolomite Transit Time	142.72	micro-sec/m			
Sonic used for Porosities	3-5' Compensated Sonic				
Correction for Sonde Skew	Applied				
Cycle Stretch Algorithm	Applied				
MN3FT	N/A	micro-sec			
MX3FT	N/A	micro-sec			
Fixed Gate Parameters					
Start Time (micro-sec)	End Time (micro-sec)	Discriminator (mV)		N/A	
N/A	N/A	N/A		N/A	
N/A	N/A	N/A		N/A	
N/A	N/A	N/A		N/A	
N/A	N/A	N/A		N/A	
N/A	N/A	N/A		N/A	
Down Hole Fixed Gate Parameters					
Gate Start	N/A	micro-sec			
Gate Width	N/A	micro-sec			
Initial Discriminator Level	0.0000	mVolts			
Full Waveform Parameters					
Use 3' Waveform to derive TR	No				
Use 4' Waveform to derive TR	No				
Use 5' Waveform to derive TR	No				
Use 6' Waveform to derive TR	No				
3' Waveform Discriminator Level	0.45	mV			
4' Waveform Discriminator Level	0.45	mV			
5' Waveform Discriminator Level	0.35	mV			
6' Waveform Discriminator Level	0.35	mV			
3' Waveform Filter	None				
4' Waveform Filter	None				
5' Waveform Filter	None				
6' Waveform Filter	None				
Semblance Level	0.50				
Semblance Window Width	120.00	micro-sec			
Sonic 1 Despiker	328.08	micro-sec/m			
Sonic 2 Despiker	328.08	micro-sec/m			

High Resolution Temperature Calibration MAI 039				Field Calibration on 5-SEP-2005,22:49	
	Measured	Calibrated(Deg C)			
Lower	0.00	0.00			
Upper	100.00	100.00			


High Resolution Temperature Constants MAI 039			
Pre-filter Length	11		

Induction Calibration MAI 039				Base Calibration on 10-JUN-2005 20:00	
				Field Check on 5-SEP-2005 22:49	
Base Calibration					
Test Loop Calibration		Measured		Calibrated (mmho/m)	
Channel	Low	High	Low	High	
1	15.5	457.6	9.3	966.2	
2	5.1	365.2	7.6	821.4	
3	2.3	249.2	5.2	566.0	

4	1.3	128.5	2.6	279.2
Array Temperature	23.4	Deg C		
Channel	Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High
1	15.7	3966.3	15.2	3965.1
2	33.2	3693.6	33.0	3693.5
3	31.8	3170.9	31.6	3170.8
4	21.3	2148.3	21.2	2148.3
Deep	19.4	2040.9	19.4	2040.6
Medium	46.5	4204.9	46.4	4204.9
Shallow	49.6	5497.9	49.3	5497.9
Array Temperature	13.9		11.1	Deg C

Induction Constants MAI 039			Last Edited on 23-SEP-2005,09:05	
Induction Model		ENHANCED		
Caliper for Borehole Corr.		Density Caliper		
Hole Size for Borehole Correction		N/A	inches	
Stand-off		1.00	inches	
Number of Fins on Stand-off		6.0000		
Stand-off Fin Width		0.5000	inches	
Borehole Corr. Rm Source		Temperature Corr		
Temp. for Rm Corr.		0		
Squasher Start		0.0020	mhos/metre	
Borehole Normalisation				
DRM1	0.0000	DRC1		0.0000
DRM2	0.0000	DRC2		0.0000
MRM1	0.0000	MRC1		0.0000
MRM2	0.0000	MRC2		0.0000
SRM1	0.0000	SRC1		0.0000
SRM2	0.0000	SRC2		0.0000
Calibration Site Corrections				
Channel 1		0.00	mmhos/metre	
Channel 2		0.00	mmhos/metre	
Channel 3		0.00	mmhos/metre	
Channel 4		0.00	mmhos/metre	
Apparent Porosity and Water Saturation Constants				
Archie Constant (A)		1.00		
Cementation Exponent (M)		2.00		
Saturation Exponent (N)		2.00		
Saturation of Water for Apor		100.00	percent	
Resistivity of Water for Apor and Sw		0.05	ohm-m	
Resistivity of Mud Filtrate for Sw		0.00	ohm-m	

COMPANY	ESSO AUSTRALIA PTY LTD		
WELL	BREAM A22A ST		
FIELD	BREAM		
PROVINCE/COUNTY	BASS STRAIT		
COUNTRY/STATE	AUSTRALIA		
Elevation Kelly Bushing		metres	First Reading
Elevation Drill Floor	32.82	metres	Depth Driller
Elevation Ground Level	-59.40	metres	Depth Logger
			3342.80 metres
			3364.00 metres
			3356.10 metres

		Vp Vs Slowness Log	
		Compensated Sonic	
		1:200 MD	