



PRECISION
ENERGY SERVICES

COMPENSATED SONIC

Compact

1:500 TVD

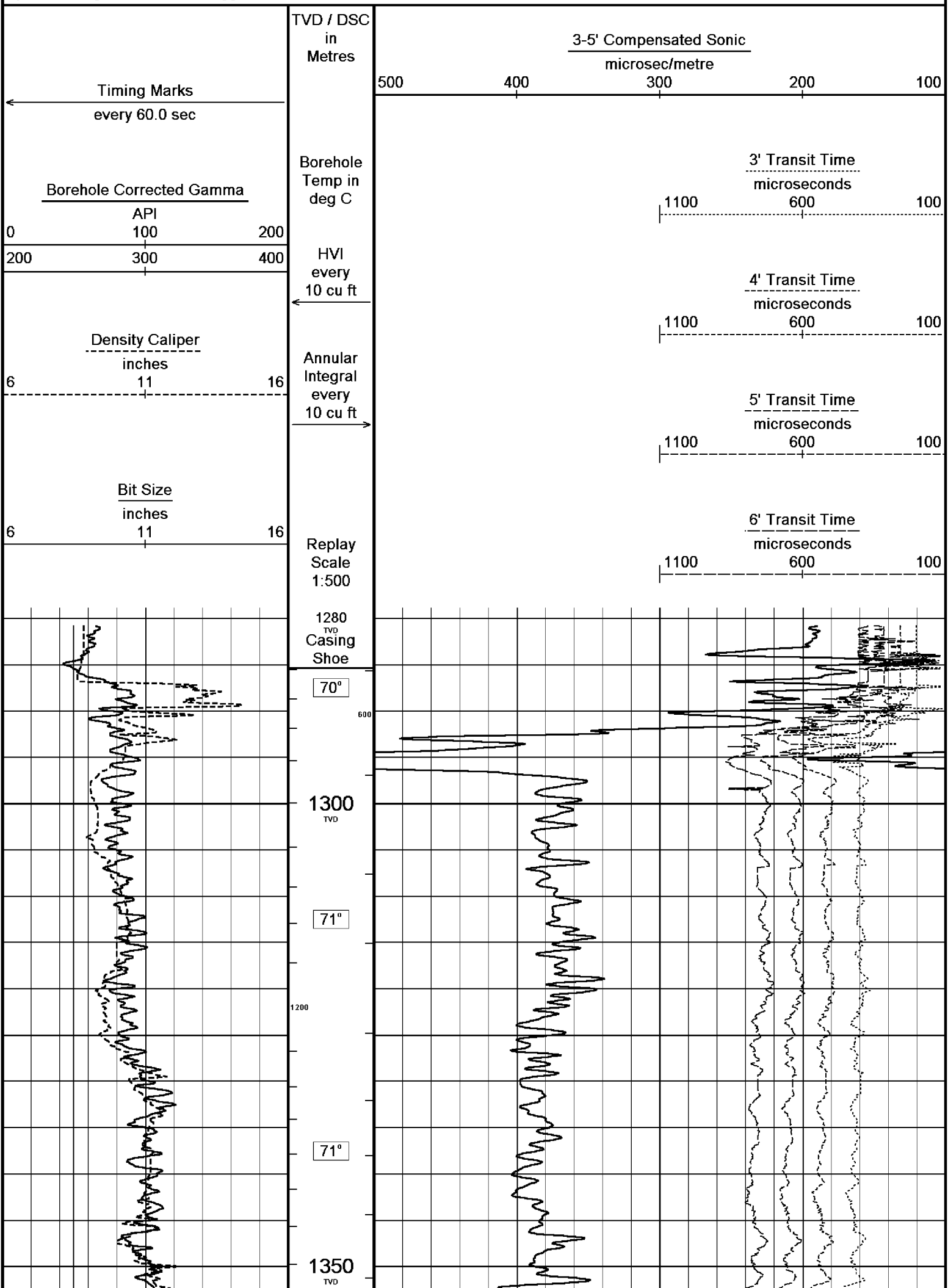
COMPANY	ESSO AUSTRALIA PTY LTD			
WELL	BREAM A1A			
FIELD	BREAM			
PROVINCE/COUNTY	BASS STRAIT			
COUNTRY/STATE	AUSTRALIA			
LOCATION	S 38 29 58.755, E 147 46 19.983 N 5738462.460 m, E 567336.500 m			
	FIELD PRINT			
LSD	SEC	TWP	RGE	Other Services
				DUAL LATEROLOG PHOTO DENSITY
API Number	COMPENSATED NEUTRON			
Permit Number				
Permanent Datum MSL	, Elevation 0.0 metres			
Log Measured From RT @ 32.82 M	above Permanent Datum			
Drilling Measured From RT				
Date	08-Nov-2005			Elevations: KB DF 32.82 metres GL -59.40 metres
Run Number	ONE			
Depth Driller	2032.00			metres
Depth Logger	2031.01			metres
First Reading	2025.78			metres
Last Reading	1280.89			metres
Casing Driller	1285.33			metres
Casing Logger	1285.33			metres
Bit Size	8.50			inches
Hole Fluid Type	KCL/GYL/POLY			
Density / Viscosity	10.10 lb/USg			69.00 CP
PH / Fluid Loss	9.00			3.00
Sample Source	FLOWLINE			
Rm @ Measured Temp	0.113 @ 25.0			ohm-m
Rmf @ Measured Temp	0.088 @ 25.0			ohm-m
Rmc @ Measured Temp	0.168 @ 25.0			ohm-m
Source Rmf / Rmc	PRESS			PRESS
Rm @ BHT	0.053 @ 79.0			ohm-m
Time Since Circulation	22 Hours			
Max Recorded Temp	82.00			deg C
Equipment Name	5" CWS/CML			
Equipment / Base	1			SALE
Recorded By	R. TENCH, B. MOSS			
Witnessed By	TREVOR LOBO			
CIRC STOPPED	15:30 7-NOV			

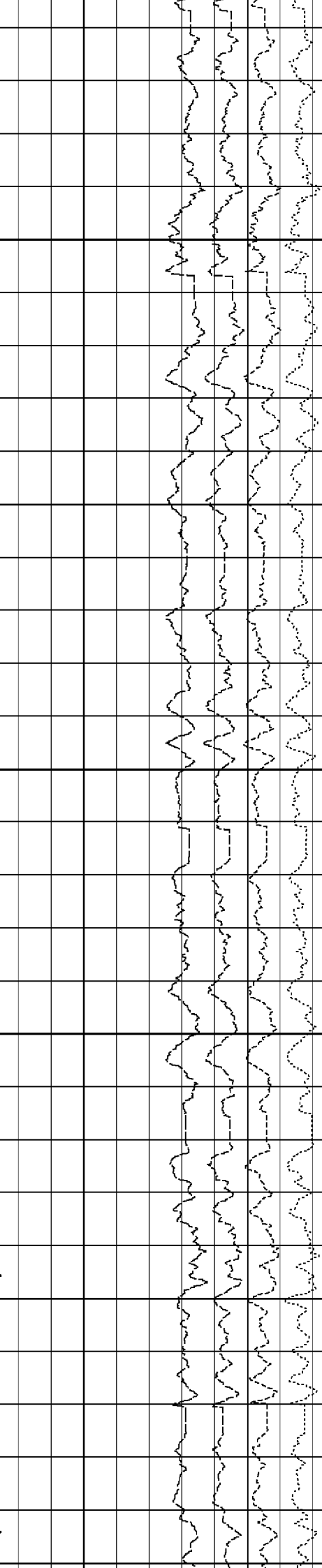
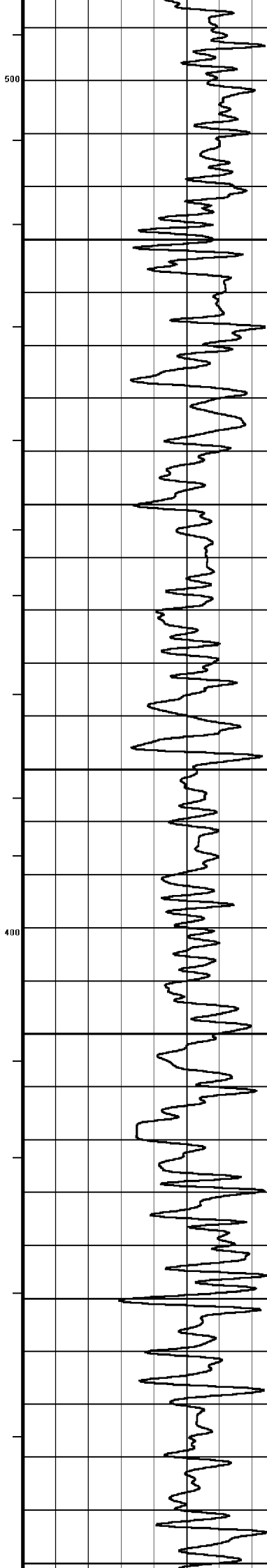
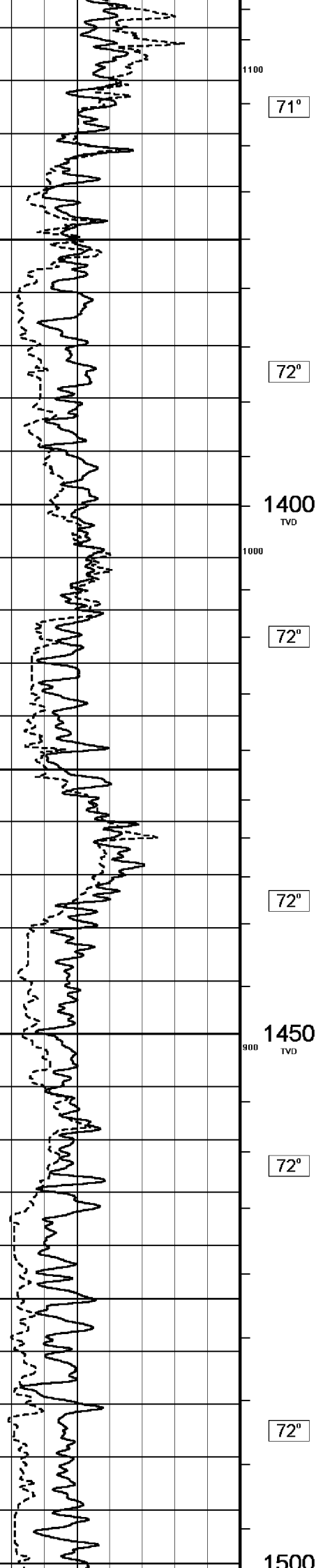
BOREHOLE RECORD		
Bit Size inches	Depth From metres	Depth To metres
8.500	1496.00	2294.00

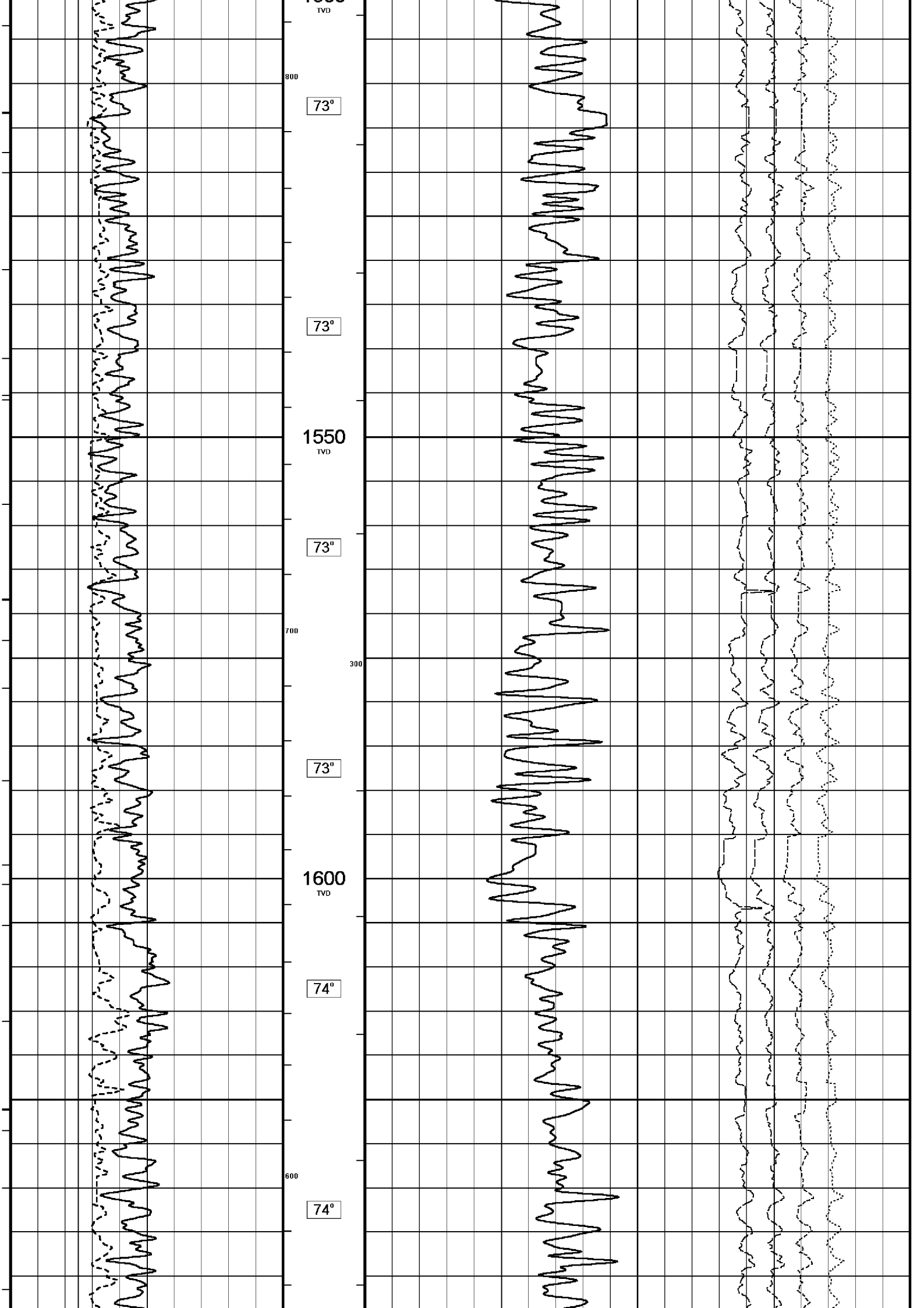
CASING RECORD				
Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
K-55	13.375	0.00	853.00	54.50
L-80	9.625	0.00	1496.00	47.00

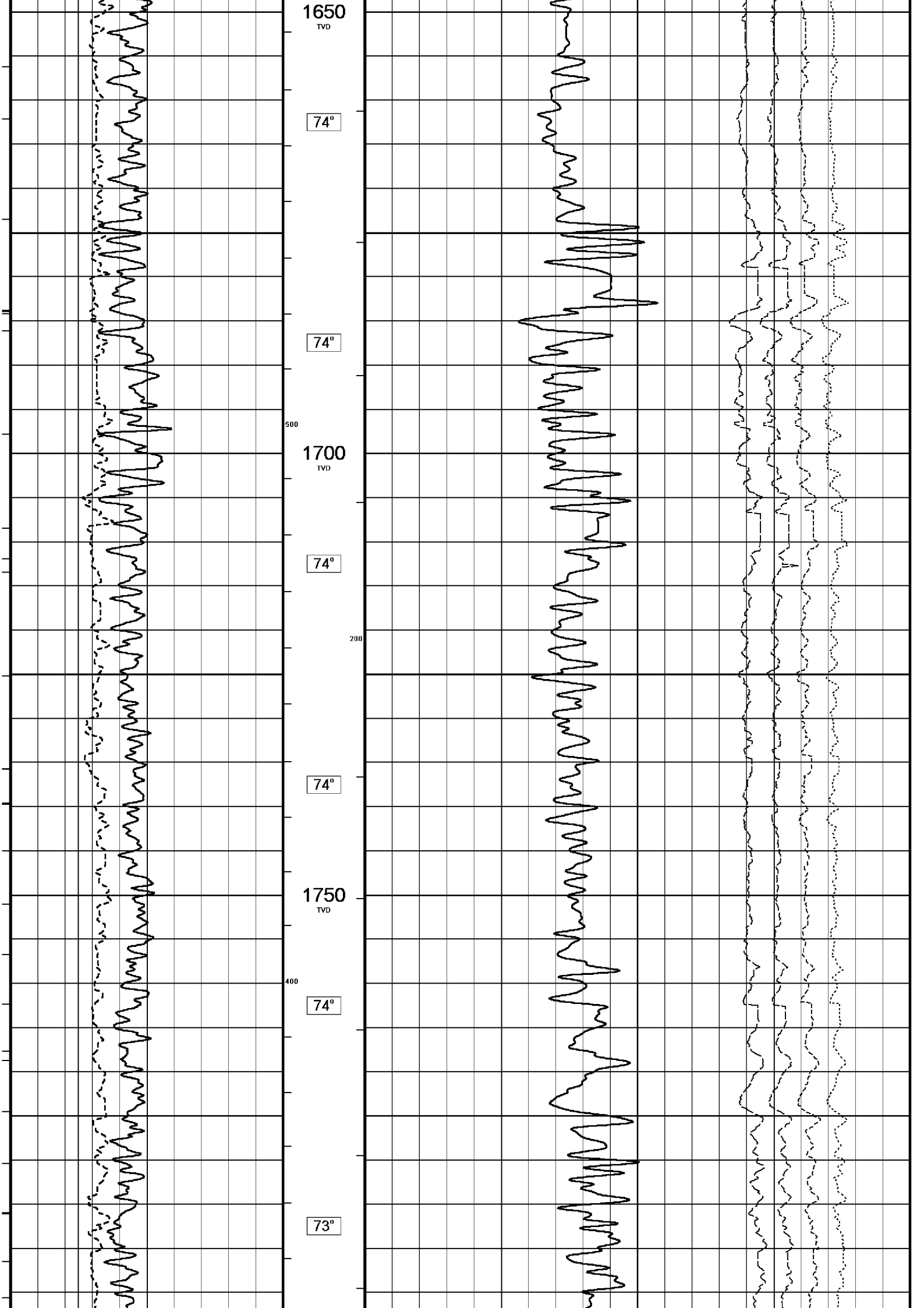
REMARKS
RIG: NABORS 453
5" SHUTTLE/MEMORY COMPACT OPERATION. CREW: R TENCH , B MOSS , B GOODWIN, M KOLCZE.
FIELD FINAL LOGS TO BE CORRELATED TO ANADRILL GAMMA LOG.
MAX. TEMPERATURE: 82DEG C AT 2249 m MD MAX. INCLINATION: 43.98 DEG AT 1500m MD MAX. DOGLEG SERVERITY: 7.58DEG/30m AT 1561.54 m MD DEPLOYMENT ANGLE: 14.45 DEG
HVOL: 1290 FT^3 AVOL: 610 FT^3

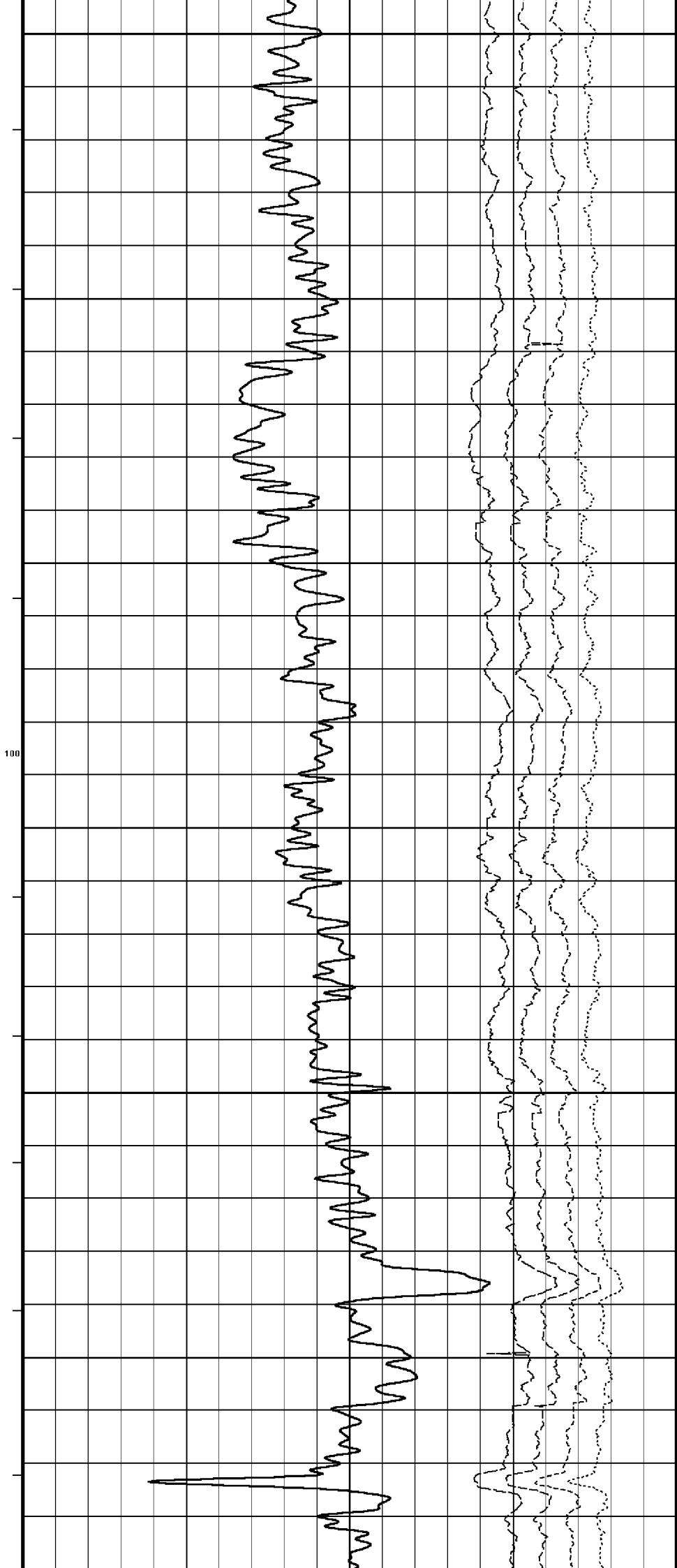
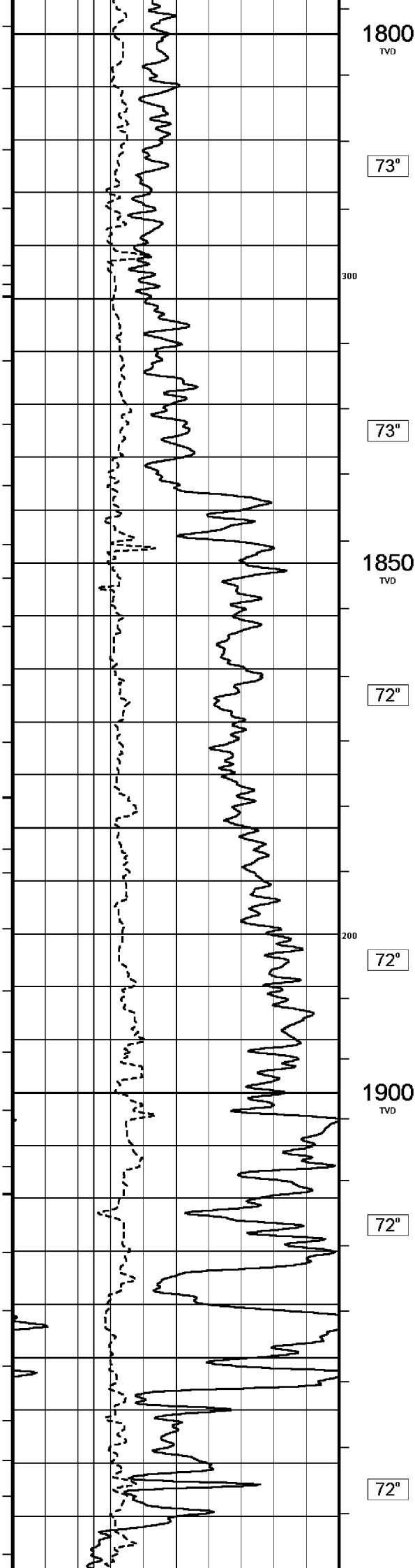
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, 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.

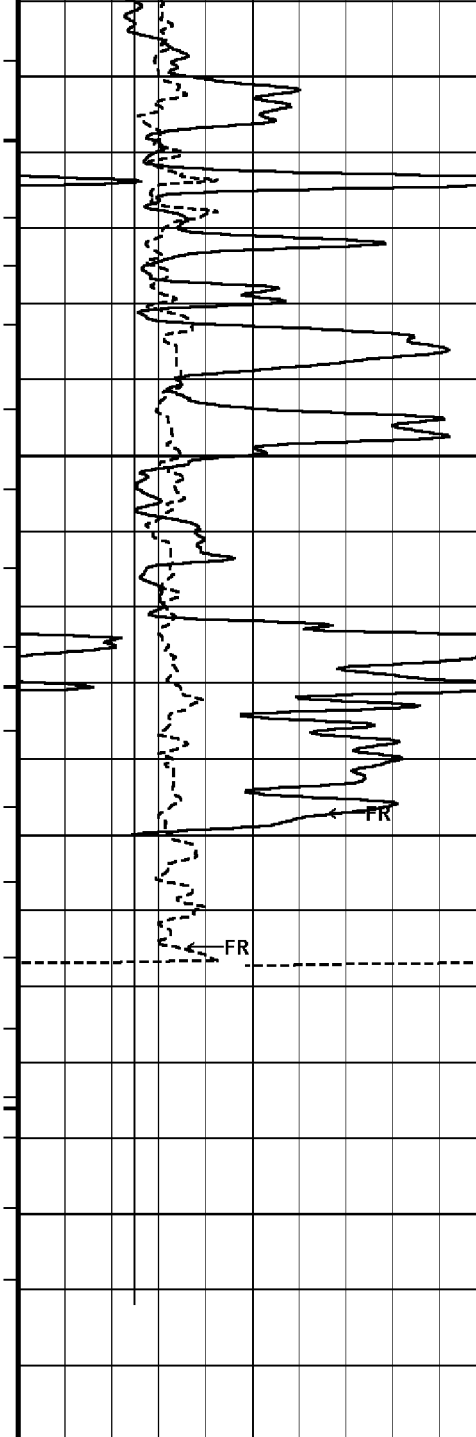












1950
TVD

74°

79°

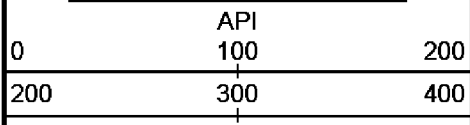
2000
TVD

2039
TVD

TVD / DSC
in
Metres

Timing Marks
every 60.0 sec

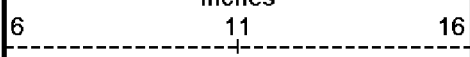
Borehole Corrected Gamma



Borehole
Temp in
deg C

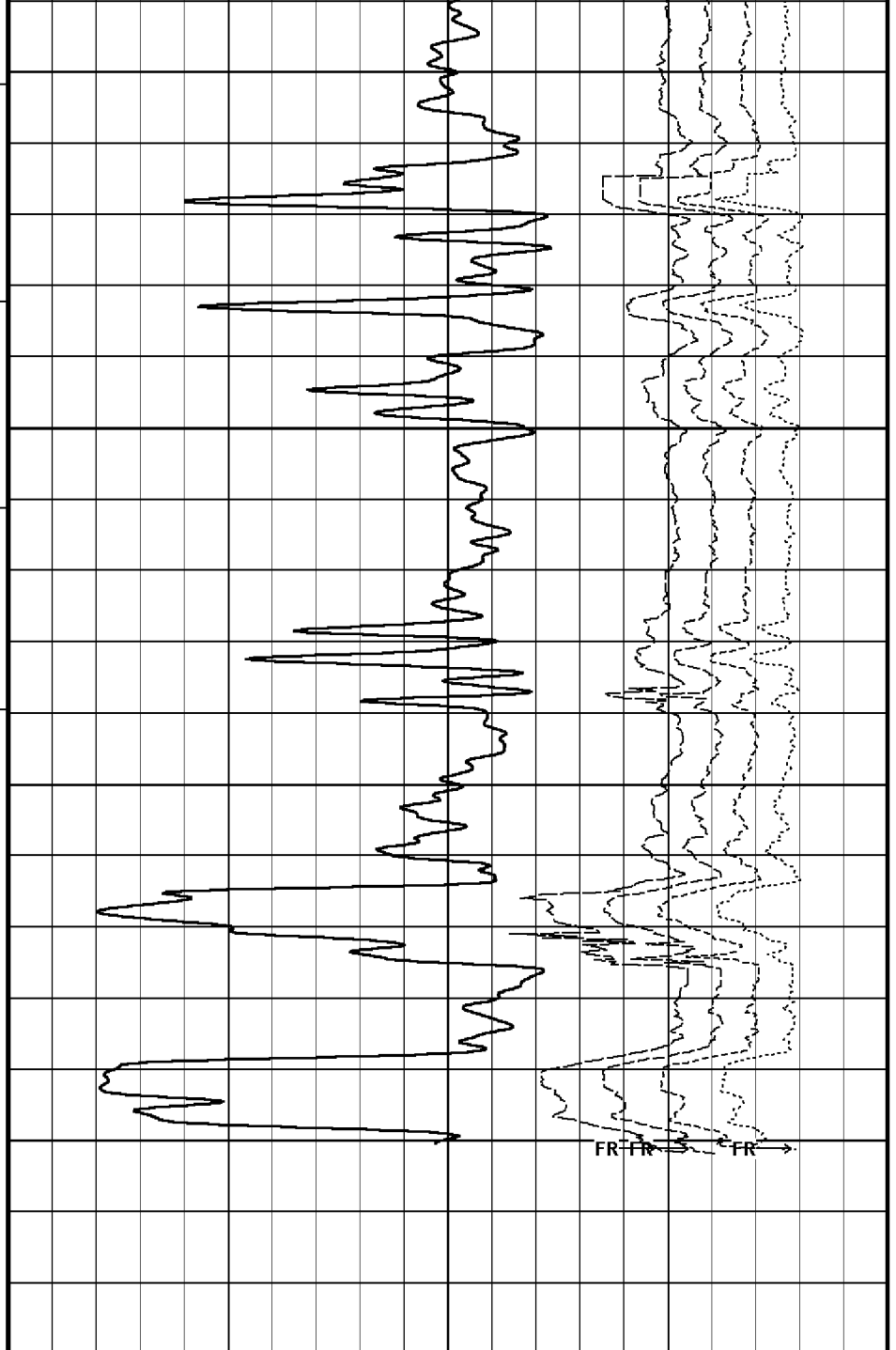
HVI
every
10 cu ft

Density Caliper
inches

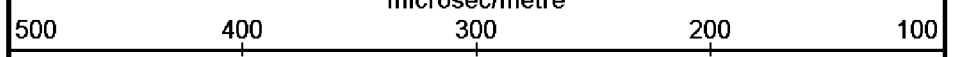


Annular
Integral
every
10 cu ft

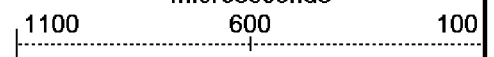
Bit Size



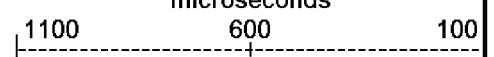
3-5' Compensated Sonic
microsec/metre



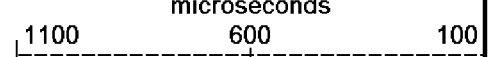
3' Transit Time
microseconds



4' Transit Time
microseconds



5' Transit Time
microseconds



Bit Size

inches

6 11 16

Replay
Scale
1:500

6' Transit Time

microseconds

1100 600 100

Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 09-NOV-2005 04:22

Filename: C:\logs\BMA_A1A\BMA_A1A_TC_200.dta

Recorded on 08-NOV-2005 21:51

System Configuration Dates: Logged 17-JUN-2004: Processed 17-JUN-2004: Plotted 17-JUN-2004:



MAIN LOG 1:500



BEFORE SURVEY CALIBRATION

C:\logs\BMA_A1A\BMA_A1A_TC_200.dta

General Constants All 000

General Parameters

Mud Resistivity	0.113	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	7.000	inches
Caliper for Differential Caliper	None	

Rwa Parameters

Porosity used	Limestone Sonic Porosity
Resistivity used	Deep Induction
RWA Constant A	0.610
RWA Constant M	2.150

High Resolution Temperature Calibration MCG 142

Field Calibration on 7-NOV-2005,03:12

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

High Resolution Temperature Constants MCG 142

Pre-filter Length	11
-------------------	----

Gamma Calibration MCG 142

Field Calibration on 7-NOV-2005 03:17

	Measured	Calibrated (API)
Background	21	14
Calibrator (Gross)	1367	923
Calibrator (Net)	1346	909

Gamma Constants MCG 142

Gamma Calibrator Number	060	
Mud Density	1.21	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Centred	
Concentration of KCl	0.00	kppm

Caliper Calibration MPD 083

Base Calibration on 28-OCT-2005 18:13

Field Calibration on 7-NOV-2005 03:20

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	13616	4.01
2	21847	5.99
3	30336	7.98
4	38762	9.94
5	47872	12.01
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.94	7.98

Sonic Constants MSS 066

Maximum Boundary Contrast	100.00	micro-sec/ft
Fluid Transit Time	189.00	micro-sec/ft
Limestone Transit Time	47.50	micro-sec/ft
Sandstone Transit Time	55.50	micro-sec/ft
Dolomite Transit Time	43.50	micro-sec/ft
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	100.00	micro-sec/ft
Sonic 2 Despiker	100.00	micro-sec/ft

DOWNHOLE EQUIPMENT

C:\logs\BMA_A1A\BMA_A1A_TC_200.dta

Compact Swivel Head Adaptor F
SHA 71 Length: 0.83 m Weight: 26.5 lb

Compact Knuckle Joint
SKJ 100 Length: 0.66 m Weight: 24.3 lb

Compact Battery Sub.
MBS 99 Length: 4.41 m Weight: 44.1 lb

Compact Inline Standoff B
MIS 73 Length: 0.65 m Weight: 15.4 lb

Compact Stiff Bridle Electrode Sub.
MBE 18 Length: 3.76 m Weight: 94.8 lb



Compact Inline Standoff B
MIS 138 Length: 0.65 m Weight: 15.4 lb

Compact Stiff Bridle Electrode Sub.
MBE 19 Length: 3.76 m Weight: 94.8 lb

Compact Inline Standoff B
MIS 136 Length: 0.65 m Weight: 15.4 lb

MBE21 - THIRD BRIDLE
MLK 111 Length: 3.76 m Weight: 30.9 lb

Compact Inline Standoff B
MIS 133 Length: 0.65 m Weight: 15.4 lb

Compact Gamma
MCG 142 Length: 2.65 m Weight: 63.9 lb

32.63 m GGCE - Borehole Corrected Gamma
31.75 m CGXT - MCG External Temperature

Compact Memory Sub A.C
MMS 38 Length: 1.37 m Weight: 30.9 lb

Compact Knuckle Joint
SKJ 45 Length: 0.66 m Weight: 24.3 lb

Compact Swivel Head Adaptor F
SHA 64 Length: 0.83 m Weight: 26.5 lb

Compact Inline Bowspring A
MIS 94 Length: 1.74 m Weight: 33.1 lb

Compact Neutron
MDN 85 Length: 1.53 m Weight: 50.7 lb

Compact Density/Caliper
MPD 83 Length: 2.92 m Weight: 90.4 lb

23.48 m AVOL - Annular Volume
23.48 m HVOL - Hole Volume
23.48 m CLDC - Density Caliper

Compact Inline Bowspring A
MIS 24 Length: 1.74 m Weight: 33.1 lb

Compact Swivel Head Adaptor
SHA 28 Length: 0.83 m Weight: 26.5 lb

Compact Knuckle Joint
SKJ 110 Length: 0.66 m Weight: 24.3 lb

Compact Inline Standoff B
MIS 72 Length: 0.65 m Weight: 15.4 lb

Compact Upper Guard Sub.
MUG 30 Length: 2.74 m Weight: 68.3 lb

Compact Inline Standoff B
MIS 141 Length: 0.65 m Weight: 15.4 lb

Compact Laterolog Electrode Sub.
MLE 31 Length: 3.76 m Weight: 92.6 lb

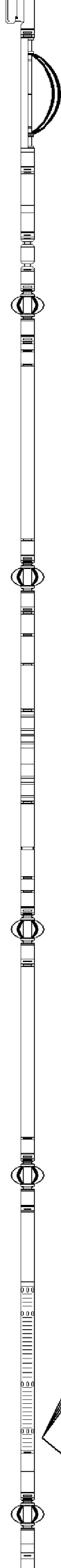
Compact Inline Standoff B
MIS 127 Length: 0.65 m Weight: 15.4 lb

Compact Lower Guard Sub.
MLG 7 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 126 Length: 0.65 m Weight: 15.4 lb



4.60 m TR21 - 3' Transit Time
4.60 m TR12 - 6' Transit Time
4.60 m TR22 - 5' Transit Time
4.60 m TR11 - 4' Transit Time

4.60 m DT35 - 3-5' Compensated Sonic

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

Pressure Bung + Hole Finder
HFS 4 Length: 0.40 m Weight: 6.6 lb

Total Length: 54.43 m Weight: 1201.5 lb



Tool Zero
(0.44m from bottom)

All measurements relative to tool zero.

COMPANY	ESSO AUSTRALIA PTY LTD
WELL	BREAM A1A
FIELD	BREAM
PROVINCE/COUNTY	BASS STRAIT
COUNTRY/STATE	AUSTRALIA

Elevation Kelly Bushing		metres	First Reading	2025.78	metres
Elevation Drill Floor	32.82	metres	Depth Driller	2032.00	metres
Elevation Ground Level	-59.40	metres	Depth Logger	2031.01	metres



COMPENSATED SONIC
1:500 TVD