

Reeves

PHOTO DENSITY COMPENSATED NEUTRON 1:500 TVD

COMPANY				ESSO AUSTRALIA PTY. LTD.			
WELL				TUNA A10a			
FIELD				GIPPSLAND BASIN			
PROVINCE/COUNTY				BASS STRAIT			
COUNTRY/STATE				AUSTRALIA			
LOCATION				AMG X 624224.99m E AMG Y 5774222.49m N LAT:38°10'16.394"S LONG:148°25'05.413"E			
LSD	SEC	TWP	RGE	Other Services COMPENSATED SONIC DUAL LATEROLOG			
API Number							
Permit Number							
Permanent Datum MSL				, Elevation 0 metres			
Log Measured From 31.32, Metres				above Permanent Datum			
Drilling Measured From Drill Floor, RT							
Date	12-OCT-2002			Elevations:			
Run Number	1			KB	31.32	metres	
Depth Driller	1446.70			DF	-59.40	metres	
Depth Logger	1446.70			GL		metres	
First Reading	1445.00						
Last Reading	1346.00						
Casing Driller	625.90						
Casing Logger							
Bit Size	8.50						
Hole Fluid Type	KCL PHPA						
Density / Viscosity	10.30 lb/USg		57.00				
PH / Fluid Loss	8.90		3.40	ml/30Min			
Sample Source	FLOWLINE						
Rm @ Measured Temp	0.126 @ 25.0					ohm-m	
Rmf @ Measured Temp	0.097 @ 25.0					ohm-m	
Rmc @ Measured Temp	0.191 @ 25.0					ohm-m	
Source Rmf / Rmc	PRESS			FILTER			
Rm @ BHT	0.07 @ 63.0					ohm-m	
Time Since Circulation	0.65 HRS						
Max Recorded Temp	63.00					deg C	
Equipment Name	SHUTTLE						
Equipment / Base	1			CML			
Recorded By	MATT BARNES						
Witnessed By	BRUCE MENZEL						
Last Title							

BOREHOLE RECORD

Bit Size inches	Depth From metres	Depth To metres
8.500	661.20	2312.00

CASING RECORD

Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
	9.625	0.00	661.20	40.00

REMARKS

DRILLING RIG: NABORS (ISDL) RIG 453.

COMPACT WIRELINE TOOLS DEPLOYED BY COMPACT WELL SHUTTLE TECHNIQUE.

MESSENGER DEPLOYED WITH HALLIBURTON CEMENT PUMP, MESSENGER DEPLOYED AT 14:35 12-OCT.
RING SHEARED AT 15:08 12-OCT.

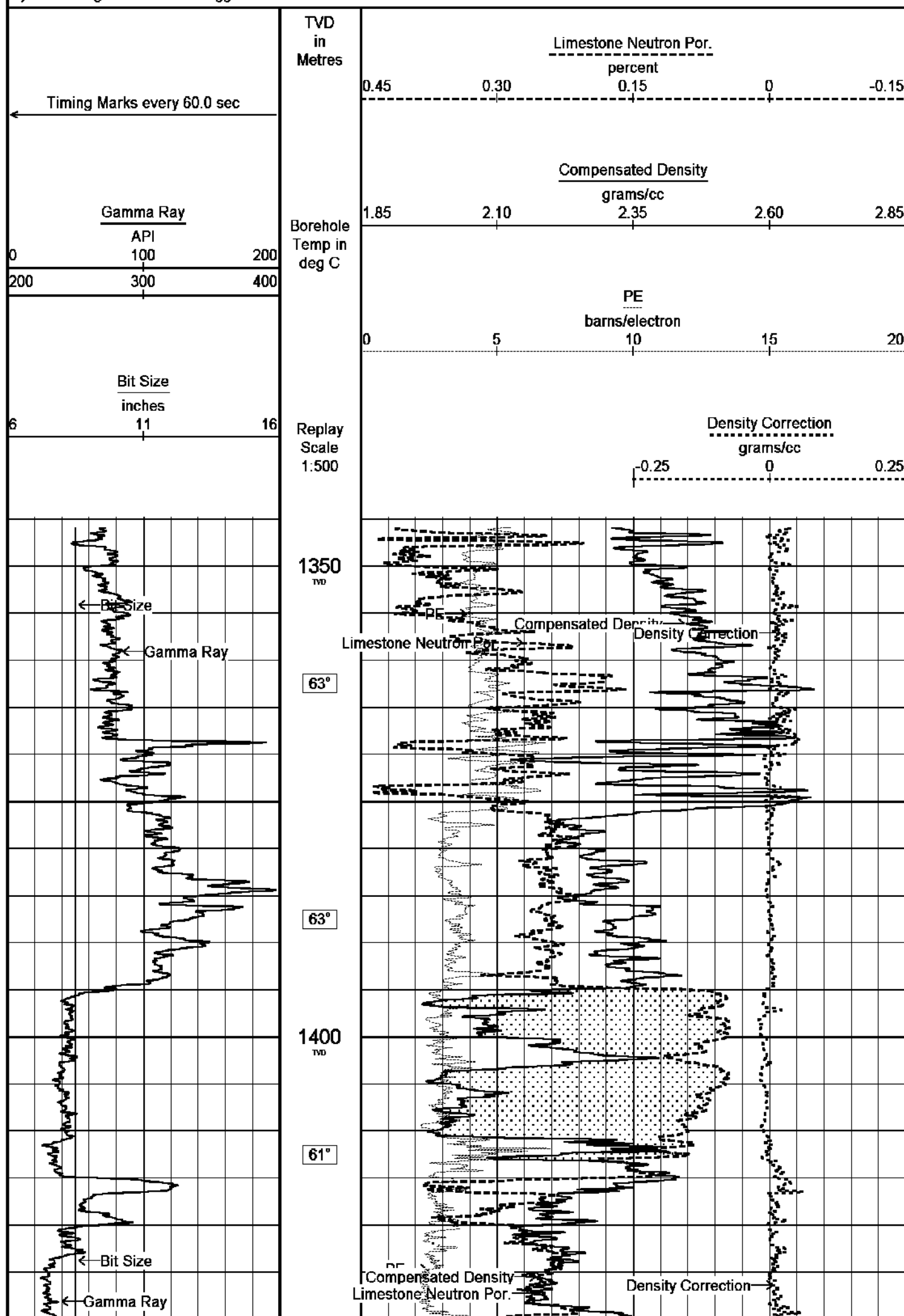
DENSITY CALIPER DID NOT OPEN, LOGS PROCESSED USING BITSIZE FOR CALIPER CORRECTIONS.

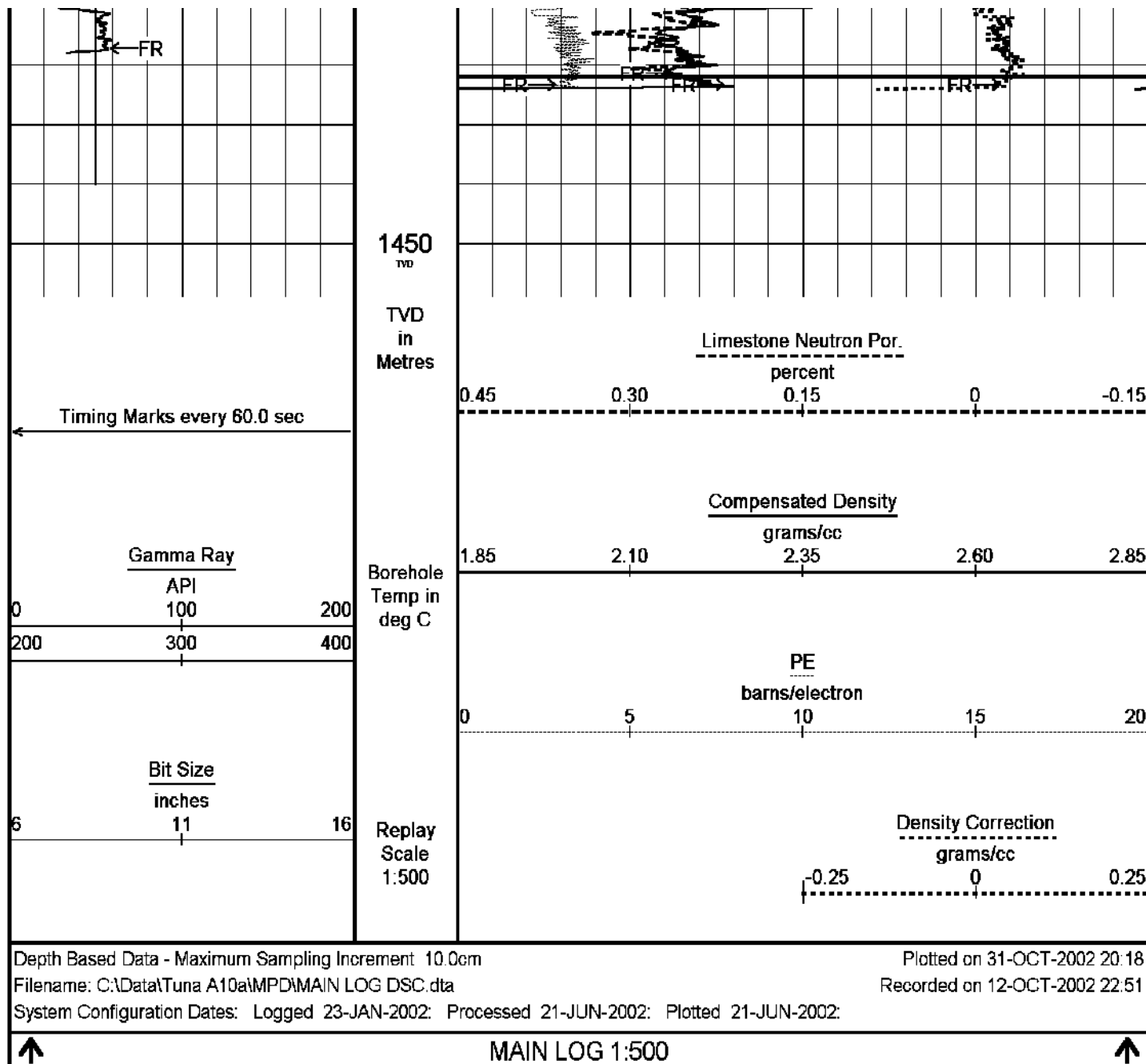
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

MAIN LOG 1:500

Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 31-OCT-2002 20:18





BEFORE SURVEY CALIBRATION

C:\Data\Tuna A10a\MPD\MAIN LOG DSC.dta

General Constants All 000

General Parameters

Mud Resistivity 0.07 ohm-metres
Mud Resistivity Temperature 63.00 degrees C
Water Level 0.00 metres
Density/Neutron Processing Wet Hole

Hole/Annular Volume Parameters

HVOL Caliper 1 Density Caliper
HVOL Caliper 2 None
Annular Volume Diameter 7.00 inches

Rwa Parameters

Porosity used Base Density Porosity
Resistivity used Deep Laterolog
RWA Constant A 0.61
RWA Constant M 2.15

Gamma Calibration MCG 044

Field Calibration on 10-OCT-2002 15:55

	Measured	Calibrated (API)
Background	12	8
Calibration (Green)	44.40	0.17

Calibrator (Gross)	1440	517
Calibrator (Net)	1428	909
Gamma Constants MCG 044		
Gamma Calibrator Number	060	
Mud Density	1.24	gm/cc
Caliper Source for Processing	Bit Size	
Tool Position	Centred	
Concentration of KCl	0.00	kppm
High Resolution Temperature Calibration MCG 044		
	Measured	Calibrated(Deg C)
Lower	1.00	1.00
Upper	150.00	150.00
High Resolution Temperature Constants MCG 044		
Pre-filter Length	11	
Neutron Calibration MDN 068		
		Field Calibration on 4-SEP-2002,14:58
Base Calibration		
	Measured	Calibrated (cps)
	Near Far	Near Far
	2771 85	3714 110
Ratio	32.600	33.764
Field Calibrator at Base		Calibrated (cps)
		2438 3603
Ratio		0.677
Field Check		Calibrated (cps)
		1904 2750
Ratio		0.693
Neutron Constants MDN 068		
Neutron Source Id	724	
Neutron Jig Number	52	
Epithermal Neutron	No	
Caliper Source for Processing	Bit Size	
Stand-off	0.00	inches
Mud Density	1.24	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	52.00	kppm
Formation Fluid Salinity Source	Constant Value	
Formation Fluid Salinity	0.00	kppm
Barite Mud Correction	Not Applied	
Photo Density Calibration MPD 066		
		Base Calibration on 4-SEP-2002,14:39
		Field Check on 10-OCT-2002 16:08
Density Calibration		
Base Calibration	Measured	Calibrated (sdu)
	Near Far	Near Far
Reference 1	54289 19473	53282 19349
Reference 2	25469 2619	25298 2555
Field Check at Base		
	997.0 1172.6	
Field Check		
	995.7 1165.6	
PE Calibration		
Base Calibration	Measured	Calibrated
	WS WH Ratio	Ratio
Background	191 873	
Reference 1	17342 54106 0.322	0.318

Reference 2	6938	25336	0.276	0.273
-------------	------	-------	-------	-------

Field Check at Base

191.1	872.9
-------	-------

Field Check

190.3	872.2
-------	-------

Density Constants MPD 066

Density Source Id	226	
Nylon Calibrator Number	517	
Aluminium/Fe Calibrator Number	517	
Density Shoe Profile	4 inch	
Caliper Source for Processing	Bit Size	
Gamma Strip Coefficient	0.00	
PE Correction to Density	Not Applied	
Mud Density	1.24	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

DOWNHOLE EQUIPMENT

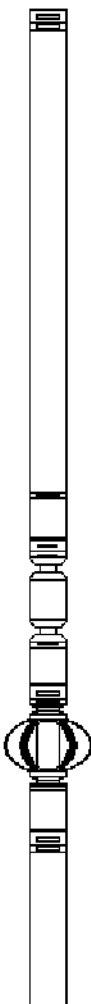
All measurements relative to tool zero.

Compact Battery Sub.
MBS 99 Length: 4.34 m Weight: 44.09 lb

Compact Knuckle Joint
SKJ 47 Length: 0.66 m Weight: 24.25 lb

Compact Inline Standoff
MIS 52 Length: 0.65 m Weight: 30.86 lb

Compact Stiff Bridle Electrode Sub.
MBE 9 Length: 3.76 m Weight: 94.80 lb



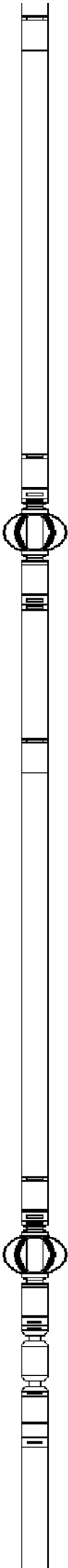
Compact Inline Standoff
MIS 77 Length: 0.65 m Weight: 30.86 lb

Compact Stiff Bridle Electrode Sub.
MBE 5 Length: 3.76 m Weight: 94.80 lb

Compact Inline Standoff
MIS 31 Length: 0.65 m Weight: 30.86 lb

Compact Knuckle Joint
SKJ 44 Length: 0.66 m Weight: 24.25 lb

Compact Gamma
MCG 44 Length: 2.65 m Weight: 63.93 lb



Compact Knuckle Joint
SKJ 46 Length: 0.66 m Weight: 24.25 lb

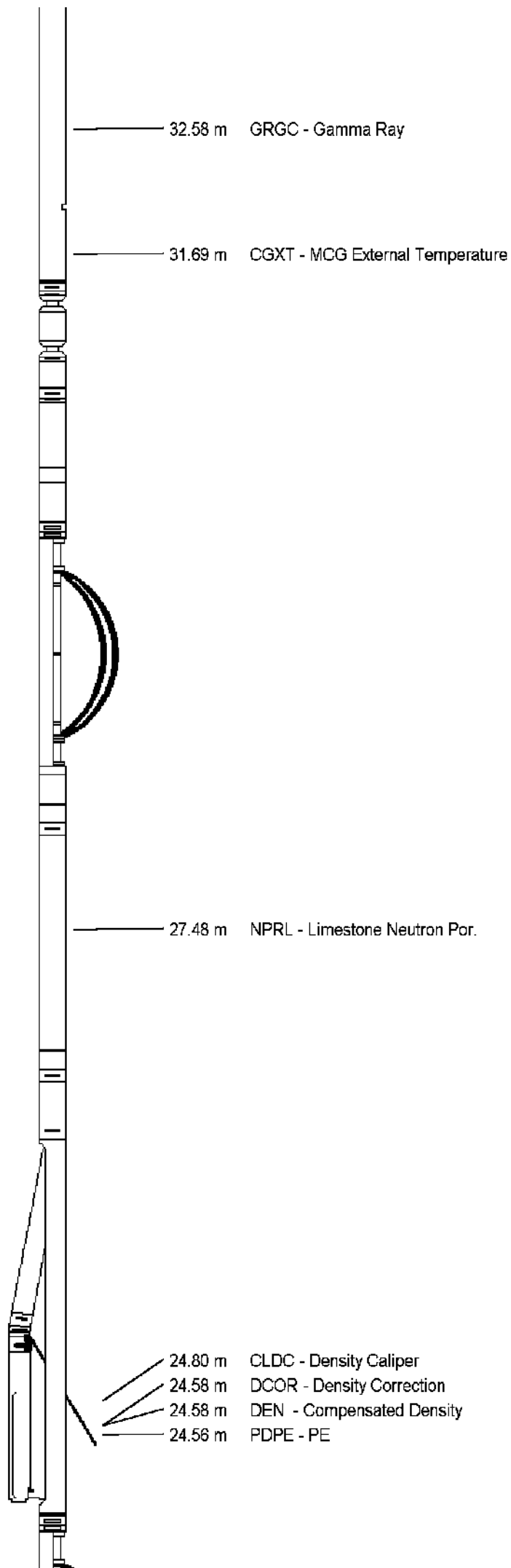
Compact Swivel Head Adaptor
SHA 27 Length: 0.83 m Weight: 26.46 lb

Compact Inline Bowspring
MIS 24 Length: 1.74 m Weight: 33.07 lb

Compact Neutron
MDN 68 Length: 1.53 m Weight: 50.71 lb

Compact Density/Caliper
MPD 66 Length: 2.92 m Weight: 90.39 lb

Compact Inline Bowspring



MIS 25 Length: 1.74 m Weight: 33.07 lb

Compact Swivel Head Adaptor
SHA 28 Length: 0.83 m Weight: 26.46 lb

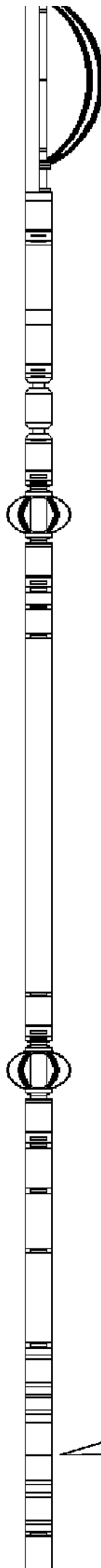
Compact Knuckle Joint
SKJ 45 Length: 0.66 m Weight: 24.25 lb

Compact Inline Standoff
MIS 53 Length: 0.65 m Weight: 30.86 lb

Compact Upper Guard Sub.
MUG 17 Length: 2.74 m Weight: 68.34 lb

Compact Inline Standoff
MIS 49 Length: 0.65 m Weight: 30.86 lb

Compact Laterolog Electrode Sub.
MLE 15 Length: 3.76 m Weight: 92.59 lb



14.66 m DSLL - Shallow Laterolog
14.66 m DGLL - Groningen Laterolog



--	--	--

0 0 0

000

000

000

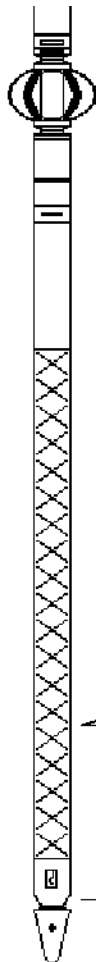
- 4.60 m DT35 - 3-5' Compensated Sonic

Compact Inline Standoff
MIS 30 Length: 0.65 m

Weight: 30.86 lb

Compact Induction
MAI 69 Length: 3.29 m

Weight: 48.50 lb



0.79 m

RILM - Medium Induction

0.79 m

RILD - Deep Induction

Tool Zero

(0.65m from bottom)

Compact Hole Finder
HFS 99 Length: 0.61 m

Weight: 2.20 lb

Total Length: 49.93 m

Total Weight: 1296.32 lb

COMPANY	ESSO AUSTRALIA PTY. LTD.
WELL	TUNA A10a
FIELD	GIPPSLAND BASIN
PROVINCE/COUNTY	BASS STRAIT
COUNTRY/STATE	AUSTRALIA

Elevation Kelly Bushing		metres	First Reading	1445.00	metres
Elevation Drill Floor	31.32	metres	Depth Driller	1446.70	metres
Elevation Ground Level	-59.40	metres	Depth Logger	1446.70	metres

Reeves

PHOTO DENSITY
COMPENSATED NEUTRON
1:500 TVD