

DEPT. NAT. RES & ENV  
**BAKER HUGHES INTEQ**  
 PE600437

COMPANY : BHP PETROLEUM PTY LTD

WELL : MINERVA-2  
 FIELD : OTWAY BASTIN  
 REGION :  
 COORDINATES : 38 deg 43' 04.3" S  
 142 deg 57' 19.9" E

API INDEX :  
 SPUD DATE : 18th September 1993  
 ELEVATION : RKB-SL = 25.0m  
 SL-SF = 85.0m

TOTAL DEPTH :  
 CONTRACTOR : Dolphin Offshore

RIG : Byford Dolphin  
 TYPE : Semi-Submersible

LOG INTERVAL  
 DEPTH FROM : 85.0m TO : 560.0m  
 DATE FROM : 18/09/93 TO : 20/09/93  
 SCALE : 1:500 UNIT : 503  
 CREW : D. Alsop, V. Surla

HOLE SIZE  
 36.0" TO 120.0m  
 26.0" TO 560.0m  
 TO  
 TO  
 TO

CASING RECORD  
 30.0" AT 120.0m  
 AT  
 AT  
 AT  
 AT

MUD TYPES  
 Sea-water/Hi-Vis sweeps TO 560.0m  
 TO  
 TO

LITHOLOGY SYMBOLS  
 Limestone Dolomite No Returns Fossil  
 Coal and Lignite Claystone Shale Siltstone  
 Sandstone Conglomerate Chert Volcanics

EXLOG SUITE  
 Formation Evaluation Log Pressure Data Log  
 Drilling Data Log Well Progress Log  
 Pressure Gradient Analysis Log MWD Data Log

ABBREVIATIONS  
 NR NEW BIT SVG SURVEY GAS  
 RR RETURN BIT C CARBIDE TEST  
 CR CORP BIT W MUD DENSITY LOG  
 MDR MDR ON BIT V FUNNELL VISCOSITY  
 RPM RPM PER MINUTE F FILTERATE APT  
 FLC FLOW CHECK FC FILTER CARR  
 CR CIRCULATE RETURNS PV PLASTIC VISCOSITY  
 PR POOR RETURNS YP YIELD POINT  
 NR NO RETURNS SOL SOLIDS %  
 LAT LOGGED AFTER TRIP SD SAND %  
 BG BACKGROUND GAS S SALINITY PPM  
 TG TRIP GAS RM MUD RESISTIVITY  
 STG SHORT TRIP GAS RMF MUD FILTRATE  
 CG CONNECTION GAS  
 SG SWAB GAS

▲ CASING SEAT  
 ▬ CORED INTERVAL ▬ TEST INTERVAL  
 ▬ UNRECOVERED ▲ CONNECTION  
 ▶ STRAWL CORE

GAS - 100 Total Gas units equivalent to 2% methane.  
 OIL - Based on live oil in unwashed and stain  
 of washed cuttings

**BAKER HUGHES INTEQ** **DRILLBYTE FORMATION EVALUATION LOG** **MINERVA - 2** **Scale 1 : 500**

RATE OF PENETRATION	DEPTH (m)	LITHOLOGY	CORE	INTERPRETED LITHOLOGY	DIRECT FLUORESCENCE	PERCENT GAS					CALC	REMARKS	
						Total Gas	Methane	Ethane	Propane	Butanes			Pentanes
WOB Avg (kib) ROP (m/hr)													
RR#1 BRC 835J 26" w/36" NO 3x24, 4x20 IN 85 35m/3.6hrs													Spud MINERVA-2 @ 20:30hrs on 18/09/93
WOB 2-17 RPM 75 PP 1100 GPM 1100													Drill with seawater and hi-vis sweeps. Returns to seabed.
18/09/93 RR#2 BRC 833B 9.875" Open Jets IN 120m 44m/11.9hrs													Drill 36" hole to 120m. Set 30" casing @ 120m.
19/09/93 RR#2 BRC 833B 9.875" Open Jets IN 120m 44m/11.9hrs													Drill 9.875" pilot hole 560m.
WOB 22.5 RPM 105 PP 350 GPM 435													Drill with seawater and hi-vis sweeps. Returns to seabed.
WOB 19.5 RPM 102 PP 350 GPM 435													Returns to seabed.
WOB 2.5 RPM 102 PP 300 GPM 435													Returns to seabed.
WOB 3.5 RPM 102 PP 280 GPM 427													Returns to seabed.
WOB 5.5 RPM 104 PP 250 GPM 427													Returns to seabed.
WOB 3.5 RPM 27 PP 310 GPM 445													Returns to seabed.
WOB 2.5 RPM 105 PP 300 GPM 435													Returns to seabed.
WOB 23.5 RPM 100 PP 470 GPM 540													Returns to seabed.
													RR#2 stuck in the hole. Part drillstring w/Schlumberger. Plug back hole, cut 30" casing. Skid rig and Spud MINERVA-2A