PE901815

15 DEC 1993

BHP Petroleum

VIC/P30
LA BELLA-1
WELL COMPLETION REPORT
BASIC DATA

BHP Petroleum

BHP PETROLEUM PTY LTD
ACN 006 918 832

VIC/P30

LA BELLA-1

WELL COMPLETION REPORT

BASIC DATA

DECEMBER 1993

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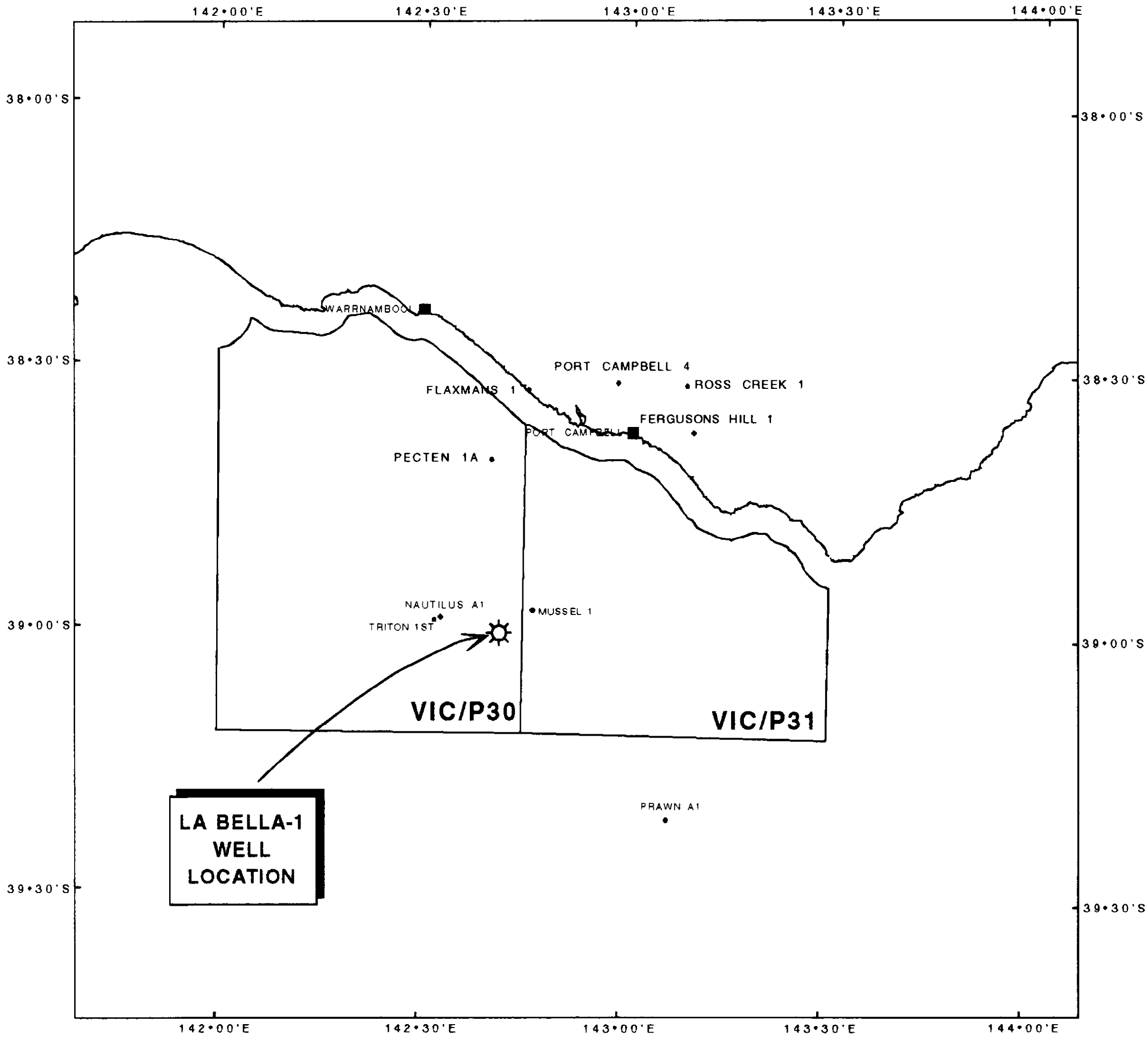

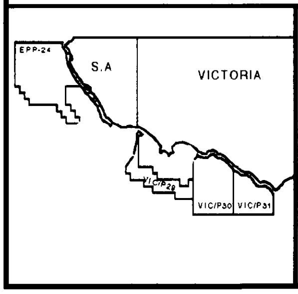

BHP Petroleum

OTWAY BASIN

FIGURE 1.0

LA BELLA-1

LOCATION MAP

AUTHOR:	DATE APR 93
DRAWN BY: TD	DWG NO: 080_V4_HG3

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1. WELL SUMMARY SHEET

Well:	La Bella-1
Permit:	VIC/P30
District:	Otway Basin
Well Path:	Vertical
Planned Location:	Lat. 39° 00' 14.30" South Long. 142° 41' 42.30" East
Actual Location:	Lat. 39° 00' 14.19" South Long. 142° 41' 42.93" East East: 646 792.21 North: 5 681 403.87 UTM 54, CM 141° East
Seismic Reference:	Line OH91-149, SP 1274
Elevation:	RT to MSL 25.3 m
Water Depth:	94.2 m (MSL to seabed)
Total Depth:	2735 mRT
Departed Last Location:	17 January 1993 00:00 hours
Spud Date:	22 January 1993 02:00 hours
Total Depth Date:	08 February 1993 04:30 hours
Days from Spud to TD:	17 days 2.5 hours
Rig Release Date:	15 February 1993 15:30 hours
Total Days on Well:	29 days 15.5 hours
Operator:	BHP Petroleum Pty Ltd
Permit Interests:	BHP Petroleum Pty Ltd 90.00% BHP Petroleum Plaza 120 Collins Street MELBOURNE VIC 3000

	Bridge Oil Ltd 255 Elizabeth Street SYDNEY NSW 2000	10.00%
Drilling Contractor:	Dolphin Drilling	
Rig:	"Byford Dolphin" Semi Submersible	
Status:	Gas Show - Plugged and abandoned	
Cost:	$ 5.9 M (from cost control)	

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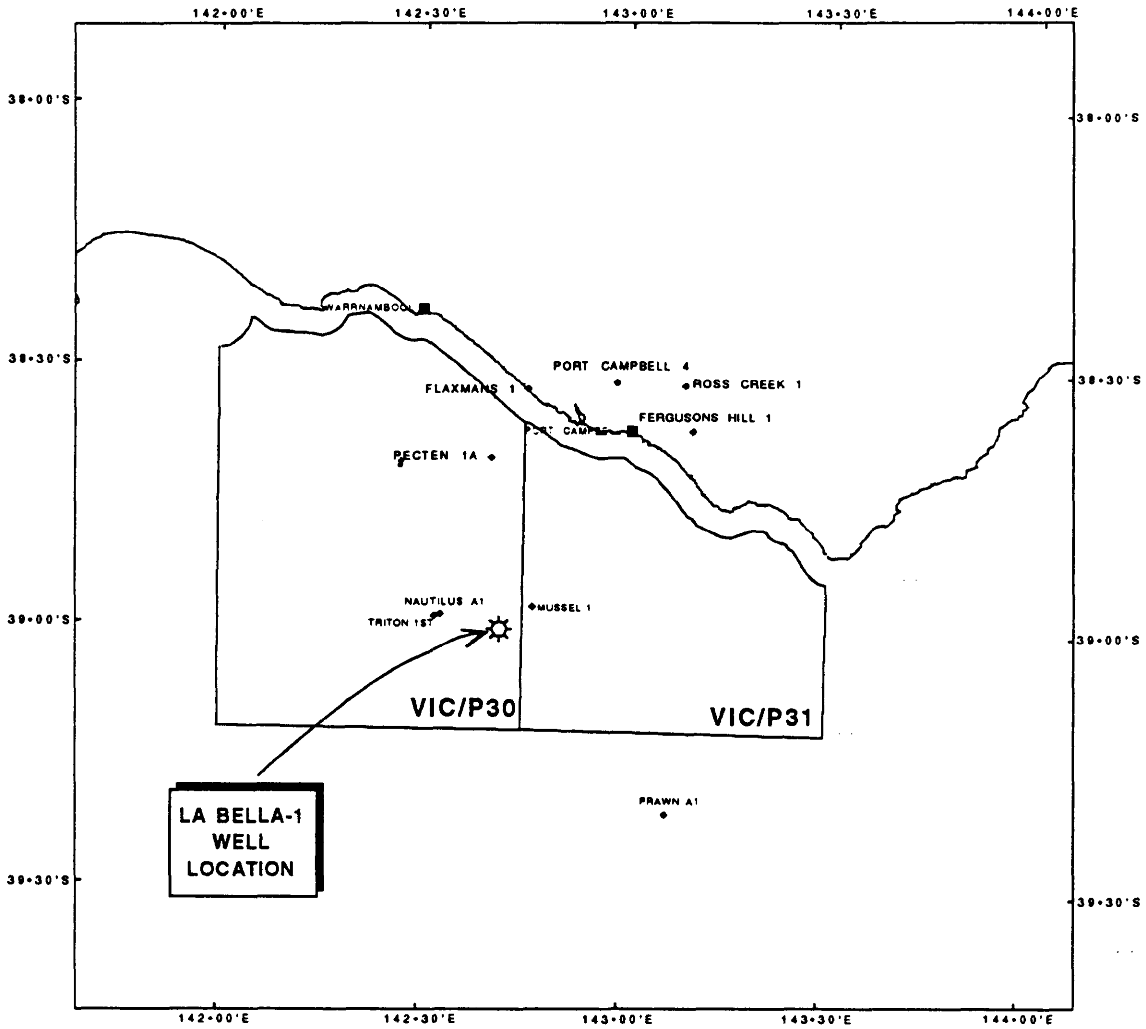
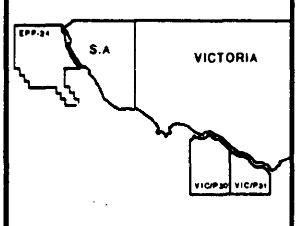
SECTION 1

Well	:	LA BELLA-1
Permit	:	VIC/P30
Designation	:	EXPLORATION
Operator	:	BHPP
Rig	:	BYFORD DOLPHIN
Type	:	SEMISUBMERSIBLE
Drilling Contractor	:	DOLPHIN DRILLING
Water Depth	:	94.2m
RT Elevation	:	25.3m
Total Depth	:	2735mMD 2735mTVD
Final Surface Location	:	Lat S 039° 00' 14.194" Long E 142° 41' 42.927" Easting 646 792.2 Northing 5 681 403.9
Location Reference Datum	:	AGD84, AMG ZONE 54 C.M. 141°E
Commencement Date	:	0000 hrs, 17 January 1993
Rig on Location	:	0012 hrs, 19 January 1993
Well Spudded	:	0200 hrs, 22 January 1993
TD Date	:	0430 hrs, 8 February 1993
Drilling Days to TD	:	17 Days, 2.5 hours
Rig Released	:	1530 hrs, 15 February 1993
Total Well Duration	:	29 Days, 15.5 hours
Status	:	ABANDONED

SERVICE	CONTRACTOR
CASING RUNNING	WEATHERFORD
CEMENT SUPPLY	HALLIBURTON
CEMENTING SERVICES	HALLIBURTON
COMMUNICATIONS	TELECOM
CORING SERVICES	DIAMANT BOART
DIRECTIONAL	SMITH
DIVING/ROV	DRILLSUPPORT
DRILLING CONT.	DOLPHIN
DRILLING FLUIDS	MILPARK
DRILLING REPORTING	MUNRO ENGINEERING
ELECTRIC LOGGING	SCHLUMBERGER
HELICOPTERS	LLOYD HELICOPTERS
JARS & SHOCK SUBS	MARETECH
MUD LOGGING	EXLOG
MWD	EASTMAN TELECO
ROLLER REAMERS	GEARHART UNITED
SOLIDS CONTROL	OILTOOLS
STANDBY VESSEL	SWIRE: PAC. MARLIN
SUPPLY VESSEL	AOS: FAR SWORD
SUPPLY VESSEL	T.WATER: BONAVISTA
WEATHER FORCASTING	OCEAN ROUTES
WELL TESTING	HRS
WELLHEAD EQUIPMENT	DRIL-QUIP
WELLHEAD SEVERANCE	AUSTOIL





BHP Petroleum

OTWAY BASIN

FIGURE 1.2
LA BELLA-1
LOCATION MAP

AUTHOR		DATE	APR 93
DRAWN BY	TD	DWG NO	080_V4_HG3

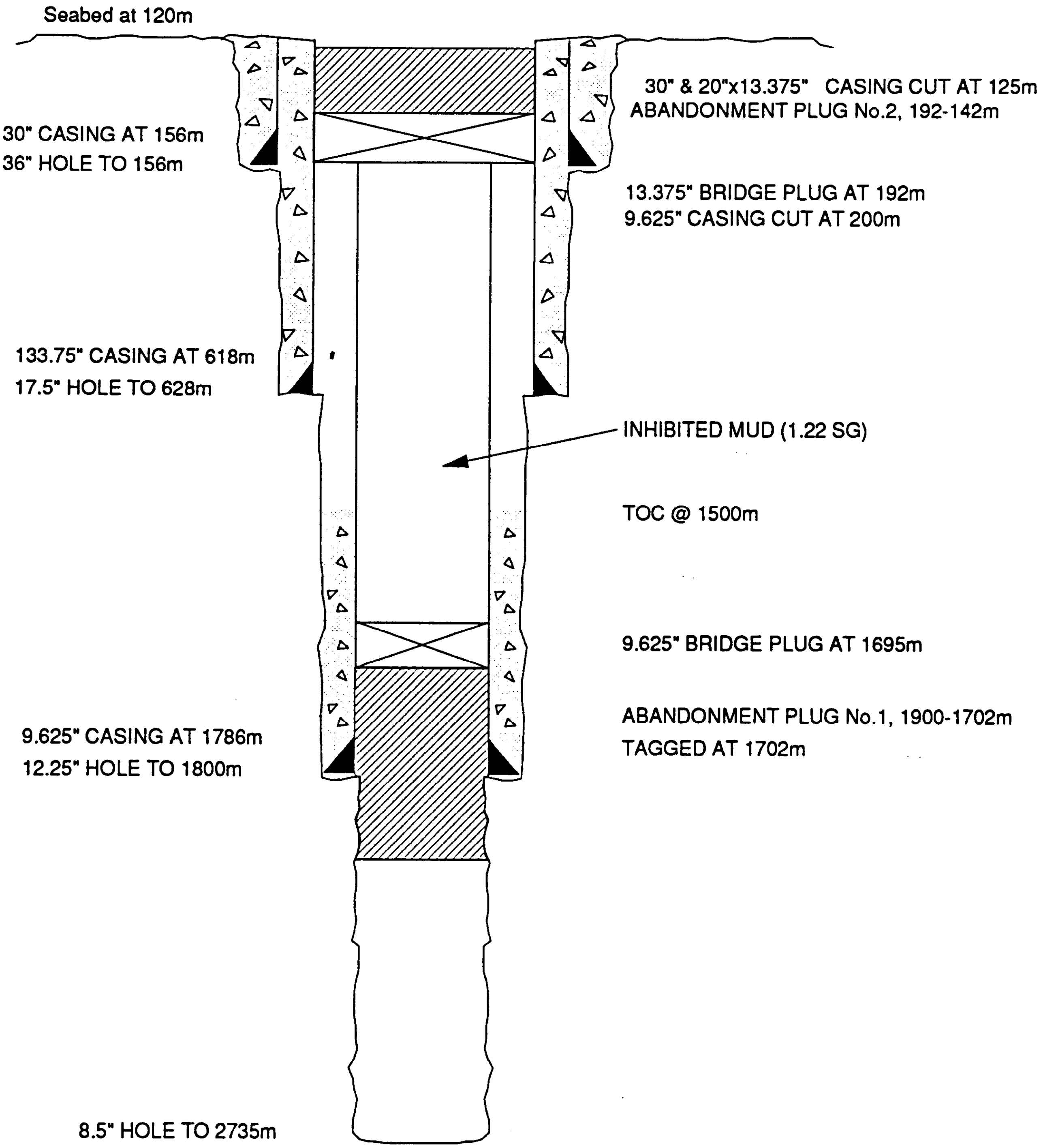
BHP Petroleum

FINAL DRILLING REPORT

WELL SCHEMATIC

LA BELLA-1

ALL DEPTHS RT BYFORD DOLPHIN



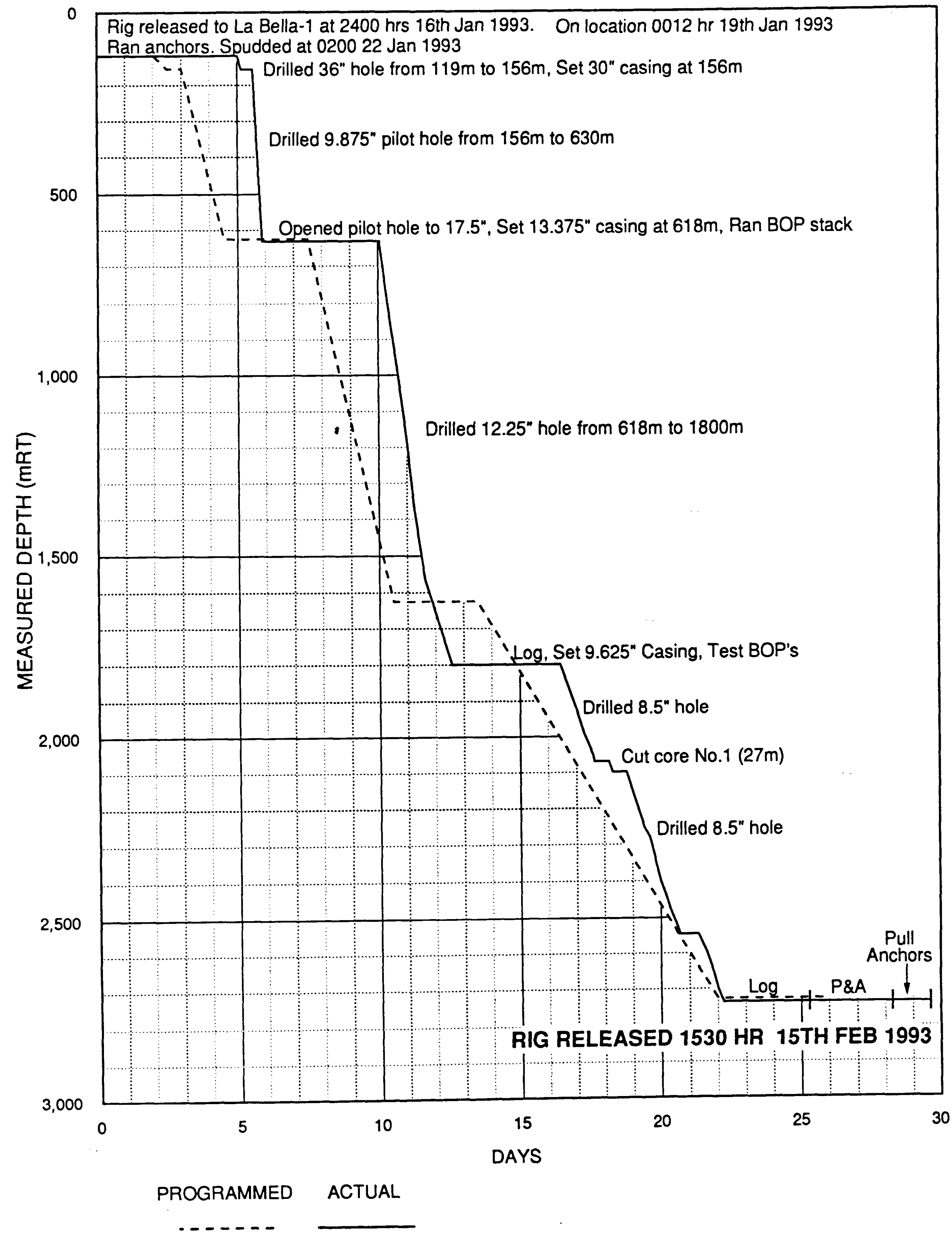
File: JB VND LAB1_WS1	Well Status: ABANDONED	Checked:	Date: 11-AUG-93

BHP Petroleum

FINAL DRILLING REPORT

1.4. TIME Vs DEPTH CURVE

LA BELLA-1



File: DB VND LAB1_TDC		Checked:	Date: 12-AUG-93

SECTION 2

The Byford Dolphin arrived at the La Bella-1 location 0012 hours, 19th January 1993 following a 45.25 hour tow from EPP-24 (Troas-1/ST1). Twelve anchors were run, however anchor no. 10 and 3 were lost due to swivel failure and operations proceeded with a ten anchor pattern. The lost anchors were subsequently recovered by end January 1993.

La Bella-1 was spudded at 0200 hours, 22nd January 1993. The 36" hole was drilled to a depth of 156mRT using a 26" bit and 36" hole opener assembly. The 30" casing was run and cemented to a depth of 156mRT. A 9⅞" pilot hole was drilled to 630mRT; no shallow gas was encountered.

The pilot hole was opened to 17½" to a depth of 628mRT. The 13⅜" casing with crossover to the 18¾" wellhead housing was run and cemented to a depth of 618mRT.
The BOP stack was run and tested and 12¼" hole drilled to 630mRT. A LOT to 1.69 SG EMW was conducted at this depth. The 12¼" hole was drilled to 1800mRT in a single bit run. Suite #1 logs were run and the 9⅝" casing run and cemented to 1786mRT.

The BOP stack was tested and 8½" hole drilled to 1803mRT. A LOT to 2.0 SG EMW was conducted at this depth. Drilling continued to 2071mRT at which point a 27m core barrel was run. A core was cut from 2071-2099mRT (100% recovery). Drilling in 8½" hole continued to a total depth 2735mRT, with drilling fluid density increases to 1.16 SG (2300mRT), 1.85G (2434mRT), and 1.22 SG (2545mRT) in response to formation water influx and connection gases. No other problems were encountered. Suite #2 logs were run, including RFT's which verified formation pressure within the Lower Shipwreck at 1.17 SG to 1.20 SG EMW.

La Bella-1 was plugged and abandoned and the Byford Dolphin rig released on 15th February 1993 at 1530 hours.

Date	Day No.	Days From Spud	From	To	Hours	Daily Operations
17/01/93	1	0	00:00	00:00	24.00	TOWED TO LA BELLA LOCATION. 77NM TO GO.
18/01/93	2			21:15	21.25	TOWED TO LA BELLA-1 LOCATION. SPEED 5.4 KNOTS. ATTEMPTED TO DROP #6 ANCHOR AT DROP POSITION.FOULED PENNANT WIRE-ABORTED RUN IN.
			21:15	00:00	2.75	RIG MADE SECOND RUN TO LOCATION FOR DROPPING #7 ANCHOR.
19/01/93	3		00:00	05:00	5.00	RAN ANCHORS
			05:00	13:15	8.25	ANCHOR HANDLING NON PRODUCTIVE TIME
			13:15	21:15	8.00	CONTINUED RUNNING ANCHORS NOTE: 1) RIG DROPPED No.7 AT 0012hrs. 2) 0105 #1 PENNANT PARTED. 3) 0620 #10 ANCHOR LOST-PARTED SHACKLE. 4) 0730 FARSWORD OFF TOW BRIDLE. 5) 1535 ANCHOR No.3 LOST 1000m OUT.
			21:15	00:00	2.75	UNABLE TO CARRY OUT WORK ON ANCHOR #1 DUE TO DARKNESS. WAIT ON DAYLIGHT. SWELL 1.5-2M.
20/01/93	4		00:00	06;30	6.50	WAIT ON WEATHER TO WORK ON #1 ANCHOR.SWELLS TO 3.5 M.
			06:30	08:15	1.75	CROSSED TENSIONED ANCHORS.
			08:15	21:15	13.00	ANCHOR HANDLING NON PRODUCTIVE TIME RECOVERED AND RECONNECTED ANCHOR No.1
			21:15	00:00	2.75	RAN No.1 ANCHOR.
21/01/93	5		00:00	02:30	2.50	CONTINUED TO CROSS TENSION ANCHORS-#2 NOT HOLDING
			02:30	14:15	11.75	RECOVERED AND RERAN No.2 ANCHOR
			14:15	19:45	5.50	BALLASTED RIG DOWN.
			19:45	00:00	4.25	MADE UP 36" BHA.
22/01/93	6	1	00:00	02:00	2.00	CONTINUED TO MAKE UP 36" BHA AND RIH. TAGGED SEABED AT 119.5m WATER DEPTH AT 94m.
			02:00	03:00	1.00	DRILLED 36" HOLE FROM 119.5-156m PUMPED 25 bbl GUAR GUM EVERY SINGLE.
			03:00	03:30	0.50	PUMPED 50 bbl GUAR GUM FOLLOWED BY 180bbl HI -VIS GEL.
			03:30	04:45	1.25	POH. MADE UP CIRCULATING HEAD AND 30"RUNNING TOOL ON HWDP.
			04:45	06:00	1.25	RIGGED UP TO RUN 30" CASING.
			06:00	08:30	2.50	RIH WITH 30" CASING AND LANDED AT 156m.
			08:30	10:00	1.50	RIGGED UP CEMENT LINES AND PUMPED 60 bbls SEAWATER. PRESSURE TESTED LINES TO 2000psi PUMPED 500 sx OF 1.9 SG 'G' CEMENT WITH 2% CALCIUM CHLORIDE. DISPLACED WITH 19 bbls SEAWATER.
			10:00	11:00	1.00	POH WITH 30" RUNNING TOOL. FLUSHED WELLHEAD ON WAY OUT. PGB ANGLE 1 1/4 DEG.
			11:00	13:00	2.00	RIH WITH 9 7/8" BHA AND TAGGED CMT AT 153m.
			13:00	13:15	0.25	DRILLED CEMENT AND SHOE TO 156m.
			13:15	20:30	7.25	DRILLED 9 7/8" HOLE FROM 156-630m. PUMPED 30

Date	Day No.	Days From Spud	From	To	Hours	Daily Operations
22/01/93	6	1	13:15	20:30		bbl GUAR GUM EVERY STAND.
			20:30	20:45	0.25	CIRCULATED AND CONDITIONED HOLE.
			20:45	21:00		DROPPED SURVEY.
			21:00	23:00	2.00	POH.
			23:00	00:00	1.00	MADE UP 17 1/2" BHA AND RIH.
23/01/93	7	2	00:00	01:15	1.25	CONTINUED TO MAKE UP 17 1/2" BHA AND RIH.
			01:15	02:45	1.50	DRILLED CEMENT AND SHOE.
			02:45	04:45	2.00	OPENED 9 7/8" HOLE TO 17 1/2" HOLE FROM 156-350m.
			04:45	05:00	0.25	PUMPED 30 bbl GUAR GUM AND SWEPT OUT OF HOLE.
			05:00	05:30	0.50	RAN SINGLE SHOT SURVEY ON WIRELINE AND RECOVERED SAME.
			05:30	11:45	6.25	CONTINUED TO OPEN 9 7/8" HOLE TO 17 1/2" HOLE FROM 350-628m. PUMPED 30 bbl GUAR GUM EACH STAND.
			11:45	12:30	0.75	SWEPT HOLE WITH 50 bbl GUAR GUM AND SPOTTED 300 bbl KILL MUD.
			12:30	12:45	0.25	DROPPED SINGLE SHOT SURVEY.
			12:45	16:00	3.25	POH.
			16:00	17:00	1.00	ATTEMPTED TO RACK BACK 18 3/4" WELLHEAD IN DERRICK-FELL ACROSS FLOOR. BENT 1 JOINT DP AND REPLACED SAME.
			17:00	18:00	1.00	RIGGED UP AND RAN 13 3/8" CASING.
			18:00	19:00		MISALIGNED BAKERLOKED JOINT DUE TO KELLY HOSE INTERFERENCE
			19:00	00:00	5.00	CONTINUED TO RUN
24/01/93	8	3	00:00	01:45	1.75	MADE UP 20"-13 3/8" CROSSOVER AND CEMENT PLUGS. RAN AND LANDED WELLHEAD.TESTED WITH 50kips OVERPULL.
			01:45	02:45	1.00	RIGGED UP CEMENT LINES AND CIRCULATED CASING WITH 200 bbls SEAWATER - 70 SPM,310 psi.
			02:45	04:30	1.75	PRESSURE TESTED LINES TO 3000 psi. DROPPED BALL TO SHEAR BOTTOM PLUG-NO INDICATIONS SEEN. MIXED AND PUMPED 593 sx 1.5 SG LEAD SLURRY FOLLOWED BY 475 sx 1.9 SG TAIL SLURRY. DROPPED DART AND SHEARED TOP PLUG AT 2450 psi WITH 10 bbls SEAWATER. DISPLACED REMAINING 232 bbls.CASING VOLUME WITH RIG PUMP-NO SIGN OF PLUG BUMP.
			04:30	05:30	1.00	BACKED OUT RUNNING TOOL. WASHED WELLHEAD.
			05:30	06:30		POH-STRAPPED PIPE. LAID OUT PLUG LAUNCHER AND RUNNING TOOL.
			06:30	07:00	0.50	RIGGED DOWN CASING RUNNING EQUIPMENT.
			07:00	09:00	2.00	RIGGED UP TO RUN RISER. PICKED UP 2 RISER JOINTS AND RACKED BACK.
			09:00	14:00	5.00	MOVED BOP'S ONTO BEAMS. MADE UP LMRP ONTO BOP'S. FUNCTION TESTED ON BLUE/YELLOW PODS.

Date	Day No.	Days From Spud	From	To	Hours	Daily Operations
24/01/93	8	3	14:00	00:00	10.00	COMMENCED RUNNING RISER. PRESSURE TESTED CHOKE/KILL LINES TO 500/10000 psi AFTER INSTALLATION OF DOUBLE AND SECOND PUP.
25/01/93	9	4	00:00	00:30	0.50	PICKED UP LANDING JOINT AND MADE UP TO SLIP JOINT.
			00:30	04:45	4.25	WOW.TO LAND BOP STACK.
			04:45	07:15	2.50	RIGGED UP CHOKE/KILL LINES ONTO SLIP JOINT.
			07:15	07:45	0.50	LATCHED TENSIONER RING TO SLIP JOINT.
			07:45	09:15	1.50	INSTALLED CONTROL HOSE CRADLES. RAN SUBSEA TV.
			09:15	09:30	0.25	OBSERVED BOP POSITION AND LANDED BOP.
			09:30	10:00	0.50	MANOEUVRED ROV INTO POSITION TO OBSERVE WELLHEAD CONNECTOR LATCH INDICATOR.
			10:00	10:30	0.50	LATCHED, BUT NO INDICATOR MOVEMENT SEEN. CHECKED FOR VOLUME FLOW ON SURFACE-OK. RE-LATCHED CONNECTOR-OBSERVED INDICATOR MOVEMENT.
			10:30	11:45	1.25	UNBOLTED SLIP JOINT AND STROKED OUT.
			11:45	13:15	1.50	PICKED UP AND INSTALLED DIVERTER.
			13:15	13:45	0.50	RIGGED DOWN RISER RUNNING GEAR.
			13:45	14:45	1.00	RIGGED UP AND RAN BOP TEST TOOL.
			14:45	19:45	5.00	PRESSURE TESTED BOP'S: RAMS TO 500/10000 psi.ANNULARS 500/3500 psi.
			19:45	20:00	0.25	POH WITH BOP TEST TOOL.
			20:00	21:15	1.25	ATTEMPTED TO TEST SHEAR RAMS/CASING. MAX.PRESSURE- 460psi.CHOKE LINE/SHEAR RAM CONFIRMED OK.
			21:15	22:30	1.25	RIH TO SET WEAR BUSHING AND POH.
			22:30	22:45	0.25	LAID DOWN 9 7/8" BIT AND FLOAT SUB.
			22:45	00:00	1.25	RIH WITH 12 1/4" BHA.
26/01/93	10	5	00:00	00:30	0.50	RIH AND TAGGED PLUG/CEMENT AT 576m.
			00:30	01:00		CIRCULATED.
			01:00	05:00	4.00	DRILLED PLUG/CEMENT FROM 576-625m.
			05:00	12:00	7.00	DRILLED SHOETRACK
			12:00	12:45	0.75	REAMED 9 7/8" HOLE FROM 625-630m.
			12:45	13:30		DISPLACED HOLE TO MUD AND CIRCULATED.
			13:30	14:15		PULLED BACK INTO SHOE AND PERFORMED LOT-EMW OF 1.69 SG. MAX SURFACE PRESSURE OF 540psiPSI.
			14:15	15:45	1.50	POH.
			15:45	18:30	2.75	LAID OUT 9 7/8" AND 36" BHA's.
			18:30	22:45	4.25	MADE UP 12 1/4" BHA. CALIBRATED MWD.
			22:45	00:00	1.25	RIH WITH 12.25" BHA.
27/01/93	11	6	00:00	01:00	1.00	CONTINUED TO RIH.
			01:00	01:15	0.25	FILLED PIPE AND REAMED TO BOTTOM WITH LAST STAND.

Date	Day No.	Days From Spud	From	To	Hours	Daily Operations
27/01/93	11	6	01:15	00:00	22.75	DRILLED 12 1/4" HOLE FROM 630-1182m. HOLE CONDITION GOOD-NO DRAG.
28/01/93	12	7	00:00		24.00	DRILLED 12 1/4in HOLE FROM 1182m TO 1656m.
29/01/93	13	8		14:30	14.50	DRILLED 12 1/4" HOLE FROM 1656m TO 1800m.
			14:30	16:15	1.75	CIRCULATED HOLE CLEAN
			16:15	17:00	0.75	POH TO 1538m MAX DRAG 30kips.
			17:00	17:30	0.50	WASHED AND WORKED PIPE THROUGH TIGHT HOLE FROM 1538m TO 1455m
			17:30	18:15	0.75	CONTINUED TO POH FROM 1455m TO 1222m.
			18:15	19:15	1.00	RIH TO 1639m,TIGHT HOLE.
			19:15	20:30	1.25	WASHED AND REAMED FROM 1639m TO 1800m,10m FILL
			20:30	22:00	1.50	CIRCULATED HOLE CLEAN.
			22:00	00:00	2.00	POH (SLM) MINOR DRAG 30kips MAX FROM 1571m TO 1077m,HOLE CONDITION GOOD.
30/01/93	14	9	00:00	02:15	2.25	FINISHED POH (SLM NO CHANGE) INTERMITTANT DRAG FROM 1077m TO 787m.
			02:15	02:30	0.25	DUMPED MWD MEMORY.
			02:30	02:45		BROKE OFF BIT AND STOOD BACK LAST STAND OF DRILL COLLARS.
			02:45	03:15	0.50	RIGGED UP SCHLUMBERGER FOR SUITE No.1
			03:15	09:15	6.00	RUN No.1:DLL-MSFL-SDT-GR-SP-CAL-AMS WIRE LINE DEPTH 1787m.
			09:15	20:00	10.75	RUN No.2: VSP WIRE LINE DEPTH 1779m.
			20:00	00:00	4.00	CONDUCTED RUN No.3: CST (60 SHOTS).
31/01/93	15	10	00:00	00:15	0.25	RIGGED DOWN CST 56 RECOVERED,1 MISFIRE,3 LOST.
			00:15	00:45	0.50	RIGGED DOWN SCHLUMBERGER.
			00:45	02:30	1.75	MADE UP CEMENT HEAD AND 9 5/8" CASING HANGER C/W CEMENT PLUGS AND SEAL ASSY,RACKED BACK IN DERRICK.
			02:30	02:45	0.25	MOVED DRILL COLLARS IN DERRICK FOR STABBER.
			02:45	06:30	3.75	MADE UP BHA RIH TO 1768m HOLE CONDITION GOOD.
			06:30	08:30	2.00	REAMED AND WASHED FROM 1768m TO 1800m,WORKED JUNK SUB ON BOTTOM.
			08:30	10:00	1.50	CIRCULATED AND CONDITIONED HOLE,SPOTTED 200bbls 10% KCL ON BOTTOM.
			10:00	14:00	4.00	POH TO RUN CASING,HOLE CONDITION GOOD.
			14:00	15:00	1.00	RIH AND RECOVERED WEAR BUSHING.
			15:00	00:00	9.00	RIGGED UP AND RAN 9 5/8" CASING.
1/02/93	16	11	00:00	01:45	1.75	RIGGED DOWN 500T ELEVATORS. MADE UP CASING HANGER.RIH AND LANDED CASING.
			01:45	03:00	1.25	RIGGED UP AND CIRCULATED WITH RIG PUMPS.
			03:00	04:45	1.75	TESTED HALLIBURTON LINES TO 4000psi. MIXED AND PUMPED 58bbls CLASS G SLURRY (234sx)WITH 3gal/10bbl SCR-100L. DISPLACED WITH 10bbls

Date	Day No.	Days From Spud	From	To	Hours	Daily Operations
1/02/93	16	11	03:00	04:45		WATER FOLLOWED WITH 391bbls MUD. FAILED TO BUMP PLUG.
			04:45	05:30	0.75	SET SEAL ASSEMBLY.
			05:30	06:15		TESTED SEAL ASSEMBLY TO 4000psi.
			06:15	09:45	3.50	TESTED BOP STACK TO 500/4000psi. ANNULARS TO 3500psi.
			09:45	11:00	1.25	POH WITH SEAL ASSEMBLY STILL ON RUNNING TOOL.
			11:00	12:15	1.25	MADE UP MILL AND FLUSH TOOL. DRESSED AND RIH.
			12:15	12:45	0.50	WASHED AND MILLED PACK-OFF AREA WITH 2xRISER VOLUME.
			12:45	13:00	0.25	POH AND LAID OUT MILL AND FLUSH TOOL.
			13:00	13:30	0.50	MADE UP NEW PACK-OFF, RIH AND SET SAME.
			13:30	14:00		TESTED AGAINST VARIABLE RAMS TO 4000psi. SHEARED OUT TOOL WITH 60kips.
			14:00	14:45	0.75	POH WITH RUNNING TOOL AND LAID OUT SAME.
			14:45	15;45	1.00	MADE UP WEAR BUSHING. RIH. SET SAME AND POH.
			15:45	19:30	3.75	LAID OUT 12 1/4" BHA.
			19:30	20:00	0.50	CHECKED ADJUSTMENT ON MOTION COMPENSATOR.
			20:00	20:15	0.25	CONTINUED LAYING OUT 12 1/4" BHA.
			20:15	21:30	1.25	MADE UP 8 1/2"BHA.CALIBRATED MWD AND TESTED SAME.
			21:30	00:00	2.50	CONTINUED RIH.
2/02/93	17	12	00:00	03:00	3.00	PICKED UP 51JTS DRILL PIPE AND RIH TO 1743m.
			03:00	03:15	0.25	TAGGED BOTTOM AT 1743m. FILLED PIPE.
			03:15	08:30	5.25	DRILLED FIRM CEMENT FROM 1743m. HARD CEMENT FROM 1745m. WORKED THROUGH SHOETRACK AND RAT HOLE TO 1800m.
			08:30	09:30	1.00	DRILLED 8 1/2" HOLE FROM 1800m TO 1803m.
			09:30	10:30		PULLED BACK INTO SHOE AND PERFORMED LOT TO 2.00SG EMW (2200psi. 1.14SG). RIH TO 1803m.
			10:30	00:00	13.50	DRILLED 8 1/2" HOLE FROM 1803m TO 1922m.
3/02/93	18	13	00:00	15:45	15.75	DRILLED 8 1/2" HOLE FROM 1922m TO 2071m.
			15:45	16:45	1.00	CIRCULATED BOTTOMS UP FOR SAMPLE.
			16:45	17:30	0.75	CONTINUED CIRCULATING WHILE EVALUATING SAMPLE
			17:30	22:00	4.50	PUMPED SLUG AND POH TO CORE - SLM.
			22:00	22:30	0.50	DUMPED MWD MEMORY. BROKE OUT BIT AND RACKED BACK MWD.
			22:30	00:00	1.50	MADE UP CORE BARREL ASSEMBLY.
4/02/93	19	14	00:00	00:30	0.50	CONTINUED MAKING UP CORE BARREL.
			00:30	03:30	3.00	RIH TO 2014m.
			03:30	03:45	0.25	WASHED FROM 2014m TO 2071m.
			03:45	04:15	0.50	CIRCULATED.
			04:15	07:00	2.75	CUT CORE #1 FROM 2071m TO 2099m.
			07:00	09:45		FLOWCHECKED. PUMPED SLUG AND POH.HOLE CONDITION GOOD.

Date	Day No.	Days From Spud	From	To	Hours	Daily Operations
4/02/93	19	14	09:45	11:00	1.25	RECOVERED CORE (100%) AND LAID OUT SAME.
			11:00	11:30	0.50	SERVICED TDS AND CHANGED SWIVEL PACKING.
			11:30	12:00		BROKE OUT BIT AND RACKED CORE BARREL IN DERRICK.
			12:00	12:15	0.25	MADE UP 8 1/2" BHA AND RIH.
			12:15	13:00	0.75	SERVICED MWD AND TESTED MEMORY.
			13:00	14:15	1.25	RIH WITH 8 1/2" BHA.
			14:15	14:30	0.25	TESTED MWD.
			14:30	17:30	3.00	PICKED UP 5" DRILL PIPE AND CONTINUED RIH TO 2065m.
			17:30	19:15	1.75	REAMED FROM 2065m-2099m. (RELOGGED WITH MWD).
			19:15	20:30	1.25	DRILLED 8 1/2" HOLE FROM 2099m TO 2114m.
			20:30	21:45		CIRCULATED FOR SAMPLE. RELOGGED WITH MWD FROM 2110m TO 2114m.
			21:45	00:00	2.25	DRILLED 8 1/2" HOLE FROM 2114m TO 2146m.
5/02/93	20	15	00:00	01:30	1.50	DRILLED 8 1/2" HOLE FROM 2146m-2174m. FLOW CHECKED DRILLING BREAKS.
			01:30	02:15	0.75	CIRCULATED UP SAMPLE.
			02:15	00:00	21.75	DRILLED 8 1/2" HOLE FROM 2174m-2399m. FLOW CHECKED DRILLING BREAKS.
6/02/93	21	16	00:00	16:30	16.50	DRILLED 8 1/2" HOLE FROM 2399m TO 2545m. FLOW CHECKED DRILLING BREAKS. INCREASED MW TO 1.18SG DUE TO CONNECTION GASES AND SUSPECTED WATER INFLUX.
			16:30	17:30	1.00	FLOW CHECKED. POOH FOR BIT CHANGE. POOH 10 STANDS - TRIP TANK GAINED 3bbls. OBSERVED WELL. TRIP TANK GAINED A FURTHER 0.5bbls.
			17:30	17:45	0.25	RIH TO 2545m.
			17:45	21:00	3.25	CIRCULATED AND WORKED PIPE. RAISED MW TO 1.22SG. MAXIMUM GAS ON BOTTOMS UP - 7.8%
			21:00	21:45	0.75	FLOW CHECKED. POH TO 2184m - TIGHT HOLE. 60kips OVERPULL.
			21:45	23:00	1.25	BACK REAMED FROM 2184m TO 2155m - INTERMITTENT DRAG.
			23:00	00:00	1.00	PUMPED SLUG AND CONTINUED POH. HOLE TOOK CORRECT VOLUME.
7/02/93	22	17	00:00	02:00	2.00	CONTINUED POH. HOLE TOOK CORRECT VOLUME.
			02:00	02:45	0.75	REDRESSED NB ROLLER REAMER AND DUMPED MWD MEMORY.
			02:45	06:00	3.25	MADE UP BIT, NB ROLLER REAMER AND STRING REAMER. RIH TO SHOE AT 1786m.
			06:00	06:45	0.75	SLIPPED AND CUT DRILLING LINE.
			06:45	07:45	1.00	CONTINUED RIH TO 2523m.
			07:45	08:00	0.25	WASHED FROM 2523m TO 2545m.
			08:00	00:00	16.00	DRILLED 8 1/2" HOLE FROM 2545m TO 2697m. FLOW CHECKED DRILLING BREAKS.
8/02/93	23	18	00:00	04:30	4.50	DRILLED 8 1/2" HOLE FROM 2697m TO 2735m. FLOW

Date	Day No.	Days From Spud	From	To	Hours	Daily Operations
8/02/93	23	18	00:00	04:30		CHECKED DRILLING BREAKS.
			04:30	06:00	1.50	CIRCULATED HOLE CLEAN.
			06:00	10:15	4.25	FLOW CHECKED AND POH. PULLED FIRST 10 STANDS WET - HOLE TOOK CORRECT VOLUME. INTERMITTENT DRAG TO 2581m - MAX. O'PULL 40kips. PUMPED SLUG AND CONTINUED POH. INTERMITTENT DRAG 2184m TO 2155m - MAX. OVERPULL 30kips.
			10:15	10:30	0.25	DUMPED MWD MEMORY.
			10:30	11:00	0.50	RIGGED UP SCHLUMBERGER FOR SUITE No. 2
			11:00	16:30	5.50	RUN #1: - DLL-MSFL-AS-GR-AMS.
			16:30	18:30	2.00	RIGGED DOWN RUN #1. RIGGED UP RUN #2 - LDT-CNT-GR-AMS.
			18:30	22:30	4.00	RUN #2.
			22:30	23:45	1.25	RIGGED DOWN RUN #2. RIGGED UP RUN #3: FMS.
			23:45	00:00	0.25	RIH WITH FMS.
9/02/93	24	19	00:00	04:30	4.50	CONTINUED RUN No.3
			04:30	06:00	1.50	TROUBLE SHOT PROBLEM WITH MDT TOOL WOULD NOT HOLD PRESSURE
			06:00	21:30	15.50	RUN #4: RFT #1.SAMPLE AT 2160.5m
			21:30	00:00	2.50	DRAINED LOWER 6gal CHAMBER.REDRESSED FOR RFT#2
10/02/93	25	20	00:00	04:00	4.00	CONTINUED REDRESSING RFT TOOL. RIH AND TOOK SEGREGATED SAMPLE AT 2072.8m.
			04:00	05:00	1.00	DRAINED 6gal CHAMBER AND RIGGED DOWN TOOL.
			05:00	05:30	0.50	RIGGED UP CSAT FOR VSP RUN.
			05:30	06:45	1.25	RIH TO 1203m. SYNCRONISED GUNS.
			06:45	09:45	3.00	TROUBLE SHOT PROBLEM WITH GUNS -WOULD NOT FIRE.
			09:45	10:00	0.25	RIH TO 2075m.
			10:00	11:00	1.00	POH TO CASING SHOE WHILE RESOLVING FIRING PROBLEM.
			11:00	11:30	0.50	POH TO SURFACE.
			11:30	13:00	1.50	MADE UP RUN #4:CST, AND RIH.
			13:00	16:30	3.50	SHOT 60 CST CORES AND POH.(54 RECOVERED).
			16:30	17:00	0.50	REDRESSED CST TOOL.
			17:00	20:30	3.50	RIH AND SHOT 30 CST CORES.(23 REC). POH.
			20:30	21:00	0.50	RIGGED DOWN CST TOOL. MADE UP AND RIH WITH CSAT.
			21:00	00:00	3.00	RUN #6: VSP.
11/02/93	26	21	00:00	07:30	7.50	CONTINUED RUNNING VSP. POH AT 0630, RIGGED DOWN SCHLUMBERGER.
			07:30	08:00	0.50	MOVED PIPE IN DERRICK IN PREPARATION FOR PLUG AND ABANDONMENT.
			08:00	08:15	0.25	MADE UP CEMENT HEAD AND RACKED BACK IN DERRICK
			08:15	10:45	2.50	MADE UP PLUG CATCHER AND RAN IN TO 2200m ON

Date	Day No.	Days From Spud	From	To	Hours	Daily Operations
11/02/93	26	21	08:15	10:45		OEDP
			10:45	11:45	1.00	CIRCULATED AND CONDITIONED MUD PRIOR TO PUMPING PLUG #1
			11:45	12:00	0.25	RIGGED UP CEMENT LINE AND TESTED TO 3000psi
			12:00	13:00	1.00	PUMPED STAGE 1 OF CEMENT PLUG #1 FROM 2200m TO 1900m WITH 425sx CLASS G AND 5gal/10bbl SCR-100L.
			13:00	13:45	0.75	POH TO 1900m AND RIGGED TO REVERSE CIRCULATE.
			13:45	14:30		REVERSE CIRCULATE 1 1/2 TIMES PIPE VOLUME.
			14:30	15:45	1.25	RIGGED UP AND PUMPED STAGE 2, PLUG #1 FROM 1900m TO 1700m WITH 344sx CLASS 'G' AND 3gal/10bbl SCR-100L AND DRILL WATER. DISPLACED CEMENT WITH PLUG CATCHER DART. BUMPED DART TO 800psi.
			15:45	16:15	0.50	POH TO 1700m, SHEARED DART AT 1600psi WITH MUD PUMP.
			16:15	18:00	1.75	REVERSE CIRCULATED 1 1/2 x PIPE VOL. FLUSHED CHOKE AND KILL LINES AND CIRCULATED LONG WAY WITH INHIBITED MUD.
			18:00	00:00	6.00	TAGGED TOP OF PLUG #1 AT 1702m AND POH LAID DOWN EXCESS PIPE, BHA, MWD & CORE BARREL.
12/02/93	27	22	00:00	01:00	1.00	CONTINUED LAYING DOWN DRILL COLLARS
			01:00	03:30	2.50	RIGGED UP SCHLUMBERGER, RIH AND SET 9 5/8" BRIDGE PLUG AT 1695m, RIGGED DOWN SCHLUMBERGER.
			03:30	03:45	0.25	SERVICE BROKE CEMENT HEAD AND LAID OUT.
			03:45	05:15	1.50	RETRIEVED WEAR BUSHING.
			05:15	07:15	2.00	PICKED UP CASING CUTTER ASSEMBLY AND RIH.
			07:15	07:45	0.50	CUT 9 5/8" CASING AT 199.81m.
			07:45	09:15	1.50	POH WITH CUTTER ASSEMBLY, SERVICED AND LAID OUT.
			09:15	09:45	0.50	MADE UP AND RIH WITH CASING SPEAR.
			09:45	10:15		POH WITH 9 5/8" CASING STUB.
			10:15	11:15	1.00	LAID DOWN 9 5/8" CASING.
			11:15	11:30	0.25	SERVICE BROKE PLUG CATCHER.
			11:30	13:15	1.75	RIGGED UP SCHLUMBERGER, RIH AND SET 13 3/8" BRIDGE PLUG AT 194m. POH WITH SCHLUMBERGER AND RIGGED DOWN
			13:15	13:45	0.50	RIH WITH OEDP AND TAGGED PLUG AT 192m.
			13:45	14:30	0.75	RIGGED UP AND PUMPED BALANCED CEMENT PLUG FROM 192m TO 142m. WITH 120sx CLASS 'G'& S/W.
			14:30	14:45	0.25	POH TO 135m.
			14:45	15:45	1.00	REVERSED OUT 1.5 PIPE VOLUME.CIRCULATED WELL TO SEAWATER.FLUSHED CHOKE AND KILL LINES AND RISER.
			15:45	16:00	0.25	POH.

Date	Day No.	Days From Spud	From	To	Hours	Daily Operations
12/02/93	27	22	16:00	00:00	8.00	RIGGED UP TO PULL STACK. LAID OUT DIVERTER, PICKED UP LANDING JOINT & MADE UP TO SLIP JOINT. COLLAPSED SLIP JOINT UNLATCHED BOP AT 2035hrs. PULLED AND SECURED TENSION RING, SECURED CHOKE AND KILL LINES, PULL BOP & LAID DOWN RISER.
13/02/93	28	23	00:00	07:00	7.00	CONTINUE TO PULL BOP & LAID OUT RISER. BOP ON BEAMS AT 0215hrs. LMRP UNLATCHED AND ON THE STUMP AT 0515hrs. STACK ON STUMP AT 0700hrs.
			07:00	08:15	1.25	LAID OUT RISER HANDLING JOINTS, RIGGED DOWN RISER HANDLING EQUIPMENT.
			08:15	12:45	4.50	PICKED UP 2 STANDS OF 8 1/2" COLLARS, MADE UP 30/20" CUTTING ASSEMBLY, TESTED CUTTER FUNCTION, RIH WITH CUTTER.
			12:45	18:45	6.00	CUT 30/20" CASING.
			18:45	19:45	1.00	POH WITH 30/20" CASING AND PGB AND LANDED ON SPIDER BEAMS
			19:45	20:30	0.75	SERVICE BROKE AND LAID DOWN CUTTER ASSEMBLY.
			20:30	22:30	2.00	LAID DOWN EXCESS TUBULARS. 50 STANDS OF DP REMAINING IN THE DERRICK.
			22:30	00:00	1.50	COMMENCE DEBALLASTING, LAID OUT 30"/20" AND PGB.
14/02/93	29	24	00:00	05:30	5.50	DEBALLASTED RIG. - LAID OUT 30" & 20" STUBS AND RELOCATED PGB AND SECURED IN THE MOONPOOL.SERVICED TDS AND RETRACTABLE BLOCKS.
			05:30	16:00	10.50	PULLED ANCHORS
			16:00	18:00	2.00	ANCHOR HANDLING DOWNTIME DUE TO AIR LEAK ON #2 WINDLASS AND PENNANT FOULING
			18:00	22:15	4.25	W.O.W. WIND SPEED 40/45 kts. COMB. SEA 3.4m
			22:15	00:00	1.75	CONTINUED PULLING ANCHORS.
15/02/93	30	25	00:00	10:15	10.25	BV TO #12 - PENNANT TO BOAT AT 0145HR, FOULED PENNANT WIRE 0145-0611HR. BV CHASED OUT #12 AT 0630HR.ANCHOR ON DECK AT 0652HR.BV REMOVED 151M CHAIN FROM #12 AND FITTED SWIVEL 0652-1340HR.#12 ON TOW. FS CHASED OUT #1 AT 0716HR.ANCHOR ON DECK AT 0807HR.FS REMOVED 177M CHAIN FROM #1 AND FITTED SWIVEL 0807-1015HR.#1 ON TOW.
			10:15	13:40	3.42	ANCHOR HANDLING DOWNTIME DUE TO BONAVISTA DELAYS
			13:40	15:30	1.83	RIG HEAVED ON #7- RACKED.RIG RELEASED AT 1530HR.

SECTION 3

BHP Petroleum

FINAL DRILLING REPORT

3.0 MUD SUMMARY BY HOLE SECTION

LA BELLA-1

Hole Size (in)	Interval (mRT)	Type	Density (S.G.)		Viscosity (sec/L)		PV (cp)		YP (lbs/100ft2)		Gels				KCl (%)	Fluid Loss (cc)
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.0	Max.0	Min. 10	Max. 10		
36/9.875"	630.0	S/W+GUAR GUM	1.05	1.05												
17.5"	628.0	S/W GEL KCL S/W+GUAR GUM	1.05	1.05	50	55	19	22	18	22	5	5	5	6	3.1	7
12.25"	1800.0	KCL PHPA S/W GEL KCL	1.11	1.15	46	70	15	26	20	34	7	10	16	28	5.6	9.6
8.5"	2735.0	KCL PHPA	1.11	1.22	45	70	11	26	18	34	4	10	12	28	9	9.6

BHP Petroleum

FINAL DRILLING REPORT

3.1 MUD PROPERTIES RECORD

LA BELLA-1

Date	Depth (m)	Temp. (degC)	Density (S.G.)	Viscosity (sec/l)	PV (Cp)	YP (lb/100 ft^2)	Gels 0	Gels 10	API W.L. (ml)	HTHP W.L. (ml)	Filter Cake (1/32 in)	MBT (lb/bbl)	pH	%Solid	%H2O	%Sand	MF	Ca+ (mg/L)	Cl- (mg/L)	K+ (mg/L)	%KCl
22/01/93	630																				
23/01/93	630																				
24/01/93	628		1.05	50	22	18	5	5	7		1	10.0	9.5	3.0	97		0.32	160	28000	16200	3.1
25/01/93	628		1.05	55	19	22	5	6	7		1	15.0	9.5	3.0	97		0.32	160	28000	16200	3.1
26/01/93	642		1.07	57	16	19	5	11	7		1	11.0	9.5	4.2	95.8		0.28	160	24000	14100	2.7
26/01/93	628		1.05	55	19	22	5	6	7		1	15.0	9.5	3.0	97		0.32	160	28000	16200	3.1
27/01/93	1178	42	1.11	49	16	24	10	21	6.8		1	15.0	9.3	6.7	93.3	0.10	0.20	160	31000	16900	3.2
27/01/93	950	35	1.1	46	11	20	8	12	7		1	15.0	9.2	6.0	94	0.10	0.20	240	27000	16100	3.0
27/01/93	898	35	1.09	45	11	20	7	14	7.2		1	13.0	9.2	5.4	94.6	0.10	0.20	240	27000	16000	3.0
28/01/93	1652	46	1.11	46	15	20	7	16	6.2		1	15.0	9.0	6.6	93.4	0.25	0.30	200	35000	35000	4.7
28/01/93	1540	45	1.11	48	19	22	9	22	7		1	15.0	9.0	6.6	93.4	0.50	0.24	240	32000	18000	3.4
29/01/93	1800	49	1.13	49	16	24	10	28	7.4		1	17.5	9.2	7.5	92.5	0.01	0.30	200	42000	27000	5.1
29/01/93	1800	49	1.12	49	16	24	10	25	2.4		1	17.5	9.0	7.1	92.9	0.10	0.30	240	41000	27500	5.2
30/01/93	1800		1.11	46	15	21	7	18	7.5		1	15.0	9.2	6.6	93.4	0.01	0.30	160	42000	27000	5.1
31/01/93	1800	41	1.13	50	18	25	8	20	8		1	17.5	9.0	7.5	92.5	0.01	0.30	240	43000	29700	5.6
31/01/93	1800	58	1.15	70	26	34	10	24	9.6		1	20.0	8.8	9.0	91	0.25	0.30	240	43000	29100	5.5
01/02/93	1800		1.12	54	18	24	5	15	8		1	15.0	9.0	7.0	93		0.30	200	43000	29700	5.6
02/02/93	1918	43	1.14	45	11	18	6	16	7.6		1	15.0	9.0	8.2	91.8	0.01	0.30	240	48000	45000	8.6
02/02/93	1840	38	1.13	48	14	19	7	14	8		1	15.0	9.0	7.5	92.5	0.01	0.25	360	42000	31750	6.1
03/02/93	2071		1.13	45	16	20	5	13	6.5		1	12.5	9.4	7.0	93	0.01	0.50	120	50000	47000	9.0
03/02/93	2065	46	1.14	46	17	21	7	15	6.6		1	12.5	9.2	8.4	91.6	0.01	0.45	200	54000	46400	8.8
04/02/93	2145	38	1.14	48	14	20	4	15	6.6		1	15.0	9.3	8.7	91.3		0.90	70	50000	45600	8.8
05/02/93	2398	42	1.15	48	15	18	4	12	5.8		1	15.0	9.1	9.5	90.5		1.00	120	47000	39000	7.5
06/02/93	2545	44	1.22	48	17	21	5	12	5.8		1	13.0	9.6	14.0	86		0.70	110	45000	31200	6.0
07/02/93	2683	46	1.22	49	17	21	4	14	5.2		1	12.5	9.5	12.0	88	0.10	0.70	40	49000	36400	7.0
08/02/93	2735	46	1.22	48	15	22	4	14	5		1	12.5	9.5	12.0	88	0.10	0.70	40	49000	36400	7.0
09/02/93	2735		1.22	48	15	22	4	14	5		1	12.5	9.5	12.0	88	0.10	0.70	40	49000	36400	7.0
10/02/93	2735		1.22	48	15	22	4	14	5		1	12.5	0.5	12.0	88	0.10	0.70	40	49000	36400	7.0
11/02/93	2735		1.22	48	15	22	4	14	5		1	12.5	9.5	12.0	88	0.10	0.70	40	49000	36400	7.0

PRODUCT	UNIT SIZE		QUANTITY
ALCOMER 120	25.00	KG	117
AMITEC	55.00	GAL	3
CaCL2 (POWDER)	25.00	KG	28
CAUSTIC SODA	25.00	KG	47
CITRIC ACID	25.00	KG	2
LIME	25.00	KG	16
MILBAR BULK	100.00	LB	727
MILBAR SX	25.00	KG	400
MILBIO	5.00	GAL	30
MILGEL BULK	100.00	LB	926
MILGUAR	25.00	KG	74
MILGUAR-C	2.00	LB	20
MILPAC	25.00	KG	155
NOXYGEN	25.00	KG	74
POT CHLORIDE	1.00	MT	53
POT CHLORIDE	25.00	KG	60
POT HYDROXIDE	25.00	KG	73
SODA ASH	25.00	KG	65
UNICAL	25.00	KG	2
WO DEFOAM	20.00	LT	4
XCD POLYMER	25.00	KG	81

36" HOLE

PRODUCT	UNIT SIZE		QUANTITY
CaCL2 (POWDER)	25.00	KG	28
CAUSTIC SODA	25.00	KG	6
MILBAR BULK	100.00	LB	220
MILBAR SX	25.00	KG	10
MILBIO	5.00	GAL	1
MILGEL BULK	100.00	LB	639
MILGUAR	25.00	KG	54
MILGUAR-C	2.00	LB	13
SODA ASH	25.00	KG	5
UNICAL	25.00	KG	2

17.5" HOLE

PRODUCT	UNIT SIZE		QUANTITY
CAUSTIC SODA	25.00	KG	9
MILGEL BULK	100.00	LB	120
MILGUAR	25.00	KG	20
MILGUAR-C	2.00	LB	7
MILPAC	25.00	KG	55
POT CHLORIDE	1.00	MT	8
SODA ASH	25.00	KG	5

12.25" HOLE

PRODUCT	UNIT SIZE		QUANTITY
ALCOMER 120	25.00	KG	48
AMITEC	55.00	GAL	2
CAUSTIC SODA	25.00	KG	29
MILGEL BULK	100.00	LB	167
MILPAC	25.00	KG	40
NOXYGEN	25.00	KG	10
POT CHLORIDE	1.00	MT	27
POT HYDROXIDE	25.00	KG	16
SODA ASH	25.00	KG	10
XCD POLYMER	25.00	KG	19

8.5" HOLE

PRODUCT	UNIT SIZE		QUANTITY
ALCOMER 120	25.00	KG	69
AMITEC	55.00	GAL	1
CAUSTIC SODA	25.00	KG	3
CITRIC ACID	25.00	KG	2
LIME	25.00	KG	16
MILBAR BULK	100.00	LB	507
MILBAR SX	25.00	KG	390
MILBIO	5.00	GAL	29
MILPAC	25.00	KG	60
NOXYGEN	25.00	KG	64
POT CHLORIDE	1.00	MT	18
POT CHLORIDE	25.00	KG	60
POT HYDROXIDE	25.00	KG	57
SODA ASH	25.00	KG	45
WO DEFOAM	20.00	LT	4
XCD POLYMER	25.00	KG	62

SECTION 4

BHP Petroleum

FINAL DRILLING REPORT

4.0 BIT RECORD

LA BELLA-1

Bit No	Run No	Size / Make	Bit Type / Serial No.	Jets / TFA	Depth In / Out	Total Metres	Total Hours	ROP (m/hr)	WOB (Kips)	RPM	Pump gpm / psi	IADC Bit Grading / Comments
1RR	1	26	S3SJ	24 24 24 - - -	119	37.0	1.00	37.0	10.0 / 15.0	70 / 80	1040 / 1400	1.1.NO.A.1.I.NO.TD
		SECURITY	495343	1.33	156							
2RR	3	9.875	S33SF	32 32 32 - - -	156	472.0	0.00	0.0	5.0 / 25.0	100 / 120	960 / 1150	2.2.NO.A.1.1.NO.TD
		SECURITY	574616	2.36	628							OPEN HOLE TO 17.5"
2	2	9.875	S33SF	32 32 32 - - -	156	474.0	7.25	65.4	5.0 / 20.0	120 / 140	600 / 1400	2.2.NO.A.1.I.NO.TD
		SECURITY	574616	2.36	630							PILOT HOLE
3RR	4	12.25	S44G	32 32 32 - - -	628	2.0	0.75	2.7	5.0 / 10.0	50 / 50	530 / 350	3.3.FC.A.E.I.NO.TD
		SECURITY	535791	2.36	630							DRILL CMT
4	5	12.25	ATM18	16 16 12 - - -	630	1170.0	61.25	19.1	/ 40.0	/ 120	700 / 3100	2.3.WT.A.E.I.NO.LOG
		HUGHES	S25PE	0.5	1800							
4 RR	6	12.25	ATM18	16 16 12 - - -	1800	0.0	0.00	0.0	5.0 / 10.0	60 / 100	520 / 500	3.2.WT.A.E.I.NO.LOG
		HTC	S25PE	0.5	1800							WIPER TRIP FOR CASING
5	7	8.5	ATM22	12 12 13 - - -	1800	271.0	29.25	9.3	30.0 / 35.0	90 / 120	480 / 2550	2.1.WT.A.E.I.CT.CP
		HUGHES	H44BT	0.35	2071							
CORE1	8	8.5	CD93	- - - - - -	2071	28.0	2.75	10.2	5.0 / 10.0	55 / 90	450 / 2300	1.1.WT.T.D.I.NO.TD
		DBS	7920485	0	2099							
6	9	8.5	ATM22	12 12 12 - - -	2099	446.0	44.00	10.1	30.0 / 35.0	90 / 120	420 / 2250	3.4.OC.A.E.I.BT.PR
		HUGHES	K02BM	0.33	2545							
7	10	8.5	F2	12 12 12 - - -	2545	190.0	20.50	9.3	30.0 / 30.0	75 / 90	430 / 2500	3.3.WT.A.6.I.BT.LOG
		SMITH	KS5150	0.33	2735							

LABL1/PE901815/P37

File: LA 1_BIT		Checked: Jm	Date: 12-Aug-93

4.1 BHA SUMMARY

LA BELLA-1

BHA Name: 1. 36" BHA — Depth In: 119.5 m. — Depth Out: 156 m.

Purpose: DRILL 36" HOLE.

Joints	BHA Item	O.D.	Length
1	BIT	26.000	0.56
1	HO HOLE OPENER	9.000	1.89
1	FS FLOAT SUB	9.000	1.50
3	DC95 DRILL COLLAR 9.5IN	9.500	27.49
1	XO CROSS OVER	8.125	0.78
6	DC8 DRILL COLLAR 8IN	7.875	55.52
1	XO CROSS OVER	8.125	0.66
		Total BHA Length :	**88.40**

BHA Name: 2. 9 7/8" BHA — Depth In: 156 m. — Depth Out: 630 m.

Purpose: DRILL PILOT HOLE

Joints	BHA Item	O.D.	Length
1	BIT	9.875	0.26
1	FS FLOAT SUB	8.000	1.22
1	NMDC NON-MAG. DRILL COL.	8.000	8.60
6	DC8 DRILL COLLAR 8IN	7.875	55.52
1	XO CROSS OVER	8.125	0.66
15	HWDP HEVI-WATE DRL PIPE	5.000	134.52
		Total BHA Length :	**200.78**

BHA Name: 3. 17 1/2"BHA — Depth In: 156 m. — Depth Out: 628 m.

Purpose: OPEN 9 7/8" HOLE

Joints	BHA Item	O.D.	Length
1	BIT	9.875	0.26
1	FS FLOAT SUB	9.000	1.22
1	PONY COLLAR	8.000	2.73
1	XO CROSS OVER	9.000	0.47
1	HO HOLE OPENER	9.000	1.70
1	XO CROSS OVER	8.125	1.21
1	NMDC NON-MAG. DRILL COL.	8.000	8.60
6	DC8 DRILL COLLAR 8IN	7.875	55.52
1	XO CROSS OVER	8.125	0.66
15	HWDP HEVI-WATE DRL PIPE	5.000	134.52
		Total BHA Length :	**206.89**

BHA Name: 4. 12.25"BHA — Depth In: 628 m. — Depth Out: 630 m.

Purpose: DRILL CEMENT

Joints	BHA Item	O.D.	Length
1	BIT	12.250	0.30
1	BS BIT SUB	8.000	1.22
6	DC8 DRILL COLLAR 8IN	7.875	55.52
1	XO CROSS OVER	8.250	0.33
15	HWDP HEVI-WATE DRL PIPE	5.000	134.52
		Total BHA Length :	**191.89**

BHA Name: 5. 12.25"BHA | Depth In: 630 m. | Depth Out: 1800 m.

Purpose: DRILL 12.25" HOLE

Joints	BHA Item	O.D.	Length
1	BIT	12.250	1.00
1	NBR NB ROLLER REAMER	8.000	2.76
1	ST SHOCK TOOL	8.000	3.49
1	SS STRING STABILIZER	8.000	1.44
1	XO CROSS OVER	8.250	0.50
1	MWD TOOL	8.750	12.39
1	SS STRING STABILIZER	8.000	1.41
12	DC8 DRILL COLLAR 8IN	7.875	110.87
1	DJAR DRILLING JAR	8.063	5.78
2	DC8 DRILL COLLAR 8IN	7.875	18.23
1	XO CROSS OVER	8.125	0.58
1	HWDP HEVI-WATE DRL PIPE	5.000	8.95
1	DIDS DROP-IN DART SUB	6.438	0.69
14	HWDP HEVI-WATE DRL PIPE	5.000	125.57
		Total BHA Length :	**293.66**

BHA Name: 6. BHA WIPER TRIP | Depth In: 1800 m. | Depth Out: 1800 m.

Purpose: WIPER TRIP

Joints	BHA Item	O.D.	Length
1	BIT	12.250	0.30
1	JS JUNK SUB	9.500	1.16
1	FS FLOAT SUB	8.000	1.22
12	DC8 DRILL COLLAR 8IN	7.875	110.87
1	DJAR DRILLING JAR	8.063	5.78
2	DC8 DRILL COLLAR 8IN	7.875	18.23
1	XO CROSS OVER	8.125	0.58
1	HWDP HEVI-WATE DRL PIPE	5.000	8.95
1	DIDS DROP-IN DART SUB	6.438	0.69
14	HWDP HEVI-WATE DRL PIPE	5.000	125.57
		Total BHA Length :	**273.35**

BHA Name: 7. 8.5" BHA | Depth In: 1800 m. | Depth Out: 2071 m.

Purpose: 8.5" HOLE/DRILL CMT

Joints	BHA Item	O.D.	Length
1	BIT	8.500	0.24
1	NBR NB ROLLER REAMER	6.500	1.84
1	XO CROSS OVER	6.750	0.35
1	MWD TOOL	6.500	12.86
1	SRR STRING ROLLER REAMR	6.500	1.63
15	DC65 DRILL COLLAR 6.5IN	6.375	139.52
1	DJAR DRILLING JAR	6.563	5.34
2	DC65 DRILL COLLAR 6.5IN	6.500	18.43
1	HWDP HEVI-WATE DRL PIPE	5.000	8.95
1	DIDS DROP-IN DART SUB	6.438	0.69
14	HWDP HEVI-WATE DRL PIPE	5.000	125.57
		Total BHA Length :	**315.42**

4.1 BHA SUMMARY

LA BELLA-1

BHA Name: 8. 8.5" BHA   Depth In: 2071 m.   Depth Out: 2099 m.

Purpose: CORE

Joints	BHA Item	O.D.	Length
1	BIT	8.500	0.30
3	CB CORE BARREL	6.750	29.27
15	DC65 DRILL COLLAR 6.5IN	6.500	139.52
1	DJAR DRILLING JAR	6.563	5.34
2	DC65 DRILL COLLAR 6.5IN	6.375	18.43
1	HWDP HEVI-WATE DRL PIPE	5.000	8.95
1	DIDS DROP-IN DART SUB	6.438	0.69
14	HWDP HEVI-WATE DRL PIPE	5.000	125.57
		Total BHA Length :	**328.07**

BHA Name: 9. 8.5"   Depth In: 2099 m.   Depth Out: 2545 m.

Purpose: 8.5" HOLE SECTION

Joints	BHA Item	O.D.	Length
1	BIT	8.500	0.24
1	NBR NB ROLLER REAMER	6.500	1.84
1	XO CROSS OVER	6.500	0.35
1	MWD TOOL	6.500	12.86
1	SRR STRING ROLLER REAMR	6.500	1.63
15	DC65 DRILL COLLAR 6.5IN	6.375	139.52
1	DJAR DRILLING JAR	6.563	5.34
2	DC65 DRILL COLLAR 6.5IN	6.375	18.43
1	HWDP HEVI-WATE DRL PIPE	5.000	8.95
1	DIDS DROP-IN DART SUB	6.438	0.69
14	HWDP HEVI-WATE DRL PIPE	5.000	125.57
		Total BHA Length :	**315.42**

BHA Name: 10. 8.5" BHA   Depth In: 2545 m.   Depth Out: 2735 m.

Purpose: 8.5" HOLE SECTION

Joints	BHA Item	O.D.	Length
1	BIT	8.500	0.24
1	NBR NB ROLLER REAMER	6.500	1.84
1	XO CROSS OVER	6.750	0.35
1	MWD TOOL	6.500	12.86
1	SRR STRING ROLLER REAMR	6.500	1.63
15	DC65 DRILL COLLAR 6.5IN	6.375	139.52
1	DJAR DRILLING JAR	6.563	5.34
2	DC65 DRILL COLLAR 6.5IN	6.375	18.43
1	HWDP HEVI-WATE DRL PIPE	5.000	8.95
1	DIDS DROP-IN DART SUB	6.438	0.69
14	HWDP HEVI-WATE DRL PIPE	5.000	125.57
		Total BHA Length :	**315.42**

4.2 DEVIATION SURVEYS

LA BELLA-1

Depth	Angle	Azimuth	Method	Missrun	
350	0	0	Magnetic single shot		
628	0	0	Magnetic single shot		
741	0.2	219	MWD		
859	0.1	232	MWD		
972	0.2	238	MWD		
1091	0.1	113.4	MWD		
1207	0.2	56.8	MWD		
1265	1.3	213	MWD		
1323	1.6	212	MWD		
1382	1.8	210	MWD		
1498	2.5	218	MWD		
1614	2.7	214	MWD		
1671	2.5	218	MWD		
1731	2.6	218	MWD		
1785	2.5	241	MWD		
1846	2.7	258.3	MWD		
1905	2.8	267	MWD		
1962	2.9	272.3	MWD		
2020	2.4	284.6	MWD		
2064	2.4	274.8	MWD		
2136	2.2	270.6	MWD		
2194	2.3	259.3	MWD		
2253	2.3	247.7	MWD		
2310	2.1	227.3	MWD		
2368	1.8	218.9	MWD		
2426	1.7	211.2	MWD		
2483	1.7	206.6	MWD		
2658	2.5	224.2	MWD		
2715	2.4	228.4	MWD		
2724	2.5	227.3	MWD		

SECTION 5

BHP Petroleum

5.0 CASING REPORT - 30" CASING

LA BELLA-1

Hole Size	:	36 in	Total Depth	:	156 m	Casing Flange / Wellhead				
Weight in Slips	:	39000 lbs	Time Landed	:	08:30 hrs	Type	:	W/H		
R.T. to Wellhead	:	117.47 m	Casing Shoe at	:	156 m	Manufacturer	:	DRILQUIP		
R.T. to Mudline	:	119.5 m	Top of Casing	:	117.47 m	Model	:	SS10		
Water Depth	:	94.1 m	Casing Cut-Off	:	0 m	Size	:	18.75 in		
Air Gap	:	25.4 m	Liner Overlap	:	0 m	Rating	:	10000 psi		

PIPE INFORMATION

Description	Manufacturer	Size	Weight	Grade	Cnd	Threads	Joints	Length	Interval
SHOE	DRILQUIP	30	310	B	1	SF60	1	13.16	156 - 142.84
INTER	DRILQUIP	30	310	B	1	SF60	1	12.41	142.84 - 130.43
WELLHEAD HOUSING	DRILQUIP	30	450	B	1	SF60	1	12.96	130.43 - 117.47

Mud Type	:	S/W + GUAR GUM	Avg. Make Up Torque	:	0 ft.lbs.	Avg. Drag	:	0 lbs.
Density	:	1.03 S.G.	Movement	:		Max. Drag	:	0 lbs.
Viscosity	:	0	RPM	:	0	Fluid Lost	:	No
PV / YP	:	0 / 0	Avg. Torque Rot.	:	0 ft.lbs.	Percent Lost	:	0 %.
API W.L	:	0	Max. Torque Rot.	:	0 ft.lbs.	Volume Lost	:	0 bbl
Filled Each	:	0 jts	Moved until Bumped	:	No			
Cementer	:	ROB STRANGE						
Remarks	:							

File: LA 1_CSG		Checked:	Date: 11-Aug-93

BHP Petroleum

5.0 CASING REPORT - 13.375" CASING — LA BELLA-1

Hole Size	:	17.5	in	Total Depth	:	628	m	Casing Flange / Wellhead			
Weight in Slips	:	99000	lbs	Time Landed	:	01:45	hrs	Type	:	W/H	
R.T. to Wellhead	:	116.59	m	Casing Shoe at	:	618.34	m	Manufacturer	:	DRILQUIP	
R.T. to Mudline	:	119.5	m	Top of Casing	:	116.59	m	Model	:	SS10	
Water Depth	:	94.1	m	Casing Cut-Off	:	0	m	Size	:	18.75	in
Air Gap	:	25.4	m	Liner Overlap	:	0	m	Rating	:	10000	psi

PIPE INFORMATION

Description	Manufacturer	Size	Weight	Grade	Cnd	Threads	Joints	Length	Interval
SHOE JT	SUMITOMO	13.375	68	N80	1	BTC	1	12.11	618.34 - 606.23
FLOAT JT	SUMITOMO	13.375	68	N80	1	BTC	1	11.99	606.23 - 594.24
BAKERLOK	SUMITOMO	13.375	68	N80	1	BTC	3	35.02	594.24 - 559.22
INTER	SUMITOMO	13.375	68	N80	1	BTC	36	423.62	559.22 - 135.26
BAKERLOK	SUMITOMO	13.375	68	N80	1	BTC	1	11.64	135.26 - 123.62
X/O	DRILQUIP	13.375	68	X-56	1	BTCHD90	1	0.56	123.62 - 123.06
WELLHEAD	DRILQUIP	18.75	130		1	HD90	1	6.47	123.06 - 116.59

ACCESSORIES INFORMATION

Item	Type	Manufacturer	Number	Spacing	Interval
CENTRALIZER	BOWSPRING CENT.	HOWCO	2	12	-

Mud Type	:	S/W+GUAR GUM	Avg. Make Up Torque	:	9500	ft.lbs.	Avg. Drag	:	0	lbs.
Density	:	0 S.G.	Movement	:			Max. Drag	:	0	lbs.
Viscosity	:	0	RPM	:	0		Fluid Lost	:	No	
PV / YP	:	0 / 0	Avg. Torque Rot.	:	0	ft.lbs.	Percent Lost	:	0	%.
API W.L	:	0	Max. Torque Rot.	:	0	ft.lbs.	Volume Lost	:	0	bbl
Filled Each	:	0 jts	Moved until Bumped	:	No					

Cementer : ROB STRANGE

Remarks : DELAYS TO CASING RUN CAUSED BY INTERFERENCE OF KELLY HOSE. STABBER UNABLE TO ALIGN CASING QUICKLY CAUSING NUMEROUS CONNECTIONS TO BE JAMMED.

BHP Petroleum

5.0 CASING REPORT - 9.625" CASING

LA BELLA-1

Hole Size	: 12.25 in	Total Depth	: 1800 m	Casing Flange / Wellhead	
Weight in Slips	: 240000 lbs	Time Landed	: 01:45 hrs	Type	: W/H
R.T. to Wellhead	: 116.59 m	Casing Shoe at	: 1786 m	Manufacturer	: DRILQUIP
R.T. to Mudline	: 119.5 m	Top of Casing	: 116.59 m	Model	: SS 10
Water Depth	: 94.1 m	Casing Cut-Off	: 0 m	Size	: 18.75 in
Air Gap	: 25.4 m	Liner Overlap	: 0 m	Rating	: 10000 psi

PIPE INFORMATION

Description	Manufacturer	Size	Weight	Grade	Cnd	Threads	Joints	Length	Interval
CASING HANGER	DRILQUIP	9.625	53.5	P-110	1	NEW VAM	1	4.99	116.59 - 121.58
CASING JOINT	SUMITOMO	9.625	47	P-110	1	NEW VAM	137	1614.8	121.58 - 1736.4
BAKER LOC	SUMITOMO	9.625	47	P-110	1	NEW VAM	1	11.99	1736.4 - 1748.4
FLOAT	SUMITOMOORD	9.625	47	P-110	1	NEW VAM	1	12.35	1748.4 - 1760.8
BAKER LOC	SUMITOMO	9.625	47	P-110	1	NEW VAM	1	11.92	1760.8 - 1772.7
CASING SHOE	SUMITOMO	9.625	47	P-110	1	NEW VAM	1	12.35	1772.7 - 1785.0

ACCESSORIES INFORMATION

Item	Type	Manufacturer	Number	Spacing	Interval
CENTRALIZER	BOWSPRING CENT.	HOWCO	5	6	1748.41 - 1785.03

Mud Type	: KCL PHPA	Avg. Make Up Torque	: 14000 ft.lbs.	Avg. Drag	: 0 lbs.
Density	: 1.12 S.G.	Movement	: NONE	Max. Drag	: 0 lbs.
Viscosity	: 54	RPM	: 0	Fluid Lost	: No
PV / YP	: 18 / 24	Avg. Torque Rot.	: 0 ft.lbs.	Percent Lost	: 0 %.
API W.L	: 8	Max. Torque Rot.	: 0 ft.lbs.	Volume Lost	: 0 bbl
Filled Each	: 5 jts	Moved until Bumped	: No		
Cementer	: ROB STRANGE				
Remarks	:				

BHP Petroleum

5.1 CEMENTING REPORT - 30" CASING — LA BELLA-1

Job Type :	30" CASING	Started :	09:17 Hrs, 22/01/93	Completed :	09:48 Hrs, 22/01/93
Cementer :	R.STRANGE	CBL Log :	No	Returns :	Yes
Cemented Interval :	119.5 - 156	CET Run :	No	Total No. of Stages :	01
		BHT Log :	0	Time WOC :	0hrs, 0

HOLE DESCRIPTION

FROM	TO	SIZE	% OVER	DISP. EFF.
119.5	156	36	0	

LEAK OFF INFORMATION

Casing Test :	0 psi.	For :	0 min.
Drilled :	0 m.	of New :	0 in. hole
Leak Off Test :	0 psi.	with :	0 S.G. mud
at a depth of :	0 m.	Equivalent Fluid Density :	0 S.G.
		Pressure at Test Depth :	0 psi.

STAGE INFORMATION

Stage Number : 001 of   Stage Type : 30in   Planned Interval : 119 to 156 m.

Drill String Depth : 156 m.   Tool Depth* : m.   Drill String Pressure Initial : 200 psi.   Final : 250 psi.

Annular Pressure Initial : psi.   Final : psi.

Started Mixing :	09:17 Hrs.	Completed :	09:48 Hrs.	Mixing Rate :	250 gpm.	Mixing Pressure :	380 psi.
Break Pressure :	psi.	Time Circ. at Btm. :	10 Hrs.	Circulat. Rate :	400 gpm.	CirculatingPressure :	450 psi.
Displaced with :	19 bbls of SEAWATER	Fluid Wt. :	1.02 S.G.	Top Plug :	No	Bottom Plug :	No
Plug Down :	: Hrs,	Bumped :	No	Bled Off to :	psi.		
Disp Rate Initial :	365	Final :	365	Min :		Max :	gpm
Disp Press Initial :	350	Final :	350	Min :		Max :	psi.

Lost Cir. : No   % Lost : 0   Volume : 0 bbl.   Foam Cmt : No   N2 : 0   Start : 0   End : 0 scfn/bt   Tot : 0 scf

Fluid Vol. Total : 123   Fluid Vol. Returned : 0   Slurry Vol. Total : 104   Slurry Vol. Returned :

First Preflush Used : bbls of   Fluid Wt. : S.G.   Additives :

Second Preflush Used : bbls of   Fluid Wt. : S.G.   Additives :

Time stage Started :   Time stage Completed :   Hours Before Open :   Circ. Btwn Stages :

Time Broke Cir. :   Time Pipe Move Start :   Time Pipe Move End :   Time Release Plug :

COMMENTS

ADDITIVES 2% CALCIUM CHLORIDE

Stage Number	001
Fluid Number	001
Fluid Description	TAIL SLURRY
Fluid Type	NEAT
Fluid Class	CLASS G
Amount (sacks)	500
Volume (bbl)	104
Yield (ft3/sx)	1.15
Excess (%)	100
Caliper / Open Hole	O
From / To (m)	119.5 / 156
Designed Top (m)	119.5
Density	1.9
Thickening Time (hrs)	2.5
Water Req'd (bbl)	60
Water Used (gal/sack)	5
Water Source	SEAWATER
Total Vol. Mixed (bbl)	104
Volume Pumped (bbl)	104
Volume in Well (bbl)	
Comp. Strength (lbs)	
Time (hrs)	
Temp (°C)	
Comp. Strength (lbs)	
Time (hrs)	
Temp (°C)	
BHST (°C)	
BHCT (°C)	
Outside Temp (°C)	20
Additives	29 sx of 2 % CACL2

BHP Petroleum

5.1 CEMENTING REPORT - 13-3/8" CASING — LA BELLA-1

Job Type :	13-3/8" CASING	Started :	03:05 Hrs, 24/01/93	Completed :	03:05 Hrs, 24/01/93
Cementer :	R.STRANGE	CBL Log :	No	Returns :	Yes
		CET Run :	No	Total No. of Stages :	02
Cemented Interval :	119 - 618 m.	BHT Log :	0	Time WOC :	0hrs, 0

HOLE DESCRIPTION

FROM	TO	SIZE	% OVER	DISP. EFF.
119	618	17.5		

LEAK OFF INFORMATION

Casing Test :	460 psi.	For :	10 min.
Drilled :	3 m.	of New :	12.25 in. hole
Leak Off Test :	540 psi.	with :	1.07 S.G. mud
at a depth of :	625 m.	Equivalent Fluid Density :	1.69 S.G.
		Pressure at Test Depth :	1482 psi.

STAGE INFORMATION

Stage Number : 002 of 0   Stage Type : TAIL   Planned Interval : 468 to 618 m.

Drill String Depth : 628 m.   Tool Depth : m.   Drill String Pressure Initial : psi.   Final : psi.
Annular Pressure Initial : psi.   Final : psi.

Started Mixing :	03:35 Hrs.	Completed :	03:55 Hrs.	Mixing Rate :	378 gpm.	Mixing Pressure :	450 psi.
Break Pressure :	psi.	Time Circ. at Btm. :	Hrs.	Circulat. Rate :	371 gpm.	CirculatingPressure :	310 psi.
Displaced with :	242 bbls of S/W	Fluid Wt. :	1.02 S.G.	Top Plug :	Yes	Bottom Plug :	Yes
Plug Down :	: Hrs,	Bumped :	No	Bled Off to :	psi.		
Disp Rate Initial :	100	Final :		Min :		Max :	gpm
Disp Press Initial :	400	Final :		Min :		Max :	psi.

Lost Cir. : No   % Lost : 0   Volume : 0 bbl.   Foam Cmt : No   N2 : 0   Start : 0   End : 0 scfn/bt   Tot : 0 scf

Fluid Vol. Total : 561   Fluid Vol. Returned :   Slurry Vol. Total : 319   Slurry Vol. Returned :

First Preflush Used : 222 bbls of LEAD SLURRY   Fluid Wt. : 1.5 S.G.   Additives : CLASS G + ECONO

Second Preflush Used : bbls of   Fluid Wt. : S.G.   Additives :

Time stage Started :   Time stage Completed :   Hours Before Open :   Circ. Btwn Stages :

Time Broke Cir. :   Time Pipe Move Start :   Time Pipe Move End :   Time Release Plug :

COMMENTS

50 % EXCESS USED IN TAIL
20 % EXCESS USED IN LEAD

File: LA 1_CSG		Checked: [signature]	Date: 12-Aug-93

BHP Petroleum

5.1 CEMENTING REPORT - 13-3/8" CASING — LA BELLA-1

Stage Number	001
Fluid Number	001
Fluid Description	LEAD SLURRY
Fluid Type	HIGH WATER LOSS
Fluid Class	CLASS G
Amount (sacks)	583
Volume (bbl)	222
Yield (ft3/sx)	2.17
Excess (%)	20
Caliper / Open Hole	O
From / To (m)	119 / 468
Designed Top (m)	119
Density	1.5
Thickening Time (hrs)	
Water Req'd (bbl)	177
Water Used (gal/sack)	12.76
Water Source	S/W+ECONOLITE
Total Vol. Mixed (bbl)	222
Volume Pumped (bbl)	222
Volume in Well (bbl)	
Comp. Strength (lbs)	
Time (hrs)	
Temp (°C)	
Comp. Strength (lbs)	
Time (hrs)	
Temp (°C)	
BHST (°C)	0
BHCT (°C)	
Outside Temp (°C)	
Additives	262 gal of .45 GPS ECONOLITE-L

Stage Number	002
Fluid Number	001
Fluid Description	TAIL SLURRY
Fluid Type	NEAT
Fluid Class	CLASS G
Amount (sacks)	475
Volume (bbl)	97
Yield (ft3/sx)	1.15
Excess (%)	50
Caliper / Open Hole	O
From / To (m)	468 / 618
Designed Top (m)	468
Density	1.9
Thickening Time (hrs)	
Water Req'd (bbl)	56
Water Used (gal/sack)	5
Water Source	S/W
Total Vol. Mixed (bbl)	97
Volume Pumped (bbl)	97
Volume in Well (bbl)	
Comp. Strength (lbs)	
Time (hrs)	
Temp (°C)	
Comp. Strength (lbs)	
Time (hrs)	
Temp (°C)	
BHST (°C)	
BHCT (°C)	
Outside Temp (°C)	
Additives	of

File: LA 1_SLR		Checked: [signature]	Date: 12-Aug-93

BHP Petroleum

5.1 CEMENTING REPORT - 9-5/8" CASING — LA BELLA-1

Job Type	:	9-5/8" CASING	Started	:	03:00 Hrs, 01/02/93	Completed	:	04:45 Hrs, 01/02/93
Cementer	:	J.HARGRAVE	CBL Log	:	No	Returns	:	Yes
Cemented Interval	:	1485 - 1785	CET Run	:	No	Total No. of Stages	:	01
			BHT Log	:	0	Time WOC	:	24hrs,

HOLE DESCRIPTION

FROM	TO	SIZE	% OVER	DISP. EFF.
119	618	12.42		97
618	1785	12.25	20	97

LEAK OFF INFORMATION

Casing Test	:	0 psi.	For	:	0 min.
Drilled	:	3 m.	of New	:	8.5 in. hole
Leak Off Test	:	2200 psi.	with	:	1.14 S.G. mud
at a depth of	:	1788 m.	Equivalent Fluid Density	:	2 S.G.
			Pressure at Test Depth	:	5071 psi.

STAGE INFORMATION

Stage Number : 001 of   Stage Type : PRIMARY   Planned Interval : 1485 to 1785 m.

Drill String Depth : 116 m.   Tool Depth : m.   Drill String Pressure Initial : psi.   Final : psi.
Annular Pressure Initial : psi.   Final : psi.

Started Mixing	:	03:00 Hrs.	Completed	:	04:45 Hrs.	Mixing Rate	:	gpm.	Mixing Pressure	: psi.
Break Pressure	:	psi.	Time Circ. at Btm.	:	75 Hrs.	Circulat. Rate	:	gpm.	CirculatingPressure	: psi.
Displaced with	:	401 bbls of MUD	Fluid Wt.	:	1.14 S.G.	Top Plug	:	Yes	Bottom Plug	: Yes
Plug Down	:	: Hrs,	Bumped	:	No	Bled Off to	:	psi.		
Disp Rate Initial	:		Final	:		Min	:		Max	: gpm
Disp Press Initial	:		Final	:		Min	:		Max	: psi.

Lost Cir. : No   % Lost : 0   Volume : 0 bbl.   Foam Cmt : No   N2 : 0   Start : 0   End : 0 scfn/bt   Tot : 0 scf

Fluid Vol. Total : 459   Fluid Vol. Returned : 459   Slurry Vol. Total : 58   Slurry Vol. Returned : 58

First Preflush Used : bbls of   Fluid Wt. : S.G.   Additives :

Second Preflush Used : bbls of   Fluid Wt. : S.G.   Additives :

Time stage Started :   Time stage Completed :   Hours Before Open :   Circ. Btwn Stages :

Time Broke Cir. :   Time Pipe Move Start :   Time Pipe Move End :   Time Release Plug :

File: LA 1_CSG		Checked: [signature]	Date: 11-Aug-93

BHP Petroleum

5.1 CEMENTING REPORT - 9-5/8" CASING	LA BELLA-1

Stage Number	001
Fluid Number	001
Fluid Description	TAIL SLURRY
Fluid Type	LOW WATER LOSS
Fluid Class	CLASS G
Amount (sacks)	234
Volume (bbl)	58
Yield (ft3/sx)	1.15
Excess (%)	20
Caliper / Open Hole	C
From / To (m)	1485 / 1785
Designed Top (m)	1485
Density	1.9
Thickening Time (hrs)	3
Water Req'd (bbl)	28
Water Used (gal/sack)	5
Water Source	FRESH
Total Vol. Mixed (bbl)	58
Volume Pumped (bbl)	58
Volume in Well (bbl)	58
Comp. Strength (lbs)	
Time (hrs)	
Temp (°C)	
Comp. Strength (lbs)	
Time (hrs)	
Temp (°C)	
BHST (°C)	
BHCT (°C)	
Outside Temp (°C)	15
Additives	9 gal of 3 G/10BL SCR-100L

File: LA 1_SLR		Checked:	Date: 11-Aug-93

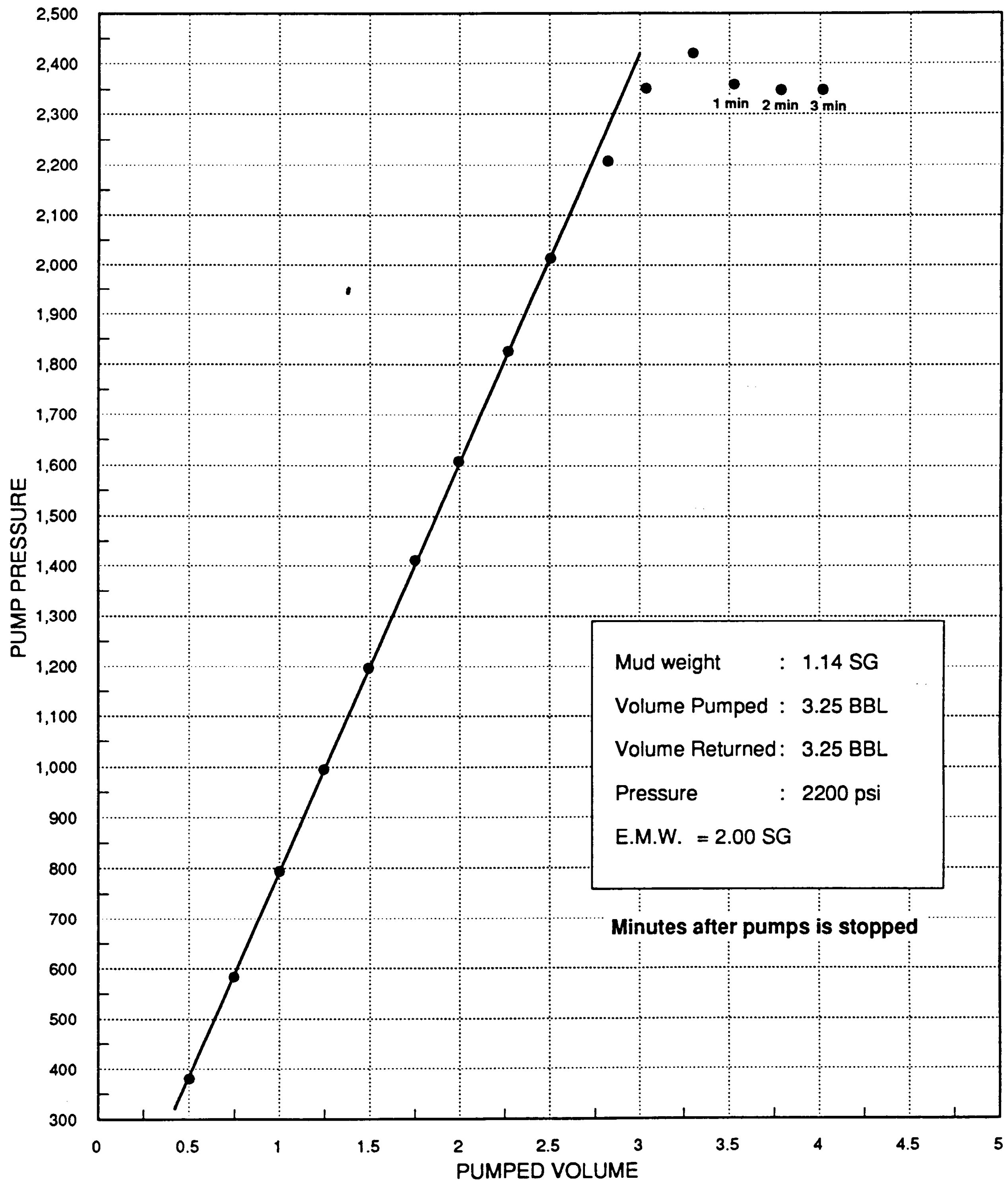
5.2.1 LEAK OFF TEST DIAGRAM

LA BELLA-1

Measured Depth : 1803m

Casing Diameter : 9.625" 47 lb/ft

Shoe Measured Depth : 1786m



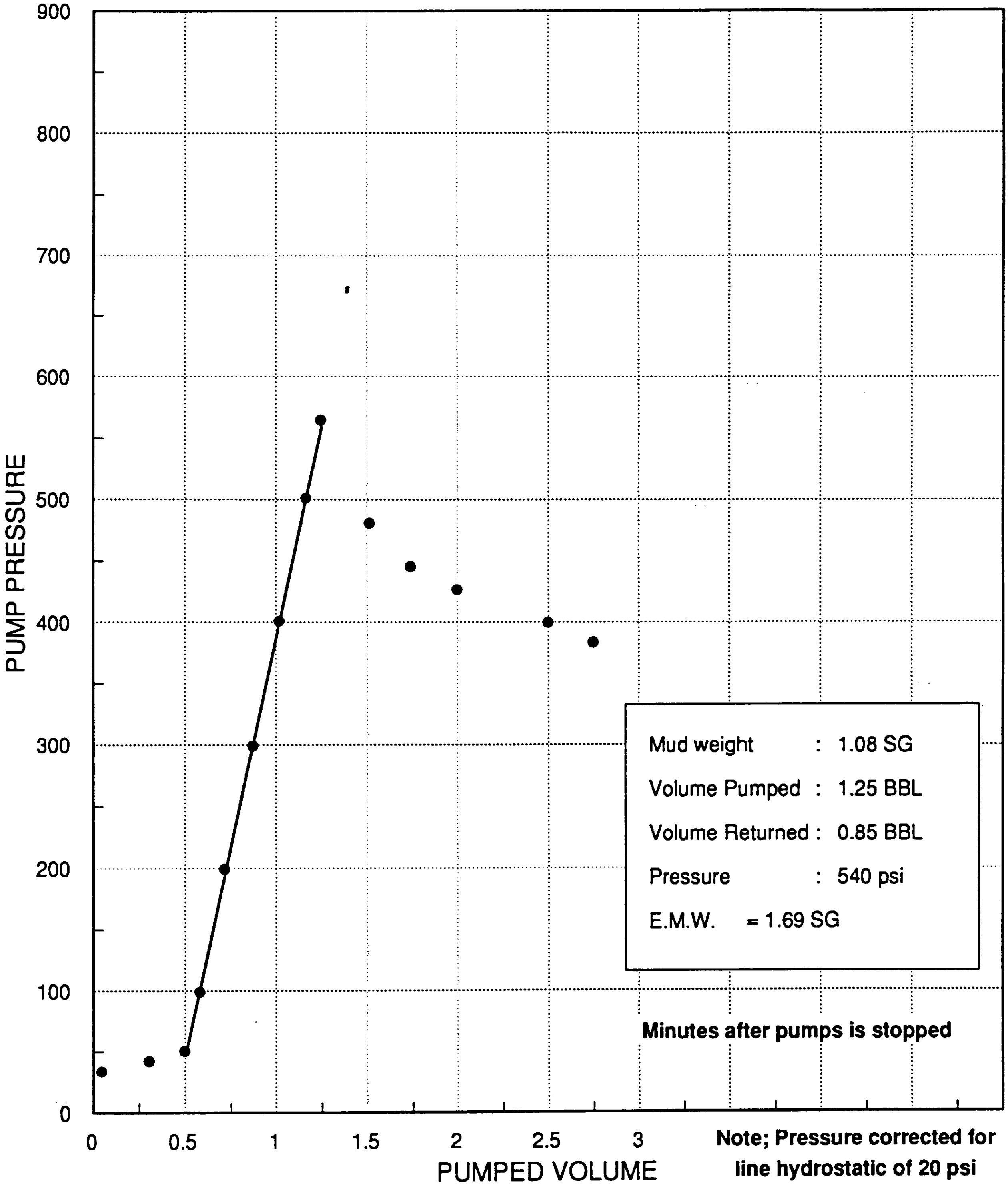
5.2.2 LEAK OFF TEST DIAGRAM

LA BELLA-1

Measured Depth : 630m

Casing Diameter : 13.375" 47 lb/ft

Shoe Measured Depth : 618m



Note; Pressure corrected for line hydrostatic of 20 psi

SECTION 6

BHP Petroleum

6.0 SUSPENSION/ABANDONMENT CEMENTING REPORT — LA BELLA-1

Job Type :	PLUG AND ABAND	Started :	12:00 Hrs, 11/02/93	Completed :	15:45 Hrs, 11/02/93
Cementer :	HALLIBURTON	CBL Log :	No	Returns :	Yes
		CET Run :	No	Total No. of Stages :	02
Cemented Interval :	1700 - 2200	BHT Log :	0	Time WOC :	4hrs, 0

HOLE DESCRIPTION

FROM	TO	SIZE	% OVER	DISP. EFF.
1785	2735	8.5	20	97
119	1785	8.681		97

LEAK OFF INFORMATION

Casing Test :	0 psi.	For :	0 min.
Drilled :	3 m.	of New :	8.5 in. hole
Leak Off Test :	2200 psi.	with :	1.14 S.G. mud
at a depth of :	1788 m.	Equivalent Fluid Density :	2 S.G.
		Pressure at Test Depth :	5071 psi.

STAGE INFORMATION

Stage Number : 002 of   Stage Type : ABANDONMENT   Planned Interval : 1700 to 1900 m.

Drill String Depth :	1900 m.	Tool Depth :	m.	Drill String Pressure Initial :	psi.	Final :	psi.
				Annular Pressure Initial :	psi.	Final :	psi.

Started Mixing :	14:30 Hrs.	Completed :	15:45 Hrs.	Mixing Rate :	265 gpm.	Mixing Pressure :	450 psi.
Break Pressure :	psi.	Time Circ. at Btm. :	.75 Hrs.	Circulat. Rate :	gpm.	CirculatingPressure :	psi.
Displaced with :	110 bbls of MUD	Fluid Wt. :	1.22 S.G.	Top Plug :	No	Bottom Plug :	No
Plug Down :	: Hrs,	Bumped :	No	Bled Off to :	psi.		
Disp Rate Initial :	300	Final :	95	Min :	95	Max :	335 gpm
Disp Press Initial :	250	Final :	250	Min :	250	Max :	900 psi.

Lost Cir. : No   % Lost : 0   Volume : 0 bbl.   Foam Cmt : No   N2 : 0   Start : 0   End : 0 scfn/bt   Tot : 0 scf

Fluid Vol. Total : 181   Fluid Vol. Returned : 181   Slurry Vol. Total : 71   Slurry Vol. Returned : 71

First Preflush Used :	bbls of	Fluid Wt. :	S.G.	Additives :	
Second Preflush Used :	bbls of	Fluid Wt. :	S.G.	Additives :	

Time stage Started :	Time stage Completed :	Hours Before Open :	Circ. Btwn Stages :
Time Broke Cir. :	Time Pipe Move Start :	Time Pipe Move End :	Time Release Plug :

File: LA 1_CSG		Checked:	Date: 11-Aug-93

BHP Petroleum

6.0 SUSPENSION/ABANDONMENT CEMENTING REPORT — LA BELLA-1

Job Type :	PLUG AND ABAND	Started :	13:45 Hrs, 12/02/93	Completed :	14:30 Hrs, 12/03/93
Cementer :	HALLIBURTON	CBL Log :	No	Returns :	Yes
		CET Run :	No	Total No. of Stages :	01
Cemented Interval :	142 - 192 m.	BHT Log :	0	Time WOC :	0hrs, 0

HOLE DESCRIPTION

FROM	TO	SIZE	% OVER	DISP. EFF.
119	1785	8.681	0	97
1785	2735	8.5	20	97

LEAK OFF INFORMATION

Casing Test :	0 psi.	For :	0 min.
Drilled :	3 m.	of New :	8.5 in. hole
Leak Off Test :	2200 psi.	with :	1.14 S.G. mud
at a depth of :	1788 m.	Equivalent Fluid Density :	2 S.G.
		Pressure at Test Depth :	5071 psi.

STAGE INFORMATION

Stage Number : 001 of   Stage Type : ABANDONMENT   Planned Interval : 142 to 192 m.

Drill String Depth :	192 m.	Tool Depth* :	m.	Drill String Pressure Initial :	psi.	Final :	psi.
				Annular Pressure Initial :	psi.	Final :	psi.

Started Mixing :	13:45 Hrs.	Completed :	14:30 Hrs.	Mixing Rate :	135 gpm.	Mixing Pressure :	100 psi.
Break Pressure :	psi.	Time Circ. at Btm. :	Hrs.	Circulat. Rate :	gpm.	CirculatingPressure :	psi.
Displaced with :	11 bbls of MUD	Fluid Wt. :	1.22 S.G.	Top Plug :	No	Bottom Plug :	No
Plug Down :	: Hrs,	Bumped :	No	Bled Off to :	psi.		
Disp Rate Initial :	65	Final :	90	Min :	65	Max :	160 gpm
Disp Press Initial :	50	Final :	50	Min :	50	Max :	75 psi.

Lost Cir. : No   % Lost : 0   Volume : 0 bbl.   Foam Cmt : No   N2 : 0   Start : 0   End : 0 scfn/bt   Tot : 0 scf

Fluid Vol. Total :	36	Fluid Vol. Returned :	36	Slurry Vol. Total :	25	Slurry Vol. Returned :	25
First Preflush Used :	bbls of			Fluid Wt. :	S.G.	Additives :	
Second Preflush Used :	bbls of			Fluid Wt. :	S.G.	Additives :	
Time stage Started :		Time stage Completed :		Hours Before Open :		Circ. Btwn Stages :	
Time Broke Cir. :		Time Pipe Move Start :		Time Pipe Move End :		Time Release Plug :	

File: LA 1_CSG		Checked:	Date: 11-Aug-93

BHP Petroleum

6.0 WELL SUSPENSION/ABANDONMENT CEMENTING REPORT — LA BELLA-1

Stage Number	002		Stage Number	001
Fluid Number	001		Fluid Number	001
Fluid Description	ABANDONMENT PLUG		Fluid Description	ABANDONMENT PLUG
Fluid Type			Fluid Type	
Fluid Class	CLASS G		Fluid Class	CLASS G
Amount (sacks)	344		Amount (sacks)	120
Volume (bbl)	71		Volume (bbl)	25
Yield (ft3/sx)	1.15		Yield (ft3/sx)	1.15
Excess (%)	20		Excess (%)	
Caliper / Open Hole	C		Caliper / Open Hole	C
From / To (m)	1700 / 1900		From / To (m)	142 / 192
Designed Top (m)	1700		Designed Top (m)	142
Density	1.9		Density	1.9
Thickening Time (hrs)	2.7		Thickening Time (hrs)	
Water Req'd (bbl)	41		Water Req'd (bbl)	14
Water Used (gal/sack)	5		Water Used (gal/sack)	5
Water Source	FRESH		Water Source	SEAWATER
Total Vol. Mixed (bbl)	71		Total Vol. Mixed (bbl)	25
Volume Pumped (bbl)	71		Volume Pumped (bbl)	25
Volume in Well (bbl)	71		Volume in Well (bbl)	25
Comp. Strength (lbs)			Comp. Strength (lbs)	
Time (hrs)			Time (hrs)	
Temp (°C)			Temp (°C)	
Comp. Strength (lbs)			Comp. Strength (lbs)	
Time (hrs)			Time (hrs)	
Temp (°C)			Temp (°C)	
BHST (°C)	88		BHST (°C)	88
BHCT (°C)	64		BHCT (°C)	64
Outside Temp (°C)	15		Outside Temp (°C)	15
Additives			Additives	

File: LA 1_SLR		Checked:	Date: 12-Aug-93

SECTION 7

BHP Petroleum

FINAL DRILLING REPORT

7.0 WEATHER DATA

LA BELLA-1

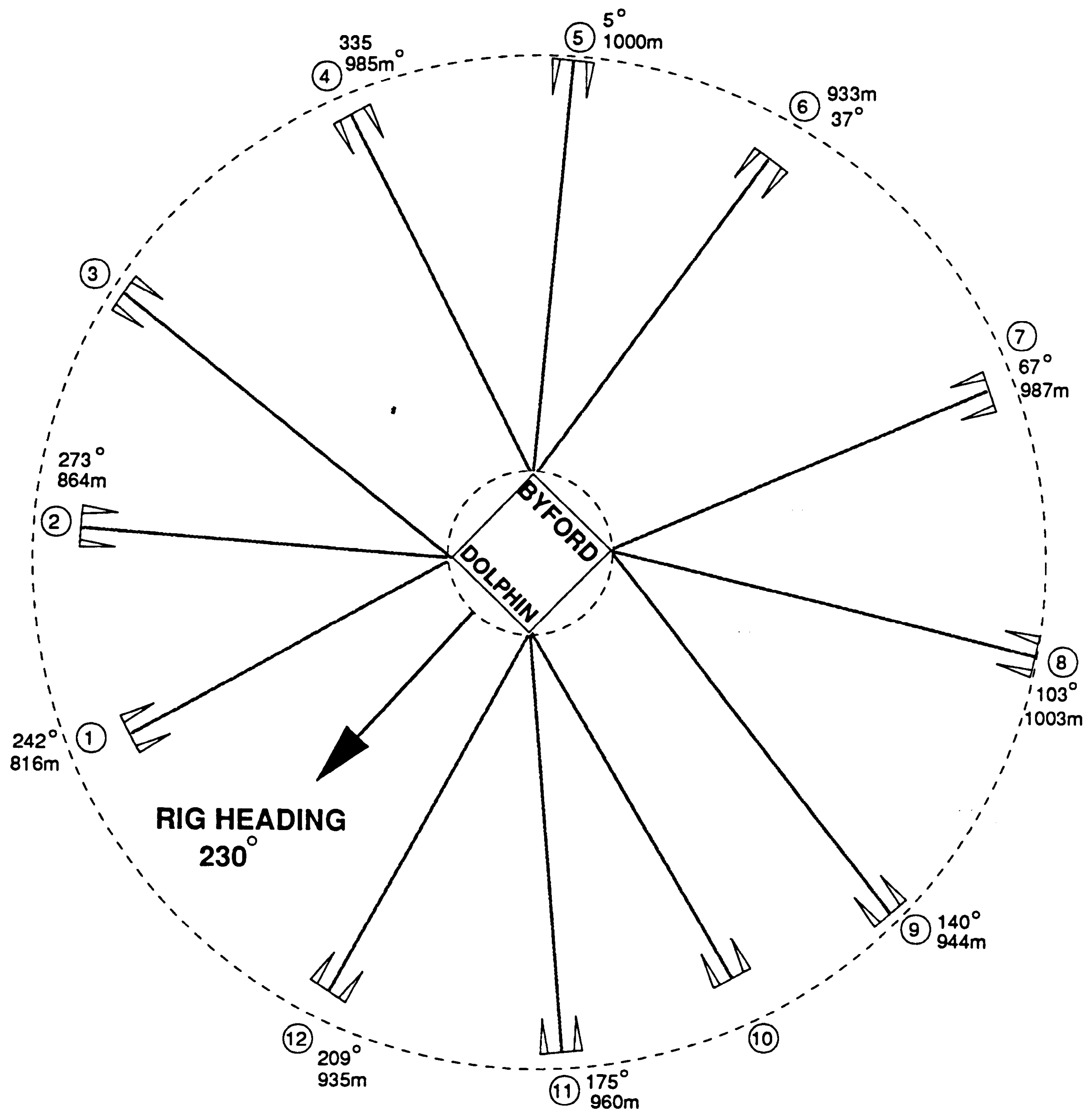
Date	Day	Wind Vel (Knots)	Wind Dir	Temp High (degC)	Visibility (Nm)	Weather State	Swell Height (m)	Swell Per (sec)	Swell Dir	Wave Height (m)	Wave Per (sec)	Wave Dir	Heave (m)	Pitch (deg)	Roll (deg)	Bar Pressure (HPa)
17/01/93	1	22	180	20	12	FINE/CLEAR	2	8	230	0.8	3	180	0	0.7	1.5	1004
18/01/93	2	10	180	26	12	CLOUDY	2	8	220	0.5	3	180		0.6	1.5	1015
19/01/93	3	8	80	26	12	FINE/CLEAR	2	8	240	0.3	3	80		1.2	1.3	1011
20/01/93	4	18	225	28	12	FINE	2.8	10	240	0.5	3	225		2.6	1.2	1010
21/01/93	5	18	150	19	15	FINE/CLEAR	2.5	10	240	1.5	3	150		1.8	0.8	1021
22/01/93	6	20	150	22	15	CLEAR	2	9	240	1.5	3	150	0.3	0.5	0.6	1018
23/01/93	7	12	140	28	15	FINE	1.5	8	240	0.3	2	140	0.4	0.4	0.4	1009
24/01/93	8	50	180	21	15	CLEAR/WINDY	3	12	240	2	4	180	1	1	1	1013
25/01/93	9	40	110	19	15	WINDY	2.5	12	210	2	4	110	1.2	1	1.2	1020
26/01/93	10	44	40	20	15	O'CAST	2	9	200	3	5	40	1.5	0.8	1.8	1017
27/01/93	11	25		17	15	CLOUDY	1.6		200	0.5	3	270	0.8	0.6	0.4	1010
28/01/93	12	16	280	22	12	CLOUDY	1.5	12	250	1	3	280	0.5	0.5	0.5	1012
29/01/93	13	16	280	22	12	CLEAR	1.5	9	250	1	3	280	1.5	0.7	0.8	1022
30/01/93	14	16	60	25	12	CLEAR	1.5	4	60	0.5	3	60	1.3	0.5	0.3	1023
31/01/93	15	10	20	26	12	FOG	0.6	3	50	0.3	2	20	1.5	0.5	0.3	1020
01/02/93	16	10	1	30	1	FOGGY	1	12	220	0.1	1	1	0.2	0.2	0.5	1010
02/02/93	17	20	1	31	10	FINE	1	12	220	0.1	1	1	0.3	0.2	0.2	1009
03/02/93	18	20	210	34	10	FINE	1	12	220	0.2	2	210	0.2	0.1	0.1	1007
04/02/93	19	20	190	25	15	OVERCAST	1.2	12	220	0.7	3	190	0.5	0.3	0.3	1018
05/02/93	20	20	130	30	15	OVERCAST	1.5	12	220	1	3	130	1.2	0.3	0.5	1020
06/02/93	21	28	30	26	15	FINE	1.2	12	180	1	3	30	1	0.3	0.3	1015
07/02/93	22	20	180	31	15	OVERCAST	1.2	11	200	1	3	180	1	0.5	0.3	1019
08/02/93	23	16	180	22	15	FINE	2.2	9	220	0.7	3	180	1.8	0.6	0.2	1021
09/02/93	24	16	160	30	15	FINE	2	10	220	0.7	3	160	1.2	0.3	0.4	1020
10/02/93	25	18	340	22	15	FINE	1	10	230	0.5	3	340	0.4	0.3	0.2	1016
11/02/93	26	18	220	17	10	FINE	2.5	11	230	1	3	220	1.6	0.6	0.5	1012
12/02/93	27	13	150	17	10	FINE	2	11	230	0.7	3	150	0.5	0.1	0.2	1020
13/02/93	28	22	70	20	10	FINE	2	10	230	0.7	3	70	1	0.5	0.6	1013
14/02/93	29	45	90	25	10	FINE	2	10	230	2	3	90	2	1.2	2.5	1013

LABL1/PE901815/P59

File: LA 1_WTR		Checked:	Date: 12-Aug-93

7.1. MOORING DIAGRAM

LA BELLA-1



Note: Anchor 3 and 10 lost during anchoring, recovered using ROV and supply vessel.

BHP Petroleum

FINAL DRILLING REPORT

LA BELLA-1

Compiled By:	Technical Assistant	13 · 8 · 93 Date
Reviewed By:	Senior Drilling Engineer	13-08-93 Date
	Drilling Superintendent	13 · 8 · 93 Date
Approved By:	Manager Drilling	13-8-93 Date

3

3. FORMATION SAMPLING

3.1 Ditch Cuttings

Cuttings were returned to the sea floor above 628 m. The 12.25" hole was drilled from 628 m to 1800 m. Ditch cuttings were collected from the shakers at 5 m intervals below 628 m except where high ROP necessitated increasing the sample interval to 10 m.

The 8.5" hole was drilled from 1800 m to 2735 m (TD). Cuttings were collected at 3 m interval over this hole section.

Circulation times were checked periodically with carbide-acetylene gas samples and pump stroke counters. Calculated lag times were refined accordingly.

Table 1 presents the sampling program used in the drilling of La Bella-1. Washed and dried cuttings samples were prepared in five sample splits, one each being sent to Bridge Oil and the government bodies: the Bureau of Resource Sciences, Canberra, and the Victorian Department of Energy and Minerals, Melbourne. The two remaining splits were sent to BHP Petroleum, Melbourne. Two sets of unwashed samples and one set of Petrocraft sample vials were also sent to BHP Petroleum, Melbourne.

Table 1

La Bella-1

Ditch Cuttings Samples

Treatment	Collection Interval	Distribution	Purpose of Sample
Washed	No samples: 119.5 m - 630 m 5 m samples: 630 m - 1800 m Except: 670, 680, 690, 705, 720, 730, 740, 750, 760, 790, 815, 925, 935, 955, 965, 975, 985, 995, 1005, 1015, 1025, 1035, 1045, 1055, 1065, 1075, 1085, 1105, 1115, 1145, 1205, 1215, 1225, 1235, 1245, 1255, 1265, 1275, 1285, 1295, 1305, 1315, 1325, 1335, 1345, 1355, 1365, 1405, 1415, 1425, 1435, 1445, 1455, 1465, 1475, 1485, 1495, 1505, 1545. 3 m samples: 1800 m - 2735 m	BHPP (2)* Bridge Oil (1) Vic DEM (1) BRS (1)	100 g split samples *1 for geochemistry

Collection Treatment	Interval	Purpose Distribution	of Sample
Unwashed	as above	BHPP (2)	1 for bulk storage and possible palaeontological/ palynological analysis. 1 for possible fission-track analysis.

3.1.1 Cuttings Description Summary

All depths are referenced to the rotary table (RT) which is 25.3 m above Mean Sea Level. Depths were determined by reference to lag time, ROP and MWD data.

Depth mRT	Description
119.5 - 628	Returns to seafloor
628 - 1067	MARL AND CALCAREOUS CLAYSTONE WITH TRACE SANDSTONE AND SILTSTONE IN PART

MARL (0-100% above approximately 860 m): off white to light brown/grey, medium brown/grey in part, soft to firm, hard in part, dispersive to sticky, amorphous, light grey argillaceous material, 40-60% calcareous material, grades to calcareous claystone, trace to minor dolomitic material, trace to minor clear quartz grains, fine, subangular to subrounded, slightly spherical, well sorted, minor to common fossil fragments, off white to clear, fine, angular to subangular, slightly elongate, well sorted, trace sponge spicule or echinoderm spine fragments, trace buff dolomitic fragments, no show.

CALCAREOUS CLAYSTONE (0-100% below approximately 860 m): arenaceous in part, light to medium brown/grey, off white in part, soft to firm, dispersive, moderately hard in part, amorphous, light to medium brown/grey argillaceous material, 20-50% calcareous material, grades to marl in part, minor dolomitic material in part, trace to common very fine to fine quartz grains, subangular to subrounded, slightly spherical, well sorted, rare to abundant clear to off white fossil fragments, fine, angular to subangular, slightly elongate, well sorted, trace forams in part, trace sponge spicule or echinoderm spine fragments in part, no show.

SANDSTONE (0-trace): clear to translucent, moderately hard, blocky, quartz grains, fine, subangular, slightly spherical, well sorted, moderately calcareous cemented, minor light brown/grey argillaceous matrix, very poor visual porosity, no show.

SILTSTONE (0-5%): dark brown/grey, moderately hard, blocky, silt to very fine quartz grains, abundant dark brown/grey argillaceous material, rare calcareous material, trace fine to medium grained glauconite pellets, no show.

Depth mRT	Description
1067 - 1194	CALCAREOUS CLAYSTONE
	CALCAREOUS CLAYSTONE: generally as above, argillaceous in part, light to medium brown/grey, off white in part, soft to firm, dispersive, moderately hard in part, amorphous, light to medium brown/grey argillaceous material, 20-40% calcareous material, minor dolomitic material in part, trace to 30% very fine to fine quartz grains, subangular to subrounded, slightly spherical, well sorted, rare to abundant clear to off white fossil fragments, fine, angular to subangular, slightly elongate, well sorted, trace forams in part, trace sponge spicule or echinoderm spine fragments in part, no show.
1194 - 1425	SANDSTONE
	SANDSTONE: predominantly loose quartz grains, clear to translucent, abundant light yellow to orange iron stained, medium to coarse, abundant very coarse to granule, bimodal in part, becoming predominantly very coarse to granule below 1310 mRT, subrounded to rounded, minor subangular, slightly elongate to slightly spherical, moderately to well sorted, nil to trace weak calcareous cement, trace microcrystalline pyrite cement, nil to trace medium glauconite pellets, excellent inferred porosity, no show.
1425 - 1492	SANDSTONE
	SANDSTONE: generally as above, predominantly loose quartz grains, predominantly light yellow/brown iron stained, minor to abundant clear to translucent, very coarse to granule, minor to abundant medium to coarse, subrounded to rounded, minor subangular, slightly elongate to slightly spherical, moderately to well sorted, nil to trace weak calcareous cement, minor to common dark grey/brown argillaceous matrix, very good to excellent inferred porosity, no show.
1492 - 1515	SANDSTONE
	SANDSTONE: predominantly loose quartz grains, clear to translucent, medium to coarse, subangular to rounded, slightly elongate to spherical, well sorted, trace calcareous cement, trace medium grained glauconite pellets, trace medium grained white mica, excellent inferred porosity, no show.
1515 - 1550	CLAYSTONE WITH MINOR SANDSTONE
	CLAYSTONE (80-100%): silty, dark brown, soft to firm, very dispersive, sticky, amorphous to subblocky, dark brown

Depth mRT	Description
	argillaceous material, minor to abundant quartz silt, non calcareous, no show.
	SANDSTONE (0-20%): clear to translucent, firm to hard, blocky to hackly, quartz grains, medium to coarse, subangular to subrounded, elongate to slightly spherical, well sorted, moderately to well silica cemented, moderately to well pyrite cemented in part, trace microcrystalline pyrite aggregates in part, poor to fair inferred porosity, no show.
1550 - 1800	CLAYSTONE WITH TRACE SANDSTONE AND CALCARENITE
	CLAYSTONE (100%): silty, medium to dark grey/brown, soft to firm, very dispersive, sticky, amorphous to subblocky, dark grey/brown argillaceous material, minor to abundant quartz silt, trace disseminated calcareous material below about 1670 mRT, trace fossil fragments in part (sponge spicule or echinoderm spine and ? gastropod), trace medium grained glauconite in part below about 1660 mRT.
	SANDSTONE (0-tr): loose quartz grains, clear to translucent, fine to medium grained, subrounded, slightly spherical, well sorted, no show.
	CALCARENITE (0-tr below approximately 1750 mRT): off white, soft to firm, subblocky, very fine to fine calcareous grains, 30-50% off white calcareous matrix, 10-20% off white to light grey argillaceous matrix, no show.
1800 - 1970	CLAYSTONE WITH TRACE SANDSTONE, DOLOMITE AND CALCARENITE
	CLAYSTONE: medium to dark grey, medium to occasionally dark brownish grey, medium olive grey in part, soft to firm, occasionally moderately hard, sticky in part, rarely dispersive, occasionally sub-blocky to sub-fissile, trace to occasionally common silt, slightly to moderately calcareous, trace very fine carbonaceous detritus, rare to trace fine glauconite pellets, rare to trace pyrite nodules and framboids, rare to trace bands of DOLOMITE: medium brown, hard, brittle, with fine glauconite pellets, rare bands of CALCARENITE: light grey, moderately hard, fossiliferous and glauconitic, interbedded with minor:
	SANDSTONE: translucent to very light grey, very light brownish grey in part, moderately hard to occasionally hard, rarely friable in part, medium to occasionally coarse, fine to medium in part, subangular to dominantly subrounded, poorly sorted quartz, trace

Depth mRT	Description
	light grey argillaceous matrix, trace to occasionally common moderately strong siliceous and rare calcareous cement, rare very strong pyrite cement, rare partially iron stained quartz grains, rare fine glauconite pellets, rare fossil fragments, very poor to nil visual porosity, rare to trace dull orange brown mineral fluorescence, no show.
1970 - 2042	CLAYSTONE WITH MINOR DOLOMITE CLAYSTONE: medium to dark grey, medium to occasionally dark brownish grey, medium olive grey in part, soft to firm, occasionally moderately hard, sticky in part, rarely dispersive,occasionally sub-blocky to sub-fissile, trace to occasionally common silt, slightly to moderately calcareous, trace very fine carbonaceous detritus, rare to trace fine glauconite pellets, rare to trace pyrite nodules, rare bands of DOLOMITE: medium brown, hard, brittle with fine glauconite pellets, interbedded with minor: ARGILLACEOUS SANDSTONE: light grey, occasionally medium grey, rarely light greenish grey, friable with loose quartz grains, very fine to silt size, occasionally fine, dominantly subrounded, occasionally rounded, moderate to well sorted, abundant light grey dispersive argillaceous matrix, trace to occasionally common fine glauconite pellets, trace medium grey lithics, very poor to nil visual porosity, grades to Arenaceous Claystone in part, no show.
2042 - 2067	SILTY CLAYSTONE: generally as above, becoming dominantly silty, with very rare dolomite bands, interbedded with: SANDSTONE: clear to translucent, very light brown in part, friable with loose quartz grains, occasionally moderately hard to hard in part, fine to dominantly medium, occasionally coarse, subangular to dominantly subrounded, poor to moderately sorted, lightly iron stained in part, trace light to medium grey dispersive argillaceous matrix, trace moderately strong calcareous cement, trace fine glauconite pellets, very rare moderately strong siliceous cement, very poor to poor occasionally fair visual porosity, no show.
2067 - 2071	SANDSTONE: clear to translucent, very light grey in part, friable with loose quartz grains, occasionally moderately hard at top, predominantly medium to coarse, occasionally very coarse, rarely fine in part, dominantly subangular at top, becoming dominantly subrounded with depth, poorly to moderately sorted, trace to common light to medium grey dispersive argillaceous matrix (washed out), becoming rare with depth, rare to trace moderately strong calcareous (including dolomite) cement, becoming rare with depth, rare pyrite cement at top, rare medium brown moderately

Depth mRT	Description
	hard amber, rare fine glauconite pellets, rare frosty coarse quartz overgrowths at top, rare carbonaceous detritus, fair to good visual porosity at top, becoming very good to dominantly good visual porosity with depth, rare bright light to medium blue mineral fluorescence in amber (with no cut, crush cut or residual ring), no show.
2071-2098.65	Core # 1: see separate description under Section 3.3.1
2098.65-2166	SANDSTONE INTERBEDDED WITH SILTSTONE
	SANDSTONE: clear to light grey to occasionally very light brownish grey at top, becoming dominantly light to medium grey with depth, friable with loose quartz grains, occasionally moderately hard in part, fine to coarse, dominantly medium, rarely very coarse in part, subangular to dominantly subrounded, poorly to moderately sorted, rare to trace, very rarely common moderately dispersive argillaceous matrix, rare moderately weak siliceous cement in part, rare to trace glauconite pellets, carbonaceous detritus/laminae and coaly particle, rare medium brown amber with bright light blue mineral fluorescence (no cut, crush cut or residual ring), fair to dominantly good visual porosity, interbedded with:
	SILTSTONE: medium to dark grey, rarely light to medium grey in part, dominantly firm, occasionally soft to firm, rarely firm to moderately hard, dominantly subblocky, commonly argillaceous, moderately carbonaceous, trace to common glauconite pellets, common to occasionally abundant very fine to fine quartz grains, in part grading to very fine to fine Sandstone.
2166 - 2200	SANDSTONE INTERBEDDED WITH SILTSTONE
	SANDSTONE: generally as above, becoming dominantly light grey, fine to occasionally medium, good visual porosity, interbedded with:
	SILTSTONE: generally as above, dominantly medium to dark grey, commonly carbonaceous, commonly to occasionally argillaceous in part, grading in part to both; Silty Claystone and Silty Sandstone.
2200 - 2280	ARGILLACEOUS SANDSTONE INTERBEDDED WITH SILTY CLAYSTONE
	ARGILLACEOUS SANDSTONE: clear to very light grey, rarely very light brown,friable with abundant loose quartz grains, dominantly fine, occasionally medium and rarely coarse,

Depth mRT	Description
	subrounded, moderately sorted, common to abundant dispersive light argillaceous matrix (washed away), rare mica, rare grey and reddish brown lithics, good to occasionally very good visual porosity, no show, interbedded with:
	SILTY CLAYSTONE: medium to dark grey, rarely light to medium grey in part, dominantly firm, occasionally soft to firm, rarely firm to moderately hard, dominantly sub-blocky, commonly to abundantly silty moderately carbonaceous, trace to common glauconite pellets, common to occasionally abundant very fine to fine quartz grains.
2280 - 2285	SANDSTONE: clear to very light grey, friable with common loose quartz grains, medium to coarse, dominantly subrounded, rare off white kaolinitic argillaceous matrix, rare moderately weak siliceous cement, trace fine glauconite pellets, good to occasionally very good visual porosity, no show.
2285 - 2387	ARGILLACEOUS SANDSTONE: light grey, friable with trace to common loose quartz grains, fine to occasionally medium, dominantly subrounded, well sorted, abundant off-white to light grey argillaceous matrix, dominantly kaolinitic, in part grading to Arenaceous Claystone, trace to common carbonaceous detritus and laminae, poor visual porosity, no show, interbedded with:
	CLAYSTONE: light to occasionally medium grey, off-white in part, soft, sticky in part (? PHPA mud effects), trace micromica, rare to trace silt, trace carbonaceous specks and laminae, trace fine glauconite pellets, trace fine quartz grains.
2387 - 2445	SANDSTONE: light grey, friable with abundant loose quartz grains, medium to coarse, rarely fine and very coarse, subangular to dominantly subrounded, poorly to occasionally moderately sorted, trace light grey to off-white dispersive argillaceous matrix, trace grey brown and black lithics, common detrital coal particles, rare pyrite nodules, good visual porosity, no show, interbedded with:
	CLAYSTONE: as above.
2445 - 2471	SANDSTONE INTERBEDDED WITH MINOR CLAYSTONE
	SANDSTONE: clear to light grey, friable with common to abundant loose quartz grains, fine to occasionally coarse, dominantly medium, dominantly subrounded, moderately sorted, trace to abundant dominantly common dispersive off-white kaolinitic argillaceous matrix, trace to common grey, brown and

Depth mRT	Description
	occasionally black lithics, rare altered feldspar, rare carbonaceous material and detrital coal particles, fair to occasionally good visual porosity, no show, interbedded with minor:
	CLAYSTONE: light to occasionally medium grey, off-white in part, soft, sticky in part (? PHPA mud effects), trace micromica, rare to trace silt, trace carbonaceous specks and laminae, trace fine glauconite pellets, trace fine quartz grains.
2471 - 2495	ARGILLACEOUS SANDSTONE WITH MINOR CLAYSTONE
	ARGILLACEOUS SANDSTONE: as above with abundant argillaceous matrix, fair visual porosity, no show, interbedded with minor:
	CLAYSTONE: as above.
2495 - 2501	SANDSTONE WITH MINOR CLAYSTONE
	SANDSTONE: clear to translucent, moderately hard to hard, occasionally friable with common loose quartz grains, medium to granule, dominantly coarse to very coarse, dominantly subrounded (the angular grains are the product of the bit), poorly sorted, common to occasionally abundant strong siliceous and trace to common calcareous and pyrite cement, trace grey and brown lithics, rare to trace chert, nil visual porosity, no show, interbedded with minor:
	CLAYSTONE: off-white to light grey, also light to medium brownish grey, soft, sticky, rarely dispersive in part, slightly calcareous, common to abundant fine to occasionally medium quartz grains, in part grading to Argillaceous Sandstone.
2501 - 2545	ARGILLACEOUS SANDSTONE INTERBEDDED WITH MINOR CLAYSTONE
	ARGILLACEOUS SANDSTONE: off-white to light grey, rarely very light brownish grey in part, friable with abundant loose quartz grains, fine to dominantly medium, subangular to dominantly subrounded, moderately sorted, abundant off-white (kaolinitic) and light grey argillaceous matrix, dominantly sticky, trace grey and brown lithics, rare pyrite and detrital coal particles, poor visual porosity, no show, interbedded with minor:
	CLAYSTONE: medium brown to brownish grey, medium to dark grey in part, soft to occasionally firm, sticky in part, non calcareous, trace fine carbonaceous flecks and laminae, occasionally moderately silty.

Depth mRT	Description
2545 - 2596	ARGILLACEOUS SANDSTONE INTERBEDDED WITH MINOR CLAYSTONE
	ARGILLACEOUS SANDSTONE: generally as above, light grey, off-white in part, friable with abundant loose quartz grains, rarely moderately hard in part, fine to occasionally medium, dominantly subrounded, moderately to well sorted, trace to rarely common medium to dark grey and light brown lithics, abundant light grey and off-white argillaceous matrix, in part grading to Arenaceous Claystone, rare to trace moderately strong calcareous and occasionally siliceous cement, rare partially altered feldspar, rare to trace carbonaceous flecks, laminae and coaly particles, fair visual porosity, no show.
	CLAYSTONE: medium brownish grey, light to medium grey in part, soft to firm, sticky in part, non calcareous, rare to trace carbonaceous flecks and laminae, commonly silty in part and grading to Argillaceous Siltstone in part.
2596 - 2735	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE INTERBEDDED WITH MINOR CLAYSTONE
	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: off-white to light grey, occasionally light brownish grey, speckled, friable with common loose grains, moderately hard in part, fine to medium, dominantly subrounded, moderately to well sorted multi-coloured (grey, brown, red, pink and green) lithics and quartz in equal proportions, abundant off-white kaolinitic and minor light grey argillaceous matrix, in part grading to Arenaceous Claystone, trace moderately strong siliceous cement, rare strong pyrite cement, trace to common partially altered feldspar, trace to occasionally common carbonaceous flecks and coaly particles, rare mica, fair, occasionally poor visual porosity, no show, interbedded with minor:
	CLAYSTONE: light grey to beige, occasionally medium grey and brownish grey in part, soft, sticky in part, non calcareous, rare silt, rare carbonaceous flecks.

3.1.2 Cuttings Descriptions

Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	BHP Petroleum SAMPLE DESCRIPTION SHEET Well: La Bella-1 Permit: Vic/P30 Geologist(s): Mike Egan Page: 1
					17.5" hole to 628 mRT 13.375" csg at 618.4 mRT
630	100	0	N	N	CEMENT
635	50	0	N	N	CEMENT
	50	0	N	N	ARENACEOUS CALCAREOUS CLAYSTONE: light to medium brown/grey, minor buff, minor off white, firm to hard, light to medium grey argillaceous material, ~20% calcareous material, common clear quartz grains, fine, subangular to subrounded, slightly elongate to slightly spherical, well sorted, minor clear to off white calcite grains, fine, subangular, slightly elongate, well sorted, possible fossil fragments, trace foram, no show.
640	100	0	N	N	ARENACEOUS CALCAREOUS CLAYSTONE: light to medium brown/grey, minor off white, firm to hard, light to medium grey argillaceous material, ~20% calcareous material, common clear quartz grains, fine, subangular to subrounded, slightly elongate to slightly spherical, well sorted, minor clear to off white calcite grains, fine, subangular, slightly elongate, well sorted, possible fossil fragments, trace foram, no show.
645	100	0	N	N	ARENACEOUS CALCAREOUS CLAYSTONE: generally as above, 30-40% calcareous material, no show.
650	100	0	N	N	CALCAREOUS CLAYSTONE: generally as above, arenaceous, predominantly off white to light brown/grey, minor fine quartz grains, minor to abundant fine fossil fragments, trace granule sized sponge spicule or echinoderm fragments, no show.

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
655	100	0	N	N	CALCAREOUS CLAYSTONE: generally as above, trace medium grain sized sponge spicule fragments, no show.
660	100	0	N	N	CALCAREOUS CLAYSTONE: generally as above, trace sponge spicule or echinoderm spine fragments, trace fine foram, no show.
665	100	0	N	N	MARL: generally as above, 50-60% calcareous material, abundant fine fossil fragments, no show.
675	100	0	N	N	MARL: generally as above, trace foram, no show.
685	100	0	N	N	MARL: generally as above, trace foram, no show.
695	100	0	N	N	MARL: as above, no show.
700	100	0	N	N	MARL: generally as above, abundant soft and dispersive, rare to minor fine quartz grains, minor fine fossil fragments, no show.
710	100	0	N	N	MARL: as above, no show.
715	100	0	N	N	MARL: as above, no show.
725	100	0	N	N	MARL: as above, off white to light brown/grey, medium brown/grey in part, soft to firm, hard in part, dispersive to sticky, amorphous, light grey argillaceous material, 40-60% calcareous material, grades to calcareous claystone, trace to minor dolomitic material, trace to minor clear quartz grains, fine, subangular to subrounded, slightly spherical, well sorted, minor to common fossil fragments, off white to clear, fine, angular to subangular, slightly elongate, well sorted, trace sponge spicule or echinoderm spine fragments, trace buff dolomitic fragments, no show.
735	100	0	N	N	MARL: as above, no show.

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
745	100	0	N	N	MARL: as above, no show.
755	100	0	N	N	MARL: generally as above, grades to calcareous claystone, trace foram, trace sponge spicule or echinoderm spine fragments, no show.
765	100	0	N	N	MARL: as above, no show.
775	100	0	N	N	MARL: as above, no show.
785	100	0	N	N	MARL: as above, trace fine, rounded quartz grains, no show.
795	100	0	N	N	MARL: as above, no show.
800	100	0	N	N	MARL: as above, no show.
805	100	0	N	N	MARL: as above, no show.
810	100	0	N	N	MARL: generally as above, trace microcrystalline pyrite aggregates, no show.
820	100	0	N	N	MARL: as above, no show.
825	100	0	N	N	MARL: grades to calcareous claystone, generally as above, trace foram, no show.
830	100	0	N	N	MARL: as above, no show.
	tr	0	N	N	SANDSTONE: clear to translucent, moderately hard, blocky, quartz grains, fine, subangular, slightly spherical, well sorted, moderately calcareous cemented, minor light brown/grey argillaceous matrix, very poor visual porosity, no show.
	tr	0	tr	N	SILTSTONE: dark brown/grey, moderately hard, blocky, silt to very fine quartz grains, abundant dark brown/grey argillaceous material, rare calcareous material, trace fine to medium grained glauconite pellets, no show.
835	100	0	tr	N	MARL: generally as above, trace fine to medium grained glauconite pellets, no show.

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	Description
840	100	0	tr	N	MARL: generally as above, trace fine to medium grained glauconite pellets, trace sponge spicule or echinoderm spine fragments, no show.
845	100	0	tr	N	MARL: generally as above, off white to light brown/grey, medium brown/grey in part, soft to firm, hard in part, dispersive to sticky, amorphous, light grey argillaceous material, 40-60% calcareous material, grades to calcareous claystone, trace to minor dolomitic material, trace to minor clear quartz grains, fine, subangular to subrounded, slightly spherical, well sorted, minor to common fossil fragments, off white to clear, fine, angular to subangular, slightly elongate, well sorted, trace sponge spicule or echinoderm spine fragments, trace buff dolomitic fragments, trace microcrystalline pyrite aggregates, no show.
850	100	0	tr	N	MARL: as above, no show.
855	100	0	N	N	MARL: as above, trace foram, no show.
	tr	0	N	N	SANDSTONE: as above, no show
860	100	0	tr	N	MARL: generally as above, common recrystallised calcite cement in parts, trace buff to light orange dolomite fragments in part, no show.
865	100	0	tr	N	MARL: as above, no show.
	tr	0	tr	N	SANDSTONE: as above, no show.
	tr	0	tr	N	SILTSTONE: as above, no show.
870	100	0	tr	N	MARL: as above, no show.
875	100	0	N	N	MARL: generally as above, trace foram, forams increasing in size, now granule size, no show.

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	Description
880	100	0	tr	N	MARL: as above, no show.
	tr	0	N	N	SANDSTONE: as above, no show.
885	100	0	tr	N	MARL: generally as above, common to abundant fine quartz grains in part, no show.
890	100	0	tr	N	MARL: generally as above, arenaceous in part, trace microcrystalline pyrite cement, possibly coating walls of fractures in more recrystallised parts, no show.
	tr	0	N	N	SANDSTONE: as above, minor dull yellow mineral fluorescence, no show.
895	95	0	N	N	MARL: generally as above, minor recrystallised calcite cemented fragments with minor dull yellow mineral fluorescence, no show.
	5	0	N	N	SILTSTONE: as above, no show.
900	100	0	tr	N	MARL: generally as above, abundant fine quartz grains in part, grades to arenaceous marl, no show.
905	100	0	N	N	CALCAREOUS CLAYSTONE: generally as marl above, off white to light brown/grey, medium brown/grey in part, soft to firm, hard in part, dispersive to sticky, amorphous, light grey argillaceous material, 30-50% calcareous material, grades to marl, trace to minor dolomitic material, trace to minor clear quartz grains, fine, subangular to subrounded, slightly spherical, well sorted, minor to common fossil fragments, off white to clear, fine, angular to subangular, slightly elongate, well sorted, trace sponge spicule or echinoderm spine fragments, trace buff dolomitic fragments, trace microcrystalline pyrite aggregates, no show.
910	100	0	N	N	CALCAREOUS CLAYSTONE: as above, no show.

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
915	100	0	N	N	CALCAREOUS CLAYSTONE: generally as above, trace granule sized bivalves, no show.
920	100	0	tr	N	CALCAREOUS CLAYSTONE: generally as above, 20-40% calcareous material, no show.
930	100	0	N	N	CALCAREOUS CLAYSTONE: generally as above, arenaceous in part, trace fine to medium and granule size forams, no show.
	rr	0	N	N	SANDSTONE: as above.
940	100	0	N	N	CALCAREOUS CLAYSTONE: as above, no show.
945	100	0	N	N	CALCAREOUS CLAYSTONE: generally as above, arenaceous in part, rare recrystallised calcareous cement in part, no show.
950	100	0	N	N	CALCAREOUS CLAYSTONE: as above, no show.
	rr	0	N	N	SANDSTONE: as above, no show.
960	100	0	N	N	CALCAREOUS CLAYSTONE: generally as above, trace buff dolomitic fragments in part, no show.
970	100	0	N	N	CALCAREOUS CLAYSTONE: generally as above, trace microcrystalline pyrite aggregates, trace granule sized bivalves, no show.
980	100	0	N	N	CALCAREOUS CLAYSTONE: as above, no show.
990	100	0	N	N	CALCAREOUS CLAYSTONE: as above, no show.
1000	100	0	N	N	CALCAREOUS CLAYSTONE: as above, no show.
1010	100	0	N	N	CALCAREOUS CLAYSTONE: generally as above, arenaceous in part, no show.

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
1020	100	0	N	N	CALCAREOUS CLAYSTONE: as above, no show.
1030	100	0	N	N	CALCAREOUS CLAYSTONE: as above, no show.
1040	100	0	N	N	CALCAREOUS CLAYSTONE: generally as above, arenaceous in part, no show.
1050	100	0	N	N	CALCAREOUS CLAYSTONE: as above, light to medium brown/grey, off white in part, soft to firm, dispersive, moderately hard in part, amorphous, light to medium brown/grey argillaceous material, 20-40% calcareous material, minor dolomitic material in part, trace to common very fine to fine quartz grains, subangular to subrounded, slightly spherical, well sorted, rare to abundant clear to off white fossil fragments, fine, angular to subangular, slightly elongate, well sorted, trace forams in part, trace sponge spicule or echinoderm spine fragments in part, no show.
1060	100	0	tr	N	CALCAREOUS CLAYSTONE: generally as above, arenaceous in part, trace fine to medium grained glauconite pellets in part, no show.
1070	100	0	N	N	CALCAREOUS CLAYSTONE: as above, arenaceous in part, no show.
1080	100	0	N	N	CALCAREOUS CLAYSTONE: generally as above, trace medium glauconite pellets in part, no show.
1090	100	0	tr	N	ARENACEOUS CALCAREOUS CLAYSTONE: generally as above, 20-30% fine quartz grains, trace medium glauconite pellets, no show
1095	100	0	tr	N	CALCAREOUS CLAYSTONE: as above, arenaceous in part, no show.
1100	100	0	tr	N	ARENACEOUS CALCAREOUS CLAYSTONE: as above, no show.

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
1110	100	0	tr	N	ARENACEOUS CALCAREOUS CLAYSTONE: as above, trace very dull yellow mineral fluorescence, no show.
1120	100	0	tr	N	CALCAREOUS CLAYSTONE: generally as above, arenaceous in part, trace ? bryozoan fragments, trace buff to light orange dolomite fragments, trace very dull yellow mineral fluorescence, no show.
1125	100	0	N	N	CALCAREOUS CLAYSTONE: as above, arenaceous in part, no show.
1130	100	0	tr	N	CALCAREOUS CLAYSTONE: as above, arenaceous in part, no show.
1135	100	0	tr	N	CALCAREOUS CLAYSTONE: generally as above, arenaceous in part, trace microcrystalline pyrite aggregates, trace forams, no show.
1140	100	0	tr	N	CALCAREOUS CLAYSTONE: as above, arenaceous in part, no show.

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	
1150	100	0	tr	N	CALCAREOUS CLAYSTONE: as above, arenaceous in part, no show.
1155	100	0	tr	N	CALCAREOUS CLAYSTONE: as above, arenaceous, trace to minor very dull yellow mineral fluorescence, no show.
1160	100	0	tr	N	CALCAREOUS CLAYSTONE: as above, arenaceous, grades to argillaceous calcareous sandstone in part, trace dull yellow mineral fluorescence, no show.
1165	100	0	tr	N	CALCAREOUS CLAYSTONE: as above, arenaceous in part, trace microcrystalline pyrite aggregates, trace dull yellow mineral fluorescence, no show.
1170	100	0	tr	N	CALCAREOUS CLAYSTONE: as above, arenaceous in part, light to medium brown/grey, off white in part, soft to firm, dispersive, moderately hard in part, amorphous, light to medium brown/grey argillaceous material, 20-40% calcareous material, minor dolomitic material in part, trace to abundant very fine to fine quartz grains, subangular to subrounded, slightly spherical, well sorted, rare to abundant clear to off white fossil fragments, fine, angular to subangular, slightly elongate, well sorted, trace forams in part, trace sponge spicule or echinoderm spine fragments in part, trace microcrystalline pyrite aggregates, trace dull yellow mineral fluorescence, no show.
1175	100	0	N	N	CALCAREOUS CLAYSTONE: as above, trace very dull yellow mineral fluorescence, no show.
1180	100	0	N	N	CALCAREOUS CLAYSTONE: as above, no show.
1185	100	0	N	N	CALCAREOUS CLAYSTONE: as above, no show.

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
1190	90	0	N	N	CALCAREOUS CLAYSTONE: as above, no show.
	10	0	N	N	SANDSTONE: light yellow to orange, friable, predominantly loose iron stained quartz grains, medium to coarse, rounded, spherical, moderately to well sorted, excellent inferred porosity, no show.
1195	70	0	N	N	CALCAREOUS CLAYSTONE: as above, no show.
	30	0	N	N	SANDSTONE: generally as above, minor subangular, trace microcrystalline pyrite aggregates, excellent inferred porosity, no show
1200	100	0	tr	N	SANDSTONE: generally as above, predominantly loose quartz grains, clear to translucent, abundant light yellow to orange iron stained, medium to coarse, minor very coarse, subrounded to rounded, minor subangular, slightly elongate to slightly spherical, moderately to well sorted, abundant weak calcareous cement, trace microcrystalline pyrite aggregates, trace medium to coarse glauconite pellets, trace medium to coarse dark grey/brown lithic fragments, excellent inferred porosity, no show.
1210	100	0	tr	N	SANDSTONE: generally as above, medium to coarse, minor very coarse to granule, predominantly subangular to subrounded, trace very weak calcareous cement, trace to rare microcrystalline pyrite cement, excellent inferred porosity, no show.

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	
1220	100	0	N	N	SANDSTONE: generally as above, coarse to very coarse, trace granule, subrounded to rounded, minor subangular, trace microcrystalline pyrite cement, nil calcareous cement, excellent inferred porosity, no show.
1230	100	0	N	N	SANDSTONE: generally as above, medium to coarse, minor very coarse, trace granule, trace microcrystalline pyrite cement, nil to trace calcareous cement, excellent inferred porosity, no show.
1240	100	0	N	N	SANDSTONE: generally as above, predominantly loose quartz grains, clear to translucent, abundant light yellow to orange iron stained, medium to coarse, common very coarse to granule, subrounded to rounded, minor subangular, slightly elongate to slightly spherical, moderately to well sorted, nil to trace weak calcareous cement, trace microcrystalline pyrite cement, excellent inferred porosity, no show.
1250	100	0	tr	N	SANDSTONE: as above, medium to coarse, minor very coarse to granule, minor subangular, trace medium glauconite pellets, excellent inferred porosity, no show.
1260	100	0	tr	N	SANDSTONE: generally as above, medium to coarse, trace very coarse, trace medium glauconite pellets, excellent inferred porosity, no show.
1270	100	0	N	N	SANDSTONE: generally as above, medium to coarse, common very coarse, excellent inferred porosity, no show.
1280	100	0	tr	N	SANDSTONE: generally as above, medium to coarse, common very coarse to granule, trace medium glauconite pellets, excellent inferred porosity, no show.

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	
1290	100	0	tr	N	SANDSTONE: generally as above, medium to coarse, trace medium glauconite pellets, excellent inferred porosity, no show.
1300	100	0	tr	N	SANDSTONE: generally as above, medium to coarse, minor very coarse to granule, trace medium glauconite pellets, excellent inferred porosity, no show.
1310	100	0	tr	N	SANDSTONE: generally as above, predominantly medium to coarse, abundant very coarse to granule, bimodal, trace medium glauconite pellets, excellent inferred porosity, no show.
1320	100	0	N	N	SANDSTONE: generally as above, very coarse to granule, common medium to coarse, excellent inferred porosity, no show.
	tr	0	N	N	ARGILLACEOUS SANDSTONE: very dark brown, moderately hard, blocky, fine quartz grains, subrounded, slightly spherical, moderately sorted, moderately silica cemented, abundant very dark brown argillaceous matrix, poor inferred porosity, no show.
1330	100	0	N	N	SANDSTONE: generally as above, very coarse to granule, minor medium to coarse, excellent inferred porosity, no show.
	tr	0	N	N	ARGILLACEOUS SANDSTONE: as above, no show.
1340	100	0	N	N	SANDSTONE: generally as above, very coarse to granule, excellent inferred porosity, no show.
	tr	0	N	N	ARGILLACEOUS SANDSTONE: as above, no show.

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	Description
1350	100	0	N	N	SANDSTONE: generally as above, predominantly loose quartz grains, clear to translucent, abundant light yellow/brown iron stained, medium to coarse, common very coarse to granule, subrounded to rounded, minor subangular, slightly elongate to slightly spherical, moderately to well sorted, nil to trace weak calcareous cement, trace microcrystalline pyrite cement, excellent inferred porosity, no show.
1360	100	0	N	N	SANDSTONE: generally as above, very coarse to granule, abundant medium to coarse, excellent inferred porosity, no show.
1370	100	0	N	N	SANDSTONE: generally as above, very coarse to granule, excellent inferred porosity, no show.
1375	100	0	N	N	SANDSTONE: generally as above, medium to coarse, abundant very coarse to granule, excellent inferred porosity, no show.
1380	100	0	N	N	SANDSTONE: generally as above, very coarse to granule, minor coarse, trace well silica cemented aggregates, excellent inferred porosity (good where cemented), no show.
1385	100	0	N	N	SANDSTONE: generally as above, very coarse to granule, minor medium to coarse, trace well silica cemented aggregates, excellent inferred porosity, no show.
1390	100	0	N	N	SANDSTONE: generally as above, medium to coarse, abundant very coarse to granule, excellent inferred porosity, no show.
1395	100	0	N	N	SANDSTONE: generally as above, very coarse to coarse, abundant medium to coarse, trace well silica cemented aggregates, trace calcareous cement, excellent inferred porosity (good where silica cemented), no show.

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
1400	100	0	N	N	SANDSTONE: generally as above, medium to coarse, trace very coarse, excellent inferred porosity, no show.
1410	100	0	N	N	SANDSTONE: generally as above, very coarse to granule, abundant medium to coarse, excellent inferred porosity, no show.
1420	100	0	N	N	SANDSTONE: generally as above, medium to coarse, minor very coarse to granule, excellent inferred porosity, no show.
1430	100	0	N	N	SANDSTONE: generally as above, predominantly loose quartz grains, clear to translucent, abundant light yellow/brown iron stained, very coarse to granule, abundant medium to coarse, subrounded to rounded, minor subangular, slightly elongate to slightly spherical, moderately to well sorted, nil to trace weak calcareous cement, minor to common dark grey/brown argillaceous matrix, very good to excellent inferred porosity, no show.
1440	100	0	N	N	SANDSTONE: generally as above, predominantly light yellow/brown iron stained, very coarse to granule, excellent inferred porosity, no show.
1450	100	0	N	N	SANDSTONE: generally as above, predominantly light yellow/brown iron stained, very coarse to granule, excellent inferred porosity, no show.
1460	90	0	N	N	SANDSTONE: generally as above, predominantly light yellow/brown, very coarse to granule, excellent inferred porosity, no show.
	10	0	N	N	CLAYSTONE: dark grey/brown, soft to firm, dispersive, amorphous, predominantly dark grey/brown argillaceous material, trace quartz silt, non calcareous, no show.

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
1470	100	0	N	N	SANDSTONE: generally as above, predominantly light yellow/brown iron stained, very coarse to granule, excellent inferred porosity, no show.
	tr	0	N	N	CLAYSTONE: as above, no show.
1480	100	0	N	N	SANDSTONE: generally as above, predominantly light yellow/brown iron stained, very coarse to granule, excellent inferred porosity, no show.
1490	100	0	N	N	SANDSTONE: generally as above, medium to coarse, abundant very coarse to granule, excellent inferred porosity, no show.
	rr	0	N	N	CLAYSTONE: as above, no show.
1500	100	0	tr	N	SANDSTONE: predominantly loose quartz grains, clear to translucent, medium to coarse, subangular to rounded, slightly elongate to spherical, well sorted, trace calcareous cement, trace medium grained glauconite pellets, trace medium grained white mica, excellent inferred porosity, no show.
1510	100	0	rr	N	SANDSTONE: generally as above, medium to coarse, rare medium to coarse glauconite pellets, excellent inferred porosity, no show.
1515	100	0	N	N	CLAYSTONE: dark brown, soft to firm, sticky, amorphous, dark brown argillaceous material, minor quartz silt, non calcareous, no show.

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	Description
1520	90	0	N	N	CLAYSTONE: silty, generally as above, dark brown to grey/brown, firm to moderately hard, sticky, amorphous to subblocky, minor to abundant quartz silt, non calcareous, no show.
	10	0	N	N	SANDSTONE: clear to translucent, firm to hard, blocky to hackly, quartz grains, medium to coarse, subangular to subrounded, elongate to slightly spherical, well sorted, moderately to well silica cemented, moderately to well pyrite cemented in part, trace microcrystalline pyrite aggregates in part, poor to fair inferred porosity, no show.
1525	80	0	N	N	CLAYSTONE: as above, no show.
	20	0	N	N	SANDSTONE: as above, medium to coarse, poor to fair inferred porosity, no show.
1530	90	0	N	N	CLAYSTONE: as above. SHOWS: no direct fluorescence, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring fluorescence.
	10	0	N	N	SANDSTONE: generally as above, medium to coarse, common off white argillaceous matrix in part, poor to fair inferred porosity, no show.
1535	90	0	N	tr	CLAYSTONE: generally as above, trace to minor fine black carbonaceous aggregates in part. SHOWS: no direct fluorescence, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring fluorescence.
	10	0	N	N	SANDSTONE: as above, medium to coarse, poor to fair inferred porosity, no show.

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
1540	40	0	N	N	CLAYSTONE: as above. SHOWS: no direct fluorescence, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring fluorescence.
	60	0	N	N	SANDSTONE: (i) (10%) generally as above, medium to coarse, poor to fair inferred porosity, no show. (ii) (50%) predominantly loose quartz grains, clear to translucent, minor light yellow/brown iron stained, medium to coarse, minor very coarse, subrounded to rounded, slightly elongate to spherical, moderately sorted, excellent inferred porosity, no show ? cavings.
1550	90	0	N	N	CLAYSTONE: as above. SHOWS: no direct fluorescence, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring fluorescence.
	10	0	N	N	SANDSTONE: (i) as above, medium to coarse, poor to fair inferred porosity, no show.
1555	90	0	N	N	CLAYSTONE: generally as above, medium to dark grey/brown, soft to firm, sticky, amorphous, dark brown argillaceous material, minor quartz silt, non calcareous. SHOWS: no direct fluorescence, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring fluorescence.
	10	0	N	N	SANDSTONE: (i) as above, medium to coarse, poor to fair visible porosity, no show.
1560	100	0	N	N	CLAYSTONE: as above. SHOWS: no direct fluorescence, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring fluorescence.
	tr	0	N	N	SANDSTONE: as above, no show.

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
1565	100	0	N	N	CLAYSTONE: as above. SHOWS: no direct fluorescence, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring fluorescence.
	tr	0	N	N	SANDSTONE: generally as above, well pyrite cemented, no show.
1570	100	0	N	N	CLAYSTONE: as above. SHOWS: no direct, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring fluorescence.
1575	100	0	N	N	CLAYSTONE: as above. SHOWS: no direct fluorescence, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring fluorescence.
	tr	0	N	N	SANDSTONE: generally as above, well pyrite cemented, abundant microcrystalline pyrite aggregates, poor inferred porosity, no show.
1580	100	0	N	N	CLAYSTONE: generally as above, rare microcrystalline pyrite aggregates. SHOWS: no direct fluorescence, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring fluorescence.
1585	100	0	N	N	CLAYSTONE: as above. SHOWS: no direct fluorescence, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring fluorescence.
	tr	0	N	N	SANDSTONE: generally as above, well pyrite cemented, no show
1590	100	0	N	N	CLAYSTONE: generally as above, medium to dark grey/brown, rare microcrystalline pyrite aggregates. SHOWS: no direct fluorescence, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring fluorescence.

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
1595	100	0	N	N	CLAYSTONE: generally as above, soft and dispersive. SHOWS: no direct fluorescence, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring fluorescence.
1600	100	0	N	N	CLAYSTONE: generally as above, dark grey/brown, minor light to medium grey/brown, soft to firm, very dispersive, sticky, amorphous, dark grey/brown argillaceous material, rare to abundant quartz silt, trace to rare microcrystalline pyrite aggregates, non calcareous. SHOWS: no direct fluorescence, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring fluorescence.
1605	100	0	N	N	CLAYSTONE: generally as above, trace microcrystalline pyrite aggregates. SHOWS: no direct fluorescence, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring fluorescence.
	tr	0	N	N	SANDSTONE: generally as above, abundant off white argillaceous matrix in part, no show.
1610	100	0	N	N	CLAYSTONE: as above. SHOWS: no direct fluorescence, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring fluorescence.
1615	100	0	N	N	CLAYSTONE: generally as above, rare microcrystalline pyrite aggregates. SHOWS: no direct fluorescence, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring fluorescence.
1620	100	0	N	N	CLAYSTONE: generally as above, trace microcrystalline pyrite aggregates. SHOWS: no direct fluorescence, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring fluorescence.

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	
1625	100	0	N	N	CLAYSTONE: generally as above, trace microcrystalline pyrite aggregates, no show.
1630	100	0	N	N	CLAYSTONE: generally as above, trace microcrystalline pyrite aggregates. SHOWS: no direct fluorescence, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring fluorescence.
1635	100	0	N	N	CLAYSTONE: generally as above, minor light brown/grey, trace microcrystalline pyrite aggregates, no show.
1640	100	0	N	N	CLAYSTONE: generally as above, trace fossil fragments (?gastropod), no show.
1645	100	0	N	N	CLAYSTONE: as above, no show.
1650	100	0	N	N	CLAYSTONE: as above, no show.
1655	100	0	N	tr	CLAYSTONE: generally as above, trace very fine black disseminated carbonaceous material, no show.
1660	100	0	tr	N	CLAYSTONE: generally as above, dark grey/brown, minor light to medium grey/brown, soft to firm, very dispersive, sticky, amorphous, dark grey/brown argillaceous material, rare to abundant quartz silt, trace to rare microcrystalline pyrite aggregates, trace medium grained glauconite pellets, non calcareous, no show.
1665	100	0	N	N	CLAYSTONE: as above, no show.
1670	100	0	N	N	CLAYSTONE: generally as above, trace disseminated calcareous material, no show.
1675	100	0	tr	N	CLAYSTONE: generally as above, trace medium grained glauconite pellets, trace medium grained white mica, trace disseminated calcareous material, trace fossil fragments (sponge spicule or echinoderm spine), no show.

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
1680	100	0	tr	N	CLAYSTONE: generally as above, trace disseminated calcareous material, trace medium grained glauconite pellets, no show.
1685	100	0	tr	N	CLAYSTONE: generally as above, trace medium grained glauconite pellets, trace disseminated calcareous material, no show.
	tr	0	N	N	SANDSTONE: loose quartz grains, clear to translucent, fine to medium grained, subrounded, slightly spherical, well sorted, no show.
1690	100	0	tr	N	CLAYSTONE: generally as above, trace medium grained glauconite pellets, minor disseminated calcareous material, no show.
	tr	0	N	N	SANDSTONE: generally as above, predominantly medium grained, no show.
1695	100	0	tr	N	CLAYSTONE: as above, no show.
1700	100	0	tr	N	CLAYSTONE: as above, no show.
1705	100	0	tr	N	CLAYSTONE: generally as above, trace medium grained white mica, trace fossil fragments (sponge spicule or echinoderm spine), no show.
	tr	0	N	N	SANDSTONE: as above, no show.
1710	100	0	tr	N	CLAYSTONE: generally as above, trace sponge spicule or echinoderm fragments, no show.
1715	100	0	N	N	CLAYSTONE: as above, no show.
1720	100	0	N	N	CLAYSTONE: as above, trace medium grained white mica, no show.
1725	100	0	tr	N	CLAYSTONE: generally as above, silty in part, no show.

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
1730	100	0	N	N	CLAYSTONE: generally as above, silty in part, no show.
1735	100	0	N	N	CLAYSTONE: generally as above, silty in part, medium to dark grey/brown, soft to firm, very dispersive, sticky, amorphous, medium to dark grey/brown argillaceous material, rare to abundant quartz silt, nil to minor calcareous material, no show.
1740	100	0	N	N	CLAYSTONE: generally as above, trace light grey to off white calcareous material, trace microcrystalline pyrite aggregates, no show.
1745	100	0	N	N	CLAYSTONE: generally as above, trace to minor calcareous material, no show.
1750	100	0	N	N	CLAYSTONE: as above, no show.
1755	100	0	N	N	CLAYSTONE: generally as above, trace fossil fragments, no show.
1760	100	0	N	N	CLAYSTONE: generally as above, trace off white fine grained calcareous aggregates, no show.
1765	100	0	N	N	CLAYSTONE: generally as above, trace bryozoan fragments, no show.
	tr	0	N	N	CALCARENITE: off white, soft to firm, subblocky, very fine to fine calcareous grains, 30-50% off white calcareous matrix, 10-20% off white to light grey argillaceous matrix, no show.
1770	100	0	N	N	CLAYSTONE: as above, no show.
	tr	0	N	N	CALCARENITE: as above, no show.
1775	100	0	N	N	CLAYSTONE: generally as above, silty, trace fine black carbonaceous specks, no show.
	tr	0	N	N	CALCARENITE: as above, no show.

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
1780	100	0	tr	N	CLAYSTONE: generally as above, trace medium glauconite pellets, no show.
	tr	0	N	N	CALCARENITE: as above, no show.
1785	100	0	N	N	CLAYSTONE: as above, no show.
1790	100	0	N	N	CLAYSTONE: as above, no show.
1795	100	0	tr	N	CLAYSTONE: generally as above, trace medium grained glauconite pellets, no show.
1800	100	0	N	N	CLAYSTONE: as above, no show.
					POOH to set 9.625" csg.

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
					Set 9 5/8" casing @ 1785.6m Leak off test was performed; 2.0 SG EMW
1805	100	0	tr	tr	CLAYSTONE: medium to dark grey, medium to occasionally dark brownish grey in part, soft to firm, rarely moderately hard, dispersive in part, rarely sticky, moderately silty, moderately calcareous, trace very fine carbonaceous flecks, trace to rare micromica, rare very fine glauconite pellets, rare pyrite nodules, with rare bands of very hard medium brown dolomite with embedded fine glauconite pellets. No shows. interbedded with minor:
	tr				SANDSTONE: off-white to very light grey, friable with loose grains, fine to very fine, occasionally silt size, subangular to subrounded, moderately sorted quartz and minor lithics, no apparent matrix or cement, fair to good visual porosity. No shows.
1808	100 tr	0 0	tr -	tr -	CLAYSTONE: as above SANDSTONE: as above
1811	100	0	tr	tr	CLAYSTONE: as above
1814	100	0	tr	tr	CLAYSTONE: generally as above, becoming dominantly dark grey and dark brownish grey.
1817	100	0	tr	tr	CLAYSTONE: generally as above, becoming firm to moderately hard in part, blocky in part, with dolomitic bands as above. No shows.
1820	100	0	tr	tr	CLAYSTONE: as above
1823	100	0	tr	tr	CLAYSTONE: as above
1826	100	0	tr	tr	CLAYSTONE: as above

Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	SAMPLE DESCRIPTION SHEET Well: La Bella-1 Permit: Vic/P30 Geologist(s): Ahmad Tabassi Page: 25
1829	100	0	tr	tr	CLAYSTONE: generally as above, medium olive green in part, rare pyrite framboids, with minor very hard dolomitic bands as above, rare fossil fragments (partly replaced by pyrite), interbedded with minor:
	tr	0	-	-	SANDSTONE: very light grey, hard, very fine to silt size, subangular to subrounded, moderate to well sorted quartz, abundant hard calcareous cement, no apparent matrix, rare pyrite cement and nodules, no visual porosity. No shows.
1832	100	0	tr	tr	CLAYSTONE: as above, dominantly soft to firm, sticky in part.
1835	100	0	r	tr	CLAYSTONE: as above
1838	100	0	r	tr	CLAYSTONE: as above
1841	100	0	r	tr	CLAYSTONE: as above, trace coarse pyrite nodules and pyritised fossil fragments, rare very hard dolomitic bands.
1844	100	0	r	tr	CLAYSTONE: generally as above, medium to dark brownish grey and grey, occasionally medium olive grey, predominantly soft and sticky, rarely firm and sub-blocky, slightly silty in part, slightly to occasionally moderately carbonaceous, very rare very fine quartz sand grains, moderately finely carbonaceous, rare to trace fine glauconite pellets, rare calcite crystals, rare pyrite nodules, rare hard dolomitic bands.
1847	100	0	r	tr	CLAYSTONE: as above
1850	100	0	r	tr	CLAYSTONE: as above
1853	100	0	r	tr	CLAYSTONE: as above, occasionally firm to hard, trace hard dolomitic and rare calcite bands.
1856	100	0	r	tr	CLAYSTONE: firm to moderately hard in part, blocky in part, commonly silty in part, rare to trace hard dolomitic and moderately hard calcite bands.

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	
1859	100	0	r	tr	CLAYSTONE: as above
1862	100	0	r	tr	CLAYSTONE: as above
1865	100	0	r	tr	CLAYSTONE: medium to occasionally dark brown and brownish grey, medium olive grey in part, soft, sticky, occasionally dispersive, slightly silty, very slightly calcareous, rare to trace very fine carbonaceous detritus, rare glauconite, rare fossil fragments.
1868	100	0	r	tr	CLAYSTONE: as above, rare hard dolomitic bands.
1871	100	0	r	tr	CLAYSTONE: as above, firm and sub-blocky in part, moderately silty in part, rare very fine quartz sand grains, rare disseminated cryptocrystalline pyrite in the firm portions, rare to trace hard dolomitic bands, very rare fossiliferous calcarenite bands(?).
1874	100	0	r	tr	CLAYSTONE: generally as above, predominantly soft and dispersive, rare hard dolomitic and moderately hard glauconitic calcarenite(?) bands.
1877	100	0	r	tr	CLAYSTONE: as above, occasionally firm to moderately hard, sub-blocky in part, trace hard dolomitic bands, rare to trace very fine quartz sand grains, in part interbeds with minor:
	tr	0	r	-	CALCAREOUS SANDSTONE: off-white to light grey, moderately hard to occasionally friable with loose grains, very fine to fine, subangular to subrounded, moderately sorted quartz and calcareous grains, trace light grey argillaceous matrix, common to abundant calcareous cement, rare lithics and glauconite pellets, very poor to nil visual porosity. No shows.
1880	100	0	r	tr	CLAYSTONE: as above

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	
1883	100	0	r	tr	CLAYSTONE: as above, trace hard dolomitic and rare moderately hard glauconitic calcarenite(?) bands.
1886	100	0	tr	tr	CLAYSTONE: medium to dark grey, medium to dark brownish grey in part, occasionally medium olive grey, firm to moderately hard, occasionally hard in part, dominantly blocky, sub-fissile in part, rarely to occasionally moderately silty, slightly to moderately calcareous, trace very fine carbonaceous detritus, rare glauconite and fossil fragments, trace hard medium brown dolomitic bands, rare to trace medium grey to medium olive grey, moderately hard glauconitic and fossiliferous calcarenite and calcisiltite bands, rare very hard sandy pyrite bands.
1889	100	0	tr	tr	CLAYSTONE: as above, becoming soft and sticky in part.
1892	100	0	tr	tr	CLAYSTONE: as above, becoming dominantly medium brownish grey, soft, rare dolomite and calcarenite bands.
1895	100	0	tr	tr	CLAYSTONE: as above
1898	100	0	tr	tr	CLAYSTONE: as above, dominantly medium to dark grey and brownish grey.
1901	100	0	r	tr	CLAYSTONE: as above
1904	100	0	r	tr	CLAYSTONE: as above
1907	100	0	r	tr	CLAYSTONE: as above, rare hard dolomitic bands, very rare siliceous cemented claystone bands.
1910	100	0	r	tr	CLAYSTONE: as above
1913	100	0	r	tr	CLAYSTONE: as above
1916	100	0	r	tr	CLAYSTONE: as above, occasionally firm.
1919	100	0	r	tr	CLAYSTONE: as above

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
1922	100	0	r	tr	CLAYSTONE: as above
1925	100	0	r	tr	CLAYSTONE: as above
1928	100	0	r	tr	CLAYSTONE: medium to occasionally dark grey, medium brownish grey in part, rarely medium greenish grey, soft to dominantly firm, occasionally moderately hard, blocky, rarely subfissile in part, moderately to abundantly calcareous, moderately silty, moderately finely carbonaceous, rare reworked fossil fragments, rare medium to dark brown hard dolomitic bands, interbedded with minor:
	tr	0	r	-	SANDSTONE: translucent to very light grey, very light brownish grey in part, moderately hard to occasionally hard, rarely friable in part, medium to occasionally coarse, fine to medium in part, subangular to dominantly subrounded, poorly sorted quartz, trace light grey argillaceous matrix, trace to occasionally common moderately strong siliceous and rare calcareous cement, rare very strong pyrite cement, rare partially iron stained quartz sand grains, rare fine glauconite pellets, rare fossil fragments, very poor to nil visual porosity, rare to trace dull orange brown mineral fluorescence. No shows.
1931	100	0	r	tr	CLAYSTONE: as above
	tr	0	r	-	SANDSTONE: as above
1934	100	0	r	tr	CLAYSTONE: generally as above, dominantly soft, firm in part, sticky in part, rarely dispersive, moderately calcareous, moderately silty, rare hard dolomitic bands, interbedded with minor:
	tr	0	r	-	SANDSTONE: as above
1937	100	0	r	tr	CLAYSTONE: as above
	tr	0	r	-	SANDSTONE: as above

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	
1940	100	0	r	tr	CLAYSTONE: generally as above, firm to moderately hard in part, sub-blocky in part, rare pyrite nodules, rare hard dolomitic bands.
1943	100	0	r	tr	CLAYSTONE: generally as above, dominantly medium to dark grey, dominantly firm to moderately hard, sub-blocky to dominantly blocky, rarely sub-fissile, rare hard dolomitic and fossiliferous (including forams) calcarenite bands.
1946	100	0	r	tr	CLAYSTONE: as above
1949	100	0	r	tr	CLAYSTONE: as above, becoming dominantly soft to firm, rare dolomite bands.
1952	100	0	r	tr	CLAYSTONE: as above medium brownish grey in part.
1955	100	0	r	tr	CLAYSTONE: generally as above, dominantly firm, occasionally moderately hard, blocky to occasionally sub-fissile, rare dolomitic and slightly glauconitic calcarenite bands.
1958	100	0	r	tr	CLAYSTONE: as above, dominantly soft to firm.
1961	100	0	r	tr	CLAYSTONE: as above, dominantly firm to occasionally moderately hard, blocky, trace hard dolomitic bands.
1964	100	0	r	tr	CLAYSTONE: as above
1967	100	0	r	tr	CLAYSTONE: as above
1970	100	0	r	tr	CLAYSTONE: as above, becoming dominantly soft to occasionally firm, sticky in part, rare hard dolomite bands.
1973	100	0	r	tr	CLAYSTONE: as above
1976	100	0	r	tr	CLAYSTONE: as above,
1979	100	0	r	tr	CLAYSTONE: as above, dominantly firm and sub-blocky.

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	
1982	100	0	r	tr	CLAYSTONE: as above, dominantly firm to occasionally moderately hard, blocky to sub-fissile in part.
1985	100	0	r	tr	CLAYSTONE: as above
1988	100	0	r	tr	CLAYSTONE: as above, dominantly soft to firm, sticky in part.
1991	100	0	r	tr	CLAYSTONE: as above, dominantly soft and sticky.
1994	100	0	r	tr	CLAYSTONE: as above, dominantly soft to firm, rare hard dolomite bands.
1997	100	0	r	tr	CLAYSTONE: as above
2000	100	0	r	tr	CLAYSTONE: medium brownish grey, medium to dark grey and brownish grey in part, predominantly soft, firm to moderately hard in part, predominantly sticky, sub-blocky in part, slightly silty, very slightly calcareous in part, trace micromica, rare to trace very fine carbonaceous detritus.
2003	100	0	r	tr	CLAYSTONE: as above
2006	100	0	tr	tr	CLAYSTONE: as above, dominantly firm, soft in part, occasionally moderately hard, trace glauconite pellets.
2009	100	0	tr	tr	CLAYSTONE: as above,

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	
2012	80	0	tr	-	ARGILLACEOUS SANDSTONE: light grey, occasionally medium grey, rarely light greenish grey, friable with loose grains, very fine to silt size, occasionally fine, dominantly subrounded, occasionally rounded, moderate to well sorted quartz, abundant light grey dispersive argillaceous matrix, trace to occasionally common fine glauconite pellets, trace medium grey lithics, very poor to nil visual porosity. No shows. The sandstone grades to Arenaceous Claystone in part.
	20	0	tr	tr	CLAYSTONE: as above Note: due to poor return a flowline sample was used to describe the sandstone.
2015	70	0	tr	-	SANDSTONE: as above
	30	0	tr	tr	CLAYSTONE: as above
2018	60	0	tr	-	SANDSTONE: as above
	40	0	tr	tr	CLAYSTONE: as above
2021	30	0	tr	-	SANDSTONE: as above
	70	0	tr	tr	CLAYSTONE: as above
2024	100	0	tr	tr	CLAYSTONE: generally as above, medium to occasionally dark brownish grey, soft to firm, dispersive in part, rarely sticky, non calcareous, trace micromica, trace fine carbonaceous detritus, moderately silty in part, trace fine glauconite pellets.
2027	100	0	tr	tr	CLAYSTONE: as above

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	Description
2030	70	0	tr	-	SANDSTONE: generally as above, occasionally with loose fine to medium grained partially iron stained quartz sand grains, trace to common moderately strong calcareous cement, rare strong siliceous cement, in part grades to Arenaceous Claystone, very poor to nil visual porosity. No shows. Interbedded with:
	30	0	tr	tr	CLAYSTONE: generally as above, becoming dominantly firm to hard, blocky, rare to trace hard dolomitic and fossiliferous/glauconitic calcarenite bands.
2033	60	0	tr	-	SANDSTONE: as above
	40	0	tr	tr	CLAYSTONE: as above
2036	40	0	tr	-	SANDSTONE: as above
	60	0	tr	tr	CLAYSTONE: as above
2039	90	0	tr	tr	CLAYSTONE: as above
	10	0	tr	-	SANDSTONE: as above
2042	90	0	tr	tr	CLAYSTONE: as above, becoming commonly silty in part and grades to Silty Claystone in part.
	10	0	tr	-	SANDSTONE: as above
2045	90	0	tr	tr	SILTY CLAYSTONE: as above
	10	0	tr	-	SANDSTONE: as above
2048	90	0	tr	tr	SILTY CLAYSTONE: as above, trace carbonaceous flecks and laminae.
	10	0	tr	r	SANDSTONE: as above, rarely fine to medium grained, rare carbonaceous laminae, very poor to nil visual porosity. No shows.
2051	70	0	tr	tr	SILTY CLAYSTONE: as above
	30	0	r	r	SANDSTONE: generally as above, becoming very fine to medium, occasionally coarse, dominantly fine, trace hard dolomitic cement/bands, rare to trace fine glauconite pellets, very poor to nil visual porosity. No shows.

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	
2054	85 15	0 0	tr r	tr r	SILTY CLAYSTONE: as above SANDSTONE: as above
2057	80 20	0 0	tr r	tr r	SILTY CLAYSTONE: as above SANDSTONE: as above
2060	50 50	0 0	tr tr	tr -	SILTY CLAYSTONE: as above SANDSTONE: clear to translucent, very light brown in part, friable with loose grains, occasionally moderately hard to hard in part, fine to dominantly medium, occasionally coarse, subangular to dominantly subrounded, poor to moderately sorted quartz, in part lightly iron stained, trace light to medium grey dispersive argillaceous matrix, trace moderately strong calcareous cement, trace fine glauconite pellets, very rare moderately strong siliceous cement, poor to occasionally fair visual porosity. No shows.
2063	70 30	0 0	tr tr	tr -	SILTY CLAYSTONE: as above SANDSTONE: as above
2066	70 30	0 0	tr tr	tr -	SILTY CLAYSTONE: as above SANDSTONE: as above
2067 *	80 20	0 0	tr tr	tr -	SILTY CLAYSTONE: as above SANDSTONE: as above

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	Description
2069 *	100	0	tr	r	SANDSTONE: clear to translucent, very light grey in part, friable with loose grains, occasionally moderately hard in part, predominantly medium to coarse, occasionally very coarse, rarely fine in part, dominantly subangular, poorly to moderately sorted quartz, trace to common light to medium grey dispersive argillaceous matrix (washed out), rare to trace moderately strong calcareous (including dolomite) cement, rare pyrite cement, rare medium brown moderately hard amber (with rare bright light to medium blue mineral fluorescence, no cut, no crush cut, no residual ring), rare fine glauconite pellets, rare frosty coarse quartz overgrowths, rare carbonaceous detritus, fair to good visual porosity. No shows.
2073 *	100	0	tr	r	SANDSTONE: generally as above, becoming dominantly friable with loose grains, dominantly subrounded, rare apparent matrix, rare calcareous and pyrite cement, very good to dominantly good visual porosity. No shows. * Depths were partially determined by spot samples.
					NOTE: Depth correction by -2m.
2071 2099					Core No. 1 was cut over the interval 2071.00-2098.65m. Recovery 100% See separate 1 m core chip description

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	Description
2102	80	0	r-tr	r	SANDSTONE: light to occasionally medium grey, rarely very light brownish grey, friable with loose grains, medium to coarse, occasionally fine in part, subangular to subrounded, moderately sorted quartz, trace dispersive light grey argillaceous matrix, rare moderately weak siliceous cement, rare glauconite, rare carbonaceous and coaly detritus, rare medium brown amber (with bright light blue fluorescence, no cut, crush cut or residual ring), good visual porosity. No shows. Interbedded with:
	20	0	tr	tr	SILTSTONE: medium to dark grey, firm, occasionally moderately hard, sub-blocky, slightly calcareous, moderately argillaceous, common to occasionally abundant fine quartz sand grains, trace glauconite, grading in part to Silty Sandstone. No shows.
2105	80	0	r	r	SANDSTONE: as above, becoming fine to dominantly medium, occasionally coarse, good visual porosity. No shows.
	20	0	tr	tr	SILTSTONE: as above.
2108	40	0	r	r	SANDSTONE: as above
	60	0	tr	tr	SILTSTONE: as above
2111	50	0	r	r	SANDSTONE: as above, dominantly fine, occasionally medium, good visual porosity. No shoes.
	50	0	tr	tr	SILTSTONE: as above
2114	80	0	r	r	SANDSTONE: as above, dominantly fine to medium.
	20	0	tr	tr	SILTSTONE: as above
2117	50	0	r	r	SANDSTONE: as above
	50	0	tr	tr	SILTSTONE: as above

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	Description
2120	100	0	r	r	SANDSTONE: generally as above, dominantly fine, rarely medium to coarse in part, friable with abundant loose grains, dominantly subrounded, well sorted quartz, no apparent matrix or cement, rare to trace glauconite and carbonaceous detritus, good to very good visual porosity. No shows. Interbedded with minor:
	tr	0	r	tr	SILTSTONE: as above
2123	90	0	r	r	SANDSTONE: as above becoming fine to coarse, dominantly medium.
	10	0	tr	tr	SILTSTONE: as above
2126	40	0	r	r	SANDSTONE: as above
	60	0	tr	tr	SILTSTONE: as above
2129	20	0	r	r	SANDSTONE: generally as above, common light grey argillaceous matrix trace moderately strong siliceous cement, fair to occasionally good visual porosity. No shows.
	80	0	tr	tr	SILTSTONE: as above
2132	20	0	r	r	SANDSTONE: as above
	80	0	tr	tr	SILTSTONE: as above, light to medium grey in part, dominantly soft to firm, abundantly argillaceous in part.

Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	BHP Petroleum SAMPLE DESCRIPTION SHEET Well: La Bella-1 Permit: Vic/P30 Geologist(s): Ahmad Tabassi Page: 37
2135	50	0	r	r	SANDSTONE: generally as above, light to dominantly medium grey, dominantly friable, occasionally moderately hard, dominantly fine, occasionally medium and coarse, dominantly subrounded, poorly to moderately sorted quartz, trace to occasionally common light to medium grey argillaceous matrix, rare to trace moderately weak siliceous cement, rare to trace glauconite and carbonaceous detritus, rare amber (with fluorescence as above), fair to occasionally good visual porosity. No shows.
	50	0	tr	tr	SILTSTONE: as above, in part grading to very fine to fine Sandstone as above.
2138	50	0	r	r	SANDSTONE: as above
	50	0	tr	tr	SILTSTONE: as above
2141	10	0	r	r	SANDSTONE: as above
	90	0	tr	tr	SILTSTONE: as above, in part grading to very fine Sandstone, also grading to Silty Claystone.
2144	50	0	r	tr	SANDSTONE: generally as above, dominantly clear to very light grey, friable with abundant loose grains, fine to medium, dominantly fine, rarely coarse, subangular to subrounded, moderately sorted quartz, trace dispersive argillaceous matrix, rare moderately weak siliceous cement, trace to rare glauconite and carbonaceous detritus, rare amber (with fluorescence as above), good visual porosity. No shows.
	50	0	tr	tr	SILTSTONE: as above
2147	20	0	r	tr	SANDSTONE: as above
	80	0	tr	tr	SILTSTONE: as above
2150	10	0	r	tr	SANDSTONE: as above
	90	0	tr	tr	SILTSTONE: as above

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	
2153	10 90	0 0	- -	tr tr	SANDSTONE: as above SILTSTONE: as above
2156	100 tr	0 0	- -	tr tr	SANDSTONE: light to dominantly medium grey, friable with abundant loose grains, fine to medium, rare coarse to very coarse in part, subangular to dominantly subrounded, moderately sorted quartz, rare to trace medium grey dispersive argillaceous matrix, rare to trace glauconite and carbonaceous material and laminae, good visual porosity. No shows. SILTSTONE: as above
2159	50 50	0 0	- -	tr tr	SANDSTONE: as above, dominantly coarse, occasionally very coarse. SILTSTONE: as above
2162	50 50	0 0	- -	tr tr	SANDSTONE: generally as above, dominantly medium to coarse, occasionally very coarse quartz overgrowths, good to very good visual porosity. No shows. SILTSTONE: as above
2165	100	0	-	tr	SANDSTONE: as above
2168	20 80	0 0	- -	tr tr	SANDSTONE: as above SILTSTONE: generally as above, medium to dominantly dark grey, commonly to abundantly argillaceous, commonly finely arenaceous, grading in part to both Silty Claystone and Silty Sandstone.
2171	50 50	0 0	- -	tr tr	SANDSTONE: as above SILTSTONE: as above

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	
2174	100	0	-	-	SANDSTONE: clear to very light grey, friable with abundant loose grains, dominantly fine, occasionally medium, rarely coarse, dominantly subangular, moderately sorted quartz, rare very dispersive light grey and off-white kaolinitic argillaceous matrix (all washed away), good visual porosity. No shows.
2177	30	0	-	-	SANDSTONE: as above, in part with strong siliceous cement, fair visual porosity. No shows.
	70	0	-	tr	SILTSTONE: generally as above, dominantly firm to moderately hard, with moderately strong siliceous cement in part, trace carbonaceous flecks and laminae, trace micromica, rare to trace rock flour and slickensides (possibly a fault zone?).
2180	80	0	-	-	SANDSTONE: as above, dominantly friable with loose grains.
	20	0	-	tr	SILTSTONE: as above, trace coaly particles, black, soft, platy. SHOWS: no direct fluorescence, no cut, very slow very weak dull white crush cut, very dull moderately thin yellowish green residual ring.
2183	100	0	-	-	SANDSTONE: clear to very light grey, rarely very light brown, friable with abundant loose grains, dominantly fine, occasionally medium and rarely coarse, subrounded, moderately sorted quartz, trace to common dispersive light argillaceous matrix (washed away), rare mica, rare grey and reddish brown lithics, good to occasionally very good visual porosity. No shows.

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	Description
2186	40	0	-	tr	SANDSTONE: as above, occasionally moderately hard in part, trace to common argillaceous matrix, fair to good visual porosity. No shows.
	60	0	-	-	SILTSTONE: as above, abundantly argillaceous, in part grading to Silty Claystone.
2189	80	0	-	tr	SILTY CLAYSTONE: dominantly as above, dominantly soft to firm, moderately finely arenaceous, grading to Argillaceous Sandstone as above.
	20	0	-	-	SANDSTONE: as above
2192	100	0	-	tr	SILTY CLAYSTONE: as above
2195	100	0	-	tr	SILTY CLAYSTONE: as above
2198	100	0	-	tr	SILTY CLAYSTONE: as above
2201	100	0	-	tr	SILTY CLAYSTONE: as above
2204	80	0	-	tr	SILTY CLAYSTONE: as above
	20	0	-	r	SANDSTONE: generally as above, commonly argillaceous, rare carbonaceous detritus, poor to fair visual porosity. No shows.
2207	100	0	-	r	SANDSTONE: as above, in part becoming Argillaceous Sandstone.
2210	70	0	-	r	SANDSTONE: as above, in part becoming abundantly argillaceous, rare pyrite cement, poor to fair visual porosity. No shows.
	30	0	-	tr	SILTY CLAYSTONE: as above
2213	70	0	-	r	SANDSTONE: as above, dominantly light brownish grey.
	30	0	-	tr	SILTY CLAYSTONE: as above
2216	60	0	-	r	SANDSTONE: as above, grading to Argillaceous Sandstone in part.
	40	0	-	tr	SILTY CLAYSTONE: as above

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	
2219	100	0	-	tr	SILTY CLAYSTONE: as above
2222	80 20	0 0	- -	tr r	SILTY CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above
2225	80 20	0 0	- -	tr r	SILTY CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above
2228	100	0	tr	tr	SILTY CLAYSTONE: as above, becoming dominantly dark grey, dominantly firm and blocky, trace glauconite pellets.
2231	100	0	tr	tr	SILTY CLAYSTONE: as above
2234	100	0	tr	tr	SILTY CLAYSTONE: as above
2237	80 20	0 0	tr tr	tr tr	SILTY CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above, trace glauconite pellets.
2240	50 50	0 0	tr tr	tr tr	SILTY CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above
2243	50 50	0 0	tr c	tr tr	SILTY CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above, light greenish grey in part, trace to common glauconite pellets.
2246	60 40	0 0	c tr	tr tr	ARGILLACEOUS SANDSTONE: as above, dominantly light greenish grey to light grey, common glauconite pellets. SILTY CLAYSTONE: as above
2249	70 30	0 0	c tr	tr tr	ARGILLACEOUS SANDSTONE: as above, dominantly light grey. SILTY CLAYSTONE: as above, dominantly light grey, soft and dispersive in part.
2252	60 40	0 0	c tr	tr tr	ARGILLACEOUS CLAYSTONE: as above SILTY CLAYSTONE: as above

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
2255	50	0	tr	tr	ARGILLACEOUS SANDSTONE: as above, moderately hard in part, rare hard dolomitic cement/bands, fair to poor visual porosity. No shows.
	50	0	tr	tr	SILTY CLAYSTONE: as above
2258	50	0	tr	tr	ARGILLACEOUS SANDSTONE: as above
	50	0	tr	tr	SILTY CLAYSTONE: as above
2261	40	0	tr	tr	ARGILLACEOUS SANDSTONE: as above, dominantly medium grey.
	60	0	tr	tr	SILTY CLAYSTONE: as above
2264	80	0	tr	tr	SILTY CLAYSTONE: as above, dominantly dark grey.
	20	0	tr	tr	ARGILLACEOUS SANDSTONE: as above
2267	100	0	tr	tr	SILTY CLAYSTONE: as above, moderately finely arenaceous, in part grading to Argillaceous Sandstone.
2270	90	0	tr	tr	SILTY CLAYSTONE: as above, trace medium to dark brown hard to very hard moderately glauconitic dolomite bands, common to abundant fine to occasionally medium quartz sand grains, in part grading to:
	10	0	tr	tr	ARGILLACEOUS SANDSTONE: as above
2273	95	0	c	tr	SILTY CLAYSTONE: as above, common fine glauconite pellets.
	5	0	c	tr	ARGILLACEOUS SANDSTONE: as above
2276	100	0	c	tr	SILTY CLAYSTONE: as above, in part grading to Argillaceous Sandstone.
2279	100	0	c	tr	SILTY CLAYSTONE: as above, in part grading to Argillaceous Sandstone.

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
2282	50 50	0 0	c tr	tr -	SILTY CLAYSTONE: as above SANDSTONE: clear to very light grey, friable with common loose grains, medium to coarse, dominantly subrounded quartz, rare off-white kaolinitic argillaceous matrix, rare moderately weak siliceous cement, trace fine glauconite pellets, good to occasionally very good visual porosity. No shows.
2285	50 50	0 0	c tr	tr -	SILTY CLAYSTONE: as above SANDSTONE: as above
2288	100	0	tr	tr	SILTY CLAYSTONE: as above, dominantly soft, sticky in part, common fine quartz sand grains.
2291	100	0	tr	tr	CLAYSTONE: light to occasionally medium grey, off-white in part, soft, sticky in part (? PHPA mud effects), trace micromica, rare to trace silt, trace carbonaceous specks and laminae, trace fine glauconite pellets, trace fine quartz sand grains.
2294	100	0	tr	tr	CLAYSTONE: as above, trace to common fine quartz sand grains, in part grading to Arenaceous Claystone.
2297	100	0	tr	tr	CLAYSTONE: as above
2300	50 50	0 0	tr -	tr tr	CLAYSTONE: as above ARGILLACEOUS SANDSTONE: light grey, friable with trace to common loose grains, fine to occasionally medium, dominantly subrounded, well sorted quartz, abundant off-white to light grey argillaceous matrix, dominantly kaolinitic, in part grading to Arenaceous Claystone, trace to common carbonaceous detritus and laminae, poor visual porosity. No shows.
2303	50 50	0 0	tr -	tr tr	CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	
2306	80 20	0 0	tr -	tr tr	CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above
2309	80 20	0 0	tr -	tr tr	CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above
2312	50 50	0 0	tr -	tr tr	CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above
2315	60 40	0 0	tr -	tr tr	CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above
2318	40 60	0 0	tr -	tr tr	CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above
2321	40 60	0 0	tr -	tr tr	CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above, rare pyrite nodules, trace grey and brown lithics, poor visual porosity. No shows.
2324	40 60	0 0	tr -	tr tr	CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above
2327	30 70	0 0	tr -	tr tr	CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above, becoming fine to medium, occasionally coarse, moderately hard in part, common to occasionally abundant argillaceous matrix, rare moderately hard siliceous and dolomite cement,poor visual porosity. No shows.
2330	30 70	0 0	tr -	tr tr	CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above
2333	40 60	0 0	tr -	tr tr	CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above
2336	40 60	0 0	tr -	tr tr	CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above
2339	40 60	0 0	tr -	tr tr	CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	Description
2342	60	0	tr	tr	CLAYSTONE: as above, becoming commonly silty.
	40	0	-	tr	ARGILLACEOUS SANDSTONE: as above
2345	60	0	tr	tr	CLAYSTONE: as above
	40	0	-	tr	ARGILLACEOUS SANDSTONE: as above, trace coarse to very coarse quartz overgrowths.
2348	60	0	tr	tr	CLAYSTONE: as above
	40	0	-	tr	ARGILLACEOUS SANDSTONE: as above, very rare quartz overgrowths.
2351	50	0	tr	tr	CLAYSTONE: as above
	50	0	-	tr	ARGILLACEOUS SANDSTONE: as above
2354	50	0	tr	tr	CLAYSTONE: as above
	50	0	-	tr	ARGILLACEOUS SANDSTONE: as above
2357	50	0	tr	tr	CLAYSTONE: as above
	50	0	-	tr	ARGILLACEOUS SANDSTONE: as above
2360	50	0	tr	tr	CLAYSTONE: as above
	50	0	-	tr	ARGILLACEOUS SANDSTONE: as above
2363	70	0	tr	tr	CLAYSTONE: as above
	30	0	-	tr	ARGILLACEOUS SANDSTONE: as above
2366	70	0	tr	tr	CLAYSTONE: as above
	30	0	-	tr	ARGILLACEOUS SANDSTONE: as above
2369	30	0	r	tr	CLAYSTONE: as above
	70	0	-	tr	ARGILLACEOUS SANDSTONE: as above, trace COAL particles: black, firm, moderately hard in part, brittle, subconchoidal fractures. SHOWS: no direct fluorescence, no cut, moderately slow dull white streaming crush cut, moderately thick moderately bright bluish white residual ring.
2372	50	0	r	tr	CLAYSTONE: as above
	50	0	-	tr	ARGILLACEOUS SANDSTONE: as above
2375	20	0	r	tr	CLAYSTONE: as above
	80	0	-	tr	ARGILLACEOUS SANDSTONE: as above

BHP Petroleum

SAMPLE DESCRIPTION SHEET

Well: La Bella-1
Permit: Vic/P30
Geologist(s): Ahmad Tabassi

Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	Description
2378	20 80	0 0	r -	tr tr	CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above, dominantly fine grained.
2381	30 70	0 0	r -	tr tr	CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above, common to abundant coarse to very coarse quartz overgrowths.
2384	40 60	0 0	- -	tr tr	CLAYSTONE: as above ARGILLACEOUS CLAYSTONE: as above, dominantly fine to medium, common quartz overgrowths.
2387	40 60	0 0	- -	tr tr	CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above, trace to common quartz overgrowths.
2390	20 80	0 0	- -	tr tr	CLAYSTONE: as above SANDSTONE: light grey, friable with abundant loose grains, medium to coarse, rarely fine and very coarse, subangular to dominantly subrounded, poorly to occasionally moderately sorted quartz, trace light grey to off-white dispersive argillaceous matrix, trace grey, brown and black lithics, common detrital coal particles, rare pyrite nodules, good visual porosity. No shows.
2393	100	0	-	tr	SANDSTONE: as above
2396	60 40	0 0	- -	tr tr	CLAYSTONE: as above, becoming abundantly silty in part. ARGILLACEOUS SANDSTONE: as per 2387m sample
2399	70 30	0 0	- -	tr tr	CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above
2402	80 20	0 0	- -	tr tr	CLAYSTONE: as above ARGILLACEOUS SANDSTONE: as above

BHP Petroleum

SAMPLE DESCRIPTION SHEET

Well: La Bella-1
Permit: Vic/P30
Geologist(s): Ahmad Tabassi

Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	
2405	50	0	-	tr	CLAYSTONE: as before, in above grading to Siltstone.
	50	0	-	tr	SANDSTONE: light grey to translucent, friable with common loose grains, occasionally moderately hard, medium to coarse, rarely fine in part,subrounded to trace subangular, moderately sorted quartz, trace off-white to light grey dispersive argillaceous matrix, rare to trace moderately weak siliceous cement, rare pyrite cement,trace grey and reddish brown lithics, rare detrital coal particles, fair to good visual porosity. No shows.
2408	30	0	-	tr	CLAYSTONE: as above, grading to Siltstone in part.
	70	0	-	tr	SANDSTONE: as above
2411	40	0	-	tr	CLAYSTONE: as above
	60	0	-	tr	SANDSTONE: as above, trace very coarse quartz overgrowths.
2414	40	0	-	tr	CLAYSTONE: as above
	60	0	-	tr	SANDSTONE: as above
2417	40	0	-	tr	CLAYSTONE: as above
	60	0	-	tr	SANDSTONE: as above
2420	40	0	-	tr	CLAYSTONE: as above
	60	0	-	tr	SANDSTONE: as above
2423	50	0	-	tr	CLAYSTONE: as above
	50	0	-	tr	SANDSTONE: as above, common to occasionally abundant argillaceous matrix, fair visual porosity. No shows.
2426	50	0	-	tr	CLAYSTONE: as above
	50	0	-	tr	SANDSTONE: as above
2429	30	0	-	tr	CLAYSTONE: as above
	70	0	-	tr	SANDSTONE: as above
2432	20	0	-	tr	CLAYSTONE: as above
	80	0	-	tr	SANDSTONE: as above

BHP Petroleum

SAMPLE DESCRIPTION SHEET

Well: La Bella-1
Permit: Vic/P30
Geologist(s): Ahmad Tabassi

Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	
2435	20 80	0 0	- -	tr tr	CLAYSTONE: as above SANDSTONE: as above, common very coarse quartz overgrowths.
2438	20 80	0 0	- -	tr tr	CLAYSTONE: as above SANDSTONE: as above
2441	40 60	0 0	- -	tr tr	CLAYSTONE: as above SANDSTONE: as above
2444	60 40	0 0	- -	tr tr	CLAYSTONE: as above SANDSTONE: as above
2447	100	0	-	r	SANDSTONE: clear to light grey, friable with common to abundant loose grains, fine to occasionally coarse, dominantly medium, dominantly subrounded, moderately sorted quartz, trace to abundant dominantly common dispersive off-white kaolinitic argillaceous matrix, trace to common grey, brown and occasionally black lithics, rare altered feldspar, rare carbonaceous material and detrital coal particles, fair to occasionally good visual porosity. No shows.
2450	100	0	-	r	SANDSTONE: as above
2453	70 30	0 0	- -	r tr	SANDSTONE: as above CLAYSTONE: as above
2456	100	0	-	r	SANDSTONE: as above
2459	100	0	-	r	SANDSTONE: as above
2462	100	0	-	r	SANDSTONE: as above, trace argillaceous matrix, good visual porosity.
2465	100	0	-	r	SANDSTONE: as above, common argillaceous matrix, fair visual porosity.
2468	80 20	0 0	- -	r tr	SANDSTONE: as above CLAYSTONE: as above
2471	80 20	0 0	- -	r tr	SANDSTONE: as above, abundant argillaceous matrix, fair visual porosity. CLAYSTONE: as above

BHP Petroleum

SAMPLE DESCRIPTION SHEET

Well: La Bella-1
Permit: Vic/P30
Geologist(s): Ahmad Tabassi

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
2474	80 20	0 0	- -	r tr	ARGILLACEOUS SANDSTONE: as above CLAYSTONE: as above
2477	80 20	0 0	- -	r tr	ARGILLACEOUS SANDSTONE: as above CLAYSTONE: as above
2480	100	0	-	r	SANDSTONE: as above, dominantly fine to medium, common argillaceous matrix, fair to good visual porosity. No shows.
2483	100	0	-	r	ARGILLACEOUS SANDSTONE: as above, abundant argillaceous matrix, fair visual porosity. No shows.
2486	90 10	0 0	- -	r tr	ARGILLACEOUS SANDSTONE: as above CLAYSTONE: as above
2489	80 20	0 0	- -	r tr	ARGILLACEOUS SANDSTONE: as above CLAYSTONE: as above
2492	80 20	0 0	- -	r tr	ARGILLACEOUS SANDSTONE: as above CLAYSTONE: as above NOTE: Trace rock flour and slickensides(?); a possible fault zone.
2495	100	0	-	-	SANDSTONE: clear to translucent, moderately hard to hard, occasionally friable with common loose grains, medium to granule, dominantly coarse to very coarse, dominantly subrounded (the angular grains are the product of the bit), poorly sorted quartz, common to occasionally abundant strong siliceous and trace to common calcareous and pyrite cement, trace grey and brown lithics, rare to trace chert, nil visual porosity. No shows. NOTE: Abundant rock flour, trace slickensides and quartz overgrowths.

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SAMPLE DESCRIPTION SHEET

Well: La Bella-1
Permit: Vic/P30
Geologist(s): Ahmad Tabassi

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	Description
2498	100	0	-	-	SANDSTONE: as above pyrite NOTE: Abundant rock flour, trace slickensides and quartz overgrowths.
2501	20 80	0 0	- -	- -	SANDSTONE: as above pyrite CLAYSTONE: off-white to light grey, also light to medium brownish grey, soft, sticky, rarely dispersive in part, slightly calcareous, common to abundant fine to occasionally medium quartz sand grains, in part grading to Argillaceous Sandstone. Nb: 1- Abundant rock flour, trace slickensides and Quartz overgrowths. 2- The brownish grey claystone does not seem to be part of the formation. As it is absent both above and below this depth it may be associated with fault zone only.
2504	100	0	-	r	ARGILLACEOUS SANDSTONE: off-white to light grey, rarely very light brownish grey in part, friable with abundant loose grains, fine to dominantly medium, subangular to dominantly subrounded, moderately sorted quartz, abundant off-white (kaolinitic) and light grey argillaceous matrix, dominantly sticky, trace grey and brown lithics, rare ~~pyrite and detrital~~ coal particles, poor visual porosity. No shows. Coal has no direct or cut fluorescence, but has moderately weak dull yellowish white crush cut and moderately thin moderately dull yellowish white residual ring. NOTE: Trace rock flour, rare slickensides and quartz overgrowths.
2507	100	0	-	r	ARGILLACEOUS SANDSTONE: as above
2510	100	0	-	r	ARGILLACEOUS SANDSTONE: as above

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SAMPLE DESCRIPTION SHEET

Well: La Bella-1
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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	Description
2513	100	0	-	r	SANDSTONE: generally as above, fine to coarse, dominantly medium, common to abundant argillaceous matrix, fair visual porosity. No shows.
2516	40	0	-	r	ARGILLACEOUS SANDSTONE: as above with abundant argillaceous matrix, poor visual porosity. No shows.
	60	0	-	tr	CLAYSTONE: medium brown to brownish grey, medium to dark grey in part, soft to occasionally firm, sticky in part, non calcareous, trace fine carbonaceous flecks and laminae, occasionally moderately silty.
2519	40	0	-	r	ARGILLACEOUS SANDSTONE: as above
	60	0	-	tr	CLAYSTONE: as above
2522	100	0	-	r	ARGILLACEOUS SANDSTONE: as above
2525	100	0	-	r	ARGILLACEOUS SANDSTONE: as above
2528	70	0	-	r	ARGILLACEOUS SANDSTONE: as above
	30	0	-	tr	CLAYSTONE: as above
2531	50	0	-	r	ARGILLACEOUS CLAYSTONE: as above
	50	0	-	tr	CLAYSTONE: as above
2534	100	0	-	r	ARGILLACEOUS SANDSTONE: as above
2537	100	0	-	r	ARGILLACEOUS SANDSTONE: as above
2540	100	0	-	r	ARGILLACEOUS SANDSTONE: as above, in part grading to Arenaceous Claystone.
2543	100	0	-	r	ARGILLACEOUS SANDSTONE: as above
2546	100	0	-	r	ARGILLACEOUS SANDSTONE: as above
2549	100	0	-	r	ARGILLACEOUS SANDSTONE: as above, becoming extremely argillaceous, in part grading to Arenaceous Claystone.
2552	100	0	-	r	ARGILLACEOUS SANDSTONE: as above, in part grading to Arenaceous Claystone.
2555	100	0	-	r	ARGILLACEOUS SANDSTONE: as above,

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SAMPLE DESCRIPTION SHEET

Well: La Bella-1
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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	Description
2558	100	0	-	tr	ARGILLACEOUS SANDSTONE: generally as above, light grey, off-white in part, friable with abundant loose grains, rarely moderately hard in part, fine to occasionally medium, dominantly subrounded, moderately to well sorted quartz and trace to rarely common medium to dark grey and light brown lithics, abundant light grey and off-white argillaceous matrix, rare to trace moderately strong calcareous and occasionally siliceous cement, rare partially altered feldspar, rare to trace carbonaceous flecks, laminae and coaly particles, fair visual porosity. No shows. Trace slickensides.
2561	100	0	-	tr	ARGILLACEOUS SANDSTONE: as above
2564	100	0	-	tr	ARGILLACEOUS SANDSTONE: as above
2567	70	0	-	tr	ARGILLACEOUS SANDSTONE: as above
	30	0	-	r	CLAYSTONE: medium brownish grey, light to medium grey in part, soft to firm, sticky in part, non calcareous, rare to trace carbonaceous flecks and laminae, commonly silty in part and grading to Argillaceous Siltstone in part.
2570	100	0	-	tr	ARGILLACEOUS SANDSTONE: as above, dominantly medium, common to abundant argillaceous matrix, fair to good visual porosity. No shows.
2573	100	0	-	tr	ARGILLACEOUS SANDSTONE: as above, hard in part, rare very coarse, angular quartz overgrowths in part.
2576	50	0	-	tr	ARGILLACEOUS SANDSTONE: as above
	50	0	-	tr	CLAYSTONE: as above
2579	70	0	-	tr	ARGILLACEOUS SANDSTONE: as above
	30	0	-	tr	CLAYSTONE: as above
2582	60	0	-	tr	SANDSTONE: as above, common to abundant argillaceous matrix.
	40	0	-	tr	CLAYSTONE: as above

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SAMPLE DESCRIPTION SHEET

Well: La Bella-1
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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
2585	60 40	0 0	- -	tr tr	SANDSTONE: as above CLAYSTONE: as above
2588	80 20	0 0	- -	tr tr	SANDSTONE: as above CLAYSTONE: as above
2591	50 50	0 0	- -	tr tr	ARGILLACEOUS SANDSTONE: as above, abundant lithics as above. CLAYSTONE: as above
2594	20 80	0 0	- -	tr tr	ARGILLACEOUS SANDSTONE: as above CLAYSTONE: as above
2597	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: off-white to light grey, occasionally light brownish grey, speckled, friable with common loose grains, moderately hard in part, fine to medium, dominantly subrounded, moderately to well sorted multi-coloured (grey, brown, red, pink and green) lithics and quartz in equal proportions, abundant off-white kaolinitic and minor light grey argillaceous matrix, trace moderately strong siliceous cement, rare strong pyrite cement, trace to common partially altered feldspar, trace to occasionally common carbonaceous flecks and coaly particles, rare mica, fair, occasionally poor visual porosity. No shows. Coal has no direct or cut fluorescence, but gives very slow very weak dull light yellowish white crush cut and moderately thin dull yellowish white residual ring.
2600	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above
2603	100	0	-	tr	LITHIC/QUARTZOSE SANDSTONE: as above with common to abundant argillaceous matrix, fair to occasionally good visual porosity. No shows.
2606	100	0	-	tr	LITHIC/QUARTZOSE SANDSTONE: as above

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SAMPLE DESCRIPTION SHEET

Well: La Bella-1
Permit: Vic/P30
Geologist(s): Ahmad Tabassi

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
2609	100	0	-	tr	LITHIC/QUARTZOSE SANDSTONE: as above
2612	100	0	-	tr	QUARTZOSE/LITHIC SANDSTONE: as above, becoming dominantly medium, common dispersive argillaceous matrix, good visual porosity. No shows.
2615	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above, dominantly medium, occasionally coarse (quartz only), poor to fair visual porosity. No shows.
2618	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above
2621	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above, trace very coarse quartz overgrowths, poor visual porosity. No shows.
2624	100	0	-	-	SANDSTONE: clear to very light grey, friable to very hard, dominantly hard, medium to very coarse, dominantly coarse, subangular to angular (due to bit action), moderately sorted quartz and quartz overgrowths, no apparent matrix, common to abundant strong siliceous cement, trace strong pyrite cement, rare chert, very poor visual porosity. No shows.
2627	30 70	0 0	- -	- tr	SANDSTONE: as above ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above
2630	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above, dominantly fine, occasionally medium.
2633	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above, becoming extremely argillaceous, in part grading to Arenaceous Claystone.

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SAMPLE DESCRIPTION SHEET

Well: La Bella-1
Permit: Vic/P30
Geologist(s): Ahmad Tabassi

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	Description
2636	100	0	-	tr	QUARTZOSE/LITHIC SANDSTONE: as above, dominantly quartzose, common dispersive argillaceous matrix, fair to good visual porosity. No shows.
2639	90 10	0 0	- -	tr r	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above CLAYSTONE: light grey to beige, occasionally medium grey and brownish grey in part, soft, sticky in part, rare carbonaceous flecks, non calcareous, rare silt.
2642	80 20	0 0	- -	tr r	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above CLAYSTONE: as above
2645	80 20	0 0	- -	tr r	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above CLAYSTONE: as above, dark grey in part, firm and blocky in part.
2648	70 30	0 0	- -	tr r	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above CLAYSTONE: as above
2651	90 10	0 0	- -	tr r	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above, rare very hard chert bands. CLAYSTONE: as above
2654	80 20	0 0	- -	tr r	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above CLAYSTONE: as above
2657	80 20	0 0	- -	tr r	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above CLAYSTONE: as above
2660	100	0	-	tr	QUARTZOSE/LITHIC SANDSTONE: as above
2663	80 20	0 0	- -	tr r	ARGILLACEOUS LITHIC/QUARTZOSE and LITHIC/QUARTZOSE SANDSTONE: as above CLAYSTONE: as above

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SAMPLE DESCRIPTION SHEET

Well: La Bella-1
Permit: Vic/P30
Geologist(s): Ahmad Tabassi

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Depth (mRT)	Lithology (%)	%Fluor	Glauconite	Carb Matter	
2666	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE and LITHIC/QUARTZOSE SANDSTONE: as above
2669	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE and LITHIC/QUARTZOSE SANDSTONE: as above
2672	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above, becoming extremely argillaceous in part, grading to Arenaceous Claystone.
2675	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE and minor LITHIC/QUARTZOSE SANDSTONE: as above, grading to Arenaceous Claystone.
2678	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: generally as above, light grey to off-white, light brownish grey in part, speckled, friable with trace to common loose grains, occasionally moderately firm, fine to medium, subangular to subrounded, moderately to well sorted, multi-coloured lithics (volcanogenic?) and quartz, common to extremely abundant, dominantly abundant off-white kaolinitic and light grey argillaceous matrix, in part grading to Arenaceous Claystone, rare to occasionally trace moderately strong siliceous cement, trace to occasionally common partially altered feldspar, trace carbonaceous flecks and coal particles, poor to occasionally fair visual porosity. No shows. Coal has no direct or cut fluorescence, but gives very slow very weak dull light yellowish white crush cut and moderately thin dull yellowish white residual ring.
2681	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above
2684	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above, grading to Arenaceous Claystone in part.

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SAMPLE DESCRIPTION SHEET

Well: La Bella-1
Permit: Vic/P30
Geologist(s): Ahmad Tabassi

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Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	Description
2687	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE and minor LITHIC/QUARTZOSE SANDSTONE: as above
2690	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE and LITHIC/QUARTZOSE SANDSTONE: as above, rare to trace strong pyrite cement, rare chert bands, very poor visual porosity. No shows.
2693	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE and minor LITHIC/QUARTZOSE SANDSTONE: as above, rare chert bands.
2696	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE and minor LITHIC/QUARTZOSE SANDSTONE: as above, common strong siliceous cement, trace chert bands, very poor to nil visual porosity. No shows.
2699	100	0	-	tr	QUARTZOSE/LITHIC and ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above
2702	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE and QUARTZOSE/LITHIC SANDSTONE: as above, rare chert bands.
2705	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE and LITHIC/QUARTZOSE SANDSTONE: as above
2708	100	0	-	tr	LITHIC/QUARTZOSE and ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above
2711	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE and LITHIC/QUARTZOSE SANDSTONE: as above
2714	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE and LITHIC/QUARTZOSE SANDSTONE: as above, hard in part with common strong siliceous cement, very poor to nil visual porosity. No shows.
2717	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE and LITHIC/QUARTZOSE SANDSTONE: as above

Depth (mRT)	Lithology (%)	% Fluor	Glauconite	Carb Matter	BHP Petroleum SAMPLE DESCRIPTION SHEET Well: La Bella-1 Permit: Vic/P30 Geologist(s): Ahmad Tabassi Page: 58
2720	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as above
2723	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE and LITHIC/QUARTZOSE SANDSTONE: as above, trace chert bands.
2726	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE and LITHIC/QUARTZOSE SANDSTONE: as above, trace chert bands.
2729	80 20	0 0	- -	tr r	ARGILLACEOUS LITHIC/QUARTZOSE and LITHIC/QUARTZOSE SANDSTONE: as above, trace chert bands. CLAYSTONE: as above
2732	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE and minor LITHIC/QUARTZOSE SANDSTONE: as above
2735	100	0	-	tr	ARGILLACEOUS LITHIC/QUARTZOSE and minor LITHIC/QUARTZOSE SANDSTONE: as above
					TD of 2735m was reached @ 0430 hours on Monday 8th Feb. 1993.

3.2 Sidewall Cores

One 60 shot CST run was performed in La Bella-1 within the 12-1/4" section of the hole between 1765 m and 635 m. One 60 shot and one 30 shot CST run was performed in La Bella-1 within the 8-1/2" hole section between 2730 m and 1810 m. Detailed wellsite descriptions of the recovered sidewall cores appear on the following pages.

Table 2 contains a summary of the CST runs.

The remains of the sidewall cores subsequent to palynological, geochemical and petrological analysis are stored by BHP Petroleum at Kestrel Management (Australia) Pty Ltd, Unit 58, Slough Estate, 170 Forster Road, Mt Waverley, Victoria, 3149.

Table 2

La Bella-1

Sidewall Core Summary

Ste No.	Run No.	Bullets in Gun	Bullets Fired	Misfires	Bullets Lost	Bullets Empty	Rec. Cores	Int. (mRT)
1	1	60	59	1	2	-	57	1765.0 - 635.0
2	2	60	59	1	2	3	56	2730.0 - 2145.0
2	3	30	24	6	-	1	23	2141.5 - 1810.0
Total		150	142	8	4	4	136	2730.0 - 635.0

BHP Petroleum

SIDEWALL CORE DESCRIPTION SHEET

Well: La Bella-1
Permit: VIC/P30 Date: 30 January 1993
Geologist(s): Mike Egan
Logging Suite No: 1 Page: 1

Core No.	Depth (mRT)	Recovery (mm)	Description
1	1765.0	25	CLAYSTONE CLAYSTONE: dark brown to grey/brown, hard, waxy lustre, dark brown to grey/brown argillaceous material, rare to minor silt to very fine quartz grains, trace very fine glauconite pellets, trace microcrystalline pyrite aggregates, non calcareous SHOWS: no direct, no cut, no crush cut, thin dull yellow/brown residual ring
2	1747.0	35	CLAYSTONE CLAYSTONE: dark brown to grey/brown, hard, waxy lustre, dark brown to grey/brown argillaceous material, rare to minor silt to very fine quartz grains, trace very fine glauconite pellets, trace microcrystalline pyrite aggregates, non calcareous SHOWS: no direct, no cut, no crush cut, thin dull yellow/brown residual ring
3	1721.0	25	CLAYSTONE CLAYSTONE: dark brown to grey/brown, hard, waxy lustre, dark brown to grey/brown argillaceous material, rare to minor silt to very fine quartz grains, trace very fine glauconite pellets, trace microcrystalline pyrite aggregates, trace disseminated microcrystalline pyrite, non calcareous SHOWS: no direct, no cut, no crush cut, very thin very dull yellow/brown residual ring
4	1692.0	50	CLAYSTONE CLAYSTONE: dark brown to grey/brown, hard, waxy lustre, dark brown to grey/brown argillaceous material, rare to minor silt to very fine quartz grains, non calcareous, no show

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5	1663.0	30	CLAYSTONE CLAYSTONE: dark brown to grey/brown, hard, waxy lustre, dark brown to grey/brown argillaceous material, rare to minor silt to very fine quartz grains, trace very fine glauconite pellets, trace microcrystalline pyrite aggregates, trace disseminated microcrystalline pyrite, non calcareous SHOWS: no direct, no cut, no crush cut, very thin very dull yellow/brown residual ring
6	1640.0	50	CLAYSTONE CLAYSTONE: dark brown to grey/brown, hard, waxy lustre, dark brown to grey/brown argillaceous material, rare to minor silt to very fine quartz grains, trace microcrystalline pyrite aggregates, trace disseminated microcrystalline pyrite, trace very fine disseminated carbonaceous material, trace calcareous material SHOWS: no direct, no cut, no crush cut, very thin very dull yellow/brown residual ring
7	1580.0	25	ARENACEOUS CLAYSTONE ARENACEOUS CLAYSTONE: dark grey/brown with thin light grey, more arenaceous streaks, dark grey/brown argillaceous material, abundant to 40% very fine quartz grains, trace very fine black disseminated carbonaceous material, trace disseminated microcrystalline pyrite, non calcareous SHOWS: no direct, no cut, no crush cut, very thin very dull yellow/brown residual ring
8	1563.0	50	CLAYSTONE CLAYSTONE: dark brown to grey/brown, hard, dark brown to grey/brown argillaceous material, rare to minor silt to very fine quartz grains, trace microcrystalline pyrite aggregates, trace very fine disseminated carbonaceous material, trace fine black mica, non calcareous, no show

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9	1553.0	00	LOST
10	1544.0	45	ARENACEOUS CLAYSTONE ARENACEOUS CLAYSTONE: dark brown to grey/brown, hard, very dark brown to grey/brown argillaceous material, abundant very fine to fine quartz grains, trace very coarse to granule quartz grains, subrounded, slightly elongate to slightly spherical, disk shaped in part, very poorly sorted, trace microcrystalline pyrite aggregates, trace disseminated very fine black carbonaceous material SHOWS: no direct, no cut, no crush cut, thin dull yellow/brown residual ring
11	1523.0	35	ARGILLACEOUS SANDSTONE ARGILLACEOUS SANDSTONE: medium to dark brown/grey, firm, massive, clear to translucent quartz grains, very fine to fine, subangular to subrounded, slightly elongate to slightly spherical, well sorted, 20% to 40% dark brown/grey argillaceous matrix, trace disseminated microcrystalline pyrite, trace disseminated very fine black carbonaceous material, trace fine white mica, very poor visible porosity, no show
12	1521.5	25	SANDSTONE SANDSTONE: light grey, friable to firm, massive, clear to translucent quartz grains, medium to coarse, trace very coarse to granule, subangular to subrounded, slightly spherical, moderately to well sorted, rare to minor off white to light grey argillaceous matrix, minor weak calcareous cement, good inferred porosity, no show
13	1519.0	00	MISFIRE
14	1517.0	30	CLAYSTONE CLAYSTONE: dark brown, firm, massive to subfissile, dark brown argillaceous material, trace to abundant quartz silt, trace disseminated microcrystalline pyrite, non calcareous, no show

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Core No.	Depth (mRT)	Recovery (mm)	Description
15	1514.0	30	SANDSTONE SANDSTONE: light grey, firm to friable, massive, clear to translucent quartz grains, medium to coarse, subrounded, slightly spherical to spherical, well sorted, minor to abundant light grey argillaceous matrix, rare to minor weak calcareous cement, trace medium glauconite pellets, trace coarse white mica, trace coarse dark brown lithic fragments, good to very good visible porosity, no show
16	1511.0	30	SANDSTONE SANDSTONE: light grey, firm to friable, massive, clear to translucent quartz grains, medium to coarse, subrounded, slightly spherical to spherical, well sorted, minor to common light grey argillaceous matrix, trace to rare weak calcareous cement, trace medium glauconite pellets, trace coarse white mica, trace coarse dark brown lithic fragments, good to very good visible porosity, no show
17	1508.0	30	SANDSTONE SANDSTONE: light to medium grey, firm to hard, massive, clear to translucent quartz grains, medium, subangular to subrounded, slightly elongate to slightly spherical, well sorted, moderately silica cemented, weakly calcite cemented, abundant light to medium grey argillaceous matrix, trace medium white mica, fair to good visible porosity, no show
18	1502.5	35	SANDSTONE SANDSTONE: medium grey, firm, massive, clear to translucent quartz grains, medium, subangular to subrounded, slightly spherical, well sorted, weakly silica cemented, non calcareous, abundant medium grey argillaceous matrix, fair to good visible porosity, no show

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Core No.	Depth (mRT)	Recovery (mm)	Description
19	1498.0	30	INTERBEDDED SANDSTONE AND CLAYSTONE SANDSTONE (90%): white, firm, massive, clear to translucent quartz grains, medium to coarse, subangular to subrounded, slightly elongate to slightly spherical, poorly to moderately sorted, well calcite cemented, weakly silica cemented, fair visible porosity, moderate green/yellow mineral fluorescence, no show CLAYSTONE (10%): dark brown, soft, sticky, massive to subfissile, moderately sharp bed boundary, dark brown argillaceous material, minor quartz silt, no show
20	1494.0	45	INTERBEDDED CLAYSTONE AND SANDSTONE CLAYSTONE (60%): dark brown, firm, massive to subfissile, dark brown argillaceous material, minor quartz silt, trace medium white mica, non calcareous, no show SANDSTONE (40%): light to medium grey, firm to friable, massive, sharp bed boundary, clear to translucent quartz grains, medium to coarse and very coarse to granule, subangular to subrounded, slightly elongate to slightly spherical, bimodal, weakly silica cemented, trace very weakly calcite cemented, trace light grey argillaceous matrix, good to very good visible porosity, no show
21	1491.0 Sandy Clayst.	35	ARENACEOUS CLAYSTONE ARENACEOUS CLAYSTONE: medium to dark grey/brown, firm to moderately hard, massive to faintly streaked, dark grey/brown argillaceous material, 30-50% clear to translucent quartz grains, fine to coarse, subangular to subrounded, slightly elongate to slightly spherical, very poorly sorted, trace microcrystalline pyrite aggregates, non calcareous, nil visible porosity SHOWS: no direct, no cut, no crush cut, very thin very dull yellow/brown residual ring

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Core No.	Depth (mRT)	Recovery (mm)	Description
22	1489.0	30	ARENACEOUS CLAYSTONE ARENACEOUS CLAYSTONE: medium to dark grey/brown, firm to moderately hard, massive to faintly streaked, dark grey/brown argillaceous material, 30-50% clear to translucent quartz grains, fine to coarse, subangular to subrounded, slightly elongate to slightly spherical, very poorly sorted, trace microcrystalline pyrite aggregates, non calcareous, nil visible porosity, no show
23	1481.5	25	SANDSTONE SANDSTONE: mottled rusty yellow, yellow/brown and white, friable, massive, light rusty yellow and yellow/brown iron stained quartz grains, fine to coarse, subangular to subrounded, slightly spherical to slightly elongate, very poorly sorted,moderately to well white silica cemented, moderately white calcite cemented, minor to abundant ferruginous quartz silt matrix, poor visible porosity, no show
24	1457.0	35	SANDSTONE SANDSTONE: mottled light rusty yellow, medium to dark grey and white, hard, massive, yellow/brown iron stained to clear and translucent quartz grains, fine to medium, subangular to subrounded, slightly spherical, moderately sorted, moderately well silica cemented, weakly calcite cemented, abundant light rusty yellow quartz silt matrix, poor visible porosity, minor dull yellow/brown mineral fluorescence, no show
25	1432.5	35	SANDSTONE SANDSTONE: dark red/brown, firm to friable, massive, rusty brown iron stained quartz grains, medium to coarse, trace very coarse, subangular to subrounded, slightly elongate to slightly spherical, poorly sorted, weakly silica cemented, weakly iron oxide cemented, common dark brown argillaceous matrix, non calcareous, poor to good visible porosity, no show

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Core No.	Depth (mRT)	Recovery (mm)	Description
26	1427.0	40	SANDSTONE SANDSTONE: mottled light yellow/brown to medium brown, white in part, firm, massive, bimodal, two populations of quartz grains: (i, 20%) light yellow/brown to medium brown iron stained, subrounded to rounded, slightly elongate to slightly spherical, (ii, 70%) light yellow/brown iron stained to clear to translucent, subangular to subrounded, slightly elongate to slightly spherical, 10% medium grey argillaceous matrix, weakly silica cemented, non calcareous, good to excellent visible porosity, no show
27	1420.0	35	SANDSTONE SANDSTONE: dark red/brown, firm to friable, massive, medium rusty brown iron stained quartz grains, medium to coarse, subrounded to subangular, slightly elongate to slightly spherical, moderately sorted, weakly silica cemented, non calcareous, abundant dark grey/brown argillaceous matrix, poor visible porosity, no show
28	1415.0	40	SANDSTONE SANDSTONE: medium to dark grey/brown, firm to friable, massive, medium rusty brown quartz grains, coarse, subangular to subrounded, predominantly subrounded, slightly elongate to slightly spherical, well sorted, weakly to moderately silica cemented, trace calcareous cement, common to abundant medium to dark grey/brown argillaceous matrix, poor to good visible porosity, no show
29	1407.0	45	SANDSTONE SANDSTONE: medium to dark rusty brown, firm to friable, massive, medium rusty brown iron stained quartz grains, medium to coarse, trace very coarse to granule, subangular to rounded, slightly elongate to slightly spherical, moderately sorted, moderately silica cemented, weakly calcite cemented, abundant medium rusty grey/brown argillaceous matrix, poor visible porosity, no show

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Core No.	Depth (mRT)	Recovery (mm)	Description
30	1395.0	20	SANDSTONE SANDSTONE: mottled light rusty yellow/brown and medium rusty brown, white in part, friable to firm, light rusty yellow/brown to medium rusty brown quartz grains, medium to very coarse, subangular to subrounded, slightly elongate to slightly spherical, very poorly sorted, weakly white silica cemented, non calcareous, abundant light yellow/brown quartz silt, good visible porosity, no show
31	1376.0	30	SANDSTONE SANDSTONE: medium yellow/brown, firm to moderately hard, friable in part, light yellow to medium rusty brown iron stained quartz grains, medium to coarse, trace very coarse, subangular to subrounded, slightly elongate to slightly spherical, poorly sorted, moderately silica cemented in part, weakly calcite cemented, common rusty yellow/brown argillaceous matrix, poor visible porosity, no show
32	1372.5	20	SANDSTONE SANDSTONE: mottled light yellow/brown, medium rusty brown and white, firm to friable, massive, light yellow/brown to medium rusty brown quartz grains, subangular to subrounded, slightly elongate to slightly spherical, poorly sorted, well white silica cemented, weakly to moderately calcite cement, poor visible porosity, no show
33	1364.0	40	ARGILLACEOUS SANDSTONE ARGILLACEOUS SANDSTONE: dark rusty brown, firm, massive, light yellow/brown to medium rusty brown iron stained quartz grains, medium to coarse, trace very coarse, subangular to subrounded, predominantly subrounded, slightly elongate to slightly spherical, poorly sorted, moderately silica cemented, weakly calcite cemented, abundant dark grey/brown argillaceous matrix, poor visible porosity, no show

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Core No.	Depth (mRT)	Recovery (mm)	
34	1340.0	30	SANDSTONE SANDSTONE: dark grey/brown, firm to friable, massive, clear to translucent, minor medium rusty brown iron stained quartz grains, medium to coarse, trace very coarse, subangular to subrounded, slightly elongate to slightly spherical, moderately sorted, common to abundant dark grey/brown argillaceous matrix, poor to fair visible porosity, no show
35	1315.0	25	SANDSTONE SANDSTONE: light yellow/brown, friable, massive, light yellow/brown iron stained quartz grains, coarse, trace very coarse, subrounded, slightly elongate to slightly spherical, moderately well sorted, abundant silt to fine quartz grains, minor light yellow/brown argillaceous matrix, fair to good visible porosity, no show
36	1285.0	35	SANDSTONE SANDSTONE: medium to dark grey/brown, firm to hard, massive, clear to translucent quartz grains, predominantly fine, minor very coarse, subangular to subrounded, larger grains predominantly subrounded, slightly elongate to slightly spherical, finer fraction well sorted, overall bimodal, moderately to well silica cemented, poorly calcite cemented, common dark grey/brown argillaceous matrix, very poor to poor visible porosity, no show
37	1264.0	25	SANDSTONE SANDSTONE: light grey, friable, massive, clear to translucent quartz grains, medium to coarse, subangular to subrounded, slightly elongate to slightly spherical, moderately sorted, weakly calcite cemented, trace medium white mica, trace medium glauconite pellets, good to excellent visible porosity, no show

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Core No.	Depth (mRT)	Recovery (mm)	Description
38	1255.0	40	SANDSTONE SANDSTONE: pebbly and argillaceous, light to medium grey, friable, clear to translucent quartz grains, medium to coarse, subangular to subrounded, predominantly subangular, slightly elongate to slightly spherical, well sorted, minor translucent to off white to medium brown quartz pebbles, small to medium pebble size, subrounded to rounded, slightly elongate to disk shaped, poorly sorted, common to abundant light grey argillaceous matrix, minor calcareous material, fair to good visible porosity, no show
39	1241.0	15	SANDSTONE SANDSTONE: light grey, firm to moderately hard, clear to translucent quartz grains, fine, subangular to subrounded, slightly elongate to slightly spherical, well sorted, rare to minor quartz granules, clear to translucent, subrounded, slightly elongate, moderately silica cemented, weakly calcite cemented, fair visible porosity, no show
40	1204.0	45	SANDSTONE SANDSTONE: light to medium grey, firm, clear to translucent quartz grains, medium to coarse, slightly elongate to slightly spherical, moderately sorted, common moderate silica cement, minor to common calcite cement, rare to minor weak microcrystalline pyrite cement, fair visible porosity, no show
41	1200.5	60	SANDSTONE SANDSTONE: light to medium grey, friable to firm, clear to translucent quartz grains, medium to coarse, subangular to subrounded, slightly elongate to slightly spherical, well sorted, rare clear to translucent quartz granules, subrounded, slightly elongate, minor weak silica cement, rare weak microcrystalline pyrite cement, rare light grey argillaceous matrix, very good visible porosity, no show

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Core No.	Depth (mRT)	Recovery (mm)	Description
42	1191.0	20	SANDSTONE SANDSTONE: light grey, firm to moderately hard, massive, clear to translucent quartz grains, fine to medium, subangular to subrounded, slightly elongate to slightly spherical, well sorted, abundant moderately strong quartz cement, minor to common weak calcite cement, trace very dark brown lithic fragments, poor visible porosity, no show
43	1180.0	00	LOST
44	1151.0	15	ARGILLACEOUS CALCISILTITE ARGILLACEOUS CALCISILTITE: light brown/grey, moderately hard, massive, calcareous silt, well calcite cemented, 30-40% light to medium brown/grey argillaceous matrix, nil visible porosity, moderate green/yellow mineral fluorescence, no show
45	1115.0	30	CALCAREOUS CLAYSTONE CALCAREOUS CLAYSTONE: dark grey/brown, firm, massive, dark grey/brown argillaceous material, 20-30% calcareous material, minor fine grained fossil fragments, no show
46	1075.0	15	ARGILLACEOUS CALCISILTITE ARGILLACEOUS CALCISILTITE: light brown/grey, moderately hard, massive, calcareous silt, well calcite cemented, 30-40% light to medium brown/grey argillaceous matrix, nil visible porosity, no show
47	1064.0	40	CALCAREOUS CLAYSTONE CALCAREOUS CLAYSTONE: light brown/grey, firm, massive to faintly streaky, medium brown/grey argillaceous material, 30-40% commonly recrystallised calcareous material, trace fine grained glauconite pellets, no show

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Core No.	Depth (mRT)	Recovery (mm)	Description
48	1060.0	35	MARL MARL: light to medium brown/grey, firm to moderately hard, calcareous material, commonly recrystallised, 40-50% medium grey/brown argillaceous material, trace fine glauconite pellets, trace fine fossil fragments, no show
49	1048.0	30	CALCAREOUS CLAYSTONE CALCAREOUS CLAYSTONE: light brown/grey, firm to moderately hard, massive, light to medium grey/brown argillaceous material, dispersive, 20-30% calcareous material, commonly recrystallised, no show
50	1040.0	55	CALCAREOUS CLAYSTONE CALCAREOUS CLAYSTONE: light to medium brown/grey, hard, massive, medium grey/brown argillaceous material, dispersive, 20-30% calcareous material, recrystallised in part, trace microcrystalline pyrite aggregates, minor fine fossil fragments, no show
51	1027.0	30	CALCAREOUS CLAYSTONE CALCAREOUS CLAYSTONE: light to medium brown/grey, hard, massive, medium grey/brown argillaceous material, dispersive, 40-50% calcareous material, recrystallised in part, minor fine fossil fragments, no show
52	997.0	35	CALCAREOUS CLAYSTONE CALCAREOUS CLAYSTONE: light to medium brown/grey, hard, massive, medium grey/brown argillaceous material, dispersive, 20-30% calcareous material, recrystallised in part, trace fine glauconite pellets, minor fine fossil fragments, no show

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Core No.	Depth (mRT)	Recovery (mm)	Description
53	958.0	45	CALCAREOUS CLAYSTONE CALCAREOUS CLAYSTONE: medium brown/grey, hard, massive to streaky, medium grey/brown argillaceous material, dispersive, 20-30% calcareous material, recrystallised in part, minor fine fossil fragments commonly in thin (<1 mm) bands, trace ~2 mm complete nautiloid, no show
54	925.0	00	LOST
55	896.5	55	CALCAREOUS CLAYSTONE CALCAREOUS CLAYSTONE: medium brown/grey, hard, massive to streaky, medium grey/brown argillaceous material, dispersive, 30-40% calcareous material, recrystallised in part, trace microcrystalline pyrite aggregates, trace fine glauconite pellets, minor fine fossil fragments commonly in thin (<1 mm) bands, no show
56	868.0	35	CALCAREOUS CLAYSTONE CALCAREOUS CLAYSTONE: medium brown/grey, hard, massive, medium grey/brown argillaceous material, dispersive, 40-50% calcareous material, recrystallised in part, minor fine fossil fragments, no show
57	832.0	35	MARL MARL: mottled light grey and off white, hard, calcareous material, recrystallised in part, 30-40% medium grey argillaceous material, no show
58	765.0	30	MARL MARL: mottled and faintly streaky light to medium grey, hard, calcareous material, recrystallised in part, 40-50% medium to dark grey/brown argillaceous material, trace very fine glauconite, no show

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59	695.0	55	<u>MARL</u> <u>MARL</u>: mottled and faintly streaky light to medium grey, hard, calcareous material, recrystallised and silty in part, 40-50% medium to dark grey/brown argillaceous material, trace very fine glauconite, no show
60	635.0	40	<u>CALCAREOUS CLAYSTONE</u> <u>CALCAREOUS CLAYSTONE</u>: silty, light to medium brown/grey, moderately hard, massive, medium to dark brown/grey argillaceous material, 40-50% calcareous material, recrystallised and silty, no show

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Core No.	Depth (mRT)	Recovery (mm)	Description
61	2730.0	10	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: light grey to light greenish grey, speckled, friable, fine to dominantly medium, occasionally coarse, subangular to subrounded, poorly to moderately sorted multi-coloured lithics (possibly volcanogenics) and quartz, abundant off-white and light grey argillaceous matrix, trace carbonaceous detritus, rare partially altered feldspar, rare dull orange mineral fluorescence, poor visual porosity SHOWS: nil Note: porosity decreases once water added to the sample!
62	2705.0	14	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: generally as per SWC No 61, becoming moderately hard in part with rare moderately weak calcareous cement SHOWS: nil
63	2683.0	24	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as per SWC No 61 SHOWS: nil
64	2671.0	24	ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE: as per SWC No 61, becoming light to medium grey in part SHOWS: nil

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Core No.	Depth (mRT)	Recovery (mm)	
65	2646.5	33	<u>CLAYSTONE INTERBEDDED WITH ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE</u> <u>CLAYSTONE</u>: medium to dominantly dark grey, occasionally medium to dark brownish grey, firm, sub-blocky, non calcareous, trace carbonaceous flecks and micromica, interbedded with: <u>ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE</u>: as per SWC No 61 <u>SHOWS</u>: nil
66	2624.0	14	<u>ARGILLACEOUS SANDSTONE</u> <u>ARGILLACEOUS SANDSTONE</u>: off-white to light grey, friable, fine to medium, occasionally coarse, subangular to subrounded, poorly sorted quartz, abundant off-white kaolinitic argillaceous matrix, rare dull orange mineral fluorescence, poor visual porosity <u>SHOWS</u>: nil Note: the core is very crumbly and contains very fine black metallic substance, possibly introduced to it during coring and/or recovery processes
67	2614.5	-	<u>NO RECOVERY</u> (bullet broken)
68	2605.0	28	<u>ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE</u> <u>ARGILLACEOUS LITHIC/QUARTZOSE SANDSTONE</u>: as per SWC No 61, becoming moderately hard in part, rare to trace moderately weak calcareous cement <u>SHOWS</u>: nil
69	2595.0	-	<u>NO RECOVERY</u> (bullet lost)

Core No.	Depth (mRT)	Recovery (mm)	BHP Petroleum SIDEWALL CORE DESCRIPTION SHEET Well: LA BELLA 1 Permit: VIC/P 30 Date: 11-2-93 Geologist(s): Ahmad Tabassi Logging Suite No: 2 Page: 17
70	2593.0	17	MASSIVE CLAYSTONE MASSIVE CLAYSTONE: medium grey to medium olive grey, firm, blocky, non calcareous, trace to common fine carbonaceous flecks, rare micromica SHOWS: nil
71	2578.0	26	ARGILLACEOUS SANDSTONE ARGILLACEOUS SANDSTONE: off-white to very light grey, friable, moderately hard in part, fine to occasionally very coarse, dominantly medium to coarse, subangular to dominantly subrounded, poorly sorted quartz, abundant off-white kaolinitic argillaceous matrix, rare to trace moderately weak calcareous cement, trace carbonaceous laminae, rare to trace dull orange mineral fluorescence, poor to occasionally fair visual porosity SHOWS: nil
72	2567.0	20	INTERLAMINATED ARGILLACEOUS SILTSTONE INTERLAMINATED ARGILLACEOUS SILTSTONE: medium grey to medium brownish grey, soft to firm, sub-blocky in part, non calcareous, common carbonaceous flecks, commonly to abundantly argillaceous, in part grading to Silty Claystone, common very fine quartz sand grains, rarely grades to Silty Argillaceous Claystone SHOWS: no direct, no cut, no crush cut fluorescence, thin dull to moderately bright bluish white residual ring

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Core No.	Depth (mRT)	Recovery (mm)	Description
73	2544.5	35	MASSIVE CLAYSTONE MASSIVE CLAYSTONE: dark grey to dark brownish grey, dominantly firm, rarely moderately hard,blocky to sub-fissile in part, non calcareous, trace to common carbonaceous flecks and laminae SHOWS: no direct, no cut fluorescence, moderately slow moderately weak dull milky white crush cut, moderately thick dull to moderately bright bluish to milky white residual ring
74	2540.5	42	ARGILLACEOUS SANDSTONE INTERBEDDED WITH COAL ARGILLACEOUS SANDSTONE: light grey to very light brownish grey in part, friable, occasionally moderately hard, fine to dominantly medium, dominantly subrounded, moderately sorted quartz, abundant off-white and light grey argillaceous matrix, rare moderately weak calcareous cement, trace grey and green lithics, trace partially altered feldspar, rare carbonaceous material, poor to occasionally fair visual porosity, interbedded with: COAL: black to very dark brownish black, firm, moderately hard in part, brittle, subconchoidal fracture, blocky to subfissile SHOWS: coal has no direct fluorescence, very slow very weak dull milky white cut, moderately slow streaming dull to moderately bright milky to bluish white crush cut fluorescence, moderately thick moderately bright to bright bluish white residual ring
75	2528.0	20	MASSIVE CLAYSTONE MASSIVE CLAYSTONE: medium brownish to olive grey, firm to rarely moderately hard, blocky, non calcareous, trace micromica and carbonaceous flecks, rarely silty in part SHOWS: no direct, no cut, no crush cut fluorescence, thin dull bluish white residual ring

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Core No.	Depth (mRT)	Recovery (mm)	Description
76	2522.0	21	ARGILLACEOUS QUARTZOSE/LITHIC SANDSTONE ARGILLACEOUS QUARTZOSE/LITHIC SANDSTONE: light grey, speckled, friable, fine to dominantly medium, rarely coarse, dominantly subrounded, poorly to moderately sorted quartz and abundant grey and brown lithics, abundant light grey and off-white argillaceous matrix, rare partially altered feldspar, rare carbonaceous detritus, rare dull orange brown mineral fluorescence, poor visual porosity SHOWS: nil
77	2500.0	25	ARGILLACEOUS SILTSTONE ARGILLACEOUS SILTSTONE: medium to dark grey, firm, sub-blocky, non calcareous, abundantly argillaceous, grading to Silty Claystone in part, rare to trace micromica and carbonaceous flecks, rarely finely arenaceous SHOWS: no direct, no cut, no crush cut fluorescence, thin dull bluish white residual ring
78	2498.5	-	NO RECOVERY (bullet broken)
79	2497.0	21	ARGILLACEOUS SANDSTONE ARGILLACEOUS SANDSTONE: off-white to light grey, friable, medium to coarse, dominantly subrounded, moderately sorted quartz, abundant off-white kaolinitic argillaceous matrix, very rare weak calcareous cement, rare dark grey lithics, rare to trace detrital coal particles, trace dull yellow to orange brown mineral fluorescence, poor to occasionally fair visual porosity SHOWS: no direct, no cut, no crush cut fluorescence, very thin dull bluish white residual ring from coaly particles

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Core No.	Depth (mRT)	Recovery (mm)	Description
80	2468.0	25	ARENACEOUS SILTSTONE ARENACEOUS SILTSTONE: light olive grey, firm, sub-blocky, slightly calcareous, commonly to abundantly finely arenaceous, in part grading to very fine Silty Sandstone, commonly argillaceous, trace carbonaceous flecks SHOWS: nil
81	2454.0	35	CLAYSTONE INTERLAMINATED WITH MINOR SANDSTONE CLAYSTONE: dark grey to dark brownish grey, firm, rarely moderately hard, blocky, non calcareous, common carbonaceous flecks, trace micromica, interlaminated (on mm scale) with minor: SANDSTONE: light grey, friable, very fine, subrounded, well sorted quartz, common to abundant off-white argillaceous matrix, trace lithics and partially altered feldspar, rare carbonaceous detritus, very poor to nil visual porosity SHOWS: nil
82	2451.5	33	QUARTZOSE/LITHIC SANDSTONE QUARTZOSE/LITHIC SANDSTONE: light grey, speckled, friable, occasionally moderately hard, medium to coarse, subangular to dominantly subrounded, moderately sorted quartz and grey, brown and green (possibly glauconite) lithics, common off-white kaolinitic argillaceous matrix, rare weak calcareous cement, rare partially altered feldspar, rare carbonaceous detritus, poor to occasionally fair visual porosity SHOWS: nil
83	2432.0	-	NO RECOVERY (bullet empty)
84	2425.0	-	NO RECOVERY (bullet lost)
85	2407.5	-	NO RECOVERY (misfired)

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Core No.	Depth (mRT)	Recovery (mm)	Description
86	2403.0	10	MASSIVE SANDSTONE MASSIVE SANDSTONE: clear to translucent to very light grey, friable, occasionally moderately hard, medium to coarse, with rare very coarse to granule, subangular to subrounded, poorly sorted quartz, trace to common off-white kaolinitic argillaceous matrix, rare moderately weak calcareous and very rare moderately strong siliceous cement, rare lithics and carbonaceous detritus, poor to occasionally fair visual porosity SHOWS: nil Note: the core appears to be crushed by bullet. The very coarse to granule grains had cracks and in part shattered to smaller grains, therefore the present grain size may not be the true representative of the rock. The bullet was broken and half of it missing.
87	2402.0	24	CLAYSTONE INTERLAMINATED/INTERBEDDED WITH MINOR SANDSTONE CLAYSTONE: medium brownish grey to medium grey, soft to firm, sticky in part, sub-blocky in part, non calcareous, moderately to commonly silty, trace carbonaceous flecks and coaly laminae, rare micromica and medium to coarse grained pyrite nodules, interlaminated to rarely interbedded with minor: SANDSTONE: light grey to clear, friable, fine, occasionally medium, dominantly subrounded, well sorted quartz, common light grey argillaceous matrix, rare lithics and partially altered feldspar, poor to rarely fair visual porosity SHOWS: coal laminae have no direct, no cut, no crush cut fluorescence, thin dull bluish white residual ring

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Core No.	Depth (mRT)	Recovery (mm)	Description
88	2398.0	15	CLAYSTONE INTERBEDDED/INTERLAMINATED WITH SANDSTONE CLAYSTONE: as per SWC No 87, interbedded/interlaminated with: SANDSTONE: light grey, speckled, friable, occasionally moderately hard to hard, fine to dominantly medium, subangular, moderately to well sorted quartz and common to abundant grey brown and rarely green lithics and partially altered feldspar, common light grey to off-white argillaceous matrix, trace moderately strong siliceous cement, trace coaly particles, poor visual porosity SHOWS: coal laminae have no direct, no cut, no crush cut fluorescence, thin dull bluish white residual ring
89	2389.0	40	MASSIVE SANDSTONE MASSIVE SANDSTONE: clear to very light grey, speckled in part, friable, medium to coarse, rarely fine, subangular to subrounded, moderately sorted quartz, trace off-white kaolinitic argillaceous matrix, trace to occasionally common grey lithics, rare to trace partially altered feldspar, rare to trace coaly detritus, good visual porosity SHOWS: nil

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Core No.	Depth (mRT)	Recovery (mm)	Description
90	2367.0	20	SANDSTONE INTERBEDDED WITH SILTY CLAYSTONE AND CALCAREOUS CLAYSTONE SANDSTONE: light grey, friable to moderately hard, medium to coarse, dominantly subrounded, moderately to well sorted quartz, trace light grey argillaceous matrix, trace moderately strong calcareous and rarely siliceous cement, trace to common grey brown and rarely green (glauconite?) lithics, rare partially altered feldspar, trace to rare coaly detritus, poor to fair visual porosity, interbedded with: SILTY CLAYSTONE: medium to dark grey and brownish grey, firm, commonly to occasionally abundantly silty, trace carbonaceous flecks, rare micromica, also interbedded with: CALCAREOUS CLAYSTONE: light to medium yellowish brown, moderately hard to hard, strongly calcareous cemented, rare to trace silt and carbonaceous flecks SHOWS: nil
91	2345.0	25	MASSIVE SANDSTONE MASSIVE SANDSTONE: light grey, speckled, friable to rarely moderately hard, dominantly medium, rarely fine, dominantly subrounded, well sorted quartz, trace to common light grey argillaceous matrix, common grey, brown and rarely green (glauconite?) lithics, rare partially altered feldspar, rare coaly detritus, good to fair visual porosity SHOWS: nil

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Core No.	Depth (mRT)	Recovery (mm)	Description
92	2330.0	27	INTERLAMINATED ARGILLACEOUS SILTSTONE INTERLAMINATED ARGILLACEOUS SILTSTONE: medium grey to medium brownish grey interlaminated (on mm scale) with light grey, firm, the light grey laminae is moderately hard to hard, blocky, non calcareous, commonly to abundantly argillaceous, common carbonaceous flecks and laminae, trace micromica, rare very fine partially altered feldspar SHOWS: no direct, no cut, very weak very slow dull blue crush cut fluorescence, thin moderately bright bluish white residual ring
93	2309.0	26	CLAYSTONE INTERLAMINATED WITH MINOR SANDSTONE CLAYSTONE: medium to dark brownish grey, firm, blocky, non calcareous, moderately silty, trace micromica and carbonaceous flecks and laminae, interlaminated with minor: SANDSTONE: light grey, friable, fine, subrounded, well sorted quartz, trace light grey and occasionally light yellowish brown argillaceous matrix, rare lithics and partially altered feldspar, poor to occasionally fair visual porosity SHOWS: no direct, no cut, no crush cut fluorescence, very thin moderately bright bluish white residual ring
94	2298.0	48	ARGILLACEOUS SANDSTONE ARGILLACEOUS SANDSTONE: light grey to very light greenish grey, friable, rarely moderately hard, fine, dominantly subrounded, well sorted quartz, common to abundant light grey argillaceous matrix, rare to trace weak calcareous cement, trace to common lithics, rare partially altered feldspar, very rare glauconite, rare coaly detritus, poor to rarely fair visual porosity SHOWS: nil

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Core No.	Depth (mRT)	Recovery (mm)	Description
95	2286.0	22	CLAYSTONE INTERLAMINATED WITH SANDSTONE CLAYSTONE: as per SWC No 93, interlaminated with: SANDSTONE: as per SWC No 93 SHOWS: no direct, no cut, no crush cut fluorescence, thin moderately bright bluish white residual ring
96	2284.0	30	CLAYSTONE INTERLAMINATED WITH SANDSTONE CLAYSTONE: as per SWC No 93, becoming dominantly commonly silty, interlaminated with: SANDSTONE: as per SWC No 93 SHOWS: no direct, no cut, no crush cut fluorescence, thin moderate bright bluish white residual ring
97	2281.5	33	MASSIVE SANDSTONE MASSIVE SANDSTONE: clear to light grey, friable, fine to medium, rarely coarse, subangular to dominantly subrounded, moderately sorted quartz, trace to occasionally common light grey argillaceous matrix, rare weak calcareous cement, rare to trace light green glauconite(?), fair to good visual porosity SHOWS: nil
98	2277.5	27	MASSIVE CLAYSTONE MASSIVE CLAYSTONE: dark grey to dark brownish grey, firm to moderately hard, blocky, non calcareous, moderately silty in part, trace to common carbonaceous flecks, trace glauconite, trace micromica SHOWS: no direct, no cut, no crush cut fluorescence, very thin dull bluish white residual ring

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Core No.	Depth (mRT)	Recovery (mm)	
99	2270.0	25	MASSIVE CLAYSTONE MASSIVE CLAYSTONE: medium to dominantly dark brownish grey and grey, dominantly firm, rarely moderately hard, sub-blocky, non calcareous, common silt, micromica and carbonaceous flecks and laminae SHOWS: nil
100	2252.0	25	INTERLAMINATED ARGILLACEOUS SILTSTONE INTERLAMINATED ARGILLACEOUS SILTSTONE: light grey to occasionally medium grey, soft, dispersive in part, non calcareous, abundantly argillaceous, common thin carbonaceous laminae and flecks, trace micromica SHOWS: nil
101	2239.0	30	MASSIVE SANDSTONE MASSIVE SANDSTONE: light grey, rarely light to medium grey, friable, rarely moderately hard in part, fine, subrounded, well sorted quartz, rare to trace light grey argillaceous matrix, rare very weak calcareous cement, rare to trace glauconite, trace carbonaceous laminae, fair to good visual porosity SHOWS: nil
102	2235.0	27	ARGILLACEOUS SANDSTONE ARGILLACEOUS SANDSTONE: light grey, occasionally medium grey(?), friable, occasionally moderately hard, fine to dominantly medium, dominantly subrounded, moderately to well sorted quartz, common to abundant light grey argillaceous matrix, trace moderately strong siliceous cement, trace glauconite, poor to fair visual porosity SHOWS: nil Note: the medium grey colour of the sandstone appears to be due to the mud invasion!

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Core No.	Depth (mRT)	Recovery (mm)	Description
103	2232.0	20	SILTY CLAYSTONE SILTY CLAYSTONE: medium to dark grey, firm, soft in part, sub-blocky in part, non calcareous, abundantly silty, trace carbonaceous flecks, trace micromica, in part grading to Argillaceous Siltstone SHOWS: nil
104	2217.0	24	SILTY CLAYSTONE INTERLAMINATED WITH MINOR SANDSTONE SILTY CLAYSTONE: as per SWC No 103, interlaminated (on mm scale) with minor: SANDSTONE: light grey, friable, very fine, subrounded, well sorted quartz, common light grey argillaceous matrix, rare partially altered feldspar and glauconite, poor visual porosity SHOWS: no direct, no cut, no crush cut fluorescence, claystone has very thin dull bluish white residual ring
105	2212.5	15	ARGILLACEOUS SANDSTONE ARGILLACEOUS SANDSTONE: light grey, friable , moderately hard to hard in part, very fine to fine, subangular to subrounded, well sorted quartz, abundant off-white argillaceous matrix, trace to common moderately strong calcareous and siliceous cement, trace glauconite, rare lithics and partially altered feldspar, very poor visual porosity SHOWS: nil

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Core No.	Depth (mRT)	Recovery (mm)	Description
106	2205.0	18	MASSIVE SANDSTONE MASSIVE SANDSTONE: light to occasionally medium grey, moderately hard to hard, friable in part, very fine to dominantly fine, dominantly subrounded, well sorted quartz, rare to trace light grey argillaceous matrix, trace to common strong calcareous and siliceous cement, trace to common carbonaceous laminae, very poor visual porosity SHOWS: nil
107	2199.0	25	INTERLAMINATED ARGILLACEOUS SILTSTONE INTERLAMINATED ARGILLACEOUS SILTSTONE: medium and dark grey, firm to moderately hard, sub-blocky, non calcareous, abundantly argillaceous, in part grading to Silty Claystone, common carbonaceous laminae and flecks, rare micromica SHOWS: no direct, no cut, no crush cut fluorescence, very thin dull bluish white residual ring
108	2182.0	20	INTERLAMINATED SANDSTONE INTERLAMINATED SANDSTONE: medium grey interlaminated with light yellow to light grey, moderately hard to occasionally friable, fine to dominantly very fine, subrounded, well sorted quartz, trace light to medium grey and light yellow argillaceous matrix, trace moderately strong siliceous cement, trace carbonaceous laminae and flecks, very poor to nil visual porosity SHOWS: no direct, no cut, no crush cut fluorescence, very thin dull bluish white residual ring

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Core No.	Depth (mRT)	Recovery (mm)	Description
109	2179.0	21	SANDSTONE INTERLAMINATED WITH MINOR CARBONACEOUS LAMINAE SANDSTONE: light grey, friable, moderately hard to hard in part, very fine to dominantly fine, subrounded, well sorted quartz, rare light grey argillaceous matrix, trace to common moderately strong siliceous cement, rare partially altered feldspar, very poor to occasionally poor visual porosity, interlaminated with minor: CARBONACEOUS LAMINAE: black, soft to firm, argillaceous in part SHOWS: no direct, no cut, no crush cut, carbonaceous laminae have very thin dull bluish white residual ring
110	2174.0	26	MASSIVE SANDSTONE MASSIVE SANDSTONE: light to rarely medium grey, friable, medium, rarely fine, subangular to subrounded, well sorted quartz, rare pyrite nodules, rare to trace mica, very good visual porosity SHOWS: nil
111	2171.0	25	SANDSTONE INTERLAMINATED WITH MINOR CLAYSTONE SANDSTONE: light grey to rarely yellowish white, friable, very fine to dominantly fine, subangular to subrounded, well sorted quartz, trace to occasionally common light grey argillaceous matrix, fair to occasionally good visual porosity, interlaminated with minor: CLAYSTONE: dark grey, soft, sticky in part, non calcareous, moderately carbonaceous SHOWS: nil

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Core No.	Depth (mRT)	Recovery (mm)	Description
112	2168.5	22	MASSIVE SANDSTONE MASSIVE SANDSTONE: light grey to rarely light yellow, friable, very fine to dominantly fine, subangular to subrounded, well sorted quartz, rare light grey argillaceous matrix, good visual porosity SHOWS: nil Note: the yellowish tint could be contamination
113	2166.0	20	INTERLAMINATED SANDSTONE INTERLAMINATED SANDSTONE: light to medium grey, interlaminated with medium grey, friable to rarely moderately hard in part, very fine to dominantly fine, subangular to subrounded, well sorted quartz, trace light to medium grey argillaceous matrix, trace carbonaceous flecks and laminae in the medium grey portions, fair visual porosity SHOWS: nil
114	2164.0	25	INTERLAMINATED SANDSTONE INTERLAMINATED SANDSTONE: as per SWC No 113 SHOWS: nil
115	2162.0	28	MASSIVE SANDSTONE MASSIVE SANDSTONE: clear to light grey, friable, very fine to coarse, dominantly fine, subangular to subrounded, very poorly sorted quartz, rare light grey argillaceous matrix, very rare lithics, poor to rarely fair visual porosity SHOWS: nil

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116	2161.0	35	INTERLAMINATED SANDSTONE INTERLAMINATED SANDSTONE: clear to light grey interlaminated with medium grey, friable, fine to medium, dominantly subrounded, moderately sorted quartz, trace to common light grey argillaceous matrix, rare carbonaceous detritus in the medium grey portions, fair to occasionally good visual porosity SHOWS: nil
117	2159.0	21	INTERLAMINATED SANDSTONE INTERLAMINATED SANDSTONE: as per SWC No 116, also interlaminated with minor carbonaceous material SHOWS: nil
118	2153.0	22	MASSIVE SANDSTONE MASSIVE SANDSTONE: clear to light grey, friable, fine to coarse, dominantly fine, dominantly subangular, poorly sorted quartz, trace to common carbonaceous laminae, occasionally interlaminated with sandstone, fair to occasionally good visual porosity SHOWS: nil
119	2148.0	24	INTERLAMINATED SANDSTONE INTERLAMINATED SANDSTONE: medium grey, interlaminated with light to medium grey, friable to dominantly hard, dominantly fine, occasionally medium and coarse, dominantly subrounded, poorly sorted quartz, trace to common light to medium grey argillaceous matrix, rare moderately weak siliceous cement, rare to trace carbonaceous specks and laminae, fair to occasionally poor visual porosity SHOWS: nil

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112	2168.5	22	MASSIVE SANDSTONE MASSIVE SANDSTONE: light grey to rarely light yellow, friable, very fine to dominantly fine, subangular to subrounded, well sorted quartz, rare light grey argillaceous matrix, good visual porosity SHOWS: nil Note: the yellowish tint could be contamination
113	2166.0	20	INTERLAMINATED SANDSTONE INTERLAMINATED SANDSTONE: light to medium grey, interlaminated with medium grey, friable to rarely moderately hard in part, very fine to dominantly fine, subangular to subrounded, well sorted quartz, trace light to medium grey argillaceous matrix, trace carbonaceous flecks and laminae in the medium grey portions, fair visual porosity SHOWS: nil
114	2164.0	25	INTERLAMINATED SANDSTONE INTERLAMINATED SANDSTONE: as per SWC No 113 SHOWS: nil
115	2162.0	28	MASSIVE SANDSTONE MASSIVE SANDSTONE: clear to light grey, friable, very fine to coarse, dominantly fine, subangular to subrounded, very poorly sorted quartz, rare light grey argillaceous matrix, very rare lithics, poor to rarely fair visual porosity SHOWS: nil

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Core No.	Depth (mRT)	Recovery (mm)	Description
116	2161.0	35	INTERLAMINATED SANDSTONE INTERLAMINATED SANDSTONE: clear to light grey interlaminated with medium grey, friable, fine to medium, dominantly subrounded, moderately sorted quartz, trace to common light grey argillaceous matrix, rare carbonaceous detritus in the medium grey portions, fair to occasionally good visual porosity SHOWS: nil
117	2159.0	21	INTERLAMINATED SANDSTONE INTERLAMINATED SANDSTONE: as per SWC No 116, also interlaminated with minor carbonaceous material SHOWS: nil
118	2153.0	22	MASSIVE SANDSTONE MASSIVE SANDSTONE: clear to light grey, friable, fine to coarse, dominantly fine, dominantly subangular, poorly sorted quartz, trace to common carbonaceous laminae, occasionally interlaminated with sandstone, fair to occasionally good visual porosity SHOWS: nil
119	2148.0	24	INTERLAMINATED SANDSTONE INTERLAMINATED SANDSTONE: medium grey, interlaminated with light to medium grey, friable to dominantly hard, dominantly fine, occasionally medium and coarse, dominantly subrounded, poorly sorted quartz, trace to common light to medium grey argillaceous matrix, rare moderately weak siliceous cement, rare to trace carbonaceous specks and laminae, fair to occasionally poor visual porosity SHOWS: nil

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Core No.	Depth (mRT)	Recovery (mm)	Description
120	2145.0	14	INTERLAMINATED ARGILLACEOUS SILTSTONE INTERLAMINATED ARGILLACEOUS SILTSTONE: light grey interlaminated with medium grey, firm, soft in part, non calcareous, abundantly argillaceous, grading to Silty Claystone in part, trace fine carbonaceous flecks, rare micromica SHOWS: nil
121	2141.5	35	MASSIVE SANDSTONE MASSIVE SANDSTONE: medium grey, occasionally light grey, friable, fine, subangular to subrounded, well sorted quartz, trace to occasionally common light to medium grey argillaceous matrix, trace carbonaceous laminae, poor to fair visual porosity SHOWS: nil
122	2134.0	31	MASSIVE SANDSTONE MASSIVE SANDSTONE: clear to very light grey, friable, medium, subangular to subrounded, very well sorted quartz, very good visual porosity SHOWS: nil
123	2131.0	-	NO RECOVERY (bullet empty)
124	2126.0	20	SANDSTONE SANDSTONE: light brownish to olive grey, very hard, occasionally moderately hard to friable, very fine to very coarse, subangular to subrounded, very poorly sorted quartz in a groundmass of very strong calcareous and siliceous cement, very poor to nil visual porosity SHOWS: nil

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Core No.	Depth (mRT)	Recovery (mm)	Description
125	2121.0	30	MASSIVE SANDSTONE MASSIVE SANDSTONE: light to occasionally medium grey, friable, fine, subrounded very well sorted quartz, rare light grey argillaceous matrix, trace to occasionally common carbonaceous laminae, good to very good visual porosity SHOWS: nil
126	2118.0	23	INTERLAMINATED SANDSTONE INTERLAMINATED SANDSTONE: light brownish grey interlaminated with medium grey to medium brownish grey, friable, very fine to fine, dominantly subrounded,well sorted quartz, common to occasionally abundant light grey argillaceous matrix, trace carbonaceous flecks and laminae, fair visual porosity SHOWS: nil
127	2116.0	32	MASSIVE SANDSTONE MASSIVE SANDSTONE: light grey to very light brownish grey, friable, fine, subrounded, very well sorted quartz, rare to occasionally trace light grey argillaceous matrix, trace carbonaceous laminae, rare partially altered feldspar, rare mica, fair to good visual porosity SHOWS: nil
128	2111.5	42	ARENACEOUS CLAYSTONE ARENACEOUS CLAYSTONE: light yellowish brown, soft to firm, moderately to occasionally strongly calcareous, common to abundant very fine quartz sand grains, trace carbonaceous and coaly detritus SHOWS: nil

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129	2102.5	20	MASSIVE SANDSTONE MASSIVE SANDSTONE: light yellowish brown, friable, fine, subrounded, well sorted quartz, common to rarely abundant light yellowish brown argillaceous matrix, moderately to strongly calcareous, trace carbonaceous laminae, trace pyrite nodules and minor bands, rare micro fracture with secondary calcite crystals, trace dull orange brown mineral fluorescence, poor visual porosity SHOWS: nil
130	2070.0	32	SANDSTONE SANDSTONE: medium grey, medium to dark grey in part, friable in part, moderately hard in part, fine to coarse, dominantly medium , rare rounded granule in part, subangular to rounded, dominantly subangular, very poorly sorted quartz, common to abundant medium to dark grey argillaceous matrix, rare moderately strong siliceous cement, rare cryptocrystalline pyrite, rare coaly detritus, poor visual porosity SHOWS: no direct, no cut, no crush cut fluorescence, very thin dull bluish white residual ring
131	2066.0	25	SANDSTONE INTERBEDDED WITH MINOR CLAYSTONE SANDSTONE: light to medium grey, friable, fine to medium, occasionally very coarse to granule grains (broken by bullet), subangular to rounded (granules), very poorly sorted quartz, trace to common light to medium grey argillaceous matrix, trace to common fine glauconite pellets, rare carbonaceous material, rare lithics and partially altered feldspar, poor to fair visual porosity SHOWS: nil

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Core No.	Depth (mRT)	Recovery (mm)	Description
132	2061.0	38	ARGILLACEOUS SANDSTONE ARGILLACEOUS SANDSTONE: light grey to light olive grey, friable in part, moderately hard to hard in part, very fine to dominantly fine, subangular to subrounded, well sorted quartz, trace to occasionally common light grey argillaceous matrix, trace to occasionally common strong to very strong calcareous and siliceous cement, common fine glauconite pellets, rare to trace carbonaceous material, poor occasionally very poor visual porosity SHOWS: nil
133	2059.0	9	CLAYSTONE INTERLAMINATED WITH MINOR SANDSTONE CLAYSTONE: medium to dark grey to brownish grey, firm, non calcareous, commonly silty, trace micromica and carbonaceous flecks, interlaminated with minor: SANDSTONE: clear to light grey, friable, very fine, subrounded, well sorted quartz, trace off-white argillaceous matrix, trace glauconite and partially altered feldspar, poor to fair visual porosity SHOWS: nil
134	2055.0	41	ARGILLACEOUS SANDSTONE ARGILLACEOUS SANDSTONE: medium grey to medium olive grey, friable in part, moderately hard in part, fine to very coarse, dominantly medium, subangular to subrounded, very poorly sorted quartz, abundant medium grey to brownish grey argillaceous matrix, in part grading to Arenaceous Claystone, strongly calcareous, trace calcite crystals, trace glauconite pellets, rare carbonaceous detritus, very poor visual porosity SHOWS: nil

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Core No.	Depth (mRT)	Recovery (mm)	Description
135	2054.0	25	CLAYSTONE INTERLAMINATED WITH MINOR SANDSTONE CLAYSTONE: as per SWC No 133, interlaminated with minor: SANDSTONE: as per SWC No 133 SHOWS: no direct, no cut, no crush cut, very thin dull bluish white residual ring
136	2043.0	14	MASSIVE CLAYSTONE MASSIVE CLAYSTONE: dark grey, medium grey in part, firm, soft in part, moderately calcareous, moderately silty, trace carbonaceous flecks SHOWS: nil
137	2028.0	25	INTERLAMINATED SILTSTONE INTERLAMINATED SILTSTONE: medium to dark grey interlaminated with very light grey, firm, sub-blocky in part, dominantly argillaceous, trace carbonaceous flecks and very fine partially altered feldspar, the light grey portions grading into very fine Sandstone in part SHOWS: nil
138	2020.0	35	MASSIVE CLAYSTONE MASSIVE CLAYSTONE: medium to dark brownish grey to grey, firm, soft in part, sub-blocky in part, rarely silty, non calcareous, trace carbonaceous flecks and thin laminae SHOWS: nil
139	2016.0	-	NO RECOVERY (misfired)

BHP Petroleum

SIDEWALL CORE DESCRIPTION SHEET

Well: LA BELLA 1
Permit: VIC/P 30
Date: 11-2-93
Geologist(s): Ahmad Tabassi
Logging Suite No: 2
Page: 37

Core No.	Depth (mRT)	Recovery (mm)	Description
140	2009.0	22	ARGILLACEOUS SANDSTONE ARGILLACEOUS SANDSTONE: medium grey to medium greenish grey, friable, very fine to fine, subangular to subrounded, well sorted quartz, abundant medium grey argillaceous matrix, trace glauconite, rare carbonaceous detritus, very poor visual porosity SHOWS: nil
141	2004.0	15	SILTY CLAYSTONE SILTY CLAYSTONE: medium to dark grey, medium to dark brownish grey in part, firm to moderately hard, moderately calcareous, abundantly silty, in part grading to Argillaceous Siltstone, trace glauconite, rare carbonaceous flecks SHOWS: Nil
142	1990.0	-	NO RECOVERY (misfired)
143	1979.0	31	MASSIVE CLAYSTONE MASSIVE CLAYSTONE: dark grey, firm to moderately hard, blocky, non calcareous, trace micromica and carbonaceous flecks, rare silt SHOWS: nil
144	1949.0	38	MASSIVE CLAYSTONE MASSIVE CLAYSTONE: as per SWC No 143 SHOWS: nil
145	1919.0	-	NO RECOVERY (misfired)
146	1891.0	26	MASSIVE CLAYSTONE MASSIVE CLAYSTONE: as per SWC No 143 SHOWS: nil

BHP Petroleum

SIDEWALL CORE DESCRIPTION SHEET

Well: LA BELLA 1
Permit: VIC/P 30
Geologist(s): Ahmad Tabassi
Logging Suite No: 2
Date: 11-2-93
Page: 38

Core No.	Depth (mRT)	Recovery (mm)	Description
147	1865.0	40	MASSIVE CLAYSTONE MASSIVE CLAYSTONE: as per SWC No 143 SHOWS: nil
148	1833.5	-	NO RECOVERY (misfired)
149	1826.5	-	NO RECOVERY (misfired)
150	1810.0	-	NO RECOVERY (misfired)

3.3 Conventional Cores

One conventional core was cut in the 8-1/2" hole section of La Bella-1 on 4 February 1993. Details of the cored depths and recovery are given in Table 3. The fibreglass-sleeved cores were cut into 1 m lengths and marked accordingly before dispatch from the wellsite.

Table 3

La Bella-1

Conventional Core Recovery

Core No.	Cored Interval (mRT)	Recovery (m)	Recovery (%)
1	2071.00 - 2098.65	27.65	100

3.3.1 Core Description

The following core description sheets were prepared at the wellsite after evaluation of chip samples at 1 m intervals.

3.3.2 Conventional Core Analysis

Conventional core analyses were performed on the cores by Amdel Core Services Pty Ltd. The Amdel report follows the core description sheets and the UV and white light core photographs are included in Enclosure 3.

Half of the slabbed core is stored by BHP Petroleum at Kestrel Management (Australia) Pty Ltd, Unit 58, Slough Estate, 170 Forster Road, Mt Waverley, Victoria, 3149.

3.3.1 Core Description

BHP Petroleum

CORE DESCRIPTION SHEET

Well: La Bella-1
Permit: Vic/P30
Geologist(s): Ahmad Tabassi

Page: 1

Depth (mRT)	Lithology (%)	%Fluorescence	Glauconite	Carb Matter	Description
Core No. 1 was cut over the interval 2071.00-2098.65 m Recovery 100%					
2071	100	0	tr	tr	SANDSTONE: light to occasionally medium grey, moderately hard, friable in parts, medium to coarse and occasionally very coarse to granular, occasional to common fine grains, angular to subangular, occasionally very angular, poorly sorted quartz, common localised medium grey argillaceous matrix, occasional dark yellowish orange argillaceous matrix, rare moderately weak siliceous cement, trace glauconite, occasional coaly clasts and carbonaceous material, common clasts of medium grey silty claystone, good visual porosity, no shows.
2072	100	0	rr	rr	ARGILLACEOUS SANDSTONE: medium dark grey, moderately hard, friable in parts, medium to coarse and occasional very coarse to pebble sized grains, common fine grains, subangular to subrounded, poorly sorted quartz, abundant medium grey argillaceous matrix, rare moderately weak siliceous cement, rare to occasional dispersed pyrite cement, rare glauconite, occasional white weathered lithic grains, rare coal fragments, very poor visual porosity, no shows.

BHP Petroleum

CORE DESCRIPTION SHEET

Well: La Bella-1
Permit: Vic/P30
Geologist(s): Ahmad Tabassi

Page: 2

Depth (mRT)	Lithology (%)	% Fluorescence	Glauconite	Carb Matter	Description
2073	60	0	0	tr	SILTSTONE: medium dark grey to olive black, firm to moderately hard, blocky, non calcareous, commonly argillaceous, common fine to medium quartz grains, occasional white weathered lithic grains, rare carbonaceous material, no shows, grading to:
	40	0	tr	0	SANDSTONE: light to medium grey, firm, slightly friable, medium to occasionally coarse and very coarse grained, subangular, moderately sorted quartz, common very light grey to medium grey silty to argillaceous matrix, rare moderately weak siliceous cement, rare pyrite cement, rare glauconite, common white weathered lithic grains, no shows.
2074	100	0	0	cmn	CLAYSTONE: dark grey to dusky brown, common medium quartz grains, common carbonaceous material, occasional pyritised wood fragments, slightly silty in parts, sub blocky, moderately firm, non calcareous.
2075	100	0	0	cmn	CLAYSTONE: dark grey to dusky brown, trace to occasional medium quartz grains, occasional to common dispersed carbonaceous material, common pyritised organic remnants and dispersed pyrite, common mica and micromica, rare reddish brown amber, slightly silty in parts, sub blocky, firm, non calcareous.

BHP Petroleum

CORE DESCRIPTION SHEET

Well: La Bella-1
Permit: Vic/P30
Geologist(s): Ahmad Tabassi
Page: 3

Depth (mRT)	Lithology (%)	% Fluorescence	Glauconite	Carb Matter	Description
2076	80 20	0 0	tr tr	cmn tr	ARGILLACEOUS SANDSTONE: medium grey to medium dark grey, firm, slightly friable, fine to medium grained, occasional coarse, angular to sub angular, moderately sorted quartz, abundant silty to argillaceous matrix, common dispersed organic material, trace glauconite, trace coal fragments, poor visual porosity, no shows, minor interbeds of: SANDSTONE: very light grey, firm, slightly friable, medium to coarse grained, subangular to subrounded, well sorted quartz, common white clay matrix, trace glauconite, trace mica, trace reddish brown amber, rare coal fragments, good visual porosity, no shows.
2077					ARGILLACEOUS SANDSTONE: as above. SANDSTONE: as above.
2078	100	0	tr	cmn	SANDY SILTSTONE: medium dark grey to dark grey, commonly argillaceous, common medium to coarse and very fine grained quartz, common coal fragments, occasional pyritised plant remnant, occasional white weathered lithic grain, trace glauconite, trace mica and micromica, firm, subblocky, non calcareous.
2079					SANDY SILTSTONE: as above.
2080					SANDY SILTSTONE: as above.

BHP Petroleum

CORE DESCRIPTION SHEET

Well: La Bella-1
Permit: Vic/P30
Geologist(s): Ahmad Tabassi

Page: 4

Depth (mRT)	Lithology (%)	%Fluorescence	Glauconite	Carb Matter	Description
2081	100	0	cmn	rr	SANDSTONE: light grey to medium light grey, firm, fine to medium grained, occasional coarse grain, angular to subangular, moderately sorted quartz, rare siliceous cement, abundant silty to argillaceous matrix, common glauconite, occasional claystone clast, rare coal fragments, poor to moderate visual porosity, no shows.
2082					SANDSTONE: as above.
2083	100	0	0	cmn	CLAYSTONE: medium grey to brownish black, silty in parts, common dispersed coal fragments, occasional mica and micromica, firm, blocky, non calcareous.
2084	100	0	0	cmn	CLAYSTONE: medium grey to medium dark grey, silty, grading in part to very fine quartz sand, common dispersed coal fragments, trace mica and micromica, firm, blocky, non calcareous.
2084.4	100	0	0	cmn	CLAYSTONE: dark grey to greyish black, slightly silty, common dispersed coal fragments, occasional mica and micromica, occasional pyritised plant fragments, firm, blocky, non calcareous.
2085					CLAYSTONE: as above.
2086					CLAYSTONE: as above.
2087					CLAYSTONE: as above.
2088	100	0	0	cmn	SANDY CLAYSTONE: medium grey to medium dark grey, silty in parts, common very fine to fine grained quartz, occasional to common dispersed coal fragments, occasional mica and micromica, rare pyritised plant remnant, firm, subblocky, non calcareous.

BHP Petroleum

CORE DESCRIPTION SHEET

Well: La Bella-1
Permit: Vic/P30
Geologist(s): Ahmad Tabassi

Page: 5

Depth (mRT)	Lithology (%)	% Fluorescence	Glauconite	Carb Matter	Description
2089	100	0	0	cmn	CLAYSTONE: medium grey to medium dark grey, slightly silty, abundant pyritised plant remnants, common coal fragments, rare very fine to fine quartz grain, trace mica and micromica, firm, subblocky, non calcareous.
2090					CLAYSTONE: as above.
2091					CLAYSTONE: as above.
2092					CLAYSTONE: as above, with common very fine to fine grained quartz.
2093	100	0	0	cmn	CLAYSTONE: medium dark grey to dark grey, silty in parts, common coal fragments, common pyritised plant remnants, occasional framboidal and crystalline pyrite, occasional mica and micromica, (possible burrow filled with fine pyrite and quartz crystals), firm, blocky, non calcareous.
2094	100	0	0	abt	SILTSTONE: medium grey to olive grey, abundant coal fragments, occasional very fine to fine quartz sand, rare white clay clasts, firm, sub blocky, non calcareous.
2095	100	0	0	cmn	CLAYSTONE: medium dark grey to dark grey, slightly silty, common coal fragments, occasional mica and micromica, occasional very fine quartz, rare pyrite, firm, blocky, non calcareous.
2096					CLAYSTONE: as above.
2097					CLAYSTONE: as above, with a 12 mm white clay clast.

BHP Petroleum

CORE DESCRIPTION SHEET

Well: La Bella-1
Permit: Vic/P30
Geologist(s): Ahmad Tabassi
Page: 6

Depth (mRT)	Lithology (%)	% Fluorescence	Glauconite	Carb Matter	Description
2098	100	0	0	cmn	CLAYSTONE: medium dark grey to dark grey, silty to occasionally sandy in parts, common coal fragments, common pyritised plant remnants (up to 15 mm), occasional mica and micromica, occasional very coarse quartz grain, firm, blocky, non calcareous.
2098.6	70	0	0	0	SANDSTONE: light grey to medium light grey, moderately firm, medium to coarse grained, angular to sub angular, well sorted quartz, trace siliceous cement, common dispersive white clay matrix, moderate to good visual porosity, no shows.
	30	0	0	cmn	CLAYSTONE: as above.

AMDEL
CORE
SERVICES

/ April 1993

BHP Petroleum Pty Ltd
120 Collins Street
MELBOURNE VIC 3000

Attention: Jim Phipps

REPORT: HG/202

CLIENT REFERENCE: S/O No. 1632

MATERIAL: Core - La Bella No. 1

LOCALITY: Victoria

WORK REQUIRED: Conventional Core Analysis

Please direct technical enquiries regarding this work to the signatory below under whose supervision the work was carried out.

Chris Gaughan

CHRIS GAUGHAN
on behalf of Amdel Core Services Pty Ltd

6 April 1993

BHP Petroleum Pty Limited
120 Collins Street
MELBOURNE VIC 3000

Attention: Jim Phipps

FINAL DATA REPORT - CONVENTIONAL CORE ANALYSIS

REPORT: HG-202 - LA BELLA No.1

LOGISTICS

Core No. 1, 2071.00 - 2098.65m (27.65m) was collected from Mt Gambier on the 4th of February, 1993.

INTRODUCTION

The following report includes tabular data of permeability to air, helium injection porosity, summation of fluids porosity, residual fluid saturations and density determinations. Data presented graphically includes a continuous core gamma log, a core log plot and a porosity versus permeability to air plot.

STUDY AIMS

The analyses were performed with the following aims:

1. To provide depth correlation through provision of a continuous core gamma log over the cored interval.

2. To provide quick (16 hour turnaround) air permeability, saturation, (So & Sw) and summation of fluids porosity data.

3. To provide 72 hour air permeability, helium injection porosity and density data.

4. To determine the effect of overburden stress on air permeability and helium injection porosity data.

5. To examine the effect of heterogeneities and 'scale' on measured air permeability and helium injection porosity data through determination of these properties on whole core sections. To identify and quantify vertical permeability barriers.

6. To confirm whether permeability is directionally controlled.

7. To provide information on the strength of the formation through Brinell Hardness measurements.

8. To provide quick API gravity measurements on retorted oil.

SAMPLING

The core was sampled as follows:

A. 2cm slices were taken across the top half of the core at 30cm intervals and at approximately 1m intervals across the lower half of the core for fluid saturation and summation of fluids porosity measurements.

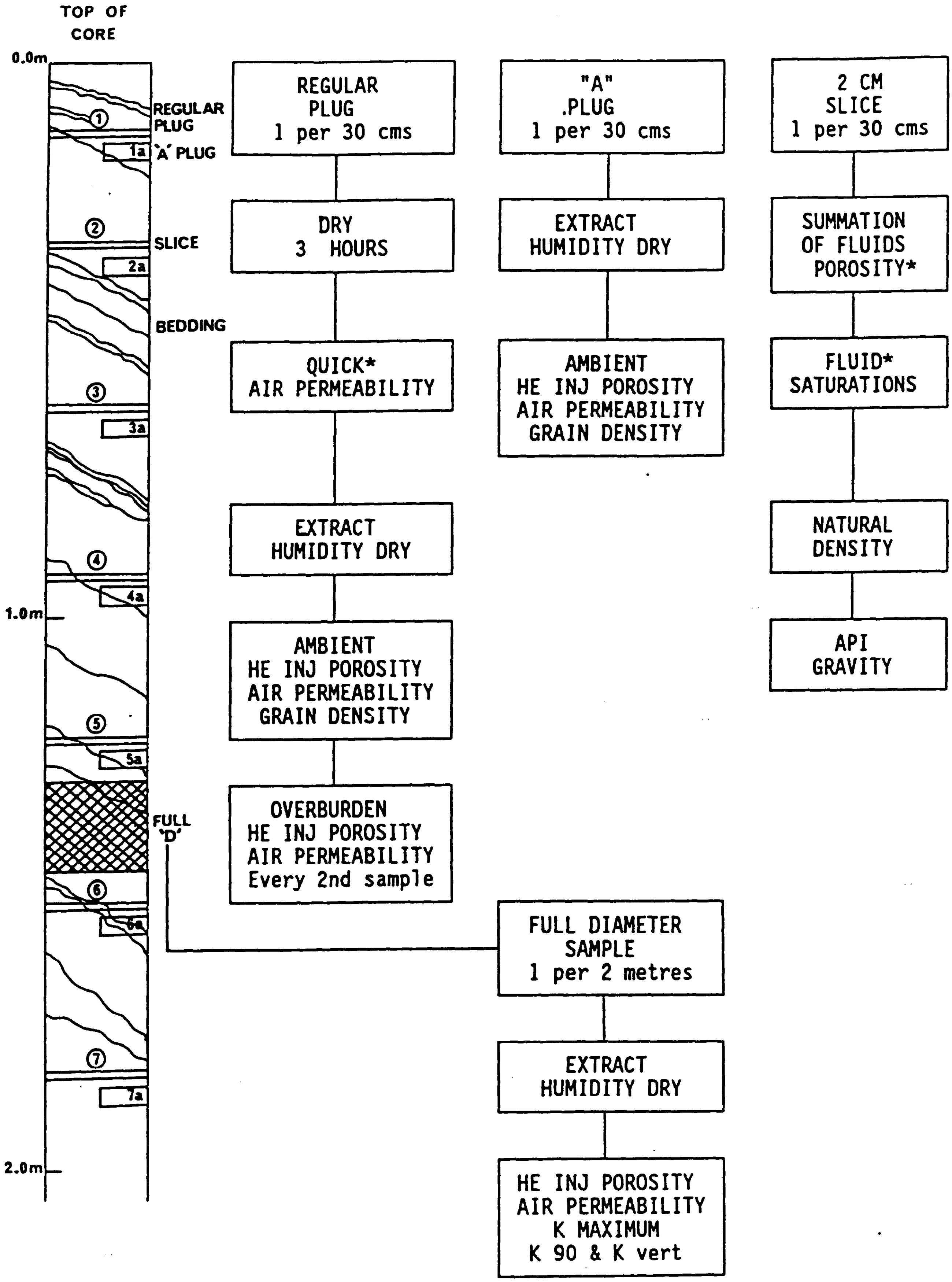
B. 1.5" diameter core plugs were drilled from the whole core at 30cm intervals using KCl brine as lubricant. The core was oriented such that the plugs were drilled parallel to the bedding. These plugs are designated as the 'regular' plugs.

C. Further 1.5" diameter plugs were taken from the same intervals but with the core oriented such that the plugs were drilled perpendicular to the 'regular' plug and parallel to the dip. These plugs are designated as the 'A' plugs.

D. All 'regular' and 'A' plugs were trimmed and offcuts retained. The offcuts were dispatched immediately to BHP Petroleum for viewing and possible selection of petrology/palaeontology samples.

This sampling procedure is illustrated along with an analytical flow chart on the following page for easy reference.

ANALYTICAL FLOW CHART



* Data reported within 16 hours of receipt of core

The core was sampled and analysed as follows:

1. CONTINUOUS CORE GAMMA

The core was laid out according to depth markings, and a continuous core gamma trace produced by passing the core beneath a gamma radiation detector. The detector is protected from extraneous radiation by a lead tunnel. The detector signal is amplified and digitised to produce a gamma trace for comparison with the downhole log.

2. FLUID SATURATIONS AND SUMMATION OF FLUIDS POROSITY

The 2cm slices taken at 30cm intervals were used for these analyses. Approximately 100 gms of material was taken from the centre of the slice, crushed and placed in a thermostatically controlled high temperature retort. The retort is programmed to heat initially to 180°C. At this temperature pore water is vaporised, condensed and recovered in receiving tubes. When water production ceases at 180°C the retort temperature is increased to 650°C. At this temperature residual hydrocarbons and remaining bound water are recovered. Using this procedure the volumes of oil and water in a known weight of core material can be determined.

To determine the gas volume, approximately 40g of fresh core is taken from the same slice, weighed and placed in a mercury displacement pump to determine bulk volume. Mercury is then injected into the sample at 750psig (5200 kpa). The amount of mercury injected corresponds to the gas volume of the sample. From these measurements the summation of fluids porosity is calculated and oil and water saturations expressed as a percentage of the porosity.

3. NATURAL DENSITY

The natural density of the sample is obtained by dividing the weight of the fresh sample used for the gas volume measurement by it's bulk volume.

4. SAMPLE EXTRACTION AND DRYING

After sampling as described in section 2B the 'regular' set of plugs were dried in an oven at 80°C for 3 hours. After the quick permeability measurement the 'regular' and 'A' plugs were placed in a soxhlet extractor to remove hydrocarbons. When the toluene in the Soxhlet is no longer discoloured the core plugs were removed and checked under ultraviolet light to ensure all hydrocarbons had been removed.

After cleaning, all plugs were dried in a controlled humidity environment at 60°C and 40% relative humidity. The plugs were stored in an airtight plastic container and allowed to cool to room temperature before analysis.

5. AIR PERMEABILITY

Air permeability was determined on the 'regular' and 'A' set plugs. The plugs are placed in a Hassler cell at a confining pressure of 250 psig (1720 kpa). This pressure is used to prevent bypassing of air around the sample when the measurement is made. During the measurement a known air pressure is applied to the upstream face of the sample, creating a flow of air through the sample. Permeability for each sample is then calculated using Darcy's Law through knowledge of the upstream pressure and flow rate during the test, the viscosity of air and the plug dimensions.

6. HELIUM INJECTION POROSITY

The helium injection porosity of the extracted and dried 'regular' and 'A' set core plugs was determined as follows. The plugs were sealed in a matrix cup. A known volume of helium was held at 100psi reference pressure and then introduced to the cup. From the resultant pressure change the unknown grain volume was calculated using Boyles law, i.e $P1V1 = P2V2$.

The bulk volume of the plugs was determined by mercury immersion. The difference between the grain volume and the bulk volume is the pore volume and from this the porosity is calculated as the volume percentage of pores with respect to the bulk volume. The porosity calculated using this technique is an effective porosity.

7. APPARENT GRAIN DENSITY

The apparent grain density is determined by dividing the weight of the plug by the grain volume determined from the helium injection porosity measurement.

8. POROSITY AND PERMEABILITY AT OVERBURDEN PRESSURE

To determine the porosity and permeability of the core plug at overburden pressure, the sample is placed in a heavy duty Hassler sleeve. The assembly is loaded into a thick walled hydrostatic cell capable of withstanding the simulated reservoir overburden stress. After loading, helium injection porosity and air permeability was determined at simulated reservoir load conditions. The overburden stress values used in these analyses were supplied by BHP Petroleum.

9. BRINELL HARDNESS

Where possible, five readings (in a crossed pattern) are taken at each sample point. A pre-load of 10 kgs and a constant load of 20 kgs are applied at the load point using the 3.175 mm indentor; the depth of indentation is measured and this is used to obtain the Brinell Hardness. An average is given for the five points at each sample depth. Using this technique, the minimum attainable Brinell Hardness reading is 4.

10. ROLLING AND SPECIFIED AVERAGES

These averages of both Helium injection porosity and permeability are obtained by using a "rolling" three (3) point method. In the case of porosity a weighted arithmetic average is used:

$$\phi\ av_{(i+1)} = [\phi_i + 2\phi_{(i+1)} + \phi_{(i+2)}]\ /4$$

In the case of permeability a weighted geometric average is used:

$$K\ av_{(i+1)} = 10^{[(\log_{10} K_i + 2\log_{10} K_{(i+1)} + \log_{10} K_{(i+2)})\ /4]}$$

At any sample point, excluding the first and last, a rolling average is obtained by using the value at the specified sample point, the value before it and the value of the sample point after it. In the cases of the first and last sample points, only 2 sample points are used.

Using porosity as an example, the average of the first data point is obtained from the formula:

$$\phi\ av_{(i)} = [2\phi_i + \phi_{(i+1)}]\ /3$$

The average at the final data point is obtained by:

$$\phi\ av_{(f)} = [\phi_{(f-1)} + 2\phi_{(f)}]\ /3$$

The same method is used for permeability averages. At any break in the data the rolling averages are "re-started".

<u>Data Key:</u>

ϕ	=	porosity
K	=	permeability
i	=	initial
av	=	average
f	=	final

Specified averages are normal arithmetic averages which can be taken over any specified section of the core, as well as over the whole core.

On completion of the analysis the core was slabbed into one half, and two quarter slabs using water as the lubricating medium. One quarter was packed and shipped to the BMR, Canberra. The remaining quarter was packed and shipped to the Victorian Department of Mines and Energy. The one half slab was photographed under both white light and ultra-violet light at a 5m format and under white light at a 30cm(1:1) format. This core was then packed and shipped to the BHPP core store in Melbourne.

We have enjoyed working with BHPP and look forward to working with you again in the near future.

END OF REPORT.

Amdel Core Services
Petroleum Reservoir Engineering Data

PO Box 5523 Brendale Q 4500
Tel : (07) 298-5272

CORE ANALYSIS FINAL REPORT

Company : BHP PETROLEUM PTY LTD
Well : La Bella No.1
Field :
Date : 05/02/93
Core Interval : 2071.00 - 2098.65m
Core Interval :
Core Interval :
File No. : HG202
Country : AUSTRALIA
State : Victoria

Sample No.	Depth	Porosity HeInj	Porosity RollPor	Density Nat.	Density Grain	Permeability (md) KH	Permeability (md) Roll KH	Summation of Fluids Por	Summation of Fluids Oil	Summation of Fluids Water	Remarks See Below
1	2071.05	17.6	18.3	2.27	2.78	137	196	17.0	0.0	38.6	
2	2071.35	19.8	19.9	2.65	2.66	402	622	8.3	0.0	60.7	Trace oil
3	2071.65	22.5	18.3	2.35	2.65	6775	374	17.4	0.0	55.4	SP
4	2071.95	8.5	11.8	2.47	2.69	1.06	7.5	12.2	0.0	48.6	
5	2072.25	7.6	7.7	2.48	2.75	0.41	0.59	12.0	0.0	45.3	
6	2072.55	7.1	7.9	2.46	2.79	0.68	0.54	13.3	0.0	55.3	
7	2072.85	9.9	8.9	2.40	2.69	0.43	0.46	14.8	0.0	52.0	
8	2073.15	8.9	8.2	2.38	2.73	0.35	0.27	14.7	0.0	56.8	
9	2073.45	5.1	6.3	2.57	2.69	0.10	0.14	5.5	0.0	55.8	
10	2073.75	6.0	5.6	2.51	2.65	0.10	0.10	9.0	0.0	52.9	
11	2074.05	5.4	6.3	2.47	2.70	0.09	0.11	8.5	0.0	63.7	
12	2074.35	8.3	9.0	2.45	2.69	0.19	0.12	9.3	0.0	60.4	
13	2074.65	13.9	10.3	2.48	2.69	0.07	0.06	11.1	0.0	64.9	Trace oil
14	2074.95	5.2	7.2	2.50	2.79	0.01	0.02	9.1	0.0	74.5	
15	2075.25	4.6	5.3	2.48	2.68	0.02	0.02	7.9	0.0	66.0	
16	2075.55	6.7	6.8	2.60	2.66	0.09	0.06	9.1	0.0	68.6	
17	2075.85	9.1	8.6	2.48	2.66	0.10	0.13	10.0	0.0	59.6	
18	2076.15	9.7	9.3	2.58	2.66	0.28	0.18	9.9	0.0	73.2	
19	2076.45	8.7	9.5	2.46	2.70	0.14	0.17	14.8	0.0	68.2	
20	2076.75	11.1	10.1	2.41	2.65	0.14	0.12	15.2	0.0	63.4	
21	2077.05	9.4	10.4	2.55	2.65	0.09	0.10	13.9	0.0	56.8	
22	2077.35	11.6	10.7	2.44	2.65	0.09	0.09	14.9	0.0	64.0	
23	2077.65	10.0	9.8	2.73	2.65	0.12	0.11	16.2	0.0	65.7	Trace oil
24	2077.95	7.6	7.9	2.44	2.64	0.10	0.12	12.9	0.0	47.5	
25	2078.25	6.6	6.7	2.60	2.64	0.16	0.13	11.7	0.0	59.8	
26	2078.55	6.1	6.2	2.55	2.68	0.09	0.06	11.4	0.0	51.5	
27	2078.85	5.9	6.5	2.63	2.91	0.01	0.03	7.4	0.0	57.1	
28	2079.15	8.2	7.0	2.51	2.75	0.05	0.03	10.2	0.0	61.2	
29	2079.45	5.9	7.0	2.48	2.63	0.04	0.04	9.6	0.0	64.7	
30	2079.75	8.1	7.2	2.50	2.64	0.05	0.07	9.4	0.0	50.7	
31	2080.05	6.7	9.8	2.54	2.66	0.25	0.19	11.3	0.0	44.9	
32	2080.35	17.6	14.7	2.67	2.76	0.43	0.45	15.1	0.0	56.6	
33	2080.65	17.0	17.0	2.38	2.81	0.90	0.76	23.8	0.0	58.8	
34	2080.95	16.3	16.3	2.41	2.76	0.98	0.94	17.5	0.0	59.2	
35	2081.25	15.5	15.5	2.58	2.67	0.91	0.86	19.2	0.0	59.1	
36	2081.55	14.7	12.6	2.49	2.68	0.67	0.22	18.4	0.0	42.0	
37	2081.85	5.5	8.5	2.74	3.03	<0.01	0.03	15.2	0.0	65.0	SP
38	2082.15	8.3	6.7	2.86	3.00	0.03	<0.01	13.4	0.0	59.8	
39	2082.45	4.6	5.5	2.55	2.66	<0.01	<0.01	9.8	0.0	70.7	
40	2082.75	4.6	4.8	2.49	2.61	0.02	0.02	10.4	0.0	73.8	SP

BHP PETROLEUM PTY LTD :
La Bella No.1 : Analysis by
Amdel Core Services

Sample No.	Depth	Porosity HeInj	Porosity RollPor	Density Nat.	Density Grain	Permeability (md) KH	Permeability (md) Roll KH	Summation of Fluids Por	Summation of Fluids Oil	Summation of Fluids Water	Remarks See Below
41	2083.05	5.3	4.9	2.36	2.71	0.15	0.05	9.5	0.0	56.9	
42	2084.05	4.5	4.6	2.57	2.95	0.01	0.03	8.2	0.0	72.4	
43	2085.10	4.2	4.6	2.49	2.57	0.03	0.09	6.6	0.0	86.1	
44	2086.10	5.3	5.2	2.50	2.60	6.0	0.56	7.0	0.0	75.0	FRAC
45	2087.05	5.8	6.7	2.73	2.66	0.10	0.26	7.5	0.0	80.2	
46	2087.70	9.8	8.9	2.29	2.63	0.09	0.09	9.8	0.0	46.5	
47	2089.05	10.3	8.9	2.54	2.98	0.09	0.05	7.0	0.0	76.2	
48	2090.05	5.3	6.6	2.74	2.82	<0.01	0.04	6.5	0.0	75.6	Trace oil
49	2091.55	5.6	5.3	2.53	2.62	0.29	0.36	6.8	0.0	89.7	Trace oil
50	2092.10	4.7	4.8	2.60	2.60	21.4	1.17	7.6	0.0	85.2	FRAC Troil
51	2093.10	4.1	5.4	2.54	2.80	0.01	0.11	5.2	2.4	87.3	
52	2094.20	8.5	7.0	2.50	2.63	0.04	0.03	8.3	0.0	87.2	Trace oil
53	2095.05	6.8	6.8	2.47	2.62	0.02	0.03	9.4	0.0	60.5	Trace oil
54	2095.85	4.9	5.5	2.53	2.61	0.06	0.10	6.0	0.0	84.2	Trace oil
55	2096.85	5.2	5.1	2.54	2.73	1.20	0.37	7.4	3.5	79.4	
56	2097.70	5.2	6.0	2.57	2.61	0.22	0.20	6.2	4.1	78.4	
57	2098.25	8.5	8.5	2.52	2.69	0.03	0.14	9.8	2.6	61.7	
58	2098.60	11.7	10.6	2.55	2.68	2.21	0.52	7.8	0.0	62.1	

VF = Vertical Fracture; HF = Horizontal Fracture; MP = Mounted Plug; SP= Short Plug
C# = Top of Core; B# = Bottom of Core; OWC = Probable Oil/Water Contact
Tr = Probable Transition Zone; GC = Probable Gas Cap

Amdel Core Services
Petroleum Reservoir Engineering Data

PO Box 5523 Brendale Q 4500
Tel : (07) 298-5272

CORE ANALYSIS FINAL REPORT

Company : BHP PETROLEUM PTY LTD
·11 : La Bella No.1
rield : Date : 05/02/93
Core Interval : 2071.00 - 2098.65m
Core Interval :
Core Interval :
File No. : HG202
Country : AUSTRALIA State : Victoria

Sample No.	Depth	Porosity HeInj	Porosity RollPor	Density Nat.	Density Grain	Permeability (md) KH	Permeability (md) Roll KH	Summation of Fluids Por	Summation of Fluids Oil	Summation of Fluids Water	Remarks See Below
1A	2071.05	7.0	7.0		3.22	2.84					SP
2A	2071.35	7.1	7.5		2.71	0.90	0.85				
3A	2071.65	8.9	8.3		2.68	0.78	0.66				
4A	2071.95	8.3	8.9		2.68	0.36	0.52				
5A	2072.25	10.3	9.7		2.71	0.70	0.58				
6A	2072.55	10.0	10.1		2.67	0.63	0.60				
7A	2072.85	10.2	10.3		2.66	0.47	0.53				
8A	2073.15	10.9	9.2		2.67	0.57	0.34				
9A	2073.45	4.8	6.5		2.69	0.09	0.12				
10A	2073.75	5.5	5.4		2.66	0.06	0.20				
11A	2074.05	5.8	5.4		2.64	6.2	0.44				Frac
12A	2074.35	4.6	5.3		2.65	0.02	0.12				
13A	2074.65	6.3	5.7		2.66	0.11	0.07				
14A	2074.95	5.4	5.6		2.64	0.14	0.12				
15A	2075.25	5.3	6.0		2.63	0.09	0.10				
16A	2075.55	7.9	7.5		2.70	0.09	0.10				
17A	2075.85	8.9	8.5		2.67	0.17	0.11				
18A	2076.15	8.4	8.9		2.67	0.06	0.13				
19A	2076.45	10.0	10.2		2.68	0.44	0.20				
20A	2076.75	12.2	10.9		2.76	0.14	0.15				
21A	2077.05	9.2	9.9		2.71	0.05	0.08				
22A	2077.35	9.1	9.1		2.64	0.11	0.09				
23A	2077.65	8.8	8.6		2.77	0.10	0.10				
24A	2077.95	7.5	7.8		2.64	0.07	0.08				
25A	2078.25	7.5	7.0		2.66	0.09	0.06				
26A	2078.55	5.5	6.3		2.66	0.02	0.03				
27A	2078.85	6.5	5.6		2.77	0.01	0.07				
28A	2079.15	3.8	5.3		2.62	6.3	0.37				Frac
29A	2079.45	6.9	6.6		2.66	0.04	0.20				
30A	2079.75	8.9	7.9		2.69	0.21	0.10				
31A	2080.05	6.8	8.0		2.65	0.06	0.06				
32A	2080.35	9.3	10.5		3.01	0.02	0.05				
33A	2080.65	16.5	14.5		2.81	0.46	0.21				
34A	2080.95	15.5	15.5		2.85	0.56	0.59				
35A	2081.25	14.6	13.5		2.71	0.82	0.57				
36A	2081.55	9.3	11.9		2.95	0.28	0.40				
37A	2081.85	14.3	11.3		2.73	0.37	0.32				
38A	2082.15	7.1	8.3		2.99	0.27	0.42				
39A	2082.45	4.7	5.4		2.62	1.14	0.46				

BHP PETROLEUM PTY LTD :
La Bella No.1 : Analysis by
Amdel Core Services

Sample No.	Depth	Porosity HeInj	Porosity RollPor	Density Nat.	Density Grain	Permeability (md) KH	Permeability (md) Roll KH	Summation of Fluids Por	Summation of Fluids Oil	Summation of Fluids Water	Remarks See Below
40A	2082.75	5.2	4.8		2.61	0.13	0.16				
41A	2083.05	3.9	4.5		2.69	0.04	0.06				
42A	2084.05	4.8	4.9		2.61	0.07	0.37				SP
43A	2085.10	6.0	5.6		2.60	117	4.12				Frac
44A	2086.10	5.4	5.5		2.74	0.32	1.08				
45A	2087.05	5.0	5.7		2.59	0.11	0.10				
46A	2087.70	7.5	6.2		2.78	0.02	0.03				
47A	2089.05	4.9	5.2		2.63	0.01	0.02				
48A	2090.05	3.6	4.2		2.72	0.02	0.02				
49A	2091.55	4.8	4.4		2.83	0.01	0.01				
50A	2092.10	4.4	4.4		2.66	<0.01	0.02				
51A	2093.10	3.9	5.4		2.66	0.66	0.10				
52A	2094.20	9.5	7.2		2.82	0.07	0.09				
53A	2095.05	5.8	6.5		2.60	0.02	0.07				
54A	2095.85	5.0	5.1		2.60	0.49	0.11				
55A	2096.85	4.6	5.4		2.61	0.02	0.03				
56A	2097.70	7.6	6.9		3.19	<0.01	<0.01				SP
57A	2098.25	7.9	7.3		2.68	0.03	0.01				
58A	2098.60	5.6	6.4		2.68	0.02	0.02				

VF = Vertical Fracture; HF = Horizontal Fracture; MP = Mounted Plug; SP= Short Plug
C# = Top of Core; B# = Bottom of Core; OWC = Probable Oil/Water Contact
Tr = Probable Transition Zone; GC = Probable Gas Cap

Amdel Core Services
Petroleum Reservoir Engineering Data

PO Box 5523 Brendale Q 4500
Tel : (07) 298-5272

CORE ANALYSIS FINAL REPORT

Company : BHP PETROLEUM PTY LTD
Well : La Bella No.1
Field :
Core Interval : 2071.00 - 2098.65m
Core Interval :
Core Interval :
File No. : HG202
Country : AUSTRALIA

Date : 05/02/93

State : Victoria

Sample No.	Depth	Porosity HeInj	Porosity RollPor	Density Nat.	Density Grain	Permeability (md) KH	Permeability (md) Roll KH	Summation of Fluids Por	Summation of Fluids Oil	Summation of Fluids Water	Remarks See Below
1	2071.05	17.6	12.7	2.27	2.78	137	196	17.0	0.0	38.6	
1A	2071.05	7.0			3.22	2.84					SP
2	2071.35	19.8	13.8	2.65	2.66	402	622	8.3	0.0	60.7	Trace oil
2A	2071.35	7.1			2.71	0.90					
3	2071.65	22.5	13.3	2.35	2.65	6775	374	17.4	0.0	55.4	SP
3A	2071.65	8.9			2.68	0.78					
4	2071.95	8.5	10.4	2.47	2.69	1.06	7.5	12.2	0.0	48.6	
4A	2071.95	8.3			2.68	0.36					
5	2072.25	7.6	8.7	2.48	2.75	0.41	0.59	12.0	0.0	45.3	
5A	2072.25	10.3			2.71	0.70					
6	2072.55	7.1	9.1	2.46	2.79	0.68	0.54	13.3	0.0	55.3	
6A	2072.55	10.0			2.67	0.63					
7	2072.85	9.9	9.7	2.40	2.69	0.43	0.46	14.8	0.0	52.0	
7A	2072.85	10.2			2.66	0.47					
8	2073.15	8.9	8.7	2.38	2.73	0.35	0.27	14.7	0.0	56.8	
8A	2073.15	10.9			2.67	0.57					
9	2073.45	5.1	6.4	2.57	2.69	0.10	0.14	5.5	0.0	55.8	
9A	2073.45	4.8			2.69	0.09					
10	2073.75	6.0	5.5	2.51	2.65	0.10	0.10	9.0	0.0	52.9	
10A	2073.75	5.5			2.66	0.06					
11	2074.05	5.4	5.9	2.47	2.70	0.09	0.11	8.5	0.0	63.7	
11A	2074.05	5.8			2.64	6.2					Frac
12	2074.35	8.3	7.2	2.45	2.69	0.19	0.12	9.3	0.0	60.4	
12A	2074.35	4.6			2.65	0.02					
13	2074.65	13.9	8.0	2.48	2.69	0.07	0.06	11.1	0.0	64.9	Trace oil
13A	2074.65	6.3			2.66	0.11					
14	2074.95	5.2	6.4	2.50	2.79	0.01	0.02	9.1	0.0	74.5	
14A	2074.95	5.4			2.64	0.14					
15	2075.25	4.6	5.6	2.48	2.68	0.02	0.02	7.9	0.0	66.0	
15A	2075.25	5.3			2.63	0.09					
16	2075.55	6.7	7.1	2.60	2.66	0.09	0.06	9.1	0.0	68.6	
16A	2075.55	7.9			2.70	0.09					
17	2075.85	9.1	8.6	2.48	2.66	0.10	0.13	10.0	0.0	59.6	
17A	2075.85	8.9			2.67	0.17					
18	2076.15	9.7	9.2	2.58	2.66	0.28	0.18	9.9	0.0	73.2	
18A	2076.15	8.4			2.67	0.06					
19	2076.45	8.7	9.9	2.46	2.70	0.14	0.17	14.8	0.0	68.2	
19A	2076.45	10.0			2.68	0.44					
20	2076.75	11.1	10.5	2.41	2.65	0.14	0.12	15.2	0.0	63.4	
20A	2076.75	12.2			2.76	0.14					

BHP PETROLEUM PTY LTD :
La Bella No.1 : Analysis by
Amdel Core Services

Sample No.	Depth	Porosity HeInj	Porosity RollPor	Density Nat.	Density Grain	Permeability (md) KH	Permeability (md) Roll KH	Summation of Fluids Por	Summation of Fluids Oil	Summation of Fluids Water	Remarks See Below
21	2077.05	9.4	10.2	2.55	2.65	0.09	0.10	13.9	0.0	56.8	
21A	2077.05	9.2			2.71	0.05					
22	2077.35	11.6	9.9	2.44	2.65	0.09	0.09	14.9	0.0	64.0	
22A	2077.35	9.1			2.64	0.11					
23	2077.65	10.0	9.2	2.73	2.65	0.12	0.11	16.2	0.0	65.7	Trace oil
23A	2077.65	8.8			2.77	0.10					
24	2077.95	7.6	7.9	2.44	2.64	0.10	0.12	12.9	0.0	47.5	
24A	2077.95	7.5			2.64	0.07					
25	2078.25	6.6	6.9	2.60	2.64	0.16	0.13	11.7	0.0	59.8	
25A	2078.25	7.5			2.66	0.09					
26	2078.55	6.1	6.2	2.55	2.68	0.09	0.06	11.4	0.0	51.5	
26A	2078.55	5.5			2.66	0.02					
27	2078.85	5.9	6.1	2.63	2.91	0.01	0.03	7.4	0.0	57.1	
27A	2078.85	6.5			2.77	0.01					
28	2079.15	8.2	6.2	2.51	2.75	0.05	0.03	10.2	0.0	61.2	
28A	2079.15	3.8			2.62	6.3					Frac
29	2079.45	5.9	6.8	2.48	2.63	0.04	0.04	9.6	0.0	64.7	
29A	2079.45	6.9			2.66	0.04					
30	2079.75	8.1	7.6	2.50	2.64	0.05	0.07	9.4	0.0	50.7	
30A	2079.75	8.9			2.69	0.21					
31	2080.05	6.7	8.9	2.54	2.66	0.25	0.19	11.3	0.0	44.9	
31A	2080.05	6.8			2.65	0.06					
32	2080.35	17.6	12.7	2.67	2.76	0.43	0.45	15.1	0.0	56.6	
32A	2080.35	9.3			3.01	0.02					
33	2080.65	17.0	15.8	2.38	2.81	0.90	0.76	23.8	0.0	58.8	
33A	2080.65	16.5			2.81	0.46					
34	2080.95	16.3	15.9	2.41	2.76	0.98	0.94	17.5	0.0	59.2	
34A	2080.95	15.5			2.85	0.56					
35	2081.25	15.5	14.5	2.58	2.67	0.91	0.86	19.2	0.0	59.1	
35A	2081.25	14.6			2.71	0.82					
36	2081.55	14.7	12.3	2.49	2.68	0.67	0.22	18.4	0.0	42.0	
36A	2081.55	9.3			2.95	0.28					
37	2081.85	5.5	9.9	2.74	3.03	<0.01	0.03	15.2	0.0	65.0	SP
37A	2081.85	14.3			2.73	0.37					
38	2082.15	8.3	7.5	2.86	3.00	0.03	<0.01	13.4	0.0	59.8	
38A	2082.15	7.1			2.99	0.27					
39	2082.45	4.6	5.5	2.55	2.66	<0.01	<0.01	9.8	0.0	70.7	
39A	2082.45	4.7			2.62	1.14					
40	2082.75	4.6	4.8	2.49	2.61	0.02	0.02	10.4	0.0	73.8	SP
40A	2082.75	5.2			2.61	0.13					
41	2083.05	5.3	4.7	2.36	2.71	0.15	0.05	9.5	0.0	56.9	
41A	2083.05	3.9			2.69	0.04					
42	2084.05	4.5	4.8	2.57	2.95	0.01	0.03	8.2	0.0	72.4	
42A	2084.05	4.8			2.61	0.07					SP
43	2085.10	4.2	5.1	2.49	2.57	0.03	0.09	6.6	0.0	86.1	
43A	2085.10	6.0			2.60	117					Frac
44	2086.10	5.3	5.3	2.50	2.60	6.0	0.56	7.0	0.0	75.0	FRAC
44A	2086.10	5.4			2.74	0.32					
45	2087.05	5.8	6.2	2.73	2.66	0.10	0.26	7.5	0.0	80.2	
45A	2087.05	5.0			2.59	0.11					
46	2087.70	9.8	7.6	2.29	2.63	0.09	0.09	9.8	0.0	46.5	
46A	2087.70	7.5			2.78	0.02					
47	2089.05	10.3	7.1	2.54	2.98	0.09	0.05	7.0	0.0	76.2	
47A	2089.05	4.9			2.63	0.01					

BHP PETROLEUM PTY LTD :
La Bella No.1 : Analysis by
Amdel Core Services

Sample No.	Depth	Porosity HeInj	Porosity RollPor	Density Nat.	Density Grain	Permeability (md) KH	Permeability (md) Roll KH	Summation of Fluids Por	Summation of Fluids Oil	Summation of Fluids Water	Remarks See Below
48	2090.05	5.3	5.5	2.74	2.82	<0.01	0.04	6.5	0.0	75.6	Trace oil
48A	2090.05	3.6			2.72	0.02					
49	2091.55	5.6	4.9	2.53	2.62	0.29	0.36	6.8	0.0	89.7	Trace oil
49A	2091.55	4.8			2.83	0.01					
50	2092.10	4.7	4.6	2.60	2.60	21.4	1.17	7.6	0.0	85.2	FRAC Troil
50A	2092.10	4.4			2.66	<0.01					
51	2093.10	4.1	5.4	2.54	2.80	0.01	0.11	5.2	2.4	87.3	
51A	2093.10	3.9			2.66	0.66					
52	2094.20	8.5	7.1	2.50	2.63	0.04	0.03	8.3	0.0	87.2	Trace oil
52A	2094.20	9.5			2.82	0.07					
53	2095.05	6.8	6.7	2.47	2.62	0.02	0.03	9.4	0.0	60.5	Trace oil
53A	2095.05	5.8			2.60	0.02					
54	2095.85	4.9	5.3	2.53	2.61	0.06	0.10	6.0	0.0	84.2	Trace oil
54A	2095.85	5.0			2.60	0.49					
55	2096.85	5.2	5.3	2.54	2.73	1.20	0.37	7.4	3.5	79.4	
55A	2096.85	4.6			2.61	0.02					
56	2097.70	5.2	6.5	2.57	2.61	0.22	0.20	6.2	4.1	78.4	
56A	2097.70	7.6			3.19	<0.01					SP
57	2098.25	8.5	7.9	2.52	2.69	0.03	0.14	9.8	2.6	61.7	
57A	2098.25	7.9			2.68	0.03					
58	2098.60	11.7	8.5	2.55	2.68	2.21	0.52	7.8	0.0	62.1	
58A	2098.60	5.6			2.68	0.02					

VF = Vertical Fracture; HF = Horizontal Fracture; MP = Mounted Plug; SP= Short Plug
C# = Top of Core; B# = Bottom of Core; OWC = Probable Oil/Water Contact
Tr = Probable Transition Zone; GC = Probable Gas Cap

Amdel Core Services
Petroleum Reservoir Engineering Data

PO Box 5523 Brendale Q 4500
Tel : (07) 298-5272

OVERBURDEN ANALYSIS FINAL REPORT

Company : BHP PETROLEUM PTY LTD
Well : La Bella No.1
Field :
Date : 05/02/93
Core Interval : 2071.00 - 2098.65m
Core Interval :
Core Interval :
File No. : HG202
Country : AUSTRALIA
State : Victoria

SAMPLE NUMBER	DEPTH	POROSITY at OVERBURDEN Pressures: Ambient Porosity	psi 2300	psi 0	psi 0	psi 0	Porosity Rolling Average 2300	PERMEABILITY at OVERBURDEN Pressures: Ambient Permeability	psi 2300	psi 0	psi 0	psi 0	PERM. Rolling Average 2300
2	2071.35	19.8	18.5					402	238				
34	2080.95	16.3	15.6					0.98	0.41				
58	2098.60	11.7	10.8					2.21	0.69				

Amdel Core Services
Petroleum Reservoir Engineering Data

PO Box 5523 Brendale Q 4500 Australia
Tel : (07) 298-5272

SPECIFIED AVERAGE of DATA

Company : BHP PETROLEUM PTY LTD
Well : La Bella No.1
Field :
Date : 05/02/93
Core Interval : 2071.00 - 2098.65m
Core Interval :
Core Interval :
File No. : HG202
Country : AUSTRALIA
State : Victoria

SUMMATION POROSITY Average sample 1 to 58 Sample Type : R
POROSITY Average : 11.0 over 58 Samples
0 Samples with a ZERO Porosity Value Ignored
SUMMATION % OIL Average Sample 1 to 58 Sample Type : R
% OIL Average : 0.2 over 58 Samples
0 Samples with a ZERO % Oil Value Ignored
SUMMATION % WATER Average Sample 1 to 58 Sample Type : R
% WATER Average : 63.7 over 58 Samples
0 Samples with a ZERO % Water Value Ignored

AMBIENT He POROSITY Average Sample 1 to 58 Sample Type : R
POROSITY Average : 8.6 over 58 Samples
0 Samples with a ZERO Porosity Value Ignored
AMBIENT PERMEABILITY Average Sample 1 to 58 Sample Type : R
PERMEABILITY Average : 127 over 58 Samples
0 Samples with a ZERO Permeablity Value Ignored

Amdel Core Services
Petroleum Reservoir Engineering Data

PO Box 5523 Brendale Q 4500 Australia
Tel : (07) 298-5272

SPECIFIED AVERAGE of DATA

Company	: BHP PETROLEUM PTY LTD		
Well	: La Bella No.1		
Field	:	Date	: 05/02/93
Core Interval	: 2071.00 - 2098.65m		
Core Interval	:		
Core Interval	:		
File No.	: HG202		
Country	: AUSTRALIA	State	: Victoria

AMBIENT He POROSITY Average Sample 1 to 58 Sample Type : A
POROSITY Average : 7.5 over 58 Samples
0 Samples with a ZERO Porosity Value Ignored

AMBIENT PERMEABILITY Average Sample 1 to 58 Sample Type : A
PERMEABILITY Average : 2.5 over 58 Samples
0 Samples with a ZERO Permeablity Value Ignored

Amdel Core Services
Petroleum Reservoir Engineering Data

PO Box 5523 Brendale Q 4500 Australia
Tel : (07) 298-5272

SPECIFIED AVERAGE of DATA

Company	: BHP PETROLEUM PTY LTD			
Well	: La Bella No.1			
eld	:		Date	: 05/02/93
Core Interval	: 2071.00 - 2098.65m			
Core Interval	:			
Core Interval	:			
File No.	: HG202			
Country	: AUSTRALIA		State : Victoria	

AMBIENT He POROSITY Average Sample 4 to 58 Sample Type : R
POROSITY Average : 8.0 over 55 Samples
0 Samples with a ZERO Porosity Value Ignored

AMBIENT PERMEABILITY Average Sample 4 to 58 Sample Type : R
PERMEABILITY Average : 0.75 over 55 Samples
0 Samples with a ZERO Permeablity Value Ignored

Amdel Core Services
Petroleum Reservoir Engineering Data

PO Box 5523 Brendale Q 4500 Australia
Tel : (07) 298-5272

SPECIFIED AVERAGE of DATA

Company : BHP PETROLEUM PTY LTD
Well : La Bella No.1
Field :
Date : 05/02/93
Core Interval : 2071.00 - 2098.65m
Core Interval :
Core Interval :
File No. : HG202
Country : AUSTRALIA
State : Victoria

AMBIENT He POROSITY Average Sample 4 to 58 Sample Type : A
POROSITY Average : 7.5 over 55 Samples
0 Samples with a ZERO Porosity Value Ignored

AMBIENT PERMEABILITY Average Sample 4 to 58 Sample Type : A
PERMEABILITY Average : 2.5 over 55 Samples
0 Samples with a ZERO Permeablity Value Ignored

BRINELL HARDNESS DATA

Company: BHP PETROLEUM Report: HG-202

Well: La Bella No.1

Sample Number	Depth (m)	Brinell Hardness (kg/sq.mm)
1	2071.05	11
2	2071.35	15
3	2071.65	17
4	2071.95	18
5	2072.25	14
6	2072.55	13
7	2072.85	14
8	2073.15	14
9	2073.45	21
10	2073.75	21
11	2074.05	16
12	2074.35	16
13	2074.65	21
14	2074.95	26
15	2075.25	23
16	2075.55	20
17	2075.85	19
18	2076.15	18
19	2076.45	15
20	2076.75	23
21	2077.05	17
22	2077.35	19
23	2077.65	18
24	2077.95	20
25	2078.25	20
26	2078.55	23
27	2078.85	21
28	2079.15	21
29	2079.45	26
30	2079.75	20
31	2080.05	20
32	2080.35	30
33	2080.65	26
34	2080.95	25
35	2081.25	31
36	2081.55	24
37	2081.85	17
38	2082.15	30
39	2082.45	25
40	2082.75	25

Sample Number	Depth (m)	Brinell Hardness (kg/sq.mm)
41	2083.05	21
42	2084.05	28
43	2085.10	28
44	2086.10	23
45	2087.05	25
46	2087.70	18
47	2089.05	24
48	2090.05	35
49	2091.55	23
50	2092.10	24
51	2093.10	24
52	2094.20	23
53	2095.05	26
54	2095.85	29
55	2096.85	27
56	2097.70	27
57	2098.25	19
58	2098.60	23

CORE PLUG DESCRIPTION

Company: BHP PETROLEUM Report: HG-202

Well: La Bella No.1

Sample Number	Description	
1	Sst	lt - med gry, med - crs gr, com v crs, prly srt, ang - sb ang, hd, non calc, pyr org Mat, occ Qtz Pbl, abd Sid Cmt
2	Sst	lt - med gry, med - crs gr, com v crs, prly srt, ang - sb ang, hd, non calc, Tr Pyr Cmt, occ Qtz Pbl
3	Sst	lt - med gry, pred crs gr, mod wl srt, ang - sb ang, v hd, non calc, Tr Pyr,
4	Sst	med - dk gry, med - crs gr, prly srt, ang - sb ang, Slty I/P, v hd, non calc, Com ang - sbrndd Qtz Pbl, abd Sid Cmt, Tr Pyr
5	Sst	As in 4
6	Sst	As in 4 but with inc Slty Mtrx
7	Sst	As in 4 but with decr Qtz pbl
8	Sst	As in 6
9	Sltst	dk gry, v hd, non calc, com Pyr Cmt, com v crs - pbl Qtz Gr, Sst I/P as in 4
10 - 11	Sltst	As in 9
12	Sst	med - dk gry, pred med - crs gr, prly srt, ang - sb ang, Slty, v hd, non calc, Tr ang - sbrndd Qtz Pbl, Com Pyr Cmt
13	Sltst	lt - med gry, aren Mtrx, sdy I/P, v hd, Tr Mic, bioturb
14	Sltst	dk gry, v hd, non calc, com Pyr Cmt, Tr v crs - pbl Qtz Gr, sdy I/P, bioturb
15 - 16	Sltst	As in 14
17	Sst	med - dk gry, f gr, mod wl srt, ang - sbang, v hd, non calc, slty I/P, com Pyr Cmt
18	Sst	med - dk gry, pred f - med gr, mod wl srt, ang - sbang, v hd, non calc, occ crs Qtz Gr, slty I/P, com Pyr Cmt, bioturb

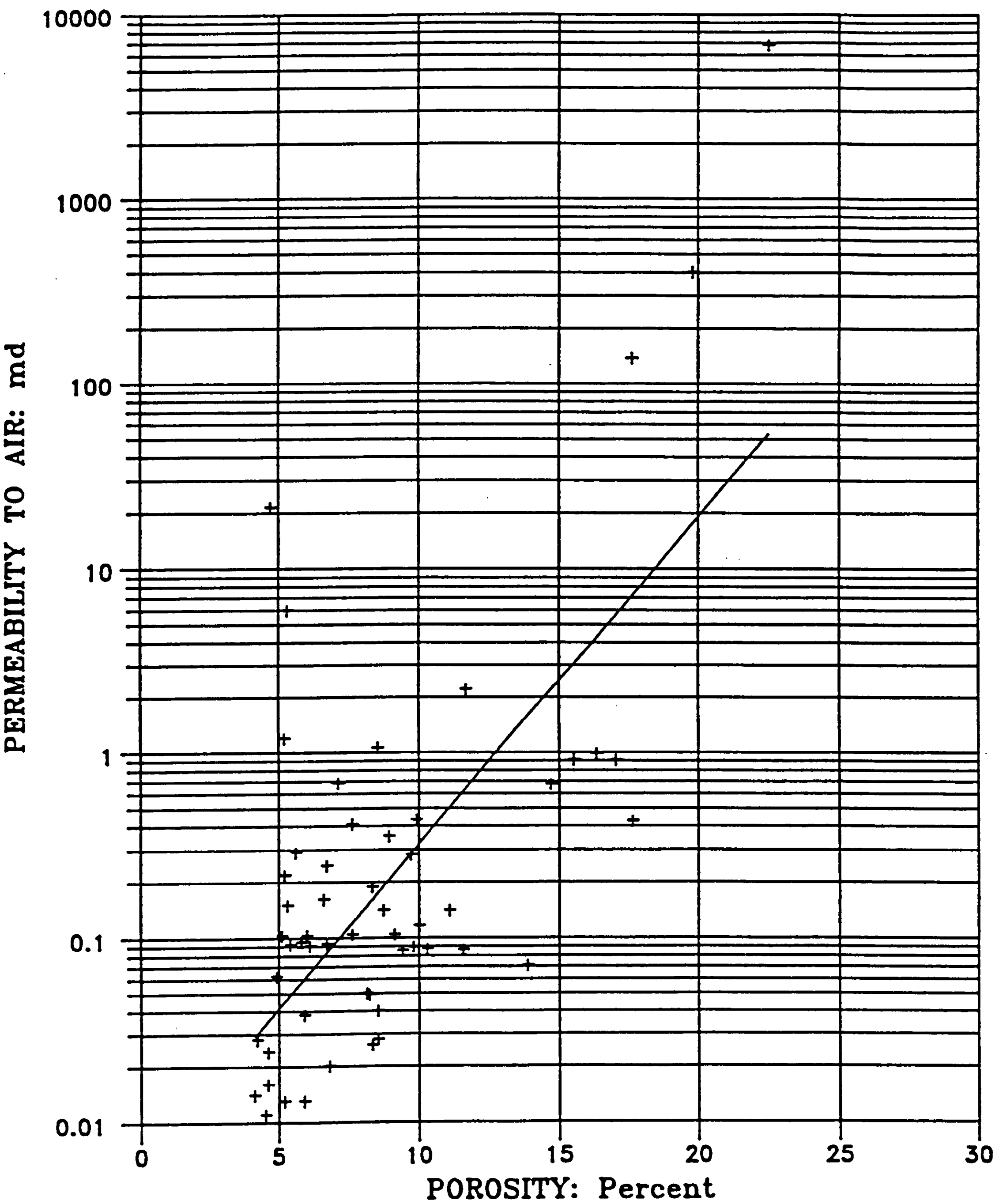
Sample Number	Description
19 - 26	Sst As in 18
27	Sltst med gry - dk gry, v hd, non calc, com Sid Cmt, Tr v crs - pbl Qtz Gr, sdy I/P, bioturb
28	Sltst As in 27 w/ inc sdy Mtrx, tr Kao Mtrx, Tr Pyr
29	Sst As in 27
30	Sltst med gry - dk gry, v hd, non calc, sdy Mtrx, abd bioturb,
31	Sst As in 30
32	Sst lt brn - lt gry, f- med gr, occ v crs Qtz Gr, prly srt, sli calc, abd Sid Cmt, r Glauc
33 - 35	Sst As in 32
36	Sst As in 32, med brn - lt gry, w/ abt Sid Cmt
37 - 38	Sst As in 32
39	Sltst med gry - dk gry, v hd, non calc, arg, Tr v crs - pbl Qtz Gr, sdy I/P, bioturb
40 - 45	Sltst As in 39
46	Sltst med gry - dk gry, v hd, non calc, sdy, Tr Pyr Cmt, bioturb
47	Sltst med gry - gry brn, v hd, non calc, arg, sdy I/P, bioturb, Abd Sid Cmt
48 - 51	Sltst as in 46
52	Sltst lt - med gry, cly Mtrx, sdy I/P, v hd, Tr Mic, bioturb, Tr Pry Gr
53	Sltst As in 52
54 - 55	Clst med gry - dk gry, v hd, non calc, sdy I/P, bioturb, Tr Pyr
56	Clst As in 54 w/ com w rndd v crs - pbl Qtz Gr, sdy I/P
57	Sltst lt - med gry, cly Mtrx, sdy I/P, v hd, Tr Mic, bioturb, Tr Pry Cmt
58	Sst lt - med gry, pred crs gr, mod wl srt, ang - sb ang, v hd, non calc, Tr Pyr, Mnr Bioturb, cly I/P

Sample Number	Description	
1A	Sst	brn - med gry, med - v crs gr, com v crs, prly srt, ang - sb ang, hd, non calc, occ Qtz Pbl, I/P pred Sid Cmt
2A	Sst	lt - med gry, med - crs gr, com v crs, prly srt, ang - sb ang, hd, non calc, abd Sid Cmt, slty Lam
3A	Sst	med - dk gry, med - crs gr, prly srt, ang - sb ang, Slty I/P, v hd, non calc, com ang - sbrndd Qtz Pbl, abd Sid Cmt, Tr Pyr
4A	Sst	As in 3A
5A	Sst	As in 3A w/ less slty
6A - 7A	Sst	As in 3A
8A	Sst	As in 3A, pred med gr
9A	Sltst	dk gry, v hd, non calc, com Pyr Cmt, com v crs - pbl Qtz Gr, Sid Cmt I/P
10A	Clst	dk gry, v hd, non calc, com crs Qtz Gr, com Pyr Cmt, sdy, bioturb
11A	Sltst	dk - med gry, v hd, non calc, com Pyr Cmt, Tr v crs - pbl Qtz Gr, sdy I/P, bioturb, Tr Mica
12 - 14A	Clst	As in 10A
15 - 19A	Sltst	dk gry, v hd, non calc, com Pyr Cmt, Tr v crs - pbl Qtz Gr, sdy I/P, bioturb
20A	Sltst	lt brn - lt gry, f - med gr, mod srt, non calc, abd Sid Cmt, bioturb, Tr Org Mat
21A	Sltst	dk - med gry, v hd, non calc, com Pyr Cmt, com f gr Qtz, bioturb, Tr Mica,
22A	Sltst	As in 21A
23A	Sltst	dk - med gry brn, v hd, non calc, com Pyr Cmt, Tr v crs - pbl Qtz Gr, sdy I/P, abd Sid Cmt, bioturb, Tr Mica
24A	Sst	med - dk gry, f - med, prly srt, ang - sb ang, Slty I/P, v hd, non calc, com ang - sbrndd Qtz Pbl, abd Sid Cmt, abd Sltst
25A	Sltst	med gry - dk gry, v hd, non calc, Tr v crs - pbl Qtz Gr, sdy I/P, bioturb, Tr Pyr Cmt, cly I/P
26A	Sltst	med gry - dk gry, v hd, non calc, Tr v crs Qtz Gr, bioturb, Tr Pyr Cmt, cly I/P, Tr Mica
?7A	Sltst	med gry - dk gry/brn, v hd, non calc, com Sid Cmt, Gr, abd cly Mtrx, bioturb
28A	Clst	med gry - dk gry, v hd, non calc, bioturb I/P, Tr Pyr

Sample Number	Description
29A	Sltst lt - med gry, cly Mtrx, sdy I/P, v hd, Tr Mic, bioturb, Tr Pry Cmt
30 -31A	Sltst As in 29A w/ com Sid Cmt
32A	Sst lt brn - lt gry, f - med gr, occ v crs Qtz Gr, prly srt, sli calc, abd Sid Cmt, r Glauc
33 - 35A	Sst As in 32
36A	Sst As in 32, med brn - lt gry, w/ abt Sid Cmt
37 - 38A	Sst As in 32
39A	Sltst med gry - dk gry, v hd, non calc, arg, Tr v crs - pbl Qtz Gr, sdy I/P, bioturb
40 - 45A	Sltst As in 39
46A	Sltst med gry - dk gry, v hd, non calc, sdy, Tr Pyr Cmt, bioturb
47A	Clst med gry - gry brn, v hd, non calc, arg, slty I/P, bioturb, Abd Sid Cmt
48 - 51A	Clst as in 47
52A	Sltst lt - med gry, cly Mtrx, sdy I/P, v hd, Tr Mic, bioturb, Tr Pry Gr
53 - 55A	Sltst med gry - dk gry, v hd, non calc, sdy I/P, bioturb, Tr Pyr
56A	Clst As in 53A w/ pred Sid Cmt
57A	Sltst lt - med gry, cly Mtrx, sdy I/P, v hd, Tr Mic, bioturb, Tr Pry Cmt
58A	Sltst As in 57A

POROSITY vs PERMEABILITY

Company: BHP PETROLEUM PTY LTD
Well: La Bella No.1
Depth: 2071.00 – 2098.65 Metres



3.4 HYDROCARBON INDICATIONS

3.4.1 Cuttings Gas Summary

GAS READINGS (%):

PE901817

PE901817

PE901816

PE901816

DEPTH mRT	TG	C_1	C_2	C_3	iC_4	nC_4	C_5
Background Gas							
698-613	0.001- 0.003	0.001- 0.003	0.000- 0.000	0.000- 0.000	0.000- 0.000	0.000- 0.000	0.000- 0.000
1690-1800	0.010- 0.304	0.010- 0.300	0.000- 0.002	0.000- tr	0.000- 0.000	0.000- 0.000	0.000- 0.000
1800-1970	0.015- 0.101	0.015- 0.095	tr- 0.003	0.000- 0.000	0.000- 0.000	0.000- 0.000	0.000- 0.000
1970-2066	0.035- 0.190	0.030- 0.170	0.001- 0.007	0.001- 0.002	0.000- 0.000	0.000- 0.000	0.000- 0.000
2099-2166	0.042- 0.245	0.020- 0.200	0.008- 0.010	0.002- 0.007	tr- 0.001	0.000- 0.000	0.000- 0.000
2166-2200	0.057 0.081	0.040- 0.060	0.005- 0.007	0.001- 0.001	0.001- 0.001	0.000- 0.000	0.000- 0.000
2200-2279	0.025- 0.063	0.020- 0.052	0.001- 0.002	0.001- 0.001	0.000- 0.001	0.000- 0.000	0.000- 0.000
2279-2445	0.028- 0.169	0.026- 0.158	0.001- 0.004	0.000- 0.001	0.000- 0.000-	0.000- 0.000	0.000- 0.000
2445-2545	0.015- 0.077	0.010- 0.070	0.001- 0.002	0.001- 0.001	0.000- 0.000	0.000- 0.000	0.000- 0.000
2545-2735	0.011- 0.022	0.009- 0.017	0.001- 0.001	0.000- 0.001	0.000- 0.000	0.000- 0.000	0.000- 0.000
Peaks							
2072	7.700	6.610	0.350	0.090	0.021	0.009	0.001
2109	7.142	5.950	0.336	0.120	0.038	0.002	0.000
2132	5.814	4.880	0.280	0.102	0.015	0.002	0.000

GAS READINGS (%):

DEPTH mRT	TG	C_1	C_2	C_3	iC_4	nC_4	C_5
2161	7.969	6.790	0.360	0.125	0.018	0.003	0.000
2283	1.880	1.800	0.029	0.006	0.001	0.000	0.000
2300	5.023	4.820	0.080	0.013	0.001	0.000	0.000
2406	4.989	3.590	0.681	0.011	0.001	0.000	0.000
2454	5.430	5.220	0.102	0.002	tr	0.000	0.000
2496	2.142	2.048	0.036	0.006	0.001	0.000	0.000
2610	0.071	0.066	0.001	0.001	0.000	0.000	0.000
2635	0.062	0.057	0.001	0.001	0.000	0.000	0.000
2655	0.081	0.076	0.001	0.001	0.000	0.000	0.000
Wiper Trip Gas							
1800	0.070	0.000	0.000	0.000	0.000	0.000	0.000
2545	7.493	7.102	0.150	0.025	0.003	0.001	0.000
Connection Gas							
2464	1.594	1.540	0.027	tr	0.000	0.000	0.000

3.4.2 Cuttings Hydrocarbon Fluorescence

Depth mRT	Description
1520-1620	(claystone) no direct, no cut, very dull yellow/brown crush cut, thin dull yellow/brown residual ring.
2369	(detrital coal) no direct, no cut, moderately slow dull white streaming crush cut, moderately thick moderately bright bluish white residual ring.
2501-2545	(coal) no direct, no cut, moderately weak dull yellowish white crush cut, moderately thin moderately dull yellowish white residual ring.
2596-2735	(coal) no direct, no cut, very slow very weak dull light yellowish white crush cut, moderately thin dull yellowish white residual ring.

4

4. LOGGING AND SURVEYS

4.1 Mudlogging

Exlog provided conventional mudlogging services in conjunction with a computerised data logging and processing system (Drillbyte).

Gas detection equipment consisted of :

- Flame Ionisation Total Hydrocarbon Ditch Gas Detector.
- Flame Ionisation Chromatograph (continuous cycle-hydrocarbon detection C_1 through to C_5).
- Hydrogen Sulphide detector (continuous monitoring sensitive to 1 ppm).
- Infra red CO_2 detector.

The Exlog 'Drillbyte' monitoring system was utilised to measure, display and record conventional drilling data. Permanent storage of drilling data was made onto 3.5" floppy diskette. On-line and off-line plots of engineering parameters were made available when necessary.

Surveillance for potential abnormal pressure while drilling was assisted by the continuous computation of the D-Exponent and Pressure Logs.

The Exlog unit was operated continuously throughout the well. Once returns were achieved, routine analyses for fluorescence and cut in organic solvent were carried out on all ditch samples.

The Mudlog for La Bella-1 is included as Enclosure 1.

FINAL WELL REPORT

BHP Petroleum Pty Ltd

La Bella No.1

Otway Basin, Victoria

January - February 1993

by

EXLOG Australia

CONTENTS

TABLES

APPENDICES

1. INTRODUCTION

a. Well & Rig Data

Company	:	BHP Petroleum Pty Ltd
Well Name	:	La Bella No.1
Location	:	Otway Basin, Victoria
Permit	:	VIC-P30
Latitude	:	39° 00′ 14.19" South
Longitude	:	142° 41′ 42.93" East
Field	:	Exploration
Rig	:	"Byford Dolphin" Semi-submersible
RT - MSL	:	25.30 metres
RT - Seabed	:	119.56 metres
Spud Date	:	22nd January 1993
Total Depth	:	2735 metres
Total Depth Date	:	08th February 1993
Rig Released:	:	1530hrs, 15th February 1993.
Completion Date	:	11th February 1993
Completion Status	:	Plugged and abandoned.
Exlog Unit No	:	503
Crew, Drillbyte	:	M. Sale, K. Clarke, A. Thangam, K. Fernandes, S. Ong
Crew, Logging	:	S. Alexander, V. Surla, D. Alsop R. Tadiar

b. Prognosis

a Bella-1 was an exploration well drilled in the southeast corner of ɹermit Vic-P30 in the eastern offshore Otway Basin. The La Bella structure lies in 95 m of water on the southern margin of the Mussel Terrace, approximately 8 km south-west of Mussel-1.

The primary target was a fault dependant structural closure mapped on a faulted anticline at the top of the Late Cretaceous Shipwreck Group. The structure was sealed both vertically and laterally by overlying claystones and siltstones of the Late Cretaceous Sherbrook Group. No secondary targets were mapped.

The possibility of encountering shallow gas (as indicated by analysis of a digital shallow seismic survey conducted in the area of the proposed location) modified the drilling procedures in the shallow section.

Exploration Logging provided a Drillbyte Service on La Bella-1 from spud to a Total Depth of 2735 metres. In addition to formation evaluation and conventional mud logging, real time data monitoring and recording as well as pressure and drilling analyses were carried out. Continuous evaluation of pressures and drilling progress provided an aid in optimizing drilling costs and ensuring that drilling continued with maximum safety to personnel, the well, and equipment. The operator was continuously advised as to the status of these analyses, and data and results stored on floppy disks for post-well evaluation. The printouts and plots of the results of these ervices are contained in the appendices to this report.

c. Sample Distribution

Formation evaluation services were provided from 120 metres to 2735 metres TD.

Two sets of unwashed cuttings, five sets of washed and dried cuttings samples, one set of Petrocraft sample vials, and three sets of mud samples were prepared for distribution as follows:

2 x sets 200 gram unwashed
2 x sets 100 gram washed and dried
3 x sets Mud samples

To: BHP Petroleum Pty Ltd
BHP Core Store
c/- Kestrel Management
Unit 58
Slough Estate
170 Forester Road,
Mt Waverley
Victoria

1 x set 100 gram washed and dried samples

To: Officer-in-Charge
BMR Core and Cuttings Laboratory
80 Collins Street
Fyshwick ACT 2609

1 x set 100 gram washed and dried samples

To: VIC DEM
DMID Corelab
196 Turner Stree
Port Melbourne
Victoria 3207

1 x set 100 gram washed and dried samples

To: Bridge Oil
255 Elizabeth Street
NSW 2000
ATTN: G.Roder

1 x set Petrocraft sample vials
To: BHP Petroleum Pty Ltd
10th Floor
120 Collins Street
Melbourne
Victoria 3149

Samples were collected and processed, from the 13.375" casing shoe, over the following intervals:

630 m - 1800 m : 5 m samples 1800 m - 2735 m : 3 m samples

Samples not collected at following points due to excessively high rate of penetration and/or high dispersitivity of clay formations:

70,680,690
/05,720,730,740,750,760,790
815
925,935,955,965,975,985,995
1005,1015,1025,1035,1045,1055,1065,1075,1085
1105,1115,1145
1205,1215,1225,1235,1245,1255,1265,1275,1285,1295
1305,1315,1325,1335,1345,1355,1365
1405,1415,1425,1435,1445,1455,1465,1475,1485,1495,
1505,1545.

2. DRILLING AND ENGINEERING

. Well History

The rig "Byford Dolphin" arrived at the La Bella-1 location on the 19th January 1993. The drill floor was 25.4 metres above sea level, and 119.5 metres above the sea floor (water depth 94.1 metres). See Appendix VIII (Geological-Engineering Morning Reports) for a daily summary of events.

36" Hole Section: 119.5 to 158 metres

After securing anchors and ballasting down, La Bella-1 was spudded at 02:00 hrs on the 22nd January 1993.

NB#1, a 26.0" Security S3SJ 26", run in tandem with a 36" hole-opener, spudded the well and drilled to a depth of 156 metres in 0.4 hrs (on-bottom) at an average rate of penetration of 96.2 m/hr and was graded 1-1-NO-A-1-I-NO-TD. Seawater with guar gum Hi-Vis sweeps was used as the drilling fluid and returns were to the sea floor. Typical drilling parameters used on this bit run were: WOB 0-5 klb, RPM 80 and pump pressure 1450 psi at 1115 gpm.

At 156 metres a 50 bbl Guar Gum sweep was circulated out of the hole with 180 bbls Hi-Vis gel. The bit pulled out of the hole to run 30.0" casing.
Three joints of 310 lb/ft Grade B 30.0" casing was then run with the hoe set at 156 metres. The casing was cemented with 500 sx class "G" cement at 1.90 sg (15.8 ppg).

9.875" Pilot Hole Section: 156 to 630 metres

Due to the possibility of encountering shallow gas, a small (9.875") diameter pilot hole section was first penetrated prior to being opened up to 17.5". This was completed during daylight hours.
NB#2, a 9.875" Security S33SF (open jets) was made up and run in to the hole. Cement was tagged and drilled at 153 metres. The shoe was tagged at 156 metres. New hole was penetrated from 156 metres using seawater and Guar Gum Hi-Vis sweeps as the drilling fluid with returns were to the sea floor. At 628 metres, a survey was dropped (Dev = 0.0° @ 630 metres), the hole circulated and conditioned and the bit pulled out of the hole. This bit drilled to 474 metres in 4.87 hrs (on-bottom) at an average rate of penetration of 97.3 m/hr and was graded 2-2-NO-A-1-I-NO-TD. Typical drilling parameters used on this bit run were: WOB 5-15 klb, RPM 100-130 and pump pressure 450 psi at 630 gpm.

17.5" Hole Section: 158 to 628 metres

RR#2.1, a 9.875" Security S33SF (open jets) used on the previous run, as then made up in conjunction with a 17.5" hole opener (3 x 28 jets) and run into the hole. The cement and shoe track was then opened out to 17.5". The pilot open hole section was then also opened out to 17.5" to 628 metres. Again, seawater with guar gum Hi-Vis sweeps was utilised as the drilling fluid, with 30 bbl guar gum sweeps being pumped for each stand drilled. At 628 metres a survey was dropped (Dev = 0.0° @ 628 metres) and the bit pulled out of the hole to run 13.375" casing. This bit drilled 472 metres in 6.5 hrs (on-bottom) at an average rate of penetration of 72.6 m/hr and was graded 2-2-NO-A-1-1-NO-TD. Typical drilling parameters used on this bit run were: WOB 5-25 klb, RPM 100-130 and pump pressure 1150 psi at 1010 gpm.

Forty four joints of casing (68 lb/ft, Sumiton, BTC, N80, 13.375") was then run with the shoe set at 618.35 metres. The casing was cemented with a lead of 593 sxs class "G" cement at 1.50 sg (12.5 ppg), and a tail of 475 sxs of class "G" cement at 1.89 sg (15.8 ppg), and displaced with 242 bbls of seawater.

The BOPs and riser were then rigged up and run to the seafloor.

12.25" Hole Section: 628 to 1800 metres

NB#3, a 12.25" Security S44G (open jets) was then made up and run into the hole. Cement was tagged at 576.1 metres. This was ubsequently drilled, together with the shoe at 618.3 metres and 2 metres of new hole (from 628-630 metres) prior to displacing the hole and riser with a seawater gel polymer (PHPA) mud system. The bit then reamed and cleaned out the rathole and was pulled back to the shoe to perform a Formation Integrity Test (FIT). The results were as follows.

Depth (m)	Casing Shoe (m)	Hole Size (inches)	Mud / (sg)	Fracture Press (sg EMD)
630	618.3	12.25	1.08	1.69 (14.1ppg)

This bit was then pulled out of the hole. It drilled 52 metres of cement and rathole and opened out 2 metres of hole to 12.25" at an average penetration rate of 120 m/hr It was subsequently graded 3-3-FC-A-E-I-NO-TD. Typical drilling parameters used on this bit run were: WOB 5-25 klb, RPM 50-75 and pump pressure 450 psi at 630 gpm.

NB#4, a 12.25" Hughes ATM18 (2x16, 1x12 jets), was then made up in combination with a Teleco MWD tool and run in hole to 630 metres. After testing the MWD tool inside the casing, the bit was run to ottom, reaming the last stand. No fill was recorded on bottom. No crip gas was recorded on bottoms-up. Drilling then continued from 630 metres. A carbide run at 959 metres indicated that the hole may have become washed out to an average of 13.72". Drilling continued until 1194 metres, where an unconsolidated sandstone was encountered with an associated drill break of up to 260 m/hr. This was flow-checked at 1204 metres and found to be static. Drilling was subsequently controlled to 100 m/hr for the drilling of this sandstone. At 1800 metres, the programed TD for this bit run, the hole was circulated clean and a slug pumped. A 20 stand wiper trip was then performed. Intermittent drag of up to 30 klbs was recorded to 1538 metres. The hole section 1538-1455 metres was washed and reamed with overpull of up to 100 klbs. From 1455-1222 metres, the wiper trip continued without problems. Running back to bottom, the pipe stood up at 1639 metres, and was subsequently washed and reamed to bottom. Fill of approximately 10 metres was recorded on bottom. The hole was then circulated clean, a slug pumped and the bit pulled out of the hole. Intermittent drag of up to 30 klbs was recorded from 1571-787 metres.

Schlumberger was then rigged up and the following logs run:

Run	Log Type	Interval
1	DLT-MSFL-AS-GR-AMS	618 m - 1787 m
2	C-SAT	200 m - 1770 m
4	CST (60 shot, 56 recovered)	635 m - 1765 m

RR#4.1, a 12.25" Hughes ATM18 (open jets), was then made up on an identical BHA and run in hole. The trip in produced no drag and the bit was reamed as a precaution from 1768 metres. Some weight (10-20 klbs) was recorded from 1794 metres together with torque of up to 500 amps. A combination of fill and swelling claystones was thought to be the cause. Wiper trip gas of 0.07% was recorded on bottoms-up. The junk sub was then worked to remove the junk produced whilst logging and the hole circulated and cleaned. 200 bbls of 10% KCL was then displaced into the hole followed by a slug being spotted on bottom. The bit was then pulled out of the hole to run 9.625" casing. Normal drag was recorded during the trip out.

Casing (142 joints of 47 lb/ft, VAM, 9.625") was then run, with the shoe set at 1786 metres. The casing was cemented with 234 sxs class "G" cement at 1.89 sg (15.8 ppg), and displaced with 48 bbls of drillwater.

8.5" Hole Section: 1800 to 2735 metres Total Depth

NB#5, an 8.5" Hughes ATM22 (1x13, 1x12 jets), in combination with a eleco MWD tool was then run in hole and tagged the top of cement at 1743 metres. The float was then drilled together with the shoe track and shoe at 1786 metres. The mud system was displaced to KCL whilst drilling the shoe. This bit then reamed and cleaned out the rathole to 1800 metres, prior to penetrating 3 metres of new hole. It was then pulled back to the shoe to perform an FIT.

The results were as follows:

Depth (m)	**Casing Shoe (m)**	**Hole Size (inches)**	**Mud / (sg)**	**Fracture Press (sg EMD)**
1803	1786	8.50	1.14	2.00 (16.7ppg)

Drilling then continued from 1803 metres with flow-checks made at 1952 metres after a suspected gain in the active, along with drilling breaks at 2009, 2032, 2063 and 2069 metres. Drilling continued to 2071 metres where a drilling break was flow-checked and the sample circulated up. It was decided to cut a core and a slug was pumped before the bit was pulled out of the hole.

CB#1, an 8.5" Diamant Boart CD93, with a 30 metre core barrel, was run in to 2041 metres where it washed down to 2071 metres. After a hort circulation, Core-1 was cut from 2071 to 2099 metres. A 0.17% trip gas was recorded, and a flow-check was made prior to pumping a slug and pulling out of the hole. A 100% recovery of core was made and the bit was graded 0-0-WT-D-I-NO-TD.

NB#6, an 8.5" Hughes ATM22 (3x12 jets), was run in tandem with an MWD tool to 2065 metres where the cored hole section from 2065 to 2099 metres was re-logged with the MWD tool while reaming through it. Drilling then resumed to 2114 metres where bottoms-up was circulated and the section from 2110 to 2114 metres was re-logged with the MWD tool. Drilling continued and a flow-check was made at 2174 metres with the sample circulated up for inspection. Drilling resumed with further flow-checks made on drilling breaks at 2207, 2241, 2262, 2280, 2290, 2301, and 2336 metres. Flow-checks at 2401 and 2454 metres showed an initial gain of 7 bbl/15 min and 5 bbl/10 min respectively, but remained static after such time, hence drilling continued.

Connection gas was first noted in this well at 2463.8 m with a connection gas of 2.02%, above a background of 0.2%, and at 2522 metres with 3.02% above a background of 0.1%. Compounded with the ncrease in gas associated with drilling breaks, the mud density was then increased to 1.18 sg while drilling. At 2545 metres the bit was pulled because of slow penetration rates. A total gain of 3 bbls was noted after pulling 10 stands and the bit was run in to bottom where the mud density was increased to 1.22 sg, and a trip gas of 7.8 % was recorded. Another flow-check was made prior to pulling out, and tight hole was recorded with 60 klb overpull at 2184 metres. The section from 2184 to 2155 metres was back-reamed and a slug was pumped before continuing pulling out of the hole.

NB#7, an 8.5" Smith F2 (3x12 jets), was run on the same BHA to the shoe. The drilling line was slipped and cut before running in to 2523 metres and the bit washed down to 2545 metres. Drilling continued with flow-checks made on drilling breaks at 2567, 2575 and 2697 metres. At 2735 metres (Total Depth), drilling operation was halted and the hole was circulated clean. The hole was flow-checked before the bit was pulled out of the hole. Intermittent drag was noted from 2735 to 2581 metres, with a maximum overpull of 40 klb. After 10 stands, another flow-check was made and a slug pumped before coming out of the hole for the electric wireline logs run.

Schlumberger was then rigged up and the following logs were ran:

Run	Log Type	Interval
1	DLL-MSFL-GR-SP-CAL-AMS	2738 m - 1800 m
2	LDL-CNL-SLS-GR-AMS	2738 m - 1800 m
3	FMS-GR-AMS	2738 m - 1800 m
4	RFT	2624 m - 2068 m
5	VSP	52 levels
6	CST-GR (90 shots - 86% recovery)	2730 m - 1802 m

La Bella-1 was then plugged and abandoned according to the BHPP abandonment plan.

b. Bit Optimisation

Bit performance was continuously monitored and the operator advised f cost/metre, rate of penetration, torque and formation changes. Cost analysis was performed on the basis of rig cost, bit cost and average trip rates. See Table 4 for bit data. No bits were tripped on a cost/metre criteria.

La Bella-1 was drilled using a total of 8 bits in 143.26 hrs on bottom at an average rate of penetration of 18.2 m/hr.

The 36" section was drilled in one run using NB#1, a 26.0" Security S3SJ 26" bit (IADC 111) with 3 x 24 jets, run in tandem with a 36" hole opener. This bit drilled 38.5 metres in 0.4 hrs (on-bottom) at rates of penetration varying between 15 and 168 m/hr with an average of 96.2 m/hr. Drilling parameters used were: WOB 0-15 klb, RPM 50-80 and pump pressure 1450 psi at 1115 gpm. This bit performed well and showed only minor wear consistent with the small amount of new formation penetrated. It was graded 1-1-NO-A-1-I-NO-TD.

The 17.5" hole section was drilled using one new bit and one re-run bit.

NB#2, a 9.875" Security S33SF (IADC 116) with open jets, was used to drill the pilot hole for the 17.5" section from 156 to 630 metres, a distance of 474 metres, in 4.9 hrs (on-bottom). Penetration rates varied from 8 to 535 m/hr with an average of 97.3 m/hr. It was graded 2-2-NO-A-1-I-NO-TD. The bit was pulled to allow the section to be pened out to 17.5" showing only minor wear. Typical drilling parameters used were: WOB 0-15 klb, RPM 120-135 and pump pressure 450 psi at 630 gpm.

RR#2.1, 9.875" Security S33SF (IADC 116) with open jets in combination with a 17.5" hole-opener, was used to open the 9.875" pilot hole section of the previous run from 156-628 metres, in 6.5 hours (on-bottom). Penetration rates averaged 72.6 m/hr. This bit was pulled to run 13.375" casing, showing only minor wear for the amount of formation drilled and was graded 2-2-NO-A-1-I-NO-TD. Typical drilling parameters used were: WOB 5-25 klb, RPM 100-120 and pump pressure 1150 psi at 1010 gpm.

The 12.25" hole section was drilled using two new bits with a total of 46.9 hrs (on-bottom) at an average rate of penetration of 25.0 m/hr.

NB#3, a Security SS44G 12.25" (IADC 135) was used to drill the cement, shoe track, shoe and 2 metres of 9.875" pilot hole to 630 metres. This bit penetrated 2 metres of new hole in 0.02 hours (on-bottom). This bit was pulled after completion penetration of the shoe and was graded 3-3-FC-A-E-I-NO-TD.

'B#4, a HTC ATM18 12.25" (IADC 517) run in combination with a Teleco MWD tool, drilled new hole from 630 to 1800 metres, a distance of 1170 metres in 46.7 hrs (on bottom). Penetration rates varied from 7 to 369 m/hr and averaged 25.0 m/hr. It was pulled out of the hole to run 13.375" casing at the programed TD, with relatively minor wear and was graded 3-2-WT-A-E-I-NO-TD. Typical drilling parameters used were: WOB 0-43 klb, RPM 70-130 and pump pressure 3000 psi at 670 gpm.

The 8.5" hole section was drilled using four bits in four runs in a total of 80.1 hrs (on-bottom) at an average rate of penetration of 11.7 m/hr.

NB#5, a Hughes ATM22 8.5" (IADC 517) drilled 273 metres of new formation in 25.8 hours at an average rate of penetration of 10.6 m/hr. It was pulled at 2071 metres for Core-1. The bit was graded 4-4-BT-A-F-2-WT-CP. Typical drilling parameters used were: WOB 20-36 klb, RPM 116-120 and pump pressure 2500 psi at 475 gpm.

CB#1, a Diamant Boart CD93 (IADC 517) cored 28 metres from 2071-2099 metres with a 100% recovery at an average penetration rate of 13.1 m/hr. It was graded 1-1-WT-T-D-I-NO-TD. Typical coring parameters used were: WOB 11-17 klb, RPM 88-91 and pump pressure 490 psi at 212 gpm.

NB#6, a Hughes ATM22 (IADC 517) drilled 446 metres in 34.1 hours with n average penetration rate of 13.1 m/hr. It was pulled at 2545 metres due to very slow penetration rate. The bit was graded 4-4-WT-A -F-I-BT-PR. Typical drilling parameters were: WOB 22-36 klb, RPM 98-120, 63-350 amps torque and pump pressure of 2330 psi at 421 gpm.

NB#7, a Smith F2 (IADC 517) drilled 190 metres in 18.0 hours giving an average penetration rate of 10.5 m/hr. It was pulled at 2735 metres TD for the wireline logs. It was graded 3-3-BT-H-6-I-WT-TD. Typical drilling parameters were: WOB 26-35 klb, RPM 73-78, 134-241 amps torque and pump pressure 2500 psi at 428 gpm.

c. Hydraulics Optimization

Hydraulics analyses were provided for the operator on a daily basis. `esults of these analyses are provided on the Hydraulic data printouts and in the daily Geological-Engineering reports in Appendices VII and VIII, respectively. A summary of this data is also provided in Table 5.

The rig was equipped with two NATIONAL 12P 160 triplex pumps. A pump output of 5.38 gal/stk at 96% efficiency was utilized.

The 36" hole section was drilled with returns to the sea floor using seawater with guar gum Hi-Vis sweeps as the drilling fluid. Flow rates of 500-600 gpm were used giving fairly low annular velocities with laminar flow around the collars. The impact force and percentage pressure loss were low due to the 36" hole opener. However the lithology penetrated was probably insufficiently consolidated for the poor hydraulics to significantly affect the rate of penetration.

The 9.875" pilot hole section was drilled using seawater with Hi-Vis gel sweeps as the drilling fluid at a flow rate of 630 gpm, producing excellent cuttings transport properties but turbulent flow regimes within the 9.875" hole section. Bit hydraulics were optimal with the percentage pressure loss at the bit being 57%. This hole section was subsequently opened out to 17.5" using a flow rate of 1010 gpm, again producing excellent cuttings transport properties but with resultant turbulent flow regimes. Bit hydraulics were sub-optimal with the ercentage bit pressure drop being 14% due to effect of a hole-opener.

The 12.25" hole section was drilled using a closed KCL/PHPA mud system. Adequate mud rheology and flow rates in the order of 670-700 gpm resulted in laminar flow regimes throughout all sections of annulus whilst drilling this section, thus keeping well below critical annular velocities and therefore hole erosion to a minimum. Cuttings transport was also optimal with sufficient annular velocities in the largest annular section (riser) to maintain efficient hole cleaning. Bit hydraulics were optimal (despite the use of a MWD tool with the associated 'parasitic' pressure loss) with bit pressure drops of between 50 and 54%, producing hydraulic power of between 590 and 660 hp, impact force of between 1300 and 1400 lbf and jet velocities of between 130 and 135 m/sec.

The 8.5" hole section was drilled with a closed KCL/PHPA polymer system. Flow rate were maintained between 420 to 475 gpm which when combined with good mud properties, ensured laminar flow through all section of the hole. This minimized washout of the hole and maintained optimal cutting transport even in the widest section of the hole. Bit hydraulics were close to optimal with bit pressure losses slightly higher than optimal at 60 to 67% of total losses. ydraulic power was maintained at 337-396 hp while impact force was at 826-944 lbf, and jet velocity ranged from 123 to 127 m/sec.

d. Borehole Condition.

Borehole condition was monitored by observing rotary torque, overpull and cavings for indications of tight hole. Carbides were also run to check the lag and indicate the average hole size.

The 36" hole was drilled to 156 metres with no hole problems. The 30" casing was run and cemented without problems.

The 9.875" pilot hole was drilled to 630 metres with no hole problems. This was subsequently opened to 17.5" without problems and the 13.375" casing run without drag.

The 12.25" hole section recorded no hole problems whilst drilling. Torque and drag on connections remained normal. A carbide lag check run at 959 metres indicated the open hole to this depth was washed out to 13.72". However, a later carbide run at 1715 metres indicated that the hole may be slightly undergauge due to a reducing average open hole diameters of 12.85". This was later corroborated with the caliper log, indicating that some sections were indeed washed out, the majority being in-gauge with some sections being undergauge. The undergauge hole was thought to be produced by two mechanisms: in the sandstone via a build up of filter cake, and in the claystone via hydration and swelling. The trip out at 1800 metres recorded overpull of up to 100 klbs from 1538-1455 metres and had to be reamed during the trip in from 1639-1800 metres. Fill of 10 metres was encountered during this trip and also on the pre-casing wiper trip at the same depth of 18 metres.

The 8.5" hole section was drilled without any hole problems from 1800 to 2050 metres. From 2050 to 2735 metres TD, after drilling out a series of sandstone formations, overpull of 60 klbs was recorded while tripping out at 2545 metres (after mud density was increased from 1.14 sg to 1.22 sg). Carbide lag checks at 2377 and 2522 metres showed an average open hole diameter of 10.4" and 9.7" respectively. Electric logs were run at TD with out any tight hole problems. The caliper log showed an average hole diameter of 9.0".

3. PRESSURE EVALUATION

a. Formation Fracture Pressure

Fracture pressures were calculated using the "Constant Effective Stress Ratio" method. This utilizes leak-off data and allows for lithological and pore pressure variations. It should be noted that this method assumes uniform tectonic stress, and any unconformities may place the section on either side in a different stress regime. See Appendix III, Pressure Gradient Analysis Plot.

Two Formation Integrity Tests were conducted during the drilling of La Bella-1 and the results were as follows:

Depth (m	Casing Shoe (m)	Hole Size (inches)	Mud / (sg)	Fracture Press (sg EMD)
630	618.3	12.25	1.08	1.69 (14.1ppg)
1800	1786.0	8.50	1.14	2.00 (16.7ppg)

Whilst drilling the 12.25" hole mud losses remained low and no partial or total loss of returns was encountered. The minimum estimated fracture pressure of 1.463 sg (calculated for the top of the Mepunga Sandstone at 1194 metres) was not exceeded at any time by the maximum circulating densities of 1.14 sg. Some minor drilling losses were encountered within this section but were thought to be the product of mud invasion resulting from an overbalanced mud system.

The 8.5" hole was drilled with no mud losses. The minimum estimated fracture pressure of 1.55 sg was never exceeded by the maximum equivalent circulating density of 1.28 sg. While running wireline logs, losses of 0.5 bbl/hr were recorded but this was thought to be due to mud invasion

b. Formation Pore Pressure

Pore pressure indicators, including DXC, flowline temperature, mud resisitivity, hole condition, cavings and gas values, were monitored on a continuous basis while drilling and pore pressure estimates were reported to the operator on a daily basis. Plots of relevant pressure indicators and pressure estimates are detailed in the Drilling Data Pressure Plot in Appendix II and the Pressure Gradient Analysis Plot in Appendix III. Based on data from nearby wells a normal pore pressure gradient of 1.03 sg (8.6 ppg) EMD is assumed for La Bella-1.

36" and 17.5" Hole Sections:

It was not possible to accurately monitor pore pressure through these sections as there were no returns to surface. However the DXC plot showed a normal trend through this interval and it is assumed that pore pressure remained normal at 1.03 sg EMD to 630 metres.

12.25" Hole Section:

For this section of the well, all pressure parameters remained normal, indicating a normally pressured regime. Both DXC, temperature and resistivity show normally pressured trends. Increasing background gas and the presence of connection gasses was not found and therefore it can be assumed that this interval is normally pressured at 1.03 sg EMD.

8.5" Hole Section:

The 8.5" hole section showed a normally pressured pore pressure regime from 1800 to 2240 metres. This assumption was made, based on the following evidences. The mud density used in drilling out this section was 1.13 sg and there were no connection gases. The background gas remained low at around 0.8% even after the high gas peaks from the sandstone formations from 2060 to 2190 metres. Flow-checks made after every drill breaks were static and there were no overpressured cavings present at the shakers. Also DXC and temperature readings showed a normal trend.

From 2240 metres down to the total depth at 2735 metres, the DXC trend showed a slight shift towards the left of the normal trend. This slight change in the DXC trend implied a different pore pressure regime was penetrated and it was estimated to be around 1.10 sg to 1.18 sg EMD. From 2280 to 2390 metres the background gas gradually increased from 0.08% to 0.20%. Flow-checks made at 2299, 2401 and 2454 metres indicated positive flows with a maximum of 7 bbls/15 minutes. The mud density was increased from 1.13 sg to 1.14 sg at 2310 metres and at 2460 metres, the density was further raised to 1.17 sg. At 2545 metres, after tripping 10 stands, the hole did not take any mud and a gain of 3 bbls was observed. The bit was immediately ran back to bottom and the mud weight was increased and conditioned to 1.22 sg. The 10 stands trip gas was 7.84%. With 1.22 sg mud in the hole, the background gas remained very low, around 0.04%, and no connection gas was observed.

4. GEOLOGY AND SHOWS

See Formation Evaluation Log.

5. TESTING AND EVALUATION

a. Hydrocarbon Evaluation

Standard mudlogging techniques were utilized while drilling. Total combustible gas levels in the mud were monitored continuously using an FID Total Gas Detector. The gas was also analyzed for its components (methane through pentane) using an FID Chromatograph. Carbon dioxide and hydrogen sulfide detectors were also run for the duration of the well. Gas trapped in the cuttings was liberated by pulverizing a 100 cc sample in water and the gas liberated was analyzed using a standard hot-wire gas detector. Mud returns, unwashed and washed cuttings were observed under ultra-violet light and cut with solvent to check for the presence of liquid hydrocarbons. Selected chromatograph data at certain depth intervals were used to produce gas ratio plots as an aid in interpreting any oil shows.

b. Wireline Logging

Depth (m)	Hole Diameter (inch)	LOGS
725.0	12.25"	DLL-MSFL-BHC-GR-SP-CAL-AMS-GPIT
1430.0	12.25"	DLT-MSFL-SONIC-GR-AMS-CAL-BHC-SP SEASAT CST (60 shot) (54 recovered)
2735.0	8.50"	DLL-MSFL-GR-SP-CAL-AMS LDL-CNL-SLS-GR-AMS FMS-GR-AMS RFT VSP CST-GR (90 shots - 86% recovery)

c. Coring

28 metres of core was cut from 2071-2099 metres with 100% recovery.

d. Measurement while Drilling.

Measurement while drilling services were provided by Eastman-Teleco. Data was regularly transferred to Exlog's Drillbyte computer and plots against penetration rate were submitted to BHP on a daily basis. See Appendix IV for the MWD data plot.

e. Formation Testing

38 RFT's were performed in two runs. Chromatograph analysis was erformed on gas samples from 2072.8 metres and 2160.5 metres. The ..FT results are tabulated in Table 6.

6. DATA INVENTORY

'he following were supplied to BHPP on a daily basis or as required:

1 copy	Morning Report
1 copy	Hydraulics Printout
1 copy	Formation Evaluation Log

On completion of La Bella-1, all charts, worksheets, raw data and data disks were forwarded to EXLOG Australia. Four (4) copies of the Final Well Report were compiled, with EXLOG Australia retaining one (1) copy, as well as all relevant data.

EXLOG Australia will use all reasonable diligence to maintain and store the listed items in a manner to reasonably prevent damage or loss. Provided , however, EXLOG Australia assumes no responsibility for the loss, damage or theft of these items or information contained herein, and shall not be liable to the Operator in any such event irrespective of cause, fault, or the active or passive negligence of EXLOG Australia its employees.

TABLES

TABLES

Table 1.
Survey Data

Depth m	Inclination deg	Azimuth deg
350.0	0.0	-
626.0	0.2	235.8
630.0	0.0	-
654.0	0.2	249.5
683.0	0.2	248.8
741.0	0.2	219.2
801.0	0.1	251.9
859.0	0.1	232.2
916.0	0.2	214.7
973.0	0.2	238.2
1034.0	0.1	131.7
1091.0	0.1	113.4
1150.0	0.3	63.1
1207.0	0.2	58.6
1265.0	1.3	213.3
1323.0	1.6	212.2
1382.0	1.8	210.1
1439.0	1.9	213.6
1498.0	2.5	218.2
1555.0	2.6	212.2
1614.0	2.7	214.7
1671.0	2.5	218.5
1731.0	2.6	218.2
1785.0	2.5	241.4
1846.0	2.7	258.3
1905.0	2.8	267.0
1962.0	2.9	272.3
2020.0	2.4	284.6
2064.0	2.4	274.8
2136.0	2.2	270.6
2194.0	2.3	259.3
2253.0	2.3	247.7
2310.0	2.1	227.3
2368.0	1.8	218.9
2426.0	1.7	211.2
2483.0	1.7	206.6
2540.0	1.7	206.2
2601.0	2.5	221.0
2658.0	2.5	224.2
2715.0	2.4	228.4
2724.0	2.5	227.3

Table 2.
Casing and Cementing

Hole Depth m	Hole Size in	Casing Size Nom in	ID in	Weight ppf	Shoe Depth m	Joints Run	Cement Details
158	36.00	30.000	29.000	310	156	3	500 sx 'G' cement @ 1.90 sg (15.9 ppg) + 2% CaCl
628	17.50	13.375	12.347	68	618	44	Lead: 593 sx Class 'G' cement @ 1.50 sg (12.5 ppg) + 0.45gal/sack Econolite Tail: 475 sx Class 'G' cement @ 1.89 sg (15.8 ppg)
1800	12.25	9.375	8.681	47	1786	142	243 sx Class 'G' cement @ 1.89 sg (15.8ppg) 48bbl slurry, 3gal/10bbl SCR100

Table 3.
Mud Properties

Depth m	MW sg	Vis sec/qt	PV cp	YP lb/cft²	Gels lb/cft² 10s/10m	F cc	FC 1/32"	SOL %	OIL %	SD %	MBT	pH	Cl Kppm	Ca mg/l	K+ Kmg/l	KCl %
633	1.03	Seawater with Guar Gum Hi-Vis sweeps used for the 36.0, 9.875, 17.5" hole sections														
642	1.07	57	16	19	5/11	7.0	1.0	4.2	-	Tr	11.0	9.5	24.0	160	14.1	2.7
898	1.09	45	11	20	7/14	7.2	1.0	5.4	-	Tr	13.0	9.2	27.0	240	16.0	3.0
950	1.10	46	11	20	8/12	7.0	1.0	6.0	-	Tr	15.0	9.2	27.0	240	16.1	3.0
1178	1.11	49	16	24	10/21	6.8	1.0	6.7	-	Tr	15.0	9.3	31.0	160	16.9	3.2
1652	1.11	46	15	20	7/16	6.2	1.0	6.6	-	0.25	15.0	9.0	35.0	200	24.7	4.7
1800	1.12	49	16	24	10/25	7.2	1.0	7.1	-	Tr	17.5	9.0	41.0	240	27.5	5.2
1840	1.13	48	14	19	7/14	8.0	1.0	7.5	-	Tr	15.0	9.0	42.0	360	31.8	6.1
1918	1.14	45	11	18	6/16	7.6	1.0	8.2	-	Tr	15.0	9.0	48.0	240	45.0	8.6
2071	1.13	45	11	18	6/16	8.4	1.0	8.2	-	Tr	12.6	9.0	54.0	160	47.0	8.6
2143	1.14	48	14	20	4/16	6.6	1.0	8.7	-	Tr	15.0	9.3	50.0	70	45.6	8.7
2265	1.13	47	12	16	3/9	6.0	1.0	8.4	-	Tr	15.0	9.1	50.0	64	45.0	8.7
2380	1.14	48	15	18	4/12	5.8	1.0	8.7	-	Tr	15.0	9.1	47.0	125	39.0	7.5
2468	1.17	48	16	26	7/16	5.6	1.0	10.0	-	Tr	14.0	8.9	45.0	120	31.2	6.0
2545	1.22	48	17	21	5/14	5.8	1.0	14.0	-	Tr	13.0	9.6	45.0	160	31.2	6.0
2683	1.22	49	17	21	4/14	5.2	1.0	12.0	-	0.1	12.5	9.5	49.0	40	36.4	7.0

Table 4.
lla No.1 - Bit Record

Run #	Bit #	Vendor	Type	Size *in*	IADC	Jets *1/32"*	Depth In *(m)*	Metres run	Hours	Avg ROP	WOB *klb*	RPM	Torque *amps*	Pump *psi*	GPM	Grade IODLBGOR
1	NB1	Security H/O	S3SJ	26.00 36.00	111 111	24,24,24 22,22,22	119.5	38.5	0.4	96.2	0-5	30-80	20-100	1450	1115	1-1-NO-A-1-I-NO-TD
2	NB2	Security	S33SF	9.875	116	Open	158.0	472.0	4.9	96.3	5-15	80-130	120-220	450	630	2-2-NO-A-1-I-NO-TD
3	RR2.1	Security H/O	S33SF	9.875 17.50	116 111	Open 28,28,28	158.0	470.0	6.5	72.3	5-25	100-130	80-310	1070	1120	2-2-NO-A-1-1-NO-TD
3	NB3	Security	S44G	12.25	135	Open	628	2.0	4.7	25.6	4-25	110-120	100-300	2700	800	3-3-FC-A-E-I-NO-TD
4	NB4	HTC	ATM18	12.25	517	16,16,12	630	1170.0	46.7	20.1	0-40	110-120	200-800	3000	670	3-2-WT-A-E-I-NO-TD
5	RR4.1	HTC	ATM18	12.25	517	Open	Used for wiper trip prior to running 9.625" casing									
6	NB5	HTC	ATM22	8.50	517	13,12,12	1800	273	25.8	10.6	20-36	116-120	220-380	2500	475	4-4-BT-A-F-2-WT-CP
.	CB1	DBS	CD93	8.50	517		2071	28	2.1	13.1	11-17	88-91	69-268	490	212	0-0-WT-T-D-I-NO-TD
8	NB6	HTC	ATM22	8.50	517	12,12,12	2099	446	34.12	13.1	22-36	98-120	63-350	2330	421	4-4-WT-A-F-1-BT-PR
9	NB7	Smith	F2	8.5	517	12,12,12	2545	190	18.04	10.5	26-35	73-78	134-241	2500	428	3-3-BT-H-6-I-WT-TD
						Driller's TD	2735									

Note : Gauge in 1/16"

Table 5.
La Bella No.1 - Hydraulics Summary

Bit #	Depth m	Hole Size in	Jets	MW sg	PV/YP	Flow Rate gpm	ECD sg	Annular Velocities Min	DP	DC	Crit	Jet Vel m/sec	HHP hp	Impact Force lbf	Loss Bit psi	Pump Pres psi	%Bit Loss
								m/min									
NB2	630	9.875	Open	1.03	1/1	630	1.05	4	66	140	27	26	21	241	57	450	13
RR2.1	633	17.500	Open	1.03	1/1	1010	1.03	3	27	31	25	42	86	619	145	1150	13
NB3	633	12.250	Open	1.03	1/1	630	1.03	25	37	55	26	26	21	240	56	450	12
NB4	1182	12.250	16,16,12	1.11	16/24	695	1.12	14	42	65	140	135	659	1478	1627	3000	54
	1656			1.11	15/20	670	1.12	14	41	63	125	130	591	1374	1512	3000	50
	1800			1.12	16/24	670	1.14	14	36	63	139	130	596	1386	1526	3000	51
NB5	1922	8.500	13,12,12	1.14	11/18	470	1.19	10	71	117	139	131	432	914	1575	2500	63
	2071			1.14	17/21	441	1.20	9	72	110	162	123	354	873	1380	2300	60
NB6	2146	8.500	12,12,12	1.14	14/20	418	1.18	9	67	104	153	123	337	826	1382	2170	64
	2399			1.13	15/18	421	1.18	9	67	104	147	123	337	826	1382	2270	61
	2545			1.16	14/21	421	1.21	9	67	105	153	124	353	861	1439	2330	62
	2697			1.22	17/21	428	1.27	9	68	107	154	126	390	935	1564	2500	63

Table 6.

LA BELLA-1 PRELIMINARY OPEN HOLE RFT RESULTS

KB: 25.0 m
Date: 9/2/1993

Test No.	Depth mTVDDF	Depth mTVDSS	Formation Pressure Strain Gauge psig	Formation Pressure CQG Gauge psia	Temp. degC	Mobility mD/cp	Comments
1	2068.3	2043.3					Tight
2	2068.4	2043.4	3288.9	3304.63	91.4	0.4	Low Perm
3	2070.0	2045.0	3203.1	3218.66	91.8	0.9	Low Perm
4	2072.8	2047.8	3177.8	3193.05	91.7	6.7	Good
5	2082.7	2057.7			92.1		Tight
6	2100.4	2075.4	3213.5	3228.82	92.5	5.1	Good
7	2103.2	2078.2					Not Attempted
8	2109.8	2084.8	3216.6	3231.36	92.7	12.2	Good
9	2116.1	2091.1					Not Attempted
10	2120.5	2095.5	3218.9	3233.92	93.2	2.1	Good
11	2125.8	2100.8			93.9		Supercharged
12	2133.9	2108.9	3222.3	3236.22	94.1	831.0	Good
13	2141.5	2116.5	3240.3	3255.80	94.3	4.9	Low Perm
14	2149.5	2124.5	3235.6	3250.56	94.7	4.3	Good
15	2153.1	2128.1	3227.1	3240.91	94.8	113.0	Good
16	2156.0	2131.0	3227.6	3241.52	94.8	9.1	Good
17	2160.5	2135.5	3228.9	3243.26	94.9	65.0	Good
18	2162.0	2137.0	3229.0	3243.43	94.8	20.7	Good, HP Unstable
19	2165.5	2140.5			95.1		HP & Strain Unstable
20	2165.0	2140.0			95.1		Tight
21	2168.2	2143.2	3231.6	3245.42	95.4	48.2	Good, HP Unstable
22	2170.2	2145.2					Not Attempted
23	2173.3	2148.3	3238.7	3252.10		89.8	Good
24	2179.0	2154.0	3247.0	3260.60	96.0	92.7	Good
25	2183.2	2158.2	3253.6	3267.80	96.0	38.9	Good
26	2205.0	2180.0					Poor Seat, Rerun
27	2205.0	2180.0	3278.9	3293.10	97.1	22.9	Good
28	2239.0	2214.0	3375.8	3391.30	98.0	1.4	Good
29	2278.5	2253.5	3766.9	3781.94	99.6	3.1	Good
30	2378.0	2353.0	3952.0	3966.90	102.0	11.3	Good
31	2448.3	2423.3	4059.0	4074.20	105.0	3.2	Good
32	2497.0	2472.0	4133.2	4147.50	107.0		Good, Low Perm
33	2502.0	2477.0	4169.8	4184.80	107.0	1.3	Good, Gauges Unstable
34	2541.0	2516.0	4203.2	4219.10	108.0	1.1	Good, Gauges Unstable
35	2624.0	2599.0	4441.1	4456.36	111.0		Good
36	2160.5	2135.5	3230.1	3243.31	98.0		Good, Sample Taken
37	2072.8	2047.8	3178.2	3192.60	94.5	56.1	Good
37	2071.5	2046.5	3182.4	3196.90	94.1	2.2	Good
39	2072.8	2047.8	3178.6	3192.20		2.2	Good, Sample Taken

APPENDIX VI: Drilling Data Printout

APPENDIX VI: Drilling Data Printout

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-		ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
RIH NB#1 24" SEC S3SJ 3x24 jets with 36" Hole-Opener.																			
Spud La Bella-1 at 0220 hours on 22nd January 1993																			
02:20:40	120.0	21.8	7.2	45	177	72	264		1.03		19.1		81.6	984	0.5	0:01	1.07	0.20	
02:21:56	121.0	53.0	8.1	54	216	192	293		1.03		19.0		82.3	984	1.5	0:03	1.07	0.54	
02:22:56	122.0	66.7	5.1	68	153	713	312		1.03		19.0		83.0	984	2.5	0:04	1.07	0.49	
02:23:46	123.0	69.5	3.5	81	147	730	358		1.03		18.9		83.6	984	3.5	0:05	1.07	0.47	
02:24:35	124.1	88.7	3.2	83	136	730	379		1.03		18.9		84.2	980	4.6	0:05	1.07	0.45	
02:25:21	125.0	89.8	3.8	82	139	730	382		1.03		18.9		84.8	973	5.5	0:06	1.06	0.47	
02:26:04	126.0	97.1	4.4	82	161	730	383		1.03		18.8		85.4	967	6.5	0:07	1.06	0.47	
02:26:48	127.1	95.6	5.4	82	171	1071	385		1.03		18.8		85.9	957	7.6	0:08	1.06	0.46	
02:29:06	128.0	17.8	4.3	82	131	983	388		1.03		18.8		87.4	960	8.5	0:10	1.06	0.65	
02:30:17	129.0	60.0	3.7	83	155	181	428		1.03		18.7		88.5	968	9.5	0:11	1.06	0.50	
02:31:09	130.0	66.3	3.2	83	163	199	493		1.03		18.7		89.3	974	10.5	0:12	1.06	0.47	
02:32:07	131.0	61.9	3.1	83	128	218	193		1.03		18.7		89.4	975	11.5	0:13	1.06	0.48	
02:33:11	132.0	69.4	4.9	83	136	1045	145		1.03		18.7		90.0	951	12.5	0:14	1.06	0.54	
02:33:56	133.0	90.4	6.5	82	176	1335	444		1.03		18.6		90.8	933	13.5	0:15	1.06	0.49	
:34:38	134.1	115.8	6.7	82	171	1377	531		1.03		18.6		91.5	916	14.6	0:15	1.06	0.49	
02:35:05	135.0	128.7	11.1	81	256	1390	540		1.03		18.6		92.0	905	15.5	0:16	1.06	0.45	
02:53:08	136.1	21.1	11.4	81	243	1428	907		1.03		18.6		105.9	853	16.6	0:17	1.04	0.58	
02:53:27	137.0	167.5	7.0	82	183	1450	1111		1.03		18.3		105.8	845	17.5	0:17	1.04	0.58	
02:53:58	138.1	121.9	6.3	82	181	1450	1120		1.03		18.3		106.6	839	18.6	0:18	1.04	0.43	
02:54:12	139.0	104.5	6.5	82	186	1450	1120		1.03		18.3		106.8	837	19.5	0:18	1.04	0.44	
02:54:25	140.0	92.8	5.1	82	169	1450	1117		1.03		18.3		107.1	834	20.5	0:18	1.04	0.45	
02:54:35	141.0	91.9	5.4	80	202	1450	1115		1.03		18.3		107.3	832	21.5	0:18	1.04	0.45	
02:54:48	142.0	90.4	6.8	81	190	1450	1115		1.03		18.2		107.5	831	22.5	0:19	1.04	0.42	
02:55:04	143.1	80.6	7.5	82	206	1448	1117		1.03		18.2		107.6	827	23.6	0:19	1.04	0.48	
02:55:18	144.0	77.2	2.7	83	140	1451	1122		1.03		18.2		107.9	824	24.5	0:19	1.04	0.48	
02:55:33	145.1	75.1	4.2	83	172	1454	1126		1.03		18.2		108.4	821	25.6	0:19	1.04	0.52	
02:55:46	146.1	59.5	2.0	83	138	604	1129		1.03		18.2		108.4	819	26.6	0:20	1.04	0.50	
02:56:19	147.0	92.2	3.2	81	185	265	1007		1.03		18.2		109.1	821	27.5	0:20	1.04	0.40	
02:56:40	148.0	60.0	1.2	81	114	300	889		1.03		18.2		109.5	829	28.5	0:21	1.04	0.50	
02:56:52	149.1	60.9	0.1	82	97	276	790		1.03		18.2		109.6	831	29.6	0:21	1.04	0.44	
02:57:02	150.0	69.0	1.2	81	162	256	695		1.03		18.1		109.7	834	30.5	0:21	1.04	0.54	
02:57:13	151.0	78.5	4.2	80	144	242	641		1.03		18.1		109.8	837	31.5	0:21	1.04	0.48	
02:57:23	152.0	74.3	4.7	81	131	202	597		1.03		18.1		109.9	841	32.5	0:21	1.04	0.47	
02:57:46	153.1	67.0	3.6	81	149	225	555		1.03		18.1		110.0	849	33.6	0:22	1.04	0.50	
02:58:15	154.0	15.4	2.5	51	60	260	562		1.03		19.3		142.8	954	34.6	0:01	1.06	0.45	
02:58:30	155.0	33.4	3.2	51	66	260	571		1.03		19.2		144.8	947	35.5	0:03	1.06	0.61	
02:59:09	156.0	22.6	3.9	80	159	140	520		1.03		18.1		111.0	875	36.5	0:23	1.04	0.53	
03:00:19	157.1	116.3	0.9	81	146	202	521		1.03		18.0		112.1	891	37.6	0:24	1.04	0.38	
03:00:59	158.0	82.0	2.0	82	154	315	532		1.03		18.0		112.9	888	38.5	0:25	1.04	0.40	
POOH NB#1 at 158m for 30" casing run.																			
Run and set 30" casing with shoe at 156m.																			

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT	MUD DENSITY IN sg	MUD DENSITY OUT	MUD TEMP IN deg C	TEMP OUT	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
Friday 22 January 1993																			
RIH NB#2 9.875" SEC S33SF with open jets to drill pilot hole.																			
13:24:42	159.1	116.5	3.1	103	87	272	583		1.03		18.8		158.3	951	1.1	0:04	1.06	0.56	
13:25:04	160.0	178.6	0.1	130	73	277	589		1.03		18.6		158.3	952	2.0	0:04	1.06	0.49	
13:25:19	161.1	284.1	0.8	135	85	280	590		1.03		18.6		158.3	953	3.1	0:05	1.06	0.32	
13:25:27	162.1	384.0	2.1	135	100	280	590		1.03		18.5		158.3	954	4.1	0:05	1.06	0.27	
13:25:37	163.2	369.4	0.8	135	83	280	590		1.03		18.6		158.3	954	5.2	0:05	1.06	0.27	
13:25:48	164.2	329.4	1.3	135	87	280	590		1.03		18.6		158.3	953	6.2	0:05	1.06	0.30	
13:25:58	165.0	375.0	0.4	135	82	280	590		1.03		18.5		158.3	953	7.0	0:05	1.06	0.29	
13:26:15	166.1	224.5	1.0	135	90	280	590		1.03		18.5		158.3	954	8.1	0:05	1.06	0.34	
13:26:33	167.0	194.4	0.0	135	76	277	590		1.03		18.5		158.3	954	9.0	0:06	1.06	0.28	
13:28:04	168.0	33.6	0.6	135	73	280	589		1.03		18.5		158.3	954	10.0	0:07	1.06	0.30	
13:28:54	169.0	110.7	0.7	135	67	279	588		1.03		18.4		158.3	956	11.0	0:08	1.06	0.30	
13:29:36	170.0	80.8	0.8	135	65	279	588		1.03		18.4		158.3	956	12.0	0:09	1.06	0.30	
13:30:23	171.0	73.2	0.7	135	65	280	588		1.03		18.4		158.3	956	13.0	0:10	1.06	0.30	
13:31:32	172.0	47.0	0.2	135	67	277	588		1.03		18.4		158.3	958	14.0	0:11	1.06	0.30	
13:43:24	173.2	394.7	0.9	135	72	340	610		1.03		18.2		158.8	1000	15.2	0:11	1.06	0.26	
13:43:32	174.0	389.5	0.5	135	75	340	610		1.03		18.2		158.9	1000	16.0	0:12	1.06	0.26	
13:43:42	175.0	378.7	0.2	135	84	340	610		1.03		18.2		159.2	1000	17.0	0:12	1.06	0.25	
13:43:53	176.0	324.1	0.1	135	138	340	610		1.03		18.2		159.5	1000	18.0	0:12	1.06	0.25	
13:44:07	177.2	361.9	1.1	135	141	342	610		1.03		18.2		159.8	999	19.2	0:12	1.06	0.25	
13:44:18	178.3	287.0	1.5	135	132	345	611		1.03		18.2		160.1	998	20.3	0:12	1.06	0.25	
13:44:28	179.0	274.3	0.6	135	127	342	611		1.03		18.2		160.4	998	21.0	0:12	1.06	0.25	
13:44:38	180.0	261.1	0.2	135	101	341	611		1.03		18.2		160.4	999	22.0	0:13	1.06	0.25	
13:44:51	181.0	310.4	0.7	135	111	343	611		1.03		18.2		160.6	1000	23.0	0:13	1.06	0.25	
13:45:03	182.1	360.3	1.0	135	104	346	611		1.03		18.2		160.9	1000	24.1	0:13	1.06	0.30	
13:45:14	183.0	289.5	1.0	134	118	340	611		1.03		18.2		161.2	1000	25.0	0:13	1.06	0.29	
13:45:26	184.0	226.3	0.9	135	149	347	612		1.03		18.2		161.5	1000	26.0	0:13	1.06	0.29	
13:45:36	185.1	220.1	0.4	135	134	348	612		1.03		18.2		161.7	999	27.1	0:14	1.06	0.32	
13:45:45	186.2	146.5	0.0	135	127	350	612		1.03		18.1		161.9	1000	28.2	0:14	1.06	0.31	
13:45:55	187.1	169.3	0.6	135	121	349	612		1.03		18.2		162.1	1000	29.1	0:14	1.06	0.31	
13:46:08	188.2	222.2	1.2	135	105	350	612		1.03		18.2		162.3	999	30.2	0:14	1.06	0.31	
13:46:18	189.2	151.3	1.1	135	115	348	612		1.03		18.2		162.5	999	31.2	0:14	1.06	0.31	
13:46:32	190.1	189.7	0.8	135	130	350	612		1.03		18.2		163.0	1000	32.1	0:15	1.06	0.31	
13:46:41	191.1	206.6	0.8	135	132	343	612		1.03		18.2		163.4	1000	33.1	0:15	1.06	0.31	
13:46:53	192.1	242.7	1.0	132	141	343	612		1.03		18.2		163.6	1000	34.1	0:15	1.06	0.31	
13:47:03	193.0	168.4	2.0	123	123	340	612		1.03		18.2		163.8	1000	35.0	0:15	1.06	0.31	
13:47:26	195.0	96.0	2.0	112	133	336	613		1.03		18.1		164.8	999	37.0	0:15	1.06	0.31	
13:47:36	196.0	87.9	2.8	116	118	338	613		1.03		18.1		165.1	1000	38.0	0:16	1.06	0.31	
13:47:49	198.0	79.4	1.2	116	67	341	613		1.03		18.3		165.7	1000	40.0	0:16	1.06	0.31	
13:57:42	199.0	93.9	1.7	117	83	339	610		1.03		18.1		173.0	1000	41.0	0:17	1.05	0.31	
13:57:57	200.1	236.6	1.1	119	66	335	616		1.03		18.1		173.8	1000	42.1	0:17	1.06	0.31	
13:58:11	201.1	246.7	0.8	120	72	354	611		1.03		18.1		174.6	1000	43.1	0:17	1.06	0.25	
13:58:24	202.0	260.7	0.4	120	76	353	606		1.03		18.1		175.4	-1001	44.0	0:17	1.06	0.21	
13:58:40	203.1	173.3	0.7	120	82	354	604		1.03		18.1		176.2	1000	45.1	0:17	1.06	0.31	

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT- mts	-BIT- hh:mm	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
13:58:55	204.1	128.1	1.5	120	81	352	610		1.03		18.1		177.0	999	46.1	0:18	1.06	0.38	
13:59:07	205.1	358.4	3.9	120	84	352	612		1.03		18.1		177.6	999	47.1	0:18	1.06	0.38	
13:59:20	206.0	260.3	7.7	119	103	352	613		1.03		18.1		178.4	999	48.0	0:18	1.06	0.45	
13:59:32	207.0	286.5	9.7	120	102	353	614		1.03		18.1		178.9	999	49.0	0:18	1.06	0.43	
13:59:42	208.1	349.3	6.0	120	89	355	614		1.03		18.1		179.5	998	50.1	0:19	1.06	0.34	
13:59:53	209.1	373.1	5.7	120	104	355	614		1.03		18.1		180.3	996	51.1	0:19	1.06	0.38	
14:00:05	210.1	316.3	4.6	120	88	356	615		1.03		18.1		180.8	993	52.1	0:19	1.06	0.40	
14:00:17	211.0	270.6	5.4	120	97	358	615		1.03		18.1		181.4	989	53.0	0:19	1.06	0.41	
14:00:34	212.2	269.3	4.7	120	109	357	615		1.03		18.1		182.5	986	54.2	0:19	1.06	0.38	
14:00:49	213.1	188.9	5.5	120	129	359	615		1.03		18.1		183.3	984	55.1	0:20	1.06	0.43	
14:01:01	214.0	261.1	6.6	120	113	358	615		1.03		18.1		183.8	981	56.0	0:20	1.06	0.42	
14:01:13	215.0	269.4	5.3	121	101	360	615		1.03		18.1		184.6	977	57.0	0:20	1.06	0.39	
14:01:30	216.1	220.3	6.7	120	131	350	615		1.03		18.1		185.5	977	58.1	0:20	1.06	0.45	
14:01:49	217.0	149.0	5.2	120	114	339	615		1.03		18.1		186.6	979	59.0	0:21	1.06	0.49	
14:02:07	218.0	227.7	7.2	120	151	350	616		1.03		18.1		187.4	980	60.0	0:21	1.06	0.52	
14:02:30	219.1	186.5	9.8	119	185	357	616		1.03		18.1		188.7	978	61.1	0:21	1.06	0.51	
..:02:55	220.1	125.3	6.4	119	161	351	617		1.03		18.1		190.1	973	62.1	0:22	1.06	0.56	
..:03:18	221.0	153.8	12.0	120	133	348	618		1.03		18.1		191.5	967	63.0	0:22	1.06	0.62	
14:03:40	222.1	156.0	11.3	120	107	341	620		1.03		18.1		192.6	964	64.1	0:22	1.06	0.59	
14:03:59	223.1	219.5	10.4	119	95	342	620		1.03		18.1		193.7	960	65.1	0:23	1.06	0.54	
14:04:16	224.0	206.0	8.9	119	87	342	620		1.03		18.1		194.5	956	66.0	0:23	1.06	0.51	
14:04:32	225.1	213.4	7.7	120	80	344	619		1.03		18.1		195.3	952	67.1	0:23	1.06	0.46	
14:14:31	226.1	47.6	11.7	119	38	347	607		1.03		18.1		201.3	974	68.1	0:24	1.04	0.46	
14:14:42	227.1	353.0	8.5	116	81	348	601		1.03		18.2		201.7	973	69.1	0:24	1.04	0.40	
14:14:52	228.2	480.1	8.3	118	112	354	606		1.03		18.2		202.2	971	70.2	0:24	1.05	0.34	
14:15:03	229.4	388.6	9.9	119	118	358	606		1.03		18.2		202.4	968	71.4	0:24	1.05	0.37	
14:15:09	230.2	477.3	8.9	119	103	360	612		1.03		18.2		202.4	966	72.2	0:24	1.05	0.30	
14:15:13	231.2	310.1	7.3	120	86	352	606		1.03		18.1		202.6	966	73.2	0:24	1.05	0.34	
14:15:19	232.2	534.9	6.2	120	86	356	604		1.03		18.1		202.6	964	74.2	0:24	1.05	0.23	
14:15:29	233.2	330.0	10.9	119	145	360	601		1.03		18.2		203.1	962	75.2	0:24	1.06	0.43	
14:15:40	234.1	268.0	11.9	119	128	359	598		1.03		18.2		203.5	961	76.1	0:25	1.06	0.46	
14:15:52	235.2	319.6	7.1	119	101	356	600		1.03		18.2		204.0	957	77.2	0:25	1.06	0.37	
14:16:05	236.0	213.9	5.9	119	160	360	603		1.03		18.2		204.7	954	78.0	0:25	1.06	0.41	
14:16:21	237.0	269.1	6.2	119	148	362	606		1.03		18.2		205.4	952	79.0	0:25	1.06	0.45	
14:16:42	238.2	179.6	6.1	119	151	359	607		1.03		18.1		206.4	948	80.2	0:26	1.06	0.45	
14:16:56	239.1	235.9	6.3	119	175	360	608		1.03		18.2		207.1	945	81.1	0:26	1.06	0.48	
14:17:09	240.1	304.8	9.1	119	170	362	608		1.03		18.2		207.8	943	82.1	0:26	1.06	0.45	
14:17:19	241.0	387.0	9.9	119	180	365	609		1.03		18.2		208.3	941	83.0	0:26	1.06	0.40	
14:17:32	242.2	350.8	10.5	119	161	368	609		1.03		18.2		208.8	938	84.2	0:27	1.06	0.38	
14:17:42	243.2	405.0	7.6	119	136	364	609		1.03		18.2		209.2	935	85.2	0:27	1.06	0.37	
14:17:52	244.0	274.0	7.7	119	134	361	610		1.03		18.2		209.7	933	86.0	0:27	1.06	0.38	
14:18:09	245.1	232.5	5.7	119	153	365	610		1.03		18.2		210.7	929	87.1	0:27	1.06	0.44	
4:18:21	246.1	211.1	7.0	119	153	359	610		1.03		18.2		211.1	929	88.1	0:27	1.06	0.42	
14:18:32	247.1	144.0	7.3	119	170	344	610		1.03		18.2		211.2	930	89.1	0:28	1.06	0.53	
14:18:52	248.2	182.2	6.2	119	163	353	610		1.03		18.2		212.1	931	90.2	0:28	1.06	0.47	

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT	MUD DENSITY IN sg	MUD DENSITY OUT	MUD TEMP IN deg C	TEMP OUT	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
14:19:11	249.1	200.5	5.4	119	157	363	611		1.03		18.2		213.2	933	91.1	0:28	1.06	0.50	
14:19:21	250.1	211.1	3.5	120	118	360	611		1.03		18.2		213.7	933	92.1	0:28	1.06	0.44	
14:19:42	251.1	162.1	6.0	119	141	368	611		1.03		18.2		214.6	933	93.1	0:29	1.06	0.52	
14:20:02	252.0	150.4	5.6	119	150	378	611		1.03		18.2		215.7	931	94.0	0:29	1.06	0.49	
14:20:23	253.1	165.5	6.2	120	139	365	612		1.03		18.2		216.8	926	95.1	0:29	1.06	0.51	
14:20:36	254.0	298.2	10.3	119	152	365	613		1.03		18.2		217.7	924	96.0	0:30	1.06	0.47	
14:20:52	255.2	249.1	8.9	119	135	372	614		1.03		18.2		218.5	922	97.2	0:30	1.06	0.43	
14:21:07	256.0	190.9	7.0	119	101	369	614		1.03		18.2		219.3	919	98.0	0:30	1.06	0.46	
14:21:21	257.0	254.1	6.1	120	79	371	614		1.03		18.2		220.2	916	99.0	0:30	1.06	0.44	
14:28:50	258.0	157.9	5.7	116	84	363	611		1.03		18.2		227.0	910	100.0	0:31	1.05	0.49	
14:29:04	259.0	231.5	4.3	118	75	357	609		1.03		18.2		227.9	908	101.0	0:31	1.05	0.38	
14:29:23	260.1	213.4	4.5	118	82	370	612		1.03		18.2		229.0	903	102.1	0:31	1.06	0.45	
14:29:39	261.1	222.5	5.3	118	84	370	619		1.03		18.2		229.8	899	103.1	0:32	1.06	0.43	
14:29:54	262.0	219.5	5.4	118	85	373	621		1.03		18.2		230.7	895	104.0	0:32	1.06	0.44	
14:30:10	263.0	211.2	5.7	118	89	374	622		1.03		18.2		231.5	891	105.0	0:32	1.06	0.45	
14:30:26	264.2	298.4	5.9	118	88	374	623		1.03		18.2		232.6	887	106.2	0:32	1.06	0.42	
14:30:41	265.1	217.3	6.8	118	98	380	623		1.03		18.2		233.5	883	107.1	0:33	1.06	0.43	
14:30:56	266.1	265.3	5.9	118	87	377	623		1.03		18.2		234.3	878	108.1	0:33	1.06	0.44	
14:31:10	267.0	274.6	6.0	118	93	378	623		1.03		18.2		235.2	876	109.0	0:33	1.06	0.43	
14:31:27	268.1	264.2	6.1	118	88	376	624		1.03		18.2		236.0	873	110.1	0:33	1.06	0.43	
14:31:39	269.0	231.8	6.2	118	99	382	624		1.03		18.2		236.9	869	111.0	0:34	1.06	0.41	
14:31:52	270.0	254.1	6.2	118	104	378	624		1.03		18.2		237.4	865	112.0	0:34	1.05	0.41	
14:32:04	271.3	423.0	6.6	118	107	380	624		1.03		18.2		238.3	862	113.3	0:34	1.05	0.38	
14:32:15	272.2	311.9	6.6	118	118	383	624		1.03		18.2		238.9	861	114.2	0:34	1.05	0.39	
14:32:25	273.1	307.0	6.5	118	94	380	624		1.03		18.2		239.4	858	115.1	0:34	1.05	0.38	
14:32:33	274.0	367.6	5.7	118	136	380	624		1.03		18.2		239.7	857	116.0	0:34	1.05	0.35	
14:32:48	275.2	335.0	8.9	118	181	385	624		1.03		18.2		240.5	853	117.2	0:35	1.05	0.42	
14:33:00	276.0	252.2	9.5	118	205	384	624		1.03		18.2		241.4	850	118.0	0:35	1.05	0.43	
14:33:15	277.0	220.5	9.5	118	201	377	624		1.03		18.2		242.2	851	119.0	0:35	1.05	0.49	
14:33:31	278.0	265.1	9.0	118	196	379	624		1.03		18.2		243.1	852	120.0	0:35	1.05	0.47	
14:33:48	279.2	226.6	7.5	118	189	386	625		1.03		18.2		243.9	854	121.2	0:36	1.05	0.44	
14:34:02	280.1	240.1	7.6	118	198	386	625		1.03		18.2		244.8	855	122.1	0:36	1.05	0.43	
14:34:22	281.1	149.3	3.8	118	187	386	626		1.03		18.2		245.9	854	123.1	0:36	1.05	0.42	
14:34:58	282.0	79.4	3.0	118	149	384	626		1.03		18.2		248.2	845	124.0	0:37	1.05	0.53	
14:35:21	283.2	327.4	15.5	118	152	382	626		1.03		18.2		249.3	841	125.2	0:37	1.05	0.51	
14:35:31	284.1	317.9	12.5	118	100	370	626		1.03		18.2		249.9	840	126.1	0:37	1.05	0.41	
14:35:48	285.1	205.3	8.4	118	78	374	626		1.03		18.2		250.5	838	127.1	0:38	1.05	0.49	
14:36:20	286.0	97.0	5.5	118	65	373	626		1.03		18.2		251.6	835	128.0	0:38	1.05	0.52	
14:45:06	287.1	160.1	9.6	117	83	366	622		1.03		18.1		258.6	885	129.1	0:40	1.05	0.66	
14:45:25	288.1	202.5	6.7	122	102	357	617		1.03		18.1		259.5	881	130.1	0:40	1.05	0.49	
14:45:39	289.1	257.1	6.9	123	107	366	618		1.03		18.1		260.2	881	131.1	0:40	1.05	0.44	
14:45:54	290.0	228.7	8.5	123	133	370	616		1.03		18.1		260.8	881	132.0	0:40	1.05	0.50	
14:46:10	291.0	255.8	10.5	123	135	370	619		1.03		18.1		261.5	879	133.0	0:41	1.05	0.50	
14:46:27	292.3	233.4	8.5	122	108	372	621		1.03		18.1		262.2	878	134.3	0:41	1.05	0.45	
14:46:40	293.1	218.7	8.0	122	105	375	621		1.03		18.1		262.8	877	135.1	0:41	1.05	0.46	

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW		MUD DENSITY		MUD TEMP		RETURNS	PVT	-BIT-		ECD	DXC	GAS
							IN	OUT	IN	OUT	IN	OUT	DEPTH						
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
14:46:54	294.0	258.7	7.5	122	101	374	622		1.03		18.1		263.5	874	136.0	0:41	1.05	0.48	
14:47:12	295.0	184.5	7.6	122	104	377	622		1.03		18.1		264.2	872	137.0	0:42	1.05	0.51	
14:47:29	296.0	190.1	5.2	122	82	385	623		1.03		18.1		265.1	871	138.0	0:42	1.05	0.47	
14:47:54	297.1	185.4	5.6	123	93	379	623		1.03		18.1		266.2	870	139.1	0:42	1.05	0.51	
14:48:16	298.1	164.5	4.9	122	96	376	623		1.03		18.1		267.1	867	140.1	0:43	1.05	0.49	
14:48:41	299.0	132.1	5.2	123	133	377	623		1.03		18.1		268.2	865	141.0	0:43	1.05	0.54	
14:49:08	300.0	135.1	7.3	123	161	380	623		1.03		18.1		269.5	861	142.0	0:44	1.05	0.58	
14:49:27	301.0	212.9	8.2	123	174	380	623		1.03		18.1		270.4	860	143.0	0:44	1.05	0.52	
14:49:46	302.1	180.4	8.4	122	183	380	623		1.03		18.1		271.1	859	144.1	0:44	1.05	0.51	
14:50:00	303.1	215.7	7.4	123	189	380	623		1.03		18.1		271.7	858	145.1	0:45	1.05	0.48	
14:50:21	304.1	195.3	9.8	122	207	381	623		1.03		18.1		272.6	855	146.1	0:45	1.05	0.55	
14:50:37	305.1	221.7	9.6	122	210	385	623		1.03		18.1		273.5	854	147.1	0:45	1.05	0.50	
14:50:54	306.1	240.2	10.3	121	207	383	623		1.03		18.1		274.2	854	148.1	0:45	1.05	0.56	
14:51:17	307.1	157.0	11.9	113	215	379	623		1.03		18.1		275.3	855	149.1	0:46	1.05	0.59	
14:51:44	308.0	116.3	7.4	109	209	375	623		1.03		18.1		276.4	860	150.0	0:46	1.05	0.56	
14:52:25	309.1	88.4	5.1	108	203	371	623		1.03		18.1		278.2	871	151.1	0:47	1.05	0.62	
53:04	310.0	94.8	6.9	108	194	367	624		1.03		18.1		280.0	874	152.0	0:48	1.05	0.65	
14:53:36	311.1	132.4	8.3	108	159	373	624		1.03		18.1		281.3	874	153.1	0:48	1.05	0.60	
14:53:59	312.1	202.1	11.1	108	139	370	624		1.03		18.0		282.4	874	154.1	0:49	1.05	0.58	
14:54:17	313.0	180.6	11.4	109	125	373	624		1.03		18.1		283.3	875	155.0	0:49	1.05	0.54	
14:54:33	314.0	217.1	11.6	109	126	370	623		1.03		18.1		284.0	874	156.0	0:49	1.05	0.51	
14:54:56	315.0	135.6	13.7	109	142	363	623		1.03		18.1		284.9	875	157.0	0:49	1.05	0.60	
14:55:17	316.1	178.9	10.9	108	126	357	622		1.03		18.0		286.0	875	158.1	0:50	1.05	0.53	
15:04:54	317.0	98.1	4.3	130	181	358	598		1.03		18.0		292.6	970	159.0	0:52	1.05	0.62	
15:05:40	318.1	82.4	2.1	130	191	357	597		1.03		18.0		294.1	969	160.1	0:53	1.05	0.63	
15:06:20	319.0	91.4	2.3	131	174	351	598		1.03		18.0		295.5	969	161.0	0:53	1.05	0.61	
15:07:04	320.1	99.4	2.4	130	189	354	599		1.03		18.0		297.0	972	162.1	0:54	1.05	0.51	
15:07:39	321.0	100.4	1.2	131	174	355	599		1.03		18.0		298.2	970	163.0	0:55	1.05	0.54	
15:08:25	322.0	70.6	1.8	131	176	359	599		1.03		18.0		299.7	972	164.0	0:55	1.05	0.57	
15:09:14	323.1	66.9	3.5	131	185	354	599		1.03		18.0		301.5	973	165.1	0:56	1.05	0.67	
15:09:50	324.0	89.3	3.6	131	188	359	599		1.03		18.0		302.7	972	166.0	0:57	1.05	0.58	
15:10:32	325.1	88.8	3.2	131	166	359	599		1.03		18.0		304.2	973	167.1	0:57	1.05	0.57	
15:11:08	326.0	91.8	2.7	131	168	358	599		1.03		18.0		305.4	973	168.0	0:58	1.05	0.55	
15:11:49	327.1	93.2	2.5	131	174	360	599		1.03		18.0		306.8	974	169.1	0:59	1.05	0.55	
15:12:29	328.0	73.7	3.3	130	179	360	599		1.03		18.0		308.1	976	170.0	0:59	1.05	0.60	
15:13:11	329.0	94.8	5.1	131	183	360	599		1.03		18.0		309.5	976	171.0	1:00	1.05	0.63	
15:13:42	330.0	115.6	3.7	131	177	360	599		1.03		18.0		310.7	976	172.0	1:01	1.05	0.56	
15:14:21	331.1	102.3	4.3	131	178	358	599		1.03		18.0		312.1	980	173.1	1:01	1.05	0.58	
15:14:52	332.0	110.4	3.4	131	172	354	599		1.03		18.0		313.1	990	174.0	1:02	1.05	0.57	
15:15:22	333.0	106.9	3.7	131	179	355	599		1.03		18.0		314.1	999	175.0	1:02	1.05	0.56	
15:15:52	334.0	115.0	3.6	131	158	354	599		1.03		18.0		315.1	1000	176.0	1:03	1.05	0.54	
5:16:21	335.0	150.4	7.0	131	179	355	600		1.03		18.0		316.0	1000	177.0	1:03	1.05	0.65	
:16:44	336.0	159.3	8.9	131	152	357	600		1.03		18.0		316.0	1000	178.0	1:04	1.05	0.58	
15:17:14	337.1	125.5	6.6	131	123	358	600		1.03		18.0		316.8	1001	179.1	1:04	1.05	0.58	
15:17:42	338.0	123.7	6.3	131	113	361	601		1.03		18.0		317.3	1000	180.0	1:05	1.05	0.58	

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW		MUD DENSITY		MUD TEMP		RETURNS DEPTH	PVT	-BIT-		ECD	DXC	GAS
							IN	OUT	IN	OUT	IN	OUT							
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
15:18:09	339.1	137.7	6.1	131	107	362	601		1.03		18.0		317.9	1000	181.1	1:05	1.05	0.56	
15:18:36	340.1	126.8	6.9	131	122	357	601		1.03		18.0		318.5	997	182.1	1:06	1.05	0.61	
15:19:00	341.1	180.7	8.2	131	135	353	601		1.03		18.0		318.9	992	183.1	1:06	1.05	0.60	
15:19:25	342.1	148.6	8.6	131	127	349	601		1.03		18.0		319.4	987	184.1	1:06	1.05	0.61	
15:19:48	343.0	156.4	8.9	131	119	342	601		1.03		18.0		319.8	982	185.0	1:07	1.05	0.58	
15:20:23	344.0	78.6	6.4	131	100	347	601		1.03		18.0		320.6	978	186.0	1:07	1.05	0.62	
15:28:27	345.0	138.4	4.6	120	97	378	617		1.03		18.0		324.1	999	187.0	1:08	1.05	0.61	
15:28:54	346.0	148.1	5.4	119	109	383	625		1.03		18.1		324.6	999	188.0	1:08	1.05	0.52	
15:29:21	347.1	142.3	4.6	119	105	386	628		1.03		18.0		325.3	1000	189.1	1:09	1.05	0.51	
15:29:46	348.1	171.6	4.8	120	114	386	628		1.03		18.0		325.8	997	190.1	1:09	1.05	0.52	
15:30:11	349.1	139.5	4.9	120	111	385	628		1.03		18.0		326.3	992	191.1	1:10	1.05	0.53	
15:30:36	350.1	142.7	6.1	120	103	387	629		1.03		18.0		326.9	987	192.1	1:10	1.05	0.55	
15:30:59	351.0	137.1	5.0	120	102	385	629		1.03		18.0		327.6	982	193.0	1:10	1.05	0.52	
15:31:24	352.1	184.3	4.9	119	97	385	629		1.03		18.0		328.3	977	194.1	1:11	1.05	0.52	
15:31:51	353.1	136.1	4.9	120	100	387	629		1.03		18.0		328.3	972	195.1	1:11	1.05	0.54	
15:32:15	354.0	131.6	5.3	119	103	388	629		1.03		18.0		329.1	969	196.0	1:12	1.05	0.56	
15:32:42	355.0	162.7	5.8	119	102	387	630		1.03		18.0		329.8	962	197.0	1:12	1.05	0.55	
15:33:07	356.1	207.9	5.6	119	100	390	631		1.03		18.0		330.4	956	198.1	1:13	1.05	0.49	
15:33:30	357.1	183.2	5.4	119	120	387	631		1.03		18.0		331.0	952	199.1	1:13	1.05	0.53	
15:33:55	358.0	140.6	5.3	120	111	390	630		1.03		18.0		331.6	949	200.0	1:13	1.05	0.54	
15:34:26	359.0	109.3	6.4	119	122	390	630		1.03		18.0		332.5	943	201.0	1:14	1.05	0.60	
15:34:55	360.0	109.3	4.1	119	103	388	630		1.03		18.1		333.3	938	202.0	1:14	1.05	0.53	
15:35:30	361.1	106.6	3.9	119	119	388	629		1.03		18.1		334.2	929	203.1	1:15	1.05	0.55	
15:36:03	362.0	110.5	4.8	120	154	378	630		1.03		18.1		335.4	932	204.0	1:16	1.05	0.60	
15:36:34	363.1	112.5	4.1	120	154	380	631		1.03		18.1		336.4	934	205.1	1:16	1.05	0.58	
15:37:05	364.0	111.4	6.1	119	166	383	631		1.03		18.1		337.3	937	206.0	1:17	1.05	0.59	
15:37:45	365.0	89.2	4.8	120	157	379	632		1.03		18.1		338.6	934	207.0	1:17	1.05	0.62	
15:38:20	366.0	107.2	8.0	120	137	380	632		1.03		18.1		339.7	926	208.0	1:18	1.05	0.67	
15:38:49	367.0	119.3	8.6	119	117	379	632		1.03		18.1		340.7	921	209.0	1:18	1.05	0.61	
15:39:12	368.0	161.2	8.0	119	123	373	632		1.03		18.1		341.7	915	210.0	1:19	1.05	0.55	
15:39:39	369.0	137.6	8.0	119	121	374	632		1.03		18.1		342.7	910	211.0	1:19	1.05	0.58	
15:40:04	370.1	147.4	7.3	120	105	371	631		1.03		18.1		343.6	904	212.1	1:20	1.05	0.56	
15:40:30	371.0	180.8	7.4	119	113	378	631		1.03		18.1		344.0	900	213.0	1:20	1.05	0.60	
15:40:55	372.0	202.2	7.5	119	109	367	631		1.03		18.1		344.0	896	214.0	1:20	1.05	0.56	
15:41:26	373.0	102.0	5.6	120	81	371	630		1.03		18.1		344.0	889	215.0	1:21	1.05	0.58	
15:50:07	374.0	152.7	5.9	119	153	379	625		1.03		18.1		347.6	879	216.0	1:22	1.05	0.64	
15:50:46	375.0	77.7	3.5	119	186	385	627		1.03		18.1		349.1	871	217.0	1:22	1.05	0.59	
15:51:34	376.0	76.8	3.8	119	196	390	626		1.03		18.1		350.7	863	218.0	1:23	1.05	0.63	
15:52:18	377.0	80.0	3.5	119	194	390	628		1.03		18.1		352.1	852	219.0	1:24	1.05	0.60	
15:52:53	378.0	104.5	5.2	119	216	392	628		1.03		18.2		353.3	848	220.0	1:24	1.05	0.61	
15:53:28	379.2	111.3	6.3	119	223	393	628		1.03		18.1		354.4	839	221.2	1:25	1.05	0.58	
15:53:57	380.0	129.1	4.4	119	198	397	628		1.03		18.1		355.2	837	222.0	1:26	1.05	0.58	
15:54:28	381.0	126.1	4.4	119	191	396	629		1.03		18.1		356.3	830	223.0	1:26	1.05	0.56	
15:55:01	382.0	110.1	5.0	119	187	394	629		1.03		18.1		357.7	823	224.0	1:27	1.05	0.57	
15:55:32	383.0	122.0	5.1	119	173	396	629		1.03		18.2		358.6	819	225.0	1:27	1.05	0.56	

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT	MUD DENSITY IN sg	MUD DENSITY OUT	MUD TEMP IN deg C	MUD TEMP OUT	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
15:56:08	384.1	123.0	5.0	119	186	397	630		1.03		18.2		359.6	811	226.1	1:28	1.05	0.61	
15:57:00	385.0	57.3	6.2	119	185	397	630		1.03		18.2		361.0	804	227.0	1:29	1.05	0.65	
15:58:49	386.0	44.0	2.5	119	161	395	630		1.03		18.2		363.8	787	228.0	1:30	1.05	0.72	
15:59:34	387.0	73.4	3.7	119	186	396	630		1.03		18.2		364.8	786	229.0	1:31	1.05	0.66	
16:00:20	388.0	68.3	2.8	119	172	394	629		1.03		18.2		365.8	787	230.0	1:32	1.05	0.59	
16:01:14	389.0	68.9	3.8	119	178	393	629		1.03		18.2		367.6	793	231.0	1:33	1.05	0.66	
16:01:47	390.0	120.9	5.1	119	188	384	630		1.03		18.1		368.8	805	232.0	1:33	1.05	0.59	
16:02:33	391.1	86.6	5.4	120	180	379	630		1.03		18.1		370.2	821	233.1	1:34	1.05	0.65	
16:03:14	392.0	96.5	5.6	119	174	376	631		1.03		18.1		372.1	838	234.0	1:35	1.05	0.67	
16:03:56	393.0	82.6	6.1	119	155	369	631		1.03		18.1		373.0	845	235.0	1:36	1.05	0.65	
16:04:33	394.0	109.7	6.7	119	132	376	632		1.03		18.1		373.1	850	236.0	1:36	1.05	0.64	
16:05:06	395.0	111.4	6.3	120	127	381	631		1.03		18.1		373.1	852	237.0	1:37	1.05	0.63	
16:05:39	396.0	112.3	5.8	120	118	375	631		1.03		18.1		373.1	858	238.0	1:37	1.05	0.58	
16:06:10	397.0	126.5	5.7	119	111	368	631		1.03		18.1		373.1	862	239.0	1:38	1.05	0.58	
16:06:43	398.1	117.6	6.1	119	128	374	630		1.03		18.1		373.1	867	240.1	1:38	1.05	0.59	
16:07:10	399.1	130.5	5.8	119	136	359	630		1.03		18.1		373.1	868	241.1	1:39	1.05	0.56	
16:07:37	400.1	129.6	4.4	119	120	363	630		1.03		18.0		373.4	873	242.1	1:39	1.05	0.53	
08:10	401.0	102.4	5.3	119	150	368	630		1.03		18.0		374.0	877	243.0	1:40	1.05	0.59	
16:08:48	402.1	91.4	6.2	119	139	371	629		1.03		18.0		374.9	881	244.1	1:40	1.05	0.62	
16:17:59	403.0	74.9	3.8	119	106	374	620		1.03		18.0		379.6	1001	245.0	1:41	1.05	0.63	
16:18:33	404.0	108.9	2.4	120	95	379	621		1.03		18.0		380.6	999	246.0	1:42	1.05	0.49	
16:19:06	405.1	141.5	2.1	120	94	380	622		1.03		18.0		381.4	993	247.1	1:42	1.05	0.49	
16:19:45	406.0	81.7	1.1	121	96	381	623		1.03		18.0		382.4	987	248.0	1:43	1.05	0.50	
16:20:33	407.1	73.2	1.9	120	108	380	623		1.03		18.0		383.8	978	249.1	1:44	1.05	0.54	
16:21:06	408.0	108.0	1.7	120	101	381	623		1.03		18.0		384.3	970	250.0	1:44	1.05	0.54	
16:21:47	409.0	89.1	1.4	121	96	380	623		1.03		18.0		385.0	962	251.0	1:45	1.05	0.52	
16:22:27	410.0	86.8	1.5	121	95	380	623		1.03		18.0		385.3	956	252.0	1:46	1.05	0.53	
16:23:06	411.0	92.1	0.9	120	93	381	623		1.03		18.0		385.5	950	253.0	1:46	1.05	0.46	
16:23:49	412.0	70.9	1.5	120	108	382	623		1.03		18.0		386.0	941	254.0	1:47	1.05	0.56	
16:24:31	413.0	79.2	2.2	120	102	381	623		1.03		18.0		386.7	934	255.0	1:48	1.05	0.55	
16:25:23	414.1	80.6	1.9	120	99	383	623		1.03		18.0		387.8	925	256.1	1:49	1.05	0.57	
16:25:54	415.1	129.5	2.1	120	125	386	623		1.03		18.0		388.3	921	257.1	1:49	1.05	0.52	
16:26:29	416.0	101.9	2.1	120	159	386	623		1.03		18.0		388.8	911	258.0	1:50	1.05	0.54	
16:27:04	417.0	104.7	3.9	120	155	389	623		1.03		18.0		389.6	908	259.0	1:50	1.05	0.58	
16:27:39	418.0	110.4	3.7	120	148	389	623		1.03		18.1		390.4	901	260.0	1:51	1.05	0.56	
16:28:17	419.0	96.0	4.0	120	156	390	623		1.03		18.1		391.2	894	261.0	1:52	1.05	0.58	
16:28:54	420.1	93.5	3.9	120	148	390	623		1.03		18.1		392.0	887	262.1	1:52	1.05	0.57	
16:29:31	421.0	106.9	4.3	120	146	390	623		1.03		18.1		392.7	881	263.0	1:53	1.05	0.60	
16:30:12	422.0	92.4	5.1	120	159	391	623		1.03		18.1		393.8	887	264.0	1:54	1.05	0.66	
16:31:02	423.0	65.3	2.6	120	124	388	623		1.03		18.1		394.9	896	265.0	1:54	1.05	0.58	
16:32:15	424.0	53.9	1.3	121	123	383	623		1.03		18.1		396.8	913	266.0	1:56	1.05	0.59	
16:33:21	425.0	71.3	1.4	120	138	384	624		1.03		18.0		398.8	942	267.0	1:57	1.05	0.59	
:34:15	426.1	64.3	1.2	120	133	382	624		1.03		18.0		400.4	956	268.1	1:58	1.05	0.57	
16:34:52	427.0	92.5	5.5	120	167	384	624		1.03		18.0		401.3	962	269.0	1:58	1.05	0.62	
16:35:23	428.0	104.0	8.2	120	160	390	625		1.03		18.0		401.9	966	270.0	1:59	1.05	0.65	

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-	-BIT-	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
16:35:56	429.0	118.2	9.9	120	152	393	625		1.03		18.0		402.2	972	271.0	1:59	1.05	0.67	
16:36:21	430.0	151.7	7.6	120	152	392	625		1.03		18.0		402.2	975	272.0	1:60	1.05	0.58	
16:36:58	431.0	97.4	6.9	120	147	393	624		1.03		18.0		402.2	982	273.0	2:00	1.05	0.64	
16:46:14	432.0	58.3	7.2	120	147	386	626		1.03		18.0		405.1	1001	274.0	2:01	1.05	0.77	
16:46:53	433.0	71.4	6.8	120	122	404	630		1.03		18.0		405.9	1001	275.0	2:02	1.05	0.66	
16:48:09	434.1	59.1	2.9	120	104	402	630		1.03		18.0		407.7	991	276.1	2:03	1.05	0.65	
16:48:46	435.0	90.2	3.8	120	108	403	631		1.03		18.0		409.1	984	277.0	2:04	1.05	0.58	
16:49:25	436.0	104.0	6.8	120	136	410	631		1.03		18.0		409.8	977	278.0	2:04	1.05	0.64	
16:49:54	437.0	104.1	5.5	120	137	415	631		1.03		18.0		410.0	971	279.0	2:05	1.05	0.61	
16:51:09	438.0	34.8	3.0	120	95	412	631		1.03		18.0		411.7	959	280.0	2:06	1.05	0.66	
16:52:13	439.1	85.0	4.0	120	121	416	631		1.03		18.0		413.1	949	281.1	2:07	1.05	0.68	
16:53:13	440.1	84.9	8.0	120	129	418	631		1.03		18.0		414.3	939	282.1	2:08	1.05	0.76	
16:53:46	441.1	121.6	5.6	120	124	420	631		1.03		18.0		415.1	933	283.1	2:09	1.05	0.61	
16:54:15	442.0	112.0	3.6	120	103	415	632		1.03		18.0		415.9	928	284.0	2:09	1.05	0.53	
16:54:53	443.1	103.8	4.0	120	117	409	631		1.03		18.1		416.8	921	285.1	2:10	1.05	0.57	
16:55:24	444.0	121.3	4.3	120	120	405	631		1.03		18.1		417.6	918	286.0	2:10	1.05	0.55	
16:56:07	445.1	92.9	5.7	120	141	405	631		1.03		18.1		418.8	909	287.1	2:11	1.05	0.66	
16:56:40	446.1	104.2	5.6	120	144	408	631		1.03		18.1		419.5	903	288.1	2:12	1.05	0.60	
16:57:09	447.0	121.7	3.6	120	114	412	631		1.03		18.1		420.2	899	289.0	2:12	1.05	0.51	
16:57:42	448.0	105.2	3.1	120	107	410	631		1.03		18.1		421.0	893	290.0	2:13	1.05	0.54	
16:58:20	449.0	90.6	3.1	120	120	406	631		1.03		18.1		421.8	886	291.0	2:13	1.05	0.57	
17:00:24	450.0	71.6	0.1	120	102	409	631		1.03		18.1		423.8	864	292.0	2:15	1.05	0.61	
17:01:24	451.0	63.8	2.5	120	127	407	631		1.03		18.1		424.5	854	293.0	2:16	1.05	0.64	
17:02:18	452.0	70.7	2.1	120	123	409	631		1.03		18.1		425.4	847	294.0	2:17	1.05	0.59	
17:05:42	456.0	79.6	1.1	120	161	403	630		1.03		18.2		430.8	834	298.0	2:21	1.05	0.49	
17:06:26	457.0	76.7	1.6	120	160	399	631		1.03		18.1		431.0	836	299.0	2:21	1.05	0.56	
17:07:22	458.0	60.5	2.9	120	129	400	631		1.03		18.1		431.1	832	300.0	2:22	1.05	0.62	
17:08:10	459.0	77.4	4.2	120	131	399	632		1.03		18.1		431.1	836	301.0	2:23	1.05	0.63	
17:08:55	460.0	82.6	4.2	120	130	390	632		1.03		18.1		431.1	838	302.0	2:24	1.05	0.60	
17:17:59	461.0	94.0	3.7	120	126	385	623		1.03		18.0		434.9	979	303.0	2:25	1.05	0.70	
17:18:34	462.0	88.8	3.1	120	130	389	623		1.03		18.0		435.8	982	304.0	2:26	1.05	0.59	
17:19:07	463.1	97.0	3.2	120	128	389	623		1.03		18.0		436.6	986	305.1	2:26	1.05	0.55	
17:19:40	464.0	109.3	1.1	120	118	388	624		1.03		18.0		437.5	989	306.0	2:27	1.05	0.46	
17:20:18	465.0	101.2	1.0	120	125	390	624		1.03		18.0		437.9	994	307.0	2:27	1.05	0.52	
17:20:53	466.0	107.4	1.2	119	134	392	624		1.03		18.0		438.1	997	308.0	2:28	1.05	0.55	
17:21:38	467.0	84.7	1.0	119	126	387	624		1.03		18.0		438.7	1002	309.0	2:29	1.05	0.61	
17:22:18	468.1	112.0	0.6	120	116	390	624		1.03		18.0		439.5	1001	310.1	2:29	1.05	0.51	
17:23:03	469.0	77.1	1.6	120	123	391	624		1.03		18.0		440.2	1002	311.0	2:30	1.05	0.52	
17:23:49	470.0	90.3	1.5	120	116	396	625		1.03		18.0		441.4	1002	312.0	2:31	1.05	0.55	
17:24:34	471.0	75.9	2.1	120	118	399	625		1.03		18.0		442.6	1001	313.0	2:32	1.05	0.57	
17:25:20	472.1	78.2	3.2	120	125	400	625		1.03		18.0		443.7	1002	314.1	2:32	1.05	0.58	
17:26:06	473.0	75.2	3.3	120	129	400	625		1.03		18.0		444.8	1001	315.0	2:33	1.05	0.59	
17:26:51	474.0	74.0	3.8	120	136	400	625		1.03		18.0		445.9	1001	316.0	2:34	1.05	0.62	
17:27:35	475.0	76.5	4.4	120	142	401	625		1.03		18.0		447.2	1001	317.0	2:35	1.05	0.64	
17:28:18	476.0	81.8	4.7	120	146	405	625		1.03		18.0		448.3	1001	318.0	2:35	1.05	0.64	

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-		ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
17:29:06	477.1	85.8	5.7	120	148	409	625		1.03		18.0		449.1	1002	319.1	2:36	1.05	0.65	
17:29:43	478.1	98.8	3.6	120	139	411	625		1.03		18.0		449.4	1002	320.1	2:37	1.05	0.58	
17:30:25	479.0	87.3	2.6	120	137	411	625		1.03		18.0		449.6	1002	321.0	2:38	1.05	0.56	
17:31:27	480.1	59.1	4.4	120	152	408	625		1.03		18.0		450.3	1001	322.1	2:39	1.05	0.69	
17:32:16	481.0	71.1	5.1	120	152	397	625		1.03		18.0		451.1	1001	323.0	2:39	1.05	0.68	
17:33:06	482.0	72.5	5.2	120	148	399	625		1.03		18.0		451.9	1002	324.0	2:40	1.05	0.67	
17:33:54	483.0	80.5	4.6	120	143	399	625		1.03		18.0		452.9	1002	325.0	2:41	1.05	0.64	
17:34:50	484.0	60.7	5.1	120	146	400	625		1.03		18.0		454.5	1001	326.0	2:42	1.05	0.69	
17:35:37	485.1	73.9	5.9	120	154	394	625		1.03		18.0		454.5	1002	327.1	2:43	1.05	0.66	
17:36:21	486.1	116.1	4.9	120	139	399	625		1.03		18.0		455.3	1002	328.1	2:43	1.05	0.64	
17:37:08	487.0	78.1	5.1	119	142	395	625		1.03		18.0		456.3	1002	329.0	2:44	1.05	0.66	
17:37:54	488.0	71.3	5.4	119	140	404	625		1.03		18.0		457.1	1000	330.0	2:45	1.05	0.66	
17:38:48	489.1	69.0	4.5	120	129	401	625		1.03		18.0		458.0	1002	331.1	2:46	1.05	0.68	
17:48:43	490.1	92.1	4.1	126	140	395	613		1.03		18.0		460.2	1002	332.1	2:47	1.05	0.70	
17:49:27	491.0	73.7	5.6	128	126	398	609		1.03		18.0		460.2	1002	333.0	2:48	1.05	0.68	
17:50:00	492.0	128.8	7.1	128	148	399	610		1.03		18.0		460.2	1002	334.0	2:48	1.05	0.65	
7:50:39	493.1	100.3	7.1	127	143	400	610		1.03		18.0		460.4	1001	335.1	2:49	1.05	0.66	
:51:12	494.1	111.8	7.7	127	145	400	610		1.03		18.0		461.2	1002	336.1	2:49	1.05	0.65	
17:51:47	495.1	104.3	8.6	127	164	419	610		1.03		18.0		462.2	1002	337.1	2:50	1.05	0.67	
17:52:27	496.1	85.6	3.7	127	114	404	611		1.03		18.0		463.3	1002	338.1	2:51	1.05	0.61	
17:54:27	497.1	25.7	1.9	128	106	396	610		1.03		18.0		466.3	1002	339.1	2:53	1.05	0.74	
17:55:23	498.1	68.9	3.2	128	120	398	611		1.03		18.0		467.4	997	340.1	2:54	1.05	0.64	
17:56:00	499.1	82.1	5.4	127	145	400	611		1.03		18.0		468.2	994	341.1	2:54	1.05	0.64	
17:56:31	500.0	104.5	5.7	128	127	400	611		1.03		18.1		468.8	993	342.0	2:55	1.05	0.60	
17:57:02	501.0	121.8	5.0	128	126	401	611		1.03		18.1		469.4	990	343.0	2:55	1.05	0.59	
17:57:33	502.1	132.5	4.0	128	117	400	611		1.03		18.1		470.0	987	344.1	2:56	1.05	0.53	
17:58:04	503.0	107.7	4.3	128	119	400	611		1.03		18.1		470.7	985	345.0	2:56	1.05	0.56	
17:58:33	504.0	119.4	2.8	128	106	398	611		1.03		18.1		471.2	983	346.0	2:57	1.05	0.50	
17:59:10	505.0	103.8	3.5	127	125	398	611		1.03		18.1		471.9	979	347.0	2:57	1.05	0.58	
17:59:39	506.1	151.0	2.4	127	103	399	611		1.03		18.1		472.5	977	348.1	2:58	1.05	0.51	
18:00:12	507.0	103.0	1.8	128	99	395	611		1.03		18.1		473.1	976	349.0	2:58	1.05	0.53	
18:00:44	508.1	111.0	0.8	128	103	397	611		1.03		18.1		473.7	973	350.1	2:59	1.05	0.52	
18:01:31	509.0	65.6	2.3	128	101	392	611		1.03		18.1		474.5	970	351.0	2:60	1.05	0.62	
18:02:15	510.0	79.1	4.5	128	131	394	611		1.03		18.1		475.4	966	352.0	3:00	1.05	0.66	
18:02:54	511.0	95.7	4.6	128	112	399	611		1.03		18.1		476.2	962	353.0	3:01	1.05	0.59	
18:03:42	512.1	96.3	3.1	128	100	399	611		1.03		18.1		477.2	961	354.1	3:02	1.05	0.63	
18:04:21	513.0	123.5	3.7	128	111	382	611		1.03		18.1		478.0	967	355.0	3:03	1.05	0.61	
18:05:00	514.1	100.2	4.4	128	127	378	611		1.03		18.1		478.8	975	356.1	3:03	1.05	0.64	
18:05:34	515.0	114.6	5.4	128	123	379	611		1.03		18.1		479.4	984	357.0	3:04	1.05	0.61	
18:06:09	516.0	92.7	4.6	128	118	381	611		1.03		18.1		479.9	988	358.0	3:04	1.05	0.60	
18:07:08	517.0	53.5	4.4	128	123	374	612		1.03		18.1		481.0	984	359.0	3:05	1.05	0.63	
18:08:37	518.0	67.5	3.7	128	125	379	612		1.03		18.1		482.6	977	360.0	3:07	1.05	0.72	
8:17:00	519.1	126.9	3.3	128	101	390	614		1.03		18.1		486.6	1002	361.1	3:08	1.05	0.63	
18:17:31	520.0	104.5	3.7	127	117	397	624		1.03		18.1		487.2	1001	362.0	3:08	1.05	0.56	
18:18:06	521.0	110.0	3.9	127	117	417	627		1.03		18.1		487.9	1002	363.0	3:09	1.05	0.58	

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT	MUD DENSITY IN sg	MUD DENSITY OUT	MUD TEMP IN deg C	MUD TEMP OUT	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
18:18:46	522.0	88.5	6.0	126	139	420	628		1.03		18.1		488.6	1002	364.0	3:10	1.05	0.67	
18:19:16	523.1	125.1	6.0	127	133	420	628		1.03		18.1		489.1	1002	365.1	3:10	1.05	0.58	
18:19:44	524.0	108.8	4.5	127	113	420	628		1.03		18.1		489.2	1002	366.0	3:10	1.05	0.62	
18:20:15	525.1	137.2	5.4	127	127	420	628		1.03		18.1		489.3	1002	367.1	3:11	1.05	0.58	
18:20:48	526.1	115.8	4.6	128	115	428	628		1.03		18.1		489.3	1001	368.1	3:12	1.05	0.57	
18:21:19	527.0	115.7	3.5	127	105	430	628		1.03		18.1		489.3	1001	369.0	3:12	1.05	0.56	
18:21:58	528.0	92.9	5.3	127	124	429	628		1.03		18.1		489.3	998	370.0	3:13	1.05	0.65	
18:22:36	529.0	94.1	4.6	127	126	430	629		1.03		18.1		489.7	994	371.0	3:13	1.05	0.63	
18:23:33	530.0	98.8	7.2	127	146	426	629		1.03		18.2		491.5	989	372.0	3:14	1.05	0.65	
18:24:09	531.0	90.2	7.3	127	132	423	629		1.03		18.1		493.0	986	373.0	3:15	1.05	0.67	
18:24:38	532.0	125.7	5.9	127	119	420	629		1.03		18.2		494.3	984	374.0	3:15	1.05	0.59	
18:25:11	533.0	105.9	5.1	127	122	420	629		1.03		18.1		495.8	981	375.0	3:16	1.05	0.59	
18:25:44	534.0	106.0	5.2	127	127	420	629		1.03		18.1		497.1	979	376.0	3:16	1.05	0.59	
18:26:20	535.1	108.5	5.4	128	124	420	629		1.03		18.2		498.8	976	377.1	3:17	1.05	0.60	
18:26:54	536.0	93.9	5.3	128	130	424	629		1.03		18.1		500.1	972	378.0	3:18	1.05	0.61	
18:27:32	537.0	102.5	4.8	127	130	430	629		1.03		18.1		501.9	970	379.0	3:18	1.05	0.59	
18:28:11	538.0	88.8	3.0	127	117	430	629		1.03		18.2		503.6	966	380.0	3:19	1.05	0.56	
18:28:46	539.0	91.9	2.8	127	117	430	629		1.03		18.1		505.1	963	381.0	3:20	1.05	0.56	
18:29:23	540.0	96.1	3.6	127	120	430	629		1.03		18.2		506.6	960	382.0	3:20	1.05	0.58	
18:30:11	541.0	81.5	2.5	127	120	430	629		1.03		18.2		508.8	956	383.0	3:21	1.05	0.58	
18:30:47	542.0	95.1	3.9	127	132	422	629		1.03		18.2		510.3	961	384.0	3:22	1.05	0.57	
18:31:19	543.0	115.1	5.9	127	147	415	629		1.03		18.2		511.8	968	385.0	3:22	1.05	0.62	
18:31:50	544.0	126.3	6.9	127	151	421	629		1.03		18.2		513.1	975	386.0	3:23	1.05	0.61	
18:32:19	545.1	111.7	7.7	127	167	413	629		1.03		18.2		513.9	980	387.1	3:23	1.05	0.65	
18:32:50	546.0	110.2	8.7	126	173	418	629		1.03		18.2		515.0	980	388.0	3:24	1.05	0.66	
18:33:30	547.0	87.3	6.2	127	148	419	629		1.03		18.2		516.3	979	389.0	3:24	1.05	0.67	
18:42:54	548.0	120.9	2.8	126	117	427	630		1.03		18.2		526.9	1002	390.0	3:25	1.05	0.54	
18:43:25	549.0	117.7	0.5	127	111	430	630		1.03		18.2		528.1	1002	391.0	3:26	1.05	0.46	
18:43:58	550.0	106.3	0.0	127	114	430	630		1.03		18.1		529.1	1002	392.0	3:26	1.05	0.48	
18:44:31	551.0	106.4	1.3	127	117	434	630		1.03		18.2		530.3	1000	393.0	3:27	1.05	0.48	
18:45:15	552.0	69.1	3.2	126	132	439	631		1.03		18.2		531.8	996	394.0	3:28	1.05	0.66	
18:45:50	553.0	101.9	3.9	126	148	440	631		1.03		18.2		533.0	995	395.0	3:28	1.05	0.58	
18:46:29	554.0	80.1	3.8	126	132	440	631		1.03		18.2		534.2	990	396.0	3:29	1.05	0.60	
18:47:21	555.1	107.9	6.0	127	131	439	631		1.03		18.2		536.1	986	397.1	3:30	1.05	0.67	
18:48:15	556.1	61.4	0.0	127	98	433	631		1.03		18.2		538.0	981	398.1	3:31	1.05	0.50	
18:49:09	557.0	63.5	3.5	127	122	426	631		1.03		18.2		539.8	977	399.0	3:32	1.05	0.68	
18:49:40	558.0	117.3	3.5	126	133	421	631		1.03		18.2		540.9	973	400.0	3:32	1.05	0.59	
18:50:27	559.0	97.4	6.5	128	145	420	631		1.03		18.2		542.4	971	401.0	3:33	1.05	0.72	
18:51:06	560.0	91.5	6.9	128	140	429	631		1.03		18.2		543.8	968	402.0	3:33	1.05	0.68	
18:51:44	561.0	93.2	5.6	127	129	430	631		1.03		18.1		545.0	965	403.0	3:34	1.05	0.63	
18:52:27	562.0	83.0	7.7	126	152	440	631		1.03		18.2		546.0	961	404.0	3:35	1.05	0.71	
18:53:09	563.1	143.6	8.5	127	160	436	631		1.03		18.2		546.9	957	405.1	3:36	1.05	0.69	
18:53:42	564.1	128.3	6.2	127	141	440	631		1.03		18.2		547.2	955	406.1	3:36	1.05	0.61	
18:55:09	565.0	36.6	8.0	126	144	439	631		1.03		18.2		547.2	947	407.0	3:38	1.05	0.89	
18:55:57	566.0	78.2	3.4	127	122	440	631		1.03		18.2		547.2	942	408.0	3:38	1.05	0.63	

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT- mts	-BIT- hh:mm	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
18:56:34	567.0	88.7	1.6	126	113	440	631		1.03		18.2		547.2	941	409.0	3:39	1.05	0.51	
18:57:30	568.1	77.2	2.8	126	118	440	631		1.03		18.2		547.2	937	410.1	3:40	1.05	0.62	
18:58:17	569.0	76.1	1.7	127	118	440	631		1.03		18.2		547.2	933	411.0	3:41	1.05	0.55	
18:59:04	570.0	90.2	2.1	127	127	428	631		1.03		18.2		548.1	935	412.0	3:41	1.05	0.57	
18:59:44	571.0	81.6	1.8	127	128	422	631		1.03		18.2		549.2	944	413.0	3:42	1.05	0.53	
19:00:26	572.0	86.2	3.7	127	131	421	630		1.03		18.2		550.5	954	414.0	3:43	1.05	0.61	
19:01:13	573.1	72.6	5.8	127	148	416	630		1.03		18.2		551.4	964	415.1	3:44	1.05	0.68	
19:01:57	574.0	77.0	5.0	128	155	441	630		1.03		18.2		552.4	972	416.0	3:44	1.05	0.67	
19:02:40	575.0	82.8	4.1	127	128	415	632		1.03		18.2		553.8	968	417.0	3:45	1.05	0.64	
19:03:24	576.1	99.6	4.1	127	128	424	632		1.03		18.2		554.9	965	418.1	3:46	1.05	0.61	
19:11:37	577.1	92.3	3.0	130	117	449	625		1.03		18.2		558.3	1002	419.1	3:47	1.05	0.64	
19:12:15	578.0	94.5	5.1	132	145	433	628		1.03		18.2		559.2	1000	420.0	3:47	1.05	0.66	
19:13:11	579.0	58.2	10.0	131	147	441	630		1.03		18.2		560.5	995	421.0	3:48	1.05	0.83	
19:14:02	580.0	76.4	5.5	131	112	444	631		1.03		18.2		561.6	990	422.0	3:49	1.05	0.67	
19:14:46	581.0	86.4	4.9	131	124	450	631		1.03		18.1		562.4	986	423.0	3:50	1.05	0.67	
19:15:42	582.1	69.6	7.4	131	139	450	631		1.03		18.2		563.8	980	424.1	3:51	1.05	0.76	
:16:15	583.0	89.9	3.9	131	129	449	631		1.03		18.2		564.4	978	425.0	3:51	1.05	0.56	
9:16:57	584.0	80.4	3.7	132	123	441	631		1.03		18.2		564.7	975	426.0	3:52	1.05	0.59	
19:17:46	585.0	71.6	4.5	133	127	440	631		1.03		18.2		565.3	971	427.0	3:53	1.05	0.69	
19:18:58	586.0	41.8	6.4	131	136	431	632		1.03		18.2		566.8	964	428.0	3:54	1.05	0.80	
19:20:25	587.0	38.4	2.5	131	104	421	632		1.03		18.2		568.4	959	429.0	3:56	1.05	0.72	
19:21:47	588.1	69.3	0.3	132	107	431	631		1.03		18.2		569.8	952	430.1	3:57	1.05	0.61	
19:22:23	589.0	94.6	3.8	132	134	436	632		1.03		18.2		570.7	949	431.0	3:57	1.05	0.61	
19:22:59	590.0	92.0	4.2	133	140	440	632		1.03		18.2		571.3	947	432.0	3:58	1.05	0.59	
19:23:40	591.0	70.2	5.5	131	150	442	632		1.03		18.2		572.2	943	433.0	3:59	1.05	0.70	
19:24:44	592.0	47.4	9.4	131	154	446	632		1.03		18.2		573.4	938	434.0	3:60	1.05	0.87	
19:26:13	593.0	92.8	6.3	131	132	442	632		1.03		18.2		575.2	931	435.0	4:01	1.05	0.80	
19:27:17	594.0	51.1	4.1	132	118	444	632		1.03		18.2		576.2	926	436.0	4:02	1.05	0.71	
19:28:03	595.0	76.9	2.1	132	118	447	632		1.03		18.2		576.3	921	437.0	4:03	1.05	0.55	
19:28:46	596.0	78.7	1.3	131	115	449	632		1.03		18.2		576.3	918	438.0	4:04	1.05	0.55	
19:29:34	597.0	68.7	2.4	131	133	450	632		1.03		18.2		576.3	914	439.0	4:05	1.05	0.59	
19:30:24	598.1	73.7	4.2	131	146	450	632		1.03		18.2		576.3	910	440.1	4:05	1.05	0.66	
19:31:11	599.0	81.9	5.7	132	151	450	632		1.03		18.2		576.9	905	441.0	4:06	1.05	0.69	
19:31:47	600.0	89.8	2.0	132	123	430	632		1.03		18.2		577.7	909	442.0	4:07	1.05	0.53	
19:32:36	601.0	70.1	1.7	133	129	414	632		1.03		18.2		578.7	919	443.0	4:08	1.05	0.60	
19:33:24	602.0	88.3	2.5	131	133	411	631		1.03		18.2		579.3	930	444.0	4:08	1.05	0.59	
19:35:02	603.0	31.9	6.8	131	142	443	631		1.03		18.2		581.2	926	445.0	4:10	1.05	0.89	
19:36:01	604.0	60.1	8.2	132	164	427	632		1.03		18.2		582.3	921	446.0	4:11	1.05	0.79	
19:37:28	605.0	70.1	8.1	131	151	443	633		1.03		18.2		584.3	912	447.0	4:12	1.05	0.87	
19:45:48	606.1	71.7	3.6	131	134	423	628		1.03		18.2		587.5	943	448.1	4:14	1.05	0.70	
19:46:42	607.0	49.3	4.8	130	143	433	627		1.03		18.2		588.2	937	449.0	4:15	1.05	0.74	
19:48:53	608.0	52.6	8.2	129	143	446	628		1.03		18.2		591.1	929	450.0	4:17	1.05	0.96	
9:50:51	609.1	27.0	10.1	129	149	450	629		1.03		18.2		592.3	919	451.1	4:19	1.05	0.98	
19:51:34	610.0	82.9	4.0	129	140	450	629		1.03		18.2		593.0	916	452.0	4:19	1.05	0.60	
19:52:36	611.0	53.7	0.7	130	138	448	629		1.03		18.2		594.0	911	453.0	4:20	1.05	0.57	

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT	MUD DENSITY IN sg	MUD DENSITY OUT	MUD TEMP IN deg C	TEMP OUT	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
19:53:36	612.0	58.6	0.4	129	138	440	629		1.03		18.2		595.1	903	454.0	4:21	1.05	0.59	
19:55:16	613.0	33.8	8.2	130	155	445	629		1.03		18.2		597.0	894	455.0	4:23	1.05	0.91	
19:56:29	614.1	80.9	4.1	129	127	443	629		1.03		18.2		598.2	886	456.1	4:24	1.05	0.65	
19:57:22	615.0	70.8	0.7	129	134	450	629		1.03		18.2		599.4	883	457.0	4:25	1.05	0.56	
19:58:20	616.0	57.4	1.1	128	133	450	629		1.03		18.2		600.6	877	458.0	4:26	1.05	0.59	
19:59:33	617.0	53.8	3.8	129	144	452	629		1.03		18.2		601.7	872	459.0	4:27	1.05	0.73	
20:01:10	618.0	43.5	7.8	129	156	450	629		1.03		18.2		602.9	863	460.0	4:29	1.05	0.91	
20:03:37	619.0	37.9	7.4	130	151	450	629		1.03		18.2		604.4	852	461.0	4:31	1.05	0.98	
20:05:14	620.0	67.0	7.6	129	155	450	629		1.03		18.2		605.5	846	462.0	4:33	1.05	0.87	
20:06:48	621.1	80.9	5.2	130	150	452	629		1.03		18.2		605.5	837	463.1	4:35	1.05	0.79	
20:07:48	622.0	48.4	3.8	129	153	460	628		1.03		18.2		605.5	832	464.0	4:36	1.05	0.72	
20:08:37	623.0	71.8	6.2	129	158	458	628		1.03		18.2		605.7	829	465.0	4:36	1.05	0.70	
20:11:02	624.0	20.1	7.7	129	156	454	629		1.03		18.2		607.3	817	466.0	4:39	1.05	0.99	
20:12:32	625.0	36.3	7.4	129	165	454	629		1.03		18.2		608.1	812	467.0	4:40	1.05	0.94	
20:14:17	626.0	48.9	8.0	129	164	450	630		1.03		18.2		608.8	807	468.0	4:42	1.05	0.91	
20:16:17	627.0	31.5	7.0	129	163	452	629		1.03		18.2		610.9	798	469.0	4:44	1.05	0.95	
20:17:54	628.0	32.8	7.6	129	158	450	629		1.03		18.2		612.2	792	470.0	4:46	1.05	0.88	
20:19:57	629.0	32.2	7.7	129	154	421	629		1.03		18.2		613.2	813	471.0	4:48	1.05	0.93	

CBU at 630m and POOH NB#2 for 17.5" hole-opener.
RIH RB#2.1 9.875" SEC S33SF open jets with 17.5" hole-opener.
23rd January 1993
Opened 9.875" to 17.5" hole from 158m to 628m.
CBU at 628m and POOH RB#2 for 13.375" casing run.
24th January 1993
Run and set 13.375" casing shoe at 618.35m.
25th January 1993
Run BOP's and riser and test BOP's to BHP's specifications.

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-	-BIT-	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
Tuesday 26 January 1993																			
NB#3 SEC S44G 12.25" Open jets.																			
Drill out shoe.																			
12:44:07	629.1	120.0	5.4	41	161	373	543	421	1.03	1.03	18.6	18.0	628.3	509	1.1	0:01	1.04	0.76	0.00
13:13:41	630.0	8.2	5.4	6	10	246	61	99	1.05	1.05	18.9	18.9	629.9	208	2.0	0:11	1.05	0.84	0.00
Perform Leakoff Test. POOH for change BHA.																			

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT- mts	-BIT- hh:mm	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
Wednesday 27 January 1993																			
NB#4 HTC ATM18 12.25" 2x16,1x12																			
01:19:08	631.0	13.6	7.4	68	107	2869	711	1130	1.04	1.04	19.2	11.2	629.9	280	1.0	0:06	1.05	0.92	0.00
01:21:29	632.0	50.7	2.8	71	85	3011	742	1178	1.05	1.05	21.0	25.2	629.9	292	2.0	0:08	1.05	0.64	0.00
01:23:02	633.0	37.5	3.5	71	100	2985	742	1181	1.05	1.05	21.2	25.4	629.9	295	3.0	0:09	1.05	0.60	0.00
01:25:27	634.0	23.2	6.3	72	105	3021	741	1149	1.05	1.05	21.5	25.0	629.9	328	4.0	0:12	1.06	0.78	0.00
01:28:34	635.0	23.2	14.5	71	123	2994	743	1152	1.05	1.05	22.3	25.3	629.9	396	5.0	0:15	1.06	0.97	0.00
01:32:04	636.0	18.2	12.5	71	118	2852	722	1155	1.05	1.05	23.0	25.5	630.0	457	6.0	0:18	1.06	0.95	0.00
01:34:33	637.0	22.9	15.7	71	131	2835	717	1162	1.05	1.05	23.5	25.6	630.4	484	7.0	0:21	1.06	0.93	0.00
01:36:58	638.0	35.5	19.1	71	148	2868	721	1181	1.05	1.05	23.9	26.4	630.7	494	8.0	0:23	1.07	0.97	0.01
01:39:08	639.0	22.5	22.0	71	164	2904	725	1191	1.05	1.05	24.1	26.6	631.2	464	9.0	0:25	1.07	0.97	0.01
02:08:26	640.0	39.6	25.8	72	181	2847	721	1175	1.05	1.05	25.1	26.3	638.6	418	10.0	0:29	1.07	1.04	0.01
02:10:22	641.0	24.0	25.6	77	179	2816	718	1158	1.05	1.05	25.6	26.5	638.7	418	11.0	0:31	1.07	1.00	0.01
02:12:36	642.0	26.8	26.2	90	177	2864	724	1188	1.05	1.05	25.6	26.7	638.8	416	12.0	0:33	1.07	1.09	0.01
02:14:17	643.0	40.3	18.4	90	132	2827	728	1197	1.05	1.05	25.6	26.9	638.8	417	13.0	0:35	1.07	0.90	0.01
02:16:50	644.0	21.1	22.0	106	157	2855	725	1190	1.05	1.05	25.6	27.2	638.9	415	14.0	0:37	1.07	1.12	0.01
02:19:20	645.0	38.4	28.2	108	189	2870	727	1176	1.05	1.05	25.7	27.5	639.1	414	15.0	0:40	1.07	1.19	0.01
02:20:20	646.1	58.7	23.5	108	162	2856	729	1149	1.05	1.05	25.7	27.5	639.1	413	16.1	0:41	1.07	0.89	0.01
02:26:56	647.0	35.4	22.6	112	161	2864	727	1173	1.05	1.05	26.0	27.9	639.7	431	17.0	0:43	1.07	1.13	0.01
02:27:51	648.0	61.1	26.3	114	187	2874	727	1178	1.05	1.05	26.2	28.1	640.4	437	18.0	0:44	1.07	0.91	0.01
02:28:53	649.0	62.1	28.4	114	196	2852	726	1178	1.05	1.05	26.2	28.1	640.8	440	19.0	0:45	1.07	0.96	0.01
02:29:39	650.0	85.1	28.3	114	191	2868	726	1181	1.05	1.05	26.3	28.1	641.0	437	20.0	0:46	1.07	0.89	0.01
02:30:29	651.0	67.1	27.4	114	199	2892	726	1187	1.05	1.05	26.4	28.2	641.3	435	21.0	0:47	1.07	0.90	0.01
02:31:42	652.0	54.1	29.1	114	203	2886	728	1196	1.05	1.05	26.5	28.2	641.9	434	22.0	0:48	1.07	1.00	0.01
02:33:40	653.0	45.9	29.0	114	194	2863	726	1179	1.05	1.05	26.6	28.4	642.8	431	23.0	0:50	1.07	1.15	0.01
02:35:32	654.0	27.8	25.3	114	169	2885	725	1177	1.05	1.05	26.7	28.5	643.7	430	24.0	0:52	1.07	1.09	0.01
02:37:19	655.0	30.8	27.4	114	175	2831	727	1177	1.05	1.05	26.9	28.6	644.1	427	25.0	0:54	1.07	1.10	0.01
02:38:47	656.0	46.4	25.9	114	173	2877	727	1175	1.05	1.05	27.0	28.8	644.9	426	26.0	0:55	1.07	1.03	0.01
02:41:23	657.0	34.8	27.9	114	185	2869	727	1183	1.05	1.05	27.2	28.7	646.2	424	27.0	0:58	1.07	1.19	0.01
02:42:28	658.0	57.3	25.6	114	168	2923	726	1186	1.05	1.05	27.3	28.7	646.3	420	28.0	0:59	1.07	0.96	0.01
02:45:26	659.0	21.2	30.9	114	184	2896	726	1180	1.05	1.05	27.5	28.9	646.3	419	29.0	1:02	1.07	1.29	0.01
02:46:34	660.0	51.0	27.5	114	176	2909	727	1185	1.05	1.05	27.6	29.0	646.4	419	30.0	1:03	1.07	0.97	0.01
02:49:31	661.0	20.0	29.6	114	183	2893	729	1190	1.05	1.05	27.8	29.0	648.2	416	31.0	1:06	1.07	1.12	0.01
02:50:37	662.0	59.8	28.8	114	179	2874	730	1201	1.05	1.05	27.9	28.9	649.2	415	32.0	1:07	1.07	0.99	0.01
02:52:13	663.0	52.4	28.8	114	187	2908	730	1189	1.05	1.05	28.0	29.0	651.0	415	33.0	1:09	1.07	1.09	0.01
02:53:28	664.0	41.4	26.7	114	187	2886	730	1189	1.05	1.05	28.0	29.1	651.9	414	34.0	1:10	1.07	1.00	0.01
02:55:53	665.0	20.2	28.2	114	176	2869	730	1188	1.05	1.05	28.1	29.2	653.2	412	35.0	1:12	1.07	1.19	0.01
02:57:08	666.0	52.9	27.9	113	181	2835	730	1180	1.05	1.05	28.2	29.3	653.8	411	36.0	1:13	1.07	1.01	0.01
02:59:23	667.0	25.5	28.3	114	174	2861	730	1179	1.05	1.05	28.2	29.4	655.0	411	37.0	1:16	1.07	1.17	0.01
03:01:01	668.0	41.0	28.8	114	182	2829	729	1178	1.05	1.05	28.3	29.4	655.7	410	38.0	1:17	1.07	1.08	0.01
03:29:19	669.1	37.7	26.5	114	171	2889	729	1207	1.05	1.05	28.6	29.2	665.2	396	39.1	1:20	1.07	1.13	0.01
03:30:11	670.0	79.6	23.1	115	175	2896	730	1218	1.05	1.05	29.0	28.7	665.7	404	40.0	1:21	1.07	0.87	0.01
03:32:34	671.0	43.3	24.1	119	169	2877	728	1234	1.05	1.05	29.0	29.1	666.4	416	41.0	1:23	1.07	0.99	0.0
03:34:04	672.1	48.2	27.4	119	191	2936	727	1215	1.05	1.05	28.9	29.4	666.7	416	42.1	1:24	1.07	1.07	0.01

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-		ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
03:35:37	673.0	35.4	29.0	119	187	2933	728	1214	1.05	1.05	28.9	29.7	667.1	414	43.0	1:26	1.07	1.10	0.01
03:39:06	674.0	13.8	28.7	120	174	2893	728	1228	1.05	1.05	29.0	30.1	667.8	413	44.0	1:29	1.07	1.31	0.01
03:40:00	675.0	54.6	26.7	120	185	2866	729	1221	1.05	1.05	29.0	30.4	668.0	411	45.0	1:30	1.07	0.93	0.01
03:41:53	676.0	46.5	28.4	120	186	2945	729	1224	1.05	1.05	29.1	30.6	668.4	411	46.0	1:32	1.07	1.14	0.01
03:42:55	677.1	55.7	27.4	119	178	2955	728	1220	1.05	1.05	29.2	30.7	668.6	409	47.1	1:33	1.07	0.96	0.01
03:44:28	678.0	35.1	28.1	120	176	2908	729	1235	1.05	1.05	29.2	30.6	668.9	407	48.0	1:35	1.07	1.08	0.01
03:45:22	679.0	75.2	26.8	119	184	2951	730	1242	1.05	1.05	29.3	30.4	669.1	404	49.0	1:36	1.07	0.92	0.01
03:46:18	680.0	62.9	20.0	120	146	2971	729	1201	1.05	1.05	29.4	30.3	669.3	404	50.0	1:37	1.07	0.87	0.01
03:48:52	681.0	25.3	12.1	120	117	2933	729	1219	1.05	1.05	29.5	30.4	669.8	402	51.0	1:39	1.07	0.99	0.01
03:50:12	682.0	46.0	16.4	120	148	2902	723	1213	1.05	1.05	29.6	30.5	670.1	401	52.0	1:41	1.07	0.94	0.01
03:51:16	683.0	59.2	20.5	120	165	2862	717	1212	1.05	1.05	29.7	30.6	670.5	401	53.0	1:42	1.07	0.91	0.01
03:52:22	684.0	51.6	25.0	120	189	2896	716	1216	1.05	1.05	29.7	30.6	671.1	401	54.0	1:43	1.07	0.97	0.01
03:53:39	685.0	46.3	25.5	120	184	2850	718	1241	1.05	1.05	29.8	30.7	671.9	400	55.0	1:44	1.07	1.00	0.01
03:54:46	686.0	49.8	26.1	120	187	2899	717	1247	1.05	1.05	29.8	30.7	672.6	399	56.0	1:45	1.07	0.98	0.01
03:55:54	687.0	56.2	27.9	120	204	2896	721	1228	1.05	1.05	29.8	30.8	673.2	397	57.0	1:46	1.07	1.00	0.01
03:57:21	688.0	44.7	26.8	120	185	2871	719	1216	1.05	1.05	29.9	30.8	673.5	398	58.0	1:48	1.07	1.05	0.01
3:58:17	689.0	57.5	25.5	120	181	2894	720	1202	1.05	1.05	29.9	31.0	673.6	399	59.0	1:49	1.07	0.93	0.01
:59:17	690.1	68.1	24.5	120	165	2907	721	1235	1.05	1.05	30.0	31.0	674.0	397	60.1	1:50	1.07	0.90	0.01
04:00:45	691.0	36.5	19.7	120	150	2870	720	1227	1.05	1.05	30.0	31.1	675.0	397	61.0	1:51	1.07	0.97	0.01
04:02:05	692.0	53.1	24.7	120	182	2895	719	1215	1.05	1.05	30.0	31.1	675.5	396	62.0	1:52	1.07	1.01	0.01
04:03:19	693.0	47.5	27.7	120	195	2909	720	1226	1.05	1.05	30.1	31.2	676.5	396	63.0	1:54	1.07	1.02	0.01
04:04:34	694.0	43.8	28.6	120	201	2867	722	1236	1.05	1.05	30.2	31.1	677.9	394	64.0	1:55	1.07	1.03	0.01
04:05:50	695.0	58.8	27.6	120	188	2912	723	1210	1.05	1.05	30.2	31.2	678.3	394	65.0	1:56	1.07	1.02	0.01
04:06:57	696.0	50.7	27.0	118	190	2902	723	1240	1.05	1.05	30.3	31.3	679.2	393	66.0	1:57	1.07	0.98	0.01
04:08:13	697.0	48.0	30.5	99	204	2873	723	1228	1.05	1.05	30.3	31.4	680.2	393	67.0	1:59	1.07	0.99	0.01
04:22:49	698.1	60.8	36.3	107	237	2814	715	1182	1.07	1.08	30.6	30.7	686.2	390	68.1	2:00	1.07	1.15	0.01
04:24:43	699.0	40.4	33.5	112	210	2840	713	1193	1.07	1.08	30.7	30.9	687.5	386	69.0	2:02	1.07	1.17	0.01
04:26:22	700.0	53.8	33.0	105	209	2822	710	1209	1.07	1.08	30.7	30.6	688.9	382	70.0	2:04	1.07	1.08	0.01
04:28:41	701.0	26.1	35.3	93	208	2850	712	1216	1.07	1.08	30.7	31.4	690.7	374	71.0	2:06	1.08	1.20	0.01
04:30:26	702.0	34.5	30.8	117	212	2813	711	825	1.07	1.08	30.7	31.7	691.7	371	72.0	2:08	1.08	1.13	0.01
04:31:22	703.0	63.5	25.9	129	191	2821	709	538	1.07	1.08	30.7	31.8	692.5	369	73.0	2:09	1.08	0.94	0.01
04:32:35	704.0	79.5	26.3	129	190	2832	708	748	1.07	1.08	30.8	31.8	693.3	367	74.0	2:10	1.08	1.01	0.01
04:33:18	705.0	79.8	20.8	129	153	2774	707	859	1.07	1.08	30.8	31.9	693.8	368	75.0	2:11	1.08	0.81	0.01
04:34:50	706.0	32.7	19.2	129	155	2839	707	780	1.07	1.08	30.9	31.9	694.8	365	76.0	2:12	1.08	0.99	0.01
04:36:06	707.0	45.7	27.3	129	201	2836	707	735	1.07	1.08	30.9	31.9	695.8	365	77.0	2:13	1.08	1.02	0.01
04:37:25	708.1	50.4	27.4	129	205	2792	707	732	1.07	1.08	31.0	32.0	696.8	364	78.1	2:15	1.08	1.03	0.01
04:38:33	709.0	54.9	26.5	129	199	2848	708	731	1.07	1.08	31.1	32.0	697.1	364	79.0	2:16	1.08	1.00	0.01
04:40:04	710.0	43.1	27.6	129	202	2842	708	715	1.07	1.08	31.1	32.0	697.1	364	80.0	2:17	1.08	1.08	0.01
04:42:05	711.0	32.1	28.9	129	197	2799	707	711	1.07	1.08	31.2	32.0	697.1	363	81.0	2:19	1.09	1.18	0.01
04:43:44	712.0	32.0	26.8	129	179	2845	708	723	1.07	1.08	31.3	32.0	697.1	362	82.0	2:21	1.09	1.07	0.01
04:46:05	713.0	24.6	30.1	129	187	2814	708	724	1.07	1.08	31.4	32.1	697.1	362	83.0	2:23	1.09	1.22	0.01
04:49:14	714.0	22.5	28.9	129	181	2832	708	719	1.07	1.08	31.5	32.2	698.5	360	84.0	2:27	1.09	1.29	0.01
4:52:34	715.0	15.2	30.0	129	174	2850	707	718	1.07	1.08	31.6	32.3	700.2	359	85.0	2:30	1.09	1.31	0.01
04:56:16	716.0	13.7	29.3	124	164	2877	709	719	1.07	1.08	31.7	32.4	701.8	357	86.0	2:34	1.09	1.32	0.01
05:00:50	717.0	11.9	28.6	103	157	2901	712	710	1.07	1.08	31.7	32.4	705.8	354	87.0	2:38	1.09	1.32	0.01

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT	MUD DENSITY IN sg	MUD DENSITY OUT	MUD TEMP IN deg C	TEMP OUT	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
05:03:34	718.0	29.9	28.4	116	191	2885	712	709	1.07	1.08	31.8	32.8	707.6	354	88.0	2:41	1.09	1.22	0.01
05:05:30	719.0	29.7	26.9	119	196	2866	710	702	1.07	1.08	31.8	32.8	708.9	355	89.0	2:43	1.09	1.11	0.01
05:08:08	720.0	29.5	29.5	119	205	2897	712	716	1.07	1.08	32.0	32.9	710.4	352	90.0	2:45	1.09	1.22	0.01
05:09:57	721.0	32.0	23.6	119	170	2855	711	717	1.07	1.08	32.0	33.0	711.4	353	91.0	2:47	1.09	1.05	0.01
05:11:55	722.0	29.1	25.4	119	180	2845	711	720	1.07	1.08	32.1	33.0	712.3	358	92.0	2:49	1.09	1.10	0.01
05:14:24	723.0	22.7	26.2	119	181	2846	711	718	1.07	1.08	32.2	33.0	713.1	367	93.0	2:52	1.09	1.17	0.01
05:17:31	724.0	17.4	25.4	119	165	2815	712	696	1.07	1.08	32.3	33.3	714.3	367	94.0	2:55	1.09	1.22	0.01
05:19:48	725.0	23.6	24.8	119	171	2823	711	718	1.07	1.08	32.4	33.5	714.9	365	95.0	2:57	1.09	1.13	0.01
05:21:25	726.0	39.4	23.9	119	172	2866	713	726	1.07	1.08	32.5	33.6	715.3	362	96.0	2:59	1.09	1.02	0.01
05:43:33	727.0	37.4	24.5	119	173	2862	714	723	1.07	1.08	32.9	32.6	718.5	382	97.0	3:01	1.09	1.16	0.01
05:45:31	728.0	36.6	26.4	119	184	2913	716	724	1.07	1.08	33.0	32.1	719.3	380	98.0	3:03	1.09	1.09	0.01
05:46:46	729.0	42.6	31.7	119	228	2881	717	723	1.07	1.08	33.0	32.5	719.7	377	99.0	3:05	1.09	1.05	0.01
05:47:44	730.1	70.0	35.5	119	229	2897	718	726	1.07	1.08	33.0	32.8	720.2	377	100.1	3:06	1.09	0.99	0.01
05:49:06	731.0	43.7	35.3	119	242	2912	719	720	1.07	1.08	32.9	33.1	721.4	375	101.0	3:07	1.09	1.10	0.01
05:50:23	732.0	39.2	34.9	119	239	2875	719	702	1.07	1.08	32.9	33.2	721.6	374	102.0	3:08	1.09	1.09	0.01
05:51:52	733.0	44.0	36.0	119	235	2917	719	728	1.07	1.08	32.9	33.3	722.2	374	103.0	3:10	1.09	1.12	0.01
05:53:15	734.0	38.4	35.8	119	238	2906	720	731	1.07	1.08	32.8	33.4	722.7	372	104.0	3:11	1.09	1.10	0.01
05:54:19	735.0	63.2	36.0	119	229	2859	719	729	1.07	1.08	32.8	33.4	723.1	372	105.0	3:12	1.09	1.04	0.[illegible]
05:55:36	736.0	39.1	35.6	119	234	2917	719	725	1.07	1.08	32.8	33.5	723.6	373	106.0	3:13	1.09	1.09	0.[illegible]
05:57:28	737.1	42.3	36.6	119	235	2872	719	710	1.07	1.08	32.8	33.6	724.1	374	107.1	3:15	1.09	1.17	0.01
05:58:28	738.0	54.7	36.0	119	240	2891	718	721	1.07	1.08	32.9	33.6	724.5	374	108.0	3:16	1.09	1.02	0.01
05:59:49	739.0	38.4	36.1	119	231	2899	718	723	1.07	1.08	32.9	33.6	725.0	373	109.0	3:18	1.09	1.10	0.01
06:01:52	740.0	38.0	32.9	119	204	2860	717	723	1.07	1.08	32.9	33.6	726.1	371	110.0	3:20	1.09	1.18	0.01
06:03:30	741.0	31.7	37.4	119	227	2841	717	720	1.07	1.08	33.0	33.7	726.4	371	111.0	3:21	1.09	1.18	0.01
06:04:45	742.0	54.3	34.6	119	224	2772	716	717	1.07	1.08	33.0	33.7	726.4	370	112.0	3:23	1.09	1.07	0.01
06:05:55	743.0	56.4	32.5	119	219	2824	716	723	1.07	1.08	33.1	33.7	726.4	371	113.0	3:24	1.09	1.02	0.01
06:07:08	744.0	47.2	34.1	119	233	2811	717	706	1.07	1.08	33.1	33.7	726.4	371	114.0	3:25	1.09	1.06	0.01
06:08:41	745.1	47.8	35.1	119	225	2778	716	713	1.07	1.08	33.1	33.7	726.4	369	115.1	3:26	1.09	1.13	0.01
06:09:42	746.0	52.0	34.7	119	233	2823	717	688	1.07	1.08	33.2	33.6	726.4	370	116.0	3:27	1.09	1.02	0.01
06:11:17	747.0	49.0	36.5	119	231	2780	717	714	1.07	1.08	33.2	33.6	726.4	369	117.0	3:29	1.09	1.15	0.01
06:12:27	748.0	52.8	33.1	119	233	2837	717	728	1.07	1.08	33.2	33.5	726.4	369	118.0	3:30	1.09	1.07	0.01
06:13:42	749.0	55.9	36.3	119	247	2842	718	721	1.07	1.08	33.3	33.5	726.5	368	119.0	3:31	1.09	1.08	0.01
06:14:38	750.0	59.6	35.9	119	243	2838	718	723	1.07	1.08	33.3	33.5	727.0	367	120.0	3:32	1.09	1.00	0.01
06:15:51	751.0	46.1	36.1	119	239	2815	718	724	1.07	1.08	33.3	33.6	727.7	364	121.0	3:34	1.09	1.07	0.01
06:17:06	752.0	50.2	36.8	119	223	2832	718	731	1.07	1.08	33.3	33.7	728.5	363	122.0	3:35	1.09	1.09	0.01
06:18:20	753.0	48.7	36.6	119	230	2805	718	731	1.07	1.08	33.3	33.8	729.4	362	123.0	3:36	1.09	1.08	0.01
06:20:17	754.0	24.0	37.1	119	222	2849	718	720	1.07	1.08	33.3	33.9	730.8	361	124.0	3:38	1.09	1.22	0.01
06:21:44	755.0	49.2	35.3	119	214	2831	718	714	1.07	1.08	33.4	34.1	731.9	360	125.0	3:40	1.09	1.12	0.01
06:38:35	756.0	33.8	30.1	119	227	2889	729	716	1.07	1.08	33.5	33.7	738.2	341	126.0	3:42	1.07	1.13	0.01
06:39:50	757.0	48.0	36.2	119	229	2903	732	721	1.07	1.08	33.5	33.5	739.2	342	127.0	3:43	1.07	1.10	0.01
06:41:12	758.0	66.7	35.4	120	227	2876	732	728	1.07	1.08	33.6	33.7	740.4	340	128.0	3:44	1.07	1.12	0.01
06:42:22	759.0	86.9	36.1	120	227	2889	733	726	1.07	1.08	33.6	34.0	741.4	340	129.0	3:46	1.07	1.06	0.01
06:43:57	760.0	37.0	37.2	119	233	2908	733	727	1.07	1.08	33.6	34.4	742.8	340	130.0	3:47	1.07	1.18	0.[illegible]
06:45:19	761.0	44.7	36.2	119	232	2884	734	732	1.07	1.08	33.6	34.8	744.0	340	131.0	3:49	1.07	1.12	0.[illegible]
06:46:27	762.0	47.9	36.6	119	223	2912	734	728	1.07	1.08	33.6	35.2	745.0	339	132.0	3:50	1.07	1.07	0.01

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-	-BIT-	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm	gpm	sg	sg	deg C	deg C	m	bbl	mts	hh:mm	ppg		%
06:48:10	763.1	35.2	35.7	119	227	2914	734	729	1.07	1.08	33.6	35.5	746.5	338	133.1	3:51	1.08	1.18	0.01
06:49:31	764.0	42.4	36.5	119	228	2879	729	724	1.07	1.08	33.7	35.7	747.7	336	134.0	3:53	1.08	1.12	0.01
06:50:43	765.0	43.6	36.2	119	223	2890	726	731	1.07	1.08	33.8	35.8	748.6	335	135.0	3:54	1.08	1.09	0.01
06:51:59	766.0	49.5	36.3	119	229	2897	723	728	1.07	1.08	33.9	35.9	749.8	334	136.0	3:55	1.08	1.08	0.01
06:53:41	767.0	38.0	36.9	119	226	2875	722	726	1.07	1.08	34.0	35.9	751.1	333	137.0	3:57	1.08	1.19	0.01
06:55:31	768.0	34.8	36.0	120	217	2911	723	723	1.07	1.08	34.2	35.9	752.7	331	138.0	3:59	1.08	1.20	0.00
06:57:43	769.0	29.5	37.1	119	224	2883	723	727	1.07	1.08	34.4	36.0	754.6	329	139.0	4:01	1.08	1.26	0.00
06:58:59	770.0	46.2	35.9	119	215	2901	723	725	1.07	1.08	34.6	36.0	755.6	330	140.0	4:02	1.09	1.09	0.00
07:01:19	771.0	28.4	34.3	120	207	2882	722	716	1.07	1.08	34.7	36.1	757.1	327	141.0	4:05	1.09	1.24	0.00
07:03:25	772.0	24.2	30.7	120	184	2896	722	729	1.07	1.08	34.9	36.2	758.4	325	142.0	4:07	1.09	1.18	0.00
07:06:05	773.0	33.2	36.8	119	218	2888	722	724	1.07	1.08	35.1	36.3	760.1	325	143.0	4:09	1.09	1.29	0.01
07:07:28	774.0	39.2	33.2	119	214	2911	722	713	1.07	1.08	35.2	36.3	761.0	323	144.0	4:11	1.09	1.08	0.00
07:09:43	775.0	32.0	34.1	120	215	2868	722	726	1.07	1.08	35.3	36.2	762.4	321	145.0	4:13	1.09	1.23	0.01
07:11:13	776.0	41.1	31.5	119	209	2890	722	719	1.07	1.08	35.4	36.2	763.2	320	146.0	4:14	1.09	1.08	0.01
07:13:13	777.0	30.6	36.1	119	223	2880	722	728	1.07	1.08	35.5	36.2	764.7	318	147.0	4:16	1.09	1.22	0.01
07:15:04	778.0	29.6	33.5	120	192	2853	722	705	1.07	1.08	35.6	36.2	766.4	317	148.0	4:18	1.09	1.17	0.01
07:17:08	779.0	34.3	36.1	119	229	2831	722	715	1.07	1.08	35.7	36.2	767.1	314	149.0	4:20	1.09	1.23	0.01
07:18:37	780.0	42.6	35.4	119	228	2890	723	726	1.07	1.08	35.8	36.2	767.9	315	150.0	4:22	1.09	1.12	0.01
07:20:23	781.0	32.8	36.2	119	231	2882	723	725	1.07	1.08	35.8	36.3	768.6	314	151.0	4:24	1.09	1.18	0.01
07:22:17	782.0	39.4	36.7	120	229	2855	723	727	1.07	1.08	35.9	36.3	769.6	313	152.0	4:26	1.09	1.21	0.01
07:23:41	783.0	45.6	35.8	119	230	2877	723	704	1.07	1.08	35.9	36.3	770.3	314	153.0	4:27	1.09	1.12	0.01
07:25:31	784.0	23.5	35.3	119	222	2821	722	726	1.07	1.08	36.0	36.3	771.1	314	154.0	4:29	1.09	1.19	0.01
07:36:57	785.0	21.2	33.2	119	212	2618	687	706	1.07	1.08	36.0	36.5	773.2	308	155.0	4:31	1.09	1.24	0.01
07:39:23	786.0	22.2	37.3	119	227	2014	611	677	1.07	1.08	36.1	36.5	774.3	299	156.0	4:34	1.09	1.28	0.01
07:40:38	787.0	44.0	35.0	118	235	2028	610	670	1.07	1.08	36.1	36.3	774.6	296	157.0	4:35	1.09	1.07	0.01
07:42:43	788.0	24.1	35.8	118	234	1999	610	661	1.07	1.08	36.1	36.2	775.7	293	158.0	4:37	1.09	1.23	0.01
07:44:58	789.0	34.8	33.9	118	218	2011	610	663	1.07	1.08	36.0	36.2	776.6	292	159.0	4:39	1.09	1.23	0.01
07:48:52	790.0	12.9	36.6	119	206	1998	610	646	1.07	1.08	36.0	36.3	778.2	288	160.0	4:43	1.09	1.42	0.01
07:50:42	791.0	48.0	35.2	118	230	2022	616	541	1.07	1.08	35.9	36.5	778.9	288	161.0	4:45	1.09	1.17	0.01
07:53:52	792.0	26.4	39.1	119	207	2023	613	599	1.07	1.08	36.0	36.7	780.6	286	162.0	4:48	1.09	1.39	0.01
07:56:13	793.0	22.8	36.9	119	199	2015	611	643	1.07	1.08	36.0	36.8	781.4	285	163.0	4:50	1.09	1.27	0.01
07:58:46	794.0	21.6	37.9	119	210	2027	610	627	1.07	1.08	36.0	36.9	782.5	283	164.0	4:53	1.09	1.31	0.01
08:00:34	795.0	45.0	38.2	118	234	2010	610	657	1.07	1.08	36.1	37.0	783.7	283	165.0	4:55	1.09	1.21	0.01
08:02:26	796.0	29.2	38.9	119	225	1995	610	608	1.07	1.08	36.1	37.1	784.2	282	166.0	4:57	1.09	1.24	0.01
08:05:47	797.0	26.3	38.9	119	216	2009	610	639	1.07	1.08	36.3	37.0	784.7	282	167.0	5:00	1.09	1.39	0.01
08:08:08	798.0	28.8	37.8	119	227	2027	610	638	1.07	1.08	36.3	37.0	785.0	281	168.0	5:02	1.09	1.28	0.01
08:10:24	799.0	23.1	37.8	119	207	2014	610	655	1.07	1.08	36.3	36.9	786.0	280	169.0	5:05	1.09	1.27	0.01
08:12:36	800.0	30.2	38.4	118	229	2019	610	604	1.07	1.08	36.3	36.8	786.9	280	170.0	5:07	1.09	1.27	0.01
08:14:58	801.0	25.8	36.9	119	220	2048	610	579	1.07	1.08	36.4	36.8	788.0	280	171.0	5:09	1.09	1.25	0.01
08:17:52	802.1	31.4	38.3	119	218	2029	610	553	1.07	1.08	36.4	36.8	789.2	278	172.1	5:12	1.09	1.32	0.01
08:20:50	803.0	17.6	38.8	118	230	2024	611	605	1.07	1.08	36.3	36.8	789.9	278	173.0	5:15	1.09	1.36	0.01
08:22:59	804.1	35.6	38.7	118	234	2041	613	616	1.07	1.08	36.4	36.8	790.6	278	174.1	5:17	1.09	1.26	0.01
8:24:41	805.0	29.0	35.4	119	202	2009	610	660	1.07	1.08	36.4	36.9	791.3	278	175.0	5:19	1.09	1.17	0.01
08:28:05	806.0	22.6	38.6	119	211	2024	610	613	1.07	1.08	36.4	36.9	792.5	279	176.0	5:22	1.09	1.41	0.01
08:30:52	807.0	30.6	37.3	119	208	2014	610	618	1.07	1.08	36.4	36.9	793.5	278	177.0	5:25	1.09	1.33	0.01

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT- mts	-BIT- hh:mm	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm	gpm	sg	sg	deg C	deg C	m	bbl	mts	hh:mm	ppg		%
08:32:57	808.0	29.5	38.4	118	231	2039	610	606	1.07	1.08	36.4	36.9	794.3	276	178.0	5:27	1.09	1.25	0.01
08:38:35	810.0	16.7	39.2	119	218	2028	610	621	1.07	1.08	36.4	36.9	796.5	277	180.0	5:33	1.09	1.43	0.01
08:40:16	811.0	38.9	36.9	119	229	2037	610	638	1.07	1.08	36.4	37.0	797.2	276	181.0	5:34	1.09	1.18	0.01
08:41:38	812.0	44.4	38.2	118	252	2008	610	635	1.07	1.08	36.4	37.0	797.7	277	182.0	5:36	1.09	1.13	0.01
08:43:01	813.0	40.7	38.4	118	265	2037	610	627	1.07	1.08	36.4	37.0	798.5	276	183.0	5:37	1.09	1.14	0.01
08:44:59	814.0	30.4	37.1	118	232	2033	611	677	1.07	1.08	36.5	37.1	799.1	276	184.0	5:39	1.09	1.21	0.01
09:01:50	815.0	38.5	35.1	118	241	2024	606	631	1.07	1.08	36.3	36.8	802.6	275	185.0	5:41	1.09	1.24	0.01
09:03:22	816.0	41.2	35.0	118	229	2053	606	679	1.07	1.08	36.3	36.6	803.2	274	186.0	5:43	1.09	1.12	0.01
09:05:59	817.0	22.5	34.1	118	217	2025	606	673	1.07	1.08	36.2	36.5	804.5	271	187.0	5:46	1.09	1.26	0.01
09:07:42	818.0	32.6	33.6	118	211	2047	606	655	1.07	1.08	36.2	36.5	805.1	272	188.0	5:47	1.09	1.15	0.01
09:09:05	819.0	41.5	36.7	118	245	2023	606	621	1.07	1.08	36.2	36.6	805.4	269	189.0	5:49	1.09	1.13	0.01
09:11:17	820.0	27.2	36.6	118	228	2028	606	646	1.07	1.08	36.2	36.8	806.1	268	190.0	5:51	1.09	1.25	0.01
09:13:00	821.0	35.4	35.4	118	220	2000	606	690	1.07	1.08	36.2	37.0	806.6	268	191.0	5:53	1.09	1.16	0.01
09:14:34	822.0	46.1	34.1	118	210	2029	606	669	1.07	1.08	36.2	37.1	808.0	269	192.0	5:54	1.09	1.12	0.01
09:16:25	823.0	27.4	37.3	118	215	2010	606	665	1.07	1.08	36.2	37.2	808.6	268	193.0	5:56	1.09	1.20	0.01
09:19:01	824.0	27.8	36.7	118	215	2012	606	619	1.07	1.08	36.2	37.1	809.2	270	194.0	5:59	1.09	1.30	0.01
09:20:42	825.0	42.2	36.7	118	221	2013	606	665	1.07	1.08	36.3	37.0	809.6	270	195.0	6:00	1.09	1.17	0.01
09:22:17	826.0	34.3	37.0	118	217	2012	606	656	1.07	1.08	36.3	37.0	810.2	271	196.0	6:02	1.09	1.16	0.0
09:24:30	827.0	22.3	37.2	118	207	2004	606	684	1.07	1.08	36.4	36.9	811.4	271	197.0	6:04	1.09	1.25	0.0
09:27:34	828.0	33.1	37.3	118	203	2012	606	678	1.07	1.08	36.4	36.9	813.4	273	198.0	6:07	1.09	1.33	0.01
09:29:28	829.0	27.6	36.9	118	206	1998	607	664	1.07	1.08	36.4	36.9	814.0	272	199.0	6:09	1.09	1.22	0.01
09:32:05	830.0	27.3	37.8	118	201	2026	607	634	1.07	1.08	36.4	36.9	814.1	271	200.0	6:12	1.09	1.30	0.01
09:36:22	831.0	17.7	39.2	119	194	2008	606	653	1.07	1.08	36.4	36.8	814.1	272	201.0	6:16	1.09	1.47	0.01
09:38:47	832.0	17.4	38.8	119	214	1961	606	601	1.07	1.08	36.4	36.8	814.7	276	202.0	6:18	1.09	1.31	0.01
09:41:02	833.0	24.4	37.7	119	207	1984	606	678	1.07	1.08	36.4	36.7	816.0	282	203.0	6:21	1.09	1.27	0.01
09:43:02	834.0	33.6	38.0	119	225	2014	606	634	1.07	1.08	36.4	36.7	816.8	288	204.0	6:23	1.09	1.24	0.01
09:45:00	835.0	29.1	38.7	119	221	1994	606	677	1.07	1.08	36.4	36.8	817.8	294	205.0	6:25	1.09	1.24	0.01
09:46:41	836.0	37.3	36.4	119	200	2013	606	668	1.07	1.08	36.4	36.8	818.8	298	206.0	6:26	1.09	1.17	0.01
09:48:37	837.0	27.8	34.0	119	191	1990	606	651	1.07	1.08	36.4	36.8	819.7	301	207.0	6:28	1.09	1.18	0.01
09:52:13	838.0	19.9	40.2	119	180	2000	606	350	1.07	1.08	36.4	36.8	821.6	306	208.0	6:32	1.09	1.43	0.01
09:54:50	839.0	20.6	38.5	119	197	1993	606	618	1.07	1.08	36.4	36.7	822.9	301	209.0	6:34	1.09	1.32	0.01
09:57:20	840.0	28.6	36.6	119	202	1998	605	646	1.07	1.08	36.3	36.7	823.8	302	210.0	6:37	1.09	1.29	0.01
10:00:05	841.0	18.2	30.8	119	173	1986	606	642	1.07	1.08	36.3	36.7	825.4	303	211.0	6:40	1.09	1.26	0.01
10:03:01	842.0	18.2	38.6	119	186	1994	606	685	1.07	1.08	36.3	36.7	826.9	308	212.0	6:43	1.09	1.36	0.01
10:06:18	843.0	25.7	37.4	119	200	1993	606	679	1.07	1.08	36.3	36.7	827.9	312	213.0	6:46	1.09	1.38	0.01
10:19:47	844.0	28.1	36.5	120	197	2621	684	712	1.07	1.08	36.2	35.8	831.2	350	214.0	6:49	1.09	1.33	0.01
10:23:14	845.0	20.7	38.0	120	184	2812	713	718	1.07	1.08	36.1	35.6	833.3	349	215.0	6:52	1.09	1.40	0.01
10:24:51	846.0	52.1	37.1	120	222	2808	716	706	1.07	1.08	36.0	35.8	833.8	348	216.0	6:54	1.09	1.13	0.01
10:27:48	847.0	18.6	38.2	120	190	2849	718	722	1.07	1.08	35.7	36.0	835.4	353	217.0	6:57	1.09	1.35	0.01
10:30:18	848.0	27.3	37.4	120	195	2838	719	729	1.07	1.08	35.3	36.0	837.0	357	218.0	6:59	1.09	1.35	0.01
10:32:34	849.0	40.3	34.8	120	207	2858	719	710	1.07	1.08	35.0	36.0	837.6	361	219.0	7:02	1.09	1.25	0.01
10:46:45	850.1	22.4	32.3	120	202	2705	693	714	1.07	1.08	34.6	35.8	839.1	390	220.1	7:04	1.09	1.18	0.01
10:48:42	851.0	31.3	22.0	120	180	2161	614	626	1.07	1.08	33.3	35.2	839.8	382	221.0	7:06	1.09	1.06	0.0
10:50:30	852.0	30.0	29.8	120	211	2188	615	648	1.07	1.08	33.2	34.3	840.6	380	222.0	7:08	1.09	1.13	0.
10:53:22	853.0	18.9	35.2	120	195	2187	617	670	1.07	1.08	33.1	34.1	841.5	384	223.0	7:10	1.09	1.32	0.01

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-		ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
10:56:12	854.0	41.4	37.1	120	203	2186	618	636	1.07	1.08	32.9	34.8	842.3	390	224.0	7:13	1.09	1.33	0.01
10:58:10	855.0	31.0	36.0	120	214	2209	619	651	1.07	1.08	32.8	35.1	842.9	395	225.0	7:15	1.09	1.20	0.01
11:00:59	856.0	28.1	38.1	120	203	2203	619	667	1.07	1.08	32.8	35.4	843.3	402	226.0	7:18	1.09	1.34	0.01
11:02:44	857.0	32.2	36.1	120	208	2206	620	685	1.07	1.08	32.8	35.5	843.3	405	227.0	7:20	1.09	1.18	0.01
11:05:55	858.0	25.4	37.8	120	209	2231	620	683	1.07	1.08	32.7	35.6	843.3	414	228.0	7:23	1.09	1.37	0.01
11:08:18	859.0	24.4	37.6	120	205	2202	620	689	1.07	1.08	32.8	35.7	843.8	420	229.0	7:25	1.09	1.29	0.01
11:09:45	860.0	38.5	36.1	120	210	2197	620	699	1.07	1.08	32.8	35.8	844.2	425	230.0	7:27	1.09	1.12	0.01
11:11:44	861.0	25.3	35.3	120	210	2246	621	633	1.07	1.08	32.8	35.8	844.6	430	231.0	7:29	1.09	1.22	0.01
11:15:26	862.0	29.1	36.3	120	190	2231	621	644	1.07	1.08	32.9	35.9	846.0	438	232.0	7:33	1.09	1.39	0.01
11:17:41	863.0	24.3	36.1	120	202	2215	621	665	1.07	1.08	33.0	35.9	846.7	444	233.0	7:35	1.09	1.25	0.01
11:20:01	864.0	27.7	36.5	120	212	2226	621	647	1.07	1.08	33.0	35.8	847.3	449	234.0	7:37	1.09	1.27	0.01
11:22:08	865.0	44.0	35.6	120	209	2248	622	664	1.07	1.08	33.1	35.8	847.9	454	235.0	7:39	1.09	1.24	0.01
11:24:11	866.0	25.3	30.7	120	194	2227	621	645	1.07	1.08	33.1	35.7	848.7	459	236.0	7:41	1.09	1.17	0.01
11:25:57	867.0	31.9	33.8	120	219	2250	622	669	1.07	1.08	33.1	35.6	849.7	474	237.0	7:43	1.09	1.17	0.01
11:27:22	868.0	43.6	37.2	120	234	2238	622	682	1.07	1.08	33.3	35.5	849.8	481	238.0	7:44	1.09	1.13	0.01
11:29:06	869.0	37.3	34.0	120	211	2253	622	678	1.07	1.08	33.3	35.5	850.1	489	239.0	7:46	1.09	1.16	0.01
11:30:56	870.0	32.7	27.8	120	181	2233	622	663	1.07	1.08	33.4	35.4	851.1	496	240.0	7:48	1.09	1.09	0.01
:34:08	871.0	20.3	35.4	120	197	2258	622	666	1.07	1.08	33.5	35.4	852.5	505	241.0	7:51	1.09	1.35	0.01
11:35:43	872.0	35.3	28.7	120	176	2227	622	659	1.07	1.08	33.5	35.4	853.0	508	242.0	7:53	1.09	1.08	0.01
11:56:02	873.0	29.3	36.3	117	228	2270	622	640	1.07	1.08	33.9	34.3	857.3	521	243.0	7:57	1.07	1.23	0.01
11:57:49	874.0	42.2	32.5	123	202	2241	620	675	1.07	1.08	33.9	34.5	858.3	518	244.0	7:58	1.07	1.18	0.01
11:59:58	875.0	20.2	34.8	123	212	2279	620	659	1.07	1.08	34.0	34.6	859.5	516	245.0	8:00	1.07	1.26	0.01
12:02:12	876.0	35.5	36.5	123	221	2277	619	691	1.07	1.08	34.0	34.6	860.8	515	246.0	8:03	1.07	1.28	0.01
12:03:58	877.0	25.1	34.3	123	205	2288	619	698	1.07	1.08	34.0	34.8	861.8	514	247.0	8:05	1.07	1.18	0.01
12:05:43	878.0	27.3	33.4	123	197	2231	618	700	1.07	1.08	34.0	34.9	862.7	514	248.0	8:06	1.07	1.18	0.01
12:09:04	879.0	18.6	34.7	123	197	2255	617	681	1.07	1.08	34.1	34.9	864.6	513	249.0	8:10	1.07	1.38	0.01
12:10:34	880.0	39.9	31.4	123	210	2212	611	636	1.07	1.08	34.2	34.8	865.5	514	250.0	8:11	1.08	1.11	0.01
12:12:31	881.0	27.0	35.8	123	220	2205	611	668	1.07	1.08	34.2	34.9	866.5	514	251.0	8:13	1.08	1.22	0.01
12:14:19	882.0	43.1	35.5	121	208	2213	614	682	1.07	1.08	34.3	34.9	867.5	513	252.0	8:15	1.08	1.19	0.01
12:16:42	883.0	49.0	34.5	120	208	2209	615	706	1.07	1.08	34.3	34.9	868.9	513	253.0	8:17	1.08	1.26	0.01
12:19:08	884.0	24.5	34.7	120	206	2200	615	690	1.07	1.08	34.3	34.9	870.2	512	254.0	8:20	1.08	1.19	0.01
12:20:34	885.0	29.1	34.6	120	214	2232	613	696	1.07	1.08	34.4	34.8	871.0	512	255.0	8:21	1.08	1.12	0.01
12:22:44	886.0	23.1	34.5	120	198	2212	612	672	1.07	1.08	34.4	34.8	872.2	511	256.0	8:23	1.08	1.23	0.01
12:25:36	887.0	30.3	34.9	120	196	2186	613	674	1.07	1.08	34.4	34.8	873.4	512	257.0	8:26	1.09	1.28	0.01
12:28:07	888.0	27.6	35.7	120	205	2229	611	690	1.07	1.08	34.5	34.9	874.8	511	258.0	8:29	1.09	1.29	0.01
12:30:16	889.0	30.1	35.8	120	211	2212	610	700	1.07	1.08	34.5	34.9	875.4	511	259.0	8:31	1.09	1.24	0.00
12:33:06	890.0	18.1	33.3	120	188	2219	611	681	1.07	1.08	34.5	34.9	877.0	509	260.0	8:34	1.09	1.30	0.00
12:36:13	891.1	35.7	34.5	120	206	2204	613	698	1.07	1.08	34.5	34.9	878.2	509	261.1	8:37	1.09	1.30	0.00
12:37:26	892.0	42.5	32.8	120	209	2216	613	658	1.07	1.08	34.6	34.9	878.6	508	262.0	8:38	1.09	1.05	0.00
12:38:44	893.0	45.2	33.2	120	215	2229	615	701	1.07	1.08	34.6	34.9	879.0	508	263.0	8:39	1.09	1.07	0.00
12:40:30	894.0	32.8	34.3	120	217	2201	616	668	1.07	1.08	34.6	34.9	880.0	508	264.0	8:41	1.09	1.17	0.00
12:42:02	895.0	45.1	35.3	120	235	2225	615	666	1.07	1.08	34.6	35.0	880.9	508	265.0	8:43	1.09	1.14	0.00
1:43:15	896.0	53.4	33.3	120	222	2211	614	645	1.07	1.08	34.7	35.0	881.8	507	266.0	8:44	1.09	1.05	0.00
12:45:26	897.0	20.1	36.4	120	208	2237	614	679	1.07	1.08	34.7	35.0	882.2	508	267.0	8:46	1.09	1.25	0.00
12:48:26	898.0	33.3	35.7	120	198	2225	613	673	1.07	1.08	34.7	35.0	883.5	505	268.0	8:49	1.09	1.33	0.00

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT	MUD DENSITY IN sg	MUD DENSITY OUT	MUD TEMP IN deg C	TEMP OUT	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
12:50:12	899.0	28.6	34.9	120	207	2206	614	690	1.07	1.08	34.7	35.1	884.4	503	269.0	8:51	1.09	1.18	0.00
12:51:52	900.0	41.5	35.4	120	210	2245	616	693	1.07	1.08	34.8	35.1	885.3	503	270.0	8:52	1.09	1.15	0.00
13:07:51	901.0	20.1	33.5	118	191	2240	618	698	1.07	1.08	34.8	35.1	888.3	519	271.0	8:55	1.09	1.26	0.00
13:10:28	902.1	46.1	34.1	118	208	2169	603	662	1.07	1.08	34.9	34.1	889.4	509	272.1	8:58	1.07	1.24	0.00
13:11:41	903.0	42.6	35.4	118	227	2176	600	672	1.07	1.08	34.9	34.1	889.9	505	273.0	8:59	1.07	1.10	0.00
13:13:23	904.0	52.2	35.1	119	222	2178	598	680	1.07	1.08	34.8	34.2	890.7	503	274.0	9:01	1.07	1.18	0.00
13:14:42	905.0	45.8	34.2	120	214	2185	599	689	1.07	1.08	34.8	34.5	891.2	501	275.0	9:02	1.07	1.11	0.00
13:16:06	906.0	40.7	32.4	120	195	2216	604	690	1.07	1.08	34.8	34.8	891.8	500	276.0	9:03	1.07	1.10	0.00
13:17:52	907.0	35.3	38.4	120	225	2222	605	698	1.07	1.08	34.7	34.8	892.5	498	277.0	9:05	1.07	1.16	0.00
13:19:17	908.0	46.0	31.3	120	198	2197	606	690	1.07	1.08	34.7	35.0	893.1	497	278.0	9:06	1.07	1.15	0.00
13:20:37	909.0	38.6	36.2	120	228	2237	604	669	1.07	1.08	34.7	35.1	893.7	496	279.0	9:08	1.07	1.13	0.00
13:21:39	910.0	61.0	35.7	120	229	2238	604	665	1.07	1.08	34.6	35.1	894.1	496	280.0	9:09	1.07	1.04	0.00
13:23:23	911.1	36.7	32.6	120	210	2218	604	634	1.07	1.08	34.6	35.1	894.8	495	281.1	9:11	1.07	1.12	0.00
13:24:45	912.0	40.4	36.7	120	232	2247	604	677	1.07	1.08	34.6	35.1	895.4	495	282.0	9:12	1.07	1.13	0.00
13:26:00	913.0	63.3	36.3	120	220	2215	604	695	1.07	1.08	34.7	35.1	896.0	495	283.0	9:13	1.08	1.09	0.00
13:27:20	914.0	44.3	36.2	120	234	2240	604	665	1.07	1.08	34.7	35.1	896.6	494	284.0	9:15	1.08	1.12	0.00
13:28:39	915.0	45.8	35.3	120	222	2256	604	682	1.07	1.08	34.7	35.2	897.1	494	285.0	9:16	1.08	1.11	0.00
13:29:50	916.0	50.7	37.4	120	236	2230	605	667	1.07	1.08	34.7	35.2	897.6	494	286.0	9:17	1.08	1.09	0.0
13:31:22	917.0	41.9	37.4	120	232	2250	604	664	1.07	1.08	34.7	35.2	898.3	493	287.0	9:19	1.08	1.17	0.00
13:32:34	918.0	44.1	39.1	120	246	2215	604	666	1.07	1.08	34.7	35.1	898.8	493	288.0	9:20	1.08	1.10	0.00
13:34:03	919.0	42.0	33.0	120	212	2243	604	648	1.07	1.08	34.7	35.1	899.4	493	289.0	9:21	1.08	1.11	0.00
13:35:03	920.0	51.8	34.4	120	233	2242	604	659	1.07	1.08	34.7	35.1	899.9	492	290.0	9:22	1.08	1.02	0.00
13:36:11	921.0	50.1	36.1	120	232	2209	604	659	1.07	1.08	34.7	35.1	900.4	492	291.0	9:23	1.08	1.06	0.00
13:37:40	922.1	45.2	35.5	120	226	2246	604	616	1.07	1.08	34.8	35.1	901.0	492	292.1	9:25	1.08	1.12	0.00
13:39:03	923.0	44.5	36.8	120	235	2242	603	638	1.07	1.08	34.8	35.1	901.4	491	293.0	9:26	1.08	1.12	0.00
13:40:28	924.0	38.2	34.1	120	212	2212	604	684	1.07	1.08	34.8	35.1	902.2	490	294.0	9:28	1.08	1.10	0.00
13:41:47	925.0	51.6	35.1	120	233	2241	606	662	1.07	1.08	34.8	35.1	903.1	490	295.0	9:29	1.09	1.07	0.00
13:43:06	926.0	41.3	36.5	120	234	2227	605	624	1.07	1.08	34.8	35.1	903.9	489	296.0	9:30	1.09	1.11	0.00
13:44:23	927.0	47.9	38.9	119	257	2267	604	672	1.07	1.08	34.8	35.2	904.7	489	297.0	9:32	1.09	1.12	0.00
13:46:12	928.0	33.1	36.5	120	236	2257	606	648	1.07	1.08	34.8	35.2	905.9	489	298.0	9:33	1.09	1.20	0.00
13:47:53	929.1	39.6	34.4	120	223	2229	606	667	1.07	1.08	34.8	35.2	906.9	489	299.1	9:35	1.09	1.15	0.00
14:04:00	930.0	27.5	30.9	120	185	2234	604	672	1.07	1.08	34.9	35.1	913.2	487	300.0	9:37	1.09	1.21	0.00
14:05:34	931.0	39.9	37.5	119	239	2243	603	673	1.07	1.08	34.9	34.1	914.7	484	301.0	9:39	1.09	1.16	0.00
14:06:54	932.0	41.6	36.5	119	238	2237	604	689	1.07	1.08	34.9	34.0	915.9	481	302.0	9:40	1.09	1.11	0.00
14:07:58	933.0	48.3	37.9	119	242	2218	604	658	1.07	1.08	34.8	34.1	916.1	479	303.0	9:41	1.09	1.05	0.00
14:09:17	934.0	42.4	35.4	119	240	2248	603	579	1.07	1.08	34.8	34.3	916.8	479	304.0	9:43	1.09	1.10	0.00
14:10:35	935.0	42.9	36.4	119	241	2256	603	650	1.07	1.08	34.8	34.4	917.8	478	305.0	9:44	1.09	1.10	0.00
14:12:12	936.0	41.7	35.6	120	229	2240	603	651	1.07	1.08	34.8	34.5	918.7	478	306.0	9:46	1.09	1.15	0.00
14:13:43	937.0	37.8	36.9	120	236	2269	603	612	1.07	1.08	34.7	34.6	920.0	476	307.0	9:47	1.09	1.15	0.00
14:15:07	938.0	41.0	37.4	120	247	2228	603	625	1.07	1.08	34.7	34.7	921.0	476	308.0	9:49	1.09	1.14	0.00
14:16:23	939.0	46.6	39.1	120	245	2252	602	650	1.07	1.08	34.7	34.8	921.9	475	309.0	9:50	1.09	1.15	0.00
14:17:36	940.0	55.9	36.9	120	234	2248	602	689	1.07	1.08	34.8	34.9	922.6	476	310.0	9:51	1.09	1.08	0.00
14:18:55	941.0	41.4	36.4	120	224	2227	602	657	1.07	1.08	34.8	34.9	923.6	476	311.0	9:52	1.09	1.11	0.0
14:20:10	942.0	55.2	34.0	120	230	2257	602	652	1.07	1.08	34.9	34.9	924.3	475	312.0	9:54	1.09	1.07	0.0
14:21:48	943.0	38.2	34.0	120	225	2257	603	686	1.07	1.08	34.9	35.0	925.6	474	313.0	9:55	1.09	1.14	0.00

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-	-BIT-	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
14:23:19	944.0	36.5	36.9	120	233	2228	602	665	1.07	1.08	34.9	35.0	926.6	475	314.0	9:57	1.09	1.15	0.00
14:24:50	945.0	46.0	36.4	120	231	2256	602	682	1.07	1.08	35.0	35.0	927.5	472	315.0	9:58	1.09	1.15	0.00
14:26:02	946.0	47.0	39.3	120	233	2225	603	695	1.07	1.08	35.0	35.0	928.1	473	316.0	9:60	1.09	1.10	0.00
14:27:27	947.0	45.9	30.8	120	210	2246	603	681	1.07	1.08	35.0	35.0	928.9	471	317.0	10:01	1.09	1.07	0.00
14:29:04	948.0	35.9	39.0	120	244	2243	604	642	1.07	1.08	35.0	35.0	929.6	471	318.0	10:03	1.09	1.19	0.00
14:30:37	949.0	35.4	36.4	120	237	2274	605	670	1.07	1.08	35.1	35.1	929.8	471	319.0	10:04	1.09	1.15	0.00
14:31:54	950.1	42.6	37.3	120	236	2268	603	695	1.07	1.08	35.1	35.1	929.8	470	320.1	10:05	1.09	1.09	0.00
14:33:11	951.0	41.2	36.9	120	233	2234	604	673	1.07	1.08	35.1	35.1	929.8	471	321.0	10:07	1.09	1.11	0.00
14:34:28	952.0	42.2	38.1	120	227	2265	604	682	1.07	1.08	35.1	35.1	929.8	470	322.0	10:08	1.09	1.12	0.00
14:36:41	953.0	23.0	39.8	120	236	2259	603	688	1.07	1.08	35.1	35.1	929.8	470	323.0	10:10	1.09	1.29	0.00
14:38:04	954.0	41.5	36.7	120	239	2275	603	698	1.07	1.08	35.0	35.1	930.3	468	324.0	10:12	1.09	1.11	0.00
14:39:29	955.1	47.8	36.4	120	242	2234	603	670	1.07	1.08	35.0	35.1	931.2	469	325.1	10:13	1.09	1.10	0.00
14:41:09	956.0	46.2	38.0	120	239	2243	602	655	1.07	1.08	35.0	35.1	932.4	467	326.0	10:15	1.09	1.20	1.49
14:43:46	957.0	19.4	37.8	120	220	2257	602	633	1.07	1.08	35.0	35.1	934.5	467	327.0	10:17	1.09	1.30	1.44
14:44:59	958.0	77.6	33.4	120	219	2270	602	603	1.07	1.08	35.0	35.1	935.3	466	328.0	10:18	1.09	1.05	0.56
14:57:24	959.0	45.0	32.1	120	191	2269	602	629	1.07	1.08	35.0	35.1	938.8	487	329.0	10:20	1.08	1.14	0.01
4:58:51	960.1	51.8	32.2	120	216	2263	603	660	1.07	1.08	35.0	35.0	939.9	478	330.1	10:22	1.08	1.10	0.01
5:00:21	961.1	42.9	35.0	120	252	2245	598	569	1.07	1.08	35.0	34.9	941.1	472	331.1	10:23	1.08	1.13	0.01
15:01:47	962.0	41.4	38.1	120	280	2243	599	625	1.07	1.08	35.0	34.7	942.0	468	332.0	10:25	1.08	1.14	0.01
15:03:26	963.0	36.0	35.1	120	260	2267	599	661	1.07	1.08	34.9	34.5	943.0	466	333.0	10:26	1.08	1.13	0.01
15:04:38	964.0	45.7	34.6	120	257	2272	599	663	1.07	1.08	34.9	34.3	943.8	463	334.0	10:28	1.08	1.07	0.01
15:05:49	965.0	53.9	33.6	120	257	2225	599	666	1.07	1.08	34.8	34.2	944.4	464	335.0	10:29	1.08	1.04	0.00
15:07:07	966.0	46.0	32.4	120	243	2270	599	679	1.07	1.08	34.8	34.2	945.3	463	336.0	10:30	1.08	1.06	0.00
15:08:36	967.0	44.3	33.8	120	231	2298	600	667	1.07	1.08	34.7	34.3	946.4	462	337.0	10:32	1.08	1.12	0.00
15:10:14	968.0	35.7	31.1	120	215	2274	600	667	1.07	1.08	34.7	34.4	947.8	462	338.0	10:33	1.08	1.10	0.00
15:11:32	969.0	45.9	33.4	120	225	2300	600	671	1.07	1.08	34.6	34.5	949.0	462	339.0	10:34	1.08	1.08	0.00
15:13:01	970.0	40.0	30.8	120	234	2269	601	576	1.07	1.08	34.6	34.6	949.6	461	340.0	10:36	1.09	1.10	0.00
15:14:26	971.0	32.4	32.3	120	228	2298	602	656	1.07	1.08	34.6	34.7	950.2	461	341.0	10:37	1.08	1.10	0.00
15:16:02	972.1	40.8	37.7	120	226	2293	600	662	1.07	1.08	34.5	34.7	951.3	460	342.1	10:39	1.08	1.13	0.00
15:17:24	973.0	40.5	36.0	120	233	2264	600	544	1.07	1.08	34.6	34.8	952.2	461	343.0	10:40	1.08	1.14	0.00
15:18:59	974.0	40.5	37.9	120	234	2275	599	652	1.07	1.08	34.6	34.8	952.8	457	344.0	10:42	1.08	1.16	0.00
15:20:22	975.0	43.0	37.4	120	218	2259	599	689	1.07	1.08	34.6	34.9	953.7	457	345.0	10:43	1.08	1.14	0.00
15:21:52	976.1	46.3	35.7	120	209	2285	599	632	1.07	1.08	34.6	34.9	954.5	457	346.1	10:45	1.08	1.11	0.00
15:23:16	977.0	44.3	33.7	120	193	2255	600	676	1.07	1.08	34.6	34.9	955.3	456	347.0	10:46	1.08	1.10	0.00
15:24:53	978.0	40.2	33.2	120	202	2300	600	686	1.07	1.08	34.6	34.9	956.2	456	348.0	10:48	1.08	1.13	0.00
15:26:20	979.0	49.0	37.0	120	214	2297	599	678	1.07	1.08	34.6	34.9	956.8	455	349.0	10:49	1.08	1.16	0.00
15:27:39	980.0	47.5	39.9	120	227	2237	599	682	1.07	1.08	34.6	35.0	957.3	456	350.0	10:51	1.08	1.11	0.00
15:29:36	981.0	31.3	30.7	120	186	2281	599	665	1.07	1.08	34.7	35.0	958.5	455	351.0	10:53	1.06	1.21	0.00
15:31:34	982.0	29.9	33.5	120	203	2264	600	649	1.07	1.08	34.6	35.0	959.9	455	352.0	10:55	1.06	1.22	0.01
15:33:00	983.0	39.3	36.6	120	212	2302	600	695	1.07	1.08	34.7	35.0	960.9	454	353.0	10:56	1.07	1.15	0.01
15:34:31	984.0	40.6	38.6	120	224	2269	600	676	1.07	1.08	34.7	35.0	962.0	453	354.0	10:57	1.07	1.19	0.01
15:36:10	985.0	38.2	36.5	120	217	2305	600	630	1.07	1.08	34.7	35.0	963.1	453	355.0	10:59	1.07	1.20	0.00
5:37:42	986.0	36.2	36.9	120	212	2277	601	678	1.07	1.08	34.7	35.1	964.2	453	356.0	11:01	1.07	1.17	0.00
15:39:06	987.0	41.1	38.3	120	222	2303	600	690	1.07	1.08	34.7	35.1	965.2	451	357.0	11:02	1.07	1.15	0.00
15:40:32	988.0	42.7	36.5	119	188	2323	601	695	1.07	1.08	34.8	35.1	966.2	451	358.0	11:03	1.07	1.16	0.00

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT gpm	MUD DENSITY IN sg	MUD DENSITY OUT sg	MUD TEMP IN deg C	MUD TEMP OUT deg C	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
15:55:14	989.0	10.5	36.0	119	191	2317	591	583	1.07	1.08	34.8	35.1	971.4	453	359.0	11:04	1.06	1.16	0.00
15:56:23	990.1	54.1	36.9	119	231	2256	594	656	1.07	1.08	34.8	34.9	972.1	451	360.1	11:05	1.06	1.02	0.00
15:57:39	991.0	47.7	30.9	119	201	2271	595	680	1.07	1.08	34.8	34.8	972.8	449	361.0	11:06	1.06	1.06	0.00
15:59:14	992.1	34.5	35.0	119	227	2235	595	685	1.07	1.08	34.8	34.8	973.7	447	362.1	11:08	1.07	1.16	0.00
16:00:43	993.0	37.7	37.7	119	245	2264	597	661	1.07	1.08	34.7	34.7	974.7	446	363.0	11:09	1.07	1.17	0.00
16:02:48	994.0	27.5	36.7	119	229	2237	599	666	1.07	1.08	34.7	34.6	975.9	445	364.0	11:11	1.07	1.26	0.00
16:04:07	995.0	46.7	35.6	119	237	2256	597	683	1.07	1.08	34.6	34.6	976.6	445	365.0	11:13	1.07	1.12	0.00
16:05:31	996.0	47.9	33.8	120	234	2232	596	658	1.07	1.08	34.6	34.6	977.4	444	366.0	11:14	1.07	1.08	0.00
16:06:33	997.0	57.8	35.0	119	253	2282	596	673	1.07	1.08	34.6	34.7	978.1	443	367.0	11:15	1.07	1.05	0.00
16:07:48	998.0	47.0	36.5	119	260	2256	596	667	1.07	1.08	34.6	34.7	978.8	442	368.0	11:16	1.07	1.10	0.00
16:08:58	999.1	75.7	37.6	119	253	2239	597	645	1.07	1.08	34.6	34.8	979.4	442	369.1	11:17	1.07	1.08	0.00
16:10:09	1000.1	71.7	35.7	119	242	2271	596	620	1.07	1.08	34.6	34.9	980.2	442	370.1	11:19	1.07	1.10	0.00
16:11:27	1001.0	46.6	38.0	119	241	2286	596	651	1.07	1.08	34.6	34.9	980.9	439	371.0	11:20	1.07	1.12	0.00
16:12:58	1002.1	43.6	35.1	120	229	2257	596	681	1.07	1.08	34.6	35.0	981.8	440	372.1	11:21	1.07	1.12	0.00
16:14:11	1003.0	43.0	37.1	119	253	2288	596	654	1.07	1.08	34.6	35.0	982.5	441	373.0	11:23	1.07	1.11	0.00
16:15:47	1004.0	38.7	33.3	120	225	2286	595	658	1.07	1.08	34.6	35.0	983.5	439	374.0	11:24	1.08	1.14	0.00
16:17:09	1005.0	43.0	35.5	119	228	2261	595	662	1.07	1.08	34.6	35.0	984.3	439	375.0	11:26	1.08	1.12	0.00
16:18:22	1006.0	58.7	35.9	120	235	2296	595	696	1.07	1.08	34.6	35.0	985.0	438	376.0	11:27	1.08	1.08	0.0
16:19:42	1007.0	50.9	36.3	120	236	2264	596	679	1.07	1.08	34.7	35.0	985.8	437	377.0	11:28	1.08	1.12	0.00
16:21:07	1008.0	44.5	34.9	120	219	2277	595	680	1.07	1.08	34.7	35.0	986.6	437	378.0	11:30	1.08	1.11	0.00
16:22:34	1009.0	30.9	36.7	119	228	2297	595	660	1.07	1.08	34.7	35.0	987.4	436	379.0	11:31	1.08	1.15	0.00
16:24:17	1010.0	46.4	35.2	120	227	2285	595	678	1.07	1.08	34.7	35.0	988.2	437	380.0	11:33	1.08	1.14	0.00
16:26:16	1011.0	25.6	37.8	119	244	2284	595	640	1.07	1.08	34.7	35.0	988.2	436	381.0	11:35	1.08	1.24	0.00
16:27:48	1012.0	43.3	36.6	119	233	2278	595	679	1.07	1.08	34.7	35.0	988.2	436	382.0	11:36	1.08	1.15	0.00
16:29:10	1013.0	43.8	36.8	120	234	2287	595	684	1.07	1.08	34.7	35.0	988.2	435	383.0	11:38	1.08	1.11	0.00
16:30:35	1014.0	47.2	37.2	119	252	2252	595	682	1.07	1.08	34.7	35.0	988.5	435	384.0	11:39	1.08	1.14	0.00
16:31:54	1015.0	48.3	36.4	119	242	2288	595	671	1.07	1.08	34.7	35.0	989.9	436	385.0	11:40	1.08	1.10	0.00
16:33:25	1016.0	43.9	36.6	119	231	2294	595	675	1.07	1.08	34.7	35.0	990.9	435	386.0	11:42	1.08	1.12	0.00
16:34:52	1017.0	41.1	36.2	119	226	2276	596	652	1.07	1.08	34.7	35.0	991.9	434	387.0	11:43	1.08	1.13	0.00
16:48:06	1018.2	32.1	37.0	116	213	2196	589	657	1.07	1.08	35.0	35.0	995.6	467	388.2	11:47	1.06	1.13	0.00
16:49:09	1019.0	57.2	33.0	116	209	2218	586	482	1.07	1.08	35.2	34.9	996.3	456	389.0	11:48	1.06	1.13	0.00
16:51:07	1020.0	31.8	35.4	116	217	2250	587	639	1.07	1.08	35.2	34.9	997.5	441	390.0	11:50	1.06	1.22	0.00
16:52:24	1021.0	53.5	39.1	115	258	2342	602	616	1.07	1.08	35.1	34.9	998.3	436	391.0	11:51	1.06	1.14	0.00
16:53:53	1022.0	45.7	38.4	115	256	2354	613	624	1.07	1.08	35.1	34.8	999.2	432	392.0	11:53	1.06	1.17	0.00
16:55:40	1023.0	37.8	32.7	115	217	2343	607	677	1.07	1.08	35.1	34.8	1000.4	429	393.0	11:54	1.07	1.16	0.00
16:57:03	1024.0	38.4	39.1	117	251	2354	603	670	1.07	1.08	35.0	34.7	1001.2	427	394.0	11:56	1.07	1.15	0.00
16:58:24	1025.1	45.6	36.8	117	234	2330	606	691	1.07	1.08	34.9	34.6	1002.1	426	395.1	11:57	1.07	1.12	0.00
16:59:51	1026.0	37.6	38.1	117	241	2369	604	644	1.07	1.08	34.8	34.6	1003.0	426	396.0	11:58	1.07	1.17	0.00
17:01:21	1027.0	45.7	35.8	119	236	2346	603	660	1.07	1.08	34.7	34.5	1003.9	425	397.0	12:00	1.07	1.16	0.00
17:02:58	1028.1	42.3	34.2	119	225	2363	603	676	1.07	1.08	34.7	34.4	1004.9	424	398.1	12:02	1.07	1.14	0.00
17:04:13	1029.0	65.6	34.3	119	239	2366	604	690	1.07	1.08	34.6	34.3	1005.7	424	399.0	12:03	1.07	1.09	0.00
17:05:34	1030.0	48.9	36.0	119	228	2360	604	690	1.07	1.08	34.6	34.3	1006.5	423	400.0	12:04	1.07	1.12	0.00
17:07:00	1031.0	40.1	36.5	119	244	2387	604	686	1.07	1.08	34.6	34.3	1007.5	424	401.0	12:06	1.07	1.10	0.0
17:08:19	1032.0	49.5	32.4	119	224	2366	604	688	1.07	1.08	34.6	34.3	1008.3	423	402.0	12:07	1.07	1.09	0.
17:09:42	1033.0	40.5	38.5	119	252	2326	604	687	1.07	1.08	34.6	34.3	1009.2	421	403.0	12:08	1.07	1.15	0.00

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-		ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
17:11:14	1034.0	45.0	33.3	119	218	2377	603	696	1.07	1.08	34.6	34.3	1010.1	421	404.0	12:10	1.07	1.11	0.00
17:12:22	1035.0	57.2	35.8	119	245	2333	604	677	1.07	1.08	34.6	34.3	1010.9	420	405.0	12:11	1.07	1.07	0.00
17:14:04	1036.0	42.7	33.2	119	228	2370	603	688	1.07	1.08	34.6	34.3	1011.9	421	406.0	12:13	1.08	1.16	0.00
17:15:47	1037.0	31.8	37.2	119	233	2349	603	697	1.07	1.08	34.6	34.3	1013.0	420	407.0	12:14	1.08	1.16	0.00
17:17:19	1038.0	38.4	37.8	119	245	2369	603	711	1.07	1.08	34.6	34.4	1014.0	420	408.0	12:16	1.08	1.17	0.00
17:18:40	1039.0	40.8	35.4	119	235	2361	603	675	1.07	1.08	34.6	34.4	1014.9	419	409.0	12:17	1.08	1.11	0.00
17:20:18	1040.0	39.4	35.6	119	239	2360	603	683	1.07	1.08	34.6	34.4	1015.9	419	410.0	12:19	1.08	1.16	0.00
17:21:58	1041.0	32.2	37.1	119	244	2368	604	684	1.07	1.08	34.6	34.4	1016.9	418	411.0	12:21	1.08	1.18	0.00
17:23:25	1042.0	38.7	36.5	119	237	2358	603	662	1.07	1.08	34.7	34.5	1017.4	418	412.0	12:22	1.08	1.14	0.00
17:24:54	1043.0	44.7	36.2	119	242	2432	607	684	1.07	1.08	34.7	34.5	1018.7	418	413.0	12:24	1.08	1.14	0.00
17:26:26	1044.0	43.4	34.5	119	220	2423	612	687	1.07	1.08	34.7	34.5	1019.9	419	414.0	12:25	1.08	1.13	0.00
17:28:06	1045.0	31.8	38.9	119	239	2424	611	687	1.07	1.08	34.7	34.5	1020.8	417	415.0	12:27	1.08	1.19	0.00
17:29:48	1046.0	35.4	33.8	119	225	2394	611	704	1.07	1.08	34.7	34.5	1021.9	416	416.0	12:28	1.08	1.15	0.00
17:49:29	1047.0	37.9	33.9	120	236	2918	694	711	1.07	1.08	34.9	34.7	1029.7	409	417.0	12:35	1.06	1.01	0.00
17:51:07	1048.0	34.6	33.3	122	228	2958	694	719	1.07	1.08	34.9	34.7	1030.6	405	418.0	12:37	1.06	1.14	0.00
17:52:22	1049.0	54.8	33.2	122	232	2973	695	715	1.07	1.08	34.8	34.6	1031.3	403	419.0	12:38	1.06	1.06	0.00
17:53:44	1050.0	48.4	34.5	122	219	2937	695	726	1.07	1.08	34.8	34.6	1032.0	402	420.0	12:40	1.07	1.11	0.00
7:55:35	1051.0	28.8	33.3	122	220	2969	696	724	1.07	1.08	34.7	34.6	1033.1	401	421.0	12:41	1.07	1.19	0.00
17:57:15	1052.0	50.6	30.3	122	218	2940	696	699	1.07	1.08	34.7	34.6	1034.0	400	422.0	12:43	1.07	1.11	0.00
17:58:53	1053.1	45.4	32.2	122	214	2985	697	718	1.07	1.08	34.7	34.6	1034.9	399	423.1	12:44	1.07	1.11	0.00
18:00:28	1054.0	32.7	28.8	122	213	2960	698	714	1.07	1.08	34.7	34.5	1035.8	399	424.0	12:45	1.07	0.99	0.00
18:02:03	1055.0	37.1	33.0	122	217	2998	698	724	1.07	1.08	34.7	34.5	1036.6	397	425.0	12:47	1.07	1.14	0.00
18:04:11	1056.0	38.7	33.3	122	225	2959	699	724	1.07	1.08	34.8	34.5	1037.8	397	426.0	12:49	1.07	1.22	0.00
18:05:13	1057.0	60.5	31.9	122	221	2989	699	724	1.07	1.08	34.8	34.6	1038.4	397	427.0	12:50	1.07	1.02	0.00
18:06:35	1058.1	59.8	32.3	122	228	3006	699	714	1.07	1.08	34.8	34.6	1039.2	396	428.1	12:52	1.07	1.08	0.00
18:08:02	1059.0	41.0	35.7	122	225	2963	700	723	1.07	1.08	34.9	34.6	1040.0	395	429.0	12:53	1.07	1.13	0.00
18:09:24	1060.0	44.8	32.5	122	218	2997	699	721	1.07	1.08	35.0	34.6	1040.7	396	430.0	12:54	1.08	1.09	0.00
18:11:21	1061.0	26.7	35.2	122	230	2989	699	702	1.07	1.08	35.0	34.6	1041.8	395	431.0	12:56	1.08	1.20	0.00
18:13:24	1062.0	30.9	34.4	122	220	2994	699	722	1.07	1.08	35.1	34.6	1042.9	394	432.0	12:58	1.08	1.22	0.00
18:16:07	1063.0	20.9	35.2	122	214	2978	700	728	1.07	1.08	35.2	34.7	1044.5	394	433.0	13:01	1.08	1.31	0.00
18:17:43	1064.0	35.2	33.8	122	229	2986	700	723	1.07	1.08	35.2	34.9	1045.4	392	434.0	13:03	1.08	1.15	0.00
18:20:08	1065.0	26.2	35.4	122	221	3005	701	705	1.07	1.08	35.3	36.0	1046.6	392	435.0	13:05	1.08	1.28	0.00
18:22:36	1066.0	22.5	35.2	122	219	2975	701	713	1.07	1.08	35.4	36.3	1048.1	389	436.0	13:08	1.08	1.28	0.00
18:24:24	1067.0	32.4	34.3	122	225	3011	701	720	1.07	1.08	35.5	36.4	1049.3	388	437.0	13:09	1.08	1.17	0.00
18:25:50	1068.0	40.5	33.7	122	222	2994	701	724	1.07	1.08	35.5	36.5	1050.3	388	438.0	13:11	1.08	1.11	0.00
18:27:35	1069.0	45.0	33.5	122	221	3032	701	725	1.07	1.08	35.6	36.5	1051.1	386	439.0	13:13	1.08	1.18	0.00
18:29:00	1070.0	38.7	33.9	122	229	3000	701	725	1.07	1.08	35.6	36.5	1051.8	386	440.0	13:14	1.08	1.10	0.00
18:31:01	1071.0	26.0	34.7	122	224	3024	702	713	1.07	1.08	35.7	36.5	1053.1	385	441.0	13:16	1.08	1.15	0.00
18:32:26	1072.0	41.7	31.9	122	230	2992	703	672	1.07	1.08	35.7	36.6	1054.0	385	442.0	13:17	1.08	1.11	0.00
18:35:21	1073.0	18.1	34.3	122	214	3030	701	713	1.07	1.08	35.8	36.6	1055.5	385	443.0	13:20	1.08	1.32	0.00
18:36:54	1074.0	50.9	32.4	122	218	3018	701	715	1.07	1.08	35.9	36.6	1056.4	386	444.0	13:22	1.08	1.13	0.00
18:40:23	1075.0	24.7	34.1	122	217	3018	702	718	1.07	1.08	35.9	36.6	1058.2	386	445.0	13:25	1.06	1.34	0.00
8:56:09	1076.0	21.3	33.7	121	201	2972	706	705	1.07	1.08	36.0	36.7	1063.0	395	446.0	13:30	1.07	1.40	0.00
18:58:22	1077.0	35.5	39.4	119	218	3091	712	720	1.07	1.08	36.0	36.7	1064.2	390	447.0	13:32	1.07	1.30	0.00
19:01:15	1078.1	17.0	41.8	119	218	3032	711	724	1.07	1.08	35.9	36.5	1065.6	387	448.1	13:35	1.07	1.41	0.00

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT gpm	MUD DENSITY IN sg	MUD DENSITY OUT sg	MUD TEMP IN deg C	MUD TEMP OUT deg C	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
19:03:27	1079.0	39.1	40.2	119	232	2999	704	705	1.07	1.08	35.9	36.3	1066.8	388	449.0	13:37	1.07	1.31	0.00
19:04:52	1080.0	36.9	38.9	119	226	3025	701	702	1.07	1.08	35.9	36.3	1067.5	388	450.0	13:39	1.07	1.16	0.00
19:06:32	1081.0	31.7	41.3	119	228	3002	701	721	1.07	1.08	35.9	36.3	1068.3	388	451.0	13:40	1.07	1.23	0.00
19:08:57	1082.0	25.7	40.9	119	236	3037	703	711	1.07	1.08	35.9	36.4	1069.5	388	452.0	13:43	1.08	1.33	0.00
19:10:34	1083.0	34.0	38.7	119	233	3014	702	713	1.07	1.08	35.9	36.5	1070.4	388	453.0	13:44	1.08	1.19	0.00
19:12:03	1084.0	40.2	40.0	119	244	3041	702	707	1.07	1.08	35.9	36.6	1071.1	390	454.0	13:46	1.08	1.19	0.00
19:14:30	1085.0	24.0	40.7	119	209	3012	702	716	1.07	1.08	35.9	36.8	1072.4	392	455.0	13:48	1.08	1.33	0.00
19:18:18	1086.0	17.9	42.7	120	195	3004	702	724	1.07	1.08	36.0	37.0	1074.3	393	456.0	13:52	1.08	1.48	0.00
19:19:43	1087.0	37.4	38.1	120	200	3031	702	723	1.07	1.08	36.0	37.0	1075.0	394	457.0	13:54	1.08	1.14	0.00
19:21:59	1088.0	28.4	39.2	120	192	3016	702	704	1.07	1.08	36.0	37.1	1075.5	395	458.0	13:56	1.08	1.29	0.00
19:26:01	1089.0	21.8	39.8	120	198	3022	701	719	1.07	1.08	36.2	37.2	1075.5	398	459.0	13:60	1.08	1.47	0.00
19:27:22	1090.0	38.6	39.4	119	218	3011	701	722	1.07	1.08	36.2	37.3	1075.6	400	460.0	14:01	1.08	1.14	0.00
19:30:20	1091.0	18.6	41.0	119	214	3029	701	731	1.07	1.08	36.3	37.3	1076.8	401	461.0	14:04	1.08	1.25	0.00
19:32:42	1092.0	24.2	38.8	120	202	3009	701	721	1.07	1.08	36.4	37.4	1077.7	403	462.0	14:07	1.08	1.30	0.00
19:35:26	1093.0	38.7	36.8	120	193	3037	700	724	1.07	1.08	36.5	37.5	1078.4	403	463.0	14:09	1.08	1.29	0.00
19:37:46	1094.0	26.7	39.3	119	210	3051	703	731	1.07	1.08	36.6	37.5	1079.9	406	464.0	14:12	1.08	1.30	0.00
19:41:29	1095.0	24.1	40.1	120	192	3048	705	723	1.07	1.08	36.7	37.6	1081.7	407	465.0	14:15	1.08	1.44	0.00
19:44:44	1096.0	19.3	40.1	120	195	3035	705	728	1.07	1.08	36.8	37.7	1084.0	408	466.0	14:19	1.08	1.41	0.0
19:46:57	1097.0	21.4	41.1	120	209	3069	704	720	1.07	1.08	36.9	37.8	1084.4	410	467.0	14:21	1.08	1.30	0.0
19:49:23	1098.0	27.5	41.0	119	215	3036	703	715	1.07	1.08	36.9	37.9	1085.2	413	468.0	14:23	1.08	1.33	0.00
19:52:06	1099.0	19.5	40.4	120	216	3034	701	718	1.07	1.08	36.9	38.0	1086.1	415	469.0	14:26	1.08	1.36	0.00
19:55:25	1100.0	15.9	40.3	120	212	3041	701	715	1.07	1.08	36.9	38.1	1087.8	417	470.0	14:29	1.08	1.41	0.00
19:57:34	1101.0	33.8	39.9	120	217	3038	702	718	1.07	1.08	36.8	38.2	1088.2	419	471.0	14:31	1.08	1.28	0.00
20:00:57	1102.0	18.3	38.4	120	205	3038	702	727	1.07	1.08	36.8	38.3	1089.4	423	472.0	14:35	1.08	1.40	0.00
20:03:36	1103.0	19.6	38.4	120	198	3040	703	712	1.07	1.08	36.9	38.3	1090.6	427	473.0	14:38	1.08	1.33	0.00
20:06:07	1104.0	44.3	40.3	120	218	3053	702	716	1.07	1.08	36.9	38.5	1091.6	428	474.0	14:40	1.08	1.33	0.00
20:21:29	1105.0	38.6	34.6	117	211	2995	698	726	1.07	1.08	37.0	38.3	1094.4	454	475.0	14:42	1.08	1.23	0.00
20:25:07	1106.0	18.7	41.0	118	221	3019	697	731	1.07	1.08	36.9	38.0	1095.5	455	476.0	14:46	1.08	1.45	0.00
20:27:34	1107.0	24.8	37.8	119	220	3025	698	717	1.07	1.08	36.9	37.8	1096.3	455	477.0	14:48	1.08	1.30	0.00
20:29:30	1108.0	27.7	40.6	119	233	2989	697	712	1.07	1.08	36.9	37.8	1097.1	457	478.0	14:50	1.08	1.25	0.00
20:31:07	1109.0	37.9	37.3	119	222	3014	698	724	1.07	1.08	36.9	37.9	1097.6	458	479.0	14:52	1.08	1.17	0.00
20:33:26	1110.0	24.3	39.9	119	226	2992	698	719	1.07	1.08	36.9	38.1	1098.5	459	480.0	14:54	1.08	1.31	0.00
20:35:54	1111.0	21.2	39.9	119	223	3001	698	719	1.07	1.08	37.0	38.3	1099.4	462	481.0	14:57	1.08	1.32	0.00
20:37:39	1112.0	31.4	38.0	119	215	3020	698	722	1.07	1.08	37.1	38.4	1099.9	464	482.0	14:58	1.08	1.20	0.00
20:41:59	1113.0	16.7	39.2	119	208	2989	699	698	1.07	1.08	37.2	38.5	1101.4	468	483.0	15:03	1.08	1.48	0.00
20:44:08	1114.0	28.0	39.3	119	221	2983	698	697	1.07	1.08	37.3	38.6	1102.0	470	484.0	15:05	1.08	1.28	0.00
20:46:18	1115.0	26.4	40.1	119	229	2993	700	731	1.07	1.08	37.4	38.7	1102.8	472	485.0	15:07	1.08	1.28	0.00
20:47:46	1116.1	45.4	38.9	119	226	3024	699	727	1.07	1.08	37.4	38.7	1103.1	474	486.1	15:09	1.08	1.13	0.00
20:49:40	1117.0	27.6	40.1	119	234	2980	699	723	1.07	1.08	37.5	38.7	1103.7	476	487.0	15:10	1.08	1.24	0.00
20:51:23	1118.0	38.0	38.7	119	229	3014	699	725	1.07	1.08	37.5	38.8	1104.5	479	488.0	15:12	1.08	1.20	0.00
20:54:40	1119.0	14.5	39.7	119	213	3001	700	716	1.07	1.08	37.6	38.8	1104.5	482	489.0	15:15	1.08	1.41	0.00
20:57:18	1120.0	26.9	39.6	118	227	2981	699	674	1.07	1.08	37.7	38.9	1104.5	485	490.0	15:18	1.08	1.33	0.00
20:59:00	1121.0	36.2	39.2	100	225	3013	700	727	1.07	1.08	37.7	38.9	1104.8	486	491.0	15:20	1.08	1.15	0.00
21:01:47	1122.0	21.0	41.2	98	225	3007	699	722	1.07	1.08	37.7	39.0	1105.6	489	492.0	15:23	1.08	1.32	0.
21:04:26	1123.0	19.5	38.8	99	205	3008	699	724	1.07	1.08	37.8	39.1	1106.4	490	493.0	15:25	1.08	1.27	0.0

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT	MUD DENSITY IN sg	MUD DENSITY OUT	MUD TEMP IN deg C	MUD TEMP OUT	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
21:07:18	1124.0	16.9	39.5	98	208	3011	701	726	1.07	1.08	37.8	39.3	1107.8	491	494.0	15:28	1.08	1.30	0.00
21:09:49	1125.0	36.8	39.8	96	216	3007	700	721	1.07	1.08	37.9	39.5	1109.2	494	495.0	15:31	1.08	1.25	0.00
21:12:55	1126.0	17.3	41.1	97	221	3009	700	732	1.07	1.08	38.0	39.7	1110.4	497	496.0	15:34	1.08	1.34	0.00
21:15:31	1127.0	21.4	40.7	97	219	3020	699	730	1.07	1.08	38.1	39.9	1111.5	498	497.0	15:36	1.08	1.29	0.00
21:17:31	1128.0	24.4	40.1	97	225	3041	699	734	1.07	1.08	38.1	40.0	1112.2	727	498.0	15:38	1.08	1.19	0.00
21:20:09	1129.1	23.2	41.2	97	228	3034	698	733	1.07	1.08	38.1	40.1	1112.8	727	499.1	15:41	1.08	1.29	0.00
21:22:34	1130.0	21.1	39.1	97	211	3026	700	728	1.07	1.08	38.3	40.1	1113.7	726	500.0	15:43	1.08	1.25	0.00
21:25:10	1131.0	25.3	39.5	97	214	3015	699	734	1.07	1.08	38.4	40.2	1114.8	727	501.0	15:46	1.08	1.27	0.00
21:26:46	1132.0	35.2	42.0	97	224	3037	699	733	1.07	1.08	38.4	40.2	1115.9	741	502.0	15:48	1.08	1.15	0.00
21:28:49	1133.0	25.2	38.3	97	213	3024	700	726	1.07	1.08	38.5	40.2	1116.9	787	503.0	15:50	1.08	1.19	0.00
21:43:13	1134.0	18.3	35.9	99	210	2988	694	680	1.07	1.08	38.7	39.9	1119.7	831	504.0	15:53	1.06	1.32	0.00
21:45:41	1135.0	21.4	40.8	98	220	3015	698	720	1.07	1.08	38.6	39.7	1120.8	821	505.0	15:55	1.06	1.30	0.00
21:48:01	1136.0	33.4	40.8	115	229	2998	699	722	1.07	1.08	38.7	39.8	1121.8	820	506.0	15:58	1.07	1.32	0.00
21:50:14	1137.0	27.3	35.9	118	207	2978	699	731	1.07	1.08	38.7	39.8	1122.7	816	507.0	15:60	1.07	1.27	0.00
21:51:28	1138.0	47.3	40.3	118	232	2997	698	729	1.07	1.08	38.7	39.8	1123.2	816	508.0	16:01	1.07	1.13	0.00
21:53:55	1139.0	25.8	38.9	118	218	2989	698	713	1.07	1.08	38.7	39.9	1124.3	814	509.0	16:04	1.07	1.32	0.00
21:56:46	1140.0	15.2	39.7	118	214	2993	697	711	1.07	1.08	38.7	39.8	1125.5	813	510.0	16:06	1.07	1.37	0.00
21:59:39	1141.0	27.2	37.6	118	217	2989	697	715	1.07	1.08	38.8	39.9	1126.7	811	511.0	16:09	1.07	1.35	0.00
22:01:45	1142.0	28.4	39.0	118	221	2970	697	711	1.07	1.08	38.7	39.9	1127.6	811	512.0	16:11	1.07	1.28	0.00
22:04:27	1143.1	42.0	35.6	118	202	2969	697	711	1.07	1.08	38.8	40.0	1128.8	810	513.1	16:14	1.08	1.28	0.00
22:06:27	1144.0	25.7	37.3	118	214	2997	697	729	1.07	1.08	38.8	40.0	1129.6	809	514.0	16:16	1.08	1.24	0.00
22:08:40	1145.0	31.5	40.0	118	232	2973	697	728	1.07	1.08	38.8	40.0	1130.6	809	515.0	16:18	1.08	1.30	0.00
22:10:20	1146.0	34.3	39.5	125	233	2990	695	724	1.07	1.08	38.8	40.1	1131.3	809	516.0	16:20	1.08	1.22	0.00
22:12:27	1147.0	36.8	38.1	126	213	2977	694	724	1.07	1.08	38.9	40.4	1132.2	806	517.0	16:22	1.08	1.28	0.00
22:14:48	1148.0	34.6	38.2	126	218	2960	694	732	1.07	1.08	38.9	40.4	1133.2	808	518.0	16:24	1.08	1.30	0.00
22:17:10	1149.0	27.5	39.7	126	214	2977	694	731	1.07	1.08	38.9	40.5	1134.1	807	519.0	16:27	1.08	1.32	0.00
22:19:04	1150.0	35.8	38.6	126	218	2967	694	716	1.07	1.08	39.0	40.4	1134.9	806	520.0	16:29	1.08	1.25	0.00
22:21:27	1151.0	23.4	39.5	126	227	3064	701	702	1.07	1.08	39.0	40.4	1135.7	806	521.0	16:31	1.08	1.32	0.00
22:24:21	1152.0	22.3	40.1	126	212	3037	704	725	1.07	1.08	39.1	40.4	1137.0	805	522.0	16:34	1.08	1.38	0.00
22:25:48	1153.0	42.8	38.8	126	227	3010	705	727	1.07	1.08	39.1	40.5	1138.1	804	523.0	16:35	1.08	1.18	0.00
22:28:13	1154.0	22.1	40.5	126	215	3074	706	724	1.07	1.08	39.1	40.6	1138.9	801	524.0	16:38	1.08	1.34	0.00
22:30:21	1155.0	37.9	40.7	126	224	3059	705	735	1.07	1.08	39.2	40.7	1139.8	804	525.0	16:40	1.08	1.30	0.00
22:32:13	1156.0	27.5	38.5	126	210	3032	705	736	1.07	1.08	39.2	40.7	1140.2	803	526.0	16:42	1.08	1.24	0.00
22:34:40	1157.0	25.5	40.9	126	223	3056	704	734	1.07	1.08	39.3	40.8	1141.1	801	527.0	16:44	1.08	1.34	0.00
22:36:58	1158.0	32.4	34.2	126	201	3029	703	724	1.07	1.08	39.3	40.8	1142.1	801	528.0	16:47	1.08	1.26	0.00
22:39:09	1159.0	24.7	38.9	126	219	3043	703	737	1.07	1.08	39.4	40.8	1143.5	802	529.0	16:49	1.08	1.29	0.00
22:41:38	1160.0	23.9	40.3	126	219	3031	702	706	1.07	1.08	39.4	40.9	1144.2	799	530.0	16:51	1.08	1.34	0.00
22:43:49	1161.1	28.9	39.1	126	224	3017	703	699	1.07	1.08	39.5	40.8	1145.0	799	531.1	16:53	1.08	1.30	0.00
22:46:40	1162.0	19.5	40.0	126	215	3031	703	700	1.07	1.08	39.5	40.9	1146.4	798	532.0	16:56	1.08	1.39	0.00
23:16:40	1165.1	22.6	38.0	116	218	3020	705	710	1.07	1.08	39.8	41.1	1152.3	615	535.1	16:59	1.07	1.34	0.00
23:17:46	1166.0	40.7	36.5	116	233	3012	702	650	1.07	1.08	39.9	40.9	1152.8	608	536.0	16:60	1.07	1.34	0.00
23:24:15	1167.0	18.9	40.7	116	225	3080	710	729	1.07	1.08	40.1	40.9	1155.0	593	537.0	17:04	1.06	1.10	0.00
23:26:30	1168.0	71.0	36.3	120	231	3065	711	707	1.07	1.08	40.2	40.7	1155.8	593	538.0	17:06	1.07	1.10	0.00
23:29:27	1169.0	31.3	39.2	122	229	3075	709	731	1.07	1.08	40.2	41.2	1156.9	593	539.0	17:08	1.06	1.27	0.00
23:31:43	1170.0	38.2	38.7	119	241	3059	708	727	1.07	1.08	40.3	41.4	1157.7	592	540.0	17:11	1.07	1.30	0.00

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT	MUD DENSITY IN sg	MUD DENSITY OUT	MUD TEMP IN deg C	TEMP OUT	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
23:33:07	1171.0	46.7	37.3	119	232	3069	708	726	1.07	1.08	40.4	41.4	1158.2	592	541.0	17:12	1.07	1.14	0.00
23:36:10	1172.1	25.1	37.7	119	223	3063	708	719	1.07	1.08	40.5	41.3	1159.3	591	542.1	17:15	1.07	1.36	0.00
23:38:27	1173.0	50.8	35.7	119	220	3076	707	723	1.07	1.08	40.6	41.1	1160.1	591	543.0	17:16	1.07	1.05	0.00
23:42:07	1174.0	21.8	38.2	119	232	3069	706	717	1.07	1.08	40.7	41.1	1161.4	590	544.0	17:20	1.07	1.43	0.00
23:44:32	1175.0	41.6	38.7	119	237	3067	706	701	1.07	1.08	40.7	41.2	1162.2	590	545.0	17:22	1.07	1.31	0.00
23:46:41	1176.0	24.0	37.8	119	226	3089	706	733	1.07	1.08	40.8	41.2	1163.0	589	546.0	17:24	1.07	1.27	0.00
23:49:29	1177.0	22.7	37.7	119	229	3072	706	723	1.07	1.08	40.8	41.3	1164.0	589	547.0	17:27	1.08	1.33	0.00
23:51:27	1178.0	32.4	37.4	119	237	3068	706	729	1.07	1.08	40.9	41.4	1164.7	591	548.0	17:29	1.08	1.21	0.00
23:53:42	1179.0	26.6	37.4	119	231	3064	706	724	1.07	1.08	40.9	41.4	1165.5	590	549.0	17:31	1.08	1.28	0.00
23:55:51	1180.0	32.1	39.5	119	238	2995	696	726	1.07	1.08	40.9	41.5	1166.2	592	550.0	17:33	1.08	1.28	0.00
23:57:16	1181.1	49.1	37.9	119	236	3014	695	724	1.07	1.08	41.0	41.7	1166.7	590	551.1	17:35	1.08	1.12	0.00
23:59:39	1182.0	25.6	39.7	118	241	3008	695	696	1.07	1.08	41.0	41.7	1167.5	591	552.0	17:37	1.08	1.32	0.00
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00:02:26	1183.0	29.3	39.7	119	240	2997	695	713	1.07	1.08	41.1	41.8	1168.6	591	553.0	17:40	1.08	1.35	0.00
00:04:42	1184.0	32.5	39.3	121	234	3006	694	730	1.07	1.08	41.2	41.9	1169.3	589	554.0	17:42	1.08	1.29	0.00
00:08:11	1185.0	14.9	39.6	120	207	2987	694	727	1.07	1.08	41.2	42.0	1171.2	587	555.0	17:45	1.08	1.42	0.00
00:11:14	1186.0	23.7	39.4	120	222	3017	695	728	1.07	1.08	41.3	42.1	1172.1	588	556.0	17:48	1.08	1.38	0.00
00:13:39	1187.0	22.7	38.3	120	214	3005	696	686	1.07	1.08	41.4	42.2	1172.9	587	557.0	17:51	1.08	1.30	0.00
00:16:53	1188.0	28.7	37.8	120	221	3011	695	701	1.07	1.08	41.5	42.3	1173.8	587	558.0	17:54	1.08	1.36	0.(
00:19:08	1189.0	24.5	38.4	120	230	2992	695	733	1.07	1.08	41.6	42.4	1174.5	587	559.0	17:56	1.08	1.28	0.0
00:22:11	1190.0	20.4	40.6	120	233	2993	695	729	1.07	1.08	41.6	42.4	1176.0	588	560.0	17:59	1.08	1.39	0.00
00:25:12	1191.0	20.0	39.5	120	221	2986	695	720	1.07	1.08	41.7	42.4	1177.2	587	561.0	18:02	1.08	1.38	0.00
00:28:12	1192.0	22.2	39.8	120	234	2985	696	704	1.07	1.08	41.8	42.4	1178.4	586	562.0	18:05	1.08	1.38	0.00
00:31:04	1193.0	21.3	39.2	120	222	2989	697	732	1.07	1.08	41.9	42.3	1179.3	586	563.0	18:08	1.08	1.36	0.00
00:45:07	1194.1	30.2	38.8	120	209	2996	697	725	1.07	1.08	41.9	42.4	1183.0	590	564.1	18:10	1.08	1.28	0.00
00:47:32	1195.0	231.0	27.0	120	211	3020	696	711	1.07	1.08	42.0	42.4	1183.6	573	565.0	18:12	1.06	0.87	0.00
00:48:20	1196.0	121.5	28.1	120	209	2988	697	732	1.07	1.08	42.0	42.2	1183.7	571	566.0	18:13	1.06	0.78	0.00
00:49:02	1197.1	82.5	29.8	120	231	2957	697	724	1.07	1.08	42.0	42.2	1184.0	569	567.1	18:14	1.06	0.83	0.00
00:49:24	1198.1	140.1	26.5	120	223	3007	697	667	1.07	1.08	42.0	42.2	1184.1	568	568.1	18:14	1.06	0.69	0.00
00:49:51	1199.1	116.9	25.1	120	201	3020	697	632	1.07	1.08	42.0	42.2	1184.3	566	569.1	18:14	1.06	0.73	0.00
00:50:22	1200.0	115.8	21.4	120	200	3044	697	631	1.07	1.08	42.0	42.2	1184.4	565	570.0	18:15	1.06	0.62	0.00
01:06:30	1201.0	139.0	0.4	116	68	3088	700	634	1.07	1.08	42.0	42.2	1186.6	577	571.0	18:15	1.06	0.67	0.00
01:07:30	1202.0	139.0	0.4	116	68	3088	700	634	1.07	1.08	42.0	42.2	1186.6	577	571.0	18:15	1.06	0.67	0.00
01:09:01	1203.0	96.0	1.0	120	107	2915	685	722	1.07	1.08	42.0	41.5	1187.7	567	573.0	18:15	1.06	0.43	0.00
01:09:27	1204.4	321.1	1.5	121	110	2880	683	724	1.07	1.08	42.0	41.4	1188.5	566	574.4	18:16	1.06	0.42	0.00
01:09:43	1205.1	165.5	2.0	121	106	2914	683	710	1.07	1.08	42.0	41.4	1188.3	564	575.1	18:16	1.06	0.39	0.00
01:10:04	1206.0	205.6	2.0	121	102	2933	684	707	1.07	1.08	42.0	41.4	1188.5	564	576.0	18:16	1.06	0.40	0.00
01:10:29	1207.0	141.9	2.2	121	110	2923	684	694	1.07	1.08	42.0	41.5	1188.7	564	577.0	18:17	1.06	0.40	0.00
01:10:54	1208.1	368.6	1.8	121	121	2866	684	684	1.07	1.08	42.0	41.5	1188.9	563	578.1	18:17	1.06	0.38	0.00
01:11:21	1209.1	132.1	2.0	121	108	2921	684	626	1.07	1.08	41.9	41.7	1189.1	563	579.1	18:17	1.06	0.40	0.00
01:11:47	1210.2	303.6	1.4	121	105	2959	683	649	1.07	1.08	41.9	41.7	1189.3	563	580.2	18:17	1.06	0.41	0.00
01:12:07	1211.0	295.0	1.0	121	111	2924	683	642	1.07	1.08	41.9	41.8	1189.4	562	581.0	18:18	1.06	0.35	0.00
01:12:37	1212.2	409.6	1.4	121	119	2938	683	672	1.07	1.08	42.0	41.9	1189.6	561	582.2	18:18	1.06	0.39	0.00
01:13:03	1213.1	55.0	0.4	120	219	2941	683	655	1.07	1.08	42.0	41.9	1189.9	561	583.1	18:18	1.06	0.39	0.0
01:13:30	1214.2	145.9	0.2	121	113	2950	683	690	1.07	1.08	41.9	41.9	1190.2	559	584.2	18:18	1.06	0.36	0.
01:13:43	1215.0	123.7	0.2	121	92	2965	683	678	1.07	1.08	41.9	42.0	1190.3	559	585.0	18:19	1.06	0.36	0.00

'lByte Drilling Data Printout
C...ANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT	MUD DENSITY IN sg	MUD DENSITY OUT	MUD TEMP IN deg C	MUD TEMP OUT	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
01:13:57	1216.1	149.6	0.2	121	88	2981	683	706	1.07	1.08	41.9	42.0	1190.4	559	586.1	18:19	1.06	0.39	0.00
01:14:10	1217.1	116.1	0.2	121	71	2948	682	694	1.07	1.08	41.9	42.0	1190.5	558	587.1	18:19	1.06	0.35	0.00
01:14:28	1218.1	138.3	0.4	121	86	2838	682	691	1.07	1.08	41.9	42.1	1190.6	557	588.1	18:19	1.06	0.37	0.00
01:14:57	1219.0	133.1	0.7	121	106	2945	682	675	1.07	1.08	41.9	42.1	1190.9	556	589.0	18:20	1.06	0.38	0.00
01:38:42	1220.0	53.0	0.2	103	142	3023	682	673	1.07	1.08	41.9	42.2	1206.4	558	590.0	18:20	1.07	0.38	0.00
01:39:10	1221.2	228.0	0.5	112	111	2990	694	622	1.07	1.08	42.3	43.4	1206.7	557	591.2	18:21	1.07	0.36	0.00
01:39:28	1222.0	193.4	1.2	118	137	2983	694	683	1.07	1.08	42.5	43.8	1207.0	555	592.0	18:21	1.07	0.37	0.00
01:39:53	1223.1	181.2	2.7	119	86	2908	690	622	1.07	1.08	42.5	43.9	1207.3	555	593.1	18:21	1.07	0.41	0.00
01:40:13	1224.0	191.1	3.2	119	89	2895	687	639	1.07	1.08	42.5	43.9	1207.6	552	594.0	18:22	1.07	0.41	0.00
01:40:40	1225.1	169.2	3.9	120	98	2892	682	675	1.07	1.08	42.5	44.0	1207.9	551	595.1	18:22	1.07	0.46	0.00
01:41:02	1226.1	168.4	3.3	120	94	2777	676	688	1.07	1.08	42.5	44.0	1208.2	550	596.1	18:23	1.07	0.45	0.00
01:41:24	1227.0	161.2	4.1	120	91	2840	675	695	1.07	1.08	42.5	44.1	1208.5	549	597.0	18:23	1.07	0.46	0.00
01:41:49	1228.0	161.3	5.1	120	91	2899	674	693	1.07	1.08	42.5	44.1	1208.8	548	598.0	18:23	1.07	0.48	0.00
01:42:13	1229.1	149.1	3.5	120	120	2897	674	690	1.07	1.08	42.5	44.1	1209.1	546	599.1	18:24	1.07	0.44	0.00
01:42:34	1230.0	145.4	3.4	120	331	2920	674	602	1.07	1.08	42.6	44.0	1209.4	544	600.0	18:24	1.08	0.45	0.00
01:43:01	1231.1	145.1	3.7	119	379	2932	675	620	1.07	1.08	42.6	44.0	1209.8	544	601.1	18:25	1.08	0.47	0.00
01:43:24	1232.0	159.2	3.4	120	345	2931	676	666	1.07	1.08	42.6	44.0	1210.0	543	602.0	18:25	1.08	0.46	0.00
01:43:53	1233.2	143.3	4.1	119	354	2929	677	697	1.07	1.08	42.6	43.9	1210.4	542	603.2	18:25	1.08	0.47	0.00
:44:17	1234.0	134.3	3.8	120	356	2955	677	687	1.07	1.08	42.6	43.8	1210.8	542	604.0	18:26	1.08	0.47	0.00
01:44:44	1235.1	145.0	4.1	119	381	2854	678	658	1.07	1.08	42.6	43.6	1211.1	540	605.1	18:26	1.08	0.47	0.00
01:45:06	1236.0	140.0	4.3	119	397	2940	678	670	1.07	1.08	42.7	43.5	1211.4	541	606.0	18:27	1.08	0.47	0.00
01:45:31	1237.0	165.4	3.7	119	384	2953	678	695	1.07	1.08	42.7	43.4	1211.7	539	607.0	18:27	1.08	0.46	0.00
01:45:58	1238.1	144.8	3.4	120	356	2956	679	649	1.07	1.08	42.7	43.3	1212.1	538	608.1	18:27	1.08	0.42	0.00
01:46:25	1239.1	121.3	4.3	119	365	2967	679	547	1.07	1.08	42.7	43.2	1212.4	536	609.1	18:28	1.08	0.50	0.00
01:47:08	1240.1	125.2	3.0	119	380	2971	679	630	1.07	1.08	42.7	43.1	1213.0	534	610.1	18:29	1.08	0.55	0.00
01:47:42	1241.0	107.2	4.9	119	404	2981	680	658	1.07	1.08	42.8	43.0	1213.4	534	611.0	18:29	1.08	0.55	0.00
01:48:11	1242.0	139.0	4.7	119	403	2962	680	681	1.07	1.08	42.8	42.9	1213.8	532	612.0	18:30	1.08	0.50	0.00
01:48:42	1243.0	105.6	4.9	119	410	2933	679	628	1.07	1.08	42.8	42.8	1214.3	532	613.0	18:30	1.08	0.52	0.00
01:49:15	1244.1	113.6	5.2	119	437	3009	678	626	1.07	1.08	42.9	42.6	1214.7	531	614.1	18:31	1.08	0.53	0.00
01:49:44	1245.0	110.8	5.5	119	431	3014	679	673	1.07	1.08	43.0	42.5	1215.1	529	615.0	18:31	1.08	0.53	0.00
01:50:12	1246.0	122.0	5.4	119	443	3002	679	682	1.07	1.08	43.0	42.4	1215.4	529	616.0	18:32	1.08	0.52	0.00
01:50:42	1247.1	139.3	4.6	119	433	3064	680	699	1.07	1.08	43.0	42.4	1215.8	527	617.1	18:32	1.08	0.50	0.00
01:51:12	1248.0	112.9	5.3	119	397	3006	680	686	1.07	1.08	43.1	42.5	1216.2	526	618.0	18:33	1.08	0.53	0.00
01:51:40	1249.0	120.7	4.8	119	386	3007	680	635	1.07	1.08	43.1	42.5	1216.6	525	619.0	18:33	1.08	0.52	0.00
02:02:28	1250.0	103.6	2.7	120	296	2916	637	664	1.07	1.08	43.1	42.5	1220.0	542	620.0	18:34	1.08	0.54	0.00
02:02:55	1251.0	31.4	0.9	122	89	3020	615	698	1.07	1.08	43.0	42.7	1220.0	534	621.0	18:34	1.08	0.46	0.00
02:03:36	1252.1	125.9	0.9	122	85	3026	673	680	1.07	1.08	43.0	43.0	1220.0	527	622.1	18:35	1.08	0.45	0.00
02:04:30	1253.1	92.9	1.3	122	116	3015	683	698	1.07	1.08	43.0	43.1	1220.0	518	623.1	18:36	1.08	0.48	0.00
02:05:05	1254.1	111.8	5.1	121	357	3057	684	649	1.07	1.08	43.0	43.0	1220.0	516	624.1	18:37	1.08	0.56	0.00
02:05:40	1255.1	125.5	10.2	121	418	3028	684	648	1.07	1.08	43.0	42.8	1220.0	510	625.1	18:37	1.08	0.64	0.00
02:06:03	1256.0	142.9	12.6	121	395	3029	683	607	1.07	1.08	42.9	42.6	1220.0	508	626.0	18:38	1.08	0.60	0.00
02:06:30	1257.1	184.1	12.0	121	392	3022	681	651	1.07	1.08	42.9	42.5	1220.0	506	627.1	18:38	1.08	0.57	0.00
02:06:57	1258.0	132.7	11.8	121	414	3033	680	660	1.07	1.08	42.9	42.4	1220.0	504	628.0	18:38	1.08	0.60	0.00
:07:24	1259.0	120.7	11.0	121	402	3012	680	649	1.07	1.08	42.9	42.4	1220.0	502	629.0	18:39	1.08	0.61	0.00
2:07:53	1260.1	121.3	11.1	121	392	2956	680	671	1.07	1.08	42.9	42.4	1220.0	500	630.1	18:39	1.08	0.58	0.00
02:08:22	1261.0	108.0	11.3	121	455	2994	680	617	1.07	1.08	42.9	42.4	1220.0	499	631.0	18:40	1.08	0.62	0.00

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-		ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
02:08:57	1262.0	81.7	9.8	121	377	3035	680	640	1.07	1.08	42.9	42.4	1220.0	497	632.0	18:40	1.08	0.61	0.00
02:09:38	1263.0	106.8	7.7	121	381	3033	680	637	1.07	1.08	42.9	42.6	1220.0	496	633.0	18:41	1.08	0.64	0.00
02:10:07	1264.1	140.5	9.0	121	379	3028	680	677	1.07	1.08	42.9	42.7	1220.0	495	634.1	18:42	1.08	0.57	0.00
02:10:36	1265.0	128.7	8.9	121	367	3040	680	624	1.07	1.08	42.8	42.8	1220.0	495	635.0	18:42	1.08	0.58	0.00
02:11:13	1266.1	97.6	6.3	121	345	3031	680	663	1.11	1.11	42.8	42.8	1220.0	494	636.1	18:43	1.08	0.59	0.00
02:11:39	1267.0	116.2	7.3	121	349	2938	680	610	1.11	1.11	42.8	42.9	1220.0	495	637.0	18:43	1.08	0.56	0.00
02:12:06	1268.0	140.5	7.8	121	353	3045	680	674	1.11	1.11	42.7	42.9	1220.0	495	638.0	18:44	1.08	0.54	0.00
02:12:37	1269.1	115.9	8.8	121	373	3036	679	662	1.11	1.11	42.7	43.0	1220.0	495	639.1	18:44	1.08	0.58	0.00
02:13:06	1270.0	115.8	8.3	121	401	3058	679	694	1.11	1.11	42.6	43.1	1220.0	493	640.0	18:45	1.08	0.57	0.00
02:13:40	1271.1	102.3	8.5	121	394	3055	679	692	1.11	1.11	42.6	43.1	1220.0	494	641.1	18:45	1.08	0.60	0.00
02:14:13	1272.0	94.4	9.5	121	394	3045	680	679	1.11	1.11	42.5	43.2	1220.0	494	642.0	18:46	1.08	0.62	0.00
02:14:44	1273.0	107.8	9.1	121	426	3028	680	671	1.11	1.11	42.5	43.2	1220.0	495	643.0	18:46	1.08	0.60	0.00
02:15:23	1274.0	78.7	8.3	121	372	2972	680	642	1.11	1.11	42.4	43.2	1220.0	494	644.0	18:47	1.09	0.62	0.00
02:16:09	1275.0	86.2	6.7	121	393	3036	680	684	1.11	1.11	42.4	43.2	1220.0	493	645.0	18:48	1.09	0.64	0.00
02:16:42	1276.0	110.3	8.3	121	422	3049	679	708	1.11	1.11	42.4	43.1	1220.0	494	646.0	18:48	1.09	0.60	0.00
02:17:15	1277.1	123.6	8.8	121	424	3053	679	698	1.11	1.11	42.3	42.9	1220.0	494	647.1	18:49	1.09	0.59	0.00
02:17:48	1278.0	113.1	9.5	121	428	3065	680	707	1.11	1.11	42.3	42.8	1220.0	494	648.0	18:49	1.09	0.61	0.00
02:36:22	1279.0	41.0	8.5	119	446	3039	679	672	1.11	1.11	42.0	43.0	1241.9	641	649.0	18:50	1.10	0.65	0.00
02:37:17	1280.1	63.6	5.0	111	251	3015	681	641	1.11	1.11	41.1	43.9	1243.5	634	650.1	18:51	1.10	0.60	0.0
02:38:30	1281.0	64.1	3.1	119	214	2960	681	641	1.11	1.11	41.1	43.9	1245.7	630	651.0	18:53	1.10	0.62	0.0
02:39:18	1282.1	92.9	4.3	118	298	3008	682	632	1.11	1.11	41.1	43.9	1247.2	627	652.1	18:53	1.10	0.57	0.00
02:40:20	1283.0	59.0	5.3	113	231	3006	683	676	1.11	1.11	41.1	43.9	1249.2	624	653.0	18:54	1.11	0.64	0.00
02:41:14	1284.1	68.3	8.0	113	361	3012	683	662	1.11	1.11	41.1	43.9	1249.5	622	654.1	18:55	1.11	0.66	0.00
02:42:26	1285.0	57.3	4.9	116	196	2976	683	642	1.11	1.11	41.2	44.0	1249.6	620	655.0	18:57	1.11	0.70	0.00
02:43:28	1286.0	68.2	7.6	115	366	3008	682	693	1.11	1.11	41.2	44.0	1249.6	616	656.0	18:58	1.11	0.69	0.00
02:46:34	1287.0	37.4	1.4	108	383	2993	681	726	1.11	1.11	41.4	44.3	1250.2	611	657.0	19:00	1.11	0.60	0.00
02:48:30	1288.1	30.0	0.8	112	345	2981	681	709	1.11	1.11	41.6	44.6	1252.4	609	658.1	19:02	1.11	0.50	0.00
02:49:38	1289.0	51.7	4.1	108	352	2966	682	685	1.11	1.11	41.7	44.7	1254.0	606	659.0	19:03	1.11	0.64	0.00
02:50:29	1290.0	70.6	6.0	112	379	2997	683	698	1.11	1.11	41.7	44.6	1255.4	605	660.0	19:04	1.12	0.62	0.00
02:51:58	1291.0	42.6	2.8	112	320	2997	684	720	1.11	1.11	41.8	44.6	1258.4	602	661.0	19:06	1.12	0.61	0.00
02:53:13	1292.1	55.3	3.6	117	241	2967	684	709	1.11	1.11	41.9	44.7	1260.8	601	662.1	19:07	1.12	0.62	0.00
02:54:16	1293.0	45.9	2.9	114	287	2981	684	645	1.11	1.11	42.0	44.6	1262.4	598	663.0	19:08	1.12	0.59	0.00
02:56:41	1294.0	55.2	3.4	120	129	2937	682	636	1.11	1.11	42.1	44.3	1266.6	595	664.0	19:10	1.12	0.76	0.00
02:57:32	1295.0	74.0	10.8	119	254	2991	682	676	1.11	1.11	42.2	44.0	1268.1	593	665.0	19:11	1.12	0.71	0.00
02:58:13	1296.0	91.1	13.1	118	281	2999	683	705	1.11	1.11	42.3	43.9	1269.3	593	666.0	19:12	1.12	0.68	0.00
02:59:01	1297.0	65.0	11.8	114	323	3008	684	705	1.11	1.11	42.3	43.7	1270.8	592	667.0	19:13	1.12	0.68	0.00
03:00:12	1298.1	46.5	10.2	118	224	2939	684	686	1.11	1.11	42.3	43.7	1272.7	590	668.1	19:14	1.12	0.75	0.00
03:01:01	1299.1	91.0	10.9	118	246	3001	683	708	1.11	1.11	42.4	43.7	1273.9	588	669.1	19:15	1.12	0.68	0.00
03:02:19	1300.0	43.5	9.3	114	299	2997	684	705	1.11	1.11	42.4	43.7	1275.9	588	670.0	19:16	1.12	0.74	0.00
03:03:36	1301.0	40.0	8.4	114	262	2968	683	712	1.11	1.11	42.4	43.7	1277.9	587	671.0	19:17	1.12	0.73	0.00
03:06:25	1302.1	28.2	7.2	110	326	3002	683	678	1.11	1.11	42.4	43.8	1278.8	583	672.1	19:20	1.12	0.84	0.00
03:07:52	1303.0	37.5	6.6	111	281	2950	682	714	1.11	1.11	42.5	43.9	1278.8	583	673.0	19:21	1.12	0.71	0.00
03:11:03	1304.0	39.9	6.3	117	259	3002	682	719	1.11	1.11	42.0	44.1	1278.8	583	674.0	19:23	1.12	0.77	0.00
03:14:45	1305.0	34.9	5.2	120	250	2993	682	710	1.11	1.11	41.6	44.1	1278.8	581	675.0	19:25	1.12	0.75	0.0
03:16:10	1306.0	54.4	6.3	126	252	2949	681	717	1.11	1.11	41.3	44.0	1278.8	582	676.0	19:27	1.12	0.73	0.
03:17:39	1307.0	37.2	5.3	126	189	2980	681	681	1.11	1.11	41.2	44.1	1279.3	582	677.0	19:28	1.12	0.71	0.00

'lByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-	-BIT-	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm			sg	deg C		m	bbl	mts	hh:mm	ppg		%
03:41:15	1308.1	43.7	6.9	129	183	2986	680	699	1.11	1.11	41.4	44.1	1290.7	744	678.1	19:30	1.12	0.71	0.00
03:41:49	1309.0	101.7	12.0	129	230	2992	686	729	1.11	1.11	42.5	44.8	1291.1	751	679.0	19:30	1.12	0.65	0.00
03:42:22	1310.0	84.2	12.7	129	241	2995	688	624	1.11	1.11	42.6	44.9	1291.4	759	680.0	19:31	1.12	0.67	0.00
03:42:53	1311.0	125.8	15.3	129	299	2894	689	661	1.11	1.11	42.6	45.0	1291.9	765	681.0	19:31	1.12	0.65	0.00
03:45:34	1312.1	31.2	15.1	113	257	3002	689	666	1.11	1.11	42.7	44.7	1293.4	800	682.1	19:33	1.12	0.84	0.00
03:46:18	1313.0	97.7	16.3	117	344	3021	691	703	1.11	1.11	42.9	44.1	1293.8	808	683.0	19:33	1.12	0.77	0.00
03:47:13	1314.0	63.3	10.8	114	272	2945	692	692	1.11	1.11	43.0	43.9	1294.5	819	684.0	19:34	1.12	0.71	0.00
03:48:18	1315.1	61.5	9.6	120	297	3010	691	708	1.11	1.11	43.0	43.8	1296.0	834	685.1	19:35	1.12	0.68	0.00
03:49:07	1316.0	80.3	11.5	120	291	3013	690	709	1.11	1.11	43.1	43.8	1297.5	842	686.0	19:36	1.12	0.70	0.00
03:49:53	1317.1	84.5	13.0	121	259	3026	691	707	1.11	1.11	43.1	43.9	1298.8	840	687.1	19:37	1.12	0.69	0.00
03:50:39	1318.0	77.6	12.7	121	304	2970	692	720	1.11	1.11	43.2	43.8	1299.7	840	688.0	19:38	1.12	0.71	0.00
03:55:28	1319.0	55.9	8.6	102	316	2984	691	731	1.11	1.11	43.3	43.9	1301.6	841	689.0	19:39	1.12	0.72	0.00
03:56:28	1320.0	75.9	8.5	112	306	2992	690	729	1.11	1.11	43.3	44.1	1301.8	839	690.0	19:40	1.12	0.69	0.00
03:59:08	1321.0	62.8	7.3	111	275	3012	690	731	1.11	1.11	43.3	44.1	1302.9	835	691.0	19:41	1.12	0.70	0.00
04:00:20	1322.0	43.1	8.1	117	224	3024	690	698	1.11	1.11	43.4	44.1	1303.3	836	692.0	19:43	1.12	0.74	0.00
04:01:22	1323.0	60.6	9.1	119	251	2988	690	712	1.11	1.11	43.4	44.2	1303.7	834	693.0	19:44	1.12	0.71	0.00
04:02:19	1324.0	73.6	11.7	123	228	3027	689	699	1.11	1.11	43.4	44.2	1304.3	833	694.0	19:45	1.12	0.75	0.00
04:03:09	1325.0	74.5	16.5	123	255	3029	690	700	1.11	1.11	43.5	44.2	1304.4	833	695.0	19:45	1.12	0.77	0.00
4:03:56	1326.0	82.5	21.1	123	289	3034	690	724	1.11	1.11	43.5	44.1	1304.4	832	696.0	19:46	1.12	0.80	0.00
04:04:46	1327.1	71.9	22.0	120	309	2984	690	694	1.11	1.11	43.5	44.0	1304.7	832	697.1	19:47	1.12	0.81	0.00
04:05:25	1328.0	91.8	20.2	123	318	3038	690	661	1.11	1.11	43.5	44.0	1305.0	831	698.0	19:48	1.12	0.75	0.00
04:06:19	1329.0	66.5	18.7	121	323	3001	690	712	1.11	1.11	43.5	44.1	1305.5	832	699.0	19:49	1.12	0.80	0.00
04:07:07	1330.0	74.8	20.0	121	341	2996	688	720	1.11	1.11	43.6	44.0	1306.0	832	700.0	19:49	1.12	0.78	0.00
04:08:42	1331.0	34.4	15.7	112	317	2964	686	664	1.11	1.11	43.6	43.8	1306.9	831	701.0	19:51	1.12	0.89	0.00
04:09:49	1332.0	53.1	11.9	127	250	2981	683	637	1.11	1.11	43.6	43.6	1307.5	831	702.0	19:52	1.12	0.80	0.00
04:10:55	1333.0	57.1	15.4	128	292	2990	682	690	1.11	1.11	43.6	43.6	1307.9	831	703.0	19:53	1.12	0.82	0.00
04:12:04	1334.0	58.5	14.3	124	317	2946	682	688	1.11	1.11	43.6	43.6	1307.9	829	704.0	19:54	1.12	0.82	0.00
04:13:27	1335.1	52.7	13.1	125	313	2988	682	712	1.11	1.11	43.6	43.6	1307.9	829	705.1	19:56	1.12	0.83	0.00
04:14:37	1336.0	48.2	13.2	130	268	2985	681	682	1.11	1.11	43.7	43.6	1307.9	829	706.0	19:57	1.12	0.82	0.00
04:16:06	1337.0	40.3	10.7	130	187	2949	681	685	1.11	1.11	43.6	43.6	1307.9	828	707.0	19:58	1.12	0.82	0.00
04:56:46	1338.0	75.5	12.2	120	245	3065	695	696	1.11	1.11	44.7	45.0	1328.4	812	708.0	19:60	1.06	0.85	0.00
04:57:25	1339.1	88.5	15.1	119	257	2937	699	695	1.11	1.11	44.8	45.2	1328.5	808	709.1	20:00	1.06	0.76	0.00
04:59:56	1340.0	61.5	8.0	110	271	3066	698	721	1.11	1.11	44.9	45.1	1329.2	803	710.0	20:01	1.06	0.75	0.00
05:00:45	1341.0	63.6	7.3	117	243	3070	698	708	1.11	1.11	44.8	44.9	1329.4	802	711.0	20:02	1.06	0.67	0.00
05:01:27	1342.0	81.7	10.2	117	253	3070	699	693	1.11	1.11	44.9	44.8	1329.6	802	712.0	20:03	1.07	0.69	0.00
05:02:10	1343.0	81.9	11.1	118	253	3008	699	721	1.11	1.11	44.9	44.7	1329.7	801	713.0	20:04	1.07	0.69	0.00
05:02:57	1344.0	105.9	10.5	116	310	3048	698	730	1.11	1.11	44.9	44.6	1330.0	800	714.0	20:04	1.07	0.70	0.00
05:04:01	1345.0	62.0	7.1	114	280	3065	699	672	1.11	1.11	44.9	44.7	1330.2	799	715.0	20:06	1.07	0.69	0.00
05:05:21	1346.1	72.3	6.5	115	256	3080	699	719	1.11	1.11	44.8	44.8	1330.6	798	716.1	20:07	1.07	0.74	0.00
05:09:06	1347.0	20.1	5.0	107	283	3026	698	713	1.11	1.11	44.8	44.8	1331.6	797	717.0	20:09	1.08	0.77	0.00
05:11:06	1348.0	30.6	2.0	117	202	3049	699	728	1.11	1.11	44.8	44.5	1332.1	797	718.0	20:11	1.08	0.68	0.00
05:12:41	1349.0	38.4	3.1	118	215	3076	700	706	1.11	1.11	44.7	44.5	1332.5	794	719.0	20:13	1.08	0.70	0.00
05:14:12	1350.0	43.8	3.3	117	208	3043	700	680	1.11	1.11	44.7	44.6	1332.9	795	720.0	20:14	1.09	0.68	0.00
05:15:24	1351.0	54.6	4.0	116	263	3081	699	719	1.11	1.11	44.7	44.6	1333.2	794	721.0	20:15	1.09	0.64	0.00
05:16:51	1352.0	48.4	3.6	116	227	3061	699	711	1.11	1.11	44.7	44.5	1333.6	794	722.0	20:17	1.09	0.67	0.00
05:18:03	1353.0	48.1	4.6	116	283	3060	698	713	1.11	1.11	44.6	44.5	1333.9	794	723.0	20:18	1.09	0.66	0.00

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT gpm	MUD DENSITY IN sg	MUD DENSITY OUT sg	MUD TEMP IN deg C	MUD TEMP OUT deg C	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
05:19:27	1354.0	44.0	5.6	118	269	3089	698	726	1.11	1.11	44.4	44.4	1334.3	793	724.0	20:19	1.09	0.72	0.00
05:20:50	1355.0	49.6	5.3	117	245	3048	698	714	1.11	1.11	44.2	44.6	1334.7	793	725.0	20:21	1.10	0.71	0.00
05:22:03	1356.0	52.1	5.2	118	212	3079	698	723	1.11	1.11	44.1	44.5	1335.0	793	726.0	20:22	1.10	0.68	0.00
05:23:29	1357.0	48.1	5.5	119	162	3080	697	721	1.11	1.11	43.9	44.4	1335.4	793	727.0	20:23	1.10	0.71	0.00
05:24:22	1358.0	63.7	7.7	117	247	3030	698	737	1.11	1.11	43.8	44.5	1335.6	793	728.0	20:24	1.10	0.66	0.00
05:25:09	1359.0	78.2	8.8	118	320	3092	698	734	1.11	1.11	43.7	44.5	1335.8	792	729.0	20:25	1.10	0.65	0.00
05:26:01	1360.0	62.5	9.3	118	203	3099	698	715	1.11	1.11	43.7	44.5	1336.0	791	730.0	20:26	1.10	0.69	0.00
05:26:54	1361.0	69.4	8.7	118	211	3104	698	658	1.11	1.11	43.6	44.6	1336.2	792	731.0	20:27	1.11	0.69	0.00
05:27:57	1362.0	57.6	8.1	115	215	3031	698	662	1.11	1.11	43.5	44.6	1336.5	791	732.0	20:28	1.11	0.70	0.00
05:29:09	1363.0	88.9	7.2	119	169	3110	697	712	1.11	1.11	43.4	44.7	1336.8	791	733.0	20:29	1.11	0.72	0.00
05:30:00	1364.0	72.5	9.8	117	270	3107	698	692	1.11	1.11	43.3	44.8	1337.0	792	734.0	20:30	1.11	0.69	0.00
05:31:31	1365.0	38.2	6.8	117	167	3072	698	703	1.11	1.11	43.3	44.9	1337.5	791	735.0	20:31	1.11	0.74	0.00
05:33:08	1366.0	38.2	5.6	119	130	3106	699	689	1.11	1.11	43.2	44.9	1337.9	792	736.0	20:33	1.11	0.73	0.00
05:50:26	1367.0	38.1	15.4	120	174	3086	699	692	1.11	1.11	42.7	44.7	1345.5	806	737.0	20:35	1.12	1.00	0.00
05:52:43	1368.0	20.1	33.6	122	198	3090	697	715	1.11	1.11	42.2	44.2	1346.6	790	738.0	20:38	1.12	1.21	0.00
05:54:44	1369.0	28.0	38.6	121	216	3057	699	721	1.11	1.11	42.1	44.0	1346.8	787	739.0	20:40	1.12	1.21	0.00
05:57:15	1370.1	56.7	36.2	119	268	2986	692	670	1.11	1.11	42.1	44.3	1348.0	782	740.1	20:42	1.12	1.21	0.00
05:58:02	1371.0	67.9	30.2	121	230	2967	689	654	1.11	1.11	42.1	44.5	1348.5	783	741.0	20:43	1.12	0.90	0.00
06:02:52	1372.0	11.2	40.0	122	205	2997	688	694	1.11	1.11	42.1	44.7	1351.6	779	742.0	20:48	1.12	1.48	0.00
06:09:01	1373.0	10.2	38.1	122	191	2997	688	668	1.11	1.11	42.2	44.7	1356.1	775	743.0	20:54	1.12	1.53	0.00
06:11:15	1374.0	41.8	36.0	121	269	2995	688	689	1.11	1.11	42.2	44.6	1359.3	772	744.0	20:56	1.12	1.17	0.00
06:11:56	1375.0	100.2	29.8	120	347	2928	689	703	1.11	1.11	42.2	44.6	1359.8	771	745.0	20:57	1.12	0.83	0.00
06:12:36	1376.0	89.9	27.3	116	344	3010	689	722	1.11	1.11	42.2	44.7	1359.8	770	746.0	20:58	1.12	0.80	0.00
06:13:15	1377.0	86.0	22.8	120	284	3018	689	699	1.11	1.11	42.2	44.7	1359.8	769	747.0	20:58	1.12	0.77	0.00
06:14:20	1378.0	50.4	25.0	121	251	3000	688	692	1.11	1.11	42.3	44.8	1360.9	769	748.0	20:59	1.12	0.92	0.00
06:15:24	1379.0	77.6	32.2	121	307	2963	688	716	1.11	1.11	42.2	44.8	1361.8	768	749.0	21:00	1.12	0.98	0.00
06:16:11	1380.0	91.7	31.8	115	398	3016	688	671	1.11	1.11	42.3	44.8	1362.4	768	750.0	21:01	1.12	0.87	0.00
06:16:56	1381.0	89.3	27.4	118	317	3016	689	722	1.11	1.11	42.3	45.0	1363.2	767	751.0	21:02	1.12	0.83	0.00
06:19:09	1382.1	23.8	34.7	121	223	2989	688	664	1.11	1.11	42.3	44.9	1364.9	765	752.1	21:04	1.12	1.20	0.00
06:20:02	1383.0	61.4	31.4	121	288	3015	687	659	1.11	1.11	42.5	44.9	1365.3	764	753.0	21:05	1.12	0.91	0.00
06:20:42	1384.0	89.5	25.7	121	302	3026	688	704	1.11	1.11	42.6	44.8	1365.7	765	754.0	21:06	1.12	0.78	0.00
06:21:19	1385.0	82.7	22.4	120	316	3034	688	668	1.11	1.11	42.6	44.8	1366.0	763	755.0	21:06	1.12	0.74	0.00
06:22:11	1386.0	64.3	20.9	118	312	2974	688	511	1.11	1.11	42.7	44.8	1366.4	764	756.0	21:07	1.12	0.83	0.00
06:26:34	1387.0	25.0	9.9	110	219	3031	687	688	1.11	1.11	43.1	45.0	1366.4	760	757.0	21:10	1.12	0.91	0.00
06:29:30	1388.0	22.6	13.7	118	161	3002	687	681	1.11	1.11	43.4	45.0	1366.4	758	758.0	21:13	1.12	1.02	0.00
06:35:25	1389.0	17.8	33.6	112	267	3015	688	682	1.11	1.11	43.7	45.0	1368.3	759	759.0	21:18	1.12	1.37	0.00
06:36:40	1390.0	53.6	12.8	117	286	3002	687	724	1.11	1.11	43.9	44.9	1368.8	758	760.0	21:19	1.12	0.79	0.00
06:39:39	1391.0	50.6	8.6	111	290	2996	687	680	1.11	1.11	44.0	44.8	1370.2	756	761.0	21:21	1.12	0.79	0.00
06:41:14	1392.0	34.1	11.3	116	262	2996	688	636	1.11	1.11	44.1	44.8	1371.1	755	762.0	21:22	1.12	0.84	0.00
06:45:14	1393.0	10.7	27.0	120	208	3029	687	690	1.11	1.11	44.2	44.9	1371.9	753	763.0	21:26	1.12	1.28	0.00
06:47:55	1394.0	54.5	31.9	118	297	3034	688	647	1.11	1.11	44.3	45.1	1372.5	751	764.0	21:29	1.12	1.18	0.00
07:00:33	1395.6	31.0	10.7	115	257	2985	688	668	1.11	1.11	44.4	45.0	1380.9	736	765.6	21:32	1.12	0.95	0.00
07:16:33	1396.1	17.9	4.1	118	164	2990	683	657	1.11	1.11	44.6	45.1	1387.0	735	766.1	21:34	1.12	0.81	0.00
07:17:39	1397.0	50.8	14.2	120	275	3010	679	567	1.11	1.11	44.7	45.7	1387.3	731	767.0	21:35	1.12	0.84	0.00
07:21:05	1398.0	30.1	20.8	119	287	3016	689	696	1.11	1.11	44.7	46.0	1388.3	727	768.0	21:37	1.12	0.93	0.0(
07:22:57	1399.0	27.8	18.7	113	338	2975	689	676	1.11	1.11	44.8	45.6	1388.6	726	769.0	21:39	1.12	0.98	0.00

`lByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-		ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
07:29:44	1400.0	17.3	7.9	111	299	2964	685	670	1.11	1.11	44.9	45.4	1391.1	722	770.0	21:42	1.12	0.86	0.00
07:30:48	1401.0	50.8	3.5	126	250	2931	679	686	1.11	1.11	45.0	45.4	1392.2	720	771.0	21:43	1.12	0.62	0.00
07:32:42	1402.1	35.7	16.1	129	205	2923	679	670	1.11	1.11	45.0	45.5	1392.6	720	772.1	21:45	1.12	0.98	0.00
07:34:25	1403.0	29.9	9.1	116	341	2945	679	696	1.11	1.11	45.1	45.5	1392.7	720	773.0	21:47	1.12	0.79	0.00
07:36:17	1404.0	36.7	1.0	125	213	2894	678	628	1.11	1.11	45.1	45.6	1393.0	719	774.0	21:49	1.12	0.75	0.00
07:37:37	1405.1	54.7	1.5	120	293	2952	678	623	1.11	1.11	45.1	45.6	1393.3	719	775.1	21:50	1.12	0.62	0.00
07:38:47	1406.0	47.0	2.7	125	258	2946	679	657	1.11	1.11	45.1	45.5	1393.8	718	776.0	21:51	1.12	0.58	0.00
07:39:49	1407.1	79.3	2.7	127	170	2922	679	703	1.11	1.11	45.2	45.3	1394.4	717	777.1	21:52	1.12	0.60	0.00
07:40:22	1408.0	108.3	4.9	129	188	2941	678	720	1.11	1.11	45.2	45.3	1394.7	717	778.0	21:53	1.12	0.52	0.00
07:41:03	1409.0	70.0	4.2	129	146	2918	678	714	1.11	1.11	45.1	45.4	1395.0	718	779.0	21:54	1.12	0.54	0.00
07:41:58	1410.0	62.3	4.0	122	310	2933	677	712	1.11	1.11	45.2	45.6	1395.0	717	780.0	21:54	1.12	0.60	0.00
07:42:59	1411.0	54.4	1.5	126	185	2897	679	684	1.11	1.11	45.2	45.7	1395.0	715	781.0	21:55	1.12	0.53	0.00
07:44:19	1412.0	45.8	0.4	129	144	2932	678	710	1.11	1.11	45.2	45.7	1395.0	715	782.0	21:57	1.12	0.48	0.00
07:45:40	1413.0	64.9	0.4	129	146	2874	678	699	1.11	1.11	45.2	45.6	1395.0	715	783.0	21:58	1.12	0.52	0.00
07:46:42	1414.0	54.9	2.1	129	126	2936	678	710	1.11	1.11	45.2	45.5	1395.3	715	784.0	21:59	1.12	0.57	0.00
07:47:40	1415.0	54.4	2.2	128	146	2950	678	716	1.11	1.11	45.2	45.6	1395.5	715	785.0	22:00	1.12	0.56	0.00
07:48:34	1416.0	62.4	2.7	130	148	2951	679	728	1.11	1.11	45.3	45.6	1395.5	714	786.0	22:01	1.12	0.55	0.00
07:49:40	1417.0	73.7	3.3	129	150	2904	679	679	1.11	1.11	45.3	45.5	1395.6	714	787.0	22:02	1.12	0.63	0.00
07:50:42	1418.0	53.0	6.1	120	235	2942	678	719	1.11	1.11	45.3	45.5	1395.6	714	788.0	22:03	1.12	0.64	0.00
07:52:06	1419.1	53.3	2.2	128	175	2951	679	706	1.11	1.11	45.3	45.4	1395.6	713	789.1	22:05	1.12	0.63	0.00
07:53:04	1420.0	53.7	3.8	126	256	2923	680	633	1.11	1.11	45.3	45.4	1395.6	712	790.0	22:06	1.12	0.61	0.00
07:56:10	1421.0	33.2	0.7	113	275	2976	680	679	1.11	1.11	45.3	45.4	1395.6	711	791.0	22:07	1.12	0.54	0.00
07:57:29	1422.0	54.1	3.8	119	156	2950	681	719	1.11	1.11	45.3	45.5	1395.8	710	792.0	22:09	1.12	0.66	0.00
07:58:29	1423.0	56.6	2.9	117	234	2949	681	727	1.11	1.11	45.3	45.4	1395.8	709	793.0	22:10	1.12	0.56	0.00
07:59:45	1424.0	48.6	1.1	119	162	2963	681	702	1.11	1.11	45.3	45.5	1395.8	708	794.0	22:11	1.12	0.56	0.00
08:12:54	1425.0	62.7	3.4	120	104	2998	680	668	1.11	1.11	45.3	45.6	1397.7	727	795.0	22:12	1.12	0.64	0.00
08:13:46	1426.0	58.6	20.2	120	163	3098	683	669	1.11	1.11	45.3	45.6	1398.0	720	796.0	22:13	1.12	0.83	0.00
08:14:52	1427.0	52.8	30.9	120	222	3089	695	711	1.11	1.11	45.3	45.5	1398.6	713	797.0	22:14	1.12	0.98	0.00
08:15:52	1428.1	65.1	31.2	119	240	3076	697	719	1.11	1.11	45.3	45.6	1399.0	708	798.1	22:15	1.12	0.94	0.00
08:16:33	1429.0	95.2	31.7	120	238	2982	693	730	1.11	1.11	45.3	45.5	1399.3	707	799.0	22:16	1.12	0.85	0.00
08:17:16	1430.0	75.3	23.1	120	177	2967	687	729	1.11	1.11	45.3	45.3	1399.4	706	800.0	22:17	1.12	0.78	0.00
08:17:49	1431.0	118.5	22.0	119	198	2880	680	723	1.11	1.11	45.3	45.3	1399.5	705	801.0	22:17	1.12	0.70	0.00
08:18:22	1432.0	125.6	15.3	119	178	2980	679	660	1.11	1.11	45.3	45.3	1399.5	705	802.0	22:18	1.12	0.64	0.00
08:18:54	1433.0	101.9	15.0	120	172	2977	678	630	1.11	1.11	45.3	45.3	1399.5	703	803.0	22:18	1.12	0.65	0.00
08:19:34	1434.0	77.6	10.9	120	156	2963	678	667	1.11	1.11	45.3	45.3	1399.5	702	804.0	22:19	1.12	0.65	0.00
08:20:13	1435.0	98.6	6.6	120	145	2970	678	615	1.11	1.11	45.3	45.4	1399.5	702	805.0	22:20	1.12	0.60	0.00
08:21:42	1436.0	32.3	15.6	120	155	2951	678	633	1.11	1.11	45.3	45.5	1399.7	700	806.0	22:21	1.12	0.92	0.00
08:22:26	1437.0	101.3	30.7	120	241	2987	677	690	1.11	1.11	45.3	45.4	1400.0	700	807.0	22:22	1.12	0.87	0.00
08:22:49	1438.1	174.7	27.1	120	197	2961	678	714	1.11	1.11	45.3	45.4	1400.2	700	808.1	22:22	1.12	0.61	0.00
08:23:23	1439.0	83.8	18.5	120	188	2979	679	705	1.11	1.11	45.3	45.5	1400.4	697	809.0	22:23	1.12	0.69	0.00
08:24:03	1440.1	102.9	12.5	120	149	2972	679	676	1.11	1.11	45.3	45.5	1401.0	697	810.1	22:23	1.12	0.63	0.00
08:24:52	1441.1	64.4	9.9	120	145	2969	678	640	1.11	1.11	45.3	45.6	1401.5	696	811.1	22:24	1.12	0.69	0.00
08:25:40	1442.0	76.9	11.5	120	175	2949	677	687	1.11	1.11	45.3	45.6	1401.9	696	812.0	22:25	1.12	0.70	0.00
08:26:26	1443.1	76.8	11.4	120	159	2975	677	692	1.11	1.11	45.3	45.6	1402.3	695	813.1	22:26	1.12	0.67	0.00
08:27:22	1444.0	59.2	11.6	120	160	2982	676	658	1.11	1.11	45.3	45.6	1402.9	694	814.0	22:27	1.12	0.73	0.00
08:28:13	1445.1	66.6	9.2	120	147	2985	677	694	1.11	1.11	45.3	45.6	1403.3	692	815.1	22:28	1.12	0.69	0.00

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-	-BIT-	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
08:29:33	1446.1	60.9	10.9	120	144	2937	677	702	1.11	1.11	45.3	45.7	1404.0	690	816.1	22:29	1.12	0.79	0.00
08:30:37	1447.0	57.7	13.5	120	160	2987	677	690	1.11	1.11	45.3	45.8	1404.7	690	817.0	22:30	1.12	0.80	0.00
08:31:38	1448.0	49.2	17.8	120	216	3006	678	688	1.11	1.11	45.3	45.9	1405.5	689	818.0	22:31	1.12	0.83	0.00
08:32:31	1449.0	68.8	20.2	120	228	2943	678	715	1.11	1.11	45.3	45.9	1406.3	688	819.0	22:32	1.12	0.81	0.00
08:33:23	1450.0	64.4	21.8	117	272	2994	678	712	1.11	1.11	45.3	45.9	1407.1	686	820.0	22:33	1.12	0.81	0.00
08:34:16	1451.1	79.5	21.2	117	262	3004	678	692	1.11	1.11	45.4	45.9	1408.1	684	821.1	22:34	1.12	0.83	0.00
08:35:08	1452.0	58.6	23.7	115	329	3004	678	686	1.11	1.11	45.4	45.9	1409.2	684	822.0	22:34	1.12	0.84	0.00
08:35:57	1453.0	82.8	21.3	116	218	2937	678	723	1.11	1.11	45.4	46.0	1410.2	682	823.0	22:35	1.12	0.79	0.00
08:52:18	1454.0	35.2	20.3	119	188	3006	678	723	1.11	1.11	45.4	46.0	1420.2	670	824.0	22:37	1.12	0.88	0.00
08:52:57	1455.0	106.0	23.0	120	226	3063	686	661	1.11	1.11	45.6	46.8	1420.3	667	825.0	22:37	1.12	0.79	0.00
08:54:02	1456.0	49.0	28.9	120	217	3069	687	711	1.11	1.11	45.7	46.7	1420.6	665	826.0	22:38	1.12	0.96	0.00
08:56:00	1457.0	27.2	33.1	120	210	3074	687	716	1.11	1.11	45.7	46.5	1421.8	662	827.0	22:40	1.12	1.15	0.00
08:57:00	1458.0	78.1	31.4	120	222	3068	687	722	1.11	1.11	45.8	46.3	1422.7	661	828.0	22:41	1.12	0.92	0.00
08:57:32	1459.1	97.9	19.1	120	176	3078	687	680	1.11	1.11	45.8	46.3	1423.2	660	829.1	22:42	1.12	0.69	0.00
08:58:19	1460.0	68.8	17.3	120	199	3077	687	671	1.11	1.11	45.8	46.4	1423.8	660	830.0	22:43	1.12	0.77	0.00
08:58:54	1461.0	130.2	19.4	120	199	3013	687	721	1.11	1.11	45.9	46.5	1424.3	657	831.0	22:43	1.12	0.68	0.00
08:59:23	1462.0	122.8	17.8	120	305	3049	688	725	1.11	1.11	45.8	46.5	1424.5	656	832.0	22:44	1.12	0.66	0.00
09:00:02	1463.0	87.2	13.7	119	182	3065	688	710	1.11	1.11	45.9	46.5	1424.6	655	833.0	22:44	1.12	0.65	0.00
09:00:33	1464.0	102.5	11.1	120	162	3068	688	719	1.11	1.11	45.9	46.6	1424.7	655	834.0	22:45	1.12	0.60	0.0
09:01:16	1465.0	70.7	11.4	120	152	3082	688	694	1.11	1.11	45.9	46.6	1424.7	654	835.0	22:45	1.12	0.68	0.0
09:01:58	1466.0	97.5	13.0	120	153	3076	688	705	1.11	1.11	45.9	46.6	1424.7	650	836.0	22:46	1.12	0.69	0.00
09:02:41	1467.0	86.7	16.0	120	184	2997	688	668	1.11	1.11	45.9	46.6	1424.7	651	837.0	22:47	1.12	0.73	0.00
09:03:18	1468.0	98.5	18.1	120	187	3070	688	698	1.11	1.11	45.9	46.7	1424.7	648	838.0	22:48	1.12	0.71	0.00
09:04:01	1469.0	81.6	19.4	120	192	3084	688	721	1.11	1.11	45.9	46.6	1424.7	646	839.0	22:48	1.12	0.76	0.00
09:04:36	1470.0	96.5	19.1	120	239	3078	688	716	1.11	1.11	45.9	46.4	1424.7	645	840.0	22:49	1.12	0.70	0.00
09:05:19	1471.1	90.9	20.0	120	198	3092	688	697	1.11	1.11	45.9	46.4	1424.7	643	841.1	22:50	1.12	0.75	0.00
09:05:59	1472.0	85.4	20.7	120	191	3085	689	641	1.11	1.11	46.0	46.4	1424.7	641	842.0	22:50	1.12	0.76	0.00
09:06:43	1473.0	79.7	20.3	120	183	3018	689	684	1.11	1.11	46.0	46.4	1425.5	640	843.0	22:51	1.12	0.77	0.00
09:07:44	1474.0	57.8	23.4	120	206	3078	687	715	1.11	1.11	46.0	46.4	1426.4	636	844.0	22:52	1.12	0.88	0.00
09:08:29	1475.0	91.0	23.9	120	225	3091	687	709	1.11	1.11	46.0	46.5	1427.1	635	845.0	22:53	1.12	0.81	0.00
09:09:09	1476.0	94.0	23.0	120	204	3080	688	679	1.11	1.11	46.0	46.5	1427.7	632	846.0	22:53	1.12	0.76	0.00
09:10:08	1477.0	122.1	24.8	120	212	3042	688	669	1.11	1.11	46.0	46.4	1428.9	629	847.0	22:54	1.12	0.89	0.00
09:10:56	1478.0	80.5	26.9	120	238	3088	688	711	1.11	1.11	46.0	46.3	1430.0	628	848.0	22:55	1.12	0.86	0.00
09:11:42	1479.0	82.7	25.9	119	251	3097	688	707	1.11	1.11	46.0	46.3	1431.2	624	849.0	22:56	1.12	0.83	0.00
09:12:32	1480.0	78.6	19.6	118	210	3079	688	713	1.11	1.11	46.0	46.3	1432.7	622	850.0	22:57	1.12	0.78	0.00
09:13:15	1481.0	78.7	18.0	120	177	3094	688	692	1.11	1.11	46.0	46.4	1433.8	619	851.0	22:57	1.12	0.74	0.00
09:14:33	1482.0	40.9	22.6	120	208	3046	687	670	1.11	1.11	46.0	46.6	1435.3	616	852.0	22:59	1.12	0.95	0.00
09:36:56	1483.1	30.6	28.4	120	198	3077	686	653	1.11	1.11	46.0	46.9	1451.5	606	853.1	23:01	1.12	1.16	0.00
09:37:47	1484.0	73.0	20.9	120	212	3040	677	680	1.11	1.11	46.0	46.2	1452.5	602	854.0	23:02	1.12	0.82	0.00
09:41:02	1485.0	13.6	31.8	120	198	3027	684	656	1.11	1.11	46.0	46.2	1453.9	594	855.0	23:06	1.12	1.28	0.00
09:41:45	1486.1	117.6	28.5	120	236	3046	685	717	1.11	1.11	45.9	46.3	1453.9	593	856.1	23:06	1.12	0.78	0.00
09:42:14	1487.0	96.4	28.2	120	208	3063	686	716	1.11	1.11	46.0	46.4	1453.9	592	857.0	23:07	1.12	0.74	0.00
09:44:29	1488.0	21.1	32.7	120	221	3056	686	652	1.11	1.11	46.0	46.5	1453.9	591	858.0	23:09	1.12	1.19	0.00
09:46:27	1489.0	31.5	30.5	120	231	3046	685	691	1.11	1.11	46.0	46.6	1453.9	590	859.0	23:11	1.12	1.12	0.0
09:48:09	1490.0	54.9	31.9	120	228	3018	684	708	1.11	1.11	46.0	46.7	1453.9	589	860.0	23:13	1.12	1.09	0.0
09:49:55	1491.0	27.6	32.0	120	233	3061	685	666	1.11	1.11	46.0	46.8	1454.0	587	861.0	23:14	1.12	1.11	0.00

llByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT	MUD DENSITY IN sg	MUD DENSITY OUT	MUD TEMP IN deg C	MUD TEMP OUT	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
09:52:41	1492.0	28.5	33.7	120	240	3038	685	724	1.11	1.11	46.1	46.7	1455.9	585	862.0	23:17	1.12	1.25	0.00
09:53:10	1493.1	140.6	26.7	120	232	3049	687	718	1.11	1.11	46.1	46.7	1456.4	584	863.1	23:18	1.12	0.69	0.00
09:53:40	1494.0	101.4	20.4	120	207	3046	687	640	1.11	1.11	46.1	46.7	1456.7	584	864.0	23:18	1.12	0.69	0.00
09:54:19	1495.1	113.2	13.5	120	193	3042	687	651	1.11	1.11	46.1	46.8	1456.9	583	865.1	23:19	1.12	0.65	0.00
09:54:57	1496.1	92.0	6.8	120	154	2943	686	627	1.11	1.11	46.1	46.8	1457.2	583	866.1	23:19	1.12	0.59	0.00
09:55:36	1497.0	96.7	7.5	120	274	3028	685	600	1.11	1.11	46.1	46.8	1457.8	584	867.0	23:20	1.12	0.62	0.00
09:56:32	1498.0	51.1	8.3	120	146	3031	685	687	1.11	1.11	46.1	46.9	1459.1	583	868.0	23:21	1.12	0.69	0.00
10:03:34	1499.0	6.3	33.3	120	166	3025	683	683	1.11	1.11	45.9	47.0	1469.2	478	869.0	23:28	1.12	1.08	0.00
10:06:28	1500.0	101.3	28.8	120	273	3039	683	718	1.11	1.11	45.7	47.2	1473.0	419	870.0	23:31	1.12	1.18	0.00
10:07:28	1501.1	57.5	24.0	120	226	3052	684	725	1.11	1.11	45.7	47.3	1474.1	401	871.1	23:32	1.12	0.87	0.00
10:08:01	1502.1	112.4	23.0	120	220	3050	684	733	1.11	1.11	45.8	47.3	1474.7	397	872.1	23:32	1.12	0.72	0.00
10:09:33	1503.0	30.5	26.6	120	214	3023	684	708	1.11	1.11	45.9	47.3	1476.4	389	873.0	23:34	1.12	1.03	0.00
10:10:16	1504.0	111.0	27.2	120	240	3052	685	663	1.11	1.11	46.0	47.2	1477.2	391	874.0	23:35	1.12	0.82	0.00
10:10:57	1505.0	91.4	21.4	120	216	3065	685	653	1.11	1.11	46.1	47.3	1478.0	391	875.0	23:35	1.12	0.73	0.00
10:11:41	1506.0	84.4	15.5	120	221	3063	684	708	1.11	1.11	46.1	47.3	1478.9	387	876.0	23:36	1.12	0.72	0.00
10:12:22	1507.0	80.2	15.9	120	233	2979	685	736	1.11	1.11	46.2	47.3	1479.7	387	877.0	23:37	1.12	0.71	0.00
10:13:00	1508.0	98.1	15.5	120	227	3056	685	727	1.11	1.11	46.2	47.2	1480.5	387	878.0	23:37	1.12	0.70	0.00
10:13:47	1509.0	70.6	16.3	120	216	3061	685	701	1.11	1.11	46.2	47.1	1481.4	388	879.0	23:38	1.12	0.75	0.00
10:14:47	1510.0	64.5	19.2	120	207	3056	684	712	1.11	1.11	46.3	47.1	1482.0	383	880.0	23:39	1.12	0.83	0.00
10:15:47	1511.0	101.3	24.1	118	291	2982	684	714	1.11	1.11	46.4	47.1	1482.3	388	881.0	23:40	1.12	0.87	0.00
10:16:24	1512.0	87.3	15.6	118	335	3064	684	706	1.11	1.11	46.4	47.1	1482.5	402	882.0	23:41	1.12	0.66	0.00
10:38:20	1513.0	107.8	5.3	120	264	2988	693	595	1.11	1.11	45.7	47.9	1483.1	458	883.0	23:42	1.12	0.60	0.00
10:40:23	1514.0	57.1	8.6	108	387	2935	698	619	1.11	1.11	45.6	48.0	1484.1	437	884.0	23:43	1.12	0.69	0.00
10:41:50	1515.0	53.6	4.2	116	212	2934	698	718	1.11	1.11	45.6	47.9	1484.6	437	885.0	23:44	1.12	0.69	0.00
10:43:14	1516.0	37.9	22.0	119	226	3028	699	731	1.11	1.11	45.7	47.7	1485.3	438	886.0	23:45	1.12	0.96	0.00
10:46:29	1517.0	16.8	36.5	119	304	3017	706	685	1.11	1.11	45.8	47.4	1488.6	430	887.0	23:49	1.12	1.32	0.00
10:50:15	1518.0	16.2	33.4	119	305	3055	708	717	1.11	1.11	45.8	47.2	1490.6	432	888.0	23:52	1.12	1.32	0.00
10:54:21	1519.0	12.8	34.9	119	292	3062	710	717	1.11	1.11	46.0	47.1	1491.7	439	889.0	23:57	1.12	1.33	0.00
10:58:03	1520.0	15.4	36.8	119	287	3043	708	699	1.11	1.11	46.1	47.1	1497.1	439	890.0	24:00	1.12	1.35	0.00
11:06:34	1521.1	39.7	29.6	119	304	3046	708	692	1.11	1.11	46.2	47.6	1499.1	438	891.1	24:04	1.12	1.24	0.00
11:07:32	1522.0	72.8	8.4	120	240	3066	707	686	1.11	1.11	46.2	47.5	1499.1	438	892.0	24:05	1.12	0.71	0.00
11:09:26	1523.0	28.2	29.4	119	374	3053	708	707	1.11	1.11	46.2	47.6	1500.7	437	893.0	24:07	1.12	1.12	0.00
11:14:11	1524.0	14.4	38.6	119	331	3067	709	722	1.11	1.11	46.2	47.6	1506.0	438	894.0	24:12	1.12	1.44	0.00
11:17:53	1525.0	15.5	37.4	120	291	3062	708	646	1.11	1.11	46.3	47.9	1510.4	439	895.0	24:15	1.12	1.38	0.00
11:21:53	1526.0	12.4	38.8	120	310	3064	708	676	1.11	1.11	46.3	47.9	1512.0	439	896.0	24:19	1.12	1.40	0.00
11:25:31	1527.0	19.8	38.2	120	318	3051	707	726	1.11	1.11	46.2	47.9	1512.0	445	897.0	24:23	1.12	1.37	0.00
11:28:58	1528.0	16.3	38.8	120	316	3052	707	723	1.11	1.11	46.2	48.0	1512.0	444	898.0	24:27	1.12	1.36	0.00
11:32:12	1529.0	22.1	37.3	120	328	3037	707	717	1.11	1.11	46.2	48.0	1513.4	447	899.0	24:30	1.12	1.33	0.00
11:35:56	1530.0	17.5	37.4	119	333	3017	707	718	1.11	1.11	46.2	48.0	1515.4	450	900.0	24:34	1.12	1.37	0.00
11:38:29	1531.0	35.8	37.0	119	324	3024	707	700	1.11	1.11	46.2	47.9	1516.5	452	901.0	24:36	1.12	1.23	0.00
11:40:34	1532.0	26.4	36.0	119	310	3008	707	638	1.11	1.11	46.2	48.3	1517.0	453	902.0	24:38	1.12	1.20	0.00
11:45:44	1533.0	17.6	36.7	115	342	3021	706	715	1.11	1.11	46.2	48.2	1518.3	457	903.0	24:41	1.12	1.29	0.00
11:48:41	1534.0	17.9	37.6	118	271	2998	707	735	1.11	1.11	46.2	48.1	1519.1	458	904.0	24:44	1.12	1.30	0.00
11:52:10	1535.0	18.4	40.2	118	275	3034	708	690	1.11	1.11	46.2	48.3	1519.9	457	905.0	24:48	1.12	1.38	0.00
11:56:24	1536.1	14.8	39.8	118	293	3071	708	708	1.11	1.11	46.3	48.2	1520.3	465	906.1	24:52	1.12	1.41	0.00
11:59:43	1537.0	18.0	38.8	120	303	3040	707	688	1.11	1.11	46.3	48.3	1520.8	466	907.0	24:55	1.12	1.35	0.00

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT gpm	MUD DENSITY IN sg	MUD DENSITY OUT sg	MUD TEMP IN deg C	MUD TEMP OUT deg C	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
12:03:41	1538.0	17.1	38.0	119	284	3035	708	722	1.11	1.11	46.4	48.4	1522.6	470	908.0	24:59	1.12	1.39	0.00
12:06:50	1539.0	19.2	40.0	120	279	3039	708	721	1.11	1.11	46.5	48.5	1523.5	473	909.0	25:02	1.12	1.35	0.00
12:10:07	1540.0	17.3	41.1	121	277	3038	708	729	1.11	1.11	46.6	48.5	1524.3	466	910.0	25:06	1.12	1.38	0.00
12:13:33	1541.0	15.3	38.8	121	274	3063	708	731	1.11	1.11	46.7	48.4	1525.1	452	911.0	25:09	1.12	1.35	0.00
12:57:37	1542.0	64.7	31.6	120	257	3082	706	699	1.11	1.11	47.3	48.7	1534.9	460	912.0	25:14	1.12	1.36	0.00
13:00:47	1543.0	16.7	39.6	120	274	3098	707	726	1.11	1.11	47.5	48.3	1535.7	456	913.0	25:17	1.12	1.35	0.00
13:03:56	1544.0	19.8	40.0	120	273	3065	706	734	1.11	1.11	47.4	48.1	1536.5	457	914.0	25:20	1.12	1.35	0.00
13:07:23	1545.0	17.7	41.0	120	278	3080	705	714	1.11	1.11	47.4	48.1	1537.4	457	915.0	25:23	1.12	1.37	0.00
13:11:02	1546.0	18.1	37.5	120	253	3093	705	668	1.11	1.11	47.3	48.3	1538.4	458	916.0	25:27	1.12	1.37	0.00
13:28:26	1547.0	21.1	40.6	121	257	3019	700	660	1.11	1.11	47.4	48.1	1539.3	458	917.0	25:30	1.12	1.32	0.00
13:31:32	1548.0	20.0	40.6	121	261	3019	700	660	1.11	1.11	47.4	48.1	1539.3	458	918.0	25:30	1.12	1.34	0.00
13:34:53	1549.0	21.0	40.6	121	257	3019	700	660	1.11	1.11	47.4	48.1	1539.3	458	919.0	25:30	1.12	1.33	0.00
13:37:51	1550.0	18.0	40.6	121	248	3019	700	660	1.11	1.11	47.4	48.1	1539.3	458	920.0	25:30	1.12	1.34	0.00
13:40:56	1551.0	16.0	40.6	121	254	3019	700	660	1.11	1.11	47.4	48.1	1539.3	458	921.0	25:30	1.12	1.32	0.00
13:44:56	1552.0	19.0	40.6	121	262	3019	700	660	1.11	1.11	47.4	48.1	1539.3	458	922.0	25:30	1.12	1.34	0.00
13:47:18	1553.0	19.0	40.6	123	250	3019	700	660	1.11	1.11	47.4	48.1	1539.3	458	923.0	25:30	1.12	1.37	0.00
13:50:51	1554.0	21.0	40.6	121	254	3019	700	660	1.11	1.11	47.4	48.1	1539.3	458	924.0	25:30	1.12	1.34	0.00
13:54:54	1555.0	16.0	40.6	122	253	3019	700	660	1.11	1.11	47.4	48.1	1539.3	458	925.0	25:30	1.12	1.33	0.00
13:57:16	1556.0	15.0	40.6	122	240	3019	700	660	1.11	1.11	47.4	48.1	1539.3	458	926.0	25:30	1.12	1.33	0.[illegible]
14:01:00	1557.0	15.0	40.6	123	255	3019	700	660	1.11	1.11	47.4	48.1	1539.3	458	927.0	25:30	1.12	1.35	0.[illegible]
14:05:10	1558.0	15.0	40.6	123	246	3019	700	660	1.11	1.11	47.4	48.1	1539.3	458	928.0	25:30	1.12	1.37	0.00
14:09:34	1560.0	11.7	39.9	121	223	2995	697	709	1.11	1.11	46.7	48.3	1544.3	482	930.0	26:19	1.12	1.47	0.00
14:13:32	1561.0	15.4	40.2	121	230	3046	699	723	1.11	1.11	46.9	48.6	1545.9	486	931.0	26:23	1.12	1.41	0.00
14:18:15	1562.0	11.1	41.1	121	232	3081	699	709	1.11	1.11	46.9	48.5	1547.7	487	932.0	26:27	1.12	1.48	0.00
14:23:36	1563.0	9.4	40.9	120	208	3078	699	669	1.11	1.11	47.1	48.8	1549.8	493	933.0	26:33	1.12	1.52	0.00
14:27:34	1564.0	14.8	41.7	111	230	3047	700	718	1.11	1.11	47.0	48.8	1551.4	498	934.0	26:37	1.12	1.41	0.00
14:32:03	1565.0	15.4	39.6	109	195	3048	700	728	1.11	1.11	46.9	48.7	1553.2	504	935.0	26:41	1.12	1.41	0.00
14:37:05	1566.0	14.4	39.8	109	212	3056	701	705	1.11	1.11	46.9	48.7	1555.2	509	936.0	26:46	1.12	1.45	0.00
14:42:29	1567.0	11.4	39.3	109	209	3068	701	678	1.11	1.11	46.9	48.9	1557.3	513	937.0	26:52	1.12	1.47	0.00
14:47:03	1568.0	12.8	37.6	109	207	3062	701	677	1.11	1.11	47.0	48.9	1559.0	518	938.0	26:56	1.12	1.41	0.00
15:10:54	1569.0	14.0	38.4	110	217	3030	701	708	1.11	1.11	47.0	48.9	1562.4	604	939.0	27:01	1.12	1.42	0.00
15:15:30	1570.0	14.5	36.6	119	215	3041	699	711	1.11	1.11	46.7	49.1	1563.3	645	940.0	27:06	1.12	1.42	0.00
15:35:23	1571.0	21.6	35.1	115	218	3018	697	646	1.11	1.11	46.7	48.5	1565.0	720	941.0	27:10	1.12	1.36	0.00
15:38:52	1572.0	15.1	38.6	116	262	3015	699	703	1.11	1.11	46.5	47.1	1565.8	699	942.0	27:13	1.12	1.35	0.00
15:42:47	1573.0	23.9	37.9	116	243	3036	702	716	1.11	1.11	46.6	47.4	1566.2	694	943.0	27:17	1.12	1.38	0.00
15:46:51	1574.1	14.2	37.0	116	225	3057	702	718	1.11	1.11	46.8	47.3	1567.0	691	944.1	27:21	1.12	1.43	0.00
15:51:20	1575.0	12.3	38.6	116	228	3047	702	696	1.11	1.11	46.9	47.2	1567.7	689	945.0	27:26	1.12	1.42	0.00
15:55:43	1576.0	13.9	37.7	116	240	3101	702	639	1.11	1.11	47.2	47.8	1568.4	688	946.0	27:30	1.12	1.42	0.00
16:00:06	1577.0	10.7	37.2	116	230	3094	702	683	1.11	1.11	47.3	48.0	1569.2	687	947.0	27:35	1.12	1.41	0.00
16:04:37	1578.0	12.5	37.7	116	222	3149	702	704	1.11	1.11	47.5	47.9	1569.9	685	948.0	27:39	1.12	1.42	0.00
16:09:02	1579.0	14.5	41.0	117	248	3138	700	672	1.11	1.11	47.7	48.3	1570.6	684	949.0	27:44	1.12	1.45	0.00
16:14:09	1580.0	11.5	38.8	121	241	3106	691	713	1.11	1.11	47.8	48.5	1571.5	685	950.0	27:49	1.12	1.47	0.00
16:18:15	1581.0	12.6	40.2	121	252	3116	690	694	1.11	1.11	47.9	48.4	1572.1	685	951.0	27:53	1.12	1.43	0.00
16:22:32	1582.0	16.1	38.7	121	244	3106	690	682	1.11	1.11	48.0	48.6	1572.8	684	952.0	27:57	1.12	1.43	0.0[illegible]
16:27:05	1583.0	13.4	38.1	121	250	3113	690	728	1.11	1.11	48.1	48.7	1573.6	682	953.0	28:02	1.12	1.43	0.[illegible]
16:30:55	1584.0	14.9	38.4	121	259	3120	690	653	1.11	1.11	48.1	48.6	1574.0	681	954.0	28:05	1.12	1.39	0.0[illegible]

'lByte Drilling Data Printout
C. .ANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW		MUD DENSITY		MUD	TEMP	RETURNS	PVT	-BIT-		ECD	DXC	GAS
							IN	OUT	IN	OUT	IN	OUT	DEPTH						
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
16:35:58	1585.0	12.2	38.0	121	243	3111	691	668	1.11	1.11	48.2	48.7	1575.1	679	955.0	28:11	1.12	1.47	0.00
16:58:40	1586.0	16.6	37.5	117	224	2986	691	679	1.11	1.11	48.3	48.8	1579.8	672	956.0	28:15	1.12	1.40	0.00
17:03:34	1587.0	9.9	38.1	119	235	3054	707	676	1.11	1.11	49.3	50.1	1581.2	671	957.0	28:20	1.12	1.45	0.00
17:07:53	1588.0	13.9	38.4	120	242	3106	707	706	1.11	1.11	49.5	49.5	1581.9	669	958.0	28:24	1.12	1.42	0.00
17:13:06	1589.1	12.4	38.0	120	242	3182	707	659	1.11	1.11	49.4	49.0	1583.0	666	959.1	28:29	1.12	1.46	0.00
17:17:36	1590.0	12.8	38.5	120	246	3212	707	635	1.11	1.11	49.2	49.1	1584.1	664	960.0	28:34	1.12	1.44	0.00
17:22:10	1591.0	15.6	36.4	120	243	3205	708	692	1.11	1.11	49.1	48.8	1585.1	663	961.0	28:38	1.12	1.42	0.00
17:26:33	1592.0	16.9	39.2	120	263	3173	699	703	1.11	1.11	49.0	48.7	1585.9	666	962.0	28:43	1.12	1.43	0.00
17:30:43	1593.0	23.3	38.6	120	266	3159	694	673	1.11	1.11	48.8	48.5	1585.9	667	963.0	28:47	1.12	1.40	0.00
17:35:17	1594.0	13.8	37.5	120	258	3135	688	649	1.11	1.11	48.6	48.2	1585.9	665	964.0	28:51	1.12	1.43	0.00
17:39:47	1595.0	25.6	37.3	120	254	3133	688	652	1.11	1.11	48.4	48.1	1585.9	662	965.0	28:56	1.12	1.43	0.00
17:44:16	1596.0	14.3	38.5	120	255	3143	687	678	1.11	1.11	48.0	48.4	1585.9	663	966.0	29:00	1.12	1.43	0.00
17:48:51	1597.0	11.7	37.7	120	248	3102	687	669	1.11	1.11	47.8	48.4	1586.6	661	967.0	29:05	1.12	1.43	0.00
17:53:48	1598.0	10.8	39.0	120	259	3063	687	666	1.11	1.11	47.6	48.5	1587.5	659	968.0	29:10	1.12	1.47	0.00
18:14:13	1599.0	18.5	37.8	119	249	3059	688	689	1.11	1.11	47.1	48.1	1590.1	657	969.0	29:14	1.12	1.27	0.00
18:19:31	1600.0	12.2	34.4	120	240	3112	704	634	1.11	1.11	46.6	48.0	1591.2	646	970.0	29:19	1.12	1.44	0.00
18:24:26	1601.0	16.0	35.7	120	242	3098	704	684	1.11	1.11	46.3	48.5	1592.2	648	971.0	29:24	1.12	1.42	0.00
18:30:07	1602.0	11.9	35.3	120	231	3085	704	688	1.11	1.11	46.1	48.5	1593.3	649	972.0	29:30	1.12	1.47	0.00
:35:47	1603.0	10.9	33.9	120	234	3068	704	624	1.11	1.11	46.1	48.4	1594.5	646	973.0	29:36	1.12	1.47	0.00
18:41:41	1604.0	12.1	36.4	120	239	3085	705	621	1.11	1.11	46.1	48.2	1595.7	643	974.0	29:42	1.12	1.49	0.00
18:48:33	1605.0	6.9	36.0	120	234	3088	705	684	1.11	1.11	46.7	48.3	1597.1	639	975.0	29:48	1.12	1.53	0.00
18:54:47	1606.0	9.3	35.8	120	229	3078	705	691	1.11	1.11	47.1	48.1	1598.2	638	976.0	29:55	1.12	1.50	0.00
19:01:09	1607.0	9.9	36.1	120	238	3107	705	639	1.11	1.11	47.1	48.2	1599.5	635	977.0	30:01	1.12	1.51	0.00
19:07:27	1608.0	8.6	36.7	120	226	3121	705	659	1.11	1.11	47.0	48.5	1600.7	632	978.0	30:07	1.12	1.50	0.00
19:13:21	1609.0	11.3	36.5	120	230	3118	705	698	1.11	1.11	47.1	48.5	1601.7	630	979.0	30:13	1.12	1.48	0.00
19:19:23	1610.0	11.1	35.8	120	233	3090	705	704	1.11	1.11	47.1	48.7	1602.8	630	980.0	30:19	1.12	1.48	0.00
19:24:45	1611.0	11.3	36.1	121	228	3108	704	724	1.11	1.11	46.9	48.2	1603.7	606	981.0	30:25	1.12	1.45	0.00
19:31:14	1612.0	8.5	37.0	121	214	3124	704	688	1.11	1.11	46.5	48.5	1604.6	605	982.0	30:31	1.12	1.52	0.00
19:37:18	1613.0	10.0	37.6	121	214	3089	704	692	1.11	1.11	46.3	48.4	1605.4	607	983.0	30:37	1.12	1.50	0.00
19:42:47	1614.0	11.3	38.0	120	219	3123	705	683	1.11	1.11	46.5	48.3	1606.2	621	984.0	30:43	1.12	1.49	0.00
19:49:16	1615.0	9.6	37.7	120	217	3095	704	694	1.11	1.11	46.9	48.3	1607.3	623	985.0	30:49	1.12	1.53	0.00
19:56:29	1616.0	7.7	37.0	121	195	3082	703	642	1.11	1.11	47.4	48.2	1608.4	622	986.0	30:56	1.12	1.56	0.00
20:04:40	1617.0	11.9	36.8	109	214	3079	703	699	1.11	1.11	47.3	48.2	1609.6	624	987.0	31:05	1.12	1.55	0.01
20:11:07	1618.0	9.1	36.1	108	239	3071	696	700	1.11	1.11	47.1	48.4	1610.7	621	988.0	31:11	1.12	1.48	0.01
20:17:08	1619.0	9.5	37.4	108	253	3028	696	673	1.11	1.11	47.4	48.5	1611.7	620	989.0	31:17	1.12	1.47	0.01
20:22:41	1620.0	10.9	37.6	108	246	3041	696	708	1.11	1.11	47.6	48.5	1612.6	620	990.0	31:23	1.12	1.45	0.01
20:28:04	1621.0	10.0	39.0	108	267	3070	696	637	1.11	1.11	47.8	48.8	1613.3	617	991.0	31:28	1.12	1.46	0.01
20:34:02	1622.0	10.3	38.0	108	251	3066	696	638	1.11	1.11	48.0	48.7	1614.3	615	992.0	31:34	1.12	1.48	0.01
20:39:31	1623.0	12.3	39.8	112	261	3092	697	679	1.11	1.11	48.2	48.7	1615.2	612	993.0	31:39	1.12	1.49	0.01
20:45:15	1624.1	12.4	39.1	115	263	3137	697	675	1.11	1.11	48.3	48.4	1615.8	612	994.1	31:45	1.12	1.49	0.01
20:51:14	1625.0	9.3	38.9	119	249	3131	696	654	1.11	1.11	48.3	48.5	1616.6	611	995.0	31:51	1.12	1.52	0.01
20:56:18	1626.0	12.0	39.2	120	264	3156	696	684	1.11	1.11	48.4	48.4	1617.2	610	996.0	31:56	1.12	1.47	0.01
21:00:53	1627.0	13.6	39.1	120	271	3150	697	682	1.11	1.11	48.3	48.5	1617.9	610	997.0	32:01	1.12	1.44	0.01
'1:24:47	1628.0	8.4	38.6	119	253	3124	693	688	1.11	1.11	48.2	48.4	1620.9	612	998.0	32:07	1.12	1.51	0.00
.1:29:56	1629.0	14.7	38.4	120	253	3080	687	661	1.11	1.11	47.9	47.9	1621.7	607	999.0	32:12	1.12	1.45	0.00
21:34:47	1630.0	18.6	38.1	120	260	3080	686	644	1.11	1.11	47.8	48.3	1622.5	607	1000.0	32:17	1.12	1.45	0.00

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW		MUD DENSITY		MUD TEMP		RETURNS	PVT	-BIT-		ECD	DXC	GAS
							IN	OUT	IN	OUT	IN	OUT	DEPTH						
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
21:39:46	1631.0	12.1	37.5	120	257	3051	685	694	1.11	1.11	47.8	48.5	1623.3	607	1001.0	32:22	1.12	1.45	0.00
21:44:00	1632.0	13.5	37.1	120	253	3044	684	691	1.11	1.11	47.7	48.4	1624.0	608	1002.0	32:26	1.12	1.41	0.00
21:49:28	1633.0	10.4	37.3	120	248	3073	684	661	1.11	1.11	47.4	48.3	1624.9	608	1003.0	32:31	1.12	1.48	0.00
21:53:48	1634.0	13.2	36.9	120	254	3004	683	635	1.11	1.11	47.3	48.3	1625.7	608	1004.0	32:36	1.12	1.42	0.00
21:59:43	1635.0	8.2	37.5	120	240	3016	682	631	1.11	1.11	47.5	48.5	1626.9	606	1005.0	32:42	1.12	1.50	0.00
22:06:18	1636.0	11.8	37.6	120	242	2977	682	613	1.11	1.11	47.8	48.4	1627.6	606	1006.0	32:48	1.12	1.54	0.00
22:12:24	1637.0	9.3	38.8	120	257	2999	682	578	1.11	1.11	48.0	48.3	1627.6	602	1007.0	32:54	1.12	1.53	0.00
22:18:23	1638.0	11.3	38.1	120	242	3040	683	662	1.11	1.11	48.1	48.5	1627.9	600	1008.0	33:00	1.12	1.51	0.00
22:24:15	1639.0	9.7	38.1	120	236	3094	685	648	1.11	1.11	48.2	48.4	1628.9	598	1009.0	33:06	1.12	1.51	0.00
22:29:35	1640.1	12.7	37.9	120	240	3086	681	694	1.11	1.11	48.2	48.4	1630.5	594	1010.1	33:12	1.12	1.46	0.00
22:35:18	1641.1	14.2	38.7	120	241	3110	682	665	1.11	1.11	48.3	48.7	1631.2	593	1011.1	33:17	1.12	1.50	0.00
22:40:30	1642.1	11.6	39.1	120	254	3122	683	670	1.11	1.11	48.3	48.6	1632.3	593	1012.1	33:22	1.12	1.47	0.00
22:44:57	1643.1	15.4	38.4	119	253	3141	682	661	1.11	1.11	48.4	48.7	1633.1	590	1013.1	33:27	1.12	1.43	0.00
22:50:30	1644.0	11.0	38.7	120	252	3161	682	631	1.11	1.11	48.4	48.6	1634.2	588	1014.0	33:32	1.12	1.50	0.00
22:55:54	1645.1	11.0	38.0	120	243	3137	681	677	1.11	1.11	48.5	48.7	1635.0	587	1015.1	33:38	1.12	1.46	0.00
23:01:48	1646.0	9.9	37.3	120	238	3157	682	647	1.11	1.11	48.5	48.8	1635.9	586	1016.0	33:44	1.12	1.50	0.00
23:07:01	1647.0	12.4	38.1	119	253	3184	683	642	1.11	1.11	48.5	48.9	1636.8	585	1017.0	33:49	1.12	1.48	0.00
23:14:25	1648.0	8.2	37.6	120	234	3153	682	637	1.11	1.11	48.6	48.7	1638.0	584	1018.0	33:56	1.12	1.55	0.00
23:22:01	1649.0	7.0	36.7	120	214	3152	677	625	1.11	1.11	48.6	48.7	1639.2	584	1019.0	34:04	1.12	1.58	0.
23:28:27	1650.0	9.0	35.8	120	228	3045	663	628	1.11	1.11	48.6	48.9	1640.4	583	1020.0	34:10	1.12	1.50	0.
23:34:38	1651.0	13.4	36.1	120	221	3018	663	618	1.11	1.11	48.6	48.7	1641.4	582	1021.0	34:17	1.12	1.50	0.00
23:39:04	1652.0	13.6	35.6	120	249	3034	664	604	1.11	1.11	48.6	49.0	1642.3	582	1022.0	34:21	1.12	1.40	0.00
23:44:10	1653.0	11.2	37.2	120	245	3011	664	639	1.11	1.11	48.6	49.1	1643.3	577	1023.0	34:26	1.12	1.44	0.00
23:49:37	1654.0	11.6	38.7	120	246	3041	665	593	1.11	1.11	48.7	49.1	1644.2	576	1024.0	34:32	1.12	1.49	0.00
23:54:45	1655.0	13.0	38.1	120	245	3032	666	593	1.11	1.11	48.8	49.1	1645.1	575	1025.0	34:37	1.12	1.48	0.00
23:59:47	1656.0	12.1	37.6	120	252	3059	666	598	1.11	1.11	48.8	48.9	1645.9	574	1026.0	34:42	1.12	1.46	0.00
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00:05:14	1657.0	10.6	38.7	120	258	3052	665	612	1.11	1.11	48.8	48.9	1647.1	573	1027.0	34:47	1.12	1.50	0.00
00:29:20	1658.0	12.3	37.2	119	296	3114	674	607	1.11	1.11	48.8	47.5	1649.1	559	1028.0	34:53	1.12	1.52	0.00
00:33:31	1659.0	14.1	36.3	120	256	3121	676	618	1.11	1.11	48.5	48.3	1649.7	558	1029.0	34:57	1.12	1.40	0.00
00:38:14	1660.1	14.9	36.2	120	252	3095	670	642	1.11	1.11	48.2	48.7	1650.5	556	1030.1	35:02	1.12	1.40	0.00
00:42:18	1661.0	15.4	38.6	120	291	3140	671	625	1.11	1.11	48.1	49.0	1651.1	556	1031.0	35:06	1.12	1.42	0.00
00:46:31	1662.0	14.7	37.9	120	264	3111	671	656	1.11	1.11	48.2	49.0	1652.1	558	1032.0	35:10	1.12	1.41	0.00
00:50:54	1663.0	13.8	37.6	120	277	3097	671	630	1.11	1.11	48.2	48.8	1653.0	556	1033.0	35:15	1.12	1.42	0.00
00:54:34	1664.0	15.3	37.4	120	291	3025	665	611	1.11	1.11	48.2	49.0	1653.6	452	1034.0	35:18	1.12	1.38	0.00
00:58:33	1665.0	14.6	36.6	120	260	3110	670	611	1.11	1.11	48.2	49.1	1654.3	451	1035.0	35:22	1.12	1.39	0.00
01:05:15	1666.0	7.9	37.1	120	231	3140	668	615	1.11	1.11	48.2	48.8	1655.6	451	1036.0	35:29	1.12	1.54	0.00
01:15:04	1668.0	15.5	37.5	120	254	3024	659	647	1.11	1.11	48.2	48.8	1657.1	452	1038.0	35:39	1.12	1.46	0.00
01:21:23	1669.0	10.1	37.8	120	239	2975	658	619	1.11	1.11	48.1	49.0	1657.1	453	1039.0	35:45	1.12	1.53	0.00
01:25:51	1670.1	18.5	38.0	119	266	3006	658	633	1.11	1.11	48.1	48.9	1657.1	453	1040.1	35:50	1.12	1.41	0.00
01:30:45	1671.1	14.1	36.2	120	269	3039	658	573	1.11	1.11	48.1	48.8	1657.9	454	1041.1	35:55	1.12	1.44	0.00
01:34:52	1672.0	14.3	36.1	119	261	2972	657	583	1.11	1.11	48.1	49.1	1658.7	455	1042.0	35:59	1.12	1.39	0.00
01:39:11	1673.0	16.4	36.2	120	261	3001	658	651	1.11	1.11	48.1	48.7	1659.6	455	1043.0	36:03	1.12	1.40	0.00
01:43:11	1674.0	15.6	37.2	120	268	3021	659	673	1.11	1.11	48.1	48.8	1660.5	455	1044.0	36:07	1.12	1.39	0.
01:51:13	1675.1	10.8	38.3	120	248	3011	658	616	1.11	1.11	48.1	48.6	1662.3	456	1045.1	36:15	1.12	1.59	0
01:55:53	1676.0	11.9	37.4	120	268	3036	659	553	1.11	1.11	48.0	48.5	1663.6	456	1046.0	36:20	1.12	1.44	0.00

'Byte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT- mts	-BIT- hh:mm	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
02:01:33	1677.0	12.2	37.3	120	263	3009	657	557	1.11	1.11	47.9	48.9	1664.9	457	1047.0	36:25	1.12	1.49	0.00
01:10:03	1667.0	10.3	37.8	120	260	3055	660	632	1.11	1.11	48.2	48.7	1656.4	453	1037.0	35:34	1.12	1.45	0.00
02:06:35	1678.0	12.2	35.6	120	259	3008	661	609	1.11	1.11	47.9	48.6	1665.6	457	1048.0	36:30	1.12	1.44	0.00
02:11:40	1679.0	12.9	38.2	120	257	3046	662	630	1.11	1.11	47.9	48.7	1666.6	456	1049.0	36:36	1.12	1.48	0.00
02:16:58	1680.0	13.1	41.3	120	256	3039	661	588	1.11	1.11	47.9	48.5	1667.5	456	1050.0	36:41	1.12	1.53	0.00
02:22:34	1681.0	11.9	39.7	120	251	3022	660	670	1.11	1.11	47.9	48.7	1668.4	455	1051.0	36:46	1.12	1.51	0.00
02:27:51	1682.0	11.7	38.8	120	242	2984	659	624	1.11	1.11	47.9	48.5	1669.3	458	1052.0	36:52	1.12	1.49	0.00
02:33:51	1683.0	11.4	38.2	120	242	2955	659	588	1.11	1.11	47.9	48.3	1670.7	461	1053.0	36:58	1.12	1.52	0.00
02:39:58	1684.0	9.7	37.1	120	253	2957	660	601	1.11	1.11	47.8	48.6	1671.9	462	1054.0	37:04	1.12	1.51	0.00
03:05:37	1685.0	7.7	36.5	120	251	2998	663	572	1.11	1.11	47.8	48.2	1674.0	459	1055.0	37:10	1.12	1.50	0.00
03:34:18	1686.0	7.2	34.5	121	254	3023	660	617	1.11	1.11	47.1	44.4	1678.0	419	1056.0	37:16	1.12	1.51	0.00
03:39:31	1687.0	12.5	34.6	120	245	3086	669	561	1.11	1.11	45.8	47.0	1679.0	419	1057.0	37:22	1.12	1.45	0.00
03:44:16	1688.1	12.3	35.4	120	255	3112	671	639	1.11	1.11	45.9	46.9	1679.8	421	1058.1	37:26	1.12	1.41	0.00
03:48:23	1689.0	14.3	36.0	120	269	3088	671	563	1.11	1.11	46.0	46.9	1680.6	421	1059.0	37:30	1.12	1.39	0.00
03:53:51	1690.0	10.5	35.7	120	235	3081	671	632	1.11	1.11	46.0	46.9	1681.6	424	1060.0	37:36	1.12	1.47	0.03
03:59:13	1691.0	39.0	34.1	120	236	3052	671	641	1.11	1.11	46.1	46.6	1682.5	426	1061.0	37:41	1.12	1.44	0.01
04:03:54	1692.0	12.7	36.3	120	251	3028	671	603	1.11	1.11	46.1	46.3	1683.3	426	1062.0	37:46	1.12	1.43	0.00
04:08:55	1693.0	18.6	35.5	120	246	3042	672	586	1.11	1.11	46.0	46.2	1684.3	426	1063.0	37:51	1.12	1.42	0.00
04:13:22	1694.0	13.3	37.0	120	245	3071	673	597	1.11	1.11	45.8	46.4	1684.9	426	1064.0	37:55	1.12	1.42	0.00
04:18:25	1695.1	11.7	37.6	120	238	3090	672	575	1.11	1.11	45.8	46.5	1685.3	425	1065.1	38:00	1.12	1.45	0.00
04:22:56	1696.0	16.7	37.2	120	241	3045	666	604	1.11	1.11	45.9	46.7	1685.8	426	1066.0	38:05	1.12	1.44	0.00
04:28:48	1697.0	11.3	36.7	120	231	3078	666	576	1.11	1.11	46.0	46.6	1686.0	426	1067.0	38:11	1.12	1.51	0.00
04:34:32	1698.0	11.3	36.3	120	231	3091	667	599	1.11	1.11	46.1	46.8	1686.0	426	1068.0	38:17	1.12	1.48	0.00
04:39:16	1699.0	13.6	36.6	120	249	3067	668	589	1.11	1.11	46.2	47.6	1686.0	424	1069.0	38:21	1.12	1.44	0.00
04:44:38	1700.0	37.6	36.3	120	226	3079	667	610	1.11	1.11	46.4	48.0	1686.6	423	1070.0	38:27	1.12	1.45	0.00
04:50:24	1701.0	12.9	37.1	120	237	3053	667	643	1.11	1.11	46.7	48.2	1687.7	421	1071.0	38:32	1.12	1.49	0.00
04:55:27	1702.0	12.0	36.7	120	247	3045	667	589	1.11	1.11	47.0	48.0	1688.9	421	1072.0	38:37	1.12	1.45	0.00
05:00:08	1703.0	12.9	36.7	120	239	3047	666	558	1.11	1.11	47.2	47.8	1689.7	420	1073.0	38:42	1.12	1.43	0.01
05:05:38	1704.0	12.5	36.6	120	240	3050	666	595	1.11	1.11	47.3	47.4	1690.7	419	1074.0	38:48	1.12	1.47	0.01
05:10:35	1705.0	13.3	37.2	120	231	3039	665	652	1.11	1.11	47.4	47.1	1691.7	420	1075.0	38:53	1.12	1.45	0.01
05:16:17	1706.0	12.6	36.7	120	228	3041	665	567	1.11	1.11	47.3	47.2	1692.7	419	1076.0	38:58	1.12	1.49	0.01
05:22:51	1707.0	8.3	36.1	120	230	3027	665	583	1.11	1.11	47.2	47.0	1694.2	418	1077.0	39:05	1.12	1.52	0.02
05:32:51	1708.1	10.2	36.0	120	244	3026	666	574	1.11	1.11	47.1	46.8	1696.3	417	1078.1	39:11	1.12	1.49	0.02
05:37:49	1709.0	11.8	36.0	120	251	3023	666	567	1.11	1.11	46.9	46.7	1697.6	416	1079.0	39:16	1.12	1.45	0.02
05:44:02	1710.0	10.7	35.0	120	229	3033	666	617	1.11	1.11	46.8	47.1	1699.2	415	1080.0	39:22	1.12	1.48	0.02
05:49:42	1711.0	11.5	35.4	120	239	3046	666	613	1.11	1.11	46.8	47.1	1700.6	416	1081.0	39:28	1.12	1.46	0.02
05:54:44	1712.0	12.3	35.5	120	249	3044	666	622	1.11	1.11	47.0	47.1	1701.9	415	1082.0	39:33	1.12	1.44	0.02
06:00:23	1713.0	10.5	36.8	120	259	3063	667	587	1.11	1.11	47.0	47.4	1703.4	416	1083.0	39:39	1.12	1.50	0.02
06:05:42	1714.0	11.8	36.3	120	253	3059	667	608	1.11	1.11	47.0	47.7	1704.7	414	1084.0	39:44	1.12	1.47	0.01
06:27:44	1715.5	18.2	36.2	120	257	3041	663	550	1.11	1.11	47.2	47.1	1708.1	416	1085.5	39:49	1.12	1.40	0.01
06:29:22	1716.0	17.3	35.5	121	265	3034	662	617	1.11	1.11	47.2	46.7	1708.3	415	1086.0	39:51	1.12	1.34	0.01
06:34:24	1717.0	17.6	35.9	121	258	3039	663	609	1.11	1.11	47.1	47.3	1709.1	413	1087.0	39:56	1.12	1.45	0.02
06:37:43	1718.0	15.8	36.5	121	271	3051	664	578	1.11	1.11	47.0	47.4	1709.6	411	1088.0	39:59	1.12	1.43	0.02
06:43:06	1719.0	11.1	35.2	121	276	3021	664	566	1.11	1.11	47.0	47.5	1710.5	412	1089.0	40:04	1.12	1.46	0.02
06:47:00	1720.0	14.2	35.8	121	270	3038	664	608	1.11	1.11	47.1	47.3	1711.2	411	1090.0	40:08	1.12	1.39	0.02
06:51:09	1721.0	18.7	35.5	121	274	3045	664	572	1.11	1.11	47.1	47.2	1711.9	411	1091.0	40:12	1.12	1.40	0.02

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-	-BIT-	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm			sg	deg	C	m	bbl	mts	hh:mm	ppg		%
06:56:41	1722.0	9.9	36.1	121	260	3055	664	562	1.11	1.11	47.1	47.1	1712.9	411	1092.0	40:18	1.12	1.48	0.02
07:04:50	1723.0	11.4	39.1	121	246	3034	664	556	1.11	1.11	47.0	47.2	1714.2	410	1093.0	40:26	1.12	1.61	0.02
07:09:15	1724.0	12.2	38.5	121	269	3054	664	557	1.11	1.11	47.0	47.3	1715.0	410	1094.0	40:30	1.12	1.45	0.02
07:14:05	1725.0	16.4	37.3	121	281	3064	665	524	1.11	1.11	47.0	47.4	1715.8	410	1095.0	40:35	1.12	1.48	0.02
07:18:24	1726.0	15.5	35.5	121	266	3079	665	595	1.11	1.11	47.0	47.7	1716.6	409	1096.0	40:39	1.12	1.38	0.06
07:22:38	1727.0	13.3	36.1	121	270	3078	665	564	1.11	1.11	47.1	47.6	1717.3	410	1097.0	40:44	1.12	1.40	0.06
07:27:19	1728.0	13.4	36.7	121	262	3093	666	618	1.11	1.11	47.2	47.6	1717.9	410	1098.0	40:48	1.12	1.43	0.04
07:32:45	1729.0	10.6	38.3	121	264	3076	666	595	1.11	1.11	47.2	47.8	1718.9	407	1099.0	40:54	1.12	1.50	0.01
07:38:12	1730.0	12.3	39.2	121	278	3083	666	558	1.11	1.11	47.3	47.8	1720.1	406	1100.0	40:59	1.12	1.51	0.02
07:43:01	1731.0	12.4	37.9	121	275	3058	666	601	1.11	1.11	47.4	47.7	1721.2	406	1101.0	41:04	1.12	1.46	0.02
07:47:30	1732.0	17.0	37.5	121	277	3080	666	583	1.11	1.11	47.4	47.8	1722.0	404	1102.0	41:09	1.12	1.43	0.02
07:52:07	1733.0	13.9	36.2	121	266	3079	666	602	1.11	1.11	47.4	47.7	1722.4	404	1103.0	41:13	1.12	1.44	0.02
08:02:07	1734.0	7.6	36.7	121	272	3052	665	546	1.11	1.11	47.4	47.7	1724.4	426	1104.0	41:18	1.12	1.47	0.01
08:05:43	1735.0	13.7	35.2	120	266	2544	622	524	1.11	1.11	47.4	47.3	1724.8	424	1105.0	41:22	1.12	1.34	0.01
08:10:00	1736.0	12.4	36.6	120	279	2527	622	474	1.11	1.11	47.3	47.1	1725.6	422	1106.0	41:26	1.12	1.41	0.01
08:15:13	1737.0	14.6	35.1	120	266	2545	622	545	1.11	1.11	47.1	47.0	1726.7	420	1107.0	41:31	1.12	1.43	0.02
08:19:06	1738.1	15.6	35.9	120	276	2497	622	552	1.11	1.11	47.0	47.4	1727.4	419	1108.1	41:35	1.12	1.37	0.02
08:23:25	1739.0	14.7	36.6	120	279	2513	622	554	1.11	1.11	47.0	47.3	1728.2	418	1109.0	41:40	1.12	1.40	0.02
08:27:40	1740.0	11.2	37.3	120	289	2524	622	485	1.11	1.11	47.0	47.3	1728.9	418	1110.0	41:44	1.12	1.41	0.0
08:31:53	1741.0	13.9	36.3	120	274	2504	622	557	1.11	1.11	47.0	47.1	1729.6	418	1111.0	41:48	1.12	1.42	0.0
08:38:27	1742.2	26.0	37.2	120	285	2516	616	455	1.11	1.11	47.0	47.1	1730.2	418	1112.2	41:53	1.11	1.38	0.01
08:42:58	1743.0	18.3	36.4	120	268	2503	610	522	1.11	1.11	46.9	47.2	1730.3	416	1113.0	41:56	1.12	1.36	0.02
08:48:00	1744.0	24.5	39.0	120	296	2570	613	554	1.11	1.11	46.9	47.2	1730.5	415	1114.0	41:59	1.12	1.38	0.02
08:51:03	1745.0	13.1	37.4	120	298	2542	618	531	1.11	1.11	46.9	47.0	1731.3	414	1115.0	42:02	1.12	1.41	0.02
09:11:26	1746.0	22.8	34.3	121	252	2900	639	586	1.11	1.11	46.6	46.0	1735.0	426	1116.0	42:05	1.12	1.45	0.02
09:16:12	1747.0	14.9	32.2	121	270	3028	658	613	1.11	1.11	46.5	46.8	1736.1	411	1117.0	42:10	1.12	1.40	0.03
09:20:52	1748.0	14.1	33.8	120	294	3038	662	487	1.11	1.11	46.4	46.8	1737.1	405	1118.0	42:15	1.12	1.40	0.04
09:30:47	1749.1	13.2	31.4	120	265	3046	664	624	1.11	1.11	46.5	47.3	1739.0	398	1119.1	42:24	1.12	1.38	0.03
09:34:47	1750.0	13.4	31.7	120	272	3042	665	604	1.11	1.11	46.6	47.0	1739.8	397	1120.0	42:28	1.12	1.35	0.03
09:38:57	1751.1	13.7	34.6	120	305	3027	657	534	1.11	1.11	46.7	47.3	1740.6	397	1121.1	42:33	1.12	1.38	0.03
09:43:07	1752.0	16.4	33.9	120	268	3040	658	558	1.11	1.11	46.7	47.3	1741.4	396	1122.0	42:37	1.12	1.38	0.02
09:48:01	1753.1	13.7	34.8	120	287	3016	659	540	1.11	1.11	46.8	47.3	1742.4	396	1123.1	42:42	1.12	1.39	0.03
09:52:27	1754.0	13.4	32.6	120	263	3020	660	577	1.11	1.11	46.8	47.3	1743.3	394	1124.0	42:46	1.12	1.37	0.04
09:56:32	1755.0	13.9	34.4	120	274	3023	661	557	1.11	1.11	46.9	47.3	1744.1	393	1125.0	42:50	1.12	1.38	0.04
10:01:17	1756.1	16.9	35.2	120	264	3023	661	625	1.11	1.11	46.9	47.5	1745.1	394	1126.1	42:55	1.12	1.37	0.03
10:05:40	1757.1	14.3	36.3	120	272	3034	662	527	1.11	1.11	47.0	47.3	1745.9	392	1127.1	42:59	1.12	1.41	0.02
10:10:11	1758.0	11.9	36.1	120	277	3055	663	529	1.11	1.11	47.0	47.3	1746.8	391	1128.0	43:04	1.12	1.43	0.02
10:14:41	1759.0	19.9	35.0	120	261	3052	664	574	1.11	1.11	47.1	47.1	1747.5	391	1129.0	43:08	1.12	1.41	0.02
10:19:33	1760.0	13.3	36.0	120	266	3069	665	584	1.11	1.11	47.0	47.6	1748.5	390	1130.0	43:13	1.12	1.41	0.03
10:24:34	1761.0	13.9	35.0	120	256	3091	666	548	1.11	1.11	47.1	47.4	1749.6	388	1131.0	43:18	1.12	1.45	0.02
10:29:53	1762.1	11.5	35.9	120	273	3104	667	500	1.11	1.11	47.1	47.3	1750.8	387	1132.1	43:23	1.12	1.47	0.03
10:34:31	1763.0	12.7	34.8	120	260	3096	667	548	1.11	1.11	47.1	47.5	1751.8	386	1133.0	43:28	1.12	1.43	0.03
10:39:53	1764.0	11.0	36.1	120	249	3099	667	585	1.11	1.11	47.1	47.7	1753.0	386	1134.0	43:33	1.12	1.47	0.02
10:44:28	1765.0	18.6	36.1	120	266	3075	666	588	1.11	1.11	47.2	47.6	1753.9	386	1135.0	43:38	1.12	1.41	0.0
10:49:23	1766.0	15.9	33.0	120	249	3082	668	553	1.11	1.11	47.4	47.5	1755.4	385	1136.0	43:43	1.12	1.40	0.
10:55:01	1767.0	16.1	36.9	120	273	3087	668	522	1.11	1.11	47.3	47.6	1756.3	383	1137.0	43:48	1.12	1.51	0.02

'Byte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-	-BIT-	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm	gpm	sg	sg	deg C	deg C	m	bbl	mts	hh:mm	ppg		%
11:00:00	1768.0	11.4	41.3	120	262	3086	669	599	1.11	1.11	47.3	47.8	1757.3	385	1138.0	43:53	1.12	1.50	0.09
11:05:12	1769.0	10.9	40.6	120	273	3053	665	489	1.11	1.11	47.3	47.5	1758.4	384	1139.0	43:58	1.12	1.53	0.76
11:10:13	1770.0	10.7	37.6	120	253	3014	656	509	1.11	1.11	47.2	47.7	1759.3	386	1140.0	44:03	1.12	1.47	0.31
11:15:41	1771.1	10.1	38.8	120	254	2984	655	583	1.11	1.11	47.2	47.7	1760.5	386	1141.1	44:09	1.12	1.49	0.03
11:20:24	1772.1	19.5	38.0	120	245	3007	654	595	1.11	1.11	47.2	47.7	1761.4	384	1142.1	44:14	1.12	1.46	0.04
11:25:38	1773.0	12.2	38.8	120	244	3009	656	556	1.11	1.11	47.3	47.8	1762.4	384	1143.0	44:19	1.12	1.49	0.04
11:31:20	1774.0	13.2	37.8	120	243	3000	656	549	1.11	1.11	47.3	47.9	1763.4	385	1144.0	44:25	1.12	1.50	0.03
11:53:56	1775.0	16.8	38.9	117	258	2993	649	560	1.11	1.11	47.2	47.7	1766.5	391	1145.0	44:30	1.12	1.41	0.02
12:01:09	1776.0	10.9	43.2	117	250	3066	662	572	1.11	1.11	47.1	48.1	1767.6	377	1146.0	44:37	1.12	1.62	0.03
12:06:49	1777.0	11.8	39.1	117	266	3094	667	534	1.11	1.11	47.1	48.5	1768.6	378	1147.0	44:43	1.12	1.51	0.03
12:11:25	1778.0	18.5	41.4	117	267	3087	667	544	1.11	1.11	47.1	48.3	1769.3	384	1148.0	44:48	1.12	1.47	0.03
12:15:50	1779.0	17.3	42.1	117	277	3067	667	569	1.11	1.11	47.1	48.4	1770.0	388	1149.0	44:52	1.12	1.47	0.03
12:21:02	1780.0	13.9	40.5	117	258	3032	666	547	1.11	1.11	47.1	48.5	1770.9	391	1150.0	44:57	1.12	1.51	0.01
12:25:35	1781.1	14.0	40.8	121	264	3019	668	562	1.11	1.11	47.2	48.3	1771.6	394	1151.0	45:02	1.12	1.51	0.01
12:31:09	1782.2	19.2	41.0	121	258	3040	668	573	1.11	1.11	47.2	47.9	1772.5	400	1152.2	45:07	1.12	1.48	0.03
12:35:41	1783.1	20.1	43.0	121	279	3044	668	538	1.11	1.11	47.1	47.8	1773.3	404	1153.1	45:12	1.12	1.50	0.04
12:41:35	1784.0	11.4	41.1	121	259	2995	668	548	1.11	1.11	47.0	47.8	1774.3	409	1154.0	45:18	1.12	1.56	0.03
12:46:44	1785.0	12.9	41.0	121	268	2995	669	550	1.11	1.11	46.9	48.2	1775.2	414	1155.0	45:23	1.12	1.51	0.03
2:51:01	1786.0	13.6	42.7	121	282	2979	669	527	1.11	1.11	46.9	48.3	1775.6	418	1156.0	45:27	1.12	1.48	0.02
12:56:35	1787.0	11.2	42.1	121	283	2980	668	561	1.11	1.11	47.0	48.1	1776.7	420	1157.0	45:32	1.12	1.55	0.01
13:01:47	1788.1	14.0	39.9	121	273	2986	667	541	1.11	1.11	47.2	48.3	1777.5	418	1158.1	45:38	1.12	1.52	0.02
13:07:00	1789.0	10.8	42.2	121	289	2973	668	508	1.11	1.11	47.3	48.2	1778.6	419	1159.0	45:43	1.12	1.54	0.04
13:10:33	1790.0	27.3	42.8	121	294	3007	669	572	1.11	1.11	47.5	48.2	1779.3	419	1160.0	45:46	1.12	1.44	0.04
13:15:41	1791.0	15.0	41.6	121	288	3004	668	552	1.11	1.11	47.6	48.1	1780.3	417	1161.0	45:51	1.12	1.50	0.04
13:20:45	1792.0	13.6	40.7	121	276	2999	668	586	1.11	1.11	47.7	48.3	1781.7	418	1162.0	45:56	1.12	1.51	0.03
13:25:10	1793.0	13.4	40.4	121	283	3031	668	549	1.11	1.11	47.8	48.4	1782.3	416	1163.0	46:01	1.12	1.47	0.03
13:29:16	1794.0	20.5	40.7	121	266	3026	668	581	1.11	1.11	47.9	48.3	1783.1	416	1164.0	46:05	1.12	1.45	0.02
13:35:29	1795.0	10.2	40.0	121	262	3048	667	556	1.11	1.11	48.0	48.5	1784.0	414	1165.0	46:11	1.12	1.54	0.02
13:41:44	1796.0	10.4	41.3	121	273	3062	666	536	1.11	1.11	48.1	48.3	1785.2	413	1166.0	46:17	1.12	1.59	0.03
13:46:43	1797.0	13.6	41.4	122	276	3059	666	579	1.11	1.11	48.2	48.1	1786.4	412	1167.0	46:22	1.12	1.52	0.03
13:53:11	1798.0	11.8	38.5	122	262	3113	668	525	1.11	1.11	48.2	48.2	1787.5	410	1168.0	46:29	1.12	1.55	0.03
13:57:53	1799.0	13.6	39.1	122	257	3126	668	549	1.11	1.11	48.2	48.4	1788.4	409	1169.0	46:33	1.12	1.48	0.03
13:59:45	1800.0	12.5	38.8	122	261	3121	668	539	1.11	1.11	48.2	48.4	1789.2	408	1170.0	46:38	1.12	1.49	0.03

CBU at 1800m. POOH NB#4 for E-LOGS.
30th January 1993 to 2nd February 1993
RIH RB#4.1 for wiper trip prior to running 9.625" casing.
Run and set 9.625" casing with shoe at 1786m.
Test BOP's to BHP's specifications.

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT gpm	MUD DENSITY IN sg	MUD DENSITY OUT sg	MUD TEMP IN deg C	MUD TEMP OUT deg C	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
RIH NB#5 8.5" HTC ATM-22 12x12x13 jets with MWD assembly.																			
09:10:41	1801.0	2.4	22.1	68	147	2312	460	380	1.11	1.05	26.9	27.2	1800.3	654	1.0	0:41	1.16	1.54	0.03
09:20:44	1802.0	7.0	27.6	97	145	2382	474	471	1.12	1.12	30.6	33.1	1800.5	652	2.0	0:51	1.17	1.57	0.03
09:29:28	1803.0	6.3	28.5	98	141	2371	475	442	1.12	1.12	31.4	33.2	1800.6	642	3.0	0:60	1.17	1.53	0.03
10:59:53	1804.0	6.1	34.3	103	158	2418	479	494	1.13	1.13	30.9	31.7	1802.7	588	4.0	1:23	1.18	1.51	0.03
11:04:56	1805.0	11.9	32.9	117	161	2349	477	466	1.13	1.13	31.3	33.5	1803.0	591	5.0	1:28	1.18	1.48	0.03
11:10:07	1806.0	11.8	32.8	118	162	2326	470	454	1.13	1.13	31.7	33.6	1803.0	592	6.0	1:33	1.18	1.49	0.03
11:15:14	1807.0	13.6	32.9	118	161	2327	469	489	1.13	1.13	32.1	33.6	1803.1	591	7.0	1:38	1.18	1.48	0.03
11:20:33	1808.0	12.2	32.4	118	158	2314	469	482	1.13	1.13	32.4	33.7	1803.3	590	8.0	1:44	1.18	1.49	0.03
11:25:54	1809.0	13.2	34.3	118	167	2301	469	504	1.13	1.13	32.6	33.9	1803.5	589	9.0	1:49	1.18	1.52	0.03
11:30:25	1810.0	12.6	34.4	118	168	2304	470	498	1.13	1.13	32.8	33.9	1803.4	589	10.0	1:53	1.18	1.48	0.03
11:36:10	1811.0	12.6	33.6	118	163	2310	470	466	1.13	1.13	33.0	34.1	1803.5	588	11.0	1:59	1.18	1.52	0.03
11:41:24	1812.0	9.7	35.5	118	170	2292	469	457	1.13	1.13	33.2	34.1	1804.6	585	12.0	2:04	1.18	1.52	0.02
11:46:26	1813.0	12.0	34.4	118	170	2301	469	462	1.13	1.13	33.3	34.1	1805.2	585	13.0	2:09	1.18	1.50	0.03
11:51:37	1814.0	11.0	34.7	118	166	2296	469	455	1.13	1.13	33.4	34.1	1806.2	583	14.0	2:15	1.18	1.50	0.04
11:57:01	1815.0	10.2	34.0	118	169	2312	470	443	1.13	1.13	33.5	33.9	1807.2	582	15.0	2:20	1.18	1.51	0.04
12:02:07	1816.0	12.2	34.0	118	166	2301	470	441	1.13	1.13	33.6	34.2	1808.1	578	16.0	2:25	1.18	1.50	0.04
12:07:39	1817.0	11.1	35.1	118	168	2307	470	445	1.13	1.13	33.5	34.3	1809.1	576	17.0	2:31	1.18	1.52	0.04
12:12:39	1818.0	12.4	35.3	118	179	2340	471	453	1.13	1.13	33.7	34.3	1810.2	575	18.0	2:36	1.18	1.51	0.05
12:18:21	1819.0	9.2	33.7	118	154	2345	471	462	1.13	1.13	33.8	34.4	1811.2	572	19.0	2:41	1.18	1.52	0.04
12:23:34	1820.0	13.8	32.1	118	155	2325	471	477	1.13	1.13	34.0	34.4	1812.1	572	20.0	2:47	1.18	1.47	0.04
12:29:33	1821.0	10.8	33.0	118	156	2356	471	461	1.13	1.13	34.1	34.6	1813.2	570	21.0	2:53	1.18	1.53	0.04
12:35:14	1822.0	11.6	33.8	118	154	2367	472	455	1.13	1.13	34.2	34.6	1814.3	568	22.0	2:58	1.18	1.52	0.04
12:40:02	1823.0	12.5	33.9	118	200	2376	472	363	1.13	1.13	34.0	34.5	1815.1	567	23.0	3:03	1.18	1.48	0.04
12:45:29	1824.0	11.6	32.6	117	334	2364	472	343	1.13	1.13	33.8	34.7	1816.1	567	24.0	3:08	1.18	1.49	0.05
12:51:05	1825.0	11.8	34.2	117	331	2421	473	352	1.13	1.13	33.6	34.8	1817.2	566	25.0	3:14	1.18	1.52	0.05
13:11:54	1826.0	7.6	33.1	117	316	2424	474	344	1.13	1.13	33.8	34.9	1819.7	593	26.0	3:20	1.18	1.53	0.04
13:18:02	1827.0	9.8	32.7	117	315	2352	472	380	1.13	1.13	33.5	34.7	1820.9	576	27.0	3:26	1.18	1.52	0.05
13:23:29	1828.0	11.8	34.3	117	316	2368	473	383	1.13	1.13	33.9	34.7	1821.9	569	28.0	3:32	1.18	1.52	0.05
13:29:25	1829.0	9.0	34.7	117	329	2387	473	368	1.13	1.13	34.2	34.9	1823.0	565	29.0	3:38	1.18	1.54	0.06
13:34:33	1830.0	12.1	33.3	117	323	2405	473	376	1.13	1.13	34.4	35.2	1823.9	561	30.0	3:43	1.18	1.48	0.06
13:39:46	1831.0	12.0	33.4	117	325	2425	473	370	1.13	1.13	34.5	35.4	1824.9	562	31.0	3:48	1.18	1.49	0.05
13:45:28	1832.0	9.5	34.0	117	330	2451	473	382	1.13	1.13	34.7	35.2	1826.0	559	32.0	3:54	1.18	1.52	0.05
13:51:49	1833.0	8.4	32.6	117	332	2442	473	389	1.13	1.13	34.8	35.4	1826.8	561	33.0	3:60	1.18	1.53	0.04
13:57:59	1834.0	10.8	33.6	117	334	2432	473	473	1.13	1.13	35.0	35.5	1827.8	560	34.0	4:06	1.18	1.54	0.05
14:04:39	1835.0	10.1	31.7	118	331	2412	473	490	1.13	1.13	35.1	35.3	1828.9	558	35.0	4:13	1.18	1.53	0.05
14:09:45	1836.0	11.9	32.9	118	345	2435	474	494	1.13	1.13	35.2	35.3	1829.8	559	36.0	4:18	1.18	1.48	0.06
14:15:13	1837.0	11.2	32.9	118	345	2436	474	495	1.13	1.13	35.3	35.5	1831.1	560	37.0	4:23	1.18	1.50	0.06
14:21:01	1838.0	11.8	32.6	118	341	2458	474	480	1.13	1.13	35.3	35.7	1832.0	557	38.0	4:29	1.18	1.52	0.06
14:26:54	1839.0	10.8	33.0	118	319	2460	474	491	1.13	1.13	35.4	35.9	1832.8	556	39.0	4:35	1.18	1.52	0.05
14:31:57	1840.0	12.3	33.1	118	318	2457	475	477	1.13	1.13	35.5	36.2	1833.5	555	40.0	4:40	1.18	1.48	0.05
14:37:18	1841.0	10.9	32.1	118	313	2455	475	488	1.13	1.13	35.6	36.1	1834.3	553	41.0	4:45	1.18	1.48	0.06
14:43:24	1842.0	10.4	33.0	118	312	2465	474	473	1.13	1.13	35.8	36.1	1835.2	552	42.0	4:51	1.18	1.53	0.05
14:49:24	1843.0	8.7	33.1	118	312	2463	474	482	1.13	1.13	35.9	36.5	1836.3	552	43.0	4:57	1.18	1.53	0.05
14:55:02	1844.0	12.8	36.0	118	311	2477	474	452	1.13	1.13	36.0	37.0	1837.2	549	44.0	5:03	1.18	1.55	0.0[illegible]
14:59:56	1845.0	11.7	35.9	118	314	2475	475	442	1.13	1.13	36.2	37.2	1838.1	551	45.0	5:08	1.18	1.51	0.05

'Byte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-	-BIT-	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm			sg	deg C		m	bbl	mts	hh:mm	ppg		%
15:05:32	1846.0	11.1	36.0	118	319	2484	475	456	1.13	1.13	36.3	37.5	1839.0	547	46.0	5:14	1.18	1.55	0.05
15:11:17	1847.0	13.3	35.6	118	316	2462	475	466	1.13	1.13	36.6	38.0	1840.1	545	47.0	5:19	1.18	1.55	0.05
15:16:50	1848.0	10.8	35.6	118	312	2469	475	510	1.13	1.13	36.8	38.1	1841.1	544	48.0	5:25	1.18	1.54	0.05
15:22:55	1849.0	9.5	35.7	118	311	2478	475	500	1.13	1.13	37.1	38.1	1842.1	542	49.0	5:31	1.18	1.57	0.04
15:28:40	1850.0	11.2	35.1	118	312	2474	475	499	1.13	1.13	37.3	38.3	1843.2	540	50.0	5:37	1.18	1.54	0.04
15:34:12	1851.0	10.6	35.4	118	318	2481	475	500	1.13	1.13	37.5	38.5	1844.1	535	51.0	5:42	1.18	1.54	0.03
15:39:59	1852.0	11.3	35.1	118	316	2467	475	484	1.13	1.13	37.7	38.8	1845.1	526	52.0	5:48	1.18	1.55	0.03
15:46:41	1853.0	9.2	34.3	118	308	2458	475	498	1.13	1.13	37.9	38.7	1846.2	516	53.0	5:55	1.18	1.58	0.04
15:52:46	1854.0	9.6	33.8	118	313	2472	475	514	1.13	1.13	38.1	38.8	1847.2	509	54.0	6:01	1.18	1.54	0.04
15:58:24	1855.0	10.6	34.5	118	315	2444	475	497	1.13	1.13	38.3	38.6	1848.1	505	55.0	6:06	1.18	1.53	0.04
16:25:18	1856.0	14.2	33.0	120	327	2455	473	506	1.13	1.13	38.0	38.8	1850.5	507	56.0	6:12	1.18	1.55	0.04
16:30:40	1857.0	13.5	35.0	120	323	2458	474	486	1.13	1.13	38.0	39.0	1851.3	502	57.0	6:17	1.18	1.52	0.04
16:37:04	1858.0	8.1	36.4	120	325	2426	473	472	1.13	1.13	38.3	39.0	1852.3	498	58.0	6:24	1.18	1.60	0.04
16:42:42	1859.0	12.2	35.4	119	330	2446	472	481	1.13	1.13	38.5	39.3	1853.2	497	59.0	6:29	1.18	1.54	0.05
16:48:24	1860.0	11.7	34.3	120	325	2432	471	471	1.13	1.13	38.6	39.3	1854.1	495	60.0	6:35	1.18	1.53	0.05
16:54:17	1861.0	11.6	33.8	120	320	2461	471	478	1.13	1.13	38.6	39.3	1855.0	495	61.0	6:41	1.18	1.54	0.04
16:59:20	1862.0	13.9	32.1	120	317	2417	472	473	1.13	1.13	38.7	39.6	1855.6	497	62.0	6:46	1.18	1.46	0.04
'7:05:09	1863.0	10.5	32.9	120	316	2427	472	458	1.13	1.13	38.4	39.9	1856.7	496	63.0	6:52	1.18	1.52	0.05
17:10:41	1864.0	11.7	32.3	120	318	2406	472	490	1.13	1.13	38.4	39.5	1857.6	495	64.0	6:57	1.18	1.50	0.05
17:17:55	1865.0	8.4	32.5	120	315	2429	471	513	1.13	1.13	38.8	39.6	1858.7	499	65.0	7:05	1.18	1.58	0.04
17:23:38	1866.0	10.1	36.4	120	315	2412	471	517	1.13	1.13	39.0	39.9	1859.7	499	66.0	7:10	1.18	1.57	0.04
17:30:07	1867.0	9.8	35.9	120	309	2468	475	533	1.13	1.13	39.2	39.9	1861.1	501	67.0	7:17	1.18	1.60	0.04
17:37:03	1868.0	7.7	36.4	120	307	2462	476	544	1.13	1.13	39.4	39.8	1862.1	503	68.0	7:24	1.18	1.62	0.05
17:43:17	1869.0	9.7	36.1	120	315	2466	476	540	1.13	1.13	39.5	39.9	1863.1	503	69.0	7:30	1.18	1.58	0.05
17:49:55	1870.0	10.2	34.6	120	307	2466	476	554	1.13	1.13	39.2	40.1	1864.2	503	70.0	7:37	1.18	1.58	0.05
17:56:04	1871.0	9.9	35.4	120	306	2463	476	543	1.13	1.13	38.6	40.2	1865.1	504	71.0	7:43	1.18	1.57	0.05
18:02:31	1872.0	11.2	35.3	120	306	2471	476	543	1.13	1.13	38.7	40.4	1866.1	507	72.0	7:49	1.18	1.58	0.05
18:09:03	1873.0	9.9	35.1	120	308	2475	476	555	1.13	1.13	38.4	40.3	1867.1	508	73.0	7:56	1.18	1.58	0.04
18:14:40	1874.0	12.8	34.7	120	306	2499	476	539	1.13	1.13	38.8	40.3	1867.9	508	74.0	8:01	1.18	1.54	0.05
18:22:29	1875.0	7.1	34.4	120	302	2498	476	511	1.13	1.13	39.2	40.4	1869.0	508	75.0	8:09	1.18	1.63	0.05
18:28:20	1876.0	9.6	33.6	120	306	2497	475	526	1.13	1.13	39.5	40.5	1869.9	509	76.0	8:15	1.18	1.53	0.05
18:34:58	1877.0	9.3	33.8	120	300	2526	476	548	1.13	1.13	39.8	40.4	1870.9	508	77.0	8:22	1.18	1.56	0.05
18:42:15	1878.0	9.3	33.9	120	296	2510	476	528	1.13	1.13	40.0	40.3	1872.3	509	78.0	8:29	1.18	1.60	0.05
18:48:03	1879.0	11.3	34.1	120	309	2551	477	541	1.13	1.13	40.4	40.5	1872.9	512	79.0	8:35	1.18	1.54	0.05
18:57:00	1880.0	9.6	34.1	120	308	2528	477	550	1.13	1.13	40.5	40.6	1874.3	511	80.0	8:44	1.18	1.58	0.05
19:15:57	1881.0	12.8	31.8	119	309	2501	472	533	1.13	1.13	40.5	40.1	1875.9	472	81.0	8:49	1.18	1.48	0.03
19:21:41	1882.0	9.8	35.9	118	326	2407	463	517	1.13	1.13	40.5	39.1	1876.8	456	82.0	8:55	1.18	1.55	0.04
19:26:54	1883.0	10.8	37.1	120	327	2447	464	512	1.13	1.13	40.3	39.8	1877.7	450	83.0	8:60	1.18	1.55	0.05
20:06:32	1884.0	9.1	36.3	120	314	2466	469	546	1.13	1.13	40.2	40.5	1881.3	455	84.0	9:08	1.18	1.57	0.04
20:12:20	1885.0	10.5	33.2	120	323	2473	472	548	1.13	1.13	40.6	40.0	1881.7	444	85.0	9:14	1.18	1.52	0.04
20:17:21	1886.0	12.8	34.0	120	327	2422	468	544	1.13	1.13	40.6	40.0	1882.1	440	86.0	9:19	1.18	1.48	0.05
20:22:07	1887.0	14.4	34.2	120	323	2448	468	543	1.13	1.13	40.6	40.7	1882.5	438	87.0	9:24	1.18	1.48	0.05
20:28:03	1888.0	10.3	34.1	120	319	2478	469	516	1.13	1.13	40.6	41.0	1882.9	436	88.0	9:30	1.18	1.54	0.05
20:33:46	1889.0	11.1	33.7	120	317	2473	469	509	1.13	1.13	40.7	41.0	1883.3	435	89.0	9:36	1.18	1.53	0.03
20:39:22	1890.0	10.8	33.8	120	314	2469	468	496	1.13	1.13	40.7	41.1	1883.8	433	90.0	9:41	1.18	1.52	0.03
20:44:45	1891.0	11.6	33.7	120	312	2476	468	509	1.13	1.13	40.8	40.7	1884.3	432	91.0	9:47	1.18	1.51	0.03

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD IN	TEMP OUT	RETURNS DEPTH	PVT	-BIT-		ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
20:50:44	1892.0	10.8	33.4	120	312	2481	468	498	1.13	1.13	40.9	41.1	1885.3	431	92.0	9:53	1.18	1.53	0.05
20:57:09	1893.0	9.2	33.9	120	316	2459	467	484	1.13	1.13	41.0	41.2	1886.6	429	93.0	9:59	1.18	1.56	0.05
21:04:09	1894.0	9.9	33.2	120	311	2440	467	481	1.13	1.13	41.0	41.2	1887.8	429	94.0	10:06	1.18	1.56	0.05
21:10:50	1895.0	8.0	33.6	120	308	2462	467	483	1.13	1.13	41.1	41.2	1889.2	426	95.0	10:13	1.18	1.57	0.05
21:16:39	1896.0	11.1	33.3	120	311	2452	467	491	1.13	1.13	41.1	41.6	1890.1	425	96.0	10:18	1.18	1.53	0.06
21:22:46	1897.0	9.3	33.7	120	318	2459	467	480	1.13	1.13	41.2	41.5	1891.0	425	97.0	10:25	1.18	1.54	0.05
21:28:31	1898.0	10.3	32.8	120	311	2450	467	482	1.13	1.13	41.3	41.4	1891.9	424	98.0	10:30	1.18	1.52	0.05
21:33:44	1899.0	12.1	32.7	120	319	2467	468	474	1.13	1.13	41.3	41.5	1892.7	423	99.0	10:36	1.18	1.49	0.05
21:38:56	1900.0	12.5	33.8	120	321	2445	468	486	1.13	1.13	41.4	41.6	1893.4	421	100.0	10:41	1.18	1.50	0.05
21:45:32	1901.0	10.4	34.4	120	310	2467	467	478	1.13	1.13	41.4	41.7	1894.4	421	101.0	10:47	1.18	1.58	0.05
21:51:43	1902.0	11.5	34.2	120	315	2468	467	476	1.13	1.13	41.5	41.7	1895.3	411	102.0	10:54	1.18	1.55	0.05
21:56:51	1903.0	11.5	34.0	120	317	2450	468	482	1.13	1.13	41.5	41.7	1896.2	411	103.0	10:59	1.18	1.50	0.05
22:02:56	1904.0	8.5	34.3	120	311	2453	467	474	1.13	1.13	41.6	41.8	1897.1	411	104.0	11:05	1.18	1.55	0.05
22:08:51	1905.0	10.3	33.6	120	308	2464	467	485	1.13	1.13	41.7	41.9	1898.1	411	105.0	11:11	1.18	1.54	0.05
22:15:23	1906.0	9.2	34.7	120	311	2472	467	494	1.13	1.13	41.7	42.0	1899.3	411	106.0	11:17	1.18	1.58	0.05
22:33:13	1909.2	11.5	34.7	120	313	2473	468	447	1.13	1.13	41.9	41.9	1902.2	411	109.2	11:35	1.18	1.56	0.05
22:37:57	1910.0	9.5	35.0	120	312	2483	468	422	1.13	1.13	41.9	42.0	1903.0	411	110.0	11:40	1.18	1.54	0.06
22:43:24	1911.0	10.8	34.3	120	314	2466	468	429	1.13	1.13	41.9	42.1	1903.9	401	11.0	11:45	1.18	1.52	0.06
22:48:25	1912.0	13.8	33.5	120	314	2470	469	422	1.13	1.13	42.0	42.1	1904.7	401	112.0	11:50	1.18	1.48	0.05
22:54:06	1913.0	11.1	33.2	120	317	2478	469	412	1.13	1.13	42.0	42.1	1905.6	401	113.0	11:56	1.18	1.52	0.0[illegible]
23:16:57	1914.0	10.9	35.4	119	314	2460	468	432	1.13	1.13	42.1	42.2	1908.4	411	114.0	12:01	1.18	1.52	0.05
23:21:29	1915.0	12.4	35.3	120	316	2486	468	420	1.13	1.13	42.2	42.3	1909.1	401	115.0	12:06	1.18	1.49	0.06
23:26:45	1916.0	14.2	34.0	120	310	2486	468	414	1.13	1.13	42.2	42.0	1909.9	401	116.0	12:11	1.18	1.51	0.06
23:32:03	1917.0	12.1	34.9	120	315	2490	468	411	1.13	1.13	42.1	42.3	1910.7	401	117.0	12:17	1.18	1.52	0.06
23:37:06	1918.0	14.0	35.8	120	317	2498	468	409	1.13	1.13	42.1	42.7	1911.5	391	118.0	12:22	1.18	1.52	0.06
23:42:27	1919.0	11.6	35.0	120	317	2478	467	409	1.13	1.13	42.1	42.8	1912.3	391	119.0	12:27	1.18	1.52	0.06
23:47:36	1920.0	12.0	34.9	120	314	2493	468	421	1.13	1.13	42.2	42.6	1913.1	391	120.0	12:32	1.18	1.50	0.06
23:53:56	1921.0	9.8	33.8	120	309	2485	467	404	1.13	1.13	42.3	42.7	1914.0	391	121.0	12:38	1.18	1.56	0.04
23:59:18	1922.0	11.7	33.3	120	311	2459	467	404	1.13	1.13	42.4	42.6	1915.1	391	122.0	12:44	1.18	1.53	0.06
3rd February 1993																			
00:04:41	1923.0	12.6	34.4	120	311	2474	468	394	1.13	1.13	42.5	42.7	1916.1	391	123.0	12:49	1.18	1.51	0.06
00:09:27	1924.0	12.6	34.1	120	312	2469	467	396	1.13	1.13	42.5	42.8	1917.0	391	124.0	12:54	1.18	1.48	0.06
00:14:56	1925.0	11.8	33.7	120	317	2500	467	386	1.13	1.13	42.6	42.9	1918.0	381	125.0	12:59	1.18	1.51	0.07
00:20:23	1926.0	11.3	33.5	120	299	2481	468	387	1.13	1.13	42.6	42.8	1919.3	381	126.0	13:05	1.18	1.51	0.07
00:25:11	1927.0	13.0	34.7	120	303	2494	468	459	1.13	1.13	42.7	42.8	1920.1	381	127.0	13:10	1.18	1.49	0.07
00:30:31	1928.0	11.2	33.3	120	289	2471	468	467	1.13	1.13	42.7	43.0	1920.7	381	128.0	13:15	1.18	1.50	0.07
00:35:38	1929.0	11.9	33.6	120	309	2469	468	472	1.13	1.13	42.8	42.9	1921.5	381	129.0	13:20	1.18	1.50	0.06
00:40:18	1930.0	15.4	34.8	120	312	2488	468	486	1.13	1.13	42.8	42.7	1922.3	381	130.0	13:25	1.18	1.48	0.06
00:46:28	1931.0	11.2	34.1	120	301	2486	468	491	1.13	1.13	42.8	42.9	1923.5	381	131.0	13:31	1.18	1.55	0.06
00:51:31	1932.0	10.1	34.3	120	304	2492	468	504	1.13	1.13	42.9	43.0	1924.5	381	132.0	13:36	1.18	1.49	0.06
00:57:00	1933.0	9.8	33.6	120	295	2490	468	499	1.13	1.13	42.9	42.9	1925.5	381	133.0	13:42	1.18	1.52	0.07
01:02:15	1934.0	10.8	33.5	120	296	2484	468	490	1.13	1.13	42.9	43.0	1926.5	701	134.0	13:47	1.18	1.49	0.07
01:08:21	1935.0	10.4	33.6	120	301	2491	468	486	1.13	1.13	42.7	42.6	1927.6	701	135.0	13:53	1.18	1.55	0.07
01:14:13	1936.0	10.5	33.5	120	300	2490	468	490	1.13	1.13	42.2	42.4	1928.8	701	136.0	13:59	1.18	1.53	0.05
01:20:43	1937.0	10.3	34.7	120	307	2482	469	422	1.13	1.13	41.7	42.8	1930.0	701	137.0	14:05	1.18	1.56	0.0
01:25:55	1938.0	11.6	32.7	120	312	2478	470	365	1.13	1.13	41.5	42.7	1930.9	681	138.0	14:10	1.18	1.50	0.05

'lByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT gpm	MUD DENSITY IN sg	MUD DENSITY OUT sg	MUD TEMP IN deg C	MUD TEMP OUT deg C	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
01:31:47	1939.0	8.6	32.3	120	307	2467	470	343	1.13	1.13	41.4	42.9	1932.0	621	139.0	14:16	1.18	1.51	0.06
01:41:20	1940.0	11.3	33.6	116	300	2421	470	461	1.13	1.13	41.8	43.5	1933.8	631	140.0	14:21	1.18	1.48	0.07
01:46:32	1941.0	12.0	35.4	121	314	2416	471	460	1.13	1.13	42.2	43.7	1934.5	631	141.0	14:26	1.18	1.52	0.07
01:51:28	1942.0	11.0	37.2	121	322	2411	470	459	1.13	1.13	42.4	43.2	1935.2	631	142.0	14:31	1.18	1.54	0.07
02:19:11	1943.0	10.2	34.7	118	305	2356	468	461	1.13	1.13	41.5	42.7	1938.5	641	143.0	14:43	1.18	1.59	0.06
02:24:01	1944.0	13.1	33.7	118	298	2432	477	477	1.13	1.13	41.6	42.7	1939.1	641	144.0	14:48	1.18	1.47	0.06
02:29:42	1945.0	12.3	32.9	118	289	2433	478	464	1.13	1.13	41.5	42.9	1939.8	641	145.0	14:54	1.18	1.51	0.06
02:34:50	1946.0	14.3	33.9	118	296	2442	477	471	1.13	1.13	41.5	42.9	1940.4	641	146.0	14:59	1.18	1.49	0.06
02:40:28	1947.0	12.3	34.4	118	303	2419	476	447	1.13	1.13	41.5	43.0	1941.0	621	147.0	15:04	1.18	1.53	0.07
02:45:55	1948.0	11.9	33.6	119	296	2402	474	453	1.13	1.13	41.4	42.9	1941.7	621	148.0	15:10	1.18	1.49	0.06
02:51:18	1949.0	12.9	34.2	119	303	2407	474	443	1.13	1.13	41.4	42.9	1942.2	621	149.0	15:15	1.18	1.51	0.06
02:56:46	1950.0	11.3	33.5	119	301	2397	474	451	1.13	1.13	41.5	43.0	1943.1	621	150.0	15:21	1.18	1.51	0.05
03:02:00	1951.0	11.1	34.1	119	304	2396	474	439	1.13	1.13	41.5	42.9	1944.2	621	151.0	15:26	1.18	1.51	0.06
03:08:08	1952.0	13.8	32.1	119	292	2381	474	452	1.13	1.13	41.5	42.9	1945.2	631	152.0	15:32	1.18	1.52	0.06
03:24:11	1953.0	12.7	31.0	115	297	2314	466	434	1.14	1.14	41.3	41.9	1946.4	601	153.0	15:36	1.19	1.37	0.05
03:30:03	1954.0	9.9	34.2	116	295	2326	466	417	1.14	1.14	41.2	41.2	1947.7	601	154.0	15:42	1.19	1.53	0.06
03:34:29	1955.0	14.8	34.1	116	304	2358	469	429	1.14	1.14	41.1	42.2	1948.4	601	155.0	15:46	1.19	1.45	0.06
03:39:35	1956.0	14.4	34.0	117	304	2373	469	435	1.14	1.14	40.8	42.2	1949.1	601	156.0	15:51	1.18	1.50	0.07
03:44:35	1957.0	11.8	34.5	117	305	2366	469	431	1.14	1.14	40.8	42.6	1950.0	601	157.0	15:56	1.18	1.49	0.07
03:49:44	1958.0	12.1	34.1	117	303	2406	468	466	1.14	1.14	40.8	42.7	1950.9	601	158.0	16:02	1.18	1.50	0.06
03:55:07	1959.0	11.8	34.4	117	302	2368	468	480	1.14	1.14	40.9	42.4	1951.7	601	159.0	16:07	1.18	1.50	0.08
04:00:13	1960.0	12.4	33.9	117	300	2374	468	481	1.14	1.14	41.2	42.5	1952.2	601	160.0	16:12	1.19	1.49	0.08
04:06:02	1961.0	8.1	32.6	117	280	2391	470	443	1.14	1.14	41.4	42.6	1953.4	601	161.0	16:18	1.19	1.48	0.08
04:10:20	1962.0	12.8	33.4	117	287	2406	473	441	1.14	1.14	41.5	42.4	1954.1	591	162.0	16:22	1.19	1.43	0.08
04:15:32	1963.0	14.3	33.0	117	282	2394	473	449	1.14	1.14	41.7	42.5	1955.2	601	163.0	16:27	1.19	1.48	0.08
04:21:41	1964.0	9.7	32.4	118	276	2425	473	441	1.14	1.14	41.8	42.5	1956.4	601	164.0	16:33	1.19	1.52	0.08
04:26:47	1965.0	10.4	33.1	119	284	2411	473	461	1.14	1.14	41.8	42.4	1957.4	591	165.0	16:39	1.19	1.48	0.08
04:31:31	1966.0	11.6	33.1	119	296	2413	473	456	1.14	1.14	42.0	42.4	1958.2	591	166.0	16:43	1.19	1.46	0.08
04:36:24	1967.0	11.4	33.1	119	296	2427	473	449	1.14	1.14	42.0	42.4	1959.2	591	167.0	16:48	1.19	1.46	0.07
04:41:32	1968.0	12.7	33.7	119	290	2439	473	443	1.14	1.14	42.1	42.2	1960.1	591	168.0	16:53	1.19	1.49	0.09
04:46:52	1969.0	12.9	33.4	119	273	2457	473	473	1.14	1.14	42.1	42.5	1961.5	591	169.0	16:59	1.19	1.49	0.10
04:52:36	1970.0	11.7	32.0	119	275	2454	473	472	1.14	1.14	42.1	42.6	1962.2	591	170.0	17:04	1.19	1.49	0.10
05:22:41	1971.0	6.1	29.9	118	245	2459	472	462	1.14	1.14	42.2	42.9	1966.4	621	171.0	17:15	1.18	1.55	0.10
05:27:23	1972.0	12.2	29.5	119	253	2367	466	423	1.14	1.14	41.9	42.9	1967.0	611	172.0	17:19	1.18	1.41	0.12
05:32:46	1973.0	12.1	30.6	119	295	2446	474	492	1.14	1.14	42.1	42.2	1967.7	601	173.0	17:25	1.18	1.47	0.10
05:38:01	1974.0	12.4	30.5	119	297	2448	474	492	1.14	1.14	42.3	42.6	1968.3	601	174.0	17:30	1.18	1.45	0.09
05:42:51	1975.0	12.6	29.9	119	294	2454	475	496	1.14	1.14	42.4	42.7	1968.9	601	175.0	17:35	1.18	1.41	0.09
05:48:57	1976.0	10.6	32.5	119	295	2454	474	487	1.14	1.14	42.5	42.9	1969.7	601	176.0	17:41	1.18	1.53	0.09
05:54:53	1977.0	10.7	34.9	119	296	2460	474	511	1.14	1.14	42.6	43.0	1970.5	601	177.0	17:47	1.18	1.53	0.09
05:59:18	1978.0	16.9	34.0	119	302	2472	474	511	1.14	1.14	42.7	43.3	1970.9	601	178.0	17:51	1.19	1.46	0.07
06:05:02	1979.0	8.9	35.0	119	298	2466	474	495	1.14	1.14	42.8	43.4	1972.1	601	179.0	17:57	1.19	1.53	0.05
06:10:09	1980.0	12.1	34.8	119	298	2449	474	485	1.14	1.14	42.9	43.0	1973.0	601	180.0	18:02	1.19	1.51	0.09
06:15:56	1981.0	10.1	35.0	119	298	2458	474	495	1.14	1.14	43.0	43.1	1974.0	601	181.0	18:08	1.19	1.53	0.09
06:21:17	1982.0	10.2	35.3	119	300	2465	474	489	1.14	1.14	43.0	43.3	1975.1	601	182.0	18:13	1.19	1.53	0.09
06:26:26	1983.0	12.3	34.3	119	297	2467	474	497	1.14	1.14	43.0	43.3	1975.9	601	183.0	18:18	1.19	1.50	0.09
06:31:39	1984.0	11.4	35.0	119	301	2471	474	479	1.14	1.14	43.1	43.3	1977.0	601	184.0	18:24	1.19	1.51	0.09

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT- mts	-BIT- hh:mm	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm	gpm	sg	sg	deg C	deg C	m	bbl	mts	hh:mm	ppg		%
06:37:25	1985.0	10.9	34.4	119	300	2466	474	486	1.14	1.14	43.2	43.3	1977.9	601	185.0	18:29	1.19	1.53	0.09
06:42:52	1986.0	12.1	34.7	119	303	2469	474	500	1.14	1.14	43.2	43.4	1978.9	601	186.0	18:35	1.19	1.51	0.11
06:48:12	1987.0	10.5	35.2	119	311	2471	475	476	1.14	1.14	43.2	43.5	1979.8	601	187.0	18:40	1.19	1.52	0.10
06:53:54	1988.0	9.1	34.6	119	306	2489	475	483	1.14	1.14	43.4	43.6	1980.8	601	188.0	18:46	1.19	1.53	0.11
06:59:09	1989.0	12.0	34.7	120	303	2477	475	448	1.14	1.14	43.4	43.7	1981.8	601	189.0	18:51	1.19	1.51	0.10
07:04:08	1990.0	12.1	34.8	120	293	2466	475	448	1.14	1.14	43.4	43.7	1982.7	541	190.0	18:56	1.19	1.51	0.10
07:09:46	1991.0	11.8	34.4	121	262	2451	474	379	1.14	1.14	43.4	43.6	1983.7	551	191.0	19:02	1.19	1.53	0.10
07:15:17	1992.0	11.2	35.0	120	242	2455	474	451	1.14	1.14	43.3	43.5	1984.6	551	192.0	19:07	1.19	1.52	0.10
07:20:25	1993.0	14.1	35.5	120	248	2459	474	457	1.14	1.14	43.3	43.6	1985.6	551	193.0	19:12	1.19	1.52	0.09
07:26:15	1994.0	9.8	36.8	120	248	2466	474	456	1.14	1.14	43.2	43.9	1986.6	551	194.0	19:18	1.19	1.57	0.09
07:32:34	1995.0	8.1	36.0	120	243	2465	474	436	1.14	1.14	43.3	44.1	1987.7	551	195.0	19:25	1.19	1.58	0.09
07:38:20	1996.0	10.2	35.3	120	240	2455	474	444	1.14	1.14	43.3	43.8	1988.7	551	196.0	19:30	1.19	1.54	0.10
07:44:31	1997.0	11.9	35.3	119	298	2278	461	409	1.14	1.14	43.4	44.1	1990.1	551	197.0	19:37	1.19	1.57	0.11
07:50:19	1998.0	10.5	36.7	119	300	2188	444	374	1.14	1.14	43.5	43.9	1991.1	551	198.0	19:42	1.19	1.57	0.11
07:56:15	1999.0	10.4	36.4	119	290	2203	444	381	1.14	1.14	43.5	43.9	1991.8	551	199.0	19:48	1.19	1.57	0.09
08:02:38	2000.0	10.6	35.5	119	266	2194	445	365	1.14	1.14	43.6	44.1	1992.8	552	200.0	19:55	1.19	1.58	0.09
08:19:48	2001.0	9.1	35.8	120	243	2147	436	366	1.14	1.14	43.6	43.6	1994.8	562	201.0	20:03	1.18	1.55	0.07
08:25:05	2002.0	11.6	35.2	121	246	2224	447	378	1.14	1.14	43.5	43.5	1995.6	552	202.0	20:08	1.18	1.54	0.08
08:31:16	2003.1	19.2	35.4	121	244	2223	447	381	1.14	1.14	43.5	43.5	1996.6	552	203.1	20:15	1.18	1.57	0.09
08:36:14	2004.0	11.5	35.8	121	238	2228	447	381	1.14	1.14	43.5	43.6	1997.4	542	204.0	20:20	1.18	1.53	0.11
08:42:36	2005.0	9.4	35.7	121	235	2199	447	387	1.14	1.14	43.4	44.1	1998.4	542	205.0	20:26	1.18	1.59	0.10
08:48:27	2006.0	12.7	35.2	121	236	2208	447	395	1.14	1.14	43.4	43.9	1999.4	542	206.0	20:32	1.18	1.56	0.10
08:54:17	2007.0	14.5	36.6	121	242	2209	447	394	1.14	1.14	43.4	44.0	2000.1	542	207.0	20:38	1.18	1.58	0.09
09:00:15	2008.0	10.7	37.0	121	238	2198	447	400	1.14	1.14	43.1	44.2	2001.1	552	208.0	20:44	1.19	1.59	0.09
09:03:32	2009.0	23.2	35.2	121	233	2197	446	398	1.14	1.14	43.1	44.3	2001.7	582	209.0	20:47	1.19	1.38	0.08
09:30:58	2010.0	19.0	32.8	118	240	2229	450	477	1.14	1.14	43.4	42.4	2003.1	552	210.0	20:50	1.19	1.33	0.05
09:33:42	2011.0	20.2	35.0	118	249	2241	453	477	1.14	1.14	43.4	41.7	2003.6	542	211.0	20:53	1.19	1.32	0.07
09:37:43	2012.0	14.3	36.0	118	242	2241	453	449	1.14	1.14	43.3	42.3	2004.2	542	212.0	20:57	1.19	1.45	0.07
09:42:10	2013.0	14.0	37.2	118	245	2242	453	454	1.14	1.14	43.2	42.7	2004.9	532	213.0	21:01	1.19	1.50	0.07
09:48:06	2014.0	8.6	36.4	119	239	2164	444	433	1.14	1.14	43.0	43.3	2006.2	532	214.0	21:07	1.19	1.57	0.07
09:53:04	2015.0	12.0	35.7	120	239	2151	442	418	1.14	1.14	43.0	43.8	2006.7	532	215.0	21:12	1.19	1.51	0.07
09:58:55	2016.0	12.4	35.2	120	236	2164	442	418	1.14	1.14	43.0	44.1	2007.6	532	216.0	21:18	1.19	1.55	0.08
10:03:25	2017.0	16.4	37.1	120	245	2156	442	408	1.14	1.14	43.2	43.9	2008.5	532	217.0	21:23	1.19	1.50	0.08
10:06:50	2018.0	21.8	34.1	120	240	2194	445	426	1.14	1.14	43.3	43.9	2009.2	532	218.0	21:26	1.19	1.38	0.09
10:12:28	2019.0	10.4	35.5	120	244	2200	446	413	1.14	1.14	43.4	44.0	2009.9	532	219.0	21:32	1.19	1.54	0.09
10:17:36	2020.0	10.3	35.9	120	247	2210	446	424	1.14	1.14	43.5	44.0	2011.4	522	220.0	21:37	1.19	1.52	0.10
10:22:15	2021.0	12.2	36.0	120	250	2227	445	425	1.14	1.14	43.6	44.1	2012.4	522	221.0	21:41	1.19	1.50	0.11
10:27:31	2022.0	12.4	36.5	120	244	2222	446	418	1.14	1.14	43.7	44.2	2013.5	532	222.0	21:47	1.19	1.54	0.09
10:32:41	2023.0	12.7	37.7	120	242	2227	446	423	1.14	1.14	43.7	44.3	2014.3	522	223.0	21:52	1.19	1.55	0.07
10:37:50	2024.0	12.7	36.9	120	254	2235	446	422	1.14	1.14	43.8	44.3	2015.3	522	224.0	21:57	1.19	1.54	0.07
10:43:11	2025.0	11.8	36.5	120	250	2248	446	421	1.14	1.14	43.9	43.9	2016.4	522	225.0	22:02	1.19	1.55	0.07
10:49:29	2026.0	9.1	34.6	120	240	2237	446	420	1.14	1.14	44.0	44.0	2017.8	522	226.0	22:09	1.19	1.56	0.08
10:55:20	2027.0	9.1	35.1	120	246	2245	445	428	1.14	1.14	44.0	44.1	2018.9	522	227.0	22:14	1.19	1.55	0.10
11:03:27	2028.0	10.4	33.4	120	232	2268	446	438	1.14	1.14	44.0	44.1	2020.5	522	228.0	22:23	1.18	1.57	0.12
11:09:29	2029.0	13.3	34.6	120	249	2270	446	416	1.14	1.14	44.0	44.3	2021.6	522	229.0	22:29	1.18	1.46	0.12
11:29:11	2030.0	13.3	33.1	120	242	2232	443	352	1.14	1.14	44.1	43.9	2023.8	532	230.0	22:37	1.18	1.21	0.10

lByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-	-BIT-	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm	gpm	sg	sg	deg C	deg C	m	bbl	mts	hh:mm	ppg		%
11:34:14	2031.0	10.7	31.8	120	245	2254	446	359	1.14	1.14	44.1	43.9	2024.6	532	231.0	22:42	1.18	1.47	0.10
11:37:56	2032.0	22.9	32.1	120	272	2252	446	340	1.14	1.14	44.1	43.8	2025.2	522	232.0	22:46	1.18	1.39	0.10
11:56:42	2033.0	12.8	33.6	121	314	2184	436	341	1.14	1.14	44.0	42.5	2026.3	542	233.0	22:51	1.18	1.51	0.07
12:01:20	2034.0	13.5	33.2	121	280	2187	437	334	1.14	1.14	43.9	42.4	2027.0	532	234.0	22:56	1.18	1.47	0.08
12:06:24	2035.0	10.3	31.9	120	256	2208	437	321	1.14	1.14	43.8	42.8	2027.7	532	235.0	23:01	1.18	1.47	0.08
12:11:18	2036.0	12.9	32.8	120	247	2210	438	309	1.14	1.14	43.6	43.3	2028.4	522	236.0	23:06	1.18	1.42	0.10
12:16:16	2037.0	11.4	34.4	120	253	2214	437	314	1.14	1.14	43.5	43.7	2029.1	522	237.0	23:11	1.18	1.50	0.12
12:20:13	2038.0	17.3	35.1	120	261	2214	437	322	1.14	1.14	43.5	43.9	2029.8	522	238.0	23:15	1.18	1.54	0.11
12:25:48	2039.0	11.4	35.3	121	254	2214	438	332	1.14	1.14	43.5	44.0	2030.8	522	239.0	23:20	1.19	1.54	0.11
12:40:30	2040.0	12.1	33.7	120	254	2206	438	324	1.14	1.14	43.7	43.3	2033.4	522	242.0	23:35	1.19	1.50	0.17
12:45:57	2041.0	11.0	34.7	120	245	2210	439	312	1.14	1.14	43.7	44.1	2034.6	522	243.0	23:40	1.19	1.52	0.19
12:51:16	2042.0	11.3	34.8	120	252	2199	439	325	1.14	1.14	43.8	44.4	2035.9	522	244.0	23:46	1.19	1.52	0.18
12:56:25	2043.0	13.0	34.5	120	250	2212	439	326	1.14	1.14	43.9	44.4	2036.8	522	245.0	23:51	1.19	1.50	0.16
13:01:05	2044.0	12.5	34.0	120	254	2210	439	320	1.14	1.14	43.9	44.4	2037.5	522	246.0	23:55	1.19	1.47	0.16
13:06:07	2045.0	11.7	33.5	120	253	2217	440	330	1.14	1.14	44.0	44.4	2038.6	522	247.0	24:00	1.19	1.48	0.16
13:10:44	2046.0	14.0	34.1	120	256	2234	442	337	1.14	1.14	44.1	44.2	2039.5	512	248.0	24:05	1.19	1.47	0.16
13:15:38	2047.0	12.7	34.0	120	252	2225	442	337	1.14	1.14	44.1	44.2	2040.5	512	249.0	24:10	1.19	1.48	0.16
13:20:38	2048.0	11.5	34.2	120	252	2233	442	332	1.14	1.14	44.2	44.4	2041.5	512	250.0	24:15	1.19	1.49	0.16
13:25:02	2049.0	14.8	34.3	120	254	2225	442	336	1.14	1.14	44.2	44.5	2042.3	512	251.0	24:19	1.19	1.46	0.15
13:29:57	2050.0	13.1	33.7	120	280	2219	442	345	1.14	1.14	44.2	44.3	2043.3	512	252.0	24:24	1.19	1.48	0.15
13:34:14	2051.0	14.4	33.0	120	265	2231	443	345	1.14	1.14	44.2	44.4	2044.0	512	253.0	24:29	1.19	1.43	0.14
13:39:29	2052.0	10.8	33.3	120	287	2232	443	333	1.14	1.14	44.3	44.6	2045.0	512	254.0	24:34	1.19	1.50	0.14
13:45:17	2053.0	10.5	34.2	120	245	2235	443	331	1.14	1.14	44.3	44.1	2046.1	512	255.0	24:40	1.19	1.53	0.16
13:51:04	2054.0	10.3	34.2	120	248	2240	443	353	1.14	1.14	44.3	44.4	2047.3	512	256.0	24:45	1.19	1.54	0.15
13:54:47	2055.0	16.7	36.2	120	251	2237	443	377	1.14	1.14	44.3	44.6	2048.0	512	257.0	24:49	1.19	1.43	0.14
14:00:06	2056.0	9.0	35.4	120	267	2241	443	379	1.14	1.14	44.4	44.4	2049.2	512	258.0	24:54	1.19	1.53	0.14
14:23:27	2057.0	7.5	31.4	119	315	2238	444	389	1.14	1.14	44.4	44.3	2052.7	522	259.0	24:60	1.19	1.49	0.14
14:30:22	2058.0	9.7	33.7	120	240	2261	446	394	1.14	1.14	44.4	43.8	2053.8	512	260.0	25:06	1.19	1.56	0.18
14:36:13	2059.0	9.7	36.1	119	247	2265	447	378	1.14	1.14	44.3	44.1	2054.7	512	261.0	25:12	1.19	1.54	0.16
14:38:58	2060.0	42.9	35.7	119	249	2266	447	391	1.14	1.14	44.2	44.3	2055.2	512	262.0	25:15	1.19	1.34	0.15
14:56:14	2061.0	16.7	35.0	119	257	2208	441	375	1.14	1.14	44.2	43.5	2056.3	542	263.0	25:20	1.19	1.33	0.12
15:00:32	2062.0	14.6	34.6	116	246	2103	425	332	1.14	1.14	44.2	41.9	2057.0	522	264.0	25:24	1.19	1.45	0.12
15:04:09	2063.0	18.5	33.1	116	241	2123	424	333	1.14	1.14	44.1	42.2	2057.5	522	265.0	25:28	1.19	1.38	0.14
15:09:09	2064.0	11.8	33.4	116	238	2244	439	364	1.14	1.14	44.0	42.3	2058.3	512	266.0	25:33	1.20	1.47	0.17
15:13:14	2065.0	18.1	32.5	118	237	2248	441	367	1.13	1.13	43.9	43.4	2058.9	512	267.0	25:37	1.20	1.39	0.15
15:16:08	2066.0	23.1	32.3	119	236	2245	441	372	1.13	1.13	43.8	44.2	2059.2	512	268.0	25:40	1.20	1.30	0.14
15:28:57	2067.0	22.1	30.9	119	239	2226	438	367	1.13	1.13	43.8	44.2	2059.7	562	269.0	25:42	1.19	1.25	0.11
15:30:07	2068.0	50.6	21.6	118	331	2160	415	356	1.13	1.13	43.8	42.4	2059.9	552	270.0	25:43	1.19	0.93	0.10
15:31:43	2069.0	43.5	28.0	118	351	2147	430	343	1.13	1.13	43.9	42.8	2060.2	542	271.0	25:45	1.19	1.08	0.09
15:33:44	2070.0	27.6	32.7	118	358	2225	430	347	1.13	1.13	43.9	43.4	2060.6	532	272.0	25:47	1.19	1.21	0.10
15:36:38	2071.0	18.6	26.0	118	343	2244	436	403	1.13	1.13	43.9	43.1	2061.0	522	273.0	25:50	1.19	1.21	0.12

CBU at 2071m. POOH NB#5 for coring.

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-	-BIT-	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
4th February 1993																			
RIH CB#1 8.5" DBS CD-93 with 30 metres core barrel.																			
04:31:46	2072.0	17.9	9.0	55	182	450	213	107	1.13	1.13	34.0	35.5	2023.6	578	1.0	0:04	1.17	0.84	0.07
04:35:38	2073.0	17.0	9.4	61	178	445	213	111	1.13	1.13	34.0	36.3	2025.9	578	2.0	0:07	1.17	0.87	0.07
04:39:41	2074.0	11.6	10.3	73	231	453	212	114	1.13	1.13	34.0	36.9	2071.1	580	3.0	0:11	1.17	0.95	0.07
04:44:13	2075.0	14.0	10.8	82	203	459	212	111	1.13	1.13	34.1	37.5	2071.2	578	4.0	0:16	1.17	1.00	0.07
04:47:35	2076.0	23.5	11.3	90	207	452	211	112	1.13	1.13	34.2	37.7	2071.3	579	5.0	0:19	1.17	0.98	0.07
04:50:46	2077.0	18.5	11.6	91	232	442	212	112	1.13	1.13	34.4	37.8	2071.4	579	6.0	0:22	1.17	0.96	0.07
04:53:17	2078.0	24.1	11.9	91	225	459	211	107	1.13	1.13	34.5	37.9	2071.5	580	7.0	0:25	1.17	0.92	0.07
04:56:06	2079.0	24.2	11.3	90	235	460	211	114	1.13	1.13	34.6	38.1	2071.5	580	8.0	0:27	1.17	0.93	0.07
04:59:25	2080.0	16.3	11.9	91	211	460	211	116	1.13	1.13	34.8	38.3	2071.6	582	9.0	0:31	1.17	0.98	0.07
05:03:12	2081.0	14.7	13.2	91	207	433	211	119	1.13	1.13	34.9	38.3	2071.7	583	10.0	0:34	1.17	1.03	0.07
05:07:52	2082.0	13.2	12.3	91	186	422	212	124	1.13	1.13	35.2	38.3	2071.9	584	11.0	0:39	1.17	1.06	0.08
05:15:55	2083.0	12.0	13.4	91	169	441	213	120	1.13	1.13	35.5	38.3	2071.5	584	12.0	0:47	1.17	1.19	0.17
05:19:43	2084.0	14.9	14.3	91	188	470	212	116	1.13	1.13	35.7	38.2	2072.0	585	13.0	0:50	1.17	1.04	0.18
05:24:27	2085.0	13.4	14.4	90	178	467	212	122	1.13	1.13	35.9	37.9	2072.7	585	14.0	0:55	1.17	1.10	0.18
05:28:54	2086.0	13.8	14.2	91	168	478	212	127	1.13	1.13	36.1	37.5	2073.3	586	15.0	0:59	1.17	1.07	0.17
05:34:01	2087.0	12.3	13.9	90	170	480	211	126	1.13	1.13	36.2	37.6	2074.0	588	16.0	1:04	1.17	1.11	0.14
05:38:55	2088.0	12.6	13.6	90	186	472	212	127	1.13	1.13	36.4	37.1	2071.4	590	17.0	1:09	1.17	1.11	0.10
05:44:40	2089.0	12.2	14.2	91	189	460	212	128	1.13	1.13	36.5	36.8	2072.5	591	18.0	1:14	1.17	1.12	0.07
05:49:57	2090.0	13.8	14.6	90	172	466	212	125	1.13	1.13	36.6	36.7	2073.6	592	19.0	1:19	1.17	1.12	0.04
05:55:28	2091.0	13.0	13.9	91	148	468	212	119	1.13	1.13	36.6	36.8	2074.7	592	20.0	1:24	1.17	1.12	0.06
06:01:06	2092.0	12.3	13.9	91	152	474	212	121	1.13	1.14	36.6	36.6	2071.9	592	21.0	1:29	1.17	1.12	0.92
06:07:43	2093.0	10.2	13.8	91	164	473	212	129	1.13	1.14	36.6	36.2	2073.5	538	22.0	1:36	1.17	1.16	1.84
06:13:01	2094.0	12.3	13.4	91	157	473	212	125	1.13	1.14	36.5	36.2	2074.8	518	23.0	1:41	1.17	1.10	1.21
06:18:47	2095.0	11.5	13.2	91	148	475	212	124	1.13	1.14	36.4	36.2	2076.1	517	24.0	1:46	1.17	1.11	0.61
06:24:42	2096.0	19.8	12.5	91	164	475	212	123	1.13	1.14	36.3	36.2	2077.6	518	25.0	1:52	1.17	1.12	0.43
06:30:43	2097.0	10.0	13.1	91	156	478	211	119	1.13	1.14	36.2	36.2	2079.0	518	26.0	1:57	1.17	1.12	0.32
06:36:04	2098.0	11.9	13.4	91	149	484	211	118	1.13	1.14	36.2	36.3	2080.3	516	27.0	2:02	1.17	1.11	0.29
06:42:10	2099.0	11.7	13.4	91	137	472	211	115	1.13	1.14	36.2	36.4	2081.8	523	28.0	2:08	1.17	1.13	0.18
POOH CB#1 at 2099m. Recovery 100%.																			

IByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA-1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-	-BIT-	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm			sg	deg C		m	bbl	mts	hh:mm	ppg		%
RIH NB#6 8.5" HTC ATM-22 3x12 jets with MWD assembly.																			
19:21:33	2100.0	25.8	12.5	116	118	2052	407	382	1.13	1.14	34.0	37.9	2083.3	505	1.0	0:02	1.18	0.89	0.03
19:23:33	2101.0	42.3	18.8	119	122	2101	418	384	1.13	1.14	34.2	38.1	2084.0	505	2.0	0:04	1.18	1.04	0.03
19:26:04	2102.0	21.4	29.8	119	128	2110	418	377	1.13	1.14	34.4	37.9	2085.0	505	3.0	0:07	1.18	1.24	0.03
19:27:33	2103.0	42.6	28.1	119	141	2098	418	377	1.13	1.14	34.5	37.8	2085.6	504	4.0	0:08	1.18	1.07	0.03
19:28:53	2104.0	45.8	31.1	119	151	2115	419	361	1.13	1.14	34.6	37.8	2086.1	505	5.0	0:09	1.18	1.08	0.03
19:31:04	2105.0	23.6	31.3	119	133	2089	418	363	1.13	1.14	34.6	37.8	2087.0	504	6.0	0:12	1.18	1.22	0.03
19:35:29	2106.0	13.7	31.6	119	126	2107	418	387	1.13	1.14	34.8	37.8	2088.7	504	7.0	0:16	1.18	1.43	0.04
19:40:52	2107.0	8.7	31.1	119	120	2104	418	356	1.13	1.14	35.0	37.7	2090.8	503	8.0	0:21	1.18	1.47	0.04
19:45:00	2108.0	18.2	30.1	119	120	2103	419	381	1.13	1.14	35.3	37.5	2092.4	504	9.0	0:25	1.18	1.39	0.04
19:48:07	2109.0	34.0	29.7	119	133	2094	418	398	1.13	1.14	35.4	37.5	2093.7	503	10.0	0:29	1.18	1.31	0.04
19:49:44	2110.0	44.9	30.0	119	145	2119	419	396	1.13	1.14	35.5	37.5	2094.3	504	11.0	0:30	1.18	1.12	0.04
19:59:50	2111.0	34.3	27.0	117	145	2078	412	353	1.13	1.14	35.6	37.1	2095.7	506	12.0	0:32	1.18	1.06	0.02
20:00:53	2112.0	58.1	31.8	118	160	2007	407	357	1.13	1.14	35.8	36.7	2096.1	507	13.0	0:33	1.18	1.03	0.01
20:03:24	2113.0	20.5	33.5	119	140	2027	407	390	1.13	1.14	35.8	36.6	2097.1	508	14.0	0:35	1.18	1.30	0.03
20:04:46	2114.0	44.3	30.7	120	145	2011	407	394	1.13	1.14	35.9	35.8	2097.6	508	15.0	0:37	1.18	1.08	0.03
21:45:31	2115.0	21.6	28.9	110	121	2044	409	359	1.13	1.14	36.1	36.2	2114.8	512	16.0	0:38	1.18	0.98	0.10
21:48:07	2116.0	20.3	25.9	114	109	2121	421	431	1.13	1.14	37.4	39.2	2114.8	512	17.0	0:41	1.18	0.92	0.10
21:50:11	2117.0	47.9	28.2	119	115	2130	422	416	1.13	1.14	37.5	39.0	2114.8	511	18.0	0:43	1.18	1.04	0.10
21:51:57	2118.0	29.3	31.4	119	134	2161	422	427	1.13	1.14	37.5	39.1	2114.8	511	19.0	0:44	1.18	1.17	0.10
21:53:35	2119.0	47.7	30.1	119	136	2129	422	432	1.13	1.14	37.6	39.3	2114.8	511	20.0	0:46	1.18	1.13	0.10
21:55:19	2120.0	33.4	31.0	119	133	2160	422	421	1.13	1.14	37.6	39.5	2114.8	512	21.0	0:48	1.18	1.15	0.10
21:56:45	2121.0	43.0	31.1	119	137	2160	422	427	1.13	1.14	37.7	39.5	2114.8	512	22.0	0:49	1.18	1.11	0.10
21:58:06	2122.0	48.2	30.0	119	157	2151	422	460	1.13	1.14	37.7	39.4	2114.8	511	23.0	0:51	1.18	1.05	0.10
21:59:21	2123.0	48.6	30.9	119	144	2174	422	450	1.13	1.14	37.7	39.2	2114.8	511	24.0	0:52	1.18	1.06	0.10
22:00:36	2124.0	51.0	31.2	119	139	2157	422	423	1.13	1.14	37.8	39.1	2114.9	512	25.0	0:53	1.18	1.07	0.10
22:02:26	2125.0	30.3	31.4	119	138	2168	422	457	1.13	1.14	37.8	39.1	2114.9	510	26.0	0:55	1.18	1.18	0.10
22:05:04	2126.0	23.9	31.5	121	139	2169	422	440	1.13	1.14	37.9	39.1	2114.9	512	27.0	0:57	1.18	1.24	0.10
22:07:51	2127.0	20.4	28.6	121	128	2169	422	417	1.13	1.14	37.9	39.1	2114.9	512	28.0	1:00	1.18	1.26	0.10
22:10:00	2128.0	29.4	31.4	121	138	2186	422	422	1.13	1.14	38.0	39.2	2114.9	512	29.0	1:02	1.18	1.21	0.10
22:23:00	2129.0	11.9	33.8	117	123	2162	420	385	1.13	1.14	38.1	38.9	2114.9	513	30.0	1:07	1.18	1.49	0.10
22:27:23	2130.0	12.6	33.0	121	120	2151	419	355	1.13	1.14	38.2	38.1	2114.9	513	31.0	1:12	1.18	1.45	0.10
22:31:21	2131.0	13.4	33.7	121	126	2163	420	358	1.13	1.14	38.2	38.4	2114.9	514	32.0	1:16	1.18	1.43	0.10
22:37:03	2132.0	10.1	32.9	121	116	2148	420	354	1.13	1.14	38.3	38.8	2116.1	511	33.0	1:21	1.18	1.52	0.08
22:43:31	2133.0	9.2	34.2	120	127	2147	419	341	1.13	1.14	38.3	38.8	2119.7	507	34.0	1:28	1.18	1.57	2.37
22:47:16	2134.0	27.2	30.2	120	130	2142	419	292	1.13	1.14	38.4	38.7	2122.1	503	35.0	1:32	1.18	1.38	3.07
22:48:34	2135.0	48.4	29.8	120	132	2151	419	290	1.13	1.14	38.4	38.7	2123.1	505	36.0	1:33	1.18	1.06	3.10
23:01:41	2136.0	56.4	24.5	119	125	2129	416	290	1.13	1.14	38.5	37.5	2125.9	503	37.0	1:35	1.18	1.07	1.32
23:03:22	2137.0	37.9	31.6	120	144	2132	417	290	1.13	1.14	38.5	37.6	2126.5	506	38.0	1:36	1.18	1.16	1.78
23:04:56	2138.0	34.3	31.9	120	137	2110	417	290	1.13	1.14	38.4	37.3	2127.0	507	39.0	1:38	1.18	1.13	2.68
23:07:24	2139.0	20.1	33.1	120	141	2133	417	290	1.13	1.14	38.4	37.0	2128.0	506	40.0	1:40	1.18	1.28	3.58
23:09:57	2140.0	23.5	32.9	120	137	2121	417	305	1.13	1.14	38.4	37.8	2128.3	501	41.0	1:43	1.18	1.29	3.58
23:14:28	2141.0	11.1	33.9	120	126	2124	417	381	1.13	1.14	38.4	38.4	2128.9	503	42.0	1:47	1.18	1.47	2.30
23:20:48	2142.0	9.3	33.7	120	125	2112	417	659	1.13	1.14	38.4	38.7	2130.6	501	43.0	1:54	1.18	1.56	0.60
23:26:53	2143.0	8.7	33.9	120	125	2123	417	763	1.13	1.14	38.4	38.9	2131.4	502	44.0	1:60	1.18	1.55	0.47
23:29:41	2144.0	24.7	32.0	120	134	2113	417	804	1.13	1.14	38.4	39.0	2131.9	501	45.0	2:03	1.18	1.30	0.44

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT gpm	MUD DENSITY IN sg	MUD DENSITY OUT sg	MUD TEMP IN deg C	MUD TEMP OUT deg C	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
23:35:25	2145.1	39.6	32.8	120	126	2119	417	797	1.13	1.14	38.4	38.9	2132.7	500	46.1	2:08	1.18	1.50	0.34
5th February 1993																			
00:22:49	2146.0	17.6	34.3	116	112	2084	411	783	1.13	1.14	38.7	38.9	2134.4	499	47.0	2:13	1.18	1.16	0.65
00:36:29	2147.0	38.5	30.4	116	126	2056	411	128	1.13	1.14	38.8	38.6	2140.5	523	48.0	2:14	1.18	1.10	0.37
00:37:00	2148.0	28.9	35.3	116	120	2108	414	152	1.13	1.14	38.8	38.7	2140.5	519	49.0	2:15	1.18	1.22	0.46
00:37:33	2149.0	21.2	32.7	116	135	2131	418	166	1.13	1.14	38.8	38.6	2140.6	516	50.0	2:15	1.18	1.27	0.46
00:37:56	2150.0	17.2	31.6	116	110	2129	419	197	1.13	1.14	38.7	38.4	2140.7	514	51.0	2:16	1.18	1.34	0.46
00:38:25	2151.0	15.3	31.6	116	139	2157	419	178	1.13	1.14	38.7	38.3	2140.7	510	52.0	2:16	1.18	1.37	0.45
00:38:54	2152.0	17.4	32.5	116	134	2166	419	199	1.13	1.14	38.8	38.1	2140.8	508	53.0	2:17	1.18	1.38	0.42
00:41:25	2153.0	36.7	31.6	118	139	2130	420	188	1.13	1.14	38.7	37.5	2141.4	502	54.0	2:19	1.18	1.27	0.37
00:42:44	2154.0	41.6	30.6	118	156	2138	420	180	1.13	1.14	38.7	37.0	2141.8	502	55.0	2:21	1.18	1.08	0.31
00:44:07	2155.0	41.8	31.1	118	146	2122	420	175	1.13	1.14	38.7	37.3	2142.1	502	56.0	2:22	1.18	1.09	0.26
00:46:16	2156.5	19.9	32.1	118	112	2159	420	404	1.13	1.14	38.6	38.5	2142.6	503	57.5	2:24	1.18	1.18	0.23
00:48:14	2157.0	16.2	32.0	119	115	2140	420	325	1.13	1.14	38.6	38.4	2143.2	503	58.0	2:26	1.18	1.34	0.20
00:49:29	2158.0	51.4	30.5	118	152	2149	419	358	1.13	1.14	38.6	38.4	2143.6	502	59.0	2:27	1.18	1.07	0.20
00:50:56	2159.0	41.8	31.1	120	147	2142	420	320	1.13	1.14	38.5	38.6	2144.1	502	60.0	2:29	1.18	1.11	0.20
00:52:29	2160.0	38.8	31.0	120	149	2137	419	343	1.13	1.14	38.5	38.6	2144.6	503	61.0	2:30	1.18	1.13	0.20
00:54:56	2161.0	24.2	31.5	120	135	2134	419	493	1.13	1.14	38.5	38.8	2145.4	503	62.0	2:33	1.18	1.26	0.23
00:58:21	2162.1	54.2	32.0	120	142	2134	419	426	1.13	1.14	38.5	38.9	2146.5	503	63.1	2:36	1.18	1.33	0.3[illegible]
00:59:23	2163.0	57.3	30.0	120	159	2144	419	504	1.13	1.14	38.5	38.9	2146.8	503	64.0	2:37	1.18	1.00	0.3[illegible]
01:00:33	2164.0	53.8	29.2	120	145	2159	420	420	1.13	1.14	38.5	39.0	2147.2	505	65.0	2:38	1.18	1.02	0.29
01:01:42	2165.1	54.8	30.4	120	154	2117	420	411	1.13	1.14	38.4	39.1	2147.5	504	66.1	2:40	1.18	1.03	0.27
01:04:02	2166.0	18.9	30.9	120	134	2158	420	410	1.13	1.14	38.4	39.1	2148.3	504	67.0	2:42	1.18	1.25	0.25
01:06:06	2167.0	29.4	32.9	120	146	2136	420	405	1.13	1.14	38.5	39.1	2149.0	505	68.0	2:44	1.18	1.23	0.30
01:08:21	2168.0	24.1	31.8	120	130	2156	420	402	1.13	1.14	38.5	39.1	2149.7	505	69.0	2:46	1.18	1.24	0.32
01:14:06	2169.0	13.0	33.5	120	121	2140	420	400	1.13	1.14	38.5	39.1	2151.6	506	70.0	2:52	1.18	1.53	0.24
01:16:19	2170.0	37.2	30.6	120	138	2129	419	393	1.13	1.14	38.5	39.1	2152.3	506	71.0	2:54	1.18	1.21	0.33
01:17:19	2171.0	70.5	29.6	120	155	2156	420	405	1.13	1.14	38.6	39.1	2152.6	506	72.0	2:55	1.18	0.98	0.43
01:18:47	2172.0	37.2	27.8	120	145	2152	420	414	1.13	1.14	38.6	39.1	2153.1	506	73.0	2:57	1.18	1.07	0.68
01:19:47	2173.0	60.8	27.4	120	147	2120	420	415	1.13	1.14	38.6	39.1	2153.4	507	74.0	2:58	1.18	0.97	0.89
01:20:45	2174.0	57.2	30.8	120	165	2158	420	400	1.13	1.14	38.6	39.1	2153.7	507	75.0	2:59	1.18	0.99	1.28
02:35:44	2175.0	72.2	30.0	119	166	2132	419	399	1.13	1.14	39.9	39.8	2174.3	539	76.0	2:60	1.18	1.08	1.38
02:36:46	2176.0	60.6	27.9	120	155	2128	419	409	1.13	1.14	40.3	39.7	2174.3	534	77.0	3:01	1.18	0.98	1.38
02:38:09	2177.0	41.0	28.2	120	148	2136	420	430	1.13	1.14	40.3	38.6	2174.3	528	78.0	3:02	1.18	1.07	1.38
02:39:52	2178.0	46.3	28.9	120	156	2125	420	417	1.13	1.14	40.3	37.5	2174.3	525	79.0	3:04	1.18	1.13	1.38
02:41:28	2179.0	31.8	25.9	120	144	2140	420	424	1.13	1.14	40.3	37.1	2174.3	522	80.0	3:06	1.18	1.06	1.38
02:42:28	2180.0	84.7	26.3	120	165	2123	420	425	1.13	1.14	40.3	37.4	2174.3	522	81.0	3:07	1.18	0.97	1.38
02:43:48	2181.0	44.4	25.9	120	148	2151	420	440	1.13	1.14	40.2	38.1	2174.3	521	82.0	3:08	1.18	1.03	1.38
02:45:05	2182.0	42.9	25.4	120	142	2152	420	408	1.13	1.14	40.2	38.3	2174.3	520	83.0	3:09	1.18	0.99	1.38
02:47:49	2183.0	17.2	26.5	120	128	2139	420	412	1.13	1.14	40.1	38.3	2174.3	519	84.0	3:12	1.18	1.24	1.38
02:53:43	2184.0	13.8	31.1	120	131	2152	420	413	1.13	1.14	39.9	38.7	2174.3	520	85.0	3:18	1.18	1.49	1.38
02:56:22	2185.0	24.3	28.9	120	128	2161	420	410	1.13	1.14	39.7	39.0	2174.3	520	86.0	3:21	1.18	1.24	1.38
02:57:47	2186.0	25.6	29.4	120	119	2149	420	418	1.13	1.14	39.7	39.0	2174.6	521	87.0	3:22	1.18	1.25	0.96
03:02:33	2187.0	10.2	30.7	120	122	2153	420	412	1.13	1.14	39.6	39.1	2175.8	521	88.0	3:27	1.18	1.44	0.1[illegible]
03:07:31	2188.0	13.9	30.8	120	127	2166	420	409	1.13	1.14	39.4	39.4	2177.1	521	89.0	3:32	1.18	1.45	0.0
03:12:21	2189.0	10.1	30.6	120	129	2169	421	410	1.13	1.14	39.4	39.4	2178.3	521	90.0	3:37	1.18	1.45	0.06

'Byte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT gpm	MUD DENSITY IN sg	MUD DENSITY OUT sg	MUD TEMP IN deg C	MUD TEMP OUT deg C	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
03:18:54	2190.0	8.9	31.4	120	124	2162	420	414	1.13	1.14	39.3	39.1	2180.0	521	91.0	3:43	1.18	1.54	0.14
03:25:44	2191.0	8.3	30.9	120	123	2161	420	412	1.13	1.14	39.2	39.0	2181.8	520	92.0	3:50	1.18	1.54	0.61
03:33:02	2192.0	9.1	31.2	120	119	2151	420	409	1.13	1.14	39.2	39.0	2183.7	520	93.0	3:57	1.18	1.57	1.61
03:39:29	2193.0	9.1	31.1	120	129	2159	420	410	1.13	1.14	39.1	39.3	2185.3	518	94.0	4:04	1.18	1.53	0.77
03:45:39	2194.0	9.2	30.8	120	123	2158	420	405	1.13	1.14	39.1	39.5	2186.7	514	95.0	4:10	1.18	1.51	0.07
03:52:27	2195.0	9.3	31.0	120	118	2131	420	396	1.13	1.14	39.1	39.6	2187.9	515	96.0	4:17	1.18	1.54	0.07
03:58:29	2196.0	8.4	29.9	120	121	2144	420	408	1.13	1.14	39.2	39.3	2189.1	511	97.0	4:23	1.18	1.49	0.07
04:05:52	2197.0	7.3	29.2	120	120	2137	420	402	1.13	1.14	39.2	39.2	2190.2	513	98.0	4:30	1.18	1.54	0.08
04:13:09	2198.0	7.0	30.6	120	118	2144	420	394	1.13	1.14	39.2	39.4	2191.2	513	99.0	4:37	1.18	1.55	0.08
04:20:59	2199.0	8.0	29.8	120	114	2155	420	398	1.13	1.14	39.3	39.4	2192.5	513	100.0	4:45	1.18	1.56	0.06
04:26:39	2200.0	10.7	29.8	120	115	2158	420	407	1.13	1.14	39.3	39.1	2193.3	509	101.0	4:51	1.18	1.47	0.06
04:34:07	2201.0	7.4	29.8	120	113	2161	420	406	1.13	1.14	39.3	39.4	2194.2	513	102.0	4:58	1.18	1.54	0.08
04:40:03	2202.0	11.8	29.4	120	114	2170	420	408	1.13	1.14	39.3	39.5	2195.0	514	103.0	5:04	1.18	1.48	0.10
04:42:30	2203.0	23.9	27.2	120	119	2181	420	408	1.13	1.14	39.3	39.5	2195.6	513	104.0	5:07	1.18	1.21	0.09
05:03:47	2204.0	19.1	30.6	119	129	2164	413	402	1.13	1.14	39.4	38.2	2196.9	522	105.0	5:10	1.18	1.25	0.08
05:08:46	2205.0	11.0	31.0	119	124	2145	414	395	1.13	1.14	39.4	36.9	2197.6	513	106.0	5:15	1.18	1.45	0.07
05:10:09	2206.0	52.7	28.9	119	146	2126	414	404	1.13	1.14	39.3	38.0	2197.8	512	107.0	5:17	1.18	1.07	0.05
[illegible]:11:35	2207.2	54.5	26.9	119	148	2152	414	408	1.13	1.14	39.3	38.4	2198.1	512	108.2	5:18	1.18	1.01	0.03
[illegible]21:56	2208.0	50.8	22.7	115	132	2184	420	414	1.13	1.14	39.1	37.8	2198.7	529	109.0	5:19	1.18	0.98	0.03
05:23:38	2209.0	33.8	25.5	117	127	2235	421	415	1.13	1.14	39.1	38.0	2199.0	521	110.0	5:21	1.18	1.09	0.03
05:26:57	2210.0	16.8	29.9	117	134	2229	422	416	1.13	1.14	39.0	37.9	2199.5	514	111.0	5:24	1.18	1.20	0.03
05:30:11	2211.0	20.9	29.2	117	124	2213	422	414	1.13	1.14	38.9	38.0	2200.0	510	112.0	5:28	1.18	1.30	0.20
05:33:42	2212.0	19.3	29.8	117	125	2224	421	395	1.13	1.14	38.9	38.8	2200.5	507	113.0	5:31	1.18	1.33	0.08
05:39:18	2213.0	11.8	30.3	117	122	2220	421	410	1.13	1.14	38.8	39.3	2201.8	499	114.0	5:37	1.18	1.40	0.05
05:43:55	2214.0	24.6	32.1	117	136	2201	422	410	1.13	1.14	38.8	39.6	2203.0	498	115.0	5:41	1.18	1.44	0.10
05:47:34	2215.0	12.0	28.6	117	125	2211	422	417	1.13	1.14	38.8	39.7	2203.9	496	116.0	5:45	1.18	1.33	0.10
05:54:44	2216.0	8.7	31.4	117	117	2205	422	417	1.13	1.14	38.9	39.9	2205.7	486	117.0	5:52	1.18	1.55	0.09
06:03:12	2217.0	6.3	31.1	117	114	2180	421	412	1.13	1.14	39.1	40.2	2207.9	478	118.0	6:01	1.18	1.60	0.07
06:11:07	2218.0	5.9	31.6	117	128	1393	340	340	1.13	1.14	39.3	39.9	2209.5	486	119.0	6:09	1.18	1.60	0.07
06:21:01	2219.0	8.0	31.5	120	129	1358	322	330	1.13	1.14	39.3	39.2	2210.9	475	120.0	6:18	1.18	1.61	0.07
06:29:16	2220.0	7.3	31.0	121	125	1127	296	302	1.13	1.14	39.4	38.6	2212.0	481	121.0	6:27	1.17	1.62	0.08
06:35:46	2221.0	12.3	29.8	121	133	1077	275	307	1.13	1.14	39.3	38.2	2212.7	491	122.0	6:33	1.17	1.52	0.08
06:38:34	2222.0	20.5	28.8	121	122	1723	336	346	1.13	1.14	39.3	37.7	2213.2	489	123.0	6:36	1.18	1.28	0.08
06:42:26	2223.0	14.1	30.4	121	120	2197	414	399	1.13	1.14	39.2	37.3	2213.9	482	124.0	6:40	1.18	1.38	0.09
06:47:28	2224.0	10.3	31.0	121	118	2167	421	410	1.13	1.14	39.1	37.5	2214.8	479	125.0	6:45	1.18	1.46	0.09
06:58:17	2225.0	8.9	30.6	121	111	2152	419	400	1.13	1.14	38.9	38.7	2216.8	479	126.0	6:56	1.18	1.54	0.09
07:05:40	2226.0	8.3	31.1	121	120	2164	418	397	1.13	1.14	38.8	38.8	2218.2	478	127.0	7:03	1.18	1.56	0.09
07:12:58	2227.0	8.6	32.2	121	128	2176	418	398	1.13	1.14	38.9	38.8	2219.6	477	128.0	7:10	1.18	1.59	0.07
07:21:04	2228.0	9.0	31.1	121	120	2169	418	397	1.13	1.14	38.9	39.0	2221.1	477	129.0	7:19	1.18	1.60	0.08
07:29:17	2229.0	7.6	30.6	121	119	2176	418	376	1.13	1.14	39.0	38.9	2222.7	475	130.0	7:27	1.18	1.59	0.08
07:29:17	2230.0	7.6	30.6	121	119	2176	418	376	1.13	1.14	39.0	38.9	2222.7	475	130.0	7:27	1.18	1.59	0.08
07:29:17	2231.0	7.6	30.6	121	119	2176	418	376	1.13	1.14	39.0	38.9	2222.7	475	130.0	7:27	1.18	1.59	0.08
08:14:14	2232.0	6.2	29.8	116	127	2109	411	373	1.13	1.14	37.3	37.0	2227.7	480	134.0	7:60	1.18	1.55	0.06
[illegible]14:14	2233.0	6.2	29.8	116	127	2109	411	373	1.13	1.14	37.3	37.0	2227.7	480	134.0	7:60	1.18	1.55	0.06
[illegible]:22:29	2234.0	8.2	29.0	109	127	2112	413	531	1.13	1.14	39.2	38.9	2228.7	480	135.0	8:08	1.18	1.54	0.06
08:30:16	2235.0	8.5	29.1	100	124	2122	413	391	1.13	1.14	39.2	39.2	2229.5	479	136.0	8:16	1.18	1.49	0.06

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-	-BIT-	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm	gpm	sg	sg	deg C	deg C	m	bbl	mts	hh:mm	ppg		%
08:39:29	2236.0	5.5	29.8	100	125	2119	413	382	1.13	1.14	39.2	39.4	2230.6	478	137.0	8:25	1.18	1.57	0.06
08:44:26	2237.0	14.6	28.3	100	131	2118	413	406	1.13	1.14	39.3	39.3	2231.2	480	138.0	8:30	1.18	1.37	0.06
08:52:13	2238.0	7.3	29.9	100	133	2125	413	404	1.13	1.14	39.4	39.5	2232.1	480	139.0	8:38	1.18	1.52	0.06
09:00:13	2239.0	6.7	30.3	100	143	2150	413	404	1.13	1.14	39.4	39.5	2232.1	480	139.0	8:38	1.18	1.52	0.06
09:04:13	2240.0	24.6	29.3	100	137	2110	413	404	1.13	1.14	39.4	39.5	2233.4	480	139.0	8:38	1.18	1.36	0.07
09:06:08	2241.0	48.3	29.3	100	146	2140	413	404	1.13	1.14	39.4	39.5	2233.4	480	139.0	8:38	1.18	0.99	0.08
09:26:09	2242.0	39.0	27.3	100	143	2090	412	404	1.13	1.14	39.4	39.5	2233.4	480	139.0	8:38	1.18	1.04	0.04
09:27:24	2243.0	40.4	31.3	100	131	2130	412	404	1.13	1.14	39.4	39.5	2233.4	480	139.0	8:38	1.18	1.01	0.06
09:29:32	2244.0	26.9	32.3	100	140	2130	413	404	1.13	1.14	39.4	39.5	2233.4	480	139.0	8:38	1.18	1.14	0.06
09:33:16	2245.0	17.1	30.3	100	128	2121	413	404	1.13	1.14	39.4	39.5	2233.4	480	139.0	8:38	1.18	1.32	0.06
09:37:01	2246.0	18.1	25.3	100	104	2120	413	404	1.13	1.14	39.1	38.6	2233.4	480	139.0	8:38	1.18	1.28	0.06
09:40:06	2247.0	21.1	26.3	100	110	2130	414	404	1.13	1.14	39.0	38.8	2233.4	480	139.0	8:38	1.18	1.24	0.06
09:44:31	2248.0	16.4	28.3	100	131	2180	416	404	1.13	1.14	39.0	39.1	2233.4	480	139.0	8:38	1.18	1.34	0.06
09:49:26	2249.0	10.1	27.3	100	143	2180	416	404	1.13	1.14	39.0	39.3	2233.4	480	139.0	8:38	1.18	1.38	0.08
09:55:26	2250.0	10.2	31.3	100	116	2160	415	404	1.13	1.14	39.0	39.3	2233.4	480	139.0	8:38	1.18	1.44	0.06
10:02:10	2251.0	7.2	28.3	100	113	2180	416	404	1.13	1.14	39.1	39.7	2233.4	480	139.0	8:38	1.18	1.45	0.05
10:10:07	2252.0	7.6	26.3	100	113	2160	416	404	1.13	1.14	39.2	39.6	2233.4	480	139.0	8:38	1.18	1.51	0.15
10:16:45	2253.0	9.1	29.3	100	107	2180	416	404	1.13	1.14	39.3	39.1	2233.4	480	139.0	8:38	1.18	1.46	0.16
10:23:33	2254.0	7.5	25.3	100	98	2180	417	404	1.13	1.14	39.3	39.3	2233.4	480	139.0	8:38	1.18	1.47	0.[illegible]
10:33:58	2255.5	8.6	29.2	100	123	2162	417	170	1.13	1.14	39.4	39.5	2248.1	482	156.5	10:01	1.18	1.49	0.1[illegible]
10:37:08	2256.0	9.1	28.8	100	119	2160	417	172	1.13	1.14	39.5	39.5	2248.8	483	157.0	10:05	1.18	1.49	0.10
10:44:41	2257.0	6.4	28.8	100	124	2168	417	174	1.13	1.14	39.5	39.7	2250.0	482	158.0	10:12	1.18	1.47	0.08
10:50:57	2258.0	11.3	28.9	99	123	2170	418	164	1.13	1.14	39.6	39.9	2250.9	482	159.0	10:18	1.18	1.44	0.07
10:59:21	2259.0	8.2	28.7	99	118	2183	418	160	1.13	1.14	39.7	39.9	2251.9	482	160.0	10:27	1.18	1.52	0.07
11:08:07	2260.0	7.3	29.3	99	111	2167	418	123	1.13	1.14	39.8	39.9	2253.2	478	161.0	10:36	1.18	1.54	0.07
11:18:07	2261.0	8.4	29.7	99	111	2169	417	147	1.13	1.14	39.9	39.8	2254.7	480	162.0	10:46	1.18	1.57	0.08
11:51:26	2262.0	10.8	29.0	100	107	2161	419	139	1.13	1.14	39.5	39.2	2257.9	494	163.0	11:00	1.18	1.14	0.07
12:01:41	2263.0	6.4	29.2	100	104	2155	420	263	1.13	1.14	39.3	38.8	2258.8	512	164.0	11:11	1.18	1.59	0.07
12:11:21	2264.0	7.9	29.6	100	102	2140	420	400	1.13	1.14	39.3	39.6	2259.7	516	165.0	11:20	1.18	1.57	0.07
12:22:02	2265.0	7.8	29.4	100	109	2104	420	401	1.13	1.14	39.3	39.7	2260.7	520	166.0	11:31	1.18	1.59	0.06
12:31:52	2266.0	8.5	28.5	100	107	2108	421	401	1.13	1.14	39.4	39.8	2261.5	522	167.0	11:41	1.18	1.54	0.05
12:40:51	2267.0	7.3	29.3	100	108	2104	422	401	1.13	1.14	39.4	39.7	2262.3	526	168.0	11:50	1.18	1.55	0.05
12:48:31	2268.0	7.1	28.8	100	108	2122	422	401	1.13	1.14	39.5	39.7	2263.0	529	169.0	11:57	1.18	1.50	0.05
12:57:42	2269.0	7.2	29.9	100	110	2141	421	227	1.13	1.14	39.5	40.0	2263.9	529	170.0	12:07	1.18	1.56	0.05
13:08:37	2270.0	6.2	28.7	100	122	2146	421	405	1.13	1.14	39.7	39.9	2265.1	529	171.0	12:17	1.18	1.60	0.05
13:19:25	2271.0	7.1	29.5	100	125	2160	421	410	1.13	1.14	39.8	40.1	2266.0	529	172.0	12:28	1.18	1.60	0.05
13:29:23	2272.0	8.5	29.3	100	127	2160	421	395	1.13	1.14	39.9	40.7	2267.1	529	173.0	12:38	1.18	1.59	0.05
13:41:09	2273.0	5.5	29.2	100	124	2141	421	395	1.13	1.14	40.1	41.0	2268.5	527	174.0	12:50	1.18	1.61	0.03
13:52:03	2274.0	6.3	28.6	100	119	2112	420	399	1.13	1.14	40.5	41.0	2269.5	527	175.0	13:01	1.18	1.59	0.02
14:03:17	2275.0	5.2	30.0	100	125	2147	420	395	1.13	1.14	40.7	41.0	2270.5	529	176.0	13:12	1.18	1.62	0.02
14:15:08	2276.0	3.6	30.4	100	125	2158	420	405	1.13	1.14	40.8	41.0	2271.6	530	177.0	13:24	1.18	1.64	0.03
14:26:46	2277.0	5.5	29.0	100	110	2166	420	390	1.13	1.14	40.9	40.9	2272.6	533	178.0	13:36	1.18	1.61	0.03
14:37:00	2278.0	9.0	29.5	100	116	2177	420	387	1.13	1.14	40.9	41.0	2273.6	537	179.0	13:46	1.18	1.59	0.04
14:47:36	2279.0	6.3	29.1	100	117	2188	420	400	1.13	1.14	40.9	41.2	2274.6	541	180.0	13:56	1.18	1.59	0.[illegible]
14:55:36	2280.0	18.1	28.2	100	121	2164	421	410	1.13	1.14	41.0	41.1	2275.1	545	181.0	14:04	1.18	1.47	0.[illegible]
15:11:37	2281.0	21.4	23.0	99	111	2147	420	439	1.13	1.14	41.0	40.9	2275.5	585	182.0	14:07	1.18	1.11	0.05

''lByte Drilling Data Printout
C..ANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-		ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm			sg	deg C		m	bbl	mts	hh:mm	ppg		%
15:14:33	2282.0	16.3	23.1	100	107	1942	394	362	1.13	1.14	41.1	39.5	2275.8	566	183.0	14:10	1.18	1.16	0.04
15:16:00	2283.0	53.0	26.9	100	133	1950	396	497	1.13	1.14	41.0	39.3	2275.9	560	184.0	14:11	1.18	1.02	0.04
15:18:40	2284.0	19.2	28.4	100	118	1946	397	445	1.13	1.14	41.0	38.7	2276.1	555	185.0	14:14	1.18	1.20	0.04
15:30:20	2285.0	5.3	30.6	100	100	2070	408	383	1.13	1.14	40.8	39.8	2276.9	548	186.0	14:26	1.18	1.65	0.05
15:42:21	2286.0	5.6	30.4	100	96	2124	414	388	1.13	1.14	40.6	41.1	2278.1	549	187.0	14:38	1.18	1.65	0.06
15:51:13	2287.0	6.7	30.2	100	104	2107	414	367	1.13	1.14	40.7	41.4	2278.9	549	188.0	14:46	1.18	1.57	0.06
15:58:38	2288.0	9.6	31.6	100	114	2104	414	392	1.13	1.14	40.9	41.5	2279.5	549	189.0	14:54	1.18	1.52	0.07
16:05:21	2289.0	12.1	30.7	100	118	2106	414	408	1.13	1.14	41.1	41.6	2280.9	548	190.0	15:01	1.18	1.48	1.93
16:09:56	2290.0	17.5	30.4	100	124	2112	414	404	1.13	1.14	41.2	41.5	2283.0	545	191.0	15:05	1.18	1.37	0.69
16:15:37	2291.0	12.1	31.2	100	125	2123	414	401	1.13	1.14	41.3	41.7	2284.3	543	192.0	15:11	1.18	1.45	0.38
16:38:22	2292.0	15.0	30.9	105	138	2145	414	393	1.13	1.14	41.5	41.0	2285.7	542	193.5	15:20	1.18	1.39	0.09
16:41:16	2293.0	14.7	31.2	105	138	2136	414	395	1.13	1.14	41.5	41.2	2285.9	542	194.0	15:23	1.18	1.42	0.07
16:44:42	2294.0	21.0	31.5	100	139	2127	414	393	1.13	1.14	41.5	41.4	2286.5	543	195.0	15:27	1.18	1.32	0.07
16:48:36	2295.0	13.0	33.4	100	146	2137	415	379	1.13	1.14	41.5	41.5	2287.0	542	196.0	15:30	1.18	1.37	0.07
16:52:21	2296.0	16.5	31.8	100	136	2130	415	383	1.13	1.14	41.4	41.7	2287.3	542	197.0	15:34	1.18	1.34	0.07
16:56:26	2297.1	19.5	31.7	100	132	2131	415	382	1.13	1.14	41.5	41.7	2287.7	543	198.1	15:38	1.18	1.34	0.08
17:00:33	2298.0	20.1	31.8	100	135	2135	414	403	1.13	1.14	41.5	41.7	2288.2	542	199.0	15:42	1.18	1.37	0.08
17:03:23	2299.0	37.2	26.9	100	125	2145	414	391	1.13	1.14	41.5	41.6	2288.6	543	200.0	15:45	1.18	1.20	0.08
:33:26	2300.1	37.0	26.8	100	130	2132	409	404	1.13	1.14	41.6	41.3	2289.3	582	201.1	15:47	1.18	1.03	0.06
17:35:30	2301.1	21.4	31.3	103	137	2070	401	407	1.13	1.14	41.5	40.3	2289.6	566	202.1	15:49	1.18	1.16	0.04
17:50:13	2302.1	15.3	29.0	100	128	2140	410	370	1.13	1.14	41.4	39.7	2290.7	572	203.1	15:52	1.18	1.24	0.13
17:53:03	2303.0	20.1	28.7	101	146	2108	408	388	1.13	1.14	41.1	36.9	2291.1	556	204.0	15:55	1.18	1.22	0.43
17:55:05	2304.0	29.8	31.0	101	165	2125	409	370	1.13	1.14	40.9	37.3	2291.2	550	205.0	15:57	1.18	1.18	0.49
17:58:10	2305.0	26.9	29.0	100	139	2132	409	381	1.13	1.14	40.8	38.0	2291.2	544	206.0	16:00	1.18	1.26	0.49
18:00:57	2306.0	20.0	30.6	100	136	2125	410	421	1.13	1.14	40.6	38.8	2291.2	543	207.0	16:03	1.18	1.23	0.49
18:04:56	2307.0	14.7	29.3	100	134	2131	410	397	1.13	1.14	40.4	39.8	2291.4	542	208.0	16:07	1.18	1.33	0.45
18:08:36	2308.0	24.9	29.3	100	127	2122	410	396	1.13	1.14	40.2	40.3	2292.2	540	209.0	16:10	1.18	1.30	0.29
18:13:01	2309.0	18.5	31.3	100	132	2137	409	430	1.13	1.14	40.0	40.5	2293.0	542	210.0	16:15	1.18	1.37	0.14
18:20:39	2310.0	8.2	31.0	100	129	2109	409	393	1.13	1.14	40.1	41.0	2295.1	542	211.0	16:22	1.18	1.53	0.13
18:26:32	2311.0	12.0	31.1	100	131	2124	409	407	1.13	1.14	40.2	41.2	2296.4	541	212.0	16:28	1.18	1.46	0.13
18:31:44	2312.0	10.3	30.0	100	131	2187	416	372	1.13	1.14	40.4	41.4	2297.7	542	213.0	16:34	1.18	1.39	2.28
18:38:23	2313.0	9.2	31.6	100	128	2199	419	400	1.13	1.14	40.6	41.5	2299.7	541	214.0	16:40	1.18	1.50	4.55
18:41:29	2314.0	14.0	31.0	100	136	2197	419	413	1.13	1.14	40.8	41.8	2300.9	542	215.0	16:43	1.18	1.39	2.99
18:59:57	2315.0	16.9	30.9	100	132	2188	419	395	1.13	1.14	41.3	41.7	2303.4	539	216.0	16:47	1.18	1.33	0.20
19:01:24	2316.0	22.6	29.4	100	128	2221	419	391	1.13	1.14	41.4	41.8	2303.8	540	217.0	16:49	1.18	1.19	0.19
19:18:19	2317.0	10.2	27.7	101	113	2219	418	426	1.13	1.14	41.5	41.6	2307.8	544	218.0	16:53	1.18	1.24	0.10
19:21:30	2318.0	23.7	32.9	100	148	2193	418	375	1.13	1.14	41.6	41.3	2308.4	541	219.0	16:56	1.18	1.28	0.11
19:24:11	2319.0	16.3	32.5	100	143	2189	418	355	1.13	1.14	41.6	41.3	2309.0	540	220.0	16:59	1.18	1.70	0.12
19:24:55	2320.0	26.7	32.7	100	122	2194	418	367	1.13	1.14	41.6	41.4	2308.9	539	221.0	16:59	1.18	1.29	0.13
19:26:49	2321.0	19.3	31.1	100	130	2200	418	384	1.13	1.14	41.6	41.5	2309.4	540	222.0	17:01	1.18	1.28	0.13
19:32:19	2322.0	12.0	32.9	100	144	2195	418	384	1.13	1.14	41.6	41.6	2310.8	539	223.0	17:07	1.18	1.46	0.12
19:34:57	2323.0	24.6	30.4	100	147	2196	418	287	1.13	1.14	41.6	41.6	2311.4	540	224.0	17:09	1.18	1.20	0.12
19:37:20	2324.0	28.5	31.8	100	151	2205	418	368	1.13	1.14	41.6	41.5	2312.0	541	225.0	17:12	1.18	1.22	0.13
19:39:33	2325.0	26.3	32.2	100	148	2195	418	347	1.13	1.14	41.6	41.6	2312.6	541	226.0	17:14	1.18	1.19	0.14
19:41:50	2326.0	23.3	31.2	100	150	2202	418	352	1.13	1.14	41.6	41.7	2313.1	542	227.0	17:16	1.18	1.19	0.14
19:44:58	2327.0	23.1	31.6	100	146	2203	418	369	1.13	1.14	41.6	41.7	2313.9	541	228.0	17:19	1.18	1.28	0.14

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT gpm	MUD DENSITY IN sg	MUD DENSITY OUT sg	MUD TEMP IN deg C	MUD TEMP OUT deg C	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
19:47:03	2328.0	28.9	29.1	100	140	2210	418	381	1.13	1.14	41.7	41.7	2314.4	541	229.0	17:21	1.18	1.13	0.14
19:49:03	2329.0	28.9	29.1	100	140	2210	418	381	1.13	1.14	41.7	41.7	2314.4	541	229.0	17:21	1.18	1.13	0.14
19:52:25	2330.0	24.5	31.2	100	146	2206	418	408	1.13	1.14	41.7	41.9	2315.8	542	231.0	17:27	1.18	1.18	0.12
20:00:37	2331.0	6.8	34.5	100	134	2219	419	385	1.13	1.14	41.8	41.9	2317.8	542	232.0	17:35	1.18	1.59	0.21
20:06:44	2332.0	15.9	32.9	100	135	2218	419	375	1.13	1.14	41.9	42.0	2319.4	542	233.0	17:41	1.18	1.61	0.80
20:10:02	2333.1	26.4	30.6	100	140	2222	420	383	1.13	1.14	41.9	42.0	2320.2	542	234.1	17:44	1.18	1.27	0.51
20:11:54	2334.0	30.7	27.9	100	145	2227	420	373	1.13	1.14	41.9	42.0	2320.6	543	235.0	17:46	1.18	1.10	0.38
20:14:31	2335.0	30.5	31.2	100	148	2217	420	367	1.13	1.14	42.0	42.0	2321.1	542	236.0	17:49	1.18	1.22	0.24
20:16:11	2336.1	41.6	29.9	100	149	2211	420	393	1.13	1.14	42.0	42.1	2321.4	542	237.1	17:51	1.18	1.06	0.24
20:37:19	2337.0	26.2	30.8	99	153	2186	415	347	1.13	1.14	42.0	42.1	2323.3	571	238.0	17:52	1.18	1.05	0.08
20:38:59	2338.1	31.9	28.2	98	147	1970	393	387	1.13	1.14	41.8	41.0	2323.9	564	239.1	17:54	1.18	1.07	0.12
20:40:30	2339.0	39.3	28.1	98	166	1988	394	360	1.13	1.14	41.8	39.8	2324.5	560	240.0	17:56	1.18	1.05	0.14
20:42:16	2340.0	30.5	26.3	100	141	2052	395	347	1.13	1.14	41.8	38.9	2325.2	555	241.0	17:57	1.18	1.07	0.16
20:44:40	2341.0	29.2	30.5	102	147	2176	413	373	1.13	1.14	41.7	39.3	2326.1	551	242.0	17:60	1.18	1.20	0.17
20:47:11	2342.0	18.7	30.1	102	145	2164	415	372	1.13	1.14	41.6	40.0	2326.9	549	243.0	18:02	1.18	1.21	0.18
20:49:57	2343.0	19.7	30.4	101	141	2179	415	346	1.13	1.14	41.5	40.4	2328.2	548	244.0	18:05	1.18	1.23	0.18
20:51:49	2344.0	34.7	27.0	101	141	2231	420	342	1.13	1.14	41.4	40.7	2328.8	548	245.0	18:07	1.18	1.10	0.19
20:53:44	2345.0	25.9	30.8	101	149	2224	421	370	1.13	1.14	41.4	40.9	2329.4	548	246.0	18:09	1.18	1.13	0.19
20:55:23	2346.0	36.4	28.9	101	140	2234	421	402	1.13	1.14	41.3	41.2	2330.0	548	247.0	18:11	1.18	1.13	0.1[illegible]
20:56:56	2347.0	35.9	27.8	101	135	2221	421	339	1.13	1.14	41.3	41.3	2330.3	548	248.0	18:12	1.18	1.05	0.1[illegible]
21:00:09	2348.0	19.6	28.9	101	138	2233	421	352	1.13	1.14	41.3	41.4	2330.7	548	249.0	18:15	1.18	1.26	0.18
21:16:51	2349.1	18.6	28.4	101	135	2217	421	353	1.13	1.14	41.3	41.3	2332.5	556	250.1	18:19	1.18	1.26	0.07
21:19:15	2350.0	35.4	28.0	100	140	2218	421	339	1.13	1.14	41.3	40.6	2333.5	550	251.0	18:21	1.18	1.16	0.09
21:20:57	2351.0	31.1	28.8	100	151	2236	421	353	1.13	1.14	41.3	40.7	2334.0	548	252.0	18:23	1.18	1.08	0.10
21:23:11	2352.0	26.1	29.8	100	147	2219	421	381	1.13	1.14	41.3	40.8	2334.3	546	253.0	18:25	1.18	1.17	0.11
21:24:59	2353.0	33.3	28.6	100	148	2233	421	370	1.13	1.14	41.3	41.0	2335.1	547	254.0	18:27	1.18	1.10	0.15
21:27:06	2354.0	24.1	28.6	100	147	2233	421	333	1.13	1.14	41.3	41.0	2336.3	546	255.0	18:29	1.18	1.14	0.19
21:29:34	2355.0	25.9	29.2	100	144	2213	421	351	1.13	1.14	41.3	41.1	2336.9	545	256.0	18:31	1.18	1.18	0.26
21:31:01	2356.0	36.3	28.1	100	145	2230	421	341	1.13	1.14	41.3	41.3	2336.9	545	257.0	18:33	1.18	1.02	0.26
21:32:35	2357.0	33.5	28.9	100	153	2218	421	316	1.13	1.14	41.3	41.4	2337.1	545	258.0	18:34	1.18	1.06	0.73
21:34:43	2358.0	27.7	29.4	100	151	2220	421	287	1.13	1.14	41.3	41.3	2338.1	545	259.0	18:37	1.18	1.17	1.74
21:36:27	2359.0	31.5	30.5	100	151	2211	421	357	1.13	1.14	41.3	41.3	2339.0	544	260.0	18:38	1.18	1.11	1.14
21:38:30	2360.0	25.2	28.3	100	147	2225	421	384	1.13	1.14	41.3	41.5	2340.2	544	261.0	18:40	1.18	1.13	0.70
21:41:12	2361.0	21.4	30.1	100	140	2218	421	428	1.13	1.14	41.3	41.7	2341.3	542	262.0	18:43	1.18	1.22	0.44
21:46:00	2362.0	14.4	29.9	100	137	2212	421	446	1.13	1.14	41.3	41.6	2343.1	542	263.0	18:48	1.18	1.38	0.26
21:49:23	2363.0	18.0	28.8	100	133	2219	421	448	1.13	1.14	41.4	41.5	2344.8	542	264.0	18:51	1.18	1.27	0.23
21:52:29	2364.0	21.1	29.0	100	136	2223	421	391	1.13	1.14	41.4	41.8	2346.6	540	265.0	18:54	1.18	1.25	0.27
21:55:05	2365.0	25.3	26.5	100	131	2216	421	407	1.13	1.14	41.4	41.7	2347.6	540	266.0	18:57	1.18	1.17	0.28
21:56:59	2366.0	28.2	29.2	100	143	2223	421	413	1.13	1.14	41.5	41.8	2348.1	540	267.0	18:59	1.18	1.12	0.27
21:59:46	2367.0	19.6	24.0	100	121	2225	421	426	1.13	1.14	41.5	41.9	2348.3	540	268.0	19:02	1.18	1.14	0.27
22:03:41	2368.0	15.0	30.5	100	142	2192	421	425	1.13	1.14	41.6	42.0	2348.3	540	269.0	19:06	1.18	1.34	0.27
22:05:24	2369.0	37.4	29.7	100	141	2216	421	396	1.13	1.14	41.6	42.0	2348.7	539	270.0	19:07	1.18	1.07	0.72
22:07:33	2370.0	31.0	24.7	100	131	2210	421	391	1.13	1.14	41.6	41.9	2349.4	539	271.0	19:09	1.18	1.08	0.93
22:09:46	2371.0	21.3	24.4	100	134	2231	421	411	1.13	1.14	41.7	41.9	2350.5	539	272.0	19:12	1.18	1.10	0.60
22:12:30	2372.0	21.8	26.2	100	133	2208	421	400	1.13	1.14	41.7	41.8	2351.8	538	273.0	19:14	1.18	1.17	0.3[illegible]
22:15:18	2373.0	20.0	26.4	100	133	2214	421	428	1.13	1.14	41.8	42.0	2353.3	537	274.0	19:17	1.18	1.18	0.32

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TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-	-BIT-	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm	gpm	sg	sg	deg C	deg C	m	bbl	mts	hh:mm	ppg		%
22:19:39	2374.1	17.0	26.0	100	131	2214	421	396	1.13	1.14	41.8	42.0	2355.1	537	275.1	19:22	1.18	1.28	0.32
22:22:41	2375.0	17.4	25.6	100	133	2218	421	384	1.13	1.14	41.9	41.8	2356.9	536	276.0	19:25	1.18	1.20	0.27
22:26:54	2376.1	17.3	26.3	100	131	2220	421	384	1.13	1.14	41.9	41.8	2359.1	532	277.1	19:29	1.18	1.28	0.26
22:53:13	2377.0	35.5	35.2	99	145	2052	405	319	1.13	1.14	41.6	41.6	2365.4	531	278.0	19:31	1.18	1.22	0.15
22:56:04	2378.0	21.3	34.9	98	141	2065	406	335	1.13	1.14	41.5	41.7	2366.1	531	279.0	19:34	1.18	1.31	0.17
22:58:00	2379.0	34.9	34.2	98	141	2064	405	351	1.13	1.14	41.5	41.8	2366.5	531	280.0	19:36	1.18	1.16	0.18
23:00:14	2380.0	23.5	34.8	98	141	2083	406	377	1.13	1.14	41.5	41.7	2367.0	530	281.0	19:38	1.18	1.22	0.19
23:02:08	2381.1	35.6	34.6	98	129	2060	406	424	1.13	1.14	41.5	41.5	2367.5	531	282.1	19:40	1.18	1.12	0.18
23:04:47	2382.0	20.4	31.8	98	122	2064	406	364	1.13	1.14	41.5	41.7	2368.1	530	283.0	19:43	1.18	1.24	0.19
23:06:45	2383.0	29.1	32.9	98	126	2070	406	400	1.13	1.14	41.5	41.7	2368.6	530	284.0	19:45	1.18	1.16	0.21
23:08:22	2384.0	38.3	32.7	99	120	2050	406	450	1.13	1.14	41.6	41.7	2368.9	529	285.0	19:47	1.18	1.11	0.22
23:10:46	2385.0	55.3	33.9	98	131	2067	406	426	1.13	1.14	41.6	41.5	2369.5	529	286.0	19:49	1.18	1.20	0.22
23:11:36	2386.1	76.4	34.0	98	138	2049	406	415	1.13	1.14	41.6	41.6	2369.7	529	287.1	19:50	1.18	0.89	0.21
23:12:44	2387.1	48.3	32.9	98	135	2053	406	330	1.13	1.14	41.6	41.7	2370.0	529	288.1	19:51	1.18	1.00	0.20
23:14:13	2388.1	37.9	31.9	98	132	2083	406	404	1.13	1.14	41.6	41.8	2370.3	529	289.1	19:52	1.18	1.07	0.19
23:18:19	2389.0	20.8	27.6	99	123	2116	407	384	1.13	1.14	41.6	41.7	2371.3	529	290.0	19:56	1.18	1.30	0.16
23:22:57	2390.0	21.5	26.2	102	120	2198	419	372	1.13	1.14	41.6	41.8	2372.4	527	291.0	20:01	1.18	1.32	0.15
23:26:01	2391.0	30.2	27.2	102	120	2193	419	423	1.13	1.14	41.6	41.9	2373.1	526	292.0	20:04	1.18	1.22	0.14
:27:36	2392.0	47.6	25.6	101	126	2207	419	417	1.13	1.14	41.6	41.9	2373.5	527	293.0	20:06	1.18	1.01	0.15
23:29:15	2393.0	45.0	26.4	101	125	2191	419	428	1.13	1.14	41.7	41.9	2373.9	527	294.0	20:07	1.18	1.04	0.25
23:30:51	2394.1	50.0	26.5	101	123	2209	419	468	1.13	1.14	41.7	41.9	2374.6	527	295.1	20:08	1.18	0.68	0.78
23:37:16	2395.0	8.4	27.1	101	108	2208	419	404	1.13	1.14	41.7	42.0	2377.2	527	296.0	20:15	1.18	1.43	0.65
23:48:39	2396.0	5.3	30.3	101	109	2202	419	448	1.13	1.14	41.8	42.0	2381.8	521	297.0	20:26	1.18	1.64	0.56
23:56:39	2397.1	12.0	29.8	101	115	2203	419	433	1.13	1.14	41.9	41.9	2385.0	517	298.1	20:34	1.17	1.52	0.25
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00:00:35	2398.1	16.1	29.5	101	126	2217	419	439	1.13	1.14	42.0	42.0	2386.5	514	299.1	20:38	1.17	1.34	0.26
00:10:52	2399.0	7.3	29.3	101	115	2219	419	454	1.13	1.14	42.0	42.0	2390.7	502	300.0	20:48	1.17	1.61	0.24
00:21:15	2400.0	7.2	29.6	101	110	2168	412	523	1.13	1.14	42.0	42.0	2394.5	493	301.0	20:59	1.17	1.61	0.15
01:04:06	2401.1	37.9	27.6	88	121	2147	411	531	1.13	1.14	42.0	41.1	2395.2	501	302.1	21:03	1.18	1.47	0.12
01:07:11	2402.0	16.9	27.6	97	106	2150	412	454	1.13	1.14	41.7	38.3	2395.5	487	303.0	21:06	1.18	1.15	0.10
01:23:32	2403.0	9.4	28.6	98	120	2133	410	552	1.13	1.14	40.6	39.9	2396.4	486	304.0	21:11	1.18	0.68	0.06
01:23:58	2404.0	8.3	29.0	98	158	2130	411	529	1.13	1.14	40.5	40.1	2396.4	486	305.0	21:12	1.18	1.44	0.06
01:25:39	2405.0	8.4	28.5	98	149	2110	411	519	1.13	1.14	40.5	39.9	2396.6	481	306.0	21:14	1.18	1.48	0.07
01:28:08	2406.0	7.5	30.8	98	141	2127	411	456	1.13	1.14	40.4	40.4	2396.9	480	307.0	21:16	1.18	1.51	0.08
01:29:39	2407.0	12.8	29.7	98	132	2126	411	431	1.13	1.14	40.3	40.5	2397.2	478	308.0	21:18	1.18	1.41	0.09
01:35:12	2408.1	19.2	29.1	98	108	2164	413	394	1.13	1.14	40.3	40.9	2398.3	477	309.1	21:23	1.18	1.41	0.11
01:41:23	2409.0	10.3	29.9	98	75	2203	418	488	1.13	1.14	40.3	41.4	2399.5	474	310.0	21:29	1.18	1.36	0.07
01:44:28	2410.0	16.6	29.3	98	105	2196	418	407	1.13	1.14	40.4	41.6	2400.1	474	311.0	21:32	1.18	1.25	0.07
01:54:57	2411.0	5.8	29.9	98	99	2196	418	528	1.13	1.14	40.6	41.5	2402.3	473	312.0	21:42	1.18	1.59	0.40
02:04:51	2412.0	7.5	29.2	98	98	2209	418	468	1.13	1.14	40.9	41.3	2404.3	472	313.0	21:52	1.17	1.59	2.98
02:10:41	2413.0	13.0	30.4	98	112	2196	418	480	1.13	1.14	41.1	42.1	2405.5	471	314.0	21:58	1.17	1.47	2.35
02:14:44	2414.1	14.5	27.5	99	123	2199	417	404	1.13	1.14	41.2	42.7	2406.3	471	315.1	22:02	1.17	1.32	3.41
02:16:39	2415.0	33.2	27.8	98	114	2209	418	566	1.13	1.14	41.3	42.8	2406.7	471	316.0	22:04	1.17	1.11	2.88
02:18:22	2416.0	36.9	25.8	98	121	2198	418	499	1.13	1.14	41.4	42.9	2407.0	470	317.0	22:06	1.17	1.07	2.11
2:22:02	2417.0	16.6	27.6	98	110	2206	418	488	1.13	1.14	41.5	43.1	2407.8	470	318.0	22:09	1.17	1.28	0.92
02:23:58	2418.0	37.4	27.0	98	110	2199	418	524	1.13	1.14	41.6	43.1	2408.2	469	319.0	22:11	1.17	1.10	0.51

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WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-	-BIT-	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm		sg		deg C		m	bbl	mts	hh:mm	ppg		%
02:27:23	2419.0	58.2	27.7	98	107	2211	418	544	1.13	1.14	41.8	43.0	2408.7	466	320.0	22:15	1.17	1.12	0.29
02:29:26	2420.1	24.2	28.1	98	115	2211	418	394	1.13	1.14	41.8	42.8	2409.1	469	321.1	22:17	1.17	1.15	0.27
02:35:20	2421.0	12.1	30.2	98	108	2194	418	483	1.13	1.14	42.0	42.6	2410.1	468	322.0	22:22	1.17	1.46	0.18
02:40:02	2422.0	8.7	29.1	98	128	2212	418	454	1.13	1.14	42.1	42.7	2410.9	468	323.0	22:27	1.17	1.37	0.15
02:44:22	2423.0	19.4	29.8	98	125	2211	418	494	1.13	1.14	42.3	42.7	2411.7	469	324.0	22:32	1.17	1.38	0.11
02:49:51	2424.0	8.8	28.5	98	117	2197	418	499	1.13	1.14	42.3	42.7	2412.7	468	325.0	22:37	1.17	1.35	0.07
03:00:05	2425.0	6.1	30.7	98	113	2204	418	493	1.13	1.14	42.4	42.9	2414.8	468	326.0	22:47	1.17	1.62	0.06
03:10:54	2426.0	5.1	30.3	98	109	2191	418	480	1.13	1.14	42.5	42.8	2417.0	465	327.0	22:58	1.17	1.63	0.15
03:16:26	2427.0	17.3	28.1	98	114	2191	418	449	1.13	1.14	42.6	42.8	2418.1	462	328.0	23:04	1.16	1.41	0.18
03:21:01	2428.0	13.5	26.5	98	103	2170	418	469	1.13	1.14	42.7	42.8	2419.0	458	329.0	23:08	1.16	1.34	0.16
03:23:30	2429.0	25.2	26.1	98	108	1729	379	534	1.13	1.14	42.7	42.8	2419.5	466	330.0	23:11	1.16	1.17	0.13
03:26:19	2430.0	19.5	26.9	98	116	1705	364	535	1.13	1.14	42.8	42.8	2420.0	471	331.0	23:13	1.16	1.23	0.12
03:29:19	2431.0	17.0	27.7	98	109	1709	364	486	1.13	1.14	42.8	42.8	2420.5	475	332.0	23:16	1.16	1.24	0.14
03:31:49	2432.0	21.2	24.7	98	112	1716	364	568	1.13	1.14	42.8	42.7	2420.9	478	333.0	23:19	1.16	1.19	0.15
03:35:45	2433.0	14.4	25.8	98	155	1721	363	472	1.13	1.14	42.8	42.6	2421.6	480	334.0	23:23	1.16	1.29	0.14
03:42:00	2434.0	11.1	28.3	98	108	1718	364	544	1.13	1.14	42.7	42.2	2422.7	481	335.0	23:29	1.17	1.44	0.18
04:02:12	2435.0	8.8	28.2	101	99	2214	422	485	1.13	1.14	42.5	42.2	2425.3	479	336.0	23:37	1.18	1.35	0.10
04:04:42	2436.0	26.4	27.1	101	124	2232	422	512	1.13	1.14	42.4	42.6	2425.9	477	337.0	23:39	1.18	1.15	0.10
04:08:25	2437.0	17.4	24.9	101	107	2240	422	384	1.13	1.14	42.4	42.5	2426.6	474	338.0	23:43	1.18	1.27	0.0
04:15:29	2438.0	18.5	28.0	101	112	2242	423	461	1.13	1.14	42.4	42.4	2428.1	472	339.0	23:50	1.18	1.48	0.0
04:18:27	2439.0	23.6	26.8	101	115	2234	422	426	1.13	1.14	42.4	42.6	2428.8	471	340.0	23:53	1.18	1.23	0.09
04:26:59	2440.0	4.8	29.4	101	104	2223	422	439	1.13	1.14	42.4	42.6	2430.6	472	341.0	24:02	1.18	1.54	0.15
04:36:28	2441.0	5.8	28.7	101	102	2243	422	504	1.13	1.14	42.5	42.6	2432.5	470	342.0	24:11	1.18	1.56	0.13
04:41:26	2442.0	17.0	27.1	101	115	2243	423	481	1.13	1.14	42.6	42.8	2433.6	471	343.0	24:16	1.18	1.37	0.16
04:52:26	2443.0	4.8	28.0	101	100	2245	423	442	1.13	1.14	42.6	42.8	2435.7	470	344.0	24:27	1.18	1.60	1.55
04:58:53	2444.0	14.8	27.4	101	108	2246	422	487	1.13	1.14	42.7	42.9	2437.2	468	345.0	24:34	1.18	1.44	0.37
05:01:00	2445.0	29.8	25.7	101	116	2256	423	476	1.13	1.14	42.7	42.9	2437.4	468	346.0	24:36	1.18	1.11	0.35
05:05:33	2446.0	10.7	28.3	101	110	2234	423	470	1.13	1.14	42.7	42.8	2438.4	468	347.0	24:40	1.18	1.36	0.18
05:08:27	2447.0	23.2	26.8	101	118	2271	423	327	1.13	1.14	42.8	42.8	2439.2	469	348.0	24:43	1.18	1.22	0.13
05:10:19	2448.0	29.7	26.9	101	121	2246	423	336	1.13	1.14	42.8	42.8	2439.5	469	349.0	24:45	1.18	1.11	0.13
05:12:15	2449.1	35.2	23.8	101	113	2256	423	437	1.13	1.14	42.8	42.8	2439.6	470	350.1	24:47	1.18	1.04	0.13
05:14:26	2450.0	25.0	24.6	101	112	2274	423	433	1.13	1.14	42.8	42.8	2439.8	472	351.0	24:49	1.18	1.12	0.12
05:19:39	2451.0	14.9	27.4	101	114	2272	423	434	1.13	1.14	42.8	42.8	2440.4	473	352.0	24:54	1.18	1.38	0.11
05:31:02	2452.0	5.1	27.6	101	100	2269	423	493	1.13	1.14	42.8	42.9	2442.2	474	353.0	25:06	1.18	1.60	0.06
05:37:26	2453.0	31.0	26.6	101	118	2248	423	495	1.13	1.14	42.9	42.8	2442.5	474	354.0	25:12	1.18	1.42	0.06
05:57:43	2454.0	13.8	27.8	101	113	2241	422	487	1.13	1.14	43.0	42.8	2443.2	518	355.0	25:16	1.17	1.25	0.06
05:59:27	2455.0	37.3	27.8	101	127	2061	403	456	1.13	1.14	42.8	41.8	2443.3	507	356.0	25:17	1.18	1.09	0.05
06:02:32	2456.0	20.1	27.6	101	118	2196	411	471	1.13	1.14	42.8	41.1	2443.8	494	357.0	25:20	1.18	1.24	0.04
06:06:07	2457.0	18.0	27.1	101	115	2224	419	429	1.13	1.14	42.7	40.2	2445.1	485	358.0	25:24	1.18	1.28	0.08
06:09:57	2458.0	15.0	25.7	101	104	2220	420	513	1.13	1.14	42.5	40.8	2445.9	480	359.0	25:28	1.18	1.27	0.10
06:12:39	2459.0	24.8	25.9	101	116	2234	420	399	1.13	1.14	42.4	41.0	2446.8	478	360.0	25:31	1.18	1.19	0.10
06:14:54	2460.0	34.0	25.5	101	115	2222	420	445	1.13	1.14	42.2	41.6	2447.9	476	361.0	25:33	1.18	1.13	0.12
06:17:35	2461.0	27.0	26.2	101	115	2227	420	445	1.13	1.14	42.1	41.8	2449.2	476	362.0	25:35	1.18	1.17	0.16
06:20:57	2462.1	23.2	26.3	101	104	2222	420	560	1.13	1.14	42.1	42.2	2450.2	475	363.1	25:39	1.18	1.23	0.19
06:23:43	2463.0	23.0	25.7	101	107	2234	420	406	1.13	1.14	42.0	42.2	2450.7	475	364.0	25:42	1.18	1.20	0.1
06:23:43	2464.0	10.9	27.0	101	116	2300	425	406	1.13	1.14	42.0	42.2	2451.7	475	364.0	25:42	1.18	1.28	0.0

''lByte Drilling Data Printout
C. ANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-	-BIT-	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm			sg		deg C	m	bbl	mts	hh:mm	ppg		%
06:23:43	2465.0	21.6	28.0	102	113	2280	423	406	1.13	1.14	42.0	42.2	2451.7	475	364.0	25:42	1.18	1.23	0.07
06:23:43	2466.0	20.1	27.0	100	101	2150	416	406	1.13	1.14	42.0	42.2	2451.7	475	364.0	25:42	1.18	1.19	0.07
06:23:43	2467.0	18.0	27.0	100	101	2150	416	406	1.13	1.14	42.0	42.2	2451.7	475	364.0	25:42	1.18	1.19	0.07
06:23:43	2468.0	16.0	27.0	100	101	2150	416	406	1.13	1.14	42.0	42.2	2451.7	475	364.0	25:42	1.18	1.19	0.07
06:23:43	2469.0	14.0	27.0	100	101	2150	416	406	1.13	1.14	42.0	42.2	2451.7	475	364.0	25:42	1.18	1.19	0.07
07:37:07	2470.0	13.6	28.2	100	118	1650	325	558	1.13	1.14	15.6	15.5	2463.1	475	372.0	26:35	1.17	1.39	1.47
07:37:07	2471.0	13.6	28.2	100	118	1650	325	558	1.13	1.14	15.6	15.5	2463.1	475	372.0	26:35	1.17	1.39	1.47
07:46:55	2472.0	5.1	29.7	100	130	1771	370	559	1.13	1.14	42.4	42.2	2464.4	474	373.0	26:44	1.17	1.58	0.30
07:52:58	2473.0	11.4	28.9	100	144	1545	338	588	1.13	1.14	42.5	42.5	2465.2	467	374.0	26:50	1.17	1.45	0.16
07:58:37	2474.0	12.2	28.5	100	145	1559	337	621	1.13	1.14	42.4	42.3	2465.9	459	375.0	26:56	1.17	1.42	0.09
08:06:56	2475.0	7.8	29.4	100	143	2140	395	520	1.13	1.14	42.4	42.0	2467.2	443	376.0	27:04	1.18	1.53	0.07
08:13:24	2476.0	12.8	27.5	100	133	2313	424	497	1.13	1.14	42.4	42.4	2468.2	439	377.0	27:11	1.17	1.46	0.08
08:23:24	2477.0	10.5	29.6	100	137	2329	424	486	1.13	1.14	42.4	42.7	2469.9	437	378.0	27:21	1.17	1.58	0.06
08:27:25	2478.1	23.4	27.6	100	143	2316	425	456	1.13	1.14	42.5	42.8	2470.5	437	379.1	27:25	1.17	1.30	0.06
08:31:08	2479.0	25.3	28.4	100	144	2324	425	415	1.13	1.14	42.6	42.8	2471.1	437	380.0	27:29	1.17	1.31	0.08
08:34:11	2480.0	27.5	28.4	100	149	2340	425	502	1.13	1.14	42.6	42.9	2471.5	436	381.0	27:32	1.17	1.25	0.08
08:38:08	2481.0	12.0	28.4	100	142	2317	425	470	1.13	1.14	42.7	43.0	2472.0	436	382.0	27:36	1.17	1.32	0.08
08:43:19	2482.0	15.5	28.1	100	145	2337	424	455	1.13	1.14	42.7	42.9	2472.9	436	383.0	27:41	1.17	1.39	0.07
46:55	2483.0	20.8	29.4	100	152	2346	424	497	1.13	1.14	42.8	42.8	2473.7	436	384.0	27:44	1.17	1.30	0.08
08:51:05	2484.0	14.1	28.9	100	149	2348	425	498	1.13	1.14	42.8	43.0	2474.5	437	385.0	27:49	1.17	1.34	0.08
08:55:20	2485.0	13.7	28.9	100	150	2342	425	450	1.13	1.14	42.8	42.9	2475.0	435	386.0	27:53	1.17	1.35	0.09
09:00:50	2486.0	10.9	29.4	100	146	2307	424	469	1.13	1.14	42.9	42.9	2475.6	436	387.0	27:58	1.17	1.44	0.07
09:03:36	2487.0	29.3	29.1	100	162	2298	420	456	1.13	1.14	42.9	42.9	2476.3	437	388.0	28:01	1.17	1.23	0.06
09:06:53	2488.0	16.7	29.3	100	150	2305	421	531	1.13	1.14	42.9	43.0	2476.5	435	389.0	28:04	1.17	1.28	0.06
09:11:47	2489.0	11.5	30.5	100	150	2308	421	425	1.13	1.14	43.0	43.3	2477.1	436	390.0	28:09	1.17	1.35	0.07
09:16:44	2490.0	15.2	28.8	100	140	2300	421	496	1.13	1.14	43.1	43.2	2477.8	435	391.0	28:14	1.17	1.38	0.06
09:21:41	2491.0	15.7	28.0	100	143	2294	421	484	1.13	1.14	43.1	43.0	2479.1	435	392.0	28:19	1.17	1.39	0.06
09:27:00	2492.0	11.8	28.6	100	142	2285	422	490	1.13	1.14	43.1	43.2	2480.6	435	393.0	28:25	1.17	1.41	0.09
09:44:22	2493.1	13.0	27.6	103	143	2264	430	418	1.13	1.14	43.0	42.9	2482.9	447	394.1	28:27	1.17	1.15	0.05
09:47:16	2494.0	14.8	29.5	102	162	2263	423	456	1.13	1.14	43.0	42.6	2483.5	441	395.0	28:30	1.17	1.26	0.06
09:49:30	2495.0	33.7	29.5	102	175	2276	422	422	1.13	1.14	43.0	42.8	2484.0	439	396.0	28:32	1.17	1.19	0.07
09:50:44	2496.0	57.6	28.9	102	176	2247	422	450	1.13	1.14	43.0	42.9	2484.2	439	397.0	28:33	1.17	1.00	0.08
09:51:37	2497.0	64.9	26.8	102	191	2274	422	522	1.13	1.14	43.0	42.9	2484.4	439	398.0	28:34	1.17	0.89	0.08
10:09:38	2498.1	51.1	21.1	88	146	2137	410	525	1.13	1.14	42.8	42.1	2485.2	467	399.1	28:35	1.17	0.83	0.04
10:14:55	2499.0	18.9	29.4	103	165	2149	411	507	1.13	1.14	42.6	41.2	2486.2	449	400.0	28:40	1.17	1.44	0.06
10:24:44	2500.0	4.9	30.2	102	148	2194	418	513	1.13	1.14	42.4	41.1	2488.1	439	401.0	28:50	1.17	1.61	0.07
10:31:39	2501.0	20.0	29.8	102	162	2239	422	496	1.13	1.14	42.1	41.7	2489.5	437	402.0	28:57	1.17	1.51	0.05
10:33:45	2502.0	23.0	29.7	102	165	2251	422	512	1.13	1.14	42.1	42.0	2489.9	437	403.0	28:59	1.17	1.16	0.05
10:38:39	2503.0	12.2	29.4	102	151	2248	422	543	1.13	1.14	42.1	42.1	2490.9	436	404.0	29:04	1.17	1.39	0.05
10:43:21	2504.0	13.4	29.4	102	153	2241	422	501	1.13	1.14	42.2	42.3	2491.8	436	405.0	29:09	1.17	1.38	0.07
10:49:06	2505.0	10.4	29.2	101	147	2232	422	534	1.13	1.14	42.4	42.7	2492.8	436	406.0	29:14	1.17	1.44	0.20
10:55:13	2506.0	6.8	30.6	101	151	2215	422	567	1.13	1.14	42.5	42.6	2494.6	435	407.0	29:21	1.17	1.47	0.09
11:00:56	2507.0	16.0	30.0	101	144	2198	422	559	1.13	1.14	42.7	42.8	2497.2	431	408.0	29:26	1.17	1.45	0.96
1:09:17	2508.0	6.4	30.4	101	143	2217	422	542	1.13	1.14	42.9	42.8	2499.3	428	409.0	29:35	1.17	1.56	0.72
:17:15	2509.0	11.1	28.8	101	144	2234	423	554	1.13	1.14	43.0	43.4	2499.9	429	410.0	29:43	1.17	1.52	0.28
11:22:47	2510.0	16.6	28.8	101	151	2239	423	562	1.13	1.14	43.1	43.1	2500.5	429	411.0	29:48	1.17	1.43	0.15

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-	-BIT-	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm	gpm	sg	sg	deg C	deg C	m	bbl	mts	hh:mm	ppg		%
11:28:32	2511.0	12.4	31.0	101	154	2240	423	526	1.13	1.14	43.2	43.6	2502.7	429	412.0	29:54	1.17	1.46	0.10
11:34:41	2512.0	10.0	29.2	101	145	2221	423	537	1.13	1.14	43.3	43.6	2504.1	429	413.0	30:00	1.17	1.46	0.08
11:40:04	2513.0	12.4	28.3	101	148	2180	423	520	1.13	1.14	43.3	43.6	2504.9	429	414.0	30:05	1.17	1.40	0.07
11:46:54	2514.0	9.8	28.8	101	149	2204	423	493	1.13	1.14	43.4	43.4	2505.8	429	415.0	30:12	1.17	1.48	0.06
11:55:52	2515.0	9.6	28.0	101	141	2223	423	504	1.13	1.14	43.4	43.4	2507.2	428	416.0	30:21	1.17	1.55	0.05
12:06:55	2516.0	4.2	28.8	101	140	2250	423	503	1.13	1.14	43.5	43.7	2508.4	428	417.0	30:32	1.17	1.61	0.05
12:17:10	2517.0	7.9	29.4	101	141	2255	423	506	1.13	1.14	43.7	43.6	2510.0	430	418.0	30:43	1.17	1.60	0.05
12:28:05	2518.0	7.9	29.3	101	145	2260	420	491	1.13	1.14	43.7	43.7	2511.8	432	419.0	30:53	1.17	1.60	0.06
12:33:45	2519.0	14.8	28.9	101	148	2270	420	434	1.13	1.14	43.7	43.9	2512.7	431	420.0	30:59	1.17	1.44	0.06
12:38:42	2520.0	12.6	30.8	101	153	2271	420	505	1.13	1.14	43.7	43.8	2513.5	431	421.0	31:04	1.17	1.42	0.06
12:41:57	2521.0	21.0	28.3	101	153	2267	420	544	1.13	1.14	43.7	43.9	2513.9	431	422.0	31:07	1.17	1.26	0.06
12:45:35	2522.0	21.6	27.0	101	150	2280	420	470	1.13	1.14	43.8	43.9	2514.3	431	423.0	31:11	1.17	1.27	0.07
13:10:24	2523.0	36.8	24.7	103	142	2252	419	465	1.14	1.14	43.7	43.3	2515.9	450	424.0	31:14	1.17	1.26	0.04
13:14:37	2524.0	14.9	32.6	102	154	2273	418	541	1.14	1.14	43.7	42.9	2516.5	441	425.0	31:18	1.17	1.39	0.05
13:18:25	2525.0	19.6	31.9	100	162	2287	421	516	1.14	1.14	43.6	42.6	2517.0	436	426.0	31:22	1.17	1.36	0.05
13:22:33	2526.0	14.7	31.2	100	158	2280	421	533	1.14	1.14	43.5	42.8	2517.5	433	427.0	31:26	1.17	1.37	0.05
13:28:50	2527.0	8.0	32.0	100	158	2304	421	493	1.14	1.14	43.4	43.0	2518.3	432	428.0	31:32	1.17	1.50	0.04
13:43:38	2528.0	4.0	33.5	100	141	2285	421	449	1.14	1.14	43.4	43.5	2520.2	434	429.0	31:47	1.18	1.77	0.06
13:53:53	2529.0	10.0	32.0	100	146	2219	421	515	1.14	1.14	43.5	43.6	2521.6	431	430.0	31:57	1.18	1.64	0.0[illegible]
14:01:51	2530.0	7.8	31.7	100	145	2184	421	526	1.14	1.14	43.5	43.6	2522.6	433	431.0	32:05	1.18	1.55	0.[illegible]
14:08:46	2531.0	12.0	31.3	100	152	2204	421	527	1.14	1.14	43.5	43.7	2524.3	432	432.0	32:12	1.18	1.50	0.13
14:12:55	2532.0	13.3	31.0	100	156	2222	421	539	1.14	1.14	43.6	43.6	2525.3	432	433.0	32:16	1.18	1.34	0.25
14:17:43	2533.0	13.0	30.9	100	154	2233	421	502	1.14	1.14	43.6	43.9	2526.5	432	434.0	32:21	1.18	1.40	0.32
14:23:41	2534.0	9.8	30.1	100	148	2245	421	490	1.14	1.14	43.7	43.9	2527.1	430	435.0	32:27	1.18	1.44	0.18
14:26:58	2535.0	19.1	31.9	100	160	2251	421	449	1.14	1.14	43.7	43.7	2527.4	433	436.0	32:30	1.18	1.30	0.14
14:29:56	2536.0	20.0	31.0	100	160	2237	421	481	1.14	1.14	43.7	43.7	2527.6	433	437.0	32:33	1.18	1.25	0.11
14:35:28	2537.0	7.8	31.5	100	163	2232	421	487	1.14	1.14	43.7	44.0	2527.9	434	438.0	32:39	1.18	1.44	0.07
14:43:01	2538.0	7.0	31.6	100	147	2248	421	483	1.14	1.14	43.7	44.0	2528.5	435	439.0	32:46	1.18	1.54	0.04
14:47:43	2539.0	16.0	31.7	100	157	2260	421	483	1.14	1.14	43.8	43.6	2529.2	434	440.0	32:51	1.18	1.40	0.03
14:49:14	2540.0	4.0	35.0	75	152	2190	408	410	1.14	1.14	45.3	46.4	2586.1	434	441.0	32:54	1.26	1.40	0.04
14:53:09	2541.0	21.9	30.7	100	167	2273	422	493	1.14	1.14	43.8	43.6	2529.8	432	442.0	32:57	1.18	1.20	0.04
14:57:21	2542.0	13.6	31.6	100	159	2269	422	496	1.14	1.14	43.9	43.7	2530.1	433	443.0	33:01	1.18	1.37	0.04
15:05:43	2543.0	8.1	31.6	100	154	2282	422	498	1.14	1.14	43.9	43.7	2531.7	434	444.0	33:09	1.18	1.57	0.06
15:15:15	2544.0	3.6	31.6	100	146	2284	422	496	1.14	1.14	44.0	43.8	2533.5	433	445.0	33:19	1.18	1.60	0.06
15:28:53	2545.0	5.4	31.4	100	140	2293	422	515	1.14	1.14	44.0	44.0	2536.8	436	446.0	33:32	1.18	1.69	0.12

CBU at 2545m. POOH NB#6 for bit change.
7th February 1993

''lByte Drilling Data Printout
ANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-	-BIT-	ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm	gpm	sg	sg	deg C	deg C	m	bbl	mts	hh:mm	ppg		%
NB#7 8.5" SMITH F2 3x12 jets with MWD assembly.																			
08:38:56	2546.0	4.7	18.7	60	115	2222	398	372	1.22	1.22	28.2	34.2	2545.0	387	1.0	0:33	1.26	1.41	0.00
08:47:15	2547.0	6.8	30.5	72	167	2197	403	379	1.22	1.22	36.2	42.8	2545.0	387	2.0	0:42	1.26	1.36	0.00
08:56:16	2548.0	5.9	31.3	76	165	2193	404	380	1.22	1.22	38.2	43.2	2545.0	390	3.0	0:51	1.26	1.40	0.00
09:22:45	2549.0	6.0	31.0	74	159	2193	404	371	1.22	1.22	39.6	41.5	2545.2	405	4.0	1:00	1.26	1.40	0.00
09:32:05	2550.0	7.0	29.0	76	162	2193	403	382	1.22	1.22	40.8	43.2	2545.8	399	5.0	1:09	1.26	0.99	0.01
09:41:34	2551.0	7.0	29.6	76	160	2199	403	376	1.22	1.22	41.5	43.0	2546.5	399	6.0	1:19	1.26	1.39	0.08
09:49:07	2552.0	13.5	29.6	76	160	2208	403	377	1.22	1.22	42.0	43.5	2547.0	401	7.0	1:26	1.26	1.33	0.19
09:55:55	2553.0	10.2	29.6	76	167	2199	403	371	1.22	1.22	42.4	43.5	2547.5	401	8.0	1:33	1.26	1.30	0.11
10:01:05	2554.0	14.1	29.4	76	172	2199	403	372	1.22	1.22	42.6	43.2	2547.8	390	9.0	1:38	1.26	1.23	0.05
10:05:16	2555.0	15.2	29.7	76	175	2208	403	379	1.22	1.22	42.8	42.8	2548.1	386	10.0	1:43	1.26	1.18	0.02
10:09:50	2556.0	14.3	29.2	76	173	2200	403	377	1.22	1.22	43.0	43.0	2548.4	384	11.0	1:47	1.26	1.20	0.02
10:13:11	2557.0	20.7	27.0	76	171	2203	404	379	1.22	1.22	43.1	43.4	2548.6	382	12.0	1:50	1.26	1.09	0.02
10:18:44	2558.0	10.0	29.3	76	168	2207	404	383	1.22	1.22	43.3	43.5	2549.0	383	13.0	1:56	1.26	1.25	0.02
10:23:30	2559.0	14.7	29.2	76	172	2204	404	378	1.22	1.22	43.5	43.4	2549.4	382	14.0	2:01	1.26	1.21	0.02
10:27:43	2560.0	16.9	29.1	76	172	2200	404	377	1.22	1.22	43.6	44.5	2549.7	383	15.0	2:05	1.26	1.18	0.02
10:30:47	2561.0	19.3	28.8	76	173	2205	404	385	1.22	1.22	43.8	44.7	2550.1	383	16.0	2:08	1.26	1.10	0.02
10:34:34	2562.0	14.5	29.0	76	170	2202	404	391	1.22	1.22	43.9	44.9	2550.5	384	17.0	2:12	1.26	1.15	0.02
:38:19	2563.0	17.2	29.4	76	174	2201	404	391	1.22	1.22	44.0	45.1	2550.9	385	18.0	2:16	1.26	1.15	0.02
10:43:34	2564.0	9.5	29.0	76	167	2198	404	385	1.22	1.22	44.1	44.8	2551.5	385	19.0	2:21	1.26	1.23	0.02
10:50:38	2565.0	3.6	29.5	76	167	2193	404	383	1.22	1.22	44.3	43.6	2552.4	386	20.0	2:28	1.26	1.32	0.03
11:02:14	2566.0	4.7	29.4	76	155	2186	404	384	1.22	1.22	44.5	44.2	2555.1	390	21.0	2:39	1.26	1.45	0.04
11:05:14	2567.0	30.0	25.2	76	163	2193	405	391	1.22	1.22	44.7	44.2	2555.8	391	22.0	2:42	1.26	1.04	0.04
11:16:34	2568.0	22.6	27.8	73	178	2184	400	395	1.22	1.22	44.8	44.5	2557.1	436	23.0	2:45	1.26	1.02	0.04
11:19:46	2569.0	17.7	29.4	75	180	2188	405	397	1.22	1.22	44.8	43.4	2557.7	425	24.0	2:48	1.26	1.10	0.04
11:23:59	2570.0	13.6	30.2	75	172	2206	406	389	1.22	1.22	44.8	43.2	2558.0	414	25.0	2:52	1.26	1.19	0.04
11:26:54	2571.0	18.8	28.9	75	179	2189	406	390	1.22	1.22	44.7	43.2	2558.6	411	26.0	2:55	1.26	1.08	0.04
11:29:41	2572.0	25.5	27.6	75	177	2187	405	379	1.22	1.22	44.7	43.6	2559.1	408	27.0	2:58	1.26	1.05	0.04
11:33:43	2573.0	16.1	28.1	75	168	2196	405	377	1.22	1.22	44.7	43.3	2560.2	406	28.0	3:02	1.26	1.15	0.05
11:41:51	2574.0	6.0	28.1	75	160	2188	405	397	1.22	1.22	44.7	44.0	2562.4	403	29.0	3:10	1.26	1.33	0.04
11:53:40	2575.0	6.1	29.4	75	157	2201	405	374	1.22	1.22	44.9	44.5	2564.8	405	30.0	3:22	1.26	1.44	0.03
12:03:48	2576.0	7.4	29.2	75	160	2199	405	379	1.22	1.22	45.2	45.2	2565.7	410	31.0	3:32	1.26	1.40	0.02
12:07:01	2577.0	21.7	28.8	75	178	2197	405	376	1.22	1.22	45.3	45.9	2565.9	412	32.0	3:36	1.26	1.10	0.02
12:10:36	2578.0	18.8	27.8	75	172	2205	405	380	1.22	1.22	45.3	46.4	2566.7	415	33.0	3:39	1.26	1.11	0.03
12:38:20	2579.0	4.2	28.4	76	161	2293	414	398	1.22	1.22	45.4	45.4	2571.0	456	34.0	3:49	1.26	1.18	0.07
12:52:06	2580.0	5.0	31.1	75	152	2211	407	382	1.22	1.22	45.3	44.7	2573.1	453	35.0	4:03	1.26	1.51	0.02
13:00:10	2581.0	13.9	31.1	75	161	2199	407	395	1.22	1.22	45.2	45.6	2574.4	461	36.0	4:11	1.26	1.37	0.02
13:07:07	2582.0	9.7	30.7	75	150	2168	406	397	1.22	1.22	45.2	46.1	2575.4	475	37.0	4:18	1.26	1.33	0.02
13:13:48	2583.0	4.2	31.0	75	140	2168	406	397	1.22	1.22	45.1	46.5	2575.4	492	38.0	4:26	1.26	1.36	0.02
13:21:12	2584.0	9.2	34.0	75	203	2170	406	397	1.22	1.22	45.1	45.9	2575.4	509	39.0	4:32	1.26	1.33	0.02
13:25:04	2585.0	15.5	30.0	75	140	2210	406	401	1.22	1.22	45.0	45.9	2579.0	522	40.0	4:35	1.26	1.19	0.02
13:29:03	2586.0	20.0	33.0	75	179	2210	406	401	1.22	1.22	44.9	45.9	2579.0	534	41.0	4:40	1.26	1.19	0.02
13:33:12	2587.0	11.6	31.0	75	155	2120	406	401	1.22	1.22	44.8	46.3	2579.0	454	42.0	4:44	1.26	1.21	0.02
13:37:23	2588.0	18.6	33.0	75	179	2170	406	401	1.22	1.22	44.7	46.2	2579.0	556	43.0	4:48	1.26	1.21	0.02
3:40:23	2589.0	18.6	33.0	75	179	2170	406	401	1.22	1.22	44.7	46.2	2579.3	556	44.0	4:52	1.26	1.15	0.02

DrillByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME	DEPTH	ROP	WOB	RPM	TRQ	SPP	FLOW IN	FLOW OUT	MUD DENSITY IN	MUD DENSITY OUT	MUD TEMP IN	MUD TEMP OUT	RETURNS DEPTH	PVT	-BIT-		ECD	DXC	GAS
h:mm:sec	m	m/hr	klb		amp	psi	gpm			sg	deg C		m	bbl	mts	hh:mm	ppg		%
13:44:23	2590.0	20.9	33.0	75	194	2170	406	401	1.22	1.22	44.8	47.0	2579.6	575	45.0	4:55	1.26	1.17	0.02
13:47:41	2591.0	17.3	29.0	75	134	2190	406	401	1.22	1.22	44.8	47.2	2579.8	589	46.0	4:58	1.26	1.15	0.02
14:09:14	2592.0	6.2	31.0	75	155	2030	386	401	1.22	1.22	44.7	44.4	2580.9	589	47.0	5:07	1.26	1.39	0.02
14:23:59	2593.0	4.3	33.0	74	143	2140	409	403	1.22	1.22	44.7	45.8	2583.5	661	48.0	5:22	1.26	1.59	0.04
14:51:10	2594.0	2.5	33.0	75	152	2170	406	895	1.22	1.22	50.8	35.6	2584.3	670	49.0	5:36	1.26	1.22	0.05
15:04:35	2595.0	7.0	35.4	75	148	2184	407	403	1.22	1.22	45.8	46.5	2586.8	670	50.0	5:49	1.26	1.51	0.02
15:12:21	2596.0	8.6	34.4	74	154	2172	404	395	1.22	1.22	46.1	46.8	2588.1	671	51.0	5:57	1.26	1.40	0.01
15:17:01	2597.0	13.9	33.6	74	156	2180	404	403	1.22	1.22	46.2	46.9	2588.9	656	52.0	6:02	1.26	1.25	0.01
15:23:01	2598.0	15.0	33.6	74	153	2186	404	401	1.22	1.22	46.2	47.1	2589.9	591	53.0	6:08	1.26	1.32	0.01
15:27:00	2599.0	15.7	34.3	74	158	2176	404	395	1.22	1.22	46.3	47.0	2590.6	588	54.0	6:12	1.26	1.22	0.01
15:31:10	2600.0	15.9	34.8	74	161	2192	404	397	1.22	1.22	46.4	47.1	2591.3	588	55.0	6:16	1.26	1.24	0.01
15:35:24	2601.0	16.5	33.8	74	155	2192	404	389	1.22	1.22	46.5	47.2	2592.0	596	56.0	6:20	1.26	1.24	0.01
15:39:02	2602.0	16.5	34.9	74	167	2201	404	402	1.22	1.22	46.5	47.2	2592.6	595	57.0	6:24	1.26	1.20	0.01
15:42:41	2603.0	15.9	34.1	74	164	2207	404	404	1.22	1.22	46.5	47.0	2593.2	638	58.0	6:28	1.26	1.19	0.01
15:46:21	2604.0	15.9	33.8	74	163	2204	404	393	1.22	1.22	46.6	47.0	2593.9	590	59.0	6:31	1.26	1.19	0.01
15:51:33	2605.0	9.0	34.3	74	158	2209	404	399	1.22	1.22	46.6	47.4	2594.2	590	60.0	6:36	1.26	1.29	0.01
15:57:48	2606.0	8.9	34.9	74	155	2211	404	398	1.22	1.22	46.7	47.4	2594.5	590	61.0	6:43	1.26	1.35	0.00
16:03:26	2607.0	10.8	34.8	74	153	2208	404	406	1.22	1.22	46.7	47.4	2595.1	589	62.0	6:48	1.26	1.32	0.02
16:08:08	2608.0	10.9	35.2	74	158	2212	404	405	1.22	1.22	46.8	47.1	2595.6	592	63.0	6:53	1.26	1.27	0.05
16:27:45	2609.0	15.7	34.8	75	170	2215	404	408	1.22	1.22	46.8	46.9	2598.3	593	64.0	6:59	1.26	1.35	0.0
16:31:26	2610.0	19.5	31.4	76	174	2205	404	397	1.22	1.22	46.8	46.8	2599.1	586	65.0	7:03	1.26	1.17	0.05
16:35:48	2611.0	10.9	31.7	76	168	2194	403	403	1.22	1.22	46.8	46.6	2600.4	586	66.0	7:07	1.26	1.22	0.05
16:39:31	2612.0	16.9	30.7	76	171	2195	403	407	1.22	1.22	46.7	46.9	2601.7	586	67.0	7:11	1.26	1.16	0.05
16:47:44	2613.0	6.6	31.8	75	157	2312	414	414	1.22	1.22	46.7	47.1	2604.0	584	68.0	7:19	1.26	1.38	0.06
16:52:57	2614.0	16.7	30.7	75	161	2467	430	429	1.22	1.22	46.7	47.3	2604.7	584	69.0	7:24	1.26	1.25	0.06
16:56:44	2615.0	14.0	30.8	75	164	2463	430	429	1.22	1.22	46.7	47.5	2605.3	583	70.0	7:28	1.26	1.17	0.05
16:59:49	2616.0	20.4	31.0	75	176	2478	430	414	1.22	1.22	46.7	47.5	2605.8	583	71.0	7:31	1.26	1.12	0.04
17:04:55	2617.0	9.4	32.1	75	162	2466	431	437	1.22	1.22	46.8	47.5	2606.7	583	72.0	7:36	1.26	1.26	0.04
17:11:14	2618.0	11.5	30.9	75	153	2484	431	432	1.22	1.22	46.8	47.8	2608.1	584	73.0	7:43	1.26	1.30	0.04
17:15:58	2619.0	12.4	30.7	75	163	2477	431	431	1.22	1.22	46.9	47.8	2608.3	583	74.0	7:47	1.26	1.22	0.04
17:19:26	2620.0	15.5	30.8	75	167	2487	431	421	1.22	1.22	46.9	47.8	2608.3	585	75.0	7:51	1.26	1.14	0.04
17:24:49	2621.0	9.8	31.3	75	169	2490	431	424	1.22	1.22	47.0	47.8	2608.9	585	76.0	7:56	1.26	1.26	0.05
17:29:17	2622.0	17.6	30.8	75	168	2485	431	416	1.22	1.22	47.1	47.9	2610.3	584	77.0	8:01	1.26	1.21	0.08
17:32:28	2623.0	19.2	30.7	75	177	2505	431	431	1.22	1.22	47.1	47.9	2611.0	584	78.0	8:04	1.26	1.10	0.07
17:35:40	2624.0	18.6	30.8	75	174	2488	431	423	1.22	1.22	47.2	47.9	2611.8	583	79.0	8:07	1.26	1.12	0.06
17:39:17	2625.0	14.4	30.0	75	169	2486	431	424	1.22	1.22	47.2	47.8	2612.4	584	80.0	8:11	1.26	1.14	0.05
17:44:38	2626.0	8.7	30.9	75	162	2499	431	431	1.22	1.22	47.2	48.1	2613.1	584	81.0	8:16	1.26	1.26	0.04
17:50:30	2627.0	10.8	30.9	75	160	2496	431	419	1.22	1.22	47.3	48.2	2614.3	584	82.0	8:22	1.26	1.28	0.05
17:55:23	2628.0	12.1	30.7	75	168	2500	431	422	1.22	1.22	47.4	47.9	2615.6	582	83.0	8:27	1.26	1.23	0.06
18:00:54	2629.0	12.5	31.1	75	160	2499	431	423	1.22	1.22	47.4	48.0	2616.9	582	84.0	8:32	1.26	1.27	0.06
18:06:33	2630.0	19.0	30.5	75	158	2504	431	427	1.22	1.22	47.5	48.2	2617.7	586	85.0	8:38	1.26	1.25	0.05
18:10:58	2631.0	14.4	30.2	75	163	2501	431	419	1.22	1.22	47.5	48.1	2618.6	585	86.0	8:42	1.26	1.20	0.05
18:15:52	2632.0	14.5	30.0	75	159	2489	431	430	1.22	1.22	47.5	48.1	2619.9	585	87.0	8:47	1.26	1.22	0.05
18:21:22	2633.0	9.1	30.6	75	155	2496	431	421	1.22	1.22	47.5	48.3	2620.9	584	88.0	8:53	1.26	1.26	0.04
18:28:47	2634.0	12.8	30.9	75	154	2482	431	423	1.22	1.22	47.5	48.2	2623.5	583	89.0	9:00	1.26	1.34	0.0
18:31:46	2635.0	19.4	29.8	75	170	2500	431	420	1.22	1.22	47.6	48.1	2624.3	582	90.0	9:03	1.26	1.09	0.0.

'lByte Drilling Data Printout
COMPANY : BHP PETROLEUM
WELL : LA BELLA 1

TIME h:mm:sec	DEPTH m	ROP m/hr	WOB klb	RPM	TRQ amp	SPP psi	FLOW IN gpm	FLOW OUT gpm	MUD DENSITY IN sg	MUD DENSITY OUT sg	MUD TEMP IN deg C	MUD TEMP OUT deg C	RETURNS DEPTH m	PVT bbl	-BIT- mts	-BIT- hh:mm	ECD ppg	DXC	GAS %
18:34:27	2636.0	20.1	29.0	75	162	2485	431	410	1.22	1.22	47.6	48.3	2625.1	582	91.0	9:06	1.26	1.06	0.05
18:38:47	2637.0	11.2	30.1	75	157	2493	431	435	1.22	1.22	47.6	48.4	2625.8	583	92.0	9:10	1.26	1.19	0.04
18:56:12	2638.0	6.3	30.3	75	160	2482	429	427	1.22	1.22	47.6	48.1	2627.6	595	93.0	9:18	1.26	1.33	0.03
19:02:41	2639.0	6.6	30.6	75	166	2450	426	422	1.22	1.22	47.6	47.4	2628.7	579	94.0	9:24	1.26	1.30	0.04
19:08:10	2640.0	10.0	30.0	75	164	2452	426	409	1.22	1.22	47.6	47.5	2629.6	578	95.0	9:30	1.26	1.25	0.04
19:13:19	2641.0	13.0	30.0	75	159	2449	425	420	1.22	1.22	47.5	47.9	2630.8	577	96.0	9:35	1.26	1.24	0.04
19:18:42	2642.0	9.9	31.4	75	165	2439	425	411	1.22	1.22	47.4	48.0	2631.8	578	97.0	9:40	1.26	1.27	0.04
19:22:38	2643.0	14.6	30.6	75	165	2446	425	425	1.22	1.22	47.4	48.3	2632.7	577	98.0	9:44	1.26	1.17	0.04
19:26:43	2644.0	14.3	30.0	75	167	2446	425	418	1.22	1.22	47.4	48.5	2633.2	578	99.0	9:48	1.26	1.18	0.04
19:33:52	2645.0	5.2	29.9	75	155	2440	425	416	1.22	1.22	47.5	48.4	2634.4	576	100.0	9:55	1.26	1.32	0.06
19:42:10	2646.0	13.9	30.4	75	156	2437	425	411	1.22	1.22	47.2	48.2	2636.9	578	101.0	10:04	1.26	1.37	0.06
19:48:02	2647.0	10.4	29.8	75	157	2432	425	423	1.22	1.22	47.2	48.2	2637.7	580	102.0	10:09	1.26	1.27	0.05
19:53:02	2648.0	15.3	30.3	75	158	2432	425	417	1.22	1.22	46.9	48.5	2637.7	582	103.0	10:14	1.26	1.23	0.05
19:58:30	2649.0	10.1	30.6	75	158	2445	427	420	1.22	1.22	46.8	48.3	2638.6	583	104.0	10:20	1.26	1.26	0.04
20:01:18	2650.0	34.0	29.2	75	163	2438	430	426	1.22	1.22	46.9	48.2	2638.9	584	105.0	10:23	1.26	1.07	0.04
20:04:43	2651.0	15.0	31.0	75	166	2438	430	413	1.22	1.22	47.0	48.2	2639.5	585	106.0	10:26	1.26	1.14	0.05
20:09:56	2652.0	13.0	28.8	75	163	2409	430	410	1.22	1.22	46.6	48.2	2640.4	586	107.0	10:31	1.26	1.20	0.05
20:13:24	2653.0	16.1	29.6	75	169	2408	430	417	1.22	1.22	46.7	48.3	2641.1	585	108.0	10:35	1.26	1.13	0.05
20:17:01	2654.0	14.1	30.1	75	165	2396	429	424	1.22	1.22	46.8	48.1	2641.8	586	109.0	10:38	1.26	1.14	0.05
20:19:35	2655.0	22.6	30.2	75	170	2400	430	421	1.22	1.22	46.8	48.2	2642.4	586	110.0	10:41	1.26	1.06	0.05
20:22:19	2656.0	20.6	28.1	75	166	2398	430	419	1.22	1.22	46.8	48.4	2643.0	586	111.0	10:44	1.26	1.05	0.05
20:24:13	2657.0	27.9	28.4	75	174	2408	431	419	1.22	1.22	46.9	48.4	2643.5	586	112.0	10:46	1.26	0.96	0.05
20:26:48	2658.0	19.6	29.3	75	171	2401	431	418	1.22	1.22	46.9	48.4	2644.5	587	113.0	10:48	1.26	1.05	0.04
20:29:53	2659.0	18.1	29.7	75	171	2393	431	422	1.22	1.22	46.9	48.3	2644.9	587	114.0	10:51	1.26	1.10	0.04
20:35:38	2660.0	14.1	29.3	75	158	2384	431	416	1.22	1.22	47.0	48.3	2645.3	587	115.0	10:57	1.26	1.25	0.04
20:40:01	2661.0	14.7	28.9	75	167	2357	431	411	1.22	1.22	47.1	48.2	2645.6	588	116.0	11:01	1.26	1.18	0.04
20:43:14	2662.0	19.3	28.8	75	171	2363	431	415	1.22	1.22	47.1	48.4	2646.3	587	117.0	11:05	1.26	1.10	0.04
20:46:41	2663.0	21.4	28.2	75	160	2350	430	420	1.22	1.22	47.2	48.6	2646.8	587	118.0	11:08	1.26	1.11	0.04
20:50:17	2664.0	17.5	30.0	75	163	2360	431	422	1.22	1.22	47.2	48.5	2647.4	587	119.0	11:12	1.26	1.14	0.04
20:54:49	2665.0	11.7	29.5	75	154	2374	431	424	1.22	1.22	47.3	48.3	2648.4	586	120.0	11:16	1.26	1.19	0.04
20:59:59	2666.0	12.6	29.6	75	153	2391	431	427	1.22	1.22	47.4	48.4	2649.5	585	121.0	11:21	1.26	1.23	0.05
21:21:44	2667.0	11.5	29.1	76	162	2419	433	434	1.22	1.22	47.4	48.3	2653.5	587	122.0	11:27	1.26	1.27	0.07
21:26:48	2668.0	13.8	30.8	77	168	2482	436	423	1.22	1.22	47.4	48.0	2655.2	582	123.0	11:32	1.26	1.25	0.09
21:29:54	2669.0	21.7	29.7	78	172	2482	436	426	1.22	1.22	47.4	47.8	2656.5	583	124.0	11:36	1.26	1.11	0.08
21:32:28	2670.0	27.6	29.6	78	177	2480	436	414	1.22	1.22	47.4	48.0	2657.6	582	125.0	11:38	1.26	1.06	0.07
21:35:24	2671.0	18.2	30.9	77	178	2488	436	427	1.22	1.22	47.4	48.1	2658.6	582	126.0	11:41	1.26	1.10	0.05
21:39:39	2672.0	14.0	31.2	75	174	2491	436	417	1.22	1.22	47.4	48.0	2659.5	582	127.0	11:45	1.26	1.20	0.04
21:43:21	2673.0	15.8	30.5	75	171	2486	436	429	1.22	1.22	47.4	48.5	2660.2	581	128.0	11:49	1.26	1.16	0.05
21:47:32	2674.0	15.9	30.3	75	166	2473	435	429	1.22	1.22	47.5	48.7	2661.2	582	129.0	11:53	1.26	1.18	0.06
21:52:04	2675.0	16.6	31.8	75	173	2401	425	415	1.22	1.22	47.5	48.7	2662.5	583	130.0	11:58	1.26	1.22	0.06
21:55:50	2676.0	13.1	33.3	75	179	2406	425	418	1.22	1.22	47.5	48.6	2663.7	582	131.0	12:01	1.26	1.19	0.05
22:00:09	2677.0	14.2	31.2	75	166	2399	425	426	1.22	1.22	47.6	48.8	2664.7	581	32.0	12:06	1.26	1.20	0.04
22:03:45	2678.0	18.9	30.9	75	171	2401	425	425	1.22	1.22	47.6	48.6	2665.4	581	33.0	12:09	1.26	1.15	0.04
22:08:54	2679.0	13.3	31.2	75	164	2424	427	416	1.22	1.22	47.7	48.6	2666.4	581	34.0	12:15	1.26	1.25	0.03
22:13:18	2680.0	13.7	31.0	75	168	2435	430	428	1.22	1.22	47.7	48.6	2666.6	581	35.0	12:19	1.26	1.21	0.03
22:18:16	2681.0	11.9	31.7	75	169	2436	430	423	1.22	1.22	47.8	48.8	2666.6	581	36.0	12:24	1.26	1.25	0.03

EXLOG DRILLBYTE EAP : MUD HYDRAULICS ANALYSIS

Data Printed on : Fri Jan 22 23:53:23 1993

INPUT DATA

Hydraulics Model	BINGHAM	Casing Shoe Depth	158.0 m	Jet 1	32 in/32
Depth	630.0 m	Weakest Fmtn Depth	2982.0 m	Jet 2	32 in/32
Vertical Depth	630.0 m	Mud Density	1.03 sg	Jet 3	32 in/32
Flow Rate	630 gpm	300 rpm viscometer	2	Total Fluid Area	2.3562 in^2
Average ROP	40.0 m/hr	600 rpm viscometer	3		
Cuttings Density	2.50 spc gr	Plastic Viscosity	1.00 cP		
Cuttings Diameter	0.200 in	Yield Point	1.00 #/100ft^2		
Cuttings Shape	SPHERICAL	Power Law k	0.05412 #sec^n/100ft^2		
Cuttings Thickness	0.100 in	Power Law n	0.58496		

CALCULATED RESULTS

Section Top m	Section Length m	Hole Size in	Pipe OD in	Pipe ID in	Volumes & Capacities Hole bbl	Pipe bbl	Annulus bbl	Mud Velocity Pipe m/min	Annulus m/min	Critical m/min	Flow Regime
Surface	119.5	36.000	5.000	4.276	494	7	484	257.4	3.7	25.2	LAMINAR
119.5	38.5	36.000	5.000	4.276	159	2	156	257.4	3.7	25.2	LAMINAR
158.0	271.2	9.875	5.000	4.276	84	16	62	257.4	66.1	25.8	TURBULENT
429.2	134.5	9.875	5.000	3.000	42	4	30	522.9	66.2	25.8	TURBULENT
563.7	66.3	9.875	8.000	2.875	21	2	7	569.4	140.4	27.0	TURBULENT

Hydrostatic Pressure	921 psi		
Annular Volume	738 bbl	5765 strokes	49 mins
Pipe Capacity	31 bbl	239 strokes	2 mins
Circulating Volume	769 bbl	6004 strokes	51 mins
Pipe Displacement	30 bbl		
Total Hole Volume	799 bbl		

HYDRAULICS RESULTS AT VARIOUS FLOW RATES

Flow Rate	gpm :	530	550	570	590	610	630	650	670	690	710	730
Flow Regime at TD	:	TURB	TURB	TURB	TURB	TURB	TURB	TURB	TURB	TURB	TURB	TURB
Jet Velocity	m/sec :	22.0	22.8	23.7	24.5	25.3	26.1	27.0	27.8	28.6	29.5	30.3
Impact Force	lbf :	170.3	183.4	197.0	211.1	225.6	240.6	256.2	272.2	288.7	305.6	323.1
Hydraulic Power	hhp :	12.4	13.8	15.4	17.1	18.9	20.8	22.8	25.0	27.3	29.7	32.3
Bit Loss	psi :	40	43	46	50	53	57	60	64	68	72	76
% Bit Loss	:	9.5	10.0	10.4	10.8	11.2	11.5	11.9	12.2	12.5	12.8	13.1
Pipe Loss	psi :	216	229	243	257	271	286	301	316	332	347	364
Annular Loss	psi :	15	16	17	18	19	20	21	22	23	24	25
Cuttings Loss	psi :	138	133	128	123	119	115	111	108	105	101	99
Surface Loss	psi :	10	11	11	12	13	14	15	16	16	17	18
Total Loss	psi :	419	432	446	460	475	491	508	525	543	562	582
Circ Pressure	psi :	1074	1070	1066	1062	1059	1056	1053	1050	1048	1046	1044
ECD @ TD	sg :	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.06	1.06	1.06
ECD @ Shoe	sg :	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
ECD @ Weakest Depth	sg :	1.11	1.11	1.12	1.12	1.13	1.13	1.14	1.14	1.15	1.16	1.16
ECD @ TD (cuttings)	sg :	1.20	1.20	1.19	1.19	1.18	1.18	1.18	1.18	1.17	1.17	1.17

Recommended Minimum Flow to maintain cuttings transport in top section is 239 gpm
Recommended Maximum Flow to maintain laminar flow in lowest section is 121 gpm

EXLOG DRILLBYTE EAP : MUD HYDRAULICS ANALYSIS

Data Printed on : Sun Jan 24 01:57:16 1993

INPUT DATA

Hydraulics Model	BINGHAM	Casing Shoe Depth	158.0 m	Jet 1	32 in/32
Depth	633.0 m	Weakest Fmtn Depth	2990.0 m	Jet 2	32 in/32
Vertical Depth	633.0 m	Mud Density	1.03 sg	Jet 3	32 in/32
Flow Rate	1010 gpm	300 rpm viscometer	2	Total Fluid Area	2.3562 in^2
Average ROP	60.0 m/hr	600 rpm viscometer	3		
Cuttings Density	2.50 spc g	Plastic Viscosity	1.00 cP		
Cuttings Diameter	0.200 in	Yield Point	1.00 #/100ft^2		
Cuttings Shape	SPHERICAL	Power Law k	0.05412 #sec^n/100ft^2		
Cuttings Thickness	0.100 in	Power Law n	0.58496		

CALCULATED RESULTS

Section Top m	Section Length m	Hole Size in	Pipe OD in	Pipe ID in	Volumes & Capacities Hole bbl	Pipe bbl	Annulus bbl	Mud Velocity Pipe m/min	Annulus m/min	Critical m/min	Flow Regime
Surface	119.5	50.000	5.000	4.276	952	7	942	412.7	3.1	25.1	LAMINAR
119.5	38.5	36.000	5.000	4.276	159	2	156	412.7	5.9	25.2	LAMINAR
158.0	268.1	17.500	5.000	4.276	262	16	239	412.7	27.0	25.3	TURBULENT
426.1	134.5	17.500	5.000	3.000	131	4	120	838.4	27.0	25.3	TURBULENT
560.6	72.4	17.500	8.000	2.875	71	2	56	912.9	31.1	25.4	TURBULENT

Hydrostatic Pressure	925 psi		
Annular Volume	1513 bbl	11812 strokes	63 mins
Pipe Capacity	31 bbl	239 strokes	1 mins
Circulating Volume	1544 bbl	12050 strokes	64 mins
Pipe Displacement	31 bbl		
Total Hole Volume	1575 bbl		

HYDRAULICS RESULTS AT VARIOUS FLOW RATES

Flow Rate	gpm :	910	930	950	970	990	1010	1030	1050	1070	1090	1110
Flow Regime at TD	:	TURB	TURB	TURB	TURB	TURB	TURB	TURB	TURB	TURB	TURB	TURB
Jet Velocity	m/sec :	37.8	38.6	39.4	40.3	41.1	41.9	42.7	43.6	44.4	45.2	46.1
Impact Force	lbf :	502.1	524.4	547.2	570.5	594.2	618.5	643.2	668.5	694.2	720.4	747.0
Hydraulic Power	hhp :	62.6	66.8	71.2	75.8	80.6	85.6	90.8	96.2	101.8	107.6	113.6
Bit Loss	psi :	118	123	129	134	140	145	151	157	163	169	176
% Bit Loss	:	12.9	13.2	13.4	13.7	14.0	14.2	14.5	14.7	14.9	15.1	15.3
Pipe Loss	psi :	534	554	574	594	615	635	656	678	699	721	743
Annular Loss	psi :	1	1	1	1	1	1	1	1	1	1	1
Cuttings Loss	psi :	236	230	224	219	213	208	203	199	194	190	186
Surface Loss	psi :	27	29	30	31	32	33	35	36	37	38	40
Total Loss	psi :	917	937	957	979	1001	1023	1046	1070	1095	1120	1146
Circ Pressure	psi :	1162	1156	1150	1145	1139	1134	1129	1125	1120	1116	1112
ECD @ TD	sg :	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
ECD @ Shoe	sg :	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
ECD @ Weakest Depth	sg :	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
ECD @ TD (cuttings)	sg :	1.29	1.29	1.28	1.27	1.27	1.26	1.26	1.25	1.25	1.24	1.24

Recommended Minimum Flow to maintain cuttings transport in top section is 267 gpm
Recommended Maximum Flow to maintain laminar flow in lowest section is 824 gpm

EXLOG DRILLBYTE EAP : MUD HYDRAULICS ANALYSIS

Data Printed on : Tue Jan 26 23:56:31 1993

INPUT DATA

Hydraulics Model	BINGHAM	Casing Shoe Depth	618.3 m	Jet 1	32 in/32
Depth	630.0 m	Weakest Fmtn Depth	2990.0 m	Jet 2	32 in/32
Vertical Depth	630.0 m	Mud Density	1.03 sg	Jet 3	32 in/32
Flow Rate	629 gpm	300 rpm viscometer	2	Total Fluid Area	2.3562 in^2
Average ROP	50.0 m/hr	600 rpm viscometer	3		
Cuttings Density	2.50 spc g	Plastic Viscosity	1.00 cP		
Cuttings Diameter	0.200 in	Yield Point	1.00 #/100ft^2		
Cuttings Shape	SPHERICAL	Power Law k	0.05412 #sec^n/100ft^2		
Cuttings Thickness	0.100 in	Power Law n	0.58496		

CALCULATED RESULTS

Section Top	Section Length	Hole Size	Pipe OD	Pipe ID	Volumes & Capacities Hole	Pipe	Annulus	Mud Velocity Pipe	Annulus	Critical	Flow Regime
m	m	in	in	in	bbl	bbl	bbl	m/min	m/min	m/min	
Surface	119.5	19.750	5.000	4.276	149	7	139	257.0	12.9	25.3	LAMINAR
119.5	318.6	12.347	5.000	4.276	155	19	128	257.0	37.2	25.5	TURBULENT
438.1	134.5	12.347	5.000	3.000	65	4	54	522.1	37.3	25.5	TURBULENT
572.6	45.7	12.347	8.000	2.875	22	1	13	568.5	53.1	25.9	TURBULENT
618.3	11.7	12.250	8.000	2.875	6	0	3	568.5	54.6	25.9	TURBULENT

Hydrostatic Pressure	921 psi		
Annular Volume	337 bbl	2629 strokes	22 mins
Pipe Capacity	31 bbl	241 strokes	2 mins
Circulating Volume	368 bbl	2870 strokes	25 mins
Pipe Displacement	29 bbl		
Total Hole Volume	397 bbl		

HYDRAULICS RESULTS AT VARIOUS FLOW RATES

Flow Rate	gpm :	529	549	569	589	609	629	649	669	689	709	729
Flow Regime at TD	:	TURB	TURB	TURB	TURB	TURB	TURB	TURB	TURB	TURB	TURB	TURB
Jet Velocity	m/sec :	22.0	22.8	23.6	24.4	25.3	26.1	26.9	27.8	28.6	29.4	30.3
Impact Force	lbf :	169.7	182.7	196.3	210.3	224.9	239.9	255.4	271.4	287.8	304.8	322.2
Hydraulic Power	hhp :	12.3	13.8	15.3	17.0	18.8	20.7	22.7	24.9	27.2	29.6	32.2
Bit Loss	psi :	40	43	46	49	53	56	60	64	68	72	76
% Bit Loss	:	10.4	10.9	11.4	11.9	12.3	12.7	13.1	13.5	13.8	14.1	14.4
Pipe Loss	psi :	209	222	235	249	263	277	291	306	321	337	352
Annular Loss	psi :	3	3	3	3	3	3	4	4	4	4	4
Cuttings Loss	psi :	122	115	109	103	98	93	88	84	81	77	74
Surface Loss	psi :	10	11	11	12	13	14	15	15	16	17	18
Total Loss	psi :	383	393	404	416	429	443	458	473	490	507	524
Circ Pressure	psi :	1045	1038	1032	1026	1021	1017	1012	1008	1005	1002	999
ECD @ TD	sg :	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
ECD @ Shoe	sg :	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
ECD @ Weakest Depth	sg :	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
ECD @ TD (cuttings)	sg :	1.17	1.16	1.15	1.15	1.14	1.14	1.13	1.13	1.12	1.12	1.12

Recommended Minimum Flow to maintain cuttings transport in top section is 387 gpm
Recommended Maximum Flow to maintain laminar flow in lowest section is 298 gpm

EXLOG DRILLBYTE EAP : MUD HYDRAULICS ANALYSIS

Data Printed on : Thu Jan 28 02:00:44 1993

INPUT DATA

Hydraulics Model	POWER LAW	Casing Shoe Depth	959.0 m	Jet 1	16 in/32
Depth	1182.0 m	Weakest Fmtn Depth	2982.0 m	Jet 2	16 in/32
Vertical Depth	1182.0 m	Mud Density	1.11 sg	Jet 3	12 in/32
Flow Rate	695 gpm	300 rpm viscometer	40	Total Fluid Area	0.5031 in^2
Average ROP	35.0 m/hr	600 rpm viscometer	56		
Cuttings Density	2.60 spc g	Plastic Viscosity	16.00 cP		
Cuttings Diameter	0.200 in	Yield Point	24.00 #/100ft^2		
Cuttings Shape	SPHERICAL	Power Law k	2.00130 #sec^n/100ft^2		
Cuttings Thickness	0.100 in	Power Law n	0.48543		

CALCULATED RESULTS

Section Top	Section Length	Hole Size	Pipe OD	Pipe ID	Volumes & Capacities Hole	Pipe	Annulus	Mud Velocity Pipe	Annulus	Critical	Flow Regime
m	m	in	in	in	bbl	bbl	bbl	m/min	m/min	m/min	
Surface	119.5	19.750	5.000	4.276	149	7	139	284.0	14.3	90.0	LAMINAR
119.5	498.8	12.347	5.000	4.276	242	29	200	284.0	41.2	113.9	LAMINAR
618.3	274.4	13.720	5.000	4.276	165	16	142	284.0	32.1	107.5	LAMINAR
892.7	66.3	13.720	5.000	3.000	40	2	34	576.9	32.1	107.5	LAMINAR
959.0	68.2	12.250	5.000	3.000	33	2	27	576.9	42.0	114.4	LAMINAR
1027.2	142.4	12.250	8.000	2.875	68	4	39	628.2	60.3	135.7	LAMINAR
1169.6	12.4	12.250	8.375	3.000	6	0	3	576.9	65.0	139.9	LAMINAR

Hydrostatic Pressure	1863 psi		
Annular Volume	584 bbl	4558 strokes	35 mins
Pipe Capacity	60 bbl	468 strokes	4 mins
Circulating Volume	644 bbl	5026 strokes	39 mins
Pipe Displacement	58 bbl		
Total Hole Volume	702 bbl		

HYDRAULICS RESULTS AT VARIOUS FLOW RATES

Flow Rate	gpm :	595	615	635	655	675	695	715	735	755	775	795
Flow Regime at TD	:	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM
Jet Velocity	m/sec :	115.6	119.5	123.4	127.3	131.2	135.1	139.0	142.9	146.7	150.6	154.5
Impact Force	lbf :	1083.3	1157.3	1233.8	1312.8	1394.1	1478.0	1564.3	1653.0	1744.2	1837.8	1933.9
Hydraulic Power	hhp :	413.7	456.8	502.8	551.9	604.0	659.3	717.8	779.8	845.2	914.2	986.8
Bit Loss	psi :	1192	1274	1358	1445	1535	1627	1722	1820	1920	2023	2129
% Bit Loss	:	63.8	64.4	64.9	65.4	65.9	66.3	66.7	67.1	67.5	67.9	68.2
Pipe Loss	psi :	567	597	627	658	690	722	754	787	821	855	890
Annular Loss	psi :	25	26	26	27	27	27	28	28	29	29	29
Cuttings Loss	psi :	70	67	65	63	61	59	57	56	54	53	51
Surface Loss	psi :	13	14	15	16	17	18	19	20	21	22	23
Total Loss	psi :	1868	1979	2092	2209	2330	2453	2580	2711	2845	2982	3122
Circ Pressure	psi :	1959	1957	1955	1953	1951	1950	1948	1947	1946	1945	1944
ECD ● TD	sg :	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
ECD ● Shoe	sg :	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
ECD ● Weakest Depth	sg :	1.14	1.14	1.14	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
ECD ● TD (cuttings)	sg :	1.17	1.17	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16

Recommended Minimum Flow to maintain cuttings transport in top section is 93 gpm
Recommended Maximum Flow to maintain laminar flow in lowest section is 1496 gpm

EXLOG DRILLBYTE EAP : MUD HYDRAULICS ANALYSIS

Data Printed on : Fri Jan 29 02:03:19 1993

INPUT DATA

Hydraulics Model	POWER LAW	Casing Shoe Depth	959.0 m	Jet 1	16 in/32
Depth	1659.0 m	Weakest Fmtn Depth	2982.0 m	Jet 2	16 in/32
Vertical Depth	1658.8 m	Mud Density	1.11 sg	Jet 3	12 in/32
Flow Rate	670 gpm	300 rpm viscometer	34	Total Fluid Area	0.5031 in^2
Average ROP	15.0 m/hr	600 rpm viscometer	49		
Cuttings Density	2.60 spc gr	Plastic Viscosity	15.00 cP		
Cuttings Diameter	0.200 in	Yield Point	20.00 #/100ft^2		
Cuttings Shape	SPHERICAL	Power Law k	1.46273 #sec^n/100ft^2		
Cuttings Thickness	0.100 in	Power Law n	0.51457		

CALCULATED RESULTS

Section Top m	Section Length m	Hole Size in	Pipe OD in	Pipe ID in	Volumes & Capacities Hole bbl	Pipe bbl	Annulus bbl	Mud Velocity Pipe m/min	Annulus m/min	Critical m/min	Flow Regime
Surface	119.5	19.750	5.000	4.276	149	7	139	273.8	13.8	77.5	LAMINAR
119.5	498.8	12.347	5.000	4.276	242	29	200	273.8	39.7	100.0	LAMINAR
618.3	340.7	13.720	5.000	4.276	204	20	176	273.8	30.9	94.0	LAMINAR
959.0	410.7	12.250	5.000	4.276	196	24	162	273.8	40.5	100.5	LAMINAR
1369.7	134.5	12.250	5.000	3.000	64	4	53	556.1	40.5	100.5	LAMINAR
1504.2	142.4	12.250	8.000	2.875	68	4	39	605.6	58.2	120.8	LAMINAR
1646.6	12.4	12.250	8.375	3.000	6	0	3	556.1	62.6	124.8	LAMINAR

Hydrostatic Pressure	2616 psi		
Annular Volume	772 bbl	6026 strokes	48 mins
Pipe Capacity	88 bbl	685 strokes	6 mins
Circulating Volume	860 bbl	6711 strokes	54 mins
Pipe Displacement	70 bbl		
Total Hole Volume	930 bbl		

HYDRAULICS RESULTS AT VARIOUS FLOW RATES

Flow Rate	gpm :	570	590	610	630	650	670	690	710	730	750	770
Flow Regime at TD	:	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM
Jet Velocity	m/sec :	110.8	114.7	118.6	122.4	126.3	130.2	134.1	138.0	141.9	145.8	149.7
Impact Force	lbf :	994.1	1065.1	1138.6	1214.5	1292.8	1373.6	1456.8	1542.5	1630.6	1721.2	1814.2
Hydraulic Power	hhp :	363.7	403.3	445.8	491.1	539.3	590.7	645.2	702.9	764.0	828.5	896.6
Bit Loss	psi :	1094	1173	1253	1337	1423	1512	1604	1698	1795	1895	1997
% Bit Loss	:	60.2	60.7	61.2	61.6	62.1	62.5	62.9	63.2	63.6	63.9	64.2
Pipe Loss	psi :	640	676	712	749	787	825	864	903	944	984	1026
Annular Loss	psi :	28	29	29	30	30	31	31	32	32	32	33
Cuttings Loss	psi :	43	41	40	38	37	36	35	34	33	32	31
Surface Loss	psi :	12	13	14	15	16	17	18	19	20	21	22
Total Loss	psi :	1818	1931	2048	2169	2293	2420	2551	2685	2823	2964	3108
Circ Pressure	psi :	2687	2686	2685	2684	2683	2682	2682	2681	2680	2680	2679
ECD @ TD	sg :	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
ECD @ Shoe	sg :	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
ECD @ Weakest Depth	sg :	1.13	1.13	1.13	1.13	1.13	1.14	1.14	1.14	1.14	1.14	1.14
ECD @ TD (cuttings)	sg :	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14

Recommended Minimum Flow to maintain cuttings transport in top section is 118 gpm
Recommended Maximum Flow to maintain laminar flow in lowest section is 1335 gpm

EXLOG DRILLBYTE EAP : MUD HYDRAULICS ANALYSIS

Data Printed on : Sat Jan 30 02:42:06 1993

INPUT DATA

Hydraulics Model	POWER LAW	Casing Shoe Depth	1686.0 m	Jet 1	16 in/32
Depth	1800.0 m	Weakest Fmtn Depth	2982.0 m	Jet 2	16 in/32
Vertical Depth	1799.6 m	Mud Density	1.12 sg	Jet 3	12 in/32
Flow Rate	670 gpm	300 rpm viscometer	40	Total Fluid Area	0.5031 in^2
Average ROP	15.0 m/hr	600 rpm viscometer	56		
Cuttings Density	2.60 spc gr	Plastic Viscosity	16.00 cP		
Cuttings Diameter	0.200 in	Yield Point	24.00 #/100ft^2		
Cuttings Shape	SPHERICAL	Power Law k	2.00130 #sec^n/100ft^2		
Cuttings Thickness	0.100 in	Power Law n	0.48543		

CALCULATED RESULTS

Section Top m	Section Length m	Hole Size in	Pipe OD in	Pipe ID in	Volumes & Capacities Hole bbl	Pipe bbl	Annulus bbl	Mud Velocity Pipe m/min	Annulus m/min	Critical m/min	Flow Regime
Surface	119.5	19.750	5.000	4.276	149	7	139	273.8	13.8	89.4	LAMINAR
119.5	498.8	12.347	5.000	4.276	242	29	200	273.8	39.7	113.2	LAMINAR
618.3	892.4	12.850	5.000	4.276	470	52	395	273.8	36.1	110.7	LAMINAR
1510.7	134.5	12.850	5.000	3.000	71	4	59	556.1	36.1	110.8	LAMINAR
1645.2	40.8	12.850	8.000	2.875	21	1	13	605.6	49.5	129.3	LAMINAR
1686.0	101.6	12.250	8.000	2.875	49	3	28	605.6	58.2	134.9	LAMINAR
1787.6	12.4	12.250	8.375	3.000	6	0	3	556.1	62.6	139.0	LAMINAR

Hydrostatic Pressure	2864 psi		
Annular Volume	837 bbl	6536 strokes	52 mins
Pipe Capacity	96 bbl	749 strokes	6 mins
Circulating Volume	933 bbl	7286 strokes	59 mins
Pipe Displacement	74 bbl		
Total Hole Volume	1007 bbl		

HYDRAULICS RESULTS AT VARIOUS FLOW RATES

Flow Rate	gpm :	570	590	610	630	650	670	690	710	730	750	770
Flow Regime at TD	:	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM
Jet Velocity	m/sec :	110.8	114.7	118.6	122.4	126.3	130.2	134.1	138.0	141.9	145.8	149.7
Impact Force	lbf :	1003.1	1074.7	1148.8	1225.4	1304.4	1385.9	1469.9	1556.4	1645.3	1736.7	1830.5
Hydraulic Power	bhp :	367.0	407.0	449.8	495.5	544.2	596.0	651.0	709.2	770.9	836.0	904.7
Bit Loss	psi :	1104	1183	1265	1349	1436	1526	1618	1713	1811	1912	2015
% Bit Loss	:	59.0	59.5	60.0	60.5	60.9	61.3	61.7	62.1	62.5	62.8	63.2
Pipe Loss	psi :	676	713	751	790	829	869	909	951	993	1035	1078
Annular Loss	psi :	36	37	37	38	38	39	40	40	41	41	42
Cuttings Loss	psi :	45	43	41	40	39	37	36	35	34	33	32
Surface Loss	psi :	12	13	14	15	16	17	18	19	20	21	22
Total Loss	psi :	1873	1989	2108	2231	2358	2488	2621	2758	2898	3042	3189
Circ Pressure	psi :	2944	2943	2942	2941	2941	2940	2939	2939	2938	2938	2938
ECD @ TD	sg :	1.13	1.13	1.13	1.13	1.14	1.14	1.14	1.14	1.14	1.14	1.14
ECD @ Shoe	sg :	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
ECD @ Weakest Depth	sg :	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
ECD @ TD (cuttings)	sg :	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15

Recommended Minimum Flow to maintain cuttings transport in top section is 91 gpm
Recommended Maximum Flow to maintain laminar flow in lowest section is 1487 gpm

EXLOG DRILLBYTE EAP : MUD HYDRAULICS ANALYSIS

Data Printed on : Wed Feb 3 03:18:37 1993

INPUT DATA

Hydraulics Model	POWER LAW	Casing Shoe Depth	1786.0 m	Jet 1	13 in/32
Depth	1922.0 m	Weakest Fmtn Depth	2982.0 m	Jet 2	12 in/32
Vertical Depth	1921.5 m	Mud Density	1.14 sg	Jet 3	12 in/32
Flow Rate	470 gpm	300 rpm viscometer	29	Total Fluid Area	0.3505 in^2
Average ROP	9.7 m/hr	600 rpm viscometer	40		
Cuttings Density	2.60 sg	Plastic Viscosity	11.00 cP		
Cuttings Diameter	0.200 in	Yield Point	18.00 #/100ft^2		
Cuttings Shape	SPHERICAL	Power Law k	1.65673 #sec^n/100ft^2		
Cuttings Thickness	0.100 in	Power Law n	0.46395		

CALCULATED RESULTS

Section		Hole	Pipe		Volumes & Capacities			Mud Velocity			Flow
Top	Length	Size	OD	ID	Hole	Pipe	Annulus	Pipe	Annulus	Critical	Regime
m	m	in	in	in	bbl	bbl	bbl	m/min	m/min	m/min	
Surface	119.5	19.750	5.000	4.276	149	7	139	192.0	9.6	74.6	LAMINAR
119.5	1487.0	8.681	5.000	4.276	357	87	236	192.0	70.5	115.5	LAMINAR
1606.5	125.6	8.681	5.000	3.000	30	4	20	390.1	71.4	116.2	LAMINAR
1732.0	54.0	8.681	6.500	2.813	13	1	6	443.7	106.0	135.0	LAMINAR
1786.0	136.0	8.500	6.500	2.813	31	3	13	443.7	117.0	138.5	LAMINAR

Hydrostatic Pressure	3112 psi		
Annular Volume	413 bbl	3227 strokes	37 mins
Pipe Capacity	102 bbl	796 strokes	9 mins
Circulating Volume	515 bbl	4023 strokes	46 mins
Pipe Displacement	65 bbl		
Total Hole Volume	580 bbl		

HYDRAULICS RESULTS AT VARIOUS FLOW RATES

Flow Rate	gpm :	370	390	410	430	450	470	490	510	530	550	570
Flow Regime at TD	:	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	TRANS
Jet Velocity	m/sec :	103.2	108.8	114.4	120.0	125.5	131.1	136.7	142.3	147.9	153.4	159.0
Impact Force	lbf :	617.6	686.1	758.3	834.1	913.5	996.5	1083.1	1173.3	1267.1	1364.6	1465.6
Hydraulic Power	hhp :	210.5	246.5	286.4	330.4	378.7	431.5	488.9	551.3	618.7	691.4	769.7
Bit Loss	psi :	976	1084	1198	1318	1443	1575	1711	1854	2002	2156	2316
% Bit Loss	:	66.4	67.3	68.2	69.0	69.8	70.5	71.1	71.7	72.2	72.8	73.2
Pipe Loss	psi :	347	376	406	437	469	502	535	569	604	639	675
Annular Loss	psi :	116	119	122	124	127	130	132	135	137	140	142
Cuttings Loss	psi :	26	25	24	22	21	20	19	18	18	17	16
Surface Loss	psi :	6	6	7	8	8	9	10	10	11	12	13
Total Loss	psi :	1471	1610	1757	1909	2069	2235	2407	2586	2772	2964	3163
Circ Pressure	psi :	3255	3256	3258	3259	3261	3262	3264	3266	3267	3269	3271
ECD @ TD	sg :	1.18	1.18	1.18	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19
ECD @ Shoe	sg :	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.19
ECD @ Weakest Depth	sg :	1.21	1.21	1.21	1.21	1.21	1.22	1.22	1.22	1.22	1.22	1.22
ECD @ TD (cuttings)	sg :	1.19	1.19	1.19	1.19	1.19	1.19	1.20	1.20	1.20	1.20	1.20

Recommended Minimum Flow to maintain cuttings transport in top section is 92 gpm
Recommended Maximum Flow to maintain laminar flow in lowest section is 556 gpm

EXLOG DRILLBYTE EAP : MUD HYDRAULICS ANALYSIS

Data Printed on : Thu Feb 4 02:54:26 1993

INPUT DATA

Hydraulics Model	POWER LAW	Casing Shoe Depth	1786.0 m	Jet 1	13 in/32
Depth	2071.0 m	Weakest Fmtn Depth	2982.0 m	Jet 2	12 in/32
Vertical Depth	2070.3 m	Mud Density	1.14 sg	Jet 3	12 in/32
Flow Rate	440 gpm	300 rpm viscometer	38	Total Fluid Area	0.3505 in^2
Average ROP	15.0 m/hr	600 rpm viscometer	55		
Cuttings Density	2.60 spc gr	Plastic Viscosity	17.00 cP		
Cuttings Diameter	0.200 in	Yield Point	21.00 #/100ft^2		
Cuttings Shape	SPHERICAL	Power Law k	1.41355 #sec^n/100ft^2		
Cuttings Thickness	0.100 in	Power Law n	0.53343		

CALCULATED RESULTS

Section Top	Section Length	Hole Size	Pipe OD	Pipe ID	Volumes & Capacities Hole	Pipe	Annulus	Mud Velocity Pipe	Annulus	Critical	Flow Regime
m	m	in	in	in	bbl	bbl	bbl	m/min	m/min	m/min	
Surface	119.5	19.750	5.000	4.276	149	7	139	179.8	9.0	77.1	LAMINAR
119.5	1633.3	8.681	5.000	4.276	392	95	259	179.8	66.0	130.3	LAMINAR
1752.8	33.2	8.681	5.000	3.000	8	1	5	365.2	67.1	131.3	LAMINAR
1786.0	92.4	8.500	5.000	3.000	21	3	14	365.2	71.6	133.9	LAMINAR
1878.4	192.6	8.500	6.500	2.813	44	5	18	415.4	109.6	162.1	LAMINAR

Hydrostatic Pressure	3354 psi		
Annular Volume	435 bbl	3398 strokes	42 mins
Pipe Capacity	111 bbl	863 strokes	11 mins
Circulating Volume	546 bbl	4262 strokes	52 mins
Pipe Displacement	69 bbl		
Total Hole Volume	614 bbl		

HYDRAULICS RESULTS AT VARIOUS FLOW RATES

Flow Rate	gpm :	340	360	380	400	420	440	460	480	500	520	540
Flow Regime at TD	:	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM
Jet Velocity	m/sec :	94.9	100.4	106.0	111.6	117.2	122.8	128.3	133.9	139.5	145.1	150.7
Impact Force	lbf :	521.5	584.6	651.4	721.8	795.7	873.3	954.5	1039.3	1127.7	1219.8	1315.4
Hydraulic Power	hhp :	163.3	193.9	228.0	266.0	307.9	354.0	404.5	459.6	519.5	584.4	654.4
Bit Loss	psi :	824	924	1029	1140	1257	1380	1508	1642	1782	1927	2079
% Bit Loss	:	59.1	60.3	61.4	62.4	63.3	64.1	64.9	65.6	66.3	66.9	67.5
Pipe Loss	psi :	375	410	447	484	523	563	604	646	689	733	777
Annular Loss	psi :	144	149	153	158	162	166	170	174	177	181	185
Cuttings Loss	psi :	47	44	42	39	37	35	34	32	31	29	28
Surface Loss	psi :	5	5	6	7	7	8	9	9	10	11	11
Total Loss	psi :	1395	1533	1677	1828	1987	2152	2324	2503	2689	2881	3081
Circ Pressure	psi :	3545	3547	3548	3550	3552	3555	3557	3559	3562	3564	3567
ECD @ TD	sg :	1.19	1.19	1.19	1.19	1.19	1.20	1.20	1.20	1.20	1.20	1.20
ECD @ Shoe	sg :	1.18	1.18	1.18	1.18	1.18	1.19	1.19	1.19	1.19	1.19	1.19
ECD @ Weakest Depth	sg :	1.22	1.22	1.22	1.22	1.23	1.23	1.23	1.23	1.23	1.24	1.24
ECD @ TD (cuttings)	sg :	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21

Recommended Minimum Flow to maintain cuttings transport in top section is 95 gpm
Recommended Maximum Flow to maintain laminar flow in lowest section is 651 gpm

EXLOG DRILLBYTE EAP : MUD HYDRAULICS ANALYSIS

Data Printed on : Fri Feb 5 03:26:12 1993

INPUT DATA

Hydraulics Model	POWER LAW	Casing Shoe Depth	1786.0 m	Jet 1	12 in/32
Depth	2146.0 m	Weakest Fmtn Depth	2982.0 m	Jet 2	12 in/32
Vertical Depth	2145.3 m	Mud Density	1.13 sg	Jet 3	12 in/32
Flow Rate	418 gpm	300 rpm viscometer	34	Total Fluid Area	0.3313 in^2
Average ROP	9.0 m/hr	600 rpm viscometer	48		
Cuttings Density	2.60 spc gr	Plastic Viscosity	14.00 cP		
Cuttings Diameter	0.200 in	Yield Point	20.00 #/100ft^2		
Cuttings Shape	SPHERICAL	Power Law k	1.57891 #sec^n/100ft^2		
Cuttings Thickness	0.000 in	Power Law n	0.49750		

CALCULATED RESULTS

Section Top m	Section Length m	Hole Size in	Pipe OD in	Pipe ID in	Volumes & Capacities Hole bbl	Pipe bbl	Annulus bbl	Mud Velocity Pipe m/min	Annulus m/min	Critical m/min	Flow Regime
Surface	119.5	19.750	5.000	4.276	149	7	139	170.8	8.6	77.7	LAMINAR
119.5	1666.5	8.681	5.000	4.276	400	97	265	170.8	62.7	125.4	LAMINAR
1786.0	44.6	8.500	5.000	4.276	10	3	7	170.8	66.8	127.5	LAMINAR
1830.6	135.2	8.500	5.000	3.000	31	4	20	347.0	68.0	128.5	LAMINAR
1965.8	180.2	8.500	6.500	2.813	41	5	17	394.6	104.1	153.0	LAMINAR

Hydrostatic Pressure	3445 psi		
Annular Volume	447 bbl	3491 strokes	45 mins
Pipe Capacity	115 bbl	899 strokes	12 mins
Circulating Volume	562 bbl	4389 strokes	56 mins
Pipe Displacement	69 bbl		
Total Hole Volume	632 bbl		

HYDRAULICS RESULTS AT VARIOUS FLOW RATES

Flow Rate	gpm :	398	402	406	410	414	418	422	426	430	434	438
Flow Regime at TD	:	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM
Jet Velocity	m/sec :	117.5	118.6	119.8	121.0	122.2	123.4	124.5	125.7	126.9	128.1	129.3
Impact Force	lbf :	749.3	764.4	779.7	795.1	810.7	826.5	842.4	858.4	874.6	891.0	907.5
Hydraulic Power	hhp :	290.6	299.5	308.5	317.7	327.1	336.7	346.5	356.4	366.5	376.9	387.4
Bit Loss	psi :	1253	1278	1303	1329	1355	1382	1408	1435	1462	1489	1517
% Bit Loss	:	66.5	66.7	66.9	67.0	67.2	67.4	67.5	67.7	67.8	68.0	68.1
Pipe Loss	psi :	449	456	463	470	478	485	492	499	507	514	521
Annular Loss	psi :	151	151	152	153	154	154	155	156	157	157	158
Cuttings Loss	psi :	25	24	24	24	23	23	23	23	23	22	22
Surface Loss	psi :	6	7	7	7	7	7	7	7	7	8	8
Total Loss	psi :	1883	1916	1949	1983	2017	2051	2085	2120	2155	2191	2226
Circ Pressure	psi :	3620	3620	3621	3621	3622	3622	3623	3623	3624	3624	3625
ECD @ TD	sg :	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
ECD @ Shoe	sg :	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17
ECD @ Weakest Depth	sg :	1.20	1.20	1.20	1.20	1.21	1.21	1.21	1.21	1.21	1.21	1.21
ECD @ TD (cuttings)	sg :	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19

Recommended Minimum Flow to maintain cuttings transport in top section is 88 gpm
Recommended Maximum Flow to maintain laminar flow in lowest section is 614 gpm

EXLOG DRILLBYTE EAP : MUD HYDRAULICS ANALYSIS

Data Printed on : Sat Feb 6 01:42:27 1993

INPUT DATA

Hydraulics Model	POWER LAW	Casing Shoe Depth	1786.0 m	Jet 1	12 in/32
Depth	2398.0 m	Weakest Fmtn Depth	2982.0 m	Jet 2	12 in/32
Vertical Depth	2397.3 m	Mud Density	1.13 sg	Jet 3	12 in/32
Flow Rate	418 gpm	300 rpm viscometer	33	Total Fluid Area	0.3313 in^2
Average ROP	13.0 m/hr	600 rpm viscometer	48		
Cuttings Density	2.60 spc gr	Plastic Viscosity	15.00 cP		
Cuttings Diameter	0.200 in	Yield Point	18.00 #/100ft^2		
Cuttings Shape	SPHERICAL	Power Law k	1.17465 #sec^n/100ft^2		
Cuttings Thickness	0.000 in	Power Law n	0.54057		

CALCULATED RESULTS

Section Top m	Section Length m	Hole Size in	Pipe OD in	Pipe ID in	Volumes & Capacities Hole bbl	Volumes & Capacities Pipe bbl	Volumes & Capacities Annulus bbl	Mud Velocity Pipe m/min	Mud Velocity Annulus m/min	Mud Velocity Critical m/min	Flow Regime
Surface	118.0	19.750	5.000	4.276	147	7	137	170.8	8.6	69.4	LAMINAR
119.5	1666.5	8.681	5.000	4.276	400	97	265	170.8	62.7	118.2	LAMINAR
1786.0	296.6	8.500	5.000	4.276	68	17	44	170.8	66.8	120.5	LAMINAR
2082.6	135.2	8.500	5.000	3.000	31	4	20	347.0	68.0	121.6	LAMINAR
2217.8	180.2	8.500	6.500	2.813	41	5	17	394.6	104.1	147.7	LAMINAR

Hydrostatic Pressure	3850 psi		
Annular Volume	483 bbl	3770 strokes	49 mins
Pipe Capacity	130 bbl	1012 strokes	13 mins
Circulating Volume	613 bbl	4782 strokes	62 mins
Pipe Displacement	75 bbl		
Total Hole Volume	688 bbl		

HYDRAULICS RESULTS AT VARIOUS FLOW RATES

Flow Rate	gpm :	398	402	406	410	414	418	422	426	430	434	438
Flow Regime at TD	:	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM
Jet Velocity	m/sec :	117.5	118.6	119.8	121.0	122.2	123.4	124.5	125.7	126.9	128.1	129.3
Impact Force	lbf :	749.3	764.4	779.7	795.1	810.7	826.5	842.4	858.4	874.6	891.0	907.5
Hydraulic Power	hhp :	290.6	299.5	308.5	317.7	327.1	336.7	346.5	356.4	366.5	376.9	387.4
Bit Loss	psi :	1253	1278	1303	1329	1355	1382	1408	1435	1462	1489	1517
% Bit Loss	:	64.1	64.3	64.5	64.6	64.8	65.0	65.1	65.3	65.5	65.6	65.8
Pipe Loss	psi :	502	510	518	526	534	542	550	558	567	575	583
Annular Loss	psi :	154	155	156	157	158	158	159	160	161	162	162
Cuttings Loss	psi :	39	39	39	38	38	37	37	37	36	36	35
Surface Loss	psi :	6	7	7	7	7	7	7	7	7	8	8
Total Loss	psi :	1954	1988	2022	2057	2091	2126	2162	2197	2233	2269	2306
Circ Pressure	psi :	4043	4044	4044	4045	4045	4045	4046	4046	4047	4047	4047
ECD @ TD	sg :	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
ECD @ Shoe	sg :	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17
ECD @ Weakest Depth	sg :	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.20
ECD @ TD (cuttings)	sg :	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19

Recommended Minimum Flow to maintain cuttings transport in top section is 111 gpm
Recommended Maximum Flow to maintain laminar flow in lowest section is 593 gpm

EXLOG DRILLBYTE EAP : MUD HYDRAULICS ANALYSIS

Data Printed on : Sun Feb 7 02:42:55 1993

INPUT DATA

Hydraulics Model	POWER LAW	Casing Shoe Depth	1786.0 m	Jet 1	12 in/32
Depth	2545.0 m	Weakest Fmtn Depth	2982.0 m	Jet 2	12 in/32
Vertical Depth	2544.0 m	Mud Density	1.16 sg	Jet 3	12 in/32
Flow Rate	421 gpm	300 rpm viscometer	35	Total Fluid Area	0.3313 in^2
Average ROP	10.0 m/hr	600 rpm viscometer	49		
Cuttings Density	2.50 spc gr	Plastic Viscosity	14.00 cP		
Cuttings Diameter	0.200 in	Yield Point	21.00 #/100ft^2		
Cuttings Shape	SPHERICAL	Power Law k	1.75114 #sec^n/100ft^2		
Cuttings Thickness	0.000 in	Power Law n	0.48543		

CALCULATED RESULTS

Section Top	Section Length	Hole Size	Pipe OD	Pipe ID	Volumes & Capacities Hole	Pipe	Annulus	Mud Velocity Pipe	Annulus	Critical	Flow Regime
m	m	in	in	in	bbl	bbl	bbl	m/min	m/min	m/min	
Surface	119.5	19.750	5.000	4.276	149	7	139	172.0	8.6	79.9	LAMINAR
119.5	1666.5	8.681	5.000	4.276	400	97	265	172.0	63.1	126.9	LAMINAR
1786.0	443.6	8.500	5.000	4.276	102	26	66	172.0	67.3	129.0	LAMINAR
2229.6	135.2	8.500	5.000	3.000	31	4	20	349.5	68.5	130.0	LAMINAR
2364.8	180.2	8.500	6.500	2.813	41	5	17	397.5	104.8	153.8	LAMINAR

Hydrostatic Pressure	4194 psi		
Annular Volume	507 bbl	3954 strokes	51 mins
Pipe Capacity	138 bbl	1080 strokes	14 mins
Circulating Volume	645 bbl	5034 strokes	64 mins
Pipe Displacement	79 bbl		
Total Hole Volume	724 bbl		

HYDRAULICS RESULTS AT VARIOUS FLOW RATES

Flow Rate	gpm :	401	405	409	413	417	421	425	429	433	437	441
Flow Regime at TD	:	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM
Jet Velocity	m/sec :	118.3	119.5	120.7	121.9	123.1	124.3	125.4	126.6	127.8	129.0	130.2
Impact Force	lbf :	780.8	796.5	812.3	828.2	844.4	860.6	877.1	893.7	910.4	927.3	944.3
Hydraulic Power	hhp :	305.2	314.4	323.8	333.4	343.2	353.1	363.3	373.6	384.2	394.9	405.9
Bit Loss	psi :	1305	1331	1358	1384	1411	1439	1466	1494	1522	1550	1579
% Bit Loss	:	64.0	64.2	64.4	64.6	64.8	64.9	65.1	65.3	65.4	65.6	65.8
Pipe Loss	psi :	512	520	528	536	544	552	561	569	577	585	594
Annular Loss	psi :	187	188	189	189	190	191	192	193	194	195	196
Cuttings Loss	psi :	28	27	27	27	26	26	26	26	25	25	25
Surface Loss	psi :	7	7	7	7	7	7	7	8	8	8	8
Total Loss	psi :	2038	2073	2108	2144	2180	2216	2252	2289	2326	2363	2401
Circ Pressure	psi :	4408	4409	4409	4410	4411	4411	4412	4412	4413	4414	4414
ECD @ TD	sg :	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21
ECD @ Shoe	sg :	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
ECD @ Weakest Depth	sg :	1.22	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23
ECD @ TD (cuttings)	sg :	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22

Recommended Minimum Flow to maintain cuttings transport in top section is 74 gpm
Recommended Maximum Flow to maintain laminar flow in lowest section is 618 gpm

EXLOG DRILLBYTE EAP : MUD HYDRAULICS ANALYSIS

Data Printed on : Mon Feb 8 03:30:50 1993

INPUT DATA

Hydraulics Model	POWER LAW	Casing Shoe Depth	2522.0 m	Jet 1	12 in/32
Depth	2697.0 m	Weakest Fmtn Depth	2982.0 m	Jet 2	12 in/32
Vertical Depth	2696.0 m	Mud Density	1.22 sg	Jet 3	12 in/32
Flow Rate	428 gpm	300 rpm viscometer	37	Total Fluid Area	0.3313 in^2
Average ROP	9.5 m/hr	600 rpm viscometer	54		
Cuttings Density	2.60 spc gr	Plastic Viscosity	17.00 cP		
Cuttings Diameter	0.200 in	Yield Point	21.00 #/100ft^2		
Cuttings Shape	SPHERICAL	Power Law k	1.41355 #sec^n/100ft^2		
Cuttings Thickness	0.000 in	Power Law n	0.53343		

CALCULATED RESULTS

Section		Hole	Pipe		Volumes & Capacities			Mud Velocity			Flow
Top	Length	Size	OD	ID	Hole	Pipe	Annulus	Pipe	Annulus	Critical	Regime
m	m	in	in	in	bbl	bbl	bbl	m/min	m/min	m/min	
Surface	118.0	19.750	5.000	4.276	147	7	137	174.9	8.8	73.6	LAMINAR
119.5	1666.5	8.681	5.000	4.276	400	97	265	174.9	64.2	124.4	LAMINAR
1786.0	595.6	8.500	5.000	4.276	137	35	89	174.9	68.4	126.7	LAMINAR
2381.6	135.2	8.500	5.000	3.000	31	4	20	355.3	69.7	127.8	LAMINAR
2516.8	5.2	8.500	6.500	2.813	1	0	0	404.1	106.6	154.8	LAMINAR
2522.0	175.0	8.500	6.500	2.813	40	4	17	404.1	106.6	154.8	LAMINAR

Hydrostatic Pressure	4674 psi		
Annular Volume	527 bbl	4118 strokes	52 mins
Pipe Capacity	147 bbl	1149 strokes	14 mins
Circulating Volume	675 bbl	5267 strokes	66 mins
Pipe Displacement	82 bbl		
Total Hole Volume	757 bbl		

HYDRAULICS RESULTS AT VARIOUS FLOW RATES

Flow Rate	gpm :	408	412	416	420	424	428	432	436	440	444	448
Flow Regime at TD	:	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM
Jet Velocity	m/sec :	120.4	121.6	122.8	124.0	125.1	126.3	127.5	128.7	129.9	131.0	132.2
Impact Force	lbf :	850.1	866.9	883.8	900.9	918.1	935.5	953.1	970.8	988.7	1006.8	1025.0
Hydraulic Power	hhp :	338.0	348.1	358.3	368.8	379.4	390.2	401.3	412.5	424.0	435.7	447.5
Bit Loss	psi :	1421	1449	1477	1506	1535	1564	1593	1623	1653	1683	1713
% Bit Loss	:	62.5	62.7	62.8	63.0	63.2	63.3	63.5	63.7	63.8	64.0	64.1
Pipe Loss	psi :	614	623	633	643	652	662	672	682	691	701	711
Annular Loss	psi :	204	205	206	207	208	209	210	211	212	213	214
Cuttings Loss	psi :	28	28	27	27	27	26	26	26	26	25	25
Surface Loss	psi :	7	7	8	8	8	8	8	8	8	9	9
Total Loss	psi :	2274	2312	2351	2390	2429	2469	2509	2550	2590	2631	2673
Circ Pressure	psi :	4906	4907	4908	4908	4909	4910	4911	4911	4912	4913	4914
ECD @ TD	sg :	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.28	1.28	1.28	1.28
ECD @ Shoe	sg :	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27
ECD @ Weakest Depth	sg :	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.29	1.29	1.29
ECD @ TD (cuttings)	sg :	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28

Recommended Minimum Flow to maintain cuttings transport in top section is 89 gpm
Recommended Maximum Flow to maintain laminar flow in lowest section is 622 gpm

EXLOG DRILLBYTE EAP : MUD HYDRAULICS ANALYSIS

Data Printed on : Tue Feb 9 02:08:33 1993

INPUT DATA

Hydraulics Model	POWER LAW	Casing Shoe Depth	1786.0 m	Jet 1	12 in/32
Depth	2735.0 m	Weakest Fmtn Depth	2982.0 m	Jet 2	12 in/32
Vertical Depth	2733.8 m	Mud Density	1.22 sg	Jet 3	12 in/32
Flow Rate	430 gpm	300 rpm viscometer	37	Total Fluid Area	0.3313 in^2
Average ROP	10.0 m/hr	600 rpm viscometer	52		
Cuttings Density	2.50 spc g	Plastic Viscosity	15.00 cP		
Cuttings Diameter	0.200 in	Yield Point	22.00 #/100ft^2		
Cuttings Shape	SPHERICAL	Power Law k	1.78874 #sec^n/100ft^2		
Cuttings Thickness	0.000 in	Power Law n	0.49099		

CALCULATED RESULTS

Section		Hole	Pipe		Volumes & Capacities			Mud Velocity			Flow
Top	Length	Size	OD	ID	Hole	Pipe	Annulus	Pipe	Annulus	Critical	Regime
m	m	in	in	in	bbl	bbl	bbl	m/min	m/min	m/min	
Surface	119.5	19.750	5.000	4.276	149	7	139	175.7	8.8	79.2	LAMINAR
119.5	1666.5	8.681	5.000	4.276	400	97	265	175.7	64.5	126.7	LAMINAR
1786.0	633.6	8.500	5.000	4.276	146	37	94	175.7	68.8	128.9	LAMINAR
2419.6	135.2	8.500	5.000	3.000	31	4	20	356.9	70.0	129.9	LAMINAR
2554.8	180.2	8.500	6.500	2.813	41	5	17	406.0	107.1	154.1	LAMINAR

Hydrostatic Pressure	4740 psi		
Annular Volume	535 bbl	4175 strokes	52 mins
Pipe Capacity	149 bbl	1166 strokes	15 mins
Circulating Volume	684 bbl	5342 strokes	67 mins
Pipe Displacement	83 bbl		
Total Hole Volume	767 bbl		

HYDRAULICS RESULTS AT VARIOUS FLOW RATES

Flow Rate	gpm :	410	414	418	422	426	430	434	438	442	446	450
Flow Regime at TD	:	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM	LAM
Jet Velocity	m/sec :	121.0	122.2	123.4	124.5	125.7	126.9	128.1	129.3	130.4	131.6	132.8
Impact Force	lbf :	858.5	875.3	892.3	909.5	926.8	944.3	961.9	979.7	997.7	1015.8	1034.1
Hydraulic Power	hhp :	343.0	353.2	363.5	374.0	384.8	395.7	406.9	418.2	429.8	441.6	453.6
Bit Loss	psi :	1435	1463	1492	1520	1549	1578	1608	1638	1668	1698	1729
% Bit Loss	:	63.2	63.4	63.5	63.7	63.9	64.0	64.2	64.4	64.5	64.7	64.8
Pipe Loss	psi :	590	599	608	617	626	635	644	653	663	672	682
Annular Loss	psi :	213	214	215	216	217	218	219	220	221	222	223
Cuttings Loss	psi :	27	27	26	26	26	26	25	25	25	25	24
Surface Loss	psi :	7	8	8	8	8	8	8	8	8	9	9
Total Loss	psi :	2272	2310	2348	2387	2426	2465	2504	2544	2585	2625	2666
Circ Pressure	psi :	4980	4980	4981	4982	4983	4983	4984	4985	4986	4986	4987
ECD ● TD	sg :	1.27	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28
ECD ● Shoe	sg :	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27
ECD ● Weakest Depth	sg :	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.29	1.29	1.29
ECD ● TD (cuttings)	sg :	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28

Recommended Minimum Flow to maintain cuttings transport in top section is 69 gpm
Recommended Maximum Flow to maintain laminar flow in lowest section is 619 gpm

APPENDIX VIII: Geological-Engineering Morning Reports

EXLOG
A Baker Hughes company

DRILLBYTE MORNING REPORT NO 1

COMPANY BHP Petroleum WELL LA BELLA - 1

DATE 22.01.93 TIME 24:00 hrs

DEPTH 630 m LAST REPORT DEPTH -

RIG OPERATIONS RIH w/ RR2.1 to open 9.875" hole to 17.5" hole.

REPORT BY Matt Sale REPORT RECEIVED BY J.Dickson/T.Howe (OPTR)

DRILLING REPORT

Bit No. NB#2 Type SECURITY S33SF Size 9.875 in Jets Open

On Bit: Distance 472.0 m Hours 4:52 hh:mm ROP 20 - 477 m/hr WOB 0 - 15 klb RPM 80 - 130

Pump Press 200 - 1450 SPM 118 Torque 120 - 250 TBR 36341 CP I:# - CP B:# -

HYDRAULICS REPORT

Mud Density In 1.03 sg Mud Density out 1.03 sg ECD 1.05 sg PV/YP -

Gels - Salinity - PPM Cl Solids -

Hole Volume 306 bbl Annular Volume 255 bbl Tubing Volume 31 bbl Displaced Volume 30 bbl

Carbide Lag-Calculated Lag 2388 stk Flowrate 630 gpm

DrillPipe Annular Vel (Max. Dia. Sec.) 3.7 m/min DrillPipe Annular Vel (Open Hole) 66.1 m/min

Drill Collar Annular Vel (Open Hole) 140.4 m/min Critical Vel 27.0 m/min

Pressure Loss System 450 psi Pressure Loss Bit 57 psi % Pressure Loss 12.6

Nozzle Vel 26.1 m/sec Jet Impact Force 240.6 lbf HHP 20.8 hp

PRESSURE PARAMETERS

Drilling Exponent 0.27 - 0.98 Flowline Temp -

Shale Density - Shale Factor -

Background Gas - Max. Formation Gas - @ - Trip Gas - @ -

Other Gas -

Fill - Tight Hole -

Cavings Est % - Average Size -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance - Min. Estimated Fracture Pressure (Open Hole) -

Estimated Pore Pressure 1.03 sg Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ shoe

Max. Estimated Pore Pressure (Open Hole) 1.03 sg @ TD Estimated Fracture Pressure at TD -

COMMENTS

M/up 36" BHA & RIH - Tag seabed @ 119.56m. Drill 36" hole from 119.56 - 156m - pump 25 bbl guar gum every single and ream. Pump 50 bbl guar gum and sweep out of hole with 50 bbl hi-visc gel. POOH. Run and cmt csg as per programme.

M/up NB#2 and RIH with 9.875" BHA (for pilot hole). Tag cmt @ 153m, drill same and shoe @ 156m. Drill pilot hole 156 - 630m. Circ and cond hole. Drop survey on btm. POOH.

P/up and m/up new 9.875" BHA w/ 17.5" h/o. RIH w/ same.

EXLOG
A Baker Hughes company

DRILLBYTE MORNING REPORT NO 2

COMPANY	BHP Petroleum	WELL	LA BELLA - 1
DATE	23.01.93	TIME	24:00 hrs
DEPTH	628m (17.5") 633m (9.875")	LAST REPORT DEPTH	630m
RIG OPERATIONS	Running 13.375" csg.		
REPORT BY	Matt Sale	REPORT RECEIVED BY	J.Dickson/T.Howe (OPTR)

DRILLING REPORT

Bit No. RR2.1 | Type SECURITY S33SF | Size 9.875 in | Jets Open

On Bit: Distance 477.0 m | Hours 6:29 hh:mm | ROP 73.4 m/hr (avg) | WOB 5 - 25 klb | RPM 100 - 120

Pump Press 800 - 1150 | SPM 188 | Torque 80 - 310 | TBR 36998 | CP I:# - | CP B:# -

HYDRAULICS REPORT

Mud Density In 1.03 sg | Mud Density out 1.03 sg | ECD 1.03sg | PV/YP -

Gels - | Salinity - | PPM Cl | Solids -

Hole Volume 623 bbl | Annular Volume 571 bbl | Tubing Volume 31 bbl | Displaced Volume 31 bbl

Carbide Lag-Calculated Lag 4457 stk | Flowrate 1010 gpm

DrillPipe Annular Vel (Max. Dia. Sec.) 5.9 m/min | DrillPipe Annular Vel (Open Hole) 27.0 m/min

Drill Collar Annular Vel (Open Hole) 31.1 m/min | Critical Vel 25.4 m/min

Pressure Loss System 1150 psi | Pressure Loss Bit 145 psi | % Pressure Loss 12.6

Nozzle Vel 41.9 m/sec | Jet Impact Force 618.5 lbf | HHP 85.6 hp

PRESSURE PARAMETERS

Drilling Exponent - | Flowline Temp -

Shale Density - | Shale Factor -

Background Gas - | Max. Formation Gas - @ - | Trip Gas - @ -

Other Gas -

Fill - | Tight Hole -

Cavings Est % - | Average Size -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance - | Min. Estimated Fracture Pressure (Open Hole) -

Estimated Pore Pressure 1.03 sg | Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ 156m

Max. Estimated Pore Pressure (Open Hole) 1.03 sg @ TD | Estimated Fracture Pressure at TD -

COMMENTS

Cont RIH. Drill cmt & shoe and open out to 17.5" hole.
Open hole from 9.875" to 17.5" to 350m - Pump 30 bbls Guar Gum & sweep out with s/water.
Run survey on wireline @ 350m. Deviation 0.0 deg at 350m. Cont drill 17.5" hole to 628m.
Pump 30 bbl guar gum each stand. Pump excess guar gum to sweep hole clean.
Circ @ condition hole w/ 50 bbl guar gum and kill mud. Drop survey. POOH.
Run & cmt 13.375" csg as per programme.

EXLOG
A Baker Hughes company

DRILLBYTE MORNING REPORT NO

COMPANY BHP Petroleum WELL LA BELLA - 1

DATE 24.01.93 TIME 24:00 hrs

DEPTH 628m (17.5") LAST REPORT DEPTH 628m

RIG OPERATIONS Running riser & BOP's.

REPORT BY Matt Sale REPORT RECEIVED BY J.Dickson/T.Howe (OPTR)

DRILLING REPORT

Bit No. - Type - Size - in Jets -

On Bit: Distance - m Hours - hh:mm ROP - WOB - RPM -

Pump Press - SPM - Torque - TBR - CP I:Ø - CP B:Ø -

HYDRAULICS REPORT

Mud Density In - sg Mud Density out - sg ECD - PV/YP -

Gels - Salinity - PPM Cl Solids -

Hole Volume - Annular Volume - Tubing Volume - Displaced Volume -

Carbide Lag-Calculated Lag - Flowrate -

DrillPipe Annular Vel (Max. Dia. Sec.) - DrillPipe Annular Vel (Open Hole) -

Drill Collar Annular Vel (Open Hole) - Critical Vel -

Pressure Loss System - Pressure Loss Bit - % Pressure Loss -

Nozzle Vel - Jet Impact Force - HHP -

PRESSURE PARAMETERS

Drilling Exponent - Flowline Temp -

Shale Density - Shale Factor -

Background Gas - Max. Formation Gas - @ - Trip Gas - @ -

Other Gas -

Fill - Tight Hole -

Cavings Est % - Average Size -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance - Min. Estimated Fracture Pressure (Open Hole) -

Estimated Pore Pressure 1.03 sg Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ shoe

Max. Estimated Pore Pressure (Open Hole) 1.03 sg @ TD Estimated Fracture Pressure at TD -

COMMENTS

Cont to run 13.375" casing as per programme.

R/up to run riser. R/up BOP's and suface test functions.

M/up double of riser onto BOP's and run same.

Pressure test choke and kill lines.

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DRILLBYTE MORNING REPORT NO 4

COMPANY BHP Petroleum WELL LA BELLA - 1

DATE 25.01.93 TIME 24:00 hrs

DEPTH 628m LAST REPORT DEPTH 628m

RIG OPERATIONS RIH to drill cmt & shoe.

REPORT BY Matt Sale REPORT RECEIVED BY J.Dickson/T.Howe (OPTR)

DRILLING REPORT

Bit No. RR3 Type SEC S33G Size 12.250 in Jets Open

On Bit: Distance - m Hours - hh:mm ROP - WOB - RPM -

Pump Press - SPM - Torque - TBR - CP 1:0 - CP B:0 -

HYDRAULICS REPORT

Mud Density In 1.03 sg Mud Density out 1.03 sg ECD - PV/YP -

Gels - Salinity - PPM Cl Solids -

Hole Volume 396 bbl Annular Volume 336 bbl Tubing Volume 30 bbl Displaced Volume 29 bbl

Carbide Lag-Calculated Lag 2622 stks @ 628m Flowrate -

DrillPipe Annular Vel (Max. Dia. Sec.) - DrillPipe Annular Vel (Open Hole) -

Drill Collar Annular Vel (Open Hole) - Critical Vel -

Pressure Loss System - Pressure Loss Bit - % Pressure Loss -

Nozzle Vel - Jet Impact Force - HHP -

PRESSURE PARAMETERS

Drilling Exponent - Flowline Temp -

Shale Density - Shale Factor -

Background Gas - Max. Formation Gas - @ - Trip Gas - @ -

Other Gas -

Fill - Tight Hole -

Cavings Est % - Average Size -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance - Min. Estimated Fracture Pressure (Open Hole) -

Estimated Pore Pressure 1.03 sg Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ shoe

Max. Estimated Pore Pressure (Open Hole) 1.03 sg @ TD Estimated Fracture Pressure at TD -

COMMENTS

Cont run BOP's. WOW. Work boat unable to launch rescue boat.
Cont run BOP's. Install choke & kill lines. P/up tension support ring, land BOP's.
Manouvre ROV into position on latch indicator.
Install diverter. R/dwn riser running gear.
R/up & run test tool - test BOP's - ok. POOH & l/out test tool.
M/up w/bushing on r/t - RIH & set same - POOH - r/dwn r/t.
M/up new 12.25" BHA and bit & RIH.

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DRILLBYTE MORNING REPORT NO 5

COMPANY: BHP Petroleum
WELL: LA BELLA - 1
DATE: 26.01.93
TIME: 24;00 hrs
DEPTH: 630 m
LAST REPORT DEPTH: 628 m
RIG OPERATIONS: RIH w/ NB#4.
REPORT BY: Matt Sale
REPORT RECEIVED BY: J.Dickson/T.Howe (OPTR)

DRILLING REPORT

Bit No. NB#3 | Type Security S44G | Size 12.250 in | Jets Open
On Bit: Distance 2.0 m | Hours 0:51 hh:mm | ROP 120 m/hr | WOB 5 - 10 klb | RPM 55
Pump Press 450 psi | SPM 117 | Torque 100 | TBR 30976 | CP I:Ø - | CP B:Ø -

HYDRAULICS REPORT

Mud Density In 1.03 sg | Mud Density out 1.03 sg | ECD 1.03 sg | PV/YP 1/1
Gels - | Salinity - | PPM Cl | Solids -
Hole Volume 397 bbl | Annular Volume 337 bbl | Tubing Volume 31 bbl | Displaced Volume 29 bbl
Carbide Lag-Calculated Lag 2629 stks | Flowrate 629 gpm
DrillPipe Annular Vel (Max. Dia. Sec.) 12.9 m/min | DrillPipe Annular Vel (Open Hole) -
Drill Collar Annular Vel (Open Hole) 54.6 m/min | Critical Vel 25.9 m/min
Pressure Loss System 443 psi | Pressure Loss Bit 56 psi | % Pressure Loss 12.7
Nozzle Vel 26.1 m/sec | Jet Impact Force 239.9 lbf | HHP 20.7 hp

PRESSURE PARAMETERS

Drilling Exponent - | Flowline Temp 17.6 deg C
Shale Density - | Shale Factor -
Background Gas Nil | Max. Formation Gas Nil | @ - | Trip Gas Nil | @ -
Other Gas Nil
Fill - | Tight Hole -
Cavings Est % - | Average Size -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance 0.60 sg | Min. Estimated Fracture Pressure (Open Hole) 1.69 sg at shoe
Estimated Pore Pressure 1.03 sg | Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ shoe
Max. Estimated Pore Pressure (Open Hole) 1.03 sg @ TD | Estimated Fracture Pressure at TD 1.69 sg

COMMENTS

Cont RIH and tag TOC plug @ 576.10m. BRK circ & circ w/ saewater.
Drill cmt & plugs, shoe and rathole f/ 576m - 628m
Drill 12.25' hole from 628 - 630m. Displace hole to mud and circ.
Pull back into shoe and perform LOT (1.69 sg)
POOH.
L/ou spud assy.
M/up NB#4 and test mwd tool.
Cont RIH.

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DRILLBYTE MORNING REPORT NO 6

COMPANY 27.01.93 WELL LA BELLA - 1

DATE BHP Petroleum TIME 24:00 hrs

DEPTH 1182m LAST REPORT DEPTH 630m

RIG OPERATIONS Drilling ahead.

REPORT BY Matt Sale REPORT RECEIVED BY J.Dickson/T.How (OPTR)

DRILLING REPORT

Bit No. NB#4 Type HTC ATM 18 Size 12.250 in Jets 2 x 16, 1 x 12

On Bit: Distance 552 m m Hours 17:37 hh:mm ROP 15 - 85 m/hr WOB 3 - 43 klb RPM 70 - 130

Pump Press 3000 psi SPM 129 Torque 200 - 350 TBR - CP I:# - CP B:# -

HYDRAULICS REPORT

Mud Density In 1.11 sg Mud Density out 1.11 sg ECD 1.13 sg PV/YP 16/24

Gels 10/21 Salinity 31000 PPM Cl Solids 6.6%

Hole Volume 702 bbl Annular Volume 584 bbl Tubing Volume 60 bbl Displaced Volume 58 bbl

Carbide Lag-Calculated Lag 4558 stks (carbide) Flowrate 695 gpm

DrillPipe Annular Vel (Max. Dia. Sec.) 14.3 m/min DrillPipe Annular Vel (Open Hole) 42.0 m/min

Drill Collar Annular Vel (Open Hole) 65.0 m/min Critical Vel 139.9 m/min

Pressure Loss System 3000 psi Pressure Loss Bit 1627 psi % Pressure Loss 54.2

Nozzle Vel 135.1 m/sec Jet Impact Force 1478.0 lbf HHP 659.3 hp

PRESSURE PARAMETERS

Drilling Exponent 0.60 - 1.48 Flowline Temp 41.8 deg C

Shale Density - Shale Factor -

Background Gas Nil Max. Formation Gas Nil @ - Trip Gas Nil @ 630m

Other Gas Nil

Fill Nil Tight Hole Nil

Cavings Est % Nil Average Size -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance 0.303 sg Min. Estimated Fracture Pressure (Open Hole) 1.69 sg at shoe

Estimated Pore Pressure 1.03 sg Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ shoe

Max. Estimated Pore Pressure (Open Hole) 1.03 sg @ TD Estimated Fracture Pressure at TD 1.83 sg

COMMENTS All pore pressure parameters are normal.
Continue to RIH.
Fill pipe and ream to btm w/ last std. No trip gas on bottoms up.
Drill 12.25" hole from 630 - 1182m
Carbide run at 959m indicates open hole from 630 - 959m = 13.72"/11.96% overgauge.

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DRILLBYTE MORNING REPORT NO 7

COMPANY BHP Petroleum WELL LA BELLA - 1

DATE 28.01.93 TIME 24:00 hrs

DEPTH 1656m LAST REPORT DEPTH 1182m

RIG OPERATIONS Drilling ahead.

REPORT BY Matt Sale REPORT RECEIVED BY J.Dickson/T.How (OPTR)

DRILLING REPORT

Bit No. NB#4 Type HTC ATM18 Size 12.250 in Jets 2 x 16, 1 x 12

On Bit: Distance 1026m m Hours 34:42 hh:mm ROP 7 - 369 m/hr WOB 0 - 41 klb RPM 120 - 130

Pump Press 3000psi SPM 125 Torque 200 - 650 TBR - CP I:# - CP B:# -

HYDRAULICS REPORT

Mud Density In 1.11 sg Mud Density out 1.11 sg ECD 1.12 sg PV/YP 15/20

Gels 7/16 Salinity 35000 PPM Cl Solids 6.6%

Hole Volume 930 bbl Annular Volume 772 bbl Tubing Volume 88 bbl Displaced Volume 70 bbl

Carbide Lag-Calculated Lag 6026 stks (carbide) Flowrate 670 gpm

DrillPipe Annular Vel (Max. Dia. Sec.) 13.8 m/min DrillPipe Annular Vel (Open Hole) 40.5 m/min

Drill Collar Annular Vel (Open Hole) 62.6 m/min Critical Vel 124.8 m/min

Pressure Loss System 3000 psi Pressure Loss Bit 1512 psi % Pressure Loss 50

Nozzle Vel 130.2 m/sec Jet Impact Force 1373.6 lbf HHP 590.7 hp

PRESSURE PARAMETERS

Drilling Exponent 0.35 - 1.58 Flowline Temp 48.6 deg C

Shale Density - Shale Factor -

Background Gas Nil Max. Formation Gas Nil @ - Trip Gas Nil @ -

Other Gas Nil

Fill Nil Tight Hole Nil

Cavings Est % Nil Average Size -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance 0.255 sg * Min. Estimated Fracture Pressure (Open Hole) 1.463 sg @ 1194m

Estimated Pore Pressure 1.03 sg Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ shoe

Max. Estimated Pore Pressure (Open Hole) 1.03 sg @ TD Estimated Fracture Pressure at TD 1.797 sg

COMMENTS

All pore pressure parameters indicate normal pore pressure exists.

Drill ahead 12.25" from 1182 - 1656m.

FLC drill break @ 1204m - static.

FLC suspected pit gain @ 1570m - static.

Lose approx 33 bbl/hr whilst drilling sandstone from 1194 - 1278m.

Top of sandstone at 1194m has estimated new low fracture gradient of 1.463 sg.

* Based on new low fracture pressure gradient of 1.463 sg @ 1194m.

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DRILLBYTE MORNING REPORT NO 8

COMPANY BHP Petroleum WELL LA BELLA - 1

DATE 29.01.93 TIME 24:00 hrs

DEPTH 1800m LAST REPORT DEPTH 1656m

RIG OPERATIONS POOH.

REPORT BY Matt Sale REPORT RECEIVED BY J.Dickson (OPTR)

DRILLING REPORT

Bit No. NB#4 Type HTC ATM18 Size 12.250 in Jets 2 x 16, 1 x 12

On Bit: Distance 1170 m Hours 46:39 hh:mm ROP 7 - 39 m/hr WOB 30 - 41 klb RPM 120

Pump Press 3000 psi SPM 125 Torque 250 - 550 TBR 332,247 CP I:# - CP B:# -

HYDRAULICS REPORT

Mud Density In 1.13 sg Mud Density out 1.13 sg ECD 1.14 sg PV/YP 16/24

Gels 10/28 Salinity 42000 PPM Cl Solids 7.5%

Hole Volume 1007 bbl Annular Volume 837 bbl Tubing Volume 96 bbl Displaced Volume 74 bbl

Carbide Lag-Calculated Lag 6536 stk (bases on carbide) Flowrate 670 gpm

DrillPipe Annular Vel (Max. Dia. Sec.) 13.8 m/min DrillPipe Annular Vel (Open Hole) 36.1 m/min

Drill Collar Annular Vel (Open Hole) 62.6 m/min Critical Vel 139.0 m/min

Pressure Loss System 3000 psi Pressure Loss Bit 1526 psi % Pressure Loss 51

Nozzle Vel 130.2 m/sec Jet Impact Force 1385.9 lbf HHP 596.0 hp

PRESSURE PARAMETERS

Drilling Exponent 1.34 - 1.61 Flowline Temp 48.6 deg C

Shale Density - Shale Factor -

Background Gas 0.03% Max. Formation Gas 0.04% @ - Trip Gas Nil @ 1800m

Other Gas Nil

Fill 10m Tight Hole See below

Cavings Est % Nil Average Size -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance 0.228 sg Min. Estimated Fracture Pressure (Open Hole) 1.463 sg @ 1194m

Estimated Pore Pressure 1.03 sg Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ shoe

Max. Estimated Pore Pressure (Open Hole) 1.03 sg @ TD Estimated Fracture Pressure at TD 1.804 sg

COMMENTS

All pore pressure parameters remain nomal.
Drill new 12.25" hole 1656 - 1800m.
Circ hole clean. Pump slug & POOH to 1538m w/ intermittent drag of up to 30 klbs.
Wash/ream through tight hole from 1538 - 1455m w/ drag of up to 100 klbs.
Cont POOH to 1222m - hole good - took good mud.
RIH to 1639m - pipe stood up. Wash/ream 1639 - 1800m. 10m fill on bottom.
Circ hole clean. Pump slug & POOH - int drag 1571 - 1077m of up to 30 klbs.
Carbide run at 1715m indicates avg open hole diameter is 12.85"

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DRILLBYTE MORNING REPORT NO 9

COMPANY BHP Petroleum WELL LA BELLA - 1

DATE 30.01.93 TIME 24:00 hrs

DEPTH 1800m LAST REPORT DEPTH 1800m

RIG OPERATIONS Running E-logs.

REPORT BY Matt Sale REPORT RECEIVED BY J. Dickson (OPTR)

DRILLING REPORT

Bit No. - Type - Size - in Jets -

On Bit: Distance - m Hours - hh:mm ROP - WOB - RPM -

Pump Press - SPM - Torque - TBR - CP I:# - CP B:# -

HYDRAULICS REPORT

Mud Density In 1.11 sg Mud Density out - sg ECD - PV/YP 15/21

Gels 7/18 Salinity 42000 PPM Cl Solids 6.6%

Hole Volume 1007 bbl Annular Volume - Tubing Volume - Displaced Volume -

Carbide Lag-Calculated Lag - Flowrate -

DrillPipe Annular Vel (Max. Dia. Sec.) - DrillPipe Annular Vel (Open Hole) -

Drill Collar Annular Vel (Open Hole) - Critical Vel -

Pressure Loss System - Pressure Loss Bit - % Pressure Loss -

Nozzle Vel - Jet Impact Force - HHP -

PRESSURE PARAMETERS

Drilling Exponent - Flowline Temp -

Shale Density - Shale Factor -

Background Gas - Max. Formation Gas - @ - Trip Gas - @ -

Other Gas -

Fill - Tight Hole -

Cavings Est % - Average Size -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance 0.228 sg Min. Estimated Fracture Pressure (Open Hole) 1.463 sg @ 1194m

Estimated Pore Pressure 1.03 sg Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ shoe

Max. Estimated Pore Pressure (Open Hole) 1.03 sg @ TD Estimated Fracture Pressure at TD 1.804 sg

COMMENTS

Cont POOH w/ intermittent drag 1077 - 787m.
Dump memory from MWD tool.
R/up Schlumberger to run logs.
R/up & run Log#1 DLT-MSFL-SONIC-GR-AMS
R/up & run Log#2 C-SAT
R/up & run Log#3 CST

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DRILLBYTE MORNING REPORT NO 10

COMPANY BHP Petroleum WELL LA BELLA - 1

DATE 31.01.93 TIME 24:00hrs

DEPTH 1800m LAST REPORT DEPTH 1800m

RIG OPERATIONS Running 9.625' csg.

REPORT BY Matt Sale REPORT RECEIVED BY J. Dickson (OPTR)

DRILLING REPORT

Bit No. RR4.1 Type HTC ATM 18 Size 12.250 in Jets 2 x 16, 1 x 12

On Bit: Distance - m Hours - hh:mm ROP - WOB 10 - 20 RPM 120

Pump Press 1000 SPM 130 Torque 100 - 500 TBR - CP I:0 - CP B:0 -

HYDRAULICS REPORT

Mud Density In 1.13 sg Mud Density out 1.13 sg ECD - PV/YP 18/25

Gels 8/20 Salinity 43000 PPM Cl Solids 7.5%

Hole Volume 1007 bbl Annular Volume 837 bbl Tubing Volume 96 bbl Displaced Volume 74 bbl

Carbide Lag-Calculated Lag 6536 stks (carbide) Flowrate 700 gpm

DrillPipe Annular Vel (Max. Dia. Sec.) - DrillPipe Annular Vel (Open Hole) -

Drill Collar Annular Vel (Open Hole) - Critical Vel -

Pressure Loss System - Pressure Loss Bit - % Pressure Loss -

Nozzle Vel - Jet Impact Force - HHP -

PRESSURE PARAMETERS

Drilling Exponent - Flowline Temp -

Shale Density - Shale Factor -

Background Gas - Max. Formation Gas - @ - Trip Gas 0.07 % @ 1800m

Other Gas Nil

Fill 16m Tight Hole Nil

Cavings Est % Nil Average Size -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance 0.221 sg Min. Estimated Fracture Pressure (Open Hole) 1.463 sg @ 1194m

Estimated Pore Pressure 1.03 sg Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ shoe

Max. Estimated Pore Pressure (Open Hole) 1.03 sg @ TD Estimated Fracture Pressure at TD 1.804 sg

COMMENTS

R/dwn Log #3 CST (60 fired, 4 lost). R/dwn Schlumberger.
M/up cmt head on std HWDP. M/up 9.625" csg hanger and rack back.
M/up BHA aand RIH to shoe - fill pipe. Cont RIH.
Ream from 1768 - 1800m.
Work junk sub on bottom.
Circ and cond hole. Displace w/ 200 bbl KCL (10%) mud & spot on bottom.
Pump slug - POOH. Hole good - normal overpull
R/up and run 9.625" casing.

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DRILLBYTE MORNING REPORT NO 11

COMPANY BHP Petroleum WELL LA BELLA - 1

DATE 01.02.93 TIME 24:00hrs

DEPTH 1800m LAST REPORT DEPTH 1800m

RIG OPERATIONS RIH w/ NBN#5.

REPORT BY Matt Sale REPORT RECEIVED BY J.Dickson/J.Boorman (OPTR)

DRILLING REPORT

Bit No. - Type - Size - in Jets -

On Bit: Distance - m Hours - hh:mm ROP - WOB - RPM -

Pump Press - SPM - Torque - TBR - CP I:# - CP B:# -

HYDRAULICS REPORT

Mud Density In 1.12 sg Mud Density out 1.12 sg ECD - PV/YP -

Gels - Salinity - PPM Cl Solids -

Hole Volume 547 bbl Annular Volume - Tubing Volume - Displaced Volume -

Carbide Lag-Calculated Lag - Flowrate -

DrillPipe Annular Vel (Max. Dia. Sec.) - DrillPipe Annular Vel (Open Hole) -

Drill Collar Annular Vel (Open Hole) - Critical Vel -

Pressure Loss System - Pressure Loss Bit - % Pressure Loss -

Nozzle Vel - Jet Impact Force - HHP -

PRESSURE PARAMETERS

Drilling Exponent - Flowline Temp -

Shale Density - Shale Factor -

Background Gas - Max. Formation Gas - @ - Trip Gas - @ -

Other Gas -

Fill - Tight Hole -

Cavings Est % - Average Size -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance - Min. Estimated Fracture Pressure (Open Hole) -

Estimated Pore Pressure 1.03 sg Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ shoe

Max. Estimated Pore Pressure (Open Hole) 1.03 sg @ TD Estimated Fracture Pressure at TD 1.804 sg

COMMENTS

RIH & land csg.
Circ csg w. rig pump.
Test lines.
Cement as per programme.
Test BOP's
L/out 12.25" BHA amd m/up NB#5. - RIH w/ same.

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DRILLBYTE MORNING REPORT NO 12

COMPANY BHP Petroleum WELL LA BELLA - 1

DATE 02.02.93 TIME 24:00 hrs

DEPTH 1922m LAST REPORT DEPTH 1800m

RIG OPERATIONS Drilling ahead 8.5" hole.

REPORT BY Matt Sale REPORT RECEIVED BY J.Dickson/J.Boorman (OPTR)

DRILLING REPORT

Bit No. NB#5 Type HTC ATM22 Size 8.500 in Jets 13, 12, 12

On Bit: Distance 122 m Hours 12:44 hh:mm ROP 2 - 15 m/hr WOB 20 - 36 klb RPM 118 - 120

Pump Press 2500 psi SPM 87 Torque 300 - 380 TBR - CP I:# - CP B:# -

HYDRAULICS REPORT

Mud Density In 1.14 sg Mud Density out 1.14 sg ECD 1.19 sg PV/YP 11/18

Gels 6/18 Salinity 48000 PPM Cl Solids 8.0%

Hole Volume 580 bbl Annular Volume 413 bbl Tubing Volume 102 bbl Displaced Volume 65 bbl

Carbide Lag-Calculated Lag 3227 stks (calc) Flowrate 470 gpm

DrillPipe Annular Vel (Max. Dia. Sec.) 9.6 m/min DrillPipe Annular Vel (Open Hole) -

Drill Collar Annular Vel (Open Hole) 117.0 m/min Critical Vel 138.5 m/min

Pressure Loss System 2500 psi Pressure Loss Bit 1575 psi % Pressure Loss 63

Nozzle Vel 131.1 m/sec Jet Impact Force 996.5 lbf HHP 431.5 hp

PRESSURE PARAMETERS

Drilling Exponent 1.46 - 1.63 Flowline Temp 42.8 deg C

Shale Density - Shale Factor -

Background Gas 0.05% Max. Formation Gas 0.06% @ - Trip Gas Nil @ 1800m

Other Gas Nil

Fill - Tight Hole Nil

Cavings Est % Nil Average Size -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance 0.799 sg Min. Estimated Fracture Pressure (Open Hole) 2.00 sg @ shoe

Estimated Pore Pressure 1.03 sg Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ shoe

Max. Estimated Pore Pressure (Open Hole) 1.03 sg @ TD Estimated Fracture Pressure at TD 2.007 sg

COMMENTS All pore pressure parameters remain normal.
Cont RIH w/ NB#5 HTC ATM22.
Tag TOC @ 1743m.
Drill frm cmt f/ 1743m - hard cmt f/ 1745m. - Work through shoe track & rathole to 1800m.
Drill ahead f/ 1800 - 1803m. Pull back into shoe.
Perform LOT - EQMD=2.00 sg.
RIH to 1800m & drill ahead new 8.5" hole f/ 1800 - 1922m.

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DRILLBYTE MORNING REPORT NO 13

COMPANY BHP Petroleum WELL LA BELLA - 1

DATE 03.02.93 TIME 24:00 hrs

DEPTH 2071m LAST REPORT DEPTH 1922m

RIG OPERATIONS RIH to cut core #1

REPORT BY Matt Sale REPORT RECEIVED BY J.Dickson/J.Borrman (OPTR)

DRILLING REPORT

Bit No. NB#5 Type HTC ATM22 Size 8.500 in Jets 13, 12, 12

On Bit: Distance 271m m Hours 23:50 hh:mm ROP 6 - 50.6 m/hr WOB 35 klb RPM 120

Pump Press 2300-2500 SPM 83-88 Torque 240-400 TBR - CP I:# - CP B:# -

HYDRAULICS REPORT

Mud Density In 1.14 sg Mud Density out 1.14 sg ECD 1.20 PV/YP 17/21

Gels 6/14 Salinity 54000 PPM Cl Solids 7.8%

Hole Volume 614 bbl Annular Volume 435 bbl Tubing Volume 111 bbl Displaced Volume 69 bbl

Carbide Lag-Calculated Lag 3395 stks (calc) Flowrate 441 gpm

DrillPipe Annular Vel (Max. Dia. Sec.) 9.0 m/min DrillPipe Annular Vel (Open Hole) 71.6 m/min

Drill Collar Annular Vel (Open Hole) 109.6 m/min Critical Vel 162.1 m/min

Pressure Loss System 2300 psi Pressure Loss Bit 1380 psi % Pressure Loss 60

Nozzle Vel 122.8 m/sec Jet Impact Force 873.3 lbf HHP 354 hp

PRESSURE PARAMETERS

Drilling Exponent 0.93 - 2.60 Flowline Temp 43.5 deg C

Shale Density - Shale Factor -

Background Gas 0.10% Max. Formation Gas 7.7% @ 2070m Trip Gas - @ -

Other Gas Nil

Fill Nil Tight Hole Nil

Cavings Est % Nil Average Size -

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance 0.55 sg Min. Estimated Fracture Pressure (Open Hole) 1.69 sg @ 2065m

Estimated Pore Pressure 1.03 sg Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ shoe

Max. Estimated Pore Pressure (Open Hole) 1.03 sg @ TD Estimated Fracture Pressure at TD 1.69 sg

COMMENTS All pore pressure parameters normal.
New min frac gradient of 1.69 sg reached at 2065m (sandstone).
Drill f/ 1922 - 2071m.
FLC drill breaks @ 2009,2032,2063,2069m - all static.
CBU sample at 2071m.
FLC & slug pipe. POOH to core. Hole good. Took good mud.
M/up core barrel assy.

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DRILLBYTE MORNING REPORT NO 14

COMPANY BHP Petroleum WELL LA BELLA - 1

DATE 04.02.93 TIME 24:00hr

DEPTH 2146m LAST REPORT DEPTH 2071m

RIG OPERATIONS Drill Ahead, circulate bottoms up at each connection.

REPORT BY Andre Thangam REPORT RECEIVED BY J.Dickson/J.Borrman (OPTR)

DRILLING REPORT

Bit No. NB#7 Type HTC ATM22 Size 8.500 in Jets 3x12

On Bit: Distance 47.0 m Hours 1:02 hh:mm ROP 20.9 m/hr WOB 25-35 klb RPM 116-120

Pump Press 2170 psi SPM 78 Torque 63-220 TBR 22661 CP I:$ 758 CP B:$ 1899

HYDRAULICS REPORT

Mud Density In 1.14 sg Mud Density out 1.14 sg ECD 1.18 PV/YP 14/20

Gels 4 Salinity 50000 PPM Cl Solids 8.7 %

Hole Volume 632 bbl Annular Volume 447 bbl Tubing Volume 115 bbl Displaced Volume 69 bbl

Carbide Lag-Calculated Lag 3491 stks Flowrate 418 gpm

DrillPipe Annular Vel (Max. Dia. Sec.) 8.6 m/min DrillPipe Annular Vel (Open Hole) 66.8 m/min

Drill Collar Annular Vel (Open Hole) 104 m/min Critical Vel 153 m/min

Pressure Loss System 2051 psi Pressure Loss Bit 1382 psi % Pressure Loss 67.4%

Nozzle Vel 123 m/sec Jet Impact Force 826 lbf HHP 337 hhp

PRESSURE PARAMETERS

Drilling Exponent 0.61-1.56 Flowline Temp 40.8

Shale Density Shale Factor

Background Gas 0.10% Max. Formation Gas 3.6% @ 2139m Trip Gas 0.33% @ 2099m

Other Gas TG=0.17% while coring.

Fill Tight Hole

Cavings Est % Average Size

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance 0.41 sg Min. Estimated Fracture Pressure (Open Hole) 1.55 sg @ 2146m

Estimated Pore Pressure 1.03sg Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ 2146m

Max. Estimated Pore Pressure (Open Hole) 1.03 sg @ TD Estimated Fracture Pressure at TD 1.55 sg

COMMENTS M/u core assy. RIH to 2014m. Wash f/ 2014m to 2071m. Circ. Drop ball .
Cut core#1 f/ 2071m to 2099m. Flow check, pump slug, POOH. Hole in Good Cond. Recover core.
Break off bit + rack core barrel. Make up 8.5" bit & RIH to 2065m. Ream f/ 2065m to 2099m.
Relog w/ MWD. Drill 8.5" hole f/ 2099m to 2114m. Circ BU. Resistivity log f/ 2110m to 2114m.
Cont. circ. Resume drilling 8.5" hole to 2146m.

EXLOG
A Baker Hughes company

DRILLBYTE MORNING REPORT NO 15

COMPANY BHP Petroleum WELL LA BELLA - 1

DATE 05.02.93 TIME 24:00 hr

DEPTH 2399m LAST REPORT DEPTH 2146m

RIG OPERATIONS Drill ahead

REPORT BY Andre Thangam REPORT RECEIVED BY J. Dickson/J. Borrman (OPTR)

DRILLING REPORT

Bit No. NB#7 Type HTC ATM22 Size 8.500 in Jets 3x12

On Bit: Distance 300.0 m Hours 19:38 hh:mm ROP 14.5 m/hr WOB 22-36 klb RPM 98-101

Pump Press 2270 psi SPM 51-78 Torque 75-221 TBR 140491 CP I:# 561 CP B:# 850

HYDRAULICS REPORT

Mud Density In 1.13 sg Mud Density out 1.14 sg ECD 1.18 sg PV/YP 15/18

Gels 4/12 Salinity 47000 PPM Cl Solids 8.6%

Hole Volume 688 bbl Annular Volume 483 bbl Tubing Volume 130 bbl Displaced Volume 75 bbl

Carbide Lag-Calculated Lag 3770 stk Flowrate 421 gpm

DrillPipe Annular Vel (Max. Dia. Sec.) 8.6 m/hr DrillPipe Annular Vel (Open Hole) 66.8 m/hr

Drill Collar Annular Vel (Open Hole) 104 m/hr Critical Vel 147 m/hr

Pressure Loss System 2126 psi Pressure Loss Bit 1382 psi % Pressure Loss 65 %

Nozzle Vel 123 m/sec Jet Impact Force 826 lbf HHP 337 hhp

PRESSURE PARAMETERS

Drilling Exponent 0.97- 1.70 Flowline Temp 42.3 C

Shale Density Shale Factor

Background Gas 0.06 % Max. Formation Gas 6.57% @ 2161m Trip Gas - @

Other Gas 6.04% @ 2297m., 2.03% @ 2337m

Fill Tight Hole

Cavings Est % Average Size

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance 0.37 sg Min. Estimated Fracture Pressure (Open Hole) 1.550 sg @ 2150m

Estimated Pore Pressure 1.03 sg Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ 2399m

Max. Estimated Pore Pressure (Open Hole) 1.03 sg @ 2399m Estimated Fracture Pressure at TD 1.554 sg

COMMENTS Drill 8.5" hole from 2146m to 2174m, Flow check drill brk. Circ BU. Drill to 2262m. Flow check drill break. Drill to 2399m, Flow check.

Flow check were also made at 2280m, 2290m, 2301m, 2336m.

EXLOG
A Baker Hughes company

DRILLBYTE MORNING REPORT NO 16

COMPANY BHP Petroleum | WELL LA BELLA - 1

DATE 06.02.93 | TIME 24:00 hr

DEPTH 2545 m | LAST REPORT DEPTH 2399m

RIG OPERATIONS POOH to change bit.

REPORT BY Andre Thangam | REPORT RECEIVED BY J. Dickson/J. Borrman (OPTR)

DRILLING REPORT

Bit No. NB#6 | Type HTC | Size 8.500 in | Jets 3x12

On Bit: Distance 446 m | Hours 34:07 hh:mm | ROP 10.1m/hr | WOB 26-34 klb | RPM 98-104

Pump Press 2330 psi | SPM 62-78 | Torque 69-350 amp | TBR 223733 | CP 1:# 1332 | CP B:# 844

HYDRAULICS REPORT

Mud Density In 1.16 sg | Mud Density out 1.17 sg | ECD 1.21 sg | PV/YP 14/21

Gels 4/12 | Salinity 44000 | PPM Cl | Solids 10.0%

Hole Volume 724 bbl | Annular Volume 507 bbl | Tubing Volume 138 bbl | Displaced Volume 79 bbl

Carbide Lag-Calculated Lag 3954 stks | Flowrate 421 gpm

DrillPipe Annular Vel (Max. Dia. Sec.) 8.6 m/min | DrillPipe Annular Vel (Open Hole) 67 m/min

Drill Collar Annular Vel (Open Hole) 105 m/min | Critical Vel 153 m/min

Pressure Loss System 2216 psi | Pressure Loss Bit 1439 psi | % Pressure Loss 64.9 %

Nozzle Vel 124 m/sec | Jet Impact Force 861 lbf | HHP 353 hhp

PRESSURE PARAMETERS

Drilling Exponent 0.68 - 1.78 | Flowline Temp 42.1 C

Shale Density | Shale Factor

Background Gas 0.1% | Max. Formation Gas 5.84% @ 2454m | Trip Gas 7.84% @ 2545m

Other Gas CG:2.02/0.2% @ 2463m, CG:3.02/0.1% @ 2522m

Fill | Tight Hole 60 klb O/P @ 2184m,

Cavings Est % | Average Size

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance 0.35 sg | Min. Estimated Fracture Pressure (Open Hole) 1.550sg @ 2150m

Estimated Pore Pressure 1.14 sg | Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ 2545m

Max. Estimated Pore Pressure (Open Hole) 1.14 sg @ 2545m | Estimated Fracture Pressure at TD 1.7 sg

COMMENTS Drill 8.5" from 2399m to 2515m. FLC d/b @ 2454, 2497m. Increase m/w to 9.8ppg w/ drilling.
Drill 2515m to 2545m, FLC. Pump slug. POOH for bit change. Pull 10 stds, triptank gain 7bbl, RIH 1 std,
Gain 2 bbl. Pull 1st std - trip tank static. RIH @ 2545m, pipe displacement approx 2 bbl/std.
Circ & work pipe - increase m/w to 1.2 sg. Flow check.
POOH. O/p of 60 klb @ 2184m. Back ream thru 2184m. Intermitant drag to 2155m. Pump slug.
Cont to POOH. Hole taking good mud.

Carbide check at 2522m indicate the average hole size is 9.7".

A Baker Hughes company

DRILLBYTE MORNING REPORT NO 17

COMPANY BHP Petroleum WELL LA BELLA - 1

DATE 07.02.93 TIME 2400 hr

DEPTH 2697m LAST REPORT DEPTH 2545m

RIG OPERATIONS Drilling ahead.

REPORT BY Andre Thangam REPORT RECEIVED BY J. Dickson/J. Borrman (OPTR)

DRILLING REPORT

Bit No. NB#7 Type Smith F2 Size 8.500 in Jets 3x12

On Bit: Distance 152.0 m Hours 12:56 hh:mm ROP 10.9 m/hr WOB 26-35 klb RPM 73-78

Pump Press 2500 psi SPM 72 - 81 Torque 134-241 TBR 61005 CP I:# 1208 CP B:# 1341

HYDRAULICS REPORT

Mud Density In 1.22 sg Mud Density out 1.22 sg ECD 1.27 sg PV/YP 17/21

Gels 4/14 Salinity 49000 PPM Cl Solids 12%

Hole Volume 757 bbl Annular Volume 527 bbl Tubing Volume 147 bbl Displaced Volume 82 bbl

Carbide Lag-Calculated Lag 4118 stks Flowrate 428 gpm

DrillPipe Annular Vel (Max. Dia. Sec.) 8.8 m/min DrillPipe Annular Vel (Open Hole) 68 m/min

Drill Collar Annular Vel (Open Hole) 107 m/min Critical Vel 154 m/min

Pressure Loss System 2469 psi Pressure Loss Bit 1564 psi % Pressure Loss 63 %

Nozzle Vel 126 m/sec Jet Impact Force 935 lbf HHP 390 hhp

PRESSURE PARAMETERS

Drilling Exponent 0.96 - 1.59 Flowline Temp 46.0 C

Shale Density Shale Factor

Background Gas 0.03 % Max. Formation Gas 0.09 % @ 2655m Trip Gas 0.03% @ 2545m

Other Gas

Fill Tight Hole

Cavings Est % Average Size

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance 0.26 sg Min. Estimated Fracture Pressure (Open Hole) 1.55 sg @ 2150m

Estimated Pore Pressure 1.14 sg Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ 2697m

Max. Estimated Pore Pressure (Open Hole) 1.14 sg @ 2697m Estimated Fracture Pressure at TD 1.71 sg

COMMENTS Cont. POOH. Hole taking good mud. Redress + M/u NB, R/RMR.
RIH to shoe. Slip and cut line. Cont. RIH to 2523m. Wash f/ 2523m to 2545m.
Drill 8.5" hole f/ 2545m to 2575m. Flow check drill break at 2567m, 2590m
Drill to 2697m.

EXLOG
A Baker Hughes company

DRILLBYTE MORNING REPORT NO 18

COMPANY: BHP Petroleum — WELL: LA BELLA - 1

DATE: 08.02.93 — TIME: 2400 hr

DEPTH: 2735 m — LAST REPORT DEPTH: 2697m

RIG OPERATIONS: Run E-Logs.

REPORT BY: Andre Thangam — REPORT RECEIVED BY: J. Dickson/J. Borrman (OPTR)

DRILLING REPORT

Bit No. NB#7 — Type: Smith F2 — Size: 8.500 in — Jets: 3x12

On Bit: Distance: 190.0 m — Hours: 18:04 hh:mm — ROP: 6.2 m/hr — WOB: 26-31 klb — RPM: 74-75

Pump Press: 2620 psi — SPM: 78-82 — Torque: 134-221 amp — TBR: 80853 — CP I:# 1371 — CP B:# 1271

HYDRAULICS REPORT

Mud Density In: 1.22 sg — Mud Density out: 1.22 sg — ECD: 1.28 sg — PV/YP: 15/22

Gels: 4/14 — Salinity: 49000 — PPM Cl — Solids: 12%

Hole Volume: 767 bbl — Annular Volume: 535 bbl — Tubing Volume: 149 bbl — Displaced Volume: 83 bbl

Carbide Lag-Calculated Lag: 4175 stk — Flowrate: 430 gpm

DrillPipe Annular Vel (Max. Dia. Sec.): 8.8 m/min — DrillPipe Annular Vel (Open Hole): 68.8 m/min

Drill Collar Annular Vel (Open Hole): 107 m/min — Critical Vel: 154 m/min

Pressure Loss System: 2465 psi — Pressure Loss Bit: 1578 psi — % Pressure Loss: 64 %

Nozzle Vel: 127 m/sec — Jet Impact Force: 944 lbf — HHP: 396 hhp

PRESSURE PARAMETERS

Drilling Exponent: 1.26 - 1.39 — Flowline Temp: 45.4 C

Shale Density: — Shale Factor:

Background Gas: 0.02% — Max. Formation Gas: 0.04% @ 2699m — Trip Gas: - @

Other Gas:

Fill: — Tight Hole: o/p 40klb @ 2581m

Cavings Est %: — Average Size:

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance: 0.26 sg — Min. Estimated Fracture Pressure (Open Hole): 1.55 sg @ 2150m

Estimated Pore Pressure: 1.14 sg — Min. Estimated Pore Pressure (Open Hole): 1.03 sg @ 2735m

Max. Estimated Pore Pressure (Open Hole): 1.14 sg @ 2735m — Estimated Fracture Pressure at TD: 1.708 sg

COMMENTS: Drill 8.5" hole from 2697m to 2735m. Circ hole clean. Flow check, pull 10 stands.
(Intermitant drag to 2581m, max o/p 40klb). Flow check, pump slug + POOH.
(intermitant drag f/ 2184m to 2155m, max o/p 30klb). Hole good, took good mud.
Dumped MWD memory, rigged up wireline.
Prepare + ran Log#1 DLL-MSLF-AS-GR-AMS. Out by 1631hrs
Log#2 FMS-LDT-CNT-GR-AMS in at 18:40 hr. Out by 22:00 hrs.
Monitor hole on trip tank - hole took 9 bbl over 12 hr period.

EXLOG
A Baker Hughes company

DRILLBYTE MORNING REPORT NO 19

COMPANY BHP Petroleum WELL LA BELLA - 1

DATE 09.02.93 TIME 2400 hr

DEPTH 2735m LAST REPORT DEPTH 2735m

RIG OPERATIONS Run RFTs

REPORT BY Andre Thangam REPORT RECEIVED BY G. Howard/J. Borrman (OPTR)

DRILLING REPORT

Bit No. - Type - Size - in Jets -

On Bit: Distance - m Hours - hh:mm ROP - WOB - RPM -

Pump Press - SPM - Torque - TBR - CP I:# - CP B:# -

HYDRAULICS REPORT

Mud Density In 1.22 sg Mud Density out 1.22 sg ECD PV/YP 15/22

Gels 4/14 Salinity 49000 PPM Cl Solids 12%

Hole Volume 767 bbl Annular Volume Tubing Volume Displaced Volume

Carbide Lag-Calculated Lag 4175 stk Flowrate -

DrillPipe Annular Vel (Max. Dia. Sec.) - DrillPipe Annular Vel (Open Hole) -

Drill Collar Annular Vel (Open Hole) - Critical Vel -

Pressure Loss System - Pressure Loss Bit - % Pressure Loss -

Nozzle Vel - Jet Impact Force - HHP -

PRESSURE PARAMETERS

Drilling Exponent - Flowline Temp -

Shale Density Shale Factor

Background Gas - Max. Formation Gas @ Trip Gas @

Other Gas

Fill Tight Hole

Cavings Est % Average Size

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance 0.26 sg Min. Estimated Fracture Pressure (Open Hole) 1.55 sg @ 2150m

Estimated Pore Pressure 1.14 sg Min. Estimated Pore Pressure (Open Hole) 1.03m sg @ 2735m

Max. Estimated Pore Pressure (Open Hole) 1.14 sg @ 2735m Estimated Fracture Pressure at TD 1.708 sg

COMMENTS

Prepare + run Log#3 FMS-GR-AMS
Prepare + run Log#4 RFT
Loss 6 bbl in the 1st 12 hours,
Loss 7 bbl in the 2nd 12 hours.

EXLOG
A Baker Hughes company

DRILLBYTE MORNING REPORT NO 20

COMPANY BHP Petroleum WELL LA BELLA - 1

DATE 10.02.93 TIME 2400 hr

DEPTH 2735 m LAST REPORT DEPTH 2735 m

RIG OPERATIONS Run VSP

REPORT BY Andre Thangam REPORT RECEIVED BY G. Howard/J. Borrman (OPTR)

DRILLING REPORT

Bit No. - Type - Size - in Jets -

On Bit: Distance - m Hours - hh:mm ROP - WOB - RPM -

Pump Press - SPM - Torque - TBR - CP I:# - CP B:# -

HYDRAULICS REPORT

Mud Density In 1.22 sg Mud Density out - sg ECD - PV/YP 15/22

Gels 4/14 Salinity 49000 PPM Cl Solids 12%

Hole Volume 767 bbl Annular Volume - Tubing Volume - Displaced Volume -

Carbide Lag-Calculated Lag 4175 stk Flowrate -

DrillPipe Annular Vel (Max. Dia. Sec.) - DrillPipe Annular Vel (Open Hole) -

Drill Collar Annular Vel (Open Hole) - Critical Vel -

Pressure Loss System - Pressure Loss Bit - % Pressure Loss -

Nozzle Vel - Jet Impact Force - HHP -

PRESSURE PARAMETERS

Drilling Exponent - Flowline Temp -

Shale Density Shale Factor

Background Gas - Max. Formation Gas @ Trip Gas @

Other Gas

Fill Tight Hole

Cavings Est % Average Size

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance 0.26 sg Min. Estimated Fracture Pressure (Open Hole) 1.55 sg @ 2150m

Estimated Pore Pressure 1.14 sg Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ 2240m

Max. Estimated Pore Pressure (Open Hole) 1.17 @ 2735m Estimated Fracture Pressure at TD 1.708 sg

COMMENTS

Logging with Schlumbeger. Suite#2.
M/U VSP. Run VSS.
Run #7. CST
Run#8 CST
Run#9 VSP
Hole took 2 bbl in 1st 12 hours and 2.5 bbl in 2nd 12 hours.

DRILLBYTE MORNING REPORT NO 21

EXLOG
A Baker Hughes company

COMPANY BHP Petroleum WELL LA BELLA - 1

DATE 11.02.93 TIME 2400 hr

DEPTH 2735m LAST REPORT DEPTH 2735m

RIG OPERATIONS Breaking Down stands.

REPORT BY Andre Thangam REPORT RECEIVED BY G Howard (OPTR)

DRILLING REPORT

Bit No. - Type - Size - in Jets -

On Bit: Distance - m Hours - hh:mm ROP - WOB - RPM -

Pump Press - SPM - Torque - TBR - CP I:# - CP B:# -

HYDRAULICS REPORT

Mud Density In 1.22 sg Mud Density out - sg ECD - PV/YP 15/22

Gels 4/14 Salinity 49000 PPM Cl Solids 12%

Hole Volume 767 bbl Annular Volume Tubing Volume Displaced Volume

Carbide Lag-Calculated Lag 4175 stk Flowrate

DrillPipe Annular Vel (Max. Dia. Sec.) DrillPipe Annular Vel (Open Hole)

Drill Collar Annular Vel (Open Hole) Critical Vel

Pressure Loss System Pressure Loss Bit % Pressure Loss

Nozzle Vel Jet Impact Force HHP

PRESSURE PARAMETERS

Drilling Exponent Flowline Temp

Shale Density Shale Factor

Background Gas Max. Formation Gas @ Trip Gas 0.07% @ 2200m

Other Gas

Fill Tight Hole

Cavings Est % Average Size

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance 0.26 sg Min. Estimated Fracture Pressure (Open Hole) 1.55 sg @ 2150m

Estimated Pore Pressure 1.14 sg Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ 2240m

Max. Estimated Pore Pressure (Open Hole) 1.17 sg @ 2735m Estimated Fracture Pressure at TD 1.708 sg

COMMENTS Logging- suite#2 in hole with run#9. VSP. Hole took 1 bbl/7hr. M/u cmt head, plug catcher. RIH to 2200m. Circ. + cond mud, pump cmt plug#1. R/u + test cmt lines to 3000psi. Cmt balance plug from 2200-1900m. POOH to 1900m. Rev. circ 1.5 times cap. R/up + test cmt to 3000psi. Cmt f/ 1900-1700m w/ plug catcher. POOH f/ 1900-1700m. Pump & shear plug @ 1600 psi. Rev circ @ 1700m. Flush choke+kill line & circ pipe & POOH. L/out side way. RIH with DC & l/o side ways. L/o MWD + core barrel.

EXLOG
A Baker Hughes company

DRILLBYTE MORNING REPORT NO 22

COMPANY BHP Petroleum WELL LA BELLA - 1

DATE 12.02.93 TIME 2400 hr

DEPTH 2735m LAST REPORT DEPTH 2735m

RIG OPERATIONS Pull BOP

REPORT BY Andre Thangam REPORT RECEIVED BY G. Howard (OPTR)

DRILLING REPORT

Bit No. - Type - Size in Jets

On Bit: Distance m Hours hh:mm ROP WOB RPM

Pump Press SPM Torque TBR CP I:$ CP B:$

HYDRAULICS REPORT

Mud Density In 1.22 sg Mud Density out 1.22 sg ECD PV/YP 15/22

Gels 4/14 Salinity 49000 PPM Cl Solids 12%

Hole Volume Annular Volume Tubing Volume Displaced Volume

Carbide Lag-Calculated Lag Flowrate

DrillPipe Annular Vel (Max. Dia. Sec.) DrillPipe Annular Vel (Open Hole)

Drill Collar Annular Vel (Open Hole) Critical Vel

Pressure Loss System Pressure Loss Bit % Pressure Loss

Nozzle Vel Jet Impact Force HHP

PRESSURE PARAMETERS

Drilling Exponent Flowline Temp

Shale Density Shale Factor

Background Gas Max. Formation Gas @ Trip Gas @

Other Gas

Fill Tight Hole

Cavings Est % Average Size

ESTIMATED PORE AND FRACTURE PRESSURE

Kick Tolerance - Min. Estimated Fracture Pressure (Open Hole) 1.55 sg @ 2150m

Estimated Pore Pressure 1.14 sg Min. Estimated Pore Pressure (Open Hole) 1.03 sg @ 2240

Max. Estimated Pore Pressure (Open Hole) 1.17 sg @ 2735m Estimated Fracture Pressure at TD 1.708 sg

COMMENTS Cont. to L/o DC sideways. RIH w/ Schlumber & set 9.625" bridge plug @ 1695m.
Retrieve wear bushing. RIH w/ csg cutter & cut casing 199.81m. Hole remain static. POOH.
RIH w/ spear. POOH w/ spear running assembly.L/o 9.625" csg.
RIH w/ wireline & set bride plug @ 190m. RIH OEDP. Tag plug @ 194m. P/up to 192m.
Cmt & displace balance plug. POOH to 135m. Rev circ @ 135m & circ the long way w/ sea water.
Flush riser & choke & kill line. Pull BOP l/out riser.

4.2 Wireline Logs

Two suites of wireline logs were run in La Bella-1. A list of the logs run in the well is included in Table 3.

Table 3

La Bella-1

Wireline Logs

Suite No.	Run No.	Log Type	Depth Interval mRT	Date Run
1	1	DLL-MSFL-AS-GR-SP-CAL-AMS	1787-120 (GR to seafloor)	30/01/93
1	1	Zero Offset VSP	1770-200	30/01/93
1	1	CST-GR (60 shots)	1765-638.7	30/01/93
2	1	DLL-MSFL-GR-SP-CAL-AMS	2733-1785.5	08/02/93
2	1	LDL-CNL-SDT-GR-AMS	2728-1785.5	08/02/93
2	1	FMS-GR-AMS	2736.5-1785.5	09/02/93
2	1	RFT-GR-HP	2068.3-2624	09/02/93
2	2	RFT-GR-HP	2072.8	10/02/93
2	2	CST-GR (60 shots)	2730-2146.1	10/02/93
2	3	CST-GR (30 shots)	2141.5-1810.1	10/02/93
2	2	Zero Offset VSP	2734-1520	11/02/93
		Processed Logs		
2	1	MSD (wellsite)	2736.5-1785.5	09/02/93

4.3 Measurement While Drilling

Eastman Teleco Measurement While Drilling Services were utilised by BHP Petroleum during the drilling of La Bella-1. A dual propagation resistivity (DPR) log in both real time and recorded modes and directional surveys were provided in the 12-1/4" hole section from a bit depth of 628 m to 1800 m. Reliable DPR and directional data were provided in real time throughout this hole section and a DPR memory log was produced at the end of the hole section. One MWD tool was required for the single tool run in the 12-1/4" hole section.

A DPR log in both real time and recorded modes and directional surveys were provided in the 8-1/2" hole section from a bit depth of 1800 m to 2735 m (TD). Reliable DPR and directional data were provided in real time throughout this hole section and a DPR memory log was produced at the end of each tool run. One MWD tool was required for the three tool runs in the 8-1/2" hole section.

The tools acquired a total of 174.75 circulating hours of data.

The Eastman Teleco logs are provided in this volume as Enclosure 2.

BHP PETROLEUM
LA BELLA-1
VICTORIA - OTWAY BASIN
JANUARY-FEBRUARY 1993

END OF WELL REPORT

EASTMAN TELECO

FIELD SERVICE ENGINEERS

A. FELL

A. SOMOFF

DISCLAIMER

Eastman Teleco does not guarantee the accuracy or correctness of interpretation provided in or from this report. Since all interpretations are opinions based on measurements Teleco shall, under no circumstances, be responsible for consequential damages or any other loss, costs, damages or expenses incurred or expressed and implied warranties related to its service which is governed by Teleco's terms and conditions.

CONTENTS

Section 1

INTRODUCTION

1. INTRODUCTION

Eastman Teleco's Dual Propagation Resistivity Measurement While Drilling services were utilized onboard the BYFORD DOLPHIN for the drilling of BHP Petroleum's LA BELLA-1 well in the VIC/P30 Permit, offshore Victoria.

LA BELLA-1 was spudded on January 22nd, 1993 and Eastman Teleco's MWD services were utilized on the well from January 26th from a depth of 630m.

The 12 1/4" hole section was drilled from 630m to 1800m where wireline logs were run and the 9 5/8" casing was set at 1786.5m.

The 8 1/2" hole section was drilled from 1800m to 2735m. Eastman Teleco services were completed on February 8th, 1993. Eastman Teleco depths were measured in metres below the Drill Floor and were based on the drillers pipe tally.

Section 2

GENERAL WELL INFORMATION

2. GENERAL WELL INFORMATION

Oil Company	: BHP PETROLEUM
Oil Company Personnel	: J. Dickson
Well Name	: LA BELLA-1
Well Type	: EXPLORATION
Well Permit	: VIC/P30
Area	: OTWAY BASIN
D.F. Elevation	: 25.3m
Water Depth	: 94.2m
Spud Date	: 22nd JANUARY 1993
Teleco Commencement Date	: 26th JANUARY 1993
Teleco Completion Date	: 8th FEBRUARY 1993
Completion Depth	: 2735 m
Drilling Contractor	: DOLPHIN DRILLING
Rig Name	: BYFORD DOLPHIN
Rig Type	: SEMI-SUBMERSIBLE
Teleco Services	: DPR
Teleco Job Number	: ETAU 232
Teleco Personnel	: A. Fell, A. Somoff

Section 3

TOOL SUMMARY

3. MWD TOOL SUMMARY

Two tools were used over 4 runs to drill from 630m to 2735m.

Run #	Tool Size	Serial No	Tool Type	DPR Hours	Drilled Interval	Failure Type
1	8 1/4"	8450-01	DPR	66.00	630 - 1800	-
2	6 3/4"	1644-09	DPR	37.50	1800 - 2071	-
3	6 3/4"	1644-09	DPR	49.25	2099 - 2545	-
4	6 3/4"	1644-09	DPR	22.00	2545 - 2735	-

Interval Drilled:	630 - 2735m	- 2105m
Interval Logged:	Gamma Ray	- 100 %
	Resistivity	- 100 %

Failure Statistics

Total DPR hours	174.75
DPR failures	0
Mean Time Between Failures	N/A

Section 4

MWD RUN SUMMARIES

RUN SUMMARY

No.1

Hc . Size: 12 1/4"

Tool Type & No: DPR TF4 B8450-01

Time & Date in the Hole: 21:00 hrs 26th January 1993

Time & Date out of Hole: 02:30 hrs 30th January 1993

Depth Range: 630m - 1800m

Circulating Hours for Run: 66.0

Operating Hours for Run: 66.0

Comments.

The Teleco tool was run in an assembly with a HTC ATM 18 bit. The assembly was locked up with a near bit roller reamer, shock sub, stabiliser, MWD and a stabilizer located above the Teleco tool.

No technical difficulties were encountered during the run that affected the Teleco tool or the quality of the surface and memory data.

Drilling parameters while drilling were: WOB 20 to 45 klbs, RPM 115 to 120, Flow rate 595 to 720 g/min giving a Pump Pressure of 2200 to 3100 Psi. Rate of penetration ranged from 10 to 200 m/hr.

The hole was drilled from 630m to 1800m with inclination building from 0.2 degrees at 626m to 2.7 degrees at 1614m then dropping back to 2.5 degrees at 1785m. The azimuth turned from 235.8 degrees to 241.4 degrees.

RUN SUMMARY

No.2

Ho.. Size:	8 1/2"
Tool Type & No:	DPR / DHE 1644-09
Time & Date in the Hole:	21:30 hrs 1st February 1993
Time & Date out of Hole:	22:30 hrs 3rd February 1993
Depth Range:	1800m - 2071m
Circulating Hours for Run:	37.5
Operating Hours for Run:	37.5

Comments.

The Teleco tool was run in an assembly with a HTC ATM 22 bit. The assembly was locked up with a near bit roller reamer, an integral blade stabiliser on the MWD and a string roller reamer located above the Teleco tool.

N technical difficulties were encountered during the run that affected t. Teleco tool or the quality of the surface and memory data.

Inclination dropped from 2.9 degrees at 1962m to 2.4 degrees at 2064m. The azimuth turned from 272.3 degrees to 274.8 degrees over the same interval.

Drilling parameters through the run were: WOB 30 to 35 klbs, RPM 115 to 120, pump flow of 430 to 470 gpm giving a pressure of 2170 to 2500 psi. Rate of penetration ranged from 4 to 50 m/hr.

RUN SUMMARY

No.3

Hole Size: 8 1/2"

Tool Type & No: DPR / DHE 1644-09

Time & Date in the Hole: 13:00 hrs 4th February 1993

Time & Date out of Hole: 02:15 hrs 7th Februrary 1993

Depth Range: 2099m - 2545m

Circulating Hours for Run: 49.25

Operating Hours for Run: 49.25

Comments.

The Teleco tool was re-run in an assembly with a HTC ATM 22 bit. The assembly was locked up with a near bit roller reamer, an integral blade stabiliser on the MWD and a string roller reamer located above the Teleco tool.

I lination dropped from 2.3 degrees at 2194m to 1.7 degrees at 2843m. The azimuth turned from 270.6 degrees to 206.6 degrees over the same interval.

Drilling parameters through the run were: WOB 25 to 30 klbs, RPM 100 to 120, pump flow of 400 to 800 gpm giving a pressure of 2000 to 2350 psi. Rate of penetration ranged from 3 to 50 m/hr.

RUN SUMMARY

No.4

Hole Size:	8 1/2"
Tool Type & No:	DPR / DHE 1644-09
Time & Date in the Hole:	03:20 hrs 7th February 1993
Time & Date out of Hole:	10:30 hrs 8th February 1993
Depth Range:	2545m - 2735m
Circulating Hours for Run:	22.00
Operating Hours for Run:	22.00

Comments.

The Teleco tool was re-run in an assembly with a SMITH F2 bit. The assembly was locked up with a near bit roller reamer, an integral blade stabiliser on the MWD and a string roller reamer located above the Teleco tool.

Drilling continued to a TD of 2735m where electric logs were run and the well P&A.

Inclination built from 1.7 degrees at 2540m to 2.5 degrees at 2724m. The azimuth turned from 206.2 degrees to 227.3 degrees over the same interval.

Drilling parameters through the run were: WOB 25 to 30 klbs, RPM 75, pump flow of 400 to 440 gpm giving a pressure of 2160 to 2500 psi. Rate of penetration ranged from 3 to 40 m/hr.

Section 5

MWD TOOL PERFORMANCE REPORT

PERFORMANCE REPORT NO.1

TOOL DHB 8450-01

Equipment Description:	8 1/4" DPR
	Serial No. B8450-01 TF4 X4 Split Phase
Teleco Run No.:	1
Total Circulating Hours:	66.00
Non Operating Hours:	
Resistivity:	0.0
Gamma Ray:	0.0
Directional:	0.0
Interval Drilled:	630m - 1800m

Operational Problems

No technical difficulties were encountered during the run that affected the Teleco tool or the quality of the surface and memory data. The tool performed to specifications throughout the run.

PERFORMANCE REPORT NO.2

TOOL DHE 1644-09

Equipment Description:	6 3/4" DPR
	Serial No. E1644-09 TF4 X4 Split Phase
Teleco Run No.:	2 - 4
Total Circulating Hours:	108.75
Non Operating Hours:	
Resistivity:	00.00
Gamma Ray:	00.00
Directional:	00.00
Interval Drilled:	1800m - 2735m

Operational Problems

No technical difficulties were encountered during the run that affected the Teleco tool or the quality of the surface and memory data. The tool performed to specifications throughout the run.

Section 7

SENSOR OFFSETS and ENVIRONMENTAL CORRECTIONS

7.1 SENSOR TO BIT DISTANCE (M)

Teleco Run No	1	2	3	4
Resistivity	8.78	2.99	2.99	2.99
Gamma Ray	10.17	4.72	4.72	4.72
Directional	12.79	7.55	7.55	7.55

7.2 LOG ENVIRONMENTAL CORRECTIONS:

Gamma Ray: Normalised for Tool Size, Borehole Size, Sensor Type and mud Potassium

Resistivity: Normalised for Tool Size, Borehole Size, Mud Resistivity, Temperature. No correction has been applied for formation dielectric properties.

LOG CORRECTIONS

Date	Time	Depth m	Chloride ppm	Resist.(Rm) ohm.m / deg C	M.W. sg
27-01-93	05:15	710	24000	0.1422 / 34	1.05
27-01-93	14:45	950	24000	0.1214 / 39	1.05
28-01-92	00:40	1190	27000	0.0983 / 43	1.08
28-01-93	06:10	1370	31000	0.0825 / 50	1.11
29-01-93	01:42	1670	35000	0.0688 / 56	1.11
2-02-93	06:45	1780	43000	0.0663 / 46	1.12
2-02-93	16:26	1856	43000	0.0627 / 50	1.13
3-02-93	00:05	1920	43000	0.0565 / 58	1.13
3-02-93	05:45	1975	48000	0.0517 / 58	1.13
4-02-93	22:44	2133	50000	0.0519 / 55	1.14
5-02-93	08:58	2230	50000	0.0500 / 58	1.14
5-02-93	22:27	2376	49000	0.0490 / 61	1.14
5-02-93	23:45	2396	47000	0.0507 / 61	1.14
6-02-93	06:25	2460	45000	0.0513 / 63	1.14
7-02-93	09:00	2545	45000	0.0485 / 68	1.22
7-02-93	16:06	2607	45000	0.0496 / 66	1.22
7-02-93	21:48	2674	46000	0.0471 / 69	1.22
8-02-93	00:06	2696	49000	0.0443 / 70	1.22
8-02-93	03:40	2727	46000	0.0466 / 70	1.22

Section 8

LOG MNEMONICS

8. TELECO FORMATION EVALUATION LOG INFORMATION

8.1 LOG MNEMONICS

GRAM = Natural Gamma Ray [RWD] (MWD-API)
GRAX = Natural Gamma Ray [MWD] (MWD-API)
TCDM = MWD Tool Temperature [RWD] (Deg C)
TCDX = MWD Tool Temperature [MWD] (Deg C)
RPCX = Resistivity Phase Difference, Corrected [MWD] (Ohmm)
RACX = Resistivity Amplitude Ratio, Corrected [MWD] (Ohmm)
RPCM = Resistivity Phase Difference, Corrected [RWD] (Ohmm)
RACM = Resistivity Amplitude Ratio, Corrected [RWD] (Ohmm)
RPDM = Resistivity Phase Difference, Dielectric Corrected [MWD]
RADM = Resistivity Amplitude Ratio, Dielectric Corrected [RWD].....
PDEM = Phase Difference, Elapsed Time Since Drilled [RWD] (Min)
PDDM = Phase Difference, Data Density Integrated.
WBCS = Surface Weight On Bit (1000 Lbs)
ROPS = Rate of Penetration (m//hr)
RPMS = Surface Revolutions Per Minute.

8.2 SUB ASSEMBLY MNEMONICS:

DPR = Dual Propagation Resistivity Sub
DIR = Directional MWD Collar

Section 9

MWD SURVEY LISTING

DIRECTIONAL SURVEYS

TELECO SONAT

COMPANY	BHP PETROLEUM
WELL	LA BELLA-1
FIELD	EXPLORATION
COUNTY	VIC/P30
STATE	VICTORIA
COUNTRY	ASTRALIA

WELL LOCATION : LATITUDE 39.003931 SOUTH LONGITUDE 142.695258 EAST

DRILLING COMPANY : DOLPHIN DRILLING RIG : BYFORD DOLPHIN

PERMANENT DEPTH DATUM : MSLT ELEV. : 94.2M
SURVEYS MEAS. FROM : RT, LOCATED 25.3 ABOVE PERM. DATUM.

SPUD DATE .... 22-01-1993 PROP. AZIMUTH ...... N.A.
MWD STARTED .. 26-01-1993 TOTAL DEPTH 2735M
MWD ENDED .... 08-02-1993 TELECO JOB ID .. ETAU 232

COORD. GRID SYSTEM :
GRID ORIGIN : GRID CORR. : 0
MAGNETIC DECL. CORR. : 10.76 GRID DECL. CORR. : 10.76

MINIMUM CURVATURE METHOD USED FOR SURVEY CALCULATIONS.
VERTICAL WELL : CLOSURE CALCULATED AT EACH SURVEY STATION.
INITIAL TIE-IN TO SEAFLOOR.

COMPANY PERSONNEL ..... J. DICKSON

DIRECTIONAL COMPANY ...
DIRECTIONAL DRILLER ...
TELECO PERSONNEL ...... A. FELL, A. SOMOFF

REMARKS :

TELECO DIRECTIONAL SURVEY LISTING

Company....................... BHP PETROLEUM
We .... LA BELLA-1
Survey Calc. Method.......... Minimum Curvature
Vert. Sect. Calc. Method..... Vertical well: Closure calculated at each survey station.
Proposed Azimuth............. N.A.

Teleco Job ID.: ETAU 232
Grid Correction: 0
Mag. Decl. Corr.: 10.76
Grid Decl. Corr.: 10.76

M.DPTH meters	CRS LEN meters	INCLINATION degrees	AZIMUTH degrees	T.V.D. meters	CLOSURE meters	NORTH/SOUTH meters	EAST/WEST meters	DOGLEG SEV. deg/30m
INITIAL TIE-IN COORDINATES								
119.6		0.000	0.000	119.60	0.00	0.00	0.00	
626.0	506.4	0.200	235.800	626.00	0.88	-0.50	-0.73	0.012
654.0	28.0	0.200	249.500	654.00	0.98	-0.54	-0.82	0.051
683.0	29.0	0.200	248.800	683.00	1.08	-0.58	-0.91	0.003
741.0	58.0	0.200	219.200	741.00	1.23	-0.61	-1.07	0.000
801.0	60.0	0.100	219.200	801.00	1.38	-0.73	-1.17	0.031
859.0	58.0	0.100	232.200	859.00	1.53	-0.83	-1.28	0.027
916.0	57.0	0.200	214.700	916.00	1.67	-0.94	-1.38	0.057
972.0	56.0	0.200	238.200	972.00	1.86	-1.08	-1.52	0.044
1034.0	62.0	0.100	131.700	1034.00	1.96	-1.17	-1.57	0.120
1091.0	57.0	0.100	113.400	1091.00	1.92	-1.22	-1.48	0.017
1150.0	59.0	0.300	63.100	1150.00	1.75	-1.17	-1.30	0.125
1207.0	57.0	0.200	56.800	1207.00	1.51	-1.05	-1.08	0.055
1265.0	58.0	1.300	213.300	1264.99	2.06	-1.55	-1.36	0.768
1323.0	58.0	1.600	212.200	1322.97	3.52	-2.78	-2.15	0.156
1382.0	59.0	1.800	210.100	1381.95	5.26	-4.28	-3.06	0.106
14[illegible]	57.0	1.900	213.600	1438.92	7.10	-5.84	-4.03	0.079
14[illegible]	59.0	2.500	218.200	1497.87	9.36	-7.67	-5.37	0.318
1555.0	57.0	2.600	212.200	1554.82	11.89	-9.74	-6.82	0.150
1614.0	59.0	2.700	214.700	1613.75	14.62	-12.01	-8.33	0.078
1671.0	57.0	2.500	218.500	1670.69	17.20	-14.09	-9.87	0.139
1731.0	60.0	2.600	218.200	1730.64	19.87	-16.18	-11.52	0.050
1785.0	54.0	2.500	241.400	1784.58	22.16	-17.71	-13.31	0.572
1846.0	61.0	2.700	258.300	1845.52	24.49	-18.64	-15.88	0.388
1905.0	59.0	2.800	267.000	1904.45	26.55	-18.99	-18.68	0.218
1962.0	57.0	2.900	272.300	1961.38	28.71	-19.01	-21.52	0.148
2020.0	58.0	2.400	284.600	2019.32	30.52	-18.64	-24.16	0.390
2064.0	44.0	2.400	274.800	2063.28	31.79	-18.34	-25.97	0.279
2136.0	72.0	2.200	270.600	2135.23	34.11	-18.19	-28.85	0.109
2194.0	58.0	2.300	259.300	2193.18	36.14	-18.40	-31.11	0.235
2253.0	59.0	2.300	247.700	2252.13	38.43	-19.07	-33.37	0.236
2310.0	57.0	2.100	227.300	2309.09	40.58	-20.21	-35.19	0.423
2368.0	58.0	1.800	218.900	2367.06	42.47	-21.64	-36.55	0.214
2426.0	58.0	1.700	211.200	2425.03	44.09	-23.08	-37.57	0.132
2483.0	57.0	1.700	206.600	2482.01	45.57	-24.56	-38.38	0.072
2540.0	57.0	1.700	206.200	2538.98	47.03	-26.08	-39.13	0.006
2601.0	61.0	2.500	221.000	2599.94	49.10	-27.89	-40.41	0.472
2658.0	57.0	2.500	224.200	2656.89	51.53	-29.72	-42.09	0.073

TELECO
SONAT

TELECO DIRECTIONAL SURVEY LISTING

Company........................ BHP PETROLEUM
Well........................... LA BELLA-1
Survey Calc. Method........... Minimum Curvature
Vert. Sect. Calc. Method..... Vertical well: Closure calculated at each survey station.
Proposed Azimuth............. N.A.

Teleco Job ID.: ETAU 232
Grid Correction: 0
Mag. Decl. Corr.: 10.76
Grid Decl. Corr.: 10.76

M.DPTH meters	CRS LEN meters	INCLINATION degrees	AZIMUTH degrees	T.V.D. meters	CLOSURE meters	NORTH/SOUTH meters	EAST/WEST meters	DOGLEG SEV. deg/30m
2715.0	57.0	2.400	228.400	2713.83	53.94	-31.41	-43.85	0.108
2724.0	9.0	2.500	227.300	2722.83	54.32	-31.67	-44.13	0.368

PROJECTED BOTTOM-HOLE LOCATION
(Extrapolated from last two survey stations)

2735.0	11.0	2.622	225.956	2733.82	54.80	-32.00	-44.49

CLOSURE AZIMUTH = 234.271

TELECO SONAT

Section 10

BOTTOM HOLE ASSEMBLY RECORDS

MWD Run #1

ITEM	OD (ins.)	ID (ins.)	LENGTH (m)	REMARKS
BIT	12 1/4	-	0.30	HTC ATM 18
NB ROLLER REAMER	12 1/4	3	2.46	WITH FLOAT
SHOCK SUB	8	2 13/16	3.49	
STABILISER	12 1/4	2 7/8	1.44	
X / O	8 1/4	2 3/4	0.50	TSI-23
TELECO MWD	8 3/4	-	12.39	B8450-01 DPR
STABILIZER	12 1/4	2 7/8	1.41	
DC	8	3	9.32	
DC	7 13/16	2 13/16	9.25	
DC	7 7/8	3	9.33	
DC	7 7/8	2 7/8	9.31	
DC	7 7/8	3	8.99	
DC	7 7/8	2 7/8	9.15	
DC	7 13/16	2 7/8	9.42	
DC	7 15/16	2 3/4	9.19	
DC	7 7/8	3	9.31	
DC	7 13/16	2 15/16	9.39	
DC	7 7/8	2 7/8	9.04	
[illegible]	7 7/8	2 7/8	9.17	
JARS	8 1/16	2 7/8	5.78	
DC	7 15/16	2 7/8	9.11	
DC	7 7/8	2 13/16	9.12	
X/O	8 1/8	3 3/8	0.58	
1 X HWDP	5	3	8.95	
DART SUB	6 7/16	2 3/4	0.69	
15 X HWDP	5	3	125.57	
TOTAL BHA			292.66	

BIT RUN #4 HTC ATM 12 1/4" 2x16,1x12 JETS.
DRILLED FROM 630m TO 1800m. BIT GRADED 3-2-WT-A-E-I-NO-TD

TELECO MWD DHB 8450-01 DPR TF4, DATA RATE X4SP
TURBINE FLOW RANGE 425 - 900 gpm. VALVE GAP 1.00".

MWD Run #2

ITEM	OD (ins.)	ID (ins.)	LENGTH (m)	REMARKS
BIT	8 1/2	-	0.24	HUGHES ATM22
NB ROLLER REAMER	8 1/2	1 7/8	1.84	
X / O	6 3/4	2 13/16	0.35	6750-049
TELECO MWD	6 3/4	-	12.86	E1644-09 DPR
STRING R/R	8 3/8	1 7/8	1.63	
DC	6 3/8	2 15/16	9.39	
DC	6 3/8	2 7/8	9.28	
DC	6 3/8	2 7/8	9.17	
DC	6 3/8	2 15/16	9.07	
DC	6 5/16	2 7/8	9.21	
DC	6 3/8	2 7/8	9.33	
DC	6 7/16	2 15/16	9.39	
DC	6 1/2	2 7/8	9.03	
DC	6 3/8	2 15/16	9.36	
DC	6 5/16	2 15/16	9.30	
DC	6 7/16	2 15/16	9.39	
DC	6 7/16	2 7/8	9.38	
DC	6 3/8	2 7/8	9.40	
[illegible]	6 1/8	2 7/8	9.37	
DC	6 5/16	2 7/8	9.45	
JARS	6 9/16	2 7/16	5.34	
DC	6 7/16	2 13/16	9.22	
DC	6 3/8	2 7/8	9.21	
1 X HWDP	5	3	8.95	
DIDS	6 7/16	2 3/4	0.69	
14 X HWDP	5	3	125.57	
TOTAL BHA			242.22	

BIT RUN #5 HUGHES ATM22 8 1/2" 1 X 13, 2 X 12 JETS.
DRILLED FROM 1800m TO 2071m. BIT GRADED 4-4-BT-A-F-2-WT-CP

TELECO MWD DHE 1644-09 DPR TF4, DATA RATE X4SP
TURBINE FLOW RANGE 250 - 500 gpm. VALVE GAP 0.90".

MWD Run #3

ITEM	OD (ins.)	ID (ins.)	LENGTH (m)	REMARKS
BIT	8 1/2	-	0.24	HUGHES ATM22
NB ROLLER REAMER	8 1/2	1 7/8	1.84	
X / O	6 3/4	2 13/16	0.35	6750-049
TELECO MWD	6 3/4	-	12.86	E1644-09 DPR
STRING R/R	8 3/8	1 7/8	1.63	
DC	6 3/8	2 15/16	9.39	
DC	6 3/8	2 7/8	9.28	
DC	6 3/8	2 7/8	9.17	
DC	6 3/8	2 15/16	9.07	
DC	6 5/16	2 7/8	9.21	
DC	6 3/8	2 7/8	9.33	
DC	6 7/16	2 15/16	9.39	
DC	6 1/2	2 7/8	9.03	
DC	6 3/8	2 15/16	9.36	
DC	6 5/16	2 15/16	9.30	
DC	6 7/16	2 15/16	9.39	
DC	6 7/16	2 7/8	9.38	
DC	6 3/8	2 7/8	9.40	
[illegible]	6 1/8	2 7/8	9.37	
DC	6 5/16	2 7/8	9.45	
JARS	6 9/16	2 7/16	5.34	
DC	6 7/16	2 13/16	9.22	
DC	6 3/8	2 7/8	9.21	
1 X HWDP	5	3	8.95	
DIDS	6 7/16	2 3/4	0.69	
14 X HWDP	5	3	125.57	
TOTAL BHA			242.22	

BIT RUN #7 HUGHES ATM22 8 1/2" 3 X 12 JETS.
DRILLED FROM 2099m TO 2545m. BIT GRADED 4-4-WT-A-F-I-BT-PR

TELECO MWD DHE 1644-09 DPR TF4, DATA RATE X4SP
TURBINE FLOW RANGE 250 - 500 gpm. VALVE GAP 0.90".

MWD Run #4

ITEM	OD (ins.)	ID (ins.)	LENGTH (m)	REMARKS
BIT	8 1/2	-	0.24	SMITH F2
NB ROLLER REAMER	8 1/2	1 7/8	1.84	
X / O	6 3/4	2 13/16	0.35	6750-049
TELECO MWD	6 3/4	-	12.86	E1644-09 DPR
STRING R/R	8 3/8	1 7/8	1.63	
DC	6 3/8	2 15/16	9.39	
DC	6 3/8	2 7/8	9.28	
DC	6 3/8	2 7/8	9.17	
DC	6 3/8	2 15/16	9.07	
DC	6 5/16	2 7/8	9.21	
DC	6 3/8	2 7/8	9.33	
DC	6 7/16	2 15/16	9.39	
DC	6 1/2	2 7/8	9.03	
DC	6 3/8	2 15/16	9.36	
DC	6 5/16	2 15/16	9.30	
DC	6 7/16	2 15/16	9.39	
DC	6 7/16	2 7/8	9.38	
DC	6 3/8	2 7/8	9.40	
DC	6 1/8	2 7/8	9.37	
DC	6 5/16	2 7/8	9.45	
JARS	6 9/16	2 7/16	5.34	
DC	6 7/16	2 13/16	9.22	
DC	6 3/8	2 7/8	9.21	
1 X HWDP	5	3	8.95	
DIDS	6 7/16	2 3/4	0.69	
14 X HWDP	5	3	125.57	
TOTAL BHA			242.22	

BIT RUN #8 SMITH F2 8 1/2" 3 X 12 JETS. DRILLED FROM 2545m TO 2735m.
BIT GRADED 4-4-WT-A-F-I-BT-PR

TELECO MWD DHE 1644-09 DPR TF4, DATA RATE X4SP TURBINE FLOW RANGE 250 - 500 gpm. VALVE GAP 0.90".

Section 11

DRILLING DIARY

DRILLING DIARY

Date	Time	Operation
26-01-93		**Teleco Run #1**
	18:30	Make up bit #4, near bit roller reamer, shock sub, MWD and stabilizer.Test and calibrate MWD.
	20:45	RIH picking up 8 x 8" drill collars.
	22:45	Continue RIH.
27-01-93	00:00	Continue RIH.
	01:00	Fill pipe and ream hole to bottom with last stand.
	01:15	Drill 12 1/4" hole from 630m to 875m.
	12:00	Drill 12 1/4" hole from 875m to 1182m.
28-01-93	00:00	Drill 12 1/4" hole from 1182m to 1538m. Flow check at 1204m, drill break 30 m/hr up to 170 m/hr.
	12:00	Drill 12 1/4" hole from 1538m to 1656m.
29-01-93	00:00	Continue to drill 12 1/4" hole from 1656m to 1776m. Flow check on trip tank for 10 min gain of 9 bbls. Hole static, continue drilling.
	12:00	Drill 12 1/4" hole from 1776m to 1800m.
	14:30	Circulate hole clean.
	16:15	Pumped slug and POOH to 1538m (intermittent drag max 30 klbs).
	17:00	Washed and work pipe through tight hole from 1538m to 1455m. Max overpull 100 klbs.
	17:30	Continue POOH to 1222m. Hole good. Took good mud.
	18:15	RIH to 1639m.
	19:15	Wash and ream from 1639m to 1800m (10m fill).
	20:30	Circulate hole clean.
	22:00	Pumped slug and POOH (intermittent drag 30klbs 1571m to 1077m).
30-01-93	00:00	Continue to POOH (intermittent drag from 1077m to 787m). 02:15 Dumped memory in MWD.
	02:30	Break off bit, rack back stand after 1 joint drill pipe.
	02:45	Rig up to run schlumberger wire line logs.
	03:15	Rig up - run log #1 DLT. MSFL. Sonic. Gamma. AMS. Rig up - run log #2 C.SAT seismic run
	12:00	Continue run log #2 C.SAT.
	20:00	Prepared and run Log #3 CST.
31-01-93	00:00	Rig down log #3 CST, of 60 bullets 4 lost.
	00:15	Rig down schlumberger.
	00:45	Make up cement head on stand of HWDP. Make up 9 5/8" casing hanger and well head. Rack both back.
	02:30	Rearrange stands of drill collars in derrick.
	02:45	Make up BHA and RIH. Fill pipe at shoe continue RIH. Fill pipe.
	06:30	Ream from 1768m to 1800m, WOB 10 - 20 klbs, torque 100 - 500 amps. Work junk sub on bottom.
	08:30	Circulate and condition hole to run 9 5/8" casing. Displace with 200 bbls of KCl mud. Spot on bottom.
	10:00	Pump slug and POOH, hole good, 10 klbs max overpull.

DRILLING DIARY

Date	Time	Operation
-01-93	12:00	Continue to POOH, hole took good mud.
	14:00	RIH and recover wear bushing. POOH and lay out same.
	15:00	Rigged up and ran 9 5/8" casing.
01-02-93	00:00	Rig down elevators. Make up well head, RIH and land casing.
	01:45	Rig up and circulate casing with rig pumps.
	03:00	Swap to Halco. Test lines to 4000 psi. Pump cement as per BHP cement program.
	04:45	Set seal assembly.
	05:30	Test seal assembly with 4000 psi.
	06:15	Test BOP.
	09:45	POOH with seal assembly still on running tool, break off old seal assembly. Clean and breakdown running tool. Layout same.
	11:00	Make up mill and wash tool. Dress tool and RIH.
	12:00	RIH with mill and flush tool.
	12:15	Wash and ream pack off area (2 x riser volume).
	12:45	POOH with mill and flush tool and lay out same.
	13:00	Make up pack off and RIH and set same.
	13:30	Test pack off against variable rams to 4000 psi.
	14:00	POOH with running tool and layout same.
	14:45	Make up wear bushing. RIH and set same and POOH.
	15:45	Lay out 12 1/4" BHA.
	19:30	Check adjustment on CMC.
	20:00	Continue lay out 12 1/4" BHA.
		Teleco Run #2
	20:15	Make up Bit#5, near bit roller reamer, MWD. Calibrate and test same.
	21:30	Continue RIH, pick up 17 x 6 1/2" drill collars and jars, ran HWDP.
02-02-93	00:00	Pick up 51 joints drill pipe. Continue to RIH to 1743m.
	03:00	Tag bottom @ 1743m. Fill pipe.
	03:15	Drill firm cement from 1743m, hard cement from 1745m, work through shoe track and rat hole to 1800m.
	08:30	Drill 8 1/2" hole from 1800m to 1803m.
	09:30	Pull into shoe and perform L.O.T. RIH to 1803m.
	10:30	Drill 8 1/2" hole from 1803m to 1815m.
	12:00	Drill 8 1/2" hole from 1815m to 1922m.
03-02-93	00:00	Drill 8 1/2" hole from 1922m to 2034m.
	12:00	Drill 8 1/2" hole from 2034m to 2071m.
	15:45	Circulate bottoms up for geologist sample.
	16:45	Circulate while evaluate sample.
	17:30	Check for flow, slug pipe.
	17:45	POOH to core, SLM, hole took good mud.
	22:00	Dump memory on MWD.
	22:15	Break off bit, rack back MWD.
	22:30	Pick up and make up core barrel.
04-02-93	00:00	Continue making up core assembly.

DRILLING DIARY

D-te	Time	Operation
04-02-93	00:30	RIH to 2014m.
	03:30	Wash from 2014m to 2071m.
	03:45	Circulate.
	04:15	Drop ball and cut core #1 from 2071m to 2099m.
	07:00	Flowcheck, pump slug and POOH, hole good.
	09:45	Recover core and lay-out same.
	11:00	Service TDC and change swivel packing.
	11:30	Break off bit and rack core barrel in derrick.
		Teleco Run #3
	12:00	Make up 8 1/2" bit and RIH.
	12:15	Change out broken clam shells on MWD, test memory.
	13:00	Continue run in hole with 8 1/2" bit.
	14:15	Test MWD.
	14:30	Pick up 5 drill pipe and continue to RIH with 8 1/2" bit.
	16:00	Continue RIH to 2065m.
	17:30	Ream from 2065m to 2099m (relog with MWD).
	19:15	Drill 8 1/2" hole from 2099m to 2114m.
	20:30	Circulate for geologists sample.
	21:00	Resistivity log from 2110m to 2114m.
	21:15	Continue circulating.
	21:45	Drill 8 1/2" hole from 2114m to 2146m.
-02-93	00:00	Drill 8 1/2" hole from 2146m to 2174m. Flow check drill breaks.
	01:30	Circulate up sample.
	02:15	Drill 8 1/2" hole from 2174m to 2262m. Flow check drill breaks.
	12:00	Drill 8 1/2" hole from 2262m to 2399m. Flow check drill breaks @ 2280m, 2290m, 2301m, 2336m.
06-02-93	00:00	Drill 8 1/2" hole from 2399m to 2515m. Flow check drill breaks. Increase mud weight to 9.8ppg.
	12:00	Drill 8 1/2" hole from 2515m to 2545m.
	16:30	Flow check, pump slug.
	16:45	POOH for bit change. Trip tank 24bbls - POOH 10 stands trip tank reading 27bbls - RIH 1 stand 29bbls in trip tank - POOH 1 stand trip tank 29bbls.
	17:30	RIH @ 2545m - pipe displaced approx. 2bbls per stand.
	17:45	Circulate and work pipe - increase M.W to 10.2 ppg, maximum gas 7.8%
	21:00	Observe well - check for flow.
	21:15	POOH @ 2184m resistance - max overpull 60 klbs.
	21:45	Back ream through 2184m - intermittent drag to 2155m.
	23:00	Pump slug.
	23:15	Continue POOH - hole taking good mud.
07-02-93	00:00	Continue POOH - hole took good mud.
	02:00	Redress near bit roller reamer (dump Teleco memory).

DRILLING DIARY

Date	Time	Operation
		Teleco Run #4
-02-93	02:45	Make up bit, near bit roller reamer and string roller reamer and RIH (test MWD) to shoe.
	06:00	Slip and cut 112 ft drill line.
	06:45	Continue RIH to 2523m.
	07:45	Wash from 2523m to 2545m.
	08:00	Drill 8 1/2" hole from 2545m to 2575m. Flow check drill breaks.
	12:00	Drill 8 1/2" hole from 2575m to 2697m. Flow check drill breaks.
08-02-93	00:00	Drill 8 1/2" hole from 2679m to 2735m. Flow check drill breaks.
	04:30	Circulate hole clean.
	06:00	POOH.
	10:15	Dump Teleco tool memory.
	10:30	Rig up Schlumberger.

SECTION 12

MUD RECORD

MUD REPORTS

TELECO RUN #	1	1	1	1	2	2	3	3	3
HOLE SIZE ins	12.25	12.25	12.25	12.25	8.50	8.50	8.50	8.50	8.50
DATE	27-01	27-01	28-01	29-01	02-02	03-02	04-02	05-02	06-02
TIME	12:30	23:30	23:30	13:00	14:30	15:00	19:30	18:30	06:30
DEPTH m	898	1178	1652	1800	1840	2065	2107	2310	2463
WEIGHT sg	1.09	1.11	1.11	1.12	1.13	1.14	1.14	1.13	1.17
VISCOSITY sec	45	49	46	49	48	46	45	51	48
PV cp	11	16	15	16	14	17	15	17	16
YP lb/100 sq ft	20	24	20	24	19	21	15	21	26
GELS 10s/10min	7/14	10/21	7/16	10/25	7/14	7/15	3/9	5/12	7/16
FILTRATE cc/30 min	7.2	6.8	6.2	7.2	8.0	8.4	8.7	5.8	5.6
HPHT FILTRATE cc/30 min	-	-	-	-	-	-	-	-	-
CAKE 32nd	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
SOLIDS % by vol	5.4	6.7	6.6	7.1	7.50	8.40	8.70	8.40	10.0
WATER CONTENT % by volume	94.6	93.3	93.4	92.9	92.50	91.60	91.30	91.60	90.00
SAND % by vol	Tr	Tr	0.25	Tr	Tr	Tr	Tr	Tr	Tr
PH	9.2	9.3	9.0	9.0	9.0	9.2	8.7	8.6	8.9
CHLORIDES Kppm	27	31	35	41	42	54	50	47.5	45
CALCIUM mg/l	240	160	200	240	360	160	45	100	120
POTASSIUM Kmg/l % WT KCl	16.0 3.00	16.9 3.20	24.7 4.70	27.5 5.20	31.8 6.10	46.4 8.80	45.6 8.75	40.5 7.80	31.2 6.00

TELECO RUN #	4	4
HOLE SIZE ins	8.50	8.50
DATE	06-02	07-02
TIME	24:00	24:00
DEPTH m	2545	2697
WEIGHT sg	1.22	1.22
VISCOSITY sec	48	50
PV cp	17	15
YP lb/100 sq ft	21	22
GELS 10s/10min	5/14	5/15
FILTRATE cc/30 min	5.8	5.2
HPHT FILTRATE cc/30 min	-	-
CAKE 32nd	1.0	1.0
SOLIDS % by vol	14.00	12.00
WATER CONTENT % by volume	86.00	88.00
SAND % by vol	Tr	Tr
PH	9.6	9.5
CHLORIDES Kppm	45	49
CALCIUM ppm	110	40
POTASSIUM Kppm %	31.2 6.00	36.4 7.00

4.4 Velocity Surveys

Schlumberger Seaco Inc conducted a Zero Offset Vertical Seismic Profile Survey in the 12.25" hole section on La Bella-1 using a Combinable Seismic Imager (CSI). Three sleeve air guns were used as the energy source for the survey. The guns were suspended from the rig and located 10 m below mean water level and offset 47 m from the wellhead on an azimuth of 050°. The survey was acquired on 30 January 1993 and obtained VSP data from a depth of 1770 to 200 mRT. A total of 50 VSP levels were recorded at approximately 20 m shot spacing and 12 check shot levels were recorded at approximately 50 m shot spacing.

Schlumberger Seaco Inc conducted a second VSP Survey in the 8.5" hole section at TD. One 200 cubic inch bolt airgun operated at 120 bar was used as the energy source due to failure of the sleeve gun array. The air gun was located 10 m below mean water level and offset 47 m from the wellhead on an azimuth of 050°. The survey was acquired on 10 and 11 February 1993 and obtained VSP data from a depth of 2734 to 1520 mRT. A total of 52 VSP levels were recorded at approximately 20 m shot spacing.

No VSP Quicklook processing was applied at the wellsite.

5

5. MICROPALAEONTOLOGY: BASIC DATA REPORT AND RANGE CHARTS

MICROPALAEONTOLOGICAL ANALYSIS
LA BELLA-1, PERMIT EPP-24
OTWAY BASIN

FOR

BHP PETROLEUM PTY LTD

J.P. REXILIUS
S.L. POWELL

AUGUST, 1993

INTERNATIONAL STRATIGRAPHIC CONSULTANTS PTY LTD
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CONTENTS

I. INTRODUCTION

A total of 15 sidewall core samples from the interval 635m to 1364m have been examined for foraminifera and calcareous nannoplankton.

Fossil assemblages identified in the well section have been plotted on the distribution chart (Appendix No 2).

II. REFERENCES

MARTINI, E., 1971. Standard Tertiary and Quaternary calcareous nannoplankton zonation, in Farinacci, A., (ed), *Proc. Second Plank. Conf*, Roma, 1970, 1: 739-785.

TAYLOR. D.J., (in prep.). Observed Gippsland biostratigraphic sequences of planktonic foraminiferal assemblages.

APPENDIX NO. 1 : SUMMARY OF MICROPALAEONTOLOGICAL DATA, LA BELLA-1

DEPTH (mKB)	FORAM YIELD	FORAM PRESERV.	FORAM DIVERSITY	NANNO YIELD	NANNO PRESERV.	NANNO DIVERSITY
SWC60, 635	high	moderate	high	high	moderate	moderate-low
SWC59, 695	high	moderate	high	high	moderate	moderate
SWC57, 832	moderate	moderate	moderate	low	moderate	low
SWC55, 896.5	high	moderate	mod-high	high	moderate	moderate
SWC52, 997	moderate	moderate	mod-low	high	moderate	low
SWC51, 1027	high	moderate	high	high	moderate	moderate-high
SWC50, 1040	high	mod-good	mod-high	high	mod-good	moderate
SWC47, 1064	high	mod-good	mod-high	mod-low	poor	low
SWC45, 1115	high	mod-good	high	high	moderate	moderate
SWC44, 1151	mod-low	moderate	moderate	low-v. low	poor	low
SWC41, 1200.5	barren	-	-	barren	-	-
SWC38, 1255	barren	-	-	barren	-	-
SWC37, 1264	barrren	-	-	barren	-	-
SWC34, 1340	barren	-	-	barren	-	-
SWC33, 1364	barren	-	-	barren	-	-

APPENDIX NO. 2: DISTRIBUTION FORAMINIFERA AND NANNOPLANKTON, LA BELLA-1

SPECIES /SAMPLES	SWC, 635m	SWC, 695m	SWC, 832m	SWC, 896.5m	SWC, 997m	SWC, 1027m	SWC, 1040m	SWC, 1064m	SWC, 1115m	SWC, 1151m	SWC, 1200.5m	SWC, 1255m	SWC, 1264m	SWC, 1340m	SWC, 1364m
BENTHONIC FORAMINIFERA															
Lenticulina spp.	f	f	f	s	r	f	f		r	f					
Globocassidulina subglobosa	c	c		f	c	a	a	a	c	c					
Sohaeroidina bulloides	f	r	r	r		f		r	f	r					
Eponides subhaidingeri	c	c	c	a	c		f	r	c	c					
Stilostomella spp.	s			f		c	c	r							
Cibicides vortex	c	f	f						r						
Lagena spp.	f	f	f	f	r	c	s	c	f						
Fissurina spp.	a	r	s	r		c		f	s						
Dentalina spp.	s	s					r		f	r					
Loxostomum spp.	r														
Pullenia bulloides	r	r		s	r	s		s	r	s					
Protoglobobulimina spp.	s								r						
Anomalinoides glabrata	s			f											
Triloculina spp.	s					r									
Pseudonodosaria laevigata	r					r	r								
Nodosaria spp.	f	f	r	r	r	c	f	f	r						
Euuvigerina peregrina	f	r		f											
Euuvigerina schwageri	r														
Lagenonodosaria scalaris	s			r	s	s	s		s						
Cibicides thiara	c	f	f	r		f		r		r					
Trifarina bradyi	r	r	s	r			r	s	c	s					
Astrononion spp.	f	r	f	r	r	r	f		r	r					
Cibicides spp. (small)	a					c	c	c							
Siphonina spp.	r														
Brizalina robusta	f	r		f	r	f	f		r						
Cassidulina delicata	f	f	r	c		c		r	s						
Siphouvigerina canariensis	r	r	r	r	r			s							
Anomalina inversa	r		s		s	r									
Textularia spp.	r		r			r			s						
Haplophragmoides spp. (smooth)		r													
Euuvigerina flintii		r													
Ramulina spp.		s				s		s							
Pyrgo spp.		s				s									
Hanzawaia spp.		r	s	s	r	s	s								
Cibicides mediocris		r													
Sigmoidella elegantissima		s	s												
Nodosaria longiscata		r				r									
Neoeponides parantillarium		s													
Clavulina spp.		r				s	s								
Guttelina problema		s					s	s	s						
Pullenia quinqueloba		s													
Anomalina glabrata		r													
Bueningia creeki		s													
Bolivina mahoenica		r													
Heronallenia spp.		s				s									
Cibicides spp.		c	c	a	c				a	f					
Cibicides lobulatus			r	s		s									
Gyroidina spp.			r						r						
Gyroidina subzealandica			r			r									
Bolivina spp.			s		s	r									
Discorbis spp.				s											
Siphonina tubulosa				f	s	f		s	f						
Glandulina spp.				s	s	r		s							
Brizalina spp.				f	r	c		f	r						
Vaginulinopsis spp.				s											
Cassidulina bradyi					r										
Pleurostomella spp.					s										
Arenodosaria antipoda						r									
Gyroidina zealandica						c	r		s	r					
Pyrulina cylindroides						r									
Gaudryina spp.						r		s							
Baggina ampla						s									
Bulimina striata						r									
Dorothia spp.						s	s								
Cassidulina oblonga						f		f	s						
Quinqueloculina spp.						r									
Haplophragmoides spp.							r								
Hyperammina spp. (smooth)							s								
Reussella simplex							s								
Bathysiphon spp. (smooth)							s								

s = single, r = rare, f = frequent, c = common, a = abundant.

APPENDIX NO. 2: DISTRIBUTION FORAMINIFERA AND NANNOPLANKTON, LA BELLA-1

SPECIES /SAMPLES	SWC, 635m	SWC, 695m	SWC, 832m	SWC, 896.5m	SWC, 997m	SWC, 1027m	SWC, 1040m	SWC, 1064m	SWC, 1115m	SWC, 1151m	SWC, 1200.5m	SWC, 1255m	SWC, 1264m	SWC, 1340m	SWC, 1364m
Protoglobobulimina affinis								r							
Marginulina spp.								s	s						
Discorotalia tenuissima								s	r						
Cibicides semiperforatus								s		s					
Melonis affinis								r							
Cyclammina spp.									r						
Anomalina spp.									r	s					
Notorotalia stachei									s						
Protoglobobulimina ovata									r	s					
Lamarckina spp.									s						
Alabamina spp.									r						
Anomalinoides evolutus									s						
Bolivinopsis cubensis									r						
Epistominella cassidulinoides										r					
PLANKTONIC FORAMINIFERA															
Globigerina praebulloides	f	f	r			f		f	f						
Globigerinoides spp.	c	f	f												
Globoquadrina dehiscens s.s.	s	r	r												
Globigerina brazieri	c							r							
Globigerina woodi woodi	c					s	r	r	s						
Globigerinoides altiapertUrus	r		r												
Globigerina woodi connecta	f	r	s	s		r		f	r						
Turborotalia continuosa	r														
Globigerina aff. angustiumbilicata	s	f		s											
Catapsydrax aff. dissimilis			s					r							
Turborotalia cf. kugleri				r											
Globigerina obesa				r		f									
Globigerinoides aff. primordius				s											
Globigerina spp.				f	f		r			s					
Globigerina euapertura						r		r	r						
Globigerina aff. woodi connecta							s								
Turborotalia opima nana								s							
Catapsydrax aff. unicavus									s						
CALCAREOUS NANNOPLANKTON															
Cyclicargolithus floridanus	a	a	f	a	a	a	a	c	a	f					
Cyclicargolithus abisectus	f	f	f	r	f	c	f	s	f	s					
Dictyococcites productus	c	r		f		r	r	s	f	r					
Sphenolithus moriformis	f	c	f	c	f	f	s	r	r	s					
Discoaster deflandre	s	r							r						
Coronocyclus nitescens	s														
Coccolithus miopelagicus	r	f	s	s	f	c	r	f	r	r					
Reticulofenestra haqii	r	r													
Helicosphaera kamptneri	s														
Sphenolithus abies	r	r							s						
Braarudosphaera bigelowii		r	f	r	f	f	f		r						
Helicosphaera spp.		r		r		s	s								
Micrantholithus attenuatus		r	r	s			r								
Pontosphaera aff. discopora		s													
Micrantholithus spp.				s					s						
Pontosphaera multipora				f		r	r		r						
Helicosphaera euphratis				s		r									
Dictyococcites bisectus				s	r	f	r	f	c						
Zygrhablithus bijugatus					f	f	f		r	s					
Micrantholithus fornicatus					s	s									
Helicosphaera kamptnen						s									
Pontosphaera spp.						r	r								
Helicosphaera aff. recta								s							
Helicosphaera recta									f						
OTHER SKELETAL MATERIAL															
Bryozoan debris	f	f	c					s	f	f					
Ostracods	f	f	r	s	s	f		r	r	r					
Echinoid debris	f	r	c	f					r	f					
Gastropods		r													
Bivalve fragments		r													

s = single, r = rare, f = frequent, c = common, a = abundant.

LA BELLA # 1

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C L I E N T: BHP PETROLEUM
W E L L: LA BELLA #1
F I E L D / A R E A: OFF SHORE OTWAY BASIN

A N A L Y S T: ROGER MORGAN D A T E : AUGUST '93
N O T E S: ALL DEPTHS IN METRES
FIGURES ARE PERCENTAGES FROM 100 SPECIMEN COUNT
"X" = SEEN OUTSIDE COUNT
"XX" = COMMON OCCURENCE OUTSIDE COUNT "*" = REWORKED

RANGE CHART OF OCCURRENCES BY LOWEST APPEARANCE (by groups)

	1 CIRCULODINIUM DEFLANDREI	2 EXOCHOSPHAERIDIUM PHRAGMITES	3 CHLAMYDOPHORELLA NYEI	4 CRIBROPERIDINIUM EDWARDSII	5 CRIBROPERIDINIUM sp	6 HETEROSPHAERIDIUM HETEROCANTHUM	7 CYCLONEPHELIUM MEMBRANIPHORUM	8 HETEROSPHAERIDIUM SOLIDA	9 OLIGOSPHAERIDIUM COMPLEX	10 PALAEOPERIDINIUM CRETACEUM	11 SPINIFERITES FURCATUS/RAMOSUS	12 TRICHODINIUM	13 CYCLONEPHELIUM COMPACTUM	14 HETEROSPHAERIDIUM CONJUNCTUM	15 CALLAIOSPHAERIDIUM ASYMMETRICUM	16 CLEISTOSPHAERIDIUM SP.	17 ODONTOCHITINA OPERCULATA	18 OLIGOSPHAERIDIUM PULCHERRIMUM	19 VERYHACHIUM	20 XIPHOPHORIDIUM ALATUM	21 APECTODINIUM SUMMISIMUM	22 FLORENTINIA LACINIATA	23 HYSTRICHODINIUM PULCHRUM	24 KIOKANSIUM POLYPES	25 PTEROSPERMELLA AUSTRALIENSIS	26 CHLAMYDOPHORELLA SP	27 ODONTOCHITINA COSTATA	28 APTEODINIUM SP.	29 PALAEOHYSTRICHOSPHORA INFUSORIOIDES
0635.0 SWC	.	.	.	.	.	.	.	.	.	.	19	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0695.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0832.0 SWC	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0896.5 SWC	.	.	.	.	.	.	.	.	.	.	30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0997.0 SWC	.	.	.	.	.	.	.	.	.	.	10	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
1027.0 SWC	.	2	.	.	.	.	.	.	.	.	40	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1040.0 SWC	.	.	.	.	.	.	.	.	.	.	24	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.
1064.0 SWC	.	.	.	.	.	.	.	.	.	.	9	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
1115.0 SWC	.	.	.	.	.	.	.	.	.	.	41	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1151.0 SWC	.	.	.	.	.	.	.	.	.	.	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1200.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1255.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1264.0 SWC	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1340.0 SWC	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1364.0 SWC	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1489.0 SWC	.	.	.	.	.	.	.	.	.	.	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1491.0 SWC	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1494.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1517.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1523.0 SWC	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	1	.	X	.	.	.	.	.	.	.	.
1544.0 SWC	.	.	X	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1563.0 SWC	.	.	.	.	.	1	.	.	.	.	1	.	.	.	.	.	.	.	2	.	.	.	X	.	.	.	.	.	.
1580.0 SWC	.	.	.	.	.	.	.	.	.	.	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1640.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2
1663.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.
1721.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1765.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1823 CUTTS	.	.	.	.	.	1	.	.	2	.	4	1	.	X	.	.	X	.	.	.	.	.	.	1	.	.	.	.	5
1865.0 SWC	.	.	.	.	.	6	.	.	.	.	3	.	.	1	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.
1891.0 SWC	.	.	.	.	.	16	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X
1949.0 SWC	.	1	.	.	.	5	.	3	.	.	X	.	.	X	.	1	X	.	.	.	.	.	.	X	.	.	.	.	.
1979.0 SWC	.	1	.	.	.	16	.	.	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
2004.0 SWC	.	.	.	.	.	4	.	15	.	.	2	.	.	.	1	.	2	.	.	X	.	.	.	.	.	.	2	.	.
2020.0 SWC	.	1	.	.	1	11	.	.	3	.	7	.	.	1	1	.	1	2	1	.	.	.	X	1	.	.	.	.	.
2028.0 SWC	.	4	.	.	2	27	.	.	2	.	3	.	1	.	.	.	.	4	.	.	.	.	.	.	.	.	1	.	.
2028.0 swc	.	4	.	.	.	4	.	.	1	.	7	.	.	.	2	.	.	1	.	.	.	.	.	2	.	.	.	2	.
2043.0 SWC	.	.	.	.	.	6	.	2	.	.	3	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	3	.
2054.0 SWC	1	2	.	.	.	6	.	.	1	.	2	.	.	.	.	.	.	X	3	.	.	.	.	2	.	.	.	X	.
2059.0 SWC	2	4	.	.	.	6	.	.	1	.	1	1	.	.	.	.	3	.	1	.	.	.	.	2	.	.	.	3	.
2066.0 SWC	.	3	.	.	.	3	.	.	3	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2076.0 CORE	.	.	.	.	X	6	.	.	X	.	1	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
2086.1 CORE	1	2	.	.	X	4	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2096.0 CORE	X	X	.	.	.	X	.	.	2	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2111.5 SWC	.	.	.	.	.	2	.	.	2	.	1	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.
2118.0 SWC	5	6	1	X	.	3	.	.	6	.	3	1	.	1	.	2	3	2	.	.	.	.	.	6	.	.	.	.	.
2145.0 SWC	X	2	.	.	.	2	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	1	.	3	.	.	.	.	.
2159.0 SWC	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2164.0 SWC	.	1	X	.	.	4	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2166.0 SWC	.	.	.	.	.	1	.	1	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2179.0 SWC	4	.	.	.	1	X	.	.	.	.	1	.	X	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2199.0 SWC	.	.	.	.	X	3	.	.	.	1	1	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	X	.	.
2232.0 SWC	1	.	.	.	1	24	X	.	11	2	2	.	.	2	.	.	X	.	.	X	.	.	.	1	.	.	.	3	2
2252.0 SWC	.	1	1	?	1	10	.	.	X	2	1	.	.	1	.	.	.	1	.	.	.	.	.	1	.	.	.	.	.
2270.0 SWC	5	.	.	4	X	5	.	.	2	XX	2	.	.	.	.	.	.	5	.	X	.	.	.	5	.	1	X	.	.
2277.5 SWC	1	X	.	1	1	1	X	.	1	1	1	.	X	.	.	.	X	.	.	1	.	1	1	1	X	.	.	.	.
2284.0 SWC	3	2	.	3	.	1	.	.	2	1	1	.	1	1	.	1	.	3	.	.	X	.	.	.	.	.	.	.	.
2286.0 SWC	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2309.0 SWC	1	.	X	5	.	X	.	.	1	38	1	.	1	.	.	.	10	X	.	X	.	.	.	.	.	.	.	.	.
2330.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2398.0 SWC	5	X	.	.	.	3	.	.	2	.	5	.	3	.	X	1	1	1	1	.	.	.	.	.	.	.	.	.	.
2402.0 SWC	11	.	.	3	X	X	.	.	.	.	4	.	3	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2454.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2489 CUTTS	.	.	.	.	.	3	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2497.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2500.0 SWC	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2528.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2540.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2544.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2550 CUTTS	X	1	.	X	.	1	X	X	X	X	X	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2567.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2573 CUTTS	1	.	.	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2593 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2605.0 SWC	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2624.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2640 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2646.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2671.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2683.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2690 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2705.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2715 CUTTS	.	.	1	?	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2730.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2735 CUTTS	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	30 CANNINGIA SPINY	31 ISABELIDINIUM COOKSONIAE	32 MILLIOUDIDINIUM SP.	33 ISABELIDINIUM SP.	34 CIRCULODINIUM SOLIDA	35 MICRODINIUM SP	36 ALTERBIA ACUMINATUM	37 DICONODINIUM PUSILLUM	38 CORONIFERA OCEANICA	39 AREOSPHAERIDIUM SUGGESTIUM	40 APTEA SP	41 APTEODINIUM GRANULATUM	42 CASSIDIUM SP	43 CHATANGIELLA TRIPARTITA	44 CHATANGIELLA VICTORIENSIS	45 ISABELIDINIUM BELFASTENSE	46 ISABELIDINIUM CRETACEUM	47 ODONTOCHITINA PORIFERA	48 TRITHYRODINIUM SUSPECTUM	49 TRITHYRODINIUM THICK SCABRATE	50 TRITHYRODINIUM THICK VERMICULATE	51 TRITHYRODINIUM THICK VERRUCATE	52 TRITHYRODINIUM THIN PSILATE	53 CHATANGIELLA MICROCANTHA	54 EUCLADINIUM MADURENSUS	55 FROMEA FRAGILIS	56 NELSONIELLA ACERAS	57 ODONTOCHITINA CRIBROPODA	58 TRITHYRODINIUM THICK RETICULATE
0635.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0695.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0832.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0896.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0997.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1027.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1040.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1064.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1115.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1151.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	X	.	.
1200.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1255.0 SWC	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1264.0 SWC	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1340.0 SWC	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1364.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1489.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1491.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1494.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.
1517.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1523.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1544.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1563.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1580.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.
1640.0 SWC	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	*	.	.	.	.	.	.	.	.	1*	.	.
1663.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.
1721.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.
1765.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1823 CUTTS	.	X	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	1	.	.	.	.	.	.	X	.	X	.	.
1865.0 SWC	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
1891.0 SWC	.	.	.	1	.	.	.	X	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	4	.	.
1949.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	2	.	.	.	X	.	.
1979.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	X	X	1	3	X	X
2004.0 SWC	.	.	.	1	.	.	.	.	.	.	.	.	32	4	3	X	3	X	X	X	X	4	11	.	.	.	.	.	.
2020.0 SWC	.	.	.	.	X	.	.	.	.	.	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 SWC	.	.	.	.	.	.	.	.	.	?	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 swc	.	.	.	.	2	.	X	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2043.0 SWC	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2054.0 SWC	.	X	.	.	1	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2059.0 SWC	.	4	1	.	X	.	3	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2066.0 SWC	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2076.0 CORE	.	.	.	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2086.1 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2096.0 CORE	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2111.5 SWC	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2118.0 SWC	X	9	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2145.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2159.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2164.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2166.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2179.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2199.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2232.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2252.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2270.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2277.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2284.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2286.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2309.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2330.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2398.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2402.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2454.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2489 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2497.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2500.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2528.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2540.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2544.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2550 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2567.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2573 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2593 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2605.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2624.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2640 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2646.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2671.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2683.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2690 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2705.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2715 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2730.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2735 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Sample	59 HESLERTONIA STRIATA	60 MADURADINIUM PENTAGONUM	61 HETEROSPHAERIDIUM LATEROBRACHIUS	62 NELSONIELLA TUBERCULATA	63 ODONTOCHITINA OBESA	64 XENIKOON AUSTRALIS	65 ANTHOSPHAERIDIUM CONVOLVULOIDES	66 PTEROSPERMELLA AUREOLATA	67 FROMEA CHYTRA	68 ANTHOSPHAERIDIUM WISEMANIAE	69 DEFLANDREA SP.	70 EXOCHOSPHAERIDIUM SP	71 XENASCUS CERATOIDES	72 TANYOSPHAERIDIUM SALPINX	73 CHATANGIELLA CF CRETACEA	74 CHATANGIELLA SP.	75 ISABELIDINIUM KOROJONENSE	76 ACHOMOSPHAERA RAMULIFERUM	77 DEFLANDREA PACHYCEROS	78 DIPHYES COLLIFERUM	79 OPERCULODINIUM	80 SYSTEMATOPHORA PLACACANTHUM	81 ACHOMOSPHAERA CRASSIPELLIS	82 APECTODINIUM HOMOMORPHUM	83 APECTODINIUM QUINQUILATUM	84 APTEODINIUM AUSTRALIENSE	85 CEREBROCYSTA SP	86 CORDOSPHAERIDIUM INODES	87 CYCLOPSIELLA
0635.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	3	.	.	.	.	.	.	.
0695.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8	3	.	.	.	2	.	.	.
0832.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.
0896.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	6	11	.	.	.	.	.	.	.
0997.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	1	.	.	.	.	.	.	.
1027.0 SWC	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	10	1	.	.	.	.	.	3	.
1040.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	XX	.
1064.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1115.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	20	1	.	.	.	.	.	.	.
1151.0 SWC	.	1	.	.	.	12	.	.	.	.	.	.	.	.	.	.	.	.	.	1	18	.	.	.	.	.	.	.	.
1200.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1255.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.
1264.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	✓	.	X	X	.	.	.	.	.	X	.
1340.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
1364.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	X	X	.	.	.	.	.	.	X
1489.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.	X	.	.
1491.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	X	.	.	.	.	.	.
1494.0 SWC	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	1	.	.	X	.	.	.	.	.	.	1	.
1517.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	2	.
1523.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	14	1	X	1	X	X	X	4	X
1544.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	X	X	X	?	.	.	.	.	.	.	.
1563.0 SWC	.	.	.	.	.	?	.	.	.	.	.	.	.	.	X	1	?	.	.	.	.	.	.	.	.	.	.	.	.
1580.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1640.0 SWC	.	.	.	.	.	4	.	.	.	.	.	.	2	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1663.0 SWC	.	.	.	.	.	3	.	.	X	X	1	3	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1721.0 SWC	.	.	.	.	.	23	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1765.0 SWC	.	.	.	.	.	25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1823 CUTTS	.	.	.	1	.	10	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1865.0 SWC	.	.	1	2	X	19	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1891.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1949.0 SWC	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2004.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2020.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 swc	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2043.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2054.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2059.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2066.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2076.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2086.1 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2096.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2111.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2118.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2145.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2159.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2164.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2166.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2179.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2199.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2232.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2252.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2270.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2277.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2284.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2286.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2309.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2330.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2398.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2402.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2454.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2489 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2497.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2500.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2528.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2540.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2544.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2550 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2567.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2573 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2593 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2605.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2624.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2640 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2646.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2671.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2683.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2690 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2705.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2715 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2730.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2735 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	88 DEFLANDREA PHOSPHORITICA	89 DEFLANDREA TRUNCATA	90 HEMICYSTODINIUM ZOHARYI	91 HOMOTRYBLIUM TASMANIENSE	92 HYSTRICHOKOLPOMA EISENACKI	93 HYSTRICHOKOLPOMA RIGAUDIAE	94 IMPAGIDINIUM VICTORIANUM	95 KENLEYIA SP.	96 LEPTODINIUM VICTORIANUM	97 MILLIOUDODINIUM TENUITABULATUS	98 MURATODINIUM FIMBRIATUM	99 RHOMBODINIUM GLABRUM	100 SAMLANDIA CHLAMYDOPHORIDITES	101 SENONIASPHAERA SP	102 WETZELIELLA HAMPDENENSIS	103 WETZELIELLA ORNATUM	104 WETZELIELLA WAIPAWAENSIS	105 DAPSILIDINIUM PSEUDOCOLLIGERUM	106 IMPAGIDINIUM MACULATUM	107 GLAPHYRODINIUM VICINUM	108 KISSELOVIA THOMPSONAE	109 WETZELIELLA SP	110 ACHILLEODINIUM BIFORMOIDES	111 CORDOSPHAERIDIUM FIBROSPINOSUM	112 DAPSILIDINIUM PASTIELSI	113 DRACODINIUM SPONGY	114 HOMOTRIBLIUM BREVIRADIATUM	115 KISSELOVIA EDWARDSII	116 THALASSIPHORA PELAGICA
0635.0 SWC	.	.	1	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0695.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0832.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0896.5 SWC	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
0997.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1027.0 SWC	.	.	2	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.
1040.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1064.0 SWC	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1115.0 SWC	.	.	5	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1151.0 SWC	.	.	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1200.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1255.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1264.0 SWC	.	.	.	.X	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
1340.0 SWC	X	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
1364.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	X	X	X	.	.	.	.	.	.	.	.	.
1489.0 SWC	?	.	10	15	X	.	X	.	.	X	2	.	X	.	.	1	.	.	X	2	X	.	1	X	1	X	2	X	X
1491.0 SWC	?	2	7	.	1	.	.	.	.	.	.	.	.	.	.	X	.	.	.	X	X	?	.	.	.	.	.	.	.
1494.0 SWC	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1517.0 SWC	.	X	.	X	2	.	.	.	.	.	.	.	.	.	.	.	.	3	1	.	.	.	.	.	.	.	.	.	.
1523.0 SWC	?	X	1	9	X	X	X	1	X	1	X	X	X	X	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.
1544.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1563.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1580.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1640.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1663.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1721.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1765.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1823 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1865.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1891.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1949.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2004.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2020.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 swc	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2043.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2054.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2059.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2066.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2076.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2086.1 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2096.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2111.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2118.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2145.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2159.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2164.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2166.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2179.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2199.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2232.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2252.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2270.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2277.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2284.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2286.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2309.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2330.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2398.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2402.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2454.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2489 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2497.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2500.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2528.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2540.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2544.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2550 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2567.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2573 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2593 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2605.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2624.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2640 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2646.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2671.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2683.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2690 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2705.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2715 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2730.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2735 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	117 WETZELIELLA PENTAGONAL	118 CHIROPTERIDIUM TABULATE	119 HYSTRICHOSPHAERIDIUM TUBIFERUM	120 IMPAGIDINIUM MARGINATA	121 IMPAGIDINIUM SP	122 TECTATODINIUM	123 PHTANOPERIDINIUM COMATUM	124 CORRUDINIUM INCOMPOSITUM	125 LINGULODINIUM MACHAEROPHORUM	126 NELSONIELLA SEMIRETICULATA	127 PALAEOCYSTIDINIUM AUSTRALINIUM	128 AREOLIGERA SP	129 OPERCULODINIUM CENTROCARPUM	130 CRASSOSPHAERA CONCINNIA	131 IMPLETOSPHAERIDIUM SP.1	132 ACHOMOSPHAERA ALCICORNU	133 CHIROPTERIDIUM ASPINATUM	134 CHIROPTERIDIUM DISPERSUM GP.	135 COMPOSITOSPHAERIDIUM SP.	136 HYSTRICHOKOLPOMA SP.	137 SCHEMATOPHORA SPECIOSUS	138 BATIACASPAERA SP.	139 CASSICULOSPHAERIDIA SP.	140 ARAUCARIACITES AUSTRALIS	141 ARAUCARIACITES FISSUS	142 CALLIALASPORITES DAMPIERI	143 CALLIALASPORITES TURBATUS	144 CICATRICOSISPORITES AUSTRALIENSIS	145 COROLLINA TOROSUS
0635.0 SWC	.	.	.	.	.	5	.	.	.	.	.	.	8	X	X	2	.	.	.	.	.	.	1	.	.	.	.	.	.
0695.0 SWC	.	.	.	.	.	3	.	.	.	.	.	.	10	.	.	31	.	.	.	.	3	10	8	.	.	X	.	.	.
0832.0 SWC	.	.	.	.	.	X	.	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0896.5 SWC	.	.	.	.	.	4	.	.	1	.	.	.	9	.	6	2	2	21	.	X	1	.	.	.	.	.	.	.	.
0997.0 SWC	.	.	.	.	.	1	.	.	.	.	.	.	3	.	.	2	.	.	.	.	.	.	.	3	.	.	.	.	.
1027.0 SWC	.	.	.	.	.	.	.	.	1	.	.	2	9	.	.	4	X	2	5	4	.	.	.	.	.	.	.	.	.
1040.0 SWC	.	.	.	.	.	7	.	.	.	.	.	X	8	X	1	.	.	.	.	.	.	.	.	X	.	.	.	.	.
1064.0 SWC	.	.	.	.	.	.	1	.	1	.	.	.	7	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.
1115.0 SWC	.	.	1	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1151.0 SWC	.	.	.	.	.	1	.	.	.	X	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1200.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1255.0 SWC	.	.	.	.	X	X	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.
1264.0 SWC	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1340.0 SWC	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1364.0 SWC	.	X	X	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.
1489.0 SWC	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.
1491.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.
1494.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.
1517.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	X
1523.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	1
1544.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	X	.
1563.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	X	.	X	1
1580.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	1
1640.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	4	.
1663.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	4	1
1721.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	1
1765.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	1	.
1823 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	1	.	.	1
1865.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	1	X
1891.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.
1949.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	2	1	1
1979.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	2	.
2004.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2020.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	4
2028.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 swc	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	1
2043.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	1	.
2054.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	1	.	1
2059.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	X	3
2066.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	.	3	.	.	1
2076.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	1	1	1
2086.1 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	2
2096.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	1	1	2
2111.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	1	.	1
2118.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	3
2145.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	2	3	.
2159.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	6	.	1	.	1	1
2164.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	1	.	2	4
2166.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	X	1	2	2
2179.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	2	.	1
2199.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	.
2232.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.
2252.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	1	.	.	3
2270.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	1
2277.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	.	X	1
2284.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	.	.	2
2286.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	2	4	.	1
2309.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	X	1
2330.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	3	.	4
2398.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	1	2	.	X
2402.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	3	2
2454.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	1	1	.	3
2489 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8	.	8	2	.	3
2497.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	X
2500.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	1	3	X	.
2528.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	1
2540.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2544.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	.	1	3	7	2
2550 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	5	1	1	.
2567.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	.	2	1	6	1
2573 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	1	4	3	1	1
2593 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	5	1	.	4
2605.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	X	X
2624.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.
2640 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	7	.	8	5	.	3
2646.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	2	1	2	1
2671.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	X	X	X
2683.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	.	.	4	.	2
2690 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	4	2	3	3
2705.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	X	.	X	X
2715 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	7	.	1	3	5	3
2730.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.
2735 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	1	4	10	2	1

	CYATHIDITES AUSTRALIS	CYATHIDITES MINOR	CYCADOPITES FOLLICULARIS	FALCISPORITES GRANDIS	FALCISPORITES SIMILIS	KLUKISPORITES SCABERIS	MICROCACHRYIDITES ANTARCTICUS	OSMUNDACIDITES WELLMANII	PEROTRILETES JUBATUS/MORGANII	RETITRILETES AUSTROCLAVATIDITES	STERIESPORITES ANTIQUASPORITES	AEQUITRIRADITES VERRUCOSUS	CINGUTRILETES CLAVUS	CONCAVISSIMISPORITES PENOLAENSIS	CRYBELOSPORITES STRIATUS	FORAMINISPORIS ASYMMETRICUS	FOVEOTRILETES PARVIRETUS	ISCHYOSPORITES PUNCTATUS	TRIPOROLETES RADIATUS	TRIPOROLETES RETICULATUS	TRIPOROLETES SIMPLEX	APPENDICISPORITES DISTOCARINATUS	CERATOSPORITES EQUALIS	CONTIGNISPORITES GLEBULENTUS	GLEICHENIIDITES	PODOSPORITES MICROSACCATUS	CICATRICOSISPORITES CUNEIFORMIS	FOVEOGLEICHENIIDITES	CYCLOSPORITES HUGHESI
	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174
0635.0 SWC	.	9	.	7	.	.	2	1	.	2	1	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.
0695.0 SWC	.	8	.	.	2	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0832.0 SWC	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0896.5 SWC	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0997.0 SWC	.	13	.	.	13	.	4	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	.	.	.	.
1027.0 SWC	.	3	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1040.0 SWC	.	7	.	.	2	.	.	1	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.
1064.0 SWC	1	9	.	.	15	.	6	1	.	3	.	.	.	.	.	.	.	.	.	.	.	.	3	.	1	.	.	.	.
1115.0 SWC	1	1	.	.	.	.	1	1	.	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1151.0 SWC	X	3	.	.	1	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	2	.	.	.	.
1200.5 SWC	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1255.0 SWC	X	.	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1264.0 SWC	X	X	.	.	X	.	.	X	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1340.0 SWC	X	X	.	.	.	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1364.0 SWC	X	X	.	X	X	.	.	.	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.
1489.0 SWC	1	3	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	1	.	.	.
1491.0 SWC	4	2	.	1	2	.	X	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	2	1	.	.	.
1494.0 SWC	4	3	.	2	8	.	2	.	.	2	.	.	X	.	.	.	.	1	.	.	.	.	.	.	1	.	.	.	.
1517.0 SWC	2	7	.	3	1	.	2	2	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.
1523.0 SWC	.	2	.	2	2	.	1	1	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1544.0 SWC	5	11	.	5	17	.	7	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	2	.	2	1	.	X	.
1563.0 SWC	6	6	.	3	21	.	5	1	.	6	.	.	X	.	.	.	.	.	.	1	.	.	3	.	3	5	.	.	.
1580.0 SWC	18	.	.	.	24	.	5	2	.	3	.	.	.	.	.	*	.	.	.	X	.	.	2	.	2	.	.	.	.
1640.0 SWC	17	.	.	.	14	.	2	2	.	6	.	.	.	.	.	.	.	.	2	2	.	.	3	.	3	.	.	.	.
1663.0 SWC	13	.	.	.	18	.	3	5	.	3	.	.	.	.	.	.	.	.	1	2	.	.	2	.	5	.	.	.	*
1721.0 SWC	18	.	.	.	19	.	1	3	.	2	.	.	.	.	.	.	.	.	1	.	.	.	2	.	5	.	.	.	.
1765.0 SWC	20	.	.	.	18	.	2	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	1	.	.	.	.
1823 CUTTS	6	3	.	5	25	.	1	2	.	2	1	.	1	.	.	1	.	.	.	.	.	.	.	.	3	3	.	.	.
1865.0 SWC	4	6	X	1	22	.	8	3	.	3	X	.	X	.	.	.	.	.	.	X	.	.	1	.	3	1	.	.	.
1891.0 SWC	21	.	.	23	.	.	2	1	.	2	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.
1949.0 SWC	5	8	1	13	11	.	6	6	.	3	1	.	.	.	.	.	.	.	.	.	.	.	5	.	4	1	.	.	.
1979.0 SWC	3	6	.	4	16	.	15	3	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	3	.	.	.
2004.0 SWC	2	1	.	1	3	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	.	.	.	.
2020.0 SWC	1	10	1	1	15	.	6	X	.	X	X	.	X	.	.	.	.	.	.	.	.	X	.	.	4	2	.	.	.
2028.0 SWC	11	.	.	.	16	.	2	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.
2028.0 swc	1	4	1	4	12	.	10	1	.	1	1	.	1	.	.	.	.	.	.	.	.	.	1	.	2	5	.	.	.
2043.0 SWC	3	6	1	3	17	.	5	2	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	3	.	.	.
2054.0 SWC	2	5	.	2	16	.	6	3	.	1	.	.	1	.	.	.	.	.	X	.	.	.	1	.	2	1	.	.	.
2059.0 SWC	1	8	1	3	13	.	3	1	.	1	.	.	X	.	.	.	.	.	.	.	.	X	1	.	1	4	.	.	.
2066.0 SWC	7	15	.	2	20	.	9	6	.	1	2	.	X	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.
2076.0 CORE	8	7	.	5	11	.	12	1	X	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	3	8	.	.	.
2086.1 CORE	7	11	.	6	12	.	22	X	X	1	1	.	.	.	.	X	.	X	.	.	.	X	.	.	5	5	.	.	.
2096.0 CORE	2	19	.	.	23	.	8	1	.	2	.	.	.	.	.	.	.	.	.	.	.	2	.	.	5	.	.	.	.
2111.5 SWC	6	7	.	7	24	.	9	9	.	1	2	.	.	.	.	.	.	.	.	.	.	.	.	.	5	5	.	.	.
2118.0 SWC	2	7	1	5	12	.	4	1	.	1	.	.	.	.	.	.	.	.	.	.	.	X	.	.	3	.	.	.	.
2145.0 SWC	5	7	.	3	15	.	7	3	.	1	2	.	.	.	.	.	.	.	.	.	.	2	.	.	5	2	.	.	.
2159.0 SWC	6	12	1	6	23	.	10	17	.	1	1	.	1	.	.	.	.	.	.	.	.	.	2	.	4	.	.	.	.
2164.0 SWC	7	16	.	5	22	.	11	8	.	1	.	.	.	.	.	.	.	.	.	.	.	1	1	.	3	3	.	.	.
2166.0 SWC	3	13	1	6	25	.	13	5	.	1	.	.	.	.	.	1	.	.	.	.	.	X	.	.	4	1	.	.	.
2179.0 SWC	5	3	.	5	18	.	18	6	.	X	X	.	.	.	.	.	.	.	.	.	.	X	.	.	1	.	.	.	.
2199.0 SWC	43	.	.	.	26	.	3	3	.	.	.	.	.	.	.	.	.	.	.	.	.	X	2	.	3	.	.	.	.
2232.0 SWC	2	10	.	4	7	1	5	1	.	1	.	.	1	.	.	.	.	.	.	.	.	1	1	.	1	3	.	.	.
2252.0 SWC	4	10	1	8	15	.	6	1	.	1	1	.	.	.	.	.	.	.	.	.	.	X	.	.	8	.	.	.	.
2270.0 SWC	28	.	.	.	17	.	4	.	.	.	.	.	.	.	.	.	.	.	.	X	.	5	.	.	.	.	.	.	*
2277.5 SWC	4	19	1	2	12	.	14	3	.	1	1	X	1	.	.	.	.	.	.	X	.	1	1	.	4	4	.	.	.
2284.0 SWC	4	12	.	4	19	.	14	1	.	1	3	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.
2286.0 SWC	12	12	.	9	17	.	9	11	.	6	1	.	.	.	.	.	.	X	X	.	.	X	1	.	4	3	.	.	.
2309.0 SWC	1	3	1	1	10	.	5	1	.	1	3	.	.	X	.	.	.	.	.	X	.	.	1	.	1	2	.	.	.
2330.0 SWC	7	6	1	11	21	1	18	5	X	6	.	X	1	.	.	.	.	.	.	.	.	1	1	.	2	2	.	.	.
2398.0 SWC	4	6	.	11	22	.	16	1	.	3	1	.	.	.	.	.	X	X	.	X	.	X	.	.	4	1	.	.	.
2402.0 SWC	5	7	1	9	10	.	8	7	X	2	.	.	.	.	.	.	.	.	.	.	.	2	1	.	3	.	.	.	.
2454.0 SWC	3	11	2	7	26	.	10	7	1	6	1	.	.	.	.	X	.	3	.	.	.	X	.	.	2	2	.	.	.
2489 CUTTS	8	4	.	13	25	3	.	12	.	3	.	.	.	.	.	.	.	.	.	.	.	2	.	.	2	.	.	.	.
2497.0 SWC	X	X	.	X	X	.	XX	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2500.0 SWC	9	11	X	18	15	.	10	6	.	4	2	X	.	.	.	1	.	2	.	.	.	1	6	X	2	.	.	.	X
2528.0 SWC	6	6	1	7	47	.	7	2	.	4	X	.	.	1	.	.	.	.	.	.	.	X	1	.	1	.	.	.	1
2540.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2544.5 SWC	4	3	.	6	12	.	30	4	.	.	.	.	.	.	.	.	.	.	1	3	.	1	2	.	1	11	.	.	.
2550 CUTTS	10	3	1	15	27	2	14	2	1	6	.	.	.	.	.	1	.	.	X	1	.	1	1	.	.	.	.	.	.
2567.0 SWC	9	11	.	13	11	.	16	9	.	6	X	X	.	.	.	X	.	X	.	.	.	.	1	.	1	1	1	.	.
2573 CUTTS	17	6	2	10	25	2	11	5	.	4	1	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.
2593 CUTTS	8	13	.	22	25	X	6	4	.	3	.	.	.	.	.	.	.	.	.	.	.	1	1	.	1	.	.	.	.
2605.0 SWC	XX	XX	.	XX	XX	.	X	XX	.	X	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	X	.	.	.
2624.0 SWC	XX	X	.	XX	X	.	X	X	.	X	X	.	.	.	.	.	.	.	.	.	.	X	X	.	.	.	.	.	.
2640 CUTTS	9	4	.	15	20	.	13	7	.	3	.	.	.	.	.	.	.	.	1	.	.	.	1	.	1	.	.	.	.
2646.5 SWC	4	10	1	11	38	1	7	6	.	3	.	.	1	.	.	.	.	1	.	.	.	.	2	.	1	.	X	.	1
2671.0 SWC	X	XX	.	XX	XX	.	X	X	.	X	.	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.
2683.0 SWC	9	14	1	19	21	.	4	6	.	3	.	.	1	.	.	.	.	.	.	.	.	.	2	.	5	1	.	.	.
2690 CUTTS	9	6	.	30	17	.	3	7	.	2	2	.	.	.	.	.	.	.	.	2	.	.	.	.	2	.	X	2	.
2705.0 SWC	X	X	.	XX	XX	.	XX	XX	.	X	.	.	.	.	.	.	.	.	.	.	.	?	X	X	X	X	.	.	.
2715 CUTTS	12	6	2	17	18	1	10	1	.	1	.	X	X	X	2	X	1	X	1	4	1	.	.	.	.	.	.	.	.
2730.0 SWC	.	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2735 CUTTS	9	11	3	6	24	1	8	5	1	3	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	175 DICTYOTOSPORITES SPECIOSUS	176 FORAMINISPORIS DAILYI	177 LYCOPODIACIDITES ASPERATUS	178 PILOSISPORITES NOTENSIS	179 VITREISPORITES PALLIDUS	180 DICTYOPHYLLIDITES	181 LEPTOLEPIDITES VERRUCATUS	182 SESTROSPORITES PSEUDOALVEOLATUS	183 PROTEACIDITES SP.	184 TRIPOROLETES BIRETICULATUS	185 AEQUITRIRADITES TILCHAENSIS	186 RETITRILETES CIRCOLUMENUS	187 PHYLLOCLADIDITES MAWSONII	188 CICATRICOSISPORITES LUDBROOKIAE	189 COPTOSPORA PILEOSA	190 AEQUITRIRADITES SPINULOSUS	191 CAMEROZONOSPORITES LATROBENSIS	192 DILWYNITES GRANULATUS	193 PHYLLOCLADIDITES EUNUCHUS	194 RETITRILETES FACETUS	195 RETITRILETES NODOSUS	196 FORAMINISPORIS WONTHAGGIENSIS	197 DICTYOTOSPORITES COMPLEX	198 DILWYNITES TUBERCULATUS	199 VELOSPORITES TRIQUETRUS	200 AMOSOPOLLIS CRUCIFORMIS	201 ANTULSPORITES VARIGRANULATUS	202 LAEVIGATOSPORITES OVATUS	203 CONTIGNISPORITES COOKSONIAE
0635.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	10	.	.	.	.	.	.	.	.	.	.	.
0695.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0832.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
0896.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0997.0 SWC	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	14	.	.	.	.	.	.	.	.	.	.	.
1027.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.
1040.0 SWC	.	.	.	.	.	1	.	.	.	.	.	.	1	.	.	.	.	17	.	.	.	X	.	.	.	.	.	3	.
1064.0 SWC	.	.	.	.	.	1	.	.	.	.	.	.	1	.	.	.	.	8	.	.	.	.	.	2	.	.	.	2	.
1115.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	4	.	.	.	.	.	.	.	.	.	.	.
1151.0 SWC	.	.	.	.	1	.	.	.	3	.	.	.	.	.	.	.	.	5	.	.	.	.	.	.	.	.	.	.	.
1200.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1255.0 SWC	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
1264.0 SWC	.	.	.	.	.	.	.	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1340.0 SWC	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
1364.0 SWC	.	.	.	.	.	.	.	.	X	.	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
1489.0 SWC	.	.	.	.	.	.	.	.	6	.	.	.	.	.	.	.	.	9	.	.	.	.	.	.	.	.	.	2	.
1491.0 SWC	.	.	1	.	1	.	.	.	11	.	.	.	1	.	.	.	.	13	.	.	.	.	.	.	.	.	.	.	.
1494.0 SWC	.	.	.	.	.	.	.	.	15	.	.	.	1	.	.	.	.	10	.	.	.	.	.	.	.	.	.	X	.
1517.0 SWC	.	.	.	.	.	.	.	.	13	.	.	.	1	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.
1523.0 SWC	.	.	.	.	.	.	.	.	8	.	.	.	.	.	.	.	.	7	.	.	.	.	.	.	.	.	.	.	.
1544.0 SWC	.	.	.	.	.	.	X	.	8	.	.	.	X	.	.	.	.	17	.	.	.	.	.	.	.	.	.	X	.
1563.0 SWC	1	1	.	.	1	.	.	.	6	.	.	.	1	.	.	1	.	3	.	.	.	.	.	.	.	3	.	X	.
1580.0 SWC	.	.	.	.	.	2	.	.	23	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
1640.0 SWC	.	.	.	*	.	4	1	.	19	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	*
1663.0 SWC	*	.	.	.	.	2	.	.	16	.	.	.	X	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	X
1721.0 SWC	.	.	.	.	.	.	X	.	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1765.0 SWC	.	.	.	.	.	.	X	.	22	.	.	.	.	.	.	.	.	3	1	.	.	.	.	.	.	.	.	.	.
1823 CUTTS	X	.	.	.	.	.	.	.	1	.	.	.	X	.	.	.	.	6	.	.	.	.	.	.	.	1	.	1	.
1865.0 SWC	.	2	.	.	X	.	.	.	.	.	.	.	2	.	.	1	.	2	.	.	.	.	.	.	.	.	.	.	.
1891.0 SWC	.	.	.	.	.	.	X	.	9	.	.	.	.	.	.	.	.	10	.	.	.	.	.	.	.	1	.	.	.
1949.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	8	.	.	.	.	.	.	.	2	1	.	.
1979.0 SWC	.	.	.	.	1	.	.	.	1	.	.	.	2	1	.	.	.	9	1	.	.	.	.	.	.	X	.	.	.
2004.0 SWC	.	.	.	.	.	.	.	1	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X
2020.0 SWC	.	.	X	.	1	.	X	.	.	.	.	X	.	X	.	.	.	17	.	X	.	.	.	.	.	2	X	.	.
2028.0 SWC	1	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	3	1	.	.	.	.	.	.	18	.	.	.
2028.0 swc	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	16	.	.	.	.	.	.	.	10	.	.	1
2043.0 SWC	.	.	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	13	.	.	.	.	.	.	.	14	.	.	.
2054.0 SWC	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	22	.	.	.	.	.	.	.	14	.	.	.
2059.0 SWC	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	21	.	.	.	.	.	.	.	3	.	.	.
2066.0 SWC	.	.	.	.	X	.	.	.	.	.	.	.	1	.	.	.	.	5	1	.	.	.	.	.	.	.	.	1	.
2076.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	13	.	.	.	.	.	.	.	19	.	.	.
2086.1 CORE	.	X	X	.	.	.	.	.	.	.	.	.	.	X	.	.	.	10	.	.	.	X	.	.	.	6	.	.	.
2096.0 CORE	.	.	.	.	.	.	1	.	.	.	.	.	1	.	.	.	.	15	.	.	.	.	.	.	.	5	2	1	.
2111.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	6	.	.	.	.	.	.	.	.	.	2	.
2118.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.
2145.0 SWC	.	.	3	.	.	.	.	.	.	.	.	.	1	1	.	.	.	15	.	.	.	.	.	.	.	1	.	4	.
2159.0 SWC	.	.	2	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.
2164.0 SWC	.	.	1	.	.	.	.	.	.	.	.	.	1	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2166.0 SWC	.	.	3	.	1	1	.	.	.	.	.	.	1	.	.	.	.	4	2	.	.	.	.	.	.	X	.	X	1
2179.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	23	X	.	.	.	.	.	.	.	.	.	.
2199.0 SWC	.	.	.	.	.	6	1	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.
2232.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	11	.	.	.	.	.	.	.	.	.	.	.
2252.0 SWC	.	.	1	.	2	.	.	.	.	.	.	.	1	X	.	.	.	15	.	.	.	.	.	.	.	.	.	.	.
2270.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	10	.	.	.	.	.	.	.	1	.	.	1
2277.5 SWC	.	.	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	11	1	.	.	.	.	.	.	.	.	.	.
2284.0 SWC	.	.	1	.	.	.	.	.	.	.	.	.	?	.	.	.	.	8	1	.	.	.	.	.	.	.	.	.	.
2286.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	.	.	.	.	.	.	.	.	.
2309.0 SWC	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	3	.	.	.	.	.	.	.	.	.	1
2330.0 SWC	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	5	X	1	.	.	.	.	.	.	.	.	.
2398.0 SWC	.	.	.	.	X	.	X	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	X	.
2402.0 SWC	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	.	.	.	.	.	.	.	X	1	.	.
2454.0 SWC	.	.	X	.	X	.	1	.	.	.	.	.	.	.	X	.	.	.	1	.	.	.	X	4	X	.	.	.	.
2489 CUTTS	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2497.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2500.0 SWC	.	X	.	.	.	.	X	1	.	.	.	.	.	.	.	.	.	4	?	.	.	1	.	.	.	.	.	.	.
2528.0 SWC	.	.	.	X	X	.	.	.	.	.	.	.	.	.	.	1	5	6	X	X	X	.	.	.	.	.	.	.	.
2540.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2544.5 SWC	.	.	.	.	1	.	.	.	.	.	.	.	.	1	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2550 CUTTS	.	1	.	?	.	.	.	.	X	.	X	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2567.0 SWC	.	1	.	X	.	.	2	.	.	.	X	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2573 CUTTS	.	.	.	.	.	.	.	.	X	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2593 CUTTS	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2605.0 SWC	.	X	.	.	.	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2624.0 SWC	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2640 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2646.5 SWC	1	X	X	X	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2671.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2683.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2690 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2705.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2715 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2730.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2735 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Sample	204 CICATRICOSISPORITES RADIATUS	205 DENSOISPORITES VELATUS	206 APPENDICISPORITES TRICORNITATUS	207 CLAVIFERA TRIPLEX	208 TRICOLPITES	209 AUSTRALOPOLLIS OBSCURIS	210 CORONATISPORA PERFORATA	211 LILIACIDITES SP.	212 TRILOBOSPORITES TRIORETICULOSUS	213 INTERULOBITES INTRAVERRUCATUS	214 BALMEISPORITES HOLODICTYUS	215 PEROTRILETES MAJUS	216 CAMEROZONOSPORITES SP	217 TRICOLPITES VARIVERRUCATUS	218 COPTOSPORA PARADOXA	219 PROTEACIDITES SP. LARGE	220 CAMEROZONOSPORITES OHAIENSIS	221 CICATRICOSISPORITES HUGHESI	222 LYGISTIPOLLENITES FLORINII	223 TRICOLPITES CONFESSUS	224 TRICOLPITES SABULOSUS	225 TRICOLPORITES GILLI	226 GAMBIERINA RUDATA	227 NEORAISTRICKIA	228 NOTHOFAGIDITES SENECTUS	229 PEROTRILETES SP	230 BEAUPREADITES VERRUCOSUS	231 GAMBIERINA EDWARDSI	232 LYGISTIPOLLENITES BALMEI
0635.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	7	.	.	.	.	.	.	.	.	.	.
0695.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.	.	.	.	.	.
0832.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
0896.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
0997.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	3	.	.	.	.	.	.	.	.	.	.
1027.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1040.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.
1064.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	7	.	.	.	.	.	.	.	.	.	.
1115.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1151.0 SWC	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1200.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1255.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1264.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
1340.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1364.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
1489.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	X	.	.
1491.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
1494.0 SWC	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.
1517.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1523.0 SWC	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.
1544.0 SWC	.	.	.	2	X	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
1563.0 SWC	.	.	.	2	.	X	.	.	.	.	1	.	.	.	.	4	1	.	X	.	2	X	X	.	1	.	.	X	.
1580.0 SWC	.	.	.	2	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	1	.	.	1	.	4	.	.	.	.
1640.0 SWC	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	?	.	1	1	3	.	.	.	1
1663.0 SWC	.	.	.	3	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	?	.	X	1	6	.	X	?	1
1721.0 SWC	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	?	.	X	1	5	X	.	.	.
1765.0 SWC	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	2	.	.	.	.	.	.
1823 CUTTS	.	.	.	.	.	1	.	.	.	.	.	.	.	.	X	2	.	.	.	.	.	1	.	.	.	.	.	.	.
1865.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	X	.	.	1	.	.	.	.	.	.	.	.
1891.0 SWC	.	.	.	3	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1949.0 SWC	.	.	.	2	.	X	.	.	.	.	.	.	.	.	.	1	X	X	1	?	.	.	.	.	.	.	.	.	.
1979.0 SWC	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.
2004.0 SWC	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2020.0 SWC	.	.	.	X	.	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 swc	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2043.0 SWC	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2054.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2059.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2066.0 SWC	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2076.0 CORE	.	.	X	1	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2086.1 CORE	X	.	.	.	.	X	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2096.0 CORE	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2111.5 SWC	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2118.0 SWC	.	.	.	1	.	.	.	X	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2145.0 SWC	.	.	.	1	1	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2159.0 SWC	.	.	.	.	.	.	.	X	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2164.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2166.0 SWC	.	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2179.0 SWC	.	.	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2199.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2232.0 SWC	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2252.0 SWC	X	.	X	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2270.0 SWC	.	.	.	X	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2277.5 SWC	.	.	1	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2284.0 SWC	1	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2286.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2309.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2330.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2398.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2402.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2454.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2489 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2497.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2500.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2528.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2540.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2544.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2550 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2567.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2573 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2593 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2605.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2624.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2640 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2646.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2671.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2683.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2690 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2705.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2715 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2730.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2735 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	NOTHOFAGIDITES ENDURUS 233	PERIPOROPOLLENITES POLYORATUS 234	TRICOLPORITES LONGUS 235	ERICIPITES SCABRATUS 236	HALORAGACIDITES HARRISII 237	MALVACIPOLLIS DIVERSUS 238	MALVACIPOLLIS SUBTILIS 239	NOTHOFAGIDITES BRACHYSPINULOSUS 240	NOTHOFAGIDITES FLEMINGII 241	PERIPOROPOLLENITES DEMARCATUS 242	PROTEACIDITES BUN GRANDIS 243	PROTEACIDITES GRANDIS 244	PROTEACIDITES INCURVATUS 245	PROTEACIDITES SCABORATUS 246	STERIESPORITES PUNCTATUS 247	TETRACOLPORITES VERRUCOSUS 248	TRICOLPORITES ESTOUTUS 249	TRILETES TUBERCULIFORMIS 250	ANACOLOSIDITES LUTEOIDES 251	CUPANEIDITES ORTHOTEICHUS 252	INTRATRIPOROPOLLENITES NOTABILIS 253	PROTEACIDITES ASPEROPOLUS 254	PROTEACIDITES ORNATUM 255	PROTEACIDITES PACHYPOLUS 256	PROTEACIDITES TUBERCULIFORMIS 257	TRIPOROPOLLENITES AMBIGUUS 258	MYRTACEIDITES PARVUS 259	MYRTACEIDITES TENUIS 260	NOTHOFAGIDITES DEMINUTUS 261
0635.0 SWC	.	.	.	.	11	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0695.0 SWC	.	.	.	.	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0832.0 SWC	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0896.5 SWC	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.
0997.0 SWC	.	.	.	.	17	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1027.0 SWC	.	.	.	.	X	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1040.0 SWC	.	.	.	.	3	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
1064.0 SWC	.	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
1115.0 SWC	.	.	.	.	7	.	.	1	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.
1151.0 SWC	.	.	.	.	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1200.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1255.0 SWC	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.
1264.0 SWC	.	.	.	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	X
1340.0 SWC	.	.	.	.	X	.	.	X	X	.	.	.	.	.	X	.	.	.	.	.	X	.	.	X	.	.	.	.	.
1364.0 SWC	.	X	.	.	X	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.
1489.0 SWC	.	.	.	.	8	1	5	.	.	.	.	X	.	.	1	.	.	.	.	1	.	1	X	1	.	.	X	.	.
1491.0 SWC	.	.	.	1	21	1	5	.	.	.	.	X	X	.	.	.	.	1	.	.	.	X	X	3	.	.	1	1	.
1494.0 SWC	.	.	.	X	10	1	7	.	X	1	.	X	.	.	.	.	.	2	.	X	.	X	X	2	.	.	1	1	2
1517.0 SWC	.	.	.	.	15	3	5	1	.	X	.	.	X	.	.	.	.	1	.	1	X	X	1	2	1	.	3	X	1
1523.0 SWC	.	.	.	.	4	2	7	.	.	.	.	?	.	.	.	.	.	.	X	1	X	X	1	X	X	1	.	.	.
1544.0 SWC	.	X	.	2	1	2	1	2	1	X	1	X	X	X	2	?	X	X	.	.	.	.	.	.	.	.	.	.	.
1563.0 SWC	X	1	?	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1580.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1640.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1663.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1721.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1765.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1823 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1865.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1891.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1949.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2004.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2020.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 swc	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2043.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2054.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2059.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2066.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2076.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2086.1 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2096.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2111.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2118.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2145.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2159.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2164.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2166.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2179.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2199.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2232.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2252.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2270.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2277.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2284.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2286.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2309.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2330.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2398.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2402.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2454.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2489 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2497.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2500.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2528.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2540.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2544.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2550 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2567.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2573 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2593 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2605.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2624.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2640 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2646.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2671.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2683.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2690 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2705.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2715 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2730.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2735 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Sample	262 NOTHOFAGIDITES EMARICIDUS	263 POLYCOLPITES ESOBALTEUS	264 SANTALUM CAINOZOICUS	265 TRICOLPORITES	266 MALVACIPOLLIS GRANDIS	267 PROTEACIDITES ANNULARIS	268 VERRUCOSISPORITES KOPUKUENSIS	269 PROTEACIDITES LEIGHTONI	270 TRIORITES MAGNIFICUS	271 ORYPTOPOLLENITES SEMILUNATUS	272 NOTHOFAGIDITES FALCATA	273 PROTEACIDITES RECTOMARGINUS	274 CYATHEACIDITES ANNULATUS	275 HERKOSPORITES ELLIOTTII	276 BANKSIEACIDITES ARCUATUS	277 MATONISPORITES ORNAMENTALIS	278 MYRTACEIDITES VERRUCOSUS	279 NOTHOFAGIDITES ASPERUS	280 BOTRYOCOCCUS	281 CAUCA SP	282 NUMMUS MONOCULATUS	283 NUMMUS SP	284 SCHIZOSPORIS PARVUS	285 PARALECANIELLA INDENTATA	286 REWORKING - TRIASSIC	287 REWORKING - PERMIAN	288 REWORKING - JURASSIC	289 REWORKING - CRETACEOUS
0635.0 SWC	X	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	1	1	.	.	.	.	.	.	.	.	.	.
0695.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0832.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0896.5 SWC	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.
0997.0 SWC	1	.	.	.	.	.	.	.	.	.	1	2	X	1	3	.	.	.	.	.	.	.	.	.	.	.	.	.
1027.0 SWC	.	.	.	.	X	.	.	.	.	.	1	X	.	.	.	.	.	.	.	.	X	.	.	1	.	.	.	.
1040.0 SWC	9	.	.	.	.	.	.	.	.	.	3	.	.	.	X	.	.	.	6	.	.	.	.	1	.	.	.	.
1064.0 SWC	.	.	.	.	.	.	.	.	.	.	1	1	1	1	.	.	.	.	9	.	.	.	.	.	.	1	.	.
1115.0 SWC	7	.	.	.	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.
1151.0 SWC	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.
1200.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1255.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1264.0 SWC	X	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1340.0 SWC	X	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1364.0 SWC	.	.	.	.	.	.	.	X	?	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.
1489.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	7	.	.	.	.	.	.	.	.	.
1491.0 SWC	1	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	5	.	.	.	.	X	.	.	.	.
1494.0 SWC	X	.	2	.	1	X	.	.	.	.	.	.	.	.	.	.	.	.	16	.	.	.	.	.	.	.	.	.
1517.0 SWC	1	X	X	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	14	.	.	.	.	.	.	.	.	.
1523.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	21	.	.	.	.	.	.	.	.	.
1544.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	6	.	.	.	.	.	.	.	.	.
1563.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	1	.	.	.	X	X	.	X
1580.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	X	X	.
1640.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
1663.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	*	*	.	.
1721.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
1765.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
1823 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.
1865.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.
1891.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1949.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.
1979.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	1*	.	.
2004.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2020.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.
2028.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 swc	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	.	.	.	.	.	.	.
2043.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	2	.	.	.	.	.	.	.
2054.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
2059.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.
2066.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.	.	.
2076.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
2086.1 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.
2096.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	1	.	.	.	.	.	.
2111.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	6	.	.	.	.	.	.	.
2118.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	6	.	.	X	.	.	.	.
2145.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	3	.	.	.	.	.	.	.
2159.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2164.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	.	.	.	.	.	.	.
2166.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	2	.	1	.	.	.	.	.
2179.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	.	1	X	.	.	.	.	.	.
2199.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2232.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
2252.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2270.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2277.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.
2284.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	1	.	.	.	.	.	.
2286.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1*	.	.
2309.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	1*	.	.
2330.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.
2398.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.
2402.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	.	X	.	.	.	*	*	.	.
2454.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.	X	.	.	.
2489 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2497.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2500.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2528.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.
2540.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2544.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.
2550 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	X	.	.	.
2567.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	X	.	.	.	.	.	.	.	.
2573 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2593 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	X	.	.
2605.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.
2624.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.
2640 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.
2646.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	1	.	.
2671.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2683.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	2*	.	.	.
2690 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.
2705.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.	.
2715 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.
2730.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2735 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.

SPECIES LOCATION INDEX

ndex numbers are the columns in which species appear.

6

6. PALYNOLOGY: BASIC DATA REPORT AND RANGE CHARTS

LA BELLA # 1

MORGAN PALAEO ASSOCIATES . . . Palynological Consultants
Box 161, Maitland, South Australia, 5573.
Phone (088) 32 2795 . Fax (088) 32 2798

C L I E N T: BHP PETROLEUM
W E L L: LA BELLA #1
F I E L D / A R E A: OFF SHORE OTWAY BASIN

A N A L Y S T: ROGER MORGAN D A T E : AUGUST '93
N O T E S: ALL DEPTHS IN METRES
FIGURES ARE PERCENTAGES FROM 100 SPECIMEN COUNT
"X" = SEEN OUTSIDE COUNT
"XX" = COMMON OCCURENCE OUTSIDE COUNT "*" = REWORKED

RANGE CHART OF OCCURRENCES BY LOWEST APPEARANCE - by group -

Sample	1 CIRCULODINIUM DEFLANDREI	2 EXOCHOSPHAERIDIUM PHRAGMITI	3 CHLAMYDOPHORELLA NYEI	4 CRIBROPERIDINIUM EDWARDSII	5 CRIBROPERIDINIUM SP	6 HETEROSPHAERIDIUM HETEROCA	7 CYCLONEPHELIUM MEMBRANIPHO	8 HETEROSPHAERIDIUM SOLIDA	9 OLIGOSPHAERIDIUM COMPLEX	10 PALAEOPERIDINIUM CRETACEUM	11 SPINIFERITES FURCATUS RAMO	12 TRICHODINIUM	13 CYCLONEPHELIUM COMPACTUM	14 HETEROSPHAERIDIUM CONJUNCT	15 CALLAIOSPHAERIDIUM ASYMMET	16 CLEISTOSPHAERIDIUM SP.	17 ODONTOCHITINA OPERCULATA	18 OLIGOSPHAERIDIUM PULCHERRI	19 VERYHACHIUM	20 NUMMUS MONOCULATUS	21 XIPHOPHORIDIUM ALATUM	22 APECTODINIUM SUMMISIMUM	23 FLORENTINIA LACINIATA	24 HYSTRICHODINIUM PULCHRUM	25 KIOKANSIUM POLYPES	26 PTEROSPERMELLA AUSTRALIENSI	27 CHLAMYDOPHORELLA SP	28 ODONTOCHITINA COSTATA	29 APTEODINIUM SP.
0635.0 SWC	.	.	.	.	.	.	.	.	.	.	19	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0695.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0832.0 SWC	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0896.5 SWC	.	.	.	.	.	.	.	.	.	.	32	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0997.0 SWC	.	.	.	.	.	.	.	.	.	.	10	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
1027.0 SWC	.	2	.	.	.	.	.	.	.	.	40	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.
1040.0 SWC	.	.	.	.	.	.	.	.	.	.	24	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.
1064.0 SWC	.	.	.	.	.	.	.	.	.	.	9	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
1115.0 SWC	.	.	.	.	.	.	.	.	.	.	41	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1151.0 SWC	.	.	.	.	.	.	.	.	.	.	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1200.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1255.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1264.0 SWC	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1340.0 SWC	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1364.0 SWC	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1489.0 SWC	.	.	.	.	.	.	.	.	.	.	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1491.0 SWC	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1494.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1517.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1523.0 SWC	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	1	.	.	X	.	.	.	.	.	.	.
1544.0 SWC	.	.	X	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1563.0 SWC	.	.	.	.	.	1	.	.	.	.	1	.	.	.	.	.	.	.	2	1	.	.	.	X	.	.	.	.	.
1580.0 SWC	.	.	.	.	.	.	.	.	.	.	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1640.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1663.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.
1721.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1765.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1823 CUTTS	.	.	.	.	.	1	.	.	2	.	4	1	.	X	.	.	X	.	.	.	.	.	.	.	1	.	.	.	.
1865.0 SWC	.	.	.	.	.	6	.	.	.	.	3	.	.	1	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.
1891.0 SWC	.	.	.	.	.	16	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1949.0 SWC	.	1	.	.	.	.	.	3	.	.	X	.	.	.	.	1	X	.	.	.	.	.	.	.	X	.	.	.	.
1979.0 SWC	.	.	.	.	.	16	.	.	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2004.0 SWC	.	.	.	.	.	4	.	15	.	.	2	.	.	.	1	.	2	.	.	.	X	.	.	.	.	.	.	2	.
2020.0 SWC	.	1	.	.	1	11	.	.	3	.	7	.	.	1	1	.	1	2	1	.	.	.	.	X	1	.	.	.	.
2028.0 SWC	.	4	.	.	2	27	.	.	2	.	3	.	1	.	.	.	.	4	.	.	.	.	.	.	.	.	.	1	.
2028.0 swc	.	4	.	.	.	4	.	.	1	.	7	.	.	.	2	.	.	1	.	1	.	.	.	.	2	.	.	.	2
2043.0 SWC	.	.	.	.	.	6	.	2	.	.	3	.	.	.	.	.	1	.	.	2	.	.	.	.	.	.	.	.	3
2054.0 SWC	1	2	.	.	.	6	.	.	1	.	2	.	.	.	.	.	.	X	3	X	.	.	.	.	2	.	.	.	X
2059.0 SWC	2	4	.	.	.	6	.	.	1	.	1	1	.	.	.	.	3	.	1	3	.	.	.	.	2	.	.	.	3
2066.0 SWC	.	3	.	.	.	3	.	.	3	.	3	.	.	.	.	.	.	.	.	4	.	.	.	.	.	.	.	.	.
2076.0 CORE	.	.	.	.	X	6	.	.	X	.	1	.	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.	.
2086.1 CORE	1	2	.	.	X	4	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2096.0 CORE	X	X	.	.	.	X	.	.	2	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2111.5 SWC	.	.	.	.	.	2	.	.	2	.	1	.	.	.	.	1	.	.	.	6	.	.	.	.	.	.	.	.	.
2118.0 SWC	5	6	1	X	.	3	.	.	6	.	3	1	.	1	.	2	3	2	.	6	.	.	.	.	6	.	.	.	.
2145.0 SWC	X	2	.	.	.	2	.	.	.	.	1	.	.	.	.	.	.	.	.	3	.	.	1	.	3	.	.	.	.
2159.0 SWC	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2164.0 SWC	.	1	X	.	.	4	.	.	1	.	.	.	.	.	.	.	.	.	.	5	.	.	.	.	.	.	.	.	.
2166.0 SWC	.	.	.	.	.	1	.	1	.	.	1	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.
2179.0 SWC	4	.	.	.	1	X	.	.	.	.	1	.	X	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2199.0 SWC	.	.	.	.	X	3	.	.	.	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	X	.
2232.0 SWC	1	.	.	.	1	24	X	.	11	2	2	.	.	2	.	.	X	.	.	X	X	.	.	.	1	.	.	.	3
2252.0 SWC	.	1	1	.	1	10	.	.	X	2	1	.	.	1	.	.	.	1	.	.	.	.	.	.	1	.	.	.	.
2270.0 SWC	5	.	.	4	X	5	.	.	2	XX	2	.	.	.	.	.	.	5	.	.	X	.	.	.	5	.	1	X	.
2277.5 SWC	1	X	.	1	1	1	X	.	1	1	1	.	X	.	.	.	X	.	.	1	1	.	1	1	1	X	.	.	.
2284.0 SWC	3	2	.	3	.	1	.	.	2	1	1	.	1	1	.	1	.	3	.	.	.	X	.	.	.	.	.	.	.
2286.0 SWC	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2309.0 SWC	1	.	X	5	.	X	.	.	1	38	1	.	1	.	.	.	10	X	.	X	X	.	.	.	.	.	.	.	.
2330.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2398.0 SWC	5	X	.	.	.	3	.	.	2	.	5	.	3	.	X	1	1	1	1	.	.	.	.	.	.	.	.	.	.
2402.0 SWC	11	.	.	3	X	X	.	.	.	.	4	.	3	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2454.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2489 CUTTS	.	.	.	.	.	3	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2497.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2500.0 SWC	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2528.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2540.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2544.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2550 CUTTS	X	1	.	X	.	1	X	X	X	X	X	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2567.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2573 CUTTS	1	.	.	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2593 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2605.0 SWC	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2624.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2640 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2646.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2671.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2683.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2690 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2705.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2715 CUTTS	.	.	1	?	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2730.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2735 CUTTS	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	30 PALAEOHYSTRICHOSPHORA INFUSORIOIDES	31 SCHIZOSPORIS PARVUS	32 CANNINGIA SPINY	33 ISABELIDINIUM COOKSONIAE	34 MILLIOUDODINIUM SP.	35 PARALECANIELLA INDENTATA	36 ISABELIDINIUM SP.	37 CIRCULODINIUM SOLIDA	38 MICRODINIUM SP	39 ALTERBIA ACUMINATUM	40 DICONODINIUM PUSILLUM	41 CORONIFERA OCEANICA	42 AREOSPHAERIDIUM SUGGESTIUM	43 APTEA SP	44 APTEODINIUM GRANULATUM	45 CASSIDIUM SP	46 CHATANGIELLA TRIPARTITA	47 CHATANGIELLA VICTORIENSIS	48 ISABELIDINIUM BELFASTENSE	49 ISABELIDINIUM CRETACEUM	50 ODONTOCHITINA PORIFERA	51 TRITHYRODINIUM SUSPECTUM	52 TRITHYRODINIUM THICK SCABRATE	53 TRITHYRODINIUM THICK VERMICULATE	54 TRITHYRODINIUM THICK VERRUCATE	55 TRITHYRODINIUM THIN PSILATE	56 CHATANGIELLA MICROCANTHA	57 EUCLADINIUM MADURENSUS	58 FROMEA FRAGILIS
0635.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0695.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0832.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0896.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0997.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1027.0 SWC	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1040.0 SWC	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1064.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1115.0 SWC	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1151.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.
1200.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1255.0 SWC	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1264.0 SWC	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1340.0 SWC	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1364.0 SWC	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1489.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.
1491.0 SWC	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.
1494.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1517.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.
1523.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1544.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1563.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1580.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.
1640.0 SWC	2	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	*	.	.	.	.	.	.	.	.
1663.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.
1721.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1765.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1823 CUTTS	5	.	.	X	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	1	.	.	.	.	.	.	X	.
1865.0 SWC	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.
1891.0 SWC	X	.	.	.	.	.	1	.	.	.	X	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.
1949.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	2	.	.	.
1979.0 SWC	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	X	X	1
2004.0 SWC	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	32	4	3	X	3	X	X	X	X	4	11	.	.	.
2020.0 SWC	.	.	.	.	.	.	.	X	.	.	.	.	.	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	?	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 swc	.	.	.	.	.	.	.	2	.	X	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2043.0 SWC	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2054.0 SWC	.	.	.	X	.	.	.	1	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2059.0 SWC	.	.	.	4	1	.	.	X	.	3	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2066.0 SWC	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2076.0 CORE	.	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2086.1 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2096.0 CORE	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2111.5 SWC	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2118.0 SWC	.	.	X	9	1	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2145.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2159.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2164.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2166.0 SWC	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2179.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2199.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2232.0 SWC	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2252.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2270.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2277.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2284.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2286.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2309.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2330.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2398.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2402.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2454.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2489 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2497.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2500.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2528.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2540.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2544.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2550 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2567.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2573 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2593 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2605.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2624.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2640 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2646.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2671.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2683.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2690 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2705.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2715 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2730.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2735 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	59 NELSONIELLA ACERAS	60 ODONTOCHITINA CRIBROPODA	61 TRITHYRODINIUM THICK RETICULATE	62 HESLERTONIA STRIATA	63 MADURADINIUM PENTAGONUM	64 HETEROSPHAERIDIUM LATEROBRACHIUS	65 NELSONIELLA TUBERCULATA	66 ODONTOCHITINA OBESA	67 XENIKOON AUSTRALIS	68 ANTHOSPHAERIDIUM CONVOLVULOIDES	69 PTEROSPERMELLA AUREOLATA	70 FROMEA CHYTRA	71 ANTHOSPHAERIDIUM WISEMANIAE	72 DEFLANDREA SP.	73 XENASCUS CERATOIDES	74 TANYOSPHAERIDIUM SALPINX	75 CHATANGIELLA CF CRETACEA	76 CHATANGIELLA SP.	77 ISABELIDINIUM KOROJONENSE	78 ACHOMOSPHAERA RAMULIFERUM	79 DEFLANDREA PACHYCEROS	80 DIPHYES COLLIFERUM	81 OPERCULODINIUM	82 SYSTEMATOPHORA PLACACANTHUM	83 ACHOMOSPHAERA CRASSIPELLIS	84 APECTODINIUM HOMOMORPHUM	85 APECTODINIUM QUINQUILATUM	86 APTEODINIUM AUSTRALIENSE	87 CEREBROCYSTA SP
0635.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	3	.	.	.	.	.
0695.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8	3	.	.	.	2	.
0832.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.
0896.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	6	11	.	.	.	.	.
0997.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	1	.	.	.	.	.
1027.0 SWC	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	10	1	.	.	.	.	.
1040.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1064.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1115.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	20	1	.	.	.	.	.
1151.0 SWC	X	.	.	.	1	.	.	.	12	.	.	.	.	.	.	.	.	.	.	.	.	1	18	.	.	.	.	.	.
1200.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1255.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	X	.	.	.	.	.
1264.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	X	.	.	.	.	.
1340.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.
1364.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	X	X	.	.	.	.	.
1489.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.	X
1491.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	X	.	.	.	.
1494.0 SWC	X	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	1	.	.	X	.	.	.	.	.	.
1517.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.
1523.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	14	?	X	1	X	X	X
1544.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	X	X	X	?	.	.	.	.	.
1563.0 SWC	.	.	.	.	.	.	.	.	?	.	.	.	.	.	.	.	X	1	?	.	.	.	.	.	.	.	.	.	.
1580.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1640.0 SWC	*	.	.	.	.	.	.	.	4	.	.	.	.	.	2	1	.	.	.	.	.	.	.	.	.	.	.	.	.
1663.0 SWC	.	.	.	.	.	.	.	.	3	.	.	X	X	1	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1721.0 SWC	X	.	.	.	.	.	.	.	23	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1765.0 SWC	.	.	.	.	.	.	.	.	25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1823 CUTTS	X	.	.	.	.	.	1	.	10	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1865.0 SWC	.	.	.	.	.	1	2	X	19	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1891.0 SWC	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1949.0 SWC	X	.	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979.0 SWC	3	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2004.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2020.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 swc	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2043.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2054.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2059.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2066.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2076.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2086.1 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2096.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2111.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2118.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2145.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2159.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2164.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2166.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2179.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2199.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2232.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2252.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2270.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2277.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2284.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2286.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2309.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2330.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2398.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2402.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2454.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2489 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2497.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2500.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2528.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2540.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2544.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2550 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2567.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2573 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2593 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2605.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2624.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2640 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2646.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2671.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2683.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2690 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2705.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2715 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2730.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2735 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Sample	88 CORDOSPHAERIDIUM INODES	89 CYCLOPSIELLA	90 DEFLANDREA PHOSPHORITICA	91 DEFLANDREA TRUNCATA	92 HEMICYSTODINIUM ZOHARYI	93 HOMOTRYBLIUM TASMANIENSE	94 HYSTRICHOKOLPOMA EISENACKI	95 HYSTRICHOKOLPOMA RIGAUDIAE	96 IMPAGIDINIUM VICTORIANUM	97 MILLIOUDIDINIUM TENUITABULATUS	98 MURATODINIUM FIMBRIATUM	99 RHOMBODINIUM GLABRUM	100 SAMLANDIA CHLAMYDOPHORIDITES	101 SENONIASPHAERA SP	102 WETZELIELLA HAMPDENENSIS	103 WETZELIELLA ORNATUM	104 WETZELIELLA WAIPAWAENSIS	105 DAPSILIDINIUM PSEUDOCOLLIGERUM	106 IMPAGIDINIUM MACULATUM	107 GLAPHYRODINIUM VICINUM	108 KISSELOVIA THOMPSONAE	109 WETZELIELLA SP	110 ACHILLEODINIUM BIFORMOIDES	111 CORDOSPHAERIDIUM FIBROSPINOSUM	112 DAPSILIDINIUM FASTIELSI	113 DRACODINIUM SPONGY	114 HOMOTRIBLIUM BREVIRADIATUM	115 KISSELOVIA EDWARDSII	116 THALASSIPHORA PELAGICA
0635.0 SWC	.	.	.	.	1	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0695.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0832.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0896.5 SWC	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
0997.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1027.0 SWC	3	.	.	.	2	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.
1040.0 SWC	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1064.0 SWC	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1115.0 SWC	.	.	.	.	5	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1151.0 SWC	.	.	.	.	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1200.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1255.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1264.0 SWC	X	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
1340.0 SWC	.	.	X	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
1364.0 SWC	.	X	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	X	X	X	.	.	.	.	.	.	.	.	.
1489.0 SWC	.	.	?	.	10	15	X	.	X	X	2	.	X	.	.	1	.	.	X	2	X	.	1	X	1	X	2	X	X
1491.0 SWC	.	.	?	2	7	.	1	.	.	.	.	.	.	.	.	X	.	.	.	X	X	?	.	.	.	.	.	.	.
1494.0 SWC	1	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1517.0 SWC	2	.	.	X	.	X	2	.	.	.	.	.	.	.	.	.	.	3	1	.	.	.	.	.	.	.	.	.	.
1523.0 SWC	4	X	?	X	1	9	X	X	X	1	X	X	X	X	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.
1544.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1563.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1580.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1640.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1663.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1721.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1765.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1823 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1865.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1891.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1949.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2004.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2020.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 swc	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2043.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2054.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2059.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2066.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2076.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2086.1 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2096.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2111.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2118.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2145.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2159.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2164.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2166.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2179.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2199.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2232.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2252.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2270.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2277.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2284.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2286.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2309.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2330.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2398.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2402.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2454.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2489 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2497.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2500.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2528.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2540.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2544.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2550 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2567.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2573 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2593 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2605.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2624.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2640 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2646.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2671.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2683.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2690 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2705.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2715 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2730.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2735 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	117 WETZELIELLA PENTAGONAL	118 CHIROPTERIDIUM TABULATE	119 HYSTRICHOSPHAERIDIUM TUBIFERUM	120 IMPAGIDINIUM MARGINATA	121 IMPAGIDINIUM SP	122 TECTATODINIUM	123 PHTHANOPERIDINIUM COMATUM	124 CORRUDINIUM INCOMPOSITUM	125 LINGULODINIUM MACHAEROPHORUM	126 NELSONIELLA SEMIRETICULATA	127 PALAEOCYSTIDINIUM AUSTRALINIUM	128 AREOLIGERA SP	129 OPERCULODINIUM CENTROCARPUM	130 CRASSOSPHAERA CONCINNIA	131 IMPLETOSPHAERIDIUM SP.1	132 ACHOMOSPHAERA ALCICORNU	133 CHIROPTERIDIUM ASPINATUM	134 CHIROPTERIDIUM DISPERSUM GP.	135 COMPOSITOSPHAERIDIUM SP.	136 HYSTRICHOKOLPOMA SP.	137 SCHEMATOPHORA SPECIOSUS	138 BATIACASPAERA SP.	139 CASSICULOSPHAERIDIA SP.	140 REQUITRIRADITES TILCHAENESIS	141 ARAUCARIACITES AUSTRALIS	142 ARAUCARIACITES FISSUS	143 CALLIALASPORITES DAMPIERI	144 CALLIALASPORITES TURBATUS	145 CICATRICOSISPORITES AUSTRALIENSIS
0635.0 SWC	.	.	.	.	.	5	.	.	.	.	.	.	8	X	X	2	.	.	.	.	.	.	1	.	.	.	.	.	.
0695.0 SWC	.	.	.	.	.	3	.	.	.	.	.	.	12	.	.	40	.	.	.	.	3	12	8	.	.	.	X	.	.
0832.0 SWC	.	.	.	.	.	X	.	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0896.5 SWC	.	.	.	.	.	4	.	.	1	.	.	.	9	.	6	2	2	21	.	X	1	.	.	.	.	.	.	.	.
0997.0 SWC	.	.	.	.	.	1	.	.	.	.	.	.	3	.	.	2	.	.	.	.	.	.	.	.	3	.	.	.	.
1027.0 SWC	.	.	.	.	.	.	.	.	1	.	.	2	9	.	.	4	X	2	5	4	.	.	.	.	.	.	.	.	.
1040.0 SWC	.	.	.	.	.	7	.	.	.	.	.	X	.	X	1	.	.	.	.	.	.	.	.	.	X	.	.	.	.
1064.0 SWC	.	.	.	.	.	.	1	.	1	.	.	.	7	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.
1115.0 SWC	.	.	1	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1151.0 SWC	.	.	.	.	.	1	.	.	.	X	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1200.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1255.0 SWC	.	.	.	.	X	X	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.
1264.0 SWC	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1340.0 SWC	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1364.0 SWC	.	X	X	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.
1489.0 SWC	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.
1491.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.
1494.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.
1517.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.
1523.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.
1544.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	X
1563.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	X	.	X
1580.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
1640.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	4
1663.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	4
1721.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
1765.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	1
1823 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	1	.	.
1865.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	1
1891.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
1949.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	2	1
1979.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	2
2004.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2020.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.
2028.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 swc	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.
2043.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	1
2054.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	1	.
2059.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	X
2066.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	.	3	.	.
2076.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	1	1
2086.1 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.
2096.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	1	1
2111.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	1	.
2118.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.
2145.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	2	3
2159.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	6	.	1	.	1
2164.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	1	.	2
2166.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	X	1	2
2179.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	2	.
2199.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5
2232.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.
2252.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	1	.	.
2270.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
2277.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	.	X
2284.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	1	.	.
2286.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	2	4	.
2309.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	X
2330.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	3	.
2398.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	1	2	.
2402.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	3
2454.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	1	1	.
2489 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8	.	8	2	.
2497.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.
2500.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	1	3	X
2528.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.
2540.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2544.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	.	1	3	7
2550 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	3	.	5	1	1
2567.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	5	.	2	1	6
2573 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	1	4	3	1
2593 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	5	1	.
2605.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	X
2624.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X
2640 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	7	.	8	5	.
2646.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	2	1	2
2671.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	X	X
2683.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	.	.	4	.
2690 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	4	2	3
2705.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	X	.	X
2715 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	7	.	1	3	5
2730.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.
2735 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	L	4	1	4	10	2

	146 COROLLINA TOROSUS	147 CYATHIDITES AUSTRALIS	148 CYATHIDITES MINOR	149 CYCADOPITES FOLLICULARIS	150 FALCISPORITES GRANDIS	151 FALCISPORITES SIMILIS	152 KLUKISPORITES SCABERIS	153 MICROCACHRYIDITES ANTARCTICUS	154 OSMUNDACIDITES WELLMANII	155 PEROTRILETES JUBATUS MORGANII	156 RETITRILETES AUSTROCLAVATIDITES	157 STERIESPORITES ANTIQUASPORITES	158 AEQUITRIRADITES VERRUCOSUS	159 CINGUTRILETES CLAVUS	160 CONCAVISSIMISPORITES PENOLAENSIS	161 CRYBELOSPORITES STRIATUS	162 FORAMINISPORIS ASYMMETRICUS	163 FOVEOTRILETES PARVIRETUS	164 ISCHYOSPORITES PUNCTATUS	165 TRIPOROLETES RADIATUS	166 TRIPOROLETES RETICULATUS	167 TRIPOROLETES SIMPLEX	168 APPENDICISPORITES DISTOCARINATUS	169 CERATOSPORITES EQUALIS	170 CONTIGNISPORITES GLEBULENTUS	171 GLEICHENIIDITES	172 PODOSPORITES MICROSACCATUS	173 CICATRICOSISPORITES CUNEIFORMIS	174 FOVEOGLEICHENIIDITES
0635.0 SWC	.	.	9	.	7	.	.	2	1	.	2	1	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.
0695.0 SWC	.	.	10	.	.	2	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0832.0 SWC	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0896.5 SWC	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0997.0 SWC	.	.	15	.	.	13	.	4	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	.	.	.
1027.0 SWC	.	.	3	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1040.0 SWC	.	.	7	.	.	2	.	.	8	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.
1064.0 SWC	.	1	9	.	.	15	.	6	1	.	3	.	.	.	.	.	.	.	.	.	.	.	.	3	.	1	.	.	.
1115.0 SWC	.	1	1	.	.	.	.	1	1	.	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1151.0 SWC	.	X	3	.	.	1	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	2	.	.	.
1200.5 SWC	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1255.0 SWC	.	X	.	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1264.0 SWC	.	X	X	.	.	X	.	.	X	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1340.0 SWC	.	X	X	.	.	.	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1364.0 SWC	.	X	X	.	X	X	.	.	.	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.
1489.0 SWC	.	1	3	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	1	.	.
1491.0 SWC	.	4	2	.	1	2	.	X	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	2	1	.	.
1494.0 SWC	.	4	3	.	2	8	.	2	.	.	2	.	.	X	.	.	.	.	1	.	.	.	.	.	.	1	.	.	.
1517.0 SWC	X	2	7	.	3	1	.	2	2	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.
1523.0 SWC	1	.	2	.	2	2	.	1	1	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1544.0 SWC	.	5	11	.	5	17	.	.	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	2	.	2	1	.	X
1563.0 SWC	1	6	6	.	3	20	.	5	1	.	6	.	.	X	.	.	.	.	.	.	1	.	.	3	.	3	5	.	.
1580.0 SWC	1	18	.	.	.	24	.	5	2	.	3	.	.	.	.	.	R/W	.	.	.	X	.	.	2	.	2	.	.	.
1640.0 SWC	.	17	.	.	.	14	.	2	2	.	6	.	.	.	.	.	.	.	.	2	2	.	.	8	.	3	.	.	.
1663.0 SWC	1	13	.	.	.	18	.	3	5	.	3	.	.	.	.	.	.	.	.	1	2	.	.	2	.	5	.	.	.
1721.0 SWC	1	18	.	.	.	17	.	1	3	.	2	.	.	.	.	.	.	.	.	1	.	.	.	2	.	5	.	.	.
1765.0 SWC	.	20	.	.	.	18	.	2	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	1	.	.	.
1823 CUTTS	1	6	3	.	5	25	.	1	2	.	2	1	.	1	.	.	1	.	.	.	.	.	.	.	.	3	3	.	.
1865.0 SWC	X	4	6	X	1	22	.	8	3	.	3	X	.	X	.	.	.	.	.	.	X	.	.	1	.	3	1	.	.
1891.0 SWC	.	21	.	.	23	.	.	2	1	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1949.0 SWC	1	5	8	1	13	11	.	6	6	.	3	1	.	.	.	.	.	.	.	.	.	.	.	5	.	4	1	.	.
1979.0 SWC	.	3	6	.	4	16	.	15	3	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	3	.	.
2004.0 SWC	.	2	1	.	1	3	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	.	.	.
2020.0 SWC	4	1	10	1	1	15	.	6	X	.	X	X	.	X	.	.	.	.	.	.	.	.	X	.	.	4	2	.	.
2028.0 SWC	.	11	.	.	.	16	.	2	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.
2028.0 swc	1	1	4	1	4	12	.	10	1	.	1	1	.	1	.	.	.	.	.	.	.	.	.	1	.	2	5	.	.
2043.0 SWC	.	3	6	1	3	17	.	5	2	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	3	.	.
2054.0 SWC	1	2	5	.	2	16	.	6	3	.	1	.	.	1	.	.	.	.	.	X	.	.	.	1	.	2	1	.	.
2059.0 SWC	3	1	8	1	3	13	.	3	1	.	1	.	.	X	.	.	.	.	.	.	.	.	X	1	.	1	4	.	.
2066.0 SWC	1	7	15	.	2	20	.	9	6	.	1	2	.	X	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.
2076.0 CORE	1	8	7	.	5	11	.	12	1	X	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	3	8	.	.
2086.1 CORE	2	7	11	.	6	12	.	22	X	X	1	1	.	.	.	.	X	.	X	.	.	.	X	.	.	5	5	.	.
2096.0 CORE	1	2	19	.	.	23	.	8	1	.	2	.	.	.	.	.	.	.	.	.	.	.	2	.	.	5	.	.	.
2111.5 SWC	1	6	7	.	7	24	.	9	9	.	1	2	.	.	.	.	.	.	.	.	.	.	.	.	.	5	5	.	.
2118.0 SWC	3	2	3	1	5	12	.	4	1	.	1	.	.	.	.	.	.	.	.	.	.	.	X	.	.	3	.	.	.
2145.0 SWC	.	5	7	.	3	15	.	7	3	.	1	2	.	.	.	.	.	.	.	.	.	.	2	.	.	5	2	.	.
2159.0 SWC	1	6	12	1	6	23	.	10	17	.	1	1	.	1	.	.	.	.	.	.	.	.	.	2	.	4	.	.	.
2164.0 SWC	4	7	16	.	5	22	.	11	8	.	1	.	.	.	.	.	.	.	.	.	.	.	1	1	.	3	3	.	.
2166.0 SWC	2	3	13	1	6	25	.	13	5	.	1	.	.	.	.	.	1	.	.	.	.	.	X	.	.	4	1	.	.
2179.0 SWC	1	5	3	.	5	18	.	18	6	.	X	X	.	.	.	.	.	.	.	.	.	.	X	.	.	1	.	.	.
2199.0 SWC	.	43	.	.	.	26	.	3	3	.	.	.	.	.	.	.	.	.	.	.	.	.	X	2	.	3	.	.	.
2232.0 SWC	.	2	10	.	4	7	1	5	1	.	1	.	.	1	.	.	.	.	.	.	.	.	1	1	.	1	3	.	.
2252.0 SWC	3	4	10	1	8	15	.	6	1	.	1	1	.	.	.	.	.	.	.	.	.	.	X	.	.	8	.	.	.
2270.0 SWC	1	28	.	.	.	17	.	4	.	.	.	.	.	.	.	.	.	.	.	.	X	.	5	.	.	.	.	.	.
2277.5 SWC	1	4	19	1	2	12	.	14	3	.	1	1	X	1	.	.	.	.	.	.	X	.	1	1	.	4	4	.	.
2284.0 SWC	2	4	12	.	4	19	.	14	1	.	1	3	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.
2286.0 SWC	1	12	12	.	9	17	.	9	11	.	6	1	.	.	.	.	.	.	X	X	.	.	X	1	.	4	3	.	.
2309.0 SWC	1	1	3	1	1	10	.	6	1	.	1	3	.	.	X	.	.	.	.	.	X	.	.	1	.	1	2	.	.
2330.0 SWC	4	7	6	1	11	21	1	18	5	X	6	.	X	1	.	.	.	.	.	.	.	.	1	1	.	2	2	.	.
2398.0 SWC	X	4	6	.	11	22	.	16	1	.	3	1	.	.	.	.	.	X	X	.	X	.	X	.	.	4	1	.	.
2402.0 SWC	2	5	7	1	9	10	.	8	7	X	2	.	.	.	.	.	.	.	.	.	.	.	2	1	.	3	.	.	.
2454.0 SWC	3	3	11	2	7	26	.	10	7	1	6	1	.	.	.	.	X	.	3	.	.	.	X	.	.	2	2	.	.
2489 CUTTS	3	8	4	.	13	25	3	.	12	.	3	.	.	.	.	.	.	.	.	.	.	.	2	.	.	2	.	.	.
2497.0 SWC	X	X	X	.	X	X	.	XX	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2500.0 SWC	.	9	11	X	18	15	.	10	6	.	4	2	X	.	.	.	1	.	2	.	.	.	1	6	X	2	.	.	.
2528.0 SWC	1	6	6	1	7	47	.	7	2	.	4	X	.	.	1	.	.	.	.	.	.	.	X	1	.	4	.	.	.
2540.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2544.5 SWC	.	4	3	.	6	12	.	30	4	.	.	.	.	.	.	.	.	.	.	1	3	.	1	2	.	1	11	.	.
2550 CUTTS	.	10	3	1	15	28	2	14	2	1	6	.	.	.	.	.	1	.	.	X	1	.	1	1	.	.	.	.	.
2567.0 SWC	1	9	11	.	13	11	.	16	9	.	6	2	X	.	.	.	X	.	X	.	.	.	.	1	.	1	1	1	.
2573 CUTTS	1	17	6	2	10	25	2	11	5	.	4	1	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.
2593 CUTTS	4	8	13	.	22	25	X	6	4	.	3	.	.	.	.	.	.	.	.	.	.	.	1	1	.	1	.	.	.
2605.0 SWC	X	XX	XX	.	XX	XX	.	X	XX	.	X	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	X	.	.
2624.0 SWC	.	XX	X	.	XX	X	.	X	X	.	X	X	.	.	.	.	.	.	.	.	.	.	X	X	.	.	.	.	.
2640 CUTTS	3	9	4	.	15	20	.	13	7	.	3	.	.	.	.	.	.	.	.	1	.	.	.	1	.	1	.	.	.
2646.5 SWC	1	4	10	1	11	38	1	7	6	.	3	.	.	1	.	.	.	.	1	.	.	.	.	2	.	1	.	X	.
2671.0 SWC	X	X	XX	.	XX	XX	.	X	X	.	X	.	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.
2683.0 SWC	2	9	14	1	20	22	.	4	6	.	3	.	.	1	.	.	.	.	.	.	.	.	.	2	.	5	1	.	.
2690 CUTTS	3	9	6	.	30	17	.	3	7	.	2	2	.	.	.	.	.	.	.	.	2	.	.	.	.	2	.	X	2
2705.0 SWC	X	X	X	.	XX	XX	.	XX	XX	.	X	.	.	.	.	.	.	.	.	.	.	.	?	X	X	X	X	.	.
2715 CUTTS	3	12	6	2	17	18	1	10	1	.	1	.	X	X	X	2	X	1	X	1	4	1	.	.	.	.	.	.	.
2730.0 SWC	.	.	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2735 CUTTS	1	9	11	3	6	24	1	8	5	1	3	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	175 CYCLOSPORITES HUGHESI	176 DICTYOTOSPORITES SPECIOSUS	177 FORAMINISPORIS DAILYI	178 LYCOPODIACIDITES ASPERATUS	179 PILOSISPORITES NOTENSIS	180 VITREISPORITES PALLIDUS	181 DICTYOPHYLLIDITES	182 LEPTOLEPIDITES VERRUCATUS	183 SESTROSPORITES PSEUDOALVEOLATUS	184 PROTEACIDITES SP.	185 TRIPOROLETES BIRETICULATUS	186 RETITRILETES CIRCOLUMENUS	187 PHYLLOCLADIDITES MAWSONII	188 CICATRICOSISPORITES LUDBROOKIAE	189 COPTOSPORA PILEOSA	190 AEQUITRIRADITES SPINULOSUS	191 CAMEROZONOSPORITES LATROBENSIS	192 DILWYNITES GRANULATUS	193 PHYLLOCLADIDITES EUNUCHUS	194 RETITRILETES FACETUS	195 RETITRILETES NODOSUS	196 FORAMINISPORIS WONTHAGGIENSIS	197 DICTYOTOSPORITES COMPLEX	198 DILWYNITES TUBERCULATUS	199 VELOSPORITES TRIQUETRUS	200 AMOSOPOLLIS CRUCIFORMIS	201 ANTULSPORITES VARIGRANULATUS	202 LAEVIGATOSPORITES OVATUS	203 CONTIGNISPORITES COOKSONIAE
0635.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	10	.	.	.	.	.	.	.	.	.	.	.
0695.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0832.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
0896.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0997.0 SWC	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	14	.	.	.	.	.	.	.	.	.	.	.
1027.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.
1040.0 SWC	.	.	.	.	.	.	1	.	.	.	.	.	1	.	.	.	.	17	.	.	.	X	.	.	.	.	.	3	.
1064.0 SWC	.	.	.	.	.	.	1	.	.	.	.	.	1	.	.	.	.	8	.	.	.	.	.	2	.	.	.	2	.
1115.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	4	.	.	.	.	.	.	.	.	.	.	.
1151.0 SWC	.	.	.	.	.	1	.	.	.	3	.	.	.	.	.	.	.	5	.	.	.	.	.	.	.	.	.	.	.
1200.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1255.0 SWC	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
1264.0 SWC	.	.	.	.	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1340.0 SWC	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
1364.0 SWC	.	.	.	.	.	.	.	.	.	X	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
1489.0 SWC	.	.	.	.	.	.	.	.	.	6	.	.	.	.	.	.	.	10	.	.	.	.	.	.	.	.	.	2	.
1491.0 SWC	.	.	.	1	.	1	.	.	.	11	.	.	1	.	.	.	.	13	.	.	.	.	.	.	.	.	.	.	.
1494.0 SWC	.	.	.	.	.	.	.	.	.	15	.	.	1	.	.	.	.	10	.	.	.	.	.	.	.	.	.	X	.
1517.0 SWC	.	.	.	.	.	.	.	.	.	13	.	.	1	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.
1523.0 SWC	.	.	.	.	.	.	.	.	.	8	.	.	.	.	.	.	.	7	.	.	.	.	.	.	.	.	.	.	.
1544.0 SWC	.	.	.	.	.	.	.	X	.	8	.	.	X	.	.	.	.	17	.	.	.	.	.	.	.	.	.	X	.
1563.0 SWC	.	1	1	.	.	1	.	.	.	6	.	.	1	.	.	1	.	3	.	.	.	.	.	.	.	3	.	X	.
1580.0 SWC	.	.	.	.	.	.	2	.	.	23	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
1640.0 SWC	.	.	.	.	*	.	4	1	.	19	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	*
1663.0 SWC	*	*	.	.	.	.	2	.	.	16	.	.	X	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	X
1721.0 SWC	.	.	.	.	.	.	.	X	.	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1765.0 SWC	.	.	.	.	.	.	.	X	.	21	.	.	.	.	.	.	.	3	1	.	.	.	.	.	.	.	.	.	.
1823 CUTTS	.	X	.	.	.	.	.	.	.	1	.	.	X	.	.	.	.	6	.	.	.	.	.	.	.	1	.	1	.
1865.0 SWC	.	.	2	.	.	X	.	.	.	.	.	.	2	.	.	1	.	2	.	.	.	.	.	.	.	.	.	.	.
1891.0 SWC	.	.	.	.	.	.	.	X	.	9	.	.	.	.	.	.	.	10	.	.	.	.	.	.	.	1	.	.	.
1949.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	8	.	.	.	.	.	.	.	2	1	.	.
1979.0 SWC	.	.	.	.	.	1	.	.	.	1	.	.	2	1	.	.	.	9	1	.	.	.	.	.	.	X	.	.	.
2004.0 SWC	.	.	.	.	.	.	.	.	1	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X
2020.0 SWC	.	.	.	X	.	1	.	X	.	.	.	X	.	X	.	.	.	17	.	X	.	.	.	.	.	2	X	.	.
2028.0 SWC	.	1	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	3	1	.	.	.	.	.	.	18	.	.	.
2028.0 swc	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	16	.	.	.	.	.	.	.	10	.	.	1
2043.0 SWC	.	.	.	1	.	1	.	.	.	.	.	.	.	.	.	.	.	13	.	.	.	.	.	.	.	14	.	.	.
2054.0 SWC	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	22	.	.	.	.	.	.	.	14	.	.	.
2059.0 SWC	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	21	.	.	.	.	.	.	.	3	.	.	.
2066.0 SWC	.	.	.	.	.	X	.	.	.	.	.	.	1	.	.	.	.	5	1	.	.	.	.	.	.	.	.	1	.
2076.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	13	.	.	.	.	.	.	.	19	.	.	.
2086.1 CORE	.	.	X	X	.	.	.	.	.	.	.	.	.	X	.	.	.	13	.	.	.	X	.	.	.	6	.	.	.
2096.0 CORE	.	.	.	.	.	.	.	1	.	.	.	.	1	.	.	.	.	15	.	.	.	.	.	.	.	5	2	1	.
2111.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	6	.	.	.	.	.	.	.	.	.	2	.
2118.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.
2145.0 SWC	.	.	.	3	.	.	.	.	.	.	.	.	1	1	.	.	.	15	.	.	.	.	.	.	.	1	.	4	.
2159.0 SWC	.	.	.	2	.	.	.	2	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.
2164.0 SWC	.	.	.	1	.	.	.	.	.	.	.	.	1	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2166.0 SWC	.	.	.	3	.	1	1	.	.	.	.	.	1	.	.	.	.	4	2	.	.	.	.	.	.	X	.	X	1
2179.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	23	X	.	.	.	.	.	.	.	.	.	.
2199.0 SWC	.	.	.	.	.	.	6	1	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.
2232.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	11	.	.	.	.	.	.	.	.	.	.	.
2252.0 SWC	.	.	.	1	.	2	.	.	.	.	.	.	1	X	.	.	.	15	.	.	.	.	.	.	.	.	.	.	.
2270.0 SWC	*	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	10	.	.	.	.	.	.	.	1	.	.	1
2277.5 SWC	.	.	.	1	.	1	.	.	.	.	.	.	.	.	.	.	.	11	1	.	.	.	.	.	.	.	.	.	.
2284.0 SWC	.	.	.	1	.	.	.	.	.	.	.	.	?	.	.	.	.	6	1	.	.	.	.	.	.	.	.	.	.
2286.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	.	.	.	.	.	.	.	.	.
2309.0 SWC	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	4	3	.	.	.	.	.	.	.	.	.	1
2330.0 SWC	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	5	X	1	.	.	.	.	.	.	.	.	.
2398.0 SWC	.	.	.	.	.	X	.	X	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	X	.	X	.
2402.0 SWC	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	5	.	.	.	.	.	.	.	.	1	.	.
2454.0 SWC	.	.	.	X	.	X	.	1	.	.	.	.	.	.	X	.	.	.	1	.	.	.	X	4	X	.	.	.	.
2489 CUTTS	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2497.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2500.0 SWC	X	.	X	.	.	.	.	X	1	.	.	.	.	.	.	.	.	4	?	.	.	1	.	.	.	.	.	.	.
2528.0 SWC	1	.	.	.	X	X	.	.	.	.	.	.	.	.	.	1	5	6	X	X	X	.	.	.	.	.	.	.	.
2540.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2544.5 SWC	.	.	.	.	.	1	.	.	.	.	.	.	.	1	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2550 CUTTS	.	.	1	.	?	.	.	.	.	X	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2567.0 SWC	.	.	1	.	2	.	.	2	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2573 CUTTS	.	.	.	.	.	.	.	.	.	X	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2593 CUTTS	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2605.0 SWC	.	.	X	.	.	.	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2624.0 SWC	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2640 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2646.5 SWC	1	1	X	X	X	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2671.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2683.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2690 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2705.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2715 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2730.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2735 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	CICATRICOSISPORITES RADIATUS 204	APPENDICISPORITES TRICORNITATUS 205	CLAVIFERA TRIPLEX 206	TRICOLPITES 207	AUSTRALOPOLLIS OBSCURIS 208	CORONATISPORA PERFORATA 209	LILIACIDITES SP. 210	TRILOBOSPORITES TRIORETICULOSUS 211	INTERULOBITES INTRAVERRUCATUS 212	BALMEISPORITES HOLODICTYUS 213	PEROTRILETES MAJUS 214	CAMEROZONOSPORITES SP 215	TRICOLPITES VARIVERRUCATUS 216	COPTOSPORA PARADOXA 217	PROTEACIDITES SP. LARGE 218	CAMEROZONOSPORITES OHAIENSIS 219	CICATRICOSISPORITES HUGHESI 220	LYGISTIPOLLENITES FLORINII 221	TRICOLPITES CONFESSUS 222	TRICOLPITES SABULOSUS 223	TRICOLPORITES GILLI 224	GAMBIERINA RUDATA 225	NEORAISTRICKIA 226	NOTHOFAGIDITES SENECTUS 227	PEROTRILETES SP 228	BEAUPREADITES VERRUCOSUS 229	GAMBIERINA EDWARDSI 230	LYGISTIPOLLENITES BALMEI 231	NOTHOFAGIDITES ENDURUS 232
0635.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	7	.	.	.	.	.	.	.	.	.	.	.
0695.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.
0832.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
0896.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.
0997.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	3	.	.	.	.	.	.	.	.	.	.	.
1027.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1040.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.
1064.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	7	.	.	.	.	.	.	.	.	.	.	.
1115.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1151.0 SWC	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1200.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1255.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1264.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
1340.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1364.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
1489.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	X	.	.	.
1491.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.
1494.0 SWC	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.	.
1517.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1523.0 SWC	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.
1544.0 SWC	.	.	2	X	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
1563.0 SWC	.	.	2	.	X	.	.	.	.	1	.	.	.	.	4	1	.	X	.	2	X	X	.	1	.	.	X	.	X
1580.0 SWC	.	.	2	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	1	.	.	1	.	4	.	.	.	.	.
1640.0 SWC	.	.	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	?	.	1	1	3	.	.	.	1	.
1663.0 SWC	.	.	3	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	?	.	X	1	6	.	X	?	1	.
1721.0 SWC	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	?	.	X	1	5	X	.	.	.	.
1765.0 SWC	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	2	.	.	.	.	.	.	.
1823 CUTTS	.	.	.	.	1	.	.	.	.	.	.	.	.	X	2	.	.	.	.	.	1	.	.	.	.	.	.	.	.
1865.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	.	X	.	.	1	.	.	.	.	.	.	.	.	.
1891.0 SWC	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1949.0 SWC	.	.	2	.	X	.	.	.	.	.	.	.	.	.	1	X	X	1	?	.	.	.	.	.	.	.	.	.	.
1979.0 SWC	.	.	.	.	1	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2004.0 SWC	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2020.0 SWC	.	.	X	.	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 swc	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2043.0 SWC	.	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2054.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2059.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2066.0 SWC	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2076.0 CORE	.	X	1	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2086.1 CORE	X	.	.	.	X	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2096.0 CORE	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2111.5 SWC	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2118.0 SWC	.	.	1	.	.	.	X	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2145.0 SWC	.	.	1	1	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2159.0 SWC	.	.	.	.	.	.	X	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2164.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2166.0 SWC	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2179.0 SWC	.	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2199.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2232.0 SWC	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2252.0 SWC	X	X	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2270.0 SWC	.	.	X	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2277.5 SWC	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2284.0 SWC	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2286.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2309.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2330.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2398.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2402.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2454.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2489 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2497.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2500.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2528.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2540.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2544.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2550 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2567.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2573 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2593 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2605.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2624.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2640 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2646.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2671.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2683.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2690 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2705.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2715 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2730.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2735 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	PERIPOROPOLLENITES POLYORATUS	TRICOLPORITES LONGUS	ERICIPITES SCABRATUS	HALORAGACIDITES HARRISII	MALVACIPOLLIS DIVERSUS	MALVACIPOLLIS SUBTILIS	NOTHOFAGIDITES BRACHYSPINULOSUS	NOTHOFAGIDITES FLEMINGII	PERIPOROPOLLENITES DEMARCATUS	PROTEACIDITES BUN GRANDIS	PROTEACIDITES GRANDIS	PROTEACIDITES INCURVATUS	PROTEACIDITES SCABORATUS	STERIESPORITES PUNCTATUS	TETRACOLPORITES VERRUCOSUS	TRICOLPORITES ESTOUTUS	TRILETES TUBERCULIFORMIS	ANACOLOSIDITES LUTEOIDES	CUPANEIDITES ORTHOTEICHUS	INTRATRIPOROPOLLENITES NOTABILIS	PROTEACIDITES ASPEROPOLUS	PROTEACIDITES ORNATUM	PROTEACIDITES PACHYPOLUS	PROTEACIDITES TUBERCULIFORMIS	TRIPOROPOLLENITES AMBIGUUS	MYRTACEIDITES PARVUS	MYRTACEIDITES TENUIS	NOTHOFAGIDITES DEMINUTUS	NOTHOFAGIDITES EMARICIDUS
	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261
0635.0 SWC	.	.	.	11	.	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X
0695.0 SWC	.	.	.	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0832.0 SWC	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0896.5 SWC	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.
0997.0 SWC	.	.	.	17	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
1027.0 SWC	.	.	.	X	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1040.0 SWC	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	9
1064.0 SWC	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.
1115.0 SWC	.	.	.	7	.	.	1	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	7
1151.0 SWC	.	.	.	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
1200.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1255.0 SWC	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.
1264.0 SWC	.	.	X	X	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	X	X
1340.0 SWC	.	.	.	X	.	.	X	X	.	.	.	.	.	X	.	.	.	.	.	X	.	.	X	.	.	.	.	.	X
1364.0 SWC	X	.	.	X	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.
1489.0 SWC	.	.	.	8	1	5	.	.	.	.	X	.	.	1	.	.	.	.	1	.	1	X	1	.	.	X	.	.	.
1491.0 SWC	.	.	1	21	1	5	.	.	.	.	X	X	.	.	.	.	1	.	.	.	X	X	3	.	.	11	1	.	1
1494.0 SWC	.	.	X	10	1	7	.	X	1	.	X	.	.	.	.	.	2	.	X	.	X	X	2	.	.	1	1	2	X
1517.0 SWC	.	.	.	16	3	5	1	.	X	.	.	X	.	.	.	.	1	.	1	X	.	1	2	1	.	3	X	1	1
1523.0 SWC	.	.	.	4	2	7	.	.	.	.	?	.	.	.	.	.	.	X	1	X	.	1	X	X	1	.	.	.	.
1544.0 SWC	X	.	2	1	2	1	2	1	X	1	X	X	X	2	?	X	X	.	.	.	.	.	.	.	.	.	.	.	.
1563.0 SWC	1	?	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1580.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1640.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1663.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1721.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1765.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1823 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1865.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1891.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1949.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1979.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2004.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2020.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2028.0 swc	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2043.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2054.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2059.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2066.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2076.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2086.1 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2096.0 CORE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2111.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2118.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2145.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2159.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2164.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2166.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2179.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2199.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2232.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2252.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2270.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2277.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2284.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2286.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2309.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2330.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2398.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2402.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2454.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2489 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2497.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2500.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2528.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2540.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2544.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2550 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2567.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2573 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2593 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2605.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2624.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2640 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2646.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2671.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2683.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2690 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2705.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2715 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2730.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2735 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

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0635.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	1	.	.	.	.	.	.	.	.	0635.0 SWC
0695.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0695.0 SWC
0832.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0832.0 SWC
0896.5 SWC	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0896.5 SWC
0997.0 SWC	.	.	.	.	.	.	.	.	.	1	2	X	1	3	.	.	.	.	.	.	.	.	.	.	0997.0 SWC
1027.0 SWC	.	.	.	X	.	.	.	.	.	1	X	.	.	.	.	.	.	.	.	.	.	.	.	.	1027.0 SWC
1040.0 SWC	.	.	.	.	.	.	.	.	.	3	.	.	.	X	.	.	6	.	.	.	.	.	.	.	1040.0 SWC
1064.0 SWC	.	.	.	.	.	.	.	.	.	1	1	1	1	.	.	.	9	.	.	.	.	1	.	.	1064.0 SWC
1115.0 SWC	.	.	.	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	1115.0 SWC
1151.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	1151.0 SWC
1200.5 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1200.5 SWC
1255.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1255.0 SWC
1264.0 SWC	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1264.0 SWC
1340.0 SWC	.	.	.	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1340.0 SWC
1364.0 SWC	.	.	.	.	.	.	X	?	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1364.0 SWC
1489.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	7	.	.	.	.	.	.	.	1489.0 SWC
1491.0 SWC	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	5	.	.	.	.	.	.	.	1491.0 SWC
1494.0 SWC	.	2	.	1	X	.	.	.	.	.	.	.	.	.	.	.	16	.	.	.	.	.	.	.	1494.0 SWC
1517.0 SWC	X	X	1	.	.	.	.	.	.	.	.	.	.	.	.	.	14	.	.	.	.	.	.	.	1517.0 SWC
1523.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	21	.	.	.	.	.	.	.	1523.0 SWC
1544.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	6	.	.	.	.	.	.	.	1544.0 SWC
1563.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	X	X	.	X	1563.0 SWC
1580.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	X	X	.	1580.0 SWC
1640.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	1640.0 SWC
1663.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	X	.	.	1663.0 SWC
1721.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	1721.0 SWC
1765.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	1765.0 SWC
1823 CUTTS	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	1823 CUTTS
1865.0 SWC	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	.	1865.0 SWC
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7. WELL POSITIONING REPORT

BHP PETROLEUM

RIG BYFORD DOLPHIN

POSITIONING ONTO LA BELLA LOCATION

OTWAY BASIN, JANUARY 1993

Issue No: 1
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INTRODUCTION

1.0 INTRODUCTION.

As part of the Service Agreement between BHP ENGINEERING and BHP PETROLEUM, BHP Engineering were required to oversee the work carried out by the survey contractor, RACAL SURVEY (AUSTRALIA), during the moving of the semi-submersible Byford Dolphin, from the Troas #_1 location, to the Labella location, situated in concession area VIC / P30,in the Southern Ocean.

In addition to the above work BHP Engineering are also required to confirm the final position of the rig by an independent navigation system, namely real time differentially corrected GPS satellite observations.

The project covered in this report began on the 12th December 1992, with the deployment of an acoustic array centred on the proposed drilling location, and was completed on the 22 January 1993 when GPS data was recorded in order to confirm the final location of the rig.

The "Pacific Marlin" was used as the survey vessel for this project, while the Far Sword and Bonavista were the vessels in attendance for towing and anchor handling duties.

All times mentioned in this report are UTC (Universal Coordinated Time which is Local Time minus 11 hours) unless otherwise stated. The Racal log sheets in Appendix I and the summary of events are referenced to local time.

SUMMARY OF RESULTS

2.0 SUMMARY OF RESULTS.

The coordinates of the La Bella location, as supplied by BHP Petroleum on the 11th December 1992 were;

Latitude	; 39 degrees 00 minutes 14.3 seconds South.
Longitude	; 142 degrees 41 minutes 42.9 seconds East.
Eastings	; 646 791.49 m
Northings	; 5 681 400.63 m
Proposed Rig Heading	; 230 degrees

BHP Petroleum requested that the final position of the rig as determined by GPS observations be within a circle of radius of 30 metres centred on the proposed coordinates.

The rig, Byford Dolphin, was positioned on the above location on the 21st January, 1993, and the coordinates of the drillstem as determined by GPS observations between were;

Latitude	; 39 degrees 00 minutes 14.19 seconds South.
Longitude	; 142 degrees 41 minutes 42.93 seconds East.
Eastings	; 646 792.21 m
Northings	; 5 681 403.87 m
Rig Heading	; 228 degrees

The above position is a distance of 3.3 metres on a bearing of 11.4 degrees from the proposed location.

GEODETIC PARAMETERS

3.0 GEODETIC PARAMETERS

The parameters listed below were used throughout this project and should be quoted when reference is made to coordinates shown in this report.

Reference Spheriod	; Australian National Spheriod
Semi-Major Axis	; 6,378,160m
Semi-Minor Axis	; 6,356,774.719m
Flattening 1/f	; 1/298.25
Eccentricity ^{2} (E^2)	; 0.006694542

Reference Datum	; Australian Geodetic Datum 1984
Projection	; Transverse Mercator
False Eastings	; 500,000m
False Northings	; 10,000,000m
Latitude of Origin	; 0.0 degrees
Longitude of Central Meridian	; 141 degrees East
Scale Factor on C.M.	; 0.999600
Units	; International Metres

The GPS navigation system and the associated satellites work on the WGS 84 Spheriod, whose parameters are shown below, and conversion of coordinates between this spheriod and the spheriod mentioned above is performed using parameters shown at the end of this section.

Reference Spheriod	; World Geodetic Spheriod 1984
Semi-Major Axis	; 6,378,137m
Semi-Minor Axis	; 6,356,752.31m
Flattening 1/f	; 1/298.257223563
Eccentricity ^{2} (E^2)	; 0.00669438

ACOUSTIC POSITIONING

4.0 ACOUSTIC POSITIONING

4.1 ACOUSTIC CALIBRATION.

Racal Survey deployed four Sonardyne medium frequency acoustic transponders centred on the proposed drilling location on the 13th December 1992.

The proposed drop coordinates of each transponder were computed, so that transponders were kept as clear as possible of anchor chains yet still giving the optimum angle of cut of LOP's at the proposed location.

The transponders were calibrated both relatively and absolutely using the Racal Survey Oasis Software Package and GPS on the 13th December 1992.

The results of the relative calibration were as follows, and are based on transponder 1 assuming the origin of the local grid system;

Transponder

Code	503	1106	1109	1010
Eastings	0.00	982.49	948.76	-144.32
Northings	0.00	0.00	-1056.61	-1018.92
Depth	89.62	89.96	88.02	89.49

In addition to the above calibration the relative position of the transponders was checked by carrying out a sea-bed calibration where direct ranges between all transponders are measured on the seabed and a least squares adjustment is carried out on the quadrilateral. The results from this calibration agreed with the above relative calibration to within 2.54 metres.

The absolute coordinates for the transponders as computed by the Oasis Software are as follows;

Transponder

Code	503	1106	1109	1010
Eastings	646284.83	646319.23	647374.01	647298.07
Northings	5680953.07	5681934.96	5681864.26	5680773.17
Depth	89.62	89.96	88.02	89.49

GPS CONFIRMATION POSITION

5.0 GPS CONFIRMATION POSITION

The confirmation of the acoustic coordinates was carried out between 2108 hrs and 2231 hrs on the 21st January 1992, using real-time differentially corrected GPS. one GPS receiver set up onboard the rig and an additional GPS receiver set up on the monitor station at Adelaide Selective availability has been installed on certain satellites within the GPS system so as to de-grade the accuracy of the system available to the user. However by recording data at a know point (monitor station) from identical satellites as those being recorded by the mobile receiver, and simultaneously, the errors caused by selective availability are eliminated.

The following constellations were observed during this period both onboard the rig and by the GPS monitor situated at Adelaide.

Satellite Numbers	Time Start	Time End
28,23,21,32,15	2108	2113
28,12,21,32,15	2115	2124
12,21,32,15	2130	2131
28,25,12,32,15	2155	2214
25,21,14,32,15	2226	2231

Data was recorded by both GPS recivers, and real time differential corrections passed direct to the rig via the "SkyFix" communication link.Using the real-time differentially corrected data a mean position of the antenna was computed as;

WGS 84 Spheriod.

Latitude ; 39 degrees 00 minutes 09.301 seconds South.
Longitude ; 142 degrees 41 minutes 46.515 seconds East.

AGD84 Spheriod. Central Meridian 141 degrees East

Latitude ; 39 degrees 00 minutes 14.600 seconds South.
Longitude ; 142 degrees 41 minutes 41.537 seconds East.

Eastings ; 646 758.55 m
Northings ; 5 681 391.99_m
Rig Heading ;228 degrees

Using the offsets as shown in appendix C the coordinates of the drillstem were computed as;

AGD84 Spheriod. Central Meridian 141 deg East

Latitude	; 39 degrees 00 minutes 14.194 seconds South.
Longitude	; 142 degrees 41 minutes 42.927 seconds East.
Eastings	; 646 792.21m
Northings	; 5 681 403.87m
Rig Heading	; 228 degrees

The above position is a distance of 3.32 metres on a bearing of 11.43 degrees from the proposed location.

The above position was approved by the BHP Petroleum Company Representative onboard the rig at 2235 hrs on 21st January 1991, and BHP Petroleum offices in Melbourne were advised of the coordinates by fax.

SUMMARY OF EVENTS

6.0 SUMMARY OF EVENTS

Date	Time	Event
12th Dec 1992	1015	Arrive Portland
	2000	Depart Portland for La Bella
13th Dec 1992	0200	Lay acoustic net and calibrate
	2300	Arrive Portland for demobbing
11th January 1993	1000	Arrive Portland
	1500	Depart Portland for rig and mobilise equipment
12th January	0600	Mobilisation and stand by for rig move
13th January		Standby for rig move
14th January		Standby for rig move anchor recovery begins
15th January		Standby for rig move anchor recovery continues
16th January		Standby for rig move anchor recovery continues
17th January	0100	Depart Troas for La Bella eta 1600 hrs 18th
18th January	0001	Logging passage from Troas to La Bella
	2115	Run in aborted - pennant wire caught up under anchor
19th January	0010	Drop anchor No. 6 and proceed to site and run anchors
	0605	Shackle parted on No.10 anchor - position fixed by laser
	1511	Shackle parted on No.3 anchor - position fixed by laser
20th January	1500	Commence moving over location and pre tensioning
21st January	1410	Commence ballasting down
	2000	Ballasting completed commence final GPS fix
	2230	Final fix completed comence demobbing
22nd January	0630	Transfer to AHV FAR SWORD and proceed to Portland

DOCUMENT APPROVAL

DOCUMENT TYPE:	REPORT
DOCUMENT No:	LTDO/0138
TITLE	RIG POSITIONING ONTO LABELLA LOCATION OTWAY BASIN JANUARY 1993
GENERAL DESCRIPTION: REFERENCED DOCUMENTS	

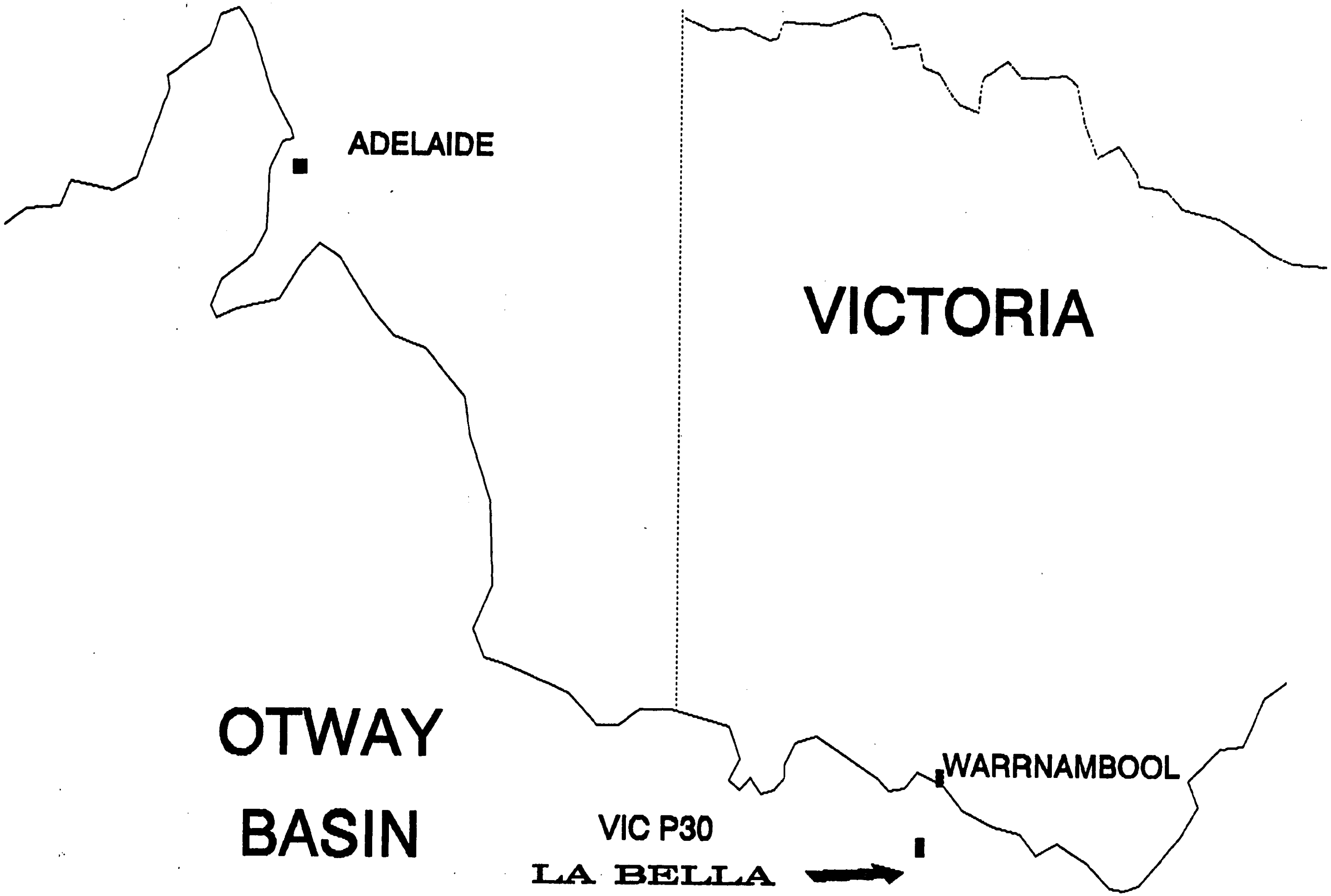
	ORIGINATOR	Name P. Riley	Position Survey	Signed	Date 19/2
APPROVALS	CHECKED	Name Mike Poidevin	Position Acting Operations Manger- LTD	Signed	Date
	APPROVED	Name Barry Milliken	Position Manager Land Technologies	Signed	Date

REVISIONS

ISSUE No	DATE	DESCRIPTION	BY	CHKD	APPROVED
1		Original Issue			

APPENDIX A

LOCATION MAP


ADELAIDE
VICTORIA
OTWAY
BASIN
WARRNAMBOOL
VIC P30
LA BELLA

APPENDIX B

CORRESPONDENCE
SHOWING
PROPOSED COORDINATES

CONFIRMATION OF WELL LOCATION PRIOR TO RIG MOVE

NAME OF LOCATION: LA BELLA

MODU NAME: BYFORD DOLPHIN

PERMIT NAME: VIC/P30

LINE NUMBER: OH91 - 149

LATITUDE: 39° 0' 14.3"S

LONGITUDE: 142° 41' 42.9"E

EASTING: 646792.03m 646791.49

NORTHING: 5681400.21m 5681400.63

SPHEROID AGD 66

CENTRAL MERIDIAN: 141°E

WATER DEPTH: 95m

RIG HEADING: 230°

POSITION TOLERANCE: 210m X 210m SQUARE

EXPECTED SPUD DATE: 25 DECEMBER

OFFSET VSP REQUIRED: ?

DRILLING SUPERINTENDENT:

DRILLING ENGINEER:

GEOPHYSICIST: CHRIS LUXTON

AFE NUMBER:

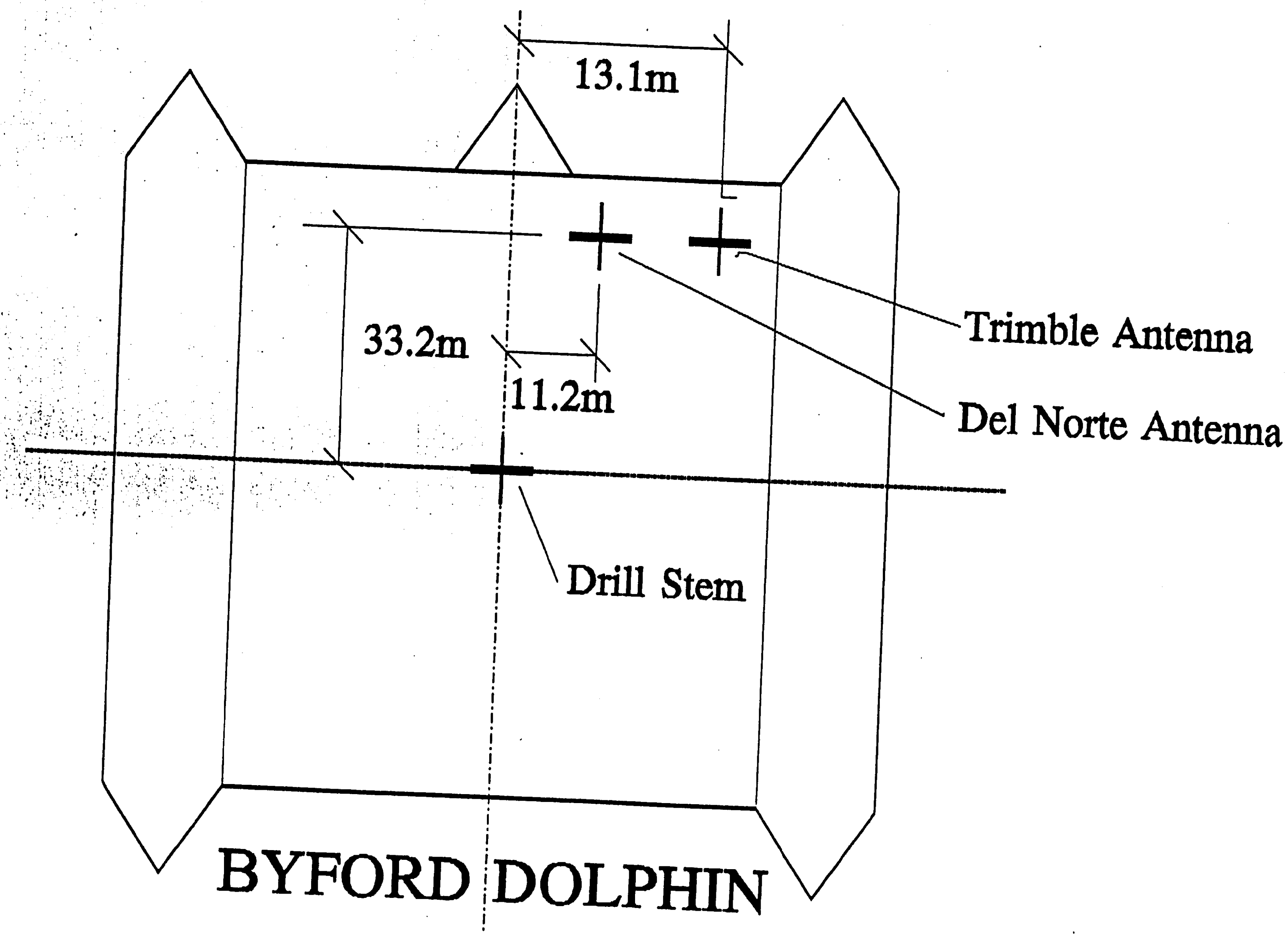
When completed please return, together with proposed anchor pattern to Simon Dykes, BHP Engineering - Facsimile No. 042 28 0893

ANCHOR PATTERN SAME AS TROAS-1

TOTAL P.01

APPENDIX C

OFFSET DIAGRAM OF RIG


13.1m
33.2m
11.2m
Trimble Antenna
Del Norte Antenna
Drill Stem
BYFORD DOLPHIN

APPENDIX D

PROPOSED ANCHOR/MARKER BUOY PATTERN PLAN/COORDINATES

Tuesday, 12 February 1993

Rig DOLPHIN at LA BELLA Rig Heading 230.0 degrees

Location Co ordinates : Easting 646791.490 Northing 5681400.630

ANCHOR #	BEARING	DISTANCE	EASTING	NORTHING
1	245.00	1000.000	645828.089	5680974.489
2	275.00	1000.000	645738.202	5681484.263
3	305.00	1000.000	645915.245	5681970.684
4	335.00	1000.000	646382.255	5682362.552
5	5.00	1000.000	646892.029	5682452.438
6	35.00	1000.000	647378.450	5682275.396
7	65.00	1000.000	647754.891	5681826.771
8	95.00	1000.000	647844.778	5681316.997
9	125.00	1000.000	647667.735	5680830.576
10	155.00	1000.000	647200.725	5680438.708
11	185.00	1000.000	646690.951	5680348.822
12	215.00	1000.000	646204.530	5680525.864

APPENDIX F

FINAL GPS POSITION
PRINTOUT

FINAL POSITION ANALYSIS: BYFORD DOLPHIN R/M LA-BELLA
GNS v R2.06 21:08:45 21 Jan 1993 to 22:31:56 21 Jan 1993
GPS Weighting Option - Constellations given equal weights
Mean Corrected Gyro...228.0 Gyro Correction... +0.0
Mean Grid Heading.....229.0 Convergence....... -1.067

TERTIARY COMPUTATION - Tau

CONSTELLATIONS USED

Const.	# Samples	S.V.s
A	26 (25)	28,23,21,32,15
B	1	28,23,12,21,32,15
C	50 (49)	28,12,21,32,15
D	4	28,25,12,21,32,15
E	15	25,12,21,32,15
F	7	12,21,32,15
G	2	25,12,21,32,15
H	14	12,21,32,15
I	9	25,12,21,32,15
J	19 (17)	12,21,32,15
K	6	25,12,21,32,15
L	2	12,21,32,15
M	4 (3)	25,12,21,32,15
N	5	12,21,32,15
O	33	25,12,21,32,15
P	92 (89)	28,25,12,32,15
Q	43	28,25,21,32,15
R	1	28,25,21,14,32,15
S	30	25,21,14,32,15

Total number of samples used = 363 (355)
() denotes # of height samples used after adjustment for altitude aiding

COMPUTED FINAL ANTENNA POSITION
WGS 84 Spheroid
Latitude 39 DEG 00 MIN 09.301 SEC S (S.D. .62 Metres)
Longitude 142 DEG 41 MIN 46.515 SEC E (S.D. .29 Metres)
Height 19.60 Metres (S.D. .71 Metres)

AUSTRALIAN NAT 1984 Spheroid
Latitude 39 DEG 00 MIN 14.600 SEC S
Longitude 142 DEG 41 MIN 41.537 SEC E
Height 37.50 Metres
UTM/TM
Eastings 646758.55 Metres
Northings 5681391.99 Metres

COMPUTED FINAL DATUM POSITION
AUSTRALIAN NAT 1984 Spheroid
Latitude 39 DEG 00 MIN 14.194 SEC S
Longitude 142 DEG 41 MIN 42.927 SEC E
UTM/TM
Eastings 646792.21 Metres
Northings 5681403.87 Metres

INTENDED FINAL DATUM LOCATION
AUSTRALIAN NAT 1984 Spheroid

Latitude   39 DEG 00 MIN 14.300 SEC S
Longitude 142 DEG 41 MIN 42.900 SEC E
UTM/TM
stings   646791.49 Metres
northings   5681400.63 Metres

Final Datum Position is   3.32 Metres (spheroidal distance) bearing 011.43 T from the Intended Loc.

APPENDIX G

GPS OBSERVATION LOG SHEETS

GPS (TAU) FINAL FIX
BYFORD DOLPHIN – LA BELLA
JOB # 2030

FINAL POSITION ANALYSIS: BYFORD DOLPHIN R/M LA-BELLA
WGS 84 Spheroid
.tS v R 2.06

TERTIARY COMPUTATION CONSTELLATION SUB FINAL POSITION - Tau
Sub-Final Position A Constellation:(28,23,21,32,15)
21:08:45 21 Jan 1993 to 21:13:14 21 Jan 1993
No samples: 26 1 to 26
No samples used: Lat/Long 26 Height 25
P.D.O.P Minimum 2.6 Maximum 2.7
H.D.O.P Minimum 1.5 Maximum 1.6
3D error Minimun 0.0m Maximum 0.0m
2D error Minimun 0.0m Maximum 0.0m
Latitude 39 DEG 00 MIN 09.325 SEC S (S.D. 2.22m)
Longitude 142 DEG 41 MIN 46.468 SEC E (S.D. 2.14m)
Height 22.97 m (S.D. 1.66m)

TERTIARY COMPUTATION CONSTELLATION SUB FINAL POSITION - Tau
Sub-Final Position B Constellation:(28,23,12,21,32,15)
21:14:20 21 Jan 1993 to 21:14:20 21 Jan 1993
No samples: 1 27 to 27
No samples used: Lat/Long 1 Height 1
P.D.O.P Minimum 2.4 - Maximum 2.4
H.D.O.P Minimum 1.4 Maximum 1.4
3D error Minimun 0.0m Maximum 0.0m
2D error Minimun 0.0m Maximum 0.0m
Latitude 39 DEG 00 MIN 09.270 SEC S (S.D. 0.00m)
Longitude 142 DEG 41 MIN 46.470 SEC E (S.D. 0.00m)
Height 15.80 m (S.D. 0.00m)

&dDTERTIARY COMPUTATION CONSTELLATION SUB FINAL POSITION - Tau
Sub-Final Position C Constellation:(28,12,21,32,15)
21:15:02 21 Jan 1993 to 21:24:05 21 Jan 1993
No samples: 50 28 to 77
No samples used: Lat/Long 50 Height 49
P.D.O.P Minimum 2.4 Maximum 2.4
H.D.O.P Minimum 1.4 Maximum 1.4
3D error Minimun 0.0m Maximum 0.0m
2D error Minimun 0.0m Maximum 0.0m
Latitude 39 DEG 00 MIN 09.281 SEC S (S.D. 1.70m)
Longitude 142 DEG 41 MIN 46.531 SEC E (S.D. 1.36m)
Height 16.43 m (S.D. 3.36m)

TERTIARY COMPUTATION CONSTELLATION SUB FINAL POSITION - Tau
Sub-Final Position D Constellation:(28,25,12,21,32,15)
21:24:48 21 Jan 1993 to 21:25:20 21 Jan 1993
No samples: 4 78 to 81
No samples used: Lat/Long 4 Height 4
P.D.O.P Minimum 1.9 Maximum 2.4
H.D.O.P Minimum 1.2 Maximum 1.4
3D error Minimun 0.0m Maximum 0.0m
2D error Minimun 0.0m Maximum 0.0m
Latitude 39 DEG 00 MIN 09.150 SEC S (S.D. .44m)
Longitude 142 DEG 41 MIN 46.643 SEC E (S.D. .36m)
Height 14.75 m (S.D. .93m)

TERTIARY COMPUTATION   CONSTELLATION SUB FINAL POSITION - Tau
Sub-Final Position E   Constellation:(25,12,21,32,15)
21:26:03 21 Jan 1993   to   21:29:25 21 Jan 1993
No samples: 15   82 to 96
No samples used: Lat/Long 15   Height 15
P.D.O.P   Minimum   1.9   Maximum   1.9
H.D.O.P   Minimum   1.2   Maximum   1.2
3D error   Minimun   0.0m   Maximum   1.0m
2D error   Minimun   0.0m   Maximum   0.0m
Latitude   39 DEG 00 MIN 09.304 SEC S   (S.D.   .91m)
Longitude 142 DEG 41 MIN 46.549 SEC E   (S.D.   1.84m)
Height   18.59 m   (S.D.   1.47m)

TERTIARY COMPUTATION   CONSTELLATION SUB FINAL POSITION - Tau
Sub-Final Position F   Constellation:(12,21,32,15)
21:30:06 21 Jan 1993   to   21:31:12 21 Jan 1993
No samples: 7   97 to 103
No samples used: Lat/Long 7   Height 7
P.D.O.P   Minimum   6.0   Maximum   6.3
H.D.O.P   Minimum   4.4   Maximum   4.6
3D error   Minimun   1.0m   Maximum   1.0m
2D error   Minimun   0.0m   Maximum   1.0m
Latitude   39 DEG 00 MIN 09.249 SEC S   (S.D.   2.26m)
Longitude 142 DEG 41 MIN 46.400 SEC E   (S.D.   .84m)
Height   18.57 m   (S.D.   1.32m)

TERTIARY COMPUTATION   CONSTELLATION SUB FINAL POSITION - Tau
Sub-Final Position G   Constellation:(25,12,21,32,15)
21:31:55 21 Jan 1993   to   21:32:05 21 Jan 1993
No samples: 2   104 to 105
No samples used: Lat/Long 2   Height 2
P.D.O.P   Minimum   1.9   Maximum   1.9
H.D.O.P   Minimum   1.2   Maximum   1.2
3D error   Minimun   0.0m   Maximum   0.0m
2D error   Minimun   0.0m   Maximum   0.0m
Latitude   39 DEG 00 MIN 09.310 SEC S   (S.D.   .44m)
Longitude 142 DEG 41 MIN 46.500 SEC E   (S.D.   0.00m)
Height   16.75 m   (S.D.   .35m)

TERTIARY COMPUTATION   CONSTELLATION SUB FINAL POSITION - Tau
Sub-Final Position H   Constellation:(12,21,32,15)
21:32:47 21 Jan 1993   to   21:35:31 21 Jan 1993
No samples: 14   106 to 119
No samples used: Lat/Long 14   Height 14
P.D.O.P   Minimum   2.0   Maximum   7.1
H.D.O.P   Minimum   1.2   Maximum   5.2
3D error   Minimun   0.0m   Maximum   1.0m
2D error   Minimun   0.0m   Maximum   1.0m
Latitude   39 DEG 00 MIN 09.394 SEC S   (S.D.   2.23m)
Longitude 142 DEG 41 MIN 46.381 SEC E   (S.D.   1.30m)
Height   20.46 m   (S.D.   2.59m)

TERTIARY COMPUTATION   CONSTELLATION SUB FINAL POSITION - Tau
Sub-Final Position I   Constellation:(25,12,21,32,15)
21:36:11 21 Jan 1993   to   21:37:57 21 Jan 1993
No samples: 9   120 to 128
No samples used: Lat/Long 9   Height 9

P.D.O.P Minimum 2.0 Maximum 2.0
H.D.O.P Minimum 1.2 Maximum 1.2
3D error Minimum 0.0m Maximum 1.0m
2D error Minimum 0.0m Maximum 1.0m
Latitude 39 DEG 00 MIN 09.297 SEC S (S.D. .93m)
Longitude 142 DEG 41 MIN 46.463 SEC E (S.D. 1.07m)
Height 20.31 m (S.D. 1.53m)

TERTIARY COMPUTATION CONSTELLATION SUB FINAL POSITION - Tau
Sub-Final Position J Constellation:(12,21,32,15)
21:38:39 21 Jan 1993 to 21:42:40 21 Jan 1993
No samples: 19 129 to 147
No samples used: Lat/Long 19 Height 17
P.D.O.P Minimum 2.0 Maximum 13.2
H.D.O.P Minimum 1.2 Maximum 9.7
3D error Minimum 0.0m Maximum 1.0m
2D error Minimum 0.0m Maximum 1.0m
Latitude 39 DEG 00 MIN 09.423 SEC S (S.D. 8.02m)
Longitude 142 DEG 41 MIN 46.514 SEC E (S.D. .65m)
Height 21.71 m (S.D. 6.18m)

TERTIARY COMPUTATION CONSTELLATION SUB FINAL POSITION - Tau
Sub-Final Position K Constellation:(25,12,21,32,15)
21:43:22 21 Jan 1993 to 21:44:20 21 Jan 1993
No samples: 6 148 to 153
No samples used: Lat/Long 6 Height 6
P.D.O.P Minimum 2.1 Maximum 2.1
H.D.O.P Minimum 1.2 Maximum 1.2
3D error Minimum 0.0m Maximum 1.0m
2D error Minimum 0.0m Maximum 1.0m
Latitude 39 DEG 00 MIN 09.358 SEC S (S.D. 1.41m)
Longitude 142 DEG 41 MIN 46.438 SEC E (S.D. 1.07m)
Height 21.58 m (S.D. 1.64m)

TERTIARY COMPUTATION CONSTELLATION SUB FINAL POSITION - Tau
Sub-Final Position L Constellation:(12,21,32,15)
21:45:01 21 Jan 1993 to 21:45:12 21 Jan 1993
No samples: 2 154 to 155
No samples used: Lat/Long 2 Height 2
P.D.O.P Minimum 16.8 Maximum 17.3
H.D.O.P Minimum 12.4 Maximum 12.8
3D error Minimum 2.0m Maximum 2.0m
2D error Minimum 1.0m Maximum 1.0m
Latitude 39 DEG 00 MIN 09.465 SEC S (S.D. .22m)
Longitude 142 DEG 41 MIN 46.565 SEC E (S.D. .51m)
Height 23.75 m (S.D. .07m)

TERTIARY COMPUTATION CONSTELLATION SUB FINAL POSITION - Tau
Sub-Final Position M Constellation:(25,12,21,32,15)
21:45:54 21 Jan 1993 to 21:46:34 21 Jan 1993
No samples: 4 156 to 159
No samples used: Lat/Long 4 Height 3
P.D.O.P Minimum 2.1 Maximum 2.1
H.D.O.P Minimum 1.3 Maximum 1.3
3D error Minimum 0.0m Maximum 1.0m
2D error Minimum 0.0m Maximum 1.0m

Latitude 39 DEG 00 MIN 09.320 SEC S (S.D. .76m)
Longitude 142 DEG 41 MIN 46.553 SEC E (S.D. .63m)
Height 22.30 m (S.D. 1.47m)

TERTIARY COMPUTATION CONSTELLATION SUB FINAL POSITION - Tau
Sub-Final Position N Constellation:(12,21,32,15)
21:47:16 21 Jan 1993 to 21:48:20 21 Jan 1993
No samples: 5 160 to 164
No samples used: Lat/Long 5 Height 5
P.D.O.P Minimum 2.1 Maximum 24.8
H.D.O.P Minimum 1.3 Maximum 18.4
3D error Minimum 1.0m Maximum 2.0m
2D error Minimum 1.0m Maximum 1.0m
Latitude 39 DEG 00 MIN 09.146 SEC S (S.D. 3.79m)
Longitude 142 DEG 41 MIN 46.626 SEC E (S.D. .27m)
Height 18.98 m (S.D. 3.15m)

TERTIARY COMPUTATION CONSTELLATION SUB FINAL POSITION - Tau
Sub-Final Position O Constellation:(25,12,21,32,15)
21:49:02 21 Jan 1993 to 21:55:13 21 Jan 1993
No samples: 33 165 to 197
No samples used: Lat/Long 33 Height 33
P.D.O.P Minimum 2.2 Maximum 2.3
H.D.O.P Minimum 1.3 Maximum 1.3
3D error Minimum 0.0m Maximum 1.0m
2D error Minimum 0.0m Maximum 1.0m
Latitude 39 DEG 00 MIN 09.388 SEC S (S.D. 5.40m)
Longitude 142 DEG 41 MIN 46.536 SEC E (S.D. 2.18m)
Height 18.50 m (S.D. 4.64m)

TERTIARY COMPUTATION CONSTELLATION SUB FINAL POSITION - Tau
Sub-Final Position P Constellation:(28,25,12,32,15)
21:55:55 21 Jan 1993 to 22:14:45 21 Jan 1993
No samples: 92 198 to 289
No samples used: Lat/Long 92 Height 89
P.D.O.P Minimum 2.2 Maximum 12.3
H.D.O.P Minimum 1.2 Maximum 5.8
3D error Minimum 0.0m Maximum 1.0m
2D error Minimum 0.0m Maximum 1.0m
Latitude 39 DEG 00 MIN 09.277 SEC S (S.D. 1.64m)
Longitude 142 DEG 41 MIN 46.501 SEC E (S.D. 2.02m)
Height 16.44 m (S.D. 2.42m)

TERTIARY COMPUTATION CONSTELLATION SUB FINAL POSITION - Tau
Sub-Final Position Q Constellation:(28,25,21,32,15)
22:15:28 21 Jan 1993 to 22:24:53 21 Jan 1993
No samples: 43 290 to 332
No samples used: Lat/Long 43 Height 43
P.D.O.P Minimum 4.0 Maximum 4.1
H.D.O.P Minimum 1.7 Maximum 1.7
3D error Minimum 0.0m Maximum 1.0m
2D error Minimum 0.0m Maximum 0.0m
Latitude 39 DEG 00 MIN 09.271 SEC S (S.D. 1.70m)
Longitude 142 DEG 41 MIN 46.516 SEC E (S.D. 1.62m)
Height 17.29 m (S.D. 4.12m)

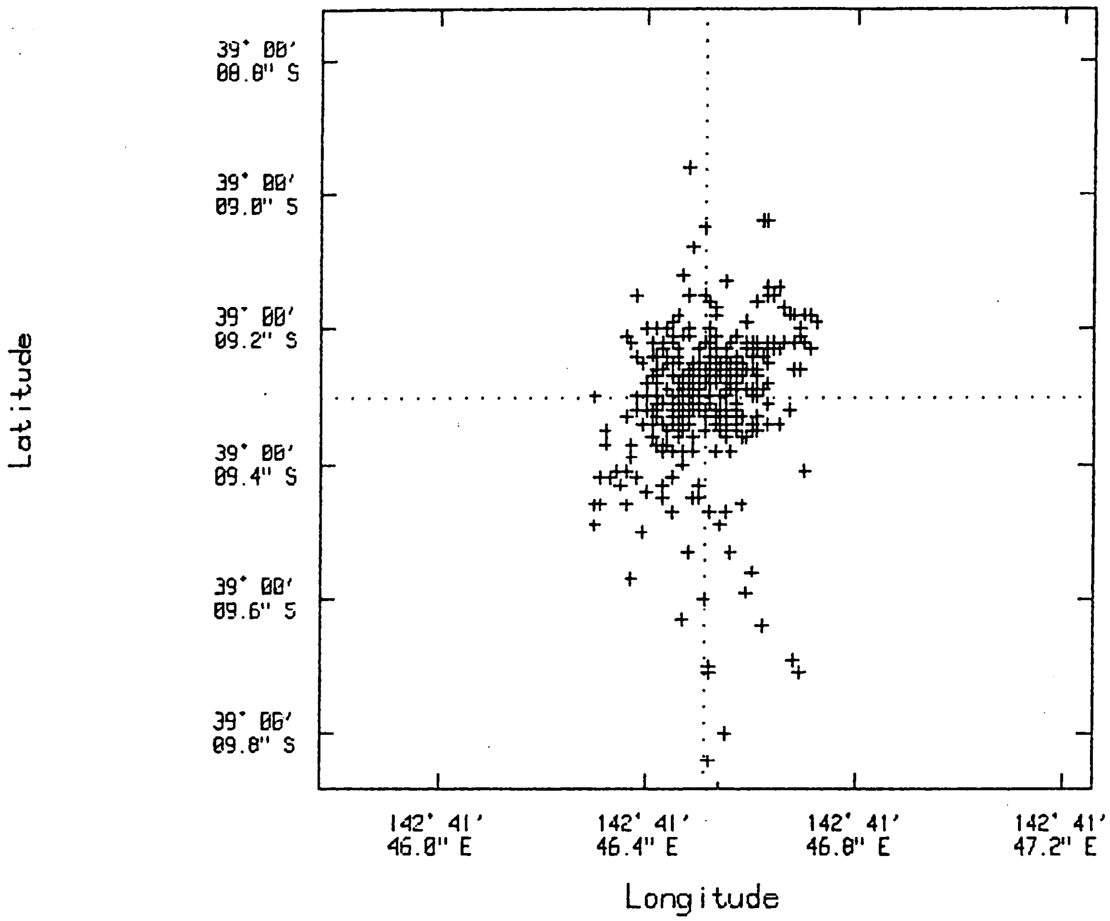
TERTIARY COMPUTATION   CONSTELLATION SUB FINAL POSITION - Tau

Sub-Final Position R			Constellation:(28,25,21,14,32,15)			
22:25:35 21 Jan 1993		to	22:25:35 21 Jan 1993			
No samples:	1		333 to 333			
No samples used:	Lat/Long 1		Height 1			
P.D.O.P	Minimum	4.0	Maximum	4.0		
H.D.O.P	Minimum	1.7	Maximum	1.7		
3D error	Minimun	0.0m	Maximum	0.0m		
2D error	Minimun	0.0m	Maximum	0.0m		
Latitude	39 DEG 00 MIN 09.230 SEC S				(S.D.	0.00m)
Longitude	142 DEG 41 MIN 46.530 SEC E				(S.D.	0.00m)
Height	24.30 m				(S.D.	0.00m)

TERTIARY COMPUTATION   CONSTELLATION SUB FINAL POSITION - Tau

Sub-Final Position S			Constellation:(25,21,14,32,15)			
22:26:17 21 Jan 1993		to	22:31:56 21 Jan 1993			
No samples:	30		334 to 363			
No samples used:	Lat/Long 30		Height 30			
P.D.O.P	Minimum	3.1	Maximum	3.2		
H.D.O.P	Minimum	1.7	Maximum	1.7		
3D error	Minimun	0.0m	Maximum	1.0m		
2D error	Minimun	0.0m	Maximum	0.0m		
Latitude	39 DEG 00 MIN 09.265 SEC S				(S.D.	1.34m)
Longitude	142 DEG 41 MIN 46.593 SEC E				(S.D.	1.59m)
Height	22.92 m				(S.D.	7.52m)

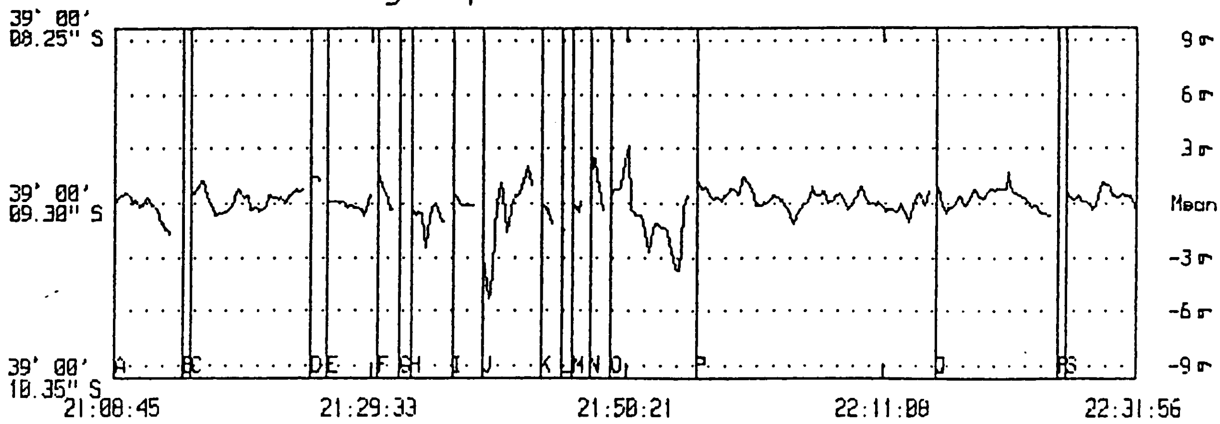
Tertiary Computation GPS Scatter Plot (Tau)



Centred on mean antenna position (passes 1 to 363).
WGS 84 Spheroid
Latitude   39 DEG 00 MIN 09.302 SEC S
Longitude 142 DEG 41 MIN 46.514 SEC E

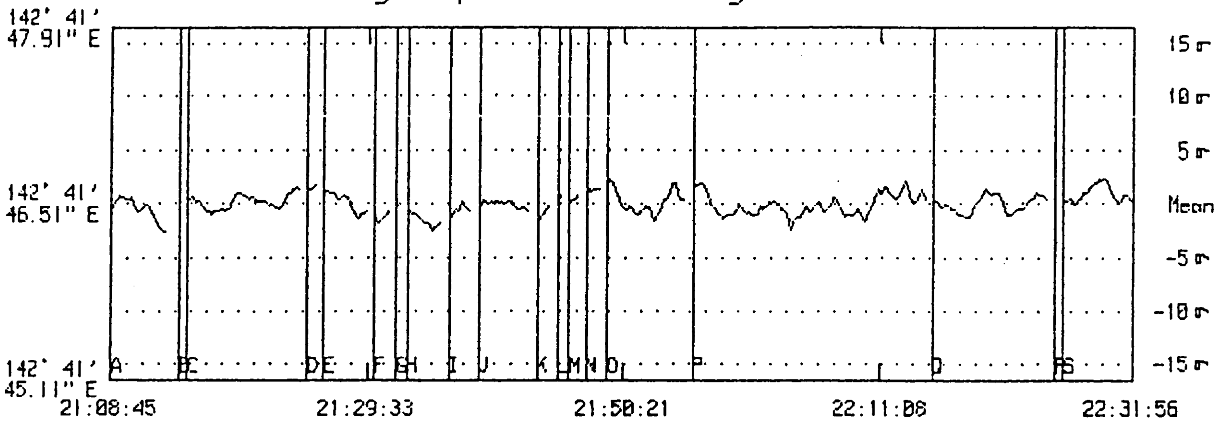
Analysis data stored to file ANALYSIS1

Tertiary Computation GPS Latitude (Tau)



Time (Start Date 21 Jan 1993)

Tertiary Computation GPS Longitude (Tau)



Time (Start Date 21 Jan 1993)

Tertiary Computation (WGS 84 - Tau)
Centred on mean of antenna position (passes 1 to 363).
Latitude 39 DEG 00 MIN 09.302 SEC S Sd 3.340 Metres
Longitude 142 DEG 41 MIN 46.514 SEC E Sd 2.032 Metres

APPENDIX H

COPIES OF TELEXES/FAXES RELATING TO FINAL COORDINATES

To: Neil Campbell - Drilling Manager BHPP, Melbourne

CC: John Bell - Drilling Superintendant BHPP, Melbourne

John Dickson - Drilling Supervisor BHPP, Byford Dolphin

Simon Dykes / Mike Kirton - BHPE, Wollongong (042 280893)

George Fletcher - Operations Manager - RACAL Survey Perth (09 3448783)

From: Peter Riley BHPE Surveyor
Date: 21st January 1993
Ref : Labella Rig Move.

SUBJECT: Final Satellite Positioning of Byford Dolphin over Labella Location

The intended location of the Labella location was given as:

Latitude	39	00	14.3	South
Longitude	142	41	42.3	East
Easting	646 791.49			
Northing	5 681 400.63			
Spheroid	AGD 84			
Central Meridian	141 Degrees East			
Rig Heading	230 Degrees			

The final satellite position was taken onboard the Byford Dolphin between 2108 hours on the 21st January 1993 and 2231 hours on the 21st January 1993.The computed position of the drillstem on the rig was as follows:

Latitude	39	00	14.194	South
Longitude	142	41	42.927	East
Easting	646 792.21			
Northing	5 681 403.87			
Rig heading	228 Degrees			

This places the well 3.32 metres on a bearing 11.43 degrees from the intended location.

Regards,

APPENDIX I

COPY OF RACAL DAILY LOG SHEETS

RACAL SURV'EY AUSTRALIA LIMITED

RACAL

DAILY RECORD SHEET

W	Sea State	Swell	Wind Dir.
00			
0600			
1200			
1800			

Client : BHP			Job No : 2030			Date : 11\12\92	Vessel :			Anchors / Tpdrs	
RACAL Equipment on Board	Op	NonOp	RACAL Equipment on Board	Op	NonOp	RACAL Personnel	Consummables			Laid	Recovered
SKYFIX	✓		STD 12 / VELOCITY PROBE	✓		L. KEMP	ITEM	USED	REMAIN		
SYLEDIS			ECHO SOUNDER (20/25)			C. HAKKENESS	SIDESCAN PAPER				
MICROFIX			SIDESCAN (595/531/PINGER)				E/SOUNDER PAPER				
ARGO			BOOMER (DELPH / EPC)				ELICS PAPER				
GNS	✓		SPARKER (DELPH / EPC)				DISKS				
GYRO	✓		CORING (GRAVITY / GRAB)				PRINTER CART.				
TRIMBLE SST'S			THEODOLITE / EDM			CLIENT Personnel	EPC ROLLS				
TELEMETRY			UNDERWATER TRACKING			M. KIRTON					
SONARDYNE COMPATTS	✓										
SONARDYNE PAN	✓										
SONARDYNE (Dunker/Winch/Fish)	✓										

DIARY OF OPERATIONS : (SEST)

1030 - (WST) L. KEMP LEAVES PERTH FOR MELBOURNE - ARRIVES 1730 (ESST)
C. HAKKENESS TRAVELS TO MELBOURNE MEETING L. KEMP AT AIRPORT
1810 - KENDAL AIRLINE FLIGHT DEPARTS MELBOURNE FOR PORTLAND WITH
RACAL PERSONEL ONBOARD.
1920 - ARRIVE IN PORTLAND - ACCOMADATION IN PORTLAND AT THE RICHMOND
HENTY

Forms are to be completed daily in duplicate on all vessels. Each form should be countersigned by the Clients Representative, the original being retained on board until the next crew change or at the end of job, whichever is the earlier, when they should be returned to the PERTH office.

Transponders to be listed by type and serial numbers. Following codes to be used : L - Laid, R - Recovered, FR - Failed to Reply, FS - Failed to Surface.

Signature [signature] SURVEYOR/ENGINEER

WHITE : Commercial Office
BLUE : Operations
YELLOW : Clients Representative

Signature [signature] CLIENTS REPRESENTATIVE

RACAL SURVEY AUSTRALIA LIMITED

RACAL

DAILY RECORD SHEET

WX	Sea State	Swell	Wind Dir.
0000			
0600			
1200			
1800			

Client : BHP			Job No : 2030			Date : 12\12\92	Vessel : PACIFIC MARLIN			Anchors / Tpdrs	
RACAL Equipment on Board	Op	NonOp	RACAL Equipment on Board	Op	NonOp	RACAL Personnel	Consummables			Laid	Recovered
SKYFIX	✓		STD 12 / VELOCITY PROBE	✓		L. KEMP	ITEM	USED	REMAIN		
SYLEDIS			ECHO SOUNDER (20/25)			C. HAKKENES	SIDESCAN PAPER				
MICROFIX			SIDESCAN (595/531/PINGER)				E/SOUNDER PAPER				
ARGO			BOOMER (DELPH / EPC)				ELICS PAPER				
GNS	✓		SPARKER (DELPH / EPC)				DISKS				
GYRO	✓		CORING (GRAVITY / GRAB)				PRINTER CART.				
TRIMBLE SST'S			THEODOLITE / EDM			CLIENT Personnel	EPC ROLLS				
TELEMETRY			UNDERWATER TRACKING			M. KIRTON					
SONARDYNE COMPATTS	✓										
SONARDYNE PAN	✓										
SONARDYNE (Dunker/Winch/Fish)	✓										

DIARY OF OPERATIONS : (ESST)

0800 - RACAL PERSONNEL ONBOARD VESSEL MV "PACIFIC MARLIN" - GNS SET UP
CHECKED AND OK! AWAITING ARRIVAL OF SKYFIX EQUIPMENT.
1000 - SKYFIX EQUIPMENT ARRIVES WITH CLIENT REP M.KIRTON. - SKYFIX
EQUIPMENT MOBILISED
1345 - ALL SURVEY EQUIPMENT FULLY OPERATIONAL.
AWAITING DEPARTURE OF VESSEL TO LA-BELLA SITE (ETD 2000)
2010 - VESSEL DEPARTS WHARF FOR SITE. (~ 6hrs STEAM)

Forms are to be completed daily in duplicate on all vessels. Each form should be countersigned by the Clients Representative, the original being retained on board until the next crew change or at the end of job, whichever is the earlier; when they should be returned to the PERTH office.

Transponders to be listed by type and serial numbers. Following codes to be used : L - Laid, R - Recovered, FR - Failed to Reply, FS - Failed to Surface.

Signature ______ SURVEYOR/ENGINEER

WHITE : Comn. Office
BLUE : Operations
YELLOW : Clients Representative

Signature ______ CLIENTS REPRESENTATIVE

RACAL SURVEY AUSTRALIA LIMITED

RACAL

DAILY RECORD SHEET

W	Sea State	Swell	Wind Dir.
0000			
0600			
1200			
1800			

Client : BHP			Job No : 2030			Date : 13\12\92	Vessel : PACIFIC MARLIN			Anchors / Tpdrs	
RACAL Equipment on Board	Op	NonOp	RACAL Equipment on Board	Op	NonOp	RACAL Personnel	Consummables			Laid	Recovered
SKYFIX	✓		STD 12 / VELOCITY PROBE	✓		L. KEMP	ITEM	USED	REMAIN	503	
SYLEDIS			ECHO SOUNDER (20/25)			C. HAKKENES	SIDESCAN PAPER			1106	
MICROFIX			SIDESCAN (595/531/PINGER)				E/SOUNDER PAPER			1109	
ARGO			BOOMER (DELPH / EPC)				ELICS PAPER			1010	
GNS	✓		SPARKER (DELPH / EPC)				DISKS				
GYRO	✓		CORING (GRAVITY / GRAB)				PRINTER CART.				
TRIMBLE SST'S			THEODOLITE / EDM			CLIENT Personnel	EPC ROLLS				
TELEMETRY			UNDERWATER TRACKING			M. KIRTON.					
SONARDYNE COMPATTS	✓										
SONARDYNE PAN	✓										
SONARDYNE (Dunker/Winch / Fish)	✓										

DIARY OF OPERATIONS : (ESST)

0235 - VESSEL ARRIVES AT LA-BELLA SITE.
0300 - VELOCITY PROBE DEPLOYED AND VELOCITY OF SOUND CALCULATED (1506·1 m/s)
0535 - WET TEST CMPT 503 OK!
0545 - WET TEST CMPT 1106 OK.
0550 - WET TEST CMPT 1109 OK
0555 - WET TEST CMPT 1010 OK.
0557 - PREPARE TO DEPLOY COMPATTS.
0615 - DROP CMPT 503
0624 - DROP CMPT 1106
0635 - DROP CMPT 1109
0643 - DROP CMPT 1010 SET UP OASIS SOFTWARE FOR ACOUSTIC NET CALIBRATION.

Forms are to be completed daily in duplicate on all vessels. Each form should be countersigned by the Clients Representative, the original being retained on board until the next crew change or at the end of job, whichever is the earlier, when they should be returned to the PERTH office.

Transponders to be listed by type and serial numbers. Following codes to be used: L - Laid, R - Recovered, FR - Failed to Reply, FS - Failed to Surface.

Signature [signature] SURVEYOR/ENGINEER

WHITE : Commercial Office
BLUE : Operations
YELLOW : Clients Representative

Signature [signature] CLIENTS REPRESENTATIVE

2030 - 01...

RACAL SURVEY AUSTRALIA LIMITED

RACAL

DAILY RECORD SHEET

WX	Sea State	Swell	Wind Dir.
0000			
0600			
1200			
1800			

Client : BHP | Job No : 2030 | Date : [illegible]/12/92 | Vessel : PACIFIC MARLIN.

RACAL Equipment on Board	Op	NonOp	RACAL Equipment on Board	Op	NonOp	RACAL Personnel	Consummables	Used	Remain	Anchors / Tpdrs Laid	Recovered
SKYFIX	✓		STD 12 / VELOCITY PROBE	✓		L. KEMP	ITEM	USED	REMAIN	503	
SYLEDIS			ECHO SOUNDER (20/25)			C. HAKKENES	SIDESCAN PAPER			1106	
MICROFIX			SIDESCAN (595/531/PINGER)				E/SOUNDER PAPER			1109	
ARGO			BOOMER (DELPH / EPC)				ELICS PAPER			1010	
GNS	✓		SPARKER (DELPH / EPC)				DISKS				
GYRO	✓		CORING (GRAVITY / GRAB)				PRINTER CART.				
TRIMBLE SST'S			THEODOLITE / EDM			CLIENT Personnel	EPC ROLLS				
TELEMETRY			UNDERWATER TRACKING			M. KIRTON.					
SONARDYNE COMPATTS	✓										
SONARDYNE PAN	✓										
SONARDYNE (Dunker/Winch/Fish)	✓										

DIARY OF OPERATIONS : (ESST)

0806 - START COLLECTING ACOUSTIC CALIBRATION DATA

1000 - COLLECTION OF ACOUSTIC DATA COMPLETE. - CALCULATE RELATIVE AND ABSOLUTE POSITIONS OF COMPATTS. (NOTE: BOTH PRINTERS ON THE VESSEL WERE NOT ~~ABSOLU~~ FULLY OPERATIONAL AND THUS THE RESULTS OBTAINED WERE NOT COMPLETE. THE DATA WILL BE RE-PRINTED UPON RETURN TO PERTH)

1230 - BOX-IN CALIBRATION CHECKS CARRIED OUT ON CMPT 503 AND CMPT 1109.

1500 - BOX-IN RESULTS ARE WITHIN 5m OF ABSOLUTE SOLUTION - COMPATT POSITIONS ACCEPTED BY CLIENT REP. GNS LOADED INTO COMPUTER FOR GPS\ACOUSTIC CONFIDENCE CHECK. AFTER THE NET WAS SETTLED THE ACOUSTIC FIX WAS < 5m IN EASTING + NORTHINGS; THE CALIBRATION WAS ACCEPTED. - COMPATTS WERE DISABLED AND THE VESSEL RETURNED TO PORTLAND.

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Transponders to be listed by type and serial numbers. Following codes to be used: L - Laid, R - Recovered, FR - Failed to Reply, FS - Failed to Surface.

Signa[ture] ______ SURVEYOR/ENGINEER

WHITE : Commercial Office
BLUE : Operations

Signature ______ CLIENTS REPRESENTATIVE

2030 - 105

RACAL SURV[illegible] AUSTRALIA LIMITED

RACAL

DAILY RECORD SHEET

	Sea State	Swell	Wind Dir.
00			
0600			
1200			
1800			

Client : BHP			Job No : 2030			Date : 13\12\92	Vessel : PACIFIC MARLIN			Anchors / Tpdrs	
RACAL Equipment on Board	Op	NonOp	RACAL Equipment on Board	Op	NonOp	RACAL Personnel	Consummables			Laid	Recovered
SKYFIX	✓		STD 12 / VELOCITY PROBE	✓		L. KEMP	ITEM	USED	REMAIN	503	
SYLEDIS			ECHO SOUNDER (20/25)			C. HAKKENESS	SIDESCAN PAPER			1106	
MICROFIX			SIDESCAN (595/531/PINGER)				E/SOUNDER PAPER			1109	
ARGO			BOOMER (DELPH/EPC)				ELICS PAPER			1010	
GNS	✓		SPARKER (DELPH/EPC)				DISKS				
GYRO	✓		CORING (GRAVITY/GRAB)				PRINTER CART.				
TRIMBLE SST'S			THEODOLITE / EDM			CLIENT Personnel	EPC ROLLS				
TELEMETRY			UNDERWATER TRACKING			M. KIRTON					
SONARDYNE COMPATTS	✓										
SONARDYNE PAN	✓										
SONARDYNE (Dunker/Winch/Fish)	✓										

DIARY OF OPERATIONS : (ESST)

2230 - PACIFIC MARLIN ARRIVES AT PORTLAND - RACAL AND BHP PERSONNEL
LEAVE VESSEL AND STAY IN HOTEL FOR THE NIGHT. NOTE: THE RIG
MOVE HAS BEEN DELAYED DUE TO FURTHER DRILLING REQUIREMENTS
AND SURVEY PERSONNEL WILL BE SENT HOME AWAITING COMPLETION OF HOLE.

14\12\92 SURVEY PERSONNEL L.KEMP - RETURNS TO PERTH \ C.HAKKENESS
RETURNS TO SYDNEY.

Forms are to be completed daily in duplicate on all vessels. Each form should be countersigned by the Clients Representative, the original being retained on board until the next crew change or at the end of job, whichever is the earlier, when they should be returned to the PERTH office.

Transponders to be listed by type and serial numbers. Following codes to be used: L - Laid, R - Recovered, FR - Failed to Reply, FS - Failed to Surface.

Signature [signature] SURVEYOR/ENGINEER

WHITE	: Commercial Office
BLUE	: Operations
YELLOW	: Clients Representative

Signature [signature] CLIENTS REPRESENTATIVE

RACAL SURVEY AUSTRALIA LIMITED

RACAL

DAILY RECORD SHEET

WX	Sea State	Swell	Wind Dir.
0000			
0600			
1200			
1800			

Client : BHP			Job No : 2030			Date : 10-1-93	Vessel : BYFORD DOLPHIN			Anchors / Tpdrs	
RACAL Equipment on Board	Op	NonOp	RACAL Equipment on Board	Op	NonOp	RACAL Personnel	Consummables			Laid	Recovered
SKYFIX	✓		STD 12 / VELOCITY PROBE			L. KEMP	ITEM	USED	REMAIN	503	
SYLEDIS			ECHO SOUNDER (20/25)			C. SCHAEFER	SIDESCAN PAPER			1106	
MICROFIX			SIDESCAN (595/531/PINGER)			J. TIGHE	E/SOUNDER PAPER			1109	
ARGO			BOOMER (DELPH / EPC)				ELICS PAPER			1010	
GNS	✓		SPARKER (DELPH / EPC)				DISKS				
GYRO	✓		CORING (GRAVITY / GRAB)				PRINTER CART.				
TRIMBLE SST'S			THEODOLITE / EDM			CLIENT Personnel	EPC ROLLS				
TELEMETRY			UNDERWATER TRACKING			P. RILEY					
SONARDYNE COMPATTS	✓										
SONARDYNE PAN	✓										
SONARDYNE (Dunker/Winch/Fish)	✓										

DIARY OF OPERATIONS : (EST)

1630 – (WST) RACAL PERSONNEL DEPART PERTH FOR MELBOURNE.
2230 – (EST) ARRIVE MELBOURNE – STAY IN TRAVEL LODGE FOR NIGHT. AWAIT FLIGHT TO PORTLAND FOLLOWING MORNING.

Forms are to be completed daily in duplicate on all vessels. Each form should be countersigned by the Clients Representative, the original being retained on board until the next crew change or at the end of job, whichever is the earlier, when they should be returned to the PERTH office.

Transponders to be listed by type and serial numbers. Following codes to be used : L – Laid, R – Recovered, FR – Failed to Reply, FS – Failed to Surface.

Signa[ture] ____ SURVEYOR/ENGINEER

WHITE : Comm[ercial O]ffice
BLUE : Operations
YELLOW : Clients Representative

Signature ____ CLIENTS REPRESENTATIVE

RACAL SURVEY AUSTRALIA LIMITED

RACAL

DAILY RECORD SHEET

W	Sea State	Swell	Wind Dir.
00			
0600			
1200			
1800			

Client : BHP			Job No : 2030			Date : 11-1-93	Vessel : BYFORD DOLPHIN			Anchors / Tpdrs	
RACAL Equipment on Board	Op	NonOp	RACAL Equipment on Board	Op	NonOp	RACAL Personnel	Consummables			Laid	Recovered
SKYFIX	✓		STD 12 / VELOCITY PROBE			L. KEMP	ITEM	USED	REMAIN	503	
SYLEDIS			ECHO SOUNDER (20/25)			C. SHAEFER	SIDESCAN PAPER			1106	
MICROFIX			SIDESCAN (595/531/PINGER)			J. TIGHE	E/SOUNDER PAPER			1109	
ARGO			BOOMER (DELPH / EPC)				ELICS PAPER			1010	
GNS	✓		SPARKER (DELPH / EPC)				DISKS				
GYRO	✓		CORING (GRAVITY / GRAB)				PRINTER CART.				
TRIMBLE SST'S			THEODOLITE / EDM			CLIENT Personnel	EPC ROLLS				
TELEMETRY			UNDERWATER TRACKING			P. RILEY					
SONARDYNE COMPATTS	✓										
SONARDYNE PAN	✓										
SONARDYNE (Dunker/Winch/Fish)	✓										

DIARY OF OPERATIONS : (EST)

0845 - RACAL PERSONNEL AND BHP REPRESENTATIVE P. RILEY FLY TO PORTLAND
0950 - LAND AT PORTLAND. HELICOPTER DUE TO LEAVE PORTLAND FOR RIG AT 1300
1300 - HELICOPTER DELAYED.
1500 - HELICOPTER DEPARTS PORTLAND
1600 - ARRIVE ON RIG.
1745 - ~~B~~ RACAL + BHP PERSONNEL BASKET TRANSFER TO STANDBY VESSEL PACIFIC MARLIN.
SURVEY EQUIPMENT CHECKED AND MADE READY FOR TRANSFER TO RIG
2015 - PERSONNEL + EQUIPMENT TRANSFERED TO RIG

Forms are to be completed daily in duplicate on all vessels. Each form should be countersigned by the Clients Representative, the original being retained on board until the next crew change or at the end of job, whichever is the earlier, when they should be returned to the PERTH office.

Transponders to be listed by type and serial numbers. Following codes to be used: L - Laid, R - Recovered, FR - Failed to Reply, FS - Failed to Surface.

Signature ________ SURVEYOR/ENGINEER

WHITE : Commercial Office
BLUE : Operations
YELLOW : Clients Representative

Signature ________ CLIENTS REPRESENTATIVE

RACAL SURVEY AUSTRALIA LIMITED

RACAL

DAILY RECORD SHEET

WX	Sea State	Swell	Wind Dir.
0000			
0600			
1200			
1800			

Client : BHP			Job No : 2030			Date : 12-1-93	Vessel : BYFORD DOLPHIN			Anchors / Tpdrs	
RACAL Equipment on Board	Op	NonOp	RACAL Equipment on Board	Op	NonOp	RACAL Personnel	Consummables			Laid	Recovered
SKYFIX	✓		STD 12 / VELOCITY PROBE			L. KEMP	ITEM	USED	REMAIN	503	
SYLEDIS			ECHO SOUNDER (20/25)			C. SHAEFER	SIDESCAN PAPER			1106	
MICROFIX			SIDESCAN (595/531/PINGER)			T TIGHE	E/SOUNDER PAPER			1109	
ARGO			BOOMER (DELPH / EPC)				ELICS PAPER			1010	
GNS	✓		SPARKER (DELPH / EPC)				DISKS				
GYRO	✓		CORING (GRAVITY / GRAB)				PRINTER CART.				
TRIMBLE SST'S			THEODOLITE / EDM			CLIENT Personnel	EPC ROLLS				
TELEMETRY			UNDERWATER TRACKING			P. RILEY					
SONARDYNE COMPATTS	✓										
SONARDYNE PAN	✓										
SONARDYNE (Dunker/Winch/Fish)	✓										

DIARY OF OPERATIONS : (EST)

0700 - SURVEY EQUIPMENT SET UP IN PILOT HOUSE
1045 - NAVIGATION RUNNING GOLF II LASER NOT INTERFACING
1115 - GNS SET UP AND CALCULATIONS MADE FOR LA-BELLA SITE
STAND BY FOR RIG MOVE OPERATIONS

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Transponders to be listed by type and serial numbers. Following codes to be used : L - Laid, R - Recovered, FR - Failed to Reply, FS - Failed to Surface.

Signature
SURVEYOR/ENGINEER.

WHITE : Comm. Office
BLUE : Operations
YELLOW : Clients Representative

Signature
CLIENTS REPRESENTATIVE

RACAL SURVEY AUSTRALIA LIMITED

RACAL

DAILY RECORD SHEET

V	Sea State	Swell	Wind Dir.
00			
0600			
1200			
1800			

Client : BHP			Job No : 2030			Date : 13-15\1\93	Vessel : BYFORD DOLPHIN			Anchors / Tpdrs	
RACAL Equipment on Board	Op	NonOp	RACAL Equipment on Board	Op	NonOp	RACAL Personnel	Consummables			Laid	Recovered
SKYFIX	✓		STD 12 / VELOCITY PROBE			L. KEMP	ITEM	USED	REMAIN	503	
SYLEDIS			ECHO SOUNDER (20/25)			C. SCHAEFER	SIDESCAN PAPER			1106	
MICROFIX			SIDESCAN (595/531/PINGER)			J. TIGHE	E/SOUNDER PAPER			1109	
ARGO			BOOMER (DELPH / EPC)				ELICS PAPER			1010	
GNS	✓		SPARKER (DELPH / EPC)				DISKS				⚓ 5
GYRO	✓		CORING (GRAVITY / GRAB)				PRINTER CART.			~~1ST~~	⚓ 11
TRIMBLE SST'S			THEODOLITE / EDM			CLIENT Personnel	EPC ROLLS				⚓ 6
TELEMETRY			UNDERWATER TRACKING			P. RILEY					⚓ 3
SONARDYNE COMPATTS	✓										⚓ 1
SONARDYNE PAN											
SONARDYNE (Dunker/Winch/Fish)											

DIARY OF OPERATIONS : (EST)

13-1-93 STANDBY FOR RIG MOVE - 1130 LASER TO IF80 REPAIRED AND OPERATIONAL.
14-1-93 STANDBY FOR RIG MOVE.
15-1-93 0130 - ANCHOR RECOVERY STARTED.
0C25 - ⚓ 5 RACKED
1310 - ⚓ 11 RACKED
1355 - ⚓ 6 RACKED
1745 - ⚓ 3 RACKED
2100 - ⚓ 1 RACKED

Forms are to be completed daily in duplicate on all vessels. Each form should be countersigned by the Clients Representative, the original being retained on board until the next crew change or at the end of job, whichever is the earlier, when they should be returned to the PERTH office.

Transponders to be listed by type and serial numbers. Following codes to be used : L - Laid, R - Recovered, FR - Failed to Reply, FS - Failed to Surface.

Signature Lars Kemp
SURVEYOR/ENGINEER

WHITE : Commercial Office
BLUE : Operations
YELLOW : Clients Representative

Signature
CLIENTS REPRESENTATIVE

RACAL SURVEY AUSTRALIA LIMITED

RACAL

DAILY RECORD SHEET

WX	Sea State	Swell	Wind Dir.
0000			
0600			
1200			
1800			

17

Client : BHP			Job No : 2030			Date : 16-1-93	Vessel : BYFORD DOLPHIN			Anchors / Tpdrs	
RACAL Equipment on Board	Op	NonOp	RACAL Equipment on Board	Op	NonOp	RACAL Personnel	Consummables			Laid	Recovered
SKYFIX	✓		STD 12 / VELOCITY PROBE			L. KEMP	ITEM	USED	REMAIN	503	⚓ 11
SYLEDIS			ECHO SOUNDER (20/25)			C. SHAFFER	SIDESCAN PAPER			1106	⚓ 6
MICROFIX			SIDESCAN (595/531/PINGER)			J. TIGHE	E/SOUNDER PAPER			1109	⚓ 3
ARGO			BOOMER (DELPH / EPC)				ELICS PAPER			1010	⚓ 1
GNS	✓		SPARKER (DELPH / EPC)				DISKS				⚓ 9
GYRO	✓		CORING (GRAVITY / GRAB)				PRINTER CART.				⚓ 7
TRIMBLE SST'S			THEODOLITE / EDM			CLIENT Personnel	EPC ROLLS				⚓ 2
TELEMETRY			UNDERWATER TRACKING			P. RILEY					⚓ 8
SONARDYNE COMPATTS	✓										⚓ 10
SONARDYNE PAN	✓										⚓ 4
SONARDYNE (Dunker/Winch/Fish)	✓										⚓ 5

DIARY OF OPERATIONS : (EST)

0255 - ⚓ 9 RACKED
0935 - ⚓ 7 RACKED
1340 - ⚓ 2 RACKED
1714 - ⚓ 8 RACKED
2155 - ⚓ 10 RACKED
2355 - ⚓ 4 OFF THE BOTTOM. VESSEL DRIFTING. BACK LOADING CONTINUED.
0100 - RIG UNDERWAY TO LA-BELLA SITE. FIXES + LOGGING EVERY ½ hr. (17-1-93)

17-1-93 EN-ROUTE TO LA-BELLA SITE

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Transponders to be listed by type and serial numbers. Following codes to be used : L - Laid, R - Recovered, FR - Failed to Reply, FS - Failed to Surface.

Signa[ture] [signature]
SURVEYOR/ENGINEER

WHITE : Comm[ercial] Office
BLUE : Operations

Signature [signature]
CLIENTS REPRESENTATIVE

RACAL SURVEY AUSTRALIA LIMITED

RACAL

DAILY RECORD SHEET

	Sea State	Swell	Wind Dir.
0600	CA		
1200		L/V	
1800			

Client : BHP			Job No : 2030			Date : 18-1-93	Vessel : BYFORD DOLPHIN			Anchors / Tpdrs	
RACAL Equipment on Board	Op	NonOp	RACAL Equipment on Board	Op	NonOp	RACAL Personnel	Consummables			Laid	Recovered
SKYFIX	✓		STD 12 / VELOCITY PROBE			L. KEMP	ITEM	USED	REMAIN	503	
SYLEDIS			ECHO SOUNDER (20/25)			C. SHAFFER	SIDESCAN PAPER			1106	
MICROFIX			SIDESCAN (595/531/PINGER)			J. TIGHE	E/SOUNDER PAPER			1109	
ARGO			BOOMER (DELPH / EPC)				ELICS PAPER			1010	
GNS	✓		SPARKER (DELPH / EPC)				DISKS				
GYRO	✓		CORING (GRAVITY / GRAB)				PRINTER CART.				
TRIMBLE SST'S			THEODOLITE / EDM			CLIENT Personnel	EPC ROLLS				
TELEMETRY			UNDERWATER TRACKING			P. RILEY					
SONARDYNE COMPATTS	✓										
SONARDYNE PAN	✓										
SONARDYNE (Dunker / Winch / Fish)	✓										

DIARY OF OPERATIONS : (EST)

0800 - EN-ROUTE TO LA BELLA.

0900 - BHP \ HF DIFF LINK OPERATIONAL - GNS TRACKING SET TO DEL NORTE.

2115 - APPROACH TO SITE * ABORTED * DUE TO ⚓6 PENDANT FOULING.

RIG TURNS TO PORT FOR RE-RUN ONTO #7⚓.

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Signature ____________ SURVEYOR/ENGINEER

WHITE : Commerial Office
BLUE : Operations
YELLOW : Clients Representative

Signature ____________ CLIENTS REPRESENTATIVE

RACAL

RACAL SURVEY AUSTRALIA LIMITED

DAILY RECORD SHEET

WX	Sea State	Swell	Wind Dir
0000			
0600	CA		
1200		VV	
1800			

Client : BHP			Job No : 2030			Date : 19-1-93	Vessel : BYFORD DOLPHIN.			Anchors / Tpdrs	
RACAL Equipment on Board	Op	NonOp	RACAL Equipment on Board	Op	NonOp	RACAL Personnel	Consummables			Laid	Recovered
SKYFIX	√		STD 12 / VELOCITY PROBE			L. KEMP	ITEM	USED	REMAIN	503	
SYLEDIS			ECHO SOUNDER (20/25)			C. SHAEFER.	SIDESCAN PAPER			1106	
MICROFIX			SIDESCAN (595/531/PINGER)			J. TIGHE	E/SOUNDER PAPER			1109	
ARGO			BOOMER (DELPH / EPC)				ELICS PAPER			1010	
GNS	√		SPARKER (DELPH / EPC)				DISKS				
GYRO	√		CORING (GRAVITY / GRAB)				PRINTER CART.				
TRIMBLE SST'S			THEODOLITE / EDM			CLIENT Personnel	EPC ROLLS				
TELEMETRY			UNDERWATER TRACKING			P. RILEY.					
SONARDYNE COMPATTS	√										
SONARDYNE PAN	√										
SONARDYNE (Dunker/Winch/Fish)	√										

DIARY OF OPERATIONS : (EST)

0010 - DROP #7 ON RUN-IN TO LOCATION.
0050 - ON LOCATION.
0105 - #1 PENDANT PARTED.
0240 - RUNNING #2
0410 - #2 ON THE BOTTOM.
0605 - RUNNING #10
0620 - #10 SHACKEL FAILS #10 FALLS TO SEABED.
0800 - RUNNING #9
0805 - DNAV DOWN FOR 5min.
0925 - RUNNING #4
0941 - #4 OTB
1200 - RE-DEPLOY #4

1215 - RUNNING #12 # NEW HD. 210°
1250 - #12 OTB.
1415 - RUNNING #11 NEW HD 175°
1432 - #11 OTB.
1510 RUNNING #3
1530 - #3 OTB.
1535 - #3 PARTED FALLS TO SEABED
1600 - RUNNING #8. NEW HD 100°
1623 - #8 OTB.
1705 - RUNNING # 5.
1733 - #5 OTB.

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Sign [signature]
SURVEYOR/ENGINEER

WHITE : Com[illegible] Office
BLUE : Operations
YELLOW : Clients Representative

Signature [signature]
CLIENTS REPRESENTATIVE

RACAL SURV Y AUSTRALIA LIMITED

RACAL

DAILY RECORD SHEET

	Sea State	Swell	Wind Dir.
0600	Q		
1200			
1800			

Client : BHP			Job No : 2030			Date : 19-1-93	Vessel : BYFORD DOLPHIN			Anchors / Tpdrs	
RACAL Equipment on Board	Op	NonOp	RACAL Equipment on Board	Op	NonOp	RACAL Personnel	Consummables			Laid	Recovered
SKYFIX	✓		STD 12 / VELOCITY PROBE			L. KEMP	ITEM	USED	REMAIN	503	
SYLEDIS			ECHO SOUNDER (20/25)			C. SHAEFER	SIDESCAN PAPER			1106	
MICROFIX			SIDESCAN (595/531/PINGER)			J. TIGHE	E/SOUNDER PAPER			1109	
ARGO			BOOMER (DELPH/EPC)				ELICS PAPER			1010	
GNS	✓		SPARKER (DELPH/EPC)				DISKS				
GYRO	✓		CORING (GRAVITY/GRAB)				PRINTER CART.				
TRIMBLE SST'S			THEODOLITE/EDM			CLIENT Personnel	EPC ROLLS				
TELEMETRY			UNDERWATER TRACKING			P. RILEY					
SONARDYNE COMPATTS	✓										
SONARDYNE PAN	✓										
SONARDYNE (Dunker/Winch/Fish)	✓										

DIARY OF OPERATIONS : (EST) 19-1-93 CONT.

1745 - LIFTING ANCH 8 TO RUN.

1805 - RUNNING #8 ±

1811 - ±8 OTB.

1815 - WORK ON PONTOON TO REPLACE ±1 PENDANT

WORK HALTED DUE TO NIGHT FALL

NOTE: POSITIONS FOR ±10 AND ±3

±10 646 981 E ±3 645 915 E

5 681 361 N 5 681 992 N

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Signature ____________ SURVEYOR/ENGINEER

WHITE : Commercial Office
BLUE : Operations
YELLOW : Clients Representative

Signature ____________ CLIENTS REPRESENTATIVE

RACAL SURVEY AUSTRALIA LIMITED

RACAL

DAILY RECORD SHEET

2030 14

WX	Sea State	Swell	Wind Dir
0000	CALM		
0600			
1200			
1800			

Client : BHP			Job No : 2030			Date : 20-1-93	Vessel : BYFORD DOLPHIN			Anchors / Tpdrs	
RACAL Equipment on Board	Op	NonOp	RACAL Equipment on Board	Op	NonOp	RACAL Personnel	Consummables			Laid	Recovered
SKYFIX	√		STD 12 / VELOCITY PROBE			L. KEMP	ITEM	USED	REMAIN	503	
SYLEDIS			ECHO SOUNDER (20/25)			C. SHAEFER	SIDESCAN PAPER			1106	
MICROFIX			SIDESCAN (595/531/PINGER)			J. TIGHE	E/SOUNDER PAPER			1109	
ARGO			BOOMER (DELPH/EPC)				ELICS PAPER			1010	
GNS	√		SPARKER (DELPH/EPC)				DISKS				
GYRO	√		CORING (GRAVITY/GRAB)				PRINTER CART.				
TRIMBLE SST'S			THEODOLITE / EDM			CLIENT Personnel	EPC ROLLS				
TELEMETRY			UNDERWATER TRACKING			P. RILEY					
SONARDYNE COMPATTS	√										
SONARDYNE PAN	√										
SONARDYNE (Dunker/Winch/Fish)	√										

DIARY OF OPERATIONS : (EST)

AWAITING REPAIR TO #1 ⚓

0850 - RIG MOVING FWD 100m TO DROP ⚓1

0930 - RIG 100m AHEAD 0935 - ⚓1 OTB.

1000 - RIG MOVING 200m ASTERN.

1235 - AHV CLOSE TO RIG TO 'J' HOOK ⚓1

1255 - CABLE HOOKED

1318 - ⚓1 ON DECK RECONNECTING PENDANT

1852 - RUNNING ⚓1 1925 - ⚓1 OTB.

2030 - RE-DROP ⚓1 OTB. MOVE RIG TO LOC.

2245 - RIG ON LOCATION

2315 - START 'X' TENSIONING

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Transponders to be listed by type and serial numbers. Following codes to be used: L - Laid, R - Recovered, FR - Failed to Reply, FS - Failed to Surface.

Sign[ature] [signature]

SURVEYOR/ENGINEER

WHITE : Comm... Office
BLUE : Operations
YELLOW : ...

Signature [signature]

CLIENTS REPRESENTATIVE

2030 . 15

	Sea State	Swell	Wind Dir.
00			
0600	CALM		
1200			
1800			

RACAL SURVEY AUSTRALIA LIMITED

RACAL

DAILY RECORD SHEET

Client : BHP			Job No : 2030			Date : 21-1-93	Vessel : BYFORD DOLPHIN			Anchors / Tpdrs	
RACAL Equipment on Board	Op	NonOp	RACAL Equipment on Board	Op	NonOp	RACAL Personnel	Consummables			Laid	Recovered
SKYFIX	✓		STD 12 / VELOCITY PROBE			L. KEMP	ITEM	USED	REMAIN		503
SYLEDIS			ECHO SOUNDER (20/25)			C. SHAEFER	SIDESCAN PAPER				1106
MICROFIX			SIDESCAN (595/531/PINGER)			J. TIGHE	E/SOUNDER PAPER				1109
ARGO			BOOMER (DELPH / EPC)				ELICS PAPER				1010
GNS	✓		SPARKER (DELPH / EPC)				DISKS				
GYRO	✓		CORING (GRAVITY / GRAB)				PRINTER CART.				
TRIMBLE SST'S			THEODOLITE / EDM			CLIENT Personnel	EPC ROLLS				
TELEMETRY			UNDERWATER TRACKING			P RILEY.					
SONARDYNE COMPATTS	✓										
SONARDYNE PAN	✓										
SONARDYNE (Dunker / Winch / Fish)	✓										

DIARY OF OPERATIONS :

NOTE:

0240 - #2 FAILED TENSIONING - RE-RUN

0800 - B\VISTA THRUSTER FAILURE DELAY CAUSED

1220 - AFTER SEVERAL ATTEMPTS, #2 OTB

1310 - 'X' TENSIONED TESTING.

1330 - 'X' TENSION COMPLETED.

1410 - COMMENCE BALLASTING RIG

1900 - C. SHAEFER TRANSFER'S BACK TO RIG.

2108 - RIG BALLASTED TO DRILLING DRAFT AND GNS ANALSIS STARTED. - TAU \ DNAV.

2231 - ANALYSIS STOPPED AND CALCULATIONS FOR DATUM POSITION CARRIED OUT.

2247 - DEL NORTE ANALYSIS CARRIED OUT. ENDS AT 2346 SURVEY EQUIP DEMOBED

1250 - C. SCHAEFER TRANSFERS OUT P.WARNN.

1320 - RECOVER CMPT 1010 BC-311 25.6V

1340 - RECOVER CMPT 1109 BC-312 25.7V

1400 - RECOVER CMPT 1106 BC-313 25.1V

1425 - RECOVER CMPT 503 BC-312 24.8V

1435 - ALL CMPT'S RECOVERED FISH AND WINCHES SECURED.

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Signature [signature] SURVEYOR/ENGINEER

WHITE : Commercial Office
BLUE : Operations

Signature [signature] CLIENTS REPRESENTATIVE

RACAL SURVEY AUSTRALIA LIMITED

RACAL

WX	Sea State	Swell	Wind Dir
0000			
0600	CA		
1200		M	
1800			

DAILY RECORD SHEET

Client : BHP | Job No : 2030 | Date : 2[illegible]-1-73 | Vessel : BYFORD DOLPHIN.

RACAL Equipment on Board	Op	NonOp	RACAL Equipment on Board	Op	NonOp	RACAL Personnel	Consummables	USED	REMAIN	Anchors / Tpdrs Laid	Anchors / Tpdrs Recovered
SKYFIX	✓		STD 12 / VELOCITY PROBE	✓		L. KEMP	ITEM				503
SYLEDIS			ECHO SOUNDER (20/25)			T. TIGHE	SIDESCAN PAPER				1106
MICROFIX			SIDESCAN (595/531/PINGER)			C. SHARP	E/SOUNDER PAPER				1109
ARGO			BOOMER (DELPH/EPC)				ELICS PAPER				1010
GNS	✓		SPARKER (DELPH/EPC)				DISKS				
GYRO	✓		CORING (GRAVITY/GRAB)				PRINTER CART.				
TRIMBLE SST'S			THEODOLITE / EDM			**CLIENT Personnel**	EPC ROLLS				
TELEMETRY			UNDERWATER TRACKING			P. RILEY.					
SONARDYNE COMPATTS	✓										
SONARDYNE PAN	✓										
SONARDYNE (Dunker/Winch/Fish)	✓										

DIARY OF OPERATIONS :

0230 - DEMOB OF EQUIPMENT COMPLETE - NECESSARY NAV EQUIPMENT FOR FAR SWORD LOADED INTO CONTAINER READY FOR TRANSFER.

0800 - PERSONNEL + NAV EQUIP. TRANSFERED TO AHV FAR SWORD SAIL TO PORTLAND.

1100 - ARRIVE PORTLAND.

1800 J. TIGHE RETURNS TO PERTH

REMAINING PERSONNEL ACCOMMODATED AT THE HENTY HOTEL.

RACAL + BHP PERSONNEL REQUIRED TO STAY IN PORTLAND TO MOBILISE FAR SWORD FOR ANCHOR RECOVERY PROJECT.

* END JOB # 2030 *

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Signed ______ SURVEYOR / ENGINEER

WHITE : Comm... Office
BLUE : Operations
YELLOW : ...

Signature ______ CLIENTS REPRESENTATIVE

8

Figure 3

RFT Sample Data Sheet

Well: La Bella-1

Date: 10th January 1993

KB: 25.0 m

Sample No: 2 Depth: 2072.8 mAHKB

Formation Pressure: 3192.20 psia

	Lower	Upper	
Chamber No:	222	RFS-AD-MR-1120	
Chamber Size:	6	1	gal
Flowing Pressure:	1754	2217	psig
Time To Fill:	60	6	minutes
Opening Pressure:			psia
Gas Volume:	124	Preserved	ft^3
Total Liquids:	350	For PVT	cc
Oil/Condensate Volume:	35	Analysis	cc
Filtrate/Water Volume:	315		cc
Gas Oil Ratio:	----		Scf/Stb
Condensate Gas Ratio:	1.8		Stb/MMscf

Oil/Condensate Analysis

	Lower	Upper	
Spacific Gravity:	Sample Too Small		Air=1, Temp
Colour:	----		
Flourescence:	Bright Blue		

Gas Analysis:

	Average of 2 samples		Upper	
C1:	14.60	81.55		%
C2:	5.20	5.20		%
C3:	1.89	1.89		%
iC4:	0.31	0.31		%
nC4:	0.25	0.25		%
C5+:	0.0024	0.0024		%
CO2:	10.8	10.8		%
H2S:	0	0		ppm

*See Note Below

Water/Filtrate Analysis:

	Lower	Upper	Filtrate Drilled	Filtrate Logged	
Rw:					
pH:			9.5		
Cl-:	49,000		49,000		mg/l
Total Hardness (Ca/Mg):	600		140		
KCl:			7		

Trituim Analysis:

	Lower	Upper			
Average Activity:	N/A	N/A	N/A	N/A	Bq/cc
Returns:					Bq/cc
% Filtrate:					

Note: GC was not performing analysis on sample accurately. The raw data results for the gas analysis are shown on the left, modified results are shown on the right. The modification to the GC results entailed making up the percentage difference with methane.

Table 5
LA BELLA-1 PRELIMINARY OPEN HOLE RFT RESULTS

Test No.	Depth		Time	Initial Hydrostatic Pressure			Formation Pressure		Temperature	Final Hydrostatic Pressure		Mobility	Permeability*	Comments
				Strain Gauge		HP Gauge	Strain Gauge	HP Gauge		Strain Gauge	HP Gauge			
	mTVDDF	mTVDSS	hh:mm	psig		psia	psig	psia	DegC	psig	psia	mD/cp	mD	
1	2068.3	2043.3	07:15											Tight
2	2068.4	2043.4	08:20	3607.2	2	3622.2	3288.9	3304.63	91.4	3606.9	3623.3	0.4	<10	Low Perm
3	2070.0	2045.0	09:01	3609.6	6	3625.7	3203.1	3218.66	91.8	3609.9	3626.7	0.9	<10	Low Perm
4	2072.8	2047.8	09:30	3614.6	6	3631.2	3177.8	3193.05	91.7	3615.0	3631.2	6.7	30	Good
5	2082.7	2057.7	09:40	3631.8	8	3647.9			92.1	3631.6	3650.6			Tight
6	2100.4	2075.4	09:49	3662.1	1	3679.3	3213.5	3228.82	92.5	3662.2	3679.0	5.1	20	Good
7	2103.2	2078.2												Not Attempted
8	2109.8	2084.8	10:06	3678.3	3	3696.1	3216.6	3231.36	92.7	3678.9	3695.7	12.2	50	Good
9	2116.1	2091.1												Not Attempted
10	2120.5	2095.5	10:24	3697.3	3	3715.9	3218.9	3233.92	93.2	3697.3	3713.1	2.1	<10	Good
11	2125.8	2100.8	10:39	3600.2	2				93.9	3705.9				Supercharged
12	2133.9	2108.9	11:00	3720.8	8	3737.5	3222.3	3236.22	94.1	3720.7	3736.6	831.0	1740	Good
13	2141.5	2116.5	11:18	3733.4	4	3750.7	3240.3	3255.80	94.3	3733.7	3751.0	4.9	20	Low Perm
14	2149.5	2124.5	11:45	3747	0	3764.6	3235.6	3250.56	94.7	3747.5	3765.0	4.3	20	Good
15	2153.1	2128.1	12:03	3754.2	2	3770.0	3227.1	3240.91	94.8	3754.0	3770.1	113.0	470	Good
16	2156.0	2131.0	12:17	3759.9	9	3774.6	3227.6	3241.52	94.8	3759.1	3774.4	9.1	40	Good
17	2160.5	2135.5	12:28	3766.7	7	3783.4	3228.9	3243.26	94.9	3766.5	3783.2	65.0	270	Good
18	2162.0	2137.0	12:37	3769.6	6	3786.0	3229.0	3243.43	94.8	3769.4	3785.9	20.7	90	Good, HP Unstable
19	2165.5	2140.5	13:02	3775.9	9	3792.4			95.1					HP & Strain Unstable
20	2165.0	2140.0	13:16	3774.2	2	3791.5			95.1					Tight
21	2168.2	2143.2	13:23	3780.6	6	3797.6	3231.6	3245.42	95.4	3780.2	3796.5	48.2	200	Good, HP Unstable
22	2170.2	2145.2												Not Attempted
23	2173.3	2148.3	13:50	3788.6	6	3805.7	3238.7	3252.10			3805.0	89.8	375	Good
24	2179.0	2154.0	14:09	3798.5	5	3815.2	3247.0	3260.60	96.0	3798.8	3814.4	92.7	390	Good
25	2183.2	2158.2	14:30	3805.5	5	3820.5	3253.6	3267.80	96.0	3805.7	3821.8	38.9	165	Good
26	2205.0	2180.0	14:52	3842.5	5	3855.5								Poor Seal, Rerun
27	2205.0	2180.0	15:00	3842.3	3	3857.0	3278.9	3293.10	97.1	3842.1	3859.4	22.9	100	Good
28	2239.0	2214.0	15:15	3900.3	3	3919.7	3375.8	3391.30	98.0	3900.4	3916.9	1.4	<10	Good
29	2278.5	2253.5	15:40	3967.6		3987.3	3766.9	3781.94	99.6	3967.3	3983.0	3.1	15	Good
30	2378.0	2353.0	16:15	4136.2		4151.8	3952.0	3966.90	102.0	4136.1	4152.0	11.3	50	Good
31	2448.3	2423.3	16:45	4256.1		4271.6	4059.0	4074.20	105.0	4255.8	4271.4	3.2	15	Good
32	2497.0	2472.0	17:05	4338.1		4355.5	4133.2	4147.50	107.0	4339.2	4354.0			Good, Low Perm
33	2502.0	2477.0	17:30	4347.6		4363.9	4169.8	4184.80	107.0	4348.0	4363.1	1.3	<10	Good, Gauges Unstable
34	2541.0	2516.0	17:55	4414.4		4434.6	4203.2	4219.10	108.0	4414.3	4430.2	1.1	<10	Good, Gauges Unstable
35	2624.0	2599.0	18:22	4557.3		4576	4441.1	4456.36	111.0	4557.3	4574.0			Good
36	2160.5	2135.5	19:20	3764.6		3778.5	3230.1	3243.31	98.0					Good, Sample Taken
37	2072.8	2047.8	20:12	3612.5		3623.1	3178.2	3192.60	94.5			56.1	235	Good
37	2071.5	2046.5					3182.4	3196.90	94.1	3609.3	3626.4	2.2	<10	Good
39	2072.8	2047.8	01:00	3610		3625.2	3178.6	3192.20				2.2	<10	Good, Sample Taken

*N.B. Permeability rounded to nearest 10 mD
K(h)/k(v)=10
Filtrate Viscosity = 0.34 cP
k(rw)=0.15 for k<1000 mD
k(rw)=0.30 for k>1000 mD

8. RESERVOIR AND FLUID ANALYSIS

Two RFT runs were made in La Bella-1 on 9 and 10 February 1993. Thirty four pretests were attempted (of which 28 were successful) over the interval 2624.0 m to 2068.3 mRT. Pretest data are presented below.

One segregated sample (6 gallons and 1 gallon) was collected at 2160.5 mRT and one segregated sample (6 gallons and 1 gallon) was collected at 2072.8 mRT.

The 6 gallon sample chamber from 2160.5 m was opened at the wellsite and found to contain 134 SCF of gas, approximately 75 mL of condensate and 575 mL of water. The one gallon sample chamber from 2160.5 m was left sealed and sent for PVT analysis. Gas and water analyses were carried out on the fluids from the 6 gallon chamber at the wellsite and the results are reported below.

The 6 gallon sample chamber from 2072.8 m was opened at the wellsite and found to contain 124 SCF of gas, approximately 35 mL of condensate and 350 mL of water. The one gallon sample chamber from 2072.8 m was left sealed and sent for PVT analysis. Gas and water analyses were carried out on the fluids from the 6 gallon chamber at the wellsite and the results are reported below.

Figure 2

RFT Sample Data Sheet

Well: La Bella-1

Date: 10th January 1993

KB: 25.0 m

Sample No: 1 **Depth:** 2160.5 mAHKB

Formation Pressure: 3243.31 psia

	Lower	Upper	
Chamber No:	222	RFS-AD-MR-1116	
Chamber Size:	6	1	gal
Flowing Pressure:	3181.4	3141.5	psig
Time To Fill:	22.0	2.5	minutes
Opening Pressure:	1960	1900	psia
Gas Volume:	134	Preserved	ft^3
Total Liquids:	650	For PVT	cc
Oil/Condensate Volume:	Approx. 75	Analysis	cc
Filtrate/Water Volume:	575		cc
Gas Oil Ratio:	----		Scf/Stb
Condensate Gas Ratio:	3.5		Stb/MMscf

Oil/Condensate Analysis

Spacific Gravity:	Sample Too Small		Air=1, Temp
Colour:	Green Tinge		
Flourescence:	Bt-Mod Direct Blue		

Gas Analysis:

	Average of 3 samples			
C1:	15.10	79.72		%
C2:	5.30	5.30		%
C3:	2.04	2.04		%
iC4:	0.31	0.31		%
nC4:	0.30	0.30		%
C5+:	0.066	0.066		%
CO2:	12.3	12.3		%
H2S:	0	0		ppm

See Note Below

Water/Filtrate Analysis:

	Lower	Upper	Filtrate Drilled	Filtrate Logged	
Rw:					
pH:			9.5		
Cl-:	39,000		49,000		mg/l
Total Hardness (Ca/Mg):	500 +		140		
KCl:			7		

Trituim Analysis:

Average Activity:	N/A	N/A	N/A	N/A	Bq/cc
Returns:					Bq/cc
% Filtrate:					

Note: GC was not performing analysis on sample accurately. The raw data results for the gas analysis are shown on the left, modified results are shown on the right. The modification to the GC results entailed making up the percentage difference with methane.

Figure 3

RFT Sample Data Sheet

Well: La Bella-1

Date: 10th January 1993

KB: 25.0 m
Sample No: 2 **Depth:** 2072.8 mAHKB

Formation Pressure: 3192.20 psia

	Lower	Upper	
Chamber No:	222	RFS-AD-MR-1120	
Chamber Size:	6	1	gal
Flowing Pressure:	1754	2217	psig
Time To Fill:	60	6	minutes
Opening Pressure:			psia
Gas Volume:	124	Preserved	ft^3
Total Liquids:	350	For PVT	cc
Oil/Condensate Volume:	35	Analysis	cc
Filtrate/Water Volume:	315		cc
Gas Oil Ratio:	----		Scf/Stb
Condensate Gas Ratio:	1.8		Stb/MMscf

Oil/Condensate Analysis

	Lower	Upper	
Spacific Gravity:	Sample Too Small		Air=1, Temp
Colour:	----		
Flourescence:	Bright Blue		

Gas Analysis:

	Average of 2 samples		Upper	
C1:	14.60	81.55		%
C2:	5.20	5.20		%
C3:	1.89	1.89		%
iC4:	0.31	0.31		%
nC4:	0.25	0.25		%
C5+:	0.0024	0.0024		%
CO2:	10.8	10.8		%
H2S:	0	0		ppm

*See Note Below

Water/Filtrate Analysis:

	Lower	Upper	Filtrate Drilled	Filtrate Logged	
Rw:					
pH:			9.5		
Cl-:	49,000		49,000		mg/l
Total Hardness (Ca/Mg):	600		140		
KCl:			7		

Trituim Analysis:

	Lower	Upper			
Average Activity:	N/A	N/A	N/A	N/A	Bq/cc
Returns:					Bq/cc
% Filtrate:					

Note: GC was not performing analysis on sample accurately. The raw data results for the gas analysis are shown on the left, modified results are shown on the right. The modification to the GC results entailed making up the percentage difference with methane.

Table 5

LA BELLA-1 PRELIMINARY OPEN HOLE RFT RESULTS

Test No.	Depth		Time	Initial Hydrostatic Pressure			Formation Pressure		Temperature	Final Hydrostatic Pressure		Mobility	Permeability*	Comments
				Strain Gauge		HP Gauge	Strain Gauge	HP Gauge		Strain Gauge	HP Gauge			
	mTVDDF	mTVDSS	hh:mm	psig		psia	psig	psia	DegC	psig	psia	mD/cp	mD	
1	2068.3	2043.3	07:15											Tight
2	2068.4	2043.4	08:20	3607.2	2	3622.2	3288.9	3304.63	91.4	3606.9	3623.3	0.4	<10	Low Perm
3	2070.0	2045.0	09:01	3609.6	6	3625.7	3203.1	3218.66	91.8	3609.9	3626.7	0.9	<10	Low Perm
4	2072.8	2047.8	09:30	3614.6	6	3631.2	3177.8	3193.05	91.7	3615.0	3631.2	6.7	30	Good
5	2082.7	2057.7	09:40	3631.8	8	3647.9			92.1	3631.6	3650.6			Tight
6	2100.4	2075.4	09:49	3662.1	1	3679.3	3213.5	3228.82	92.5	3662.2	3679.0	5.1	20	Good
7	2103.2	2078.2												Not Attempted
8	2109.8	2084.8	10:06	3678.3	3	3696.1	3216.6	3231.36	92.7	3678.9	3695.7	12.2	50	Good
9	2116.1	2091.1												Not Attempted
10	2120.5	2095.5	10:24	3697.3	3	3715.9	3218.9	3233.92	93.2	3697.3	3713.1	2.1	<10	Good
11	2125.8	2100.8	10:39	3600.2	2				93.9	3705.9				Supercharged
12	2133.9	2108.9	11:00	3720.8	8	3737.5	3222.3	3236.22	94.1	3720.7	3736.6	831.0	1740	Good
13	2141.5	2116.5	11:18	3733.4	4	3750.7	3240.3	3255.80	94.3	3733.7	3751.0	4.9	20	Low Perm
14	2149.5	2124.5	11:45	3747	0	3764.6	3235.6	3250.56	94.7	3747.5	3765.0	4.3	20	Good
15	2153.1	2128.1	12:03	3754.2	2	3770.0	3227.1	3240.91	94.8	3754.0	3770.1	113.0	470	Good
16	2156.0	2131.0	12:17	3759.9	9	3774.6	3227.6	3241.52	94.8	3759.1	3774.4	9.1	40	Good
17	2160.5	2135.5	12:28	3766.7	7	3783.4	3228.9	3243.26	94.9	3766.5	3783.2	65.0	270	Good
18	2162.0	2137.0	12:37	3769.6	6	3786.0	3229.0	3243.43	94.8	3769.4	3785.9	20.7	90	Good, HP Unstable
19	2165.5	2140.5	13:02	3775.9	9	3792.4			95.1					HP & Strain Unstable
20	2165.0	2140.0	13:16	3774.2	2	3791.5			95.1					Tight
21	2168.2	2143.2	13:23	3780.6	6	3797.6	3231.6	3245.42	95.4	3780.2	3796.5	48.2	200	Good, HP Unstable
22	2170.2	2145.2												Not Attempted
23	2173.3	2148.3	13:50	3788.6	6	3805.7	3238.7	3252.10			3805.0	89.8	375	Good
24	2179.0	2154.0	14:09	3798.5	5	3815.2	3247.0	3260.60	96.0	3798.8	3814.4	92.7	390	Good
25	2183.2	2158.2	14:30	3805.5	5	3820.5	3253.6	3267.80	96.0	3805.7	3821.8	38.9	165	Good
26	2205.0	2180.0	14:52	3842.5	5	3855.5								Poor Seal, Rerun
27	2205.0	2180.0	15:00	3842.3	3	3857.0	3278.9	3293.10	97.1	3842.1	3859.4	22.9	100	Good
28	2239.0	2214.0	15:15	3900.3	3	3919.7	3375.8	3391.30	98.0	3900.4	3916.9	1.4	<10	Good
29	2278.5	2253.5	15:40	3967.6		3987.3	3766.9	3781.94	99.6	3967.3	3983.0	3.1	15	Good
30	2378.0	2353.0	16:15	4136.2		4151.8	3952.0	3966.90	102.0	4136.1	4152.0	11.3	50	Good
31	2448.3	2423.3	16:45	4256.1		4271.6	4059.0	4074.20	105.0	4255.8	4271.4	3.2	15	Good
32	2497.0	2472.0	17:05	4338.1		4355.5	4133.2	4147.50	107.0	4339.2	4354.0			Good, Low Perm
33	2502.0	2477.0	17:30	4347.6		4363.9	4169.8	4184.80	107.0	4348.0	4363.1	1.3	<10	Good, Gauges Unstable
34	2541.0	2516.0	17:55	4414.4		4434.6	4203.2	4219.10	108.0	4414.3	4430.2	1.1	<10	Good, Gauges Unstable
35	2624.0	2599.0	18:22	4557.3		4576	4441.1	4456.36	111.0	4557.3	4574.0			Good
36	2160.5	2135.5	19:20	3764.6		3778.5	3230.1	3243.31	98.0					Good, Sample Taken
37	2072.8	2047.8	20:12	3612.5		3623.1	3178.2	3192.60	94.5			56.1	235	Good
37	2071.5	2046.5					3182.4	3196.90	94.1	3609.3	3626.4	2.2	<10	Good
39	2072.8	2047.8	01:00	3610		3625.2	3178.6	3192.20				2.2	<10	Good, Sample Taken

*N.B. Permeability rounded to nearest 10 mD
K(h)/k(v)=10
Filtrate Viscosity = 0.34 cP
k(rw)=0.15 for k<1000 mD
k(rw)=0.30 for k>1000 mD

PE600583

This is an enclosure indicator page.
The enclosure PE600583 is enclosed within the container PE901815 at this location in this document.

The enclosure PE600583 has the following characteristics:

ITEM_BARCODE = PE600583
CONTAINER_BARCODE = PE901815
NAME = La Bella 1 Enclosure 1 Exlog Mud Log (Drillbyte Formation Evaluation Log)
BASIN = Otway
PERMIT = VIP/P30
TYPE = WELL
SUBTYPE = MUD_LOG
DESCRIPTION = La Bella 1 Enclosure 1 Exlog Mud Log (Drillbyte Formation Evaluation Log)
REMARKS =
DATE_CREATED = *
DATE_RECEIVED = *
W_NO = W1075
WELL_NAME = LABELLA-1
CONTRACTOR = Baker Hughes Company
CLIENT_OP_CO = BHP

(Inserted by DNRE - Vic Govt Mines Dept)

PE600410

This is an enclosure indicator page.
The enclosure PE600410 is enclosed within the container PE901815 at this location in this document.

The enclosure PE600410 has the following characteristics:

ITEM-BARCODE = PE600410
CONTAINER_BARCODE = PE901815
NAME = La Bella 1 Log Dual Propagation Resistivity, GR 1:200, WCR Vol 1, Enclosure 2
BASIN = Otway
PERMIT = VIP/P30
TYPE = WELL
SUBTYPE = WELL-LOG
DESCRIPTION = La Bella 1 Log Dual Propagation Resistivity, GR 1:200, WCR Vol 1, Enclosure 2
REMARKS =
DATE-CREATED = *
DATE-RECEIVED = *
W_NO = W1075
WELL-NAME = LABELLA-1
CONTRACTOR = Eastman Teleco
CLIENT_OP_CO = BHP

(Inserted by DNRE - Vic Govt Mines Dept)

LA BELLA 1

WELL COMPLETION REPORT

BASIC DATA

<u>ENCLOSURE 3</u>

CORE PHOTOGRAPHS - UV & WHITE LIGHT

PE905178

This is an enclosure indicator page.
The enclosure PE905178 is enclosed within the container PE901815 at this location in this document.

The enclosure PE905178 has the following characteristics:

```
     ITEM_BARCODE = PE905178
CONTAINER_BARCODE = PE901815
             NAME = Core Photos Under UV Light
            BASIN = OTWAY
           PERMIT = VIC/P30
             TYPE = WELL
          SUBTYPE = CORE_PHOTOS
      DESCRIPTION = La Bella-1 Core Photo taken under UV
                    light for depths 2096.00 - 2098.00 m.
                    From enclosure 3 of WCR (Basic Data)
          REMARKS = This item is in colour.
     DATE_CREATED =
    DATE_RECEIVED = 15/12/1993
             W_NO = W1075
        WELL_NAME = La Bella-1
       CONTRACTOR =
     CLIENT_OP_CO = BHP Petroleum Pty Ltd
```

(Inserted by DNRE - Vic Govt Mines Dept)

PE905179

This is an enclosure indicator page.
The enclosure PE905179 is enclosed within the container PE901815 at this location in this document.

The enclosure PE905179 has the following characteristics:

ITEM_BARCODE = PE905179
CONTAINER_BARCODE = PE901815
NAME = Core Photos Under UV Light
BASIN = OTWAY
PERMIT = VIC/P30
TYPE = WELL
SUBTYPE = CORE_PHOTOS
DESCRIPTION = La Bella-1 Core Photo taken under UV light for depths 2091.00 - 2095.00 m. From enclosure 3 of WCR (Basic Data)
REMARKS = This item is in colour.
DATE_CREATED =
DATE_RECEIVED = 15/12/1993
W_NO = W1075
WELL_NAME = La Bella-1
CONTRACTOR =
CLIENT_OP_CO = BHP Petroleum Pty Ltd

(Inserted by DNRE - Vic Govt Mines Dept)

PE905180

This is an enclosure indicator page.
The enclosure PE905180 is enclosed within the container PE901815 at this location in this document.

The enclosure PE905180 has the following characteristics:

```
     ITEM_BARCODE = PE905180
CONTAINER_BARCODE = PE901815
             NAME = Core Photos Under UV Light
            BASIN = OTWAY
           PERMIT = VIC/P30
             TYPE = WELL
          SUBTYPE = CORE_PHOTOS
      DESCRIPTION = La Bella-1 Core Photo taken under UV
                    light for depths 2086.00 - 2090.00 m.
                    From enclosure 3 of WCR (Basic Data)
          REMARKS = This item is in colour.
     DATE_CREATED =
    DATE_RECEIVED = 15/12/1993
             W_NO = W1075
        WELL_NAME = La Bella-1
       CONTRACTOR =
     CLIENT_OP_CO = BHP Petroleum Pty Ltd
```

(Inserted by DNRE - Vic Govt Mines Dept)

PE905181

This is an enclosure indicator page.
The enclosure PE905181 is enclosed within the container PE901815 at this location in this document.

The enclosure PE905181 has the following characteristics:

ITEM_BARCODE =	PE905181
CONTAINER_BARCODE =	PE901815
NAME =	Core Photos Under UV Light
BASIN =	OTWAY
PERMIT =	VIC/P30
TYPE =	WELL
SUBTYPE =	CORE_PHOTOS
DESCRIPTION =	La Bella-1 Core Photo taken under UV light for depths 2081.00 - 2085.00 m. From enclosure 3 of WCR (Basic Data)
REMARKS =	This item is in colour.
DATE_CREATED =	
DATE_RECEIVED =	15/12/1993
W_NO =	W1075
WELL_NAME =	La Bella-1
CONTRACTOR =	
CLIENT_OP_CO =	BHP Petroleum Pty Ltd

(Inserted by DNRE - Vic Govt Mines Dept)

PE905182

This is an enclosure indicator page.
The enclosure PE905182 is enclosed within the container PE901815 at this location in this document.

The enclosure PE905182 has the following characteristics:

```
     ITEM_BARCODE = PE905182
CONTAINER_BARCODE = PE901815
             NAME = Core Photos Under UV Light
            BASIN = OTWAY
           PERMIT = VIC/P30
             TYPE = WELL
          SUBTYPE = CORE_PHOTOS
      DESCRIPTION = La Bella-1 Core Photo taken under UV
                    light for depths 2076.00 - 2080.00 m.
                    From enclosure 3 of WCR (Basic Data)
          REMARKS = This item is in colour.
     DATE_CREATED =
    DATE_RECEIVED = 15/12/1993
             W_NO = W1075
        WELL_NAME = La Bella-1
       CONTRACTOR =
     CLIENT_OP_CO = BHP Petroleum Pty Ltd
```

(Inserted by DNRE - Vic Govt Mines Dept)

PE905183

This is an enclosure indicator page.
The enclosure PE905183 is enclosed within the container PE901815 at this location in this document.

The enclosure PE905183 has the following characteristics:

ITEM_BARCODE =	PE905183
CONTAINER_BARCODE =	PE901815
NAME =	Core Photos Under UV Light
BASIN =	OTWAY
PERMIT =	VIC/P30
TYPE =	WELL
SUBTYPE =	CORE_PHOTOS
DESCRIPTION =	La Bella-1 Core Photo taken under UV light for depths 2071.00 - 2075.00 m. From enclosure 3 of WCR (Basic Data)
REMARKS =	This item is in colour.
DATE_CREATED =	
DATE_RECEIVED =	15/12/1993
W_NO =	W1075
WELL_NAME =	La Bella-1
CONTRACTOR =	
CLIENT_OP_CO =	BHP Petroleum Pty Ltd

(Inserted by DNRE - Vic Govt Mines Dept)

PE905184

This is an enclosure indicator page.
The enclosure PE905184 is enclosed within the container PE901815 at this location in this document.

The enclosure PE905184 has the following characteristics:

```
     ITEM_BARCODE = PE905184
CONTAINER_BARCODE = PE901815
             NAME = Core Photos Under White Light
            BASIN = OTWAY
           PERMIT = VIC/P30
             TYPE = WELL
          SUBTYPE = CORE_PHOTOS
      DESCRIPTION = La Bella-1 Core Photo taken under White
                    light for depths 2096.00 - 2098.00 m.
                    From enclosure 3 of WCR (Basic Data)
          REMARKS = This item is in colour.
     DATE_CREATED =
    DATE_RECEIVED = 15/12/1993
             W_NO = W1075
        WELL_NAME = La Bella-1
       CONTRACTOR =
     CLIENT_OP_CO = BHP Petroleum Pty Ltd
```

(Inserted by DNRE - Vic Govt Mines Dept)

PE905185

This is an enclosure indicator page.
The enclosure PE905185 is enclosed within the container PE901815 at this location in this document.

The enclosure PE905185 has the following characteristics:

ITEM_BARCODE = PE905185
CONTAINER_BARCODE = PE901815
NAME = Core Photos Under White Light
BASIN = OTWAY
PERMIT = VIC/P30
TYPE = WELL
SUBTYPE = CORE_PHOTOS
DESCRIPTION = La Bella-1 Core Photo taken under White light for depths 2091.00 - 2095.00 m. From enclosure 3 of WCR (Basic Data)
REMARKS = This item is in colour.
DATE_CREATED =
DATE_RECEIVED = 15/12/1993
W_NO = W1075
WELL_NAME = La Bella-1
CONTRACTOR =
CLIENT_OP_CO = BHP Petroleum Pty Ltd

PE905186

This is an enclosure indicator page.
The enclosure PE905186 is enclosed within the container PE901815 at this location in this document.

The enclosure PE905186 has the following characteristics:

ITEM_BARCODE =	PE905186
CONTAINER_BARCODE =	PE901815
NAME =	Core Photos Under White Light
BASIN =	OTWAY
PERMIT =	VIC/P30
TYPE =	WELL
SUBTYPE =	CORE_PHOTOS
DESCRIPTION =	La Bella-1 Core Photo taken under White light for depths 2086.00 - 2090.00 m. From enclosure 3 of WCR (Basic Data)
REMARKS =	This item is in colour.
DATE_CREATED =	
DATE_RECEIVED =	15/12/1993
W_NO =	W1075
WELL_NAME =	La Bella-1
CONTRACTOR =	
CLIENT_OP_CO =	BHP Petroleum Pty Ltd

(Inserted by DNRE - Vic Govt Mines Dept)

PE905187

This is an enclosure indicator page.
The enclosure PE905187 is enclosed within the container PE901815 at this location in this document.

The enclosure PE905187 has the following characteristics:

ITEM_BARCODE =	PE905187
CONTAINER_BARCODE =	PE901815
NAME =	Core Photos Under White Light
BASIN =	OTWAY
PERMIT =	VIC/P30
TYPE =	WELL
SUBTYPE =	CORE_PHOTOS
DESCRIPTION =	La Bella-1 Core Photo taken under White light for depths 2081.00 - 2085.00 m. From enclosure 3 of WCR (Basic Data)
REMARKS =	This item is in colour.
DATE_CREATED =	
DATE_RECEIVED =	15/12/1993
W_NO =	W1075
WELL_NAME =	La Bella-1
CONTRACTOR =	
CLIENT_OP_CO =	BHP Petroleum Pty Ltd

(Inserted by DNRE - Vic Govt Mines Dept)

PE905188

This is an enclosure indicator page.
The enclosure PE905188 is enclosed within the container PE901815 at this location in this document.

The enclosure PE905188 has the following characteristics:

ITEM_BARCODE =	PE905188
CONTAINER_BARCODE =	PE901815
NAME =	Core Photos Under White Light
BASIN =	OTWAY
PERMIT =	VIC/P30
TYPE =	WELL
SUBTYPE =	CORE_PHOTOS
DESCRIPTION =	La Bella-1 Core Photo taken under White light for depths 2076.00 - 2080.00 m. From enclosure 3 of WCR (Basic Data)
REMARKS =	This item is in colour.
DATE_CREATED =	
DATE_RECEIVED =	15/12/1993
W_NO =	W1075
WELL_NAME =	La Bella-1
CONTRACTOR =	
CLIENT_OP_CO =	BHP Petroleum Pty Ltd

(Inserted by DNRE - Vic Govt Mines Dept)

PE905189

This is an enclosure indicator page.
The enclosure PE905189 is enclosed within the container PE901815 at this location in this document.

The enclosure PE905189 has the following characteristics:

ITEM_BARCODE = PE905189
CONTAINER_BARCODE = PE901815
NAME = Core Photos Under White Light
BASIN = OTWAY
PERMIT = VIC/P30
TYPE = WELL
SUBTYPE = CORE_PHOTOS
DESCRIPTION = La Bella-1 Core Photo taken under White light for depths 2071.00 - 2075.00 m. From enclosure 3 of WCR (Basic Data)
REMARKS = This item is in colour.
DATE_CREATED =
DATE_RECEIVED = 15/12/1993
W_NO = W1075
WELL_NAME = La Bella-1
CONTRACTOR =
CLIENT_OP_CO = BHP Petroleum Pty Ltd

(Inserted by DNRE - Vic Govt Mines Dept)

PE600289

This is an enclosure indicator page.
The enclosure PE600289 is enclosed within the container PE901815 at this location in this document.

The enclosure PE600289 has the following characteristics:

ITEM_BARCODE = PE600289
CONTAINER_BARCODE = PE901815
NAME = La Bella 1 CSI (VSP) Suite 1,Run 1, 1770-200m
BASIN = Otway
PERMIT = VIP/P30
TYPE = WELL
SUBTYPE = VELOCITY_CHART
DESCRIPTION = La Bella 1 CSI (VSP) Suite 1,Run 1, 1770-200m
REMARKS =
DATE_CREATED = 1/30/93
DATE_RECEIVED = 12/15/93
W_NO = W1075
WELL_NAME = La Bella 1
CONTRACTOR = Schlumberger
CLIENT_OP_CO = BHP Petroleum

(Inserted by DNRE - Vic Govt Mines Dept)

PE600290

This is an enclosure indicator page.
The enclosure PE600290 is enclosed within the container PE901815 at this location in this document.

The enclosure PE600290 has the following characteristics:

```
     ITEM_BARCODE = PE600290
CONTAINER_BARCODE = PE901815
             NAME = La Bella 1 CSI (VSP) Suite 2, Run 2,
                    2734-1520m
            BASIN = Otway
           PERMIT = VIP/P30
             TYPE = WELL
          SUBTYPE = VELOCITY_CHART
      DESCRIPTION = La Bella 1 CSI (VSP) Suite 2, Run 2,
                    2734-1520m
          REMARKS =
     DATE_CREATED = 2/11/93
    DATE_RECEIVED = 12/15/93
             W_NO = W1075
        WELL_NAME = La Bella 1
       CONTRACTOR = Schlumberger
     CLIENT_OP_CO = BHP Petroleum
```

(Inserted by DNRE - Vic Govt Mines Dept)