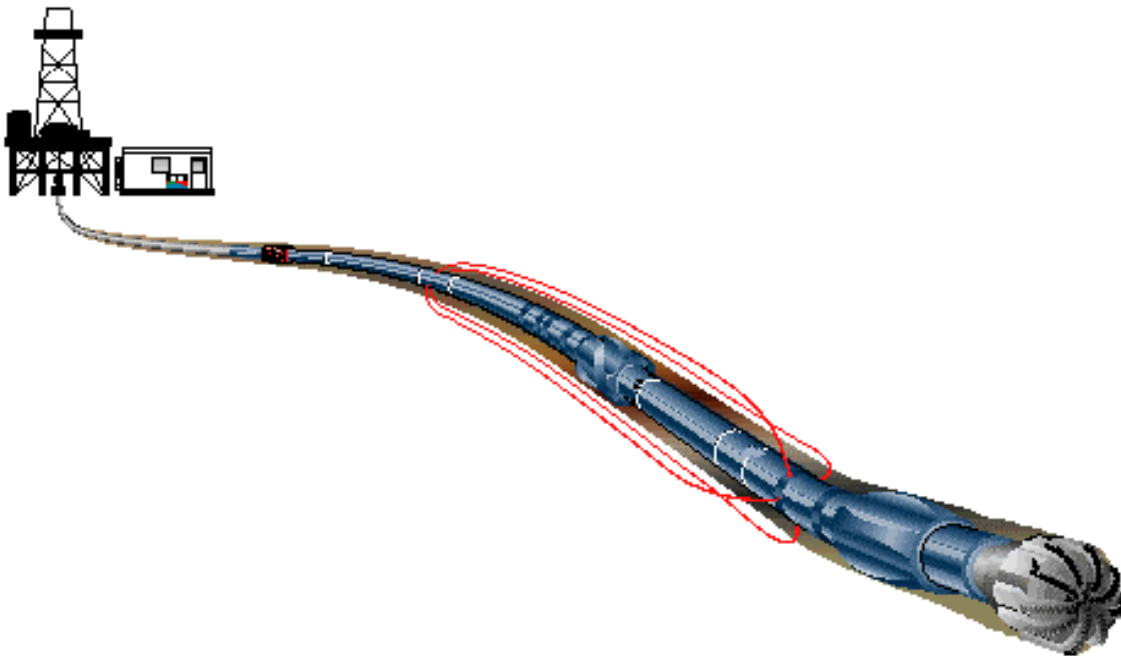


OMV Australia

Baleen-4

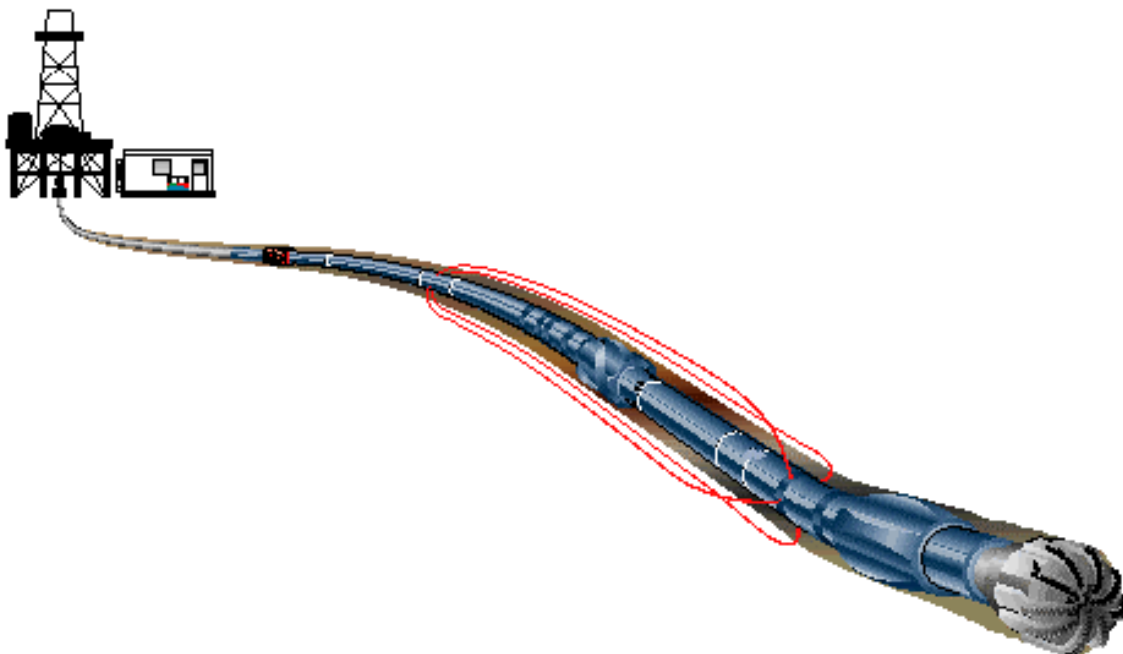
MWD – LWD & DD End of Well Report



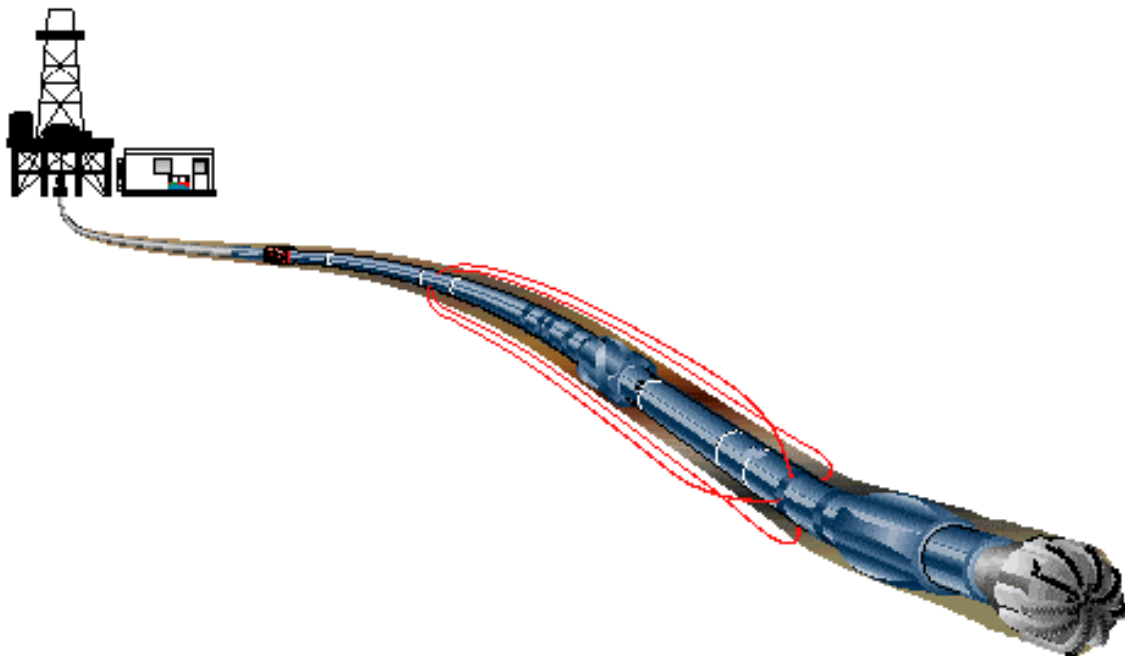
End of Well Report for Baleen-4

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- Well Plot
- Failure Report
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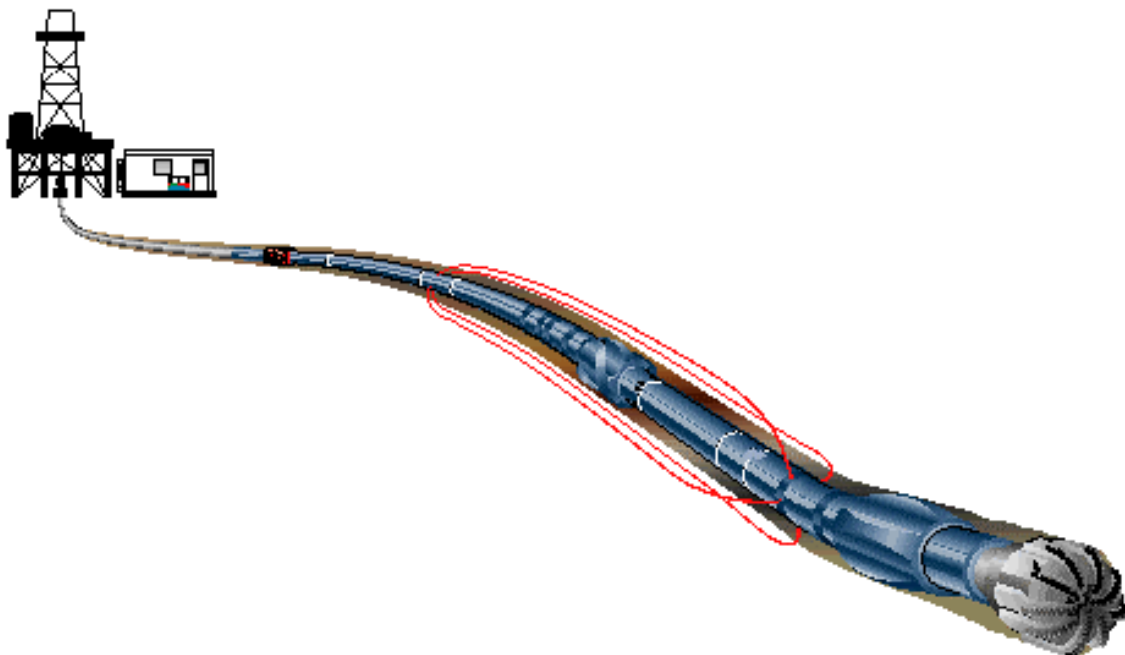
General Information



General Information

Well Name:	Baleen-4	
Rig:	Ocean Bounty	
Field:	Baleen	
Location:	Gippsland Sub-Basin (VIC/L21)	
Country:	Australia	
Cell Members:	Ozren Radicevic	MWD / LWD Engineer
	Milan Saicic	MWD / LWD Engineer
	Kenny Wilson	Directional Driller
	Curt Soper	Directional Driller
	Duncan Hay	Directional Driller
Town Contacts:	Raymond Nanan	Location Manager
	Hrvoje Spoljaric	Field Services Manager
	Alex Van Den Tweel	DD Coordinator
Company Representatives:	Guy Howard	Company Man
	Chris Roots	Company Man
	Heimo Heinzle	Company Man
	Gordon Wakelin-King	Wellsite Geologist
	Todd Teasdale	Wellsite Geologist

MWD/LWD Overview



MWD/LWD Overview Baleen-4

Schlumberger Drilling and Measurements provided MWD, LWD and Directional Drilling services in the 12 ¼" and 8 ½" sections of the Baleen-4 well.

12 ¼" Section (Runs 1-2, 336.0m to 1890.00m MD):

In the 12 ¼" section, the following formation evaluation measurements from the ARC were delivered in real-time and recorded modes. The direction and inclination measurements were transmitted in real-time by the PowerPulse.

- ☐ Gamma Ray, real-time
- ☐ 16, 28, & 40in. 2 MHz Phase Shift Resistivity, real-time
- ☐ 16in. 2 MHz Attenuation Resistivity, real-time
- ☐ Gamma Ray, recorded mode
- ☐ 16, 22, 28, 34, & 40in. 2 MHz & 400 kHz Phase Shift Resistivity, recorded
- ☐ 16, 22, 28, 34, & 40in. 2 MHz Attenuation Resistivity, recorded

Run	Hole Size (in.)	Service	Start Depth (m)	Stop Depth (m)
1	12 ¼"	PowerPulse / ARC	336.0	733.0
2	12 ¼"	PowerPulse / ARC	733.0	1890.0

The PowerPulse and ARC (Array Resistivity) tools were utilized for surveying, logging and offset well correlation. The PowerPulse was programmed to transmit real-time data at 16Hz / 6.4 bits per second, and the ARC was configured with a 10-second record rate. These configurations enabled high real-time data density, and a recorded data density often greater than the Schlumberger standard of two data points per foot. This enabled the generation of high quality real-time and recorded mode logs over the entire section.

Whilst drilling the 12.25" section there was consistent signal 'noise', resulting in intermittent 'noisy' data in real-time. Through the application of various surface software filtering, the noise was minimized and better quality real-time logs were produced. There were several isolated small intervals where no data was obtained in real-time due to the large amount of signal noise (i.e. low signal to noise ratio). Overall the data was of a high quality in real-time enabling correlation to offset wells. All of this data that was missed in real-time, was successfully acquired in recorded memory.

Upon completion of the 12.25" section, the tools were laid out and the recorded memory data from the ARC was downloaded. Processing of the LWD tech logs confirmed the good drilling conditions, and excellent operation of the tools. All data correlated with the real-time and the intervals of missing real-time data were present in recorded memory.

Drilling conditions during the run were very good with negligible shocks seen. The ARC tool was fitted with an Annular Pressure Whilst Drilling (APWD) sensor, which enabled real-time monitoring of ECD. Throughout the run the ECD was stable reflecting good hole cleaning and a stable wellbore.

8 ½" Section (Runs 3-4, 1890.0m MD to 2290.0m MD):

In the 8½" section, the following formation evaluation measurements from the ARC were delivered in real-time and recorded modes. The direction and inclination measurements were transmitted in real-time by the PowerPulse.

- ☐ Gamma Ray, real-time
- ☐ 16, 28, & 40in. 2 MHz Phase Shift Resistivity, real-time
- ☐ 16in. 2 MHz Attenuation Resistivity, real-time
- ☐ Gamma Ray, recorded mode
- ☐ 16, 22, 28, 34, & 40in. 2 MHz & 400 kHz Phase Shift Resistivity, recorded
- ☐ 16, 22, 28, 34, & 40in. 2 MHz Attenuation Resistivity, recorded

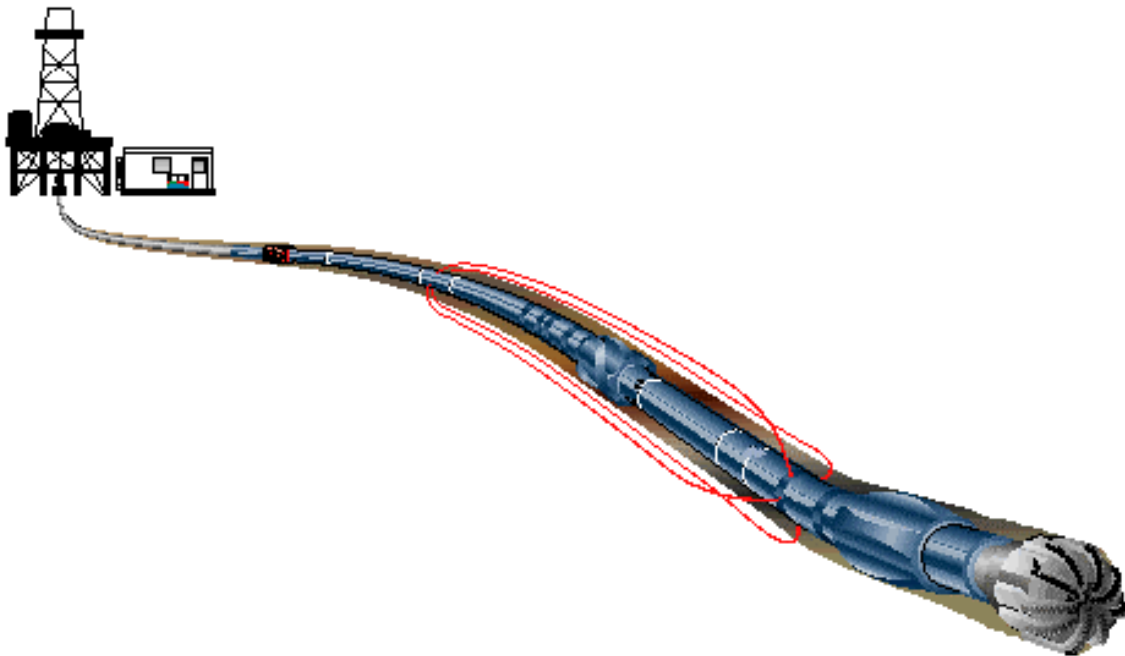
Run	Hole Size (in.)	Service	Start Depth (m)	Stop Depth (m)
3	8½"	PowerPulse / ARC	1890.0	2010.5
4	8½"	PowerPulse / ARC	2010.5	2290.0

The 8½" section was drilled to a TD of 2290m in a two runs. The tools were programmed to transmit the real-time data at 16Hz / 6.4 bits per second, and record the memory data with a 10 second configuration. These configurations resulted in real-time logging data updates every 20 seconds, and a recorded data density greater than the Schlumberger standard of 2 data points per foot. This resulted in the generation of high quality logs over the entire section.

Drilling conditions were excellent throughout the run, and no shocks of any consequence were recorded. Processing of the LWD tech logs confirmed the good drilling conditions, and excellent operation of the tools. Additionally, all the recorded data was recovered and processed, and complete real-time and recorded mode data presented to the client over the entire well.

Upon pulling out of the hole after drilling to TD of 2290m, it was discovered that the upper most wear band sleeve on the ARC tool had 'come undone' and consequently slid down the tool and became wedged up against the uppermost transmitter on the tool. The movement of the wear band therefore blocked access to the read out port. This is the port through which communication to the tool is established and recorded memory data downloaded. Attempts were made to remove the wear band, but this was unsuccessful, so recorded memory had to be downloaded via the alternate port (LTB). This is a much slower speed of communication and it was to take approximately 8 hours to download the data. Further attempts were made to remove the wear band, with eventual success. The recorded memory was then downloaded accordingly. A detailed report is included in the Appendix section.

Geomagnetic and Survey Reference Criteria



Geomagnetic and Survey Reference Criteria

Geomagnetic Data

Magnetic Model:	BGGM version 2004
Magnetic Date:	28 September 2004
Magnetic Field Strength:	1196.76 HCNT
Magnetic Declination:	13.16 degrees
Magnetic Dip:	-68.51 degrees

Survey Reference Criteria

Reference G:	1000.01 mgal
Reference H:	1196.76 HCNT
Reference Dip:	-68.51 degrees
G value Tolerance:	2.50 mgal
H value Tolerance:	6.00 HCNT
Dip Tolerance:	0.45 degrees

Survey Corrections Applied

Reference North:	Grid North
Magnetic Declination:	13.16 degrees
Grid Convergence:	-0.89 degrees
Total Azimuth Correction:	14.05 degrees
Vertical Section Azimuth:	236.54 degrees

Survey Reference Location

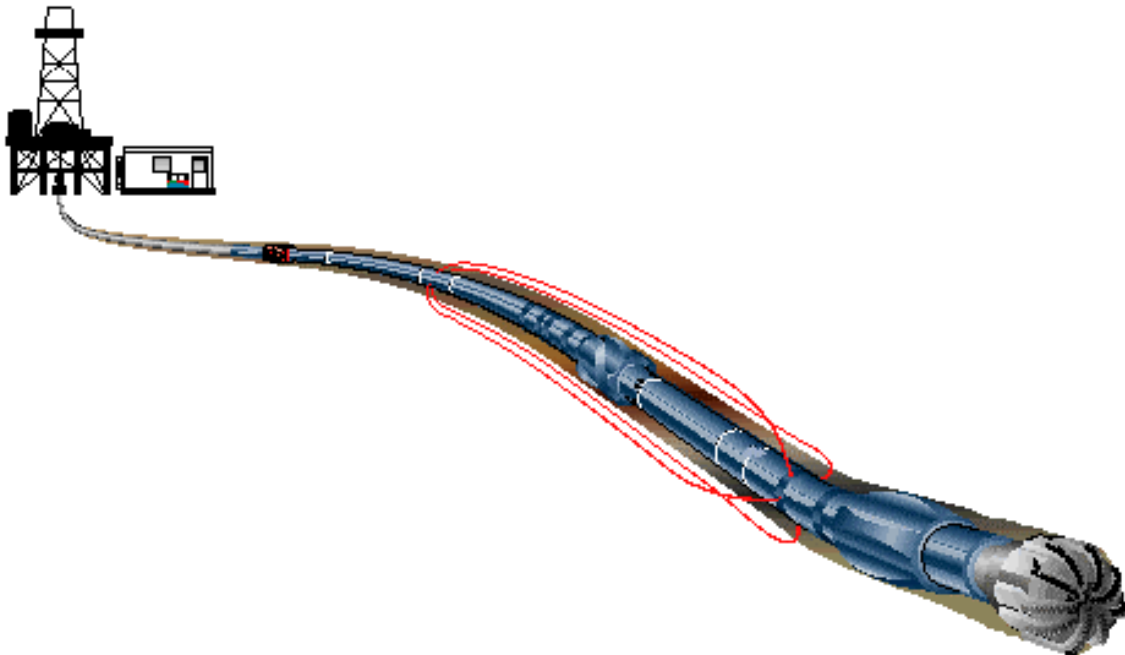
Baleen-4 Final Coordinates

Latitude:	38° 00' 20.99"	South
Longitude:	148° 26' 34.42"	East
Easting:	626 675.90	meters
Northing:	5 792 541.30	meters
AMG:	Zone 55	
Datum:	AGD 66	

Note:

Data as per OMV Baleen-4 Well Program.

Survey Report



Baleen - 4 Surveys

Report Date: October 22, 2004	Survey / DLS Computation Method: Minimum Curvature / Lubinski
Client: OMV	Vertical Section Azimuth: 236.540°
Field: OMV Baleen	Vertical Section Origin: N 0.000 m, E 0.000 m
Structure / Slot: Baleen / #3	TVD Reference Datum: Rotary Bushing
Well: Baleen-3	TVD Reference Elevation: 25.0 m relative to MSL
Borehole: Baleen-4	Sea Bed / Ground Level Elevation: -53.100 m relative to MSL
Job No. #: AWA-04-05	Magnetic Declination: 13.165°
Survey Name / Date: Actual Surveys / October 9, 2004	Total Field Strength: 59835.627 nT
Tort / AHD / DDI / ERD ratio: 135.070° / 1855.28 m / 5.903 / 2.588	Magnetic Dip: -68.515°
Grid Coordinate System: AGD84/AMG84 Zone 55	Declination Date: October 09, 2004
Location Lat/Long: S 38 0 20.986, E 148 26 34.417	Magnetic Declination Model: BGGM 2004
Location Grid N/E Y/X: N 5792541.300 m, E 626675.900 m	North Reference: Grid North
Grid Convergence Angle: -0.88856773°	Total Corr Mag North -> Grid North: +14.054°
Grid Scale Factor: 0.99979764	Local Coordinates Referenced To: Well Head

Comments	Measured Depth (m)	Inclination (deg)	Azimuth (deg)	TVD (m)	Vertical Section (m)	NS (m)	EW (m)	DLS (deg/30 m)
Tie-In	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	85.50	0.72	148.00	85.50	0.01	-0.46	0.28	0.25
	114.41	0.83	148.79	114.41	0.03	-0.79	0.49	0.11
	143.28	1.06	157.74	143.27	0.09	-1.21	0.70	0.28
	172.21	1.69	173.27	172.19	0.33	-1.89	0.85	0.75
	201.10	3.17	186.11	201.06	1.03	-3.10	0.82	1.63
	230.02	5.19	198.92	229.90	2.58	-5.14	0.31	2.30
	240.66	5.90	205.43	240.49	3.43	-6.09	-0.08	2.67
	250.30	6.08	217.27	250.08	4.33	-6.94	-0.61	3.88
	258.91	6.16	226.44	258.64	5.22	-7.62	-1.22	3.41
	269.55	6.32	227.70	269.21	6.36	-8.41	-2.06	0.59
	279.19	6.90	234.11	278.79	7.46	-9.10	-2.93	2.92
	287.80	7.85	242.47	287.33	8.56	-9.68	-3.87	4.99
	298.42	9.21	237.18	297.83	10.13	-10.48	-5.22	4.43
	308.05	10.10	238.53	307.33	11.75	-11.33	-6.59	2.86
	316.68	10.29	242.74	315.82	13.27	-12.08	-7.92	2.67
	327.20	10.18	241.47	326.17	15.13	-12.96	-9.57	0.72
	331.90	10.15	239.35	330.80	15.96	-13.37	-10.30	2.40
	338.44	11.15	241.24	337.23	17.16	-13.96	-11.35	4.86
	347.85	12.69	243.31	346.43	19.10	-14.87	-13.07	5.09
	356.99	14.80	245.14	355.31	21.25	-15.81	-15.02	7.07
	366.24	16.83	246.11	364.21	23.74	-16.85	-17.32	6.64
	375.50	18.93	247.36	373.02	26.54	-17.97	-19.93	6.92
	385.68	21.05	245.80	382.59	29.96	-19.35	-23.12	6.44
	393.95	23.12	244.79	390.25	33.04	-20.65	-25.95	7.63
	403.21	25.13	243.56	398.70	36.79	-22.30	-29.35	6.71
	412.35	27.12	242.95	406.91	40.78	-24.12	-32.95	6.59
	421.51	29.19	241.96	414.98	45.08	-26.12	-36.78	6.95
	430.70	31.35	242.55	422.92	49.69	-28.27	-40.88	7.12
	439.89	33.43	241.60	430.68	54.59	-30.58	-45.23	6.99
	449.94	35.39	241.28	438.97	60.25	-33.29	-50.22	5.88
	468.29	39.80	240.85	453.51	71.41	-38.71	-60.01	7.22
	477.94	41.95	240.56	460.80	77.70	-41.80	-65.52	6.71
	487.58	44.05	239.96	467.85	84.26	-45.06	-71.22	6.66
	497.20	46.23	239.87	474.64	91.07	-48.48	-77.12	6.80
	516.42	50.04	239.89	487.46	105.36	-55.66	-89.50	5.95
	535.75	54.20	239.30	499.33	120.59	-63.38	-102.66	6.50
	545.39	56.25	239.90	504.83	128.50	-67.39	-109.49	6.56
	555.03	58.27	239.89	510.04	136.59	-71.46	-116.50	6.29
	564.67	60.27	239.99	514.97	144.86	-75.61	-123.67	6.23
	574.28	62.30	240.43	519.58	153.27	-79.79	-130.99	6.45
	583.92	64.31	241.44	523.91	161.86	-83.98	-138.51	6.86

Tie-In

593.56	64.94	241.50	528.04	170.54	-88.14	-146.17	1.97
603.17	65.46	242.25	532.08	179.22	-92.25	-153.86	2.67
612.79	67.36	242.52	535.93	187.99	-96.33	-161.67	5.98
622.42	69.45	243.10	539.47	196.89	-100.43	-169.64	6.72
632.05	71.85	243.39	542.66	205.92	-104.52	-177.75	7.53
641.65	73.95	242.70	545.48	215.03	-108.67	-185.93	6.88
651.26	76.30	241.46	547.95	224.28	-113.02	-194.13	8.23
660.89	77.49	241.55	550.13	233.62	-117.50	-202.38	3.72
670.52	78.54	240.82	552.13	243.01	-122.04	-210.63	3.96
680.16	80.37	240.13	553.90	252.46	-126.71	-218.88	6.07
689.79	81.27	240.34	555.43	261.95	-131.43	-227.13	2.88
702.00	82.61	240.96	557.14	274.01	-137.35	-237.67	3.62
731.61	82.57	242.66	560.96	303.24	-151.22	-263.54	1.71
760.44	83.41	243.48	564.48	331.67	-164.18	-289.06	1.22
789.80	83.92	243.72	567.72	360.63	-177.16	-315.19	0.58
819.61	84.33	243.67	570.77	390.06	-190.30	-341.78	0.42
848.28	84.04	242.61	573.68	418.39	-203.19	-367.22	1.14
878.56	83.78	242.74	576.89	448.32	-217.01	-393.97	0.29
906.63	82.77	242.44	580.18	476.05	-229.84	-418.72	1.13
935.67	82.34	241.95	583.94	504.70	-243.27	-444.19	0.67
964.49	82.74	241.30	587.68	533.16	-256.85	-469.33	0.79
993.19	82.08	241.48	591.47	561.51	-270.47	-494.30	0.71
1022.00	80.63	241.42	595.80	589.89	-284.09	-519.32	1.51
1050.01	79.81	241.45	600.56	617.39	-297.28	-543.57	0.88
1079.00	79.87	241.49	605.68	645.82	-310.91	-568.64	0.07
1108.15	80.17	241.77	610.73	674.42	-324.55	-593.90	0.42
1136.63	79.87	241.60	615.66	702.35	-337.86	-618.59	0.36
1164.16	79.81	241.74	620.52	729.34	-350.72	-642.44	0.16
1195.46	80.42	241.80	625.89	760.05	-365.30	-669.61	0.59
1223.16	81.00	241.65	630.36	787.27	-378.25	-693.68	0.65
1249.70	82.16	240.03	634.25	813.45	-391.05	-716.61	2.24
1283.50	83.04	237.45	638.60	846.94	-408.44	-745.26	2.40
1310.16	83.29	235.43	641.78	873.41	-423.07	-767.32	2.27
1334.84	83.23	233.85	644.67	897.91	-437.25	-787.30	1.91
1364.84	83.14	233.33	648.23	927.65	-454.93	-811.28	0.52
1394.75	82.73	233.54	651.91	957.29	-472.62	-835.12	0.46
1424.29	81.77	233.40	655.90	986.52	-490.04	-858.64	0.99
1452.78	81.47	233.04	660.05	1014.66	-506.92	-881.21	0.49
1481.47	81.43	232.20	664.31	1042.96	-524.14	-903.76	0.87
1508.70	81.53	231.80	668.35	1069.81	-540.72	-924.98	0.45
1535.81	81.67	231.24	672.31	1096.53	-557.41	-945.97	0.63
1562.22	81.87	230.85	676.09	1122.54	-573.84	-966.30	0.49
1591.19	82.39	231.01	680.06	1151.10	-591.93	-988.58	0.56
1619.48	82.42	230.70	683.79	1179.01	-609.63	-1010.32	0.33
1646.78	81.70	230.29	687.57	1205.89	-626.83	-1031.19	0.91
1677.16	80.92	230.59	692.16	1235.76	-645.96	-1054.34	0.82
1707.15	80.69	230.54	696.95	1265.20	-664.76	-1077.20	0.24
1736.63	81.59	230.66	701.49	1294.17	-683.25	-1099.71	0.92
1765.16	83.00	231.09	705.31	1322.30	-701.09	-1121.64	1.55
1793.80	84.76	231.63	708.37	1350.66	-718.87	-1143.89	1.93
1821.68	86.72	232.17	710.44	1378.37	-736.02	-1165.77	2.19
1851.10	88.88	232.86	711.57	1407.70	-753.91	-1189.09	2.31
1873.21	89.38	232.65	711.90	1429.76	-767.29	-1206.69	0.74
1904.82	88.39	232.85	712.52	1461.29	-786.42	-1231.85	0.96
1933.88	88.28	232.85	713.36	1490.28	-803.97	-1255.00	0.11
1962.47	89.05	233.43	714.03	1518.81	-821.11	-1277.87	1.01
2000.17	89.31	233.58	714.57	1556.45	-843.53	-1308.17	0.24
2029.18	89.63	234.03	714.84	1585.43	-860.66	-1331.58	0.57
2058.39	89.74	233.39	715.00	1614.60	-877.95	-1355.13	0.67
2087.22	89.54	233.14	715.18	1643.39	-895.19	-1378.23	0.33
2115.64	90.11	233.12	715.26	1671.76	-912.24	-1400.97	0.60
2144.55	89.40	233.24	715.39	1700.62	-929.57	-1424.11	0.75
2173.03	88.94	233.45	715.80	1729.05	-946.57	-1446.95	0.53

	2201.69	89.17	233.55	716.27	1757.66	-963.62	-1469.99	0.26
	2230.24	89.31	233.75	716.65	1786.17	-980.54	-1492.98	0.26
	2263.70	89.77	234.05	716.92	1819.60	-1000.25	-1520.02	0.49
	2272.56	90.14	234.01	716.93	1828.45	-1005.45	-1527.19	1.26
Projection to TD	2290.00	89.70	234.00	716.95	1845.87	-1015.70	-1541.30	0.76

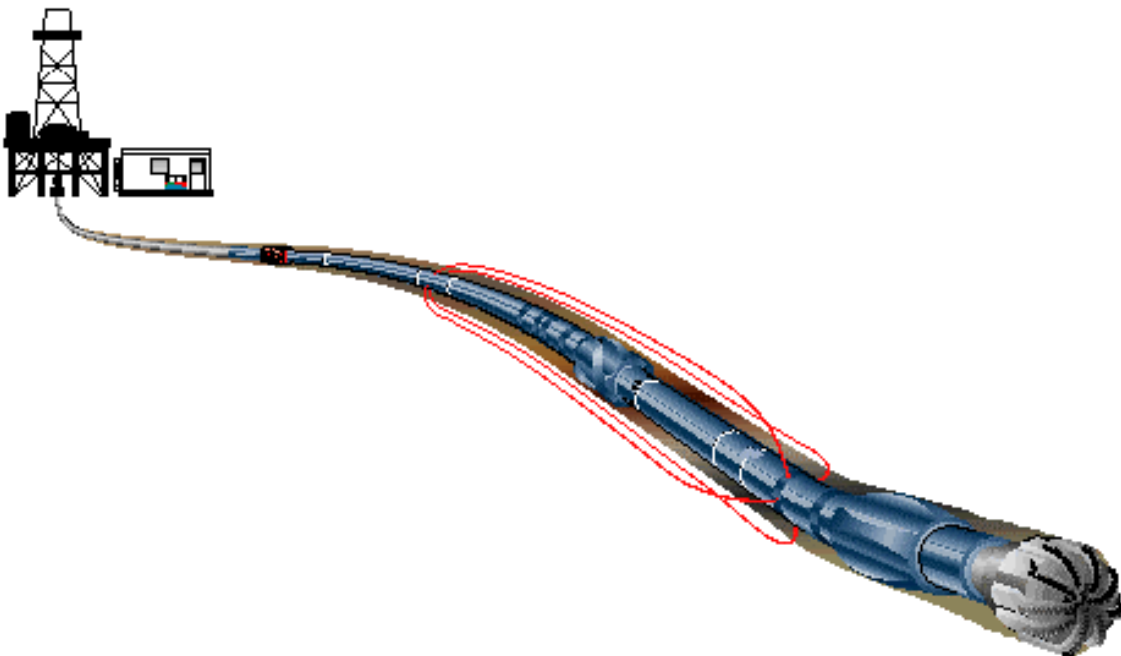
Survey Type: Raw Survey

Survey Error Model: SLB ISCWSA version 21 *** 3-D 95.00% Confidence 2.7955 sigma

Surveying Prog:

<u>MD From (m)</u>	<u>MD To (m)</u>	<u>EOU Freq</u>	<u>Survey Tool Type</u>
0.00	689.79	Act-Stns	SLB_UNKNOWN (default tool used)
689.79	702.00	Act-Stns	SLB_UNKNOWN (default tool used)
702.00	2290.00	Act-Stns	SLB_MWD+SAG

MWD/LWD Bit Run Summary



Job Number AWA-04-05		Company Rep. C. Roots & G. Howard		Date In 9-Oct-04		Date Out 11-Oct-04		D&M Run Number 1		Rig Run Number 9	
Company OMV		Grid Corr -0.89		Brief Run Summary Good Run				Bit Run Number 9		Cell Manager Ozren Radicevic	
Rig Name Ocean Bounty		Tot Corr 14.05		Hole Depth From 336 m To 733 m				D&M Crew O.Radicevic & M.Saicic			
Well Name Baleen-4		Location Gippsland Sub-Basin		Mapfile 2000				Mag Dec 13.16		PP Slot ID	
Inclination (Drift) From 10.18 deg To 82.65 deg		Pumping Hours 27.4 hrs.		Below Rotary Tbl Hrs 42.15 hrs.							
BPS 6.4		Frequency 16 Hz		Mod Type QPSK		Azimuth From 239.05 deg To 242.17 deg		Rotary Hours 2.91 hrs.		Rotary Distance 54 m	
Pump Type Triplex		Pump Output 4.276		Pump Strk Len. 12		True Vertical Depth From 334.84 m To 561.77 m		Slide Hours 9.28 hrs.		Slide Distance 343 m	
Pump Liner ID 6		Min DLS 2.68		Max DLS 7.09		Hole Size 12.25 in		Water Depth 53.1 m		Air Gap 25 m	
Bent Sub Angle 1.5 deg		Bent HSG Ang deg		Depth Max DLS 461.83 m		RKB Height m		Ground Elev. -78.1 m		Mod Gap 0.136 in	
Pulse Ht Thresh		Min Pulse Wdt		Max Pulse Wdt		Digit Time		T/F Arc 5.7 in		T/F Angle 77.33 deg	
Conn Phase Ang deg		Rise Const		Fall Const		H2S In Well <input type="checkbox"/>		Damp Press 900 psi		Signal Streng. 17	
Directional Driller(s) K.Wilson, C.Soper, D.Hay				Turbine RPM @ Min Flow Rate RPM 1500 FR 550 gpm				Turbine RPM @ Max Flow Rate RPM 3100 FR 900 gpm			
Run Objective Kick-off 12.25' hole section.											
Equipment Code		Pump Hrs Start Cum		SW Vers		Tool Size		Equipment Code		Pump Hrs Start Cum	
A800M-01106		0 27		8.25		8.25		A800M-01106		0 27	
ARC8A-AA-8019		0 27		V6.4 B01		8.25		ARC8A-AA-8019		0 27	
IAB8S-AA-018		0 27		1.15b01		8.25		IAB8S-AA-018		0 27	
MDC-DE-622		0 27		70C00		8.25		MDC-DE-622		0 27	
NMDC800L-X501		0 27		8.00				NMDC800L-X501		0 27	
SSTAB8-1134-GP 507		0 27		8.25				SSTAB8-1134-GP 507		0 27	
Surface Sys Version		IDEAL/SPM id9_1c_01r		IDEAL/SPM hspm9_2c_08				Surface Sys Version		IDEAL/SPM id9_1c_01r	
Manufacturer Schlumberger		Stage Length 5.00 m		Bit to Bend Dist. 2.00 m		Bearing Gap In		Manufacturer Schlumberger		Stage Length 5.00 m	
Type PDM		Rubber		RSS Mfr		Bearing Gap Out		Type PDM		Rubber	
Size 8.25		Sleeve Position		RSS Type		Radial Bearing Play		Size 8.25		Sleeve Position	
Serial Number 11061		Sleeve Size 12.13 in		RSS Size		Thrust Bearing Play		Serial Number 11061		Sleeve Size 12.13 in	
Lobe Config. 7/8		Motor Fail <input type="checkbox"/>		RSS SN				Lobe Config. 7/8		Motor Fail <input type="checkbox"/>	
Max Circ Temp 70.00 C		Avg ROP 32.57 m/hr		Min Act FlowRt 550.00 gpm		Max Shock Dur 0.90 sec.		Max Circ Temp 70.00 C		Avg ROP 32.57 m/hr	
Min Circ Temp 15.00 C		Max ROP 60.00 m/hr		Avg PmpPres 3300.00 psi		Total DH Shocks (k) 36.09 k		Min Circ Temp 15.00 C		Max ROP 60.00 m/hr	
End Mud Wt 9.30 lb/gal		Avg Surf RPM 3200.00		PmpPres On Bot 3350.00 psi		CHECK SHOT		End Mud Wt 9.30 lb/gal		Avg Surf RPM 3200.00	
End Funnel Vis 90.00 CPS		Min RPM 20.00		PmpPres Off Bot 3250.00 psi		Type		End Funnel Vis 90.00 CPS		Min RPM 20.00	
End Plastic Vis 28.00 CPS		Max RPM 90.00		Avg Surf WOB 37.00 klbs		Depth m		End Plastic Vis 28.00 CPS		Max RPM 90.00	
End Yield Point 34.00 CPS		Avg FlowRate 900.00 gpm		Avg Surf Torq 1.00 ft-lbs		Inclination deg		End Yield Point 34.00 CPS		Avg FlowRate 900.00 gpm	
End Mud Resist		Max Act FlowRt 920.00 gpm		Max Shock Lev 1.00		Azimuth deg		End Mud Resist		Max Act FlowRt 920.00 gpm	
Company Baroid		PH		Percent Sand 0.10 %		Additives		Company Baroid		PH	
Brand SBM		Chlorides		Percent Solids 6.30 %		Clean <input type="checkbox"/>		Brand SBM		Chlorides	
Type Oil Based		Other		Percent Oil 63.70 %				Type Oil Based		Other	
LCM Type		LCM Size		LCM Concentration				LCM Type		LCM Size	
BHA Type Build		Tur Rotor Prt #		Turbine Config		Surface Screen <input type="checkbox"/>		BHA Type Build		Tur Rotor Prt #	
Int TF Offset 77.33		Stator Prt #		Pulser Config		DFS Used <input type="checkbox"/>		Int TF Offset 77.33		Stator Prt #	
Low Oil Flag <input type="checkbox"/>		Hrs @ Low Oil hrs.		Stab Spacing in		Formation		Low Oil Flag <input type="checkbox"/>		Hrs @ Low Oil hrs.	
DD Objectives Achieved <input checked="" type="checkbox"/>		If not, why?						DD Objectives Achieved <input checked="" type="checkbox"/>		If not, why?	
Bit Type Milltooth		Other						Bit Type Milltooth		Other	
Manufacturer Smith		Model MP7324		IADC Code		No. of Jets 3 x 22, 1 x 19		Manufacturer Smith		Model MP7324	
Inner Row 1		Outer Row 1		Dull Char WT		Location A		Inner Row 1		Outer Row 1	
Trans Fail <input type="checkbox"/>		Jamming <input type="checkbox"/>		Client Inconv. <input type="checkbox"/>		Surface Noise <input type="checkbox"/>		Trans Fail <input type="checkbox"/>		Jamming <input type="checkbox"/>	
Pres Incr @ Fail <input type="checkbox"/>		Jamming Time hrs.		Lost Time hrs.		Down Hole Noise <input type="checkbox"/>		Pres Incr @ Fail <input type="checkbox"/>		Jamming Time hrs.	
D&M Trip <input type="checkbox"/>		Sync Hours 18.17 hrs.		Surface Vib <input type="checkbox"/>		Surface Sys Failure <input type="checkbox"/>		D&M Trip <input type="checkbox"/>		Sync Hours 18.17 hrs.	
Good MWD/LWD run achieving the run objective of successfully kicking off with all tools working obtaining all realtime and recorded memory data.											

DRILLING & MEASUREMENTS - BHA DATA

Job Number

AWA-04-05

Run Number

1

BHA Number

Item	Description	Vendor	Material	Serial Number	Fishing Neck		Stab	OD	ID	Bot Connection		Top Connection		Len	Cum Len	TIME/DEPTH DETAILS									
					OD	Length	OD			Size	Type	Size	Type	m	m	Date/Time	1	2	3	4	5				
	UNITS				in	m	in	in	in								10-Oct-04								
1	12.25" Milltooth Bit	Smith	Steel	MP7324				12.25				6.63	Reg	0.33	0.33	Field Engineer	M.Saicic								
2	AIM8 with bit sub	SLB D & M	Monel	18			9.25	8.25		6.63	Reg	6.63	Reg	1.43	1.76	Depth	512.00								
3	A800M7840XP motor	SLB D & M	Steel	1106			12.13	8.25		6.63	Reg	6.63	Reg	8.29	10.05	Average ROP	44.00								
4	NM Float sub	SLB D & M	Monel	14672				8.00	4.81	6.63	Reg	6.63	Reg	0.64	10.69	Avg. Std. Pres.	33100.00								
5	11-5/8" String Stabiliser	SLB D & M	Steel	GP5072-2			11.63	7.81	2.81	6.63	Reg	6.63	Reg	1.75	12.44	Desurger 1	900.00								
6	ARC8	SLB D & M	Monel	8019				8.13		6.63	Reg	6.63	FH	6.30	18.74	Desurger 2	900.00								
7	PowerPulse	SLB D & M	Monel	622				8.25		6.63	FH	6.63	Reg	8.50	27.24	Tur. RPM @ FR	2968.00								
8	8" NMDC	SLB D & M	Monel	X501				7.88	2.88	6.63	FH	6.63	Reg	9.23	36.47	FR @ Tur. RPM	900.00								
9	Crossover	DOGC	Steel	144-205				8.35	2.75	6.63	Reg	4.50	IF	1.09	37.56	Avg. RPM	0.00								
10	6.5" Drill Collar	DOGC	Steel	144-17				6.75	2.75	4.50	IF	4.50	IF	9.51	47.07	Max RPM	0.00								
11	Hydraulic Jar	DOGC	Steel					6.50	2.75	4.50	IF	4.50	IF	9.86	56.93	Total Shocks	0.00								
12	6.5" Drill Collar	DOGC	Steel					6.75	2.63	4.50	IF	4.50	IF	9.45	66.38	Max Shock	0.00								
13	6 x 5" HWDP	DOGC	Steel					5.00	3.00	4.50	IF	4.50	IF	56.71	123.09	Avg. Surf. WOB	21.00								
14	9 x 5" Drill Pipe	DOGC	Steel					5.00		4.50	IF	4.50	IF	86.68	209.77	Max Surf. WOB	24.00								
15	30 x 5" HWDP	DOGC	Steel					5.00	3.00	4.50	IF	4.50	IF	279.88	489.65	Avg. DH WOB	19.00								
16	5" Drill Pipe to surface	DOGC	Steel					5.00		4.50	IF	4.50	IF			Max DH WOB	22.00								
17																Avg. Surf. Torq.	0.00								
18																Max Surf. Torq.	0.30								
19																Avg. DH Torq.	0.00								
20																Max DH Torq.	0.30								
21																Formation Type									
22																Friction									
23																Drag Up									
24																Drag Down									
PREDICTED BHA TENDENCY							Hookload		klbs	Wt. Below Jars		25.00	klbs	Mud Weight		9.30									
							Pickup Wt.		klbs	Wt. Above Jars		54.00	klbs	Funnel Vis.											
							Slack Wt.		klbs	Total Air Wt.		79.00	klbs	Plastic Vis.											
																Circ. Temp	42.00								
																Signal Strength	22.00								
																Bit Deviation	49.00								
																Differential Pres.	250.00								
Stabilizer Description		Mid Pt To Bit	BLADE		GAUGE			Bit To Read Out Port		Bit To Measurement Port		BATTERY		Unloaded (V)		Loaded (V)		Run Hrs		Cum Hrs					
		Type	Length	Width	Length	In	Out	ARC	16.53 m	D&I MWD-other	1.28 m	Tool		Before	After	Before	After	BOT	AMP	BOT	AMP				
UNITS		m	in	in	in	in	in	PPL	20.57 m	D&I PPL	22.92 m														
								AIM	1.54 m	GR LWD	15.46 m														
									m	RES LWD	15.41 m														
									m	APWD LWD	14.70 m														
									m		m														
									m		m														

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Job Number: AWA-04-05

Run Number: 1

Date	Time	Depth	Operating Details
09-Oct-04	21:02	0.00	Initialise ARC on deck.
	21:20	0.00	AIM on - put running plug in.
	21:30	0.00	Take snapshot of AIM on and blanket on.
	23:00	0.00	Perform JSA for making up BHA.
	23:45	0.00	Pick up AIM & Motor. Tools BRT.
10-Oct-04	0:20	0.00	Pick up ARC.
	0:30	0.00	Pick up PowerPulse.
	0:45	0.00	Tools BRT.
	1:13	0.00	Perform SHT @ 500gpm. SPT1: 23psi, SPT2:12psi. Good SHT.
	1:46	0.00	Set bend in motor to 1.5degrees.
	1:55	0.00	Measure toolface angle. Arc:145, C: 675, TFA: 77.33degrees.
	2:00	0.00	Continue RIH.
	4:30	336.50	On bottom drilling.
	6:00	360.43	Condition hole whilst preparing to run gyro.
	6:33	360.43	Run Gyro.
	6:54	360.43	Back on bottom drilling ahead.
	7:45	389.78	Prepare to run Gyro.
	8:19	389.78	Finish Gyro.
	8:23	389.78	Pull back to Shoe to perform LOT.
	9:18	313.00	Cycle pumps before LOT to get utility frame.
	9:20	313.00	Perform LOT.
	10:06	313.00	Finish LOT.
	10:09	313.00	Cycle pumps for utility frame to get LOT value. Bad signal & did not get utility frame. Re-cycle but no luck
	10:12	313.00	RIH to drill ahead.
	11:24	417.26	Prepare to run Gyro.
	11:58	417.26	Finish running Gyro.
	12:01	417.26	On bottom drilling with 550gpm, wob:15kftlbs.
	12:49	432.23	Cycle pumps 3 times in order to get good survey. Increase GPM to 650gpm for survey.
	12:58	432.23	Get good survey, but H still out by 3counts.
	13:30	447.78	Prepare for Gyro.
	14:15	447.78	Finish Gyro.
	14:06	447.78	Pump up MWD survey - good survey, although H slightly out by 3 counts. Azimuth as expected though.
	15:48	488.00	Increase flowrate up to 900gpm - SPP increased accordingly from 2800psi to 3350psi. SPT1:22psi.
	16:06	502.00	Some noisy signal from downhole noise. Lost sync a couple times & several bad frames. Apply gain/delay.
	16:25	516.52	Stand down. Continue backreaming stands, but stipulate maximum 40rpm due to high dogleg of 6-7deg.
	17:30	540.00	IRCT locked up. Can't connect. Frozen screen on TF display.
	17:38	545.38	Stand down - Restart Ideal to fix frozen IRCT.
	17:55	545.38	IRCT still locked up. Reboot IRCT and wait for re-purge.
	18:04	545.38	IRCT working. Send TF display.
	18:18	546.86	IRCT frozen. Lost connection. Troubleshoot problem - change co-ax connectors.
	19:45	583.00	IRCT working again.
	20:10	587.11	Off bottom - losing mud over shakers.
	20:24	587.11	Back on bottom drilling ahead.
	20:33	591.00	Rotating rest of stand.
	21:17	603.30	Taking SCR's.
	21:33	603.30	Take a survey and slide ahead.
11-Oct-04	0:00	643.00	Midnight depth
	3:16	689.00	Rotating ahead.
	3:32	693.00	Sliding.
	4:15	717.00	End of build section.
	4:32	717.00	Decision to drill/rotate another 15m.
	5:00	733.00	Run TD. Circulate hole clean prior to POOH>
	7:01	733.00	Take final survey for run. All surveys are sag corrected.
	7:05	733.00	Continue circulating the hole clean, backreaming stands at maximum rpm of 40rpm. Confirmed max rpm with dd and driller due to MWD max dogleg specs. Pull back to shoe, then run in to bottom to drop gyro.
	13:06	733.00	Bit depth at 725m and circulating hole clean.
	13:29	733.00	Drop Gyro.
	14:46	733.00	Bit depth at 550m - start pumping and backreaming. Signal is intermittent occasionally. Apply gain/delay.
			Continue POOH.
	16:30	340.00	Disconnect geolograph.

[illegible]

Job Number AWA-04-05		Company Rep. C. Roots & G. Howard		Date In 11-Oct-04		Date Out 14-Oct-04		D&M Run Number 2		Rig Run Number 10	
Company OMV		Grid Corr -0.89		Brief Run Summary Good Run				Bit Run Number 10		Cell Manager Ozren Radicevic	
Rig Name Ocean Bounty		Tot Corr 14.05		Hole Depth From 733 m To 1890 m				D&M Crew O.Radicevic & M.Saicic			
Well Name Baleen-4		Location Gippsland Sub-Basin		Mapfile 2000				Mag Dec 13.16		PP Slot ID	
Inclination (Drift) From 82.65 deg To 89.38 deg		Pumping Hours 49.00 hrs.		Below Rotary Tbl Hrs 69 hrs.		Rotary Hours 23.5 hrs.		Rotary Distance 1157 m			
BPS 6.4		Frequency 16 Hz		Mod Type QPSK		Azimuth From 82.65 deg To 232.65 deg		Slide Hours 0 hrs.		Slide Distance 0 m	
Pump Type Triplex		Pump Output 4.276		Pump Strk Len. 12		True Vertical Depth From 561.77 m To 712.13 m		Drilling Hours 23.5 hrs.		Drilling Distance 1157 m	
Pump Liner ID 6		Min DLS 0.07		Max DLS 2.4		Hole Size 12.25 in		Water Depth 53.1 m		Air Gap 25 m	
Bent Sub Angle deg		Bent HSS Ang deg		Depth Max DLS 1283.5 m		RKB Height m		Ground Elev. -78.1 m		Mod Gap 0.136 in	
Pulse Ht Thresh		Min Pulse Wdt		Max Pulse Wdt		Digit Time		T/F Arc in		T/F Angle deg	
Conn Phase Ang deg		Rise Const		Fall Const		H2S In Well <input type="checkbox"/>		Damp Press 900 psi		Signal Streng. 3.9	
Directional Driller(s) K.Wilson, C.Soper, D.Hay				Turbine RPM @ Min Flow Rate RPM 1330 FR 479.00 gpm				Turbine RPM @ Max Flow Rate RPM 3228 FR 950 gpm			
Run Objective Drill tangent section.											
Equipment Code		Pump Hrs Start Cum		SW Vers		Tool Size		Equipment Code		Pump Hrs Start Cum	
ARC8A-AA-8019		0 49		V6.4 B01		8.25		ARC8A-AA-8019		49	
BU900-90184		0 49				9		MDC-DE-622		49	
CC900-00204		0 49				9					
MDC-DE-622		27 76		70C00		8.25					
NMDC800L-X501		27 76				8.00					
PD9SRX-AA-43084		0 49				9					
SSTAB8-1134-GP 507		27 76				8.25					
Surface Sys Version		IDEAL/SPM id9_1c_01r		IDEAL/SPM hspm9_2c_08							
Manufacturer Schlumberger		Stage Length m		Bit to Bend Dist. m		Bearing Gap In		Bearing Gap Out			
Type PD		Rubber		RSS Mfr Schlumberger		PowerDrive		Radial Bearing Play			
Size 9.00		Sleeve Position		RSS Type		900.00		Thrust Bearing Play			
Serial Number 204		Sleeve Size in		RSS Size		204					
Lobe Config.		Motor Fail <input type="checkbox"/>		RSS SN							
Max Circ Temp 85.00 C		Avg ROP 53.70 m/hr		Min Act FlowRt 479.00 gpm		Max Shock Dur 1.00 sec.		Total DH Shocks (k) 156.00 k			
Min Circ Temp 15.00 C		Max ROP 139.60 m/hr		Avg PmpPres 4050.00 psi		CHECK SHOT		Type			
End Mud Wt 9.45 lb/gal		Avg Surf RPM 150.00		PmpPres On Bot psi		PmpPres Off Bot psi		Depth m			
End Funnel Vis 84.00 CPS		Min RPM 40.00		Avg Surf WOB 13.00 klbs		Inclination deg		Azimuth deg			
End Plastic Vis 36.00 CPS		Max RPM 180.00		Avg Surf Torq 6.00 ft-lbs							
End Yield Point 35.00 CPS		Avg FlowRate 904.00 gpm		Max Shock Lev 1.00							
End Mud Resist		Max Act FlowRt 974.00 gpm									
Company Baroid		PH		Percent Sand 0.00 %		Additives		Clean		<input checked="" type="checkbox"/>	
Brand SBM		Chlorides		Percent Solids 9.50 %							
Type Oil Based		Other		Percent Oil 71.00 %							
LCM Type				LCM Size		LCM Concentration					
BHA Type Steerable		Tur Rotor Prt #		Turbine Config		Surface Screen <input type="checkbox"/>		DFS Used <input type="checkbox"/>			
Int TF Offset		Stator Prt #		Pulser Config		Formation Sandstone					
Low Oil Flag <input type="checkbox"/>		Hrs @ Low Oil hrs.		Stab Spacing							
DD Objectives Achieved <input checked="" type="checkbox"/>		If not, why?									
Bit Type PDC		Other									
Manufacturer GeoDiamond		Model MRS 91GHPX		IADC Code		No. of Jets 4,3		Size of Jets 18,16		Bit TFA 1.58	
Inner Row 1		Outer Row 1		Dull Char WT		Location A		Brng/Seals X		Gauge (1/16") I	
Trans Fail <input type="checkbox"/>		Jamming <input type="checkbox"/>		Client Inconv. <input type="checkbox"/>		Surface Noise <input checked="" type="checkbox"/>		Down Hole Noise <input type="checkbox"/>		Surface Sys Failure <input type="checkbox"/>	
Pres Incr @ Fail <input type="checkbox"/>		Jamming Time hrs.		Lost Time hrs.							
D&M Trip <input type="checkbox"/>		Sync Hours 37.00 hrs.		Surface Vib <input type="checkbox"/>							
SUMMARY Good MWD/LWD run. Excelent recorded mode data recovered. Some real time data affected by pump noise. Directional drilling objectives successfully achieved.											

Schlumberger																Job Number		AWA-04-05									
DRILLING & MEASUREMENTS - BHA DATA																Run Number		2									
																BHA Number											
Item	Description	Vendor	Material	Serial Number	Fishing Neck		Stab OD	OD	ID	Bot Connection		Top Connection		Len	Cum Len	TIME/DEPTH DETAILS											
					OD	Length				Size	Type	Size	Type			Date/Time	1	2	3	4	5						
UNITS														m		13-Oct-04	14-Oct-04										
1	Bit	Geodiamond	Steel	JT5155				12.25				6.63	Reg	0.28	0.28	Field Engineer	O.Radicevic	M.Saicic									
2	PD Bias Unit	Schlumberger	Monel	90184				9.25	5.50	6.63	Reg	6.63	FH	1.37	1.65	Depth	1752.00	1856.00									
3	PD Control Unit	Schlumberger	Monel	204				9.75		6.63	FH	6.63	FH	3.09	4.74	Average ROP	42.00	34.00									
4	PD Receiver	Schlumberger	Monel	43084				9.75	3.38	6.63	FH	6.63	FH	1.89	6.63	Avg. Std. Pres.	4100.00	4250.00									
5	ARC8	Schlumberger	Monel	8026	8.00	1.88	9.00	8.38	2.81	6.63	FH	6.63	FH	5.79	12.42	Desurger 1	900.00	900.00									
6	PowerPulse	Schlumberger	Monel	622				8.25	2.81	6.63	FH	6.63	Reg	8.50	20.92	Desurger 2	900.00	900.00									
7	NM Drill Collar	Schlumberger	Monel	x501				7.88	2.88	6.63	Reg	6.63	Reg	9.23	30.15	Tur. RPM @ FR	3085.00	3007.00									
8	IB String Stab	Schlumberger	Steel	GP5072-2	8.00	0.81	11.63	8.00	2.75	6.63	Reg	6.63	Reg	1.75	31.90	FR @ Tur. RPM	950.00	900.00									
9	Crossover	DOGC	Steel	144-205				8.25	2.75	6.63	Reg	4.50	IF	1.09	32.99	Avg. RPM	180.00	170.00									
10	Drill Collar	DOGC	Steel	144-21				6.75	2.75	4.50	IF	4.50	IF	9.51	42.50	Max RPM	180.00	180.00									
11	Jar	DOGC	Steel	MHA00214				6.50	2.75	4.50	IF	4.50	IF	9.86	52.36	Total Shocks	1.26	1.47									
12	Drill Collar	DOGC	Steel	144-17				6.75	2.63	4.50	IF	4.50	IF	9.45	61.81	Max Shock	1.00	1.00									
13	6 x 5" HWDP	DOGC	Steel					5.00	3.00	4.50	IF	4.50	IF	56.71	118.52	Avg. Surf. WOB	7.00	11.00									
14																Max Surf. WOB	10.00	14.00									
15																Avg. DH WOB											
16																Max DH WOB											
17																Avg. Surf. Torq.	4.00	4.00									
18																Max Surf. Torq.	7.00	6.00									
19																Avg. DH Torq.											
20																Max DH Torq.											
21																Formation Type	Claystone	Sandstone									
22																Friction											
23																Drag Up	245.00										
24																Drag Down	190.00										
PREDICTED BHA TENDENCY							Hookload				Wt. Below Jars				Mud Weight		9.45	9.45									
							Pickup Wt.				Wt. Above Jars				Funnel Vis.		88.00	88.00									
							Slack Wt.				Total Air Wt.				Plastic Vis.		32.00	32.00									
																	Circ. Temp	81.50	82.00								
																	Signal Strength	4.00	3.90								
																	Bit Deviation	84.00	89.00								
																	Differential Pres.										
Stabilizer Description		Mid Pt To Bit	BLADE		GAUGE			Bit To Read Out Port			Bit To Measurement Port			BATTERY		Unloaded (V)		Loaded (V)		Run Hrs		Cum Hrs					
UNITS		Type	Length	Width	Length	In	Out	ARC	16.53	m	D&I MWD-other	1.28	m	Tool		Before	After	Before	After	BOT	AMP	BOT	AMP				
								PPL	20.57	m	D&I PPL	22.92	m														
								AIM	1.54	m	GR LWD	15.46	m														
										m	RES LWD	15.41	m														
										m	APWD LWD	14.70	m														
										m			m														
										m			m														

Job Number: AWA-04-05

Run Number: 2

Date	Time	Depth	Operating Details
11-Oct-04	21:24	0.00	Initilize ARC8 on deck.
	21:30	0.00	Hold JSA
	22:15	10.00	Pick up ARC
	22:30	20.00	Picku up PowerPulse
	23:00	29.00	Tools below rotary table
	23:25	29.00	Perform SHT. Bad signal with 2 pumps.
	23:30	29.00	All 3 pumps on good SHT. 834gpm/1910psi. SPT1-19psi, SPT2-7psi, Bit confidence 95%
12-Oct-04			SHT PowerDrive
	0:16	29.00	Finished SHT and start to run in hole
	4:45	577.00	Tight hole - ream/pump through
	4:51	577.00	Increase flow to 840gpm and rotate throug tight spots (max rotation 60rpm)
	6:05	628.70	Connect geolograph line and adjust depth with driller
	7:11	723.00	Start logging down for sensor offset.
	7:28	733.00	On bottom drilling
	18:00	1010.67	Change PD settings to decrease drop
	20:00	1060.19	Change PD settings to neutral
	20:30	1087.05	Change PD settings to hold ange.
	21:20	1115.00	Increase flow rate to 950gpm.
13-Oct-04	23:08	1170.00	Change PD settings to increase a build
	0:00	1190.00	Midnight depth
	1:30	1245.00	Change PD settings to turn.
	3:15	1298.66	Circulate hole clean.
	4:29	1298.66	Making connection and drill ahead
	5:11	1329.73	Corrected depth by two meters.
	6:30	1358.00	After connection had to set to bottom and as a result behind 1.7m.
	9:00	1442.97	N.B. Due to previous depth correction of 2m, add 2m to surveys from 1193.46m to 1281.5m.
	9:20	1442.97	Trouble getting survey. Cycle 4 times.
	11:17	1499.77	SCR's.
	11:49	1512.00	Bad signal - lost sync. Apply gain/delay.
	11:54	1515.00	Back in sync after applying better x 10 agin delay.
	13:50	1570.65	Off botoom - pop-off blown on pump.
	13:59	1570.65	On bottom drilling
	14:30	1582.55	Finish drilling stand down - circulate off bottom to clean hole.
	16:36	1582.55	Make connection,survey and drill ahead. It took 4 cycles to get a good survey.
	18:23	1638.00	Reset swob to 15klb.
	21:03	1693.80	Make connectio. Have a problem taking survey.
	21:38	1719.57	Problem with pump #3
	21:45	1719.57	Recycle pumps to get PowerDrive in neutral
	22:06	1719.57	Drilling ahead with 2 pumps, 90 strks each
	22:30	1725.30	Circulate hole while fixing pump #1.
	23:30	1725.30	Make connection, take a survey and drill ahead.
	23:45	1743.00	Changing PowerDrive setting
14-Oct-04	0:00	1742.00	Midnight depth
	0:53	1755.00	Make connection, take a survey and drill ahead.
	1:50	1783.75	Changing PowerDrive setting
	2:00	1783.75	Working on Top Drive
	2:25	1783.75	Make connection, take a survey and drill ahead.
	3:00	1812.17	Change PowerDrive settings
	3:05	1812.17	Gas on the shakers (up to 35% - 1787m lagged depth)
	3:50	1812.17	Ciruclate gas out and flow check well.
	4:19	1812.17	Make connection, take a survey and take SCR's
	4:30	1812.17	Continue drilling
	7:05	1861.88	Calibrate dwob at CM request due to drop in ROP from 30m/hr to 15m/hr. Also re-calibrate swob.
	7:11	1861.88	Having trouble keeping in sync - intermittent signal due to combination of pump noise & downhole noise.
			Apply Gain/delay and try changing pump strokes. Improves with gain/delay.
	8:28	1890.00	Run 2 TD. Ideal depth 1890.39m, drillers depth called at 1890.00m
	8:28	1890.00	Circulate bottoms up.
	9:19	1890.00	Take final survey at TD.
	14:00	1047.00	Circulate hole.
	17:30	343.00	Disconnect Geolograph.
	20:00	0.00	Tools ART.

[illegible]

Job Number AWA-04-05		Company Rep. G. Howard & H. Heinze		Date In 19-Oct-04		Date Out 21-Oct-04		D&M Run Number 3		Rig Run Number 12	
Company OMV		Grid Corr -0.89		Brief Run Summary Good Run				Bit Run Number 12		Cell Manager Ozren Radicevic	
Rig Name Ocean Bounty		Tot Corr 14.05		Hole Depth From 1890 m To 2010.5 m				D&M Crew O.Radicevic & M.Saicic			
Well Name Baleen-4		Location Gippsland Sub-Basin		Inclination (Drift) From 89.38 deg To 89.05 deg				Pumping Hours 26.5 hrs.		Below Rotary Tbl Hrs 46.5 hrs.	
Mapfile 2000		Mag Dec 13.16		Azimuth From 232.65 deg To 233.43 deg				Rotary Hours 3.95 hrs.		Rotary Distance 94.00 m	
BPS 6.4		Frequency 16 Hz		Mod Type QPSK		True Vertical Depth From 712.13 m To 714.85 m		Slide Hours 2.38 hrs.		Slide Distance 28.00 m	
Pump Type Triplex		Pump Output 4.276		Pump Strk Len. 12		Hole Size 8.5 in		Water Depth 53.1 m		Air Gap 25 m	
Pump Liner ID 6		Min DLS 0.11		Max DLS 1.01		Hole Size 8.5 in		Water Depth 53.1 m		Air Gap 25 m	
Bent Sub Angle 0.78 deg		Bent HSS Ang deg		Depth Max DLS 1962.47 m		RKB Height m		Ground Elev. -78.1 m		Mod Gap 0.109 in	
Pulse Ht Thresh		Min Pulse Wdt		Max Pulse Wdt		Digit Time		T/F Arc in		T/F Angle 329.35 deg	
Conn Phase Ang deg		Rise Const		Fall Const		H2S In Well <input type="checkbox"/>		Damp Press 900 psi		Signal Streng. 10	
Directional Driller(s) C.Soper, D.Hay				Turbine RPM @ Min Flow Rate RPM 2286.00 FR 571.00 gpm				Turbine RPM @ Max Flow Rate RPM 3226 FR 700 gpm			
Run Objective Drill 400m reservoir section.											
Equipment Code		Pump Hrs Start Cum		SW Vers		Tool Size		Equipment Code		Pump Hrs Start Cum	
ARC6A-CA-099		0 27		6.4B01		6.75		ARC6A-CA-099		26.5 120.5	
IAB6I-AB-042		0 27		6.75				IAB6I-AB-042		26.5 120.5	
MDC-AC-Y752		0 27		7.0C00		6.75		MDC-AC-Y752		26.5 120.5	
NMDC675L-9705249-		0 27		6.75				NMDC675L-9705249-1		26.5 120.5	
Surface Sys Version		IDEAL/SPM id9_1c_01r		IDEAL/SPM hspm9_2c_08							
Manufacturer Schlumberger		Stage Length m		Bit to Bend Dist. 2.71 m		Bearing Gap In					
Type A675M		Rubber RM100D		RSS Mfr Schlumberger		Bearing Gap Out					
Size 675.00		Sleeve Position 0.45		RSS Type		Radial Bearing Play					
Serial Number 3592		Sleeve Size 8.38 in		RSS Size		Thrust Bearing Play					
Lobe Config. 7:8		Motor Fail <input type="checkbox"/>		RSS SN							
Max Circ Temp 92.50 C		Avg ROP 28.00 m/hr		Min Act FlowRt 571.00 gpm		Max Shock Dur 3600.00 sec.					
Min Circ Temp 60.00 C		Max ROP 110.00 m/hr		Avg PmpPres 2313.00 psi		Total DH Shocks (k) 43.25 k					
End Mud Wt 9.10 lb/gal		Avg Surf RPM 61.00		PmpPres On Bot 1050.00 psi		CHECK SHOT					
End Funnel Vis 59.00 CPS		Min RPM 33.00		PmpPres Off Bot 870.00 psi		Type					
End Plastic Vis 7.00 CPS		Max RPM 97.00		Avg Surf WOB 5.00 klbs		Depth					
End Yield Point 26.00 CPS		Avg FlowRate 597.00 gpm		Avg Surf Torq 11.75 ft-lbs		Inclination					
End Mud Resist 0.16		Max Act FlowRt 700.00 gpm		Max Shock Lev 1.00		Azimuth					
Company Baroid		PH 8.80		Percent Sand 0.10 %		Additives Barite					
Brand Baradrill		Chlorides 29000.00		Percent Solids 3.10 %		Clean <input type="checkbox"/>					
Type KCL		Other		Percent Oil 0.00 %							
LCM Type		LCM Size		LCM Concentration							
BHA Type		Tur Rotor Prt #		Turbine Config		Surface Screen <input type="checkbox"/>					
Int TF Offset		Stator Prt #		Pulser Config		DFS Used <input type="checkbox"/>					
Low Oil Flag <input type="checkbox"/>		Hrs @ Low Oil hrs.		Stab Spacing		Formation					
DD Objectives Achieved <input type="checkbox"/>		If not, why?									
Bit Type Milltooth		Other									
Manufacturer Reed Hycalog		Model TC11		IADC Code		No. of Jets 3		Size of Jets 22		Bit TFA 1.11	
Inner Row 6		Outer Row 2		Dull Char CT		Location G		Brng/Seals E		Gauge (1/16") 1	
Trans Fail <input type="checkbox"/>		Jamming <input type="checkbox"/>		Client Inconv. <input type="checkbox"/>		Surface Noise <input type="checkbox"/>					
Pres Incr @ Fail <input type="checkbox"/>		Jamming Time hrs.		Lost Time hrs.		Down Hole Noise <input type="checkbox"/>					
D&M Trip <input type="checkbox"/>		Sync Hours 13.16 hrs.		Surface Vib <input type="checkbox"/>		Surface Sys Failure <input type="checkbox"/>					
SUMMARY Good MWD/LWD run, but POOH due to inability to slide drill as a result of not being able to get any WOB. POOH to change BHA.											

Drill Record																TIME/DEPTH DETAILS									
Item	Description	Vendor	Material	Serial Number	Fishing Neck		Stab	OD	OD	ID	Bot Connection		Top Connection		Len	Cum Len		1	2	3	4	5			
UNITS																m	Date/Time								
1	Mill-Tooth Bit	Reed Hycalog	Steel	B73551					8.50				4.50	Reg	0.25	0.25	Field Engineer								
2	AIM675 Motor	SLB D & M	Steel	3592					6.56	3.50	4.50	Reg	4.50	IF	8.31	8.56	Depth								
3	Float Sub	SLB D & M	Steel	CMP1878					6.25	3.50	4.50	IF	4.50	IF	0.58	9.14	Average ROP								
4	AnderGauge Stabiliser	Andergauge	Steel	AGH845	7.00	0.38	8.50	6.94	3.44	4.50	IF	4.50	IF	3.08	12.22	Avg. Std. Pres.									
5	ARC6	SLB D & M	Monel	99	6.75	1.90		6.75	5.13	4.50	IF	5.50	FH	5.73	17.95	Desurger 1									
6	PowerPulse	SLB D & M	Monel	Y752				6.88	4.63	5.50	FH	4.50	IF	8.44	26.39	Desurger 2									
7	NMDC	SLB D & M	Monel	9705249-1				6.63	2.88	4.50	IF	4.50	IF	8.64	35.03	Tur. RPM @ FR									
8	HWDP	DOGC	Steel	144-88				5.00	4.24	4.50	IF	4.50	IF	9.23	44.26	FR @ Tur. RPM									
9	HWDP	DOGC	Steel	GP36760N				5.00	4.24	4.50	IF	4.50	IF	9.47	53.73	Avg. RPM									
10	JAR	DOGC	Steel	MHA00214	6.50	0.76		6.50	2.75	4.50	IF	4.50	IF	9.86	63.59	Max RPM									
11	HWDP	DOGC	Steel	144-107				5.00	4.24	4.50	IF	4.50	IF	9.49	73.08	Total Shocks									
12	HWDP	DOGC	Steel	144-100				5.00	4.24	4.50	IF	4.50	IF	9.42	82.50	Max Shock									
13	HWDP	DOGC	Steel	144-94				5.00	4.24	4.50	IF	4.50	IF	9.49	91.99	Avg. Surf. WOB									
14																Max Surf. WOB									
15																Avg. DH WOB									
16																Max DH WOB									
17																Avg. Surf. Torq.									
18																Max Surf. Torq.									
19																Avg. DH Torq.									
20																Max DH Torq.									
21																Formation Type									
22																Friction									
23																Drag Up									
24																Drag Down									
PREDICTED BHA TENDENCY								Hookload				Wt. Below Jars		14000.00		Mud Weight									
								Pickup Wt.				Wt. Above Jars		6000.00		Funnel Vis.									
								Slack Wt.				Total Air Wt.		20000.00		Plastic Vis.									
																Circ. Temp									
																Signal Strength									
																Bit Deviation									
																Differential Pres.									
Stabilizer Description		Mid Pt To Bit	BLADE			GAUGE			Bit To Read Out Port			Bit To Measurement Port			BATTERY		Unloaded (V)		Loaded (V)		Run Hrs		Cum Hrs		
			Type	Length	Width	Length	In	Out	ARC	15.73 m	D&I MWD-other	0.76 m	Tool	Before	After	Before	After	BOT	AMP	BOT	AMP				
UNITS									PPL	19.73 m	D&I PPL	22.08 m													
									AIM	0.82 m	GR LWD	14.66 m													
										m	RES LWD	14.61 m													
										m	APWD LWD	13.90 m													
										m		m													
										m		m													

Job Number: AWA-04-05

Run Number: 3

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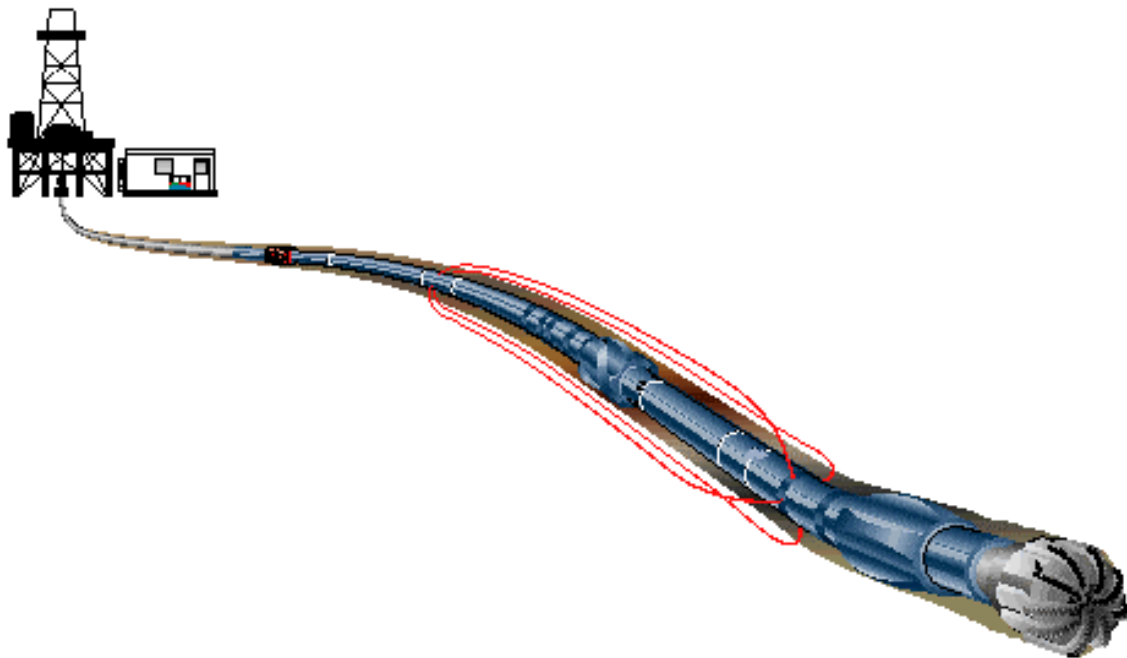
Schlumberger																Job Number		AWA-04-05									
DRILLING & MEASUREMENTS - BHA DATA																Run Number		4									
																BHA Number											
Item	Description	Vendor	Material	Serial Number	Fishing Neck		Stab OD	OD	ID	Bot Connection		Top Connection		Len	Cum Len	TIME/DEPTH DETAILS											
					OD	Length				Size	Type	Size	Type			1	2	3	4	5							
UNITS														m	Date/Time	22-Oct-04											
1	Insert Bit	Hughes	Steel	W40DE				8.50				4.50	Reg	0.24	0.24	Field Engineer	OR										
2	NB Stabiliser	SLB D & M	Steel	DOTS 6750			8.44	6.75	3.50	4.50	Reg	4.50	IF	1.77	2.01	Depth	2119.00										
3	NM Pony DC	SLB D & M	Steel	DOTS 1138				6.25	3.50	4.50	IF	4.50	IF	1.61	3.62	Average ROP	25.00										
4	AnderGauge Stabiliser	Andergauge	Steel	AGH845	7.00	0.38	8.50	6.94	3.44	4.50	IF	4.50	IF	3.08	6.70	Avg. Std. Pres.	2950.00										
5	ARC6	SLB D & M	Monel		99	6.75	1.90		6.75	5.13	4.50	IF	5.50	FH	5.73	12.43	Desurger 1	900.00									
6	PowerPulse	SLB D & M	Monel	Y752				6.88	4.63	5.50	FH	4.50	IF	8.44	20.87	Desurger 2	900.00										
7	NMDC	SLB D & M	Monel	9705249-1				6.63	2.88	4.50	IF	4.50	IF	8.64	29.51	Tur. RPM @ FR	3867.00										
8	HWDP	DOGC	Steel	144-88				5.00	4.24	4.50	IF	4.50	IF	9.23	38.74	FR @ Tur. RPM	700.00										
9	HWDP	DOGC	Steel	GP36760N				5.00	4.24	4.50	IF	4.50	IF	9.47	48.21	Avg. RPM	80.00										
10	JAR	DOGC	Steel	MHA00214	6.50	0.76		6.50	2.75	4.50	IF	4.50	IF	9.86	58.07	Max RPM	90.00										
11	HWDP	DOGC	Steel	144-107				5.00	4.24	4.50	IF	4.50	IF	9.49	67.56	Total Shocks	0.06										
12	HWDP	DOGC	Steel	144-100				5.00	4.24	4.50	IF	4.50	IF	9.42	76.98	Max Shock	0.00										
13	HWDP	DOGC	Steel	144-94				5.00	4.24	4.50	IF	4.50	IF	9.49	86.47	Avg. Surf. WOB	25.00										
14																Max Surf. WOB	28.00										
15																Avg. DH WOB											
16																Max DH WOB											
17																Avg. Surf. Torq.	16.00										
18																Max Surf. Torq.	18.00										
19																Avg. DH Torq.											
20																Max DH Torq.											
21																Formation Type	Sandstone										
22																Friction											
23																Drag Up											
24																Drag Down											
PREDICTED BHA TENDENCY							Hookload				Wt. Below Jars				14000.00		Mud Weight	9.15									
							Pickup Wt.				Wt. Above Jars				6000.00		Funnel Vis.	62.00									
							Slack Wt.				Total Air Wt.				20000.00		Plastic Vis.	11.00									
																	Circ. Temp	49.40									
																	Signal Strength	13.00									
																	Bit Deviation	89.50									
																	Differential Pres.										
Stabilizer Description		Mid Pt To Bit	BLADE			GAUGE			Bit To Read Out Port			Bit To Measurement Port			BATTERY		Unloaded (V)		Loaded (V)		Run Hrs		Cum Hrs				
			Type	Length	Width	Length	In	Out	ARC	10.21	m	D&I PPL	16.56	m	Tool		Before	After	Before	After	BOT	AMP	BOT	AMP			
UNITS									PPL	14.21	m	GR LWD	9.14	m													
											m	RES LWD	9.09	m													
											m	APWD LWD	8.38	m													
											m			m													
											m			m													
											m			m													

Job Number: AWA-04-05

Run Number: 4

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Directional Drilling Report



Schlumberger



OMV Australia

OMV Australia Ltd Pty

End of Well Summary

Baleen - 4

28 September 2004 to 24 October 2004

BHA No. 9 – 12 ¼” PowerPak Steerable K.O. Assy. w/AIM-8 & ARC-8

Depth In: 327m MD

Depth Out: 733m MD

12 ¼” MT Bit, AIM-8, A800XP, Float Sub, 11 5/8” S. Stab, ARC-8, PowerPulse, 8” OD NMDC, XO, 6 ½” OD DC, 6 x 5” OD HWDP, 9 x 5” Prem. DP, 30 x 5” OD HWDP, DP to Surface

This assembly was used to kick off from the cement plug and build from 10° Inclination to 82.13° at an Azimuth of 241.91°. An 800M motor was used with 1.5° bend setting.

The kick off from the cement plug was quick and the DLS of 6°/30mt was chased initially with high ROP and a low pump rate so as to not blow away the formation and achieve maximum build rate. The AIM-8 was very effective in predicting DLS and the build section was accomplished with almost 100% sliding thus giving a smooth curve throughout the section and reducing tortuosity.

The EOC (End of Curve Hold) point was reached at ~700m MD and the BHA was rotated to 733mt MD. The assembly was POOH to run the 12 ¼” PowerDrive rotary steerable assembly.

The BHA performed well with very smooth DLS and a good ROP. On bottom drilling time for the build section was 13.10 hrs.

BHA No. 10 – 12 ¼” PowerDrive PD900 w/ARC-8**Depth In: 733m MD****Depth Out: 1890m MD**

12 ¼” PDC Bit, PowerDrive 900, PD 900 Control Unit, PD 900 Receiver, ARC-8, PowerPulse, NMDC, 11 7/8” IB String Stab, XO, 6 ¾” DC, HE Hydraulic Jar, 6 ¾” DC, 6 x 5” HWDP, 5” OD DP to surface.

The PowerDrive assembly was RIH and it was immediately noted that at a 0/0% setting the tool had a build tendency. After building slightly over 2 stands the setting of between 180/40% & 180/60% was found to hold inclination and azimuth very well. Good ROP was consistent throughout the run and the trajectory stayed very close to the plan. The RPM was held between 160 and 180 and the pump rate was 950 GPM. Torque was low and no excess drag was noted.

TD for the 12 ¼” section was 1890mt MD with the last survey showing a center-to-center distance from the plan of only 1.60mt. The average on bottom ROP was 43.5mts/hr.

It should be noted that extreme care was taken in keeping the doglegs (DL) to a minimum of less than one degree throughout this section. The only two areas that had a higher DL were the two planned curves. The first curve was a left turn of $\pm 10^\circ$ from 1243m MD to 1340m MD and this curve was kept below the planned $3^\circ/30\text{m}$ DL. The second was at the end of the section for landing the well in the pay from 1751m MD to 1848m MD. Again the DL was maintained at well below the planned $3^\circ/30\text{m}$ DL. Tortuosity throughout this run was kept to the very lowest possible.

The 9 5/8” casing stood up at $\pm 1500\text{m}$ MD and from that point to total casing depth there was excess drag and cause for concern. The actual DL through this area from $\pm 1350\text{m}$ MD to $\pm 1620\text{m}$ MD was consistently $\pm 0.5^\circ/30\text{m}$ DL.

BHA No. 11 – 12 ¼” Rotary Wiper Trip Assembly**Depth In: 1890m MD****Depth Out: 1890m MD**

12 ¼” MT Bit, Bit Sub, 9 7/8” S. Stab, XO, 3 x 5” OD HWDP, XO, 9 7/8” S. Stab, XO, 3 x 5” OD HWDP, 12 ¼” NM S. Stab, XO, 3 x 5” OD HWDP, HE Hydraulic Jar, 3 x 5” OD HWDP, DP to surface

This Clean Out Assembly was RIH and used to clean the hole of cutting beds to run 9 5/8” casing. The operation was supervised by K&M.

On the first back-ream out of the hole while back reaming at the bottom of the curve the pumps were shut down for a connection. After the connection the hole packed off around the string when the pumps were brought up. This appears to have been an avalanching of

cuttings that had built up in the curve section. Eventually circulation was re-established and the hole was then cleaned up effectively around the curve.

BHA No. 12 - 8 1/2" Steerable Motor w/AIM-6 and Andergauge VGS Stab

Depth In: 1890m MD

Depth Out: 2290m MD

8 1/2" MT Bit, A675XP Motor W/AIM, Float Sub, Andergauge VGS Stab, ARC-6, PowerPulse, 6 3/4" NMDC, 2 Jnts HWDP, Jar, 3 Jnts HWDP, 48 Stds DP, 4 Stds 6 3/4" DC, HWDP as needed.

This steerable assembly used based on the AIM and steering ability if required. K&M torque & Drag predictions of worst case scenario showed no issues drilling or sliding in this section. The Andergauge was incorporated to allow supposed inclination control in rotary.

Upon drilling out from the shoe with the Andergauge in Full Gauge it was quickly observed by the AIM that we were dropping inclination rapidly. The Andergauge was then set to the under gauge position and maximum WOB was used to try to push the bit up to build angle. This proved unsuccessful so the toolface was lined up to High Side and sliding commenced to get back on the planned trajectory. Sliding was achieved initially with the maximum WOB which was down to block weight. We continually had to slide to hold the inclination above 89° as each time we rotated the inclination would drop at ~1°/30mt.

At 2010mt we ran out of available weight to push the drill string down the hole without rotation. At this point it was decided to shuffle the pipe to try to reduce the friction and increase available WOB. When we RIH again it was quickly noticed that this did not help and sliding was impossible. The decision was made to POOH and pick up a rotary assembly with Andergauge stabilizer.

BHA No. 13 - 8 1/2" Rotary W / Andergauge VGS Stab

Depth In: 1890m MD

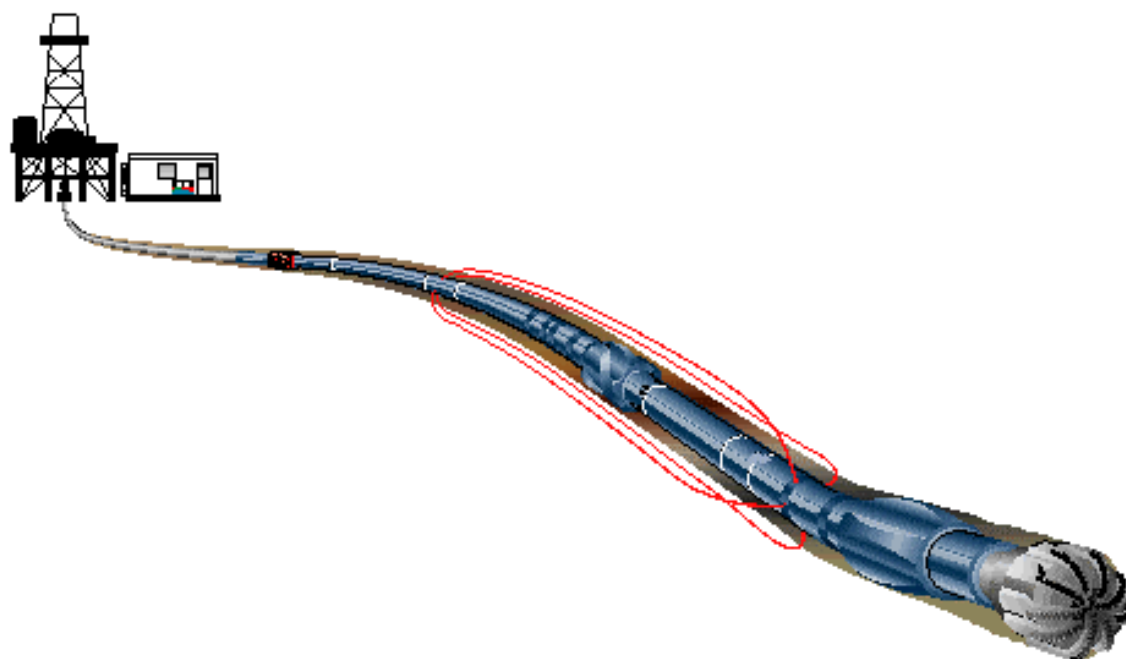
Depth Out: 2290m MD

8 1/2" MT Bit, NB Stab W/Float, PNMD, Andergauge VGS Stab, ARC-6, PowerPulse, 6 3/4" NMDC, 2 Jnts HWDP, Jar, 3 Jnts HWDP, 54 Stds DP, 3 Stds 6 3/4" DC, HWDP & DP as needed.

The assembly was RIH and the Andergauge set to under gauge. Drilling went ahead with maximum WOB. At this crucial stage of the well where we had very little tolerance and the D&I port 16.56mt behind the bit the BHA responded favorably with ~ 1°/30mt build

in the under gauge setting. The tool was utilized in full and under gauge settings enabling us to hold the trajectory very close to the plan to TD.

BHA





BOTTOM HOLE ASSEMBLY

[illegible]

In Air

Wt Below Jar	19,565	BIT			Downhole Motor		Instructions		
Wt Above Jar		BIT N°	2		Motor Run	1	SPM	Flow GPM	Gals/Stroke
TOTAL BHA Wt	19,565	Size	12 1/4"		Make	Anadrill	210	898	4.276
String Wt		Make	Smith		Size	8	Rev/Gal.	Motor RPM	Pressure @ TD
Blks(T)op Drive	150,000	Type	GFXiVCPS		Type	A800M	0.2	180	3400
Total Hk Load	169,565	IADC	1-1-7		Stages	4.0	Surface RPM	Total RPM	WOB
Date IN	9-Oct-04	S/N	MP7324		R/S Config	7:8	40	220	10-30k
Time IN	23:45	Jets	1.19		Rotor Jet	N/A			
Date OUT	11-Oct-04	Jets	3.22		S/N	1106			
Time OUT	18:45	Jets			Bent Hsg Degs	1.5°			
Total Hrs In Hole	43.00	TFA	1.391		B/Hsg STAB	12 1/8"			
On Bottom Bit Hrs.	13.10	M'tage	1,069.5		GST Deg Bend	N/A			

BHA Data Sheet

OMV Australia

BHA	#10
Field	OMV Baleen
Structure	Baleen

Date	12 Oct 04
Well	Baleen - 4
Slot	Baleen - 3

Item	Name	Vendor/ Model	Serial #	Fish. Neck OD (in)/ Length (m)	OD (in)/ ID (in)	Max OD (in)	Bottom/ Top Connection	Length (m)	Cum. Length (m)
1	12 1/4"PDC BIT (3x16 - 4x18)	SII GeoDiamond MRS 91GHPX	JT6155			12 1/4"	6 5/8 R Pin	0.28	0.28
2	Power Drive 900 Bias Unit	Anadrill	90184		9 1/4 5 1/2	11 4/7	6 5/8 R Box 6 5/8 FH Box	1.37	1.65
3	Power Drive 900 Control Unit	Anadrill	204		9 3/4	12 1/8	6 5/8 FH Pin 6 5/8 FH Box	3.09	4.74
4	Power Drive 900 Reciever	Anadrill	43084		9 3/4 3 6/16	9 3/4	6 5/8 FH Pin 6 5/8 R Box	1.89	6.63
5	ARC-8	Anadrill	8026		8 3/8 2.81	8 3/8	6 5/8 R Pin 6 5/8 R Box	5.79	12.42
6	PowerPulse	Anadrill	V622		8 1/4 2.81	8 1/4	6 5/8 R Pin 6 5/8 R Box	8.50	20.92
7	NM Drill Collar	Anadrill	X501		7 7/8 2.88	7 7/8	6 5/8 R Pin 6 5/8 R Box	9.23	30.15
8	IB String Stabilizer	Anadrill	GP5072-2		8 2 6/8	11 5/8	6 5/8 R Pin 6 5/8 R Box	1.75	31.90
9	Crossover	Ocean Bounty	144-205		8 1/4 2 3/4	8 1/4	6 5/8 R Pin 4 1/2IF Box	1.09	32.99
10	Drill Collar	Ocean Bounty	144-21		6 3/4 2 3/4	6 3/4	4 1/2IF Pin 4 1/2IF Box	9.51	42.50
11	HE Hydraulic Jar	HE	MHA00214		6 1/2 2 3/4	6 1/2	4 1/2IF Pin 4 1/2IF Box	9.86	52.36
12	Drill Collar	Ocean Bounty	144-17		6 3/4 2 5/8	6 3/4	4 1/2IF Pin 4 1/2IF Box	9.45	61.81
13	6 x 5" HWDP	Ocean Bounty	xxx		5 3	6 1/2	4 1/2IF Pin 4 1/2IF Box	56.71	118.52
14									
15									
16									
17									
18									
19									
Total Weight								Total Len.	
Below Jar									118.52

BHA Comments:	Mid-Pt. To Bit (m)
Stabilizer	
Blade Length (m)	
	Bend To Bottom Connection (m)

Sensor	
Type	Distance To Bit (m)
Resistivity	9.09
Gamma Ra	9.14
D&I	16.60
PD D&I	2.32

Bit Nozzles	
Count	Size(")
4	18.00
3	16.00
TFA (IN2)	1.58
Quality Control	
Created By:	
Checked By:	



BOTTOM HOLE ASSEMBLY

COMPANY	WELL No	BHA #	TYPE	DATE
OMV Australia	Baleen-4	11	Clean Out Assembly	15-Oct-04
Rock Bit Connections				
	4 1/2 Reg	6 5/8 Reg	7 5/8 Reg	DEPTH IN
Torque Klbs:	12K-16K	28 K-32 K	34 K-40 K	1890.0
				DEPTH OUT
				1890.0
PDC Bit Connections				
	3 1/2 Reg	4 1/2 Reg	6 5/8 Reg	7 5/8 Reg
Torque Klbs:	7K	12K-17.7K	37 K-38.5 K	48.3 K-60.9 K
Tool Jt Conn				
	3 1/2" IF	4 1/2 Reg	4 IF	4 1/2 IF
Torque Klbs:	9.9K	18K-23K	22 K-28 K	30 K-35 K
				6 5/8 Reg
				7 5/8 Reg
Stab Slve Conn	Series 62	Series 65	Series 77	Series 85
Torque Klbs:	4.5K-5.5K	3.5K-4.5K	7K-8K	9K-10K
				10K-12K
				4K
Bent Housing				
	A475	A675	A800	A962
Torque Klbs:	10 K	25 K	35 K	60 K
Motor Sleeves				
Torque Klbs:	4K	10K	37 K	

Description	O D	I D	Element Length	Total Length	Serial N°s	Fish'g Neck	Connections		REMARKS
							Down	Up	
12 1/4 " Bit	12 1/4"		0.33	0.33	MP7324			6 5/8" Reg-P	
Bit Sub	8 3/16"	2 11/16"	0.87	1.20	14314	0.87	6 5/8" Reg-B	6 5/8" Reg-P	
9 7/8" String Stabilizer	9 7/8"	2 3/4"	1.64	2.84	DOTS4089	0.71	6 5/8" Reg-B	6 5/8" Reg-B	
X/O	8 3/16"	3"	1.10	3.94	144-028	0.61	6 5/8" Reg-P	4 1/2" IF-B	
5"HWDP x 3			28.59	32.53	Bounty		4 1/2" IF-P	4 1/2" IF-B	
X/O	8 1/4"	2 15/16"	0.97	33.50	144-028	0.58	4 1/2" IF-P	6 5/8" Reg-B	
9 5/8" String Stab	9 5/8"	2 5/8"	1.74	35.24	DOTS-3324	0.72	6 5/8" Reg-P	6 5/8" Reg-B	
X/O	8 1/8"	2 7/8"	1.02	36.26	144-212	0.62	6 5/8" Reg-P	4 1/2" IF-B	
5" HWDP x 3			28.12	64.38	Bounty		4 1/2" IF-P	4 1/2" IF-B	
X/O	8"	2 7/8"	0.92	65.30	AS99	0.52	4 1/2" IF-P	6 5/8" Reg-B	
9 7/8" String Stabilizer	9 7/8"	2 3/4"	1.63	66.93	DOTS4088	0.69	4 1/2" IF-P	4 1/2" IF-B	
X/O	8 5/16"	2 13/16"	1.10	68.03	144-038	0.64	6 5/8" Reg-P	4 1/2" IF-B	
5" HWDP x 3			28.35	96.38	Bounty		4 1/2" IF-P	4 1/2" IF-B	
X/O	8"	2 7/8"	0.91	97.29	508A600	0.52	6 5/8" Reg-P	4 1/2" IF-B	
12 1/4" String Stab	12 1/4"	2 3/4"	1.86	99.15	DOTS 320	0.65	4 1/2" IF-P	4 1/2" IF-B	
X/O	8 1/4"	3"	1.04	100.19	144-209	0.54	4 1/2" IF-P	6 5/8" Reg-B	
5" HWDP x 3			27.98	128.17	Bounty		4 1/2" IF-P	4 1/2" IF-B	
6.75 JAR	6 1/2"	2 3/4"	9.86	138.03	MHA00214	0.76	4 1/2" IF-P	4 1/2" IF-B	
5" HWDP x 3			28.11	166.14	Bounty		4 1/2" IF-P	4 1/2" IF-B	

In Air

Wt Below Jar	19,565	BIT		Downhole Motor		Instructions		
Wt Above Jar		BIT N°	2(RR1)		Motor Run		SPM	Flow GPM
TOTAL BHA Wt	19,565	Size	12 1/4"		Make		950	4062
String Wt		Make	Smith		Size		Rev/Gal.	Motor RPM
Blks(T)op Drive	150,000	Type	GFXiVCPs		Type			0
Total Hk Load	169,565	IADC	1-1-7		Stages		Surface RPM	Total RPM
Date IN	15-Oct-04	S/N	MP7324		R/S Config		180	180
Time IN	0:00	Jets	1.19		Rotor Jet			
Date OUT		Jets	3.24		S/N			
Time OUT		Jets			Bent Hsg Degs			
Total Hrs In Hole		TFA	1.602		B/Hsg STAB			
On Bottom Bit Hrs.		M'tage	3,780.0		GST Deg Bend			



BOTTOM HOLE ASSEMBLY

COMPANY	WELL No	BHA #	TYPE		DATE	
OMV Australia	Baleen-4	12	8 1/2" Steerable Motor w/VGS Stab.		19-Oct-04	
<u>Rock Bit Connections</u>	4 1/2 Reg	6 5/8 Reg	7 5/8 Reg		DEPTH IN	1890
Torque Kilbs:	12K-16K	28 K-32 K	34 K-40 K		DEPTH OUT	2011
<u>PDC Bit Connections</u>	3 1/2 Reg	4 1/2 Reg	6 5/8 Reg	7 5/8 Reg		
Torque Kilbs:	7K	12K-17.7K	37 K-38.5 K	48.3 K-60.9 K		
<u>Tool Jt Conn</u>	3 1/2" IF	4 1/2 Reg	4 IF	4 1/2 IF	6 5/8 Reg	7 5/8 Reg
Torque Kilbs:	9.9K	18K-23K	22 K-28 K	30 K-35 K	47K-53K	70K
<u>Stab Slve Conn</u>	Series 62	Series 65	Series 77	Series 85	Series 96	Series 47
Torque Kilbs:	4.5K-5.5K	3.5K-4.5K	7K-8K	9K-10K	10K-12K	4K
<u>Bent Housing</u>	A475	A675	A800	A962		
Torque Kilbs:	10 K	25 K	35 K	60 K		
<u>Motor Sleeves</u>						
Torque Kilbs:	4K	10K	37 K			

[illegible]

In Air

Wt Below Jar	12,600	BIT			Downhole Motor		Instructions		
Wt Above Jar		BIT N°	4		Motor Run	2	SPM	Flow GPM	Gals/Stroke
TOTAL BHA Wt	12,600	Size	8 1/2"		Make	Anadrill	140	599	4.276
String Wt		Make	Reed Hycalog		Size	6 3/4"	Rev/Gal.	Motor RPM	Pressure @ TD
Blks(T)op Drive	150,000	Type	TC11		Type	A675XP	0.3	180	3400
Total Hk Load	162,600	IADC	1-1-7		Stages	5.0	Surface RPM	Total RPM	WOB
Date IN	19-Oct-04	S/N	B73551		R/S Config	7:8	140	320	10-30k
Time IN	18:00	Jets	3.22		Rotor Jet	N/A			
Date OUT	21-Oct-04	Jets			S/N	3592			
Time OUT	16:30	Jets			Bent Hsg Degs	0.78°			
Total Hrs In Hole	46.50	TFA	1.114		B/Hsg STAB	8 3/8"			
On Bottom Bit Hrs.	6.33	M'tage	3,901.0		GST Deg Bend	N/A			



BOTTOM HOLE ASSEMBLY

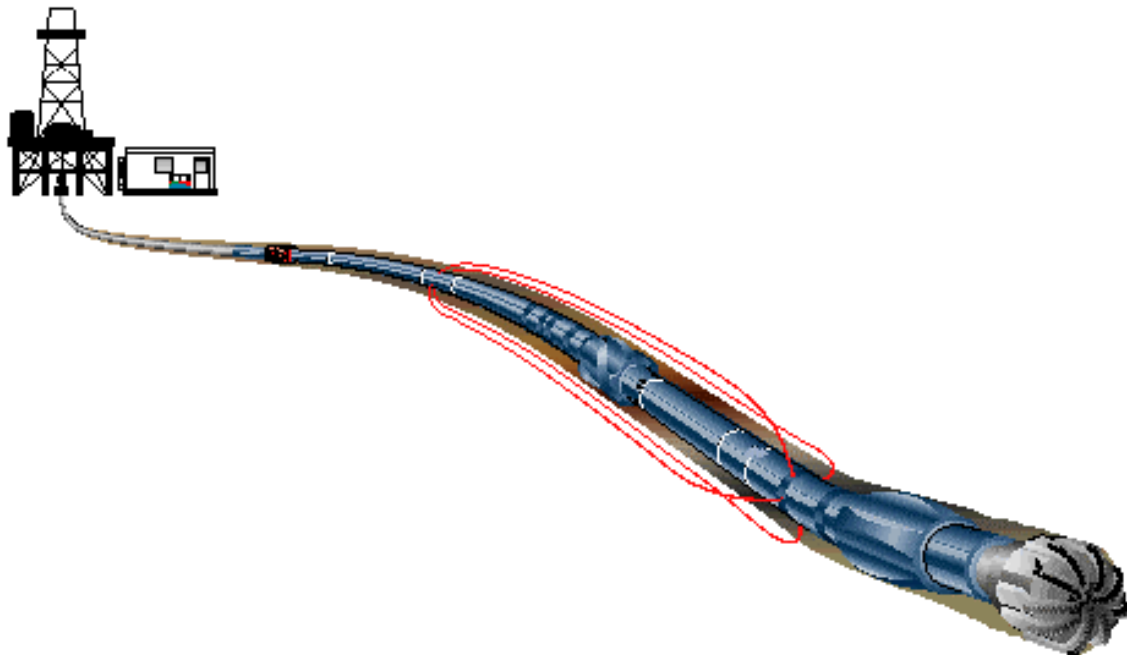
COMPANY	WELL No	BHA #	TYPE		DATE	
OMV Australia	Baleen-4	13	8 1/2" Rotary Assembly w/VGS Stab.		21-Oct-04	
<u>Rock Bit Connections</u>	4 1/2 Reg	6 5/8 Reg	7 5/8 Reg		DEPTH IN	2011
Torque Klbs:	12K-16K	28 K-32 K	34 K-40 K		DEPTH OUT	2290
<u>PDC Bit Connections</u>	3 1/2 Reg	4 1/2 Reg	6 5/8 Reg	7 5/8 Reg		
Torque Klbs:	7K	12K-17.7K	37 K-38.5 K	48.3 K-60.9 K		
<u>Tool Jt Conn</u>	3 1/2" IF	4 1/2 Reg	4 IF	4 1/2 IF	6 5/8 Reg	7 5/8 Reg
Torque Klbs:	9.9K	18K-23K	22 K-28 K	30 K-35 K	47K-53K	70K
<u>Stab Slve Conn</u>	Series 62	Series 65	Series 77	Series 85	Series 96	Series 47
Torque Klbs:	4.5K-5.5K	3.5K-4.5K	7K-8K	9K-10K	10K-12K	4K
<u>Bent Housing</u>	A475	A675	A800	A962		
Torque Klbs:	10 K	25 K	35 K	60 K		
<u>Motor Sleeves</u>						
Torque Klbs:	4K	10K		37 K		

[illegible]

In Air

Wt Below Jar	19,565	BIT			Downhole Motor		Instructions		
Wt Above Jar		BIT N°	5		Motor Run		SPM	Flow GPM	Gals/Stroke
TOTAL BHA Wt	19,565	Size	8 1/2"		Make		210	898	4.276
String Wt		Make	Hughes Christensen		Size		Rev/Gal.	Motor RPM	Pressure @ TD
Blks(T)op Drive	150,000	Type	MX-S20D		Type			0	3400
Total Hk Load	169,565	IADC	4-1-7		Stages		Surface RPM	Total RPM	WOB
Date IN	21-Oct-04	S/N	L8420DP6S		R/S Config		40	40	10-30k
Time IN	18:00	Jets	2.24		Rotor Jet				
Date OUT	23-Oct-04	Jets			S/N				
Time OUT	7:45	Jets			Bent Hsg Degs				
Total Hrs In Hole	37.75	TFA	0.884		B/Hsg STAB				
On Bottom Bit Hrs.	10.40	M'tage	4,301.0		GST Deg Bend				

Motor Run Summary



DOWN-HOLE MOTOR RUN REPORT

Motor Size : 8 1/4 Serial No : 1106 Run No : 1 BHA No: 9 Ft, Mt
Mt

Company	OMV Perth W.A. Australia	Well	Baleen-4	Slot	Baleen-3	Field	OMV Baleen
Operator	Diamond Offshore	Rig	Ocean Bounty	Engineer	Soper/ Wilson/ Hay	Date	11-Oct-04
		Location	Gippsland offshore	Country	Australia		

Bit Size	Make	Type	IADC	Jets	Jets	Jets	Jets	TFA
12 1/4"	Smith	GFXIVCPS	1-1-7	1.19	3.22	0.00	0.00	1.391

IADC CUTTING STRUCTURE

Inner Row	Outer Row	Dull Char'	Location	Brg/Seals	Gauge	Others	Reason for Trip
1	1	WT	A	EEE	I	No	BHA

Motor Made By	Size	Model / Type	Rotor/Stator	Serial No	Hsq Stab OD	° Bent Hsq	° Bent Sub	
Anadrill	8.25	A800M	7:8	1106	12 1/8"	1.5°	n/a	
Type	1 = Straight; 2 = Steerable; 3 = Double Bend		Stator Ser N°	100048525-5261	Rotor Ser N°	S-287883-2481	Drlg Cmt, Wash/Ream	6.3
2			Drlg Hrs	13.10	Circ Hrs	8.00	Total Motor Circ Hrs	27.40

Purpose of Run

Sidetrack off plug out of 13 3/8" casing and build curve 6°/30m to 82.13° on Az of 241.91° @ 684m MD

BHA 12 1/4 " Bit AIM-8 w/bit sub A800M7840XP (1.5 deg) NM Float Sub 11 5/8" String Stabilizer PowerPulse 8" NM Collar Crossover 6 1/2" Collar Hydraulic Jar 6 1/2" Collar 5" HWDP (6 joints) 5" Drill Pipe (9 joints) 5" HWDP (30 joints) 5" Drill Pipe to Surface	Surveys	MD IN	336.50	Inclin	10.18	Azim	239.05
		MD OUT	733.00	Inclin	82.65	Azim	242.17
	Flow Rate	Off Bttm PSI	On Bttm PSI	RPM	WOB		
	GPM				Klbs		
	898	3,340	3,300	40	10-30k		
	Mud Type	Petrofree	Mud Wt	9.35	Mud Grad'	0.485	Vis
PV	27	Filtrate	0.00	% Solids	6.40	Aniline Pt	n/a
YP	25	% Oil	0	% Sand	0.00	Circ Temp	70
Depth In	336.5	Depth Out	733	Inter'l Drld	396.5		
Date In	9-Oct-04	Date Out	11-Oct-04	ROP	30.27		
Time In	23:45	Time Out	18:45	Time BRT	43.00	Hrs	

FAILURE?	No	Slide Mts	343	Previous Hrs	0.00	Cumulative Hrs	27.40
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Remarks / Failure Report. 1) Motor was checked prior to RIH. 2) ABH was reset to Zero prior to being L/D. 3) Stator started chunking at EOC section Completed the run	Did Motor Stall No No Slide Rty	Bearing Play In 0.5mm Out 2.0mm Condition Chunked

Rev 3: Please do not make any changes to this form !!!

JOB NUMBER AWA-04-05	COMPANY REP. Guy Howard	DATE IN 12-Oct-04	DATE OUT 14-Oct-04	PowerDrive Run # 1	MWD Run # 2	Rig Bit Run # 10	PD Engineer KW/CS/DH
CLIENT OMV		Hole Depth - FROM 733		TO 1890	Flex/ILF SN (ft/m) -	Xtra Receiver # 43084	Control Unit # 043
RIG NAME Ocean Bounty		Inclination - FROM 82.57 deg		TO 89.30 deg	Control Collar # 0204	Ext Sub # 90063	Bias Unit # 90184
WELL NAME Baleen 4		Azimuth - FROM 242.66 deg		TO 232.60 deg	Bit Mfg Smith	Bit Type MRS 91	Bit SN JT 6155
LOCATION Gippsland Sub Basin		Hole Size 12.25 inches		Bit to D&I 17 ft	Bit to AIM -	Dull Grade - IADC Cutting Structure 1-1-WT-A-X-I-No-TD	
Map file name 204CCfrom toolb	Mag Dec / Grid Cor / Total Corr. 13.16 - .88 14.05	Connector Phase Angle 90 degrees		Downlink response ? Good	On Bottom Hours 26.60	Last Casing size/wt / depth 13 3/8" / 327m	
Bit to Bottom of BU Pad 0.40	Bit to Midpoint of Stab 5.70	Flex Lgth -	WOB MIN / MAX 5 15	Ave. RPM 160	Ave. WOB 7	Off Bottom Circulating Hours 22.40	ft / M Drilled this run 1157
PP MIN/MAX 2235 4250	Initial / Final Battery Voltage 3.78 -	RPM MIN / MAX 140 180	MWD Min/Max Flow Rating 600 1000	Below Rotary Table Hours 69.00	PD ft/M Drilled (Operating) 1157		
Pulse Width MIN/MAX 40 sec 75 sec	Pulse height th 85%	Digit Time 50 Sec	Actual Flow MIN / MAX 875 950	Pump Output / Type 4.276 Triplex	PowerDrive Operating Hours 49.00	On Btm ROP 43.5	IADC ROP
Tool Response			Stab gauge before/after run		Run Objective		
Max DLS 2.4	Max BUR 2.3	Max Turn Rt 2.29	12 1/8" 12"		Hold Tangent angle, then build and turn to Landing Point		
SOFTWARE VERSION				Reason for POOH			
TSIM AB	Comms module 3.64	Sensor module 2.31	MWD 7.0.C	IDEAL 9.1	Casing Point		

Bit Hydraulics Calculations				PowerDrive Serial No.			PUMP HOURS		Motor Run Information	
Enter data in blue areas				PART	PFI	SN	START	CUM	Motor type	Seiral number
Pump Flow	950	Bit Nozzle Size and TFA		Control Unit	CU	043	0.00	49.00	N/A	
Mud Weight	9.5	Nozzle	/ 32	Control Collar	CC	0204	0.00	49.00		Bend Angle
Bit Diameter	12.25	2	18	Ext Sub	ES	90063	0.00	49.00	-	
Bit Flow	910	3	18	Bias Unit	BU	90184	0.00	49.00		Stab Gauge
Bit Pressure Drop	289	4	18							-
Hydraulic HP	154	5	16						Off Bottom pressure	On Bottom pressure
HSI	1.3	6	16	Upper Torquer		-	0.00			
Impact Press.	523	7	16	Lower Torquer		-	0.00		Backreaming Hours	Total Reaming Hours
Note: Rock compressive strength should be greater than the Impact Pressure.		8		Comms Module		-	0.00			
		9		Sensor Module		-	0.00		Bearing Play after run (mm)	
		10								
		Bit TFA =	1.583	Downward Telemetry Calculations						
Flow Restrictor Pressure Drop				Enter data in the blue areas						
Nozzle size (32nd)	40	TFA	1.23	Press. Drop	481 psi	Digit Time	50	secs	Mud Company	Baroid
						Falling Time Constant (FTC)	30	secs	Mud Type	PetroFree OBM
						Rising Time Constant (RTC)	30	secs	MW at start of run	9.3 ppg
						Driller's Pulse - High / Low	900	670	MW at end of run	12.4 ppg
						Driller's Pulse Height	26	%	Funnel Viscosity	
						Pulse Amplitude	21	%	Plastic Viscosity	
						Minimum Recoverable Pulse	17	%	Yield Point	
						Minimum Threshold	85	%	Maximum DH Temp. deg C	
									Sand %	
									Solid %	

Run Summary

DOWN-HOLE MOTOR RUN REPORT

Motor Size : 6 3/4" Serial No : 3592 Run No : 2 BHA No: 12 Ft, Mt
Mt

Company	OMV Perth W.A. Australia	Well	Baleen-4	Slot	Baleen-3	Field	OMV Baleen
Operator	Diamond Offshore	Rig	Ocean Bounty	Engineer	Soper/Hay	Date	21-Oct-04
		Location	Gippsland offshore	Country	Australia		

Bit Size	Make	Type	IADC	Jets	Jets	Jets	Jets	TFA
8 1/2"	Reed Hycalog	TC11	1-1-7	3.22	0.00	0.00	0.00	1.114

IADC CUTTING STRUCTURE

Inner Row	Outer Row	Dull Char'	Location	Brg/Seals	Gauge	Others	Reason for Trip
6	2	CT	G	EEE	1	BT	BHA

Motor Made By	Size	Model / Type	Rotor/Stator	Serial No	Hsq Stab OD	° Bent Hsq	° Bent Sub	
Anadrill	6 3/4"	A675XP	7:8	3592	8 3/8"	0.78°	n/a	
Type	1 = Straight; 2 = Steerable; 3 = Double Bend		Stator Ser N°	100048525-5261	Rotor Ser N°	S-287883-2481	Drig Cmt, Wash/Ream	5.0
2			Drig Hrs	6.33	Circ Hrs	15.17	Total Motor Circ Hrs	26.50

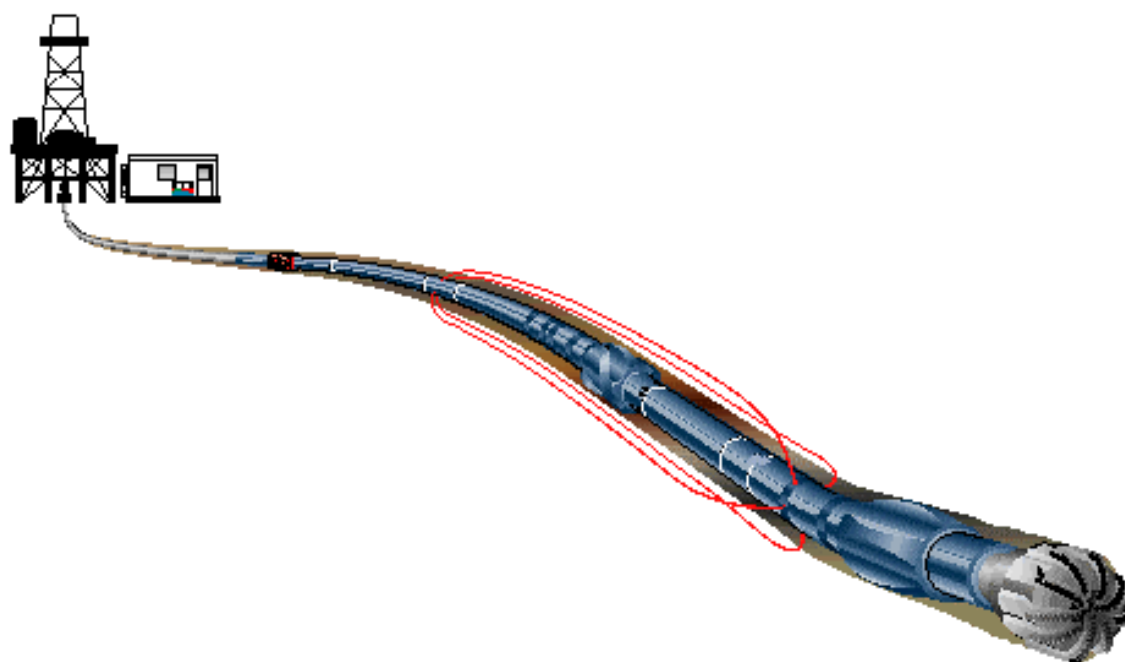
Purpose of Run
Drill Horizontal section to TD & hold inclination between 89 & 89.5 Deg.

BHA 8 1/2 " Milled Tooth Bit A675XP W / Aim 6 Float Sub Anderguage Stab ARC-6 6 3/4" NM Collar 5" HWDP x 2 Jnts Hydraulic Jar 5" HWDP x 1 Std 5" Drill Pipe x 48 Stds 6 3/4" DC x 4 Stds 5" HWDP x 10 Stds	Surveys	MD IN	1890.00	Inclin	89.38	Azim	232.65	
		MD OUT	2011.00	Inclin	89.05	Azim	233.43	
	Flow Rate	Off Bttm PSI	On Bttm PSI	RPM	WOB			
	GPM				Klbs			
	599	2,350	2,450	140	10-30k			
	Mud Type	Baradril-N	Mud Wt	9.40	Mud Grad'	0.488	Vis	59
	PV	49	Filtrate	4.20	% Solids	3.10	Aniline Pt	n/a
	YP	26	% Oil	0	% Sand	0.10	Circ Temp	60
	Depth In	1890	Depth Out	2011	Inter'l Drld	121		
	Date In	19-Oct-04	Date Out	21-Oct-04	ROP	19.12		
	Time In	18:00	Time Out	16:30	Time BRT	46.50 Hrs		

FAILURE?	No	Slide Mts	28	Previous Hrs	0.00	Cumulative Hrs	26.50
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Remarks / Failure Report. 1) Motor was checked prior to RIH. 2) ABH was reset to Zero prior to being L/D.	Did Motor Stall No No Slide Rty	Bearing Play In 0mm Out 2mm Condition Good

Bit Grading Chart



ROCK BIT GRADING CHART

BIT RUN DATA

Bit Size:	12 1/4"
Manufacturer:	Smith
Bit Type:	GFXVCPS
Serial Number:	1-1-7
New Bit:	Yes
IADC Code:	GFXVCPS
Number of Nozzles:	3
Size of Nozzles:	22/32
T.F.A. (sq ins):	1.4
W.O.B. :	45K
Depth Out:	733
Depth In:	336.5
Meters Drilled:	396.5
Rotating Hours:	2.91
Sliding Hours:	11.20
Metres Rotary:	54
Metres Slide:	343.00
Total Hours:	14.11
Average R.O.P:	28.10
Circulation Rate (GPM):	900
R.P.M. at Bit:	220
Motor Used:	Yes
Motor Size:	8 1/4
Good for Rerun:	Yes

WELL DATA

Date:	10/11/2004
Drilling Supervisor:	C.Roots / H.Heinzle
Platform:	Marlin
Well Number:	Baleen-4
Rig Contractor:	Diamond Offshore
Average Hole Angle:	#REF!
Date in:	9-Oct-04
Date Out:	11-Oct-04

MUD AND LITHOLOGY DATA

Majority Formation:	Limestone
Other Formation:	Calcarenite
% Formation:	
Mud Type:	PetroFree
Mud Weight:	9.35
PV:	29
YP:	32
% Solids:	0.07
Alkalinity Pom:	0.4

COMMENTS: Bit is good for rerun or wiper trip.

IADC ROCK BIT GRADING

(A)	(A)	(B)	(C)	(D1)	(D2)	(D3)	(E)	(B)	(F)
1	1	WT	A	E	E	E	IN	No	BHA

GRADING CHART AS PER IADC NOMENCLATURE

CUTTING STRUCTURE				Cone 1	Cone 2	Cone 3		REMARKS	
INNER ROWS	OUTER ROWS	DULL CHAR.	LOCATION	BEARING / SEALS	BEARING / SEALS	BEARING / SEALS	GAUGE	OTHER CHAR.	REASON PULLED
(A)	(A)	(B)	(C)	(D)	(D)	(D)	(E)	(B)	(F)

(A)	0	No Wear
	8	No Cutting structure

(B)	BC *	Broken Cone
	BF	Bond Failure
	BT	Broken Teeth/Cutters
	BU	Balled Up
	CC *	Cracked Cone
	CD *	Cone Dragged
	CI	Cone Interference
	CR	Cored
	CT	Chipped Cutters
	ER	Erosion
	FC	Flat Crested Wear
	HC	Heat Checking
	JD	Junk Damage
	LC *	Lost Cone
	LN	Lost Nozzle
	LT	Lost Teeth / Cutters
	OC	Off-Center Wear
	PB	Pinched Bit
	PN	Plugged Nozzle / Flow Passage
	RG	Rounded Gauge
	RO	Ring Out
	SD	Shirrtail Damage
	SS	Self-Sharpening Wear
	TR	Tracking
	WO	Washed Out Bit
	WT	Worn Teeth / Cutters
	NO	No Dull Characteristics

(C)	N - Nose Row
	M - Middle Row
	G - Gauge Row
	A - All Rows
CONE #	
	1
	2
	3

(D)	NON - SEALED BEARINGS
A linear scale estimating bearing life used.	
0 - No life used,	
8 - All life used, no bearing life remaining.	
SEALED BEARINGS	
E - Effective bearings	
F - Failed Bearings	

(E)	In - In gauge, 1 - 1/16", 2 - 2/16", 3 - 3/16" UG etc
-----	---

(F)	BHA	Change BHA
	CM	Condition mud
	CP	Core Point
	DMF	Downhole Motor Fail
	DP	Drill Plug
	DSF	Drill String Failure
	DST	Drill Stem Test
	DTF	Downhole Tool Fail
	FM	Formation Change
	HP	Hole Problems/ LIH
	HR	Hours on Bit
	LIH	Lost in Hole
	LOG	Run Logs
	PP	Pump Pressure
	PR	Penetration Rate
	PR	Penetration Rate
	RIG	Rig Repair
	TC	Casing Depth
	TD	Total Depth
	TQ	Torque
	TW	Twist-Off
	WC	Weather Conditions
	WO	Washout/Drill String

* Show cone number or numbers under location (C) .

PDC GRADING CHART

BIT RUN DATA

Bit Size:	12 1/4"
Manufacturer:	SII GeoDiamond
Bit Type:	MRS 91GHPX
Serial Number:	JT6155
New Bit:	Yes
IADC Code:	5-3-7
Number of Nozzles:	4 3
Size of Nozzles:	18 16
T.F.A. (sq ins):	1.583
W.O.B. :	12-May
Depth Out:	1890
Depth In:	733
Meters Drilled:	1157
Rotating Hours:	43.50
Sliding Hours:	0.00
Metres Rotary:	164
Metres Slide:	0
Total Hours:	43.50
Average R.O.P:	26.60
Circulation Rate (GPM):	600
R.P.M. at Bit:	160
Bit K revs:	0
Motor Used:	No
Motor Size:	N/A
Good for Rerun:	Yes

WELL DATA

Date:	14-Oct-2004
Drilling Supervisor:	G.Howard / H.Heinzel
Rig Name:	Ocean Bounty
Well Number:	HLA -A-1A
Rig Contractor:	Diamond
Average Hole Angle:	82.08°
Date in:	12-Oct-2004
Date Out:	14-Oct-2004

MUD AND LITHOLOGY DATA

Majority Formation:	Limestone
Other Formation:	Claystone
% Formation:	70%
Mud Type:	PETROFREE
Mud Weight:	9.45
PV:	86
YP:	39
% Solids:	8.50
Alkalinity Pom:	0.4

COMMENTS: Bit is good for rerun.

PDC GRADING (THIS BIT RUN)

(A)	(A)	(B)	(C)	(D)	(E)	(B)	(F)
1	1	WT	A	X	I	NO	TD

PDC GRADING CHART AS PER IADC NOMENCLATURE

CUTTING STRUCTURE				B	G	REMARKS	
INNER ROWS	OUTER ROWS	DULL CHAR.	LOC ATION.	BRING SEALS	GAUGE 1/16"	OTHER CHAR.	REASON PULLED
(A)	(A)	(B)	(C)	(D)	(E)	(B)	(F)

(A)	0	No Wear
	8	No Cutting structure

(D)	X	Fixed Cutter Bits
-----	---	-------------------

(E)	1	In Gauge
	1/16	1/16" Undergauge
	2/16	1/8" Undergauge etc.

(B)	BT	Broken Cutters
	BU	Balled Up
	CR	Cored
	CT	Chipped Cutters
	ER	Erosion
	HC	Heat Checking
	JD	Junk Damage
	LN	Lost Nozzle
	LT	Lost Cutters
	OC	Off-Center Wear
	PN	Plugged Nozzle/
		Waterway Passage
	RG	Rounded Gauge
	RO	Ring Out
	WO	Washed Out - Bit
	WT	Worn Cutters
	NO	Bit is Green
	IM	Impact
	DEL	Delamination
	SPL	Spalling
	BF	Bond Failure

(F)	BHA	Change BHA
	DMF	Downhole Motor Fail
	DSF	Drill String Fail
	DST	Drill Stem Test
	DTF	Downhole Tool Fail
	LOG	Run Logs
	RIG	Rig Repair
	CM	Condition mud
	CP	Core Point
	DP	Drill Plug
	FM	Formation Change
	HP	Hole Problems
	HR	Hours
	PP	Pump Pressure
	PR	Penetration Rate
	TD	Total Depth
	TC	Casing Depth
	TQ	Torque
	TW	Twist-Off
	WC	Weather Conditions
	WO	Washout/Drill String
	ROP	Rate of Penetration

(C)	C	Cone
	N	Nose
	T	Taper
	S	Shoulder
	G	Gauge
	A	All Angles

ROCK BIT GRADING CHART

BIT RUN DATA

Bit Size:	12 1/4"
Manufacturer:	Smith
Bit Type:	GFXiVCPS
Serial Number:	MP7324
New Bit:	Yes
IADC Code:	1-1-7
Number of Nozzles:	3 1
Size of Nozzles:	24/32 19/32
T.F.A. (sq ins):	1.6
W.O.B. :	45K
Depth Out:	1890
Depth In:	1890
Meters Drilled:	0
Rotating Hours:	2.91
Sliding Hours:	11.20
Metres Rotary:	54
Metres Slide:	343.00
Total Hours:	14.11
Average R.O.P:	0.00
Circulation Rate (GPM):	900
R.P.M. at Bit:	180
Motor Used:	No
Motor Size:	0
Good for Rerun:	Yes

WELL DATA

Date:	17-Oct-2004
Drilling Supervisor:	C.Roots / H.Heinzle
Rig Name:	Ocean Bounty
Well Number:	Baleen-4
Rig Contractor:	Diamond
Average Hole Angle:	82.08°
Date in:	15-Oct-04
Date Out:	17-Oct-04

MUD AND LITHOLOGY DATA

Majority Formation:	Limestone
Other Formation:	Calcarenite
% Formation:	
Mud Type:	PetroFree
Mud Weight:	9.35
PV:	29
YP:	32
% Solids:	0.07
Alkalinity Pom:	0.4

COMMENTS: Bit is good for rerun or wiper trip.

IADC ROCK BIT GRADING

(A)	(A)	(B)	(C)	(D1)	(D2)	(D3)	(E)	(B)	(F)
1	1	WT	A	E	E	E	IN	No	BHA

GRADING CHART AS PER IADC NOMENCLATURE

CUTTING STRUCTURE				Cone 1	Cone 2	Cone 3	REMARKS		
INNER ROWS	OUTER ROWS	DULL CHAR.	LOCATION	BEARING / SEALS	BEARING / SEALS	BEARING / SEALS	GAUGE	OTHER CHAR.	REASON PULLED
(A)	(A)	(B)	(C)	(D)	(D)	(D)	(E)	(B)	(F)

(A)	0	No Wear
	8	No Cutting structure

(B)	BC *	Broken Cone
	BF	Bond Failure
	BT	Broken Teeth/Cutters
	BU	Balled Up
	CC *	Cracked Cone
	CD *	Cone Dragged
	CI	Cone Interference
	CR	Cored
	CT	Chipped Cutters
	ER	Erosion
	FC	Flat Crested Wear
	HC	Heat Checking
	JD	Junk Damage
	LC *	Lost Cone
	LN	Lost Nozzle
	LT	Lost Teeth / Cutters
	OC	Off-Center Wear
	PB	Pinched Bit
	PN	Plugged Nozzle / Flow Passage
	RG	Rounded Gauge
	RO	Ring Out
	SD	Shirrtail Damage
	SS	Self-Sharpening Wear
	TR	Tracking
	WO	Washed Out Bit
	WT	Worn Teeth / Cutters
	NO	No Dull Characteristics

(C)	N - Nose Row
	M - Middle Row
	G - Gauge Row
	A - All Rows
CONE #	1
	2
	3

(D)	NON - SEALED BEARINGS
	A linear scale estimating bearing life used.
	0 - No life used,
	8 - All life used, no bearing life remaining.
SEALED BEARINGS	
E - Effective bearings	
F - Failed Bearings	

(E)	In - In gauge, 1 - 1/16", 2 - 2/16", 3 - 3/16" UG etc
-----	---

(F)	BHA	Change BHA
	CM	Condition mud
	CP	Core Point
	DMF	Downhole Motor Fail
	DP	Drill Plug
	DSF	Drill String Failure
	DST	Drill Stem Test
	DTF	Downhole Tool Fail
	FM	Formation Change
	HP	Hole Problems/ LIH
	HR	Hours on Bit
	LIH	Lost in Hole
	LOG	Run Logs
	PP	Pump Pressure
	PR	Penetration Rate
	PR	Penetration Rate
	RIG	Rig Repair
	TC	Casing Depth
	TD	Total Depth
	TQ	Torque
	TW	Twist-Off
	WC	Weather Conditions
	WO	Washout/Drill String

* Show cone number or numbers under location (C) .

ROCK BIT GRADING CHART

BIT RUN DATA

Bit Size:	8 1/2"
Manufacturer:	Reed Hycalog
Bit Type:	TC11
Serial Number:	B73551
New Bit:	Yes
IADC Code:	1-1-7
Number of Nozzles:	3
Size of Nozzles:	22
T.F.A. (sq ins):	1.1
W.O.B. :	15-30
Depth Out:	2011
Depth In:	1890
Meters Drilled:	121
Rotating Hours:	3.95
Sliding Hours:	2.38
Metres Rotary:	94
Metres Slide:	28.00
Total Hours:	6.33
Average R.O.P:	19.12
Circulation Rate (GPM):	600
R.P.M. at Bit:	260
Motor Used:	Yes
Motor Size:	6 3/4"
Good for Rerun:	Yes

WELL DATA

Date:	10/21/2004
Drilling Supervisor:	G.Howard / H.Heinzle
Platform:	Ocean Bounty
Well Number:	Baleen-4
Rig Contractor:	Diamond Offshore
Average Hole Angle:	89 deg
Date in:	19-Oct-04
Date Out:	21-Oct-04

MUD AND LITHOLOGY DATA

Majority Formation:	Limestone
Other Formation:	Calcarenite
% Formation:	
Mud Type:	Baradriil-N
Mud Weight:	9.30
PV:	49
YP:	26
% Solids:	3.10
PH (meter):	9

COMMENTS: Bit is good for wiper trip only

IADC ROCK BIT GRADING

(A)	(A)	(B)	(C)	(D1)	(D2)	(D3)	(E)	(B)	(F)
6	2	CT	G	E	E	E	1	BT	BHA

GRADING CHART AS PER IADC NOMENCLATURE

CUTTING STRUCTURE				Cone 1	Cone 2	Cone 3		REMARKS	
INNER ROWS	OUTER ROWS	DULL CHAR.	LOCATION	BEARING / SEALS	BEARING / SEALS	BEARING / SEALS	GAUGE	OTHER CHAR.	REASON PULLED
(A)	(A)	(B)	(C)	(D)	(D)	(D)	(E)	(B)	(F)

(A)	0	No Wear
	8	No Cutting structure

(B)	BC *	Broken Cone
	BF	Bond Failure
	BT	Broken Teeth/Cutters
	BU	Balled Up
	CC *	Cracked Cone
	CD *	Cone Dragged
	CI	Cone Interference
	CR	Cored
	CT	Chipped Cutters
	ER	Erosion
	FC	Flat Crested Wear
	HC	Heat Checking
	JD	Junk Damage
	LC *	Lost Cone
	LN	Lost Nozzle
	LT	Lost Teeth / Cutters
	OC	Off-Center Wear
	PB	Pinched Bit
	PN	Plugged Nozzle / Flow Passage
	RG	Rounded Gauge
	RO	Ring Out
	SD	Shirrtail Damage
	SS	Self-Sharpening Wear
	TR	Tracking
	WO	Washed Out Bit
	WT	Worn Teeth / Cutters
	NO	No Dull Characteristics

(C)	N - Nose Row
	M - Middle Row
	G - Gauge Row
	A - All Rows
CONE #	1
	2
	3

(D)	NON - SEALED BEARINGS
	A linear scale estimating bearing life used.
	0 - No life used,
	8 - All life used, no bearing life remaining.
	SEALED BEARINGS
	E - Effective bearings
	F - Failed Bearings

(E)	In - In gauge, 1 - 1/16", 2 - 2/16", 3 - 3/16" UG etc
-----	---

(F)	BHA	Change BHA
	CM	Condition mud
	CP	Core Point
	DMF	Downhole Motor Fail
	DP	Drill Plug
	DSF	Drill String Failure
	DST	Drill Stem Test
	DTF	Downhole Tool Fail
	FM	Formation Change
	HP	Hole Problems/ LIH
	HR	Hours on Bit
	LIH	Lost in Hole
	LOG	Run Logs
	PP	Pump Pressure
	PR	Penetration Rate
	PR	Penetration Rate
	RIG	Rig Repair
	TC	Casing Depth
	TD	Total Depth
	TQ	Torque
	TW	Twist-Off
	WC	Weather Conditions
	WO	Washout/Drill String

* Show cone number or numbers under location (C) .

ROCK BIT GRADING CHART

BIT RUN DATA

Bit Size:	8 1/2"
Manufacturer:	Hughes Christensen
Bit Type:	MX-S20D
Serial Number:	L8420DP6S
New Bit:	Yes
IADC Code:	4-1-7
Number of Nozzles:	2 1
Size of Nozzles:	24/32 blank
T.F.A. (sq ins):	0.9
W.O.B. :	45K
Depth Out:	2290
Depth In:	2011
Meters Drilled:	279
Rotating Hours:	10.16
Sliding Hours:	
Metres Rotary:	279
Metres Slide:	
Total Hours:	10.16
Average R.O.P:	27.46
Circulation Rate (GPM):	700
R.P.M. at Bit:	90
Motor Used:	No
Motor Size:	0
Good for Rerun:	Yes

WELL DATA

Date:	10/23/2004
Drilling Supervisor:	C.Roots / H.Heinzle
Platform:	Bounty
Well Number:	Baleen-4
Rig Contractor:	Diamond Offshore
Average Hole Angle:	89.5°
Date in:	21-Oct-04
Date Out:	23-Oct-04

MUD AND LITHOLOGY DATA

Majority Formation:	Limestone
Other Formation:	Calcarenite
% Formation:	
Mud Type:	Baradril-N
Mud Weight:	9.30
PV:	49
YP:	26
% Solids:	3.10
Alkalinity Pom:	9

COMMENTS: Bit is good for wiper trip.

IADC ROCK BIT GRADING

(A)	(A)	(B)	(C)	(D1)	(D2)	(D3)	(E)	(B)	(F)
3	4	WT	A	E	E	E	IN	ER	TD

GRADING CHART AS PER IADC NOMENCLATURE

CUTTING STRUCTURE				Cone 1	Cone 2	Cone 3		REMARKS	
INNER ROWS	OUTER ROWS	DULL CHAR.	LOCATION	BEARING / SEALS	BEARING / SEALS	BEARING / SEALS	GAUGE	OTHER CHAR.	REASON PULLED
(A)	(A)	(B)	(C)	(D)	(D)	(D)	(E)	(B)	(F)

(A)	0	No Wear
	8	No Cutting structure

(B)	BC *	Broken Cone
	BF	Bond Failure
	BT	Broken Teeth/Cutters
	BU	Balled Up
	CC *	Cracked Cone
	CD *	Cone Dragged
	CI	Cone Interference
	CR	Cored
	CT	Chipped Cutters
	ER	Erosion
	FC	Flat Crested Wear
	HC	Heat Checking
	JD	Junk Damage
	LC *	Lost Cone
	LN	Lost Nozzle
	LT	Lost Teeth / Cutters
	OC	Off-Center Wear
	PB	Pinched Bit
	PN	Plugged Nozzle / Flow Passage
	RG	Rounded Gauge
	RO	Ring Out
	SD	Shirrtail Damage
	SS	Self-Sharpening Wear
	TR	Tracking
	WO	Washed Out Bit
	WT	Worn Teeth / Cutters
	NO	No Dull Characteristics

(C)	N - Nose Row
	M - Middle Row
	G - Gauge Row
	A - All Rows
CONE #	1
	2
	3

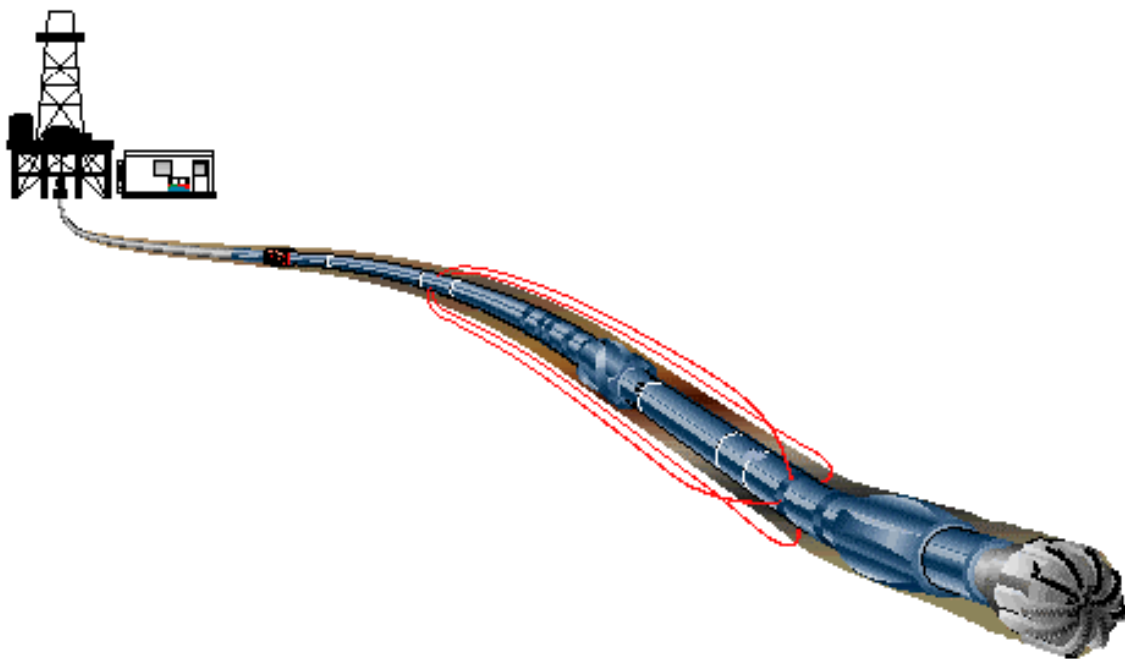
(D)	NON - SEALED BEARINGS
	A linear scale estimating bearing life used.
	0 - No life used,
	8 - All life used, no bearing life remaining.
	SEALED BEARINGS
	E - Effective bearings
	F - Failed Bearings

(E)	In - In gauge, 1 - 1/16", 2 - 2/16", 3 - 3/16" UG etc
-----	---

(F)	BHA	Change BHA
	CM	Condition mud
	CP	Core Point
	DMF	Downhole Motor Fail
	DP	Drill Plug
	DSF	Drill String Failure
	DST	Drill Stem Test
	DTF	Downhole Tool Fail
	FM	Formation Change
	HP	Hole Problems/ LIH
	HR	Hours on Bit
	LIH	Lost in Hole
	LOG	Run Logs
	PP	Pump Pressure
	PR	Penetration Rate
	PR	Penetration Rate
	RIG	Rig Repair
	TC	Casing Depth
	TD	Total Depth
	TQ	Torque
	TW	Twist-Off
	WC	Weather Conditions
	WO	Washout/Drill String

* Show cone number or numbers under location (C) .

Slide Sheet



WELL#	Baleen-4		DATE:	9-Oct-04		Depth In :		336m	MD	Pump Output		4.276		Gal / stk		Planned Angle : 82.13°				Page # 1 of 2	
BHA #	9		BIT#	2		BHA :		M/Tooth Bit, Aim-8, A800XP, Float Sub, 11 5/8" S. Stab, Arc-8, PowerPulse MWD, 8" NMDC, X/O, 6 1/2" DC, Jar, 6 1/2" DC, 6 x 5" HWDP, 9 x Prem DPS, 30 x 5" HWDP													
SURVEY SPACING = 22.92m																					
GAMMA SPACING = 22.27m																					
RESISTIVITY = 15.41m																					
	DRILLING TIME			Motor Work Sheet					AVG	SURVEY			STK /	FLOW			TORQ	PRESSURE		REMARKS	
R / S	START	STOP	SUM	FROM	TO	Slide Time	Meters Rotated	Meters Slide	TF	DEPTH	INCL	AZM	MIN	RATE	RPM	WOB	kft-lbs	On Bottom	Off Bottom		
S	4:35	5:10	0:35	336	340	0:35		4	20R	329.76	10.35	237.92	128	547	-	10-15	-	1,170	1,150	8m/hr in Cement. Off bttm Tq 2k.	
S	5:10	5:25	0:15	340	347	0:15		7	20R				128	547	-	10-15	-	1,270	1,250	200k Dn Wt. 40-50m/hr	
S	5:38	5:55	0:17	347	361	0:17		14	20R	357.76	15.17	249.56	128	547	-	10-12	-	1,230	1,200		
S	6:57	7:20	0:23	361	376	0:23		15	10R				128	547	-	12-15	-	1,340	1,250	50-80m/hr	
S	7:37	7:51	0:14	376	390	0:14		14	HS	386.26	21.43	245.63	128	547	-	12-16	-	1,350	1,250	60-90m/hr gyro. POOH to Shoe / FIT	
S	9:42	10:56	1:14	390	404	1:14		14	15L				128	547	-	13-16	-	1,320	1,250		
S	11:11	11:25	0:14	404	417	0:14		13	10L	406.19	25.58	244.12	128	547	-	13-14	-	1,400	1,290	Gyro.	
S	12:05	12:15	0:10	417	425	0:10		8	HS				128	547	-	15-20	-	1,420	1,300	Lost RCT	
S	12:18	12:25	0:07	425	432	0:07		7	HS	432.23	31.38	242.62	128	547	-	15-20	-	1,630	1,520	pu 210k so 210k sw 210k	
S	13:08	13:18	0:10	432	448	0:10		16	10L				128	547	-	15-20	-	1,700	1,550	Gyro.	
S	14:17	14:33	0:16	448	460	0:16		12	HS				140	599	-	20-22	-	1,700	1,500		
S	14:53	15:05	0:12	460	470	0:12		10	10L	461.83	38.04	238.87	164	701	-	20-22	-	2,125	2,000		
S	15:05	15:22	0:17	470	487	0:17		17	10L				175	748	-	20-22	-	2,330	2,200	pu 220k so 218k sw 220k	
S	15:47	16:27	0:40	487	516	0:40		29	HS	490.25	44.49	238.93	210	898	-	20-22	-	3,160	3,000	RCT Crash	
S	16:48	17:20	0:32	516	545	0:32		29	HS	520.29	50.80	239.46	210	898	-	20-22	-	3,160	3,000		
S	18:20	19:10	0:50	545	574	0:50		29	HS	548.58	56.68	239.76	210	898	-	20-22	-	3,200	3,050	Loosing mud over the shakers	
S	19:36	20:15	0:39	574	591	0:39		17	20R	577.33	62.81	240.41	210	898	-	30-35	-	3,220	3,125		
R	20:34	21:15	0:41	591	603		12		-	602.84	65.88	241.40	210	898	-	30-35	-	3,200	3,100	SCR's	
S	21:15	23:00	1:45	603	632	1:45		29	10R				210	898	-	30-40	-	3,230	3,125	Hard Stringers	
S	23:25	0:40	1:15	632	657	1:15		25	HS	634.34	72.36	241.78	210	898	-	35-40	-	3,250	3,100	pu 220k so 212k sw 210k	
R	0:40	0:46	0:06	657	660		3		-				210	898	40	12-15	3-5	3,200	3,190	215 up,205 dn,210 sw tq4	
S	1:27	1:36	0:09	660	662	0:09		2	HS				210	898	-	25-30	-	3,300	3,200		
R	1:36	1:44	0:08	662	667		5		-	663.31	77.52	242.51	210	898	40	12-15	3-5	3,250	3,200		
S	2:05	2:33	0:28	667	686	0:28		19	HS				210	898	-	20-28	-	3,310	3,200	Press In 100psi at 684m 3350off bttm	
R	2:33	2:43	0:10	686	688		2						210	898	40	15	3-5	3,320	3,300	215up, 205dn, 210rt	
R	3:17	3:30	0:13	688	693		5			692.13	81.44	242.86	210	898	40-50	15-20	5	3,400	3,200	Press Inc	
S	3:30	4:00	0:30	693	706	0:30		13	10L				210	898	-	25-35	-	3,370	3,300		
R	4:00	4:14	0:14	706	717		11						210	898	50	20-25	5-7	3,340	3,300	210up, 200dn, 210rot, off bttm tq 3	
TIME BREAKDOWN:																					
Rotated Time : 1:32 Hrs/Mins Meters Rotated: 38.0																					
Slide Time : 11:12 Hrs/Mins Meters Slid: 343.0																					
Total Time : 12:44 Hrs/ Mins Meters Drilled : 381.0																					

[illegible]

WELL# : <u>Baleen - 4</u>			FIELD : <u>OMV Baleen</u>			Pump Output 4.28 gal/stk			Planned Angle : 82.13°			PAGE # 1				
BHA # <u>10</u>			BIT# <u>3</u>			Planned Direction : 241.91°										
SURVEY SPACING =			16.6 m													
DRILLING TIME			ROTARY STEERING SETTING					SURVEY			FLOW gpm	RPM	WOB k-lb	TORQ kft-lbs	Pressure Psi	REMARKS
START	STOP	SUM	FROM	TO	Drilled	TF	%	DEPTH	INCL	AZM						
7:35	8:20	0:45	733	752	19	0	0	731.61	82.57	242.66	900	140	10	7	2,235	PU 195k, 180 DN, 190 ROT
8:35	9:15	0:40	752	780	28	180	20	760.44	83.41	243.48	900	140	10-16	7	2240	
9:38	10:10	0:32	780	808	28	180	20	789.80	83.92	243.72	900	140	10-16	5-7	2280	
10:35	11:20	0:45	808	838	30	202	40	819.61	84.33	243.67	900	140	8-12	5-7	2300	PU 195, 180 DN, 190 ROT
11:28	12:28	1:00	838	867	29	196	100	848.28	84.04	242.61	900	140	5-10	5-8	2350	
13:05	13:20	0:15	867	880	13	202	40	878.56	83.78	242.74	900	140	5-10	5-8	2350	
13:20	13:48	0:28	880	897	17	199	80	906.63	82.77	242.44	900	140-150	10-12	5-8	2350	
14:12	14:44	0:32	897	926	29	199	80				900	140	10-15	7	2,450	
14:54	15:24	0:30	926	955	29	225	40	935.67	82.34	241.95	900	140	5-12	4-7	2,475	
15:24	16:15	0:51	955	970	15	225	40	964.49	82.74	241.30	900	160	8-12	5-8	2,500	PU 198, 180 DN, 190 ROT
16:15	16:36	0:21	970	984	14	180	60				900	160	5-10	5-6	2,400	
17:00	17:47	0:47	984	1013	29	180	80	993.19	82.08	241.48	900	160	5-10	5-6	2,450	
18:05	19:00	0:55	1013	1041	28	180	80	1022.00	80.63	241.42	900	140	5-10	5-6	2,550	
19:18	19:57	0:39	1041	1070	29	180	60	1050.01	79.81	241.45	900	140	5-10	5-6	2,500	
20:15	20:42	0:27	1070	1095	25	0	0	1079.00	79.87	241.49	900	160	5-10	5-6	2,500	
20:42	20:47	0:05	1095	1098	3	180	40				900	160	5-10	5-6	2,630	PU 202, 180 DN, 192 ROT
21:02	21:35	0:33	1098	1127	29	180	40	1108.15	80.17	241.77	900	160	5-10	5-6	2,650	
21:50	22:33	0:43	1127	1156	29	180	40	1136.63	79.87	241.60	950	160	8-12	5-7	2,950	Increase pumps to 950 gpm
22:53	23:12	0:19	1156	1173	17	180	40	1164.16	79.81	241.74	950	150	8-12	5-8	3,000	
23:12	23:27	0:15	1173	1185	12	180	20				950	150	8-12	5-8	3,000	
23:50	0:00	0:10	1185	1197	12	180	20	1193.46	80.42	241.80	950	150	8-12	5-8	3,000	
0:00	0:29	0:29	1197	1213	16	180	20				950	150	8-12	5-8	3,000	PU 210k SO 180k SW 195k
0:45	1:30	0:45	1213	1245	32	270	60	1221.16	81.00	241.65	950	160	5-12	5-8	3,050	
1:45	2:12	0:27	1245	1270	25	270	60	1247.70	82.16	240.03	950	160	5-12	5-8	3,100	
2:47	3:15	0:28	1270	1298	28	251	100	1281.50	83.04	237.45	950	160	5-12	5-8	3,200	Circulate for hole cleaning
4:30	5:15	0:45	1298	1329	31	247	60	1310.16	83.29	235.43	950	160	5-12	5-8	3,200	
5:30	6:10	0:40	1329	1361	32	202	60	1334.84	83.23	233.85	950	160	5-10	4-5	3,150	
6:34	7:05	0:31	1361	1385	24	180	40	1364.84	83.14	233.33	950	160	6-10	4-5	3,250	PU 220, 180 DN, 203 ROT
7:27	8:01	0:34	1385	1413	28	180	60	1394.75	82.73	233.54	950	160	5-8	5	3,350	
8:23	8:53	0:30	1413	1443	30	180	60	1424.29	81.77	233.40	950	160	5-8	5	3,450	
9:30	11:04	1:34	1443	1500	57	202	40	1452.78	81.47	233.04	950	160	5-8	4-5	3,500	
11:30	12:05	0:35	1500	1528	28	202	40	1481.47	81.43	232.20	945	160	5-10	5	3750	Gas Reading 3.5% over Shakers

PAGE # 2

Planned Direction : 241.91°

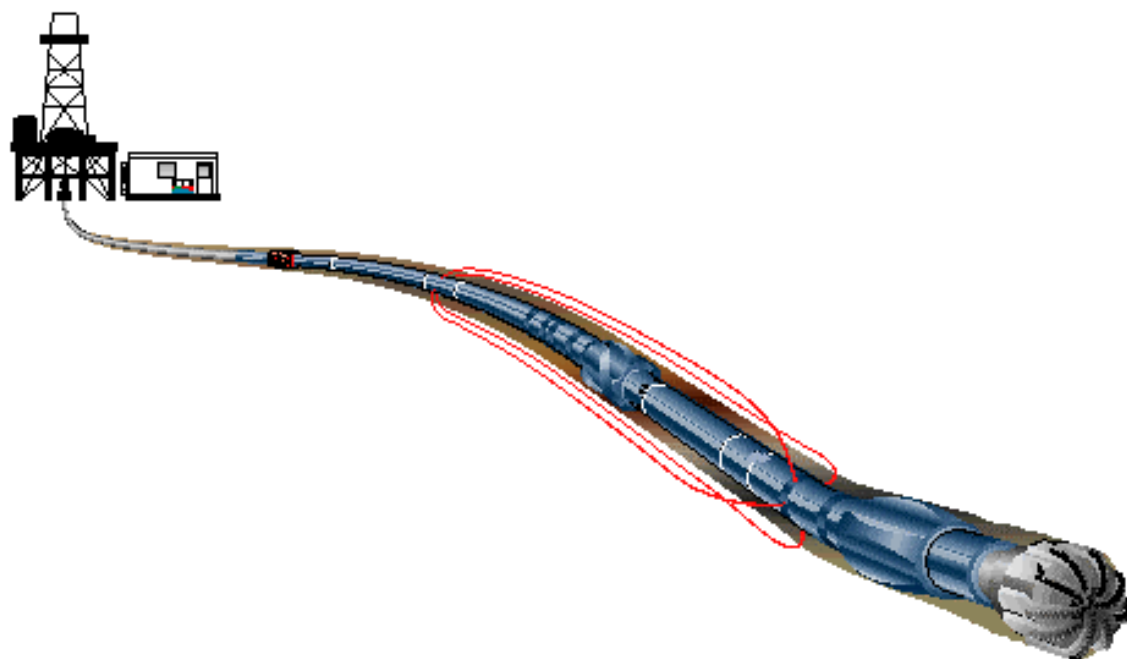
SURVEY SPACING = 16.6 m

[illegible]

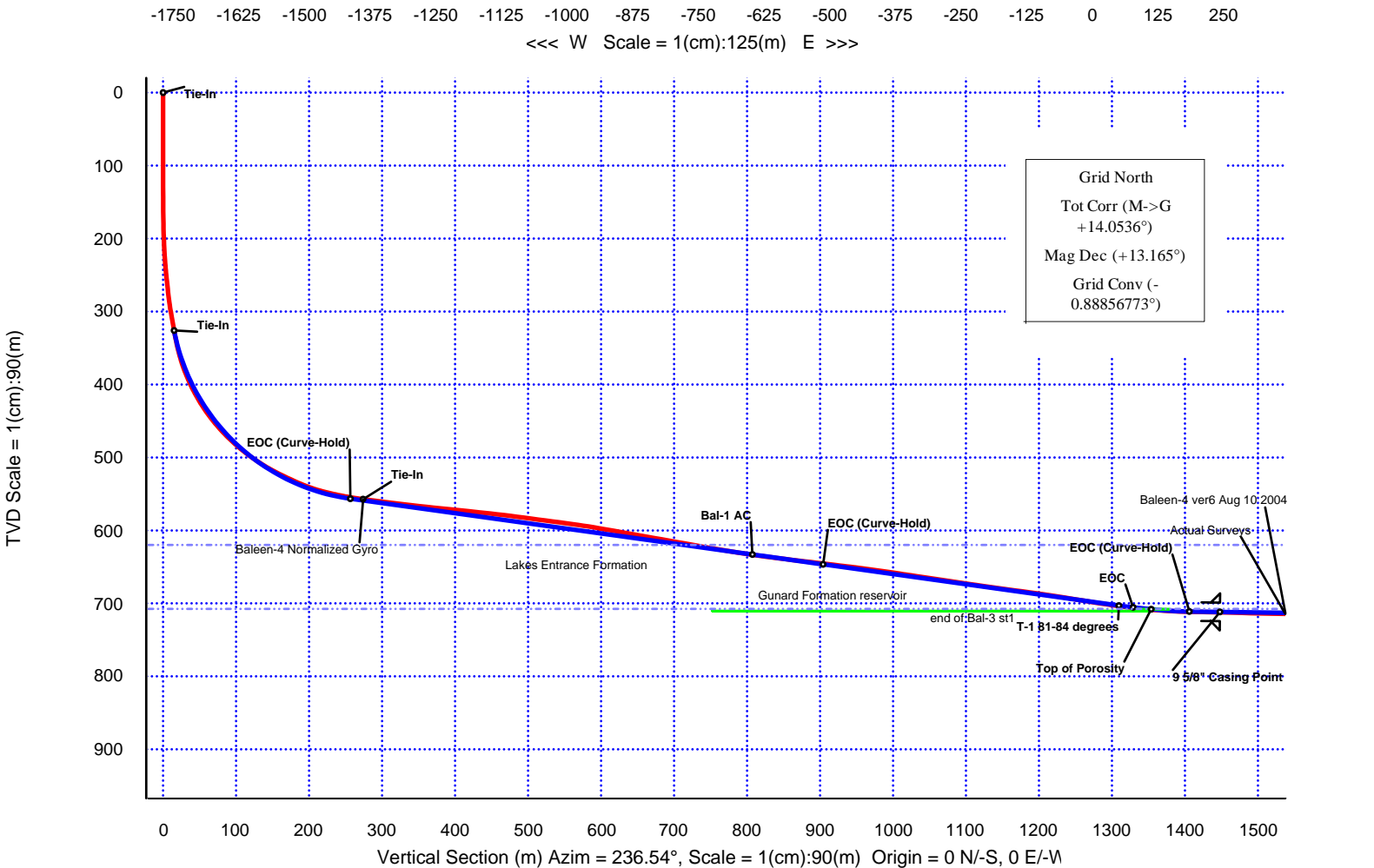
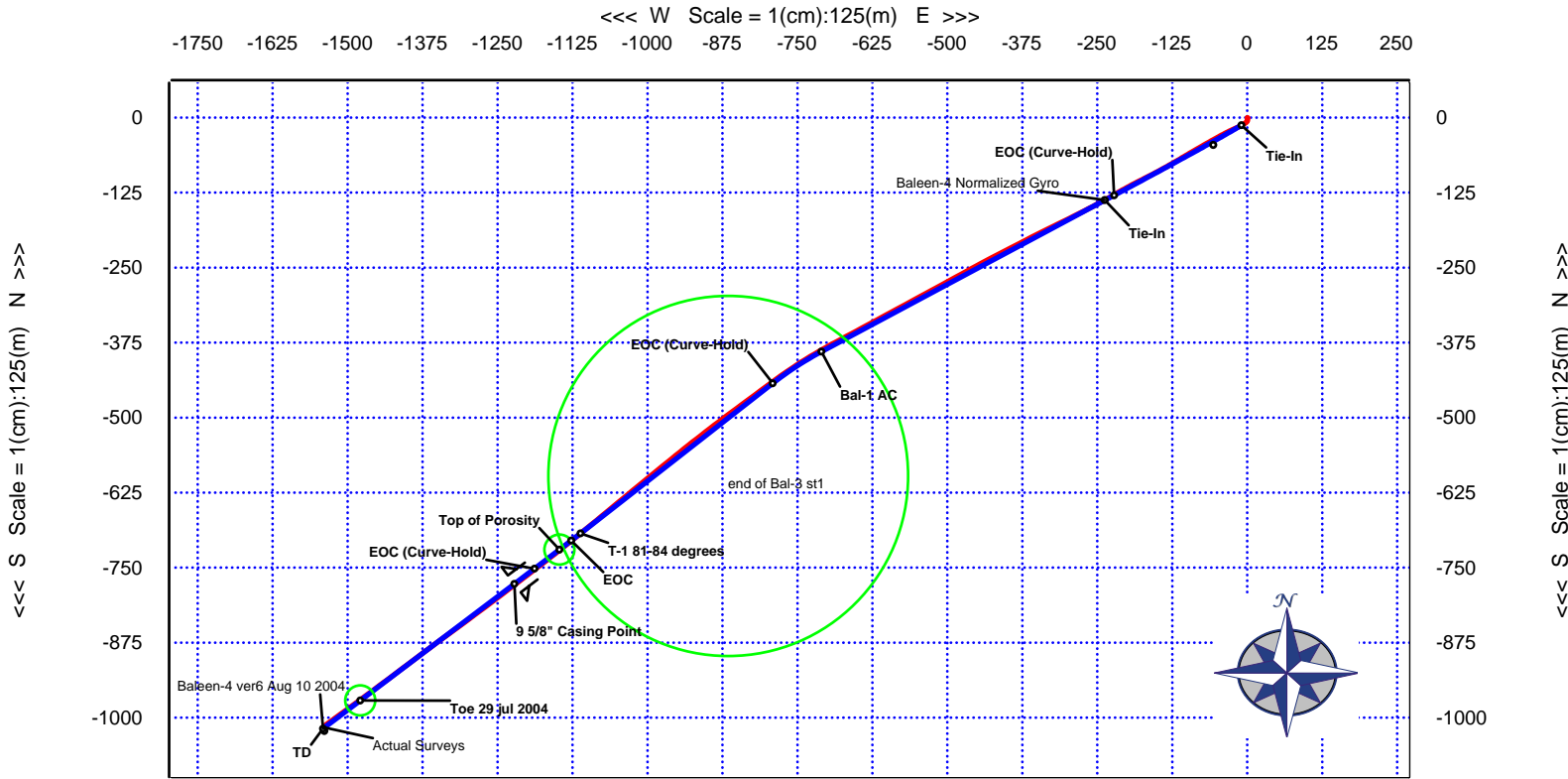
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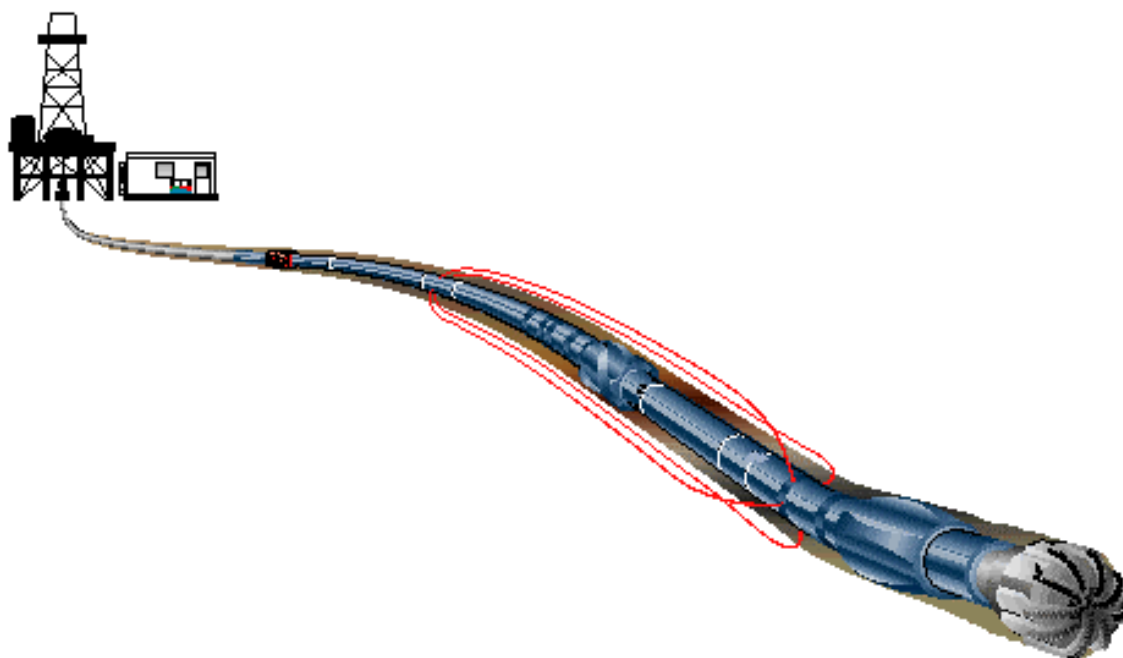
Well Plot



WELL Baleen-3			FIELD OMV Baleen			STRUCTURE Baleen		
Magnetic Parameters Model: BGGM 2004			Surface Location Lat: 538 0 20.986 Lon: E148 26 34.417			Miscellaneous Slot: #3 Plan: Actual Surveys		
Dip: -68.515° Mag Dec: +13.165°			AGD84/AMG84 Zone 55 Northing: 5792541.30 m Easting: 626675.90 m Grid Conv: -0.88856773° Scale Fact: 0.9997976352			TVD Ref: Rotary Bushing (25.00 m above MSL) Srvy Date: October 09, 2004		



Appendices



OMV
Baleen 4

**Schlumberger Drilling and Measurements Stabilizers Stuck in Hole and
Subsequently Fished**

Please find attached photos of the Stabilizers showing some of the damage.

3 Schlumberger Drilling and Measurements Stabilizers formed part of the BHA that became stuck. The BHA was being run for dressing off the cement in preparation for sidetracking.

These SLB tools were:

- 1 x 11 5/8" String Stabilizer GP 5072-1
- 1 x 12 1/4" String Stabilizer DOTS 3210
- 1 x 12 3/16" Near Bit Stabilizer DOTS 3212

During the fishing operation significant jarring was carried out.

Milling past the top stabilizer GP 5072-1 was required.

Milling past stabilizer DOTS 3210 was attempted but could not pass the blades.

At surface it was seen that damage above normal wear and tear from drilling had occurred to the stabilizers.

- Due to the jarring operation a thread inspection will need to be carried out on all Stabilizers and repaired as necessary.
- The blades on GP 5072-1 have milling damage, and need to be repaired, or if not possible the Stabilizer replaced.
- The blades and shoulder on DOTS 3210 have milling damage and need to be repaired, or if not possible the Stabilizer replaced
- No obvious damage noted on DOTS 3212 Near Bit Stabilizer although it still was subjected to significant jarring.

The damage mentioned above is what was noted visually at the Rig Site. Further damage may be evident when inspected (ie Dye Penetrant)

Ken Wilson
Directional Driller

Guy Howard
OMV Company Rep







ARC Wear Band Coming undone on Collar

Schlumberger Drilling & Measurements

Client: OMV Australia

Well: Baleen-4

Date: 23rd October-2004

Upon laying out the ARC (s/n: 099) tool at the completion of drilling the well, it was discovered that the upper wear band had come undone and moved down the collar where it was wedged up against the upper most transmitter. The photos below illustrate both the original position of the wear band and the position it was in when the tool came out of the hole.

The two shoulder brackets, which hold the wear band in place on the collar, were not on the tool once at surface. Therefore these brackets are most likely left in the hole.

This did not affect the tool performance and as a result the data was not affected at all, however due to the moved wear band the engineers were unable to access the Read out port (the port through which we communicate with the tool). Initial attempts by the engineers to back the wear band off failed and as a result the recorded memory data had to be downloaded via the alternate communication port (LTB). This method of downloading data is very slow and the process was to take approximately 8 hours.

Further attempts were made to back off the wear band, which eventually resulted in success. Data was subsequently downloaded via the Read out port and all Recorded memory data provided to the client.

Photo 1: ARC s/n: 099 illustrating wear band position moved down collar after coming undone.

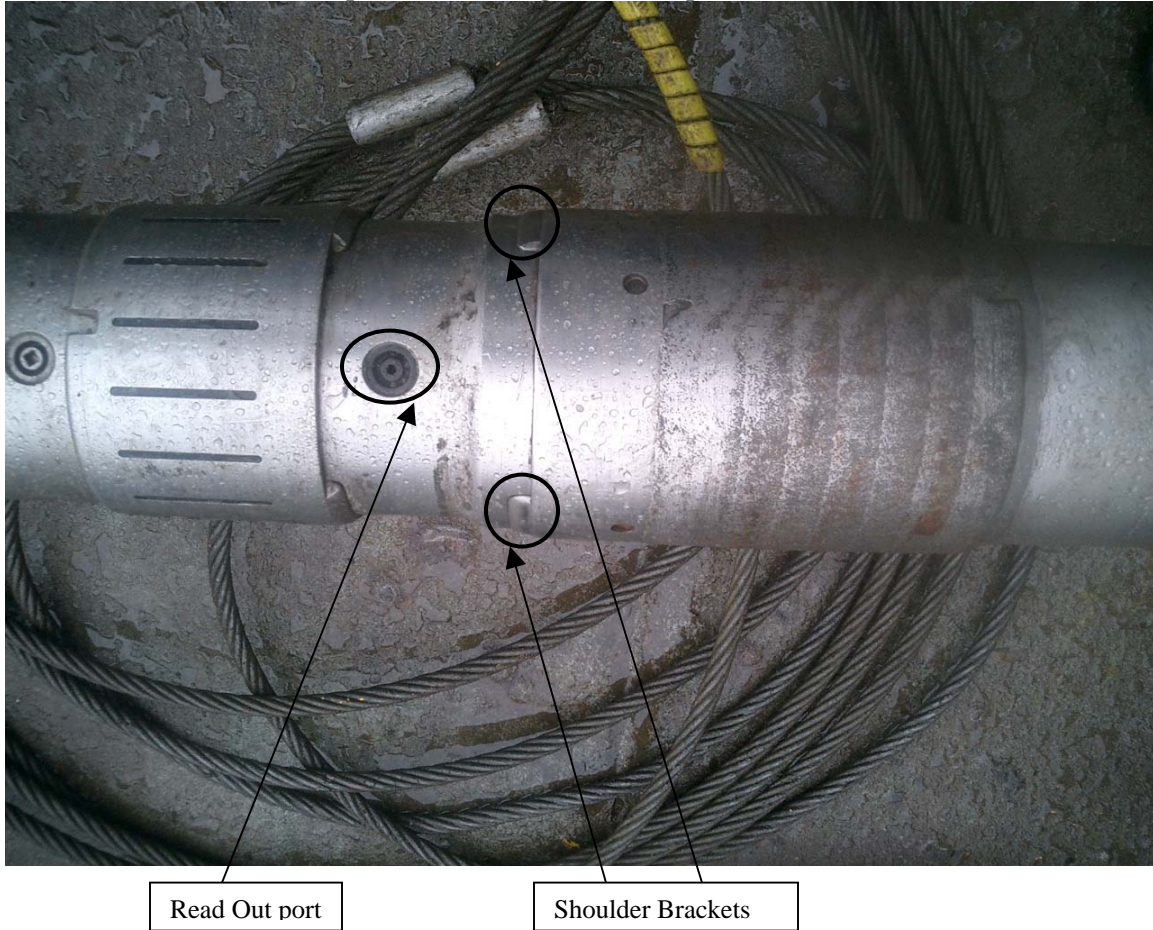


Top Transmitter

Distance wear band moved

Original position of top of wear band

Photo 2: ARC s/n: 126 (backup tool) illustrating wear band position on collar (as it should be).



This ARC tool (s/n:099) was used in both runs in the 8.5" section. Prior to picking up the tool before the first run all wear bands were checked visually. At the completion of the first run the tool recorded memory was downloaded via the Read out port and was again visually inspected and no problems were apparent.

The cause of the wear band coming undone is inconclusive at this stage, however whilst pulling out of the hole at the completion of the second run, sudden high overpull of 40klbs at a depth of 298m was noted by the driller. This could possibly have attributed to the wear band coming undone, but the mechanism of this failure is unknown.

Schlumberger Drilling & Measurements Engineers
Ozren Radicevic and Milan Saicic

OMV Company Man
Guy Howard