

SCHLUMBERGER

Survey report

Client..... Santos Ltd
 Field..... Otway
 Well..... Netherby-1 DW1
 Job number..... 08ASQ0003
 Engineer..... J. Oldridge / Z. Rudd
 RIG..... Ocean Patriot
 STATE..... Victoria

Spud date..... 02-Aug-08
 Last survey date..... 12-Aug-08
 Total accepted surveys... 86
 MD of first survey..... 0.00 m
 MD of last survey..... 2517.00 m

----- Survey calculation methods-----
 Method for positions..... Minimum curvature
 Method for DLS..... Mason & Taylor

----- Depth reference -----
 Permanent datum..... Mean Sea Level
 Depth reference..... Driller's Depth
 GL above permanent..... -66.10 m
 KB above permanent..... 20.80 m
 DF above permanent..... 20.80 m

----- Vertical section origin-----
 Latitude (+N/S-)..... 0.00 m
 Departure (+E/W-)..... 0.00 m

----- Platform reference point-----
 Latitude (+N/S-).....
 Departure (+E/W-).....

Azimuth from Vsect Origin to target: 0.00 degrees

----- Geomagnetic data -----
 Magnetic model..... BGGM version 2007
 Magnetic date..... 01-Aug-2008
 Magnetic field strength... 1215.17 HCNT
 Magnetic dec (+E/W-)..... 10.78 degrees
 Magnetic dip..... -69.86 degrees

----- MWD survey Reference Criteria -----
 Reference G..... 1000.07 mGal
 Reference H..... 1215.17 HCNT
 Reference Dip..... -69.86 degrees
 Tolerance of G..... (+/-) 2.50 mGal
 Tolerance of H..... (+/-) 6.00 HCNT
 Tolerance of Dip..... (+/-) 0.45 degrees

----- Corrections -----
 Magnetic dec (+E/W-)..... 10.78 degrees
 Grid convergence (+E/W-).. -1.03 degrees
 Total az corr (+E/W-)..... 11.81 degrees
 (Total az corr = magnetic dec - grid conv)
 Survey Correction Type ...:
 I=Sag Corrected Inclination
 M=Schlumberger Magnetic Correction
 S=Shell Magnetic Correction
 F=Failed Axis Correction
 R=Magnetic Resonance Tool Correction
 D=Dmag Magnetic Correction

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Seq #	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/ 100f)	Srvy tool type	Tool Corr (deg)
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIP	None
2	87.00	0.00	0.00	87.00	87.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD_M	None
3	110.29	0.34	228.85	23.29	110.29	-0.05	-0.05	-0.05	0.07	228.85	0.44	MWD_M	None
4	139.31	0.48	70.38	29.02	139.31	-0.06	-0.06	-0.00	0.06	182.21	0.85	MWD_M	None
5	168.50	0.56	302.02	29.19	168.50	0.06	0.06	-0.01	0.06	351.63	0.98	MWD_M	None
6	196.58	0.62	250.43	28.08	196.58	0.08	0.08	-0.27	0.28	286.10	0.56	MWD_M	None
7	224.66	0.70	303.64	28.08	224.66	0.12	0.12	-0.55	0.57	282.37	0.65	MWD_M	None
8	252.74	0.64	294.72	28.08	252.73	0.28	0.28	-0.84	0.88	288.58	0.13	MWD_M	None
9	280.80	0.72	298.73	28.06	280.79	0.43	0.43	-1.14	1.22	290.84	0.10	MWD_M	None
10	309.51	0.65	287.17	28.71	309.50	0.57	0.57	-1.45	1.56	291.36	0.16	MWD_M	None
11	337.98	0.69	292.15	28.47	337.97	0.68	0.68	-1.76	1.89	291.08	0.08	MWD_M	None
12	366.89	0.70	359.25	28.91	366.88	0.92	0.92	-1.93	2.14	295.57	0.81	MWD_M	None
13	395.80	0.92	12.26	28.91	395.78	1.32	1.32	-1.88	2.30	305.19	0.30	MWD_M	None
14	424.75	0.87	19.30	28.95	424.73	1.76	1.76	-1.76	2.49	315.04	0.13	MWD_M	None
15	453.68	0.56	88.31	28.93	453.66	1.97	1.97	-1.54	2.50	321.94	0.89	MWD_M	None
16	482.49	0.59	96.35	28.81	482.47	1.96	1.96	-1.26	2.33	327.35	0.09	MWD_M	None
17	511.36	0.65	96.56	28.87	511.34	1.92	1.92	-0.94	2.14	333.84	0.06	MWD_M	None
18	540.27	0.70	100.87	28.91	540.24	1.87	1.87	-0.61	1.97	341.99	0.08	MWD_M	None
19	569.05	0.71	112.99	28.78	569.02	1.77	1.77	-0.27	1.79	351.27	0.16	MWD_M	None
20	597.90	0.69	128.34	28.85	597.87	1.59	1.59	0.03	1.59	1.05	0.20	MWD_M	None
21	617.15	0.84	123.17	19.25	617.12	1.44	1.44	0.24	1.46	9.38	0.26	MWD_M	None
22	634.46	0.94	124.68	17.31	634.42	1.29	1.29	0.46	1.37	19.65	0.18	MWD_M	None
23	660.03	0.52	130.06	25.57	659.99	1.10	1.10	0.72	1.31	33.35	0.51	MWD_M	None
24	745.26	2.31	160.81	85.23	745.19	-0.77	-0.77	1.58	1.76	116.04	0.67	MWD_M	None
25	773.50	4.27	158.54	28.24	773.39	-2.29	-2.29	2.15	3.14	136.73	2.12	MWD_M	None
26	801.23	5.89	157.85	27.73	801.01	-4.57	-4.57	3.07	5.50	146.11	1.78	MWD_M	None
27	831.43	7.57	152.25	30.20	831.00	-7.76	-7.76	4.58	9.01	149.47	1.82	MWD_M	None
28	859.94	9.31	137.33	28.51	859.20	-11.12	-11.12	7.02	13.15	147.75	2.98	MWD_M	None
29	889.70	11.19	126.87	29.76	888.49	-14.63	-14.63	10.96	18.28	143.15	2.70	MWD_M	None
30	919.19	12.15	123.94	29.49	917.37	-18.08	-18.08	15.82	24.02	138.80	1.17	MWD_M	None

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31	948.90	12.93	122.08	29.71	946.37	-21.59	-21.59	21.23	30.28	135.47	0.90	MWD_M	None
32	979.41	13.44	120.85	30.51	976.07	-25.22	-25.22	27.17	37.07	132.86	0.58	MWD_M	None
33	1007.51	14.16	120.45	28.10	1003.36	-28.63	-28.63	32.94	43.64	131.00	0.79	MWD_M	None
34	1036.14	14.55	118.54	28.63	1031.10	-32.13	-32.13	39.12	50.62	129.40	0.65	MWD_M	None
35	1065.20	14.60	118.24	29.06	1059.22	-35.60	-35.60	45.55	57.81	128.01	0.09	MWD_M	None
36	1096.08	14.09	118.27	30.88	1089.14	-39.23	-39.23	52.29	65.37	126.88	0.50	MWD_M	None

37	1124.66	14.01	116.68	28.58	1116.87	-42.43	-42.43	58.44	72.22	125.98	0.42	MWD_M	None
38	1153.50	15.82	116.95	28.84	1144.73	-45.78	-45.78	65.07	79.56	125.13	1.91	MWD_M	None
39	1182.04	19.92	117.65	28.54	1171.89	-49.80	-49.80	72.84	88.24	124.36	4.38	MWD_M	None
40	1210.10	23.56	117.60	28.06	1197.95	-54.62	-54.62	82.05	98.57	123.65	3.95	MWD_M	None
41	1239.36	25.76	114.79	29.26	1224.54	-59.99	-59.99	93.01	110.68	122.82	2.60	MWD_M	None
42	1267.39	29.36	115.62	28.03	1249.39	-65.52	-65.52	104.74	123.54	122.03	3.94	MWD_M	None
43	1294.27	33.74	116.12	26.88	1272.29	-71.66	-71.66	117.39	137.53	121.40	4.98	MWD_M	None
44	1322.42	33.97	116.49	28.15	1295.67	-78.61	-78.61	131.45	153.16	120.88	0.33	MWD_M	None
45	1350.13	34.69	115.42	27.71	1318.55	-85.44	-85.44	145.50	168.73	120.42	1.03	MWD_M	None
46	1379.95	34.59	115.60	29.82	1343.08	-92.74	-92.74	160.80	185.63	119.98	0.15	MWD_M	None
47	1408.27	35.05	116.50	28.32	1366.33	-99.85	-99.85	175.32	201.76	119.66	0.74	MWD_M	None
48	1429.41	34.97	116.54	21.14	1383.65	-105.26	-105.26	186.17	213.87	119.48	0.12	MWD	None
49	1487.90	35.17	112.27	58.49	1431.53	-119.14	-119.14	216.76	247.35	118.79	1.28	MWD	None
50	1505.00	35.50	109.55	17.10	1445.48	-122.67	-122.67	226.00	257.14	118.49	2.86	MWD_M	None
51	1517.15	35.81	105.68	12.15	1455.35	-124.81	-124.81	232.75	264.10	118.20	5.71	MWD	None
52	1543.44	37.54	107.13	26.29	1476.43	-129.25	-129.25	247.81	279.49	117.54	2.24	MWD	None
53	1569.82	39.74	109.42	26.38	1497.04	-134.42	-134.42	263.44	295.75	117.03	3.03	MWD	None
54	1600.60	42.06	111.11	30.78	1520.30	-141.40	-141.40	282.34	315.77	116.60	2.55	MWD	None
55	1629.46	44.65	112.85	28.86	1541.29	-148.82	-148.82	300.71	335.52	116.33	3.01	MWD	None
56	1657.18	47.47	114.86	27.72	1560.52	-156.90	-156.90	318.96	355.46	116.19	3.49	MWD	None
57	1686.89	50.14	117.99	29.71	1580.09	-166.86	-166.86	338.97	377.81	116.21	3.65	MWD	None
58	1715.23	52.55	119.95	28.34	1597.79	-177.58	-177.58	358.32	399.91	116.36	3.07	MWD	None
59	1744.26	55.92	121.19	29.03	1614.76	-189.56	-189.56	378.60	423.41	116.60	3.69	MWD	None
60	1773.52	59.64	122.89	29.26	1630.36	-202.70	-202.70	399.57	448.05	116.90	4.15	MWD	None

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61	1804.17	64.78	123.05	30.65	1644.64	-217.45	-217.45	422.31	475.01	117.24	5.11	MWD	None
62	1832.79	69.15	123.30	28.62	1655.84	-231.86	-231.86	444.35	501.21	117.56	4.66	MWD	None
63	1860.88	73.78	123.07	28.09	1664.76	-246.43	-246.43	466.64	527.71	117.84	5.03	MWD	None
64	1889.08	77.80	122.38	28.20	1671.68	-261.21	-261.21	489.63	554.95	118.08	4.40	MWD	None
65	1919.55	79.76	122.50	30.47	1677.61	-277.24	-277.24	514.85	584.75	118.30	1.96	MWD	None
66	1946.54	80.97	122.53	26.99	1682.13	-291.54	-291.54	537.29	611.29	118.49	1.37	PUP	None
67	1973.95	83.60	122.37	27.41	1685.81	-306.12	-306.12	560.21	638.39	118.65	2.93	PUP	None
68	2011.18	87.85	121.02	37.23	1688.58	-325.62	-325.62	591.79	675.46	118.82	3.65	PUP	None
69	2031.41	89.37	120.87	20.23	1689.08	-336.02	-336.02	609.14	695.67	118.88	2.30	PUP	None
70	2060.00	89.80	121.67	28.59	1689.28	-350.85	-350.85	633.57	724.23	118.98	0.97	PUP	None
71	2089.29	89.46	120.38	29.29	1689.47	-365.95	-365.95	658.67	753.50	119.06	1.39	PUP	None
72	2112.91	89.48	119.43	23.62	1689.69	-377.73	-377.73	679.14	777.12	119.08	1.23	PUP	None
73	2148.38	93.04	121.22	35.47	1688.91	-395.63	-395.63	709.75	812.57	119.14	3.42	PUP	None
74	2177.62	94.65	120.61	29.24	1686.95	-410.62	-410.62	734.78	841.73	119.20	1.79	PUP	None
75	2204.98	96.37	120.79	27.37	1684.32	-424.52	-424.52	758.20	868.96	119.24	1.93	PUP	None
76	2234.16	96.29	119.97	29.17	1681.11	-439.19	-439.19	783.21	897.95	119.28	0.86	PUP	None
77	2262.48	94.85	119.65	28.32	1678.36	-453.20	-453.20	807.67	926.13	119.30	1.59	PUP	None
78	2291.13	95.36	119.68	28.65	1675.81	-467.32	-467.32	832.46	954.67	119.31	0.54	PUP	None
79	2321.31	95.04	119.36	30.18	1673.07	-482.13	-482.13	858.62	984.72	119.32	0.46	PUP	None
80	2350.32	93.87	118.72	29.00	1670.82	-496.16	-496.16	883.90	1013.63	119.31	1.40	PUP	None
81	2378.82	94.18	118.17	28.51	1668.82	-509.71	-509.71	908.90	1042.07	119.28	0.67	PUP	None
82	2407.67	94.16	117.99	28.85	1666.72	-523.25	-523.25	934.29	1070.84	119.25	0.19	PUP	None
83	2436.52	94.22	117.82	28.85	1664.61	-536.72	-536.72	959.72	1099.60	119.22	0.19	PUP	None
84	2465.68	95.68	118.34	29.16	1662.10	-550.39	-550.39	985.35	1128.65	119.19	1.62	PUP	None
85	2494.27	98.42	119.26	28.59	1658.59	-564.06	-564.06	1010.21	1157.02	119.18	3.08	PUP	None
86	2517.00	98.30	119.30	22.73	1655.28	-575.06	-575.06	1029.82	1179.50	119.18	0.17	Proj.	To TD

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