Schlumberger

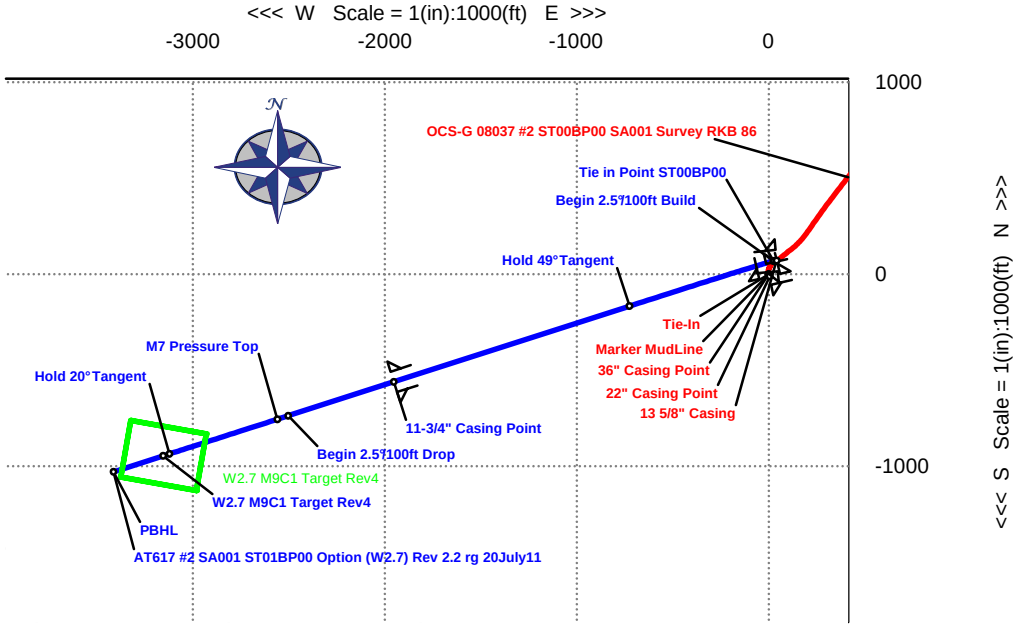
bhpbilliton

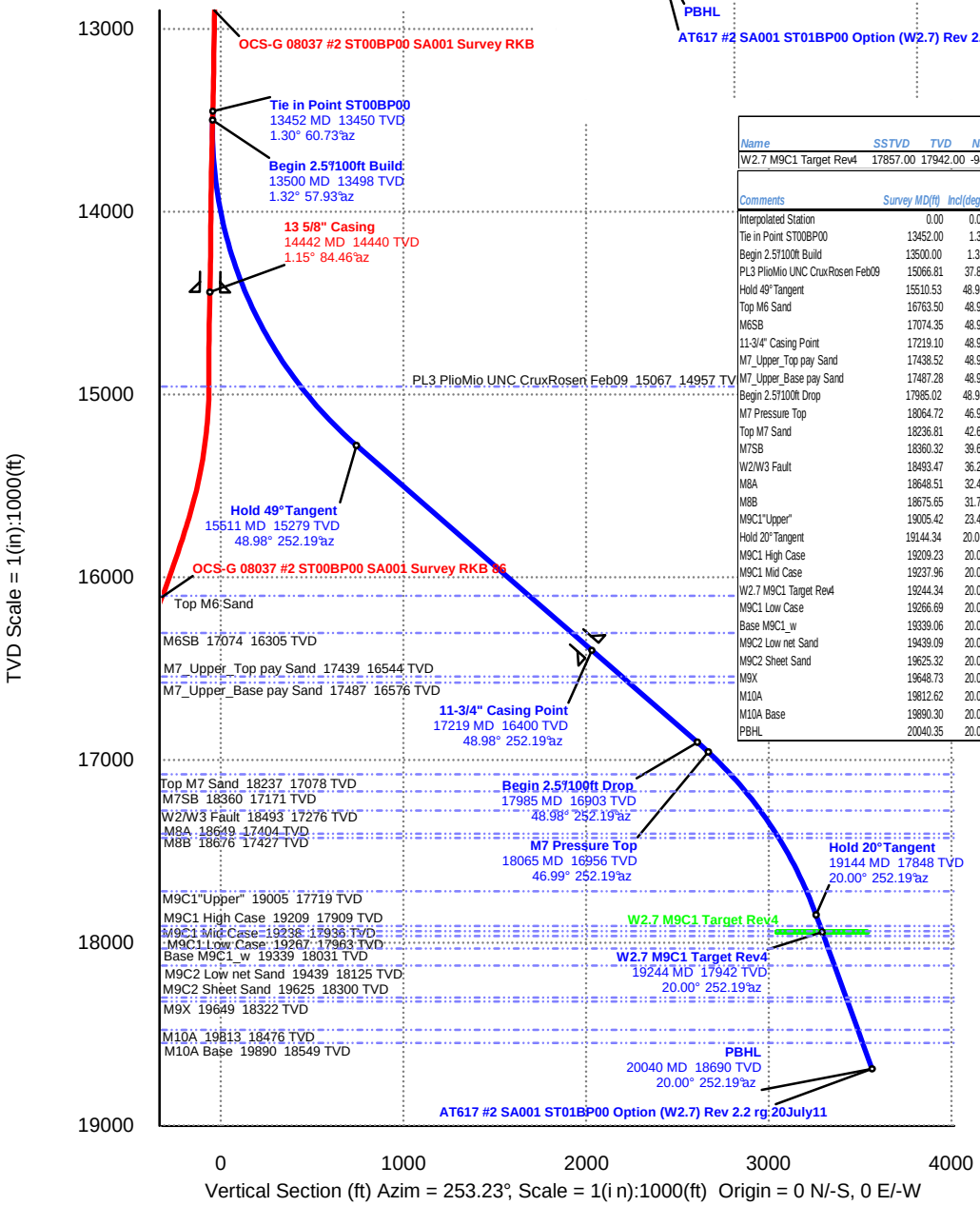
Well	Field	Structure
OCS-G-08037 002 (SA001) ST01BP00 (W2.7) Rev2.2	Atwater Valley Block 617 - Neptune Project	Drill Center A (DD1 RKB = 85.00 ft)

Magnetic Parameters						Surface Location						Miscellaneous			
Model	BGGM 2011	Dip	57.063 '	Date	July 20, 2011	Latitude	N 27 19 51.892	Northing	9928400.12 ftUS	Grid Convergence	-1.31402342 '	Borehole	G08037 # 2 SA001ST01BP00	TVD Reference	RKB(85ft above MSL)
		Mag Dec	0.028 '	Field Strength	46236.8 nT	Longitude	W 89 51 36.251	Easting	711939.66 ftUS	Scale Factor	1.00058878 22	Plan	AT617 # 2 SA001ST01BP00 Option (W2.7) Rev 2.2 rg 20July11	Survey Date	July 20, 2011

Grid North
Tot Corr (M->G 1.3419°)
Mag Dec (0.028°)
Grid Conv (-1.31402342°)

Quality Control
Date Drawn: July 20, 2011 02:45:18 PM
Drawn by: FLoren
Checked by: RGriffon
Client OK:





Targets

Name	SSTVD	TVD	NS(ft)	EW(ft)	Northing(ft)	Easting(ft)	Latitude(ft)	Longitude(ft)	Shape	Dimensions(in)
W2.7 M9C1 Target Rev4	17857.00	17942.00	-945.57	-3153.81	9927454.00	708784.00	N 27 19 41.813	W 89 52 10.969	POLYGON	0.00 x 0.00

Critical Points

Comments	Survey MD(ft)	Incl(deg)	Azim(deg)	SSTVD(ft)	TVD(ft)	VS(ft)	NS(ft)	EW(ft)	DLS	Northing	Easting(ft)	Latitude(ft)	Longitude(ft)
Interpolated Station	0.00	0.00	0.00	-85.00	0.00	0.00	0.00	0.00	0.00	9928400.12	711939.66	N 27 19 51.892	W 89 51 36.251
Tie in Point ST00BP00	13452.00	1.30	60.73	13365.30	13450.30	-43.95	68.92	25.14	0.24	9928469.08	711964.81	N 27 19 52.580	W 89 51 35.990
Begin 2.5°/100ft Build	13500.00	1.32	57.93	13413.29	13498.29	-45.02	69.48	26.08	0.14	9928469.64	711965.76	N 27 19 52.585	W 89 51 35.979
PL3 PlioMio UNC CruxRosen Feb09	15066.81	37.89	252.32	14872.00	14957.00	437.59	-72.60	-435.15	2.50	9928327.48	711504.25	N 27 19 51.074	W 89 51 41.056
Hold 49° Tangent	15510.53	48.98	252.19	15193.69	15278.69	742.15	-165.45	-725.25	2.50	9928234.57	711213.98	N 27 19 50.089	W 89 51 44.248
Top M6 Sand	16763.50	48.98	252.19	16016.00	16101.00	1687.39	-454.58	-1625.35	0.00	9927945.27	710313.36	N 27 19 47.022	W 89 51 54.152
M6SB	17074.35	48.98	252.19	16220.00	16305.00	1921.88	-526.31	-1848.64	0.00	9927873.50	710089.93	N 27 19 46.261	W 89 51 56.608
11-3/4" Casing Point	17219.10	48.98	252.19	16315.00	16400.00	2031.08	-559.71	-1952.63	0.00	9927840.08	709985.88	N 27 19 45.906	W 89 51 57.753
M7_Upper_Top pay Sand	17438.52	48.98	252.19	16459.00	16544.00	2196.61	-610.34	-2110.25	0.00	9927789.42	709828.17	N 27 19 45.369	W 89 51 59.487
M7_Upper_Base pay Sand	17487.28	48.98	252.19	16491.00	16576.00	2233.39	-621.60	-2145.28	0.00	9927778.16	709793.12	N 27 19 45.250	W 89 51 59.872
Begin 2.5°/100ft Drop	17985.02	48.98	252.19	16817.66	16902.66	2608.89	-736.45	-2502.84	0.00	9927663.24	709435.35	N 27 19 44.031	W 89 52 3.806
M7 Pressure Top	18064.72	46.99	252.19	16871.00	16956.00	2668.09	-754.56	-2559.22	2.50	9927645.12	709378.94	N 27 19 43.839	W 89 52 4.427
Top M7 Sand	18236.81	42.69	252.19	16993.00	17078.00	2789.39	-791.66	-2674.72	2.50	9927607.99	709263.37	N 27 19 43.446	W 89 52 5.697
M7SB	18360.32	39.60	252.19	17086.00	17171.00	2870.63	-816.51	-2752.08	2.50	9927583.13	709185.96	N 27 19 43.182	W 89 52 6.549
W2/W3 Fault	18493.47	36.27	252.19	17191.00	17276.00	2952.46	-841.55	-2830.01	2.50	9927558.08	709107.99	N 27 19 42.916	W 89 52 7.406
M8A	18648.51	32.40	252.19	17319.00	17404.00	3039.87	-868.29	-2913.25	2.50	9927531.33	709024.71	N 27 19 42.633	W 89 52 8.322
M8B	18675.65	31.72	252.19	17342.00	17427.00	3054.28	-872.69	-2926.96	2.50	9927526.92	709010.98	N 27 19 42.586	W 89 52 8.473
M9C1"Upper"	19005.42	23.47	252.19	17634.00	17719.00	3206.87	-919.37	-3072.27	2.50	9927480.21	708865.59	N 27 19 42.091	W 89 52 10.071
Hold 20° Tangent	19144.34	20.00	252.19	17763.03	17848.03	3258.31	-935.10	-3121.25	2.50	9927464.47	708816.58	N 27 19 41.924	W 89 52 10.610
M9C1 High Case	19209.23	20.00	252.19	17824.00	17909.00	3280.50	-941.89	-3142.37	0.00	9927457.68	708795.44	N 27 19 41.852	W 89 52 10.843
M9C1 Mid Case	19237.96	20.00	252.19	17851.00	17936.00	3290.32	-944.90	-3151.73	0.00	9927454.67	708786.08	N 27 19 41.820	W 89 52 10.946
W2.7 M9C1 Target Rev4	19244.34	20.00	252.19	17857.00	17942.00	3292.50	-945.57	-3153.81	0.00	9927454.00	708784.00	N 27 19 41.813	W 89 52 10.969
M9C1 Low Case	19266.69	20.00	252.19	17878.00	17963.00	3300.15	-947.90	-3161.09	0.00	9927451.66	708776.72	N 27 19 41.788	W 89 52 11.049
Base M9C1_w	19339.06	20.00	252.19	17946.00	18031.00	3324.89	-955.47	-3184.65	0.00	9927444.09	708753.14	N 27 19 41.708	W 89 52 11.308
M9C2 Low net Sand	19439.09	20.00	252.19	18040.00	18125.00	3359.10	-965.94	-3217.22	0.00	9927433.62	708720.55	N 27 19 41.597	W 89 52 11.666
M9C2 Sheet Sand	19625.32	20.00	252.19	18215.00	18300.00	3422.78	-985.42	-3277.87	0.00	9927414.12	708659.87	N 27 19 41.390	W 89 52 12.333
M9X	19648.73	20.00	252.19	18237.00	18322.00	3430.79	-987.87	-3285.49	0.00	9927411.67	708652.24	N 27 19 41.364	W 89 52 12.417
M10A	19812.62	20.00	252.19	18391.00	18476.00	3486.83	-1005.01	-3338.86	0.00	9927394.52	708598.85	N 27 19 41.182	W 89 52 13.004
M10A Base	19890.30	20.00	252.19	18464.00	18549.00	3513.40	-1013.14	-3364.15	0.00	9927386.39	708573.53	N 27 19 41.096	W 89 52 13.283
PBHL	20040.35	20.00	252.19	18605.00	18690.00	3564.71	-1028.84	-3413.01	0.00	9927370.68	708524.65	N 27 19 40.929	W 89 52 13.820

Legend

- AT617 Lease line
- W2.7 M9C1 Target Rev4
- AT617 #2 SA001 ST01BP00 Option (W2.7) Rev 2.2 rg 20July11
- OCS-G 08037 #2 ST00BP00 SA001 Survey RKB 86