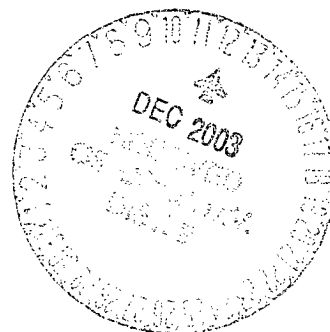
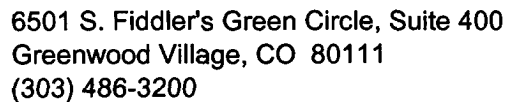




2 SUB-SURFACE SURVEY CERTIFICATION REPORT

Company

Date _____

Lease

Well Name

County/State

300

3024 ft

Measurement While Drilling Surveys

f

to

ft

B. Richardson

The data submitted in this report conforms to the standards and procedures as set forth by Schlumberger. This report represents a true and correct directional wellbore survey based on original survey data obtained at the well site.

John O'Keefe
Drilling Engineer

This document has been subscribed and affirmed, or sworn before me in the county of Arapahoe in the state of Colorado, this 1st day of December 2003

Christine J. Wilson My commission expires: 12-12-05



Pritchard 5M Final Surveys Report



Report Date: November 26, 2003 Client: BP America Inc. Field: NM, San Juan County (NAD 83 WZ) Structure / Slot: BP 34-31N-9W (Pritchard 5M) / Pritchard 5M Well: Pritchard 5M Borehole: Original Hole UWIAP#: Survey Name / Date: Pritchard 5M Final Surveys / October 30, 2003 Tort / AHD / DDI / ERD ratio: 44.574° / 361.29 ft / 4.209 / 0.048 Grid Coordinate System: NAD83 New Mexico State Planes, Western Zone, US Feet Location Lat/Long: N 36 51 23.000, W 107 45 44.000 Location Grid N/E Y/D: N 2131056.922 ftUS, E 2743895.677 ftUS Grid Convergence Angle: +0.04265327° Grid Scale Factor: 0.99991716	Survey / DLS Computation Method: Minimum Curvature / Lubinski Vertical Section Azimuth: 38.770° Vertical Section Origin: N 0.000 ft, E 0.000 ft TVD Reference Datum: RKB TVD Reference Elevation: 6049.0 ft relative to MSL Sea Bed / Ground Level Elevation: 6035.000 ft relative to MSL Magnetic Declination: 10.833° Total Field Strength: 51579.298 nT Magnetic Dip: 63.780° Declination Date: October 30, 2003 Magnetic Declination Model: BGGM 2003 North Reference: Grid North Total Corr Mag North -> Grid North: +10.790° Local Coordinates Referenced To: Well Head
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Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	DLS (deg/100 ft)	Northing (ftUS)	Easting (ftUS)	Latitude	Longitude
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2131056.92	2743895.68	N 36 51 23.000	W 107 45 44.000
Begin SLB MWD Surveys	300.00	0.20	97.47	300.00	0.27	-0.07	0.52	0.07	2131056.85	2743896.20	N 36 51 22.999	W 107 45 43.994
	548.00	0.08	334.84	548.00	0.57	0.03	0.87	0.10	2131056.95	2743896.55	N 36 51 23.000	W 107 45 43.989
	771.00	0.28	54.27	771.00	1.17	0.49	1.25	0.12	2131057.41	2743896.93	N 36 51 23.005	W 107 45 43.985
	1024.00	0.05	116.04	1024.00	1.79	0.80	1.85	0.10	2131057.73	2743897.53	N 36 51 23.008	W 107 45 43.977
	1248.00	0.43	207.25	1247.99	0.98	0.01	1.55	0.19	2131056.94	2743897.23	N 36 51 23.000	W 107 45 43.981
	1471.00	0.60	123.32	1470.99	0.28	-1.37	2.15	0.31	2131055.55	2743897.82	N 36 51 22.986	W 107 45 43.974
	1662.00	0.40	47.12	1661.98	1.03	-1.47	3.47	0.33	2131055.45	2743899.15	N 36 51 22.985	W 107 45 43.957
	1694.00	0.80	47.27	1693.98	1.36	-1.24	3.72	1.25	2131055.68	2743899.39	N 36 51 22.988	W 107 45 43.954
	1726.00	1.10	23.42	1725.98	1.88	-0.81	4.00	1.53	2131056.12	2743899.68	N 36 51 22.992	W 107 45 43.951
	1758.00	2.13	32.17	1757.96	2.77	-0.02	4.44	3.30	2131056.90	2743900.12	N 36 51 23.000	W 107 45 43.945
	1790.00	2.80	26.42	1789.93	4.12	1.18	5.11	2.23	2131058.10	2743900.78	N 36 51 23.012	W 107 45 43.937
	1822.00	3.33	26.22	1821.89	5.79	2.72	5.87	1.66	2131059.64	2743901.54	N 36 51 23.027	W 107 45 43.928
	1853.00	3.70	29.05	1852.83	7.66	4.40	6.75	1.32	2131061.32	2743902.43	N 36 51 23.043	W 107 45 43.917
	1885.00	4.53	28.34	1884.75	9.92	6.41	7.85	2.60	2131063.33	2743903.53	N 36 51 23.063	W 107 45 43.903
	1917.00	5.25	30.17	1916.63	12.61	8.79	9.19	2.30	2131065.71	2743904.86	N 36 51 23.087	W 107 45 43.887
	1949.00	6.05	33.62	1948.47	15.73	11.46	10.86	2.71	2131068.38	2743906.53	N 36 51 23.113	W 107 45 43.866
	1981.00	6.68	34.62	1980.28	19.27	14.40	12.85	2.00	2131071.32	2743908.52	N 36 51 23.142	W 107 45 43.842
	2012.00	7.30	35.52	2011.05	23.03	17.48	15.01	2.03	2131074.40	2743910.69	N 36 51 23.173	W 107 45 43.815
	2044.00	8.15	36.40	2042.76	27.33	20.96	17.54	2.68	2131077.88	2743913.22	N 36 51 23.207	W 107 45 43.784
	2076.00	9.05	39.30	2074.40	32.11	24.74	20.48	3.12	2131081.66	2743916.16	N 36 51 23.244	W 107 45 43.748
	2108.00	9.80	41.02	2105.96	37.35	28.74	23.86	2.50	2131085.66	2743919.54	N 36 51 23.284	W 107 45 43.706
	2139.00	10.52	40.27	2136.48	42.82	32.89	27.42	2.36	2131089.81	2743923.10	N 36 51 23.325	W 107 45 43.662
	2171.00	11.52	41.90	2167.89	48.93	37.50	31.45	3.27	2131094.42	2743927.12	N 36 51 23.371	W 107 45 43.613
	2203.00	12.27	41.47	2199.20	55.51	42.42	35.83	2.36	2131099.34	2743931.51	N 36 51 23.419	W 107 45 43.559
	2235.00	12.40	41.32	2230.46	62.34	47.55	40.35	0.42	2131104.47	2743936.03	N 36 51 23.470	W 107 45 43.503
	2267.00	13.43	40.17	2261.65	69.49	52.97	45.02	3.32	2131109.89	2743940.69	N 36 51 23.523	W 107 45 43.446
	2299.00	14.07	40.55	2292.73	77.09	58.77	49.94	2.02	2131115.68	2743945.62	N 36 51 23.581	W 107 45 43.385
	2331.00	14.77	40.42	2323.73	85.06	64.83	55.12	2.19	2131121.74	2743950.79	N 36 51 23.641	W 107 45 43.321
	2363.00	15.43	40.52	2354.62	93.39	71.17	60.53	2.06	2131128.09	2743956.20	N 36 51 23.703	W 107 45 43.255
	2395.00	15.75	40.42	2385.44	101.99	77.71	66.11	1.00	2131134.63	2743961.78	N 36 51 23.768	W 107 45 43.186
	2427.00	16.25	40.30	2416.20	110.80	84.43	71.82	1.57	2131141.35	2743967.49	N 36 51 23.834	W 107 45 43.116
	2460.00	16.02	41.59	2476.72	126.30	97.66	83.29	0.68	2131154.57	2743978.96	N 36 51 23.965	W 107 45 42.974
	2554.00	15.85	41.05	2538.26	145.85	110.85	94.90	0.35	2131167.77	2743990.57	N 36 51 24.095	W 107 45 42.831
	2586.00	15.40	41.30	2569.08	154.46	117.34	100.57	1.42	2131174.25	2743996.24	N 36 51 24.159	W 107 45 42.761
	2618.00	15.13	41.07	2599.95	162.88	123.68	106.12	0.86	2131180.59	2744001.79	N 36 51 24.222	W 107 45 42.693
	2650.00	14.93	38.55	2630.86	171.18	130.05	111.43	2.14	2131186.97	2744007.10	N 36 51 24.285	W 107 45 42.628
	2682.00	15.52	36.97	2661.73	179.58	136.70	116.57	2.25	2131193.61	2744012.24	N 36 51 24.351	W 107 45 42.564
	2713.00	16.13	35.77	2691.56	188.02	143.51	121.59	2.23	2131200.42	2744017.25	N 36 51 24.418	W 107 45 42.503
	2745.00	15.73	32.77	2722.33	196.78	150.76	126.53	2.86	2131207.67	2744022.20	N 36 51 24.490	W 107 45 42.442
	2777.00	15.98	27.52	2753.11	205.41	158.31	130.92	4.55	2131215.22	2744026.58	N 36 51 24.564	W 107 45 42.388
	2809.00	16.05	27.37	2783.87	214.07	166.15	134.98	0.25	2131223.06	2744030.65	N 36 51 24.642	W 107 45 42.338
	2873.00	16.63	32.87	2845.29	231.85	181.70	144.02	2.58	2131238.61	2744039.69	N 36 51 24.796	W 107 45 42.226
	2936.00	16.50	35.80	2905.68	249.75	196.53	154.15	1.34	2131253.43	2744049.81	N 36 51 24.942	W 107 45 42.101
Last SLB MWD Survey	3024.00	16.67	36.12	2990.02	274.84	216.86	168.90	0.22	2131273.76	2744064.56	N 36 51 25.143	W 107 45 41.920
Begin Client Assumed Drop	3025.00	16.64	36.12	2990.97	275.13	217.09	169.07	3.00	2131273.99	2744064.73	N 36 51 25.145	W 107 45 41.918
End Client Assumed Drop	3579.67	0.00	36.12	3537.88	355.02	281.70	216.21	3.00	2131338.59	2744111.87	N 36 51 25.784	W 107 45 41.337
Projection to TD	7511.00	0.00	36.12	7469.21	355.02	281.70	216.21	0.00	2131338.59	2744111.87	N 36 51 25.784	W 107 45 41.337

Survey Type: Raw Survey

Survey Error Model: SLB ISCWSA version 16 *** 3-D 95.00% Confidence 2.7955 sigma

Surveying Prog:

MD From (ft)

0.00

300.00

3024.00

MD To (ft)

300.00

3024.00

7511.00

EQU Freq Survey Tool Type

Act-Stns SLB_BLIND

Act-Stns SLB_MWD-STD

Act-Stns SLB_BLIND