

Mudge LS 16M Final Surveys Report



Report Date: May 28, 2003 Client: BP America Inc. Field: NM, San Juan County (NAD 83 WZ) Structure / Slot: BP 10-31N-11W (Mudge LS 16M) No Certified Plat - Have Lat-Long / Mudge LS 16M Well: Mudge LS 16M Borehole: Original Hole UWI/API#: Survey Name / Date: Mudge LS 16M Final Surveys / April 9, 2003 Tort / AHD / DDI / ERD ratio: 47.932° / 446.33 ft / 4.334 / 0.06C Grid Coordinate System: NAD83 New Mexico State Planes, Western Zone, US Feet Location Lat/Long: N 36 54 40.100, W 107 58 18.90C Location Grid N/E Y/X: N 2151010.981 ftUS, E 2682577.153 ftUS Grid Convergence Angle: -0.08322989° Grid Scale Factor: 0.99991854	Survey / DLS Computation Method: Minimum Curvature / Lubinski Vertical Section Azimuth: 330.090° Vertical Section Origin: N 0.000 ft, E 0.000 ft TVD Reference Datum: RKB TVD Reference Elevation: 6165.0 ft relative to MSL Sea Bed / Ground Level Elevation: 6151.000 ft relative to MSL Magnetic Declination: 11.004° Total Field Strength: 51653.800 nT Magnetic Dip: 63.754° Declination Date: April 09, 2003 Magnetic Declination Model: BGGM 2002 North Reference: Grid North Total Corr Mag North -> Grid North: +11.087° 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	57.75	0.00	0.00	0.00	0.00	0.00	2151010.98	2682577.15	N 36 54 40.100	W 107 58 18.900
Begin SLB MWD Surveys	545.00	1.27	57.75	544.96	0.25	3.22	5.11	0.23	2151014.20	2682582.26	N 36 54 40.132	W 107 58 18.837
	862.00	1.20	100.25	861.89	-1.75	4.51	11.35	0.28	2151015.49	2682588.50	N 36 54 40.145	W 107 58 18.760
	1179.00	1.42	109.25	1178.81	-6.86	2.62	18.32	0.09	2151013.60	2682595.47	N 36 54 40.126	W 107 58 18.674
	1495.00	1.90	103.38	1494.67	-13.42	0.12	27.11	0.16	2151011.10	2682604.26	N 36 54 40.102	W 107 58 18.566
	1851.00	2.05	111.13	1850.46	-22.42	-3.54	38.79	0.09	2151007.44	2682615.94	N 36 54 40.066	W 107 58 18.422
	1883.00	2.08	106.90	1882.44	-23.28	-3.92	39.88	0.49	2151007.06	2682617.03	N 36 54 40.062	W 107 58 18.409
	1915.00	1.52	73.70	1914.43	-23.81	-3.97	40.85	3.62	2151007.01	2682618.00	N 36 54 40.061	W 107 58 18.397
	1947.00	1.73	5.25	1946.42	-23.51	-3.37	41.30	5.74	2151007.61	2682618.45	N 36 54 40.067	W 107 58 18.391
	1979.00	3.10	334.90	1978.39	-22.25	-2.10	40.98	5.72	2151008.88	2682618.12	N 36 54 40.080	W 107 58 18.395
	2011.00	4.25	332.40	2010.32	-20.21	-0.27	40.06	3.63	2151010.71	2682617.21	N 36 54 40.098	W 107 58 18.407
	2042.00	5.50	332.35	2041.21	-17.58	2.07	38.84	4.03	2151013.05	2682615.99	N 36 54 40.121	W 107 58 18.422
	2074.00	6.75	330.10	2073.02	-14.16	5.05	37.19	3.98	2151016.03	2682614.34	N 36 54 40.151	W 107 58 18.442
	2106.00	7.82	326.65	2104.77	-10.11	8.50	35.05	3.61	2151019.48	2682612.20	N 36 54 40.185	W 107 58 18.469
	2138.00	8.65	328.33	2136.44	-5.53	12.37	32.59	2.70	2151023.35	2682609.74	N 36 54 40.223	W 107 58 18.499
	2170.00	9.55	330.23	2168.03	-0.47	16.72	30.01	2.96	2151027.70	2682607.16	N 36 54 40.266	W 107 58 18.531