

A Gyrodata Directional Survey

Field Copy Only, not definitive

for

BP AMERICA PRODUCTION

Lease: RED BULL 6 STATE Well: # 1, 4-1/2" X-H DRILLPIPE
Location: NABORS 399, LEA COUNTY, N. M.,



Job Number: MD0305GW136

Run Date: 3/24/2005 9:38:05 PM

Surveyor: JAMES KING

Calculation Method: MINIMUM CURVATURE

Survey Latitude: 32.781372 deg. N Longitude: 103.458419 deg. W

Azimuth Correction:

Gyro: -0.47000 deg West to Grid North

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Well Head Location

SUR: A-6-18s-34e, 660/N & 495/E
BHL: P-31-17s-34e, 83/S & 799/E
API # 30-025-36939

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MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	VERTICAL SECTION feet	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
0.00	0.00	0.00	0.0	0.00	0.00	0.0 0.0	0.00 N 0.00 E
0 - 8300 FT. RATE GYROSCOPIC MULTISHOT SURVEY RUN INSIDE 4-1/2" X-H DRILLPIPE ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO NABORS 399 R.K.B. (17 FT)							
200.00	0.07	67.17	0.1	0.03	200.00	0.1 67.2	0.05 N 0.11 E
400.00	0.08	14.68	0.2	0.03	400.00	0.3 48.1	0.23 N 0.26 E
600.00	0.15	254.53	0.3	0.10	600.00	0.3 6.3	0.29 N 0.03 E
800.00	0.14	289.04	0.3	0.04	800.00	0.5 303.6	0.30 N 0.45 W
1000.00	0.09	31.47	0.5	0.09	1000.00	0.8 311.1	0.52 N 0.59 W
1200.00	0.10	79.23	0.7	0.04	1200.00	0.8 334.5	0.69 N 0.33 W
1400.00	0.11	83.06	0.8	0.01	1400.00	0.8 3.4	0.75 N 0.04 E
1600.00	0.13	93.31	0.8	0.01	1600.00	0.9 31.3	0.76 N 0.46 E
1800.00	0.10	278.57	0.8	0.12	1800.00	0.9 33.2	0.77 N 0.51 E
2000.00	0.09	323.88	0.9	0.04	2000.00	1.0 13.9	0.93 N 0.23 E
2200.00	0.25	36.45	1.4	0.12	2200.00	1.5 15.4	1.41 N 0.39 E
2400.00	0.38	33.70	2.3	0.07	2399.99	2.5 23.7	2.31 N 1.01 E
2600.00	0.49	16.20	3.7	0.09	2599.99	4.0 23.7	3.69 N 1.62 E
2800.00	0.82	4.68	5.9	0.17	2799.97	6.3 18.4	5.93 N 1.98 E
3000.00	0.94	13.89	8.9	0.09	2999.95	9.3 15.5	8.95 N 2.49 E
3200.00	1.04	16.31	12.3	0.05	3199.92	12.7 15.4	12.28 N 3.39 E
3400.00	1.04	30.30	15.6	0.13	3399.89	16.3 17.2	15.59 N 4.82 E
3600.00	1.10	21.93	18.9	0.08	3599.85	20.0 18.8	18.93 N 6.45 E
3800.00	1.15	21.58	22.6	0.03	3799.82	23.9 19.3	22.57 N 7.90 E

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4000.00	1.32	26.49	26.5	0.10	3999.77	28.2 20.0	26.49 N 9.66 E
4200.00	1.25	34.39	30.3	0.09	4199.72	32.6 21.4	30.34 N 11.92 E
4400.00	1.38	37.35	34.1	0.08	4399.67	37.1 23.2	34.07 N 14.62 E
4600.00	1.31	28.62	38.0	0.11	4599.61	41.7 24.3	37.99 N 17.18 E
4800.00	1.22	24.37	41.9	0.06	4799.56	46.1 24.5	41.94 N 19.15 E
4900.00	1.26	25.60	43.9	0.04	4899.54	48.3 24.6	43.90 N 20.06 E
5000.00	1.39	26.89	46.0	0.14	4999.51	50.6 24.6	45.97 N 21.08 E
5100.00	1.39	26.83	48.1	0.00	5099.48	53.0 24.7	48.13 N 22.18 E
5200.00	1.45	24.39	50.4	0.09	5199.45	55.5 24.8	50.37 N 23.25 E
5300.00	1.47	24.91	52.7	0.02	5299.42	58.0 24.8	52.69 N 24.32 E
5400.00	1.51	29.08	55.0	0.12	5399.39	60.6 24.9	55.01 N 25.50 E
5500.00	1.51	24.50	57.4	0.12	5499.35	63.3 25.0	57.37 N 26.69 E
5600.00	1.93	29.28	60.0	0.43	5599.31	66.3 25.1	60.04 N 28.06 E
5700.00	2.50	34.87	63.3	0.61	5699.23	70.1 25.5	63.29 N 30.13 E
5800.00	3.28	29.47	67.6	0.83	5799.10	75.1 25.9	67.57 N 32.79 E
5900.00	4.25	27.80	73.3	0.97	5898.89	81.7 26.1	73.35 N 35.92 E
6000.00	4.46	26.20	80.1	0.24	5998.60	89.3 26.2	80.12 N 39.37 E
6100.00	4.45	25.95	87.1	0.02	6098.29	97.0 26.2	87.09 N 42.78 E
6200.00	5.53	21.92	95.0	1.13	6197.91	105.7 26.0	95.05 N 46.28 E
6300.00	7.16	15.55	105.5	1.78	6297.30	116.7 25.2	105.52 N 49.75 E
6400.00	9.08	10.18	119.3	2.06	6396.29	130.5 23.9	119.29 N 52.81 E
6500.00	11.19	6.49	136.7	2.21	6494.73	147.5 22.0	136.69 N 55.31 E
6600.00	12.75	358.43	157.4	2.29	6592.56	167.1 19.6	157.36 N 56.10 E

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6700.00	14.11	352.06	180.5	2.00	6689.83	188.4 16.7	180.47 N 54.12 E
6800.00	15.60	347.88	205.7	1.84	6786.49	211.6 13.6	205.68 N 49.61 E
6900.00	17.33	343.44	233.1	2.14	6882.39	237.0 10.3	233.10 N 42.54 E
7000.00	18.65	341.06	262.5	1.51	6977.50	264.6 7.2	262.50 N 33.11 E
7100.00	19.90	339.30	293.5	1.38	7071.90	294.4 4.3	293.54 N 21.90 E
7200.00	20.88	338.41	326.0	1.03	7165.63	326.2 1.6	326.04 N 9.33 E
7300.00	21.73	336.41	359.6	1.12	7258.80	359.6 359.3	359.57 N 4.64 W
7400.00	22.77	334.59	394.0	1.25	7351.35	394.5 357.0	394.02 N 20.35 W
7500.00	23.59	331.65	429.1	1.42	7443.28	430.8 354.9	429.11 N 38.15 W
7600.00	24.77	328.66	464.6	1.70	7534.51	468.3 352.8	464.61 N 58.55 W
7700.00	25.41	324.89	500.1	1.72	7625.08	506.7 350.7	500.06 N 81.79 W
7800.00	26.49	321.65	535.1	1.78	7715.00	545.9 348.6	535.11 N 107.97 W
7900.00	28.21	318.55	570.3	2.23	7803.82	586.6 346.4	570.32 N 137.46 W
8000.00	29.64	317.22	606.2	1.57	7891.34	629.5 344.3	606.18 N 169.90 W
8100.00	30.23	316.77	642.7	0.63	7978.00	674.3 342.4	642.67 N 203.93 W
8200.00	31.03	315.30	679.3	1.10	8064.05	720.3 340.6	679.34 N 239.31 W
8300.00	31.93	314.17	716.1	1.08	8149.34	767.6 338.9	716.08 N 276.40 W
8337.00	32.31	313.13	729.7	1.81	8180.67	785.4 338.3	729.66 N 290.64 W

Final Station Closure: Distance: 785.41 ft Az: 338.28 deg.