



Actual Wellpath Report

No.344H AWP

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30-015-39487

REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.344H SHL
Area	Eddy County, NM	Well	No.344H
Field	Poker Lake Unit	Wellbore	No.344H AWB
Facility	Poker Lake Unit No. 344H		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Gentbry
Scale	0.999934	Report Generated	3/26/2012 at 9:18:26 AM
Convergence at slot	0.26° East	Database/Source file	WA Midland/No.344H_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W
Facility Reference Pt			648480.77	430121.24	32°10'53.795"N	103°51'12.272"W
Field Reference Pt			630272.49	405347.85	32°06'49.387"N	103°54'45.266"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No.344H (KB) to Facility Vertical Datum	19.00ft
Horizontal Reference Pt	Slot	Rig on No.344H (KB) to Mean Sea Level	3362.40ft
Vertical Reference Pt	Rig on No.344H (KB)	Rig on No.344H (KB) to Mud Line at Slot (No.344H SHL)	19.00ft
MD Reference Pt	Rig on No.344H (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	314.61°



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Field	Poker Lake Unit	Wellbore	No.344H AWB
Facility	Poker Lake Unit No. 344H		

WELLPATH DATA (179 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	132.620	0.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
19.00	0.000	132.620	19.00	0.00	0.00	0.00	648480.77	430121.24	32°10'53.795"N	103°51'12.272"W	0.00	
100.00	0.220	132.620	100.00	-0.16	-0.11	0.11	648480.88	430121.13	32°10'53.794"N	103°51'12.271"W	0.27	
200.00	0.090	100.020	200.00	-0.41	-0.25	0.33	648481.10	430120.99	32°10'53.793"N	103°51'12.269"W	0.15	
300.00	0.290	114.240	300.00	-0.35	-0.02	0.47	648481.24	430120.22	32°10'53.795"N	103°51'12.267"W	0.30	
334.60	0.610	345.060	334.60	-0.15	0.25	0.45	648481.22	430121.49	32°10'53.798"N	103°51'12.267"W	1.11	
429.80	0.670	334.910	429.79	0.81	1.24	0.08	648480.85	430122.48	32°10'53.808"N	103°51'12.271"W	0.13	
525.00	0.770	302.330	524.98	1.96	2.09	-0.70	648480.07	430123.33	32°10'53.816"N	103°51'12.280"W	0.44	
620.10	0.800	303.400	620.08	3.24	2.79	-1.79	648478.98	430124.03	32°10'53.823"N	103°51'12.293"W	0.04	
715.30	0.770	307.340	715.27	4.52	3.55	2.85	648477.92	430124.79	32°10'53.831"N	103°51'12.305"W	0.06	
810.40	0.620	308.150	810.36	5.67	4.25	-3.77	648477.00	430125.49	32°10'53.838"N	103°51'12.316"W	0.16	
905.60	0.750	318.510	905.55	6.80	5.04	-4.58	648476.19	430126.28	32°10'53.845"N	103°51'12.325"W	0.19	
1000.80	0.810	324.980	1000.74	8.08	6.05	-5.38	648475.39	430127.29	32°10'53.855"N	103°51'12.335"W	0.11	
1095.90	0.780	294.070	1095.84	9.35	6.87	-6.36	648474.41	430128.11	32°10'53.864"N	103°51'12.346"W	0.45	
1191.10	2.050	251.360	1191.01	10.73	6.59	-8.57	648472.21	430127.83	32°10'53.861"N	103°51'12.372"W	1.65	
1286.20	3.280	245.370	1286.00	12.45	4.91	-12.65	648468.12	430126.15	32°10'53.844"N	103°51'12.419"W	1.32	
1381.40	2.970	244.670	1381.06	14.27	2.72	-17.36	648463.42	430123.96	32°10'53.823"N	103°51'12.474"W	0.33	
1476.60	2.840	244.330	1476.14	15.91	0.64	-21.71	648459.06	430121.88	32°10'53.803"N	103°51'12.525"W	0.14	
1571.70	2.720	245.620	1571.13	17.51	-1.31	-25.89	648454.88	430119.93	32°10'53.784"N	103°51'12.574"W	0.14	
1666.90	2.270	250.450	1666.24	19.14	2.87	-29.72	648451.05	430118.37	32°10'53.768"N	103°51'12.618"W	0.52	
1762.00	2.140	255.970	1761.27	20.89	-3.93	-33.22	648447.55	430117.31	32°10'53.758"N	103°51'12.659"W	0.26	
1857.20	1.750	256.520	1856.41	22.58	-4.70	-36.36	648444.41	430116.54	32°10'53.750"N	103°51'12.696"W	0.41	
1952.40	1.660	257.490	1951.57	24.10	-5.34	-39.12	648441.65	430115.90	32°10'53.744"N	103°51'12.728"W	0.10	
2047.50	1.450	249.140	2046.63	25.34	-6.07	-41.59	648439.19	430115.17	32°10'53.737"N	103°51'12.757"W	0.32	
2142.70	1.140	255.420	2141.81	26.33	-6.73	-43.63	648437.14	430114.51	32°10'53.731"N	103°51'12.780"W	0.36	
2237.80	0.880	256.550	2236.89	27.20	-7.14	-45.26	648435.52	430114.10	32°10'53.727"N	103°51'12.799"W	0.27	
2333.00	0.580	257.550	2332.09	27.85	-7.41	-46.44	648434.34	430113.83	32°10'53.724"N	103°51'12.813"W	0.32	
2428.20	0.540	248.010	2427.28	28.29	-7.69	-47.32	648433.45	430113.55	32°10'53.721"N	103°51'12.823"W	0.11	
2523.30	0.560	231.350	2522.38	28.52	-8.14	-48.10	648432.67	430113.10	32°10'53.717"N	103°51'12.832"W	0.17	
2618.50	0.380	241.370	2617.57	28.67	-8.59	-48.74	648432.03	430112.65	32°10'53.713"N	103°51'12.840"W	0.21	
2713.60	0.350	246.010	2712.67	28.86	-8.86	-49.28	648431.49	430112.38	32°10'53.710"N	103°51'12.846"W	0.04	
2808.80	0.220	266.400	2807.87	29.09	-8.99	-49.73	648431.04	430112.26	32°10'53.709"N	103°51'12.851"W	0.17	
2904.00	0.190	267.100	2903.07	29.32	-9.00	-50.07	648430.70	430112.24	32°10'53.708"N	103°51'12.855"W	0.03	
2999.10	0.070	286.340	2998.17	29.48	-9.00	-50.29	648430.49	430112.24	32°10'53.709"N	103°51'12.858"W	0.13	
3094.30	0.090	39.020	3093.37	29.54	-8.92	-50.29	648430.48	430112.32	32°10'53.709"N	103°51'12.858"W	0.14	
3189.40	0.300	72.880	3188.47	29.43	-8.79	-50.01	648430.76	430112.45	32°10'53.711"N	103°51'12.855"W	0.24	
3284.60	0.500	99.940	3283.67	28.97	-8.79	-49.36	648431.41	430112.45	32°10'53.711"N	103°51'12.847"W	0.28	
3379.80	0.500	96.630	3378.86	28.30	-8.91	-48.54	648432.23	430112.33	32°10'53.709"N	103°51'12.838"W	0.03	
3474.90	0.430	113.930	3473.96	27.64	-9.10	-47.80	648432.97	430112.14	32°10'53.707"N	103°51'12.829"W	0.16	
3570.10	0.530	130.640	3569.16	26.86	-9.53	-47.14	648433.63	430111.71	32°10'53.703"N	103°51'12.821"W	0.18	
3665.20	0.650	152.860	3664.25	25.91	-10.30	-46.56	648434.21	430110.94	32°10'53.695"N	103°51'12.815"W	0.27	
3760.40	0.370	151.920	3759.45	25.11	-11.05	-46.17	648434.60	430110.19	32°10'53.688"N	103°51'12.810"W	0.29	
3855.60	0.220	121.230	3854.65	24.63	-11.42	-45.87	648434.90	430109.82	32°10'53.684"N	103°51'12.807"W	0.22	
3950.70	0.190	113.150	3949.75	24.31	-11.57	-45.57	648435.20	430109.67	32°10'53.683"N	103°51'12.803"W	0.04	
4045.90	0.210	109.180	4044.95	24.00	-11.69	-45.26	648435.51	430109.55	32°10'53.682"N	103°51'12.800"W	0.03	



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Area	Eddy County, NM	Well	No.344H
Field	Poker Lake Unit	Wellbore	No.344H AWB
Facility	Poker Lake Unit No. 344H		

WELLPATH DATA (179 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4141.00	0.170	95.280	4140.05	23.74	-11.76	-44.95	648435.82	430109.48	32°10'53.681"N	103°51'12.796"W	0.06	
4236.20	0.120	63.420	4235.25	23.60	-11.73	-44.72	648436.05	430109.51	32°10'53.681"N	103°51'12.793"W	0.10	
4331.40	0.110	10.090	4330.45	23.62	-11.60	-44.62	648436.15	430109.64	32°10'53.683"N	103°51'12.792"W	0.11	
4426.50	0.170	322.210	4425.54	23.81	-11.40	-44.69	648436.08	430109.84	32°10'53.685"N	103°51'12.793"W	0.13	
4521.70	0.210	326.110	4520.74	24.12	-11.14	-44.87	648435.90	430110.10	32°10'53.687"N	103°51'12.795"W	0.04	
4616.80	0.230	354.130	4615.84	24.44	-10.81	-44.99	648435.78	430110.44	32°10'53.690"N	103°51'12.796"W	0.11	
4712.00	0.430	4.750	4711.04	24.81	-10.26	-44.98	648435.79	430110.98	32°10'53.696"N	103°51'12.796"W	0.22	
4807.20	0.330	10.680	4806.24	25.20	-9.63	-44.90	648435.87	430111.61	32°10'53.702"N	103°51'12.795"W	0.11	
4902.30	0.260	20.820	4901.34	25.44	-9.16	-44.77	648436.00	430112.08	32°10'53.707"N	103°51'12.794"W	0.09	
4997.50	0.340	19.990	4996.54	25.64	-8.70	-44.60	648436.17	430112.55	32°10'53.711"N	103°51'12.792"W	0.08	
5092.60	0.290	13.330	5091.64	25.88	-8.20	-44.45	648436.33	430113.04	32°10'53.716"N	103°51'12.790"W	0.07	
5187.80	0.260	15.760	5186.83	26.11	-7.75	-44.33	648436.44	430113.49	32°10'53.721"N	103°51'12.789"W	0.03	
5283.00	0.140	354.480	5282.03	26.31	-7.43	-44.28	648436.49	430113.81	32°10'53.724"N	103°51'12.788"W	0.15	
5378.10	0.130	305.210	5377.13	26.50	-7.25	-44.38	648436.39	430113.99	32°10'53.726"N	103°51'12.789"W	0.12	
5473.30	0.140	286.440	5472.33	26.71	-7.16	-44.58	648436.19	430114.08	32°10'53.726"N	103°51'12.791"W	0.05	
5568.40	0.210	229.270	5567.43	26.83	-7.24	-44.83	648435.95	430114.00	32°10'53.726"N	103°51'12.794"W	0.19	
5663.60	0.290	226.080	5662.63	26.85	-7.52	-45.13	648435.64	430113.72	32°10'53.723"N	103°51'12.798"W	0.09	
5758.80	0.270	209.080	5757.83	26.79	-7.88	-45.42	648435.36	430113.36	32°10'53.719"N	103°51'12.801"W	0.09	
5853.90	0.300	188.120	5852.93	26.59	-8.32	-45.56	648435.21	430112.92	32°10'53.715"N	103°51'12.803"W	0.11	
5949.10	0.360	177.400	5948.13	26.22	-8.87	-45.58	648435.19	430112.37	32°10'53.710"N	103°51'12.803"W	0.09	
6044.20	0.410	178.190	6043.23	25.75	-9.51	-45.56	648435.22	430111.73	32°10'53.703"N	103°51'12.803"W	0.05	
6139.40	0.460	174.950	6138.42	25.21	-10.23	-45.51	648435.26	430111.01	32°10'53.696"N	103°51'12.802"W	0.06	
6234.60	0.530	184.480	6233.62	24.64	-11.05	-45.51	648435.26	430110.19	32°10'53.688"N	103°51'12.802"W	0.11	
6329.70	0.480	218.750	6328.72	24.31	-11.80	-45.80	648434.98	430109.44	32°10'53.681"N	103°51'12.806"W	0.32	
6424.90	0.640	228.420	6423.91	24.31	-12.46	-46.44	648434.33	430108.78	32°10'53.674"N	103°51'12.813"W	0.19	
6520.00	0.760	223.670	6519.01	24.33	-13.27	-47.28	648433.50	430107.97	32°10'53.666"N	103°51'12.823"W	0.14	
6615.20	0.750	217.440	6614.20	24.25	-14.22	-48.09	648432.68	430107.02	32°10'53.657"N	103°51'12.833"W	0.09	
6710.40	0.780	217.630	6709.39	24.09	-15.23	-48.87	648431.91	430106.01	32°10'53.647"N	103°51'12.842"W	0.03	
6805.50	0.660	220.050	6804.48	23.97	-16.16	-49.61	648431.16	430105.08	32°10'53.638"N	103°51'12.850"W	0.13	
6900.70	0.760	206.420	6899.67	23.73	-17.15	-50.25	648430.53	430104.09	32°10'53.628"N	103°51'12.858"W	0.21	
6995.80	0.780	204.160	6994.76	23.30	-18.30	-50.79	648429.98	430102.94	32°10'53.616"N	103°51'12.864"W	0.04	
7091.00	0.790	202.590	7089.96	22.83	-19.50	-51.31	648429.46	430101.74	32°10'53.605"N	103°51'12.870"W	0.02	
7153.00	0.780	203.420	7151.95	22.52	-20.28	-51.64	648429.13	430100.96	32°10'53.597"N	103°51'12.874"W	0.02	
7176.00	0.800	200.200	7174.95	22.39	-20.58	-51.76	648429.01	430100.67	32°10'53.594"N	103°51'12.876"W	0.21	
7207.00	1.100	300.400	7205.95	22.59	-20.63	-52.09	648428.68	430100.61	32°10'53.593"N	103°51'12.880"W	4.74	
7238.00	3.700	321.400	7236.92	23.88	-19.70	-52.97	648427.80	430101.55	32°10'53.603"N	103°51'12.890"W	8.72	
7270.00	7.100	326.000	7268.77	26.84	-17.25	-54.72	648426.05	430103.99	32°10'53.627"N	103°51'12.910"W	10.70	
7302.00	11.500	328.100	7300.34	31.88	-12.90	-57.52	648423.26	430108.34	32°10'53.670"N	103°51'12.942"W	13.79	
7333.00	15.000	329.200	7330.51	38.77	-6.83	-61.20	648419.57	430114.41	32°10'53.730"N	103°51'12.985"W	11.32	
7364.00	18.800	328.700	7360.17	47.50	0.89	-65.86	648414.92	430122.13	32°10'53.807"N	103°51'13.039"W	12.27	
7395.00	22.000	325.500	7389.22	58.05	9.94	-71.74	648409.03	430131.18	32°10'53.897"N	103°51'13.107"W	10.93	
7426.00	25.400	322.900	7417.60	70.34	20.04	-79.04	648401.73	430141.27	32°10'53.997"N	103°51'13.191"W	11.47	
7458.00	28.700	320.500	7446.10	84.78	31.44	-88.07	648392.70	430152.68	32°10'54.110"N	103°51'13.295"W	10.86	
7490.00	31.500	317.400	7473.78	100.77	43.53	-98.62	648382.16	430164.77	32°10'54.230"N	103°51'13.418"W	10.01	
7520.00	33.900	315.200	7499.03	116.97	55.24	-109.82	648370.95	430176.47	32°10'54.347"N	103°51'13.547"W	8.93	



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Area	Eddy County, NM	Well	No.344H
Field	Poker Lake Unit	Wellbore	No.344H AWB
Facility	Poker Lake Unit No. 344H		

WELLPATH DATA (179 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7552.00	36.100	314.300	7525.24	135.32	68.15	-122.86	648357.92	430189.39	32°10'54.475"N	103°51'13.698"W	7.06	
7583.00	39.000	314.400	7549.81	154.22	81.36	-136.37	648344.41	430202.59	32°10'54.606"N	103°51'13.855"W	9.36	
7614.00	41.800	314.800	7573.42	174.30	95.47	-150.67	648330.11	430216.70	32°10'54.747"N	103°51'14.020"W	9.07	
7646.00	46.100	315.400	7596.45	196.51	111.20	-166.34	648314.44	430232.43	32°10'54.903"N	103°51'14.202"W	13.50	
7678.00	49.900	315.000	7617.86	220.28	128.07	-183.10	648297.69	430249.30	32°10'55.071"N	103°51'14.396"W	11.91	
7709.00	52.600	314.800	7637.26	244.46	145.13	-200.22	648280.56	430266.36	32°10'55.240"N	103°51'14.594"W	8.72	
7741.00	55.500	313.900	7656.05	270.36	163.23	-218.74	648262.04	430284.46	32°10'55.420"N	103°51'14.809"W	9.34	
7773.00	58.600	313.000	7673.45	297.20	181.70	-238.24	648242.55	430302.92	32°10'55.604"N	103°51'15.035"W	9.97	
7804.00	60.900	311.700	7689.07	323.96	199.73	-258.03	648222.76	430320.96	32°10'55.783"N	103°51'15.264"W	8.26	
7836.00	62.800	311.700	7704.16	352.13	218.50	-279.10	648201.69	430339.73	32°10'55.970"N	103°51'15.508"W	15.94	
7866.00	65.000	312.800	7717.36	379.05	236.61	-299.03	648181.76	430357.84	32°10'56.150"N	103°51'15.739"W	8.04	
7897.00	69.300	314.000	7729.40	407.60	256.24	-319.78	648161.01	430377.46	32°10'56.345"N	103°51'15.980"W	14.32	
7927.00	74.000	314.700	7738.84	436.07	276.14	-340.14	648140.66	430397.36	32°10'56.543"N	103°51'16.216"W	15.82	
7959.00	78.500	315.900	7746.44	467.14	298.23	-361.99	648118.80	430419.45	32°10'56.762"N	103°51'16.469"W	14.53	
7990.00	82.600	315.700	7751.53	497.71	320.15	-383.31	648097.49	430441.37	32°10'56.980"N	103°51'16.716"W	13.24	
8022.00	85.800	315.600	7754.76	529.53	342.91	-405.56	648075.24	430464.13	32°10'57.206"N	103°51'16.973"W	10.00	
8054.00	89.000	316.000	7756.22	561.49	365.83	-427.84	648052.96	430487.04	32°10'57.434"N	103°51'17.231"W	10.08	
8122.00	91.600	315.200	7755.86	629.47	414.41	-475.41	648005.39	430535.62	32°10'57.917"N	103°51'17.782"W	4.00	
8243.00	91.200	315.300	7752.90	750.43	500.31	-560.57	647920.24	430621.52	32°10'58.771"N	103°51'18.769"W	0.34	
8337.00	91.900	315.000	7750.36	844.39	566.93	-626.84	647853.97	430688.13	32°10'59.433"N	103°51'19.536"W	0.81	
8430.00	92.100	314.500	7747.11	937.33	632.36	-692.85	647787.97	430753.56	32°11'00.083"N	103°51'20.301"W	0.58	
8524.00	88.700	312.900	7746.46	1031.30	697.29	-760.79	647720.03	430818.48	32°11'00.729"N	103°51'21.088"W	4.00	
8618.00	91.800	313.400	7746.05	1125.26	761.57	-829.36	647651.46	430882.76	32°11'01.368"N	103°51'21.883"W	3.34	
8712.00	89.100	313.400	7745.31	1219.23	826.15	-897.65	647583.18	430947.33	32°11'02.010"N	103°51'22.674"W	2.87	
8806.00	90.900	315.700	7745.31	1313.21	892.09	-964.63	647516.20	431013.27	32°11'02.665"N	103°51'23.450"W	3.11	
8920.00	93.500	316.300	7740.93	1427.09	974.02	-1043.76	647437.08	431095.20	32°11'03.480"N	103°51'24.366"W	2.34	
9013.00	92.100	317.300	7736.39	1519.91	1041.73	-1107.34	647373.50	431162.90	32°11'04.152"N	103°51'25.103"W	1.85	
9107.00	91.600	315.800	7733.36	1613.80	1109.94	-1171.95	647308.89	431231.10	32°11'04.830"N	103°51'25.851"W	1.68	
9201.00	93.700	315.300	7729.01	1707.68	1176.96	-1237.71	647243.15	431298.12	32°11'05.496"N	103°51'26.612"W	2.30	
9295.00	95.000	316.100	7721.88	1801.39	1244.04	-1303.17	647177.69	431365.20	32°11'06.163"N	103°51'27.371"W	1.62	
9388.00	94.000	315.100	7714.58	1894.09	1310.28	-1368.03	647112.83	431431.43	32°11'06.821"N	103°51'28.122"W	1.52	
9483.00	92.800	315.100	7708.95	1988.92	1377.45	-1434.97	647045.89	431498.60	32°11'07.489"N	103°51'28.897"W	1.26	
9576.00	91.300	311.300	7705.62	2081.81	1441.06	-1502.71	646978.16	431562.20	32°11'08.121"N	103°51'29.682"W	4.39	
9670.00	92.500	311.300	7702.51	2175.60	1503.07	-1573.29	646907.59	431624.21	32°11'08.738"N	103°51'30.500"W	1.28	
9764.00	90.900	308.500	7699.72	2269.23	1563.33	-1645.36	646835.52	431684.46	32°11'09.337"N	103°51'31.336"W	3.43	
9858.00	92.000	311.300	7697.34	2362.87	1623.60	-1717.44	646763.44	431744.73	32°11'09.937"N	103°51'32.171"W	3.20	
9952.00	90.100	313.600	7695.61	2456.77	1687.03	-1786.78	646694.11	431808.15	32°11'10.568"N	103°51'32.975"W	3.17	
10046.00	88.500	316.900	7696.76	2550.74	1753.77	-1852.95	646627.95	431874.89	32°11'11.231"N	103°51'33.741"W	3.90	
10140.00	88.600	318.000	7699.14	2644.60	1822.99	-1916.49	646564.41	431944.11	32°11'11.919"N	103°51'34.477"W	1.17	
10233.00	89.600	317.600	7700.60	2737.44	1891.88	-1978.95	646501.95	432012.99	32°11'12.603"N	103°51'35.200"W	1.16	
10327.00	90.700	318.700	7700.36	2831.26	1961.89	-2041.66	646439.24	432083.00	32°11'13.299"N	103°51'35.927"W	1.65	
10421.00	90.800	318.700	7699.13	2925.01	2032.51	-2103.70	646377.21	432153.61	32°11'14.000"N	103°51'36.645"W	0.11	
10515.00	89.800	317.700	7698.63	3018.82	2102.58	-2166.35	646314.57	432223.68	32°11'14.696"N	103°51'37.370"W	1.50	
10609.00	89.900	317.600	7698.88	3112.69	2172.05	-2229.67	646251.25	432293.14	32°11'15.386"N	103°51'38.103"W	0.15	
10703.00	91.600	319.300	7697.65	3206.47	2242.39	-2292.01	646188.91	432363.47	32°11'16.085"N	103°51'38.825"W	2.56	



Actual Wellpath Report

No.344H AWP

Page 5 of 5



REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.344H SHL
Area	Eddy County, NM	Well	No.344H
Field	Poker Lake Unit	Wellbore	No.344H AWB
Facility	Poker Lake Unit No. 344H		

WELLPATH DATA (179 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10796.00	91.300	317.500	7695.30	3299.23	2311.91	-2353.74	646127.19	432432.99	32°11'16.776"N	103°51'39.540"W	1.96	
10890.00	89.600	314.000	7694.56	3393.19	2379.22	-2419.31	646061.62	432500.30	32°11'17.445"N	103°51'40.299"W	4.14	
10984.00	90.800	314.600	7694.23	3487.19	2444.87	-2486.59	645994.35	432565.95	32°11'18.097"N	103°51'41.079"W	1.43	
11078.00	90.400	311.300	7693.25	3581.13	2508.91	-2555.38	645925.57	432629.98	32°11'18.734"N	103°51'41.876"W	3.54	
11172.00	90.200	309.500	7692.75	3674.87	2569.83	-2626.96	645853.99	432690.89	32°11'19.340"N	103°51'42.706"W	1.93	
11266.00	91.100	313.800	7691.69	3768.71	2632.28	-2697.17	645783.78	432753.34	32°11'19.961"N	103°51'43.520"W	4.67	
11360.00	91.900	314.200	7689.23	3862.68	2697.55	-2764.77	645716.19	432818.61	32°11'20.610"N	103°51'44.303"W	0.95	
11454.00	91.100	315.000	7686.76	3956.64	2763.53	-2831.67	645649.29	432884.58	32°11'21.265"N	103°51'45.078"W	1.20	
11548.00	90.400	315.300	7685.53	4050.63	2830.17	-2897.96	645583.00	432951.22	32°11'21.928"N	103°51'45.846"W	0.81	
11642.00	91.900	318.200	7683.65	4144.53	2898.61	-2962.35	645518.62	433019.65	32°11'22.608"N	103°51'46.592"W	3.47	
11735.00	91.100	318.100	7681.21	4237.32	2967.86	-3024.37	645456.60	433088.90	32°11'23.296"N	103°51'47.310"W	0.87	
11829.00	89.300	317.800	7680.88	4331.16	3037.66	-3087.33	645393.65	433158.69	32°11'23.989"N	103°51'48.039"W	1.94	
11923.00	90.000	317.300	7681.46	4425.03	3107.02	-3150.77	645330.21	433228.05	32°11'24.678"N	103°51'48.773"W	0.92	
12017.00	89.600	316.900	7681.79	4518.94	3175.87	-3214.76	645266.23	433296.90	32°11'25.362"N	103°51'49.515"W	0.60	
12111.00	90.400	316.100	7681.79	4612.89	3244.06	-3279.46	645201.53	433365.08	32°11'26.040"N	103°51'50.264"W	1.20	
12205.00	91.600	315.500	7680.15	4706.85	3311.44	-3344.99	645136.01	433432.45	32°11'26.709"N	103°51'51.023"W	1.43	
12299.00	91.900	312.900	7677.28	4800.80	3376.93	-3412.34	645068.66	433497.94	32°11'27.360"N	103°51'51.803"W	2.78	
12393.00	92.000	312.200	7674.08	4894.68	3440.46	-3481.55	644999.46	433561.47	32°11'27.992"N	103°51'52.605"W	0.75	
12487.00	90.500	310.200	7672.03	4988.49	3502.36	-3552.25	644928.76	433623.36	32°11'28.608"N	103°51'53.425"W	2.66	
12581.00	90.500	311.500	7671.21	5082.28	3563.84	-3623.35	644857.66	433684.84	32°11'29.219"N	103°51'54.249"W	1.38	
12674.00	91.600	313.800	7669.50	5175.20	3626.83	-3691.74	644789.28	433747.83	32°11'29.845"N	103°51'55.042"W	2.74	
12768.00	91.800	315.900	7666.71	5269.15	3693.09	-3758.35	644722.68	433814.08	32°11'30.504"N	103°51'55.814"W	2.24	
12862.00	91.600	318.100	7663.92	5363.03	3761.81	-3822.42	644658.61	433882.79	32°11'31.187"N	103°51'56.556"W	2.35	
12956.00	91.700	316.400	7661.22	5456.88	3830.80	-3886.20	644594.83	433951.78	32°11'31.872"N	103°51'57.294"W	1.81	
13050.00	90.800	315.500	7659.17	5550.83	3898.34	-3951.54	644529.50	434019.32	32°11'32.543"N	103°51'58.051"W	1.35	
13144.00	91.800	315.300	7657.03	5644.80	3965.26	-4017.52	644463.52	434086.23	32°11'33.208"N	103°51'58.816"W	1.08	
13238.00	89.500	313.300	7655.97	5738.78	4030.90	-4084.79	644396.26	434151.86	32°11'33.861"N	103°51'59.595"W	3.24	
13332.00	89.300	312.300	7656.95	5832.73	4094.76	-4153.75	644327.30	434215.72	32°11'34.496"N	103°52'00.394"W	1.08	
13426.00	90.900	316.000	7656.79	5926.70	4160.22	-4221.19	644259.87	434281.18	32°11'35.146"N	103°52'01.176"W	4.29	
13520.00	91.200	315.400	7655.06	6020.67	4227.48	-4286.83	644194.23	434348.44	32°11'35.815"N	103°52'01.936"W	0.71	
13614.00	89.700	315.700	7654.33	6114.65	4294.58	-4352.65	644128.42	434415.53	32°11'36.481"N	103°52'02.699"W	1.63	
13708.00	92.000	318.200	7652.93	6208.55	4363.26	-4416.80	644064.27	434484.20	32°11'37.164"N	103°52'03.442"W	3.61	
13802.00	90.800	315.500	7650.63	6302.44	4431.81	-4481.06	644000.01	434552.75	32°11'37.845"N	103°52'04.186"W	3.14	
13896.00	91.900	314.300	7648.42	6396.41	4498.14	-4547.62	643933.45	434619.07	32°11'38.504"N	103°52'04.957"W	1.73	
13990.00	91.500	313.100	7645.63	6490.36	4563.05	-4615.55	643865.53	434683.98	32°11'39.149"N	103°52'05.744"W	1.35	
14084.00	90.500	313.100	7643.99	6584.31	4627.27	-4684.18	643796.91	434748.19	32°11'39.788"N	103°52'06.540"W	1.06	
14177.00	91.000	313.300	7642.77	6677.27	4690.92	-4751.96	643729.13	434811.85	32°11'40.421"N	103°52'07.325"W	0.58	
14271.00	88.300	313.900	7643.35	6771.24	4755.74	-4820.03	643661.07	434876.66	32°11'41.065"N	103°52'08.114"W	2.94	
14366.00	88.900	313.900	7645.67	6866.21	4821.59	-4888.46	643592.64	434942.51	32°11'41.719"N	103°52'08.907"W	0.63	
14459.00	90.700	315.500	7645.99	6959.20	4887.01	-4954.56	643526.55	435007.91	32°11'42.369"N	103°52'09.673"W	2.59	
14553.00	91.300	315.400	7644.35	7053.18	4953.98	-5020.49	643460.62	435074.89	32°11'43.035"N	103°52'10.437"W	0.65	
14647.00	91.300	315.000	7642.22	7147.15	5020.66	-5086.71	643394.40	435141.57	32°11'43.698"N	103°52'11.204"W	0.43	
14689.00	91.800	314.600	7641.08	7189.13	5050.25	-5116.50	643364.61	435171.15	32°11'43.992"N	103°52'11.549"W	1.52	
14741.00	91.800	314.600	7639.45	7241.11	5086.74	-5153.51	643327.61	435207.64	32°11'44.354"N	103°52'11.978"W	0.00	Proj. to Bit

TARGETS

Name	MD	TVD	North	East	Grid East	Grid North	Latitude	Longitude	Shape
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ia□

	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			
No.344H PBHL		7644.40	5071.13	-5139.92	643341.19	435192.03	32°11'44.199"N	103°52'11.821"W	point
No.344H PBHL Rev.A		7644.40	5068.34	-5137.10	643344.02	435189.24	32°11'44.172"N	103°52'11.788"W	point
No.344H Target #2		7689.40	3033.35	-3074.50	645406.48	433154.39	32°11'23.946"N	103°51'47.890"W	point
No.344H New Target		7720.00	1241.64	-1304.06	647176.80	431362.80	32°11'06.139"N	103°51'27.381"W	point
No.344H Target #1		7727.40	467.05	-473.38	648007.42	430588.26	32°10'58.438"N	103°51'17.756"W	point

WELLPATH COMPOSITION - Ref Wellbore: No.344H AWB Ref Wellpath: No.344H AWP						
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore	
19.00	7153.00	Generic gyro - northseeking (Standard)	GyroData Gyro, <100-7153>		No.344H AWB	
7153.00	14689.00	NaviTrak (Standard)	MWD NaviTrak <7176-14689> (14741) Proj to Bit		No.344H AWB	
14689.00	14741.00	Blind Drilling (std)	Projection to bit		No.344H AWB	

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WARRIOR
Energy Services Corp.

Compensated Neutron
GAMMA RAY / CCL
LOG

Company Well Field County State	BOPCO, L.P. Poker Lake Unit #344 H Poker Lake - NW (Delaware) Eddy New Mexico	Company		BOPCO, L.P.			
		Well		Poker Lake Unit #344 H			
		Field		Poker Lake - NW (Delaware)			
		County		Eddy			
		State		New Mexico			
Location:		API # : N/A		Other Services			
		35' FSL & 1975' FWL					
		SEC 25 TWP 24S RGE 30E		Elevation			
Permanent Datum		Ground Level		Elevation 3343.4 ft			
Log Measured From		Kelly Bushing or 18.7 ft. APD		K.B. 3362.1 ft.			
Drilling Measured From		Kelly Bushing		D.F. NA			
				G.L. 3343.4 ft.			
Date		04-April-2012					
Run Number		One					
Depth Driller		NA					
Depth Logger		Not Logged					
Bottom Logged Interval		7200 ft.					
Top Log Interval		50 ft.					
Open Hole Size		8.75 in.					
Type Fluid		Water					
Density / Viscosity		NA					
Max. Recorded Temp		NA					
Estimated Cement Top							
Time Well Ready		11:00 am					
Time Logger on Bottom		See Log					
Equipment Number		WI - 3232					
Location		obbs, NM					
Recorded By		Danny Claburn					
Witnessed By		Mr. Marcus Roberson					
Borehole Record							
Run Number	Bit	From	To	Size	Weight	From	To
Tubing Record							
Casing Record	Size	Wgt/Ft	Top	Bottom			
Surface String	9.625 in.	40 lb	Surface	3393 ft			
Prot. String	7.000 in	26 lb	Surface				
Production String							
Liner							



BOPCO, L.P.

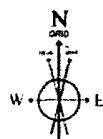
Location: Eddy County, NM
Field: Poker Lake Unit
Facility: Poker Lake Unit No. 344H

Slot: No.344H SHL
Well: No.344H
Wellbore: No.344H PWB



Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Δz (ft)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	8122.00	91.600	315.200	7755.86	414.41	-475.41	0.00	629.47
Build	8136.72	91.755	314.950	7755.43	424.82	-485.80	2.00	644.18
New Target	9293.44	91.755	314.950	7720.00	1241.64	-1304.06	0.00	1800.34
Drop	9341.42	90.795	314.953	7718.93	1275.54	-1338.01	2.00	1848.31
No 344H PBHL	14710.22	90.795	314.953	7644.40	5068.34	-5137.10	0.00	7216.50

Plot reference wellbore as Plan #6	
True vertical depths are referenced to Rig on No.344H (NBL)	Grid System: NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No.344H (NBL)	North Reference: Grid north
Rig on No.344H (NBL) to Mean Sea Level: 3102.4 feet	Scale: True direction
Mean Sea Level to Mean Sea Level (ASBL) No.344H (NBL): -3543.4 feet	Electro: as in fact
Coordinates are in feet referenced to Grid	Created by: jguthrie on 11/9/2012



BGCM (1945.0 to 2013.0) Dip 60.04° Field 48490 ft
Magnetic North is 7.10 degrees East of True North (at 2013.0)
Grid North is 0.46 degrees East of True North
To convert azimuth from True to Grid subtract 0.46 degrees
To convert azimuth from Magnetic to Grid add 7.10 degrees
For example if the Magnetic North Azimuth = 90 degrees, then the Grid North Azimuth = 90 + 7.10 = 97.10

