

30-015-38039



HOBBS OCC

Actual Wellpath Report

No. 4H AWP

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JUN 07 2011



INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 4H SHL
Area	Eddy County, NM	Well	No. 4H
Field	(Parkway) Sec 17, T19S, R29E	Wellbore	No. 4H AWP
Facility	Parkway State 17 Com No.4H		

REPORT SETUP INFORMATION			
Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Calhphik
Scale	0.999915	Report Generated	3/11/2011 at 7:24:10 AM
Convergence at slot	0.12° East	Database/Source file	WA Midland/No. 4H_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	-0.56	-0.24	611803.00	602259.10	32°39'19.614"N	104°06'15.743"W
Facility Reference Pt			611803.25	602259.66	32°39'19.620"N	104°06'15.740"W
Field Reference Pt			611803.25	602259.66	32°39'19.620"N	104°06'15.740"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on No. 4H SHL (RT) to GL	18.00ft
Horizontal Reference Pt	Slot	Rig on No. 4H SHL (RT) to Mean Sea Level	3385.00ft
Vertical Reference Pt	Rig on No. 4H SHL (RT)	GL to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 4H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	92.84°



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WELLPATH DATA (152 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	254.590	0.00	0.00	0.00	0.00	611803.00	602259.10	32°39'19.614"N	104°06'15.743"W	0.00	
89.20	0.200	254.590	89.20	-0.15	-0.04	-0.15	611802.85	602259.06	32°39'19.614"N	104°06'15.745"W	0.22	
118.50	0.250	201.340	118.50	-0.22	-0.11	-0.22	611802.78	602258.99	32°39'19.613"N	104°06'15.745"W	0.70	
207.10	0.310	202.910	207.10	-0.36	-0.52	-0.39	611802.61	602258.58	32°39'19.609"N	104°06'15.747"W	0.07	
295.80	0.670	182.380	295.80	-0.44	-1.25	-0.50	611802.50	602257.85	32°39'19.602"N	104°06'15.749"W	0.45	
385.10	1.370	164.090	385.08	-0.09	-2.80	-0.23	611802.77	602256.30	32°39'19.587"N	104°06'15.746"W	0.85	
474.60	1.480	168.080	474.55	0.55	-4.96	0.30	611803.30	602254.14	32°39'19.565"N	104°06'15.739"W	0.17	
564.90	1.220	159.460	564.83	1.23	-7.00	0.88	611803.88	602252.10	32°39'19.545"N	104°06'15.733"W	0.36	
609.20	1.220	159.090	609.12	1.60	-7.89	1.21	611804.21	602251.21	32°39'19.536"N	104°06'15.729"W	0.02	
663.30	1.060	127.510	663.21	2.25	-8.73	1.82	611804.82	602250.37	32°39'19.528"N	104°06'15.722"W	1.18	
717.40	1.100	120.420	717.30	3.12	-9.30	2.66	611805.66	602249.80	32°39'19.522"N	104°06'15.712"W	0.26	
812.80	1.130	119.100	812.68	4.77	-10.22	4.27	611807.27	602248.88	32°39'19.513"N	104°06'15.693"W	0.04	
908.10	0.710	117.190	907.97	6.15	-10.94	5.62	611808.62	602248.16	32°39'19.506"N	104°06'15.677"W	0.44	
1003.40	0.490	119.340	1003.26	7.06	-11.41	6.50	611809.50	602247.69	32°39'19.501"N	104°06'15.667"W	0.23	
1098.70	0.370	121.230	1098.56	7.69	-11.77	7.12	611810.12	602247.33	32°39'19.498"N	104°06'15.660"W	0.13	
1194.10	0.140	111.910	1193.96	8.07	-11.98	7.49	611810.49	602247.12	32°39'19.496"N	104°06'15.656"W	0.24	
1289.40	0.150	35.530	1289.26	8.25	-11.92	7.67	611810.67	602247.18	32°39'19.496"N	104°06'15.653"W	0.19	
1384.70	0.230	36.060	1384.56	8.42	-11.66	7.85	611810.85	602247.44	32°39'19.499"N	104°06'15.651"W	0.08	
1480.00	0.300	37.630	1479.86	8.67	-11.31	8.12	611811.12	602247.79	32°39'19.502"N	104°06'15.648"W	0.07	
1575.30	0.420	18.090	1575.15	8.90	-10.78	8.38	611811.38	602248.32	32°39'19.508"N	104°06'15.645"W	0.18	
1670.60	0.290	31.030	1670.45	9.11	-10.24	8.61	611811.61	602248.86	32°39'19.513"N	104°06'15.642"W	0.16	
1766.00	0.150	308.610	1765.85	9.12	-9.96	8.64	611811.64	602249.14	32°39'19.516"N	104°06'15.642"W	0.32	
1956.60	0.500	225.750	1956.45	8.35	-10.38	7.85	611810.85	602248.72	32°39'19.512"N	104°06'15.651"W	0.26	
2051.90	0.600	238.430	2051.75	7.66	-10.93	7.13	611810.13	602248.17	32°39'19.506"N	104°06'15.660"W	0.16	
2147.30	0.340	247.650	2147.14	6.99	-11.30	6.44	611809.44	602247.80	32°39'19.502"N	104°06'15.668"W	0.28	
2242.60	0.290	256.790	2242.44	6.50	-11.46	5.94	611808.94	602247.64	32°39'19.501"N	104°06'15.674"W	0.07	
2337.90	0.230	276.040	2337.74	6.08	-11.50	5.52	611808.52	602247.60	32°39'19.501"N	104°06'15.679"W	0.11	
2433.20	0.320	260.010	2433.04	5.63	-11.53	5.07	611808.07	602247.58	32°39'19.500"N	104°06'15.684"W	0.12	
2528.50	0.430	253.670	2528.34	5.03	-11.67	4.46	611807.46	602247.43	32°39'19.499"N	104°06'15.691"W	0.12	
2623.80	0.440	256.100	2623.63	4.34	-11.86	3.76	611806.76	602247.24	32°39'19.497"N	104°06'15.699"W	0.02	
2719.20	0.490	251.950	2719.03	3.61	-12.08	3.02	611806.02	602247.03	32°39'19.495"N	104°06'15.708"W	0.06	
2814.50	0.610	253.710	2814.33	2.75	-12.34	2.14	611805.14	602246.76	32°39'19.492"N	104°06'15.718"W	0.13	
2909.80	0.600	265.310	2909.62	1.78	-12.53	1.16	611804.16	602246.57	32°39'19.490"N	104°06'15.730"W	0.13	
3005.10	0.620	270.350	3004.92	0.77	-12.56	0.15	611803.15	602246.54	32°39'19.490"N	104°06'15.741"W	0.06	
3100.40	0.690	282.320	3100.21	-0.31	-12.44	-0.93	611802.07	602246.66	32°39'19.491"N	104°06'15.754"W	0.16	
3195.80	0.830	283.450	3195.60	-1.56	-12.16	-2.16	611800.84	602246.95	32°39'19.494"N	104°06'15.768"W	0.15	
3291.10	0.790	276.660	3290.89	-2.89	-11.92	-3.49	611799.51	602247.18	32°39'19.497"N	104°06'15.784"W	0.11	
3386.40	0.690	274.980	3386.18	-4.12	-11.79	-4.71	611798.29	602247.31	32°39'19.498"N	104°06'15.798"W	0.11	
3481.70	0.760	268.020	3481.48	-5.32	-11.76	-5.91	611797.09	602247.34	32°39'19.498"N	104°06'15.812"W	0.12	
3577.00	0.810	273.150	3576.77	-6.63	-11.75	-7.22	611795.78	602247.35	32°39'19.498"N	104°06'15.828"W	0.09	
3672.40	0.820	264.890	3672.16	-7.98	-11.77	-8.57	611794.43	602247.33	32°39'19.498"N	104°06'15.843"W	0.12	
3767.70	1.060	256.120	3767.44	-9.50	-12.05	-10.11	611792.89	602247.06	32°39'19.495"N	104°06'15.861"W	0.29	
3863.00	1.370	242.970	3862.72	-11.33	-12.77	-11.98	611791.02	602246.33	32°39'19.488"N	104°06'15.883"W	0.44	
3958.30	1.470	239.960	3957.99	-13.35	-13.90	-14.05	611788.95	602245.20	32°39'19.477"N	104°06'15.908"W	0.13	
4053.70	1.900	241.310	4053.35	-15.72	-15.28	-16.50	611786.50	602243.83	32°39'19.464"N	104°06'15.936"W	0.45	



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Facility	Parkway State 17 Com No.4H		

WELLPATH DATA (152 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4149.00	1.880	248.600	4148.60	-18.49	-16.61	-19.34	611783.66	602242.50	32°39'19.451"N	104°06'15.969"W	0.25	
4244.30	1.410	256.460	4243.86	-21.04	-17.45	-21.93	611781.07	602241.65	32°39'19.442"N	104°06'16.000"W	0.55	
4339.60	1.340	265.190	4339.13	-23.27	-17.82	-24.18	611778.82	602241.28	32°39'19.439"N	104°06'16.026"W	0.23	
4434.90	1.130	270.500	4434.41	-25.32	-17.90	-26.23	611776.77	602241.20	32°39'19.438"N	104°06'16.050"W	0.25	
4530.30	0.730	271.390	4529.80	-26.86	-17.88	-27.78	611775.22	602241.22	32°39'19.438"N	104°06'16.068"W	0.42	
4625.60	0.570	275.190	4625.09	-27.94	-17.82	-28.86	611774.14	602241.28	32°39'19.439"N	104°06'16.081"W	0.17	
4720.90	0.530	293.760	4720.39	-28.83	-17.60	-29.74	611773.27	602241.50	32°39'19.441"N	104°06'16.091"W	0.19	
4816.20	0.590	316.070	4815.68	-29.60	-17.07	-30.48	611772.52	602242.03	32°39'19.446"N	104°06'16.100"W	0.24	
4911.50	0.580	305.050	4910.98	-30.36	-16.44	-31.22	611771.79	602242.66	32°39'19.452"N	104°06'16.108"W	0.12	
5006.90	0.510	287.950	5006.38	-31.18	-16.03	-32.01	611770.99	602243.07	32°39'19.457"N	104°06'16.118"W	0.18	
5102.20	0.470	264.660	5101.67	-31.98	-15.94	-32.81	611770.20	602243.16	32°39'19.457"N	104°06'16.127"W	0.21	
5197.50	0.620	283.860	5196.97	-32.87	-15.85	-33.70	611769.31	602243.25	32°39'19.458"N	104°06'16.137"W	0.25	
5292.80	0.930	310.060	5292.26	-33.99	-15.23	-34.79	611768.21	602243.87	32°39'19.465"N	104°06'16.150"W	0.49	
5388.10	1.000	320.070	5387.55	-35.17	-14.09	-35.92	611767.09	602245.01	32°39'19.476"N	104°06'16.163"W	0.19	
5483.40	0.980	314.620	5482.83	-36.35	-12.88	-37.03	611765.97	602246.22	32°39'19.488"N	104°06'16.176"W	0.10	
5578.80	0.730	313.640	5578.22	-37.42	-11.89	-38.05	611764.95	602247.21	32°39'19.498"N	104°06'16.188"W	0.26	
5674.10	0.230	85.850	5673.52	-37.68	-11.46	-38.30	611764.70	602247.64	32°39'19.502"N	104°06'16.191"W	0.95	
5769.40	0.840	107.930	5768.81	-36.82	-11.66	-37.44	611765.56	602247.44	32°39'19.500"N	104°06'16.181"W	0.66	
5864.70	1.160	118.670	5864.10	-35.28	-12.34	-35.93	611767.07	602246.76	32°39'19.493"N	104°06'16.163"W	0.39	
5960.10	1.050	119.800	5959.48	-33.63	-13.24	-34.33	611768.68	602245.87	32°39'19.484"N	104°06'16.145"W	0.12	
6055.40	0.730	115.060	6054.77	-32.29	-13.93	-33.02	611769.98	602245.17	32°39'19.477"N	104°06'16.129"W	0.34	
6150.70	0.080	55.050	6150.07	-31.67	-14.15	-32.41	611770.59	602244.96	32°39'19.475"N	104°06'16.122"W	0.73	
6246.00	0.530	350.240	6245.37	-31.72	-13.67	-32.43	611770.57	602245.43	32°39'19.480"N	104°06'16.123"W	0.53	
6341.30	0.340	33.290	6340.66	-31.67	-13.00	-32.35	611770.65	602246.10	32°39'19.486"N	104°06'16.122"W	0.38	
6436.60	0.620	88.840	6435.96	-31.01	-12.76	-31.68	611771.32	602246.35	32°39'19.489"N	104°06'16.114"W	0.54	
6627.30	1.210	36.500	6626.64	-28.87	-11.12	-29.45	611773.55	602247.98	32°39'19.505"N	104°06'16.088"W	0.51	
6722.60	1.550	23.490	6721.91	-27.86	-9.13	-28.34	611774.66	602249.98	32°39'19.525"N	104°06'16.075"W	0.48	
6817.90	1.630	25.280	6817.17	-26.88	-6.72	-27.25	611775.75	602252.38	32°39'19.549"N	104°06'16.062"W	0.10	
6913.30	1.320	24.790	6912.54	-25.95	-4.49	-26.21	611776.79	602254.61	32°39'19.571"N	104°06'16.050"W	0.33	
7008.60	1.310	348.260	7007.82	-25.82	-2.43	-25.97	611777.03	602256.67	32°39'19.591"N	104°06'16.047"W	0.86	
7103.90	1.620	348.590	7103.09	-26.42	-0.04	-26.46	611776.54	602259.06	32°39'19.615"N	104°06'16.052"W	0.33	
7199.20	0.800	359.360	7198.36	-26.80	1.94	-26.73	611776.27	602261.04	32°39'19.634"N	104°06'16.055"W	0.89	
7294.50	0.850	355.080	7293.66	-26.93	3.31	-26.80	611776.20	602262.41	32°39'19.648"N	104°06'16.056"W	0.08	
7389.90	1.150	332.950	7389.04	-27.50	4.87	-27.30	611775.71	602263.97	32°39'19.663"N	104°06'16.062"W	0.51	
7449.90	1.580	330.030	7449.02	-28.25	6.12	-27.98	611775.02	602265.22	32°39'19.676"N	104°06'16.070"W	0.73	
7494.00	1.600	318.700	7493.11	-29.01	7.11	-28.69	611774.31	602266.21	32°39'19.685"N	104°06'16.078"W	0.71	
7529.00	1.600	88.800	7528.10	-28.86	7.49	-28.53	611774.48	602266.59	32°39'19.689"N	104°06'16.076"W	8.29	
7560.00	7.500	97.600	7558.99	-26.41	7.23	-26.09	611776.92	602266.33	32°39'19.687"N	104°06'16.048"W	19.11	
7592.00	14.000	97.500	7590.41	-20.47	6.45	-20.17	611782.83	602265.55	32°39'19.679"N	104°06'15.979"W	20.31	
7624.00	20.400	97.200	7620.96	-11.04	5.24	-10.79	611792.21	602264.34	32°39'19.667"N	104°06'15.869"W	20.00	
7656.00	27.700	95.700	7650.17	1.97	3.80	2.16	611805.16	602262.90	32°39'19.652"N	104°06'15.718"W	22.89	
7688.00	34.200	93.600	7677.60	18.41	2.50	18.55	611821.55	602261.60	32°39'19.639"N	104°06'15.526"W	20.59	
7719.00	40.500	92.200	7702.23	37.20	1.56	37.33	611840.32	602260.66	32°39'19.629"N	104°06'15.306"W	20.51	
7751.00	47.500	92.000	7725.23	59.42	0.75	59.53	611862.52	602259.85	32°39'19.621"N	104°06'15.047"W	21.88	
7783.00	54.400	92.100	7745.38	84.25	-0.14	84.35	611887.34	602258.96	32°39'19.611"N	104°06'14.756"W	21.56	



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Field	(Parkway) Sec 17, T19S, R29E	Wellbore	No. 4H AWP
Facility	Parkway State 17 Com No.4H		

WELLPATH DATA (152 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7815.00	61.300	93.200	7762.40	111.33	-1.40	111.39	611914.38	602257.70	32°39'19.598"N	104°06'14.440"W	21.76	
7847.00	68.400	93.100	7775.99	140.27	-2.99	140.30	611943.29	602256.11	32°39'19.582"N	104°06'14.102"W	22.19	
7878.00	75.300	93.500	7785.64	169.71	-4.69	169.69	611972.67	602254.41	32°39'19.564"N	104°06'13.758"W	22.29	
7910.00	77.400	94.000	7793.19	200.80	-6.72	200.72	612003.70	602252.38	32°39'19.544"N	104°06'13.395"W	6.74	
7942.00	78.800	93.700	7799.79	232.11	-8.82	231.96	612034.94	602250.28	32°39'19.522"N	104°06'13.030"W	4.47	
7974.00	79.900	93.300	7805.70	263.56	-10.74	263.35	612066.32	602248.36	32°39'19.503"N	104°06'12.663"W	3.65	
8005.00	81.300	93.200	7810.77	294.14	-12.48	293.88	612096.86	602246.63	32°39'19.485"N	104°06'12.306"W	4.53	
8037.00	83.300	92.900	7815.05	325.85	-14.16	325.55	612128.52	602244.94	32°39'19.467"N	104°06'11.936"W	6.32	
8069.00	86.000	93.200	7818.04	357.71	-15.86	357.36	612160.33	602243.24	32°39'19.450"N	104°06'11.564"W	8.49	
8101.00	88.900	93.400	7819.46	389.67	-17.70	389.27	612192.24	602241.40	32°39'19.431"N	104°06'11.190"W	9.08	
8133.00	89.700	94.700	7819.85	421.66	-19.96	421.19	612224.15	602239.14	32°39'19.408"N	104°06'10.817"W	4.77	
8164.00	89.900	94.000	7819.96	452.65	-22.31	452.10	612255.06	602236.79	32°39'19.384"N	104°06'10.456"W	2.35	
8259.00	90.000	92.400	7820.04	547.64	-27.61	546.95	612349.90	602231.49	32°39'19.330"N	104°06'09.346"W	1.69	
8355.00	89.400	91.300	7820.55	643.62	-30.71	642.89	612445.84	602228.39	32°39'19.297"N	104°06'08.224"W	1.31	
8450.00	89.600	90.200	7821.38	738.56	-31.95	737.88	612540.81	602227.15	32°39'19.282"N	104°06'07.113"W	1.18	
8546.00	90.400	89.000	7821.38	834.40	-31.28	833.87	612636.80	602227.82	32°39'19.287"N	104°06'05.991"W	1.50	
8641.00	90.300	90.500	7820.79	929.26	-30.87	928.87	612731.79	602228.23	32°39'19.289"N	104°06'04.879"W	1.58	
8736.00	90.700	90.600	7819.97	1024.18	-31.78	1023.86	612826.77	602227.32	32°39'19.278"N	104°06'03.768"W	0.43	
8832.00	90.600	91.400	7818.88	1120.12	-33.46	1119.84	612922.74	602225.65	32°39'19.259"N	104°06'02.646"W	0.84	
8920.00	90.100	92.000	7818.34	1208.10	-36.07	1207.80	613010.69	602223.04	32°39'19.232"N	104°06'01.617"W	0.89	
9022.00	89.500	92.800	7818.70	1310.10	-40.34	1309.71	613112.59	602218.76	32°39'19.187"N	104°06'00.425"W	0.98	
9118.00	88.300	92.400	7820.54	1406.08	-44.69	1405.59	613208.47	602214.41	32°39'19.142"N	104°05'59.304"W	1.32	
9213.00	89.300	93.400	7822.53	1501.06	-49.50	1500.44	613303.31	602209.61	32°39'19.092"N	104°05'58.195"W	1.49	
9308.00	89.800	93.500	7823.27	1596.05	-55.21	1595.27	613398.13	602203.89	32°39'19.034"N	104°05'57.086"W	0.54	
9403.00	91.500	92.700	7822.20	1691.03	-60.35	1690.12	613492.97	602198.75	32°39'18.981"N	104°05'55.976"W	1.98	
9498.00	90.700	93.900	7820.37	1786.01	-65.82	1784.94	613587.79	602193.29	32°39'18.925"N	104°05'54.868"W	1.52	
9594.00	89.900	94.600	7819.87	1881.98	-72.93	1880.67	613683.51	602186.17	32°39'18.852"N	104°05'53.748"W	1.11	
9690.00	89.900	95.100	7820.04	1977.92	-81.05	1976.33	613779.16	602178.06	32°39'18.770"N	104°05'52.629"W	0.52	
9785.00	89.700	94.700	7820.37	2072.86	-89.16	2070.98	613873.80	602169.94	32°39'18.687"N	104°05'51.523"W	0.47	
9881.00	90.100	94.400	7820.54	2168.81	-96.78	2166.68	613969.49	602162.33	32°39'18.610"N	104°05'50.403"W	0.52	
9976.00	90.600	94.000	7819.96	2263.78	-103.74	2261.42	614064.22	602155.37	32°39'18.539"N	104°05'49.296"W	0.67	
10069.00	89.500	102.900	7819.87	2356.24	-117.39	2353.32	614156.11	602141.72	32°39'18.402"N	104°05'48.221"W	9.64	
10162.00	89.600	101.400	7820.61	2448.01	-136.96	2444.23	614247.02	602122.15	32°39'18.206"N	104°05'47.158"W	1.62	
10256.00	89.300	99.200	7821.51	2541.21	-153.77	2536.70	614339.48	602105.35	32°39'18.038"N	104°05'46.077"W	2.36	
10352.00	89.000	97.600	7822.93	2636.74	-167.79	2631.66	614434.43	602091.32	32°39'17.897"N	104°05'44.967"W	1.70	
10447.00	88.900	95.700	7824.67	2731.51	-178.79	2726.00	614528.76	602080.33	32°39'17.786"N	104°05'43.864"W	2.00	
10542.00	88.900	94.100	7826.50	2826.43	-186.90	2820.63	614623.39	602072.21	32°39'17.704"N	104°05'42.757"W	1.68	
10637.00	89.100	93.000	7828.15	2921.40	-192.78	2915.44	614718.18	602066.33	32°39'17.643"N	104°05'41.648"W	1.18	
10733.00	89.300	92.200	7829.50	3017.39	-197.14	3011.33	614814.06	602061.98	32°39'17.598"N	104°05'40.527"W	0.86	
10829.00	89.900	92.000	7830.17	3113.38	-200.66	3107.26	614909.99	602058.46	32°39'17.561"N	104°05'39.405"W	0.66	
10924.00	90.100	91.900	7830.17	3208.37	-203.89	3202.20	615004.93	602055.23	32°39'17.527"N	104°05'38.295"W	0.24	
11020.00	90.100	91.400	7830.00	3304.35	-206.65	3298.16	615100.88	602052.47	32°39'17.498"N	104°05'37.172"W	0.52	
11115.00	88.900	91.200	7830.83	3399.31	-208.81	3393.13	615195.84	602050.31	32°39'17.474"N	104°05'36.062"W	1.28	
11211.00	88.600	92.100	7832.92	3495.27	-211.57	3489.07	615291.77	602047.55	32°39'17.445"N	104°05'34.940"W	0.99	
11243.00	89.400	92.200	7833.48	3527.26	-212.77	3521.04	615323.74	602046.35	32°39'17.432"N	104°05'34.566"W	2.52	



Actual Wellpath Report

No. 4H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 4H SHL
Area	Eddy County, NM	Well	No. 4H
Field	(Parkway) Sec 17, T19S, R29E	Wellbore	No. 4H AWB
Facility	Parkway State 17 Com No.4H		

WELLPATH DATA (152 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11257.00	90.700	92.600	7833.47	3541.26	-213.36	3535.03	615337.72	602045.76	32°39'17.426"N	104°05'34.402"W	9.72	
11274.00	92.100	92.600	7833.05	3558.25	-214.13	3552.01	615354.70	602044.99	32°39'17.418"N	104°05'34.204"W	8.24	
11306.00	93.000	92.500	7831.63	3590.22	-215.55	3583.94	615386.63	602043.57	32°39'17.403"N	104°05'33.830"W	2.83	
11338.00	93.300	92.100	7829.87	3622.17	-216.83	3615.87	615418.55	602042.29	32°39'17.390"N	104°05'33.457"W	1.56	
11369.00	93.900	92.100	7827.92	3653.11	-217.97	3646.79	615449.47	602041.15	32°39'17.378"N	104°05'33.095"W	1.94	
11401.00	92.200	92.300	7826.22	3685.06	-219.19	3678.72	615481.40	602039.93	32°39'17.365"N	104°05'32.722"W	5.35	
11433.00	90.700	92.200	7825.41	3717.04	-220.45	3710.68	615513.36	602038.67	32°39'17.352"N	104°05'32.348"W	4.70	
11465.00	90.600	92.100	7825.05	3749.04	-221.65	3742.66	615545.33	602037.47	32°39'17.339"N	104°05'31.974"W	0.44	
11529.00	91.100	91.600	7824.10	3813.02	-223.72	3806.62	615609.28	602035.40	32°39'17.318"N	104°05'31.226"W	1.10	
11561.00	91.300	91.400	7823.43	3845.01	-224.55	3838.60	615641.26	602034.57	32°39'17.309"N	104°05'30.852"W	0.88	
11592.00	91.700	91.400	7822.62	3875.99	-225.31	3869.58	615672.24	602033.81	32°39'17.300"N	104°05'30.489"W	1.29	
11655.00	91.200	85.600	7821.02	3938.76	-223.66	3932.51	615735.17	602035.46	32°39'17.315"N	104°05'29.753"W	9.24	
11687.00	90.800	86.800	7820.46	3970.54	-221.54	3964.43	615767.09	602037.58	32°39'17.335"N	104°05'29.380"W	3.95	
11878.00	89.100	91.400	7820.63	4161.08	-218.54	4155.35	615957.99	602040.58	32°39'17.361"N	104°05'27.147"W	2.57	
12069.00	90.800	91.100	7820.80	4351.99	-222.71	4346.30	616148.92	602036.41	32°39'17.315"N	104°05'24.914"W	0.90	
12124.00	90.800	91.100	7820.03	4406.96	-223.76	4401.28	616203.90	602035.36	32°39'17.304"N	104°05'24.271"W	0.00	
12315.00	90.800	91.100	7817.36	4597.86	-227.43	4592.23	616394.83	602031.69	32°39'17.263"N	104°05'22.037"W	0.00	Proj to Bit

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
No. 4H PBHL		7829.00	-289.23	4597.47	616400.07	601969.89	32°39'16.651"N	104°05'21.978"W	point

WELLPATH COMPOSITION					Ref Wellbore: No. 4H AWB		Ref Wellpath: No. 4H AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model			Log Name/Comment		Wellbore	
0.00	7449.90	Generic gyro - northseeking (Standard)			Gyro		No. 4H AWB	
7449.90	12315.00	NaviTrak (Standard)			MWD		No. 4H AWB	