

30-015-38097



Cimarex Energy Co.

Location: Eddy County, NM
Field: (White City) Sec 10, T25S, R26E
Facility: White City 10 Fed No. 3H

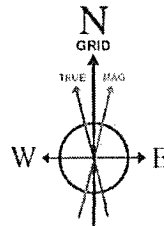
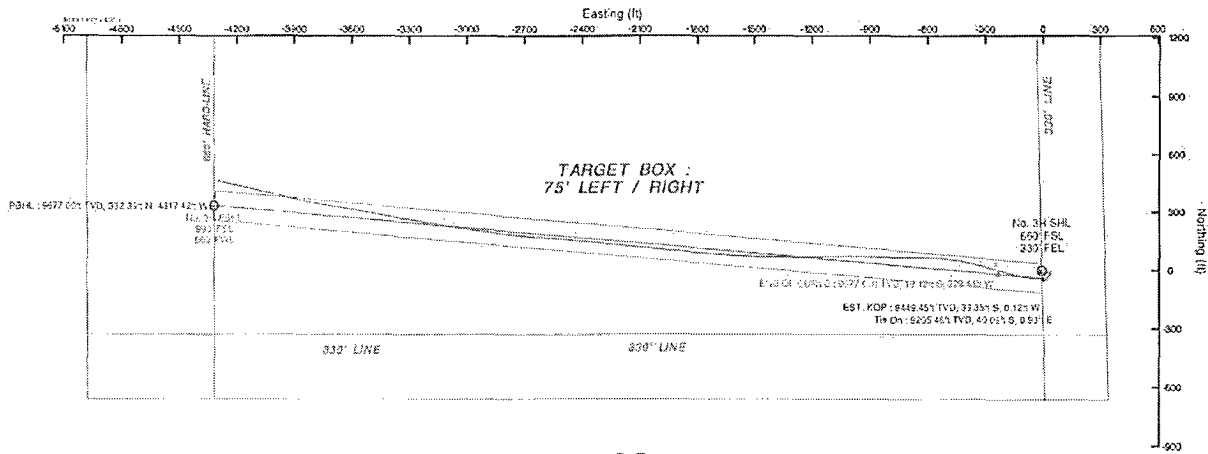
Slot: No. 3H SHL
Well: No. 3H
Wellbore: No. 3H PWB



Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (%100ft)	VS (ft)
Tie On	9208.00	0.300	305.000	9205.46	-40.09	0.93	0.00	-4.00
EST. KOP	9452.00	0.300	305.000	9449.45	-39.35	-0.12	0.00	-2.90
END OF CURVE	9819.69	90.008	274.913	9877.60	-19.12	-228.44	25.60	228.30
PBHL	13915.06	90.008	274.913	9677.00	332.39	-4317.42	0.00	4330.20

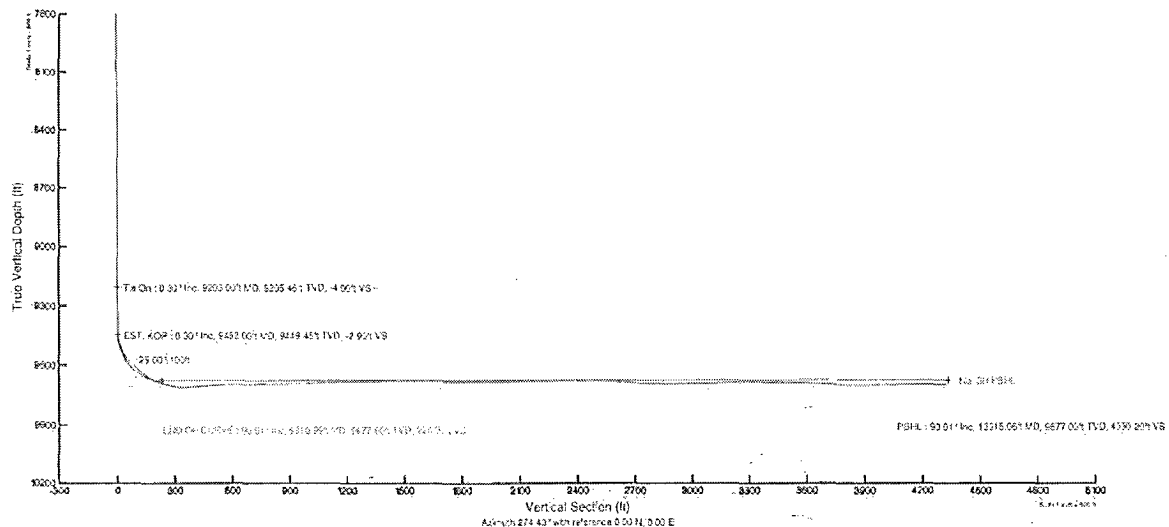
Plot reference well path is Plan #1	
True vertical depths are referenced to Rig on No. 3H SHL (RT)	Grid System: NAD83 / TM New Mexico State Plane, Eastern Zone (8331), US feet
Measured depths are referenced to Rig on No. 3H SHL (RT)	North Reference: Grid north
Rig on No. 3H SHL (RT) to Mean Sea Level: 5359 feet	Scale: True distance
Mean Sea Level to Mapline (Facility: White City 10 Fed No. 3H): -5370 feet	Depths are in feet
Coordinates are in feet referenced to Facility Center	Created by: Victor Hernandez on 10/29/2010



BGGM (1945.0 to 2011.0) Dip: 60.01° Field: 48614.2 nT
Magnetic North is 8.01 degrees East of True North (at 10/12/2010)
Grid North is 0.03 degrees East of True North

To correct azimuth from True to Grid subtract 0.03 degrees
To correct azimuth from Magnetic to Grid add 7.98 degrees

For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.98 = 97.98





Actual Wellpath Report

No. 3H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Eddy County, NM	Well	No. 3H
Field	(White City) Sec 10, T25S, R26E	Wellbore	No. 3H AWB
Facility	White City 10 Fed No. 3H	Sidetrack from	No. 3 AWB at 9208.00 MD

REPORT SETTING INFORMATION			
Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect@ 2.0
North Reference	Grid	User	Roland Flores
Scale	0.999909	Report Generated	11/4/2010 at 9:43:18 AM
Convergence at slot	0.03° East	Database/Source file	WellArchitectDB/No._3H_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	559908.40	414262.90	32°08'19.944"N	104°16'24.003"W
Facility Reference Pt			559908.40	414262.90	32°08'19.944"N	104°16'24.003"W
Field Reference Pt			559908.40	414262.90	32°08'19.944"N	104°16'24.003"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on No. 3H SHL (RT) to Facility Vertical Datum	29.00ft
Horizontal Reference Pt	Facility Center	Rig on No. 3H SHL (RT) to Mean Sea Level	3399.00ft
Vertical Reference Pt	Rig on No. 3H SHL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 3H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	274.40°



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REFERENCE WELLPATH IDENTIFICATION					
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Area	Eddy County, NM			Well	No. 3H
Field	(White City) Sec 10, T25S, R26E			Wellbore	No. 3H AWB
Facility	White City 10 Fed No. 3H			Sidetrack from	No. 3 AWB at 9208.00 MD

WELLPATH DATA (164 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	277.790	0.00	0.00	0.00	0.00	559908.40	414262.90	32°08'19.944"N	104°16'24.003"W	0.00	
100.00	0.090	277.790	100.00	0.08	0.01	-0.08	559908.32	414262.91	32°08'19.944"N	104°16'24.004"W	0.09	
200.00	0.100	296.800	200.00	0.24	0.06	-0.23	559908.17	414262.96	32°08'19.944"N	104°16'24.006"W	0.03	
300.00	0.310	261.770	300.00	0.58	0.06	-0.58	559907.82	414262.96	32°08'19.944"N	104°16'24.010"W	0.24	
400.00	0.540	257.120	400.00	1.30	-0.08	-1.31	559907.09	414262.82	32°08'19.943"N	104°16'24.019"W	0.23	
500.00	0.690	260.210	499.99	2.33	-0.29	-2.36	559906.04	414262.61	32°08'19.941"N	104°16'24.031"W	0.15	
600.00	0.800	241.940	599.98	3.50	-0.72	-3.57	559904.83	414262.18	32°08'19.936"N	104°16'24.045"W	0.26	
700.00	1.140	239.100	699.97	4.90	-1.56	-5.04	559903.36	414261.34	32°08'19.928"N	104°16'24.062"W	0.34	
800.00	1.500	243.200	799.94	6.83	-2.66	-7.06	559901.34	414260.24	32°08'19.917"N	104°16'24.086"W	0.37	
900.00	1.450	234.960	899.91	8.93	-3.98	-9.26	559899.14	414258.92	32°08'19.904"N	104°16'24.111"W	0.22	
1000.00	1.330	218.160	999.88	10.55	-5.62	-11.02	559897.38	414257.28	32°08'19.888"N	104°16'24.132"W	0.42	
1100.00	1.130	202.270	1099.86	11.50	-7.44	-12.11	559896.29	414255.46	32°08'19.870"N	104°16'24.144"W	0.39	
1200.00	1.130	129.820	1199.84	11.00	-8.99	-11.72	559896.68	414253.92	32°08'19.855"N	104°16'24.140"W	1.34	
1300.00	2.070	103.050	1299.80	8.41	-10.02	-9.21	559899.19	414252.88	32°08'19.844"N	104°16'24.111"W	1.18	
1400.00	2.550	95.910	1399.72	4.40	-10.66	-5.24	559903.17	414252.24	32°08'19.838"N	104°16'24.064"W	0.56	
1500.00	3.200	90.230	1499.59	-0.61	-10.90	-0.23	559908.17	414252.00	32°08'19.836"N	104°16'24.006"W	0.71	
1600.00	4.050	89.100	1599.39	-6.91	-10.86	6.09	559914.49	414252.04	32°08'19.836"N	104°16'23.933"W	0.85	
1700.00	4.510	87.690	1699.11	-14.33	-10.64	13.55	559921.95	414252.26	32°08'19.838"N	104°16'23.846"W	0.47	
1800.00	3.500	87.210	1798.87	-21.26	-10.34	20.53	559928.93	414252.56	32°08'19.841"N	104°16'23.765"W	1.01	
1900.00	2.230	80.250	1898.74	-26.18	-9.86	25.49	559933.89	414253.04	32°08'19.846"N	104°16'23.707"W	1.31	
2000.00	1.720	83.460	1998.68	-29.54	-9.36	28.90	559937.30	414253.54	32°08'19.851"N	104°16'23.667"W	0.52	
2100.00	1.520	84.880	2098.64	-32.32	-9.07	31.71	559940.11	414253.83	32°08'19.854"N	104°16'23.635"W	0.20	
2200.00	1.520	86.950	2198.61	-34.94	-8.88	34.36	559942.76	414254.02	32°08'19.856"N	104°16'23.604"W	0.05	
2300.00	1.220	93.940	2298.58	-37.32	-8.88	36.75	559945.14	414254.02	32°08'19.855"N	104°16'23.576"W	0.34	
2400.00	1.040	92.530	2398.56	-39.29	-9.00	38.72	559947.11	414253.91	32°08'19.854"N	104°16'23.553"W	0.18	
2500.00	1.000	89.680	2498.54	-41.07	-9.03	40.49	559948.89	414253.87	32°08'19.854"N	104°16'23.533"W	0.06	
2600.00	0.610	86.090	2598.53	-42.46	-8.99	41.90	559950.29	414253.91	32°08'19.854"N	104°16'23.516"W	0.39	
2700.00	0.620	81.950	2698.53	-43.52	-8.88	42.96	559951.36	414254.02	32°08'19.855"N	104°16'23.504"W	0.05	
2800.00	0.520	91.720	2798.52	-44.50	-8.82	43.95	559952.35	414254.09	32°08'19.856"N	104°16'23.492"W	0.14	
2900.00	0.430	80.650	2898.52	-45.32	-8.77	44.78	559953.17	414254.13	32°08'19.857"N	104°16'23.483"W	0.13	
3000.00	0.380	97.050	2998.52	-46.01	-8.75	45.48	559953.87	414254.15	32°08'19.857"N	104°16'23.475"W	0.13	
3100.00	0.400	93.260	3098.51	-46.69	-8.81	46.15	559954.55	414254.09	32°08'19.856"N	104°16'23.467"W	0.03	
3200.00	0.310	105.350	3198.51	-47.31	-8.90	46.76	559955.16	414254.00	32°08'19.855"N	104°16'23.460"W	0.12	
3300.00	0.230	129.300	3298.51	-47.74	-9.10	47.18	559955.58	414253.80	32°08'19.853"N	104°16'23.455"W	0.14	
3400.00	0.220	152.910	3398.51	-48.00	-9.40	47.42	559955.82	414253.50	32°08'19.850"N	104°16'23.452"W	0.09	
3500.00	0.330	183.270	3498.51	-48.11	-9.86	47.49	559955.89	414253.05	32°08'19.846"N	104°16'23.451"W	0.18	
3600.00	0.450	206.880	3598.51	-47.97	-10.49	47.30	559955.70	414252.41	32°08'19.839"N	104°16'23.453"W	0.20	
3700.00	0.610	213.650	3698.50	-47.56	-11.29	46.83	559955.22	414251.61	32°08'19.832"N	104°16'23.459"W	0.17	
3800.00	0.630	209.260	3798.50	-47.06	-12.21	46.26	559954.66	414250.69	32°08'19.823"N	104°16'23.465"W	0.05	
3900.00	0.560	218.380	3898.49	-46.56	-13.07	45.69	559954.09	414249.83	32°08'19.814"N	104°16'23.472"W	0.12	
4000.00	0.580	231.470	3998.49	-45.92	-13.77	44.99	559953.39	414249.13	32°08'19.807"N	104°16'23.480"W	0.13	
4100.00	0.570	218.540	4098.48	-45.27	-14.47	44.29	559952.68	414248.43	32°08'19.800"N	104°16'23.489"W	0.13	
4200.00	0.620	213.210	4198.48	-44.73	-15.32	43.68	559952.08	414247.59	32°08'19.792"N	104°16'23.496"W	0.07	
4300.00	0.680	217.220	4298.47	-44.15	-16.24	43.03	559951.42	414246.66	32°08'19.783"N	104°16'23.503"W	0.08	
4400.00	0.830	225.220	4398.46	-43.35	-17.22	42.15	559950.55	414245.68	32°08'19.773"N	104°16'23.513"W	0.18	



Actual Wellpath Report

No. 3H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Eddy County, NM	Well	No. 3H
Field	(White City) Sec 10, T25S, R26E	Wellbore	No. 3H AWB
Facility	White City 10 Fed No. 3H	Sidetrack from	No. 3 AWB at 9208.00 MD

WELLPATH DATA (164 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
4500.00	0.830	226.070	4498.45	-42.40	-18.24	41.12	559949.51	414244.66	32°08'19.763"N	104°16'23.525"W	0.01	
4600.00	0.820	225.740	4598.44	-41.44	-19.24	40.08	559948.48	414243.66	32°08'19.753"N	104°16'23.537"W	0.01	
4700.00	0.700	210.480	4698.43	-40.70	-20.26	39.26	559947.66	414242.64	32°08'19.743"N	104°16'23.547"W	0.23	
4800.00	0.660	202.810	4798.43	-40.25	-21.32	38.73	559947.12	414241.58	32°08'19.732"N	104°16'23.553"W	0.10	
4900.00	0.710	199.810	4898.42	-39.90	-22.44	38.29	559946.69	414240.47	32°08'19.721"N	104°16'23.558"W	0.06	
5000.00	0.670	204.840	4998.41	-39.53	-23.55	37.84	559946.23	414239.35	32°08'19.710"N	104°16'23.564"W	0.07	
5100.00	0.740	205.620	5098.40	-39.10	-24.66	37.31	559945.71	414238.24	32°08'19.699"N	104°16'23.570"W	0.07	
5200.00	0.710	207.820	5198.40	-38.62	-25.79	36.74	559945.14	414237.11	32°08'19.688"N	104°16'23.576"W	0.04	
5300.00	0.770	207.250	5298.39	-38.11	-26.94	36.15	559944.54	414235.96	32°08'19.677"N	104°16'23.583"W	0.06	
5400.00	0.840	209.040	5398.38	-37.54	-28.18	35.48	559943.88	414234.73	32°08'19.665"N	104°16'23.591"W	0.07	
5500.00	0.800	223.810	5498.37	-36.79	-29.32	34.65	559943.04	414233.58	32°08'19.653"N	104°16'23.601"W	0.21	
5600.00	0.780	204.620	5598.36	-36.12	-30.44	33.88	559942.28	414232.46	32°08'19.642"N	104°16'23.610"W	0.26	
5700.00	0.750	234.860	5698.35	-35.38	-31.44	33.06	559941.46	414231.46	32°08'19.632"N	104°16'23.619"W	0.40	
5800.00	0.990	242.090	5798.34	-34.14	-32.22	31.76	559940.16	414230.68	32°08'19.625"N	104°16'23.634"W	0.26	
5900.00	1.430	217.730	5898.32	-32.73	-33.61	30.23	559938.63	414229.29	32°08'19.611"N	104°16'23.652"W	0.67	
6000.00	1.990	209.780	5998.27	-31.30	-36.10	28.61	559937.01	414226.80	32°08'19.586"N	104°16'23.671"W	0.61	
6100.00	2.310	204.530	6098.20	-29.86	-39.45	26.91	559935.31	414223.46	32°08'19.553"N	104°16'23.691"W	0.38	
6200.00	2.400	208.780	6198.12	-28.30	-43.11	25.06	559933.46	414219.79	32°08'19.517"N	104°16'23.712"W	0.20	
6300.00	2.180	219.730	6298.04	-26.34	-46.41	22.84	559931.24	414216.49	32°08'19.484"N	104°16'23.738"W	0.49	
6400.00	2.520	241.480	6397.95	-23.39	-48.92	19.69	559928.09	414213.98	32°08'19.459"N	104°16'23.775"W	0.95	
6500.00	2.010	241.100	6497.88	-20.08	-50.82	16.23	559924.63	414212.08	32°08'19.441"N	104°16'23.815"W	0.51	
6600.00	1.380	252.500	6597.83	-17.50	-52.03	13.54	559921.94	414210.87	32°08'19.429"N	104°16'23.846"W	0.71	
6700.00	1.150	242.440	6697.81	-15.53	-52.86	11.50	559919.90	414210.05	32°08'19.420"N	104°16'23.870"W	0.32	
6800.00	0.250	152.270	6797.80	-14.79	-53.51	10.72	559919.12	414209.39	32°08'19.414"N	104°16'23.879"W	1.18	
6900.00	0.590	290.100	6897.80	-14.41	-53.53	10.33	559918.73	414209.37	32°08'19.414"N	104°16'23.884"W	0.79	
7000.00	1.180	310.940	6997.79	-13.09	-52.68	9.07	559917.47	414210.23	32°08'19.422"N	104°16'23.898"W	0.66	
7100.00	1.160	315.790	7097.77	-11.50	-51.28	7.59	559915.99	414211.63	32°08'19.436"N	104°16'23.916"W	0.10	
7200.00	0.670	297.210	7197.75	-10.21	-50.29	6.36	559914.76	414212.62	32°08'19.446"N	104°16'23.930"W	0.57	
7300.00	0.450	260.440	7297.75	-9.29	-50.08	5.46	559913.86	414212.82	32°08'19.448"N	104°16'23.940"W	0.41	
7400.00	0.540	249.490	7397.74	-8.48	-50.31	4.63	559913.03	414212.59	32°08'19.446"N	104°16'23.950"W	0.13	
7500.00	0.330	281.370	7497.74	-7.76	-50.42	3.90	559912.30	414212.48	32°08'19.445"N	104°16'23.958"W	0.31	
7600.00	2.270	38.030	7597.72	-8.57	-48.81	4.84	559913.24	414214.10	32°08'19.461"N	104°16'23.947"W	2.44	
7700.00	1.880	34.130	7697.65	-10.48	-45.89	6.98	559915.38	414217.02	32°08'19.489"N	104°16'23.923"W	0.41	
7800.00	1.940	13.320	7797.60	-11.56	-42.88	8.29	559916.69	414220.02	32°08'19.519"N	104°16'23.907"W	0.69	
7900.00	1.780	349.750	7897.55	-11.43	-39.71	8.41	559916.81	414223.20	32°08'19.551"N	104°16'23.906"W	0.78	
8000.00	1.140	300.220	7997.52	-10.14	-37.68	7.27	559915.67	414225.23	32°08'19.571"N	104°16'23.919"W	1.35	
8100.00	0.970	268.070	8097.50	-8.40	-37.21	5.57	559913.96	414225.70	32°08'19.575"N	104°16'23.939"W	0.61	
8200.00	0.660	263.730	8197.49	-7.00	-37.30	4.15	559912.55	414225.61	32°08'19.574"N	104°16'23.955"W	0.32	
8300.00	0.900	223.670	8297.48	-5.93	-37.93	3.03	559911.43	414224.98	32°08'19.568"N	104°16'23.968"W	0.58	
8400.00	0.910	225.280	8397.47	-4.92	-39.06	1.93	559910.33	414223.85	32°08'19.557"N	104°16'23.981"W	0.03	
8500.00	0.510	224.970	8497.46	-4.11	-39.93	1.05	559909.45	414222.97	32°08'19.548"N	104°16'23.992"W	0.40	
8600.00	0.310	109.120	8597.46	-4.08	-40.33	0.99	559909.39	414222.57	32°08'19.544"N	104°16'23.992"W	0.70	
8700.00	0.320	125.860	8697.46	-4.58	-40.58	1.47	559909.87	414222.32	32°08'19.542"N	104°16'23.987"W	0.09	
8800.00	0.160	68.770	8797.46	-4.94	-40.70	1.83	559910.23	414222.21	32°08'19.541"N	104°16'23.982"W	0.27	
8900.00	0.120	288.390	8897.46	-4.97	-40.61	1.86	559910.26	414222.29	32°08'19.542"N	104°16'23.982"W	0.26	



Actual Wellpath Report

No. 3H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION					
Operator	Cimarex Energy Co.			Slot	No. 3H SHL
Area	Eddy County, NM			Well	No. 3H
Field	(White City) Sec 10, T25S, R26E			Wellbore	No. 3H AWB
Facility	White City 10 Fed No. 3H			Sidetrack from	No. 3 AWB at 9208.00 MD

WELLPATH DATA (164 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
9000.00	0.200	283.820	8997.46	-4.69	-40.54	1.59	559909.99	414222.36	32°08'19.542"N	104°16'23.985"W	0.08	
9100.00	0.200	314.270	9097.46	-4.39	-40.38	1.29	559909.69	414222.53	32°08'19.544"N	104°16'23.989"W	0.11	
9200.00	0.290	304.950	9197.46	-4.04	-40.11	0.96	559909.36	414222.79	32°08'19.547"N	104°16'23.993"W	0.10	
9208.00	0.300	305.000	9205.46	-4.00	-40.09	0.93	559909.33	414222.82	32°08'19.547"N	104°16'23.993"W	0.13	
9415.00	0.200	25.600	9412.45	-3.67	-39.45	0.64	559909.04	414223.45	32°08'19.553"N	104°16'23.996"W	0.16	
9446.00	1.200	288.700	9443.45	-3.37	-39.30	0.36	559908.76	414223.61	32°08'19.555"N	104°16'24.000"W	4.00	
9478.00	10.000	271.300	9475.27	-0.27	-39.13	-2.75	559905.65	414223.78	32°08'19.556"N	104°16'24.036"W	27.69	
9510.00	20.100	267.400	9506.13	7.99	-39.31	-11.04	559897.36	414223.59	32°08'19.555"N	104°16'24.132"W	31.70	
9541.00	29.800	272.500	9534.21	21.01	-39.22	-24.09	559884.31	414223.69	32°08'19.556"N	104°16'24.284"W	32.02	
9572.00	39.300	271.200	9559.71	38.55	-38.67	-41.64	559866.76	414224.23	32°08'19.561"N	104°16'24.488"W	30.74	
9604.00	45.700	279.000	9583.31	60.12	-36.67	-63.12	559845.29	414226.24	32°08'19.581"N	104°16'24.738"W	25.88	
9635.00	48.100	280.100	9604.49	82.66	-32.91	-85.44	559822.97	414229.99	32°08'19.618"N	104°16'24.997"W	8.16	
9667.00	52.000	282.100	9625.03	107.01	-28.17	-109.50	559798.91	414234.73	32°08'19.665"N	104°16'25.277"W	13.09	
9699.00	56.300	283.700	9643.77	132.66	-22.38	-134.77	559773.64	414240.53	32°08'19.723"N	104°16'25.571"W	14.03	
9730.00	60.200	284.500	9660.08	158.64	-15.95	-160.33	559748.08	414246.95	32°08'19.787"N	104°16'25.868"W	12.77	
9762.00	64.600	285.300	9674.90	186.51	-8.66	-187.73	559720.69	414254.24	32°08'19.859"N	104°16'26.187"W	13.93	
9793.00	69.500	285.200	9686.99	214.54	-1.15	-215.26	559693.16	414261.75	32°08'19.933"N	104°16'26.507"W	15.81	
9825.00	74.600	284.600	9696.85	244.46	6.67	-244.67	559663.75	414269.57	32°08'20.011"N	104°16'26.849"W	16.04	
9857.00	79.200	284.500	9704.10	275.14	14.50	-274.83	559633.59	414277.40	32°08'20.089"N	104°16'27.200"W	14.38	
9889.00	84.000	284.600	9708.77	306.29	22.45	-305.47	559602.96	414285.35	32°08'20.167"N	104°16'27.556"W	15.00	
9920.00	89.400	283.500	9710.55	336.79	29.96	-335.48	559572.95	414292.86	32°08'20.242"N	104°16'27.905"W	17.78	
9952.00	92.800	281.800	9709.94	368.44	36.96	-366.69	559541.75	414299.86	32°08'20.311"N	104°16'28.268"W	11.88	
9984.00	92.800	281.600	9708.38	400.15	43.45	-397.99	559510.45	414306.34	32°08'20.376"N	104°16'28.632"W	0.62	
10015.00	93.200	280.100	9706.75	430.91	49.27	-428.39	559480.05	414312.17	32°08'20.433"N	104°16'28.985"W	5.00	
10046.00	93.800	278.200	9704.86	461.74	54.19	-458.94	559449.51	414317.09	32°08'20.482"N	104°16'29.340"W	6.42	
10078.00	94.200	276.400	9702.63	493.62	58.25	-490.60	559417.85	414321.14	32°08'20.523"N	104°16'29.709"W	5.75	
10110.00	94.100	273.900	9700.31	525.53	61.11	-522.38	559386.07	414324.01	32°08'20.551"N	104°16'30.078"W	7.80	
10142.00	92.500	272.900	9698.47	557.47	63.01	-554.27	559354.18	414325.90	32°08'20.570"N	104°16'30.449"W	5.89	
10173.00	89.500	271.700	9697.93	588.44	64.25	-585.24	559323.22	414327.15	32°08'20.583"N	104°16'30.809"W	10.42	
10205.00	90.500	270.900	9697.93	620.40	64.98	-617.23	559291.23	414327.87	32°08'20.590"N	104°16'31.181"W	4.00	
10236.00	90.700	271.500	9697.61	651.35	65.63	-648.22	559260.24	414328.52	32°08'20.596"N	104°16'31.542"W	2.04	
10268.00	90.500	271.500	9697.27	683.30	66.46	-680.21	559228.25	414329.36	32°08'20.605"N	104°16'31.914"W	0.62	
10299.00	90.400	271.200	9697.03	714.26	67.20	-711.20	559197.27	414330.09	32°08'20.612"N	104°16'32.274"W	1.02	
10330.00	90.200	270.900	9696.86	745.20	67.76	-742.19	559166.28	414330.66	32°08'20.618"N	104°16'32.635"W	1.16	
10362.00	91.000	270.700	9696.53	777.14	68.21	-774.19	559134.28	414331.10	32°08'20.623"N	104°16'33.007"W	2.58	
10394.00	91.200	270.700	9695.92	809.07	68.60	-806.18	559102.30	414331.49	32°08'20.627"N	104°16'33.379"W	0.62	
10489.00	91.500	271.000	9693.68	903.86	70.01	-901.14	559007.34	414332.90	32°08'20.641"N	104°16'34.483"W	0.45	
10584.00	91.300	270.000	9691.36	998.61	70.84	-996.11	558912.38	414333.73	32°08'20.650"N	104°16'35.588"W	1.07	
10679.00	91.900	269.800	9688.70	1093.28	70.67	-1091.07	558817.43	414333.57	32°08'20.649"N	104°16'36.692"W	0.67	
10773.00	91.600	269.600	9685.83	1186.92	70.18	-1185.03	558723.48	414333.07	32°08'20.644"N	104°16'37.785"W	0.38	
10868.00	90.800	268.900	9683.84	1281.51	68.94	-1280.00	558628.52	414331.83	32°08'20.633"N	104°16'38.889"W	1.12	
10963.00	91.800	271.000	9681.69	1376.19	68.85	-1374.96	558533.56	414331.75	32°08'20.632"N	104°16'39.994"W	2.45	
11058.00	90.900	271.700	9679.45	1471.03	71.09	-1469.91	558438.63	414333.99	32°08'20.655"N	104°16'41.098"W	1.20	
11153.00	88.500	273.100	9679.95	1565.96	75.07	-1564.82	558343.73	414337.96	32°08'20.695"N	104°16'42.202"W	2.92	
11248.00	88.200	274.100	9682.68	1660.91	81.03	-1659.59	558248.96	414343.92	32°08'20.754"N	104°16'43.304"W	1.10	



Actual Wellpath Report

No. 3H AWP

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REFERENCE WELLPATH IDENTIFICATION					
Operator	Cimarex Energy Co.			Slot	No. 3H SHL
Area	Eddy County, NM			Well	No. 3H
Field	(White City) Sec 10, T25S, R26E			Wellbore	No. 3H AWB
Facility	White City 10 Fed No. 3H			Sidetrack from	No. 3 AWB at 9208.00 MD

WELLPATH DATA (164 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
11343.00	89.600	275.100	9684.51	1755.89	88.65	-1754.26	558154.30	414351.54	32°08'20.830"N	104°16'44.405"W	1.81	
11437.00	88.900	274.700	9685.74	1849.88	96.68	-1847.91	558060.66	414359.57	32°08'20.910"N	104°16'45.494"W	0.86	
11532.00	90.500	275.400	9686.23	1944.87	105.04	-1942.54	557966.04	414367.93	32°08'20.993"N	104°16'46.594"W	1.84	
11628.00	91.200	275.700	9684.81	2040.84	114.32	-2038.07	557870.51	414377.21	32°08'21.085"N	104°16'47.705"W	0.79	
11722.00	91.400	276.000	9682.68	2134.78	123.90	-2131.56	557777.04	414386.79	32°08'21.181"N	104°16'48.792"W	0.38	
11817.00	91.000	275.900	9680.69	2229.73	133.75	-2226.03	557682.58	414396.63	32°08'21.279"N	104°16'49.891"W	0.43	
11912.00	90.400	276.300	9679.53	2324.68	143.84	-2320.48	557588.13	414406.73	32°08'21.379"N	104°16'50.989"W	0.76	
12007.00	88.900	274.800	9680.11	2419.65	153.03	-2415.03	557493.59	414415.91	32°08'21.470"N	104°16'52.089"W	2.23	
12102.00	89.600	275.500	9681.35	2514.63	161.56	-2509.64	557399.00	414424.44	32°08'21.555"N	104°16'53.189"W	1.04	
12197.00	85.900	273.400	9685.08	2609.54	168.92	-2604.26	557304.39	414431.81	32°08'21.628"N	104°16'54.290"W	4.48	
12292.00	87.500	275.300	9690.55	2704.37	176.12	-2698.82	557209.83	414439.00	32°08'21.700"N	104°16'55.389"W	2.61	
12386.00	87.700	276.100	9694.49	2798.27	185.44	-2792.27	557116.39	414448.33	32°08'21.793"N	104°16'56.476"W	0.88	
12481.00	90.100	277.800	9696.31	2893.14	196.94	-2886.54	557022.12	414459.82	32°08'21.907"N	104°16'57.572"W	3.10	
12576.00	90.700	278.200	9695.65	2987.95	210.16	-2980.62	556928.06	414473.04	32°08'22.038"N	104°16'58.666"W	0.76	
12671.00	92.000	278.800	9693.41	3082.68	224.19	-3074.54	556834.14	414487.07	32°08'22.178"N	104°16'59.759"W	1.51	
12765.00	92.500	280.200	9689.72	3176.24	239.70	-3167.18	556741.51	414502.57	32°08'22.331"N	104°17'00.836"W	1.58	
12860.00	91.100	279.700	9686.73	3270.74	256.10	-3260.70	556648.00	414518.98	32°08'22.494"N	104°17'01.924"W	1.56	
12956.00	87.900	278.800	9687.57	3366.38	271.53	-3355.44	556553.27	414534.41	32°08'22.647"N	104°17'03.025"W	3.46	
13051.00	89.400	279.900	9689.81	3461.00	286.96	-3449.15	556459.57	414549.83	32°08'22.800"N	104°17'04.115"W	1.96	
13146.00	89.900	280.600	9690.39	3555.50	303.86	-3542.63	556366.10	414566.74	32°08'22.968"N	104°17'05.202"W	0.91	
13241.00	87.700	279.600	9692.38	3650.00	320.52	-3636.13	556272.61	414583.39	32°08'23.133"N	104°17'06.289"W	2.54	
13336.00	86.600	279.500	9697.10	3744.50	336.26	-3729.69	556179.05	414599.13	32°08'23.289"N	104°17'07.377"W	1.16	
13431.00	88.100	280.200	9701.49	3838.97	352.50	-3823.19	556085.56	414615.36	32°08'23.451"N	104°17'08.465"W	1.74	
13526.00	92.000	282.900	9701.41	3933.20	371.51	-3916.24	555992.52	414634.38	32°08'23.639"N	104°17'09.547"W	4.99	
13620.00	90.900	283.600	9699.03	4026.05	393.05	-4007.71	555901.07	414655.91	32°08'23.853"N	104°17'10.610"W	1.39	
13715.00	90.700	283.600	9697.71	4119.82	415.39	-4100.03	555808.75	414678.25	32°08'24.074"N	104°17'11.684"W	0.21	
13810.00	90.400	283.600	9696.80	4213.60	437.72	-4192.36	555716.42	414700.58	32°08'24.295"N	104°17'12.758"W	0.32	
13866.00	89.300	282.900	9696.94	4268.93	450.56	-4246.87	555661.92	414713.42	32°08'24.423"N	104°17'13.392"W	2.33	
13918.00	89.300	282.900	9697.58	4320.35	462.17	-4297.56	555611.24	414725.02	32°08'24.538"N	104°17'13.981"W	0.00	BHL Projection



Actual Wellpath Report

No. 3H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Eddy County, NM	Well	No. 3H
Field	(White City) Sec 10, T25S, R26E	Wellbore	No. 3H AWB
Facility	White City 10 Fed No. 3H	Sidetrack from	No. 3 AWB at 9208.00 MD

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
No. 3H PBHL		9677.00	332.39	-4317.42	555591.38	414595.26	32°08'23.254"N	104°17'14.213"W	point

WELLPATH COMPOSITION

Ref Wellbore: No. 3H AWB

Ref Wellpath: No. 3H AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	9208.00	Generic gyro - continuous (Standard)	GYRO (100 - 9208)	No. 3 AWB
9208.00	13866.00	NaviTrak (Standard)	MWD	No. 3H AWB
13866.00	13918.00	Blind Drilling (std)	Projection to bit	No. 3H AWB