

30-015-39214



Cimarex Energy Co.

Location: Eddy County, NM
Field: (West Shugart) Sec 32, T16S, R31E
Facility: West Shugart 32 State Com

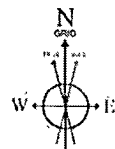
Sect: No. 2H SHL
Well: No. 2H
Wellbore: No. 2H PWB



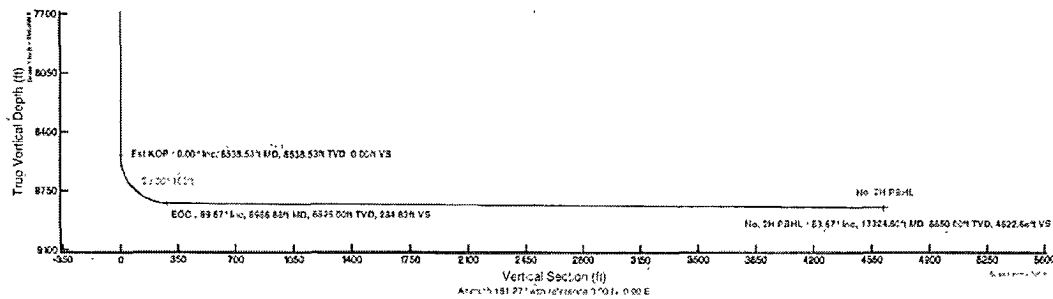
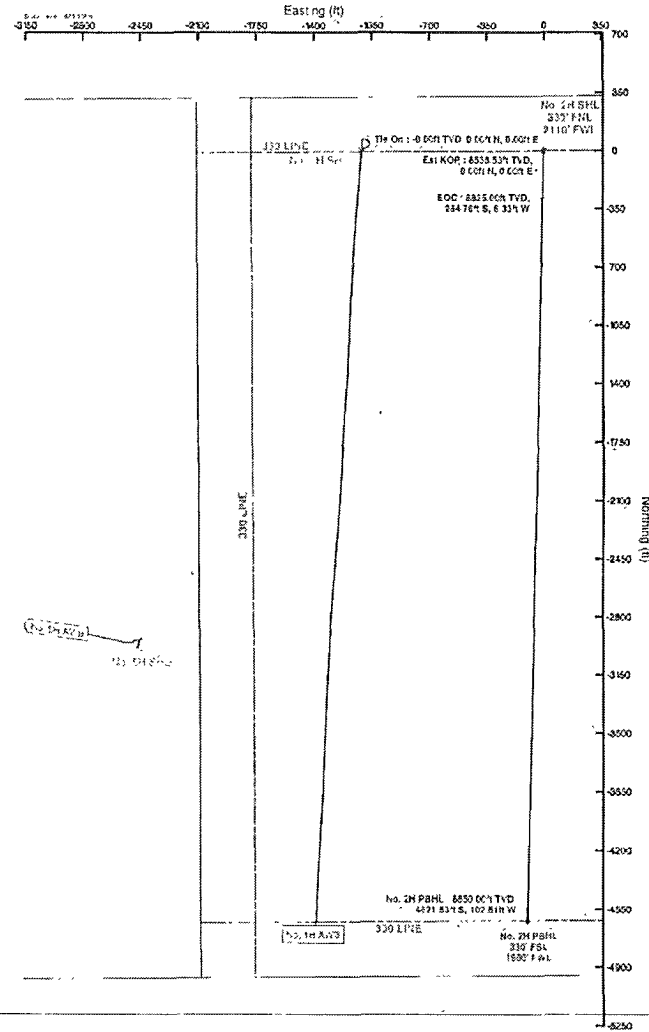
Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	181.274	0.00	0.00	0.00	0.00	0.00
Est KOP	8538.53	0.000	181.274	8538.53	0.00	0.00	0.00	0.00
EOC	8968.88	89.670	181.274	8825.00	-284.76	-6.33	20.00	284.83
No. 2H PBHL	13324.89	89.670	181.274	8850.00	-4621.53	-102.81	0.00	4622.68

Well Name: No. 2H PWB	Well Type: Production
Well Status: Active	Well Depth: 13324.89 ft
Well Completion: Open Hole	Well Orientation: 89.67°
Well Completion Date: 01/15/2011	Well Completion By: Baker Hughes
Well Completion Cost: \$1,000,000	Well Completion Notes: See Well Log



BGC: 1115450 to 23120; Dp 80.59' Field 489197 ft
Magnetic North is 7.81 degrees East of True North (317.20/2311)
Grid North is 0.21 degrees East of True North
To convert azimuth from True to Grid subtract 0.24 degrees
To convert azimuth from Magnetic to Grid add 7.53 degrees
For example if the Magnetic North Azimuth = 93 degrees, then the Grid North Azimuth = 90 + 7.58 = 97.53





Planned Wellpath Report

No. 2H PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(West Shugart) Sec 32, T18S, R31E	Wellbore	No. 2H PWB
Facility	West Shugart 32 State Com		

REPORT SETUP INFORMATION

Projection System	NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect@ 3.0.0
North Reference	Grid	User	Calhphik
Scale	0.99993	Report Generated	7/20/2011 at 10:32:01 AM
Convergence at slot	0.24° East	Database/Source file	WA Midland/No. 2H_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	6.80	1119.88	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W
Facility Reference Pt			675547.00	622399.50	32°42'36.930"N	103°53'49.155"W
Field Reference Pt			675547.00	622399.50	32°42'36.930"N	103°53'49.155"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 2H SHL (KB) to GL	3572.00ft
Horizontal Reference Pt	Slot	Rig on No. 2H SHL (KB) to Mean Sea Level	3572.00ft
Vertical Reference Pt	Rig on No. 2H SHL (KB)	Rig on No. 2H SHL (KB) to Mud Line at Slot (No. 2H SHL)	3572.00ft
MD Reference Pt	Rig on No. 2H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	181.27°



Planned Wellpath Report

No. 2H PWP

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Area	Eddy County, NM	Well	No. 2H
Field	(West Shugart) Sec 32, T18S, R31E	Wellbore	No. 2H PWB
Facility	West Shugart 32 State Com		

WELLPATH DATA (137 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	181.274	0.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	Tie On
100.00†	0.000	181.274	100.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
200.00†	0.000	181.274	200.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
300.00†	0.000	181.274	300.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
400.00†	0.000	181.274	400.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
500.00†	0.000	181.274	500.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
600.00†	0.000	181.274	600.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
700.00†	0.000	181.274	700.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
800.00†	0.000	181.274	800.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
900.00†	0.000	181.274	900.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
1000.00†	0.000	181.274	1000.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
1100.00†	0.000	181.274	1100.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
1200.00†	0.000	181.274	1200.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
1300.00†	0.000	181.274	1300.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
1400.00†	0.000	181.274	1400.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
1500.00†	0.000	181.274	1500.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
1600.00†	0.000	181.274	1600.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
1700.00†	0.000	181.274	1700.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
1800.00†	0.000	181.274	1800.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
1900.00†	0.000	181.274	1900.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
2000.00†	0.000	181.274	2000.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
2100.00†	0.000	181.274	2100.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
2200.00†	0.000	181.274	2200.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
2300.00†	0.000	181.274	2300.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
2400.00†	0.000	181.274	2400.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
2500.00†	0.000	181.274	2500.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
2600.00†	0.000	181.274	2600.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
2700.00†	0.000	181.274	2700.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
2800.00†	0.000	181.274	2800.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
2900.00†	0.000	181.274	2900.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
3000.00†	0.000	181.274	3000.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
3100.00†	0.000	181.274	3100.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
3200.00†	0.000	181.274	3200.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
3300.00†	0.000	181.274	3300.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
3400.00†	0.000	181.274	3400.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
3500.00†	0.000	181.274	3500.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
3600.00†	0.000	181.274	3600.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
3700.00†	0.000	181.274	3700.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
3800.00†	0.000	181.274	3800.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
3900.00†	0.000	181.274	3900.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
4000.00†	0.000	181.274	4000.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
4100.00†	0.000	181.274	4100.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
4200.00†	0.000	181.274	4200.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
4300.00†	0.000	181.274	4300.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
4400.00†	0.000	181.274	4400.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	



Planned Wellpath Report

No. 2H PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(West Shugart) Sec 32, T18S, R31E	Wellbore	No. 2H PWB
Facility	West Shugart 32 State Com.		

WELLPATH DATA (137 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
4500.00†	0.000	181.274	4500.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
4600.00†	0.000	181.274	4600.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
4700.00†	0.000	181.274	4700.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
4800.00†	0.000	181.274	4800.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
4900.00†	0.000	181.274	4900.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
5000.00†	0.000	181.274	5000.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
5100.00†	0.000	181.274	5100.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
5200.00†	0.000	181.274	5200.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
5300.00†	0.000	181.274	5300.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
5400.00†	0.000	181.274	5400.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
5500.00†	0.000	181.274	5500.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
5600.00†	0.000	181.274	5600.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
5700.00†	0.000	181.274	5700.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
5800.00†	0.000	181.274	5800.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
5900.00†	0.000	181.274	5900.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
6000.00†	0.000	181.274	6000.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
6100.00†	0.000	181.274	6100.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
6200.00†	0.000	181.274	6200.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
6300.00†	0.000	181.274	6300.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
6400.00†	0.000	181.274	6400.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
6500.00†	0.000	181.274	6500.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
6600.00†	0.000	181.274	6600.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
6700.00†	0.000	181.274	6700.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
6800.00†	0.000	181.274	6800.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
6900.00†	0.000	181.274	6900.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
7000.00†	0.000	181.274	7000.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
7100.00†	0.000	181.274	7100.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
7200.00†	0.000	181.274	7200.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
7300.00†	0.000	181.274	7300.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
7400.00†	0.000	181.274	7400.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
7500.00†	0.000	181.274	7500.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
7600.00†	0.000	181.274	7600.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
7700.00†	0.000	181.274	7700.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
7800.00†	0.000	181.274	7800.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
7900.00†	0.000	181.274	7900.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
8000.00†	0.000	181.274	8000.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
8100.00†	0.000	181.274	8100.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
8200.00†	0.000	181.274	8200.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
8300.00†	0.000	181.274	8300.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
8400.00†	0.000	181.274	8400.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
8500.00†	0.000	181.274	8500.00	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	
8538.53	0.000	181.274	8538.53	0.00	0.00	0.00	676666.80	622406.30	32°42'36.951"N	103°53'36.048"W	0.00	Est KOP
8600.00†	12.294	181.274	8599.53	6.57	-6.57	-0.15	676666.65	622399.73	32°42'36.886"N	103°53'36.050"W	20.00	
8700.00†	32.294	181.274	8691.59	44.31	-44.30	-0.99	676665.81	622362.00	32°42'36.513"N	103°53'36.062"W	20.00	
8800.00†	52.294	181.274	8765.18	111.27	-111.24	-2.47	676664.33	622295.07	32°42'35.851"N	103°53'36.082"W	20.00	



Planned Wellpath Report

No. 2H PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(West Shugart) Sec 32, T18S, R31E	Wellbore	No. 2H PWB
Facility	West Shugart 32 State Com		

WELLPATH DATA (137 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
8900.00†	72.294	181.274	8811.44	199.35	-199.30	-4.43	676662.37	622207.01	32°42'34.979"N	103°53'36.110"W	20.00	
8986.88	89.670	181.274	8825.00	284.83	-284.76	-6.33	676660.47	622121.56	32°42'34.134"N	103°53'36.136"W	20.00	EOC
9000.00†	89.670	181.274	8825.08	297.95	-297.87	-6.63	676660.17	622108.45	32°42'34.004"N	103°53'36.140"W	0.00	
9100.00†	89.670	181.274	8825.66	397.95	-397.85	-8.85	676657.95	622008.48	32°42'33.015"N	103°53'36.171"W	0.00	
9200.00†	89.670	181.274	8826.23	497.95	-497.82	-11.07	676655.73	621908.51	32°42'32.026"N	103°53'36.202"W	0.00	
9300.00†	89.670	181.274	8826.81	597.94	-597.80	-13.30	676653.50	621808.55	32°42'31.037"N	103°53'36.233"W	0.00	
9400.00†	89.670	181.274	8827.38	697.94	-697.77	-15.52	676651.28	621708.58	32°42'30.048"N	103°53'36.264"W	0.00	
9500.00†	89.670	181.274	8827.96	797.94	-797.74	-17.75	676649.06	621608.61	32°42'29.059"N	103°53'36.294"W	0.00	
9600.00†	89.670	181.274	8828.54	897.94	-897.72	-19.97	676646.83	621508.65	32°42'28.070"N	103°53'36.325"W	0.00	
9700.00†	89.670	181.274	8829.11	997.94	-997.69	-22.19	676644.61	621408.68	32°42'27.081"N	103°53'36.356"W	0.00	
9800.00†	89.670	181.274	8829.69	1097.94	-1097.66	-24.42	676642.38	621308.72	32°42'26.091"N	103°53'36.387"W	0.00	
9900.00†	89.670	181.274	8830.27	1197.93	-1197.64	-26.64	676640.16	621208.75	32°42'25.102"N	103°53'36.418"W	0.00	
10000.00†	89.670	181.274	8830.84	1297.93	-1297.61	-28.87	676637.94	621108.78	32°42'24.113"N	103°53'36.449"W	0.00	
10100.00†	89.670	181.274	8831.42	1397.93	-1397.58	-31.09	676635.71	621008.82	32°42'23.124"N	103°53'36.480"W	0.00	
10200.00†	89.670	181.274	8831.99	1497.93	-1497.56	-33.31	676633.49	620908.85	32°42'22.135"N	103°53'36.511"W	0.00	
10300.00†	89.670	181.274	8832.57	1597.93	-1597.53	-35.54	676631.26	620808.88	32°42'21.146"N	103°53'36.542"W	0.00	
10400.00†	89.670	181.274	8833.15	1697.93	-1697.51	-37.76	676629.04	620708.92	32°42'20.157"N	103°53'36.572"W	0.00	
10500.00†	89.670	181.274	8833.72	1797.92	-1797.48	-39.99	676626.82	620608.95	32°42'19.168"N	103°53'36.603"W	0.00	
10600.00†	89.670	181.274	8834.30	1897.92	-1897.45	-42.21	676624.59	620508.98	32°42'18.179"N	103°53'36.634"W	0.00	
10700.00†	89.670	181.274	8834.88	1997.92	-1997.43	-44.43	676622.37	620409.02	32°42'17.190"N	103°53'36.665"W	0.00	
10800.00†	89.670	181.274	8835.45	2097.92	-2097.40	-46.66	676620.15	620309.05	32°42'16.201"N	103°53'36.696"W	0.00	
10900.00†	89.670	181.274	8836.03	2197.92	-2197.37	-48.88	676617.92	620209.08	32°42'15.212"N	103°53'36.727"W	0.00	
11000.00†	89.670	181.274	8836.60	2297.92	-2297.35	-51.11	676615.70	620109.12	32°42'14.223"N	103°53'36.758"W	0.00	
11100.00†	89.670	181.274	8837.18	2397.91	-2397.32	-53.33	676613.47	620009.15	32°42'13.233"N	103°53'36.789"W	0.00	
11200.00†	89.670	181.274	8837.76	2497.91	-2497.29	-55.55	676611.25	619909.19	32°42'12.244"N	103°53'36.819"W	0.00	
11300.00†	89.670	181.274	8838.33	2597.91	-2597.27	-57.78	676609.03	619809.22	32°42'11.255"N	103°53'36.850"W	0.00	
11400.00†	89.670	181.274	8838.91	2697.91	-2697.24	-60.00	676606.80	619709.25	32°42'10.266"N	103°53'36.881"W	0.00	
11500.00†	89.670	181.274	8839.49	2797.91	-2797.22	-62.22	676604.58	619609.29	32°42'09.277"N	103°53'36.912"W	0.00	
11600.00†	89.670	181.274	8840.06	2897.91	-2897.19	-64.45	676602.36	619509.32	32°42'08.288"N	103°53'36.943"W	0.00	
11700.00†	89.670	181.274	8840.64	2997.90	-2997.16	-66.67	676600.13	619409.35	32°42'07.299"N	103°53'36.974"W	0.00	
11800.00†	89.670	181.274	8841.21	3097.90	-3097.14	-68.90	676597.91	619309.39	32°42'06.310"N	103°53'37.005"W	0.00	
11900.00†	89.670	181.274	8841.79	3197.90	-3197.11	-71.12	676595.68	619209.42	32°42'05.321"N	103°53'37.036"W	0.00	
12000.00†	89.670	181.274	8842.37	3297.90	-3297.08	-73.34	676593.46	619109.45	32°42'04.332"N	103°53'37.066"W	0.00	
12100.00†	89.670	181.274	8842.94	3397.90	-3397.06	-75.57	676591.24	619009.49	32°42'03.343"N	103°53'37.097"W	0.00	
12200.00†	89.670	181.274	8843.52	3497.90	-3497.03	-77.79	676589.01	618909.52	32°42'02.354"N	103°53'37.128"W	0.00	
12300.00†	89.670	181.274	8844.09	3597.89	-3597.00	-80.02	676586.79	618809.55	32°42'01.365"N	103°53'37.159"W	0.00	
12400.00†	89.670	181.274	8844.67	3697.89	-3696.98	-82.24	676584.57	618709.59	32°42'00.375"N	103°53'37.190"W	0.00	
12500.00†	89.670	181.274	8845.25	3797.89	-3796.95	-84.46	676582.34	618609.62	32°41'59.386"N	103°53'37.221"W	0.00	
12600.00†	89.670	181.274	8845.82	3897.89	-3896.92	-86.69	676580.12	618509.66	32°41'58.397"N	103°53'37.252"W	0.00	
12700.00†	89.670	181.274	8846.40	3997.89	-3996.90	-88.91	676577.89	618409.69	32°41'57.408"N	103°53'37.283"W	0.00	
12800.00†	89.670	181.274	8846.98	4097.89	-4096.87	-91.14	676575.67	618309.72	32°41'56.419"N	103°53'37.313"W	0.00	
12900.00†	89.670	181.274	8847.55	4197.88	-4196.85	-93.36	676573.45	618209.76	32°41'55.430"N	103°53'37.344"W	0.00	
13000.00†	89.670	181.274	8848.13	4297.88	-4296.82	-95.58	676571.22	618109.79	32°41'54.441"N	103°53'37.375"W	0.00	
13100.00†	89.670	181.274	8848.70	4397.88	-4396.79	-97.81	676569.00	618009.82	32°41'53.452"N	103°53'37.406"W	0.00	
13200.00†	89.670	181.274	8849.28	4497.88	-4496.77	-100.03	676566.78	617909.86	32°41'52.463"N	103°53'37.437"W	0.00	



Planned Wellpath Report

No. 2H PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(West Shugart) Sec 32, T18S, R31E	Wellbore	No. 2H PWB
Facility	West Shugart 32 State Com		

WELLPATH DATA (137 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
13300.00†	89.670	181.274	8849.86	4597.88	-4596.74	-102.26	676564.55	617809.89	32°41'51.474"N	103°53'37.468"W	0.00	
13324.80	89.670	181.274	8850.00†	4622.68	-4621.53	-102.81	676564.00	617785.10	32°41'51.228"N	103°53'37.475"W	0.00	No. 2H PBHL

HOLE & CASING SECTIONS - Ref Wellbore: No. 2H PWB - Ref Wellpath: No. 2H PWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	0.00	4000.00	4000.00	0.00	4000.00	0.00	0.00	0.00	0.00
9.625in Casing	0.00	4000.00	4000.00	0.00	4000.00	0.00	0.00	0.00	0.00
8.75in Open Hole	4000.00	13324.80	9324.80	4000.00	NA	0.00	0.00	NA	NA
5.5in Casing	0.00	13324.80	13324.80	0.00	NA	0.00	0.00	NA	NA

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) No. 2H PBHL	13324.80	8850.00	-4621.53	-102.81	676564.00	617785.10	32°41'51.228"N	103°53'37.475"W	point

SURVEY PROGRAM - Ref Wellbore: No. 2H PWB - Ref Wellpath: No. 2H PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
3572.00	13324.80	NaviTrak (Standard)		No. 2H PWB