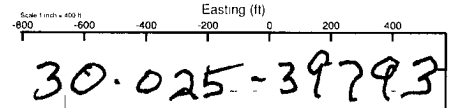




Cimarex Energy Co.

Location Lea County, NM Slot No 6 SHL
 Field (State DR) Sec 16, T19S, R32E Well No 6
 Facility State QR No. 6 Wellbore No. 6.PWB

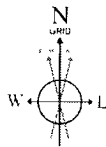


No 6 SHL
 330 FNL
 660 FWL

1st On: 0.00h TVD, 0.00h N, 0.00h E
 Est KOP: 9209.20h TVD, 0.00h N, 0.00h E
 End: 9450.00h TVD, 1.99h S, 1.12h E

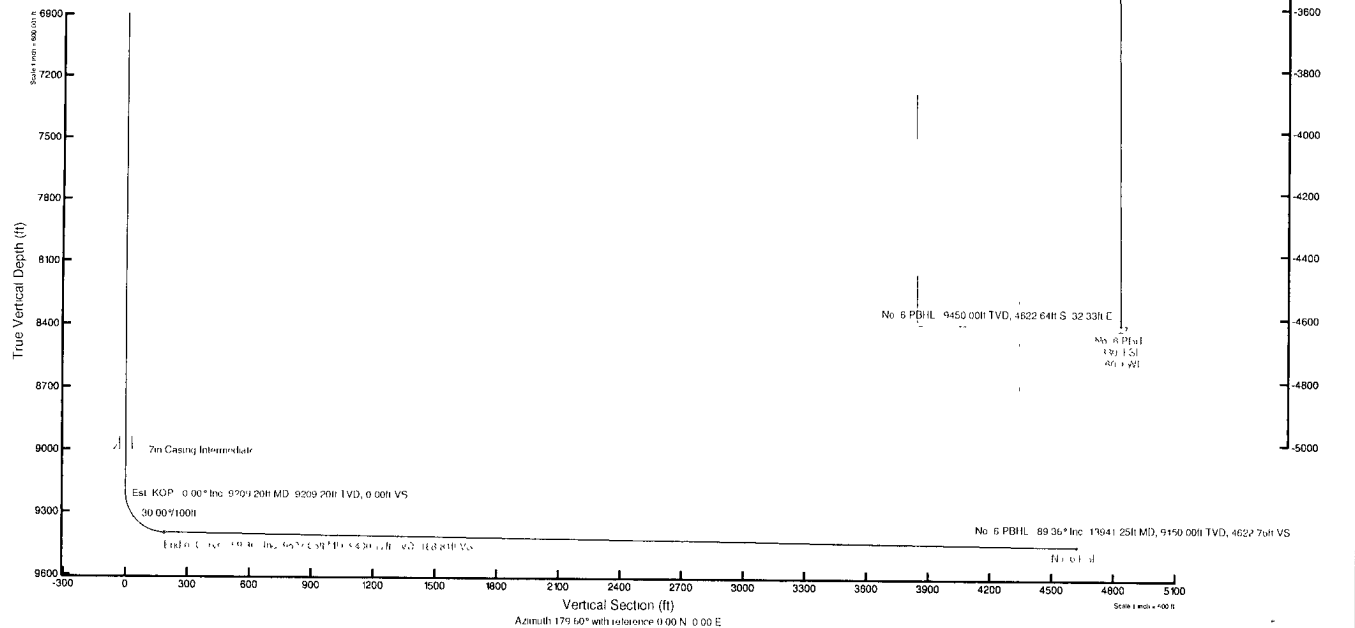
Well Profile Data								
Design Comment	MD (ft)	Incl. (°)	Az. (°)	TVD (ft)	Local N (ft)	Local E (ft)	DIS (1/100h)	VS (ft)
1st On	0.00	0.000	179.599	0.00	0.00	0.00	0.00	0.00
Est KOP	9209.20	0.000	179.599	9209.20	0.00	0.00	0.00	0.00
End of Curve	9507.05	89.256	179.599	9450.17	159.84	1.22	39.00	159.84
No 6 PWB	13941.25	89.256	179.599	9450.00	4622.64	32.33	0.00	4622.76

Hole and Casing Sections										
Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start Local N (ft)	End Local N (ft)	Start Local E (ft)	End Local E (ft)	Wellbore
9.53in Casing Section	0.00	4950.00	4950.00	0.00	4950.00	0.00	0.00	0.00	0.00	No 6 PWB
7in Casing Intermediate	0.00	3000.00	3000.00	0.00	3000.00	0.00	0.00	0.00	0.00	No 6 PWB



BGCM (1945.0 to 2011.0) Dip: 0.60°; Az: 490.29; 2 nT
 Magnetic North is 7.88 degrees East of True North (at 01/2010)
 Grid North is 0.30 degrees East of True North
 To convert azimuth from True to Grid subtract 0.30 degrees
 To convert azimuth from Magnetic to Grid add 7.58 degrees
 For example if the Magnetic North Azimuth = 90 degs then the Grid North Azimuth = 90 + 7.58 = 97.58

Plot reference wellpath is Plain 1	Grid System: NAD83 / 1M New Mexico State Plane, Eastern Zone (3501) US feet
True vertical depths are referenced to Rig on No. 6 SHL (CL)	North Reference: Grid north
Measured depths are referenced to Rig on No. 6 SHL (CL)	Scale: True distance
Rig on No. 6 SHL (CL) to Mean Sea Level: 3617 feet	Depths are in feet
Mean Sea Level to MWD line (Facility State DR No. 6): 3517 feet	Coordinates are in feet referenced to Start Location
Coordinates are in feet referenced to Start Location	Created by: Roland Ferris on 6/1/2010



Azimuth: 179.59° with tolerance: 0.00 N, 0.00 E



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 6 SHL
Area	Lea County, NM	Well	No. 6
Field	(State DR) Sec 16, T19S, R32E	Wellbore	No. 6 PWB
Facility	State DR No. 6		

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	Florroll
Scale	0.999943	Report Generated	6/1/2010 at 1:25:24 PM
Convergence at slot	0.30° East	Database/Source file	WA_Midland/No._6_PWB.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	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W
Facility Reference Pt			712327.80	606759.10	32°40'00.467"N	103°46'39.631"W
Field Reference Pt			712327.80	606759.10	32°40'00.467"N	103°46'39.631"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 6 SHL (GL) to Ground Level	0.00ft
Horizontal Reference Pt	Slot Location	Rig on No. 6 SHL (GL) to Mean Sea Level	3617.00ft
Vertical Reference Pt	Rig on No. 6 SHL (GL)	Ground Level to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 6 SHL (GL)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.60°



Planned Wellpath Report

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 6 SHL
Area	Lea County, NM	Well	No. 6
Field	(State DR) Sec 16, T19S, R32E	Wellbore	No. 6 PWB
Facility	State DR No. 6		

WELLPATH DATA (143 stations) † = interpolated/extrapolated station

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	179.599	0.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	Tie On
100.00†	0.000	179.599	100.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
200.00†	0.000	179.599	200.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
300.00†	0.000	179.599	300.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
400.00†	0.000	179.599	400.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
500.00†	0.000	179.599	500.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
600.00†	0.000	179.599	600.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
700.00†	0.000	179.599	700.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
800.00†	0.000	179.599	800.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
900.00†	0.000	179.599	900.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
1000.00†	0.000	179.599	1000.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
1100.00†	0.000	179.599	1100.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
1200.00†	0.000	179.599	1200.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
1300.00†	0.000	179.599	1300.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
1400.00†	0.000	179.599	1400.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
1500.00†	0.000	179.599	1500.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
1600.00†	0.000	179.599	1600.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
1700.00†	0.000	179.599	1700.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
1800.00†	0.000	179.599	1800.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
1900.00†	0.000	179.599	1900.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
2000.00†	0.000	179.599	2000.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
2100.00†	0.000	179.599	2100.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
2200.00†	0.000	179.599	2200.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
2300.00†	0.000	179.599	2300.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
2400.00†	0.000	179.599	2400.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
2500.00†	0.000	179.599	2500.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
2600.00†	0.000	179.599	2600.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
2700.00†	0.000	179.599	2700.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
2800.00†	0.000	179.599	2800.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
2900.00†	0.000	179.599	2900.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 6 SHL
Area	Lea County, NM	Well	No. 6
Field	(State DR) Sec 16, T19S, R32E	Wellbore	No. 6 PWB
Facility	State DR No. 6		

WELLPATH DATA (143 stations) † = interpolated/extrapolated station

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
3000.00†	0.000	179.599	3000.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
3100.00†	0.000	179.599	3100.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
3200.00†	0.000	179.599	3200.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
3300.00†	0.000	179.599	3300.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
3400.00†	0.000	179.599	3400.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
3500.00†	0.000	179.599	3500.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
3600.00†	0.000	179.599	3600.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
3700.00†	0.000	179.599	3700.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
3800.00†	0.000	179.599	3800.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
3900.00†	0.000	179.599	3900.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
4000.00†	0.000	179.599	4000.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
4100.00†	0.000	179.599	4100.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
4200.00†	0.000	179.599	4200.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
4300.00†	0.000	179.599	4300.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
4400.00†	0.000	179.599	4400.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
4500.00†	0.000	179.599	4500.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
4600.00†	0.000	179.599	4600.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
4700.00†	0.000	179.599	4700.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
4800.00†	0.000	179.599	4800.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
4900.00†	0.000	179.599	4900.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
5000.00†	0.000	179.599	5000.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
5100.00†	0.000	179.599	5100.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
5200.00†	0.000	179.599	5200.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
5300.00†	0.000	179.599	5300.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
5400.00†	0.000	179.599	5400.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
5500.00†	0.000	179.599	5500.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
5600.00†	0.000	179.599	5600.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
5700.00†	0.000	179.599	5700.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
5800.00†	0.000	179.599	5800.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
5900.00†	0.000	179.599	5900.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	



Planned Wellpath Report

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 6 SHL
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Facility	State DR No. 6		

WELLPATH DATA (143 stations) † = interpolated/extrapolated station

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
6000.00†	0.000	179.599	6000.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
6100.00†	0.000	179.599	6100.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
6200.00†	0.000	179.599	6200.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
6300.00†	0.000	179.599	6300.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
6400.00†	0.000	179.599	6400.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
6500.00†	0.000	179.599	6500.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
6600.00†	0.000	179.599	6600.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
6700.00†	0.000	179.599	6700.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
6800.00†	0.000	179.599	6800.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
6900.00†	0.000	179.599	6900.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
7000.00†	0.000	179.599	7000.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
7100.00†	0.000	179.599	7100.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
7200.00†	0.000	179.599	7200.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
7300.00†	0.000	179.599	7300.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
7400.00†	0.000	179.599	7400.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
7500.00†	0.000	179.599	7500.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
7600.00†	0.000	179.599	7600.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
7700.00†	0.000	179.599	7700.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
7800.00†	0.000	179.599	7800.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
7900.00†	0.000	179.599	7900.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
8000.00†	0.000	179.599	8000.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
8100.00†	0.000	179.599	8100.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
8200.00†	0.000	179.599	8200.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
8300.00†	0.000	179.599	8300.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
8400.00†	0.000	179.599	8400.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
8500.00†	0.000	179.599	8500.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
8600.00†	0.000	179.599	8600.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
8700.00†	0.000	179.599	8700.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
8800.00†	0.000	179.599	8800.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
8900.00†	0.000	179.599	8900.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	



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REFERENCE WELL PATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 6 SHL
Area	Lea County, NM	Well	No. 6
Field	(State DR) Sec 16, T19S, R32E	Wellbore	No. 6 PWB
Facility	State DR No. 6		

WELLPATH DATA (143 stations) † = interpolated/extrapolated station

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†	0.000	179.599	9000.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
9100.00†	0.000	179.599	9100.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
9200.00†	0.000	179.599	9200.00	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	
9209.20	0.000	179.599	9209.20	0.00	0.00	0.00	712327.80	606759.10	32°40'00.467"N	103°46'39.631"W	0.00	Est KOP
9300.00†	27.240	179.599	9296.62	21.18	-21.18	0.15	712327.95	606737.92	32°40'00.257"N	103°46'39.630"W	30.00	
9400.00†	57.240	179.599	9369.81	87.64	-87.64	0.61	712328.41	606671.47	32°39'59.600"N	103°46'39.629"W	30.00	
9500.00†	87.240	179.599	9399.96	181.79	-181.79	1.27	712329.07	606577.33	32°39'58.668"N	103°46'39.627"W	30.00	
9507.05	89.356	179.599	9400.17	188.84	-188.84	1.32	712329.12	606570.28	32°39'58.598"N	103°46'39.627"W	30.00	End of Curve
9600.00†	89.356	179.599	9401.22	281.78	-281.77	1.97	712329.77	606477.34	32°39'57.679"N	103°46'39.625"W	0.00	
9700.00†	89.356	179.599	9402.34	381.77	-381.76	2.67	712330.47	606377.36	32°39'56.689"N	103°46'39.623"W	0.00	
9800.00†	89.356	179.599	9403.47	481.77	-481.76	3.37	712331.17	606277.37	32°39'55.700"N	103°46'39.621"W	0.00	
9900.00†	89.356	179.599	9404.59	581.76	-581.75	4.07	712331.87	606177.39	32°39'54.711"N	103°46'39.619"W	0.00	
10000.00†	89.356	179.599	9405.71	681.75	-681.74	4.77	712332.57	606077.40	32°39'53.721"N	103°46'39.617"W	0.00	
10100.00†	89.356	179.599	9406.84	781.75	-781.73	5.47	712333.27	605977.42	32°39'52.732"N	103°46'39.615"W	0.00	
10200.00†	89.356	179.599	9407.96	881.74	-881.72	6.17	712333.97	605877.43	32°39'51.743"N	103°46'39.613"W	0.00	
10300.00†	89.356	179.599	9409.08	981.74	-981.71	6.87	712334.67	605777.45	32°39'50.753"N	103°46'39.611"W	0.00	
10400.00†	89.356	179.599	9410.21	1081.73	-1081.70	7.57	712335.37	605677.46	32°39'49.764"N	103°46'39.609"W	0.00	
10500.00†	89.356	179.599	9411.33	1181.72	-1181.69	8.27	712336.06	605577.48	32°39'48.774"N	103°46'39.607"W	0.00	
10600.00†	89.356	179.599	9412.46	1281.72	-1281.69	8.96	712336.76	605477.49	32°39'47.785"N	103°46'39.604"W	0.00	
10700.00†	89.356	179.599	9413.58	1381.71	-1381.68	9.66	712337.46	605377.51	32°39'46.796"N	103°46'39.602"W	0.00	
10800.00†	89.356	179.599	9414.70	1481.70	-1481.67	10.36	712338.16	605277.52	32°39'45.806"N	103°46'39.600"W	0.00	
10900.00†	89.356	179.599	9415.83	1581.70	-1581.66	11.06	712338.86	605177.53	32°39'44.817"N	103°46'39.598"W	0.00	
11000.00†	89.356	179.599	9416.95	1681.69	-1681.65	11.76	712339.56	605077.55	32°39'43.827"N	103°46'39.596"W	0.00	
11100.00†	89.356	179.599	9418.07	1781.69	-1781.64	12.46	712340.26	604977.56	32°39'42.838"N	103°46'39.594"W	0.00	
11200.00†	89.356	179.599	9419.20	1881.68	-1881.63	13.16	712340.96	604877.58	32°39'41.849"N	103°46'39.592"W	0.00	
11300.00†	89.356	179.599	9420.32	1981.67	-1981.62	13.86	712341.66	604777.59	32°39'40.859"N	103°46'39.590"W	0.00	
11400.00†	89.356	179.599	9421.44	2081.67	-2081.62	14.56	712342.36	604677.61	32°39'39.870"N	103°46'39.588"W	0.00	
11500.00†	89.356	179.599	9422.57	2181.66	-2181.61	15.26	712343.06	604577.62	32°39'38.881"N	103°46'39.586"W	0.00	
11600.00†	89.356	179.599	9423.69	2281.65	-2281.60	15.96	712343.76	604477.64	32°39'37.891"N	103°46'39.584"W	0.00	
11700.00†	89.356	179.599	9424.82	2381.65	-2381.59	16.66	712344.46	604377.65	32°39'36.902"N	103°46'39.582"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 6 SHL
Area	Lea County, NM	Well	No. 6
Field	(State DR) Sec 16, T19S, R32E	Wellbore	No. 6 PWB
Facility	State DR No. 6		

WELLPATH DATA (143 stations) † = interpolated/extrapolated station

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
11800.00†	89.356	179.599	9425.94	2481.64	-2481.58	17.36	712345.16	604277.67	32°39'35.912"N	103°46'39.580"W	0.00	
11900.00†	89.356	179.599	9427.06	2581.63	-2581.57	18.06	712345.86	604177.68	32°39'34.923"N	103°46'39.578"W	0.00	
12000.00†	89.356	179.599	9428.19	2681.63	-2681.56	18.76	712346.55	604077.70	32°39'33.934"N	103°46'39.576"W	0.00	
12100.00†	89.356	179.599	9429.31	2781.62	-2781.55	19.45	712347.25	603977.71	32°39'32.944"N	103°46'39.574"W	0.00	
12200.00†	89.356	179.599	9430.43	2881.62	-2881.55	20.15	712347.95	603877.73	32°39'31.955"N	103°46'39.572"W	0.00	
12300.00†	89.356	179.599	9431.56	2981.61	-2981.54	20.85	712348.65	603777.74	32°39'30.966"N	103°46'39.569"W	0.00	
12400.00†	89.356	179.599	9432.68	3081.60	-3081.53	21.55	712349.35	603677.76	32°39'29.976"N	103°46'39.567"W	0.00	
12500.00†	89.356	179.599	9433.80	3181.60	-3181.52	22.25	712350.05	603577.77	32°39'28.987"N	103°46'39.565"W	0.00	
12600.00†	89.356	179.599	9434.93	3281.59	-3281.51	22.95	712350.75	603477.78	32°39'27.997"N	103°46'39.563"W	0.00	
12700.00†	89.356	179.599	9436.05	3381.58	-3381.50	23.65	712351.45	603377.80	32°39'27.008"N	103°46'39.561"W	0.00	
12800.00†	89.356	179.599	9437.18	3481.58	-3481.49	24.35	712352.15	603277.81	32°39'26.019"N	103°46'39.559"W	0.00	
12900.00†	89.356	179.599	9438.30	3581.57	-3581.48	25.05	712352.85	603177.83	32°39'25.029"N	103°46'39.557"W	0.00	
13000.00†	89.356	179.599	9439.42	3681.57	-3681.48	25.75	712353.55	603077.84	32°39'24.040"N	103°46'39.555"W	0.00	
13100.00†	89.356	179.599	9440.55	3781.56	-3781.47	26.45	712354.25	602977.86	32°39'23.050"N	103°46'39.553"W	0.00	
13200.00†	89.356	179.599	9441.67	3881.55	-3881.46	27.15	712354.95	602877.87	32°39'22.061"N	103°46'39.551"W	0.00	
13300.00†	89.356	179.599	9442.79	3981.55	-3981.45	27.85	712355.65	602777.89	32°39'21.072"N	103°46'39.549"W	0.00	
13400.00†	89.356	179.599	9443.92	4081.54	-4081.44	28.55	712356.34	602677.90	32°39'20.082"N	103°46'39.547"W	0.00	
13500.00†	89.356	179.599	9445.04	4181.53	-4181.43	29.25	712357.04	602577.92	32°39'19.093"N	103°46'39.545"W	0.00	
13600.00†	89.356	179.599	9446.17	4281.53	-4281.42	29.95	712357.74	602477.93	32°39'18.104"N	103°46'39.543"W	0.00	
13700.00†	89.356	179.599	9447.29	4381.52	-4381.41	30.64	712358.44	602377.95	32°39'17.114"N	103°46'39.541"W	0.00	
13800.00†	89.356	179.599	9448.41	4481.51	-4481.41	31.34	712359.14	602277.96	32°39'16.125"N	103°46'39.539"W	0.00	
13900.00†	89.356	179.599	9449.54	4581.51	-4581.40	32.04	712359.84	602177.98	32°39'15.135"N	103°46'39.537"W	0.00	
13941.25	89.356	179.599	9450.00	4622.76	-4622.64	32.33	712360.13	602136.73	32°39'14.527"N	103°46'39.536"W	0.00	No. 6 PBHL



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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 6 SHL
Area	Lea County, NM	Well	No. 6
Field	(State DR) Sec 16, T19S, R32E	Wellbore	No. 6 PWB
Facility	State DR No. 6		

HOLE & CASING SECTIONS Ref Wellbore: No. 6 PWB Ref Wellpath: Prelim 1

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]
9.625in Casing Surface	0.00	4800.00	4800.00	0.00	4800.00	0.00	0.00	0.00	0.00
7in Casing Intermediate	0.00	9000.00	9000.00	0.00	9000.00	0.00	0.00	0.00	0.00

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 6 PBHL	13941.25	9450.00	-4622.64	32.33	712360.13	602136.73	32°39'14.727"N	103°46'39.536"W	point

SURVEY PROGRAM Ref Wellbore: No. 6 PWB Ref Wellpath: Prelim 1

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	13941.25	NaviTrak (Standard)		No. 6 PWB