

DISTRICT I
1825 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised October 15, 2009

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-40009	Pool Code 27220	Pool Name Gem; Bone Spring
Property Code 300556	Property Name STATE HH COM	Well Number 5
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 3570'

Surface Location

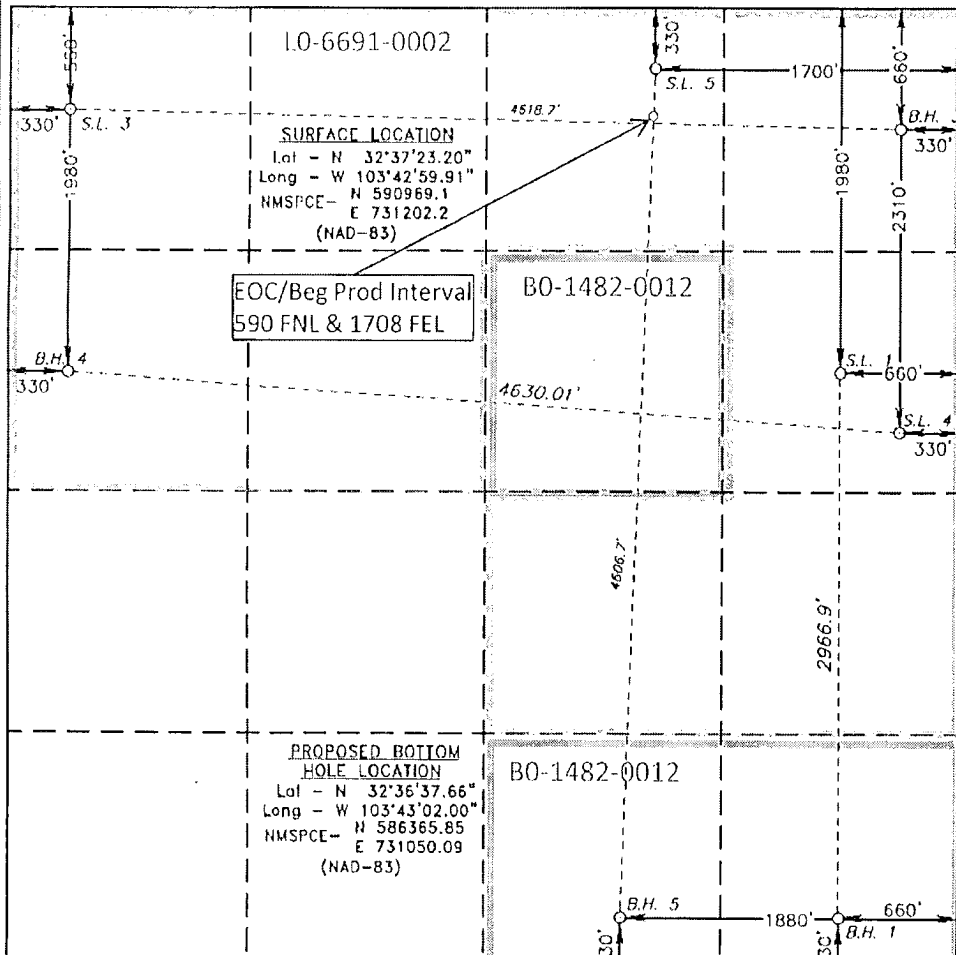
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	36	19 S	32 E		330	NORTH	1700	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	36	19 S	32 E		330	SOUTH	1880	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
480		P	

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

 10-6691-0002 SURFACE LOCATION Lat - N 32°37'23.20" Long - W 103°42'59.91" NMSFCE - N 590969.1 E 731202.2 (NAD-83) EOC/Beg Prod Interval 590 FNL & 1708 FEL B0-1482-0012 PROPOSED BOTTOM HOLE LOCATION Lat - N 32°36'37.66" Long - W 103°43'02.00" NMSFCE - N 586365.85 E 731050.09 (NAD-83) B0-1482-0012	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Zeno Farris</i> 1/6/2011 Signature Date Zeno Farris Printed Name SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date Surveyed: May 15, 2011 Signature & Seal of Professional Surveyor: Gary L. Jones Certificate No. Gary L. Jones 7977 BASIN SURVEYS
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Cimarex Energy Co.

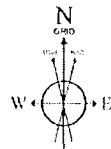
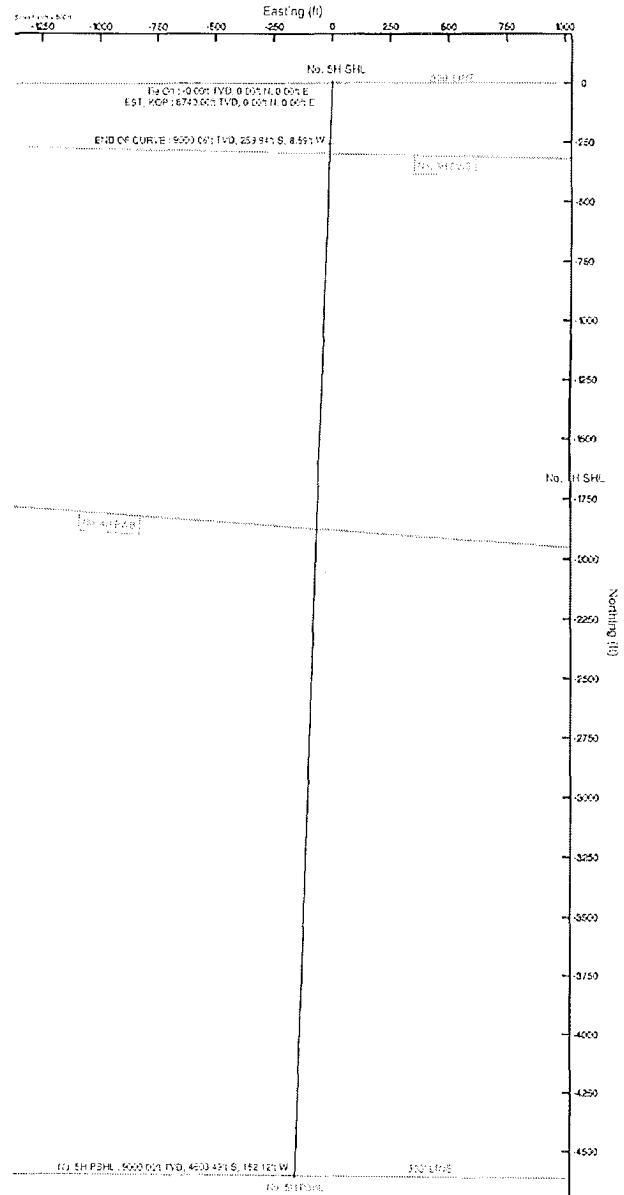
Location: Lea County, NM
Field: (State Hwy) Sec 35, T19S, R42E
Facility: S-50-11112-SH

Site: No. 5H SHL
Well: No. 5H
Well case: No. 5H FNB

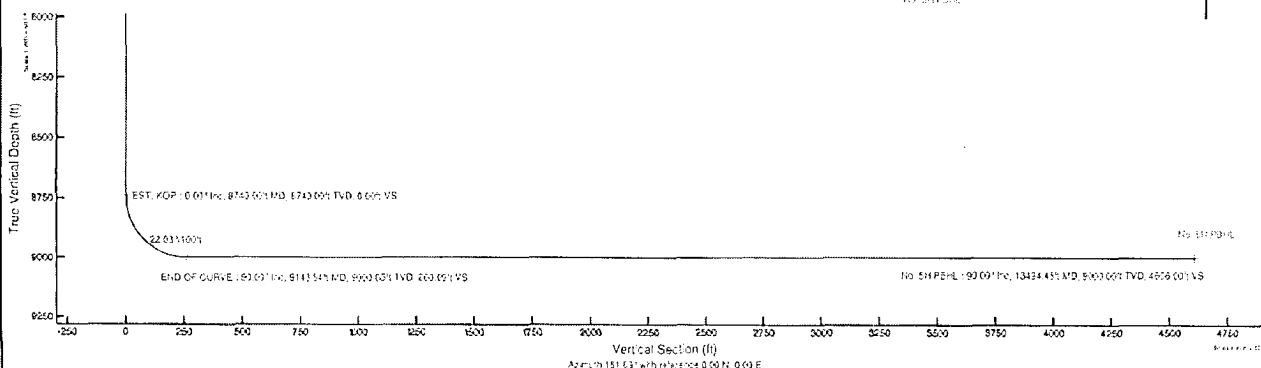


Well Profile Data							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (ft/100ft)
Tie On	0.00	0.00	181.693	0.00	0.00	0.00	0.00
EST. KOP	8743.00	0.00	181.693	8743.00	0.00	0.00	0.00
END OF CURVE	9143.54	50.00	181.693	9000.00	-259.94	-8.59	22.03
No. 5H P6HL	13184.45	00.00	181.693	9000.00	-4503.43	-152.12	0.00

Plot reference well profile is Profile 2	
True vertical depths are referenced to Ryan No. 5H SHL (GL)	Grid System: NAD83 / TM New Mexico State Plane S. Eastern Zone (2011) US Feet
Measured depths are referenced to Ryan No. 5H SHL (GL)	North Reference: Grid north
Ryan No. 5H SHL (GL) to Mean Sea Level: 3570 feet	Scale: True distance
Mean Sea Level to KOP (Facility): 8743.00 (ft) - 3570 feet	Depths are in feet
Coordinates are in feet referenced to SBL	Created by: gsm/bsm on 11/1/2011



BDGM (1945.0 to 2312.0) Dip: 60.55° East, 4521.7 nT
Magnetic to this 7.73 degrees East of True North (at 11/1/2011)
Grid North is 0.34 degrees East of True North
To convert from True to Grid add 0.34 degrees
To convert from Magnetic to Grid add 7.13 degrees
For example, if the Magnetic North Azimuth is 90 degs, then the Grid North Azimuth is 93 + 7.13 = 97.13





Planned Wellpath Report

Prelim_2

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 5H SHL
Area	Lea County, NM	Well	No. 5H
Field	(State HH) Sec 36, T19S, R32E	Wellbore	No. 5H PWB
Facility	State HH No. 5H		

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	Gomeoscr
Scale	0.99995	Report Generated	1/6/2011 at 2:34:03 PM
Convergence at slot	0.33° East	Database/Source file	WA Midland/No._5H_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	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W
Facility Reference Pt			731202.20	590969.10	32°37'23.196"N	103°42'59.907"W
Field Reference Pt			730941.22	588045.42	32°36'54.281"N	103°43'03.157"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 5H SHL (GL) to Facility Vertical Datum	0.00ft
Horizontal Reference Pt	Slot	Rig on No. 5H SHL (GL) to Mean Sea Level	3570.00ft
Vertical Reference Pt	Rig on No. 5H SHL (GL)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 5H SHL (GL)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	181.89°



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 5H SHL
Area	Lea County, NM	Well	No. 5H
Field	(State HH) Sec 36, T19S, R32E	Wellbore	No. 5H PWB
Facility	State HH No. 5H		

WELLPATH DATA (138 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	181.893	0.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	Tie On
100.00†	0.000	181.893	100.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
200.00†	0.000	181.893	200.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
300.00†	0.000	181.893	300.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
400.00†	0.000	181.893	400.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
500.00†	0.000	181.893	500.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
600.00†	0.000	181.893	600.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
700.00†	0.000	181.893	700.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
800.00†	0.000	181.893	800.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
900.00†	0.000	181.893	900.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
1000.00†	0.000	181.893	1000.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
1100.00†	0.000	181.893	1100.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
1200.00†	0.000	181.893	1200.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
1300.00†	0.000	181.893	1300.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
1400.00†	0.000	181.893	1400.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
1500.00†	0.000	181.893	1500.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
1600.00†	0.000	181.893	1600.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
1700.00†	0.000	181.893	1700.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
1800.00†	0.000	181.893	1800.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
1900.00†	0.000	181.893	1900.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
2000.00†	0.000	181.893	2000.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
2100.00†	0.000	181.893	2100.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
2200.00†	0.000	181.893	2200.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
2300.00†	0.000	181.893	2300.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
2400.00†	0.000	181.893	2400.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
2500.00†	0.000	181.893	2500.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
2600.00†	0.000	181.893	2600.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
2700.00†	0.000	181.893	2700.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
2800.00†	0.000	181.893	2800.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
2900.00†	0.000	181.893	2900.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
3000.00†	0.000	181.893	3000.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
3100.00†	0.000	181.893	3100.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
3200.00†	0.000	181.893	3200.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
3300.00†	0.000	181.893	3300.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
3400.00†	0.000	181.893	3400.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
3500.00†	0.000	181.893	3500.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
3600.00†	0.000	181.893	3600.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
3700.00†	0.000	181.893	3700.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
3800.00†	0.000	181.893	3800.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
3900.00†	0.000	181.893	3900.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
4000.00†	0.000	181.893	4000.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
4100.00†	0.000	181.893	4100.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
4200.00†	0.000	181.893	4200.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
4300.00†	0.000	181.893	4300.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
4400.00†	0.000	181.893	4400.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	



Planned Wellpath Report

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 5H SHL
Area	Lea County, NM	Well	No. 5H
Field	(State HH) Sec 36, T19S, R32E	Wellbore	No. 5H PWB
Facility	State HH No. 5H		

WELLPATH DATA (138 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
4500.00†	0.000	181.893	4500.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
4600.00†	0.000	181.893	4600.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
4700.00†	0.000	181.893	4700.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
4800.00†	0.000	181.893	4800.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
4900.00†	0.000	181.893	4900.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
5000.00†	0.000	181.893	5000.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
5100.00†	0.000	181.893	5100.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
5200.00†	0.000	181.893	5200.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
5300.00†	0.000	181.893	5300.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
5400.00†	0.000	181.893	5400.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
5500.00†	0.000	181.893	5500.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
5600.00†	0.000	181.893	5600.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
5700.00†	0.000	181.893	5700.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
5800.00†	0.000	181.893	5800.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
5900.00†	0.000	181.893	5900.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
6000.00†	0.000	181.893	6000.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
6100.00†	0.000	181.893	6100.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
6200.00†	0.000	181.893	6200.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
6300.00†	0.000	181.893	6300.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
6400.00†	0.000	181.893	6400.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
6500.00†	0.000	181.893	6500.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
6600.00†	0.000	181.893	6600.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
6700.00†	0.000	181.893	6700.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
6800.00†	0.000	181.893	6800.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
6900.00†	0.000	181.893	6900.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
7000.00†	0.000	181.893	7000.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
7100.00†	0.000	181.893	7100.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
7200.00†	0.000	181.893	7200.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
7300.00†	0.000	181.893	7300.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
7400.00†	0.000	181.893	7400.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
7500.00†	0.000	181.893	7500.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
7600.00†	0.000	181.893	7600.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
7700.00†	0.000	181.893	7700.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
7800.00†	0.000	181.893	7800.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
7900.00†	0.000	181.893	7900.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
8000.00†	0.000	181.893	8000.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
8100.00†	0.000	181.893	8100.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
8200.00†	0.000	181.893	8200.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
8300.00†	0.000	181.893	8300.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
8400.00†	0.000	181.893	8400.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
8500.00†	0.000	181.893	8500.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
8600.00†	0.000	181.893	8600.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
8700.00†	0.000	181.893	8700.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	
8740.00	0.000	181.893	8740.00	0.00	0.00	0.00	731202.20	590969.10	32°37'23.196"N	103°42'59.907"W	0.00	EST. KOP
8800.00†	13.218	181.893	8799.47	6.89	-6.89	-0.23	731201.97	590962.21	32°37'23.128"N	103°42'59.911"W	22.03	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 5H SHL
Area	Lea County, NM	Well	No. 5H
Field	(State HH) Sec 36, T19S, R32E	Wellbore	No. 5H PWB
Facility	State HH No. 5H		

WELLPATH DATA (138 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
8900.00†	35.248	181.893	8890.10	47.68	-47.66	-1.57	731200.63	590921.45	32°37'22.725"N	103°42'59.929"W	22.03	
9000.00†	57.278	181.893	8958.81	119.49	-119.43	-3.95	731198.25	590849.68	32°37'22.015"N	103°42'59.962"W	22.03	
9100.00†	79.308	181.893	8995.57	211.83	-211.71	-7.00	731195.20	590757.40	32°37'21.102"N	103°43'00.004"W	22.03	
9148.54	90.001	181.893	9000.08	260.09	-259.94	-8.59	731193.61	590709.17	32°37'20.624"N	103°43'00.025"W	22.03	END OF CURVE
9200.00†	90.001	181.893	9000.08	311.55	-311.38	-10.29	731191.91	590657.74	32°37'20.116"N	103°43'00.049"W	0.00	
9300.00†	90.001	181.893	9000.08	411.55	-411.32	-13.59	731188.61	590557.80	32°37'19.127"N	103°43'00.094"W	0.00	
9400.00†	90.001	181.893	9000.08	511.55	-511.27	-16.89	731185.31	590457.86	32°37'18.138"N	103°43'00.140"W	0.00	
9500.00†	90.001	181.893	9000.07	611.55	-611.21	-20.20	731182.00	590357.92	32°37'17.150"N	103°43'00.185"W	0.00	
9600.00†	90.001	181.893	9000.07	711.55	-711.16	-23.50	731178.70	590257.98	32°37'16.161"N	103°43'00.230"W	0.00	
9700.00†	90.001	181.893	9000.07	811.55	-811.10	-26.80	731175.40	590158.04	32°37'15.172"N	103°43'00.276"W	0.00	
9800.00†	90.001	181.893	9000.07	911.55	-911.05	-30.10	731172.10	590058.10	32°37'14.183"N	103°43'00.321"W	0.00	
9900.00†	90.001	181.893	9000.07	1011.55	-1011.00	-33.41	731168.79	589958.16	32°37'13.195"N	103°43'00.367"W	0.00	
10000.00†	90.001	181.893	9000.06	1111.55	-1110.94	-36.71	731165.49	589858.22	32°37'12.206"N	103°43'00.412"W	0.00	
10100.00†	90.001	181.893	9000.06	1211.55	-1210.89	-40.01	731162.19	589758.28	32°37'11.217"N	103°43'00.457"W	0.00	
10200.00†	90.001	181.893	9000.06	1311.55	-1310.83	-43.32	731158.89	589658.34	32°37'10.229"N	103°43'00.503"W	0.00	
10300.00†	90.001	181.893	9000.06	1411.55	-1410.78	-46.62	731155.58	589558.40	32°37'09.240"N	103°43'00.548"W	0.00	
10400.00†	90.001	181.893	9000.06	1511.55	-1510.72	-49.92	731152.28	589458.46	32°37'08.251"N	103°43'00.594"W	0.00	
10500.00†	90.001	181.893	9000.06	1611.55	-1610.67	-53.22	731148.98	589358.52	32°37'07.262"N	103°43'00.639"W	0.00	
10600.00†	90.001	181.893	9000.05	1711.55	-1710.61	-56.53	731145.68	589258.58	32°37'06.274"N	103°43'00.684"W	0.00	
10700.00†	90.001	181.893	9000.05	1811.55	-1810.56	-59.83	731142.37	589158.63	32°37'05.285"N	103°43'00.730"W	0.00	
10800.00†	90.001	181.893	9000.05	1911.55	-1910.50	-63.13	731139.07	589058.69	32°37'04.296"N	103°43'00.775"W	0.00	
10900.00†	90.001	181.893	9000.05	2011.55	-2010.45	-66.43	731135.77	588958.75	32°37'03.308"N	103°43'00.820"W	0.00	
11000.00†	90.001	181.893	9000.05	2111.55	-2110.40	-69.74	731132.47	588858.81	32°37'02.319"N	103°43'00.866"W	0.00	
11100.00†	90.001	181.893	9000.04	2211.55	-2210.34	-73.04	731129.17	588758.87	32°37'01.330"N	103°43'00.911"W	0.00	
11200.00†	90.001	181.893	9000.04	2311.55	-2310.29	-76.34	731125.86	588658.93	32°37'00.342"N	103°43'00.957"W	0.00	
11300.00†	90.001	181.893	9000.04	2411.55	-2410.23	-79.64	731122.56	588558.99	32°36'59.353"N	103°43'01.002"W	0.00	
11400.00†	90.001	181.893	9000.04	2511.55	-2510.18	-82.95	731119.26	588459.05	32°36'58.364"N	103°43'01.047"W	0.00	
11500.00†	90.001	181.893	9000.04	2611.55	-2610.12	-86.25	731115.96	588359.11	32°36'57.375"N	103°43'01.093"W	0.00	
11600.00†	90.001	181.893	9000.04	2711.55	-2710.07	-89.55	731112.65	588259.17	32°36'56.387"N	103°43'01.138"W	0.00	
11700.00†	90.001	181.893	9000.03	2811.55	-2810.01	-92.85	731109.35	588159.23	32°36'55.398"N	103°43'01.184"W	0.00	
11800.00†	90.001	181.893	9000.03	2911.55	-2909.96	-96.16	731106.05	588059.29	32°36'54.409"N	103°43'01.229"W	0.00	
11900.00†	90.001	181.893	9000.03	3011.55	-3009.90	-99.46	731102.75	587959.35	32°36'53.421"N	103°43'01.274"W	0.00	
12000.00†	90.001	181.893	9000.03	3111.55	-3109.85	-102.76	731099.44	587859.41	32°36'52.432"N	103°43'01.320"W	0.00	
12100.00†	90.001	181.893	9000.03	3211.55	-3209.79	-106.06	731096.14	587759.47	32°36'51.443"N	103°43'01.365"W	0.00	
12200.00†	90.001	181.893	9000.02	3311.55	-3309.74	-109.37	731092.84	587659.53	32°36'50.454"N	103°43'01.410"W	0.00	
12300.00†	90.001	181.893	9000.02	3411.55	-3409.69	-112.67	731089.54	587559.59	32°36'49.466"N	103°43'01.456"W	0.00	
12400.00†	90.001	181.893	9000.02	3511.55	-3509.63	-115.97	731086.23	587459.65	32°36'48.477"N	103°43'01.501"W	0.00	
12500.00†	90.001	181.893	9000.02	3611.55	-3609.58	-119.28	731082.93	587359.71	32°36'47.488"N	103°43'01.547"W	0.00	
12600.00†	90.001	181.893	9000.02	3711.55	-3709.52	-122.58	731079.63	587259.77	32°36'46.500"N	103°43'01.592"W	0.00	
12700.00†	90.001	181.893	9000.01	3811.55	-3809.47	-125.88	731076.33	587159.83	32°36'45.511"N	103°43'01.637"W	0.00	
12800.00†	90.001	181.893	9000.01	3911.55	-3909.41	-129.18	731073.02	587059.89	32°36'44.522"N	103°43'01.683"W	0.00	
12900.00†	90.001	181.893	9000.01	4011.55	-4009.36	-132.49	731069.72	586959.95	32°36'43.534"N	103°43'01.728"W	0.00	
13000.00†	90.001	181.893	9000.01	4111.55	-4109.30	-135.79	731066.42	586860.01	32°36'42.545"N	103°43'01.774"W	0.00	
13100.00†	90.001	181.893	9000.01	4211.55	-4209.25	-139.09	731063.12	586760.07	32°36'41.556"N	103°43'01.819"W	0.00	
13200.00†	90.001	181.893	9000.01	4311.55	-4309.19	-142.39	731059.81	586660.13	32°36'40.567"N	103°43'01.864"W	0.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 5H SHL
Area	Lea County, NM	Well	No. 5H
Field	(State HH) Sec 36, T19S, R32E	Wellbore	No. 5H PWB
Facility	State HH No. 5H		

WELLPATH DATA (138 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
13300.00†	90.001	181.893	9000.00	4411.55	-4409.14	-145.70	731056.51	586560.19	32°36'39.579"N	103°43'01.910"W	0.00	
13400.00†	90.001	181.893	9000.00	4511.55	-4509.09	-149.00	731053.21	586460.25	32°36'38.590"N	103°43'01.955"W	0.00	
13494.45	90.001	181.893	9000.00†	4606.00	-4603.49	-152.12	731050.09	586365.85	32°36'37.656"N	103°43'01.998"W	0.00	No. 5H PBHL

HOLE & CASING SECTIONS Ref Wellbore: No. 5H PWB Ref Wellpath: Prelim_2

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	0.00	4500.00	4500.00	0.00	4500.00	0.00	0.00	0.00	0.00
8.75in Open Hole	4500.00	13494.45	8994.45	4500.00	9000.00	0.00	0.00	-4603.48	-152.12

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 5H PBHL	13494.45	9000.00	-4603.49	-152.12	731050.09	586365.85	32°36'37.656"N	103°43'01.998"W	point
1st Bone Spring Sand									

SURVEY PROGRAM Ref Wellbore: No. 5H PWB Ref Wellpath: Prelim_2

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	13494.45	NaviTrak (Standard)		No. 5H PWB