

Submit 3 Copies To Appropriate District
Office
District I
1625 N French Dr, Hobbs, NM 88240
District II
1301 W Grand Ave., 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
Minerals and Natural Resources
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
May 27, 2004

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-025-39795
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☒ FEE ☐
2. Name of Operator Cimarex Energy Co. of Colorado		6. State Oil & Gas Lease No.
3. Address of Operator 600 N. Marienfeld St., Ste. 600; Midland, TX 79701		7. Lease Name or Unit Agreement Name State DR
4. Well Location SHL Unit Letter B : 660 feet from the North line and 1630 feet from the East line Section 16 Township 19S Range 32E NMPM County Lea		8. Well Number 008
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3629' GR		9. OGRID Number 162683
Pit or Below-grade Tank Application ☐ or Closure ☐		
Pit type _____ Depth to Groundwater _____ Distance from nearest fresh water well _____ Distance from nearest surface water _____		
Pit Liner Thickness: _____ Below-Grade Tank: Volume _____ bbls; Construction Material _____		

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
OTHER: _____	Change Location ☒	OTHER: _____	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Cimarex proposes to change the location of this well.

Permitted Location

16-19S-32E
SHL 660 FNL & 1960 FEL
BHL 660 FSL & 1980 FEL
Lea County, NM

*** New Proposed Location ***
16-19S-32E
SHL 330 FNL & 1630 FEL
BHL 330 FSL & 1980 FEL
Lea County, NM

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Natalie Krueger TITLE Regulatory Analyst DATE July 28, 2011

Type or print name Natalie Krueger email address: nkrueger@cimarex.com Telephone No. 432-620-1936

For State Use Only

APPROVED BY: [Signature] TITLE PETROLEUM ENGINEER DATE AUG 01 2011
Conditions of Approval (if any): _____

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HOBBS OCD

State of New Mexico
Energy, Minerals and Natural Resources Department

JUL 29 2011

OIL CONSERVATION DIVISION

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

RECEIVED

Form C-102
Revised October 15, 2009

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☒ AMENDED REPORT

API Number 30-025-39795	Pool Code 41442	Pool Name Lusk; Bone Spring, East
Property Code 21762	Property Name STATE DR COM	Well Number 8
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 3629'

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	16	19 S	32 E		330	NORTH	1630	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
0	16	19 S	32 E		330	SOUTH	1980	EAST	LEA

Dedicated Acres 320	Joint or Infill	Consolidation Code P	Order No. NSL Pending
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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

SURFACE LOCATION Lat - N 32°40'00.37" Long - W 103°46'04.67" NMSPCE- N 606765.4 E 715316.5 (NAD-83) State DR Com 8 SHL/PP Bone Spring 330 FNL & 1630 FEL EOC/Beg of Prod Interval 518 FNL & 1643 FEL BHL/End of Prod Interval 330 FSL & 1980 FEL PROPOSED BOTTOM HOLE LOCATION Lat - N 32°39'14.65" Long - W 103°46'08.66" NMSPCE- N 602142.76 E 714999.87 (NAD-83)	330' S.L. 1630' LG-0604-0002 4634.5' VB-0176-0000 B.H. 1980' 330'	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>Natalie Krueger</i> 7/28/2011 Signature Date Natalie Krueger 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. MARY L. JONES 15, 2010 NEW MEXICO Date Surveyed Signature & Seal of Professional Surveyor 7977 Certificate No. Gary L. Jones 7977 BASIN SURVEYS
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Cimarex Energy Co.

Location Lea County, NM
Field (State DR) Sec 16, T19S, R32E
Facility State DR No 8H

Slot No 8H SHL
Well No 8H
Wellbore No 8H PWB

HOBBS OCD

JUL 29 2011

RECEIVED



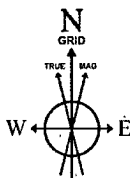
Scale 1 inch = 400 ft
Easting (ft)
-800 -600 -400 -200 0 200 400

No 8H SHL
330' FNL
1630' FEL

Tie On -0.00% TVD, 0.00% N, 0.00% E
Est KOP 9209 20ft TVD, 0.00% N, 0.00% E
End of Curve 9400 17ft TVD, 188 40ft S, 12 90ft W

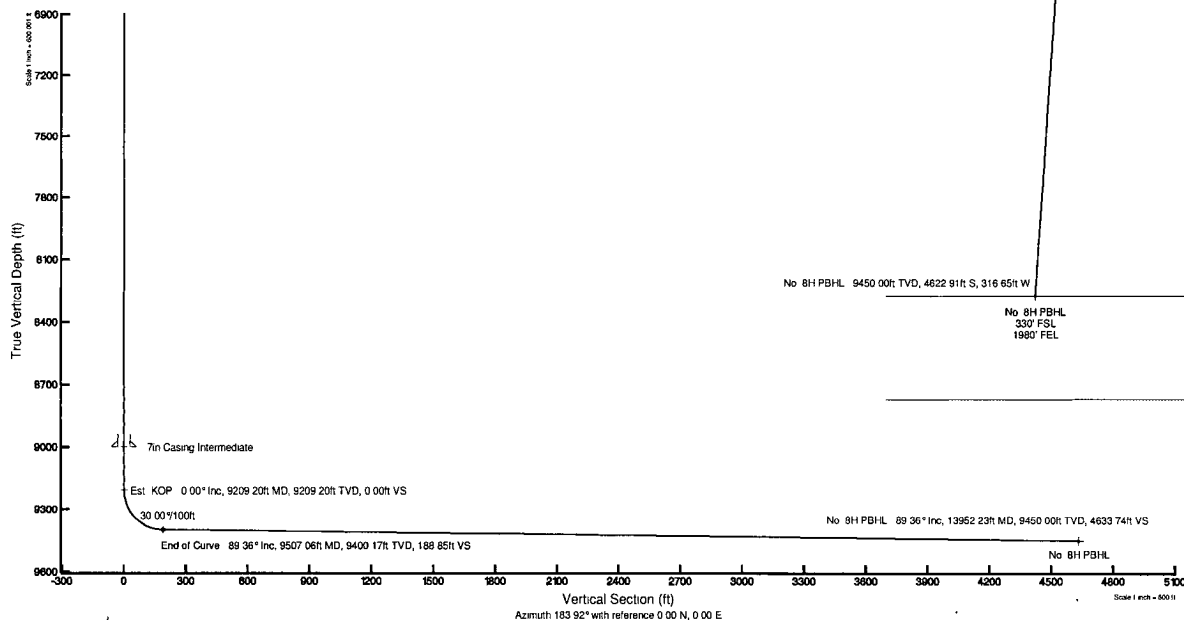
Well Profile Data							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (1/100ft)
Tie On	0.00	0.000	183 918	0.00	0.00	0.00	0.00
Est KOP	9209 20	0.000	183 918	9209 20	0.00	0.00	0.00
End of Curve	9507 06	89 368	183 918	9400 17	-188 40	-12 90	30.00
No 8H PBHL	13952 23	89 358	183 918	9450 00	-4622 91	-316 65	0.00

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)	End Local E (ft)	Wellbore
9 625in Casing Surface	0.00	4800.00	4800.00	0.00	4800.00	0.00	0.00	0.00	No 8H PWB
7in Casing Intermediate	0.00	9000.00	9000.00	0.00	9000.00	0.00	0.00	0.00	No 8H PWB



BGGM (1945 0 to 2011 0) Dip 60 61° Field 43028 6 nT
Magnetic North is 7 87 degrees East of True North (at 6/8/2010)
Grid North is 0 31 degrees East of True North
To correct azimuth from True to Grid subtract 0 31 degrees
To correct azimuth from Magnetic to Grid add 7 57 degrees
For example if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7 57 = 97 57

Plot reference wellpath is Prelim 1	
True vertical depths are referenced to Rig on No 8H SHL (GL)	Grid System: NAD83 / TM New Mexico State Planes: Eastern Zone (3001) US feet
Measured depths are referenced to Rig on No 8H SHL (GL)	North Reference: Grid north
Rig on No 8H SHL (GL) to Mean Sea Level 3629 feet	Scale: True distance
Mean Sea Level to Mud line (Facility State DR No 8H) -3629 feet	Depths are in feet
Coordinates are in feet referenced to Slot Location	Created by: Roland Flores on 6/8/2010





Planned Wellpath Report

Prelim 1
Page 1 of 5



INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 8H SHL
Area	Lea County, NM	Well	No. 8H
Field	(State DR) Sec 16, T19S, R32E	Wellbore	No. 8H PWB
Facility	State DR No. 8H		

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	0.999944	Report Generated	6/8/2010 at 10:08:58 AM
Convergence at slot	0.31° East	Database/Source file	WA Midland/No._8H_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	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W
Facility Reference Pt			715316.50	606765.40	32°40'00.373"N	103°46'04.668"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. 8H SHL (GL) to Ground Level	0.00ft
Horizontal Reference Pt	Slot Location	Rig on No. 8H SHL (GL) to Mean Sea Level	3629.00ft
Vertical Reference Pt	Rig on No. 8H SHL (GL)	Ground Level to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 8H SHL (GL)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	183.92°



Planned Wellpath Report

Prelim 1
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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 8H SHL
Area	Lea County, NM	Well	No. 8H
Field	(State DR) Sec 16, T19S, R32E	Wellbore	No. 8H PWB
Facility	State DR No. 8H		

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	183.918	0.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	Tie On
100.00†	0.000	183.918	100.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
200.00†	0.000	183.918	200.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
300.00†	0.000	183.918	300.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
400.00†	0.000	183.918	400.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
500.00†	0.000	183.918	500.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
600.00†	0.000	183.918	600.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
700.00†	0.000	183.918	700.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
800.00†	0.000	183.918	800.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
900.00†	0.000	183.918	900.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
1000.00†	0.000	183.918	1000.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
1100.00†	0.000	183.918	1100.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
1200.00†	0.000	183.918	1200.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
1300.00†	0.000	183.918	1300.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
1400.00†	0.000	183.918	1400.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
1500.00†	0.000	183.918	1500.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
1600.00†	0.000	183.918	1600.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
1700.00†	0.000	183.918	1700.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
1800.00†	0.000	183.918	1800.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
1900.00†	0.000	183.918	1900.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
2000.00†	0.000	183.918	2000.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
2100.00†	0.000	183.918	2100.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
2200.00†	0.000	183.918	2200.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
2300.00†	0.000	183.918	2300.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
2400.00†	0.000	183.918	2400.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
2500.00†	0.000	183.918	2500.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
2600.00†	0.000	183.918	2600.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
2700.00†	0.000	183.918	2700.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
2800.00†	0.000	183.918	2800.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
2900.00†	0.000	183.918	2900.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
3000.00†	0.000	183.918	3000.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
3100.00†	0.000	183.918	3100.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
3200.00†	0.000	183.918	3200.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
3300.00†	0.000	183.918	3300.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
3400.00†	0.000	183.918	3400.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
3500.00†	0.000	183.918	3500.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
3600.00†	0.000	183.918	3600.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
3700.00†	0.000	183.918	3700.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
3800.00†	0.000	183.918	3800.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
3900.00†	0.000	183.918	3900.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
4000.00†	0.000	183.918	4000.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
4100.00†	0.000	183.918	4100.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
4200.00†	0.000	183.918	4200.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
4300.00†	0.000	183.918	4300.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
4400.00†	0.000	183.918	4400.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	



Planned Wellpath Report

Prelim 1
Page 3 of 5



REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 8H SHL
Area	Lea County, NM	Well	No. 8H
Field	(State DR) Sec 16, T19S, R32E	Wellbore	No. 8H PWB
Facility	State DR No. 8H		

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
4500.00†	0.000	183.918	4500.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
4600.00†	0.000	183.918	4600.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
4700.00†	0.000	183.918	4700.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
4800.00†	0.000	183.918	4800.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
4900.00†	0.000	183.918	4900.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
5000.00†	0.000	183.918	5000.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
5100.00†	0.000	183.918	5100.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
5200.00†	0.000	183.918	5200.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
5300.00†	0.000	183.918	5300.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
5400.00†	0.000	183.918	5400.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
5500.00†	0.000	183.918	5500.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
5600.00†	0.000	183.918	5600.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
5700.00†	0.000	183.918	5700.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
5800.00†	0.000	183.918	5800.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
5900.00†	0.000	183.918	5900.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
6000.00†	0.000	183.918	6000.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
6100.00†	0.000	183.918	6100.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
6200.00†	0.000	183.918	6200.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
6300.00†	0.000	183.918	6300.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
6400.00†	0.000	183.918	6400.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
6500.00†	0.000	183.918	6500.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
6600.00†	0.000	183.918	6600.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
6700.00†	0.000	183.918	6700.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
6800.00†	0.000	183.918	6800.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
6900.00†	0.000	183.918	6900.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
7000.00†	0.000	183.918	7000.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
7100.00†	0.000	183.918	7100.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
7200.00†	0.000	183.918	7200.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
7300.00†	0.000	183.918	7300.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
7400.00†	0.000	183.918	7400.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
7500.00†	0.000	183.918	7500.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
7600.00†	0.000	183.918	7600.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
7700.00†	0.000	183.918	7700.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
7800.00†	0.000	183.918	7800.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
7900.00†	0.000	183.918	7900.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
8000.00†	0.000	183.918	8000.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
8100.00†	0.000	183.918	8100.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
8200.00†	0.000	183.918	8200.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
8300.00†	0.000	183.918	8300.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
8400.00†	0.000	183.918	8400.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
8500.00†	0.000	183.918	8500.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
8600.00†	0.000	183.918	8600.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
8700.00†	0.000	183.918	8700.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
8800.00†	0.000	183.918	8800.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
8900.00†	0.000	183.918	8900.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	



Planned Wellpath Report

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 8H SHL
Area	Lea County, NM	Well	No. 8H
Field	(State DR) Sec 16, T19S, R32E	Wellbore	No. 8H PWB
Facility	State DR No. 8H		

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	183.918	9000.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
9100.00†	0.000	183.918	9100.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
9200.00†	0.000	183.918	9200.00	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	
9209.20	0.000	183.918	9209.20	0.00	0.00	0.00	715316.50	606765.40	32°40'00.373"N	103°46'04.668"W	0.00	Est. KOP
9300.00†	27.240	183.918	9296.62	21.18	-21.13	-1.45	715315.05	606744.27	32°40'00.164"N	103°46'04.686"W	30.00	
9400.00†	57.240	183.918	9369.81	87.64	-87.43	-5.99	715310.51	606677.97	32°39'59.508"N	103°46'04.743"W	30.00	
9500.00†	87.240	183.918	9399.96	181.79	-181.36	-12.42	715304.08	606584.05	32°39'58.579"N	103°46'04.825"W	30.00	
9507.06	89.358	183.918	9400.17	188.85	-188.40	-12.90	715303.60	606577.01	32°39'58.510"N	103°46'04.831"W	30.00	End of Curve
9600.00†	89.358	183.918	9401.22	281.78	-281.12	-19.26	715297.25	606484.29	32°39'57.593"N	103°46'04.911"W	0.00	
9700.00†	89.358	183.918	9402.34	381.77	-380.88	-26.09	715290.41	606384.54	32°39'56.606"N	103°46'04.997"W	0.00	
9800.00†	89.358	183.918	9403.46	481.77	-480.64	-32.92	715283.58	606284.79	32°39'55.619"N	103°46'05.083"W	0.00	
9900.00†	89.358	183.918	9404.58	581.76	-580.40	-39.75	715276.75	606185.03	32°39'54.632"N	103°46'05.169"W	0.00	
10000.00†	89.358	183.918	9405.70	681.76	-680.16	-46.59	715269.91	606085.28	32°39'53.646"N	103°46'05.255"W	0.00	
10100.00†	89.358	183.918	9406.82	781.75	-779.92	-53.42	715263.08	605985.52	32°39'52.659"N	103°46'05.341"W	0.00	
10200.00†	89.358	183.918	9407.94	881.74	-879.68	-60.25	715256.25	605885.77	32°39'51.672"N	103°46'05.428"W	0.00	
10300.00†	89.358	183.918	9409.06	981.74	-979.44	-67.09	715249.42	605786.02	32°39'50.686"N	103°46'05.514"W	0.00	
10400.00†	89.358	183.918	9410.18	1081.73	-1079.20	-73.92	715242.58	605686.26	32°39'49.699"N	103°46'05.600"W	0.00	
10500.00†	89.358	183.918	9411.30	1181.72	-1178.96	-80.75	715235.75	605586.51	32°39'48.712"N	103°46'05.686"W	0.00	
10600.00†	89.358	183.918	9412.42	1281.72	-1278.72	-87.59	715228.92	605486.75	32°39'47.726"N	103°46'05.772"W	0.00	
10700.00†	89.358	183.918	9413.55	1381.71	-1378.48	-94.42	715222.09	605387.00	32°39'46.739"N	103°46'05.858"W	0.00	
10800.00†	89.358	183.918	9414.67	1481.70	-1478.24	-101.25	715215.25	605287.24	32°39'45.752"N	103°46'05.944"W	0.00	
10900.00†	89.358	183.918	9415.79	1581.70	-1578.00	-108.09	715208.42	605187.49	32°39'44.765"N	103°46'06.031"W	0.00	
11000.00†	89.358	183.918	9416.91	1681.69	-1677.76	-114.92	715201.59	605087.74	32°39'43.779"N	103°46'06.117"W	0.00	
11100.00†	89.358	183.918	9418.03	1781.69	-1777.52	-121.75	715194.75	604987.98	32°39'42.792"N	103°46'06.203"W	0.00	
11200.00†	89.358	183.918	9419.15	1881.68	-1877.28	-128.59	715187.92	604888.23	32°39'41.805"N	103°46'06.289"W	0.00	
11300.00†	89.358	183.918	9420.27	1981.67	-1977.04	-135.42	715181.09	604788.47	32°39'40.819"N	103°46'06.375"W	0.00	
11400.00†	89.358	183.918	9421.39	2081.67	-2076.80	-142.25	715174.26	604688.72	32°39'39.832"N	103°46'06.461"W	0.00	
11500.00†	89.358	183.918	9422.51	2181.66	-2176.56	-149.08	715167.42	604588.97	32°39'38.845"N	103°46'06.547"W	0.00	
11600.00†	89.358	183.918	9423.63	2281.65	-2276.32	-155.92	715160.59	604489.21	32°39'37.859"N	103°46'06.633"W	0.00	
11700.00†	89.358	183.918	9424.75	2381.65	-2376.08	-162.75	715153.76	604389.46	32°39'36.872"N	103°46'06.720"W	0.00	
11800.00†	89.358	183.918	9425.88	2481.64	-2475.84	-169.58	715146.93	604289.70	32°39'35.885"N	103°46'06.806"W	0.00	
11900.00†	89.358	183.918	9427.00	2581.64	-2575.60	-176.42	715140.09	604189.95	32°39'34.899"N	103°46'06.892"W	0.00	
12000.00†	89.358	183.918	9428.12	2681.63	-2675.36	-183.25	715133.26	604090.20	32°39'33.912"N	103°46'06.978"W	0.00	
12100.00†	89.358	183.918	9429.24	2781.62	-2775.12	-190.08	715126.43	603990.44	32°39'32.925"N	103°46'07.064"W	0.00	
12200.00†	89.358	183.918	9430.36	2881.62	-2874.88	-196.92	715119.60	603890.69	32°39'31.938"N	103°46'07.150"W	0.00	
12300.00†	89.358	183.918	9431.48	2981.61	-2974.64	-203.75	715112.76	603790.93	32°39'30.952"N	103°46'07.236"W	0.00	
12400.00†	89.358	183.918	9432.60	3081.60	-3074.40	-210.58	715105.93	603691.18	32°39'29.965"N	103°46'07.323"W	0.00	
12500.00†	89.358	183.918	9433.72	3181.60	-3174.16	-217.42	715099.10	603591.42	32°39'28.978"N	103°46'07.409"W	0.00	
12600.00†	89.358	183.918	9434.84	3281.59	-3273.92	-224.25	715092.26	603491.67	32°39'27.992"N	103°46'07.495"W	0.00	
12700.00†	89.358	183.918	9435.96	3381.59	-3373.68	-231.08	715085.43	603391.92	32°39'27.005"N	103°46'07.581"W	0.00	
12800.00†	89.358	183.918	9437.08	3481.58	-3473.44	-237.92	715078.60	603292.16	32°39'26.018"N	103°46'07.667"W	0.00	
12900.00†	89.358	183.918	9438.21	3581.57	-3573.20	-244.75	715071.77	603192.41	32°39'25.032"N	103°46'07.753"W	0.00	
13000.00†	89.358	183.918	9439.33	3681.57	-3672.96	-251.58	715064.93	603092.65	32°39'24.045"N	103°46'07.839"W	0.00	
13100.00†	89.358	183.918	9440.45	3781.56	-3772.72	-258.41	715058.10	602992.90	32°39'23.058"N	103°46'07.925"W	0.00	
13200.00†	89.358	183.918	9441.57	3881.55	-3872.48	-265.25	715051.27	602893.15	32°39'22.071"N	103°46'08.012"W	0.00	



Planned Wellpath Report

Prelim 1
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 8H SHL
Area	Lea County, NM	Well	No. 8H
Field	(State DR) Sec 16, T19S, R32E	Wellbore	No. 8H PWB
Facility	State DR No. 8H		

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
13300.00†	89.358	183.918	9442.69	3981.55	-3972.24	-272.08	715044.44	602793.39	32°39'21.085"N	103°46'08.098"W	0.00	
13400.00†	89.358	183.918	9443.81	4081.54	-4072.00	-278.91	715037.60	602693.64	32°39'20.098"N	103°46'08.184"W	0.00	
13500.00†	89.358	183.918	9444.93	4181.54	-4171.76	-285.75	715030.77	602593.88	32°39'19.111"N	103°46'08.270"W	0.00	
13600.00†	89.358	183.918	9446.05	4281.53	-4271.52	-292.58	715023.94	602494.13	32°39'18.125"N	103°46'08.356"W	0.00	
13700.00†	89.358	183.918	9447.17	4381.52	-4371.28	-299.41	715017.10	602394.37	32°39'17.138"N	103°46'08.442"W	0.00	
13800.00†	89.358	183.918	9448.29	4481.52	-4471.04	-306.25	715010.27	602294.62	32°39'16.151"N	103°46'08.528"W	0.00	
13900.00†	89.358	183.918	9449.41	4581.51	-4570.80	-313.08	715003.44	602194.87	32°39'15.165"N	103°46'08.614"W	0.00	
13952.23	89.358	183.918	9450.00	4633.74	-4622.91	-316.65	714999.87	602142.76	32°39'14.649"N	103°46'08.659"W	0.00	No. 8H PBHL

HOLE & CASING SECTIONS: Ref Wellbore: No. 8H 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. 8H PBHL	13952.23	9450.00	-4622.91	-316.65	714999.87	602142.76	32°39'14.649"N	103°46'08.659"W	point

SURVEY PROGRAM Ref Wellbore: No. 8H PWB Ref Wellpath: Prelim 1				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	13952.23	NaviTrak (Standard)		No. 8H PWB