

DISTRICT I
1025 H. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88201

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

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

HOBBS OCD

FEB 14 2012

RECEIVED

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-102
Revised July 10, 2010

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-40440	Pool Code 51687	Pool Name Red Tank; Bone Spring, East
Property Code 309304	Property Name MERCHANT LIVESTOCK 19 22 33 STATE COM	Well Number 3
GRID No. 215099	Operator Name CIMAREX ENERGY CO.	Elevation 3681'

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	19	22 S	33 E		330	SOUTH	1980	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	19	22 S	33 E		330	NORTH	1980	EAST	LEA
Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.						

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

PROPOSED BOTTOM HOLE LOCATION Lat - N 32°23'01.39" Long - W 103°36'34.04" NMSPCE-- N 504084.7 E 764793.9 (HAD-83)	SURFACE LOCATION Lat - N 32°22'15.68" Long - W 103°36'34.01" NMSPCE-- N 499465.2 E 764627.9 (HAD-83)	Diagram showing well location (BH) and surface location (SL) on a grid. Dimensions: 1980' (horizontal), 330' (vertical). A dashed line indicates a distance of 4520.5' between the two locations.	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. Signature: <i>Terri Stathem</i> Date: 2/13/12 Printed Name: Terri Stathem Email Address: tstathem@cimarex.com 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. DECEMBER 30 2011 Date Surveyed: _____ Signature & Seal of Professional Surveyor: <i>[Signature]</i> Certificate No. Gary L. Jones 7977 BASIN SURVEYS 25914
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Planned Wellpath Report

Prelim_1
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**BAKER
HUGHES**

Operator	Cimarex Energy Co.	Slot	No.3H SHL
Area	Lea County, NM	Well	No.3H
Field	(Merchant Livestock(NAD83)) Sec 19, T22S, R33E	Wellbore	No.3H PWB
Facility	Merchant Livestock 19 22 33 State Com No.3H		

Projection System	NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Gentbry
Scale	0.999966	Report Generated	1/18/2012 at 8:16:03 AM
Convergence at slot	0.39° East	Database/Source file	WA Midland/No.3H_PWB.xml

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W
Facility Reference Pt			764827.90	499465.20	32°22'15.678"N	103°36'34.009"W
Field Reference Pt			761967.50	499779.50	32°22'18.978"N	103°37'07.336"W

Calculation method	Minimum curvature	Rig on No.3H SHL (RT) to Facility Vertical Datum	0.00ft
Horizontal Reference Pt	Slot	Rig on No.3H SHL (RT) to Mean Sea Level	3681.00ft
Vertical Reference Pt	Rig on No.3H SHL (RT)	Rig on No.3H SHL (RT) to Mud Line at Slot (No.3H SHL)	0.00ft
MD Reference Pt	Rig on No.3H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.58°



Planned Wellpath Report

Prelim_1

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Operator **Cimarex Energy Co.** Slot **No.3H SHL**
Area **Lea County, NM** Well **No.3H**
Field **(Merchant Livestock(NAD83)) Sec 19, T22S, R33E** Wellbore **No.3H PWB**
Facility **Merchant Livestock 19 22 33 State Com No.3H**

WELLPATH DATA (164 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	359.578	0.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	Tie On
100.00	0.000	359.578	100.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
200.00	0.000	359.578	200.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
300.00	0.000	359.578	300.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
400.00	0.000	359.578	400.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
500.00	0.000	359.578	500.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
600.00	0.000	359.578	600.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
700.00	0.000	359.578	700.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
800.00	0.000	359.578	800.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
900.00	0.000	359.578	900.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
1000.00	0.000	359.578	1000.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
1100.00	0.000	359.578	1100.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
1125.00	0.000	359.578	1125.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	Rustler
1200.00	0.000	359.578	1200.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
1300.00	0.000	359.578	1300.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
1400.00	0.000	359.578	1400.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
1500.00	0.000	359.578	1500.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
1600.00	0.000	359.578	1600.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
1700.00	0.000	359.578	1700.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
1800.00	0.000	359.578	1800.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
1900.00	0.000	359.578	1900.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
2000.00	0.000	359.578	2000.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
2100.00	0.000	359.578	2100.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
2200.00	0.000	359.578	2200.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
2300.00	0.000	359.578	2300.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
2400.00	0.000	359.578	2400.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
2500.00	0.000	359.578	2500.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
2600.00	0.000	359.578	2600.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
2700.00	0.000	359.578	2700.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
2800.00	0.000	359.578	2800.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
2900.00	0.000	359.578	2900.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
3000.00	0.000	359.578	3000.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
3100.00	0.000	359.578	3100.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
3200.00	0.000	359.578	3200.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
3300.00	0.000	359.578	3300.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
3400.00	0.000	359.578	3400.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
3500.00	0.000	359.578	3500.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
3600.00	0.000	359.578	3600.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
3700.00	0.000	359.578	3700.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
3800.00	0.000	359.578	3800.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
3900.00	0.000	359.578	3900.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
4000.00	0.000	359.578	4000.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
4100.00	0.000	359.578	4100.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
4200.00	0.000	359.578	4200.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
4300.00	0.000	359.578	4300.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	



Planned Wellpath Report

Prelim_1
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REFERENCE DATA IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No.3H SHL
Area	Lea County, NM	Well	No.3H
Field	(Merchant Livestock(NAD83)) Sec 19, T22S, R33E	Wellbore	No.3H PWB
Facility	Merchant Livestock 19 22 33 State Com No.3H		

WELLPATH DATA (164 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 [1°/100ft]	Comments
4400.00	0.000	359.578	4400.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
4500.00	0.000	359.578	4500.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
4600.00	0.000	359.578	4600.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
4700.00	0.000	359.578	4700.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
4800.00	0.000	359.578	4800.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
4900.00	0.000	359.578	4900.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
4975.00	0.000	359.578	4975.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	Delaware
5000.00	0.000	359.578	5000.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
5100.00	0.000	359.578	5100.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
5200.00	0.000	359.578	5200.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
5300.00	0.000	359.578	5300.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
5400.00	0.000	359.578	5400.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
5500.00	0.000	359.578	5500.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
5600.00	0.000	359.578	5600.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
5700.00	0.000	359.578	5700.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
5800.00	0.000	359.578	5800.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
5900.00	0.000	359.578	5900.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
6000.00	0.000	359.578	6000.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
6100.00	0.000	359.578	6100.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
6200.00	0.000	359.578	6200.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
6300.00	0.000	359.578	6300.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
6400.00	0.000	359.578	6400.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
6500.00	0.000	359.578	6500.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
6600.00	0.000	359.578	6600.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
6700.00	0.000	359.578	6700.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
6800.00	0.000	359.578	6800.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
6900.00	0.000	359.578	6900.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
7000.00	0.000	359.578	7000.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
7100.00	0.000	359.578	7100.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
7200.00	0.000	359.578	7200.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
7300.00	0.000	359.578	7300.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
7400.00	0.000	359.578	7400.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
7500.00	0.000	359.578	7500.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
7600.00	0.000	359.578	7600.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
7700.00	0.000	359.578	7700.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
7800.00	0.000	359.578	7800.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
7900.00	0.000	359.578	7900.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
8000.00	0.000	359.578	8000.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
8100.00	0.000	359.578	8100.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
8200.00	0.000	359.578	8200.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
8300.00	0.000	359.578	8300.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
8400.00	0.000	359.578	8400.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
8450.00	0.000	359.578	8450.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	Basal Brushy Canyon
8500.00	0.000	359.578	8500.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
8600.00	0.000	359.578	8600.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	



Planned Wellpath Report

Prelim_1
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Operator: Cimarex Energy Co. Slot: No.3H SHL
Area: Lea County, NM Well: No.3H
Field: (Merchant Livestock(NAD83)) Sec 19, T22S, R33E Wellbore: No.3H PWB
Facility: Merchant Livestock 19 22 33 State Com No.3H

WELLPATH DATA (164 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
8700.00	0.000	359.578	8700.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
8720.00	0.000	359.578	8720.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	Bone Spring
8800.00	0.000	359.578	8800.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
8900.00	0.000	359.578	8900.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
9000.00	0.000	359.578	9000.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
9100.00	0.000	359.578	9100.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	Upper Bone Spring Shale
9200.00	0.000	359.578	9200.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
9300.00	0.000	359.578	9300.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
9400.00	0.000	359.578	9400.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
9500.00	0.000	359.578	9500.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
9600.00	0.000	359.578	9600.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
9700.00	0.000	359.578	9700.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
9800.00	0.000	359.578	9800.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
9875.00	0.000	359.578	9875.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	1st Bone Spring SS
9900.00	0.000	359.578	9900.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
10000.00	0.000	359.578	10000.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
10100.00	0.000	359.578	10100.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
10200.00	0.000	359.578	10200.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
10300.00	0.000	359.578	10300.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
10400.00	0.000	359.578	10400.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
10450.00	0.000	359.578	10450.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	2nd Bone Spring SS
10500.00	0.000	359.578	10500.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
10600.00	0.000	359.578	10600.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	
10634.00	0.000	359.578	10634.00	0.00	0.00	0.00	764827.90	499465.20	32°22'15.678"N	103°36'34.009"W	0.00	Est KOP
10700.00	13.222	359.578	10699.42	7.58	7.58	-0.06	764827.84	499472.78	32°22'15.753"N	103°36'34.009"W	20.03	
10800.00	33.256	359.578	10790.84	46.84	46.84	-0.34	764827.56	499512.03	32°22'16.141"N	103°36'34.009"W	20.03	
10900.00	53.289	359.578	10863.28	115.04	115.03	-0.85	764827.05	499580.23	32°22'16.816"N	103°36'34.010"W	20.03	
11000.00	73.323	359.578	10907.97	203.92	203.92	-1.50	764826.40	499669.11	32°22'17.695"N	103°36'34.010"W	20.03	
11083.25	90.000	359.578	10920.00	286.00	285.99	-2.11	764825.79	499751.18	32°22'18.508"N	103°36'34.011"W	20.03	EOC
11100.00	90.000	359.578	10920.00	302.75	302.74	-2.23	764825.67	499767.93	32°22'18.673"N	103°36'34.011"W	0.00	
11200.00	90.000	359.578	10920.00	402.75	402.74	-2.97	764824.93	499867.93	32°22'19.663"N	103°36'34.012"W	0.00	
11300.00	90.000	359.578	10920.00	502.75	502.74	-3.70	764824.20	499967.92	32°22'20.652"N	103°36'34.012"W	0.00	
11400.00	90.000	359.578	10920.00	602.75	602.74	-4.44	764823.46	500067.91	32°22'21.642"N	103°36'34.013"W	0.00	
11500.00	90.000	359.578	10920.00	702.75	702.73	-5.18	764822.72	500167.91	32°22'22.631"N	103°36'34.014"W	0.00	
11600.00	90.000	359.578	10920.00	802.75	802.73	-5.91	764821.99	500267.90	32°22'23.621"N	103°36'34.014"W	0.00	
11700.00	90.000	359.578	10920.00	902.75	902.73	-6.65	764821.25	500367.90	32°22'24.610"N	103°36'34.015"W	0.00	
11800.00	90.000	359.578	10920.00	1002.75	1002.73	-7.39	764820.52	500467.89	32°22'25.600"N	103°36'34.016"W	0.00	
11900.00	90.000	359.578	10920.00	1102.75	1102.72	-8.12	764819.78	500567.88	32°22'26.589"N	103°36'34.017"W	0.00	
12000.00	90.000	359.578	10920.00	1202.75	1202.72	-8.86	764819.04	500667.88	32°22'27.579"N	103°36'34.017"W	0.00	
12100.00	90.000	359.578	10920.00	1302.75	1302.72	-9.59	764818.31	500767.87	32°22'28.568"N	103°36'34.018"W	0.00	
12200.00	90.000	359.578	10920.00	1402.75	1402.71	-10.33	764817.57	500867.86	32°22'29.558"N	103°36'34.019"W	0.00	
12300.00	90.000	359.578	10920.00	1502.75	1502.71	-11.07	764816.83	500967.86	32°22'30.547"N	103°36'34.019"W	0.00	
12400.00	90.000	359.578	10920.00	1602.75	1602.71	-11.80	764816.10	501067.85	32°22'31.537"N	103°36'34.020"W	0.00	
12500.00	90.000	359.578	10920.00	1702.75	1702.71	-12.54	764815.36	501167.85	32°22'32.526"N	103°36'34.021"W	0.00	
12600.00	90.000	359.578	10920.00	1802.75	1802.70	-13.28	764814.62	501267.84	32°22'33.516"N	103°36'34.021"W	0.00	



Planned Wellpath Report

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REFERENCE DATA AND IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No.3H SHL
Area	Lea County, NM	Well	No.3H
Field	(Merchant Livestock(NAD83)) Sec 19, T22S, R33E	Wellbore	No.3H PWB
Facility	Merchant Livestock 19 22 33 State Com No.3H		

WELLPATH DATA (164 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
12700.00	90.000	359.578	10920.00	1902.75	1902.70	-14.01	764813.89	501367.83	32°22'34.505"N	103°36'34.022"W	0.00	
12800.00	90.000	359.578	10920.00	2002.75	2002.70	-14.75	764813.15	501467.83	32°22'35.495"N	103°36'34.023"W	0.00	
12900.00	90.000	359.578	10920.00	2102.75	2102.70	-15.49	764812.42	501567.82	32°22'36.484"N	103°36'34.024"W	0.00	
13000.00	90.000	359.578	10920.00	2202.75	2202.69	-16.22	764811.68	501667.81	32°22'37.474"N	103°36'34.024"W	0.00	
13100.00	90.000	359.578	10920.00	2302.75	2302.69	-16.96	764810.94	501767.81	32°22'38.463"N	103°36'34.025"W	0.00	
13200.00	90.000	359.578	10920.00	2402.75	2402.69	-17.69	764810.21	501867.80	32°22'39.453"N	103°36'34.026"W	0.00	
13300.00	90.000	359.578	10920.00	2502.75	2502.68	-18.43	764809.47	501967.80	32°22'40.442"N	103°36'34.026"W	0.00	
13400.00	90.000	359.578	10920.00	2602.75	2602.68	-19.17	764808.73	502067.79	32°22'41.432"N	103°36'34.027"W	0.00	
13500.00	90.000	359.578	10920.00	2702.75	2702.68	-19.90	764808.00	502167.78	32°22'42.421"N	103°36'34.028"W	0.00	
13600.00	90.000	359.578	10920.00	2802.75	2802.68	-20.64	764807.26	502267.78	32°22'43.411"N	103°36'34.028"W	0.00	
13700.00	90.000	359.578	10920.00	2902.75	2902.67	-21.37	764806.53	502367.77	32°22'44.400"N	103°36'34.029"W	0.00	
13800.00	90.000	359.578	10920.00	3002.75	3002.67	-22.11	764805.79	502467.76	32°22'45.390"N	103°36'34.030"W	0.00	
13900.00	90.000	359.578	10920.00	3102.75	3102.67	-22.85	764805.05	502567.76	32°22'46.379"N	103°36'34.030"W	0.00	
14000.00	90.000	359.578	10920.00	3202.75	3202.67	-23.58	764804.32	502667.75	32°22'47.369"N	103°36'34.031"W	0.00	
14100.00	90.000	359.578	10920.00	3302.75	3302.66	-24.32	764803.58	502767.74	32°22'48.358"N	103°36'34.032"W	0.00	
14200.00	90.000	359.578	10920.00	3402.75	3402.66	-25.06	764802.85	502867.74	32°22'49.348"N	103°36'34.033"W	0.00	
14300.00	90.000	359.578	10920.00	3502.75	3502.66	-25.79	764802.11	502967.73	32°22'50.337"N	103°36'34.033"W	0.00	
14400.00	90.000	359.578	10920.00	3602.75	3602.65	-26.53	764801.37	503067.73	32°22'51.327"N	103°36'34.034"W	0.00	
14500.00	90.000	359.578	10920.00	3702.75	3702.65	-27.26	764800.64	503167.72	32°22'52.316"N	103°36'34.035"W	0.00	
14600.00	90.000	359.578	10920.00	3802.75	3802.65	-28.00	764799.90	503267.71	32°22'53.306"N	103°36'34.035"W	0.00	
14700.00	90.000	359.578	10920.00	3902.75	3902.65	-28.74	764799.16	503367.71	32°22'54.295"N	103°36'34.036"W	0.00	
14800.00	90.000	359.578	10920.00	4002.75	4002.64	-29.47	764798.43	503467.70	32°22'55.285"N	103°36'34.037"W	0.00	
14900.00	90.000	359.578	10920.00	4102.75	4102.64	-30.21	764797.69	503567.69	32°22'56.274"N	103°36'34.037"W	0.00	
15000.00	90.000	359.578	10920.00	4202.75	4202.64	-30.94	764796.96	503667.69	32°22'57.263"N	103°36'34.038"W	0.00	
15100.00	90.000	359.578	10920.00	4302.75	4302.64	-31.68	764796.22	503767.68	32°22'58.253"N	103°36'34.039"W	0.00	
15200.00	90.000	359.578	10920.00	4402.75	4402.63	-32.42	764795.48	503867.68	32°22'59.242"N	103°36'34.039"W	0.00	
15300.00	90.000	359.578	10920.00	4502.75	4502.63	-33.15	764794.75	503967.67	32°23'00.232"N	103°36'34.040"W	0.00	
15400.00	90.000	359.578	10920.00	4602.75	4602.63	-33.89	764794.01	504067.66	32°23'01.221"N	103°36'34.041"W	0.00	
15417.04	90.000	359.578	10920.00	4619.79	4619.66	-34.01	764793.89	504084.70	32°23'01.390"N	103°36'34.041"W	0.00	No 3H PBHIL



Planned Wellpath Report

Prelim_1

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REFERENCE INFORMATION			
Operator	Cimarex Energy Co.	Slot	No.3H SHL
Area	Lea County, NM	Well	No.3H
Field	(Merchant Livestock(NAD83)) Sec 19, T22S, R33E	Wellbore	No.3H PWB
Facility	Merchant Livestock 19 22 33 State Com No.3H		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) No.3H PBHL	15417.04	10920.00	4619.66	-34.00	764793.90	504084.70	32°23'01.390"N	103°36'34.041"W	point

SURVEY PROGRAM - Ref Wellbore: No.3H PWB Ref Wellpath: Prelim_1				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	15417.04	NaviTrak (Standard)		No.3H PWB