

HOBBS OCD

DISTRICT I
1025 N. French Dr., Hobbs, NM 88210

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

FEB 14 2012 State of New Mexico
Minerals and Natural Resources Department

Form C-102
Revised July 10, 2010
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 30-025-40441	Pool Code 51687	Pool Name Red Tank; Bone Spring, East
Property Code 309304	Property Name MERCHANT LIVESTOCK 19 22 33 STATE COM	Well Number 4
OGRID No. 215099	Operator Name CIMAREX ENERGY CO.	Elevation 3663'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	19	22 S	33 E		330	SOUTH	660	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
P	19	22 S	33 E		330	NORTH	660	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°23'01.37" Long - W 103°36'18.65" NMSPC- N 504091.6 E 766113.6 (HAD-83)	SURFACE LOCATION Lat - N 32°22'15.66" Long - W 103°36'18.62" NMSPC- N 499472.2 E 766147.4 (HAD-83)	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: <u>Terri Stathem</u> Date: <u>2/13/12</u> Printed Name: <u>terstathem@cimarex.com</u> Email Address: _____
		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: <u>DEC 11 2011</u> Signature & Seal of Professional Surveyor: <u>[Signature]</u> W.O. No. <u>25915</u> Certificate No. Gary L. Jones 7977 BASIN SURVEYS 25915



Cimarex Energy Co.

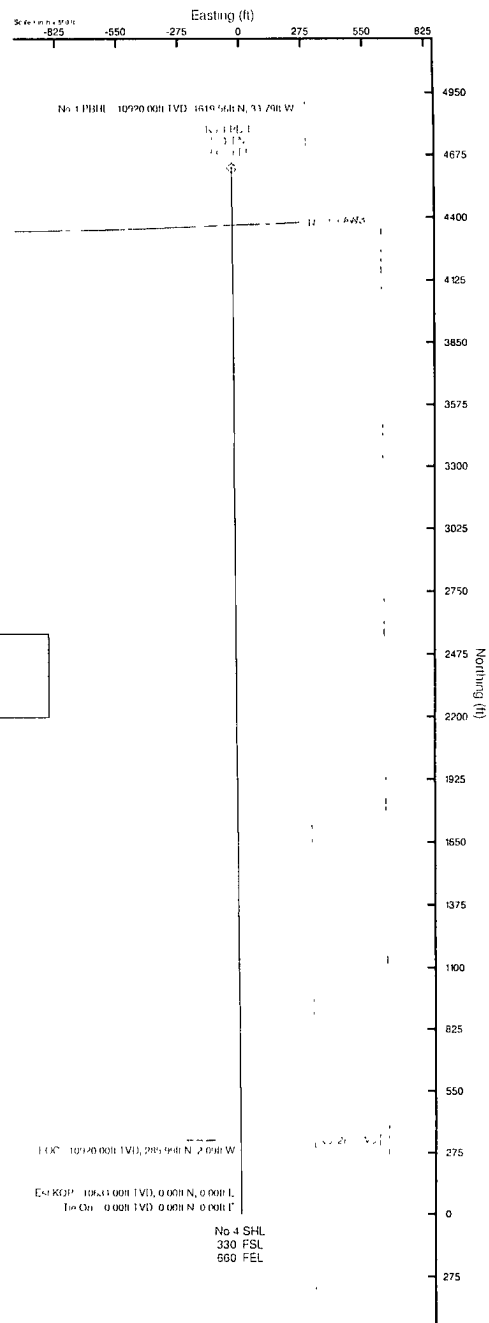
Location Lea County, NM
Field (Merchant Livestock (NAD83)) Sec. 10, T25S, R37E
Facility Merchant Livestock 19 22 33 State Com No 4

Slot No 4 SHL
Well No 4
Wellbore No 4 PWB



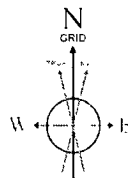
Well Profile Data							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	VS (ft)
Tie On	0 00	0 000	359 581	0 00	0 00	0 00	0 00
Est KOP	10634 00	0 000	359 581	10634 00	0 00	0 00	0 00
EOC	11083 25	90 000	359 581	10620 00	285 99	-2 09	286 00
No 4 PBHL	15416 93	90 000	359 581	10920 00	4619 56	-33 79	4619 69

HOBBS OCD
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RECEIVED

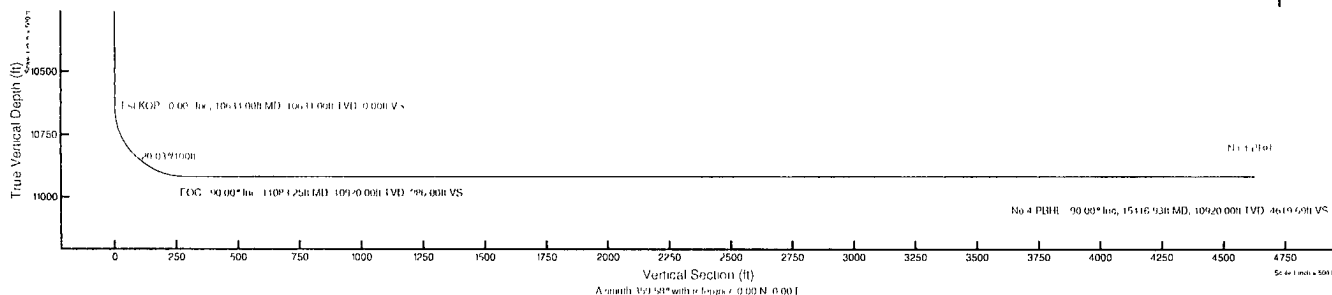


Plot of wellbore profile is shown.
True vertical details are referenced to the on No 4 SHL (ft).
Measured depth is referenced to the on No 4 SHL (ft).
Plot on No 4 SHL (ft) to match to Level 1 Plot.
Meters to Level 1 Match (ft) to No 4 SHL (ft) is used.
Coordinates are in feet referenced to NAD83.

Grid System: NAD83 / FMA New Mexico SP. Datum Zone 10M1, US foot.
North Polar angle: Grid north.
Scale: True distance.
Depth: as recorded.
Created by: geology on 1/18/2012



BGGM (1945 0 to 2013 0) Dip 60 27° Field 48651 nT
Magnetic North is 7.62 degrees East of True North (at 1/18/2012)
Grid North is 0.39 degrees East of True North
To correct azimuth from True to Grid subtract 0.39 degrees
To correct azimuth from Magnetic to Grid add 7.23 degrees
For example, if the Magnetic North Azimuth = 50 degs, then the Grid North Azimuth = 50 + 7.23 = 57.23





Planned Wellpath Report

Prelim_1

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WELL IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No.4 SHL
Area	Lea County, NM	Well	No.4
Field	(Merchant Livestock(NAD83)) Sec 19, T22S, R33E	Wellbore	No.4 PWB
Facility	Merchant Livestock 19 22 33 State Com No.4		

REPORT SETTINGS

Projection System	NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Gentbry
Scale	0.999967	Report Generated	1/18/2012 at 8:46:30 AM
Convergence at slot	0.39° East	Database/Source file	WA Midland/No.4_PWB.xml

WELL LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W
Facility Reference Pt			766147.40	499472.20	32°22'15.658"N	103°36'18.623"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 4 SHL (RT) to Facility Vertical Datum	0.00ft
Horizontal Reference Pt	Slot	Rig on No.4 SHL (RT) to Mean Sea Level	3663.00ft
Vertical Reference Pt	Rig on No.4 SHL (RT)	Rig on No.4 SHL (RT) to Mud Line at Slot (No 4 SHL)	0.00ft
MD Reference Pt	Rig on No.4 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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WELL INFORMATION			
Operator	Cimarex Energy Co.	Slot	No.4 SHL
Area	Lea County, NM	Well	No.4
Field	(Merchant Livestock(NAD83)) Sec 19, T22S, R33E	Wellbore	No.4 PWB
Facility	Merchant Livestock 19 22 33 State Com No.4		

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	359.581	0 00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	Tie On
100.00	0.000	359.581	100.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
200.00	0.000	359.581	200.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
300.00	0.000	359.581	300.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
400.00	0.000	359.581	400.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
500.00	0.000	359.581	500.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
600.00	0.000	359.581	600.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
700.00	0.000	359.581	700.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
800.00	0.000	359.581	800.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
900.00	0.000	359.581	900.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
1000.00	0.000	359.581	1000.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
1100.00	0.000	359.581	1100.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
1125.00	0.000	359.581	1125.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	Rustler
1200.00	0.000	359.581	1200.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
1300.00	0.000	359.581	1300.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
1400.00	0.000	359.581	1400.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
1500.00	0.000	359.581	1500.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
1600.00	0.000	359.581	1600.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
1700.00	0.000	359.581	1700.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
1800.00	0.000	359.581	1800.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
1900.00	0.000	359.581	1900.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
2000.00	0.000	359.581	2000.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
2100.00	0.000	359.581	2100.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
2200.00	0.000	359.581	2200.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
2300.00	0.000	359.581	2300.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
2400.00	0.000	359.581	2400.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
2500.00	0.000	359.581	2500.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
2600.00	0.000	359.581	2600.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
2700.00	0.000	359.581	2700.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
2800.00	0.000	359.581	2800.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
2900.00	0.000	359.581	2900.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
3000.00	0.000	359.581	3000.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
3100.00	0.000	359.581	3100.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
3200.00	0.000	359.581	3200.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
3300.00	0.000	359.581	3300.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
3400.00	0.000	359.581	3400.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
3500.00	0.000	359.581	3500.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
3600.00	0.000	359.581	3600.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
3700.00	0.000	359.581	3700.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
3800.00	0.000	359.581	3800.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
3900.00	0.000	359.581	3900.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
4000.00	0.000	359.581	4000.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
4100.00	0.000	359.581	4100.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
4200.00	0.000	359.581	4200.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	
4300.00	0.000	359.581	4300.00	0 00	0 00	0 00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0 00	



Planned Wellpath Report

Prelim_1

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Operator	Cimarex Energy Co.	Slot	No.4 SHL
Area	Lea County, NM	Well	No.4
Field	(Merchant Livestock(NAD83)) Sec 19, T22S, R33E	Wellbore	No.4 PWB
Facility	Merchant Livestock 19 22 33 State Com No.4		

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
4400.00†	0.000	359.581	4400.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
4500.00†	0.000	359.581	4500.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
4600.00†	0.000	359.581	4600.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
4700.00†	0.000	359.581	4700.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
4800.00†	0.000	359.581	4800.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
4900.00†	0.000	359.581	4900.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
4975.00†	0.000	359.581	4975.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	Delaware
5000.00†	0.000	359.581	5000.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
5100.00†	0.000	359.581	5100.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
5200.00†	0.000	359.581	5200.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
5300.00†	0.000	359.581	5300.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
5400.00†	0.000	359.581	5400.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
5500.00†	0.000	359.581	5500.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
5600.00†	0.000	359.581	5600.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
5700.00†	0.000	359.581	5700.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
5800.00†	0.000	359.581	5800.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
5900.00†	0.000	359.581	5900.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
6000.00†	0.000	359.581	6000.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
6100.00†	0.000	359.581	6100.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
6200.00†	0.000	359.581	6200.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
6300.00†	0.000	359.581	6300.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
6400.00†	0.000	359.581	6400.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
6500.00†	0.000	359.581	6500.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
6600.00†	0.000	359.581	6600.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
6700.00†	0.000	359.581	6700.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
6800.00†	0.000	359.581	6800.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
6900.00†	0.000	359.581	6900.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
7000.00†	0.000	359.581	7000.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
7100.00†	0.000	359.581	7100.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
7200.00†	0.000	359.581	7200.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
7300.00†	0.000	359.581	7300.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
7400.00†	0.000	359.581	7400.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
7500.00†	0.000	359.581	7500.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
7600.00†	0.000	359.581	7600.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
7700.00†	0.000	359.581	7700.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
7800.00†	0.000	359.581	7800.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
7900.00†	0.000	359.581	7900.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
8000.00†	0.000	359.581	8000.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
8100.00†	0.000	359.581	8100.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
8200.00†	0.000	359.581	8200.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
8300.00†	0.000	359.581	8300.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
8400.00†	0.000	359.581	8400.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
8450.00†	0.000	359.581	8450.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	Basal Brushy Canyon
8500.00†	0.000	359.581	8500.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
8600.00†	0.000	359.581	8600.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	



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**BAKER
HUGHES**

REFERENCE DATA IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No.4 SHL
Area	Lea County, NM	Well	No.4
Field	(Merchant Livestock(NAD83)) Sec 19, T22S, R33E	Wellbore	No.4 PWB
Facility	Merchant Livestock 19 22 33 State Com No.4		

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	359.581	8700.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
8720.00	0.000	359.581	8720.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	Bone Spring
8800.00	0.000	359.581	8800.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
8900.00	0.000	359.581	8900.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
9000.00	0.000	359.581	9000.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
9100.00	0.000	359.581	9100.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	Upper Bone Spring Shale
9200.00	0.000	359.581	9200.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
9300.00	0.000	359.581	9300.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
9400.00	0.000	359.581	9400.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
9500.00	0.000	359.581	9500.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
9600.00	0.000	359.581	9600.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
9700.00	0.000	359.581	9700.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
9800.00	0.000	359.581	9800.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
9875.00	0.000	359.581	9875.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	1st Bone Spring SS
9900.00	0.000	359.581	9900.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
10000.00	0.000	359.581	10000.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
10100.00	0.000	359.581	10100.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
10200.00	0.000	359.581	10200.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
10300.00	0.000	359.581	10300.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
10400.00	0.000	359.581	10400.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
10450.00	0.000	359.581	10450.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	2nd Bone Spring SS
10500.00	0.000	359.581	10500.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
10600.00	0.000	359.581	10600.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	
10634.00	0.000	359.581	10634.00	0.00	0.00	0.00	766147.40	499472.20	32°22'15.658"N	103°36'18.623"W	0.00	Est KOP
10700.00	13.222	359.581	10699.42	-7.58	-7.58	-0.06	766147.34	499479.78	32°22'15.733"N	103°36'18.623"W	20.03	
10800.00	33.256	359.581	10790.84	-46.84	-46.84	-0.34	766147.06	499519.03	32°22'16.122"N	103°36'18.624"W	20.03	
10900.00	53.289	359.581	10863.28	-115.04	-115.03	-0.84	766146.56	499587.23	32°22'16.797"N	103°36'18.624"W	20.03	
11000.00	73.323	359.581	10907.97	-203.92	-203.92	-1.49	766145.91	499676.11	32°22'17.676"N	103°36'18.625"W	20.03	
11083.25	90.000	359.581	10920.00	-286.00	-285.99	-2.09	766145.31	499758.18	32°22'18.488"N	103°36'18.625"W	20.03	EOC
11100.00	90.000	359.581	10920.00	-302.75	-302.74	-2.21	766145.19	499774.93	32°22'18.654"N	103°36'18.625"W	0.00	
11200.00	90.000	359.581	10920.00	-402.75	-402.74	-2.95	766144.45	499874.93	32°22'19.644"N	103°36'18.626"W	0.00	
11300.00	90.000	359.581	10920.00	-502.75	-502.74	-3.68	766143.72	499974.92	32°22'20.633"N	103°36'18.626"W	0.00	
11400.00	90.000	359.581	10920.00	-602.75	-602.74	-4.41	766142.99	500074.92	32°22'21.623"N	103°36'18.627"W	0.00	
11500.00	90.000	359.581	10920.00	-702.75	-702.73	-5.14	766142.26	500174.91	32°22'22.612"N	103°36'18.628"W	0.00	
11600.00	90.000	359.581	10920.00	-802.75	-802.73	-5.87	766141.53	500274.90	32°22'23.602"N	103°36'18.628"W	0.00	
11700.00	90.000	359.581	10920.00	-902.75	-902.73	-6.60	766140.80	500374.90	32°22'24.591"N	103°36'18.629"W	0.00	
11800.00	90.000	359.581	10920.00	-1002.75	-1002.73	-7.33	766140.07	500474.89	32°22'25.580"N	103°36'18.629"W	0.00	
11900.00	90.000	359.581	10920.00	-1102.75	-1102.72	-8.06	766139.34	500574.88	32°22'26.570"N	103°36'18.630"W	0.00	
12000.00	90.000	359.581	10920.00	-1202.75	-1202.72	-8.80	766138.60	500674.88	32°22'27.559"N	103°36'18.631"W	0.00	
12100.00	90.000	359.581	10920.00	-1302.75	-1302.72	-9.53	766137.87	500774.87	32°22'28.549"N	103°36'18.631"W	0.00	
12200.00	90.000	359.581	10920.00	-1402.75	-1402.71	-10.26	766137.14	500874.87	32°22'29.538"N	103°36'18.632"W	0.00	
12300.00	90.000	359.581	10920.00	-1502.75	-1502.71	-10.99	766136.41	500974.86	32°22'30.528"N	103°36'18.632"W	0.00	
12400.00	90.000	359.581	10920.00	-1602.75	-1602.71	-11.72	766135.68	501074.85	32°22'31.517"N	103°36'18.633"W	0.00	
12500.00	90.000	359.581	10920.00	-1702.75	-1702.71	-12.45	766134.95	501174.85	32°22'32.507"N	103°36'18.634"W	0.00	
12600.00	90.000	359.581	10920.00	-1802.75	-1802.70	-13.18	766134.22	501274.84	32°22'33.496"N	103°36'18.634"W	0.00	



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WELLBORE IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No.4 SHL
Area	Lea County, NM	Well	No.4
Field	(Merchant Livestock(NAD83)) Sec 19, T22S, R33E	Wellbore	No.4 PWB
Facility	Merchant Livestock 19 22 33 State Com No.4		

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	359.581	10920.00	1902.75	1902.70	-13.92	766133.48	501374.83	32°22'34.486"N	103°36'18.635"W	0.00	
12800.00	90.000	359.581	10920.00	2002.75	2002.70	-14.65	766132.75	501474.83	32°22'35.475"N	103°36'18.635"W	0.00	
12900.00	90.000	359.581	10920.00	2102.75	2102.70	-15.38	766132.02	501574.82	32°22'36.465"N	103°36'18.636"W	0.00	
13000.00	90.000	359.581	10920.00	2202.75	2202.69	-16.11	766131.29	501674.82	32°22'37.454"N	103°36'18.636"W	0.00	
13100.00	90.000	359.581	10920.00	2302.75	2302.69	-16.84	766130.56	501774.81	32°22'38.444"N	103°36'18.637"W	0.00	
13200.00	90.000	359.581	10920.00	2402.75	2402.69	-17.57	766129.83	501874.80	32°22'39.433"N	103°36'18.638"W	0.00	
13300.00	90.000	359.581	10920.00	2502.75	2502.69	-18.30	766129.10	501974.80	32°22'40.423"N	103°36'18.638"W	0.00	
13400.00	90.000	359.581	10920.00	2602.75	2602.68	-19.04	766128.36	502074.79	32°22'41.412"N	103°36'18.639"W	0.00	
13500.00	90.000	359.581	10920.00	2702.75	2702.68	-19.77	766127.63	502174.79	32°22'42.402"N	103°36'18.639"W	0.00	
13600.00	90.000	359.581	10920.00	2802.75	2802.68	-20.50	766126.90	502274.78	32°22'43.391"N	103°36'18.640"W	0.00	
13700.00	90.000	359.581	10920.00	2902.75	2902.67	-21.23	766126.17	502374.77	32°22'44.381"N	103°36'18.641"W	0.00	
13800.00	90.000	359.581	10920.00	3002.75	3002.67	-21.96	766125.44	502474.77	32°22'45.370"N	103°36'18.641"W	0.00	
13900.00	90.000	359.581	10920.00	3102.75	3102.67	-22.69	766124.71	502574.76	32°22'46.360"N	103°36'18.642"W	0.00	
14000.00	90.000	359.581	10920.00	3202.75	3202.67	-23.43	766123.98	502674.75	32°22'47.349"N	103°36'18.642"W	0.00	
14100.00	90.000	359.581	10920.00	3302.75	3302.66	-24.16	766123.24	502774.75	32°22'48.339"N	103°36'18.643"W	0.00	
14200.00	90.000	359.581	10920.00	3402.75	3402.66	-24.89	766122.51	502874.74	32°22'49.328"N	103°36'18.644"W	0.00	
14300.00	90.000	359.581	10920.00	3502.75	3502.66	-25.62	766121.78	502974.74	32°22'50.318"N	103°36'18.644"W	0.00	
14400.00	90.000	359.581	10920.00	3602.75	3602.66	-26.35	766121.05	503074.73	32°22'51.307"N	103°36'18.645"W	0.00	
14500.00	90.000	359.581	10920.00	3702.75	3702.65	-27.08	766120.32	503174.72	32°22'52.297"N	103°36'18.645"W	0.00	
14600.00	90.000	359.581	10920.00	3802.75	3802.65	-27.81	766119.59	503274.72	32°22'53.286"N	103°36'18.646"W	0.00	
14700.00	90.000	359.581	10920.00	3902.75	3902.65	-28.55	766118.85	503374.71	32°22'54.276"N	103°36'18.647"W	0.00	
14800.00	90.000	359.581	10920.00	4002.75	4002.65	-29.28	766118.12	503474.71	32°22'55.265"N	103°36'18.647"W	0.00	
14900.00	90.000	359.581	10920.00	4102.75	4102.64	-30.01	766117.39	503574.70	32°22'56.255"N	103°36'18.648"W	0.00	
15000.00	90.000	359.581	10920.00	4202.75	4202.64	-30.74	766116.66	503674.69	32°22'57.244"N	103°36'18.648"W	0.00	
15100.00	90.000	359.581	10920.00	4302.75	4302.64	-31.47	766115.93	503774.69	32°22'58.234"N	103°36'18.649"W	0.00	
15200.00	90.000	359.581	10920.00	4402.75	4402.63	-32.20	766115.20	503874.68	32°22'59.223"N	103°36'18.650"W	0.00	
15300.00	90.000	359.581	10920.00	4502.75	4502.63	-32.94	766114.46	503974.67	32°23'00.213"N	103°36'18.650"W	0.00	
15400.00	90.000	359.581	10920.00	4602.75	4602.63	-33.67	766113.73	504074.67	32°23'01.202"N	103°36'18.651"W	0.00	
15416.93	90.000	359.581	10920.00	4619.69	4619.56	-33.79	766113.61	504091.60	32°23'01.370"N	103°36'18.651"W	0.00	No.4 PBH.



Planned Wellpath Report

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Operator	Cimarex Energy Co.	Slot	No.4 SHL
Area	Lea County, NM	Well	No.4
Field	(Merchant Livestock(NAD83)) Sec 19, T22S, R33E	Wellbore	No.4 PWB
Facility	Merchant Livestock 19 22 33 State Com No.4		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) No.4 PBHL	15416.93	10920.00	4619.56	-33.80	766113.60	504091.60	32°23'01.370"N	103°36'18.651"W	point

SURVEY PROGRAM - Ref Wellbore: No.4 PWB Ref Wellpath: Prelim_1

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	15416.93	NaviTrak (Standard)		No.4 PWB