

DISTRICT I

1025 N. French Dr., Hobbs, NM 88240

DISTRICT II

1801 W. Grand Avenue, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

1020 E. El Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87606

Form C-102
Revised October 16, 2009

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-4034	Pool Code 96674	Pool Name Triple X; Bone Spring West
Property Code 309514	Property Name TRES EQUIUS STATE	Well Number 4
OROLD No. 215099	Operator Name CIMAREX ENERGY CO.	Elevation 3656'

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	6	24 S	33 E		330	NORTH	660	EAST	LEA

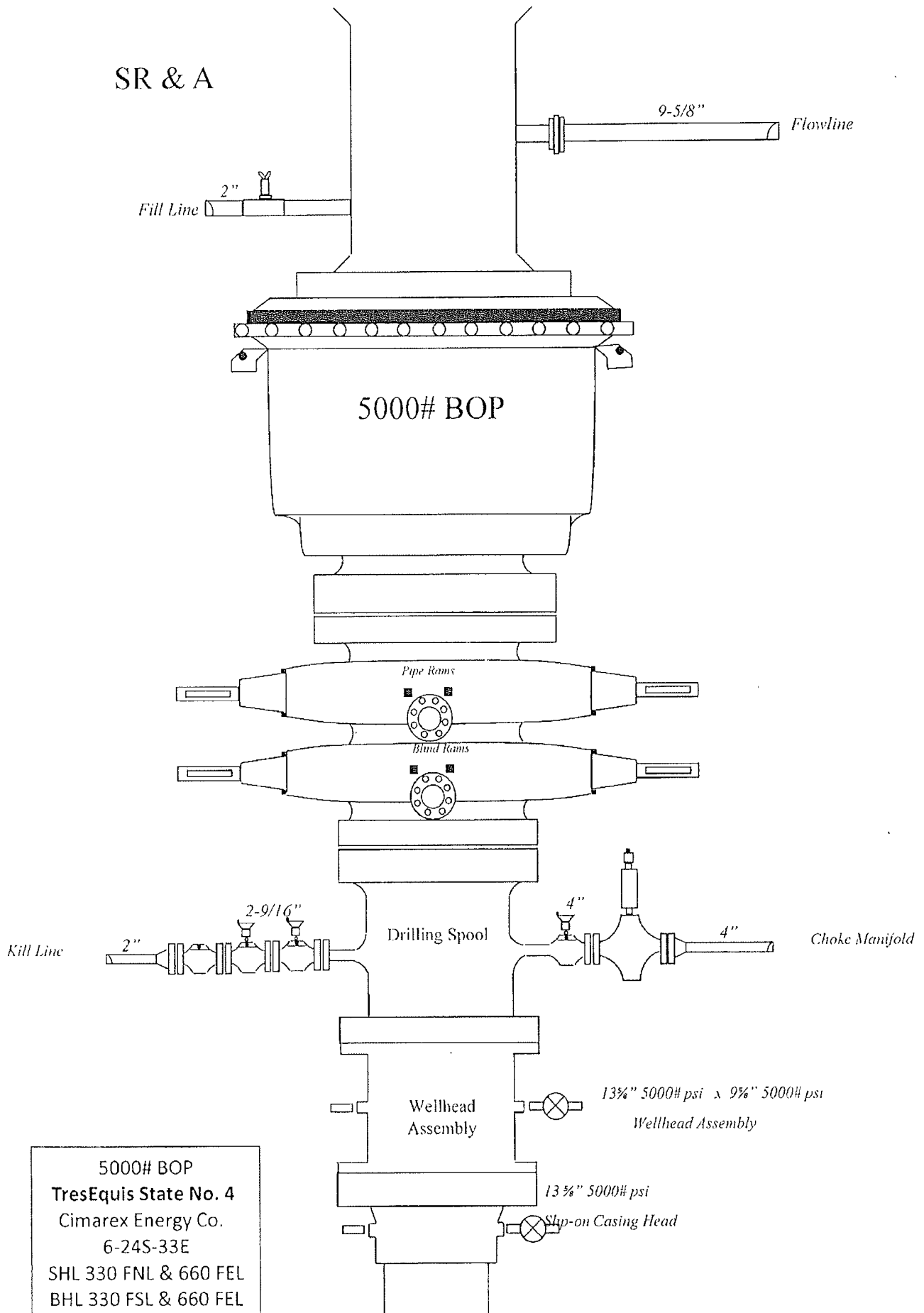
Bottom Hole Location If Different From Surface

UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	6	24 S	33 E		330	SOUTH	660	EAST	LEA
Dedicated Acres 159.86	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

SURFACE LOCATION Lat - N 32°15'11.08" Long - W 103°38'17.99" NWSPE- N 456807.4 E 766493.2 (NAD-83)	PROPOSED BOTTOM HOLE LOCATION Lat - N 32°14'25.41" Long - W 103°38'18.02" NWSPE- N 451951.2 E 766522.0 (NAD-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>11-16-11</u> Printed Name <u>Terri Stathem</u>
		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>NOVEMBER 16, 2011</u> Signature & Seal of Professional Surveyor <u>[Signature]</u> Certificate No. <u>Gary L. Jones</u> 7977 BASIN SURVEYS

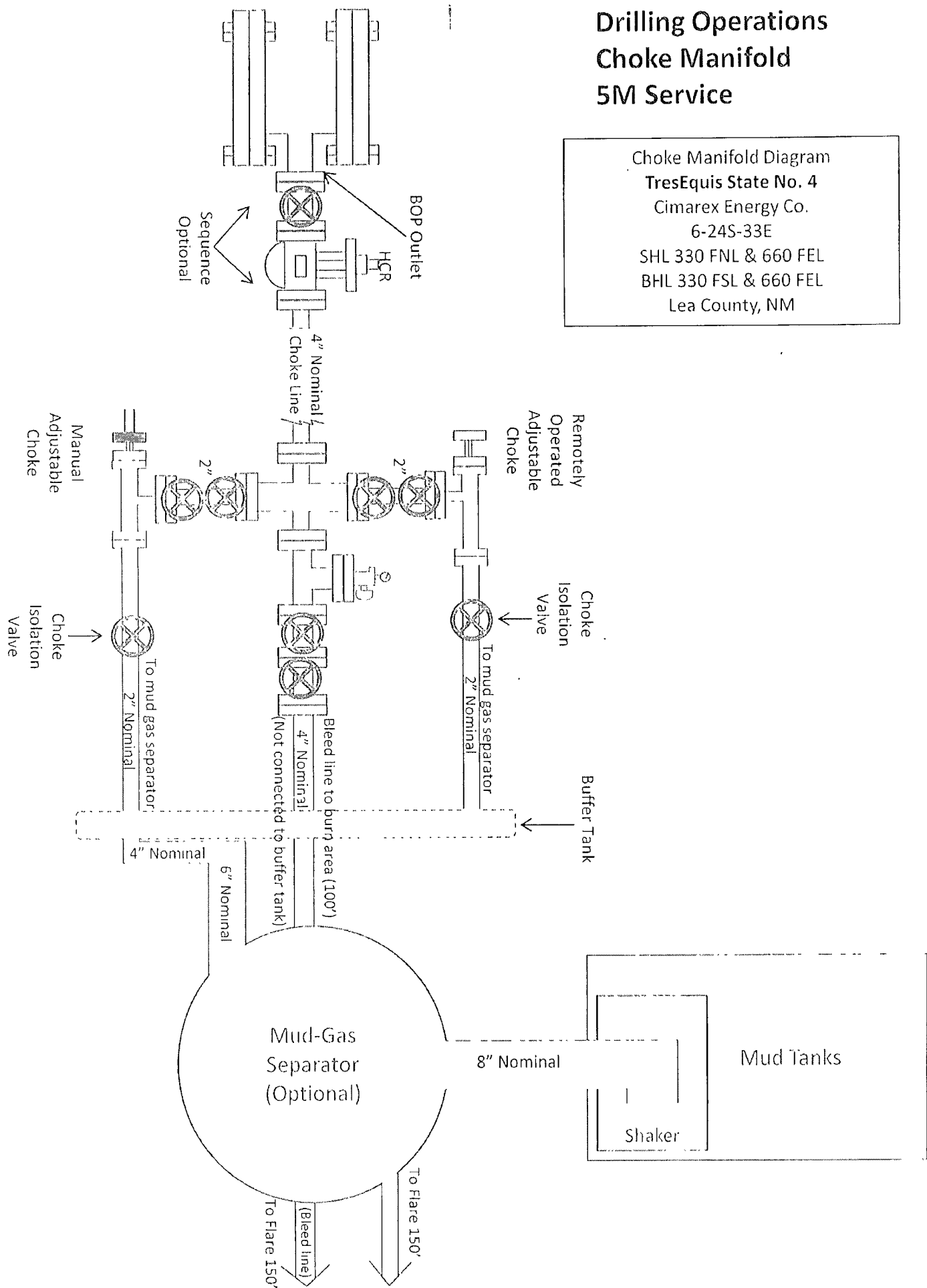
SR & A



5000# BOP
TresEquis State No. 4
 Cimarex Energy Co.
 6-24S-33E
 SHL 330 FNL & 660 FEL
 BHL 330 FSL & 660 FEL
 Lea County, NM

Drilling Operations
Choke Manifold
5M Service

Choke Manifold Diagram
TresEquis State No. 4
Cimarex Energy Co.
6-24S-33E
SHL 330 FNL & 660 FEL
BHL 330 FSL & 660 FEL
Lea County, NM





Cimarex Energy Co.

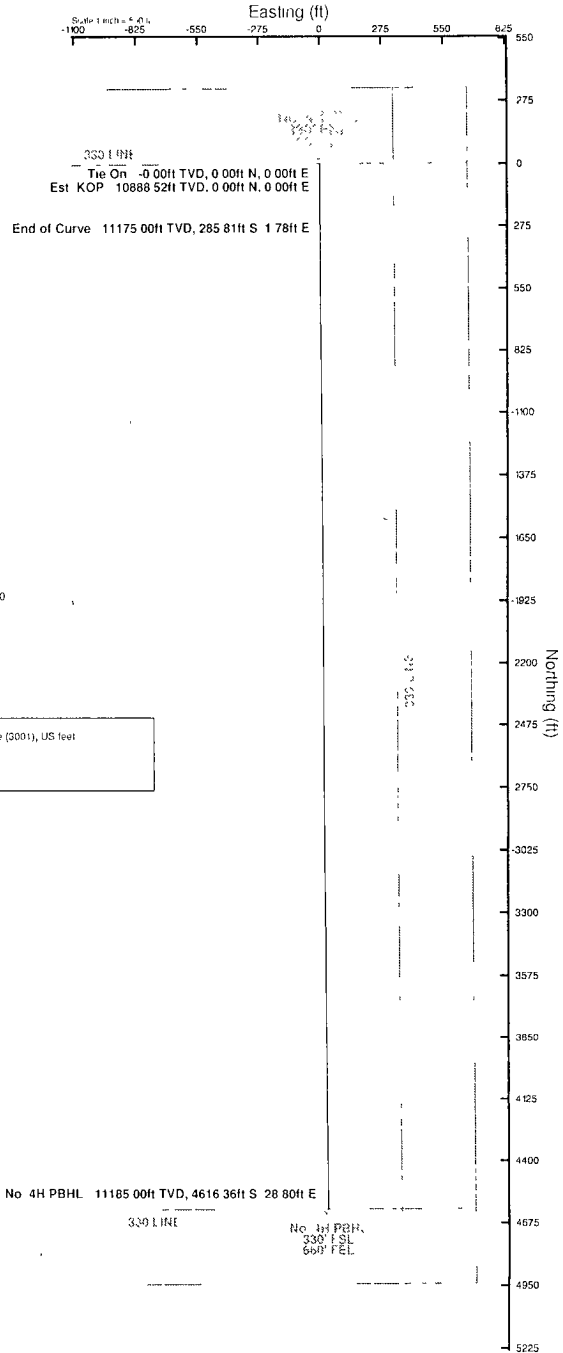
Location Lea County, NM
Field (Tres Equis) Sec 6, T24S, R33E
Facility Tres Equis State

Slot No 4H SHL
Well No. 4H
Wellbore No. 4H PWB

**BAKER
HUGHES**

Well Profile Data

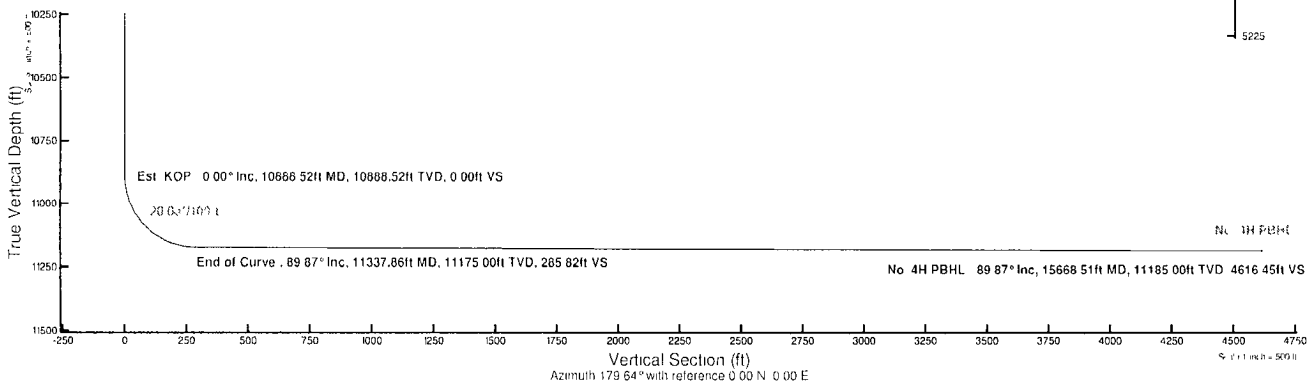
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (%/100ft)	VS (ft)
Tie On	0 00	0.000	179.643	0.00	0.00	0.00	0.00	0.00
Est KOP	10888.52	0.000	179.643	10888.52	0.00	0.00	0.00	0.00
End of Curve	11337.86	89.868	179.643	11175.00	-285.81	1.78	20.00	285.82
No 4H PBHL	15668.51	89.868	179.643	11185.00	-4616.36	28.80	0.00	4616.45



BCGM (1945.0 to 2012.0) Dr 60.20° Field 48615 nT
Magnetic North is 7.58 degrees East of True North (at 11/15/2011)
Grid North is 0.39 degrees East of True North
To convert azimuth from True to Grid subtract 0.39 degrees
To convert azimuth from Magnetic to Grid add 7.20 degrees
For example if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.20 = 97.20

Plot reference wellpath is Prelim_1
True vertical depths are referenced to Rig on No 4H SHL (KB)
Measured depths are referenced to Rig on No 4H SHL (KB)
Rig on No 4H SHL (KB) to Mean Sea Level 9556 feet
Mean Sea Level to Mud line (At Slot No 4H SHL) 0 feet
Coordinates are in feet referenced to Slot

Grid System: NAD83; TM New Mexico SP Eastern Zone (2011), US feet
North Reference: Grid north
Scale: True distance
Depths are in feet
Created by: Galphik on 11/15/2011





Planned Wellpath Report

Prelim_1

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REFERENCE WELL PATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 4H SHL
Area	Lea County, NM	Well	No. 4H
Field	(Tres Equis) Sec 6, T24S, R33E	Wellbore	No. 4h PWB
Facility	Tres Equis State		

REPORT SETUP INFORMATION			
Projection System	NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Calhphik
Scale	0.999967	Report Generated	11/15/2011 at 2:51:03 PM
Convergence at slot	0.39° East	Database/Source file	WA_Midland/No._4h_PWB.xml

WELL PATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	12 60	2581.49	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W
Facility Reference Pt			763911.80	456554.80	32°15'11.134"N	103°36'48.051"W
Field Reference Pt			763911.80	456554.80	32°15'11.134"N	103°36'48.051"W

WELL PATH DATUM			
Calculation method	Minimum curvature	Rig on No. 4H SHL (KB) to GL	3656.00ft
Horizontal Reference Pt	Slot	Rig on No. 4H SHL (KB) to Mean Sea Level	3656.00ft
Vertical Reference Pt	Rig on No. 4H SHL (KB)	Rig on No. 4H SHL (KB) to Mud Line at Slot (No. 4H SHL)	3656.00ft
MD Reference Pt	Rig on No. 4H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.64°



Planned Wellpath Report

Prelim_1

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Operator	Cimarex Energy Co.	Slot	No. 4H SHL
Area	Lea County, NM	Well	No. 4H
Field	(Tres Equis) Sec 6, T24S, R33E	Wellbore	No. 4h PWB
Facility	Tres Equis State		

WELLPATH DATA (163 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	179.643	0.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	Tie On
100.00	0.000	179.643	100.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
200.00	0.000	179.643	200.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
300.00	0.000	179.643	300.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
400.00	0.000	179.643	400.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
500.00	0.000	179.643	500.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
600.00	0.000	179.643	600.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
700.00	0.000	179.643	700.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
800.00	0.000	179.643	800.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
900.00	0.000	179.643	900.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
1000.00	0.000	179.643	1000.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
1100.00	0.000	179.643	1100.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
1200.00	0.000	179.643	1200.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
1300.00	0.000	179.643	1300.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
1400.00	0.000	179.643	1400.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
1500.00	0.000	179.643	1500.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
1600.00	0.000	179.643	1600.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
1700.00	0.000	179.643	1700.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
1800.00	0.000	179.643	1800.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
1900.00	0.000	179.643	1900.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
2000.00	0.000	179.643	2000.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
2100.00	0.000	179.643	2100.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
2200.00	0.000	179.643	2200.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
2300.00	0.000	179.643	2300.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
2400.00	0.000	179.643	2400.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
2500.00	0.000	179.643	2500.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
2600.00	0.000	179.643	2600.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
2700.00	0.000	179.643	2700.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
2800.00	0.000	179.643	2800.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
2900.00	0.000	179.643	2900.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
3000.00	0.000	179.643	3000.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
3100.00	0.000	179.643	3100.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
3200.00	0.000	179.643	3200.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
3300.00	0.000	179.643	3300.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
3400.00	0.000	179.643	3400.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
3500.00	0.000	179.643	3500.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
3600.00	0.000	179.643	3600.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
3700.00	0.000	179.643	3700.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
3800.00	0.000	179.643	3800.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
3900.00	0.000	179.643	3900.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
4000.00	0.000	179.643	4000.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
4100.00	0.000	179.643	4100.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
4200.00	0.000	179.643	4200.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
4300.00	0.000	179.643	4300.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
4400.00	0.000	179.643	4400.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	



Planned Wellpath Report

Prelim_1

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Operator	Cimarex Energy Co.	Slot	No. 4H SHL
Area	Lea County, NM	Well	No. 4H
Field	(Tres Equis) Sec 6, T24S, R33E	Wellbore	No. 4h PWB
Facility	Tres Equis State		

WELLPATH DATA (163 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
4500.00	0.000	179.643	4500.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
4600.00	0.000	179.643	4600.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
4700.00	0.000	179.643	4700.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
4800.00	0.000	179.643	4800.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
4900.00	0.000	179.643	4900.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
5000.00	0.000	179.643	5000.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	Delaware Sands
5100.00	0.000	179.643	5100.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
5200.00	0.000	179.643	5200.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
5300.00	0.000	179.643	5300.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
5400.00	0.000	179.643	5400.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
5500.00	0.000	179.643	5500.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
5600.00	0.000	179.643	5600.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
5700.00	0.000	179.643	5700.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
5800.00	0.000	179.643	5800.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
5900.00	0.000	179.643	5900.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
6000.00	0.000	179.643	6000.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
6100.00	0.000	179.643	6100.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
6200.00	0.000	179.643	6200.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
6300.00	0.000	179.643	6300.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
6400.00	0.000	179.643	6400.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
6500.00	0.000	179.643	6500.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
6600.00	0.000	179.643	6600.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
6700.00	0.000	179.643	6700.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
6800.00	0.000	179.643	6800.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
6900.00	0.000	179.643	6900.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
7000.00	0.000	179.643	7000.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
7100.00	0.000	179.643	7100.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
7200.00	0.000	179.643	7200.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
7300.00	0.000	179.643	7300.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
7400.00	0.000	179.643	7400.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
7500.00	0.000	179.643	7500.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
7600.00	0.000	179.643	7600.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
7700.00	0.000	179.643	7700.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
7800.00	0.000	179.643	7800.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
7900.00	0.000	179.643	7900.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
8000.00	0.000	179.643	8000.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
8100.00	0.000	179.643	8100.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
8200.00	0.000	179.643	8200.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
8300.00	0.000	179.643	8300.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
8400.00	0.000	179.643	8400.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
8500.00	0.000	179.643	8500.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
8600.00	0.000	179.643	8600.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
8700.00	0.000	179.643	8700.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
8710.00	0.000	179.643	8710.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	Basal Brushy Canyon
8800.00	0.000	179.643	8800.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	



Planned Wellpath Report

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Operator	Cimarex Energy Co.	Slot	No. 4H SHL
Area	Lea County, NM	Well	No. 4H
Field	(Tres Equis) Sec 6, T24S, R33E	Wellbore	No. 4h PWB
Facility	Tres Equis State		

WELLPATH DATA (163 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
8900.00	0.000	179.643	8900.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
8955.00	0.000	179.643	8955.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	Bone Spring
9000.00	0.000	179.643	9000.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
9100.00	0.000	179.643	9100.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
9200.00	0.000	179.643	9200.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
9300.00	0.000	179.643	9300.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
9400.00	0.000	179.643	9400.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
9500.00	0.000	179.643	9500.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	Avalon Shale
9600.00	0.000	179.643	9600.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
9700.00	0.000	179.643	9700.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
9800.00	0.000	179.643	9800.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
9900.00	0.000	179.643	9900.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
10000.00	0.000	179.643	10000.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
10100.00	0.000	179.643	10100.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	1st Bone Spring Shale
10200.00	0.000	179.643	10200.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
10300.00	0.000	179.643	10300.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
10400.00	0.000	179.643	10400.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
10500.00	0.000	179.643	10500.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
10600.00	0.000	179.643	10600.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
10650.00	0.000	179.643	10650.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	2nd Bone Spring Shale
10700.00	0.000	179.643	10700.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
10800.00	0.000	179.643	10800.00	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	
10888.52	0.000	179.643	10888.52	0.00	0.00	0.00	766493.20	456567.40	32°15'11.087"N	103°36'17.991"W	0.00	Est KOP
10900.00	2.296	179.643	10900.00	0.23	-0.23	0.00	766493.20	456567.17	32°15'11.084"N	103°36'17.991"W	20.00	
11000.00	22.296	179.643	10997.21	21.42	-21.42	0.13	766493.33	456545.98	32°15'10.875"N	103°36'17.991"W	20.00	
11100.00	42.296	179.643	11081.31	74.58	-74.57	0.47	766493.67	456492.83	32°15'10.349"N	103°36'17.991"W	20.00	
11200.00	62.296	179.643	11142.16	153.29	-153.29	0.96	766494.16	456414.12	32°15'09.570"N	103°36'17.992"W	20.00	
11300.00	82.296	179.643	11172.41	248.07	-248.07	1.55	766494.75	456319.34	32°15'08.632"N	103°36'17.992"W	20.00	
11337.86	89.868	179.643	11175.00	285.82	-285.81	1.78	766494.98	456281.60	32°15'08.259"N	103°36'17.993"W	20.00	End of Curve
11400.00	89.868	179.643	11175.14	347.96	-347.95	2.17	766495.37	456219.46	32°15'07.644"N	103°36'17.993"W	0.00	
11500.00	89.868	179.643	11175.37	447.96	-447.95	2.79	766495.99	456119.47	32°15'06.654"N	103°36'17.994"W	0.00	
11600.00	89.868	179.643	11175.61	547.96	-547.95	3.42	766496.62	456019.47	32°15'05.665"N	103°36'17.994"W	0.00	
11700.00	89.868	179.643	11175.84	647.96	-647.94	4.04	766497.24	455919.48	32°15'04.675"N	103°36'17.995"W	0.00	
11800.00	89.868	179.643	11176.07	747.96	-747.94	4.67	766497.87	455819.49	32°15'03.686"N	103°36'17.996"W	0.00	
11900.00	89.868	179.643	11176.30	847.96	-847.94	5.29	766498.49	455719.49	32°15'02.696"N	103°36'17.996"W	0.00	
12000.00	89.868	179.643	11176.53	947.96	-947.94	5.91	766499.11	455619.50	32°15'01.707"N	103°36'17.997"W	0.00	
12100.00	89.868	179.643	11176.76	1047.95	-1047.93	6.54	766499.74	455519.50	32°15'00.717"N	103°36'17.998"W	0.00	
12200.00	89.868	179.643	11176.99	1147.95	-1147.93	7.16	766500.36	455419.51	32°14'59.728"N	103°36'17.998"W	0.00	
12300.00	89.868	179.643	11177.22	1247.95	-1247.93	7.79	766500.99	455319.51	32°14'58.738"N	103°36'17.999"W	0.00	
12400.00	89.868	179.643	11177.45	1347.95	-1347.93	8.41	766501.61	455219.52	32°14'57.749"N	103°36'17.999"W	0.00	
12500.00	89.868	179.643	11177.68	1447.95	-1447.93	9.03	766502.23	455119.52	32°14'56.759"N	103°36'18.000"W	0.00	
12600.00	89.868	179.643	11177.91	1547.95	-1547.92	9.66	766502.86	455019.53	32°14'55.770"N	103°36'18.001"W	0.00	
12700.00	89.868	179.643	11178.15	1647.95	-1647.92	10.28	766503.48	454919.54	32°14'54.780"N	103°36'18.001"W	0.00	
12800.00	89.868	179.643	11178.38	1747.95	-1747.92	10.91	766504.10	454819.54	32°14'53.791"N	103°36'18.002"W	0.00	
12900.00	89.868	179.643	11178.61	1847.95	-1847.92	11.53	766504.73	454719.55	32°14'52.801"N	103°36'18.003"W	0.00	



Planned Wellpath Report

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Operator	Cimarex Energy Co.	Slot	No. 4H SHL
Area	Lea County, NM	Well	No. 4H
Field	(Tres Equis) Sec 6, T24S. R33E	Wellbore	No. 4h PWB
Facility	Tres Equis State		

WELLPATH DATA (163 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
13000.00	89.868	179.643	11178.84	1947.95	-1947.91	12.15	766505.35	454619.55	32°14'51.812"N	103°36'18.003"W	0.00	
13100.00	89.868	179.643	11179.07	2047.95	-2047.91	12.78	766505.98	454519.56	32°14'50.822"N	103°36'18.004"W	0.00	
13200.00	89.868	179.643	11179.30	2147.95	-2147.91	13.40	766506.60	454419.56	32°14'49.833"N	103°36'18.005"W	0.00	
13300.00	89.868	179.643	11179.53	2247.95	-2247.91	14.02	766507.22	454319.57	32°14'48.843"N	103°36'18.005"W	0.00	
13400.00	89.868	179.643	11179.76	2347.95	-2347.91	14.65	766507.85	454219.58	32°14'47.854"N	103°36'18.006"W	0.00	
13500.00	89.868	179.643	11179.99	2447.95	-2447.90	15.27	766508.47	454119.58	32°14'46.864"N	103°36'18.006"W	0.00	
13600.00	89.868	179.643	11180.22	2547.95	-2547.90	15.90	766509.10	454019.59	32°14'45.875"N	103°36'18.007"W	0.00	
13700.00	89.868	179.643	11180.45	2647.95	-2647.90	16.52	766509.72	453919.59	32°14'44.885"N	103°36'18.008"W	0.00	
13800.00	89.868	179.643	11180.69	2747.95	-2747.90	17.14	766510.34	453819.60	32°14'43.895"N	103°36'18.008"W	0.00	
13900.00	89.868	179.643	11180.92	2847.95	-2847.89	17.77	766510.97	453719.60	32°14'42.906"N	103°36'18.009"W	0.00	
14000.00	89.868	179.643	11181.15	2947.95	-2947.89	18.39	766511.59	453619.61	32°14'41.916"N	103°36'18.010"W	0.00	
14100.00	89.868	179.643	11181.38	3047.95	-3047.89	19.02	766512.21	453519.62	32°14'40.927"N	103°36'18.010"W	0.00	
14200.00	89.868	179.643	11181.61	3147.95	-3147.89	19.64	766512.84	453419.62	32°14'39.937"N	103°36'18.011"W	0.00	
14300.00	89.868	179.643	11181.84	3247.95	-3247.89	20.26	766513.46	453319.63	32°14'38.948"N	103°36'18.011"W	0.00	
14400.00	89.868	179.643	11182.07	3347.95	-3347.88	20.89	766514.09	453219.63	32°14'37.958"N	103°36'18.012"W	0.00	
14500.00	89.868	179.643	11182.30	3447.95	-3447.88	21.51	766514.71	453119.64	32°14'36.969"N	103°36'18.013"W	0.00	
14600.00	89.868	179.643	11182.53	3547.95	-3547.88	22.13	766515.33	453019.64	32°14'35.979"N	103°36'18.013"W	0.00	
14700.00	89.868	179.643	11182.76	3647.95	-3647.88	22.76	766515.96	452919.65	32°14'34.990"N	103°36'18.014"W	0.00	
14800.00	89.868	179.643	11182.99	3747.95	-3747.87	23.38	766516.58	452819.66	32°14'34.000"N	103°36'18.015"W	0.00	
14900.00	89.868	179.643	11183.23	3847.95	-3847.87	24.01	766517.21	452719.66	32°14'33.011"N	103°36'18.015"W	0.00	
15000.00	89.868	179.643	11183.46	3947.95	-3947.87	24.63	766517.83	452619.67	32°14'32.021"N	103°36'18.016"W	0.00	
15100.00	89.868	179.643	11183.69	4047.95	-4047.87	25.25	766518.45	452519.67	32°14'31.032"N	103°36'18.017"W	0.00	
15200.00	89.868	179.643	11183.92	4147.95	-4147.87	25.88	766519.08	452419.68	32°14'30.042"N	103°36'18.017"W	0.00	
15300.00	89.868	179.643	11184.15	4247.95	-4247.86	26.50	766519.70	452319.68	32°14'29.053"N	103°36'18.018"W	0.00	
15400.00	89.868	179.643	11184.38	4347.95	-4347.86	27.13	766520.32	452219.69	32°14'28.063"N	103°36'18.018"W	0.00	
15500.00	89.868	179.643	11184.61	4447.95	-4447.86	27.75	766520.95	452119.70	32°14'27.074"N	103°36'18.019"W	0.00	
15600.00	89.868	179.643	11184.84	4547.95	-4547.86	28.37	766521.57	452019.70	32°14'26.084"N	103°36'18.020"W	0.00	
15668.51	89.868	179.643	11185.00	4616.45	-4616.36	28.80	766522.00	451951.20	32°14'25.406"N	103°36'18.020"W	0.00	No. 4H PBHL

HOLE & CASING SECTIONS - Ref Wellbore: No. 4h 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]
12m Open Hole	0.00	4900.00	4900.00	0.00	4900.00	0.00	0.00	0.00	0.00
9.625m Casing	0.00	4900.00	4900.00	0.00	4900.00	0.00	0.00	0.00	0.00
6.75m Open Hole	4900.00	15668.51	10768.51	4900.00	NA	0.00	0.00	NA	NA
5.5m Casing	0.00	15668.51	15668.51	0.00	NA	0.00	0.00	NA	NA



Planned Wellpath Report

Prelim_1

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Operator	Cimarex Energy Co.	Slot	No. 4H SHL
Area	Lea County, NM	Well	No. 4H
Field	(Tres Equis) Sec 6, T24S, R33E	Wellbore	No. 4h PWB
Facility	Tres Equis State		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) No. 4H PBHL	15668.51	11185.00	-4616.36	28.80	766522.00	451951.20	32°14'25.406"N	103°36'18.020"W	point

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

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
3656.00	15668.51	NaviTrak (Standard)		No. 4h PWB