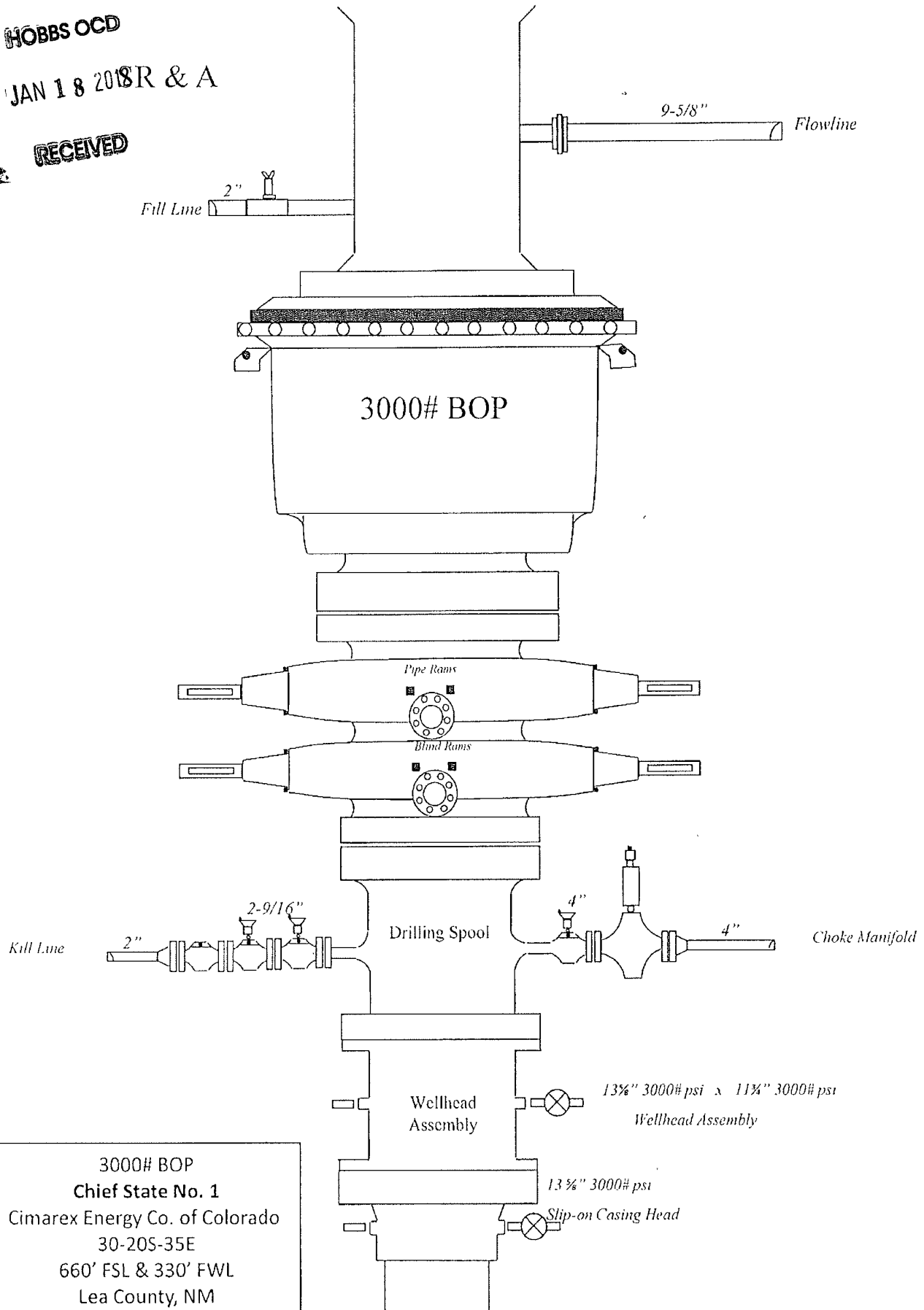


30-025-40406

HOBBS OCD

JAN 18 2018 R & A

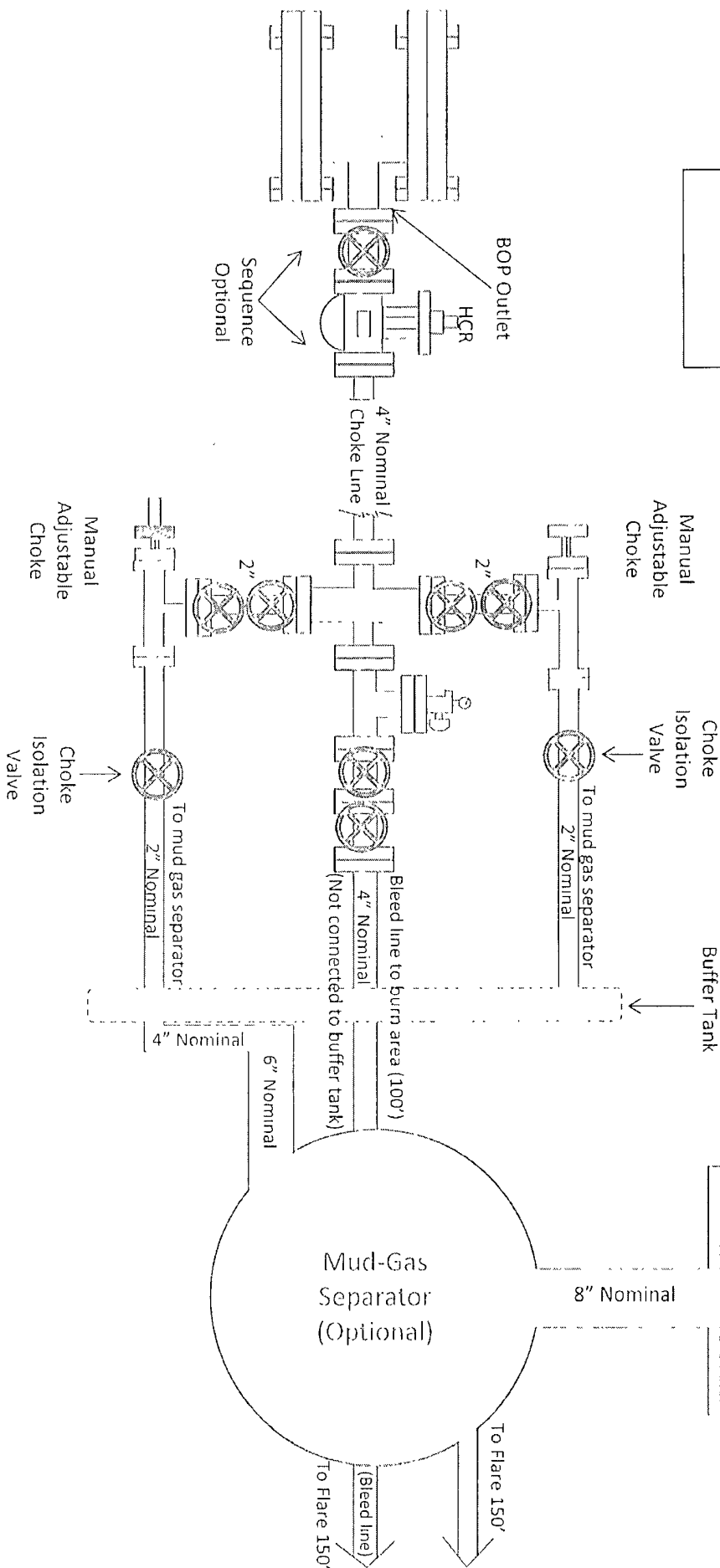
RECEIVED



JAN 24 2012

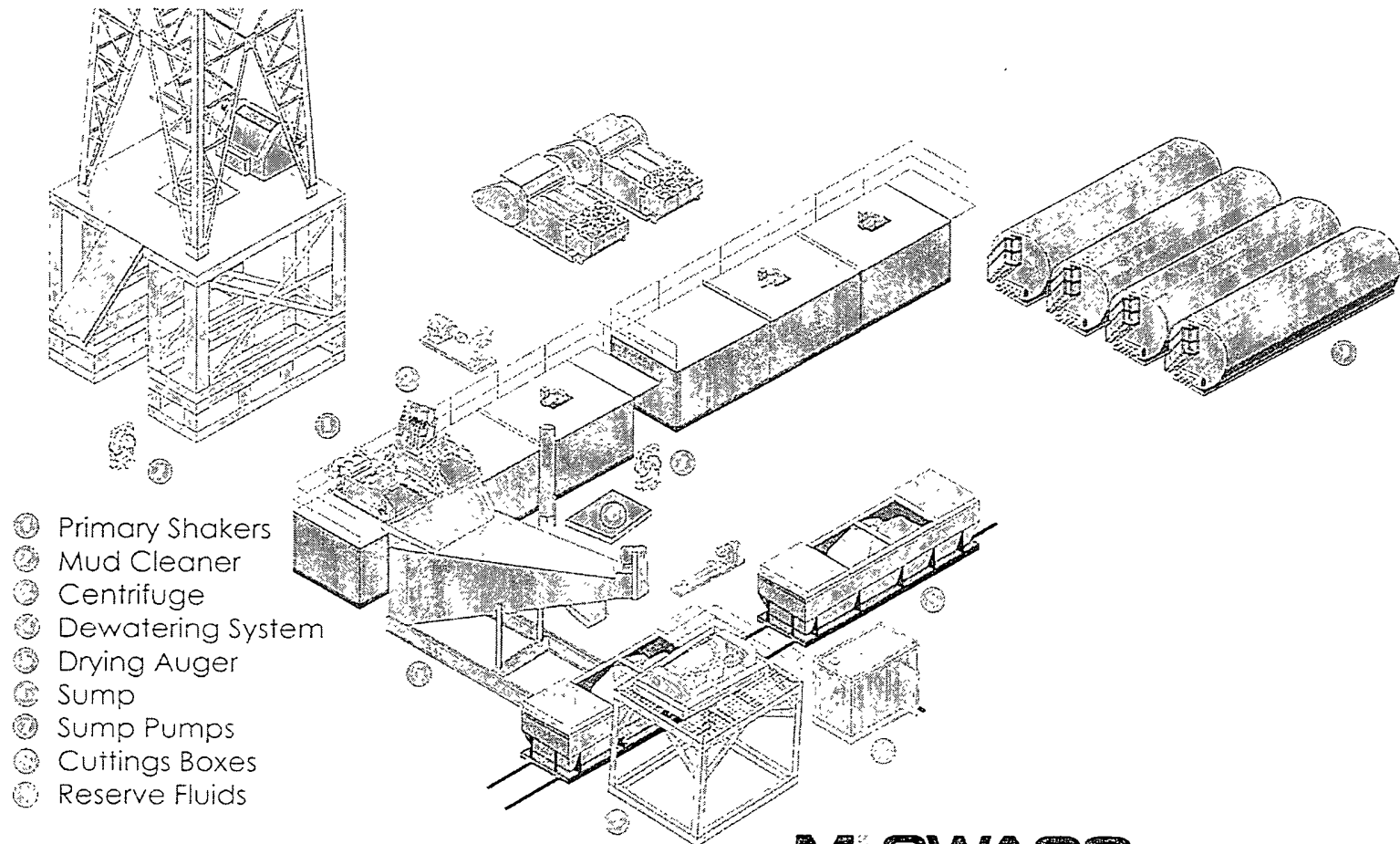
Drilling Operations
Choke Manifold
3M Service

Choke Manifold Diagram
Chief State No. 1
Cimarex Energy Co. of Colorado
30-20S-35E
660' FSL & 330' FWL
Lea County, NM





Closed Loop with Drying Auger and Dewatering System



Mi SWACO



Cimarex Energy Co.

Location Lea County NM
Field (Chief) Sec 30 T20S R35E
Facility Chief State No 1

Slot No 1 SHL
Well No 1
Wellbore No 1 PV/B



Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (7100ft)	VS (ft)
Tie On	0 00	0 000	89 521	0 00	0 00	0 00	0 00	0 00
Est KOP	10564 00	0 000	89 521	10564 00	0 00	0 00	0 00	0 00
EOC	11109 98	89 340	89 521	10950 00	2 36	282 71	20 03	282 72
Target Line	11110 01	89 340	89 521	10950 00	2 36	282 74	2 00	282 75
No 1 PBHL	15447 49	89 340	89 521	11000 00	38 60	4619 78	0 00	4619 94

Easting (ft)
-500 250 0 250 500 750 1000 1250 1500 1750 2000 2250 2500 2750 3000 3250 3500 3750 4000 4250 4500 4750 5000 5250

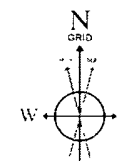
Tie On: 0 00h TVD, 0 00h N, 0 00h E
Est KOP: 10564 00h TVD, 0 00h N, 0 00h E
EOC: 10950 00h TVD, 2 36h N, 282 71h E
Target Line: 10950 00h TVD, 2 36h N, 282 71h E

No 1 PBHL: 11000 00h TVD, 38 60h N, 4619 78h E

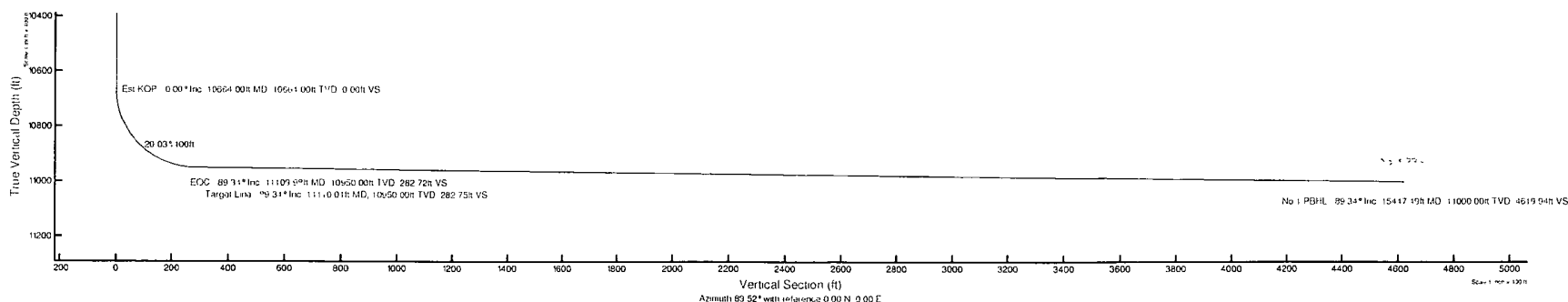
RECEIVED
JAN 18 2012

HOBBS OGD

Plot reference wellplan is Prelim 1	
True vertical depths are referenced to Rig on No 1 SHL (RT)	Grid System: NAD83, TM New Mexico SP, Eastern Zone (3001) US feet
Measured depths are referenced to Rig on No 1 SHL (RT)	North Reference: Grid north
Rig on No 1 SHL (RT) to Mean Sea Level: 3751 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot, No 1 SHL): -3751 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by gantbrn on 1/16/2012



BGM (1945 0 to 2013 0) Dip: 60 45° Field: 48765 4 nT
Magnetic North is 7 58 degrees East of True North (at 1/18/2012)
Grid North is 0 45 degrees East of True North
To correct azimuth from True to Grid subtract 0 45 degrees
To correct azimuth from Magnetic to Grid add 7 14 degrees
For example if the Magnetic North Azimuth = 90 + 7 14 = 97 14





Planned Wellpath Report

Prelim_1
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RESERVED: PLANNED WELLPATH INDICATION

Operator	Cimarex Energy Co.	Slot	No.1 SHL
Area	Lea County, NM	Well	No.1
Field	(Chief) Sec 30, T20S, R35E	Wellbore	No.1 PWB
Facility	Chief State No.1		

STORAGE INFORMATION

Projection System	NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Gentbry
Scale	0.999984	Report Generated	1/16/2012 at 8:18:33 AM
Convergence at Slot	0.45° East	Database/Source file	WA Midland/No.1_PWB.xml

COORDINATE INFORMATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W
Facility Reference Pt			796880.60	560693.30	32°32'19.210"N	103°30'14.748"W
Field Reference Pt			796880.60	560693.30	32°32'19.210"N	103°30'14.748"W

VERTICAL DATUM INFORMATION

Calculation method	Minimum curvature	Rig on No.1 SHL (RT) to Facility Vertical Datum	0.00ft
Horizontal Reference Pt	Slot	Rig on No.1 SHL (RT) to Mean Sea Level	3751.00ft
Vertical Reference Pt	Rig on No.1 SHL (RT)	Rig on No.1 SHL (RT) to Mud Line at Slot (No.1 SHL)	0.00ft
MD Reference Pt	Rig on No.1 SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	89.52°



Planned Wellpath Report

Prelim_1

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WELL PATH DATA					
Operator	Cimarex Energy Co.			Slot	No.1 SHL
Area	Lea County, NM			Well	No.1
Field	(Chief) Sec 30, T20S, R35E			Wellbore	No.1 PWB
Facility	Chief State No.1				

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	89.521	0.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	Tie On
100.00	0.000	89.521	100.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
200.00	0.000	89.521	200.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
300.00	0.000	89.521	300.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
400.00	0.000	89.521	400.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
500.00	0.000	89.521	500.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
600.00	0.000	89.521	600.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
700.00	0.000	89.521	700.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
800.00	0.000	89.521	800.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
900.00	0.000	89.521	900.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
1000.00	0.000	89.521	1000.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
1100.00	0.000	89.521	1100.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
1200.00	0.000	89.521	1200.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
1300.00	0.000	89.521	1300.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
1400.00	0.000	89.521	1400.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
1500.00	0.000	89.521	1500.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
1600.00	0.000	89.521	1600.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
1700.00	0.000	89.521	1700.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
1800.00	0.000	89.521	1800.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
1900.00	0.000	89.521	1900.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	Rustler
2000.00	0.000	89.521	2000.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
2100.00	0.000	89.521	2100.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	Salt
2200.00	0.000	89.521	2200.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
2300.00	0.000	89.521	2300.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
2400.00	0.000	89.521	2400.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
2500.00	0.000	89.521	2500.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
2600.00	0.000	89.521	2600.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
2700.00	0.000	89.521	2700.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
2800.00	0.000	89.521	2800.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
2900.00	0.000	89.521	2900.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
3000.00	0.000	89.521	3000.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
3100.00	0.000	89.521	3100.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
3200.00	0.000	89.521	3200.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
3300.00	0.000	89.521	3300.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
3400.00	0.000	89.521	3400.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
3500.00	0.000	89.521	3500.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
3600.00	0.000	89.521	3600.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	Base Salt
3700.00	0.000	89.521	3700.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
3800.00	0.000	89.521	3800.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
3900.00	0.000	89.521	3900.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
4000.00	0.000	89.521	4000.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
4100.00	0.000	89.521	4100.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
4150.00	0.000	89.521	4150.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	Seven Rivers
4200.00	0.000	89.521	4200.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
4300.00	0.000	89.521	4300.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	



Planned Wellpath Report

Prelim_1
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SEQUENCE WELLHEAD LOCATION			
Operator	Cimarex Energy Co.	Slot	No.1 SHL
Area	Lea County, NM	Well	No.1
Field	(Chief) Sec 30, T20S, R35E	Wellbore	No.1 PWB
Facility	Chief State No.1		

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
4400.00	0.000	89.521	4400.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
4500.00	0.000	89.521	4500.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
4600.00	0.000	89.521	4600.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
4700.00	0.000	89.521	4700.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
4800.00	0.000	89.521	4800.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
4900.00	0.000	89.521	4900.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
5000.00	0.000	89.521	5000.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
5100.00	0.000	89.521	5100.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
5200.00	0.000	89.521	5200.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
5300.00	0.000	89.521	5300.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
5400.00	0.000	89.521	5400.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
5500.00	0.000	89.521	5500.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
5600.00	0.000	89.521	5600.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
5700.00	0.000	89.521	5700.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
5800.00	0.000	89.521	5800.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	Delaware Sands
5900.00	0.000	89.521	5900.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
6000.00	0.000	89.521	6000.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
6100.00	0.000	89.521	6100.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
6200.00	0.000	89.521	6200.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
6300.00	0.000	89.521	6300.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
6400.00	0.000	89.521	6400.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
6500.00	0.000	89.521	6500.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
6600.00	0.000	89.521	6600.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
6700.00	0.000	89.521	6700.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
6800.00	0.000	89.521	6800.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
6900.00	0.000	89.521	6900.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
7000.00	0.000	89.521	7000.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
7100.00	0.000	89.521	7100.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
7200.00	0.000	89.521	7200.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
7300.00	0.000	89.521	7300.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
7400.00	0.000	89.521	7400.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
7500.00	0.000	89.521	7500.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
7600.00	0.000	89.521	7600.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
7700.00	0.000	89.521	7700.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
7800.00	0.000	89.521	7800.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
7900.00	0.000	89.521	7900.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
8000.00	0.000	89.521	8000.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
8100.00	0.000	89.521	8100.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
8200.00	0.000	89.521	8200.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
8300.00	0.000	89.521	8300.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
8330.00	0.000	89.521	8330.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	Basal Brushy Canyon
8400.00	0.000	89.521	8400.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
8500.00	0.000	89.521	8500.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
8600.00	0.000	89.521	8600.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	
8700.00	0.000	89.521	8700.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	Bone Spring



Planned Wellpath Report

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Operator	Cimarex Energy Co.	Slot	No.1 SHL
Area	Lea County, NM	Well	No.1
Field	(Chief) Sec 30, T20S, R35E	Wellbore	No.1 PWB
Facility	Chief State No.1		

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	
8800.00	0.000	89.521	8800.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00		
8900.00	0.000	89.521	8900.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00		
9000.00	0.000	89.521	9000.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00		
9100.00	0.000	89.521	9100.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00		
9200.00	0.000	89.521	9200.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	Avalon Shale	
9300.00	0.000	89.521	9300.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00		
9400.00	0.000	89.521	9400.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00		
9500.00	0.000	89.521	9500.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00		
9600.00	0.000	89.521	9600.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00		
9700.00	0.000	89.521	9700.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00		
9800.00	0.000	89.521	9800.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00		
9900.00	0.000	89.521	9900.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00		
9950.00	0.000	89.521	9950.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	1st BSS	
10000.00	0.000	89.521	10000.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00		
10100.00	0.000	89.521	10100.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00		
10200.00	0.000	89.521	10200.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00		
10300.00	0.000	89.521	10300.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00		
10400.00	0.000	89.521	10400.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00		
10500.00	0.000	89.521	10500.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00		
10600.00	0.000	89.521	10600.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00		
10664.00	0.000	89.521	10664.00	0.00	0.00	0.00	796880.60	560693.30	32°32'19.210"N	103°30'14.748"W	0.00	1st KOP	
10700.00	7.212	89.521	10699.91	2.26	0.02	2.26	796882.86	560693.32	32°32'19.210"N	103°30'14.721"W	20.03		
10700.10	7.231	89.521	10700.00	2.27	0.02	2.27	796882.87	560693.32	32°32'19.210"N	103°30'14.721"W	20.03	2nd BSS	
10800.00	27.244	89.521	10794.93	31.73	0.27	31.73	796912.33	560693.57	32°32'19.210"N	103°30'14.377"W	20.03		
10900.00	47.276	89.521	10874.12	91.96	0.77	91.96	796972.56	560694.07	32°32'19.210"N	103°30'13.673"W	20.03		
11000.00	67.308	89.521	10927.88	175.68	1.47	175.67	797056.27	560694.77	32°32'19.211"N	103°30'12.696"W	20.03		
11100.00	87.340	89.521	10949.71	272.75	2.28	272.74	797153.33	560695.58	32°32'19.211"N	103°30'11.562"W	20.03		
11109.98	89.340	89.521	10950.00	282.72	2.36	282.71	797163.31	560695.66	32°32'19.211"N	103°30'11.445"W	20.03	EOC	
11110.01	89.340	89.521	10950.00	282.75	2.36	282.74	797163.34	560695.66	32°32'19.211"N	103°30'11.445"W	2.00	Target Line	
11200.00	89.340	89.521	10951.04	372.74	3.12	372.72	797253.32	560696.42	32°32'19.212"N	103°30'10.394"W	0.00		
11300.00	89.340	89.521	10952.19	472.73	3.95	472.71	797353.30	560697.25	32°32'19.213"N	103°30'09.226"W	0.00		
11400.00	89.340	89.521	10953.34	572.72	4.79	572.70	797453.29	560698.09	32°32'19.213"N	103°30'08.058"W	0.00		
11500.00	89.340	89.521	10954.50	672.72	5.62	672.69	797553.28	560698.92	32°32'19.214"N	103°30'06.890"W	0.00		
11600.00	89.340	89.521	10955.65	772.71	6.46	772.68	797653.27	560699.76	32°32'19.214"N	103°30'05.722"W	0.00		
11700.00	89.340	89.521	10956.80	872.70	7.29	872.67	797753.26	560700.59	32°32'19.215"N	103°30'04.554"W	0.00		
11800.00	89.340	89.521	10957.95	972.70	8.13	972.66	797853.24	560701.43	32°32'19.215"N	103°30'03.386"W	0.00		
11900.00	89.340	89.521	10959.11	1072.69	8.96	1072.65	797953.23	560702.26	32°32'19.216"N	103°30'02.218"W	0.00		
12000.00	89.340	89.521	10960.26	1172.68	9.80	1172.64	798053.22	560703.10	32°32'19.216"N	103°30'01.049"W	0.00		
12100.00	89.340	89.521	10961.41	1272.68	10.63	1272.63	798153.21	560703.93	32°32'19.217"N	103°29'59.881"W	0.00		
12200.00	89.340	89.521	10962.57	1372.67	11.47	1372.62	798253.20	560704.77	32°32'19.217"N	103°29'58.713"W	0.00		
12300.00	89.340	89.521	10963.72	1472.66	12.31	1472.61	798353.18	560705.61	32°32'19.218"N	103°29'57.545"W	0.00		
12400.00	89.340	89.521	10964.87	1572.66	13.14	1572.60	798453.17	560706.44	32°32'19.218"N	103°29'56.377"W	0.00		
12500.00	89.340	89.521	10966.02	1672.65	13.98	1672.59	798553.16	560707.28	32°32'19.219"N	103°29'55.209"W	0.00		
12600.00	89.340	89.521	10967.18	1772.64	14.81	1772.58	798653.15	560708.11	32°32'19.219"N	103°29'54.041"W	0.00		
12700.00	89.340	89.521	10968.33	1872.64	15.65	1872.57	798753.14	560708.95	32°32'19.220"N	103°29'52.873"W	0.00		



Planned Wellpath Report

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Operator	Cimarex Energy Co.	Slot	No.1 SHL
Area	Lea County, NM	Well	No.1
Field	(Chief) Sec 30, T20S, R35E	Wellbore	No.1 PWB
Facility	Chief State No.1		

WELLPATH DATA (163 stations) † = interpolated/extrapolated station												Comments
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]	
12800.00	89.340	89.521	10969.48	1972.63	16.48	1972.56	798853.12	560709.78	32°32'19.220"N	103°29'51.705"W	0.00	
12900.00	89.340	89.521	10970.63	2072.62	17.32	2072.55	798953.11	560710.62	32°32'19.221"N	103°29'50.537"W	0.00	
13000.00	89.340	89.521	10971.79	2172.62	18.15	2172.54	799053.10	560711.45	32°32'19.221"N	103°29'49.369"W	0.00	
13100.00	89.340	89.521	10972.94	2272.61	18.99	2272.53	799153.09	560712.29	32°32'19.222"N	103°29'48.201"W	0.00	
13200.00	89.340	89.521	10974.09	2372.60	19.82	2372.52	799253.08	560713.12	32°32'19.222"N	103°29'47.033"W	0.00	
13300.00	89.340	89.521	10975.25	2472.60	20.66	2472.51	799353.06	560713.96	32°32'19.223"N	103°29'45.865"W	0.00	
13400.00	89.340	89.521	10976.40	2572.59	21.50	2572.50	799453.05	560714.79	32°32'19.223"N	103°29'44.697"W	0.00	
13500.00	89.340	89.521	10977.55	2672.58	22.33	2672.49	799553.04	560715.63	32°32'19.224"N	103°29'43.529"W	0.00	
13600.00	89.340	89.521	10978.70	2772.58	23.17	2772.48	799653.03	560716.47	32°32'19.224"N	103°29'42.361"W	0.00	
13700.00	89.340	89.521	10979.86	2872.57	24.00	2872.47	799753.02	560717.30	32°32'19.225"N	103°29'41.193"W	0.00	
13800.00	89.340	89.521	10981.01	2972.56	24.84	2972.46	799853.01	560718.14	32°32'19.225"N	103°29'40.025"W	0.00	
13900.00	89.340	89.521	10982.16	3072.56	25.67	3072.45	799952.99	560718.97	32°32'19.226"N	103°29'38.857"W	0.00	
14000.00	89.340	89.521	10983.31	3172.55	26.51	3172.44	800052.98	560719.81	32°32'19.226"N	103°29'37.689"W	0.00	
14100.00	89.340	89.521	10984.47	3272.54	27.34	3272.43	800152.97	560720.64	32°32'19.227"N	103°29'36.521"W	0.00	
14200.00	89.340	89.521	10985.62	3372.54	28.18	3372.42	800252.96	560721.48	32°32'19.227"N	103°29'35.353"W	0.00	
14300.00	89.340	89.521	10986.77	3472.53	29.01	3472.41	800352.95	560722.31	32°32'19.228"N	103°29'34.185"W	0.00	
14400.00	89.340	89.521	10987.93	3572.52	29.85	3572.40	800452.93	560723.15	32°32'19.228"N	103°29'33.017"W	0.00	
14500.00	89.340	89.521	10989.08	3672.52	30.69	3672.39	800552.92	560723.98	32°32'19.229"N	103°29'31.849"W	0.00	
14600.00	89.340	89.521	10990.23	3772.51	31.52	3772.38	800652.91	560724.82	32°32'19.229"N	103°29'30.681"W	0.00	
14700.00	89.340	89.521	10991.38	3872.50	32.36	3872.37	800752.90	560725.66	32°32'19.229"N	103°29'29.513"W	0.00	
14800.00	89.340	89.521	10992.54	3972.50	33.19	3972.36	800852.89	560726.49	32°32'19.230"N	103°29'28.345"W	0.00	
14900.00	89.340	89.521	10993.69	4072.49	34.03	4072.35	800952.87	560727.33	32°32'19.230"N	103°29'27.177"W	0.00	
15000.00	89.340	89.521	10994.84	4172.48	34.86	4172.34	801052.86	560728.16	32°32'19.231"N	103°29'26.009"W	0.00	
15100.00	89.340	89.521	10995.99	4272.48	35.70	4272.33	801152.85	560729.00	32°32'19.231"N	103°29'24.841"W	0.00	
15200.00	89.340	89.521	10997.15	4372.47	36.53	4372.32	801252.84	560729.83	32°32'19.232"N	103°29'23.673"W	0.00	
15300.00	89.340	89.521	10998.30	4472.46	37.37	4472.31	801352.83	560730.67	32°32'19.232"N	103°29'22.505"W	0.00	
15400.00	89.340	89.521	10999.45	4572.46	38.20	4572.30	801452.81	560731.50	32°32'19.233"N	103°29'21.337"W	0.00	
15447.49	89.340	89.521	11000.00	4619.94	38.60	4619.78	801500.30	560731.90	32°32'19.233"N	103°29'20.782"W	0.00	No.1 PBHL



Planned Wellpath Report

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Operator	Cimarex Energy Co.	Slot	No.1 SHL
Area	Lea County, NM	Well	No.1
Field	(Chief) Sec 30, T20S, R35E	Wellbore	No.1 PWB
Facility	Chief State No.1		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) No. 1 PBHL	15447.49	11000.00	38.60	4619.78	801500.30	560731.90	32°32'19.233"N	103°29'20.782"W	point

SURVEY PROGRAM - Ref Wellbore: No.1 PWB Ref Wellpath: Prelim_1

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	15447.49	NavTrak (Standard)		No.1 PWB