

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazos Road, Aztec, NM 87410

District IV

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

State of New Mexico
Energy Minerals and Natural Resources

FEB - 4 2009

Form C-101
May 27, 2004Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address Cimarex Energy Co. of Colorado 5215 N. O'Connor Blvd., Ste 1500 Irving, TX 75039		² OGRID Number 162683
		³ API Number 30-015-36134
⁴ Property Code 37012	⁵ Property Name Barbwire 9 State Com	⁶ Well No. 001
⁹ Proposed Pool 1 Anderson; Wolfcamp		¹⁰ Proposed Pool 2

⁷ Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	9	17S	29E		1980	North	660	West	Eddy

⁸ Proposed 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
H	9	17S	29E		1980	North	660	East	Eddy

Additional Well Information

¹¹ Work Type Code A	¹² Well Type Code O	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3590' GL
¹⁶ Multiple N	¹⁷ Proposed Depth 11762' (lateral MD)	¹⁸ Formation Wolfcamp	¹⁹ Contractor N/A	²⁰ Spud Date When Approved
Depth to Groundwater		Distance from nearest fresh water well		Distance from nearest surface water
Pit. Liner: Synthetic ☐ _____mils thick Clay ☐ Pit Volume: _____ bbls Drilling Method: _____ Closed-Loop System ☒ Flowback Tanks Fresh Water ☐ Brine ☐ Diesel/Oil-based ☐ Gas/Air ☐				

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17½"	13⅝"	48#	186'	400	Surface
12¼"	9⅝"	40#	3017'	1150	Surface
8¾"	5½"	17#	10830'	1640	2420'
6⅞"	3½"	9.3#	11762'	No cmt, PEAK	

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary. 10086-10102

Well currently producing from Wolfcamp 7822-36.' Atoka perfs 1008-102' with CIBP @ 10000' w/ 15' cmt. Cimarex proposes the following operations to recompleat horizontally in the Wolfcamp:

- Kill well. NU 5K BOP. Squeeze Wolfcamp perfs @ 7822-36.' Set CIBP @ 7672' w/ 2 sx sand.
 - Mill window from 7650' to 7665.' Kick off 6⅞" hole at 7660.' Land curve @ 7957' MD and drill to TD of 11762' MD and 7917' TVD.
 - Run 3½" 9.3# P-110 EUE 8rd liner from RSB packer at 7560' to TD of 11762' MD. Liner will be PEAK completion assembly with no cement.
 - Fracture treat in several stages as needed through iso-ports (separated by iso-packers).
- Please see attached preliminary directional survey and C-102.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOC guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Natalie Krueger
Printed name: Natalie Krueger

Title Regulatory Analyst

E-mail Address: nkrueger@cimarex.com

Date: January 27, 2009

Phone: 469-420-2723

OIL CONSERVATION DIVISION

Approved by:

Jacqui Reeves

Title:

District 11 Geologist

Approval Date:

2/10/09

Expiration Date:

2/10/2011

Conditions of Approval Attached ☐

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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 October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-36134		Pool Code 96417	Pool Name Anderson; Wolfcamp
Property Code 37012	Property Name BARBWIRE "9" STATE COM		Well Number 1
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO		Elevation 3590'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	9	17 S	29 E		1980	NORTH	660	WEST	EDDY

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
H	9	17 S	29 E		1980	NORTH	660	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160		P	

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

	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 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. <u>Zeno Farris</u> 2/2/2009 Signature Date Zeno Farris Printed Name SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. FEBRUARY 14, 2008 Date Surveyed <u>Gary L. Jones</u> Signature & Seal Professional Surveyor Certificate No. Gary L. Jones 7977 BASIN SURVEYS
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Cimarex Energy Co. of Colorado

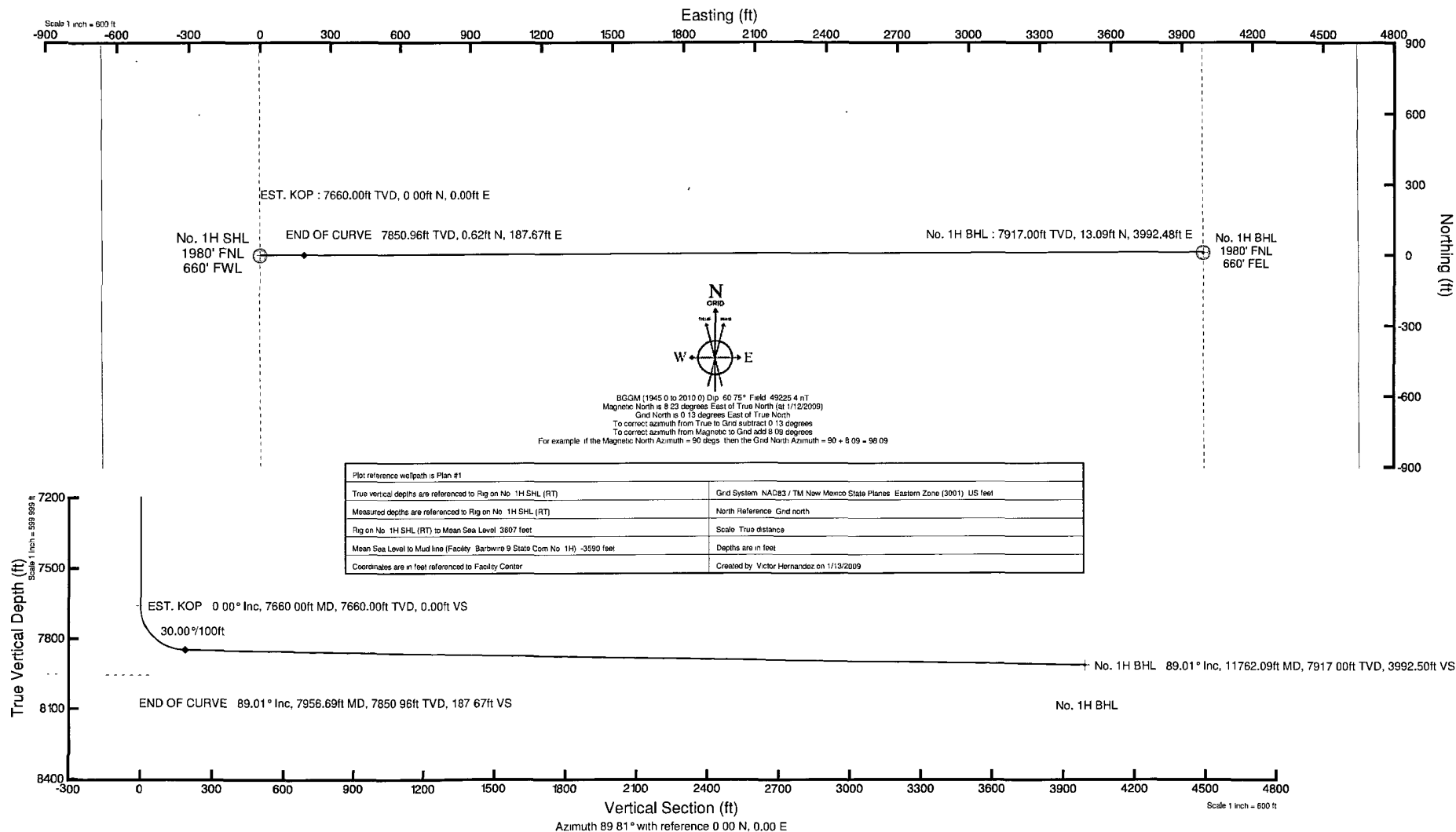
Location: Eddy County, NM
Field: (Barbwire) Sec 9, T17S, R29E
Facility: Barbwire 9 State Com No. 1H

Slot No. 1H SHL
Well No. 1H
Wellbore No. 1H PWB



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	89.812	0.00	0.00	0.00	0.00	0.00
EST. KOP	7660.00	0.000	89.812	7660.00	0.00	0.00	0.00	0.00
END OF CURVE	7956.69	89.006	89.812	7850.96	0.62	187.67	30.00	187.67
No. 1H BHL	11762.09	89.006	89.812	7917.00	13.09	3992.48	0.00	3992.50





Planned Wellpath Report

Plan #1
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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No. 1H SHL
Area	Eddy County, NM	Well	No. 1H
Field	(Barbwire) Sec 9, T17S, R29E	Wellbore	No. 1H PWB
Facility	Barbwire 9 State Com No. 1H		

REPORT SETUP INFORMATION			
Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Victor Hernandez
Scale	0.999916	Report Generated	1/13/2009 at 10:23:38 AM
Convergence at slot	0.13° East	Database/Source file	WA_Midland/No. 1H_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	617198.60	673382.10	32°51'03.267"N	104°05'10.689"W
Facility Reference Pt			617198.60	673382.10	32°51'03.267"N	104°05'10.689"W
Field Reference Pt			617198.60	673382.10	32°51'03.267"N	104°05'10.689"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on No. 1H SHL (RT) to Facility Vertical Datum	17.00ft
Horizontal Reference Pt	Facility Center	Rig on No. 1H SHL (RT) to Mean Sea Level	3607.00ft
Vertical Reference Pt	Rig on No. 1H SHL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 1H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	89.81°



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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No. 1H SHL
Area	Eddy County, NM	Well	No. 1H
Field	(Barbwire) Sec 9, T17S, R29E	Wellbore	No. 1H PWB
Facility	Barbwire 9 State Com No. 1H		

WELLPATH DATA (45 stations) † = interpolated/extrapolated station								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00	0.000	89.812	0.00	0.00	0.00	0.00	0.00	Tie On
7660.00	0.000	89.812	7660.00	0.00	0.00	0.00	0.00	EST. KOP
7760.00†	30.000	89.812	7755.49	25.59	0.08	25.59	30.00	
7860.00†	60.000	89.812	7825.40	95.49	0.31	95.49	30.00	
7956.69	89.006	89.812	7850.96	187.67	0.62	187.67	30.00	END OF CURVE
7960.00†	89.006	89.812	7851.01	190.99	0.63	190.98	0.00	
8060.00†	89.006	89.812	7852.75	290.97	0.95	290.97	0.00	
8160.00†	89.006	89.812	7854.49	390.96	1.28	390.95	0.00	
8260.00†	89.006	89.812	7856.22	490.94	1.61	490.94	0.00	
8360.00†	89.006	89.812	7857.96	590.93	1.94	590.92	0.00	
8460.00†	89.006	89.812	7859.69	690.91	2.27	690.91	0.00	
8560.00†	89.006	89.812	7861.43	790.90	2.59	790.89	0.00	
8660.00†	89.006	89.812	7863.16	890.88	2.92	890.88	0.00	
8760.00†	89.006	89.812	7864.90	990.87	3.25	990.86	0.00	
8860.00†	89.006	89.812	7866.63	1090.85	3.58	1090.84	0.00	
8960.00†	89.006	89.812	7868.37	1190.83	3.91	1190.83	0.00	
9060.00†	89.006	89.812	7870.11	1290.82	4.23	1290.81	0.00	
9160.00†	89.006	89.812	7871.84	1390.80	4.56	1390.80	0.00	
9260.00†	89.006	89.812	7873.58	1490.79	4.89	1490.78	0.00	
9360.00†	89.006	89.812	7875.31	1590.77	5.22	1590.77	0.00	
9460.00†	89.006	89.812	7877.05	1690.76	5.55	1690.75	0.00	
9560.00†	89.006	89.812	7878.78	1790.74	5.87	1790.73	0.00	
9660.00†	89.006	89.812	7880.52	1890.73	6.20	1890.72	0.00	
9760.00†	89.006	89.812	7882.25	1990.71	6.53	1990.70	0.00	
9860.00†	89.006	89.812	7883.99	2090.70	6.86	2090.69	0.00	
9960.00†	89.006	89.812	7885.72	2190.68	7.19	2190.67	0.00	
10060.00†	89.006	89.812	7887.46	2290.67	7.51	2290.66	0.00	
10160.00†	89.006	89.812	7889.20	2390.65	7.84	2390.64	0.00	
10260.00†	89.006	89.812	7890.93	2490.64	8.17	2490.63	0.00	
10360.00†	89.006	89.812	7892.67	2590.62	8.50	2590.61	0.00	



Planned Wellpath Report

Plan #1

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No. 1H SHL
Area	Eddy County, NM	Well	No. 1H
Field	(Barbwire) Sec 9, T17S, R29E	Wellbore	No. 1H PWB
Facility	Barbwire 9 State Com No. 1H		

WELLPATH DATA (45 stations) † = interpolated/extrapolated station								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
10460.00†	89.006	89.812	7894.40	2690.61	8.82	2690.59	0.00	
10560.00†	89.006	89.812	7896.14	2790.59	9.15	2790.58	0.00	
10660.00†	89.006	89.812	7897.87	2890.58	9.48	2890.56	0.00	
10760.00†	89.006	89.812	7899.61	2990.56	9.81	2990.55	0.00	
10860.00†	89.006	89.812	7901.34	3090.55	10.14	3090.53	0.00	
10960.00†	89.006	89.812	7903.08	3190.53	10.46	3190.52	0.00	
11060.00†	89.006	89.812	7904.82	3290.52	10.79	3290.50	0.00	
11160.00†	89.006	89.812	7906.55	3390.50	11.12	3390.49	0.00	
11260.00†	89.006	89.812	7908.29	3490.49	11.45	3490.47	0.00	
11360.00†	89.006	89.812	7910.02	3590.47	11.78	3590.45	0.00	
11460.00†	89.006	89.812	7911.76	3690.46	12.10	3690.44	0.00	
11560.00†	89.006	89.812	7913.49	3790.44	12.43	3790.42	0.00	
11660.00†	89.006	89.812	7915.23	3890.43	12.76	3890.41	0.00	
11760.00†	89.006	89.812	7916.96	3990.41	13.09	3990.39	0.00	
11762.09	89.006	89.812	7917.00 ¹	3992.50	13.09	3992.48	0.00	No. 1H BHL

HOLE & CASING SECTIONS Ref Wellbore: No. 1H PWB Ref Wellpath: Plan #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]
5.5in Casing	0.00	7660.00	7660.00	0.00	7660.00	0.00	0.00	0.00	0.00
4.75in Open Hole	7660.00	11762.09	4102.09	7660.00	7917.00	0.00	0.00	13.09	3992.48



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Plan #1

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No. 1H SHL
Area	Eddy County, NM	Well	No. 1H
Field	(Barbwire) Sec 9, T17S, R29E	Wellbore	No. 1H PWB
Facility	Barbwire 9 State Com No. 1H		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 1H BHL	11762.09	7917.00	13.09	3992.48	621190.74	673395.19	32°51'03.302"N	104°04'23.889"W	point

SURVEY PROGRAM Ref Wellbore: No. 1H PWB Ref Wellpath: Plan #1				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	11762.09	NaviTrak (Standard)		No. 1H PWB