

DISTRICT I

1625 N. French Dr., Hobbs, NM 88240

DISTRICT II

1301 W. Grant Ave., Hobbs, NM 88240

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

1220 S. St. Francis, Hobbs, NM 88240

State of New Mexico
Energy, Minerals and Natural Resources DepartmentForm C-102
Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-005-29054	Pool Code ✓	Pool Name Abo; Wildcat
Property Code 36968	Property Name SARATOGA "30" STATE	Well Number 4
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 4440'

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	30	15 S	31 E		375	NORTH	375	EAST	CHAVES

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
D	30	15 S	31 E		330	NORTH	375	WEST	CHAVES

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
159.32		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. Zeno Farris 09-12-08 Signature Date Zeno Farris Printed Name
BOTTOM HOLE LOCATION Lat - N32°59'35.58" Long - W103°52'07.00" NMSPCE - N 725382.589 E 683823.291 (NAD-83)	SURFACE LOCATION Lat - N32°59'35.11" Long - W103°51'14.08" NMSPCE - N 725355.5 E 688329.0 (NAD-83)	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. MAY 10 2008 Date Surveyed GARY L. JONES Signature & Seal Professional Surveyor W.O. No. Certificate No. Gary L. Jones 7977 BASIN SURVEYS

30-005-29054



Planned Wellpath Report

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co. of Colorado	Slot	No. 4H SHL
Area	Chaves County, NM	Well	No. 4H
Field	(Saratoga) Sec 30, T15S, R31E	Wellbore	No. 4H PWB
Facility	Saratoga 30 ST COM No. 4H		

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	0.999934	Report Generated	7/25/2008 at 1:49:43 PM
Convergence at slot	0.26° East	Database/Source file	WA_Midland/No. 4H_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	688329.00	725355.50	32°59'35.106"N	103°51'14.083"W
Facility Reference Pt			688329.00	725355.50	32°59'35.106"N	103°51'14.083"W
Field Reference Pt			688386.70	722581.90	32°59'07.660"N	103°51'13.554"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 4H SHL (RT) to Facility Vertical Datum	18.00ft
Horizontal Reference Pt	Facility Center	Rig on No. 4H SHL (RT) to Mean Sea Level	4458.00ft
Vertical Reference Pt	Rig on No. 4H SHL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 4H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	270.34°



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Facility	Saratoga 30 ST COM No. 4H		

WELLPATH DATA (50 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00	0.000	270.344	0.00	0.00	0.00	0.00	0.00	Tie On
8570.00	0.000	270.344	8570.00	0.00	0.00	0.00	0.00	KOP
8670.00†	30.000	270.344	8665.49	25.59	0.15	-25.59	30.00	
8770.00†	60.000	270.344	8735.40	95.49	0.57	-95.49	30.00	
8868.72	89.615	270.344	8760.98	189.70	1.14	-189.70	30.00	EOC
8870.00†	89.615	270.344	8760.99	190.99	1.15	-190.98	0.00	
8970.00†	89.615	270.344	8761.66	290.98	1.75	-290.98	0.00	
9070.00†	89.615	270.344	8762.33	390.98	2.35	-390.97	0.00	
9170.00†	89.615	270.344	8763.01	490.98	2.95	-490.97	0.00	
9270.00†	89.615	270.344	8763.68	590.98	3.55	-590.97	0.00	
9370.00†	89.615	270.344	8764.35	690.97	4.15	-690.96	0.00	
9470.00†	89.615	270.344	8765.02	790.97	4.76	-790.96	0.00	
9570.00†	89.615	270.344	8765.70	890.97	5.36	-890.95	0.00	
9670.00†	89.615	270.344	8766.37	990.97	5.96	-990.95	0.00	
9770.00†	89.615	270.344	8767.04	1090.97	6.56	-1090.95	0.00	
9870.00†	89.615	270.344	8767.71	1190.96	7.16	-1190.94	0.00	
9970.00†	89.615	270.344	8768.39	1290.96	7.76	-1290.94	0.00	
10070.00†	89.615	270.344	8769.06	1390.96	8.36	-1390.93	0.00	
10170.00†	89.615	270.344	8769.73	1490.96	8.96	-1490.93	0.00	
10270.00†	89.615	270.344	8770.40	1590.95	9.56	-1590.93	0.00	
10370.00†	89.615	270.344	8771.07	1690.95	10.17	-1690.92	0.00	
10470.00†	89.615	270.344	8771.75	1790.95	10.77	-1790.92	0.00	
10570.00†	89.615	270.344	8772.42	1890.95	11.37	-1890.91	0.00	
10670.00†	89.615	270.344	8773.09	1990.95	11.97	-1990.91	0.00	
10770.00†	89.615	270.344	8773.76	2090.94	12.57	-2090.91	0.00	
10870.00†	89.615	270.344	8774.44	2190.94	13.17	-2190.90	0.00	
10970.00†	89.615	270.344	8775.11	2290.94	13.77	-2290.90	0.00	
11070.00†	89.615	270.344	8775.78	2390.94	14.37	-2390.89	0.00	
11170.00†	89.615	270.344	8776.45	2490.93	14.98	-2490.89	0.00	
11270.00†	89.615	270.344	8777.12	2590.93	15.58	-2590.88	0.00	



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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator **Cimarex Energy Co. of Colorado**

Slot **No. 4H SHL**

Area **Chaves County, NM**

Well **No. 4H**

Field **(Saratoga) Sec 30, T15S, R31E**

Wellbore **No. 4H PWB**

Facility **Saratoga 30 ST COM No. 4H**

WELLPATH DATA (50 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
11370.00†	89.615	270.344	8777.80	2690.93	16.18	-2690.88	0.00	
11470.00†	89.615	270.344	8778.47	2790.93	16.78	-2790.88	0.00	
11570.00†	89.615	270.344	8779.14	2890.92	17.38	-2890.87	0.00	
11670.00†	89.615	270.344	8779.81	2990.92	17.98	-2990.87	0.00	
11770.00†	89.615	270.344	8780.49	3090.92	18.58	-3090.86	0.00	
11870.00†	89.615	270.344	8781.16	3190.92	19.18	-3190.86	0.00	
11970.00†	89.615	270.344	8781.83	3290.92	19.79	-3290.86	0.00	
12070.00†	89.615	270.344	8782.50	3390.91	20.39	-3390.85	0.00	
12170.00†	89.615	270.344	8783.18	3490.91	20.99	-3490.85	0.00	
12270.00†	89.615	270.344	8783.85	3590.91	21.59	-3590.84	0.00	
12370.00†	89.615	270.344	8784.52	3690.91	22.19	-3690.84	0.00	
12470.00†	89.615	270.344	8785.19	3790.90	22.79	-3790.84	0.00	
12570.00†	89.615	270.344	8785.86	3890.90	23.39	-3890.83	0.00	
12670.00†	89.615	270.344	8786.54	3990.90	23.99	-3990.83	0.00	
12770.00†	89.615	270.344	8787.21	4090.90	24.59	-4090.82	0.00	
12870.00†	89.615	270.344	8787.88	4190.90	25.20	-4190.82	0.00	
12970.00†	89.615	270.344	8788.55	4290.89	25.80	-4290.82	0.00	
13070.00†	89.615	270.344	8789.23	4390.89	26.40	-4390.81	0.00	
13170.00†	89.615	270.344	8789.90	4490.89	27.00	-4490.81	0.00	
13185.21	89.615	270.344	8790.00†	4506.10	27.09	-4506.02	0.00	No. 4H BHL



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INTEQ

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Operator	Cimarex Energy Co. of Colorado	Slot	No. 4H SHL
Area	Chaves County, NM	Well	No. 4H
Field	(Saratoga) Sec 30, T15S, R31E	Wellbore	No. 4H PWB
Facility	Saratoga 30 ST COM No. 4H		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 4H BHL	13185.21	8790.00	27.09	-4506.02	683823.29	725382.59	32°59'35.574"N	103°52'06.985"W	point

SURVEY PROGRAM, Ref Wellbore: No. 4H PWB Ref Wellpath: Preliminary

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
18.00	13185.21	NaviTrak (Standard)		No. 4H PWB



Cimarex Energy Co. of Colorado

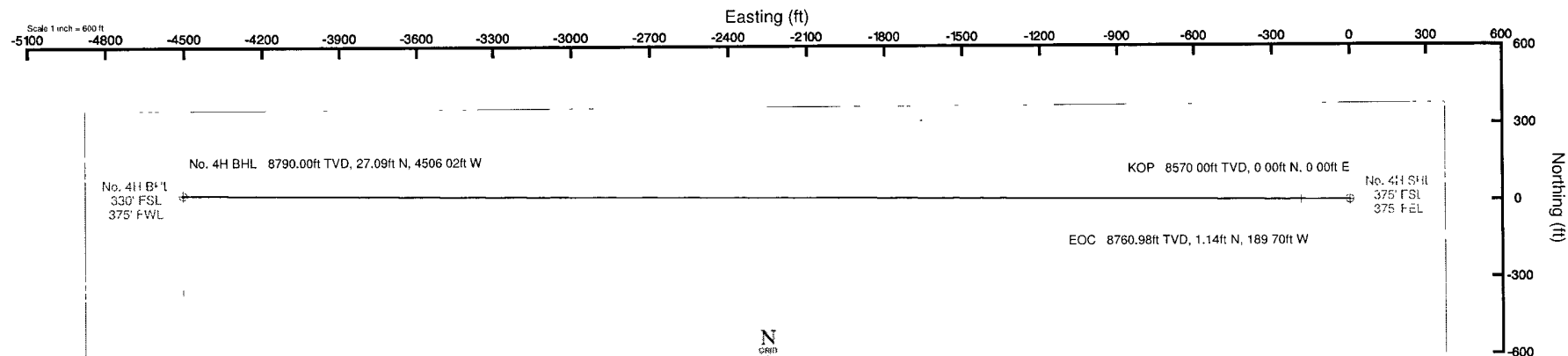
Location Chaves County, NM
Field (Saratoga) Sec 30, T15S, R31E
Facility Saratoga 30 ST COM No. 4H

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

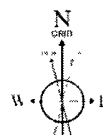


Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	270.344	0.00	0.00	0.00	0.00	0.00
KOP	8570.00	0.000	270.344	8570.00	0.00	0.00	0.00	0.00
EOC	8868.72	89.615	270.344	8760.98	1.14	-189.70	30.00	189.70
No. 4H BHL	13185.21	89.615	270.344	8790.00	27.09	-4506.02	0.00	4506.10



LEASE / HARD LINES ARE ESTIMATE ONLY AND ARE SUBJECT TO CUSTOMER APPROVAL.



BGGM (1945.0 to 2009.0) Dip: 60.93° Field: 49353.9 nT
Magnetic North is 8.17 degrees East of True North (at 7/25/2008)
Grid North is 0.26 degrees East of True North
To correct azimuth from True to Grid subtract 0.26 degrees
To correct azimuth from Magnetic to Grid add 7.91 degrees
For example if the Magnetic North Azimuth = 90 degs then the Grid North Azimuth = 90 + 7.91 = 97.91

