

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE HEARING CALLED
BY THE OIL CONSERVATION DIVISION FOR
THE PURPOSE OF CONSIDERING:**

**APPLICATION OF CIMAREX ENERGY CO.
FOR A NON-STANDARD OIL SPACING AND
PRORATION UNIT AND FOR COMPULSORY
POOLING, EDDY COUNTY, NEW MEXICO.**

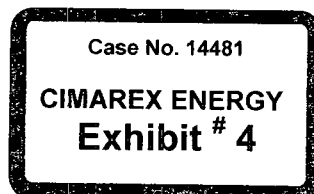
Case No. 14481

AFFIDAVIT OF LEE CATALANO

COUNTY OF SANTA FE)
) ss.
STATE OF NEW MEXICO)

Lee Catalano, being duly sworn upon his oath, deposes and states:

1. I am over the age of 18, and have personal knowledge of the matters stated herein.
2. I am a geologist for Cimarex Energy Co. ("Cimarex").
3. Attached hereto as Exhibit A is a structure map on top of the 2nd Bone Spring Sandstone formation. The formation dips to the south. Exhibit A also contains production data from existing, vertical Bone Spring wells.
4. Attached hereto as Exhibit B is a cross section which shows the productive interval and stratigraphic target for horizontal Bone Spring wells in the area.
5. Attached hereto as Exhibit C is the horizontal drilling plan for Cimarex's proposed Penny Pincher 21 Federal Com No. 3H well. A horizontal wellbore will test a greater reservoir length, thereby increasing the chances for an economic completion.



6. All four quarter-quarter sections in the proposed 160-acre project area are prospective in the Bone Spring, and Cimarex anticipates producing reserves from each quarter-quarter section.



Lee Catalano

SUBSCRIBED AND SWORN TO before me this 9th day of June, 2010 by Lee Catalano.

My Commission Expires: 12/5/11



Notary Public

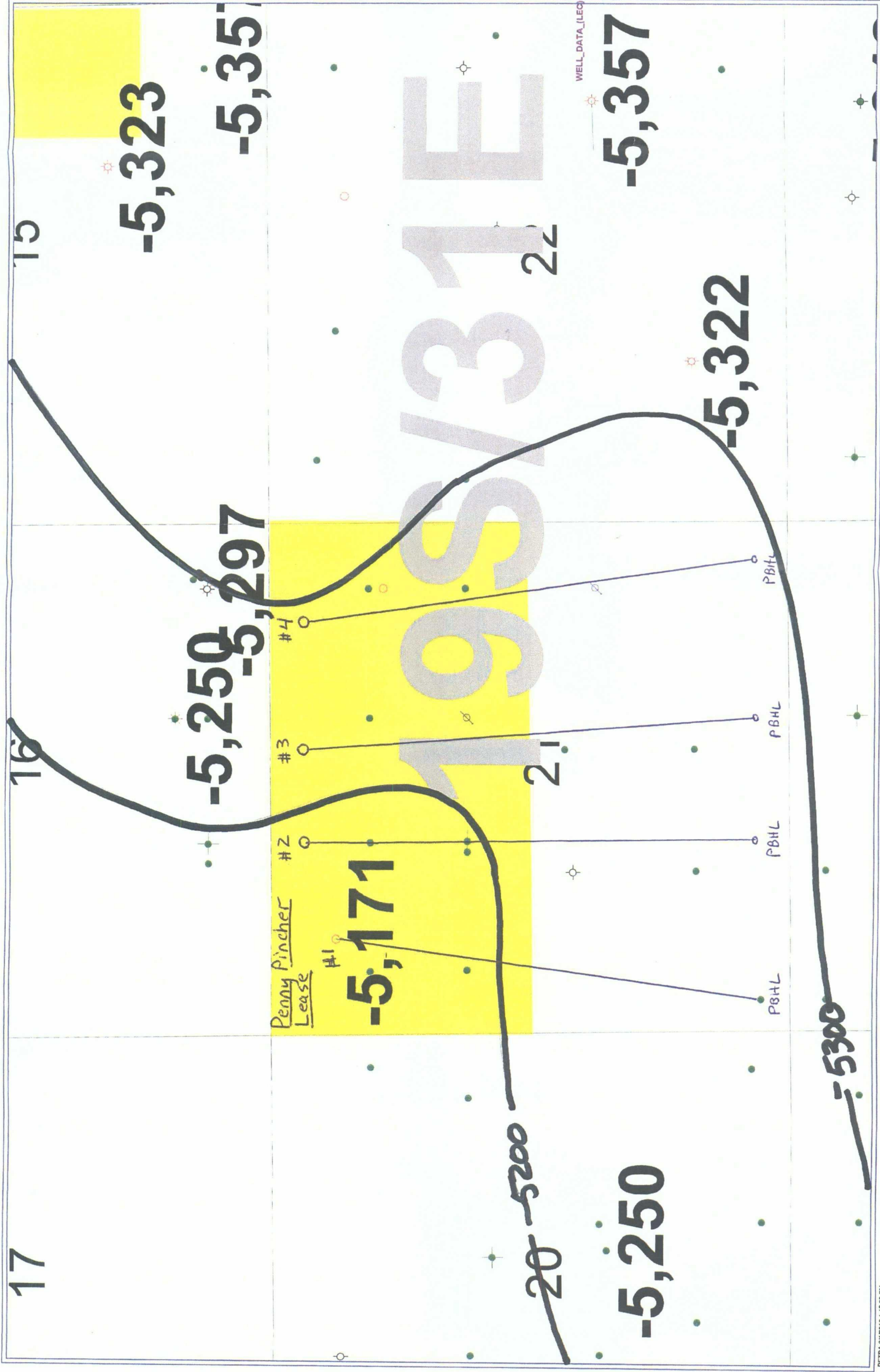


Exhibit
A

West

ELEV_KB : 3.470
23662

ENDURANCE RESOURCES LLC
COMP_DATE : 2/17/1982
FEDERAL HANSON COM

T19S R31E S20
1910 FSL 2250 FEL
BONESPRINGS O 96 102 BBL
BONESPRINGS_W : 57,111 BBL

ELEV_KB : 3.499
37699

CIMAREX ENERGY CO
PENNY PINCHER FED COM

T19S R30E S1
660 FNL 990 FWL

ELEV_KB : 3.536
34471

DEVON ENERGY CORPORATION
COMP_DATE : 1/22/2007
ARENOSO 22 FEDERAL COM

T19S R31E S22
990 FSL 1650 FWL

East

A'

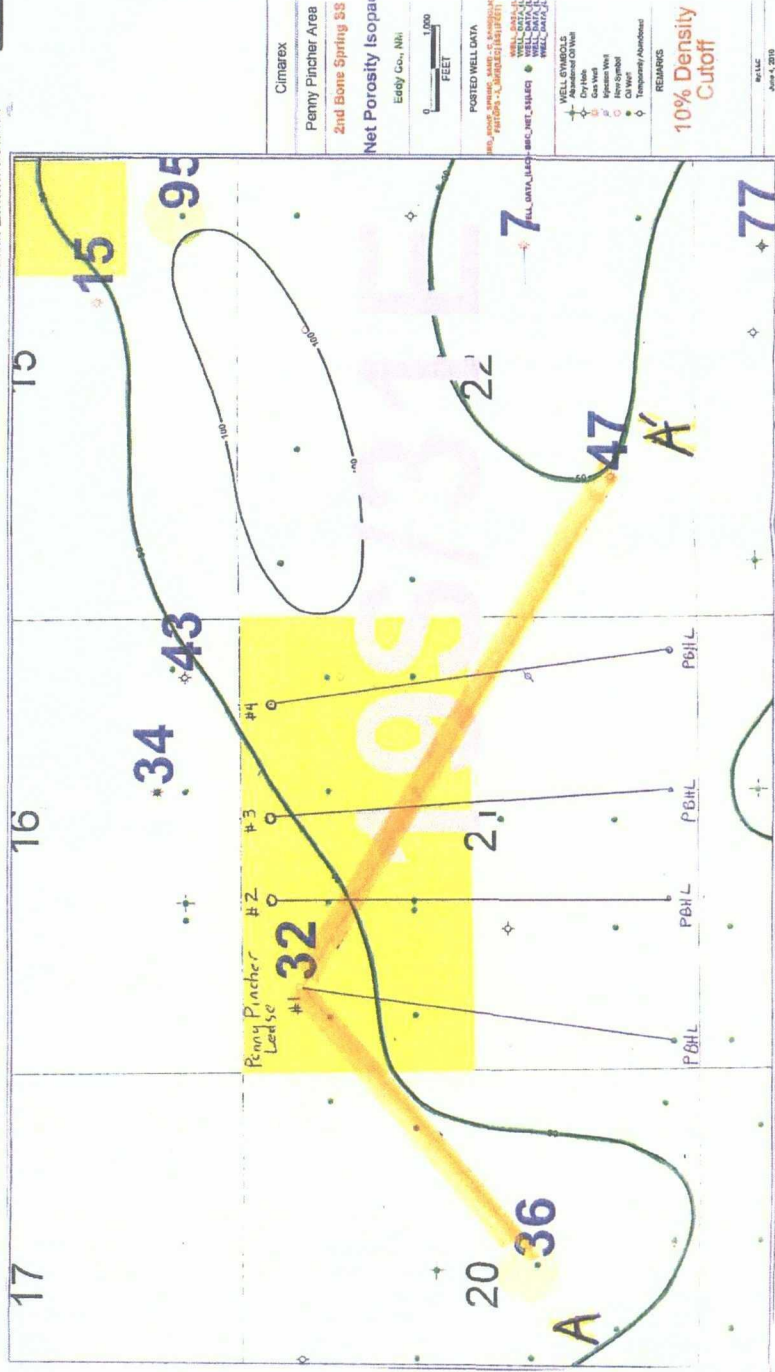
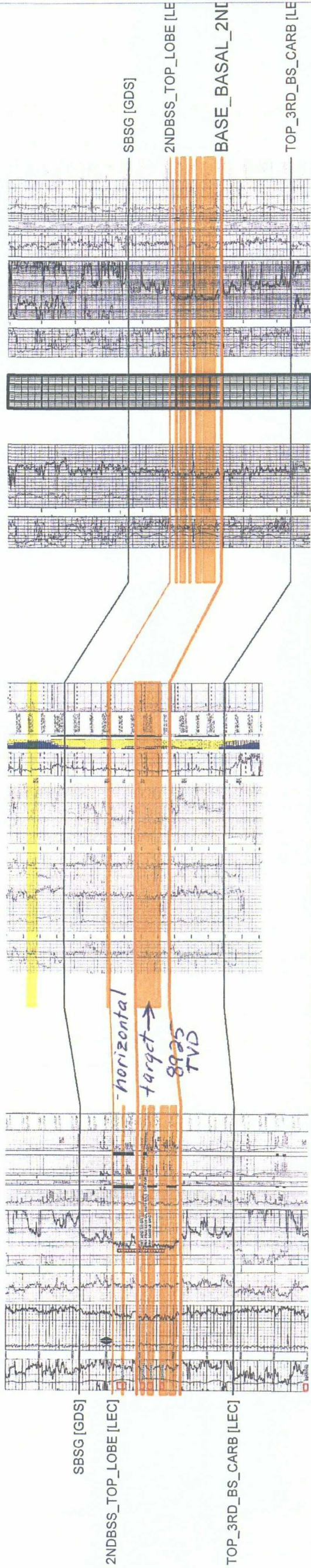


Exhibit
B

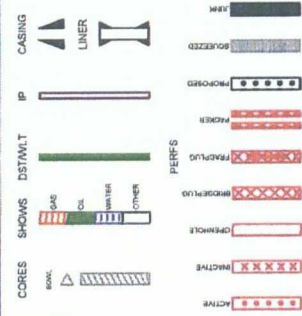
CIMAREX ENERGY

Penny Pincher Area

2nd Bone Spring SS

Struc. X-section

Eddy Co., NM



By: Lee Catalano
June 4, 2010 1:23 PM



Cimarex Energy Co.

Location: Eddy County, NM
Field: (Penny) Sec 21, T19S, R31E
Facility: Penny Pincher Fed Com No. 3H

Slot: No. 3H SHL
Well: No. 3H
Wellbore: No. 3H PWB

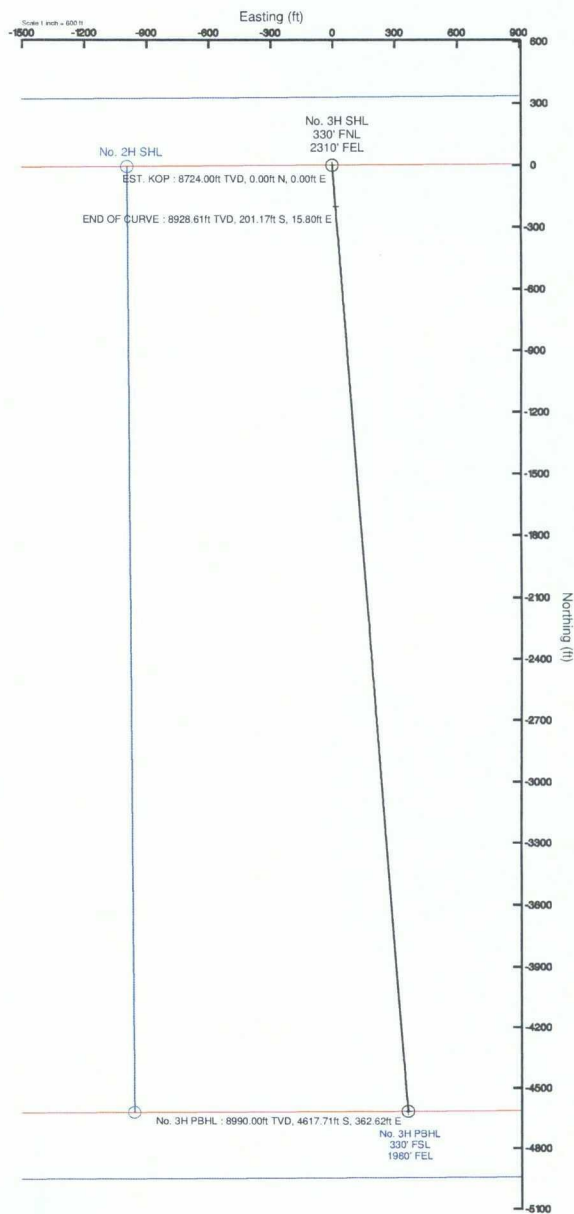


Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	175.510	0.00	0.00	0.00	0.00	0.00
EST. KOP	8724.00	0.000	175.510	8724.00	0.00	0.00	0.00	0.00
END OF CURVE	9042.59	89.206	175.510	8928.61	-201.17	15.80	28.00	201.79
No. 3H PBHL	13473.15	89.206	175.510	8990.00	-4617.71	362.62	0.00	4631.93



BGGM (1945.0 to 2011.0) Dip: 60.57° Field: 49007.7 nT
Magnetic North is 7.92 degrees East of True North (at 6/8/2010)
Grid North is 0.25 degrees East of True North
To correct azimuth from True to Grid subtract 0.25 degrees
To correct azimuth from Magnetic to Grid add 7.67 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.67 = 97.67



Grid reference westgate 3 (Penny)	
True vertical depths are referenced to Rig on No. 3H SHL (KB)	Grid System: NAD83 / TM New Mexico State Planes, Eastern Zone (2001), US feet
Measured depths are referenced to Rig on No. 3H SHL (KB)	North Reference: Grid north
Rig on No. 3H SHL (KB) to Mean Sea Level: 3489 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: Penny Pincher Fed Com No. 3H): 3489 feet	Depths are in feet
Coordinates are in feet referenced to (3)	Created by: Victor Hernandez on 6/8/2010

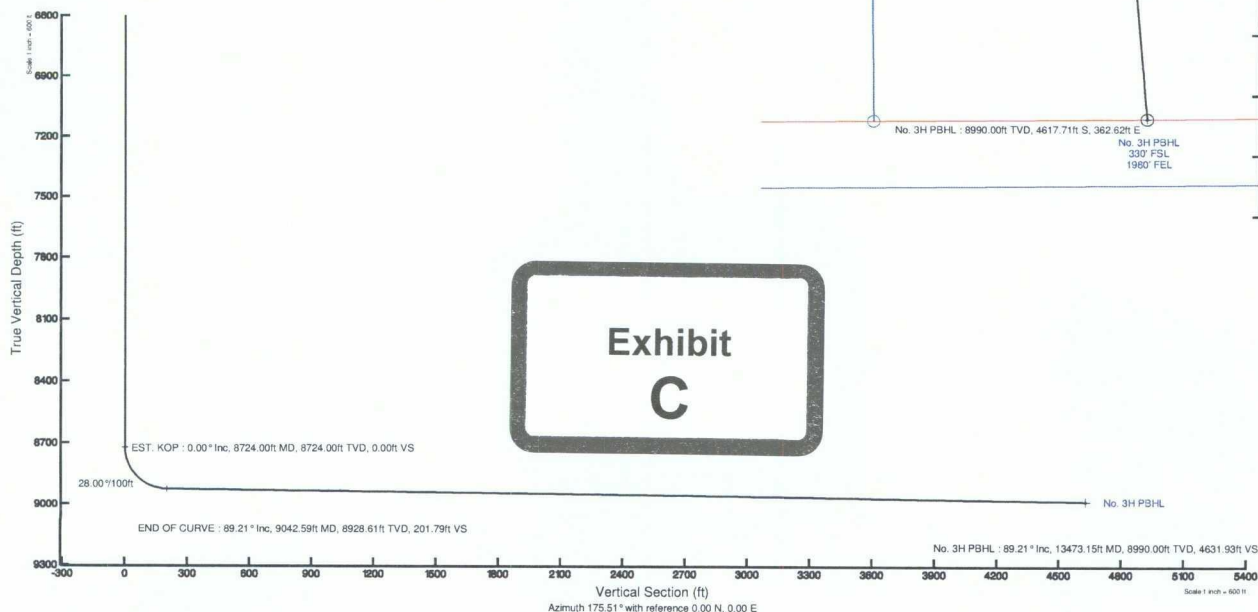


Exhibit
C



Planned Wellpath Report

Prelim_1

Page 1 of 4



REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Eddy County, NM	Well	No. 3H
Field	(Penny) Sec 21, T19S, R31E	Wellbore	No. 3H PWB
Facility	Penny Pincher Fed Com No. 3H		

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	0.999932	Report Generated	6/8/2010 at 10:11:19 AM
Convergence at slot	0.25° East	Database/Source file	WA_Midland/No_3H_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	682951.40	601335.60	32°39'08.192"N	103°52'23.562"W
Facility Reference Pt			682951.40	601335.60	32°39'08.192"N	103°52'23.562"W
Field Reference Pt			681958.50	601329.30	32°39'08.172"N	103°52'35.176"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 3H SHL (KB) to GL	0.00ft
Horizontal Reference Pt	SL	Rig on No. 3H SHL (KB) to Mean Sea Level	3489.00ft
Vertical Reference Pt	Rig on No. 3H SHL (KB)	GL to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 3H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	175.51°



Planned Wellpath Report

Prelim_1
Page 2 of 4



REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Eddy County, NM	Well	No. 3H
Field	(Penny) Sec 21, T19S, R31E	Wellbore	No. 3H PWB
Facility	Penny Pincher Fed Com No. 3H		

WELLPATH DATA (51 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	175.510	0.00	0.00	0.00	0.00	682951.40	601335.60	32°39'08.192"N	103°52'23.562"W	0.00	Tie On
8724.00	0.000	175.510	8724.00	0.00	0.00	0.00	682951.40	601335.60	32°39'08.192"N	103°52'23.562"W	0.00	EST. KOP
8824.00†	28.000	175.510	8820.07	23.95	-23.88	1.88	682953.27	601311.72	32°39'07.956"N	103°52'23.541"W	28.00	
8924.00†	56.000	175.510	8893.64	90.20	-89.92	7.06	682958.46	601245.68	32°39'07.302"N	103°52'23.484"W	28.00	
9024.00†	84.000	175.510	8927.51	183.24	-182.68	14.35	682965.74	601152.94	32°39'06.384"N	103°52'23.403"W	28.00	
9042.59	89.206	175.510	8928.61	201.79	-201.17	15.80	682967.20	601134.44	32°39'06.201"N	103°52'23.387"W	28.00	END OF CURVE
9124.00†	89.206	175.510	8929.74	283.19	-282.32	22.17	682973.57	601053.30	32°39'05.398"N	103°52'23.317"W	0.00	
9224.00†	89.206	175.510	8931.12	383.18	-382.01	30.00	682981.40	600953.62	32°39'04.411"N	103°52'23.230"W	0.00	
9324.00†	89.206	175.510	8932.51	483.17	-481.69	37.83	682989.22	600853.94	32°39'03.424"N	103°52'23.144"W	0.00	
9424.00†	89.206	175.510	8933.89	583.16	-581.37	45.65	682997.05	600754.27	32°39'02.438"N	103°52'23.057"W	0.00	
9524.00†	89.206	175.510	8935.28	683.15	-681.06	53.48	683004.88	600654.59	32°39'01.451"N	103°52'22.971"W	0.00	
9624.00†	89.206	175.510	8936.66	783.14	-780.74	61.31	683012.70	600554.91	32°39'00.464"N	103°52'22.884"W	0.00	
9724.00†	89.206	175.510	8938.05	883.13	-880.42	69.14	683020.53	600455.24	32°38'59.478"N	103°52'22.798"W	0.00	
9824.00†	89.206	175.510	8939.44	983.12	-980.11	76.96	683028.36	600355.56	32°38'58.491"N	103°52'22.711"W	0.00	
9924.00†	89.206	175.510	8940.82	1083.11	-1079.79	84.79	683036.19	600255.88	32°38'57.504"N	103°52'22.625"W	0.00	
10024.00†	89.206	175.510	8942.21	1183.11	-1179.47	92.62	683044.01	600156.21	32°38'56.518"N	103°52'22.538"W	0.00	
10124.00†	89.206	175.510	8943.59	1283.10	-1279.16	100.45	683051.84	600056.53	32°38'55.531"N	103°52'22.452"W	0.00	
10224.00†	89.206	175.510	8944.98	1383.09	-1378.84	108.28	683059.67	599956.86	32°38'54.545"N	103°52'22.365"W	0.00	
10324.00†	89.206	175.510	8946.36	1483.08	-1478.52	116.10	683067.50	599857.18	32°38'53.558"N	103°52'22.279"W	0.00	
10424.00†	89.206	175.510	8947.75	1583.07	-1578.21	123.93	683075.32	599757.50	32°38'52.571"N	103°52'22.192"W	0.00	
10524.00†	89.206	175.510	8949.14	1683.06	-1677.89	131.76	683083.15	599657.83	32°38'51.585"N	103°52'22.106"W	0.00	
10624.00†	89.206	175.510	8950.52	1783.05	-1777.58	139.59	683090.98	599558.15	32°38'50.598"N	103°52'22.019"W	0.00	
10724.00†	89.206	175.510	8951.91	1883.04	-1877.26	147.42	683098.81	599458.47	32°38'49.611"N	103°52'21.933"W	0.00	
10824.00†	89.206	175.510	8953.29	1983.03	-1976.94	155.24	683106.63	599358.80	32°38'48.625"N	103°52'21.846"W	0.00	
10924.00†	89.206	175.510	8954.68	2083.02	-2076.63	163.07	683114.46	599259.12	32°38'47.638"N	103°52'21.760"W	0.00	
11024.00†	89.206	175.510	8956.06	2183.01	-2176.31	170.90	683122.29	599159.44	32°38'46.651"N	103°52'21.673"W	0.00	
11124.00†	89.206	175.510	8957.45	2283.00	-2275.99	178.73	683130.11	599059.77	32°38'45.665"N	103°52'21.587"W	0.00	
11224.00†	89.206	175.510	8958.83	2382.99	-2375.68	186.55	683137.94	598960.09	32°38'44.678"N	103°52'21.500"W	0.00	
11324.00†	89.206	175.510	8960.22	2482.98	-2475.36	194.38	683145.77	598860.41	32°38'43.691"N	103°52'21.414"W	0.00	
11424.00†	89.206	175.510	8961.61	2582.97	-2575.04	202.21	683153.60	598760.74	32°38'42.705"N	103°52'21.327"W	0.00	



Planned Wellpath Report

Prelim_1
Page 3 of 4



REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Eddy County, NM	Well	No. 3H
Field	(Penny) Sec 21, T19S, R31E	Wellbore	No. 3H PWB
Facility	Penny Pincher Fed Com No. 3H		

WELLPATH DATA (51 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11524.00†	89.206	175.510	8962.99	2682.96	-2674.73	210.04	683161.42	598661.06	32°38'41.718"N	103°52'21.241"W	0.00	
11624.00†	89.206	175.510	8964.38	2782.95	-2774.41	217.87	683169.25	598561.38	32°38'40.731"N	103°52'21.154"W	0.00	
11724.00†	89.206	175.510	8965.76	2882.94	-2874.09	225.69	683177.08	598461.71	32°38'39.745"N	103°52'21.068"W	0.00	
11824.00†	89.206	175.510	8967.15	2982.93	-2973.78	233.52	683184.91	598362.03	32°38'38.758"N	103°52'20.982"W	0.00	
11924.00†	89.206	175.510	8968.53	3082.92	-3073.46	241.35	683192.73	598262.35	32°38'37.772"N	103°52'20.895"W	0.00	
12024.00†	89.206	175.510	8969.92	3182.91	-3173.14	249.18	683200.56	598162.68	32°38'36.785"N	103°52'20.809"W	0.00	
12124.00†	89.206	175.510	8971.31	3282.90	-3272.83	257.01	683208.39	598063.00	32°38'35.798"N	103°52'20.722"W	0.00	
12224.00†	89.206	175.510	8972.69	3382.89	-3372.51	264.83	683216.21	597963.32	32°38'34.812"N	103°52'20.636"W	0.00	
12324.00†	89.206	175.510	8974.08	3482.88	-3472.20	272.66	683224.04	597863.65	32°38'33.825"N	103°52'20.549"W	0.00	
12424.00†	89.206	175.510	8975.46	3582.87	-3571.88	280.49	683231.87	597763.97	32°38'32.838"N	103°52'20.463"W	0.00	
12524.00†	89.206	175.510	8976.85	3682.87	-3671.56	288.32	683239.70	597664.29	32°38'31.852"N	103°52'20.376"W	0.00	
12624.00†	89.206	175.510	8978.23	3782.86	-3771.25	296.14	683247.52	597564.62	32°38'30.865"N	103°52'20.290"W	0.00	
12724.00†	89.206	175.510	8979.62	3882.85	-3870.93	303.97	683255.35	597464.94	32°38'29.878"N	103°52'20.203"W	0.00	
12824.00†	89.206	175.510	8981.01	3982.84	-3970.61	311.80	683263.18	597365.26	32°38'28.892"N	103°52'20.117"W	0.00	
12924.00†	89.206	175.510	8982.39	4082.83	-4070.30	319.63	683271.01	597265.59	32°38'27.905"N	103°52'20.030"W	0.00	
13024.00†	89.206	175.510	8983.78	4182.82	-4169.98	327.46	683278.83	597165.91	32°38'26.918"N	103°52'19.944"W	0.00	
13124.00†	89.206	175.510	8985.16	4282.81	-4269.66	335.28	683286.66	597066.24	32°38'25.932"N	103°52'19.857"W	0.00	
13224.00†	89.206	175.510	8986.55	4382.80	-4369.35	343.11	683294.49	596966.56	32°38'24.945"N	103°52'19.771"W	0.00	
13324.00†	89.206	175.510	8987.93	4482.79	-4469.03	350.94	683302.32	596866.88	32°38'23.959"N	103°52'19.684"W	0.00	
13424.00†	89.206	175.510	8989.32	4582.78	-4568.71	358.77	683310.14	596767.21	32°38'22.972"N	103°52'19.598"W	0.00	
13473.15	89.206	175.510	8990.00	4631.93	-4617.71	362.62	683313.99	596718.21	32°38'22.487"N	103°52'19.555"W	0.00	No. 3H PBHL



Planned Wellpath Report

Prelim_1
Page 4 of 4



REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Eddy County, NM	Well	No. 3H
Field	(Penny) Sec 21, T19S, R31E	Wellbore	No. 3H PWB
Facility	Penny Pincher Fed Com No. 3H		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 3H PBHL	13473.15	8990.00	-4617.71	362.62	683313.99	596718.21	32°38'22.487"N	103°52'19.555"W	point

SURVEY PROGRAM Ref Wellbore: No. 3H PWB Ref Wellpath: Prelim_1				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	13473.15	NaviTrak (Standard)		No. 3H PWB