

Results of Directional Survey

API number:	30-005-29047		
OGRID:		Operator:	CIMAREX ENERGY CO. OF COLORADO
		Property:	HANCOCK 19 STATE COM # 1

surface	ULSTR:	E	19	T	15S	R	31E
				1980	FNL	375	FWL

BH Loc	ULSTR:	H	19	T	15S	R	31E
13108	MD	8723.6	TVD	1987	FNL	4945	FWL

Top Perf/OH	ULSTR:	E	19	T	15S	R	31E
8266	MD	8265.7	TVD	1963	FNL	380	FWL

Bot Perf/OH	ULSTR:	H	19	T	15S	R	31E
13108	MD	8723.6	TVD	1987	FNL	4945	FWL

	MD	N/S	E/W	VD
	8236.9	17.05	4.11	8236.56
TOP PERFS/OH	8266	17.02	4.76	8265.65
	8332.4	16.95	6.24	8332.03
	13021	0.88	4482.96	8723.46
BOT PERFS/OH	13108	-6.70	4569.63	8723.60
	13076	-3.91	4537.75	8723.55

NEXT TO LAST	13021	0.88	4482.96	8723.46
LAST READING	13076	-3.91	4537.75	8723.55
TD	13108	-6.70	4569.63	8723.60

Surface Location	1980	FN	375	FW
Projected BHL	1987	FN	4945	FW
Location of				
Top Perfs/OH	1963	FN	380	FW
Bottom Perfs/OH	1987	FN	4945	FW

SUMMARY of Subsurface Locations

Surface Location	E-19-15S-31E	1980	FN	375	FW	Vert. Depth
Top Perfs/OH	E-19-15S-31E	1963	FN	380	FW	8265.65
Bottom Perfs/OH	H-19-15S-31E	1987	FN	4945	FW	8723.60
Projected TD	H-19-15S-31E	1987	FN	4945	FW	8723.60



Cimarex Energy Co.

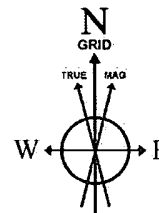
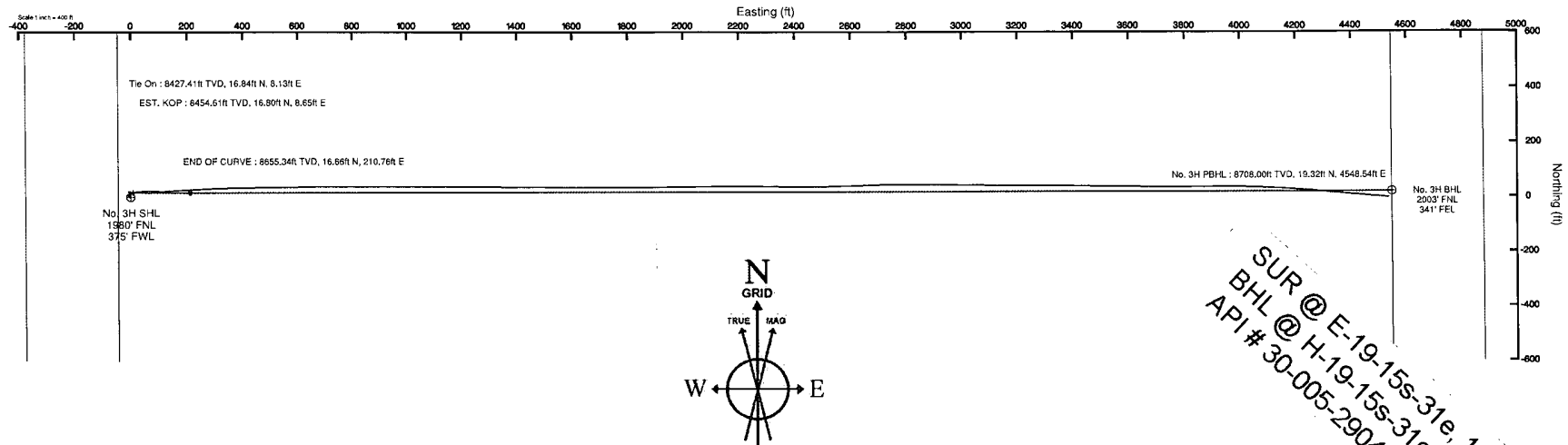
Location: Chaves County, NM
Field: (Hancock) Sec 19, T15S, R31E
Facility: Hancock 19 St Com No. 3H

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

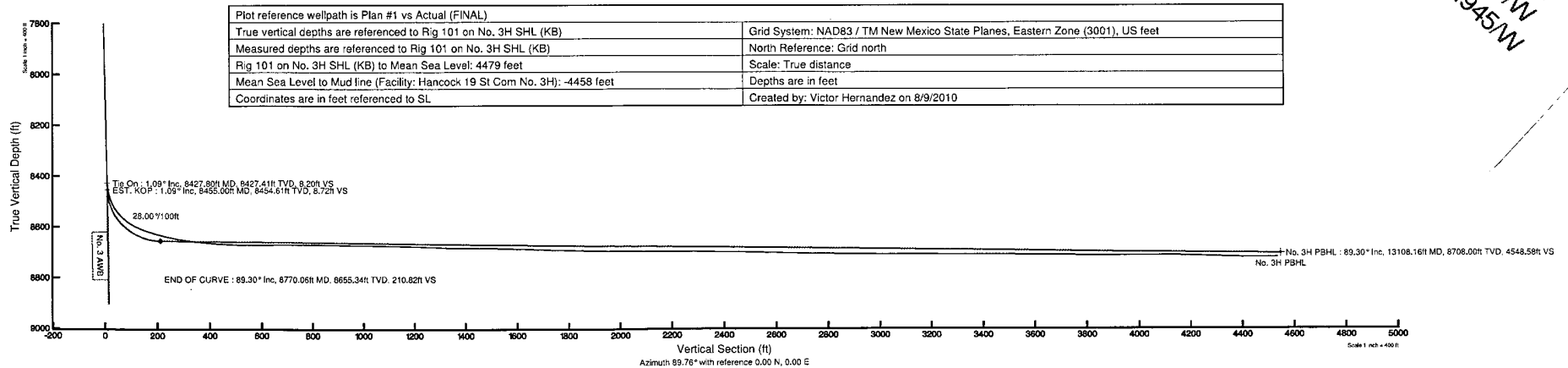


Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	8427.80	1.090	94.080	8427.41	16.84	8.13	0.00	8.20
EST. KOP	8455.00	1.090	94.080	8454.61	16.80	8.65	0.00	8.72
END OF CURVE	8770.06	89.304	89.965	8655.34	16.66	210.76	28.00	210.82
No. 3H PBHL	13108.16	89.304	89.965	8708.00	19.32	4548.54	0.00	4548.58



BGGM (1945.0 to 2011.0) Dip: 60.90° Field: 49203.2 nT
Magnetic North is 7.93 degrees East of True North (at 7/19/2010)
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 7.68 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.68 = 97.68





Actual Wellpath Report

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HOBBSOCD



REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Chaves County, NM	Well	No. 3H
Field	(Hancock) Sec 19, T15S, R31E	Wellbore	No. 3H AWB
Facility	Hancock 19 St Com No. 3H	Sidetrack from	No. 3 AWB at 8427.80 MD

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	8/9/2010 at 10:10:04 AM
Convergence at slot	0.25° East	Database/Source file	WA_Midland/No. 3H_AWB.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	683809.40	729013.60	33°00'11.502"N	103°52'06.959"W
Facility Reference Pt			683809.40	729013.60	33°00'11.502"N	103°52'06.959"W
Field Reference Pt			683769.40	727691.90	32°59'58.426"N	103°52'07.498"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig 101 on No. 3H SHL (KB) to GL	21.00ft
Horizontal Reference Pt	SL	Rig 101 on No. 3H SHL (KB) to Mean Sea Level	4479.00ft
Vertical Reference Pt	Rig 101 on No. 3H SHL (KB)	GL to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig 101 on No. 3H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	89.76°



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REFERENCE WELLPATH IDENTIFICATION			
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Field	(Hancock) Sec 19, T15S, R31E	Wellbore	No. 3H AWB
Facility	Hancock 19 St Com No. 3H	Sidetrack from	No. 3 AWB at 8427.80 MD

WELLPATH DATA (174 stations)											
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]
0.00	0.000	336.670	0.00	0.00	0.00	0.00	683809.40	729013.60	33°00'11.502"N	103°52'06.959"W	0.00
27.10	0.180	336.670	27.10	-0.02	0.04	-0.02	683809.38	729013.64	33°00'11.502"N	103°52'06.960"W	0.66
118.30	0.160	317.190	118.30	-0.16	0.26	-0.16	683809.24	729013.86	33°00'11.504"N	103°52'06.961"W	0.07
207.90	0.160	329.280	207.90	-0.31	0.46	-0.31	683809.09	729014.06	33°00'11.506"N	103°52'06.963"W	0.04
297.90	0.420	286.040	297.90	-0.69	0.66	-0.69	683808.71	729014.26	33°00'11.508"N	103°52'06.967"W	0.36
386.10	0.680	300.840	386.09	-1.45	1.02	-1.45	683807.95	729014.62	33°00'11.512"N	103°52'06.976"W	0.33
474.50	0.800	312.340	474.49	-2.35	1.70	-2.36	683807.04	729015.30	33°00'11.519"N	103°52'06.987"W	0.22
506.30	0.610	321.440	506.28	-2.62	1.99	-2.63	683806.77	729015.59	33°00'11.522"N	103°52'06.990"W	0.69
601.70	0.650	308.960	601.68	-3.35	2.72	-3.36	683806.04	729016.32	33°00'11.529"N	103°52'06.999"W	0.15
792.60	0.650	323.870	792.57	-4.83	4.28	-4.84	683804.56	729017.88	33°00'11.544"N	103°52'07.016"W	0.09
888.00	0.770	328.480	887.96	-5.48	5.26	-5.50	683803.90	729018.86	33°00'11.554"N	103°52'07.024"W	0.14
983.50	0.740	322.610	983.45	-6.18	6.30	-6.21	683803.19	729019.90	33°00'11.564"N	103°52'07.032"W	0.09
1078.90	0.790	321.800	1078.84	-6.96	7.31	-6.99	683802.41	729020.91	33°00'11.574"N	103°52'07.041"W	0.05
1174.40	0.780	320.150	1174.33	-7.78	8.32	-7.81	683801.59	729021.92	33°00'11.585"N	103°52'07.051"W	0.03
1269.80	0.550	311.450	1269.73	-8.53	9.12	-8.57	683800.83	729022.72	33°00'11.592"N	103°52'07.060"W	0.26
1365.20	0.450	315.520	1365.12	-9.14	9.69	-9.18	683800.22	729023.29	33°00'11.598"N	103°52'07.067"W	0.11
1460.70	0.060	318.900	1460.62	-9.43	10.00	-9.47	683799.93	729023.60	33°00'11.601"N	103°52'07.070"W	0.41
1556.10	0.210	158.330	1556.02	-9.40	9.88	-9.44	683799.96	729023.47	33°00'11.600"N	103°52'07.070"W	0.28
1651.60	0.270	153.980	1651.52	-9.24	9.51	-9.28	683800.12	729023.11	33°00'11.596"N	103°52'07.068"W	0.07
1747.00	0.240	157.800	1746.92	-9.07	9.12	-9.10	683800.30	729022.72	33°00'11.592"N	103°52'07.066"W	0.04
1842.40	0.360	139.880	1842.32	-8.80	8.71	-8.84	683800.56	729022.31	33°00'11.588"N	103°52'07.063"W	0.16
1937.90	0.560	110.530	1937.82	-8.17	8.32	-8.21	683801.20	729021.92	33°00'11.584"N	103°52'07.055"W	0.32
2033.30	0.720	86.500	2033.21	-7.14	8.19	-7.17	683802.23	729021.79	33°00'11.583"N	103°52'07.043"W	0.32
2128.80	1.110	72.910	2128.70	-5.65	8.50	-5.69	683803.71	729022.10	33°00'11.586"N	103°52'07.026"W	0.46
2224.20	1.060	55.310	2224.08	-4.04	9.27	-4.08	683805.32	729022.87	33°00'11.594"N	103°52'07.007"W	0.35
2319.60	0.860	55.400	2319.47	-2.72	10.18	-2.76	683806.64	729023.78	33°00'11.603"N	103°52'06.991"W	0.21
2415.10	0.860	57.130	2414.96	-1.53	10.98	-1.57	683807.83	729024.58	33°00'11.611"N	103°52'06.977"W	0.03
2510.50	0.620	46.090	2510.35	-0.55	11.72	-0.60	683808.80	729025.32	33°00'11.618"N	103°52'06.966"W	0.29
2606.00	0.590	53.140	2605.84	0.22	12.38	0.17	683809.57	729025.97	33°00'11.624"N	103°52'06.957"W	0.08
2701.40	0.630	53.060	2701.24	1.03	12.99	0.98	683810.38	729026.58	33°00'11.630"N	103°52'06.947"W	0.04



Actual Wellpath Report

No. 3H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Chaves County, NM	Well	No. 3H
Field	(Hancock) Sec 19, T15S, R31E	Wellbore	No. 3H AWP
Facility	Hancock 19 St Com No. 3H	Sidetrack from	No. 3 AWP at 8427.80 MD

WELLPATH DATA (174 stations)											
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]
2796.80	0.610	62.230	2796.63	1.91	13.54	1.85	683811.25	729027.14	33°00'11.636"N	103°52'06.937"W	0.11
2892.30	0.550	81.690	2892.13	2.81	13.84	2.75	683812.15	729027.44	33°00'11.639"N	103°52'06.926"W	0.21
2987.70	0.420	81.050	2987.52	3.61	13.96	3.55	683812.95	729027.56	33°00'11.640"N	103°52'06.917"W	0.14
3083.20	0.330	92.630	3083.02	4.23	14.00	4.17	683813.57	729027.60	33°00'11.640"N	103°52'06.910"W	0.12
3178.60	0.270	89.440	3178.42	4.73	13.99	4.67	683814.07	729027.59	33°00'11.640"N	103°52'06.904"W	0.07
3274.00	0.290	104.690	3273.82	5.19	13.93	5.13	683814.53	729027.53	33°00'11.639"N	103°52'06.898"W	0.08
3369.50	0.360	97.060	3369.32	5.72	13.84	5.66	683815.06	729027.43	33°00'11.638"N	103°52'06.892"W	0.09
3464.90	0.360	96.990	3464.72	6.31	13.76	6.25	683815.65	729027.36	33°00'11.638"N	103°52'06.885"W	0.00
3560.40	0.420	109.220	3560.21	6.94	13.61	6.88	683816.28	729027.21	33°00'11.636"N	103°52'06.878"W	0.11
3655.80	0.270	98.230	3655.61	7.49	13.46	7.44	683816.83	729027.06	33°00'11.635"N	103°52'06.871"W	0.17
3751.20	0.160	98.030	3751.01	7.85	13.41	7.79	683817.19	729027.01	33°00'11.634"N	103°52'06.867"W	0.12
3846.70	0.080	87.770	3846.51	8.04	13.40	7.99	683817.39	729027.00	33°00'11.634"N	103°52'06.865"W	0.09
3942.10	0.040	278.540	3941.91	8.08	13.40	8.02	683817.42	729027.00	33°00'11.634"N	103°52'06.864"W	0.13
4037.60	0.150	263.250	4037.41	7.92	13.39	7.86	683817.26	729026.99	33°00'11.634"N	103°52'06.866"W	0.12
4133.00	0.210	296.480	4132.81	7.64	13.46	7.58	683816.98	729027.06	33°00'11.635"N	103°52'06.870"W	0.12
4228.40	0.250	309.660	4228.21	7.33	13.67	7.27	683816.67	729027.27	33°00'11.637"N	103°52'06.873"W	0.07
4323.90	0.320	318.130	4323.71	6.99	14.00	6.93	683816.33	729027.60	33°00'11.640"N	103°52'06.877"W	0.09
4419.30	0.390	329.870	4419.11	6.65	14.48	6.59	683815.99	729028.08	33°00'11.645"N	103°52'06.881"W	0.11
4514.80	0.430	323.280	4514.60	6.27	15.05	6.21	683815.61	729028.65	33°00'11.650"N	103°52'06.886"W	0.06
4610.20	0.450	309.920	4610.00	5.78	15.57	5.71	683815.11	729029.17	33°00'11.656"N	103°52'06.892"W	0.11
4705.60	0.490	294.480	4705.40	5.12	15.98	5.05	683814.45	729029.58	33°00'11.660"N	103°52'06.899"W	0.14
4801.10	0.500	294.120	4800.90	4.37	16.32	4.30	683813.70	729029.92	33°00'11.663"N	103°52'06.908"W	0.01
4896.50	0.360	291.590	4896.29	3.71	16.60	3.64	683813.04	729030.20	33°00'11.666"N	103°52'06.916"W	0.15
4992.00	0.360	297.500	4991.79	3.17	16.85	3.10	683812.49	729030.45	33°00'11.668"N	103°52'06.922"W	0.04
5087.40	0.330	297.090	5087.19	2.66	17.12	2.58	683811.98	729030.72	33°00'11.671"N	103°52'06.928"W	0.03
5182.80	0.330	293.490	5182.59	2.16	17.35	2.09	683811.49	729030.95	33°00'11.673"N	103°52'06.934"W	0.02
5278.30	0.400	290.380	5278.09	1.60	17.58	1.52	683810.92	729031.18	33°00'11.676"N	103°52'06.941"W	0.08
5373.70	0.400	288.580	5373.48	0.97	17.80	0.90	683810.30	729031.40	33°00'11.678"N	103°52'06.948"W	0.01
5469.20	0.400	294.020	5468.98	0.35	18.04	0.28	683809.68	729031.64	33°00'11.680"N	103°52'06.955"W	0.04
5564.60	0.350	304.210	5564.38	-0.19	18.34	-0.27	683809.13	729031.94	33°00'11.683"N	103°52'06.962"W	0.09



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Area	Chaves County, NM	Well	No. 3H
Field	(Hancock) Sec 19, T15S, R31E	Wellbore	No. 3H AWB
Facility	Hancock 19 St Com No. 3H	Sidetrack from	No. 3 AWB at 8427.80 MD

WELLPATH DATA (174 stations)

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]
5660.00	0.350	295.750	5659.78	-0.69	18.63	-0.77	683808.63	729032.23	33°00'11.686"N	103°52'06.967"W	0.05
5755.50	0.380	279.110	5755.27	-1.27	18.81	-1.35	683808.05	729032.41	33°00'11.688"N	103°52'06.974"W	0.11
5850.90	0.370	275.290	5850.67	-1.89	18.89	-1.97	683807.43	729032.48	33°00'11.689"N	103°52'06.981"W	0.03
5946.40	0.370	279.610	5946.17	-2.50	18.97	-2.58	683806.82	729032.56	33°00'11.690"N	103°52'06.989"W	0.03
6041.80	0.340	289.100	6041.57	-3.07	19.11	-3.15	683806.25	729032.71	33°00'11.691"N	103°52'06.995"W	0.07
6137.20	0.270	304.970	6136.97	-3.52	19.33	-3.60	683805.80	729032.93	33°00'11.693"N	103°52'07.001"W	0.11
6232.70	0.210	304.950	6232.47	-3.85	19.56	-3.93	683805.47	729033.16	33°00'11.696"N	103°52'07.004"W	0.06
6328.10	0.300	309.890	6327.87	-4.18	19.82	-4.26	683805.14	729033.42	33°00'11.698"N	103°52'07.008"W	0.10
6423.60	0.280	307.960	6423.36	-4.55	20.12	-4.64	683804.76	729033.72	33°00'11.701"N	103°52'07.013"W	0.02
6519.00	0.180	316.270	6518.76	-4.84	20.38	-4.93	683804.47	729033.97	33°00'11.704"N	103°52'07.016"W	0.11
6614.40	0.210	307.710	6614.16	-5.08	20.59	-5.17	683804.23	729034.19	33°00'11.706"N	103°52'07.019"W	0.04
6709.90	0.310	290.450	6709.66	-5.46	20.79	-5.55	683803.85	729034.39	33°00'11.708"N	103°52'07.023"W	0.13
6805.30	0.230	282.260	6805.06	-5.89	20.92	-5.98	683803.42	729034.52	33°00'11.709"N	103°52'07.028"W	0.09
6900.80	0.240	270.400	6900.56	-6.28	20.96	-6.37	683803.03	729034.56	33°00'11.710"N	103°52'07.033"W	0.05
6996.20	0.200	259.440	6995.96	-6.64	20.93	-6.73	683802.67	729034.53	33°00'11.709"N	103°52'07.037"W	0.06
7091.60	0.200	243.020	7091.36	-6.95	20.83	-7.04	683802.36	729034.43	33°00'11.708"N	103°52'07.041"W	0.06
7187.10	0.210	247.740	7186.86	-7.26	20.68	-7.35	683802.05	729034.28	33°00'11.707"N	103°52'07.045"W	0.02
7282.50	0.160	149.310	7282.26	-7.36	20.50	-7.45	683801.95	729034.10	33°00'11.705"N	103°52'07.046"W	0.30
7378.00	0.320	109.100	7377.76	-7.04	20.30	-7.13	683802.27	729033.90	33°00'11.703"N	103°52'07.042"W	0.23
7473.40	0.440	121.550	7473.16	-6.48	20.02	-6.56	683802.84	729033.62	33°00'11.700"N	103°52'07.035"W	0.15
7568.80	0.480	133.210	7568.55	-5.88	19.56	-5.96	683803.44	729033.16	33°00'11.696"N	103°52'07.028"W	0.11
7664.30	0.460	135.980	7664.05	-5.32	19.01	-5.40	683804.00	729032.61	33°00'11.690"N	103°52'07.022"W	0.03
7759.70	0.600	119.310	7759.45	-4.62	18.49	-4.70	683804.70	729032.09	33°00'11.685"N	103°52'07.014"W	0.22
7855.20	0.890	105.580	7854.94	-3.47	18.04	-3.55	683805.85	729031.64	33°00'11.681"N	103°52'07.000"W	0.35
7950.60	0.990	102.320	7950.32	-1.95	17.67	-2.03	683807.37	729031.27	33°00'11.677"N	103°52'06.982"W	0.12
8046.00	1.080	97.990	8045.71	-0.26	17.37	-0.33	683809.07	729030.97	33°00'11.674"N	103°52'06.962"W	0.12
8141.50	1.450	93.580	8141.19	1.84	17.17	1.76	683811.16	729030.77	33°00'11.672"N	103°52'06.938"W	0.40
8236.90	1.370	92.340	8236.56	4.18	17.05	4.11	683813.51	729030.65	33°00'11.670"N	103°52'06.910"W	0.09
8332.40	1.190	92.760	8332.03	6.31	16.95	6.24	683815.64	729030.55	33°00'11.669"N	103°52'06.885"W	0.19
8427.80	1.090	94.080	8427.41	8.20	16.84	8.13	683817.53	729030.44	33°00'11.668"N	103°52'06.863"W	0.11



Actual Wellpath Report

No. 3H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Chaves County, NM	Well	No. 3H
Field	(Hancock) Sec 19, T15S, R31E	Wellbore	No. 3H AWB
Facility	Hancock 19 St Com No. 3H	Sidetrack from	No. 3 AWB at 8427.80 MD

WELLPATH DATA (174 stations)

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]
8434.00	2.500	82.500	8433.61	8.40	16.85	8.33	683817.73	729030.45	33°00'11.668"N	103°52'06.861"W	23.37
8466.00	11.100	78.500	8465.36	12.12	17.56	12.04	683821.44	729031.16	33°00'11.675"N	103°52'06.817"W	26.90
8497.00	20.900	80.200	8495.12	20.52	19.10	20.44	683829.84	729032.70	33°00'11.690"N	103°52'06.718"W	31.65
8529.00	30.400	83.300	8523.93	34.22	21.02	34.13	683843.53	729034.62	33°00'11.708"N	103°52'06.557"W	29.97
8561.00	39.500	87.600	8550.14	52.48	22.39	52.39	683861.78	729035.99	33°00'11.721"N	103°52'06.343"W	29.45
8593.00	48.800	92.200	8573.08	74.73	22.36	74.64	683884.03	729035.96	33°00'11.720"N	103°52'06.082"W	30.72
8622.00	57.800	91.300	8590.39	97.95	21.66	97.85	683907.25	729035.26	33°00'11.712"N	103°52'05.809"W	31.13
8654.00	67.100	88.900	8605.18	126.28	21.64	126.19	683935.58	729035.23	33°00'11.710"N	103°52'05.477"W	29.81
8686.00	71.100	86.300	8616.59	156.15	22.90	156.05	683965.44	729036.49	33°00'11.722"N	103°52'05.126"W	14.62
8717.00	73.000	86.200	8626.15	185.58	24.82	185.48	683994.86	729038.42	33°00'11.739"N	103°52'04.780"W	6.14
8749.00	74.800	86.400	8635.02	216.27	26.81	216.16	684025.54	729040.41	33°00'11.758"N	103°52'04.420"W	5.66
8780.00	77.900	86.500	8642.34	246.34	28.67	246.22	684055.60	729042.27	33°00'11.775"N	103°52'04.067"W	10.00
8812.00	79.100	86.800	8648.72	277.65	30.51	277.52	684086.90	729044.10	33°00'11.792"N	103°52'03.699"W	3.86
8844.00	81.000	88.200	8654.25	309.14	31.88	309.01	684118.39	729045.48	33°00'11.804"N	103°52'03.329"W	7.34
8875.00	83.100	88.300	8658.53	339.83	32.82	339.70	684149.07	729046.41	33°00'11.812"N	103°52'02.969"W	6.78
8907.00	84.600	89.200	8661.96	371.64	33.51	371.50	684180.88	729047.11	33°00'11.817"N	103°52'02.596"W	5.46
8939.00	85.400	88.800	8664.75	403.52	34.07	403.38	684212.75	729047.66	33°00'11.821"N	103°52'02.221"W	2.79
8970.00	86.300	88.900	8666.99	434.43	34.69	434.29	684243.66	729048.28	33°00'11.826"N	103°52'01.858"W	2.92
9002.00	87.500	89.000	8668.72	466.38	35.27	466.23	684275.60	729048.87	33°00'11.830"N	103°52'01.483"W	3.76
9033.00	88.200	89.300	8669.89	497.36	35.73	497.21	684306.57	729049.33	33°00'11.834"N	103°52'01.119"W	2.46
9065.00	88.200	89.200	8670.89	529.34	36.15	529.19	684338.55	729049.75	33°00'11.836"N	103°52'00.744"W	0.31
9129.00	90.300	89.400	8671.73	593.33	36.93	593.18	684402.54	729050.53	33°00'11.841"N	103°51'59.992"W	3.30
9192.00	90.600	89.400	8671.23	656.33	37.59	656.17	684465.53	729051.19	33°00'11.845"N	103°51'59.253"W	0.48
9255.00	89.700	90.200	8671.07	719.32	37.81	719.17	684528.52	729051.41	33°00'11.844"N	103°51'58.513"W	1.91
9318.00	89.800	89.700	8671.34	782.32	37.87	782.17	684591.51	729051.46	33°00'11.842"N	103°51'57.773"W	0.81
9381.00	89.100	90.100	8671.95	845.32	37.98	845.17	684654.51	729051.57	33°00'11.841"N	103°51'57.034"W	1.28
9445.00	89.100	90.000	8672.95	909.31	37.92	909.16	684718.49	729051.52	33°00'11.837"N	103°51'56.282"W	0.16
9508.00	89.300	89.900	8673.83	972.30	37.98	972.15	684781.48	729051.57	33°00'11.835"N	103°51'55.543"W	0.35
9571.00	89.200	89.500	8674.66	1035.30	38.31	1035.14	684844.47	729051.90	33°00'11.835"N	103°51'54.803"W	0.65
9634.00	88.700	90.100	8675.81	1098.29	38.53	1098.13	684907.46	729052.12	33°00'11.835"N	103°51'54.063"W	1.24



Actual Wellpath Report

No. 3H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Chaves County, NM	Well	No. 3H
Field	(Hancock) Sec 19, T15S, R31E	Wellbore	No. 3H AWB
Facility	Hancock 19 St Com No. 3H	Sidetrack from	No. 3 AWB at 8427.80 MD

WELLPATH DATA (174 stations)											
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]
9698.00	89.000	89.900	8677.10	1162.27	38.53	1162.12	684971.44	729052.12	33°00'11.832"N	103°51'53.312"W	0.56
9761.00	87.700	90.400	8678.91	1225.24	38.36	1225.09	685034.41	729051.96	33°00'11.828"N	103°51'52.573"W	2.21
9824.00	87.400	90.900	8681.61	1288.18	37.65	1288.03	685097.34	729051.24	33°00'11.818"N	103°51'51.834"W	0.92
9888.00	89.200	90.300	8683.50	1352.14	36.98	1352.00	685161.30	729050.57	33°00'11.808"N	103°51'51.083"W	2.96
9951.00	89.700	90.400	8684.11	1415.13	36.59	1414.99	685224.29	729050.19	33°00'11.802"N	103°51'50.343"W	0.81
10014.00	89.800	90.700	8684.38	1478.13	35.99	1477.99	685287.29	729049.59	33°00'11.793"N	103°51'49.603"W	0.50
10078.00	88.300	90.800	8685.44	1542.11	35.15	1541.97	685351.26	729048.75	33°00'11.782"N	103°51'48.852"W	2.35
10141.00	88.300	90.800	8687.31	1605.07	34.27	1604.94	685414.23	729047.87	33°00'11.770"N	103°51'48.113"W	0.00
10204.00	88.500	89.800	8689.07	1668.04	33.94	1667.91	685477.20	729047.54	33°00'11.764"N	103°51'47.373"W	1.62
10267.00	88.400	89.300	8690.78	1731.02	34.44	1730.89	685540.17	729048.03	33°00'11.766"N	103°51'46.634"W	0.81
10331.00	88.300	90.300	8692.62	1794.99	34.66	1794.86	685604.13	729048.26	33°00'11.766"N	103°51'45.883"W	1.57
10394.00	88.700	89.700	8694.27	1857.97	34.66	1857.84	685667.11	729048.26	33°00'11.763"N	103°51'45.143"W	1.14
10458.00	88.500	89.100	8695.83	1921.95	35.33	1921.81	685731.08	729048.93	33°00'11.767"N	103°51'44.392"W	0.99
10521.00	89.300	89.100	8697.04	1984.93	36.32	1984.79	685794.06	729049.92	33°00'11.774"N	103°51'43.652"W	1.27
10585.00	89.400	89.500	8697.77	2048.92	37.10	2048.79	685858.04	729050.70	33°00'11.779"N	103°51'42.901"W	0.64
10648.00	90.000	89.200	8698.10	2111.92	37.82	2111.78	685921.03	729051.41	33°00'11.783"N	103°51'42.161"W	1.06
10711.00	89.700	90.100	8698.26	2174.92	38.20	2174.78	685984.03	729051.80	33°00'11.784"N	103°51'41.422"W	1.51
10774.00	89.400	90.300	8698.76	2237.92	37.98	2237.78	686047.02	729051.58	33°00'11.779"N	103°51'40.682"W	0.57
10838.00	89.300	90.800	8699.48	2301.91	37.37	2301.77	686111.01	729050.96	33°00'11.770"N	103°51'39.931"W	0.80
10901.00	89.500	90.700	8700.14	2364.89	36.54	2364.76	686173.99	729050.14	33°00'11.759"N	103°51'39.191"W	0.35
10964.00	89.700	90.600	8700.58	2427.88	35.83	2427.75	686236.98	729049.42	33°00'11.749"N	103°51'38.451"W	0.35
11028.00	88.500	89.000	8701.59	2491.87	36.05	2491.74	686300.97	729049.65	33°00'11.749"N	103°51'37.700"W	3.12
11091.00	88.200	88.700	8703.40	2554.84	37.31	2554.70	686363.93	729050.91	33°00'11.758"N	103°51'36.961"W	0.67
11154.00	88.500	88.000	8705.22	2617.79	39.13	2617.65	686426.87	729052.72	33°00'11.773"N	103°51'36.221"W	1.21
11218.00	88.800	87.900	8706.72	2681.74	41.42	2681.59	686490.80	729055.01	33°00'11.793"N	103°51'35.471"W	0.49
11280.00	89.400	89.200	8707.70	2743.72	42.98	2743.56	686552.77	729056.58	33°00'11.806"N	103°51'34.743"W	2.31
11343.00	89.000	89.800	8708.58	2806.71	43.53	2806.55	686615.76	729057.13	33°00'11.809"N	103°51'34.003"W	1.14
11407.00	89.300	90.300	8709.53	2870.70	43.48	2870.55	686679.75	729057.07	33°00'11.805"N	103°51'33.252"W	0.91
11470.00	89.400	90.700	8710.24	2933.70	42.93	2933.54	686742.74	729056.53	33°00'11.797"N	103°51'32.512"W	0.65
11534.00	89.500	90.500	8710.86	2997.69	42.26	2997.53	686806.72	729055.86	33°00'11.788"N	103°51'31.761"W	0.35



Actual Wellpath Report

No. 3H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Chaves County, NM	Well	No. 3H
Field	(Hancock) Sec 19, T15S, R31E	Wellbore	No. 3H AWB
Facility	Hancock 19 St Com No. 3H	Sidetrack from	No. 3 AWB at 8427.80 MD

WELLPATH DATA (174 stations)

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]
11597.00	89.900	91.100	8711.19	3060.67	41.38	3060.53	686869.71	729054.98	33°00'11.776"N	103°51'31.021"W	1.14
11660.00	90.200	90.700	8711.13	3123.66	40.39	3123.52	686932.70	729053.99	33°00'11.763"N	103°51'30.282"W	0.79
11724.00	89.800	89.700	8711.13	3187.66	40.17	3187.52	686996.69	729053.76	33°00'11.758"N	103°51'29.530"W	1.68
11787.00	89.200	89.900	8711.68	3250.66	40.39	3250.51	687059.69	729053.98	33°00'11.758"N	103°51'28.790"W	1.00
11851.00	89.600	90.400	8712.35	3314.65	40.22	3314.51	687123.68	729053.82	33°00'11.753"N	103°51'28.039"W	1.00
11914.00	89.900	91.200	8712.63	3377.64	39.34	3377.50	687186.67	729052.94	33°00'11.742"N	103°51'27.299"W	1.36
11977.00	90.100	91.200	8712.63	3440.62	38.02	3440.49	687249.65	729051.62	33°00'11.726"N	103°51'26.560"W	0.32
12040.00	89.800	90.700	8712.68	3503.60	36.97	3503.48	687312.64	729050.57	33°00'11.713"N	103°51'25.820"W	0.93
12104.00	89.700	90.300	8712.96	3567.60	36.42	3567.48	687376.63	729050.01	33°00'11.704"N	103°51'25.069"W	0.64
12167.00	89.700	90.800	8713.29	3630.59	35.81	3630.47	687439.62	729049.41	33°00'11.695"N	103°51'24.329"W	0.79
12230.00	89.400	90.800	8713.78	3693.58	34.93	3693.46	687502.61	729048.53	33°00'11.684"N	103°51'23.590"W	0.48
12294.00	88.800	90.000	8714.79	3757.57	34.48	3757.45	687566.59	729048.08	33°00'11.677"N	103°51'22.838"W	1.56
12357.00	89.200	89.200	8715.89	3820.56	34.92	3820.44	687629.58	729048.52	33°00'11.678"N	103°51'22.099"W	1.42
12421.00	90.300	89.600	8716.17	3884.55	35.59	3884.44	687693.57	729049.19	33°00'11.682"N	103°51'21.347"W	1.83
12484.00	90.300	89.900	8715.84	3947.55	35.87	3947.43	687756.56	729049.47	33°00'11.682"N	103°51'20.608"W	0.48
12547.00	89.600	91.200	8715.89	4010.54	35.26	4010.43	687819.55	729048.86	33°00'11.673"N	103°51'19.868"W	2.34
12610.00	90.400	92.300	8715.89	4073.50	33.34	4073.40	687882.52	729046.94	33°00'11.651"N	103°51'19.129"W	2.16
12674.00	89.600	93.500	8715.89	4137.41	30.10	4137.32	687946.43	729043.70	33°00'11.616"N	103°51'18.378"W	2.25
12737.00	88.200	94.200	8717.10	4200.23	25.87	4200.16	688009.27	729039.47	33°00'11.572"N	103°51'17.641"W	2.48
12800.00	87.800	95.100	8719.30	4262.96	20.77	4262.91	688072.02	729034.37	33°00'11.518"N	103°51'16.904"W	1.56
12863.00	88.400	95.400	8721.39	4325.64	15.01	4325.61	688134.71	729028.61	33°00'11.458"N	103°51'16.168"W	1.06
12926.00	89.200	95.100	8722.71	4388.34	9.25	4388.34	688197.43	729022.84	33°00'11.399"N	103°51'15.432"W	1.36
13021.00	89.900	95.000	8723.46	4482.93	0.88	4482.96	688292.05	729014.48	33°00'11.312"N	103°51'14.321"W	0.74
13076.00	89.900	95.000	8723.55	4537.70	-3.91	4537.75	688346.84	729009.69	33°00'11.262"N	103°51'13.678"W	0.00



Actual Wellpath Report

No. 3H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 3H SHL
Area	Chaves County, NM	Well	No. 3H
Field	(Hancock) Sec 19, T15S, R31E	Wellbore	No. 3H AWB
Facility	Hancock 19 St Com No. 3H	Sidetrack from	No. 3 AWB at 8427.80 MD

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
No. 3H PBHL		8708.00	19.32	4548.54	688357.62	729032.92	33°00'11.491"N	103°51'13.550"W	point

WELLPATH COMPOSITION					Ref Wellbore: No. 3H AWB	Ref Wellpath: No. 3H AWP
Start MD [ft]	End MD [ft]	Positional Uncertainty Model			Log Name/Comment	Wellbore
0.00	8427.80	Generic gyro - continuous (Standard)			GYRO <27.1 - 8905>	No. 3 AWB
8427.80	13021.00	NaviTrak (Standard)			MWD	No. 3H AWB
13021.00	13076.00	Blind Drilling (std)			Projection to bit	No. 3H AWB

SUR @ E-19-15s-31e, 1980/N & 375/W
BHL @ H-19-15s-31e, 1987/N & 4945/W
API # 30-005-29047

CIMAREX ENERGY

Wildcat
Chaves County, NM
Hancock 19 State Com #3
VH - Job #32K0710537

RECEIVED

NOV 22 2010
HOBBSD

Survey: Actual

SDI Standard Survey Report

21 August, 2010

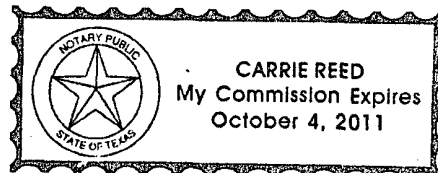
This survey is correct to the best of my knowledge and is supported by actual field data.

R. Hartman

Notorized this date 23rd of August, 2010.

Carrie Reed

Notary Signature
County of Midland
State of Texas



Scientific Drilling International, Inc.
SDI Standard Survey Report

Company:	CIMAREX ENERGY	Local Co-ordinate Reference:	Well Hancock 19 State Com #3
Project:	Wildcat	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Chaves County, NM	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	Hancock 19 State Com #3	North Reference:	Grid
Wellbore:	VH - Job #32K0710537	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0710537	Database:	EDM-Regulatory

Project	Wildcat		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico Central 3002		

Well	Hancock 19 State Com #3					
Well Position	+N/-S	0.0 usft	Northing:	736,498.67 usft	Latitude:	33° 0' 7.200 N
	+E/-W	0.0 usft	Easting:	1,230,037.78 usft	Longitude:	103° 52' 8.400 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	0.0 usft

Wellbore	VH - Job #32K0710537				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2000	12/31/2004	8.77	61.11	49,887

Design : VH - Job #32K0710537				
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	43.44

Survey Program		Date 8/21/2010		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
27.1	8,905.0	Actual (VH - Job #32K0710537)	Keeper	Keeper Gyro

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0	
27.1	0.18	336.67	27.1	0.0	0.0	336.67	0.0	
118.3	0.16	317.19	118.3	0.3	-0.2	328.77	0.3	
207.9	0.16	329.28	207.9	0.5	-0.3	326.30	0.6	
297.9	0.42	286.04	297.9	0.7	-0.7	313.83	1.0	
386.1	0.68	300.84	386.1	1.0	-1.5	305.12	1.8	
474.5	0.80	312.34	474.5	1.7	-2.4	305.88	2.9	
506.3	0.61	321.44	506.3	2.0	-2.6	307.10	3.3	
601.7	0.65	308.96	601.7	2.7	-3.4	309.00	4.3	
792.6	0.65	323.87	792.6	4.3	-4.8	311.46	6.5	
888.0	0.77	328.48	888.0	5.3	-5.5	313.75	7.6	
983.5	0.74	322.61	983.5	6.3	-6.2	315.42	8.8	
1,078.9	0.79	321.80	1,078.8	7.3	-7.0	316.27	10.1	
1,174.4	0.78	320.15	1,174.3	8.3	-7.8	316.81	11.4	
1,269.8	0.55	311.45	1,269.7	9.1	-8.6	316.79	12.5	
1,365.2	0.45	315.52	1,365.1	9.7	-9.2	316.57	13.3	
1,460.7	0.06	318.90	1,460.6	10.0	-9.5	316.55	13.8	

Scientific Drilling International, Inc.
SDI Standard Survey Report

Company:	CIMAREX ENERGY	Local Co-ordinate Reference:	Well Hancock 19 State Com #3
Project:	Wildcat	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Chaves County, NM	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	Hancock 19 State Com #3	North Reference:	Grid
Wellbore:	VH - Job #32K0710537	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0710537	Database:	EDM-Regulatory

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
1,556.1	0.21	158.33	1,556.0	9.9	-9.4	316.29	13.7
1,651.6	0.27	153.98	1,651.5	9.5	-9.3	315.71	13.3
1,747.0	0.24	157.80	1,746.9	9.1	-9.1	315.06	12.9
1,842.4	0.36	139.88	1,842.3	8.7	-8.8	314.59	12.4
1,937.9	0.56	110.53	1,937.8	8.3	-8.2	315.38	11.7
2,033.3	0.72	86.50	2,033.2	8.2	-7.2	318.79	10.9
2,128.8	1.11	72.91	2,128.7	8.5	-5.7	326.21	10.2
2,224.2	1.06	55.31	2,224.1	9.3	-4.1	336.25	10.1
2,319.6	0.86	55.40	2,319.5	10.2	-2.8	344.81	10.5
2,415.1	0.86	57.13	2,415.0	11.0	-1.6	351.85	11.1
2,510.5	0.62	46.09	2,510.3	11.7	-0.6	357.08	11.7
2,606.0	0.59	53.14	2,605.8	12.4	0.2	0.77	12.4
2,701.4	0.63	53.06	2,701.2	13.0	1.0	4.31	13.0
2,796.8	0.61	62.23	2,796.6	13.5	1.8	7.77	13.7
2,892.3	0.55	81.69	2,892.1	13.8	2.8	11.24	14.1
2,987.7	0.42	81.05	2,987.5	14.0	3.5	14.27	14.4
3,083.2	0.33	92.63	3,083.0	14.0	4.2	16.58	14.6
3,178.6	0.27	89.44	3,178.4	14.0	4.7	18.45	14.8
3,274.0	0.29	104.69	3,273.8	13.9	5.1	20.20	14.8
3,369.5	0.36	97.06	3,369.3	13.8	5.7	22.25	14.9
3,464.9	0.36	96.99	3,464.7	13.8	6.3	24.44	15.1
3,560.4	0.42	109.22	3,560.2	13.6	6.9	26.82	15.3
3,655.8	0.27	98.23	3,655.6	13.5	7.4	28.91	15.4
3,751.2	0.16	98.03	3,751.0	13.4	7.8	30.15	15.5
3,846.7	0.08	87.77	3,846.5	13.4	8.0	30.81	15.6
3,942.1	0.04	278.54	3,941.9	13.4	8.0	30.90	15.6
4,037.6	0.15	263.25	4,037.4	13.4	7.9	30.42	15.5
4,133.0	0.21	296.48	4,132.8	13.5	7.6	29.40	15.4
4,228.4	0.25	309.66	4,228.2	13.7	7.3	28.00	15.5
4,323.9	0.32	318.13	4,323.7	14.0	6.9	26.33	15.6
4,419.3	0.39	329.87	4,419.1	14.5	6.6	24.47	15.9
4,514.8	0.43	323.28	4,514.6	15.0	6.2	22.43	16.3
4,610.2	0.45	309.92	4,610.0	15.6	5.7	20.13	16.6
4,705.6	0.49	294.48	4,705.4	16.0	5.1	17.54	16.8
4,801.1	0.50	294.12	4,800.9	16.3	4.3	14.75	16.9
4,896.5	0.36	291.59	4,896.3	16.6	3.6	12.37	17.0
4,992.0	0.36	297.50	4,991.8	16.9	3.1	10.41	17.1
5,087.4	0.33	297.09	5,087.2	17.1	2.6	8.59	17.3
5,182.8	0.33	293.49	5,182.6	17.4	2.1	6.86	17.5
5,278.3	0.40	290.38	5,278.1	17.6	1.5	4.95	17.6
5,373.7	0.40	288.58	5,373.5	17.8	0.9	2.88	17.8
5,469.2	0.40	294.02	5,469.0	18.0	0.3	0.87	18.0
5,564.6	0.35	304.21	5,564.4	18.3	-0.3	359.16	18.3
5,660.0	0.35	295.75	5,659.8	18.6	-0.8	357.62	18.6

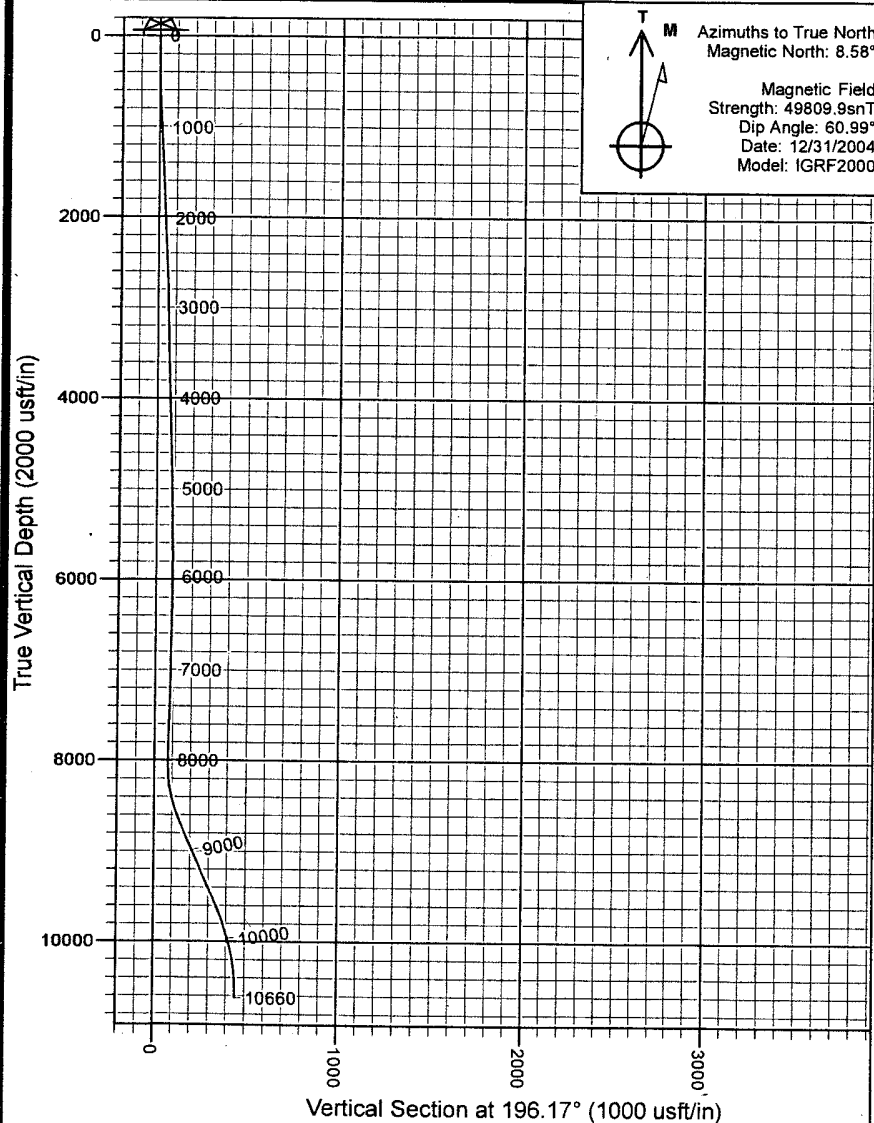
Scientific Drilling International, Inc.
SDI Standard Survey Report

Company:	CIMAREX ENERGY	Local Co-ordinate Reference:	Well Hancock 19 State Com #3
Project:	Wildcat	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Chaves County, NM	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	Hancock 19 State Com #3	North Reference:	Grid
Wellbore:	VH - Job #32K0710537	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0710537	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
5,755.5	0.38	279.11	5,755.3	18.8	-1.3	355.90	18.9
5,850.9	0.37	275.29	5,850.7	18.9	-2.0	354.05	19.0
5,946.4	0.37	279.61	5,946.2	19.0	-2.6	352.26	19.1
6,041.8	0.34	289.10	6,041.6	19.1	-3.2	350.64	19.4
6,137.2	0.27	304.97	6,137.0	19.3	-3.6	349.45	19.7
6,232.7	0.21	304.95	6,232.5	19.6	-3.9	348.64	20.0
6,328.1	0.30	309.89	6,327.9	19.8	-4.3	347.86	20.3
6,423.6	0.28	307.96	6,423.4	20.1	-4.6	347.02	20.7
6,519.0	0.18	316.27	6,518.8	20.4	-4.9	346.40	21.0
6,614.4	0.21	307.71	6,614.2	20.6	-5.2	345.91	21.2
6,709.9	0.31	290.45	6,709.7	20.8	-5.6	345.05	21.5
6,805.3	0.23	282.26	6,805.1	20.9	-6.0	344.05	21.8
6,900.8	0.24	270.40	6,900.6	21.0	-6.4	343.11	21.9
6,996.2	0.20	259.44	6,996.0	20.9	-6.7	342.18	22.0
7,091.6	0.20	243.02	7,091.4	20.8	-7.0	341.32	22.0
7,187.1	0.21	247.74	7,186.9	20.7	-7.4	340.43	22.0
7,282.5	0.16	149.31	7,282.3	20.5	-7.4	340.04	21.8
7,378.0	0.32	109.10	7,377.8	20.3	-7.1	340.66	21.5
7,473.4	0.44	121.55	7,473.2	20.0	-6.6	341.85	21.1
7,568.8	0.48	133.21	7,568.6	19.6	-6.0	343.05	20.4
7,664.3	0.46	135.98	7,664.0	19.0	-5.4	344.14	19.8
7,759.7	0.60	119.31	7,759.4	18.5	-4.7	345.74	19.1
7,855.2	0.89	105.58	7,854.9	18.0	-3.5	348.87	18.4
7,950.6	0.99	102.32	7,950.3	17.7	-2.0	353.45	17.8
8,046.0	1.08	97.99	8,045.7	17.4	-0.3	358.90	17.4
8,141.5	1.45	93.58	8,141.2	17.2	1.8	5.86	17.3
8,236.9	1.37	92.34	8,236.6	17.0	4.1	13.55	17.5
8,332.4	1.19	92.76	8,332.0	17.0	6.2	20.20	18.1
8,427.8	1.09	94.08	8,427.4	16.8	8.1	25.78	18.7
8,523.2	0.89	98.16	8,522.8	16.7	9.8	30.38	19.3
8,618.7	0.85	107.10	8,618.3	16.4	11.2	34.36	19.8
8,714.1	0.74	111.95	8,713.7	15.9	12.4	37.99	20.2
8,809.6	0.56	120.55	8,809.2	15.5	13.4	40.94	20.5
8,905.0	0.54	118.73	8,904.6	15.0	14.2	43.44	20.7

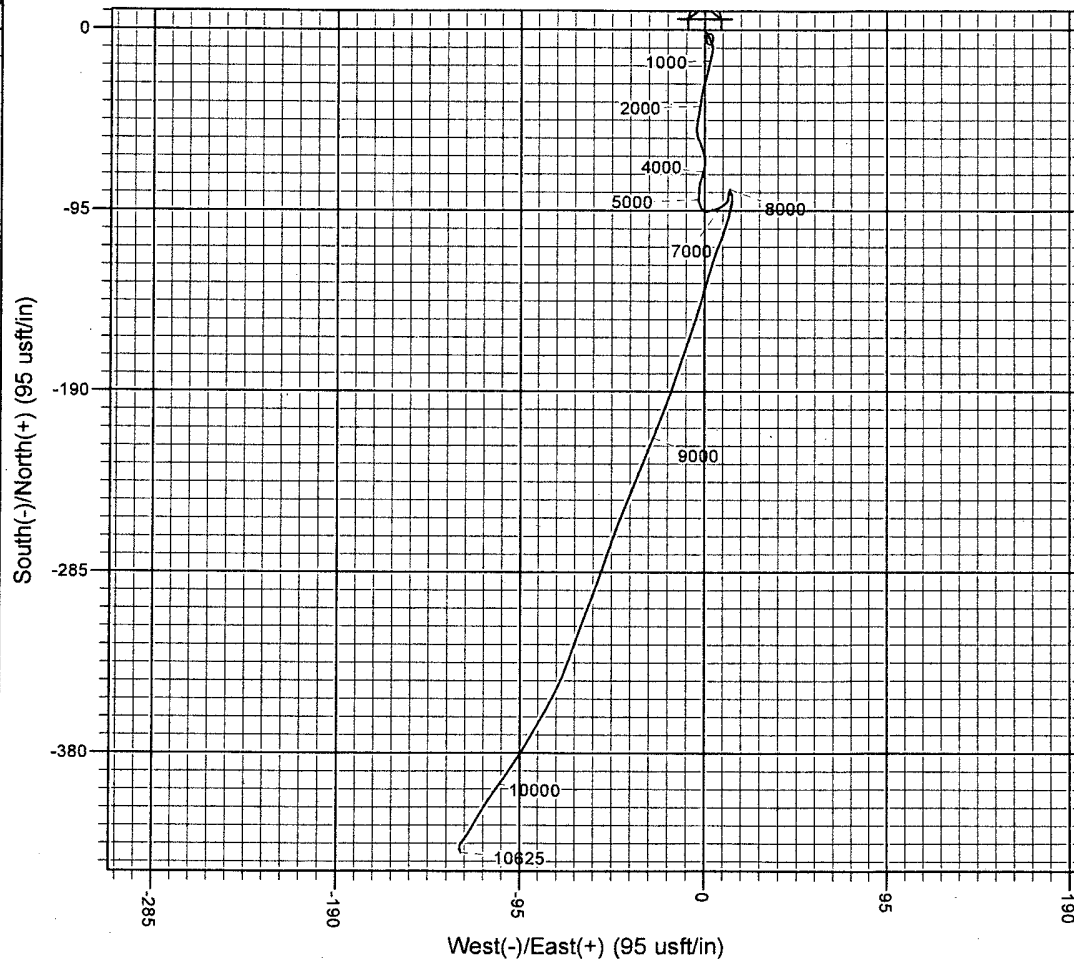


Project: Vacuum Grayburg San Andres
 Lea County, NM
 Well: Central Vacuum Unit #35
 Wellbore: VH - Job #32K0710525
 Design: VH - Job #32K0710525
 Site:



WELL DETAILS: Central Vacuum Unit #35
 WELL @ 0.0usft (Original Well Elev)
 Ground Level: 0.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	656116.37	755139.93	32° 48' 3.600 N	103° 30' 10.800 W	



PROJECT DETAILS: Vacuum Grayburg San Andres
 Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico East 3001
 System Datum: Mean Sea Level

SITE DETAILS: Lea County, NM
 Site Centre Latitude: 32° 48' 3.600 N
 Longitude: 103° 30' 10.800 W
 Positional Uncertainty: 0.0
 Convergence: 0.45
 Local North: True