

Results of Directional Survey

API number:	30-025-39894		
OGRID:		Operator:	CIMAREX ENERGY CO. OF COLORADO
		Property:	MALLON 34 FEDERAL # 19H

surface	ULSTR:	H	34	T 19S	R 34E
				1650 FNL	700 FEL

BH Loc	ULSTR:	E	34	T 19S	R 34E
15025	MD	10826.5	TVD	1990 FNL	4915 FEL
					365 FWL

Top Perf/OH	ULSTR:	H	34	T 19S	R 34E
10900	MD	10875.5	TVD	1668 FNL	814 FEL

Bot Perf/OH	ULSTR:	E	34	T 19S	R 34E
14108	MD	10846.7	TVD	1904 FNL	4003 FEL
					1277 FWL

	MD	N/S	E/W	VD
	10917	-19.64	-128.53	10883.51
TOP PERFS/OH	10900	-18.40	-113.60	10875.51
	10949	-21.98	-156.63	10898.57
	14050	-250.17	-3245.04	10847.91
BOT PERFS/OH	14108	-254.31	-3302.88	10846.65
	14113	-254.67	-3307.87	10846.54

NEXT TO LAST	14874	-320.84	-4065.66	10827.32
LAST READING	14973	-333.59	-4163.83	10826.80
TD	15025	-340.29	-4215.39	10826.53

Surface Location	1650	FN	700	FE
Projected BHL	1990	FN	4915	FE
Location of				
Top Perfs/OH	1668	FN	814	FE
Bottom Perfs/OH	1904	FN	4003	FE

SUMMARY of Subsurface Locations

Surface Location	H-34-19S-34E	1650	FN	700	FE	Vert. Depth
Top Perfs/OH	H-34-19S-34E	1668	FN	814	FE	10875.51
Bottom Perfs/OH	E-34-19S-34E	1904	FN	4003	FE	10846.65
Projected TD	E-34-19S-34E	1990	FN	4915	FE	10826.53

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Cimarex Energy Co.

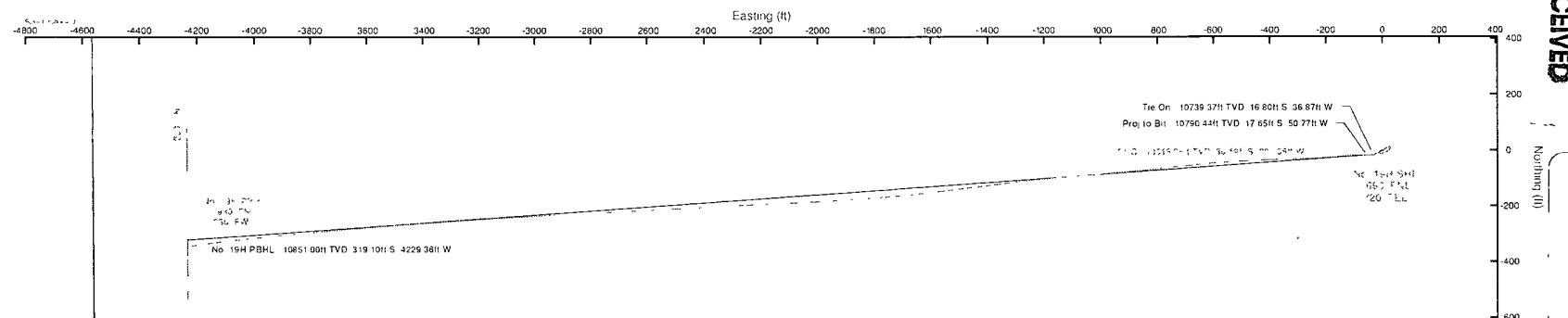
Location Lea County NM
Field (Mallon) Sec 34, T19S, R34E
Facility Mallon 34 Fed No 19H

Slot No 19H SHL
Well No 19H
Wellbore No 19H PWB

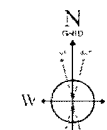


Well Profile Data

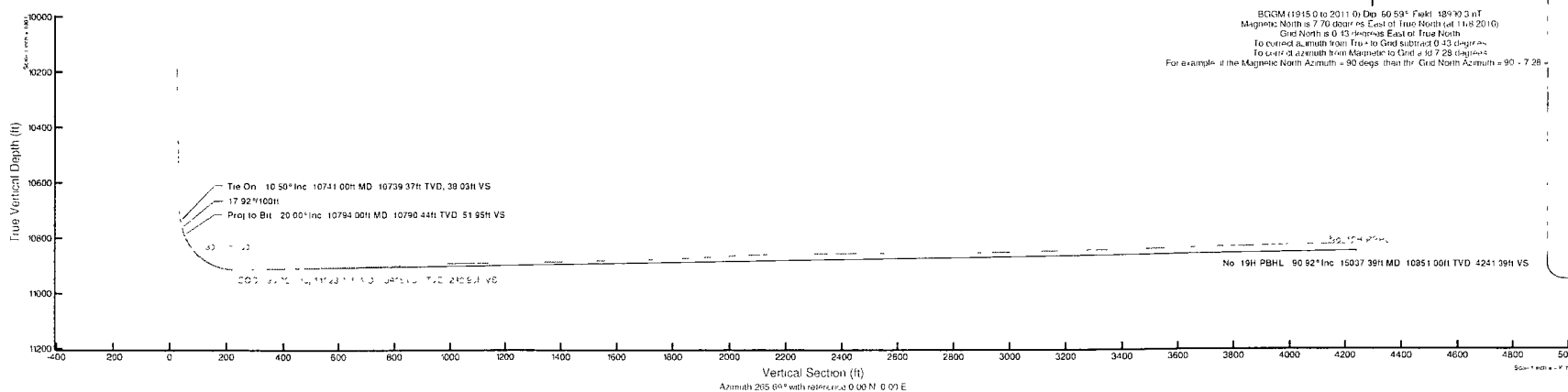
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (%/100ft)	VS (ft)
Tie On	10741.00	10.500	266.500	10739.37	-16.80	-36.87	0.00	38.03
Proj to Bit	10794.00	20.000	266.500	10790.44	-17.65	-50.77	17.92	51.95
EOC	11028.44	90.915	265.867	10915.05	-30.19	-231.35	30.25	232.96
No 19H PBHL	15037.39	90.915	265.867	10851.00	-319.10	-4229.36	0.00	4241.39



Plot reference wellpath is Plan #2	
True vertical depths are referenced to Rig on No. 19H SHL (KB)	Grid System: NAD83 / TM New Mexico State Planes: Eastern Zone (3001) US feet
Measured depths are referenced to Rig on No. 19H SHL (KB)	North Reference: Grid north
Rig on No. 19H SHL (KB) to Mean Sea Level: 3726 feet	Scale: True distance
Mean Sea Level to Mud line (Facility Mallon 34 Fed No. 19H): -3708 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: calphik on 2/17/2011



BCGM (1915.0 to 2011.0) Dr. 59.59° Field: 189.99.3 mT
Magnetic North is 7.70 degrees East of True North (at 1/18/2010)
Grid North is 0.43 degrees East of True North
To convert azimuth from True to Grid subtract 0.43 degrees
To convert azimuth from Magnetic to Grid = 18.728 degrees
For example: if the Magnetic North Azimuth = 90 degrees then the Grid North Azimuth = 90 - 7.28 = 82.72



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HOBBS OGD

SUR: H-34-19S-34e, 1650/N & 700/E
BHL: E-34-19S-34e, 1990/N & 4915/E
API # 30-025-39894



Actual Wellpath Report

No.19 AWB

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 19H SHL
Area	Lea County, NM	Well	No. 19H
Field	(Mallon) Sec 34, T19S, R34E	Wellbore	No.19 AWB
Facility	Mallon 34 Fed No. 19H		

REPORT INFORMATION

Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Calhphik
Scale	0.999977	Report Generated	3/1/2011 at 7:37:26 AM
Convergence at slot	0.43° East	Database/Source file	WA Midland/No.19_AWB.xml

WELLPATH DATA

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	785040.10	589966.70	32°37'09.748"N	103°32'30.513"W
Facility Reference Pt			785040.10	589966.70	32°37'09.748"N	103°32'30.513"W
Field Reference Pt			780804.80	586972.60	32°36'40.432"N	103°33'20.286"W

WELLBORE DATA

Calculation method	Minimum curvature	Rig on No. 19H SHL (KB) to Facility Vertical Datum	18.00ft
Horizontal Reference Pt	Slot	Rig on No. 19H SHL (KB) to Mean Sea Level	3726.00ft
Vertical Reference Pt	Rig on No. 19H SHL (KB)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 19H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	265.69°



Actual Wellpath Report

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INTEQ

Operator **Cimarex Energy Co.** Slot **No. 19H SHL**
Area **Lea County, NM** Well **No. 19H**
Field **(Mallon) Sec 34, T19S, R34E** Wellbore **No.19 AWB**
Facility **Mallon 34 Fed No. 19H**

WELLPATH DATA (246 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	274.790	0.00	0.00	0.00	0.00	785040.10	589966.70	32°37'09.748"N	103°32'30.513"W	0.00	
18.00	0.000	274.790	18.00	0.00	0.00	0.00	785040.10	589966.70	32°37'09.748"N	103°32'30.513"W	0.00	
62.10	0.490	274.790	62.10	0.19	0.02	-0.19	785039.91	589966.72	32°37'09.748"N	103°32'30.515"W	1.11	
124.40	0.500	275.050	124.40	0.72	0.06	-0.72	785039.38	589966.76	32°37'09.749"N	103°32'30.521"W	0.02	
186.60	0.490	275.940	186.59	1.25	-0.11	-1.26	785038.84	589966.81	32°37'09.749"N	103°32'30.528"W	0.02	
248.70	0.490	266.970	248.69	1.77	0.13	-1.79	785038.31	589966.83	32°37'09.750"N	103°32'30.534"W	0.12	
311.00	0.580	247.700	310.99	2.34	-0.01	-2.35	785037.75	589966.69	32°37'09.748"N	103°32'30.540"W	0.32	
373.30	0.590	244.660	373.29	2.94	-0.26	-2.93	785037.17	589966.44	32°37'09.746"N	103°32'30.547"W	0.05	
435.50	0.490	243.400	435.48	3.48	-0.52	-3.45	785036.65	589966.18	32°37'09.743"N	103°32'30.553"W	0.16	
497.50	0.450	242.110	497.48	3.95	-0.75	-3.91	785036.19	589965.95	32°37'09.741"N	103°32'30.559"W	0.07	
559.60	0.430	242.230	559.58	4.39	-0.98	-4.33	785035.77	589965.72	32°37'09.739"N	103°32'30.564"W	0.03	
621.90	0.420	243.630	621.88	4.82	-1.19	-4.74	785035.36	589965.51	32°37'09.737"N	103°32'30.568"W	0.02	
684.20	0.390	240.030	684.18	5.22	-1.39	-5.13	785034.97	589965.31	32°37'09.735"N	103°32'30.573"W	0.06	
746.50	0.360	234.570	746.48	5.58	-1.61	-5.47	785034.63	589965.09	32°37'09.733"N	103°32'30.577"W	0.07	
810.00	0.340	233.890	809.97	5.91	-1.84	-5.79	785034.31	589964.86	32°37'09.730"N	103°32'30.581"W	0.03	
873.60	0.360	231.600	873.57	6.23	-2.07	-6.10	785034.00	589964.63	32°37'09.728"N	103°32'30.584"W	0.04	
937.20	0.410	210.800	937.17	6.53	-2.39	-6.37	785033.73	589964.31	32°37'09.725"N	103°32'30.588"W	0.23	
1000.70	0.540	204.250	1000.67	6.80	-2.86	-6.61	785033.49	589963.84	32°37'09.720"N	103°32'30.590"W	0.22	
1064.30	0.680	196.950	1064.27	7.08	-3.50	-6.84	785033.26	589963.20	32°37'09.714"N	103°32'30.593"W	0.25	
1127.90	0.760	196.430	1127.86	7.37	-4.26	-7.07	785033.03	589962.44	32°37'09.707"N	103°32'30.596"W	0.13	
1191.50	0.690	190.230	1191.46	7.62	-5.04	-7.26	785032.84	589961.66	32°37'09.699"N	103°32'30.598"W	0.17	
1255.00	0.570	192.910	1254.95	7.81	-5.73	-7.40	785032.70	589960.97	32°37'09.692"N	103°32'30.600"W	0.19	
1318.60	0.500	187.950	1318.55	7.96	-6.31	-7.51	785032.59	589960.39	32°37'09.686"N	103°32'30.601"W	0.13	
1382.20	0.490	221.130	1382.15	8.21	-6.79	-7.72	785032.38	589959.91	32°37'09.682"N	103°32'30.604"W	0.44	
1445.70	0.580	223.040	1445.64	8.64	-7.23	-8.12	785031.98	589959.47	32°37'09.677"N	103°32'30.608"W	0.14	
1509.30	0.680	229.250	1509.24	9.18	-7.71	-8.63	785031.47	589958.99	32°37'09.673"N	103°32'30.614"W	0.19	
1572.90	0.730	227.990	1572.84	9.81	-8.23	-9.21	785030.89	589958.47	32°37'09.668"N	103°32'30.621"W	0.08	
1636.40	0.740	216.720	1636.33	10.40	-8.83	-9.76	785030.34	589957.87	32°37'09.662"N	103°32'30.628"W	0.23	
1700.00	0.740	227.240	1699.92	10.99	-9.44	-10.31	785029.79	589957.26	32°37'09.656"N	103°32'30.634"W	0.21	
1763.60	0.690	223.060	1763.52	11.60	-9.99	-10.88	785029.22	589956.71	32°37'09.650"N	103°32'30.641"W	0.09	
1827.20	0.530	219.230	1827.12	12.09	-10.48	-11.33	785028.77	589956.22	32°37'09.645"N	103°32'30.646"W	0.27	

1890.70	0.460	165.660	1890.61	12.25	-10.96	-11.46	785028.64	589955.74	32°37'09.641"N	103°32'30.648"W	0.71
1954.30	0.580	116.080	1954.21	11.93	-11.35	-11.10	785029.00	589955.35	32°37'09.637"N	103°32'30.644"W	0.71
2017.90	0.700	104.840	2017.81	11.28	-11.59	-10.44	785029.66	589955.11	32°37'09.634"N	103°32'30.636"W	0.27
2081.40	0.710	107.370	2081.30	10.55	-11.81	-9.69	785030.41	589954.89	32°37'09.632"N	103°32'30.627"W	0.05
2145.00	0.720	121.610	2144.90	9.86	-12.13	-8.97	785031.13	589954.57	32°37'09.629"N	103°32'30.619"W	0.28
2208.60	0.770	128.850	2208.49	9.23	-12.61	-8.30	785031.80	589954.09	32°37'09.624"N	103°32'30.611"W	0.17
2272.10	0.710	105.930	2271.99	8.55	-12.99	-7.59	785032.51	589953.71	32°37'09.620"N	103°32'30.603"W	0.47
2335.70	0.760	105.970	2335.58	7.78	-13.21	-6.81	785033.30	589953.49	32°37'09.618"N	103°32'30.594"W	0.08
2399.30	0.650	91.880	2399.18	7.03	-13.34	-6.04	785034.06	589953.36	32°37'09.617"N	103°32'30.585"W	0.32
2462.90	0.680	90.280	2462.77	6.29	-13.35	-5.30	785034.80	589953.35	32°37'09.617"N	103°32'30.576"W	0.06
2526.40	0.690	92.330	2526.27	5.54	-13.37	-4.54	785035.56	589953.33	32°37'09.616"N	103°32'30.567"W	0.04
2590.00	0.830	86.290	2589.86	4.69	-13.36	-3.70	785036.40	589953.35	32°37'09.616"N	103°32'30.557"W	0.25
2653.60	0.910	85.130	2653.46	3.73	-13.28	-2.74	785037.36	589953.42	32°37'09.617"N	103°32'30.546"W	0.13
2717.10	1.050	74.380	2716.95	2.65	-13.08	-1.67	785038.43	589953.62	32°37'09.619"N	103°32'30.534"W	0.36



Actual Wellpath Report

No.19 AWB

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Operator **Cimarex Energy Co.**
Area **Lea County, NM**
Field **(Mallon) Sec 34, T19S, R34E**
Facility **Mallon 34 Fed No. 19H**

Slot **No. 19H SHL**
Well **No. 19H**
Wellbore **No.19 AWB**

WELLPATH DATA (246 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]	Comments
2780.70	1.470	69.720	2780.53	1.30	-12.64	-0.35	785039.75	589954.06	32°37'09.623"N	103°32'30.518"W	0.68	
2844.30	1.780	53.880	2844.11	-0.33	-11.78	1.22	785041.32	589954.92	32°37'09.632"N	103°32'30.500"W	0.85	
2907.80	2.100	71.730	2907.57	-2.29	-10.83	3.12	785043.22	589955.87	32°37'09.641"N	103°32'30.477"W	1.07	
2971.40	2.310	67.770	2971.12	-4.64	-9.98	5.41	785045.51	589956.72	32°37'09.649"N	103°32'30.451"W	0.41	
3035.00	2.440	60.340	3034.67	-7.09	-8.83	7.77	785047.87	589957.87	32°37'09.660"N	103°32'30.423"W	0.53	
3098.60	2.440	69.820	3098.21	-9.61	-7.69	10.22	785050.32	589959.01	32°37'09.671"N	103°32'30.394"W	0.63	
3162.10	2.380	66.370	3161.65	-12.16	-6.70	12.70	785052.80	589960.00	32°37'09.681"N	103°32'30.365"W	0.25	
3225.70	2.300	62.900	3225.20	-14.58	-5.58	15.04	785055.14	589961.12	32°37'09.692"N	103°32'30.338"W	0.26	
3289.30	2.240	83.780	3288.75	-17.00	-4.87	17.41	785057.51	589961.83	32°37'09.699"N	103°32'30.310"W	1.30	
3352.80	2.060	58.980	3352.21	-19.26	-4.15	19.63	785059.73	589962.55	32°37'09.706"N	103°32'30.284"W	1.48	
3416.40	1.670	55.780	3415.78	-21.08	-3.04	21.37	785061.47	589963.66	32°37'09.717"N	103°32'30.263"W	0.63	
3480.00	1.350	49.370	3479.35	-22.49	-2.03	22.71	785062.81	589964.67	32°37'09.727"N	103°32'30.248"W	0.57	
3543.50	1.190	46.430	3542.84	-23.60	-1.09	23.75	785063.85	589965.61	32°37'09.736"N	103°32'30.235"W	0.27	
3607.10	1.080	41.940	3606.43	-24.55	-0.18	24.63	785064.73	589966.52	32°37'09.745"N	103°32'30.225"W	0.22	
3670.70	0.980	35.280	3670.02	-25.33	-0.71	25.35	785065.45	589967.41	32°37'09.753"N	103°32'30.216"W	0.25	
3734.30	0.980	30.810	3733.61	-25.99	1.62	25.94	785066.04	589968.32	32°37'09.762"N	103°32'30.209"W	0.12	
3797.80	1.010	7.140	3797.10	-26.41	2.64	26.29	785066.39	589969.34	32°37'09.772"N	103°32'30.205"W	0.64	
3861.40	1.050	27.780	3860.69	-26.83	3.71	26.63	785066.73	589970.41	32°37'09.783"N	103°32'30.201"W	0.58	
3925.00	1.000	17.030	3924.28	-27.34	4.76	27.06	785067.16	589971.46	32°37'09.793"N	103°32'30.196"W	0.31	
3988.50	0.800	8.430	3987.77	-27.64	5.72	27.29	785067.39	589972.42	32°37'09.803"N	103°32'30.193"W	0.58	
4052.10	0.660	27.370	4051.36	-27.93	6.49	27.52	785067.62	589973.19	32°37'09.810"N	103°32'30.191"W	0.44	
4115.70	0.440	7.770	4114.96	-28.18	7.06	27.72	785067.82	589973.76	32°37'09.816"N	103°32'30.188"W	0.45	
4179.20	0.300	13.420	4178.46	-28.28	7.46	27.80	785067.89	589974.16	32°37'09.820"N	103°32'30.187"W	0.23	
4242.80	0.240	16.980	4242.06	-28.38	7.75	27.87	785067.97	589974.45	32°37'09.823"N	103°32'30.186"W	0.10	
4306.40	0.220	45.010	4305.66	-28.52	7.96	28.00	785068.10	589974.66	32°37'09.825"N	103°32'30.185"W	0.18	
4369.90	0.330	50.000	4369.16	-28.76	8.17	28.22	785068.32	589974.87	32°37'09.827"N	103°32'30.182"W	0.18	
4433.50	0.290	69.060	4432.76	-29.06	8.34	28.52	785068.61	589975.04	32°37'09.829"N	103°32'30.179"W	0.17	
4497.10	0.230	62.630	4496.36	-29.33	8.46	28.78	785068.88	589975.16	32°37'09.830"N	103°32'30.176"W	0.10	
4560.70	0.350	47.880	4559.96	-29.60	8.65	29.04	785069.14	589975.35	32°37'09.832"N	103°32'30.173"W	0.22	
4624.20	0.570	45.650	4623.45	-29.91	8.92	29.33	785069.43	589975.62	32°37'09.834"N	103°32'30.169"W	0.04	
4687.80	0.370	20.700	4687.05	-30.16	9.26	29.55	785069.65	589975.96	32°37'09.838"N	103°32'30.167"W	0.25	

4751.40	0.340	6.500	4750.65	-30.28	9.64	29.64	785069.74	589976.34	32°37'09.841"N	103°32'30.166"W	0.15
4814.90	0.370	340.670	4814.15	-30.26	10.02	29.59	785069.69	589976.72	32°37'09.845"N	103°32'30.166"W	0.25
4878.50	0.340	339.170	4877.75	-30.16	10.39	29.46	785069.56	589977.09	32°37'09.849"N	103°32'30.168"W	0.05
4942.10	0.420	330.690	4941.35	-30.00	10.77	29.28	785069.38	589977.47	32°37'09.853"N	103°32'30.170"W	0.15
5005.60	0.350	318.330	5004.85	-29.79	11.11	29.03	785069.13	589977.81	32°37'09.856"N	103°32'30.172"W	0.17
5069.20	0.280	322.480	5068.45	-29.59	11.38	28.81	785068.91	589978.08	32°37'09.859"N	103°32'30.175"W	0.12
5132.80	0.210	321.770	5132.04	-29.44	11.60	28.64	785068.74	589978.30	32°37'09.861"N	103°32'30.177"W	0.11
5196.40	0.170	27.960	5195.64	-29.42	11.77	28.62	785068.72	589978.47	32°37'09.863"N	103°32'30.177"W	0.33
5259.90	0.230	50.180	5259.14	-29.57	11.94	28.76	785068.86	589978.64	32°37'09.864"N	103°32'30.176"W	0.15
5323.50	0.280	35.650	5322.74	-29.78	12.14	28.95	785069.05	589978.84	32°37'09.866"N	103°32'30.173"W	0.13
5387.10	0.280	38.870	5386.34	-29.98	12.39	29.13	785069.23	589979.09	32°37'09.869"N	103°32'30.171"W	0.02
5450.60	0.250	26.410	5449.84	-30.16	12.64	29.29	785069.39	589979.34	32°37'09.871"N	103°32'30.169"W	0.10
5514.20	0.180	6.200	5513.44	-30.25	12.86	29.37	785069.47	589979.56	32°37'09.873"N	103°32'30.168"W	0.16
5577.80	0.150	348.880	5577.04	-30.26	13.04	29.36	785069.46	589979.74	32°37'09.875"N	103°32'30.168"W	0.09



Actual Wellpath Report

No.19 AWB

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BAKER
HUGHES

INTEQ

Operator **Cimarex Energy Co.** Slot **No. 19H SHL**
Area **Lea County, NM** Well **No. 19H**
Field **(Mallon) Sec 34, T19S, R34E** Wellbore **No.19 AWB**
Facility **Mallon 34 Fed No. 19H**

WELLPATH DATA (246 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]	Comments
5641.40	0.070	336.440	5640.64	-30.24	13.16	29.33	785069.43	589979.86	32°37'09.876"N	103°32'30.169"W	0.13	
5704.90	0.120	250.330	5704.14	-30.16	13.17	29.25	785069.35	589979.87	32°37'09.876"N	103°32'30.170"W	0.21	
5768.50	0.210	232.910	5767.74	-30.00	13.08	29.10	785069.19	589979.78	32°37'09.876"N	103°32'30.172"W	0.16	
5832.10	0.290	240.880	5831.34	-29.75	12.93	28.86	785068.96	589979.63	32°37'09.874"N	103°32'30.174"W	0.14	
5895.60	0.310	243.500	5894.84	-29.45	12.78	28.57	785068.67	589979.48	32°37'09.873"N	103°32'30.178"W	0.04	
5959.20	0.310	241.340	5958.44	-29.13	12.62	28.26	785068.36	589979.32	32°37'09.871"N	103°32'30.181"W	0.02	
6022.80	0.280	242.780	6022.04	-28.83	12.46	27.97	785068.07	589979.16	32°37'09.869"N	103°32'30.185"W	0.05	
6086.30	0.300	238.810	6085.54	-28.54	12.31	27.69	785067.79	589979.01	32°37'09.868"N	103°32'30.188"W	0.04	
6149.90	0.420	241.170	6149.14	-28.18	12.11	27.35	785067.45	589978.81	32°37'09.866"N	103°32'30.192"W	0.19	
6213.50	0.550	252.490	6212.73	-27.67	11.90	26.85	785066.95	589978.60	32°37'09.864"N	103°32'30.198"W	0.25	
6277.10	0.670	264.710	6276.33	-27.00	11.78	26.19	785066.29	589978.48	32°37'09.863"N	103°32'30.206"W	0.28	
6340.60	0.830	261.430	6339.82	-26.17	11.67	25.37	785065.47	589978.37	32°37'09.862"N	103°32'30.215"W	0.26	
6404.20	0.830	265.320	6403.42	-25.25	11.57	24.45	785064.55	589978.27	32°37'09.861"N	103°32'30.226"W	0.09	
6467.80	0.950	264.740	6467.01	-24.26	11.48	23.47	785063.57	589978.18	32°37'09.860"N	103°32'30.238"W	0.19	
6531.30	0.940	249.180	6530.50	-23.24	11.25	22.46	785062.56	589977.95	32°37'09.858"N	103°32'30.249"W	0.40	
6594.90	1.110	248.810	6594.09	-22.15	10.84	21.39	785061.49	589977.54	32°37'09.854"N	103°32'30.262"W	0.27	
6658.50	1.170	236.870	6657.68	-20.99	10.26	20.28	785060.38	589976.96	32°37'09.848"N	103°32'30.275"W	0.38	
6722.00	0.980	248.640	6721.17	-19.90	9.71	19.23	785059.33	589976.41	32°37'09.843"N	103°32'30.287"W	0.46	
6785.60	1.140	240.150	6784.76	-18.81	9.20	18.17	785058.27	589975.90	32°37'09.838"N	103°32'30.300"W	0.35	
6849.20	1.090	247.560	6848.34	-17.67	8.65	17.06	785057.16	589975.35	32°37'09.833"N	103°32'30.313"W	0.24	
6912.80	1.130	256.050	6911.93	-16.47	8.27	15.90	785056.00	589974.97	32°37'09.829"N	103°32'30.326"W	0.27	
6976.30	0.980	243.470	6975.42	-15.35	7.88	14.80	785054.90	589974.58	32°37'09.825"N	103°32'30.339"W	0.43	
7039.90	0.910	231.130	7039.01	-14.43	7.32	13.92	785054.02	589974.02	32°37'09.820"N	103°32'30.349"W	0.34	
7103.50	0.760	236.500	7102.61	-13.65	6.77	13.18	785053.28	589973.47	32°37'09.814"N	103°32'30.358"W	0.27	
7167.00	0.790	233.400	7166.10	-12.91	6.27	12.48	785052.58	589972.97	32°37'09.809"N	103°32'30.366"W	0.08	
7230.60	0.740	238.100	7229.70	-12.18	5.80	11.77	785051.87	589972.49	32°37'09.805"N	103°32'30.375"W	0.13	
7294.20	0.730	234.060	7293.29	-11.47	5.34	11.10	785051.20	589972.04	32°37'09.800"N	103°32'30.383"W	0.08	
7357.70	0.710	232.010	7356.78	-10.80	4.86	10.46	785050.56	589971.56	32°37'09.796"N	103°32'30.390"W	0.05	
7421.30	0.810	240.070	7420.38	-10.06	4.39	9.76	785049.86	589971.09	32°37'09.791"N	103°32'30.398"W	0.23	
7484.90	0.810	256.020	7483.97	-9.21	4.06	8.93	785049.03	589970.76	32°37'09.788"N	103°32'30.408"W	0.35	
7548.40	0.770	246.620	7547.47	-8.37	3.78	8.11	785048.21	589970.48	32°37'09.785"N	103°32'30.418"W	0.21	

7612.00	0.740	239.110	7611.06	-7.60	3.40	7.36	785047.46	589970.10	32°37'09.781"N	103°32'30.427"W	0.16
7675.60	0.760	229.900	7674.66	-6.89	2.92	6.69	785046.79	589969.62	32°37'09.777"N	103°32'30.434"W	0.19
7739.20	0.690	217.750	7738.25	-6.29	2.35	6.13	785046.23	589969.05	32°37'09.771"N	103°32'30.441"W	0.26
7802.70	0.740	215.520	7801.75	-5.77	1.71	5.66	785045.76	589968.41	32°37'09.765"N	103°32'30.447"W	0.09
7866.30	0.930	219.570	7865.34	-5.15	0.98	5.09	785045.19	589967.68	32°37'09.758"N	103°32'30.453"W	0.31
7929.90	1.170	228.560	7928.93	-4.27	0.15	4.28	785044.38	589966.85	32°37'09.749"N	103°32'30.463"W	0.46
7993.40	1.280	233.900	7992.41	-3.15	-0.70	3.22	785043.32	589966.00	32°37'09.741"N	103°32'30.475"W	0.25
8057.00	1.230	231.450	8056.00	-1.99	-1.54	2.11	785042.21	589965.16	32°37'09.733"N	103°32'30.488"W	0.12
8120.60	1.110	231.370	8119.59	-0.91	-2.35	1.09	785041.19	589964.35	32°37'09.725"N	103°32'30.500"W	0.19
8184.10	1.010	239.560	8183.07	0.10	-3.02	0.13	785040.23	589963.68	32°37'09.718"N	103°32'30.512"W	0.29
8247.70	0.970	239.990	8246.67	1.09	-3.57	-0.82	785039.28	589963.13	32°37'09.713"N	103°32'30.523"W	0.06
8311.30	1.050	240.020	8310.26	2.10	-4.13	-1.79	785038.31	589962.57	32°37'09.707"N	103°32'30.534"W	0.13
8374.90	0.990	245.080	8373.85	3.14	-4.65	-2.79	785037.31	589962.05	32°37'09.702"N	103°32'30.546"W	0.17
8438.40	0.920	253.750	8437.34	4.15	-5.03	-3.78	785036.32	589961.67	32°37'09.699"N	103°32'30.558"W	0.25



Actual Wellpath Report

No.19 AWB

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INTEQ

REFERENCE WELL INFORMATION			
Operator	Cimarex Energy Co.	Slot	No. 19H SHL
Area	Lea County, NM	Well	No. 19H
Field	(Mallon) Sec 34, T19S, R34E	Wellbore	No.19 AWB
Facility	Mallon 34 Fed No. 19H		

WELLPATH DATA (246 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]	Comments
8502.00	0.840	255.920	8500.93	5.11	-5.28	-4.72	785035.38	589961.42	32°37'09.696"N	103°32'30.569"W	0.14	
8565.60	0.760	261.140	8564.52	5.99	-5.46	-5.59	785034.51	589961.24	32°37'09.695"N	103°32'30.579"W	0.17	
8629.10	0.650	265.570	8628.02	6.77	-5.56	-6.37	785033.73	589961.14	32°37'09.694"N	103°32'30.588"W	0.19	
8692.70	0.520	258.970	8691.61	7.41	-5.64	-7.01	785033.09	589961.06	32°37'09.693"N	103°32'30.595"W	0.23	
8756.30	0.760	268.860	8755.21	8.12	-5.70	-7.71	785032.39	589961.00	32°37'09.692"N	103°32'30.604"W	0.41	
8819.90	0.740	254.850	8818.81	8.95	-5.82	-8.53	785031.57	589960.88	32°37'09.691"N	103°32'30.613"W	0.29	
8883.40	0.590	271.480	8882.30	9.67	-5.92	-9.26	785030.84	589960.78	32°37'09.690"N	103°32'30.622"W	0.38	
8947.00	0.620	293.140	8945.90	10.31	-5.77	-9.90	785030.20	589960.93	32°37'09.692"N	103°32'30.629"W	0.36	
9010.60	0.460	261.790	9009.49	10.87	-5.67	-10.47	785029.63	589961.03	32°37'09.693"N	103°32'30.636"W	0.52	
9074.10	0.540	259.240	9072.99	11.42	-5.77	-11.01	785029.09	589960.93	32°37'09.692"N	103°32'30.642"W	0.13	
9137.70	0.480	254.560	9136.59	11.98	-5.89	-11.57	785028.53	589960.81	32°37'09.691"N	103°32'30.649"W	0.11	
9201.30	0.610	236.860	9200.19	12.53	-6.15	-12.11	785027.99	589960.55	32°37'09.688"N	103°32'30.655"W	0.33	
9264.80	0.680	219.240	9263.68	13.09	-6.63	-12.63	785027.47	589960.07	32°37'09.684"N	103°32'30.661"W	0.33	
9328.40	0.970	212.380	9327.28	13.67	-7.37	-13.15	785026.95	589959.33	32°37'09.676"N	103°32'30.667"W	0.48	
9392.00	1.210	211.810	9390.86	14.39	-8.40	-13.80	785026.30	589958.30	32°37'09.666"N	103°32'30.675"W	0.38	
9455.50	0.880	232.210	9454.35	15.19	-9.27	-14.54	785025.56	589957.43	32°37'09.658"N	103°32'30.684"W	0.78	
9519.10	0.930	243.630	9517.95	16.08	-9.80	-15.38	785024.72	589956.90	32°37'09.652"N	103°32'30.694"W	0.29	
9582.70	0.850	234.710	9581.54	16.96	-10.30	-16.23	785023.87	589956.40	32°37'09.648"N	103°32'30.704"W	0.25	
9646.30	0.810	240.230	9645.13	17.77	-10.79	-17.01	785023.09	589955.91	32°37'09.643"N	103°32'30.713"W	0.14	
9709.80	0.780	229.830	9708.63	18.53	-11.30	-17.73	785022.37	589955.41	32°37'09.638"N	103°32'30.721"W	0.23	
9773.40	0.800	237.740	9772.22	19.27	-11.81	-18.43	785021.67	589954.89	32°37'09.633"N	103°32'30.729"W	0.17	
9837.00	0.870	254.080	9835.81	20.13	-12.18	-19.27	785020.83	589954.52	32°37'09.629"N	103°32'30.739"W	0.39	
9900.50	0.910	260.990	9899.31	21.11	-12.39	-20.23	785019.87	589954.31	32°37'09.627"N	103°32'30.751"W	0.18	
9964.10	0.870	264.050	9962.90	22.10	-12.52	-21.21	785018.89	589954.18	32°37'09.626"N	103°32'30.762"W	0.10	
10027.70	0.950	257.110	10026.49	23.10	-12.69	-22.21	785017.89	589954.01	32°37'09.624"N	103°32'30.774"W	0.21	
10091.30	0.730	253.640	10090.08	24.02	-12.92	-23.11	785016.99	589953.78	32°37'09.622"N	103°32'30.784"W	0.35	
10154.80	0.830	261.390	10153.58	24.87	-13.10	-23.95	785016.15	589953.60	32°37'09.620"N	103°32'30.794"W	0.23	
10218.40	0.740	251.210	10217.17	25.73	-13.30	-24.80	785015.30	589953.40	32°37'09.618"N	103°32'30.804"W	0.26	
10282.00	0.740	254.210	10280.77	26.53	-13.55	-25.58	785014.52	589953.15	32°37'09.616"N	103°32'30.813"W	0.06	
10345.50	0.810	245.200	10344.26	27.35	-13.85	-26.38	785013.72	589952.85	32°37'09.613"N	103°32'30.823"W	0.22	
10409.10	0.950	238.290	10407.85	28.24	-14.31	-27.24	785012.86	589952.39	32°37'09.609"N	103°32'30.833"W	0.28	

10472.70	0.910	240.350	10471.44	29.16	-14.84	-28.13	785011.97	589951.86	32°37'09.603"N	103°32'30.843"W	0.08
10536.20	0.920	227.310	10534.94	30.02	-15.44	-28.94	785011.16	589951.26	32°37'09.598"N	103°32'30.853"W	0.33
10599.80	0.800	238.580	10598.53	30.82	-16.01	-29.69	785010.41	589950.69	32°37'09.592"N	103°32'30.861"W	0.33
10673.00	1.100	266.100	10671.72	31.97	-16.33	-30.83	785009.27	589950.37	32°37'09.589"N	103°32'30.875"W	0.73
10690.00	2.400	263.800	10688.71	32.49	-16.38	-31.35	785008.75	589950.32	32°37'09.589"N	103°32'30.881"W	7.66
10709.00	5.000	264.700	10707.67	33.72	-16.50	-32.57	785007.53	589950.20	32°37'09.587"N	103°32'30.895"W	13.69
10741.00	10.500	266.500	10739.37	38.03	-16.80	-36.87	785003.23	589949.90	32°37'09.585"N	103°32'30.945"W	17.20
10791.00	21.000	266.500	10787.42	51.58	-17.63	-50.40	784989.70	589949.07	32°37'09.578"N	103°32'31.104"W	21.00
10820.00	29.000	270.200	10813.68	63.81	-17.92	-62.64	784977.17	589948.78	32°37'09.576"N	103°32'31.247"W	28.10
10852.00	39.000	270.600	10840.18	81.62	-17.79	-80.51	784959.60	589948.91	32°37'09.578"N	103°32'31.456"W	31.26
10882.00	47.100	268.100	10862.09	102.04	-18.06	-100.96	784939.14	589948.64	32°37'09.577"N	103°32'31.695"W	27.59
10917.00	57.300	265.500	10883.51	129.65	-19.64	-128.53	784911.57	589947.06	32°37'09.563"N	103°32'32.017"W	29.72
10949.00	66.500	265.000	10898.57	157.84	-21.98	-156.63	784883.47	589944.72	32°37'09.542"N	103°32'32.346"W	28.78
10980.00	76.500	265.600	10908.39	187.20	-24.38	-185.89	784854.21	589942.32	32°37'09.521"N	103°32'32.688"W	32.31



Actual Wellpath Report

No.19 AWB

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INTEQ

WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 19H SHL
Area	Lea County, NM	Well	No. 19H
Field	(Mallon) Sec 34, T19S, R34E	Wellbore	No.19 AWB
Facility	Mallon 34 Fed No. 19H		

WELLPATH DATA (246 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [sry ft]	Grid North [sry ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11012.00	85.300	265.900	10913.45	218.77	-26.72	-217.37	784822.73	589939.98	32°37'09.500"N	103°32'33.057"W	27.52	
11043.00	89.700	267.900	10914.80	249.72	-28.40	-248.29	784791.82	589938.30	32°37'09.486"N	103°32'33.418"W	15.59	
11073.00	89.900	268.300	10914.90	279.70	-29.39	-278.27	784761.83	589937.31	32°37'09.478"N	103°32'33.769"W	1.49	
11105.00	91.500	267.900	10914.51	311.66	-30.45	-310.25	784729.86	589936.25	32°37'09.470"N	103°32'34.143"W	5.15	
11136.00	92.500	267.300	10913.43	342.63	-31.75	-341.21	784698.90	589934.95	32°37'09.459"N	103°32'34.505"W	3.76	
11200.00	91.800	267.800	10911.03	406.55	-34.48	-405.10	784635.01	589932.22	32°37'09.437"N	103°32'35.252"W	1.34	
11263.00	91.000	266.900	10909.49	469.50	-37.39	-468.01	784572.10	589929.31	32°37'09.413"N	103°32'35.988"W	1.91	
11325.00	91.400	266.700	10908.19	531.48	-40.85	-529.90	784510.21	589925.85	32°37'09.383"N	103°32'36.712"W	0.72	
11390.00	91.500	265.400	10906.55	596.45	-45.33	-594.73	784445.39	589921.37	32°37'09.343"N	103°32'37.470"W	2.01	
11455.00	91.100	264.100	10905.07	661.43	-51.28	-659.44	784380.68	589915.42	32°37'09.289"N	103°32'38.227"W	2.09	
11518.00	91.700	263.600	10903.53	724.37	-58.02	-722.05	784318.06	589908.68	32°37'09.227"N	103°32'38.960"W	1.24	
11582.00	92.300	264.500	10901.30	788.31	-64.65	-785.67	784254.45	589902.05	32°37'09.166"N	103°32'39.704"W	1.69	
11643.00	92.300	264.700	10898.85	849.25	-70.39	-846.35	784193.77	589896.31	32°37'09.114"N	103°32'40.414"W	0.33	
11705.00	92.800	264.700	10896.09	911.18	-76.11	-908.02	784132.10	589890.59	32°37'09.062"N	103°32'41.135"W	0.81	
11769.00	91.300	264.900	10893.81	975.13	-81.91	-971.72	784068.41	589884.79	32°37'09.009"N	103°32'41.881"W	2.36	
11832.00	91.200	264.900	10892.43	1038.11	-87.51	-1034.45	784005.67	589879.20	32°37'08.958"N	103°32'42.615"W	0.16	
11895.00	91.000	264.500	10891.22	1101.08	-93.33	-1097.17	783942.95	589873.38	32°37'08.906"N	103°32'43.348"W	0.71	
11962.00	90.700	264.600	10890.23	1168.06	-99.69	-1163.86	783876.27	589867.01	32°37'08.847"N	103°32'44.129"W	0.47	
12025.00	90.300	264.400	10889.68	1231.05	-105.73	-1226.57	783813.56	589860.98	32°37'08.792"N	103°32'44.862"W	0.71	
12085.00	90.400	263.800	10889.31	1291.02	-111.89	-1286.25	783753.88	589854.81	32°37'08.736"N	103°32'45.560"W	1.01	
12148.00	91.100	262.900	10888.49	1353.96	-119.19	-1348.82	783691.31	589847.51	32°37'08.668"N	103°32'46.293"W	1.81	
12211.00	91.300	262.900	10887.17	1416.88	-126.97	-1411.32	783628.81	589839.73	32°37'08.596"N	103°32'47.024"W	0.32	
12275.00	91.600	262.600	10885.55	1480.77	-135.05	-1474.79	783565.35	589831.66	32°37'08.520"N	103°32'47.767"W	0.66	
12339.00	91.600	263.300	10883.76	1544.67	-142.90	-1538.28	783501.86	589823.80	32°37'08.447"N	103°32'48.510"W	1.09	
12403.00	91.100	262.700	10882.25	1608.59	-150.70	-1601.79	783438.35	589816.01	32°37'08.375"N	103°32'49.253"W	1.22	
12467.00	91.400	264.100	10880.86	1672.52	-158.05	-1665.35	783374.79	589808.65	32°37'08.307"N	103°32'49.997"W	2.24	
12530.00	91.500	265.800	10879.26	1735.49	-163.59	-1728.08	783312.06	589803.11	32°37'08.256"N	103°32'50.730"W	2.70	
12592.00	92.100	265.900	10877.31	1797.46	-168.08	-1789.89	783250.26	589798.63	32°37'08.217"N	103°32'51.453"W	0.98	
12655.00	92.800	266.200	10874.62	1860.40	-172.41	-1852.68	783187.47	589794.29	32°37'08.178"N	103°32'52.188"W	1.21	
12719.00	92.800	265.600	10871.50	1924.32	-176.99	-1916.44	783123.71	589789.72	32°37'08.138"N	103°32'52.934"W	0.94	
12781.00	92.800	266.300	10868.47	1986.25	-181.36	-1978.21	783061.94	589785.35	32°37'08.099"N	103°32'53.656"W	1.13	

12844.00	92 600	266 800	10865 50	2049 17	-185 15	-2041.03	782999 13	589781 56	32°37'08.066"N	103°32'54 391"W	0 85
12909.00	92 300	267 900	10862 72	2114 08	-188 15	-2105 90	782934 26	589778 56	32°37'08 041"N	103°32'55 150"W	1 75
12973.00	90 400	267 400	10861 21	2178 02	-190 77	-2169.82	782870 33	589775 93	32°37'08 020"N	103°32'55 897"W	3 07
13036.00	90 500	267 000	10860 72	2241 00	-193 85	-2232.74	782807 41	589772 86	32°37'07.994"N	103°32'56 633"W	0 65
13100 00	90.600	267 000	10860 10	2304 98	-197 20	-2296.65	782743 50	589769 51	32°37'07.966"N	103°32'57 381"W	0 16
13163 00	90 600	266 700	10859 44	2367 96	-200 66	-2359.55	782680 61	589766 04	32°37'07.936"N	103°32'58 116"W	0 48
13226.00	90 800	267 300	10858 67	2430 94	-203 96	-2422.46	782617 70	589762 75	32°37'07.908"N	103°32'58 852"W	1 00
13289 00	90 400	267.000	10858 01	2493 92	-207 09	-2485.38	782554 78	589759 62	32°37'07.881"N	103°32'59 588"W	0.79
13352.00	90.300	266.600	10857 63	2556 90	-210 61	-2548.28	782491 88	589756 10	32°37'07.851"N	103°33'00 324"W	0.65
13416.00	90 300	266 700	10857 29	2620 89	-214 35	-2612 17	782427 99	589752 36	32°37'07 819"N	103°33'01 071"W	0 16
13480.00	90.500	267.400	10856 85	2684.87	-217 64	-2676 08	782364 08	589749 07	32°37'07.791"N	103°33'01 818"W	1.14
13543 00	90 200	267 300	10856 46	2747.85	-220 55	-2739 02	782301 15	589746 15	32°37'07 767"N	103°33'02 554"W	0 50
13606 00	89 700	266.900	10856 52	2810.83	-223 74	-2801.93	782238 24	589742 97	32°37'07.740"N	103°33'03 290"W	1 02
13671.00	90.400	266.600	10856.46	2875.81	-227 42	-2866.83	782173 34	589739.28	32°37'07.708"N	103°33'04 049"W	1.17



Actual Wellpath Report

No.19 AWB

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Operator **Cimarex Energy Co.**
Area **Lea County, NM**
Field **(Mallon) Sec 34, T19S, R34E**
Facility **Mallon 34 Fed No. 19H**

Slot **No. 19H SHL**
Well **No. 19H**
Wellbore **No.19 AWB**

WELLPATH DATA (246 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [sry ft]	Grid North [sry ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13734.00	91.400	267.000	10855.47	2938.79	-230.94	-2929.72	782110.45	589735.76	32°37'07.678"N	103°33'04.785"W	1.71	
13795.00	91.000	266.300	10854.19	2999.77	-234.50	-2990.60	782049.57	589732.20	32°37'07.647"N	103°33'05.497"W	1.32	
13860.00	91.400	266.900	10852.83	3064.75	-238.36	-3055.48	781984.70	589728.35	32°37'07.614"N	103°33'06.256"W	1.11	
13924.00	91.500	266.600	10851.21	3128.72	-241.99	-3119.35	781920.83	589724.72	32°37'07.582"N	103°33'07.003"W	0.49	
13987.00	91.500	266.300	10849.56	3191.69	-245.89	-3182.21	781857.97	589720.82	32°37'07.548"N	103°33'07.738"W	0.48	
14050.00	91.500	265.900	10847.91	3254.67	-250.17	-3245.04	781795.14	589716.54	32°37'07.511"N	103°33'08.473"W	0.63	
14113.00	91.000	265.900	10846.54	3317.65	-254.67	-3307.87	781732.32	589712.03	32°37'07.471"N	103°33'09.208"W	0.79	
14177.00	91.100	265.800	10845.37	3381.64	-259.30	-3371.69	781668.50	589707.40	32°37'07.429"N	103°33'09.954"W	0.22	
14236.00	91.200	265.500	10844.18	3440.63	-263.78	-3430.51	781609.68	589702.93	32°37'07.389"N	103°33'10.642"W	0.54	
14299.00	91.300	265.700	10842.81	3503.61	-268.61	-3493.30	781546.88	589698.10	32°37'07.346"N	103°33'11.377"W	0.35	
14367.00	91.600	265.700	10841.09	3571.59	-273.71	-3561.09	781479.10	589693.00	32°37'07.301"N	103°33'12.170"W	0.44	
14430.00	91.800	265.300	10839.22	3634.56	-278.65	-3623.87	781416.32	589688.06	32°37'07.256"N	103°33'12.904"W	0.71	
14494.00	91.800	264.800	10837.21	3698.53	-284.17	-3687.60	781352.59	589682.54	32°37'07.206"N	103°33'13.650"W	0.78	
14557.00	91.200	264.900	10835.56	3761.50	-289.82	-3750.32	781289.87	589676.89	32°37'07.155"N	103°33'14.384"W	0.97	
14620.00	91.700	265.400	10833.97	3824.47	-295.14	-3813.08	781227.12	589671.56	32°37'07.107"N	103°33'15.118"W	1.12	
14680.00	91.800	265.000	10832.13	3884.44	-300.16	-3872.84	781167.36	589666.54	32°37'07.061"N	103°33'15.817"W	0.69	
14746.00	91.500	264.300	10830.23	3950.41	-306.31	-3938.52	781101.68	589660.39	32°37'07.005"N	103°33'16.585"W	1.15	
14811.00	91.500	263.300	10828.53	4015.35	-313.33	-4003.12	781037.08	589653.38	32°37'06.941"N	103°33'17.341"W	1.54	
14874.00	90.700	263.000	10827.32	4078.27	-320.84	-4065.66	780974.54	589645.86	32°37'06.871"N	103°33'18.073"W	1.36	
14973.00	89.900	262.200	10826.80	4177.13	-333.59	-4163.83	780876.37	589633.11	32°37'06.752"N	103°33'19.222"W	1.14	
15025.00	89.600	261.700	10827.03	4229.02	-340.88	-4215.32	780824.89	589625.83	32°37'06.683"N	103°33'19.824"W	1.12	Proj to Bit

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [sry ft]	Grid North [sry ft]	Latitude	Longitude	Shape
No. 19H PBHL		10851.00	-319.10	-4229.36	780810.84	589647.61	32°37'06.900"N	103°33'19.987"W	point

WELLPATH COMPOSITION Ref Wellbore: No.19 AWB Ref Wellpath: No.19 AWB

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
18.00	15025.00	Generic gyro - northseeking (Standard)	Gyro	No.19 AWB



Actual Wellpath Report

No.19 AWB

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**BAKER
HUGHES**

INTEQ

Operator	Cimarex Energy Co.	Slot	No. 19H SHL
Area	Lea County, NM	Well	No. 19H
Field	(Mallon) Sec 34, T19S, R34E	Wellbore	No.19 AWB
Facility	Mallon 34 Fed No. 19H		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
15025.00	89.600	261.700	10827.03	Proj to Bit