



Actual Wellpath Report

SD Maelstrom 15 SWD 1_awp (32") 173'-18884' Proj: 18940'
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JUL 08 2019
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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD Maelstrom 15 SWD 1
Area	Lea County, NM	Well	SD Maelstrom 15 SWD 1
Field	SWD (Lea County, NM) NAD27	Wellbore	SD Maelstrom 15 SWD 1 AWB
Facility	SD Maelstrom 15 SWD 1		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Moyagusa
Scale	0.999959	Report Generated	25/Apr/2019 at 15:05
Convergence at slot	0.36° East	Database	WA_HOU_Midland_Defn

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	708796.00	379331.00	32°02'27.978"N	103°39'34.172"W
Facility Reference Pt			708796.00	379331.00	32°02'27.978"N	103°39'34.172"W
Field Reference Pt			152400.30	0.00	30°59'42.846"N	105°26'33.659"W

WELLPATH DATUM

Calculation method	Minimum curvature	Nabors M 1207 (KB) to Facility Vertical Datum	3200.00ft
Horizontal Reference Pt	Slot	Nabors M 1207 (KB) to Mean Sea Level	3200.00ft
Vertical Reference Pt	Nabors M 1207 (KB)	Nabors M 1207 (KB) to Ground Level at Slot (SD Maelstrom 15 SWD 1)	32.00ft
MD Reference Pt	Nabors M 1207 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	0.00°

We hereby certify that the surveys contained herein, are to the best of our knowledge a true and accurate account of the well.


MWD COORDINATOR



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Field	SWD (Lea County, NM) NAD27	Wellbore	SD Maelstrom 15 SWD 1 AWB
Facility	SD Maelstrom 15 SWD 1		

WELLPATH DATA (202 stations) † = Interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
0.00†	0.000	258.560	0.00	0.00	0.00	0.00	708796.00	379331.00	32°02'27.978"N	103°39'34.172"W	0.00	0.00	0.00	
32.00	0.000	258.560	32.00	0.00	0.00	0.00	708796.00	379331.00	32°02'27.978"N	103°39'34.172"W	0.00	0.00	0.00	
173.00	0.640	258.560	173.00	-0.16	-0.16	-0.77	708795.23	379330.84	32°02'27.976"N	103°39'34.181"W	0.45	0.45	-71.94	24° BHI MWD Surveys 173'-771'
266.00	0.820	266.560	265.99	-0.30	-0.30	-1.95	708794.05	379330.70	32°02'27.975"N	103°39'34.195"W	0.22	0.19	8.60	
358.00	0.690	275.110	358.98	-0.29	-0.29	-3.17	708792.83	379330.71	32°02'27.975"N	103°39'34.209"W	0.18	-0.14	9.18	
462.00	0.590	256.170	461.98	-0.36	-0.36	-4.30	708791.70	379330.64	32°02'27.974"N	103°39'34.222"W	0.23	-0.10	-18.39	
557.00	0.530	299.130	556.97	-0.26	-0.26	-5.16	708790.84	379330.74	32°02'27.975"N	103°39'34.232"W	0.44	-0.06	45.22	
651.00	0.260	312.760	650.97	0.09	0.09	-5.69	708790.31	379331.09	32°02'27.979"N	103°39'34.239"W	0.30	-0.29	14.50	
746.00	0.360	288.660	745.97	0.33	0.33	-6.14	708789.86	379331.33	32°02'27.981"N	103°39'34.244"W	0.17	0.11	-25.37	
771.00	0.420	295.750	770.97	0.40	0.40	-6.29	708789.71	379331.40	32°02'27.982"N	103°39'34.246"W	0.31	0.24	28.36	
833.00	0.540	300.490	832.96	0.65	0.65	-6.75	708789.25	379331.65	32°02'27.985"N	103°39'34.251"W	0.20	0.19	7.65	18-1/2° BHI MWD Surveys 833'-4426'
928.00	0.590	291.440	927.96	1.05	1.05	-7.59	708788.41	379332.05	32°02'27.989"N	103°39'34.261"W	0.11	0.05	-9.53	
1023.00	0.620	309.080	1022.95	1.56	1.56	-8.44	708787.56	379332.56	32°02'27.994"N	103°39'34.270"W	0.20	0.03	18.57	
1118.00	0.650	289.510	1117.95	2.06	2.06	-9.35	708786.65	379333.06	32°02'27.999"N	103°39'34.281"W	0.23	0.03	-20.60	
1212.00	0.620	298.480	1211.94	2.48	2.48	-10.30	708785.70	379333.48	32°02'28.003"N	103°39'34.292"W	0.11	-0.03	9.54	
1307.00	0.620	290.450	1306.94	2.90	2.90	-11.23	708784.77	379333.90	32°02'28.007"N	103°39'34.303"W	0.09	0.00	-8.45	
1402.00	0.490	299.150	1401.93	3.28	3.28	-12.07	708783.93	379334.28	32°02'28.011"N	103°39'34.312"W	0.16	-0.14	9.16	
1497.00	0.510	277.040	1496.93	3.53	3.53	-12.85	708783.16	379334.53	32°02'28.014"N	103°39'34.321"W	0.20	0.02	-23.27	
1592.00	0.540	291.380	1591.93	3.75	3.75	-13.68	708782.32	379334.75	32°02'28.016"N	103°39'34.331"W	0.14	0.03	15.09	
1686.00	0.550	280.230	1685.92	3.99	3.99	-14.54	708781.46	379334.99	32°02'28.018"N	103°39'34.341"W	0.11	0.01	-11.86	
1781.00	0.470	282.800	1780.92	4.16	4.16	-15.37	708780.63	379335.16	32°02'28.020"N	103°39'34.351"W	0.09	-0.08	2.71	
1876.00	0.530	293.080	1875.91	4.41	4.41	-16.15	708779.85	379335.41	32°02'28.022"N	103°39'34.360"W	0.11	0.06	10.82	
1971.00	0.590	283.660	1970.91	4.70	4.70	-17.03	708778.97	379335.70	32°02'28.025"N	103°39'34.370"W	0.12	0.06	-9.92	
2066.00	0.670	271.610	2065.90	4.83	4.83	-18.06	708777.94	379335.83	32°02'28.027"N	103°39'34.382"W	0.16	0.08	-12.68	
2160.00	0.760	266.150	2159.90	4.81	4.81	-19.23	708776.77	379335.81	32°02'28.027"N	103°39'34.396"W	0.12	0.10	-5.81	
2255.00	0.590	267.780	2254.89	4.75	4.75	-20.35	708775.65	379335.75	32°02'28.026"N	103°39'34.409"W	0.18	-0.18	1.72	
2350.00	0.610	278.710	2349.88	4.80	4.80	-21.34	708774.66	379335.80	32°02'28.027"N	103°39'34.420"W	0.12	0.02	11.51	
2445.00	0.770	273.800	2444.88	4.92	4.92	-22.48	708773.53	379335.92	32°02'28.028"N	103°39'34.433"W	0.18	0.17	-5.17	
2540.00	0.850	274.780	2539.87	5.02	5.02	-23.81	708772.19	379336.02	32°02'28.029"N	103°39'34.449"W	0.09	0.08	1.03	
2634.00	1.150	267.840	2633.85	5.05	5.05	-25.45	708770.55	379336.05	32°02'28.029"N	103°39'34.468"W	0.34	0.32	-7.38	



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Area	Lea County, NM	Well	SD Maelstrom 15 SWD 1
Field	SWD (Lea County, NM) NAD27	Wellbore	SD Maelstrom 15 SWD 1 AWB
Facility	SD Maelstrom 15 SWD 1		

WELLPATH DATA (202 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
2729.00	1.230	271.240	2728.83	5.03	5.03	-27.42	708768.58	379336.03	32°02'28.029"N	103°39'34.491"W	0.11	0.08	3.58	
2824.00	1.250	273.550	2823.81	5.12	5.12	-29.48	708766.52	379336.12	32°02'28.030"N	103°39'34.515"W	0.06	0.02	2.43	
2919.00	1.350	269.540	2918.79	5.17	5.17	-31.63	708764.37	379336.17	32°02'28.031"N	103°39'34.540"W	0.14	0.11	-4.22	
3014.00	1.290	273.770	3013.76	5.23	5.23	-33.82	708762.18	379336.23	32°02'28.032"N	103°39'34.565"W	0.12	-0.06	4.45	
3109.00	0.880	271.440	3108.74	5.32	5.32	-35.61	708760.39	379336.32	32°02'28.033"N	103°39'34.586"W	0.43	-0.43	-2.45	
3203.00	0.760	272.110	3202.73	5.36	5.36	-36.96	708759.04	379336.36	32°02'28.033"N	103°39'34.601"W	0.13	-0.13	0.71	
3298.00	0.500	318.980	3297.73	5.70	5.70	-37.86	708758.14	379336.70	32°02'28.037"N	103°39'34.612"W	0.58	-0.27	49.34	
3393.00	0.370	321.610	3392.73	6.25	6.25	-38.32	708757.68	379337.25	32°02'28.042"N	103°39'34.617"W	0.14	-0.14	2.77	
3488.00	0.580	355.200	3487.72	6.97	6.97	-38.55	708757.45	379337.97	32°02'28.049"N	103°39'34.620"W	0.36	0.22	35.36	
3583.00	0.510	356.220	3582.72	7.87	7.87	-38.62	708757.38	379338.87	32°02'28.058"N	103°39'34.621"W	0.07	-0.07	1.07	
3677.00	0.690	357.340	3676.71	8.86	8.86	-38.67	708757.33	379339.86	32°02'28.068"N	103°39'34.621"W	0.19	0.19	1.19	
3772.00	0.660	11.360	3771.71	9.96	9.96	-38.59	708757.41	379340.96	32°02'28.079"N	103°39'34.620"W	0.18	-0.03	14.76	
3867.00	0.890	44.800	3866.70	11.02	11.02	-37.97	708758.04	379342.02	32°02'28.089"N	103°39'34.613"W	0.52	0.24	35.20	
3962.00	1.210	72.830	3961.68	11.84	11.84	-36.49	708759.51	379342.84	32°02'28.097"N	103°39'34.595"W	0.63	0.34	29.51	
4058.00	1.410	89.450	4055.66	12.54	12.54	-34.46	708761.55	379343.54	32°02'28.104"N	103°39'34.572"W	0.23	0.21	-3.60	
4151.00	1.760	89.780	4150.62	12.96	12.96	-31.90	708764.10	379343.96	32°02'28.108"N	103°39'34.542"W	0.69	0.37	21.40	
4246.00	2.510	99.060	4245.56	12.64	12.64	-28.39	708767.61	379343.64	32°02'28.105"N	103°39'34.501"W	0.87	0.79	9.77	
4341.00	2.870	104.950	4340.45	11.70	11.70	-24.04	708771.96	379342.70	32°02'28.095"N	103°39'34.451"W	0.48	0.38	6.20	
4426.00	2.780	103.800	4425.35	10.65	10.65	-19.98	708776.02	379341.85	32°02'28.084"N	103°39'34.404"W	0.13	-0.11	-1.35	
4564.00	2.440	108.830	4563.21	8.91	8.91	-13.95	708782.05	379339.91	32°02'28.067"N	103°39'34.334"W	0.30	-0.25	3.64	14-3/4" BHI MWD Surveys 4564'-11905'
4658.00	2.640	107.160	4657.11	7.62	7.62	-9.99	708786.01	379338.62	32°02'28.054"N	103°39'34.288"W	0.23	0.21	-1.78	
4753.00	2.630	106.320	4752.01	6.37	6.37	-5.81	708790.20	379337.37	32°02'28.041"N	103°39'34.239"W	0.04	-0.01	-0.88	
4847.00	2.800	106.610	4845.91	5.10	5.10	-1.54	708794.46	379336.10	32°02'28.028"N	103°39'34.190"W	0.18	0.18	0.31	
4942.00	2.760	104.550	4940.80	3.87	3.87	2.90	708798.90	379334.87	32°02'28.016"N	103°39'34.138"W	0.11	-0.04	-2.17	
5037.00	2.950	104.450	5035.68	2.68	2.68	7.48	708803.48	379333.68	32°02'28.004"N	103°39'34.085"W	0.20	0.20	-0.11	
5132.00	3.150	101.970	5130.54	1.53	1.53	12.40	708808.40	379332.53	32°02'27.992"N	103°39'34.028"W	0.25	0.21	-2.61	
5226.00	3.160	99.900	5224.40	0.55	0.55	17.48	708813.48	379331.55	32°02'27.982"N	103°39'33.969"W	0.12	0.01	-2.20	
5321.00	3.140	103.310	5319.26	-0.50	-0.50	22.59	708818.59	379330.50	32°02'27.971"N	103°39'33.910"W	0.20	-0.02	3.59	
5416.00	3.140	100.100	5414.11	-1.56	-1.56	27.69	708823.69	379329.44	32°02'27.961"N	103°39'33.851"W	0.19	0.00	-3.38	
5511.00	3.230	100.700	5508.97	-2.51	-2.51	32.88	708828.88	379328.49	32°02'27.951"N	103°39'33.791"W	0.10	0.09	0.63	



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5605.00	2.920	100.820	5602.83	-3.45	-3.45	37.83	708833.83	379327.55	32°02'27.941"N	103°39'33.733"W	0.33	-0.33	0.13	
5700.00	2.950	102.050	5697.71	-4.41	-4.41	42.60	708838.60	379326.59	32°02'27.931"N	103°39'33.678"W	0.07	0.03	1.29	
5795.00	3.040	99.470	5792.58	-5.34	-5.34	47.48	708843.47	379325.66	32°02'27.922"N	103°39'33.621"W	0.17	0.09	-2.72	
5890.00	3.140	98.820	5887.44	-6.15	-6.15	52.53	708848.53	379324.85	32°02'27.914"N	103°39'33.563"W	0.11	0.11	-0.68	
5952.00	3.230	101.790	5949.34	-6.77	-6.77	55.92	708851.92	379324.23	32°02'27.907"N	103°39'33.523"W	0.30	0.15	4.79	
6047.00	2.950	102.780	6044.21	-7.86	-7.86	60.92	708856.92	379323.14	32°02'27.896"N	103°39'33.465"W	0.30	-0.29	1.04	
6141.00	2.690	105.410	6138.09	-8.98	-8.98	65.41	708861.41	379322.02	32°02'27.885"N	103°39'33.413"W	0.31	-0.28	2.80	
6236.00	2.380	106.880	6233.00	-10.14	-10.14	69.45	708865.44	379320.86	32°02'27.873"N	103°39'33.366"W	0.33	-0.33	1.55	
6331.00	2.300	108.830	6327.92	-11.33	-11.33	73.14	708869.13	379319.67	32°02'27.861"N	103°39'33.324"W	0.12	-0.08	2.05	
6426.00	2.170	115.210	6422.85	-12.71	-12.71	76.57	708872.57	379318.29	32°02'27.847"N	103°39'33.284"W	0.30	-0.14	6.72	
6521.00	1.710	126.710	6517.79	-14.33	-14.33	79.33	708875.33	379316.67	32°02'27.831"N	103°39'33.252"W	0.63	-0.48	12.11	
6615.00	1.170	134.780	6611.76	-15.84	-15.84	81.14	708877.13	379315.16	32°02'27.816"N	103°39'33.231"W	0.61	-0.57	8.59	
6710.00	1.230	132.660	6706.74	-17.22	-17.22	82.58	708878.57	379313.79	32°02'27.802"N	103°39'33.214"W	0.08	0.06	-2.23	
6804.00	0.840	129.700	6800.73	-18.34	-18.34	83.85	708879.84	379312.66	32°02'27.791"N	103°39'33.200"W	0.42	-0.41	-3.15	
6899.00	0.650	127.790	6895.72	-19.11	-19.11	84.81	708880.81	379311.89	32°02'27.783"N	103°39'33.189"W	0.20	-0.20	-2.01	
6993.00	0.650	130.020	6989.71	-19.78	-19.78	85.64	708881.64	379311.22	32°02'27.777"N	103°39'33.179"W	0.03	0.00	2.37	
7087.00	0.570	158.050	7083.71	-20.56	-20.56	86.22	708882.22	379310.44	32°02'27.769"N	103°39'33.172"W	0.32	-0.09	29.82	
7182.00	0.620	172.100	7178.70	-21.51	-21.51	86.47	708882.47	379309.49	32°02'27.760"N	103°39'33.170"W	0.16	0.05	14.79	
7276.00	0.810	182.100	7272.70	-22.68	-22.68	86.52	708882.51	379308.33	32°02'27.748"N	103°39'33.169"W	0.24	0.20	10.64	
7371.00	0.570	189.390	7367.69	-23.81	-23.81	86.41	708882.41	379307.19	32°02'27.737"N	103°39'33.170"W	0.27	-0.25	7.67	
7465.00	0.590	203.670	7461.68	-24.72	-24.72	86.14	708882.14	379306.28	32°02'27.728"N	103°39'33.174"W	0.15	0.02	15.19	
7560.00	0.700	195.800	7556.68	-25.72	-25.72	85.79	708881.78	379305.28	32°02'27.718"N	103°39'33.178"W	0.15	0.12	-8.28	
7654.00	0.770	199.340	7650.67	-26.87	-26.87	85.42	708881.42	379304.13	32°02'27.707"N	103°39'33.182"W	0.09	0.07	3.77	
7749.00	0.730	195.010	7745.66	-28.06	-28.06	85.05	708881.05	379302.94	32°02'27.695"N	103°39'33.186"W	0.07	-0.04	-4.56	
7844.00	0.630	197.800	7840.66	-29.14	-29.14	84.74	708880.73	379301.86	32°02'27.684"N	103°39'33.190"W	0.11	-0.11	2.94	
7940.00	0.480	176.780	7936.65	-30.04	-30.04	84.60	708880.60	379300.96	32°02'27.675"N	103°39'33.192"W	0.26	-0.16	-21.90	
8034.00	0.510	175.760	8030.65	-30.85	-30.85	84.65	708880.65	379300.15	32°02'27.667"N	103°39'33.191"W	0.03	0.03	-1.09	
8129.00	0.590	168.000	8125.64	-31.76	-31.76	84.79	708880.78	379299.25	32°02'27.658"N	103°39'33.190"W	0.11	0.08	-8.17	
8223.00	0.710	182.590	8219.64	-32.81	-32.81	84.86	708880.86	379298.19	32°02'27.648"N	103°39'33.189"W	0.22	0.13	15.52	
8318.00	0.700	196.630	8314.63	-33.95	-33.95	84.67	708880.66	379297.05	32°02'27.637"N	103°39'33.191"W	0.18	-0.01	14.78	



Actual Wellpath Report

SD Maelstrom 15 SWD 1_awp (32') 173'-18884' Proj: 18940'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD Maelstrom 15 SWD 1
Area	Lea County, NM	Well	SD Maelstrom 15 SWD 1
Field	SWD (Lea County, NM) NAD27	Wellbore	SD Maelstrom 15 SWD 1 AWB
Facility	SD Maelstrom 15 SWD 1		

WELLPATH DATA (202 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
8413.00	0.630	184.580	8409.62	-35.03	-35.03	84.46	708880.46	379295.97	32°02'27.626"N	103°39'33.194"W	0.16	-0.07	-12.68	
8507.00	0.640	183.750	8503.62	-36.07	-36.07	84.38	708880.38	379294.93	32°02'27.616"N	103°39'33.195"W	0.01	0.01	-0.88	
8602.00	0.670	185.770	8598.61	-37.15	-37.15	84.29	708880.29	379293.85	32°02'27.605"N	103°39'33.196"W	0.04	0.03	2.13	
8697.00	0.630	193.550	8693.61	-38.21	-38.21	84.12	708880.11	379292.79	32°02'27.594"N	103°39'33.198"W	0.10	-0.04	8.19	
8791.00	0.620	187.080	8787.60	-39.22	-39.22	83.93	708879.93	379291.78	32°02'27.585"N	103°39'33.200"W	0.08	-0.01	-6.88	
8886.00	0.680	209.380	8882.59	-40.22	-40.22	83.59	708879.59	379290.78	32°02'27.575"N	103°39'33.204"W	0.27	0.06	23.47	
8980.00	0.450	234.300	8976.59	-40.92	-40.92	83.02	708879.01	379290.08	32°02'27.568"N	103°39'33.211"W	0.35	-0.24	26.51	
9075.00	0.430	238.660	9071.59	-41.33	-41.33	82.41	708878.41	379289.68	32°02'27.564"N	103°39'33.218"W	0.04	-0.02	4.59	
9170.00	0.390	206.450	9166.58	-41.80	-41.80	81.96	708877.96	379289.20	32°02'27.559"N	103°39'33.223"W	0.24	-0.04	-33.91	
9265.00	0.220	159.150	9261.58	-42.26	-42.26	81.88	708877.88	379288.74	32°02'27.555"N	103°39'33.224"W	0.31	-0.18	-49.79	
9359.00	0.100	153.840	9355.58	-42.50	-42.50	81.98	708877.98	379288.50	32°02'27.552"N	103°39'33.223"W	0.13	-0.13	-5.65	
9454.00	0.040	298.890	9450.58	-42.56	-42.56	81.99	708877.99	379288.44	32°02'27.552"N	103°39'33.223"W	0.14	-0.06	152.68	
9548.00	0.510	168.320	9544.58	-42.95	-42.95	82.05	708878.04	379288.05	32°02'27.548"N	103°39'33.222"W	0.57	0.50	-138.90	
9643.00	0.650	165.900	9639.58	-43.89	-43.89	82.26	708878.26	379287.11	32°02'27.538"N	103°39'33.220"W	0.15	0.15	-2.55	
9737.00	0.460	182.680	9733.57	-44.79	-44.79	82.38	708878.37	379286.22	32°02'27.530"N	103°39'33.219"W	0.26	-0.20	17.85	
9832.00	0.330	159.900	9828.57	-45.42	-45.42	82.45	708878.45	379285.58	32°02'27.523"N	103°39'33.218"W	0.21	-0.14	-23.98	
9927.00	0.220	186.280	9923.57	-45.86	-45.86	82.53	708878.52	379285.14	32°02'27.519"N	103°39'33.217"W	0.17	-0.12	27.77	
10021.00	0.230	215.750	10017.57	-46.19	-46.19	82.40	708878.39	379284.81	32°02'27.516"N	103°39'33.219"W	0.12	0.01	31.35	
10116.00	0.660	260.390	10112.57	-46.44	-46.44	81.75	708877.74	379284.56	32°02'27.513"N	103°39'33.226"W	0.55	0.45	46.99	
10211.00	0.820	262.310	10207.56	-46.62	-46.62	80.53	708876.53	379284.38	32°02'27.511"N	103°39'33.240"W	0.17	0.17	2.02	
10306.00	1.320	279.060	10302.54	-46.54	-46.54	78.78	708874.77	379284.46	32°02'27.512"N	103°39'33.261"W	0.62	0.53	17.63	
10401.00	1.140	275.570	10397.52	-46.28	-46.28	76.76	708872.75	379284.73	32°02'27.515"N	103°39'33.284"W	0.21	-0.19	-3.67	
10495.00	1.170	283.000	10491.50	-45.97	-45.97	74.89	708870.89	379285.03	32°02'27.518"N	103°39'33.306"W	0.16	0.03	7.90	
10590.00	1.320	273.840	10586.48	-45.68	-45.68	72.85	708868.85	379285.32	32°02'27.521"N	103°39'33.329"W	0.26	0.16	-9.64	
10685.00	1.000	258.910	10681.46	-45.76	-45.76	70.95	708866.95	379285.24	32°02'27.521"N	103°39'33.352"W	0.46	-0.34	-15.72	
10779.00	0.940	278.470	10775.44	-45.81	-45.81	69.38	708865.38	379285.19	32°02'27.520"N	103°39'33.370"W	0.36	-0.06	20.81	
10874.00	0.310	358.890	10870.44	-45.44	-45.44	68.61	708864.60	379285.56	32°02'27.524"N	103°39'33.379"W	0.99	-0.66	84.65	
10969.00	0.410	300.110	10965.44	-45.01	-45.01	68.31	708864.30	379285.99	32°02'27.528"N	103°39'33.382"W	0.38	0.11	-61.87	
11064.00	0.760	285.400	11060.43	-44.67	-44.67	67.41	708863.40	379286.33	32°02'27.532"N	103°39'33.393"W	0.40	0.37	-15.48	
11159.00	0.740	274.780	11155.43	-44.45	-44.45	66.19	708862.18	379286.55	32°02'27.534"N	103°39'33.407"W	0.15	-0.02	-11.18	



Actual Wellpath Report

SD Maelstrom 15 SWD 1_awp (32") 173'-18884' Proj: 18940'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD Maelstrom 15 SWD 1
Area	Lea County, NM	Well	SD Maelstrom 15 SWD 1
Field	SWD (Lea County, NM) NAD27	Wellbore	SD Maelstrom 15 SWD 1 AWB
Facility	SD Maelstrom 15 SWD 1		

WELLPATH DATA (202 stations)														
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	DLS	Build Rate	Turn Rate	Comments
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(US ft)	(US ft)			(°/100ft)	(°/100ft)	(°/100ft)	
11253.00	0.910	247.980	11249.42	-44.68	-44.68	64.89	708860.89	379286.32	32°02'27.532°N	103°39'33.422°W	0.44	0.18	-28.51	
11348.00	0.750	250.990	11344.41	-45.17	-45.17	63.60	708859.60	379285.83	32°02'27.527°N	103°39'33.437°W	0.17	-0.17	3.17	
11443.00	1.110	221.830	11439.39	-46.06	-46.06	62.40	708858.40	379284.95	32°02'27.518°N	103°39'33.451°W	0.61	0.38	-30.69	
11538.00	1.050	217.400	11534.38	-47.43	-47.43	61.26	708857.26	379283.57	32°02'27.505°N	103°39'33.464°W	0.11	-0.06	-4.66	
11633.00	1.020	220.430	11629.36	-48.77	-48.77	60.18	708856.18	379282.23	32°02'27.491°N	103°39'33.477°W	0.07	-0.03	3.19	
11727.00	1.030	209.140	11723.35	-50.14	-50.14	59.23	708855.23	379280.86	32°02'27.478°N	103°39'33.488°W	0.21	0.01	-12.01	
11822.00	0.960	196.830	11818.33	-51.65	-51.65	58.58	708854.58	379279.35	32°02'27.463°N	103°39'33.496°W	0.24	-0.07	-12.96	
11843.00	0.980	203.010	11839.33	-51.98	-51.98	58.46	708854.46	379279.02	32°02'27.460°N	103°39'33.497°W	0.51	0.10	29.43	
11905.00	0.940	192.930	11901.32	-52.97	-52.97	58.14	708854.14	379278.03	32°02'27.450°N	103°39'33.501°W	0.28	-0.06	-16.26	
12000.00	0.920	190.690	11996.31	-54.48	-54.48	57.82	708853.82	379276.52	32°02'27.435°N	103°39'33.505°W	0.04	-0.02	-2.36	12-1/4" BHI MWD Surveys 12000'-17113'
12094.00	0.870	186.100	12090.30	-55.93	-55.93	57.61	708853.61	379275.07	32°02'27.421°N	103°39'33.507°W	0.09	-0.05	-4.88	
12189.00	0.920	183.850	12185.28	-57.41	-57.41	57.48	708853.48	379273.60	32°02'27.406°N	103°39'33.509°W	0.06	0.05	-2.37	
12284.00	0.760	190.980	12280.27	-58.79	-58.79	57.31	708853.31	379272.22	32°02'27.393°N	103°39'33.511°W	0.20	-0.17	7.51	
12379.00	0.570	192.810	12375.27	-59.87	-59.87	57.08	708853.08	379271.14	32°02'27.382°N	103°39'33.514°W	0.20	-0.20	1.93	
12474.00	0.620	208.320	12470.26	-60.78	-60.78	56.74	708852.73	379270.22	32°02'27.373°N	103°39'33.518°W	0.18	0.05	16.33	
12568.00	0.610	221.390	12564.26	-61.60	-61.60	56.16	708852.16	379269.40	32°02'27.365°N	103°39'33.524°W	0.15	-0.01	13.90	
12663.00	0.670	216.620	12659.25	-62.43	-62.43	55.50	708851.49	379268.58	32°02'27.357°N	103°39'33.532°W	0.08	0.06	-5.02	
12758.00	0.740	218.490	12754.24	-63.35	-63.35	54.78	708850.78	379267.65	32°02'27.347°N	103°39'33.541°W	0.08	0.07	1.97	
12853.00	0.720	218.410	12849.24	-64.30	-64.30	54.03	708850.03	379266.70	32°02'27.338°N	103°39'33.549°W	0.02	-0.02	-0.08	
12947.00	0.830	215.820	12943.23	-65.32	-65.32	53.27	708849.26	379265.89	32°02'27.328°N	103°39'33.558°W	0.12	0.12	-2.76	
13042.00	0.880	209.340	13038.22	-66.51	-66.51	52.51	708848.50	379264.49	32°02'27.316°N	103°39'33.567°W	0.11	0.05	-6.82	
13137.00	0.970	206.840	13133.21	-67.86	-67.86	51.79	708847.78	379263.14	32°02'27.303°N	103°39'33.576°W	0.10	0.09	-2.63	
13232.00	0.890	209.170	13228.19	-69.22	-69.22	51.06	708847.06	379261.78	32°02'27.290°N	103°39'33.584°W	0.09	-0.08	2.45	
13327.00	0.870	207.360	13323.18	-70.51	-70.51	50.37	708846.37	379260.49	32°02'27.277°N	103°39'33.592°W	0.04	-0.02	-1.91	
13422.00	0.830	215.800	13418.17	-71.71	-71.71	49.64	708845.64	379259.29	32°02'27.265°N	103°39'33.601°W	0.14	-0.04	8.88	
13515.00	0.740	211.650	13511.16	-72.77	-72.77	48.93	708844.93	379258.24	32°02'27.255°N	103°39'33.609°W	0.11	-0.10	-4.46	
13610.00	0.800	214.800	13606.15	-73.83	-73.83	48.23	708844.23	379257.17	32°02'27.244°N	103°39'33.618°W	0.08	0.06	3.32	
13705.00	0.690	212.890	13701.15	-74.86	-74.86	47.54	708843.54	379256.15	32°02'27.234°N	103°39'33.626°W	0.12	-0.12	-2.01	
13800.00	0.660	208.200	13796.14	-75.82	-75.82	46.97	708842.97	379255.18	32°02'27.225°N	103°39'33.632°W	0.07	-0.03	-4.94	
13895.00	0.620	212.750	13891.13	-76.73	-76.73	46.43	708842.43	379254.27	32°02'27.216°N	103°39'33.639°W	0.07	-0.04	4.79	



Actual Wellpath Report

SD Maelstrom 15 SWD 1_awp (32") 173'-18884' Proj: 18940'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD Maelstrom 15 SWD 1
Area	Lea County, NM	Well	SD Maelstrom 15 SWD 1
Field	SWD (Lea County, NM) NAD27	Wellbore	SD Maelstrom 15 SWD 1 AWB
Facility	SD Maelstrom 15 SWD 1		

WELLPATH DATA (202 stations)														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
13990.00	0.620	224.760	13986.13	-77.53	-77.53	45.79	708841.79	379253.47	32°02'27.208"N	103°39'33.646"W	0.14	0.00	12.64	
14084.00	0.510	214.250	14080.12	-78.24	-78.24	45.20	708841.20	379252.76	32°02'27.201"N	103°39'33.653"W	0.16	-0.12	-11.18	
14179.00	0.470	233.370	14175.12	-78.82	-78.82	44.65	708840.65	379252.18	32°02'27.195"N	103°39'33.659"W	0.18	-0.04	20.13	
14274.00	0.430	226.390	14270.12	-79.30	-79.30	44.08	708840.08	379251.70	32°02'27.190"N	103°39'33.666"W	0.07	-0.04	-7.35	
14369.00	0.430	257.650	14365.11	-79.62	-79.62	43.47	708839.47	379251.38	32°02'27.187"N	103°39'33.673"W	0.24	0.00	32.91	
14464.00	0.370	263.280	14460.11	-79.73	-79.73	42.82	708838.82	379251.27	32°02'27.186"N	103°39'33.681"W	0.08	-0.06	5.93	
14558.00	0.370	259.010	14554.11	-79.83	-79.83	42.22	708838.22	379251.18	32°02'27.185"N	103°39'33.688"W	0.03	0.00	-4.54	
14653.00	0.420	248.410	14649.11	-80.01	-80.01	41.59	708837.59	379250.99	32°02'27.183"N	103°39'33.695"W	0.09	0.05	-11.16	
14748.00	0.460	249.840	14744.11	-80.27	-80.27	40.91	708836.91	379250.73	32°02'27.181"N	103°39'33.703"W	0.04	0.04	1.51	
14843.00	0.480	243.800	14839.10	-80.58	-80.58	40.20	708836.20	379250.42	32°02'27.178"N	103°39'33.711"W	0.08	0.02	-6.36	
14938.00	0.620	249.880	14934.10	-80.93	-80.93	39.36	708835.36	379250.07	32°02'27.174"N	103°39'33.721"W	0.16	0.15	6.40	
15032.00	0.570	257.820	15028.09	-81.21	-81.21	38.42	708834.42	379249.80	32°02'27.172"N	103°39'33.732"W	0.10	-0.05	8.45	
15127.00	0.350	278.460	15123.09	-81.26	-81.26	37.67	708833.67	379249.74	32°02'27.171"N	103°39'33.741"W	0.29	-0.23	21.73	
15222.00	0.340	265.020	15218.09	-81.24	-81.24	37.11	708833.11	379249.76	32°02'27.172"N	103°39'33.747"W	0.09	-0.01	-14.15	
15317.00	0.470	274.490	15313.09	-81.24	-81.24	36.44	708832.44	379249.76	32°02'27.172"N	103°39'33.755"W	0.15	0.14	9.97	
15410.00	0.740	308.250	15406.08	-80.84	-80.84	35.59	708831.58	379250.17	32°02'27.176"N	103°39'33.765"W	0.47	0.29	36.30	
15505.00	1.060	325.410	15501.07	-79.73	-79.73	34.61	708830.60	379251.27	32°02'27.187"N	103°39'33.776"W	0.44	0.34	18.06	
15598.00	1.010	307.170	15594.05	-78.53	-78.53	33.46	708829.46	379252.47	32°02'27.199"N	103°39'33.789"W	0.36	-0.05	-19.61	
15693.00	0.940	301.650	15689.04	-77.62	-77.62	32.13	708828.13	379253.39	32°02'27.208"N	103°39'33.805"W	0.12	-0.07	-5.81	
15788.00	1.360	310.350	15784.02	-76.48	-76.48	30.61	708826.61	379254.53	32°02'27.219"N	103°39'33.822"W	0.48	0.44	9.16	
15882.00	1.450	313.710	15877.99	-74.93	-74.93	28.90	708824.90	379256.07	32°02'27.235"N	103°39'33.842"W	0.13	0.10	3.57	
15977.00	1.370	300.830	15972.96	-73.52	-73.52	27.06	708823.06	379257.48	32°02'27.249"N	103°39'33.863"W	0.34	-0.08	-13.56	
16070.00	1.760	301.590	16065.93	-72.20	-72.20	24.89	708820.88	379258.80	32°02'27.262"N	103°39'33.889"W	0.42	0.42	0.82	
16165.00	1.690	292.740	16160.89	-70.90	-70.90	22.35	708818.35	379260.11	32°02'27.275"N	103°39'33.918"W	0.29	-0.07	-9.32	
16260.00	1.790	306.310	16255.84	-69.48	-69.48	19.86	708815.86	379261.53	32°02'27.289"N	103°39'33.947"W	0.45	0.11	14.28	
16355.00	2.130	301.370	16350.79	-67.68	-67.68	17.16	708813.16	379263.32	32°02'27.307"N	103°39'33.978"W	0.40	0.36	-5.20	
16449.00	1.890	311.710	16444.73	-65.74	-65.74	14.51	708810.51	379265.26	32°02'27.326"N	103°39'34.009"W	0.46	-0.26	11.00	
16544.00	2.050	309.420	16539.67	-63.62	-63.62	12.03	708808.03	379267.39	32°02'27.348"N	103°39'34.037"W	0.19	0.17	-2.41	
16639.00	2.000	309.940	16634.61	-61.47	-61.47	9.45	708805.45	379269.53	32°02'27.369"N	103°39'34.067"W	0.06	-0.05	0.55	
16734.00	1.870	309.010	16729.56	-59.43	-59.43	6.97	708802.97	379271.57	32°02'27.389"N	103°39'34.096"W	0.14	-0.14	-0.98	



Actual Wellpath Report

SD Maelstrom 15 SWD 1_awp (32") 173'-18884' Proj: 18940'
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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD Maelstrom 15 SWD 1
Area	Lea County, NM	Well	SD Maelstrom 15 SWD 1
Field	SWD (Lea County, NM) NAD27	Wellbore	SD Maelstrom 15 SWD 1 AWB
Facility	SD Maelstrom 15 SWD 1		

WELLPATH DATA (202 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
16829.00	1.810	309.070	16824.51	-57.51	-57.51	4.60	708800.60	379273.49	32°02'27.408"N	103°39'34.123"W	0.06	-0.06	0.06	
16923.00	1.820	300.870	16918.46	-55.81	-55.81	2.17	708798.17	379275.19	32°02'27.425"N	103°39'34.151"W	0.28	0.01	-8.72	
17018.00	1.810	300.350	17013.42	-54.28	-54.28	-0.42	708795.58	379276.72	32°02'27.441"N	103°39'34.181"W	0.02	-0.01	-0.55	
17113.00	1.640	294.940	17108.37	-52.95	-52.95	-2.95	708793.05	379278.05	32°02'27.454"N	103°39'34.211"W	0.25	-0.18	-5.69	
17202.00	1.680	301.410	17197.34	-51.73	-51.73	-5.22	708790.78	379279.27	32°02'27.466"N	103°39'34.237"W	0.22	0.04	7.27	8-1/2" BHI MWD 17202'-17522'
17392.00	1.730	301.910	17387.25	-48.76	-48.76	-10.03	708785.97	379282.24	32°02'27.496"N	103°39'34.293"W	0.03	0.03	0.26	
17522.00	2.820	298.760	17517.15	-46.19	-46.19	-14.50	708781.50	379284.81	32°02'27.522"N	103°39'34.344"W	0.84	0.84	-2.42	
17671.00	3.990	297.440	17665.88	-42.03	-42.03	-22.31	708773.69	379288.97	32°02'27.563"N	103°39'34.435"W	0.79	0.79	-0.89	6-1/8" BHI MWD 17671'-18884'
17860.00	4.930	316.760	17854.32	-33.09	-33.09	-33.71	708762.29	379297.91	32°02'27.652"N	103°39'34.566"W	0.93	0.50	10.22	
17955.00	5.300	327.530	17948.94	-26.41	-26.41	-38.86	708757.14	379304.59	32°02'27.719"N	103°39'34.626"W	1.08	0.39	11.34	
18050.00	5.240	322.990	18043.54	-19.25	-19.25	-43.83	708752.17	379311.75	32°02'27.790"N	103°39'34.683"W	0.44	-0.06	-4.78	
18145.00	5.980	315.370	18138.09	-12.26	-12.26	-49.92	708746.08	379318.74	32°02'27.860"N	103°39'34.753"W	1.10	0.78	-8.02	
18231.00	5.230	317.300	18223.67	-6.19	-6.19	-55.72	708740.28	379324.81	32°02'27.920"N	103°39'34.820"W	0.90	-0.87	2.24	
18335.00	3.640	295.800	18327.37	-1.27	-1.27	-61.91	708734.09	379329.73	32°02'27.969"N	103°39'34.892"W	2.19	-1.53	-20.67	
18430.00	4.200	291.470	18422.14	1.32	1.32	-67.87	708728.14	379332.32	32°02'27.995"N	103°39'34.961"W	0.67	0.59	-4.56	
18524.00	4.100	288.670	18515.90	3.65	3.65	-74.25	708721.75	379334.65	32°02'28.019"N	103°39'35.035"W	0.24	-0.11	-2.98	
18619.00	3.490	285.360	18610.69	5.50	5.50	-80.26	708715.75	379336.50	32°02'28.037"N	103°39'35.104"W	0.68	-0.64	-3.48	
18714.00	3.810	285.720	18705.50	7.64	7.64	-85.89	708710.11	379338.64	32°02'28.059"N	103°39'35.170"W	0.77	0.34	10.91	
18809.00	4.080	292.910	18800.27	10.33	10.33	-91.85	708704.16	379341.32	32°02'28.086"N	103°39'35.239"W	0.35	0.28	-2.96	
18854.00	3.870	290.250	18845.16	11.47	11.47	-94.75	708701.26	379342.47	32°02'28.097"N	103°39'35.272"W	0.62	-0.47	-5.91	
18884.00	4.080	290.050	18875.09	12.19	12.19	-96.70	708699.31	379343.19	32°02'28.104"N	103°39'35.295"W	0.70	0.70	-0.67	
18940.00	4.080	290.050	18930.95	13.56	13.56	-100.44	708695.56	379344.56	32°02'28.118"N	103°39'35.338"W	0.00	0.00	0.00	Projection to TD: 18940'



Actual Wellpath Report

SD Maelstrom 15 SWD 1_awp (32') 173'-18884' Proj: 18940'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD Maelstrom 15 SWD 1
Area	Lea County, NM	Well	SD Maelstrom 15 SWD 1
Field	SWD (Lea County, NM) NAD27	Wellbore	SD Maelstrom 15 SWD 1 AWB
Facility	SD Maelstrom 15 SWD 1		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Maelstrom SWD No. 1	19250.00	0.00	0.00	708796.00	379331.00	32°02'27.978"N	103°39'34.172"W	point

WELLPATH COMPOSITION - Ref Wellbore: SD Maelstrom 15 SWD 1 AWB Ref Wellpath: SD Maelstrom 15 SWD 1_awp (32') 173'-18884' Proj: 18940'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.00	771.00	BHI NaviTrak (Standard)	24" BHI MWD Surveys 173'-771'	SD Maelstrom 15 SWD 1 AWB
771.00	4426.00	BHI NaviTrak (Standard)	18-1/2" BHI MWD Surveys 833'-4426'	SD Maelstrom 15 SWD 1 AWB
4426.00	11905.00	BHI NaviTrak (Standard)	14-3/4" BHI MWD Surveys 4564'-11905'	SD Maelstrom 15 SWD 1 AWB
11905.00	17113.00	BHI NaviTrak (Standard)	12-1/4" BHI MWD Surveys 12000'-17113'	SD Maelstrom 15 SWD 1 AWB
17113.00	17522.00	BHI NaviTrak (Standard)	8-1/2" BHI MWD 17202'-17522'	SD Maelstrom 15 SWD 1 AWB
17522.00	18884.00	BHI NaviTrak (Axial)	6-1/8" BHI MWD 17671'-18884'	SD Maelstrom 15 SWD 1 AWB
18884.00	18940.00	Blind Drilling (std)	Projection to bit	SD Maelstrom 15 SWD 1 AWB



Actual Wellpath Report

SD Maelstrom 15 SWD 1_awp (32') 173'-18884' Proj: 18940'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD Maelstrom 15 SWD 1
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Field	SWD (Lea County, NM) NAD27	Wellbore	SD Maelstrom 15 SWD 1 AWB
Facility	SD Maelstrom 15 SWD 1		

COMMENTS

Wellpath general comments

Well: SD Maelstrom 15 SWD 1

Field: SWD

Rig: Nabors M1207

Location: Lea County, New Mexico

API: 30-025-45127

Latitude: 32° 02' 27.978" N

Longitude: 103° 39' 34.172" W

DF Elevation: 3200 feet

Elev. GL: 3168 feet

Proposed Direction: 0

PBHL: 18940 feet

Duration: 10/20/2018-03/20/2019

FSE's: Sam Pearce

SO#: 109455451

24" BHI MWD Surveys 173'-771'

18-1/2" BHI MWD Surveys 833'-4426'

14-3/4" BHI MWD Surveys 4564'-11905'

12-1/4" BHI MWD Surveys 12000'-17113'

8-1/2" BHI MWD 17202'-17522'

6-1/8" BHI MWD 17671'-18884'

Projection to TD: 18940'