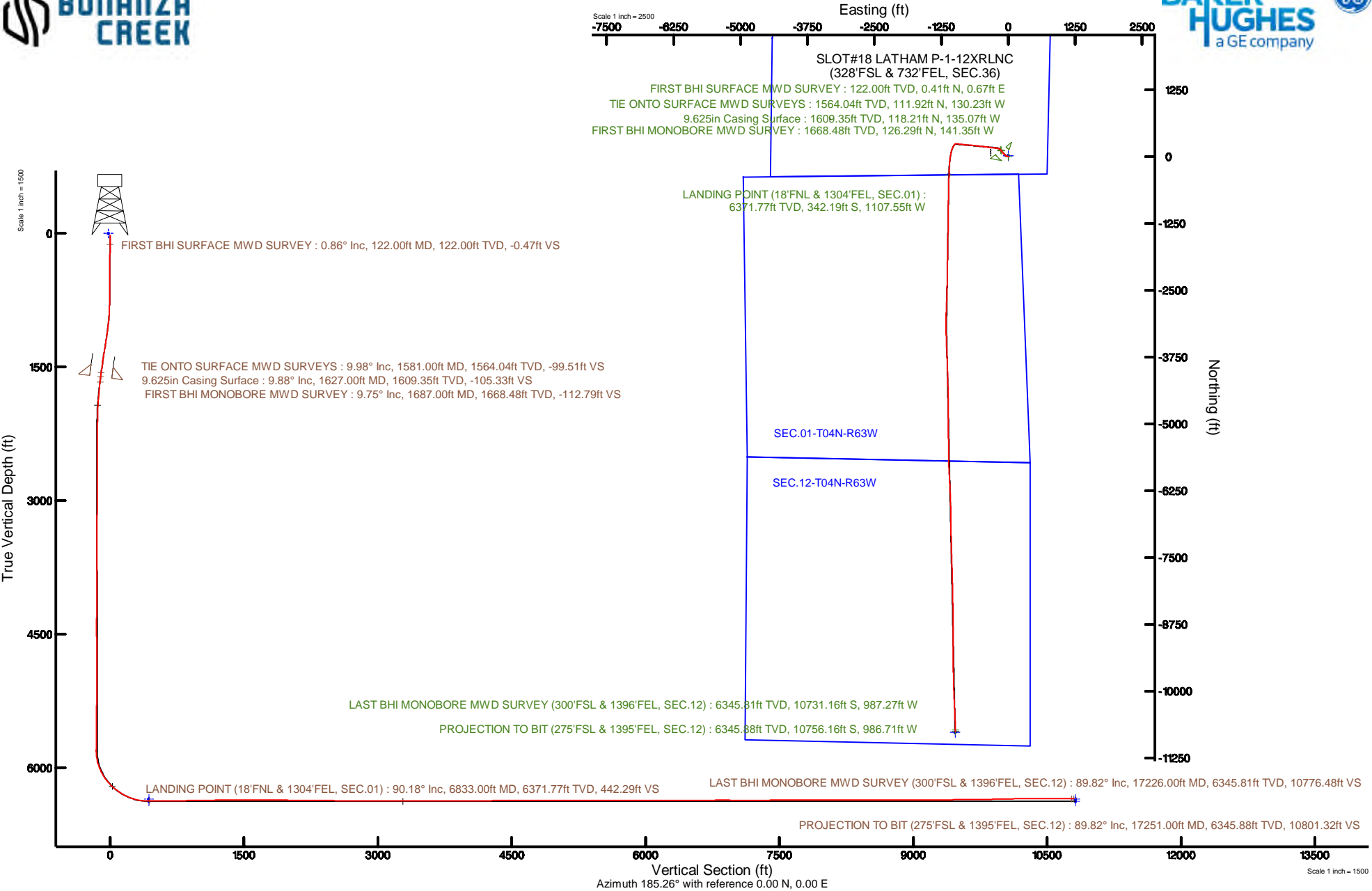


# BONANZA CREEK ENERGY

Location: COLORADO Slot: SLOT#18 LATHAM P-1-12XRLNC (328'FSL & 732'FEL, SEC.36)  
Field: WELD COUNTY (NAD83/TRUE) Well: LATHAM P-1-12XRLNC  
Facility: SEC.36-T05N-R63W Wellbore: LATHAM P-1-12XRLNC PWB 05-123-50036

Plot reference wellpath is LATHAM P-1-12XRLNC PWP (REV-C.0)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to RIG (17) (RKB)	North Reference: True north
Measured depths are referenced to RIG (17) (RKB)	Scale: True distance
RIG (17) (RKB) to Mean Sea Level: 4570 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: SLOT#18 LATHAM P-1-12XRLNC (328'FSL & 732'FEL, SEC.36)): 0 feet	Created by: robale01 on 2019-10-04
Coordinates are in feet referenced to Slot	Database: WADENWER





# Actual Wellpath Report

LATHAM P-1-12XRLNC AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK ENERGY	Slot	SLOT#18 LATHAM P-1-12XRLNC (328'FSL & 732'FEL, SEC.36)
Area	COLORADO	Well	LATHAM P-1-12XRLNC
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	LATHAM P-1-12XRLNC AWB
Facility	SEC.36-T05N-R63W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Robiale01
Scale	0.999958	Report Generated	10/2/2019 at 12:23:34 PM
Convergence at slot	0.72° East	Database/Source file	WA DENVER/LATHAM_P-1-12XRLNC_AWP.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4458.48	3853.69	3312642.83	1372316.25	40°20'59.932"N	104°22'41.678"W
Facility Reference Pt			3308733.91	1376726.04	40°21'43.992"N	104°23'31.452"W
Field Reference Pt			3224525.77	1254425.87	40°01'44.400"N	104°41'53.556"W

## WELLPATH DATUM

Calculation method	Minimum curvature	RIG (17') (RKB) to Facility Vertical Datum	4570.00ft
Horizontal Reference Pt	Slot	RIG (17') (RKB) to Mean Sea Level	4570.00ft
Vertical Reference Pt	RIG (17') (RKB)	RIG (17') (RKB) to Ground Level at Slot (SLOT#18 LATHAM P-1-12XRLNC (328'FSL & 732'FEL, SEC.36))	4570.00ft
MD Reference Pt	RIG (17') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	185.26°



# Actual Wellpath Report

LATHAM P-1-12XRLNC AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK ENERGY	Slot	SLOT#18 LATHAM P-1-12XRLNC (328'FSL & 732'FEL, SEC.36)
Area	COLORADO	Well	LATHAM P-1-12XRLNC
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	LATHAM P-1-12XRLNC AWB
Facility	SEC.36-T05N-R63W		

## WELLPATH DATA (195 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	58.550	0.00	0.00	0.00	0.00	40°20'59.932"N	104°22'41.678"W	0.00	
17.00	0.000	58.550	17.00	0.00	0.00	0.00	40°20'59.932"N	104°22'41.678"W	0.00	
122.00	0.860	58.550	122.00	-0.47	0.41	0.67	40°20'59.936"N	104°22'41.670"W	0.82	FIRST BHI SURFACE MWD SURVEY
211.00	1.140	71.660	210.98	-1.22	1.04	2.08	40°20'59.942"N	104°22'41.652"W	0.40	
299.00	0.970	71.780	298.97	-1.87	1.55	3.62	40°20'59.947"N	104°22'41.632"W	0.19	
388.00	0.720	65.150	387.96	-2.45	2.02	4.84	40°20'59.952"N	104°22'41.616"W	0.30	
476.00	0.770	285.030	475.95	-2.83	2.40	4.77	40°20'59.955"N	104°22'41.617"W	1.59	
565.00	3.650	279.360	564.88	-3.13	3.02	1.40	40°20'59.961"N	104°22'41.660"W	3.24	
653.00	4.723	285.440	652.64	-3.98	4.44	-4.86	40°20'59.975"N	104°22'41.741"W	1.32	
740.00	4.690	284.340	739.35	-5.17	6.27	-11.75	40°20'59.994"N	104°22'41.830"W	0.11	
828.00	7.070	286.950	826.88	-6.83	8.74	-20.42	40°21'00.018"N	104°22'41.942"W	2.72	
916.00	10.500	298.770	913.84	-11.13	14.18	-32.63	40°21'00.072"N	104°22'42.100"W	4.38	
1003.00	11.650	303.640	999.22	-18.47	22.87	-46.90	40°21'00.158"N	104°22'42.284"W	1.70	
1091.00	12.700	311.130	1085.25	-28.36	34.15	-61.58	40°21'00.269"N	104°22'42.474"W	2.15	
1180.00	13.330	317.610	1171.97	-41.01	48.17	-75.87	40°21'00.408"N	104°22'42.658"W	1.78	
1268.00	13.050	317.930	1257.64	-54.57	63.03	-89.36	40°21'00.554"N	104°22'42.833"W	0.33	
1357.00	12.670	319.880	1344.41	-68.24	77.96	-102.39	40°21'00.702"N	104°22'43.001"W	0.65	
1445.00	11.550	319.980	1430.45	-81.22	92.08	-114.27	40°21'00.842"N	104°22'43.154"W	1.27	
1533.00	10.590	321.550	1516.81	-93.26	105.16	-124.96	40°21'00.971"N	104°22'43.292"W	1.14	
1581.00	9.980	322.620	1564.04	-99.51	111.92	-130.23	40°21'01.038"N	104°22'43.360"W	1.33	TIE ONTO SURFACE MWD SURVEYS
1687.00	9.750	321.910	1668.48	-112.79	126.29	-141.35	40°21'01.180"N	104°22'43.504"W	0.25	FIRST BHI MONOBORE MWD SURVEY
1776.00	10.020	306.470	1756.17	-122.29	136.82	-152.22	40°21'01.284"N	104°22'43.644"W	2.98	
1865.00	10.910	297.680	1843.69	-129.51	145.34	-165.91	40°21'01.368"N	104°22'43.821"W	2.05	
1952.00	11.730	291.590	1929.00	-135.14	152.41	-181.42	40°21'01.438"N	104°22'44.022"W	1.66	
2040.00	11.570	284.170	2015.20	-139.02	157.87	-198.30	40°21'01.492"N	104°22'44.240"W	1.71	
2127.00	11.520	278.540	2100.44	-140.87	161.29	-215.35	40°21'01.525"N	104°22'44.460"W	1.30	
2215.00	11.610	276.010	2186.65	-141.49	163.53	-232.85	40°21'01.547"N	104°22'44.686"W	0.59	
2304.00	11.410	275.940	2273.86	-141.71	165.37	-250.51	40°21'01.566"N	104°22'44.914"W	0.23	
2392.00	11.380	276.630	2360.13	-142.02	167.28	-267.79	40°21'01.585"N	104°22'45.137"W	0.16	
2481.00	11.240	276.560	2447.40	-142.43	169.28	-285.13	40°21'01.604"N	104°22'45.361"W	0.16	



# Actual Wellpath Report

LATHAM P-1-12XRLNC AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK ENERGY	Slot	SLOT#18 LATHAM P-1-12XRLNC (328'FSL & 732'FEL, SEC.36)
Area	COLORADO	Well	LATHAM P-1-12XRLNC
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	LATHAM P-1-12XRLNC AWB
Facility	SEC.36-T05N-R63W		

## WELLPATH DATA (195 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2568.00	11.390	276.530	2532.71	-142.81	171.23	-302.09	40°21'01.624"N	104°22'45.580"W	0.17	
2654.00	11.550	276.340	2616.99	-143.16	173.14	-319.08	40°21'01.643"N	104°22'45.800"W	0.19	
2743.00	10.940	276.030	2704.28	-143.44	175.01	-336.34	40°21'01.661"N	104°22'46.022"W	0.69	
2831.00	11.330	277.020	2790.63	-143.82	176.95	-353.22	40°21'01.680"N	104°22'46.241"W	0.49	
2919.00	10.980	276.250	2876.96	-144.23	178.92	-370.13	40°21'01.700"N	104°22'46.459"W	0.43	
3007.00	11.480	276.000	2963.28	-144.49	180.75	-387.17	40°21'01.718"N	104°22'46.679"W	0.57	
3094.00	10.120	277.380	3048.73	-144.88	182.63	-403.36	40°21'01.736"N	104°22'46.888"W	1.59	
3182.00	10.670	279.500	3135.29	-145.77	184.97	-419.06	40°21'01.759"N	104°22'47.091"W	0.76	
3269.00	9.380	278.260	3220.96	-146.74	187.32	-434.02	40°21'01.783"N	104°22'47.284"W	1.50	
3356.00	11.250	277.110	3306.55	-147.38	189.39	-449.46	40°21'01.803"N	104°22'47.484"W	2.16	
3443.00	11.080	275.070	3391.90	-147.63	191.18	-466.21	40°21'01.821"N	104°22'47.700"W	0.49	
3531.00	11.630	275.620	3478.18	-147.65	192.79	-483.46	40°21'01.837"N	104°22'47.923"W	0.64	
3619.00	12.470	275.460	3564.24	-147.74	194.56	-501.75	40°21'01.854"N	104°22'48.159"W	0.96	
3708.00	12.520	275.500	3651.13	-147.82	196.40	-520.91	40°21'01.872"N	104°22'48.406"W	0.06	
3797.00	12.610	275.950	3738.00	-147.97	198.34	-540.18	40°21'01.891"N	104°22'48.655"W	0.15	
3886.00	12.960	276.540	3824.80	-148.31	200.48	-559.76	40°21'01.913"N	104°22'48.908"W	0.42	
3974.00	13.440	275.350	3910.47	-148.55	202.56	-579.74	40°21'01.933"N	104°22'49.166"W	0.63	
4063.00	13.440	279.290	3997.03	-149.29	205.19	-600.25	40°21'01.959"N	104°22'49.431"W	1.03	
4238.00	12.530	275.660	4167.56	-150.85	210.35	-639.21	40°21'02.010"N	104°22'49.934"W	0.70	
4325.00	12.430	275.490	4252.51	-150.96	212.17	-657.92	40°21'02.028"N	104°22'50.176"W	0.12	
4414.00	11.860	275.700	4339.51	-151.07	214.00	-676.56	40°21'02.046"N	104°22'50.417"W	0.64	
4503.00	11.870	275.080	4426.61	-151.11	215.72	-694.78	40°21'02.063"N	104°22'50.652"W	0.14	
4589.00	12.070	275.210	4510.74	-151.07	217.32	-712.54	40°21'02.079"N	104°22'50.882"W	0.23	
4676.00	11.690	272.570	4595.88	-150.65	218.54	-730.40	40°21'02.091"N	104°22'51.112"W	0.76	
4764.00	12.110	274.180	4681.99	-150.06	219.61	-748.52	40°21'02.102"N	104°22'51.346"W	0.61	
4853.00	11.900	273.570	4769.04	-149.61	220.86	-766.98	40°21'02.114"N	104°22'51.585"W	0.28	
5027.00	9.860	276.550	4939.91	-149.42	223.68	-799.69	40°21'02.142"N	104°22'52.007"W	1.22	
5115.00	10.990	278.160	5026.45	-150.01	225.73	-815.48	40°21'02.162"N	104°22'52.211"W	1.33	
5204.00	10.750	274.840	5113.86	-150.38	227.63	-832.15	40°21'02.181"N	104°22'52.426"W	0.75	
5292.00	10.610	276.860	5200.33	-150.54	229.29	-848.37	40°21'02.197"N	104°22'52.636"W	0.45	



# Actual Wellpath Report

LATHAM P-1-12XRLNC AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK ENERGY	Slot	SLOT#18 LATHAM P-1-12XRLNC (328'FSL & 732'FEL, SEC.36)
Area	COLORADO	Well	LATHAM P-1-12XRLNC
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	LATHAM P-1-12XRLNC AWB
Facility	SEC.36-T05N-R63W		

## WELLPATH DATA (195 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5381.00	11.400	276.850	5287.69	-151.02	231.32	-865.24	40°21'02.217"N	104°22'52.854"W	0.89	
5471.00	11.380	278.400	5375.92	-151.75	233.68	-882.86	40°21'02.241"N	104°22'53.081"W	0.34	
5645.00	12.350	276.110	5546.20	-152.97	238.17	-918.34	40°21'02.285"N	104°22'53.540"W	0.62	
5732.00	12.120	279.430	5631.23	-153.77	240.65	-936.60	40°21'02.309"N	104°22'53.776"W	0.85	
5820.00	12.270	279.680	5717.24	-155.16	243.74	-954.93	40°21'02.340"N	104°22'54.012"W	0.18	
5909.00	12.400	276.300	5804.19	-156.06	246.38	-973.75	40°21'02.366"N	104°22'54.255"W	0.82	
5998.00	13.600	231.930	5891.12	-149.04	240.96	-991.53	40°21'02.313"N	104°22'54.485"W	11.02	
6087.00	21.450	212.930	5975.98	-127.40	220.80	-1008.66	40°21'02.113"N	104°22'54.706"W	10.81	
6174.00	29.770	211.940	6054.37	-93.95	189.07	-1028.77	40°21'01.800"N	104°22'54.966"W	9.58	
6262.00	37.550	202.130	6127.61	-48.66	145.59	-1050.48	40°21'01.370"N	104°22'55.246"W	10.76	
6350.00	45.110	190.640	6193.74	8.20	89.95	-1066.38	40°21'00.820"N	104°22'55.452"W	12.14	
6439.00	54.170	188.860	6251.32	75.74	23.17	-1077.78	40°21'00.160"N	104°22'55.599"W	10.29	
6526.00	59.950	188.350	6298.61	148.60	-48.99	-1088.69	40°20'59.447"N	104°22'55.740"W	6.66	
6613.00	68.380	183.580	6336.50	226.80	-126.78	-1096.70	40°20'58.679"N	104°22'55.843"W	10.87	
6701.00	79.040	182.540	6361.15	311.08	-211.00	-1101.18	40°20'57.846"N	104°22'55.901"W	12.17	
6789.00	88.000	183.060	6371.07	398.34	-298.25	-1105.45	40°20'56.984"N	104°22'55.956"W	10.20	
6833.00	90.180	182.400	6371.77	442.29	-342.19	-1107.55	40°20'56.550"N	104°22'55.983"W	5.18	LANDING POINT (18'FNL & 1304'FEL, SEC.01)
6877.00	90.620	181.780	6371.47	486.22	-386.16	-1109.15	40°20'56.115"N	104°22'56.004"W	1.73	
6964.00	90.520	180.530	6370.60	572.99	-473.14	-1110.91	40°20'55.256"N	104°22'56.026"W	1.44	
7053.00	90.400	181.590	6369.89	661.75	-562.12	-1112.55	40°20'54.377"N	104°22'56.048"W	1.20	
7140.00	90.430	180.980	6369.26	748.54	-649.09	-1114.51	40°20'53.517"N	104°22'56.073"W	0.70	
7228.00	91.050	181.190	6368.12	836.30	-737.07	-1116.17	40°20'52.648"N	104°22'56.094"W	0.74	
7317.00	90.860	181.060	6366.64	925.05	-826.04	-1117.92	40°20'51.769"N	104°22'56.117"W	0.26	
7405.00	90.950	180.760	6365.25	1012.79	-914.02	-1119.32	40°20'50.899"N	104°22'56.135"W	0.36	
7493.00	90.830	180.440	6363.88	1100.49	-1002.00	-1120.24	40°20'50.030"N	104°22'56.147"W	0.39	
7581.00	91.140	180.730	6362.37	1188.18	-1089.98	-1121.14	40°20'49.160"N	104°22'56.158"W	0.48	
7668.00	90.550	180.880	6361.08	1274.91	-1176.96	-1122.36	40°20'48.301"N	104°22'56.174"W	0.70	
7757.00	90.060	180.900	6360.61	1363.65	-1265.95	-1123.74	40°20'47.422"N	104°22'56.192"W	0.55	
7845.00	89.940	180.200	6360.61	1451.35	-1353.95	-1124.58	40°20'46.552"N	104°22'56.203"W	0.81	
7931.00	89.780	181.360	6360.82	1537.09	-1439.94	-1125.76	40°20'45.702"N	104°22'56.218"W	1.36	



# Actual Wellpath Report

LATHAM P-1-12XRLNC AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK ENERGY	Slot	SLOT#18 LATHAM P-1-12XRLNC (328'FSL & 732'FEL, SEC.36)
Area	COLORADO	Well	LATHAM P-1-12XRLNC
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	LATHAM P-1-12XRLNC AWB
Facility	SEC.36-T05N-R63W		

## WELLPATH DATA (195 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8020.00	90.090	181.350	6360.92	1625.88	-1528.91	-1127.86	40°20'44.823"N	104°22'56.245"W	0.35	
8108.00	90.000	181.120	6360.85	1713.66	-1616.89	-1129.76	40°20'43.954"N	104°22'56.269"W	0.28	
8196.00	89.510	180.060	6361.23	1801.37	-1704.88	-1130.66	40°20'43.084"N	104°22'56.281"W	1.33	
8283.00	89.570	180.930	6361.93	1888.06	-1791.88	-1131.41	40°20'42.224"N	104°22'56.290"W	1.00	
8371.00	89.570	181.550	6362.59	1975.84	-1879.85	-1133.32	40°20'41.355"N	104°22'56.315"W	0.70	
8459.00	89.420	180.580	6363.36	2063.60	-1967.83	-1134.95	40°20'40.486"N	104°22'56.336"W	1.12	
8547.00	89.320	179.780	6364.33	2151.25	-2055.83	-1135.23	40°20'39.616"N	104°22'56.340"W	0.92	
8634.00	89.570	181.490	6365.17	2237.96	-2142.82	-1136.20	40°20'38.757"N	104°22'56.352"W	1.99	
8721.00	89.570	181.260	6365.83	2324.76	-2229.79	-1138.28	40°20'37.897"N	104°22'56.379"W	0.26	
8810.00	89.380	181.290	6366.64	2413.54	-2318.76	-1140.26	40°20'37.018"N	104°22'56.404"W	0.22	
8898.00	89.350	181.670	6367.62	2501.34	-2406.73	-1142.54	40°20'36.149"N	104°22'56.434"W	0.43	
8988.00	89.780	181.450	6368.30	2591.15	-2496.69	-1144.99	40°20'35.260"N	104°22'56.465"W	0.54	
9075.00	89.850	181.760	6368.58	2677.97	-2583.66	-1147.42	40°20'34.400"N	104°22'56.497"W	0.37	
9164.00	89.910	181.320	6368.77	2766.79	-2672.62	-1149.81	40°20'33.521"N	104°22'56.528"W	0.50	
9252.00	89.970	182.340	6368.86	2854.63	-2760.58	-1152.62	40°20'32.652"N	104°22'56.564"W	1.16	
9340.00	90.030	182.980	6368.86	2942.54	-2848.48	-1156.71	40°20'31.783"N	104°22'56.617"W	0.73	
9516.00	89.970	180.390	6368.86	3118.18	-3024.39	-1161.88	40°20'30.045"N	104°22'56.683"W	1.47	
9604.00	89.970	180.400	6368.91	3205.86	-3112.39	-1162.49	40°20'29.176"N	104°22'56.691"W	0.01	
9693.00	90.000	179.080	6368.93	3294.45	-3201.39	-1162.09	40°20'28.296"N	104°22'56.686"W	1.48	
9781.00	89.720	178.880	6369.14	3381.92	-3289.37	-1160.52	40°20'27.427"N	104°22'56.665"W	0.39	
9869.00	90.000	177.230	6369.36	3469.22	-3377.32	-1157.53	40°20'26.558"N	104°22'56.627"W	1.90	
9957.00	90.090	178.720	6369.29	3556.51	-3465.26	-1154.42	40°20'25.689"N	104°22'56.587"W	1.70	
10044.00	89.910	178.250	6369.29	3642.90	-3552.23	-1152.12	40°20'24.829"N	104°22'56.557"W	0.58	
10132.00	90.220	177.340	6369.19	3730.15	-3640.16	-1148.74	40°20'23.960"N	104°22'56.513"W	1.09	
10218.00	90.060	177.480	6368.98	3815.35	-3726.08	-1144.85	40°20'23.111"N	104°22'56.463"W	0.25	
10306.00	90.120	176.930	6368.84	3902.48	-3813.97	-1140.56	40°20'22.243"N	104°22'56.407"W	0.63	
10396.00	90.090	178.580	6368.68	3991.70	-3903.90	-1137.03	40°20'21.354"N	104°22'56.362"W	1.83	
10482.00	90.120	178.650	6368.52	4077.13	-3989.87	-1134.96	40°20'20.504"N	104°22'56.335"W	0.09	
10568.00	90.000	178.270	6368.43	4162.52	-4075.84	-1132.64	40°20'19.655"N	104°22'56.305"W	0.46	
10656.00	90.550	178.640	6368.01	4249.90	-4163.81	-1130.27	40°20'18.786"N	104°22'56.274"W	0.75	





# Actual Wellpath Report

LATHAM P-1-12XRLNC AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK ENERGY	Slot	SLOT#18 LATHAM P-1-12XRLNC (328'FSL & 732'FEL, SEC.36)
Area	COLORADO	Well	LATHAM P-1-12XRLNC
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	LATHAM P-1-12XRLNC AWB
Facility	SEC.36-T05N-R63W		

## WELLPATH DATA (195 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10744.00	90.220	178.020	6367.41	4337.25	-4251.77	-1127.71	40°20'17.917"N	104°22'56.241"W	0.80	
10832.00	90.550	178.320	6366.82	4424.58	-4339.72	-1124.90	40°20'17.047"N	104°22'56.205"W	0.51	
10921.00	90.370	180.050	6366.11	4513.07	-4428.71	-1123.63	40°20'16.168"N	104°22'56.188"W	1.95	
11010.00	90.400	178.550	6365.51	4601.59	-4517.69	-1122.54	40°20'15.289"N	104°22'56.174"W	1.69	
11097.00	89.880	179.590	6365.30	4688.08	-4604.68	-1121.13	40°20'14.429"N	104°22'56.156"W	1.34	
11186.00	90.000	180.480	6365.39	4776.71	-4693.68	-1121.19	40°20'13.550"N	104°22'56.157"W	1.01	
11275.00	90.060	179.610	6365.34	4865.34	-4782.68	-1121.26	40°20'12.670"N	104°22'56.158"W	0.98	
11363.00	89.850	179.700	6365.41	4952.92	-4870.68	-1120.73	40°20'11.801"N	104°22'56.151"W	0.26	
11451.00	89.940	179.970	6365.58	5040.52	-4958.68	-1120.47	40°20'10.931"N	104°22'56.147"W	0.32	
11539.00	89.850	179.640	6365.74	5128.12	-5046.68	-1120.17	40°20'10.061"N	104°22'56.143"W	0.39	
11627.00	89.910	179.580	6365.92	5215.69	-5134.67	-1119.58	40°20'09.192"N	104°22'56.136"W	0.10	
11715.00	90.000	179.140	6365.99	5303.23	-5222.67	-1118.59	40°20'08.322"N	104°22'56.123"W	0.51	
11803.00	90.030	178.670	6365.97	5390.69	-5310.65	-1116.91	40°20'07.453"N	104°22'56.101"W	0.54	
11892.00	90.120	179.370	6365.85	5479.16	-5399.64	-1115.39	40°20'06.574"N	104°22'56.081"W	0.79	
11981.00	90.060	180.060	6365.71	5567.74	-5488.64	-1114.95	40°20'05.694"N	104°22'56.076"W	0.78	
12069.00	89.820	178.990	6365.80	5655.30	-5576.63	-1114.22	40°20'04.825"N	104°22'56.066"W	1.25	
12244.00	89.970	179.050	6366.12	5829.26	-5751.61	-1111.22	40°20'03.095"N	104°22'56.027"W	0.09	
12333.00	89.820	176.220	6366.29	5917.47	-5840.52	-1107.55	40°20'02.217"N	104°22'55.980"W	3.18	
12419.00	90.120	177.480	6366.33	6002.54	-5926.39	-1102.83	40°20'01.368"N	104°22'55.919"W	1.51	
12507.00	89.970	176.260	6366.26	6089.60	-6014.26	-1098.02	40°20'00.500"N	104°22'55.857"W	1.40	
12595.00	90.030	177.530	6366.26	6176.66	-6102.13	-1093.25	40°19'59.632"N	104°22'55.795"W	1.44	
12682.00	90.180	176.480	6366.10	6262.76	-6189.01	-1088.71	40°19'58.773"N	104°22'55.736"W	1.22	
12769.00	89.850	178.680	6366.08	6348.97	-6275.92	-1085.03	40°19'57.914"N	104°22'55.689"W	2.56	
12857.00	90.650	177.380	6365.70	6436.27	-6363.87	-1082.01	40°19'57.045"N	104°22'55.650"W	1.73	
12945.00	90.460	178.750	6364.84	6523.57	-6451.81	-1079.04	40°19'56.176"N	104°22'55.611"W	1.57	
13033.00	90.550	177.360	6364.07	6610.87	-6539.75	-1076.05	40°19'55.307"N	104°22'55.573"W	1.58	
13122.00	90.430	180.150	6363.31	6699.28	-6628.72	-1074.12	40°19'54.428"N	104°22'55.548"W	3.14	
13210.00	90.430	179.410	6362.65	6786.88	-6716.72	-1073.78	40°19'53.559"N	104°22'55.543"W	0.84	
13298.00	89.750	179.480	6362.51	6874.42	-6804.71	-1072.93	40°19'52.689"N	104°22'55.532"W	0.78	
13386.00	89.850	178.680	6362.82	6961.91	-6892.70	-1071.52	40°19'51.819"N	104°22'55.514"W	0.92	



# Actual Wellpath Report

LATHAM P-1-12XRLNC AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK ENERGY	Slot	SLOT#18 LATHAM P-1-12XRLNC (328'FSL & 732'FEL, SEC.36)
Area	COLORADO	Well	LATHAM P-1-12XRLNC
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	LATHAM P-1-12XRLNC AWB
Facility	SEC.36-T05N-R63W		

## WELLPATH DATA (195 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13474.00	89.970	178.950	6362.95	7049.35	-6980.68	-1069.70	40°19'50.950"N	104°22'55.490"W	0.34	
13563.00	89.970	179.140	6363.00	7137.83	-7069.67	-1068.21	40°19'50.071"N	104°22'55.471"W	0.21	
13650.00	89.970	179.160	6363.05	7224.34	-7156.66	-1066.92	40°19'49.211"N	104°22'55.455"W	0.02	
13737.00	89.940	178.900	6363.11	7310.82	-7243.65	-1065.45	40°19'48.352"N	104°22'55.436"W	0.30	
13826.00	90.550	178.180	6362.73	7399.21	-7332.62	-1063.18	40°19'47.472"N	104°22'55.406"W	1.06	
13914.00	90.460	177.830	6361.96	7486.50	-7420.56	-1060.12	40°19'46.603"N	104°22'55.367"W	0.41	
14002.00	90.550	177.160	6361.18	7573.69	-7508.47	-1056.27	40°19'45.735"N	104°22'55.317"W	0.77	
14090.00	90.430	179.210	6360.43	7661.01	-7596.42	-1053.48	40°19'44.866"N	104°22'55.281"W	2.33	
14178.00	89.940	178.360	6360.15	7748.45	-7684.40	-1051.62	40°19'43.996"N	104°22'55.257"W	1.11	
14266.00	89.940	177.730	6360.24	7835.75	-7772.35	-1048.62	40°19'43.127"N	104°22'55.218"W	0.72	
14355.00	90.060	178.490	6360.24	7924.06	-7861.30	-1045.68	40°19'42.248"N	104°22'55.180"W	0.86	
14443.00	90.060	178.610	6360.15	8011.46	-7949.27	-1043.45	40°19'41.379"N	104°22'55.151"W	0.14	
14532.00	90.180	178.950	6359.96	8099.89	-8038.25	-1041.56	40°19'40.499"N	104°22'55.127"W	0.41	
14618.00	90.060	178.400	6359.78	8185.32	-8124.22	-1039.57	40°19'39.650"N	104°22'55.101"W	0.65	
14706.00	89.940	179.240	6359.78	8272.76	-8212.20	-1037.76	40°19'38.780"N	104°22'55.077"W	0.96	
14795.00	90.030	178.670	6359.80	8361.22	-8301.19	-1036.14	40°19'37.901"N	104°22'55.056"W	0.65	
14884.00	90.060	178.190	6359.73	8449.59	-8390.16	-1033.70	40°19'37.022"N	104°22'55.025"W	0.54	
14971.00	89.880	179.530	6359.78	8536.05	-8477.14	-1031.97	40°19'36.162"N	104°22'55.003"W	1.55	
15060.00	89.940	179.220	6359.92	8624.58	-8566.13	-1031.00	40°19'35.283"N	104°22'54.990"W	0.35	
15148.00	89.750	180.160	6360.16	8712.16	-8654.13	-1030.52	40°19'34.413"N	104°22'54.984"W	1.09	
15235.00	89.940	180.710	6360.39	8798.85	-8741.13	-1031.18	40°19'33.554"N	104°22'54.992"W	0.67	
15323.00	89.750	180.760	6360.63	8886.58	-8829.12	-1032.31	40°19'32.684"N	104°22'55.007"W	0.22	
15411.00	89.940	180.570	6360.87	8974.29	-8917.11	-1033.33	40°19'31.815"N	104°22'55.020"W	0.31	
15498.00	89.940	180.140	6360.96	9060.97	-9004.11	-1033.87	40°19'30.955"N	104°22'55.027"W	0.49	
15587.00	90.220	179.740	6360.83	9149.59	-9093.11	-1033.78	40°19'30.076"N	104°22'55.026"W	0.55	
15675.00	90.650	178.570	6360.17	9237.09	-9181.09	-1032.48	40°19'29.206"N	104°22'55.009"W	1.42	
15763.00	90.680	179.470	6359.14	9324.56	-9269.08	-1030.97	40°19'28.337"N	104°22'54.989"W	1.02	
15852.00	90.680	179.660	6358.09	9413.11	-9358.07	-1030.30	40°19'27.457"N	104°22'54.981"W	0.21	
15940.00	90.770	179.350	6356.97	9500.66	-9446.06	-1029.54	40°19'26.588"N	104°22'54.971"W	0.37	
16028.00	90.740	178.980	6355.82	9588.16	-9534.04	-1028.26	40°19'25.718"N	104°22'54.954"W	0.42	





# Actual Wellpath Report

LATHAM P-1-12XRLNC AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK ENERGY	Slot	SLOT#18 LATHAM P-1-12XRLNC (328'FSL & 732'FEL, SEC.36)
Area	COLORADO	Well	LATHAM P-1-12XRLNC
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	LATHAM P-1-12XRLNC AWB
Facility	SEC.36-T05N-R63W		

## WELLPATH DATA (195 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16117.00	90.650	179.070	6354.74	9676.62	-9623.02	-1026.74	40°19'24.839"N	104°22'54.934"W	0.14	
16204.00	90.650	178.850	6353.75	9763.09	-9710.00	-1025.16	40°19'23.980"N	104°22'54.914"W	0.25	
16292.00	90.310	179.460	6353.01	9850.59	-9797.99	-1023.86	40°19'23.110"N	104°22'54.897"W	0.79	
16379.00	91.170	177.860	6351.89	9937.00	-9884.95	-1021.83	40°19'22.251"N	104°22'54.871"W	2.09	
16468.00	91.290	177.470	6349.98	10025.20	-9973.86	-1018.21	40°19'21.372"N	104°22'54.824"W	0.46	
16556.00	91.170	177.410	6348.09	10112.36	-10061.75	-1014.28	40°19'20.504"N	104°22'54.773"W	0.15	
16644.00	90.920	177.050	6346.48	10199.49	-10149.63	-1010.02	40°19'19.635"N	104°22'54.718"W	0.50	
16733.00	89.970	177.470	6345.79	10287.62	-10238.53	-1005.77	40°19'18.757"N	104°22'54.663"W	1.17	
16821.00	90.000	177.350	6345.82	10374.79	-10326.44	-1001.79	40°19'17.888"N	104°22'54.612"W	0.14	
16909.00	90.000	178.110	6345.82	10462.03	-10414.37	-998.31	40°19'17.019"N	104°22'54.567"W	0.86	
16996.00	90.030	177.770	6345.79	10548.32	-10501.31	-995.18	40°19'16.160"N	104°22'54.526"W	0.39	
17085.00	90.030	177.420	6345.75	10636.53	-10590.23	-991.44	40°19'15.281"N	104°22'54.478"W	0.39	
17173.00	90.000	178.690	6345.72	10723.83	-10678.18	-988.46	40°19'14.412"N	104°22'54.440"W	1.44	
17226.00	89.820	178.730	6345.81	10776.48	-10731.16	-987.27	40°19'13.889"N	104°22'54.424"W	0.35	LAST BHI MONOBORE MWD SURVEY (300'FSL & 1396'FEL, SEC.12)
17251.00	89.820	178.730	6345.88	10801.32	-10756.16	-986.71	40°19'13.642"N	104°22'54.417"W	0.00	PROJECTION TO BIT (275'FSL & 1395'FEL, SEC.12)

## HOLE & CASING SECTIONS - Ref Wellbore: LATHAM P-1-12XRLNC AWB Ref Wellpath: LATHAM P-1-12XRLNC AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
13.5in Open Hole	17.00	1637.00	1620.00	17.00	1619.21	0.00	0.00	119.57	-136.11
9.625in Casing Surface	17.00	1627.00	1610.00	17.00	1609.35	0.00	0.00	118.21	-135.07
8.5in Open Hole	1637.00	17251.00	15614.00	1619.21	6345.88	119.57	-136.11	-10756.16	-986.71



# Actual Wellpath Report

LATHAM P-1-12XRLNC AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK ENERGY	Slot	SLOT#18 LATHAM P-1-12XRLNC (328'FSL & 732'FEL, SEC.36)
Area	COLORADO	Well	LATHAM P-1-12XRLNC
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	LATHAM P-1-12XRLNC AWB
Facility	SEC.36-T05N-R63W		

## TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.01-T04N-R63W	0.00	20.04	0.28	3312642.86	1372336.29	40°21'00.130"N	104°22'41.675"W	polygon
SEC.12-T04N-R63W	0.00	20.04	0.28	3312642.86	1372336.29	40°21'00.130"N	104°22'41.675"W	polygon
SEC.36-T5N-R63W	3.00	5343.91	-6914.88	3305661.21	1377572.03	40°21'52.729"N	104°24'11.009"W	polygon
LATHAM P-1-12XRLNC BHL (260'FSL & 1400'FEL, SEC.12)	6350.00	-10771.60	-991.76	3311787.45	1361533.43	40°19'13.489"N	104°22'54.482"W	point
LATHAM P-1-12XRLNC LP (10'FNL & 1305'FEL, SEC.01)	6350.00	-334.56	-1108.78	3311538.42	1371967.70	40°20'56.625"N	104°22'55.999"W	point
LATHAM P-1-12XRLNC BHL REV-1 (260'FSL & 1400'FEL, SEC.12)	6376.00	-10771.60	-991.76	3311787.45	1361533.43	40°19'13.489"N	104°22'54.482"W	point
LATHAM P-1-12XRLNC LP REV-1 (10'FNL & 1305'FEL, SEC.01)	6376.00	-334.56	-1108.78	3311538.42	1371967.70	40°20'56.625"N	104°22'55.999"W	point

## WELLPATH COMPOSITION - Ref Wellbore: LATHAM P-1-12XRLNC AWB Ref Wellpath: LATHAM P-1-12XRLNC AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1581.00	BHI NaviTrak (Rotating+Axial Corr)	BHI NaviTrak Surface MWD (Rotating+Axial Corr) <122-1581>	LATHAM P-1-12XRLNC AWB
1581.00	17226.00	BHI AutoTrak Curve (Short)	BHI NaviTrak Monobore MWD (Short) <1687-17226>	LATHAM P-1-12XRLNC AWB
17226.00	17251.00	Blind Drilling (std)	Projection to bit	LATHAM P-1-12XRLNC AWB



# Actual Wellpath Report

LATHAM P-1-12XRLNC AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BONANZA CREEK ENERGY	Slot	SLOT#18 LATHAM P-1-12XRLNC (328'FSL & 732'FEL, SEC.36)
Area	COLORADO	Well	LATHAM P-1-12XRLNC
Field	WELD COUNTY (NAD83/TRUE)	Wellbore	LATHAM P-1-12XRLNC AWB
Facility	SEC.36-T05N-R63W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
122.00	0.860	58.550	122.00	FIRST BHI SURFACE MWD SURVEY
1581.00	9.980	322.620	1564.04	TIE ONTO SURFACE MWD SURVEYS
1687.00	9.750	321.910	1668.48	FIRST BHI MONOBORE MWD SURVEY
6833.00	90.180	182.400	6371.77	LANDING POINT (18'FNL & 1304'FEL, SEC.01)
17226.00	89.820	178.730	6345.81	LAST BHI MONOBORE MWD SURVEY (300'FSL & 1396'FEL, SEC.12)
17251.00	89.820	178.730	6345.88	PROJECTION TO BIT (275'FSL & 1395'FEL, SEC.12)