

# BAYSWATER E & P, LLC

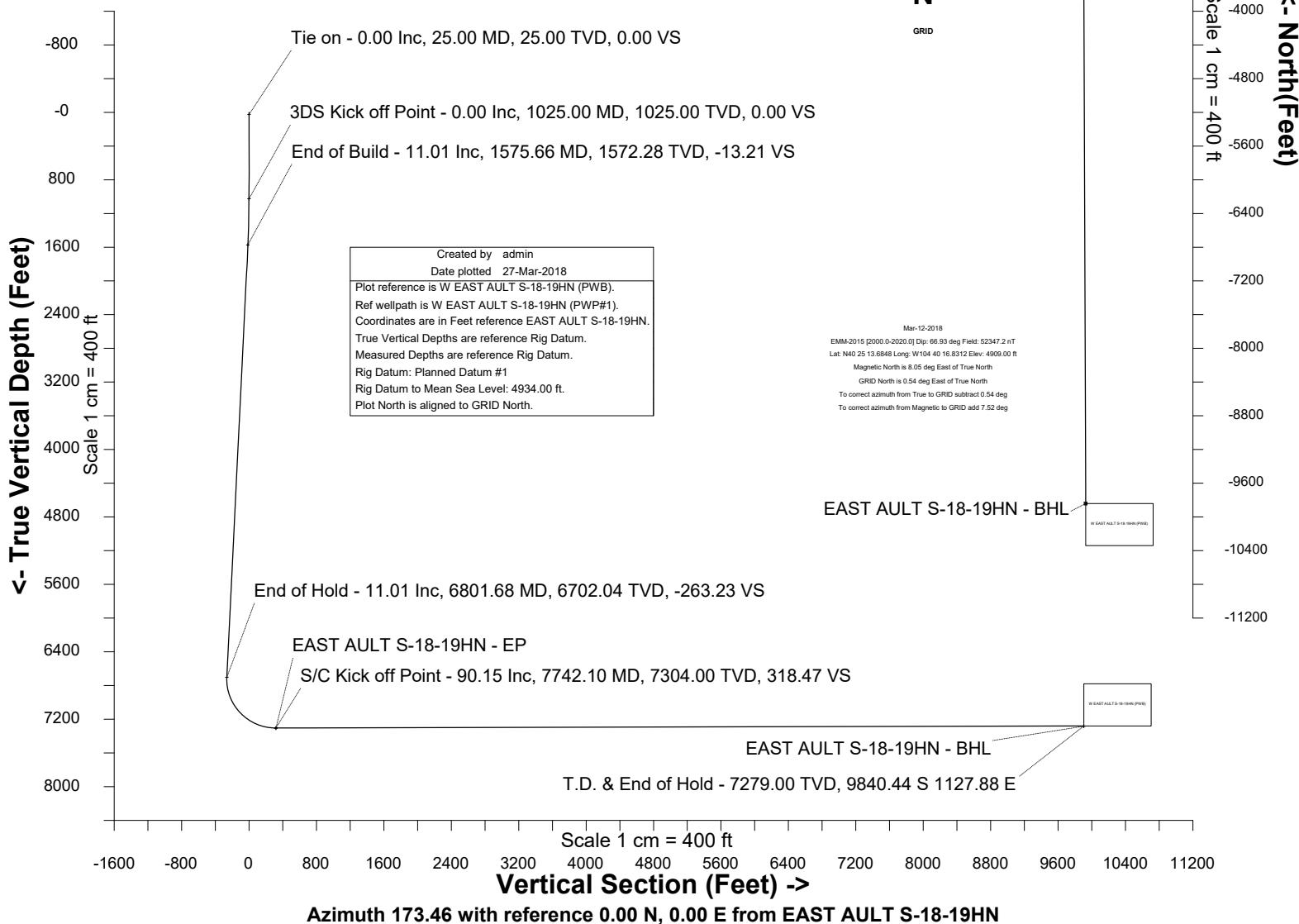
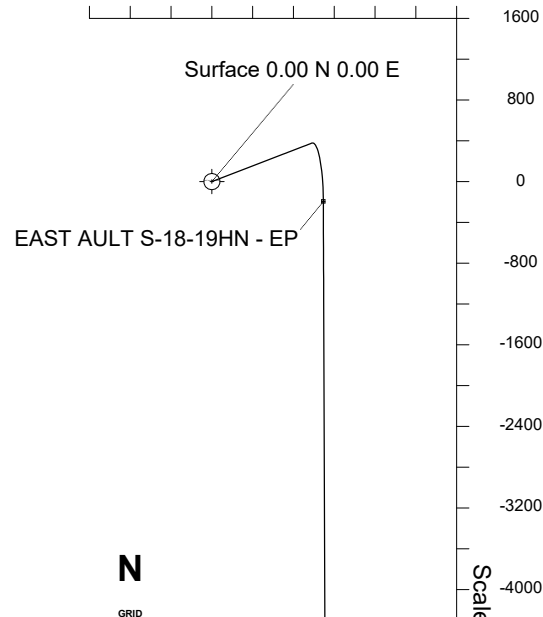
Location	Weld County, CO	Slot	EAST AULT S-18-19HN
Field	WATTENBERG	Well	W EAST AULT S-18-19HN
Installation	East Ault Pad	Wellbore	W EAST AULT S-18-19HN (PWB)

## WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	25.00	0.00	0.00	25.00	S 0.00	W 0.00		0.00
KOP	1025.00	0.00	68.96	1025.00	S 0.00	W 0.00	0.00	0.00
End of Build	1575.66	11.01	68.96	1572.28	N 18.94	E 49.24	2.00	-13.21
End of Hold	6801.68	11.01	68.96	6702.04	N 377.40	E 981.03	0.00	-263.23
Target EAST A...N - EP	7742.10	90.15	179.79	7304.00	S 195.29	E 1092.89	10.00	318.47
T.D. & Target EAS...BHL	17387.34	90.15	179.79	7279.00	S 9840.44	E 1127.88	0.00	9904.86

East (Feet) ->

-800 0 800 1600 2400  
Scale 1 cm = 400 ft





SYSDRILL  
Well Design Combined Report  
Wellbore: W EAST AULT S-18-19HN (PWB)



Wellhead Details							
Name	Latitude	Longitude	Northing	Easting	North	East	Slot Elevation Above Ground
EAST AULT S-18-19HN	40.58167300	-104.70450200	1455735.8328	3220957.7310	58643.37N	9759.46W	0.00

Declination		
Date	Source	Time
Mar-12-2018	EMM-2015 [2000.0-2020.0]	20:03

Installation Details						
Name	Installation Position (Latitude)	Installation Position (Longitude)	Northing	Easting	Coord System Name	North Alignment
East Ault Pad	40.42046800	-104.67134200	1397094.8569	3230716.7970	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Summary Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
25.00	0.00	0.000	25.00	0.00N	0.00E		0.00	1455735.83	3220957.73
1025.00	0.00	68.960	1025.00	0.00N	0.00E	==>	0.00	1455735.83	3220957.73
1575.66	11.01	68.960	1572.28	18.94N	49.24E	2.00	-13.21	1455754.78	3221006.97
6801.68	11.01	68.960	6702.04	377.40N	981.03E	==>	-263.23	1456113.22	3221938.73
7742.10	90.15	179.790	7304.00	195.29S	1092.89E	10.00	318.47	1455540.54	3222050.59
17387.34	90.15	179.790	7279.00	9840.44S	1127.88E	==>	9904.86	1445895.68	3222085.58

Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
0.00	0.00	0.000	0.00	0.00N	0.00E		0.00	Rig Datum
25.00	0.00	0.000	25.00	0.00N	0.00E	==>	0.00	Slot Datum
100.00	0.00	0.000	100.00	0.00N	0.00E	==>	0.00	
200.00	0.00	0.000	200.00	0.00N	0.00E	==>	0.00	
300.00	0.00	0.000	300.00	0.00N	0.00E	==>	0.00	
400.00	0.00	0.000	400.00	0.00N	0.00E	==>	0.00	
500.00	0.00	0.000	500.00	0.00N	0.00E	==>	0.00	
600.00	0.00	0.000	600.00	0.00N	0.00E	==>	0.00	
700.00	0.00	0.000	700.00	0.00N	0.00E	==>	0.00	
800.00	0.00	0.000	800.00	0.00N	0.00E	==>	0.00	
900.00	0.00	0.000	900.00	0.00N	0.00E	==>	0.00	
1000.00	0.00	0.000	1000.00	0.00N	0.00E	==>	0.00	
1100.00	1.50	68.960	1099.99	0.35N	0.92E	2.00	-0.25	
1200.00	3.50	68.960	1199.89	1.92N	4.99E	2.00	-1.34	
1300.00	5.50	68.960	1299.58	4.74N	12.31E	2.00	-3.30	
1400.00	7.50	68.960	1398.93	8.80N	22.87E	2.00	-6.14	
1500.00	9.50	68.960	1497.83	14.11N	36.67E	2.00	-9.84	
1600.00	11.01	68.960	1596.17	20.61N	53.58E	==>	-14.38	
1700.00	11.01	68.960	1694.33	27.47N	71.41E	==>	-19.16	
1800.00	11.01	68.960	1792.48	34.33N	89.24E	==>	-23.95	
1900.00	11.01	68.960	1890.64	41.19N	107.07E	==>	-28.73	
2000.00	11.01	68.960	1988.80	48.05N	124.90E	==>	-33.51	
2100.00	11.01	68.960	2086.96	54.91N	142.73E	==>	-38.30	
2200.00	11.01	68.960	2185.12	61.77N	160.56E	==>	-43.08	
2300.00	11.01	68.960	2283.28	68.63N	178.39E	==>	-47.87	
2400.00	11.01	68.960	2381.43	75.49N	196.22E	==>	-52.65	
2500.00	11.01	68.960	2479.59	82.34N	214.05E	==>	-57.43	
2600.00	11.01	68.960	2577.75	89.20N	231.88E	==>	-62.22	
2700.00	11.01	68.960	2675.91	96.06N	249.71E	==>	-67.00	
2800.00	11.01	68.960	2774.07	102.92N	267.54E	==>	-71.79	
2900.00	11.01	68.960	2872.22	109.78N	285.37E	==>	-76.57	
3000.00	11.01	68.960	2970.38	116.64N	303.20E	==>	-81.36	

All data is in Feet unless otherwise stated  
Coordinates are from Slot MD's are from Rig and TVD's are from Rig ( Planned Datum #1 4934.0ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 173.460 degrees  
Bottom hole distance is 9904.86 Feet on azimuth 173.46 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Microsoft  
Date Printed: 27-Mar-2018



SYSDRILL  
Well Design Combined Report  
Wellbore: W EAST AULT S-18-19HN (PWB)



Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
3100.00	11.01	68.960	3068.54	123.50N	321.03E	==>	-86.14	
3200.00	11.01	68.960	3166.70	130.36N	338.86E	==>	-90.92	
3300.00	11.01	68.960	3264.86	137.22N	356.69E	==>	-95.71	
3400.00	11.01	68.960	3363.02	144.08N	374.52E	==>	-100.49	
3500.00	11.01	68.960	3461.17	150.93N	392.35E	==>	-105.28	
3600.00	11.01	68.960	3559.33	157.79N	410.18E	==>	-110.06	
3700.00	11.01	68.960	3657.49	164.65N	428.01E	==>	-114.84	
3800.00	11.01	68.960	3755.65	171.51N	445.84E	==>	-119.63	
3900.00	11.01	68.960	3853.81	178.37N	463.67E	==>	-124.41	
4000.00	11.01	68.960	3951.97	185.23N	481.50E	==>	-129.20	
4100.00	11.01	68.960	4050.12	192.09N	499.33E	==>	-133.98	
4200.00	11.01	68.960	4148.28	198.95N	517.16E	==>	-138.76	
4300.00	11.01	68.960	4246.44	205.81N	534.99E	==>	-143.55	
4400.00	11.01	68.960	4344.60	212.67N	552.82E	==>	-148.33	
4500.00	11.01	68.960	4442.76	219.53N	570.65E	==>	-153.12	
4600.00	11.01	68.960	4540.92	226.38N	588.48E	==>	-157.90	
4700.00	11.01	68.960	4639.07	233.24N	606.31E	==>	-162.69	
4800.00	11.01	68.960	4737.23	240.10N	624.14E	==>	-167.47	
4900.00	11.01	68.960	4835.39	246.96N	641.97E	==>	-172.25	
5000.00	11.01	68.960	4933.55	253.82N	659.80E	==>	-177.04	
5100.00	11.01	68.960	5031.71	260.68N	677.63E	==>	-181.82	
5200.00	11.01	68.960	5129.87	267.54N	695.46E	==>	-186.61	
5300.00	11.01	68.960	5228.02	274.40N	713.29E	==>	-191.39	
5400.00	11.01	68.960	5326.18	281.26N	731.12E	==>	-196.17	
5500.00	11.01	68.960	5424.34	288.12N	748.95E	==>	-200.96	
5600.00	11.01	68.960	5522.50	294.98N	766.77E	==>	-205.74	
5700.00	11.01	68.960	5620.66	301.83N	784.60E	==>	-210.53	
5800.00	11.01	68.960	5718.82	308.69N	802.43E	==>	-215.31	
5900.00	11.01	68.960	5816.97	315.55N	820.26E	==>	-220.10	
6000.00	11.01	68.960	5915.13	322.41N	838.09E	==>	-224.88	
6100.00	11.01	68.960	6013.29	329.27N	855.92E	==>	-229.66	
6200.00	11.01	68.960	6111.45	336.13N	873.75E	==>	-234.45	
6300.00	11.01	68.960	6209.61	342.99N	891.58E	==>	-239.23	
6400.00	11.01	68.960	6307.77	349.85N	909.41E	==>	-244.02	
6500.00	11.01	68.960	6405.92	356.71N	927.24E	==>	-248.80	
6600.00	11.01	68.960	6504.08	363.57N	945.07E	==>	-253.58	
6700.00	11.01	68.960	6602.24	370.43N	962.90E	==>	-258.37	
6800.00	11.01	68.960	6700.40	377.28N	980.73E	==>	-263.15	
6900.00	11.88	119.940	6798.65	375.71N	998.61E	10.00	-259.56	
7000.00	18.91	147.690	6895.12	356.83N	1016.24E	10.00	-238.79	
7100.00	27.78	159.560	6986.89	321.20N	1033.08E	10.00	-201.47	
7200.00	37.20	165.900	7071.17	269.92N	1048.63E	10.00	-148.75	
7300.00	46.83	169.940	7145.39	204.53N	1062.40E	10.00	-82.22	
7400.00	56.56	172.870	7207.31	127.02N	1073.98E	10.00	-3.90	
7500.00	66.35	175.200	7255.03	39.76N	1083.02E	10.00	83.83	
7600.00	76.17	177.200	7287.12	54.62S	1089.24E	10.00	178.30	
7700.00	86.01	179.040	7302.59	153.23S	1092.46E	10.00	276.64	
7800.00	90.15	179.790	7303.85	253.20S	1093.10E	==>	376.02	
7900.00	90.15	179.790	7303.59	353.20S	1093.47E	==>	475.41	
8000.00	90.15	179.790	7303.33	453.19S	1093.83E	==>	574.80	
8100.00	90.15	179.790	7303.07	553.19S	1094.19E	==>	674.19	
8200.00	90.15	179.790	7302.81	653.19S	1094.55E	==>	773.58	
8300.00	90.15	179.790	7302.55	753.19S	1094.92E	==>	872.97	
8400.00	90.15	179.790	7302.29	853.19S	1095.28E	==>	972.36	
8500.00	90.15	179.790	7302.04	953.19S	1095.64E	==>	1071.75	
8600.00	90.15	179.790	7301.78	1053.19S	1096.01E	==>	1171.14	
8700.00	90.15	179.790	7301.52	1153.19S	1096.37E	==>	1270.53	
8800.00	90.15	179.790	7301.26	1253.19S	1096.73E	==>	1369.92	
8900.00	90.15	179.790	7301.00	1353.19S	1097.09E	==>	1469.31	

All data is in Feet unless otherwise stated  
Coordinates are from Slot MD's are from Rig and TVD's are from Rig ( Planned Datum #1 4934.0ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 173.460 degrees  
Bottom hole distance is 9904.86 Feet on azimuth 173.46 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Microsoft  
Date Printed: 27-Mar-2018



SYSDRILL  
Well Design Combined Report  
Wellbore: W EAST AULT S-18-19HN (PWB)



Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
9000.00	90.15	179.790	7300.74	1453.18S	1097.46E	==>	1568.70	
9100.00	90.15	179.790	7300.48	1553.18S	1097.82E	==>	1668.09	
9200.00	90.15	179.790	7300.22	1653.18S	1098.18E	==>	1767.48	
9300.00	90.15	179.790	7299.96	1753.18S	1098.54E	==>	1866.87	
9400.00	90.15	179.790	7299.70	1853.18S	1098.91E	==>	1966.26	
9500.00	90.15	179.790	7299.44	1953.18S	1099.27E	==>	2065.65	
9600.00	90.15	179.790	7299.18	2053.18S	1099.63E	==>	2165.04	
9700.00	90.15	179.790	7298.93	2153.18S	1100.00E	==>	2264.43	
9800.00	90.15	179.790	7298.67	2253.18S	1100.36E	==>	2363.82	
9900.00	90.15	179.790	7298.41	2353.18S	1100.72E	==>	2463.21	
10000.00	90.15	179.790	7298.15	2453.17S	1101.08E	==>	2562.60	
10100.00	90.15	179.790	7297.89	2553.17S	1101.45E	==>	2661.99	
10200.00	90.15	179.790	7297.63	2653.17S	1101.81E	==>	2761.38	
10300.00	90.15	179.790	7297.37	2753.17S	1102.17E	==>	2860.77	
10400.00	90.15	179.790	7297.11	2853.17S	1102.53E	==>	2960.16	
10500.00	90.15	179.790	7296.85	2953.17S	1102.90E	==>	3059.55	
10600.00	90.15	179.790	7296.59	3053.17S	1103.26E	==>	3158.94	
10700.00	90.15	179.790	7296.33	3153.17S	1103.62E	==>	3258.33	
10800.00	90.15	179.790	7296.07	3253.17S	1103.99E	==>	3357.72	
10900.00	90.15	179.790	7295.81	3353.17S	1104.35E	==>	3457.11	
11000.00	90.15	179.790	7295.56	3453.16S	1104.71E	==>	3556.50	
11100.00	90.15	179.790	7295.30	3553.16S	1105.07E	==>	3655.89	
11200.00	90.15	179.790	7295.04	3653.16S	1105.44E	==>	3755.28	
11300.00	90.15	179.790	7294.78	3753.16S	1105.80E	==>	3854.67	
11400.00	90.15	179.790	7294.52	3853.16S	1106.16E	==>	3954.06	
11500.00	90.15	179.790	7294.26	3953.16S	1106.53E	==>	4053.45	
11600.00	90.15	179.790	7294.00	4053.16S	1106.89E	==>	4152.84	
11700.00	90.15	179.790	7293.74	4153.16S	1107.25E	==>	4252.23	
11800.00	90.15	179.790	7293.48	4253.16S	1107.61E	==>	4351.62	
11900.00	90.15	179.790	7293.22	4353.16S	1107.98E	==>	4451.01	
12000.00	90.15	179.790	7292.96	4453.15S	1108.34E	==>	4550.40	
12100.00	90.15	179.790	7292.70	4553.15S	1108.70E	==>	4649.79	
12200.00	90.15	179.790	7292.45	4653.15S	1109.06E	==>	4749.18	
12300.00	90.15	179.790	7292.19	4753.15S	1109.43E	==>	4848.57	
12400.00	90.15	179.790	7291.93	4853.15S	1109.79E	==>	4947.96	
12500.00	90.15	179.790	7291.67	4953.15S	1110.15E	==>	5047.35	
12600.00	90.15	179.790	7291.41	5053.15S	1110.52E	==>	5146.74	
12700.00	90.15	179.790	7291.15	5153.15S	1110.88E	==>	5246.13	
12800.00	90.15	179.790	7290.89	5253.15S	1111.24E	==>	5345.52	
12900.00	90.15	179.790	7290.63	5353.15S	1111.60E	==>	5444.91	
13000.00	90.15	179.790	7290.37	5453.14S	1111.97E	==>	5544.30	
13100.00	90.15	179.790	7290.11	5553.14S	1112.33E	==>	5643.69	
13200.00	90.15	179.790	7289.85	5653.14S	1112.69E	==>	5743.08	
13300.00	90.15	179.790	7289.59	5753.14S	1113.06E	==>	5842.47	
13400.00	90.15	179.790	7289.33	5853.14S	1113.42E	==>	5941.86	
13500.00	90.15	179.790	7289.08	5953.14S	1113.78E	==>	6041.25	
13600.00	90.15	179.790	7288.82	6053.14S	1114.14E	==>	6140.64	
13700.00	90.15	179.790	7288.56	6153.14S	1114.51E	==>	6240.03	
13800.00	90.15	179.790	7288.30	6253.14S	1114.87E	==>	6339.42	
13900.00	90.15	179.790	7288.04	6353.14S	1115.23E	==>	6438.80	
14000.00	90.15	179.790	7287.78	6453.13S	1115.59E	==>	6538.19	
14100.00	90.15	179.790	7287.52	6553.13S	1115.96E	==>	6637.58	
14200.00	90.15	179.790	7287.26	6653.13S	1116.32E	==>	6736.97	
14300.00	90.15	179.790	7287.00	6753.13S	1116.68E	==>	6836.36	
14400.00	90.15	179.790	7286.74	6853.13S	1117.05E	==>	6935.75	
14500.00	90.15	179.790	7286.48	6953.13S	1117.41E	==>	7035.14	
14600.00	90.15	179.790	7286.22	7053.13S	1117.77E	==>	7134.53	
14700.00	90.15	179.790	7285.97	7153.13S	1118.13E	==>	7233.92	
14800.00	90.15	179.790	7285.71	7253.13S	1118.50E	==>	7333.31	

All data is in Feet unless otherwise stated  
Coordinates are from Slot MD's are from Rig and TVD's are from Rig ( Planned Datum #1 4934.0ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 173.460 degrees  
Bottom hole distance is 9904.86 Feet on azimuth 173.46 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Microsoft  
Date Printed: 27-Mar-2018



SYS DRILL  
Well Design Combined Report  
Wellbore: W EAST AULT S-18-19HN (PWB)



Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
14900.00	90.15	179.790	7285.45	7353.13S	1118.86E	==>	7432.70	
15000.00	90.15	179.790	7285.19	7453.12S	1119.22E	==>	7532.09	
15100.00	90.15	179.790	7284.93	7553.12S	1119.58E	==>	7631.48	
15200.00	90.15	179.790	7284.67	7653.12S	1119.95E	==>	7730.87	
15300.00	90.15	179.790	7284.41	7753.12S	1120.31E	==>	7830.26	
15400.00	90.15	179.790	7284.15	7853.12S	1120.67E	==>	7929.65	
15500.00	90.15	179.790	7283.89	7953.12S	1121.04E	==>	8029.04	
15600.00	90.15	179.790	7283.63	8053.12S	1121.40E	==>	8128.43	
15700.00	90.15	179.790	7283.37	8153.12S	1121.76E	==>	8227.82	
15800.00	90.15	179.790	7283.11	8253.12S	1122.12E	==>	8327.21	
15900.00	90.15	179.790	7282.86	8353.12S	1122.49E	==>	8426.60	
16000.00	90.15	179.790	7282.60	8453.11S	1122.85E	==>	8525.99	
16100.00	90.15	179.790	7282.34	8553.11S	1123.21E	==>	8625.38	
16200.00	90.15	179.790	7282.08	8653.11S	1123.58E	==>	8724.77	
16300.00	90.15	179.790	7281.82	8753.11S	1123.94E	==>	8824.16	
16400.00	90.15	179.790	7281.56	8853.11S	1124.30E	==>	8923.55	
16500.00	90.15	179.790	7281.30	8953.11S	1124.66E	==>	9022.94	
16600.00	90.15	179.790	7281.04	9053.11S	1125.03E	==>	9122.33	
16700.00	90.15	179.790	7280.78	9153.11S	1125.39E	==>	9221.72	
16800.00	90.15	179.790	7280.52	9253.11S	1125.75E	==>	9321.11	
16900.00	90.15	179.790	7280.26	9353.11S	1126.11E	==>	9420.50	
17000.00	90.15	179.790	7280.00	9453.10S	1126.48E	==>	9519.89	
17100.00	90.15	179.790	7279.74	9553.10S	1126.84E	==>	9619.28	
17200.00	90.15	179.790	7279.49	9653.10S	1127.20E	==>	9718.67	
17300.00	90.15	179.790	7279.23	9753.10S	1127.57E	==>	9818.06	
17387.34	90.15	179.790	7279.00	9840.44S	1127.88E	==>	9904.86	

All data is in Feet unless otherwise stated  
Coordinates are from Slot MD's are from Rig and TVD's are from Rig ( Planned Datum #1 4934.0ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 173.460 degrees  
Bottom hole distance is 9904.86 Feet on azimuth 173.46 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Microsoft  
Date Printed: 27-Mar-2018



SYSDRILL  
Well Design Combined Report  
Wellbore: W EAST AULT S-18-19HN (PWB)



Hole Sections								
Diameter [in]	Start MD[ft]	Start TVD[ft]	Start North[ft]	Start East[ft]	End MD[ft]	End TVD[ft]	End North[ft]	End East[ft]
	25.00	25.00	0.00N	0.00E	17318.32	7279.18	9771.42S	1127.63E

Targets							
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting
EAST AULT S-18-19HN - BHL	9840.44S	1127.88E	7279.00	40.55463600	-104.70076100	1445895.68	3222085.58
EAST AULT S-18-19HN - EP	195.29S	1092.89E	7304.00	40.58111000	-104.70057400	1455540.54	3222050.59

Survey Tool Program						
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model	
620324	Planned	1500.00	1497.83	WdW Rate Gyro	Standard	
620323	Planned	17387.34	7279.00	ISCWSA MWD	Rev 4 + SAG + FLT	

Notes