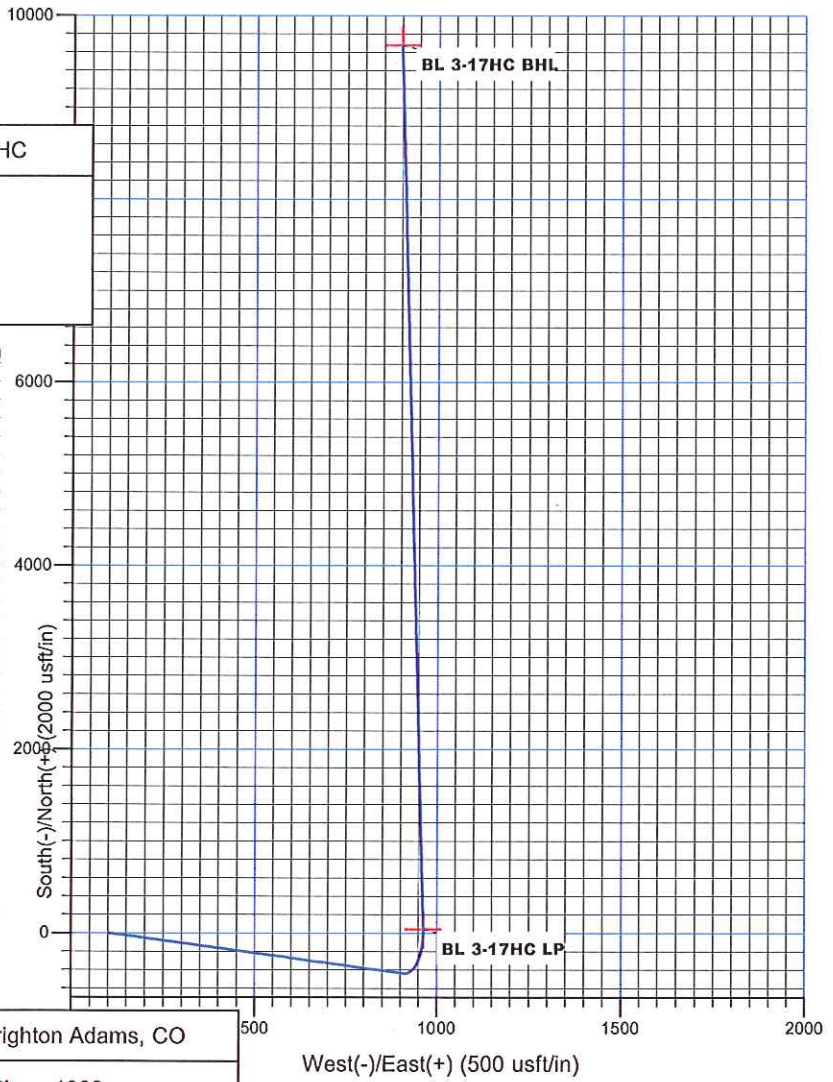




WARD PETROLEUM

WELL DETAILS: Brighton Lakes #2017-3-17HC

Ground Level: 5047.0
 Northing 1223392.74
 Easting 3194861.64
 Site Brighton Lakes Pad, Grid North

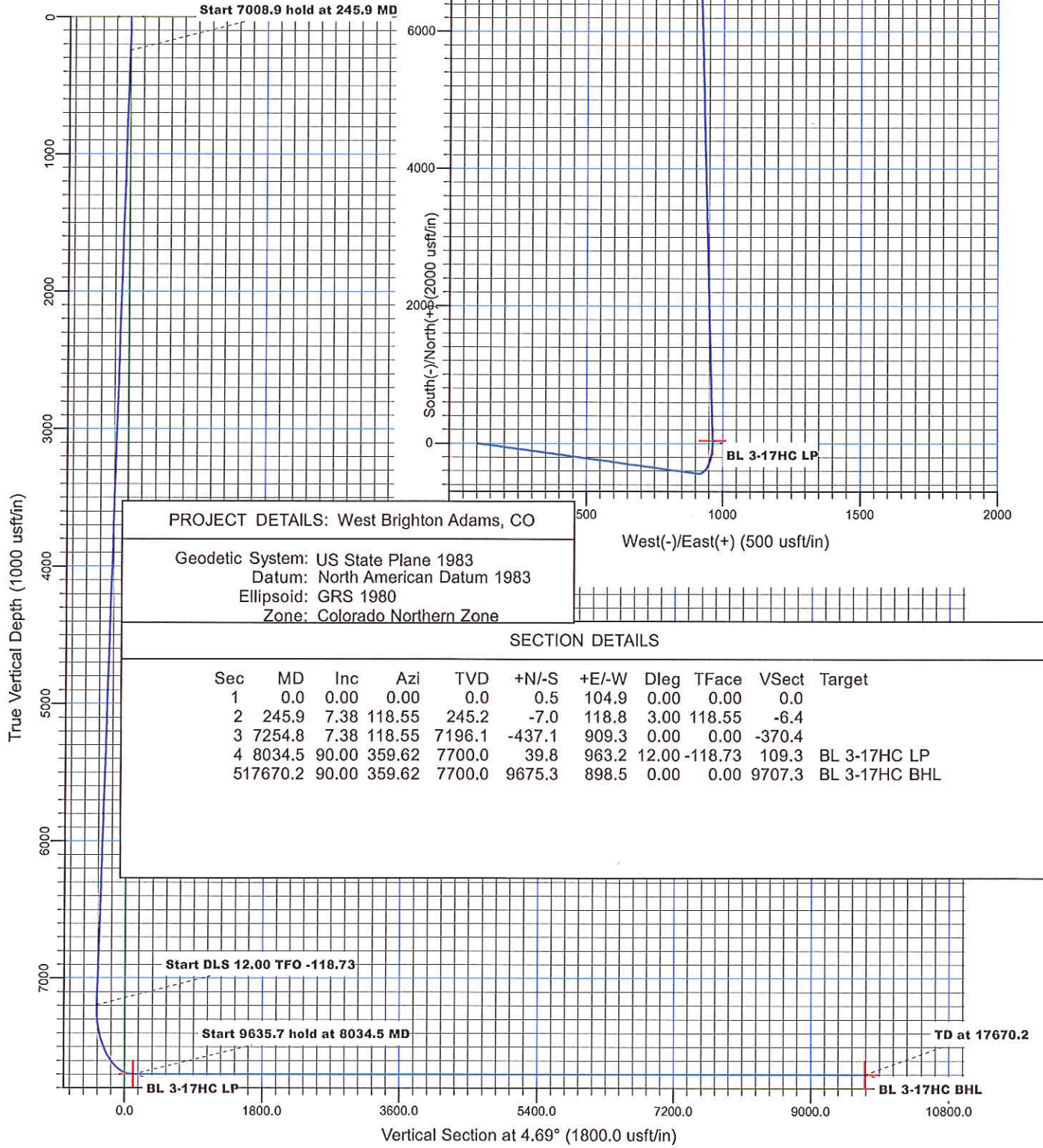


PROJECT DETAILS: West Brighton Adams, CO

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Northern Zone

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.5	104.9	0.00	0.00	0.0	
2	245.9	7.38	118.55	245.2	-7.0	118.8	3.00	118.55	-6.4	
3	7254.8	7.38	118.55	7196.1	-437.1	909.3	0.00	0.00	-370.4	
4	8034.5	90.00	359.62	7700.0	39.8	963.2	12.00	-118.73	109.3	BL 3-17HC LP
	517670.2	90.00	359.62	7700.0	9675.3	898.5	0.00	0.00	9707.3	BL 3-17HC BHL



Ward Petroleum

West Brighton Adams, CO

Brighton Lakes Pad

Brighton Lakes #2017-3-17HC

State Plan #1

Plan: State Plan #1

Standard Planning Report

30 December, 2016

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Brighton Lakes Pad
Company:	Ward Petroleum	TVD Reference:	KB @ 5073.0usft
Project:	West Brighton Adams, CO	MD Reference:	KB @ 5073.0usft
Site:	Brighton Lakes Pad	North Reference:	Grid
Well:	Brighton Lakes #2017-3-17HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	State Plan #1		
Design:	State Plan #1		

Project	West Brighton Adams, CO		
Map System:	US State Plane 1983	System Datum:	Ground Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	Brighton Lakes Pad				
Site Position:	Northing:	1,223,392.21 usft	Latitude:	39° 56' 40.197 N	
From: Map	Easting:	3,194,756.70 usft	Longitude:	104° 48' 19.368 W	
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.45 °

Well	Brighton Lakes #2017-3-17HC					
Well Position	+N/-S	0.5 usft	Northing:	1,223,392.74 usft	Latitude:	39° 56' 40.194 N
	+E/-W	104.9 usft	Easting:	3,194,861.64 usft	Longitude:	104° 48' 18.020 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	5,047.0 usft

Wellbore	State Plan #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	9.00	66.73	53,016

Design	State Plan #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.5	104.9	4.69

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.5	104.9	0.00	0.00	0.00	0.00	
245.9	7.38	118.55	245.2	-7.0	118.8	3.00	3.00	0.00	118.55	
7,254.8	7.38	118.55	7,196.1	-437.1	909.3	0.00	0.00	0.00	0.00	
8,034.5	90.00	359.62	7,700.0	39.8	963.2	12.00	10.60	-15.25	-118.73	BL 3-17HC LP
17,670.2	90.00	359.62	7,700.0	9,675.3	898.5	0.00	0.00	0.00	0.00	BL 3-17HC BHL

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Brighton Lakes Pad
Company:	Ward Petroleum	TVD Reference:	KB @ 5073.0usft
Project:	West Brighton Adams, CO	MD Reference:	KB @ 5073.0usft
Site:	Brighton Lakes Pad	North Reference:	Grid
Well:	Brighton Lakes #2017-3-17HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	State Plan #1		
Design:	State Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.5	104.9	0.0	0.00	0.00	0.00	
100.0	3.00	118.55	100.0	-0.7	107.2	-1.1	3.00	3.00	0.00	
200.0	6.00	118.55	199.6	-4.5	114.1	-4.2	3.00	3.00	0.00	
245.9	7.38	118.55	245.2	-7.0	118.8	-6.4	3.00	3.00	0.00	
300.0	7.38	118.55	298.9	-10.3	124.9	-9.2	0.00	0.00	0.00	
400.0	7.38	118.55	398.0	-16.5	136.2	-14.4	0.00	0.00	0.00	
500.0	7.38	118.55	497.2	-22.6	147.5	-19.6	0.00	0.00	0.00	
600.0	7.38	118.55	596.4	-28.8	158.8	-24.8	0.00	0.00	0.00	
700.0	7.38	118.55	695.6	-34.9	170.0	-30.0	0.00	0.00	0.00	
800.0	7.38	118.55	794.7	-41.0	181.3	-35.2	0.00	0.00	0.00	
900.0	7.38	118.55	893.9	-47.2	192.6	-40.4	0.00	0.00	0.00	
1,000.0	7.38	118.55	993.1	-53.3	203.9	-45.6	0.00	0.00	0.00	
1,100.0	7.38	118.55	1,092.3	-59.4	215.2	-50.8	0.00	0.00	0.00	
1,200.0	7.38	118.55	1,191.4	-65.6	226.4	-55.9	0.00	0.00	0.00	
1,300.0	7.38	118.55	1,290.6	-71.7	237.7	-61.1	0.00	0.00	0.00	
1,400.0	7.38	118.55	1,389.8	-77.8	249.0	-66.3	0.00	0.00	0.00	
1,500.0	7.38	118.55	1,488.9	-84.0	260.3	-71.5	0.00	0.00	0.00	
1,600.0	7.38	118.55	1,588.1	-90.1	271.5	-76.7	0.00	0.00	0.00	
1,700.0	7.38	118.55	1,687.3	-96.2	282.8	-81.9	0.00	0.00	0.00	
1,800.0	7.38	118.55	1,786.5	-102.4	294.1	-87.1	0.00	0.00	0.00	
1,900.0	7.38	118.55	1,885.6	-108.5	305.4	-92.3	0.00	0.00	0.00	
2,000.0	7.38	118.55	1,984.8	-114.7	316.7	-97.5	0.00	0.00	0.00	
2,100.0	7.38	118.55	2,084.0	-120.8	327.9	-102.7	0.00	0.00	0.00	
2,200.0	7.38	118.55	2,183.1	-126.9	339.2	-107.9	0.00	0.00	0.00	
2,300.0	7.38	118.55	2,282.3	-133.1	350.5	-113.1	0.00	0.00	0.00	
2,400.0	7.38	118.55	2,381.5	-139.2	361.8	-118.3	0.00	0.00	0.00	
2,500.0	7.38	118.55	2,480.7	-145.3	373.0	-123.5	0.00	0.00	0.00	
2,600.0	7.38	118.55	2,579.8	-151.5	384.3	-128.7	0.00	0.00	0.00	
2,700.0	7.38	118.55	2,679.0	-157.6	395.6	-133.9	0.00	0.00	0.00	
2,800.0	7.38	118.55	2,778.2	-163.7	406.9	-139.0	0.00	0.00	0.00	
2,900.0	7.38	118.55	2,877.4	-169.9	418.2	-144.2	0.00	0.00	0.00	
3,000.0	7.38	118.55	2,976.5	-176.0	429.4	-149.4	0.00	0.00	0.00	
3,100.0	7.38	118.55	3,075.7	-182.2	440.7	-154.6	0.00	0.00	0.00	
3,200.0	7.38	118.55	3,174.9	-188.3	452.0	-159.8	0.00	0.00	0.00	
3,300.0	7.38	118.55	3,274.0	-194.4	463.3	-165.0	0.00	0.00	0.00	
3,400.0	7.38	118.55	3,373.2	-200.6	474.5	-170.2	0.00	0.00	0.00	
3,500.0	7.38	118.55	3,472.4	-206.7	485.8	-175.4	0.00	0.00	0.00	
3,600.0	7.38	118.55	3,571.6	-212.8	497.1	-180.6	0.00	0.00	0.00	
3,700.0	7.38	118.55	3,670.7	-219.0	508.4	-185.8	0.00	0.00	0.00	
3,800.0	7.38	118.55	3,769.9	-225.1	519.7	-191.0	0.00	0.00	0.00	
3,900.0	7.38	118.55	3,869.1	-231.2	530.9	-196.2	0.00	0.00	0.00	
4,000.0	7.38	118.55	3,968.3	-237.4	542.2	-201.4	0.00	0.00	0.00	
4,100.0	7.38	118.55	4,067.4	-243.5	553.5	-206.6	0.00	0.00	0.00	
4,200.0	7.38	118.55	4,166.6	-249.7	564.8	-211.8	0.00	0.00	0.00	
4,300.0	7.38	118.55	4,265.8	-255.8	576.0	-216.9	0.00	0.00	0.00	
4,400.0	7.38	118.55	4,364.9	-261.9	587.3	-222.1	0.00	0.00	0.00	
4,500.0	7.38	118.55	4,464.1	-268.1	598.6	-227.3	0.00	0.00	0.00	
4,600.0	7.38	118.55	4,563.3	-274.2	609.9	-232.5	0.00	0.00	0.00	
4,700.0	7.38	118.55	4,662.5	-280.3	621.2	-237.7	0.00	0.00	0.00	
4,800.0	7.38	118.55	4,761.6	-286.5	632.4	-242.9	0.00	0.00	0.00	
4,900.0	7.38	118.55	4,860.8	-292.6	643.7	-248.1	0.00	0.00	0.00	
5,000.0	7.38	118.55	4,960.0	-298.7	655.0	-253.3	0.00	0.00	0.00	
5,100.0	7.38	118.55	5,059.1	-304.9	666.3	-258.5	0.00	0.00	0.00	
5,200.0	7.38	118.55	5,158.3	-311.0	677.5	-263.7	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Brighton Lakes Pad
Company:	Ward Petroleum	TVD Reference:	KB @ 5073.0usft
Project:	West Brighton Adams, CO	MD Reference:	KB @ 5073.0usft
Site:	Brighton Lakes Pad	North Reference:	Grid
Well:	Brighton Lakes #2017-3-17HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	State Plan #1		
Design:	State Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	7.38	118.55	5,257.5	-317.1	688.8	-268.9	0.00	0.00	0.00
5,400.0	7.38	118.55	5,356.7	-323.3	700.1	-274.1	0.00	0.00	0.00
5,500.0	7.38	118.55	5,455.8	-329.4	711.4	-279.3	0.00	0.00	0.00
5,600.0	7.38	118.55	5,555.0	-335.6	722.7	-284.5	0.00	0.00	0.00
5,700.0	7.38	118.55	5,654.2	-341.7	733.9	-289.7	0.00	0.00	0.00
5,800.0	7.38	118.55	5,753.4	-347.8	745.2	-294.9	0.00	0.00	0.00
5,900.0	7.38	118.55	5,852.5	-354.0	756.5	-300.0	0.00	0.00	0.00
6,000.0	7.38	118.55	5,951.7	-360.1	767.8	-305.2	0.00	0.00	0.00
6,100.0	7.38	118.55	6,050.9	-366.2	779.0	-310.4	0.00	0.00	0.00
6,200.0	7.38	118.55	6,150.0	-372.4	790.3	-315.6	0.00	0.00	0.00
6,300.0	7.38	118.55	6,249.2	-378.5	801.6	-320.8	0.00	0.00	0.00
6,400.0	7.38	118.55	6,348.4	-384.6	812.9	-326.0	0.00	0.00	0.00
6,500.0	7.38	118.55	6,447.6	-390.8	824.2	-331.2	0.00	0.00	0.00
6,600.0	7.38	118.55	6,546.7	-396.9	835.4	-336.4	0.00	0.00	0.00
6,700.0	7.38	118.55	6,645.9	-403.1	846.7	-341.6	0.00	0.00	0.00
6,800.0	7.38	118.55	6,745.1	-409.2	858.0	-346.8	0.00	0.00	0.00
6,900.0	7.38	118.55	6,844.2	-415.3	869.3	-352.0	0.00	0.00	0.00
7,000.0	7.38	118.55	6,943.4	-421.5	880.5	-357.2	0.00	0.00	0.00
7,100.0	7.38	118.55	7,042.6	-427.6	891.8	-362.4	0.00	0.00	0.00
7,200.0	7.38	118.55	7,141.8	-433.7	903.1	-367.6	0.00	0.00	0.00
7,254.8	7.38	118.55	7,196.1	-437.1	909.3	-370.4	0.00	0.00	0.00
7,300.0	6.73	73.49	7,241.0	-437.7	914.4	-370.6	12.00	-1.44	-99.66
7,400.0	15.27	24.14	7,339.3	-424.0	925.4	-356.0	12.00	8.54	-49.36
7,500.0	26.61	12.69	7,432.5	-390.0	935.8	-321.3	12.00	11.34	-11.45
7,600.0	38.33	7.85	7,516.8	-337.3	944.9	-268.0	12.00	11.72	-4.83
7,700.0	50.17	5.04	7,588.3	-268.0	952.6	-198.4	12.00	11.84	-2.82
7,800.0	62.06	3.06	7,643.9	-185.4	958.3	-115.5	12.00	11.89	-1.98
7,900.0	73.97	1.48	7,681.3	-92.9	961.9	-23.0	12.00	11.91	-1.58
8,000.0	85.89	0.08	7,698.8	5.4	963.3	75.0	12.00	11.92	-1.40
8,034.5	90.00	359.62	7,700.0	39.8	963.2	109.3	12.00	11.92	-1.35
8,100.0	90.00	359.62	7,700.0	105.4	962.7	174.6	0.00	0.00	0.00
8,200.0	90.00	359.62	7,700.0	205.4	962.1	274.2	0.00	0.00	0.00
8,300.0	90.00	359.62	7,700.0	305.3	961.4	373.8	0.00	0.00	0.00
8,400.0	90.00	359.62	7,700.0	405.3	960.7	473.4	0.00	0.00	0.00
8,500.0	90.00	359.62	7,700.0	505.3	960.0	573.0	0.00	0.00	0.00
8,600.0	90.00	359.62	7,700.0	605.3	959.4	672.6	0.00	0.00	0.00
8,700.0	90.00	359.62	7,700.0	705.3	958.7	772.2	0.00	0.00	0.00
8,800.0	90.00	359.62	7,700.0	805.3	958.0	871.9	0.00	0.00	0.00
8,900.0	90.00	359.62	7,700.0	905.3	957.4	971.5	0.00	0.00	0.00
9,000.0	90.00	359.62	7,700.0	1,005.3	956.7	1,071.1	0.00	0.00	0.00
9,100.0	90.00	359.62	7,700.0	1,105.3	956.0	1,170.7	0.00	0.00	0.00
9,200.0	90.00	359.62	7,700.0	1,205.3	955.3	1,270.3	0.00	0.00	0.00
9,300.0	90.00	359.62	7,700.0	1,305.3	954.7	1,369.9	0.00	0.00	0.00
9,400.0	90.00	359.62	7,700.0	1,405.3	954.0	1,469.5	0.00	0.00	0.00
9,500.0	90.00	359.62	7,700.0	1,505.3	953.3	1,569.1	0.00	0.00	0.00
9,600.0	90.00	359.62	7,700.0	1,605.3	952.7	1,668.7	0.00	0.00	0.00
9,700.0	90.00	359.62	7,700.0	1,705.3	952.0	1,768.3	0.00	0.00	0.00
9,800.0	90.00	359.62	7,700.0	1,805.3	951.3	1,867.9	0.00	0.00	0.00
9,900.0	90.00	359.62	7,700.0	1,905.3	950.6	1,967.5	0.00	0.00	0.00
10,000.0	90.00	359.62	7,700.0	2,005.3	950.0	2,067.1	0.00	0.00	0.00
10,100.0	90.00	359.62	7,700.0	2,105.3	949.3	2,166.8	0.00	0.00	0.00
10,200.0	90.00	359.62	7,700.0	2,205.3	948.6	2,266.4	0.00	0.00	0.00
10,300.0	90.00	359.62	7,700.0	2,305.3	948.0	2,366.0	0.00	0.00	0.00
10,400.0	90.00	359.62	7,700.0	2,405.3	947.3	2,465.6	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Brighton Lakes Pad
Company:	Ward Petroleum	TVD Reference:	KB @ 5073.0usft
Project:	West Brighton Adams, CO	MD Reference:	KB @ 5073.0usft
Site:	Brighton Lakes Pad	North Reference:	Grid
Well:	Brighton Lakes #2017-3-17HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	State Plan #1		
Design:	State Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,500.0	90.00	359.62	7,700.0	2,505.3	946.6	2,565.2	0.00	0.00	0.00
10,600.0	90.00	359.62	7,700.0	2,605.3	945.9	2,664.8	0.00	0.00	0.00
10,700.0	90.00	359.62	7,700.0	2,705.3	945.3	2,764.4	0.00	0.00	0.00
10,800.0	90.00	359.62	7,700.0	2,805.3	944.6	2,864.0	0.00	0.00	0.00
10,900.0	90.00	359.62	7,700.0	2,905.3	943.9	2,963.6	0.00	0.00	0.00
11,000.0	90.00	359.62	7,700.0	3,005.3	943.3	3,063.2	0.00	0.00	0.00
11,100.0	90.00	359.62	7,700.0	3,105.3	942.6	3,162.8	0.00	0.00	0.00
11,200.0	90.00	359.62	7,700.0	3,205.3	941.9	3,262.4	0.00	0.00	0.00
11,300.0	90.00	359.62	7,700.0	3,305.3	941.2	3,362.1	0.00	0.00	0.00
11,400.0	90.00	359.62	7,700.0	3,405.3	940.6	3,461.7	0.00	0.00	0.00
11,500.0	90.00	359.62	7,700.0	3,505.3	939.9	3,561.3	0.00	0.00	0.00
11,600.0	90.00	359.62	7,700.0	3,605.3	939.2	3,660.9	0.00	0.00	0.00
11,700.0	90.00	359.62	7,700.0	3,705.3	938.6	3,760.5	0.00	0.00	0.00
11,800.0	90.00	359.62	7,700.0	3,805.3	937.9	3,860.1	0.00	0.00	0.00
11,900.0	90.00	359.62	7,700.0	3,905.3	937.2	3,959.7	0.00	0.00	0.00
12,000.0	90.00	359.62	7,700.0	4,005.3	936.5	4,059.3	0.00	0.00	0.00
12,100.0	90.00	359.62	7,700.0	4,105.3	935.9	4,158.9	0.00	0.00	0.00
12,200.0	90.00	359.62	7,700.0	4,205.3	935.2	4,258.5	0.00	0.00	0.00
12,300.0	90.00	359.62	7,700.0	4,305.3	934.5	4,358.1	0.00	0.00	0.00
12,400.0	90.00	359.62	7,700.0	4,405.3	933.9	4,457.7	0.00	0.00	0.00
12,500.0	90.00	359.62	7,700.0	4,505.3	933.2	4,557.4	0.00	0.00	0.00
12,600.0	90.00	359.62	7,700.0	4,605.3	932.5	4,657.0	0.00	0.00	0.00
12,700.0	90.00	359.62	7,700.0	4,705.2	931.8	4,756.6	0.00	0.00	0.00
12,800.0	90.00	359.62	7,700.0	4,805.2	931.2	4,856.2	0.00	0.00	0.00
12,900.0	90.00	359.62	7,700.0	4,905.2	930.5	4,955.8	0.00	0.00	0.00
13,000.0	90.00	359.62	7,700.0	5,005.2	929.8	5,055.4	0.00	0.00	0.00
13,100.0	90.00	359.62	7,700.0	5,105.2	929.2	5,155.0	0.00	0.00	0.00
13,200.0	90.00	359.62	7,700.0	5,205.2	928.5	5,254.6	0.00	0.00	0.00
13,300.0	90.00	359.62	7,700.0	5,305.2	927.8	5,354.2	0.00	0.00	0.00
13,400.0	90.00	359.62	7,700.0	5,405.2	927.1	5,453.8	0.00	0.00	0.00
13,500.0	90.00	359.62	7,700.0	5,505.2	926.5	5,553.4	0.00	0.00	0.00
13,600.0	90.00	359.62	7,700.0	5,605.2	925.8	5,653.0	0.00	0.00	0.00
13,700.0	90.00	359.62	7,700.0	5,705.2	925.1	5,752.7	0.00	0.00	0.00
13,800.0	90.00	359.62	7,700.0	5,805.2	924.5	5,852.3	0.00	0.00	0.00
13,900.0	90.00	359.62	7,700.0	5,905.2	923.8	5,951.9	0.00	0.00	0.00
14,000.0	90.00	359.62	7,700.0	6,005.2	923.1	6,051.5	0.00	0.00	0.00
14,100.0	90.00	359.62	7,700.0	6,105.2	922.4	6,151.1	0.00	0.00	0.00
14,200.0	90.00	359.62	7,700.0	6,205.2	921.8	6,250.7	0.00	0.00	0.00
14,300.0	90.00	359.62	7,700.0	6,305.2	921.1	6,350.3	0.00	0.00	0.00
14,400.0	90.00	359.62	7,700.0	6,405.2	920.4	6,449.9	0.00	0.00	0.00
14,500.0	90.00	359.62	7,700.0	6,505.2	919.8	6,549.5	0.00	0.00	0.00
14,600.0	90.00	359.62	7,700.0	6,605.2	919.1	6,649.1	0.00	0.00	0.00
14,700.0	90.00	359.62	7,700.0	6,705.2	918.4	6,748.7	0.00	0.00	0.00
14,800.0	90.00	359.62	7,700.0	6,805.2	917.7	6,848.3	0.00	0.00	0.00
14,900.0	90.00	359.62	7,700.0	6,905.2	917.1	6,947.9	0.00	0.00	0.00
15,000.0	90.00	359.62	7,700.0	7,005.2	916.4	7,047.6	0.00	0.00	0.00
15,100.0	90.00	359.62	7,700.0	7,105.2	915.7	7,147.2	0.00	0.00	0.00
15,200.0	90.00	359.62	7,700.0	7,205.2	915.1	7,246.8	0.00	0.00	0.00
15,300.0	90.00	359.62	7,700.0	7,305.2	914.4	7,346.4	0.00	0.00	0.00
15,400.0	90.00	359.62	7,700.0	7,405.2	913.7	7,446.0	0.00	0.00	0.00
15,500.0	90.00	359.62	7,700.0	7,505.2	913.0	7,545.6	0.00	0.00	0.00
15,600.0	90.00	359.62	7,700.0	7,605.2	912.4	7,645.2	0.00	0.00	0.00
15,700.0	90.00	359.62	7,700.0	7,705.2	911.7	7,744.8	0.00	0.00	0.00
15,800.0	90.00	359.62	7,700.0	7,805.2	911.0	7,844.4	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Brighton Lakes Pad
Company:	Ward Petroleum	TVD Reference:	KB @ 5073.0usft
Project:	West Brighton Adams, CO	MD Reference:	KB @ 5073.0usft
Site:	Brighton Lakes Pad	North Reference:	Grid
Well:	Brighton Lakes #2017-3-17HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	State Plan #1		
Design:	State Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
15,900.0	90.00	359.62	7,700.0	7,905.2	910.4	7,944.0	0.00	0.00	0.00	
16,000.0	90.00	359.62	7,700.0	8,005.2	909.7	8,043.6	0.00	0.00	0.00	
16,100.0	90.00	359.62	7,700.0	8,105.2	909.0	8,143.2	0.00	0.00	0.00	
16,200.0	90.00	359.62	7,700.0	8,205.2	908.3	8,242.9	0.00	0.00	0.00	
16,300.0	90.00	359.62	7,700.0	8,305.2	907.7	8,342.5	0.00	0.00	0.00	
16,400.0	90.00	359.62	7,700.0	8,405.2	907.0	8,442.1	0.00	0.00	0.00	
16,500.0	90.00	359.62	7,700.0	8,505.2	906.3	8,541.7	0.00	0.00	0.00	
16,600.0	90.00	359.62	7,700.0	8,605.2	905.7	8,641.3	0.00	0.00	0.00	
16,700.0	90.00	359.62	7,700.0	8,705.2	905.0	8,740.9	0.00	0.00	0.00	
16,800.0	90.00	359.62	7,700.0	8,805.2	904.3	8,840.5	0.00	0.00	0.00	
16,900.0	90.00	359.62	7,700.0	8,905.2	903.6	8,940.1	0.00	0.00	0.00	
17,000.0	90.00	359.62	7,700.0	9,005.2	903.0	9,039.7	0.00	0.00	0.00	
17,100.0	90.00	359.62	7,700.0	9,105.2	902.3	9,139.3	0.00	0.00	0.00	
17,200.0	90.00	359.62	7,700.0	9,205.1	901.6	9,238.9	0.00	0.00	0.00	
17,300.0	90.00	359.62	7,700.0	9,305.1	901.0	9,338.5	0.00	0.00	0.00	
17,400.0	90.00	359.62	7,700.0	9,405.1	900.3	9,438.2	0.00	0.00	0.00	
17,500.0	90.00	359.62	7,700.0	9,505.1	899.6	9,537.8	0.00	0.00	0.00	
17,600.0	90.00	359.62	7,700.0	9,605.1	898.9	9,637.4	0.00	0.00	0.00	
17,670.2	90.00	359.62	7,700.0	9,675.3	898.5	9,707.3	0.00	0.00	0.00	

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
BL 3-17HC BHL - plan hits target center - Point	0.00	0.00	7,700.0	9,675.3	898.5	1,233,067.54	3,195,655.17	39° 58' 15.743 N	104° 48' 6.854 W	
BL 3-17HC LP - plan hits target center - Point	0.00	0.00	7,700.0	39.8	963.2	1,223,432.03	3,195,719.87	39° 56' 40.516 N	104° 48' 6.997 W	