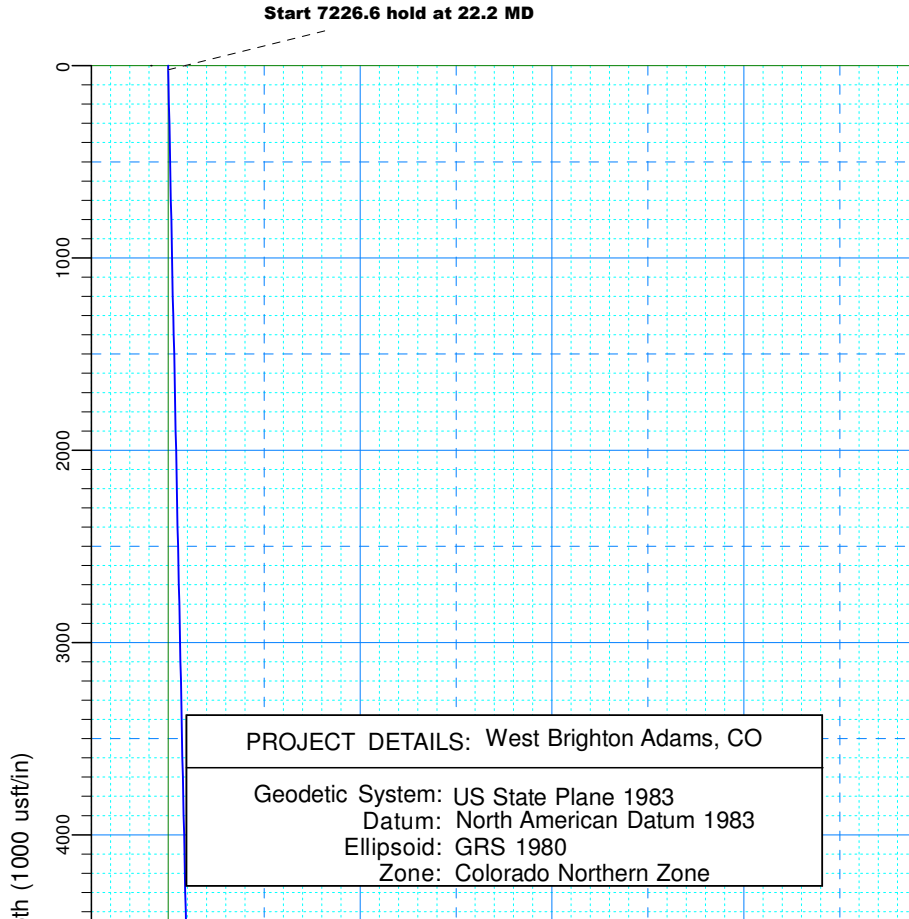
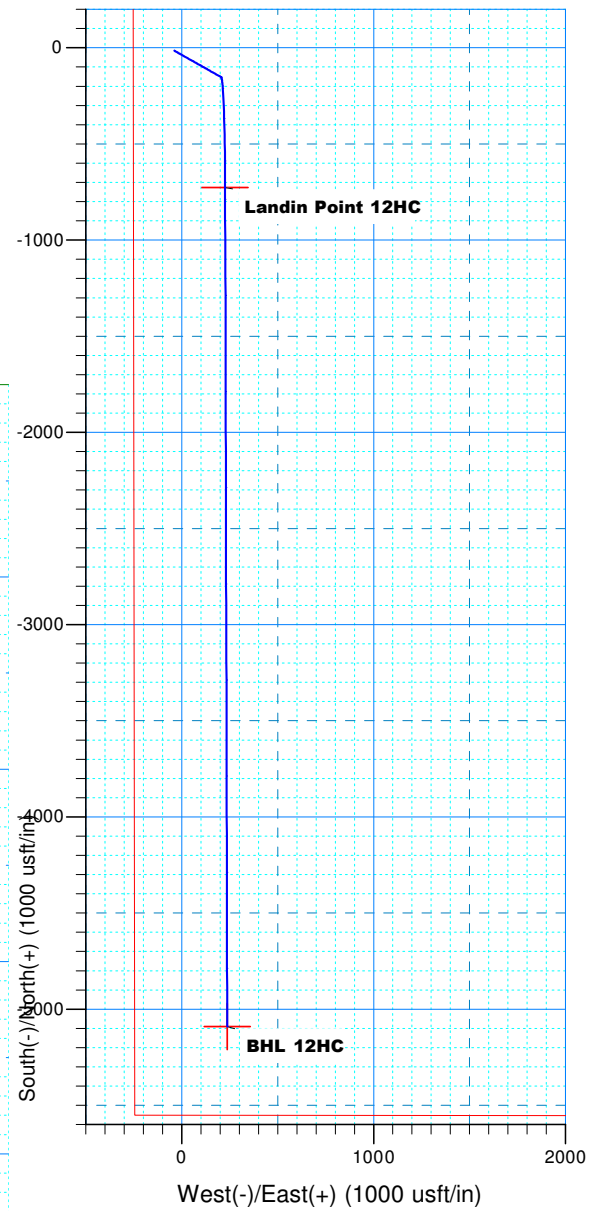




WARD PETROLEUM

WELL DETAILS: Sharp 25-1-12HC

Ground Level: 5019.0
Northing 1223135.09
Easting 3183386.34
Site Sharp Pad, True North

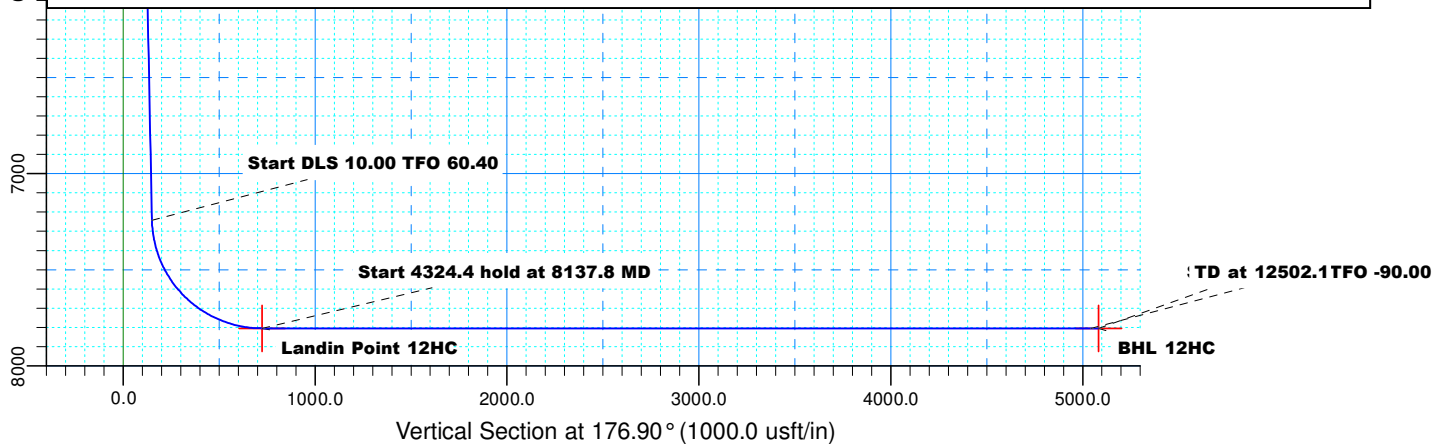


PROJECT DETAILS: West Brighton Adams, CO

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	-14.9	-37.5	0.00	0.00	0.0	
2	22.2	2.22	119.47	22.2	-15.1	-37.1	10.00	119.47	0.2	
3	7248.7	2.22	119.47	7243.3	-152.6	206.2	0.00	0.00	150.7	
4	8137.8	90.00	179.85	7805.0	-725.4	226.6	10.00	60.40	723.8	Landin Point 12HC
5	8137.8	90.00	179.85	7805.0	-725.4	226.6	0.01	0.00	723.8	
6	12462.2	90.00	179.85	7805.0	-5049.8	237.6	0.00	0.00	5042.4	
7	12502.1	90.00	179.85	7805.0	-5089.7	237.7	0.01	-90.00	5082.3	BHL 12HC



Ward Petroleum

West Brighton Adams, CO

Sharp Pad

Sharp 25-1-12HC

State Plan #1

Plan: State Plan #1

Standard Planning Report - Geographic

21 October, 2015

Ward Petroleum Corp
Planning Report - Geographic

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Sharp Pad
Company:	Ward Petroleum	TVD Reference:	WELL @ 5037.0usft (Original Well Elev)
Project:	West Brighton Adams, CO	MD Reference:	WELL @ 5037.0usft (Original Well Elev)
Site:	Sharp Pad	North Reference:	True
Well:	Sharp 25-1-12HC	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		Sharp Pad			
Site Position:		Northing:	1,223,150.26 usft	Latitude:	39° 56' 38.658 N
From:	Map	Easting:	3,183,423.69 usft	Longitude:	104° 50' 44.898 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.42 °

Well	Sharp 25-1-12HC					
Well Position	+N/-S	-14.9 usft	Northing:	1,223,135.09 usft	Latitude:	39° 56' 38.511 N
	+E/-W	-37.5 usft	Easting:	3,183,386.34 usft	Longitude:	104° 50' 45.379 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	5,019.0 usft	Ground Level:	5,019.0 usft

Wellbore	State Plan #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	9.02	66.72	53,012

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	-14.9	-37.5	176.90

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	-14.9	-37.5	0.00	0.00	0.00	0.00	
22.2	2.22	119.47	22.2	-15.1	-37.1	10.00	10.00	0.00	119.47	
7,248.7	2.22	119.47	7,243.3	-152.6	206.2	0.00	0.00	0.00	0.00	
8,137.8	90.00	179.85	7,805.0	-725.4	226.6	10.00	9.87	6.79	60.40	Landin Point 12HC
8,137.8	90.00	179.85	7,805.0	-725.4	226.6	0.01	0.00	0.00	0.00	
12,462.2	90.00	179.85	7,805.0	-5,049.8	237.6	0.00	0.00	0.00	0.00	
12,502.1	90.00	179.85	7,805.0	-5,089.7	237.7	0.01	0.00	-0.01	-90.00	BHL 12HC

Ward Petroleum Corp
Planning Report - Geographic

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Sharp Pad
Company:	Ward Petroleum	TVD Reference:	WELL @ 5037.0usft (Original Well Elev)
Project:	West Brighton Adams, CO	MD Reference:	WELL @ 5037.0usft (Original Well Elev)
Site:	Sharp Pad	North Reference:	True
Well:	Sharp 25-1-12HC	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)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.0	0.00	0.00	0.0	-14.9	-37.5	1,223,135.09	3,183,386.34	39° 56' 38.511 N	104° 50' 45.379 W	
22.2	2.22	119.47	22.2	-15.1	-37.1	1,223,134.88	3,183,386.72	39° 56' 38.509 N	104° 50' 45.375 W	
100.0	2.22	119.47	99.9	-16.6	-34.5	1,223,133.42	3,183,389.35	39° 56' 38.494 N	104° 50' 45.341 W	
200.0	2.22	119.47	199.9	-18.5	-31.1	1,223,131.54	3,183,392.73	39° 56' 38.475 N	104° 50' 45.298 W	
300.0	2.22	119.47	299.8	-20.4	-27.7	1,223,129.66	3,183,396.11	39° 56' 38.456 N	104° 50' 45.254 W	
400.0	2.22	119.47	399.7	-22.3	-24.4	1,223,127.78	3,183,399.49	39° 56' 38.438 N	104° 50' 45.211 W	
500.0	2.22	119.47	499.6	-24.2	-21.0	1,223,125.91	3,183,402.87	39° 56' 38.419 N	104° 50' 45.168 W	
600.0	2.22	119.47	599.6	-26.1	-17.6	1,223,124.03	3,183,406.25	39° 56' 38.400 N	104° 50' 45.125 W	
700.0	2.22	119.47	699.5	-28.0	-14.3	1,223,122.15	3,183,409.63	39° 56' 38.381 N	104° 50' 45.082 W	
800.0	2.22	119.47	799.4	-29.9	-10.9	1,223,120.27	3,183,413.01	39° 56' 38.362 N	104° 50' 45.038 W	
900.0	2.22	119.47	899.3	-31.8	-7.5	1,223,118.39	3,183,416.39	39° 56' 38.344 N	104° 50' 44.995 W	
1,000.0	2.22	119.47	999.3	-33.7	-4.2	1,223,116.52	3,183,419.78	39° 56' 38.325 N	104° 50' 44.952 W	
1,100.0	2.22	119.47	1,099.2	-35.6	-0.8	1,223,114.64	3,183,423.16	39° 56' 38.306 N	104° 50' 44.909 W	
1,200.0	2.22	119.47	1,199.1	-37.5	2.6	1,223,112.76	3,183,426.54	39° 56' 38.287 N	104° 50' 44.865 W	
1,300.0	2.22	119.47	1,299.0	-39.4	5.9	1,223,110.88	3,183,429.92	39° 56' 38.268 N	104° 50' 44.822 W	
1,400.0	2.22	119.47	1,399.0	-41.3	9.3	1,223,109.01	3,183,433.30	39° 56' 38.250 N	104° 50' 44.779 W	
1,500.0	2.22	119.47	1,498.9	-43.2	12.7	1,223,107.13	3,183,436.68	39° 56' 38.231 N	104° 50' 44.736 W	
1,600.0	2.22	119.47	1,598.8	-45.1	16.0	1,223,105.25	3,183,440.06	39° 56' 38.212 N	104° 50' 44.692 W	
1,700.0	2.22	119.47	1,698.7	-47.0	19.4	1,223,103.37	3,183,443.44	39° 56' 38.193 N	104° 50' 44.649 W	
1,800.0	2.22	119.47	1,798.7	-48.9	22.8	1,223,101.49	3,183,446.82	39° 56' 38.174 N	104° 50' 44.606 W	
1,900.0	2.22	119.47	1,898.6	-50.8	26.1	1,223,099.62	3,183,450.20	39° 56' 38.156 N	104° 50' 44.563 W	
2,000.0	2.22	119.47	1,998.5	-52.7	29.5	1,223,097.74	3,183,453.58	39° 56' 38.137 N	104° 50' 44.520 W	
2,100.0	2.22	119.47	2,098.4	-54.6	32.9	1,223,095.86	3,183,456.97	39° 56' 38.118 N	104° 50' 44.476 W	
2,200.0	2.22	119.47	2,198.4	-56.5	36.2	1,223,093.98	3,183,460.35	39° 56' 38.099 N	104° 50' 44.433 W	
2,300.0	2.22	119.47	2,298.3	-58.4	39.6	1,223,092.10	3,183,463.73	39° 56' 38.080 N	104° 50' 44.390 W	
2,400.0	2.22	119.47	2,398.2	-60.3	43.0	1,223,090.23	3,183,467.11	39° 56' 38.062 N	104° 50' 44.347 W	
2,500.0	2.22	119.47	2,498.1	-62.3	46.3	1,223,088.35	3,183,470.49	39° 56' 38.043 N	104° 50' 44.303 W	
2,600.0	2.22	119.47	2,598.1	-64.2	49.7	1,223,086.47	3,183,473.87	39° 56' 38.024 N	104° 50' 44.260 W	
2,700.0	2.22	119.47	2,698.0	-66.1	53.1	1,223,084.59	3,183,477.25	39° 56' 38.005 N	104° 50' 44.217 W	
2,800.0	2.22	119.47	2,797.9	-68.0	56.4	1,223,082.72	3,183,480.63	39° 56' 37.986 N	104° 50' 44.174 W	
2,900.0	2.22	119.47	2,897.8	-69.9	59.8	1,223,080.84	3,183,484.01	39° 56' 37.968 N	104° 50' 44.130 W	
3,000.0	2.22	119.47	2,997.8	-71.8	63.2	1,223,078.96	3,183,487.39	39° 56' 37.949 N	104° 50' 44.087 W	
3,100.0	2.22	119.47	3,097.7	-73.7	66.5	1,223,077.08	3,183,490.77	39° 56' 37.930 N	104° 50' 44.044 W	
3,200.0	2.22	119.47	3,197.6	-75.6	69.9	1,223,075.20	3,183,494.15	39° 56' 37.911 N	104° 50' 44.001 W	
3,300.0	2.22	119.47	3,297.5	-77.5	73.3	1,223,073.33	3,183,497.54	39° 56' 37.892 N	104° 50' 43.958 W	
3,400.0	2.22	119.47	3,397.5	-79.4	76.6	1,223,071.45	3,183,500.92	39° 56' 37.874 N	104° 50' 43.914 W	
3,500.0	2.22	119.47	3,497.4	-81.3	80.0	1,223,069.57	3,183,504.30	39° 56' 37.855 N	104° 50' 43.871 W	
3,600.0	2.22	119.47	3,597.3	-83.2	83.4	1,223,067.69	3,183,507.68	39° 56' 37.836 N	104° 50' 43.828 W	
3,700.0	2.22	119.47	3,697.2	-85.1	86.7	1,223,065.81	3,183,511.06	39° 56' 37.817 N	104° 50' 43.785 W	
3,800.0	2.22	119.47	3,797.2	-87.0	90.1	1,223,063.94	3,183,514.44	39° 56' 37.798 N	104° 50' 43.741 W	
3,900.0	2.22	119.47	3,897.1	-88.9	93.5	1,223,062.06	3,183,517.82	39° 56' 37.780 N	104° 50' 43.698 W	
4,000.0	2.22	119.47	3,997.0	-90.8	96.8	1,223,060.18	3,183,521.20	39° 56' 37.761 N	104° 50' 43.655 W	
4,100.0	2.22	119.47	4,096.9	-92.7	100.2	1,223,058.30	3,183,524.58	39° 56' 37.742 N	104° 50' 43.612 W	
4,200.0	2.22	119.47	4,196.9	-94.6	103.6	1,223,056.43	3,183,527.96	39° 56' 37.723 N	104° 50' 43.568 W	
4,300.0	2.22	119.47	4,296.8	-96.5	106.9	1,223,054.55	3,183,531.34	39° 56' 37.704 N	104° 50' 43.525 W	
4,400.0	2.22	119.47	4,396.7	-98.4	110.3	1,223,052.67	3,183,534.73	39° 56' 37.685 N	104° 50' 43.482 W	
4,500.0	2.22	119.47	4,496.6	-100.3	113.7	1,223,050.79	3,183,538.11	39° 56' 37.667 N	104° 50' 43.439 W	
4,600.0	2.22	119.47	4,596.6	-102.2	117.0	1,223,048.91	3,183,541.49	39° 56' 37.648 N	104° 50' 43.396 W	
4,700.0	2.22	119.47	4,696.5	-104.1	120.4	1,223,047.04	3,183,544.87	39° 56' 37.629 N	104° 50' 43.352 W	
4,800.0	2.22	119.47	4,796.4	-106.0	123.8	1,223,045.16	3,183,548.25	39° 56' 37.610 N	104° 50' 43.309 W	
4,900.0	2.22	119.47	4,896.3	-107.9	127.1	1,223,043.28	3,183,551.63	39° 56' 37.591 N	104° 50' 43.266 W	
5,000.0	2.22	119.47	4,996.3	-109.8	130.5	1,223,041.40	3,183,555.01	39° 56' 37.573 N	104° 50' 43.223 W	
5,100.0	2.22	119.47	5,096.2	-111.7	133.9	1,223,039.52	3,183,558.39	39° 56' 37.554 N	104° 50' 43.179 W	
5,200.0	2.22	119.47	5,196.1	-113.6	137.2	1,223,037.65	3,183,561.77	39° 56' 37.535 N	104° 50' 43.136 W	
5,300.0	2.22	119.47	5,296.0	-115.5	140.6	1,223,035.77	3,183,565.15	39° 56' 37.516 N	104° 50' 43.093 W	

Ward Petroleum Corp
Planning Report - Geographic

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Sharp Pad
Company:	Ward Petroleum	TVD Reference:	WELL @ 5037.0usft (Original Well Elev)
Project:	West Brighton Adams, CO	MD Reference:	WELL @ 5037.0usft (Original Well Elev)
Site:	Sharp Pad	North Reference:	True
Well:	Sharp 25-1-12HC	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)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
5,400.0	2.22	119.47	5,396.0	-117.4	144.0	1,223,033.89	3,183,568.53	39° 56' 37.497 N	104° 50' 43.050 W	
5,500.0	2.22	119.47	5,495.9	-119.3	147.3	1,223,032.01	3,183,571.92	39° 56' 37.479 N	104° 50' 43.006 W	
5,600.0	2.22	119.47	5,595.8	-121.2	150.7	1,223,030.14	3,183,575.30	39° 56' 37.460 N	104° 50' 42.963 W	
5,700.0	2.22	119.47	5,695.7	-123.1	154.1	1,223,028.26	3,183,578.68	39° 56' 37.441 N	104° 50' 42.920 W	
5,800.0	2.22	119.47	5,795.7	-125.0	157.4	1,223,026.38	3,183,582.06	39° 56' 37.422 N	104° 50' 42.877 W	
5,900.0	2.22	119.47	5,895.6	-126.9	160.8	1,223,024.50	3,183,585.44	39° 56' 37.403 N	104° 50' 42.834 W	
6,000.0	2.22	119.47	5,995.5	-128.8	164.2	1,223,022.62	3,183,588.82	39° 56' 37.385 N	104° 50' 42.790 W	
6,100.0	2.22	119.47	6,095.4	-130.8	167.5	1,223,020.75	3,183,592.20	39° 56' 37.366 N	104° 50' 42.747 W	
6,200.0	2.22	119.47	6,195.4	-132.7	170.9	1,223,018.87	3,183,595.58	39° 56' 37.347 N	104° 50' 42.704 W	
6,300.0	2.22	119.47	6,295.3	-134.6	174.3	1,223,016.99	3,183,598.96	39° 56' 37.328 N	104° 50' 42.661 W	
6,400.0	2.22	119.47	6,395.2	-136.5	177.7	1,223,015.11	3,183,602.34	39° 56' 37.309 N	104° 50' 42.617 W	
6,500.0	2.22	119.47	6,495.1	-138.4	181.0	1,223,013.23	3,183,605.72	39° 56' 37.291 N	104° 50' 42.574 W	
6,600.0	2.22	119.47	6,595.1	-140.3	184.4	1,223,011.36	3,183,609.10	39° 56' 37.272 N	104° 50' 42.531 W	
6,700.0	2.22	119.47	6,695.0	-142.2	187.8	1,223,009.48	3,183,612.49	39° 56' 37.253 N	104° 50' 42.488 W	
6,800.0	2.22	119.47	6,794.9	-144.1	191.1	1,223,007.60	3,183,615.87	39° 56' 37.234 N	104° 50' 42.444 W	
6,900.0	2.22	119.47	6,894.8	-146.0	194.5	1,223,005.72	3,183,619.25	39° 56' 37.215 N	104° 50' 42.401 W	
7,000.0	2.22	119.47	6,994.8	-147.9	197.9	1,223,003.85	3,183,622.63	39° 56' 37.197 N	104° 50' 42.358 W	
7,100.0	2.22	119.47	7,094.7	-149.8	201.2	1,223,001.97	3,183,626.01	39° 56' 37.178 N	104° 50' 42.315 W	
7,200.0	2.22	119.47	7,194.6	-151.7	204.6	1,223,000.09	3,183,629.39	39° 56' 37.159 N	104° 50' 42.272 W	
7,248.7	2.22	119.47	7,243.3	-152.6	206.2	1,222,999.17	3,183,631.04	39° 56' 37.150 N	104° 50' 42.251 W	
7,300.0	6.51	162.71	7,294.4	-155.9	208.0	1,222,995.92	3,183,632.79	39° 56' 37.118 N	104° 50' 42.228 W	
7,400.0	16.33	173.26	7,392.3	-175.3	211.3	1,222,976.52	3,183,636.28	39° 56' 36.926 N	104° 50' 42.185 W	
7,500.0	26.29	175.95	7,485.4	-211.5	214.5	1,222,940.40	3,183,639.77	39° 56' 36.568 N	104° 50' 42.144 W	
7,600.0	36.27	177.23	7,570.8	-263.2	217.5	1,222,888.66	3,183,643.15	39° 56' 36.057 N	104° 50' 42.105 W	
7,700.0	46.25	178.01	7,645.8	-329.0	220.2	1,222,822.87	3,183,646.33	39° 56' 35.406 N	104° 50' 42.071 W	
7,800.0	56.24	178.57	7,708.3	-406.9	222.5	1,222,745.03	3,183,649.21	39° 56' 34.637 N	104° 50' 42.041 W	
7,900.0	66.24	179.01	7,756.4	-494.4	224.4	1,222,657.51	3,183,651.69	39° 56' 33.772 N	104° 50' 42.018 W	
8,000.0	76.23	179.38	7,788.5	-589.0	225.7	1,222,562.97	3,183,653.71	39° 56' 32.837 N	104° 50' 42.001 W	
8,100.0	86.23	179.73	7,803.8	-687.7	226.4	1,222,464.28	3,183,655.20	39° 56' 31.862 N	104° 50' 41.991 W	
8,137.8	90.00	179.85	7,805.0	-725.4	226.6	1,222,426.54	3,183,655.62	39° 56' 31.489 N	104° 50' 41.989 W	
8,200.0	90.00	179.85	7,805.0	-787.6	226.7	1,222,364.31	3,183,656.24	39° 56' 30.874 N	104° 50' 41.987 W	
8,300.0	90.00	179.85	7,805.0	-887.6	227.0	1,222,264.32	3,183,657.23	39° 56' 29.886 N	104° 50' 41.984 W	
8,400.0	90.00	179.85	7,805.0	-987.6	227.3	1,222,164.32	3,183,658.22	39° 56' 28.897 N	104° 50' 41.981 W	
8,500.0	90.00	179.85	7,805.0	-1,087.6	227.5	1,222,064.33	3,183,659.22	39° 56' 27.909 N	104° 50' 41.977 W	
8,600.0	90.00	179.85	7,805.0	-1,187.6	227.8	1,221,964.33	3,183,660.21	39° 56' 26.921 N	104° 50' 41.974 W	
8,700.0	90.00	179.85	7,805.0	-1,287.6	228.0	1,221,864.34	3,183,661.20	39° 56' 25.933 N	104° 50' 41.971 W	
8,800.0	90.00	179.85	7,805.0	-1,387.6	228.3	1,221,764.34	3,183,662.19	39° 56' 24.944 N	104° 50' 41.968 W	
8,900.0	90.00	179.85	7,805.0	-1,487.6	228.5	1,221,664.35	3,183,663.19	39° 56' 23.956 N	104° 50' 41.964 W	
9,000.0	90.00	179.85	7,805.0	-1,587.6	228.8	1,221,564.35	3,183,664.18	39° 56' 22.968 N	104° 50' 41.961 W	
9,100.0	90.00	179.85	7,805.0	-1,687.6	229.0	1,221,464.36	3,183,665.17	39° 56' 21.980 N	104° 50' 41.958 W	
9,200.0	90.00	179.85	7,805.0	-1,787.6	229.3	1,221,364.36	3,183,666.16	39° 56' 20.991 N	104° 50' 41.955 W	
9,300.0	90.00	179.85	7,805.0	-1,887.6	229.5	1,221,264.37	3,183,667.16	39° 56' 20.003 N	104° 50' 41.951 W	
9,400.0	90.00	179.85	7,805.0	-1,987.6	229.8	1,221,164.37	3,183,668.15	39° 56' 19.015 N	104° 50' 41.948 W	
9,500.0	90.00	179.85	7,805.0	-2,087.6	230.1	1,221,064.38	3,183,669.14	39° 56' 18.026 N	104° 50' 41.945 W	
9,600.0	90.00	179.85	7,805.0	-2,187.6	230.3	1,220,964.38	3,183,670.13	39° 56' 17.038 N	104° 50' 41.942 W	
9,700.0	90.00	179.85	7,805.0	-2,287.6	230.6	1,220,864.39	3,183,671.13	39° 56' 16.050 N	104° 50' 41.938 W	
9,800.0	90.00	179.85	7,805.0	-2,387.6	230.8	1,220,764.39	3,183,672.12	39° 56' 15.062 N	104° 50' 41.935 W	
9,900.0	90.00	179.85	7,805.0	-2,487.6	231.1	1,220,664.40	3,183,673.11	39° 56' 14.073 N	104° 50' 41.932 W	
10,000.0	90.00	179.85	7,805.0	-2,587.6	231.3	1,220,564.40	3,183,674.11	39° 56' 13.085 N	104° 50' 41.928 W	
10,100.0	90.00	179.85	7,805.0	-2,687.6	231.6	1,220,464.41	3,183,675.10	39° 56' 12.097 N	104° 50' 41.925 W	
10,200.0	90.00	179.85	7,805.0	-2,787.6	231.8	1,220,364.41	3,183,676.09	39° 56' 11.109 N	104° 50' 41.922 W	
10,300.0	90.00	179.85	7,805.0	-2,887.6	232.1	1,220,264.42	3,183,677.08	39° 56' 10.120 N	104° 50' 41.919 W	
10,400.0	90.00	179.85	7,805.0	-2,987.6	232.3	1,220,164.42	3,183,678.08	39° 56' 9.132 N	104° 50' 41.915 W	
10,500.0	90.00	179.85	7,805.0	-3,087.6	232.6	1,220,064.43	3,183,679.07	39° 56' 8.144 N	104° 50' 41.912 W	
10,600.0	90.00	179.85	7,805.0	-3,187.6	232.9	1,219,964.43	3,183,680.06	39° 56' 7.156 N	104° 50' 41.909 W	

Ward Petroleum Corp
Planning Report - Geographic

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Sharp Pad
Company:	Ward Petroleum	TVD Reference:	WELL @ 5037.0usft (Original Well Elev)
Project:	West Brighton Adams, CO	MD Reference:	WELL @ 5037.0usft (Original Well Elev)
Site:	Sharp Pad	North Reference:	True
Well:	Sharp 25-1-12HC	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)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
10,700.0	90.00	179.85	7,805.0	-3,287.6	233.1	1,219,864.44	3,183,681.05	39° 56' 6.167 N	104° 50' 41.906 W	
10,800.0	90.00	179.85	7,805.0	-3,387.6	233.4	1,219,764.44	3,183,682.05	39° 56' 5.179 N	104° 50' 41.902 W	
10,900.0	90.00	179.85	7,805.0	-3,487.6	233.6	1,219,664.45	3,183,683.04	39° 56' 4.191 N	104° 50' 41.899 W	
11,000.0	90.00	179.85	7,805.0	-3,587.6	233.9	1,219,564.45	3,183,684.03	39° 56' 3.202 N	104° 50' 41.896 W	
11,100.0	90.00	179.85	7,805.0	-3,687.6	234.1	1,219,464.46	3,183,685.02	39° 56' 2.214 N	104° 50' 41.893 W	
11,200.0	90.00	179.85	7,805.0	-3,787.6	234.4	1,219,364.46	3,183,686.02	39° 56' 1.226 N	104° 50' 41.889 W	
11,300.0	90.00	179.85	7,805.0	-3,887.6	234.6	1,219,264.47	3,183,687.01	39° 56' 0.238 N	104° 50' 41.886 W	
11,400.0	90.00	179.85	7,805.0	-3,987.6	234.9	1,219,164.47	3,183,688.00	39° 55' 59.249 N	104° 50' 41.883 W	
11,500.0	90.00	179.85	7,805.0	-4,087.6	235.2	1,219,064.48	3,183,688.99	39° 55' 58.261 N	104° 50' 41.880 W	
11,600.0	90.00	179.85	7,805.0	-4,187.6	235.4	1,218,964.48	3,183,689.99	39° 55' 57.273 N	104° 50' 41.876 W	
11,700.0	90.00	179.85	7,805.0	-4,287.6	235.7	1,218,864.48	3,183,690.98	39° 55' 56.285 N	104° 50' 41.873 W	
11,800.0	90.00	179.85	7,805.0	-4,387.6	235.9	1,218,764.49	3,183,691.97	39° 55' 55.296 N	104° 50' 41.870 W	
11,900.0	90.00	179.85	7,805.0	-4,487.6	236.2	1,218,664.49	3,183,692.96	39° 55' 54.308 N	104° 50' 41.867 W	
12,000.0	90.00	179.85	7,805.0	-4,587.6	236.4	1,218,564.50	3,183,693.96	39° 55' 53.320 N	104° 50' 41.863 W	
12,100.0	90.00	179.85	7,805.0	-4,687.6	236.7	1,218,464.50	3,183,694.95	39° 55' 52.331 N	104° 50' 41.860 W	
12,200.0	90.00	179.85	7,805.0	-4,787.6	236.9	1,218,364.51	3,183,695.94	39° 55' 51.343 N	104° 50' 41.857 W	
12,300.0	90.00	179.85	7,805.0	-4,887.6	237.2	1,218,264.51	3,183,696.93	39° 55' 50.355 N	104° 50' 41.854 W	
12,400.0	90.00	179.85	7,805.0	-4,987.6	237.4	1,218,164.52	3,183,697.93	39° 55' 49.367 N	104° 50' 41.850 W	
12,462.2	90.00	179.85	7,805.0	-5,049.8	237.6	1,218,102.34	3,183,698.54	39° 55' 48.752 N	104° 50' 41.848 W	
12,500.0	90.00	179.85	7,805.0	-5,087.6	237.7	1,218,064.52	3,183,698.92	39° 55' 48.378 N	104° 50' 41.847 W	
12,502.1	90.00	179.85	7,805.0	-5,089.7	237.7	1,218,062.46	3,183,698.94	39° 55' 48.358 N	104° 50' 41.847 W	

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	
BHL 12HC - plan hits target center - Point	0.00	0.00	7,805.0	-5,089.7	237.7	1,218,062.46	3,183,698.94	39° 55' 48.358 N	104° 50' 41.847 W	
Landin Point 12HC - plan hits target center - Point	0.00	0.00	7,805.0	-725.4	226.6	1,222,426.54	3,183,655.62	39° 56' 31.489 N	104° 50' 41.989 W	