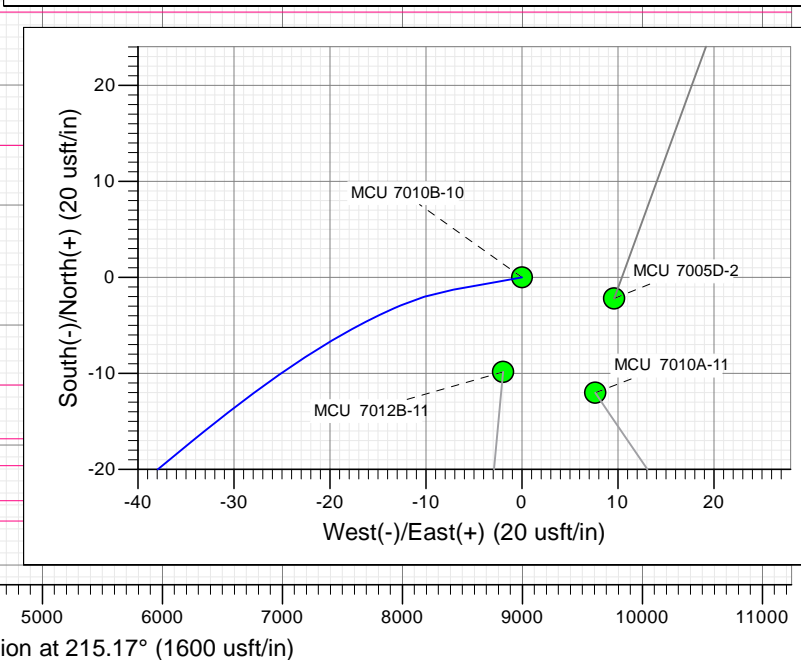
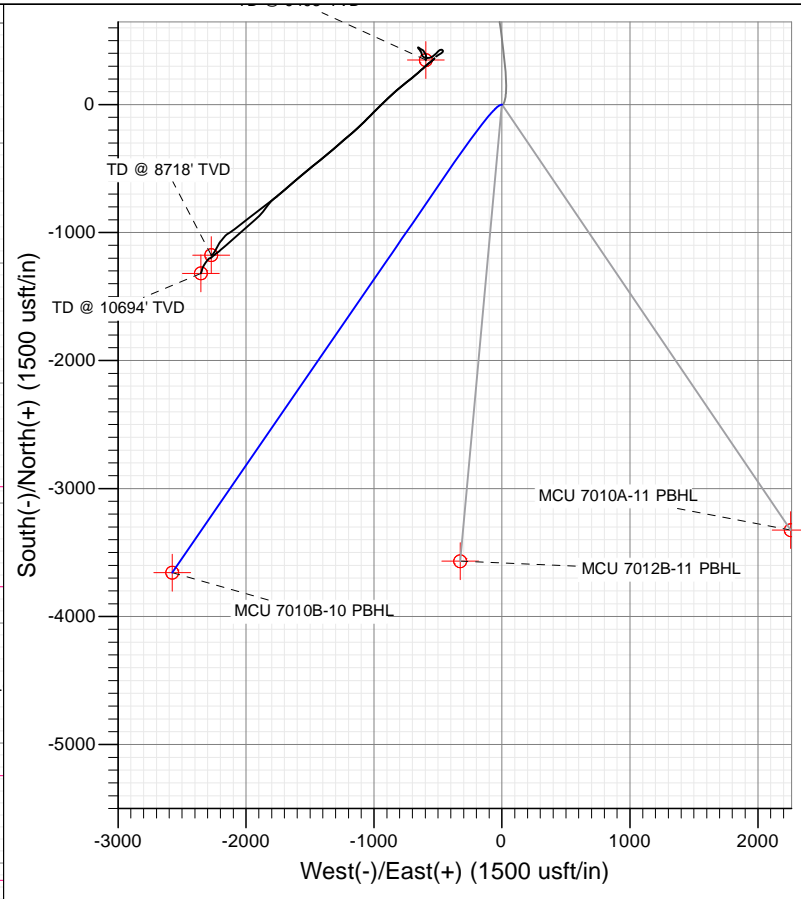
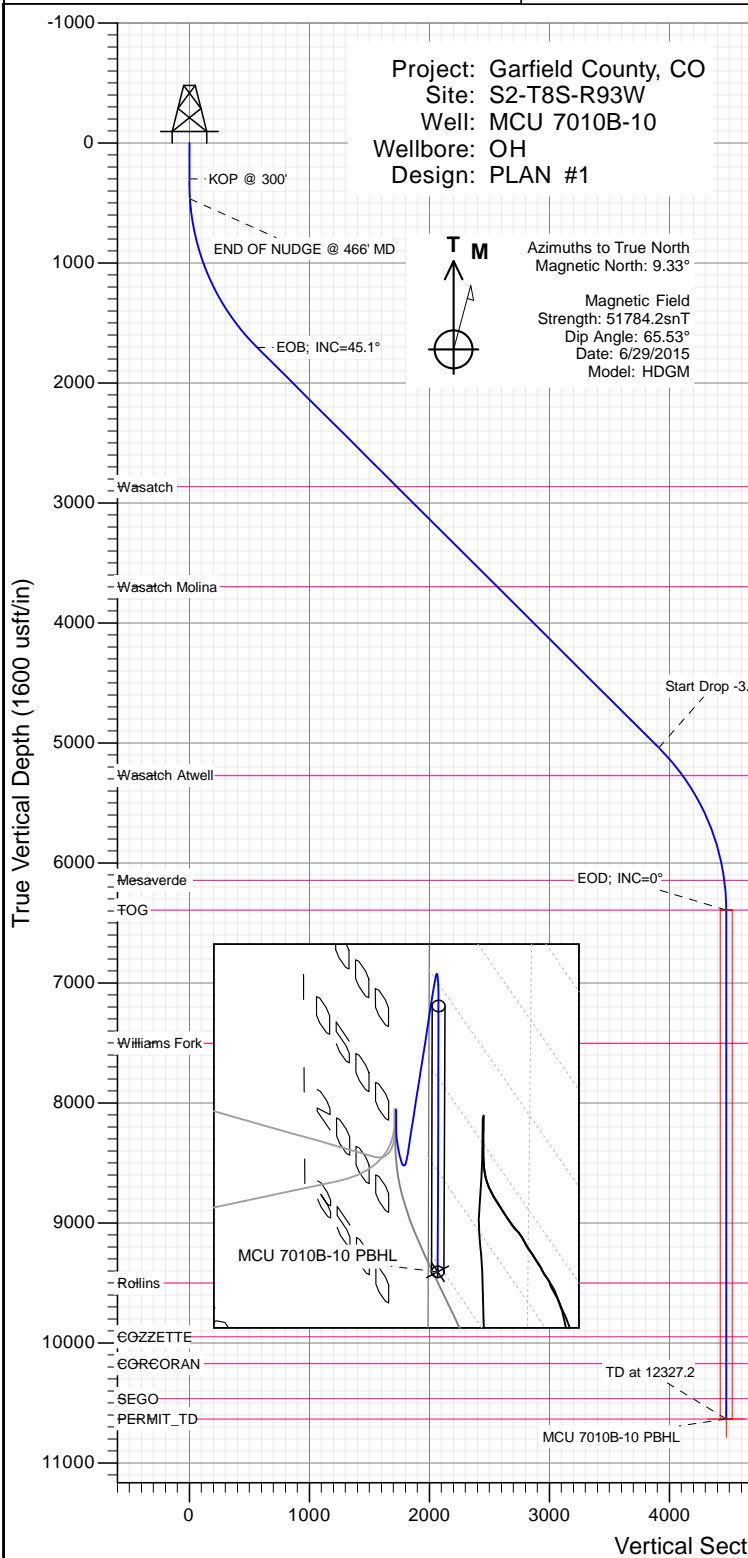




# SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	
3	466.7	5.00	260.00	466.5	-1.3	-7.2	3.00	260.00	5.2	
4	1857.1	45.10	214.52	1704.9	-436.9	-361.7	3.00	-49.37	565.5	
5	6581.9	45.10	214.52	5040.2	-3194.3	-2258.3	0.00	0.00	3911.9	
6	8085.2	0.00	0.00	6393.0	-3657.1	-2576.6	3.00	180.00	4473.6	
7	12327.2	0.00	0.00	10635.0	-3657.1	-2576.6	0.00	0.00	4473.6	MCU 7010B-10 PBHL



## WELL DETAILS: MCU 7010B-10

			Ground Level:	7777.0		
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.0	0.0	1573693.16	2365202.08	39.386999	-107.746208	



## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well MCU 7010B-10
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 7799.0usft
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	KB @ 7799.0usft
<b>Site:</b>	S2-T8S-R93W	<b>North Reference:</b>	True
<b>Well:</b>	MCU 7010B-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

<b>Project</b>	Garfield County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Central Zone		

Site		S2-T8S-R93W			
Site Position:		Northing:	1,573,690.74 usft	Latitude:	39.386993
From:	Lat/Long	Easting:	2,365,211.64 usft	Longitude:	-107.746174
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.42 °

Well	MCU 7010B-10					
Well Position	+N/-S	0.0 usft	Northing:	1,573,693.16 usft	Latitude:	39.386999
	+E/-W	0.0 usft	Easting:	2,365,202.08 usft	Longitude:	-107.746208
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	7,777.0 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>	<b>Dip Angle</b>	<b>Field Strength</b>
			(°)	(°)	(nT)
	HDGM	6/29/2015	9.33	65.53	51,784

<b>Design</b>	PLAN #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	215.17

<b>Plan Sections</b>										
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	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
466.7	5.00	260.00	466.5	-1.3	-7.2	3.00	3.00	0.00	260.00	
1,857.1	45.10	214.52	1,704.9	-436.9	-361.7	3.00	2.88	-3.27	-49.37	
6,581.9	45.10	214.52	5,040.2	-3,194.3	-2,258.3	0.00	0.00	0.00	0.00	
8,085.2	0.00	0.00	6,393.0	-3,657.1	-2,576.6	3.00	-3.00	0.00	180.00	
12,327.2	0.00	0.00	10,635.0	-3,657.1	-2,576.6	0.00	0.00	0.00	0.00	MCU 7010B-10 PBHL

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well MCU 7010B-10
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 7799.0usft
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	KB @ 7799.0usft
<b>Site:</b>	S2-T8S-R93W	<b>North Reference:</b>	True
<b>Well:</b>	MCU 7010B-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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 (°/100u)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 300'
400.0	3.00	260.00	400.0	-0.5	-2.6	1.9	3.00	3.00	
466.7	5.00	260.00	466.5	-1.3	-7.2	5.2	3.00	3.00	END OF NUDGE @ 466' MD
500.0	5.70	252.34	499.6	-2.0	-10.2	7.5	3.00	2.11	
600.0	8.19	238.17	598.9	-7.3	-21.0	18.0	3.00	2.48	
700.0	10.93	230.81	697.5	-17.0	-34.4	33.7	3.00	2.75	
800.0	13.78	226.41	795.2	-31.2	-50.3	54.5	3.00	2.85	
900.0	16.69	223.51	891.7	-49.9	-68.8	80.4	3.00	2.90	
1,000.0	19.62	221.45	986.7	-72.9	-89.8	111.3	3.00	2.93	
1,100.0	22.56	219.91	1,080.0	-100.2	-113.3	147.1	3.00	2.95	
1,200.0	25.52	218.71	1,171.3	-131.7	-139.1	187.8	3.00	2.96	
1,300.0	28.49	217.75	1,260.4	-167.4	-167.2	233.1	3.00	2.97	
1,400.0	31.47	216.95	1,347.0	-207.1	-197.5	283.0	3.00	2.97	
1,500.0	34.44	216.28	1,430.9	-250.8	-229.9	337.4	3.00	2.98	
1,600.0	37.42	215.70	1,511.8	-298.3	-264.4	396.1	3.00	2.98	
1,700.0	40.41	215.20	1,589.6	-349.4	-300.8	458.9	3.00	2.98	
1,800.0	43.39	214.75	1,664.1	-404.1	-339.1	525.7	3.00	2.99	
1,857.1	45.10	214.52	1,704.9	-436.9	-361.7	565.5	3.00	2.99	EOB; INC=45.1°
1,900.0	45.10	214.52	1,735.2	-462.0	-378.9	595.9	0.00	0.00	
2,000.0	45.10	214.52	1,805.8	-520.3	-419.1	666.7	0.00	0.00	
2,100.0	45.10	214.52	1,876.4	-578.7	-459.2	737.5	0.00	0.00	
2,200.0	45.10	214.52	1,947.0	-637.0	-499.3	808.4	0.00	0.00	
2,300.0	45.10	214.52	2,017.6	-695.4	-539.5	879.2	0.00	0.00	
2,400.0	45.10	214.52	2,088.2	-753.8	-579.6	950.0	0.00	0.00	
2,500.0	45.10	214.52	2,158.8	-812.1	-619.8	1,020.8	0.00	0.00	
2,600.0	45.10	214.52	2,229.4	-870.5	-659.9	1,091.7	0.00	0.00	
2,700.0	45.10	214.52	2,300.0	-928.8	-700.0	1,162.5	0.00	0.00	
2,800.0	45.10	214.52	2,370.6	-987.2	-740.2	1,233.3	0.00	0.00	
2,900.0	45.10	214.52	2,441.1	-1,045.6	-780.3	1,304.2	0.00	0.00	
3,000.0	45.10	214.52	2,511.7	-1,103.9	-820.5	1,375.0	0.00	0.00	
3,100.0	45.10	214.52	2,582.3	-1,162.3	-860.6	1,445.8	0.00	0.00	
3,200.0	45.10	214.52	2,652.9	-1,220.6	-900.8	1,516.6	0.00	0.00	
3,300.0	45.10	214.52	2,723.5	-1,279.0	-940.9	1,587.5	0.00	0.00	
3,400.0	45.10	214.52	2,794.1	-1,337.3	-981.0	1,658.3	0.00	0.00	
3,499.0	45.10	214.52	2,864.0	-1,395.1	-1,020.8	1,728.4	0.00	0.00	Wasatch
3,500.0	45.10	214.52	2,864.7	-1,395.7	-1,021.2	1,729.1	0.00	0.00	
3,600.0	45.10	214.52	2,935.3	-1,454.1	-1,061.3	1,799.9	0.00	0.00	
3,700.0	45.10	214.52	3,005.9	-1,512.4	-1,101.5	1,870.8	0.00	0.00	
3,800.0	45.10	214.52	3,076.5	-1,570.8	-1,141.6	1,941.6	0.00	0.00	
3,900.0	45.10	214.52	3,147.0	-1,629.1	-1,181.7	2,012.4	0.00	0.00	
4,000.0	45.10	214.52	3,217.6	-1,687.5	-1,221.9	2,083.2	0.00	0.00	
4,100.0	45.10	214.52	3,288.2	-1,745.9	-1,262.0	2,154.1	0.00	0.00	
4,200.0	45.10	214.52	3,358.8	-1,804.2	-1,302.2	2,224.9	0.00	0.00	
4,300.0	45.10	214.52	3,429.4	-1,862.6	-1,342.3	2,295.7	0.00	0.00	
4,400.0	45.10	214.52	3,500.0	-1,920.9	-1,382.4	2,366.6	0.00	0.00	
4,500.0	45.10	214.52	3,570.6	-1,979.3	-1,422.6	2,437.4	0.00	0.00	
4,600.0	45.10	214.52	3,641.2	-2,037.7	-1,462.7	2,508.2	0.00	0.00	
4,681.9	45.10	214.52	3,699.0	-2,085.5	-1,495.6	2,566.2	0.00	0.00	Wasatch Molina
4,700.0	45.10	214.52	3,711.8	-2,096.0	-1,502.9	2,579.0	0.00	0.00	

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well MCU 7010B-10
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 7799.0usft
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	KB @ 7799.0usft
<b>Site:</b>	S2-T8S-R93W	<b>North Reference:</b>	True
<b>Well:</b>	MCU 7010B-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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 (°/100u)	Comments / Formations
4,800.0	45.10	214.52	3,782.4	-2,154.4	-1,543.0	2,649.9	0.00	0.00	
4,900.0	45.10	214.52	3,852.9	-2,212.7	-1,583.1	2,720.7	0.00	0.00	
5,000.0	45.10	214.52	3,923.5	-2,271.1	-1,623.3	2,791.5	0.00	0.00	
5,100.0	45.10	214.52	3,994.1	-2,329.4	-1,663.4	2,862.3	0.00	0.00	
5,200.0	45.10	214.52	4,064.7	-2,387.8	-1,703.6	2,933.2	0.00	0.00	
5,300.0	45.10	214.52	4,135.3	-2,446.2	-1,743.7	3,004.0	0.00	0.00	
5,400.0	45.10	214.52	4,205.9	-2,504.5	-1,783.9	3,074.8	0.00	0.00	
5,500.0	45.10	214.52	4,276.5	-2,562.9	-1,824.0	3,145.6	0.00	0.00	
5,600.0	45.10	214.52	4,347.1	-2,621.2	-1,864.1	3,216.5	0.00	0.00	
5,700.0	45.10	214.52	4,417.7	-2,679.6	-1,904.3	3,287.3	0.00	0.00	
5,800.0	45.10	214.52	4,488.3	-2,738.0	-1,944.4	3,358.1	0.00	0.00	
5,900.0	45.10	214.52	4,558.8	-2,796.3	-1,984.6	3,429.0	0.00	0.00	
6,000.0	45.10	214.52	4,629.4	-2,854.7	-2,024.7	3,499.8	0.00	0.00	
6,100.0	45.10	214.52	4,700.0	-2,913.0	-2,064.8	3,570.6	0.00	0.00	
6,200.0	45.10	214.52	4,770.6	-2,971.4	-2,105.0	3,641.4	0.00	0.00	
6,300.0	45.10	214.52	4,841.2	-3,029.8	-2,145.1	3,712.3	0.00	0.00	
6,400.0	45.10	214.52	4,911.8	-3,088.1	-2,185.3	3,783.1	0.00	0.00	
6,500.0	45.10	214.52	4,982.4	-3,146.5	-2,225.4	3,853.9	0.00	0.00	
6,581.9	45.10	214.52	5,040.2	-3,194.3	-2,258.3	3,911.9	0.00	0.00	Start Drop -3.00
6,600.0	44.56	214.52	5,053.0	-3,204.8	-2,265.5	3,924.7	3.00	-3.00	
6,700.0	41.56	214.52	5,126.1	-3,261.0	-2,304.2	3,992.9	3.00	-3.00	
6,800.0	38.56	214.52	5,202.6	-3,314.0	-2,340.7	4,057.3	3.00	-3.00	
6,888.4	35.90	214.52	5,273.0	-3,358.1	-2,371.0	4,110.8	3.00	-3.00	Wasatch Atwell
6,900.0	35.56	214.52	5,282.4	-3,363.7	-2,374.8	4,117.5	3.00	-3.00	
7,000.0	32.56	214.52	5,365.3	-3,409.8	-2,406.5	4,173.5	3.00	-3.00	
7,100.0	29.56	214.52	5,450.9	-3,452.3	-2,435.8	4,225.1	3.00	-3.00	
7,200.0	26.56	214.52	5,539.2	-3,491.1	-2,462.4	4,272.1	3.00	-3.00	
7,300.0	23.56	214.52	5,629.7	-3,526.0	-2,486.4	4,314.5	3.00	-3.00	
7,400.0	20.56	214.52	5,722.4	-3,556.9	-2,507.7	4,352.0	3.00	-3.00	
7,500.0	17.56	214.52	5,816.9	-3,583.8	-2,526.2	4,384.7	3.00	-3.00	
7,600.0	14.56	214.52	5,913.0	-3,606.6	-2,541.9	4,412.3	3.00	-3.00	
7,700.0	11.56	214.52	6,010.4	-3,625.2	-2,554.7	4,434.9	3.00	-3.00	
7,800.0	8.56	214.52	6,108.9	-3,639.6	-2,564.6	4,452.4	3.00	-3.00	
7,836.5	7.46	214.52	6,145.0	-3,643.8	-2,567.4	4,457.4	3.00	-3.00	Mesaverde
7,900.0	5.56	214.52	6,208.1	-3,649.7	-2,571.5	4,464.6	3.00	-3.00	
8,000.0	2.56	214.52	6,307.8	-3,655.5	-2,575.5	4,471.7	3.00	-3.00	
8,085.2	0.00	0.00	6,393.0	-3,657.1	-2,576.6	4,473.6	3.00	-3.00	EOD; INC=0° - TOG
8,100.0	0.00	0.00	6,407.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
8,200.0	0.00	0.00	6,507.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
8,300.0	0.00	0.00	6,607.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
8,400.0	0.00	0.00	6,707.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
8,500.0	0.00	0.00	6,807.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
8,600.0	0.00	0.00	6,907.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
8,700.0	0.00	0.00	7,007.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
8,800.0	0.00	0.00	7,107.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
8,900.0	0.00	0.00	7,207.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
9,000.0	0.00	0.00	7,307.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
9,100.0	0.00	0.00	7,407.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
9,195.2	0.00	0.00	7,503.0	-3,657.1	-2,576.6	4,473.6	0.00	0.00	Williams Fork
9,200.0	0.00	0.00	7,507.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
9,300.0	0.00	0.00	7,607.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
9,400.0	0.00	0.00	7,707.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well MCU 7010B-10
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 7799.0usft
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	KB @ 7799.0usft
<b>Site:</b>	S2-T8S-R93W	<b>North Reference:</b>	True
<b>Well:</b>	MCU 7010B-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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 (°/100u)	Comments / Formations
9,500.0	0.00	0.00	7,807.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
9,600.0	0.00	0.00	7,907.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
9,700.0	0.00	0.00	8,007.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
9,800.0	0.00	0.00	8,107.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
9,900.0	0.00	0.00	8,207.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
10,000.0	0.00	0.00	8,307.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
10,100.0	0.00	0.00	8,407.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
10,200.0	0.00	0.00	8,507.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
10,300.0	0.00	0.00	8,607.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
10,400.0	0.00	0.00	8,707.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
10,500.0	0.00	0.00	8,807.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
10,600.0	0.00	0.00	8,907.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
10,700.0	0.00	0.00	9,007.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
10,800.0	0.00	0.00	9,107.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
10,900.0	0.00	0.00	9,207.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
11,000.0	0.00	0.00	9,307.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
11,100.0	0.00	0.00	9,407.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
11,193.2	0.00	0.00	9,501.0	-3,657.1	-2,576.6	4,473.6	0.00	0.00	Rollins
11,200.0	0.00	0.00	9,507.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
11,300.0	0.00	0.00	9,607.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
11,400.0	0.00	0.00	9,707.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
11,500.0	0.00	0.00	9,807.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
11,600.0	0.00	0.00	9,907.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
11,641.2	0.00	0.00	9,949.0	-3,657.1	-2,576.6	4,473.6	0.00	0.00	COZZETTE
11,700.0	0.00	0.00	10,007.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
11,800.0	0.00	0.00	10,107.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
11,865.2	0.00	0.00	10,173.0	-3,657.1	-2,576.6	4,473.6	0.00	0.00	CORCORAN
11,900.0	0.00	0.00	10,207.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
12,000.0	0.00	0.00	10,307.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
12,100.0	0.00	0.00	10,407.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
12,157.2	0.00	0.00	10,465.0	-3,657.1	-2,576.6	4,473.6	0.00	0.00	SEGO
12,200.0	0.00	0.00	10,507.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
12,300.0	0.00	0.00	10,607.8	-3,657.1	-2,576.6	4,473.6	0.00	0.00	
12,327.2	0.00	0.00	10,635.0	-3,657.1	-2,576.6	4,473.6	0.00	0.00	TD at 12327.2 - PERMIT_TD - MCU 7010B-10

### Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
MCU 7010B-10 PBHL	0.00	0.00	10,635.0	-3,657.1	-2,576.6	1,570,100.90	2,362,535.85	39.376958	-107.755323
- hit/miss target									
- Shape									
- plan hits target center									
- Circle (radius 50.0)									

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well MCU 7010B-10
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 7799.0usft
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	KB @ 7799.0usft
<b>Site:</b>	S2-T8S-R93W	<b>North Reference:</b>	True
<b>Well:</b>	MCU 7010B-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

### Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
300.0	300.0	0.0	0.0	KOP @ 300'
466.7	466.5	-1.3	-7.2	END OF NUDGE @ 466' MD
1,857.1	1,704.9	-436.9	-361.7	EOB; INC=45.1°
6,581.9	5,040.2	-3,194.3	-2,258.3	Start Drop -3.00
8,085.2	6,393.0	-3,657.1	-2,576.6	EOD; INC=0°
12,327.2	10,635.0	-3,657.1	-2,576.6	TD at 12327.2

# **EnCana Oil & Gas (USA) Inc**

**Garfield County, CO**

**S2-T8S-R93W**

**MCU 7010B-10**

**OH**

**PLAN #1**

## **Anticollision Report**

**29 June, 2015**

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well MCU 7010B-10
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB @ 7799.0usft
<b>Reference Site:</b>	S2-T8S-R93W	<b>MD Reference:</b>	KB @ 7799.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	MCU 7010B-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PLAN #1		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD Interval 100.0usft	<b>Error Model:</b>	Systematic Ellipse
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 1,367.1usft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b>	6/29/2015		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	12,327.2	PLAN #1 (OH)	MWD	MWD - Standard

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (usft)</b>	<b>Offset Measured Depth (usft)</b>	<b>Distance Between Centres (usft)</b>	<b>Distance Between Ellipses (usft)</b>	<b>Separation Factor</b>	<b>Warning</b>
<b>Offset Well - Wellbore - Design</b>						
S2-T8S-R93W						
HMU 10-1 (EXISTING) - ENCANA - ORIGINAL HOLE	916.7	874.1	619.6	613.3	98.181	CC, ES
HMU 10-1 (EXISTING) - ENCANA - ORIGINAL HOLE	3,400.0	3,197.8	1,207.9	1,167.3	29.782	SF
HMU 10-1 (EXISTING) - Wellbore #2 - SIDETRACK	901.8	857.5	620.0	613.8	99.872	CC, ES
HMU 10-1 (EXISTING) - Wellbore #2 - SIDETRACK	3,400.0	3,196.8	1,206.3	1,165.7	29.681	SF
MCU 7005D-2 - OH - PLAN #1	300.0	300.0	9.9	8.1	5.752	CC, ES
MCU 7005D-2 - OH - PLAN #1	400.0	399.7	13.1	10.7	5.350	SF
MCU 7010A-11 - OH - PLAN #1	200.0	200.0	14.2	13.2	14.287	CC, ES
MCU 7010A-11 - OH - PLAN #1	400.0	397.7	25.7	22.8	8.681	SF
MCU 7012B-11 - OH - PLAN #1	200.0	200.0	10.0	9.0	10.066	CC, ES
MCU 7012B-11 - OH - PLAN #1	300.0	299.4	12.6	10.7	6.581	SF
WIEBEN 2-13 (EXISTING) - ENCANA - SURVEYS	910.7	887.7	612.3	606.2	100.565	CC, ES
WIEBEN 2-13 (EXISTING) - ENCANA - SURVEYS	1,800.0	1,612.8	835.0	820.2	56.474	SF



# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well MCU 7010B-10
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB @ 7799.0usft
<b>Reference Site:</b>	S2-T8S-R93W	<b>MD Reference:</b>	KB @ 7799.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	MCU 7010B-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S2-T8S-R93W - HMU 10-1 (EXISTING) - ENCANA - ORIGINAL HOLE													Offset Site Error:	0.0 usft
Survey Program: 117-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	-55.70	361.0	-529.1	640.9					
100.0	100.0	77.6	77.6	0.1	0.1	-55.69	361.0	-529.1	640.5	0.28	2,295.238			
200.0	200.0	179.4	179.4	0.5	0.4	-55.69	361.0	-529.1	640.5	0.92	692.857			
300.0	300.0	280.4	280.4	0.9	0.8	-55.74	360.3	-529.1	640.2	1.63	391.825			
400.0	400.0	379.3	379.3	1.2	1.1	44.40	359.6	-529.2	638.0	2.33	273.567			
500.0	499.6	477.0	476.9	1.6	1.5	52.54	358.5	-530.0	632.6	3.04	208.281			
600.0	598.9	574.1	574.0	1.9	1.8	67.38	355.7	-532.2	627.0	3.75	167.109			
700.0	697.5	666.1	665.8	2.3	2.2	75.60	351.9	-536.2	622.9	4.49	138.760			
800.0	795.2	760.0	759.5	2.8	2.5	81.11	346.9	-542.0	620.5	5.28	117.419			
900.0	891.7	857.7	856.6	3.3	2.9	85.36	340.2	-550.0	619.6	6.15	100.681			
916.7	907.6	874.1	872.8	3.4	2.9	85.99	338.8	-551.6	619.6	6.31	98.181 CC, ES			
1,000.0	986.7	947.4	945.3	3.9	3.2	88.70	331.7	-560.0	620.6	7.09	87.569			
1,100.0	1,080.0	1,041.4	1,037.5	4.5	3.6	91.53	320.3	-574.4	624.4	8.13	76.808			
1,200.0	1,171.3	1,144.7	1,137.8	5.2	4.1	94.20	304.4	-592.9	629.5	9.32	67.573			
1,300.0	1,260.4	1,238.6	1,228.3	6.0	4.6	96.55	287.6	-611.6	636.1	10.58	60.118			
1,400.0	1,347.0	1,337.4	1,322.8	6.9	5.1	98.91	268.3	-633.4	645.0	11.98	53.820			
1,500.0	1,430.9	1,435.7	1,415.7	7.8	5.7	101.19	247.0	-657.0	655.9	13.50	48.588			
1,600.0	1,511.8	1,530.4	1,505.0	8.9	6.3	103.49	225.6	-680.1	669.0	15.07	44.380			
1,700.0	1,589.6	1,605.7	1,576.4	10.0	6.8	105.48	210.2	-698.5	686.7	16.55	41.496			
1,800.0	1,664.1	1,695.7	1,662.2	11.2	7.3	108.02	193.7	-720.4	709.3	18.13	39.116			
1,900.0	1,735.2	1,784.6	1,746.7	12.5	7.9	110.70	176.9	-742.1	735.6	19.72	37.297			
2,000.0	1,805.8	1,876.4	1,833.2	13.8	8.5	113.42	158.3	-766.7	764.0	21.33	35.825			
2,100.0	1,876.4	1,985.6	1,935.9	15.1	9.2	116.39	134.8	-795.4	792.9	23.05	34.402			
2,200.0	1,947.0	2,080.0	2,024.1	16.5	9.8	118.71	112.5	-820.6	821.5	24.61	33.372			
2,300.0	2,017.6	2,166.2	2,104.8	17.8	10.4	120.72	92.3	-843.1	851.3	26.05	32.676			
2,400.0	2,088.2	2,278.3	2,209.4	19.2	11.2	123.13	65.3	-872.7	881.6	27.69	31.841			
2,500.0	2,158.8	2,370.4	2,294.9	20.5	11.9	124.92	41.4	-897.5	911.4	29.13	31.290			
2,600.0	2,229.4	2,457.8	2,376.2	21.9	12.5	126.54	19.0	-920.5	942.1	30.47	30.918			
2,700.0	2,300.0	2,540.8	2,453.5	23.3	13.1	128.01	-1.7	-942.3	974.2	31.73	30.701			
2,800.0	2,370.6	2,635.4	2,541.9	24.6	13.8	129.61	-24.7	-967.0	1,007.6	33.06	30.479			
2,900.0	2,441.1	2,754.1	2,652.2	26.0	14.7	131.44	-55.9	-998.0	1,039.8	34.58	30.068			
3,000.0	2,511.7	2,839.9	2,731.5	27.4	15.3	132.66	-79.3	-1,020.7	1,071.6	35.80	29.934			
3,100.0	2,582.3	2,923.5	2,808.9	28.7	15.9	133.78	-101.6	-1,042.9	1,104.6	36.97	29.879			
3,200.0	2,652.9	3,008.7	2,888.1	30.1	16.6	134.89	-123.7	-1,065.3	1,138.6	38.12	29.871			
3,300.0	2,723.5	3,103.5	2,976.3	31.5	17.3	136.06	-148.2	-1,090.2	1,173.3	39.34	29.826			
3,400.0	2,794.1	3,197.8	3,063.6	32.8	18.0	137.10	-172.9	-1,115.9	1,207.9	40.56	29.782 SF			
3,500.0	2,864.7	3,282.9	3,142.4	34.2	18.6	138.00	-195.2	-1,139.0	1,243.0	41.68	29.822			
3,600.0	2,935.3	3,363.4	3,216.7	35.6	19.2	138.75	-215.7	-1,162.0	1,279.0	42.77	29.902			
3,700.0	3,005.9	3,447.1	3,293.8	37.0	19.9	139.43	-236.2	-1,187.3	1,316.1	43.92	29.963			
3,800.0	3,076.5	3,537.7	3,377.5	38.4	20.6	140.16	-258.4	-1,214.1	1,353.5	45.13	29.993			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well MCU 7010B-10
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB @ 7799.0usft
<b>Reference Site:</b>	S2-T8S-R93W	<b>MD Reference:</b>	KB @ 7799.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	MCU 7010B-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S2-T8S-R93W - HMU 10-1 (EXISTING) - Wellbore #2 - SIDETRACK													Offset Site Error:	0.0 usft
Survey Program: 117-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-55.70	361.0	-529.1	640.9					
100.0	100.0	78.0	78.0	0.1	0.1	-55.70	360.9	-529.1	640.5	640.2	0.28	2,290.393		
200.0	200.0	179.6	179.6	0.5	0.4	-55.72	360.7	-529.2	640.4	639.5	0.93	686.634		
300.0	300.0	280.4	280.4	0.9	0.8	-55.77	360.0	-529.2	640.1	638.4	1.65	387.438		
400.0	400.0	373.4	373.3	1.2	1.1	44.15	357.8	-531.3	638.7	636.4	2.34	273.103		
500.0	499.6	477.0	476.9	1.6	1.5	52.26	356.4	-532.4	633.4	630.3	3.07	206.514		
600.0	598.9	574.0	573.8	1.9	1.9	67.10	353.7	-534.6	627.8	624.0	3.79	165.862		
700.0	697.5	667.6	667.3	2.3	2.2	75.35	349.7	-538.5	623.5	618.9	4.53	137.630		
800.0	795.2	760.0	759.4	2.8	2.5	80.84	344.9	-544.1	620.9	615.5	5.32	116.636		
900.0	891.7	855.8	854.6	3.3	2.9	85.07	338.4	-552.0	620.0	613.8	6.19	100.145		
901.8	893.4	857.5	856.3	3.3	2.9	85.14	338.2	-552.2	620.0	613.8	6.21	99.872 CC, ES		
1,000.0	986.7	947.0	944.9	3.9	3.3	88.44	329.9	-562.3	621.1	614.0	7.13	87.115		
1,100.0	1,080.0	1,040.8	1,036.8	4.5	3.7	91.27	318.5	-576.6	624.8	616.7	8.17	76.435		
1,200.0	1,171.3	1,143.9	1,137.1	5.2	4.2	93.95	302.7	-595.0	629.9	620.5	9.36	67.268		
1,300.0	1,260.4	1,237.9	1,227.6	6.0	4.6	96.30	285.9	-613.7	636.4	625.8	10.63	59.858		
1,400.0	1,347.0	1,336.6	1,321.9	6.9	5.2	98.67	266.7	-635.4	645.2	633.2	12.04	53.603		
1,500.0	1,430.9	1,434.7	1,414.7	7.8	5.8	100.95	245.3	-659.1	656.0	642.5	13.55	48.402		
1,600.0	1,511.8	1,529.7	1,504.3	8.9	6.3	103.27	223.9	-682.3	669.0	653.9	15.13	44.208		
1,700.0	1,589.6	1,605.0	1,575.7	10.0	6.8	105.26	208.5	-700.6	686.5	669.9	16.61	41.331		
1,800.0	1,664.1	1,694.9	1,661.3	11.2	7.4	107.80	192.0	-722.5	709.0	690.8	18.20	38.963		
1,900.0	1,735.2	1,783.7	1,745.8	12.5	7.9	110.50	175.2	-744.2	735.2	715.4	19.79	37.150		
2,000.0	1,805.8	1,875.5	1,832.2	13.8	8.5	113.22	156.6	-768.7	763.4	742.0	21.39	35.685		
2,100.0	1,876.4	1,984.4	1,934.6	15.1	9.2	116.20	133.2	-797.4	792.2	769.1	23.12	34.273		
2,200.0	1,947.0	2,079.0	2,023.1	16.5	9.9	118.53	110.9	-822.6	820.7	796.0	24.69	33.244		
2,300.0	2,017.6	2,165.3	2,103.8	17.8	10.5	120.55	90.7	-845.2	850.3	824.2	26.13	32.548		
2,400.0	2,088.2	2,276.9	2,208.1	19.2	11.3	122.96	63.8	-874.6	880.7	852.9	27.76	31.724		
2,500.0	2,158.8	2,369.4	2,293.9	20.5	12.0	124.75	39.8	-899.5	910.3	881.1	29.20	31.172		
2,600.0	2,229.4	2,456.8	2,375.2	21.9	12.6	126.38	17.4	-922.5	941.0	910.5	30.55	30.801		
2,700.0	2,300.0	2,539.9	2,452.6	23.3	13.2	127.86	-3.3	-944.3	973.0	941.2	31.81	30.584		
2,800.0	2,370.6	2,634.0	2,540.6	24.6	13.9	129.46	-26.2	-968.9	1,006.3	973.2	33.14	30.369		
2,900.0	2,441.1	2,752.8	2,650.9	26.0	14.7	131.30	-57.3	-1,000.0	1,038.5	1,003.8	34.66	29.961		
3,000.0	2,511.7	2,838.9	2,730.6	27.4	15.4	132.53	-80.9	-1,022.8	1,070.3	1,034.4	35.88	29.826		
3,100.0	2,582.3	2,922.5	2,808.0	28.7	16.0	133.66	-103.2	-1,045.0	1,103.2	1,066.1	37.05	29.772		
3,200.0	2,652.9	3,007.7	2,887.2	30.1	16.6	134.77	-125.3	-1,067.4	1,137.1	1,098.9	38.20	29.765		
3,300.0	2,723.5	3,102.4	2,975.2	31.5	17.3	135.94	-149.7	-1,092.2	1,171.8	1,132.3	39.42	29.724		
3,400.0	2,794.1	3,196.8	3,062.5	32.8	18.0	136.99	-174.5	-1,117.9	1,206.3	1,165.7	40.64	29.681 SF		
3,500.0	2,864.7	3,282.0	3,141.5	34.2	18.7	137.89	-196.8	-1,141.0	1,241.4	1,199.6	41.77	29.722		
3,600.0	2,935.3	3,362.4	3,215.8	35.6	19.3	138.65	-217.3	-1,164.0	1,277.4	1,234.5	42.86	29.804		
3,700.0	3,005.9	3,446.0	3,292.7	37.0	19.9	139.33	-237.8	-1,189.3	1,314.4	1,270.4	44.01	29.867		
3,800.0	3,076.5	3,536.7	3,376.5	38.4	20.7	140.07	-260.0	-1,216.1	1,351.8	1,306.6	45.21	29.899		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well MCU 7010B-10
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB @ 7799.0usft
<b>Reference Site:</b>	S2-T8S-R93W	<b>MD Reference:</b>	KB @ 7799.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	MCU 7010B-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S2-T8S-R93W - MCU 7005D-2 - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	102.84	-2.2	9.6	9.9					
100.0	100.0	100.0	100.0	0.1	0.1	102.84	-2.2	9.6	9.9	9.6	0.28	35.249		
200.0	200.0	200.0	200.0	0.5	0.5	102.84	-2.2	9.6	9.9	8.9	1.00	9.890		
300.0	300.0	300.0	300.0	0.9	0.9	102.84	-2.2	9.6	9.9	8.1	1.71	5.752 CC, ES		
400.0	400.0	399.7	399.7	1.2	1.2	-173.10	0.3	10.5	13.1	10.7	2.45	5.350 SF		
500.0	499.6	498.2	497.9	1.6	1.6	175.45	7.5	13.1	25.2	21.8	3.36	7.498		
600.0	598.9	594.2	593.0	1.9	1.9	177.23	19.1	17.3	46.8	42.5	4.38	10.701		
700.0	697.5	687.1	684.5	2.3	2.3	176.82	34.6	22.5	77.9	72.6	5.31	14.660		
800.0	795.2	776.4	771.6	2.8	2.7	175.49	53.5	26.6	116.9	110.7	6.18	18.926		
900.0	891.7	860.6	853.0	3.3	3.1	174.06	75.0	29.5	163.6	156.6	7.01	23.344		
1,000.0	986.7	939.1	928.0	3.9	3.5	172.78	98.1	31.3	217.6	209.8	7.81	27.879		
1,100.0	1,080.0	1,011.5	996.3	4.5	3.9	171.67	122.0	32.2	278.5	269.9	8.55	32.589		
1,200.0	1,171.3	1,077.5	1,057.8	5.2	4.3	170.69	146.0	32.4	345.6	336.4	9.23	37.451		
1,300.0	1,260.4	1,137.1	1,112.6	6.0	4.7	169.81	169.4	32.1	418.3	408.5	9.85	42.474		
1,400.0	1,347.0	1,190.2	1,160.8	6.9	5.1	168.98	191.7	31.4	496.1	485.6	10.40	47.675		
1,500.0	1,430.9	1,237.1	1,202.9	7.8	5.4	168.14	212.4	30.4	578.2	567.3	10.90	53.029		
1,600.0	1,511.8	1,278.0	1,239.1	8.9	5.7	167.26	231.3	29.3	664.1	652.8	11.34	58.577		
1,700.0	1,589.6	1,313.2	1,270.0	10.0	6.0	166.26	248.1	28.2	753.3	741.6	11.71	64.315		
1,800.0	1,664.1	1,342.9	1,295.9	11.2	6.2	165.05	262.7	27.1	845.2	833.2	12.03	70.242		
1,900.0	1,735.2	1,367.9	1,317.4	12.5	6.4	164.08	275.3	26.1	939.3	927.0	12.30	76.360		
2,000.0	1,805.8	1,400.0	1,344.9	13.8	6.7	163.69	291.9	24.7	1,034.0	1,021.4	12.58	82.208		
2,100.0	1,876.4	1,400.0	1,344.9	15.1	6.7	163.69	291.9	24.7	1,129.0	1,116.4	12.68	89.020		
2,200.0	1,947.0	1,433.6	1,373.3	16.5	7.0	163.28	309.7	23.1	1,224.2	1,211.2	12.98	94.344		
2,300.0	2,017.6	1,453.2	1,389.8	17.8	7.2	163.05	320.4	22.1	1,319.6	1,306.4	13.18	100.111		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well MCU 7010B-10
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB @ 7799.0usft
<b>Reference Site:</b>	S2-T8S-R93W	<b>MD Reference:</b>	KB @ 7799.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	MCU 7010B-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S2-T8S-R93W - MCU 7010A-11 - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	147.59	-12.0	7.6	14.2					
100.0	100.0	100.0	100.0	0.1	0.1	147.59	-12.0	7.6	14.2	14.0	0.28	50.919		
200.0	200.0	200.0	200.0	0.5	0.5	147.59	-12.0	7.6	14.2	13.2	1.00	14.287 CC, ES		
300.0	300.0	299.2	299.1	0.9	0.8	147.32	-14.1	9.1	16.8	14.9	1.92	8.773		
400.0	400.0	397.7	397.3	1.2	1.2	-118.23	-20.5	13.4	25.7	22.8	2.96	8.681 SF		
500.0	499.6	494.4	493.3	1.6	1.6	-118.17	-30.8	20.4	42.4	38.4	3.99	10.616		
600.0	598.9	589.3	586.6	1.9	2.0	-110.06	-44.7	29.8	64.3	59.3	4.95	12.981		
700.0	697.5	682.0	676.9	2.3	2.4	-107.37	-62.1	41.6	90.7	84.8	5.87	15.454		
800.0	795.2	772.3	763.8	2.8	2.9	-106.52	-82.4	55.4	121.6	114.9	6.76	18.000		
900.0	891.7	859.9	846.9	3.3	3.4	-106.27	-105.4	71.0	157.0	149.4	7.66	20.512		
1,000.0	986.7	944.7	926.0	3.9	4.0	-106.18	-130.6	88.1	196.7	188.2	8.57	22.958		
1,100.0	1,080.0	1,026.5	1,001.0	4.5	4.6	-106.06	-157.7	106.5	240.5	231.0	9.51	25.281		
1,200.0	1,171.3	1,105.3	1,071.8	5.2	5.3	-105.82	-186.3	125.9	288.2	277.7	10.50	27.447		
1,300.0	1,260.4	1,181.0	1,138.5	6.0	5.9	-105.43	-216.0	146.0	339.6	328.0	11.54	29.413		
1,400.0	1,347.0	1,253.7	1,201.1	6.9	6.6	-104.90	-246.5	166.7	394.3	381.7	12.64	31.189		
1,500.0	1,430.9	1,323.3	1,259.7	7.8	7.4	-104.19	-277.6	187.8	452.2	438.5	13.79	32.793		
1,600.0	1,511.8	1,389.9	1,314.4	8.9	8.1	-103.33	-309.0	209.1	513.1	498.1	14.99	34.227		
1,700.0	1,589.6	1,453.7	1,365.6	10.0	8.9	-102.30	-340.4	230.5	576.7	560.4	16.25	35.486		
1,800.0	1,664.1	1,514.6	1,413.2	11.2	9.6	-101.11	-371.8	251.8	642.7	625.2	17.54	36.638		
1,900.0	1,735.2	1,576.1	1,460.1	12.5	10.4	-101.15	-404.7	274.1	710.9	692.0	18.93	37.550		
2,000.0	1,805.8	1,646.4	1,513.4	13.8	11.4	-102.90	-442.7	299.9	780.0	759.5	20.53	37.992		
2,100.0	1,876.4	1,716.7	1,566.6	15.1	12.3	-104.38	-480.7	325.7	849.4	827.3	22.17	38.319		
2,200.0	1,947.0	1,787.0	1,619.9	16.5	13.3	-105.64	-518.6	351.4	919.1	895.3	23.84	38.559		
2,300.0	2,017.6	1,857.3	1,673.2	17.8	14.3	-106.74	-556.6	377.2	989.0	963.5	25.53	38.740		
2,400.0	2,088.2	1,927.5	1,726.4	19.2	15.2	-107.69	-594.5	402.9	1,059.1	1,031.8	27.24	38.879		
2,500.0	2,158.8	1,997.8	1,779.7	20.5	16.2	-108.53	-632.5	428.7	1,129.3	1,100.3	28.97	38.987		
2,600.0	2,229.4	2,068.1	1,832.9	21.9	17.2	-109.27	-670.5	454.4	1,199.6	1,168.9	30.70	39.070		
2,700.0	2,300.0	2,138.4	1,886.2	23.3	18.2	-109.93	-708.4	480.2	1,270.0	1,237.5	32.45	39.136		
2,800.0	2,370.6	2,208.7	1,939.4	24.6	19.1	-110.52	-746.4	506.0	1,340.4	1,306.2	34.20	39.190		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well MCU 7010B-10
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB @ 7799.0usft
<b>Reference Site:</b>	S2-T8S-R93W	<b>MD Reference:</b>	KB @ 7799.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	MCU 7010B-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S2-T8S-R93W - MCU 7012B-11 - OH - PLAN #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	-168.62	-9.8	-2.0	10.0					
100.0	100.0	100.0	100.0	0.1	0.1	-168.62	-9.8	-2.0	10.0	9.8	0.28	35.876		
200.0	200.0	200.0	200.0	0.5	0.5	-168.62	-9.8	-2.0	10.0	9.0	1.00	10.066 CC, ES		
300.0	300.0	299.4	299.3	0.9	0.8	-169.89	-12.4	-2.2	12.6	10.7	1.92	6.581 SF		
400.0	400.0	398.3	397.9	1.2	1.2	-78.73	-20.1	-2.9	19.7	16.8	2.96	6.660		
500.0	499.6	496.1	495.0	1.6	1.6	-82.79	-32.7	-4.1	31.6	27.6	3.96	7.972		
600.0	598.9	593.1	590.3	1.9	2.0	-76.51	-50.0	-5.6	46.2	41.3	4.90	9.419		
700.0	697.5	689.2	683.8	2.3	2.4	-74.65	-71.9	-7.6	62.5	56.7	5.81	10.752		
800.0	795.2	784.4	775.3	2.8	2.9	-74.45	-98.2	-10.0	80.6	73.9	6.73	11.972		
900.0	891.7	878.6	864.4	3.3	3.5	-74.90	-128.6	-12.8	100.4	92.7	7.69	13.052		
1,000.0	986.7	972.0	951.1	3.9	4.1	-75.59	-163.1	-16.0	121.9	113.2	8.72	13.989		
1,100.0	1,080.0	1,064.3	1,035.1	4.5	4.8	-76.34	-201.3	-19.5	145.1	135.2	9.82	14.771		
1,200.0	1,171.3	1,155.8	1,116.4	5.2	5.5	-77.07	-243.1	-23.3	169.8	158.8	11.03	15.398		
1,300.0	1,260.4	1,246.3	1,194.7	6.0	6.3	-77.75	-288.2	-27.4	196.0	183.7	12.34	15.881		
1,400.0	1,347.0	1,335.9	1,270.1	6.9	7.1	-78.35	-336.4	-31.8	223.8	210.0	13.78	16.234		
1,500.0	1,430.9	1,426.2	1,343.8	7.8	8.0	-78.93	-388.5	-36.5	252.8	237.5	15.35	16.467		
1,600.0	1,511.8	1,521.4	1,420.7	8.9	8.9	-80.12	-444.2	-41.6	281.5	264.4	17.11	16.453		
1,700.0	1,589.6	1,616.2	1,497.3	10.0	9.9	-81.89	-499.9	-46.7	309.4	290.3	19.03	16.255		
1,800.0	1,664.1	1,710.5	1,573.5	11.2	10.9	-84.09	-555.1	-51.8	337.0	315.8	21.10	15.966		
1,900.0	1,735.2	1,804.1	1,649.2	12.5	11.8	-87.02	-610.0	-56.8	364.8	341.6	23.29	15.665		
2,000.0	1,805.8	1,897.5	1,724.7	13.8	12.8	-90.22	-664.8	-61.8	393.9	368.3	25.51	15.440		
2,100.0	1,876.4	1,990.9	1,800.2	15.1	13.8	-92.99	-719.6	-66.8	423.9	396.1	27.73	15.287		
2,200.0	1,947.0	2,084.3	1,875.7	16.5	14.8	-95.40	-774.4	-71.8	454.7	424.8	29.94	15.186		
2,300.0	2,017.6	2,177.8	1,951.2	17.8	15.7	-97.51	-829.2	-76.8	486.2	454.1	32.15	15.124		
2,400.0	2,088.2	2,271.2	2,026.7	19.2	16.7	-99.37	-883.9	-81.8	518.3	483.9	34.34	15.091		
2,500.0	2,158.8	2,364.6	2,102.2	20.5	17.7	-101.02	-938.7	-86.8	550.7	514.2	36.52	15.079		
2,600.0	2,229.4	2,458.0	2,177.7	21.9	18.7	-102.49	-993.5	-91.8	583.6	544.9	38.70	15.081		
2,700.0	2,300.0	2,551.5	2,253.2	23.3	19.7	-103.80	-1,048.3	-96.8	616.8	575.9	40.86	15.094		
2,800.0	2,370.6	2,644.9	2,328.8	24.6	20.6	-104.99	-1,103.1	-101.8	650.2	607.2	43.02	15.115		
2,900.0	2,441.1	2,738.3	2,404.3	26.0	21.6	-106.05	-1,157.9	-106.8	683.9	638.7	45.16	15.142		
3,000.0	2,511.7	2,831.7	2,479.8	27.4	22.6	-107.02	-1,212.7	-111.8	717.7	670.4	47.30	15.172		
3,100.0	2,582.3	2,925.2	2,555.3	28.7	23.6	-107.90	-1,267.4	-116.8	751.7	702.3	49.44	15.206		
3,200.0	2,652.9	3,018.6	2,630.8	30.1	24.6	-108.71	-1,322.2	-121.8	785.9	734.3	51.57	15.240		
3,300.0	2,723.5	3,112.0	2,706.3	31.5	25.6	-109.45	-1,377.0	-126.8	820.2	766.5	53.69	15.276		
3,400.0	2,794.1	3,205.4	2,781.8	32.8	26.5	-110.13	-1,431.8	-131.8	854.6	798.8	55.81	15.312		
3,500.0	2,864.7	3,298.9	2,857.3	34.2	27.5	-110.76	-1,486.6	-136.8	889.1	831.2	57.93	15.349		
3,600.0	2,935.3	3,392.3	2,932.8	35.6	28.5	-111.34	-1,541.4	-141.8	923.7	863.6	60.04	15.385		
3,700.0	3,005.9	3,485.7	3,008.3	37.0	29.5	-111.88	-1,596.2	-146.8	958.3	896.2	62.15	15.420		
3,800.0	3,076.5	3,579.1	3,083.9	38.4	30.5	-112.38	-1,650.9	-151.8	993.1	928.8	64.25	15.455		
3,900.0	3,147.0	3,672.6	3,159.4	39.7	31.5	-112.85	-1,705.7	-156.8	1,027.9	961.5	66.36	15.490		
4,000.0	3,217.6	3,766.0	3,234.9	41.1	32.5	-113.29	-1,760.5	-161.8	1,062.7	994.3	68.46	15.523		
4,100.0	3,288.2	3,859.4	3,310.4	42.5	33.5	-113.70	-1,815.3	-166.8	1,097.7	1,027.1	70.56	15.556		
4,200.0	3,358.8	3,952.8	3,385.9	43.9	34.4	-114.09	-1,870.1	-171.8	1,132.6	1,060.0	72.66	15.588		
4,300.0	3,429.4	4,046.3	3,461.4	45.2	35.4	-114.45	-1,924.9	-176.8	1,167.6	1,092.9	74.76	15.619		
4,400.0	3,500.0	4,139.7	3,536.9	46.6	36.4	-114.79	-1,979.7	-181.8	1,202.7	1,125.8	76.85	15.649		
4,500.0	3,570.6	4,233.1	3,612.4	48.0	37.4	-115.12	-2,034.4	-186.8	1,237.7	1,158.8	78.94	15.678		
4,600.0	3,641.2	4,326.5	3,687.9	49.4	38.4	-115.42	-2,089.2	-191.8	1,272.8	1,191.8	81.04	15.707		
4,700.0	3,711.8	4,420.0	3,763.4	50.8	39.4	-115.71	-2,144.0	-196.8	1,308.0	1,224.8	83.13	15.734		
4,800.0	3,782.4	4,513.4	3,839.0	52.2	40.4	-115.98	-2,198.8	-201.8	1,343.1	1,257.9	85.22	15.761		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well MCU 7010B-10
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB @ 7799.0usft
<b>Reference Site:</b>	S2-T8S-R93W	<b>MD Reference:</b>	KB @ 7799.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	MCU 7010B-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S2-T8S-R93W - WIEBEN 2-13 (EXISTING) - ENCANA - SURVEYS													Offset Site Error:	0.0 usft
Survey Program: 250-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	-53.90	375.5	-515.0	637.7					
100.0	100.0	78.7	78.7	0.1	0.1	-53.89	375.6	-514.9	637.3	0.28	2,266.171			
200.0	200.0	179.5	179.5	0.5	0.3	-53.85	375.8	-514.5	637.1	0.82	776.526			
300.0	300.0	280.6	280.5	0.9	0.6	-53.78	376.3	-513.8	636.8	1.42	449.861			
400.0	400.0	382.0	382.0	1.2	0.9	46.56	377.0	-512.6	634.5	2.13	297.591			
500.0	499.6	483.0	483.0	1.6	1.3	55.04	378.1	-510.8	628.6	2.85	220.248			
600.0	598.9	582.5	582.4	1.9	1.6	70.49	379.4	-508.7	622.4	3.58	173.977			
700.0	697.5	680.6	680.5	2.3	2.0	79.59	380.8	-506.5	617.4	4.33	142.641			
800.0	795.2	779.4	779.3	2.8	2.4	86.19	382.3	-504.0	613.9	5.13	119.649			
900.0	891.7	877.3	877.1	3.3	2.7	91.82	384.6	-500.3	612.4	5.99	102.213			
910.7	901.9	887.7	887.4	3.3	2.7	92.39	384.9	-499.8	612.3	6.09	100.565 CC, ES			
1,000.0	986.7	972.3	971.9	3.9	3.1	97.00	387.7	-495.3	613.6	6.90	88.870			
1,100.0	1,080.0	1,063.5	1,062.8	4.5	3.4	101.88	391.3	-489.5	619.0	7.87	78.608			
1,200.0	1,171.3	1,151.6	1,150.6	5.2	3.7	106.51	395.2	-483.3	629.3	8.89	70.828			
1,300.0	1,260.4	1,236.1	1,234.7	6.0	4.0	110.88	399.4	-476.5	645.7	9.92	65.063			
1,400.0	1,347.0	1,310.9	1,309.2	6.9	4.3	114.63	403.6	-470.1	669.0	10.94	61.168			
1,500.0	1,430.9	1,380.7	1,378.7	7.8	4.6	117.81	408.0	-465.6	700.3	11.92	58.733			
1,600.0	1,511.8	1,449.5	1,447.2	8.9	4.8	120.61	412.6	-462.6	739.2	12.88	57.398			
1,700.0	1,589.6	1,530.9	1,528.5	10.0	5.1	123.66	417.6	-461.0	784.5	13.84	56.688			
1,800.0	1,664.1	1,612.8	1,610.3	11.2	5.4	126.34	421.2	-461.6	835.0	14.78	56.474 SF			
1,900.0	1,735.2	1,686.3	1,683.7	12.5	5.7	128.84	423.5	-463.6	890.0	15.66	56.821			
2,000.0	1,805.8	1,757.8	1,755.1	13.8	5.9	131.67	425.6	-465.6	947.5	16.48	57.501			
2,100.0	1,876.4	1,831.3	1,828.6	15.1	6.2	134.31	427.7	-467.7	1,006.7	17.27	58.300			
2,200.0	1,947.0	1,918.4	1,915.7	16.5	6.4	137.08	429.2	-471.1	1,066.7	18.11	58.904			
2,300.0	2,017.6	2,009.2	2,006.3	17.8	6.7	139.59	429.4	-475.9	1,126.6	18.96	59.417			
2,400.0	2,088.2	2,097.9	2,094.9	19.2	7.0	141.77	428.3	-481.0	1,186.5	19.79	59.958			
2,500.0	2,158.8	2,188.0	2,184.8	20.5	7.3	143.79	425.9	-485.8	1,246.1	20.61	60.476			
2,600.0	2,229.4	2,269.5	2,266.1	21.9	7.6	145.47	422.9	-489.9	1,305.8	21.36	61.135			
2,700.0	2,300.0	2,349.8	2,346.3	23.3	7.9	147.00	419.6	-493.8	1,365.8	22.10	61.813			

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well MCU 7010B-10
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB @ 7799.0usft
<b>Reference Site:</b>	S2-T8S-R93W	<b>MD Reference:</b>	KB @ 7799.0usft
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	MCU 7010B-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to KB @ 7799.0usft  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: MCU 7010B-10  
Coordinate System is US State Plane 1983, Colorado Central Zone  
Grid Convergence at Surface is: -1.42°

