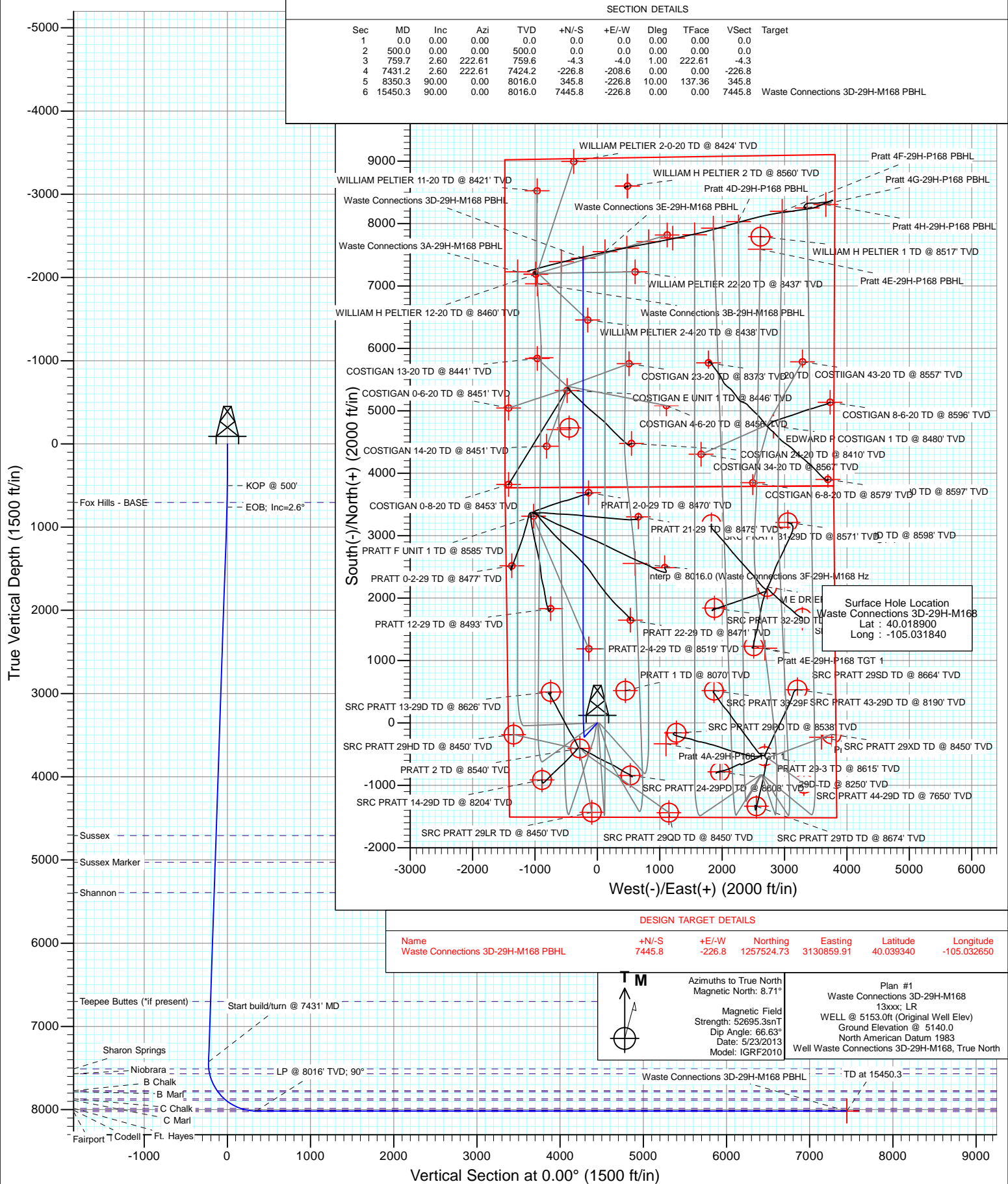




Project: DJ Wattenberg
Site: S29-T1N-R68W (Pratt/Waste Connections)
Well: Waste Connections 3D-29H-M168
Wellbore: Hz
Design: Plan #1



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site:	S29-T1N-R68W (Pratt/Waste Connections)	North Reference:	True
Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Project	DJ Wattenberg		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	S29-T1N-R68W (Pratt/Waste Connections)				
Site Position:		Northing:	1,249,256.24 ft	Latitude:	40.016600
From:	Lat/Long	Easting:	3,133,726.79 ft	Longitude:	-105.022570
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.31 °

Well	Waste Connections 3D-29H-M168					
Well Position	+N/-S	0.0 ft	Northing:	1,250,080.21 ft	Latitude:	40.018900
	+E/-W	0.0 ft	Easting:	3,131,126.01 ft	Longitude:	-105.031840
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,140.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/23/2013	8.71	66.63	52,695

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	0.00

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
759.7	2.60	222.61	759.6	-4.3	-4.0	1.00	1.00	0.00	222.61	
7,431.2	2.60	222.61	7,424.2	-226.8	-208.6	0.00	0.00	0.00	0.00	
8,350.3	90.00	0.00	8,016.0	345.8	-226.8	10.00	9.51	14.95	137.36	
15,450.3	90.00	0.00	8,016.0	7,445.8	-226.8	0.00	0.00	0.00	0.00	Waste Connections 3I

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site:	S29-T1N-R68W (Pratt/Waste Connections)	North Reference:	True
Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	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	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	KOP @ 500'
600.0	1.00	222.61	600.0	-0.6	-0.6	-0.6	1.00	1.00	
700.0	2.00	222.61	700.0	-2.6	-2.4	-2.6	1.00	1.00	
703.0	2.03	222.61	703.0	-2.6	-2.4	-2.6	1.00	1.00	Fox Hills - BASE
759.7	2.60	222.61	759.6	-4.3	-4.0	-4.3	1.00	1.00	EOB; Inc=2.6°
800.0	2.60	222.61	799.9	-5.7	-5.2	-5.7	0.00	0.00	
900.0	2.60	222.61	899.8	-9.0	-8.3	-9.0	0.00	0.00	
1,000.0	2.60	222.61	999.7	-12.3	-11.4	-12.3	0.00	0.00	
1,100.0	2.60	222.61	1,099.6	-15.7	-14.4	-15.7	0.00	0.00	
1,200.0	2.60	222.61	1,199.5	-19.0	-17.5	-19.0	0.00	0.00	
1,300.0	2.60	222.61	1,299.4	-22.3	-20.6	-22.3	0.00	0.00	
1,400.0	2.60	222.61	1,399.3	-25.7	-23.6	-25.7	0.00	0.00	
1,500.0	2.60	222.61	1,499.2	-29.0	-26.7	-29.0	0.00	0.00	
1,600.0	2.60	222.61	1,599.0	-32.4	-29.8	-32.4	0.00	0.00	
1,700.0	2.60	222.61	1,698.9	-35.7	-32.8	-35.7	0.00	0.00	
1,800.0	2.60	222.61	1,798.8	-39.0	-35.9	-39.0	0.00	0.00	
1,900.0	2.60	222.61	1,898.7	-42.4	-39.0	-42.4	0.00	0.00	
2,000.0	2.60	222.61	1,998.6	-45.7	-42.0	-45.7	0.00	0.00	
2,100.0	2.60	222.61	2,098.5	-49.0	-45.1	-49.0	0.00	0.00	
2,200.0	2.60	222.61	2,198.4	-52.4	-48.2	-52.4	0.00	0.00	
2,300.0	2.60	222.61	2,298.3	-55.7	-51.2	-55.7	0.00	0.00	
2,400.0	2.60	222.61	2,398.2	-59.0	-54.3	-59.0	0.00	0.00	
2,500.0	2.60	222.61	2,498.1	-62.4	-57.4	-62.4	0.00	0.00	
2,600.0	2.60	222.61	2,598.0	-65.7	-60.4	-65.7	0.00	0.00	
2,700.0	2.60	222.61	2,697.9	-69.0	-63.5	-69.0	0.00	0.00	
2,800.0	2.60	222.61	2,797.8	-72.4	-66.6	-72.4	0.00	0.00	
2,900.0	2.60	222.61	2,897.7	-75.7	-69.6	-75.7	0.00	0.00	
3,000.0	2.60	222.61	2,997.6	-79.0	-72.7	-79.0	0.00	0.00	
3,100.0	2.60	222.61	3,097.5	-82.4	-75.8	-82.4	0.00	0.00	
3,200.0	2.60	222.61	3,197.4	-85.7	-78.8	-85.7	0.00	0.00	
3,300.0	2.60	222.61	3,297.3	-89.0	-81.9	-89.0	0.00	0.00	
3,400.0	2.60	222.61	3,397.2	-92.4	-85.0	-92.4	0.00	0.00	
3,500.0	2.60	222.61	3,497.1	-95.7	-88.0	-95.7	0.00	0.00	
3,600.0	2.60	222.61	3,597.0	-99.0	-91.1	-99.0	0.00	0.00	
3,700.0	2.60	222.61	3,696.9	-102.4	-94.2	-102.4	0.00	0.00	
3,800.0	2.60	222.61	3,796.8	-105.7	-97.2	-105.7	0.00	0.00	
3,900.0	2.60	222.61	3,896.7	-109.1	-100.3	-109.1	0.00	0.00	
4,000.0	2.60	222.61	3,996.6	-112.4	-103.4	-112.4	0.00	0.00	
4,100.0	2.60	222.61	4,096.5	-115.7	-106.4	-115.7	0.00	0.00	
4,200.0	2.60	222.61	4,196.4	-119.1	-109.5	-119.1	0.00	0.00	
4,300.0	2.60	222.61	4,296.3	-122.4	-112.6	-122.4	0.00	0.00	
4,400.0	2.60	222.61	4,396.2	-125.7	-115.6	-125.7	0.00	0.00	
4,500.0	2.60	222.61	4,496.1	-129.1	-118.7	-129.1	0.00	0.00	
4,600.0	2.60	222.61	4,596.0	-132.4	-121.8	-132.4	0.00	0.00	
4,700.0	2.60	222.61	4,695.9	-135.7	-124.8	-135.7	0.00	0.00	
4,710.1	2.60	222.61	4,706.0	-136.1	-125.2	-136.1	0.00	0.00	Sussex
4,800.0	2.60	222.61	4,795.8	-139.1	-127.9	-139.1	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site:	S29-T1N-R68W (Pratt/Waste Connections)	North Reference:	True
Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,900.0	2.60	222.61	4,895.7	-142.4	-131.0	-142.4	0.00	0.00	
5,000.0	2.60	222.61	4,995.6	-145.7	-134.1	-145.7	0.00	0.00	
5,032.5	2.60	222.61	5,028.0	-146.8	-135.0	-146.8	0.00	0.00	Sussex Marker
5,100.0	2.60	222.61	5,095.5	-149.1	-137.1	-149.1	0.00	0.00	
5,200.0	2.60	222.61	5,195.4	-152.4	-140.2	-152.4	0.00	0.00	
5,300.0	2.60	222.61	5,295.2	-155.7	-143.3	-155.7	0.00	0.00	
5,395.9	2.60	222.61	5,391.0	-158.9	-146.2	-158.9	0.00	0.00	Shannon
5,400.0	2.60	222.61	5,395.1	-159.1	-146.3	-159.1	0.00	0.00	
5,500.0	2.60	222.61	5,495.0	-162.4	-149.4	-162.4	0.00	0.00	
5,600.0	2.60	222.61	5,594.9	-165.7	-152.5	-165.7	0.00	0.00	
5,700.0	2.60	222.61	5,694.8	-169.1	-155.5	-169.1	0.00	0.00	
5,800.0	2.60	222.61	5,794.7	-172.4	-158.6	-172.4	0.00	0.00	
5,900.0	2.60	222.61	5,894.6	-175.7	-161.7	-175.7	0.00	0.00	
6,000.0	2.60	222.61	5,994.5	-179.1	-164.7	-179.1	0.00	0.00	
6,100.0	2.60	222.61	6,094.4	-182.4	-167.8	-182.4	0.00	0.00	
6,200.0	2.60	222.61	6,194.3	-185.8	-170.9	-185.8	0.00	0.00	
6,300.0	2.60	222.61	6,294.2	-189.1	-173.9	-189.1	0.00	0.00	
6,400.0	2.60	222.61	6,394.1	-192.4	-177.0	-192.4	0.00	0.00	
6,500.0	2.60	222.61	6,494.0	-195.8	-180.1	-195.8	0.00	0.00	
6,600.0	2.60	222.61	6,593.9	-199.1	-183.1	-199.1	0.00	0.00	
6,700.0	2.60	222.61	6,693.8	-202.4	-186.2	-202.4	0.00	0.00	
6,706.2	2.60	222.61	6,700.0	-202.6	-186.4	-202.6	0.00	0.00	Teepee Buttes (*if present)
6,800.0	2.60	222.61	6,793.7	-205.8	-189.3	-205.8	0.00	0.00	
6,900.0	2.60	222.61	6,893.6	-209.1	-192.3	-209.1	0.00	0.00	
7,000.0	2.60	222.61	6,993.5	-212.4	-195.4	-212.4	0.00	0.00	
7,100.0	2.60	222.61	7,093.4	-215.8	-198.5	-215.8	0.00	0.00	
7,200.0	2.60	222.61	7,193.3	-219.1	-201.5	-219.1	0.00	0.00	
7,300.0	2.60	222.61	7,293.2	-222.4	-204.6	-222.4	0.00	0.00	
7,400.0	2.60	222.61	7,393.1	-225.8	-207.7	-225.8	0.00	0.00	
7,431.2	2.60	222.61	7,424.2	-226.8	-208.6	-226.8	0.00	0.00	Start build/turn @ 7431' MD
7,500.0	5.27	340.57	7,493.0	-225.0	-210.7	-225.0	10.00	3.89	
7,517.1	6.91	345.33	7,510.0	-223.2	-211.3	-223.2	10.00	9.56	Sharon Springs
7,576.0	12.70	352.17	7,568.0	-213.4	-213.0	-213.4	10.00	9.82	Niobrara
7,600.0	15.07	353.45	7,591.3	-207.7	-213.8	-207.7	10.00	9.92	
7,700.0	25.03	356.23	7,685.1	-173.6	-216.6	-173.6	10.00	9.96	
7,800.0	35.01	357.49	7,771.6	-123.7	-219.3	-123.7	10.00	9.98	
7,801.7	35.19	357.50	7,773.0	-122.7	-219.3	-122.7	10.00	9.99	B Chalk
7,815.3	36.54	357.63	7,784.0	-114.7	-219.7	-114.7	10.00	9.99	B Marl
7,900.0	45.00	358.24	7,848.1	-59.5	-221.6	-59.5	10.00	9.99	
7,928.9	47.89	358.41	7,868.0	-38.6	-222.2	-38.6	10.00	9.99	C Chalk
7,958.1	50.80	358.57	7,887.0	-16.4	-222.8	-16.4	10.00	9.99	C Marl
8,000.0	54.99	358.77	7,912.3	17.0	-223.6	17.0	10.00	9.99	
8,100.0	64.99	359.18	7,962.2	103.4	-225.1	103.4	10.00	9.99	
8,157.8	70.77	359.39	7,984.0	157.0	-225.8	157.0	10.00	9.99	Ft. Hayes
8,200.0	74.98	359.53	7,996.4	197.3	-226.2	197.3	10.00	9.99	
8,243.0	79.28	359.67	8,006.0	239.2	-226.5	239.2	10.00	10.00	Codell
8,300.0	84.98	359.85	8,013.8	295.6	-226.7	295.6	10.00	10.00	
8,350.3	90.00	0.00	8,016.0	345.8	-226.8	345.8	10.00	10.00	LP @ 8016' TVD; 90°
8,400.0	90.00	0.00	8,016.0	395.6	-226.8	395.6	0.00	0.00	
8,500.0	90.00	0.00	8,016.0	495.6	-226.8	495.6	0.00	0.00	
8,600.0	90.00	0.00	8,016.0	595.6	-226.8	595.6	0.00	0.00	
8,700.0	90.00	0.00	8,016.0	695.6	-226.8	695.6	0.00	0.00	

Planning Report

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Project:	DJ Wattenberg	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site:	S29-T1N-R68W (Pratt/Waste Connections)	North Reference:	True
Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
8,800.0	90.00	0.00	8,016.0	795.6	-226.8	795.6	0.00	0.00	
8,900.0	90.00	0.00	8,016.0	895.6	-226.8	895.6	0.00	0.00	
9,000.0	90.00	0.00	8,016.0	995.6	-226.8	995.6	0.00	0.00	
9,100.0	90.00	0.00	8,016.0	1,095.6	-226.8	1,095.6	0.00	0.00	
9,200.0	90.00	0.00	8,016.0	1,195.6	-226.8	1,195.6	0.00	0.00	
9,300.0	90.00	0.00	8,016.0	1,295.6	-226.8	1,295.6	0.00	0.00	
9,400.0	90.00	0.00	8,016.0	1,395.6	-226.8	1,395.6	0.00	0.00	
9,500.0	90.00	0.00	8,016.0	1,495.6	-226.8	1,495.6	0.00	0.00	
9,600.0	90.00	0.00	8,016.0	1,595.6	-226.8	1,595.6	0.00	0.00	
9,700.0	90.00	0.00	8,016.0	1,695.6	-226.8	1,695.6	0.00	0.00	
9,800.0	90.00	0.00	8,016.0	1,795.6	-226.8	1,795.6	0.00	0.00	
9,900.0	90.00	0.00	8,016.0	1,895.6	-226.8	1,895.6	0.00	0.00	
10,000.0	90.00	0.00	8,016.0	1,995.6	-226.8	1,995.6	0.00	0.00	
10,100.0	90.00	0.00	8,016.0	2,095.6	-226.8	2,095.6	0.00	0.00	
10,200.0	90.00	0.00	8,016.0	2,195.6	-226.8	2,195.6	0.00	0.00	
10,300.0	90.00	0.00	8,016.0	2,295.6	-226.8	2,295.6	0.00	0.00	
10,400.0	90.00	0.00	8,016.0	2,395.6	-226.8	2,395.6	0.00	0.00	
10,500.0	90.00	0.00	8,016.0	2,495.6	-226.8	2,495.6	0.00	0.00	
10,600.0	90.00	0.00	8,016.0	2,595.6	-226.8	2,595.6	0.00	0.00	
10,700.0	90.00	0.00	8,016.0	2,695.6	-226.8	2,695.6	0.00	0.00	
10,800.0	90.00	0.00	8,016.0	2,795.6	-226.8	2,795.6	0.00	0.00	
10,900.0	90.00	0.00	8,016.0	2,895.6	-226.8	2,895.6	0.00	0.00	
11,000.0	90.00	0.00	8,016.0	2,995.6	-226.8	2,995.6	0.00	0.00	
11,100.0	90.00	0.00	8,016.0	3,095.6	-226.8	3,095.6	0.00	0.00	
11,200.0	90.00	0.00	8,016.0	3,195.6	-226.8	3,195.6	0.00	0.00	
11,300.0	90.00	0.00	8,016.0	3,295.6	-226.8	3,295.6	0.00	0.00	
11,400.0	90.00	0.00	8,016.0	3,395.6	-226.8	3,395.6	0.00	0.00	
11,500.0	90.00	0.00	8,016.0	3,495.6	-226.8	3,495.6	0.00	0.00	
11,600.0	90.00	0.00	8,016.0	3,595.6	-226.8	3,595.6	0.00	0.00	
11,700.0	90.00	0.00	8,016.0	3,695.6	-226.8	3,695.6	0.00	0.00	
11,800.0	90.00	0.00	8,016.0	3,795.6	-226.8	3,795.6	0.00	0.00	
11,900.0	90.00	0.00	8,016.0	3,895.6	-226.8	3,895.6	0.00	0.00	
12,000.0	90.00	0.00	8,016.0	3,995.6	-226.8	3,995.6	0.00	0.00	
12,100.0	90.00	0.00	8,016.0	4,095.6	-226.8	4,095.6	0.00	0.00	
12,200.0	90.00	0.00	8,016.0	4,195.6	-226.8	4,195.6	0.00	0.00	
12,300.0	90.00	0.00	8,016.0	4,295.6	-226.8	4,295.6	0.00	0.00	
12,400.0	90.00	0.00	8,016.0	4,395.6	-226.8	4,395.6	0.00	0.00	
12,500.0	90.00	0.00	8,016.0	4,495.6	-226.8	4,495.6	0.00	0.00	
12,600.0	90.00	0.00	8,016.0	4,595.6	-226.8	4,595.6	0.00	0.00	
12,700.0	90.00	0.00	8,016.0	4,695.6	-226.8	4,695.6	0.00	0.00	
12,800.0	90.00	0.00	8,016.0	4,795.6	-226.8	4,795.6	0.00	0.00	
12,900.0	90.00	0.00	8,016.0	4,895.6	-226.8	4,895.6	0.00	0.00	
13,000.0	90.00	0.00	8,016.0	4,995.6	-226.8	4,995.6	0.00	0.00	
13,100.0	90.00	0.00	8,016.0	5,095.6	-226.8	5,095.6	0.00	0.00	
13,200.0	90.00	0.00	8,016.0	5,195.6	-226.8	5,195.6	0.00	0.00	
13,300.0	90.00	0.00	8,016.0	5,295.6	-226.8	5,295.6	0.00	0.00	
13,400.0	90.00	0.00	8,016.0	5,395.6	-226.8	5,395.6	0.00	0.00	
13,500.0	90.00	0.00	8,016.0	5,495.6	-226.8	5,495.6	0.00	0.00	
13,600.0	90.00	0.00	8,016.0	5,595.6	-226.8	5,595.6	0.00	0.00	
13,700.0	90.00	0.00	8,016.0	5,695.6	-226.8	5,695.6	0.00	0.00	
13,800.0	90.00	0.00	8,016.0	5,795.6	-226.8	5,795.6	0.00	0.00	
13,900.0	90.00	0.00	8,016.0	5,895.6	-226.8	5,895.6	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site:	S29-T1N-R68W (Pratt/Waste Connections)	North Reference:	True
Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
14,000.0	90.00	0.00	8,016.0	5,995.6	-226.8	5,995.6	0.00	0.00	
14,100.0	90.00	0.00	8,016.0	6,095.6	-226.8	6,095.6	0.00	0.00	
14,200.0	90.00	0.00	8,016.0	6,195.6	-226.8	6,195.6	0.00	0.00	
14,300.0	90.00	0.00	8,016.0	6,295.6	-226.8	6,295.6	0.00	0.00	
14,400.0	90.00	0.00	8,016.0	6,395.6	-226.8	6,395.6	0.00	0.00	
14,500.0	90.00	0.00	8,016.0	6,495.6	-226.8	6,495.6	0.00	0.00	
14,600.0	90.00	0.00	8,016.0	6,595.6	-226.8	6,595.6	0.00	0.00	
14,700.0	90.00	0.00	8,016.0	6,695.6	-226.8	6,695.6	0.00	0.00	
14,800.0	90.00	0.00	8,016.0	6,795.6	-226.8	6,795.6	0.00	0.00	
14,900.0	90.00	0.00	8,016.0	6,895.6	-226.8	6,895.6	0.00	0.00	
15,000.0	90.00	0.00	8,016.0	6,995.6	-226.8	6,995.6	0.00	0.00	
15,100.0	90.00	0.00	8,016.0	7,095.6	-226.8	7,095.6	0.00	0.00	
15,200.0	90.00	0.00	8,016.0	7,195.6	-226.8	7,195.6	0.00	0.00	
15,300.0	90.00	0.00	8,016.0	7,295.6	-226.8	7,295.6	0.00	0.00	
15,400.0	90.00	0.00	8,016.0	7,395.6	-226.8	7,395.6	0.00	0.00	
15,450.3	90.00	0.00	8,016.0	7,445.8	-226.8	7,445.8	0.00	0.00	TD at 15450.3 - Waste Connections 3D-29H-M

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Waste Connections 3D-29H-M168	0.00	0.00	8,016.0	7,445.8	-226.8	1,257,524.73	3,130,859.91	40.039340	-105.032650
- plan hits target center									
- Point									

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
703.0	703.0	Fox Hills - BASE			
4,710.1	4,706.0	Sussex			
5,032.5	5,028.0	Sussex Marker			
5,395.9	5,391.0	Shannon			
6,706.2	6,700.0	Teepee Buttes (*if present)			
7,517.1	7,510.0	Sharon Springs			
7,576.0	7,568.0	Niobrara			
7,801.7	7,773.0	B Chalk			
7,815.3	7,784.0	B Marl			
7,928.9	7,868.0	C Chalk			
7,958.1	7,887.0	C Marl			
8,157.8	7,984.0	Ft. Hayes			
8,243.0	8,006.0	Codell			

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site:	S29-T1N-R68W (Pratt/Waste Connections)	North Reference:	True
Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
500.0	500.0	0.0	0.0	KOP @ 500'
759.7	759.6	-4.3	-4.0	EOB; Inc=2.6°
7,431.2	7,424.2	-226.8	-208.6	Start build/turn @ 7431' MD
8,350.3	8,016.0	345.8	-226.8	LP @ 8016' TVD; 90°
15,450.3	8,016.0	7,445.8	-226.8	TD at 15450.3

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S29-T1N-R68W (Pratt/Waste Connections)

Waste Connections 3D-29H-M168

Hz

Plan #1

Anticollision Report

30 May, 2013

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1
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Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria	Error Model:	Systematic Ellipse
Interpolation Method:	MD Interval 100.0ft	Scan Method:	Closest Approach 3D
Depth Range:	Unlimited	Error Surface:	Elliptical Conic
Results Limited by:	Maximum center-center distance of 500.0ft		
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	5/30/2013
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From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	15,450.3	Plan #1 (Hz)	MWD	Geolink MWD

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S29-T1N-R68W (Pratt/Waste Connections)						
COSTIGAN 0-6-20 (EXISTING) - ENCANA WELL - PLAN						Out of range
COSTIGAN 0-8-20 (EXISTING) - ENCANA WELL - PLAN						Out of range
COSTIGAN 13-20 (EXISTING) - ENCANA WELL - PLAN						Out of range
COSTIGAN 14-20 (EXISTING) - ENCANA WELL - PLAN						Out of range
COSTIGAN 23-20 (EXISTING) - ENCANA WELL - PLAN						Out of range
COSTIGAN 24-20 (EXISTING) - ENCANA WELL - ENCA						Out of range
COSTIGAN 33-20 (EXISTING) - ENCANA WELL - ENCA						Out of range
COSTIGAN 34-20 (EXISTING) - ENCANA WELL - PLAN						Out of range
COSTIGAN 43-20 (EXISTING) - ENCANA WELL - PLAN						Out of range
COSTIGAN 4-6-20 (EXISTING) - ENCANA WELL - PLAN						Out of range
COSTIGAN 6-8-20 (EXISTING) - ENCANA WELL - PLAN						Out of range
COSTIGAN 8-6-20 (EXISTING) - ENCANA WELL - SUR						Out of range
COSTIGAN 8-8-20 (EXISTING) - ENCANA WELL - SUR						Out of range
COSTIGAN E UNIT 1 (EXISTING) - ENCANA WELL - NO	13,328.7	7,940.0	259.0	149.0	2.354	CC, ES, SF
COSTIGAN H UNIT 1 (EXISTING) - VESSELS WELL - N	12,731.7	7,982.0	226.0	126.2	2.265	CC, ES, SF
EDWARD P COSTIGAN 1 (EXISTING) - ENCANA WELL						Out of range
M E DRIER 1 (EXISTING) - SYNERGY WELL - NO SUR						Out of range
PRATT 0-2-29 (EXISTING) - ENCANA WELL - SURVEY						Out of range
PRATT 1 (EXISTING) - SYNERGY WELL - NO SURVEY						Out of range
PRATT 12-29 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
PRATT 2 (EXISTING) - SYNERGY WELL - NO SURVEY	7,454.6	7,435.6	195.4	169.3	7.486	CC, ES
PRATT 2 (EXISTING) - SYNERGY WELL - NO SURVEY	7,500.0	7,481.0	195.7	169.5	7.465	SF
PRATT 2-0-29 (EXISTING) - ENCANA WELL - SURVEY	11,689.3	8,084.8	81.1	-1.9	0.977	Level 1, CC, ES, SF
PRATT 21-29 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
PRATT 22-29 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
PRATT 2-4-29 (EXISTING) - ENCANA WELL - PLAN ON	9,191.9	8,458.1	89.6	21.9	1.324	Level 3, CC, ES, SF
PRATT 29-3 (EXISTING) - SYNERGY WELL - NO SURV						Out of range
PRATT 4-2-29 (EXISTING) - ENCANA WELL - SURVEY						Out of range
Pratt 4B-29H-P168 - Hz - Plan #1						Out of range
Pratt 4C-29H-P168 - Hz - Plan #1						Out of range
Pratt 4D-29H-P168 - Hz - Plan #1						Out of range
Pratt 4E-29H-P168 - Hz - Plan #1						Out of range
Pratt 4F-29H-P168 - Hz - Plan #1						Out of range
Pratt 4G-29H-P168 - Hz - Plan #1						Out of range
PRATT F UNIT 1 (EXISTING) - ENCANA WELL - NO SU						Out of range
SRC PRATT 13-29D (EXISTING) - SYNERGY WELL - S	1,568.9	1,579.5	413.5	405.5	52.106	CC
SRC PRATT 13-29D (EXISTING) - SYNERGY WELL - S	1,600.0	1,609.9	413.5	405.4	50.912	ES
SRC PRATT 13-29D (EXISTING) - SYNERGY WELL - S	2,500.0	2,483.3	470.9	458.3	37.526	SF
SRC PRATT 14-29D (EXISTING) - SYNERGY WELL - S						Out of range
SRC PRATT 24-29 PD (EXISTING) - SYNERGY WELL -	1,187.6	1,180.9	472.3	467.1	91.403	CC
SRC PRATT 24-29 PD (EXISTING) - SYNERGY WELL -	1,200.0	1,193.1	472.3	467.1	90.192	ES
SRC PRATT 24-29 PD (EXISTING) - SYNERGY WELL -	1,700.0	1,666.3	499.1	491.1	62.959	SF
SRC PRATT 29HD (EXISTING) - SYNERGY WELL - PL						Out of range
SRC PRATT 29LD (EXISTING) - SYNERGY WELL - PLA	1,218.5	1,184.5	480.2	476.1	115.040	CC, ES
SRC PRATT 29LD (EXISTING) - SYNERGY WELL - PLA	1,600.0	1,522.5	497.2	491.7	90.170	SF
SRC PRATT 29PD (EXISTING) - SYNERGY WELL - SU						Out of range
SRC PRATT 29QD (EXISTING) - SYNERGY WELL - PL	200.0	189.0	480.3	479.7	731.926	CC, ES
SRC PRATT 29QD (EXISTING) - SYNERGY WELL - PL	700.0	659.6	499.3	496.8	201.458	SF
SRC PRATT 29SD (EXISTING) - SYNERGY WELL - SU						Out of range
SRC PRATT 29TD (EXISTING) - SYNERGY WELL - SU						Out of range
SRC PRATT 29XD (EXISTING) - SYNERGY WELL - PLA						Out of range
SRC PRATT 31-29D (EXISTING) - SYNERGY WELL - S						Out of range
SRC PRATT 32-29D (EXISTING) - SYNERGY WELL - S						Out of range

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S29-T1N-R68W (Pratt/Waste Connections)						
SRC PRATT 33-29PD (EXISTING) - SYNERGY WELL -						Out of range
SRC PRATT 34-29D (EXISTING) - SYNERGY WELL - S						Out of range
SRC PRATT 41-29D (EXISTING) - SYNERGY WELL - S						Out of range
SRC PRATT 42-29D (EXISTING) - SYNERGY WELL - S						Out of range
SRC PRATT 43-29D (EXISTING) - SYNERGY WELL - S						Out of range
SRC PRATT 44-29D (EXISTING) - SYNERGY WELL - P						Out of range
Waste Connections 3A-29H-M168 - Hz - Plan #1	200.0	200.0	28.0	27.4	42.907	CC, ES
Waste Connections 3A-29H-M168 - Hz - Plan #1	800.0	795.4	54.1	51.4	19.703	SF
Waste Connections 3B-29H-M168 - Hz - Plan #1	300.0	300.0	19.6	18.6	19.570	CC, ES
Waste Connections 3B-29H-M168 - Hz - Plan #1	800.0	797.9	32.8	30.0	11.875	SF
Waste Connections 3C-29H-M168 - Hz - Plan #1	400.0	400.0	8.4	7.1	6.220	CC
Waste Connections 3C-29H-M168 - Hz - Plan #1	700.0	699.8	9.0	6.6	3.751	ES
Waste Connections 3C-29H-M168 - Hz - Plan #1	15,400.0	16,590.2	417.7	193.9	1.867	SF
Waste Connections 3E-29H-M168 - Hz - Plan #1	400.0	400.0	11.2	9.9	8.293	CC
Waste Connections 3E-29H-M168 - Hz - Plan #1	500.0	500.0	11.3	9.6	6.644	ES
Waste Connections 3E-29H-M168 - Hz - Plan #1	15,450.3	16,641.6	417.7	192.5	1.854	SF
Waste Connections 3F-29H-M168 - Hz - Plan #1	300.0	300.0	19.6	18.6	19.570	CC
Waste Connections 3F-29H-M168 - Hz - Plan #1	400.0	399.9	19.9	18.5	14.721	ES
Waste Connections 3F-29H-M168 - Hz - Plan #1	600.0	599.4	23.6	21.6	11.474	SF
Waste Connections 3G-29H-M168 - Hz - Plan #1	166.3	167.3	30.8	30.3	57.375	CC
Waste Connections 3G-29H-M168 - Hz - Plan #1	200.0	201.0	30.8	30.2	47.072	ES
Waste Connections 3G-29H-M168 - Hz - Plan #1	600.0	598.9	41.9	39.8	20.306	SF
WILLIAM H PELTIER 1 (EXISTING) - VESSELS WELL -						Out of range
WILLIAM H PELTIER 2 (EXISTING) - ENCANA WELL - P						Out of range
WILLIAM H PELTIER 2 (EXISTING) - ENCANA WELL - S						Out of range
WILLIAM PELTIER 11-20 (EXISTING) - ENCANA WELL						Out of range
WILLIAM PELTIER 12-20 (EXISTING) - ENCANA WELL						Out of range
WILLIAM PELTIER 12-20 (EXISTING) - ENCANA WELL						Out of range
WILLIAM PELTIER 1A-20H (EXISTING) - ENCANA WEL	15,400.0	11,621.4	366.6	322.4	8.289	SF
WILLIAM PELTIER 1A-20H (EXISTING) - ENCANA WEL	15,450.3	11,610.2	360.9	317.7	8.356	CC, ES
WILLIAM PELTIER 2-0-20 (EXISTING) - ENCANA WELL						Out of range
WILLIAM PELTIER 22-20 (EXISTING) - ENCANA WELL						Out of range
WILLIAM PELTIER 2-4-20 (EXISTING) - ENCANA WELL	14,459.5	8,054.0	72.8	-62.3	0.539	Level 1, CC, ES, SF
WILLIAM PELTIER 4-2-20 (EXISTING) - ENCANA WELL						Out of range

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												S29-T1N-R68W (Pratt/Waste Connections) - COSTIGAN E UNIT 1 (EXISTING) - ENCANA WELL - NO		Offset Site Error:		0.0 ft	
Survey Program:												8446-MWD		Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor					
13,000.0	8,016.0	7,940.0	7,940.0	90.6	13.9	-90.00	5,324.3	-485.8	418.5	314.2	104.34	4.011	CC, ES, SF				
13,100.0	8,016.0	7,940.0	7,940.0	92.3	13.9	-90.00	5,324.3	-485.8	345.6	239.5	106.07	3.258					
13,200.0	8,016.0	7,940.0	7,940.0	94.0	13.9	-90.00	5,324.3	-485.8	289.3	181.4	107.81	2.683					
13,300.0	8,016.0	7,940.0	7,940.0	95.8	13.9	-90.00	5,324.3	-485.8	260.6	151.1	109.54	2.379					
13,328.7	8,016.0	7,940.0	7,940.0	96.3	13.9	-90.00	5,324.3	-485.8	259.0	149.0	110.04	2.354					
13,400.0	8,016.0	7,940.0	7,940.0	97.5	13.9	-90.00	5,324.3	-485.8	268.7	157.4	111.28	2.414					
13,500.0	8,016.0	7,940.0	7,940.0	99.2	13.9	-90.00	5,324.3	-485.8	310.5	197.5	113.02	2.748					
13,600.0	8,016.0	7,940.0	7,940.0	101.0	13.9	-90.00	5,324.3	-485.8	375.1	260.3	114.75	3.269					
13,700.0	8,016.0	7,940.0	7,940.0	102.7	13.9	-90.00	5,324.3	-485.8	452.7	336.2	116.49	3.886					

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - COSTIGAN H UNIT 1 (EXISTING) - VESSELS WELL - NO												Offset Site Error:	0.0 ft
Survey Program: 8400-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
12,300.0	8,016.0	7,982.0	7,982.0	78.5	13.9	-90.00	4,727.2	-452.8	487.3	395.0	92.30	5.279	
12,400.0	8,016.0	7,982.0	7,982.0	80.2	13.9	-90.00	4,727.2	-452.8	401.3	307.3	94.03	4.268	
12,500.0	8,016.0	7,982.0	7,982.0	81.9	13.9	-90.00	4,727.2	-452.8	323.6	227.9	95.76	3.380	
12,600.0	8,016.0	7,982.0	7,982.0	83.7	13.9	-90.00	4,727.2	-452.8	261.6	164.1	97.49	2.683	
12,700.0	8,016.0	7,982.0	7,982.0	85.4	13.9	-90.00	4,727.2	-452.8	228.2	129.0	99.22	2.300	
12,731.7	8,016.0	7,982.0	7,982.0	85.9	13.9	-90.00	4,727.2	-452.8	226.0	126.2	99.77	2.265 CC, ES, SF	
12,800.0	8,016.0	7,982.0	7,982.0	87.1	13.9	-90.00	4,727.2	-452.8	236.1	135.2	100.95	2.339	
12,900.0	8,016.0	7,982.0	7,982.0	88.8	13.9	-90.00	4,727.2	-452.8	281.8	179.1	102.68	2.744	
13,000.0	8,016.0	7,982.0	7,982.0	90.6	13.9	-90.00	4,727.2	-452.8	350.8	246.4	104.41	3.360	
13,100.0	8,016.0	7,982.0	7,982.0	92.3	13.9	-90.00	4,727.2	-452.8	432.1	326.0	106.15	4.071	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - PRATT 2 (EXISTING) - SYNERGY WELL - NO SURVEYS														Offset Site Error:	0.0 ft
Survey Program: 8540-MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	-145.53	-408.0	-280.1	495.0						
100.0	100.0	88.0	88.0	0.2	0.2	-145.53	-408.0	-280.1	494.9	494.5	0.31	1,619.115			
200.0	200.0	188.0	188.0	0.3	0.3	-145.53	-408.0	-280.1	494.9	494.2	0.65	755.851			
300.0	300.0	288.0	288.0	0.5	0.5	-145.53	-408.0	-280.1	494.9	493.8	1.00	492.999			
400.0	400.0	388.0	388.0	0.7	0.7	-145.53	-408.0	-280.1	494.9	493.5	1.35	365.792			
500.0	500.0	488.0	488.0	0.8	0.9	-145.53	-408.0	-280.1	494.9	493.1	1.70	290.767			
600.0	600.0	588.0	588.0	1.0	1.0	-8.15	-408.0	-280.1	494.0	491.9	2.05	240.881			
700.0	700.0	688.0	688.0	1.2	1.2	-8.20	-408.0	-280.1	491.4	489.0	2.40	204.820			
800.0	799.9	787.9	787.9	1.4	1.4	-8.27	-408.0	-280.1	487.2	484.5	2.75	177.329			
900.0	899.8	887.8	887.8	1.6	1.5	-8.35	-408.0	-280.1	482.7	479.6	3.10	155.891			
1,000.0	999.7	987.7	987.7	1.8	1.7	-8.43	-408.0	-280.1	478.3	474.8	3.45	138.797			
1,100.0	1,099.6	1,087.6	1,087.6	1.9	1.9	-8.51	-408.0	-280.1	473.8	470.0	3.79	124.846			
1,200.0	1,199.5	1,187.5	1,187.5	2.1	2.1	-8.59	-408.0	-280.1	469.3	465.1	4.14	113.246			
1,300.0	1,299.4	1,287.4	1,287.4	2.3	2.2	-8.68	-408.0	-280.1	464.8	460.3	4.49	103.448			
1,400.0	1,399.3	1,387.3	1,387.3	2.5	2.4	-8.76	-408.0	-280.1	460.3	455.5	4.84	95.063			
1,500.0	1,499.2	1,487.2	1,487.2	2.7	2.6	-8.85	-408.0	-280.1	455.9	450.7	5.19	87.806			
1,600.0	1,599.0	1,587.0	1,587.0	2.9	2.8	-8.94	-408.0	-280.1	451.4	445.8	5.54	81.464			
1,700.0	1,698.9	1,686.9	1,686.9	3.1	2.9	-9.03	-408.0	-280.1	446.9	441.0	5.89	75.873			
1,800.0	1,798.8	1,786.8	1,786.8	3.3	3.1	-9.12	-408.0	-280.1	442.4	436.2	6.24	70.909			
1,900.0	1,898.7	1,886.7	1,886.7	3.5	3.3	-9.21	-408.0	-280.1	438.0	431.4	6.59	66.470			
2,000.0	1,998.6	1,986.6	1,986.6	3.6	3.5	-9.31	-408.0	-280.1	433.5	426.5	6.94	62.479			
2,100.0	2,098.5	2,086.5	2,086.5	3.8	3.6	-9.41	-408.0	-280.1	429.0	421.7	7.29	58.870			
2,200.0	2,198.4	2,186.4	2,186.4	4.0	3.8	-9.51	-408.0	-280.1	424.5	416.9	7.64	55.592			
2,300.0	2,298.3	2,286.3	2,286.3	4.2	4.0	-9.61	-408.0	-280.1	420.1	412.1	7.99	52.600			
2,400.0	2,398.2	2,386.2	2,386.2	4.4	4.2	-9.71	-408.0	-280.1	415.6	407.3	8.34	49.859			
2,500.0	2,498.1	2,486.1	2,486.1	4.6	4.3	-9.82	-408.0	-280.1	411.1	402.5	8.69	47.339			
2,600.0	2,598.0	2,586.0	2,586.0	4.8	4.5	-9.93	-408.0	-280.1	406.7	397.6	9.03	45.013			
2,700.0	2,697.9	2,685.9	2,685.9	5.0	4.7	-10.04	-408.0	-280.1	402.2	392.8	9.38	42.861			
2,800.0	2,797.8	2,785.8	2,785.8	5.2	4.9	-10.15	-408.0	-280.1	397.8	388.0	9.73	40.864			
2,900.0	2,897.7	2,885.7	2,885.7	5.4	5.0	-10.27	-408.0	-280.1	393.3	383.2	10.08	39.005			
3,000.0	2,997.6	2,985.6	2,985.6	5.6	5.2	-10.39	-408.0	-280.1	388.8	378.4	10.43	37.270			
3,100.0	3,097.5	3,085.5	3,085.5	5.7	5.4	-10.51	-408.0	-280.1	384.4	373.6	10.78	35.649			
3,200.0	3,197.4	3,185.4	3,185.4	5.9	5.6	-10.63	-408.0	-280.1	379.9	368.8	11.13	34.129			
3,300.0	3,297.3	3,285.3	3,285.3	6.1	5.7	-10.76	-408.0	-280.1	375.5	364.0	11.48	32.701			
3,400.0	3,397.2	3,385.2	3,385.2	6.3	5.9	-10.89	-408.0	-280.1	371.0	359.2	11.83	31.358			
3,500.0	3,497.1	3,485.1	3,485.1	6.5	6.1	-11.03	-408.0	-280.1	366.6	354.4	12.18	30.093			
3,600.0	3,597.0	3,585.0	3,585.0	6.7	6.3	-11.16	-408.0	-280.1	362.1	349.6	12.53	28.898			
3,700.0	3,696.9	3,684.9	3,684.9	6.9	6.4	-11.30	-408.0	-280.1	357.7	344.8	12.88	27.768			
3,800.0	3,796.8	3,784.8	3,784.8	7.1	6.6	-11.45	-408.0	-280.1	353.2	340.0	13.23	26.698			
3,900.0	3,896.7	3,884.7	3,884.7	7.3	6.8	-11.60	-408.0	-280.1	348.8	335.2	13.58	25.683			
4,000.0	3,996.6	3,984.6	3,984.6	7.5	7.0	-11.75	-408.0	-280.1	344.4	330.4	13.93	24.719			
4,100.0	4,096.5	4,084.5	4,084.5	7.7	7.1	-11.90	-408.0	-280.1	339.9	325.6	14.28	23.802			
4,200.0	4,196.4	4,184.4	4,184.4	7.8	7.3	-12.06	-408.0	-280.1	335.5	320.9	14.63	22.930			
4,300.0	4,296.3	4,284.3	4,284.3	8.0	7.5	-12.23	-408.0	-280.1	331.1	316.1	14.98	22.098			
4,400.0	4,396.2	4,384.2	4,384.2	8.2	7.7	-12.39	-408.0	-280.1	326.6	311.3	15.33	21.304			
4,500.0	4,496.1	4,484.1	4,484.1	8.4	7.8	-12.57	-408.0	-280.1	322.2	306.5	15.68	20.546			
4,600.0	4,596.0	4,584.0	4,584.0	8.6	8.0	-12.75	-408.0	-280.1	317.8	301.8	16.03	19.821			
4,700.0	4,695.9	4,683.9	4,683.9	8.8	8.2	-12.93	-408.0	-280.1	313.4	297.0	16.38	19.127			
4,800.0	4,795.8	4,783.8	4,783.8	9.0	8.3	-13.12	-408.0	-280.1	309.0	292.2	16.73	18.463			
4,900.0	4,895.7	4,883.7	4,883.7	9.2	8.5	-13.31	-408.0	-280.1	304.6	287.5	17.09	17.826			
5,000.0	4,995.6	4,983.6	4,983.6	9.4	8.7	-13.51	-408.0	-280.1	300.1	282.7	17.44	17.214			
5,100.0	5,095.5	5,083.5	5,083.5	9.6	8.9	-13.71	-408.0	-280.1	295.7	278.0	17.79	16.627			

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - PRATT 2 (EXISTING) - SYNERGY WELL - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 8540-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Separation Factor		
5,200.0	5,195.4	5,183.4	5,183.4	9.8	9.0	-13.92	-408.0	-280.1	291.3	273.2	18.14	16.062		
5,300.0	5,295.2	5,283.2	5,283.2	10.0	9.2	-14.14	-408.0	-280.1	286.9	268.5	18.49	15.520		
5,400.0	5,395.1	5,383.1	5,383.1	10.1	9.4	-14.37	-408.0	-280.1	282.6	263.7	18.84	14.997		
5,500.0	5,495.0	5,483.0	5,483.0	10.3	9.6	-14.60	-408.0	-280.1	278.2	259.0	19.19	14.494		
5,600.0	5,594.9	5,582.9	5,582.9	10.5	9.7	-14.84	-408.0	-280.1	273.8	254.2	19.54	14.009		
5,700.0	5,694.8	5,682.8	5,682.8	10.7	9.9	-15.08	-408.0	-280.1	269.4	249.5	19.90	13.541		
5,800.0	5,794.7	5,782.7	5,782.7	10.9	10.1	-15.34	-408.0	-280.1	265.0	244.8	20.25	13.090		
5,900.0	5,894.6	5,882.6	5,882.6	11.1	10.3	-15.60	-408.0	-280.1	260.7	240.1	20.60	12.654		
6,000.0	5,994.5	5,982.5	5,982.5	11.3	10.4	-15.88	-408.0	-280.1	256.3	235.4	20.95	12.233		
6,100.0	6,094.4	6,082.4	6,082.4	11.5	10.6	-16.16	-408.0	-280.1	251.9	230.6	21.30	11.826		
6,200.0	6,194.3	6,182.3	6,182.3	11.7	10.8	-16.45	-408.0	-280.1	247.6	225.9	21.66	11.433		
6,300.0	6,294.2	6,282.2	6,282.2	11.9	11.0	-16.75	-408.0	-280.1	243.3	221.2	22.01	11.052		
6,400.0	6,394.1	6,382.1	6,382.1	12.1	11.1	-17.06	-408.0	-280.1	238.9	216.6	22.36	10.684		
6,500.0	6,494.0	6,482.0	6,482.0	12.3	11.3	-17.39	-408.0	-280.1	234.6	211.9	22.72	10.327		
6,600.0	6,593.9	6,581.9	6,581.9	12.4	11.5	-17.73	-408.0	-280.1	230.3	207.2	23.07	9.982		
6,700.0	6,693.8	6,681.8	6,681.8	12.6	11.7	-18.08	-408.0	-280.1	226.0	202.5	23.42	9.647		
6,800.0	6,793.7	6,781.7	6,781.7	12.8	11.8	-18.44	-408.0	-280.1	221.7	197.9	23.78	9.322		
6,900.0	6,893.6	6,881.6	6,881.6	13.0	12.0	-18.82	-408.0	-280.1	217.4	193.2	24.13	9.007		
7,000.0	6,993.5	6,981.5	6,981.5	13.2	12.2	-19.21	-408.0	-280.1	213.1	188.6	24.49	8.701		
7,100.0	7,093.4	7,081.4	7,081.4	13.4	12.4	-19.62	-408.0	-280.1	208.8	184.0	24.84	8.405		
7,200.0	7,193.3	7,181.3	7,181.3	13.6	12.5	-20.04	-408.0	-280.1	204.5	179.3	25.20	8.117		
7,300.0	7,293.2	7,281.2	7,281.2	13.8	12.7	-20.49	-408.0	-280.1	200.3	174.7	25.56	7.837		
7,400.0	7,393.1	7,381.1	7,381.1	14.0	12.9	-20.95	-408.0	-280.1	196.1	170.1	25.91	7.566		
7,454.6	7,447.6	7,435.6	7,435.6	14.1	13.0	-115.13	-408.0	-280.1	195.4	169.3	26.11	7.486 CC, ES		
7,500.0	7,493.0	7,481.0	7,481.0	14.1	13.1	-139.70	-408.0	-280.1	195.7	169.5	26.21	7.465 SF		
7,600.0	7,591.3	7,579.3	7,579.3	14.2	13.2	-154.36	-408.0	-280.1	211.0	184.9	26.10	8.085		
7,700.0	7,685.1	7,673.1	7,673.1	14.2	13.4	-159.28	-408.0	-280.1	242.8	217.3	25.49	9.527		
7,800.0	7,771.6	7,759.6	7,759.6	14.3	13.5	-162.38	-408.0	-280.1	290.7	266.3	24.41	11.909		
7,900.0	7,848.1	7,836.1	7,836.1	14.3	13.7	-164.25	-408.0	-280.1	353.3	330.3	22.98	15.376		
8,000.0	7,912.3	7,900.3	7,900.3	14.5	13.8	-164.89	-408.0	-280.1	428.7	407.3	21.39	20.040		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design										S29-T1N-R68W (Pratt/Waste Connections) - PRATT 2-0-29 (EXISTING) - ENCANA WELL - SURVEYS					Offset Site Error:		0.0 ft
Survey Program: 41-MWD															Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance										
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning				
11,200.0	8,016.0	8,079.1	7,971.6	59.6	21.8	84.81	3,684.8	-145.8	495.9	421.5	74.43	6.663					
11,300.0	8,016.0	8,080.3	7,972.8	61.3	21.8	85.61	3,684.8	-145.8	397.6	321.4	76.20	5.218					
11,400.0	8,016.0	8,081.4	7,973.9	63.0	21.8	86.42	3,684.8	-145.7	300.4	222.5	77.96	3.853					
11,500.0	8,016.0	8,082.6	7,975.1	64.7	21.8	87.23	3,684.8	-145.7	205.9	126.2	79.71	2.583					
11,600.0	8,016.0	8,083.7	7,976.2	66.4	21.8	88.05	3,684.8	-145.7	120.6	39.2	81.46	1.481	Level 3				
11,689.3	8,016.0	8,084.8	7,977.3	68.0	21.8	88.77	3,684.8	-145.7	81.1	-1.9	83.01	0.977	Level 1, CC, ES, SF				
11,700.0	8,016.0	8,084.9	7,977.4	68.2	21.8	88.86	3,684.8	-145.7	81.8	-1.3	83.19	0.984	Level 1				
11,800.0	8,016.0	8,086.0	7,978.5	69.9	21.8	89.68	3,684.8	-145.6	137.3	52.4	84.91	1.617					
11,900.0	8,016.0	8,087.2	7,979.7	71.6	21.8	90.49	3,684.9	-145.6	225.8	139.2	86.62	2.607					
12,000.0	8,016.0	8,088.4	7,980.9	73.3	21.8	91.31	3,684.9	-145.6	321.1	232.8	88.31	3.636					
12,100.0	8,016.0	8,089.5	7,982.0	75.0	21.8	92.13	3,684.9	-145.6	418.6	328.7	89.99	4.652					

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - PRATT 2-4-29 (EXISTING) - ENCANA WELL - PLAN ONL													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
8,800.0	8,016.0	8,458.1	7,979.0	21.3	44.2	90.00	1,187.6	-137.2	402.1	340.0	62.07	6.478		
8,900.0	8,016.0	8,458.1	7,979.0	22.7	44.2	90.00	1,187.6	-137.2	305.4	242.0	63.42	4.816		
9,000.0	8,016.0	8,458.1	7,979.0	24.0	44.2	90.00	1,187.6	-137.2	211.9	147.0	64.82	3.268		
9,100.0	8,016.0	8,458.1	7,979.0	25.5	44.2	90.00	1,187.6	-137.2	128.4	62.1	66.27	1.938		
9,191.9	8,016.0	8,458.1	7,979.0	26.8	44.2	90.00	1,187.6	-137.2	89.6	21.9	67.63	1.324 Level 3, CC, ES, SF		
9,200.0	8,016.0	8,458.1	7,979.0	26.9	44.2	90.00	1,187.6	-137.2	89.9	22.2	67.75	1.327 Level 3		
9,300.0	8,016.0	8,458.1	7,979.0	28.4	44.2	90.00	1,187.6	-137.2	140.3	71.0	69.26	2.026		
9,400.0	8,016.0	8,458.1	7,979.0	30.0	44.2	90.00	1,187.6	-137.2	226.5	155.7	70.80	3.198		
9,500.0	8,016.0	8,458.1	7,979.0	31.5	44.2	90.00	1,187.6	-137.2	320.8	248.4	72.37	4.432		
9,600.0	8,016.0	8,458.1	7,979.0	33.1	44.2	90.00	1,187.6	-137.2	417.7	343.8	73.95	5.649		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 13-29D (EXISTING) - SYNERGY WELL - SU													Offset Site Error:	0.0 ft
Survey Program: 248-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
600.0	600.0	635.0	633.7	1.0	1.2	-4.17	-387.5	-307.7	494.9	492.7	2.25	219.886		
700.0	700.0	744.6	741.6	1.2	1.6	-2.17	-370.5	-316.0	485.0	482.3	2.76	175.432		
800.0	799.9	847.1	841.9	1.4	2.0	0.13	-351.2	-324.4	472.1	468.8	3.31	142.803		
900.0	899.8	944.2	936.6	1.6	2.4	2.66	-331.7	-334.0	459.8	456.0	3.87	118.874		
1,000.0	999.7	1,044.9	1,034.5	1.8	2.8	5.53	-310.4	-343.7	447.7	443.2	4.47	100.162		
1,100.0	1,099.6	1,138.9	1,125.8	1.9	3.2	8.43	-290.1	-353.4	436.8	431.7	5.07	86.196		
1,200.0	1,199.5	1,233.7	1,217.7	2.1	3.6	11.54	-269.5	-363.7	427.6	421.9	5.68	75.281		
1,300.0	1,299.4	1,327.3	1,308.6	2.3	4.1	14.74	-249.3	-374.3	420.4	414.1	6.29	66.792		
1,400.0	1,399.3	1,418.5	1,396.9	2.5	4.5	17.96	-230.0	-385.6	415.7	408.8	6.90	60.270		
1,500.0	1,499.2	1,511.7	1,487.2	2.7	4.9	21.36	-210.4	-398.3	413.7	406.2	7.51	55.110		
1,568.9	1,567.9	1,579.5	1,552.8	2.8	5.2	23.85	-196.2	-407.6	413.5	405.5	7.93	52.106 CC		
1,600.0	1,599.0	1,609.9	1,582.3	2.9	5.4	24.96	-189.8	-411.7	413.5	405.4	8.12	50.912 ES		
1,700.0	1,698.9	1,707.7	1,677.0	3.1	5.8	28.50	-169.4	-424.6	414.6	405.9	8.71	47.586		
1,800.0	1,798.8	1,805.6	1,771.8	3.3	6.3	32.08	-148.4	-437.3	417.1	407.8	9.29	44.900		
1,900.0	1,898.7	1,904.6	1,867.6	3.5	6.7	35.67	-126.9	-449.9	420.8	411.0	9.84	42.760		
2,000.0	1,998.6	2,003.9	1,963.8	3.6	7.2	39.21	-105.2	-461.7	425.4	415.0	10.37	41.019		
2,100.0	2,098.5	2,100.5	2,057.3	3.8	7.7	42.66	-83.3	-472.9	431.3	420.4	10.87	39.680		
2,200.0	2,198.4	2,196.4	2,149.9	4.0	8.1	46.03	-61.3	-484.0	438.9	427.5	11.33	38.731		
2,300.0	2,298.3	2,292.9	2,243.3	4.2	8.6	49.23	-39.7	-495.3	448.0	436.2	11.76	38.095		
2,400.0	2,398.2	2,387.6	2,334.9	4.4	9.0	52.20	-18.9	-506.4	458.6	446.4	12.17	37.693		
2,500.0	2,498.1	2,483.3	2,427.4	4.6	9.5	55.17	3.0	-518.0	470.9	458.3	12.55	37.526 SF		
2,600.0	2,598.0	2,579.8	2,520.7	4.8	10.0	57.98	24.9	-529.5	484.3	471.4	12.90	37.539		
2,700.0	2,697.9	2,676.8	2,614.6	5.0	10.4	60.58	46.2	-541.3	498.8	485.6	13.24	37.685		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 24-29 PD (EXISTING) - SYNERGY WELL - S													Offset Site Error:	0.0 ft
Survey Program: 248-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	2.0	2.0	0.0	0.0	-148.16	-409.1	-254.0	481.5					
100.0	100.0	104.5	104.5	0.2	0.2	-148.13	-408.7	-254.1	481.2	480.9	0.32	1,481.821		
200.0	200.0	207.0	207.0	0.3	0.3	-148.06	-407.7	-254.2	480.5	479.8	0.67	718.374		
300.0	300.0	309.2	309.2	0.5	0.5	-148.05	-406.6	-253.5	479.2	478.2	1.02	469.830		
384.3	384.3	386.4	386.3	0.6	0.7	-148.39	-407.3	-250.7	478.3	477.0	1.31	365.761		
400.0	400.0	399.8	399.7	0.7	0.7	-148.48	-407.7	-250.1	478.3	476.9	1.36	351.744		
500.0	500.0	490.4	490.0	0.8	0.9	-149.32	-412.7	-244.8	480.0	478.3	1.71	281.198		
600.0	600.0	588.3	587.2	1.0	1.1	-13.29	-420.8	-236.5	482.1	480.0	2.13	225.851		
700.0	700.0	694.8	692.5	1.2	1.4	-15.21	-430.7	-224.3	482.3	479.7	2.61	184.520		
800.0	799.9	802.0	798.2	1.4	1.8	-17.53	-440.0	-208.6	479.5	476.4	3.13	153.153		
900.0	899.8	899.9	894.3	1.6	2.1	-19.88	-448.3	-192.3	476.3	472.7	3.65	130.425		
1,000.0	999.7	998.7	991.2	1.8	2.5	-22.38	-457.0	-175.2	474.0	469.8	4.17	113.549		
1,100.0	1,099.6	1,094.7	1,085.6	1.9	2.8	-24.76	-465.3	-159.0	472.6	467.9	4.68	100.886		
1,187.6	1,187.1	1,180.9	1,170.0	2.1	3.2	-26.98	-473.1	-144.0	472.3	467.1	5.17	91.403 CC		
1,200.0	1,199.5	1,193.1	1,182.0	2.1	3.2	-27.32	-474.3	-141.7	472.3	467.1	5.24	90.192 ES		
1,300.0	1,299.4	1,290.3	1,276.6	2.3	3.6	-30.24	-483.8	-121.4	473.0	467.2	5.81	81.347		
1,400.0	1,399.3	1,377.8	1,361.3	2.5	4.1	-33.02	-493.3	-101.8	475.8	469.4	6.35	74.887		
1,500.0	1,499.2	1,467.7	1,448.1	2.7	4.5	-35.87	-504.8	-81.8	481.9	475.0	6.89	69.968		
1,600.0	1,599.0	1,563.0	1,540.3	2.9	4.9	-38.73	-517.7	-61.2	490.1	482.7	7.41	66.154		
1,700.0	1,698.9	1,666.3	1,640.5	3.1	5.4	-41.58	-531.0	-40.2	499.1	491.1	7.93	62.959 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 29LD (EXISTING) - SYNERGY WELL - PLAN													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
700.0	700.0	688.0	688.0	1.2	1.2	-7.08	-408.4	-292.1	498.6	496.2	2.40	207.857		
800.0	799.9	787.9	787.9	1.4	1.4	-7.15	-408.4	-292.1	494.5	491.7	2.75	179.977		
900.0	899.8	887.8	887.8	1.6	1.5	-7.21	-408.4	-292.1	490.0	486.9	3.10	158.238		
1,000.0	999.7	987.7	987.7	1.8	1.7	-7.28	-408.4	-292.1	485.5	482.0	3.45	140.903		
1,100.0	1,099.6	1,078.5	1,078.5	1.9	1.9	-7.43	-409.4	-291.9	481.8	478.0	3.78	127.494		
1,200.0	1,199.5	1,168.0	1,167.9	2.1	2.0	-7.83	-413.2	-291.2	480.3	476.2	4.11	116.784		
1,218.5	1,218.0	1,184.5	1,184.4	2.2	2.1	-7.93	-414.2	-291.0	480.2	476.1	4.17	115.040 CC, ES		
1,300.0	1,299.4	1,257.3	1,257.0	2.3	2.2	-8.46	-419.7	-289.9	481.0	476.5	4.45	108.068		
1,400.0	1,399.3	1,346.3	1,345.4	2.5	2.4	-9.32	-428.9	-288.1	484.0	479.2	4.80	100.915		
1,500.0	1,499.2	1,434.7	1,433.1	2.7	2.6	-10.38	-440.7	-285.8	489.4	484.2	5.15	95.020		
1,600.0	1,599.0	1,522.5	1,519.6	2.9	2.8	-11.63	-455.0	-282.9	497.2	491.7	5.51	90.170 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 29QD (EXISTING) - SYNERGY WELL - PLA														Offset Site Error:	0.0 ft
Survey Program: 0-MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	-148.30	-408.7	-252.4	480.4						
100.0	100.0	89.0	89.0	0.2	0.2	-148.30	-408.7	-252.4	480.3	480.0	0.31	1,563.547			
200.0	200.0	189.0	189.0	0.3	0.3	-148.30	-408.7	-252.4	480.3	479.7	0.66	731.926 CC, ES			
300.0	300.0	279.1	279.1	0.5	0.5	-148.39	-409.7	-252.2	481.2	480.3	0.99	487.070			
400.0	400.0	367.8	367.7	0.7	0.7	-148.69	-413.5	-251.5	484.5	483.2	1.32	367.730			
500.0	500.0	457.1	456.8	0.8	0.8	-149.20	-420.0	-250.4	490.0	488.4	1.65	297.382			
600.0	600.0	558.6	557.8	1.0	1.1	-12.72	-429.6	-247.0	495.6	493.6	2.06	240.840			
700.0	700.0	659.6	657.9	1.2	1.4	-14.07	-440.4	-240.3	499.3	496.8	2.48	201.458 SF			

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - Waste Connections 3A-29H-M168 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-89.95	0.0	-28.0	28.0					
100.0	100.0	100.0	100.0	0.2	0.2	-89.95	0.0	-28.0	28.0	27.7	0.30	92.225		
200.0	200.0	200.0	200.0	0.3	0.3	-89.95	0.0	-28.0	28.0	27.4	0.65	42.907 CC, ES		
300.0	300.0	299.5	299.5	0.5	0.5	-90.02	0.0	-28.9	28.9	27.9	1.00	28.837		
400.0	400.0	398.9	398.9	0.7	0.7	-90.20	-0.1	-31.5	31.5	30.1	1.35	23.289		
500.0	500.0	498.3	498.1	0.8	0.9	-90.45	-0.3	-35.8	35.8	34.1	1.71	21.002		
600.0	600.0	597.5	597.1	1.0	1.1	47.51	-0.5	-41.8	41.3	39.2	2.04	20.189		
700.0	700.0	696.5	695.9	1.2	1.3	49.39	-0.8	-49.5	47.3	44.9	2.39	19.768		
800.0	799.9	795.4	794.3	1.4	1.5	51.97	-1.2	-58.9	54.1	51.4	2.75	19.703 SF		
900.0	899.8	894.0	892.3	1.6	1.8	53.98	-1.6	-70.0	62.6	59.4	3.10	20.148		
1,000.0	999.7	992.3	989.8	1.8	2.0	55.26	-2.1	-82.7	72.7	69.2	3.46	20.989		
1,100.0	1,099.6	1,090.3	1,086.7	1.9	2.3	56.01	-2.7	-97.0	84.6	80.7	3.82	22.106		
1,200.0	1,199.5	1,187.9	1,183.0	2.1	2.6	56.37	-3.3	-112.9	98.1	93.9	4.19	23.424		
1,300.0	1,299.4	1,286.6	1,280.2	2.3	3.0	56.55	-4.0	-130.0	112.6	108.1	4.55	24.742		
1,400.0	1,399.3	1,385.5	1,377.6	2.5	3.3	56.68	-4.7	-147.2	127.2	122.3	4.92	25.860		
1,500.0	1,499.2	1,484.5	1,475.1	2.7	3.6	56.78	-5.4	-164.3	141.7	136.4	5.28	26.820		
1,600.0	1,599.0	1,583.4	1,572.5	2.9	4.0	56.87	-6.1	-181.5	156.3	150.6	5.65	27.652		
1,700.0	1,698.9	1,682.3	1,669.9	3.1	4.3	56.94	-6.8	-198.7	170.8	164.8	6.02	28.381		
1,800.0	1,798.8	1,781.3	1,767.4	3.3	4.6	57.00	-7.4	-215.9	185.4	179.0	6.39	29.024		
1,900.0	1,898.7	1,880.2	1,864.8	3.5	5.0	57.05	-8.1	-233.0	200.0	193.2	6.76	29.595		
2,000.0	1,998.6	1,979.1	1,962.2	3.6	5.3	57.09	-8.8	-250.2	214.5	207.4	7.13	30.106		
2,100.0	2,098.5	2,078.1	2,059.6	3.8	5.7	57.13	-9.5	-267.4	229.1	221.6	7.49	30.566		
2,200.0	2,198.4	2,177.0	2,157.1	4.0	6.0	57.16	-10.2	-284.5	243.6	235.8	7.86	30.982		
2,300.0	2,298.3	2,275.9	2,254.5	4.2	6.4	57.19	-10.9	-301.7	258.2	250.0	8.23	31.359		
2,400.0	2,398.2	2,374.9	2,351.9	4.4	6.7	57.22	-11.5	-318.9	272.8	264.2	8.60	31.704		
2,500.0	2,498.1	2,473.8	2,449.4	4.6	7.1	57.24	-12.2	-336.0	287.3	278.3	8.97	32.020		
2,600.0	2,598.0	2,572.7	2,546.8	4.8	7.4	57.26	-12.9	-353.2	301.9	292.5	9.34	32.311		
2,700.0	2,697.9	2,671.7	2,644.2	5.0	7.8	57.28	-13.6	-370.4	316.4	306.7	9.71	32.579		
2,800.0	2,797.8	2,770.6	2,741.7	5.2	8.1	57.30	-14.3	-387.5	331.0	320.9	10.08	32.827		
2,900.0	2,897.7	2,869.5	2,839.1	5.4	8.4	57.32	-15.0	-404.7	345.5	335.1	10.45	33.057		
3,000.0	2,997.6	2,968.5	2,936.5	5.6	8.8	57.33	-15.6	-421.9	360.1	349.3	10.82	33.271		
3,100.0	3,097.5	3,067.4	3,034.0	5.7	9.1	57.35	-16.3	-439.0	374.7	363.5	11.19	33.471		
3,200.0	3,197.4	3,166.3	3,131.4	5.9	9.5	57.36	-17.0	-456.2	389.2	377.7	11.56	33.658		
3,300.0	3,297.3	3,265.3	3,228.8	6.1	9.8	57.37	-17.7	-473.4	403.8	391.8	11.93	33.833		
3,400.0	3,397.2	3,364.2	3,326.2	6.3	10.2	57.38	-18.4	-490.6	418.3	406.0	12.31	33.997		
3,500.0	3,497.1	3,463.1	3,423.7	6.5	10.5	57.39	-19.0	-507.7	432.9	420.2	12.68	34.152		
3,600.0	3,597.0	3,562.1	3,521.1	6.7	10.9	57.40	-19.7	-524.9	447.5	434.4	13.05	34.298		
3,700.0	3,696.9	3,661.0	3,618.5	6.9	11.2	57.41	-20.4	-542.1	462.0	448.6	13.42	34.435		
3,800.0	3,796.8	3,759.9	3,716.0	7.1	11.6	57.42	-21.1	-559.2	476.6	462.8	13.79	34.565		
3,900.0	3,896.7	3,858.9	3,813.4	7.3	11.9	57.43	-21.8	-576.4	491.1	477.0	14.16	34.689		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - Waste Connections 3B-29H-M168 - Hz - Plan #1														Offset Site Error:	0.0 ft
Survey Program: 0-MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	-89.95	0.0	-19.6	19.6						
100.0	100.0	100.0	100.0	0.2	0.2	-89.95	0.0	-19.6	19.6	19.3	0.30	64.558			
200.0	200.0	200.0	200.0	0.3	0.3	-89.95	0.0	-19.6	19.6	19.0	0.65	30.035			
300.0	300.0	300.0	300.0	0.5	0.5	-89.95	0.0	-19.6	19.6	18.6	1.00	19.570 CC, ES			
400.0	400.0	399.7	399.7	0.7	0.7	-91.39	-0.5	-20.3	20.3	19.0	1.35	15.045			
500.0	500.0	499.4	499.3	0.8	0.9	-95.14	-2.0	-22.4	22.5	20.8	1.70	13.252			
600.0	600.0	598.9	598.8	1.0	1.0	38.59	-4.6	-25.9	25.7	23.6	2.05	12.512			
700.0	700.0	698.4	698.1	1.2	1.2	36.33	-8.1	-30.8	29.1	26.6	2.40	12.089			
800.0	799.9	797.9	797.3	1.4	1.4	34.95	-12.7	-37.1	32.8	30.0	2.76	11.875 SF			
900.0	899.8	897.2	896.1	1.6	1.7	33.13	-18.2	-44.8	37.8	34.7	3.11	12.143			
1,000.0	999.7	996.3	994.6	1.8	1.9	30.97	-24.8	-53.8	44.5	41.1	3.47	12.837			
1,100.0	1,099.6	1,095.1	1,092.6	1.9	2.2	28.81	-32.3	-64.2	53.0	49.1	3.82	13.849			
1,200.0	1,199.5	1,193.6	1,190.0	2.1	2.5	26.83	-40.8	-75.9	63.1	58.9	4.18	15.105			
1,300.0	1,299.4	1,292.8	1,288.0	2.3	2.8	25.18	-49.9	-88.6	74.3	69.7	4.53	16.407			
1,400.0	1,399.3	1,392.2	1,386.1	2.5	3.1	23.97	-59.1	-101.3	85.5	80.6	4.88	17.532			
1,500.0	1,499.2	1,491.5	1,484.2	2.7	3.4	23.03	-68.3	-113.9	96.8	91.6	5.23	18.513			
1,600.0	1,599.0	1,590.9	1,582.3	2.9	3.7	22.29	-77.4	-126.6	108.1	102.5	5.58	19.374			
1,700.0	1,698.9	1,690.3	1,680.4	3.1	4.0	21.70	-86.6	-139.3	119.4	113.5	5.93	20.136			
1,800.0	1,798.8	1,789.6	1,778.6	3.3	4.3	21.20	-95.8	-151.9	130.8	124.5	6.28	20.815			
1,900.0	1,898.7	1,889.0	1,876.7	3.5	4.6	20.78	-104.9	-164.6	142.1	135.5	6.63	21.424			
2,000.0	1,998.6	1,988.3	1,974.8	3.6	5.0	20.43	-114.1	-177.3	153.4	146.4	6.98	21.972			
2,100.0	2,098.5	2,087.7	2,072.9	3.8	5.3	20.12	-123.3	-189.9	164.8	157.4	7.33	22.469			
2,200.0	2,198.4	2,187.0	2,171.0	4.0	5.6	19.86	-132.5	-202.6	176.1	168.4	7.68	22.921			
2,300.0	2,298.3	2,286.4	2,269.1	4.2	5.9	19.62	-141.6	-215.3	187.5	179.4	8.03	23.334			
2,400.0	2,398.2	2,385.7	2,367.2	4.4	6.2	19.42	-150.8	-227.9	198.8	190.5	8.39	23.713			
2,500.0	2,498.1	2,485.1	2,465.3	4.6	6.6	19.23	-160.0	-240.6	210.2	201.5	8.74	24.062			
2,600.0	2,598.0	2,584.4	2,563.4	4.8	6.9	19.07	-169.2	-253.3	221.6	212.5	9.09	24.384			
2,700.0	2,697.9	2,683.8	2,661.6	5.0	7.2	18.92	-178.3	-266.0	232.9	223.5	9.44	24.682			
2,800.0	2,797.8	2,783.1	2,759.7	5.2	7.5	18.78	-187.5	-278.6	244.3	234.5	9.79	24.959			
2,900.0	2,897.7	2,882.5	2,857.8	5.4	7.8	18.66	-196.7	-291.3	255.7	245.5	10.14	25.217			
3,000.0	2,997.6	2,981.8	2,955.9	5.6	8.2	18.54	-205.8	-304.0	267.0	256.5	10.49	25.458			
3,100.0	3,097.5	3,081.2	3,054.0	5.7	8.5	18.44	-215.0	-316.6	278.4	267.5	10.84	25.684			
3,200.0	3,197.4	3,180.5	3,152.1	5.9	8.8	18.34	-224.2	-329.3	289.8	278.6	11.19	25.895			
3,300.0	3,297.3	3,279.9	3,250.2	6.1	9.1	18.25	-233.4	-342.0	301.1	289.6	11.54	26.094			
3,400.0	3,397.2	3,379.2	3,348.3	6.3	9.5	18.17	-242.5	-354.6	312.5	300.6	11.89	26.281			
3,500.0	3,497.1	3,478.6	3,446.5	6.5	9.8	18.10	-251.7	-367.3	323.9	311.6	12.24	26.457			
3,600.0	3,597.0	3,577.9	3,544.6	6.7	10.1	18.02	-260.9	-380.0	335.2	322.6	12.59	26.624			
3,700.0	3,696.9	3,677.3	3,642.7	6.9	10.4	17.96	-270.0	-392.6	346.6	333.7	12.94	26.782			
3,800.0	3,796.8	3,776.6	3,740.8	7.1	10.8	17.90	-279.2	-405.3	358.0	344.7	13.29	26.931			
3,900.0	3,896.7	3,876.0	3,838.9	7.3	11.1	17.84	-288.4	-418.0	369.3	355.7	13.64	27.073			
4,000.0	3,996.6	3,975.3	3,937.0	7.5	11.4	17.78	-297.6	-430.7	380.7	366.7	13.99	27.207			
4,100.0	4,096.5	4,074.7	4,035.1	7.7	11.7	17.73	-306.7	-443.3	392.1	377.7	14.34	27.335			
4,200.0	4,196.4	4,174.0	4,133.2	7.8	12.0	17.68	-315.9	-456.0	403.5	388.8	14.69	27.457			
4,300.0	4,296.3	4,273.4	4,231.3	8.0	12.4	17.64	-325.1	-468.7	414.8	399.8	15.04	27.574			
4,400.0	4,396.2	4,372.7	4,329.5	8.2	12.7	17.59	-334.2	-481.3	426.2	410.8	15.40	27.685			
4,500.0	4,496.1	4,472.1	4,427.6	8.4	13.0	17.55	-343.4	-494.0	437.6	421.8	15.75	27.791			
4,600.0	4,596.0	4,571.4	4,525.7	8.6	13.3	17.51	-352.6	-506.7	449.0	432.9	16.10	27.892			
4,700.0	4,695.9	4,670.8	4,623.8	8.8	13.7	17.47	-361.8	-519.3	460.3	443.9	16.45	27.989			
4,800.0	4,795.8	4,770.1	4,721.9	9.0	14.0	17.44	-370.9	-532.0	471.7	454.9	16.80	28.083			
4,900.0	4,895.7	4,869.5	4,820.0	9.2	14.3	17.40	-380.1	-544.7	483.1	465.9	17.15	28.172			
5,000.0	4,995.6	4,968.8	4,918.1	9.4	14.6	17.37	-389.3	-557.3	494.5	477.0	17.50	28.258			

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - Waste Connections 3C-29H-M168 - Hz - Plan #1														Offset Site Error:	0.0 ft
Survey Program: 0-MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	-89.94	0.0	-8.4	8.4						
100.0	100.0	100.0	100.0	0.2	0.2	-89.94	0.0	-8.4	8.4	8.1	0.30	27.668			
200.0	200.0	200.0	200.0	0.3	0.3	-89.94	0.0	-8.4	8.4	7.7	0.65	12.872			
300.0	300.0	300.0	300.0	0.5	0.5	-89.94	0.0	-8.4	8.4	7.4	1.00	8.387			
400.0	400.0	400.0	400.0	0.7	0.7	-89.94	0.0	-8.4	8.4	7.1	1.35	6.220 CC			
500.0	500.0	500.0	500.0	0.8	0.9	-95.68	-0.9	-8.6	8.6	6.9	1.70	5.056			
600.0	600.0	599.9	599.8	1.0	1.0	29.09	-3.4	-9.0	8.9	6.8	2.05	4.321			
700.0	700.0	699.8	699.6	1.2	1.2	12.58	-7.7	-9.8	9.0	6.6	2.40	3.751 ES			
800.0	799.9	799.6	799.2	1.4	1.4	-7.71	-13.7	-10.8	9.8	7.1	2.75	3.566			
900.0	899.8	899.3	898.6	1.6	1.6	-25.11	-21.4	-12.2	13.0	9.9	3.10	4.206			
1,000.0	999.7	998.8	997.7	1.8	1.8	-34.83	-30.8	-13.8	18.7	15.2	3.45	5.415			
1,100.0	1,099.6	1,098.1	1,096.4	1.9	2.1	-39.47	-41.8	-15.8	26.4	22.6	3.81	6.919			
1,200.0	1,199.5	1,197.1	1,194.6	2.1	2.3	-41.55	-54.5	-18.0	35.8	31.7	4.17	8.592			
1,300.0	1,299.4	1,295.8	1,292.1	2.3	2.6	-42.39	-68.8	-20.5	47.0	42.5	4.53	10.380			
1,400.0	1,399.3	1,394.1	1,389.1	2.5	2.9	-42.61	-84.7	-23.3	59.9	55.0	4.89	12.252			
1,500.0	1,499.2	1,491.9	1,485.3	2.7	3.3	-42.52	-102.1	-26.4	74.4	69.2	5.25	14.189			
1,600.0	1,599.0	1,589.2	1,580.6	2.9	3.6	-42.28	-121.1	-29.8	90.6	85.0	5.60	16.177			
1,700.0	1,698.9	1,685.9	1,675.1	3.1	4.0	-41.96	-141.5	-33.4	108.5	102.5	5.96	18.209			
1,800.0	1,798.8	1,782.0	1,768.7	3.3	4.4	-41.61	-163.3	-37.2	127.9	121.6	6.31	20.275			
1,900.0	1,898.7	1,878.7	1,862.4	3.5	4.8	-41.27	-186.7	-41.3	148.8	142.2	6.66	22.333			
2,000.0	1,998.6	1,976.5	1,957.2	3.6	5.2	-41.00	-210.4	-45.5	169.9	162.9	7.02	24.205			
2,100.0	2,098.5	2,074.6	2,052.2	3.8	5.7	-40.73	-234.2	-49.9	191.0	183.6	7.38	25.885			
2,200.0	2,198.4	2,173.1	2,147.7	4.0	6.1	-40.12	-257.8	-55.7	211.7	204.0	7.73	27.373			
2,300.0	2,298.3	2,271.3	2,242.9	4.2	6.5	-39.24	-280.9	-63.0	232.2	224.1	8.09	28.715			
2,400.0	2,398.2	2,369.2	2,337.7	4.4	7.0	-38.43	-303.8	-70.6	252.7	244.3	8.44	29.948			
2,500.0	2,498.1	2,467.0	2,432.5	4.6	7.4	-37.75	-326.8	-78.2	273.2	264.4	8.79	31.087			
2,600.0	2,598.0	2,564.8	2,527.3	4.8	7.9	-37.15	-349.7	-85.7	293.8	284.6	9.14	32.141			
2,700.0	2,697.9	2,662.6	2,622.1	5.0	8.3	-36.64	-372.6	-93.3	314.3	304.8	9.49	33.119			
2,800.0	2,797.8	2,760.5	2,716.9	5.2	8.7	-36.19	-395.6	-100.9	334.9	325.1	9.84	34.029			
2,900.0	2,897.7	2,858.3	2,811.7	5.4	9.2	-35.79	-418.5	-108.5	355.5	345.4	10.19	34.878			
3,000.0	2,997.6	2,956.1	2,906.5	5.6	9.6	-35.44	-441.4	-116.1	376.2	365.6	10.55	35.672			
3,100.0	3,097.5	3,053.9	3,001.3	5.7	10.1	-35.12	-464.4	-123.6	396.8	385.9	10.90	36.414			
3,200.0	3,197.4	3,151.8	3,096.1	5.9	10.5	-34.83	-487.3	-131.2	417.5	406.2	11.25	37.112			
3,300.0	3,297.3	3,249.6	3,190.9	6.1	11.0	-34.57	-510.2	-138.8	438.1	426.5	11.60	37.767			
3,400.0	3,397.2	3,347.4	3,285.7	6.3	11.4	-34.34	-533.2	-146.4	458.8	446.8	11.95	38.385			
3,500.0	3,497.1	3,445.2	3,380.5	6.5	11.9	-34.12	-556.1	-154.0	479.5	467.2	12.30	38.967			
7,500.0	7,493.0	8,967.4	7,788.0	14.1	18.5	-76.37	-230.6	-530.7	435.3	405.8	29.45	14.779			
7,600.0	7,591.3	8,984.7	7,788.0	14.2	18.5	-93.90	-213.2	-531.0	373.4	344.1	29.30	12.744			
7,700.0	7,685.1	9,018.9	7,788.0	14.2	18.4	-95.40	-179.1	-531.6	331.4	302.1	29.37	11.284			
7,800.0	7,771.6	9,068.8	7,788.0	14.3	18.4	-90.49	-129.1	-532.5	313.7	284.1	29.61	10.595			
7,827.1	7,793.4	9,084.9	7,788.0	14.3	18.4	-88.39	-113.1	-532.8	312.9	283.2	29.68	10.543			
7,900.0	7,848.1	9,133.0	7,788.0	14.3	18.4	-81.72	-64.9	-533.6	317.8	288.0	29.80	10.663			
8,000.0	7,912.3	9,209.5	7,788.0	14.5	18.6	-71.78	11.5	-535.0	335.3	305.6	29.70	11.291			
8,100.0	7,962.2	9,296.0	7,788.0	14.8	18.8	-63.17	98.0	-536.5	356.8	327.5	29.28	12.184			
8,200.0	7,996.4	9,389.8	7,788.0	15.3	19.2	-57.26	191.8	-538.1	375.2	346.1	29.11	12.887			
8,300.0	8,013.8	9,488.2	7,788.0	16.0	19.8	-54.36	290.2	-539.8	386.1	356.3	29.74	12.983			
8,400.0	8,016.0	9,588.1	7,788.0	16.8	20.5	-54.08	390.1	-541.6	388.7	357.6	31.16	12.477			
8,500.0	8,016.0	9,688.1	7,788.0	17.8	21.3	-54.23	490.0	-543.3	390.1	357.4	32.70	11.929			
8,600.0	8,016.0	9,788.1	7,788.0	18.9	22.2	-54.38	590.0	-545.1	391.5	357.1	34.43	11.372			
8,700.0	8,016.0	9,888.1	7,788.0	20.1	23.2	-54.53	690.0	-546.8	393.0	356.7	36.31	10.823			
8,800.0	8,016.0	9,988.0	7,788.0	21.3	24.3	-54.68	789.9	-548.6	394.4	356.1	38.32	10.292			
8,900.0	8,016.0	10,088.0	7,788.0	22.7	25.5	-54.82	889.9	-550.3	395.8	355.4	40.45	9.786			

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - Waste Connections 3C-29H-M168 - Hz - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
9,000.0	8,016.0	10,188.0	7,788.0	24.0	26.8	-54.97	989.9	-552.0	397.2	354.6	42.67	9.309	
9,100.0	8,016.0	10,288.0	7,788.0	25.5	28.1	-55.11	1,089.9	-553.8	398.7	353.7	44.98	8.863	
9,200.0	8,016.0	10,388.0	7,788.0	26.9	29.4	-55.26	1,189.8	-555.5	400.1	352.7	47.37	8.446	
9,300.0	8,016.0	10,488.0	7,788.0	28.4	30.8	-55.40	1,289.8	-557.3	401.5	351.7	49.83	8.059	
9,400.0	8,016.0	10,588.0	7,788.0	30.0	32.2	-55.54	1,389.8	-559.0	403.0	350.6	52.34	7.700	
9,500.0	8,016.0	10,687.9	7,788.0	31.5	33.7	-55.68	1,489.7	-560.8	404.4	349.5	54.90	7.366	
9,600.0	8,016.0	10,787.9	7,788.0	33.1	35.2	-55.82	1,589.7	-562.5	405.9	348.3	57.51	7.057	
9,700.0	8,016.0	10,887.9	7,788.0	34.7	36.7	-55.96	1,689.7	-564.3	407.3	347.1	60.17	6.770	
9,800.0	8,016.0	10,987.9	7,788.0	36.3	38.2	-56.09	1,789.6	-566.0	408.8	345.9	62.85	6.503	
9,900.0	8,016.0	11,087.9	7,788.0	37.9	39.7	-56.23	1,889.6	-567.7	410.2	344.6	65.58	6.255	
10,000.0	8,016.0	11,187.9	7,788.0	39.5	41.3	-56.36	1,989.6	-569.5	411.7	343.3	68.33	6.024	
10,100.0	8,016.0	11,287.9	7,788.0	41.2	42.9	-56.50	2,089.6	-571.2	413.1	342.0	71.11	5.809	
10,200.0	8,016.0	11,387.8	7,788.0	42.8	44.5	-56.63	2,189.5	-573.0	414.6	340.6	73.92	5.608	
10,300.0	8,016.0	11,487.8	7,788.0	44.5	46.1	-56.76	2,289.5	-574.7	416.0	339.3	76.75	5.420	
10,400.0	8,016.0	11,587.8	7,788.0	46.1	47.7	-56.89	2,389.5	-576.5	417.5	337.9	79.61	5.244	
10,500.0	8,016.0	11,687.8	7,788.0	47.8	49.3	-57.02	2,489.4	-578.2	418.9	336.5	82.48	5.079	
10,600.0	8,016.0	11,787.8	7,788.0	49.5	50.9	-57.15	2,589.4	-580.0	420.4	335.0	85.37	4.925	
10,700.0	8,016.0	11,887.8	7,788.0	51.1	52.6	-57.28	2,689.4	-581.7	421.9	333.6	88.28	4.779	
10,800.0	8,016.0	11,987.7	7,788.0	52.8	54.2	-57.41	2,789.3	-583.5	423.4	332.1	91.21	4.642	
10,900.0	8,016.0	12,087.7	7,788.0	54.5	55.9	-57.54	2,889.3	-585.2	424.8	330.7	94.15	4.512	
11,000.0	8,016.0	12,187.7	7,788.0	56.2	57.5	-57.66	2,989.3	-586.9	426.3	329.2	97.11	4.390	
11,100.0	8,016.0	12,287.7	7,788.0	57.9	59.2	-57.79	3,089.2	-588.7	427.8	327.7	100.08	4.274	
11,200.0	8,016.0	12,387.7	7,788.0	59.6	60.9	-57.91	3,189.2	-590.4	429.3	326.2	103.07	4.165	
11,300.0	8,016.0	12,487.7	7,788.0	61.3	62.5	-58.04	3,289.2	-592.2	430.7	324.7	106.07	4.061	
11,400.0	8,016.0	12,587.7	7,788.0	63.0	64.2	-58.16	3,389.2	-593.9	432.2	323.1	109.08	3.962	
11,500.0	8,016.0	12,687.6	7,788.0	64.7	65.9	-58.28	3,489.1	-595.7	433.7	321.6	112.10	3.869	
11,600.0	8,016.0	12,787.6	7,788.0	66.4	67.6	-58.40	3,589.1	-597.4	435.2	320.0	115.14	3.780	
11,700.0	8,016.0	12,887.6	7,788.0	68.2	69.3	-58.52	3,689.1	-599.2	436.7	318.5	118.18	3.695	
11,800.0	8,016.0	12,987.6	7,788.0	69.9	71.0	-58.64	3,789.0	-600.9	438.2	316.9	121.24	3.614	
11,900.0	8,016.0	13,087.6	7,788.0	71.6	72.7	-58.76	3,889.0	-602.6	439.6	315.3	124.30	3.537	
12,000.0	8,016.0	13,187.6	7,788.0	73.3	74.4	-58.88	3,989.0	-604.4	441.1	313.8	127.38	3.463	
12,100.0	8,016.0	13,287.5	7,788.0	75.0	76.1	-58.99	4,088.9	-606.1	442.6	312.2	130.46	3.393	
12,200.0	8,016.0	13,387.5	7,788.0	76.7	77.8	-59.11	4,188.9	-607.9	444.1	310.6	133.55	3.326	
12,300.0	8,016.0	13,487.5	7,788.0	78.5	79.5	-59.22	4,288.9	-609.6	445.6	309.0	136.65	3.261	
12,400.0	8,016.0	13,587.5	7,788.0	80.2	81.2	-59.34	4,388.9	-611.4	447.1	307.4	139.76	3.199	
12,500.0	8,016.0	13,687.5	7,788.0	81.9	82.9	-59.45	4,488.8	-613.1	448.6	305.8	142.88	3.140	
12,600.0	8,016.0	13,787.5	7,788.0	83.7	84.6	-59.56	4,588.8	-614.9	450.1	304.1	146.01	3.083	
12,700.0	8,016.0	13,887.5	7,788.0	85.4	86.3	-59.68	4,688.8	-616.6	451.6	302.5	149.14	3.028	
12,800.0	8,016.0	13,993.9	7,788.0	87.1	88.1	-59.74	4,795.2	-617.7	452.5	300.2	152.32	2.971	
12,900.0	8,016.0	14,100.5	7,788.0	88.8	90.0	-59.69	4,901.8	-616.8	451.8	296.5	155.32	2.909	
13,000.0	8,016.0	14,200.5	7,788.0	90.6	91.7	-59.58	5,001.8	-615.2	450.4	292.2	158.15	2.848	
13,100.0	8,016.0	14,300.5	7,788.0	92.3	93.4	-59.48	5,101.8	-613.6	449.0	288.0	160.98	2.789	
13,200.0	8,016.0	14,400.5	7,788.0	94.0	95.1	-59.38	5,201.8	-612.0	447.6	283.8	163.80	2.733	
13,300.0	8,016.0	14,500.5	7,788.0	95.8	96.8	-59.27	5,301.7	-610.4	446.3	279.6	166.61	2.678	
13,400.0	8,016.0	14,600.5	7,788.0	97.5	98.5	-59.17	5,401.7	-608.7	444.9	275.5	169.42	2.626	
13,500.0	8,016.0	14,700.5	7,788.0	99.2	100.2	-59.06	5,501.7	-607.1	443.5	271.3	172.22	2.575	
13,600.0	8,016.0	14,800.4	7,788.0	101.0	102.0	-58.95	5,601.6	-605.5	442.1	267.1	175.01	2.526	
13,700.0	8,016.0	14,900.4	7,788.0	102.7	103.7	-58.84	5,701.6	-603.9	440.7	262.9	177.80	2.479	
13,800.0	8,016.0	15,000.4	7,788.0	104.4	105.4	-58.74	5,801.6	-602.3	439.4	258.8	180.57	2.433	
13,900.0	8,016.0	15,100.4	7,788.0	106.2	107.1	-58.63	5,901.6	-600.7	438.0	254.6	183.35	2.389	
14,000.0	8,016.0	15,200.4	7,788.0	107.9	108.9	-58.52	6,001.5	-599.1	436.6	250.5	186.11	2.346	
14,100.0	8,016.0	15,300.4	7,788.0	109.7	110.6	-58.41	6,101.5	-597.5	435.3	246.4	188.87	2.305	

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - Waste Connections 3C-29H-M168 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
14,200.0	8,016.0	15,400.4	7,788.0	111.4	112.3	-58.30	6,201.5	-595.9	433.9	242.3	191.61	2.264		
14,300.0	8,016.0	15,500.4	7,788.0	113.1	114.0	-58.18	6,301.5	-594.3	432.5	238.2	194.36	2.225		
14,400.0	8,016.0	15,600.3	7,788.0	114.9	115.8	-58.07	6,401.4	-592.7	431.2	234.1	197.09	2.188		
14,500.0	8,016.0	15,700.3	7,788.0	116.6	117.5	-57.96	6,501.4	-591.1	429.8	230.0	199.81	2.151		
14,600.0	8,016.0	15,800.3	7,788.0	118.4	119.2	-57.84	6,601.4	-589.5	428.4	225.9	202.53	2.115		
14,700.0	8,016.0	15,900.3	7,788.0	120.1	120.9	-57.73	6,701.4	-587.9	427.1	221.8	205.23	2.081		
14,800.0	8,016.0	16,000.3	7,788.0	121.8	122.7	-57.61	6,801.3	-586.3	425.7	217.8	207.93	2.047		
14,900.0	8,016.0	16,100.3	7,788.0	123.6	124.4	-57.50	6,901.3	-584.7	424.4	213.7	210.62	2.015		
15,000.0	8,016.0	16,200.3	7,788.0	125.3	126.1	-57.38	7,001.3	-583.0	423.0	209.7	213.30	1.983		
15,100.0	8,016.0	16,300.3	7,788.0	127.1	127.9	-57.26	7,101.3	-581.4	421.7	205.7	215.97	1.952		
15,200.0	8,016.0	16,400.2	7,788.0	128.8	129.6	-57.15	7,201.2	-579.8	420.3	201.7	218.63	1.922		
15,300.0	8,016.0	16,500.2	7,788.0	130.6	131.3	-57.03	7,301.2	-578.2	419.0	197.7	221.28	1.893		
15,391.9	8,016.0	16,590.2	7,788.0	132.2	132.9	-56.92	7,391.2	-576.8	417.7	194.0	223.68	1.867		
15,400.0	8,016.0	16,590.2	7,788.0	132.3	132.9	-56.92	7,391.2	-576.8	417.7	193.9	223.80	1.867 SF		
15,450.3	8,016.0	16,590.2	7,788.0	133.2	132.9	-56.92	7,391.2	-576.8	421.3	196.7	224.53	1.876		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - Waste Connections 3E-29H-M168 - Hz - Plan #1														Offset Site Error:	0.0 ft
Survey Program: 0-MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	90.04	0.0	11.2	11.2						
100.0	100.0	100.0	100.0	0.2	0.2	90.04	0.0	11.2	11.2	10.9	0.30	36.890			
200.0	200.0	200.0	200.0	0.3	0.3	90.04	0.0	11.2	11.2	10.6	0.65	17.163			
300.0	300.0	300.0	300.0	0.5	0.5	90.04	0.0	11.2	11.2	10.2	1.00	11.183			
400.0	400.0	400.0	400.0	0.7	0.7	90.04	0.0	11.2	11.2	9.9	1.35	8.293 CC			
500.0	500.0	500.0	500.0	0.8	0.9	94.46	-0.9	11.3	11.3	9.6	1.70	6.644 ES			
600.0	600.0	599.9	599.9	1.0	1.0	-119.29	-3.5	11.4	12.4	10.3	2.05	6.023			
700.0	700.0	699.8	699.6	1.2	1.2	-112.09	-7.8	11.7	15.1	12.6	2.41	6.241			
800.0	799.9	799.5	799.2	1.4	1.4	-107.17	-13.9	12.2	19.2	16.5	2.78	6.916			
900.0	899.8	899.2	898.5	1.6	1.6	-101.31	-21.7	12.7	24.5	21.4	3.16	7.770			
1,000.0	999.7	998.6	997.5	1.8	1.8	-95.09	-31.2	13.3	31.1	27.6	3.54	8.796			
1,100.0	1,099.6	1,097.8	1,096.1	1.9	2.1	-89.30	-42.3	14.1	39.2	35.3	3.92	10.003			
1,200.0	1,199.5	1,196.7	1,194.1	2.1	2.3	-84.24	-55.2	15.0	48.9	44.6	4.30	11.376			
1,300.0	1,299.4	1,295.2	1,291.5	2.3	2.6	-79.96	-69.6	16.0	60.3	55.6	4.67	12.893			
1,400.0	1,399.3	1,393.3	1,388.3	2.5	2.9	-76.38	-85.7	17.1	73.3	68.3	5.05	14.531			
1,500.0	1,499.2	1,490.9	1,484.3	2.7	3.2	-73.38	-103.3	18.3	88.1	82.7	5.42	16.266			
1,600.0	1,599.0	1,587.9	1,579.4	2.9	3.6	-70.86	-122.4	19.6	104.6	98.8	5.78	18.081			
1,700.0	1,698.9	1,684.4	1,673.7	3.1	4.0	-68.74	-143.0	21.0	122.7	116.6	6.15	19.962			
1,800.0	1,798.8	1,780.3	1,767.0	3.3	4.4	-66.93	-165.1	22.5	142.5	136.0	6.51	21.897			
1,900.0	1,898.7	1,878.1	1,862.0	3.5	4.8	-65.44	-188.3	24.1	163.2	156.3	6.87	23.745			
2,000.0	1,998.6	1,975.9	1,956.9	3.6	5.2	-64.29	-211.6	25.7	183.9	176.7	7.24	25.417			
2,100.0	2,098.5	2,073.6	2,051.9	3.8	5.6	-63.37	-234.8	27.3	204.8	197.2	7.60	26.934			
2,200.0	2,198.4	2,171.4	2,146.8	4.0	6.0	-62.62	-258.0	28.8	225.6	217.6	7.97	28.317			
2,300.0	2,298.3	2,269.1	2,241.8	4.2	6.5	-61.99	-281.3	30.4	246.5	238.1	8.33	29.582			
2,400.0	2,398.2	2,366.9	2,336.7	4.4	6.9	-61.47	-304.5	32.0	267.4	258.7	8.70	30.743			
2,500.0	2,498.1	2,464.7	2,431.7	4.6	7.3	-61.02	-327.7	33.6	288.3	279.2	9.06	31.811			
2,600.0	2,598.0	2,562.4	2,526.6	4.8	7.8	-60.63	-351.0	35.2	309.2	299.8	9.43	32.798			
2,700.0	2,697.9	2,660.2	2,621.6	5.0	8.2	-60.29	-374.2	36.8	330.2	320.4	9.79	33.712			
2,800.0	2,797.8	2,758.0	2,716.5	5.2	8.6	-59.99	-397.5	38.4	351.1	341.0	10.16	34.561			
2,900.0	2,897.7	2,855.7	2,811.5	5.4	9.0	-59.72	-420.7	40.0	372.1	361.6	10.53	35.351			
3,000.0	2,997.6	2,953.5	2,906.4	5.6	9.5	-59.49	-443.9	41.5	393.1	382.2	10.89	36.089			
3,100.0	3,097.5	3,051.3	3,001.3	5.7	9.9	-59.27	-467.2	43.1	414.1	402.8	11.26	36.779			
3,200.0	3,197.4	3,149.0	3,096.3	5.9	10.4	-59.08	-490.4	44.7	435.0	423.4	11.62	37.426			
3,300.0	3,297.3	3,246.8	3,191.2	6.1	10.8	-58.91	-513.6	46.3	456.0	444.0	11.99	38.034			
3,400.0	3,397.2	3,344.5	3,286.2	6.3	11.2	-58.75	-536.9	47.9	477.0	464.7	12.36	38.606			
3,500.0	3,497.1	3,442.3	3,381.1	6.5	11.7	-58.60	-560.1	49.5	498.0	485.3	12.72	39.145			
7,500.0	7,493.0	8,970.8	7,788.0	14.1	16.2	113.62	-225.0	123.2	445.6	415.9	29.74	14.985			
7,600.0	7,591.3	8,988.1	7,788.0	14.2	16.1	104.77	-207.7	123.2	390.2	360.4	29.76	13.111			
7,700.0	7,685.1	9,022.2	7,788.0	14.2	16.1	100.65	-173.6	123.2	355.1	325.4	29.69	11.958			
7,800.0	7,771.6	9,072.1	7,788.0	14.3	16.1	93.63	-123.7	123.2	342.9	313.2	29.66	11.560			
7,807.2	7,777.4	9,076.3	7,788.0	14.3	16.1	93.02	-119.5	123.2	342.8	313.2	29.66	11.558			
7,900.0	7,848.1	9,136.3	7,788.0	14.3	16.1	84.20	-59.5	123.2	350.0	320.4	29.68	11.793			
8,000.0	7,912.3	9,212.8	7,788.0	14.5	16.2	74.29	17.0	123.2	368.4	338.8	29.62	12.436			
8,100.0	7,962.2	9,299.2	7,788.0	14.8	16.5	65.90	103.4	123.2	389.5	360.0	29.47	13.218			
8,200.0	7,996.4	9,393.1	7,788.0	15.3	16.9	60.14	197.3	123.2	406.8	377.3	29.49	13.798			
8,300.0	8,013.8	9,491.4	7,788.0	16.0	17.6	57.28	295.6	123.2	416.5	386.4	30.01	13.879			
8,400.0	8,016.0	9,591.3	7,788.0	16.8	18.3	56.92	395.6	123.2	417.7	386.4	31.26	13.361			
8,500.0	8,016.0	9,691.3	7,788.0	17.8	19.2	56.92	495.6	123.2	417.7	384.8	32.86	12.711			
8,600.0	8,016.0	9,791.3	7,788.0	18.9	20.3	56.92	595.6	123.2	417.7	383.1	34.64	12.059			
8,700.0	8,016.0	9,891.3	7,788.0	20.1	21.4	56.92	695.6	123.2	417.7	381.1	36.56	11.424			
8,800.0	8,016.0	9,991.3	7,788.0	21.3	22.6	56.92	795.6	123.2	417.7	379.1	38.62	10.816			
8,900.0	8,016.0	10,091.3	7,788.0	22.7	23.8	56.92	895.6	123.2	417.7	376.9	40.79	10.242			

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - Waste Connections 3E-29H-M168 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance			Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)				Between Ellipses (ft)	
9,000.0	8,016.0	10,191.3	7,788.0	24.0	25.2	56.92	995.6	123.2	417.7	374.7	43.04	9.704		
9,100.0	8,016.0	10,291.3	7,788.0	25.5	26.5	56.92	1,095.6	123.2	417.7	372.3	45.38	9.205		
9,200.0	8,016.0	10,391.3	7,788.0	26.9	28.0	56.92	1,195.6	123.2	417.7	369.9	47.78	8.742		
9,300.0	8,016.0	10,491.3	7,788.0	28.4	29.4	56.92	1,295.6	123.2	417.7	367.5	50.24	8.314		
9,400.0	8,016.0	10,591.3	7,788.0	30.0	30.9	56.92	1,395.6	123.2	417.7	365.0	52.75	7.918		
9,500.0	8,016.0	10,691.3	7,788.0	31.5	32.4	56.92	1,495.6	123.2	417.7	362.4	55.31	7.552		
9,600.0	8,016.0	10,791.3	7,788.0	33.1	33.9	56.92	1,595.6	123.2	417.7	359.8	57.90	7.214		
9,700.0	8,016.0	10,891.3	7,788.0	34.7	35.5	56.92	1,695.6	123.2	417.7	357.2	60.52	6.902		
9,800.0	8,016.0	10,991.3	7,788.0	36.3	37.1	56.92	1,795.6	123.2	417.7	354.5	63.17	6.612		
9,900.0	8,016.0	11,091.3	7,788.0	37.9	38.7	56.92	1,895.6	123.2	417.7	351.9	65.85	6.343		
10,000.0	8,016.0	11,191.3	7,788.0	39.5	40.3	56.92	1,995.6	123.2	417.7	349.2	68.55	6.093		
10,100.0	8,016.0	11,291.3	7,788.0	41.2	41.9	56.92	2,095.6	123.2	417.7	346.4	71.27	5.861		
10,200.0	8,016.0	11,391.3	7,788.0	42.8	43.5	56.92	2,195.6	123.2	417.7	343.7	74.01	5.644		
10,300.0	8,016.0	11,491.3	7,788.0	44.5	45.1	56.92	2,295.6	123.2	417.7	340.9	76.76	5.442		
10,400.0	8,016.0	11,591.3	7,788.0	46.1	46.8	56.92	2,395.6	123.2	417.7	338.2	79.52	5.253		
10,500.0	8,016.0	11,691.3	7,788.0	47.8	48.4	56.92	2,495.6	123.2	417.7	335.4	82.30	5.075		
10,600.0	8,016.0	11,791.3	7,788.0	49.5	50.1	56.92	2,595.6	123.2	417.7	332.6	85.09	4.909		
10,700.0	8,016.0	11,891.3	7,788.0	51.1	51.8	56.92	2,695.6	123.2	417.7	329.8	87.89	4.753		
10,800.0	8,016.0	11,991.3	7,788.0	52.8	53.4	56.92	2,795.6	123.2	417.7	327.0	90.70	4.605		
10,900.0	8,016.0	12,091.3	7,788.0	54.5	55.1	56.92	2,895.6	123.2	417.7	324.2	93.52	4.467		
11,000.0	8,016.0	12,191.3	7,788.0	56.2	56.8	56.92	2,995.6	123.2	417.7	321.4	96.34	4.336		
11,100.0	8,016.0	12,291.3	7,788.0	57.9	58.5	56.92	3,095.6	123.2	417.7	318.5	99.17	4.212		
11,200.0	8,016.0	12,391.3	7,788.0	59.6	60.2	56.92	3,195.6	123.2	417.7	315.7	102.01	4.095		
11,300.0	8,016.0	12,491.3	7,788.0	61.3	61.8	56.92	3,295.6	123.2	417.7	312.8	104.86	3.984		
11,400.0	8,016.0	12,591.3	7,788.0	63.0	63.5	56.92	3,395.6	123.2	417.7	310.0	107.71	3.878		
11,500.0	8,016.0	12,691.3	7,788.0	64.7	65.2	56.92	3,495.6	123.2	417.7	307.1	110.56	3.778		
11,600.0	8,016.0	12,791.3	7,788.0	66.4	66.9	56.92	3,595.6	123.2	417.7	304.3	113.42	3.683		
11,700.0	8,016.0	12,891.3	7,788.0	68.2	68.6	56.92	3,695.6	123.2	417.7	301.4	116.29	3.592		
11,800.0	8,016.0	12,991.3	7,788.0	69.9	70.4	56.92	3,795.6	123.2	417.7	298.5	119.16	3.506		
11,900.0	8,016.0	13,091.3	7,788.0	71.6	72.1	56.92	3,895.6	123.2	417.7	295.7	122.03	3.423		
12,000.0	8,016.0	13,191.3	7,788.0	73.3	73.8	56.92	3,995.6	123.2	417.7	292.8	124.90	3.344		
12,100.0	8,016.0	13,291.3	7,788.0	75.0	75.5	56.92	4,095.6	123.2	417.7	289.9	127.78	3.269		
12,200.0	8,016.0	13,391.3	7,788.0	76.7	77.2	56.92	4,195.6	123.2	417.7	287.0	130.66	3.197		
12,300.0	8,016.0	13,491.3	7,788.0	78.5	78.9	56.92	4,295.6	123.2	417.7	284.2	133.55	3.128		
12,400.0	8,016.0	13,591.3	7,788.0	80.2	80.6	56.92	4,395.6	123.2	417.7	281.3	136.44	3.062		
12,500.0	8,016.0	13,691.3	7,788.0	81.9	82.4	56.92	4,495.6	123.2	417.7	278.4	139.33	2.998		
12,600.0	8,016.0	13,791.3	7,788.0	83.7	84.1	56.92	4,595.6	123.2	417.7	275.5	142.22	2.937		
12,700.0	8,016.0	13,891.3	7,788.0	85.4	85.8	56.92	4,695.6	123.2	417.7	272.6	145.11	2.878		
12,800.0	8,016.0	13,991.3	7,788.0	87.1	87.5	56.92	4,795.6	123.2	417.7	269.7	148.01	2.822		
12,900.0	8,016.0	14,091.3	7,788.0	88.8	89.2	56.92	4,895.6	123.2	417.7	266.8	150.91	2.768		
13,000.0	8,016.0	14,191.3	7,788.0	90.6	91.0	56.92	4,995.6	123.2	417.7	263.9	153.81	2.716		
13,100.0	8,016.0	14,291.3	7,788.0	92.3	92.7	56.92	5,095.6	123.2	417.7	261.0	156.71	2.665		
13,200.0	8,016.0	14,391.3	7,788.0	94.0	94.4	56.92	5,195.6	123.2	417.7	258.1	159.61	2.617		
13,300.0	8,016.0	14,491.3	7,788.0	95.8	96.2	56.92	5,295.6	123.2	417.7	255.2	162.52	2.570		
13,400.0	8,016.0	14,591.3	7,788.0	97.5	97.9	56.92	5,395.6	123.2	417.7	252.3	165.43	2.525		
13,500.0	8,016.0	14,691.3	7,788.0	99.2	99.6	56.92	5,495.6	123.2	417.7	249.4	168.33	2.481		
13,600.0	8,016.0	14,791.3	7,788.0	101.0	101.3	56.92	5,595.6	123.2	417.7	246.5	171.24	2.439		
13,700.0	8,016.0	14,891.3	7,788.0	102.7	103.1	56.92	5,695.6	123.2	417.7	243.6	174.16	2.398		
13,800.0	8,016.0	14,991.3	7,788.0	104.4	104.8	56.92	5,795.6	123.2	417.7	240.6	177.07	2.359		
13,900.0	8,016.0	15,091.3	7,788.0	106.2	106.5	56.92	5,895.6	123.2	417.7	237.7	179.98	2.321		
14,000.0	8,016.0	15,191.3	7,788.0	107.9	108.3	56.92	5,995.6	123.2	417.7	234.8	182.89	2.284		
14,100.0	8,016.0	15,291.3	7,788.0	109.7	110.0	56.92	6,095.6	123.2	417.7	231.9	185.81	2.248		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - Waste Connections 3E-29H-M168 - Hz - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
14,200.0	8,016.0	15,391.3	7,788.0	111.4	111.8	56.92	6,195.6	123.2	417.7	229.0	188.73	2.213		
14,300.0	8,016.0	15,491.3	7,788.0	113.1	113.5	56.92	6,295.6	123.2	417.7	226.1	191.64	2.180		
14,400.0	8,016.0	15,591.3	7,788.0	114.9	115.2	56.92	6,395.6	123.2	417.7	223.1	194.56	2.147		
14,500.0	8,016.0	15,691.3	7,788.0	116.6	117.0	56.92	6,495.6	123.2	417.7	220.2	197.48	2.115		
14,600.0	8,016.0	15,791.3	7,788.0	118.4	118.7	56.92	6,595.6	123.2	417.7	217.3	200.40	2.084		
14,700.0	8,016.0	15,891.3	7,788.0	120.1	120.4	56.92	6,695.6	123.2	417.7	214.4	203.32	2.054		
14,800.0	8,016.0	15,991.3	7,788.0	121.8	122.2	56.92	6,795.6	123.2	417.7	211.5	206.24	2.025		
14,900.0	8,016.0	16,091.3	7,788.0	123.6	123.9	56.92	6,895.6	123.2	417.7	208.5	209.16	1.997		
15,000.0	8,016.0	16,191.3	7,788.0	125.3	125.7	56.92	6,995.6	123.2	417.7	205.6	212.09	1.970		
15,100.0	8,016.0	16,291.3	7,788.0	127.1	127.4	56.92	7,095.6	123.2	417.7	202.7	215.01	1.943		
15,200.0	8,016.0	16,391.3	7,788.0	128.8	129.1	56.92	7,195.6	123.2	417.7	199.8	217.93	1.917		
15,300.0	8,016.0	16,491.3	7,788.0	130.6	130.9	56.92	7,295.6	123.2	417.7	196.8	220.86	1.891		
15,400.0	8,016.0	16,591.3	7,788.0	132.3	132.6	56.92	7,395.6	123.2	417.7	193.9	223.78	1.867		
15,450.3	8,016.0	16,641.6	7,788.0	133.2	133.5	56.92	7,445.8	123.2	417.7	192.5	225.25	1.854 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - Waste Connections 3F-29H-M168 - Hz - Plan #1														Offset Site Error:	0.0 ft
Survey Program: 0-MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)							
0.0	0.0	0.0	0.0	0.0	0.0	90.05	0.0	19.6	19.6						
100.0	100.0	100.0	100.0	0.2	0.2	90.05	0.0	19.6	19.6	19.3	0.30	64.558			
200.0	200.0	200.0	200.0	0.3	0.3	90.05	0.0	19.6	19.6	19.0	0.65	30.035			
300.0	300.0	300.0	300.0	0.5	0.5	90.05	0.0	19.6	19.6	18.6	1.00	19.570 CC			
400.0	400.0	399.9	399.9	0.7	0.7	92.43	-0.8	19.9	19.9	18.5	1.35	14.721 ES			
500.0	500.0	499.7	499.7	0.8	0.9	99.14	-3.3	20.7	20.9	19.2	1.70	12.294			
600.0	600.0	599.4	599.3	1.0	1.0	-115.81	-7.5	22.0	23.6	21.6	2.06	11.474 SF			
700.0	700.0	699.0	698.7	1.2	1.2	-110.43	-13.2	23.9	28.4	25.9	2.42	11.716			
800.0	799.9	798.4	797.8	1.4	1.4	-107.07	-20.6	26.3	34.9	32.2	2.79	12.514			
900.0	899.8	897.6	896.5	1.6	1.7	-103.61	-29.6	29.2	42.9	39.8	3.17	13.543			
1,000.0	999.7	996.5	994.8	1.8	1.9	-100.01	-40.2	32.7	52.3	48.8	3.55	14.742			
1,100.0	1,099.6	1,095.0	1,092.5	1.9	2.2	-96.59	-52.4	36.6	63.3	59.3	3.93	16.091			
1,200.0	1,199.5	1,193.2	1,189.6	2.1	2.5	-93.47	-66.1	41.1	75.8	71.5	4.31	17.571			
1,300.0	1,299.4	1,290.9	1,286.0	2.3	2.8	-90.69	-81.3	46.0	89.9	85.2	4.69	19.161			
1,400.0	1,399.3	1,388.1	1,381.6	2.5	3.1	-88.24	-98.0	51.4	105.7	100.6	5.07	20.844			
1,500.0	1,499.2	1,484.8	1,476.3	2.7	3.5	-86.10	-116.1	57.3	123.1	117.7	5.45	22.604			
1,600.0	1,599.0	1,580.8	1,570.2	2.9	3.8	-84.22	-135.6	63.7	142.2	136.4	5.82	24.428			
1,700.0	1,698.9	1,676.2	1,663.0	3.1	4.2	-82.57	-156.4	70.4	162.9	156.7	6.19	26.309			
1,800.0	1,798.8	1,773.6	1,757.6	3.3	4.6	-81.16	-178.6	77.6	184.5	178.0	6.56	28.109			
1,900.0	1,898.7	1,871.2	1,852.4	3.5	5.1	-80.04	-200.7	84.8	206.2	199.3	6.94	29.729			
2,000.0	1,998.6	1,968.7	1,947.1	3.6	5.5	-79.14	-222.8	92.0	228.0	220.7	7.31	31.192			
2,100.0	2,098.5	2,066.3	2,041.8	3.8	5.9	-78.40	-244.9	99.2	249.8	242.1	7.68	32.519			
2,200.0	2,198.4	2,163.8	2,136.5	4.0	6.3	-77.77	-267.1	106.4	271.7	263.6	8.06	33.728			
2,300.0	2,298.3	2,261.4	2,231.3	4.2	6.8	-77.24	-289.2	113.6	293.6	285.1	8.43	34.833			
2,400.0	2,398.2	2,358.9	2,326.0	4.4	7.2	-76.78	-311.3	120.8	315.5	306.7	8.80	35.847			
2,500.0	2,498.1	2,456.4	2,420.7	4.6	7.6	-76.38	-333.5	127.9	337.4	328.2	9.17	36.780			
2,600.0	2,598.0	2,554.0	2,515.5	4.8	8.1	-76.03	-355.6	135.1	359.3	349.8	9.55	37.642			
2,700.0	2,697.9	2,651.5	2,610.2	5.0	8.5	-75.72	-377.7	142.3	381.2	371.3	9.92	38.440			
2,800.0	2,797.8	2,749.1	2,704.9	5.2	8.9	-75.45	-399.8	149.5	403.2	392.9	10.29	39.181			
2,900.0	2,897.7	2,846.6	2,799.6	5.4	9.4	-75.20	-422.0	156.7	425.1	414.5	10.66	39.871			
3,000.0	2,997.6	2,944.2	2,894.4	5.6	9.8	-74.98	-444.1	163.9	447.1	436.1	11.04	40.515			
3,100.0	3,097.5	3,041.7	2,989.1	5.7	10.2	-74.77	-466.2	171.1	469.1	457.7	11.41	41.118			
3,200.0	3,197.4	3,139.3	3,083.8	5.9	10.7	-74.59	-488.4	178.3	491.1	479.3	11.78	41.683			

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - Waste Connections 3G-29H-M168 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Tooface (")	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	1.0	1.0	0.0	0.0	90.05	0.0	30.8	30.8					
100.0	100.0	101.0	101.0	0.2	0.2	90.05	0.0	30.8	30.8	30.5	0.31	100.868		
166.3	166.3	167.3	167.3	0.3	0.3	90.05	0.0	30.8	30.8	30.3	0.54	57.375 CC		
200.0	200.0	201.0	201.0	0.3	0.3	90.05	0.0	30.8	30.8	30.2	0.65	47.072 ES		
300.0	300.0	300.6	300.6	0.5	0.5	91.25	-0.7	31.4	31.4	30.4	1.00	31.286		
400.0	400.0	400.0	400.0	0.7	0.7	94.53	-2.6	33.1	33.3	31.9	1.36	24.506		
500.0	500.0	499.7	499.5	0.8	0.9	99.25	-5.9	36.0	36.5	34.8	1.72	21.261		
600.0	600.0	598.9	598.6	1.0	1.1	-119.09	-10.4	40.1	41.9	39.8	2.06	20.306 SF		
700.0	700.0	697.9	697.3	1.2	1.3	-116.53	-16.1	45.2	49.6	47.2	2.42	20.495		
800.0	799.9	796.6	795.6	1.4	1.5	-115.23	-23.2	51.5	59.6	56.8	2.79	21.380		
900.0	899.8	895.0	893.3	1.6	1.8	-113.88	-31.4	58.9	71.2	68.0	3.16	22.542		
1,000.0	999.7	992.9	990.4	1.8	2.0	-112.36	-40.9	67.3	84.3	80.8	3.53	23.874		
1,100.0	1,099.6	1,090.4	1,086.8	1.9	2.3	-110.81	-51.5	76.8	99.0	95.1	3.91	25.339		
1,200.0	1,199.5	1,188.1	1,183.3	2.1	2.6	-109.32	-63.3	87.4	115.1	110.8	4.28	26.885		
1,300.0	1,299.4	1,286.7	1,280.5	2.3	2.9	-108.13	-75.4	98.2	131.6	126.9	4.66	28.243		
1,400.0	1,399.3	1,385.3	1,377.8	2.5	3.3	-107.21	-87.5	109.0	148.1	143.1	5.04	29.406		
1,500.0	1,499.2	1,483.9	1,475.0	2.7	3.6	-106.47	-99.7	119.9	164.6	159.2	5.41	30.412		
1,600.0	1,599.0	1,582.5	1,572.3	2.9	3.9	-105.87	-111.8	130.7	181.2	175.4	5.79	31.291		
1,700.0	1,698.9	1,681.1	1,669.5	3.1	4.2	-105.37	-123.9	141.5	197.8	191.6	6.17	32.064		
1,800.0	1,798.8	1,779.7	1,766.8	3.3	4.5	-104.94	-136.0	152.4	214.4	207.8	6.55	32.749		
1,900.0	1,898.7	1,878.3	1,864.0	3.5	4.9	-104.58	-148.2	163.2	231.0	224.0	6.92	33.360		
2,000.0	1,998.6	1,976.9	1,961.3	3.6	5.2	-104.26	-160.3	174.0	247.6	240.3	7.30	33.909		
2,100.0	2,098.5	2,075.6	2,058.5	3.8	5.5	-103.99	-172.4	184.9	264.2	256.5	7.68	34.405		
2,200.0	2,198.4	2,174.2	2,155.8	4.0	5.9	-103.74	-184.5	195.7	280.8	272.7	8.06	34.854		
2,300.0	2,298.3	2,272.8	2,253.0	4.2	6.2	-103.53	-196.6	206.5	297.4	289.0	8.43	35.264		
2,400.0	2,398.2	2,371.4	2,350.3	4.4	6.5	-103.34	-208.8	217.4	314.0	305.2	8.81	35.639		
2,500.0	2,498.1	2,470.0	2,447.5	4.6	6.8	-103.16	-220.9	228.2	330.7	321.5	9.19	35.983		
2,600.0	2,598.0	2,568.6	2,544.8	4.8	7.2	-103.00	-233.0	239.0	347.3	337.7	9.57	36.300		
2,700.0	2,697.9	2,667.2	2,642.1	5.0	7.5	-102.86	-245.1	249.9	363.9	354.0	9.95	36.593		
2,800.0	2,797.8	2,765.8	2,739.3	5.2	7.8	-102.73	-257.3	260.7	380.6	370.3	10.32	36.865		
2,900.0	2,897.7	2,864.4	2,836.6	5.4	8.2	-102.61	-269.4	271.6	397.2	386.5	10.70	37.117		
3,000.0	2,997.6	2,963.0	2,933.8	5.6	8.5	-102.50	-281.5	282.4	413.9	402.8	11.08	37.353		
3,100.0	3,097.5	3,061.6	3,031.1	5.7	8.8	-102.40	-293.6	293.2	430.5	419.0	11.46	37.573		
3,200.0	3,197.4	3,160.2	3,128.3	5.9	9.2	-102.31	-305.7	304.1	447.1	435.3	11.84	37.779		
3,300.0	3,297.3	3,258.8	3,225.6	6.1	9.5	-102.22	-317.9	314.9	463.8	451.6	12.21	37.972		
3,400.0	3,397.2	3,357.4	3,322.8	6.3	9.8	-102.14	-330.0	325.7	480.4	467.8	12.59	38.153		
3,500.0	3,497.1	3,456.0	3,420.1	6.5	10.2	-102.07	-342.1	336.6	497.1	484.1	12.97	38.324		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													S29-T1N-R68W (Pratt/Waste Connections) - WILLIAM PELTIER 1A-20H (EXISTING) - ENCANA WELL		Offset Site Error:		0.0 ft	
Survey Program: 911-MWD															Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance											
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty	Separation	Warning					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor						
15,200.0	8,016.0	11,666.0	7,679.0	128.8	96.1	-10.57	7,450.4	-293.8	445.4	392.9	52.45	8.491						
15,300.0	8,016.0	11,643.5	7,678.5	130.6	95.5	-7.16	7,455.4	-271.9	396.1	348.4	47.69	8.304						
15,400.0	8,016.0	11,621.4	7,678.0	132.3	95.0	-3.74	7,460.4	-250.3	366.6	322.4	44.23	8.289 SF						
15,450.3	8,016.0	11,610.2	7,677.7	133.2	94.7	-2.01	7,462.9	-239.5	360.9	317.7	43.19	8.356 CC, ES						

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5153.0ft (Original Well Elev)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	WELL @ 5153.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Waste Connections 3D-29H-M168	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		S29-T1N-R68W (Pratt/Waste Connections) - WILLIAM PELTIER 2-4-20 (EXISTING) - ENCANA WELL										Offset Site Error:		0.0 ft			
Survey Program:		0-MWD												Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor					
14,000.0	8,016.0	8,054.0	7,955.0	107.9	23.8	90.00	6,455.0	-154.0	465.2	338.1	127.07	3.661					
14,100.0	8,016.0	8,054.0	7,955.0	109.7	23.8	90.00	6,455.0	-154.0	366.8	237.9	128.81	2.847					
14,200.0	8,016.0	8,054.0	7,955.0	111.4	23.8	90.00	6,455.0	-154.0	269.5	138.9	130.55	2.064					
14,300.0	8,016.0	8,054.0	7,955.0	113.1	23.8	90.00	6,455.0	-154.0	175.3	43.0	132.29	1.325	Level 3				
14,400.0	8,016.0	8,054.0	7,955.0	114.9	23.8	90.00	6,455.0	-154.0	94.0	-40.1	134.03	0.701	Level 1				
14,459.5	8,016.0	8,054.0	7,955.0	115.9	23.8	90.00	6,455.0	-154.0	72.8	-62.3	135.07	0.539	Level 1, CC, ES, SF				
14,500.0	8,016.0	8,054.0	7,955.0	116.6	23.8	90.00	6,455.0	-154.0	83.3	-52.5	135.78	0.614	Level 1				
14,600.0	8,016.0	8,054.0	7,955.0	118.4	23.8	90.00	6,455.0	-154.0	158.3	20.7	137.52	1.151	Level 2				
14,700.0	8,016.0	8,054.0	7,955.0	120.1	23.8	90.00	6,455.0	-154.0	251.3	112.0	139.26	1.805					
14,800.0	8,016.0	8,054.0	7,955.0	121.8	23.8	90.00	6,455.0	-154.0	348.2	207.2	141.00	2.470					
14,900.0	8,016.0	8,054.0	7,955.0	123.6	23.8	90.00	6,455.0	-154.0	446.5	303.8	142.74	3.128					

Anticollision Report

Company: EnCana Oil & Gas (USA) Inc
Project: DJ Wattenberg
Reference Site: S29-T1N-R68W (Pratt/Waste Connections)
Site Error: 0.0ft
Reference Well: Waste Connections 3D-29H-M168
Well Error: 0.0ft
Reference Wellbore: Hz
Reference Design: Plan #1

Local Co-ordinate Reference: Well Waste Connections 3D-29H-M168
TVD Reference: WELL @ 5153.0ft (Original Well Elev)
MD Reference: WELL @ 5153.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: USA EDM 5000 Multi Users DB
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 5153.0ft (Original Well Elev)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

Coordinates are relative to: Waste Connections 3D-29H-M168
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.30°

