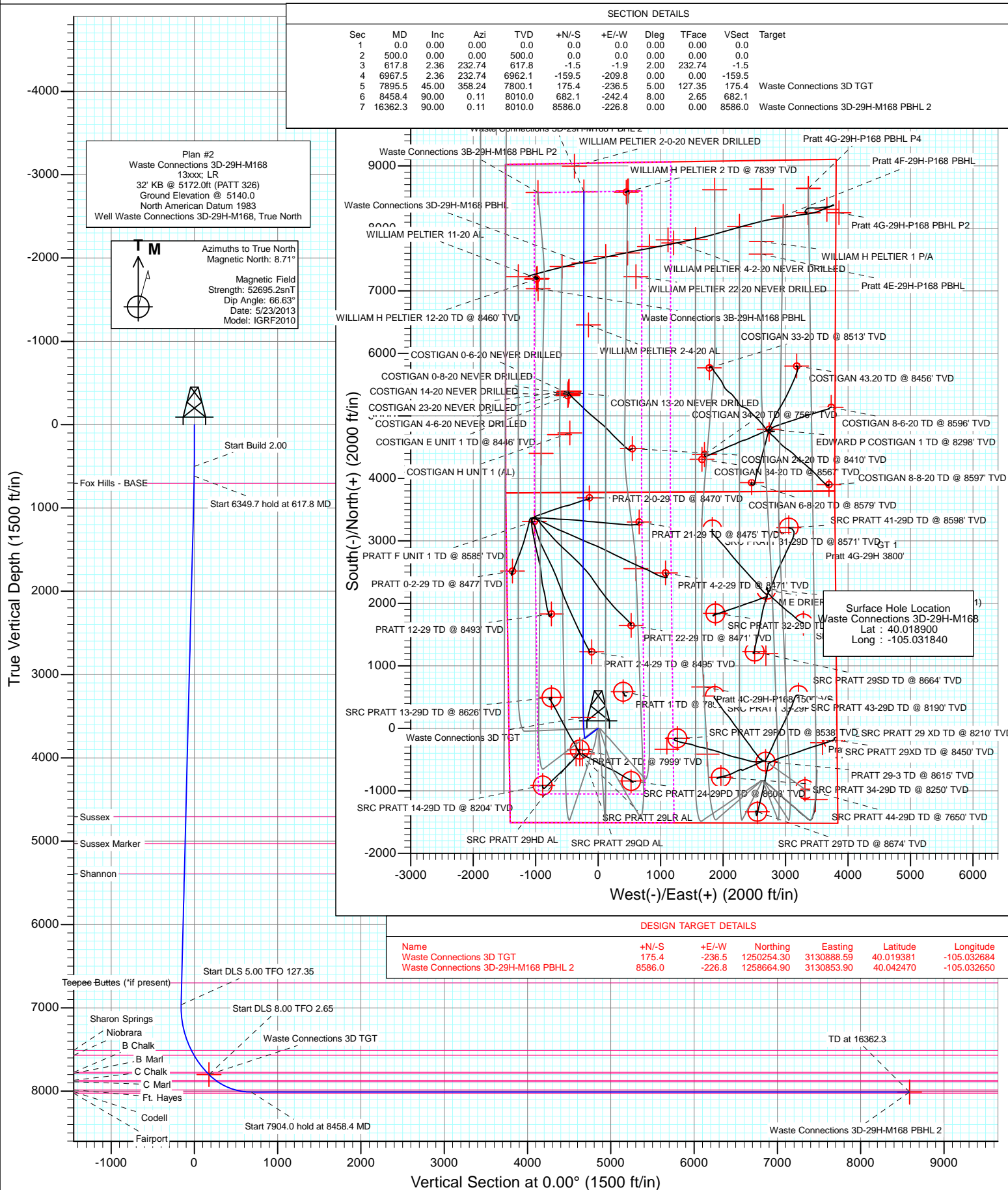




Project: DJ Wattenberg
Site: S29-T1N-R68W (Pratt/Waste Connections)
Well: Waste Connections 3D-29H-M168
Wellbore: Hz
Design: Plan #2



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:	32' KB @ 5172.0ft (PATT 326)
Project:	DJ Wattenberg	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2		

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:	1,250,080.20 ft
	+E/-W	0.0 ft	Easting:	3,131,126.01 ft
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 #2			
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	
617.8	2.36	232.74	617.8	-1.5	-1.9	2.00	2.00	0.00	232.74	
6,967.5	2.36	232.74	6,962.1	-159.5	-209.8	0.00	0.00	0.00	0.00	
7,895.5	45.00	358.24	7,800.1	175.4	-236.5	5.00	4.60	13.52	127.35	Waste Connections 3I
8,458.4	90.00	0.11	8,010.0	682.1	-242.4	8.00	7.99	0.33	2.65	
16,362.3	90.00	0.11	8,010.0	8,586.0	-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:	32' KB @ 5172.0ft (PATT 326)
Project:	DJ Wattenberg	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2		

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	Start Build 2.00
600.0	2.00	232.74	600.0	-1.1	-1.4	-1.1	2.00	2.00	
617.8	2.36	232.74	617.8	-1.5	-1.9	-1.5	2.00	2.00	Start 6349.7 hold at 617.8 MD
700.0	2.36	232.74	699.9	-3.5	-4.6	-3.5	0.00	0.00	
703.1	2.36	232.74	703.0	-3.6	-4.7	-3.6	0.00	0.00	Fox Hills - BASE
800.0	2.36	232.74	799.8	-6.0	-7.9	-6.0	0.00	0.00	
900.0	2.36	232.74	899.7	-8.5	-11.2	-8.5	0.00	0.00	
1,000.0	2.36	232.74	999.6	-11.0	-14.4	-11.0	0.00	0.00	
1,100.0	2.36	232.74	1,099.6	-13.5	-17.7	-13.5	0.00	0.00	
1,200.0	2.36	232.74	1,199.5	-16.0	-21.0	-16.0	0.00	0.00	
1,300.0	2.36	232.74	1,299.4	-18.4	-24.3	-18.4	0.00	0.00	
1,400.0	2.36	232.74	1,399.3	-20.9	-27.5	-20.9	0.00	0.00	
1,500.0	2.36	232.74	1,499.2	-23.4	-30.8	-23.4	0.00	0.00	
1,600.0	2.36	232.74	1,599.1	-25.9	-34.1	-25.9	0.00	0.00	
1,700.0	2.36	232.74	1,699.1	-28.4	-37.3	-28.4	0.00	0.00	
1,800.0	2.36	232.74	1,799.0	-30.9	-40.6	-30.9	0.00	0.00	
1,900.0	2.36	232.74	1,898.9	-33.4	-43.9	-33.4	0.00	0.00	
2,000.0	2.36	232.74	1,998.8	-35.9	-47.2	-35.9	0.00	0.00	
2,100.0	2.36	232.74	2,098.7	-38.4	-50.4	-38.4	0.00	0.00	
2,200.0	2.36	232.74	2,198.6	-40.9	-53.7	-40.9	0.00	0.00	
2,300.0	2.36	232.74	2,298.5	-43.3	-57.0	-43.3	0.00	0.00	
2,400.0	2.36	232.74	2,398.5	-45.8	-60.3	-45.8	0.00	0.00	
2,500.0	2.36	232.74	2,498.4	-48.3	-63.5	-48.3	0.00	0.00	
2,600.0	2.36	232.74	2,598.3	-50.8	-66.8	-50.8	0.00	0.00	
2,700.0	2.36	232.74	2,698.2	-53.3	-70.1	-53.3	0.00	0.00	
2,800.0	2.36	232.74	2,798.1	-55.8	-73.4	-55.8	0.00	0.00	
2,900.0	2.36	232.74	2,898.0	-58.3	-76.6	-58.3	0.00	0.00	
3,000.0	2.36	232.74	2,998.0	-60.8	-79.9	-60.8	0.00	0.00	
3,100.0	2.36	232.74	3,097.9	-63.3	-83.2	-63.3	0.00	0.00	
3,200.0	2.36	232.74	3,197.8	-65.8	-86.4	-65.8	0.00	0.00	
3,300.0	2.36	232.74	3,297.7	-68.2	-89.7	-68.2	0.00	0.00	
3,400.0	2.36	232.74	3,397.6	-70.7	-93.0	-70.7	0.00	0.00	
3,500.0	2.36	232.74	3,497.5	-73.2	-96.3	-73.2	0.00	0.00	
3,600.0	2.36	232.74	3,597.4	-75.7	-99.5	-75.7	0.00	0.00	
3,700.0	2.36	232.74	3,697.4	-78.2	-102.8	-78.2	0.00	0.00	
3,800.0	2.36	232.74	3,797.3	-80.7	-106.1	-80.7	0.00	0.00	
3,900.0	2.36	232.74	3,897.2	-83.2	-109.4	-83.2	0.00	0.00	
4,000.0	2.36	232.74	3,997.1	-85.7	-112.6	-85.7	0.00	0.00	
4,100.0	2.36	232.74	4,097.0	-88.2	-115.9	-88.2	0.00	0.00	
4,200.0	2.36	232.74	4,196.9	-90.6	-119.2	-90.6	0.00	0.00	
4,300.0	2.36	232.74	4,296.9	-93.1	-122.4	-93.1	0.00	0.00	
4,400.0	2.36	232.74	4,396.8	-95.6	-125.7	-95.6	0.00	0.00	
4,500.0	2.36	232.74	4,496.7	-98.1	-129.0	-98.1	0.00	0.00	
4,600.0	2.36	232.74	4,596.6	-100.6	-132.3	-100.6	0.00	0.00	
4,700.0	2.36	232.74	4,696.5	-103.1	-135.5	-103.1	0.00	0.00	
4,709.5	2.36	232.74	4,706.0	-103.3	-135.9	-103.3	0.00	0.00	Sussex
4,800.0	2.36	232.74	4,796.4	-105.6	-138.8	-105.6	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:	32' KB @ 5172.0ft (PATT 326)
Project:	DJ Wattenberg	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2		

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	2.36	232.74	4,896.3	-108.1	-142.1	-108.1	0.00	0.00	
5,000.0	2.36	232.74	4,996.3	-110.6	-145.4	-110.6	0.00	0.00	
5,031.8	2.36	232.74	5,028.0	-111.4	-146.4	-111.4	0.00	0.00	Sussex Marker
5,100.0	2.36	232.74	5,096.2	-113.1	-148.6	-113.1	0.00	0.00	
5,200.0	2.36	232.74	5,196.1	-115.5	-151.9	-115.5	0.00	0.00	
5,300.0	2.36	232.74	5,296.0	-118.0	-155.2	-118.0	0.00	0.00	
5,395.1	2.36	232.74	5,391.0	-120.4	-158.3	-120.4	0.00	0.00	Shannon
5,400.0	2.36	232.74	5,395.9	-120.5	-158.5	-120.5	0.00	0.00	
5,500.0	2.36	232.74	5,495.8	-123.0	-161.7	-123.0	0.00	0.00	
5,600.0	2.36	232.74	5,595.8	-125.5	-165.0	-125.5	0.00	0.00	
5,700.0	2.36	232.74	5,695.7	-128.0	-168.3	-128.0	0.00	0.00	
5,800.0	2.36	232.74	5,795.6	-130.5	-171.5	-130.5	0.00	0.00	
5,900.0	2.36	232.74	5,895.5	-133.0	-174.8	-133.0	0.00	0.00	
6,000.0	2.36	232.74	5,995.4	-135.5	-178.1	-135.5	0.00	0.00	
6,100.0	2.36	232.74	6,095.3	-137.9	-181.4	-137.9	0.00	0.00	
6,200.0	2.36	232.74	6,195.2	-140.4	-184.6	-140.4	0.00	0.00	
6,300.0	2.36	232.74	6,295.2	-142.9	-187.9	-142.9	0.00	0.00	
6,400.0	2.36	232.74	6,395.1	-145.4	-191.2	-145.4	0.00	0.00	
6,500.0	2.36	232.74	6,495.0	-147.9	-194.5	-147.9	0.00	0.00	
6,600.0	2.36	232.74	6,594.9	-150.4	-197.7	-150.4	0.00	0.00	
6,700.0	2.36	232.74	6,694.8	-152.9	-201.0	-152.9	0.00	0.00	
6,705.2	2.36	232.74	6,700.0	-153.0	-201.2	-153.0	0.00	0.00	Teepee Buttes (*if present)
6,800.0	2.36	232.74	6,794.7	-155.4	-204.3	-155.4	0.00	0.00	
6,900.0	2.36	232.74	6,894.7	-157.9	-207.5	-157.9	0.00	0.00	
6,967.5	2.36	232.74	6,962.1	-159.5	-209.8	-159.5	0.00	0.00	Start DLS 5.00 TFO 127.35
7,000.0	1.88	276.05	6,994.6	-159.9	-210.8	-159.9	5.00	-1.46	
7,100.0	5.52	340.34	7,094.4	-155.2	-214.1	-155.2	5.00	3.64	
7,200.0	10.36	349.81	7,193.4	-141.8	-217.3	-141.8	5.00	4.84	
7,300.0	15.31	353.25	7,290.9	-119.8	-220.4	-119.8	5.00	4.94	
7,400.0	20.28	355.04	7,386.1	-89.4	-223.5	-89.4	5.00	4.97	
7,500.0	25.26	356.14	7,478.2	-50.9	-226.4	-50.9	5.00	4.98	
7,535.4	27.02	356.44	7,510.0	-35.3	-227.4	-35.3	5.00	4.99	Sharon Springs
7,600.0	30.25	356.90	7,566.7	-4.4	-229.2	-4.4	5.00	4.99	
7,601.5	30.32	356.91	7,568.0	-3.6	-229.3	-3.6	5.00	4.99	Niobrara
7,700.0	35.24	357.46	7,650.8	49.6	-231.9	49.6	5.00	4.99	
7,800.0	40.23	357.90	7,729.8	110.8	-234.3	110.8	5.00	4.99	
7,857.8	43.12	358.11	7,773.0	149.1	-235.7	149.1	5.00	4.99	B Chalk
7,872.9	43.87	358.16	7,784.0	159.6	-236.0	159.6	5.00	4.99	B Marl
7,895.5	45.00	358.24	7,800.1	175.4	-236.5	175.4	5.00	4.99	Start DLS 8.00 TFO 2.65
7,900.0	45.36	358.26	7,803.3	178.5	-236.6	178.5	8.00	7.99	
7,999.4	53.30	358.72	7,868.0	253.9	-238.6	253.9	8.00	7.99	C Chalk
8,000.0	53.35	358.72	7,868.4	254.3	-238.6	254.3	8.00	7.99	
8,032.2	55.93	358.85	7,887.0	280.6	-239.1	280.6	8.00	7.99	C Marl
8,100.0	61.35	359.09	7,922.3	338.5	-240.2	338.5	8.00	7.99	
8,200.0	69.34	359.41	7,964.0	429.3	-241.4	429.3	8.00	7.99	
8,264.6	74.51	359.59	7,984.0	490.7	-241.9	490.7	8.00	8.00	Ft. Hayes
8,300.0	77.34	359.69	7,992.6	525.0	-242.1	525.0	8.00	8.00	
8,382.4	83.92	359.91	8,006.0	606.2	-242.4	606.2	8.00	8.00	Codell
8,400.0	85.33	359.96	8,007.7	623.8	-242.4	623.8	8.00	8.00	
8,458.4	90.00	0.11	8,010.0	682.1	-242.4	682.1	8.00	8.00	Start 7904.0 hold at 8458.4 MD
8,500.0	90.00	0.11	8,010.0	723.7	-242.3	723.7	0.00	0.00	
8,600.0	90.00	0.11	8,010.0	823.7	-242.1	823.7	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:	32' KB @ 5172.0ft (PATT 326)
Project:	DJ Wattenberg	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2		

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
8,700.0	90.00	0.11	8,010.0	923.7	-241.9	923.7	0.00	0.00	
8,800.0	90.00	0.11	8,010.0	1,023.7	-241.7	1,023.7	0.00	0.00	
8,900.0	90.00	0.11	8,010.0	1,123.7	-241.5	1,123.7	0.00	0.00	
9,000.0	90.00	0.11	8,010.0	1,223.7	-241.3	1,223.7	0.00	0.00	
9,100.0	90.00	0.11	8,010.0	1,323.7	-241.1	1,323.7	0.00	0.00	
9,200.0	90.00	0.11	8,010.0	1,423.7	-240.9	1,423.7	0.00	0.00	
9,300.0	90.00	0.11	8,010.0	1,523.7	-240.7	1,523.7	0.00	0.00	
9,400.0	90.00	0.11	8,010.0	1,623.7	-240.5	1,623.7	0.00	0.00	
9,500.0	90.00	0.11	8,010.0	1,723.7	-240.3	1,723.7	0.00	0.00	
9,600.0	90.00	0.11	8,010.0	1,823.7	-240.1	1,823.7	0.00	0.00	
9,700.0	90.00	0.11	8,010.0	1,923.7	-239.9	1,923.7	0.00	0.00	
9,800.0	90.00	0.11	8,010.0	2,023.7	-239.7	2,023.7	0.00	0.00	
9,900.0	90.00	0.11	8,010.0	2,123.7	-239.5	2,123.7	0.00	0.00	
10,000.0	90.00	0.11	8,010.0	2,223.7	-239.3	2,223.7	0.00	0.00	
10,100.0	90.00	0.11	8,010.0	2,323.7	-239.1	2,323.7	0.00	0.00	
10,200.0	90.00	0.11	8,010.0	2,423.7	-238.9	2,423.7	0.00	0.00	
10,300.0	90.00	0.11	8,010.0	2,523.7	-238.7	2,523.7	0.00	0.00	
10,400.0	90.00	0.11	8,010.0	2,623.7	-238.5	2,623.7	0.00	0.00	
10,500.0	90.00	0.11	8,010.0	2,723.7	-238.3	2,723.7	0.00	0.00	
10,600.0	90.00	0.11	8,010.0	2,823.7	-238.1	2,823.7	0.00	0.00	
10,700.0	90.00	0.11	8,010.0	2,923.7	-237.9	2,923.7	0.00	0.00	
10,800.0	90.00	0.11	8,010.0	3,023.7	-237.7	3,023.7	0.00	0.00	
10,900.0	90.00	0.11	8,010.0	3,123.7	-237.5	3,123.7	0.00	0.00	
11,000.0	90.00	0.11	8,010.0	3,223.7	-237.4	3,223.7	0.00	0.00	
11,100.0	90.00	0.11	8,010.0	3,323.7	-237.2	3,323.7	0.00	0.00	
11,200.0	90.00	0.11	8,010.0	3,423.7	-237.0	3,423.7	0.00	0.00	
11,300.0	90.00	0.11	8,010.0	3,523.7	-236.8	3,523.7	0.00	0.00	
11,400.0	90.00	0.11	8,010.0	3,623.7	-236.6	3,623.7	0.00	0.00	
11,500.0	90.00	0.11	8,010.0	3,723.7	-236.4	3,723.7	0.00	0.00	
11,600.0	90.00	0.11	8,010.0	3,823.7	-236.2	3,823.7	0.00	0.00	
11,700.0	90.00	0.11	8,010.0	3,923.7	-236.0	3,923.7	0.00	0.00	
11,800.0	90.00	0.11	8,010.0	4,023.7	-235.8	4,023.7	0.00	0.00	
11,900.0	90.00	0.11	8,010.0	4,123.7	-235.6	4,123.7	0.00	0.00	
12,000.0	90.00	0.11	8,010.0	4,223.7	-235.4	4,223.7	0.00	0.00	
12,100.0	90.00	0.11	8,010.0	4,323.7	-235.2	4,323.7	0.00	0.00	
12,200.0	90.00	0.11	8,010.0	4,423.7	-235.0	4,423.7	0.00	0.00	
12,300.0	90.00	0.11	8,010.0	4,523.7	-234.8	4,523.7	0.00	0.00	
12,400.0	90.00	0.11	8,010.0	4,623.7	-234.6	4,623.7	0.00	0.00	
12,500.0	90.00	0.11	8,010.0	4,723.7	-234.4	4,723.7	0.00	0.00	
12,600.0	90.00	0.11	8,010.0	4,823.7	-234.2	4,823.7	0.00	0.00	
12,700.0	90.00	0.11	8,010.0	4,923.7	-234.0	4,923.7	0.00	0.00	
12,800.0	90.00	0.11	8,010.0	5,023.7	-233.8	5,023.7	0.00	0.00	
12,900.0	90.00	0.11	8,010.0	5,123.7	-233.6	5,123.7	0.00	0.00	
13,000.0	90.00	0.11	8,010.0	5,223.7	-233.4	5,223.7	0.00	0.00	
13,100.0	90.00	0.11	8,010.0	5,323.7	-233.2	5,323.7	0.00	0.00	
13,200.0	90.00	0.11	8,010.0	5,423.7	-233.0	5,423.7	0.00	0.00	
13,300.0	90.00	0.11	8,010.0	5,523.7	-232.8	5,523.7	0.00	0.00	
13,400.0	90.00	0.11	8,010.0	5,623.7	-232.6	5,623.7	0.00	0.00	
13,500.0	90.00	0.11	8,010.0	5,723.7	-232.4	5,723.7	0.00	0.00	
13,600.0	90.00	0.11	8,010.0	5,823.7	-232.2	5,823.7	0.00	0.00	
13,700.0	90.00	0.11	8,010.0	5,923.7	-232.0	5,923.7	0.00	0.00	
13,800.0	90.00	0.11	8,010.0	6,023.7	-231.8	6,023.7	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:	32' KB @ 5172.0ft (PATT 326)
Project:	DJ Wattenberg	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2		

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
13,900.0	90.00	0.11	8,010.0	6,123.7	-231.6	6,123.7	0.00	0.00	
14,000.0	90.00	0.11	8,010.0	6,223.7	-231.4	6,223.7	0.00	0.00	
14,100.0	90.00	0.11	8,010.0	6,323.7	-231.2	6,323.7	0.00	0.00	
14,200.0	90.00	0.11	8,010.0	6,423.7	-231.0	6,423.7	0.00	0.00	
14,300.0	90.00	0.11	8,010.0	6,523.7	-230.8	6,523.7	0.00	0.00	
14,400.0	90.00	0.11	8,010.0	6,623.7	-230.7	6,623.7	0.00	0.00	
14,500.0	90.00	0.11	8,010.0	6,723.7	-230.5	6,723.7	0.00	0.00	
14,600.0	90.00	0.11	8,010.0	6,823.7	-230.3	6,823.7	0.00	0.00	
14,700.0	90.00	0.11	8,010.0	6,923.7	-230.1	6,923.7	0.00	0.00	
14,800.0	90.00	0.11	8,010.0	7,023.7	-229.9	7,023.7	0.00	0.00	
14,900.0	90.00	0.11	8,010.0	7,123.7	-229.7	7,123.7	0.00	0.00	
15,000.0	90.00	0.11	8,010.0	7,223.7	-229.5	7,223.7	0.00	0.00	
15,100.0	90.00	0.11	8,010.0	7,323.7	-229.3	7,323.7	0.00	0.00	
15,200.0	90.00	0.11	8,010.0	7,423.7	-229.1	7,423.7	0.00	0.00	
15,300.0	90.00	0.11	8,010.0	7,523.7	-228.9	7,523.7	0.00	0.00	
15,400.0	90.00	0.11	8,010.0	7,623.7	-228.7	7,623.7	0.00	0.00	
15,500.0	90.00	0.11	8,010.0	7,723.7	-228.5	7,723.7	0.00	0.00	
15,600.0	90.00	0.11	8,010.0	7,823.7	-228.3	7,823.7	0.00	0.00	
15,700.0	90.00	0.11	8,010.0	7,923.7	-228.1	7,923.7	0.00	0.00	
15,800.0	90.00	0.11	8,010.0	8,023.7	-227.9	8,023.7	0.00	0.00	
15,900.0	90.00	0.11	8,010.0	8,123.7	-227.7	8,123.7	0.00	0.00	
16,000.0	90.00	0.11	8,010.0	8,223.7	-227.5	8,223.7	0.00	0.00	
16,100.0	90.00	0.11	8,010.0	8,323.7	-227.3	8,323.7	0.00	0.00	
16,200.0	90.00	0.11	8,010.0	8,423.7	-227.1	8,423.7	0.00	0.00	
16,300.0	90.00	0.11	8,010.0	8,523.7	-226.9	8,523.7	0.00	0.00	
16,362.3	90.00	0.11	8,010.0	8,586.0	-226.8	8,586.0	0.00	0.00	TD at 16362.3

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-1 - plan hits target center - Point	0.00	0.00	7,800.1	175.4	-236.5	1,250,254.30	3,130,888.59	40.019381	-105.032684
Waste Connections 3D-2 - plan hits target center - Point	0.00	0.00	8,010.0	8,586.0	-226.8	1,258,664.90	3,130,853.90	40.042470	-105.032650
Waste Connections 3D-3 - plan misses target center by 25.1ft at 15222.2ft MD (8010.0 TVD, 7445.8 N, -229.0 E) - Point	0.00	0.00	8,035.0	7,445.8	-226.8	1,257,524.73	3,130,859.91	40.039340	-105.032650

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:	32' KB @ 5172.0ft (PATT 326)
Project:	DJ Wattenberg	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
703.1	703.0	Fox Hills - BASE				
4,709.5	4,706.0	Sussex				
5,031.8	5,028.0	Sussex Marker				
5,395.1	5,391.0	Shannon				
6,705.2	6,700.0	Teepee Buttes (*if present)				
7,535.4	7,510.0	Sharon Springs				
7,601.5	7,568.0	Niobrara				
7,857.8	7,773.0	B Chalk				
7,872.9	7,784.0	B Marl				
7,999.4	7,868.0	C Chalk				
8,032.2	7,887.0	C Marl				
8,264.6	7,984.0	Ft. Hayes				
8,382.4	8,006.0	Codell				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
500.0	500.0	0.0	0.0	Start Build 2.00	
617.8	617.8	-1.5	-1.9	Start 6349.7 hold at 617.8 MD	
6,967.5	6,962.1	-159.5	-209.8	Start DLS 5.00 TFO 127.35	
7,895.5	7,800.1	175.4	-236.5	Start DLS 8.00 TFO 2.65	
8,458.4	8,010.0	682.1	-242.4	Start 7904.0 hold at 8458.4 MD	
16,362.3	8,010.0	8,586.0	-226.8	TD at 16362.3	

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S29-T1N-R68W (Pratt/Waste Connections)

Waste Connections 3D-29H-M168

Hz

Plan #2

Anticollision Report

03 December, 2014

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Reference	Plan #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	12/2/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	16,362.3	Plan #2 (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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	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						
S18-T1N-R68W (Erie Woolley)						
Erie-Vessels 4G-18H-I168 - Hz - Plan #2						Out of range
Erie-Vessels 4H-18H-I168 - Hz - Plan #3						Out of range
S20-T1N-R68W (William Peltier)						
William H Peltier 2 - Vh - DD	16,358.1	7,840.0	700.3	538.4	4.326	CC
William H Peltier 2 - Vh - DD	16,362.3	7,840.0	700.4	538.4	4.324	ES, SF
William Peltier 12-20 - Vh - Vh	15,007.8	8,027.9	769.4	632.9	5.634	CC, ES
William Peltier 12-20 - Vh - Vh	15,100.0	8,028.4	774.9	636.8	5.608	SF
S29-T1N-R68W (Pratt/Waste Connections)						
COSTIGAN 24-20 - ENCANA - SURVEYS	12,250.5	8,141.1	773.9	671.1	7.528	CC, ES
COSTIGAN 24-20 - ENCANA - SURVEYS	12,400.0	8,142.3	788.2	682.8	7.479	SF
COSTIGAN 33-20 - ENCANA - SURVEYS						Out of range
COSTIGAN 34-20 - ENCANA - SURVEYS						Out of range
COSTIGAN 43-20 - ENCANA - SURVEYS						Out of range
COSTIGAN 6-8-20 - ENCANA - SURVEYS						Out of range
COSTIGAN 8-6-20 - ENCANA - SURVEYS						Out of range
COSTIGAN 8-8-20 - ENCANA - SURVEYS						Out of range
COSTIGAN E UNIT 1 - ENCANA - NO SURVEYS	13,100.1	7,915.0	252.6	142.4	2.293	CC, ES, SF
EDWARD P COSTIGAN 1 - ENCANA - SURVEYS						Out of range
M E DRIER 1 - SYNERGY - GYRO						Out of range
PRATT 0-2-29 - ENCANA - SURVEYS						Out of range
PRATT 1 - SYNERGY - GYRO	8,349.1	7,900.0	647.1	615.4	20.365	CC, ES
PRATT 1 - SYNERGY - GYRO	8,500.0	7,900.0	662.4	628.8	19.757	SF
PRATT 12-29 - ENCANA - SURVEYS	9,593.8	8,234.6	509.1	442.0	7.586	CC
PRATT 12-29 - ENCANA - SURVEYS	9,600.0	8,234.7	509.1	441.9	7.575	ES
PRATT 12-29 - ENCANA - SURVEYS	9,700.0	8,236.7	520.1	451.2	7.554	SF
PRATT 2 - SYNERGY - GYRO	7,031.6	6,998.3	216.8	192.1	8.802	CC, ES, SF
PRATT 2-0-29 - ENCANA - SURVEYS	11,461.0	8,059.4	90.2	7.1	1.085	Level 2, CC, ES, SF
PRATT 21-29 - ENCANA WELL - SURVEYS	11,074.0	8,210.3	889.8	814.1	11.762	CC
PRATT 21-29 - ENCANA WELL - SURVEYS	11,100.0	8,210.7	890.1	814.1	11.698	ES
PRATT 21-29 - ENCANA WELL - SURVEYS	11,300.0	8,213.8	918.0	838.5	11.544	SF
PRATT 22-29 - ENCANA WELL - SURVEYS	9,438.5	8,537.0	756.5	688.0	11.046	CC, ES
PRATT 22-29 - ENCANA WELL - SURVEYS	9,600.0	8,531.5	773.5	702.4	10.881	SF
PRATT 2-4-29 - ENCANA - SURVEYS	9,001.0	8,496.3	121.8	54.1	1.800	CC, ES, SF
PRATT 29-3 - SYNERGY - NO SURVEYS						Out of range
PRATT 4-2-29 - ENCANA - SURVEYS						Out of range
Pratt 4B-29H-P168 - Hz - Plan #1						Out of range
Pratt 4C-29H-P168 - Hz - Plan #4						Out of range
Pratt 4D-29H-P168 - Hz - Plan #2						Out of range
Pratt 4E-29H-P168 - Hz - Plan #4 Ext						Out of range
Pratt 4F-29H-P168 - Hz - Plan #2						Out of range
Pratt 4G-29H-P168 - Hz - Plan #4						Out of range
Pratt 4G-29H-P168 - Hz - SURVEYS						Out of range
PRATT F UNIT 1 - ENCANA WELL - NO SURVEYS	11,088.3	7,942.0	783.0	707.5	10.374	CC
PRATT F UNIT 1 - ENCANA WELL - NO SURVEYS	11,100.0	7,942.0	783.1	707.4	10.348	ES
PRATT F UNIT 1 - ENCANA WELL - NO SURVEYS	11,200.0	7,942.0	790.9	713.5	10.220	SF
SRC PRATT 13-29D - SYNERGY - SURVEYS	1,610.0	1,603.1	411.3	403.2	50.963	CC
SRC PRATT 13-29D - SYNERGY - SURVEYS	1,700.0	1,691.2	411.8	403.2	47.853	ES
SRC PRATT 13-29D - SYNERGY - SURVEYS	8,300.0	8,098.8	504.3	465.7	13.068	SF
SRC PRATT 14-29D - SYNERGY - SURVEYS	0.0	0.0	514.8			
SRC PRATT 14-29D - SYNERGY - SURVEYS	100.0	76.8	514.9	514.7	2,150.040	ES
SRC PRATT 14-29D - SYNERGY - SURVEYS	3,900.0	3,699.0	988.7	975.4	74.546	SF

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	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
S29-T1N-R68W (Pratt/Waste Connections)						
SRC PRATT 24-29 PD - SYNERGY - SURVEYS	1,106.2	1,081.7	473.0	468.4	102.316	CC, ES
SRC PRATT 24-29 PD - SYNERGY - SURVEYS	3,000.0	2,921.3	690.7	677.6	52.636	SF
SRC PRATT 29HD (AL) - SYNERGY - NEVER DRILLED	7,017.2	6,980.8	285.8	261.3	11.661	CC, ES
SRC PRATT 29HD (AL) - SYNERGY - NEVER DRILLED	7,100.0	7,063.4	288.5	263.7	11.645	SF
SRC PRATT 29LD (AL) - SYNERGY - NEVER DRILLED	7,008.2	6,971.8	261.4	236.8	10.614	CC, ES, SF
SRC PRATT 29PD - SYNERGY - SURVEYS						Out of range
SRC PRATT 29QD (AL) - SYNERGY - NEVER DRILLED	7,002.3	6,967.5	252.2	227.5	10.196	CC, ES, SF
SRC PRATT 29SD - SYNERGY - SURVEYS						Out of range
SRC PRATT 29TD - SYNERGY - SURVEYS						Out of range
SRC PRATT 29XD - SYNERGY - GYRO						Out of range
SRC PRATT 31-29D - SYNERGY - SURVEYS						Out of range
SRC PRATT 32-29D - SYNERGY - SURVEYS						Out of range
SRC PRATT 33-29PD - SYNERGY - SURVEYS						Out of range
SRC PRATT 34-29D - SYNERGY - SURVEYS						Out of range
SRC PRATT 41-29D - SYNERGY - SURVEYS						Out of range
SRC PRATT 42-29D - SYNERGY - SURVEYS						Out of range
SRC PRATT 43-29D - SYNERGY - SURVEYS						Out of range
SRC PRATT 44-29D (AL) - SYNERGY - NEVER DRILLE						Out of range
Waste Connections 3A-29H-M168 - Hz - Plan #1	200.0	181.0	28.0	27.4	47.760	CC, ES
Waste Connections 3A-29H-M168 - Hz - Plan #1	800.0	776.8	49.6	46.9	18.482	SF
Waste Connections 3B-29H-M168 - Hz - Plan #2	300.0	281.0	19.6	18.7	20.957	CC, ES
Waste Connections 3B-29H-M168 - Hz - Plan #2	15,400.0	16,091.4	649.2	377.5	2.389	SF
Waste Connections 3C-29H-M168 - Hz - Plan #1	722.8	703.5	5.9	3.4	2.426	CC, ES
Waste Connections 3C-29H-M168 - Hz - Plan #1	15,163.2	16,590.2	402.6	172.3	1.748	SF
Waste Connections 3E-29H-M168 - Hz - Plan #1	407.8	388.8	11.2	9.9	8.541	CC
Waste Connections 3E-29H-M168 - Hz - Plan #1	500.0	481.0	11.3	9.6	6.890	ES
Waste Connections 3E-29H-M168 - Hz - Plan #1	15,309.7	16,729.1	406.4	171.1	1.727	SF
Waste Connections 3F-29H-M168 - Hz - Plan #2	300.0	281.0	19.6	18.7	20.957	CC
Waste Connections 3F-29H-M168 - Hz - Plan #2	400.0	380.9	19.8	18.5	15.403	ES
Waste Connections 3F-29H-M168 - Hz - Plan #2	16,362.3	17,962.9	700.2	393.8	2.285	SF
Waste Connections 3G-29H-M168 - Hz - Plan #1	200.0	182.0	30.8	30.2	52.380	CC, ES
Waste Connections 3G-29H-M168 - Hz - Plan #1	600.0	580.0	41.5	39.5	20.797	SF
WILLIAM H PELTIER 1 (P/A) - VESSELS - NO SURVEY						Out of range
WILLIAM H PELTIER 2 - ENCANA - SURVEYS	16,358.1	7,840.0	700.3	538.4	4.326	CC
WILLIAM H PELTIER 2 - ENCANA - SURVEYS	16,362.3	7,840.0	700.4	538.4	4.324	ES, SF
WILLIAM PELTIER 12-20 - ENCANA - SURVEYS	15,007.8	8,027.9	769.4	632.9	5.634	CC, ES
WILLIAM PELTIER 12-20 - ENCANA - SURVEYS	15,100.0	8,028.4	774.9	636.8	5.608	SF
WILLIAM PELTIER 1A-20H - ENCANA - SURVEYS	15,100.0	11,639.1	362.0	315.4	7.762	SF
WILLIAM PELTIER 1A-20H - ENCANA - SURVEYS	15,239.7	11,607.9	335.5	293.0	7.895	CC, ES
S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)						
Morgan Hills 11-7H-A168 - HZ - Plan #2						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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S20-T1N-R68W (William Peltier) - William H Peltier 2 - Vh - DD												Offset Site Error:	0.0 ft
Survey Program: 100-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
15,700.0	8,010.0	7,840.0	7,839.3	141.7	13.7	75.64	8,580.5	451.7	961.0	810.3	150.76	6.375	
15,800.0	8,010.0	7,840.0	7,839.3	143.5	13.7	75.64	8,580.5	451.7	895.5	743.1	152.45	5.874	
15,900.0	8,010.0	7,840.0	7,839.3	145.2	13.7	75.64	8,580.5	451.7	836.9	682.7	154.14	5.429	
16,000.0	8,010.0	7,840.0	7,839.3	147.0	13.7	75.64	8,580.5	451.7	786.6	630.8	155.84	5.048	
16,100.0	8,010.0	7,840.0	7,839.3	148.7	13.7	75.64	8,580.5	451.7	746.4	588.9	157.53	4.738	
16,200.0	8,010.0	7,840.0	7,839.3	150.5	13.7	75.64	8,580.5	451.7	718.0	558.7	159.22	4.509	
16,300.0	8,010.0	7,840.0	7,839.3	152.2	13.7	75.64	8,580.5	451.7	702.7	541.8	160.92	4.367	
16,358.1	8,010.0	7,840.0	7,839.3	153.2	13.7	75.64	8,580.5	451.7	700.3	538.4	161.90	4.326 CC	
16,362.3	8,010.0	7,840.0	7,839.3	153.3	13.7	75.64	8,580.5	451.7	700.4	538.4	161.97	4.324 ES, SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S20-T1N-R68W (William Peltier) - William Peltier 12-20 - Vh - Vh												Offset Site Error: 0.0 ft		
Survey Program: 100-Gyro												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		
14,400.0	8,010.0	8,024.2	8,022.0	119.1	7.0	-90.67	7,232.9	-998.8	980.5	854.5	125.98	7.783		
14,500.0	8,010.0	8,024.8	8,022.6	120.8	7.0	-90.72	7,233.0	-998.8	921.9	794.2	127.72	7.218		
14,600.0	8,010.0	8,025.5	8,023.2	122.5	7.0	-90.76	7,233.0	-998.8	870.8	741.3	129.47	6.726		
14,700.0	8,010.0	8,026.1	8,023.8	124.3	7.0	-90.81	7,233.0	-998.8	828.7	697.5	131.21	6.316		
14,800.0	8,010.0	8,026.7	8,024.4	126.0	7.0	-90.85	7,233.0	-998.8	797.0	664.0	132.95	5.995		
14,900.0	8,010.0	8,027.3	8,025.0	127.8	7.0	-90.89	7,233.0	-998.8	776.9	642.2	134.70	5.768		
15,000.0	8,010.0	8,027.8	8,025.6	129.5	7.0	-90.94	7,233.0	-998.8	769.5	633.0	136.44	5.640		
15,007.8	8,010.0	8,027.9	8,025.7	129.7	7.0	-90.94	7,233.0	-998.8	769.4	632.9	136.58	5.634	CC, ES	
15,100.0	8,010.0	8,028.4	8,026.2	131.3	7.0	-90.98	7,233.0	-998.8	774.9	636.8	138.18	5.608	SF	
15,200.0	8,010.0	8,029.0	8,026.8	133.0	7.0	-91.03	7,233.0	-998.8	793.1	653.1	139.93	5.668		
15,300.0	8,010.0	8,029.6	8,027.4	134.8	7.0	-91.07	7,233.0	-998.7	823.0	681.4	141.67	5.810		
15,400.0	8,010.0	8,030.2	8,028.0	136.5	7.0	-91.11	7,233.0	-998.7	863.6	720.2	143.41	6.022		
15,500.0	8,010.0	8,030.8	8,028.6	138.2	7.0	-91.16	7,233.0	-998.7	913.4	768.2	145.16	6.292		
15,600.0	8,010.0	8,031.4	8,029.1	140.0	7.0	-91.20	7,233.0	-998.7	970.9	824.0	146.90	6.609		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - COSTIGAN 24-20 - ENCANA - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 1173-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		
11,700.0	8,010.0	8,136.7	7,909.4	72.3	28.0	88.69	4,472.6	538.8	949.7	856.4	93.28	10.181		
11,800.0	8,010.0	8,137.5	7,910.2	74.0	28.0	88.75	4,472.6	538.8	895.5	800.5	95.01	9.425		
11,900.0	8,010.0	8,138.3	7,911.0	75.7	28.0	88.81	4,472.6	538.9	849.6	752.8	96.74	8.782		
12,000.0	8,010.0	8,139.1	7,911.7	77.4	28.0	88.87	4,472.7	538.9	813.4	715.0	98.47	8.261		
12,100.0	8,010.0	8,139.9	7,912.5	79.1	28.0	88.93	4,472.7	538.9	788.4	688.2	100.20	7.869		
12,200.0	8,010.0	8,140.7	7,913.3	80.9	28.0	88.99	4,472.7	538.9	775.6	673.6	101.93	7.609		
12,250.5	8,010.0	8,141.1	7,913.8	81.7	28.0	89.02	4,472.7	538.9	773.9	671.1	102.80	7.528 CC, ES		
12,300.0	8,010.0	8,141.5	7,914.1	82.6	28.0	89.05	4,472.7	538.9	775.5	671.8	103.66	7.481		
12,400.0	8,010.0	8,142.3	7,914.9	84.3	28.0	89.11	4,472.7	538.9	788.2	682.8	105.39	7.479 SF		
12,500.0	8,010.0	8,143.1	7,915.7	86.1	28.0	89.17	4,472.7	538.9	813.1	706.0	107.12	7.590		
12,600.0	8,010.0	8,143.9	7,916.5	87.8	28.0	89.22	4,472.7	539.0	849.2	740.3	108.86	7.800		
12,700.0	8,010.0	8,144.7	7,917.3	89.5	28.0	89.28	4,472.7	539.0	895.0	784.4	110.59	8.092		
12,800.0	8,010.0	8,145.5	7,918.1	91.3	28.0	89.34	4,472.7	539.0	949.1	836.8	112.33	8.449		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - COSTIGAN E UNIT 1 - ENCANA - NO SURVEYS												Offset Site Error:	0.0 ft
Survey Program: 8446-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)					
12,200.0	8,010.0	7,915.0	7,915.0	80.9	13.8	-90.00	5,324.3	-485.8	934.9	840.3	94.58	9.885	
12,300.0	8,010.0	7,915.0	7,915.0	82.6	13.8	-90.00	5,324.3	-485.8	839.0	742.7	96.31	8.712	
12,400.0	8,010.0	7,915.0	7,915.0	84.3	13.8	-90.00	5,324.3	-485.8	744.3	646.2	98.04	7.592	
12,500.0	8,010.0	7,915.0	7,915.0	86.1	13.8	-90.00	5,324.3	-485.8	651.1	551.3	99.77	6.526	
12,600.0	8,010.0	7,915.0	7,915.0	87.8	13.8	-90.00	5,324.3	-485.8	560.3	458.8	101.50	5.520	
12,700.0	8,010.0	7,915.0	7,915.0	89.5	13.8	-90.00	5,324.3	-485.8	473.2	369.9	103.24	4.583	
12,800.0	8,010.0	7,915.0	7,915.0	91.3	13.8	-90.00	5,324.3	-485.8	392.3	287.3	104.97	3.737	
12,900.0	8,010.0	7,915.0	7,915.0	93.0	13.8	-90.00	5,324.3	-485.8	322.3	215.6	106.71	3.020	
13,000.0	8,010.0	7,915.0	7,915.0	94.7	13.8	-90.00	5,324.3	-485.8	271.7	163.3	108.44	2.506	
13,100.0	8,010.0	7,915.0	7,915.0	96.5	13.8	-90.00	5,324.3	-485.8	252.6	142.4	110.18	2.293	
13,100.1	8,010.0	7,915.0	7,915.0	96.5	13.8	-90.00	5,324.3	-485.8	252.6	142.4	110.18	2.293 CC, ES, SF	
13,200.0	8,010.0	7,915.0	7,915.0	98.2	13.8	-90.00	5,324.3	-485.8	271.7	159.7	111.92	2.427	
13,300.0	8,010.0	7,915.0	7,915.0	99.9	13.8	-90.00	5,324.3	-485.8	322.1	208.5	113.65	2.834	
13,400.0	8,010.0	7,915.0	7,915.0	101.7	13.8	-90.00	5,324.3	-485.8	392.1	276.7	115.39	3.398	
13,500.0	8,010.0	7,915.0	7,915.0	103.4	13.8	-90.00	5,324.3	-485.8	473.0	355.9	117.13	4.038	
13,600.0	8,010.0	7,915.0	7,915.0	105.1	13.8	-90.00	5,324.3	-485.8	560.1	441.2	118.87	4.712	
13,700.0	8,010.0	7,915.0	7,915.0	106.9	13.8	-90.00	5,324.3	-485.8	650.9	530.3	120.61	5.397	
13,800.0	8,010.0	7,915.0	7,915.0	108.6	13.8	-90.00	5,324.3	-485.8	744.1	621.7	122.35	6.082	
13,900.0	8,010.0	7,915.0	7,915.0	110.4	13.8	-90.00	5,324.3	-485.8	838.8	714.7	124.09	6.760	
14,000.0	8,010.0	7,915.0	7,915.0	112.1	13.8	-90.00	5,324.3	-485.8	934.7	808.8	125.83	7.428	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - PRATT 1 - SYNERGY - GYRO													Offset Site Error:	0.0 ft
Survey Program: 100-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	0.0	0.0	0.0	0.0	40.96	516.6	448.4	684.7					
100.0	100.0	69.8	69.8	0.1	0.1	40.95	516.7	448.3	684.0	683.8	0.24	2,842.729		
200.0	200.0	170.1	170.1	0.3	0.3	40.91	516.9	448.0	684.1	683.5	0.59	1,158.957		
300.0	300.0	270.0	270.0	0.5	0.5	40.92	516.9	448.0	684.0	683.1	0.94	728.431		
400.0	400.0	371.7	371.7	0.6	0.6	40.91	516.9	447.9	684.0	682.7	1.29	529.738		
484.3	484.3	454.3	454.3	0.8	0.8	40.89	516.9	447.6	683.8	682.2	1.58	432.116		
500.0	500.0	469.3	469.3	0.8	0.8	40.89	516.9	447.6	683.8	682.1	1.64	417.948		
600.0	600.0	569.5	569.5	1.0	1.0	168.16	517.1	447.7	685.7	683.7	1.98	345.465		
700.0	699.9	669.1	669.1	1.2	1.2	168.19	517.4	447.4	689.7	687.4	2.33	295.598		
800.0	799.8	771.8	771.8	1.4	1.3	168.27	517.4	447.4	693.7	691.0	2.69	258.156		
900.0	899.7	869.3	869.3	1.5	1.5	168.37	516.9	447.6	697.5	694.5	3.03	230.030		
1,000.0	999.6	969.3	969.2	1.7	1.7	168.46	516.9	447.8	701.7	698.3	3.38	207.511		
1,100.0	1,099.6	1,069.5	1,069.4	1.9	1.9	168.49	517.2	447.5	705.7	702.0	3.73	189.123		
1,200.0	1,199.5	1,168.7	1,168.7	2.1	2.0	168.46	518.0	446.7	709.8	705.7	4.08	173.976		
1,300.0	1,299.4	1,272.1	1,272.0	2.3	2.2	168.48	518.4	446.2	713.8	709.4	4.44	160.922		
1,400.0	1,399.3	1,368.9	1,368.8	2.5	2.4	168.44	519.0	445.0	717.5	712.7	4.78	150.096		
1,500.0	1,499.2	1,473.6	1,473.6	2.7	2.6	168.39	520.0	443.9	721.5	716.4	5.14	140.404		
1,600.0	1,599.1	1,571.0	1,571.0	2.8	2.7	168.37	520.2	442.6	724.9	719.4	5.48	132.167		
1,700.0	1,699.1	1,675.4	1,675.4	3.0	2.9	168.30	521.1	441.1	728.6	722.8	5.84	124.685		
1,800.0	1,799.0	1,773.2	1,773.1	3.2	3.1	168.21	521.7	439.1	731.7	725.6	6.19	118.188		
1,900.0	1,898.9	1,870.0	1,869.8	3.4	3.3	168.13	522.7	437.4	735.5	728.9	6.54	112.512		
2,000.0	1,998.8	1,973.3	1,973.2	3.6	3.5	168.06	523.6	436.0	739.3	732.4	6.89	107.223		
2,100.0	2,098.7	2,077.7	2,077.5	3.8	3.6	167.97	524.3	433.8	742.4	735.1	7.25	102.341		
2,200.0	2,198.6	2,174.5	2,174.3	4.0	3.8	167.91	524.5	431.9	745.3	737.7	7.60	98.071		
2,300.0	2,298.5	2,271.1	2,271.0	4.2	4.0	167.88	525.0	430.6	748.8	740.9	7.94	94.262		
2,400.0	2,398.5	2,373.4	2,373.2	4.3	4.2	167.90	525.0	430.0	752.5	744.2	8.30	90.684		
2,500.0	2,498.4	2,471.5	2,471.3	4.5	4.3	167.96	524.6	429.5	755.9	747.2	8.64	87.458		
2,600.0	2,598.3	2,570.5	2,570.3	4.7	4.5	168.09	523.9	430.0	759.6	750.6	8.99	84.510		
2,700.0	2,698.2	2,669.5	2,669.3	4.9	4.7	168.22	523.1	430.5	763.4	754.1	9.33	81.782		
2,800.0	2,798.1	2,772.9	2,772.7	5.1	4.9	168.35	522.3	430.9	767.2	757.5	9.69	79.180		
2,900.0	2,898.0	2,872.5	2,872.4	5.3	5.0	168.44	521.6	430.8	770.5	760.5	10.04	76.764		
3,000.0	2,998.0	2,971.2	2,971.0	5.5	5.2	168.48	521.4	430.3	774.1	763.7	10.38	74.544		
3,100.0	3,097.9	3,074.6	3,074.4	5.7	5.4	168.53	521.1	429.8	777.6	766.9	10.74	72.400		
3,200.0	3,197.8	3,169.6	3,169.4	5.9	5.5	168.53	521.1	428.8	780.9	769.9	11.08	70.472		
3,300.0	3,297.7	3,265.6	3,265.4	6.0	5.7	168.53	521.8	428.2	785.1	773.7	11.43	68.717		
3,400.0	3,397.6	3,367.7	3,367.5	6.2	5.9	168.48	522.9	427.3	789.4	777.6	11.78	67.010		
3,500.0	3,497.5	3,473.5	3,473.2	6.4	6.1	168.41	523.9	425.7	793.1	780.9	12.14	65.321		
3,600.0	3,597.4	3,576.0	3,575.8	6.6	6.3	168.36	524.1	423.9	796.2	783.7	12.50	63.709		
3,700.0	3,697.4	3,672.9	3,672.6	6.8	6.4	168.32	524.4	422.3	799.3	786.4	12.84	62.239		
3,800.0	3,797.3	3,764.5	3,764.2	7.0	6.6	168.30	524.9	421.3	803.1	789.9	13.18	60.942		
3,900.0	3,897.2	3,858.9	3,858.6	7.2	6.8	168.28	526.2	421.1	807.9	794.4	13.52	59.764		
4,000.0	3,997.1	3,960.8	3,960.5	7.4	6.9	168.24	528.0	420.7	813.0	799.2	13.87	58.601		
4,100.0	4,097.0	4,060.0	4,059.7	7.6	7.1	168.15	529.9	419.6	817.8	803.5	14.22	57.491		
4,200.0	4,196.9	4,155.4	4,155.0	7.7	7.3	168.11	531.6	419.3	823.0	808.4	14.57	56.494		
4,300.0	4,296.9	4,251.5	4,251.1	7.9	7.4	168.08	533.7	419.3	828.7	813.8	14.91	55.573		
4,400.0	4,396.8	4,352.1	4,351.7	8.1	7.6	168.03	536.2	419.5	834.7	819.4	15.26	54.682		
4,500.0	4,496.7	4,455.0	4,454.6	8.3	7.8	167.99	538.4	419.4	840.3	824.6	15.62	53.794		
4,600.0	4,596.6	4,554.0	4,553.6	8.5	8.0	167.95	540.4	419.2	845.7	829.7	15.97	52.957		
4,700.0	4,696.5	4,651.9	4,651.5	8.7	8.1	167.90	542.6	419.2	851.4	835.1	16.32	52.177		
4,800.0	4,796.4	4,755.0	4,754.5	8.9	8.3	167.84	545.2	418.9	857.1	840.4	16.67	51.402		
4,900.0	4,896.3	4,855.1	4,854.5	9.1	8.5	167.79	547.2	418.4	862.3	845.3	17.03	50.648		
5,000.0	4,996.3	4,951.9	4,951.3	9.2	8.7	167.74	549.3	418.3	868.0	850.6	17.37	49.961		

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - PRATT 1 - SYNERGY - GYRO												Offset Site Error:	0.0 ft
Survey Program: 100-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
5,100.0	5,096.2	5,051.9	5,051.4	9.4	8.9	167.67	551.9	418.0	873.7	856.0	17.72	49.295	
5,200.0	5,196.1	5,158.3	5,157.7	9.6	9.0	167.65	553.9	417.9	879.2	861.1	18.09	48.610	
5,300.0	5,296.0	5,263.9	5,263.3	9.8	9.2	167.63	555.1	417.4	883.7	865.3	18.45	47.905	
5,400.0	5,395.9	5,363.3	5,362.7	10.0	9.4	167.58	556.3	416.4	888.0	869.2	18.80	47.239	
5,500.0	5,495.8	5,468.7	5,468.1	10.2	9.6	167.53	557.7	415.2	892.2	873.1	19.16	46.570	
5,600.0	5,595.8	5,571.8	5,571.2	10.4	9.8	167.51	558.1	413.8	895.7	876.2	19.52	45.897	
5,700.0	5,695.7	5,663.1	5,662.5	10.6	9.9	167.48	558.7	412.7	899.5	879.6	19.85	45.309	
5,800.0	5,795.6	5,760.2	5,759.5	10.8	10.1	167.44	560.2	412.0	904.2	884.0	20.20	44.766	
5,900.0	5,895.5	5,861.0	5,860.3	10.9	10.3	167.40	561.6	411.2	908.8	888.2	20.55	44.219	
6,000.0	5,995.4	5,967.6	5,966.9	11.1	10.5	167.36	563.0	410.2	913.2	892.2	20.91	43.661	
6,100.0	6,095.3	6,068.6	6,067.9	11.3	10.6	167.35	563.3	409.2	916.8	895.5	21.27	43.109	
6,200.0	6,195.2	6,164.4	6,163.7	11.5	10.8	167.34	563.9	408.4	920.7	899.1	21.61	42.605	
6,300.0	6,295.2	6,263.1	6,262.4	11.7	11.0	167.31	565.0	407.5	925.0	903.1	21.96	42.125	
6,400.0	6,395.1	6,367.2	6,366.5	11.9	11.2	167.32	565.6	407.0	929.2	906.9	22.32	41.637	
6,500.0	6,495.0	6,468.5	6,467.8	12.1	11.3	167.33	565.9	406.2	932.9	910.2	22.67	41.153	
6,600.0	6,594.9	6,564.9	6,564.2	12.3	11.5	167.35	566.1	405.7	936.7	913.7	23.01	40.706	
6,700.0	6,694.8	6,664.1	6,663.4	12.5	11.7	167.36	566.7	405.3	940.9	917.6	23.36	40.279	
6,800.0	6,794.7	6,768.8	6,768.1	12.6	11.9	167.36	567.3	404.5	944.9	921.2	23.72	39.837	
6,900.0	6,894.7	6,870.0	6,869.3	12.8	12.0	167.37	567.4	403.6	948.4	924.3	24.07	39.399	
7,000.0	6,994.6	6,983.1	6,982.4	13.0	12.2	124.09	567.3	402.0	951.1	926.7	24.45	38.900	
7,100.0	7,094.4	7,076.5	7,075.7	13.2	12.4	60.20	567.0	399.9	947.9	923.1	24.76	38.279	
7,200.0	7,193.4	7,164.1	7,163.3	13.3	12.6	51.58	567.7	398.1	939.2	914.2	25.00	37.567	
7,300.0	7,290.9	7,254.3	7,253.5	13.4	12.7	49.57	569.0	397.4	925.3	900.1	25.20	36.727	
7,400.0	7,386.1	7,342.2	7,341.4	13.5	12.9	49.75	570.7	397.0	906.1	880.7	25.36	35.729	
7,500.0	7,478.2	7,427.7	7,426.9	13.6	13.0	51.20	573.1	397.2	882.4	856.9	25.53	34.560	
7,600.0	7,566.7	7,519.2	7,518.3	13.8	13.2	53.79	576.3	397.0	854.3	828.5	25.78	33.137	
7,700.0	7,650.8	7,610.0	7,609.1	14.1	13.4	57.43	579.1	396.7	821.9	795.8	26.15	31.434	
7,800.0	7,729.8	7,688.4	7,687.4	14.4	13.5	61.68	581.0	396.7	787.0	760.4	26.65	29.531	
7,900.0	7,803.3	7,755.6	7,754.6	14.8	13.6	66.30	582.5	397.3	751.9	724.5	27.31	27.531	
8,000.0	7,868.4	7,816.2	7,815.1	15.4	13.7	72.19	584.2	398.3	717.6	689.5	28.13	25.511	
8,100.0	7,922.3	7,868.8	7,867.8	16.1	13.8	78.14	585.6	399.6	686.3	657.2	29.15	23.547	
8,200.0	7,964.0	7,900.0	7,898.9	17.0	13.9	82.40	586.3	400.6	661.8	631.6	30.20	21.913	
8,300.0	7,992.6	7,900.0	7,898.9	18.0	13.9	83.36	586.3	400.6	648.7	617.5	31.23	20.775	
8,349.1	8,001.7	7,900.0	7,898.9	18.5	13.9	83.46	586.3	400.6	647.1	615.4	31.78	20.365 CC, ES	
8,400.0	8,007.7	7,900.0	7,898.9	19.1	13.9	83.31	586.3	400.6	648.9	616.5	32.33	20.068	
8,500.0	8,010.0	7,900.0	7,898.9	20.4	13.9	82.81	586.3	400.6	662.4	628.8	33.52	19.757 SF	
8,600.0	8,010.0	7,900.0	7,898.9	21.7	13.9	82.81	586.3	400.6	689.9	655.0	34.85	19.797	
8,700.0	8,010.0	7,900.0	7,898.9	23.0	13.9	82.81	586.3	400.6	730.2	693.9	36.23	20.155	
8,800.0	8,010.0	7,900.0	7,898.9	24.4	13.9	82.81	586.3	400.6	781.3	743.6	37.65	20.748	
8,900.0	8,010.0	7,900.0	7,898.9	25.9	13.9	82.81	586.3	400.6	841.2	802.1	39.12	21.502	
9,000.0	8,010.0	7,900.0	7,898.9	27.4	13.9	82.81	586.3	400.6	908.2	867.6	40.62	22.359	
9,100.0	8,010.0	7,900.0	7,898.9	28.9	13.9	82.81	586.3	400.6	980.8	938.7	42.15	23.272	

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - PRATT 12-29 - ENCANA - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 72-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	8,010.0	8,218.7	7,954.6	24.4	31.1	-88.60	1,818.1	-749.3	942.9	888.2	54.68	17.242		
8,900.0	8,010.0	8,220.7	7,956.6	25.9	31.1	-88.83	1,818.2	-749.3	860.4	804.2	56.16	15.319		
9,000.0	8,010.0	8,222.7	7,958.7	27.4	31.1	-89.06	1,818.2	-749.3	782.0	724.4	57.68	13.558		
9,100.0	8,010.0	8,224.8	7,960.7	28.9	31.1	-89.29	1,818.3	-749.3	709.1	649.9	59.22	11.975		
9,200.0	8,010.0	8,226.8	7,962.7	30.5	31.1	-89.51	1,818.3	-749.3	643.6	582.8	60.79	10.587		
9,300.0	8,010.0	8,228.8	7,964.7	32.0	31.1	-89.74	1,818.3	-749.2	587.7	525.4	62.37	9.424		
9,400.0	8,010.0	8,230.8	7,966.7	33.6	31.1	-89.96	1,818.4	-749.2	544.7	480.7	63.97	8.515		
9,500.0	8,010.0	8,232.8	7,968.7	35.2	31.1	-90.19	1,818.4	-749.2	517.7	452.1	65.58	7.893		
9,593.8	8,010.0	8,234.6	7,970.5	36.7	31.1	-90.40	1,818.4	-749.2	509.1	442.0	67.11	7.586 CC		
9,600.0	8,010.0	8,234.7	7,970.7	36.8	31.1	-90.41	1,818.4	-749.2	509.1	441.9	67.21	7.575 ES		
9,700.0	8,010.0	8,236.7	7,972.7	38.5	31.1	-90.63	1,818.5	-749.2	520.1	451.2	68.85	7.554 SF		
9,800.0	8,010.0	8,238.7	7,974.6	40.1	31.1	-90.86	1,818.5	-749.2	549.3	478.8	70.49	7.792		
9,900.0	8,010.0	8,240.7	7,976.6	41.7	31.1	-91.08	1,818.6	-749.2	594.1	521.9	72.15	8.234		
10,000.0	8,010.0	8,242.6	7,978.6	43.4	31.1	-91.30	1,818.6	-749.1	651.3	577.5	73.81	8.824		
10,100.0	8,010.0	8,244.6	7,980.5	45.1	31.1	-91.52	1,818.6	-749.1	717.9	642.4	75.47	9.512		
10,200.0	8,010.0	8,246.5	7,982.5	46.7	31.1	-91.74	1,818.7	-749.1	791.6	714.4	77.14	10.261		
10,300.0	8,010.0	8,248.5	7,984.4	48.4	31.1	-91.96	1,818.7	-749.1	870.5	791.7	78.82	11.044		
10,400.0	8,010.0	8,250.4	7,986.3	50.1	31.1	-92.17	1,818.7	-749.1	953.4	872.9	80.50	11.844		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - PRATT 2 - SYNERGY - GYRO													Offset Site Error:	0.0 ft
Survey Program: 100-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	0.0	0.0	0.0	0.0	-145.53	-408.0	-280.1	495.8					
100.0	100.0	70.0	70.0	0.1	0.1	-145.54	-407.9	-280.0	494.8	494.5	0.24	2,053.776		
200.0	200.0	170.3	170.3	0.3	0.3	-145.56	-407.8	-279.7	494.5	493.9	0.59	837.304		
300.0	300.0	269.7	269.7	0.5	0.5	-145.56	-407.7	-279.6	494.3	493.4	0.94	526.603		
400.0	400.0	369.5	369.5	0.6	0.6	-145.55	-407.5	-279.6	494.2	492.9	1.29	383.878		
500.0	500.0	469.7	469.7	0.8	0.8	-145.56	-407.5	-279.4	494.1	492.4	1.64	301.867		
600.0	600.0	568.0	568.0	1.0	1.0	-18.38	-407.5	-279.4	492.4	490.4	1.98	248.398		
700.0	699.9	667.0	667.0	1.2	1.2	-18.52	-407.7	-279.6	488.9	486.5	2.33	209.835		
800.0	799.8	766.0	766.0	1.4	1.3	-18.66	-408.0	-280.0	485.4	482.8	2.68	181.270		
900.0	899.7	866.1	866.1	1.5	1.5	-18.81	-408.5	-280.4	482.2	479.1	3.03	159.220		
1,000.0	999.6	966.0	966.0	1.7	1.7	-18.97	-408.9	-280.7	478.8	475.4	3.38	141.725		
1,100.0	1,099.6	1,066.5	1,066.5	1.9	1.9	-19.08	-409.1	-281.3	475.4	471.7	3.73	127.481		
1,200.0	1,199.5	1,167.6	1,167.6	2.1	2.0	-19.18	-409.1	-282.0	471.9	467.8	4.08	115.601		
1,300.0	1,299.4	1,265.5	1,265.5	2.3	2.2	-19.31	-409.2	-282.3	468.3	463.8	4.43	105.736		
1,400.0	1,399.3	1,364.7	1,364.7	2.5	2.4	-19.49	-409.9	-282.7	465.2	460.4	4.78	97.364		
1,500.0	1,499.2	1,464.6	1,464.6	2.7	2.6	-19.65	-410.5	-283.1	462.1	456.9	5.13	90.099		
1,600.0	1,599.1	1,565.3	1,565.3	2.8	2.7	-19.74	-410.7	-284.1	458.9	453.5	5.48	83.741		
1,700.0	1,699.1	1,667.2	1,667.2	3.0	2.9	-19.79	-410.6	-285.2	455.5	449.7	5.83	78.067		
1,800.0	1,799.0	1,767.2	1,767.1	3.2	3.1	-19.87	-410.3	-285.9	451.7	445.6	6.19	73.033		
1,900.0	1,898.9	1,866.9	1,866.9	3.4	3.3	-20.01	-410.3	-286.3	448.1	441.6	6.54	68.561		
2,000.0	1,998.8	1,966.2	1,966.2	3.6	3.4	-20.14	-410.3	-286.7	444.5	437.6	6.89	64.556		
2,100.0	2,098.7	2,065.3	2,065.3	3.8	3.6	-20.28	-410.5	-287.3	441.1	433.9	7.24	60.968		
2,200.0	2,198.6	2,164.7	2,164.7	4.0	3.8	-20.40	-410.7	-288.0	437.9	430.3	7.59	57.726		
2,300.0	2,298.5	2,265.2	2,265.2	4.2	4.0	-20.51	-411.0	-288.9	434.7	426.7	7.94	54.762		
2,400.0	2,398.5	2,365.9	2,365.9	4.3	4.1	-20.62	-411.0	-289.7	431.3	423.0	8.29	52.022		
2,500.0	2,498.4	2,467.2	2,467.1	4.5	4.3	-20.70	-410.8	-290.5	427.7	419.0	8.64	49.477		
2,600.0	2,598.3	2,568.4	2,568.4	4.7	4.5	-20.75	-410.1	-291.4	423.7	414.7	9.00	47.091		
2,700.0	2,698.2	2,669.9	2,669.8	4.9	4.7	-20.77	-409.0	-292.3	419.4	410.1	9.35	44.851		
2,800.0	2,798.1	2,770.1	2,770.0	5.1	4.8	-20.80	-407.8	-293.0	414.9	405.2	9.70	42.755		
2,900.0	2,898.0	2,869.6	2,869.6	5.3	5.0	-20.85	-406.6	-293.5	410.4	400.3	10.05	40.815		
3,000.0	2,998.0	2,969.1	2,969.0	5.5	5.2	-20.90	-405.6	-294.2	406.0	395.6	10.41	39.016		
3,100.0	3,097.9	3,068.9	3,068.8	5.7	5.4	-20.93	-404.5	-295.0	401.6	390.9	10.76	37.338		
3,200.0	3,197.8	3,169.1	3,169.0	5.9	5.5	-20.91	-403.2	-296.1	397.3	386.2	11.11	35.762		
3,300.0	3,297.7	3,268.3	3,268.1	6.0	5.7	-20.83	-401.7	-297.5	392.9	381.5	11.46	34.287		
3,400.0	3,397.6	3,368.3	3,368.2	6.2	5.9	-20.76	-400.4	-299.0	388.8	376.9	11.81	32.912		
3,500.0	3,497.5	3,468.5	3,468.3	6.4	6.1	-20.79	-399.4	-299.8	384.5	372.3	12.16	31.606		
3,600.0	3,597.4	3,571.2	3,571.0	6.6	6.2	-20.84	-398.1	-300.5	379.9	367.4	12.52	30.341		
3,700.0	3,697.4	3,671.7	3,671.5	6.8	6.4	-20.85	-396.1	-300.9	374.6	361.8	12.87	29.101		
3,800.0	3,797.3	3,771.8	3,771.5	7.0	6.6	-20.85	-394.2	-301.4	369.4	356.2	13.23	27.932		
3,900.0	3,897.2	3,870.2	3,870.0	7.2	6.8	-20.89	-392.5	-301.7	364.3	350.7	13.58	26.834		
4,000.0	3,997.1	3,970.2	3,970.0	7.4	6.9	-20.94	-391.1	-302.2	359.5	345.5	13.93	25.811		
4,100.0	4,097.0	4,070.5	4,070.3	7.6	7.1	-20.92	-389.3	-302.9	354.5	340.2	14.28	24.822		
4,200.0	4,196.9	4,170.4	4,170.1	7.7	7.3	-20.84	-387.2	-303.9	349.4	334.8	14.63	23.880		
4,300.0	4,296.9	4,271.8	4,271.5	7.9	7.5	-20.78	-385.0	-304.8	344.2	329.2	14.99	22.968		
4,400.0	4,396.8	4,372.5	4,372.2	8.1	7.7	-20.76	-382.6	-305.2	338.6	323.2	15.34	22.070		
4,500.0	4,496.7	4,471.5	4,471.1	8.3	7.8	-20.77	-380.4	-305.4	332.9	317.2	15.69	21.216		
4,600.0	4,596.6	4,570.3	4,569.9	8.5	8.0	-20.77	-378.4	-305.8	327.6	311.6	16.04	20.422		
4,700.0	4,696.5	4,669.9	4,669.4	8.7	8.2	-20.74	-376.5	-306.6	322.5	306.1	16.39	19.674		
4,800.0	4,796.4	4,770.8	4,770.3	8.9	8.4	-20.74	-374.6	-307.1	317.3	300.6	16.75	18.950		
4,900.0	4,896.3	4,870.9	4,870.4	9.1	8.5	-20.80	-372.6	-307.2	311.9	294.8	17.10	18.239		
5,000.0	4,996.3	4,970.6	4,970.1	9.2	8.7	-20.87	-370.7	-307.3	306.4	289.0	17.45	17.559		
5,100.0	5,096.2	5,069.7	5,069.3	9.4	8.9	-20.93	-368.8	-307.5	301.1	283.3	17.80	16.912		

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - PRATT 2 - SYNERGY - GYRO													Offset Site Error:	0.0 ft
Survey Program: 100-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)						
5,200.0	5,196.1	5,169.6	5,169.0	9.6	9.1	-20.98	-367.0	-307.8	295.9	277.8	18.15	16.301		
5,300.0	5,296.0	5,268.9	5,268.4	9.8	9.2	-21.03	-365.3	-308.2	290.8	272.3	18.50	15.714		
5,400.0	5,395.9	5,367.8	5,367.2	10.0	9.4	-21.09	-363.9	-308.6	286.0	267.1	18.85	15.166		
5,500.0	5,495.8	5,466.4	5,465.9	10.2	9.6	-21.19	-362.9	-309.1	281.5	262.3	19.21	14.658		
5,600.0	5,595.8	5,566.0	5,565.5	10.4	9.8	-21.26	-362.0	-309.9	277.4	257.9	19.56	14.186		
5,700.0	5,695.7	5,667.5	5,666.9	10.6	9.9	-21.48	-361.4	-310.1	273.1	253.2	19.91	13.717		
5,800.0	5,795.6	5,767.0	5,766.5	10.8	10.1	-21.70	-360.3	-310.0	268.4	248.1	20.26	13.244		
5,900.0	5,895.5	5,865.6	5,865.0	10.9	10.3	-21.88	-359.6	-310.4	264.1	243.5	20.61	12.813		
6,000.0	5,995.4	5,965.6	5,965.1	11.1	10.5	-22.14	-359.3	-310.6	260.2	239.2	20.97	12.409		
6,100.0	6,095.3	6,065.9	6,065.4	11.3	10.6	-22.35	-358.7	-311.0	256.0	234.7	21.32	12.007		
6,200.0	6,195.2	6,165.9	6,165.3	11.5	10.8	-22.57	-358.1	-311.3	251.8	230.1	21.67	11.617		
6,300.0	6,295.2	6,265.6	6,265.1	11.7	11.0	-22.79	-357.4	-311.6	247.6	225.5	22.03	11.240		
6,400.0	6,395.1	6,365.0	6,364.4	11.9	11.2	-23.03	-356.9	-312.0	243.5	221.1	22.38	10.881		
6,500.0	6,495.0	6,466.0	6,465.4	12.1	11.3	-23.34	-356.5	-312.1	239.5	216.8	22.73	10.535		
6,600.0	6,594.9	6,566.2	6,565.6	12.3	11.5	-23.65	-355.7	-312.0	234.9	211.9	23.09	10.175		
6,700.0	6,694.8	6,666.3	6,665.7	12.5	11.7	-23.89	-354.7	-312.3	230.5	207.0	23.44	9.830		
6,800.0	6,794.7	6,766.2	6,765.6	12.6	11.9	-24.03	-353.4	-312.9	225.8	202.0	23.80	9.490		
6,900.0	6,894.7	6,865.9	6,865.3	12.8	12.0	-24.12	-352.1	-313.7	221.3	197.1	24.15	9.163		
7,000.0	6,994.6	6,966.4	6,965.8	13.0	12.2	-67.59	-350.7	-314.4	217.1	192.6	24.51	8.858		
7,031.6	7,026.1	6,998.3	6,997.7	13.1	12.3	-105.34	-350.3	-314.4	216.8	192.1	24.62	8.802 CC, ES, SF		
7,100.0	7,094.4	7,066.4	7,065.8	13.2	12.4	-132.92	-349.4	-314.4	218.6	193.8	24.84	8.802		
7,200.0	7,193.4	7,166.4	7,165.7	13.3	12.6	-144.31	-348.2	-314.2	228.0	202.9	25.07	9.095		
7,300.0	7,290.9	7,265.2	7,264.6	13.4	12.7	-150.21	-346.6	-313.5	245.2	220.0	25.20	9.731		
7,400.0	7,386.1	7,361.8	7,361.2	13.5	12.9	-154.60	-344.8	-312.6	270.5	245.3	25.19	10.737		
7,500.0	7,478.2	7,454.4	7,453.7	13.6	13.1	-158.33	-343.1	-310.8	304.3	279.2	25.05	12.148		
7,600.0	7,566.7	7,542.7	7,542.0	13.8	13.2	-161.46	-342.0	-308.6	346.8	322.1	24.76	14.006		
7,700.0	7,650.8	7,627.1	7,626.3	14.1	13.4	-164.00	-340.9	-306.3	397.7	373.3	24.35	16.332		
7,800.0	7,729.8	7,706.5	7,705.7	14.4	13.5	-166.05	-340.1	-303.9	456.2	432.4	23.82	19.153		
7,900.0	7,803.3	7,779.8	7,779.0	14.8	13.6	-167.62	-339.4	-301.5	522.0	498.9	23.18	22.523		
8,000.0	7,868.4	7,843.8	7,842.9	15.4	13.7	-168.27	-338.9	-299.6	596.4	574.5	21.92	27.204		
8,100.0	7,922.3	7,896.2	7,895.2	16.1	13.8	-168.16	-338.6	-298.1	679.6	658.9	20.69	32.840		
8,200.0	7,964.0	7,935.8	7,934.9	17.0	13.9	-166.85	-338.5	-297.0	769.8	750.1	19.72	39.035		
8,300.0	7,992.6	7,962.8	7,961.8	18.0	14.0	-162.72	-338.6	-296.4	865.2	845.7	19.54	44.276		
8,400.0	8,007.7	7,976.7	7,975.8	19.1	14.0	-144.92	-338.6	-296.1	963.8	940.3	23.50	41.022		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - PRATT 2-0-29 - ENCANA - SURVEYS													Offset Site Error: 0.0 ft	
Survey Program: 41-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)				
10,500.0	8,010.0	8,048.6	7,941.1	51.8	21.8	81.83	3,684.4	-146.5	965.2	899.0	66.22	14.575		
10,600.0	8,010.0	8,049.7	7,942.2	53.5	21.8	82.53	3,684.4	-146.5	865.7	797.7	67.99	12.732		
10,700.0	8,010.0	8,050.8	7,943.3	55.2	21.8	83.24	3,684.4	-146.4	766.3	696.6	69.76	10.985		
10,800.0	8,010.0	8,052.0	7,944.5	56.9	21.8	83.94	3,684.5	-146.4	667.1	595.6	71.53	9.326		
10,900.0	8,010.0	8,053.1	7,945.6	58.6	21.8	84.66	3,684.5	-146.4	568.2	494.9	73.30	7.752		
11,000.0	8,010.0	8,054.2	7,946.7	60.3	21.8	85.37	3,684.5	-146.4	469.8	394.7	75.07	6.258		
11,100.0	8,010.0	8,055.3	7,947.8	62.0	21.8	86.08	3,684.5	-146.3	372.1	295.3	76.83	4.844		
11,200.0	8,010.0	8,056.5	7,949.0	63.7	21.8	86.80	3,684.5	-146.3	276.2	197.6	78.58	3.515		
11,300.0	8,010.0	8,057.6	7,950.1	65.4	21.8	87.52	3,684.5	-146.3	184.6	104.3	80.33	2.298		
11,400.0	8,010.0	8,058.7	7,951.2	67.1	21.8	88.24	3,684.5	-146.3	108.9	26.9	82.07	1.327 Level 3		
11,461.0	8,010.0	8,059.4	7,951.9	68.1	21.8	88.68	3,684.5	-146.2	90.2	7.1	83.13	1.085 Level 2, CC, ES, SF		
11,500.0	8,010.0	8,059.9	7,952.4	68.8	21.8	88.96	3,684.6	-146.2	98.3	14.5	83.81	1.173 Level 2		
11,600.0	8,010.0	8,061.0	7,953.5	70.5	21.8	89.69	3,684.6	-146.2	165.7	80.1	85.53	1.937		
11,700.0	8,010.0	8,062.2	7,954.7	72.3	21.8	90.41	3,684.6	-146.2	255.4	168.2	87.24	2.928		
11,800.0	8,010.0	8,063.3	7,955.8	74.0	21.8	91.14	3,684.6	-146.1	350.7	261.8	88.94	3.943		
11,900.0	8,010.0	8,064.4	7,957.0	75.7	21.8	91.86	3,684.6	-146.1	448.1	357.5	90.63	4.944		
12,000.0	8,010.0	8,065.6	7,958.1	77.4	21.8	92.59	3,684.6	-146.1	546.4	454.1	92.31	5.920		
12,100.0	8,010.0	8,066.7	7,959.2	79.1	21.8	93.31	3,684.6	-146.1	645.3	551.3	93.97	6.867		
12,200.0	8,010.0	8,067.9	7,960.4	80.9	21.8	94.04	3,684.6	-146.0	744.4	648.8	95.61	7.785		
12,300.0	8,010.0	8,069.0	7,961.6	82.6	21.8	94.76	3,684.7	-146.0	843.7	746.5	97.24	8.677		
12,400.0	8,010.0	8,070.2	7,962.7	84.3	21.8	95.49	3,684.7	-146.0	943.2	844.4	98.86	9.541		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - PRATT 21-29 - ENCANA WELL - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 163-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		
10,700.0	8,010.0	8,204.4	7,939.9	55.2	33.6	89.09	3,295.9	652.5	965.2	895.9	69.26	13.935		
10,800.0	8,010.0	8,206.0	7,941.5	56.9	33.6	89.19	3,295.9	652.5	931.0	860.0	70.97	13.119		
10,900.0	8,010.0	8,207.6	7,943.1	58.6	33.6	89.30	3,295.9	652.5	906.6	834.0	72.67	12.475		
11,000.0	8,010.0	8,209.1	7,944.6	60.3	33.6	89.40	3,295.9	652.5	892.8	818.5	74.38	12.003		
11,074.0	8,010.0	8,210.3	7,945.8	61.5	33.6	89.47	3,296.0	652.5	889.8	814.1	75.65	11.762 CC		
11,100.0	8,010.0	8,210.7	7,946.2	62.0	33.6	89.50	3,296.0	652.5	890.1	814.1	76.09	11.698 ES		
11,200.0	8,010.0	8,212.3	7,947.8	63.7	33.6	89.60	3,296.0	652.5	898.6	820.8	77.81	11.549		
11,300.0	8,010.0	8,213.8	7,949.3	65.4	33.6	89.70	3,296.0	652.6	918.0	838.5	79.52	11.544 SF		
11,400.0	8,010.0	8,215.4	7,950.9	67.1	33.6	89.80	3,296.0	652.6	947.6	866.3	81.24	11.664		
11,500.0	8,010.0	8,216.9	7,952.4	68.8	33.6	89.90	3,296.1	652.6	986.5	903.5	82.96	11.891		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - PRATT 22-29 - ENCANA WELL - SURVEYS													Offset Site Error: 0.0 ft	
Survey Program: 132-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	8,010.0	8,559.2	7,975.9	24.4	44.8	90.67	1,660.0	516.3	989.7	931.1	58.61	16.886		
8,900.0	8,010.0	8,553.0	7,969.7	25.9	44.8	90.20	1,660.2	516.2	928.4	868.3	60.09	15.451		
9,000.0	8,010.0	8,552.4	7,969.1	27.4	44.8	90.16	1,660.2	516.2	874.3	812.7	61.59	14.194		
9,100.0	8,010.0	8,548.8	7,965.5	28.9	44.8	89.89	1,660.3	516.1	828.7	765.5	63.13	13.126		
9,200.0	8,010.0	8,545.3	7,962.0	30.5	44.8	89.62	1,660.4	516.1	793.1	728.4	64.69	12.261		
9,300.0	8,010.0	8,541.8	7,958.5	32.0	44.8	89.36	1,660.6	516.0	769.0	702.8	66.27	11.605		
9,400.0	8,010.0	8,538.4	7,955.1	33.6	44.8	89.09	1,660.7	515.9	757.4	689.6	67.86	11.162		
9,438.5	8,010.0	8,537.0	7,953.7	34.2	44.8	88.99	1,660.7	515.9	756.5	688.0	68.48	11.046	CC, ES	
9,500.0	8,010.0	8,534.9	7,951.6	35.2	44.8	88.83	1,660.8	515.9	759.0	689.5	69.47	10.925		
9,600.0	8,010.0	8,531.5	7,948.2	36.8	44.8	88.58	1,660.9	515.8	773.5	702.4	71.09	10.881	SF	
9,700.0	8,010.0	8,528.1	7,944.8	38.5	44.8	88.32	1,661.1	515.8	800.3	727.6	72.71	11.006		
9,800.0	8,010.0	8,524.8	7,941.5	40.1	44.8	88.07	1,661.2	515.7	838.3	763.9	74.35	11.275		
9,900.0	8,010.0	8,521.4	7,938.2	41.7	44.8	87.81	1,661.3	515.6	886.0	810.0	75.99	11.658		
10,000.0	8,010.0	8,518.1	7,934.9	43.4	44.8	87.56	1,661.4	515.6	941.9	864.2	77.64	12.131		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - PRATT 2-4-29 - ENCANA - SURVEYS												Offset Site Error:	0.0 ft
Survey Program: 71-Geolink 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
8,000.0	7,868.4	8,362.1	7,814.4	15.4	43.8	13.17	1,225.4	-125.4	977.6	945.5	32.08	30.476	
8,100.0	7,922.3	8,415.0	7,867.2	16.1	43.9	17.18	1,225.0	-123.4	894.2	861.8	32.44	27.569	
8,200.0	7,964.0	8,455.7	7,907.9	17.0	43.9	24.55	1,224.7	-121.6	804.5	769.3	35.16	22.879	
8,300.0	7,992.6	8,483.2	7,935.3	18.0	43.9	39.12	1,224.6	-120.2	710.1	667.2	42.88	16.562	
8,400.0	8,007.7	8,497.4	7,949.5	19.1	43.9	67.51	1,224.5	-119.6	613.1	557.2	55.97	10.954	
8,500.0	8,010.0	8,499.2	7,951.3	20.4	43.9	88.71	1,224.5	-119.5	515.6	455.1	60.54	8.517	
8,600.0	8,010.0	8,498.6	7,950.7	21.7	43.9	88.44	1,224.5	-119.5	419.1	357.2	61.86	6.775	
8,700.0	8,010.0	8,498.0	7,950.1	23.0	43.9	88.17	1,224.5	-119.6	324.7	261.5	63.25	5.134	
8,800.0	8,010.0	8,497.5	7,949.6	24.4	43.9	87.90	1,224.5	-119.6	235.0	170.4	64.67	3.634	
8,900.0	8,010.0	8,496.9	7,949.0	25.9	43.9	87.62	1,224.5	-119.6	158.2	92.1	66.14	2.393	
9,000.0	8,010.0	8,496.3	7,948.4	27.4	43.9	87.35	1,224.5	-119.6	121.8	54.2	67.64	1.801	
9,001.0	8,010.0	8,496.3	7,948.4	27.4	43.9	87.34	1,224.5	-119.6	121.8	54.1	67.65	1.800 CC, ES, SF	
9,100.0	8,010.0	8,495.7	7,947.8	28.9	43.9	87.07	1,224.5	-119.7	156.9	87.8	69.16	2.269	
9,200.0	8,010.0	8,495.1	7,947.2	30.5	43.9	86.79	1,224.5	-119.7	233.3	162.6	70.70	3.300	
9,300.0	8,010.0	8,494.5	7,946.6	32.0	43.9	86.51	1,224.5	-119.7	322.8	250.6	72.26	4.467	
9,400.0	8,010.0	8,493.9	7,946.0	33.6	43.9	86.22	1,224.5	-119.7	417.1	343.3	73.84	5.649	
9,500.0	8,010.0	8,493.3	7,945.4	35.2	43.9	85.94	1,224.5	-119.8	513.6	438.2	75.43	6.809	
9,600.0	8,010.0	8,492.7	7,944.8	36.8	43.9	85.65	1,224.5	-119.8	611.2	534.2	77.02	7.935	
9,700.0	8,010.0	8,492.1	7,944.2	38.5	43.9	85.36	1,224.5	-119.8	709.5	630.9	78.63	9.023	
9,800.0	8,010.0	8,491.4	7,943.5	40.1	43.9	85.07	1,224.5	-119.9	808.2	727.9	80.24	10.072	
9,900.0	8,010.0	8,490.8	7,942.9	41.7	43.9	84.77	1,224.5	-119.9	907.2	825.3	81.86	11.082	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - PRATT F UNIT 1 - ENCANA WELL - NO SURVEYS													Offset Site Error: 0.0 ft	
Survey Program: 8585-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		
10,500.0	8,010.0	7,942.0	7,942.0	51.8	13.9	-90.00	3,313.5	-1,020.2	979.4	913.9	65.45	14.963		
10,600.0	8,010.0	7,942.0	7,942.0	53.5	13.9	-90.00	3,313.5	-1,020.2	922.8	855.6	67.15	13.742		
10,700.0	8,010.0	7,942.0	7,942.0	55.2	13.9	-90.00	3,313.5	-1,020.2	874.0	805.1	68.85	12.694		
10,800.0	8,010.0	7,942.0	7,942.0	56.9	13.9	-90.00	3,313.5	-1,020.2	834.4	763.8	70.55	11.827		
10,900.0	8,010.0	7,942.0	7,942.0	58.6	13.9	-90.00	3,313.5	-1,020.2	805.3	733.1	72.26	11.145		
11,000.0	8,010.0	7,942.0	7,942.0	60.3	13.9	-90.00	3,313.5	-1,020.2	788.0	714.0	73.97	10.653		
11,088.3	8,010.0	7,942.0	7,942.0	61.8	13.9	-90.00	3,313.5	-1,020.2	783.0	707.5	75.48	10.374	CC	
11,100.0	8,010.0	7,942.0	7,942.0	62.0	13.9	-90.00	3,313.5	-1,020.2	783.1	707.4	75.68	10.348	ES	
11,200.0	8,010.0	7,942.0	7,942.0	63.7	13.9	-90.00	3,313.5	-1,020.2	790.9	713.5	77.39	10.220	SF	
11,300.0	8,010.0	7,942.0	7,942.0	65.4	13.9	-90.00	3,313.5	-1,020.2	811.1	732.0	79.11	10.254		
11,400.0	8,010.0	7,942.0	7,942.0	67.1	13.9	-90.00	3,313.5	-1,020.2	842.8	762.0	80.82	10.427		
11,500.0	8,010.0	7,942.0	7,942.0	68.8	13.9	-90.00	3,313.5	-1,020.2	884.7	802.1	82.54	10.717		
11,600.0	8,010.0	7,942.0	7,942.0	70.5	13.9	-90.00	3,313.5	-1,020.2	935.4	851.1	84.27	11.101		
11,700.0	8,010.0	7,942.0	7,942.0	72.3	13.9	-90.00	3,313.5	-1,020.2	993.6	907.6	85.99	11.555		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 13-29D - SYNERGY - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 248-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	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-144.42	-408.3	-292.1	502.4					
100.0	100.0	79.6	79.6	0.1	0.1	-144.40	-408.4	-292.4	502.3	502.1	0.25	1,971.978		
200.0	200.0	175.5	175.4	0.3	0.3	-144.31	-408.8	-293.7	503.4	502.8	0.59	848.714		
300.0	300.0	275.7	275.6	0.5	0.5	-144.15	-409.5	-295.9	505.2	504.3	0.94	537.617		
400.0	400.0	390.1	390.0	0.6	0.7	-143.88	-408.1	-297.9	505.3	504.0	1.31	384.422		
500.0	500.0	505.6	505.3	0.8	0.9	-143.17	-401.7	-300.8	502.4	500.7	1.69	297.078		
600.0	600.0	614.3	613.2	1.0	1.2	-14.70	-390.2	-306.3	495.3	493.2	2.16	229.454		
700.0	699.9	723.6	721.0	1.2	1.5	-12.91	-374.1	-314.3	484.4	481.7	2.66	182.069		
800.0	799.8	829.4	824.6	1.4	1.9	-10.70	-354.7	-322.9	471.7	468.5	3.20	147.191		
900.0	899.7	924.9	917.8	1.5	2.3	-8.34	-335.7	-332.0	459.6	455.9	3.75	122.410		
1,000.0	999.6	1,027.5	1,017.6	1.7	2.7	-5.55	-314.2	-342.1	447.8	443.4	4.36	102.762		
1,100.0	1,099.6	1,121.6	1,109.0	1.9	3.1	-2.78	-293.8	-351.5	436.7	431.8	4.95	88.214		
1,200.0	1,199.5	1,216.6	1,201.2	2.1	3.6	0.22	-273.2	-361.8	427.4	421.8	5.56	76.839		
1,300.0	1,299.4	1,311.2	1,292.9	2.3	4.0	3.33	-252.7	-372.5	419.8	413.6	6.18	67.958		
1,400.0	1,399.3	1,402.4	1,381.3	2.5	4.4	6.44	-233.4	-383.5	414.6	407.8	6.78	61.148		
1,500.0	1,499.2	1,494.8	1,470.8	2.7	4.8	9.69	-214.0	-395.9	412.0	404.6	7.39	55.761		
1,600.0	1,599.1	1,593.3	1,566.2	2.8	5.3	13.22	-193.3	-409.4	411.3	403.3	8.01	51.345		
1,610.0	1,609.1	1,603.1	1,575.6	2.9	5.3	13.56	-191.2	-410.8	411.3	403.2	8.07	50.963 CC		
1,700.0	1,699.1	1,691.2	1,661.1	3.0	5.7	16.68	-172.8	-422.4	411.8	403.2	8.61	47.853 ES		
1,800.0	1,799.0	1,789.4	1,756.2	3.2	6.2	20.17	-151.9	-435.3	413.6	404.4	9.19	45.002		
1,900.0	1,898.9	1,888.2	1,851.8	3.4	6.7	23.69	-130.5	-447.9	416.6	406.8	9.75	42.718		
2,000.0	1,998.8	1,988.3	1,948.7	3.6	7.1	27.19	-108.7	-459.8	420.3	410.1	10.29	40.845		
2,100.0	2,098.7	2,085.5	2,042.7	3.8	7.6	30.61	-86.7	-471.1	425.2	414.4	10.80	39.364		
2,200.0	2,198.6	2,181.5	2,135.5	4.0	8.1	33.96	-64.7	-482.3	431.7	420.4	11.28	38.278		
2,300.0	2,298.5	2,278.0	2,228.9	4.2	8.5	37.15	-43.0	-493.6	439.7	428.0	11.72	37.521		
2,400.0	2,398.5	2,373.6	2,321.4	4.3	9.0	40.15	-22.0	-504.7	449.1	437.0	12.14	37.007		
2,500.0	2,498.4	2,468.8	2,413.4	4.5	9.4	43.10	-0.3	-516.2	460.3	447.8	12.53	36.732		
2,600.0	2,598.3	2,565.9	2,507.2	4.7	9.9	45.96	21.8	-527.8	472.5	459.6	12.90	36.639		
2,700.0	2,698.2	2,662.7	2,600.9	4.9	10.3	48.59	43.1	-539.6	486.0	472.7	13.24	36.699		
2,800.0	2,798.1	2,760.6	2,695.8	5.1	10.8	51.11	64.6	-551.2	500.1	486.6	13.57	36.858		
2,900.0	2,898.0	2,858.8	2,790.9	5.3	11.3	53.47	86.0	-562.7	515.0	501.1	13.88	37.102		
3,000.0	2,998.0	2,955.9	2,885.0	5.5	11.7	55.67	106.9	-573.8	530.4	516.2	14.18	37.411		
3,100.0	3,097.9	3,051.6	2,977.8	5.7	12.2	57.72	127.6	-584.9	546.6	532.2	14.46	37.801		
3,200.0	3,197.8	3,149.5	3,072.8	5.9	12.6	59.69	148.7	-596.4	563.6	548.9	14.74	38.239		
3,300.0	3,297.7	3,250.0	3,170.3	6.0	13.1	61.58	170.0	-607.7	580.8	565.7	15.01	38.700		
3,400.0	3,397.6	3,345.5	3,263.2	6.2	13.5	63.24	189.9	-618.4	598.1	582.8	15.27	39.164		
3,500.0	3,497.5	3,436.6	3,351.5	6.4	13.9	64.78	209.5	-628.8	616.6	601.1	15.53	39.694		
3,600.0	3,597.4	3,527.2	3,439.0	6.6	14.4	66.28	229.9	-639.7	636.5	620.7	15.79	40.317		
3,700.0	3,697.4	3,634.0	3,542.3	6.8	14.9	67.96	254.1	-652.5	657.0	640.9	16.05	40.932		
3,800.0	3,797.3	3,730.3	3,635.6	7.0	15.3	69.38	275.3	-662.9	676.6	660.3	16.31	41.492		
3,900.0	3,897.2	3,816.9	3,719.4	7.2	15.7	70.58	294.7	-673.0	697.4	680.8	16.55	42.145		
4,000.0	3,997.1	3,907.2	3,806.6	7.4	16.2	71.73	315.2	-684.7	719.7	702.9	16.80	42.842		
4,100.0	4,097.0	4,004.1	3,900.0	7.6	16.7	72.92	337.6	-697.3	742.8	725.8	17.05	43.555		
4,200.0	4,196.9	4,122.7	4,014.8	7.7	17.2	74.21	363.3	-712.1	764.8	747.5	17.32	44.164		
4,300.0	4,296.9	4,237.5	4,126.8	7.9	17.7	75.29	385.5	-724.8	784.4	766.8	17.59	44.604		
4,400.0	4,396.8	4,361.7	4,248.7	8.1	18.1	76.28	406.1	-736.7	801.4	783.5	17.86	44.864		
4,500.0	4,496.7	4,486.7	4,372.1	8.3	18.5	77.09	422.7	-746.9	815.2	797.1	18.15	44.919		
4,600.0	4,596.6	4,604.5	4,489.0	8.5	18.8	77.74	435.4	-754.8	826.5	808.0	18.44	44.824		
4,700.0	4,696.5	4,729.6	4,613.4	8.7	19.1	78.40	446.5	-760.8	835.0	816.3	18.74	44.562		
4,800.0	4,796.4	4,840.9	4,724.4	8.9	19.3	78.91	453.9	-764.6	841.2	822.2	19.03	44.210		
4,900.0	4,896.3	4,954.3	4,837.6	9.1	19.5	79.35	459.7	-768.3	846.3	827.0	19.33	43.787		
5,000.0	4,996.3	5,080.5	4,963.7	9.2	19.6	79.79	463.3	-770.2	848.5	828.8	19.64	43.197		

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 13-29D - SYNERGY - SURVEYS													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)						
5,100.0	5,096.2	5,177.3	5,060.5	9.4	19.7	80.06	464.7	-771.5	849.8	829.9	19.93	42.640		
5,200.0	5,196.1	5,274.8	5,158.0	9.6	19.8	80.27	465.7	-773.7	851.5	831.2	20.22	42.103		
5,300.0	5,296.0	5,373.8	5,256.9	9.8	19.9	80.47	466.6	-776.3	853.3	832.8	20.52	41.581		
5,400.0	5,395.9	5,480.6	5,363.7	10.0	20.0	80.67	467.4	-779.2	855.1	834.2	20.83	41.043		
5,500.0	5,495.8	5,597.4	5,480.5	10.2	20.1	80.89	467.0	-780.8	855.2	834.1	21.16	40.416		
5,600.0	5,595.8	5,696.3	5,579.3	10.4	20.2	81.10	466.1	-781.2	854.3	832.8	21.47	39.784		
5,700.0	5,695.7	5,791.7	5,674.8	10.6	20.3	81.34	466.0	-781.6	853.8	832.1	21.78	39.205		
5,738.4	5,734.0	5,828.7	5,711.8	10.6	20.3	81.44	466.1	-781.8	853.8	831.9	21.90	38.992		
5,800.0	5,795.6	5,888.4	5,771.5	10.8	20.4	81.60	466.4	-782.1	853.9	831.8	22.09	38.660		
5,900.0	5,895.5	5,985.3	5,868.3	10.9	20.5	81.87	467.2	-782.7	854.3	831.9	22.40	38.146		
6,000.0	5,995.4	6,084.6	5,967.7	11.1	20.6	82.15	468.2	-783.4	855.0	832.3	22.71	37.645		
6,100.0	6,095.3	6,184.3	6,067.3	11.3	20.7	82.45	469.4	-784.0	855.7	832.7	23.03	37.161		
6,200.0	6,195.2	6,287.6	6,170.6	11.5	20.8	82.77	470.5	-784.5	856.2	832.9	23.35	36.674		
6,300.0	6,295.2	6,390.6	6,273.6	11.7	20.9	83.07	471.3	-784.7	856.4	832.8	23.67	36.183		
6,400.0	6,395.1	6,493.0	6,376.0	11.9	21.0	83.36	471.7	-784.9	856.3	832.3	23.99	35.694		
6,500.0	6,495.0	6,594.8	6,477.9	12.1	21.1	83.62	471.6	-785.2	856.0	831.7	24.32	35.198		
6,600.0	6,594.9	6,695.9	6,578.9	12.3	21.2	83.93	471.8	-784.8	855.5	830.8	24.65	34.706		
6,700.0	6,694.8	6,797.8	6,680.8	12.5	21.3	84.29	472.5	-783.8	854.8	829.9	24.98	34.220		
6,800.0	6,794.7	6,900.3	6,783.3	12.6	21.4	84.67	473.2	-782.3	853.9	828.6	25.32	33.731		
6,900.0	6,894.7	7,002.8	6,885.8	12.8	21.5	85.08	473.8	-780.4	852.8	827.1	25.65	33.248		
7,000.0	6,994.6	7,105.3	6,988.3	13.0	21.6	42.17	474.4	-778.0	851.0	825.0	25.99	32.737		
7,100.0	7,094.4	7,208.1	7,091.0	13.2	21.6	-22.16	474.8	-775.4	843.9	817.5	26.34	32.041		
7,200.0	7,193.4	7,310.3	7,193.2	13.3	21.7	-32.35	474.8	-772.6	830.0	803.3	26.65	31.145		
7,300.0	7,290.9	7,415.1	7,298.0	13.4	21.8	-37.24	474.4	-769.2	809.2	782.2	26.97	30.007		
7,400.0	7,386.1	7,515.8	7,398.6	13.5	21.9	-41.25	473.5	-765.1	781.7	754.4	27.33	28.606		
7,500.0	7,478.2	7,610.0	7,492.6	13.6	21.9	-45.34	472.8	-760.4	748.6	720.8	27.80	26.927		
7,600.0	7,566.7	7,697.4	7,579.8	13.8	22.0	-49.88	472.6	-755.3	710.8	682.4	28.46	24.977		
7,700.0	7,650.8	7,771.7	7,654.1	14.1	22.1	-54.84	472.9	-751.6	670.6	641.2	29.34	22.855		
7,800.0	7,729.8	7,842.3	7,724.7	14.4	22.1	-60.48	473.6	-748.9	629.7	599.2	30.55	20.611		
7,900.0	7,803.3	7,910.8	7,793.1	14.8	22.2	-66.88	474.6	-747.0	590.1	558.0	32.11	18.375		
8,000.0	7,868.4	7,973.2	7,855.5	15.4	22.3	-74.88	475.8	-745.7	553.4	519.3	34.11	16.225		
8,100.0	7,922.3	8,025.8	7,908.1	16.1	22.4	-82.31	477.0	-745.0	523.5	487.5	35.96	14.558		
8,200.0	7,964.0	8,068.1	7,950.3	17.0	22.4	-88.18	478.1	-744.5	505.5	468.1	37.42	13.509		
8,257.4	7,982.0	8,087.3	7,969.5	17.6	22.5	-90.53	478.6	-744.3	502.6	464.4	38.13	13.180		
8,300.0	7,992.6	8,098.8	7,981.0	18.0	22.5	-91.69	478.9	-744.2	504.3	465.7	38.59	13.068 SF		
8,400.0	8,007.7	8,116.3	7,998.5	19.1	22.5	-92.23	479.4	-744.1	522.1	482.4	39.70	13.150		
8,500.0	8,010.0	8,121.3	8,003.6	20.4	22.5	-91.20	479.6	-744.1	558.1	517.2	40.95	13.629		
8,600.0	8,010.0	8,124.1	8,006.3	21.7	22.5	-91.51	479.6	-744.0	608.7	566.4	42.28	14.397		
8,700.0	8,010.0	8,126.8	8,009.0	23.0	22.5	-91.82	479.7	-744.0	670.5	626.8	43.66	15.355		
8,800.0	8,010.0	8,129.5	8,011.7	24.4	22.5	-92.14	479.8	-744.0	740.6	695.5	45.09	16.423		
8,900.0	8,010.0	8,132.2	8,014.5	25.9	22.5	-92.45	479.9	-744.0	817.0	770.4	46.56	17.546		
9,000.0	8,010.0	8,135.0	8,017.2	27.4	22.5	-92.76	479.9	-744.0	898.0	850.0	48.06	18.684		
9,100.0	8,010.0	8,137.7	8,020.0	28.9	22.5	-93.08	480.0	-743.9	982.5	932.9	49.59	19.813		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 14-29D - SYNERGY - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 126-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	-142.59	-408.7	-312.6	514.8					
100.0	100.0	76.8	76.8	0.1	0.1	-142.61	-409.1	-312.7	514.9	514.7	0.24	2,150.040 ES		
200.0	200.0	173.8	173.8	0.3	0.3	-142.65	-410.4	-313.3	516.4	515.8	0.58	896.175		
300.0	300.0	274.5	274.5	0.5	0.5	-142.60	-411.4	-314.5	517.9	517.0	0.93	557.255		
400.0	400.0	371.7	371.6	0.6	0.6	-142.48	-412.0	-316.3	519.5	518.2	1.28	406.708		
500.0	500.0	467.0	466.9	0.8	0.8	-142.43	-413.5	-318.1	522.0	520.3	1.62	321.650		
600.0	600.0	563.7	563.5	1.0	1.0	-15.22	-416.0	-320.0	523.5	521.6	1.95	268.076		
693.4	693.3	654.5	654.3	1.2	1.2	-15.30	-418.7	-322.2	523.6	521.4	2.27	230.195		
700.0	699.9	660.9	660.7	1.2	1.2	-15.31	-418.8	-322.4	523.4	521.1	2.30	227.820		
800.0	799.8	760.0	759.7	1.4	1.4	-15.39	-421.9	-325.2	523.6	521.0	2.65	197.896		
900.0	899.7	859.6	859.2	1.5	1.5	-15.45	-425.0	-328.2	523.9	520.9	3.00	174.905		
1,000.0	999.6	962.9	962.4	1.7	1.7	-15.50	-428.0	-331.3	524.1	520.7	3.35	156.380		
1,100.0	1,099.6	1,068.0	1,067.5	1.9	1.9	-15.62	-430.6	-333.4	523.3	519.6	3.71	141.061		
1,200.0	1,199.5	1,161.7	1,161.1	2.1	2.1	-15.79	-433.2	-334.7	522.4	518.4	4.05	129.039		
1,204.0	1,203.5	1,165.4	1,164.8	2.1	2.1	-15.79	-433.3	-334.8	522.4	518.4	4.06	128.612		
1,300.0	1,299.4	1,248.4	1,247.7	2.3	2.3	-15.86	-436.5	-337.6	523.6	519.2	4.38	119.640		
1,400.0	1,399.3	1,335.3	1,334.3	2.5	2.5	-15.86	-441.3	-342.4	527.3	522.6	4.70	112.103		
1,500.0	1,499.2	1,422.3	1,420.9	2.7	2.7	-15.92	-448.1	-348.0	533.5	528.4	5.03	106.022		
1,600.0	1,599.1	1,508.1	1,506.1	2.8	2.9	-15.98	-456.5	-354.8	542.1	536.7	5.36	101.172		
1,700.0	1,699.1	1,593.3	1,590.3	3.0	3.1	-15.97	-466.1	-363.4	553.3	547.6	5.68	97.351		
1,800.0	1,799.0	1,679.5	1,675.1	3.2	3.4	-15.91	-477.4	-373.7	567.0	561.0	6.01	94.327		
1,900.0	1,898.9	1,768.4	1,762.2	3.4	3.7	-15.81	-490.2	-385.7	582.7	576.4	6.34	91.857		
2,000.0	1,998.8	1,858.2	1,850.0	3.6	4.1	-15.66	-503.7	-399.1	599.8	593.2	6.68	89.815		
2,100.0	2,098.7	1,945.0	1,934.5	3.8	4.4	-15.49	-517.8	-413.2	618.8	611.8	7.01	88.296		
2,200.0	2,198.6	2,038.6	2,025.3	4.0	4.8	-15.34	-534.1	-429.0	639.0	631.6	7.35	86.948		
2,300.0	2,298.5	2,137.1	2,120.8	4.2	5.2	-15.22	-551.5	-445.3	659.2	651.5	7.70	85.635		
2,400.0	2,398.5	2,228.4	2,209.2	4.3	5.6	-15.17	-568.7	-460.3	680.2	672.2	8.03	84.674		
2,500.0	2,498.4	2,330.0	2,307.7	4.5	6.0	-15.13	-587.7	-476.9	701.1	692.7	8.39	83.582		
2,600.0	2,598.3	2,427.3	2,401.9	4.7	6.5	-15.00	-605.1	-493.7	722.1	713.3	8.74	82.648		
2,700.0	2,698.2	2,534.8	2,506.1	4.9	7.0	-14.76	-623.1	-512.9	742.3	733.2	9.10	81.547		
2,800.0	2,798.1	2,633.5	2,602.1	5.1	7.4	-14.58	-639.0	-529.5	761.5	752.1	9.45	80.556		
2,900.0	2,898.0	2,722.3	2,688.3	5.3	7.8	-14.41	-653.8	-545.1	781.6	771.8	9.79	79.866		
3,000.0	2,998.0	2,814.0	2,777.0	5.5	8.2	-14.27	-670.0	-561.6	802.7	792.6	10.12	79.296		
3,100.0	3,097.9	2,913.0	2,872.8	5.7	8.7	-14.13	-687.7	-579.5	824.2	813.7	10.47	78.681		
3,200.0	3,197.8	3,014.0	2,970.5	5.9	9.1	-13.92	-704.9	-598.3	845.2	834.4	10.83	78.051		
3,300.0	3,297.7	3,113.9	3,067.3	6.0	9.6	-13.76	-722.0	-616.3	865.9	854.8	11.18	77.450		
3,400.0	3,397.6	3,212.6	3,162.9	6.2	10.1	-13.59	-738.6	-634.2	886.5	875.0	11.53	76.883		
3,500.0	3,497.5	3,311.9	3,259.1	6.4	10.5	-13.42	-755.1	-652.3	907.0	895.1	11.88	76.336		
3,600.0	3,597.4	3,406.1	3,350.4	6.6	10.9	-13.26	-770.7	-669.5	927.5	915.3	12.22	75.883		
3,700.0	3,697.4	3,513.7	3,454.7	6.8	11.4	-13.09	-788.6	-689.1	948.0	935.4	12.59	75.308		
3,800.0	3,797.3	3,605.9	3,544.1	7.0	11.9	-12.96	-803.6	-705.5	968.0	955.1	12.93	74.894		
3,900.0	3,897.2	3,699.0	3,634.3	7.2	12.3	-12.88	-819.7	-721.8	988.7	975.4	13.26	74.546 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 24-29 PD - SYNERGY - SURVEYS														Offset Site Error:	0.0 ft
Survey Program: 248-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	Factor			
0.0	0.0	0.0	0.0	0.0	0.0	-148.16	-409.1	-254.0	481.8						
100.0	100.0	85.1	85.1	0.1	0.1	-148.14	-408.8	-254.1	481.3	481.1	0.26	1,854.835			
200.0	200.0	187.6	187.5	0.3	0.3	-148.08	-407.9	-254.1	480.7	480.0	0.60	796.189			
300.0	300.0	289.8	289.8	0.5	0.5	-148.02	-406.6	-253.9	479.5	478.5	0.95	503.338			
400.0	400.0	383.6	383.5	0.6	0.7	-148.37	-407.2	-250.8	478.3	477.0	1.30	369.048			
403.3	403.3	386.4	386.3	0.6	0.7	-148.39	-407.3	-250.7	478.3	477.0	1.31	365.918			
500.0	500.0	472.5	472.2	0.8	0.8	-149.12	-411.5	-246.0	479.6	477.9	1.63	293.387			
600.0	600.0	569.1	568.2	1.0	1.1	-23.18	-419.1	-238.4	480.8	478.7	2.05	234.375			
700.0	699.9	673.7	671.7	1.2	1.4	-25.13	-428.7	-227.0	480.0	477.5	2.52	190.615			
800.0	799.8	781.2	777.7	1.4	1.7	-27.50	-438.2	-211.8	477.9	474.9	3.03	157.582			
900.0	899.7	880.9	875.7	1.5	2.0	-29.92	-446.6	-195.6	475.4	471.8	3.56	133.721			
1,000.0	999.6	979.1	972.0	1.7	2.4	-32.47	-455.3	-178.5	473.8	469.7	4.08	116.183			
1,100.0	1,099.6	1,075.9	1,067.0	1.9	2.7	-34.93	-463.6	-162.2	473.0	468.4	4.59	103.010			
1,106.2	1,105.7	1,081.7	1,072.8	1.9	2.8	-35.08	-464.1	-161.2	473.0	468.4	4.62	102.316 CC, ES			
1,200.0	1,199.5	1,173.3	1,162.6	2.1	3.1	-37.45	-472.4	-145.5	473.5	468.4	5.13	92.250			
1,300.0	1,299.4	1,270.8	1,257.6	2.3	3.6	-40.34	-481.8	-125.7	475.0	469.3	5.71	83.221			
1,400.0	1,399.3	1,360.2	1,344.3	2.5	4.0	-43.19	-491.2	-105.8	478.3	472.0	6.26	76.456			
1,500.0	1,499.2	1,448.8	1,429.9	2.7	4.4	-46.02	-502.3	-85.9	484.9	478.1	6.79	71.438			
1,600.0	1,599.1	1,542.8	1,520.7	2.8	4.8	-48.88	-514.9	-65.4	493.9	486.6	7.31	67.560			
1,700.0	1,699.1	1,644.3	1,619.2	3.0	5.3	-51.71	-528.3	-44.6	503.9	496.1	7.83	64.383			
1,800.0	1,799.0	1,747.1	1,719.2	3.2	5.7	-54.37	-540.5	-24.3	513.7	505.4	8.32	61.744			
1,900.0	1,898.9	1,854.8	1,824.2	3.4	6.2	-57.09	-551.7	-2.7	523.2	514.3	8.83	59.247			
2,000.0	1,998.8	1,944.0	1,910.8	3.6	6.6	-59.43	-560.3	16.6	533.0	523.7	9.28	57.416			
2,100.0	2,098.7	2,030.4	1,994.4	3.8	7.0	-61.70	-570.0	36.3	545.7	536.0	9.71	56.172			
2,200.0	2,198.6	2,129.9	2,090.4	4.0	7.5	-64.20	-582.0	59.2	560.3	550.1	10.16	55.144			
2,300.0	2,298.5	2,223.1	2,180.5	4.2	8.0	-66.42	-592.8	80.5	575.4	564.8	10.57	54.413			
2,400.0	2,398.5	2,326.1	2,280.2	4.3	8.5	-68.69	-605.1	103.4	591.4	580.4	10.97	53.890			
2,500.0	2,498.4	2,415.9	2,367.2	4.5	8.9	-70.54	-615.4	123.0	607.8	596.5	11.36	53.505			
2,600.0	2,598.3	2,520.6	2,468.4	4.7	9.4	-72.72	-627.3	147.3	625.2	613.4	11.75	53.191			
2,700.0	2,698.2	2,616.0	2,560.9	4.9	9.8	-74.50	-637.7	168.2	642.5	630.4	12.10	53.108			
2,800.0	2,798.1	2,728.4	2,670.1	5.1	10.3	-76.47	-649.0	192.1	659.3	646.8	12.47	52.851			
2,900.0	2,898.0	2,831.6	2,770.9	5.3	10.8	-78.06	-658.3	211.9	674.8	662.0	12.80	52.705			
3,000.0	2,998.0	2,921.3	2,858.7	5.5	11.1	-79.33	-666.5	228.7	690.7	677.6	13.12	52.636 SF			
3,100.0	3,097.9	2,998.5	2,933.7	5.7	11.5	-80.46	-674.9	244.7	709.4	695.9	13.43	52.829			
3,200.0	3,197.8	3,094.4	3,026.4	5.9	12.0	-81.93	-685.3	266.8	729.7	715.9	13.76	53.015			
3,300.0	3,297.7	3,186.2	3,115.2	6.0	12.4	-83.23	-695.9	287.6	750.8	736.7	14.06	53.401			
3,400.0	3,397.6	3,277.0	3,203.1	6.2	12.8	-84.29	-708.0	306.7	772.9	758.5	14.35	53.860			
3,500.0	3,497.5	3,366.0	3,289.2	6.4	13.3	-85.30	-720.2	326.1	796.0	781.3	14.66	54.303			
3,600.0	3,597.4	3,447.5	3,367.5	6.6	13.7	-86.28	-731.5	345.5	820.7	805.7	14.95	54.878			
3,700.0	3,697.4	3,549.6	3,465.4	6.8	14.3	-87.49	-745.8	370.9	846.3	831.1	15.27	55.425			
3,800.0	3,797.3	3,647.0	3,559.0	7.0	14.8	-88.53	-759.0	394.1	871.4	855.8	15.56	55.992			
3,900.0	3,897.2	3,741.0	3,649.5	7.2	15.3	-89.42	-772.5	415.9	896.9	881.0	15.86	56.561			
4,000.0	3,997.1	3,850.6	3,754.9	7.4	15.8	-90.40	-788.1	441.2	922.4	906.3	16.17	57.052			
4,100.0	4,097.0	4,009.8	3,909.8	7.6	16.5	-91.76	-805.2	474.1	944.1	927.5	16.54	57.093			
4,200.0	4,196.9	4,111.4	4,009.4	7.7	16.9	-92.54	-813.4	492.1	961.9	945.0	16.83	57.167			
4,300.0	4,296.9	4,211.0	4,107.2	7.9	17.2	-93.18	-822.6	508.5	979.8	962.7	17.12	57.241			
4,400.0	4,396.8	4,334.9	4,229.2	8.1	17.6	-93.87	-833.8	527.2	996.9	979.5	17.43	57.189			

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 29HD (AL) - SYNERGY - NEVER DRILLED													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)				
0.0	0.0	0.0	0.0	0.0	0.0	-139.21	-408.4	-352.4	540.3					
100.0	100.0	69.0	69.0	0.1	0.1	-139.21	-408.4	-352.4	539.4	539.1	0.24	2,255.159		
200.0	200.0	169.0	169.0	0.3	0.3	-139.21	-408.4	-352.4	539.4	538.8	0.59	917.024		
300.0	300.0	269.0	269.0	0.5	0.5	-139.21	-408.4	-352.4	539.4	538.4	0.94	575.488		
400.0	400.0	369.0	369.0	0.6	0.6	-139.21	-408.4	-352.4	539.4	538.1	1.29	419.318		
500.0	500.0	469.0	469.0	0.8	0.8	-139.21	-408.4	-352.4	539.4	537.7	1.64	329.815		
600.0	600.0	569.0	569.0	1.0	1.0	-12.00	-408.4	-352.4	537.7	535.7	1.98	271.034		
700.0	699.9	668.9	668.9	1.2	1.2	-12.09	-408.4	-352.4	533.7	531.4	2.33	228.797		
800.0	799.8	768.8	768.8	1.4	1.3	-12.19	-408.4	-352.4	529.7	527.0	2.68	197.502		
900.0	899.7	868.7	868.7	1.5	1.5	-12.28	-408.4	-352.4	525.7	522.6	3.03	173.415		
1,100.0	1,099.6	1,068.6	1,068.6	1.9	1.9	-12.47	-408.4	-352.4	517.6	513.9	3.73	138.771		
1,200.0	1,199.5	1,168.5	1,168.5	2.1	2.0	-12.57	-408.4	-352.4	513.6	509.5	4.08	125.899		
1,300.0	1,299.4	1,268.4	1,268.4	2.3	2.2	-12.67	-408.4	-352.4	509.6	505.2	4.43	115.058		
1,400.0	1,399.3	1,368.3	1,368.3	2.5	2.4	-12.78	-408.4	-352.4	505.6	500.8	4.78	105.802		
1,500.0	1,499.2	1,468.2	1,468.2	2.7	2.6	-12.88	-408.4	-352.4	501.6	496.4	5.13	97.808		
1,600.0	1,599.1	1,568.1	1,568.1	2.8	2.7	-12.99	-408.4	-352.4	497.6	492.1	5.48	90.833		
1,700.0	1,699.1	1,668.1	1,668.1	3.0	2.9	-13.09	-408.4	-352.4	493.6	487.7	5.83	84.696		
1,800.0	1,799.0	1,768.0	1,768.0	3.2	3.1	-13.20	-408.4	-352.4	489.6	483.4	6.18	79.253		
1,900.0	1,898.9	1,867.9	1,867.9	3.4	3.3	-13.31	-408.4	-352.4	485.6	479.0	6.53	74.393		
2,000.0	1,998.8	1,967.8	1,967.8	3.6	3.4	-13.43	-408.4	-352.4	481.6	474.7	6.88	70.028		
2,100.0	2,098.7	2,067.7	2,067.7	3.8	3.6	-13.54	-408.4	-352.4	477.6	470.3	7.23	66.085		
2,200.0	2,198.6	2,167.6	2,167.6	4.0	3.8	-13.66	-408.4	-352.4	473.6	466.0	7.58	62.506		
2,300.0	2,298.5	2,267.5	2,267.5	4.2	4.0	-13.78	-408.4	-352.4	469.6	461.6	7.93	59.243		
2,400.0	2,398.5	2,367.5	2,367.5	4.3	4.1	-13.90	-408.4	-352.4	465.6	457.3	8.28	56.256		
2,500.0	2,498.4	2,467.4	2,467.4	4.5	4.3	-14.02	-408.4	-352.4	461.6	453.0	8.63	53.511		
2,600.0	2,598.3	2,567.3	2,567.3	4.7	4.5	-14.14	-408.4	-352.4	457.6	448.6	8.98	50.980		
2,700.0	2,698.2	2,667.2	2,667.2	4.9	4.7	-14.27	-408.4	-352.4	453.6	444.3	9.33	48.640		
2,800.0	2,798.1	2,767.1	2,767.1	5.1	4.8	-14.40	-408.4	-352.4	449.6	439.9	9.68	46.468		
2,900.0	2,898.0	2,867.0	2,867.0	5.3	5.0	-14.53	-408.4	-352.4	445.6	435.6	10.03	44.448		
3,000.0	2,998.0	2,967.0	2,967.0	5.5	5.2	-14.66	-408.4	-352.4	441.7	431.3	10.38	42.565		
3,100.0	3,097.9	3,066.9	3,066.9	5.7	5.4	-14.80	-408.4	-352.4	437.7	427.0	10.73	40.805		
3,200.0	3,197.8	3,166.8	3,166.8	5.9	5.5	-14.94	-408.4	-352.4	433.7	422.6	11.08	39.156		
3,300.0	3,297.7	3,266.7	3,266.7	6.0	5.7	-15.08	-408.4	-352.4	429.7	418.3	11.43	37.608		
3,400.0	3,397.6	3,366.6	3,366.6	6.2	5.9	-15.22	-408.4	-352.4	425.8	414.0	11.78	36.152		
3,500.0	3,497.5	3,466.5	3,466.5	6.4	6.1	-15.37	-408.4	-352.4	421.8	409.7	12.13	34.781		
3,600.0	3,597.4	3,566.4	3,566.4	6.6	6.2	-15.52	-408.4	-352.4	417.8	405.4	12.48	33.486		
3,700.0	3,697.4	3,666.4	3,666.4	6.8	6.4	-15.67	-408.4	-352.4	413.9	401.0	12.83	32.263		
3,800.0	3,797.3	3,766.3	3,766.3	7.0	6.6	-15.83	-408.4	-352.4	409.9	396.7	13.18	31.104		
3,900.0	3,897.2	3,866.2	3,866.2	7.2	6.7	-15.99	-408.4	-352.4	406.0	392.4	13.53	30.006		
4,000.0	3,997.1	3,966.1	3,966.1	7.4	6.9	-16.15	-408.4	-352.4	402.0	388.1	13.88	28.963		
4,100.0	4,097.0	4,066.0	4,066.0	7.6	7.1	-16.31	-408.4	-352.4	398.1	383.8	14.23	27.972		
4,200.0	4,196.9	4,165.9	4,165.9	7.7	7.3	-16.48	-408.4	-352.4	394.1	379.5	14.58	27.028		
4,300.0	4,296.9	4,265.9	4,265.9	7.9	7.4	-16.65	-408.4	-352.4	390.2	375.2	14.93	26.129		
4,400.0	4,396.8	4,365.8	4,365.8	8.1	7.6	-16.83	-408.4	-352.4	386.2	370.9	15.28	25.272		
4,500.0	4,496.7	4,465.7	4,465.7	8.3	7.8	-17.01	-408.4	-352.4	382.3	366.7	15.63	24.453		
4,600.0	4,596.6	4,565.6	4,565.6	8.5	8.0	-17.19	-408.4	-352.4	378.4	362.4	15.99	23.670		
4,700.0	4,696.5	4,665.5	4,665.5	8.7	8.1	-17.37	-408.4	-352.4	374.4	358.1	16.34	22.921		
4,800.0	4,796.4	4,765.4	4,765.4	8.9	8.3	-17.56	-408.4	-352.4	370.5	353.8	16.69	22.203		
4,900.0	4,896.3	4,865.3	4,865.3	9.1	8.5	-17.76	-408.4	-352.4	366.6	349.6	17.04	21.515		
5,000.0	4,996.3	4,965.3	4,965.3	9.2	8.7	-17.96	-408.4	-352.4	362.7	345.3	17.39	20.855		
5,100.0	5,096.2	5,065.2	5,065.2	9.4	8.8	-18.16	-408.4	-352.4	358.8	341.0	17.74	20.222		
5,200.0	5,196.1	5,165.1	5,165.1	9.6	9.0	-18.36	-408.4	-352.4	354.9	336.8	18.09	19.613		

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 29HD (AL) - SYNERGY - NEVER DRILLED													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		
5,300.0	5,296.0	5,265.0	5,265.0	9.8	9.2	-18.58	-408.4	-352.4	351.0	332.5	18.45	19.027		
5,400.0	5,395.9	5,364.9	5,364.9	10.0	9.4	-18.79	-408.4	-352.4	347.1	328.3	18.80	18.464		
5,500.0	5,495.8	5,464.8	5,464.8	10.2	9.5	-19.01	-408.4	-352.4	343.2	324.0	19.15	17.921		
5,600.0	5,595.8	5,564.8	5,564.8	10.4	9.7	-19.24	-408.4	-352.4	339.3	319.8	19.50	17.399		
5,700.0	5,695.7	5,664.7	5,664.7	10.6	9.9	-19.47	-408.4	-352.4	335.4	315.6	19.85	16.895		
5,900.0	5,895.5	5,864.5	5,864.5	10.9	10.2	-19.95	-408.4	-352.4	327.7	307.1	20.56	15.939		
6,000.0	5,995.4	5,964.4	5,964.4	11.1	10.4	-20.20	-408.4	-352.4	323.8	302.9	20.91	15.485		
6,100.0	6,095.3	6,064.3	6,064.3	11.3	10.6	-20.45	-408.4	-352.4	319.9	298.7	21.26	15.047		
6,200.0	6,195.2	6,164.2	6,164.2	11.5	10.8	-20.71	-408.4	-352.4	316.1	294.5	21.62	14.623		
6,300.0	6,295.2	6,264.2	6,264.2	11.7	10.9	-20.98	-408.4	-352.4	312.3	290.3	21.97	14.213		
6,400.0	6,395.1	6,364.1	6,364.1	11.9	11.1	-21.25	-408.4	-352.4	308.4	286.1	22.32	13.816		
6,500.0	6,495.0	6,464.0	6,464.0	12.1	11.3	-21.53	-408.4	-352.4	304.6	281.9	22.68	13.432		
6,600.0	6,594.9	6,563.9	6,563.9	12.3	11.5	-21.82	-408.4	-352.4	300.8	277.7	23.03	13.060		
6,700.0	6,694.8	6,663.8	6,663.8	12.5	11.6	-22.12	-408.4	-352.4	297.0	273.6	23.38	12.699		
6,800.0	6,794.7	6,763.7	6,763.7	12.6	11.8	-22.42	-408.4	-352.4	293.1	269.4	23.74	12.349		
6,900.0	6,894.7	6,863.7	6,863.7	12.8	12.0	-22.73	-408.4	-352.4	289.3	265.3	24.09	12.010		
7,000.0	6,994.6	6,963.6	6,963.6	13.0	12.2	-23.04	-408.4	-352.4	285.5	261.2	24.45	11.695		
7,017.2	7,011.8	6,980.8	6,980.8	13.0	12.2	-90.00	-408.4	-352.4	285.8	261.3	24.51	11.661 CC, ES		
7,100.0	7,094.4	7,063.4	7,063.4	13.2	12.3	-131.56	-408.4	-352.4	288.5	263.7	24.77	11.645 SF		
7,200.0	7,193.4	7,162.4	7,162.4	13.3	12.5	-142.49	-408.4	-352.4	298.8	273.8	25.00	11.952		
7,300.0	7,290.9	7,259.9	7,259.9	13.4	12.7	-147.75	-408.4	-352.4	317.3	292.1	25.13	12.624		
7,400.0	7,386.1	7,355.1	7,355.1	13.5	12.8	-151.52	-408.4	-352.4	344.0	318.8	25.15	13.680		
7,500.0	7,478.2	7,447.2	7,447.2	13.6	13.0	-154.57	-408.4	-352.4	379.0	354.0	25.04	15.141		
7,600.0	7,566.7	7,535.7	7,535.7	13.8	13.2	-157.09	-408.4	-352.4	422.3	397.5	24.80	17.030		
7,700.0	7,650.8	7,619.8	7,619.8	14.1	13.3	-159.15	-408.4	-352.4	473.6	449.1	24.45	19.370		
7,800.0	7,729.8	7,698.8	7,698.8	14.4	13.4	-160.77	-408.4	-352.4	532.4	508.4	24.00	22.183		
7,900.0	7,803.3	7,772.3	7,772.3	14.8	13.6	-161.95	-408.4	-352.4	598.2	574.8	23.45	25.511		
8,000.0	7,868.4	7,837.4	7,837.4	15.4	13.7	-161.93	-408.4	-352.4	672.4	650.0	22.38	30.040		
8,100.0	7,922.3	7,891.3	7,891.3	16.1	13.8	-160.85	-408.4	-352.4	755.2	733.7	21.45	35.204		
8,200.0	7,964.0	7,933.0	7,933.0	17.0	13.8	-157.93	-408.4	-352.4	844.9	823.9	21.02	40.190		
8,300.0	7,992.6	7,961.6	7,961.6	18.0	13.9	-150.59	-408.4	-352.4	939.8	917.8	22.04	42.633		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 29LD (AL) - SYNERGY - NEVER DRILLED													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	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-144.42	-408.4	-292.1	503.1					
100.0	100.0	69.0	69.0	0.1	0.1	-144.42	-408.4	-292.1	502.1	501.9	0.24	2,099.356		
200.0	200.0	169.0	169.0	0.3	0.3	-144.42	-408.4	-292.1	502.1	501.5	0.59	853.669		
300.0	300.0	269.0	269.0	0.5	0.5	-144.42	-408.4	-292.1	502.1	501.2	0.94	535.729		
400.0	400.0	369.0	369.0	0.6	0.6	-144.42	-408.4	-292.1	502.1	500.8	1.29	390.348		
500.0	500.0	469.0	469.0	0.8	0.8	-144.42	-408.4	-292.1	502.1	500.5	1.64	307.029		
600.0	600.0	569.0	569.0	1.0	1.0	-17.23	-408.4	-292.1	500.4	498.5	1.98	252.255		
700.0	699.9	668.9	668.9	1.2	1.2	-17.38	-408.4	-292.1	496.6	494.2	2.33	212.844		
800.0	799.8	768.8	768.8	1.4	1.3	-17.52	-408.4	-292.1	492.6	490.0	2.68	183.641		
900.0	899.7	868.7	868.7	1.5	1.5	-17.66	-408.4	-292.1	488.7	485.7	3.03	161.165		
1,100.0	1,099.6	1,068.6	1,068.6	1.9	1.9	-17.96	-408.4	-292.1	480.9	477.2	3.73	128.843		
1,200.0	1,199.5	1,168.5	1,168.5	2.1	2.0	-18.11	-408.4	-292.1	477.0	472.9	4.08	116.836		
1,300.0	1,299.4	1,268.4	1,268.4	2.3	2.2	-18.27	-408.4	-292.1	473.1	468.6	4.43	106.724		
1,400.0	1,399.3	1,368.3	1,368.3	2.5	2.4	-18.43	-408.4	-292.1	469.2	464.4	4.78	98.092		
1,500.0	1,499.2	1,468.2	1,468.2	2.7	2.6	-18.59	-408.4	-292.1	465.3	460.1	5.13	90.638		
1,600.0	1,599.1	1,568.1	1,568.1	2.8	2.7	-18.75	-408.4	-292.1	461.4	455.9	5.48	84.136		
1,700.0	1,699.1	1,668.1	1,668.1	3.0	2.9	-18.91	-408.4	-292.1	457.5	451.6	5.83	78.414		
1,800.0	1,799.0	1,768.0	1,768.0	3.2	3.1	-19.08	-408.4	-292.1	453.6	447.4	6.18	73.341		
1,900.0	1,898.9	1,867.9	1,867.9	3.4	3.3	-19.25	-408.4	-292.1	449.7	443.2	6.54	68.812		
2,000.0	1,998.8	1,967.8	1,967.8	3.6	3.4	-19.43	-408.4	-292.1	445.8	438.9	6.89	64.744		
2,100.0	2,098.7	2,067.7	2,067.7	3.8	3.6	-19.60	-408.4	-292.1	442.0	434.7	7.24	61.070		
2,200.0	2,198.6	2,167.6	2,167.6	4.0	3.8	-19.79	-408.4	-292.1	438.1	430.5	7.59	57.736		
2,300.0	2,298.5	2,267.5	2,267.5	4.2	4.0	-19.97	-408.4	-292.1	434.2	426.3	7.94	54.697		
2,400.0	2,398.5	2,367.5	2,367.5	4.3	4.1	-20.16	-408.4	-292.1	430.3	422.1	8.29	51.915		
2,500.0	2,498.4	2,467.4	2,467.4	4.5	4.3	-20.35	-408.4	-292.1	426.5	417.9	8.64	49.359		
2,600.0	2,598.3	2,567.3	2,567.3	4.7	4.5	-20.54	-408.4	-292.1	422.6	413.6	8.99	47.003		
2,700.0	2,698.2	2,667.2	2,667.2	4.9	4.7	-20.74	-408.4	-292.1	418.8	409.4	9.34	44.824		
2,800.0	2,798.1	2,767.1	2,767.1	5.1	4.8	-20.94	-408.4	-292.1	414.9	405.3	9.69	42.803		
2,900.0	2,898.0	2,867.0	2,867.0	5.3	5.0	-21.14	-408.4	-292.1	411.1	401.1	10.05	40.924		
3,000.0	2,998.0	2,967.0	2,967.0	5.5	5.2	-21.35	-408.4	-292.1	407.3	396.9	10.40	39.172		
3,100.0	3,097.9	3,066.9	3,066.9	5.7	5.4	-21.56	-408.4	-292.1	403.4	392.7	10.75	37.535		
3,200.0	3,197.8	3,166.8	3,166.8	5.9	5.5	-21.78	-408.4	-292.1	399.6	388.5	11.10	36.001		
3,300.0	3,297.7	3,266.7	3,266.7	6.0	5.7	-22.00	-408.4	-292.1	395.8	384.4	11.45	34.562		
3,400.0	3,397.6	3,366.6	3,366.6	6.2	5.9	-22.23	-408.4	-292.1	392.0	380.2	11.80	33.209		
3,500.0	3,497.5	3,466.5	3,466.5	6.4	6.1	-22.46	-408.4	-292.1	388.2	376.0	12.16	31.934		
3,600.0	3,597.4	3,566.4	3,566.4	6.6	6.2	-22.69	-408.4	-292.1	384.4	371.9	12.51	30.732		
3,700.0	3,697.4	3,666.4	3,666.4	6.8	6.4	-22.93	-408.4	-292.1	380.6	367.7	12.86	29.595		
3,800.0	3,797.3	3,766.3	3,766.3	7.0	6.6	-23.17	-408.4	-292.1	376.8	363.6	13.21	28.520		
3,900.0	3,897.2	3,866.2	3,866.2	7.2	6.7	-23.42	-408.4	-292.1	373.0	359.5	13.57	27.500		
4,000.0	3,997.1	3,966.1	3,966.1	7.4	6.9	-23.68	-408.4	-292.1	369.3	355.4	13.92	26.532		
4,100.0	4,097.0	4,066.0	4,066.0	7.6	7.1	-23.93	-408.4	-292.1	365.5	351.2	14.27	25.613		
4,200.0	4,196.9	4,165.9	4,165.9	7.7	7.3	-24.20	-408.4	-292.1	361.8	347.1	14.62	24.738		
4,300.0	4,296.9	4,265.9	4,265.9	7.9	7.4	-24.47	-408.4	-292.1	358.0	343.0	14.98	23.905		
4,400.0	4,396.8	4,365.8	4,365.8	8.1	7.6	-24.74	-408.4	-292.1	354.3	338.9	15.33	23.110		
4,500.0	4,496.7	4,465.7	4,465.7	8.3	7.8	-25.02	-408.4	-292.1	350.5	334.9	15.68	22.351		
4,600.0	4,596.6	4,565.6	4,565.6	8.5	8.0	-25.31	-408.4	-292.1	346.8	330.8	16.04	21.626		
4,700.0	4,696.5	4,665.5	4,665.5	8.7	8.1	-25.61	-408.4	-292.1	343.1	326.7	16.39	20.933		
4,800.0	4,796.4	4,765.4	4,765.4	8.9	8.3	-25.91	-408.4	-292.1	339.4	322.7	16.74	20.270		
4,900.0	4,896.3	4,865.3	4,865.3	9.1	8.5	-26.21	-408.4	-292.1	335.7	318.6	17.10	19.634		
5,000.0	4,996.3	4,965.3	4,965.3	9.2	8.7	-26.53	-408.4	-292.1	332.0	314.6	17.45	19.024		
5,100.0	5,096.2	5,065.2	5,065.2	9.4	8.8	-26.85	-408.4	-292.1	328.3	310.5	17.81	18.439		
5,200.0	5,196.1	5,165.1	5,165.1	9.6	9.0	-27.17	-408.4	-292.1	324.7	306.5	18.16	17.877		

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 29LD (AL) - SYNERGY - NEVER DRILLED													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		
5,300.0	5,296.0	5,265.0	5,265.0	9.8	9.2	-27.51	-408.4	-292.1	321.0	302.5	18.52	17.337		
5,400.0	5,395.9	5,364.9	5,364.9	10.0	9.4	-27.85	-408.4	-292.1	317.4	298.5	18.87	16.818		
5,500.0	5,495.8	5,464.8	5,464.8	10.2	9.5	-28.20	-408.4	-292.1	313.7	294.5	19.23	16.318		
5,600.0	5,595.8	5,564.8	5,564.8	10.4	9.7	-28.56	-408.4	-292.1	310.1	290.5	19.58	15.837		
5,700.0	5,695.7	5,664.7	5,664.7	10.6	9.9	-28.93	-408.4	-292.1	306.5	286.6	19.94	15.373		
5,900.0	5,895.5	5,864.5	5,864.5	10.9	10.2	-29.69	-408.4	-292.1	299.4	278.7	20.65	14.495		
6,000.0	5,995.4	5,964.4	5,964.4	11.1	10.4	-30.08	-408.4	-292.1	295.8	274.8	21.01	14.079		
6,100.0	6,095.3	6,064.3	6,064.3	11.3	10.6	-30.49	-408.4	-292.1	292.2	270.9	21.37	13.678		
6,200.0	6,195.2	6,164.2	6,164.2	11.5	10.8	-30.90	-408.4	-292.1	288.7	267.0	21.72	13.290		
6,300.0	6,295.2	6,264.2	6,264.2	11.7	10.9	-31.33	-408.4	-292.1	285.2	263.1	22.08	12.915		
6,400.0	6,395.1	6,364.1	6,364.1	11.9	11.1	-31.76	-408.4	-292.1	281.7	259.2	22.44	12.553		
6,500.0	6,495.0	6,464.0	6,464.0	12.1	11.3	-32.21	-408.4	-292.1	278.2	255.4	22.80	12.202		
6,600.0	6,594.9	6,563.9	6,563.9	12.3	11.5	-32.66	-408.4	-292.1	274.7	251.6	23.16	11.863		
6,700.0	6,694.8	6,663.8	6,663.8	12.5	11.6	-33.13	-408.4	-292.1	271.3	247.7	23.52	11.535		
6,800.0	6,794.7	6,763.7	6,763.7	12.6	11.8	-33.61	-408.4	-292.1	267.8	243.9	23.88	11.217		
6,900.0	6,894.7	6,863.7	6,863.7	12.8	12.0	-34.11	-408.4	-292.1	264.4	240.2	24.24	10.910		
7,000.0	6,994.6	6,963.6	6,963.6	13.0	12.2	-77.94	-408.4	-292.1	261.4	236.8	24.60	10.628		
7,008.2	7,002.8	6,971.8	6,971.8	13.0	12.2	-90.00	-408.4	-292.1	261.4	236.8	24.63	10.614	CC, ES, SF	
7,100.0	7,094.4	7,063.4	7,063.4	13.2	12.3	-143.07	-408.4	-292.1	264.9	240.0	24.91	10.638		
7,200.0	7,193.4	7,162.4	7,162.4	13.3	12.5	-153.76	-408.4	-292.1	276.9	251.8	25.10	11.031		
7,300.0	7,290.9	7,259.9	7,259.9	13.4	12.7	-158.60	-408.4	-292.1	297.3	272.2	25.18	11.810		
7,400.0	7,386.1	7,355.1	7,355.1	13.5	12.8	-161.83	-408.4	-292.1	326.2	301.1	25.12	12.988		
7,500.0	7,478.2	7,447.2	7,447.2	13.6	13.0	-164.29	-408.4	-292.1	363.5	338.6	24.93	14.580		
7,600.0	7,566.7	7,535.7	7,535.7	13.8	13.2	-166.23	-408.4	-292.1	408.9	384.2	24.62	16.610		
7,700.0	7,650.8	7,619.8	7,619.8	14.1	13.3	-167.77	-408.4	-292.1	461.9	437.8	24.18	19.102		
7,800.0	7,729.8	7,698.8	7,698.8	14.4	13.4	-168.98	-408.4	-292.1	522.3	498.7	23.65	22.088		
7,900.0	7,803.3	7,772.3	7,772.3	14.8	13.6	-169.89	-408.4	-292.1	589.5	566.5	23.00	25.628		
8,000.0	7,868.4	7,837.4	7,837.4	15.4	13.7	-170.18	-408.4	-292.1	664.9	643.1	21.74	30.590		
8,100.0	7,922.3	7,891.3	7,891.3	16.1	13.8	-169.88	-408.4	-292.1	748.6	728.1	20.49	36.542		
8,200.0	7,964.0	7,933.0	7,933.0	17.0	13.8	-168.62	-408.4	-292.1	839.2	819.7	19.47	43.101		
8,300.0	7,992.6	7,961.6	7,961.6	18.0	13.9	-164.94	-408.4	-292.1	934.7	915.5	19.14	48.839		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 29QD (AL) - SYNERGY - NEVER DRILLED													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	-148.30	-408.7	-252.4	481.3					
100.0	100.0	70.0	70.0	0.1	0.1	-148.30	-408.7	-252.4	480.3	480.1	0.24	1,993.749		
200.0	200.0	170.0	170.0	0.3	0.3	-148.30	-408.7	-252.4	480.3	479.7	0.59	814.219		
300.0	300.0	262.2	262.2	0.5	0.5	-148.36	-409.3	-252.3	480.9	480.0	0.93	519.582		
400.0	400.0	350.9	350.9	0.6	0.6	-148.62	-412.6	-251.7	483.7	482.4	1.26	385.238		
500.0	500.0	439.4	439.1	0.8	0.8	-149.08	-418.5	-250.6	488.8	487.2	1.59	308.324		
600.0	600.0	551.0	550.4	1.0	1.0	-22.49	-426.3	-249.3	492.6	490.7	1.98	248.890		
700.0	699.9	666.1	665.4	1.2	1.2	-22.97	-429.9	-248.6	491.3	489.0	2.35	208.687		
800.0	799.8	772.0	771.4	1.4	1.4	-23.17	-429.9	-248.6	487.5	484.8	2.71	179.819		
900.0	899.7	871.9	871.3	1.5	1.6	-23.33	-429.5	-248.7	483.4	480.3	3.06	158.064		
1,000.0	999.6	971.8	971.2	1.7	1.7	-23.49	-429.1	-248.8	479.3	475.9	3.41	140.710		
1,100.0	1,099.6	1,071.7	1,071.1	1.9	1.9	-23.66	-428.7	-248.9	475.2	471.4	3.75	126.553		
1,200.0	1,199.5	1,171.6	1,171.0	2.1	2.1	-23.83	-428.3	-248.9	471.1	467.0	4.10	114.789		
1,300.0	1,299.4	1,271.5	1,270.9	2.3	2.2	-24.00	-427.8	-249.0	467.0	462.6	4.45	104.862		
1,400.0	1,399.3	1,371.4	1,370.8	2.5	2.4	-24.17	-427.4	-249.1	463.0	458.2	4.80	96.374		
1,500.0	1,499.2	1,471.3	1,470.7	2.7	2.6	-24.35	-427.0	-249.1	458.9	453.7	5.15	89.035		
1,600.0	1,599.1	1,571.3	1,570.6	2.8	2.8	-24.53	-426.6	-249.2	454.8	449.3	5.50	82.627		
1,700.0	1,699.1	1,671.2	1,670.5	3.0	2.9	-24.72	-426.2	-249.3	450.8	444.9	5.86	76.984		
1,800.0	1,799.0	1,771.1	1,770.4	3.2	3.1	-24.91	-425.8	-249.4	446.7	440.5	6.21	71.978		
1,900.0	1,898.9	1,871.0	1,870.3	3.4	3.3	-25.10	-425.4	-249.4	442.6	436.1	6.56	67.506		
2,000.0	1,998.8	1,970.9	1,970.2	3.6	3.5	-25.29	-425.0	-249.5	438.6	431.7	6.91	63.488		
2,100.0	2,098.7	2,070.8	2,070.1	3.8	3.6	-25.49	-424.6	-249.6	434.6	427.3	7.26	59.858		
2,200.0	2,198.6	2,170.7	2,170.0	4.0	3.8	-25.69	-424.2	-249.6	430.5	422.9	7.61	56.563		
2,300.0	2,298.5	2,270.6	2,270.0	4.2	4.0	-25.90	-423.8	-249.7	426.5	418.5	7.96	53.558		
2,400.0	2,398.5	2,370.5	2,369.9	4.3	4.1	-26.11	-423.4	-249.8	422.5	414.1	8.31	50.808		
2,500.0	2,498.4	2,470.4	2,469.8	4.5	4.3	-26.32	-423.0	-249.9	418.4	409.8	8.67	48.280		
2,600.0	2,598.3	2,570.3	2,569.7	4.7	4.5	-26.54	-422.6	-249.9	414.4	405.4	9.02	45.950		
2,700.0	2,698.2	2,670.2	2,669.6	4.9	4.7	-26.76	-422.2	-250.0	410.4	401.0	9.37	43.795		
2,800.0	2,798.1	2,770.1	2,769.5	5.1	4.8	-26.99	-421.8	-250.1	406.4	396.7	9.72	41.797		
2,900.0	2,898.0	2,870.0	2,869.4	5.3	5.0	-27.22	-421.4	-250.1	402.4	392.3	10.08	39.938		
3,000.0	2,998.0	2,969.9	2,969.3	5.5	5.2	-27.46	-421.0	-250.2	398.4	388.0	10.43	38.204		
3,100.0	3,097.9	3,069.9	3,069.2	5.7	5.4	-27.70	-420.5	-250.3	394.4	383.7	10.78	36.585		
3,200.0	3,197.8	3,169.8	3,169.1	5.9	5.5	-27.95	-420.1	-250.4	390.5	379.3	11.13	35.068		
3,300.0	3,297.7	3,269.7	3,269.0	6.0	5.7	-28.20	-419.7	-250.4	386.5	375.0	11.49	33.645		
3,400.0	3,397.6	3,369.6	3,368.9	6.2	5.9	-28.45	-419.3	-250.5	382.5	370.7	11.84	32.306		
3,500.0	3,497.5	3,469.5	3,468.8	6.4	6.1	-28.71	-418.9	-250.6	378.6	366.4	12.19	31.046		
3,600.0	3,597.4	3,569.4	3,568.7	6.6	6.2	-28.98	-418.5	-250.6	374.6	362.1	12.55	29.857		
3,700.0	3,697.4	3,669.3	3,668.6	6.8	6.4	-29.25	-418.1	-250.7	370.7	357.8	12.90	28.733		
3,800.0	3,797.3	3,769.2	3,768.5	7.0	6.6	-29.53	-417.7	-250.8	366.8	353.5	13.26	27.669		
3,900.0	3,897.2	3,869.1	3,868.4	7.2	6.8	-29.82	-417.3	-250.9	362.9	349.2	13.61	26.662		
4,000.0	3,997.1	3,969.0	3,968.4	7.4	6.9	-30.11	-416.9	-250.9	358.9	345.0	13.96	25.705		
4,100.0	4,097.0	4,068.9	4,068.3	7.6	7.1	-30.40	-416.5	-251.0	355.0	340.7	14.32	24.796		
4,200.0	4,196.9	4,168.8	4,168.2	7.7	7.3	-30.71	-416.1	-251.1	351.2	336.5	14.67	23.932		
4,300.0	4,296.9	4,268.7	4,268.1	7.9	7.5	-31.02	-415.7	-251.1	347.3	332.2	15.03	23.108		
4,400.0	4,396.8	4,368.6	4,368.0	8.1	7.6	-31.33	-415.3	-251.2	343.4	328.0	15.38	22.323		
4,500.0	4,496.7	4,468.5	4,467.9	8.3	7.8	-31.66	-414.9	-251.3	339.5	323.8	15.74	21.574		
4,600.0	4,596.6	4,568.5	4,567.8	8.5	8.0	-31.99	-414.5	-251.4	335.7	319.6	16.09	20.858		
4,700.0	4,696.5	4,668.4	4,667.7	8.7	8.1	-32.33	-414.1	-251.4	331.9	315.4	16.45	20.174		
4,800.0	4,796.4	4,768.3	4,767.6	8.9	8.3	-32.68	-413.7	-251.5	328.0	311.2	16.81	19.519		
4,900.0	4,896.3	4,868.2	4,867.5	9.1	8.5	-33.03	-413.2	-251.6	324.2	307.1	17.16	18.892		
5,000.0	4,996.3	4,968.1	4,967.4	9.2	8.7	-33.40	-412.8	-251.6	320.4	302.9	17.52	18.290		
5,100.0	5,096.2	5,068.0	5,067.3	9.4	8.8	-33.77	-412.4	-251.7	316.6	298.8	17.88	17.713		

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - SRC PRATT 29QD (AL) - SYNERGY - NEVER DRILLED													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		
5,200.0	5,196.1	5,167.9	5,167.2	9.6	9.0	-34.15	-412.0	-251.8	312.9	294.6	18.23	17.159		
5,300.0	5,296.0	5,267.8	5,267.1	9.8	9.2	-34.54	-411.6	-251.9	309.1	290.5	18.59	16.627		
5,400.0	5,395.9	5,367.7	5,367.0	10.0	9.4	-34.94	-411.2	-251.9	305.4	286.4	18.95	16.116		
5,500.0	5,495.8	5,467.6	5,466.9	10.2	9.5	-35.36	-410.8	-252.0	301.6	282.3	19.31	15.624		
5,600.0	5,595.8	5,567.5	5,566.8	10.4	9.7	-35.78	-410.4	-252.1	297.9	278.3	19.66	15.150		
5,700.0	5,695.7	5,667.4	5,666.8	10.6	9.9	-36.21	-410.0	-252.1	294.2	274.2	20.02	14.694		
5,800.0	5,795.6	5,767.3	5,766.7	10.8	10.1	-36.65	-409.6	-252.2	290.5	270.2	20.38	14.255		
5,900.0	5,895.5	5,867.2	5,866.6	10.9	10.2	-37.10	-409.2	-252.3	286.9	266.1	20.74	13.831		
6,000.0	5,995.4	5,967.1	5,966.5	11.1	10.4	-37.57	-408.8	-252.4	283.2	262.1	21.10	13.423		
6,100.0	6,095.3	6,066.0	6,065.3	11.3	10.6	-38.07	-408.7	-252.4	279.9	258.4	21.46	13.042		
6,200.0	6,195.2	6,165.9	6,165.2	11.5	10.8	-38.59	-408.7	-252.4	276.7	254.8	21.82	12.679		
6,300.0	6,295.2	6,265.8	6,265.2	11.7	10.9	-39.13	-408.7	-252.4	273.5	251.3	22.18	12.327		
6,400.0	6,395.1	6,365.8	6,365.1	11.9	11.1	-39.68	-408.7	-252.4	270.3	247.7	22.54	11.989		
6,500.0	6,495.0	6,465.7	6,465.0	12.1	11.3	-40.24	-408.7	-252.4	267.1	244.2	22.91	11.661		
6,600.0	6,594.9	6,565.6	6,564.9	12.3	11.5	-40.82	-408.7	-252.4	264.0	240.7	23.27	11.345		
6,700.0	6,694.8	6,665.5	6,664.8	12.5	11.6	-41.41	-408.7	-252.4	260.9	237.3	23.63	11.039		
6,800.0	6,794.7	6,765.4	6,764.7	12.6	11.8	-42.01	-408.7	-252.4	257.8	233.8	24.00	10.744		
6,900.0	6,894.7	6,865.3	6,864.7	12.8	12.0	-42.63	-408.7	-252.4	254.8	230.4	24.36	10.458		
7,000.0	6,994.6	6,965.3	6,964.6	13.0	12.2	-43.27	-408.7	-252.4	252.2	227.5	24.73	10.200		
7,002.3	6,996.8	6,967.5	6,966.8	13.0	12.2	-90.00	-408.7	-252.4	252.2	227.5	24.74	10.196 CC, ES, SF		
7,100.0	7,094.4	7,065.1	7,064.4	13.2	12.3	-151.63	-408.7	-252.4	256.4	231.3	25.02	10.245		
7,200.0	7,193.4	7,164.1	7,163.4	13.3	12.5	-162.05	-408.7	-252.4	269.2	244.0	25.19	10.686		
7,300.0	7,290.9	7,261.5	7,260.9	13.4	12.7	-166.48	-408.7	-252.4	290.6	265.4	25.23	11.520		
7,400.0	7,386.1	7,356.7	7,356.1	13.5	12.8	-169.21	-408.7	-252.4	320.6	295.4	25.13	12.756		
7,500.0	7,478.2	7,448.9	7,448.2	13.6	13.0	-171.16	-408.7	-252.4	358.8	333.9	24.90	14.410		
7,600.0	7,566.7	7,537.4	7,536.7	13.8	13.2	-172.63	-408.7	-252.4	405.0	380.4	24.54	16.502		
7,700.0	7,650.8	7,621.5	7,620.8	14.1	13.3	-173.76	-408.7	-252.4	458.8	434.7	24.07	19.063		
7,800.0	7,729.8	7,700.5	7,699.8	14.4	13.4	-174.65	-408.7	-252.4	519.7	496.2	23.49	22.125		
7,900.0	7,803.3	7,774.0	7,773.3	14.8	13.6	-175.34	-408.7	-252.4	587.4	564.6	22.81	25.758		
8,000.0	7,868.4	7,839.0	7,838.4	15.4	13.7	-175.86	-408.7	-252.4	663.2	641.7	21.46	30.904		
8,100.0	7,922.3	7,892.9	7,892.3	16.1	13.8	-176.15	-408.7	-252.4	747.2	727.1	20.09	37.190		
8,200.0	7,964.0	7,934.6	7,934.0	17.0	13.8	-176.19	-408.7	-252.4	838.0	819.1	18.86	44.444		
8,300.0	7,992.6	7,963.3	7,962.6	18.0	13.9	-175.73	-408.7	-252.4	933.7	915.8	17.93	52.088		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	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							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		
0.0	0.0	0.0	0.0	0.0	0.0	-89.94	0.0	-28.0	33.8					
100.0	100.0	81.0	81.0	0.1	0.1	-89.94	0.0	-28.0	28.0	27.8	0.24	115.889		
200.0	200.0	181.0	181.0	0.3	0.3	-89.94	0.0	-28.0	28.0	27.4	0.59	47.760	CC, ES	
300.0	300.0	280.6	280.6	0.5	0.5	-89.99	0.0	-28.6	28.6	27.6	0.94	30.555		
400.0	400.0	380.1	380.0	0.6	0.6	-90.15	-0.1	-30.8	30.8	29.6	1.29	23.989		
500.0	500.0	479.4	479.3	0.8	0.8	-90.40	-0.2	-34.8	34.9	33.2	1.64	21.241		
600.0	600.0	578.7	578.4	1.0	1.0	38.05	-0.5	-40.5	39.2	37.2	1.98	19.809		
700.0	699.9	677.8	677.3	1.2	1.2	40.79	-0.8	-47.9	43.5	41.2	2.33	18.679		
800.0	799.8	776.8	775.9	1.4	1.5	42.79	-1.1	-57.0	49.6	46.9	2.68	18.482	SF	
900.0	899.7	875.6	874.1	1.5	1.7	44.08	-1.6	-67.8	57.4	54.4	3.04	18.896		
1,000.0	999.6	974.1	971.8	1.7	2.0	44.80	-2.0	-80.2	66.9	63.5	3.39	19.721		
1,100.0	1,099.6	1,072.3	1,068.9	1.9	2.3	45.11	-2.6	-94.2	78.2	74.4	3.75	20.836		
1,200.0	1,199.5	1,170.0	1,165.4	2.1	2.6	45.15	-3.2	-109.9	91.0	86.9	4.11	22.164		
1,300.0	1,299.4	1,268.5	1,262.4	2.3	2.9	45.06	-3.9	-126.9	105.2	100.7	4.47	23.557		
1,400.0	1,399.3	1,367.5	1,359.9	2.5	3.2	44.98	-4.6	-144.1	119.4	114.6	4.82	24.753		
1,500.0	1,499.2	1,466.5	1,457.4	2.7	3.6	44.92	-5.3	-161.2	133.7	128.5	5.18	25.783		
1,600.0	1,599.1	1,565.5	1,554.8	2.8	3.9	44.87	-6.0	-178.4	147.9	142.3	5.54	26.678		
1,700.0	1,699.1	1,664.4	1,652.3	3.0	4.2	44.83	-6.6	-195.6	162.1	156.2	5.90	27.463		
1,800.0	1,799.0	1,763.4	1,749.8	3.2	4.6	44.79	-7.3	-212.8	176.3	170.1	6.26	28.157		
1,900.0	1,898.9	1,862.4	1,847.3	3.4	4.9	44.76	-8.0	-229.9	190.6	184.0	6.62	28.776		
2,000.0	1,998.8	1,961.4	1,944.8	3.6	5.3	44.74	-8.7	-247.1	204.8	197.8	6.98	29.330		
2,100.0	2,098.7	2,060.4	2,042.2	3.8	5.6	44.72	-9.4	-264.3	219.0	211.7	7.34	29.829		
2,200.0	2,198.6	2,159.4	2,139.7	4.0	6.0	44.70	-10.0	-281.5	233.3	225.6	7.70	30.282		
2,300.0	2,298.5	2,258.3	2,237.2	4.2	6.3	44.68	-10.7	-298.6	247.5	239.4	8.06	30.694		
2,400.0	2,398.5	2,357.3	2,334.7	4.3	6.6	44.66	-11.4	-315.8	261.7	253.3	8.42	31.070		
2,500.0	2,498.4	2,456.3	2,432.1	4.5	7.0	44.65	-12.1	-333.0	276.0	267.2	8.78	31.415		
2,600.0	2,598.3	2,555.3	2,529.6	4.7	7.3	44.64	-12.8	-350.2	290.2	281.0	9.14	31.733		
2,700.0	2,698.2	2,654.3	2,627.1	4.9	7.7	44.63	-13.5	-367.4	304.4	294.9	9.51	32.027		
2,800.0	2,798.1	2,753.3	2,724.6	5.1	8.0	44.62	-14.1	-384.5	318.7	308.8	9.87	32.299		
2,900.0	2,898.0	2,852.2	2,822.1	5.3	8.4	44.61	-14.8	-401.7	332.9	322.7	10.23	32.552		
3,000.0	2,998.0	2,951.2	2,919.5	5.5	8.7	44.60	-15.5	-418.9	347.1	336.5	10.59	32.788		
3,100.0	3,097.9	3,050.2	3,017.0	5.7	9.1	44.59	-16.2	-436.1	361.3	350.4	10.95	33.008		
3,200.0	3,197.8	3,149.2	3,114.5	5.9	9.4	44.58	-16.9	-453.2	375.6	364.3	11.31	33.214		
3,300.0	3,297.7	3,248.2	3,212.0	6.0	9.8	44.58	-17.6	-470.4	389.8	378.1	11.67	33.407		
3,400.0	3,397.6	3,347.1	3,309.4	6.2	10.1	44.57	-18.2	-487.6	404.0	392.0	12.03	33.588		
3,500.0	3,497.5	3,446.1	3,406.9	6.4	10.5	44.56	-18.9	-504.8	418.3	405.9	12.39	33.759		
3,600.0	3,597.4	3,545.1	3,504.4	6.6	10.8	44.56	-19.6	-521.9	432.5	419.8	12.75	33.920		
3,700.0	3,697.4	3,644.1	3,601.9	6.8	11.2	44.55	-20.3	-539.1	446.7	433.6	13.11	34.073		
3,800.0	3,797.3	3,743.1	3,699.4	7.0	11.5	44.55	-21.0	-556.3	461.0	447.5	13.47	34.217		
3,900.0	3,897.2	3,842.1	3,796.8	7.2	11.9	44.54	-21.7	-573.5	475.2	461.4	13.83	34.353		
4,000.0	3,997.1	3,941.0	3,894.3	7.4	12.2	44.54	-22.3	-590.7	489.4	475.2	14.19	34.483		
4,100.0	4,097.0	4,040.0	3,991.8	7.6	12.6	44.54	-23.0	-607.8	503.7	489.1	14.55	34.606		
4,200.0	4,196.9	4,139.0	4,089.3	7.7	12.9	44.53	-23.7	-625.0	517.9	503.0	14.91	34.723		
4,300.0	4,296.9	4,238.0	4,186.7	7.9	13.3	44.53	-24.4	-642.2	532.1	516.8	15.28	34.835		
4,400.0	4,396.8	4,337.0	4,284.2	8.1	13.6	44.52	-25.1	-659.4	546.4	530.7	15.64	34.941		
4,500.0	4,496.7	4,435.9	4,381.7	8.3	14.0	44.52	-25.8	-676.5	560.6	544.6	16.00	35.043		
4,600.0	4,596.6	4,534.9	4,479.2	8.5	14.3	44.52	-26.4	-693.7	574.8	558.5	16.36	35.140		
4,700.0	4,696.5	4,633.9	4,576.7	8.7	14.7	44.52	-27.1	-710.9	589.0	572.3	16.72	35.233		
4,800.0	4,796.4	4,732.9	4,674.1	8.9	15.0	44.51	-27.8	-728.1	603.3	586.2	17.08	35.322		
4,900.0	4,896.3	4,831.9	4,771.6	9.1	15.4	44.51	-28.5	-745.3	617.5	600.1	17.44	35.407		
5,000.0	4,996.3	4,930.9	4,869.1	9.2	15.7	44.51	-29.2	-762.4	631.7	613.9	17.80	35.489		
5,100.0	5,096.2	5,029.8	4,966.6	9.4	16.1	44.51	-29.9	-779.6	646.0	627.8	18.16	35.567		

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	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		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)						
5,200.0	5,196.1	5,128.8	5,064.0	9.6	16.4	44.50	-30.5	-796.8	660.2	641.7	18.52	35.643		
5,300.0	5,296.0	5,227.8	5,161.5	9.8	16.8	44.50	-31.2	-814.0	674.4	655.6	18.88	35.715		
5,400.0	5,395.9	5,326.8	5,259.0	10.0	17.1	44.50	-31.9	-831.1	688.7	669.4	19.24	35.785		
5,500.0	5,495.8	5,425.8	5,356.5	10.2	17.5	44.50	-32.6	-848.3	702.9	683.3	19.61	35.852		
5,600.0	5,595.8	5,524.8	5,454.0	10.4	17.8	44.49	-33.3	-865.5	717.1	697.2	19.97	35.917		
5,700.0	5,695.7	5,623.7	5,551.4	10.6	18.2	44.49	-34.0	-882.7	731.4	711.0	20.33	35.980		
5,800.0	5,795.6	5,722.7	5,648.9	10.8	18.5	44.49	-34.6	-899.8	745.6	724.9	20.69	36.040		
5,900.0	5,895.5	5,821.7	5,746.4	10.9	18.9	44.49	-35.3	-917.0	759.8	738.8	21.05	36.098		
6,000.0	5,995.4	5,920.7	5,843.9	11.1	19.2	44.49	-36.0	-934.2	774.1	752.6	21.41	36.155		
6,100.0	6,095.3	6,019.7	5,941.4	11.3	19.6	44.49	-36.7	-951.4	788.3	766.5	21.77	36.209		
6,200.0	6,195.2	6,118.6	6,038.8	11.5	19.9	44.48	-37.4	-968.6	802.5	780.4	22.13	36.262		
6,300.0	6,295.2	6,217.6	6,136.3	11.7	20.3	44.48	-38.1	-985.7	816.7	794.3	22.49	36.313		
6,400.0	6,395.1	6,316.6	6,233.8	11.9	20.6	44.48	-38.7	-1,002.9	831.0	808.1	22.85	36.362		
6,500.0	6,495.0	6,415.6	6,331.3	12.1	21.0	44.48	-39.4	-1,020.1	845.2	822.0	23.21	36.410		
6,600.0	6,594.9	6,514.6	6,428.7	12.3	21.3	44.48	-40.1	-1,037.3	859.4	835.9	23.57	36.456		
6,700.0	6,694.8	6,613.6	6,526.2	12.5	21.7	44.48	-40.8	-1,054.4	873.7	849.7	23.94	36.501		
6,800.0	6,794.7	6,712.5	6,623.7	12.6	22.0	44.48	-41.5	-1,071.6	887.9	863.6	24.30	36.545		
6,900.0	6,894.7	6,811.5	6,721.2	12.8	22.4	44.47	-42.2	-1,088.8	902.1	877.5	24.66	36.587		
7,000.0	6,994.6	6,910.5	6,818.7	13.0	22.7	1.39	-42.8	-1,106.0	916.3	891.3	25.04	36.597		
7,100.0	7,094.4	7,009.3	6,916.0	13.2	23.1	-62.59	-43.5	-1,123.1	929.6	904.3	25.38	36.633		
7,200.0	7,193.4	7,107.3	7,012.5	13.3	23.4	-72.31	-44.2	-1,140.1	942.0	916.4	25.62	36.768		
7,300.0	7,290.9	7,203.7	7,107.4	13.4	23.7	-76.49	-44.9	-1,156.8	953.7	927.9	25.79	36.978		
7,400.0	7,386.1	7,297.7	7,200.0	13.5	24.1	-79.42	-45.5	-1,173.2	965.3	939.3	25.93	37.225		
7,500.0	7,478.2	7,387.8	7,288.6	13.6	24.4	-81.73	-41.9	-1,188.8	977.4	951.3	26.08	37.476		
7,600.0	7,566.7	7,483.9	7,381.2	13.8	24.7	-83.36	-22.9	-1,205.1	990.2	963.8	26.30	37.643		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - Waste Connections 3B-29H-M168 - Hz - Plan #2														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	-89.94	0.0	-19.6	27.3						
100.0	100.0	81.0	81.0	0.1	0.1	-89.94	0.0	-19.6	19.6	19.4	0.24	81.123			
200.0	200.0	181.0	181.0	0.3	0.3	-89.94	0.0	-19.6	19.6	19.0	0.59	33.432			
300.0	300.0	281.0	281.0	0.5	0.5	-89.94	0.0	-19.6	19.6	18.7	0.94	20.957 CC, ES			
400.0	400.0	380.8	380.8	0.6	0.6	-90.92	-0.3	-20.1	20.1	18.8	1.28	15.622			
500.0	500.0	480.4	480.4	0.8	0.8	-94.44	-1.7	-21.9	21.9	20.3	1.63	13.435			
600.0	600.0	580.1	580.0	1.0	1.0	29.86	-4.1	-25.1	23.9	21.9	1.98	12.036			
700.0	699.9	679.7	679.4	1.2	1.2	27.97	-7.6	-29.6	25.4	23.0	2.34	10.853			
800.0	799.8	779.2	778.7	1.4	1.4	24.80	-12.1	-35.6	28.4	25.7	2.69	10.553			
900.0	899.7	878.6	877.6	1.5	1.6	21.12	-17.6	-42.9	33.1	30.1	3.04	10.882			
1,000.0	999.6	977.8	976.2	1.7	1.9	17.58	-24.2	-51.5	39.6	36.2	3.39	11.665			
1,100.0	1,099.6	1,076.7	1,074.3	1.9	2.1	14.52	-31.8	-61.5	47.8	44.1	3.74	12.783			
1,200.0	1,199.5	1,175.3	1,171.9	2.1	2.4	12.00	-40.3	-72.8	57.9	53.8	4.09	14.151			
1,300.0	1,299.4	1,274.1	1,269.4	2.3	2.7	10.00	-49.8	-85.2	69.4	65.0	4.43	15.653			
1,400.0	1,399.3	1,373.4	1,367.4	2.5	3.0	8.55	-59.4	-97.9	81.2	76.4	4.78	16.986			
1,500.0	1,499.2	1,472.6	1,465.4	2.7	3.3	7.47	-69.0	-110.6	93.1	87.9	5.13	18.147			
1,600.0	1,599.1	1,571.9	1,563.4	2.8	3.6	6.63	-78.6	-123.2	104.9	99.4	5.47	19.165			
1,700.0	1,699.1	1,671.2	1,661.4	3.0	4.0	5.96	-88.2	-135.9	116.8	111.0	5.82	20.064			
1,800.0	1,799.0	1,770.5	1,759.4	3.2	4.3	5.41	-97.9	-148.6	128.7	122.5	6.17	20.864			
1,900.0	1,898.9	1,869.8	1,857.4	3.4	4.6	4.96	-107.5	-161.3	140.6	134.1	6.52	21.580			
2,000.0	1,998.8	1,969.1	1,955.4	3.6	4.9	4.58	-117.1	-173.9	152.5	145.7	6.86	22.224			
2,100.0	2,098.7	2,068.3	2,053.4	3.8	5.2	4.25	-126.7	-186.6	164.4	157.2	7.21	22.807			
2,200.0	2,198.6	2,167.6	2,151.4	4.0	5.6	3.97	-136.3	-199.3	176.4	168.8	7.56	23.337			
2,300.0	2,298.5	2,266.9	2,249.4	4.2	5.9	3.72	-146.0	-211.9	188.3	180.4	7.90	23.821			
2,400.0	2,398.5	2,366.2	2,347.4	4.3	6.2	3.51	-155.6	-224.6	200.2	192.0	8.25	24.265			
2,500.0	2,498.4	2,465.5	2,445.4	4.5	6.5	3.31	-165.2	-237.3	212.1	203.5	8.60	24.672			
2,600.0	2,598.3	2,564.8	2,543.4	4.7	6.9	3.14	-174.8	-250.0	224.1	215.1	8.95	25.049			
2,700.0	2,698.2	2,664.0	2,641.4	4.9	7.2	2.99	-184.4	-262.6	236.0	226.7	9.29	25.397			
2,800.0	2,798.1	2,763.3	2,739.4	5.1	7.5	2.85	-194.1	-275.3	248.0	238.3	9.64	25.720			
2,900.0	2,898.0	2,862.6	2,837.4	5.3	7.8	2.72	-203.7	-288.0	259.9	249.9	9.99	26.021			
3,000.0	2,998.0	2,961.9	2,935.4	5.5	8.2	2.60	-213.3	-300.7	271.8	261.5	10.34	26.302			
3,100.0	3,097.9	3,061.2	3,033.4	5.7	8.5	2.50	-222.9	-313.3	283.8	273.1	10.68	26.564			
3,200.0	3,197.8	3,160.5	3,131.4	5.9	8.8	2.40	-232.5	-326.0	295.7	284.7	11.03	26.810			
3,300.0	3,297.7	3,259.7	3,229.4	6.0	9.1	2.31	-242.1	-338.7	307.7	296.3	11.38	27.041			
3,400.0	3,397.6	3,359.0	3,327.4	6.2	9.5	2.23	-251.8	-351.4	319.6	307.9	11.72	27.259			
3,500.0	3,497.5	3,458.3	3,425.4	6.4	9.8	2.15	-261.4	-364.0	331.5	319.5	12.07	27.464			
3,600.0	3,597.4	3,557.6	3,523.4	6.6	10.1	2.08	-271.0	-376.7	343.5	331.1	12.42	27.657			
3,700.0	3,697.4	3,656.9	3,621.4	6.8	10.5	2.01	-280.6	-389.4	355.4	342.7	12.77	27.840			
3,800.0	3,797.3	3,756.2	3,719.4	7.0	10.8	1.95	-290.2	-402.0	367.4	354.3	13.11	28.013			
3,900.0	3,897.2	3,855.4	3,817.4	7.2	11.1	1.89	-299.9	-414.7	379.3	365.9	13.46	28.178			
4,000.0	3,997.1	3,954.7	3,915.4	7.4	11.4	1.83	-309.5	-427.4	391.3	377.5	13.81	28.334			
4,100.0	4,097.0	4,054.0	4,013.4	7.6	11.8	1.78	-319.1	-440.1	403.2	389.1	14.16	28.482			
4,200.0	4,196.9	4,153.3	4,111.4	7.7	12.1	1.73	-328.7	-452.7	415.2	400.7	14.50	28.624			
4,300.0	4,296.9	4,252.6	4,209.4	7.9	12.4	1.69	-338.3	-465.4	427.1	412.3	14.85	28.759			
4,400.0	4,396.8	4,351.9	4,307.4	8.1	12.8	1.64	-347.9	-478.1	439.1	423.9	15.20	28.887			
4,500.0	4,496.7	4,451.1	4,405.4	8.3	13.1	1.60	-357.6	-490.8	451.0	435.5	15.55	29.010			
4,600.0	4,596.6	4,550.4	4,503.4	8.5	13.4	1.56	-367.2	-503.4	463.0	447.1	15.89	29.128			
4,700.0	4,696.5	4,649.7	4,601.4	8.7	13.7	1.52	-376.8	-516.1	474.9	458.7	16.24	29.240			
4,800.0	4,796.4	4,749.0	4,699.4	8.9	14.1	1.49	-386.4	-528.8	486.9	470.3	16.59	29.348			
4,900.0	4,896.3	4,848.3	4,797.4	9.1	14.4	1.45	-396.0	-541.5	498.8	481.9	16.94	29.451			
5,000.0	4,996.3	4,947.6	4,895.4	9.2	14.7	1.42	-405.7	-554.1	510.7	493.5	17.28	29.550			
5,100.0	5,096.2	5,046.8	4,993.4	9.4	15.0	1.39	-415.3	-566.8	522.7	505.1	17.63	29.646			

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - Waste Connections 3B-29H-M168 - Hz - Plan #2													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			
5,200.0	5,196.1	5,146.1	5,091.4	9.6	15.4	1.36	-424.9	-579.5	534.6	516.7	17.98	29.737		
5,300.0	5,296.0	5,245.4	5,189.4	9.8	15.7	1.33	-434.5	-592.1	546.6	528.3	18.33	29.825		
5,400.0	5,395.9	5,344.7	5,287.4	10.0	16.0	1.31	-444.1	-604.8	558.5	539.9	18.67	29.910		
5,500.0	5,495.8	5,444.0	5,385.4	10.2	16.4	1.28	-453.7	-617.5	570.5	551.5	19.02	29.992		
5,600.0	5,595.8	5,543.3	5,483.4	10.4	16.7	1.26	-463.4	-630.2	582.4	563.1	19.37	30.071		
5,700.0	5,695.7	5,642.5	5,581.4	10.6	17.0	1.23	-473.0	-642.8	594.4	574.7	19.72	30.147		
5,800.0	5,795.6	5,741.8	5,679.4	10.8	17.3	1.21	-482.6	-655.5	606.3	586.3	20.06	30.220		
5,900.0	5,895.5	5,841.1	5,777.4	10.9	17.7	1.19	-492.2	-668.2	618.3	597.9	20.41	30.291		
6,000.0	5,995.4	5,940.4	5,875.4	11.1	18.0	1.17	-501.8	-680.9	630.2	609.5	20.76	30.360		
6,100.0	6,095.3	6,039.7	5,973.4	11.3	18.3	1.15	-511.5	-693.5	642.2	621.1	21.11	30.426		
6,200.0	6,195.2	6,139.0	6,071.4	11.5	18.7	1.13	-521.1	-706.2	654.1	632.7	21.45	30.490		
6,300.0	6,295.2	6,238.2	6,169.4	11.7	19.0	1.11	-530.7	-718.9	666.1	644.3	21.80	30.552		
6,400.0	6,395.1	6,337.5	6,267.4	11.9	19.3	1.09	-540.3	-731.6	678.0	655.9	22.15	30.612		
6,500.0	6,495.0	6,436.8	6,365.4	12.1	19.6	1.07	-549.9	-744.2	690.0	667.5	22.50	30.671		
6,600.0	6,594.9	6,536.1	6,463.4	12.3	20.0	1.06	-559.5	-756.9	701.9	679.1	22.84	30.727		
6,700.0	6,694.8	6,635.4	6,561.4	12.5	20.3	1.04	-569.2	-769.6	713.9	690.7	23.19	30.782		
6,800.0	6,794.7	6,734.7	6,659.4	12.6	20.6	1.02	-578.8	-782.2	725.8	702.3	23.54	30.835		
6,900.0	6,894.7	6,833.9	6,757.4	12.8	21.0	1.01	-588.4	-794.9	737.8	713.9	23.89	30.887		
7,000.0	6,994.6	6,933.2	6,855.4	13.0	21.3	-42.15	-598.0	-807.6	750.0	725.8	24.22	30.967		
7,100.0	7,094.4	7,031.7	6,952.6	13.2	21.6	-106.14	-607.6	-820.2	766.2	741.7	24.49	31.283		
7,200.0	7,193.4	7,128.5	7,048.2	13.3	21.9	-115.59	-616.9	-832.5	787.5	762.8	24.72	31.855		
7,300.0	7,290.9	7,223.0	7,141.5	13.4	22.3	-119.21	-626.1	-844.6	814.2	789.3	24.91	32.679		
7,400.0	7,386.1	7,314.4	7,231.7	13.5	22.6	-121.27	-634.9	-856.2	846.3	821.3	25.08	33.748		
7,500.0	7,478.2	7,402.0	7,318.2	13.6	22.8	-122.66	-643.4	-867.4	884.3	859.0	25.23	35.050		
7,600.0	7,566.7	8,514.8	8,016.0	13.8	22.1	-105.26	1.9	-951.4	860.8	832.2	28.55	30.145		
7,700.0	7,650.8	8,568.8	8,016.0	14.1	22.2	-104.86	55.9	-951.0	815.3	786.3	29.03	28.091		
7,800.0	7,729.8	8,629.9	8,016.0	14.4	22.4	-103.54	117.0	-950.4	778.4	748.8	29.69	26.223		
7,900.0	7,803.3	8,697.7	8,016.0	14.8	22.6	-101.52	184.8	-949.8	750.0	719.5	30.45	24.628		
8,000.0	7,868.4	8,773.4	8,016.0	15.4	22.9	-99.63	260.5	-949.2	729.9	698.5	31.39	23.252		
8,100.0	7,922.3	8,857.5	8,016.0	16.1	23.4	-97.29	344.6	-948.5	717.2	684.6	32.62	21.984		
8,200.0	7,964.0	8,948.3	8,016.0	17.0	23.9	-95.00	435.4	-947.7	709.9	675.7	34.18	20.769		
8,300.0	7,992.6	9,044.0	8,016.0	18.0	24.6	-93.18	531.1	-946.8	706.0	670.0	36.06	19.581		
8,400.0	8,007.7	9,142.8	8,016.0	19.1	25.5	-92.17	629.9	-946.0	704.1	665.9	38.21	18.426		
8,500.0	8,010.0	9,242.7	8,016.0	20.4	26.4	-92.03	729.8	-945.1	703.3	662.7	40.60	17.320		
8,600.0	8,010.0	9,342.7	8,016.0	21.7	27.4	-92.04	829.8	-944.2	702.6	659.4	43.21	16.262		
8,700.0	8,010.0	9,442.7	8,016.0	23.0	28.5	-92.04	929.8	-943.3	701.9	656.0	45.93	15.283		
8,800.0	8,010.0	9,542.7	8,016.0	24.4	29.6	-92.04	1,029.8	-942.5	701.3	652.5	48.75	14.384		
8,900.0	8,010.0	9,642.7	8,016.0	25.9	30.8	-92.04	1,129.8	-941.6	700.6	648.9	51.66	13.562		
9,000.0	8,010.0	9,742.7	8,016.0	27.4	32.0	-92.04	1,229.8	-940.7	699.9	645.3	54.63	12.811		
9,100.0	8,010.0	9,842.7	8,016.0	28.9	33.3	-92.05	1,329.8	-939.9	699.2	641.6	57.67	12.125		
9,200.0	8,010.0	9,942.7	8,016.0	30.5	34.7	-92.05	1,429.8	-939.0	698.6	637.8	60.76	11.498		
9,300.0	8,010.0	10,042.7	8,016.0	32.0	36.0	-92.05	1,529.8	-938.1	697.9	634.0	63.89	10.924		
9,400.0	8,010.0	10,142.7	8,016.0	33.6	37.4	-92.05	1,629.8	-937.2	697.2	630.1	67.05	10.398		
9,500.0	8,010.0	10,242.7	8,016.0	35.2	38.9	-92.05	1,729.8	-936.4	696.5	626.3	70.25	9.915		
9,600.0	8,010.0	10,342.7	8,016.0	36.8	40.3	-92.06	1,829.8	-935.5	695.9	622.4	73.48	9.470		
9,700.0	8,010.0	10,442.7	8,016.0	38.5	41.8	-92.06	1,929.7	-934.6	695.2	618.4	76.73	9.060		
9,800.0	8,010.0	10,542.7	8,016.0	40.1	43.3	-92.06	2,029.7	-933.7	694.5	614.5	80.00	8.681		
9,900.0	8,010.0	10,642.7	8,016.0	41.7	44.8	-92.06	2,129.7	-932.9	693.8	610.5	83.30	8.330		
10,000.0	8,010.0	10,742.7	8,016.0	43.4	46.4	-92.07	2,229.7	-932.0	693.2	606.5	86.61	8.004		
10,100.0	8,010.0	10,842.7	8,016.0	45.1	47.9	-92.07	2,329.7	-931.1	692.5	602.5	89.93	7.700		
10,200.0	8,010.0	10,942.7	8,016.0	46.7	49.5	-92.07	2,429.7	-930.3	691.8	598.5	93.27	7.417		
10,300.0	8,010.0	11,042.7	8,016.0	48.4	51.1	-92.07	2,529.7	-929.4	691.1	594.5	96.62	7.153		

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - Waste Connections 3B-29H-M168 - Hz - Plan #2												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)			
10,400.0	8,010.0	11,142.7	8,016.0	50.1	52.7	-92.07	2,629.7	-928.5	690.5	590.5	99.98	6.906	
10,500.0	8,010.0	11,242.7	8,016.0	51.8	54.3	-92.08	2,729.7	-927.6	689.8	586.4	103.34	6.675	
10,600.0	8,010.0	11,342.7	8,016.0	53.5	55.9	-92.08	2,829.7	-926.8	689.1	582.4	106.72	6.457	
10,700.0	8,010.0	11,442.7	8,016.0	55.2	57.5	-92.08	2,929.7	-925.9	688.4	578.3	110.11	6.252	
10,800.0	8,010.0	11,542.7	8,016.0	56.9	59.1	-92.08	3,029.7	-925.0	687.7	574.2	113.50	6.059	
10,900.0	8,010.0	11,642.7	8,016.0	58.6	60.7	-92.08	3,129.7	-924.1	687.1	570.2	116.90	5.877	
11,000.0	8,010.0	11,742.7	8,016.0	60.3	62.4	-92.09	3,229.7	-923.3	686.4	566.1	120.31	5.705	
11,100.0	8,010.0	11,842.7	8,016.0	62.0	64.0	-92.09	3,329.7	-922.4	685.7	562.0	123.72	5.543	
11,200.0	8,010.0	11,942.7	8,016.0	63.7	65.7	-92.09	3,429.7	-921.5	685.0	557.9	127.14	5.388	
11,300.0	8,010.0	12,042.7	8,016.0	65.4	67.3	-92.09	3,529.7	-920.7	684.4	553.8	130.56	5.242	
11,400.0	8,010.0	12,142.7	8,016.0	67.1	69.0	-92.09	3,629.6	-919.8	683.7	549.7	133.98	5.103	
11,500.0	8,010.0	12,242.7	8,016.0	68.8	70.6	-92.10	3,729.6	-918.9	683.0	545.6	137.41	4.971	
11,600.0	8,010.0	12,342.7	8,016.0	70.5	72.3	-92.10	3,829.6	-918.0	682.3	541.5	140.85	4.845	
11,700.0	8,010.0	12,442.7	8,016.0	72.3	74.0	-92.10	3,929.6	-917.2	681.7	537.4	144.28	4.725	
11,800.0	8,010.0	12,542.7	8,016.0	74.0	75.7	-92.10	4,029.6	-916.3	681.0	533.3	147.72	4.610	
11,900.0	8,010.0	12,642.6	8,016.0	75.7	77.3	-92.10	4,129.6	-915.4	680.3	529.2	151.17	4.500	
12,000.0	8,010.0	12,742.6	8,016.0	77.4	79.0	-92.11	4,229.6	-914.5	679.6	525.0	154.61	4.396	
12,100.0	8,010.0	12,842.6	8,016.0	79.1	80.7	-92.11	4,329.6	-913.7	679.0	520.9	158.06	4.296	
12,200.0	8,010.0	12,946.6	8,016.0	80.9	82.5	-92.11	4,433.6	-912.7	678.2	516.6	161.58	4.197	
12,300.0	8,010.0	13,049.7	8,016.0	82.6	84.2	-92.12	4,536.7	-910.7	676.5	511.5	165.09	4.098	
12,400.0	8,010.0	13,149.7	8,016.0	84.3	85.9	-92.12	4,636.6	-908.8	674.8	506.3	168.54	4.004	
12,500.0	8,010.0	13,249.7	8,016.0	86.1	87.6	-92.13	4,736.6	-906.9	673.1	501.1	172.00	3.913	
12,600.0	8,010.0	13,349.7	8,016.0	87.8	89.3	-92.13	4,836.6	-905.0	671.4	495.9	175.46	3.826	
12,700.0	8,010.0	13,449.7	8,016.0	89.5	91.0	-92.14	4,936.5	-903.1	669.7	490.7	178.92	3.743	
12,800.0	8,010.0	13,549.6	8,016.0	91.3	92.7	-92.14	5,036.5	-901.1	667.9	485.6	182.38	3.662	
12,900.0	8,010.0	13,649.6	8,016.0	93.0	94.4	-92.15	5,136.5	-899.2	666.2	480.4	185.84	3.585	
13,000.0	8,010.0	13,749.6	8,016.0	94.7	96.1	-92.16	5,236.4	-897.3	664.5	475.2	189.31	3.510	
13,100.0	8,010.0	13,849.6	8,016.0	96.5	97.8	-92.16	5,336.4	-895.4	662.8	470.0	192.78	3.438	
13,200.0	8,010.0	13,949.6	8,016.0	98.2	99.5	-92.17	5,436.4	-893.5	661.0	464.8	196.24	3.369	
13,300.0	8,010.0	14,049.6	8,016.0	99.9	101.2	-92.17	5,536.3	-891.6	659.3	459.6	199.71	3.301	
13,400.0	8,010.0	14,149.6	8,016.0	101.7	102.9	-92.18	5,636.3	-889.6	657.6	454.4	203.18	3.237	
13,500.0	8,010.0	14,249.5	8,016.0	103.4	104.6	-92.18	5,736.3	-887.7	655.9	449.2	206.65	3.174	
13,600.0	8,010.0	14,349.5	8,016.0	105.1	106.3	-92.19	5,836.2	-885.8	654.2	444.0	210.13	3.113	
13,700.0	8,010.0	14,449.5	8,016.0	106.9	108.1	-92.20	5,936.2	-883.9	652.4	438.8	213.60	3.054	
13,800.0	8,010.0	14,549.5	8,016.0	108.6	109.8	-92.20	6,036.2	-882.0	650.7	433.6	217.07	2.998	
13,900.0	8,010.0	14,649.5	8,016.0	110.4	111.5	-92.21	6,136.1	-880.0	649.0	428.4	220.55	2.943	
14,000.0	8,010.0	14,749.5	8,016.0	112.1	113.2	-92.21	6,236.1	-878.1	647.3	423.3	224.03	2.889	
14,100.0	8,010.0	14,849.5	8,016.0	113.8	114.9	-92.22	6,336.1	-876.2	645.6	418.1	227.50	2.838	
14,200.0	8,010.0	14,949.4	8,016.0	115.6	116.7	-92.23	6,436.0	-874.3	643.8	412.9	230.98	2.787	
14,300.0	8,010.0	15,049.4	8,016.0	117.3	118.4	-92.23	6,536.0	-872.4	642.1	407.7	234.46	2.739	
14,400.0	8,010.0	15,149.4	8,016.0	119.1	120.1	-92.24	6,636.0	-870.4	640.4	402.5	237.94	2.691	
14,500.0	8,010.0	15,249.4	8,016.0	120.8	121.8	-92.24	6,735.9	-868.5	638.7	397.3	241.42	2.645	
14,600.0	8,010.0	15,349.4	8,016.0	122.5	123.5	-92.25	6,835.9	-866.6	636.9	392.0	244.90	2.601	
14,700.0	8,010.0	15,449.4	8,016.0	124.3	125.3	-92.26	6,935.9	-864.7	635.2	386.8	248.38	2.557	
14,800.0	8,010.0	15,549.4	8,016.0	126.0	127.0	-92.26	7,035.8	-862.8	633.5	381.6	251.86	2.515	
14,900.0	8,010.0	15,641.8	8,016.0	127.8	128.6	-92.27	7,128.2	-861.4	632.2	377.0	255.21	2.477	
14,933.3	8,010.0	15,671.8	8,016.0	128.4	129.1	-92.27	7,158.2	-861.3	632.2	375.8	256.32	2.466	
15,000.0	8,010.0	15,731.8	8,016.0	129.5	130.2	-92.26	7,218.3	-861.5	632.5	374.0	258.53	2.447	
15,100.0	8,010.0	15,821.9	8,016.0	131.3	131.7	-92.26	7,308.3	-862.9	634.3	372.5	261.84	2.423	
15,200.0	8,010.0	15,911.8	8,016.0	133.0	133.3	-92.25	7,398.2	-865.8	637.7	372.6	265.15	2.405	
15,300.0	8,010.0	16,000.0	8,016.0	134.8	134.8	-92.23	7,486.3	-870.0	642.7	374.3	268.43	2.394	
15,400.0	8,010.0	16,091.4	8,016.0	136.5	136.4	-92.21	7,577.5	-875.8	649.2	377.5	271.77	2.389 SF	

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design		S29-T1N-R68W (Pratt/Waste Connections) - Waste Connections 3B-29H-M168 - Hz - Plan #2										Offset Site Error:		0.0 ft			
Survey Program:		0-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 Axis	Separation Factor	Warning				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)		(ft)	(ft)						
15,500.0	8,010.0	16,180.8	8,016.0	138.2	138.0	-92.19	7,666.7	-882.9	657.3	382.3	275.07	2.390					
15,600.0	8,010.0	16,279.6	8,016.0	140.0	139.7	-92.16	7,765.1	-891.5	666.3	387.8	278.53	2.392					
15,700.0	8,010.0	16,379.2	8,016.0	141.7	141.4	-92.13	7,864.3	-900.3	675.3	393.3	282.02	2.395					
15,800.0	8,010.0	16,478.8	8,016.0	143.5	143.2	-92.10	7,963.5	-909.1	684.3	398.8	285.50	2.397					
15,900.0	8,010.0	16,578.4	8,016.0	145.2	144.9	-92.07	8,062.7	-917.8	693.3	404.3	288.98	2.399					
16,000.0	8,010.0	16,678.0	8,016.0	147.0	146.6	-92.05	8,161.9	-926.6	702.3	409.8	292.46	2.401					
16,100.0	8,010.0	16,777.6	8,016.0	148.7	148.4	-92.02	8,261.1	-935.4	711.3	415.3	295.94	2.403					
16,200.0	8,010.0	16,877.2	8,016.0	150.5	150.1	-92.00	8,360.3	-944.1	720.3	420.8	299.42	2.406					
16,300.0	8,010.0	16,976.8	8,016.0	152.2	151.9	-91.97	8,459.5	-952.9	729.3	426.4	302.91	2.408					
16,362.3	8,010.0	17,038.9	8,016.0	153.3	153.0	-91.96	8,521.4	-958.4	734.9	429.8	305.08	2.409					

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	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 (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			
0.0	0.0	0.0	0.0	0.0	0.0	-89.91	0.0	-8.4	20.8						
100.0	100.0	81.0	81.0	0.1	0.1	-89.91	0.0	-8.4	8.4	8.2	0.24	34.767			
200.0	200.0	181.0	181.0	0.3	0.3	-89.91	0.0	-8.4	8.4	7.8	0.59	14.328			
300.0	300.0	281.0	281.0	0.5	0.5	-89.91	0.0	-8.4	8.4	7.5	0.94	8.982			
400.0	400.0	381.0	381.0	0.6	0.6	-89.91	0.0	-8.4	8.4	7.1	1.28	6.541			
500.0	500.0	481.0	481.0	0.8	0.8	-93.71	-0.6	-8.5	8.5	6.9	1.63	5.215			
600.0	600.0	580.9	580.9	1.0	1.0	24.19	-2.8	-8.9	7.7	5.7	1.99	3.884			
700.0	699.9	680.8	680.7	1.2	1.2	4.12	-6.8	-9.6	5.9	3.6	2.34	2.546			
722.8	722.6	703.5	703.4	1.2	1.2	-3.52	-7.9	-9.8	5.9	3.4	2.42	2.426 CC, ES			
800.0	799.8	780.6	780.4	1.4	1.4	-29.87	-12.4	-10.6	7.0	4.3	2.69	2.604			
900.0	899.7	880.3	879.8	1.5	1.6	-48.91	-19.8	-11.9	11.4	8.3	3.04	3.738			
1,000.0	999.6	979.9	978.9	1.7	1.8	-55.60	-28.9	-13.5	18.0	14.6	3.41	5.281			
1,100.0	1,099.6	1,079.1	1,077.5	1.9	2.0	-57.63	-39.6	-15.4	26.4	22.6	3.77	6.998			
1,200.0	1,199.5	1,178.1	1,175.7	2.1	2.3	-57.93	-51.9	-17.6	36.5	32.3	4.13	8.821			
1,300.0	1,299.4	1,276.7	1,273.3	2.3	2.6	-57.56	-65.9	-20.0	48.2	43.7	4.49	10.719			
1,400.0	1,399.3	1,374.9	1,370.2	2.5	2.9	-56.93	-81.5	-22.8	61.6	56.7	4.86	12.677			
1,500.0	1,499.2	1,472.6	1,466.4	2.7	3.2	-56.22	-98.6	-25.8	76.6	71.4	5.22	14.683			
1,600.0	1,599.1	1,569.8	1,561.7	2.8	3.5	-55.51	-117.2	-29.1	93.2	87.7	5.57	16.729			
1,700.0	1,699.1	1,666.4	1,656.1	3.0	3.9	-54.84	-137.3	-32.6	111.6	105.6	5.93	18.808			
1,800.0	1,799.0	1,762.4	1,749.6	3.2	4.3	-54.20	-158.8	-36.4	131.5	125.2	6.29	20.914			
1,900.0	1,898.9	1,858.5	1,842.8	3.4	4.7	-53.62	-181.7	-40.5	153.0	146.3	6.64	23.029			
2,000.0	1,998.8	1,956.1	1,937.4	3.6	5.1	-53.15	-205.5	-44.6	174.8	167.8	7.00	24.976			
2,100.0	2,098.7	2,053.8	2,032.1	3.8	5.6	-52.77	-229.2	-48.9	196.7	189.3	7.36	26.728			
2,200.0	2,198.6	2,152.3	2,127.6	4.0	6.0	-52.14	-252.8	-54.3	218.3	210.6	7.72	28.274			
2,300.0	2,298.5	2,250.7	2,222.9	4.2	6.4	-51.23	-276.1	-61.4	239.5	231.5	8.08	29.658			
2,400.0	2,398.5	2,348.4	2,317.5	4.3	6.9	-50.35	-298.9	-69.0	260.7	252.3	8.43	30.925			
2,500.0	2,498.4	2,446.0	2,412.2	4.5	7.3	-49.61	-321.8	-76.5	282.0	273.2	8.78	32.097			
2,600.0	2,598.3	2,543.7	2,506.8	4.7	7.8	-48.96	-344.7	-84.1	303.2	294.1	9.14	33.180			
2,700.0	2,698.2	2,641.3	2,601.4	4.9	8.2	-48.40	-367.6	-91.7	324.5	315.0	9.49	34.186			
2,800.0	2,798.1	2,739.0	2,696.1	5.1	8.6	-47.91	-390.5	-99.2	345.8	336.0	9.85	35.122			
2,900.0	2,898.0	2,836.6	2,790.7	5.3	9.1	-47.48	-413.4	-106.8	367.2	357.0	10.20	35.994			
3,000.0	2,998.0	2,934.3	2,885.3	5.5	9.5	-47.09	-436.3	-114.4	388.6	378.0	10.56	36.809			
3,100.0	3,097.9	3,032.0	2,980.0	5.7	10.0	-46.75	-459.2	-121.9	409.9	399.0	10.91	37.572			
3,200.0	3,197.8	3,129.6	3,074.6	5.9	10.4	-46.44	-482.1	-129.5	431.3	420.1	11.27	38.288			
3,300.0	3,297.7	3,227.3	3,169.3	6.0	10.9	-46.15	-505.0	-137.1	452.7	441.1	11.62	38.960			
3,400.0	3,397.6	3,324.9	3,263.9	6.2	11.3	-45.90	-527.9	-144.6	474.2	462.2	11.98	39.594			
3,500.0	3,497.5	3,422.6	3,358.5	6.4	11.8	-45.66	-550.8	-152.2	495.6	483.2	12.33	40.192			
3,600.0	3,597.4	3,520.3	3,453.2	6.6	12.2	-45.45	-573.7	-159.8	517.0	504.3	12.69	40.756			
3,700.0	3,697.4	3,617.9	3,547.8	6.8	12.7	-45.25	-596.6	-167.4	538.4	525.4	13.04	41.291			
3,800.0	3,797.3	3,715.6	3,642.4	7.0	13.1	-45.07	-619.5	-174.9	559.9	546.5	13.40	41.797			
3,900.0	3,897.2	3,813.2	3,737.1	7.2	13.6	-44.90	-642.4	-182.5	581.3	567.6	13.75	42.277			
4,000.0	3,997.1	3,910.9	3,831.7	7.4	14.0	-44.74	-665.2	-190.1	602.8	588.7	14.11	42.734			
4,100.0	4,097.0	4,008.6	3,926.3	7.6	14.5	-44.60	-688.1	-197.6	624.2	609.8	14.46	43.168			
4,200.0	4,196.9	4,106.2	4,021.0	7.7	14.9	-44.46	-711.0	-205.2	645.7	630.9	14.82	43.581			
4,300.0	4,296.9	4,203.9	4,115.6	7.9	15.4	-44.33	-733.9	-212.8	667.2	652.0	15.17	43.976			
4,400.0	4,396.8	4,301.5	4,210.2	8.1	15.8	-44.21	-756.8	-220.3	688.6	673.1	15.53	44.352			
4,500.0	4,496.7	4,399.2	4,304.9	8.3	16.3	-44.10	-779.7	-227.9	710.1	694.2	15.88	44.712			
4,600.0	4,596.6	4,496.9	4,399.5	8.5	16.7	-43.99	-802.6	-235.5	731.6	715.3	16.24	45.056			
4,700.0	4,696.5	4,594.5	4,494.2	8.7	17.2	-43.89	-825.5	-243.0	753.0	736.4	16.59	45.386			
4,800.0	4,796.4	4,692.2	4,588.8	8.9	17.6	-43.80	-848.4	-250.6	774.5	757.6	16.95	45.701			
4,900.0	4,896.3	4,789.8	4,683.4	9.1	18.1	-43.71	-871.3	-258.2	796.0	778.7	17.30	46.004			
5,000.0	4,996.3	4,887.5	4,778.1	9.2	18.6	-43.63	-894.2	-265.7	817.5	799.8	17.66	46.295			

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)				
5,100.0	5,096.2	4,985.2	4,872.7	9.4	19.0	-43.55	-917.1	-273.3	838.9	820.9	18.01	46.574		
5,200.0	5,196.1	5,082.8	4,967.3	9.6	19.5	-43.47	-940.0	-280.9	860.4	842.0	18.37	46.843		
5,300.0	5,296.0	5,180.5	5,062.0	9.8	19.9	-43.40	-962.9	-288.4	881.9	863.2	18.72	47.101		
5,400.0	5,395.9	5,278.1	5,156.6	10.0	20.4	-43.33	-985.8	-296.0	903.4	884.3	19.08	47.350		
5,500.0	5,495.8	5,375.8	5,251.2	10.2	20.8	-43.26	-1,008.7	-303.6	924.9	905.4	19.43	47.590		
5,600.0	5,595.8	5,473.5	5,345.9	10.4	21.3	-43.20	-1,031.5	-311.1	946.4	926.6	19.79	47.821		
5,700.0	5,695.7	5,571.1	5,440.5	10.6	21.7	-43.14	-1,054.4	-318.7	967.8	947.7	20.14	48.044		
5,800.0	5,795.6	5,668.8	5,535.1	10.8	22.2	-43.08	-1,077.3	-326.3	989.3	968.8	20.50	48.260		
6,900.0	6,894.7	9,034.4	7,788.0	12.8	18.4	40.60	-163.5	-531.9	968.3	939.9	28.45	34.037		
7,000.0	6,994.6	9,032.5	7,788.0	13.0	18.4	-7.69	-165.5	-531.9	873.6	845.2	28.42	30.734		
7,100.0	7,094.4	9,037.2	7,788.0	13.2	18.4	-83.80	-160.7	-532.0	780.3	752.1	28.26	27.615		
7,200.0	7,193.4	9,050.7	7,788.0	13.3	18.4	-101.08	-147.3	-532.2	689.7	661.4	28.36	24.316		
7,300.0	7,290.9	9,072.7	7,788.0	13.4	18.4	-108.86	-125.3	-532.6	603.2	574.7	28.55	21.125		
7,400.0	7,386.1	9,103.1	7,788.0	13.5	18.4	-112.16	-94.8	-533.1	522.6	493.8	28.76	18.171		
7,500.0	7,478.2	9,141.8	7,788.0	13.6	18.4	-112.38	-56.2	-533.8	450.1	421.0	29.11	15.464		
7,600.0	7,566.7	9,188.3	7,788.0	13.8	18.5	-110.05	-9.7	-534.6	388.6	359.3	29.32	13.255		
7,700.0	7,650.8	9,242.3	7,788.0	14.1	18.6	-105.37	44.3	-535.5	341.5	311.8	29.75	11.478		
7,800.0	7,729.8	9,303.5	7,788.0	14.4	18.8	-98.54	105.5	-536.6	312.0	281.7	30.35	10.279		
7,900.0	7,803.3	9,371.3	7,788.0	14.8	19.1	-89.99	173.3	-537.8	301.3	270.2	31.02	9.713		
7,910.7	7,810.7	9,379.0	7,788.0	14.9	19.1	-89.01	181.0	-537.9	301.2	270.1	31.09	9.688		
8,000.0	7,868.4	9,447.1	7,788.0	15.4	19.5	-80.54	249.1	-539.1	306.8	275.2	31.60	9.707		
8,100.0	7,922.3	9,531.2	7,788.0	16.1	20.0	-71.43	333.2	-540.6	321.8	289.8	32.05	10.040		
8,200.0	7,964.0	9,622.0	7,788.0	17.0	20.7	-64.10	424.0	-542.2	339.3	306.8	32.53	10.430		
8,300.0	7,992.6	9,717.8	7,788.0	18.0	21.5	-59.14	519.7	-543.8	354.3	320.9	33.40	10.608		
8,400.0	8,007.7	9,816.5	7,788.0	19.1	22.5	-56.64	618.5	-545.6	363.6	328.6	34.96	10.401		
8,500.0	8,010.0	9,916.4	7,788.0	20.4	23.5	-56.35	718.4	-547.3	366.5	329.3	37.11	9.875		
8,600.0	8,010.0	10,016.4	7,788.0	21.7	24.7	-56.52	818.3	-549.0	368.1	328.8	39.23	9.382		
8,700.0	8,010.0	10,116.4	7,788.0	23.0	25.9	-56.68	918.3	-550.8	369.7	328.2	41.47	8.915		
8,800.0	8,010.0	10,216.4	7,788.0	24.4	27.1	-56.85	1,018.3	-552.5	371.3	327.5	43.80	8.478		
8,900.0	8,010.0	10,316.4	7,788.0	25.9	28.4	-57.01	1,118.2	-554.3	372.9	326.7	46.21	8.070		
9,000.0	8,010.0	10,416.4	7,788.0	27.4	29.8	-57.17	1,218.2	-556.0	374.6	325.9	48.70	7.692		
9,100.0	8,010.0	10,516.3	7,788.0	28.9	31.2	-57.33	1,318.2	-557.8	376.2	325.0	51.25	7.341		
9,200.0	8,010.0	10,616.3	7,788.0	30.5	32.6	-57.49	1,418.1	-559.5	377.8	324.0	53.86	7.016		
9,300.0	8,010.0	10,716.3	7,788.0	32.0	34.1	-57.65	1,518.1	-561.3	379.5	323.0	56.51	6.715		
9,400.0	8,010.0	10,816.3	7,788.0	33.6	35.6	-57.81	1,618.1	-563.0	381.1	321.9	59.22	6.436		
9,500.0	8,010.0	10,916.3	7,788.0	35.2	37.1	-57.96	1,718.0	-564.8	382.8	320.8	61.96	6.178		
9,600.0	8,010.0	11,016.2	7,788.0	36.8	38.6	-58.12	1,818.0	-566.5	384.4	319.7	64.74	5.938		
9,700.0	8,010.0	11,116.2	7,788.0	38.5	40.2	-58.27	1,918.0	-568.2	386.1	318.5	67.55	5.716		
9,800.0	8,010.0	11,216.2	7,788.0	40.1	41.7	-58.42	2,017.9	-570.0	387.7	317.3	70.39	5.509		
9,900.0	8,010.0	11,316.2	7,788.0	41.7	43.3	-58.57	2,117.9	-571.7	389.4	316.1	73.25	5.316		
10,000.0	8,010.0	11,416.2	7,788.0	43.4	44.9	-58.72	2,217.9	-573.5	391.0	314.9	76.14	5.135		
10,100.0	8,010.0	11,516.1	7,788.0	45.1	46.5	-58.86	2,317.8	-575.2	392.7	313.6	79.06	4.967		
10,200.0	8,010.0	11,616.1	7,788.0	46.7	48.1	-59.01	2,417.8	-577.0	394.4	312.4	82.00	4.809		
10,300.0	8,010.0	11,716.1	7,788.0	48.4	49.8	-59.16	2,517.8	-578.7	396.0	311.1	84.95	4.662		
10,400.0	8,010.0	11,816.1	7,788.0	50.1	51.4	-59.30	2,617.7	-580.5	397.7	309.8	87.93	4.523		
10,500.0	8,010.0	11,916.1	7,788.0	51.8	53.0	-59.44	2,717.7	-582.2	399.4	308.4	90.92	4.392		
10,600.0	8,010.0	12,016.1	7,788.0	53.5	54.7	-59.58	2,817.6	-583.9	401.0	307.1	93.93	4.270		
10,700.0	8,010.0	12,116.0	7,788.0	55.2	56.3	-59.72	2,917.6	-585.7	402.7	305.8	96.95	4.154		
10,800.0	8,010.0	12,216.0	7,788.0	56.9	58.0	-59.86	3,017.6	-587.4	404.4	304.4	99.99	4.044		
10,900.0	8,010.0	12,316.0	7,788.0	58.6	59.7	-60.00	3,117.5	-589.2	406.1	303.0	103.04	3.941		
11,000.0	8,010.0	12,416.0	7,788.0	60.3	61.3	-60.13	3,217.5	-590.9	407.8	301.6	106.11	3.843		
11,100.0	8,010.0	12,516.0	7,788.0	62.0	63.0	-60.27	3,317.5	-592.7	409.4	300.3	109.19	3.750		

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)				
11,200.0	8,010.0	12,615.9	7,788.0	63.7	64.7	-60.40	3,417.4	-594.4	411.1	298.9	112.28	3.662		
11,300.0	8,010.0	12,715.9	7,788.0	65.4	66.4	-60.54	3,517.4	-596.2	412.8	297.4	115.38	3.578		
11,400.0	8,010.0	12,815.9	7,788.0	67.1	68.1	-60.67	3,617.4	-597.9	414.5	296.0	118.49	3.498		
11,500.0	8,010.0	12,915.9	7,788.0	68.8	69.8	-60.80	3,717.3	-599.6	416.2	294.6	121.61	3.422		
11,600.0	8,010.0	13,015.9	7,788.0	70.5	71.4	-60.93	3,817.3	-601.4	417.9	293.2	124.75	3.350		
11,700.0	8,010.0	13,115.8	7,788.0	72.3	73.1	-61.06	3,917.3	-603.1	419.6	291.7	127.89	3.281		
11,800.0	8,010.0	13,215.8	7,788.0	74.0	74.8	-61.19	4,017.2	-604.9	421.3	290.3	131.04	3.215		
11,900.0	8,010.0	13,315.8	7,788.0	75.7	76.5	-61.31	4,117.2	-606.6	423.0	288.8	134.20	3.152		
12,000.0	8,010.0	13,415.8	7,788.0	77.4	78.2	-61.44	4,217.2	-608.4	424.7	287.3	137.37	3.092		
12,100.0	8,010.0	13,515.8	7,788.0	79.1	80.0	-61.56	4,317.1	-610.1	426.4	285.9	140.54	3.034		
12,200.0	8,010.0	13,615.8	7,788.0	80.9	81.7	-61.69	4,417.1	-611.9	428.1	284.4	143.73	2.979		
12,300.0	8,010.0	13,715.7	7,788.0	82.6	83.4	-61.81	4,517.1	-613.6	429.8	282.9	146.92	2.926		
12,400.0	8,010.0	13,815.7	7,788.0	84.3	85.1	-61.93	4,617.0	-615.4	431.6	281.4	150.12	2.875		
12,500.0	8,010.0	13,916.9	7,788.0	86.1	86.8	-62.05	4,718.2	-617.1	433.2	279.9	153.35	2.825		
12,600.0	8,010.0	14,024.1	7,788.0	87.8	88.7	-62.10	4,825.4	-617.6	433.9	277.3	156.57	2.771		
12,700.0	8,010.0	14,128.5	7,788.0	89.5	90.4	-62.03	4,929.8	-616.3	432.9	273.3	159.60	2.713		
12,800.0	8,010.0	14,228.5	7,788.0	91.3	92.1	-61.94	5,029.8	-614.7	431.7	269.1	162.54	2.656		
12,900.0	8,010.0	14,328.5	7,788.0	93.0	93.9	-61.86	5,129.8	-613.1	430.4	265.0	165.47	2.601		
13,000.0	8,010.0	14,428.5	7,788.0	94.7	95.6	-61.77	5,229.8	-611.5	429.2	260.8	168.39	2.549		
13,100.0	8,010.0	14,528.5	7,788.0	96.5	97.3	-61.68	5,329.7	-609.9	428.0	256.6	171.31	2.498		
13,200.0	8,010.0	14,628.5	7,788.0	98.2	99.0	-61.59	5,429.7	-608.3	426.7	252.5	174.23	2.449		
13,300.0	8,010.0	14,728.5	7,788.0	99.9	100.7	-61.50	5,529.7	-606.7	425.5	248.3	177.14	2.402		
13,400.0	8,010.0	14,828.5	7,788.0	101.7	102.4	-61.41	5,629.7	-605.1	424.2	244.2	180.05	2.356		
13,500.0	8,010.0	14,928.4	7,788.0	103.4	104.2	-61.32	5,729.6	-603.5	423.0	240.1	182.95	2.312		
13,600.0	8,010.0	15,028.4	7,788.0	105.1	105.9	-61.22	5,829.6	-601.9	421.8	235.9	185.84	2.269		
13,700.0	8,010.0	15,128.4	7,788.0	106.9	107.6	-61.13	5,929.6	-600.3	420.5	231.8	188.73	2.228		
13,800.0	8,010.0	15,228.4	7,788.0	108.6	109.3	-61.04	6,029.6	-598.7	419.3	227.7	191.61	2.188		
13,900.0	8,010.0	15,328.4	7,788.0	110.4	111.1	-60.95	6,129.5	-597.1	418.1	223.6	194.49	2.150		
14,000.0	8,010.0	15,428.4	7,788.0	112.1	112.8	-60.85	6,229.5	-595.4	416.8	219.5	197.36	2.112		
14,100.0	8,010.0	15,528.4	7,788.0	113.8	114.5	-60.76	6,329.5	-593.8	415.6	215.4	200.23	2.076		
14,200.0	8,010.0	15,628.4	7,788.0	115.6	116.2	-60.66	6,429.5	-592.2	414.4	211.3	203.09	2.040		
14,300.0	8,010.0	15,728.4	7,788.0	117.3	118.0	-60.57	6,529.5	-590.6	413.1	207.2	205.94	2.006		
14,400.0	8,010.0	15,828.4	7,788.0	119.1	119.7	-60.47	6,629.4	-589.0	411.9	203.1	208.79	1.973		
14,500.0	8,010.0	15,928.3	7,788.0	120.8	121.4	-60.37	6,729.4	-587.4	410.7	199.1	211.63	1.941		
14,600.0	8,010.0	16,028.3	7,788.0	122.5	123.2	-60.28	6,829.4	-585.8	409.5	195.0	214.46	1.909		
14,700.0	8,010.0	16,128.3	7,788.0	124.3	124.9	-60.18	6,929.4	-584.2	408.2	191.0	217.29	1.879		
14,800.0	8,010.0	16,228.3	7,788.0	126.0	126.6	-60.08	7,029.3	-582.6	407.0	186.9	220.11	1.849		
14,900.0	8,010.0	16,328.3	7,788.0	127.8	128.4	-59.98	7,129.3	-581.0	405.8	182.9	222.92	1.820		
15,000.0	8,010.0	16,428.3	7,788.0	129.5	130.1	-59.88	7,229.3	-579.4	404.6	178.9	225.73	1.792		
15,100.0	8,010.0	16,528.3	7,788.0	131.3	131.8	-59.78	7,329.3	-577.8	403.4	174.8	228.52	1.765		
15,163.2	8,010.0	16,590.2	7,788.0	132.4	132.9	-59.72	7,391.2	-576.8	402.6	172.3	230.27	1.748 SF		
15,200.0	8,010.0	16,590.2	7,788.0	133.0	132.9	-59.72	7,391.2	-576.8	403.9	173.1	230.83	1.750		
15,300.0	8,010.0	16,590.2	7,788.0	134.8	132.9	-59.72	7,391.2	-576.8	424.0	191.7	232.34	1.825		
15,400.0	8,010.0	16,590.2	7,788.0	136.5	132.9	-59.72	7,391.2	-576.8	465.2	231.4	233.85	1.989		
15,500.0	8,010.0	16,590.2	7,788.0	138.2	132.9	-59.72	7,391.2	-576.8	522.6	287.2	235.36	2.220		
15,600.0	8,010.0	16,590.2	7,788.0	140.0	132.9	-59.72	7,391.2	-576.8	591.4	354.5	236.87	2.497		
15,700.0	8,010.0	16,590.2	7,788.0	141.7	132.9	-59.72	7,391.2	-576.8	668.1	429.7	238.38	2.803		
15,800.0	8,010.0	16,590.2	7,788.0	143.5	132.9	-59.72	7,391.2	-576.8	750.3	510.4	239.89	3.128		
15,900.0	8,010.0	16,590.2	7,788.0	145.2	132.9	-59.72	7,391.2	-576.8	836.4	595.0	241.40	3.465		
16,000.0	8,010.0	16,590.2	7,788.0	147.0	132.9	-59.72	7,391.2	-576.8	925.3	682.4	242.91	3.809		

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	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	90.02	0.0	11.2	22.1						
100.0	100.0	81.0	81.0	0.1	0.1	90.02	0.0	11.2	11.2	11.0	0.24	46.356			
200.0	200.0	181.0	181.0	0.3	0.3	90.02	0.0	11.2	11.2	10.6	0.59	19.104			
300.0	300.0	281.0	281.0	0.5	0.5	90.02	0.0	11.2	11.2	10.3	0.94	11.976			
400.0	400.0	381.0	381.0	0.6	0.6	90.02	0.0	11.2	11.2	9.9	1.28	8.721			
407.8	407.8	388.8	388.8	0.7	0.7	90.02	0.0	11.2	11.2	9.9	1.31	8.541 CC			
500.0	500.0	481.0	481.0	0.8	0.8	92.93	-0.6	11.2	11.3	9.6	1.63	6.890 ES			
600.0	600.0	580.9	580.9	1.0	1.0	-134.71	-2.9	11.4	12.9	10.9	1.99	6.501			
700.0	699.9	680.8	680.7	1.2	1.2	-131.06	-6.9	11.7	16.6	14.3	2.35	7.089			
800.0	799.8	780.6	780.3	1.4	1.4	-124.35	-12.6	12.1	21.0	18.3	2.72	7.743			
900.0	899.7	880.2	879.6	1.5	1.6	-116.64	-20.1	12.6	26.4	23.3	3.09	8.547			
1,000.0	999.6	979.6	978.6	1.7	1.8	-109.16	-29.2	13.2	33.2	29.7	3.47	9.550			
1,100.0	1,099.6	1,078.7	1,077.1	1.9	2.0	-102.50	-40.1	13.9	41.5	37.6	3.86	10.756			
1,200.0	1,199.5	1,177.5	1,175.2	2.1	2.3	-96.84	-52.6	14.8	51.5	47.2	4.24	12.146			
1,300.0	1,299.4	1,276.0	1,272.6	2.3	2.6	-92.13	-66.7	15.8	63.2	58.5	4.61	13.689			
1,400.0	1,399.3	1,373.9	1,369.3	2.5	2.9	-88.23	-82.4	16.8	76.6	71.6	4.99	15.357			
1,500.0	1,499.2	1,471.4	1,465.2	2.7	3.2	-84.99	-99.7	18.0	91.8	86.4	5.36	17.124			
1,600.0	1,599.1	1,568.4	1,560.3	2.8	3.5	-82.29	-118.4	19.3	108.6	102.9	5.73	18.971			
1,700.0	1,699.1	1,664.7	1,654.5	3.0	3.9	-80.03	-138.7	20.7	127.2	121.1	6.09	20.882			
1,800.0	1,799.0	1,760.4	1,747.7	3.2	4.3	-78.10	-160.4	22.2	147.5	141.0	6.46	22.846			
1,900.0	1,898.9	1,857.6	1,842.0	3.4	4.7	-76.49	-183.4	23.7	168.9	162.1	6.82	24.766			
2,000.0	1,998.8	1,955.1	1,936.8	3.6	5.1	-75.23	-206.6	25.3	190.4	183.2	7.18	26.506			
2,100.0	2,098.7	2,052.7	2,031.6	3.8	5.5	-74.23	-229.8	26.9	212.0	204.5	7.55	28.087			
2,200.0	2,198.6	2,150.3	2,126.3	4.0	5.9	-73.41	-253.0	28.5	233.7	225.8	7.91	29.528			
2,300.0	2,298.5	2,247.9	2,221.1	4.2	6.4	-72.73	-276.2	30.1	255.4	247.1	8.28	30.846			
2,400.0	2,398.5	2,345.5	2,315.9	4.3	6.8	-72.16	-299.4	31.7	277.1	268.5	8.64	32.055			
2,500.0	2,498.4	2,443.0	2,410.6	4.5	7.2	-71.67	-322.6	33.3	298.9	289.9	9.01	33.168			
2,600.0	2,598.3	2,540.6	2,505.4	4.7	7.7	-71.24	-345.8	34.8	320.6	311.3	9.38	34.197			
2,700.0	2,698.2	2,638.2	2,600.2	4.9	8.1	-70.87	-369.0	36.4	342.4	332.7	9.74	35.149			
2,800.0	2,798.1	2,735.8	2,694.9	5.1	8.5	-70.55	-392.2	38.0	364.2	354.1	10.11	36.033			
2,900.0	2,898.0	2,833.3	2,789.7	5.3	8.9	-70.26	-415.4	39.6	386.0	375.5	10.47	36.857			
3,000.0	2,998.0	2,930.9	2,884.5	5.5	9.4	-70.00	-438.6	41.2	407.8	397.0	10.84	37.625			
3,100.0	3,097.9	3,028.5	2,979.2	5.7	9.8	-69.77	-461.8	42.8	429.6	418.4	11.20	38.344			
3,200.0	3,197.8	3,126.1	3,074.0	5.9	10.2	-69.56	-484.9	44.3	451.4	439.9	11.57	39.018			
3,300.0	3,297.7	3,223.6	3,168.8	6.0	10.7	-69.37	-508.1	45.9	473.3	461.3	11.94	39.651			
3,400.0	3,397.6	3,321.2	3,263.5	6.2	11.1	-69.20	-531.3	47.5	495.1	482.8	12.30	40.246			
3,500.0	3,497.5	3,418.8	3,358.3	6.4	11.6	-69.04	-554.5	49.1	516.9	504.3	12.67	40.808			
3,600.0	3,597.4	3,516.4	3,453.1	6.6	12.0	-68.89	-577.7	50.7	538.8	525.8	13.03	41.338			
3,700.0	3,697.4	3,614.0	3,547.8	6.8	12.4	-68.76	-600.9	52.3	560.6	547.2	13.40	41.839			
3,800.0	3,797.3	3,711.5	3,642.6	7.0	12.9	-68.63	-624.1	53.9	582.5	568.7	13.77	42.314			
3,900.0	3,897.2	3,809.1	3,737.4	7.2	13.3	-68.52	-647.3	55.4	604.3	590.2	14.13	42.764			
4,000.0	3,997.1	3,906.7	3,832.1	7.4	13.7	-68.41	-670.5	57.0	626.2	611.7	14.50	43.192			
4,100.0	4,097.0	4,004.3	3,926.9	7.6	14.2	-68.31	-693.7	58.6	648.0	633.2	14.86	43.598			
4,200.0	4,196.9	4,101.8	4,021.7	7.7	14.6	-68.22	-716.9	60.2	669.9	654.7	15.23	43.986			
4,300.0	4,296.9	4,199.4	4,116.5	7.9	15.0	-68.13	-740.1	61.8	691.7	676.1	15.60	44.355			
4,400.0	4,396.8	4,297.0	4,211.2	8.1	15.5	-68.05	-763.2	63.4	713.6	697.6	15.96	44.707			
4,500.0	4,496.7	4,394.6	4,306.0	8.3	15.9	-67.97	-786.4	65.0	735.5	719.1	16.33	45.044			
4,600.0	4,596.6	4,492.1	4,400.8	8.5	16.4	-67.90	-809.6	66.5	757.3	740.6	16.69	45.365			
4,700.0	4,696.5	4,589.7	4,495.5	8.7	16.8	-67.83	-832.8	68.1	779.2	762.1	17.06	45.674			
4,800.0	4,796.4	4,687.3	4,590.3	8.9	17.2	-67.76	-856.0	69.7	801.0	783.6	17.43	45.969			
4,900.0	4,896.3	4,784.9	4,685.1	9.1	17.7	-67.70	-879.2	71.3	822.9	805.1	17.79	46.252			
5,000.0	4,996.3	4,882.5	4,779.8	9.2	18.1	-67.65	-902.4	72.9	844.8	826.6	18.16	46.524			

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,100.0	5,096.2	4,980.0	4,874.6	9.4	18.5	-67.59	-925.6	74.5	866.6	848.1	18.52	46.785		
5,200.0	5,196.1	5,077.6	4,969.4	9.6	19.0	-67.54	-948.8	76.1	888.5	869.6	18.89	47.035		
5,300.0	5,296.0	5,175.2	5,064.1	9.8	19.4	-67.49	-972.0	77.6	910.4	891.1	19.26	47.277		
5,400.0	5,395.9	5,272.8	5,158.9	10.0	19.9	-67.44	-995.2	79.2	932.2	912.6	19.62	47.509		
5,500.0	5,495.8	5,370.3	5,253.7	10.2	20.3	-67.39	-1,018.4	80.8	954.1	934.1	19.99	47.733		
5,600.0	5,595.8	5,467.9	5,348.4	10.4	20.7	-67.35	-1,041.6	82.4	976.0	955.6	20.35	47.949		
5,700.0	5,695.7	5,565.5	5,443.2	10.6	21.2	-67.31	-1,064.7	84.0	997.8	977.1	20.72	48.157		
6,900.0	6,894.7	9,037.9	7,788.0	12.8	16.1	-146.33	-157.9	123.2	970.4	942.2	28.23	34.381		
7,000.0	6,994.6	9,035.9	7,788.0	13.0	16.1	174.39	-159.9	123.2	878.4	850.0	28.44	30.885		
7,100.0	7,094.4	9,040.6	7,788.0	13.2	16.1	119.75	-155.2	123.2	788.4	759.8	28.65	27.517		
7,200.0	7,193.4	9,054.0	7,788.0	13.3	16.1	116.85	-141.8	123.2	701.7	673.0	28.77	24.393		
7,300.0	7,290.9	9,076.0	7,788.0	13.4	16.1	117.18	-119.8	123.2	620.1	591.3	28.80	21.528		
7,400.0	7,386.1	9,106.3	7,788.0	13.5	16.1	116.74	-89.4	123.2	545.3	516.5	28.81	18.931		
7,500.0	7,478.2	9,144.9	7,788.0	13.6	16.1	114.85	-50.9	123.2	479.9	451.0	28.88	16.618		
7,600.0	7,566.7	9,191.4	7,788.0	13.8	16.2	111.34	-4.4	123.2	426.6	397.5	29.02	14.699		
7,700.0	7,650.8	9,245.4	7,788.0	14.1	16.3	106.19	49.6	123.2	387.9	358.5	29.41	13.189		
7,800.0	7,729.8	9,306.5	7,788.0	14.4	16.5	99.51	110.8	123.2	365.8	335.7	30.05	12.173		
7,889.7	7,796.0	9,367.1	7,788.0	14.8	16.8	92.50	171.4	123.2	359.7	328.9	30.86	11.659		
7,900.0	7,803.3	9,374.3	7,788.0	14.8	16.8	91.64	178.5	123.2	359.8	328.9	30.95	11.627		
8,000.0	7,868.4	9,450.1	7,788.0	15.4	17.3	83.00	254.3	123.2	366.9	335.0	31.95	11.486		
8,100.0	7,922.3	9,534.2	7,788.0	16.1	17.9	74.85	338.5	123.2	381.2	348.3	32.87	11.596		
8,200.0	7,964.0	9,625.0	7,788.0	17.0	18.6	68.24	429.3	123.2	396.9	363.2	33.72	11.769		
8,300.0	7,992.6	9,720.8	7,788.0	18.0	19.5	63.69	525.0	123.2	409.7	375.1	34.69	11.813		
8,400.0	8,007.7	9,819.5	7,788.0	19.1	20.6	61.32	623.8	123.2	417.0	381.0	36.01	11.581		
8,500.0	8,010.0	9,919.5	7,788.0	20.4	21.7	60.95	723.7	123.2	418.1	380.2	37.92	11.025		
8,600.0	8,010.0	10,019.5	7,788.0	21.7	22.9	60.93	823.7	123.2	417.9	377.8	40.13	10.413		
8,700.0	8,010.0	10,119.5	7,788.0	23.0	24.2	60.92	923.7	123.2	417.7	375.3	42.45	9.841		
8,800.0	8,010.0	10,219.5	7,788.0	24.4	25.5	60.91	1,023.7	123.2	417.6	372.7	44.85	9.309		
8,900.0	8,010.0	10,319.5	7,788.0	25.9	26.9	60.89	1,123.7	123.2	417.4	370.1	47.34	8.818		
9,000.0	8,010.0	10,419.5	7,788.0	27.4	28.4	60.88	1,223.7	123.2	417.2	367.3	49.88	8.364		
9,100.0	8,010.0	10,519.5	7,788.0	28.9	29.8	60.87	1,323.7	123.2	417.1	364.6	52.48	7.947		
9,200.0	8,010.0	10,619.5	7,788.0	30.5	31.3	60.86	1,423.7	123.2	416.9	361.7	55.13	7.562		
9,300.0	8,010.0	10,719.5	7,788.0	32.0	32.8	60.84	1,523.7	123.2	416.7	358.9	57.82	7.207		
9,400.0	8,010.0	10,819.5	7,788.0	33.6	34.4	60.83	1,623.7	123.2	416.5	356.0	60.54	6.880		
9,500.0	8,010.0	10,919.5	7,788.0	35.2	35.9	60.82	1,723.7	123.2	416.4	353.1	63.29	6.578		
9,600.0	8,010.0	11,019.5	7,788.0	36.8	37.5	60.80	1,823.7	123.2	416.2	350.1	66.07	6.299		
9,700.0	8,010.0	11,119.5	7,788.0	38.5	39.1	60.79	1,923.7	123.2	416.0	347.1	68.87	6.040		
9,800.0	8,010.0	11,219.5	7,788.0	40.1	40.7	60.78	2,023.7	123.2	415.8	344.1	71.70	5.800		
9,900.0	8,010.0	11,319.5	7,788.0	41.7	42.3	60.76	2,123.7	123.2	415.7	341.1	74.54	5.577		
10,000.0	8,010.0	11,419.5	7,788.0	43.4	44.0	60.75	2,223.7	123.2	415.5	338.1	77.39	5.369		
10,100.0	8,010.0	11,519.5	7,788.0	45.1	45.6	60.74	2,323.7	123.2	415.3	335.1	80.26	5.175		
10,200.0	8,010.0	11,619.5	7,788.0	46.7	47.2	60.72	2,423.7	123.2	415.2	332.0	83.15	4.993		
10,300.0	8,010.0	11,719.5	7,788.0	48.4	48.9	60.71	2,523.7	123.2	415.0	328.9	86.04	4.823		
10,400.0	8,010.0	11,819.5	7,788.0	50.1	50.6	60.70	2,623.7	123.2	414.8	325.9	88.95	4.664		
10,500.0	8,010.0	11,919.5	7,788.0	51.8	52.2	60.68	2,723.7	123.2	414.6	322.8	91.86	4.514		
10,600.0	8,010.0	12,019.5	7,788.0	53.5	53.9	60.67	2,823.7	123.2	414.5	319.7	94.78	4.373		
10,700.0	8,010.0	12,119.5	7,788.0	55.2	55.6	60.66	2,923.7	123.2	414.3	316.6	97.71	4.240		
10,800.0	8,010.0	12,219.5	7,788.0	56.9	57.3	60.64	3,023.7	123.2	414.1	313.5	100.65	4.115		
10,900.0	8,010.0	12,319.5	7,788.0	58.6	58.9	60.63	3,123.7	123.2	414.0	310.4	103.59	3.996		
11,000.0	8,010.0	12,419.5	7,788.0	60.3	60.6	60.62	3,223.7	123.2	413.8	307.2	106.53	3.884		
11,100.0	8,010.0	12,519.5	7,788.0	62.0	62.3	60.60	3,323.7	123.2	413.6	304.1	109.49	3.778		
11,200.0	8,010.0	12,619.5	7,788.0	63.7	64.0	60.59	3,423.7	123.2	413.4	301.0	112.44	3.677		

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
11,300.0	8,010.0	12,719.5	7,788.0	65.4	65.7	60.58	3,523.7	123.2	413.3	297.9	115.40	3.581		
11,400.0	8,010.0	12,819.5	7,788.0	67.1	67.4	60.56	3,623.7	123.2	413.1	294.7	118.37	3.490		
11,500.0	8,010.0	12,919.5	7,788.0	68.8	69.1	60.55	3,723.7	123.2	412.9	291.6	121.33	3.403		
11,600.0	8,010.0	13,019.5	7,788.0	70.5	70.8	60.54	3,823.7	123.2	412.7	288.4	124.30	3.320		
11,700.0	8,010.0	13,119.5	7,788.0	72.3	72.5	60.52	3,923.7	123.2	412.6	285.3	127.28	3.242		
11,800.0	8,010.0	13,219.5	7,788.0	74.0	74.3	60.51	4,023.7	123.2	412.4	282.2	130.25	3.166		
11,900.0	8,010.0	13,319.5	7,788.0	75.7	76.0	60.50	4,123.7	123.2	412.2	279.0	133.23	3.094		
12,000.0	8,010.0	13,419.5	7,788.0	77.4	77.7	60.48	4,223.7	123.2	412.1	275.8	136.21	3.025		
12,100.0	8,010.0	13,519.5	7,788.0	79.1	79.4	60.47	4,323.7	123.2	411.9	272.7	139.19	2.959		
12,200.0	8,010.0	13,619.5	7,788.0	80.9	81.1	60.46	4,423.7	123.2	411.7	269.5	142.18	2.896		
12,300.0	8,010.0	13,719.5	7,788.0	82.6	82.8	60.44	4,523.7	123.2	411.5	266.4	145.16	2.835		
12,400.0	8,010.0	13,819.5	7,788.0	84.3	84.6	60.43	4,623.7	123.2	411.4	263.2	148.15	2.777		
12,500.0	8,010.0	13,919.5	7,788.0	86.1	86.3	60.42	4,723.7	123.2	411.2	260.1	151.14	2.721		
12,600.0	8,010.0	14,019.5	7,788.0	87.8	88.0	60.40	4,823.7	123.2	411.0	256.9	154.13	2.667		
12,700.0	8,010.0	14,119.5	7,788.0	89.5	89.7	60.39	4,923.7	123.2	410.9	253.7	157.12	2.615		
12,800.0	8,010.0	14,219.5	7,788.0	91.3	91.5	60.37	5,023.7	123.2	410.7	250.6	160.11	2.565		
12,900.0	8,010.0	14,319.5	7,788.0	93.0	93.2	60.36	5,123.7	123.2	410.5	247.4	163.10	2.517		
13,000.0	8,010.0	14,419.5	7,788.0	94.7	94.9	60.35	5,223.7	123.2	410.3	244.3	166.09	2.471		
13,100.0	8,010.0	14,519.5	7,788.0	96.5	96.6	60.33	5,323.7	123.2	410.2	241.1	169.08	2.426		
13,200.0	8,010.0	14,619.5	7,788.0	98.2	98.4	60.32	5,423.7	123.2	410.0	237.9	172.08	2.383		
13,300.0	8,010.0	14,719.5	7,788.0	99.9	100.1	60.31	5,523.7	123.2	409.8	234.8	175.07	2.341		
13,400.0	8,010.0	14,819.5	7,788.0	101.7	101.8	60.29	5,623.7	123.2	409.7	231.6	178.07	2.301		
13,500.0	8,010.0	14,919.5	7,788.0	103.4	103.6	60.28	5,723.7	123.2	409.5	228.4	181.06	2.262		
13,600.0	8,010.0	15,019.5	7,788.0	105.1	105.3	60.27	5,823.7	123.2	409.3	225.3	184.06	2.224		
13,700.0	8,010.0	15,119.5	7,788.0	106.9	107.0	60.25	5,923.7	123.2	409.1	222.1	187.05	2.187		
13,800.0	8,010.0	15,219.5	7,788.0	108.6	108.8	60.24	6,023.7	123.2	409.0	218.9	190.05	2.152		
13,900.0	8,010.0	15,319.5	7,788.0	110.4	110.5	60.23	6,123.7	123.2	408.8	215.8	193.05	2.118		
14,000.0	8,010.0	15,419.5	7,788.0	112.1	112.2	60.21	6,223.7	123.2	408.6	212.6	196.04	2.084		
14,100.0	8,010.0	15,519.5	7,788.0	113.8	114.0	60.20	6,323.7	123.2	408.5	209.4	199.04	2.052		
14,200.0	8,010.0	15,619.5	7,788.0	115.6	115.7	60.18	6,423.7	123.2	408.3	206.3	202.04	2.021		
14,300.0	8,010.0	15,719.5	7,788.0	117.3	117.5	60.17	6,523.7	123.2	408.1	203.1	205.03	1.991		
14,400.0	8,010.0	15,819.5	7,788.0	119.1	119.2	60.16	6,623.7	123.2	407.9	199.9	208.03	1.961		
14,500.0	8,010.0	15,919.5	7,788.0	120.8	120.9	60.14	6,723.7	123.2	407.8	196.8	211.02	1.932		
14,600.0	8,010.0	16,019.5	7,788.0	122.5	122.7	60.13	6,823.7	123.2	407.6	193.6	214.02	1.905		
14,700.0	8,010.0	16,119.5	7,788.0	124.3	124.4	60.12	6,923.7	123.2	407.4	190.4	217.02	1.877		
14,800.0	8,010.0	16,219.5	7,788.0	126.0	126.1	60.10	7,023.7	123.2	407.3	187.3	220.01	1.851		
14,900.0	8,010.0	16,319.5	7,788.0	127.8	127.9	60.09	7,123.7	123.2	407.1	184.1	223.01	1.825		
15,000.0	8,010.0	16,419.5	7,788.0	129.5	129.6	60.07	7,223.7	123.2	406.9	180.9	226.00	1.801		
15,100.0	8,010.0	16,519.5	7,788.0	131.3	131.4	60.06	7,323.7	123.2	406.7	177.8	229.00	1.776		
15,200.0	8,010.0	16,619.5	7,788.0	133.0	133.1	60.05	7,423.7	123.2	406.6	174.6	231.99	1.753		
15,300.0	8,010.0	16,719.5	7,788.0	134.8	134.8	60.03	7,523.7	123.2	406.4	171.4	234.98	1.730		
15,309.7	8,010.0	16,729.1	7,788.0	134.9	135.0	60.03	7,533.3	123.2	406.4	171.1	235.27	1.727 SF		
15,400.0	8,010.0	16,747.3	7,788.0	136.5	135.3	60.03	7,551.5	123.2	412.6	175.7	236.91	1.742		
15,500.0	8,010.0	16,747.3	7,788.0	138.2	135.3	60.03	7,551.5	123.2	441.1	202.6	238.43	1.850		
15,600.0	8,010.0	16,747.3	7,788.0	140.0	135.3	60.03	7,551.5	123.2	488.7	248.8	239.94	2.037		
15,700.0	8,010.0	16,747.3	7,788.0	141.7	135.3	60.03	7,551.5	123.2	550.6	309.1	241.46	2.280		
15,800.0	8,010.0	16,747.3	7,788.0	143.5	135.3	60.03	7,551.5	123.2	622.5	379.5	242.97	2.562		
15,900.0	8,010.0	16,747.3	7,788.0	145.2	135.3	60.03	7,551.5	123.2	701.2	456.8	244.49	2.868		
16,000.0	8,010.0	16,747.3	7,788.0	147.0	135.3	60.03	7,551.5	123.2	784.9	538.9	246.00	3.191		
16,100.0	8,010.0	16,747.3	7,788.0	148.7	135.3	60.03	7,551.5	123.2	872.0	624.5	247.52	3.523		
16,200.0	8,010.0	16,747.3	7,788.0	150.5	135.3	60.03	7,551.5	123.2	961.6	712.6	249.04	3.861		

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - Waste Connections 3F-29H-M168 - Hz - Plan #2													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	90.04	0.0	19.6	27.3					
100.0	100.0	81.0	81.0	0.1	0.1	90.04	0.0	19.6	19.6	19.4	0.24	81.122		
200.0	200.0	181.0	181.0	0.3	0.3	90.04	0.0	19.6	19.6	19.0	0.59	33.432		
300.0	300.0	281.0	281.0	0.5	0.5	90.04	0.0	19.6	19.6	18.7	0.94	20.957 CC		
400.0	400.0	380.9	380.9	0.6	0.6	91.61	-0.6	19.8	19.8	18.5	1.28	15.403 ES		
500.0	500.0	480.7	480.7	0.8	0.8	97.57	-2.7	20.5	20.7	19.0	1.64	12.631		
600.0	600.0	580.5	580.4	1.0	1.0	-129.34	-6.5	21.7	23.8	21.8	1.99	11.926		
700.0	699.9	680.1	679.8	1.2	1.2	-125.86	-12.0	23.5	29.4	27.0	2.36	12.468		
800.0	799.8	779.5	778.9	1.4	1.4	-121.40	-19.1	25.8	36.2	33.5	2.73	13.261		
900.0	899.7	878.6	877.6	1.5	1.6	-116.72	-27.8	28.6	44.3	41.2	3.11	14.271		
1,000.0	999.6	977.5	975.9	1.7	1.9	-112.27	-38.1	32.0	53.9	50.5	3.49	15.476		
1,100.0	1,099.6	1,076.0	1,073.6	1.9	2.1	-108.24	-49.9	35.8	65.1	61.3	3.87	16.849		
1,200.0	1,199.5	1,174.0	1,170.6	2.1	2.4	-104.70	-63.3	40.2	78.0	73.7	4.24	18.365		
1,300.0	1,299.4	1,271.6	1,267.0	2.3	2.7	-101.62	-78.2	45.0	92.4	87.8	4.62	19.997		
1,400.0	1,399.3	1,368.7	1,362.6	2.5	3.0	-98.96	-94.5	50.3	108.6	103.6	5.00	21.725		
1,500.0	1,499.2	1,465.3	1,457.2	2.7	3.4	-96.66	-112.3	56.1	126.4	121.0	5.37	23.532		
1,600.0	1,599.1	1,561.2	1,551.0	2.8	3.8	-94.66	-131.5	62.3	145.9	140.2	5.74	25.401		
1,700.0	1,699.1	1,656.4	1,643.8	3.0	4.1	-92.93	-152.0	69.0	167.0	160.9	6.11	27.326		
1,800.0	1,799.0	1,753.1	1,737.7	3.2	4.6	-91.43	-173.9	76.1	189.4	182.9	6.48	29.214		
1,900.0	1,898.9	1,850.5	1,832.2	3.4	5.0	-90.23	-196.0	83.3	211.8	205.0	6.85	30.917		
2,000.0	1,998.8	1,947.8	1,926.8	3.6	5.4	-89.26	-218.1	90.5	234.4	227.2	7.22	32.456		
2,100.0	2,098.7	2,045.2	2,021.3	3.8	5.8	-88.47	-240.2	97.6	257.0	249.4	7.59	33.853		
2,200.0	2,198.6	2,142.5	2,115.9	4.0	6.3	-87.80	-262.2	104.8	279.6	271.7	7.96	35.126		
2,300.0	2,298.5	2,239.9	2,210.4	4.2	6.7	-87.23	-284.3	112.0	302.3	294.0	8.33	36.289		
2,400.0	2,398.5	2,337.2	2,305.0	4.3	7.1	-86.74	-306.4	119.2	325.0	316.3	8.70	37.357		
2,500.0	2,498.4	2,434.6	2,399.5	4.5	7.5	-86.32	-328.5	126.3	347.7	338.7	9.07	38.341		
2,600.0	2,598.3	2,532.0	2,494.1	4.7	8.0	-85.94	-350.6	133.5	370.5	361.0	9.44	39.249		
2,700.0	2,698.2	2,629.3	2,588.6	4.9	8.4	-85.61	-372.7	140.7	393.2	383.4	9.81	40.090		
2,800.0	2,798.1	2,726.7	2,683.1	5.1	8.8	-85.32	-394.8	147.9	416.0	405.8	10.18	40.871		
2,900.0	2,898.0	2,824.0	2,777.7	5.3	9.3	-85.06	-416.8	155.0	438.7	428.2	10.55	41.598		
3,000.0	2,998.0	2,921.4	2,872.2	5.5	9.7	-84.82	-438.9	162.2	461.5	450.6	10.92	42.277		
3,100.0	3,097.9	3,018.7	2,966.8	5.7	10.1	-84.60	-461.0	169.4	484.3	473.0	11.29	42.912		
3,200.0	3,197.8	3,116.1	3,061.3	5.9	10.6	-84.41	-483.1	176.6	507.1	495.4	11.66	43.508		
3,300.0	3,297.7	3,213.4	3,155.9	6.0	11.0	-84.23	-505.2	183.7	529.9	517.9	12.02	44.067		
3,400.0	3,397.6	3,310.8	3,250.4	6.2	11.5	-84.07	-527.3	190.9	552.7	540.3	12.39	44.593		
3,500.0	3,497.5	3,408.1	3,345.0	6.4	11.9	-83.91	-549.4	198.1	575.5	562.7	12.76	45.090		
3,600.0	3,597.4	3,505.5	3,439.5	6.6	12.3	-83.77	-571.4	205.3	598.3	585.2	13.13	45.558		
3,700.0	3,697.4	3,602.9	3,534.0	6.8	12.8	-83.65	-593.5	212.4	621.1	607.6	13.50	46.001		
3,800.0	3,797.3	3,700.2	3,628.6	7.0	13.2	-83.53	-615.6	219.6	643.9	630.0	13.87	46.421		
3,900.0	3,897.2	3,797.6	3,723.1	7.2	13.6	-83.41	-637.7	226.8	666.7	652.5	14.24	46.819		
4,000.0	3,997.1	3,894.7	3,817.5	7.4	14.1	-83.31	-659.7	234.0	689.6	674.9	14.61	47.199		
4,100.0	4,097.0	3,990.7	3,910.7	7.6	14.5	-83.30	-681.1	242.0	712.5	697.5	14.97	47.592		
4,200.0	4,196.9	4,086.6	4,003.9	7.7	14.9	-83.42	-701.7	251.5	735.6	720.3	15.33	47.977		
4,300.0	4,296.9	4,182.4	4,096.9	7.9	15.4	-83.65	-721.7	262.4	758.9	743.3	15.70	48.350		
4,400.0	4,396.8	4,279.6	4,191.3	8.1	15.8	-83.93	-741.7	274.2	782.4	766.3	16.07	48.693		
4,500.0	4,496.7	4,376.7	4,285.6	8.3	16.2	-84.19	-761.7	285.9	805.8	789.4	16.44	49.023		
4,600.0	4,596.6	4,473.9	4,380.0	8.5	16.7	-84.43	-781.7	297.6	829.3	812.5	16.81	49.339		
4,700.0	4,696.5	4,571.0	4,474.3	8.7	17.1	-84.66	-801.7	309.3	852.7	835.6	17.18	49.642		
4,800.0	4,796.4	4,668.2	4,568.7	8.9	17.5	-84.88	-821.7	321.0	876.2	858.7	17.55	49.933		
4,900.0	4,896.3	4,765.3	4,663.0	9.1	18.0	-85.08	-841.6	332.7	899.7	881.8	17.92	50.213		
5,000.0	4,996.3	4,862.5	4,757.4	9.2	18.4	-85.28	-861.6	344.4	923.2	904.9	18.29	50.483		
5,100.0	5,096.2	4,959.6	4,851.7	9.4	18.8	-85.47	-881.6	356.1	946.7	928.1	18.66	50.742		

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - Waste Connections 3F-29H-M168 - Hz - Plan #2													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			
5,200.0	5,196.1	5,056.8	4,946.1	9.6	19.3	-85.64	-901.6	367.8	970.2	951.2	19.03	50.992		
5,300.0	5,296.0	5,153.9	5,040.4	9.8	19.7	-85.81	-921.6	379.5	993.8	974.4	19.40	51.232		
7,800.0	7,729.8	9,516.9	8,016.0	14.4	20.6	102.11	143.0	689.7	973.6	943.0	30.64	31.772		
7,900.0	7,803.3	9,584.8	8,016.0	14.8	20.8	99.93	210.8	687.3	953.1	921.6	31.43	30.320		
8,000.0	7,868.4	9,660.6	8,016.0	15.4	21.2	97.81	286.6	684.7	938.7	906.2	32.48	28.899		
8,100.0	7,922.3	9,744.7	8,016.0	16.1	21.7	95.61	370.6	681.7	929.3	895.5	33.85	27.457		
8,200.0	7,964.0	9,835.5	8,016.0	17.0	22.3	93.64	461.4	678.6	923.2	887.7	35.53	25.985		
8,300.0	7,992.6	9,931.2	8,016.0	18.0	23.1	92.21	557.0	675.2	918.9	881.4	37.51	24.497		
8,400.0	8,007.7	10,029.9	8,016.0	19.1	24.0	91.55	655.7	671.8	915.1	875.4	39.74	23.027		
8,500.0	8,010.0	10,129.8	8,016.0	20.4	25.0	91.57	755.5	668.3	911.5	869.3	42.16	21.620		
8,600.0	8,010.0	10,229.7	8,016.0	21.7	26.1	91.58	855.4	664.8	907.8	863.1	44.72	20.299		
8,700.0	8,010.0	10,329.7	8,016.0	23.0	27.2	91.58	955.2	661.3	904.1	856.7	47.40	19.073		
8,800.0	8,010.0	10,429.6	8,016.0	24.4	28.4	91.59	1,055.1	657.8	900.4	850.2	50.19	17.942		
8,900.0	8,010.0	10,529.5	8,016.0	25.9	29.7	91.60	1,155.0	654.3	896.7	843.7	53.05	16.902		
9,000.0	8,010.0	10,629.4	8,016.0	27.4	31.0	91.60	1,254.8	650.9	893.0	837.1	55.99	15.949		
9,100.0	8,010.0	10,729.4	8,016.0	28.9	32.4	91.61	1,354.7	647.4	889.4	830.4	59.00	15.075		
9,200.0	8,010.0	10,829.3	8,016.0	30.5	33.7	91.62	1,454.6	643.9	885.7	823.6	62.05	14.273		
9,300.0	8,010.0	10,929.2	8,016.0	32.0	35.2	91.62	1,554.5	640.4	882.0	816.8	65.15	13.538		
9,400.0	8,010.0	11,029.2	8,016.0	33.6	36.6	91.63	1,654.3	636.9	878.3	810.0	68.29	12.861		
9,500.0	8,010.0	11,129.1	8,016.0	35.2	38.1	91.64	1,754.2	633.4	874.6	803.2	71.46	12.239		
9,600.0	8,010.0	11,229.0	8,016.0	36.8	39.6	91.64	1,854.1	629.9	870.9	796.3	74.67	11.664		
9,700.0	8,010.0	11,329.0	8,016.0	38.5	41.1	91.65	1,953.9	626.4	867.2	789.4	77.89	11.134		
9,800.0	8,010.0	11,428.9	8,016.0	40.1	42.6	91.66	2,053.8	623.0	863.6	782.4	81.15	10.642		
9,900.0	8,010.0	11,528.8	8,016.0	41.7	44.2	91.67	2,153.7	619.5	859.9	775.5	84.42	10.186		
10,000.0	8,010.0	11,628.8	8,016.0	43.4	45.8	91.67	2,253.6	616.0	856.2	768.5	87.71	9.762		
10,100.0	8,010.0	11,728.7	8,016.0	45.1	47.3	91.68	2,353.4	612.5	852.5	761.5	91.01	9.367		
10,200.0	8,010.0	11,828.6	8,016.0	46.7	48.9	91.69	2,453.3	609.0	848.8	754.5	94.33	8.998		
10,300.0	8,010.0	11,928.6	8,016.0	48.4	50.5	91.69	2,553.2	605.5	845.1	747.5	97.66	8.654		
10,400.0	8,010.0	12,045.4	8,016.0	50.1	52.4	91.71	2,669.9	600.3	840.5	739.2	101.29	8.298		
10,500.0	8,010.0	12,162.3	8,016.0	51.8	54.3	91.72	2,786.5	592.7	833.7	728.8	104.92	7.946		
10,600.0	8,010.0	12,278.7	8,016.0	53.5	56.2	91.74	2,902.5	582.7	825.0	716.4	108.56	7.600		
10,700.0	8,010.0	12,394.7	8,016.0	55.2	58.0	91.77	3,017.9	570.4	814.2	702.0	112.19	7.257		
10,800.0	8,010.0	12,502.5	8,016.0	56.9	59.8	91.80	3,124.8	557.2	801.7	686.0	115.70	6.929		
10,900.0	8,010.0	12,601.6	8,016.0	58.6	61.4	91.83	3,223.2	544.6	788.9	669.8	119.07	6.626		
11,000.0	8,010.0	12,700.8	8,016.0	60.3	63.0	91.86	3,321.6	532.1	776.1	653.6	122.44	6.339		
11,100.0	8,010.0	12,800.0	8,016.0	62.0	64.6	91.89	3,419.9	519.6	763.3	637.5	125.82	6.066		
11,200.0	8,010.0	12,899.2	8,016.0	63.7	66.3	91.92	3,518.3	507.1	750.5	621.3	129.21	5.808		
11,300.0	8,010.0	12,998.3	8,016.0	65.4	67.9	91.96	3,616.7	494.6	737.7	605.1	132.60	5.563		
11,400.0	8,010.0	13,097.5	8,016.0	67.1	69.6	91.99	3,715.1	482.1	724.9	588.9	135.99	5.330		
11,500.0	8,010.0	13,196.5	8,016.0	68.8	71.2	92.03	3,813.3	469.6	712.1	572.7	139.39	5.108		
11,600.0	8,010.0	13,284.9	8,016.0	70.5	72.7	92.06	3,901.1	459.1	700.0	557.4	142.61	4.909		
11,700.0	8,010.0	13,373.6	8,016.0	72.3	74.2	92.09	3,989.3	450.0	689.6	543.7	145.85	4.728		
11,800.0	8,010.0	13,462.6	8,016.0	74.0	75.7	92.11	4,077.9	442.2	680.6	531.5	149.09	4.565		
11,900.0	8,010.0	13,551.8	8,016.0	75.7	77.2	92.13	4,166.9	435.8	673.2	520.9	152.34	4.419		
12,000.0	8,010.0	13,641.2	8,016.0	77.4	78.7	92.15	4,256.1	430.7	667.4	511.8	155.59	4.289		
12,100.0	8,010.0	13,730.7	8,016.0	79.1	80.2	92.16	4,345.6	427.1	663.1	504.3	158.86	4.174		
12,200.0	8,010.0	13,820.3	8,016.0	80.9	81.8	92.17	4,435.2	424.8	660.4	498.3	162.12	4.073		
12,300.0	8,010.0	13,910.0	8,016.0	82.6	83.3	92.17	4,524.8	424.0	659.2	493.9	165.39	3.986		
12,323.8	8,010.0	13,931.3	8,016.0	83.0	83.7	92.17	4,546.1	424.0	659.2	493.0	166.17	3.967		
12,400.0	8,010.0	14,000.8	8,016.0	84.3	84.9	92.17	4,615.6	424.5	659.6	491.0	168.68	3.911		
12,500.0	8,010.0	14,100.8	8,016.0	86.1	86.6	92.17	4,715.6	425.7	660.7	488.5	172.13	3.838		
12,600.0	8,010.0	14,200.8	8,016.0	87.8	88.3	92.16	4,815.6	427.0	661.7	486.1	175.59	3.768		

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - Waste Connections 3F-29H-M168 - Hz - Plan #2													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)				
12,700.0	8,010.0	14,300.8	8,016.0	89.5	90.0	92.16	4,915.6	428.2	662.7	483.7	179.04	3.701		
12,800.0	8,010.0	14,400.7	8,016.0	91.3	91.7	92.16	5,015.6	429.4	663.7	481.2	182.50	3.637		
12,900.0	8,010.0	14,500.7	8,016.0	93.0	93.5	92.15	5,115.6	430.6	664.8	478.8	185.96	3.575		
13,000.0	8,010.0	14,600.7	8,016.0	94.7	95.2	92.15	5,215.6	431.9	665.8	476.4	189.42	3.515		
13,100.0	8,010.0	14,700.7	8,016.0	96.5	96.9	92.15	5,315.5	433.1	666.8	473.9	192.88	3.457		
13,200.0	8,010.0	14,800.7	8,016.0	98.2	98.6	92.14	5,415.5	434.3	667.8	471.5	196.35	3.401		
13,300.0	8,010.0	14,900.7	8,016.0	99.9	100.4	92.14	5,515.5	435.5	668.9	469.0	199.81	3.347		
13,400.0	8,010.0	15,000.7	8,016.0	101.7	102.1	92.14	5,615.5	436.7	669.9	466.6	203.28	3.295		
13,500.0	8,010.0	15,100.7	8,016.0	103.4	103.8	92.13	5,715.5	438.0	670.9	464.2	206.75	3.245		
13,600.0	8,010.0	15,200.7	8,016.0	105.1	105.6	92.13	5,815.5	439.2	671.9	461.7	210.22	3.196		
13,700.0	8,010.0	15,300.7	8,016.0	106.9	107.3	92.13	5,915.5	440.4	673.0	459.3	213.69	3.149		
13,800.0	8,010.0	15,400.7	8,016.0	108.6	109.0	92.13	6,015.5	441.6	674.0	456.8	217.16	3.104		
13,900.0	8,010.0	15,500.7	8,016.0	110.4	110.7	92.12	6,115.4	442.8	675.0	454.4	220.63	3.059		
14,000.0	8,010.0	15,600.7	8,016.0	112.1	112.5	92.12	6,215.4	444.1	676.0	451.9	224.11	3.016		
14,100.0	8,010.0	15,700.7	8,016.0	113.8	114.2	92.12	6,315.4	445.3	677.0	449.5	227.58	2.975		
14,200.0	8,010.0	15,800.7	8,016.0	115.6	115.9	92.11	6,415.4	446.5	678.1	447.0	231.06	2.935		
14,300.0	8,010.0	15,900.7	8,016.0	117.3	117.7	92.11	6,515.4	447.7	679.1	444.6	234.54	2.895		
14,400.0	8,010.0	16,000.7	8,016.0	119.1	119.4	92.11	6,615.4	449.0	680.1	442.1	238.01	2.857		
14,500.0	8,010.0	16,100.7	8,016.0	120.8	121.1	92.10	6,715.4	450.2	681.1	439.6	241.49	2.821		
14,600.0	8,010.0	16,200.7	8,016.0	122.5	122.9	92.10	6,815.3	451.4	682.2	437.2	244.97	2.785		
14,700.0	8,010.0	16,300.6	8,016.0	124.3	124.6	92.10	6,915.3	452.6	683.2	434.7	248.45	2.750		
14,800.0	8,010.0	16,400.6	8,016.0	126.0	126.4	92.09	7,015.3	453.8	684.2	432.3	251.93	2.716		
14,900.0	8,010.0	16,500.6	8,016.0	127.8	128.1	92.09	7,115.3	455.1	685.2	429.8	255.42	2.683		
15,000.0	8,010.0	16,600.6	8,016.0	129.5	129.8	92.09	7,215.3	456.3	686.3	427.4	258.90	2.651		
15,100.0	8,010.0	16,700.6	8,016.0	131.3	131.6	92.08	7,315.3	457.5	687.3	424.9	262.38	2.619		
15,200.0	8,010.0	16,800.6	8,016.0	133.0	133.3	92.08	7,415.3	458.7	688.3	422.4	265.87	2.589		
15,300.0	8,010.0	16,900.6	8,016.0	134.8	135.0	92.08	7,515.3	460.0	689.3	420.0	269.35	2.559		
15,400.0	8,010.0	17,000.6	8,016.0	136.5	136.8	92.08	7,615.2	461.2	690.4	417.5	272.83	2.530		
15,500.0	8,010.0	17,100.6	8,016.0	138.2	138.5	92.07	7,715.2	462.4	691.4	415.1	276.32	2.502		
15,600.0	8,010.0	17,200.6	8,016.0	140.0	140.3	92.07	7,815.2	463.6	692.4	412.6	279.81	2.475		
15,700.0	8,010.0	17,300.6	8,016.0	141.7	142.0	92.07	7,915.2	464.8	693.4	410.1	283.29	2.448		
15,800.0	8,010.0	17,400.6	8,016.0	143.5	143.7	92.06	8,015.2	466.1	694.5	407.7	286.78	2.422		
15,900.0	8,010.0	17,500.6	8,016.0	145.2	145.5	92.06	8,115.2	467.3	695.5	405.2	290.27	2.396		
16,000.0	8,010.0	17,600.6	8,016.0	147.0	147.2	92.06	8,215.2	468.5	696.5	402.7	293.75	2.371		
16,100.0	8,010.0	17,700.6	8,016.0	148.7	149.0	92.05	8,315.2	469.7	697.5	400.3	297.24	2.347		
16,200.0	8,010.0	17,800.6	8,016.0	150.5	150.7	92.05	8,415.1	470.9	698.5	397.8	300.73	2.323		
16,300.0	8,010.0	17,900.6	8,016.0	152.2	152.5	92.05	8,515.1	472.2	699.6	395.4	304.22	2.300		
16,362.3	8,010.0	17,962.9	8,016.0	153.3	153.5	92.05	8,577.5	472.9	700.2	393.8	306.40	2.285 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	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		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	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.04	0.0	30.8	35.7					
100.0	100.0	82.0	82.0	0.1	0.1	90.04	0.0	30.8	30.8	30.6	0.24	126.682		
200.0	200.0	182.0	182.0	0.3	0.3	90.04	0.0	30.8	30.8	30.2	0.59	52.380 CC, ES		
300.0	300.0	281.7	281.7	0.5	0.5	90.84	-0.5	31.2	31.2	30.3	0.94	33.285		
400.0	400.0	381.3	381.3	0.6	0.6	93.78	-2.2	32.7	32.8	31.5	1.29	25.425		
500.0	500.0	480.8	480.7	0.8	0.8	98.28	-5.1	35.4	35.8	34.1	1.65	21.692		
600.0	600.0	580.0	579.8	1.0	1.0	-131.01	-9.4	39.2	41.5	39.5	2.00	20.797 SF		
700.0	699.9	679.0	678.5	1.2	1.2	-129.40	-14.9	44.1	50.2	47.8	2.36	21.297		
800.0	799.8	777.7	776.7	1.4	1.5	-127.42	-21.7	50.2	60.4	57.7	2.72	22.179		
900.0	899.7	876.0	874.4	1.5	1.7	-125.31	-29.7	57.4	72.1	69.0	3.09	23.321		
1,000.0	999.6	973.9	971.6	1.7	2.0	-123.23	-38.9	65.6	85.4	81.9	3.46	24.658		
1,100.0	1,099.6	1,071.4	1,068.0	1.9	2.3	-121.28	-49.3	74.9	100.2	96.4	3.83	26.145		
1,200.0	1,199.5	1,168.6	1,164.0	2.1	2.6	-119.48	-60.9	85.2	116.6	112.4	4.20	27.751		
1,300.0	1,299.4	1,267.1	1,261.2	2.3	2.9	-118.01	-73.0	96.0	133.6	129.1	4.57	29.210		
1,400.0	1,399.3	1,365.6	1,358.3	2.5	3.2	-116.87	-85.1	106.9	150.7	145.7	4.95	30.466		
1,500.0	1,499.2	1,464.1	1,455.5	2.7	3.5	-115.97	-97.2	117.7	167.8	162.5	5.32	31.557		
1,600.0	1,599.1	1,562.6	1,552.6	2.8	3.8	-115.23	-109.3	128.5	184.9	179.3	5.69	32.512		
1,700.0	1,699.1	1,661.1	1,649.8	3.0	4.2	-114.62	-121.4	139.3	202.1	196.1	6.06	33.355		
1,800.0	1,799.0	1,759.6	1,746.9	3.2	4.5	-114.10	-133.6	150.2	219.3	212.9	6.43	34.104		
1,900.0	1,898.9	1,858.1	1,844.1	3.4	4.8	-113.66	-145.7	161.0	236.5	229.7	6.80	34.774		
2,000.0	1,998.8	1,956.6	1,941.2	3.6	5.1	-113.28	-157.8	171.8	253.7	246.5	7.17	35.376		
2,100.0	2,098.7	2,055.1	2,038.4	3.8	5.5	-112.95	-169.9	182.6	270.9	263.4	7.54	35.921		
2,200.0	2,198.6	2,153.6	2,135.5	4.0	5.8	-112.65	-182.0	193.4	288.2	280.3	7.91	36.415		
2,300.0	2,298.5	2,252.1	2,232.6	4.2	6.1	-112.39	-194.1	204.3	305.4	297.1	8.28	36.867		
2,400.0	2,398.5	2,350.6	2,329.8	4.3	6.4	-112.16	-206.2	215.1	322.7	314.0	8.65	37.280		
2,500.0	2,498.4	2,449.1	2,426.9	4.5	6.8	-111.95	-218.3	225.9	339.9	330.9	9.03	37.660		
2,600.0	2,598.3	2,547.6	2,524.1	4.7	7.1	-111.76	-230.4	236.7	357.2	347.8	9.40	38.010		
2,700.0	2,698.2	2,646.1	2,621.2	4.9	7.4	-111.59	-242.5	247.6	374.4	364.6	9.77	38.334		
2,800.0	2,798.1	2,744.5	2,718.4	5.1	7.8	-111.44	-254.6	258.4	391.7	381.5	10.14	38.635		
2,900.0	2,898.0	2,843.0	2,815.5	5.3	8.1	-111.29	-266.7	269.2	408.9	398.4	10.51	38.915		
3,000.0	2,998.0	2,941.5	2,912.7	5.5	8.4	-111.16	-278.9	280.0	426.2	415.3	10.88	39.176		
3,100.0	3,097.9	3,040.0	3,009.8	5.7	8.8	-111.04	-291.0	290.9	443.5	432.2	11.25	39.420		
3,200.0	3,197.8	3,138.5	3,107.0	5.9	9.1	-110.93	-303.1	301.7	460.7	449.1	11.62	39.648		
3,300.0	3,297.7	3,237.0	3,204.1	6.0	9.4	-110.83	-315.2	312.5	478.0	466.0	11.99	39.863		
3,400.0	3,397.6	3,335.5	3,301.3	6.2	9.8	-110.73	-327.3	323.3	495.3	482.9	12.36	40.065		
3,500.0	3,497.5	3,434.0	3,398.4	6.4	10.1	-110.64	-339.4	334.1	512.5	499.8	12.73	40.255		
3,600.0	3,597.4	3,532.5	3,495.5	6.6	10.4	-110.55	-351.5	345.0	529.8	516.7	13.10	40.434		
3,700.0	3,697.4	3,631.0	3,592.7	6.8	10.7	-110.48	-363.6	355.8	547.1	533.6	13.47	40.604		
3,800.0	3,797.3	3,729.5	3,689.8	7.0	11.1	-110.40	-375.7	366.6	564.4	550.5	13.84	40.765		
3,900.0	3,897.2	3,828.0	3,787.0	7.2	11.4	-110.33	-387.8	377.4	581.6	567.4	14.21	40.917		
4,000.0	3,997.1	3,926.5	3,884.1	7.4	11.7	-110.27	-399.9	388.3	598.9	584.3	14.59	41.062		
4,100.0	4,097.0	4,025.0	3,981.3	7.6	12.1	-110.20	-412.1	399.1	616.2	601.2	14.96	41.199		
4,200.0	4,196.9	4,123.5	4,078.4	7.7	12.4	-110.15	-424.2	409.9	633.5	618.1	15.33	41.330		
4,300.0	4,296.9	4,222.0	4,175.6	7.9	12.7	-110.09	-436.3	420.7	650.7	635.0	15.70	41.455		
4,400.0	4,396.8	4,320.5	4,272.7	8.1	13.1	-110.04	-448.4	431.6	668.0	651.9	16.07	41.574		
4,500.0	4,496.7	4,419.0	4,369.9	8.3	13.4	-109.99	-460.5	442.4	685.3	668.9	16.44	41.688		
4,600.0	4,596.6	4,517.4	4,467.0	8.5	13.7	-109.94	-472.6	453.2	702.6	685.8	16.81	41.796		
4,700.0	4,696.5	4,615.9	4,564.2	8.7	14.1	-109.89	-484.7	464.0	719.8	702.7	17.18	41.901		
4,800.0	4,796.4	4,714.4	4,661.3	8.9	14.4	-109.85	-496.8	474.8	737.1	719.6	17.55	42.000		
4,900.0	4,896.3	4,812.9	4,758.4	9.1	14.7	-109.81	-508.9	485.7	754.4	736.5	17.92	42.096		
5,000.0	4,996.3	4,911.4	4,855.6	9.2	15.1	-109.77	-521.0	496.5	771.7	753.4	18.29	42.188		
5,100.0	5,096.2	5,009.9	4,952.7	9.4	15.4	-109.73	-533.1	507.3	789.0	770.3	18.66	42.276		

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:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	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			Distance							Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)							
5,200.0	5,196.1	5,108.4	5,049.9	9.6	15.7	-109.70	-545.3	518.1	806.3	787.2	19.03	42.360					
5,300.0	5,296.0	5,206.9	5,147.0	9.8	16.1	-109.66	-557.4	529.0	823.5	804.1	19.40	42.442					
5,400.0	5,395.9	5,305.4	5,244.2	10.0	16.4	-109.63	-569.5	539.8	840.8	821.0	19.77	42.520					
5,500.0	5,495.8	5,403.9	5,341.3	10.2	16.7	-109.60	-581.6	550.6	858.1	838.0	20.15	42.596					
5,600.0	5,595.8	5,502.4	5,438.5	10.4	17.1	-109.57	-593.7	561.4	875.4	854.9	20.52	42.669					
5,700.0	5,695.7	5,600.9	5,535.6	10.6	17.4	-109.54	-605.8	572.2	892.7	871.8	20.89	42.739					
5,800.0	5,795.6	5,699.4	5,632.8	10.8	17.7	-109.51	-617.9	583.1	909.9	888.7	21.26	42.807					
5,900.0	5,895.5	5,797.9	5,729.9	10.9	18.1	-109.48	-630.0	593.9	927.2	905.6	21.63	42.872					
6,000.0	5,995.4	5,896.4	5,827.0	11.1	18.4	-109.46	-642.1	604.7	944.5	922.5	22.00	42.936					
6,100.0	6,095.3	5,994.9	5,924.2	11.3	18.7	-109.43	-654.2	615.5	961.8	939.4	22.37	42.997					
6,200.0	6,195.2	6,093.4	6,021.3	11.5	19.1	-109.41	-666.3	626.4	979.1	956.3	22.74	43.056					
6,300.0	6,295.2	6,191.8	6,118.5	11.7	19.4	-109.38	-678.4	637.2	996.4	973.3	23.11	43.114					

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - WILLIAM H PELTIER 2 - ENCANA - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 100-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		
15,700.0	8,010.0	7,840.0	7,839.3	141.7	13.7	75.64	8,580.5	451.7	961.0	810.3	150.76	6.375		
15,800.0	8,010.0	7,840.0	7,839.3	143.5	13.7	75.64	8,580.5	451.7	895.5	743.1	152.45	5.874		
15,900.0	8,010.0	7,840.0	7,839.3	145.2	13.7	75.64	8,580.5	451.7	836.9	682.7	154.14	5.429		
16,000.0	8,010.0	7,840.0	7,839.3	147.0	13.7	75.64	8,580.5	451.7	786.6	630.8	155.84	5.048		
16,100.0	8,010.0	7,840.0	7,839.3	148.7	13.7	75.64	8,580.5	451.7	746.4	588.9	157.53	4.738		
16,200.0	8,010.0	7,840.0	7,839.3	150.5	13.7	75.64	8,580.5	451.7	718.0	558.7	159.22	4.509		
16,300.0	8,010.0	7,840.0	7,839.3	152.2	13.7	75.64	8,580.5	451.7	702.7	541.8	160.92	4.367		
16,358.1	8,010.0	7,840.0	7,839.3	153.2	13.7	75.64	8,580.5	451.7	700.3	538.4	161.90	4.326 CC		
16,362.3	8,010.0	7,840.0	7,839.3	153.3	13.7	75.64	8,580.5	451.7	700.4	538.4	161.97	4.324 ES, SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - WILLIAM PELTIER 12-20 - ENCANA - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 100-Gyro													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		
14,400.0	8,010.0	8,024.2	8,022.0	119.1	7.0	-90.67	7,232.9	-998.8	980.5	854.5	125.98	7.783		
14,500.0	8,010.0	8,024.8	8,022.6	120.8	7.0	-90.72	7,232.9	-998.8	921.9	794.1	127.72	7.218		
14,600.0	8,010.0	8,025.5	8,023.2	122.5	7.0	-90.76	7,232.9	-998.8	870.8	741.3	129.47	6.726		
14,700.0	8,010.0	8,026.1	8,023.8	124.3	7.0	-90.81	7,232.9	-998.8	828.7	697.5	131.21	6.316		
14,800.0	8,010.0	8,026.7	8,024.4	126.0	7.0	-90.85	7,233.0	-998.8	797.0	664.0	132.95	5.994		
14,900.0	8,010.0	8,027.3	8,025.0	127.8	7.0	-90.89	7,233.0	-998.8	776.9	642.2	134.70	5.768		
15,000.0	8,010.0	8,027.8	8,025.6	129.5	7.0	-90.94	7,233.0	-998.8	769.5	633.0	136.44	5.640		
15,007.8	8,010.0	8,027.9	8,025.7	129.7	7.0	-90.94	7,233.0	-998.8	769.4	632.9	136.58	5.634 CC, ES		
15,100.0	8,010.0	8,028.4	8,026.2	131.3	7.0	-90.98	7,233.0	-998.8	774.9	636.8	138.18	5.608 SF		
15,200.0	8,010.0	8,029.0	8,026.8	133.0	7.0	-91.03	7,233.0	-998.8	793.1	653.2	139.93	5.668		
15,300.0	8,010.0	8,029.6	8,027.4	134.8	7.0	-91.07	7,233.0	-998.7	823.1	681.4	141.67	5.810		
15,400.0	8,010.0	8,030.2	8,028.0	136.5	7.0	-91.11	7,233.0	-998.7	863.6	720.2	143.41	6.022		
15,500.0	8,010.0	8,030.8	8,028.6	138.2	7.0	-91.16	7,233.0	-998.7	913.4	768.2	145.16	6.292		
15,600.0	8,010.0	8,031.4	8,029.1	140.0	7.0	-91.20	7,233.0	-998.7	971.0	824.0	146.90	6.610		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Offset Design S29-T1N-R68W (Pratt/Waste Connections) - WILLIAM PELTIER 1A-20H - ENCANA - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 911-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		
14,300.0	8,010.0	11,844.0	7,683.5	117.3	100.3	-35.76	7,407.1	-466.4	971.8	877.2	94.66	10.267		
14,400.0	8,010.0	11,820.0	7,682.6	119.1	99.8	-32.93	7,412.9	-443.1	881.6	791.1	90.55	9.737		
14,500.0	8,010.0	11,795.4	7,681.8	120.8	99.2	-29.87	7,419.0	-419.3	793.0	707.3	85.74	9.249		
14,600.0	8,010.0	11,770.1	7,681.2	122.5	98.6	-26.54	7,425.4	-394.8	706.6	626.4	80.21	8.809		
14,700.0	8,010.0	11,741.9	7,680.6	124.3	97.9	-22.61	7,432.5	-367.5	623.1	549.8	73.27	8.504		
14,800.0	8,010.0	11,713.1	7,680.0	126.0	97.2	-18.36	7,439.5	-339.6	543.9	478.3	65.60	8.291		
14,900.0	8,010.0	11,686.3	7,679.4	127.8	96.5	-14.23	7,445.8	-313.6	471.3	413.0	58.27	8.088		
15,000.0	8,010.0	11,661.5	7,678.9	129.5	95.9	-10.25	7,451.4	-289.5	408.8	357.1	51.72	7.903		
15,100.0	8,010.0	11,639.1	7,678.4	131.3	95.4	-6.58	7,456.4	-267.6	362.0	315.4	46.64	7.762 SF		
15,200.0	8,010.0	11,616.8	7,677.9	133.0	94.9	-2.87	7,461.4	-245.8	337.7	294.5	43.19	7.819		
15,239.7	8,010.0	11,607.9	7,677.6	133.7	94.6	-1.39	7,463.4	-237.2	335.5	293.0	42.49	7.895 CC, ES		
15,300.0	8,010.0	11,594.4	7,677.3	134.8	94.3	0.85	7,466.4	-224.0	340.6	298.2	42.32	8.047		
15,400.0	8,010.0	11,572.0	7,676.8	136.5	93.8	4.55	7,471.4	-202.2	370.0	325.6	44.43	8.328		
15,500.0	8,010.0	11,549.4	7,676.2	138.2	93.2	8.25	7,476.5	-180.2	420.5	371.5	49.04	8.576		
15,600.0	8,010.0	11,526.7	7,675.7	140.0	92.7	11.87	7,481.5	-158.1	485.6	430.3	55.25	8.789		
15,700.0	8,010.0	11,504.0	7,675.2	141.7	92.1	15.38	7,486.6	-136.0	560.1	497.7	62.32	8.986		
15,800.0	8,010.0	11,481.4	7,674.6	143.5	91.6	18.78	7,491.7	-113.9	640.7	570.9	69.81	9.178		
15,900.0	8,010.0	11,458.5	7,674.1	145.2	91.0	22.07	7,496.8	-91.6	725.5	648.0	77.49	9.363		
16,000.0	8,010.0	11,435.9	7,673.8	147.0	90.5	25.17	7,501.7	-69.5	813.1	728.1	85.02	9.564		
16,100.0	8,010.0	11,413.8	7,673.6	148.7	90.0	28.06	7,506.5	-48.0	902.8	810.6	92.23	9.789		
16,200.0	8,010.0	11,392.4	7,673.6	150.5	89.4	30.74	7,511.1	-27.0	993.9	894.9	99.08	10.032		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Waste Connections 3D-29H-M168
Project:	DJ Wattenberg	TVD Reference:	32' KB @ 5172.0ft (PATT 326)
Reference Site:	S29-T1N-R68W (Pratt/Waste Connections)	MD Reference:	32' KB @ 5172.0ft (PATT 326)
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 #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 32' KB @ 5172.0ft (PATT 326)

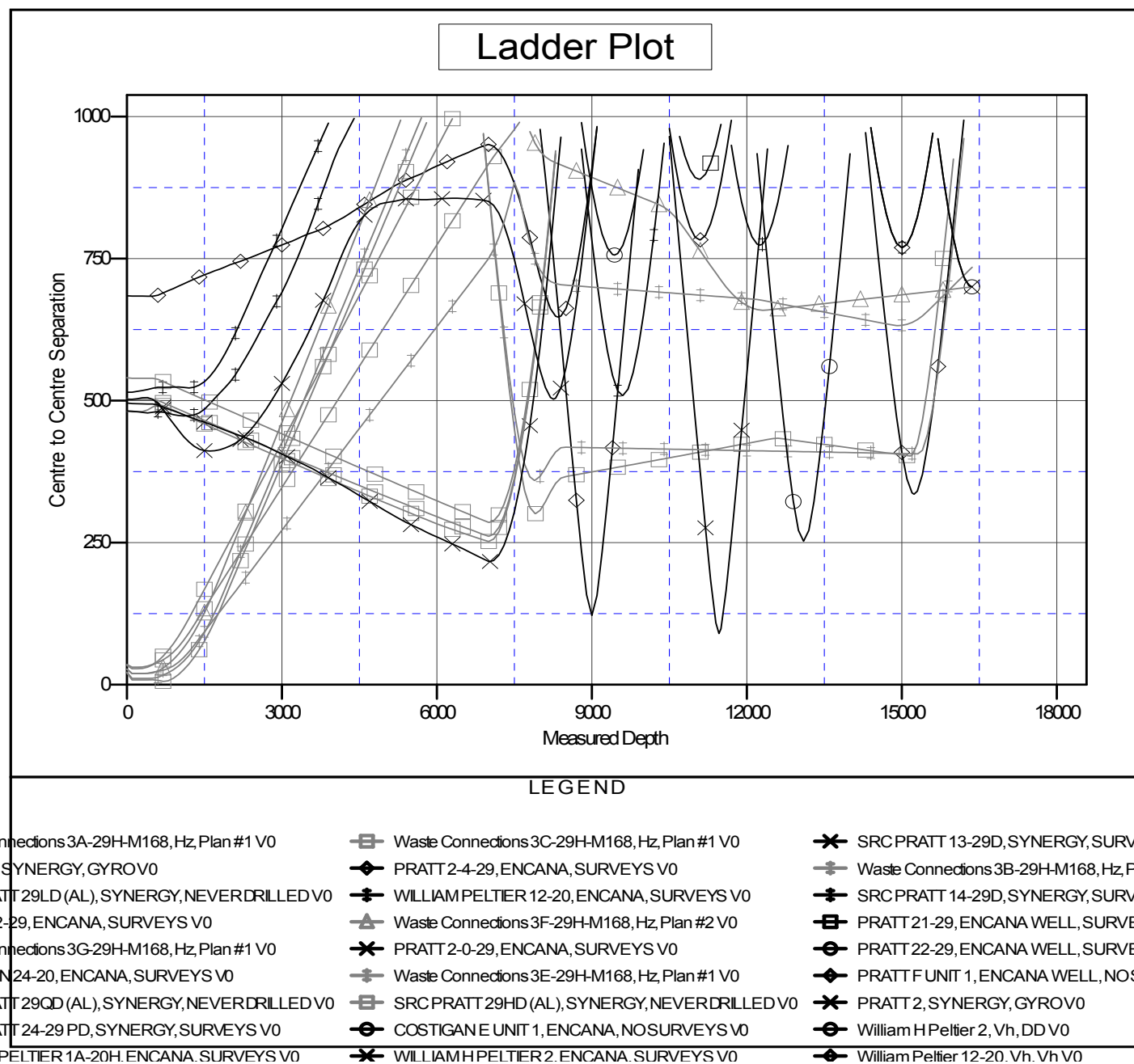
Offset Depths are relative to Offset Datum

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°



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