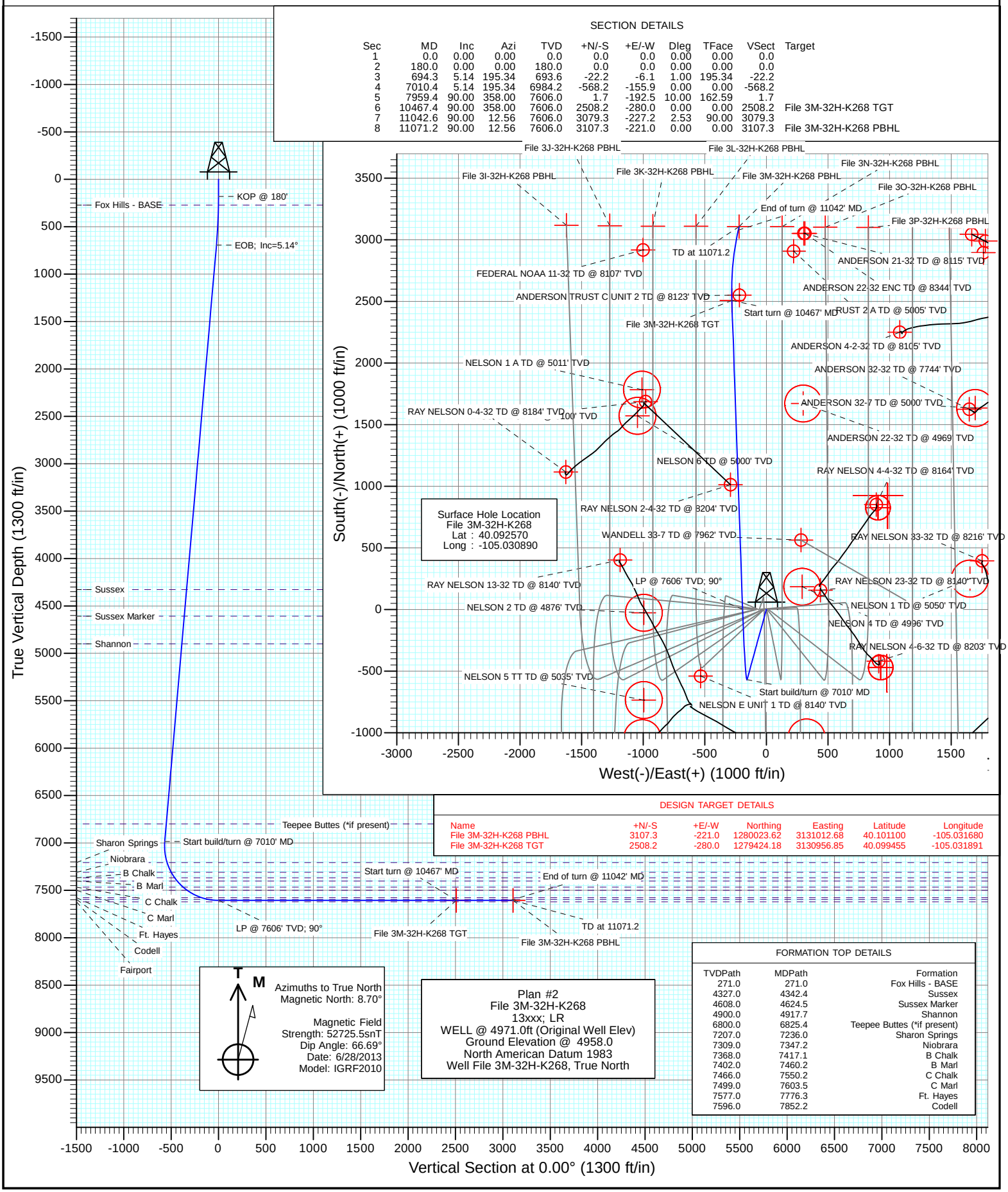
encana natural gas

Project: DJ Wattenberg
Site: S32-T2N-R68W (File/Hwy 52)
Well: File 3M-32H-K268
Wellbore: Hz
Design: Plan #2

CATHEDRAL

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	180.0	0.00	0.00	180.0	0.0	0.0	0.00	0.00	0.0	
3	694.3	5.14	195.34	693.6	-22.2	-6.1	1.00	195.34	-22.2	
4	7010.4	5.14	195.34	6984.2	-568.2	-155.9	0.00	0.00	-568.2	
5	7959.4	90.00	358.00	7606.0	1.7	-192.5	10.00	162.59	1.7	
6	10467.4	90.00	358.00	7606.0	2508.2	-280.0	0.00	0.00	2508.2	File 3M-32H-K268 TGT
7	11042.6	90.00	12.56	7606.0	3079.3	-227.2	2.53	90.00	3079.3	
8	11071.2	90.00	12.56	7606.0	3107.3	-221.0	0.00	0.00	3107.3	File 3M-32H-K268 PBHL



DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
File 3M-32H-K268 PBHL	3107.3	-221.0	1280023.62	3131012.68	40.101100	-105.031680
File 3M-32H-K268 TGT	2508.2	-280.0	1279424.18	3130956.85	40.099455	-105.031891

Azimuths to True North
Magnetic North: 8.70°

Magnetic Field
Strength: 52725.5snT
Dip Angle: 66.69°
Date: 6/28/2013
Model: IGRF2010

Plan #2
File 3M-32H-K268
13xxx; LR
WELL @ 4971.0ft (Original Well Elev)
Ground Elevation @ 4958.0
North American Datum 1983
Well File 3M-32H-K268, True North

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
271.0	271.0	Fox Hills - BASE
4327.0	4342.4	Sussex
4608.0	4624.5	Sussex Marker
4900.0	4917.7	Shannon
6800.0	6825.4	Teepee Buttes (*if present)
7207.0	7236.0	Sharon Springs
7309.0	7347.2	Niobrara
7368.0	7417.1	B Chalk
7402.0	7460.2	B Marl
7466.0	7550.2	C Chalk
7499.0	7603.5	C Marl
7577.0	7776.3	Ft. Hayes
7596.0	7852.2	Codell

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site:	S32-T2N-R68W (File/Hwy 52)	**North Reference:**	True
Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52)

Site Position:		**Northing:**	1,275,973.93 ft	**Latitude:**	40.089950
From:	Lat/Long	**Easting:**	3,133,277.97 ft	**Longitude:**	-105.023660
Position Uncertainty:	0.0 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.31 °

Well File 3M-32H-K268

Well Position	**+N/-S**	0.0 ft	**Northing:**	1,276,917.53 ft	**Latitude:**	40.092570
	+E/-W	0.0 ft	**Easting:**	3,131,250.11 ft	**Longitude:**	-105.030890
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,958.0 ft

Wellbore Hz

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/28/2013	8.71	66.69	52,726

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	
180.0	0.00	0.00	180.0	0.0	0.0	0.00	0.00	0.00	0.00	
694.3	5.14	195.34	693.6	-22.2	-6.1	1.00	1.00	0.00	195.34	
7,010.4	5.14	195.34	6,984.2	-568.2	-155.9	0.00	0.00	0.00	0.00	
7,959.4	90.00	358.00	7,606.0	1.7	-192.5	10.00	8.94	17.14	162.59	
10,467.4	90.00	358.00	7,606.0	2,508.2	-280.0	0.00	0.00	0.00	0.00	File 3M-32H-K268 TG
11,042.6	90.00	12.56	7,606.0	3,079.3	-227.2	2.53	0.00	2.53	90.00	
11,071.2	90.00	12.56	7,606.0	3,107.3	-221.0	0.00	0.00	0.00	0.00	File 3M-32H-K268 PB

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Project:	DJ Wattenberg	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site:	S32-T2N-R68W (File/Hwy 52)	**North Reference:**	True
Well:	File 3M-32H-K268	**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	
180.0	0.00	0.00	180.0	0.0	0.0	0.0	0.00	0.00	KOP @ 180'
200.0	0.20	195.34	200.0	0.0	0.0	0.0	1.00	1.00	
271.0	0.91	195.34	271.0	-0.7	-0.2	-0.7	1.00	1.00	Fox Hills - BASE
300.0	1.20	195.34	300.0	-1.2	-0.3	-1.2	1.00	1.00	
400.0	2.20	195.34	399.9	-4.1	-1.1	-4.1	1.00	1.00	
500.0	3.20	195.34	499.8	-8.6	-2.4	-8.6	1.00	1.00	
600.0	4.20	195.34	599.6	-14.8	-4.1	-14.8	1.00	1.00	
694.3	5.14	195.34	693.6	-22.2	-6.1	-22.2	1.00	1.00	EOB; Inc=5.14°
700.0	5.14	195.34	699.3	-22.7	-6.2	-22.7	0.00	0.00	
800.0	5.14	195.34	798.9	-31.4	-8.6	-31.4	0.00	0.00	
900.0	5.14	195.34	898.5	-40.0	-11.0	-40.0	0.00	0.00	
1,000.0	5.14	195.34	998.1	-48.7	-13.4	-48.7	0.00	0.00	
1,100.0	5.14	195.34	1,097.7	-57.3	-15.7	-57.3	0.00	0.00	
1,200.0	5.14	195.34	1,197.3	-66.0	-18.1	-66.0	0.00	0.00	
1,300.0	5.14	195.34	1,296.9	-74.6	-20.5	-74.6	0.00	0.00	
1,400.0	5.14	195.34	1,396.5	-83.2	-22.8	-83.2	0.00	0.00	
1,500.0	5.14	195.34	1,496.1	-91.9	-25.2	-91.9	0.00	0.00	
1,600.0	5.14	195.34	1,595.7	-100.5	-27.6	-100.5	0.00	0.00	
1,700.0	5.14	195.34	1,695.3	-109.2	-30.0	-109.2	0.00	0.00	
1,800.0	5.14	195.34	1,794.9	-117.8	-32.3	-117.8	0.00	0.00	
1,900.0	5.14	195.34	1,894.5	-126.5	-34.7	-126.5	0.00	0.00	
2,000.0	5.14	195.34	1,994.1	-135.1	-37.1	-135.1	0.00	0.00	
2,100.0	5.14	195.34	2,093.7	-143.8	-39.4	-143.8	0.00	0.00	
2,200.0	5.14	195.34	2,193.2	-152.4	-41.8	-152.4	0.00	0.00	
2,300.0	5.14	195.34	2,292.8	-161.0	-44.2	-161.0	0.00	0.00	
2,400.0	5.14	195.34	2,392.4	-169.7	-46.6	-169.7	0.00	0.00	
2,500.0	5.14	195.34	2,492.0	-178.3	-48.9	-178.3	0.00	0.00	
2,600.0	5.14	195.34	2,591.6	-187.0	-51.3	-187.0	0.00	0.00	
2,700.0	5.14	195.34	2,691.2	-195.6	-53.7	-195.6	0.00	0.00	
2,800.0	5.14	195.34	2,790.8	-204.3	-56.0	-204.3	0.00	0.00	
2,900.0	5.14	195.34	2,890.4	-212.9	-58.4	-212.9	0.00	0.00	
3,000.0	5.14	195.34	2,990.0	-221.6	-60.8	-221.6	0.00	0.00	
3,100.0	5.14	195.34	3,089.6	-230.2	-63.2	-230.2	0.00	0.00	
3,200.0	5.14	195.34	3,189.2	-238.8	-65.5	-238.8	0.00	0.00	
3,300.0	5.14	195.34	3,288.8	-247.5	-67.9	-247.5	0.00	0.00	
3,400.0	5.14	195.34	3,388.4	-256.1	-70.3	-256.1	0.00	0.00	
3,500.0	5.14	195.34	3,488.0	-264.8	-72.6	-264.8	0.00	0.00	
3,600.0	5.14	195.34	3,587.6	-273.4	-75.0	-273.4	0.00	0.00	
3,700.0	5.14	195.34	3,687.2	-282.1	-77.4	-282.1	0.00	0.00	
3,800.0	5.14	195.34	3,786.8	-290.7	-79.8	-290.7	0.00	0.00	
3,900.0	5.14	195.34	3,886.4	-299.4	-82.1	-299.4	0.00	0.00	
4,000.0	5.14	195.34	3,986.0	-308.0	-84.5	-308.0	0.00	0.00	
4,100.0	5.14	195.34	4,085.6	-316.6	-86.9	-316.6	0.00	0.00	
4,200.0	5.14	195.34	4,185.2	-325.3	-89.2	-325.3	0.00	0.00	
4,300.0	5.14	195.34	4,284.8	-333.9	-91.6	-333.9	0.00	0.00	
4,342.4	5.14	195.34	4,327.0	-337.6	-92.6	-337.6	0.00	0.00	Sussex
4,400.0	5.14	195.34	4,384.4	-342.6	-94.0	-342.6	0.00	0.00	
4,500.0	5.14	195.34	4,484.0	-351.2	-96.4	-351.2	0.00	0.00	
4,600.0	5.14	195.34	4,583.6	-359.9	-98.7	-359.9	0.00	0.00	
4,624.5	5.14	195.34	4,608.0	-362.0	-99.3	-362.0	0.00	0.00	Sussex Marker

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Project:	DJ Wattenberg	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site:	S32-T2N-R68W (File/Hwy 52)	**North Reference:**	True
Well:	File 3M-32H-K268	**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
4,700.0	5.14	195.34	4,683.2	-368.5	-101.1	-368.5	0.00	0.00	
4,800.0	5.14	195.34	4,782.8	-377.2	-103.5	-377.2	0.00	0.00	
4,900.0	5.14	195.34	4,882.4	-385.8	-105.8	-385.8	0.00	0.00	
4,917.7	5.14	195.34	4,900.0	-387.3	-106.3	-387.3	0.00	0.00	Shannon
5,000.0	5.14	195.34	4,982.0	-394.4	-108.2	-394.4	0.00	0.00	
5,100.0	5.14	195.34	5,081.6	-403.1	-110.6	-403.1	0.00	0.00	
5,200.0	5.14	195.34	5,181.2	-411.7	-113.0	-411.7	0.00	0.00	
5,300.0	5.14	195.34	5,280.8	-420.4	-115.3	-420.4	0.00	0.00	
5,400.0	5.14	195.34	5,380.4	-429.0	-117.7	-429.0	0.00	0.00	
5,500.0	5.14	195.34	5,480.0	-437.7	-120.1	-437.7	0.00	0.00	
5,600.0	5.14	195.34	5,579.6	-446.3	-122.4	-446.3	0.00	0.00	
5,700.0	5.14	195.34	5,679.2	-455.0	-124.8	-455.0	0.00	0.00	
5,800.0	5.14	195.34	5,778.8	-463.6	-127.2	-463.6	0.00	0.00	
5,900.0	5.14	195.34	5,878.4	-472.2	-129.6	-472.2	0.00	0.00	
6,000.0	5.14	195.34	5,978.0	-480.9	-131.9	-480.9	0.00	0.00	
6,100.0	5.14	195.34	6,077.5	-489.5	-134.3	-489.5	0.00	0.00	
6,200.0	5.14	195.34	6,177.1	-498.2	-136.7	-498.2	0.00	0.00	
6,300.0	5.14	195.34	6,276.7	-506.8	-139.0	-506.8	0.00	0.00	
6,400.0	5.14	195.34	6,376.3	-515.5	-141.4	-515.5	0.00	0.00	
6,500.0	5.14	195.34	6,475.9	-524.1	-143.8	-524.1	0.00	0.00	
6,600.0	5.14	195.34	6,575.5	-532.8	-146.2	-532.8	0.00	0.00	
6,700.0	5.14	195.34	6,675.1	-541.4	-148.5	-541.4	0.00	0.00	
6,800.0	5.14	195.34	6,774.7	-550.0	-150.9	-550.0	0.00	0.00	
6,825.4	5.14	195.34	6,800.0	-552.2	-151.5	-552.2	0.00	0.00	Teepee Buttes (*if present)
6,900.0	5.14	195.34	6,874.3	-558.7	-153.3	-558.7	0.00	0.00	
7,000.0	5.14	195.34	6,973.9	-567.3	-155.6	-567.3	0.00	0.00	
7,010.4	5.14	195.34	6,984.2	-568.2	-155.9	-568.2	0.00	0.00	Start build/turn @ 7010' MD
7,100.0	4.34	337.28	7,073.8	-569.0	-158.3	-569.0	10.00	-0.90	
7,200.0	14.14	351.89	7,172.4	-553.4	-161.4	-553.4	10.00	9.80	
7,236.0	17.72	353.19	7,207.0	-543.6	-162.7	-543.6	10.00	9.95	Sharon Springs
7,300.0	24.10	354.56	7,266.7	-520.9	-165.1	-520.9	10.00	9.97	
7,347.2	28.82	355.21	7,309.0	-499.9	-167.0	-499.9	10.00	9.98	Niobrara
7,400.0	34.09	355.73	7,354.0	-472.5	-169.1	-472.5	10.00	9.99	
7,417.1	35.79	355.87	7,368.0	-462.7	-169.9	-462.7	10.00	9.99	B Chalk
7,460.2	40.10	356.17	7,402.0	-436.3	-171.7	-436.3	10.00	9.99	B Marl
7,500.0	44.08	356.41	7,431.5	-409.7	-173.4	-409.7	10.00	9.99	
7,550.2	49.07	356.67	7,466.0	-373.3	-175.6	-373.3	9.96	9.96	C Chalk
7,600.0	54.07	356.89	7,496.9	-334.3	-177.8	-334.3	10.04	10.03	
7,603.5	54.42	356.90	7,499.0	-331.5	-178.0	-331.5	10.00	9.99	C Marl
7,700.0	64.07	357.25	7,548.3	-248.8	-182.2	-248.8	10.00	10.00	
7,776.3	71.70	357.49	7,577.0	-178.2	-185.4	-178.2	10.00	10.00	Ft. Hayes
7,800.0	74.06	357.56	7,584.0	-155.6	-186.4	-155.6	10.00	10.00	
7,852.2	79.28	357.71	7,596.0	-104.8	-188.5	-104.8	10.00	10.00	Codell
7,900.0	84.06	357.84	7,602.9	-57.6	-190.3	-57.6	10.00	10.00	
7,959.4	90.00	358.00	7,606.0	1.7	-192.5	1.7	10.00	10.00	LP @ 7606' TVD; 90°
8,000.0	90.00	358.00	7,606.0	42.2	-193.9	42.2	0.00	0.00	
8,100.0	90.00	358.00	7,606.0	142.2	-197.4	142.2	0.00	0.00	
8,200.0	90.00	358.00	7,606.0	242.1	-200.9	242.1	0.00	0.00	
8,300.0	90.00	358.00	7,606.0	342.0	-204.4	342.0	0.00	0.00	
8,400.0	90.00	358.00	7,606.0	442.0	-207.8	442.0	0.00	0.00	
8,500.0	90.00	358.00	7,606.0	541.9	-211.3	541.9	0.00	0.00	
8,600.0	90.00	358.00	7,606.0	641.9	-214.8	641.9	0.00	0.00	

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Project:	DJ Wattenberg	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site:	S32-T2N-R68W (File/Hwy 52)	**North Reference:**	True
Well:	File 3M-32H-K268	**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	358.00	7,606.0	741.8	-218.3	741.8	0.00	0.00	
8,800.0	90.00	358.00	7,606.0	841.7	-221.8	841.7	0.00	0.00	
8,900.0	90.00	358.00	7,606.0	941.7	-225.3	941.7	0.00	0.00	
9,000.0	90.00	358.00	7,606.0	1,041.6	-228.8	1,041.6	0.00	0.00	
9,100.0	90.00	358.00	7,606.0	1,141.6	-232.3	1,141.6	0.00	0.00	
9,200.0	90.00	358.00	7,606.0	1,241.5	-235.8	1,241.5	0.00	0.00	
9,300.0	90.00	358.00	7,606.0	1,341.4	-239.3	1,341.4	0.00	0.00	
9,400.0	90.00	358.00	7,606.0	1,441.4	-242.7	1,441.4	0.00	0.00	
9,500.0	90.00	358.00	7,606.0	1,541.3	-246.2	1,541.3	0.00	0.00	
9,600.0	90.00	358.00	7,606.0	1,641.3	-249.7	1,641.3	0.00	0.00	
9,700.0	90.00	358.00	7,606.0	1,741.2	-253.2	1,741.2	0.00	0.00	
9,800.0	90.00	358.00	7,606.0	1,841.1	-256.7	1,841.1	0.00	0.00	
9,900.0	90.00	358.00	7,606.0	1,941.1	-260.2	1,941.1	0.00	0.00	
10,000.0	90.00	358.00	7,606.0	2,041.0	-263.7	2,041.0	0.00	0.00	
10,100.0	90.00	358.00	7,606.0	2,140.9	-267.2	2,140.9	0.00	0.00	
10,200.0	90.00	358.00	7,606.0	2,240.9	-270.7	2,240.9	0.00	0.00	
10,300.0	90.00	358.00	7,606.0	2,340.8	-274.2	2,340.8	0.00	0.00	
10,400.0	90.00	358.00	7,606.0	2,440.8	-277.6	2,440.8	0.00	0.00	
10,467.4	90.00	358.00	7,606.0	2,508.2	-280.0	2,508.2	0.00	0.00	Start turn @ 10467' MD - File 3M-32H-K268 TG
10,500.0	90.00	358.82	7,606.0	2,540.7	-280.9	2,540.7	2.53	0.00	
10,600.0	90.00	1.36	7,606.0	2,640.7	-280.7	2,640.7	2.53	0.00	
10,700.0	90.00	3.89	7,606.0	2,740.6	-276.2	2,740.6	2.53	0.00	
10,800.0	90.00	6.42	7,606.0	2,840.2	-267.2	2,840.2	2.53	0.00	
10,900.0	90.00	8.95	7,606.0	2,939.3	-253.8	2,939.3	2.53	0.00	
11,000.0	90.00	11.48	7,606.0	3,037.7	-236.1	3,037.7	2.53	0.00	
11,042.6	90.00	12.56	7,606.0	3,079.3	-227.2	3,079.3	2.53	0.00	End of turn @ 11042' MD
11,071.2	90.00	12.56	7,606.0	3,107.3	-221.0	3,107.3	0.00	0.00	TD at 11071.2 - File 3M-32H-K268 PBHL

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
File 3M-32H-K268 PBHL - plan hits target center - Point	0.00	0.00	7,606.0	3,107.3	-221.0	1,280,023.62	3,131,012.68	40.101100	-105.031680
File 3M-32H-K268 TGT - plan hits target center - Point	0.00	0.00	7,606.0	2,508.2	-280.0	1,279,424.18	3,130,956.85	40.099455	-105.031891

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site:	S32-T2N-R68W (File/Hwy 52)	**North Reference:**	True
Well:	File 3M-32H-K268	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #2		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
271.0	271.0	Fox Hills - BASE			
4,342.4	4,327.0	Sussex			
4,624.5	4,608.0	Sussex Marker			
4,917.7	4,900.0	Shannon			
6,825.4	6,800.0	Teepee Buttes (*if present)			
7,236.0	7,207.0	Sharon Springs			
7,347.2	7,309.0	Niobrara			
7,417.1	7,368.0	B Chalk			
7,460.2	7,402.0	B Marl			
7,550.2	7,466.0	C Chalk			
7,603.5	7,499.0	C Marl			
7,776.3	7,577.0	Ft. Hayes			
7,852.2	7,596.0	Codell			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
180.0	180.0	0.0	0.0	KOP @ 180'
694.3	693.6	-22.2	-6.1	EOB; Inc=5.14°
7,010.4	6,984.2	-568.2	-155.9	Start build/turn @ 7010' MD
7,959.4	7,606.0	1.7	-192.5	LP @ 7606' TVD; 90°
10,467.4	7,606.0	2,508.2	-280.0	Start turn @ 10467' MD
11,042.6	7,606.0	3,079.3	-227.2	End of turn @ 11042' MD
11,071.2	7,606.0	3,107.3	-221.0	TD at 11071.2

EnCana Oil & Gas (USA) Inc

DJ Wattenberg
S32-T2N-R68W (File/Hwy 52)
File 3M-32H-K268
Hz
Plan #2

Anticollision Report

09 July, 2013

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 500.0ft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**		

Survey Tool Program **Date** 7/9/2013

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,071.2	Plan #2 (Hz)	Geolink MWD	Geolink MWD

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
S32-T2N-R68W (File/Hwy 52)						
ANDERSON 21-32 (EXISTING) - ENCANA WELL - NO S						Out of range
ANDERSON 22-32 (EXISTING) - KPK WELL - NO SURV						Out of range
ANDERSON 22-32 ENC (EXISTING) - ENCANA WELL -						Out of range
ANDERSON 31-32 (EXISTING) - ENCANA WELL - PLAN						Out of range
ANDERSON 32-32 (EXISTING) - ENCANA WELL - SUR						Out of range
ANDERSON 32-7 (EXISTING) - KPK WELL - NO SURVE						Out of range
ANDERSON 41-32 (EXISTING) - ENCANA WELL - NO S						Out of range
ANDERSON 42-32 (EXISTING) - BASIN EXP WELL - NO						Out of range
ANDERSON 4-2-32 (EXISTING) - ENCANA WELL - SUR						Out of range
ANDERSON 6-4-32 (EXISTING) - ENCANA WELL - SUR						Out of range
ANDERSON TRUST 1 (EXISTING) - KPK WELL - NO S						Out of range
ANDERSON TRUST 1 A (EXISTING) - ENCANA WELL -						Out of range
ANDERSON TRUST 2 A (EXISTING) - ENCANA WELL -						Out of range
ANDERSON TRUST 32-2 (EXISTING) - ENCANA WELL						Out of range
ANDERSON TRUST 32-8 (EXISTING) - ENCANA WELL						Out of range
ANDERSON TRUST C 1 (EXISTING) - ENCANA WELL						Out of range
ANDERSON TRUST C UNIT 2 (EXISTING) - ENCANA W	10,509.7	7,001.0	62.6	1.8	1.030	Level 2, CC, ES, SF
BROWN 22-5 (EXISTING) - ENCANA WELL - NO SURV						Out of range
BROWN 31-5 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
BROWN 41-5 (EXISTING) - ENCANA WELL - ENCANA						Out of range
BROWN 5-3 (EXISTING) - ENCANA WELL - NO SURVE						Out of range
BROWN 5-5 (EXISTING) - ENCANA WELL - NO SURVE						Out of range
BROWN C UNIT 1 (EXISTING) - ENCANA WELL - NO S						Out of range
BROWN C UNIT 2 (EXISTING) - ENCANA WELL - NO S						Out of range
BULTHAUP 39-6 (EXISTING) - KERR-MCGEE WELL - S						Out of range
BULTHAUP 40-6 (EXISTING) - KERR-MCGEE WELL - S						Out of range
CANINO 1-X (EXISTING) - ENCANA WELL - NO SURVE						Out of range
CANINO 2 (EXISTING) - HUGHES CW WELL - NO SUR						Out of range
CANINO 3 (EXISTING) - HUGHES CW WELL - NO SUR						Out of range
FEDERAL NOAA 11-32 (EXISTING) - ENCANA WELL - N						Out of range
File 3A-32H-K268 - Hz - Plan #2	209.0	207.8	92.3	91.6	135.309	CC, ES
File 3A-32H-K268 - Hz - Plan #2	1,300.0	1,273.1	179.6	174.6	35.553	SF
File 3B-32H-K268 - Hz - Plan #1	332.2	330.7	86.5	85.3	77.547	CC, ES
File 3B-32H-K268 - Hz - Plan #1	1,100.0	1,081.3	141.5	137.4	34.590	SF
File 3C-32H-K268 - Hz - Plan #1	456.6	454.8	79.9	78.3	51.153	CC
File 3C-32H-K268 - Hz - Plan #1	500.0	497.6	80.0	78.3	46.559	ES
File 3C-32H-K268 - Hz - Plan #1	1,200.0	1,185.2	127.1	122.5	27.801	SF
File 3D-32H-K268 - Hz - Plan #1	529.2	527.6	74.1	72.3	40.481	CC, ES
File 3D-32H-K268 - Hz - Plan #1	1,000.0	989.9	100.1	96.5	27.350	SF
File 3E-32H-K268 - Hz - Plan #1	604.5	604.1	59.4	57.2	28.027	CC, ES
File 3E-32H-K268 - Hz - Plan #1	7,441.8	7,700.1	181.9	151.2	5.917	SF
File 3F-32H-K268 - Hz - Plan #1	539.9	539.6	54.9	53.0	29.315	CC
File 3F-32H-K268 - Hz - Plan #1	600.0	599.6	55.1	53.0	26.227	ES
File 3F-32H-K268 - Hz - Plan #1	7,700.0	7,699.0	169.4	141.2	6.013	SF
File 3G-32H-K268 - Hz - Plan #1	765.7	766.5	46.4	43.6	16.925	CC
File 3G-32H-K268 - Hz - Plan #1	800.0	800.6	46.5	43.6	16.220	ES
File 3G-32H-K268 - Hz - Plan #1	7,300.0	7,664.1	454.8	423.1	14.360	SF
File 3H-32H-K268 - Hz - Plan #1	691.1	692.2	38.9	36.4	15.863	CC, ES
File 3H-32H-K268 - Hz - Plan #1	800.0	800.6	40.8	38.0	14.304	SF
File 3I-32H-K268 - Hz - Plan #2	208.0	208.0	30.8	30.1	45.179	CC, ES
File 3I-32H-K268 - Hz - Plan #2	800.0	795.9	54.4	51.4	18.436	SF
File 3J-32H-K268 - Hz - Plan #1	260.2	260.2	25.4	24.5	29.393	CC
File 3J-32H-K268 - Hz - Plan #1	300.0	299.8	25.5	24.5	25.414	ES

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
S32-T2N-R68W (File/Hwy 52)						
File 3J-32H-K268 - Hz - Plan #1	700.0	698.0	39.2	36.7	15.552	SF
File 3K-32H-K268 - Hz - Plan #1	377.0	376.9	19.0	17.7	14.894	CC
File 3K-32H-K268 - Hz - Plan #1	400.0	399.8	19.1	17.7	14.027	ES
File 3K-32H-K268 - Hz - Plan #1	600.0	599.3	23.2	21.1	11.015	SF
File 3L-32H-K268 - Hz - Plan #1	283.1	283.1	17.2	16.2	18.168	CC
File 3L-32H-K268 - Hz - Plan #1	400.0	399.9	17.5	16.1	12.856	ES
File 3L-32H-K268 - Hz - Plan #1	10,900.0	10,584.6	390.3	301.9	4.412	SF
File 3N-32H-K268 - Hz - Plan #1	100.0	100.0	4.6	4.3	15.125	CC
File 3N-32H-K268 - Hz - Plan #1	200.0	200.0	4.6	4.0	7.086	ES
File 3N-32H-K268 - Hz - Plan #1	11,071.9	10,836.8	417.3	321.9	4.375	SF
File 3O-32H-K268 - Hz - Plan #1	100.0	100.0	8.4	8.1	27.638	CC
File 3O-32H-K268 - Hz - Plan #1	200.0	200.0	8.4	7.7	12.872	ES
File 3O-32H-K268 - Hz - Plan #1	400.0	399.8	11.0	9.7	8.123	SF
File 3P-32H-K268 - Hz - Plan #1	100.0	100.0	14.5	14.2	47.599	CC
File 3P-32H-K268 - Hz - Plan #1	200.0	200.0	14.5	13.8	22.172	ES
File 3P-32H-K268 - Hz - Plan #1	500.0	499.3	23.8	22.0	13.747	SF
FOSTER 33-5 (EXISTING) - ENCANA WELL - SURVEY						Out of range
FOSTER 43-5 (EXISTING) - ENCANA WELL - SURVEY						Out of range
FOSTER 4-5 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
FOSTER 4-6-5 (EXISTING) - ENCANA WELL - SURVEY						Out of range
FOSTER 6-4-5 (EXISTING) - ENCANA WELL - SURVEY						Out of range
FOSTER 6-4-5X (EXISTING) - ENCANA WELL - SURVE						Out of range
FOSTER 6-8-5 (EXISTING) - ENCANA WELL - SURVEY						Out of range
FOSTER 8-8-5 (EXISTING) - ENCANA WELL - SURVEY						Out of range
FOSTER E UNIT 1 (EXISTING) - ENCANA WELL - NO S						Out of range
GENE 11-5 (EXISTING) - KERR-MCGEE WELL - NO SU						Out of range
HIGHLAND 21-5 (EXISTING) - KPK WELL - NO SURVE						Out of range
HOPE 31-5 (EXISTING) - KPK WELL - NO SURVEYS						Out of range
Hwy 52 4A-32H-O268 - Hz - Plan #1						Out of range
Hwy 52 4B-32H-O268 - Hz - Plan #1						Out of range
Hwy 52 4C-32H-O268 - Hz - Plan #1						Out of range
Hwy 52 4D-32H-O268 - Hz - Plan #1						Out of range
Hwy 52 4E-32H-O268 - Hz - Plan #1						Out of range
Hwy 52 4F-32H-O268 - Hz - Plan #1						Out of range
Hwy 52 4G-32H-O268 - Hz - Plan #1						Out of range
Hwy 52 4H-32H-O268 - Hz - Plan #1						Out of range
Hwy 52 4I-32H-O268 - Hz - Plan #1						Out of range
Hwy 52 4J-32H-O268 - Hz - Plan #1						Out of range
Hwy 52 4K-32H-O268 - Hz - Plan #1						Out of range
Hwy 52 4L-32H-O268 - Hz - Plan #1						Out of range
Hwy 52 4M-32H-O268 - Hz - Plan #1						Out of range
Hwy 52 4N-32H-O268 - Hz - Plan #1						Out of range
Hwy 52 4O-32H-O268 - Hz - Plan #1						Out of range
Hwy 52 4P-32H-O268 - Hz - Plan #1						Out of range
LAURIE 32-5 (EXISTING) - KPK WELL - NO SURVEYS						Out of range
NATALIE 33-5 (EXISTING) - KPK WELL - NO SURVEYS						Out of range
NELSON 1 (EXISTING) - TEXAS TEA WELL - NO SURV						Out of range
NELSON 1 A (EXISTING) - TEXAS TEA WELL - NO SUR						Out of range
NELSON 2 (EXISTING) - TEXAS TEA WELL - NO SURV						Out of range
NELSON 3 (EXISTING) - TEXAS TEA WELL - NO SURV						Out of range
NELSON 4 (EXISTING) - TEXAS TEA WELL - NO SURV	100.0	99.0	345.2	344.9	1,064.774	CC
NELSON 4 (EXISTING) - TEXAS TEA WELL - NO SURV	200.0	199.0	345.2	344.6	513.096	ES
NELSON 4 (EXISTING) - TEXAS TEA WELL - NO SURV	2,500.0	2,491.0	498.1	489.2	55.743	SF

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
S32-T2N-R68W (File/Hwy 52)						
NELSON 5 (EXISTING) - VESSELS WELL - NO SURVE						Out of range
NELSON 5 TT (EXISTING) - TEXAS TEA WELL - NO SU						Out of range
NELSON 6 (EXISTING) - VESSELS WELL - NO SURVE						Out of range
NELSON E UNIT 1 (EXISTING) - ENCANA WELL - NO S	7,300.0	7,255.7	368.6	340.5	13.113	SF
NELSON E UNIT 1 (EXISTING) - ENCANA WELL - NO S	7,330.4	7,283.1	368.4	340.4	13.157	CC, ES
NELSON E UNIT 2 (EXISTING) - ENCANA WELL - NO S						Out of range
PAQUETTE 13-5 (EXISTING) - KERR-MCGEE WELL - N						Out of range
PAQUETTE 14-5 (EXISTING) - KERR-MCGEE WELL - N						Out of range
RAY NELSON 0-4-32 (EXISTING) - ENCANA WELL - NO						Out of range
RAY NELSON 12-32 (EXISTING) - ENCANA WELL - NO						Out of range
RAY NELSON 13-32 (EXISTING) - ENCANA WELL - SU						Out of range
RAY NELSON 14-32 (EXISTING) - ENCANA WELL - SU						Out of range
RAY NELSON 23-32 (EXISTING) - ENCANA WELL - NO	100.0	3.0	467.0	466.8	2,969.010	CC
RAY NELSON 23-32 (EXISTING) - ENCANA WELL - NO	200.0	103.0	467.0	466.5	922.269	ES
RAY NELSON 23-32 (EXISTING) - ENCANA WELL - NO	1,000.0	901.1	497.7	494.2	144.508	SF
RAY NELSON 24-32 (EXISTING) - ENCANA WELL - SU						Out of range
RAY NELSON 2-4-32 (EXISTING) - ENCANA WELL - NO	8,974.5	7,660.0	62.6	20.5	1.487	Level 3, CC, ES, SF
RAY NELSON 33-32 (EXISTING) - ENCANA WELL - EN						Out of range
RAY NELSON 34-32 (EXISTING) - ENCANA WELL - EN						Out of range
RAY NELSON 44-32 (EXISTING) - ENCANA WELL - EN						Out of range
RAY NELSON 4-4-32 (EXISTING) - ENCANA WELL - SU	121.2	124.4	471.0	470.6	1,235.705	CC, ES
RAY NELSON 4-4-32 (EXISTING) - ENCANA WELL - SU	500.0	455.5	494.7	493.1	296.078	SF
RAY NELSON 4-6-32 (EXISTING) - ENCANA WELL - SU	200.0	202.3	470.8	470.1	717.941	CC, ES
RAY NELSON 4-6-32 (EXISTING) - ENCANA WELL - SU	700.0	686.6	498.1	495.4	181.099	SF
RAY NELSON 4-8-32 (EXISTING) - ENCANA WELL - PL						Out of range
RAY NELSON 6-8-32 (EXISTING) - ENCANA WELL - PL						Out of range
Ray Nelson 7-8-32 - DD - Plan #1						Out of range
RAY NELSON 8-4-32 (EXISTING) - ENCANA WELL - PL						Out of range
RAY NELSON 8-6-32 (EXISTING) - ENCANA WELL - PL						Out of range
RAY NELSON 8-8-32 (EXISTING) - ENCANA WELL - SU						Out of range
SCHRINER 11-5 (EXISTING) - KERR-MCGEE WELL - N						Out of range
SCHRINER 12-5 (EXISTING) - KERR-MCGEE WELL - N						Out of range
WANDELL 33-7 (EXISTING) - ENCANA WELL - Plan #1						Out of range
WANDELL 41-7 (EXISTING) - ENCANA WELL - Plan #1						Out of range
WANDELL 42-7 (EXISTING) - ENCANA WELL - Plan #1						Out of range
WANDELL 43-7 (EXISTING) - ENCANA WELL - Plan #1						Out of range

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - ANDERSON TRUST C UNIT 2 (EXISTING) - ENCANA WELL - NO SUR

Offset Site Error: 0.0 ft

Survey Program: 8123-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
10,100.0	7,606.0	7,001.0	7,001.0	41.9	12.2	90.00	2,551.4	-218.5	413.3	359.3	54.03	7.650	
10,200.0	7,606.0	7,001.0	7,001.0	43.6	12.2	90.00	2,551.4	-218.5	314.9	259.2	55.69	5.654	
10,300.0	7,606.0	7,001.0	7,001.0	45.3	12.2	90.00	2,551.4	-218.5	217.8	160.5	57.36	3.797	
10,400.0	7,606.0	7,001.0	7,001.0	46.9	12.2	90.00	2,551.4	-218.5	125.5	66.4	59.04	2.125	
10,500.0	7,606.0	7,001.0	7,001.0	48.6	12.2	90.00	2,551.4	-218.5	63.3	2.7	60.67	1.044	Level 2
10,509.7	7,606.0	7,001.0	7,001.0	48.8	12.2	90.00	2,551.4	-218.5	62.6	1.8	60.81	1.030	Level 2, CC, ES, SF
10,600.0	7,606.0	7,001.0	7,001.0	50.3	12.2	90.00	2,551.4	-218.5	108.9	46.7	62.14	1.752	
10,700.0	7,606.0	7,001.0	7,001.0	52.0	12.2	90.00	2,551.4	-218.5	197.8	134.2	63.55	3.112	
10,800.0	7,606.0	7,001.0	7,001.0	53.6	12.2	90.00	2,551.4	-218.5	292.9	228.0	64.87	4.515	
10,900.0	7,606.0	7,001.0	7,001.0	55.3	12.2	90.00	2,551.4	-218.5	389.5	323.4	66.10	5.892	
11,000.0	7,606.0	7,001.0	7,001.0	56.9	12.2	90.00	2,551.4	-218.5	486.6	419.3	67.26	7.235	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3A-32H-K268 - Hz - Plan #2

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-92.3	92.3				
100.0	100.0	99.0	99.0	0.2	0.2	-90.00	0.0	-92.3	92.3	92.0	0.30	305.542	
200.0	200.0	199.0	199.0	0.3	0.3	74.68	0.0	-92.3	92.3	91.7	0.65	141.804	
209.0	209.0	207.8	207.8	0.3	0.3	74.70	0.0	-92.3	92.3	91.6	0.68	135.309	CC, ES
300.0	300.0	297.5	297.5	0.5	0.5	75.28	-0.2	-93.1	92.8	91.8	1.00	92.933	
400.0	399.9	395.9	395.8	0.7	0.7	76.61	-0.8	-95.6	94.6	93.2	1.35	69.969	
500.0	499.8	494.2	494.0	0.9	0.9	78.58	-1.7	-99.7	97.7	96.0	1.71	56.981	
600.0	599.6	592.3	592.0	1.1	1.1	81.06	-3.0	-105.4	102.2	100.1	2.09	48.888	
700.0	699.3	690.3	689.7	1.3	1.3	83.87	-4.7	-112.8	108.4	105.9	2.49	43.569	
800.0	798.9	788.1	787.1	1.5	1.5	86.45	-6.8	-121.7	116.2	113.3	2.89	40.165	
900.0	898.5	885.7	884.1	1.7	1.7	88.35	-9.3	-132.3	125.8	122.5	3.31	38.014	
1,000.0	998.1	983.1	980.7	2.0	2.0	89.64	-12.1	-144.4	137.0	133.3	3.73	36.690	
1,100.0	1,097.7	1,080.1	1,076.7	2.2	2.3	90.42	-15.3	-158.0	149.7	145.6	4.17	35.936	
1,200.0	1,197.3	1,176.8	1,172.1	2.4	2.6	90.80	-18.8	-173.2	163.9	159.3	4.61	35.591	
1,300.0	1,296.9	1,273.1	1,266.8	2.7	2.9	90.85	-22.7	-189.9	179.6	174.6	5.05	35.553	SF
1,400.0	1,396.5	1,368.9	1,360.8	2.9	3.3	90.66	-26.9	-208.1	196.7	191.2	5.50	35.752	
1,500.0	1,496.1	1,464.1	1,453.9	3.1	3.7	90.29	-31.4	-227.6	215.2	209.3	5.96	36.141	
1,600.0	1,595.7	1,558.9	1,546.2	3.4	4.1	89.79	-36.3	-248.5	235.2	228.8	6.41	36.685	
1,700.0	1,695.3	1,654.9	1,639.4	3.6	4.5	89.21	-41.5	-271.1	256.4	249.5	6.87	37.323	
1,800.0	1,794.9	1,752.6	1,734.1	3.8	4.9	88.69	-46.9	-294.1	277.8	270.4	7.33	37.888	
1,900.0	1,894.5	1,850.2	1,828.9	4.1	5.4	88.25	-52.2	-317.2	299.2	291.4	7.79	38.389	
2,000.0	1,994.1	1,947.9	1,923.6	4.3	5.8	87.87	-57.6	-340.3	320.6	312.3	8.25	38.836	
2,100.0	2,093.7	2,045.5	2,018.3	4.5	6.3	87.53	-62.9	-363.4	342.0	333.3	8.72	39.237	
2,200.0	2,193.2	2,143.2	2,113.1	4.8	6.7	87.24	-68.3	-386.4	363.5	354.3	9.18	39.599	
2,300.0	2,292.8	2,240.9	2,207.8	5.0	7.2	86.97	-73.7	-409.5	384.9	375.3	9.64	39.927	
2,400.0	2,392.4	2,338.5	2,302.6	5.2	7.6	86.74	-79.0	-432.6	406.4	396.3	10.10	40.226	
2,500.0	2,492.0	2,436.2	2,397.3	5.5	8.1	86.53	-84.4	-455.6	427.8	417.3	10.56	40.500	
2,600.0	2,591.6	2,533.8	2,492.1	5.7	8.5	86.34	-89.7	-478.7	449.3	438.3	11.02	40.751	
2,700.0	2,691.2	2,631.5	2,586.8	5.9	9.0	86.16	-95.1	-501.8	470.8	459.3	11.49	40.983	
2,800.0	2,790.8	2,729.1	2,681.6	6.2	9.4	86.00	-100.4	-524.8	492.2	480.3	11.95	41.198	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3B-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-87.59	3.6	-86.7	86.8				
100.0	100.0	99.0	99.0	0.2	0.2	-87.59	3.6	-86.7	86.8	86.5	0.30	287.277	
200.0	200.0	199.0	199.0	0.3	0.3	77.09	3.6	-86.7	86.8	86.1	0.65	133.329	
300.0	300.0	299.0	299.0	0.5	0.5	77.88	3.6	-86.7	86.5	85.5	1.00	86.412	
332.2	332.2	330.7	330.7	0.6	0.6	78.37	3.7	-86.8	86.5	85.3	1.11	77.547	CC, ES
400.0	399.9	397.5	397.5	0.7	0.7	79.78	3.7	-87.6	86.8	85.4	1.35	64.094	
500.0	499.8	495.8	495.8	0.9	0.8	82.72	4.0	-90.1	88.6	86.9	1.72	51.657	
600.0	599.6	594.0	593.9	1.1	1.0	86.46	4.3	-94.2	92.3	90.2	2.09	44.156	
700.0	699.3	692.0	691.7	1.3	1.2	90.71	4.9	-100.1	98.0	95.6	2.48	39.528	
800.0	798.9	789.7	789.1	1.5	1.4	94.70	5.6	-107.6	106.0	103.1	2.88	36.856	
900.0	898.5	887.2	886.2	1.7	1.6	97.86	6.4	-116.7	116.0	112.7	3.28	35.410	
1,000.0	998.1	984.5	982.8	2.0	1.9	100.25	7.4	-127.4	127.9	124.2	3.68	34.744	
1,100.0	1,097.7	1,081.3	1,078.9	2.2	2.1	101.97	8.6	-139.7	141.5	137.4	4.09	34.590	SF
1,200.0	1,197.3	1,177.8	1,174.4	2.4	2.4	103.14	9.9	-153.5	156.8	152.3	4.51	34.783	
1,300.0	1,296.9	1,273.8	1,269.1	2.7	2.7	103.88	11.3	-168.9	173.6	168.7	4.93	35.220	
1,400.0	1,396.5	1,369.3	1,363.1	2.9	3.0	104.29	12.9	-185.8	191.9	186.6	5.36	35.834	
1,500.0	1,496.1	1,466.2	1,458.3	3.1	3.4	104.47	14.6	-204.2	211.5	205.7	5.79	36.530	
1,600.0	1,595.7	1,564.3	1,554.5	3.4	3.7	104.62	16.4	-222.9	231.2	225.0	6.23	37.118	
1,700.0	1,695.3	1,662.3	1,650.7	3.6	4.1	104.73	18.1	-241.7	250.9	244.2	6.67	37.617	
1,800.0	1,794.9	1,760.4	1,746.9	3.8	4.5	104.84	19.9	-260.4	270.6	263.4	7.11	38.044	
1,900.0	1,894.5	1,858.4	1,843.1	4.1	4.8	104.93	21.6	-279.2	290.2	282.7	7.56	38.415	
2,000.0	1,994.1	1,956.4	1,939.3	4.3	5.2	105.00	23.4	-297.9	309.9	301.9	8.00	38.738	
2,100.0	2,093.7	2,054.5	2,035.6	4.5	5.6	105.07	25.1	-316.7	329.6	321.2	8.45	39.022	
2,200.0	2,193.2	2,152.5	2,131.8	4.8	5.9	105.13	26.9	-335.4	349.3	340.4	8.89	39.274	
2,300.0	2,292.8	2,250.6	2,228.0	5.0	6.3	105.18	28.6	-354.2	369.0	359.6	9.34	39.499	
2,400.0	2,392.4	2,348.6	2,324.2	5.2	6.7	105.23	30.4	-372.9	388.7	378.9	9.79	39.701	
2,500.0	2,492.0	2,446.7	2,420.4	5.5	7.0	105.28	32.1	-391.7	408.3	398.1	10.24	39.883	
2,600.0	2,591.6	2,544.7	2,516.7	5.7	7.4	105.32	33.9	-410.4	428.0	417.3	10.69	40.047	
2,700.0	2,691.2	2,642.7	2,612.9	5.9	7.8	105.35	35.6	-429.2	447.7	436.6	11.14	40.197	
2,800.0	2,790.8	2,740.8	2,709.1	6.2	8.1	105.39	37.4	-447.9	467.4	455.8	11.59	40.334	
2,900.0	2,890.4	2,838.8	2,805.3	6.4	8.5	105.42	39.1	-466.7	487.1	475.1	12.04	40.460	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3C-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-81.1	81.1				
100.0	100.0	99.0	99.0	0.2	0.2	-90.00	0.0	-81.1	81.1	80.8	0.30	268.507	
200.0	200.0	199.0	199.0	0.3	0.3	74.68	0.0	-81.1	81.1	80.5	0.65	124.614	
300.0	300.0	299.0	299.0	0.5	0.5	75.52	0.0	-81.1	80.8	79.8	1.00	80.699	
400.0	399.9	398.9	398.9	0.7	0.7	77.58	0.0	-81.1	80.1	78.8	1.36	59.054	
456.6	456.5	454.8	454.8	0.8	0.8	79.22	-0.1	-81.4	79.9	78.3	1.56	51.153	CC
500.0	499.8	497.6	497.6	0.9	0.8	80.65	-0.2	-81.9	80.0	78.3	1.72	46.559	ES
600.0	599.6	596.1	596.1	1.1	1.0	84.42	-0.9	-84.4	81.6	79.5	2.09	38.944	
700.0	699.3	694.6	694.5	1.3	1.2	88.64	-1.9	-88.5	84.9	82.4	2.49	34.144	
800.0	798.9	793.0	792.7	1.5	1.4	92.46	-3.4	-94.2	90.2	87.3	2.89	31.232	
900.0	898.5	891.3	890.7	1.7	1.6	95.25	-5.3	-101.5	97.2	93.9	3.29	29.495	
1,000.0	998.1	989.5	988.5	2.0	1.8	97.11	-7.7	-110.4	105.8	102.0	3.71	28.495	
1,100.0	1,097.7	1,087.5	1,085.8	2.2	2.1	98.16	-10.4	-121.0	115.7	111.6	4.14	27.981	
1,200.0	1,197.3	1,185.2	1,182.8	2.4	2.3	98.56	-13.6	-133.1	127.1	122.5	4.57	27.801	SF
1,300.0	1,296.9	1,282.6	1,279.2	2.7	2.6	98.46	-17.2	-146.8	139.8	134.7	5.02	27.867	
1,400.0	1,396.5	1,379.7	1,374.9	2.9	2.9	98.00	-21.1	-162.0	153.7	148.3	5.47	28.123	
1,500.0	1,496.1	1,477.7	1,471.4	3.1	3.2	97.31	-25.5	-178.6	168.8	162.9	5.92	28.500	
1,600.0	1,595.7	1,576.5	1,568.7	3.4	3.5	96.72	-29.9	-195.5	184.0	177.6	6.38	28.826	
1,700.0	1,695.3	1,675.4	1,666.0	3.6	3.9	96.21	-34.3	-212.4	199.2	192.4	6.85	29.106	
1,800.0	1,794.9	1,774.2	1,763.2	3.8	4.2	95.77	-38.7	-229.3	214.5	207.2	7.31	29.348	
1,900.0	1,894.5	1,873.0	1,860.5	4.1	4.5	95.39	-43.2	-246.2	229.7	221.9	7.77	29.561	
2,000.0	1,994.1	1,971.8	1,957.8	4.3	4.9	95.06	-47.6	-263.1	245.0	236.7	8.23	29.749	
2,100.0	2,093.7	2,070.6	2,055.0	4.5	5.2	94.77	-52.0	-280.0	260.2	251.5	8.70	29.917	
2,200.0	2,193.2	2,169.5	2,152.3	4.8	5.6	94.51	-56.4	-296.9	275.5	266.3	9.16	30.067	
2,300.0	2,292.8	2,268.3	2,249.6	5.0	5.9	94.28	-60.8	-313.8	290.7	281.1	9.63	30.203	
2,400.0	2,392.4	2,367.1	2,346.8	5.2	6.2	94.07	-65.2	-330.7	306.0	295.9	10.09	30.326	
2,500.0	2,492.0	2,465.9	2,444.1	5.5	6.6	93.88	-69.7	-347.6	321.3	310.7	10.56	30.438	
2,600.0	2,591.6	2,564.8	2,541.4	5.7	6.9	93.71	-74.1	-364.5	336.6	325.5	11.02	30.540	
2,700.0	2,691.2	2,663.6	2,638.6	5.9	7.3	93.55	-78.5	-381.4	351.8	340.3	11.48	30.635	
2,800.0	2,790.8	2,762.4	2,735.9	6.2	7.6	93.41	-82.9	-398.3	367.1	355.2	11.95	30.722	
2,900.0	2,890.4	2,861.2	2,833.2	6.4	8.0	93.27	-87.3	-415.2	382.4	370.0	12.41	30.802	
3,000.0	2,990.0	2,960.0	2,930.4	6.6	8.3	93.15	-91.7	-432.1	397.7	384.8	12.88	30.876	
3,100.0	3,089.6	3,058.9	3,027.7	6.9	8.7	93.04	-96.2	-449.0	413.0	399.6	13.35	30.946	
3,200.0	3,189.2	3,157.7	3,124.9	7.1	9.0	92.93	-100.6	-465.9	428.3	414.5	13.81	31.010	
3,300.0	3,288.8	3,256.5	3,222.2	7.3	9.4	92.83	-105.0	-482.8	443.6	429.3	14.28	31.071	
3,400.0	3,388.4	3,355.3	3,319.5	7.6	9.7	92.74	-109.4	-499.7	458.8	444.1	14.74	31.127	
3,500.0	3,488.0	3,454.1	3,416.7	7.8	10.1	92.66	-113.8	-516.6	474.1	458.9	15.21	31.180	
3,600.0	3,587.6	3,553.0	3,514.0	8.0	10.4	92.58	-118.2	-533.5	489.4	473.8	15.67	31.230	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3D-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-87.24	3.6	-75.5	75.6				
100.0	100.0	99.0	99.0	0.2	0.2	-87.24	3.6	-75.5	75.6	75.3	0.30	250.279	
200.0	200.0	199.0	199.0	0.3	0.3	77.44	3.6	-75.5	75.6	75.0	0.65	116.156	
300.0	300.0	299.0	299.0	0.5	0.5	78.35	3.6	-75.5	75.4	74.4	1.00	75.256	
400.0	399.9	398.9	398.9	0.7	0.7	80.58	3.6	-75.5	74.8	73.5	1.36	55.141	
500.0	499.8	498.8	498.8	0.9	0.8	84.18	3.6	-75.5	74.2	72.5	1.72	43.102	
529.2	528.9	527.6	527.6	0.9	0.9	85.47	3.6	-75.6	74.1	72.3	1.83	40.481	CC, ES
600.0	599.6	597.4	597.4	1.1	1.0	89.03	3.8	-76.4	74.7	72.6	2.10	35.612	
700.0	699.3	695.7	695.7	1.3	1.2	94.81	4.2	-78.8	77.5	75.0	2.49	31.176	
800.0	798.9	793.9	793.8	1.5	1.4	100.35	4.9	-83.0	82.8	80.0	2.88	28.801	
900.0	898.5	892.0	891.7	1.7	1.6	104.79	5.8	-88.8	90.5	87.2	3.27	27.688	
1,000.0	998.1	989.9	989.3	2.0	1.8	108.13	7.0	-96.2	100.1	96.5	3.66	27.350	SF
1,100.0	1,097.7	1,087.5	1,086.5	2.2	2.0	110.47	8.5	-105.2	111.6	107.5	4.06	27.493	
1,200.0	1,197.3	1,185.8	1,184.2	2.4	2.2	112.08	10.2	-115.8	124.5	120.0	4.46	27.899	
1,300.0	1,296.9	1,284.9	1,282.7	2.7	2.4	113.35	12.0	-126.6	137.6	132.8	4.87	28.261	
1,400.0	1,396.5	1,384.0	1,381.1	2.9	2.7	114.40	13.8	-137.4	150.8	145.5	5.28	28.562	
1,500.0	1,496.1	1,483.1	1,479.6	3.1	2.9	115.28	15.6	-148.2	164.1	158.4	5.69	28.816	
1,600.0	1,595.7	1,582.1	1,578.1	3.4	3.2	116.02	17.4	-159.0	177.3	171.2	6.11	29.030	
1,700.0	1,695.3	1,681.2	1,676.6	3.6	3.4	116.67	19.1	-169.8	190.6	184.1	6.53	29.214	
1,800.0	1,794.9	1,780.3	1,775.1	3.8	3.7	117.23	20.9	-180.7	204.0	197.0	6.94	29.373	
1,900.0	1,894.5	1,879.4	1,873.5	4.1	3.9	117.72	22.7	-191.5	217.3	209.9	7.36	29.511	
2,000.0	1,994.1	1,978.5	1,972.0	4.3	4.2	118.15	24.5	-202.3	230.7	222.9	7.78	29.632	
2,100.0	2,093.7	2,077.6	2,070.5	4.5	4.4	118.54	26.2	-213.1	244.0	235.8	8.21	29.739	
2,200.0	2,193.2	2,176.7	2,169.0	4.8	4.7	118.89	28.0	-223.9	257.4	248.8	8.63	29.834	
2,300.0	2,292.8	2,275.8	2,267.5	5.0	4.9	119.20	29.8	-234.7	270.8	261.7	9.05	29.919	
2,400.0	2,392.4	2,374.9	2,366.0	5.2	5.2	119.48	31.6	-245.5	284.2	274.7	9.47	29.994	
2,500.0	2,492.0	2,474.0	2,464.4	5.5	5.4	119.74	33.4	-256.4	297.6	287.7	9.90	30.063	
2,600.0	2,591.6	2,573.0	2,562.9	5.7	5.7	119.98	35.1	-267.2	311.0	300.7	10.32	30.125	
2,700.0	2,691.2	2,672.1	2,661.4	5.9	5.9	120.19	36.9	-278.0	324.4	313.6	10.75	30.181	
2,800.0	2,790.8	2,771.2	2,759.9	6.2	6.2	120.39	38.7	-288.8	337.8	326.6	11.17	30.233	
2,900.0	2,890.4	2,870.3	2,858.4	6.4	6.4	120.57	40.5	-299.6	351.2	339.6	11.60	30.280	
3,000.0	2,990.0	2,969.4	2,956.9	6.6	6.7	120.74	42.2	-310.4	364.6	352.6	12.02	30.324	
3,100.0	3,089.6	3,068.5	3,055.3	6.9	7.0	120.90	44.0	-321.2	378.0	365.6	12.45	30.364	
3,200.0	3,189.2	3,167.6	3,153.8	7.1	7.2	121.05	45.8	-332.1	391.5	378.6	12.88	30.401	
3,300.0	3,288.8	3,266.7	3,252.3	7.3	7.5	121.19	47.6	-342.9	404.9	391.6	13.30	30.435	
3,400.0	3,388.4	3,365.8	3,350.8	7.6	7.7	121.32	49.3	-353.7	418.3	404.6	13.73	30.467	
3,500.0	3,488.0	3,464.9	3,449.3	7.8	8.0	121.44	51.1	-364.5	431.7	417.6	14.16	30.496	
3,600.0	3,587.6	3,563.9	3,547.7	8.0	8.2	121.55	52.9	-375.3	445.2	430.6	14.58	30.524	
3,700.0	3,687.2	3,663.0	3,646.2	8.3	8.5	121.66	54.7	-386.1	458.6	443.6	15.01	30.550	
3,800.0	3,786.8	3,762.1	3,744.7	8.5	8.8	121.76	56.5	-396.9	472.0	456.6	15.44	30.575	
3,900.0	3,886.4	3,861.2	3,843.2	8.7	9.0	121.85	58.2	-407.8	485.5	469.6	15.87	30.597	
4,000.0	3,986.0	3,960.3	3,941.7	9.0	9.3	121.94	60.0	-418.6	498.9	482.6	16.29	30.619	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3E-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.01	0.0	-61.6	61.6				
100.0	100.0	100.0	100.0	0.2	0.2	-90.01	0.0	-61.6	61.6	61.2	0.30	202.676	
200.0	200.0	200.0	200.0	0.3	0.3	74.68	0.0	-61.6	61.5	60.9	0.65	94.279	
300.0	300.0	300.0	300.0	0.5	0.5	75.79	0.0	-61.6	61.2	60.2	1.00	61.038	
400.0	399.9	399.9	399.9	0.7	0.7	78.52	0.0	-61.6	60.6	59.2	1.36	44.585	
500.0	499.8	499.8	499.8	0.9	0.8	82.94	0.0	-61.6	59.8	58.1	1.72	34.712	
600.0	599.6	599.6	599.6	1.1	1.0	89.13	0.0	-61.6	59.4	57.3	2.10	28.265	
604.5	604.2	604.1	604.1	1.1	1.0	89.45	0.0	-61.6	59.4	57.2	2.12	28.027	CC, ES
700.0	699.3	698.3	698.2	1.3	1.2	96.89	0.3	-62.3	60.7	58.2	2.49	24.372	
800.0	798.9	796.7	796.7	1.5	1.4	104.69	1.3	-64.7	64.9	62.0	2.88	22.579	
900.0	898.5	895.3	895.2	1.7	1.5	111.12	2.9	-68.5	71.9	68.6	3.26	22.064	
1,000.0	998.1	994.7	994.5	2.0	1.7	116.29	4.8	-72.9	80.1	76.4	3.64	22.012	
1,100.0	1,097.7	1,094.1	1,093.8	2.2	1.9	120.49	6.6	-77.2	88.8	84.8	4.01	22.119	
1,200.0	1,197.3	1,193.6	1,193.1	2.4	2.1	123.92	8.5	-81.6	97.9	93.5	4.39	22.305	
1,300.0	1,296.9	1,293.0	1,292.4	2.7	2.3	126.76	10.3	-85.9	107.3	102.6	4.76	22.529	
1,400.0	1,396.5	1,392.4	1,391.7	2.9	2.5	129.14	12.2	-90.3	116.9	111.8	5.14	22.767	
1,500.0	1,496.1	1,491.9	1,491.1	3.1	2.7	131.15	14.0	-94.6	126.7	121.2	5.51	23.005	
1,600.0	1,595.7	1,591.3	1,590.4	3.4	2.9	132.87	15.9	-99.0	136.7	130.8	5.88	23.237	
1,700.0	1,695.3	1,690.7	1,689.7	3.6	3.0	134.36	17.7	-103.3	146.7	140.4	6.25	23.458	
1,800.0	1,794.9	1,790.1	1,789.0	3.8	3.2	135.66	19.6	-107.7	156.8	150.2	6.62	23.668	
1,900.0	1,894.5	1,889.6	1,888.3	4.1	3.4	136.80	21.4	-112.0	167.0	160.0	7.00	23.866	
2,000.0	1,994.1	1,989.0	1,987.6	4.3	3.6	137.81	23.2	-116.4	177.2	169.9	7.37	24.051	
2,100.0	2,093.7	2,088.4	2,087.0	4.5	3.8	138.71	25.1	-120.7	187.5	179.8	7.74	24.225	
2,200.0	2,193.2	2,187.9	2,186.3	4.8	4.0	139.52	26.9	-125.1	197.9	189.7	8.11	24.387	
2,300.0	2,292.8	2,287.3	2,285.6	5.0	4.2	140.24	28.8	-129.4	208.2	199.7	8.49	24.540	
2,400.0	2,392.4	2,386.7	2,384.9	5.2	4.4	140.90	30.6	-133.8	218.6	209.8	8.86	24.682	
2,500.0	2,492.0	2,486.1	2,484.2	5.5	4.6	141.50	32.5	-138.1	229.0	219.8	9.23	24.816	
2,600.0	2,591.6	2,585.6	2,583.5	5.7	4.8	142.04	34.3	-142.5	239.5	229.9	9.60	24.941	
2,700.0	2,691.2	2,685.0	2,682.8	5.9	4.9	142.54	36.2	-146.8	250.0	240.0	9.97	25.059	
2,800.0	2,790.8	2,784.4	2,782.2	6.2	5.1	143.00	38.0	-151.2	260.4	250.1	10.35	25.170	
2,900.0	2,890.4	2,883.9	2,881.5	6.4	5.3	143.42	39.9	-155.6	270.9	260.2	10.72	25.275	
3,000.0	2,990.0	2,983.3	2,980.8	6.6	5.5	143.82	41.7	-159.9	281.5	270.4	11.09	25.373	
3,100.0	3,089.6	3,082.7	3,080.1	6.9	5.7	144.18	43.5	-164.3	292.0	280.5	11.47	25.466	
3,200.0	3,189.2	3,182.1	3,179.4	7.1	5.9	144.52	45.4	-168.6	302.5	290.7	11.84	25.554	
3,300.0	3,288.8	3,281.6	3,278.7	7.3	6.1	144.84	47.2	-173.0	313.1	300.9	12.21	25.638	
3,400.0	3,388.4	3,381.0	3,378.1	7.6	6.3	145.13	49.1	-177.3	323.6	311.0	12.58	25.717	
3,500.0	3,488.0	3,480.4	3,477.4	7.8	6.5	145.41	50.9	-181.7	334.2	321.2	12.96	25.792	
3,600.0	3,587.6	3,579.9	3,576.7	8.0	6.7	145.67	52.8	-186.0	344.7	331.4	13.33	25.863	
3,700.0	3,687.2	3,679.3	3,676.0	8.3	6.9	145.91	54.6	-190.4	355.3	341.6	13.70	25.931	
3,800.0	3,786.8	3,778.7	3,775.3	8.5	7.1	146.14	56.5	-194.7	365.9	351.8	14.08	25.996	
3,900.0	3,886.4	3,878.1	3,874.6	8.7	7.2	146.36	58.3	-199.1	376.5	362.0	14.45	26.057	
4,000.0	3,986.0	3,977.6	3,973.9	9.0	7.4	146.56	60.2	-203.4	387.1	372.3	14.82	26.116	
4,100.0	4,085.6	4,077.0	4,073.3	9.2	7.6	146.76	62.0	-207.8	397.7	382.5	15.19	26.172	
4,200.0	4,185.2	4,176.4	4,172.6	9.4	7.8	146.94	63.9	-212.1	408.3	392.7	15.57	26.226	
4,300.0	4,284.8	4,275.8	4,271.9	9.7	8.0	147.12	65.7	-216.5	418.9	402.9	15.94	26.277	
4,400.0	4,384.4	4,375.3	4,371.2	9.9	8.2	147.28	67.5	-220.8	429.5	413.2	16.31	26.326	
4,500.0	4,484.0	4,474.7	4,470.5	10.1	8.4	147.44	69.4	-225.2	440.1	423.4	16.69	26.374	
4,600.0	4,583.6	4,574.1	4,569.8	10.4	8.6	147.59	71.2	-229.5	450.7	433.7	17.06	26.419	
4,700.0	4,683.2	4,673.6	4,669.2	10.6	8.8	147.73	73.1	-233.9	461.3	443.9	17.43	26.462	
4,800.0	4,782.8	4,773.0	4,768.5	10.8	9.0	147.87	74.9	-238.2	472.0	454.2	17.81	26.504	
4,900.0	4,882.4	4,872.4	4,867.8	11.1	9.2	148.00	76.8	-242.6	482.6	464.4	18.18	26.544	
5,000.0	4,982.0	4,971.8	4,967.1	11.3	9.4	148.13	78.6	-246.9	493.2	474.7	18.55	26.583	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3E-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
7,000.0	6,973.9	7,819.5	7,378.0	16.0	17.8	85.28	-567.3	-352.6	449.5	416.0	33.54	13.402	
7,100.0	7,073.8	7,821.1	7,378.0	16.1	17.9	-73.88	-569.0	-352.6	361.0	328.7	32.36	11.156	
7,200.0	7,172.4	7,805.5	7,378.0	16.0	17.7	-97.25	-553.4	-352.6	280.8	249.7	31.11	9.026	
7,300.0	7,266.7	7,773.0	7,378.0	15.8	17.3	-98.90	-520.9	-352.6	218.0	187.3	30.70	7.100	
7,400.0	7,354.0	7,724.6	7,378.0	15.5	16.8	-90.67	-472.5	-352.6	185.0	154.2	30.81	6.005	
7,441.8	7,387.7	7,700.1	7,377.9	15.3	16.6	-84.99	-447.9	-352.6	181.9	151.2	30.75	5.917	SF
7,500.0	7,431.5	7,665.6	7,376.1	15.1	16.2	-76.24	-413.5	-352.5	187.5	157.2	30.32	6.185	
7,600.0	7,496.9	7,608.1	7,368.5	14.7	15.7	-61.17	-356.5	-352.2	217.7	189.3	28.35	7.677	
7,700.0	7,548.3	7,550.0	7,355.2	14.4	15.2	-47.95	-300.0	-351.6	262.0	236.7	25.32	10.348	
7,800.0	7,584.0	7,500.0	7,339.1	14.2	14.8	-38.64	-252.7	-350.9	310.6	288.1	22.48	13.815	
7,900.0	7,602.9	7,450.0	7,319.0	14.2	14.5	-31.69	-206.9	-350.0	358.3	338.0	20.37	17.594	
8,000.0	7,606.0	7,389.1	7,289.2	14.4	14.2	-27.02	-153.8	-348.7	403.4	384.0	19.38	20.813	
8,100.0	7,606.0	7,350.0	7,267.3	14.8	14.0	-25.21	-121.6	-347.7	454.9	435.6	19.27	23.605	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3F-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-86.28	3.6	-56.0	56.1				
100.0	100.0	100.0	100.0	0.2	0.2	-86.28	3.6	-56.0	56.1	55.8	0.30	184.639	
200.0	200.0	200.0	200.0	0.3	0.3	78.41	3.6	-56.0	56.1	55.4	0.65	85.891	
300.0	300.0	300.0	300.0	0.5	0.5	79.64	3.6	-56.0	55.8	54.8	1.00	55.656	
400.0	399.9	399.9	399.9	0.7	0.7	82.67	3.6	-56.0	55.4	54.0	1.36	40.756	
500.0	499.8	499.8	499.8	0.9	0.8	87.54	3.6	-56.0	55.0	53.3	1.72	31.899	
539.9	539.6	539.6	539.6	1.0	0.9	90.00	3.6	-56.0	54.9	53.0	1.87	29.315	CC
600.0	599.6	599.6	599.6	1.1	1.0	94.25	3.6	-56.0	55.1	53.0	2.10	26.227	ES
700.0	699.3	699.3	699.3	1.3	1.2	102.55	3.6	-56.0	56.3	53.8	2.49	22.627	
800.0	798.9	798.9	798.9	1.5	1.4	111.07	3.6	-56.0	58.9	56.0	2.87	20.519	
900.0	898.5	898.5	898.5	1.7	1.5	118.71	3.6	-56.0	62.7	59.4	3.24	19.323	
1,000.0	998.1	998.1	998.1	2.0	1.7	125.39	3.6	-56.0	67.5	63.9	3.61	18.695	
1,100.0	1,097.7	1,097.7	1,097.7	2.2	1.9	131.12	3.6	-56.0	73.0	69.1	3.96	18.419	
1,200.0	1,197.3	1,197.3	1,197.3	2.4	2.1	136.00	3.6	-56.0	79.2	74.9	4.32	18.358	
1,300.0	1,296.9	1,296.9	1,296.9	2.7	2.2	140.15	3.6	-56.0	85.9	81.2	4.66	18.427	
1,400.0	1,396.5	1,396.5	1,396.5	2.9	2.4	143.68	3.6	-56.0	93.0	88.0	5.01	18.572	
1,500.0	1,496.1	1,496.1	1,496.1	3.1	2.6	146.71	3.6	-56.0	100.4	95.0	5.35	18.760	
1,600.0	1,595.7	1,595.7	1,595.7	3.4	2.8	149.32	3.6	-56.0	108.0	102.3	5.69	18.971	
1,700.0	1,695.3	1,695.3	1,695.3	3.6	2.9	151.58	3.6	-56.0	115.8	109.7	6.03	19.191	
1,800.0	1,794.9	1,794.9	1,794.9	3.8	3.1	153.56	3.6	-56.0	123.7	117.4	6.37	19.411	
1,900.0	1,894.5	1,894.5	1,894.5	4.1	3.3	155.29	3.6	-56.0	131.8	125.1	6.72	19.629	
2,000.0	1,994.1	1,994.1	1,994.1	4.3	3.5	156.82	3.6	-56.0	140.0	133.0	7.06	19.839	
2,100.0	2,093.7	2,093.7	2,093.7	4.5	3.6	158.19	3.6	-56.0	148.3	140.9	7.40	20.041	
2,200.0	2,193.2	2,193.2	2,193.2	4.8	3.8	159.40	3.6	-56.0	156.7	148.9	7.74	20.234	
2,300.0	2,292.8	2,292.8	2,292.8	5.0	4.0	160.50	3.6	-56.0	165.1	157.0	8.09	20.418	
2,400.0	2,392.4	2,392.4	2,392.4	5.2	4.2	161.48	3.6	-56.0	173.6	165.2	8.43	20.593	
2,500.0	2,492.0	2,492.0	2,492.0	5.5	4.3	162.38	3.6	-56.0	182.1	173.3	8.77	20.758	
2,600.0	2,591.6	2,591.6	2,591.6	5.7	4.5	163.20	3.6	-56.0	190.7	181.6	9.12	20.915	
2,700.0	2,691.2	2,691.2	2,691.2	5.9	4.7	163.94	3.6	-56.0	199.3	189.8	9.46	21.063	
2,800.0	2,790.8	2,790.8	2,790.8	6.2	4.8	164.62	3.6	-56.0	207.9	198.1	9.81	21.204	
2,900.0	2,890.4	2,890.4	2,890.4	6.4	5.0	165.25	3.6	-56.0	216.6	206.4	10.15	21.337	
3,000.0	2,990.0	2,990.0	2,990.0	6.6	5.2	165.83	3.6	-56.0	225.2	214.8	10.49	21.463	
3,100.0	3,089.6	3,089.6	3,089.6	6.9	5.4	166.37	3.6	-56.0	233.9	223.1	10.84	21.583	
3,200.0	3,189.2	3,189.2	3,189.2	7.1	5.5	166.87	3.6	-56.0	242.7	231.5	11.18	21.697	
3,300.0	3,288.8	3,288.8	3,288.8	7.3	5.7	167.33	3.6	-56.0	251.4	239.9	11.53	21.805	
3,400.0	3,388.4	3,388.4	3,388.4	7.6	5.9	167.77	3.6	-56.0	260.2	248.3	11.88	21.908	
3,500.0	3,488.0	3,488.0	3,488.0	7.8	6.1	168.17	3.6	-56.0	268.9	256.7	12.22	22.006	
3,600.0	3,587.6	3,587.6	3,587.6	8.0	6.2	168.55	3.6	-56.0	277.7	265.1	12.57	22.099	
3,700.0	3,687.2	3,687.2	3,687.2	8.3	6.4	168.90	3.6	-56.0	286.5	273.6	12.91	22.188	
3,800.0	3,786.8	3,786.8	3,786.8	8.5	6.6	169.24	3.6	-56.0	295.3	282.1	13.26	22.273	
3,900.0	3,886.4	3,886.4	3,886.4	8.7	6.8	169.55	3.6	-56.0	304.1	290.5	13.60	22.354	
4,000.0	3,986.0	3,986.0	3,986.0	9.0	6.9	169.85	3.6	-56.0	312.9	299.0	13.95	22.432	
4,100.0	4,085.6	4,081.2	4,081.2	9.2	7.1	170.14	4.2	-55.8	322.4	308.1	14.29	22.560	
4,200.0	4,185.2	4,175.3	4,175.3	9.4	7.3	170.48	6.2	-55.1	333.4	318.7	14.62	22.794	
4,300.0	4,284.8	4,273.0	4,272.9	9.7	7.4	170.85	9.4	-54.0	345.6	330.6	14.97	23.090	
4,400.0	4,384.4	4,372.2	4,372.0	9.9	7.6	171.20	12.7	-52.9	357.9	342.6	15.31	23.374	
4,500.0	4,484.0	4,471.4	4,471.2	10.1	7.8	171.53	16.0	-51.7	370.2	354.5	15.65	23.646	
4,600.0	4,583.6	4,570.6	4,570.3	10.4	8.0	171.84	19.3	-50.6	382.5	366.5	16.00	23.906	
4,700.0	4,683.2	4,669.8	4,669.5	10.6	8.1	172.12	22.7	-49.4	394.8	378.5	16.34	24.156	
4,800.0	4,782.8	4,769.1	4,768.7	10.8	8.3	172.40	26.0	-48.3	407.1	390.4	16.69	24.396	
4,900.0	4,882.4	4,868.3	4,867.8	11.1	8.5	172.65	29.3	-47.2	419.5	402.4	17.03	24.626	
5,000.0	4,982.0	4,967.5	4,967.0	11.3	8.7	172.89	32.6	-46.0	431.8	414.4	17.38	24.848	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3F-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	5,081.6	5,066.7	5,066.1	11.5	8.8	173.12	35.9	-44.9	444.2	426.5	17.72	25.061	
5,200.0	5,181.2	5,165.9	5,165.3	11.8	9.0	173.33	39.2	-43.8	456.5	438.5	18.07	25.266	
5,300.0	5,280.8	5,265.1	5,264.4	12.0	9.2	173.54	42.6	-42.6	468.9	450.5	18.41	25.464	
5,400.0	5,380.4	5,364.4	5,363.6	12.2	9.4	173.73	45.9	-41.5	481.3	462.5	18.76	25.654	
5,500.0	5,480.0	5,463.6	5,462.8	12.5	9.6	173.91	49.2	-40.4	493.7	474.5	19.11	25.838	
7,200.0	7,172.4	8,015.5	7,606.0	16.0	17.3	129.86	-552.0	-10.0	459.4	427.6	31.71	14.486	
7,300.0	7,266.7	7,983.0	7,606.0	15.8	16.9	134.33	-519.5	-10.2	373.0	342.8	30.12	12.383	
7,400.0	7,354.0	7,934.3	7,606.0	15.5	16.3	133.42	-470.8	-10.7	297.7	268.8	28.88	10.309	
7,500.0	7,431.5	7,844.4	7,598.9	15.1	15.4	122.32	-381.3	-11.5	234.6	206.0	28.56	8.214	
7,600.0	7,496.9	7,767.9	7,581.8	14.7	14.8	109.16	-306.8	-12.4	188.0	159.5	28.45	6.607	
7,700.0	7,548.3	7,699.0	7,558.1	14.4	14.2	93.21	-242.1	-13.2	169.4	141.2	28.17	6.013	SF
7,705.1	7,550.5	7,695.6	7,556.7	14.3	14.2	92.33	-239.0	-13.3	169.3	141.2	28.14	6.017	
7,800.0	7,584.0	7,634.5	7,529.1	14.2	13.8	75.94	-184.7	-14.1	183.2	156.2	26.99	6.786	
7,900.0	7,602.9	7,573.0	7,495.5	14.2	13.5	60.30	-133.2	-14.9	219.1	194.2	24.93	8.791	
8,000.0	7,606.0	7,514.2	7,458.4	14.4	13.3	49.61	-87.6	-15.7	265.3	242.1	23.19	11.440	
8,100.0	7,606.0	7,463.5	7,422.8	14.8	13.1	43.53	-51.5	-16.5	322.2	299.8	22.31	14.438	
8,200.0	7,606.0	7,420.8	7,390.5	15.4	13.0	38.98	-23.7	-17.1	388.4	366.6	21.81	17.806	
8,300.0	7,606.0	7,384.9	7,361.7	16.2	12.9	35.55	-2.1	-17.6	461.5	440.0	21.58	21.387	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3G-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-50.4	50.4				
100.0	100.0	100.0	100.0	0.2	0.2	-90.00	0.0	-50.4	50.4	50.1	0.30	165.826	
200.0	200.0	200.0	200.0	0.3	0.3	74.69	0.0	-50.4	50.4	49.7	0.65	77.135	
300.0	300.0	300.0	300.0	0.5	0.5	76.05	0.0	-50.4	50.0	49.0	1.00	49.885	
400.0	399.9	399.9	399.9	0.7	0.7	79.39	0.0	-50.4	49.4	48.1	1.36	36.369	
500.0	499.8	499.8	499.8	0.9	0.8	84.84	0.0	-50.4	48.8	47.0	1.72	28.298	
600.0	599.6	600.4	600.4	1.1	1.0	92.86	0.0	-49.5	47.8	45.7	2.10	22.741	
700.0	699.3	700.7	700.7	1.3	1.2	104.17	0.2	-46.8	46.6	44.2	2.49	18.736	
765.7	764.7	766.5	766.4	1.4	1.3	113.03	0.3	-44.2	46.4	43.6	2.74	16.925	CC
800.0	798.9	800.6	800.5	1.5	1.4	117.83	0.4	-42.5	46.5	43.6	2.87	16.220	ES
900.0	898.5	899.9	899.7	1.7	1.6	131.29	0.6	-37.7	48.7	45.4	3.22	15.097	
1,000.0	998.1	999.3	998.9	2.0	1.8	143.04	0.8	-32.9	53.2	49.7	3.57	14.933	
1,100.0	1,097.7	1,098.6	1,098.1	2.2	1.9	152.61	1.1	-28.1	59.7	55.8	3.90	15.294	
1,200.0	1,197.3	1,198.0	1,197.4	2.4	2.1	160.17	1.3	-23.3	67.5	63.2	4.24	15.905	
1,300.0	1,296.9	1,297.3	1,296.6	2.7	2.3	166.09	1.5	-18.5	76.2	71.6	4.59	16.610	
1,400.0	1,396.5	1,396.7	1,395.8	2.9	2.5	170.77	1.8	-13.7	85.5	80.6	4.93	17.330	
1,500.0	1,496.1	1,496.0	1,495.1	3.1	2.7	174.51	2.0	-8.9	95.3	90.0	5.29	18.027	
1,600.0	1,595.7	1,595.4	1,594.3	3.4	2.9	177.54	2.2	-4.1	105.4	99.8	5.64	18.684	
1,700.0	1,695.3	1,694.7	1,693.5	3.6	3.1	-179.96	2.5	0.8	115.8	109.8	6.00	19.296	
1,800.0	1,794.9	1,794.0	1,792.7	3.8	3.3	-177.88	2.7	5.6	126.4	120.0	6.36	19.861	
1,900.0	1,894.5	1,893.4	1,892.0	4.1	3.5	-176.11	2.9	10.4	137.0	130.3	6.72	20.381	
2,000.0	1,994.1	1,992.7	1,991.2	4.3	3.7	-174.61	3.2	15.2	147.8	140.8	7.09	20.861	
2,100.0	2,093.7	2,092.1	2,090.4	4.5	3.8	-173.31	3.4	20.0	158.7	151.3	7.45	21.302	
2,200.0	2,193.2	2,191.4	2,189.7	4.8	4.0	-172.17	3.6	24.8	169.7	161.9	7.82	21.710	
2,300.0	2,292.8	2,290.8	2,288.9	5.0	4.2	-171.18	3.9	29.6	180.7	172.5	8.18	22.086	
2,400.0	2,392.4	2,390.1	2,388.1	5.2	4.4	-170.30	4.1	34.4	191.8	183.2	8.55	22.435	
2,500.0	2,492.0	2,489.5	2,487.3	5.5	4.6	-169.51	4.3	39.2	202.9	194.0	8.91	22.758	
2,600.0	2,591.6	2,588.8	2,586.6	5.7	4.8	-168.81	4.6	44.0	214.0	204.7	9.28	23.059	
2,700.0	2,691.2	2,688.2	2,685.8	5.9	5.0	-168.18	4.8	48.9	225.2	215.5	9.65	23.339	
2,800.0	2,790.8	2,787.5	2,785.0	6.2	5.2	-167.60	5.0	53.7	236.4	226.4	10.02	23.601	
2,900.0	2,890.4	2,886.8	2,884.3	6.4	5.4	-167.08	5.3	58.5	247.6	237.2	10.38	23.845	
3,000.0	2,990.0	2,986.2	2,983.5	6.6	5.6	-166.60	5.5	63.3	258.8	248.1	10.75	24.075	
3,100.0	3,089.6	3,085.5	3,082.7	6.9	5.8	-166.17	5.7	68.1	270.1	258.9	11.12	24.290	
3,200.0	3,189.2	3,184.9	3,181.9	7.1	6.0	-165.77	6.0	72.9	281.3	269.8	11.49	24.492	
3,300.0	3,288.8	3,284.2	3,281.2	7.3	6.1	-165.39	6.2	77.7	292.6	280.7	11.85	24.683	
3,400.0	3,388.4	3,383.6	3,380.4	7.6	6.3	-165.05	6.4	82.5	303.9	291.7	12.22	24.863	
3,500.0	3,488.0	3,482.9	3,479.6	7.8	6.5	-164.73	6.6	87.3	315.2	302.6	12.59	25.033	
3,600.0	3,587.6	3,582.3	3,578.9	8.0	6.7	-164.44	6.9	92.1	326.5	313.5	12.96	25.194	
3,700.0	3,687.2	3,681.6	3,678.1	8.3	6.9	-164.16	7.1	97.0	337.8	324.5	13.33	25.346	
3,800.0	3,786.8	3,780.9	3,777.3	8.5	7.1	-163.90	7.3	101.8	349.1	335.4	13.70	25.491	
3,900.0	3,886.4	3,880.3	3,876.5	8.7	7.3	-163.66	7.6	106.6	360.4	346.4	14.06	25.628	
4,000.0	3,986.0	3,979.6	3,975.8	9.0	7.5	-163.43	7.8	111.4	371.8	357.3	14.43	25.759	
4,100.0	4,085.6	4,079.0	4,075.0	9.2	7.7	-163.21	8.0	116.2	383.1	368.3	14.80	25.883	
4,200.0	4,185.2	4,178.3	4,174.2	9.4	7.9	-163.01	8.3	121.0	394.4	379.3	15.17	26.002	
4,300.0	4,284.8	4,277.7	4,273.5	9.7	8.1	-162.82	8.5	125.8	405.8	390.3	15.54	26.115	
4,400.0	4,384.4	4,377.0	4,372.7	9.9	8.3	-162.64	8.7	130.6	417.1	401.2	15.91	26.223	
4,500.0	4,484.0	4,476.4	4,471.9	10.1	8.5	-162.47	9.0	135.4	428.5	412.2	16.28	26.327	
4,600.0	4,583.6	4,575.7	4,571.1	10.4	8.6	-162.31	9.2	140.2	439.9	423.2	16.64	26.426	
4,700.0	4,683.2	4,675.1	4,670.4	10.6	8.8	-162.15	9.4	145.1	451.2	434.2	17.01	26.521	
4,800.0	4,782.8	4,774.4	4,769.6	10.8	9.0	-162.01	9.7	149.9	462.6	445.2	17.38	26.612	
4,900.0	4,882.4	4,873.7	4,868.8	11.1	9.2	-161.87	9.9	154.7	474.0	456.2	17.75	26.700	
5,000.0	4,982.0	4,973.1	4,968.1	11.3	9.4	-161.73	10.1	159.5	485.3	467.2	18.12	26.784	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3G-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	5,081.6	5,072.4	5,067.3	11.5	9.6	-161.61	10.4	164.3	496.7	478.2	18.49	26.864	
7,200.0	7,172.4	7,704.4	7,377.9	16.0	17.7	103.84	-550.0	276.3	483.6	451.3	32.28	14.981	
7,300.0	7,266.7	7,664.1	7,375.9	15.8	17.3	99.37	-509.7	276.2	454.8	423.1	31.67	14.360	SF
7,398.3	7,352.6	7,621.0	7,370.7	15.5	16.8	94.17	-467.0	275.9	445.4	414.4	31.00	14.367	
7,400.0	7,354.0	7,620.3	7,370.5	15.5	16.8	94.07	-466.3	275.9	445.4	414.4	30.99	14.373	
7,500.0	7,431.5	7,574.6	7,361.4	15.1	16.4	87.43	-421.5	275.5	454.5	424.3	30.20	15.053	
7,600.0	7,496.9	7,527.8	7,348.4	14.7	15.9	79.78	-376.6	274.9	478.3	449.1	29.18	16.391	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3H-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-85.35	3.6	-44.8	44.9				
100.0	100.0	100.0	100.0	0.2	0.2	-85.35	3.6	-44.8	44.9	44.6	0.30	147.887	
200.0	200.0	200.0	200.0	0.3	0.3	79.35	3.6	-44.8	44.9	44.3	0.65	68.793	
300.0	300.0	300.0	300.0	0.5	0.5	80.89	3.6	-44.8	44.7	43.7	1.00	44.553	
400.0	399.9	400.3	400.3	0.7	0.7	84.77	3.7	-44.5	44.1	42.8	1.36	32.447	
500.0	499.8	500.9	500.9	0.9	0.9	91.80	3.8	-42.8	42.3	40.6	1.73	24.512	
600.0	599.6	601.2	601.1	1.1	1.0	103.01	4.1	-39.3	40.0	37.9	2.10	19.016	
691.1	690.4	692.2	692.0	1.3	1.2	117.45	4.4	-34.6	38.9	36.4	2.45	15.863	CC, ES
700.0	699.3	701.1	700.9	1.3	1.2	119.12	4.5	-34.0	38.9	36.4	2.49	15.664	
800.0	798.9	800.6	800.1	1.5	1.4	137.70	5.0	-27.1	40.8	38.0	2.86	14.304	SF
900.0	898.5	899.7	898.9	1.7	1.6	155.25	5.7	-18.5	46.3	43.1	3.22	14.392	
1,000.0	998.1	998.5	997.1	2.0	1.9	169.81	6.5	-8.3	55.4	51.8	3.59	15.434	
1,100.0	1,097.7	1,097.2	1,095.2	2.2	2.1	-179.84	7.3	2.2	67.1	63.1	3.97	16.912	
1,200.0	1,197.3	1,195.9	1,193.4	2.4	2.3	-172.70	8.1	12.7	80.3	76.0	4.35	18.450	
1,300.0	1,296.9	1,294.6	1,291.5	2.7	2.6	-167.62	8.9	23.2	94.4	89.7	4.74	19.907	
1,400.0	1,396.5	1,393.3	1,389.6	2.9	2.8	-163.88	9.7	33.7	109.0	103.9	5.13	21.238	
1,500.0	1,496.1	1,492.0	1,487.8	3.1	3.1	-161.02	10.6	44.2	124.0	118.5	5.53	22.439	
1,600.0	1,595.7	1,590.7	1,585.9	3.4	3.3	-158.79	11.4	54.8	139.3	133.3	5.92	23.517	
1,700.0	1,695.3	1,689.4	1,684.1	3.6	3.6	-157.00	12.2	65.3	154.7	148.3	6.32	24.485	
1,800.0	1,794.9	1,788.1	1,782.2	3.8	3.8	-155.53	13.0	75.8	170.2	163.5	6.71	25.357	
1,900.0	1,894.5	1,886.8	1,880.3	4.1	4.1	-154.31	13.8	86.3	185.8	178.7	7.11	26.143	
2,000.0	1,994.1	1,985.5	1,978.5	4.3	4.3	-153.27	14.6	96.8	201.5	194.0	7.50	26.855	
2,100.0	2,093.7	2,084.2	2,076.6	4.5	4.5	-152.39	15.4	107.3	217.2	209.3	7.90	27.502	
2,200.0	2,193.2	2,182.9	2,174.7	4.8	4.8	-151.63	16.3	117.8	233.0	224.7	8.29	28.093	
2,300.0	2,292.8	2,281.6	2,272.9	5.0	5.0	-150.96	17.1	128.3	248.8	240.1	8.69	28.634	
2,400.0	2,392.4	2,380.3	2,371.0	5.2	5.3	-150.37	17.9	138.9	264.6	255.5	9.08	29.130	
2,500.0	2,492.0	2,479.0	2,469.2	5.5	5.5	-149.85	18.7	149.4	280.5	271.0	9.48	29.587	
2,600.0	2,591.6	2,577.7	2,567.3	5.7	5.8	-149.38	19.5	159.9	296.4	286.5	9.88	30.010	
2,700.0	2,691.2	2,676.4	2,665.4	5.9	6.0	-148.97	20.3	170.4	312.3	302.0	10.27	30.402	
2,800.0	2,790.8	2,775.1	2,763.6	6.2	6.3	-148.59	21.2	180.9	328.2	317.5	10.67	30.765	
2,900.0	2,890.4	2,873.8	2,861.7	6.4	6.6	-148.25	22.0	191.4	344.1	333.0	11.06	31.104	
3,000.0	2,990.0	2,972.5	2,959.9	6.6	6.8	-147.93	22.8	201.9	360.1	348.6	11.46	31.420	
3,100.0	3,089.6	3,071.2	3,058.0	6.9	7.1	-147.65	23.6	212.4	376.0	364.1	11.86	31.716	
3,200.0	3,189.2	3,169.9	3,156.1	7.1	7.3	-147.39	24.4	223.0	392.0	379.7	12.25	31.994	
3,300.0	3,288.8	3,268.6	3,254.3	7.3	7.6	-147.14	25.2	233.5	407.9	395.3	12.65	32.254	
3,400.0	3,388.4	3,367.3	3,352.4	7.6	7.8	-146.92	26.1	244.0	423.9	410.8	13.04	32.499	
3,500.0	3,488.0	3,466.0	3,450.5	7.8	8.1	-146.71	26.9	254.5	439.9	426.4	13.44	32.730	
3,600.0	3,587.6	3,564.7	3,548.7	8.0	8.3	-146.52	27.7	265.0	455.9	442.0	13.84	32.949	
3,700.0	3,687.2	3,663.4	3,646.8	8.3	8.6	-146.34	28.5	275.5	471.8	457.6	14.23	33.155	
3,800.0	3,786.8	3,762.1	3,745.0	8.5	8.8	-146.17	29.3	286.0	487.8	473.2	14.63	33.350	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3I-32H-K268 - Hz - Plan #2

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.01	0.0	-30.8	30.8				
100.0	100.0	100.0	100.0	0.2	0.2	-90.01	0.0	-30.8	30.8	30.5	0.30	101.338	
200.0	200.0	200.0	200.0	0.3	0.3	74.71	0.0	-30.8	30.8	30.1	0.65	47.132	
208.0	208.0	208.0	208.0	0.3	0.3	74.77	0.0	-30.8	30.8	30.1	0.68	45.179	CC, ES
300.0	300.0	299.5	299.5	0.5	0.5	76.24	-0.3	-31.6	31.3	30.3	1.00	31.178	
400.0	399.9	399.0	398.9	0.7	0.7	79.34	-1.4	-34.0	33.0	31.6	1.36	24.272	
500.0	499.8	498.4	498.2	0.9	0.9	83.45	-3.0	-37.9	36.0	34.3	1.73	20.878	
600.0	599.6	597.7	597.4	1.1	1.1	87.92	-5.4	-43.5	40.6	38.5	2.11	19.214	
700.0	699.3	696.8	696.2	1.3	1.3	92.22	-8.4	-50.6	46.7	44.2	2.52	18.516	
800.0	798.9	795.9	794.8	1.5	1.5	95.10	-12.1	-59.3	54.4	51.4	2.95	18.436	SF
900.0	898.5	894.7	893.0	1.7	1.8	96.16	-16.4	-69.5	63.3	60.0	3.39	18.695	
1,000.0	998.1	993.4	990.8	2.0	2.0	96.00	-21.4	-81.3	73.5	69.7	3.84	19.162	
1,100.0	1,097.7	1,091.7	1,088.1	2.2	2.3	95.08	-27.0	-94.5	85.0	80.7	4.30	19.780	
1,200.0	1,197.3	1,189.8	1,184.8	2.4	2.6	93.69	-33.3	-109.3	97.7	92.9	4.76	20.523	
1,300.0	1,296.9	1,287.4	1,280.9	2.7	3.0	92.06	-40.2	-125.5	111.7	106.5	5.22	21.375	
1,400.0	1,396.5	1,384.6	1,376.2	2.9	3.3	90.32	-47.6	-143.1	127.1	121.4	5.69	22.326	
1,500.0	1,496.1	1,481.3	1,470.6	3.1	3.7	88.55	-55.7	-162.1	143.9	137.7	6.16	23.368	
1,600.0	1,595.7	1,578.6	1,565.4	3.4	4.1	86.84	-64.3	-182.5	162.0	155.3	6.62	24.468	
1,700.0	1,695.3	1,676.8	1,661.0	3.6	4.6	85.44	-73.1	-203.2	180.3	173.2	7.08	25.462	
1,800.0	1,794.9	1,775.1	1,756.6	3.8	5.0	84.29	-81.9	-224.0	198.7	191.2	7.54	26.350	
1,900.0	1,894.5	1,873.3	1,852.2	4.1	5.4	83.34	-90.7	-244.7	217.2	209.2	8.00	27.147	
2,000.0	1,994.1	1,971.5	1,947.8	4.3	5.8	82.54	-99.5	-265.4	235.7	227.2	8.46	27.866	
2,100.0	2,093.7	2,069.7	2,043.4	4.5	6.2	81.85	-108.3	-286.1	254.2	245.3	8.92	28.517	
2,200.0	2,193.2	2,167.9	2,139.0	4.8	6.7	81.26	-117.1	-306.9	272.8	263.5	9.37	29.108	
2,300.0	2,292.8	2,266.2	2,234.6	5.0	7.1	80.74	-125.8	-327.6	291.5	281.6	9.83	29.648	
2,400.0	2,392.4	2,364.4	2,330.3	5.2	7.5	80.29	-134.6	-348.3	310.1	299.8	10.29	30.143	
2,500.0	2,492.0	2,462.6	2,425.9	5.5	8.0	79.88	-143.4	-369.0	328.7	318.0	10.74	30.598	
2,600.0	2,591.6	2,560.8	2,521.5	5.7	8.4	79.52	-152.2	-389.8	347.4	336.2	11.20	31.018	
2,700.0	2,691.2	2,659.0	2,617.1	5.9	8.8	79.20	-161.0	-410.5	366.1	354.4	11.66	31.406	
2,800.0	2,790.8	2,757.3	2,712.7	6.2	9.3	78.91	-169.8	-431.2	384.8	372.7	12.11	31.766	
2,900.0	2,890.4	2,855.5	2,808.3	6.4	9.7	78.64	-178.6	-451.9	403.5	390.9	12.57	32.101	
3,000.0	2,990.0	2,953.7	2,903.9	6.6	10.1	78.40	-187.3	-472.7	422.2	409.2	13.03	32.413	
3,100.0	3,089.6	3,051.9	2,999.5	6.9	10.6	78.18	-196.1	-493.4	440.9	427.4	13.48	32.704	
3,200.0	3,189.2	3,150.1	3,095.1	7.1	11.0	77.98	-204.9	-514.1	459.6	445.7	13.94	32.977	
3,300.0	3,288.8	3,248.4	3,190.7	7.3	11.4	77.79	-213.7	-534.8	478.3	463.9	14.39	33.234	
3,400.0	3,388.4	3,346.6	3,286.3	7.6	11.9	77.62	-222.5	-555.6	497.1	482.2	14.85	33.475	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3J-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-81.77	3.6	-25.2	25.4				
100.0	100.0	100.0	100.0	0.2	0.2	-81.77	3.6	-25.2	25.4	25.1	0.30	83.776	
200.0	200.0	200.0	200.0	0.3	0.3	82.97	3.6	-25.2	25.4	24.8	0.65	38.969	
260.2	260.2	260.2	260.2	0.4	0.4	84.14	3.6	-25.2	25.4	24.5	0.86	29.393	CC
300.0	300.0	299.8	299.8	0.5	0.5	85.41	3.5	-25.4	25.5	24.5	1.00	25.414	ES
400.0	399.9	399.4	399.4	0.7	0.7	89.46	2.8	-26.9	26.7	25.3	1.36	19.645	
500.0	499.8	499.0	499.0	0.9	0.9	94.10	1.2	-30.0	29.3	27.6	1.73	16.994	
600.0	599.6	598.6	598.3	1.1	1.0	98.61	-1.1	-34.6	33.5	31.4	2.11	15.862	
700.0	699.3	698.0	697.5	1.3	1.3	102.51	-4.3	-40.8	39.2	36.7	2.52	15.552	SF
800.0	798.9	797.3	796.5	1.5	1.5	104.57	-8.2	-48.5	46.2	43.3	2.95	15.677	
900.0	898.5	896.5	895.2	1.7	1.7	104.52	-12.8	-57.7	54.2	50.8	3.39	15.982	
1,000.0	998.1	995.6	993.5	2.0	2.0	103.18	-18.2	-68.4	63.1	59.2	3.84	16.407	
1,100.0	1,097.7	1,094.3	1,091.3	2.2	2.2	101.08	-24.4	-80.6	73.0	68.7	4.31	16.939	
1,200.0	1,197.3	1,192.8	1,188.6	2.4	2.5	98.57	-31.3	-94.2	84.1	79.3	4.78	17.580	
1,300.0	1,296.9	1,291.0	1,285.3	2.7	2.9	95.88	-38.9	-109.3	96.5	91.2	5.26	18.333	
1,400.0	1,396.5	1,388.7	1,381.2	2.9	3.2	93.18	-47.3	-125.8	110.1	104.4	5.74	19.195	
1,500.0	1,496.1	1,486.4	1,476.9	3.1	3.6	90.57	-56.3	-143.7	125.2	119.0	6.21	20.163	
1,600.0	1,595.7	1,585.1	1,573.4	3.4	4.0	88.38	-65.6	-162.1	140.8	134.1	6.68	21.083	
1,700.0	1,695.3	1,683.8	1,669.8	3.6	4.4	86.63	-75.0	-180.5	156.5	149.3	7.14	21.915	
1,800.0	1,794.9	1,782.4	1,766.3	3.8	4.8	85.20	-84.3	-198.9	172.3	164.7	7.60	22.667	
1,900.0	1,894.5	1,881.1	1,862.8	4.1	5.1	84.01	-93.6	-217.3	188.3	180.2	8.06	23.349	
2,000.0	1,994.1	1,979.7	1,959.2	4.3	5.5	83.01	-102.9	-235.8	204.3	195.8	8.52	23.967	
2,100.0	2,093.7	2,078.4	2,055.7	4.5	5.9	82.15	-112.2	-254.2	220.3	211.3	8.98	24.531	
2,200.0	2,193.2	2,177.0	2,152.2	4.8	6.3	81.41	-121.5	-272.6	236.4	227.0	9.44	25.046	
2,300.0	2,292.8	2,275.7	2,248.7	5.0	6.7	80.76	-130.9	-291.0	252.6	242.7	9.90	25.518	
2,400.0	2,392.4	2,374.3	2,345.1	5.2	7.1	80.20	-140.2	-309.4	268.7	258.4	10.35	25.952	
2,500.0	2,492.0	2,473.0	2,441.6	5.5	7.5	79.69	-149.5	-327.8	284.9	274.1	10.81	26.352	
2,600.0	2,591.6	2,571.6	2,538.1	5.7	7.9	79.24	-158.8	-346.2	301.1	289.8	11.27	26.722	
2,700.0	2,691.2	2,670.3	2,634.5	5.9	8.3	78.84	-168.1	-364.7	317.3	305.6	11.72	27.065	
2,800.0	2,790.8	2,768.9	2,731.0	6.2	8.7	78.47	-177.5	-383.1	333.5	321.4	12.18	27.384	
2,900.0	2,890.4	2,867.6	2,827.5	6.4	9.1	78.14	-186.8	-401.5	349.8	337.1	12.64	27.682	
3,000.0	2,990.0	2,966.2	2,923.9	6.6	9.5	77.84	-196.1	-419.9	366.0	352.9	13.09	27.959	
3,100.0	3,089.6	3,064.9	3,020.4	6.9	9.9	77.56	-205.4	-438.3	382.3	368.7	13.55	28.219	
3,200.0	3,189.2	3,163.5	3,116.9	7.1	10.3	77.31	-214.7	-456.7	398.6	384.6	14.00	28.463	
3,300.0	3,288.8	3,262.2	3,213.4	7.3	10.7	77.08	-224.0	-475.1	414.8	400.4	14.46	28.692	
3,400.0	3,388.4	3,360.9	3,309.8	7.6	11.1	76.86	-233.4	-493.5	431.1	416.2	14.91	28.908	
3,500.0	3,488.0	3,459.5	3,406.3	7.8	11.5	76.66	-242.7	-512.0	447.4	432.0	15.37	29.111	
3,600.0	3,587.6	3,558.2	3,502.8	8.0	11.9	76.47	-252.0	-530.4	463.7	447.9	15.82	29.303	
3,700.0	3,687.2	3,656.8	3,599.2	8.3	12.3	76.30	-261.3	-548.8	480.0	463.7	16.28	29.484	
3,800.0	3,786.8	3,755.5	3,695.7	8.5	12.7	76.14	-270.6	-567.2	496.3	479.6	16.73	29.657	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3K-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-19.6	19.6				
100.0	100.0	100.0	100.0	0.2	0.2	-90.00	0.0	-19.6	19.6	19.3	0.30	64.488	
200.0	200.0	200.0	200.0	0.3	0.3	74.76	0.0	-19.6	19.6	18.9	0.65	29.988	
300.0	300.0	300.0	300.0	0.5	0.5	78.26	0.0	-19.6	19.3	18.3	1.00	19.229	
377.0	376.9	376.9	376.9	0.6	0.6	84.43	0.0	-19.6	19.0	17.7	1.28	14.894	CC
400.0	399.9	399.8	399.8	0.7	0.7	86.61	-0.1	-19.8	19.1	17.7	1.36	14.027	ES
500.0	499.8	499.6	499.5	0.9	0.9	96.33	-1.1	-21.2	20.3	18.5	1.72	11.755	
600.0	599.6	599.3	599.2	1.1	1.0	105.00	-3.1	-24.0	23.2	21.1	2.10	11.015	SF
700.0	699.3	699.0	698.8	1.3	1.2	111.55	-6.1	-28.3	27.7	25.2	2.50	11.066	
800.0	798.9	798.7	798.2	1.5	1.4	114.54	-10.0	-34.0	33.2	30.3	2.91	11.400	
900.0	898.5	898.3	897.5	1.7	1.6	114.19	-15.0	-41.1	39.2	35.8	3.34	11.728	
1,000.0	998.1	997.9	996.5	2.0	1.9	111.85	-20.9	-49.6	45.7	41.9	3.79	12.045	
1,100.0	1,097.7	1,097.3	1,095.2	2.2	2.1	108.32	-27.8	-59.5	52.8	48.6	4.26	12.395	
1,200.0	1,197.3	1,196.5	1,193.4	2.4	2.4	104.16	-35.7	-70.8	60.9	56.1	4.75	12.824	
1,300.0	1,296.9	1,295.6	1,291.3	2.7	2.7	99.80	-44.5	-83.4	70.0	64.8	5.23	13.371	
1,400.0	1,396.5	1,395.0	1,389.5	2.9	3.0	96.17	-53.5	-96.4	79.6	73.9	5.71	13.937	
1,500.0	1,496.1	1,494.4	1,487.6	3.1	3.3	93.33	-62.6	-109.4	89.5	83.4	6.19	14.468	
1,600.0	1,595.7	1,593.9	1,585.8	3.4	3.6	91.06	-71.7	-122.4	99.6	93.0	6.66	14.959	
1,700.0	1,695.3	1,693.3	1,683.9	3.6	3.9	89.21	-80.7	-135.4	109.8	102.7	7.13	15.408	
1,800.0	1,794.9	1,792.7	1,782.1	3.8	4.2	87.68	-89.8	-148.4	120.1	112.5	7.59	15.819	
1,900.0	1,894.5	1,892.1	1,880.2	4.1	4.6	86.39	-98.9	-161.4	130.5	122.4	8.06	16.194	
2,000.0	1,994.1	1,991.5	1,978.4	4.3	4.9	85.29	-108.0	-174.5	140.9	132.4	8.52	16.538	
2,100.0	2,093.7	2,091.0	2,076.5	4.5	5.2	84.34	-117.0	-187.5	151.4	142.4	8.98	16.853	
2,200.0	2,193.2	2,190.4	2,174.7	4.8	5.5	83.51	-126.1	-200.5	161.9	152.5	9.44	17.142	
2,300.0	2,292.8	2,289.8	2,272.8	5.0	5.8	82.79	-135.2	-213.5	172.4	162.5	9.91	17.408	
2,400.0	2,392.4	2,389.2	2,370.9	5.2	6.2	82.14	-144.2	-226.5	183.0	172.6	10.37	17.654	
2,500.0	2,492.0	2,488.6	2,469.1	5.5	6.5	81.57	-153.3	-239.5	193.6	182.8	10.83	17.881	
2,600.0	2,591.6	2,588.1	2,567.2	5.7	6.8	81.06	-162.4	-252.5	204.2	192.9	11.29	18.092	
2,700.0	2,691.2	2,687.5	2,665.4	5.9	7.1	80.60	-171.4	-265.5	214.8	203.0	11.74	18.288	
2,800.0	2,790.8	2,786.9	2,763.5	6.2	7.5	80.18	-180.5	-278.5	225.4	213.2	12.20	18.471	
2,900.0	2,890.4	2,886.3	2,861.7	6.4	7.8	79.80	-189.6	-291.5	236.0	223.4	12.66	18.641	
3,000.0	2,990.0	2,985.7	2,959.8	6.6	8.1	79.45	-198.6	-304.5	246.7	233.6	13.12	18.801	
3,100.0	3,089.6	3,085.2	3,058.0	6.9	8.4	79.13	-207.7	-317.6	257.3	243.8	13.58	18.950	
3,200.0	3,189.2	3,184.6	3,156.1	7.1	8.8	78.84	-216.8	-330.6	268.0	254.0	14.04	19.091	
3,300.0	3,288.8	3,284.0	3,254.3	7.3	9.1	78.57	-225.8	-343.6	278.7	264.2	14.50	19.223	
3,400.0	3,388.4	3,383.4	3,352.4	7.6	9.4	78.32	-234.9	-356.6	289.3	274.4	14.95	19.348	
3,500.0	3,488.0	3,482.9	3,450.6	7.8	9.7	78.08	-244.0	-369.6	300.0	284.6	15.41	19.465	
3,600.0	3,587.6	3,582.3	3,548.7	8.0	10.1	77.86	-253.0	-382.6	310.7	294.8	15.87	19.577	
3,700.0	3,687.2	3,681.7	3,646.9	8.3	10.4	77.66	-262.1	-395.6	321.4	305.1	16.33	19.682	
3,800.0	3,786.8	3,781.1	3,745.0	8.5	10.7	77.47	-271.2	-408.6	332.1	315.3	16.79	19.782	
3,900.0	3,886.4	3,880.5	3,843.2	8.7	11.1	77.29	-280.2	-421.6	342.8	325.5	17.25	19.877	
4,000.0	3,986.0	3,980.0	3,941.3	9.0	11.4	77.13	-289.3	-434.6	353.5	335.8	17.70	19.967	
4,100.0	4,085.6	4,079.4	4,039.5	9.2	11.7	76.97	-298.4	-447.6	364.2	346.0	18.16	20.053	
4,200.0	4,185.2	4,178.8	4,137.6	9.4	12.0	76.82	-307.4	-460.6	374.9	356.3	18.62	20.134	
4,300.0	4,284.8	4,278.2	4,235.8	9.7	12.4	76.68	-316.5	-473.7	385.6	366.5	19.08	20.212	
4,400.0	4,384.4	4,377.6	4,333.9	9.9	12.7	76.55	-325.6	-486.7	396.3	376.7	19.53	20.287	
4,500.0	4,484.0	4,477.1	4,432.1	10.1	13.0	76.42	-334.6	-499.7	407.0	387.0	19.99	20.358	
4,600.0	4,583.6	4,576.5	4,530.2	10.4	13.3	76.30	-343.7	-512.7	417.7	397.2	20.45	20.426	
4,700.0	4,683.2	4,675.9	4,628.4	10.6	13.7	76.19	-352.8	-525.7	428.4	407.5	20.91	20.491	
4,800.0	4,782.8	4,775.3	4,726.5	10.8	14.0	76.08	-361.8	-538.7	439.1	417.8	21.36	20.554	
4,900.0	4,882.4	4,874.8	4,824.7	11.1	14.3	75.98	-370.9	-551.7	449.8	428.0	21.82	20.614	
5,000.0	4,982.0	4,974.2	4,922.8	11.3	14.7	75.88	-380.0	-564.7	460.6	438.3	22.28	20.672	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3K-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	5,081.6	5,073.6	5,021.0	11.5	15.0	75.79	-389.0	-577.7	471.3	448.5	22.74	20.727	
5,200.0	5,181.2	5,173.0	5,119.1	11.8	15.3	75.70	-398.1	-590.7	482.0	458.8	23.19	20.780	
5,300.0	5,280.8	5,272.4	5,217.3	12.0	15.6	75.61	-407.2	-603.7	492.7	469.1	23.65	20.832	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3L-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-77.76	3.6	-16.8	17.2				
100.0	100.0	100.0	100.0	0.2	0.2	-77.76	3.6	-16.8	17.2	16.9	0.30	56.562	
200.0	200.0	200.0	200.0	0.3	0.3	87.02	3.6	-16.8	17.2	16.5	0.65	26.312	
283.1	283.1	283.1	283.1	0.5	0.5	90.00	3.6	-16.8	17.2	16.2	0.94	18.168	CC
300.0	300.0	300.0	300.0	0.5	0.5	91.10	3.6	-16.8	17.2	16.2	1.00	17.100	
400.0	399.9	399.9	399.9	0.7	0.7	100.87	3.6	-16.8	17.5	16.1	1.36	12.856	ES
500.0	499.8	499.8	499.8	0.9	0.8	114.33	3.5	-16.9	19.0	17.2	1.72	11.025	
600.0	599.6	599.7	599.7	1.1	1.0	125.08	2.3	-18.2	22.2	20.1	2.08	10.661	
700.0	699.3	699.6	699.5	1.3	1.2	131.95	-0.1	-20.7	26.9	24.4	2.46	10.953	
800.0	798.9	799.6	799.3	1.5	1.4	134.70	-3.7	-24.5	32.0	29.1	2.84	11.266	
900.0	898.5	899.6	899.1	1.7	1.6	134.07	-8.5	-29.6	36.7	33.4	3.24	11.320	
1,000.0	998.1	999.6	998.8	2.0	1.8	131.19	-14.4	-35.9	41.0	37.4	3.67	11.187	
1,100.0	1,097.7	1,099.6	1,098.2	2.2	2.0	126.68	-21.6	-43.5	45.3	41.1	4.13	10.963	
1,200.0	1,197.3	1,199.4	1,197.3	2.4	2.3	121.80	-29.4	-51.9	49.7	45.1	4.61	10.791	
1,300.0	1,296.9	1,299.2	1,296.5	2.7	2.5	117.74	-37.3	-60.2	54.5	49.4	5.09	10.700	
1,400.0	1,396.5	1,399.0	1,395.7	2.9	2.8	114.34	-45.2	-68.5	59.5	53.9	5.58	10.664	
1,500.0	1,496.1	1,498.8	1,494.8	3.1	3.0	111.48	-53.0	-76.8	64.6	58.6	6.06	10.662	
1,600.0	1,595.7	1,598.7	1,594.0	3.4	3.3	109.04	-60.9	-85.2	69.9	63.4	6.55	10.683	
1,700.0	1,695.3	1,698.5	1,693.1	3.6	3.5	106.95	-68.7	-93.5	75.3	68.3	7.03	10.719	
1,800.0	1,794.9	1,798.3	1,792.3	3.8	3.8	105.14	-76.6	-101.8	80.8	73.3	7.51	10.764	
1,900.0	1,894.5	1,898.1	1,891.5	4.1	4.0	103.57	-84.4	-110.1	86.4	78.4	7.99	10.814	
2,000.0	1,994.1	1,997.9	1,990.6	4.3	4.3	102.18	-92.3	-118.4	92.0	83.6	8.47	10.866	
2,100.0	2,093.7	2,097.7	2,089.8	4.5	4.6	100.96	-100.1	-126.8	97.7	88.8	8.95	10.920	
2,200.0	2,193.2	2,197.6	2,188.9	4.8	4.8	99.87	-108.0	-135.1	103.4	94.0	9.42	10.974	
2,300.0	2,292.8	2,297.4	2,288.1	5.0	5.1	98.89	-115.8	-143.4	109.1	99.3	9.90	11.027	
2,400.0	2,392.4	2,397.2	2,387.3	5.2	5.3	98.01	-123.7	-151.7	114.9	104.5	10.37	11.078	
2,500.0	2,492.0	2,497.0	2,486.4	5.5	5.6	97.22	-131.6	-160.1	120.7	109.9	10.85	11.129	
2,600.0	2,591.6	2,596.8	2,585.6	5.7	5.9	96.50	-139.4	-168.4	126.5	115.2	11.32	11.177	
2,700.0	2,691.2	2,696.7	2,684.7	5.9	6.1	95.84	-147.3	-176.7	132.4	120.6	11.79	11.224	
2,800.0	2,790.8	2,796.5	2,783.9	6.2	6.4	95.24	-155.1	-185.0	138.2	126.0	12.27	11.268	
2,900.0	2,890.4	2,896.3	2,883.1	6.4	6.7	94.69	-163.0	-193.4	144.1	131.3	12.74	11.311	
3,000.0	2,990.0	2,996.1	2,982.2	6.6	6.9	94.18	-170.8	-201.7	150.0	136.8	13.21	11.353	
3,100.0	3,089.6	3,095.9	3,081.4	6.9	7.2	93.70	-178.7	-210.0	155.8	142.2	13.68	11.392	
3,200.0	3,189.2	3,195.8	3,180.5	7.1	7.4	93.27	-186.5	-218.3	161.7	147.6	14.15	11.430	
3,300.0	3,288.8	3,295.6	3,279.7	7.3	7.7	92.86	-194.4	-226.7	167.7	153.0	14.62	11.466	
3,400.0	3,388.4	3,395.4	3,378.9	7.6	8.0	92.48	-202.2	-235.0	173.6	158.5	15.09	11.501	
3,500.0	3,488.0	3,495.2	3,478.0	7.8	8.2	92.13	-210.1	-243.3	179.5	163.9	15.56	11.534	
3,600.0	3,587.6	3,595.0	3,577.2	8.0	8.5	91.80	-218.0	-251.6	185.4	169.4	16.03	11.566	
3,700.0	3,687.2	3,694.8	3,676.3	8.3	8.8	91.49	-225.8	-259.9	191.3	174.8	16.50	11.596	
3,800.0	3,786.8	3,794.7	3,775.5	8.5	9.0	91.20	-233.7	-268.3	197.3	180.3	16.97	11.625	
3,900.0	3,886.4	3,894.5	3,874.7	8.7	9.3	90.92	-241.5	-276.6	203.2	185.8	17.44	11.653	
4,000.0	3,986.0	3,994.3	3,973.8	9.0	9.6	90.66	-249.4	-284.9	209.2	191.3	17.91	11.680	
4,100.0	4,085.6	4,094.1	4,073.0	9.2	9.8	90.42	-257.2	-293.2	215.1	196.8	18.38	11.706	
4,200.0	4,185.2	4,193.9	4,172.1	9.4	10.1	90.19	-265.1	-301.6	221.1	202.2	18.85	11.731	
4,300.0	4,284.8	4,293.8	4,271.3	9.7	10.3	89.97	-272.9	-309.9	227.0	207.7	19.32	11.755	
4,400.0	4,384.4	4,393.6	4,370.5	9.9	10.6	89.76	-280.8	-318.2	233.0	213.2	19.78	11.778	
4,500.0	4,484.0	4,493.4	4,469.6	10.1	10.9	89.56	-288.6	-326.5	239.0	218.7	20.25	11.800	
4,600.0	4,583.6	4,593.2	4,568.8	10.4	11.1	89.37	-296.5	-334.9	244.9	224.2	20.72	11.821	
4,700.0	4,683.2	4,693.0	4,667.9	10.6	11.4	89.19	-304.4	-343.2	250.9	229.7	21.19	11.842	
4,800.0	4,782.8	4,792.8	4,767.1	10.8	11.7	89.02	-312.2	-351.5	256.9	235.2	21.66	11.862	
4,900.0	4,882.4	4,892.7	4,866.3	11.1	11.9	88.86	-320.1	-359.8	262.9	240.7	22.12	11.881	
5,000.0	4,982.0	4,992.5	4,965.4	11.3	12.2	88.70	-327.9	-368.2	268.8	246.2	22.59	11.899	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3L-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	5,081.6	5,092.3	5,064.6	11.5	12.5	88.55	-335.8	-376.5	274.8	251.8	23.06	11.917	
5,200.0	5,181.2	5,192.1	5,163.7	11.8	12.7	88.41	-343.6	-384.8	280.8	257.3	23.53	11.934	
5,300.0	5,280.8	5,291.9	5,262.9	12.0	13.0	88.27	-351.5	-393.1	286.8	262.8	24.00	11.951	
5,400.0	5,380.4	5,391.8	5,362.1	12.2	13.3	88.14	-359.3	-401.4	292.8	268.3	24.46	11.967	
5,500.0	5,480.0	5,491.6	5,461.2	12.5	13.5	88.02	-367.2	-409.8	298.7	273.8	24.93	11.983	
5,600.0	5,579.6	5,591.4	5,560.4	12.7	13.8	87.90	-375.0	-418.1	304.7	279.3	25.40	11.998	
5,700.0	5,679.2	5,691.2	5,659.5	12.9	14.1	87.78	-382.9	-426.4	310.7	284.9	25.87	12.012	
5,800.0	5,778.8	5,791.0	5,758.7	13.2	14.3	87.67	-390.7	-434.7	316.7	290.4	26.33	12.027	
5,900.0	5,878.4	5,890.9	5,857.9	13.4	14.6	87.56	-398.6	-443.1	322.7	295.9	26.80	12.040	
6,000.0	5,978.0	5,990.7	5,957.0	13.6	14.8	87.46	-406.5	-451.4	328.7	301.4	27.27	12.054	
6,100.0	6,077.5	6,090.5	6,056.2	13.9	15.1	87.36	-414.3	-459.7	334.7	306.9	27.74	12.067	
6,200.0	6,177.1	6,190.3	6,155.4	14.1	15.4	87.26	-422.2	-468.0	340.7	312.5	28.20	12.079	
6,300.0	6,276.7	6,290.1	6,254.5	14.4	15.6	87.17	-430.0	-476.4	346.7	318.0	28.67	12.091	
6,400.0	6,376.3	6,389.9	6,353.7	14.6	15.9	87.08	-437.9	-484.7	352.7	323.5	29.14	12.103	
6,500.0	6,475.9	6,489.8	6,452.8	14.8	16.2	86.99	-445.7	-493.0	358.7	329.1	29.61	12.115	
6,600.0	6,575.5	6,589.6	6,552.0	15.1	16.4	86.91	-453.6	-501.3	364.7	334.6	30.07	12.126	
6,700.0	6,675.1	6,689.4	6,651.2	15.3	16.7	86.82	-461.4	-509.7	370.7	340.1	30.54	12.137	
6,800.0	6,774.7	6,789.2	6,750.3	15.5	17.0	86.75	-469.3	-518.0	376.7	345.7	31.01	12.147	
6,900.0	6,874.3	6,877.6	6,838.3	15.8	17.1	87.42	-471.1	-525.4	384.0	352.5	31.41	12.223	
7,000.0	6,973.9	6,960.9	6,920.6	16.0	17.2	89.79	-460.6	-532.3	395.1	363.3	31.81	12.421	
7,100.0	7,073.8	7,039.8	6,996.2	16.1	17.1	-47.96	-439.6	-538.6	409.2	377.1	32.06	12.762	
7,200.0	7,172.4	7,116.5	7,066.5	16.0	17.0	-58.91	-409.4	-544.5	422.7	390.9	31.80	13.291	
7,300.0	7,266.7	7,191.7	7,130.8	15.8	16.9	-58.62	-371.0	-549.9	434.8	403.7	31.06	13.999	
7,400.0	7,354.0	7,265.8	7,188.7	15.5	16.7	-57.49	-325.2	-554.8	444.7	414.8	29.90	14.870	
7,500.0	7,431.5	7,339.0	7,239.7	15.1	16.6	-56.53	-272.9	-559.1	451.9	423.4	28.49	15.860	
7,600.0	7,496.9	7,411.6	7,283.4	14.7	16.5	-55.97	-215.0	-562.7	456.1	429.1	27.03	16.871	
7,700.0	7,548.3	7,484.1	7,319.3	14.4	16.4	-55.91	-152.2	-565.7	457.1	431.3	25.79	17.725	
7,800.0	7,584.0	7,550.0	7,344.8	14.2	16.4	-56.34	-91.5	-567.9	454.8	429.8	25.01	18.181	
7,900.0	7,602.9	7,629.2	7,366.1	14.2	16.5	-57.40	-15.3	-569.7	449.2	424.2	24.94	18.007	
8,000.0	7,606.0	7,700.0	7,376.1	14.4	16.6	-58.56	54.8	-570.5	441.4	415.9	25.50	17.312	
8,100.0	7,606.0	7,787.5	7,378.0	14.8	16.9	-58.57	142.2	-570.7	437.4	411.1	26.27	16.654	
8,200.0	7,606.0	7,887.4	7,378.0	15.4	17.4	-58.33	242.1	-570.7	434.4	407.1	27.35	15.887	
8,300.0	7,606.0	7,987.3	7,378.0	16.2	18.1	-58.09	342.0	-570.7	431.5	402.8	28.69	15.042	
8,400.0	7,606.0	8,087.3	7,378.0	17.1	18.9	-57.84	442.0	-570.7	428.5	398.3	30.25	14.167	
8,500.0	7,606.0	8,187.2	7,378.0	18.2	19.8	-57.59	541.9	-570.7	425.6	393.6	32.00	13.300	
8,600.0	7,606.0	8,287.2	7,378.0	19.3	20.9	-57.34	641.9	-570.7	422.6	388.7	33.90	12.467	
8,700.0	7,606.0	8,387.1	7,378.0	20.6	22.0	-57.08	741.8	-570.7	419.7	383.8	35.92	11.682	
8,800.0	7,606.0	8,487.0	7,378.0	21.9	23.2	-56.82	841.7	-570.7	416.8	378.7	38.05	10.953	
8,900.0	7,606.0	8,587.0	7,378.0	23.2	24.5	-56.55	941.7	-570.7	413.8	373.6	40.25	10.281	
9,000.0	7,606.0	8,686.9	7,378.0	24.7	25.8	-56.28	1,041.6	-570.7	410.9	368.4	42.52	9.664	
9,100.0	7,606.0	8,786.8	7,378.0	26.1	27.2	-56.01	1,141.6	-570.7	408.0	363.2	44.84	9.100	
9,200.0	7,606.0	8,886.8	7,378.0	27.6	28.6	-55.74	1,241.5	-570.7	405.1	358.0	47.19	8.585	
9,300.0	7,606.0	8,986.7	7,378.0	29.1	30.1	-55.46	1,341.4	-570.7	402.3	352.7	49.58	8.114	
9,400.0	7,606.0	9,086.7	7,378.0	30.7	31.5	-55.17	1,441.4	-570.7	399.4	347.4	51.98	7.683	
9,500.0	7,606.0	9,186.6	7,378.0	32.2	33.1	-54.89	1,541.3	-570.7	396.5	342.1	54.40	7.289	
9,600.0	7,606.0	9,286.5	7,378.0	33.8	34.6	-54.59	1,641.3	-570.7	393.7	336.9	56.82	6.928	
9,700.0	7,606.0	9,386.5	7,378.0	35.4	36.1	-54.30	1,741.2	-570.7	390.8	331.6	59.25	6.596	
9,800.0	7,606.0	9,486.4	7,378.0	37.0	37.7	-54.00	1,841.1	-570.7	388.0	326.3	61.68	6.291	
9,900.0	7,606.0	9,586.4	7,378.0	38.7	39.3	-53.69	1,941.1	-570.7	385.2	321.1	64.10	6.009	
10,000.0	7,606.0	9,686.3	7,378.0	40.3	40.9	-53.38	2,041.0	-570.7	382.4	315.9	66.52	5.749	
10,100.0	7,606.0	9,786.2	7,378.0	41.9	42.5	-53.07	2,140.9	-570.7	379.6	310.7	68.92	5.507	
10,200.0	7,606.0	9,886.2	7,378.0	43.6	44.1	-52.75	2,240.9	-570.7	376.8	305.5	71.32	5.284	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3L-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
10,300.0	7,606.0	9,986.1	7,378.0	45.3	45.8	-52.42	2,340.8	-570.7	374.0	300.3	73.69	5.076	
10,400.0	7,606.0	10,086.1	7,378.0	46.9	47.4	-52.10	2,440.8	-570.7	371.3	295.2	76.05	4.882	
10,500.0	7,606.0	10,186.0	7,378.0	48.6	49.0	-51.80	2,540.7	-570.7	368.7	290.4	78.30	4.709	
10,546.5	7,606.0	10,232.5	7,378.0	49.4	49.8	-51.76	2,587.2	-570.7	368.3	289.0	79.31	4.644	
10,600.0	7,606.0	10,286.0	7,378.0	50.3	50.7	-51.81	2,640.7	-570.7	368.8	288.3	80.53	4.580	
10,700.0	7,606.0	10,385.9	7,378.0	52.0	52.4	-52.19	2,740.6	-570.7	372.4	289.5	82.99	4.488	
10,800.0	7,606.0	10,485.5	7,378.0	53.6	54.0	-52.91	2,840.2	-570.7	379.6	293.9	85.65	4.432	
10,900.0	7,606.0	10,584.6	7,378.0	55.3	55.7	-53.93	2,939.3	-570.7	390.3	301.9	88.48	4.412	SF
11,000.0	7,606.0	10,683.0	7,378.0	56.9	57.3	-55.19	3,037.7	-570.7	404.9	313.5	91.39	4.430	
11,071.9	7,606.0	10,753.2	7,378.0	58.1	58.5	-56.27	3,107.9	-570.7	417.6	323.6	93.91	4.446	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3N-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	37.53	3.6	2.8	4.6				
100.0	100.0	100.0	100.0	0.2	0.2	37.53	3.6	2.8	4.6	4.3	0.30	15.125	CC
158.3	158.3	158.3	158.3	0.3	0.3	-158.09	3.6	2.8	4.6	4.1	0.51	9.162	
200.0	200.0	200.0	200.0	0.3	0.3	-157.98	3.6	2.8	4.6	4.0	0.65	7.086	ES
300.0	300.0	300.0	300.0	0.5	0.5	-162.52	3.6	2.8	5.8	4.8	1.00	5.766	
400.0	399.9	400.1	400.0	0.7	0.7	-164.55	2.8	3.0	8.0	6.6	1.35	5.908	
500.0	499.8	500.1	500.1	0.9	0.9	-161.83	0.2	3.5	10.6	8.9	1.70	6.218	
600.0	599.6	600.2	600.1	1.1	1.0	-157.35	-4.1	4.3	13.7	11.6	2.06	6.623	
700.0	699.3	700.3	700.0	1.3	1.2	-152.43	-10.1	5.5	17.3	14.9	2.44	7.091	
800.0	798.9	800.4	799.8	1.5	1.4	-146.29	-17.8	7.1	20.8	17.9	2.85	7.303	
900.0	898.5	900.4	899.3	1.7	1.7	-138.90	-26.8	8.9	23.9	20.6	3.28	7.267	
1,000.0	998.1	1,000.3	998.8	2.0	1.9	-133.02	-36.0	10.7	27.2	23.5	3.74	7.283	
1,100.0	1,097.7	1,100.2	1,098.3	2.2	2.1	-128.47	-45.2	12.6	30.8	26.6	4.20	7.334	
1,200.0	1,197.3	1,200.1	1,197.7	2.4	2.4	-124.87	-54.4	14.4	34.5	29.9	4.66	7.402	
1,300.0	1,296.9	1,300.0	1,297.2	2.7	2.6	-121.99	-63.6	16.3	38.3	33.2	5.13	7.476	
1,400.0	1,396.5	1,399.9	1,396.7	2.9	2.8	-119.64	-72.8	18.1	42.3	36.7	5.60	7.550	
1,500.0	1,496.1	1,499.9	1,496.2	3.1	3.0	-117.68	-81.9	19.9	46.2	40.2	6.07	7.622	
1,600.0	1,595.7	1,599.8	1,595.6	3.4	3.3	-116.04	-91.1	21.8	50.2	43.7	6.53	7.690	
1,700.0	1,695.3	1,699.7	1,695.1	3.6	3.5	-114.64	-100.3	23.6	54.3	47.3	7.00	7.754	
1,800.0	1,794.9	1,799.6	1,794.6	3.8	3.8	-113.44	-109.5	25.5	58.4	50.9	7.47	7.814	
1,900.0	1,894.5	1,899.5	1,894.0	4.1	4.0	-112.39	-118.7	27.3	62.5	54.5	7.94	7.870	
2,000.0	1,994.1	1,999.4	1,993.5	4.3	4.2	-111.48	-127.9	29.1	66.6	58.2	8.41	7.922	
2,100.0	2,093.7	2,099.3	2,093.0	4.5	4.5	-110.67	-137.0	31.0	70.7	61.9	8.87	7.970	
2,200.0	2,193.2	2,199.2	2,192.4	4.8	4.7	-109.95	-146.2	32.8	74.9	65.5	9.34	8.015	
2,300.0	2,292.8	2,299.1	2,291.9	5.0	4.9	-109.30	-155.4	34.6	79.0	69.2	9.81	8.056	
2,400.0	2,392.4	2,399.0	2,391.4	5.2	5.2	-108.72	-164.6	36.5	83.2	72.9	10.28	8.095	
2,500.0	2,492.0	2,499.0	2,490.8	5.5	5.4	-108.20	-173.8	38.3	87.4	76.6	10.75	8.131	
2,600.0	2,591.6	2,598.9	2,590.3	5.7	5.7	-107.72	-183.0	40.2	91.6	80.3	11.21	8.165	
2,700.0	2,691.2	2,698.8	2,689.8	5.9	5.9	-107.29	-192.1	42.0	95.7	84.1	11.68	8.197	
2,800.0	2,790.8	2,798.7	2,789.3	6.2	6.1	-106.89	-201.3	43.8	99.9	87.8	12.15	8.226	
2,900.0	2,890.4	2,898.6	2,888.7	6.4	6.4	-106.52	-210.5	45.7	104.1	91.5	12.62	8.254	
3,000.0	2,990.0	2,998.5	2,988.2	6.6	6.6	-106.18	-219.7	47.5	108.3	95.2	13.08	8.281	
3,100.0	3,089.6	3,098.4	3,087.7	6.9	6.8	-105.87	-228.9	49.4	112.5	99.0	13.55	8.305	
3,200.0	3,189.2	3,198.3	3,187.1	7.1	7.1	-105.58	-238.1	51.2	116.7	102.7	14.02	8.329	
3,300.0	3,288.8	3,298.2	3,286.6	7.3	7.3	-105.31	-247.2	53.0	121.0	106.5	14.48	8.351	
3,400.0	3,388.4	3,398.1	3,386.1	7.6	7.6	-105.06	-256.4	54.9	125.2	110.2	14.95	8.371	
3,500.0	3,488.0	3,498.1	3,485.5	7.8	7.8	-104.82	-265.6	56.7	129.4	114.0	15.42	8.391	
3,600.0	3,587.6	3,598.0	3,585.0	8.0	8.0	-104.60	-274.8	58.6	133.6	117.7	15.89	8.410	
3,700.0	3,687.2	3,697.9	3,684.5	8.3	8.3	-104.39	-284.0	60.4	137.8	121.5	16.35	8.428	
3,800.0	3,786.8	3,797.8	3,784.0	8.5	8.5	-104.20	-293.2	62.2	142.0	125.2	16.82	8.445	
3,900.0	3,886.4	3,897.7	3,883.4	8.7	8.7	-104.01	-302.3	64.1	146.3	129.0	17.29	8.461	
4,000.0	3,986.0	3,997.6	3,982.9	9.0	9.0	-103.84	-311.5	65.9	150.5	132.7	17.75	8.476	
4,100.0	4,085.6	4,097.5	4,082.4	9.2	9.2	-103.68	-320.7	67.8	154.7	136.5	18.22	8.491	
4,200.0	4,185.2	4,197.4	4,181.8	9.4	9.5	-103.52	-329.9	69.6	158.9	140.2	18.69	8.505	
4,300.0	4,284.8	4,297.3	4,281.3	9.7	9.7	-103.37	-339.1	71.4	163.2	144.0	19.15	8.518	
4,400.0	4,384.4	4,397.2	4,380.8	9.9	9.9	-103.23	-348.3	73.3	167.4	147.8	19.62	8.531	
4,500.0	4,484.0	4,497.1	4,480.2	10.1	10.2	-103.10	-357.4	75.1	171.6	151.5	20.09	8.543	
4,600.0	4,583.6	4,597.1	4,579.7	10.4	10.4	-102.98	-366.6	76.9	175.8	155.3	20.55	8.555	
4,700.0	4,683.2	4,697.0	4,679.2	10.6	10.7	-102.86	-375.8	78.8	180.1	159.0	21.02	8.566	
4,800.0	4,782.8	4,796.9	4,778.7	10.8	10.9	-102.74	-385.0	80.6	184.3	162.8	21.49	8.577	
4,900.0	4,882.4	4,896.8	4,878.1	11.1	11.1	-102.63	-394.2	82.5	188.5	166.6	21.96	8.587	
5,000.0	4,982.0	4,996.7	4,977.6	11.3	11.4	-102.53	-403.4	84.3	192.8	170.3	22.42	8.597	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3N-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	5,081.6	5,096.6	5,077.1	11.5	11.6	-102.43	-412.5	86.1	197.0	174.1	22.89	8.607	
5,200.0	5,181.2	5,196.5	5,176.5	11.8	11.8	-102.33	-421.7	88.0	201.2	177.9	23.36	8.616	
5,300.0	5,280.8	5,296.4	5,276.0	12.0	12.1	-102.24	-430.9	89.8	205.5	181.6	23.82	8.625	
5,400.0	5,380.4	5,396.3	5,375.5	12.2	12.3	-102.15	-440.1	91.7	209.7	185.4	24.29	8.634	
5,500.0	5,480.0	5,496.2	5,474.9	12.5	12.6	-102.06	-449.3	93.5	213.9	189.2	24.76	8.642	
5,600.0	5,579.6	5,596.2	5,574.4	12.7	12.8	-101.98	-458.5	95.3	218.2	192.9	25.22	8.650	
5,700.0	5,679.2	5,696.1	5,673.9	12.9	13.0	-101.90	-467.6	97.2	222.4	196.7	25.69	8.658	
5,800.0	5,778.8	5,796.0	5,773.4	13.2	13.3	-101.83	-476.8	99.0	226.6	200.5	26.16	8.665	
5,900.0	5,878.4	5,895.9	5,872.8	13.4	13.5	-101.75	-486.0	100.9	230.9	204.3	26.62	8.672	
6,000.0	5,978.0	5,995.8	5,972.3	13.6	13.8	-101.68	-495.2	102.7	235.1	208.0	27.09	8.679	
6,100.0	6,077.5	6,095.7	6,071.8	13.9	14.0	-101.62	-504.4	104.5	239.4	211.8	27.56	8.686	
6,200.0	6,177.1	6,195.6	6,171.2	14.1	14.2	-101.55	-513.6	106.4	243.6	215.6	28.02	8.693	
6,300.0	6,276.7	6,295.5	6,270.7	14.4	14.5	-101.49	-522.7	108.2	247.8	219.3	28.49	8.699	
6,400.0	6,376.3	6,395.4	6,370.2	14.6	14.7	-101.43	-531.9	110.0	252.1	223.1	28.96	8.705	
6,500.0	6,475.9	6,495.3	6,469.6	14.8	15.0	-101.37	-541.1	111.9	256.3	226.9	29.42	8.711	
6,600.0	6,575.5	6,595.3	6,569.1	15.1	15.2	-101.31	-550.3	113.7	260.5	230.7	29.89	8.717	
6,700.0	6,675.1	6,695.2	6,668.6	15.3	15.4	-101.25	-559.5	115.6	264.8	234.4	30.36	8.723	
6,800.0	6,774.7	6,795.6	6,768.6	15.5	15.7	-101.25	-568.5	117.4	269.0	238.2	30.82	8.729	
6,900.0	6,874.3	6,897.3	6,870.1	15.8	15.7	-103.68	-566.0	119.3	272.7	241.6	31.12	8.763	
7,000.0	6,973.9	6,992.2	6,963.1	16.0	15.6	-109.19	-547.4	121.0	277.6	246.4	31.16	8.907	
7,100.0	7,073.8	7,079.4	7,044.7	16.1	15.4	101.79	-517.1	122.5	287.0	256.2	30.81	9.315	
7,200.0	7,172.4	7,162.5	7,117.4	16.0	15.1	80.77	-477.0	123.9	300.4	270.3	30.10	9.979	
7,300.0	7,266.7	7,242.6	7,181.3	15.8	14.7	72.57	-428.9	125.0	316.2	287.0	29.16	10.843	
7,400.0	7,354.0	7,320.2	7,236.2	15.5	14.4	66.84	-374.1	126.1	332.7	304.7	28.07	11.855	
7,500.0	7,431.5	7,400.0	7,284.4	15.1	14.1	62.41	-310.6	126.9	348.8	321.9	26.89	12.972	
7,600.0	7,496.9	7,470.2	7,319.2	14.7	13.8	59.29	-249.6	127.6	363.4	337.6	25.83	14.071	
7,700.0	7,548.3	7,550.0	7,349.3	14.4	13.6	56.90	-175.8	128.1	375.8	350.9	24.89	15.096	
7,800.0	7,584.0	7,616.0	7,366.3	14.2	13.6	55.48	-112.0	128.5	385.3	360.9	24.33	15.834	
7,900.0	7,602.9	7,688.2	7,376.3	14.2	13.6	54.73	-40.6	128.6	391.6	367.5	24.19	16.193	
8,000.0	7,606.0	7,771.1	7,378.0	14.4	13.8	54.73	42.2	128.7	395.0	370.4	24.58	16.071	
8,100.0	7,606.0	7,871.0	7,378.0	14.8	14.2	55.02	142.2	128.7	397.9	372.5	25.39	15.668	
8,200.0	7,606.0	7,971.0	7,378.0	15.4	14.8	55.31	242.1	128.7	400.7	374.2	26.50	15.124	
8,300.0	7,606.0	8,070.9	7,378.0	16.2	15.6	55.59	342.0	128.7	403.6	375.7	27.87	14.484	
8,400.0	7,606.0	8,170.9	7,378.0	17.1	16.5	55.87	442.0	128.7	406.5	377.0	29.47	13.792	
8,500.0	7,606.0	8,270.8	7,378.0	18.2	17.6	56.14	541.9	128.7	409.4	378.1	31.28	13.087	
8,600.0	7,606.0	8,370.7	7,378.0	19.3	18.7	56.41	641.9	128.7	412.3	379.0	33.27	12.393	
8,700.0	7,606.0	8,470.7	7,378.0	20.6	20.0	56.68	741.8	128.7	415.2	379.8	35.40	11.727	
8,800.0	7,606.0	8,570.6	7,378.0	21.9	21.3	56.94	841.7	128.7	418.1	380.5	37.67	11.100	
8,900.0	7,606.0	8,670.6	7,378.0	23.2	22.7	57.20	941.7	128.7	421.1	381.0	40.04	10.515	
9,000.0	7,606.0	8,770.5	7,378.0	24.7	24.1	57.45	1,041.6	128.7	424.0	381.5	42.51	9.974	
9,100.0	7,606.0	8,870.4	7,378.0	26.1	25.6	57.71	1,141.6	128.7	426.9	381.9	45.06	9.475	
9,200.0	7,606.0	8,970.4	7,378.0	27.6	27.1	57.95	1,241.5	128.7	429.9	382.2	47.68	9.017	
9,300.0	7,606.0	9,070.3	7,378.0	29.1	28.6	58.20	1,341.4	128.7	432.9	382.5	50.36	8.595	
9,400.0	7,606.0	9,170.2	7,378.0	30.7	30.2	58.44	1,441.4	128.7	435.8	382.7	53.10	8.208	
9,500.0	7,606.0	9,270.2	7,378.0	32.2	31.7	58.68	1,541.3	128.7	438.8	382.9	55.88	7.852	
9,600.0	7,606.0	9,370.1	7,378.0	33.8	33.3	58.91	1,641.3	128.7	441.8	383.1	58.71	7.525	
9,700.0	7,606.0	9,470.1	7,378.0	35.4	34.9	59.15	1,741.2	128.7	444.8	383.2	61.58	7.223	
9,800.0	7,606.0	9,570.0	7,378.0	37.0	36.6	59.38	1,841.1	128.7	447.8	383.3	64.48	6.945	
9,900.0	7,606.0	9,669.9	7,378.0	38.7	38.2	59.60	1,941.1	128.7	450.8	383.4	67.41	6.687	
10,000.0	7,606.0	9,769.9	7,378.0	40.3	39.8	59.82	2,041.0	128.7	453.8	383.4	70.38	6.448	
10,100.0	7,606.0	9,869.8	7,378.0	41.9	41.5	60.04	2,140.9	128.7	456.8	383.5	73.37	6.226	
10,200.0	7,606.0	9,969.8	7,378.0	43.6	43.1	60.26	2,240.9	128.7	459.8	383.5	76.38	6.020	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3N-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
10,300.0	7,606.0	10,069.7	7,378.0	45.3	44.8	60.48	2,340.8	128.7	462.9	383.5	79.42	5.828	
10,400.0	7,606.0	10,169.6	7,378.0	46.9	46.5	60.69	2,440.8	128.7	465.9	383.4	82.48	5.649	
10,500.0	7,606.0	10,269.6	7,378.0	48.6	48.2	60.89	2,540.7	128.7	468.8	383.2	85.54	5.480	
10,600.0	7,606.0	10,369.6	7,378.0	50.3	49.9	60.88	2,640.7	128.7	468.6	380.3	88.34	5.305	
10,700.0	7,606.0	10,469.5	7,378.0	52.0	51.5	60.56	2,740.6	128.7	464.6	373.9	90.75	5.120	
10,800.0	7,606.0	10,569.1	7,378.0	53.6	53.2	59.90	2,840.2	128.7	456.8	364.1	92.71	4.927	
10,900.0	7,606.0	10,668.1	7,378.0	55.3	54.9	58.89	2,939.3	128.7	445.3	351.2	94.15	4.730	
11,000.0	7,606.0	10,766.6	7,378.0	56.9	56.6	57.47	3,037.7	128.7	430.2	335.2	94.94	4.531	
11,071.9	7,606.0	10,836.8	7,378.0	58.1	57.8	56.25	3,107.9	128.7	417.3	321.9	95.40	4.375 SF	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3O-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	8.4	8.4				
100.0	100.0	100.0	100.0	0.2	0.2	90.00	0.0	8.4	8.4	8.1	0.30	27.638	CC
158.4	158.4	158.4	158.4	0.3	0.3	-105.73	0.0	8.4	8.4	7.9	0.51	16.567	
200.0	200.0	200.0	200.0	0.3	0.3	-105.57	0.0	8.4	8.4	7.7	0.65	12.872	ES
300.0	300.0	300.0	299.9	0.5	0.5	-112.04	-0.2	8.5	8.9	7.9	1.00	8.896	
400.0	399.9	399.8	399.8	0.7	0.7	-118.63	-1.5	9.6	11.0	9.7	1.36	8.123	SF
500.0	499.8	499.7	499.6	0.9	0.9	-122.42	-4.2	11.8	14.8	13.1	1.72	8.595	
600.0	599.6	599.4	599.2	1.1	1.1	-124.04	-8.3	15.1	20.2	18.1	2.11	9.596	
700.0	699.3	699.0	698.6	1.3	1.3	-124.50	-13.7	19.4	27.2	24.7	2.51	10.829	
800.0	798.9	798.5	797.7	1.5	1.5	-123.17	-20.5	24.8	35.2	32.2	2.93	11.989	
900.0	898.5	897.9	896.5	1.7	1.7	-120.23	-28.5	31.3	43.8	40.5	3.38	12.980	
1,000.0	998.1	997.4	995.4	2.0	2.0	-117.35	-37.4	38.4	53.0	49.2	3.83	13.845	
1,100.0	1,097.7	1,097.0	1,094.3	2.2	2.2	-115.32	-46.2	45.4	62.2	58.0	4.28	14.541	
1,200.0	1,197.3	1,196.5	1,193.2	2.4	2.5	-113.81	-55.0	52.5	71.5	66.8	4.73	15.111	
1,300.0	1,296.9	1,296.1	1,292.1	2.7	2.7	-112.65	-63.8	59.6	80.9	75.7	5.19	15.585	
1,400.0	1,396.5	1,395.6	1,391.0	2.9	3.0	-111.74	-72.6	66.6	90.3	84.6	5.65	15.985	
1,500.0	1,496.1	1,495.2	1,489.9	3.1	3.2	-110.99	-81.5	73.7	99.6	93.5	6.10	16.325	
1,600.0	1,595.7	1,594.7	1,588.8	3.4	3.5	-110.37	-90.3	80.8	109.1	102.5	6.56	16.619	
1,700.0	1,695.3	1,694.3	1,687.7	3.6	3.7	-109.85	-99.1	87.8	118.5	111.4	7.02	16.875	
1,800.0	1,794.9	1,793.8	1,786.6	3.8	4.0	-109.41	-107.9	94.9	127.9	120.4	7.48	17.100	
1,900.0	1,894.5	1,893.4	1,885.6	4.1	4.3	-109.03	-116.7	102.0	137.3	129.4	7.94	17.299	
2,000.0	1,994.1	1,992.9	1,984.5	4.3	4.5	-108.70	-125.5	109.1	146.7	138.4	8.40	17.477	
2,100.0	2,093.7	2,092.5	2,083.4	4.5	4.8	-108.40	-134.4	116.1	156.2	147.3	8.86	17.636	
2,200.0	2,193.2	2,192.0	2,182.3	4.8	5.0	-108.14	-143.2	123.2	165.6	156.3	9.32	17.779	
2,300.0	2,292.8	2,291.6	2,281.2	5.0	5.3	-107.91	-152.0	130.3	175.1	165.3	9.78	17.909	
2,400.0	2,392.4	2,391.1	2,380.1	5.2	5.6	-107.71	-160.8	137.3	184.5	174.3	10.24	18.028	
2,500.0	2,492.0	2,490.7	2,479.0	5.5	5.8	-107.52	-169.6	144.4	194.0	183.3	10.70	18.136	
2,600.0	2,591.6	2,590.2	2,577.9	5.7	6.1	-107.35	-178.5	151.5	203.4	192.3	11.16	18.235	
2,700.0	2,691.2	2,689.8	2,676.8	5.9	6.3	-107.19	-187.3	158.5	212.9	201.3	11.62	18.326	
2,800.0	2,790.8	2,789.3	2,775.7	6.2	6.6	-107.05	-196.1	165.6	222.3	210.2	12.08	18.411	
2,900.0	2,890.4	2,888.9	2,874.6	6.4	6.9	-106.92	-204.9	172.7	231.8	219.2	12.54	18.489	
3,000.0	2,990.0	2,988.4	2,973.5	6.6	7.1	-106.80	-213.7	179.8	241.2	228.2	13.00	18.562	
3,100.0	3,089.6	3,088.0	3,072.4	6.9	7.4	-106.69	-222.5	186.8	250.7	237.2	13.46	18.629	
3,200.0	3,189.2	3,187.5	3,171.3	7.1	7.7	-106.59	-231.4	193.9	260.1	246.2	13.92	18.692	
3,300.0	3,288.8	3,287.1	3,270.3	7.3	7.9	-106.49	-240.2	201.0	269.6	255.2	14.38	18.752	
3,400.0	3,388.4	3,386.6	3,369.2	7.6	8.2	-106.40	-249.0	208.0	279.1	264.2	14.84	18.807	
3,500.0	3,488.0	3,486.2	3,468.1	7.8	8.4	-106.32	-257.8	215.1	288.5	273.2	15.30	18.859	
3,600.0	3,587.6	3,585.7	3,567.0	8.0	8.7	-106.24	-266.6	222.2	298.0	282.2	15.76	18.908	
3,700.0	3,687.2	3,685.3	3,665.9	8.3	9.0	-106.17	-275.5	229.3	307.4	291.2	16.22	18.954	
3,800.0	3,786.8	3,784.8	3,764.8	8.5	9.2	-106.10	-284.3	236.3	316.9	300.2	16.68	18.998	
3,900.0	3,886.4	3,884.4	3,863.7	8.7	9.5	-106.04	-293.1	243.4	326.4	309.2	17.14	19.039	
4,000.0	3,986.0	3,983.9	3,962.6	9.0	9.8	-105.97	-301.9	250.5	335.8	318.2	17.60	19.078	
4,100.0	4,085.6	4,083.5	4,061.5	9.2	10.0	-105.92	-310.7	257.5	345.3	327.2	18.06	19.116	
4,200.0	4,185.2	4,183.0	4,160.4	9.4	10.3	-105.86	-319.6	264.6	354.8	336.2	18.52	19.151	
4,300.0	4,284.8	4,282.6	4,259.3	9.7	10.5	-105.81	-328.4	271.7	364.2	345.2	18.98	19.185	
4,400.0	4,384.4	4,382.1	4,358.2	9.9	10.8	-105.76	-337.2	278.7	373.7	354.2	19.45	19.217	
4,500.0	4,484.0	4,481.7	4,457.1	10.1	11.1	-105.71	-346.0	285.8	383.1	363.2	19.91	19.247	
4,600.0	4,583.6	4,581.2	4,556.0	10.4	11.3	-105.67	-354.8	292.9	392.6	372.2	20.37	19.276	
4,700.0	4,683.2	4,680.8	4,654.9	10.6	11.6	-105.63	-363.6	300.0	402.1	381.2	20.83	19.304	
4,800.0	4,782.8	4,780.3	4,753.9	10.8	11.9	-105.59	-372.5	307.0	411.5	390.2	21.29	19.331	
4,900.0	4,882.4	4,879.9	4,852.8	11.1	12.1	-105.55	-381.3	314.1	421.0	399.2	21.75	19.356	
5,000.0	4,982.0	4,979.4	4,951.7	11.3	12.4	-105.51	-390.1	321.2	430.5	408.3	22.21	19.381	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3O-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	5,081.6	5,079.0	5,050.6	11.5	12.6	-105.48	-398.9	328.2	439.9	417.3	22.67	19.404	
5,200.0	5,181.2	5,178.5	5,149.5	11.8	12.9	-105.44	-407.7	335.3	449.4	426.3	23.13	19.426	
5,300.0	5,280.8	5,278.1	5,248.4	12.0	13.2	-105.41	-416.6	342.4	458.9	435.3	23.59	19.448	
5,400.0	5,380.4	5,377.6	5,347.3	12.2	13.4	-105.38	-425.4	349.4	468.3	444.3	24.05	19.469	
5,500.0	5,480.0	5,477.2	5,446.2	12.5	13.7	-105.35	-434.2	356.5	477.8	453.3	24.52	19.489	
5,600.0	5,579.6	5,576.7	5,545.1	12.7	14.0	-105.32	-443.0	363.6	487.3	462.3	24.98	19.508	
5,700.0	5,679.2	5,676.3	5,644.0	12.9	14.2	-105.29	-451.8	370.7	496.7	471.3	25.44	19.527	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - File 3P-32H-K268 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	75.40	3.6	14.0	14.5				
100.0	100.0	100.0	100.0	0.2	0.2	75.40	3.6	14.0	14.5	14.2	0.30	47.599	CC
158.4	158.4	158.4	158.4	0.3	0.3	-120.14	3.6	14.0	14.5	14.0	0.51	28.549	
200.0	200.0	200.0	200.0	0.3	0.3	-120.06	3.6	14.0	14.5	13.8	0.65	22.172	ES
300.0	300.0	299.8	299.8	0.5	0.5	-121.39	3.1	14.7	15.6	14.6	1.00	15.571	
400.0	399.9	399.6	399.6	0.7	0.7	-122.67	1.5	16.7	18.7	17.4	1.36	13.762	
500.0	499.8	499.3	499.1	0.9	0.9	-123.58	-1.1	20.2	23.8	22.0	1.73	13.747	SF
600.0	599.6	598.8	598.4	1.1	1.1	-124.14	-4.8	25.0	30.7	28.6	2.11	14.549	
700.0	699.3	698.0	697.4	1.3	1.3	-124.44	-9.6	31.1	39.6	37.1	2.52	15.749	
800.0	798.9	797.1	796.0	1.5	1.5	-123.74	-15.4	38.6	49.9	47.0	2.94	16.993	
900.0	898.5	895.9	894.2	1.7	1.8	-121.94	-22.2	47.4	61.2	57.8	3.37	18.136	
1,000.0	998.1	994.4	991.9	2.0	2.0	-119.64	-30.0	57.5	73.5	69.7	3.82	19.235	
1,100.0	1,097.7	1,092.8	1,089.2	2.2	2.3	-117.16	-38.8	68.9	87.0	82.7	4.28	20.334	
1,200.0	1,197.3	1,191.8	1,187.0	2.4	2.6	-115.15	-47.9	80.7	100.9	96.2	4.74	21.303	
1,300.0	1,296.9	1,290.7	1,284.9	2.7	2.9	-113.62	-57.0	92.5	114.9	109.7	5.20	22.119	
1,400.0	1,396.5	1,389.7	1,382.7	2.9	3.2	-112.42	-66.1	104.3	129.0	123.3	5.65	22.812	
1,500.0	1,496.1	1,488.7	1,480.6	3.1	3.5	-111.46	-75.2	116.1	143.1	137.0	6.11	23.409	
1,600.0	1,595.7	1,587.7	1,578.4	3.4	3.8	-110.67	-84.4	127.9	157.2	150.7	6.57	23.926	
1,700.0	1,695.3	1,686.6	1,676.3	3.6	4.1	-110.01	-93.5	139.7	171.4	164.4	7.03	24.379	
1,800.0	1,794.9	1,785.6	1,774.1	3.8	4.4	-109.45	-102.6	151.5	185.6	178.1	7.49	24.778	
1,900.0	1,894.5	1,884.6	1,871.9	4.1	4.7	-108.98	-111.7	163.3	199.8	191.9	7.95	25.133	
2,000.0	1,994.1	1,983.6	1,969.8	4.3	5.1	-108.56	-120.8	175.1	214.0	205.6	8.41	25.450	
2,100.0	2,093.7	2,082.5	2,067.6	4.5	5.4	-108.20	-130.0	186.9	228.2	219.4	8.87	25.735	
2,200.0	2,193.2	2,181.5	2,165.5	4.8	5.7	-107.88	-139.1	198.7	242.5	233.1	9.33	25.992	
2,300.0	2,292.8	2,280.5	2,263.3	5.0	6.0	-107.59	-148.2	210.5	256.7	246.9	9.79	26.226	
2,400.0	2,392.4	2,379.5	2,361.2	5.2	6.3	-107.34	-157.3	222.3	270.9	260.7	10.25	26.440	
2,500.0	2,492.0	2,478.4	2,459.0	5.5	6.6	-107.11	-166.4	234.1	285.2	274.5	10.71	26.635	
2,600.0	2,591.6	2,577.4	2,556.9	5.7	6.9	-106.90	-175.6	245.9	299.4	288.3	11.17	26.815	
2,700.0	2,691.2	2,676.4	2,654.7	5.9	7.2	-106.71	-184.7	257.7	313.7	302.1	11.63	26.980	
2,800.0	2,790.8	2,775.4	2,752.5	6.2	7.5	-106.54	-193.8	269.5	328.0	315.9	12.09	27.133	
2,900.0	2,890.4	2,874.3	2,850.4	6.4	7.9	-106.38	-202.9	281.3	342.2	329.7	12.55	27.275	
3,000.0	2,990.0	2,973.3	2,948.2	6.6	8.2	-106.23	-212.0	293.1	356.5	343.5	13.01	27.407	
3,100.0	3,089.6	3,072.3	3,046.1	6.9	8.5	-106.10	-221.2	304.9	370.7	357.3	13.47	27.531	
3,200.0	3,189.2	3,171.3	3,143.9	7.1	8.8	-105.98	-230.3	316.7	385.0	371.1	13.93	27.646	
3,300.0	3,288.8	3,270.2	3,241.8	7.3	9.1	-105.86	-239.4	328.5	399.3	384.9	14.39	27.754	
3,400.0	3,388.4	3,369.2	3,339.6	7.6	9.4	-105.75	-248.5	340.3	413.5	398.7	14.85	27.855	
3,500.0	3,488.0	3,468.2	3,437.4	7.8	9.7	-105.65	-257.6	352.1	427.8	412.5	15.31	27.950	
3,600.0	3,587.6	3,567.1	3,535.3	8.0	10.0	-105.56	-266.8	363.9	442.1	426.3	15.77	28.040	
3,700.0	3,687.2	3,666.1	3,633.1	8.3	10.4	-105.47	-275.9	375.7	456.4	440.1	16.23	28.124	
3,800.0	3,786.8	3,765.1	3,731.0	8.5	10.7	-105.39	-285.0	387.5	470.6	453.9	16.69	28.204	
3,900.0	3,886.4	3,864.1	3,828.8	8.7	11.0	-105.31	-294.1	399.3	484.9	467.8	17.15	28.280	
4,000.0	3,986.0	3,963.0	3,926.7	9.0	11.3	-105.24	-303.2	411.1	499.2	481.6	17.61	28.352	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - NELSON 4 (EXISTING) - TEXAS TEA WELL - NO SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 4996-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	57.44	185.8	291.0	345.2				
100.0	100.0	99.0	99.0	0.2	0.2	57.44	185.8	291.0	345.2	344.9	0.32	1,064.774	CC
158.3	158.3	157.3	157.3	0.3	0.3	-137.91	185.8	291.0	345.3	344.7	0.53	654.406	
200.0	200.0	199.0	199.0	0.3	0.3	-137.90	185.8	291.0	345.2	344.6	0.67	513.096	ES
300.0	300.0	299.0	299.0	0.5	0.5	-138.03	185.8	291.0	346.2	345.1	1.02	338.679	
400.0	399.9	398.9	398.9	0.7	0.7	-138.34	185.8	291.0	348.4	347.0	1.37	253.658	
500.0	499.8	498.8	498.8	0.9	0.9	-138.83	185.8	291.0	351.9	350.2	1.73	203.628	
600.0	599.6	598.6	598.6	1.1	1.0	-139.48	185.8	291.0	356.8	354.7	2.09	170.914	
700.0	699.3	698.3	698.3	1.3	1.2	-140.28	185.8	291.0	363.1	360.6	2.45	148.069	
800.0	798.9	797.9	797.9	1.5	1.4	-141.17	185.8	291.0	370.0	367.2	2.82	131.300	
900.0	898.5	897.5	897.5	1.7	1.6	-142.02	185.8	291.0	377.0	373.9	3.18	118.413	
1,000.0	998.1	997.1	997.1	2.0	1.7	-142.84	185.8	291.0	384.2	380.6	3.55	108.221	
1,100.0	1,097.7	1,096.7	1,096.7	2.2	1.9	-143.63	185.8	291.0	391.3	387.4	3.91	99.969	
1,200.0	1,197.3	1,196.3	1,196.3	2.4	2.1	-144.40	185.8	291.0	398.6	394.3	4.28	93.160	
1,300.0	1,296.9	1,295.9	1,295.9	2.7	2.3	-145.13	185.8	291.0	405.9	401.3	4.64	87.451	
1,400.0	1,396.5	1,395.5	1,395.5	2.9	2.4	-145.84	185.8	291.0	413.3	408.3	5.00	82.598	
1,500.0	1,496.1	1,495.1	1,495.1	3.1	2.6	-146.53	185.8	291.0	420.8	415.4	5.37	78.426	
1,600.0	1,595.7	1,594.7	1,594.7	3.4	2.8	-147.19	185.8	291.0	428.3	422.6	5.73	74.801	
1,700.0	1,695.3	1,694.3	1,694.3	3.6	2.9	-147.82	185.8	291.0	435.9	429.8	6.09	71.625	
1,800.0	1,794.9	1,793.9	1,793.9	3.8	3.1	-148.44	185.8	291.0	443.5	437.1	6.44	68.820	
1,900.0	1,894.5	1,893.5	1,893.5	4.1	3.3	-149.03	185.8	291.0	451.2	444.4	6.80	66.326	
2,000.0	1,994.1	1,993.1	1,993.1	4.3	3.5	-149.61	185.8	291.0	458.9	451.7	7.16	64.095	
2,100.0	2,093.7	2,092.7	2,092.7	4.5	3.6	-150.17	185.8	291.0	466.7	459.1	7.52	62.088	
2,200.0	2,193.2	2,192.2	2,192.2	4.8	3.8	-150.70	185.8	291.0	474.5	466.6	7.87	60.272	
2,300.0	2,292.8	2,291.8	2,291.8	5.0	4.0	-151.22	185.8	291.0	482.3	474.1	8.23	58.624	
2,400.0	2,392.4	2,391.4	2,391.4	5.2	4.2	-151.73	185.8	291.0	490.2	481.6	8.58	57.120	
2,500.0	2,492.0	2,491.0	2,491.0	5.5	4.3	-152.22	185.8	291.0	498.1	489.2	8.94	55.743	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - NELSON E UNIT 1 (EXISTING) - ENCANA WELL - NO SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 8140-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
4,100.0	4,085.6	4,074.6	4,074.6	9.2	7.1	48.21	-539.9	-533.3	499.1	483.6	15.45	32.304	
4,200.0	4,185.2	4,174.2	4,174.2	9.4	7.3	48.98	-539.9	-533.3	493.1	477.3	15.86	31.092	
4,300.0	4,284.8	4,273.8	4,273.8	9.7	7.5	49.78	-539.9	-533.3	487.3	471.0	16.27	29.942	
4,400.0	4,384.4	4,373.4	4,373.4	9.9	7.6	50.59	-539.9	-533.3	481.5	464.9	16.69	28.852	
4,500.0	4,484.0	4,473.0	4,473.0	10.1	7.8	51.42	-539.9	-533.3	475.9	458.8	17.11	27.817	
4,600.0	4,583.6	4,572.6	4,572.6	10.4	8.0	52.27	-539.9	-533.3	470.3	452.8	17.53	26.834	
4,700.0	4,683.2	4,672.2	4,672.2	10.6	8.2	53.14	-539.9	-533.3	464.9	446.9	17.95	25.900	
4,800.0	4,782.8	4,771.8	4,771.8	10.8	8.3	54.04	-539.9	-533.3	459.6	441.2	18.37	25.012	
4,900.0	4,882.4	4,871.4	4,871.4	11.1	8.5	54.95	-539.9	-533.3	454.3	435.5	18.80	24.168	
5,000.0	4,982.0	4,971.0	4,971.0	11.3	8.7	55.88	-539.9	-533.3	449.2	430.0	19.23	23.364	
5,100.0	5,081.6	5,070.6	5,070.6	11.5	8.8	56.84	-539.9	-533.3	444.3	424.6	19.66	22.600	
5,200.0	5,181.2	5,170.2	5,170.2	11.8	9.0	57.81	-539.9	-533.3	439.4	419.3	20.09	21.873	
5,300.0	5,280.8	5,269.8	5,269.8	12.0	9.2	58.81	-539.9	-533.3	434.7	414.2	20.52	21.181	
5,400.0	5,380.4	5,369.4	5,369.4	12.2	9.4	59.83	-539.9	-533.3	430.1	409.1	20.96	20.522	
5,500.0	5,480.0	5,469.0	5,469.0	12.5	9.5	60.87	-539.9	-533.3	425.6	404.2	21.39	19.895	
5,600.0	5,579.6	5,568.6	5,568.6	12.7	9.7	61.93	-539.9	-533.3	421.3	399.5	21.83	19.298	
5,700.0	5,679.2	5,668.2	5,668.2	12.9	9.9	63.01	-539.9	-533.3	417.2	394.9	22.27	18.730	
5,800.0	5,778.8	5,767.8	5,767.8	13.2	10.1	64.12	-539.9	-533.3	413.2	390.5	22.71	18.191	
5,900.0	5,878.4	5,867.4	5,867.4	13.4	10.2	65.24	-539.9	-533.3	409.3	386.2	23.16	17.677	
6,000.0	5,978.0	5,967.0	5,967.0	13.6	10.4	66.39	-539.9	-533.3	405.6	382.0	23.60	17.189	
6,100.0	6,077.5	6,066.5	6,066.5	13.9	10.6	67.55	-539.9	-533.3	402.1	378.1	24.04	16.726	
6,200.0	6,177.1	6,166.1	6,166.1	14.1	10.8	68.74	-539.9	-533.3	398.8	374.3	24.49	16.286	
6,300.0	6,276.7	6,265.7	6,265.7	14.4	10.9	69.94	-539.9	-533.3	395.6	370.7	24.93	15.869	
6,400.0	6,376.3	6,365.3	6,365.3	14.6	11.1	71.17	-539.9	-533.3	392.6	367.2	25.37	15.473	
6,500.0	6,475.9	6,464.9	6,464.9	14.8	11.3	72.41	-539.9	-533.3	389.8	364.0	25.82	15.098	
6,600.0	6,575.5	6,564.5	6,564.5	15.1	11.5	73.67	-539.9	-533.3	387.2	360.9	26.26	14.744	
6,700.0	6,675.1	6,664.1	6,664.1	15.3	11.6	74.95	-539.9	-533.3	384.7	358.0	26.70	14.409	
6,800.0	6,774.7	6,763.7	6,763.7	15.5	11.8	76.24	-539.9	-533.3	382.5	355.4	27.14	14.093	
6,900.0	6,874.3	6,863.3	6,863.3	15.8	12.0	77.55	-539.9	-533.3	380.5	352.9	27.58	13.794	
7,000.0	6,973.9	6,962.9	6,962.9	16.0	12.2	78.87	-539.9	-533.3	378.6	350.6	28.02	13.513	
7,100.0	7,073.8	7,062.8	7,062.8	16.1	12.3	-62.91	-539.9	-533.3	376.1	347.8	28.30	13.290	
7,200.0	7,172.4	7,161.4	7,161.4	16.0	12.5	-80.11	-539.9	-533.3	372.1	343.7	28.32	13.137	
7,300.0	7,266.7	7,255.7	7,255.7	15.8	12.7	-87.73	-539.9	-533.3	368.6	340.5	28.11	13.113	SF
7,330.4	7,294.1	7,283.1	7,283.1	15.7	12.7	-90.00	-539.9	-533.3	368.4	340.4	28.00	13.157	CC, ES
7,400.0	7,354.0	7,343.0	7,343.0	15.5	12.8	-95.15	-539.9	-533.3	370.3	342.6	27.70	13.369	
7,500.0	7,431.5	7,420.5	7,420.5	15.1	13.0	-101.87	-539.9	-533.3	382.7	355.5	27.13	14.105	
7,600.0	7,496.9	7,485.9	7,485.9	14.7	13.1	-106.59	-539.9	-533.3	410.6	384.1	26.54	15.469	
7,700.0	7,548.3	7,537.3	7,537.3	14.4	13.2	-108.19	-539.9	-533.3	456.1	429.9	26.18	17.420	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - RAY NELSON 23-32 (EXISTING) - ENCANA WELL - NO SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 8140-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	70.26	157.7	439.5	476.9				
100.0	100.0	3.0	3.0	0.2	0.0	70.26	157.7	439.5	467.0	466.8	0.16	2,969.010	CC
158.3	158.3	61.3	61.3	0.3	0.1	-125.09	157.7	439.5	467.0	466.6	0.36	1,293.977	
200.0	200.0	103.0	103.0	0.3	0.2	-125.08	157.7	439.5	467.0	466.5	0.51	922.269	ES
300.0	300.0	203.0	203.0	0.5	0.4	-125.20	157.7	439.5	467.7	466.8	0.86	546.169	
400.0	399.9	302.9	302.9	0.7	0.5	-125.48	157.7	439.5	469.4	468.2	1.21	388.068	
500.0	499.8	402.8	402.8	0.9	0.7	-125.93	157.7	439.5	472.2	470.6	1.57	301.027	
600.0	599.6	502.6	502.6	1.1	0.9	-126.52	157.7	439.5	476.0	474.0	1.93	245.993	
700.0	699.3	602.3	602.3	1.3	1.1	-127.27	157.7	439.5	480.9	478.6	2.31	208.188	
800.0	798.9	701.9	701.9	1.5	1.2	-128.11	157.7	439.5	486.4	483.7	2.69	180.988	
900.0	898.5	801.5	801.5	1.7	1.4	-128.93	157.7	439.5	492.0	488.9	3.07	160.482	
1,000.0	998.1	901.1	901.1	2.0	1.6	-129.73	157.7	439.5	497.7	494.2	3.44	144.508	SF

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - RAY NELSON 2-4-32 (EXISTING) - ENCANA WELL - NO SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 750-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
8,500.0	7,606.0	7,660.0	7,583.0	18.2	21.6	-90.00	1,013.9	-290.4	478.6	442.7	35.87	13.341	
8,600.0	7,606.0	7,660.0	7,583.0	19.3	21.6	-90.00	1,013.9	-290.4	379.7	342.6	37.04	10.249	
8,700.0	7,606.0	7,660.0	7,583.0	20.6	21.6	-90.00	1,013.9	-290.4	281.5	243.2	38.30	7.351	
8,800.0	7,606.0	7,660.0	7,583.0	21.9	21.6	-90.00	1,013.9	-290.4	185.3	145.7	39.62	4.678	
8,900.0	7,606.0	7,660.0	7,583.0	23.2	21.6	-90.00	1,013.9	-290.4	97.3	56.3	41.00	2.372	
8,974.5	7,606.0	7,660.0	7,583.0	24.3	21.6	-90.00	1,013.9	-290.4	62.6	20.5	42.07	1.487	Level 3, CC, ES, SF
9,000.0	7,606.0	7,660.0	7,583.0	24.7	21.6	-90.00	1,013.9	-290.4	67.6	25.1	42.43	1.592	
9,100.0	7,606.0	7,660.0	7,583.0	26.1	21.6	-90.00	1,013.9	-290.4	140.3	96.4	43.90	3.195	
9,200.0	7,606.0	7,660.0	7,583.0	27.6	21.6	-90.00	1,013.9	-290.4	234.0	188.6	45.40	5.155	
9,300.0	7,606.0	7,660.0	7,583.0	29.1	21.6	-90.00	1,013.9	-290.4	331.5	284.6	46.93	7.063	
9,400.0	7,606.0	7,660.0	7,583.0	30.7	21.6	-90.00	1,013.9	-290.4	430.1	381.6	48.49	8.870	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - RAY NELSON 4-4-32 (EXISTING) - ENCANA WELL - SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 60-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	3.2	3.2	0.0	0.0	66.36	189.1	432.0	471.5				
100.0	100.0	105.0	105.0	0.2	0.2	66.20	190.0	431.0	471.0	470.7	0.31	1,520.123	
121.2	121.2	124.4	124.4	0.2	0.2	-129.18	190.4	430.8	471.0	470.6	0.38	1,235.705	CC, ES
200.0	200.0	195.9	195.9	0.3	0.3	-129.40	192.2	430.5	471.6	470.9	0.65	728.232	
300.0	300.0	283.3	283.1	0.5	0.5	-129.83	195.9	431.6	475.2	474.2	0.98	483.127	
400.0	399.9	366.5	366.1	0.7	0.7	-130.43	201.2	434.4	482.9	481.6	1.32	366.055	
500.0	499.8	455.5	454.7	0.9	0.9	-131.21	208.4	439.7	494.7	493.1	1.67	296.078	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 S32-T2N-R68W (File/Hwy 52) - RAY NELSON 4-6-32 (EXISTING) - ENCANA WELL - SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 60-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	3.1	3.1	0.0	0.0	68.71	171.2	439.2	471.4				
100.0	100.0	105.0	105.0	0.2	0.2	68.76	170.6	439.1	471.1	470.8	0.31	1,532.544	
183.4	183.4	187.2	187.2	0.3	0.3	-126.40	169.1	439.4	470.8	470.2	0.60	785.651	
200.0	200.0	202.3	202.3	0.3	0.3	-126.33	168.6	439.5	470.8	470.1	0.66	717.941	CC, ES
300.0	300.0	298.9	298.7	0.5	0.5	-125.85	164.3	441.7	472.0	471.0	1.02	464.208	
400.0	399.9	391.9	391.4	0.7	0.7	-125.15	157.4	445.6	475.1	473.7	1.40	339.881	
500.0	499.8	484.0	483.0	0.9	0.9	-124.34	149.2	452.0	481.4	479.6	1.81	266.448	
600.0	599.6	582.0	580.1	1.1	1.2	-123.47	139.1	459.9	489.4	487.1	2.26	216.704	
700.0	699.3	686.6	683.7	1.3	1.5	-122.62	127.4	468.4	498.1	495.4	2.75	181.099	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well File 3M-32H-K268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 4971.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	File 3M-32H-K268	**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 WELL @ 4971.0ft (Original Well Elev)	Coordinates are relative to: File 3M-32H-K268
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 °	Grid Convergence at Surface is: 0.30°