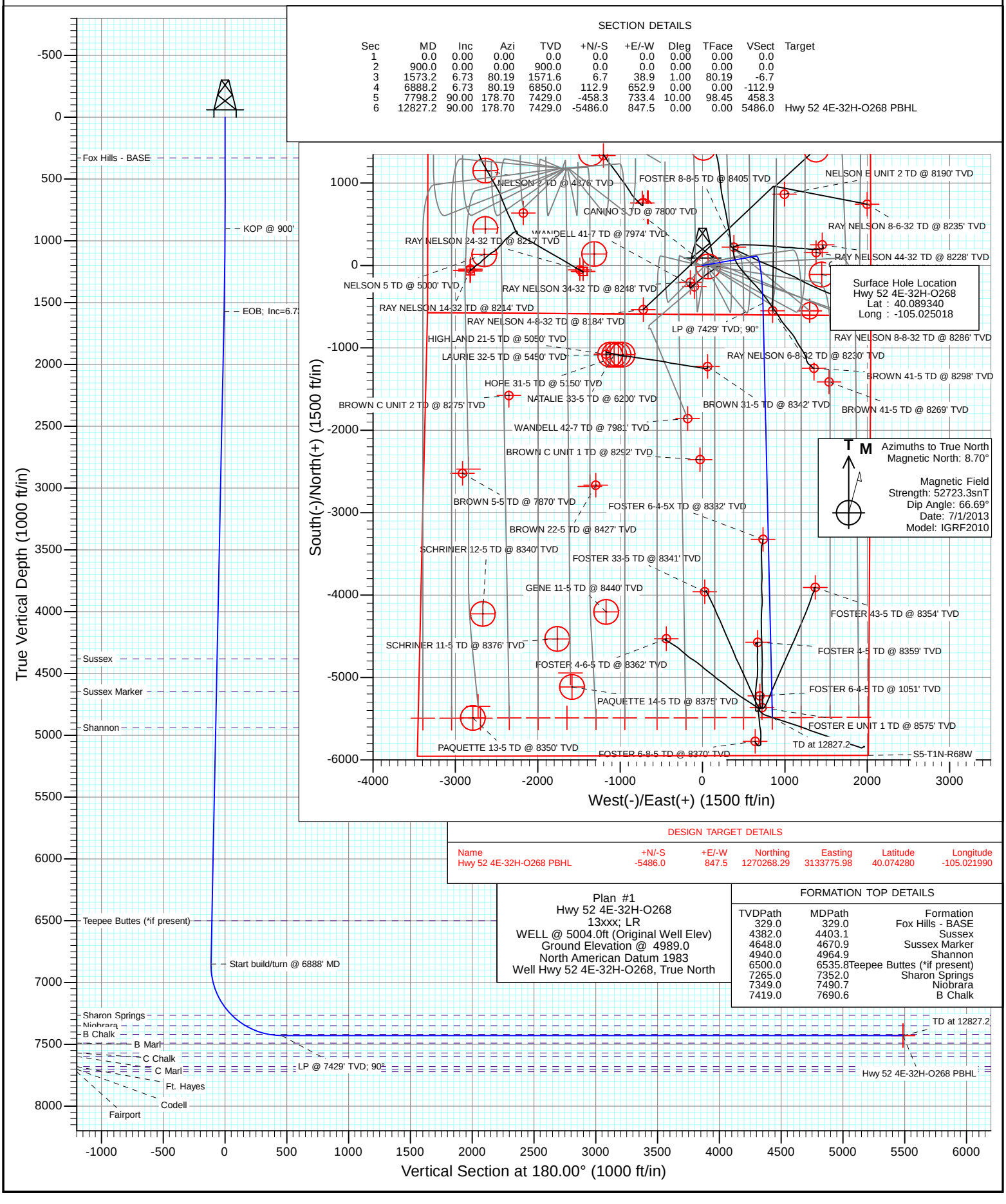
Project: DJ Wattenberg
Site: S32-T2N-R68W (File/Hwy 52)
Well: Hwy 52 4E-32H-O268
Wellbore: Hz
Design: Plan #1

encana

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	900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.0	
3	1573.2	6.73	80.19	1571.6	6.7	38.9	1.00	80.19	-6.7	
4	6888.2	6.73	80.19	6850.0	112.9	652.9	0.00	0.00	-112.9	
5	7798.2	90.00	178.70	7429.0	-458.3	733.4	10.00	98.45	458.3	
6	12827.2	90.00	178.70	7429.0	-5486.0	847.5	0.00	0.00	5486.0	Hwy 52 4E-32H-O268 PBHL



DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Hwy 52 4E-32H-O268 PBHL	-5486.0	847.5	1270268.29	3133775.98	40.074280	-105.021990

Plan #1
Hwy 52 4E-32H-O268
13xxx; LR
WELL @ 5004.0ft (Original Well Elev)
Ground Elevation @ 4989.0
North American Datum 1983
Well Hwy 52 4E-32H-O268, True North

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
329.0	329.0	Fox Hills - BASE
4382.0	4403.1	Sussex
4648.0	4670.9	Sussex Marker
4940.0	4964.9	Shannon
6500.0	6535.8	Teepee Buttes (*if present)
7265.0	7352.0	Sharon Springs
7349.0	7490.7	Niobrara
7419.0	7690.6	B Chalk

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site:	S32-T2N-R68W (File/Hwy 52)	**North Reference:**	True
Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Project DJ Wattenberg

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

Site 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 Hwy 52 4E-32H-O268

Well Position	**+N/-S**	0.0 ft	**Northing:**	1,275,749.69 ft	**Latitude:**	40.089340
	+E/-W	0.0 ft	**Easting:**	3,132,899.09 ft	**Longitude:**	-105.025018
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,989.0 ft

Wellbore Hz

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/1/2013	8.70	66.69	52,723

Design Plan #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	180.00

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	
900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,573.2	6.73	80.19	1,571.6	6.7	38.9	1.00	1.00	0.00	80.19	
6,888.2	6.73	80.19	6,850.0	112.9	652.9	0.00	0.00	0.00	0.00	
7,798.2	90.00	178.70	7,429.0	-458.3	733.4	10.00	9.15	10.83	98.45	
12,827.2	90.00	178.70	7,429.0	-5,486.0	847.5	0.00	0.00	0.00	0.00	Hwy 52 4E-32H-O26

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site:	S32-T2N-R68W (File/Hwy 52)	**North Reference:**	True
Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
329.0	0.00	0.00	329.0	0.0	0.0	0.0	0.00	0.00	Fox Hills - BASE
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	KOP @ 900'
1,000.0	1.00	80.19	1,000.0	0.1	0.9	-0.1	1.00	1.00	
1,100.0	2.00	80.19	1,100.0	0.6	3.4	-0.6	1.00	1.00	
1,200.0	3.00	80.19	1,199.9	1.3	7.7	-1.3	1.00	1.00	
1,300.0	4.00	80.19	1,299.7	2.4	13.8	-2.4	1.00	1.00	
1,400.0	5.00	80.19	1,399.4	3.7	21.5	-3.7	1.00	1.00	
1,500.0	6.00	80.19	1,498.9	5.3	30.9	-5.3	1.00	1.00	
1,573.2	6.73	80.19	1,571.6	6.7	38.9	-6.7	1.00	1.00	EOB; Inc=6.73°
1,600.0	6.73	80.19	1,598.3	7.3	42.0	-7.3	0.00	0.00	
1,700.0	6.73	80.19	1,697.6	9.3	53.6	-9.3	0.00	0.00	
1,800.0	6.73	80.19	1,796.9	11.3	65.1	-11.3	0.00	0.00	
1,900.0	6.73	80.19	1,896.2	13.3	76.7	-13.3	0.00	0.00	
2,000.0	6.73	80.19	1,995.5	15.3	88.2	-15.3	0.00	0.00	
2,100.0	6.73	80.19	2,094.8	17.3	99.8	-17.3	0.00	0.00	
2,200.0	6.73	80.19	2,194.1	19.2	111.3	-19.2	0.00	0.00	
2,300.0	6.73	80.19	2,293.4	21.2	122.9	-21.2	0.00	0.00	
2,400.0	6.73	80.19	2,392.8	23.2	134.4	-23.2	0.00	0.00	
2,500.0	6.73	80.19	2,492.1	25.2	146.0	-25.2	0.00	0.00	
2,600.0	6.73	80.19	2,591.4	27.2	157.5	-27.2	0.00	0.00	
2,700.0	6.73	80.19	2,690.7	29.2	169.1	-29.2	0.00	0.00	
2,800.0	6.73	80.19	2,790.0	31.2	180.6	-31.2	0.00	0.00	
2,900.0	6.73	80.19	2,889.3	33.2	192.2	-33.2	0.00	0.00	
3,000.0	6.73	80.19	2,988.6	35.2	203.7	-35.2	0.00	0.00	
3,100.0	6.73	80.19	3,087.9	37.2	215.3	-37.2	0.00	0.00	
3,200.0	6.73	80.19	3,187.2	39.2	226.8	-39.2	0.00	0.00	
3,300.0	6.73	80.19	3,286.5	41.2	238.4	-41.2	0.00	0.00	
3,400.0	6.73	80.19	3,385.9	43.2	249.9	-43.2	0.00	0.00	
3,500.0	6.73	80.19	3,485.2	45.2	261.5	-45.2	0.00	0.00	
3,600.0	6.73	80.19	3,584.5	47.2	273.0	-47.2	0.00	0.00	
3,700.0	6.73	80.19	3,683.8	49.2	284.6	-49.2	0.00	0.00	
3,800.0	6.73	80.19	3,783.1	51.2	296.1	-51.2	0.00	0.00	
3,900.0	6.73	80.19	3,882.4	53.2	307.7	-53.2	0.00	0.00	
4,000.0	6.73	80.19	3,981.7	55.2	319.2	-55.2	0.00	0.00	
4,100.0	6.73	80.19	4,081.0	57.2	330.8	-57.2	0.00	0.00	
4,200.0	6.73	80.19	4,180.3	59.2	342.3	-59.2	0.00	0.00	
4,300.0	6.73	80.19	4,279.7	61.2	353.9	-61.2	0.00	0.00	
4,400.0	6.73	80.19	4,379.0	63.2	365.4	-63.2	0.00	0.00	
4,403.1	6.73	80.19	4,382.0	63.2	365.8	-63.2	0.00	0.00	Sussex
4,500.0	6.73	80.19	4,478.3	65.2	377.0	-65.2	0.00	0.00	
4,600.0	6.73	80.19	4,577.6	67.2	388.5	-67.2	0.00	0.00	
4,670.9	6.73	80.19	4,648.0	68.6	396.7	-68.6	0.00	0.00	Sussex Marker
4,700.0	6.73	80.19	4,676.9	69.2	400.1	-69.2	0.00	0.00	

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Project:	DJ Wattenberg	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site:	S32-T2N-R68W (File/Hwy 52)	**North Reference:**	True
Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,800.0	6.73	80.19	4,776.2	71.2	411.6	-71.2	0.00	0.00	
4,900.0	6.73	80.19	4,875.5	73.2	423.2	-73.2	0.00	0.00	
4,964.9	6.73	80.19	4,940.0	74.5	430.7	-74.5	0.00	0.00	Shannon
5,000.0	6.73	80.19	4,974.8	75.2	434.8	-75.2	0.00	0.00	
5,100.0	6.73	80.19	5,074.1	77.2	446.3	-77.2	0.00	0.00	
5,200.0	6.73	80.19	5,173.4	79.2	457.9	-79.2	0.00	0.00	
5,300.0	6.73	80.19	5,272.8	81.2	469.4	-81.2	0.00	0.00	
5,400.0	6.73	80.19	5,372.1	83.2	481.0	-83.2	0.00	0.00	
5,500.0	6.73	80.19	5,471.4	85.2	492.5	-85.2	0.00	0.00	
5,600.0	6.73	80.19	5,570.7	87.1	504.1	-87.1	0.00	0.00	
5,700.0	6.73	80.19	5,670.0	89.1	515.6	-89.1	0.00	0.00	
5,800.0	6.73	80.19	5,769.3	91.1	527.2	-91.1	0.00	0.00	
5,900.0	6.73	80.19	5,868.6	93.1	538.7	-93.1	0.00	0.00	
6,000.0	6.73	80.19	5,967.9	95.1	550.3	-95.1	0.00	0.00	
6,100.0	6.73	80.19	6,067.2	97.1	561.8	-97.1	0.00	0.00	
6,200.0	6.73	80.19	6,166.6	99.1	573.4	-99.1	0.00	0.00	
6,300.0	6.73	80.19	6,265.9	101.1	584.9	-101.1	0.00	0.00	
6,400.0	6.73	80.19	6,365.2	103.1	596.5	-103.1	0.00	0.00	
6,500.0	6.73	80.19	6,464.5	105.1	608.0	-105.1	0.00	0.00	
6,535.8	6.73	80.19	6,500.0	105.8	612.1	-105.8	0.00	0.00	Teepee Buttes (*if present)
6,600.0	6.73	80.19	6,563.8	107.1	619.6	-107.1	0.00	0.00	
6,700.0	6.73	80.19	6,663.1	109.1	631.1	-109.1	0.00	0.00	
6,800.0	6.73	80.19	6,762.4	111.1	642.7	-111.1	0.00	0.00	
6,888.2	6.73	80.19	6,850.0	112.9	652.9	-112.9	0.00	0.00	Start build/turn @ 6888' MD
6,900.0	6.66	90.28	6,861.7	113.0	654.2	-113.0	10.00	-0.60	
7,000.0	12.15	145.86	6,960.5	104.2	666.0	-104.2	10.00	5.49	
7,100.0	21.21	161.19	7,056.3	78.3	677.7	-78.3	10.00	9.06	
7,200.0	30.84	167.43	7,146.0	36.1	689.2	-36.1	10.00	9.63	
7,300.0	40.64	170.88	7,227.1	-21.2	699.9	21.2	10.00	9.80	
7,352.0	45.76	172.17	7,265.0	-56.4	705.2	56.4	10.00	9.86	Sharon Springs
7,400.0	50.50	173.18	7,297.0	-91.9	709.7	91.9	10.00	9.88	
7,490.7	59.48	174.75	7,349.0	-165.7	717.4	165.7	10.00	9.90	Niobrara
7,500.0	60.40	174.90	7,353.7	-173.7	718.2	173.7	10.00	9.91	
7,600.0	70.32	176.31	7,395.3	-264.2	725.1	264.2	10.00	9.92	
7,690.6	79.32	177.44	7,419.0	-351.4	729.8	351.4	10.00	9.93	B Chalk
7,700.0	80.25	177.55	7,420.7	-360.7	730.2	360.7	10.00	9.93	
7,798.2	90.00	178.70	7,429.0	-458.3	733.4	458.3	10.00	9.93	LP @ 7429' TVD; 90°
7,800.0	90.00	178.70	7,429.0	-460.1	733.5	460.1	0.00	0.00	
7,900.0	90.00	178.70	7,429.0	-560.1	735.7	560.1	0.00	0.00	
8,000.0	90.00	178.70	7,429.0	-660.1	738.0	660.1	0.00	0.00	
8,100.0	90.00	178.70	7,429.0	-760.1	740.3	760.1	0.00	0.00	
8,200.0	90.00	178.70	7,429.0	-860.0	742.5	860.0	0.00	0.00	
8,300.0	90.00	178.70	7,429.0	-960.0	744.8	960.0	0.00	0.00	
8,400.0	90.00	178.70	7,429.0	-1,060.0	747.1	1,060.0	0.00	0.00	
8,500.0	90.00	178.70	7,429.0	-1,160.0	749.3	1,160.0	0.00	0.00	
8,600.0	90.00	178.70	7,429.0	-1,259.9	751.6	1,259.9	0.00	0.00	
8,700.0	90.00	178.70	7,429.0	-1,359.9	753.9	1,359.9	0.00	0.00	
8,800.0	90.00	178.70	7,429.0	-1,459.9	756.2	1,459.9	0.00	0.00	
8,900.0	90.00	178.70	7,429.0	-1,559.9	758.4	1,559.9	0.00	0.00	
9,000.0	90.00	178.70	7,429.0	-1,659.8	760.7	1,659.8	0.00	0.00	
9,100.0	90.00	178.70	7,429.0	-1,759.8	763.0	1,759.8	0.00	0.00	
9,200.0	90.00	178.70	7,429.0	-1,859.8	765.2	1,859.8	0.00	0.00	

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Site:	S32-T2N-R68W (File/Hwy 52)	**North Reference:**	True
Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
9,300.0	90.00	178.70	7,429.0	-1,959.8	767.5	1,959.8	0.00	0.00	
9,400.0	90.00	178.70	7,429.0	-2,059.7	769.8	2,059.7	0.00	0.00	
9,500.0	90.00	178.70	7,429.0	-2,159.7	772.0	2,159.7	0.00	0.00	
9,600.0	90.00	178.70	7,429.0	-2,259.7	774.3	2,259.7	0.00	0.00	
9,700.0	90.00	178.70	7,429.0	-2,359.7	776.6	2,359.7	0.00	0.00	
9,800.0	90.00	178.70	7,429.0	-2,459.6	778.8	2,459.6	0.00	0.00	
9,900.0	90.00	178.70	7,429.0	-2,559.6	781.1	2,559.6	0.00	0.00	
10,000.0	90.00	178.70	7,429.0	-2,659.6	783.4	2,659.6	0.00	0.00	
10,100.0	90.00	178.70	7,429.0	-2,759.6	785.6	2,759.6	0.00	0.00	
10,200.0	90.00	178.70	7,429.0	-2,859.5	787.9	2,859.5	0.00	0.00	
10,300.0	90.00	178.70	7,429.0	-2,959.5	790.2	2,959.5	0.00	0.00	
10,400.0	90.00	178.70	7,429.0	-3,059.5	792.5	3,059.5	0.00	0.00	
10,500.0	90.00	178.70	7,429.0	-3,159.5	794.7	3,159.5	0.00	0.00	
10,600.0	90.00	178.70	7,429.0	-3,259.4	797.0	3,259.4	0.00	0.00	
10,700.0	90.00	178.70	7,429.0	-3,359.4	799.3	3,359.4	0.00	0.00	
10,800.0	90.00	178.70	7,429.0	-3,459.4	801.5	3,459.4	0.00	0.00	
10,900.0	90.00	178.70	7,429.0	-3,559.4	803.8	3,559.4	0.00	0.00	
11,000.0	90.00	178.70	7,429.0	-3,659.3	806.1	3,659.3	0.00	0.00	
11,100.0	90.00	178.70	7,429.0	-3,759.3	808.3	3,759.3	0.00	0.00	
11,200.0	90.00	178.70	7,429.0	-3,859.3	810.6	3,859.3	0.00	0.00	
11,300.0	90.00	178.70	7,429.0	-3,959.2	812.9	3,959.2	0.00	0.00	
11,400.0	90.00	178.70	7,429.0	-4,059.2	815.1	4,059.2	0.00	0.00	
11,500.0	90.00	178.70	7,429.0	-4,159.2	817.4	4,159.2	0.00	0.00	
11,600.0	90.00	178.70	7,429.0	-4,259.2	819.7	4,259.2	0.00	0.00	
11,700.0	90.00	178.70	7,429.0	-4,359.1	821.9	4,359.1	0.00	0.00	
11,800.0	90.00	178.70	7,429.0	-4,459.1	824.2	4,459.1	0.00	0.00	
11,900.0	90.00	178.70	7,429.0	-4,559.1	826.5	4,559.1	0.00	0.00	
12,000.0	90.00	178.70	7,429.0	-4,659.1	828.8	4,659.1	0.00	0.00	
12,100.0	90.00	178.70	7,429.0	-4,759.0	831.0	4,759.0	0.00	0.00	
12,200.0	90.00	178.70	7,429.0	-4,859.0	833.3	4,859.0	0.00	0.00	
12,300.0	90.00	178.70	7,429.0	-4,959.0	835.6	4,959.0	0.00	0.00	
12,400.0	90.00	178.70	7,429.0	-5,059.0	837.8	5,059.0	0.00	0.00	
12,500.0	90.00	178.70	7,429.0	-5,158.9	840.1	5,158.9	0.00	0.00	
12,600.0	90.00	178.70	7,429.0	-5,258.9	842.4	5,258.9	0.00	0.00	
12,700.0	90.00	178.70	7,429.0	-5,358.9	844.6	5,358.9	0.00	0.00	
12,800.0	90.00	178.70	7,429.0	-5,458.9	846.9	5,458.9	0.00	0.00	
12,827.2	90.00	178.70	7,429.0	-5,486.0	847.5	5,486.0	0.00	0.00	TD at 12827.2 - Hwy 52 4E-32H-O268 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
Hwy 52 4E-32H-O268 P - plan hits target center - Point	0.00	0.00	7,429.0	-5,486.0	847.5	1,270,268.29	3,133,775.98	40.074280	-105.021990

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site:	S32-T2N-R68W (File/Hwy 52)	**North Reference:**	True
Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
329.0	329.0	Fox Hills - BASE			
4,403.1	4,382.0	Sussex			
4,670.9	4,648.0	Sussex Marker			
4,964.9	4,940.0	Shannon			
6,535.8	6,500.0	Teepee Buttes (*if present)			
7,352.0	7,265.0	Sharon Springs			
7,490.7	7,349.0	Niobrara			
7,690.6	7,419.0	B Chalk			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
900.0	900.0	0.0	0.0	KOP @ 900'
1,573.2	1,571.6	6.7	38.9	EOB; Inc=6.73°
6,888.2	6,850.0	112.9	652.9	Start build/turn @ 6888' MD
7,798.2	7,429.0	-458.3	733.4	LP @ 7429' TVD; 90°
12,827.2	7,429.0	-5,486.0	847.5	TD at 12827.2

EnCana Oil & Gas (USA) Inc

DJ Wattenberg
S32-T2N-R68W (File/Hwy 52)
Hwy 52 4E-32H-O268
Hz
Plan #1

Anticollision Report

03 July, 2013

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference	Plan #1

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** 7/3/2013

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	12,827.2	Plan #1 (Hz)	Geolink MWD	Geolink MWD

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name 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						Out of range
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	1,201.9	1,185.1	395.0	389.6	72.893	CC, ES
BROWN 41-5 (EXISTING) - ENCANA WELL - ENCANA	2,000.0	1,885.9	486.6	477.2	51.783	SF
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
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	1,786.6	1,725.6	23.4	17.0	3.686	CC
CANINO 3 (EXISTING) - HUGHES CW WELL - NO SUR	1,800.0	1,738.9	23.4	17.0	3.664	ES, SF
FEDERAL NOAA 11-32 (EXISTING) - ENCANA WELL - N						Out of range
File 3A-32H-K268 - Hz - Plan #1						Out of range
File 3B-32H-K268 - Hz - Plan #1						Out of range
File 3C-32H-K268 - Hz - Plan #1						Out of range
File 3D-32H-K268 - Hz - Plan #1						Out of range
File 3E-32H-K268 - Hz - Plan #1						Out of range
File 3F-32H-K268 - Hz - Plan #1						Out of range
File 3G-32H-K268 - Hz - Plan #1						Out of range
File 3H-32H-K268 - Hz - Plan #1						Out of range
File 3I-32H-K268 - Hz - Plan #1						Out of range
File 3J-32H-K268 - Hz - Plan #1						Out of range
File 3K-32H-K268 - Hz - Plan #1						Out of range
File 3L-32H-K268 - Hz - Plan #1						Out of range
File 3M-32H-K268 - Hz - Plan #1						Out of range
File 3N-32H-K268 - Hz - Plan #1						Out of range
File 3O-32H-K268 - Hz - Plan #1						Out of range
File 3P-32H-K268 - Hz - Plan #1						Out of range
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	11,928.6	7,563.3	175.9	73.1	1.711	CC, ES, SF
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	10,701.8	7,859.0	70.4	-29.3	0.706	Level 1, CC, ES, SF
FOSTER 6-8-5 (EXISTING) - ENCANA WELL - SURVEY	12,827.2	7,510.8	370.2	256.3	3.251	CC, ES, 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 Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name 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)						
FOSTER 8-8-5 (EXISTING) - ENCANA WELL - SURVEY						Out of range
FOSTER E UNIT 1 (EXISTING) - ENCANA WELL - NO S	12,703.8	7,473.0	123.2	13.2	1.120	Level 2, CC, ES, SF
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	166.3	167.3	30.0	29.5	56.605	CC
Hwy 52 4A-32H-O268 - Hz - Plan #1	200.0	201.0	30.0	29.4	46.331	ES
Hwy 52 4A-32H-O268 - Hz - Plan #1	900.0	897.2	66.3	63.0	20.478	SF
Hwy 52 4B-32H-O268 - Hz - Plan #1	200.0	200.0	25.7	25.1	39.813	CC, ES
Hwy 52 4B-32H-O268 - Hz - Plan #1	900.0	898.5	49.2	46.1	15.629	SF
Hwy 52 4C-32H-O268 - Hz - Plan #1	1,008.2	1,008.5	12.0	8.6	3.461	CC, ES
Hwy 52 4C-32H-O268 - Hz - Plan #1	1,100.0	1,100.3	12.6	8.8	3.320	SF
Hwy 52 4D-32H-O268 - Hz - Plan #1	887.5	887.8	9.4	6.4	3.095	CC
Hwy 52 4D-32H-O268 - Hz - Plan #1	900.0	900.3	9.5	6.4	3.063	ES
Hwy 52 4D-32H-O268 - Hz - Plan #1	1,900.0	1,899.5	14.7	7.4	2.025	SF
Hwy 52 4F-32H-O268 - Hz - Plan #1	700.0	700.0	7.8	5.4	3.266	CC, ES
Hwy 52 4F-32H-O268 - Hz - Plan #1	12,827.2	13,178.9	450.0	293.8	2.881	SF
Hwy 52 4G-32H-O268 - Hz - Plan #1	800.0	800.0	10.0	7.3	3.649	CC, ES
Hwy 52 4G-32H-O268 - Hz - Plan #1	900.0	899.8	10.9	7.8	3.518	SF
Hwy 52 4H-32H-O268 - Hz - Plan #1	1,500.0	1,498.4	15.6	10.4	3.011	CC
Hwy 52 4H-32H-O268 - Hz - Plan #1	1,600.0	1,598.1	15.6	10.1	2.825	ES, SF
Hwy 52 4I-32H-O268 - Hz - Plan #1	692.4	692.0	21.3	18.9	9.007	CC
Hwy 52 4I-32H-O268 - Hz - Plan #1	700.0	699.6	21.3	18.9	8.908	ES
Hwy 52 4I-32H-O268 - Hz - Plan #1	800.0	799.1	23.5	20.7	8.450	SF
Hwy 52 4J-32H-O268 - Hz - Plan #1	665.9	665.2	33.6	31.3	14.769	CC
Hwy 52 4J-32H-O268 - Hz - Plan #1	700.0	699.2	33.6	31.2	14.060	ES
Hwy 52 4J-32H-O268 - Hz - Plan #1	1,000.0	997.8	43.5	40.0	12.326	SF
Hwy 52 4K-32H-O268 - Hz - Plan #1	400.0	399.0	40.0	38.7	29.803	CC, ES
Hwy 52 4K-32H-O268 - Hz - Plan #1	7,900.0	7,450.0	394.3	361.5	12.006	SF
Hwy 52 4L-32H-O268 - Hz - Plan #1	500.0	499.0	45.4	43.7	26.843	CC, ES
Hwy 52 4L-32H-O268 - Hz - Plan #1	7,536.7	7,581.6	144.0	116.5	5.232	SF
Hwy 52 4M-32H-O268 - Hz - Plan #1	600.0	599.0	66.8	64.8	32.751	CC, ES
Hwy 52 4M-32H-O268 - Hz - Plan #1	7,844.4	7,496.2	124.1	91.6	3.821	SF
Hwy 52 4N-32H-O268 - Hz - Plan #1	700.0	699.0	72.7	70.3	30.420	CC, ES
Hwy 52 4N-32H-O268 - Hz - Plan #1	1,700.0	1,683.8	103.5	97.5	17.511	SF
Hwy 52 4O-32H-O268 - Hz - Plan #1	400.0	399.0	75.2	73.9	56.033	CC, ES
Hwy 52 4O-32H-O268 - Hz - Plan #1	1,600.0	1,573.8	155.7	150.2	28.270	SF
Hwy 52 4P-32H-O268 - Hz - Plan #1	200.0	199.0	81.0	80.4	125.832	CC, ES
Hwy 52 4P-32H-O268 - Hz - Plan #1	900.0	886.3	121.9	118.6	37.219	SF
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						Out of range
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						Out of range
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

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 Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name 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)						
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						Out of range
RAY NELSON 24-32 (EXISTING) - ENCANA WELL - SU						Out of range
RAY NELSON 2-4-32 (EXISTING) - ENCANA WELL - NO						Out of range
RAY NELSON 33-32 (EXISTING) - ENCANA WELL - EN	1,229.9	1,200.1	405.7	401.5	96.555	CC, ES
RAY NELSON 33-32 (EXISTING) - ENCANA WELL - EN	2,300.0	2,180.2	494.0	485.1	55.289	SF
RAY NELSON 34-32 (EXISTING) - ENCANA WELL - EN	2,694.9	2,676.1	41.9	31.7	4.091	CC
RAY NELSON 34-32 (EXISTING) - ENCANA WELL - EN	2,700.0	2,681.2	41.9	31.6	4.081	ES, SF
RAY NELSON 44-32 (EXISTING) - ENCANA WELL - EN	143.9	134.0	425.1	424.6	982.279	CC, ES
RAY NELSON 44-32 (EXISTING) - ENCANA WELL - EN	900.0	806.8	495.7	492.3	145.546	SF
RAY NELSON 4-4-32 (EXISTING) - ENCANA WELL - SU						Out of range
RAY NELSON 4-6-32 (EXISTING) - ENCANA WELL - SU						Out of range
RAY NELSON 4-8-32 (EXISTING) - ENCANA WELL - PL	3,803.3	3,950.0	274.8	243.5	8.783	CC, ES
RAY NELSON 4-8-32 (EXISTING) - ENCANA WELL - PL	3,900.0	4,034.5	278.8	246.7	8.703	SF
RAY NELSON 6-8-32 (EXISTING) - ENCANA WELL - PL	7,892.7	7,582.6	114.7	68.1	2.459	CC, ES, SF
Ray Nelson 7-8-32 - DD - Plan #1	500.0	490.0	429.6	428.0	256.426	CC, ES
Ray Nelson 7-8-32 - DD - Plan #1	2,200.0	2,127.3	500.0	491.2	56.903	SF
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	0.0	0.0	429.8			
RAY NELSON 8-8-32 (EXISTING) - ENCANA WELL - SU	900.0	815.9	488.2	484.7	141.749	SF
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 Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - BROWN 41-5 (EXISTING) - ENCANA WELL - ENCANA WELL

Offset Site Error: 0.0 ft

Survey Program: 41-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	60.63	207.6	368.9	423.4				
100.0	100.0	86.7	86.7	0.1	0.1	60.67	207.6	369.5	423.8	423.5	0.27	1,547.079	
200.0	200.0	185.9	185.9	0.3	0.3	60.74	207.5	370.5	424.7	424.1	0.62	682.132	
300.0	300.0	287.7	287.6	0.5	0.5	60.85	207.3	371.6	425.5	424.5	0.98	436.319	
400.0	400.0	398.9	398.9	0.7	0.7	61.14	205.0	371.9	424.7	423.4	1.34	316.341	
500.0	500.0	506.7	506.4	0.8	0.9	61.90	198.4	371.6	421.6	419.9	1.71	247.252	
600.0	600.0	614.5	613.6	1.0	1.1	63.39	186.4	372.1	416.8	414.8	2.07	201.297	
700.0	700.0	717.8	715.5	1.2	1.5	65.54	169.7	373.0	410.6	408.2	2.43	169.103	
800.0	800.0	809.8	806.0	1.4	1.8	67.77	153.2	374.9	405.3	402.6	2.76	146.803	
900.0	900.0	905.5	899.9	1.5	2.1	70.32	135.4	378.6	402.2	399.1	3.10	129.814	
1,000.0	1,000.0	1,003.5	995.8	1.7	2.5	-7.01	115.7	383.1	399.4	395.2	4.19	95.244	
1,100.0	1,100.0	1,097.1	1,086.5	1.9	2.9	-3.68	93.0	388.9	396.4	391.6	4.81	82.389	
1,200.0	1,199.9	1,183.5	1,169.4	2.1	3.3	-0.23	70.1	396.2	395.0	389.6	5.41	73.040	
1,201.9	1,201.7	1,185.1	1,170.9	2.1	3.4	-0.17	69.7	396.3	395.0	389.6	5.42	72.893	CC, ES
1,300.0	1,299.7	1,267.9	1,250.1	2.3	3.8	3.25	47.3	405.7	396.5	390.4	6.00	66.068	
1,400.0	1,399.4	1,353.0	1,331.2	2.5	4.2	6.78	24.3	417.6	400.9	394.4	6.56	61.087	
1,500.0	1,498.9	1,436.9	1,410.9	2.7	4.7	10.08	2.4	431.7	408.3	401.2	7.09	57.615	
1,600.0	1,598.3	1,525.9	1,495.2	2.9	5.2	13.49	-20.8	448.8	418.2	410.6	7.61	54.969	
1,700.0	1,697.6	1,616.3	1,580.4	3.1	5.7	16.82	-44.5	467.3	430.7	422.6	8.09	53.250	
1,800.0	1,796.9	1,702.4	1,661.5	3.4	6.2	19.74	-66.6	486.3	446.3	437.7	8.53	52.326	
1,900.0	1,896.2	1,787.9	1,741.2	3.6	6.8	22.57	-89.7	506.7	465.3	456.4	8.95	51.974	
2,000.0	1,995.5	1,885.9	1,831.8	3.8	7.4	25.83	-118.5	530.1	486.6	477.2	9.40	51.783	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 Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - CANINO 3 (EXISTING) - HUGHES CW WELL - NO SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 7800-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	100.10	-12.0	67.6	89.9				
100.0	100.0	42.0	42.0	0.1	0.1	100.10	-12.0	67.6	68.6	68.4	0.22	309.333	
200.0	200.0	142.0	142.0	0.3	0.2	100.10	-12.0	67.6	68.6	68.1	0.57	120.205	
300.0	300.0	242.0	242.0	0.5	0.4	100.10	-12.0	67.6	68.6	67.7	0.92	74.596	
400.0	400.0	342.0	342.0	0.7	0.6	100.10	-12.0	67.6	68.6	67.4	1.27	54.078	
500.0	500.0	442.0	442.0	0.8	0.8	100.10	-12.0	67.6	68.6	67.0	1.62	42.412	
600.0	600.0	542.0	542.0	1.0	0.9	100.10	-12.0	67.6	68.6	66.7	1.97	34.886	
700.0	700.0	642.0	642.0	1.2	1.1	100.10	-12.0	67.6	68.6	66.3	2.32	29.629	
800.0	800.0	742.0	742.0	1.4	1.3	100.10	-12.0	67.6	68.6	66.0	2.67	25.748	
900.0	900.0	842.0	842.0	1.5	1.5	100.10	-12.0	67.6	68.6	65.6	3.01	22.767	
1,000.0	1,000.0	942.0	942.0	1.7	1.6	20.17	-12.0	67.6	67.8	64.4	3.36	20.162	
1,100.0	1,100.0	1,042.0	1,042.0	1.9	1.8	20.97	-12.0	67.6	65.4	61.6	3.71	17.609	
1,200.0	1,199.9	1,141.9	1,141.9	2.1	2.0	22.44	-12.0	67.6	61.3	57.2	4.06	15.101	
1,300.0	1,299.7	1,241.7	1,241.7	2.3	2.2	24.86	-12.0	67.6	55.7	51.3	4.41	12.636	
1,400.0	1,399.4	1,341.4	1,341.4	2.5	2.3	28.78	-12.0	67.6	48.7	43.9	4.76	10.229	
1,500.0	1,498.9	1,440.9	1,440.9	2.7	2.5	35.35	-12.0	67.6	40.6	35.4	5.12	7.915	
1,600.0	1,598.3	1,540.3	1,540.3	2.9	2.7	47.09	-12.0	67.6	32.0	26.5	5.51	5.806	
1,700.0	1,697.6	1,639.6	1,639.6	3.1	2.9	66.66	-12.0	67.6	25.5	19.5	5.95	4.280	
1,786.6	1,783.6	1,725.6	1,725.6	3.3	3.0	90.00	-12.0	67.6	23.4	17.0	6.34	3.686	CC
1,800.0	1,796.9	1,738.9	1,738.9	3.4	3.0	93.80	-12.0	67.6	23.4	17.0	6.39	3.664	ES, SF
1,900.0	1,896.2	1,838.2	1,838.2	3.6	3.2	119.45	-12.0	67.6	26.9	20.2	6.73	3.994	
2,000.0	1,995.5	1,937.5	1,937.5	3.8	3.4	136.74	-12.0	67.6	34.2	27.2	7.02	4.877	
2,100.0	2,094.8	2,036.8	2,036.8	4.1	3.6	147.35	-12.0	67.6	43.5	36.2	7.32	5.950	
2,200.0	2,194.1	2,136.1	2,136.1	4.3	3.7	154.09	-12.0	67.6	53.8	46.2	7.63	7.049	
2,300.0	2,293.4	2,235.4	2,235.4	4.6	3.9	158.64	-12.0	67.6	64.6	56.6	7.96	8.113	
2,400.0	2,392.8	2,334.8	2,334.8	4.9	4.1	161.87	-12.0	67.6	75.6	67.3	8.29	9.120	
2,500.0	2,492.1	2,434.1	2,434.1	5.1	4.2	164.28	-12.0	67.6	86.8	78.2	8.63	10.066	
2,600.0	2,591.4	2,533.4	2,533.4	5.4	4.4	166.13	-12.0	67.6	98.2	89.2	8.97	10.950	
2,700.0	2,690.7	2,632.7	2,632.7	5.6	4.6	167.60	-12.0	67.6	109.6	100.3	9.31	11.775	
2,800.0	2,790.0	2,732.0	2,732.0	5.9	4.8	168.79	-12.0	67.6	121.1	111.4	9.65	12.547	
2,900.0	2,889.3	2,831.3	2,831.3	6.1	4.9	169.78	-12.0	67.6	132.6	122.6	9.99	13.269	
3,000.0	2,988.6	2,930.6	2,930.6	6.4	5.1	170.60	-12.0	67.6	144.1	133.8	10.34	13.945	
3,100.0	3,087.9	3,029.9	3,029.9	6.7	5.3	171.31	-12.0	67.6	155.7	145.0	10.68	14.579	
3,200.0	3,187.2	3,129.2	3,129.2	6.9	5.5	171.91	-12.0	67.6	167.3	156.3	11.03	15.175	
3,300.0	3,286.5	3,228.5	3,228.5	7.2	5.6	172.44	-12.0	67.6	178.9	167.6	11.37	15.735	
3,400.0	3,385.9	3,327.9	3,327.9	7.5	5.8	172.91	-12.0	67.6	190.6	178.8	11.72	16.263	
3,500.0	3,485.2	3,427.2	3,427.2	7.7	6.0	173.32	-12.0	67.6	202.2	190.1	12.06	16.762	
3,600.0	3,584.5	3,526.5	3,526.5	8.0	6.2	173.68	-12.0	67.6	213.8	201.4	12.41	17.233	
3,700.0	3,683.8	3,625.8	3,625.8	8.3	6.3	174.01	-12.0	67.6	225.5	212.7	12.76	17.679	
3,800.0	3,783.1	3,725.1	3,725.1	8.5	6.5	174.31	-12.0	67.6	237.2	224.1	13.10	18.102	
3,900.0	3,882.4	3,824.4	3,824.4	8.8	6.7	174.57	-12.0	67.6	248.8	235.4	13.45	18.503	
4,000.0	3,981.7	3,923.7	3,923.7	9.0	6.8	174.82	-12.0	67.6	260.5	246.7	13.79	18.885	
4,100.0	4,081.0	4,023.0	4,023.0	9.3	7.0	175.04	-12.0	67.6	272.2	258.0	14.14	19.248	
4,200.0	4,180.3	4,122.3	4,122.3	9.6	7.2	175.24	-12.0	67.6	283.9	269.4	14.49	19.593	
4,300.0	4,279.7	4,221.7	4,221.7	9.8	7.4	175.43	-12.0	67.6	295.5	280.7	14.83	19.923	
4,400.0	4,379.0	4,321.0	4,321.0	10.1	7.5	175.61	-12.0	67.6	307.2	292.1	15.18	20.238	
4,500.0	4,478.3	4,420.3	4,420.3	10.4	7.7	175.77	-12.0	67.6	318.9	303.4	15.53	20.539	
4,600.0	4,577.6	4,519.6	4,519.6	10.6	7.9	175.92	-12.0	67.6	330.6	314.7	15.87	20.826	
4,700.0	4,676.9	4,618.9	4,618.9	10.9	8.1	176.06	-12.0	67.6	342.3	326.1	16.22	21.102	
4,800.0	4,776.2	4,718.2	4,718.2	11.2	8.2	176.19	-12.0	67.6	354.0	337.4	16.57	21.366	
4,900.0	4,875.5	4,817.5	4,817.5	11.4	8.4	176.31	-12.0	67.6	365.7	348.8	16.92	21.619	
5,000.0	4,974.8	4,916.8	4,916.8	11.7	8.6	176.42	-12.0	67.6	377.4	360.1	17.26	21.863	

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 Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - CANINO 3 (EXISTING) - HUGHES CW WELL - NO SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 7800-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	5,074.1	5,016.1	5,016.1	12.0	8.8	176.53	-12.0	67.6	389.1	371.5	17.61	22.096	
5,200.0	5,173.4	5,115.4	5,115.4	12.3	8.9	176.63	-12.0	67.6	400.8	382.8	17.96	22.321	
5,300.0	5,272.8	5,214.8	5,214.8	12.5	9.1	176.73	-12.0	67.6	412.5	394.2	18.30	22.537	
5,400.0	5,372.1	5,314.1	5,314.1	12.8	9.3	176.82	-12.0	67.6	424.2	405.6	18.65	22.745	
5,500.0	5,471.4	5,413.4	5,413.4	13.1	9.4	176.91	-12.0	67.6	435.9	416.9	19.00	22.946	
5,600.0	5,570.7	5,512.7	5,512.7	13.3	9.6	176.99	-12.0	67.6	447.6	428.3	19.34	23.139	
5,700.0	5,670.0	5,612.0	5,612.0	13.6	9.8	177.06	-12.0	67.6	459.3	439.6	19.69	23.326	
5,800.0	5,769.3	5,711.3	5,711.3	13.9	10.0	177.14	-12.0	67.6	471.0	451.0	20.04	23.506	
5,900.0	5,868.6	5,810.6	5,810.6	14.1	10.1	177.21	-12.0	67.6	482.7	462.4	20.39	23.680	
6,000.0	5,967.9	5,909.9	5,909.9	14.4	10.3	177.27	-12.0	67.6	494.5	473.7	20.73	23.848	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - FOSTER 4-5 (EXISTING) - ENCANA WELL - SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 73-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
11,500.0	7,429.0	7,570.0	7,487.6	77.1	19.4	93.78	-4,591.6	651.6	463.3	368.1	95.23	4.865	
11,600.0	7,429.0	7,568.4	7,486.0	78.8	19.4	93.27	-4,591.7	651.5	372.7	275.7	97.00	3.842	
11,700.0	7,429.0	7,566.8	7,484.5	80.5	19.4	92.75	-4,591.7	651.5	288.5	189.7	98.77	2.920	
11,800.0	7,429.0	7,565.3	7,482.9	82.2	19.4	92.25	-4,591.7	651.4	217.9	117.4	100.54	2.167	
11,900.0	7,429.0	7,563.7	7,481.3	83.9	19.4	91.74	-4,591.7	651.4	178.2	75.9	102.29	1.742	
11,928.6	7,429.0	7,563.3	7,480.9	84.4	19.4	91.60	-4,591.8	651.4	175.9	73.1	102.80	1.711	CC, ES, SF
12,000.0	7,429.0	7,562.2	7,479.8	85.6	19.4	91.24	-4,591.8	651.4	189.8	85.7	104.05	1.824	
12,100.0	7,429.0	7,560.7	7,478.3	87.4	19.4	90.75	-4,591.8	651.3	245.5	139.7	105.79	2.321	
12,200.0	7,429.0	7,559.2	7,476.8	89.1	19.4	90.26	-4,591.8	651.3	323.3	215.8	107.53	3.007	
12,300.0	7,429.0	7,557.7	7,475.3	90.8	19.4	89.77	-4,591.8	651.2	410.8	301.6	109.26	3.760	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - FOSTER 6-4-5X (EXISTING) - ENCANA WELL - SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 42-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
10,300.0	7,429.0	7,884.1	7,500.2	56.8	37.4	109.74	-3,361.2	729.0	407.1	319.3	87.79	4.637	
10,400.0	7,429.0	7,878.0	7,494.1	58.5	37.4	105.20	-3,361.6	729.0	309.3	217.8	91.47	3.381	
10,500.0	7,429.0	7,871.8	7,487.9	60.2	37.4	100.40	-3,361.9	729.0	213.3	118.5	94.77	2.251	
10,600.0	7,429.0	7,865.5	7,481.6	61.8	37.4	95.38	-3,362.3	728.9	123.6	26.0	97.53	1.267	Level 3
10,700.0	7,429.0	7,859.1	7,475.3	63.5	37.4	90.23	-3,362.8	728.9	70.4	-29.2	99.62	0.707	Level 1
10,701.8	7,429.0	7,859.0	7,475.2	63.5	37.4	90.14	-3,362.8	728.9	70.4	-29.3	99.65	0.706	Level 1, CC, ES, SF
10,800.0	7,429.0	7,852.7	7,468.9	65.2	37.4	85.01	-3,363.2	728.9	120.7	19.7	100.95	1.196	Level 2
10,900.0	7,429.0	7,846.2	7,462.3	66.9	37.4	79.81	-3,363.6	728.9	210.0	108.5	101.47	2.069	
11,000.0	7,429.0	7,839.6	7,455.7	68.6	37.4	74.71	-3,364.0	728.9	305.8	204.6	101.20	3.022	
11,100.0	7,429.0	7,832.9	7,449.1	70.3	37.4	69.79	-3,364.5	728.9	403.6	303.4	100.21	4.027	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - FOSTER 6-8-5 (EXISTING) - ENCANA WELL - SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 71-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
12,700.0	7,429.0	7,513.2	7,478.6	97.7	14.8	91.23	-5,798.5	649.1	481.2	369.5	111.65	4.310	
12,800.0	7,429.0	7,511.3	7,476.7	99.4	14.8	90.70	-5,798.6	649.1	393.1	279.7	113.40	3.466	
12,827.2	7,429.0	7,510.8	7,476.2	99.9	14.8	90.56	-5,798.6	649.1	370.2	256.3	113.87	3.251	CC, ES, SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - FOSTER E UNIT 1 (EXISTING) - ENCANA WELL - NO SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 8575-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
12,300.0	7,429.0	7,473.0	7,473.0	90.8	13.0	90.00	-5,365.5	721.6	422.1	319.2	102.92	4.102	
12,400.0	7,429.0	7,473.0	7,473.0	92.5	13.0	90.00	-5,365.5	721.6	327.8	223.1	104.66	3.132	
12,500.0	7,429.0	7,473.0	7,473.0	94.2	13.0	90.00	-5,365.5	721.6	238.1	131.7	106.40	2.238	
12,600.0	7,429.0	7,473.0	7,473.0	96.0	13.0	90.00	-5,365.5	721.6	161.1	52.9	108.13	1.489	Level 3
12,700.0	7,429.0	7,473.0	7,473.0	97.7	13.0	90.00	-5,365.5	721.6	123.2	13.4	109.87	1.122	Level 2
12,703.8	7,429.0	7,473.0	7,473.0	97.7	13.0	90.00	-5,365.5	721.6	123.2	13.2	109.94	1.120	Level 2, CC, ES, SF
12,800.0	7,429.0	7,473.0	7,473.0	99.4	13.0	90.00	-5,365.5	721.6	156.3	44.7	111.61	1.400	Level 3
12,827.2	7,429.0	7,473.0	7,473.0	99.9	13.0	90.00	-5,365.5	721.6	174.3	62.3	112.09	1.555	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4A-32H-O268 - 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	1.0	1.0	0.0	0.0	-89.69	0.2	-30.0	30.0				
100.0	100.0	101.0	101.0	0.1	0.2	-89.69	0.2	-30.0	30.0	29.7	0.30	100.519	
166.3	166.3	167.3	167.3	0.3	0.3	-89.69	0.2	-30.0	30.0	29.5	0.53	56.605	CC
200.0	200.0	201.0	201.0	0.3	0.3	-89.69	0.2	-30.0	30.0	29.4	0.65	46.331	ES
300.0	300.0	300.5	300.5	0.5	0.5	-89.32	0.4	-30.9	30.9	29.9	1.00	30.967	
400.0	400.0	400.0	400.0	0.7	0.7	-88.31	1.0	-33.4	33.4	32.1	1.35	24.756	
500.0	500.0	499.2	499.1	0.8	0.9	-86.95	2.0	-37.6	37.7	36.0	1.71	22.030	
600.0	600.0	598.3	598.0	1.0	1.1	-85.50	3.4	-43.4	43.7	41.6	2.08	20.971	
700.0	700.0	697.7	697.1	1.2	1.3	-84.17	5.2	-50.7	51.1	48.6	2.46	20.739	
800.0	800.0	797.4	796.6	1.4	1.5	-83.15	7.0	-58.1	58.7	55.8	2.85	20.596	
900.0	900.0	897.2	896.0	1.5	1.7	-82.37	8.8	-65.5	66.3	63.0	3.24	20.478	SF
1,000.0	1,000.0	996.8	995.3	1.7	1.9	-162.13	10.6	-72.9	74.7	71.3	3.43	21.758	
1,100.0	1,100.0	1,096.3	1,094.5	1.9	2.1	-162.14	12.4	-80.3	84.8	81.0	3.78	22.431	
1,200.0	1,199.9	1,195.6	1,193.5	2.1	2.3	-162.45	14.1	-87.6	96.5	92.4	4.13	23.395	
1,300.0	1,299.7	1,294.7	1,292.3	2.3	2.6	-162.96	15.9	-95.0	109.9	105.4	4.47	24.585	
1,400.0	1,399.4	1,393.5	1,390.9	2.5	2.8	-163.58	17.7	-102.3	125.0	120.1	4.81	25.954	
1,500.0	1,498.9	1,492.1	1,489.2	2.7	3.0	-164.25	19.5	-109.6	141.7	136.5	5.16	27.469	
1,600.0	1,598.3	1,590.4	1,587.2	2.9	3.2	-164.93	21.2	-116.9	160.0	154.5	5.50	29.082	
1,700.0	1,697.6	1,688.6	1,685.1	3.1	3.4	-165.55	23.0	-124.2	178.8	173.0	5.85	30.556	
1,800.0	1,796.9	1,786.8	1,783.0	3.4	3.6	-166.04	24.8	-131.5	197.7	191.5	6.20	31.866	
1,900.0	1,896.2	1,885.0	1,880.9	3.6	3.8	-166.45	26.5	-138.8	216.5	209.9	6.55	33.037	
2,000.0	1,995.5	1,983.2	1,978.8	3.8	4.1	-166.80	28.3	-146.1	235.3	228.4	6.90	34.090	
2,100.0	2,094.8	2,081.4	2,076.7	4.1	4.3	-167.09	30.1	-153.4	254.2	246.9	7.25	35.042	
2,200.0	2,194.1	2,179.6	2,174.7	4.3	4.5	-167.34	31.8	-160.7	273.0	265.4	7.60	35.907	
2,300.0	2,293.4	2,277.8	2,272.6	4.6	4.7	-167.56	33.6	-167.9	291.9	284.0	7.95	36.697	
2,400.0	2,392.8	2,376.0	2,370.5	4.9	4.9	-167.76	35.4	-175.2	310.8	302.5	8.30	37.420	
2,500.0	2,492.1	2,474.2	2,468.4	5.1	5.1	-167.93	37.2	-182.5	329.6	321.0	8.66	38.085	
2,600.0	2,591.4	2,572.4	2,566.3	5.4	5.3	-168.08	38.9	-189.8	348.5	339.5	9.01	38.699	
2,700.0	2,690.7	2,670.6	2,664.2	5.6	5.6	-168.22	40.7	-197.1	367.4	358.0	9.36	39.267	
2,800.0	2,790.0	2,768.8	2,762.1	5.9	5.8	-168.34	42.5	-204.4	386.3	376.6	9.71	39.794	
2,900.0	2,889.3	2,867.0	2,860.0	6.1	6.0	-168.45	44.2	-211.7	405.1	395.1	10.06	40.285	
3,000.0	2,988.6	2,965.2	2,958.0	6.4	6.2	-168.56	46.0	-219.0	424.0	413.6	10.41	40.742	
3,100.0	3,087.9	3,063.4	3,055.9	6.7	6.4	-168.65	47.8	-226.2	442.9	432.1	10.76	41.170	
3,200.0	3,187.2	3,161.6	3,153.8	6.9	6.6	-168.73	49.5	-233.5	461.8	450.7	11.11	41.571	
3,300.0	3,286.5	3,259.8	3,251.7	7.2	6.9	-168.81	51.3	-240.8	480.7	469.2	11.46	41.948	
3,400.0	3,385.9	3,358.0	3,349.6	7.5	7.1	-168.89	53.1	-248.1	499.5	487.7	11.81	42.302	

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 Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4B-32H-O268 - 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	-76.20	6.1	-25.0	25.7				
100.0	100.0	100.0	100.0	0.1	0.1	-76.20	6.1	-25.0	25.7	25.4	0.30	86.651	
200.0	200.0	200.0	200.0	0.3	0.3	-76.20	6.1	-25.0	25.7	25.1	0.65	39.813	CC, ES
300.0	300.0	299.6	299.5	0.5	0.5	-75.87	6.5	-25.8	26.6	25.6	0.99	26.700	
400.0	400.0	399.0	399.0	0.7	0.7	-75.00	7.5	-28.1	29.1	27.8	1.35	21.609	
500.0	500.0	498.8	498.7	0.8	0.9	-73.93	9.1	-31.7	33.1	31.4	1.71	19.376	
600.0	600.0	598.7	598.5	1.0	1.0	-73.07	10.8	-35.5	37.1	35.0	2.07	17.953	
700.0	700.0	698.6	698.3	1.2	1.2	-72.37	12.4	-39.2	41.1	38.7	2.43	16.949	
800.0	800.0	798.5	798.2	1.4	1.4	-71.81	14.1	-42.9	45.2	42.4	2.79	16.204	
900.0	900.0	898.5	898.0	1.5	1.6	-71.33	15.7	-46.6	49.2	46.1	3.15	15.629	SF
1,000.0	1,000.0	998.3	997.8	1.7	1.8	-151.54	17.4	-50.3	54.0	50.6	3.44	15.730	
1,100.0	1,100.0	1,098.1	1,097.5	1.9	2.0	-152.34	19.0	-54.0	60.4	56.6	3.78	15.962	
1,200.0	1,199.9	1,197.8	1,197.1	2.1	2.2	-153.64	20.7	-57.7	68.3	64.2	4.13	16.535	
1,300.0	1,299.7	1,297.3	1,296.6	2.3	2.4	-155.20	22.3	-61.4	77.8	73.3	4.48	17.377	
1,400.0	1,399.4	1,396.7	1,395.8	2.5	2.5	-156.87	24.0	-65.1	89.0	84.2	4.83	18.438	
1,500.0	1,498.9	1,495.8	1,494.9	2.7	2.7	-158.51	25.6	-68.8	101.8	96.7	5.17	19.681	
1,600.0	1,598.3	1,594.7	1,593.7	2.9	2.9	-160.08	27.2	-72.5	116.3	110.8	5.52	21.059	
1,700.0	1,697.6	1,693.5	1,692.4	3.1	3.1	-161.39	28.9	-76.1	131.3	125.4	5.88	22.344	
1,800.0	1,796.9	1,792.4	1,791.2	3.4	3.3	-162.43	30.5	-79.8	146.3	140.1	6.23	23.492	
1,900.0	1,896.2	1,891.2	1,889.9	3.6	3.5	-163.28	32.1	-83.5	161.4	154.8	6.58	24.524	
2,000.0	1,995.5	1,990.0	1,988.7	3.8	3.7	-163.99	33.8	-87.1	176.5	169.5	6.93	25.455	
2,100.0	2,094.8	2,088.9	2,087.4	4.1	3.8	-164.58	35.4	-90.8	191.6	184.3	7.29	26.300	
2,200.0	2,194.1	2,187.7	2,186.2	4.3	4.0	-165.09	37.0	-94.5	206.7	199.1	7.64	27.069	
2,300.0	2,293.4	2,286.5	2,284.9	4.6	4.2	-165.53	38.7	-98.2	221.9	213.9	7.99	27.772	
2,400.0	2,392.8	2,385.4	2,383.7	4.9	4.4	-165.91	40.3	-101.8	237.1	228.7	8.34	28.418	
2,500.0	2,492.1	2,484.2	2,482.4	5.1	4.6	-166.24	41.9	-105.5	252.2	243.5	8.69	29.013	
2,600.0	2,591.4	2,583.0	2,581.2	5.4	4.8	-166.54	43.6	-109.2	267.4	258.4	9.05	29.563	
2,700.0	2,690.7	2,681.9	2,679.9	5.6	5.0	-166.81	45.2	-112.9	282.6	273.2	9.40	30.072	
2,800.0	2,790.0	2,780.7	2,778.7	5.9	5.1	-167.04	46.8	-116.5	297.8	288.0	9.75	30.545	
2,900.0	2,889.3	2,879.5	2,877.4	6.1	5.3	-167.26	48.5	-120.2	313.0	302.9	10.10	30.986	
3,000.0	2,988.6	2,978.4	2,976.2	6.4	5.5	-167.45	50.1	-123.9	328.2	317.7	10.45	31.398	
3,100.0	3,087.9	3,077.2	3,074.9	6.7	5.7	-167.63	51.7	-127.5	343.4	332.6	10.80	31.783	
3,200.0	3,187.2	3,176.0	3,173.7	6.9	5.9	-167.80	53.3	-131.2	358.6	347.4	11.16	32.144	
3,300.0	3,286.5	3,274.9	3,272.4	7.2	6.1	-167.95	55.0	-134.9	373.8	362.3	11.51	32.484	
3,400.0	3,385.9	3,373.7	3,371.2	7.5	6.3	-168.08	56.6	-138.6	389.0	377.1	11.86	32.804	
3,500.0	3,485.2	3,472.5	3,469.9	7.7	6.4	-168.21	58.2	-142.2	404.2	392.0	12.21	33.105	
3,600.0	3,584.5	3,571.4	3,568.7	8.0	6.6	-168.33	59.9	-145.9	419.4	406.9	12.56	33.390	
3,700.0	3,683.8	3,670.2	3,667.4	8.3	6.8	-168.44	61.5	-149.6	434.6	421.7	12.91	33.659	
3,800.0	3,783.1	3,769.0	3,766.2	8.5	7.0	-168.54	63.1	-153.2	449.9	436.6	13.26	33.915	
3,900.0	3,882.4	3,867.8	3,864.9	8.8	7.2	-168.64	64.8	-156.9	465.1	451.5	13.62	34.157	
4,000.0	3,981.7	3,966.7	3,963.7	9.0	7.4	-168.73	66.4	-160.6	480.3	466.3	13.97	34.387	
4,100.0	4,081.0	4,065.5	4,062.4	9.3	7.6	-168.81	68.0	-164.3	495.5	481.2	14.32	34.606	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4C-32H-O268 - 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	-89.69	0.1	-20.0	20.0				
100.0	100.0	100.0	100.0	0.1	0.1	-89.69	0.1	-20.0	20.0	19.7	0.30	67.407	
200.0	200.0	200.0	200.0	0.3	0.3	-89.69	0.1	-20.0	20.0	19.4	0.65	30.971	
300.0	300.0	300.0	300.0	0.5	0.5	-89.69	0.1	-20.0	20.0	19.0	0.99	20.104	
400.0	400.0	400.0	400.0	0.7	0.7	-89.69	0.1	-20.0	20.0	18.7	1.34	14.882	
500.0	500.0	500.0	500.0	0.8	0.8	-89.69	0.1	-20.0	20.0	18.3	1.69	11.814	
600.0	600.0	600.3	600.3	1.0	1.0	-88.40	0.5	-19.2	19.2	17.2	2.04	9.421	
700.0	700.0	700.4	700.4	1.2	1.2	-84.10	1.8	-17.1	17.2	14.8	2.39	7.170	
800.0	800.0	800.4	800.3	1.4	1.4	-77.84	3.1	-14.6	15.0	12.2	2.74	5.451	
900.0	900.0	900.4	900.2	1.5	1.6	-69.57	4.5	-12.2	13.0	9.9	3.09	4.198	
1,000.0	1,000.0	1,000.3	1,000.2	1.7	1.7	-141.59	5.9	-9.7	12.0	8.6	3.45	3.492	
1,008.2	1,008.2	1,008.5	1,008.3	1.7	1.7	-141.10	6.0	-9.5	12.0	8.6	3.48	3.461	CC, ES
1,100.0	1,100.0	1,100.3	1,100.1	1.9	1.9	-138.13	7.3	-7.3	12.6	8.8	3.80	3.320	SF
1,200.0	1,199.9	1,200.3	1,200.1	2.1	2.1	-139.85	8.7	-4.8	14.5	10.4	4.16	3.498	
1,300.0	1,299.7	1,300.2	1,300.0	2.3	2.3	-144.66	10.1	-2.4	17.9	13.3	4.51	3.960	
1,400.0	1,399.4	1,400.1	1,399.8	2.5	2.5	-150.28	11.4	0.1	22.8	17.9	4.86	4.683	
1,500.0	1,498.9	1,499.9	1,499.5	2.7	2.6	-155.37	12.8	2.5	29.4	24.2	5.21	5.641	
1,600.0	1,598.3	1,599.5	1,599.1	2.9	2.8	-159.50	14.2	5.0	37.7	32.2	5.55	6.790	
1,700.0	1,697.6	1,699.1	1,698.6	3.1	3.0	-162.33	15.6	7.4	46.6	40.7	5.90	7.896	
1,800.0	1,796.9	1,798.6	1,798.2	3.4	3.2	-164.24	17.0	9.8	55.6	49.3	6.25	8.890	
1,900.0	1,896.2	1,898.2	1,897.7	3.6	3.4	-165.62	18.3	12.3	64.6	58.0	6.60	9.785	
2,000.0	1,995.5	1,997.8	1,997.2	3.8	3.5	-166.66	19.7	14.7	73.7	66.7	6.95	10.594	
2,100.0	2,094.8	2,097.4	2,096.8	4.1	3.7	-167.48	21.1	17.2	82.7	75.4	7.30	11.327	
2,200.0	2,194.1	2,197.0	2,196.3	4.3	3.9	-168.13	22.5	19.6	91.8	84.1	7.65	11.995	
2,300.0	2,293.4	2,296.5	2,295.9	4.6	4.1	-168.67	23.9	22.1	100.9	92.9	8.00	12.605	
2,400.0	2,392.8	2,396.1	2,395.4	4.9	4.3	-169.11	25.2	24.5	110.0	101.6	8.35	13.165	
2,500.0	2,492.1	2,495.7	2,495.0	5.1	4.4	-169.49	26.6	26.9	119.1	110.4	8.71	13.680	
2,600.0	2,591.4	2,595.3	2,594.5	5.4	4.6	-169.82	28.0	29.4	128.2	119.1	9.06	14.156	
2,700.0	2,690.7	2,694.9	2,694.0	5.6	4.8	-170.10	29.4	31.8	137.3	127.9	9.41	14.597	
2,800.0	2,790.0	2,794.5	2,793.6	5.9	5.0	-170.34	30.7	34.3	146.4	136.7	9.76	15.007	
2,900.0	2,889.3	2,894.0	2,893.1	6.1	5.2	-170.56	32.1	36.7	155.5	145.4	10.11	15.388	
3,000.0	2,988.6	2,993.6	2,992.7	6.4	5.3	-170.76	33.5	39.1	164.7	154.2	10.46	15.744	
3,100.0	3,087.9	3,093.2	3,092.2	6.7	5.5	-170.93	34.9	41.6	173.8	163.0	10.81	16.077	
3,200.0	3,187.2	3,192.8	3,191.8	6.9	5.7	-171.09	36.3	44.0	182.9	171.7	11.16	16.389	
3,300.0	3,286.5	3,292.4	3,291.3	7.2	5.9	-171.23	37.6	46.5	192.0	180.5	11.51	16.682	
3,400.0	3,385.9	3,391.9	3,390.8	7.5	6.1	-171.36	39.0	48.9	201.1	189.3	11.86	16.958	
3,500.0	3,485.2	3,491.5	3,490.4	7.7	6.2	-171.47	40.4	51.3	210.3	198.1	12.21	17.218	
3,600.0	3,584.5	3,591.1	3,589.9	8.0	6.4	-171.58	41.8	53.8	219.4	206.8	12.56	17.464	
3,700.0	3,683.8	3,690.7	3,689.5	8.3	6.6	-171.68	43.1	56.2	228.5	215.6	12.91	17.696	
3,800.0	3,783.1	3,790.3	3,789.0	8.5	6.8	-171.77	44.5	58.7	237.6	224.4	13.26	17.917	
3,900.0	3,882.4	3,889.9	3,888.6	8.8	7.0	-171.85	45.9	61.1	246.8	233.2	13.61	18.125	
4,000.0	3,981.7	3,989.4	3,988.1	9.0	7.1	-171.93	47.3	63.5	255.9	241.9	13.97	18.324	
4,100.0	4,081.0	4,089.0	4,087.6	9.3	7.3	-172.01	48.7	66.0	265.0	250.7	14.32	18.513	
4,200.0	4,180.3	4,188.6	4,187.2	9.6	7.5	-172.07	50.0	68.4	274.2	259.5	14.67	18.692	
4,300.0	4,279.7	4,288.2	4,286.7	9.8	7.7	-172.14	51.4	70.9	283.3	268.3	15.02	18.864	
4,400.0	4,379.0	4,387.8	4,386.3	10.1	7.9	-172.20	52.8	73.3	292.4	277.1	15.37	19.027	
4,500.0	4,478.3	4,487.3	4,485.8	10.4	8.0	-172.25	54.2	75.7	301.5	285.8	15.72	19.183	
4,600.0	4,577.6	4,586.9	4,585.4	10.6	8.2	-172.31	55.5	78.2	310.7	294.6	16.07	19.333	
4,700.0	4,676.9	4,686.5	4,684.9	10.9	8.4	-172.36	56.9	80.6	319.8	303.4	16.42	19.476	
4,800.0	4,776.2	4,786.1	4,784.4	11.2	8.6	-172.40	58.3	83.1	328.9	312.2	16.77	19.613	
4,900.0	4,875.5	4,885.7	4,884.0	11.4	8.8	-172.45	59.7	85.5	338.1	320.9	17.12	19.745	
5,000.0	4,974.8	4,985.3	4,983.5	11.7	8.9	-172.49	61.1	87.9	347.2	329.7	17.47	19.871	

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 Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4C-32H-O268 - 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	5,074.1	5,084.8	5,083.1	12.0	9.1	-172.53	62.4	90.4	356.3	338.5	17.82	19.992	
5,200.0	5,173.4	5,184.4	5,182.6	12.3	9.3	-172.57	63.8	92.8	365.5	347.3	18.17	20.109	
5,300.0	5,272.8	5,284.0	5,282.2	12.5	9.5	-172.61	65.2	95.3	374.6	356.1	18.53	20.221	
5,400.0	5,372.1	5,383.6	5,381.7	12.8	9.7	-172.64	66.6	97.7	383.7	364.9	18.88	20.329	
5,500.0	5,471.4	5,483.2	5,481.2	13.1	9.8	-172.67	67.9	100.1	392.9	373.6	19.23	20.433	
5,600.0	5,570.7	5,582.8	5,580.8	13.3	10.0	-172.70	69.3	102.6	402.0	382.4	19.58	20.534	
5,700.0	5,670.0	5,682.3	5,680.3	13.6	10.2	-172.73	70.7	105.0	411.1	391.2	19.93	20.630	
5,800.0	5,769.3	5,781.9	5,779.9	13.9	10.4	-172.76	72.1	107.5	420.3	400.0	20.28	20.724	
5,900.0	5,868.6	5,881.5	5,879.4	14.1	10.6	-172.79	73.5	109.9	429.4	408.8	20.63	20.814	
6,000.0	5,967.9	5,981.1	5,978.9	14.4	10.8	-172.82	74.8	112.3	438.5	417.5	20.98	20.902	
6,100.0	6,067.2	6,080.7	6,078.5	14.7	10.9	-172.84	76.2	114.8	447.7	426.3	21.33	20.986	
6,200.0	6,166.6	6,180.2	6,178.0	14.9	11.1	-172.87	77.6	117.2	456.8	435.1	21.68	21.068	
6,300.0	6,265.9	6,279.8	6,277.6	15.2	11.3	-172.89	79.0	119.7	465.9	443.9	22.03	21.147	
6,400.0	6,365.2	6,379.4	6,377.1	15.5	11.5	-172.91	80.3	122.1	475.0	452.7	22.38	21.224	
6,500.0	6,464.5	6,479.0	6,476.7	15.7	11.7	-172.93	81.7	124.6	484.2	461.4	22.73	21.298	
6,600.0	6,563.8	6,578.6	6,576.2	16.0	11.8	-172.95	83.1	127.0	493.3	470.2	23.08	21.370	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4D-32H-O268 - 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	-67.89	6.1	-15.0	16.2				
100.0	100.0	100.0	100.0	0.1	0.1	-67.89	6.1	-15.0	16.2	15.9	0.30	54.449	
200.0	200.0	200.0	200.0	0.3	0.3	-67.89	6.1	-15.0	16.2	15.5	0.65	25.017	
300.0	300.0	300.0	300.0	0.5	0.5	-67.89	6.1	-15.0	16.2	15.2	0.99	16.239	
400.0	400.0	400.0	400.0	0.7	0.7	-67.89	6.1	-15.0	16.2	14.8	1.34	12.021	
500.0	500.0	500.0	500.0	0.8	0.8	-67.89	6.1	-15.0	16.2	14.5	1.69	9.543	
600.0	600.0	600.2	600.2	1.0	1.0	-65.99	6.3	-14.1	15.5	13.4	2.04	7.566	
700.0	700.0	700.4	700.3	1.2	1.2	-59.16	6.9	-11.6	13.5	11.1	2.39	5.630	
800.0	800.0	800.4	800.3	1.4	1.4	-42.68	7.9	-7.3	10.8	8.1	2.74	3.936	
887.5	887.5	887.8	887.5	1.5	1.6	-13.61	9.2	-2.2	9.4	6.4	3.05	3.095	CC
900.0	900.0	900.3	899.9	1.5	1.6	-8.41	9.4	-1.4	9.5	6.4	3.09	3.063	ES
1,000.0	1,000.0	1,000.0	999.4	1.7	1.8	-55.79	11.1	5.8	12.0	8.6	3.47	3.470	
1,100.0	1,100.0	1,099.9	1,099.0	1.9	2.0	-41.88	12.9	13.1	15.7	11.8	3.82	4.102	
1,200.0	1,199.9	1,199.9	1,198.7	2.1	2.2	-36.48	14.6	20.4	18.4	14.3	4.17	4.416	
1,300.0	1,299.7	1,299.9	1,298.4	2.3	2.4	-35.22	16.4	27.7	19.9	15.3	4.53	4.381	
1,400.0	1,399.4	1,399.8	1,398.1	2.5	2.6	-36.97	18.2	35.0	19.9	15.0	4.90	4.052	
1,500.0	1,498.9	1,499.8	1,497.8	2.7	2.8	-42.09	20.0	42.3	18.6	13.3	5.30	3.503	
1,600.0	1,598.3	1,599.8	1,597.5	2.9	3.0	-52.30	21.7	49.6	16.4	10.6	5.76	2.842	
1,700.0	1,697.6	1,699.7	1,697.1	3.1	3.2	-66.77	23.5	56.9	14.6	8.4	6.27	2.331	
1,797.6	1,794.5	1,797.1	1,794.3	3.4	3.4	-83.30	25.2	64.1	14.0	7.2	6.79	2.066	
1,800.0	1,796.9	1,799.6	1,796.7	3.4	3.5	-83.73	25.3	64.2	14.0	7.2	6.80	2.062	
1,900.0	1,896.2	1,899.5	1,896.3	3.6	3.7	-100.61	27.0	71.5	14.7	7.4	7.25	2.025	SF
2,000.0	1,995.5	1,999.4	1,996.0	3.8	3.9	-114.93	28.8	78.8	16.5	8.9	7.61	2.164	
2,100.0	2,094.8	2,099.3	2,095.6	4.1	4.1	-125.92	30.6	86.1	19.1	11.1	7.91	2.409	
2,200.0	2,194.1	2,199.2	2,195.2	4.3	4.3	-134.06	32.3	93.4	22.2	14.0	8.20	2.703	
2,300.0	2,293.4	2,299.1	2,294.8	4.6	4.5	-140.11	34.1	100.7	25.6	17.1	8.50	3.015	
2,400.0	2,392.8	2,399.0	2,394.5	4.9	4.7	-144.68	35.9	108.0	29.3	20.5	8.80	3.328	
2,500.0	2,492.1	2,498.9	2,494.1	5.1	5.0	-148.22	37.6	115.4	33.1	24.0	9.11	3.631	
2,600.0	2,591.4	2,598.8	2,593.7	5.4	5.2	-151.03	39.4	122.7	37.0	27.6	9.44	3.922	
2,700.0	2,690.7	2,698.7	2,693.3	5.6	5.4	-153.29	41.2	130.0	41.0	31.2	9.76	4.199	
2,800.0	2,790.0	2,798.7	2,793.0	5.9	5.6	-155.15	42.9	137.3	45.0	34.9	10.09	4.461	
2,900.0	2,889.3	2,898.6	2,892.6	6.1	5.8	-156.70	44.7	144.6	49.1	38.7	10.43	4.709	
3,000.0	2,988.6	2,998.5	2,992.2	6.4	6.0	-158.01	46.5	151.9	53.2	42.4	10.76	4.943	
3,100.0	3,087.9	3,098.4	3,091.8	6.7	6.3	-159.14	48.2	159.2	57.3	46.2	11.10	5.164	
3,200.0	3,187.2	3,198.3	3,191.5	6.9	6.5	-160.11	50.0	166.5	61.5	50.0	11.44	5.372	
3,300.0	3,286.5	3,298.2	3,291.1	7.2	6.7	-160.96	51.8	173.8	65.6	53.9	11.79	5.569	
3,400.0	3,385.9	3,398.1	3,390.7	7.5	6.9	-161.71	53.5	181.1	69.8	57.7	12.13	5.755	
3,500.0	3,485.2	3,498.0	3,490.3	7.7	7.1	-162.38	55.3	188.4	74.0	61.5	12.48	5.932	
3,600.0	3,584.5	3,597.9	3,590.0	8.0	7.3	-162.97	57.1	195.7	78.2	65.4	12.82	6.099	
3,700.0	3,683.8	3,697.8	3,689.6	8.3	7.6	-163.50	58.8	203.0	82.4	69.2	13.17	6.257	
3,800.0	3,783.1	3,797.7	3,789.2	8.5	7.8	-163.98	60.6	210.3	86.6	73.1	13.52	6.408	
3,900.0	3,882.4	3,897.7	3,888.9	8.8	8.0	-164.42	62.4	217.6	90.8	77.0	13.86	6.551	
4,000.0	3,981.7	3,997.6	3,988.5	9.0	8.2	-164.82	64.1	224.9	95.0	80.8	14.21	6.688	
4,100.0	4,081.0	4,097.5	4,088.1	9.3	8.4	-165.18	65.9	232.2	99.3	84.7	14.56	6.818	
4,200.0	4,180.3	4,197.4	4,187.7	9.6	8.7	-165.51	67.7	239.5	103.5	88.6	14.91	6.942	
4,300.0	4,279.7	4,297.3	4,287.4	9.8	8.9	-165.82	69.4	246.8	107.7	92.5	15.26	7.060	
4,400.0	4,379.0	4,397.2	4,387.0	10.1	9.1	-166.11	71.2	254.1	112.0	96.4	15.61	7.173	
4,500.0	4,478.3	4,497.1	4,486.6	10.4	9.3	-166.37	73.0	261.4	116.2	100.2	15.96	7.282	
4,600.0	4,577.6	4,597.0	4,586.2	10.6	9.5	-166.61	74.7	268.7	120.4	104.1	16.31	7.385	
4,700.0	4,676.9	4,696.9	4,685.9	10.9	9.7	-166.84	76.5	276.0	124.7	108.0	16.66	7.485	
4,800.0	4,776.2	4,796.8	4,785.5	11.2	10.0	-167.06	78.3	283.3	128.9	111.9	17.01	7.580	
4,900.0	4,875.5	4,896.7	4,885.1	11.4	10.2	-167.26	80.0	290.6	133.2	115.8	17.36	7.671	

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 Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4D-32H-O268 - 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
5,000.0	4,974.8	4,996.7	4,984.7	11.7	10.4	-167.44	81.8	297.9	137.4	119.7	17.71	7.759	
5,100.0	5,074.1	5,096.6	5,084.4	12.0	10.6	-167.62	83.6	305.2	141.7	123.6	18.06	7.844	
5,200.0	5,173.4	5,196.5	5,184.0	12.3	10.8	-167.79	85.3	312.5	145.9	127.5	18.41	7.925	
5,300.0	5,272.8	5,296.4	5,283.6	12.5	11.0	-167.94	87.1	319.8	150.2	131.4	18.76	8.003	
5,400.0	5,372.1	5,396.3	5,383.2	12.8	11.3	-168.09	88.9	327.1	154.4	135.3	19.11	8.079	
5,500.0	5,471.4	5,496.2	5,482.9	13.1	11.5	-168.23	90.6	334.4	158.7	139.2	19.46	8.151	
5,600.0	5,570.7	5,596.1	5,582.5	13.3	11.7	-168.36	92.4	341.7	162.9	143.1	19.81	8.222	
5,700.0	5,670.0	5,696.0	5,682.1	13.6	11.9	-168.49	94.2	349.0	167.2	147.0	20.17	8.289	
5,800.0	5,769.3	5,795.9	5,781.7	13.9	12.1	-168.61	95.9	356.3	171.4	150.9	20.52	8.355	
5,900.0	5,868.6	5,895.8	5,881.4	14.1	12.4	-168.72	97.7	363.6	175.7	154.8	20.87	8.418	
6,000.0	5,967.9	5,995.7	5,981.0	14.4	12.6	-168.83	99.5	370.9	179.9	158.7	21.22	8.479	
6,100.0	6,067.2	6,095.7	6,080.6	14.7	12.8	-168.94	101.2	378.2	184.2	162.6	21.57	8.538	
6,200.0	6,166.6	6,195.6	6,180.3	14.9	13.0	-169.03	103.0	385.5	188.4	166.5	21.92	8.596	
6,300.0	6,265.9	6,295.5	6,279.9	15.2	13.2	-169.13	104.8	392.8	192.7	170.4	22.27	8.651	
6,400.0	6,365.2	6,395.4	6,379.5	15.5	13.4	-169.22	106.5	400.1	196.9	174.3	22.63	8.705	
6,500.0	6,464.5	6,495.3	6,479.1	15.7	13.7	-169.31	108.3	407.4	201.2	178.2	22.98	8.757	
6,600.0	6,563.8	6,595.2	6,578.8	16.0	13.9	-169.39	110.1	414.7	205.5	182.1	23.33	8.807	
6,700.0	6,663.1	6,695.1	6,678.4	16.3	14.1	-169.47	111.8	422.0	209.7	186.0	23.68	8.856	
6,800.0	6,762.4	6,795.0	6,778.0	16.5	14.3	-169.55	113.6	429.3	214.0	189.9	24.03	8.904	
6,900.0	6,861.7	6,894.9	6,877.6	16.8	14.5	-179.66	115.4	436.6	218.2	193.9	24.38	8.951	
7,000.0	6,960.5	6,994.1	6,976.6	17.1	14.8	127.53	117.1	443.8	223.1	198.3	24.81	8.992	
7,100.0	7,056.3	7,090.0	7,072.2	17.3	15.0	118.53	118.8	450.8	231.0	205.7	25.36	9.109	
7,200.0	7,146.0	7,184.9	7,166.8	17.5	15.2	120.77	119.3	457.8	246.8	221.0	25.80	9.566	
7,300.0	7,227.1	7,294.2	7,274.5	17.8	15.4	125.86	104.0	465.7	269.8	244.2	25.68	10.509	
7,400.0	7,297.0	7,416.6	7,389.3	18.1	15.5	130.89	62.8	474.1	296.6	271.7	24.86	11.930	
7,500.0	7,353.7	7,555.3	7,505.4	18.5	15.8	135.20	-12.0	482.6	323.5	299.8	23.70	13.649	
7,600.0	7,395.3	7,712.6	7,610.9	19.1	16.3	138.40	-127.7	490.3	346.8	323.9	22.88	15.157	
7,700.0	7,420.7	7,887.2	7,686.6	19.8	17.3	140.16	-284.1	495.8	362.7	339.4	23.29	15.570	
7,800.0	7,429.0	8,065.7	7,712.0	20.6	18.8	140.21	-460.1	497.7	368.3	342.8	25.51	14.439	
7,900.0	7,429.0	8,165.7	7,712.0	21.5	19.7	139.94	-560.1	497.7	369.8	342.8	27.02	13.686	
8,000.0	7,429.0	8,265.7	7,712.0	22.5	20.8	139.67	-660.1	497.7	371.3	342.6	28.65	12.959	
8,100.0	7,429.0	8,365.6	7,712.0	23.6	22.0	139.41	-760.1	497.7	372.7	342.3	30.39	12.265	
8,200.0	7,429.0	8,465.6	7,712.0	24.8	23.2	139.14	-860.0	497.7	374.2	342.0	32.23	11.612	
8,300.0	7,429.0	8,565.6	7,712.0	26.0	24.5	138.88	-960.0	497.7	375.7	341.5	34.15	11.001	
8,400.0	7,429.0	8,665.6	7,712.0	27.3	25.9	138.62	-1,060.0	497.7	377.2	341.0	36.15	10.434	
8,500.0	7,429.0	8,765.5	7,712.0	28.7	27.3	138.36	-1,160.0	497.7	378.7	340.5	38.22	9.908	
8,600.0	7,429.0	8,865.5	7,712.0	30.0	28.8	138.11	-1,259.9	497.7	380.2	339.9	40.35	9.422	
8,700.0	7,429.0	8,965.5	7,712.0	31.5	30.2	137.86	-1,359.9	497.7	381.7	339.2	42.54	8.973	
8,800.0	7,429.0	9,065.5	7,712.0	32.9	31.7	137.60	-1,459.9	497.7	383.3	338.5	44.78	8.559	
8,900.0	7,429.0	9,165.4	7,712.0	34.4	33.3	137.35	-1,559.9	497.7	384.8	337.7	47.06	8.176	
9,000.0	7,429.0	9,265.4	7,712.0	35.9	34.8	137.11	-1,659.8	497.7	386.3	336.9	49.39	7.821	
9,100.0	7,429.0	9,365.4	7,712.0	37.4	36.4	136.86	-1,759.8	497.7	387.9	336.1	51.76	7.493	
9,200.0	7,429.0	9,465.4	7,712.0	39.0	38.0	136.62	-1,859.8	497.7	389.4	335.3	54.17	7.189	
9,300.0	7,429.0	9,565.3	7,712.0	40.6	39.6	136.38	-1,959.8	497.7	391.0	334.4	56.61	6.907	
9,400.0	7,429.0	9,665.3	7,712.0	42.1	41.2	136.14	-2,059.7	497.7	392.6	333.5	59.08	6.644	
9,500.0	7,429.0	9,765.3	7,712.0	43.7	42.8	135.90	-2,159.7	497.7	394.1	332.6	61.59	6.400	
9,600.0	7,429.0	9,865.3	7,712.0	45.3	44.4	135.66	-2,259.7	497.7	395.7	331.6	64.12	6.172	
9,700.0	7,429.0	9,965.2	7,712.0	47.0	46.1	135.43	-2,359.7	497.7	397.3	330.6	66.68	5.958	
9,800.0	7,429.0	10,065.2	7,712.0	48.6	47.7	135.20	-2,459.6	497.7	398.9	329.6	69.27	5.759	
9,900.0	7,429.0	10,165.2	7,712.0	50.2	49.4	134.97	-2,559.6	497.7	400.5	328.6	71.88	5.572	
10,000.0	7,429.0	10,265.2	7,712.0	51.9	51.0	134.74	-2,659.6	497.7	402.1	327.6	74.52	5.396	
10,100.0	7,429.0	10,365.1	7,712.0	53.5	52.7	134.51	-2,759.6	497.7	403.7	326.6	77.18	5.231	

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 Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4D-32H-O268 - 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
10,200.0	7,429.0	10,465.1	7,712.0	55.2	54.4	134.29	-2,859.5	497.7	405.4	325.5	79.86	5.076	
10,300.0	7,429.0	10,565.1	7,712.0	56.8	56.1	134.06	-2,959.5	497.7	407.0	324.4	82.57	4.929	
10,400.0	7,429.0	10,665.1	7,712.0	58.5	57.7	133.84	-3,059.5	497.7	408.6	323.3	85.29	4.791	
10,500.0	7,429.0	10,765.0	7,712.0	60.2	59.4	133.62	-3,159.5	497.7	410.3	322.2	88.03	4.660	
10,600.0	7,429.0	10,865.0	7,712.0	61.8	61.1	133.41	-3,259.4	497.7	411.9	321.1	90.80	4.536	
10,700.0	7,429.0	10,965.0	7,712.0	63.5	62.8	133.19	-3,359.4	497.7	413.5	320.0	93.58	4.419	
10,800.0	7,429.0	11,065.0	7,712.0	65.2	64.5	132.98	-3,459.4	497.7	415.2	318.8	96.38	4.308	
10,900.0	7,429.0	11,164.9	7,712.0	66.9	66.2	132.76	-3,559.3	497.7	416.9	317.7	99.20	4.202	
11,000.0	7,429.0	11,264.9	7,712.0	68.6	67.9	132.55	-3,659.3	497.7	418.5	316.5	102.03	4.102	
11,100.0	7,429.0	11,364.9	7,712.0	70.3	69.6	132.34	-3,759.3	497.7	420.2	315.3	104.88	4.006	
11,200.0	7,429.0	11,464.8	7,712.0	72.0	71.3	132.14	-3,859.3	497.7	421.9	314.1	107.75	3.915	
11,300.0	7,429.0	11,564.8	7,712.0	73.7	73.0	131.93	-3,959.2	497.7	423.6	312.9	110.63	3.829	
11,400.0	7,429.0	11,664.8	7,712.0	75.4	74.8	131.73	-4,059.2	497.7	425.3	311.7	113.53	3.746	
11,500.0	7,429.0	11,764.8	7,712.0	77.1	76.5	131.52	-4,159.2	497.7	427.0	310.5	116.44	3.667	
11,600.0	7,429.0	11,864.7	7,712.0	78.8	78.2	131.32	-4,259.2	497.7	428.7	309.3	119.37	3.591	
11,700.0	7,429.0	11,964.7	7,712.0	80.5	79.9	131.12	-4,359.1	497.7	430.4	308.1	122.31	3.519	
11,800.0	7,429.0	12,064.7	7,712.0	82.2	81.6	130.92	-4,459.1	497.7	432.1	306.8	125.26	3.449	
11,900.0	7,429.0	12,164.7	7,712.0	83.9	83.3	130.73	-4,559.1	497.7	433.8	305.6	128.23	3.383	
12,000.0	7,429.0	12,264.6	7,712.0	85.6	85.1	130.53	-4,659.1	497.7	435.5	304.3	131.21	3.319	
12,100.0	7,429.0	12,364.6	7,712.0	87.4	86.8	130.34	-4,759.0	497.7	437.3	303.0	134.21	3.258	
12,200.0	7,429.0	12,464.6	7,712.0	89.1	88.5	130.15	-4,859.0	497.7	439.0	301.8	137.21	3.199	
12,300.0	7,429.0	12,564.6	7,712.0	90.8	90.2	129.96	-4,959.0	497.7	440.7	300.5	140.23	3.143	
12,400.0	7,429.0	12,664.5	7,712.0	92.5	92.0	129.77	-5,059.0	497.7	442.5	299.2	143.26	3.089	
12,500.0	7,429.0	12,764.5	7,712.0	94.2	93.7	129.58	-5,158.9	497.7	444.2	297.9	146.30	3.036	
12,600.0	7,429.0	12,864.5	7,712.0	96.0	95.4	129.40	-5,258.9	497.7	446.0	296.6	149.35	2.986	
12,700.0	7,429.0	12,964.5	7,712.0	97.7	97.2	129.21	-5,358.9	497.7	447.7	295.3	152.41	2.937	
12,800.0	7,429.0	13,064.4	7,712.0	99.4	98.9	129.03	-5,458.9	497.7	449.5	294.0	155.49	2.891	
12,827.2	7,429.0	13,091.6	7,712.0	99.9	99.4	128.98	-5,486.0	497.7	450.0	293.6	156.33	2.878	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4F-32H-O268 - 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	40.11	6.0	5.0	7.8				
100.0	100.0	100.0	100.0	0.1	0.1	40.11	6.0	5.0	7.8	7.5	0.30	26.323	
200.0	200.0	200.0	200.0	0.3	0.3	40.11	6.0	5.0	7.8	7.2	0.65	12.094	
300.0	300.0	300.0	300.0	0.5	0.5	40.11	6.0	5.0	7.8	6.8	0.99	7.851	
400.0	400.0	400.0	400.0	0.7	0.7	40.11	6.0	5.0	7.8	6.5	1.34	5.812	
500.0	500.0	500.0	500.0	0.8	0.8	40.11	6.0	5.0	7.8	6.1	1.69	4.613	
600.0	600.0	600.0	600.0	1.0	1.0	40.11	6.0	5.0	7.8	5.8	2.04	3.825	
700.0	700.0	700.0	700.0	1.2	1.2	40.11	6.0	5.0	7.8	5.4	2.39	3.266	CC, ES
800.0	800.0	799.9	799.9	1.4	1.4	44.21	6.1	5.9	8.5	5.7	2.74	3.087	
900.0	900.0	899.7	899.7	1.5	1.5	53.28	6.3	8.5	10.6	7.5	3.09	3.430	
1,000.0	1,000.0	999.5	999.3	1.7	1.7	-19.23	6.8	12.8	13.7	10.3	3.44	3.981	
1,100.0	1,100.0	1,099.2	1,098.8	1.9	1.9	-14.05	7.4	18.9	16.9	13.1	3.79	4.461	
1,200.0	1,199.9	1,198.8	1,198.2	2.1	2.1	-10.23	8.2	26.6	20.2	16.0	4.14	4.877	
1,300.0	1,299.7	1,298.4	1,297.3	2.3	2.3	-7.21	9.2	36.1	23.5	19.0	4.48	5.237	
1,400.0	1,399.4	1,397.9	1,396.1	2.5	2.6	-4.70	10.4	47.2	26.8	22.0	4.83	5.554	
1,500.0	1,498.9	1,497.3	1,494.7	2.7	2.8	-2.53	11.7	60.1	30.2	25.0	5.17	5.833	
1,600.0	1,598.3	1,596.7	1,593.0	2.9	3.1	-0.60	13.3	74.7	33.6	28.1	5.52	6.092	
1,700.0	1,697.6	1,696.0	1,691.0	3.1	3.4	1.10	15.0	90.9	38.3	32.5	5.87	6.537	
1,800.0	1,796.9	1,795.4	1,788.8	3.4	3.7	2.48	16.8	108.7	44.6	38.4	6.21	7.181	
1,900.0	1,896.2	1,895.2	1,886.9	3.6	4.0	3.52	18.7	126.7	51.2	44.6	6.57	7.793	
2,000.0	1,995.5	1,995.0	1,985.0	3.8	4.3	4.33	20.6	144.7	57.7	50.8	6.92	8.344	
2,100.0	2,094.8	2,094.8	2,083.1	4.1	4.7	4.97	22.5	162.8	64.3	57.0	7.27	8.842	
2,200.0	2,194.1	2,194.5	2,181.3	4.3	5.0	5.49	24.4	180.8	70.8	63.2	7.62	9.294	
2,300.0	2,293.4	2,294.3	2,279.4	4.6	5.4	5.93	26.3	198.8	77.4	69.4	7.97	9.707	
2,400.0	2,392.8	2,394.1	2,377.5	4.9	5.7	6.30	28.2	216.9	84.0	75.7	8.33	10.084	
2,500.0	2,492.1	2,493.9	2,475.6	5.1	6.1	6.61	30.1	234.9	90.6	81.9	8.68	10.431	
2,600.0	2,591.4	2,593.7	2,573.7	5.4	6.4	6.88	31.9	252.9	97.1	88.1	9.03	10.751	
2,700.0	2,690.7	2,693.4	2,671.9	5.6	6.8	7.12	33.8	271.0	103.7	94.3	9.39	11.046	
2,800.0	2,790.0	2,793.2	2,770.0	5.9	7.1	7.32	35.7	289.0	110.3	100.5	9.74	11.320	
2,900.0	2,889.3	2,893.0	2,868.1	6.1	7.5	7.51	37.6	307.0	116.9	106.8	10.10	11.574	
3,000.0	2,988.6	2,992.8	2,966.2	6.4	7.8	7.67	39.5	325.1	123.5	113.0	10.45	11.811	
3,100.0	3,087.9	3,092.6	3,064.4	6.7	8.2	7.82	41.4	343.1	130.0	119.2	10.81	12.032	
3,200.0	3,187.2	3,192.4	3,162.5	6.9	8.5	7.96	43.3	361.1	136.6	125.5	11.16	12.239	
3,300.0	3,286.5	3,292.1	3,260.6	7.2	8.9	8.08	45.2	379.2	143.2	131.7	11.52	12.434	
3,400.0	3,385.9	3,391.9	3,358.7	7.5	9.3	8.19	47.1	397.2	149.8	137.9	11.87	12.616	
3,500.0	3,485.2	3,491.7	3,456.8	7.7	9.6	8.29	49.0	415.2	156.4	144.2	12.23	12.788	
3,600.0	3,584.5	3,591.5	3,555.0	8.0	10.0	8.38	50.8	433.3	163.0	150.4	12.58	12.950	
3,700.0	3,683.8	3,691.3	3,653.1	8.3	10.3	8.47	52.7	451.3	169.6	156.6	12.94	13.103	
3,800.0	3,783.1	3,791.1	3,751.2	8.5	10.7	8.55	54.6	469.3	176.1	162.9	13.30	13.248	
3,900.0	3,882.4	3,890.8	3,849.3	8.8	11.1	8.62	56.5	487.4	182.7	169.1	13.65	13.385	
4,000.0	3,981.7	3,990.6	3,947.4	9.0	11.4	8.69	58.4	505.4	189.3	175.3	14.01	13.515	
4,100.0	4,081.0	4,090.4	4,045.6	9.3	11.8	8.76	60.3	523.4	195.9	181.6	14.36	13.639	
4,200.0	4,180.3	4,190.2	4,143.7	9.6	12.1	8.82	62.2	541.5	202.5	187.8	14.72	13.757	
4,300.0	4,279.7	4,290.0	4,241.8	9.8	12.5	8.87	64.1	559.5	209.1	194.0	15.08	13.869	
4,400.0	4,379.0	4,389.7	4,339.9	10.1	12.9	8.93	66.0	577.5	215.7	200.3	15.43	13.975	
4,500.0	4,478.3	4,489.5	4,438.0	10.4	13.2	8.98	67.9	595.6	222.3	206.5	15.79	14.077	
4,600.0	4,577.6	4,589.3	4,536.2	10.6	13.6	9.02	69.7	613.6	228.9	212.7	16.15	14.175	
4,700.0	4,676.9	4,689.1	4,634.3	10.9	13.9	9.07	71.6	631.7	235.5	219.0	16.50	14.268	
4,800.0	4,776.2	4,788.9	4,732.4	11.2	14.3	9.11	73.5	649.7	242.0	225.2	16.86	14.357	
4,900.0	4,875.5	4,888.7	4,830.5	11.4	14.7	9.15	75.4	667.7	248.6	231.4	17.22	14.443	
5,000.0	4,974.8	4,988.4	4,928.7	11.7	15.0	9.19	77.3	685.8	255.2	237.7	17.57	14.525	
5,100.0	5,074.1	5,088.2	5,026.8	12.0	15.4	9.22	79.2	703.8	261.8	243.9	17.93	14.603	

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 Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4F-32H-O268 - 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
5,200.0	5,173.4	5,188.0	5,124.9	12.3	15.8	9.26	81.1	721.8	268.4	250.1	18.29	14.679	
5,300.0	5,272.8	5,287.8	5,223.0	12.5	16.1	9.29	83.0	739.9	275.0	256.4	18.64	14.751	
5,400.0	5,372.1	5,387.6	5,321.1	12.8	16.5	9.32	84.9	757.9	281.6	262.6	19.00	14.821	
5,500.0	5,471.4	5,487.4	5,419.3	13.1	16.9	9.35	86.8	775.9	288.2	268.8	19.36	14.889	
5,600.0	5,570.7	5,587.1	5,517.4	13.3	17.2	9.38	88.6	794.0	294.8	275.1	19.71	14.954	
5,700.0	5,670.0	5,686.9	5,615.5	13.6	17.6	9.40	90.5	812.0	301.4	281.3	20.07	15.016	
5,800.0	5,769.3	5,786.7	5,713.6	13.9	17.9	9.43	92.4	830.0	308.0	287.5	20.43	15.076	
5,900.0	5,868.6	5,886.5	5,811.7	14.1	18.3	9.45	94.3	848.1	314.5	293.8	20.78	15.135	
6,000.0	5,967.9	5,986.3	5,909.9	14.4	18.7	9.48	96.2	866.1	321.1	300.0	21.14	15.191	
6,100.0	6,067.2	6,086.0	6,008.0	14.7	19.0	9.50	98.1	884.1	327.7	306.2	21.50	15.245	
6,200.0	6,166.6	6,185.8	6,106.1	14.9	19.4	9.52	100.0	902.2	334.3	312.5	21.85	15.298	
6,300.0	6,265.9	6,285.6	6,204.2	15.2	19.8	9.54	101.9	920.2	340.9	318.7	22.21	15.349	
6,400.0	6,365.2	6,385.4	6,302.3	15.5	20.1	9.56	103.8	938.2	347.5	324.9	22.57	15.398	
6,500.0	6,464.5	6,485.2	6,400.5	15.7	20.5	9.58	105.6	956.3	354.1	331.2	22.92	15.446	
6,600.0	6,563.8	6,585.0	6,498.6	16.0	20.9	9.60	107.5	974.3	360.7	337.4	23.28	15.492	
6,700.0	6,663.1	6,684.7	6,596.7	16.3	21.2	9.62	109.4	992.3	367.3	343.6	23.64	15.537	
6,800.0	6,762.4	6,784.5	6,694.8	16.5	21.6	9.64	111.3	1,010.4	373.9	349.9	24.00	15.580	
6,900.0	6,861.7	6,884.3	6,793.0	16.8	22.0	-0.31	113.2	1,028.4	380.5	356.1	24.36	15.620	
7,000.0	6,960.5	6,983.4	6,890.4	17.1	22.3	-56.22	115.1	1,046.3	386.9	362.3	24.60	15.727	
7,100.0	7,056.3	7,079.2	6,984.6	17.3	22.7	-74.06	116.9	1,063.6	394.4	369.6	24.76	15.929	
7,200.0	7,146.0	7,168.7	7,072.6	17.5	23.0	-84.07	118.6	1,079.8	406.0	380.9	25.09	16.179	
7,300.0	7,227.1	7,254.0	7,156.5	17.8	23.3	-91.70	119.9	1,095.2	425.6	400.0	25.63	16.604	
7,400.0	7,297.0	7,365.7	7,265.5	18.1	23.7	-99.44	107.5	1,115.3	453.0	426.7	26.35	17.192	
7,500.0	7,353.7	7,502.0	7,392.1	18.5	24.1	-106.67	63.6	1,138.5	484.3	457.3	26.96	17.965	
10,100.0	7,429.0	10,452.4	7,712.0	53.5	56.1	-124.51	-2,759.6	1,197.3	499.6	412.4	87.20	5.729	
10,200.0	7,429.0	10,552.4	7,712.0	55.2	57.6	-124.66	-2,859.5	1,197.3	497.7	407.8	89.87	5.538	
10,300.0	7,429.0	10,652.4	7,712.0	56.8	59.2	-124.81	-2,959.5	1,197.3	495.8	403.3	92.53	5.359	
10,400.0	7,429.0	10,752.3	7,712.0	58.5	60.8	-124.96	-3,059.5	1,197.3	494.0	398.8	95.18	5.190	
10,500.0	7,429.0	10,852.3	7,712.0	60.2	62.4	-125.11	-3,159.5	1,197.3	492.1	394.3	97.83	5.030	
10,600.0	7,429.0	10,952.3	7,712.0	61.8	64.0	-125.26	-3,259.4	1,197.3	490.3	389.8	100.47	4.880	
10,700.0	7,429.0	11,052.3	7,712.0	63.5	65.6	-125.42	-3,359.4	1,197.3	488.4	385.3	103.10	4.737	
10,800.0	7,429.0	11,152.2	7,712.0	65.2	67.3	-125.57	-3,459.4	1,197.3	486.6	380.8	105.72	4.602	
10,900.0	7,429.0	11,252.2	7,712.0	66.9	68.9	-125.73	-3,559.3	1,197.3	484.7	376.4	108.33	4.474	
11,000.0	7,429.0	11,352.2	7,712.0	68.6	70.5	-125.89	-3,659.3	1,197.3	482.9	371.9	110.93	4.353	
11,100.0	7,429.0	11,452.2	7,712.0	70.3	72.2	-126.04	-3,759.3	1,197.3	481.0	367.5	113.52	4.237	
11,200.0	7,429.0	11,552.1	7,712.0	72.0	73.8	-126.20	-3,859.3	1,197.3	479.2	363.1	116.10	4.127	
11,300.0	7,429.0	11,652.1	7,712.0	73.7	75.5	-126.36	-3,959.2	1,197.3	477.4	358.7	118.67	4.023	
11,400.0	7,429.0	11,752.1	7,712.0	75.4	77.1	-126.53	-4,059.2	1,197.3	475.6	354.3	121.23	3.923	
11,500.0	7,429.0	11,852.0	7,712.0	77.1	78.8	-126.69	-4,159.2	1,197.3	473.7	350.0	123.77	3.828	
11,600.0	7,429.0	11,952.0	7,712.0	78.8	80.5	-126.85	-4,259.2	1,197.3	471.9	345.6	126.30	3.736	
11,700.0	7,429.0	12,052.0	7,712.0	80.5	82.1	-127.02	-4,359.1	1,197.3	470.1	341.3	128.82	3.649	
11,800.0	7,429.0	12,152.0	7,712.0	82.2	83.8	-127.19	-4,459.1	1,197.3	468.3	337.0	131.33	3.566	
11,900.0	7,429.0	12,251.9	7,712.0	83.9	85.5	-127.36	-4,559.1	1,197.3	466.5	332.7	133.82	3.486	
12,000.0	7,429.0	12,351.9	7,712.0	85.6	87.2	-127.52	-4,659.1	1,197.3	464.7	328.4	136.29	3.409	
12,100.0	7,429.0	12,451.9	7,712.0	87.4	88.9	-127.70	-4,759.0	1,197.3	462.9	324.1	138.76	3.336	
12,200.0	7,429.0	12,551.9	7,712.0	89.1	90.5	-127.87	-4,859.0	1,197.3	461.1	319.9	141.20	3.265	
12,300.0	7,429.0	12,651.8	7,712.0	90.8	92.2	-128.04	-4,959.0	1,197.3	459.3	315.7	143.64	3.198	
12,400.0	7,429.0	12,751.8	7,712.0	92.5	93.9	-128.22	-5,059.0	1,197.3	457.5	311.5	146.06	3.133	
12,500.0	7,429.0	12,851.8	7,712.0	94.2	95.6	-128.39	-5,158.9	1,197.3	455.7	307.3	148.46	3.070	
12,600.0	7,429.0	12,951.8	7,712.0	96.0	97.3	-128.57	-5,258.9	1,197.3	454.0	303.1	150.84	3.010	
12,700.0	7,429.0	13,051.7	7,712.0	97.7	99.0	-128.75	-5,358.9	1,197.3	452.2	299.0	153.21	2.951	
12,800.0	7,429.0	13,151.7	7,712.0	99.4	100.7	-128.93	-5,458.9	1,197.3	450.4	294.9	155.57	2.895	

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 Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4F-32H-O268 - Hz - Plan #1

Survey Program: 0-Geolink MWD

Offset Site Error: 0.0 ft

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
12,827.2	7,429.0	13,178.9	7,712.0	99.9	101.2	-128.98	-5,486.0	1,197.3	450.0	293.8	156.20	2.881 SF	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4G-32H-O268 - 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	90.31	-0.1	10.0	10.0				
100.0	100.0	100.0	100.0	0.1	0.1	90.31	-0.1	10.0	10.0	9.7	0.30	33.703	
200.0	200.0	200.0	200.0	0.3	0.3	90.31	-0.1	10.0	10.0	9.4	0.65	15.485	
300.0	300.0	300.0	300.0	0.5	0.5	90.31	-0.1	10.0	10.0	9.0	0.99	10.052	
400.0	400.0	400.0	400.0	0.7	0.7	90.31	-0.1	10.0	10.0	8.7	1.34	7.441	
500.0	500.0	500.0	500.0	0.8	0.8	90.31	-0.1	10.0	10.0	8.3	1.69	5.907	
600.0	600.0	600.0	600.0	1.0	1.0	90.31	-0.1	10.0	10.0	8.0	2.04	4.897	
700.0	700.0	700.0	700.0	1.2	1.2	90.31	-0.1	10.0	10.0	7.6	2.39	4.182	
800.0	800.0	800.0	800.0	1.4	1.4	90.31	-0.1	10.0	10.0	7.3	2.74	3.649	CC, ES
900.0	900.0	899.8	899.8	1.5	1.5	89.90	0.0	10.9	10.9	7.8	3.09	3.518	SF
1,000.0	1,000.0	999.6	999.6	1.7	1.7	9.40	0.2	13.5	12.6	9.2	3.44	3.669	
1,100.0	1,100.0	1,099.3	1,099.2	1.9	1.9	9.78	0.6	17.8	14.4	10.6	3.79	3.797	
1,200.0	1,199.9	1,199.1	1,198.7	2.1	2.1	10.60	1.1	23.8	16.1	12.0	4.13	3.907	
1,300.0	1,299.7	1,298.8	1,298.1	2.3	2.3	11.75	1.8	31.6	17.9	13.5	4.48	4.005	
1,400.0	1,399.4	1,398.4	1,397.3	2.5	2.5	13.12	2.6	41.1	19.8	14.9	4.83	4.094	
1,500.0	1,498.9	1,498.0	1,496.3	2.7	2.7	14.65	3.5	52.3	21.6	16.4	5.18	4.176	
1,600.0	1,598.3	1,597.6	1,595.1	2.9	3.0	16.26	4.6	65.2	23.6	18.1	5.53	4.262	
1,700.0	1,697.6	1,697.2	1,693.5	3.1	3.2	17.11	5.8	79.9	26.8	20.9	5.90	4.548	
1,800.0	1,796.9	1,796.5	1,791.5	3.4	3.5	17.09	7.2	96.1	31.7	25.5	6.26	5.073	
1,900.0	1,896.2	1,895.7	1,889.1	3.6	3.8	16.53	8.7	114.1	38.4	31.7	6.62	5.799	
2,000.0	1,995.5	1,994.7	1,986.0	3.8	4.2	15.73	10.3	133.7	46.7	39.7	6.97	6.696	
2,100.0	2,094.8	2,093.3	2,082.3	4.1	4.6	14.87	12.1	154.8	56.7	49.4	7.32	7.740	
2,200.0	2,194.1	2,191.5	2,177.9	4.3	5.0	14.03	14.0	177.6	68.4	60.7	7.68	8.911	
2,300.0	2,293.4	2,289.7	2,273.0	4.6	5.4	13.27	16.0	201.8	81.8	73.7	8.03	10.186	
2,400.0	2,392.8	2,388.7	2,368.8	4.9	5.8	12.68	18.1	226.8	95.6	87.2	8.38	11.413	
2,500.0	2,492.1	2,487.7	2,464.6	5.1	6.3	12.23	20.2	251.8	109.5	100.8	8.73	12.541	
2,600.0	2,591.4	2,586.8	2,560.4	5.4	6.7	11.89	22.3	276.8	123.4	114.3	9.08	13.582	
2,700.0	2,690.7	2,685.8	2,656.2	5.6	7.2	11.61	24.4	301.8	137.3	127.8	9.44	14.545	
2,800.0	2,790.0	2,784.8	2,752.0	5.9	7.6	11.39	26.5	326.8	151.1	141.3	9.79	15.438	
2,900.0	2,889.3	2,883.8	2,847.8	6.1	8.1	11.20	28.6	351.8	165.0	154.9	10.14	16.269	
3,000.0	2,988.6	2,982.9	2,943.6	6.4	8.5	11.04	30.7	376.8	178.9	168.4	10.50	17.044	
3,100.0	3,087.9	3,081.9	3,039.4	6.7	9.0	10.91	32.8	401.8	192.8	181.9	10.85	17.768	
3,200.0	3,187.2	3,180.9	3,135.2	6.9	9.5	10.79	34.9	426.8	206.7	195.5	11.20	18.447	
3,300.0	3,286.5	3,280.0	3,231.0	7.2	9.9	10.69	37.0	451.8	220.6	209.0	11.56	19.084	
3,400.0	3,385.9	3,379.0	3,326.8	7.5	10.4	10.60	39.1	476.8	234.5	222.6	11.91	19.683	
3,500.0	3,485.2	3,478.0	3,422.6	7.7	10.9	10.52	41.2	501.8	248.4	236.1	12.27	20.248	
3,600.0	3,584.5	3,577.1	3,518.4	8.0	11.4	10.45	43.3	526.8	262.3	249.6	12.62	20.781	
3,700.0	3,683.8	3,676.1	3,614.2	8.3	11.8	10.38	45.4	551.8	276.1	263.2	12.97	21.285	
3,800.0	3,783.1	3,775.1	3,710.0	8.5	12.3	10.32	47.5	576.8	290.0	276.7	13.33	21.762	
3,900.0	3,882.4	3,874.1	3,805.8	8.8	12.8	10.27	49.6	601.8	303.9	290.3	13.68	22.214	
4,000.0	3,981.7	3,973.2	3,901.6	9.0	13.2	10.22	51.7	626.8	317.8	303.8	14.04	22.644	
4,100.0	4,081.0	4,072.2	3,997.4	9.3	13.7	10.18	53.8	651.8	331.7	317.3	14.39	23.052	
4,200.0	4,180.3	4,171.2	4,093.2	9.6	14.2	10.14	55.9	676.8	345.6	330.9	14.74	23.441	
4,300.0	4,279.7	4,270.3	4,189.0	9.8	14.7	10.10	58.0	701.8	359.5	344.4	15.10	23.812	
4,400.0	4,379.0	4,369.3	4,284.8	10.1	15.2	10.07	60.1	726.8	373.4	358.0	15.45	24.166	
4,500.0	4,478.3	4,468.3	4,380.6	10.4	15.6	10.03	62.2	751.8	387.3	371.5	15.81	24.503	
4,600.0	4,577.6	4,567.4	4,476.4	10.6	16.1	10.00	64.3	776.7	401.2	385.0	16.16	24.826	
4,700.0	4,676.9	4,666.4	4,572.2	10.9	16.6	9.98	66.4	801.7	415.1	398.6	16.51	25.136	
4,800.0	4,776.2	4,765.4	4,668.0	11.2	17.1	9.95	68.5	826.7	429.0	412.1	16.87	25.432	
4,900.0	4,875.5	4,864.4	4,763.8	11.4	17.5	9.92	70.5	851.7	442.9	425.7	17.22	25.716	
5,000.0	4,974.8	4,963.5	4,859.6	11.7	18.0	9.90	72.6	876.7	456.8	439.2	17.58	25.988	
5,100.0	5,074.1	5,062.5	4,955.4	12.0	18.5	9.88	74.7	901.7	470.7	452.7	17.93	26.250	

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 Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4G-32H-O268 - 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
5,200.0	5,173.4	5,161.5	5,051.2	12.3	19.0	9.86	76.8	926.7	484.6	466.3	18.28	26.502	
5,300.0	5,272.8	5,260.6	5,147.0	12.5	19.5	9.84	78.9	951.7	498.5	479.8	18.64	26.744	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4H-32H-O268 - 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	68.51	5.9	15.0	16.2				
100.0	100.0	100.0	100.0	0.1	0.1	68.51	5.9	15.0	16.2	15.9	0.30	54.449	
200.0	200.0	200.0	200.0	0.3	0.3	68.51	5.9	15.0	16.2	15.5	0.65	25.017	
300.0	300.0	300.0	300.0	0.5	0.5	68.51	5.9	15.0	16.2	15.2	0.99	16.239	
400.0	400.0	400.0	400.0	0.7	0.7	68.51	5.9	15.0	16.2	14.8	1.34	12.021	
500.0	500.0	500.0	500.0	0.8	0.8	68.51	5.9	15.0	16.2	14.5	1.69	9.543	
600.0	600.0	600.0	600.0	1.0	1.0	68.51	5.9	15.0	16.2	14.1	2.04	7.911	
700.0	700.0	700.0	700.0	1.2	1.2	68.51	5.9	15.0	16.2	13.8	2.39	6.757	
800.0	800.0	800.0	800.0	1.4	1.4	68.51	5.9	15.0	16.2	13.4	2.74	5.896	
900.0	900.0	900.0	900.0	1.5	1.5	68.51	5.9	15.0	16.2	13.1	3.09	5.230	
1,000.0	1,000.0	999.7	999.7	1.7	1.7	-11.37	6.0	15.9	16.1	12.7	3.44	4.692	
1,100.0	1,100.0	1,099.5	1,099.4	1.9	1.9	-10.44	6.2	18.5	16.1	12.3	3.79	4.242	
1,200.0	1,199.9	1,199.2	1,199.1	2.1	2.1	-8.86	6.4	22.8	15.9	11.8	4.13	3.859	
1,300.0	1,299.7	1,298.9	1,298.6	2.3	2.3	-6.62	6.8	28.9	15.8	11.3	4.48	3.530	
1,400.0	1,399.4	1,398.7	1,398.0	2.5	2.5	-3.68	7.4	36.7	15.7	10.8	4.83	3.249	
1,500.0	1,498.9	1,498.4	1,497.3	2.7	2.7	-0.04	8.0	46.2	15.6	10.4	5.17	3.011	CC
1,561.0	1,559.5	1,559.2	1,557.7	2.8	2.8	2.51	8.4	52.8	15.6	10.2	5.38	2.902	
1,600.0	1,598.3	1,598.1	1,596.4	2.9	2.9	4.29	8.7	57.4	15.6	10.1	5.52	2.825	ES, SF
1,700.0	1,697.6	1,697.8	1,695.2	3.1	3.1	8.55	9.6	70.4	17.0	11.1	5.87	2.889	
1,800.0	1,796.9	1,797.4	1,793.8	3.4	3.4	11.62	10.6	85.0	20.1	13.9	6.23	3.235	
1,900.0	1,896.2	1,896.9	1,891.9	3.6	3.7	13.30	11.7	101.4	25.1	18.5	6.59	3.809	
2,000.0	1,995.5	1,996.2	1,989.5	3.8	4.0	13.97	12.9	119.3	31.8	24.8	6.95	4.573	
2,100.0	2,094.8	2,095.2	2,086.6	4.1	4.3	14.04	14.2	139.0	40.2	32.9	7.31	5.498	
2,200.0	2,194.1	2,194.0	2,183.0	4.3	4.7	13.81	15.6	160.2	50.3	42.6	7.66	6.559	
2,300.0	2,293.4	2,292.3	2,278.6	4.6	5.1	13.45	17.1	183.0	62.1	54.0	8.02	7.740	
2,400.0	2,392.8	2,390.2	2,373.5	4.9	5.5	13.04	18.7	207.3	75.5	67.2	8.37	9.024	
2,500.0	2,492.1	2,487.7	2,467.4	5.1	6.0	12.62	20.5	233.1	90.7	82.0	8.72	10.399	
2,600.0	2,591.4	2,584.6	2,560.4	5.4	6.5	12.23	22.3	260.4	107.5	98.4	9.07	11.853	
2,700.0	2,690.7	2,681.2	2,652.7	5.6	7.0	11.86	24.2	289.1	126.0	116.5	9.42	13.374	
2,800.0	2,790.0	2,779.4	2,746.2	5.9	7.5	11.56	26.2	318.8	145.0	135.2	9.77	14.844	
2,900.0	2,889.3	2,877.5	2,839.7	6.1	8.0	11.33	28.1	348.5	164.1	154.0	10.12	16.212	
3,000.0	2,988.6	2,975.7	2,933.3	6.4	8.5	11.15	30.1	378.2	183.1	172.7	10.47	17.487	
3,100.0	3,087.9	3,073.9	3,026.8	6.7	9.1	11.00	32.1	408.0	202.2	191.4	10.82	18.680	
3,200.0	3,187.2	3,172.0	3,120.3	6.9	9.6	10.88	34.1	437.7	221.3	210.1	11.18	19.797	
3,300.0	3,286.5	3,270.2	3,213.9	7.2	10.2	10.77	36.1	467.4	240.3	228.8	11.53	20.845	
3,400.0	3,385.9	3,368.4	3,307.4	7.5	10.7	10.68	38.0	497.1	259.4	247.5	11.88	21.832	
3,500.0	3,485.2	3,466.5	3,400.9	7.7	11.3	10.61	40.0	526.9	278.5	266.2	12.23	22.761	
3,600.0	3,584.5	3,564.7	3,494.5	8.0	11.8	10.54	42.0	556.6	297.5	285.0	12.59	23.639	
3,700.0	3,683.8	3,662.9	3,588.0	8.3	12.4	10.48	44.0	586.3	316.6	303.7	12.94	24.469	
3,800.0	3,783.1	3,761.0	3,681.5	8.5	12.9	10.43	46.0	616.0	335.7	322.4	13.29	25.254	
3,900.0	3,882.4	3,859.2	3,775.1	8.8	13.5	10.38	47.9	645.8	354.7	341.1	13.64	25.999	
4,000.0	3,981.7	3,957.4	3,868.6	9.0	14.0	10.34	49.9	675.5	373.8	359.8	14.00	26.706	
4,100.0	4,081.0	4,055.5	3,962.1	9.3	14.6	10.31	51.9	705.2	392.9	378.5	14.35	27.379	
4,200.0	4,180.3	4,153.7	4,055.7	9.6	15.1	10.27	53.9	734.9	412.0	397.2	14.70	28.019	
4,300.0	4,279.7	4,251.8	4,149.2	9.8	15.7	10.24	55.9	764.7	431.0	416.0	15.06	28.630	
4,400.0	4,379.0	4,350.0	4,242.8	10.1	16.3	10.21	57.9	794.4	450.1	434.7	15.41	29.212	
4,500.0	4,478.3	4,448.2	4,336.3	10.4	16.8	10.19	59.8	824.1	469.2	453.4	15.76	29.768	
4,600.0	4,577.6	4,546.3	4,429.8	10.6	17.4	10.16	61.8	853.8	488.2	472.1	16.11	30.300	

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 Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4I-32H-O268 - 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	90.31	-0.2	30.0	30.0				
100.0	100.0	99.0	99.0	0.1	0.1	90.31	-0.2	30.0	30.0	29.7	0.30	101.618	
200.0	200.0	199.0	199.0	0.3	0.3	90.31	-0.2	30.0	30.0	29.4	0.64	46.582	
300.0	300.0	299.4	299.4	0.5	0.5	91.50	-0.8	29.4	29.4	28.4	0.99	29.580	
400.0	400.0	399.7	399.6	0.7	0.7	95.43	-2.6	27.5	27.7	26.3	1.34	20.575	
500.0	500.0	499.8	499.7	0.8	0.9	103.13	-5.7	24.5	25.1	23.4	1.70	14.814	
600.0	600.0	599.8	599.5	1.0	1.1	116.45	-10.0	20.1	22.5	20.4	2.04	11.011	
692.4	692.4	692.0	691.4	1.2	1.3	135.03	-15.1	15.1	21.3	18.9	2.37	9.007	CC
700.0	700.0	699.6	698.9	1.2	1.3	136.79	-15.5	14.6	21.3	18.9	2.39	8.908	ES
800.0	800.0	799.1	798.1	1.4	1.5	159.96	-22.1	8.1	23.5	20.7	2.78	8.450	SF
900.0	900.0	898.7	897.2	1.5	1.7	177.22	-28.7	1.4	28.8	25.6	3.21	8.989	
1,000.0	1,000.0	998.2	996.2	1.7	2.0	109.50	-35.4	-5.3	36.2	32.6	3.52	10.269	
1,100.0	1,100.0	1,097.5	1,095.1	1.9	2.2	119.44	-42.0	-11.9	45.4	41.6	3.84	11.828	
1,200.0	1,199.9	1,196.6	1,193.7	2.1	2.4	127.28	-48.6	-18.5	56.7	52.5	4.17	13.602	
1,300.0	1,299.7	1,295.5	1,292.2	2.3	2.7	133.49	-55.2	-25.1	69.8	65.3	4.50	15.520	
1,400.0	1,399.4	1,394.1	1,390.4	2.5	2.9	138.47	-61.8	-31.7	84.8	80.0	4.84	17.534	
1,500.0	1,498.9	1,492.5	1,488.3	2.7	3.1	142.51	-68.4	-38.3	101.6	96.4	5.18	19.616	
1,600.0	1,598.3	1,590.5	1,585.9	2.9	3.4	145.85	-74.9	-44.9	120.2	114.6	5.53	21.732	
1,700.0	1,697.6	1,688.5	1,683.4	3.1	3.6	148.46	-81.5	-51.4	139.4	133.5	5.88	23.687	
1,800.0	1,796.9	1,786.4	1,781.0	3.4	3.8	150.44	-88.0	-58.0	158.8	152.6	6.24	25.445	
1,900.0	1,896.2	1,884.4	1,878.5	3.6	4.1	151.98	-94.6	-64.5	178.4	171.8	6.60	27.030	
2,000.0	1,995.5	1,982.4	1,976.0	3.8	4.3	153.22	-101.1	-71.1	198.1	191.2	6.96	28.463	
2,100.0	2,094.8	2,080.3	2,073.5	4.1	4.5	154.23	-107.7	-77.6	217.9	210.6	7.32	29.764	
2,200.0	2,194.1	2,178.3	2,171.0	4.3	4.8	155.08	-114.2	-84.2	237.7	230.1	7.68	30.949	
2,300.0	2,293.4	2,276.2	2,268.6	4.6	5.0	155.79	-120.7	-90.7	257.6	249.6	8.04	32.032	
2,400.0	2,392.8	2,374.2	2,366.1	4.9	5.2	156.40	-127.3	-97.3	277.5	269.1	8.40	33.027	
2,500.0	2,492.1	2,472.2	2,463.6	5.1	5.5	156.94	-133.8	-103.8	297.4	288.7	8.76	33.942	
2,600.0	2,591.4	2,570.1	2,561.1	5.4	5.7	157.40	-140.4	-110.4	317.4	308.2	9.12	34.787	
2,700.0	2,690.7	2,668.1	2,658.7	5.6	5.9	157.81	-146.9	-116.9	337.3	327.9	9.48	35.570	
2,800.0	2,790.0	2,766.0	2,756.2	5.9	6.2	158.17	-153.5	-123.5	357.3	347.5	9.84	36.297	
2,900.0	2,889.3	2,864.0	2,853.7	6.1	6.4	158.50	-160.0	-130.0	377.3	367.1	10.20	36.974	
3,000.0	2,988.6	2,962.0	2,951.2	6.4	6.6	158.79	-166.5	-136.6	397.3	386.7	10.57	37.605	
3,100.0	3,087.9	3,059.9	3,048.7	6.7	6.9	159.05	-173.1	-143.1	417.3	406.4	10.93	38.196	
3,200.0	3,187.2	3,157.9	3,146.3	6.9	7.1	159.29	-179.6	-149.7	437.3	426.0	11.29	38.749	
3,300.0	3,286.5	3,255.8	3,243.8	7.2	7.3	159.51	-186.2	-156.2	457.4	445.7	11.65	39.269	
3,400.0	3,385.9	3,353.8	3,341.3	7.5	7.6	159.71	-192.7	-162.8	477.4	465.4	12.01	39.758	
3,500.0	3,485.2	3,451.8	3,438.8	7.7	7.8	159.90	-199.3	-169.3	497.4	485.1	12.37	40.219	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4J-32H-O268 - 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	80.58	5.8	35.0	35.5				
100.0	100.0	99.0	99.0	0.1	0.1	80.58	5.8	35.0	35.5	35.2	0.30	120.284	
200.0	200.0	199.0	199.0	0.3	0.3	80.58	5.8	35.0	35.5	34.9	0.64	55.138	
300.0	300.0	299.0	299.0	0.5	0.5	80.58	5.8	35.0	35.5	34.5	0.99	35.758	
400.0	400.0	399.2	399.2	0.7	0.7	81.90	5.0	34.9	35.2	33.9	1.34	26.249	
500.0	500.0	499.3	499.3	0.8	0.9	86.02	2.4	34.4	34.5	32.8	1.69	20.411	
600.0	600.0	599.3	599.2	1.0	1.0	93.21	-1.9	33.7	33.8	31.7	2.04	16.545	
665.9	665.9	665.2	664.9	1.1	1.2	99.70	-5.7	33.1	33.6	31.3	2.27	14.769	CC
700.0	700.0	699.2	698.8	1.2	1.2	103.57	-7.9	32.7	33.6	31.2	2.39	14.060	ES
800.0	800.0	798.8	798.1	1.4	1.4	116.39	-15.6	31.4	35.0	32.3	2.75	12.728	
900.0	900.0	898.3	897.2	1.5	1.7	129.40	-24.5	29.8	38.7	35.5	3.13	12.334	
1,000.0	1,000.0	997.8	996.4	1.7	1.9	60.58	-33.5	28.3	43.5	40.0	3.53	12.326	SF
1,100.0	1,100.0	1,097.3	1,095.4	1.9	2.1	71.28	-42.5	26.8	49.2	45.3	3.87	12.701	
1,200.0	1,199.9	1,196.6	1,194.3	2.1	2.3	81.27	-51.5	25.2	55.9	51.7	4.20	13.297	
1,300.0	1,299.7	1,295.8	1,293.1	2.3	2.6	90.48	-60.5	23.7	63.9	59.4	4.53	14.095	
1,400.0	1,399.4	1,394.9	1,391.7	2.5	2.8	98.80	-69.5	22.2	73.5	68.6	4.88	15.065	
1,500.0	1,498.9	1,493.7	1,490.1	2.7	3.0	106.20	-78.4	20.6	84.8	79.5	5.24	16.175	
1,600.0	1,598.3	1,592.3	1,588.3	2.9	3.2	112.71	-87.4	19.1	97.8	92.2	5.62	17.400	
1,700.0	1,697.6	1,690.8	1,686.4	3.1	3.5	117.93	-96.3	17.6	112.0	106.0	6.01	18.635	
1,800.0	1,796.9	1,789.3	1,784.5	3.4	3.7	121.96	-105.2	16.1	126.9	120.5	6.40	19.812	
1,900.0	1,896.2	1,887.9	1,882.6	3.6	3.9	125.14	-114.1	14.5	142.3	135.5	6.80	20.914	
2,000.0	1,995.5	1,986.4	1,980.8	3.8	4.2	127.69	-123.1	13.0	158.0	150.8	7.20	21.936	
2,100.0	2,094.8	2,084.9	2,078.9	4.1	4.4	129.78	-132.0	11.5	174.0	166.4	7.61	22.881	
2,200.0	2,194.1	2,183.5	2,177.0	4.3	4.6	131.52	-140.9	10.0	190.2	182.2	8.01	23.753	
2,300.0	2,293.4	2,282.0	2,275.1	4.6	4.9	132.98	-149.8	8.4	206.5	198.1	8.41	24.559	
2,400.0	2,392.8	2,380.5	2,373.2	4.9	5.1	134.23	-158.7	6.9	223.0	214.2	8.81	25.303	
2,500.0	2,492.1	2,479.1	2,471.3	5.1	5.3	135.31	-167.7	5.4	239.5	230.3	9.22	25.992	
2,600.0	2,591.4	2,577.6	2,569.4	5.4	5.6	136.24	-176.6	3.9	256.1	246.5	9.62	26.631	
2,700.0	2,690.7	2,676.1	2,667.6	5.6	5.8	137.07	-185.5	2.3	272.8	262.8	10.02	27.225	
2,800.0	2,790.0	2,774.7	2,765.7	5.9	6.0	137.80	-194.4	0.8	289.5	279.1	10.42	27.778	
2,900.0	2,889.3	2,873.2	2,863.8	6.1	6.3	138.45	-203.4	-0.7	306.2	295.4	10.82	28.293	
3,000.0	2,988.6	2,971.7	2,961.9	6.4	6.5	139.03	-212.3	-2.2	323.0	311.8	11.23	28.775	
3,100.0	3,087.9	3,070.2	3,060.0	6.7	6.7	139.55	-221.2	-3.8	339.8	328.2	11.63	29.226	
3,200.0	3,187.2	3,168.8	3,158.1	6.9	7.0	140.03	-230.1	-5.3	356.7	344.7	12.03	29.649	
3,300.0	3,286.5	3,267.3	3,256.2	7.2	7.2	140.46	-239.0	-6.8	373.5	361.1	12.43	30.047	
3,400.0	3,385.9	3,365.8	3,354.4	7.5	7.4	140.86	-248.0	-8.3	390.4	377.6	12.83	30.421	
3,500.0	3,485.2	3,464.4	3,452.5	7.7	7.7	141.22	-256.9	-9.9	407.3	394.1	13.24	30.774	
3,600.0	3,584.5	3,562.9	3,550.6	8.0	7.9	141.55	-265.8	-11.4	424.2	410.6	13.64	31.107	
3,700.0	3,683.8	3,661.4	3,648.7	8.3	8.1	141.86	-274.7	-12.9	441.2	427.1	14.04	31.423	
3,800.0	3,783.1	3,760.0	3,746.8	8.5	8.4	142.14	-283.7	-14.4	458.1	443.6	14.44	31.721	
3,900.0	3,882.4	3,858.5	3,844.9	8.8	8.6	142.41	-292.6	-16.0	475.0	460.2	14.84	32.004	
4,000.0	3,981.7	3,957.0	3,943.0	9.0	8.8	142.66	-301.5	-17.5	492.0	476.7	15.24	32.273	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4K-32H-O268 - 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	90.31	-0.2	40.0	40.0				
100.0	100.0	99.0	99.0	0.1	0.1	90.31	-0.2	40.0	40.0	39.7	0.30	135.491	
200.0	200.0	199.0	199.0	0.3	0.3	90.31	-0.2	40.0	40.0	39.4	0.64	62.109	
300.0	300.0	299.0	299.0	0.5	0.5	90.31	-0.2	40.0	40.0	39.0	0.99	40.278	
400.0	400.0	399.0	399.0	0.7	0.7	90.31	-0.2	40.0	40.0	38.7	1.34	29.803	CC, ES
500.0	500.0	498.7	498.7	0.8	0.8	91.37	-1.0	40.4	40.4	38.7	1.69	23.896	
600.0	600.0	598.3	598.2	1.0	1.0	94.48	-3.3	41.6	41.7	39.7	2.04	20.441	
700.0	700.0	697.8	697.6	1.2	1.2	99.23	-7.1	43.6	44.2	41.8	2.39	18.443	
800.0	800.0	797.1	796.8	1.4	1.4	105.00	-12.4	46.3	48.0	45.3	2.76	17.429	
900.0	900.0	896.1	895.5	1.5	1.6	111.11	-19.3	49.9	53.6	50.5	3.13	17.127	
1,000.0	1,000.0	995.1	994.1	1.7	1.8	37.21	-27.6	54.2	60.3	56.9	3.47	17.400	
1,100.0	1,100.0	1,094.7	1,093.1	1.9	2.0	43.43	-36.3	58.8	66.8	63.0	3.82	17.492	
1,200.0	1,199.9	1,194.2	1,192.2	2.1	2.3	49.52	-45.1	63.3	72.8	68.6	4.16	17.469	
1,300.0	1,299.7	1,293.7	1,291.2	2.3	2.5	55.66	-53.9	67.9	78.4	73.9	4.51	17.383	
1,400.0	1,399.4	1,393.2	1,390.1	2.5	2.7	61.94	-62.6	72.4	84.1	79.2	4.87	17.272	
1,500.0	1,498.9	1,492.5	1,489.0	2.7	3.0	68.39	-71.4	77.0	90.0	84.7	5.24	17.166	
1,600.0	1,598.3	1,591.7	1,587.7	2.9	3.2	74.93	-80.1	81.5	96.4	90.8	5.64	17.099	
1,700.0	1,697.6	1,690.9	1,686.4	3.1	3.4	80.89	-88.9	86.1	103.9	97.8	6.06	17.153	
1,800.0	1,796.9	1,790.1	1,785.1	3.4	3.7	86.00	-97.6	90.6	112.3	105.9	6.49	17.307	
1,900.0	1,896.2	1,889.2	1,883.8	3.6	3.9	90.38	-106.4	95.2	121.6	114.6	6.94	17.523	
2,000.0	1,995.5	1,988.4	1,982.4	3.8	4.2	94.12	-115.1	99.7	131.4	124.0	7.39	17.776	
2,100.0	2,094.8	2,087.6	2,081.1	4.1	4.4	97.34	-123.8	104.3	141.7	133.9	7.85	18.050	
2,200.0	2,194.1	2,186.8	2,179.8	4.3	4.6	100.11	-132.6	108.8	152.4	144.1	8.31	18.334	
2,300.0	2,293.4	2,285.9	2,278.5	4.6	4.9	102.52	-141.3	113.3	163.4	154.7	8.78	18.618	
2,400.0	2,392.8	2,385.1	2,377.2	4.9	5.1	104.62	-150.1	117.9	174.7	165.5	9.24	18.900	
2,500.0	2,492.1	2,484.3	2,475.8	5.1	5.4	106.46	-158.8	122.4	186.2	176.5	9.71	19.175	
2,600.0	2,591.4	2,583.4	2,574.5	5.4	5.6	108.10	-167.5	127.0	197.8	187.6	10.17	19.441	
2,700.0	2,690.7	2,682.6	2,673.2	5.6	5.9	109.54	-176.3	131.5	209.6	198.9	10.64	19.697	
2,800.0	2,790.0	2,781.8	2,771.9	5.9	6.1	110.84	-185.0	136.0	221.5	210.4	11.10	19.943	
2,900.0	2,889.3	2,881.0	2,870.6	6.1	6.3	112.00	-193.8	140.6	233.5	221.9	11.57	20.178	
3,000.0	2,988.6	2,980.1	2,969.3	6.4	6.6	113.05	-202.5	145.1	245.5	233.5	12.03	20.403	
3,100.0	3,087.9	3,079.3	3,067.9	6.7	6.8	114.00	-211.2	149.7	257.7	245.2	12.50	20.617	
3,200.0	3,187.2	3,178.5	3,166.6	6.9	7.1	114.86	-220.0	154.2	269.9	256.9	12.96	20.822	
3,300.0	3,286.5	3,277.7	3,265.3	7.2	7.3	115.65	-228.7	158.8	282.2	268.7	13.43	21.017	
3,400.0	3,385.9	3,376.8	3,364.0	7.5	7.6	116.38	-237.5	163.3	294.5	280.6	13.89	21.203	
3,500.0	3,485.2	3,476.0	3,462.7	7.7	7.8	117.04	-246.2	167.8	306.8	292.5	14.35	21.380	
3,600.0	3,584.5	3,575.2	3,561.4	8.0	8.0	117.66	-254.9	172.4	319.2	304.4	14.81	21.550	
3,700.0	3,683.8	3,674.3	3,660.0	8.3	8.3	118.22	-263.7	176.9	331.7	316.4	15.28	21.711	
3,800.0	3,783.1	3,773.5	3,758.7	8.5	8.5	118.75	-272.4	181.5	344.1	328.4	15.74	21.865	
3,900.0	3,882.4	3,872.7	3,857.4	8.8	8.8	119.24	-281.2	186.0	356.6	340.4	16.20	22.013	
4,000.0	3,981.7	3,971.9	3,956.1	9.0	9.0	119.70	-289.9	190.6	369.1	352.5	16.66	22.153	
4,100.0	4,081.0	4,071.0	4,054.8	9.3	9.3	120.12	-298.6	195.1	381.7	364.5	17.12	22.288	
4,200.0	4,180.3	4,170.2	4,153.4	9.6	9.5	120.52	-307.4	199.6	394.2	376.6	17.59	22.417	
4,300.0	4,279.7	4,269.4	4,252.1	9.8	9.7	120.90	-316.1	204.2	406.8	388.7	18.05	22.541	
4,400.0	4,379.0	4,368.6	4,350.8	10.1	10.0	121.25	-324.9	208.7	419.4	400.9	18.51	22.659	
4,500.0	4,478.3	4,467.7	4,449.5	10.4	10.2	121.58	-333.6	213.3	432.0	413.0	18.97	22.773	
4,600.0	4,577.6	4,566.9	4,548.2	10.6	10.5	121.90	-342.3	217.8	444.6	425.2	19.43	22.882	
4,700.0	4,676.9	4,666.1	4,646.9	10.9	10.7	122.19	-351.1	222.3	457.2	437.3	19.89	22.987	
4,800.0	4,776.2	4,765.2	4,745.5	11.2	11.0	122.47	-359.8	226.9	469.9	449.5	20.35	23.087	
4,900.0	4,875.5	4,864.4	4,844.2	11.4	11.2	122.74	-368.6	231.4	482.5	461.7	20.81	23.184	
5,000.0	4,974.8	4,963.6	4,942.9	11.7	11.4	122.99	-377.3	236.0	495.2	473.9	21.27	23.277	
7,500.0	7,353.7	7,674.2	7,580.1	18.5	15.6	107.52	-361.9	348.7	472.9	445.5	27.45	17.229	

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 Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4K-32H-O268 - 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
7,600.0	7,395.3	7,610.9	7,537.1	19.1	15.9	103.75	-408.3	348.4	427.8	399.1	28.67	14.920	
7,700.0	7,420.7	7,552.6	7,493.3	19.8	16.1	98.95	-446.6	347.9	398.7	368.5	30.20	13.205	
7,800.0	7,429.0	7,497.0	7,447.9	20.6	16.3	92.95	-478.9	347.1	387.4	355.7	31.63	12.247	
7,813.9	7,429.0	7,489.6	7,441.7	20.7	16.3	92.02	-482.8	346.9	387.2	355.4	31.82	12.169	
7,900.0	7,429.0	7,450.0	7,407.4	21.5	16.5	86.96	-502.6	346.2	394.3	361.5	32.85	12.006 SF	
8,000.0	7,429.0	7,413.6	7,374.7	22.5	16.6	82.21	-518.6	345.3	420.8	386.8	33.93	12.403	
8,100.0	7,429.0	7,385.3	7,348.7	23.6	16.7	78.52	-529.6	344.6	464.7	429.7	34.97	13.290	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4L-32H-O268 - 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	82.71	5.8	45.0	45.4				
100.0	100.0	99.0	99.0	0.1	0.1	82.71	5.8	45.0	45.4	45.1	0.30	153.776	
200.0	200.0	199.0	199.0	0.3	0.3	82.71	5.8	45.0	45.4	44.8	0.64	70.491	
300.0	300.0	299.0	299.0	0.5	0.5	82.71	5.8	45.0	45.4	44.4	0.99	45.714	
400.0	400.0	399.0	399.0	0.7	0.7	82.71	5.8	45.0	45.4	44.1	1.34	33.825	
500.0	500.0	499.0	499.0	0.8	0.8	82.71	5.8	45.0	45.4	43.7	1.69	26.843	CC, ES
600.0	600.0	598.6	598.6	1.0	1.0	83.60	5.1	45.6	45.9	43.8	2.04	22.489	
700.0	700.0	698.1	698.0	1.2	1.2	86.17	3.2	47.3	47.4	45.0	2.39	19.827	
800.0	800.0	797.4	797.3	1.4	1.4	90.11	-0.1	50.1	50.1	47.3	2.74	18.262	
900.0	900.0	896.6	896.3	1.5	1.6	94.92	-4.7	54.0	54.2	51.1	3.10	17.479	
1,000.0	1,000.0	995.6	995.0	1.7	1.8	20.16	-10.5	59.0	59.2	55.8	3.45	17.149	
1,100.0	1,100.0	1,094.4	1,093.3	1.9	2.0	26.19	-17.6	65.1	64.5	60.7	3.81	16.946	
1,200.0	1,199.9	1,192.9	1,191.2	2.1	2.2	32.61	-26.0	72.3	70.5	66.4	4.16	16.955	
1,300.0	1,299.7	1,292.1	1,289.6	2.3	2.5	39.11	-35.4	80.3	77.1	72.6	4.51	17.099	
1,400.0	1,399.4	1,391.5	1,388.2	2.5	2.7	45.40	-44.8	88.5	83.3	78.4	4.86	17.146	
1,500.0	1,498.9	1,490.8	1,486.8	2.7	3.0	51.60	-54.2	96.6	89.3	84.1	5.22	17.106	
1,600.0	1,598.3	1,590.1	1,585.3	2.9	3.2	57.82	-63.6	104.7	95.4	89.8	5.61	17.010	
1,700.0	1,697.6	1,689.4	1,683.8	3.1	3.5	63.50	-73.1	112.7	102.2	96.2	6.01	16.991	
1,800.0	1,796.9	1,788.7	1,782.3	3.4	3.8	68.44	-82.5	120.8	109.9	103.5	6.44	17.055	
1,900.0	1,896.2	1,888.0	1,880.8	3.6	4.0	72.71	-91.9	128.9	118.3	111.4	6.89	17.170	
2,000.0	1,995.5	1,987.3	1,979.3	3.8	4.3	76.40	-101.3	137.0	127.3	120.0	7.35	17.314	
2,100.0	2,094.8	2,086.5	2,077.8	4.1	4.6	79.59	-110.8	145.1	136.8	128.9	7.83	17.475	
2,200.0	2,194.1	2,185.8	2,176.3	4.3	4.8	82.36	-120.2	153.2	146.6	138.3	8.31	17.645	
2,300.0	2,293.4	2,285.1	2,274.8	4.6	5.1	84.79	-129.6	161.3	156.7	147.9	8.79	17.818	
2,400.0	2,392.8	2,384.4	2,373.3	4.9	5.4	86.91	-139.0	169.4	167.0	157.7	9.28	17.990	
2,500.0	2,492.1	2,483.7	2,471.9	5.1	5.7	88.79	-148.5	177.5	177.6	167.8	9.78	18.159	
2,600.0	2,591.4	2,583.0	2,570.4	5.4	5.9	90.46	-157.9	185.6	188.3	178.0	10.28	18.323	
2,700.0	2,690.7	2,682.2	2,668.9	5.6	6.2	91.94	-167.3	193.7	199.2	188.4	10.78	18.482	
2,800.0	2,790.0	2,781.5	2,767.4	5.9	6.5	93.28	-176.7	201.8	210.2	198.9	11.28	18.635	
2,900.0	2,889.3	2,880.8	2,865.9	6.1	6.8	94.47	-186.2	209.9	221.2	209.5	11.78	18.782	
3,000.0	2,988.6	2,980.1	2,964.4	6.4	7.0	95.56	-195.6	218.0	232.4	220.1	12.28	18.923	
3,100.0	3,087.9	3,079.4	3,062.9	6.7	7.3	96.54	-205.0	226.1	243.7	230.9	12.79	19.057	
3,200.0	3,187.2	3,178.7	3,161.4	6.9	7.6	97.44	-214.4	234.2	255.0	241.7	13.29	19.186	
3,300.0	3,286.5	3,277.9	3,259.9	7.2	7.9	98.26	-223.9	242.3	266.3	252.6	13.79	19.308	
3,400.0	3,385.9	3,377.2	3,358.4	7.5	8.1	99.02	-233.3	250.4	277.8	263.5	14.30	19.426	
3,500.0	3,485.2	3,476.5	3,456.9	7.7	8.4	99.71	-242.7	258.5	289.2	274.4	14.80	19.537	
3,600.0	3,584.5	3,575.8	3,555.4	8.0	8.7	100.35	-252.1	266.6	300.7	285.4	15.31	19.644	
3,700.0	3,683.8	3,675.1	3,653.9	8.3	9.0	100.95	-261.6	274.7	312.3	296.5	15.81	19.746	
3,800.0	3,783.1	3,774.3	3,752.4	8.5	9.2	101.50	-271.0	282.8	323.8	307.5	16.32	19.843	
3,900.0	3,882.4	3,873.6	3,850.9	8.8	9.5	102.01	-280.4	290.9	335.4	318.6	16.82	19.937	
4,000.0	3,981.7	3,972.9	3,949.4	9.0	9.8	102.49	-289.8	299.0	347.0	329.7	17.33	20.026	
4,100.0	4,081.0	4,072.2	4,047.9	9.3	10.1	102.94	-299.3	307.0	358.7	340.9	17.84	20.111	
4,200.0	4,180.3	4,171.5	4,146.4	9.6	10.3	103.36	-308.7	315.1	370.3	352.0	18.34	20.192	
4,300.0	4,279.7	4,270.8	4,244.9	9.8	10.6	103.76	-318.1	323.2	382.0	363.2	18.85	20.271	
4,400.0	4,379.0	4,370.0	4,343.4	10.1	10.9	104.13	-327.5	331.3	393.7	374.4	19.35	20.346	
4,500.0	4,478.3	4,469.3	4,441.9	10.4	11.2	104.48	-337.0	339.4	405.4	385.6	19.86	20.417	
4,600.0	4,577.6	4,568.6	4,540.4	10.6	11.4	104.81	-346.4	347.5	417.2	396.8	20.36	20.486	
4,700.0	4,676.9	4,667.9	4,638.9	10.9	11.7	105.12	-355.8	355.6	428.9	408.0	20.87	20.553	
4,800.0	4,776.2	4,767.2	4,737.4	11.2	12.0	105.41	-365.2	363.7	440.7	419.3	21.37	20.616	
4,900.0	4,875.5	4,866.5	4,835.9	11.4	12.3	105.69	-374.7	371.8	452.4	430.5	21.88	20.678	
5,000.0	4,974.8	4,965.7	4,934.4	11.7	12.6	105.96	-384.1	379.9	464.2	441.8	22.38	20.737	
5,100.0	5,074.1	5,065.0	5,032.9	12.0	12.8	106.21	-393.5	388.0	476.0	453.1	22.89	20.793	

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 Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4L-32H-O268 - 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
5,200.0	5,173.4	5,164.3	5,131.4	12.3	13.1	106.45	-402.9	396.1	487.8	464.4	23.40	20.848	
5,300.0	5,272.8	5,263.6	5,229.9	12.5	13.4	106.68	-412.4	404.2	499.6	475.7	23.90	20.901	
7,000.0	6,960.5	7,900.0	7,429.0	17.1	16.8	153.54	103.5	578.6	477.5	448.4	29.13	16.391	
7,100.0	7,056.3	7,874.0	7,429.0	17.3	16.7	150.23	77.5	578.8	386.6	356.9	29.68	13.024	
7,200.0	7,146.0	7,831.6	7,429.0	17.5	16.6	146.96	35.1	579.2	304.5	276.1	28.46	10.701	
7,300.0	7,227.1	7,759.0	7,427.2	17.8	16.5	137.71	-37.4	579.7	234.9	208.5	26.41	8.892	
7,400.0	7,297.0	7,678.2	7,415.2	18.1	16.4	122.95	-117.2	579.4	178.4	153.0	25.40	7.024	
7,500.0	7,353.7	7,606.5	7,395.3	18.5	16.5	104.80	-186.1	578.4	146.7	119.9	26.73	5.487	
7,536.7	7,370.8	7,581.6	7,386.4	18.7	16.5	97.38	-209.3	577.9	144.0	116.5	27.53	5.232 SF	
7,600.0	7,395.3	7,540.1	7,369.3	19.1	16.6	84.33	-247.2	576.8	151.3	122.9	28.45	5.319	
7,700.0	7,420.7	7,477.1	7,338.4	19.8	16.8	65.69	-301.9	574.8	185.0	157.2	27.78	6.659	
7,800.0	7,429.0	7,416.5	7,303.1	20.6	17.0	51.78	-351.1	572.3	231.2	206.0	25.19	9.178	
7,900.0	7,429.0	7,361.7	7,266.9	21.5	17.2	45.19	-392.1	569.7	285.9	261.3	24.59	11.627	
8,000.0	7,429.0	7,315.6	7,233.5	22.5	17.3	40.36	-423.9	567.3	350.4	326.2	24.21	14.473	
8,100.0	7,429.0	7,276.6	7,203.4	23.6	17.4	36.81	-448.5	565.1	422.2	398.1	24.04	17.560	
8,200.0	7,429.0	7,250.0	7,181.9	24.8	17.5	34.65	-464.1	563.5	499.4	475.2	24.20	20.639	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4M-32H-O268 - 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	86.90	3.6	66.7	66.8				
100.0	100.0	99.0	99.0	0.1	0.1	86.90	3.6	66.7	66.8	66.5	0.30	226.342	
200.0	200.0	199.0	199.0	0.3	0.3	86.90	3.6	66.7	66.8	66.2	0.64	103.756	
300.0	300.0	299.0	299.0	0.5	0.5	86.90	3.6	66.7	66.8	65.8	0.99	67.286	
400.0	400.0	399.0	399.0	0.7	0.7	86.90	3.6	66.7	66.8	65.5	1.34	49.787	
500.0	500.0	499.0	499.0	0.8	0.8	86.90	3.6	66.7	66.8	65.1	1.69	39.511	
600.0	600.0	599.0	599.0	1.0	1.0	86.90	3.6	66.7	66.8	64.8	2.04	32.751	CC, ES
700.0	700.0	698.1	698.1	1.2	1.2	87.36	3.1	67.4	67.5	65.1	2.39	28.253	
800.0	800.0	797.2	797.1	1.4	1.4	88.71	1.6	69.4	69.5	66.7	2.74	25.376	
900.0	900.0	896.1	896.0	1.5	1.5	90.80	-1.0	72.8	72.9	69.8	3.09	23.581	
1,000.0	1,000.0	994.9	994.6	1.7	1.7	13.35	-4.6	77.6	77.0	73.5	3.44	22.393	
1,100.0	1,100.0	1,093.5	1,092.9	1.9	1.9	16.77	-9.2	83.6	81.0	77.2	3.79	21.384	
1,200.0	1,199.9	1,192.0	1,191.0	2.1	2.1	20.75	-14.9	91.1	85.2	81.1	4.14	20.589	
1,300.0	1,299.7	1,290.3	1,288.6	2.3	2.4	25.19	-21.5	99.8	89.9	85.4	4.49	20.009	
1,400.0	1,399.4	1,388.4	1,385.9	2.5	2.6	29.97	-29.1	109.8	95.1	90.3	4.84	19.642	
1,500.0	1,498.9	1,486.4	1,482.8	2.7	2.9	34.97	-37.8	121.2	101.2	96.0	5.20	19.475	
1,600.0	1,598.3	1,585.5	1,580.8	2.9	3.2	40.05	-47.0	133.4	107.5	102.0	5.56	19.331	
1,700.0	1,697.6	1,684.9	1,679.0	3.1	3.5	44.74	-56.3	145.6	114.3	108.4	5.95	19.227	
1,800.0	1,796.9	1,784.2	1,777.1	3.4	3.8	48.88	-65.5	157.8	121.8	115.4	6.34	19.195	
1,900.0	1,896.2	1,883.6	1,875.3	3.6	4.1	52.52	-74.8	169.9	129.8	123.0	6.76	19.204	
2,000.0	1,995.5	1,982.9	1,973.5	3.8	4.4	55.74	-84.1	182.1	138.3	131.1	7.19	19.235	
2,100.0	2,094.8	2,082.3	2,071.6	4.1	4.7	58.57	-93.3	194.3	147.2	139.5	7.63	19.277	
2,200.0	2,194.1	2,181.7	2,169.8	4.3	5.0	61.08	-102.6	206.5	156.4	148.3	8.09	19.324	
2,300.0	2,293.4	2,281.0	2,268.0	4.6	5.3	63.31	-111.8	218.7	165.8	157.3	8.56	19.373	
2,400.0	2,392.8	2,380.4	2,366.2	4.9	5.6	65.30	-121.1	230.9	175.5	166.5	9.04	19.422	
2,500.0	2,492.1	2,479.7	2,464.3	5.1	5.9	67.08	-130.4	243.1	185.4	175.8	9.52	19.469	
2,600.0	2,591.4	2,579.1	2,562.5	5.4	6.2	68.67	-139.6	255.3	195.4	185.4	10.01	19.515	
2,700.0	2,690.7	2,678.4	2,660.7	5.6	6.5	70.11	-148.9	267.5	205.5	195.0	10.51	19.558	
2,800.0	2,790.0	2,777.8	2,758.8	5.9	6.8	71.42	-158.1	279.7	215.8	204.8	11.01	19.601	
2,900.0	2,889.3	2,877.1	2,857.0	6.1	7.1	72.60	-167.4	291.9	226.2	214.7	11.52	19.641	
3,000.0	2,988.6	2,976.5	2,955.2	6.4	7.5	73.69	-176.7	304.0	236.7	224.6	12.03	19.679	
3,100.0	3,087.9	3,075.9	3,053.3	6.7	7.8	74.67	-185.9	316.2	247.2	234.7	12.54	19.716	
3,200.0	3,187.2	3,175.2	3,151.5	6.9	8.1	75.58	-195.2	328.4	257.8	244.8	13.05	19.751	
3,300.0	3,286.5	3,274.6	3,249.7	7.2	8.4	76.42	-204.4	340.6	268.5	254.9	13.57	19.785	
3,400.0	3,385.9	3,373.9	3,347.8	7.5	8.7	77.19	-213.7	352.8	279.2	265.1	14.09	19.817	
3,500.0	3,485.2	3,473.3	3,446.0	7.7	9.0	77.91	-223.0	365.0	290.0	275.4	14.61	19.848	
3,600.0	3,584.5	3,572.6	3,544.2	8.0	9.3	78.57	-232.2	377.2	300.8	285.7	15.13	19.878	
3,700.0	3,683.8	3,672.0	3,642.4	8.3	9.7	79.19	-241.5	389.4	311.6	296.0	15.66	19.906	
3,800.0	3,783.1	3,771.3	3,740.5	8.5	10.0	79.77	-250.8	401.6	322.5	306.3	16.18	19.934	
3,900.0	3,882.4	3,870.7	3,838.7	8.8	10.3	80.31	-260.0	413.8	333.4	316.7	16.70	19.960	
4,000.0	3,981.7	3,970.1	3,936.9	9.0	10.6	80.81	-269.3	426.0	344.4	327.1	17.23	19.985	
4,100.0	4,081.0	4,069.4	4,035.0	9.3	10.9	81.28	-278.5	438.1	355.3	337.6	17.76	20.010	
4,200.0	4,180.3	4,168.8	4,133.2	9.6	11.2	81.73	-287.8	450.3	366.3	348.0	18.29	20.033	
4,300.0	4,279.7	4,268.1	4,231.4	9.8	11.6	82.15	-297.1	462.5	377.3	358.5	18.81	20.056	
4,400.0	4,379.0	4,367.5	4,329.5	10.1	11.9	82.54	-306.3	474.7	388.3	369.0	19.34	20.078	
4,500.0	4,478.3	4,466.8	4,427.7	10.4	12.2	82.92	-315.6	486.9	399.4	379.5	19.87	20.099	
4,600.0	4,577.6	4,566.2	4,525.9	10.6	12.5	83.27	-324.8	499.1	410.4	390.0	20.40	20.119	
4,700.0	4,676.9	4,665.5	4,624.0	10.9	12.8	83.61	-334.1	511.3	421.5	400.6	20.93	20.138	
4,800.0	4,776.2	4,764.9	4,722.2	11.2	13.2	83.92	-343.4	523.5	432.6	411.1	21.46	20.157	
4,900.0	4,875.5	4,864.3	4,820.4	11.4	13.5	84.23	-352.6	535.7	443.7	421.7	21.99	20.175	
5,000.0	4,974.8	4,963.6	4,918.6	11.7	13.8	84.51	-361.9	547.9	454.8	432.3	22.52	20.193	
5,100.0	5,074.1	5,063.0	5,016.7	12.0	14.1	84.79	-371.1	560.1	465.9	442.9	23.05	20.210	

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 Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4M-32H-O268 - 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
5,200.0	5,173.4	5,162.3	5,114.9	12.3	14.4	85.05	-380.4	572.2	477.1	453.5	23.59	20.227	
5,300.0	5,272.8	5,261.7	5,213.1	12.5	14.7	85.30	-389.7	584.4	488.2	464.1	24.12	20.242	
5,400.0	5,372.1	5,361.0	5,311.2	12.8	15.1	85.53	-398.9	596.6	499.4	474.7	24.65	20.258	
7,400.0	7,297.0	7,766.9	7,610.1	18.1	20.5	-120.03	-323.6	882.1	426.7	396.5	30.19	14.132	
7,500.0	7,353.7	7,691.7	7,563.6	18.5	20.7	-117.99	-382.3	876.3	336.2	306.4	29.75	11.300	
7,600.0	7,395.3	7,629.9	7,519.9	19.1	20.8	-114.26	-425.6	870.9	251.2	221.6	29.63	8.479	
7,700.0	7,420.7	7,573.0	7,475.8	19.8	20.9	-105.95	-461.1	865.4	177.5	147.2	30.34	5.852	
7,800.0	7,429.0	7,518.4	7,430.4	20.6	21.0	-91.11	-490.9	859.8	130.0	98.2	31.88	4.079	
7,844.4	7,429.0	7,496.2	7,411.2	21.0	21.0	-82.23	-501.7	857.4	124.1	91.6	32.47	3.821	SF
7,900.0	7,429.0	7,472.3	7,390.1	21.5	21.1	-72.49	-512.5	854.8	133.7	101.2	32.48	4.116	
8,000.0	7,429.0	7,437.9	7,358.9	22.5	21.1	-59.18	-526.5	850.9	188.1	156.5	31.55	5.961	
8,100.0	7,429.0	7,411.3	7,334.2	23.6	21.1	-50.22	-536.0	847.8	265.6	235.2	30.44	8.728	
8,200.0	7,429.0	7,390.2	7,314.4	24.8	21.1	-44.08	-542.7	845.4	352.4	322.8	29.58	11.912	
8,300.0	7,429.0	7,373.2	7,298.2	26.0	21.1	-39.73	-547.6	843.4	443.4	414.4	29.02	15.281	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4N-32H-O268 - 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	84.26	7.3	72.3	72.7				
100.0	100.0	99.0	99.0	0.1	0.1	84.26	7.3	72.3	72.7	72.4	0.30	246.198	
200.0	200.0	199.0	199.0	0.3	0.3	84.26	7.3	72.3	72.7	72.0	0.64	112.858	
300.0	300.0	299.0	299.0	0.5	0.5	84.26	7.3	72.3	72.7	71.7	0.99	73.189	
400.0	400.0	399.0	399.0	0.7	0.7	84.26	7.3	72.3	72.7	71.3	1.34	54.154	
500.0	500.0	499.0	499.0	0.8	0.8	84.26	7.3	72.3	72.7	71.0	1.69	42.977	
600.0	600.0	599.0	599.0	1.0	1.0	84.26	7.3	72.3	72.7	70.6	2.04	35.624	
700.0	700.0	699.0	699.0	1.2	1.2	84.26	7.3	72.3	72.7	70.3	2.39	30.420	CC, ES
800.0	800.0	798.0	798.0	1.4	1.4	84.63	6.9	73.1	73.4	70.6	2.74	26.813	
900.0	900.0	896.9	896.8	1.5	1.5	85.71	5.7	75.3	75.5	72.5	3.09	24.477	
1,000.0	1,000.0	995.7	995.5	1.7	1.7	7.25	3.6	79.0	78.3	74.9	3.43	22.814	
1,100.0	1,100.0	1,094.4	1,094.1	1.9	1.9	9.65	0.8	84.3	81.0	77.2	3.78	21.406	
1,200.0	1,199.9	1,193.0	1,192.4	2.1	2.1	12.64	-2.8	91.0	83.6	79.4	4.13	20.230	
1,300.0	1,299.7	1,291.5	1,290.4	2.3	2.3	16.18	-7.3	99.1	86.3	81.8	4.48	19.267	
1,400.0	1,399.4	1,389.8	1,388.1	2.5	2.5	20.19	-12.5	108.8	89.4	84.6	4.83	18.507	
1,500.0	1,498.9	1,488.0	1,485.5	2.7	2.8	24.59	-18.5	119.9	92.9	87.8	5.18	17.939	
1,600.0	1,598.3	1,586.0	1,582.5	2.9	3.1	29.27	-25.3	132.4	97.2	91.7	5.54	17.556	
1,700.0	1,697.6	1,683.8	1,678.9	3.1	3.3	33.74	-32.8	146.4	103.5	97.5	5.91	17.511	SF
1,800.0	1,796.9	1,781.3	1,774.9	3.4	3.7	37.69	-41.2	161.8	111.9	105.7	6.29	17.802	
1,900.0	1,896.2	1,878.5	1,870.2	3.6	4.0	41.02	-50.2	178.5	122.6	115.9	6.68	18.351	
2,000.0	1,995.5	1,976.4	1,965.9	3.8	4.3	43.77	-60.1	196.7	135.1	128.0	7.09	19.066	
2,100.0	2,094.8	2,075.4	2,062.6	4.1	4.7	46.07	-70.1	215.2	148.1	140.6	7.50	19.735	
2,200.0	2,194.1	2,174.4	2,159.3	4.3	5.1	48.00	-80.1	233.8	161.3	153.4	7.93	20.332	
2,300.0	2,293.4	2,273.4	2,256.0	4.6	5.5	49.63	-90.2	252.3	174.6	166.3	8.37	20.865	
2,400.0	2,392.8	2,372.4	2,352.8	4.9	5.9	51.03	-100.2	270.9	188.1	179.3	8.81	21.338	
2,500.0	2,492.1	2,471.3	2,449.5	5.1	6.2	52.25	-110.3	289.4	201.7	192.4	9.27	21.761	
2,600.0	2,591.4	2,570.3	2,546.2	5.4	6.6	53.31	-120.3	308.0	215.3	205.6	9.73	22.138	
2,700.0	2,690.7	2,669.3	2,642.9	5.6	7.0	54.24	-130.3	326.5	229.0	218.8	10.19	22.476	
2,800.0	2,790.0	2,768.3	2,739.6	5.9	7.4	55.07	-140.4	345.1	242.8	232.1	10.66	22.779	
2,900.0	2,889.3	2,867.3	2,836.4	6.1	7.8	55.81	-150.4	363.6	256.6	245.4	11.13	23.052	
3,000.0	2,988.6	2,966.3	2,933.1	6.4	8.2	56.48	-160.5	382.2	270.4	258.8	11.61	23.298	
3,100.0	3,087.9	3,065.3	3,029.8	6.7	8.6	57.08	-170.5	400.7	284.3	272.2	12.09	23.522	
3,200.0	3,187.2	3,164.3	3,126.5	6.9	9.0	57.62	-180.6	419.3	298.2	285.6	12.57	23.725	
3,300.0	3,286.5	3,263.3	3,223.2	7.2	9.4	58.11	-190.6	437.8	312.1	299.0	13.05	23.910	
3,400.0	3,385.9	3,362.3	3,319.9	7.5	9.8	58.57	-200.6	456.4	326.0	312.5	13.54	24.079	
3,500.0	3,485.2	3,461.3	3,416.7	7.7	10.2	58.98	-210.7	474.9	340.0	326.0	14.03	24.235	
3,600.0	3,584.5	3,560.3	3,513.4	8.0	10.6	59.37	-220.7	493.5	354.0	339.4	14.52	24.378	
3,700.0	3,683.8	3,659.2	3,610.1	8.3	11.1	59.72	-230.8	512.0	368.0	352.9	15.01	24.509	
3,800.0	3,783.1	3,758.2	3,706.8	8.5	11.5	60.05	-240.8	530.6	382.0	366.4	15.51	24.631	
3,900.0	3,882.4	3,857.2	3,803.5	8.8	11.9	60.35	-250.9	549.1	396.0	380.0	16.00	24.744	
4,000.0	3,981.7	3,956.2	3,900.3	9.0	12.3	60.64	-260.9	567.7	410.0	393.5	16.50	24.849	
4,100.0	4,081.0	4,055.2	3,997.0	9.3	12.7	60.90	-270.9	586.2	424.0	407.0	17.00	24.946	
4,200.0	4,180.3	4,154.2	4,093.7	9.6	13.1	61.15	-281.0	604.8	438.1	420.6	17.50	25.037	
4,300.0	4,279.7	4,253.2	4,190.4	9.8	13.5	61.38	-291.0	623.3	452.1	434.1	18.00	25.122	
4,400.0	4,379.0	4,352.2	4,287.1	10.1	13.9	61.60	-301.1	641.9	466.2	447.7	18.50	25.202	
4,500.0	4,478.3	4,451.2	4,383.9	10.4	14.3	61.81	-311.1	660.4	480.2	461.2	19.00	25.277	
4,600.0	4,577.6	4,550.2	4,480.6	10.6	14.7	62.00	-321.1	679.0	494.3	474.8	19.50	25.347	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4O-32H-O268 - 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	75.1	75.2				
100.0	100.0	99.0	99.0	0.1	0.1	87.24	3.6	75.1	75.2	74.9	0.30	254.738	
200.0	200.0	199.0	199.0	0.3	0.3	87.24	3.6	75.1	75.2	74.6	0.64	116.772	
300.0	300.0	299.0	299.0	0.5	0.5	87.24	3.6	75.1	75.2	74.2	0.99	75.728	
400.0	400.0	399.0	399.0	0.7	0.7	87.24	3.6	75.1	75.2	73.9	1.34	56.033	CC, ES
500.0	500.0	497.8	497.8	0.8	0.8	87.47	3.4	75.9	76.0	74.3	1.69	44.975	
600.0	600.0	596.5	596.5	1.0	1.0	88.15	2.5	78.3	78.4	76.3	2.04	38.430	
700.0	700.0	695.1	695.0	1.2	1.2	89.19	1.2	82.3	82.4	80.0	2.40	34.402	
800.0	800.0	793.6	793.3	1.4	1.4	90.48	-0.7	87.9	88.1	85.3	2.76	31.914	
900.0	900.0	891.8	891.2	1.5	1.6	91.92	-3.2	95.1	95.5	92.3	3.14	30.424	
1,000.0	1,000.0	989.8	988.7	1.7	1.8	13.30	-6.2	103.8	103.7	100.2	3.43	30.236	
1,100.0	1,100.0	1,087.6	1,085.9	1.9	2.0	15.06	-9.7	114.1	111.9	108.1	3.78	29.641	
1,200.0	1,199.9	1,185.2	1,182.8	2.1	2.3	16.97	-13.7	126.0	120.3	116.1	4.12	29.177	
1,300.0	1,299.7	1,282.7	1,279.2	2.3	2.6	18.99	-18.3	139.3	128.8	124.3	4.47	28.825	
1,400.0	1,399.4	1,379.9	1,375.2	2.5	2.9	21.10	-23.4	154.2	137.5	132.6	4.81	28.568	
1,500.0	1,498.9	1,477.0	1,470.6	2.7	3.2	23.27	-29.0	170.6	146.4	141.3	5.16	28.386	
1,600.0	1,598.3	1,573.8	1,565.6	2.9	3.6	25.47	-35.0	188.5	155.7	150.2	5.51	28.270	SF
1,700.0	1,697.6	1,670.3	1,660.0	3.1	3.9	27.53	-41.6	207.9	166.5	160.7	5.87	28.384	
1,800.0	1,796.9	1,766.5	1,753.6	3.4	4.3	29.32	-48.7	228.6	179.2	173.0	6.23	28.757	
1,900.0	1,896.2	1,862.2	1,846.4	3.6	4.8	30.86	-56.3	250.8	193.7	187.1	6.60	29.338	
2,000.0	1,995.5	1,958.6	1,939.5	3.8	5.2	32.16	-64.3	274.4	209.9	202.9	6.98	30.062	
2,100.0	2,094.8	2,057.1	2,034.6	4.1	5.7	33.29	-72.7	298.9	226.4	219.1	7.37	30.729	
2,200.0	2,194.1	2,155.7	2,129.6	4.3	6.2	34.28	-81.1	323.5	243.1	235.3	7.76	31.316	
2,300.0	2,293.4	2,254.2	2,224.7	4.6	6.6	35.13	-89.4	348.0	259.8	251.7	8.16	31.833	
2,400.0	2,392.8	2,352.7	2,319.7	4.9	7.1	35.88	-97.8	372.5	276.6	268.0	8.57	32.289	
2,500.0	2,492.1	2,451.2	2,414.8	5.1	7.6	36.55	-106.1	397.0	293.4	284.4	8.97	32.692	
2,600.0	2,591.4	2,549.8	2,509.9	5.4	8.1	37.14	-114.5	421.5	310.2	300.9	9.39	33.050	
2,700.0	2,690.7	2,648.3	2,604.9	5.6	8.6	37.67	-122.8	446.0	327.1	317.3	9.80	33.369	
2,800.0	2,790.0	2,746.8	2,700.0	5.9	9.0	38.15	-131.2	470.5	344.0	333.8	10.22	33.653	
2,900.0	2,889.3	2,845.3	2,795.0	6.1	9.5	38.59	-139.6	495.0	360.9	350.3	10.64	33.908	
3,000.0	2,988.6	2,943.9	2,890.1	6.4	10.0	38.98	-147.9	519.5	377.9	366.8	11.07	34.137	
3,100.0	3,087.9	3,042.4	2,985.1	6.7	10.5	39.34	-156.3	544.0	394.8	383.3	11.50	34.343	
3,200.0	3,187.2	3,140.9	3,080.2	6.9	11.0	39.68	-164.6	568.6	411.8	399.9	11.93	34.529	
3,300.0	3,286.5	3,239.4	3,175.3	7.2	11.5	39.98	-173.0	593.1	428.8	416.4	12.36	34.698	
3,400.0	3,385.9	3,337.9	3,270.3	7.5	12.0	40.27	-181.4	617.6	445.8	433.0	12.79	34.851	
3,500.0	3,485.2	3,436.5	3,365.4	7.7	12.5	40.53	-189.7	642.1	462.8	449.5	13.23	34.991	
3,600.0	3,584.5	3,535.0	3,460.4	8.0	13.0	40.77	-198.1	666.6	479.8	466.1	13.66	35.119	
3,700.0	3,683.8	3,633.5	3,555.5	8.3	13.4	41.00	-206.4	691.1	496.8	482.7	14.10	35.235	

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 Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4P-32H-O268 - 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	84.86	7.3	80.7	81.0				
100.0	100.0	99.0	99.0	0.1	0.1	84.86	7.3	80.7	81.0	80.7	0.30	274.502	
200.0	200.0	199.0	199.0	0.3	0.3	84.86	7.3	80.7	81.0	80.4	0.64	125.832	CC, ES
300.0	300.0	297.7	297.7	0.5	0.5	85.02	7.1	81.5	81.9	80.9	0.99	82.540	
400.0	400.0	396.3	396.2	0.7	0.7	85.48	6.6	84.0	84.3	83.0	1.34	62.774	
500.0	500.0	494.7	494.6	0.8	0.9	86.20	5.9	88.2	88.5	86.8	1.70	51.963	
600.0	600.0	593.0	592.7	1.0	1.1	87.09	4.8	94.0	94.3	92.2	2.07	45.494	
700.0	700.0	691.1	690.5	1.2	1.3	88.10	3.4	101.4	101.8	99.3	2.46	41.442	
800.0	800.0	788.9	787.8	1.4	1.5	89.13	1.7	110.4	111.0	108.1	2.86	38.858	
900.0	900.0	886.3	884.7	1.5	1.7	90.16	-0.3	121.1	121.9	118.6	3.28	37.219	SF
1,000.0	1,000.0	983.5	981.0	1.7	2.0	10.99	-2.6	133.3	133.7	130.2	3.42	39.098	
1,100.0	1,100.0	1,080.4	1,076.9	1.9	2.3	12.07	-5.2	147.1	145.4	141.6	3.76	38.639	
1,200.0	1,199.9	1,177.1	1,172.4	2.1	2.6	13.21	-8.1	162.4	157.2	153.1	4.11	38.273	
1,300.0	1,299.7	1,273.6	1,267.4	2.3	2.9	14.38	-11.3	179.3	169.0	164.6	4.45	37.983	
1,400.0	1,399.4	1,369.9	1,361.8	2.5	3.3	15.58	-14.8	197.7	180.9	176.1	4.79	37.752	
1,500.0	1,498.9	1,466.0	1,455.7	2.7	3.7	16.79	-18.5	217.6	192.9	187.7	5.13	37.566	
1,600.0	1,598.3	1,561.8	1,549.0	2.9	4.1	18.03	-22.5	239.0	205.0	199.5	5.48	37.416	
1,700.0	1,697.6	1,657.3	1,641.6	3.1	4.5	19.19	-26.8	261.9	218.4	212.6	5.83	37.481	
1,800.0	1,796.9	1,752.3	1,733.4	3.4	5.0	20.22	-31.4	286.1	233.6	227.4	6.18	37.805	
1,900.0	1,896.2	1,846.8	1,824.2	3.6	5.5	21.12	-36.2	311.7	250.4	243.9	6.53	38.342	
2,000.0	1,995.5	1,943.2	1,916.5	3.8	6.0	21.91	-41.4	339.1	268.7	261.8	6.89	38.994	
2,100.0	2,094.8	2,041.4	2,010.5	4.1	6.5	22.61	-46.7	367.1	287.2	280.0	7.26	39.575	
2,200.0	2,194.1	2,139.6	2,104.4	4.3	7.0	23.23	-51.9	395.1	305.8	298.1	7.63	40.089	
2,300.0	2,293.4	2,237.8	2,198.4	4.6	7.6	23.78	-57.2	423.2	324.3	316.3	8.00	40.546	
2,400.0	2,392.8	2,336.0	2,292.4	4.9	8.1	24.27	-62.5	451.2	342.9	334.5	8.37	40.952	
2,500.0	2,492.1	2,434.3	2,386.4	5.1	8.6	24.70	-67.8	479.3	361.5	352.8	8.75	41.314	
2,600.0	2,591.4	2,532.5	2,480.4	5.4	9.2	25.10	-73.1	507.3	380.2	371.0	9.13	41.639	
2,700.0	2,690.7	2,630.7	2,574.3	5.6	9.7	25.46	-78.4	535.4	398.8	389.3	9.51	41.930	
2,800.0	2,790.0	2,728.9	2,668.3	5.9	10.2	25.78	-83.6	563.4	417.5	407.6	9.89	42.192	
2,900.0	2,889.3	2,827.1	2,762.3	6.1	10.8	26.08	-88.9	591.5	436.1	425.9	10.28	42.428	
3,000.0	2,988.6	2,925.3	2,856.3	6.4	11.3	26.36	-94.2	619.5	454.8	444.1	10.67	42.642	
3,100.0	3,087.9	3,023.6	2,950.3	6.7	11.9	26.61	-99.5	647.5	473.5	462.4	11.05	42.836	
3,200.0	3,187.2	3,121.8	3,044.2	6.9	12.4	26.84	-104.8	675.6	492.2	480.8	11.44	43.013	

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 Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - RAY NELSON 33-32 (EXISTING) - ENCANA WELL - ENCANA WELL

Offset Site Error: 0.0 ft

Survey Program: 926-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	57.03	229.8	354.3	422.5				
100.0	100.0	91.9	91.9	0.1	0.2	57.03	229.8	354.3	422.3	421.9	0.31	1,362.801	
200.0	200.0	193.0	193.0	0.3	0.3	57.04	229.5	354.0	421.9	421.2	0.66	637.484	
300.0	300.0	294.0	294.0	0.5	0.5	57.05	229.1	353.5	421.3	420.3	1.01	415.576	
400.0	400.0	395.0	395.0	0.7	0.7	57.07	228.6	352.9	420.5	419.1	1.37	307.867	
500.0	500.0	496.1	496.0	0.8	0.9	57.09	227.8	352.1	419.4	417.7	1.72	244.157	
600.0	600.0	597.1	597.0	1.0	1.1	57.12	226.9	351.1	418.1	416.0	2.07	201.999	
700.0	700.0	698.1	698.0	1.2	1.2	57.15	225.9	349.9	416.5	414.1	2.42	171.995	
800.0	800.0	799.1	799.0	1.4	1.4	57.19	224.7	348.5	414.7	411.9	2.77	149.518	
900.0	900.0	900.1	900.0	1.5	1.6	57.24	223.3	346.9	412.6	409.5	3.13	132.026	
1,000.0	1,000.0	998.8	998.7	1.7	1.8	-23.12	222.8	344.8	409.7	406.3	3.44	119.233	
1,100.0	1,100.0	1,085.9	1,085.7	1.9	1.9	-23.73	225.3	342.5	406.8	403.1	3.76	108.090	
1,200.0	1,199.9	1,173.7	1,173.3	2.1	2.1	-24.74	231.3	341.5	405.7	401.6	4.10	98.950	
1,229.9	1,229.7	1,200.1	1,199.6	2.1	2.1	-25.13	233.8	341.3	405.7	401.5	4.20	96.555	CC, ES
1,300.0	1,299.7	1,262.2	1,261.3	2.3	2.2	-26.13	240.5	341.3	406.0	401.5	4.45	91.334	
1,400.0	1,399.4	1,356.4	1,354.8	2.5	2.4	-27.94	252.6	341.6	407.1	402.3	4.82	84.441	
1,500.0	1,498.9	1,445.4	1,442.6	2.7	2.6	-30.08	266.9	341.5	408.8	403.6	5.21	78.519	
1,600.0	1,598.3	1,541.4	1,537.0	2.9	2.9	-32.74	284.7	341.3	411.4	405.7	5.63	73.067	
1,700.0	1,697.6	1,631.9	1,625.4	3.1	3.2	-35.57	303.7	340.0	415.6	409.6	6.07	68.456	
1,800.0	1,796.9	1,723.4	1,714.2	3.4	3.5	-38.69	325.7	337.9	422.7	416.2	6.53	64.690	
1,900.0	1,896.2	1,817.2	1,804.9	3.6	3.9	-41.96	349.5	335.2	432.0	425.0	7.01	61.602	
2,000.0	1,995.5	1,905.8	1,890.0	3.8	4.2	-45.09	373.7	332.1	444.2	436.7	7.48	59.354	
2,100.0	2,094.8	2,000.7	1,980.9	4.1	4.7	-48.41	400.8	328.4	458.7	450.7	7.97	57.524	
2,200.0	2,194.1	2,092.8	2,068.6	4.3	5.2	-51.71	428.2	322.7	474.8	466.4	8.47	56.081	
2,300.0	2,293.4	2,180.2	2,151.2	4.6	5.6	-54.90	456.1	315.9	494.0	485.1	8.94	55.289	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - RAY NELSON 34-32 (EXISTING) - ENCANA WELL - ENCANA WELL

Offset Site Error: 0.0 ft

Survey Program: 103-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	92.38	-8.4	201.9	202.2				
100.0	100.0	89.8	89.8	0.1	0.1	92.37	-8.4	202.1	202.3	202.0	0.28	716.073	
200.0	200.0	189.0	189.0	0.3	0.3	92.38	-8.4	202.9	203.1	202.5	0.63	323.638	
300.0	300.0	289.3	289.3	0.5	0.5	92.49	-8.9	203.9	204.1	203.1	0.98	208.630	
400.0	400.0	389.7	389.7	0.7	0.7	92.70	-9.6	204.6	204.8	203.5	1.33	154.177	
500.0	500.0	489.9	489.9	0.8	0.8	92.90	-10.4	205.1	205.4	203.7	1.68	122.396	
600.0	600.0	590.0	590.0	1.0	1.0	93.04	-10.9	205.6	205.9	203.9	2.03	101.569	
700.0	700.0	690.5	690.5	1.2	1.2	93.14	-11.3	206.0	206.3	203.9	2.38	86.776	
800.0	800.0	790.8	790.8	1.4	1.4	93.19	-11.5	206.1	206.5	203.7	2.73	75.715	
900.0	900.0	891.6	891.6	1.5	1.5	93.20	-11.5	206.1	206.4	203.3	3.08	67.084	
1,000.0	1,000.0	992.0	992.0	1.7	1.7	13.04	-11.4	205.6	205.1	201.7	3.42	59.885	
1,100.0	1,100.0	1,092.3	1,092.3	1.9	1.9	13.25	-11.5	205.1	202.0	198.2	3.77	53.529	
1,200.0	1,199.9	1,193.3	1,193.2	2.1	2.1	13.54	-11.4	204.1	196.8	192.7	4.12	47.741	
1,300.0	1,299.7	1,292.8	1,292.7	2.3	2.2	13.87	-10.9	203.0	189.7	185.3	4.47	42.462	
1,400.0	1,399.4	1,392.5	1,392.5	2.5	2.4	14.29	-10.2	202.0	181.1	176.3	4.81	37.607	
1,500.0	1,498.9	1,492.8	1,492.7	2.7	2.6	14.85	-9.3	200.6	170.3	165.2	5.16	33.003	
1,600.0	1,598.3	1,592.5	1,592.4	2.9	2.8	15.72	-8.6	198.9	157.7	152.2	5.51	28.615	
1,700.0	1,697.6	1,691.0	1,690.9	3.1	2.9	16.77	-7.9	197.0	144.5	138.6	5.86	24.650	
1,800.0	1,796.9	1,789.7	1,789.6	3.4	3.1	17.79	-6.7	195.8	131.9	125.7	6.22	21.215	
1,900.0	1,896.2	1,889.4	1,889.2	3.6	3.3	18.83	-5.1	194.5	119.3	112.7	6.58	18.143	
2,000.0	1,995.5	1,987.9	1,987.7	3.8	3.4	20.03	-3.4	193.4	106.8	99.9	6.94	15.406	
2,100.0	2,094.8	2,086.7	2,086.5	4.1	3.6	22.00	-2.5	192.6	94.9	87.6	7.30	12.996	
2,200.0	2,194.1	2,185.4	2,185.2	4.3	3.8	25.17	-2.7	192.2	83.9	76.2	7.68	10.912	
2,300.0	2,293.4	2,284.8	2,284.6	4.6	4.0	29.57	-3.3	192.0	73.3	65.2	8.09	9.066	
2,400.0	2,392.8	2,383.8	2,383.6	4.9	4.1	35.44	-3.9	191.5	63.3	54.7	8.52	7.420	
2,500.0	2,492.1	2,483.3	2,483.1	5.1	4.3	44.25	-5.4	191.0	54.4	45.4	9.02	6.031	
2,600.0	2,591.4	2,583.5	2,583.3	5.4	4.5	58.81	-7.4	188.0	46.1	36.5	9.63	4.788	
2,694.9	2,685.6	2,676.1	2,675.7	5.6	4.7	79.64	-10.2	182.9	41.9	31.7	10.24	4.091	CC
2,700.0	2,690.7	2,681.2	2,680.7	5.6	4.7	80.91	-10.4	182.6	41.9	31.6	10.27	4.081	ES, SF
2,800.0	2,790.0	2,778.9	2,778.2	5.9	4.9	103.94	-15.2	176.9	46.6	36.0	10.68	4.368	
2,900.0	2,889.3	2,875.9	2,874.6	6.1	5.0	121.30	-21.6	169.8	59.5	48.6	10.87	5.468	
3,000.0	2,988.6	2,973.1	2,971.4	6.4	5.2	132.63	-28.0	161.8	76.3	65.3	11.06	6.906	
3,100.0	3,087.9	3,067.2	3,064.6	6.7	5.4	139.77	-35.7	152.3	97.4	86.1	11.28	8.637	
3,200.0	3,187.2	3,161.7	3,157.9	6.9	5.7	144.63	-45.4	140.2	122.8	111.3	11.53	10.649	
3,300.0	3,286.5	3,259.5	3,254.4	7.2	5.9	147.93	-55.3	127.9	148.5	136.7	11.82	12.564	
3,400.0	3,385.9	3,355.9	3,349.6	7.5	6.1	150.60	-63.7	115.5	173.9	161.8	12.12	14.349	
3,500.0	3,485.2	3,445.3	3,437.6	7.7	6.4	152.83	-71.5	102.2	201.2	188.8	12.41	16.208	
3,600.0	3,584.5	3,539.3	3,529.8	8.0	6.7	154.59	-81.1	86.2	231.2	218.5	12.72	18.172	
3,700.0	3,683.8	3,629.4	3,618.0	8.3	6.9	155.92	-90.7	70.3	262.1	249.1	13.03	20.112	
3,800.0	3,783.1	3,723.0	3,709.3	8.5	7.2	156.75	-102.4	53.3	294.5	281.2	13.36	22.040	
3,900.0	3,882.4	3,811.4	3,795.3	8.8	7.6	157.08	-115.3	37.4	327.9	314.2	13.70	23.944	
4,000.0	3,981.7	3,905.9	3,887.0	9.0	7.9	157.17	-130.5	20.5	362.0	347.9	14.05	25.772	
4,100.0	4,081.0	3,995.0	3,973.3	9.3	8.2	157.25	-145.0	4.0	396.8	382.4	14.39	27.578	
4,200.0	4,180.3	4,091.9	4,067.3	9.6	8.6	157.50	-159.9	-14.7	431.6	416.9	14.74	29.290	
4,300.0	4,279.7	4,191.8	4,164.3	9.8	9.0	157.77	-174.5	-33.5	465.8	450.7	15.09	30.866	
4,400.0	4,379.0	4,296.7	4,266.6	10.1	9.4	157.95	-189.0	-51.2	497.9	482.4	15.45	32.214	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - RAY NELSON 44-32 (EXISTING) - ENCANA WELL - ENCANA WELL

Offset Site Error: 0.0 ft

Survey Program: 134-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	59.29	217.1	365.5	425.3				
100.0	100.0	90.4	90.4	0.1	0.1	59.34	216.8	365.7	425.1	424.8	0.29	1,473.726	
143.9	143.9	134.0	134.0	0.2	0.2	59.40	216.3	365.9	425.1	424.6	0.43	982.279	CC, ES
200.0	200.0	184.0	184.0	0.3	0.3	59.46	216.2	366.4	425.4	424.8	0.62	686.809	
300.0	300.0	271.4	271.3	0.5	0.5	59.45	217.5	368.4	428.3	427.3	0.95	449.577	
400.0	400.0	361.9	361.7	0.7	0.6	59.41	220.3	372.6	433.8	432.5	1.31	332.288	
500.0	500.0	449.9	449.4	0.8	0.8	59.42	223.7	378.5	441.6	439.9	1.67	263.787	
600.0	600.0	539.3	538.3	1.0	1.0	59.49	227.9	386.9	452.0	449.9	2.07	218.636	
700.0	700.0	629.5	627.9	1.2	1.3	59.63	232.7	397.0	464.4	461.9	2.49	186.753	
800.0	800.0	716.8	714.2	1.4	1.6	59.82	237.7	408.8	478.9	476.0	2.93	163.510	
900.0	900.0	806.8	802.9	1.5	1.9	60.16	242.8	423.3	495.7	492.3	3.41	145.546	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - RAY NELSON 4-8-32 (EXISTING) - ENCANA WELL - PLAN ONLY

Offset Site Error: 0.0 ft

Survey Program: 850-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
3,000.0	2,988.6	3,248.0	3,116.0	6.4	18.1	-65.56	462.8	335.1	477.5	460.6	16.99	28.113	
3,100.0	3,087.9	3,335.4	3,196.2	6.7	18.8	-69.32	439.0	310.1	438.7	420.2	18.49	23.725	
3,200.0	3,187.2	3,422.8	3,276.5	6.9	19.4	-73.71	415.3	285.0	401.9	381.8	20.18	19.919	
3,300.0	3,286.5	3,510.2	3,356.8	7.2	20.1	-78.83	391.6	259.9	367.9	345.9	22.05	16.689	
3,400.0	3,385.9	3,597.6	3,437.1	7.5	20.7	-84.77	367.9	234.9	337.6	313.5	24.06	14.029	
3,500.0	3,485.2	3,684.9	3,517.4	7.7	21.3	-91.59	344.2	209.8	311.8	285.7	26.15	11.927	
3,600.0	3,584.5	3,772.3	3,597.6	8.0	22.0	-99.27	320.4	184.8	292.0	263.9	28.16	10.370	
3,700.0	3,683.8	3,859.7	3,677.9	8.3	22.6	-107.64	296.7	159.7	279.3	249.4	29.92	9.335	
3,800.0	3,783.1	3,947.1	3,758.2	8.5	23.3	-116.43	273.0	134.6	274.8	243.5	31.25	8.793	
3,803.3	3,786.4	3,950.0	3,760.8	8.5	23.3	-116.72	272.2	133.8	274.8	243.5	31.29	8.783	CC, ES
3,900.0	3,882.4	4,034.5	3,838.5	8.8	23.9	-125.22	249.3	109.6	278.8	246.7	32.03	8.703	SF
4,000.0	3,981.7	4,121.9	3,918.8	9.0	24.6	-133.64	225.6	84.5	291.0	258.7	32.27	9.015	
4,100.0	4,081.0	4,209.2	3,999.1	9.3	25.2	-141.36	201.8	59.4	310.3	278.3	32.08	9.673	
4,200.0	4,180.3	4,296.6	4,079.3	9.6	25.9	-148.24	178.1	34.4	335.7	304.1	31.61	10.621	
4,300.0	4,279.7	4,384.0	4,159.6	9.8	26.5	-154.24	154.4	9.3	365.8	334.8	31.00	11.801	
4,400.0	4,379.0	4,471.4	4,239.9	10.1	27.1	-159.42	130.7	-15.8	399.6	369.2	30.36	13.164	
4,500.0	4,478.3	4,558.8	4,320.2	10.4	27.8	-163.85	107.0	-40.8	436.2	406.4	29.74	14.666	
4,600.0	4,577.6	4,646.2	4,400.5	10.6	28.4	-167.65	83.2	-65.9	474.9	445.7	29.19	16.268	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - RAY NELSON 6-8-32 (EXISTING) - ENCANA WELL - PLAN ONLY

Offset Site Error: 0.0 ft

Survey Program: 850-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
4,400.0	4,379.0	4,462.2	4,352.1	10.1	18.4	5.04	104.8	858.7	495.2	469.2	25.93	19.099	
4,500.0	4,478.3	4,557.4	4,443.9	10.4	18.9	8.15	79.7	858.4	481.6	455.0	26.66	18.065	
4,600.0	4,577.6	4,652.6	4,535.8	10.6	19.4	11.43	54.5	858.0	469.7	442.3	27.37	17.157	
4,700.0	4,676.9	4,747.9	4,627.6	10.9	19.8	14.84	29.4	857.7	459.4	431.4	28.06	16.374	
4,800.0	4,776.2	4,843.1	4,719.5	11.2	20.3	18.39	4.2	857.4	451.1	422.3	28.71	15.712	
4,900.0	4,875.5	4,938.3	4,811.3	11.4	20.8	22.04	-20.9	857.1	444.6	415.3	29.31	15.170	
5,000.0	4,974.8	5,033.5	4,903.1	11.7	21.2	25.78	-46.0	856.7	440.2	410.3	29.86	14.744	
5,100.0	5,074.1	5,128.7	4,995.0	12.0	21.7	29.57	-71.2	856.4	437.9	407.5	30.34	14.431	
5,159.1	5,132.9	5,185.0	5,049.3	12.1	22.0	31.82	-86.0	856.2	437.5	406.9	30.60	14.298	
5,200.0	5,173.4	5,224.0	5,086.8	12.3	22.2	33.38	-96.3	856.1	437.7	406.9	30.76	14.228	
5,300.0	5,272.8	5,319.2	5,178.7	12.5	22.6	37.17	-121.5	855.8	439.6	408.5	31.11	14.132	
5,400.0	5,372.1	5,414.4	5,270.5	12.8	23.1	40.92	-146.6	855.5	443.7	412.3	31.39	14.136	
5,500.0	5,471.4	5,509.6	5,362.3	13.1	23.6	44.59	-171.7	855.1	449.7	418.1	31.59	14.235	
5,600.0	5,570.7	5,604.8	5,454.2	13.3	24.0	48.16	-196.9	854.8	457.8	426.0	31.74	14.424	
5,700.0	5,670.0	5,700.1	5,546.0	13.6	24.5	51.60	-222.0	854.5	467.7	435.8	31.83	14.695	
5,800.0	5,769.3	5,795.3	5,637.9	13.9	25.0	54.90	-247.2	854.2	479.3	447.4	31.87	15.041	
5,900.0	5,868.6	5,890.5	5,729.7	14.1	25.4	58.04	-272.3	853.8	492.6	460.7	31.87	15.454	
7,400.0	7,297.0	7,450.6	7,257.0	18.1	29.3	-15.84	-550.2	850.3	479.4	452.3	27.08	17.701	
7,500.0	7,353.7	7,507.2	7,313.7	18.5	29.4	-27.18	-550.2	850.3	399.0	370.7	28.30	14.101	
7,600.0	7,395.3	7,548.9	7,355.3	19.1	29.4	-47.14	-550.2	850.3	312.2	277.4	34.77	8.979	
7,700.0	7,420.7	7,574.2	7,380.7	19.8	29.4	-73.59	-550.2	850.3	224.3	181.2	43.11	5.204	
7,800.0	7,429.0	7,582.6	7,389.0	20.6	29.5	-90.00	-550.2	850.3	147.5	101.9	45.58	3.235	
7,892.7	7,429.0	7,582.6	7,389.0	21.4	29.5	-90.00	-550.2	850.3	114.7	68.1	46.65	2.459	CC, ES, SF
7,900.0	7,429.0	7,582.6	7,389.0	21.5	29.5	-90.00	-550.2	850.3	114.9	68.2	46.73	2.460	
8,000.0	7,429.0	7,582.6	7,389.0	22.5	29.5	-90.00	-550.2	850.3	157.1	109.1	47.97	3.274	
8,100.0	7,429.0	7,582.6	7,389.0	23.6	29.5	-90.00	-550.2	850.3	236.9	187.6	49.29	4.807	
8,200.0	7,429.0	7,582.6	7,389.0	24.8	29.5	-90.00	-550.2	850.3	328.0	277.3	50.68	6.473	
8,300.0	7,429.0	7,582.6	7,389.0	26.0	29.5	-90.00	-550.2	850.3	423.2	371.0	52.11	8.120	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Ray Nelson 7-8-32 - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-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	62.21	200.3	380.1	429.8				
100.0	100.0	90.0	90.0	0.1	0.1	62.21	200.3	380.1	429.6	429.4	0.28	1,524.267	
200.0	200.0	190.0	190.0	0.3	0.3	62.21	200.3	380.1	429.6	429.0	0.63	683.803	
300.0	300.0	290.0	290.0	0.5	0.5	62.21	200.3	380.1	429.6	428.7	0.98	439.588	
400.0	400.0	390.0	390.0	0.7	0.7	62.21	200.3	380.1	429.6	428.3	1.33	323.907	
500.0	500.0	490.0	490.0	0.8	0.8	62.21	200.3	380.1	429.6	428.0	1.68	256.426	CC, ES
600.0	600.0	585.0	585.0	1.0	1.0	62.36	199.5	381.1	430.2	428.2	2.02	213.341	
700.0	700.0	679.2	679.1	1.2	1.2	62.89	196.8	384.4	432.0	429.6	2.36	183.165	
800.0	800.0	773.1	772.7	1.4	1.4	63.78	192.1	390.2	435.2	432.5	2.71	160.834	
900.0	900.0	866.4	865.4	1.5	1.6	65.02	185.6	398.2	440.0	437.0	3.06	143.634	
1,000.0	1,000.0	959.0	957.0	1.7	1.8	-13.65	177.2	408.5	445.7	442.1	3.51	126.924	
1,100.0	1,100.0	1,050.8	1,047.4	1.9	2.1	-11.88	167.0	421.0	451.5	447.6	3.94	114.514	
1,200.0	1,199.9	1,142.3	1,136.9	2.1	2.4	-9.90	155.0	435.7	457.8	453.4	4.39	104.233	
1,300.0	1,299.7	1,240.5	1,232.7	2.3	2.8	-7.72	141.4	452.4	463.7	458.8	4.87	95.227	
1,400.0	1,399.4	1,338.9	1,328.7	2.5	3.2	-5.62	127.7	469.2	468.5	463.2	5.34	87.707	
1,500.0	1,498.9	1,437.4	1,424.8	2.7	3.6	-3.59	114.0	486.0	472.2	466.4	5.81	81.329	
1,600.0	1,598.3	1,535.9	1,520.9	2.9	4.0	-1.59	100.3	502.8	474.9	468.6	6.26	75.831	
1,700.0	1,697.6	1,634.5	1,617.1	3.1	4.4	0.39	86.6	519.7	477.7	471.0	6.71	71.163	
1,800.0	1,796.9	1,733.1	1,713.2	3.4	4.8	2.34	72.8	536.5	481.0	473.9	7.15	67.273	
1,900.0	1,896.2	1,831.6	1,809.4	3.6	5.2	4.26	59.1	553.3	485.0	477.4	7.58	64.008	
2,000.0	1,995.5	1,930.2	1,905.5	3.8	5.6	6.15	45.4	570.1	489.4	481.4	7.99	61.249	
2,100.0	2,094.8	2,028.8	2,001.6	4.1	6.0	8.00	31.7	586.9	494.4	486.0	8.39	58.905	
2,200.0	2,194.1	2,127.3	2,097.8	4.3	6.4	9.82	18.0	603.8	500.0	491.2	8.79	56.903	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 Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - RAY NELSON 8-8-32 (EXISTING) - ENCANA WELL - SURVEYS

Survey Program: 70-Geolink MWD

Offset Site Error: 0.0 ft

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	62.21	200.3	380.1	429.8				
100.0	100.0	86.1	86.1	0.1	0.1	62.22	200.5	380.5	430.1	429.8	0.27	1,575.535	
200.0	200.0	181.8	181.7	0.3	0.3	62.27	200.7	381.7	431.3	430.7	0.62	699.472	
300.0	300.0	277.6	277.5	0.5	0.5	62.60	199.5	384.8	433.6	432.7	0.97	448.852	
400.0	400.0	367.9	367.6	0.7	0.7	63.24	196.8	390.2	437.6	436.3	1.32	331.891	
500.0	500.0	460.9	460.1	0.8	0.9	64.19	192.8	398.6	443.8	442.1	1.69	262.282	
600.0	600.0	553.7	552.2	1.0	1.1	65.42	186.9	408.8	451.1	449.0	2.09	216.226	
700.0	700.0	642.1	639.4	1.2	1.4	66.84	180.1	421.1	460.8	458.3	2.50	184.092	
800.0	800.0	729.9	725.5	1.4	1.8	68.49	171.8	436.0	473.1	470.1	2.96	160.037	
900.0	900.0	815.9	809.5	1.5	2.1	70.13	163.6	452.8	488.2	484.7	3.44	141.749	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Hwy 52 4E-32H-O268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	**MD Reference:**	WELL @ 5004.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Hwy 52 4E-32H-O268	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Hz	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 5004.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Hwy 52 4E-32H-O268
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.31°