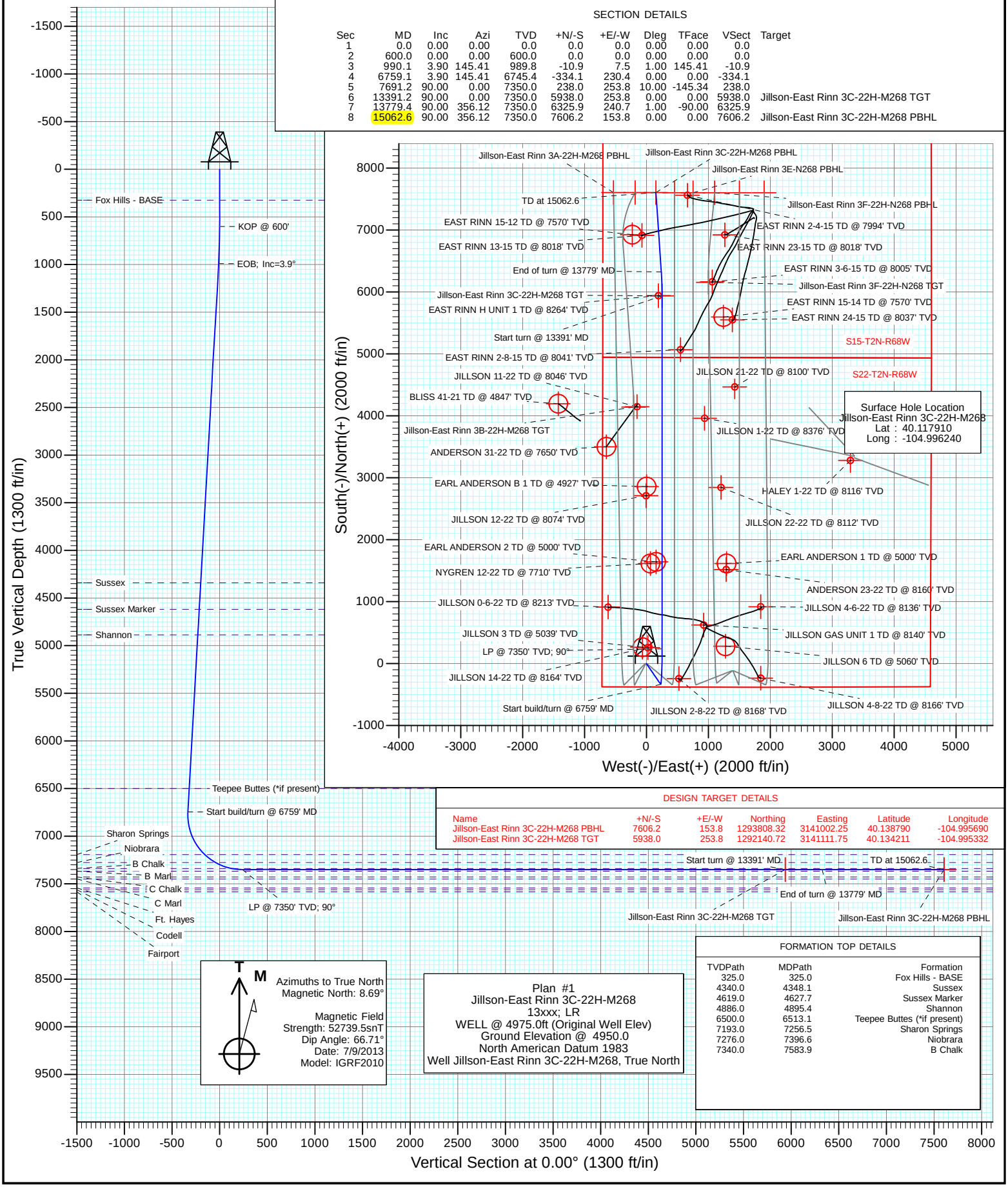
Project: DJ Wattenberg
Site: S22-T2N-R68W (Jillson-East Rinn)
Well: Jillson-East Rinn 3C-22H-M268
Wellbore: Hz
Design: Plan #1

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	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	990.1	3.90	145.41	989.8	-10.9	7.5	1.00	145.41	-10.9	
4	6759.1	3.90	145.41	6745.4	-334.1	230.4	0.00	0.00	-334.1	
5	7691.2	90.00	0.00	7350.0	238.0	253.8	10.00	-145.34	238.0	
6	13391.2	90.00	0.00	7350.0	5938.0	253.8	0.00	0.00	5938.0	Jillson-East Rinn 3C-22H-M268 TGT
7	13779.4	90.00	356.12	7350.0	6325.9	240.7	1.00	-90.00	6325.9	
8	15062.6	90.00	356.12	7350.0	7606.2	153.8	0.00	0.00	7606.2	Jillson-East Rinn 3C-22H-M268 PBHL



DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Jillson-East Rinn 3C-22H-M268 PBHL	7606.2	153.8	1293808.32	3141002.25	40.138790	-104.995690
Jillson-East Rinn 3C-22H-M268 TGT	5938.0	253.8	1292140.72	3141111.75	40.134211	-104.995332

T M

Azimuths to True North
Magnetic North: 8.69°

Magnetic Field
Strength: 52739.5snT
Dip Angle: 66.71°
Date: 7/9/2013
Model: IGRF2010

Plan #1
Jillson-East Rinn 3C-22H-M268
13xxx; LR
WELL @ 4975.0ft (Original Well Elev)
Ground Elevation @ 4950.0
North American Datum 1983
Well Jillson-East Rinn 3C-22H-M268, True North

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
325.0	325.0	Fox Hills - BASE
4340.0	4348.1	Sussex
4619.0	4627.7	Sussex Marker
4886.0	4895.4	Shannon
6500.0	6513.1	Teepee Buttes (*if present)
7193.0	7256.5	Sharon Springs
7276.0	7396.6	Niobrara
7340.0	7583.9	B Chalk

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Jillson-East Rinn 3C-22H-M268
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site:	S22-T2N-R68W (Jillson-East Rinn)	**North Reference:**	True
Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn)

Site Position:		**Northing:**	1,289,542.88 ft	**Latitude:**	40.127030
From:	Lat/Long	**Easting:**	3,144,231.14 ft	**Longitude:**	-104.984230
Position Uncertainty:	0.0 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.33 °

Well Jillson-East Rinn 3C-22H-M268

Well Position	**+N/-S**	0.0 ft	**Northing:**	1,286,201.37 ft	**Latitude:**	40.117910
	+E/-W	0.0 ft	**Easting:**	3,140,891.69 ft	**Longitude:**	-104.996240
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,950.0 ft

Wellbore Hz

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/9/2013	8.69	66.71	52,739

Design Plan #1

Audit Notes:

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

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	0.00

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
990.1	3.90	145.41	989.8	-10.9	7.5	1.00	1.00	0.00	145.41	
6,759.1	3.90	145.41	6,745.4	-334.1	230.4	0.00	0.00	0.00	0.00	
7,691.2	90.00	0.00	7,350.0	238.0	253.8	10.00	9.24	-15.60	-145.34	
13,391.2	90.00	0.00	7,350.0	5,938.0	253.8	0.00	0.00	0.00	0.00	Jillson-East Rinn 3C-2
13,779.4	90.00	356.12	7,350.0	6,325.9	240.7	1.00	0.00	-1.00	-90.00	
15,062.6	90.00	356.12	7,350.0	7,606.2	153.8	0.00	0.00	0.00	0.00	Jillson-East Rinn 3C-2

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Jillson-East Rinn 3C-22H-M268
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site:	S22-T2N-R68W (Jillson-East Rinn)	**North Reference:**	True
Well:	Jillson-East Rinn 3C-22H-M268	**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	
325.0	0.00	0.00	325.0	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	KOP @ 600'
700.0	1.00	145.41	700.0	-0.7	0.5	-0.7	1.00	1.00	
800.0	2.00	145.41	800.0	-2.9	2.0	-2.9	1.00	1.00	
900.0	3.00	145.41	899.9	-6.5	4.5	-6.5	1.00	1.00	
990.1	3.90	145.41	989.8	-10.9	7.5	-10.9	1.00	1.00	EOB; Inc=3.9°
1,000.0	3.90	145.41	999.7	-11.5	7.9	-11.5	0.00	0.00	
1,100.0	3.90	145.41	1,099.4	-17.1	11.8	-17.1	0.00	0.00	
1,200.0	3.90	145.41	1,199.2	-22.7	15.6	-22.7	0.00	0.00	
1,300.0	3.90	145.41	1,299.0	-28.3	19.5	-28.3	0.00	0.00	
1,400.0	3.90	145.41	1,398.7	-33.9	23.4	-33.9	0.00	0.00	
1,500.0	3.90	145.41	1,498.5	-39.5	27.2	-39.5	0.00	0.00	
1,600.0	3.90	145.41	1,598.3	-45.1	31.1	-45.1	0.00	0.00	
1,700.0	3.90	145.41	1,698.1	-50.7	35.0	-50.7	0.00	0.00	
1,800.0	3.90	145.41	1,797.8	-56.3	38.8	-56.3	0.00	0.00	
1,900.0	3.90	145.41	1,897.6	-61.9	42.7	-61.9	0.00	0.00	
2,000.0	3.90	145.41	1,997.4	-67.5	46.5	-67.5	0.00	0.00	
2,100.0	3.90	145.41	2,097.1	-73.1	50.4	-73.1	0.00	0.00	
2,200.0	3.90	145.41	2,196.9	-78.7	54.3	-78.7	0.00	0.00	
2,300.0	3.90	145.41	2,296.7	-84.3	58.1	-84.3	0.00	0.00	
2,400.0	3.90	145.41	2,396.4	-89.9	62.0	-89.9	0.00	0.00	
2,500.0	3.90	145.41	2,496.2	-95.5	65.9	-95.5	0.00	0.00	
2,600.0	3.90	145.41	2,596.0	-101.1	69.7	-101.1	0.00	0.00	
2,700.0	3.90	145.41	2,695.7	-106.7	73.6	-106.7	0.00	0.00	
2,800.0	3.90	145.41	2,795.5	-112.3	77.5	-112.3	0.00	0.00	
2,900.0	3.90	145.41	2,895.3	-117.9	81.3	-117.9	0.00	0.00	
3,000.0	3.90	145.41	2,995.0	-123.5	85.2	-123.5	0.00	0.00	
3,100.0	3.90	145.41	3,094.8	-129.1	89.0	-129.1	0.00	0.00	
3,200.0	3.90	145.41	3,194.6	-134.7	92.9	-134.7	0.00	0.00	
3,300.0	3.90	145.41	3,294.3	-140.3	96.8	-140.3	0.00	0.00	
3,400.0	3.90	145.41	3,394.1	-145.9	100.6	-145.9	0.00	0.00	
3,500.0	3.90	145.41	3,493.9	-151.5	104.5	-151.5	0.00	0.00	
3,600.0	3.90	145.41	3,593.7	-157.1	108.4	-157.1	0.00	0.00	
3,700.0	3.90	145.41	3,693.4	-162.7	112.2	-162.7	0.00	0.00	
3,800.0	3.90	145.41	3,793.2	-168.3	116.1	-168.3	0.00	0.00	
3,900.0	3.90	145.41	3,893.0	-173.9	119.9	-173.9	0.00	0.00	
4,000.0	3.90	145.41	3,992.7	-179.5	123.8	-179.5	0.00	0.00	
4,100.0	3.90	145.41	4,092.5	-185.1	127.7	-185.1	0.00	0.00	
4,200.0	3.90	145.41	4,192.3	-190.7	131.5	-190.7	0.00	0.00	
4,300.0	3.90	145.41	4,292.0	-196.3	135.4	-196.3	0.00	0.00	
4,348.1	3.90	145.41	4,340.0	-199.0	137.3	-199.0	0.00	0.00	Sussex
4,400.0	3.90	145.41	4,391.8	-201.9	139.3	-201.9	0.00	0.00	
4,500.0	3.90	145.41	4,491.6	-207.5	143.1	-207.5	0.00	0.00	
4,600.0	3.90	145.41	4,591.3	-213.1	147.0	-213.1	0.00	0.00	
4,627.7	3.90	145.41	4,619.0	-214.7	148.1	-214.7	0.00	0.00	Sussex Marker
4,700.0	3.90	145.41	4,691.1	-218.7	150.8	-218.7	0.00	0.00	

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Project:	DJ Wattenberg	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site:	S22-T2N-R68W (Jillson-East Rinn)	**North Reference:**	True
Well:	Jillson-East Rinn 3C-22H-M268	**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	3.90	145.41	4,790.9	-224.3	154.7	-224.3	0.00	0.00	
4,895.4	3.90	145.41	4,886.0	-229.7	158.4	-229.7	0.00	0.00	Shannon
4,900.0	3.90	145.41	4,890.6	-229.9	158.6	-229.9	0.00	0.00	
5,000.0	3.90	145.41	4,990.4	-235.5	162.4	-235.5	0.00	0.00	
5,100.0	3.90	145.41	5,090.2	-241.1	166.3	-241.1	0.00	0.00	
5,200.0	3.90	145.41	5,189.9	-246.7	170.2	-246.7	0.00	0.00	
5,300.0	3.90	145.41	5,289.7	-252.3	174.0	-252.3	0.00	0.00	
5,400.0	3.90	145.41	5,389.5	-257.9	177.9	-257.9	0.00	0.00	
5,500.0	3.90	145.41	5,489.2	-263.5	181.8	-263.5	0.00	0.00	
5,600.0	3.90	145.41	5,589.0	-269.1	185.6	-269.1	0.00	0.00	
5,700.0	3.90	145.41	5,688.8	-274.7	189.5	-274.7	0.00	0.00	
5,800.0	3.90	145.41	5,788.6	-280.3	193.3	-280.3	0.00	0.00	
5,900.0	3.90	145.41	5,888.3	-285.9	197.2	-285.9	0.00	0.00	
6,000.0	3.90	145.41	5,988.1	-291.5	201.1	-291.5	0.00	0.00	
6,100.0	3.90	145.41	6,087.9	-297.1	204.9	-297.1	0.00	0.00	
6,200.0	3.90	145.41	6,187.6	-302.7	208.8	-302.7	0.00	0.00	
6,300.0	3.90	145.41	6,287.4	-308.3	212.7	-308.3	0.00	0.00	
6,400.0	3.90	145.41	6,387.2	-313.9	216.5	-313.9	0.00	0.00	
6,500.0	3.90	145.41	6,486.9	-319.5	220.4	-319.5	0.00	0.00	
6,513.1	3.90	145.41	6,500.0	-320.3	220.9	-320.3	0.00	0.00	Teepee Buttes (*if present)
6,600.0	3.90	145.41	6,586.7	-325.1	224.2	-325.1	0.00	0.00	
6,700.0	3.90	145.41	6,686.5	-330.7	228.1	-330.7	0.00	0.00	
6,759.1	3.90	145.41	6,745.4	-334.1	230.4	-334.1	0.00	0.00	Start build/turn @ 6759' MD
6,800.0	2.39	68.31	6,786.3	-334.9	232.0	-334.9	10.00	-3.70	
6,900.0	11.10	11.38	6,885.6	-324.6	235.8	-324.6	10.00	8.72	
7,000.0	20.99	5.79	6,981.5	-297.3	239.5	-297.3	10.00	9.89	
7,100.0	30.95	3.70	7,071.3	-253.7	243.0	-253.7	10.00	9.96	
7,200.0	40.93	2.56	7,152.2	-195.2	246.1	-195.2	10.00	9.98	
7,256.5	46.57	2.10	7,193.0	-156.1	247.7	-156.1	10.00	9.98	Sharon Springs
7,300.0	50.92	1.80	7,221.7	-123.5	248.8	-123.5	10.00	9.99	
7,396.6	60.57	1.25	7,276.0	-43.7	250.9	-43.7	10.00	9.99	Niobrara
7,400.0	60.91	1.23	7,277.6	-40.8	251.0	-40.8	10.00	9.99	
7,500.0	70.90	0.77	7,318.4	50.4	252.6	50.4	10.00	9.99	
7,583.9	79.28	0.42	7,340.0	131.4	253.4	131.4	10.00	9.99	B Chalk
7,600.0	80.89	0.36	7,342.8	147.2	253.5	147.2	10.00	9.99	
7,691.2	90.00	0.00	7,350.0	238.0	253.8	238.0	10.00	9.99	LP @ 7350' TVD; 90°
7,700.0	90.00	0.00	7,350.0	246.8	253.8	246.8	0.00	0.00	
7,800.0	90.00	0.00	7,350.0	346.8	253.8	346.8	0.00	0.00	
7,900.0	90.00	0.00	7,350.0	446.8	253.8	446.8	0.00	0.00	
8,000.0	90.00	0.00	7,350.0	546.8	253.8	546.8	0.00	0.00	
8,100.0	90.00	0.00	7,350.0	646.8	253.8	646.8	0.00	0.00	
8,200.0	90.00	0.00	7,350.0	746.8	253.8	746.8	0.00	0.00	
8,300.0	90.00	0.00	7,350.0	846.8	253.8	846.8	0.00	0.00	
8,400.0	90.00	0.00	7,350.0	946.8	253.8	946.8	0.00	0.00	
8,500.0	90.00	0.00	7,350.0	1,046.8	253.8	1,046.8	0.00	0.00	
8,600.0	90.00	0.00	7,350.0	1,146.8	253.8	1,146.8	0.00	0.00	
8,700.0	90.00	0.00	7,350.0	1,246.8	253.8	1,246.8	0.00	0.00	
8,800.0	90.00	0.00	7,350.0	1,346.8	253.8	1,346.8	0.00	0.00	
8,900.0	90.00	0.00	7,350.0	1,446.8	253.8	1,446.8	0.00	0.00	
9,000.0	90.00	0.00	7,350.0	1,546.8	253.8	1,546.8	0.00	0.00	
9,100.0	90.00	0.00	7,350.0	1,646.8	253.8	1,646.8	0.00	0.00	
9,200.0	90.00	0.00	7,350.0	1,746.8	253.8	1,746.8	0.00	0.00	

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Project:	DJ Wattenberg	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site:	S22-T2N-R68W (Jillson-East Rinn)	**North Reference:**	True
Well:	Jillson-East Rinn 3C-22H-M268	**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	0.00	7,350.0	1,846.8	253.8	1,846.8	0.00	0.00	
9,400.0	90.00	0.00	7,350.0	1,946.8	253.8	1,946.8	0.00	0.00	
9,500.0	90.00	0.00	7,350.0	2,046.8	253.8	2,046.8	0.00	0.00	
9,600.0	90.00	0.00	7,350.0	2,146.8	253.8	2,146.8	0.00	0.00	
9,700.0	90.00	0.00	7,350.0	2,246.8	253.8	2,246.8	0.00	0.00	
9,800.0	90.00	0.00	7,350.0	2,346.8	253.8	2,346.8	0.00	0.00	
9,900.0	90.00	0.00	7,350.0	2,446.8	253.8	2,446.8	0.00	0.00	
10,000.0	90.00	0.00	7,350.0	2,546.8	253.8	2,546.8	0.00	0.00	
10,100.0	90.00	0.00	7,350.0	2,646.8	253.8	2,646.8	0.00	0.00	
10,200.0	90.00	0.00	7,350.0	2,746.8	253.8	2,746.8	0.00	0.00	
10,300.0	90.00	0.00	7,350.0	2,846.8	253.8	2,846.8	0.00	0.00	
10,400.0	90.00	0.00	7,350.0	2,946.8	253.8	2,946.8	0.00	0.00	
10,500.0	90.00	0.00	7,350.0	3,046.8	253.8	3,046.8	0.00	0.00	
10,600.0	90.00	0.00	7,350.0	3,146.8	253.8	3,146.8	0.00	0.00	
10,700.0	90.00	0.00	7,350.0	3,246.8	253.8	3,246.8	0.00	0.00	
10,800.0	90.00	0.00	7,350.0	3,346.8	253.8	3,346.8	0.00	0.00	
10,900.0	90.00	0.00	7,350.0	3,446.8	253.8	3,446.8	0.00	0.00	
11,000.0	90.00	0.00	7,350.0	3,546.8	253.8	3,546.8	0.00	0.00	
11,100.0	90.00	0.00	7,350.0	3,646.8	253.8	3,646.8	0.00	0.00	
11,200.0	90.00	0.00	7,350.0	3,746.8	253.8	3,746.8	0.00	0.00	
11,300.0	90.00	0.00	7,350.0	3,846.8	253.8	3,846.8	0.00	0.00	
11,400.0	90.00	0.00	7,350.0	3,946.8	253.8	3,946.8	0.00	0.00	
11,500.0	90.00	0.00	7,350.0	4,046.8	253.8	4,046.8	0.00	0.00	
11,600.0	90.00	0.00	7,350.0	4,146.8	253.8	4,146.8	0.00	0.00	
11,700.0	90.00	0.00	7,350.0	4,246.8	253.8	4,246.8	0.00	0.00	
11,800.0	90.00	0.00	7,350.0	4,346.8	253.8	4,346.8	0.00	0.00	
11,900.0	90.00	0.00	7,350.0	4,446.8	253.8	4,446.8	0.00	0.00	
12,000.0	90.00	0.00	7,350.0	4,546.8	253.8	4,546.8	0.00	0.00	
12,100.0	90.00	0.00	7,350.0	4,646.8	253.8	4,646.8	0.00	0.00	
12,200.0	90.00	0.00	7,350.0	4,746.8	253.8	4,746.8	0.00	0.00	
12,300.0	90.00	0.00	7,350.0	4,846.8	253.8	4,846.8	0.00	0.00	
12,400.0	90.00	0.00	7,350.0	4,946.8	253.8	4,946.8	0.00	0.00	
12,500.0	90.00	0.00	7,350.0	5,046.8	253.8	5,046.8	0.00	0.00	
12,600.0	90.00	0.00	7,350.0	5,146.8	253.8	5,146.8	0.00	0.00	
12,700.0	90.00	0.00	7,350.0	5,246.8	253.8	5,246.8	0.00	0.00	
12,800.0	90.00	0.00	7,350.0	5,346.8	253.8	5,346.8	0.00	0.00	
12,900.0	90.00	0.00	7,350.0	5,446.8	253.8	5,446.8	0.00	0.00	
13,000.0	90.00	0.00	7,350.0	5,546.8	253.8	5,546.8	0.00	0.00	
13,100.0	90.00	0.00	7,350.0	5,646.8	253.8	5,646.8	0.00	0.00	
13,200.0	90.00	0.00	7,350.0	5,746.8	253.8	5,746.8	0.00	0.00	
13,300.0	90.00	0.00	7,350.0	5,846.8	253.8	5,846.8	0.00	0.00	
13,391.2	90.00	0.00	7,350.0	5,938.0	253.8	5,938.0	0.00	0.00	Start turn @ 13391' MD - Jillson-East Rinn 3C-2
13,400.0	90.00	359.91	7,350.0	5,946.8	253.8	5,946.8	1.00	0.00	
13,500.0	90.00	358.91	7,350.0	6,046.8	252.8	6,046.8	1.00	0.00	
13,600.0	90.00	357.91	7,350.0	6,146.8	250.0	6,146.8	1.00	0.00	
13,700.0	90.00	356.91	7,350.0	6,246.7	245.5	6,246.7	1.00	0.00	
13,779.4	90.00	356.12	7,350.0	6,325.9	240.7	6,325.9	1.00	0.00	End of turn @ 13779' MD
13,800.0	90.00	356.12	7,350.0	6,346.5	239.3	6,346.5	0.00	0.00	
13,900.0	90.00	356.12	7,350.0	6,446.3	232.5	6,446.3	0.00	0.00	
14,000.0	90.00	356.12	7,350.0	6,546.0	225.7	6,546.0	0.00	0.00	
14,100.0	90.00	356.12	7,350.0	6,645.8	218.9	6,645.8	0.00	0.00	
14,200.0	90.00	356.12	7,350.0	6,745.6	212.2	6,745.6	0.00	0.00	

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Jillson-East Rinn 3C-22H-M268
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site:	S22-T2N-R68W (Jillson-East Rinn)	**North Reference:**	True
Well:	Jillson-East Rinn 3C-22H-M268	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
14,300.0	90.00	356.12	7,350.0	6,845.3	205.4	6,845.3	0.00	0.00	
14,400.0	90.00	356.12	7,350.0	6,945.1	198.6	6,945.1	0.00	0.00	
14,500.0	90.00	356.12	7,350.0	7,044.9	191.9	7,044.9	0.00	0.00	
14,600.0	90.00	356.12	7,350.0	7,144.6	185.1	7,144.6	0.00	0.00	
14,700.0	90.00	356.12	7,350.0	7,244.4	178.3	7,244.4	0.00	0.00	
14,800.0	90.00	356.12	7,350.0	7,344.2	171.6	7,344.2	0.00	0.00	
14,900.0	90.00	356.12	7,350.0	7,444.0	164.8	7,444.0	0.00	0.00	
15,000.0	90.00	356.12	7,350.0	7,543.7	158.0	7,543.7	0.00	0.00	
15,062.6	90.00	356.12	7,350.0	7,606.2	153.8	7,606.2	0.00	0.00	TD at 15062.6 - Jillson-East Rinn 3C-22H-M26

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
Jillson-East Rinn 3C-22H - plan hits target center - Point	0.00	0.00	7,350.0	7,606.2	153.8	1,293,808.32	3,141,002.25	40.138790	-104.995690
Jillson-East Rinn 3C-22H - plan hits target center - Point	0.00	0.00	7,350.0	5,938.0	253.8	1,292,140.72	3,141,111.75	40.134211	-104.995332

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
325.0	325.0	Fox Hills - BASE			
4,348.1	4,340.0	Sussex			
4,627.7	4,619.0	Sussex Marker			
4,895.4	4,886.0	Shannon			
6,513.1	6,500.0	Teepee Buttes (*if present)			
7,256.5	7,193.0	Sharon Springs			
7,396.6	7,276.0	Niobrara			
7,583.9	7,340.0	B Chalk			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
600.0	600.0	0.0	0.0	KOP @ 600'
990.1	989.8	-10.9	7.5	EOB; Inc=3.9°
6,759.1	6,745.4	-334.1	230.4	Start build/turn @ 6759' MD
7,691.2	7,350.0	238.0	253.8	LP @ 7350' TVD; 90°
13,391.2	7,350.0	5,938.0	253.8	Start turn @ 13391' MD
13,779.4	7,350.0	6,325.9	240.7	End of turn @ 13779' MD
15,062.6	7,350.0	7,606.2	153.8	TD at 15062.6

EnCana Oil & Gas (USA) Inc

DJ Wattenberg
S22-T2N-R68W (Jillson-East Rinn)
Jillson-East Rinn 3C-22H-M268
Hz
Plan #1

Anticollision Report

10 July, 2013

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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** 7/10/2013

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	15,062.6	Plan #1 (Hz)	Geolink MWD	Geolink MWD

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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
S22-T2N-R68W (Jillson-East Rinn)						
ANDERSON 23-22 (EXISTING) - ENCANA WELL - NO S						Out of range
ANDERSON 31-22 (EXISTING) - KERR-MCGEE WELL						Out of range
BLISS 41-21 (EXISTING) - KPK WELL - SURVEYS						Out of range
EARL ANDERSON 1 (EXISTING) - KPK WELL - NO SUR						Out of range
EARL ANDERSON 2 (EXISTING) - KPK WELL - NO SUR						Out of range
EARL ANDERSON B 1 (EXISTING) - KPK WELL - NO S						Out of range
EAST RINN 13-15 (EXISTING) - ENCANA WELL - SURV	14,388.6	7,643.4	271.8	134.2	1.975	CC, ES
EAST RINN 13-15 (EXISTING) - ENCANA WELL - SURV	14,400.0	7,643.4	272.0	134.2	1.974	SF
EAST RINN 15-12 (EXISTING) AL - VESSELS WELL - N	14,411.0	7,250.0	427.0	290.5	3.128	CC, ES, SF
EAST RINN 15-14 (EXISTING) AL - VESSELS WELL - N						Out of range
EAST RINN 23-15 (EXISTING) - ENCANA WELL - SURV						Out of range
EAST RINN 24-15 (EXISTING) - ENCANA WELL - SURV						Out of range
EAST RINN 2-4-15 (EXISTING) - ENCANA WELL - SUR						Out of range
EAST RINN 2-8-15 (EXISTING) - ENCANA WELL - SUR	12,511.6	7,858.3	291.2	157.9	2.184	CC, ES, SF
EAST RINN 3-6-15 (EXISTING) - ENCANA WELL - SUR						Out of range
EAST RINN H UNIT 1 (EXISTING) - ENCANA WELL - N	13,393.6	7,252.0	60.0	-59.3	0.503	Level 1, CC, ES, SF
HALEY 1-22 (EXISTING) - ENCANA WELL - NO SURVE						Out of range
Haley 31-22 - DD - Plan #1						Out of range
Haley 4-2-22 - DD - Plan #1						Out of range
Haley 8-4-22 - DD - Plan #1						Out of range
JILLSON 0-6-22 (EXISTING) - ENCANA WELL - SURVE						Out of range
JILLSON 11-22 (EXISTING) - ENCANA WELL - NO SUR	11,602.3	7,259.0	404.8	316.6	4.588	CC, ES, SF
JILLSON 1-22 (EXISTING) - ENCANA WELL - NO SURV						Out of range
JILLSON 12-22 (EXISTING) - ENCANA WELL - NO SUR	10,164.2	7,279.0	258.8	195.2	4.070	CC, ES
JILLSON 12-22 (EXISTING) - ENCANA WELL - NO SUR	10,200.0	7,279.0	261.3	197.1	4.070	SF
JILLSON 14-22 (EXISTING) - ENCANA WELL - NO SUR	7,711.8	7,325.0	231.4	204.3	8.547	CC, ES, SF
JILLSON 21-22 (EXISTING) - ENCANA WELL - NO SUR						Out of range
JILLSON 22-22 (EXISTING) - ENCANA WELL - NO SUR						Out of range
JILLSON 2-8-22 (EXISTING) - ENCANA WELL - SURVE	7,148.8	7,237.6	270.5	238.1	8.345	CC, ES, SF
JILLSON 3 (EXISTING) - FOUNDATION WELL - NO SU	600.0	571.0	273.6	271.6	136.782	CC, ES
JILLSON 3 (EXISTING) - FOUNDATION WELL - NO SU	4,200.0	4,163.3	496.9	482.3	34.058	SF
JILLSON 4-6-22 (EXISTING) - ENCANA WELL - SURVE						Out of range
JILLSON 4-8-22 (EXISTING) - ENCANA WELL - SURVE						Out of range
JILLSON 6 (EXISTING) - FOUNDATION WELL - NO SU						Out of range
JILLSON GAS UNIT 1 (EXISTING) - ENCANA WELL - N						Out of range
Jillson-East Rinn 3A-22H-M268 - Hz - Plan #1	200.0	199.0	19.6	19.0	32.140	CC, ES
Jillson-East Rinn 3A-22H-M268 - Hz - Plan #1	600.0	597.4	30.9	28.9	15.173	SF
Jillson-East Rinn 3B-22H-M268 - Hz - Plan #1	300.0	299.0	11.3	10.4	11.813	CC, ES
Jillson-East Rinn 3B-22H-M268 - Hz - Plan #1	15,062.6	15,333.5	402.9	175.6	1.772	SF
Jillson-East Rinn 3D-22H-M268 - Hz - Plan #1	500.0	500.0	8.3	6.6	4.982	CC, ES
Jillson-East Rinn 3D-22H-M268 - Hz - Plan #1	15,062.6	15,292.5	372.5	153.9	1.704	SF
Jillson-East Rinn 3E-22H-N268 - Hz - Plan #1	13,300.0	13,345.2	498.4	286.3	2.350	CC
Jillson-East Rinn 3E-22H-N268 - Hz - Plan #1	13,500.0	13,545.2	499.4	280.3	2.279	ES, SF
Jillson-East Rinn 3F-22H-N268 - Hz - Plan #1						Out of range
Jillson-East Rinn 3G-22H-N268 - Hz - Plan #1						Out of range
Jillson-East Rinn 3H-22H-N268 - Hz - Plan #1						Out of range
NYGREN 12-22 (EXISTING) - KERR-MCGEE WELL - N	9,070.6	7,295.0	189.8	144.3	4.177	CC, ES, SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - EAST RINN 13-15 (EXISTING) - ENCANA WELL - SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 106-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
14,000.0	7,350.0	7,642.1	7,260.3	117.3	37.0	-89.34	6,915.4	-71.7	474.3	343.4	130.84	3.625	
14,100.0	7,350.0	7,642.5	7,260.6	119.0	37.0	-89.41	6,915.4	-71.7	396.5	263.9	132.58	2.990	
14,200.0	7,350.0	7,642.8	7,261.0	120.8	37.0	-89.48	6,915.4	-71.7	330.8	196.5	134.33	2.463	
14,300.0	7,350.0	7,643.1	7,261.3	122.5	37.0	-89.55	6,915.4	-71.8	285.9	149.8	136.07	2.101	
14,388.6	7,350.0	7,643.4	7,261.6	124.0	37.0	-89.61	6,915.4	-71.8	271.8	134.2	137.62	1.975	CC, ES
14,400.0	7,350.0	7,643.4	7,261.6	124.2	37.0	-89.62	6,915.4	-71.8	272.0	134.2	137.81	1.974	SF
14,500.0	7,350.0	7,643.7	7,261.9	126.0	37.0	-89.69	6,915.4	-71.8	293.7	154.1	139.56	2.105	
14,600.0	7,350.0	7,644.1	7,262.2	127.7	37.0	-89.75	6,915.4	-71.8	344.3	203.0	141.30	2.436	
14,700.0	7,350.0	7,644.4	7,262.5	129.4	37.0	-89.81	6,915.4	-71.8	413.3	270.2	143.05	2.889	
14,800.0	7,350.0	7,644.7	7,262.8	131.2	37.0	-89.88	6,915.4	-71.8	493.0	348.2	144.80	3.405	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - EAST RINN 15-12 (EXISTING) AL - VESSELS WELL - NO SURVE

Offset Site Error: 0.0 ft

Survey Program: 7570-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
14,200.0	7,350.0	7,250.0	7,250.0	120.8	12.7	-90.00	6,927.2	-228.1	476.3	343.5	132.84	3.586	
14,300.0	7,350.0	7,250.0	7,250.0	122.5	12.7	-90.00	6,927.2	-228.1	441.2	306.6	134.58	3.278	
14,400.0	7,350.0	7,250.0	7,250.0	124.2	12.7	-90.00	6,927.2	-228.1	427.2	290.8	136.33	3.133	
14,411.0	7,350.0	7,250.0	7,250.0	124.4	12.7	-90.00	6,927.2	-228.1	427.0	290.5	136.52	3.128	CC, ES, SF
14,500.0	7,350.0	7,250.0	7,250.0	126.0	12.7	-90.00	6,927.2	-228.1	436.2	298.1	138.07	3.159	
14,600.0	7,350.0	7,250.0	7,250.0	127.7	12.7	-90.00	6,927.2	-228.1	467.0	327.2	139.82	3.340	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - EAST RINN 2-8-15 (EXISTING) - ENCANA WELL - SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 136-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
12,200.0	7,350.0	7,851.6	7,258.1	86.0	47.0	88.96	5,058.3	545.0	426.5	298.5	127.91	3.334	
12,300.0	7,350.0	7,853.8	7,260.3	87.8	47.0	89.39	5,058.4	545.0	360.0	230.3	129.66	2.776	
12,400.0	7,350.0	7,855.9	7,262.5	89.5	47.0	89.82	5,058.4	545.0	311.9	180.5	131.40	2.373	
12,500.0	7,350.0	7,858.1	7,264.6	91.2	47.0	90.24	5,058.4	545.0	291.4	158.3	133.14	2.189	
12,511.6	7,350.0	7,858.3	7,264.8	91.4	47.0	90.28	5,058.4	545.0	291.2	157.9	133.35	2.184	CC, ES, SF
12,600.0	7,350.0	7,860.2	7,266.7	93.0	47.0	90.65	5,058.5	545.0	304.3	169.4	134.88	2.256	
12,700.0	7,350.0	7,862.3	7,268.8	94.7	47.0	91.07	5,058.5	545.0	346.8	210.2	136.60	2.539	
12,800.0	7,350.0	7,864.4	7,270.9	96.4	47.0	91.48	5,058.6	545.0	409.8	271.5	138.32	2.963	
12,900.0	7,350.0	7,866.5	7,273.0	98.2	47.0	91.89	5,058.6	545.0	485.4	345.3	140.04	3.466	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - EAST RINN H UNIT 1 (EXISTING) - ENCANA WELL - NO SURVE

Offset Site Error: 0.0 ft

Survey Program: 8264-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
12,900.0	7,350.0	7,252.0	7,252.0	98.2	12.7	-90.00	5,940.3	193.8	497.1	386.4	110.73	4.490	
13,000.0	7,350.0	7,252.0	7,252.0	99.9	12.7	-90.00	5,940.3	193.8	398.1	285.6	112.47	3.539	
13,100.0	7,350.0	7,252.0	7,252.0	101.7	12.7	-90.00	5,940.3	193.8	299.6	185.4	114.21	2.623	
13,200.0	7,350.0	7,252.0	7,252.0	103.4	12.7	-90.00	5,940.3	193.8	202.6	86.7	115.95	1.747	
13,300.0	7,350.0	7,252.0	7,252.0	105.1	12.7	-90.00	5,940.3	193.8	111.1	-6.6	117.69	0.944	Level 1
13,393.6	7,350.0	7,252.0	7,252.0	106.8	12.7	-90.00	5,940.3	193.8	60.0	-59.3	119.31	0.503	Level 1, CC, ES, SF
13,400.0	7,350.0	7,252.0	7,252.0	106.9	12.7	-90.00	5,940.3	193.8	60.4	-59.0	119.43	0.506	Level 1
13,500.0	7,350.0	7,252.0	7,252.0	108.6	12.7	-90.00	5,940.3	193.8	121.7	0.7	121.07	1.006	Level 2
13,600.0	7,350.0	7,252.0	7,252.0	110.3	12.7	-90.00	5,940.3	193.8	214.0	91.3	122.69	1.744	
13,700.0	7,350.0	7,252.0	7,252.0	112.1	12.7	-90.00	5,940.3	193.8	310.7	186.4	124.27	2.500	
13,800.0	7,350.0	7,252.0	7,252.0	113.8	12.7	-90.00	5,940.3	193.8	408.7	282.8	125.87	3.247	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - JILLSON 11-22 (EXISTING) - ENCANA WELL - NO SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 8046-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
11,400.0	7,350.0	7,259.0	7,259.0	72.2	12.7	-90.00	4,149.2	-151.0	452.5	367.8	84.74	5.340	
11,500.0	7,350.0	7,259.0	7,259.0	73.9	12.7	-90.00	4,149.2	-151.0	417.5	331.1	86.47	4.829	
11,600.0	7,350.0	7,259.0	7,259.0	75.7	12.7	-90.00	4,149.2	-151.0	404.8	316.6	88.20	4.590	
11,602.3	7,350.0	7,259.0	7,259.0	75.7	12.7	-90.00	4,149.2	-151.0	404.8	316.6	88.24	4.588	CC, ES, SF
11,700.0	7,350.0	7,259.0	7,259.0	77.4	12.7	-90.00	4,149.2	-151.0	416.4	326.5	89.93	4.631	
11,800.0	7,350.0	7,259.0	7,259.0	79.1	12.7	-90.00	4,149.2	-151.0	450.5	358.8	91.66	4.915	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - JILLSON 12-22 (EXISTING) - ENCANA WELL - NO SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 8074-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
9,800.0	7,350.0	7,279.0	7,279.0	45.0	12.7	-90.00	2,711.0	-5.0	446.8	389.3	57.44	7.778	
9,900.0	7,350.0	7,279.0	7,279.0	46.6	12.7	-90.00	2,711.0	-5.0	369.8	310.7	59.13	6.255	
10,000.0	7,350.0	7,279.0	7,279.0	48.3	12.7	-90.00	2,711.0	-5.0	306.5	245.7	60.82	5.040	
10,100.0	7,350.0	7,279.0	7,279.0	50.0	12.7	-90.00	2,711.0	-5.0	266.7	204.2	62.51	4.266	
10,164.2	7,350.0	7,279.0	7,279.0	51.1	12.7	-90.00	2,711.0	-5.0	258.8	195.2	63.60	4.070	CC, ES
10,200.0	7,350.0	7,279.0	7,279.0	51.7	12.7	-90.00	2,711.0	-5.0	261.3	197.1	64.20	4.070	SF
10,300.0	7,350.0	7,279.0	7,279.0	53.4	12.7	-90.00	2,711.0	-5.0	292.3	226.4	65.90	4.435	
10,400.0	7,350.0	7,279.0	7,279.0	55.1	12.7	-90.00	2,711.0	-5.0	350.2	282.6	67.61	5.179	
10,500.0	7,350.0	7,279.0	7,279.0	56.8	12.7	-90.00	2,711.0	-5.0	424.0	354.7	69.31	6.117	

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 Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - JILLSON 14-22 (EXISTING) - ENCANA WELL - NO SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 8164-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	4.94	258.7	22.4	260.8				
100.0	100.0	75.0	75.0	0.1	0.1	4.94	258.7	22.4	259.6	259.4	0.26	990.929	
200.0	200.0	175.0	175.0	0.3	0.3	4.94	258.7	22.4	259.6	259.0	0.61	424.869	
300.0	300.0	275.0	275.0	0.5	0.5	4.94	258.7	22.4	259.6	258.7	0.96	270.404	
400.0	400.0	375.0	375.0	0.7	0.7	4.94	258.7	22.4	259.6	258.3	1.31	198.307	
500.0	500.0	475.0	475.0	0.8	0.8	4.94	258.7	22.4	259.6	258.0	1.66	156.563	
600.0	600.0	575.0	575.0	1.0	1.0	4.94	258.7	22.4	259.6	257.6	2.01	129.337	
700.0	700.0	675.0	675.0	1.2	1.2	-140.58	258.7	22.4	260.3	257.9	2.36	110.463	
800.0	800.0	775.0	775.0	1.4	1.4	-140.93	258.7	22.4	262.3	259.6	2.71	96.941	
900.0	899.9	874.9	874.9	1.5	1.5	-141.50	258.7	22.4	265.7	262.7	3.06	86.922	
1,000.0	999.7	974.7	974.7	1.7	1.7	-142.28	258.7	22.4	270.5	267.1	3.41	79.326	
1,100.0	1,099.4	1,074.4	1,074.4	1.9	1.9	-143.14	258.7	22.4	275.9	272.2	3.77	73.277	
1,200.0	1,199.2	1,174.2	1,174.2	2.1	2.0	-143.97	258.7	22.4	281.4	277.3	4.12	68.276	
1,300.0	1,299.0	1,274.0	1,274.0	2.3	2.2	-144.77	258.7	22.4	287.0	282.5	4.48	64.080	
1,400.0	1,398.7	1,373.7	1,373.7	2.5	2.4	-145.54	258.7	22.4	292.5	287.7	4.83	60.513	
1,500.0	1,498.5	1,473.5	1,473.5	2.7	2.6	-146.28	258.7	22.4	298.2	293.0	5.19	57.447	
1,600.0	1,598.3	1,573.3	1,573.3	2.9	2.7	-146.99	258.7	22.4	303.9	298.3	5.55	54.785	
1,700.0	1,698.1	1,673.1	1,673.1	3.1	2.9	-147.68	258.7	22.4	309.6	303.7	5.90	52.455	
1,800.0	1,797.8	1,772.8	1,772.8	3.3	3.1	-148.34	258.7	22.4	315.4	309.1	6.26	50.399	
1,900.0	1,897.6	1,872.6	1,872.6	3.5	3.3	-148.97	258.7	22.4	321.2	314.6	6.61	48.573	
2,000.0	1,997.4	1,972.4	1,972.4	3.8	3.4	-149.59	258.7	22.4	327.0	320.1	6.97	46.941	
2,100.0	2,097.1	2,072.1	2,072.1	4.0	3.6	-150.18	258.7	22.4	332.9	325.6	7.32	45.474	
2,200.0	2,196.9	2,171.9	2,171.9	4.2	3.8	-150.75	258.7	22.4	338.9	331.2	7.68	44.149	
2,300.0	2,296.7	2,271.7	2,271.7	4.4	4.0	-151.30	258.7	22.4	344.8	336.8	8.03	42.947	
2,400.0	2,396.4	2,371.4	2,371.4	4.6	4.1	-151.84	258.7	22.4	350.8	342.4	8.38	41.851	
2,500.0	2,496.2	2,471.2	2,471.2	4.8	4.3	-152.35	258.7	22.4	356.8	348.1	8.73	40.849	
2,600.0	2,596.0	2,571.0	2,571.0	5.0	4.5	-152.85	258.7	22.4	362.9	353.8	9.09	39.929	
2,700.0	2,695.7	2,670.7	2,670.7	5.2	4.7	-153.33	258.7	22.4	368.9	359.5	9.44	39.082	
2,800.0	2,795.5	2,770.5	2,770.5	5.4	4.8	-153.80	258.7	22.4	375.0	365.2	9.79	38.299	
2,900.0	2,895.3	2,870.3	2,870.3	5.6	5.0	-154.25	258.7	22.4	381.1	371.0	10.14	37.574	
3,000.0	2,995.0	2,970.0	2,970.0	5.8	5.2	-154.69	258.7	22.4	387.3	376.8	10.50	36.901	
3,100.0	3,094.8	3,069.8	3,069.8	6.1	5.4	-155.11	258.7	22.4	393.4	382.6	10.85	36.274	
3,200.0	3,194.6	3,169.6	3,169.6	6.3	5.5	-155.52	258.7	22.4	399.6	388.4	11.20	35.689	
3,300.0	3,294.3	3,269.3	3,269.3	6.5	5.7	-155.92	258.7	22.4	405.8	394.3	11.55	35.142	
3,400.0	3,394.1	3,369.1	3,369.1	6.7	5.9	-156.31	258.7	22.4	412.1	400.2	11.90	34.629	
3,500.0	3,493.9	3,468.9	3,468.9	6.9	6.1	-156.68	258.7	22.4	418.3	406.1	12.25	34.148	
3,600.0	3,593.7	3,568.7	3,568.7	7.1	6.2	-157.04	258.7	22.4	424.6	412.0	12.60	33.695	
3,700.0	3,693.4	3,668.4	3,668.4	7.3	6.4	-157.40	258.7	22.4	430.8	417.9	12.95	33.269	
3,800.0	3,793.2	3,768.2	3,768.2	7.5	6.6	-157.74	258.7	22.4	437.1	423.8	13.30	32.866	
3,900.0	3,893.0	3,868.0	3,868.0	7.7	6.8	-158.07	258.7	22.4	443.4	429.8	13.65	32.486	
4,000.0	3,992.7	3,967.7	3,967.7	7.9	6.9	-158.40	258.7	22.4	449.8	435.8	14.00	32.126	
4,100.0	4,092.5	4,067.5	4,067.5	8.2	7.1	-158.71	258.7	22.4	456.1	441.7	14.35	31.784	
4,200.0	4,192.3	4,167.3	4,167.3	8.4	7.3	-159.02	258.7	22.4	462.4	447.7	14.70	31.460	
4,300.0	4,292.0	4,267.0	4,267.0	8.6	7.4	-159.31	258.7	22.4	468.8	453.8	15.05	31.153	
4,400.0	4,391.8	4,366.8	4,366.8	8.8	7.6	-159.60	258.7	22.4	475.2	459.8	15.40	30.860	
4,500.0	4,491.6	4,466.6	4,466.6	9.0	7.8	-159.89	258.7	22.4	481.6	465.8	15.75	30.581	
4,600.0	4,591.3	4,566.3	4,566.3	9.2	8.0	-160.16	258.7	22.4	488.0	471.9	16.10	30.315	
4,700.0	4,691.1	4,666.1	4,666.1	9.4	8.1	-160.43	258.7	22.4	494.4	477.9	16.45	30.061	
7,300.0	7,221.7	7,196.7	7,196.7	13.6	12.6	-45.25	258.7	22.4	444.2	421.7	22.47	19.773	
7,400.0	7,277.6	7,252.6	7,252.6	13.6	12.7	-58.65	258.7	22.4	376.8	353.1	23.62	15.949	
7,500.0	7,318.4	7,293.4	7,293.4	13.8	12.7	-73.92	258.7	22.4	310.5	285.2	25.22	12.309	
7,600.0	7,342.8	7,317.8	7,317.8	14.3	12.8	-85.70	258.7	22.4	256.6	230.3	26.27	9.769	

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 Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - JILLSON 14-22 (EXISTING) - ENCANA WELL - NO SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 8164-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
7,700.0	7,350.0	7,325.0	7,325.0	14.9	12.8	-90.00	258.7	22.4	231.7	204.7	26.98	8.589	
7,711.8	7,350.0	7,325.0	7,325.0	15.0	12.8	-90.00	258.7	22.4	231.4	204.3	27.08	8.547	CC, ES, SF
7,800.0	7,350.0	7,325.0	7,325.0	15.7	12.8	-90.00	258.7	22.4	247.7	219.8	27.81	8.906	
7,900.0	7,350.0	7,325.0	7,325.0	16.6	12.8	-90.00	258.7	22.4	298.3	269.5	28.79	10.362	
8,000.0	7,350.0	7,325.0	7,325.0	17.7	12.8	-90.00	258.7	22.4	369.6	339.7	29.89	12.366	
8,100.0	7,350.0	7,325.0	7,325.0	18.8	12.8	-90.00	258.7	22.4	451.9	420.8	31.09	14.534	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - JILLSON 2-8-22 (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
3,800.0	3,793.2	3,960.6	3,848.6	7.5	16.7	-52.99	-192.0	602.6	489.6	466.9	22.74	21.530	
3,900.0	3,893.0	4,052.2	3,938.6	7.7	17.0	-51.78	-206.6	593.5	476.3	453.0	23.32	20.424	
4,000.0	3,992.7	4,146.4	4,031.5	7.9	17.3	-50.77	-219.2	585.4	464.5	440.6	23.86	19.469	
4,100.0	4,092.5	4,242.9	4,127.1	8.2	17.6	-49.89	-230.6	577.9	453.4	429.1	24.37	18.607	
4,200.0	4,192.3	4,340.2	4,223.6	8.4	17.8	-49.14	-240.8	571.0	443.0	418.2	24.85	17.831	
4,300.0	4,292.0	4,442.1	4,324.9	8.6	18.0	-48.64	-249.0	564.0	432.7	407.4	25.28	17.117	
4,400.0	4,391.8	4,536.6	4,419.0	8.8	18.2	-48.48	-254.4	557.9	422.5	396.8	25.64	16.480	
4,500.0	4,491.6	4,634.1	4,516.4	9.0	18.4	-48.48	-258.7	552.7	413.2	387.2	25.99	15.900	
4,600.0	4,591.3	4,732.4	4,614.5	9.2	18.5	-48.55	-262.7	547.7	404.1	377.8	26.32	15.357	
4,700.0	4,691.1	4,825.3	4,707.2	9.4	18.6	-48.84	-265.0	544.4	396.3	369.7	26.59	14.904	
4,800.0	4,790.9	4,921.5	4,803.4	9.6	18.7	-49.39	-266.0	542.2	389.8	362.9	26.83	14.529	
4,900.0	4,890.6	5,019.5	4,901.4	9.8	18.8	-50.17	-265.7	540.9	384.0	357.0	27.04	14.202	
5,000.0	4,990.4	5,119.7	5,001.6	10.0	18.9	-51.09	-264.7	539.7	378.4	351.2	27.24	13.893	
5,100.0	5,090.2	5,219.9	5,101.7	10.3	18.9	-52.10	-263.4	538.3	372.7	345.3	27.43	13.588	
5,200.0	5,189.9	5,320.0	5,201.8	10.5	19.0	-53.11	-262.2	536.8	367.0	339.4	27.62	13.288	
5,300.0	5,289.7	5,418.2	5,300.1	10.7	19.1	-54.15	-260.9	535.5	361.6	333.8	27.80	13.005	
5,400.0	5,389.5	5,516.8	5,398.6	10.9	19.2	-55.27	-259.3	534.5	356.7	328.7	27.97	12.749	
5,500.0	5,489.2	5,617.6	5,499.4	11.1	19.2	-56.46	-257.6	533.5	351.8	323.6	28.14	12.501	
5,600.0	5,589.0	5,718.0	5,599.8	11.3	19.3	-57.67	-256.1	532.1	346.8	318.5	28.31	12.250	
5,700.0	5,688.8	5,818.0	5,699.8	11.5	19.4	-58.89	-254.6	530.6	341.8	313.3	28.47	12.004	
5,800.0	5,788.6	5,918.5	5,800.2	11.7	19.5	-60.12	-253.3	529.0	336.8	308.1	28.64	11.758	
5,900.0	5,888.3	6,019.2	5,900.9	11.9	19.6	-61.30	-252.6	527.1	331.6	302.8	28.82	11.506	
6,000.0	5,988.1	6,118.2	5,999.9	12.2	19.7	-62.46	-252.1	525.1	326.5	297.5	28.99	11.262	
6,100.0	6,087.9	6,217.1	6,098.8	12.4	19.8	-63.70	-251.3	523.4	321.7	292.6	29.15	11.037	
6,200.0	6,187.6	6,316.0	6,197.7	12.6	19.9	-65.01	-250.3	521.8	317.4	288.1	29.30	10.832	
6,300.0	6,287.4	6,415.0	6,296.6	12.8	20.0	-66.39	-249.1	520.4	313.4	284.0	29.44	10.645	
6,400.0	6,387.2	6,513.9	6,395.5	13.0	20.1	-67.74	-248.1	519.3	309.9	280.3	29.60	10.470	
6,500.0	6,486.9	6,613.2	6,494.8	13.2	20.2	-69.07	-247.4	518.5	306.7	276.9	29.75	10.309	
6,600.0	6,586.7	6,712.6	6,594.2	13.4	20.2	-70.45	-246.6	517.7	303.8	273.9	29.89	10.161	
6,700.0	6,686.5	6,812.0	6,693.6	13.6	20.3	-71.87	-245.7	517.0	301.1	271.1	30.04	10.025	
6,800.0	6,786.3	6,911.6	6,793.2	13.8	20.4	4.12	-244.8	516.3	298.3	268.1	30.18	9.885	
6,900.0	6,885.6	7,011.1	6,892.7	13.9	20.5	63.05	-244.1	515.8	291.3	260.8	30.55	9.536	
7,000.0	6,981.5	7,107.1	6,988.7	13.8	20.6	74.34	-243.6	515.2	280.9	249.6	31.26	8.985	
7,100.0	7,071.3	7,196.8	7,078.4	13.7	20.7	85.04	-243.2	514.8	272.0	239.9	32.10	8.473	
7,148.8	7,112.1	7,237.6	7,119.2	13.7	20.8	90.41	-243.0	514.6	270.5	238.1	32.42	8.345	CC, ES, SF
7,200.0	7,152.2	7,277.7	7,159.3	13.6	20.8	95.83	-242.7	514.5	272.5	239.9	32.60	8.361	
7,300.0	7,221.7	7,347.3	7,228.9	13.6	20.9	104.69	-242.3	514.3	290.9	258.4	32.47	8.960	
7,400.0	7,277.6	7,403.6	7,285.2	13.6	20.9	109.81	-241.9	514.3	331.3	299.3	32.02	10.348	
7,500.0	7,318.4	7,444.9	7,326.5	13.8	21.0	109.95	-241.6	514.3	392.1	360.2	31.89	12.296	
7,600.0	7,342.8	7,469.9	7,351.5	14.3	21.0	103.67	-241.4	514.3	468.0	435.5	32.57	14.369	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - JILLSON 3 (EXISTING) - FOUNDATION WELL - NO SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 5039-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	-13.60	265.9	-64.3	275.1				
100.0	100.0	71.0	71.0	0.1	0.1	-13.60	265.9	-64.3	273.6	273.4	0.26	1,072.913	
200.0	200.0	171.0	171.0	0.3	0.3	-13.60	265.9	-64.3	273.6	273.0	0.60	452.938	
300.0	300.0	271.0	271.0	0.5	0.5	-13.60	265.9	-64.3	273.6	272.7	0.95	287.061	
400.0	400.0	371.0	371.0	0.7	0.6	-13.60	265.9	-64.3	273.6	272.3	1.30	210.113	
500.0	500.0	471.0	471.0	0.8	0.8	-13.60	265.9	-64.3	273.6	272.0	1.65	165.697	
600.0	600.0	571.0	571.0	1.0	1.0	-13.60	265.9	-64.3	273.6	271.6	2.00	136.782	CC, ES
700.0	700.0	671.0	671.0	1.2	1.2	-159.07	265.9	-64.3	274.4	272.1	2.35	116.815	
800.0	800.0	771.0	771.0	1.4	1.3	-159.25	265.9	-64.3	276.9	274.2	2.70	102.625	
900.0	899.9	870.9	870.9	1.5	1.5	-159.55	265.9	-64.3	281.0	277.9	3.05	92.222	
1,000.0	999.7	970.7	970.7	1.7	1.7	-159.96	265.9	-64.3	286.7	283.3	3.40	84.432	
1,100.0	1,099.4	1,070.4	1,070.4	1.9	1.9	-160.42	265.9	-64.3	293.1	289.3	3.75	78.236	
1,200.0	1,199.2	1,170.2	1,170.2	2.1	2.0	-160.85	265.9	-64.3	299.5	295.4	4.10	73.103	
1,300.0	1,299.0	1,270.0	1,270.0	2.3	2.2	-161.27	265.9	-64.3	305.9	301.5	4.45	68.782	
1,400.0	1,398.7	1,369.7	1,369.7	2.5	2.4	-161.67	265.9	-64.3	312.4	307.6	4.80	65.096	
1,500.0	1,498.5	1,469.5	1,469.5	2.7	2.6	-162.05	265.9	-64.3	318.9	313.7	5.15	61.917	
1,600.0	1,598.3	1,569.3	1,569.3	2.9	2.7	-162.42	265.9	-64.3	325.3	319.8	5.50	59.146	
1,700.0	1,698.1	1,669.1	1,669.1	3.1	2.9	-162.78	265.9	-64.3	331.8	326.0	5.85	56.711	
1,800.0	1,797.8	1,768.8	1,768.8	3.3	3.1	-163.12	265.9	-64.3	338.3	332.1	6.20	54.554	
1,900.0	1,897.6	1,868.6	1,868.6	3.5	3.3	-163.45	265.9	-64.3	344.9	338.3	6.55	52.631	
2,000.0	1,997.4	1,968.4	1,968.4	3.8	3.4	-163.76	265.9	-64.3	351.4	344.5	6.90	50.905	
2,100.0	2,097.1	2,068.1	2,068.1	4.0	3.6	-164.07	265.9	-64.3	357.9	350.7	7.25	49.349	
2,200.0	2,196.9	2,167.9	2,167.9	4.2	3.8	-164.36	265.9	-64.3	364.5	356.9	7.60	47.937	
2,300.0	2,296.7	2,267.7	2,267.7	4.4	4.0	-164.64	265.9	-64.3	371.0	363.1	7.95	46.652	
2,400.0	2,396.4	2,367.4	2,367.4	4.6	4.1	-164.92	265.9	-64.3	377.6	369.3	8.30	45.477	
2,500.0	2,496.2	2,467.2	2,467.2	4.8	4.3	-165.18	265.9	-64.3	384.2	375.5	8.65	44.398	
2,600.0	2,596.0	2,567.0	2,567.0	5.0	4.5	-165.44	265.9	-64.3	390.8	381.8	9.00	43.404	
2,700.0	2,695.7	2,666.7	2,666.7	5.2	4.7	-165.68	265.9	-64.3	397.3	388.0	9.35	42.486	
2,800.0	2,795.5	2,766.5	2,766.5	5.4	4.8	-165.92	265.9	-64.3	403.9	394.2	9.70	41.635	
2,900.0	2,895.3	2,866.3	2,866.3	5.6	5.0	-166.15	265.9	-64.3	410.5	400.5	10.05	40.845	
3,000.0	2,995.0	2,966.0	2,966.0	5.8	5.2	-166.38	265.9	-64.3	417.2	406.8	10.40	40.108	
3,100.0	3,094.8	3,065.8	3,065.8	6.1	5.4	-166.59	265.9	-64.3	423.8	413.0	10.75	39.420	
3,200.0	3,194.6	3,165.6	3,165.6	6.3	5.5	-166.80	265.9	-64.3	430.4	419.3	11.10	38.776	
3,300.0	3,294.3	3,265.3	3,265.3	6.5	5.7	-167.01	265.9	-64.3	437.0	425.6	11.45	38.172	
3,400.0	3,394.1	3,365.1	3,365.1	6.7	5.9	-167.20	265.9	-64.3	443.7	431.9	11.80	37.605	
3,500.0	3,493.9	3,464.9	3,464.9	6.9	6.0	-167.40	265.9	-64.3	450.3	438.1	12.15	37.070	
3,600.0	3,593.7	3,564.7	3,564.7	7.1	6.2	-167.58	265.9	-64.3	456.9	444.4	12.50	36.566	
3,700.0	3,693.4	3,664.4	3,664.4	7.3	6.4	-167.76	265.9	-64.3	463.6	450.7	12.85	36.090	
3,800.0	3,793.2	3,764.2	3,764.2	7.5	6.6	-167.94	265.9	-64.3	470.2	457.0	13.19	35.640	
3,900.0	3,893.0	3,864.0	3,864.0	7.7	6.7	-168.11	265.9	-64.3	476.9	463.3	13.54	35.213	
4,000.0	3,992.7	3,963.7	3,963.7	7.9	6.9	-168.28	265.9	-64.3	483.6	469.7	13.89	34.808	
4,100.0	4,092.5	4,063.5	4,063.5	8.2	7.1	-168.44	265.9	-64.3	490.2	476.0	14.24	34.424	
4,200.0	4,192.3	4,163.3	4,163.3	8.4	7.3	-168.59	265.9	-64.3	496.9	482.3	14.59	34.058	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - Jillson-East Rinn 3A-22H-M268 - 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	-89.95	0.0	-19.6	19.6				
100.0	100.0	99.0	99.0	0.1	0.1	-89.95	0.0	-19.6	19.6	19.3	0.26	75.154	
200.0	200.0	199.0	199.0	0.3	0.3	-89.95	0.0	-19.6	19.6	19.0	0.61	32.140	CC, ES
300.0	300.0	298.8	298.7	0.5	0.5	-91.67	-0.6	-20.2	20.2	19.2	0.96	21.055	
400.0	400.0	398.4	398.4	0.7	0.7	-96.30	-2.4	-22.0	22.1	20.8	1.31	16.869	
500.0	500.0	498.0	497.9	0.8	0.8	-102.39	-5.5	-25.0	25.6	24.0	1.67	15.342	
600.0	600.0	597.4	597.1	1.0	1.0	-108.49	-9.8	-29.3	30.9	28.9	2.04	15.173	SF
700.0	700.0	696.9	696.3	1.2	1.3	102.20	-15.1	-34.5	37.9	35.6	2.36	16.044	
800.0	800.0	796.6	795.8	1.4	1.5	101.60	-20.5	-39.8	45.5	42.8	2.72	16.729	
900.0	899.9	896.3	895.1	1.5	1.7	102.99	-25.9	-45.2	53.4	50.3	3.08	17.328	
1,000.0	999.7	995.9	994.5	1.7	1.9	105.57	-31.3	-50.5	61.8	58.4	3.46	17.877	
1,100.0	1,099.4	1,095.5	1,093.7	1.9	2.1	108.13	-36.7	-55.8	70.6	66.7	3.84	18.367	
1,200.0	1,199.2	1,195.1	1,193.0	2.1	2.3	110.13	-42.1	-61.2	79.4	75.2	4.23	18.779	
1,300.0	1,299.0	1,294.7	1,292.3	2.3	2.5	111.72	-47.5	-66.5	88.3	83.7	4.62	19.128	
1,400.0	1,398.7	1,394.2	1,391.6	2.5	2.8	113.03	-52.9	-71.8	97.3	92.3	5.01	19.427	
1,500.0	1,498.5	1,493.8	1,490.9	2.7	3.0	114.11	-58.3	-77.2	106.3	100.9	5.40	19.686	
1,600.0	1,598.3	1,593.4	1,590.2	2.9	3.2	115.02	-63.7	-82.5	115.3	109.5	5.79	19.912	
1,700.0	1,698.1	1,693.0	1,689.5	3.1	3.4	115.80	-69.1	-87.8	124.4	118.2	6.19	20.111	
1,800.0	1,797.8	1,792.5	1,788.7	3.3	3.6	116.48	-74.5	-93.2	133.5	126.9	6.58	20.287	
1,900.0	1,897.6	1,892.1	1,888.0	3.5	3.8	117.06	-79.9	-98.5	142.6	135.6	6.97	20.444	
2,000.0	1,997.4	1,991.7	1,987.3	3.8	4.1	117.58	-85.3	-103.8	151.7	144.3	7.37	20.585	
2,100.0	2,097.1	2,091.3	2,086.6	4.0	4.3	118.04	-90.7	-109.2	160.8	153.1	7.76	20.713	
2,200.0	2,196.9	2,190.8	2,185.9	4.2	4.5	118.45	-96.1	-114.5	170.0	161.8	8.16	20.828	
2,300.0	2,296.7	2,290.4	2,285.2	4.4	4.7	118.82	-101.5	-119.8	179.1	170.5	8.56	20.933	
2,400.0	2,396.4	2,390.0	2,384.5	4.6	4.9	119.15	-106.9	-125.2	188.3	179.3	8.95	21.030	
2,500.0	2,496.2	2,489.6	2,483.7	4.8	5.1	119.45	-112.3	-130.5	197.4	188.1	9.35	21.118	
2,600.0	2,596.0	2,589.1	2,583.0	5.0	5.4	119.73	-117.7	-135.8	206.6	196.8	9.74	21.199	
2,700.0	2,695.7	2,688.7	2,682.3	5.2	5.6	119.98	-123.1	-141.2	215.7	205.6	10.14	21.274	
2,800.0	2,795.5	2,788.3	2,781.6	5.4	5.8	120.21	-128.5	-146.5	224.9	214.4	10.54	21.344	
2,900.0	2,895.3	2,887.9	2,880.9	5.6	6.0	120.42	-133.9	-151.8	234.1	223.1	10.93	21.408	
3,000.0	2,995.0	2,987.4	2,980.2	5.8	6.2	120.62	-139.3	-157.2	243.2	231.9	11.33	21.469	
3,100.0	3,094.8	3,087.0	3,079.5	6.1	6.5	120.80	-144.7	-162.5	252.4	240.7	11.73	21.525	
3,200.0	3,194.6	3,186.6	3,178.7	6.3	6.7	120.97	-150.1	-167.8	261.6	249.5	12.12	21.578	
3,300.0	3,294.3	3,286.2	3,278.0	6.5	6.9	121.13	-155.5	-173.2	270.8	258.3	12.52	21.627	
3,400.0	3,394.1	3,385.7	3,377.3	6.7	7.1	121.27	-160.9	-178.5	280.0	267.1	12.92	21.673	
3,500.0	3,493.9	3,485.3	3,476.6	6.9	7.3	121.41	-166.3	-183.8	289.2	275.8	13.31	21.717	
3,600.0	3,593.7	3,584.9	3,575.9	7.1	7.5	121.54	-171.7	-189.2	298.3	284.6	13.71	21.758	
3,700.0	3,693.4	3,684.5	3,675.2	7.3	7.8	121.66	-177.1	-194.5	307.5	293.4	14.11	21.797	
3,800.0	3,793.2	3,784.0	3,774.4	7.5	8.0	121.78	-182.5	-199.8	316.7	302.2	14.51	21.834	
3,900.0	3,893.0	3,883.6	3,873.7	7.7	8.2	121.89	-187.9	-205.2	325.9	311.0	14.90	21.869	
4,000.0	3,992.7	3,983.2	3,973.0	7.9	8.4	121.99	-193.3	-210.5	335.1	319.8	15.30	21.902	
4,100.0	4,092.5	4,082.8	4,072.3	8.2	8.6	122.09	-198.7	-215.8	344.3	328.6	15.70	21.934	
4,200.0	4,192.3	4,182.3	4,171.6	8.4	8.9	122.18	-204.1	-221.2	353.5	337.4	16.09	21.964	
4,300.0	4,292.0	4,281.9	4,270.9	8.6	9.1	122.27	-209.5	-226.5	362.7	346.2	16.49	21.992	
4,400.0	4,391.8	4,381.5	4,370.2	8.8	9.3	122.35	-214.9	-231.8	371.9	355.0	16.89	22.020	
4,500.0	4,491.6	4,481.0	4,469.4	9.0	9.5	122.43	-220.3	-237.2	381.1	363.8	17.29	22.045	
4,600.0	4,591.3	4,580.6	4,568.7	9.2	9.7	122.50	-225.7	-242.5	390.3	372.6	17.68	22.070	
4,700.0	4,691.1	4,680.2	4,668.0	9.4	9.9	122.58	-231.1	-247.8	399.5	381.4	18.08	22.094	
4,800.0	4,790.9	4,779.8	4,767.3	9.6	10.2	122.64	-236.5	-253.1	408.7	390.2	18.48	22.117	
4,900.0	4,890.6	4,879.3	4,866.6	9.8	10.4	122.71	-241.9	-258.5	417.9	399.0	18.87	22.139	
5,000.0	4,990.4	4,978.9	4,965.9	10.0	10.6	122.77	-247.3	-263.8	427.1	407.8	19.27	22.160	
5,100.0	5,090.2	5,078.5	5,065.2	10.3	10.8	122.83	-252.7	-269.1	436.3	416.6	19.67	22.180	

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 Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - Jillson-East Rinn 3A-22H-M268 - 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	5,189.9	5,178.1	5,164.4	10.5	11.0	122.89	-258.1	-274.5	445.5	425.4	20.07	22.199	
5,300.0	5,289.7	5,277.6	5,263.7	10.7	11.3	122.95	-263.5	-279.8	454.7	434.2	20.46	22.218	
5,400.0	5,389.5	5,377.2	5,363.0	10.9	11.5	123.00	-268.9	-285.1	463.9	443.0	20.86	22.235	
5,500.0	5,489.2	5,476.8	5,462.3	11.1	11.7	123.05	-274.3	-290.5	473.1	451.8	21.26	22.253	
5,600.0	5,589.0	5,576.4	5,561.6	11.3	11.9	123.10	-279.7	-295.8	482.3	460.6	21.66	22.269	
5,700.0	5,688.8	5,675.9	5,660.9	11.5	12.1	123.15	-285.1	-301.1	491.5	469.4	22.05	22.285	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - Jillson-East Rinn 3B-22H-M268 - 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	-89.95	0.0	-11.3	11.4				
100.0	100.0	99.0	99.0	0.1	0.1	-89.95	0.0	-11.3	11.3	11.1	0.26	43.454	
200.0	200.0	199.0	199.0	0.3	0.3	-89.95	0.0	-11.3	11.3	10.7	0.61	18.583	
300.0	300.0	299.0	299.0	0.5	0.5	-89.95	0.0	-11.3	11.3	10.4	0.96	11.813	CC, ES
400.0	400.0	398.9	398.9	0.7	0.7	-93.66	-0.7	-11.7	11.7	10.4	1.31	8.973	
500.0	500.0	498.7	498.7	0.8	0.8	-103.32	-3.1	-12.9	13.3	11.6	1.66	7.984	
600.0	600.0	598.5	598.3	1.0	1.0	-114.87	-6.9	-14.9	16.4	14.4	2.02	8.130	
700.0	700.0	698.2	697.9	1.2	1.2	92.40	-12.1	-17.5	21.3	19.0	2.36	9.029	
800.0	800.0	798.1	797.6	1.4	1.4	91.42	-17.4	-20.3	26.6	23.9	2.72	9.787	
900.0	899.9	897.9	897.2	1.5	1.6	93.88	-22.7	-23.0	32.0	28.9	3.08	10.363	
1,000.0	999.7	997.7	996.9	1.7	1.8	98.26	-28.0	-25.8	37.6	34.1	3.46	10.852	
1,100.0	1,099.4	1,097.5	1,096.5	1.9	2.0	102.45	-33.3	-28.5	43.5	39.6	3.85	11.305	
1,200.0	1,199.2	1,197.3	1,196.1	2.1	2.2	105.61	-38.6	-31.3	49.6	45.3	4.24	11.707	
1,300.0	1,299.0	1,297.1	1,295.7	2.3	2.4	108.08	-43.9	-34.0	55.8	51.2	4.63	12.062	
1,400.0	1,398.7	1,396.8	1,395.3	2.5	2.6	110.06	-49.3	-36.7	62.1	57.1	5.02	12.374	
1,500.0	1,498.5	1,496.6	1,494.9	2.7	2.8	111.66	-54.6	-39.5	68.4	63.0	5.41	12.650	
1,600.0	1,598.3	1,596.4	1,594.5	2.9	3.0	113.00	-59.9	-42.2	74.8	69.0	5.80	12.894	
1,700.0	1,698.1	1,696.2	1,694.1	3.1	3.2	114.12	-65.2	-45.0	81.3	75.1	6.20	13.112	
1,800.0	1,797.8	1,796.0	1,793.7	3.3	3.4	115.08	-70.5	-47.7	87.7	81.1	6.59	13.307	
1,900.0	1,897.6	1,895.7	1,893.3	3.5	3.6	115.90	-75.8	-50.4	94.2	87.2	6.99	13.483	
2,000.0	1,997.4	1,995.5	1,992.9	3.8	3.8	116.62	-81.1	-53.2	100.7	93.3	7.38	13.641	
2,100.0	2,097.1	2,095.3	2,092.5	4.0	4.0	117.26	-86.5	-55.9	107.2	99.5	7.78	13.785	
2,200.0	2,196.9	2,195.1	2,192.1	4.2	4.2	117.82	-91.8	-58.7	113.8	105.6	8.17	13.916	
2,300.0	2,296.7	2,294.9	2,291.7	4.4	4.4	118.32	-97.1	-61.4	120.3	111.7	8.57	14.036	
2,400.0	2,396.4	2,394.6	2,391.3	4.6	4.6	118.76	-102.4	-64.1	126.8	117.9	8.97	14.146	
2,500.0	2,496.2	2,494.4	2,490.9	4.8	4.8	119.17	-107.7	-66.9	133.4	124.0	9.36	14.248	
2,600.0	2,596.0	2,594.2	2,590.5	5.0	5.0	119.53	-113.0	-69.6	139.9	130.2	9.76	14.341	
2,700.0	2,695.7	2,694.0	2,690.1	5.2	5.2	119.87	-118.3	-72.4	146.5	136.3	10.15	14.428	
2,800.0	2,795.5	2,793.8	2,789.7	5.4	5.4	120.17	-123.7	-75.1	153.1	142.5	10.55	14.509	
2,900.0	2,895.3	2,893.6	2,889.3	5.6	5.6	120.45	-129.0	-77.8	159.6	148.7	10.95	14.584	
3,000.0	2,995.0	2,993.3	2,988.9	5.8	5.8	120.71	-134.3	-80.6	166.2	154.9	11.34	14.654	
3,100.0	3,094.8	3,093.1	3,088.5	6.1	6.0	120.95	-139.6	-83.3	172.8	161.0	11.74	14.719	
3,200.0	3,194.6	3,192.9	3,188.1	6.3	6.2	121.17	-144.9	-86.1	179.4	167.2	12.13	14.781	
3,300.0	3,294.3	3,292.7	3,287.7	6.5	6.4	121.37	-150.2	-88.8	185.9	173.4	12.53	14.838	
3,400.0	3,394.1	3,392.5	3,387.3	6.7	6.6	121.56	-155.5	-91.6	192.5	179.6	12.93	14.893	
3,500.0	3,493.9	3,492.2	3,486.9	6.9	6.8	121.74	-160.9	-94.3	199.1	185.8	13.32	14.944	
3,600.0	3,593.7	3,592.0	3,586.5	7.1	7.1	121.91	-166.2	-97.0	205.7	192.0	13.72	14.992	
3,700.0	3,693.4	3,691.8	3,686.1	7.3	7.3	122.06	-171.5	-99.8	212.3	198.2	14.12	15.038	
3,800.0	3,793.2	3,791.6	3,785.7	7.5	7.5	122.21	-176.8	-102.5	218.9	204.3	14.51	15.081	
3,900.0	3,893.0	3,891.4	3,885.3	7.7	7.7	122.35	-182.1	-105.3	225.5	210.5	14.91	15.122	
4,000.0	3,992.7	3,991.1	3,984.9	7.9	7.9	122.48	-187.4	-108.0	232.0	216.7	15.30	15.161	
4,100.0	4,092.5	4,090.9	4,084.5	8.2	8.1	122.60	-192.7	-110.7	238.6	222.9	15.70	15.199	
4,200.0	4,192.3	4,190.7	4,184.1	8.4	8.3	122.72	-198.1	-113.5	245.2	229.1	16.10	15.234	
4,300.0	4,292.0	4,290.5	4,283.7	8.6	8.5	122.83	-203.4	-116.2	251.8	235.3	16.49	15.268	
4,400.0	4,391.8	4,390.3	4,383.3	8.8	8.7	122.94	-208.7	-119.0	258.4	241.5	16.89	15.300	
4,500.0	4,491.6	4,490.0	4,482.9	9.0	8.9	123.04	-214.0	-121.7	265.0	247.7	17.29	15.330	
4,600.0	4,591.3	4,589.8	4,582.5	9.2	9.1	123.13	-219.3	-124.4	271.6	253.9	17.68	15.360	
4,700.0	4,691.1	4,689.6	4,682.1	9.4	9.3	123.22	-224.6	-127.2	278.2	260.1	18.08	15.388	
4,800.0	4,790.9	4,789.4	4,781.7	9.6	9.5	123.31	-229.9	-129.9	284.8	266.3	18.48	15.415	
4,900.0	4,890.6	4,889.2	4,881.3	9.8	9.7	123.39	-235.3	-132.7	291.4	272.5	18.87	15.441	
5,000.0	4,990.4	4,989.0	4,980.9	10.0	9.9	123.47	-240.6	-135.4	298.0	278.7	19.27	15.465	
5,100.0	5,090.2	5,088.7	5,080.5	10.3	10.1	123.54	-245.9	-138.2	304.6	284.9	19.67	15.489	

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 Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - Jillson-East Rinn 3B-22H-M268 - 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	5,189.9	5,188.5	5,180.1	10.5	10.3	123.62	-251.2	-140.9	311.2	291.2	20.06	15.512	
5,300.0	5,289.7	5,288.3	5,279.7	10.7	10.5	123.69	-256.5	-143.6	317.8	297.4	20.46	15.534	
5,400.0	5,389.5	5,388.1	5,379.3	10.9	10.7	123.75	-261.8	-146.4	324.4	303.6	20.86	15.555	
5,500.0	5,489.2	5,487.9	5,478.9	11.1	10.9	123.82	-267.1	-149.1	331.0	309.8	21.25	15.576	
5,600.0	5,589.0	5,587.6	5,578.6	11.3	11.1	123.88	-272.5	-151.9	337.6	316.0	21.65	15.595	
5,700.0	5,688.8	5,687.4	5,678.2	11.5	11.3	123.94	-277.8	-154.6	344.2	322.2	22.05	15.614	
5,800.0	5,788.6	5,787.2	5,777.8	11.7	11.5	123.99	-283.1	-157.3	350.8	328.4	22.44	15.633	
5,900.0	5,888.3	5,887.0	5,877.4	11.9	11.7	124.05	-288.4	-160.1	357.4	334.6	22.84	15.650	
6,000.0	5,988.1	5,986.8	5,977.0	12.2	11.9	124.10	-293.7	-162.8	364.0	340.8	23.24	15.668	
6,100.0	6,087.9	6,086.5	6,076.6	12.4	12.1	124.15	-299.0	-165.6	370.6	347.0	23.63	15.684	
6,200.0	6,187.6	6,186.3	6,176.2	12.6	12.3	124.20	-304.3	-168.3	377.2	353.2	24.03	15.700	
6,300.0	6,287.4	6,286.1	6,275.8	12.8	12.5	124.25	-309.7	-171.0	383.9	359.4	24.42	15.716	
6,400.0	6,387.2	6,385.9	6,375.4	13.0	12.7	124.29	-315.0	-173.8	390.5	365.6	24.82	15.731	
6,500.0	6,486.9	6,485.7	6,475.0	13.2	12.9	124.34	-320.3	-176.5	397.1	371.8	25.22	15.745	
6,600.0	6,586.7	6,585.5	6,574.6	13.4	13.1	124.38	-325.6	-179.3	403.7	378.1	25.61	15.759	
6,700.0	6,686.5	6,685.2	6,674.2	13.6	13.3	124.42	-330.9	-182.0	410.3	384.3	26.01	15.773	
6,800.0	6,786.3	6,785.0	6,773.7	13.8	13.5	-158.45	-336.2	-184.8	416.9	390.5	26.38	15.801	
6,900.0	6,885.6	6,883.4	6,872.0	13.9	13.7	-103.09	-341.5	-187.5	423.8	397.2	26.63	15.915	
7,000.0	6,981.5	6,977.7	6,966.1	13.8	13.9	-100.85	-346.5	-190.0	432.6	405.9	26.72	16.188	
7,100.0	7,071.3	7,081.2	7,069.4	13.7	14.0	-103.13	-343.1	-192.9	445.0	418.4	26.58	16.741	
7,200.0	7,152.2	7,194.8	7,179.9	13.6	14.0	-106.18	-318.2	-195.9	459.8	433.6	26.19	17.558	
7,300.0	7,221.7	7,320.3	7,293.7	13.6	13.9	-109.32	-265.9	-199.1	475.6	450.0	25.64	18.553	
7,400.0	7,277.6	7,459.6	7,403.3	13.6	13.7	-112.17	-180.5	-202.1	490.8	465.6	25.14	19.524	
14,800.0	7,350.0	15,269.8	7,572.0	131.2	134.9	-121.09	7,550.8	-213.1	490.3	261.5	228.80	2.143	
14,900.0	7,350.0	15,333.5	7,572.0	132.9	135.9	-123.67	7,606.2	-181.7	442.9	217.9	224.92	1.969	
15,000.0	7,350.0	15,333.5	7,572.0	134.7	135.9	-123.67	7,606.2	-181.7	411.2	184.8	226.38	1.816	
15,062.6	7,350.0	15,333.5	7,572.0	135.8	135.9	-123.67	7,606.2	-181.7	402.9	175.6	227.29	1.772	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - Jillson-East Rinn 3D-22H-M268 - 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	90.05	0.0	8.3	8.3				
100.0	100.0	100.0	100.0	0.1	0.1	90.05	0.0	8.3	8.3	8.0	0.26	31.555	
200.0	200.0	200.0	200.0	0.3	0.3	90.05	0.0	8.3	8.3	7.7	0.61	13.523	
300.0	300.0	300.0	300.0	0.5	0.5	90.05	0.0	8.3	8.3	7.3	0.96	8.606	
400.0	400.0	400.0	400.0	0.7	0.7	90.05	0.0	8.3	8.3	7.0	1.31	6.311	
500.0	500.0	500.0	500.0	0.8	0.8	90.05	0.0	8.3	8.3	6.6	1.66	4.982	CC, ES
600.0	600.0	599.9	599.9	1.0	1.0	93.63	-0.6	8.9	8.9	6.9	2.01	4.458	
700.0	700.0	699.7	699.7	1.2	1.2	-47.08	-2.2	10.9	10.5	8.2	2.36	4.476	
800.0	800.0	799.5	799.4	1.4	1.4	-45.38	-5.0	14.3	12.5	9.8	2.71	4.608	
900.0	899.9	899.3	899.0	1.5	1.6	-45.61	-8.9	18.9	14.7	11.6	3.07	4.796	
1,000.0	999.7	999.1	998.4	1.7	1.8	-47.02	-13.9	24.9	17.2	13.8	3.43	5.014	
1,100.0	1,099.4	1,099.0	1,098.0	1.9	2.0	-48.59	-19.4	31.4	19.8	16.0	3.80	5.201	
1,200.0	1,199.2	1,199.0	1,197.6	2.1	2.2	-49.81	-24.8	37.9	22.4	18.2	4.18	5.351	
1,300.0	1,299.0	1,299.0	1,297.3	2.3	2.4	-50.76	-30.2	44.4	25.0	20.4	4.57	5.473	
1,400.0	1,398.7	1,398.9	1,396.9	2.5	2.6	-51.54	-35.7	50.8	27.6	22.6	4.95	5.573	
1,500.0	1,498.5	1,498.9	1,496.5	2.7	2.8	-52.19	-41.1	57.3	30.2	24.9	5.34	5.658	
1,600.0	1,598.3	1,598.9	1,596.1	2.9	3.1	-52.73	-46.5	63.8	32.8	27.1	5.73	5.729	
1,700.0	1,698.1	1,698.8	1,695.7	3.1	3.3	-53.19	-52.0	70.3	35.4	29.3	6.12	5.790	
1,800.0	1,797.8	1,798.8	1,795.3	3.3	3.5	-53.59	-57.4	76.8	38.1	31.5	6.51	5.843	
1,900.0	1,897.6	1,898.8	1,894.9	3.5	3.7	-53.93	-62.8	83.3	40.7	33.8	6.91	5.889	
2,000.0	1,997.4	1,998.7	1,994.5	3.8	3.9	-54.24	-68.3	89.8	43.3	36.0	7.30	5.929	
2,100.0	2,097.1	2,098.7	2,094.1	4.0	4.2	-54.51	-73.7	96.2	45.9	38.2	7.70	5.965	
2,200.0	2,196.9	2,198.6	2,193.7	4.2	4.4	-54.75	-79.1	102.7	48.6	40.5	8.10	5.996	
2,300.0	2,296.7	2,298.6	2,293.3	4.4	4.6	-54.96	-84.6	109.2	51.2	42.7	8.50	6.025	
2,400.0	2,396.4	2,398.6	2,392.9	4.6	4.9	-55.16	-90.0	115.7	53.8	44.9	8.89	6.050	
2,500.0	2,496.2	2,498.5	2,492.5	4.8	5.1	-55.33	-95.4	122.2	56.4	47.1	9.29	6.073	
2,600.0	2,596.0	2,598.5	2,592.1	5.0	5.3	-55.50	-100.9	128.7	59.1	49.4	9.69	6.094	
2,700.0	2,695.7	2,698.5	2,691.7	5.2	5.5	-55.64	-106.3	135.2	61.7	51.6	10.09	6.114	
2,800.0	2,795.5	2,798.4	2,791.4	5.4	5.8	-55.78	-111.7	141.6	64.3	53.8	10.49	6.131	
2,900.0	2,895.3	2,898.4	2,891.0	5.6	6.0	-55.90	-117.2	148.1	67.0	56.1	10.89	6.147	
3,000.0	2,995.0	2,998.4	2,990.6	5.8	6.2	-56.02	-122.6	154.6	69.6	58.3	11.29	6.162	
3,100.0	3,094.8	3,098.3	3,090.2	6.1	6.4	-56.12	-128.0	161.1	72.2	60.5	11.69	6.176	
3,200.0	3,194.6	3,198.3	3,189.8	6.3	6.7	-56.22	-133.4	167.6	74.8	62.8	12.09	6.188	
3,300.0	3,294.3	3,298.3	3,289.4	6.5	6.9	-56.32	-138.9	174.1	77.5	65.0	12.50	6.200	
3,400.0	3,394.1	3,398.2	3,389.0	6.7	7.1	-56.40	-144.3	180.6	80.1	67.2	12.90	6.211	
3,500.0	3,493.9	3,498.2	3,488.6	6.9	7.3	-56.48	-149.7	187.0	82.7	69.4	13.30	6.221	
3,600.0	3,593.7	3,598.2	3,588.2	7.1	7.6	-56.56	-155.2	193.5	85.4	71.7	13.70	6.231	
3,700.0	3,693.4	3,698.1	3,687.8	7.3	7.8	-56.63	-160.6	200.0	88.0	73.9	14.10	6.240	
3,800.0	3,793.2	3,798.1	3,787.4	7.5	8.0	-56.70	-166.0	206.5	90.6	76.1	14.50	6.249	
3,900.0	3,893.0	3,898.1	3,887.0	7.7	8.3	-56.76	-171.5	213.0	93.3	78.4	14.91	6.256	
4,000.0	3,992.7	3,998.0	3,986.6	7.9	8.5	-56.82	-176.9	219.5	95.9	80.6	15.31	6.264	
4,100.0	4,092.5	4,098.0	4,086.2	8.2	8.7	-56.88	-182.3	226.0	98.5	82.8	15.71	6.271	
4,200.0	4,192.3	4,198.0	4,185.9	8.4	8.9	-56.93	-187.8	232.4	101.2	85.0	16.11	6.278	
4,300.0	4,292.0	4,297.9	4,285.5	8.6	9.2	-56.98	-193.2	238.9	103.8	87.3	16.52	6.284	
4,400.0	4,391.8	4,397.9	4,385.1	8.8	9.4	-57.03	-198.6	245.4	106.4	89.5	16.92	6.290	
4,500.0	4,491.6	4,497.9	4,484.7	9.0	9.6	-57.08	-204.1	251.9	109.1	91.7	17.32	6.296	
4,600.0	4,591.3	4,597.8	4,584.3	9.2	9.9	-57.12	-209.5	258.4	111.7	94.0	17.72	6.301	
4,700.0	4,691.1	4,697.8	4,683.9	9.4	10.1	-57.16	-214.9	264.9	114.3	96.2	18.13	6.307	
4,800.0	4,790.9	4,797.7	4,783.5	9.6	10.3	-57.20	-220.4	271.4	116.9	98.4	18.53	6.311	
4,900.0	4,890.6	4,897.7	4,883.1	9.8	10.5	-57.24	-225.8	277.8	119.6	100.6	18.93	6.316	
5,000.0	4,990.4	4,997.7	4,982.7	10.0	10.8	-57.28	-231.2	284.3	122.2	102.9	19.34	6.321	
5,100.0	5,090.2	5,097.6	5,082.3	10.3	11.0	-57.31	-236.7	290.8	124.8	105.1	19.74	6.325	

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 Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - Jillson-East Rinn 3D-22H-M268 - 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	5,189.9	5,197.6	5,181.9	10.5	11.2	-57.35	-242.1	297.3	127.5	107.3	20.14	6.329	
5,300.0	5,289.7	5,297.6	5,281.5	10.7	11.5	-57.38	-247.5	303.8	130.1	109.6	20.54	6.333	
5,400.0	5,389.5	5,397.5	5,381.1	10.9	11.7	-57.41	-253.0	310.3	132.7	111.8	20.95	6.337	
5,500.0	5,489.2	5,497.5	5,480.7	11.1	11.9	-57.44	-258.4	316.8	135.4	114.0	21.35	6.340	
5,600.0	5,589.0	5,597.5	5,580.3	11.3	12.1	-57.47	-263.8	323.2	138.0	116.3	21.75	6.344	
5,700.0	5,688.8	5,697.4	5,680.0	11.5	12.4	-57.50	-269.2	329.7	140.6	118.5	22.16	6.347	
5,800.0	5,788.6	5,797.4	5,779.6	11.7	12.6	-57.52	-274.7	336.2	143.3	120.7	22.56	6.351	
5,900.0	5,888.3	5,897.4	5,879.2	11.9	12.8	-57.55	-280.1	342.7	145.9	122.9	22.96	6.354	
6,000.0	5,988.1	5,997.3	5,978.8	12.2	13.0	-57.58	-285.5	349.2	148.5	125.2	23.37	6.357	
6,100.0	6,087.9	6,097.3	6,078.4	12.4	13.3	-57.60	-291.0	355.7	151.2	127.4	23.77	6.360	
6,200.0	6,187.6	6,197.3	6,178.0	12.6	13.5	-57.62	-296.4	362.2	153.8	129.6	24.17	6.362	
6,300.0	6,287.4	6,297.2	6,277.6	12.8	13.7	-57.64	-301.8	368.6	156.4	131.9	24.58	6.365	
6,400.0	6,387.2	6,397.2	6,377.2	13.0	14.0	-57.67	-307.3	375.1	159.1	134.1	24.98	6.368	
6,500.0	6,486.9	6,497.2	6,476.8	13.2	14.2	-57.69	-312.7	381.6	161.7	136.3	25.38	6.370	
6,600.0	6,586.7	6,597.1	6,576.4	13.4	14.4	-57.71	-318.1	388.1	164.3	138.5	25.79	6.373	
6,700.0	6,686.5	6,697.1	6,676.0	13.6	14.6	-57.73	-323.6	394.6	167.0	140.8	26.19	6.375	
6,800.0	6,786.3	6,797.0	6,775.6	13.8	14.9	19.66	-329.0	401.1	169.5	143.0	26.54	6.388	
6,900.0	6,885.6	6,895.6	6,873.8	13.9	15.1	81.27	-334.4	407.5	172.3	146.0	26.37	6.534	
7,000.0	6,981.5	6,990.0	6,967.9	13.8	15.3	95.76	-339.5	413.6	179.6	153.9	25.76	6.971	
7,100.0	7,071.3	7,092.5	7,069.9	13.7	15.5	108.23	-336.1	420.2	195.5	170.5	24.94	7.838	
7,200.0	7,152.2	7,204.4	7,178.8	13.6	15.5	118.07	-311.8	427.3	217.1	193.0	24.11	9.006	
7,300.0	7,221.7	7,327.9	7,290.8	13.6	15.4	125.71	-260.9	434.6	241.2	218.0	23.26	10.372	
7,400.0	7,277.6	7,464.8	7,399.1	13.6	15.3	131.42	-178.0	441.7	264.4	242.0	22.46	11.771	
7,500.0	7,318.4	7,615.5	7,491.9	13.8	15.3	135.37	-59.9	447.7	283.4	261.5	21.93	12.925	
7,600.0	7,342.8	7,778.0	7,553.9	14.3	15.7	137.59	89.6	451.8	295.3	273.4	21.87	13.501	
7,700.0	7,350.0	7,936.7	7,572.0	14.9	16.5	138.11	246.8	452.9	298.2	275.7	22.51	13.249	
7,800.0	7,350.0	8,036.7	7,572.0	15.7	17.3	138.11	346.8	452.9	298.2	274.5	23.68	12.592	
7,900.0	7,350.0	8,136.7	7,572.0	16.6	18.1	138.11	446.8	452.9	298.2	273.2	25.02	11.920	
8,000.0	7,350.0	8,236.7	7,572.0	17.7	19.1	138.11	546.8	452.9	298.2	271.7	26.50	11.255	
8,100.0	7,350.0	8,336.7	7,572.0	18.8	20.2	138.11	646.8	452.9	298.2	270.1	28.10	10.614	
8,200.0	7,350.0	8,436.7	7,572.0	20.1	21.4	138.11	746.8	452.9	298.2	268.4	29.80	10.008	
8,300.0	7,350.0	8,536.7	7,572.0	21.4	22.6	138.11	846.8	452.9	298.2	266.6	31.58	9.442	
8,400.0	7,350.0	8,636.7	7,572.0	22.8	23.9	138.11	946.8	452.9	298.2	264.8	33.44	8.918	
8,500.0	7,350.0	8,736.7	7,572.0	24.2	25.3	138.11	1,046.8	452.9	298.2	262.9	35.36	8.434	
8,600.0	7,350.0	8,836.7	7,572.0	25.7	26.7	138.11	1,146.8	452.9	298.2	260.9	37.33	7.989	
8,700.0	7,350.0	8,936.7	7,572.0	27.2	28.2	138.11	1,246.8	452.9	298.2	258.9	39.34	7.581	
8,800.0	7,350.0	9,036.7	7,572.0	28.7	29.7	138.11	1,346.8	452.9	298.2	256.8	41.39	7.206	
8,900.0	7,350.0	9,136.7	7,572.0	30.3	31.2	138.11	1,446.8	452.9	298.2	254.8	43.47	6.861	
9,000.0	7,350.0	9,236.7	7,572.0	31.9	32.7	138.11	1,546.8	452.9	298.2	252.6	45.58	6.543	
9,100.0	7,350.0	9,336.7	7,572.0	33.5	34.3	138.11	1,646.8	452.9	298.2	250.5	47.71	6.251	
9,200.0	7,350.0	9,436.7	7,572.0	35.1	35.8	138.11	1,746.8	452.9	298.2	248.4	49.86	5.981	
9,300.0	7,350.0	9,536.7	7,572.0	36.7	37.4	138.11	1,846.8	452.9	298.2	246.2	52.03	5.732	
9,400.0	7,350.0	9,636.7	7,572.0	38.3	39.0	138.11	1,946.8	452.9	298.2	244.0	54.21	5.501	
9,500.0	7,350.0	9,736.7	7,572.0	40.0	40.7	138.11	2,046.8	452.9	298.2	241.8	56.41	5.286	
9,600.0	7,350.0	9,836.7	7,572.0	41.6	42.3	138.11	2,146.8	452.9	298.2	239.6	58.63	5.087	
9,700.0	7,350.0	9,936.7	7,572.0	43.3	43.9	138.11	2,246.8	452.9	298.2	237.4	60.85	4.901	
9,800.0	7,350.0	10,036.7	7,572.0	45.0	45.6	138.11	2,346.8	452.9	298.2	235.1	63.08	4.727	
9,900.0	7,350.0	10,136.7	7,572.0	46.6	47.2	138.11	2,446.8	452.9	298.2	232.9	65.33	4.565	
10,000.0	7,350.0	10,236.7	7,572.0	48.3	48.9	138.11	2,546.8	452.9	298.2	230.6	67.58	4.413	
10,100.0	7,350.0	10,336.7	7,572.0	50.0	50.6	138.11	2,646.8	452.9	298.2	228.4	69.83	4.270	
10,200.0	7,350.0	10,436.7	7,572.0	51.7	52.2	138.11	2,746.8	452.9	298.2	226.1	72.10	4.136	
10,300.0	7,350.0	10,536.7	7,572.0	53.4	53.9	138.11	2,846.8	452.9	298.2	223.9	74.37	4.010	

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 Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - Jillson-East Rinn 3D-22H-M268 - 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
10,400.0	7,350.0	10,636.7	7,572.0	55.1	55.6	138.11	2,946.8	452.9	298.2	221.6	76.64	3.891	
10,500.0	7,350.0	10,736.7	7,572.0	56.8	57.3	138.11	3,046.8	452.9	298.2	219.3	78.92	3.779	
10,600.0	7,350.0	10,836.7	7,572.0	58.5	59.0	138.11	3,146.8	452.9	298.2	217.0	81.21	3.672	
10,700.0	7,350.0	10,936.7	7,572.0	60.2	60.7	138.11	3,246.8	452.9	298.2	214.7	83.50	3.572	
10,800.0	7,350.0	11,036.7	7,572.0	61.9	62.4	138.11	3,346.8	452.9	298.2	212.4	85.79	3.476	
10,900.0	7,350.0	11,136.7	7,572.0	63.6	64.1	138.11	3,446.8	452.9	298.2	210.1	88.09	3.385	
11,000.0	7,350.0	11,236.7	7,572.0	65.3	65.8	138.11	3,546.8	452.9	298.2	207.8	90.39	3.299	
11,100.0	7,350.0	11,336.7	7,572.0	67.1	67.5	138.11	3,646.8	452.9	298.2	205.5	92.69	3.217	
11,200.0	7,350.0	11,436.7	7,572.0	68.8	69.2	138.11	3,746.8	452.9	298.2	203.2	95.00	3.139	
11,300.0	7,350.0	11,536.7	7,572.0	70.5	70.9	138.11	3,846.8	452.9	298.2	200.9	97.31	3.065	
11,400.0	7,350.0	11,636.7	7,572.0	72.2	72.6	138.11	3,946.8	452.9	298.2	198.6	99.62	2.994	
11,500.0	7,350.0	11,736.7	7,572.0	73.9	74.3	138.11	4,046.8	452.9	298.2	196.3	101.93	2.926	
11,600.0	7,350.0	11,836.7	7,572.0	75.7	76.0	138.11	4,146.8	452.9	298.2	194.0	104.25	2.861	
11,700.0	7,350.0	11,936.7	7,572.0	77.4	77.8	138.11	4,246.8	452.9	298.2	191.7	106.56	2.799	
11,800.0	7,350.0	12,036.7	7,572.0	79.1	79.5	138.11	4,346.8	452.9	298.2	189.3	108.88	2.739	
11,900.0	7,350.0	12,136.7	7,572.0	80.8	81.2	138.11	4,446.8	452.9	298.2	187.0	111.20	2.682	
12,000.0	7,350.0	12,236.7	7,572.0	82.6	82.9	138.11	4,546.8	452.9	298.2	184.7	113.53	2.627	
12,100.0	7,350.0	12,336.7	7,572.0	84.3	84.6	138.11	4,646.8	452.9	298.2	182.4	115.85	2.574	
12,200.0	7,350.0	12,436.7	7,572.0	86.0	86.4	138.11	4,746.8	452.9	298.2	180.0	118.18	2.524	
12,300.0	7,350.0	12,536.7	7,572.0	87.8	88.1	138.11	4,846.8	452.9	298.2	177.7	120.50	2.475	
12,400.0	7,350.0	12,636.7	7,572.0	89.5	89.8	138.11	4,946.8	452.9	298.2	175.4	122.83	2.428	
12,500.0	7,350.0	12,736.7	7,572.0	91.2	91.6	138.11	5,046.8	452.9	298.2	173.1	125.16	2.383	
12,600.0	7,350.0	12,836.7	7,572.0	93.0	93.3	138.11	5,146.8	452.9	298.2	170.7	127.49	2.339	
12,700.0	7,350.0	12,936.7	7,572.0	94.7	95.0	138.11	5,246.8	452.9	298.2	168.4	129.82	2.297	
12,800.0	7,350.0	13,036.7	7,572.0	96.4	96.7	138.11	5,346.8	452.9	298.2	166.1	132.15	2.257	
12,900.0	7,350.0	13,136.7	7,572.0	98.2	98.5	138.11	5,446.8	452.9	298.2	163.7	134.49	2.217	
13,000.0	7,350.0	13,236.7	7,572.0	99.9	100.2	138.11	5,546.8	452.9	298.2	161.4	136.82	2.180	
13,100.0	7,350.0	13,336.7	7,572.0	101.7	101.9	138.11	5,646.8	452.9	298.2	159.1	139.16	2.143	
13,200.0	7,350.0	13,436.7	7,572.0	103.4	103.7	138.11	5,746.8	452.9	298.2	156.7	141.49	2.108	
13,300.0	7,350.0	13,536.7	7,572.0	105.1	105.4	138.11	5,846.8	452.9	298.2	154.4	143.83	2.073	
13,363.5	7,350.0	13,600.2	7,572.0	106.2	106.5	138.10	5,910.3	452.9	298.2	152.9	145.32	2.052	
13,400.0	7,350.0	13,636.7	7,572.0	106.9	107.2	138.11	5,946.8	452.9	298.2	152.1	146.16	2.040	
13,500.0	7,350.0	13,736.7	7,572.0	108.6	108.9	137.97	6,046.8	452.9	298.9	150.2	148.69	2.010	
13,600.0	7,350.0	13,836.7	7,572.0	110.3	110.6	137.59	6,146.8	452.9	300.8	149.0	151.81	1.981	
13,700.0	7,350.0	13,936.6	7,572.0	112.1	112.4	136.98	6,246.7	452.9	303.8	148.3	155.53	1.954	
13,800.0	7,350.0	14,036.4	7,572.0	113.8	114.1	136.16	6,346.5	452.9	308.1	148.2	159.89	1.927	
13,900.0	7,350.0	14,136.2	7,572.0	115.5	115.8	135.27	6,446.3	452.9	312.9	148.1	164.73	1.899	
14,000.0	7,350.0	14,235.9	7,572.0	117.3	117.6	134.40	6,546.0	452.9	317.7	148.1	169.53	1.874	
14,100.0	7,350.0	14,335.7	7,572.0	119.0	119.3	133.56	6,645.8	452.9	322.5	148.2	174.31	1.850	
14,200.0	7,350.0	14,435.5	7,572.0	120.8	121.0	132.75	6,745.6	452.9	327.5	148.4	179.06	1.829	
14,300.0	7,350.0	14,535.2	7,572.0	122.5	122.8	131.95	6,845.3	452.9	332.5	148.7	183.78	1.809	
14,400.0	7,350.0	14,635.0	7,572.0	124.2	124.5	131.19	6,945.1	452.9	337.6	149.1	188.47	1.791	
14,500.0	7,350.0	14,734.8	7,572.0	126.0	126.2	130.44	7,044.9	452.9	342.7	149.6	193.12	1.774	
14,600.0	7,350.0	14,834.6	7,572.0	127.7	128.0	129.72	7,144.6	452.9	347.9	150.1	197.75	1.759	
14,700.0	7,350.0	14,934.3	7,572.0	129.4	129.7	129.02	7,244.4	452.9	353.1	150.8	202.34	1.745	
14,800.0	7,350.0	15,034.1	7,572.0	131.2	131.5	128.34	7,344.2	452.9	358.4	151.5	206.91	1.732	
14,900.0	7,350.0	15,133.9	7,572.0	132.9	133.2	127.68	7,444.0	452.9	363.7	152.3	211.45	1.720	
15,000.0	7,350.0	15,233.6	7,572.0	134.7	134.9	127.03	7,543.7	452.9	369.1	153.2	215.96	1.709	
15,062.6	7,350.0	15,292.5	7,572.0	135.8	136.0	126.66	7,602.6	452.9	372.5	153.9	218.65	1.704	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - Jillson-East Rinn 3E-22H-N268 - 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	7,342.8	7,650.0	7,366.3	14.3	18.0	89.69	151.9	753.0	499.5	471.8	27.76	17.994	
7,700.0	7,350.0	7,745.2	7,372.0	14.9	18.7	89.66	246.9	752.5	498.7	469.4	29.25	17.047	
7,800.0	7,350.0	7,845.2	7,372.0	15.7	19.5	89.66	346.9	752.5	498.7	467.6	31.10	16.036	
7,900.0	7,350.0	7,945.2	7,372.0	16.6	20.4	89.66	446.9	752.5	498.7	465.5	33.20	15.020	
8,000.0	7,350.0	8,045.2	7,372.0	17.7	21.5	89.66	546.9	752.5	498.7	463.2	35.53	14.036	
8,100.0	7,350.0	8,145.2	7,372.0	18.8	22.6	89.66	646.9	752.5	498.7	460.6	38.04	13.110	
8,200.0	7,350.0	8,245.2	7,372.0	20.1	23.8	89.66	746.9	752.5	498.7	458.0	40.69	12.254	
8,300.0	7,350.0	8,345.2	7,372.0	21.4	25.1	89.66	846.9	752.5	498.7	455.2	43.47	11.471	
8,400.0	7,350.0	8,445.2	7,372.0	22.8	26.4	89.66	946.9	752.5	498.7	452.3	46.35	10.759	
8,500.0	7,350.0	8,545.2	7,372.0	24.2	27.8	89.66	1,046.9	752.4	498.7	449.3	49.31	10.113	
8,600.0	7,350.0	8,645.2	7,372.0	25.7	29.2	89.66	1,146.9	752.4	498.6	446.3	52.34	9.527	
8,700.0	7,350.0	8,745.2	7,372.0	27.2	30.6	89.66	1,246.9	752.4	498.6	443.2	55.42	8.997	
8,800.0	7,350.0	8,845.2	7,372.0	28.7	32.1	89.66	1,346.9	752.4	498.6	440.1	58.56	8.516	
8,900.0	7,350.0	8,945.2	7,372.0	30.3	33.6	89.66	1,446.9	752.4	498.6	436.9	61.73	8.078	
9,000.0	7,350.0	9,045.2	7,372.0	31.9	35.1	89.66	1,546.9	752.4	498.6	433.7	64.94	7.679	
9,100.0	7,350.0	9,145.2	7,372.0	33.5	36.7	89.66	1,646.9	752.4	498.6	430.4	68.17	7.314	
9,200.0	7,350.0	9,245.2	7,372.0	35.1	38.3	89.66	1,746.9	752.4	498.6	427.2	71.44	6.980	
9,300.0	7,350.0	9,345.2	7,372.0	36.7	39.8	89.66	1,846.9	752.4	498.6	423.9	74.72	6.673	
9,400.0	7,350.0	9,445.2	7,372.0	38.3	41.4	89.66	1,946.9	752.4	498.6	420.6	78.03	6.390	
9,500.0	7,350.0	9,545.2	7,372.0	40.0	43.1	89.66	2,046.9	752.4	498.6	417.2	81.35	6.129	
9,600.0	7,350.0	9,645.2	7,372.0	41.6	44.7	89.66	2,146.9	752.4	498.6	413.9	84.69	5.888	
9,700.0	7,350.0	9,745.2	7,372.0	43.3	46.3	89.66	2,246.9	752.4	498.6	410.6	88.04	5.663	
9,800.0	7,350.0	9,845.2	7,372.0	45.0	47.9	89.66	2,346.9	752.4	498.6	407.2	91.40	5.455	
9,900.0	7,350.0	9,945.2	7,372.0	46.6	49.6	89.66	2,446.9	752.4	498.6	403.8	94.77	5.261	
10,000.0	7,350.0	10,045.2	7,372.0	48.3	51.2	89.66	2,546.9	752.4	498.6	400.4	98.15	5.079	
10,100.0	7,350.0	10,145.2	7,372.0	50.0	52.9	89.66	2,646.9	752.4	498.6	397.0	101.54	4.910	
10,200.0	7,350.0	10,245.2	7,372.0	51.7	54.6	89.66	2,746.9	752.4	498.6	393.6	104.94	4.751	
10,300.0	7,350.0	10,345.2	7,372.0	53.4	56.2	89.66	2,846.9	752.3	498.6	390.2	108.35	4.601	
10,400.0	7,350.0	10,445.2	7,372.0	55.1	57.9	89.66	2,946.9	752.3	498.5	386.8	111.76	4.461	
10,500.0	7,350.0	10,545.2	7,372.0	56.8	59.6	89.66	3,046.9	752.3	498.5	383.4	115.18	4.328	
10,600.0	7,350.0	10,645.2	7,372.0	58.5	61.3	89.66	3,146.9	752.3	498.5	379.9	118.60	4.203	
10,700.0	7,350.0	10,745.2	7,372.0	60.2	63.0	89.66	3,246.9	752.3	498.5	376.5	122.03	4.085	
10,800.0	7,350.0	10,845.2	7,372.0	61.9	64.7	89.66	3,346.9	752.3	498.5	373.1	125.46	3.974	
10,900.0	7,350.0	10,945.2	7,372.0	63.6	66.4	89.66	3,446.9	752.3	498.5	369.6	128.90	3.868	
11,000.0	7,350.0	11,045.2	7,372.0	65.3	68.1	89.66	3,546.9	752.3	498.5	366.2	132.34	3.767	
11,100.0	7,350.0	11,145.2	7,372.0	67.1	69.8	89.66	3,646.9	752.3	498.5	362.7	135.78	3.671	
11,200.0	7,350.0	11,245.2	7,372.0	68.8	71.5	89.66	3,746.9	752.3	498.5	359.3	139.23	3.581	
11,300.0	7,350.0	11,345.2	7,372.0	70.5	73.2	89.66	3,846.9	752.3	498.5	355.8	142.68	3.494	
11,400.0	7,350.0	11,445.2	7,372.0	72.2	74.9	89.66	3,946.9	752.3	498.5	352.4	146.13	3.411	
11,500.0	7,350.0	11,545.2	7,372.0	73.9	76.6	89.66	4,046.9	752.3	498.5	348.9	149.58	3.332	
11,600.0	7,350.0	11,645.2	7,372.0	75.7	78.3	89.66	4,146.9	752.3	498.5	345.4	153.04	3.257	
11,700.0	7,350.0	11,745.2	7,372.0	77.4	80.0	89.66	4,246.9	752.3	498.5	342.0	156.50	3.185	
11,800.0	7,350.0	11,845.2	7,372.0	79.1	81.7	89.66	4,346.9	752.3	498.5	338.5	159.96	3.116	
11,900.0	7,350.0	11,945.2	7,372.0	80.8	83.4	89.66	4,446.9	752.3	498.5	335.0	163.43	3.050	
12,000.0	7,350.0	12,045.2	7,372.0	82.6	85.2	89.66	4,546.9	752.3	498.5	331.6	166.89	2.987	
12,100.0	7,350.0	12,145.2	7,372.0	84.3	86.9	89.66	4,646.9	752.2	498.5	328.1	170.36	2.926	
12,200.0	7,350.0	12,245.2	7,372.0	86.0	88.6	89.66	4,746.9	752.2	498.4	324.6	173.83	2.867	
12,300.0	7,350.0	12,345.2	7,372.0	87.8	90.3	89.66	4,846.9	752.2	498.4	321.1	177.30	2.811	
12,400.0	7,350.0	12,445.2	7,372.0	89.5	92.0	89.66	4,946.9	752.2	498.4	317.7	180.77	2.757	
12,500.0	7,350.0	12,545.2	7,372.0	91.2	93.8	89.66	5,046.9	752.2	498.4	314.2	184.25	2.705	
12,600.0	7,350.0	12,645.2	7,372.0	93.0	95.5	89.66	5,146.9	752.2	498.4	310.7	187.72	2.655	
12,700.0	7,350.0	12,745.2	7,372.0	94.7	97.2	89.66	5,246.9	752.2	498.4	307.2	191.20	2.607	

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 Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - Jillson-East Rinn 3E-22H-N268 - 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
12,800.0	7,350.0	12,845.2	7,372.0	96.4	99.0	89.66	5,346.9	752.2	498.4	303.7	194.67	2.560	
12,900.0	7,350.0	12,945.2	7,372.0	98.2	100.7	89.66	5,446.9	752.2	498.4	300.3	198.15	2.515	
13,000.0	7,350.0	13,045.2	7,372.0	99.9	102.4	89.66	5,546.9	752.2	498.4	296.8	201.63	2.472	
13,100.0	7,350.0	13,145.2	7,372.0	101.7	104.1	89.66	5,646.9	752.2	498.4	293.3	205.11	2.430	
13,200.0	7,350.0	13,245.2	7,372.0	103.4	105.9	89.66	5,746.9	752.2	498.4	289.8	208.59	2.389	
13,300.0	7,350.0	13,345.2	7,372.0	105.1	107.6	89.66	5,846.9	752.2	498.4	286.3	212.07	2.350	CC
13,365.5	7,350.0	13,410.7	7,372.0	106.3	108.7	89.66	5,912.3	752.2	498.4	284.1	214.36	2.325	
13,400.0	7,350.0	13,445.2	7,372.0	106.9	109.3	89.66	5,946.9	752.2	498.4	282.8	215.57	2.312	
13,500.0	7,350.0	13,545.2	7,372.0	108.6	111.1	89.66	6,046.8	752.2	499.4	280.3	219.12	2.279	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 Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 S22-T2N-R68W (Jillson-East Rinn) - NYGREN 12-22 (EXISTING) - KERR-MCGEE WELL - NO SURVE

Offset Site Error: 0.0 ft

Survey Program: 7710-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
8,700.0	7,350.0	7,295.0	7,295.0	27.2	12.7	-90.00	1,617.4	64.0	416.4	376.8	39.57	10.522	
8,800.0	7,350.0	7,295.0	7,295.0	28.7	12.7	-90.00	1,617.4	64.0	330.5	289.4	41.12	8.037	
8,900.0	7,350.0	7,295.0	7,295.0	30.3	12.7	-90.00	1,617.4	64.0	255.2	212.5	42.70	5.976	
9,000.0	7,350.0	7,295.0	7,295.0	31.9	12.7	-90.00	1,617.4	64.0	202.5	158.2	44.29	4.571	
9,070.6	7,350.0	7,295.0	7,295.0	33.0	12.7	-90.00	1,617.4	64.0	189.8	144.3	45.43	4.177	CC, ES, SF
9,100.0	7,350.0	7,295.0	7,295.0	33.5	12.7	-90.00	1,617.4	64.0	192.0	146.1	45.90	4.184	
9,200.0	7,350.0	7,295.0	7,295.0	35.1	12.7	-90.00	1,617.4	64.0	229.7	182.2	47.52	4.833	
9,300.0	7,350.0	7,295.0	7,295.0	36.7	12.7	-90.00	1,617.4	64.0	297.7	248.6	49.16	6.056	
9,400.0	7,350.0	7,295.0	7,295.0	38.3	12.7	-90.00	1,617.4	64.0	380.2	329.3	50.81	7.483	
9,500.0	7,350.0	7,295.0	7,295.0	40.0	12.7	-90.00	1,617.4	64.0	469.5	417.0	52.46	8.949	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Jillson-East Rinn 3C-22H-M268
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	S22-T2N-R68W (Jillson-East Rinn)	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Jillson-East Rinn 3C-22H-M268	**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 @ 4975.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Jillson-East Rinn 3C-22H-M268
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.33°