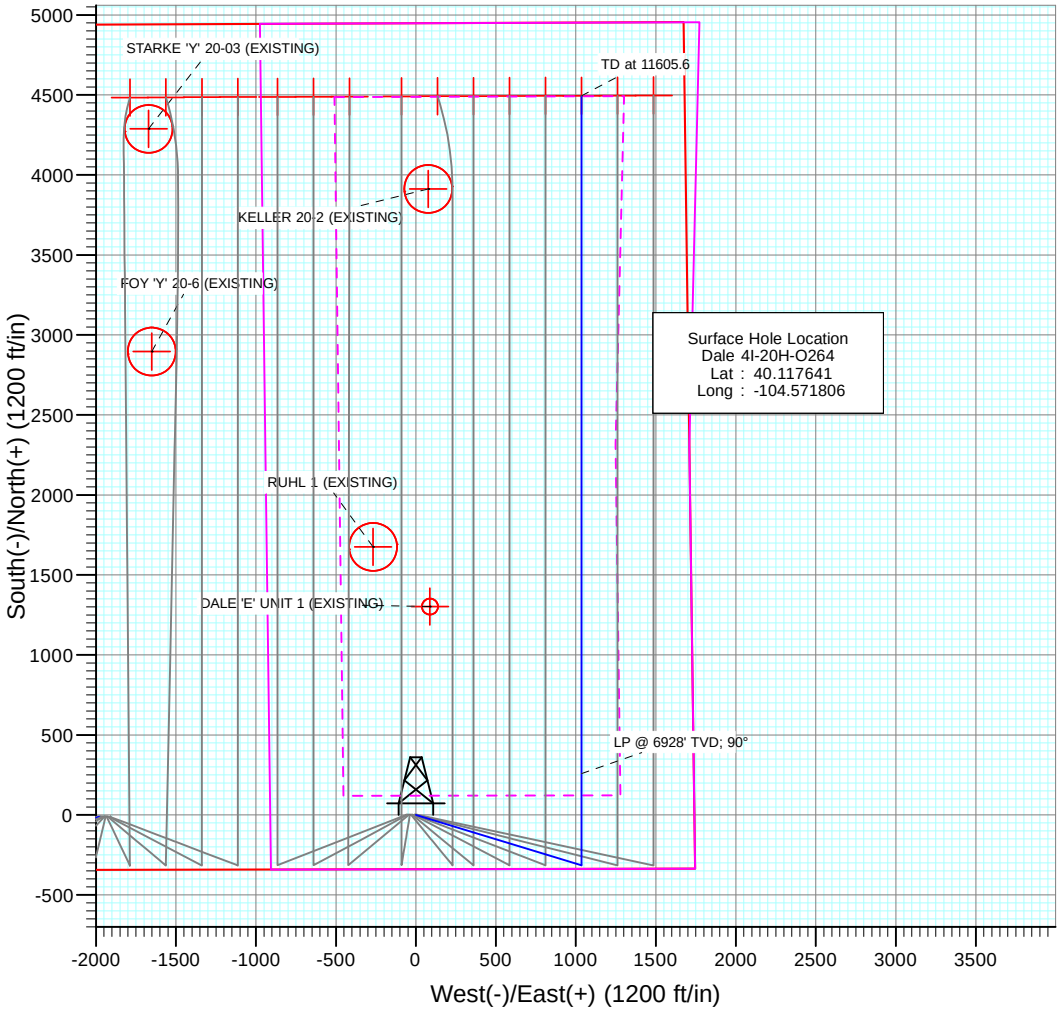
encana natural gas

Project: DJ Wattenberg
Site: S20-T2N-R64W (Dale)
Well: Dale 4I-20H-O264
Wellbore: HZ
Design: Plan #1

CATHEDRAL

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DIeg	TFace	VSect	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0		KOP @ 300' MD
3	944.2	12.88	106.93	938.7	-21.0	69.0	2.00	106.93	-5.0		EOB; 12.88°
4	4825.6	12.88	106.93	4722.5	-273.0	896.9	0.00	0.00	-64.8		Start 1° Drop
5	6114.0	0.00	0.00	6000.0	-315.0	1034.9	1.00	180.00	-74.8		EOD; Vertical
6	6469.0	0.00	0.00	6355.0	-315.0	1034.9	0.00	0.00	-74.8		Start 10° Build
7	7369.0	90.00	360.00	6928.0	258.0	1034.9	10.00	360.00	483.6		LP @ 6928' TVD; 90°
8	11605.6	90.00	360.00	6928.0	4494.5	1034.9	0.00	0.00	4612.1	Dale 4I-20H-O264 PBHL	TD at 11605.6



DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Dale 4I-20H-O264 PBHL	4494.5	1034.9	1291566.91	3260577.87	40.129979	-104.568105

T M

Azimuths to True North
Magnetic North: 8.36°

Magnetic Field
Strength: 52708.0snT
Dip Angle: 66.76°
Date: 3/31/2014
Model: IGRF2010

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
963.0	969.0	Fox Hills - BASE
4362.0	4455.8	Sussex
4598.0	4697.9	Sussex Marker
4810.0	4915.2	Shannon
5638.0	5751.7	Teepee Buttes (*if present)
6807.0	6989.7	Sharon Springs
6851.0	7068.5	Niobrara
6918.0	7261.8	B Chalk

Plan #1
Dale 4I-20H-O264
WELL @ 4988.0ft (Original Well Elev)
Ground Elevation @ 4958.0
North American Datum 1983
Well Dale 4I-20H-O264, True North

ENCANA

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site:	S20-T2N-R64W (Dale)	**North Reference:**	True
Well:	Dale 4I-20H-O264	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
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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 S20-T2N-R64W (Dale)

Site Position:		**Northing:**	1,287,029.38 ft	**Latitude:**	40.117609
From:	Lat/Long	**Easting:**	3,257,598.23 ft	**Longitude:**	-104.578929
Position Uncertainty:	0.0 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.60 °

Well Dale 4I-20H-O264

Well Position	**+N/-S**	0.0 ft	**Northing:**	1,287,061.81 ft	**Latitude:**	40.117641
	+E/-W	0.0 ft	**Easting:**	3,259,590.09 ft	**Longitude:**	-104.571806
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,958.0 ft

Wellbore HZ

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/31/2014	8.36	66.76	52,708

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	12.97

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	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
944.2	12.88	106.93	938.7	-21.0	69.0	2.00	2.00	0.00	106.93	
4,825.6	12.88	106.93	4,722.5	-273.0	896.9	0.00	0.00	0.00	0.00	
6,114.0	0.00	0.00	6,000.0	-315.0	1,034.9	1.00	-1.00	0.00	180.00	
6,469.0	0.00	0.00	6,355.0	-315.0	1,034.9	0.00	0.00	0.00	0.00	
7,369.0	90.00	360.00	6,928.0	258.0	1,034.9	10.00	10.00	0.00	360.00	
11,605.6	90.00	360.00	6,928.0	4,494.5	1,034.9	0.00	0.00	0.00	0.00	Dale 4I-20H-O264 PB

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Project:	DJ Wattenberg	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site:	S20-T2N-R64W (Dale)	**North Reference:**	True
Well:	Dale 4I-20H-O264	**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	KOP @ 300' MD
400.0	2.00	106.93	400.0	-0.5	1.7	-0.1	2.00	2.00	
500.0	4.00	106.93	499.8	-2.0	6.7	-0.5	2.00	2.00	
600.0	6.00	106.93	599.5	-4.6	15.0	-1.1	2.00	2.00	
700.0	8.00	106.93	698.7	-8.1	26.7	-1.9	2.00	2.00	
800.0	10.00	106.93	797.5	-12.7	41.6	-3.0	2.00	2.00	
900.0	12.00	106.93	895.6	-18.2	59.9	-4.3	2.00	2.00	
944.2	12.88	106.93	938.7	-21.0	69.0	-5.0	2.00	2.00	EOB; 12.88°
969.0	12.88	106.93	963.0	-22.6	74.3	-5.4	0.00	0.00	Fox Hills - BASE
1,000.0	12.88	106.93	993.2	-24.6	80.9	-5.8	0.00	0.00	
1,100.0	12.88	106.93	1,090.7	-31.1	102.2	-7.4	0.00	0.00	
1,200.0	12.88	106.93	1,188.1	-37.6	123.6	-8.9	0.00	0.00	
1,300.0	12.88	106.93	1,285.6	-44.1	144.9	-10.5	0.00	0.00	
1,400.0	12.88	106.93	1,383.1	-50.6	166.2	-12.0	0.00	0.00	
1,500.0	12.88	106.93	1,480.6	-57.1	187.6	-13.5	0.00	0.00	
1,600.0	12.88	106.93	1,578.1	-63.6	208.9	-15.1	0.00	0.00	
1,700.0	12.88	106.93	1,675.6	-70.1	230.2	-16.6	0.00	0.00	
1,800.0	12.88	106.93	1,773.0	-76.6	251.5	-18.2	0.00	0.00	
1,900.0	12.88	106.93	1,870.5	-83.1	272.9	-19.7	0.00	0.00	
2,000.0	12.88	106.93	1,968.0	-89.5	294.2	-21.3	0.00	0.00	
2,100.0	12.88	106.93	2,065.5	-96.0	315.5	-22.8	0.00	0.00	
2,200.0	12.88	106.93	2,163.0	-102.5	336.9	-24.3	0.00	0.00	
2,300.0	12.88	106.93	2,260.5	-109.0	358.2	-25.9	0.00	0.00	
2,400.0	12.88	106.93	2,357.9	-115.5	379.5	-27.4	0.00	0.00	
2,500.0	12.88	106.93	2,455.4	-122.0	400.9	-29.0	0.00	0.00	
2,600.0	12.88	106.93	2,552.9	-128.5	422.2	-30.5	0.00	0.00	
2,700.0	12.88	106.93	2,650.4	-135.0	443.5	-32.0	0.00	0.00	
2,800.0	12.88	106.93	2,747.9	-141.5	464.8	-33.6	0.00	0.00	
2,900.0	12.88	106.93	2,845.4	-148.0	486.2	-35.1	0.00	0.00	
3,000.0	12.88	106.93	2,942.8	-154.5	507.5	-36.7	0.00	0.00	
3,100.0	12.88	106.93	3,040.3	-161.0	528.8	-38.2	0.00	0.00	
3,200.0	12.88	106.93	3,137.8	-167.5	550.2	-39.7	0.00	0.00	
3,300.0	12.88	106.93	3,235.3	-174.0	571.5	-41.3	0.00	0.00	
3,400.0	12.88	106.93	3,332.8	-180.4	592.8	-42.8	0.00	0.00	
3,500.0	12.88	106.93	3,430.2	-186.9	614.2	-44.4	0.00	0.00	
3,600.0	12.88	106.93	3,527.7	-193.4	635.5	-45.9	0.00	0.00	
3,700.0	12.88	106.93	3,625.2	-199.9	656.8	-47.4	0.00	0.00	
3,800.0	12.88	106.93	3,722.7	-206.4	678.1	-49.0	0.00	0.00	
3,900.0	12.88	106.93	3,820.2	-212.9	699.5	-50.5	0.00	0.00	
4,000.0	12.88	106.93	3,917.7	-219.4	720.8	-52.1	0.00	0.00	
4,100.0	12.88	106.93	4,015.1	-225.9	742.1	-53.6	0.00	0.00	
4,200.0	12.88	106.93	4,112.6	-232.4	763.5	-55.1	0.00	0.00	
4,300.0	12.88	106.93	4,210.1	-238.9	784.8	-56.7	0.00	0.00	
4,400.0	12.88	106.93	4,307.6	-245.4	806.1	-58.2	0.00	0.00	
4,455.8	12.88	106.93	4,362.0	-249.0	818.0	-59.1	0.00	0.00	Sussex
4,500.0	12.88	106.93	4,405.1	-251.9	827.5	-59.8	0.00	0.00	
4,600.0	12.88	106.93	4,502.6	-258.4	848.8	-61.3	0.00	0.00	
4,697.9	12.88	106.93	4,598.0	-264.7	869.7	-62.8	0.00	0.00	Sussex Marker
4,700.0	12.88	106.93	4,600.0	-264.8	870.1	-62.9	0.00	0.00	

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Well:	Dale 4I-20H-O264	**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	12.88	106.93	4,697.5	-271.3	891.4	-64.4	0.00	0.00	
4,825.6	12.88	106.93	4,722.5	-273.0	896.9	-64.8	0.00	0.00	Start 1° Drop
4,900.0	12.14	106.93	4,795.1	-277.7	912.3	-65.9	1.00	-1.00	
4,915.2	11.99	106.93	4,810.0	-278.6	915.4	-66.1	1.00	-1.00	Shannon
5,000.0	11.14	106.93	4,893.1	-283.6	931.6	-67.3	1.00	-1.00	
5,100.0	10.14	106.93	4,991.3	-288.9	949.3	-68.6	1.00	-1.00	
5,200.0	9.14	106.93	5,089.9	-293.8	965.3	-69.7	1.00	-1.00	
5,300.0	8.14	106.93	5,188.8	-298.2	979.7	-70.8	1.00	-1.00	
5,400.0	7.14	106.93	5,287.9	-302.1	992.4	-71.7	1.00	-1.00	
5,500.0	6.14	106.93	5,387.2	-305.4	1,003.5	-72.5	1.00	-1.00	
5,600.0	5.14	106.93	5,486.7	-308.3	1,012.9	-73.2	1.00	-1.00	
5,700.0	4.14	106.93	5,586.4	-310.6	1,020.6	-73.7	1.00	-1.00	
5,751.7	3.62	106.93	5,638.0	-311.7	1,023.9	-74.0	1.00	-1.00	Teepee Buttes (*if present)
5,800.0	3.14	106.93	5,686.2	-312.5	1,026.7	-74.2	1.00	-1.00	
5,900.0	2.14	106.93	5,786.1	-313.8	1,031.1	-74.5	1.00	-1.00	
6,000.0	1.14	106.93	5,886.1	-314.7	1,033.8	-74.7	1.00	-1.00	
6,100.0	0.14	106.93	5,986.0	-315.0	1,034.9	-74.8	1.00	-1.00	
6,114.0	0.00	0.00	6,000.0	-315.0	1,034.9	-74.8	1.00	-1.00	EOD; Vertical
6,200.0	0.00	0.00	6,086.0	-315.0	1,034.9	-74.8	0.00	0.00	
6,300.0	0.00	0.00	6,186.0	-315.0	1,034.9	-74.8	0.00	0.00	
6,400.0	0.00	0.00	6,286.0	-315.0	1,034.9	-74.8	0.00	0.00	
6,469.0	0.00	0.00	6,355.0	-315.0	1,034.9	-74.8	0.00	0.00	Start 10° Build
6,500.0	3.10	360.00	6,386.0	-314.2	1,034.9	-73.9	10.00	10.00	
6,550.0	8.10	360.00	6,435.8	-309.3	1,034.9	-69.2	10.00	10.00	
6,600.0	13.10	360.00	6,484.9	-300.1	1,034.9	-60.2	10.00	10.00	
6,650.0	18.10	360.00	6,533.1	-286.6	1,034.9	-47.1	10.00	10.00	
6,700.0	23.10	360.00	6,579.8	-269.1	1,034.9	-30.0	10.00	10.00	
6,750.0	28.10	360.00	6,624.9	-247.5	1,034.9	-8.9	10.00	10.00	
6,800.0	33.10	360.00	6,667.9	-222.0	1,034.9	15.9	10.00	10.00	
6,850.0	38.10	360.00	6,708.6	-192.9	1,034.9	44.2	10.00	10.00	
6,900.0	43.10	360.00	6,746.5	-160.4	1,034.9	75.9	10.00	10.00	
6,950.0	48.10	360.00	6,781.5	-124.7	1,034.9	110.7	10.00	10.00	
6,989.7	52.07	360.00	6,807.0	-94.2	1,034.9	140.4	10.00	10.00	Sharon Springs
7,000.0	53.10	360.00	6,813.2	-86.1	1,034.9	148.4	10.00	10.00	
7,050.0	58.10	360.00	6,841.5	-44.8	1,034.9	188.5	10.00	10.00	
7,068.5	59.95	360.00	6,851.0	-28.9	1,034.9	204.0	10.00	10.00	Niobrara
7,100.0	63.10	360.00	6,866.0	-1.3	1,034.9	231.0	10.00	10.00	
7,150.0	68.10	360.00	6,886.7	44.3	1,034.9	275.3	10.00	10.00	
7,200.0	73.10	360.00	6,903.3	91.4	1,034.9	321.3	10.00	10.00	
7,250.0	78.10	360.00	6,915.7	139.8	1,034.9	368.5	10.00	10.00	
7,261.8	79.28	360.00	6,918.0	151.4	1,034.9	379.7	10.00	10.00	B Chalk
7,300.0	83.10	360.00	6,923.9	189.1	1,034.9	416.5	10.00	10.00	
7,350.0	88.10	360.00	6,927.7	239.0	1,034.9	465.1	10.00	10.00	
7,369.0	90.00	360.00	6,928.0	258.0	1,034.9	483.6	10.00	10.00	LP @ 6928' TVD; 90°
7,400.0	90.00	360.00	6,928.0	289.0	1,034.9	513.8	0.00	0.00	
7,500.0	90.00	360.00	6,928.0	389.0	1,034.9	611.3	0.00	0.00	
7,600.0	90.00	360.00	6,928.0	489.0	1,034.9	708.7	0.00	0.00	
7,700.0	90.00	360.00	6,928.0	589.0	1,034.9	806.2	0.00	0.00	
7,800.0	90.00	360.00	6,928.0	689.0	1,034.9	903.6	0.00	0.00	
7,900.0	90.00	360.00	6,928.0	789.0	1,034.9	1,001.1	0.00	0.00	
8,000.0	90.00	360.00	6,928.0	889.0	1,034.9	1,098.5	0.00	0.00	
8,100.0	90.00	360.00	6,928.0	989.0	1,034.9	1,196.0	0.00	0.00	

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Well:	Dale 4I-20H-O264	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
8,200.0	90.00	360.00	6,928.0	1,089.0	1,034.9	1,293.4	0.00	0.00	
8,300.0	90.00	360.00	6,928.0	1,189.0	1,034.9	1,390.9	0.00	0.00	
8,400.0	90.00	360.00	6,928.0	1,289.0	1,034.9	1,488.3	0.00	0.00	
8,500.0	90.00	360.00	6,928.0	1,389.0	1,034.9	1,585.8	0.00	0.00	
8,600.0	90.00	360.00	6,928.0	1,489.0	1,034.9	1,683.2	0.00	0.00	
8,700.0	90.00	360.00	6,928.0	1,589.0	1,034.9	1,780.7	0.00	0.00	
8,800.0	90.00	360.00	6,928.0	1,689.0	1,034.9	1,878.1	0.00	0.00	
8,900.0	90.00	360.00	6,928.0	1,789.0	1,034.9	1,975.6	0.00	0.00	
9,000.0	90.00	360.00	6,928.0	1,889.0	1,034.9	2,073.0	0.00	0.00	
9,100.0	90.00	360.00	6,928.0	1,989.0	1,034.9	2,170.5	0.00	0.00	
9,200.0	90.00	360.00	6,928.0	2,089.0	1,034.9	2,267.9	0.00	0.00	
9,300.0	90.00	360.00	6,928.0	2,189.0	1,034.9	2,365.4	0.00	0.00	
9,400.0	90.00	360.00	6,928.0	2,289.0	1,034.9	2,462.8	0.00	0.00	
9,500.0	90.00	360.00	6,928.0	2,389.0	1,034.9	2,560.3	0.00	0.00	
9,600.0	90.00	360.00	6,928.0	2,489.0	1,034.9	2,657.7	0.00	0.00	
9,700.0	90.00	360.00	6,928.0	2,589.0	1,034.9	2,755.2	0.00	0.00	
9,800.0	90.00	360.00	6,928.0	2,689.0	1,034.9	2,852.6	0.00	0.00	
9,900.0	90.00	360.00	6,928.0	2,789.0	1,034.9	2,950.1	0.00	0.00	
10,000.0	90.00	360.00	6,928.0	2,889.0	1,034.9	3,047.5	0.00	0.00	
10,100.0	90.00	360.00	6,928.0	2,989.0	1,034.9	3,145.0	0.00	0.00	
10,200.0	90.00	360.00	6,928.0	3,089.0	1,034.9	3,242.4	0.00	0.00	
10,300.0	90.00	360.00	6,928.0	3,189.0	1,034.9	3,339.9	0.00	0.00	
10,400.0	90.00	360.00	6,928.0	3,289.0	1,034.9	3,437.3	0.00	0.00	
10,500.0	90.00	360.00	6,928.0	3,389.0	1,034.9	3,534.8	0.00	0.00	
10,600.0	90.00	360.00	6,928.0	3,489.0	1,034.9	3,632.2	0.00	0.00	
10,700.0	90.00	360.00	6,928.0	3,589.0	1,034.9	3,729.7	0.00	0.00	
10,800.0	90.00	360.00	6,928.0	3,689.0	1,034.9	3,827.1	0.00	0.00	
10,900.0	90.00	360.00	6,928.0	3,789.0	1,034.9	3,924.6	0.00	0.00	
11,000.0	90.00	360.00	6,928.0	3,889.0	1,034.9	4,022.0	0.00	0.00	
11,100.0	90.00	360.00	6,928.0	3,989.0	1,034.9	4,119.5	0.00	0.00	
11,200.0	90.00	360.00	6,928.0	4,089.0	1,034.9	4,216.9	0.00	0.00	
11,300.0	90.00	360.00	6,928.0	4,189.0	1,034.9	4,314.4	0.00	0.00	
11,400.0	90.00	360.00	6,928.0	4,289.0	1,034.9	4,411.8	0.00	0.00	
11,500.0	90.00	360.00	6,928.0	4,389.0	1,034.9	4,509.3	0.00	0.00	
11,605.6	90.00	360.00	6,928.0	4,494.5	1,034.9	4,612.1	0.00	0.00	TD at 11605.6

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
Dale 4I-20H-O264 PBHL - plan hits target center - Point	0.00	0.00	6,928.0	4,494.5	1,034.9	1,291,566.91	3,260,577.87	40.129979	-104.568105

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site:	S20-T2N-R64W (Dale)	**North Reference:**	True
Well:	Dale 4I-20H-O264	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
969.0	963.0	Fox Hills - BASE			
4,455.8	4,362.0	Sussex			
4,697.9	4,598.0	Sussex Marker			
4,915.2	4,810.0	Shannon			
5,751.7	5,638.0	Teepee Buttes (*if present)			
6,989.7	6,807.0	Sharon Springs			
7,068.5	6,851.0	Niobrara			
7,261.8	6,918.0	B Chalk			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
300.0	300.0	0.0	0.0	KOP @ 300' MD
944.2	938.7	-21.0	69.0	EOB; 12.88°
4,825.6	4,722.5	-273.0	896.9	Start 1° Drop
6,114.0	6,000.0	-315.0	1,034.9	EOD; Vertical
6,469.0	6,355.0	-315.0	1,034.9	Start 10° Build
7,369.0	6,928.0	258.0	1,034.9	LP @ 6928' TVD; 90°
11,605.6	6,928.0	4,494.5	1,034.9	TD at 11605.6

EnCana Oil & Gas (USA) Inc

DJ Wattenberg
S20-T2N-R64W (Dale)
Dale 4I-20H-O264
HZ
Plan #1

Anticollision Report

02 April, 2014

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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:	Stations	**Error Model:**	Systematic Ellipse
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,550.0ft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**		

Survey Tool Program **Date** 4/2/2014

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,605.6	Plan #1 (HZ)	Geolink MWD	Geolink MWD

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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
S20-T2N-R64W (Dale)						
DALE 1 (EXISTING) - EXISTING - NOBLE WELL						Out of range
Dale 3A-20H-N264 - HZ - Plan #1						Out of range
Dale 3B-20H-N264 - HZ - Plan #1						Out of range
Dale 3C-20H-N264 - HZ - Plan #1						Out of range
Dale 3D-20H-N264 - HZ - Plan #1						Out of range
Dale 3E-20H-N264 - HZ - Plan #1						Out of range
Dale 3F-20H-N264 - Hz - Plan #1						Out of range
Dale 3G-20H-N264 - HZ - Plan #1						Out of range
Dale 3H-20H-N264 - HZ - Plan #1						Out of range
Dale 3I-20H-N264 - HZ - Plan #1						Out of range
Dale 3J-20H-N264 - HZ - Plan #1						Out of range
Dale 3K-20H-N264 - HZ - Plan #1						Out of range
Dale 3L-20H-N264 - HZ - Plan #1						Out of range
Dale 4A-20H-O264 - HZ - Plan #1	166.3	167.3	60.1	59.7	125.893	CC
Dale 4A-20H-O264 - HZ - Plan #1	200.0	201.0	60.1	59.5	101.033	ES
Dale 4A-20H-O264 - HZ - Plan #1	500.0	493.5	81.2	79.6	49.630	SF
Dale 4B-20H-O264 - HZ - Plan #1	243.0	244.0	52.6	51.8	70.558	CC, ES
Dale 4B-20H-O264 - HZ - Plan #1	500.0	495.8	68.8	67.2	41.938	SF
Dale 4C-20H-O264 - HZ - Plan #1	300.0	300.0	45.0	44.1	47.777	CC, ES
Dale 4C-20H-O264 - HZ - Plan #1	11,605.6	11,508.6	1,449.8	1,287.2	8.912	SF
Dale 4D-20H-O264 - HZ - Plan #1	300.0	300.0	37.5	36.5	39.765	CC, ES
Dale 4D-20H-O264 - HZ - Plan #1	11,605.6	11,590.6	1,128.8	966.6	6.958	SF
Dale 4E-20H-O264 - HZ - Plan #1	300.0	300.0	30.2	29.3	32.048	CC, ES
Dale 4E-20H-O264 - HZ - Plan #1	11,500.0	11,500.0	881.2	729.8	5.819	SF
Dale 4F-20H-O264 - HZ - Plan #1	300.0	300.0	22.7	21.7	24.036	CC, ES
Dale 4F-20H-O264 - HZ - Plan #1	11,605.6	11,512.7	675.0	512.3	4.148	SF
Dale 4G-20H-O264 - HZ - Plan #1	300.0	300.0	15.1	14.2	16.024	CC, ES
Dale 4G-20H-O264 - HZ - Plan #1	11,605.6	11,628.2	459.4	299.7	2.877	SF
Dale 4H-20H-O264 - HZ - Plan #1	300.0	300.0	7.6	6.6	8.012	CC, ES
Dale 4H-20H-O264 - HZ - Plan #1	11,605.6	11,801.7	324.5	208.3	2.793	SF
Dale 4J-20H-O264 - HZ - Plan #1	234.7	233.7	7.3	6.6	10.215	CC, ES
Dale 4J-20H-O264 - HZ - Plan #1	11,605.6	11,739.7	243.5	92.6	1.613	SF
Dale 4K-20H-O264 - HZ - Plan #1	200.0	199.0	14.8	14.2	25.060	CC, ES
Dale 4K-20H-O264 - HZ - Plan #1	11,605.6	11,936.0	507.4	362.0	3.491	SF
DALE 'E' UNIT 1 (EXISTING) - EXISTING - ENCANA WE	8,413.0	6,865.0	947.1	907.7	24.062	CC, ES
DALE 'E' UNIT 1 (EXISTING) - EXISTING - ENCANA WE	8,800.0	6,865.0	1,023.1	977.5	22.452	SF
FOY 1 (EXISTING) - EXISTING - NOBLE WELL						Out of range
FOY 'Y' 20-6 (EXISTING) - EXISTING - NOBLE WELL						Out of range
KELLER 20-2 (EXISTING) - EXISTING - NOBLE WELL	11,023.0	6,834.0	957.7	874.4	11.503	CC, ES
KELLER 20-2 (EXISTING) - EXISTING - NOBLE WELL	11,200.0	6,834.0	973.9	887.6	11.283	SF
RUHL 1 (EXISTING) - EXISTING - NEBRASKA WELL	8,786.0	6,859.0	1,302.5	1,257.2	28.734	CC
RUHL 1 (EXISTING) - EXISTING - NEBRASKA WELL	8,800.0	6,859.0	1,302.6	1,257.0	28.592	ES
RUHL 1 (EXISTING) - EXISTING - NEBRASKA WELL	9,400.0	6,859.0	1,440.0	1,384.5	25.933	SF
STARKE 'Y' 20-03 (EXISTING) - EXISTING - NOBLE WE						Out of range

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4A-20H-O264 - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	1.0	1.0	0.0	0.0	-89.69	0.3	-60.1	60.1				
100.0	100.0	101.0	101.0	0.1	0.1	-89.69	0.3	-60.1	60.1	59.9	0.25	244.340	
166.3	166.3	167.3	167.3	0.2	0.2	-89.69	0.3	-60.1	60.1	59.7	0.48	125.893	CC
200.0	200.0	201.0	201.0	0.3	0.3	-89.69	0.3	-60.1	60.1	59.5	0.60	101.033	ES
300.0	300.0	300.0	300.0	0.5	0.5	-90.29	-0.3	-61.8	61.8	60.8	0.95	65.263	
400.0	400.0	396.7	396.6	0.6	0.7	161.65	-2.1	-66.4	68.2	67.0	1.29	52.969	
500.0	499.8	493.5	493.0	0.8	0.9	160.69	-5.1	-74.1	81.2	79.6	1.64	49.630	SF
600.0	599.5	588.7	587.5	1.1	1.1	160.01	-9.3	-84.7	100.6	98.6	1.99	50.627	
700.0	698.7	682.8	680.6	1.3	1.4	159.56	-14.4	-97.8	126.1	123.8	2.34	53.883	
800.0	797.5	778.4	774.9	1.6	1.7	159.52	-20.0	-112.1	155.7	153.0	2.70	57.594	
900.0	895.6	872.9	868.1	2.0	2.0	159.80	-25.5	-126.1	188.3	185.3	3.07	61.370	
944.2	938.7	914.2	909.0	2.2	2.1	159.97	-27.9	-132.3	203.7	200.5	3.23	63.065	
1,000.0	993.2	966.4	960.5	2.4	2.3	160.32	-30.9	-140.1	223.6	220.2	3.44	64.927	
1,100.0	1,090.7	1,059.8	1,052.7	2.8	2.6	160.80	-36.4	-154.0	259.2	255.4	3.83	67.720	
1,200.0	1,188.1	1,153.3	1,145.0	3.2	2.9	161.17	-41.8	-167.9	294.8	290.6	4.21	69.984	
1,300.0	1,285.6	1,246.7	1,237.2	3.6	3.2	161.46	-47.3	-181.8	330.4	325.8	4.60	71.854	
1,400.0	1,383.1	1,340.1	1,329.4	4.1	3.5	161.70	-52.7	-195.7	366.0	361.0	4.98	73.424	
1,500.0	1,480.6	1,433.6	1,421.7	4.5	3.8	161.89	-58.2	-209.6	401.6	396.3	5.37	74.761	
1,600.0	1,578.1	1,527.0	1,513.9	4.9	4.2	162.05	-63.6	-223.5	437.3	431.5	5.76	75.912	
1,700.0	1,675.6	1,620.4	1,606.1	5.3	4.5	162.19	-69.0	-237.4	472.9	466.7	6.15	76.914	
1,800.0	1,773.0	1,713.9	1,698.3	5.8	4.8	162.30	-74.5	-251.3	508.5	502.0	6.54	77.793	
1,900.0	1,870.5	1,807.3	1,790.6	6.2	5.1	162.41	-79.9	-265.2	544.1	537.2	6.93	78.572	
2,000.0	1,968.0	1,900.7	1,882.8	6.6	5.4	162.50	-85.4	-279.1	579.8	572.5	7.31	79.265	
2,100.0	2,065.5	1,994.2	1,975.0	7.1	5.7	162.58	-90.8	-293.0	615.4	607.7	7.70	79.886	
2,200.0	2,163.0	2,087.6	2,067.3	7.5	6.0	162.65	-96.2	-306.9	651.0	642.9	8.09	80.447	
2,300.0	2,260.5	2,181.0	2,159.5	7.9	6.3	162.71	-101.7	-320.8	686.7	678.2	8.48	80.955	
2,400.0	2,357.9	2,274.5	2,251.7	8.3	6.6	162.77	-107.1	-334.7	722.3	713.4	8.87	81.417	
2,500.0	2,455.4	2,367.9	2,344.0	8.8	6.9	162.82	-112.6	-348.6	757.9	748.7	9.26	81.840	
2,600.0	2,552.9	2,461.3	2,436.2	9.2	7.2	162.86	-118.0	-362.5	793.6	783.9	9.65	82.228	
2,700.0	2,650.4	2,554.8	2,528.4	9.6	7.5	162.91	-123.5	-376.5	829.2	819.2	10.04	82.585	
2,800.0	2,747.9	2,648.2	2,620.7	10.1	7.9	162.95	-128.9	-390.4	864.9	854.4	10.43	82.915	
2,900.0	2,845.4	2,741.6	2,712.9	10.5	8.2	162.98	-134.3	-404.3	900.5	889.7	10.82	83.221	
3,000.0	2,942.8	2,835.1	2,805.1	10.9	8.5	163.02	-139.8	-418.2	936.1	924.9	11.21	83.505	
3,100.0	3,040.3	2,928.5	2,897.4	11.4	8.8	163.05	-145.2	-432.1	971.8	960.2	11.60	83.769	
3,200.0	3,137.8	3,021.9	2,989.6	11.8	9.1	163.08	-150.7	-446.0	1,007.4	995.4	11.99	84.017	
3,300.0	3,235.3	3,115.4	3,081.8	12.2	9.4	163.10	-156.1	-459.9	1,043.0	1,030.7	12.38	84.248	
3,400.0	3,332.8	3,208.8	3,174.1	12.7	9.7	163.13	-161.5	-473.8	1,078.7	1,065.9	12.77	84.465	
3,500.0	3,430.2	3,302.2	3,266.3	13.1	10.0	163.15	-167.0	-487.7	1,114.3	1,101.2	13.16	84.669	
3,600.0	3,527.7	3,395.7	3,358.5	13.5	10.3	163.17	-172.4	-501.6	1,150.0	1,136.4	13.55	84.861	
3,700.0	3,625.2	3,489.1	3,450.8	14.0	10.6	163.19	-177.9	-515.5	1,185.6	1,171.7	13.94	85.042	
3,800.0	3,722.7	3,582.5	3,543.0	14.4	10.9	163.21	-183.3	-529.4	1,221.2	1,206.9	14.33	85.213	
3,900.0	3,820.2	3,676.0	3,635.2	14.8	11.3	163.23	-188.7	-543.3	1,256.9	1,242.1	14.72	85.375	
4,000.0	3,917.7	3,769.4	3,727.5	15.3	11.6	163.25	-194.2	-557.2	1,292.5	1,277.4	15.11	85.529	
4,100.0	4,015.1	3,862.8	3,819.7	15.7	11.9	163.27	-199.6	-571.1	1,328.1	1,312.6	15.50	85.674	
4,200.0	4,112.6	3,956.3	3,911.9	16.1	12.2	163.28	-205.1	-585.0	1,363.8	1,347.9	15.89	85.813	
4,300.0	4,210.1	4,049.7	4,004.2	16.6	12.5	163.30	-210.5	-599.0	1,399.4	1,383.1	16.28	85.944	
4,400.0	4,307.6	4,143.1	4,096.4	17.0	12.8	163.31	-216.0	-612.9	1,435.1	1,418.4	16.67	86.070	
4,500.0	4,405.1	4,236.6	4,188.6	17.4	13.1	163.32	-221.4	-626.8	1,470.7	1,453.6	17.06	86.189	
4,600.0	4,502.6	4,330.0	4,280.8	17.9	13.4	163.34	-226.8	-640.7	1,506.3	1,488.9	17.45	86.304	
4,700.0	4,600.0	4,423.4	4,373.1	18.3	13.7	163.35	-232.3	-654.6	1,542.0	1,524.1	17.84	86.413	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4B-20H-O264 - HZ - Plan #1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-Geolink MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	1.0	1.0	0.0	0.0	-89.63	0.3	-52.6	52.6				
100.0	100.0	101.0	101.0	0.1	0.1	-89.63	0.3	-52.6	52.6	52.3	0.25	213.657	
200.0	200.0	201.0	201.0	0.3	0.3	-89.63	0.3	-52.6	52.6	52.0	0.60	88.345	
243.0	243.0	244.0	244.0	0.4	0.4	-89.63	0.3	-52.6	52.6	51.8	0.75	70.558	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	-89.86	0.1	-53.0	53.0	52.0	0.94	56.191	
400.0	400.0	398.4	398.3	0.6	0.7	162.07	-1.5	-56.0	57.7	56.4	1.29	44.721	
500.0	499.8	495.8	495.5	0.8	0.9	160.75	-4.6	-61.9	68.8	67.2	1.64	41.938	SF
600.0	599.5	592.0	591.1	1.1	1.1	159.58	-9.3	-70.5	86.2	84.2	2.00	43.195	
700.0	698.7	689.1	687.6	1.3	1.3	158.95	-14.9	-81.0	108.6	106.2	2.36	46.066	
800.0	797.5	785.8	783.5	1.6	1.6	159.01	-20.5	-91.5	134.2	131.4	2.72	49.249	
900.0	895.6	881.6	878.6	2.0	1.8	159.42	-26.1	-101.8	162.9	159.8	3.10	52.623	
944.2	938.7	923.5	920.2	2.2	1.9	159.66	-28.5	-106.3	176.6	173.3	3.26	54.170	
1,000.0	993.2	976.5	972.8	2.4	2.1	160.07	-31.6	-112.1	194.3	190.8	3.48	55.901	
1,100.0	1,090.7	1,071.3	1,066.9	2.8	2.3	160.64	-37.0	-122.3	226.0	222.1	3.86	58.504	
1,200.0	1,188.1	1,166.1	1,161.0	3.2	2.6	161.07	-42.5	-132.6	257.7	253.5	4.25	60.618	
1,300.0	1,285.6	1,260.9	1,255.1	3.6	2.9	161.40	-48.0	-142.8	289.4	284.8	4.64	62.370	
1,400.0	1,383.1	1,355.8	1,349.2	4.1	3.1	161.67	-53.5	-153.0	321.2	316.1	5.03	63.844	
1,500.0	1,480.6	1,450.6	1,443.3	4.5	3.4	161.89	-59.0	-163.3	352.9	347.5	5.42	65.100	
1,600.0	1,578.1	1,545.4	1,537.4	4.9	3.6	162.08	-64.5	-173.5	384.7	378.9	5.81	66.184	
1,700.0	1,675.6	1,640.2	1,631.5	5.3	3.9	162.24	-70.0	-183.8	416.4	410.2	6.20	67.129	
1,800.0	1,773.0	1,735.0	1,725.6	5.8	4.2	162.37	-75.5	-194.0	448.2	441.6	6.59	67.960	
1,900.0	1,870.5	1,829.9	1,819.7	6.2	4.4	162.49	-81.0	-204.3	479.9	472.9	6.99	68.695	
2,000.0	1,968.0	1,924.7	1,913.8	6.6	4.7	162.59	-86.5	-214.5	511.7	504.3	7.38	69.352	
2,100.0	2,065.5	2,019.5	2,007.9	7.1	5.0	162.68	-92.0	-224.7	543.5	535.7	7.77	69.940	
2,200.0	2,163.0	2,114.3	2,102.0	7.5	5.2	162.76	-97.5	-235.0	575.2	567.1	8.16	70.472	
2,300.0	2,260.5	2,209.1	2,196.1	7.9	5.5	162.83	-103.0	-245.2	607.0	598.4	8.55	70.954	
2,400.0	2,357.9	2,304.0	2,290.2	8.3	5.7	162.90	-108.4	-255.5	638.7	629.8	8.95	71.393	
2,500.0	2,455.4	2,398.8	2,384.3	8.8	6.0	162.95	-113.9	-265.7	670.5	661.2	9.34	71.794	
2,600.0	2,552.9	2,493.6	2,478.4	9.2	6.3	163.01	-119.4	-276.0	702.3	692.5	9.73	72.163	
2,700.0	2,650.4	2,588.4	2,572.5	9.6	6.5	163.06	-124.9	-286.2	734.0	723.9	10.12	72.503	
2,800.0	2,747.9	2,683.2	2,666.7	10.1	6.8	163.10	-130.4	-296.4	765.8	755.3	10.52	72.817	
2,900.0	2,845.4	2,778.0	2,760.8	10.5	7.0	163.14	-135.9	-306.7	797.6	786.6	10.91	73.108	
3,000.0	2,942.8	2,872.9	2,854.9	10.9	7.3	163.18	-141.4	-316.9	829.3	818.0	11.30	73.379	
3,100.0	3,040.3	2,967.7	2,949.0	11.4	7.6	163.21	-146.9	-327.2	861.1	849.4	11.69	73.631	
3,200.0	3,137.8	3,062.5	3,043.1	11.8	7.8	163.25	-152.4	-337.4	892.9	880.8	12.09	73.867	
3,300.0	3,235.3	3,157.3	3,137.2	12.2	8.1	163.28	-157.9	-347.7	924.6	912.1	12.48	74.087	
3,400.0	3,332.8	3,252.1	3,231.3	12.7	8.4	163.31	-163.4	-357.9	956.4	943.5	12.87	74.295	
3,500.0	3,430.2	3,347.0	3,325.4	13.1	8.6	163.33	-168.9	-368.1	988.2	974.9	13.27	74.489	
3,600.0	3,527.7	3,441.8	3,419.5	13.5	8.9	163.36	-174.3	-378.4	1,019.9	1,006.3	13.66	74.673	
3,700.0	3,625.2	3,536.6	3,513.6	14.0	9.1	163.38	-179.8	-388.6	1,051.7	1,037.6	14.05	74.846	
3,800.0	3,722.7	3,631.4	3,607.7	14.4	9.4	163.40	-185.3	-398.9	1,083.4	1,069.0	14.44	75.009	
3,900.0	3,820.2	3,726.2	3,701.8	14.8	9.7	163.42	-190.8	-409.1	1,115.2	1,100.4	14.84	75.164	
4,000.0	3,917.7	3,821.1	3,795.9	15.3	9.9	163.44	-196.3	-419.4	1,147.0	1,131.8	15.23	75.311	
4,100.0	4,015.1	3,915.9	3,890.0	15.7	10.2	163.46	-201.8	-429.6	1,178.8	1,163.1	15.62	75.450	
4,200.0	4,112.6	4,010.7	3,984.1	16.1	10.5	163.48	-207.3	-439.8	1,210.5	1,194.5	16.02	75.582	
4,300.0	4,210.1	4,105.5	4,078.2	16.6	10.7	163.50	-212.8	-450.1	1,242.3	1,225.9	16.41	75.708	
4,400.0	4,307.6	4,200.3	4,172.3	17.0	11.0	163.51	-218.3	-460.3	1,274.1	1,257.3	16.80	75.828	
4,500.0	4,405.1	4,295.2	4,266.4	17.4	11.2	163.53	-223.8	-470.6	1,305.8	1,288.6	17.19	75.943	
4,600.0	4,502.6	4,390.0	4,360.5	17.9	11.5	163.54	-229.3	-480.8	1,337.6	1,320.0	17.59	76.052	
4,700.0	4,600.0	4,484.8	4,454.6	18.3	11.8	163.56	-234.8	-491.1	1,369.4	1,351.4	17.98	76.157	
4,800.0	4,697.5	4,579.6	4,548.7	18.8	12.0	163.57	-240.2	-501.3	1,401.1	1,382.7	18.37	76.257	
4,825.6	4,722.5	4,603.9	4,572.9	18.9	12.1	163.57	-241.7	-503.9	1,409.3	1,390.8	18.47	76.282	

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 Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4B-20H-O264 - 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
4,900.0	4,795.1	4,674.6	4,643.0	19.2	12.3	163.64	-245.7	-511.6	1,432.5	1,413.7	18.79	76.245	
5,000.0	4,893.1	4,770.0	4,737.7	19.6	12.6	163.72	-251.3	-521.9	1,462.2	1,443.0	19.20	76.142	
5,100.0	4,991.3	4,866.0	4,832.9	19.9	12.8	163.77	-256.8	-532.2	1,490.4	1,470.8	19.62	75.976	
5,200.0	5,089.9	4,962.4	4,928.6	20.2	13.1	163.80	-262.4	-542.6	1,517.0	1,497.0	20.03	75.752	
5,300.0	5,188.8	5,059.2	5,024.7	20.5	13.4	163.80	-268.0	-553.1	1,541.9	1,521.5	20.43	75.474	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4C-20H-O264 - 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	-89.55	0.4	-45.0	45.0				
100.0	100.0	100.0	100.0	0.1	0.1	-89.55	0.4	-45.0	45.0	44.8	0.24	184.281	
200.0	200.0	200.0	200.0	0.3	0.3	-89.55	0.4	-45.0	45.0	44.4	0.59	75.880	
300.0	300.0	300.0	300.0	0.5	0.5	-89.55	0.4	-45.0	45.0	44.1	0.94	47.777	CC, ES
400.0	400.0	398.7	398.7	0.6	0.6	162.77	-0.7	-46.3	48.0	46.7	1.29	37.218	
500.0	499.8	496.9	496.7	0.8	0.8	161.00	-4.0	-50.2	57.0	55.4	1.64	34.714	
600.0	599.5	594.7	594.2	1.1	1.0	159.11	-9.2	-56.5	71.8	69.8	2.00	35.890	
700.0	698.7	693.0	692.1	1.3	1.3	158.38	-14.9	-63.3	90.5	88.1	2.37	38.192	
800.0	797.5	790.5	789.3	1.6	1.5	158.50	-20.5	-70.0	112.2	109.5	2.74	40.962	
900.0	895.6	887.4	885.7	2.0	1.7	159.06	-26.1	-76.7	137.2	134.1	3.12	44.028	
944.2	938.7	929.8	928.0	2.2	1.8	159.37	-28.5	-79.7	149.2	146.0	3.28	45.464	
1,000.0	993.2	983.4	981.4	2.4	1.9	159.85	-31.6	-83.4	164.9	161.4	3.50	47.102	
1,100.0	1,090.7	1,079.4	1,077.0	2.8	2.1	160.52	-37.1	-90.0	192.8	188.9	3.89	49.570	
1,200.0	1,188.1	1,175.4	1,172.6	3.2	2.4	161.01	-42.7	-96.7	220.8	216.6	4.28	51.581	
1,300.0	1,285.6	1,271.4	1,268.1	3.6	2.6	161.40	-48.2	-103.3	248.8	244.2	4.67	53.250	
1,400.0	1,383.1	1,367.4	1,363.7	4.1	2.8	161.70	-53.7	-109.9	276.9	271.8	5.07	54.656	
1,500.0	1,480.6	1,463.4	1,459.3	4.5	3.0	161.96	-59.3	-116.6	304.9	299.4	5.46	55.858	
1,600.0	1,578.1	1,559.4	1,554.9	4.9	3.2	162.16	-64.8	-123.2	332.9	327.1	5.85	56.895	
1,700.0	1,675.6	1,655.3	1,650.5	5.3	3.5	162.34	-70.3	-129.9	360.9	354.7	6.24	57.801	
1,800.0	1,773.0	1,751.3	1,746.1	5.8	3.7	162.49	-75.9	-136.5	389.0	382.3	6.64	58.597	
1,900.0	1,870.5	1,847.3	1,841.7	6.2	3.9	162.62	-81.4	-143.1	417.0	410.0	7.03	59.304	
2,000.0	1,968.0	1,943.3	1,937.3	6.6	4.1	162.73	-86.9	-149.8	445.1	437.6	7.43	59.935	
2,100.0	2,065.5	2,039.3	2,032.9	7.1	4.4	162.83	-92.5	-156.4	473.1	465.3	7.82	60.501	
2,200.0	2,163.0	2,135.3	2,128.5	7.5	4.6	162.92	-98.0	-163.1	501.1	492.9	8.21	61.012	
2,300.0	2,260.5	2,231.2	2,224.1	7.9	4.8	163.00	-103.5	-169.7	529.2	520.6	8.61	61.476	
2,400.0	2,357.9	2,327.2	2,319.7	8.3	5.0	163.08	-109.1	-176.3	557.2	548.2	9.00	61.899	
2,500.0	2,455.4	2,423.2	2,415.3	8.8	5.3	163.14	-114.6	-183.0	585.3	575.9	9.40	62.287	
2,600.0	2,552.9	2,519.2	2,510.9	9.2	5.5	163.20	-120.2	-189.6	613.3	603.5	9.79	62.642	
2,700.0	2,650.4	2,615.2	2,606.5	9.6	5.7	163.25	-125.7	-196.3	641.4	631.2	10.19	62.970	
2,800.0	2,747.9	2,711.2	2,702.1	10.1	5.9	163.30	-131.2	-202.9	669.4	658.8	10.58	63.273	
2,900.0	2,845.4	2,807.2	2,797.7	10.5	6.2	163.35	-136.8	-209.6	697.5	686.5	10.97	63.554	
3,000.0	2,942.8	2,903.1	2,893.3	10.9	6.4	163.39	-142.3	-216.2	725.5	714.1	11.37	63.816	
3,100.0	3,040.3	2,999.1	2,988.9	11.4	6.6	163.43	-147.8	-222.8	753.5	741.8	11.76	64.060	
3,200.0	3,137.8	3,095.1	3,084.5	11.8	6.8	163.46	-153.4	-229.5	781.6	769.4	12.16	64.288	
3,300.0	3,235.3	3,191.1	3,180.1	12.2	7.1	163.50	-158.9	-236.1	809.6	797.1	12.55	64.501	
3,400.0	3,332.8	3,287.1	3,275.6	12.7	7.3	163.53	-164.4	-242.8	837.7	824.7	12.95	64.701	
3,500.0	3,430.2	3,383.1	3,371.2	13.1	7.5	163.56	-170.0	-249.4	865.7	852.4	13.34	64.890	
3,600.0	3,527.7	3,479.1	3,466.8	13.5	7.7	163.58	-175.5	-256.0	893.8	880.0	13.74	65.067	
3,700.0	3,625.2	3,575.0	3,562.4	14.0	8.0	163.61	-181.0	-262.7	921.8	907.7	14.13	65.235	
3,800.0	3,722.7	3,671.0	3,658.0	14.4	8.2	163.63	-186.6	-269.3	949.9	935.4	14.53	65.393	
3,900.0	3,820.2	3,767.0	3,753.6	14.8	8.4	163.66	-192.1	-276.0	977.9	963.0	14.92	65.543	
4,000.0	3,917.7	3,863.0	3,849.2	15.3	8.6	163.68	-197.6	-282.6	1,006.0	990.7	15.32	65.685	
4,100.0	4,015.1	3,959.0	3,944.8	15.7	8.9	163.70	-203.2	-289.2	1,034.0	1,018.3	15.71	65.820	
4,200.0	4,112.6	4,055.0	4,040.4	16.1	9.1	163.72	-208.7	-295.9	1,062.1	1,046.0	16.10	65.948	
4,300.0	4,210.1	4,151.0	4,136.0	16.6	9.3	163.74	-214.2	-302.5	1,090.1	1,073.6	16.50	66.070	
4,400.0	4,307.6	4,246.9	4,231.6	17.0	9.6	163.75	-219.8	-309.2	1,118.2	1,101.3	16.89	66.187	
4,500.0	4,405.1	4,342.9	4,327.2	17.4	9.8	163.77	-225.3	-315.8	1,146.2	1,128.9	17.29	66.298	
4,600.0	4,502.6	4,438.9	4,422.8	17.9	10.0	163.79	-230.8	-322.4	1,174.3	1,156.6	17.68	66.404	
4,700.0	4,600.0	4,534.9	4,518.4	18.3	10.2	163.80	-236.4	-329.1	1,202.3	1,184.2	18.08	66.505	
4,800.0	4,697.5	4,630.9	4,614.0	18.8	10.5	163.82	-241.9	-335.7	1,230.4	1,211.9	18.47	66.602	
4,825.6	4,722.5	4,655.5	4,638.5	18.9	10.5	163.82	-243.3	-337.4	1,237.6	1,219.0	18.57	66.626	
4,900.0	4,795.1	4,727.0	4,709.7	19.2	10.7	163.88	-247.4	-342.4	1,258.0	1,239.1	18.89	66.610	

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 Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4C-20H-O264 - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,000.0	4,893.1	4,823.5	4,805.9	19.6	10.9	163.94	-253.0	-349.1	1,284.0	1,264.7	19.30	66.528	
5,100.0	4,991.3	4,920.5	4,902.4	19.9	11.1	163.98	-258.6	-355.8	1,308.4	1,288.7	19.71	66.378	
5,200.0	5,089.9	5,017.9	4,999.4	20.2	11.4	163.98	-264.2	-362.5	1,331.2	1,311.1	20.12	66.165	
5,300.0	5,188.8	5,115.6	5,096.7	20.5	11.6	163.97	-269.8	-369.3	1,352.4	1,331.9	20.52	65.893	
5,400.0	5,287.9	5,213.6	5,194.4	20.8	11.8	163.93	-275.5	-376.0	1,371.9	1,351.0	20.92	65.565	
5,500.0	5,387.2	5,312.0	5,292.3	21.1	12.1	163.87	-281.2	-382.8	1,389.8	1,368.4	21.32	65.185	
5,600.0	5,486.7	5,410.6	5,390.5	21.3	12.3	163.79	-286.8	-389.7	1,406.0	1,384.3	21.71	64.757	
5,700.0	5,586.4	5,509.5	5,489.0	21.5	12.5	163.68	-292.5	-396.5	1,420.6	1,398.5	22.10	64.282	
5,800.0	5,686.2	5,608.6	5,587.7	21.6	12.7	163.56	-298.3	-403.4	1,433.5	1,411.0	22.48	63.765	
5,900.0	5,786.1	5,707.8	5,686.5	21.8	13.0	163.41	-304.0	-410.2	1,444.8	1,421.9	22.86	63.208	
6,000.0	5,886.1	5,835.1	5,813.4	21.9	13.3	163.21	-310.8	-418.4	1,454.0	1,430.7	23.28	62.465	
6,100.0	5,986.0	5,998.9	5,977.1	22.0	13.5	163.09	-314.6	-423.0	1,457.9	1,434.2	23.71	61.499	
6,114.0	6,000.0	6,021.9	6,000.0	22.0	13.5	-89.99	-314.6	-423.0	1,457.9	1,434.2	23.76	61.358	
6,200.0	6,086.0	6,107.9	6,086.0	22.1	13.7	-89.99	-314.6	-423.0	1,457.9	1,433.9	24.03	60.676	
6,300.0	6,186.0	6,207.9	6,186.0	22.1	13.8	-89.99	-314.6	-423.0	1,457.9	1,433.6	24.34	59.901	
6,400.0	6,286.0	6,307.9	6,286.0	22.2	13.9	-89.99	-314.6	-423.0	1,457.9	1,433.3	24.65	59.143	
6,469.0	6,355.0	6,376.9	6,355.0	22.3	14.0	-89.99	-314.6	-423.0	1,457.9	1,433.1	24.87	58.629	
6,500.0	6,386.0	6,408.0	6,386.1	22.3	14.1	-89.99	-313.9	-423.0	1,457.9	1,433.0	24.94	58.463	
6,550.0	6,435.8	6,458.2	6,436.1	22.3	14.1	-89.99	-309.0	-423.0	1,457.9	1,432.9	24.99	58.341	
6,600.0	6,484.9	6,508.4	6,485.4	22.3	14.1	-90.00	-299.8	-423.0	1,457.9	1,432.9	24.98	58.357	
6,650.0	6,533.1	6,558.6	6,533.8	22.3	14.1	-90.00	-286.4	-423.0	1,457.9	1,433.0	24.93	58.490	
6,700.0	6,579.8	6,608.8	6,580.7	22.3	14.0	-90.00	-268.7	-423.0	1,457.9	1,433.0	24.83	58.717	
6,750.0	6,624.9	6,659.0	6,626.0	22.2	14.0	-90.01	-247.1	-422.9	1,457.8	1,433.1	24.71	59.008	
6,800.0	6,667.9	6,709.2	6,669.2	22.2	13.9	-90.01	-221.5	-422.9	1,457.8	1,433.2	24.57	59.330	
6,850.0	6,708.6	6,759.4	6,710.0	22.2	13.8	-90.01	-192.3	-422.8	1,457.7	1,433.3	24.44	59.640	
6,900.0	6,746.5	6,809.6	6,748.0	22.1	13.8	-90.02	-159.6	-422.8	1,457.7	1,433.3	24.34	59.893	
6,950.0	6,781.5	6,859.8	6,783.1	22.1	13.8	-90.02	-123.7	-422.7	1,457.6	1,433.3	24.28	60.042	
7,000.0	6,813.2	6,910.0	6,814.9	22.1	13.8	-90.02	-84.8	-422.6	1,457.5	1,433.3	24.28	60.039	
7,050.0	6,841.5	6,960.2	6,843.1	22.1	13.8	-90.03	-43.4	-422.6	1,457.5	1,433.1	24.36	59.842	
7,100.0	6,866.0	7,010.3	6,867.6	22.2	13.9	-90.03	0.4	-422.5	1,457.4	1,432.9	24.53	59.419	
7,150.0	6,886.7	7,060.5	6,888.2	22.2	14.0	-90.03	46.1	-422.4	1,457.3	1,432.5	24.80	58.755	
7,200.0	6,903.3	7,110.6	6,904.8	22.3	14.2	-90.03	93.4	-422.3	1,457.2	1,432.1	25.19	57.850	
7,250.0	6,915.7	7,160.7	6,917.1	22.5	14.4	-90.04	142.0	-422.3	1,457.2	1,431.5	25.69	56.722	
7,300.0	6,923.9	7,210.9	6,925.1	22.6	14.6	-90.04	191.4	-422.2	1,457.1	1,430.8	26.30	55.404	
7,350.0	6,927.7	7,261.0	6,928.7	22.8	15.0	-90.04	241.4	-422.1	1,457.0	1,430.0	27.01	53.944	
7,369.0	6,928.0	7,280.0	6,929.0	22.9	15.1	-90.04	260.4	-422.1	1,457.0	1,429.7	27.30	53.361	
7,400.0	6,928.0	7,311.0	6,929.0	23.1	15.3	-90.04	291.4	-422.0	1,456.9	1,429.1	27.82	52.368	
7,500.0	6,928.0	7,411.0	6,929.0	23.6	16.2	-90.04	391.4	-421.8	1,456.7	1,427.1	29.68	49.089	
7,600.0	6,928.0	7,511.0	6,929.0	24.3	17.2	-90.04	491.4	-421.7	1,456.6	1,424.8	31.81	45.790	
7,700.0	6,928.0	7,611.0	6,929.0	25.0	18.3	-90.04	591.4	-421.5	1,456.4	1,422.2	34.17	42.619	
7,800.0	6,928.0	7,711.0	6,929.0	25.9	19.5	-90.04	691.4	-421.3	1,456.2	1,419.5	36.72	39.660	
7,900.0	6,928.0	7,811.0	6,929.0	26.9	20.7	-90.04	791.4	-421.2	1,456.1	1,416.7	39.41	36.944	
8,000.0	6,928.0	7,911.0	6,929.0	27.9	22.1	-90.04	891.4	-421.0	1,455.9	1,413.7	42.23	34.478	
8,100.0	6,928.0	8,011.0	6,929.0	29.0	23.5	-90.04	991.4	-420.8	1,455.7	1,410.6	45.14	32.251	
8,200.0	6,928.0	8,111.0	6,929.0	30.2	24.9	-90.04	1,091.4	-420.7	1,455.6	1,407.4	48.13	30.243	
8,300.0	6,928.0	8,211.0	6,929.0	31.4	26.4	-90.04	1,191.4	-420.5	1,455.4	1,404.2	51.19	28.434	
8,400.0	6,928.0	8,311.0	6,929.0	32.7	27.9	-90.04	1,291.4	-420.3	1,455.2	1,400.9	54.30	26.801	
8,500.0	6,928.0	8,411.0	6,929.0	34.0	29.4	-90.04	1,391.4	-420.2	1,455.1	1,397.6	57.45	25.326	
8,600.0	6,928.0	8,511.0	6,929.0	35.3	31.0	-90.04	1,491.4	-420.0	1,454.9	1,394.2	60.65	23.988	
8,700.0	6,928.0	8,611.0	6,929.0	36.7	32.6	-90.04	1,591.4	-419.8	1,454.7	1,390.8	63.88	22.773	
8,800.0	6,928.0	8,711.0	6,929.0	38.2	34.2	-90.04	1,691.4	-419.7	1,454.5	1,387.4	67.13	21.666	
8,900.0	6,928.0	8,811.0	6,929.0	39.6	35.8	-90.04	1,791.4	-419.5	1,454.4	1,384.0	70.42	20.654	

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 Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4C-20H-O264 - 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
9,000.0	6,928.0	8,911.0	6,929.0	41.1	37.4	-90.04	1,891.4	-419.3	1,454.2	1,380.5	73.72	19.727	
9,100.0	6,928.0	9,011.0	6,929.0	42.6	39.1	-90.04	1,991.4	-419.2	1,454.0	1,377.0	77.04	18.875	
9,200.0	6,928.0	9,111.0	6,929.0	44.1	40.7	-90.04	2,091.4	-419.0	1,453.9	1,373.5	80.37	18.089	
9,300.0	6,928.0	9,211.0	6,929.0	45.6	42.4	-90.04	2,191.4	-418.8	1,453.7	1,370.0	83.72	17.363	
9,400.0	6,928.0	9,311.0	6,929.0	47.2	44.0	-90.04	2,291.4	-418.6	1,453.5	1,366.5	87.09	16.691	
9,500.0	6,928.0	9,411.0	6,929.0	48.7	45.7	-90.04	2,391.4	-418.5	1,453.4	1,362.9	90.46	16.067	
9,600.0	6,928.0	9,511.0	6,929.0	50.3	47.4	-90.04	2,491.4	-418.3	1,453.2	1,359.4	93.84	15.486	
9,700.0	6,928.0	9,611.0	6,929.0	51.9	49.0	-90.04	2,591.4	-418.1	1,453.0	1,355.8	97.23	14.944	
9,800.0	6,928.0	9,711.0	6,929.0	53.5	50.7	-90.04	2,691.4	-418.0	1,452.9	1,352.2	100.63	14.437	
9,900.0	6,928.0	9,811.0	6,929.0	55.1	52.4	-90.04	2,791.4	-417.8	1,452.7	1,348.7	104.04	13.963	
10,000.0	6,928.0	9,911.0	6,929.0	56.7	54.1	-90.04	2,891.4	-417.6	1,452.5	1,345.1	107.46	13.517	
10,100.0	6,928.0	10,011.0	6,929.0	58.3	55.8	-90.04	2,991.4	-417.5	1,452.4	1,341.5	110.88	13.099	
10,200.0	6,928.0	10,111.0	6,929.0	60.0	57.5	-90.04	3,091.4	-417.3	1,452.2	1,337.9	114.30	12.705	
10,300.0	6,928.0	10,211.0	6,929.0	61.6	59.2	-90.04	3,191.4	-417.1	1,452.0	1,334.3	117.73	12.333	
10,400.0	6,928.0	10,311.0	6,929.0	63.2	60.9	-90.04	3,291.4	-417.0	1,451.9	1,330.7	121.16	11.982	
10,500.0	6,928.0	10,411.0	6,929.0	64.9	62.6	-90.04	3,391.4	-416.8	1,451.7	1,327.1	124.60	11.650	
10,600.0	6,928.0	10,511.0	6,929.0	66.5	64.3	-90.04	3,491.4	-416.6	1,451.5	1,323.5	128.05	11.336	
10,700.0	6,928.0	10,611.0	6,929.0	68.2	66.1	-90.04	3,591.4	-416.5	1,451.3	1,319.9	131.49	11.038	
10,800.0	6,928.0	10,711.0	6,929.0	69.9	67.8	-90.04	3,691.4	-416.3	1,451.2	1,316.2	134.94	10.754	
10,900.0	6,928.0	10,811.0	6,929.0	71.5	69.5	-90.04	3,791.4	-416.1	1,451.0	1,312.6	138.39	10.485	
11,000.0	6,928.0	10,911.0	6,929.0	73.2	71.2	-90.04	3,891.4	-416.0	1,450.8	1,309.0	141.85	10.228	
11,100.0	6,928.0	11,011.0	6,929.0	74.9	72.9	-90.04	3,991.4	-415.8	1,450.7	1,305.4	145.30	9.984	
11,200.0	6,928.0	11,111.0	6,929.0	76.6	74.7	-90.04	4,091.4	-415.6	1,450.5	1,301.7	148.76	9.750	
11,300.0	6,928.0	11,211.0	6,929.0	78.2	76.4	-90.04	4,191.4	-415.5	1,450.3	1,298.1	152.23	9.528	
11,400.0	6,928.0	11,311.0	6,929.0	79.9	78.1	-90.04	4,291.4	-415.3	1,450.2	1,294.5	155.69	9.314	
11,500.0	6,928.0	11,411.0	6,929.0	81.6	79.8	-90.04	4,391.4	-415.1	1,450.0	1,290.8	159.16	9.111	
11,582.5	6,928.0	11,493.5	6,929.0	83.0	81.3	-90.04	4,473.9	-415.0	1,449.9	1,287.8	162.02	8.949	
11,605.6	6,928.0	11,508.6	6,929.0	83.4	81.5	-90.04	4,489.0	-415.0	1,449.8	1,287.2	162.68	8.912	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4D-20H-O264 - 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	-89.44	0.4	-37.5	37.5				
100.0	100.0	100.0	100.0	0.1	0.1	-89.44	0.4	-37.5	37.5	37.2	0.24	153.379	
200.0	200.0	200.0	200.0	0.3	0.3	-89.44	0.4	-37.5	37.5	36.9	0.59	63.156	
300.0	300.0	300.0	300.0	0.5	0.5	-89.44	0.4	-37.5	37.5	36.5	0.94	39.765	CC, ES
400.0	400.0	399.9	399.9	0.6	0.6	164.02	0.1	-37.5	39.2	37.9	1.29	30.348	
500.0	499.8	499.7	499.7	0.8	0.8	163.63	-1.6	-37.8	44.5	42.8	1.64	27.099	
600.0	599.5	599.1	599.1	1.1	1.0	162.53	-5.0	-38.4	53.4	51.4	2.00	26.733	
700.0	698.7	698.1	697.9	1.3	1.2	161.18	-10.1	-39.2	65.9	63.6	2.36	27.893	
800.0	797.5	796.9	796.5	1.6	1.4	160.49	-15.9	-40.2	81.9	79.2	2.74	29.914	
900.0	895.6	895.0	894.4	2.0	1.6	160.65	-21.7	-41.2	101.1	98.0	3.12	32.444	
944.2	938.7	938.1	937.5	2.2	1.7	160.87	-24.3	-41.6	110.6	107.4	3.28	33.688	
1,000.0	993.2	992.5	991.8	2.4	1.8	161.24	-27.5	-42.1	123.1	119.6	3.50	35.144	
1,100.0	1,090.7	1,090.0	1,089.1	2.8	2.0	161.74	-33.3	-43.1	145.4	141.5	3.89	37.329	
1,200.0	1,188.1	1,187.5	1,186.4	3.2	2.2	162.11	-39.1	-44.1	167.6	163.4	4.29	39.103	
1,300.0	1,285.6	1,285.0	1,283.7	3.6	2.3	162.39	-44.8	-45.0	189.9	185.2	4.68	40.571	
1,400.0	1,383.1	1,382.5	1,381.0	4.1	2.5	162.61	-50.6	-46.0	212.2	207.1	5.08	41.804	
1,500.0	1,480.6	1,479.9	1,478.3	4.5	2.7	162.79	-56.4	-47.0	234.5	229.0	5.47	42.855	
1,600.0	1,578.1	1,577.4	1,575.6	4.9	2.9	162.94	-62.2	-47.9	256.8	250.9	5.87	43.761	
1,700.0	1,675.6	1,674.9	1,672.9	5.3	3.1	163.07	-68.0	-48.9	279.1	272.9	6.27	44.549	
1,800.0	1,773.0	1,772.4	1,770.2	5.8	3.3	163.17	-73.7	-49.8	301.4	294.8	6.66	45.242	
1,900.0	1,870.5	1,869.9	1,867.5	6.2	3.5	163.27	-79.5	-50.8	323.7	316.7	7.06	45.855	
2,000.0	1,968.0	1,967.3	1,964.8	6.6	3.7	163.35	-85.3	-51.8	346.0	338.6	7.46	46.401	
2,100.0	2,065.5	2,064.8	2,062.1	7.1	3.9	163.42	-91.1	-52.7	368.3	360.5	7.85	46.891	
2,200.0	2,163.0	2,162.3	2,159.4	7.5	4.1	163.48	-96.8	-53.7	390.6	382.4	8.25	47.332	
2,300.0	2,260.5	2,259.8	2,256.7	7.9	4.3	163.54	-102.6	-54.7	412.9	404.3	8.65	47.733	
2,400.0	2,357.9	2,357.3	2,354.0	8.3	4.5	163.58	-108.4	-55.6	435.2	426.2	9.05	48.097	
2,500.0	2,455.4	2,454.7	2,451.4	8.8	4.7	163.63	-114.2	-56.6	457.5	448.1	9.45	48.431	
2,600.0	2,552.9	2,552.2	2,548.7	9.2	4.9	163.67	-119.9	-57.6	479.8	470.0	9.85	48.736	
2,700.0	2,650.4	2,649.7	2,646.0	9.6	5.1	163.71	-125.7	-58.5	502.2	491.9	10.24	49.018	
2,800.0	2,747.9	2,747.2	2,743.3	10.1	5.3	163.74	-131.5	-59.5	524.5	513.8	10.64	49.278	
2,900.0	2,845.4	2,844.7	2,840.6	10.5	5.5	163.77	-137.3	-60.5	546.8	535.7	11.04	49.520	
3,000.0	2,942.8	2,942.1	2,937.9	10.9	5.7	163.80	-143.1	-61.4	569.1	557.6	11.44	49.744	
3,100.0	3,040.3	3,039.6	3,035.2	11.4	5.9	163.83	-148.8	-62.4	591.4	579.5	11.84	49.952	
3,200.0	3,137.8	3,137.1	3,132.5	11.8	6.1	163.85	-154.6	-63.4	613.7	601.4	12.24	50.147	
3,300.0	3,235.3	3,234.6	3,229.8	12.2	6.3	163.88	-160.4	-64.3	636.0	623.3	12.64	50.330	
3,400.0	3,332.8	3,332.1	3,327.1	12.7	6.5	163.90	-166.2	-65.3	658.3	645.3	13.04	50.501	
3,500.0	3,430.2	3,429.5	3,424.4	13.1	6.7	163.92	-171.9	-66.2	680.6	667.2	13.43	50.662	
3,600.0	3,527.7	3,527.0	3,521.7	13.5	6.9	163.94	-177.7	-67.2	702.9	689.1	13.83	50.814	
3,700.0	3,625.2	3,624.5	3,619.0	14.0	7.1	163.95	-183.5	-68.2	725.2	711.0	14.23	50.957	
3,800.0	3,722.7	3,722.0	3,716.3	14.4	7.3	163.97	-189.3	-69.1	747.5	732.9	14.63	51.092	
3,900.0	3,820.2	3,819.5	3,813.6	14.8	7.5	163.99	-195.1	-70.1	769.8	754.8	15.03	51.219	
4,000.0	3,917.7	3,916.9	3,910.9	15.3	7.7	164.00	-200.8	-71.1	792.1	776.7	15.43	51.341	
4,100.0	4,015.1	4,014.4	4,008.2	15.7	7.9	164.02	-206.6	-72.0	814.4	798.6	15.83	51.456	
4,200.0	4,112.6	4,111.9	4,105.5	16.1	8.1	164.03	-212.4	-73.0	836.7	820.5	16.23	51.565	
4,300.0	4,210.1	4,209.4	4,202.8	16.6	8.3	164.04	-218.2	-74.0	859.0	842.4	16.63	51.669	
4,400.0	4,307.6	4,306.9	4,300.1	17.0	8.5	164.05	-223.9	-74.9	881.4	864.3	17.03	51.768	
4,500.0	4,405.1	4,404.3	4,397.4	17.4	8.7	164.06	-229.7	-75.9	903.7	886.2	17.42	51.862	
4,600.0	4,502.6	4,501.8	4,494.7	17.9	8.9	164.07	-235.5	-76.9	926.0	908.1	17.82	51.952	
4,700.0	4,600.0	4,599.3	4,592.0	18.3	9.1	164.08	-241.3	-77.8	948.3	930.0	18.22	52.038	
4,800.0	4,697.5	4,696.8	4,689.3	18.8	9.3	164.09	-247.0	-78.8	970.6	952.0	18.62	52.121	
4,825.6	4,722.5	4,721.8	4,714.3	18.9	9.3	164.10	-248.5	-79.0	976.3	957.6	18.72	52.141	
4,900.0	4,795.1	4,794.4	4,786.7	19.2	9.5	164.14	-252.8	-79.8	992.4	973.4	19.03	52.140	

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 Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4D-20H-O264 - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,000.0	4,893.1	4,892.3	4,884.5	19.6	9.7	164.17	-258.6	-80.7	1,012.7	993.2	19.45	52.071	
5,100.0	4,991.3	4,990.5	4,982.6	19.9	9.9	164.17	-264.5	-81.7	1,031.3	1,011.5	19.86	51.927	
5,200.0	5,089.9	5,089.1	5,080.9	20.2	10.1	164.14	-270.3	-82.7	1,048.3	1,028.0	20.27	51.712	
5,300.0	5,188.8	5,187.9	5,179.5	20.5	10.3	164.09	-276.2	-83.7	1,063.6	1,042.9	20.68	51.432	
5,400.0	5,287.9	5,286.9	5,278.4	20.8	10.5	164.00	-282.0	-84.6	1,077.3	1,056.2	21.09	51.090	
5,500.0	5,387.2	5,386.1	5,377.5	21.1	10.7	163.89	-287.9	-85.6	1,089.3	1,067.8	21.49	50.690	
5,600.0	5,486.7	5,485.6	5,476.7	21.3	10.9	163.75	-293.8	-86.6	1,099.6	1,077.7	21.89	50.235	
5,700.0	5,586.4	5,585.1	5,576.1	21.5	11.1	163.59	-299.7	-87.6	1,108.3	1,086.0	22.29	49.730	
5,800.0	5,686.2	5,685.4	5,676.2	21.6	11.3	163.39	-305.6	-88.6	1,115.3	1,092.6	22.68	49.175	
5,900.0	5,786.1	5,788.4	5,779.1	21.8	11.5	163.23	-310.4	-89.4	1,120.5	1,097.4	23.05	48.608	
6,000.0	5,886.1	5,891.7	5,882.3	21.9	11.6	163.13	-313.4	-89.9	1,123.7	1,100.3	23.39	48.040	
6,100.0	5,986.0	5,995.0	5,985.6	22.0	11.8	163.09	-314.6	-90.1	1,125.0	1,101.3	23.70	47.470	
6,114.0	6,000.0	6,009.4	6,000.0	22.0	11.8	-89.98	-314.6	-90.1	1,125.0	1,101.2	23.74	47.388	
6,200.0	6,086.0	6,095.4	6,086.0	22.1	12.0	-89.98	-314.6	-90.1	1,125.0	1,101.0	24.01	46.861	
6,300.0	6,186.0	6,195.4	6,186.0	22.1	12.1	-89.98	-314.6	-90.1	1,125.0	1,100.7	24.32	46.262	
6,400.0	6,286.0	6,295.4	6,286.0	22.2	12.3	-89.98	-314.6	-90.1	1,125.0	1,100.3	24.63	45.676	
6,469.0	6,355.0	6,364.4	6,355.0	22.3	12.4	-89.98	-314.6	-90.1	1,125.0	1,100.1	24.85	45.279	
6,489.6	6,375.6	6,385.0	6,375.6	22.3	12.4	-90.00	-314.6	-90.1	1,125.0	1,100.1	24.90	45.173	
6,500.0	6,386.0	6,395.4	6,386.0	22.3	12.4	-90.02	-314.6	-90.1	1,125.0	1,100.0	24.94	45.115	
6,550.0	6,435.8	6,445.2	6,435.8	22.3	12.5	-90.27	-314.6	-90.1	1,125.0	1,099.9	25.07	44.869	
6,600.0	6,484.9	6,495.2	6,485.8	22.3	12.6	-90.67	-313.5	-90.1	1,125.1	1,099.9	25.18	44.683	
6,650.0	6,533.1	6,546.1	6,536.3	22.3	12.6	-91.08	-307.9	-90.1	1,125.2	1,100.0	25.22	44.615	
6,700.0	6,579.8	6,597.7	6,587.0	22.3	12.6	-91.49	-297.8	-90.1	1,125.4	1,100.2	25.20	44.654	
6,750.0	6,624.9	6,650.2	6,637.2	22.2	12.5	-91.88	-282.9	-90.1	1,125.6	1,100.5	25.13	44.787	
6,800.0	6,667.9	6,703.4	6,686.6	22.2	12.5	-92.27	-263.0	-90.1	1,125.9	1,100.9	25.02	44.995	
6,850.0	6,708.6	6,757.5	6,734.7	22.2	12.4	-92.64	-238.3	-90.1	1,126.2	1,101.3	24.89	45.250	
6,900.0	6,746.5	6,812.4	6,780.9	22.1	12.4	-92.99	-208.7	-90.1	1,126.5	1,101.8	24.75	45.518	
6,950.0	6,781.5	6,868.0	6,824.6	22.1	12.3	-93.32	-174.4	-90.1	1,126.9	1,102.3	24.63	45.756	
7,000.0	6,813.2	6,924.5	6,865.4	22.1	12.2	-93.62	-135.3	-90.1	1,127.3	1,102.7	24.55	45.917	
7,050.0	6,841.5	6,981.6	6,902.5	22.1	12.2	-93.90	-91.9	-90.1	1,127.6	1,103.1	24.54	45.947	
7,100.0	6,866.0	7,039.4	6,935.4	22.2	12.3	-94.14	-44.5	-90.1	1,127.9	1,103.3	24.63	45.799	
7,150.0	6,886.7	7,097.8	6,963.7	22.2	12.4	-94.35	6.6	-90.1	1,128.2	1,103.4	24.83	45.434	
7,200.0	6,903.3	7,156.7	6,986.8	22.3	12.6	-94.52	60.7	-90.1	1,128.5	1,103.3	25.18	44.815	
7,250.0	6,915.7	7,216.0	7,004.4	22.5	12.8	-94.65	117.3	-90.1	1,128.7	1,103.0	25.68	43.953	
7,300.0	6,923.9	7,275.5	7,016.0	22.6	13.2	-94.73	175.7	-90.1	1,128.8	1,102.5	26.33	42.878	
7,350.0	6,927.7	7,335.3	7,021.5	22.8	13.6	-94.77	235.2	-90.1	1,128.9	1,101.8	27.11	41.634	
7,369.0	6,928.0	7,358.0	7,022.0	22.9	13.7	-94.78	257.9	-90.1	1,128.9	1,101.4	27.44	41.134	
7,400.0	6,928.0	7,389.1	7,022.0	23.1	14.0	-94.78	289.0	-90.1	1,128.9	1,100.9	27.95	40.388	
7,500.0	6,928.0	7,489.1	7,022.0	23.6	14.9	-94.78	389.0	-90.1	1,128.9	1,099.1	29.79	37.894	
7,600.0	6,928.0	7,589.1	7,022.0	24.3	16.0	-94.78	489.0	-90.1	1,128.9	1,097.0	31.90	35.384	
7,700.0	6,928.0	7,689.1	7,022.0	25.0	17.2	-94.78	589.0	-90.1	1,128.9	1,094.6	34.24	32.966	
7,800.0	6,928.0	7,789.1	7,022.0	25.9	18.4	-94.78	689.0	-90.1	1,128.9	1,092.1	36.77	30.702	
7,900.0	6,928.0	7,889.1	7,022.0	26.9	19.8	-94.78	789.0	-90.1	1,128.9	1,089.4	39.44	28.622	
8,000.0	6,928.0	7,989.1	7,022.0	27.9	21.2	-94.78	889.0	-90.1	1,128.9	1,086.6	42.24	26.728	
8,100.0	6,928.0	8,089.1	7,022.0	29.0	22.6	-94.78	989.0	-90.1	1,128.9	1,083.8	45.13	25.016	
8,200.0	6,928.0	8,189.1	7,022.0	30.2	24.1	-94.78	1,089.0	-90.1	1,128.9	1,080.8	48.10	23.470	
8,300.0	6,928.0	8,289.1	7,022.0	31.4	25.6	-94.78	1,189.0	-90.1	1,128.9	1,077.7	51.14	22.076	
8,400.0	6,928.0	8,389.1	7,022.0	32.7	27.2	-94.78	1,289.0	-90.1	1,128.9	1,074.6	54.23	20.816	
8,500.0	6,928.0	8,489.1	7,022.0	34.0	28.8	-94.78	1,389.0	-90.1	1,128.9	1,071.5	57.37	19.677	
8,600.0	6,928.0	8,589.1	7,022.0	35.3	30.4	-94.78	1,489.0	-90.1	1,128.9	1,068.3	60.55	18.644	
8,700.0	6,928.0	8,689.1	7,022.0	36.7	32.0	-94.78	1,589.0	-90.1	1,128.9	1,065.1	63.76	17.705	
8,800.0	6,928.0	8,789.1	7,022.0	38.2	33.6	-94.78	1,689.0	-90.1	1,128.9	1,061.9	67.00	16.848	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4D-20H-O264 - 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
8,900.0	6,928.0	8,889.1	7,022.0	39.6	35.2	-94.78	1,789.0	-90.1	1,128.9	1,058.6	70.27	16.065	
9,000.0	6,928.0	8,989.1	7,022.0	41.1	36.9	-94.78	1,889.0	-90.1	1,128.9	1,055.3	73.55	15.348	
9,100.0	6,928.0	9,089.1	7,022.0	42.6	38.5	-94.78	1,989.0	-90.1	1,128.9	1,052.0	76.86	14.688	
9,200.0	6,928.0	9,189.1	7,022.0	44.1	40.2	-94.78	2,089.0	-90.1	1,128.9	1,048.7	80.18	14.079	
9,300.0	6,928.0	9,289.1	7,022.0	45.6	41.9	-94.78	2,189.0	-90.1	1,128.9	1,045.3	83.51	13.517	
9,400.0	6,928.0	9,389.1	7,022.0	47.2	43.6	-94.78	2,289.0	-90.1	1,128.9	1,042.0	86.86	12.996	
9,500.0	6,928.0	9,489.1	7,022.0	48.7	45.2	-94.78	2,389.0	-90.1	1,128.9	1,038.6	90.22	12.512	
9,600.0	6,928.0	9,589.1	7,022.0	50.3	46.9	-94.78	2,489.0	-90.1	1,128.9	1,035.3	93.59	12.062	
9,700.0	6,928.0	9,689.1	7,022.0	51.9	48.6	-94.78	2,589.0	-90.1	1,128.9	1,031.9	96.97	11.641	
9,800.0	6,928.0	9,789.1	7,022.0	53.5	50.3	-94.78	2,689.0	-90.1	1,128.9	1,028.5	100.36	11.249	
9,900.0	6,928.0	9,889.1	7,022.0	55.1	52.0	-94.78	2,789.0	-90.1	1,128.9	1,025.1	103.75	10.881	
10,000.0	6,928.0	9,989.1	7,022.0	56.7	53.7	-94.78	2,889.0	-90.1	1,128.9	1,021.7	107.15	10.535	
10,100.0	6,928.0	10,089.1	7,022.0	58.3	55.4	-94.78	2,989.0	-90.0	1,128.9	1,018.3	110.55	10.211	
10,200.0	6,928.0	10,189.1	7,022.0	60.0	57.2	-94.78	3,089.0	-90.0	1,128.9	1,014.9	113.97	9.905	
10,300.0	6,928.0	10,289.1	7,022.0	61.6	58.9	-94.78	3,189.0	-90.0	1,128.9	1,011.5	117.38	9.617	
10,400.0	6,928.0	10,389.1	7,022.0	63.2	60.6	-94.78	3,289.0	-90.0	1,128.8	1,008.0	120.80	9.344	
10,500.0	6,928.0	10,489.1	7,022.0	64.9	62.3	-94.78	3,389.0	-90.0	1,128.8	1,004.6	124.23	9.087	
10,600.0	6,928.0	10,589.1	7,022.0	66.5	64.0	-94.78	3,489.0	-90.0	1,128.8	1,001.2	127.66	8.843	
10,700.0	6,928.0	10,689.1	7,022.0	68.2	65.8	-94.78	3,589.0	-90.0	1,128.8	997.8	131.09	8.611	
10,800.0	6,928.0	10,789.1	7,022.0	69.9	67.5	-94.78	3,689.0	-90.0	1,128.8	994.3	134.53	8.391	
10,900.0	6,928.0	10,889.1	7,022.0	71.5	69.2	-94.78	3,789.0	-90.0	1,128.8	990.9	137.97	8.182	
11,000.0	6,928.0	10,989.1	7,022.0	73.2	70.9	-94.78	3,889.0	-90.0	1,128.8	987.4	141.41	7.983	
11,100.0	6,928.0	11,089.1	7,022.0	74.9	72.7	-94.78	3,989.0	-90.0	1,128.8	984.0	144.85	7.793	
11,200.0	6,928.0	11,189.1	7,022.0	76.6	74.4	-94.78	4,089.0	-90.0	1,128.8	980.5	148.30	7.612	
11,300.0	6,928.0	11,289.1	7,022.0	78.2	76.1	-94.78	4,189.0	-90.0	1,128.8	977.1	151.75	7.439	
11,400.0	6,928.0	11,389.1	7,022.0	79.9	77.9	-94.78	4,289.0	-90.0	1,128.8	973.6	155.20	7.273	
11,500.0	6,928.0	11,489.1	7,022.0	81.6	79.6	-94.78	4,389.0	-90.0	1,128.8	970.2	158.65	7.115	
11,574.2	6,928.0	11,563.3	7,022.0	82.9	80.9	-94.78	4,463.1	-90.0	1,128.8	967.6	161.21	7.002	
11,605.6	6,928.0	11,590.6	7,022.0	83.4	81.3	-94.78	4,490.5	-90.0	1,128.8	966.6	162.23	6.958	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4E-20H-O264 - 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	-90.08	0.0	-30.2	30.2				
100.0	100.0	100.0	100.0	0.1	0.1	-90.08	0.0	-30.2	30.2	30.0	0.24	123.613	
200.0	200.0	200.0	200.0	0.3	0.3	-90.08	0.0	-30.2	30.2	29.6	0.59	50.900	
300.0	300.0	300.0	300.0	0.5	0.5	-90.08	0.0	-30.2	30.2	29.3	0.94	32.048	CC, ES
400.0	400.0	400.0	400.0	0.6	0.6	163.90	0.0	-30.2	31.9	30.6	1.29	24.687	
500.0	499.8	500.3	500.3	0.8	0.8	165.12	-0.7	-29.6	36.3	34.7	1.64	22.155	
600.0	599.5	600.5	600.5	1.1	1.0	165.45	-2.8	-28.0	43.0	41.0	1.99	21.606	
700.0	698.7	700.7	700.5	1.3	1.2	165.20	-6.1	-25.2	51.9	49.6	2.35	22.117	
800.0	797.5	800.7	800.4	1.6	1.4	164.62	-10.9	-21.3	63.0	60.3	2.71	23.231	
900.0	895.6	900.2	899.6	2.0	1.6	164.02	-16.7	-16.5	76.5	73.4	3.09	24.760	
944.2	938.7	943.8	943.0	2.2	1.7	163.97	-19.4	-14.3	83.4	80.1	3.25	25.622	
1,000.0	993.2	998.9	997.9	2.4	1.8	164.02	-22.8	-11.5	92.6	89.1	3.47	26.664	
1,100.0	1,090.7	1,097.5	1,096.3	2.8	2.0	164.10	-28.8	-6.6	109.0	105.1	3.86	28.217	
1,200.0	1,188.1	1,196.2	1,194.6	3.2	2.2	164.16	-34.8	-1.6	125.4	121.1	4.25	29.468	
1,300.0	1,285.6	1,294.8	1,293.0	3.6	2.4	164.20	-40.8	3.3	141.8	137.1	4.65	30.496	
1,400.0	1,383.1	1,393.4	1,391.3	4.1	2.6	164.23	-46.8	8.3	158.2	153.2	5.05	31.354	
1,500.0	1,480.6	1,492.1	1,489.6	4.5	2.8	164.26	-52.9	13.2	174.6	169.2	5.44	32.081	
1,600.0	1,578.1	1,590.7	1,588.0	4.9	3.1	164.29	-58.9	18.2	191.0	185.2	5.84	32.704	
1,700.0	1,675.6	1,689.4	1,686.3	5.3	3.3	164.31	-64.9	23.1	207.4	201.2	6.24	33.244	
1,800.0	1,773.0	1,788.0	1,784.6	5.8	3.5	164.32	-70.9	28.1	223.8	217.2	6.64	33.716	
1,900.0	1,870.5	1,886.7	1,883.0	6.2	3.7	164.34	-76.9	33.0	240.3	233.2	7.04	34.132	
2,000.0	1,968.0	1,985.3	1,981.3	6.6	3.9	164.35	-83.0	38.0	256.7	249.2	7.44	34.502	
2,100.0	2,065.5	2,084.0	2,079.6	7.1	4.1	164.36	-89.0	42.9	273.1	265.2	7.84	34.833	
2,200.0	2,163.0	2,182.6	2,178.0	7.5	4.4	164.37	-95.0	47.9	289.5	281.2	8.24	35.130	
2,300.0	2,260.5	2,281.2	2,276.3	7.9	4.6	164.38	-101.0	52.8	305.9	297.3	8.64	35.398	
2,400.0	2,357.9	2,379.9	2,374.6	8.3	4.8	164.39	-107.0	57.8	322.3	313.3	9.04	35.642	
2,500.0	2,455.4	2,478.5	2,473.0	8.8	5.0	164.39	-113.0	62.7	338.7	329.3	9.44	35.865	
2,600.0	2,552.9	2,577.2	2,571.3	9.2	5.2	164.40	-119.1	67.7	355.1	345.3	9.85	36.068	
2,700.0	2,650.4	2,675.8	2,669.7	9.6	5.4	164.41	-125.1	72.6	371.5	361.3	10.25	36.256	
2,800.0	2,747.9	2,774.5	2,768.0	10.1	5.7	164.41	-131.1	77.6	388.0	377.3	10.65	36.428	
2,900.0	2,845.4	2,873.1	2,866.3	10.5	5.9	164.42	-137.1	82.5	404.4	393.3	11.05	36.588	
3,000.0	2,942.8	2,971.8	2,964.7	10.9	6.1	164.42	-143.1	87.5	420.8	409.3	11.45	36.736	
3,100.0	3,040.3	3,070.4	3,063.0	11.4	6.3	164.43	-149.2	92.4	437.2	425.3	11.86	36.874	
3,200.0	3,137.8	3,169.0	3,161.3	11.8	6.5	164.43	-155.2	97.3	453.6	441.3	12.26	37.003	
3,300.0	3,235.3	3,267.7	3,259.7	12.2	6.8	164.43	-161.2	102.3	470.0	457.3	12.66	37.123	
3,400.0	3,332.8	3,366.3	3,358.0	12.7	7.0	164.44	-167.2	107.2	486.4	473.4	13.06	37.235	
3,500.0	3,430.2	3,465.0	3,456.3	13.1	7.2	164.44	-173.2	112.2	502.8	489.4	13.47	37.341	
3,600.0	3,527.7	3,563.6	3,554.7	13.5	7.4	164.44	-179.2	117.1	519.2	505.4	13.87	37.441	
3,700.0	3,625.2	3,662.3	3,653.0	14.0	7.6	164.45	-185.3	122.1	535.6	521.4	14.27	37.534	
3,800.0	3,722.7	3,760.9	3,751.4	14.4	7.9	164.45	-191.3	127.0	552.1	537.4	14.67	37.623	
3,900.0	3,820.2	3,859.6	3,849.7	14.8	8.1	164.45	-197.3	132.0	568.5	553.4	15.08	37.706	
4,000.0	3,917.7	3,958.2	3,948.0	15.3	8.3	164.45	-203.3	136.9	584.9	569.4	15.48	37.785	
4,100.0	4,015.1	4,056.8	4,046.4	15.7	8.5	164.46	-209.3	141.9	601.3	585.4	15.88	37.860	
4,200.0	4,112.6	4,155.5	4,144.7	16.1	8.7	164.46	-215.4	146.8	617.7	601.4	16.28	37.931	
4,300.0	4,210.1	4,254.1	4,243.0	16.6	8.9	164.46	-221.4	151.8	634.1	617.4	16.69	37.999	
4,400.0	4,307.6	4,352.8	4,341.4	17.0	9.2	164.46	-227.4	156.7	650.5	633.4	17.09	38.064	
4,500.0	4,405.1	4,451.4	4,439.7	17.4	9.4	164.46	-233.4	161.7	666.9	649.4	17.49	38.125	
4,600.0	4,502.6	4,550.1	4,538.0	17.9	9.6	164.46	-239.4	166.6	683.3	665.4	17.90	38.184	
4,700.0	4,600.0	4,648.7	4,636.4	18.3	9.8	164.47	-245.5	171.6	699.8	681.5	18.30	38.240	
4,800.0	4,697.5	4,747.4	4,734.7	18.8	10.0	164.47	-251.5	176.5	716.2	697.5	18.70	38.293	
4,825.6	4,722.5	4,772.6	4,759.9	18.9	10.1	164.47	-253.0	177.8	720.4	701.6	18.81	38.307	
4,900.0	4,795.1	4,846.1	4,833.1	19.2	10.3	164.49	-257.5	181.5	732.1	713.0	19.12	38.301	

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 Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4E-20H-O264 - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,000.0	4,893.1	4,945.0	4,931.8	19.6	10.5	164.49	-263.5	186.4	746.5	726.9	19.53	38.219	
5,100.0	4,991.3	5,044.2	5,030.7	19.9	10.7	164.44	-269.6	191.4	759.1	739.2	19.95	38.056	
5,200.0	5,089.9	5,143.6	5,129.7	20.2	10.9	164.36	-275.6	196.4	770.2	749.8	20.37	37.817	
5,300.0	5,188.8	5,243.1	5,229.0	20.5	11.1	164.25	-281.7	201.4	779.5	758.7	20.78	37.507	
5,400.0	5,287.9	5,342.8	5,328.3	20.8	11.4	164.09	-287.8	206.4	787.2	766.0	21.20	37.129	
5,500.0	5,387.2	5,442.6	5,427.8	21.1	11.6	163.91	-293.9	211.4	793.2	771.6	21.62	36.689	
5,600.0	5,486.7	5,542.4	5,527.3	21.3	11.8	163.68	-300.0	216.4	797.5	775.5	22.04	36.189	
5,700.0	5,586.4	5,635.8	5,620.4	21.5	12.0	163.46	-305.3	220.8	800.5	778.1	22.43	35.694	
5,800.0	5,686.2	5,727.5	5,712.0	21.6	12.2	163.29	-309.4	224.2	802.9	780.1	22.79	35.233	
5,900.0	5,786.1	5,819.3	5,803.7	21.8	12.3	163.17	-312.4	226.7	804.6	781.5	23.12	34.797	
6,000.0	5,886.1	5,911.1	5,895.4	21.9	12.5	163.10	-314.3	228.2	805.7	782.2	23.43	34.384	
6,100.0	5,986.0	6,002.9	5,987.2	22.0	12.6	163.07	-315.0	228.8	806.1	782.4	23.72	33.990	
6,114.0	6,000.0	6,015.7	6,000.0	22.0	12.6	-90.00	-315.0	228.8	806.1	782.4	23.75	33.936	
6,200.0	6,086.0	6,101.7	6,086.0	22.1	12.8	-90.00	-315.0	228.8	806.1	782.1	24.02	33.559	
6,300.0	6,186.0	6,201.7	6,186.0	22.1	12.9	-90.00	-315.0	228.8	806.1	781.8	24.33	33.130	
6,400.0	6,286.0	6,301.7	6,286.0	22.2	13.1	-90.00	-315.0	228.8	806.1	781.5	24.64	32.710	
6,469.0	6,355.0	6,370.7	6,355.0	22.3	13.2	-90.00	-315.0	228.8	806.1	781.2	24.86	32.426	
6,472.8	6,358.9	6,374.5	6,358.9	22.3	13.2	-90.00	-315.0	228.8	806.1	781.2	24.87	32.412	
6,500.0	6,386.0	6,401.7	6,386.0	22.3	13.2	-90.06	-315.0	228.8	806.1	781.2	24.95	32.303	
6,550.0	6,435.8	6,451.4	6,435.8	22.3	13.3	-90.40	-315.0	228.8	806.1	781.0	25.12	32.092	
6,600.0	6,484.9	6,500.6	6,484.9	22.3	13.4	-91.03	-315.0	228.8	806.2	780.9	25.30	31.867	
6,650.0	6,533.1	6,548.7	6,533.1	22.3	13.4	-91.92	-315.0	228.8	806.6	781.1	25.49	31.646	
6,700.0	6,579.8	6,595.5	6,579.8	22.3	13.5	-93.00	-315.0	228.8	807.4	781.7	25.67	31.456	
6,750.0	6,624.9	6,645.3	6,629.6	22.2	13.5	-94.30	-313.6	228.8	808.8	783.0	25.81	31.332	
6,800.0	6,667.9	6,698.1	6,682.0	22.2	13.6	-95.61	-307.4	228.8	810.7	784.9	25.88	31.327	
6,850.0	6,708.6	6,753.2	6,735.9	22.2	13.6	-96.92	-295.9	228.8	813.1	787.3	25.86	31.445	
6,900.0	6,746.5	6,811.0	6,790.9	22.1	13.5	-98.22	-278.3	228.8	815.9	790.1	25.75	31.680	
6,950.0	6,781.5	6,871.8	6,846.5	22.1	13.5	-99.49	-253.9	228.8	819.0	793.4	25.58	32.014	
7,000.0	6,813.2	6,935.7	6,901.9	22.1	13.4	-100.72	-222.1	228.8	822.3	796.9	25.37	32.415	
7,050.0	6,841.5	7,002.9	6,956.0	22.1	13.3	-101.89	-182.1	228.8	825.7	800.5	25.14	32.839	
7,100.0	6,866.0	7,073.7	7,007.4	22.2	13.3	-102.99	-133.5	228.8	829.0	804.1	24.96	33.210	
7,150.0	6,886.7	7,147.9	7,054.5	22.2	13.3	-103.98	-76.2	228.8	832.1	807.3	24.88	33.441	
7,200.0	6,903.3	7,225.5	7,095.3	22.3	13.3	-104.82	-10.3	228.8	834.9	809.9	24.99	33.405	
7,250.0	6,915.7	7,305.9	7,127.8	22.5	13.6	-105.49	63.1	228.8	837.1	811.7	25.33	33.050	
7,300.0	6,923.9	7,388.6	7,150.2	22.6	13.9	-105.95	142.6	228.8	838.6	812.6	25.96	32.299	
7,350.0	6,927.7	7,472.6	7,161.1	22.8	14.4	-106.17	225.9	228.8	839.3	812.4	26.90	31.199	
7,369.0	6,928.0	7,504.7	7,162.0	22.9	14.7	-106.18	258.0	228.8	839.4	812.0	27.33	30.717	
7,400.0	6,928.0	7,535.7	7,162.0	23.1	14.9	-106.18	289.0	228.8	839.4	811.5	27.82	30.171	
7,500.0	6,928.0	7,635.7	7,162.0	23.6	15.8	-106.18	389.0	228.8	839.4	809.8	29.56	28.392	
7,600.0	6,928.0	7,735.7	7,162.0	24.3	16.8	-106.18	489.0	228.8	839.4	807.8	31.57	26.587	
7,700.0	6,928.0	7,835.7	7,162.0	25.0	17.9	-106.18	589.0	228.8	839.4	805.6	33.79	24.838	
7,800.0	6,928.0	7,935.7	7,162.0	25.9	19.1	-106.18	689.0	228.8	839.4	803.2	36.20	23.189	
7,900.0	6,928.0	8,035.7	7,162.0	26.9	20.4	-106.18	789.0	228.8	839.4	800.6	38.74	21.665	
8,000.0	6,928.0	8,135.7	7,162.0	27.9	21.8	-106.18	889.0	228.8	839.4	798.0	41.41	20.271	
8,100.0	6,928.0	8,235.7	7,162.0	29.0	23.2	-106.18	989.0	228.8	839.4	795.2	44.17	19.003	
8,200.0	6,928.0	8,335.7	7,162.0	30.2	24.7	-106.18	1,089.0	228.8	839.4	792.4	47.01	17.855	
8,300.0	6,928.0	8,435.7	7,162.0	31.4	26.2	-106.18	1,189.0	228.8	839.4	789.4	49.92	16.815	
8,400.0	6,928.0	8,535.7	7,162.0	32.7	27.7	-106.18	1,289.0	228.8	839.4	786.5	52.88	15.873	
8,500.0	6,928.0	8,635.7	7,162.0	34.0	29.2	-106.18	1,389.0	228.8	839.4	783.5	55.89	15.018	
8,600.0	6,928.0	8,735.7	7,162.0	35.3	30.8	-106.18	1,489.0	228.8	839.4	780.4	58.94	14.242	
8,700.0	6,928.0	8,835.7	7,162.0	36.7	32.4	-106.18	1,589.0	228.8	839.4	777.3	62.02	13.534	
8,800.0	6,928.0	8,935.7	7,162.0	38.2	34.0	-106.18	1,689.0	228.8	839.4	774.2	65.13	12.888	

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 Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4E-20H-O264 - 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
8,900.0	6,928.0	9,035.7	7,162.0	39.6	35.6	-106.18	1,789.0	228.8	839.4	771.1	68.26	12.296	
9,000.0	6,928.0	9,135.7	7,162.0	41.1	37.3	-106.18	1,889.0	228.8	839.4	767.9	71.42	11.753	
9,100.0	6,928.0	9,235.7	7,162.0	42.6	38.9	-106.18	1,989.0	228.8	839.4	764.8	74.59	11.252	
9,200.0	6,928.0	9,335.7	7,162.0	44.1	40.6	-106.18	2,089.0	228.8	839.4	761.6	77.79	10.791	
9,300.0	6,928.0	9,435.7	7,162.0	45.6	42.2	-106.18	2,189.0	228.8	839.4	758.4	80.99	10.363	
9,400.0	6,928.0	9,535.7	7,162.0	47.2	43.9	-106.18	2,289.0	228.8	839.4	755.1	84.21	9.967	
9,500.0	6,928.0	9,635.7	7,162.0	48.7	45.6	-106.18	2,389.0	228.8	839.4	751.9	87.44	9.599	
9,600.0	6,928.0	9,735.7	7,162.0	50.3	47.2	-106.18	2,489.0	228.8	839.4	748.7	90.68	9.256	
9,700.0	6,928.0	9,835.7	7,162.0	51.9	48.9	-106.18	2,589.0	228.8	839.4	745.4	93.93	8.936	
9,800.0	6,928.0	9,935.7	7,162.0	53.5	50.6	-106.18	2,689.0	228.8	839.4	742.2	97.19	8.636	
9,900.0	6,928.0	10,035.7	7,162.0	55.1	52.3	-106.18	2,789.0	228.8	839.4	738.9	100.46	8.355	
10,000.0	6,928.0	10,135.7	7,162.0	56.7	54.0	-106.18	2,889.0	228.8	839.3	735.6	103.73	8.092	
10,100.0	6,928.0	10,235.7	7,162.0	58.3	55.7	-106.18	2,989.0	228.8	839.3	732.3	107.01	7.844	
10,200.0	6,928.0	10,335.7	7,162.0	60.0	57.4	-106.18	3,089.0	228.8	839.3	729.1	110.29	7.610	
10,300.0	6,928.0	10,435.7	7,162.0	61.6	59.1	-106.18	3,189.0	228.8	839.3	725.8	113.58	7.390	
10,400.0	6,928.0	10,535.7	7,162.0	63.2	60.8	-106.18	3,289.0	228.8	839.3	722.5	116.87	7.182	
10,500.0	6,928.0	10,635.7	7,162.0	64.9	62.5	-106.18	3,389.0	228.8	839.3	719.2	120.17	6.985	
10,600.0	6,928.0	10,735.7	7,162.0	66.5	64.3	-106.18	3,489.0	228.8	839.3	715.9	123.47	6.798	
10,700.0	6,928.0	10,835.7	7,162.0	68.2	66.0	-106.18	3,589.0	228.8	839.3	712.6	126.78	6.621	
10,800.0	6,928.0	10,935.7	7,162.0	69.9	67.7	-106.18	3,689.0	228.8	839.3	709.3	130.09	6.452	
10,900.0	6,928.0	11,035.7	7,162.0	71.5	69.4	-106.18	3,789.0	228.8	839.3	705.9	133.40	6.292	
11,000.0	6,928.0	11,135.7	7,162.0	73.2	71.1	-106.18	3,889.0	228.8	839.3	702.6	136.71	6.139	
11,008.5	6,928.0	11,144.2	7,162.0	73.3	71.3	-106.18	3,897.5	228.8	839.3	702.3	137.00	6.127	
11,100.0	6,928.0	11,200.0	7,162.0	74.9	72.2	-106.17	3,953.3	228.1	840.7	701.3	139.45	6.029	
11,200.0	6,928.0	11,280.0	7,162.0	76.6	73.6	-106.10	4,033.1	224.3	845.5	703.0	142.48	5.934	
11,300.0	6,928.0	11,349.6	7,162.0	78.2	74.8	-105.99	4,102.4	218.3	853.8	708.5	145.36	5.874	
11,400.0	6,928.0	11,418.6	7,162.0	79.9	76.0	-105.83	4,170.9	209.8	865.7	717.5	148.27	5.839	
11,500.0	6,928.0	11,500.0	7,162.0	81.6	77.3	-105.59	4,251.3	196.5	881.2	729.8	151.44	5.819	SF
11,605.6	6,928.0	11,558.1	7,162.0	83.4	78.3	-105.39	4,308.2	184.9	901.0	746.8	154.28	5.840	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4F-20H-O264 - 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	-90.06	0.0	-22.7	22.7				
100.0	100.0	100.0	100.0	0.1	0.1	-90.06	0.0	-22.7	22.7	22.4	0.24	92.710	
200.0	200.0	200.0	200.0	0.3	0.3	-90.06	0.0	-22.7	22.7	22.1	0.59	38.175	
300.0	300.0	300.0	300.0	0.5	0.5	-90.06	0.0	-22.7	22.7	21.7	0.94	24.036	CC, ES
400.0	400.0	400.0	400.0	0.6	0.6	164.20	0.0	-22.7	24.3	23.0	1.29	18.840	
500.0	499.8	500.0	500.0	0.8	0.8	166.71	-0.2	-22.5	29.2	27.6	1.64	17.821	
600.0	599.5	600.3	600.2	1.1	1.0	168.24	-1.3	-21.1	36.3	34.3	1.99	18.261	
700.0	698.7	700.4	700.4	1.3	1.2	168.86	-3.5	-18.4	45.4	43.0	2.34	19.410	
800.0	797.5	800.6	800.3	1.6	1.4	168.95	-6.8	-14.4	56.4	53.7	2.69	20.969	
900.0	895.6	900.6	900.2	2.0	1.6	168.74	-11.3	-9.0	69.4	66.3	3.05	22.775	
944.2	938.7	944.8	944.2	2.2	1.7	168.60	-13.6	-6.2	75.7	72.5	3.21	23.619	
1,000.0	993.2	1,000.7	999.8	2.4	1.8	168.34	-16.8	-2.2	83.8	80.4	3.42	24.520	
1,100.0	1,090.7	1,099.9	1,098.6	2.8	2.0	167.74	-23.1	5.3	97.6	93.8	3.80	25.679	
1,200.0	1,188.1	1,199.0	1,197.2	3.2	2.2	167.29	-29.3	12.9	111.3	107.2	4.19	26.597	
1,300.0	1,285.6	1,298.0	1,295.7	3.6	2.5	166.93	-35.5	20.5	125.1	120.6	4.58	27.341	
1,400.0	1,383.1	1,397.1	1,394.3	4.1	2.7	166.64	-41.8	28.0	138.9	134.0	4.97	27.953	
1,500.0	1,480.6	1,496.1	1,492.8	4.5	2.9	166.41	-48.0	35.6	152.7	147.4	5.37	28.464	
1,600.0	1,578.1	1,595.2	1,591.4	4.9	3.2	166.21	-54.2	43.2	166.5	160.8	5.76	28.897	
1,700.0	1,675.6	1,694.2	1,689.9	5.3	3.4	166.05	-60.5	50.7	180.3	174.2	6.16	29.268	
1,800.0	1,773.0	1,793.2	1,788.5	5.8	3.6	165.90	-66.7	58.3	194.1	187.6	6.56	29.588	
1,900.0	1,870.5	1,892.3	1,887.1	6.2	3.9	165.78	-72.9	65.9	207.9	201.0	6.96	29.868	
2,000.0	1,968.0	1,991.3	1,985.6	6.6	4.1	165.67	-79.2	73.4	221.7	214.4	7.36	30.114	
2,100.0	2,065.5	2,090.4	2,084.2	7.1	4.3	165.58	-85.4	81.0	235.5	227.8	7.76	30.332	
2,200.0	2,163.0	2,189.4	2,182.7	7.5	4.6	165.49	-91.6	88.6	249.3	241.2	8.17	30.526	
2,300.0	2,260.5	2,288.5	2,281.3	7.9	4.8	165.42	-97.8	96.1	263.1	254.6	8.57	30.700	
2,400.0	2,357.9	2,387.5	2,379.8	8.3	5.1	165.35	-104.1	103.7	276.9	268.0	8.97	30.857	
2,500.0	2,455.4	2,486.5	2,478.4	8.8	5.3	165.29	-110.3	111.3	290.7	281.4	9.38	31.000	
2,600.0	2,552.9	2,585.6	2,577.0	9.2	5.5	165.23	-116.5	118.8	304.5	294.8	9.78	31.129	
2,700.0	2,650.4	2,684.6	2,675.5	9.6	5.8	165.18	-122.8	126.4	318.3	308.2	10.19	31.247	
2,800.0	2,747.9	2,783.7	2,774.1	10.1	6.0	165.13	-129.0	134.0	332.1	321.6	10.59	31.356	
2,900.0	2,845.4	2,882.7	2,872.6	10.5	6.3	165.09	-135.2	141.5	345.9	335.0	11.00	31.455	
3,000.0	2,942.8	2,981.7	2,971.2	10.9	6.5	165.05	-141.5	149.1	359.8	348.3	11.40	31.548	
3,100.0	3,040.3	3,080.8	3,069.7	11.4	6.7	165.01	-147.7	156.7	373.6	361.7	11.81	31.633	
3,200.0	3,137.8	3,179.8	3,168.3	11.8	7.0	164.98	-153.9	164.2	387.4	375.1	12.22	31.712	
3,300.0	3,235.3	3,278.9	3,266.8	12.2	7.2	164.95	-160.2	171.8	401.2	388.5	12.62	31.786	
3,400.0	3,332.8	3,377.9	3,365.4	12.7	7.5	164.92	-166.4	179.4	415.0	401.9	13.03	31.854	
3,500.0	3,430.2	3,477.0	3,464.0	13.1	7.7	164.89	-172.6	186.9	428.8	415.3	13.43	31.919	
3,600.0	3,527.7	3,576.0	3,562.5	13.5	8.0	164.86	-178.9	194.5	442.6	428.7	13.84	31.979	
3,700.0	3,625.2	3,675.0	3,661.1	14.0	8.2	164.84	-185.1	202.1	456.4	442.1	14.25	32.036	
3,800.0	3,722.7	3,774.1	3,759.6	14.4	8.4	164.81	-191.3	209.6	470.2	455.5	14.65	32.089	
3,900.0	3,820.2	3,873.1	3,858.2	14.8	8.7	164.79	-197.6	217.2	484.0	468.9	15.06	32.139	
4,000.0	3,917.7	3,972.2	3,956.7	15.3	8.9	164.77	-203.8	224.8	497.8	482.3	15.47	32.186	
4,100.0	4,015.1	4,071.2	4,055.3	15.7	9.2	164.75	-210.0	232.3	511.6	495.7	15.87	32.231	
4,200.0	4,112.6	4,170.3	4,153.8	16.1	9.4	164.73	-216.3	239.9	525.4	509.1	16.28	32.273	
4,300.0	4,210.1	4,269.3	4,252.4	16.6	9.7	164.72	-222.5	247.5	539.2	522.5	16.69	32.314	
4,400.0	4,307.6	4,368.3	4,351.0	17.0	9.9	164.70	-228.7	255.1	553.0	535.9	17.09	32.352	
4,500.0	4,405.1	4,467.4	4,449.5	17.4	10.1	164.68	-235.0	262.6	566.8	549.3	17.50	32.388	
4,600.0	4,502.6	4,566.4	4,548.1	17.9	10.4	164.67	-241.2	270.2	580.6	562.7	17.91	32.423	
4,700.0	4,600.0	4,665.5	4,646.6	18.3	10.6	164.65	-247.4	277.8	594.4	576.1	18.32	32.455	
4,800.0	4,697.5	4,764.5	4,745.2	18.8	10.9	164.64	-253.7	285.3	608.3	589.5	18.72	32.487	
4,825.6	4,722.5	4,789.9	4,770.4	18.9	10.9	164.64	-255.3	287.3	611.8	593.0	18.83	32.495	
4,900.0	4,795.1	4,863.6	4,843.8	19.2	11.1	164.64	-259.9	292.9	621.6	602.5	19.14	32.477	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4F-20H-O264 - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,000.0	4,893.1	4,962.9	4,942.6	19.6	11.4	164.61	-266.1	300.5	633.3	613.8	19.56	32.378	
5,100.0	4,991.3	5,062.4	5,041.6	19.9	11.6	164.53	-272.4	308.1	643.4	623.4	19.98	32.196	
5,200.0	5,089.9	5,162.0	5,140.8	20.2	11.8	164.41	-278.7	315.7	651.8	631.4	20.41	31.936	
5,300.0	5,188.8	5,261.8	5,240.0	20.5	12.1	164.25	-284.9	323.3	658.5	637.7	20.84	31.603	
5,400.0	5,287.9	5,361.6	5,339.4	20.8	12.3	164.04	-291.2	330.9	663.5	642.3	21.27	31.201	
5,500.0	5,387.2	5,461.0	5,438.3	21.1	12.6	163.80	-297.5	338.5	666.9	645.2	21.70	30.737	
5,600.0	5,486.7	5,552.6	5,529.5	21.3	12.8	163.58	-302.7	344.9	669.3	647.3	22.09	30.296	
5,700.0	5,586.4	5,644.3	5,620.9	21.5	13.0	163.40	-307.0	350.2	671.3	648.9	22.47	29.882	
5,800.0	5,686.2	5,735.9	5,712.4	21.6	13.1	163.26	-310.4	354.3	672.9	650.1	22.82	29.493	
5,900.0	5,786.1	5,827.5	5,803.9	21.8	13.3	163.16	-312.9	357.3	674.1	650.9	23.14	29.126	
6,000.0	5,886.1	5,919.2	5,895.6	21.9	13.4	163.09	-314.4	359.1	674.8	651.3	23.45	28.780	
6,100.0	5,986.0	6,010.9	5,987.2	22.0	13.6	163.07	-315.0	359.8	675.0	651.3	23.73	28.451	
6,114.0	6,000.0	6,023.7	6,000.0	22.0	13.6	-90.00	-315.0	359.8	675.1	651.3	23.77	28.405	
6,200.0	6,086.0	6,109.7	6,086.0	22.1	13.7	-90.00	-315.0	359.8	675.1	651.0	24.03	28.090	
6,300.0	6,186.0	6,209.7	6,186.0	22.1	13.8	-90.00	-315.0	359.8	675.1	650.7	24.34	27.731	
6,400.0	6,286.0	6,309.7	6,286.0	22.2	14.0	-90.00	-315.0	359.8	675.1	650.4	24.66	27.380	
6,469.0	6,355.0	6,378.7	6,355.0	22.3	14.1	-90.00	-315.0	359.8	675.1	650.2	24.87	27.142	
6,500.0	6,386.0	6,409.7	6,386.0	22.3	14.1	-90.00	-314.2	359.8	675.1	650.1	24.94	27.067	
6,550.0	6,435.8	6,459.7	6,435.8	22.3	14.1	-90.00	-309.3	359.8	675.1	650.1	24.99	27.012	
6,600.0	6,484.9	6,509.7	6,484.9	22.3	14.1	-90.00	-300.1	359.8	675.1	650.1	24.98	27.020	
6,650.0	6,533.1	6,559.7	6,533.1	22.3	14.1	-90.00	-286.7	359.8	675.1	650.1	24.93	27.082	
6,700.0	6,579.8	6,609.7	6,579.9	22.3	14.0	-90.00	-269.1	359.8	675.1	650.2	24.83	27.188	
6,750.0	6,624.9	6,659.7	6,624.9	22.2	14.0	-90.00	-247.5	359.8	675.1	650.3	24.71	27.323	
6,800.0	6,667.9	6,709.7	6,668.0	22.2	13.9	-90.00	-222.0	359.8	675.1	650.5	24.57	27.472	
6,850.0	6,708.6	6,759.7	6,708.6	22.2	13.9	-90.00	-192.9	359.8	675.1	650.6	24.44	27.617	
6,900.0	6,746.5	6,809.7	6,746.5	22.1	13.8	-90.00	-160.4	359.8	675.1	650.7	24.34	27.735	
6,950.0	6,781.5	6,859.7	6,781.5	22.1	13.8	-90.00	-124.7	359.8	675.1	650.8	24.28	27.805	
7,000.0	6,813.2	6,909.7	6,813.2	22.1	13.8	-90.00	-86.1	359.8	675.1	650.8	24.28	27.805	
7,050.0	6,841.5	6,959.7	6,841.5	22.1	13.8	-90.00	-44.8	359.8	675.1	650.7	24.36	27.716	
7,100.0	6,866.0	7,009.7	6,866.0	22.2	13.9	-90.00	-1.3	359.8	675.1	650.5	24.53	27.524	
7,150.0	6,886.7	7,059.7	6,886.7	22.2	14.0	-90.00	44.3	359.8	675.0	650.2	24.80	27.219	
7,200.0	6,903.3	7,109.7	6,903.3	22.3	14.2	-90.00	91.4	359.8	675.0	649.9	25.18	26.804	
7,250.0	6,915.7	7,159.7	6,915.7	22.5	14.4	-90.00	139.8	359.8	675.0	649.4	25.68	26.285	
7,300.0	6,923.9	7,209.7	6,923.9	22.6	14.7	-90.00	189.1	359.8	675.0	648.8	26.29	25.678	
7,350.0	6,927.7	7,259.7	6,927.7	22.8	15.0	-90.00	239.0	359.8	675.0	648.1	27.00	25.005	
7,369.0	6,928.0	7,278.7	6,928.0	22.9	15.1	-90.00	258.0	359.8	675.0	647.8	27.29	24.736	
7,400.0	6,928.0	7,309.7	6,928.0	23.1	15.4	-90.00	289.0	359.8	675.0	647.2	27.81	24.278	
7,500.0	6,928.0	7,409.7	6,928.0	23.6	16.2	-90.00	389.0	359.9	675.0	645.4	29.66	22.762	
7,600.0	6,928.0	7,509.7	6,928.0	24.3	17.2	-90.00	489.0	359.9	675.0	643.3	31.79	21.235	
7,700.0	6,928.0	7,609.7	6,928.0	25.0	18.3	-90.00	589.0	359.9	675.0	640.9	34.15	19.767	
7,800.0	6,928.0	7,709.7	6,928.0	25.9	19.5	-90.00	689.0	359.9	675.0	638.3	36.69	18.396	
7,900.0	6,928.0	7,809.7	6,928.0	26.9	20.7	-90.00	789.0	359.9	675.0	635.7	39.39	17.139	
8,000.0	6,928.0	7,909.7	6,928.0	27.9	22.1	-90.00	889.0	359.9	675.0	632.8	42.20	15.996	
8,100.0	6,928.0	8,009.7	6,928.0	29.0	23.5	-90.00	989.0	359.9	675.0	629.9	45.11	14.964	
8,200.0	6,928.0	8,109.7	6,928.0	30.2	24.9	-90.00	1,089.0	359.9	675.0	626.9	48.10	14.034	
8,300.0	6,928.0	8,209.7	6,928.0	31.4	26.4	-90.00	1,189.0	359.9	675.0	623.9	51.16	13.195	
8,400.0	6,928.0	8,309.7	6,928.0	32.7	27.9	-90.00	1,289.0	359.9	675.0	620.8	54.27	12.439	
8,500.0	6,928.0	8,409.7	6,928.0	34.0	29.4	-90.00	1,389.0	359.9	675.0	617.6	57.42	11.755	
8,600.0	6,928.0	8,509.7	6,928.0	35.3	31.0	-90.00	1,489.0	359.9	675.0	614.4	60.62	11.136	
8,700.0	6,928.0	8,609.7	6,928.0	36.7	32.6	-90.00	1,589.0	359.9	675.0	611.2	63.85	10.572	
8,800.0	6,928.0	8,709.7	6,928.0	38.2	34.2	-90.00	1,689.0	359.9	675.0	607.9	67.10	10.059	
8,900.0	6,928.0	8,809.7	6,928.0	39.6	35.8	-90.00	1,789.0	359.9	675.0	604.6	70.39	9.591	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4F-20H-O264 - 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
9,000.0	6,928.0	8,909.7	6,928.0	41.1	37.4	-90.00	1,889.0	359.9	675.0	601.3	73.69	9.161	
9,100.0	6,928.0	9,009.7	6,928.0	42.6	39.0	-90.00	1,989.0	359.9	675.0	598.0	77.01	8.766	
9,200.0	6,928.0	9,109.7	6,928.0	44.1	40.7	-90.00	2,089.0	359.9	675.0	594.7	80.34	8.402	
9,300.0	6,928.0	9,209.7	6,928.0	45.6	42.3	-90.00	2,189.0	359.9	675.0	591.3	83.69	8.066	
9,400.0	6,928.0	9,309.7	6,928.0	47.2	44.0	-90.00	2,289.0	359.9	675.0	588.0	87.05	7.754	
9,500.0	6,928.0	9,409.7	6,928.0	48.7	45.7	-90.00	2,389.0	359.9	675.0	584.6	90.43	7.465	
9,600.0	6,928.0	9,509.7	6,928.0	50.3	47.4	-90.00	2,489.0	359.9	675.0	581.2	93.81	7.196	
9,700.0	6,928.0	9,609.7	6,928.0	51.9	49.0	-90.00	2,589.0	359.9	675.0	577.8	97.20	6.944	
9,800.0	6,928.0	9,709.7	6,928.0	53.5	50.7	-90.00	2,689.0	359.9	675.0	574.4	100.60	6.710	
9,900.0	6,928.0	9,809.7	6,928.0	55.1	52.4	-90.00	2,789.0	359.9	675.0	571.0	104.01	6.490	
10,000.0	6,928.0	9,909.7	6,928.0	56.7	54.1	-90.00	2,889.0	359.9	675.0	567.6	107.42	6.284	
10,100.0	6,928.0	10,009.7	6,928.0	58.3	55.8	-90.00	2,989.0	359.9	675.0	564.2	110.84	6.090	
10,200.0	6,928.0	10,109.7	6,928.0	60.0	57.5	-90.00	3,089.0	359.9	675.0	560.7	114.27	5.907	
10,300.0	6,928.0	10,209.7	6,928.0	61.6	59.2	-90.00	3,189.0	359.9	675.0	557.3	117.70	5.735	
10,400.0	6,928.0	10,309.7	6,928.0	63.2	60.9	-90.00	3,289.0	359.9	675.0	553.9	121.13	5.573	
10,500.0	6,928.0	10,409.7	6,928.0	64.9	62.6	-90.00	3,389.0	359.9	675.0	550.4	124.57	5.419	
10,600.0	6,928.0	10,509.7	6,928.0	66.5	64.3	-90.00	3,489.0	359.9	675.0	547.0	128.01	5.273	
10,700.0	6,928.0	10,609.7	6,928.0	68.2	66.0	-90.00	3,589.0	359.9	675.0	543.6	131.46	5.135	
10,800.0	6,928.0	10,709.7	6,928.0	69.9	67.8	-90.00	3,689.0	359.9	675.0	540.1	134.91	5.003	
10,900.0	6,928.0	10,809.7	6,928.0	71.5	69.5	-90.00	3,789.0	359.9	675.0	536.7	138.36	4.879	
11,000.0	6,928.0	10,909.7	6,928.0	73.2	71.2	-90.00	3,889.0	359.9	675.0	533.2	141.82	4.760	
11,100.0	6,928.0	11,009.7	6,928.0	74.9	72.9	-90.00	3,989.0	359.9	675.0	529.7	145.27	4.647	
11,200.0	6,928.0	11,109.7	6,928.0	76.6	74.6	-90.00	4,089.0	359.9	675.0	526.3	148.73	4.538	
11,300.0	6,928.0	11,209.7	6,928.0	78.2	76.4	-90.00	4,189.0	359.9	675.0	522.8	152.19	4.435	
11,400.0	6,928.0	11,309.7	6,928.0	79.9	78.1	-90.00	4,289.0	359.9	675.0	519.3	155.66	4.336	
11,500.0	6,928.0	11,409.7	6,928.0	81.6	79.8	-90.00	4,389.0	359.9	675.0	515.9	159.12	4.242	
11,574.6	6,928.0	11,484.4	6,928.0	82.9	81.1	-90.00	4,463.6	359.9	675.0	513.3	161.71	4.174	
11,605.6	6,928.0	11,512.7	6,928.0	83.4	81.6	-90.00	4,491.9	359.9	675.0	512.3	162.74	4.148 SF	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4G-20H-O264 - 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	-15.1	15.1				
100.0	100.0	100.0	100.0	0.1	0.1	-90.05	0.0	-15.1	15.1	14.9	0.24	61.807	
200.0	200.0	200.0	200.0	0.3	0.3	-90.05	0.0	-15.1	15.1	14.5	0.59	25.450	
300.0	300.0	300.0	300.0	0.5	0.5	-90.05	0.0	-15.1	15.1	14.2	0.94	16.024	CC, ES
400.0	400.0	400.0	400.0	0.6	0.6	164.75	0.0	-15.1	16.8	15.5	1.29	12.994	
500.0	499.8	500.2	500.2	0.8	0.8	167.45	-0.4	-14.3	21.1	19.4	1.64	12.847	
600.0	599.5	600.4	600.3	1.1	1.0	169.24	-1.6	-12.0	27.2	25.2	1.99	13.675	
700.0	698.7	700.6	700.4	1.3	1.2	170.32	-3.7	-8.1	35.1	32.8	2.34	15.035	
800.0	797.5	800.7	800.4	1.6	1.4	170.94	-6.5	-2.7	44.9	42.2	2.68	16.713	
900.0	895.6	900.9	900.3	2.0	1.6	171.26	-10.2	4.3	56.4	53.4	3.03	18.594	
944.2	938.7	945.1	944.3	2.2	1.7	171.35	-12.1	7.8	62.0	58.9	3.19	19.469	
1,000.0	993.2	1,001.1	1,000.0	2.4	1.8	171.38	-14.7	12.8	69.2	65.8	3.39	20.407	
1,100.0	1,090.7	1,101.7	1,099.9	2.8	2.1	171.09	-20.0	22.9	80.7	76.9	3.76	21.457	
1,200.0	1,188.1	1,202.6	1,200.0	3.2	2.3	170.49	-26.1	34.6	90.5	86.4	4.14	21.871	
1,300.0	1,285.6	1,302.2	1,298.6	3.6	2.6	169.83	-32.6	46.9	99.5	95.0	4.52	22.006	
1,400.0	1,383.1	1,401.8	1,397.3	4.1	2.9	169.28	-39.1	59.3	108.5	103.6	4.91	22.105	
1,500.0	1,480.6	1,501.4	1,495.9	4.5	3.2	168.81	-45.5	71.6	117.5	112.2	5.30	22.176	
1,600.0	1,578.1	1,601.0	1,594.5	4.9	3.4	168.41	-52.0	84.0	126.5	120.8	5.69	22.227	
1,700.0	1,675.6	1,700.6	1,693.1	5.3	3.7	168.06	-58.5	96.3	135.5	129.4	6.09	22.263	
1,800.0	1,773.0	1,800.2	1,791.7	5.8	4.0	167.76	-65.0	108.7	144.6	138.1	6.49	22.288	
1,900.0	1,870.5	1,899.8	1,890.3	6.2	4.3	167.49	-71.5	121.0	153.6	146.7	6.89	22.305	
2,000.0	1,968.0	1,999.4	1,988.9	6.6	4.6	167.26	-77.9	133.3	162.6	155.3	7.29	22.315	
2,100.0	2,065.5	2,099.0	2,087.5	7.1	4.9	167.04	-84.4	145.7	171.7	164.0	7.69	22.321	
2,200.0	2,163.0	2,198.6	2,186.1	7.5	5.2	166.85	-90.9	158.0	180.7	172.6	8.09	22.323	
2,300.0	2,260.5	2,298.1	2,284.7	7.9	5.5	166.68	-97.4	170.4	189.7	181.2	8.50	22.322	
2,400.0	2,357.9	2,397.7	2,383.3	8.3	5.8	166.52	-103.9	182.7	198.8	189.9	8.91	22.319	
2,500.0	2,455.4	2,497.3	2,481.9	8.8	6.1	166.38	-110.3	195.1	207.8	198.5	9.31	22.315	
2,600.0	2,552.9	2,596.9	2,580.6	9.2	6.4	166.24	-116.8	207.4	216.9	207.1	9.72	22.309	
2,700.0	2,650.4	2,696.5	2,679.2	9.6	6.7	166.12	-123.3	219.8	225.9	215.8	10.13	22.303	
2,800.0	2,747.9	2,796.1	2,777.8	10.1	7.0	166.01	-129.8	232.1	235.0	224.4	10.54	22.296	
2,900.0	2,845.4	2,895.7	2,876.4	10.5	7.3	165.91	-136.2	244.4	244.0	233.1	10.95	22.288	
3,000.0	2,942.8	2,995.3	2,975.0	10.9	7.6	165.81	-142.7	256.8	253.1	241.7	11.36	22.280	
3,100.0	3,040.3	3,094.9	3,073.6	11.4	7.9	165.72	-149.2	269.1	262.1	250.3	11.77	22.272	
3,200.0	3,137.8	3,194.4	3,172.2	11.8	8.2	165.64	-155.7	281.5	271.1	259.0	12.18	22.264	
3,300.0	3,235.3	3,294.0	3,270.8	12.2	8.5	165.56	-162.2	293.8	280.2	267.6	12.59	22.256	
3,400.0	3,332.8	3,393.6	3,369.4	12.7	8.8	165.49	-168.6	306.2	289.2	276.2	13.00	22.247	
3,500.0	3,430.2	3,493.2	3,468.0	13.1	9.1	165.42	-175.1	318.5	298.3	284.9	13.41	22.239	
3,600.0	3,527.7	3,592.8	3,566.6	13.5	9.4	165.35	-181.6	330.8	307.3	293.5	13.83	22.231	
3,700.0	3,625.2	3,692.4	3,665.2	14.0	9.7	165.29	-188.1	343.2	316.4	302.2	14.24	22.223	
3,800.0	3,722.7	3,792.0	3,763.9	14.4	10.0	165.23	-194.6	355.5	325.4	310.8	14.65	22.215	
3,900.0	3,820.2	3,891.6	3,862.5	14.8	10.3	165.18	-201.0	367.9	334.5	319.4	15.06	22.207	
4,000.0	3,917.7	3,991.2	3,961.1	15.3	10.6	165.13	-207.5	380.2	343.6	328.1	15.48	22.200	
4,100.0	4,015.1	4,090.7	4,059.7	15.7	10.9	165.08	-214.0	392.6	352.6	336.7	15.89	22.192	
4,200.0	4,112.6	4,190.3	4,158.3	16.1	11.1	165.03	-220.5	404.9	361.7	345.4	16.30	22.185	
4,300.0	4,210.1	4,289.9	4,256.9	16.6	11.4	164.99	-227.0	417.2	370.7	354.0	16.72	22.178	
4,400.0	4,307.6	4,389.5	4,355.5	17.0	11.7	164.95	-233.4	429.6	379.8	362.6	17.13	22.171	
4,500.0	4,405.1	4,489.1	4,454.1	17.4	12.0	164.91	-239.9	441.9	388.8	371.3	17.54	22.164	
4,600.0	4,502.6	4,588.7	4,552.7	17.9	12.3	164.87	-246.4	454.3	397.9	379.9	17.96	22.158	
4,700.0	4,600.0	4,688.3	4,651.3	18.3	12.6	164.83	-252.9	466.6	406.9	388.6	18.37	22.151	
4,800.0	4,697.5	4,787.9	4,749.9	18.8	12.9	164.80	-259.4	479.0	416.0	397.2	18.78	22.145	
4,825.6	4,722.5	4,813.4	4,775.2	18.9	13.0	164.79	-261.0	482.1	418.3	399.4	18.89	22.143	
4,900.0	4,795.1	4,887.5	4,848.6	19.2	13.2	164.76	-265.8	491.3	424.6	405.4	19.21	22.105	

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 Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4G-20H-O264 - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,000.0	4,893.1	4,987.2	4,947.4	19.6	13.5	164.67	-272.3	503.7	431.5	411.9	19.64	21.974	
5,100.0	4,991.3	5,087.1	5,046.2	19.9	13.8	164.52	-278.8	516.1	436.8	416.7	20.08	21.757	
5,200.0	5,089.9	5,187.0	5,145.2	20.2	14.1	164.31	-285.3	528.4	440.4	419.9	20.52	21.459	
5,300.0	5,188.8	5,284.0	5,241.2	20.5	14.4	164.05	-291.6	540.3	442.5	421.6	20.97	21.104	
5,400.0	5,287.9	5,377.5	5,334.0	20.8	14.7	163.82	-297.0	550.6	444.2	422.8	21.39	20.770	
5,500.0	5,387.2	5,471.0	5,426.9	21.1	14.9	163.62	-301.7	559.6	445.7	423.9	21.79	20.457	
5,600.0	5,486.7	5,564.5	5,520.0	21.3	15.1	163.46	-305.7	567.2	446.9	424.8	22.17	20.163	
5,700.0	5,586.4	5,658.0	5,613.2	21.5	15.3	163.32	-308.9	573.4	448.0	425.5	22.53	19.888	
5,800.0	5,686.2	5,751.5	5,706.6	21.6	15.5	163.21	-311.5	578.3	448.8	425.9	22.86	19.629	
5,900.0	5,786.1	5,845.0	5,800.0	21.8	15.6	163.14	-313.4	581.9	449.4	426.2	23.18	19.385	
6,000.0	5,886.1	5,938.5	5,893.5	21.9	15.8	163.09	-314.6	584.1	449.8	426.3	23.48	19.154	
6,100.0	5,986.0	6,032.0	5,987.0	22.0	15.9	163.07	-315.0	585.0	449.9	426.1	23.76	18.935	
6,114.0	6,000.0	6,045.0	6,000.0	22.0	15.9	-90.00	-315.0	585.0	449.9	426.1	23.80	18.905	
6,200.0	6,086.0	6,131.1	6,086.0	22.1	16.0	-90.00	-315.0	585.0	449.9	425.8	24.07	18.695	
6,300.0	6,186.0	6,231.1	6,186.0	22.1	16.1	-90.00	-315.0	585.0	449.9	425.5	24.38	18.456	
6,400.0	6,286.0	6,331.1	6,286.0	22.2	16.2	-90.00	-315.0	585.0	449.9	425.2	24.69	18.223	
6,469.0	6,355.0	6,400.1	6,355.0	22.3	16.3	-90.00	-315.0	585.0	449.9	425.0	24.90	18.065	
6,473.5	6,359.6	6,404.6	6,359.6	22.3	16.3	-90.00	-315.0	585.0	449.9	425.0	24.92	18.056	
6,500.0	6,386.0	6,431.1	6,386.0	22.3	16.3	-90.11	-315.0	585.0	449.9	424.9	25.01	17.986	
6,550.0	6,435.8	6,480.8	6,435.8	22.3	16.4	-90.72	-315.0	585.0	449.9	424.7	25.26	17.815	
6,600.0	6,484.9	6,530.9	6,485.8	22.3	16.4	-91.72	-313.8	585.0	450.1	424.6	25.53	17.632	
6,650.0	6,533.1	6,581.8	6,536.4	22.3	16.5	-92.73	-308.2	585.0	450.4	424.7	25.73	17.509	
6,700.0	6,579.8	6,633.5	6,587.1	22.3	16.4	-93.73	-297.9	585.0	450.9	425.0	25.84	17.450	
6,750.0	6,624.9	6,685.9	6,637.3	22.2	16.4	-94.71	-282.9	585.0	451.5	425.6	25.87	17.454	
6,800.0	6,667.9	6,739.2	6,686.7	22.2	16.4	-95.65	-262.9	585.0	452.1	426.3	25.81	17.518	
6,850.0	6,708.6	6,793.3	6,734.7	22.2	16.3	-96.56	-238.1	585.0	452.9	427.2	25.68	17.635	
6,900.0	6,746.5	6,848.1	6,780.8	22.1	16.3	-97.41	-208.5	585.0	453.8	428.3	25.50	17.793	
6,950.0	6,781.5	6,903.8	6,824.5	22.1	16.2	-98.21	-174.0	585.0	454.6	429.3	25.29	17.974	
7,000.0	6,813.2	6,960.2	6,865.1	22.1	16.2	-98.95	-134.9	585.0	455.5	430.4	25.09	18.153	
7,050.0	6,841.5	7,017.3	6,902.1	22.1	16.2	-99.61	-91.5	585.0	456.4	431.4	24.94	18.301	
7,100.0	6,866.0	7,075.0	6,935.0	22.2	16.2	-100.19	-44.0	585.0	457.2	432.3	24.87	18.384	
7,150.0	6,886.7	7,133.3	6,963.1	22.2	16.3	-100.68	7.0	585.0	457.9	432.9	24.95	18.350	
7,200.0	6,903.3	7,192.1	6,986.1	22.3	16.4	-101.08	61.1	585.0	458.5	433.3	25.17	18.213	
7,250.0	6,915.7	7,251.3	7,003.6	22.5	16.6	-101.38	117.6	585.0	458.9	433.3	25.60	17.926	
7,300.0	6,923.9	7,310.8	7,015.1	22.6	16.9	-101.58	175.9	585.0	459.3	433.0	26.25	17.499	
7,350.0	6,927.7	7,370.4	7,020.6	22.8	17.2	-101.67	235.3	585.0	459.4	432.3	27.09	16.959	
7,369.0	6,928.0	7,393.1	7,021.0	22.9	17.3	-101.68	258.0	585.0	459.4	432.0	27.46	16.733	
7,400.0	6,928.0	7,424.1	7,021.0	23.1	17.5	-101.68	289.0	585.0	459.4	431.5	27.96	16.431	
7,500.0	6,928.0	7,524.1	7,021.0	23.6	18.3	-101.68	389.0	585.0	459.4	429.7	29.75	15.445	
7,600.0	6,928.0	7,624.1	7,021.0	24.3	19.1	-101.68	489.0	585.0	459.4	427.6	31.80	14.446	
7,700.0	6,928.0	7,724.1	7,021.0	25.0	20.1	-101.68	589.0	585.0	459.4	425.3	34.08	13.479	
7,800.0	6,928.0	7,824.1	7,021.0	25.9	21.2	-101.68	689.0	585.0	459.4	422.9	36.54	12.571	
7,900.0	6,928.0	7,924.1	7,021.0	26.9	22.4	-101.68	789.0	585.0	459.4	420.3	39.15	11.734	
8,000.0	6,928.0	8,024.1	7,021.0	27.9	23.6	-101.68	889.0	585.0	459.4	417.5	41.88	10.969	
8,100.0	6,928.0	8,124.1	7,021.0	29.0	24.9	-101.68	989.0	585.0	459.4	414.7	44.71	10.276	
8,200.0	6,928.0	8,224.1	7,021.0	30.2	26.3	-101.68	1,089.0	585.0	459.4	411.8	47.62	9.648	
8,300.0	6,928.0	8,324.1	7,021.0	31.4	27.7	-101.68	1,189.0	585.0	459.4	408.8	50.59	9.081	
8,400.0	6,928.0	8,424.1	7,021.0	32.7	29.2	-101.68	1,289.0	585.0	459.4	405.8	53.62	8.568	
8,500.0	6,928.0	8,524.1	7,021.0	34.0	30.6	-101.68	1,389.0	585.0	459.4	402.7	56.69	8.104	
8,600.0	6,928.0	8,624.1	7,021.0	35.3	32.1	-101.68	1,489.0	585.0	459.4	399.6	59.81	7.682	
8,700.0	6,928.0	8,724.1	7,021.0	36.7	33.7	-101.68	1,589.0	585.0	459.4	396.5	62.96	7.297	
8,800.0	6,928.0	8,824.1	7,021.0	38.2	35.2	-101.68	1,689.0	585.0	459.4	393.3	66.13	6.947	

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 Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4G-20H-O264 - 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
8,900.0	6,928.0	8,924.1	7,021.0	39.6	36.8	-101.68	1,789.0	585.0	459.4	390.1	69.33	6.626	
9,000.0	6,928.0	9,024.1	7,021.0	41.1	38.4	-101.68	1,889.0	585.0	459.4	386.9	72.56	6.332	
9,100.0	6,928.0	9,124.1	7,021.0	42.6	40.0	-101.68	1,989.0	585.0	459.4	383.6	75.80	6.061	
9,200.0	6,928.0	9,224.1	7,021.0	44.1	41.6	-101.68	2,089.0	585.0	459.4	380.4	79.06	5.811	
9,300.0	6,928.0	9,324.1	7,021.0	45.6	43.2	-101.68	2,189.0	585.0	459.4	377.1	82.33	5.580	
9,400.0	6,928.0	9,424.1	7,021.0	47.2	44.8	-101.68	2,289.0	585.0	459.4	373.8	85.62	5.366	
9,500.0	6,928.0	9,524.1	7,021.0	48.7	46.5	-101.68	2,389.0	585.0	459.4	370.5	88.91	5.167	
9,600.0	6,928.0	9,624.1	7,021.0	50.3	48.1	-101.68	2,489.0	585.0	459.4	367.2	92.22	4.982	
9,700.0	6,928.0	9,724.1	7,021.0	51.9	49.8	-101.68	2,589.0	585.0	459.4	363.9	95.54	4.809	
9,800.0	6,928.0	9,824.1	7,021.0	53.5	51.4	-101.68	2,689.0	585.0	459.4	360.6	98.86	4.647	
9,900.0	6,928.0	9,924.1	7,021.0	55.1	53.1	-101.68	2,789.0	585.0	459.4	357.2	102.19	4.496	
10,000.0	6,928.0	10,024.1	7,021.0	56.7	54.8	-101.68	2,889.0	585.0	459.4	353.9	105.53	4.353	
10,100.0	6,928.0	10,124.1	7,021.0	58.3	56.4	-101.68	2,989.0	585.0	459.4	350.5	108.88	4.220	
10,200.0	6,928.0	10,224.1	7,021.0	60.0	58.1	-101.68	3,089.0	585.0	459.4	347.2	112.23	4.094	
10,300.0	6,928.0	10,324.1	7,021.0	61.6	59.8	-101.68	3,189.0	585.0	459.4	343.8	115.58	3.975	
10,400.0	6,928.0	10,424.1	7,021.0	63.2	61.5	-101.68	3,289.0	585.0	459.4	340.5	118.94	3.863	
10,500.0	6,928.0	10,524.1	7,021.0	64.9	63.2	-101.68	3,389.0	585.0	459.4	337.1	122.31	3.756	
10,600.0	6,928.0	10,624.1	7,021.0	66.5	64.9	-101.68	3,489.0	585.0	459.4	333.7	125.67	3.656	
10,700.0	6,928.0	10,724.1	7,021.0	68.2	66.6	-101.68	3,589.0	585.0	459.4	330.4	129.05	3.560	
10,800.0	6,928.0	10,824.1	7,021.0	69.9	68.3	-101.68	3,689.0	585.0	459.4	327.0	132.42	3.469	
10,900.0	6,928.0	10,924.1	7,021.0	71.5	70.0	-101.68	3,789.0	585.0	459.4	323.6	135.80	3.383	
11,000.0	6,928.0	11,024.1	7,021.0	73.2	71.7	-101.68	3,889.0	585.0	459.4	320.2	139.18	3.301	
11,100.0	6,928.0	11,124.1	7,021.0	74.9	73.4	-101.68	3,989.0	585.0	459.4	316.9	142.56	3.223	
11,200.0	6,928.0	11,224.1	7,021.0	76.6	75.1	-101.68	4,089.0	585.0	459.4	313.5	145.95	3.148	
11,300.0	6,928.0	11,324.1	7,021.0	78.2	76.9	-101.68	4,189.0	585.0	459.4	310.1	149.34	3.076	
11,400.0	6,928.0	11,424.1	7,021.0	79.9	78.6	-101.68	4,289.0	585.0	459.4	306.7	152.73	3.008	
11,500.0	6,928.0	11,524.1	7,021.0	81.6	80.3	-101.68	4,389.0	585.0	459.4	303.3	156.12	2.943	
11,564.3	6,928.0	11,588.4	7,021.0	82.7	81.4	-101.68	4,453.3	585.0	459.4	301.1	158.30	2.902	
11,605.6	6,928.0	11,628.2	7,021.0	83.4	82.1	-101.68	4,493.0	585.0	459.4	299.7	159.68	2.877	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4H-20H-O264 - HZ - Plan #1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-Geolink MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-7.6	7.6				
100.0	100.0	100.0	100.0	0.1	0.1	-90.00	0.0	-7.6	7.6	7.3	0.24	30.903	
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-7.6	7.6	7.0	0.59	12.725	
300.0	300.0	300.0	300.0	0.5	0.5	-90.00	0.0	-7.6	7.6	6.6	0.94	8.012	CC, ES
400.0	400.0	400.1	400.1	0.6	0.6	165.79	-0.1	-7.3	9.0	7.7	1.29	6.990	
500.0	499.8	500.2	500.2	0.8	0.8	169.17	-0.7	-5.7	12.5	10.8	1.64	7.602	
600.0	599.5	600.3	600.2	1.1	1.0	171.55	-2.0	-2.5	17.7	15.7	1.99	8.895	
700.0	698.7	700.4	700.2	1.3	1.2	173.05	-3.9	2.4	24.6	22.3	2.33	10.564	
800.0	797.5	800.5	800.0	1.6	1.4	173.99	-6.4	9.0	33.4	30.7	2.68	12.465	
900.0	895.6	900.6	899.8	2.0	1.6	174.59	-9.5	17.1	43.8	40.8	3.02	14.518	
944.2	938.7	944.8	943.8	2.2	1.7	174.78	-11.1	21.2	49.0	45.9	3.17	15.461	
1,000.0	993.2	1,000.8	999.4	2.4	1.8	174.94	-13.3	26.9	55.5	52.2	3.37	16.483	
1,100.0	1,090.7	1,101.3	1,099.2	2.8	2.1	174.97	-17.7	38.3	65.8	62.1	3.73	17.672	
1,200.0	1,188.1	1,202.2	1,199.0	3.2	2.4	174.77	-22.7	51.5	74.4	70.3	4.08	18.215	
1,300.0	1,285.6	1,303.3	1,298.9	3.6	2.7	174.40	-28.4	66.3	81.2	76.8	4.45	18.265	
1,400.0	1,383.1	1,404.6	1,398.7	4.1	3.0	173.89	-34.8	82.8	86.4	81.5	4.82	17.926	
1,500.0	1,480.6	1,505.0	1,497.3	4.5	3.4	173.27	-41.6	100.4	90.1	84.9	5.19	17.363	
1,600.0	1,578.1	1,605.0	1,595.4	4.9	3.7	172.70	-48.4	118.0	93.8	88.2	5.57	16.852	
1,700.0	1,675.6	1,704.9	1,693.6	5.3	4.1	172.17	-55.1	135.6	97.5	91.6	5.95	16.396	
1,800.0	1,773.0	1,804.8	1,791.7	5.8	4.5	171.68	-61.9	153.2	101.2	94.9	6.33	15.987	
1,900.0	1,870.5	1,904.7	1,889.8	6.2	4.8	171.22	-68.7	170.8	104.9	98.2	6.72	15.618	
2,000.0	1,968.0	2,004.7	1,988.0	6.6	5.2	170.80	-75.5	188.4	108.6	101.5	7.11	15.283	
2,100.0	2,065.5	2,104.6	2,086.1	7.1	5.5	170.40	-82.3	206.0	112.3	104.8	7.50	14.977	
2,200.0	2,163.0	2,204.5	2,184.2	7.5	5.9	170.03	-89.0	223.6	116.1	108.2	7.90	14.697	
2,300.0	2,260.5	2,304.5	2,282.4	7.9	6.3	169.68	-95.8	241.2	119.8	111.5	8.30	14.439	
2,400.0	2,357.9	2,404.4	2,380.5	8.3	6.6	169.35	-102.6	258.8	123.5	114.8	8.70	14.201	
2,500.0	2,455.4	2,504.3	2,478.6	8.8	7.0	169.04	-109.4	276.4	127.3	118.2	9.10	13.981	
2,600.0	2,552.9	2,604.2	2,576.8	9.2	7.4	168.75	-116.2	294.0	131.0	121.5	9.51	13.777	
2,700.0	2,650.4	2,704.2	2,674.9	9.6	7.8	168.48	-122.9	311.6	134.8	124.8	9.92	13.586	
2,800.0	2,747.9	2,804.1	2,773.0	10.1	8.1	168.22	-129.7	329.2	138.5	128.2	10.33	13.409	
2,900.0	2,845.4	2,904.0	2,871.1	10.5	8.5	167.97	-136.5	346.8	142.3	131.5	10.74	13.243	
3,000.0	2,942.8	3,004.0	2,969.3	10.9	8.9	167.74	-143.3	364.4	146.0	134.8	11.16	13.087	
3,100.0	3,040.3	3,103.9	3,067.4	11.4	9.3	167.52	-150.1	382.0	149.8	138.2	11.57	12.941	
3,200.0	3,137.8	3,203.8	3,165.5	11.8	9.6	167.31	-156.8	399.6	153.5	141.5	11.99	12.804	
3,300.0	3,235.3	3,303.7	3,263.7	12.2	10.0	167.11	-163.6	417.2	157.3	144.9	12.41	12.674	
3,400.0	3,332.8	3,403.7	3,361.8	12.7	10.4	166.92	-170.4	434.8	161.0	148.2	12.83	12.552	
3,500.0	3,430.2	3,503.6	3,459.9	13.1	10.7	166.73	-177.2	452.4	164.8	151.5	13.25	12.436	
3,600.0	3,527.7	3,603.5	3,558.1	13.5	11.1	166.56	-184.0	470.0	168.6	154.9	13.67	12.327	
3,700.0	3,625.2	3,703.4	3,656.2	14.0	11.5	166.39	-190.8	487.6	172.3	158.2	14.10	12.223	
3,800.0	3,722.7	3,803.4	3,754.3	14.4	11.9	166.23	-197.5	505.2	176.1	161.6	14.52	12.124	
3,900.0	3,820.2	3,903.3	3,852.5	14.8	12.2	166.08	-204.3	522.7	179.9	164.9	14.95	12.031	
4,000.0	3,917.7	4,003.2	3,950.6	15.3	12.6	165.93	-211.1	540.3	183.6	168.3	15.38	11.942	
4,100.0	4,015.1	4,103.2	4,048.7	15.7	13.0	165.79	-217.9	557.9	187.4	171.6	15.81	11.857	
4,200.0	4,112.6	4,203.1	4,146.9	16.1	13.4	165.66	-224.7	575.5	191.2	174.9	16.23	11.776	
4,300.0	4,210.1	4,303.0	4,245.0	16.6	13.7	165.53	-231.4	593.1	194.9	178.3	16.66	11.698	
4,400.0	4,307.6	4,402.9	4,343.1	17.0	14.1	165.40	-238.2	610.7	198.7	181.6	17.09	11.624	
4,500.0	4,405.1	4,502.9	4,441.3	17.4	14.5	165.28	-245.0	628.3	202.5	185.0	17.53	11.554	
4,600.0	4,502.6	4,602.8	4,539.4	17.9	14.9	165.16	-251.8	645.9	206.3	188.3	17.96	11.486	
4,700.0	4,600.0	4,702.7	4,637.5	18.3	15.3	165.05	-258.6	663.5	210.0	191.6	18.39	11.421	
4,800.0	4,697.5	4,802.7	4,735.7	18.8	15.6	164.95	-265.3	681.1	213.8	195.0	18.82	11.358	
4,825.6	4,722.5	4,828.3	4,760.8	18.9	15.7	164.92	-267.1	685.7	214.8	195.8	18.94	11.343	
4,900.0	4,795.1	4,902.6	4,833.8	19.2	16.0	164.81	-272.1	698.7	217.1	197.9	19.27	11.268	

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 Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4H-20H-O264 - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,000.0	4,893.1	5,002.1	4,931.5	19.6	16.4	164.57	-278.9	716.3	218.8	199.1	19.74	11.087	
5,100.0	4,991.3	5,100.0	5,027.9	19.9	16.7	164.30	-285.1	732.5	219.9	199.7	20.20	10.885	
5,200.0	5,089.9	5,195.1	5,121.7	20.2	17.0	164.07	-290.7	746.9	220.8	200.1	20.64	10.699	
5,300.0	5,188.8	5,291.6	5,217.2	20.5	17.3	163.86	-295.7	759.9	221.6	200.6	21.06	10.523	
5,400.0	5,287.9	5,388.1	5,312.9	20.8	17.6	163.68	-300.1	771.5	222.4	200.9	21.47	10.358	
5,500.0	5,387.2	5,484.6	5,408.8	21.1	17.8	163.52	-304.0	781.5	223.0	201.1	21.86	10.203	
5,600.0	5,486.7	5,581.1	5,504.8	21.3	18.0	163.38	-307.3	790.0	223.6	201.3	22.23	10.057	
5,700.0	5,586.4	5,677.5	5,601.0	21.5	18.2	163.27	-310.0	797.1	224.0	201.4	22.58	9.920	
5,800.0	5,686.2	5,774.0	5,697.3	21.6	18.4	163.19	-312.1	802.6	224.4	201.5	22.91	9.792	
5,900.0	5,786.1	5,870.5	5,793.6	21.8	18.5	163.12	-313.7	806.6	224.6	201.4	23.23	9.670	
6,000.0	5,886.1	5,966.9	5,890.1	21.9	18.6	163.09	-314.6	809.1	224.8	201.3	23.53	9.555	
6,100.0	5,986.0	6,063.4	5,986.5	22.0	18.7	163.07	-315.0	810.0	224.9	201.0	23.81	9.445	
6,114.0	6,000.0	6,076.9	6,000.0	22.0	18.7	-90.00	-315.0	810.0	224.9	201.0	23.84	9.430	
6,200.0	6,086.0	6,162.9	6,086.0	22.1	18.8	-90.00	-315.0	810.0	224.9	200.7	24.11	9.326	
6,300.0	6,186.0	6,262.9	6,186.0	22.1	18.9	-90.00	-315.0	810.0	224.9	200.4	24.42	9.207	
6,400.0	6,286.0	6,362.9	6,286.0	22.2	19.0	-90.00	-315.0	810.0	224.9	200.1	24.74	9.090	
6,469.0	6,355.0	6,431.9	6,355.0	22.3	19.1	-90.00	-315.0	810.0	224.9	199.9	24.95	9.012	
6,473.8	6,359.8	6,436.7	6,359.8	22.3	19.1	-90.00	-315.0	810.0	224.9	199.9	24.97	9.006	
6,500.0	6,386.0	6,462.9	6,386.0	22.3	19.1	-90.21	-315.0	810.0	224.9	199.8	25.09	8.962	
6,550.0	6,435.8	6,512.7	6,435.8	22.3	19.2	-91.44	-315.0	810.0	224.9	199.4	25.52	8.815	
6,600.0	6,484.9	6,561.8	6,484.9	22.3	19.2	-93.70	-315.0	810.0	225.3	199.2	26.18	8.606	
6,650.0	6,533.1	6,609.9	6,533.1	22.3	19.3	-96.83	-315.0	810.0	226.6	199.6	27.05	8.379	
6,700.0	6,579.8	6,656.7	6,579.8	22.3	19.3	-100.64	-315.0	810.0	229.5	201.5	28.00	8.195	
6,750.0	6,624.9	6,706.5	6,629.6	22.2	19.4	-105.06	-313.6	810.0	234.4	205.5	28.93	8.102	
6,800.0	6,667.9	6,759.3	6,682.0	22.2	19.4	-109.40	-307.4	810.0	240.9	211.4	29.54	8.156	
6,850.0	6,708.6	6,814.4	6,735.9	22.2	19.4	-113.52	-295.9	810.0	248.8	219.1	29.74	8.365	
6,900.0	6,746.5	6,872.2	6,790.9	22.1	19.3	-117.37	-278.3	810.0	257.7	228.2	29.53	8.728	
6,950.0	6,781.5	6,932.9	6,846.5	22.1	19.3	-120.92	-253.9	810.0	267.4	238.4	28.93	9.243	
7,000.0	6,813.2	6,996.8	6,901.9	22.1	19.3	-124.15	-222.1	810.0	277.3	249.3	27.99	9.907	
7,050.0	6,841.5	7,064.1	6,955.9	22.1	19.2	-127.05	-182.1	810.0	287.3	260.4	26.82	10.710	
7,100.0	6,866.0	7,134.9	7,007.4	22.2	19.2	-129.59	-133.6	810.0	296.7	271.2	25.54	11.619	
7,150.0	6,886.7	7,209.1	7,054.4	22.2	19.2	-131.74	-76.2	810.0	305.3	281.0	24.29	12.568	
7,200.0	6,903.3	7,286.7	7,095.3	22.3	19.2	-133.49	-10.4	810.0	312.7	289.4	23.29	13.426	
7,250.0	6,915.7	7,367.1	7,127.8	22.5	19.4	-134.82	63.1	810.0	318.5	295.8	22.70	14.033	
7,300.0	6,923.9	7,449.8	7,150.3	22.6	19.6	-135.69	142.6	810.0	322.5	299.8	22.68	14.216	
7,350.0	6,927.7	7,533.8	7,161.1	22.8	19.9	-136.11	225.9	810.1	324.4	301.0	23.36	13.887	
7,369.0	6,928.0	7,565.9	7,162.0	22.9	20.1	-136.14	258.0	810.1	324.5	300.7	23.79	13.642	
7,400.0	6,928.0	7,596.9	7,162.0	23.1	20.3	-136.14	289.0	810.1	324.5	300.4	24.13	13.446	
7,500.0	6,928.0	7,696.9	7,162.0	23.6	20.9	-136.14	389.0	810.1	324.5	299.1	25.37	12.789	
7,600.0	6,928.0	7,796.9	7,162.0	24.3	21.7	-136.14	489.0	810.1	324.5	297.7	26.78	12.118	
7,700.0	6,928.0	7,896.9	7,162.0	25.0	22.6	-136.14	589.0	810.1	324.5	296.2	28.33	11.456	
7,800.0	6,928.0	7,996.9	7,162.0	25.9	23.5	-136.14	689.0	810.1	324.5	294.5	29.99	10.819	
7,900.0	6,928.0	8,096.9	7,162.0	26.9	24.6	-136.14	789.0	810.1	324.5	292.8	31.76	10.217	
8,000.0	6,928.0	8,196.9	7,162.0	27.9	25.7	-136.14	889.0	810.1	324.5	290.9	33.62	9.654	
8,100.0	6,928.0	8,296.9	7,162.0	29.0	26.9	-136.14	989.0	810.1	324.5	289.0	35.54	9.131	
8,200.0	6,928.0	8,396.9	7,162.0	30.2	28.2	-136.14	1,089.0	810.1	324.5	287.0	37.53	8.647	
8,300.0	6,928.0	8,496.9	7,162.0	31.4	29.5	-136.14	1,189.0	810.1	324.5	284.9	39.57	8.202	
8,400.0	6,928.0	8,596.9	7,162.0	32.7	30.9	-136.14	1,289.0	810.1	324.5	282.9	41.65	7.792	
8,500.0	6,928.0	8,696.9	7,162.0	34.0	32.3	-136.14	1,389.0	810.1	324.5	280.7	43.77	7.415	
8,600.0	6,928.0	8,796.9	7,162.0	35.3	33.7	-136.14	1,489.0	810.1	324.5	278.6	45.92	7.067	
8,700.0	6,928.0	8,896.9	7,162.0	36.7	35.2	-136.14	1,589.0	810.1	324.5	276.4	48.10	6.747	
8,800.0	6,928.0	8,996.9	7,162.0	38.2	36.6	-136.14	1,689.0	810.1	324.5	274.2	50.30	6.451	

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 Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4H-20H-O264 - 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
8,900.0	6,928.0	9,096.9	7,162.0	39.6	38.2	-136.14	1,789.0	810.1	324.5	272.0	52.53	6.178	
9,000.0	6,928.0	9,196.9	7,162.0	41.1	39.7	-136.14	1,889.0	810.1	324.5	269.7	54.78	5.924	
9,100.0	6,928.0	9,296.9	7,162.0	42.6	41.2	-136.14	1,989.0	810.1	324.5	267.5	57.04	5.689	
9,200.0	6,928.0	9,396.9	7,162.0	44.1	42.8	-136.14	2,089.0	810.1	324.5	265.2	59.31	5.471	
9,300.0	6,928.0	9,496.9	7,162.0	45.6	44.4	-136.14	2,189.0	810.1	324.5	262.9	61.60	5.268	
9,400.0	6,928.0	9,596.9	7,162.0	47.2	46.0	-136.14	2,289.0	810.1	324.5	260.6	63.90	5.078	
9,500.0	6,928.0	9,696.9	7,162.0	48.7	47.6	-136.14	2,389.0	810.1	324.5	258.3	66.22	4.901	
9,600.0	6,928.0	9,796.9	7,162.0	50.3	49.2	-136.14	2,489.0	810.1	324.5	256.0	68.54	4.735	
9,700.0	6,928.0	9,896.9	7,162.0	51.9	50.8	-136.15	2,589.0	810.1	324.5	253.6	70.87	4.579	
9,800.0	6,928.0	9,996.9	7,162.0	53.5	52.4	-136.15	2,689.0	810.1	324.5	251.3	73.20	4.433	
9,900.0	6,928.0	10,096.9	7,162.0	55.1	54.1	-136.15	2,789.0	810.1	324.5	249.0	75.55	4.295	
10,000.0	6,928.0	10,196.9	7,162.0	56.7	55.7	-136.15	2,889.0	810.1	324.5	246.6	77.90	4.166	
10,100.0	6,928.0	10,296.9	7,162.0	58.3	57.4	-136.15	2,989.0	810.1	324.5	244.3	80.25	4.044	
10,200.0	6,928.0	10,396.9	7,162.0	60.0	59.0	-136.15	3,089.0	810.1	324.5	241.9	82.61	3.928	
10,300.0	6,928.0	10,496.9	7,162.0	61.6	60.7	-136.15	3,189.0	810.1	324.5	239.5	84.98	3.819	
10,400.0	6,928.0	10,596.9	7,162.0	63.2	62.4	-136.15	3,289.0	810.1	324.5	237.2	87.35	3.715	
10,500.0	6,928.0	10,696.9	7,162.0	64.9	64.0	-136.15	3,389.0	810.1	324.5	234.8	89.73	3.617	
10,600.0	6,928.0	10,796.9	7,162.0	66.5	65.7	-136.15	3,489.0	810.1	324.5	232.4	92.10	3.523	
10,700.0	6,928.0	10,896.9	7,162.0	68.2	67.4	-136.15	3,589.0	810.1	324.5	230.0	94.49	3.434	
10,800.0	6,928.0	10,996.9	7,162.0	69.9	69.1	-136.15	3,689.0	810.1	324.5	227.6	96.87	3.350	
10,900.0	6,928.0	11,096.9	7,162.0	71.5	70.8	-136.15	3,789.0	810.1	324.5	225.2	99.26	3.269	
11,000.0	6,928.0	11,196.9	7,162.0	73.2	72.4	-136.15	3,889.0	810.1	324.5	222.9	101.65	3.192	
11,100.0	6,928.0	11,296.9	7,162.0	74.9	74.1	-136.15	3,989.0	810.1	324.5	220.5	104.04	3.119	
11,200.0	6,928.0	11,396.9	7,162.0	76.6	75.8	-136.15	4,089.0	810.1	324.5	218.1	106.44	3.049	
11,300.0	6,928.0	11,496.9	7,162.0	78.2	77.5	-136.15	4,189.0	810.1	324.5	215.7	108.84	2.982	
11,400.0	6,928.0	11,596.9	7,162.0	79.9	79.2	-136.15	4,289.0	810.1	324.5	213.3	111.24	2.917	
11,500.0	6,928.0	11,696.9	7,162.0	81.6	80.9	-136.15	4,389.0	810.1	324.5	210.9	113.64	2.856	
11,575.2	6,928.0	11,772.2	7,162.0	82.9	82.2	-136.15	4,464.2	810.1	324.5	209.0	115.45	2.811	
11,605.6	6,928.0	11,801.7	7,162.0	83.4	82.7	-136.15	4,493.8	810.1	324.5	208.3	116.17	2.793	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4J-20H-O264 - 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	92.97	-0.4	7.3	7.3				
100.0	100.0	99.0	99.0	0.1	0.1	92.97	-0.4	7.3	7.3	7.0	0.24	29.948	
200.0	200.0	199.0	199.0	0.3	0.3	92.97	-0.4	7.3	7.3	6.7	0.59	12.306	
234.7	234.7	233.7	233.7	0.4	0.4	92.97	-0.4	7.3	7.3	6.6	0.71	10.215	CC, ES
300.0	300.0	298.9	298.9	0.5	0.5	93.57	-0.5	7.7	7.7	6.8	0.94	8.177	
400.0	400.0	398.6	398.5	0.6	0.7	-11.97	-1.3	11.0	9.4	8.1	1.29	7.280	
500.0	499.8	498.2	497.9	0.8	0.9	-11.88	-3.0	17.7	11.1	9.5	1.64	6.776	
600.0	599.5	597.8	596.9	1.1	1.1	-12.57	-5.5	27.7	12.8	10.8	1.99	6.452	
700.0	698.7	697.3	695.5	1.3	1.4	-13.76	-8.9	41.1	14.6	12.2	2.35	6.219	
800.0	797.5	796.7	793.4	1.6	1.7	-15.27	-13.1	57.7	16.4	13.7	2.71	6.030	
900.0	895.6	896.1	890.7	2.0	2.1	-17.01	-18.1	77.6	18.2	15.1	3.11	5.856	
944.2	938.7	940.0	933.4	2.2	2.3	-17.83	-20.5	87.5	19.0	15.7	3.29	5.779	
1,000.0	993.2	995.6	987.3	2.4	2.6	-18.50	-23.9	100.7	20.5	16.9	3.53	5.802	
1,100.0	1,090.7	1,095.6	1,084.1	2.8	3.0	-19.29	-30.0	124.9	23.4	19.4	3.96	5.900	
1,200.0	1,188.1	1,195.6	1,180.9	3.2	3.5	-19.90	-36.0	149.0	26.3	21.9	4.40	5.967	
1,300.0	1,285.6	1,295.5	1,277.7	3.6	3.9	-20.39	-42.1	173.1	29.2	24.3	4.85	6.014	
1,400.0	1,383.1	1,395.5	1,374.5	4.1	4.4	-20.79	-48.2	197.3	32.1	26.8	5.30	6.046	
1,500.0	1,480.6	1,495.4	1,471.3	4.5	4.9	-21.13	-54.2	221.4	35.0	29.2	5.76	6.069	
1,600.0	1,578.1	1,595.4	1,568.1	4.9	5.3	-21.41	-60.3	245.5	37.9	31.6	6.22	6.085	
1,700.0	1,675.6	1,695.3	1,665.0	5.3	5.8	-21.65	-66.4	269.7	40.8	34.1	6.69	6.096	
1,800.0	1,773.0	1,795.3	1,761.8	5.8	6.3	-21.86	-72.4	293.8	43.7	36.5	7.16	6.104	
1,900.0	1,870.5	1,895.3	1,858.6	6.2	6.8	-22.05	-78.5	317.9	46.6	39.0	7.63	6.110	
2,000.0	1,968.0	1,995.2	1,955.4	6.6	7.2	-22.21	-84.6	342.1	49.5	41.4	8.10	6.113	
2,100.0	2,065.5	2,095.2	2,052.2	7.1	7.7	-22.36	-90.6	366.2	52.4	43.8	8.57	6.115	
2,200.0	2,163.0	2,195.1	2,149.0	7.5	8.2	-22.48	-96.7	390.3	55.3	46.3	9.05	6.117	
2,300.0	2,260.5	2,295.1	2,245.8	7.9	8.7	-22.60	-102.8	414.5	58.2	48.7	9.52	6.117	
2,400.0	2,357.9	2,395.0	2,342.6	8.3	9.2	-22.71	-108.8	438.6	61.1	51.2	10.00	6.117	
2,500.0	2,455.4	2,495.0	2,439.4	8.8	9.6	-22.80	-114.9	462.7	64.1	53.6	10.47	6.116	
2,600.0	2,552.9	2,595.0	2,536.3	9.2	10.1	-22.89	-121.0	486.9	67.0	56.0	10.95	6.115	
2,700.0	2,650.4	2,694.9	2,633.1	9.6	10.6	-22.97	-127.0	511.0	69.9	58.5	11.43	6.114	
2,800.0	2,747.9	2,794.9	2,729.9	10.1	11.1	-23.04	-133.1	535.1	72.8	60.9	11.91	6.113	
2,900.0	2,845.4	2,894.8	2,826.7	10.5	11.5	-23.11	-139.2	559.3	75.7	63.3	12.39	6.112	
3,000.0	2,942.8	2,994.8	2,923.5	10.9	12.0	-23.17	-145.2	583.4	78.6	65.7	12.87	6.110	
3,100.0	3,040.3	3,094.8	3,020.3	11.4	12.5	-23.23	-151.3	607.5	81.5	68.2	13.35	6.108	
3,200.0	3,137.8	3,194.7	3,117.1	11.8	13.0	-23.29	-157.4	631.7	84.4	70.6	13.83	6.107	
3,300.0	3,235.3	3,294.7	3,213.9	12.2	13.5	-23.34	-163.5	655.8	87.3	73.0	14.31	6.105	
3,400.0	3,332.8	3,394.6	3,310.7	12.7	13.9	-23.39	-169.5	679.9	90.3	75.5	14.79	6.104	
3,500.0	3,430.2	3,494.6	3,407.5	13.1	14.4	-23.43	-175.6	704.1	93.2	77.9	15.27	6.102	
3,600.0	3,527.7	3,594.5	3,504.4	13.5	14.9	-23.47	-181.7	728.2	96.1	80.3	15.75	6.100	
3,700.0	3,625.2	3,694.5	3,601.2	14.0	15.4	-23.51	-187.7	752.3	99.0	82.8	16.23	6.099	
3,800.0	3,722.7	3,794.5	3,698.0	14.4	15.8	-23.55	-193.8	776.4	101.9	85.2	16.71	6.097	
3,900.0	3,820.2	3,894.4	3,794.8	14.8	16.3	-23.58	-199.9	800.6	104.8	87.6	17.20	6.096	
4,000.0	3,917.7	3,994.4	3,891.6	15.3	16.8	-23.62	-205.9	824.7	107.7	90.1	17.68	6.094	
4,100.0	4,015.1	4,094.3	3,988.4	15.7	17.3	-23.65	-212.0	848.8	110.6	92.5	18.16	6.093	
4,200.0	4,112.6	4,194.3	4,085.2	16.1	17.8	-23.68	-218.1	873.0	113.6	94.9	18.64	6.091	
4,300.0	4,210.1	4,294.2	4,182.0	16.6	18.2	-23.71	-224.1	897.1	116.5	97.3	19.13	6.090	
4,400.0	4,307.6	4,394.2	4,278.8	17.0	18.7	-23.73	-230.2	921.2	119.4	99.8	19.61	6.088	
4,500.0	4,405.1	4,494.2	4,375.7	17.4	19.2	-23.76	-236.3	945.4	122.3	102.2	20.09	6.087	
4,600.0	4,502.6	4,594.1	4,472.5	17.9	19.7	-23.78	-242.3	969.5	125.2	104.6	20.57	6.086	
4,700.0	4,600.0	4,694.1	4,569.3	18.3	20.2	-23.81	-248.4	993.6	128.1	107.1	21.06	6.084	
4,800.0	4,697.5	4,794.0	4,666.1	18.8	20.6	-23.83	-254.5	1,017.8	131.0	109.5	21.54	6.083	
4,825.6	4,722.5	4,819.7	4,690.9	18.9	20.8	-23.84	-256.0	1,024.0	131.8	110.1	21.66	6.083	

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 Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4J-20H-O264 - 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
4,900.0	4,795.1	4,894.0	4,762.9	19.2	21.1	-23.78	-260.5	1,041.9	134.4	112.4	21.99	6.111	
5,000.0	4,893.1	4,993.8	4,859.6	19.6	21.6	-23.46	-266.6	1,066.0	139.3	117.0	22.33	6.238	
5,100.0	4,991.3	5,093.6	4,956.3	19.9	22.1	-22.90	-272.7	1,090.1	145.8	123.2	22.56	6.463	
5,200.0	5,089.9	5,193.3	5,052.8	20.2	22.6	-22.15	-278.7	1,114.2	153.9	131.2	22.70	6.781	
5,300.0	5,188.8	5,292.8	5,149.1	20.5	23.0	-21.26	-284.8	1,138.2	163.7	140.9	22.77	7.189	
5,400.0	5,287.9	5,392.1	5,245.3	20.8	23.5	-20.27	-290.8	1,162.1	175.1	152.3	22.79	7.684	
5,500.0	5,387.2	5,494.9	5,345.0	21.1	24.0	-19.26	-296.9	1,186.4	187.7	164.9	22.80	8.233	
5,600.0	5,486.7	5,601.1	5,448.9	21.3	24.4	-18.44	-302.3	1,208.1	198.8	175.9	22.87	8.692	
5,700.0	5,586.4	5,708.0	5,554.2	21.5	24.7	-17.83	-306.9	1,226.1	207.9	184.9	22.99	9.042	
5,800.0	5,686.2	5,815.4	5,660.5	21.6	25.0	-17.39	-310.5	1,240.4	215.2	192.0	23.17	9.287	
5,900.0	5,786.1	5,923.2	5,767.8	21.8	25.2	-17.09	-313.1	1,250.8	220.4	197.1	23.38	9.430	
6,000.0	5,886.1	6,031.3	5,875.6	21.9	25.4	-16.91	-314.7	1,257.4	223.7	200.1	23.61	9.475	
6,100.0	5,986.0	6,139.5	5,983.8	22.0	25.5	-16.83	-315.4	1,259.9	225.0	201.2	23.88	9.425	
6,114.0	6,000.0	6,154.6	5,998.9	22.0	25.5	90.10	-315.4	1,260.0	225.1	201.2	23.92	9.411	
6,200.0	6,086.0	6,240.7	6,085.0	22.1	25.5	90.10	-315.4	1,260.0	225.1	200.9	24.18	9.306	
6,300.0	6,186.0	6,340.7	6,185.0	22.1	25.6	90.10	-315.4	1,260.0	225.1	200.6	24.50	9.188	
6,400.0	6,286.0	6,440.7	6,285.0	22.2	25.7	90.10	-315.4	1,260.0	225.1	200.3	24.81	9.072	
6,469.0	6,355.0	6,509.7	6,354.0	22.3	25.8	90.10	-315.4	1,260.0	225.1	200.0	25.03	8.993	
6,469.0	6,355.0	6,509.7	6,354.0	22.3	25.8	90.10	-315.4	1,260.0	225.1	200.0	25.03	8.993	
6,500.0	6,386.0	6,540.7	6,385.0	22.3	25.8	90.31	-315.4	1,260.0	225.1	200.0	25.04	8.987	
6,550.0	6,435.8	6,590.5	6,434.8	22.3	25.8	91.54	-315.4	1,260.0	225.2	200.4	24.78	9.088	
6,600.0	6,484.9	6,640.6	6,484.8	22.3	25.8	93.53	-314.1	1,260.0	225.5	201.2	24.30	9.281	
6,650.0	6,533.1	6,691.5	6,535.5	22.3	25.9	95.54	-308.5	1,260.0	226.2	202.3	23.88	9.470	
6,700.0	6,579.8	6,743.2	6,586.1	22.3	25.8	97.52	-298.2	1,260.0	227.1	203.5	23.56	9.639	
6,750.0	6,624.9	6,795.8	6,636.4	22.2	25.8	99.43	-283.2	1,260.0	228.2	204.9	23.35	9.776	
6,800.0	6,667.9	6,849.1	6,685.8	22.2	25.8	101.27	-263.2	1,260.0	229.6	206.4	23.24	9.879	
6,850.0	6,708.6	6,903.2	6,733.9	22.2	25.8	103.02	-238.4	1,260.0	231.1	207.9	23.23	9.948	
6,900.0	6,746.5	6,958.1	6,780.0	22.1	25.7	104.65	-208.7	1,260.0	232.8	209.5	23.31	9.987	
6,950.0	6,781.5	7,013.7	6,823.7	22.1	25.7	106.16	-174.2	1,260.0	234.5	211.0	23.44	10.005	
7,000.0	6,813.2	7,070.2	6,864.3	22.1	25.7	107.52	-135.1	1,260.0	236.2	212.6	23.60	10.006	
7,050.0	6,841.5	7,127.3	6,901.3	22.1	25.7	108.74	-91.6	1,260.0	237.8	214.0	23.79	9.995	
7,100.0	6,866.0	7,185.0	6,934.2	22.2	25.7	109.80	-44.1	1,260.0	239.3	215.3	24.00	9.973	
7,150.0	6,886.7	7,243.4	6,962.3	22.2	25.7	110.69	7.0	1,260.0	240.7	216.5	24.18	9.953	
7,200.0	6,903.3	7,302.2	6,985.3	22.3	25.8	111.40	61.1	1,260.0	241.8	217.4	24.42	9.903	
7,250.0	6,915.7	7,361.4	7,002.7	22.5	25.9	111.94	117.7	1,260.0	242.7	218.0	24.66	9.839	
7,300.0	6,923.9	7,420.9	7,014.2	22.6	26.1	112.28	176.0	1,260.0	243.2	218.3	24.95	9.751	
7,350.0	6,927.7	7,480.5	7,019.6	22.8	26.3	112.44	235.4	1,260.0	243.5	218.2	25.27	9.638	
7,369.0	6,928.0	7,503.1	7,020.0	22.9	26.3	112.45	258.0	1,260.0	243.5	218.1	25.40	9.589	
7,400.0	6,928.0	7,534.1	7,020.0	23.1	26.5	112.45	289.0	1,260.0	243.5	217.6	25.89	9.405	
7,500.0	6,928.0	7,634.1	7,020.0	23.6	26.9	112.45	389.0	1,260.0	243.5	215.9	27.65	8.809	
7,600.0	6,928.0	7,734.1	7,020.0	24.3	27.5	112.45	489.0	1,260.0	243.5	213.9	29.65	8.214	
7,700.0	6,928.0	7,834.1	7,020.0	25.0	28.2	112.45	589.0	1,260.0	243.5	211.7	31.86	7.645	
7,800.0	6,928.0	7,934.1	7,020.0	25.9	28.9	112.45	689.0	1,260.0	243.5	209.3	34.23	7.115	
7,900.0	6,928.0	8,034.1	7,020.0	26.9	29.8	112.45	789.0	1,260.0	243.5	206.8	36.74	6.629	
8,000.0	6,928.0	8,134.1	7,020.0	27.9	30.7	112.45	889.0	1,260.0	243.5	204.2	39.35	6.189	
8,100.0	6,928.0	8,234.1	7,020.0	29.0	31.7	112.45	989.0	1,260.0	243.5	201.5	42.06	5.791	
8,200.0	6,928.0	8,334.1	7,020.0	30.2	32.8	112.45	1,089.0	1,260.0	243.5	198.7	44.83	5.432	
8,300.0	6,928.0	8,434.1	7,020.0	31.4	33.9	112.45	1,189.0	1,260.0	243.5	195.9	47.67	5.109	
8,400.0	6,928.0	8,534.1	7,020.0	32.7	35.1	112.45	1,289.0	1,260.0	243.5	193.0	50.55	4.818	
8,500.0	6,928.0	8,634.1	7,020.0	34.0	36.3	112.45	1,389.0	1,260.0	243.5	190.1	53.48	4.554	
8,600.0	6,928.0	8,734.1	7,020.0	35.3	37.6	112.45	1,489.0	1,260.0	243.5	187.1	56.44	4.315	
8,700.0	6,928.0	8,834.1	7,020.0	36.7	38.9	112.45	1,589.0	1,260.0	243.5	184.1	59.43	4.098	

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 Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4J-20H-O264 - 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
8,800.0	6,928.0	8,934.1	7,020.0	38.2	40.2	112.45	1,689.0	1,260.0	243.5	181.1	62.45	3.900	
8,900.0	6,928.0	9,034.1	7,020.0	39.6	41.6	112.45	1,789.0	1,260.0	243.5	178.1	65.48	3.719	
9,000.0	6,928.0	9,134.1	7,020.0	41.1	43.0	112.45	1,889.0	1,260.0	243.5	175.0	68.54	3.553	
9,100.0	6,928.0	9,234.1	7,020.0	42.6	44.4	112.45	1,989.0	1,260.0	243.5	171.9	71.62	3.401	
9,200.0	6,928.0	9,334.1	7,020.0	44.1	45.9	112.45	2,089.0	1,260.0	243.5	168.8	74.70	3.260	
9,300.0	6,928.0	9,434.1	7,020.0	45.6	47.4	112.45	2,189.0	1,260.0	243.5	165.7	77.81	3.130	
9,400.0	6,928.0	9,534.1	7,020.0	47.2	48.9	112.45	2,289.0	1,260.0	243.5	162.6	80.92	3.010	
9,500.0	6,928.0	9,634.1	7,020.0	48.7	50.4	112.45	2,389.0	1,260.0	243.5	159.5	84.04	2.898	
9,600.0	6,928.0	9,734.1	7,020.0	50.3	51.9	112.45	2,489.0	1,260.0	243.5	156.4	87.17	2.794	
9,700.0	6,928.0	9,834.1	7,020.0	51.9	53.4	112.45	2,589.0	1,260.0	243.5	153.2	90.31	2.697	
9,800.0	6,928.0	9,934.1	7,020.0	53.5	55.0	112.45	2,689.0	1,260.0	243.5	150.1	93.46	2.606	
9,900.0	6,928.0	10,034.1	7,020.0	55.1	56.5	112.45	2,789.0	1,260.0	243.5	146.9	96.61	2.521	
10,000.0	6,928.0	10,134.1	7,020.0	56.7	58.1	112.45	2,889.0	1,260.0	243.5	143.8	99.77	2.441	
10,100.0	6,928.0	10,234.1	7,020.0	58.3	59.7	112.45	2,989.0	1,260.0	243.5	140.6	102.94	2.366	
10,200.0	6,928.0	10,334.1	7,020.0	60.0	61.3	112.45	3,089.0	1,260.0	243.5	137.4	106.11	2.295	
10,300.0	6,928.0	10,434.1	7,020.0	61.6	62.9	112.45	3,189.0	1,260.0	243.5	134.3	109.28	2.229	
10,400.0	6,928.0	10,534.1	7,020.0	63.2	64.5	112.45	3,289.0	1,260.0	243.5	131.1	112.46	2.166	
10,500.0	6,928.0	10,634.1	7,020.0	64.9	66.1	112.45	3,389.0	1,260.0	243.5	127.9	115.64	2.106	
10,600.0	6,928.0	10,734.1	7,020.0	66.5	67.7	112.45	3,489.0	1,260.0	243.5	124.7	118.83	2.050	
10,700.0	6,928.0	10,834.1	7,020.0	68.2	69.4	112.45	3,589.0	1,260.0	243.5	121.5	122.01	1.996	
10,800.0	6,928.0	10,934.1	7,020.0	69.9	71.0	112.45	3,689.0	1,260.0	243.5	118.3	125.21	1.945	
10,900.0	6,928.0	11,034.1	7,020.0	71.5	72.7	112.45	3,789.0	1,260.0	243.5	115.1	128.40	1.897	
11,000.0	6,928.0	11,134.1	7,020.0	73.2	74.3	112.45	3,889.0	1,260.0	243.5	112.0	131.60	1.851	
11,100.0	6,928.0	11,234.1	7,020.0	74.9	76.0	112.45	3,989.0	1,260.0	243.5	108.8	134.80	1.807	
11,200.0	6,928.0	11,334.1	7,020.0	76.6	77.6	112.45	4,089.0	1,260.0	243.5	105.6	138.00	1.765	
11,300.0	6,928.0	11,434.1	7,020.0	78.2	79.3	112.45	4,189.0	1,260.0	243.5	102.3	141.20	1.725	
11,400.0	6,928.0	11,534.1	7,020.0	79.9	80.9	112.45	4,289.0	1,260.0	243.5	99.1	144.41	1.687	
11,500.0	6,928.0	11,634.1	7,020.0	81.6	82.6	112.45	4,389.0	1,260.0	243.5	95.9	147.61	1.650	
11,605.6	6,928.0	11,739.7	7,020.0	83.4	84.4	112.45	4,494.5	1,260.0	243.5	92.6	151.00	1.613 SF	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4K-20H-O264 - 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	91.41	-0.4	14.8	14.9				
100.0	100.0	99.0	99.0	0.1	0.1	91.41	-0.4	14.8	14.8	14.6	0.24	60.985	
200.0	200.0	199.0	199.0	0.3	0.3	91.41	-0.4	14.8	14.8	14.2	0.59	25.060	CC, ES
300.0	300.0	298.5	298.4	0.5	0.5	92.50	-0.7	16.5	16.5	15.6	0.94	17.501	
400.0	400.0	397.8	397.6	0.6	0.7	-13.19	-1.8	21.5	19.9	18.6	1.29	15.460	
500.0	499.8	497.0	496.4	0.8	0.9	-13.03	-3.6	29.9	23.4	21.7	1.64	14.270	
600.0	599.5	596.1	594.8	1.1	1.2	-13.53	-6.1	41.5	26.8	24.8	1.99	13.496	
700.0	698.7	695.0	692.6	1.3	1.5	-14.45	-9.3	56.5	30.3	28.0	2.34	12.934	
800.0	797.5	793.9	789.6	1.6	1.8	-15.67	-13.2	74.8	33.9	31.1	2.71	12.481	
900.0	895.6	892.6	885.9	2.0	2.3	-17.08	-17.8	96.3	37.4	34.3	3.10	12.072	
944.2	938.7	936.2	928.1	2.2	2.5	-17.76	-20.1	106.8	39.0	35.8	3.28	11.895	
1,000.0	993.2	991.2	981.2	2.4	2.7	-18.42	-23.1	121.0	41.6	38.1	3.52	11.820	
1,100.0	1,090.7	1,090.2	1,076.0	2.8	3.3	-18.73	-29.0	148.6	48.4	44.5	3.94	12.293	
1,200.0	1,188.1	1,189.9	1,171.4	3.2	3.8	-18.84	-35.1	177.0	55.7	51.4	4.36	12.781	
1,300.0	1,285.6	1,289.6	1,266.9	3.6	4.3	-18.92	-41.2	205.3	63.1	58.3	4.79	13.173	
1,400.0	1,383.1	1,389.4	1,362.3	4.1	4.9	-18.98	-47.3	233.7	70.4	65.2	5.22	13.495	
1,500.0	1,480.6	1,489.1	1,457.7	4.5	5.4	-19.04	-53.3	262.0	77.7	72.1	5.65	13.763	
1,600.0	1,578.1	1,588.8	1,553.1	4.9	6.0	-19.08	-59.4	290.4	85.0	79.0	6.08	13.989	
1,700.0	1,675.6	1,688.5	1,648.6	5.3	6.5	-19.12	-65.5	318.7	92.4	85.9	6.51	14.183	
1,800.0	1,773.0	1,788.3	1,744.0	5.8	7.1	-19.15	-71.6	347.1	99.7	92.7	6.95	14.351	
1,900.0	1,870.5	1,888.0	1,839.4	6.2	7.6	-19.18	-77.6	375.4	107.0	99.6	7.38	14.497	
2,000.0	1,968.0	1,987.7	1,934.8	6.6	8.2	-19.20	-83.7	403.8	114.3	106.5	7.82	14.626	
2,100.0	2,065.5	2,087.5	2,030.3	7.1	8.7	-19.22	-89.8	432.1	121.7	113.4	8.25	14.740	
2,200.0	2,163.0	2,187.2	2,125.7	7.5	9.3	-19.24	-95.8	460.5	129.0	120.3	8.69	14.842	
2,300.0	2,260.5	2,286.9	2,221.1	7.9	9.8	-19.25	-101.9	488.8	136.3	127.2	9.13	14.933	
2,400.0	2,357.9	2,386.7	2,316.5	8.3	10.4	-19.27	-108.0	517.2	143.6	134.1	9.57	15.016	
2,500.0	2,455.4	2,486.4	2,411.9	8.8	10.9	-19.28	-114.1	545.5	151.0	141.0	10.00	15.090	
2,600.0	2,552.9	2,586.1	2,507.4	9.2	11.5	-19.29	-120.1	573.9	158.3	147.9	10.44	15.158	
2,700.0	2,650.4	2,685.9	2,602.8	9.6	12.0	-19.31	-126.2	602.2	165.6	154.7	10.88	15.221	
2,800.0	2,747.9	2,785.6	2,698.2	10.1	12.6	-19.32	-132.3	630.6	173.0	161.6	11.32	15.278	
2,900.0	2,845.4	2,885.3	2,793.6	10.5	13.1	-19.32	-138.4	658.9	180.3	168.5	11.76	15.330	
3,000.0	2,942.8	2,985.1	2,889.1	10.9	13.7	-19.33	-144.4	687.3	187.6	175.4	12.20	15.379	
3,100.0	3,040.3	3,084.8	2,984.5	11.4	14.2	-19.34	-150.5	715.6	194.9	182.3	12.64	15.424	
3,200.0	3,137.8	3,184.5	3,079.9	11.8	14.8	-19.35	-156.6	744.0	202.3	189.2	13.08	15.466	
3,300.0	3,235.3	3,284.2	3,175.3	12.2	15.3	-19.36	-162.7	772.3	209.6	196.1	13.52	15.505	
3,400.0	3,332.8	3,384.0	3,270.8	12.7	15.9	-19.36	-168.7	800.7	216.9	203.0	13.96	15.541	
3,500.0	3,430.2	3,483.7	3,366.2	13.1	16.5	-19.37	-174.8	829.0	224.2	209.8	14.40	15.575	
3,600.0	3,527.7	3,583.4	3,461.6	13.5	17.0	-19.37	-180.9	857.4	231.6	216.7	14.84	15.607	
3,700.0	3,625.2	3,683.2	3,557.0	14.0	17.6	-19.38	-187.0	885.7	238.9	223.6	15.28	15.637	
3,800.0	3,722.7	3,782.9	3,652.5	14.4	18.1	-19.38	-193.0	914.0	246.2	230.5	15.72	15.666	
3,900.0	3,820.2	3,882.6	3,747.9	14.8	18.7	-19.39	-199.1	942.4	253.5	237.4	16.16	15.692	
4,000.0	3,917.7	3,982.4	3,843.3	15.3	19.2	-19.39	-205.2	970.7	260.9	244.3	16.60	15.718	
4,100.0	4,015.1	4,082.1	3,938.7	15.7	19.8	-19.40	-211.3	999.1	268.2	251.2	17.04	15.741	
4,200.0	4,112.6	4,181.8	4,034.2	16.1	20.3	-19.40	-217.3	1,027.4	275.5	258.0	17.48	15.764	
4,300.0	4,210.1	4,281.6	4,129.6	16.6	20.9	-19.40	-223.4	1,055.8	282.8	264.9	17.92	15.785	
4,400.0	4,307.6	4,381.3	4,225.0	17.0	21.4	-19.41	-229.5	1,084.1	290.2	271.8	18.36	15.806	
4,500.0	4,405.1	4,481.0	4,320.4	17.4	22.0	-19.41	-235.5	1,112.5	297.5	278.7	18.80	15.825	
4,600.0	4,502.6	4,580.8	4,415.9	17.9	22.5	-19.41	-241.6	1,140.8	304.8	285.6	19.24	15.844	
4,700.0	4,600.0	4,680.5	4,511.3	18.3	23.1	-19.42	-247.7	1,169.2	312.1	292.5	19.68	15.861	
4,800.0	4,697.5	4,780.2	4,606.7	18.8	23.6	-19.42	-253.8	1,197.5	319.5	299.4	20.12	15.878	
4,825.6	4,722.5	4,805.8	4,631.2	18.9	23.8	-19.42	-255.3	1,204.8	321.4	301.1	20.23	15.882	
4,900.0	4,795.1	4,879.9	4,702.1	19.2	24.2	-19.41	-259.8	1,225.9	327.3	306.7	20.55	15.924	

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 Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4K-20H-O264 - HZ - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,000.0	4,893.1	4,979.5	4,797.4	19.6	24.8	-19.33	-265.9	1,254.2	336.6	315.7	20.94	16.077	
5,100.0	4,991.3	5,078.9	4,892.4	19.9	25.3	-19.15	-272.0	1,282.4	347.6	326.3	21.28	16.334	
5,200.0	5,089.9	5,178.0	4,987.3	20.2	25.9	-18.91	-278.0	1,310.6	360.3	338.7	21.59	16.689	
5,300.0	5,188.8	5,277.0	5,082.0	20.5	26.4	-18.60	-284.0	1,338.7	374.6	352.7	21.86	17.138	
5,400.0	5,287.9	5,377.1	5,177.9	20.8	27.0	-18.24	-290.1	1,367.2	390.5	368.4	22.10	17.674	
5,500.0	5,387.2	5,491.4	5,287.9	21.1	27.5	-17.85	-296.5	1,397.1	405.8	383.5	22.33	18.171	
5,600.0	5,486.7	5,606.7	5,400.2	21.3	28.0	-17.54	-302.1	1,422.9	418.9	396.4	22.59	18.549	
5,700.0	5,586.4	5,722.9	5,514.2	21.5	28.4	-17.30	-306.7	1,444.5	429.8	407.0	22.85	18.811	
5,800.0	5,686.2	5,839.8	5,629.9	21.6	28.7	-17.12	-310.3	1,461.5	438.4	415.3	23.12	18.962	
5,900.0	5,786.1	5,957.3	5,746.7	21.8	29.0	-16.99	-313.0	1,474.0	444.6	421.2	23.40	19.004	
6,000.0	5,886.1	6,075.2	5,864.3	21.9	29.1	-16.91	-314.7	1,481.9	448.5	424.9	23.68	18.943	
6,100.0	5,986.0	6,193.3	5,982.3	22.0	29.2	-16.88	-315.4	1,485.0	450.1	426.1	23.97	18.780	
6,114.0	6,000.0	6,209.8	5,998.8	22.0	29.2	90.05	-315.4	1,485.0	450.1	426.1	24.01	18.749	
6,200.0	6,086.0	6,296.1	6,085.0	22.1	29.3	90.05	-315.4	1,485.0	450.1	425.8	24.28	18.542	
6,300.0	6,186.0	6,396.1	6,185.0	22.1	29.4	90.05	-315.4	1,485.0	450.1	425.5	24.59	18.306	
6,400.0	6,286.0	6,496.1	6,285.0	22.2	29.4	90.05	-315.4	1,485.0	450.1	425.2	24.90	18.076	
6,469.0	6,355.0	6,565.1	6,354.0	22.3	29.5	90.05	-315.4	1,485.0	450.1	425.0	25.12	17.920	
6,469.0	6,355.0	6,565.1	6,354.0	22.3	29.5	90.05	-315.4	1,485.0	450.1	425.0	25.12	17.920	
6,500.0	6,386.0	6,596.0	6,385.0	22.3	29.5	90.15	-315.4	1,485.0	450.1	425.0	25.17	17.886	
6,550.0	6,435.8	6,645.8	6,434.8	22.3	29.5	90.77	-315.4	1,485.0	450.2	425.1	25.06	17.963	
6,600.0	6,484.9	6,694.9	6,483.9	22.3	29.6	91.89	-315.4	1,485.0	450.4	425.6	24.78	18.174	
6,650.0	6,533.1	6,743.1	6,532.1	22.3	29.6	93.47	-315.4	1,485.0	451.0	426.6	24.40	18.485	
6,700.0	6,579.8	6,789.8	6,578.8	22.3	29.6	95.41	-315.4	1,485.0	452.5	428.5	24.00	18.852	
6,750.0	6,624.9	6,839.7	6,628.6	22.2	29.7	97.70	-313.9	1,485.0	455.0	431.4	23.64	19.249	
6,800.0	6,667.9	6,892.5	6,681.0	22.2	29.7	100.02	-307.8	1,485.0	458.4	435.0	23.40	19.588	
6,850.0	6,708.6	6,947.7	6,735.0	22.2	29.7	102.31	-296.2	1,485.0	462.6	439.3	23.29	19.862	
6,900.0	6,746.5	7,005.5	6,790.1	22.1	29.6	104.54	-278.6	1,485.0	467.5	444.2	23.28	20.078	
6,950.0	6,781.5	7,066.3	6,845.7	22.1	29.6	106.69	-254.2	1,485.0	472.9	449.5	23.35	20.252	
7,000.0	6,813.2	7,130.2	6,901.1	22.1	29.6	108.76	-222.3	1,485.0	478.6	455.2	23.46	20.402	
7,050.0	6,841.5	7,197.6	6,955.2	22.1	29.5	110.69	-182.3	1,485.0	484.4	460.8	23.58	20.545	
7,100.0	6,866.0	7,268.4	7,006.6	22.2	29.5	112.47	-133.6	1,485.0	490.1	466.4	23.71	20.667	
7,150.0	6,886.7	7,342.7	7,053.7	22.2	29.5	114.05	-76.2	1,485.0	495.4	471.5	23.84	20.780	
7,200.0	6,903.3	7,420.3	7,094.5	22.3	29.5	115.38	-10.3	1,485.0	499.9	475.9	24.01	20.822	
7,250.0	6,915.7	7,500.8	7,127.0	22.5	29.6	116.41	63.2	1,485.0	503.6	479.4	24.13	20.866	
7,300.0	6,923.9	7,583.5	7,149.4	22.6	29.8	117.11	142.8	1,485.0	506.0	481.7	24.35	20.778	
7,350.0	6,927.7	7,667.6	7,160.1	22.8	30.0	117.44	226.1	1,485.0	507.2	482.6	24.65	20.575	
7,369.0	6,928.0	7,699.4	7,161.0	22.9	30.1	117.47	258.0	1,485.0	507.3	482.5	24.79	20.468	
7,400.0	6,928.0	7,730.4	7,161.0	23.1	30.2	117.47	289.0	1,485.0	507.3	482.1	25.27	20.077	
7,500.0	6,928.0	7,830.4	7,161.0	23.6	30.6	117.47	389.0	1,485.0	507.3	480.4	26.95	18.823	
7,600.0	6,928.0	7,930.4	7,161.0	24.3	31.1	117.47	489.0	1,485.0	507.3	478.4	28.88	17.569	
7,700.0	6,928.0	8,030.4	7,161.0	25.0	31.7	117.47	589.0	1,485.0	507.3	476.3	31.00	16.368	
7,800.0	6,928.0	8,130.4	7,161.0	25.9	32.3	117.47	689.0	1,485.0	507.3	474.1	33.27	15.248	
7,900.0	6,928.0	8,230.4	7,161.0	26.9	33.1	117.47	789.0	1,485.0	507.3	471.7	35.68	14.220	
8,000.0	6,928.0	8,330.4	7,161.0	27.9	33.9	117.47	889.0	1,485.0	507.3	469.1	38.18	13.287	
8,100.0	6,928.0	8,430.4	7,161.0	29.0	34.8	117.47	989.0	1,485.0	507.3	466.6	40.78	12.442	
8,200.0	6,928.0	8,530.4	7,161.0	30.2	35.8	117.47	1,089.0	1,485.0	507.3	463.9	43.44	11.680	
8,300.0	6,928.0	8,630.4	7,161.0	31.4	36.8	117.47	1,189.0	1,485.0	507.3	461.2	46.15	10.992	
8,400.0	6,928.0	8,730.4	7,161.0	32.7	37.9	117.47	1,289.0	1,485.0	507.3	458.4	48.92	10.370	
8,500.0	6,928.0	8,830.4	7,161.0	34.0	39.0	117.47	1,389.0	1,485.0	507.3	455.6	51.73	9.808	
8,600.0	6,928.0	8,930.4	7,161.0	35.3	40.2	117.47	1,489.0	1,485.0	507.3	452.8	54.57	9.297	
8,700.0	6,928.0	9,030.4	7,161.0	36.7	41.4	117.47	1,589.0	1,485.0	507.3	449.9	57.44	8.833	
8,800.0	6,928.0	9,130.4	7,161.0	38.2	42.6	117.47	1,689.0	1,485.0	507.3	447.0	60.33	8.409	

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 Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - Dale 4K-20H-O264 - 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
8,900.0	6,928.0	9,230.4	7,161.0	39.6	43.9	117.47	1,789.0	1,485.0	507.3	444.1	63.25	8.022	
9,000.0	6,928.0	9,330.4	7,161.0	41.1	45.3	117.47	1,889.0	1,485.0	507.3	441.2	66.18	7.666	
9,100.0	6,928.0	9,430.4	7,161.0	42.6	46.6	117.47	1,989.0	1,485.0	507.3	438.2	69.13	7.339	
9,200.0	6,928.0	9,530.4	7,161.0	44.1	48.0	117.47	2,089.0	1,485.0	507.3	435.2	72.09	7.037	
9,300.0	6,928.0	9,630.4	7,161.0	45.6	49.4	117.47	2,189.0	1,485.0	507.3	432.3	75.07	6.758	
9,400.0	6,928.0	9,730.4	7,161.0	47.2	50.8	117.47	2,289.0	1,485.0	507.3	429.3	78.06	6.500	
9,500.0	6,928.0	9,830.4	7,161.0	48.7	52.3	117.47	2,389.0	1,485.0	507.3	426.3	81.05	6.259	
9,600.0	6,928.0	9,930.4	7,161.0	50.3	53.7	117.47	2,489.0	1,485.0	507.3	423.3	84.06	6.036	
9,700.0	6,928.0	10,030.4	7,161.0	51.9	55.2	117.47	2,589.0	1,485.0	507.3	420.3	87.07	5.827	
9,800.0	6,928.0	10,130.4	7,161.0	53.5	56.7	117.47	2,689.0	1,485.0	507.3	417.3	90.09	5.631	
9,900.0	6,928.0	10,230.4	7,161.0	55.1	58.2	117.47	2,789.0	1,485.0	507.4	414.2	93.12	5.448	
10,000.0	6,928.0	10,330.4	7,161.0	56.7	59.8	117.47	2,889.0	1,485.0	507.4	411.2	96.15	5.276	
10,100.0	6,928.0	10,430.4	7,161.0	58.3	61.3	117.47	2,989.0	1,485.1	507.4	408.2	99.19	5.115	
10,200.0	6,928.0	10,530.4	7,161.0	60.0	62.9	117.47	3,089.0	1,485.1	507.4	405.1	102.24	4.963	
10,300.0	6,928.0	10,630.4	7,161.0	61.6	64.4	117.47	3,189.0	1,485.1	507.4	402.1	105.28	4.819	
10,400.0	6,928.0	10,730.4	7,161.0	63.2	66.0	117.47	3,289.0	1,485.1	507.4	399.0	108.34	4.683	
10,500.0	6,928.0	10,830.4	7,161.0	64.9	67.6	117.47	3,389.0	1,485.1	507.4	396.0	111.39	4.555	
10,600.0	6,928.0	10,930.4	7,161.0	66.5	69.2	117.47	3,489.0	1,485.1	507.4	392.9	114.45	4.433	
10,700.0	6,928.0	11,030.4	7,161.0	68.2	70.8	117.47	3,589.0	1,485.1	507.4	389.8	117.51	4.318	
10,800.0	6,928.0	11,130.4	7,161.0	69.9	72.4	117.47	3,689.0	1,485.1	507.4	386.8	120.58	4.208	
10,900.0	6,928.0	11,230.4	7,161.0	71.5	74.0	117.47	3,789.0	1,485.1	507.4	383.7	123.64	4.103	
11,000.0	6,928.0	11,330.4	7,161.0	73.2	75.6	117.47	3,889.0	1,485.1	507.4	380.7	126.71	4.004	
11,100.0	6,928.0	11,430.4	7,161.0	74.9	77.2	117.46	3,989.0	1,485.1	507.4	377.6	129.79	3.909	
11,200.0	6,928.0	11,530.4	7,161.0	76.6	78.9	117.46	4,089.0	1,485.1	507.4	374.5	132.86	3.819	
11,300.0	6,928.0	11,630.4	7,161.0	78.2	80.5	117.46	4,189.0	1,485.1	507.4	371.4	135.94	3.732	
11,400.0	6,928.0	11,730.4	7,161.0	79.9	82.1	117.46	4,289.0	1,485.1	507.4	368.4	139.01	3.650	
11,500.0	6,928.0	11,830.4	7,161.0	81.6	83.8	117.46	4,389.0	1,485.1	507.4	365.3	142.09	3.571	
11,605.6	6,928.0	11,936.0	7,161.0	83.4	85.5	117.46	4,494.5	1,485.1	507.4	362.0	145.35	3.491	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - DALE 'E' UNIT 1 (EXISTING) - EXISTING - ENCANA WELL — **Offset Site Error:** 0.0 ft

Survey Program: 7877-Geolink MWD — **Offset Well Error:** 0.0 ft

Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	3.86	1,301.9	87.8	1,306.4				
100.0	100.0	37.0	37.0	0.1	0.1	3.86	1,301.9	87.8	1,304.9	1,304.7	0.19	6,979.926	
200.0	200.0	137.0	137.0	0.3	0.2	3.86	1,301.9	87.8	1,304.9	1,304.4	0.54	2,434.445	
300.0	300.0	237.0	237.0	0.5	0.4	3.86	1,301.9	87.8	1,304.9	1,304.0	0.89	1,474.329	
400.0	400.0	337.0	337.0	0.6	0.6	-103.14	1,301.9	87.8	1,305.3	1,304.1	1.24	1,055.375	
500.0	499.8	436.8	436.8	0.8	0.8	-103.34	1,301.9	87.8	1,306.5	1,304.9	1.60	815.588	
600.0	599.5	536.5	536.5	1.1	0.9	-103.67	1,301.9	87.8	1,308.5	1,306.5	1.99	656.652	
700.0	698.7	635.7	635.7	1.3	1.1	-104.12	1,301.9	87.8	1,311.5	1,309.1	2.42	541.934	
800.0	797.5	734.5	734.5	1.6	1.3	-104.70	1,301.9	87.8	1,315.4	1,312.5	2.89	454.916	
900.0	895.6	832.6	832.6	2.0	1.5	-105.39	1,301.9	87.8	1,320.5	1,317.0	3.41	386.959	
944.2	938.7	875.7	875.7	2.2	1.5	-105.73	1,301.9	87.8	1,323.1	1,319.4	3.65	362.098	
1,000.0	993.2	930.2	930.2	2.4	1.6	-106.23	1,301.9	87.8	1,326.6	1,322.6	3.96	334.809	
1,100.0	1,090.7	1,027.7	1,027.7	2.8	1.8	-107.13	1,301.9	87.8	1,333.1	1,328.6	4.52	294.985	
1,200.0	1,188.1	1,125.1	1,125.1	3.2	2.0	-108.02	1,301.9	87.8	1,340.0	1,334.9	5.08	263.810	
1,300.0	1,285.6	1,222.6	1,222.6	3.6	2.1	-108.91	1,301.9	87.8	1,347.2	1,341.6	5.64	238.863	
1,400.0	1,383.1	1,320.1	1,320.1	4.1	2.3	-109.78	1,301.9	87.8	1,354.8	1,348.6	6.20	218.513	
1,500.0	1,480.6	1,417.6	1,417.6	4.5	2.5	-110.64	1,301.9	87.8	1,362.7	1,355.9	6.76	201.640	
1,600.0	1,578.1	1,515.1	1,515.1	4.9	2.6	-111.49	1,301.9	87.8	1,370.9	1,363.6	7.31	187.452	
1,700.0	1,675.6	1,612.6	1,612.6	5.3	2.8	-112.34	1,301.9	87.8	1,379.4	1,371.5	7.87	175.376	
1,800.0	1,773.0	1,710.0	1,710.0	5.8	3.0	-113.17	1,301.9	87.8	1,388.2	1,379.8	8.41	164.989	
1,900.0	1,870.5	1,807.5	1,807.5	6.2	3.2	-113.99	1,301.9	87.8	1,397.3	1,388.3	8.96	155.974	
2,000.0	1,968.0	1,905.0	1,905.0	6.6	3.3	-114.81	1,301.9	87.8	1,406.7	1,397.2	9.50	148.087	
2,100.0	2,065.5	2,002.5	2,002.5	7.1	3.5	-115.61	1,301.9	87.8	1,416.4	1,406.4	10.04	141.137	
2,200.0	2,163.0	2,100.0	2,100.0	7.5	3.7	-116.40	1,301.9	87.8	1,426.4	1,415.8	10.57	134.975	
2,300.0	2,260.5	2,197.5	2,197.5	7.9	3.8	-117.18	1,301.9	87.8	1,436.6	1,425.5	11.10	129.480	
2,400.0	2,357.9	2,294.9	2,294.9	8.3	4.0	-117.95	1,301.9	87.8	1,447.2	1,435.5	11.62	124.556	
2,500.0	2,455.4	2,392.4	2,392.4	8.8	4.2	-118.71	1,301.9	87.8	1,458.0	1,445.8	12.14	120.124	
2,600.0	2,552.9	2,489.9	2,489.9	9.2	4.3	-119.46	1,301.9	87.8	1,469.0	1,456.3	12.65	116.119	
2,700.0	2,650.4	2,587.4	2,587.4	9.6	4.5	-120.19	1,301.9	87.8	1,480.3	1,467.1	13.16	112.484	
2,800.0	2,747.9	2,684.9	2,684.9	10.1	4.7	-120.92	1,301.9	87.8	1,491.9	1,478.2	13.66	109.177	
2,900.0	2,845.4	2,782.4	2,782.4	10.5	4.9	-121.64	1,301.9	87.8	1,503.6	1,489.5	14.16	106.156	
3,000.0	2,942.8	2,879.8	2,879.8	10.9	5.0	-122.34	1,301.9	87.8	1,515.7	1,501.0	14.66	103.391	
3,100.0	3,040.3	2,977.3	2,977.3	11.4	5.2	-123.03	1,301.9	87.8	1,527.9	1,512.8	15.15	100.852	
3,200.0	3,137.8	3,074.8	3,074.8	11.8	5.4	-123.72	1,301.9	87.8	1,540.4	1,524.8	15.64	98.516	
7,200.0	6,903.3	6,840.3	6,840.3	22.3	11.9	-69.62	1,301.9	87.8	1,537.0	1,513.3	23.71	64.818	
7,250.0	6,915.7	6,852.7	6,852.7	22.5	12.0	-75.80	1,301.9	87.8	1,499.2	1,474.8	24.35	61.576	
7,300.0	6,923.9	6,860.9	6,860.9	22.6	12.0	-81.97	1,301.9	87.8	1,461.3	1,436.3	24.96	58.552	
7,350.0	6,927.7	6,864.7	6,864.7	22.8	12.0	-87.87	1,301.9	87.8	1,423.7	1,398.2	25.50	55.823	
7,369.0	6,928.0	6,865.0	6,865.0	22.9	12.0	-90.00	1,301.9	87.8	1,409.6	1,383.9	25.70	54.854	
7,400.0	6,928.0	6,865.0	6,865.0	23.1	12.0	-90.00	1,301.9	87.8	1,386.8	1,360.8	25.95	53.439	
7,500.0	6,928.0	6,865.0	6,865.0	23.6	12.0	-90.00	1,301.9	87.8	1,315.5	1,288.6	26.87	48.951	
7,600.0	6,928.0	6,865.0	6,865.0	24.3	12.0	-90.00	1,301.9	87.8	1,248.2	1,220.2	27.94	44.678	
7,700.0	6,928.0	6,865.0	6,865.0	25.0	12.0	-90.00	1,301.9	87.8	1,185.5	1,156.3	29.11	40.718	
7,800.0	6,928.0	6,865.0	6,865.0	25.9	12.0	-90.00	1,301.9	87.8	1,128.1	1,097.8	30.38	37.131	
7,900.0	6,928.0	6,865.0	6,865.0	26.9	12.0	-90.00	1,301.9	87.8	1,077.1	1,045.4	31.73	33.949	
8,000.0	6,928.0	6,865.0	6,865.0	27.9	12.0	-90.00	1,301.9	87.8	1,033.2	1,000.1	33.13	31.186	
8,100.0	6,928.0	6,865.0	6,865.0	29.0	12.0	-90.00	1,301.9	87.8	997.5	962.9	34.58	28.842	
8,200.0	6,928.0	6,865.0	6,865.0	30.2	12.0	-90.00	1,301.9	87.8	970.7	934.7	36.08	26.908	
8,300.0	6,928.0	6,865.0	6,865.0	31.4	12.0	-90.00	1,301.9	87.8	953.8	916.2	37.60	25.365	
8,400.0	6,928.0	6,865.0	6,865.0	32.7	12.0	-90.00	1,301.9	87.8	947.2	908.0	39.16	24.190	
8,413.0	6,928.0	6,865.0	6,865.0	32.8	12.0	-90.00	1,301.9	87.8	947.1	907.7	39.36	24.062	CC, ES
8,500.0	6,928.0	6,865.0	6,865.0	34.0	12.0	-90.00	1,301.9	87.8	951.1	910.3	40.73	23.349	

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 Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - DALE 'E' UNIT 1 (EXISTING) - EXISTING - ENCANA WELL

Offset Site Error: 0.0 ft

Survey Program: 7877-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
8,600.0	6,928.0	6,865.0	6,865.0	35.3	12.0	-90.00	1,301.9	87.8	965.4	923.0	42.33	22.806	
8,700.0	6,928.0	6,865.0	6,865.0	36.7	12.0	-90.00	1,301.9	87.8	989.6	945.7	43.94	22.521	
8,800.0	6,928.0	6,865.0	6,865.0	38.2	12.0	-90.00	1,301.9	87.8	1,023.1	977.5	45.57	22.452 SF	
8,900.0	6,928.0	6,865.0	6,865.0	39.6	12.0	-90.00	1,301.9	87.8	1,065.0	1,017.8	47.21	22.559	
9,000.0	6,928.0	6,865.0	6,865.0	41.1	12.0	-90.00	1,301.9	87.8	1,114.3	1,065.4	48.86	22.806	
9,100.0	6,928.0	6,865.0	6,865.0	42.6	12.0	-90.00	1,301.9	87.8	1,170.0	1,119.5	50.52	23.161	
9,200.0	6,928.0	6,865.0	6,865.0	44.1	12.0	-90.00	1,301.9	87.8	1,231.4	1,179.2	52.18	23.598	
9,300.0	6,928.0	6,865.0	6,865.0	45.6	12.0	-90.00	1,301.9	87.8	1,297.6	1,243.7	53.86	24.093	
9,400.0	6,928.0	6,865.0	6,865.0	47.2	12.0	-90.00	1,301.9	87.8	1,367.9	1,312.4	55.54	24.630	
9,500.0	6,928.0	6,865.0	6,865.0	48.7	12.0	-90.00	1,301.9	87.8	1,441.7	1,384.5	57.22	25.195	
9,600.0	6,928.0	6,865.0	6,865.0	50.3	12.0	-90.00	1,301.9	87.8	1,518.5	1,459.6	58.91	25.775	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - KELLER 20-2 (EXISTING) - EXISTING - NOBLE WELL

Offset Site Error: 0.0 ft

Survey Program: 7693-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
9,900.0	6,928.0	6,834.0	6,834.0	55.1	11.9	-90.00	3,912.0	77.2	1,475.9	1,412.0	63.96	23.077	
10,000.0	6,928.0	6,834.0	6,834.0	56.7	11.9	-90.00	3,912.0	77.2	1,401.4	1,335.7	65.66	21.341	
10,100.0	6,928.0	6,834.0	6,834.0	58.3	11.9	-90.00	3,912.0	77.2	1,330.1	1,262.7	67.37	19.742	
10,200.0	6,928.0	6,834.0	6,834.0	60.0	11.9	-90.00	3,912.0	77.2	1,262.8	1,193.7	69.09	18.278	
10,300.0	6,928.0	6,834.0	6,834.0	61.6	11.9	-90.00	3,912.0	77.2	1,200.0	1,129.2	70.80	16.949	
10,400.0	6,928.0	6,834.0	6,834.0	63.2	11.9	-90.00	3,912.0	77.2	1,142.5	1,070.0	72.52	15.755	
10,500.0	6,928.0	6,834.0	6,834.0	64.9	11.9	-90.00	3,912.0	77.2	1,091.2	1,017.0	74.24	14.699	
10,600.0	6,928.0	6,834.0	6,834.0	66.5	11.9	-90.00	3,912.0	77.2	1,047.0	971.0	75.96	13.784	
10,700.0	6,928.0	6,834.0	6,834.0	68.2	11.9	-90.00	3,912.0	77.2	1,010.7	933.0	77.68	13.011	
10,800.0	6,928.0	6,834.0	6,834.0	69.9	11.9	-90.00	3,912.0	77.2	983.3	903.9	79.40	12.384	
10,900.0	6,928.0	6,834.0	6,834.0	71.5	11.9	-90.00	3,912.0	77.2	965.6	884.4	81.13	11.902	
11,000.0	6,928.0	6,834.0	6,834.0	73.2	11.9	-90.00	3,912.0	77.2	958.0	875.1	82.86	11.562	
11,023.0	6,928.0	6,834.0	6,834.0	73.6	11.9	-90.00	3,912.0	77.2	957.7	874.4	83.25	11.503	CC, ES
11,100.0	6,928.0	6,834.0	6,834.0	74.9	11.9	-90.00	3,912.0	77.2	960.8	876.2	84.58	11.359	
11,200.0	6,928.0	6,834.0	6,834.0	76.6	11.9	-90.00	3,912.0	77.2	973.9	887.6	86.31	11.283	SF
11,300.0	6,928.0	6,834.0	6,834.0	78.2	11.9	-90.00	3,912.0	77.2	996.9	908.9	88.04	11.323	
11,400.0	6,928.0	6,834.0	6,834.0	79.9	11.9	-90.00	3,912.0	77.2	1,029.2	939.4	89.78	11.464	
11,500.0	6,928.0	6,834.0	6,834.0	81.6	11.9	-90.00	3,912.0	77.2	1,069.9	978.4	91.51	11.692	
11,605.6	6,928.0	6,834.0	6,834.0	83.4	11.9	-90.00	3,912.0	77.2	1,120.9	1,027.6	93.34	12.009	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 S20-T2N-R64W (Dale) - RUHL 1 (EXISTING) - EXISTING - NEBRASKA WELL — **Offset Site Error:** 0.0 ft

Survey Program: 7638-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
8,000.0	6,928.0	6,859.0	6,859.0	27.9	12.0	-90.00	1,675.0	-267.6	1,521.3	1,488.2	33.12	45.933	
8,100.0	6,928.0	6,859.0	6,859.0	29.0	12.0	-90.00	1,675.0	-267.6	1,472.1	1,437.6	34.57	42.580	
8,200.0	6,928.0	6,859.0	6,859.0	30.2	12.0	-90.00	1,675.0	-267.6	1,428.3	1,392.2	36.07	39.602	
8,300.0	6,928.0	6,859.0	6,859.0	31.4	12.0	-90.00	1,675.0	-267.6	1,390.2	1,352.6	37.59	36.982	
8,400.0	6,928.0	6,859.0	6,859.0	32.7	12.0	-90.00	1,675.0	-267.6	1,358.5	1,319.4	39.15	34.704	
8,500.0	6,928.0	6,859.0	6,859.0	34.0	12.0	-90.00	1,675.0	-267.6	1,333.5	1,292.8	40.72	32.747	
8,600.0	6,928.0	6,859.0	6,859.0	35.3	12.0	-90.00	1,675.0	-267.6	1,315.7	1,273.4	42.32	31.091	
8,700.0	6,928.0	6,859.0	6,859.0	36.7	12.0	-90.00	1,675.0	-267.6	1,305.4	1,261.4	43.93	29.714	
8,786.0	6,928.0	6,859.0	6,859.0	38.0	12.0	-90.00	1,675.0	-267.6	1,302.5	1,257.2	45.33	28.734	CC
8,800.0	6,928.0	6,859.0	6,859.0	38.2	12.0	-90.00	1,675.0	-267.6	1,302.6	1,257.0	45.56	28.592	ES
8,900.0	6,928.0	6,859.0	6,859.0	39.6	12.0	-90.00	1,675.0	-267.6	1,307.5	1,260.3	47.20	27.703	
9,000.0	6,928.0	6,859.0	6,859.0	41.1	12.0	-90.00	1,675.0	-267.6	1,320.0	1,271.1	48.85	27.023	
9,100.0	6,928.0	6,859.0	6,859.0	42.6	12.0	-90.00	1,675.0	-267.6	1,339.8	1,289.3	50.51	26.528	
9,200.0	6,928.0	6,859.0	6,859.0	44.1	12.0	-90.00	1,675.0	-267.6	1,366.7	1,314.6	52.17	26.196	
9,300.0	6,928.0	6,859.0	6,859.0	45.6	12.0	-90.00	1,675.0	-267.6	1,400.3	1,346.4	53.85	26.005	
9,400.0	6,928.0	6,859.0	6,859.0	47.2	12.0	-90.00	1,675.0	-267.6	1,440.0	1,384.5	55.53	25.933	SF
9,500.0	6,928.0	6,859.0	6,859.0	48.7	12.0	-90.00	1,675.0	-267.6	1,485.4	1,428.2	57.21	25.962	
9,600.0	6,928.0	6,859.0	6,859.0	50.3	12.0	-90.00	1,675.0	-267.6	1,535.9	1,477.0	58.90	26.075	

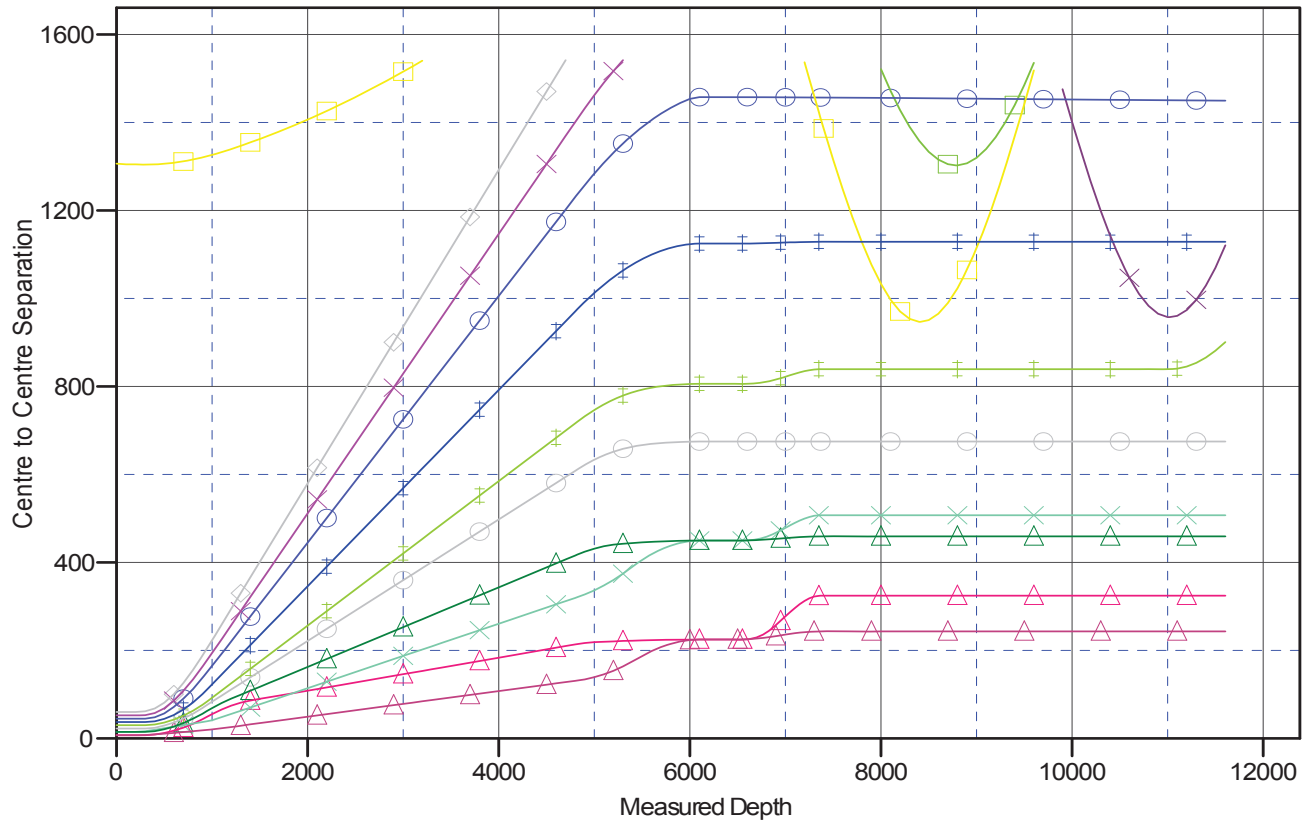
CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4I-20H-O264
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Reference Site:	S20-T2N-R64W (Dale)	**MD Reference:**	WELL @ 4988.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Dale 4I-20H-O264	**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 @ 4988.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Dale 4I-20H-O264
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.60°

Ladder Plot



LEGEND

)264, HZ, Plan #1 V0
TING), EXISTING, NEBRASKA WELL V0
)264, HZ, Plan #1 V0
(EXISTING), EXISTING, NOBLE WELL V0
)264, HZ, Plan #1 V0
Dale 4B-20H-O264, HZ, Plan #1 V0
Dale 4H-20H-O264, HZ, Plan #1 V0
Dale 4K-20H-O264, HZ, Plan #1 V0
Dale 4F-20H-O264, HZ, Plan #1 V0
Dale 4J-20H-O264, HZ, Plan #1 V0
DALE 'E' UNIT 1 (EXISTING), EXISTING
Dale 4G-20H-O264, HZ, Plan #1 V0
Dale 4D-20H-O264, HZ, Plan #1 V0