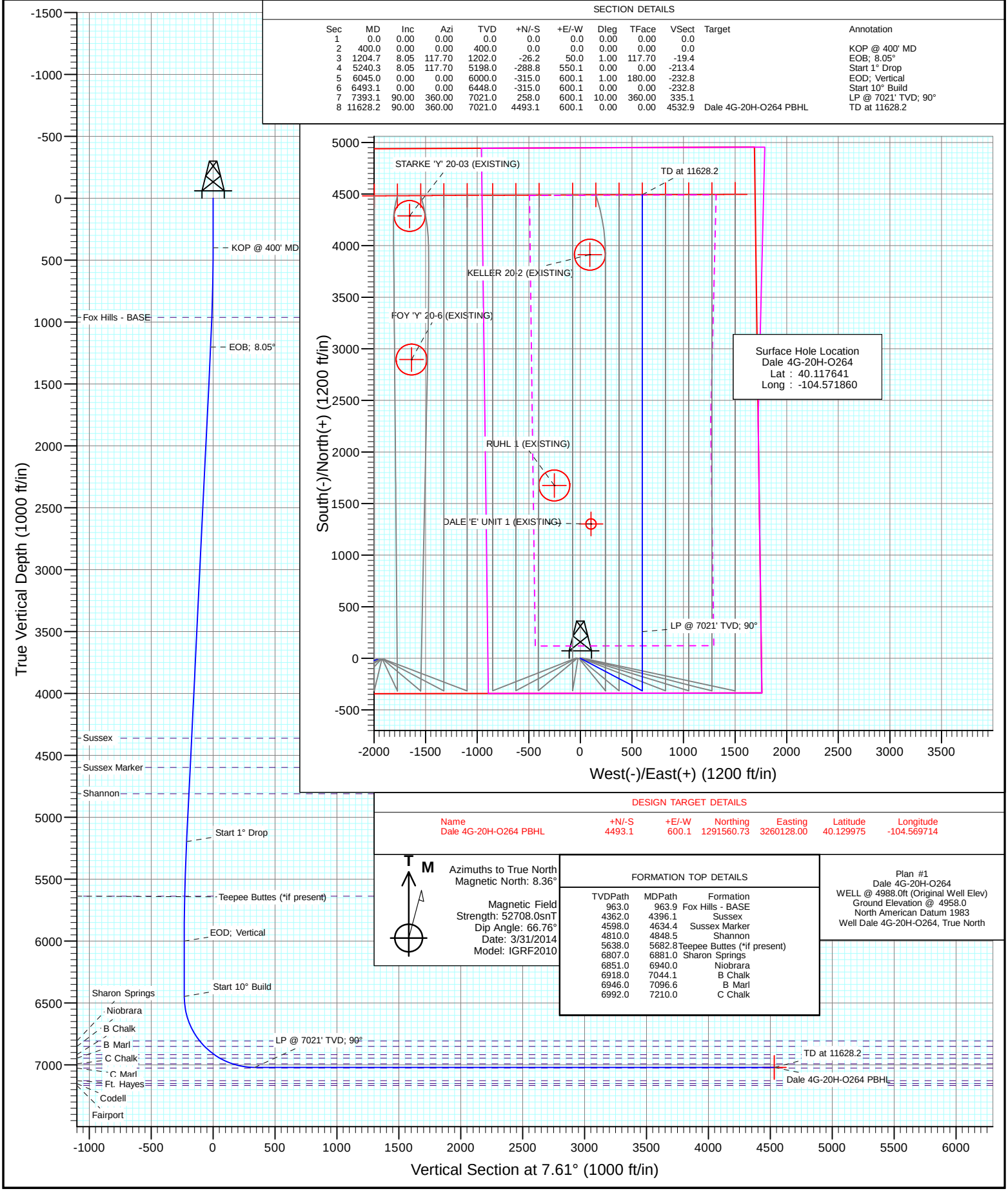
encana natural gas

Project: DJ Wattenberg
Site: S20-T2N-R64W (Dale)
Well: Dale 4G-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	400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.0		KOP @ 400' MD
3	1204.7	8.05	117.70	1202.0	-26.2	50.0	1.00	117.70	-19.4		EOB; 8.05°
4	5240.3	8.05	117.70	5198.0	-288.8	550.1	0.00	0.00	-213.4		Start 1° Drop
5	6045.0	0.00	0.00	6000.0	-315.0	600.1	1.00	180.00	-232.8		EOD; Vertical
6	6493.1	0.00	0.00	6448.0	-315.0	600.1	0.00	0.00	-232.8		Start 10° Build
7	7393.1	90.00	360.00	7021.0	258.0	600.1	10.00	360.00	335.1		LP @ 7021' TVD; 90°
8	11628.2	90.00	360.00	7021.0	4493.1	600.1	0.00	0.00	4532.9	Dale 4G-20H-O264 PBHL	TD at 11628.2



DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Dale 4G-20H-O264 PBHL	4493.1	600.1	1291560.73	3260128.00	40.129975	-104.569714

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	963.9	Fox Hills - BASE
4362.0	4396.1	Sussex
4598.0	4634.4	Sussex Marker
4810.0	4848.5	Shannon
5638.0	5682.8	Teepee Buttes (*if present)
6807.0	6881.0	Sharon Springs
6851.0	6940.0	Niobrara
6918.0	7044.1	B Chalk
6946.0	7096.6	B Marl
6992.0	7210.0	C Chalk

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

ENCANA

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-20H-O264	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Project DJ Wattenberg

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

Site 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 4G-20H-O264

Well Position	**+N/-S**	0.0 ft	**Northing:**	1,287,061.64 ft	**Latitude:**	40.117641
	+E/-W	0.0 ft	**Easting:**	3,259,574.99 ft	**Longitude:**	-104.571860
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	7.61

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	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,204.7	8.05	117.70	1,202.0	-26.2	50.0	1.00	1.00	0.00	117.70	
5,240.3	8.05	117.70	5,198.0	-288.8	550.1	0.00	0.00	0.00	0.00	
6,045.0	0.00	0.00	6,000.0	-315.0	600.1	1.00	-1.00	0.00	180.00	
6,493.1	0.00	0.00	6,448.0	-315.0	600.1	0.00	0.00	0.00	0.00	
7,393.1	90.00	360.00	7,021.0	258.0	600.1	10.00	10.00	0.00	360.00	
11,628.2	90.00	360.00	7,021.0	4,493.1	600.1	0.00	0.00	0.00	0.00	Dale 4G-20H-O264 P

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	KOP @ 400' MD
500.0	1.00	117.70	500.0	-0.4	0.8	-0.3	1.00	1.00	
600.0	2.00	117.70	600.0	-1.6	3.1	-1.2	1.00	1.00	
700.0	3.00	117.70	699.9	-3.6	7.0	-2.7	1.00	1.00	
800.0	4.00	117.70	799.7	-6.5	12.4	-4.8	1.00	1.00	
900.0	5.00	117.70	899.4	-10.1	19.3	-7.5	1.00	1.00	
963.9	5.64	117.70	963.0	-12.9	24.6	-9.5	1.00	1.00	Fox Hills - BASE
1,000.0	6.00	117.70	998.9	-14.6	27.8	-10.8	1.00	1.00	
1,100.0	7.00	117.70	1,098.3	-19.8	37.8	-14.7	1.00	1.00	
1,204.7	8.05	117.70	1,202.0	-26.2	50.0	-19.4	1.00	1.00	EOB; 8.05°
1,300.0	8.05	117.70	1,296.4	-32.4	61.8	-24.0	0.00	0.00	
1,400.0	8.05	117.70	1,395.4	-38.9	74.2	-28.8	0.00	0.00	
1,500.0	8.05	117.70	1,494.4	-45.4	86.6	-33.6	0.00	0.00	
1,600.0	8.05	117.70	1,593.5	-51.9	98.9	-38.4	0.00	0.00	
1,700.0	8.05	117.70	1,692.5	-58.4	111.3	-43.2	0.00	0.00	
1,800.0	8.05	117.70	1,791.5	-65.0	123.7	-48.0	0.00	0.00	
1,900.0	8.05	117.70	1,890.5	-71.5	136.1	-52.8	0.00	0.00	
2,000.0	8.05	117.70	1,989.5	-78.0	148.5	-57.6	0.00	0.00	
2,100.0	8.05	117.70	2,088.5	-84.5	160.9	-62.4	0.00	0.00	
2,200.0	8.05	117.70	2,187.6	-91.0	173.3	-67.2	0.00	0.00	
2,300.0	8.05	117.70	2,286.6	-97.5	185.7	-72.0	0.00	0.00	
2,400.0	8.05	117.70	2,385.6	-104.0	198.1	-76.8	0.00	0.00	
2,500.0	8.05	117.70	2,484.6	-110.5	210.5	-81.7	0.00	0.00	
2,600.0	8.05	117.70	2,583.6	-117.0	222.9	-86.5	0.00	0.00	
2,700.0	8.05	117.70	2,682.6	-123.5	235.3	-91.3	0.00	0.00	
2,800.0	8.05	117.70	2,781.6	-130.0	247.7	-96.1	0.00	0.00	
2,900.0	8.05	117.70	2,880.7	-136.5	260.1	-100.9	0.00	0.00	
3,000.0	8.05	117.70	2,979.7	-143.0	272.5	-105.7	0.00	0.00	
3,100.0	8.05	117.70	3,078.7	-149.5	284.9	-110.5	0.00	0.00	
3,200.0	8.05	117.70	3,177.7	-156.0	297.3	-115.3	0.00	0.00	
3,300.0	8.05	117.70	3,276.7	-162.5	309.7	-120.1	0.00	0.00	
3,400.0	8.05	117.70	3,375.7	-169.0	322.0	-124.9	0.00	0.00	
3,500.0	8.05	117.70	3,474.8	-175.6	334.4	-129.7	0.00	0.00	
3,600.0	8.05	117.70	3,573.8	-182.1	346.8	-134.5	0.00	0.00	
3,700.0	8.05	117.70	3,672.8	-188.6	359.2	-139.4	0.00	0.00	
3,800.0	8.05	117.70	3,771.8	-195.1	371.6	-144.2	0.00	0.00	
3,900.0	8.05	117.70	3,870.8	-201.6	384.0	-149.0	0.00	0.00	
4,000.0	8.05	117.70	3,969.8	-208.1	396.4	-153.8	0.00	0.00	
4,100.0	8.05	117.70	4,068.8	-214.6	408.8	-158.6	0.00	0.00	
4,200.0	8.05	117.70	4,167.9	-221.1	421.2	-163.4	0.00	0.00	
4,300.0	8.05	117.70	4,266.9	-227.6	433.6	-168.2	0.00	0.00	
4,396.1	8.05	117.70	4,362.0	-233.9	445.5	-172.8	0.00	0.00	Sussex
4,400.0	8.05	117.70	4,365.9	-234.1	446.0	-173.0	0.00	0.00	
4,500.0	8.05	117.70	4,464.9	-240.6	458.4	-177.8	0.00	0.00	
4,600.0	8.05	117.70	4,563.9	-247.1	470.8	-182.6	0.00	0.00	
4,634.4	8.05	117.70	4,598.0	-249.4	475.0	-184.3	0.00	0.00	Sussex Marker
4,700.0	8.05	117.70	4,662.9	-253.6	483.2	-187.4	0.00	0.00	
4,800.0	8.05	117.70	4,762.0	-260.1	495.6	-192.2	0.00	0.00	

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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
4,848.5	8.05	117.70	4,810.0	-263.3	501.6	-194.6	0.00	0.00	Shannon
4,900.0	8.05	117.70	4,861.0	-266.6	508.0	-197.0	0.00	0.00	
5,000.0	8.05	117.70	4,960.0	-273.1	520.4	-201.9	0.00	0.00	
5,100.0	8.05	117.70	5,059.0	-279.7	532.8	-206.7	0.00	0.00	
5,200.0	8.05	117.70	5,158.0	-286.2	545.2	-211.5	0.00	0.00	
5,240.3	8.05	117.70	5,198.0	-288.8	550.1	-213.4	0.00	0.00	Start 1° Drop
5,300.0	7.45	117.70	5,257.1	-292.5	557.3	-216.2	1.00	-1.00	
5,400.0	6.45	117.70	5,356.3	-298.1	568.0	-220.3	1.00	-1.00	
5,500.0	5.45	117.70	5,455.8	-303.0	577.2	-223.9	1.00	-1.00	
5,600.0	4.45	117.70	5,555.4	-307.0	584.8	-226.9	1.00	-1.00	
5,682.8	3.62	117.70	5,638.0	-309.7	590.0	-228.9	1.00	-1.00	Teepee Buttes (*if present)
5,700.0	3.45	117.70	5,655.2	-310.2	590.9	-229.2	1.00	-1.00	
5,800.0	2.45	117.70	5,755.1	-312.6	595.5	-231.0	1.00	-1.00	
5,900.0	1.45	117.70	5,855.0	-314.1	598.5	-232.2	1.00	-1.00	
6,000.0	0.45	117.70	5,955.0	-314.9	599.9	-232.7	1.00	-1.00	
6,045.0	0.00	0.00	6,000.0	-315.0	600.1	-232.8	1.00	-1.00	EOD; Vertical
6,100.0	0.00	0.00	6,055.0	-315.0	600.1	-232.8	0.00	0.00	
6,200.0	0.00	0.00	6,155.0	-315.0	600.1	-232.8	0.00	0.00	
6,300.0	0.00	0.00	6,255.0	-315.0	600.1	-232.8	0.00	0.00	
6,400.0	0.00	0.00	6,355.0	-315.0	600.1	-232.8	0.00	0.00	
6,493.1	0.00	0.00	6,448.0	-315.0	600.1	-232.8	0.00	0.00	Start 10° Build
6,500.0	0.69	360.00	6,455.0	-315.0	600.1	-232.7	10.00	10.00	
6,550.0	5.69	360.00	6,504.9	-312.2	600.1	-230.0	10.00	10.00	
6,600.0	10.69	360.00	6,554.4	-305.0	600.1	-222.9	10.00	10.00	
6,650.0	15.69	360.00	6,603.0	-293.6	600.1	-211.6	10.00	10.00	
6,700.0	20.69	360.00	6,650.5	-278.0	600.1	-196.1	10.00	10.00	
6,750.0	25.69	360.00	6,696.5	-258.3	600.1	-176.6	10.00	10.00	
6,800.0	30.69	360.00	6,740.5	-234.7	600.1	-153.2	10.00	10.00	
6,850.0	35.69	360.00	6,782.3	-207.4	600.1	-126.1	10.00	10.00	
6,881.0	38.79	360.00	6,807.0	-188.6	600.1	-107.5	10.00	10.00	Sharon Springs
6,900.0	40.69	360.00	6,821.6	-176.5	600.1	-95.5	10.00	10.00	
6,940.0	44.69	360.00	6,851.0	-149.4	600.1	-68.6	10.00	10.00	Niobrara
6,950.0	45.69	360.00	6,858.1	-142.2	600.1	-61.6	10.00	10.00	
7,000.0	50.69	360.00	6,891.4	-105.0	600.1	-24.6	10.00	10.00	
7,044.1	55.11	360.00	6,918.0	-69.8	600.1	10.3	10.00	10.00	B Chalk
7,050.0	55.69	360.00	6,921.3	-65.0	600.1	15.0	10.00	10.00	
7,096.6	60.35	360.00	6,946.0	-25.4	600.1	54.2	10.00	10.00	B Marl
7,100.0	60.69	360.00	6,947.7	-22.5	600.1	57.1	10.00	10.00	
7,150.0	65.69	360.00	6,970.2	22.1	600.1	101.4	10.00	10.00	
7,200.0	70.69	360.00	6,988.8	68.5	600.1	147.4	10.00	10.00	
7,210.0	71.69	360.00	6,992.0	78.0	600.1	156.7	10.00	10.00	C Chalk
7,250.0	75.69	360.00	7,003.2	116.4	600.1	194.8	10.00	10.00	
7,300.0	80.69	360.00	7,013.5	165.3	600.1	243.3	10.00	10.00	
7,350.0	85.69	360.00	7,019.4	214.9	600.1	292.5	10.00	10.00	
7,393.1	90.00	360.00	7,021.0	258.0	600.1	335.1	10.00	10.00	LP @ 7021' TVD; 90°
7,400.0	90.00	360.00	7,021.0	264.9	600.1	342.0	0.00	0.00	
7,500.0	90.00	360.00	7,021.0	364.9	600.1	441.1	0.00	0.00	
7,600.0	90.00	360.00	7,021.0	464.9	600.1	540.2	0.00	0.00	
7,700.0	90.00	360.00	7,021.0	564.9	600.1	639.4	0.00	0.00	
7,800.0	90.00	360.00	7,021.0	664.9	600.1	738.5	0.00	0.00	
7,900.0	90.00	360.00	7,021.0	764.9	600.1	837.6	0.00	0.00	
8,000.0	90.00	360.00	7,021.0	864.9	600.1	936.7	0.00	0.00	

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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
8,100.0	90.00	360.00	7,021.0	964.9	600.1	1,035.8	0.00	0.00	
8,200.0	90.00	360.00	7,021.0	1,064.9	600.1	1,135.0	0.00	0.00	
8,300.0	90.00	360.00	7,021.0	1,164.9	600.1	1,234.1	0.00	0.00	
8,400.0	90.00	360.00	7,021.0	1,264.9	600.1	1,333.2	0.00	0.00	
8,500.0	90.00	360.00	7,021.0	1,364.9	600.1	1,432.3	0.00	0.00	
8,600.0	90.00	360.00	7,021.0	1,464.9	600.1	1,531.4	0.00	0.00	
8,700.0	90.00	360.00	7,021.0	1,564.9	600.1	1,630.6	0.00	0.00	
8,800.0	90.00	360.00	7,021.0	1,664.9	600.1	1,729.7	0.00	0.00	
8,900.0	90.00	360.00	7,021.0	1,764.9	600.1	1,828.8	0.00	0.00	
9,000.0	90.00	360.00	7,021.0	1,864.9	600.1	1,927.9	0.00	0.00	
9,100.0	90.00	360.00	7,021.0	1,964.9	600.1	2,027.0	0.00	0.00	
9,200.0	90.00	360.00	7,021.0	2,064.9	600.1	2,126.2	0.00	0.00	
9,300.0	90.00	360.00	7,021.0	2,164.9	600.1	2,225.3	0.00	0.00	
9,400.0	90.00	360.00	7,021.0	2,264.9	600.1	2,324.4	0.00	0.00	
9,500.0	90.00	360.00	7,021.0	2,364.9	600.1	2,423.5	0.00	0.00	
9,600.0	90.00	360.00	7,021.0	2,464.9	600.1	2,522.6	0.00	0.00	
9,700.0	90.00	360.00	7,021.0	2,564.9	600.1	2,621.8	0.00	0.00	
9,800.0	90.00	360.00	7,021.0	2,664.9	600.1	2,720.9	0.00	0.00	
9,900.0	90.00	360.00	7,021.0	2,764.9	600.1	2,820.0	0.00	0.00	
10,000.0	90.00	360.00	7,021.0	2,864.9	600.1	2,919.1	0.00	0.00	
10,100.0	90.00	360.00	7,021.0	2,964.9	600.1	3,018.2	0.00	0.00	
10,200.0	90.00	360.00	7,021.0	3,064.9	600.1	3,117.4	0.00	0.00	
10,300.0	90.00	360.00	7,021.0	3,164.9	600.1	3,216.5	0.00	0.00	
10,400.0	90.00	360.00	7,021.0	3,264.9	600.1	3,315.6	0.00	0.00	
10,500.0	90.00	360.00	7,021.0	3,364.9	600.1	3,414.7	0.00	0.00	
10,600.0	90.00	360.00	7,021.0	3,464.9	600.1	3,513.8	0.00	0.00	
10,700.0	90.00	360.00	7,021.0	3,564.9	600.1	3,613.0	0.00	0.00	
10,800.0	90.00	360.00	7,021.0	3,664.9	600.1	3,712.1	0.00	0.00	
10,900.0	90.00	360.00	7,021.0	3,764.9	600.1	3,811.2	0.00	0.00	
11,000.0	90.00	360.00	7,021.0	3,864.9	600.1	3,910.3	0.00	0.00	
11,100.0	90.00	360.00	7,021.0	3,964.9	600.1	4,009.4	0.00	0.00	
11,200.0	90.00	360.00	7,021.0	4,064.9	600.1	4,108.6	0.00	0.00	
11,300.0	90.00	360.00	7,021.0	4,164.9	600.1	4,207.7	0.00	0.00	
11,400.0	90.00	360.00	7,021.0	4,264.9	600.1	4,306.8	0.00	0.00	
11,500.0	90.00	360.00	7,021.0	4,364.9	600.1	4,405.9	0.00	0.00	
11,600.0	90.00	360.00	7,021.0	4,464.9	600.1	4,505.0	0.00	0.00	
11,628.2	90.00	360.00	7,021.0	4,493.1	600.1	4,532.9	0.00	0.00	TD at 11628.2

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 4G-20H-O264 PBH - plan hits target center - Point	0.00	0.00	7,021.0	4,493.1	600.1	1,291,560.73	3,260,128.00	40.129975	-104.569714

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-20H-O264	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
963.9	963.0	Fox Hills - BASE			
4,396.1	4,362.0	Sussex			
4,634.4	4,598.0	Sussex Marker			
4,848.5	4,810.0	Shannon			
5,682.8	5,638.0	Teepee Buttes (*if present)			
6,881.0	6,807.0	Sharon Springs			
6,940.0	6,851.0	Niobrara			
7,044.1	6,918.0	B Chalk			
7,096.6	6,946.0	B Marl			
7,210.0	6,992.0	C Chalk			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
400.0	400.0	0.0	0.0	KOP @ 400' MD
1,204.7	1,202.0	-26.2	50.0	EOB; 8.05°
5,240.3	5,198.0	-288.8	550.1	Start 1° Drop
6,045.0	6,000.0	-315.0	600.1	EOD; Vertical
6,493.1	6,448.0	-315.0	600.1	Start 10° Build
7,393.1	7,021.0	258.0	600.1	LP @ 7021' TVD; 90°
11,628.2	7,021.0	4,493.1	600.1	TD at 11628.2

EnCana Oil & Gas (USA) Inc

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

Anticollision Report

02 April, 2014

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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	11,628.2	Plan #1 (HZ)	Geolink MWD	Geolink MWD

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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	45.0	44.6	94.275	CC
Dale 4A-20H-O264 - HZ - Plan #1	200.0	201.0	45.0	44.4	75.658	ES
Dale 4A-20H-O264 - HZ - Plan #1	11,628.2	11,645.9	1,450.1	1,287.4	8.913	SF
Dale 4B-20H-O264 - HZ - Plan #1	247.4	248.4	37.5	36.7	49.269	CC, ES
Dale 4B-20H-O264 - HZ - Plan #1	11,628.2	11,752.2	1,232.2	1,070.4	7.613	SF
Dale 4C-20H-O264 - HZ - Plan #1	300.0	300.0	29.9	29.0	31.754	CC, ES
Dale 4C-20H-O264 - HZ - Plan #1	11,628.2	11,508.6	1,004.2	842.1	6.198	SF
Dale 4D-20H-O264 - HZ - Plan #1	335.3	335.3	22.4	21.3	20.998	CC
Dale 4D-20H-O264 - HZ - Plan #1	400.0	400.0	22.4	21.1	17.352	ES
Dale 4D-20H-O264 - HZ - Plan #1	11,628.2	11,590.6	675.0	512.3	4.148	SF
Dale 4E-20H-O264 - HZ - Plan #1	400.0	400.0	15.1	13.8	11.693	CC
Dale 4E-20H-O264 - HZ - Plan #1	500.0	500.2	15.3	13.7	9.336	ES
Dale 4E-20H-O264 - HZ - Plan #1	11,300.0	11,369.2	397.2	255.8	2.809	SF
Dale 4F-20H-O264 - HZ - Plan #1	400.0	400.0	7.6	6.3	5.847	CC, ES
Dale 4F-20H-O264 - HZ - Plan #1	11,628.2	11,512.7	243.6	92.6	1.614	SF
Dale 4H-20H-O264 - HZ - Plan #1	333.5	333.5	7.6	6.5	7.129	CC
Dale 4H-20H-O264 - HZ - Plan #1	400.0	399.9	7.8	6.5	6.005	ES
Dale 4H-20H-O264 - HZ - Plan #1	11,628.2	11,801.0	265.6	126.4	1.908	SF
Dale 4I-20H-O264 - HZ - Plan #1	300.0	300.0	15.1	14.2	16.024	CC, ES
Dale 4I-20H-O264 - HZ - Plan #1	11,628.2	11,604.1	459.4	299.8	2.878	SF
Dale 4J-20H-O264 - HZ - Plan #1	234.7	233.7	22.4	21.7	31.398	CC, ES
Dale 4J-20H-O264 - HZ - Plan #1	11,628.2	11,738.2	675.0	512.2	4.145	SF
Dale 4K-20H-O264 - HZ - Plan #1	200.0	199.0	29.9	29.3	50.581	CC, ES
Dale 4K-20H-O264 - HZ - Plan #1	11,628.2	11,934.5	911.1	750.1	5.659	SF
DALE 'E' UNIT 1 (EXISTING) - EXISTING - ENCANA WE	8,437.1	6,958.0	497.2	457.6	12.571	CC, ES
DALE 'E' UNIT 1 (EXISTING) - EXISTING - ENCANA WE	8,500.0	6,958.0	501.1	460.6	12.362	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	11,047.1	6,927.0	507.8	424.4	6.087	CC, ES
KELLER 20-2 (EXISTING) - EXISTING - NOBLE WELL	11,100.0	6,927.0	510.5	426.2	6.053	SF
RUHL 1 (EXISTING) - EXISTING - NEBRASKA WELL	8,810.1	6,952.0	852.6	807.1	18.733	CC, ES
RUHL 1 (EXISTING) - EXISTING - NEBRASKA WELL	9,100.0	6,952.0	900.6	850.3	17.908	SF
STARKE 'Y' 20-03 (EXISTING) - EXISTING - NOBLE WE						Out of range

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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	-89.57	0.3	-45.0	45.0				
100.0	100.0	101.0	101.0	0.1	0.1	-89.57	0.3	-45.0	45.0	44.8	0.25	182.974	
166.3	166.3	167.3	167.3	0.2	0.2	-89.57	0.3	-45.0	45.0	44.6	0.48	94.275	CC
200.0	200.0	201.0	201.0	0.3	0.3	-89.57	0.3	-45.0	45.0	44.4	0.60	75.658	ES
300.0	300.0	300.0	300.0	0.5	0.5	-90.36	-0.3	-46.7	46.7	45.7	0.95	49.310	
400.0	400.0	397.8	397.6	0.6	0.7	-92.39	-2.1	-51.4	51.5	50.2	1.31	39.281	
500.0	500.0	495.6	495.0	0.8	0.9	147.67	-5.2	-59.2	60.5	58.8	1.64	36.890	
600.0	600.0	592.4	591.2	1.0	1.1	146.04	-9.4	-70.0	74.2	72.2	1.99	37.299	
700.0	699.9	688.9	686.5	1.2	1.4	145.00	-14.8	-83.6	92.4	90.1	2.34	39.493	
800.0	799.7	786.8	783.2	1.4	1.7	144.67	-20.5	-98.2	112.8	110.1	2.70	41.834	
900.0	899.4	884.4	879.5	1.6	2.1	144.83	-26.2	-112.7	134.6	131.6	3.06	44.013	
1,000.0	998.9	981.6	975.5	1.8	2.4	145.28	-31.8	-127.2	157.9	154.4	3.43	46.060	
1,100.0	1,098.3	1,078.5	1,071.2	2.1	2.7	145.89	-37.5	-141.6	182.5	178.7	3.80	48.001	
1,204.7	1,202.0	1,179.5	1,170.9	2.3	3.0	146.62	-43.3	-156.7	209.8	205.6	4.20	49.941	
1,300.0	1,296.4	1,271.3	1,261.5	2.6	3.3	147.37	-48.7	-170.3	235.4	230.8	4.57	51.473	
1,400.0	1,395.4	1,367.6	1,356.5	2.9	3.6	147.99	-54.3	-184.7	262.3	257.4	4.97	52.822	
1,500.0	1,494.4	1,463.9	1,451.5	3.2	3.9	148.51	-59.9	-199.0	289.3	283.9	5.36	53.965	
1,600.0	1,593.5	1,560.1	1,546.6	3.4	4.3	148.93	-65.5	-213.3	316.2	310.4	5.76	54.944	
1,700.0	1,692.5	1,656.4	1,641.6	3.7	4.6	149.29	-71.1	-227.6	343.2	337.0	6.15	55.793	
1,800.0	1,791.5	1,752.7	1,736.7	4.0	4.9	149.59	-76.7	-242.0	370.1	363.6	6.55	56.536	
1,900.0	1,890.5	1,849.0	1,831.7	4.3	5.2	149.86	-82.3	-256.3	397.1	390.2	6.94	57.191	
2,000.0	1,989.5	1,945.2	1,926.7	4.6	5.5	150.09	-87.9	-270.6	424.1	416.8	7.34	57.774	
2,100.0	2,088.5	2,041.5	2,021.8	4.9	5.8	150.29	-93.5	-285.0	451.1	443.4	7.74	58.294	
2,200.0	2,187.6	2,137.8	2,116.8	5.2	6.2	150.47	-99.2	-299.3	478.1	470.0	8.14	58.763	
2,300.0	2,286.6	2,234.1	2,211.9	5.5	6.5	150.63	-104.8	-313.6	505.1	496.6	8.53	59.186	
2,400.0	2,385.6	2,330.3	2,306.9	5.8	6.8	150.77	-110.4	-327.9	532.1	523.2	8.93	59.571	
2,500.0	2,484.6	2,426.6	2,401.9	6.1	7.1	150.90	-116.0	-342.3	559.1	549.8	9.33	59.922	
2,600.0	2,583.6	2,522.9	2,497.0	6.4	7.4	151.02	-121.6	-356.6	586.1	576.4	9.73	60.244	
2,700.0	2,682.6	2,619.2	2,592.0	6.7	7.8	151.13	-127.2	-370.9	613.1	603.0	10.13	60.539	
2,800.0	2,781.6	2,715.4	2,687.1	7.0	8.1	151.23	-132.8	-385.3	640.1	629.6	10.53	60.812	
2,900.0	2,880.7	2,811.7	2,782.1	7.3	8.4	151.32	-138.4	-399.6	667.1	656.2	10.93	61.065	
3,000.0	2,979.7	2,908.0	2,877.1	7.6	8.7	151.40	-144.0	-413.9	694.2	682.8	11.32	61.299	
3,100.0	3,078.7	3,004.3	2,972.2	7.9	9.0	151.48	-149.6	-428.3	721.2	709.5	11.72	61.517	
3,200.0	3,177.7	3,100.6	3,067.2	8.2	9.4	151.55	-155.2	-442.6	748.2	736.1	12.12	61.721	
3,300.0	3,276.7	3,196.8	3,162.3	8.5	9.7	151.62	-160.8	-456.9	775.2	762.7	12.52	61.911	
3,400.0	3,375.7	3,293.1	3,257.3	8.8	10.0	151.68	-166.4	-471.2	802.2	789.3	12.92	62.089	
3,500.0	3,474.8	3,389.4	3,352.3	9.1	10.3	151.74	-172.0	-485.6	829.3	815.9	13.32	62.257	
3,600.0	3,573.8	3,485.7	3,447.4	9.4	10.6	151.80	-177.7	-499.9	856.3	842.6	13.72	62.414	
3,700.0	3,672.8	3,581.9	3,542.4	9.7	10.9	151.85	-183.3	-514.2	883.3	869.2	14.12	62.563	
3,800.0	3,771.8	3,678.2	3,637.4	10.0	11.3	151.89	-188.9	-528.6	910.3	895.8	14.52	62.703	
3,900.0	3,870.8	3,774.5	3,732.5	10.3	11.6	151.94	-194.5	-542.9	937.4	922.4	14.92	62.835	
4,000.0	3,969.8	3,870.8	3,827.5	10.6	11.9	151.98	-200.1	-557.2	964.4	949.1	15.32	62.961	
4,100.0	4,068.8	3,967.0	3,922.6	10.9	12.2	152.02	-205.7	-571.5	991.4	975.7	15.72	63.080	
4,200.0	4,167.9	4,063.3	4,017.6	11.2	12.5	152.06	-211.3	-585.9	1,018.4	1,002.3	16.12	63.193	
4,300.0	4,266.9	4,159.6	4,112.6	11.5	12.9	152.10	-216.9	-600.2	1,045.5	1,028.9	16.52	63.300	
4,400.0	4,365.9	4,255.9	4,207.7	11.8	13.2	152.13	-222.5	-614.5	1,072.5	1,055.6	16.92	63.403	
4,500.0	4,464.9	4,352.2	4,302.7	12.1	13.5	152.17	-228.1	-628.9	1,099.5	1,082.2	17.31	63.500	
4,600.0	4,563.9	4,448.4	4,397.8	12.4	13.8	152.20	-233.7	-643.2	1,126.5	1,108.8	17.71	63.593	
4,700.0	4,662.9	4,544.7	4,492.8	12.7	14.1	152.23	-239.3	-657.5	1,153.6	1,135.4	18.11	63.682	
4,800.0	4,762.0	4,641.0	4,587.8	13.0	14.5	152.26	-244.9	-671.9	1,180.6	1,162.1	18.51	63.767	
4,900.0	4,861.0	4,737.3	4,682.9	13.3	14.8	152.28	-250.5	-686.2	1,207.6	1,188.7	18.91	63.849	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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
5,000.0	4,960.0	4,833.5	4,777.9	13.6	15.1	152.31	-256.2	-700.5	1,234.6	1,215.3	19.31	63.927	
5,100.0	5,059.0	4,929.8	4,873.0	13.9	15.4	152.33	-261.8	-714.8	1,261.7	1,242.0	19.71	64.002	
5,200.0	5,158.0	5,026.1	4,968.0	14.2	15.7	152.36	-267.4	-729.2	1,288.7	1,268.6	20.11	64.073	
5,240.3	5,198.0	5,064.9	5,006.3	14.3	15.9	152.37	-269.6	-734.9	1,299.6	1,279.3	20.27	64.102	
5,300.0	5,257.1	5,122.4	5,063.1	14.5	16.0	152.45	-273.0	-743.5	1,315.5	1,294.9	20.53	64.073	
5,400.0	5,356.3	5,219.2	5,158.6	14.7	16.4	152.55	-278.6	-757.9	1,340.8	1,319.9	20.95	63.998	
5,500.0	5,455.8	5,316.3	5,254.4	15.0	16.7	152.62	-284.3	-772.4	1,364.7	1,343.4	21.36	63.885	
5,600.0	5,555.4	5,413.7	5,350.6	15.2	17.0	152.64	-289.9	-786.9	1,387.1	1,365.4	21.76	63.735	
5,700.0	5,655.2	5,511.5	5,447.1	15.4	17.3	152.62	-295.6	-801.4	1,408.0	1,385.8	22.16	63.552	
5,800.0	5,755.1	5,611.0	5,545.4	15.6	17.7	152.57	-301.4	-816.2	1,427.4	1,404.8	22.54	63.330	
5,900.0	5,855.0	5,796.2	5,729.0	15.7	18.1	152.40	-310.0	-838.1	1,442.1	1,419.1	23.05	62.561	
6,000.0	5,955.0	5,984.3	5,916.8	15.8	18.4	152.33	-314.2	-848.9	1,449.4	1,425.8	23.53	61.605	
6,045.0	6,000.0	6,068.5	6,001.0	15.9	18.5	-89.99	-314.7	-850.0	1,450.1	1,426.4	23.73	61.112	
6,100.0	6,055.0	6,123.5	6,056.0	15.9	18.6	-89.99	-314.7	-850.0	1,450.1	1,426.2	23.90	60.676	
6,200.0	6,155.0	6,223.5	6,156.0	16.1	18.7	-89.99	-314.7	-850.0	1,450.1	1,425.9	24.21	59.898	
6,300.0	6,255.0	6,323.5	6,256.0	16.2	18.8	-89.99	-314.7	-850.0	1,450.1	1,425.6	24.52	59.137	
6,400.0	6,355.0	6,423.5	6,356.0	16.3	18.9	-89.99	-314.7	-850.0	1,450.1	1,425.3	24.83	58.392	
6,462.0	6,417.0	6,485.6	6,418.0	16.4	19.0	-89.99	-314.7	-850.0	1,450.1	1,425.1	25.03	57.939	
6,493.1	6,448.0	6,516.6	6,449.0	16.4	19.0	-89.99	-314.7	-850.0	1,450.1	1,425.0	25.13	57.714	
6,500.0	6,455.0	6,523.5	6,456.0	16.4	19.0	-89.99	-314.6	-850.0	1,450.1	1,425.0	25.14	57.673	
6,550.0	6,504.9	6,573.5	6,505.9	16.4	19.0	-89.99	-311.8	-850.0	1,450.1	1,424.9	25.23	57.484	
6,600.0	6,554.4	6,623.5	6,555.3	16.5	19.0	-89.99	-304.7	-850.0	1,450.1	1,424.9	25.25	57.434	
6,650.0	6,603.0	6,673.4	6,603.9	16.4	19.0	-89.99	-293.3	-850.0	1,450.1	1,424.9	25.22	57.507	
6,700.0	6,650.5	6,723.4	6,651.4	16.4	19.0	-89.99	-277.7	-850.0	1,450.1	1,425.0	25.14	57.681	
6,750.0	6,696.5	6,773.4	6,697.3	16.4	19.0	-89.99	-258.1	-850.0	1,450.1	1,425.1	25.03	57.932	
6,800.0	6,740.5	6,823.3	6,741.4	16.3	18.9	-89.99	-234.5	-850.0	1,450.1	1,425.2	24.90	58.228	
6,850.0	6,782.3	6,873.3	6,783.2	16.3	18.9	-89.99	-207.1	-850.0	1,450.1	1,425.4	24.77	58.532	
6,900.0	6,821.6	6,923.3	6,822.4	16.2	18.8	-89.99	-176.3	-850.0	1,450.1	1,425.5	24.66	58.804	
6,950.0	6,858.1	6,973.3	6,858.9	16.2	18.8	-89.99	-142.1	-850.0	1,450.1	1,425.5	24.58	58.998	
7,000.0	6,891.4	7,023.3	6,892.2	16.2	18.8	-89.99	-104.9	-850.0	1,450.1	1,425.6	24.55	59.068	
7,050.0	6,921.3	7,073.2	6,922.2	16.2	18.8	-89.99	-64.9	-850.0	1,450.1	1,425.5	24.59	58.972	
7,100.0	6,947.7	7,123.2	6,948.5	16.2	18.8	-89.99	-22.4	-850.0	1,450.1	1,425.4	24.72	58.674	
7,150.0	6,970.2	7,173.2	6,971.1	16.3	18.9	-89.99	22.2	-850.0	1,450.1	1,425.2	24.94	58.150	
7,200.0	6,988.8	7,223.2	6,989.7	16.4	19.0	-90.00	68.6	-850.0	1,450.1	1,424.9	25.27	57.393	
7,250.0	7,003.2	7,273.2	7,004.1	16.6	19.1	-90.00	116.4	-850.0	1,450.1	1,424.4	25.71	56.411	
7,300.0	7,013.5	7,323.2	7,014.4	16.8	19.3	-90.00	165.3	-850.0	1,450.1	1,423.9	26.26	55.229	
7,350.0	7,019.4	7,373.2	7,020.4	17.1	19.5	-90.00	214.9	-850.0	1,450.1	1,423.2	26.91	53.883	
7,393.1	7,021.0	7,416.2	7,022.0	17.3	19.8	-90.00	258.0	-850.0	1,450.1	1,422.6	27.55	52.636	
7,400.0	7,021.0	7,423.2	7,022.0	17.4	19.8	-90.00	264.9	-850.0	1,450.1	1,422.5	27.66	52.419	
7,500.0	7,021.0	7,523.2	7,022.0	18.1	20.4	-90.00	364.9	-850.0	1,450.1	1,420.7	29.44	49.263	
7,600.0	7,021.0	7,623.2	7,022.0	18.9	21.2	-90.00	464.9	-850.0	1,450.1	1,418.6	31.49	46.048	
7,700.0	7,021.0	7,723.2	7,022.0	19.9	22.0	-90.00	564.9	-850.0	1,450.1	1,416.3	33.79	42.920	
7,800.0	7,021.0	7,823.2	7,022.0	20.9	23.0	-90.00	664.9	-850.0	1,450.1	1,413.8	36.28	39.974	
7,900.0	7,021.0	7,923.2	7,022.0	22.1	24.0	-90.00	764.9	-850.0	1,450.1	1,411.2	38.92	37.255	
8,000.0	7,021.0	8,023.2	7,022.0	23.3	25.2	-90.00	864.9	-850.0	1,450.1	1,408.4	41.70	34.776	
8,100.0	7,021.0	8,123.2	7,022.0	24.6	26.4	-90.00	964.9	-850.0	1,450.1	1,405.5	44.58	32.531	
8,200.0	7,021.0	8,223.2	7,022.0	26.0	27.6	-90.00	1,064.9	-850.0	1,450.1	1,402.6	47.54	30.503	
8,300.0	7,021.0	8,323.2	7,022.0	27.4	28.9	-90.00	1,164.9	-850.0	1,450.1	1,399.5	50.57	28.674	
8,400.0	7,021.0	8,423.2	7,022.0	28.8	30.3	-90.00	1,264.9	-850.0	1,450.1	1,396.5	53.66	27.022	
8,500.0	7,021.0	8,523.2	7,022.0	30.3	31.7	-90.00	1,364.9	-850.0	1,450.1	1,393.3	56.80	25.529	
8,600.0	7,021.0	8,623.2	7,022.0	31.8	33.1	-90.00	1,464.9	-850.0	1,450.1	1,390.1	59.98	24.175	
8,700.0	7,021.0	8,723.2	7,022.0	33.3	34.6	-90.00	1,564.9	-850.0	1,450.1	1,386.9	63.20	22.946	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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
8,800.0	7,021.0	8,823.2	7,022.0	34.8	36.1	-90.00	1,664.9	-850.0	1,450.1	1,383.7	66.44	21.825	
8,900.0	7,021.0	8,923.2	7,022.0	36.4	37.6	-90.00	1,764.9	-850.0	1,450.1	1,380.4	69.71	20.801	
9,000.0	7,021.0	9,023.2	7,022.0	38.0	39.1	-90.00	1,864.9	-850.0	1,450.1	1,377.1	73.01	19.863	
9,100.0	7,021.0	9,123.2	7,022.0	39.6	40.7	-90.00	1,964.9	-850.0	1,450.1	1,373.8	76.32	19.001	
9,200.0	7,021.0	9,223.2	7,022.0	41.2	42.2	-90.00	2,064.9	-850.0	1,450.1	1,370.5	79.65	18.207	
9,300.0	7,021.0	9,323.2	7,022.0	42.8	43.8	-90.00	2,164.9	-850.0	1,450.1	1,367.1	82.99	17.474	
9,400.0	7,021.0	9,423.2	7,022.0	44.4	45.4	-90.00	2,264.9	-850.0	1,450.1	1,363.8	86.34	16.795	
9,500.0	7,021.0	9,523.2	7,022.0	46.1	47.0	-90.00	2,364.9	-850.0	1,450.1	1,360.4	89.71	16.164	
9,600.0	7,021.0	9,623.2	7,022.0	47.7	48.6	-90.00	2,464.9	-850.0	1,450.1	1,357.0	93.09	15.577	
9,700.0	7,021.0	9,723.2	7,022.0	49.4	50.3	-90.00	2,564.9	-850.0	1,450.1	1,353.6	96.48	15.030	
9,800.0	7,021.0	9,823.2	7,022.0	51.0	51.9	-90.00	2,664.9	-850.0	1,450.1	1,350.2	99.87	14.519	
9,900.0	7,021.0	9,923.2	7,022.0	52.7	53.5	-90.00	2,764.9	-850.0	1,450.1	1,346.8	103.28	14.041	
10,000.0	7,021.0	10,023.2	7,022.0	54.4	55.2	-90.00	2,864.9	-850.0	1,450.1	1,343.4	106.69	13.592	
10,100.0	7,021.0	10,123.2	7,022.0	56.0	56.8	-90.00	2,964.9	-850.0	1,450.1	1,340.0	110.10	13.170	
10,200.0	7,021.0	10,223.2	7,022.0	57.7	58.5	-90.00	3,064.9	-850.0	1,450.1	1,336.6	113.53	12.773	
10,300.0	7,021.0	10,323.2	7,022.0	59.4	60.1	-90.00	3,164.9	-850.0	1,450.1	1,333.2	116.95	12.399	
10,400.0	7,021.0	10,423.2	7,022.0	61.1	61.8	-90.00	3,264.9	-850.0	1,450.1	1,329.7	120.38	12.046	
10,500.0	7,021.0	10,523.2	7,022.0	62.8	63.5	-90.00	3,364.9	-850.0	1,450.1	1,326.3	123.82	11.711	
10,600.0	7,021.0	10,623.2	7,022.0	64.5	65.2	-90.00	3,464.9	-850.0	1,450.1	1,322.9	127.26	11.395	
10,700.0	7,021.0	10,723.2	7,022.0	66.2	66.9	-90.00	3,564.9	-850.0	1,450.1	1,319.4	130.70	11.095	
10,800.0	7,021.0	10,823.2	7,022.0	67.9	68.5	-90.00	3,664.9	-850.0	1,450.1	1,316.0	134.15	10.810	
10,900.0	7,021.0	10,923.2	7,022.0	69.6	70.2	-90.00	3,764.9	-850.0	1,450.1	1,312.5	137.60	10.539	
11,000.0	7,021.0	11,023.2	7,022.0	71.3	71.9	-90.00	3,864.9	-850.0	1,450.1	1,309.1	141.05	10.281	
11,100.0	7,021.0	11,123.2	7,022.0	73.0	73.6	-90.00	3,964.9	-850.0	1,450.1	1,305.6	144.51	10.035	
11,200.0	7,021.0	11,223.2	7,022.0	74.7	75.3	-90.00	4,064.9	-850.0	1,450.1	1,302.1	147.97	9.800	
11,300.0	7,021.0	11,323.2	7,022.0	76.4	77.0	-90.00	4,164.9	-850.0	1,450.1	1,298.7	151.43	9.576	
11,400.0	7,021.0	11,423.2	7,022.0	78.2	78.7	-90.00	4,264.9	-850.0	1,450.1	1,295.2	154.89	9.362	
11,500.0	7,021.0	11,523.2	7,022.0	79.9	80.4	-90.00	4,364.9	-850.0	1,450.1	1,291.8	158.35	9.157	
11,600.0	7,021.0	11,623.2	7,022.0	81.6	82.1	-90.00	4,464.9	-850.0	1,450.1	1,288.3	161.82	8.961	
11,621.5	7,021.0	11,644.7	7,022.0	82.0	82.5	-90.00	4,486.4	-850.0	1,450.1	1,287.5	162.57	8.920	
11,628.2	7,021.0	11,645.9	7,022.0	82.1	82.5	-90.00	4,487.6	-850.0	1,450.1	1,287.4	162.70	8.913	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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	-89.46	0.4	-37.5	37.5				
100.0	100.0	101.0	101.0	0.1	0.1	-89.46	0.4	-37.5	37.5	37.2	0.25	152.291	
200.0	200.0	201.0	201.0	0.3	0.3	-89.46	0.4	-37.5	37.5	36.9	0.60	62.971	
247.4	247.4	248.4	248.4	0.4	0.4	-89.46	0.4	-37.5	37.5	36.7	0.76	49.269	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	-89.78	0.1	-37.9	37.9	36.9	0.94	40.175	
400.0	400.0	399.2	399.1	0.6	0.7	-92.08	-1.5	-40.9	41.0	39.7	1.30	31.545	
500.0	500.0	497.5	497.2	0.8	0.9	147.11	-4.7	-46.9	48.0	46.4	1.64	29.233	
600.0	600.0	595.1	594.2	1.0	1.1	144.58	-9.5	-55.8	59.8	57.8	1.99	29.957	
700.0	699.9	693.8	692.2	1.2	1.3	143.13	-15.2	-66.4	74.8	72.4	2.35	31.807	
800.0	799.7	792.4	790.1	1.4	1.6	142.81	-20.9	-77.1	91.2	88.5	2.71	33.632	
900.0	899.4	890.8	887.8	1.6	1.9	143.11	-26.6	-87.7	109.0	105.9	3.08	35.409	
1,000.0	998.9	988.9	985.1	1.8	2.1	143.76	-32.3	-98.3	128.2	124.7	3.45	37.139	
1,100.0	1,098.3	1,086.8	1,082.2	2.1	2.4	144.61	-37.9	-108.9	148.8	144.9	3.83	38.831	
1,204.7	1,202.0	1,188.8	1,183.5	2.3	2.7	145.60	-43.8	-119.9	171.9	167.6	4.24	40.570	
1,300.0	1,296.4	1,281.6	1,275.6	2.6	2.9	146.53	-49.2	-129.9	193.7	189.0	4.61	41.982	
1,400.0	1,395.4	1,378.9	1,372.1	2.9	3.2	147.31	-54.9	-140.4	216.5	211.5	5.01	43.232	
1,500.0	1,494.4	1,476.2	1,468.7	3.2	3.5	147.94	-60.5	-150.9	239.5	234.1	5.41	44.296	
1,600.0	1,593.5	1,573.5	1,565.3	3.4	3.7	148.46	-66.1	-161.5	262.4	256.6	5.80	45.213	
1,700.0	1,692.5	1,670.8	1,661.9	3.7	4.0	148.90	-71.8	-172.0	285.4	279.2	6.20	46.011	
1,800.0	1,791.5	1,768.1	1,758.4	4.0	4.3	149.27	-77.4	-182.5	308.4	301.8	6.60	46.711	
1,900.0	1,890.5	1,865.4	1,855.0	4.3	4.5	149.59	-83.0	-193.0	331.3	324.3	7.00	47.330	
2,000.0	1,989.5	1,962.7	1,951.6	4.6	4.8	149.87	-88.7	-203.5	354.3	346.9	7.40	47.882	
2,100.0	2,088.5	2,060.0	2,048.2	4.9	5.1	150.12	-94.3	-214.0	377.3	369.5	7.80	48.377	
2,200.0	2,187.6	2,157.3	2,144.7	5.2	5.3	150.33	-99.9	-224.5	400.3	392.1	8.20	48.823	
2,300.0	2,286.6	2,254.7	2,241.3	5.5	5.6	150.53	-105.6	-235.0	423.4	414.8	8.60	49.227	
2,400.0	2,385.6	2,352.0	2,337.9	5.8	5.9	150.70	-111.2	-245.6	446.4	437.4	9.00	49.595	
2,500.0	2,484.6	2,449.3	2,434.4	6.1	6.1	150.85	-116.8	-256.1	469.4	460.0	9.40	49.931	
2,600.0	2,583.6	2,546.6	2,531.0	6.4	6.4	151.00	-122.5	-266.6	492.4	482.6	9.80	50.239	
2,700.0	2,682.6	2,643.9	2,627.6	6.7	6.7	151.12	-128.1	-277.1	515.4	505.2	10.20	50.523	
2,800.0	2,781.6	2,741.2	2,724.2	7.0	6.9	151.24	-133.8	-287.6	538.5	527.9	10.60	50.786	
2,900.0	2,880.7	2,838.5	2,820.7	7.3	7.2	151.35	-139.4	-298.1	561.5	550.5	11.00	51.029	
3,000.0	2,979.7	2,935.8	2,917.3	7.6	7.5	151.45	-145.0	-308.6	584.5	573.1	11.40	51.255	
3,100.0	3,078.7	3,033.1	3,013.9	7.9	7.8	151.54	-150.7	-319.1	607.6	595.8	11.81	51.465	
3,200.0	3,177.7	3,130.4	3,110.5	8.2	8.0	151.63	-156.3	-329.6	630.6	618.4	12.21	51.662	
3,300.0	3,276.7	3,227.7	3,207.0	8.5	8.3	151.71	-161.9	-340.2	653.6	641.0	12.61	51.846	
3,400.0	3,375.7	3,325.0	3,303.6	8.8	8.6	151.78	-167.6	-350.7	676.7	663.7	13.01	52.018	
3,500.0	3,474.8	3,422.3	3,400.2	9.1	8.8	151.85	-173.2	-361.2	699.7	686.3	13.41	52.181	
3,600.0	3,573.8	3,519.6	3,496.8	9.4	9.1	151.92	-178.8	-371.7	722.8	708.9	13.81	52.333	
3,700.0	3,672.8	3,616.9	3,593.3	9.7	9.4	151.98	-184.5	-382.2	745.8	731.6	14.21	52.477	
3,800.0	3,771.8	3,714.3	3,689.9	10.0	9.6	152.03	-190.1	-392.7	768.8	754.2	14.61	52.613	
3,900.0	3,870.8	3,811.6	3,786.5	10.3	9.9	152.09	-195.8	-403.2	791.9	776.9	15.01	52.742	
4,000.0	3,969.8	3,908.9	3,883.0	10.6	10.2	152.14	-201.4	-413.7	814.9	799.5	15.42	52.864	
4,100.0	4,068.8	4,006.2	3,979.6	10.9	10.4	152.19	-207.0	-424.2	838.0	822.1	15.82	52.980	
4,200.0	4,167.9	4,103.5	4,076.2	11.2	10.7	152.23	-212.7	-434.8	861.0	844.8	16.22	53.090	
4,300.0	4,266.9	4,200.8	4,172.8	11.5	11.0	152.27	-218.3	-445.3	884.1	867.4	16.62	53.194	
4,400.0	4,365.9	4,298.1	4,269.3	11.8	11.3	152.31	-223.9	-455.8	907.1	890.1	17.02	53.294	
4,500.0	4,464.9	4,395.4	4,365.9	12.1	11.5	152.35	-229.6	-466.3	930.1	912.7	17.42	53.389	
4,600.0	4,563.9	4,492.7	4,462.5	12.4	11.8	152.39	-235.2	-476.8	953.2	935.4	17.82	53.480	
4,700.0	4,662.9	4,590.0	4,559.1	12.7	12.1	152.43	-240.8	-487.3	976.2	958.0	18.22	53.566	
4,800.0	4,762.0	4,687.3	4,655.6	13.0	12.3	152.46	-246.5	-497.8	999.3	980.6	18.63	53.649	
4,900.0	4,861.0	4,784.6	4,752.2	13.3	12.6	152.49	-252.1	-508.3	1,022.3	1,003.3	19.03	53.729	
5,000.0	4,960.0	4,881.9	4,848.8	13.6	12.9	152.52	-257.7	-518.9	1,045.4	1,025.9	19.43	53.805	

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 4G-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 4G-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
5,100.0	5,059.0	4,979.2	4,945.3	13.9	13.1	152.55	-263.4	-529.4	1,068.4	1,048.6	19.83	53.878	
5,200.0	5,158.0	5,076.5	5,041.9	14.2	13.4	152.58	-269.0	-539.9	1,091.5	1,071.2	20.23	53.948	
5,240.3	5,198.0	5,115.8	5,080.9	14.3	13.5	152.59	-271.3	-544.1	1,100.8	1,080.4	20.39	53.976	
5,300.0	5,257.1	5,173.9	5,138.6	14.5	13.7	152.66	-274.7	-550.4	1,114.2	1,093.6	20.65	53.967	
5,400.0	5,356.3	5,271.6	5,235.5	14.7	13.9	152.74	-280.3	-560.9	1,135.6	1,114.6	21.06	53.917	
5,500.0	5,455.8	5,369.6	5,332.8	15.0	14.2	152.78	-286.0	-571.5	1,155.5	1,134.0	21.47	53.819	
5,600.0	5,555.4	5,467.9	5,430.3	15.2	14.5	152.76	-291.7	-582.1	1,173.9	1,152.0	21.87	53.677	
5,700.0	5,655.2	5,566.4	5,528.1	15.4	14.8	152.71	-297.4	-592.8	1,190.7	1,168.4	22.26	53.493	
5,800.0	5,755.1	5,665.2	5,626.1	15.6	15.0	152.61	-303.1	-603.5	1,206.0	1,183.3	22.64	53.271	
5,900.0	5,855.0	5,809.7	5,769.8	15.7	15.4	152.43	-310.3	-616.8	1,218.3	1,195.3	23.08	52.783	
6,000.0	5,955.0	5,969.5	5,929.4	15.8	15.6	152.33	-314.2	-624.2	1,224.4	1,200.9	23.51	52.084	
6,045.0	6,000.0	6,041.1	6,001.0	15.9	15.7	-89.98	-314.6	-625.0	1,225.1	1,201.4	23.69	51.711	
6,100.0	6,055.0	6,096.1	6,056.0	15.9	15.8	-89.98	-314.6	-625.0	1,225.1	1,201.2	23.86	51.342	
6,200.0	6,155.0	6,196.1	6,156.0	16.1	15.9	-89.98	-314.6	-625.0	1,225.1	1,200.9	24.17	50.682	
6,300.0	6,255.0	6,296.1	6,256.0	16.2	16.0	-89.98	-314.6	-625.0	1,225.1	1,200.6	24.48	50.038	
6,400.0	6,355.0	6,396.1	6,356.0	16.3	16.1	-89.98	-314.6	-625.0	1,225.1	1,200.3	24.80	49.407	
6,493.1	6,448.0	6,489.2	6,449.0	16.4	16.2	-89.98	-314.6	-625.0	1,225.1	1,200.0	25.09	48.833	
6,500.0	6,455.0	6,496.1	6,456.0	16.4	16.3	-89.99	-314.6	-625.0	1,225.1	1,200.0	25.11	48.792	
6,513.4	6,468.4	6,509.5	6,469.4	16.4	16.3	-90.00	-314.6	-625.0	1,225.1	1,199.9	25.14	48.729	
6,550.0	6,504.9	6,546.0	6,505.9	16.4	16.3	-90.11	-314.6	-625.0	1,225.1	1,199.9	25.23	48.560	
6,600.0	6,554.4	6,595.5	6,555.4	16.5	16.4	-90.44	-314.6	-625.0	1,225.1	1,199.8	25.32	48.393	
6,650.0	6,603.0	6,645.0	6,604.8	16.4	16.4	-90.94	-314.2	-625.0	1,225.2	1,199.9	25.37	48.301	
6,700.0	6,650.5	6,696.0	6,655.6	16.4	16.5	-91.46	-309.9	-625.0	1,225.5	1,200.1	25.36	48.329	
6,750.0	6,696.5	6,748.1	6,707.0	16.4	16.5	-91.98	-300.9	-625.0	1,225.9	1,200.6	25.30	48.455	
6,800.0	6,740.5	6,801.4	6,758.4	16.3	16.4	-92.50	-286.8	-625.0	1,226.3	1,201.1	25.20	48.661	
6,850.0	6,782.3	6,855.9	6,809.4	16.3	16.4	-93.00	-267.6	-625.0	1,226.8	1,201.8	25.08	48.923	
6,900.0	6,821.6	6,911.7	6,859.4	16.2	16.3	-93.48	-243.0	-625.0	1,227.4	1,202.5	24.94	49.208	
6,950.0	6,858.1	6,968.8	6,907.9	16.2	16.3	-93.94	-212.9	-625.0	1,228.1	1,203.3	24.82	49.478	
7,000.0	6,891.4	7,027.2	6,954.2	16.2	16.2	-94.37	-177.3	-625.0	1,228.8	1,204.0	24.73	49.685	
7,050.0	6,921.3	7,086.8	6,997.4	16.2	16.2	-94.77	-136.3	-625.0	1,229.4	1,204.7	24.70	49.781	
7,100.0	6,947.7	7,147.7	7,036.9	16.2	16.2	-95.13	-90.1	-625.0	1,230.1	1,205.4	24.74	49.714	
7,150.0	6,970.2	7,209.6	7,071.9	16.3	16.2	-95.45	-39.0	-625.0	1,230.7	1,205.8	24.91	49.415	
7,200.0	6,988.8	7,272.6	7,101.5	16.4	16.3	-95.72	16.5	-625.0	1,231.3	1,206.1	25.18	48.889	
7,250.0	7,003.2	7,336.4	7,125.1	16.6	16.5	-95.93	75.7	-625.0	1,231.7	1,206.1	25.61	48.096	
7,300.0	7,013.5	7,400.8	7,142.2	16.8	16.7	-96.08	137.8	-625.0	1,232.0	1,205.8	26.18	47.066	
7,350.0	7,019.4	7,465.7	7,152.2	17.1	17.0	-96.17	201.9	-625.0	1,232.2	1,205.3	26.90	45.809	
7,393.1	7,021.0	7,521.7	7,155.0	17.3	17.3	-96.20	257.9	-625.0	1,232.3	1,204.6	27.62	44.616	
7,400.0	7,021.0	7,528.8	7,155.0	17.4	17.4	-96.20	264.9	-625.0	1,232.3	1,204.5	27.73	44.434	
7,500.0	7,021.0	7,628.8	7,155.0	18.1	18.1	-96.20	364.9	-625.0	1,232.3	1,202.8	29.49	41.788	
7,600.0	7,021.0	7,728.8	7,155.0	18.9	18.9	-96.20	464.9	-625.0	1,232.3	1,200.7	31.52	39.092	
7,700.0	7,021.0	7,828.8	7,155.0	19.9	19.9	-96.20	564.9	-625.0	1,232.3	1,198.5	33.79	36.464	
7,800.0	7,021.0	7,928.8	7,155.0	20.9	21.0	-96.20	664.9	-625.0	1,232.3	1,196.0	36.26	33.984	
7,900.0	7,021.0	8,028.8	7,155.0	22.1	22.1	-96.20	764.9	-625.0	1,232.3	1,193.4	38.88	31.691	
8,000.0	7,021.0	8,128.8	7,155.0	23.3	23.4	-96.20	864.9	-625.0	1,232.3	1,190.6	41.63	29.598	
8,100.0	7,021.0	8,228.8	7,155.0	24.6	24.7	-96.20	964.9	-625.0	1,232.3	1,187.8	44.49	27.699	
8,200.0	7,021.0	8,328.8	7,155.0	26.0	26.0	-96.20	1,064.9	-625.0	1,232.3	1,184.8	47.43	25.983	
8,300.0	7,021.0	8,428.8	7,155.0	27.4	27.4	-96.20	1,164.9	-625.0	1,232.3	1,181.8	50.43	24.433	
8,400.0	7,021.0	8,528.8	7,155.0	28.8	28.8	-96.20	1,264.9	-625.0	1,232.3	1,178.8	53.50	23.032	
8,500.0	7,021.0	8,628.8	7,155.0	30.3	30.3	-96.20	1,364.9	-625.0	1,232.3	1,175.6	56.62	21.764	
8,600.0	7,021.0	8,728.8	7,155.0	31.8	31.8	-96.20	1,464.9	-625.0	1,232.3	1,172.5	59.77	20.615	
8,700.0	7,021.0	8,828.8	7,155.0	33.3	33.3	-96.20	1,564.9	-625.0	1,232.3	1,169.3	62.97	19.570	
8,800.0	7,021.0	8,928.8	7,155.0	34.8	34.9	-96.20	1,664.9	-625.0	1,232.3	1,166.1	66.19	18.617	

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 4G-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 4G-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
8,900.0	7,021.0	9,028.8	7,155.0	36.4	36.4	-96.20	1,764.9	-625.0	1,232.2	1,162.8	69.44	17.747	
9,000.0	7,021.0	9,128.8	7,155.0	38.0	38.0	-96.20	1,864.9	-625.0	1,232.2	1,159.5	72.71	16.948	
9,100.0	7,021.0	9,228.8	7,155.0	39.6	39.6	-96.20	1,964.9	-625.0	1,232.2	1,156.3	76.00	16.215	
9,200.0	7,021.0	9,328.8	7,155.0	41.2	41.2	-96.20	2,064.9	-625.0	1,232.2	1,152.9	79.30	15.539	
9,300.0	7,021.0	9,428.8	7,155.0	42.8	42.8	-96.20	2,164.9	-625.0	1,232.2	1,149.6	82.62	14.914	
9,400.0	7,021.0	9,528.8	7,155.0	44.4	44.5	-96.20	2,264.9	-625.0	1,232.2	1,146.3	85.96	14.336	
9,500.0	7,021.0	9,628.8	7,155.0	46.1	46.1	-96.20	2,364.9	-625.0	1,232.2	1,142.9	89.30	13.798	
9,600.0	7,021.0	9,728.8	7,155.0	47.7	47.7	-96.20	2,464.9	-625.0	1,232.2	1,139.6	92.66	13.299	
9,700.0	7,021.0	9,828.8	7,155.0	49.4	49.4	-96.20	2,564.9	-625.0	1,232.2	1,136.2	96.03	12.832	
9,800.0	7,021.0	9,928.8	7,155.0	51.0	51.0	-96.20	2,664.9	-625.0	1,232.2	1,132.8	99.40	12.397	
9,900.0	7,021.0	10,028.8	7,155.0	52.7	52.7	-96.20	2,764.9	-625.0	1,232.2	1,129.5	102.78	11.989	
10,000.0	7,021.0	10,128.8	7,155.0	54.4	54.4	-96.20	2,864.9	-625.0	1,232.2	1,126.1	106.17	11.606	
10,100.0	7,021.0	10,228.8	7,155.0	56.0	56.1	-96.20	2,964.9	-625.0	1,232.2	1,122.7	109.57	11.247	
10,200.0	7,021.0	10,328.8	7,155.0	57.7	57.7	-96.20	3,064.9	-625.0	1,232.2	1,119.3	112.97	10.908	
10,300.0	7,021.0	10,428.8	7,155.0	59.4	59.4	-96.20	3,164.9	-625.0	1,232.2	1,115.9	116.37	10.589	
10,400.0	7,021.0	10,528.8	7,155.0	61.1	61.1	-96.20	3,264.9	-625.0	1,232.2	1,112.4	119.78	10.287	
10,500.0	7,021.0	10,628.8	7,155.0	62.8	62.8	-96.20	3,364.9	-625.0	1,232.2	1,109.0	123.20	10.002	
10,600.0	7,021.0	10,728.8	7,155.0	64.5	64.5	-96.20	3,464.9	-625.0	1,232.2	1,105.6	126.62	9.732	
10,700.0	7,021.0	10,828.8	7,155.0	66.2	66.2	-96.20	3,564.9	-625.0	1,232.2	1,102.2	130.04	9.476	
10,800.0	7,021.0	10,928.8	7,155.0	67.9	67.9	-96.20	3,664.9	-625.0	1,232.2	1,098.8	133.46	9.233	
10,900.0	7,021.0	11,028.8	7,155.0	69.6	69.6	-96.20	3,764.9	-625.0	1,232.2	1,095.3	136.89	9.001	
11,000.0	7,021.0	11,128.8	7,155.0	71.3	71.3	-96.20	3,864.9	-625.0	1,232.2	1,091.9	140.33	8.781	
11,100.0	7,021.0	11,228.8	7,155.0	73.0	73.0	-96.20	3,964.9	-625.0	1,232.2	1,088.5	143.76	8.571	
11,200.0	7,021.0	11,328.8	7,155.0	74.7	74.7	-96.20	4,064.9	-625.0	1,232.2	1,085.0	147.20	8.371	
11,300.0	7,021.0	11,428.8	7,155.0	76.4	76.5	-96.20	4,164.9	-625.0	1,232.2	1,081.6	150.64	8.180	
11,400.0	7,021.0	11,528.8	7,155.0	78.2	78.2	-96.20	4,264.9	-625.0	1,232.2	1,078.1	154.08	7.997	
11,500.0	7,021.0	11,628.8	7,155.0	79.9	79.9	-96.20	4,364.9	-625.0	1,232.2	1,074.7	157.52	7.823	
11,600.0	7,021.0	11,728.8	7,155.0	81.6	81.6	-96.20	4,464.9	-625.0	1,232.2	1,071.2	160.97	7.655	
11,621.9	7,021.0	11,750.7	7,155.0	82.0	82.0	-96.20	4,486.8	-625.0	1,232.2	1,070.5	161.72	7.619	
11,628.2	7,021.0	11,752.2	7,155.0	82.1	82.0	-96.20	4,488.3	-625.0	1,232.2	1,070.4	161.86	7.613 SF	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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	-89.30	0.4	-29.9	29.9				
100.0	100.0	100.0	100.0	0.1	0.1	-89.30	0.4	-29.9	29.9	29.7	0.24	122.478	
200.0	200.0	200.0	200.0	0.3	0.3	-89.30	0.4	-29.9	29.9	29.3	0.59	50.432	
300.0	300.0	300.0	300.0	0.5	0.5	-89.30	0.4	-29.9	29.9	29.0	0.94	31.754	CC, ES
400.0	400.0	399.2	399.2	0.6	0.6	-91.35	-0.7	-31.2	31.3	30.0	1.29	24.182	
500.0	500.0	498.1	497.9	0.8	0.8	146.53	-4.0	-35.2	36.2	34.6	1.64	22.024	
600.0	600.0	596.9	596.4	1.0	1.0	142.42	-9.3	-41.5	45.4	43.4	2.00	22.722	
700.0	699.9	696.3	695.4	1.2	1.3	140.49	-15.0	-48.4	56.7	54.3	2.36	24.040	
800.0	799.7	795.5	794.2	1.4	1.5	140.11	-20.8	-55.3	69.3	66.6	2.72	25.462	
900.0	899.4	894.5	892.8	1.6	1.7	140.60	-26.5	-62.1	83.3	80.2	3.09	26.922	
1,000.0	998.9	993.3	991.2	1.8	1.9	141.56	-32.2	-69.0	98.6	95.2	3.47	28.401	
1,100.0	1,098.3	1,091.8	1,089.3	2.1	2.2	142.77	-37.8	-75.8	115.4	111.5	3.86	29.897	
1,204.7	1,202.0	1,194.7	1,191.8	2.3	2.4	144.15	-43.8	-82.9	134.4	130.1	4.27	31.482	
1,300.0	1,296.4	1,288.3	1,285.0	2.6	2.6	145.37	-49.2	-89.4	152.5	147.8	4.65	32.805	
1,400.0	1,395.4	1,386.4	1,382.7	2.9	2.8	146.38	-54.8	-96.2	171.5	166.5	5.05	33.985	
1,500.0	1,494.4	1,484.5	1,480.4	3.2	3.1	147.18	-60.5	-102.9	190.6	185.2	5.45	34.995	
1,600.0	1,593.5	1,582.7	1,578.1	3.4	3.3	147.84	-66.1	-109.7	209.7	203.9	5.85	35.869	
1,700.0	1,692.5	1,680.8	1,675.9	3.7	3.5	148.39	-71.8	-116.5	228.9	222.6	6.25	36.633	
1,800.0	1,791.5	1,778.9	1,773.6	4.0	3.8	148.86	-77.5	-123.3	248.0	241.4	6.65	37.306	
1,900.0	1,890.5	1,877.1	1,871.3	4.3	4.0	149.25	-83.1	-130.1	267.2	260.1	7.05	37.903	
2,000.0	1,989.5	1,975.2	1,969.1	4.6	4.2	149.60	-88.8	-136.9	286.4	278.9	7.45	38.437	
2,100.0	2,088.5	2,073.3	2,066.8	4.9	4.5	149.90	-94.4	-143.7	305.5	297.7	7.85	38.916	
2,200.0	2,187.6	2,171.4	2,164.5	5.2	4.7	150.16	-100.1	-150.5	324.7	316.5	8.25	39.350	
2,300.0	2,286.6	2,269.6	2,262.3	5.5	4.9	150.40	-105.7	-157.3	343.9	335.3	8.65	39.743	
2,400.0	2,385.6	2,367.7	2,360.0	5.8	5.1	150.61	-111.4	-164.0	363.1	354.1	9.06	40.101	
2,500.0	2,484.6	2,465.8	2,457.7	6.1	5.4	150.80	-117.1	-170.8	382.3	372.9	9.46	40.430	
2,600.0	2,583.6	2,564.0	2,555.5	6.4	5.6	150.97	-122.7	-177.6	401.5	391.7	9.86	40.731	
2,700.0	2,682.6	2,662.1	2,653.2	6.7	5.8	151.13	-128.4	-184.4	420.8	410.5	10.26	41.009	
2,800.0	2,781.6	2,760.2	2,750.9	7.0	6.1	151.27	-134.0	-191.2	440.0	429.3	10.66	41.267	
2,900.0	2,880.7	2,858.4	2,848.7	7.3	6.3	151.40	-139.7	-198.0	459.2	448.1	11.06	41.505	
3,000.0	2,979.7	2,956.5	2,946.4	7.6	6.5	151.52	-145.3	-204.8	478.4	467.0	11.47	41.727	
3,100.0	3,078.7	3,054.6	3,044.1	7.9	6.8	151.63	-151.0	-211.6	497.6	485.8	11.87	41.934	
3,200.0	3,177.7	3,152.7	3,141.9	8.2	7.0	151.73	-156.7	-218.4	516.9	504.6	12.27	42.127	
3,300.0	3,276.7	3,250.9	3,239.6	8.5	7.2	151.83	-162.3	-225.1	536.1	523.4	12.67	42.309	
3,400.0	3,375.7	3,349.0	3,337.3	8.8	7.4	151.92	-168.0	-231.9	555.3	542.2	13.07	42.479	
3,500.0	3,474.8	3,447.1	3,435.1	9.1	7.7	152.00	-173.6	-238.7	574.5	561.1	13.47	42.639	
3,600.0	3,573.8	3,545.3	3,532.8	9.4	7.9	152.08	-179.3	-245.5	593.8	579.9	13.88	42.789	
3,700.0	3,672.8	3,643.4	3,630.5	9.7	8.1	152.15	-185.0	-252.3	613.0	598.7	14.28	42.931	
3,800.0	3,771.8	3,741.5	3,728.2	10.0	8.4	152.22	-190.6	-259.1	632.2	617.6	14.68	43.066	
3,900.0	3,870.8	3,839.7	3,826.0	10.3	8.6	152.28	-196.3	-265.9	651.5	636.4	15.08	43.193	
4,000.0	3,969.8	3,937.8	3,923.7	10.6	8.8	152.34	-201.9	-272.7	670.7	655.2	15.48	43.314	
4,100.0	4,068.8	4,035.9	4,021.4	10.9	9.1	152.40	-207.6	-279.5	689.9	674.1	15.89	43.428	
4,200.0	4,167.9	4,134.1	4,119.2	11.2	9.3	152.45	-213.2	-286.3	709.2	692.9	16.29	43.537	
4,300.0	4,266.9	4,232.2	4,216.9	11.5	9.5	152.50	-218.9	-293.0	728.4	711.7	16.69	43.641	
4,400.0	4,365.9	4,330.3	4,314.6	11.8	9.7	152.55	-224.6	-299.8	747.6	730.5	17.09	43.740	
4,500.0	4,464.9	4,428.4	4,412.4	12.1	10.0	152.60	-230.2	-306.6	766.9	749.4	17.50	43.834	
4,600.0	4,563.9	4,526.6	4,510.1	12.4	10.2	152.64	-235.9	-313.4	786.1	768.2	17.90	43.924	
4,700.0	4,662.9	4,624.7	4,607.8	12.7	10.4	152.68	-241.5	-320.2	805.4	787.1	18.30	44.010	
4,800.0	4,762.0	4,722.8	4,705.6	13.0	10.7	152.72	-247.2	-327.0	824.6	805.9	18.70	44.092	
4,900.0	4,861.0	4,821.0	4,803.3	13.3	10.9	152.76	-252.8	-333.8	843.8	824.7	19.10	44.171	
5,000.0	4,960.0	4,919.1	4,901.0	13.6	11.1	152.80	-258.5	-340.6	863.1	843.6	19.51	44.247	
5,100.0	5,059.0	5,017.2	4,998.8	13.9	11.4	152.83	-264.2	-347.4	882.3	862.4	19.91	44.320	

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 4G-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 4G-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
5,200.0	5,158.0	5,115.4	5,096.5	14.2	11.6	152.87	-269.8	-354.1	901.5	881.2	20.31	44.389	
5,240.3	5,198.0	5,154.9	5,135.9	14.3	11.7	152.88	-272.1	-356.9	909.3	888.8	20.47	44.417	
5,300.0	5,257.1	5,213.5	5,194.3	14.5	11.8	152.94	-275.5	-360.9	920.5	899.8	20.72	44.422	
5,400.0	5,356.3	5,312.0	5,292.3	14.7	12.1	153.00	-281.2	-367.7	938.1	916.9	21.13	44.387	
5,500.0	5,455.8	5,410.7	5,390.6	15.0	12.3	153.00	-286.8	-374.6	954.1	932.6	21.54	44.297	
5,600.0	5,555.4	5,509.6	5,489.1	15.2	12.5	152.95	-292.5	-381.4	968.6	946.7	21.94	44.154	
5,700.0	5,655.2	5,608.7	5,587.9	15.4	12.8	152.85	-298.3	-388.3	981.6	959.2	22.33	43.964	
5,800.0	5,755.1	5,708.0	5,686.7	15.6	13.0	152.70	-304.0	-395.1	993.0	970.3	22.71	43.727	
5,900.0	5,855.0	5,823.5	5,801.8	15.7	13.2	152.48	-310.2	-402.7	1,002.5	979.4	23.11	43.387	
6,000.0	5,955.0	5,960.2	5,938.3	15.8	13.5	152.34	-314.2	-407.4	1,007.5	984.0	23.50	42.875	
6,045.0	6,000.0	6,021.9	6,000.0	15.9	13.5	-89.98	-314.6	-407.9	1,008.0	984.4	23.66	42.597	
6,100.0	6,055.0	6,076.8	6,055.0	15.9	13.6	-89.98	-314.6	-407.9	1,008.0	984.2	23.83	42.293	
6,200.0	6,155.0	6,176.8	6,155.0	16.1	13.8	-89.98	-314.6	-407.9	1,008.0	983.9	24.14	41.750	
6,300.0	6,255.0	6,276.8	6,255.0	16.2	13.9	-89.98	-314.6	-407.9	1,008.0	983.6	24.46	41.218	
6,400.0	6,355.0	6,376.8	6,355.0	16.3	14.0	-89.98	-314.6	-407.9	1,008.0	983.3	24.77	40.699	
6,440.1	6,395.0	6,416.9	6,395.0	16.3	14.1	-89.90	-313.3	-407.9	1,008.0	983.2	24.87	40.534	
6,493.1	6,448.0	6,469.3	6,447.1	16.4	14.1	-89.57	-307.4	-407.9	1,008.0	983.1	24.96	40.385	
6,500.0	6,455.0	6,476.1	6,453.8	16.4	14.1	-89.50	-306.2	-407.9	1,008.0	983.1	24.97	40.371	
6,550.0	6,504.9	6,524.5	6,501.1	16.4	14.1	-89.06	-296.0	-407.9	1,008.1	983.1	24.98	40.351	
6,600.0	6,554.4	6,572.4	6,546.8	16.5	14.0	-88.63	-281.9	-407.9	1,008.3	983.3	24.95	40.416	
6,650.0	6,603.0	6,619.6	6,590.7	16.4	14.0	-88.21	-264.4	-407.8	1,008.4	983.6	24.87	40.550	
6,700.0	6,650.5	6,666.3	6,632.5	16.4	13.9	-87.80	-243.6	-407.8	1,008.7	983.9	24.76	40.735	
6,750.0	6,696.5	6,712.5	6,672.0	16.4	13.9	-87.42	-219.6	-407.8	1,008.9	984.3	24.64	40.952	
6,800.0	6,740.5	6,758.3	6,709.1	16.3	13.8	-87.05	-192.9	-407.7	1,009.2	984.7	24.51	41.177	
6,850.0	6,782.3	6,803.6	6,743.7	16.3	13.8	-86.70	-163.6	-407.7	1,009.5	985.1	24.39	41.385	
6,900.0	6,821.6	6,850.0	6,776.5	16.2	13.8	-86.37	-130.9	-407.6	1,009.8	985.5	24.30	41.553	
6,950.0	6,858.1	6,893.2	6,804.6	16.2	13.8	-86.08	-98.1	-407.6	1,010.0	985.8	24.26	41.642	
7,000.0	6,891.4	6,937.5	6,830.8	16.2	13.8	-85.81	-62.4	-407.5	1,010.3	986.1	24.27	41.636	
7,050.0	6,921.3	6,981.5	6,854.0	16.2	13.8	-85.57	-25.0	-407.4	1,010.6	986.2	24.34	41.515	
7,100.0	6,947.7	7,025.3	6,874.2	16.2	13.9	-85.36	13.8	-407.4	1,010.8	986.3	24.50	41.250	
7,150.0	6,970.2	7,068.9	6,891.3	16.3	14.0	-85.18	53.9	-407.3	1,011.0	986.2	24.75	40.852	
7,200.0	6,988.8	7,112.3	6,905.2	16.4	14.2	-85.03	95.1	-407.2	1,011.1	986.1	25.08	40.312	
7,250.0	7,003.2	7,155.6	6,916.0	16.6	14.4	-84.92	137.0	-407.2	1,011.2	985.7	25.51	39.638	
7,300.0	7,013.5	7,200.0	6,923.7	16.8	14.6	-84.83	180.7	-407.1	1,011.3	985.3	26.04	38.833	
7,311.9	7,015.3	7,209.1	6,924.9	16.9	14.6	-84.82	189.7	-407.1	1,011.3	985.1	26.18	38.627	
7,350.0	7,019.4	7,241.9	6,927.9	17.1	14.8	-84.79	222.4	-407.0	1,011.3	984.6	26.65	37.944	
7,393.1	7,021.0	7,279.2	6,929.0	17.3	15.1	-84.78	259.6	-407.0	1,011.3	984.0	27.25	37.117	
7,400.0	7,021.0	7,286.2	6,929.0	17.4	15.1	-84.78	266.6	-406.9	1,011.2	983.9	27.36	36.965	
7,500.0	7,021.0	7,386.2	6,929.0	18.1	16.0	-84.78	366.6	-406.8	1,011.1	981.9	29.14	34.703	
7,600.0	7,021.0	7,486.2	6,929.0	18.9	16.9	-84.78	466.6	-406.6	1,010.9	979.7	31.20	32.404	
7,700.0	7,021.0	7,586.2	6,929.0	19.9	18.0	-84.78	566.6	-406.4	1,010.7	977.2	33.50	30.175	
7,800.0	7,021.0	7,686.2	6,929.0	20.9	19.2	-84.78	666.6	-406.3	1,010.6	974.6	35.99	28.080	
7,900.0	7,021.0	7,786.2	6,929.0	22.1	20.4	-84.78	766.6	-406.1	1,010.4	971.8	38.64	26.151	
8,000.0	7,021.0	7,886.2	6,929.0	23.3	21.7	-84.77	866.6	-405.9	1,010.2	968.8	41.41	24.396	
8,100.0	7,021.0	7,986.2	6,929.0	24.6	23.1	-84.77	966.6	-405.8	1,010.1	965.8	44.29	22.808	
8,200.0	7,021.0	8,086.2	6,929.0	26.0	24.6	-84.77	1,066.6	-405.6	1,009.9	962.7	47.24	21.376	
8,300.0	7,021.0	8,186.2	6,929.0	27.4	26.0	-84.77	1,166.6	-405.4	1,009.7	959.5	50.27	20.085	
8,400.0	7,021.0	8,286.2	6,929.0	28.8	27.5	-84.77	1,266.6	-405.3	1,009.6	956.2	53.36	18.921	
8,500.0	7,021.0	8,386.2	6,929.0	30.3	29.1	-84.77	1,366.6	-405.1	1,009.4	952.9	56.49	17.868	
8,600.0	7,021.0	8,486.2	6,929.0	31.8	30.6	-84.77	1,466.6	-404.9	1,009.2	949.6	59.66	16.916	
8,700.0	7,021.0	8,586.2	6,929.0	33.3	32.2	-84.77	1,566.6	-404.8	1,009.1	946.2	62.87	16.050	
8,800.0	7,021.0	8,686.2	6,929.0	34.8	33.8	-84.77	1,666.6	-404.6	1,008.9	942.8	66.11	15.262	

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 4G-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 4G-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
8,900.0	7,021.0	8,786.2	6,929.0	36.4	35.4	-84.77	1,766.6	-404.4	1,008.7	939.4	69.37	14.542	
9,000.0	7,021.0	8,886.2	6,929.0	38.0	37.0	-84.77	1,866.6	-404.3	1,008.6	935.9	72.65	13.883	
9,100.0	7,021.0	8,986.2	6,929.0	39.6	38.6	-84.77	1,966.6	-404.1	1,008.4	932.4	75.95	13.277	
9,200.0	7,021.0	9,086.2	6,929.0	41.2	40.3	-84.76	2,066.6	-403.9	1,008.2	928.9	79.27	12.719	
9,300.0	7,021.0	9,186.2	6,929.0	42.8	41.9	-84.76	2,166.6	-403.8	1,008.0	925.4	82.60	12.204	
9,400.0	7,021.0	9,286.2	6,929.0	44.4	43.6	-84.76	2,266.6	-403.6	1,007.9	921.9	85.94	11.727	
9,500.0	7,021.0	9,386.2	6,929.0	46.1	45.3	-84.76	2,366.6	-403.4	1,007.7	918.4	89.30	11.284	
9,600.0	7,021.0	9,486.2	6,929.0	47.7	46.9	-84.76	2,466.6	-403.3	1,007.5	914.9	92.67	10.873	
9,700.0	7,021.0	9,586.2	6,929.0	49.4	48.6	-84.76	2,566.6	-403.1	1,007.4	911.3	96.04	10.489	
9,800.0	7,021.0	9,686.2	6,929.0	51.0	50.3	-84.76	2,666.6	-402.9	1,007.2	907.8	99.43	10.130	
9,900.0	7,021.0	9,786.2	6,929.0	52.7	52.0	-84.76	2,766.6	-402.7	1,007.0	904.2	102.82	9.794	
10,000.0	7,021.0	9,886.2	6,929.0	54.4	53.7	-84.76	2,866.6	-402.6	1,006.9	900.7	106.22	9.480	
10,100.0	7,021.0	9,986.2	6,929.0	56.0	55.4	-84.76	2,966.6	-402.4	1,006.7	897.1	109.62	9.184	
10,200.0	7,021.0	10,086.2	6,929.0	57.7	57.1	-84.76	3,066.6	-402.2	1,006.5	893.5	113.03	8.905	
10,300.0	7,021.0	10,186.2	6,929.0	59.4	58.8	-84.75	3,166.6	-402.1	1,006.4	889.9	116.44	8.643	
10,400.0	7,021.0	10,286.2	6,929.0	61.1	60.5	-84.75	3,266.6	-401.9	1,006.2	886.3	119.86	8.395	
10,500.0	7,021.0	10,386.2	6,929.0	62.8	62.2	-84.75	3,366.6	-401.7	1,006.0	882.7	123.28	8.160	
10,600.0	7,021.0	10,486.2	6,929.0	64.5	63.9	-84.75	3,466.6	-401.6	1,005.9	879.2	126.71	7.938	
10,700.0	7,021.0	10,586.2	6,929.0	66.2	65.6	-84.75	3,566.6	-401.4	1,005.7	875.6	130.14	7.728	
10,800.0	7,021.0	10,686.2	6,929.0	67.9	67.4	-84.75	3,666.6	-401.2	1,005.5	872.0	133.57	7.528	
10,900.0	7,021.0	10,786.2	6,929.0	69.6	69.1	-84.75	3,766.6	-401.1	1,005.4	868.3	137.01	7.338	
11,000.0	7,021.0	10,886.2	6,929.0	71.3	70.8	-84.75	3,866.6	-400.9	1,005.2	864.7	140.45	7.157	
11,100.0	7,021.0	10,986.2	6,929.0	73.0	72.5	-84.75	3,966.6	-400.7	1,005.0	861.1	143.89	6.985	
11,200.0	7,021.0	11,086.2	6,929.0	74.7	74.2	-84.75	4,066.6	-400.6	1,004.9	857.5	147.34	6.820	
11,300.0	7,021.0	11,186.2	6,929.0	76.4	76.0	-84.75	4,166.6	-400.4	1,004.7	853.9	150.78	6.663	
11,400.0	7,021.0	11,286.2	6,929.0	78.2	77.7	-84.75	4,266.6	-400.2	1,004.5	850.3	154.23	6.513	
11,500.0	7,021.0	11,386.2	6,929.0	79.9	79.4	-84.74	4,366.6	-400.1	1,004.4	846.7	157.68	6.369	
11,600.0	7,021.0	11,486.2	6,929.0	81.6	81.1	-84.74	4,466.6	-399.9	1,004.2	843.0	161.13	6.232	
11,624.2	7,021.0	11,508.6	6,929.0	82.0	81.5	-84.74	4,489.0	-399.9	1,004.1	842.2	161.94	6.201	
11,628.2	7,021.0	11,508.6	6,929.0	82.1	81.5	-84.74	4,489.0	-399.9	1,004.2	842.1	162.01	6.198	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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	-89.04	0.4	-22.4	22.4				
100.0	100.0	100.0	100.0	0.1	0.1	-89.04	0.4	-22.4	22.4	22.1	0.24	91.578	
200.0	200.0	200.0	200.0	0.3	0.3	-89.04	0.4	-22.4	22.4	21.8	0.59	37.709	
300.0	300.0	300.0	300.0	0.5	0.5	-89.04	0.4	-22.4	22.4	21.4	0.94	23.743	
335.3	335.3	335.3	335.3	0.5	0.5	-89.04	0.4	-22.4	22.4	21.3	1.07	20.998	CC
400.0	400.0	400.0	400.0	0.6	0.6	-89.59	0.2	-22.4	22.4	21.1	1.29	17.352	ES
500.0	500.0	499.9	499.9	0.8	0.8	149.49	-1.6	-22.7	23.5	21.9	1.64	14.310	
600.0	600.0	599.7	599.6	1.0	1.0	144.99	-5.0	-23.3	26.6	24.6	2.00	13.304	
700.0	699.9	699.4	699.2	1.2	1.2	140.45	-10.1	-24.1	31.8	29.4	2.36	13.442	
800.0	799.7	799.1	798.7	1.4	1.4	137.87	-16.0	-25.1	38.7	35.9	2.73	14.145	
900.0	899.4	898.8	898.2	1.6	1.6	137.53	-21.9	-26.1	46.9	43.8	3.11	15.068	
1,000.0	998.9	998.3	997.6	1.8	1.8	138.48	-27.8	-27.1	56.5	53.0	3.50	16.125	
1,100.0	1,098.3	1,097.7	1,096.8	2.1	2.0	140.10	-33.7	-28.1	67.3	63.5	3.90	17.287	
1,204.7	1,202.0	1,201.6	1,200.4	2.3	2.2	142.12	-39.9	-29.1	80.2	75.9	4.31	18.605	
1,300.0	1,296.4	1,296.0	1,294.7	2.6	2.4	143.85	-45.5	-30.0	92.7	88.0	4.69	19.753	
1,400.0	1,395.4	1,395.1	1,393.7	2.9	2.6	145.22	-51.4	-31.0	105.9	100.8	5.10	20.784	
1,500.0	1,494.4	1,494.2	1,492.6	3.2	2.8	146.29	-57.2	-32.0	119.1	113.6	5.50	21.672	
1,600.0	1,593.5	1,593.3	1,591.5	3.4	3.0	147.14	-63.1	-33.0	132.4	126.5	5.90	22.443	
1,700.0	1,692.5	1,692.4	1,690.4	3.7	3.2	147.84	-69.0	-34.0	145.7	139.4	6.30	23.119	
1,800.0	1,791.5	1,791.5	1,789.3	4.0	3.4	148.42	-74.9	-34.9	159.0	152.3	6.70	23.715	
1,900.0	1,890.5	1,890.6	1,888.3	4.3	3.6	148.92	-80.7	-35.9	172.3	165.2	7.11	24.245	
2,000.0	1,989.5	1,989.7	1,987.2	4.6	3.8	149.34	-86.6	-36.9	185.6	178.1	7.51	24.720	
2,100.0	2,088.5	2,088.8	2,086.1	4.9	4.0	149.70	-92.5	-37.9	199.0	191.1	7.91	25.147	
2,200.0	2,187.6	2,187.9	2,185.0	5.2	4.2	150.02	-98.3	-38.9	212.3	204.0	8.32	25.533	
2,300.0	2,286.6	2,287.0	2,283.9	5.5	4.4	150.30	-104.2	-39.8	225.7	216.9	8.72	25.884	
2,400.0	2,385.6	2,386.1	2,382.9	5.8	4.6	150.55	-110.1	-40.8	239.0	229.9	9.12	26.204	
2,500.0	2,484.6	2,485.2	2,481.8	6.1	4.8	150.78	-116.0	-41.8	252.4	242.8	9.52	26.497	
2,600.0	2,583.6	2,584.3	2,580.7	6.4	5.0	150.98	-121.8	-42.8	265.7	255.8	9.93	26.766	
2,700.0	2,682.6	2,683.4	2,679.6	6.7	5.2	151.16	-127.7	-43.8	279.1	268.8	10.33	27.015	
2,800.0	2,781.6	2,782.5	2,778.5	7.0	5.4	151.33	-133.6	-44.7	292.5	281.7	10.73	27.245	
2,900.0	2,880.7	2,881.6	2,877.5	7.3	5.6	151.48	-139.5	-45.7	305.8	294.7	11.14	27.458	
3,000.0	2,979.7	2,980.7	2,976.4	7.6	5.8	151.61	-145.3	-46.7	319.2	307.7	11.54	27.657	
3,100.0	3,078.7	3,079.8	3,075.3	7.9	6.0	151.74	-151.2	-47.7	332.6	320.6	11.94	27.842	
3,200.0	3,177.7	3,178.9	3,174.2	8.2	6.2	151.86	-157.1	-48.7	345.9	333.6	12.35	28.015	
3,300.0	3,276.7	3,278.0	3,273.1	8.5	6.4	151.97	-163.0	-49.6	359.3	346.6	12.75	28.178	
3,400.0	3,375.7	3,377.1	3,372.1	8.8	6.6	152.07	-168.8	-50.6	372.7	359.5	13.16	28.330	
3,500.0	3,474.8	3,476.2	3,471.0	9.1	6.8	152.16	-174.7	-51.6	386.1	372.5	13.56	28.473	
3,600.0	3,573.8	3,575.3	3,569.9	9.4	7.0	152.25	-180.6	-52.6	399.4	385.5	13.96	28.608	
3,700.0	3,672.8	3,674.4	3,668.8	9.7	7.2	152.33	-186.4	-53.6	412.8	398.5	14.37	28.736	
3,800.0	3,771.8	3,773.5	3,767.7	10.0	7.4	152.41	-192.3	-54.6	426.2	411.4	14.77	28.856	
3,900.0	3,870.8	3,872.6	3,866.7	10.3	7.6	152.48	-198.2	-55.5	439.6	424.4	15.17	28.970	
4,000.0	3,969.8	3,971.7	3,965.6	10.6	7.8	152.55	-204.1	-56.5	453.0	437.4	15.58	29.079	
4,100.0	4,068.8	4,070.8	4,064.5	10.9	8.0	152.61	-209.9	-57.5	466.3	450.4	15.98	29.181	
4,200.0	4,167.9	4,169.9	4,163.4	11.2	8.2	152.67	-215.8	-58.5	479.7	463.3	16.38	29.279	
4,300.0	4,266.9	4,269.0	4,262.3	11.5	8.4	152.73	-221.7	-59.5	493.1	476.3	16.79	29.372	
4,400.0	4,365.9	4,368.1	4,361.3	11.8	8.6	152.78	-227.6	-60.4	506.5	489.3	17.19	29.461	
4,500.0	4,464.9	4,467.2	4,460.2	12.1	8.8	152.83	-233.4	-61.4	519.9	502.3	17.60	29.545	
4,600.0	4,563.9	4,566.3	4,559.1	12.4	9.0	152.88	-239.3	-62.4	533.3	515.3	18.00	29.626	
4,700.0	4,662.9	4,665.4	4,658.0	12.7	9.2	152.93	-245.2	-63.4	546.6	528.2	18.40	29.703	
4,800.0	4,762.0	4,764.5	4,756.9	13.0	9.4	152.97	-251.0	-64.4	560.0	541.2	18.81	29.777	
4,900.0	4,861.0	4,863.6	4,855.9	13.3	9.6	153.01	-256.9	-65.3	573.4	554.2	19.21	29.848	
5,000.0	4,960.0	4,962.7	4,954.8	13.6	9.8	153.05	-262.8	-66.3	586.8	567.2	19.61	29.916	

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 4G-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 4G-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
5,100.0	5,059.0	5,061.8	5,053.7	13.9	10.0	153.09	-268.7	-67.3	600.2	580.2	20.02	29.981	
5,200.0	5,158.0	5,160.9	5,152.6	14.2	10.2	153.13	-274.5	-68.3	613.6	593.1	20.42	30.044	
5,240.3	5,198.0	5,200.9	5,192.5	14.3	10.3	153.14	-276.9	-68.7	619.0	598.4	20.59	30.068	
5,300.0	5,257.1	5,260.0	5,251.6	14.5	10.4	153.19	-280.4	-69.3	626.7	605.8	20.83	30.082	
5,400.0	5,356.3	5,359.4	5,350.7	14.7	10.6	153.20	-286.3	-70.2	638.4	617.1	21.24	30.052	
5,500.0	5,455.8	5,458.8	5,450.0	15.0	10.8	153.13	-292.2	-71.2	648.5	626.9	21.65	29.956	
5,600.0	5,555.4	5,558.4	5,549.4	15.2	11.0	152.99	-298.1	-72.2	657.1	635.1	22.05	29.798	
5,700.0	5,655.2	5,658.1	5,649.0	15.4	11.2	152.78	-304.0	-73.2	664.2	641.7	22.45	29.581	
5,800.0	5,755.1	5,759.7	5,750.4	15.6	11.4	152.56	-309.3	-74.1	669.6	646.7	22.83	29.324	
5,900.0	5,855.0	5,861.5	5,852.2	15.7	11.6	152.41	-312.7	-74.7	673.1	650.0	23.18	29.034	
6,000.0	5,955.0	5,963.5	5,954.1	15.8	11.8	152.34	-314.4	-74.9	674.9	651.4	23.50	28.713	
6,045.0	6,000.0	6,009.4	6,000.0	15.9	11.8	-89.97	-314.6	-75.0	675.1	651.4	23.64	28.554	
6,100.0	6,055.0	6,064.4	6,055.0	15.9	11.9	-89.97	-314.6	-75.0	675.1	651.3	23.81	28.350	
6,200.0	6,155.0	6,164.4	6,155.0	16.1	12.1	-89.97	-314.6	-75.0	675.1	651.0	24.12	27.985	
6,300.0	6,255.0	6,264.4	6,255.0	16.2	12.2	-89.97	-314.6	-75.0	675.1	650.6	24.43	27.629	
6,400.0	6,355.0	6,364.4	6,355.0	16.3	12.4	-89.97	-314.6	-75.0	675.1	650.3	24.75	27.280	
6,493.1	6,448.0	6,457.4	6,448.0	16.4	12.5	-89.97	-314.6	-75.0	675.1	650.0	25.04	26.963	
6,500.0	6,455.0	6,464.4	6,455.0	16.4	12.5	-89.97	-314.6	-75.0	675.1	650.0	25.06	26.943	
6,550.0	6,504.9	6,514.3	6,504.9	16.4	12.6	-89.98	-311.9	-75.0	675.1	649.9	25.14	26.854	
6,600.0	6,554.4	6,564.3	6,554.3	16.5	12.6	-89.98	-304.9	-75.0	675.1	649.9	25.16	26.830	
6,650.0	6,603.0	6,614.3	6,603.0	16.4	12.6	-89.99	-293.6	-75.0	675.1	649.9	25.13	26.864	
6,700.0	6,650.5	6,664.3	6,650.5	16.4	12.5	-90.00	-278.0	-75.0	675.1	650.0	25.05	26.946	
6,750.0	6,696.5	6,714.3	6,696.5	16.4	12.5	-90.01	-258.4	-75.0	675.1	650.1	24.94	27.063	
6,800.0	6,740.5	6,764.3	6,740.6	16.3	12.4	-90.02	-234.9	-75.0	675.1	650.3	24.82	27.203	
6,850.0	6,782.3	6,814.3	6,782.5	16.3	12.3	-90.02	-207.6	-75.0	675.1	650.4	24.69	27.347	
6,900.0	6,821.6	6,864.4	6,821.9	16.2	12.3	-90.03	-176.7	-75.0	675.1	650.5	24.57	27.475	
6,950.0	6,858.1	6,914.4	6,858.4	16.2	12.2	-90.04	-142.6	-75.0	675.1	650.6	24.49	27.568	
7,000.0	6,891.4	6,964.5	6,891.8	16.2	12.2	-90.05	-105.3	-75.0	675.1	650.6	24.46	27.602	
7,050.0	6,921.3	7,014.5	6,921.8	16.2	12.3	-90.05	-65.3	-75.0	675.1	650.6	24.50	27.558	
7,100.0	6,947.7	7,064.6	6,948.3	16.2	12.3	-90.06	-22.8	-75.0	675.1	650.4	24.62	27.419	
7,150.0	6,970.2	7,114.6	6,970.9	16.3	12.4	-90.06	21.8	-75.0	675.1	650.2	24.84	27.173	
7,200.0	6,988.8	7,164.7	6,989.6	16.4	12.6	-90.07	68.3	-75.0	675.1	649.9	25.17	26.817	
7,250.0	7,003.2	7,214.8	7,004.1	16.6	12.8	-90.07	116.2	-75.0	675.1	649.5	25.61	26.356	
7,300.0	7,013.5	7,264.8	7,014.4	16.8	13.1	-90.08	165.2	-75.0	675.1	648.9	26.17	25.800	
7,350.0	7,019.4	7,314.9	7,020.3	17.1	13.4	-90.08	214.9	-75.0	675.1	648.2	26.82	25.166	
7,393.1	7,021.0	7,358.1	7,022.0	17.3	13.7	-90.08	258.0	-75.0	675.1	647.6	27.47	24.579	
7,400.0	7,021.0	7,365.0	7,022.0	17.4	13.8	-90.08	264.9	-75.0	675.1	647.5	27.58	24.479	
7,500.0	7,021.0	7,465.0	7,022.0	18.1	14.7	-90.08	364.9	-75.0	675.1	645.7	29.36	22.992	
7,600.0	7,021.0	7,565.0	7,022.0	18.9	15.7	-90.08	464.9	-75.0	675.1	643.6	31.42	21.485	
7,700.0	7,021.0	7,665.0	7,022.0	19.9	16.9	-90.08	564.9	-75.0	675.1	641.3	33.72	20.020	
7,800.0	7,021.0	7,765.0	7,022.0	20.9	18.1	-90.08	664.9	-75.0	675.1	638.8	36.21	18.641	
7,900.0	7,021.0	7,865.0	7,022.0	22.1	19.4	-90.08	764.9	-75.0	675.1	636.2	38.86	17.370	
8,000.0	7,021.0	7,965.0	7,022.0	23.3	20.8	-90.08	864.9	-75.0	675.1	633.4	41.64	16.211	
8,100.0	7,021.0	8,065.0	7,022.0	24.6	22.3	-90.08	964.9	-75.0	675.1	630.5	44.52	15.162	
8,200.0	7,021.0	8,165.0	7,022.0	26.0	23.7	-90.08	1,064.9	-75.0	675.1	627.6	47.49	14.215	
8,300.0	7,021.0	8,265.0	7,022.0	27.4	25.3	-90.08	1,164.9	-75.0	675.1	624.5	50.52	13.361	
8,400.0	7,021.0	8,365.0	7,022.0	28.8	26.8	-90.08	1,264.9	-75.0	675.1	621.4	53.62	12.590	
8,500.0	7,021.0	8,465.0	7,022.0	30.3	28.4	-90.08	1,364.9	-75.0	675.0	618.3	56.76	11.893	
8,600.0	7,021.0	8,565.0	7,022.0	31.8	30.0	-90.08	1,464.9	-75.0	675.0	615.1	59.94	11.262	
8,700.0	7,021.0	8,665.0	7,022.0	33.3	31.6	-90.08	1,564.9	-75.0	675.0	611.9	63.16	10.688	
8,800.0	7,021.0	8,765.0	7,022.0	34.8	33.2	-90.08	1,664.9	-75.0	675.0	608.6	66.41	10.166	
8,900.0	7,021.0	8,865.0	7,022.0	36.4	34.8	-90.08	1,764.9	-75.0	675.0	605.4	69.68	9.688	

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 4G-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 4G-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
9,000.0	7,021.0	8,965.0	7,022.0	38.0	36.5	-90.08	1,864.9	-75.0	675.0	602.1	72.97	9.251	
9,100.0	7,021.0	9,065.0	7,022.0	39.6	38.1	-90.08	1,964.9	-75.0	675.0	598.8	76.28	8.849	
9,200.0	7,021.0	9,165.0	7,022.0	41.2	39.8	-90.08	2,064.9	-75.0	675.0	595.4	79.61	8.479	
9,300.0	7,021.0	9,265.0	7,022.0	42.8	41.5	-90.08	2,164.9	-75.0	675.0	592.1	82.96	8.137	
9,400.0	7,021.0	9,365.0	7,022.0	44.4	43.2	-90.08	2,264.9	-75.0	675.0	588.7	86.31	7.821	
9,500.0	7,021.0	9,465.0	7,022.0	46.1	44.8	-90.08	2,364.9	-75.0	675.0	585.4	89.68	7.527	
9,600.0	7,021.0	9,565.0	7,022.0	47.7	46.5	-90.08	2,464.9	-75.0	675.0	582.0	93.06	7.254	
9,700.0	7,021.0	9,665.0	7,022.0	49.4	48.2	-90.08	2,564.9	-75.0	675.0	578.6	96.45	6.999	
9,800.0	7,021.0	9,765.0	7,022.0	51.0	49.9	-90.08	2,664.9	-75.0	675.0	575.2	99.85	6.761	
9,900.0	7,021.0	9,865.0	7,022.0	52.7	51.6	-90.08	2,764.9	-75.0	675.0	571.8	103.25	6.538	
10,000.0	7,021.0	9,965.0	7,022.0	54.4	53.3	-90.08	2,864.9	-75.0	675.0	568.4	106.66	6.329	
10,100.0	7,021.0	10,065.0	7,022.0	56.0	55.0	-90.08	2,964.9	-74.9	675.0	564.9	110.08	6.132	
10,200.0	7,021.0	10,165.0	7,022.0	57.7	56.7	-90.08	3,064.9	-74.9	675.0	561.5	113.50	5.947	
10,300.0	7,021.0	10,265.0	7,022.0	59.4	58.5	-90.08	3,164.9	-74.9	675.0	558.1	116.93	5.773	
10,400.0	7,021.0	10,365.0	7,022.0	61.1	60.2	-90.08	3,264.9	-74.9	675.0	554.7	120.36	5.608	
10,500.0	7,021.0	10,465.0	7,022.0	62.8	61.9	-90.08	3,364.9	-74.9	675.0	551.2	123.80	5.453	
10,600.0	7,021.0	10,565.0	7,022.0	64.5	63.6	-90.08	3,464.9	-74.9	675.0	547.8	127.24	5.305	
10,700.0	7,021.0	10,665.0	7,022.0	66.2	65.3	-90.08	3,564.9	-74.9	675.0	544.3	130.68	5.165	
10,800.0	7,021.0	10,765.0	7,022.0	67.9	67.1	-90.08	3,664.9	-74.9	675.0	540.9	134.13	5.033	
10,900.0	7,021.0	10,865.0	7,022.0	69.6	68.8	-90.08	3,764.9	-74.9	675.0	537.4	137.58	4.906	
11,000.0	7,021.0	10,965.0	7,022.0	71.3	70.5	-90.08	3,864.9	-74.9	675.0	534.0	141.03	4.786	
11,100.0	7,021.0	11,065.0	7,022.0	73.0	72.2	-90.08	3,964.9	-74.9	675.0	530.5	144.49	4.672	
11,200.0	7,021.0	11,165.0	7,022.0	74.7	74.0	-90.08	4,064.9	-74.9	675.0	527.1	147.95	4.562	
11,300.0	7,021.0	11,265.0	7,022.0	76.4	75.7	-90.08	4,164.9	-74.9	675.0	523.6	151.41	4.458	
11,400.0	7,021.0	11,365.0	7,022.0	78.2	77.4	-90.08	4,264.9	-74.9	675.0	520.1	154.87	4.359	
11,500.0	7,021.0	11,465.0	7,022.0	79.9	79.2	-90.08	4,364.9	-74.9	675.0	516.7	158.34	4.263	
11,600.0	7,021.0	11,565.0	7,022.0	81.6	80.9	-90.08	4,464.9	-74.9	675.0	513.2	161.80	4.172	
11,622.9	7,021.0	11,587.9	7,022.0	82.0	81.3	-90.08	4,487.8	-74.9	675.0	512.4	162.60	4.151	
11,628.2	7,021.0	11,590.6	7,022.0	82.1	81.3	-90.08	4,490.5	-74.9	675.0	512.3	162.73	4.148	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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	-90.11	0.0	-15.1	15.1				
100.0	100.0	100.0	100.0	0.1	0.1	-90.11	0.0	-15.1	15.1	14.9	0.24	61.807	
200.0	200.0	200.0	200.0	0.3	0.3	-90.11	0.0	-15.1	15.1	14.5	0.59	25.450	
300.0	300.0	300.0	300.0	0.5	0.5	-90.11	0.0	-15.1	15.1	14.2	0.94	16.024	
400.0	400.0	400.0	400.0	0.6	0.6	-90.11	0.0	-15.1	15.1	13.8	1.29	11.693	CC
500.0	500.0	500.2	500.2	0.8	0.8	151.18	-0.7	-14.5	15.3	13.7	1.64	9.336	ES
600.0	600.0	600.3	600.3	1.0	1.0	148.33	-2.7	-12.9	16.0	14.0	1.99	8.030	
700.0	699.9	700.5	700.3	1.2	1.2	144.09	-6.1	-10.1	17.2	14.9	2.35	7.322	
800.0	799.7	800.6	800.3	1.4	1.4	139.12	-10.8	-6.2	19.1	16.4	2.73	6.991	
900.0	899.4	900.6	900.0	1.6	1.6	134.51	-16.8	-1.3	21.7	18.6	3.13	6.943	
1,000.0	998.9	1,000.5	999.6	1.8	1.8	133.35	-22.9	3.7	25.5	22.0	3.53	7.224	
1,100.0	1,098.3	1,100.4	1,099.2	2.1	2.0	134.89	-28.9	8.7	30.5	26.6	3.94	7.749	
1,204.7	1,202.0	1,204.9	1,203.3	2.3	2.2	138.03	-35.3	13.9	37.2	32.8	4.37	8.516	
1,300.0	1,296.4	1,299.9	1,298.1	2.6	2.4	140.80	-41.1	18.7	44.0	39.2	4.75	9.260	
1,400.0	1,395.4	1,399.6	1,397.5	2.9	2.6	142.91	-47.2	23.7	51.2	46.0	5.15	9.937	
1,500.0	1,494.4	1,499.4	1,496.9	3.2	2.9	144.50	-53.3	28.7	58.4	52.9	5.55	10.526	
1,600.0	1,593.5	1,599.1	1,596.3	3.4	3.1	145.73	-59.4	33.7	65.7	59.8	5.95	11.041	
1,700.0	1,692.5	1,698.8	1,695.7	3.7	3.3	146.72	-65.5	38.7	73.1	66.7	6.36	11.495	
1,800.0	1,791.5	1,798.5	1,795.1	4.0	3.5	147.53	-71.5	43.7	80.4	73.6	6.76	11.897	
1,900.0	1,890.5	1,898.3	1,894.5	4.3	3.7	148.21	-77.6	48.7	87.7	80.6	7.16	12.255	
2,000.0	1,989.5	1,998.0	1,993.9	4.6	4.0	148.78	-83.7	53.7	95.1	87.5	7.56	12.577	
2,100.0	2,088.5	2,097.7	2,093.4	4.9	4.2	149.26	-89.8	58.7	102.5	94.5	7.96	12.867	
2,200.0	2,187.6	2,197.4	2,192.8	5.2	4.4	149.69	-95.9	63.7	109.8	101.5	8.37	13.129	
2,300.0	2,286.6	2,297.2	2,292.2	5.5	4.6	150.06	-102.0	68.7	117.2	108.4	8.77	13.369	
2,400.0	2,385.6	2,396.9	2,391.6	5.8	4.8	150.38	-108.1	73.7	124.6	115.4	9.17	13.587	
2,500.0	2,484.6	2,496.6	2,491.0	6.1	5.1	150.67	-114.1	78.7	132.0	122.4	9.57	13.787	
2,600.0	2,583.6	2,596.3	2,590.4	6.4	5.3	150.93	-120.2	83.7	139.4	129.4	9.98	13.972	
2,700.0	2,682.6	2,696.1	2,689.8	6.7	5.5	151.16	-126.3	88.7	146.8	136.4	10.38	14.142	
2,800.0	2,781.6	2,795.8	2,789.3	7.0	5.7	151.37	-132.4	93.7	154.2	143.4	10.78	14.300	
2,900.0	2,880.7	2,895.5	2,888.7	7.3	5.9	151.56	-138.5	98.7	161.6	150.4	11.18	14.446	
3,000.0	2,979.7	2,995.2	2,988.1	7.6	6.2	151.74	-144.6	103.7	169.0	157.4	11.59	14.582	
3,100.0	3,078.7	3,095.0	3,087.5	7.9	6.4	151.90	-150.6	108.7	176.4	164.4	11.99	14.710	
3,200.0	3,177.7	3,194.7	3,186.9	8.2	6.6	152.04	-156.7	113.7	183.8	171.4	12.39	14.829	
3,300.0	3,276.7	3,294.4	3,286.3	8.5	6.8	152.18	-162.8	118.7	191.2	178.4	12.79	14.940	
3,400.0	3,375.7	3,394.1	3,385.7	8.8	7.0	152.30	-168.9	123.7	198.6	185.4	13.20	15.045	
3,500.0	3,474.8	3,493.9	3,485.1	9.1	7.3	152.42	-175.0	128.7	206.0	192.4	13.60	15.144	
3,600.0	3,573.8	3,593.6	3,584.6	9.4	7.5	152.53	-181.1	133.7	213.4	199.4	14.00	15.237	
3,700.0	3,672.8	3,693.3	3,684.0	9.7	7.7	152.63	-187.2	138.8	220.8	206.4	14.41	15.325	
3,800.0	3,771.8	3,793.0	3,783.4	10.0	7.9	152.72	-193.2	143.8	228.2	213.4	14.81	15.408	
3,900.0	3,870.8	3,892.8	3,882.8	10.3	8.1	152.81	-199.3	148.8	235.6	220.4	15.21	15.486	
4,000.0	3,969.8	3,992.5	3,982.2	10.6	8.4	152.89	-205.4	153.8	243.0	227.4	15.62	15.561	
4,100.0	4,068.8	4,092.2	4,081.6	10.9	8.6	152.97	-211.5	158.8	250.4	234.4	16.02	15.632	
4,200.0	4,167.9	4,191.9	4,181.0	11.2	8.8	153.05	-217.6	163.8	257.8	241.4	16.42	15.699	
4,300.0	4,266.9	4,291.7	4,280.4	11.5	9.0	153.12	-223.7	168.8	265.2	248.4	16.82	15.763	
4,400.0	4,365.9	4,391.4	4,379.9	11.8	9.3	153.18	-229.7	173.8	272.6	255.4	17.23	15.825	
4,500.0	4,464.9	4,491.1	4,479.3	12.1	9.5	153.24	-235.8	178.8	280.0	262.4	17.63	15.883	
4,600.0	4,563.9	4,590.8	4,578.7	12.4	9.7	153.30	-241.9	183.8	287.4	269.4	18.03	15.939	
4,700.0	4,662.9	4,690.6	4,678.1	12.7	9.9	153.36	-248.0	188.8	294.8	276.4	18.44	15.992	
4,800.0	4,762.0	4,790.3	4,777.5	13.0	10.1	153.41	-254.1	193.8	302.3	283.4	18.84	16.043	
4,900.0	4,861.0	4,890.0	4,876.9	13.3	10.4	153.46	-260.2	198.8	309.7	290.4	19.24	16.092	
5,000.0	4,960.0	4,989.7	4,976.3	13.6	10.6	153.51	-266.2	203.8	317.1	297.4	19.65	16.139	
5,100.0	5,059.0	5,089.5	5,075.8	13.9	10.8	153.56	-272.3	208.8	324.5	304.4	20.05	16.184	

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 4G-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 4G-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
5,200.0	5,158.0	5,189.2	5,175.2	14.2	11.0	153.60	-278.4	213.8	331.9	311.4	20.45	16.228	
5,240.3	5,198.0	5,229.4	5,215.3	14.3	11.1	153.62	-280.9	215.8	334.9	314.3	20.61	16.245	
5,300.0	5,257.1	5,288.9	5,274.6	14.5	11.2	153.64	-284.5	218.8	339.0	318.2	20.86	16.253	
5,400.0	5,356.3	5,388.8	5,374.1	14.7	11.5	153.56	-290.6	223.8	344.7	323.4	21.27	16.204	
5,500.0	5,455.8	5,488.7	5,473.7	15.0	11.7	153.36	-296.7	228.8	348.9	327.2	21.70	16.080	
5,600.0	5,555.4	5,587.6	5,572.4	15.2	11.9	153.03	-302.7	233.7	351.5	329.4	22.12	15.889	
5,700.0	5,655.2	5,683.8	5,668.3	15.4	12.1	152.74	-307.6	237.8	353.4	330.8	22.52	15.694	
5,800.0	5,755.1	5,780.0	5,764.4	15.6	12.3	152.52	-311.3	240.8	354.8	331.9	22.88	15.505	
5,900.0	5,855.0	5,876.1	5,860.5	15.7	12.4	152.38	-313.7	242.8	355.7	332.5	23.22	15.321	
6,000.0	5,955.0	5,972.3	5,956.7	15.8	12.6	152.31	-314.9	243.8	356.2	332.6	23.52	15.140	
6,045.0	6,000.0	6,015.7	6,000.0	15.9	12.6	-90.00	-315.0	243.9	356.2	332.5	23.66	15.058	
6,100.0	6,055.0	6,070.6	6,055.0	15.9	12.7	-90.00	-315.0	243.9	356.2	332.4	23.83	14.950	
6,200.0	6,155.0	6,170.6	6,155.0	16.1	12.9	-90.00	-315.0	243.9	356.2	332.1	24.14	14.758	
6,300.0	6,255.0	6,270.6	6,255.0	16.2	13.0	-90.00	-315.0	243.9	356.2	331.8	24.45	14.570	
6,400.0	6,355.0	6,370.6	6,355.0	16.3	13.2	-90.00	-315.0	243.9	356.2	331.4	24.76	14.386	
6,493.1	6,448.0	6,463.7	6,448.0	16.4	13.3	-90.00	-315.0	243.9	356.2	331.2	25.05	14.219	
6,500.0	6,455.0	6,470.6	6,455.0	16.4	13.3	-90.01	-315.0	243.9	356.2	331.1	25.07	14.206	
6,505.1	6,460.1	6,475.7	6,460.1	16.4	13.3	-90.02	-315.0	243.9	356.2	331.1	25.09	14.199	
6,550.0	6,504.9	6,520.5	6,504.9	16.4	13.4	-90.46	-315.0	243.9	356.2	331.0	25.24	14.111	
6,600.0	6,554.4	6,570.0	6,554.4	16.5	13.5	-91.58	-315.0	243.9	356.3	330.9	25.46	13.997	
6,650.0	6,603.0	6,619.2	6,603.6	16.4	13.5	-93.30	-314.8	243.9	356.8	331.1	25.69	13.888	
6,700.0	6,650.5	6,670.1	6,654.3	16.4	13.6	-95.21	-311.3	243.9	357.8	331.9	25.87	13.831	
6,750.0	6,696.5	6,722.2	6,705.7	16.4	13.6	-97.08	-303.0	243.9	359.1	333.2	25.95	13.839	
6,800.0	6,740.5	6,775.6	6,757.4	16.3	13.5	-98.92	-289.7	243.9	360.8	334.9	25.94	13.912	
6,850.0	6,782.3	6,830.3	6,808.8	16.3	13.5	-100.70	-271.2	243.9	362.8	337.0	25.83	14.046	
6,900.0	6,821.6	6,886.4	6,859.5	16.2	13.4	-102.40	-247.2	243.9	365.1	339.5	25.65	14.236	
6,950.0	6,858.1	6,943.8	6,908.7	16.2	13.4	-104.00	-217.6	243.9	367.6	342.2	25.40	14.469	
7,000.0	6,891.4	7,002.7	6,955.8	16.2	13.3	-105.50	-182.3	243.9	370.1	345.0	25.13	14.728	
7,050.0	6,921.3	7,062.9	6,999.9	16.2	13.3	-106.86	-141.3	243.9	372.7	347.8	24.87	14.988	
7,100.0	6,947.7	7,124.5	7,040.4	16.2	13.2	-108.08	-95.0	243.9	375.1	350.5	24.65	15.216	
7,150.0	6,970.2	7,187.3	7,076.3	16.3	13.3	-109.14	-43.5	243.9	377.4	352.9	24.54	15.377	
7,200.0	6,988.8	7,251.2	7,106.8	16.4	13.4	-110.03	12.6	243.9	379.4	354.8	24.59	15.430	
7,250.0	7,003.2	7,316.0	7,131.2	16.6	13.6	-110.73	72.7	243.9	381.0	356.2	24.83	15.343	
7,300.0	7,013.5	7,381.6	7,148.8	16.8	13.9	-111.22	135.8	243.9	382.2	356.9	25.29	15.109	
7,350.0	7,019.4	7,447.6	7,159.1	17.1	14.3	-111.51	201.0	243.9	382.9	356.9	25.99	14.734	
7,393.1	7,021.0	7,504.7	7,162.0	17.3	14.7	-111.59	258.0	243.9	383.1	356.3	26.77	14.310	
7,400.0	7,021.0	7,511.6	7,162.0	17.4	14.7	-111.59	264.9	243.9	383.1	356.2	26.87	14.254	
7,500.0	7,021.0	7,611.6	7,162.0	18.1	15.6	-111.59	364.9	243.9	383.1	354.6	28.50	13.442	
7,600.0	7,021.0	7,711.6	7,162.0	18.9	16.5	-111.59	464.9	243.9	383.1	352.7	30.39	12.607	
7,700.0	7,021.0	7,811.6	7,162.0	19.9	17.6	-111.59	564.9	243.9	383.1	350.6	32.49	11.790	
7,800.0	7,021.0	7,911.6	7,162.0	20.9	18.8	-111.59	664.9	243.9	383.1	348.3	34.78	11.015	
7,900.0	7,021.0	8,011.6	7,162.0	22.1	20.1	-111.59	764.9	243.9	383.1	345.9	37.21	10.295	
8,000.0	7,021.0	8,111.6	7,162.0	23.3	21.5	-111.59	864.9	243.9	383.1	343.3	39.76	9.634	
8,100.0	7,021.0	8,211.6	7,162.0	24.6	22.9	-111.59	964.9	243.9	383.1	340.7	42.41	9.032	
8,200.0	7,021.0	8,311.6	7,162.0	26.0	24.3	-111.59	1,064.9	243.9	383.1	337.9	45.14	8.486	
8,300.0	7,021.0	8,411.6	7,162.0	27.4	25.8	-111.59	1,164.9	243.9	383.1	335.1	47.94	7.991	
8,400.0	7,021.0	8,511.6	7,162.0	28.8	27.3	-111.59	1,264.9	243.9	383.1	332.3	50.79	7.542	
8,500.0	7,021.0	8,611.6	7,162.0	30.3	28.9	-111.59	1,364.9	243.9	383.1	329.4	53.69	7.135	
8,600.0	7,021.0	8,711.6	7,162.0	31.8	30.4	-111.59	1,464.9	243.9	383.1	326.4	56.63	6.764	
8,700.0	7,021.0	8,811.6	7,162.0	33.3	32.0	-111.59	1,564.9	243.9	383.1	323.5	59.61	6.427	
8,800.0	7,021.0	8,911.6	7,162.0	34.8	33.6	-111.59	1,664.9	243.9	383.1	320.5	62.61	6.118	
8,900.0	7,021.0	9,011.6	7,162.0	36.4	35.2	-111.59	1,764.9	243.9	383.1	317.4	65.64	5.836	

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 4G-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 4G-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
9,000.0	7,021.0	9,111.6	7,162.0	38.0	36.9	-111.59	1,864.9	243.9	383.1	314.4	68.69	5.577	
9,100.0	7,021.0	9,211.6	7,162.0	39.6	38.5	-111.59	1,964.9	243.9	383.1	311.3	71.75	5.339	
9,200.0	7,021.0	9,311.6	7,162.0	41.2	40.2	-111.59	2,064.9	243.9	383.1	308.2	74.84	5.118	
9,300.0	7,021.0	9,411.6	7,162.0	42.8	41.8	-111.59	2,164.9	243.9	383.1	305.1	77.94	4.915	
9,400.0	7,021.0	9,511.6	7,162.0	44.4	43.5	-111.59	2,264.9	243.9	383.1	302.0	81.05	4.726	
9,500.0	7,021.0	9,611.6	7,162.0	46.1	45.2	-111.59	2,364.9	243.9	383.1	298.9	84.18	4.551	
9,600.0	7,021.0	9,711.6	7,162.0	47.7	46.8	-111.59	2,464.9	243.9	383.1	295.7	87.31	4.387	
9,700.0	7,021.0	9,811.6	7,162.0	49.4	48.5	-111.59	2,564.9	243.9	383.1	292.6	90.46	4.235	
9,800.0	7,021.0	9,911.6	7,162.0	51.0	50.2	-111.59	2,664.9	243.9	383.1	289.4	93.61	4.092	
9,900.0	7,021.0	10,011.6	7,162.0	52.7	51.9	-111.59	2,764.9	243.9	383.1	286.3	96.77	3.959	
10,000.0	7,021.0	10,111.6	7,162.0	54.4	53.6	-111.59	2,864.9	243.9	383.1	283.1	99.93	3.833	
10,100.0	7,021.0	10,211.6	7,162.0	56.0	55.3	-111.59	2,964.9	243.9	383.1	279.9	103.11	3.715	
10,200.0	7,021.0	10,311.6	7,162.0	57.7	57.0	-111.59	3,064.9	243.9	383.1	276.8	106.28	3.604	
10,300.0	7,021.0	10,411.6	7,162.0	59.4	58.7	-111.59	3,164.9	243.9	383.1	273.6	109.47	3.499	
10,400.0	7,021.0	10,511.6	7,162.0	61.1	60.4	-111.59	3,264.9	243.9	383.1	270.4	112.66	3.400	
10,500.0	7,021.0	10,611.6	7,162.0	62.8	62.1	-111.59	3,364.9	243.9	383.1	267.2	115.85	3.306	
10,600.0	7,021.0	10,711.6	7,162.0	64.5	63.9	-111.59	3,464.9	243.9	383.1	264.0	119.04	3.218	
10,700.0	7,021.0	10,811.6	7,162.0	66.2	65.6	-111.59	3,564.9	243.9	383.1	260.8	122.24	3.133	
10,800.0	7,021.0	10,911.6	7,162.0	67.9	67.3	-111.59	3,664.9	243.9	383.0	257.6	125.45	3.053	
10,900.0	7,021.0	11,011.6	7,162.0	69.6	69.0	-111.59	3,764.9	243.9	383.0	254.4	128.65	2.977	
11,000.0	7,021.0	11,111.6	7,162.0	71.3	70.7	-111.59	3,864.9	243.9	383.0	251.2	131.86	2.905	
11,035.3	7,021.0	11,146.9	7,162.0	71.9	71.3	-111.59	3,900.2	243.9	383.0	250.1	133.00	2.880	
11,100.0	7,021.0	11,200.0	7,162.0	73.0	72.2	-111.56	3,953.3	243.2	383.8	248.9	134.92	2.845	
11,200.0	7,021.0	11,285.8	7,162.0	74.7	73.7	-111.33	4,038.9	239.0	388.5	250.3	138.10	2.813	
11,300.0	7,021.0	11,369.2	7,162.0	76.4	75.1	-110.92	4,121.9	231.2	397.2	255.8	141.41	2.809	SF
11,400.0	7,021.0	11,451.7	7,162.0	78.2	76.5	-110.34	4,203.7	219.9	410.1	265.2	144.86	2.831	
11,500.0	7,021.0	11,533.1	7,162.0	79.9	77.9	-109.65	4,283.8	205.2	427.0	278.6	148.39	2.878	
11,600.0	7,021.0	11,613.1	7,162.0	81.6	79.2	-108.87	4,361.7	187.5	448.1	296.1	151.97	2.948	
11,628.2	7,021.0	11,635.3	7,162.0	82.1	79.6	-108.63	4,383.3	182.0	454.7	301.7	152.98	2.972	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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	-90.10	0.0	-7.6	7.6				
100.0	100.0	100.0	100.0	0.1	0.1	-90.10	0.0	-7.6	7.6	7.3	0.24	30.903	
200.0	200.0	200.0	200.0	0.3	0.3	-90.10	0.0	-7.6	7.6	7.0	0.59	12.725	
300.0	300.0	300.0	300.0	0.5	0.5	-90.10	0.0	-7.6	7.6	6.6	0.94	8.012	
400.0	400.0	400.0	400.0	0.6	0.6	-90.10	0.0	-7.6	7.6	6.3	1.29	5.847	CC, ES
500.0	500.0	500.1	500.1	0.8	0.8	154.09	-0.2	-7.4	8.2	6.5	1.64	4.973	
600.0	600.0	600.2	600.1	1.0	1.0	154.56	-1.3	-6.0	9.1	7.1	1.99	4.587	
700.0	699.9	700.3	700.2	1.2	1.2	153.22	-3.5	-3.3	10.3	7.9	2.34	4.391	
800.0	799.7	800.4	800.2	1.4	1.4	150.68	-6.8	0.7	11.7	9.0	2.70	4.311	
900.0	899.4	900.6	900.1	1.6	1.6	147.43	-11.3	6.1	13.3	10.2	3.08	4.309	
1,000.0	998.9	1,000.7	999.9	1.8	1.8	143.86	-16.8	12.9	15.1	11.7	3.47	4.357	
1,100.0	1,098.3	1,100.7	1,099.4	2.1	2.0	141.75	-23.1	20.5	17.7	13.8	3.88	4.551	
1,204.7	1,202.0	1,205.3	1,203.5	2.3	2.2	143.19	-29.7	28.5	21.8	17.5	4.31	5.062	
1,300.0	1,296.4	1,300.5	1,298.2	2.6	2.5	145.23	-35.7	35.8	26.3	21.6	4.68	5.609	
1,400.0	1,395.4	1,400.4	1,397.6	2.9	2.7	146.73	-42.0	43.4	31.0	25.9	5.08	6.098	
1,500.0	1,494.4	1,500.3	1,497.0	3.2	2.9	147.83	-48.2	51.0	35.7	30.3	5.48	6.518	
1,600.0	1,593.5	1,600.2	1,596.4	3.4	3.2	148.68	-54.5	58.6	40.5	34.6	5.88	6.881	
1,700.0	1,692.5	1,700.1	1,695.8	3.7	3.4	149.35	-60.8	66.3	45.2	39.0	6.29	7.198	
1,800.0	1,791.5	1,800.0	1,795.2	4.0	3.6	149.89	-67.1	73.9	50.0	43.3	6.69	7.477	
1,900.0	1,890.5	1,899.8	1,894.6	4.3	3.9	150.34	-73.4	81.5	54.8	47.7	7.09	7.725	
2,000.0	1,989.5	1,999.7	1,994.0	4.6	4.1	150.71	-79.7	89.2	59.5	52.0	7.49	7.946	
2,100.0	2,088.5	2,099.6	2,093.4	4.9	4.4	151.03	-86.0	96.8	64.3	56.4	7.90	8.145	
2,200.0	2,187.6	2,199.5	2,192.8	5.2	4.6	151.31	-92.2	104.4	69.1	60.8	8.30	8.324	
2,300.0	2,286.6	2,299.4	2,292.2	5.5	4.8	151.55	-98.5	112.1	73.9	65.2	8.70	8.486	
2,400.0	2,385.6	2,399.3	2,391.6	5.8	5.1	151.76	-104.8	119.7	78.6	69.5	9.11	8.634	
2,500.0	2,484.6	2,499.2	2,491.0	6.1	5.3	151.94	-111.1	127.3	83.4	73.9	9.51	8.769	
2,600.0	2,583.6	2,599.0	2,590.3	6.4	5.6	152.11	-117.4	135.0	88.2	78.3	9.92	8.893	
2,700.0	2,682.6	2,698.9	2,689.7	6.7	5.8	152.26	-123.7	142.6	93.0	82.6	10.32	9.008	
2,800.0	2,781.6	2,798.8	2,789.1	7.0	6.1	152.39	-130.0	150.2	97.7	87.0	10.72	9.113	
2,900.0	2,880.7	2,898.7	2,888.5	7.3	6.3	152.52	-136.2	157.9	102.5	91.4	11.13	9.211	
3,000.0	2,979.7	2,998.6	2,987.9	7.6	6.5	152.63	-142.5	165.5	107.3	95.8	11.53	9.302	
3,100.0	3,078.7	3,098.5	3,087.3	7.9	6.8	152.73	-148.8	173.1	112.1	100.1	11.94	9.387	
3,200.0	3,177.7	3,198.4	3,186.7	8.2	7.0	152.82	-155.1	180.8	116.9	104.5	12.34	9.466	
3,300.0	3,276.7	3,298.2	3,286.1	8.5	7.3	152.91	-161.4	188.4	121.6	108.9	12.75	9.541	
3,400.0	3,375.7	3,398.1	3,385.5	8.8	7.5	152.99	-167.7	196.0	126.4	113.3	13.15	9.610	
3,500.0	3,474.8	3,498.0	3,484.9	9.1	7.8	153.06	-173.9	203.7	131.2	117.6	13.56	9.676	
3,600.0	3,573.8	3,597.9	3,584.3	9.4	8.0	153.13	-180.2	211.3	136.0	122.0	13.96	9.737	
3,700.0	3,672.8	3,697.8	3,683.7	9.7	8.3	153.19	-186.5	218.9	140.8	126.4	14.37	9.795	
3,800.0	3,771.8	3,797.7	3,783.1	10.0	8.5	153.25	-192.8	226.6	145.5	130.8	14.77	9.850	
3,900.0	3,870.8	3,897.6	3,882.5	10.3	8.7	153.31	-199.1	234.2	150.3	135.1	15.18	9.902	
4,000.0	3,969.8	3,997.4	3,981.9	10.6	9.0	153.36	-205.4	241.8	155.1	139.5	15.59	9.951	
4,100.0	4,068.8	4,097.3	4,081.3	10.9	9.2	153.41	-211.7	249.4	159.9	143.9	15.99	9.998	
4,200.0	4,167.9	4,197.2	4,180.7	11.2	9.5	153.46	-217.9	257.1	164.7	148.3	16.40	10.042	
4,300.0	4,266.9	4,297.1	4,280.1	11.5	9.7	153.50	-224.2	264.7	169.4	152.6	16.80	10.084	
4,400.0	4,365.9	4,397.0	4,379.5	11.8	10.0	153.54	-230.5	272.3	174.2	157.0	17.21	10.125	
4,500.0	4,464.9	4,496.9	4,478.9	12.1	10.2	153.58	-236.8	280.0	179.0	161.4	17.61	10.163	
4,600.0	4,563.9	4,596.8	4,578.2	12.4	10.5	153.62	-243.1	287.6	183.8	165.8	18.02	10.200	
4,700.0	4,662.9	4,696.6	4,677.6	12.7	10.7	153.66	-249.4	295.2	188.6	170.1	18.42	10.235	
4,800.0	4,762.0	4,796.5	4,777.0	13.0	10.9	153.69	-255.7	302.9	193.3	174.5	18.83	10.268	
4,900.0	4,861.0	4,896.4	4,876.4	13.3	11.2	153.72	-261.9	310.5	198.1	178.9	19.24	10.300	
5,000.0	4,960.0	4,996.3	4,975.8	13.6	11.4	153.75	-268.2	318.1	202.9	183.3	19.64	10.331	
5,100.0	5,059.0	5,096.2	5,075.2	13.9	11.7	153.78	-274.5	325.8	207.7	187.6	20.05	10.360	

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 4G-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 4G-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
5,200.0	5,158.0	5,196.1	5,174.6	14.2	11.9	153.81	-280.8	333.4	212.5	192.0	20.45	10.389	
5,240.3	5,198.0	5,236.4	5,214.7	14.3	12.0	153.82	-283.3	336.5	214.4	193.8	20.62	10.400	
5,300.0	5,257.1	5,296.0	5,274.0	14.5	12.2	153.81	-287.1	341.0	217.0	196.1	20.86	10.400	
5,400.0	5,356.3	5,395.9	5,373.5	14.7	12.4	153.63	-293.4	348.7	220.0	198.7	21.29	10.334	
5,500.0	5,455.8	5,494.7	5,471.8	15.0	12.7	153.27	-299.5	356.1	221.7	199.9	21.73	10.199	
5,600.0	5,555.4	5,591.7	5,568.5	15.2	12.9	152.95	-304.7	362.4	222.8	200.7	22.15	10.060	
5,700.0	5,655.2	5,688.8	5,665.3	15.4	13.1	152.69	-308.8	367.4	223.7	201.2	22.54	9.928	
5,800.0	5,755.1	5,785.8	5,762.3	15.6	13.2	152.50	-311.9	371.1	224.4	201.5	22.90	9.802	
5,900.0	5,855.0	5,882.9	5,859.3	15.7	13.4	152.37	-313.9	373.6	224.9	201.7	23.23	9.682	
6,000.0	5,955.0	5,980.0	5,956.3	15.8	13.5	152.31	-314.9	374.8	225.1	201.6	23.54	9.565	
6,045.0	6,000.0	6,023.7	6,000.0	15.9	13.6	-90.00	-315.0	374.9	225.2	201.5	23.67	9.513	
6,100.0	6,055.0	6,078.6	6,055.0	15.9	13.7	-90.00	-315.0	374.9	225.2	201.3	23.84	9.445	
6,200.0	6,155.0	6,178.6	6,155.0	16.1	13.8	-90.00	-315.0	374.9	225.2	201.0	24.15	9.324	
6,300.0	6,255.0	6,278.6	6,255.0	16.2	13.9	-90.00	-315.0	374.9	225.2	200.7	24.46	9.205	
6,400.0	6,355.0	6,378.6	6,355.0	16.3	14.1	-90.00	-315.0	374.9	225.2	200.4	24.77	9.089	
6,425.2	6,380.2	6,403.8	6,380.2	16.3	14.1	-89.86	-314.5	374.9	225.2	200.3	24.82	9.071	
6,493.1	6,448.0	6,470.9	6,446.8	16.4	14.1	-88.12	-307.6	374.9	225.3	200.5	24.73	9.109	
6,500.0	6,455.0	6,477.6	6,453.5	16.4	14.1	-87.84	-306.5	374.9	225.3	200.6	24.71	9.120	
6,550.0	6,504.9	6,526.0	6,500.7	16.4	14.1	-85.85	-296.2	374.9	225.8	201.3	24.50	9.216	
6,600.0	6,554.4	6,573.6	6,546.3	16.5	14.1	-83.92	-282.2	374.9	226.5	202.2	24.27	9.331	
6,650.0	6,603.0	6,620.8	6,590.0	16.4	14.0	-82.05	-264.6	374.9	227.4	203.3	24.05	9.455	
6,700.0	6,650.5	6,667.4	6,631.6	16.4	14.0	-80.25	-243.8	374.9	228.5	204.7	23.85	9.581	
6,750.0	6,696.5	6,713.5	6,671.1	16.4	13.9	-78.55	-220.0	374.9	229.8	206.1	23.68	9.703	
6,800.0	6,740.5	6,759.1	6,708.1	16.3	13.9	-76.96	-193.3	374.9	231.2	207.7	23.56	9.816	
6,850.0	6,782.3	6,804.3	6,742.6	16.3	13.8	-75.47	-164.1	374.9	232.7	209.2	23.47	9.915	
6,900.0	6,821.6	6,850.0	6,775.0	16.2	13.8	-74.08	-131.9	374.9	234.2	210.8	23.43	9.997	
6,950.0	6,858.1	6,893.6	6,803.4	16.2	13.8	-72.85	-98.8	374.9	235.7	212.3	23.44	10.058	
7,000.0	6,891.4	6,937.8	6,829.6	16.2	13.8	-71.73	-63.2	374.9	237.2	213.7	23.49	10.096	
7,050.0	6,921.3	6,981.8	6,852.8	16.2	13.9	-70.74	-25.9	375.0	238.6	215.0	23.60	10.109	
7,100.0	6,947.7	7,025.5	6,872.9	16.2	13.9	-69.88	12.9	375.0	239.8	216.1	23.73	10.109	
7,150.0	6,970.2	7,069.0	6,890.0	16.3	14.0	-69.16	52.9	375.0	241.0	217.0	23.92	10.073	
7,200.0	6,988.8	7,112.3	6,904.0	16.4	14.2	-68.57	93.9	375.0	241.9	217.7	24.16	10.012	
7,250.0	7,003.2	7,155.5	6,914.8	16.6	14.4	-68.11	135.7	375.0	242.7	218.2	24.45	9.924	
7,300.0	7,013.5	7,200.0	6,922.6	16.8	14.6	-67.78	179.5	375.0	243.2	218.4	24.80	9.805	
7,350.0	7,019.4	7,241.7	6,926.8	17.1	14.9	-67.61	220.9	375.0	243.5	218.3	25.20	9.662	
7,393.1	7,021.0	7,278.7	6,928.0	17.3	15.1	-67.56	258.0	375.0	243.6	218.0	25.60	9.517	
7,400.0	7,021.0	7,285.6	6,928.0	17.4	15.2	-67.56	264.9	375.0	243.6	217.9	25.70	9.478	
7,500.0	7,021.0	7,385.6	6,928.0	18.1	16.0	-67.56	364.9	375.0	243.6	216.2	27.38	8.898	
7,600.0	7,021.0	7,485.6	6,928.0	18.9	16.9	-67.56	464.9	375.0	243.6	214.3	29.31	8.312	
7,700.0	7,021.0	7,585.6	6,928.0	19.9	18.0	-67.56	564.9	375.0	243.6	212.1	31.46	7.744	
7,800.0	7,021.0	7,685.6	6,928.0	20.9	19.2	-67.56	664.9	375.0	243.6	209.8	33.78	7.211	
7,900.0	7,021.0	7,785.6	6,928.0	22.1	20.4	-67.56	764.9	375.0	243.6	207.3	36.25	6.720	
8,000.0	7,021.0	7,885.6	6,928.0	23.3	21.8	-67.56	864.9	375.0	243.6	204.8	38.83	6.274	
8,100.0	7,021.0	7,985.6	6,928.0	24.6	23.1	-67.56	964.9	375.0	243.6	202.1	41.50	5.869	
8,200.0	7,021.0	8,085.6	6,928.0	26.0	24.6	-67.56	1,064.9	375.0	243.6	199.3	44.25	5.504	
8,300.0	7,021.0	8,185.6	6,928.0	27.4	26.0	-67.56	1,164.9	375.0	243.6	196.5	47.07	5.175	
8,400.0	7,021.0	8,285.6	6,928.0	28.8	27.5	-67.55	1,264.9	375.0	243.6	193.7	49.93	4.878	
8,500.0	7,021.0	8,385.6	6,928.0	30.3	29.1	-67.55	1,364.9	375.0	243.6	190.7	52.84	4.609	
8,600.0	7,021.0	8,485.6	6,928.0	31.8	30.6	-67.55	1,464.9	375.0	243.6	187.8	55.79	4.366	
8,700.0	7,021.0	8,585.6	6,928.0	33.3	32.2	-67.55	1,564.9	375.0	243.6	184.8	58.77	4.145	
8,800.0	7,021.0	8,685.6	6,928.0	34.8	33.8	-67.55	1,664.9	375.0	243.6	181.8	61.78	3.943	
8,900.0	7,021.0	8,785.6	6,928.0	36.4	35.4	-67.55	1,764.9	375.0	243.6	178.8	64.81	3.759	

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 4G-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 4G-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	7,021.0	8,885.6	6,928.0	38.0	37.0	-67.55	1,864.9	375.0	243.6	175.7	67.86	3.590	
9,100.0	7,021.0	8,985.6	6,928.0	39.6	38.7	-67.55	1,964.9	375.0	243.6	172.7	70.92	3.434	
9,200.0	7,021.0	9,085.6	6,928.0	41.2	40.3	-67.55	2,064.9	375.0	243.6	169.6	74.00	3.291	
9,300.0	7,021.0	9,185.6	6,928.0	42.8	41.9	-67.55	2,164.9	375.0	243.6	166.5	77.10	3.159	
9,400.0	7,021.0	9,285.6	6,928.0	44.4	43.6	-67.55	2,264.9	375.0	243.6	163.4	80.21	3.037	
9,500.0	7,021.0	9,385.6	6,928.0	46.1	45.3	-67.55	2,364.9	375.0	243.6	160.2	83.32	2.923	
9,600.0	7,021.0	9,485.6	6,928.0	47.7	46.9	-67.55	2,464.9	375.0	243.6	157.1	86.45	2.817	
9,700.0	7,021.0	9,585.6	6,928.0	49.4	48.6	-67.55	2,564.9	375.0	243.6	154.0	89.59	2.719	
9,800.0	7,021.0	9,685.6	6,928.0	51.0	50.3	-67.55	2,664.9	375.0	243.6	150.8	92.73	2.627	
9,900.0	7,021.0	9,785.6	6,928.0	52.7	52.0	-67.55	2,764.9	375.0	243.6	147.7	95.88	2.540	
10,000.0	7,021.0	9,885.6	6,928.0	54.4	53.7	-67.55	2,864.9	375.0	243.6	144.5	99.04	2.459	
10,100.0	7,021.0	9,985.6	6,928.0	56.0	55.4	-67.55	2,964.9	375.0	243.6	141.4	102.20	2.383	
10,200.0	7,021.0	10,085.6	6,928.0	57.7	57.1	-67.55	3,064.9	375.0	243.6	138.2	105.36	2.312	
10,300.0	7,021.0	10,185.6	6,928.0	59.4	58.8	-67.55	3,164.9	375.0	243.6	135.0	108.54	2.244	
10,400.0	7,021.0	10,285.6	6,928.0	61.1	60.5	-67.55	3,264.9	375.0	243.6	131.9	111.71	2.180	
10,500.0	7,021.0	10,385.6	6,928.0	62.8	62.2	-67.55	3,364.9	375.0	243.6	128.7	114.89	2.120	
10,600.0	7,021.0	10,485.6	6,928.0	64.5	63.9	-67.55	3,464.9	375.0	243.6	125.5	118.07	2.063	
10,700.0	7,021.0	10,585.6	6,928.0	66.2	65.6	-67.55	3,564.9	375.0	243.6	122.3	121.26	2.009	
10,800.0	7,021.0	10,685.6	6,928.0	67.9	67.4	-67.55	3,664.9	375.0	243.6	119.1	124.45	1.957	
10,900.0	7,021.0	10,785.6	6,928.0	69.6	69.1	-67.55	3,764.9	375.0	243.6	115.9	127.64	1.908	
11,000.0	7,021.0	10,885.6	6,928.0	71.3	70.8	-67.55	3,864.9	375.0	243.6	112.7	130.84	1.862	
11,100.0	7,021.0	10,985.6	6,928.0	73.0	72.5	-67.55	3,964.9	375.0	243.6	109.5	134.04	1.817	
11,200.0	7,021.0	11,085.6	6,928.0	74.7	74.2	-67.55	4,064.9	375.0	243.6	106.3	137.23	1.775	
11,300.0	7,021.0	11,185.6	6,928.0	76.4	76.0	-67.55	4,164.9	375.0	243.6	103.1	140.44	1.734	
11,400.0	7,021.0	11,285.6	6,928.0	78.2	77.7	-67.55	4,264.9	375.0	243.6	99.9	143.64	1.696	
11,500.0	7,021.0	11,385.6	6,928.0	79.9	79.4	-67.55	4,364.9	375.0	243.6	96.7	146.85	1.659	
11,600.0	7,021.0	11,485.6	6,928.0	81.6	81.1	-67.55	4,464.9	375.0	243.5	93.5	150.05	1.623	
11,623.4	7,021.0	11,509.1	6,928.0	82.0	81.5	-67.55	4,488.3	375.0	243.5	92.7	150.80	1.615	
11,628.2	7,021.0	11,512.7	6,928.0	82.1	81.6	-67.55	4,492.0	375.0	243.6	92.6	150.94	1.614 SF	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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	89.90	0.0	7.6	7.6				
100.0	100.0	100.0	100.0	0.1	0.1	89.90	0.0	7.6	7.6	7.3	0.24	30.903	
200.0	200.0	200.0	200.0	0.3	0.3	89.90	0.0	7.6	7.6	7.0	0.59	12.725	
300.0	300.0	300.0	300.0	0.5	0.5	89.90	0.0	7.6	7.6	6.6	0.94	8.012	
333.5	333.5	333.5	333.5	0.5	0.5	89.90	0.0	7.6	7.6	6.5	1.06	7.129	CC
400.0	400.0	399.9	399.9	0.6	0.6	90.49	-0.1	7.8	7.8	6.5	1.29	6.005	ES
500.0	500.0	499.8	499.8	0.8	0.8	-25.79	-0.7	9.4	8.6	7.0	1.64	5.250	
600.0	600.0	599.6	599.6	1.0	1.0	-25.75	-1.9	12.6	9.5	7.6	1.99	4.797	
700.0	699.9	699.5	699.3	1.2	1.2	-26.73	-3.8	17.5	10.6	8.2	2.34	4.508	
800.0	799.7	799.3	798.8	1.4	1.4	-28.45	-6.3	24.0	11.7	9.0	2.70	4.317	
900.0	899.4	899.1	898.2	1.6	1.6	-30.68	-9.4	32.1	12.8	9.8	3.07	4.189	
1,000.0	998.9	998.9	997.5	1.8	1.8	-33.24	-13.2	41.8	14.2	10.7	3.45	4.103	
1,100.0	1,098.3	1,098.6	1,096.5	2.1	2.1	-35.99	-17.5	53.1	15.6	11.7	3.85	4.043	
1,204.7	1,202.0	1,203.0	1,199.9	2.3	2.4	-38.96	-22.8	66.7	17.2	12.9	4.31	3.996	
1,300.0	1,296.4	1,298.1	1,293.7	2.6	2.7	-40.13	-28.1	80.6	19.5	14.7	4.74	4.108	
1,400.0	1,395.4	1,397.7	1,391.9	2.9	3.0	-38.73	-34.3	96.7	23.3	18.1	5.17	4.504	
1,500.0	1,494.4	1,497.4	1,489.8	3.2	3.4	-36.22	-41.0	114.1	28.3	22.7	5.56	5.089	
1,600.0	1,593.5	1,597.3	1,587.9	3.4	3.7	-34.36	-47.8	131.7	33.5	27.5	5.95	5.624	
1,700.0	1,692.5	1,697.1	1,685.9	3.7	4.1	-32.99	-54.6	149.3	38.7	32.4	6.35	6.094	
1,800.0	1,791.5	1,797.0	1,784.0	4.0	4.4	-31.95	-61.4	166.9	43.9	37.2	6.75	6.511	
1,900.0	1,890.5	1,896.8	1,882.1	4.3	4.8	-31.14	-68.1	184.5	49.2	42.0	7.15	6.882	
2,000.0	1,989.5	1,996.7	1,980.1	4.6	5.1	-30.48	-74.9	202.1	54.4	46.9	7.55	7.214	
2,100.0	2,088.5	2,096.6	2,078.2	4.9	5.5	-29.93	-81.7	219.6	59.7	51.7	7.95	7.512	
2,200.0	2,187.6	2,196.4	2,176.3	5.2	5.9	-29.48	-88.5	237.2	65.0	56.6	8.35	7.782	
2,300.0	2,286.6	2,296.3	2,274.3	5.5	6.2	-29.09	-95.3	254.8	70.2	61.5	8.75	8.028	
2,400.0	2,385.6	2,396.1	2,372.4	5.8	6.6	-28.76	-102.0	272.4	75.5	66.3	9.15	8.251	
2,500.0	2,484.6	2,496.0	2,470.5	6.1	7.0	-28.47	-108.8	290.0	80.8	71.2	9.55	8.456	
2,600.0	2,583.6	2,595.9	2,568.5	6.4	7.4	-28.21	-115.6	307.6	86.0	76.1	9.95	8.644	
2,700.0	2,682.6	2,695.7	2,666.6	6.7	7.7	-27.99	-122.4	325.2	91.3	81.0	10.35	8.818	
2,800.0	2,781.6	2,795.6	2,764.7	7.0	8.1	-27.79	-129.1	342.8	96.6	85.8	10.76	8.979	
2,900.0	2,880.7	2,895.4	2,862.7	7.3	8.5	-27.61	-135.9	360.3	101.9	90.7	11.16	9.128	
3,000.0	2,979.7	2,995.3	2,960.8	7.6	8.8	-27.45	-142.7	377.9	107.1	95.6	11.56	9.266	
3,100.0	3,078.7	3,095.2	3,058.9	7.9	9.2	-27.30	-149.5	395.5	112.4	100.5	11.97	9.395	
3,200.0	3,177.7	3,195.0	3,156.9	8.2	9.6	-27.17	-156.2	413.1	117.7	105.3	12.37	9.516	
3,300.0	3,276.7	3,294.9	3,255.0	8.5	10.0	-27.04	-163.0	430.7	123.0	110.2	12.77	9.629	
3,400.0	3,375.7	3,394.7	3,353.1	8.8	10.3	-26.93	-169.8	448.3	128.3	115.1	13.17	9.735	
3,500.0	3,474.8	3,494.6	3,451.1	9.1	10.7	-26.83	-176.6	465.9	133.5	120.0	13.58	9.835	
3,600.0	3,573.8	3,594.5	3,549.2	9.4	11.1	-26.73	-183.3	483.5	138.8	124.8	13.98	9.929	
3,700.0	3,672.8	3,694.3	3,647.2	9.7	11.5	-26.65	-190.1	501.0	144.1	129.7	14.38	10.018	
3,800.0	3,771.8	3,794.2	3,745.3	10.0	11.8	-26.56	-196.9	518.6	149.4	134.6	14.79	10.102	
3,900.0	3,870.8	3,894.0	3,843.4	10.3	12.2	-26.49	-203.7	536.2	154.7	139.5	15.19	10.181	
4,000.0	3,969.8	3,993.9	3,941.4	10.6	12.6	-26.42	-210.4	553.8	160.0	144.4	15.60	10.256	
4,100.0	4,068.8	4,093.8	4,039.5	10.9	13.0	-26.35	-217.2	571.4	165.2	149.2	16.00	10.328	
4,200.0	4,167.9	4,193.6	4,137.6	11.2	13.3	-26.29	-224.0	589.0	170.5	154.1	16.40	10.396	
4,300.0	4,266.9	4,293.5	4,235.6	11.5	13.7	-26.23	-230.8	606.6	175.8	159.0	16.81	10.460	
4,400.0	4,365.9	4,393.3	4,333.7	11.8	14.1	-26.17	-237.6	624.2	181.1	163.9	17.21	10.522	
4,500.0	4,464.9	4,493.2	4,431.8	12.1	14.5	-26.12	-244.3	641.7	186.4	168.8	17.61	10.580	
4,600.0	4,563.9	4,593.1	4,529.8	12.4	14.8	-26.07	-251.1	659.3	191.7	173.6	18.02	10.637	
4,700.0	4,662.9	4,692.9	4,627.9	12.7	15.2	-26.02	-257.9	676.9	196.9	178.5	18.42	10.690	
4,800.0	4,762.0	4,792.8	4,726.0	13.0	15.6	-25.98	-264.7	694.5	202.2	183.4	18.83	10.741	
4,900.0	4,861.0	4,892.6	4,824.0	13.3	16.0	-25.94	-271.4	712.1	207.5	188.3	19.23	10.791	
5,000.0	4,960.0	4,992.6	4,922.2	13.6	16.3	-25.90	-278.2	729.7	212.8	193.2	19.63	10.838	

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 4G-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 4G-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
5,100.0	5,059.0	5,096.2	5,024.1	13.9	16.7	-25.95	-284.9	747.0	217.2	197.1	20.06	10.827	
5,200.0	5,158.0	5,199.9	5,126.4	14.2	17.0	-26.15	-290.9	762.6	219.8	199.3	20.51	10.720	
5,240.3	5,198.0	5,241.7	5,167.8	14.3	17.2	-26.28	-293.1	768.5	220.4	199.7	20.69	10.652	
5,300.0	5,257.1	5,303.6	5,229.1	14.5	17.3	-26.49	-296.3	776.5	221.1	200.1	20.97	10.542	
5,400.0	5,356.3	5,407.4	5,332.0	14.7	17.6	-26.80	-300.9	788.7	222.1	200.6	21.42	10.368	
5,500.0	5,455.8	5,511.2	5,435.2	15.0	17.9	-27.06	-305.0	799.1	222.9	201.1	21.84	10.206	
5,600.0	5,555.4	5,615.0	5,538.6	15.2	18.1	-27.27	-308.3	807.8	223.6	201.4	22.24	10.053	
5,700.0	5,655.2	5,718.7	5,642.1	15.4	18.3	-27.44	-311.0	814.7	224.2	201.6	22.62	9.911	
5,800.0	5,755.1	5,822.5	5,745.7	15.6	18.4	-27.57	-313.0	819.9	224.6	201.6	22.98	9.776	
5,900.0	5,855.0	5,926.3	5,849.5	15.7	18.6	-27.65	-314.3	823.3	224.9	201.6	23.31	9.650	
6,000.0	5,955.0	6,030.1	5,953.3	15.8	18.7	-27.69	-314.9	825.0	225.0	201.4	23.61	9.530	
6,045.0	6,000.0	6,076.9	6,000.0	15.9	18.7	90.00	-315.0	825.2	225.1	201.3	23.75	9.477	
6,100.0	6,055.0	6,131.9	6,055.0	15.9	18.8	90.00	-315.0	825.2	225.1	201.1	23.92	9.410	
6,200.0	6,155.0	6,231.9	6,155.0	16.1	18.9	90.00	-315.0	825.2	225.1	200.8	24.23	9.289	
6,300.0	6,255.0	6,331.9	6,255.0	16.2	19.0	90.00	-315.0	825.2	225.1	200.5	24.54	9.171	
6,400.0	6,355.0	6,431.9	6,355.0	16.3	19.1	90.00	-315.0	825.2	225.1	200.2	24.85	9.056	
6,493.1	6,448.0	6,524.9	6,448.0	16.4	19.2	90.00	-315.0	825.2	225.1	199.9	25.14	8.951	
6,496.6	6,451.6	6,528.5	6,451.6	16.4	19.2	90.00	-315.0	825.2	225.1	199.9	25.15	8.947	
6,500.0	6,455.0	6,531.9	6,455.0	16.4	19.2	90.01	-315.0	825.2	225.1	199.9	25.16	8.944	
6,505.9	6,460.8	6,537.7	6,460.8	16.4	19.2	90.03	-315.0	825.2	225.1	199.9	25.17	8.941	
6,550.0	6,504.9	6,581.8	6,504.9	16.4	19.3	90.71	-315.0	825.2	225.1	199.9	25.15	8.950	
6,600.0	6,554.4	6,631.2	6,554.4	16.5	19.3	92.48	-315.0	825.2	225.3	200.4	24.92	9.041	
6,650.0	6,603.0	6,680.4	6,603.6	16.4	19.4	95.21	-314.8	825.2	226.0	201.5	24.53	9.215	
6,700.0	6,650.5	6,731.3	6,654.3	16.4	19.4	98.20	-311.3	825.2	227.5	203.4	24.14	9.427	
6,750.0	6,696.5	6,783.4	6,705.7	16.4	19.4	101.12	-303.0	825.2	229.6	205.8	23.81	9.644	
6,800.0	6,740.5	6,836.8	6,757.4	16.3	19.4	103.95	-289.7	825.2	232.3	208.7	23.56	9.858	
6,850.0	6,782.3	6,891.5	6,808.8	16.3	19.3	106.64	-271.2	825.2	235.4	212.0	23.39	10.065	
6,900.0	6,821.6	6,947.5	6,859.5	16.2	19.3	109.18	-247.2	825.2	238.9	215.6	23.28	10.263	
6,950.0	6,858.1	7,005.0	6,908.7	16.2	19.2	111.54	-217.5	825.2	242.7	219.4	23.22	10.449	
7,000.0	6,891.4	7,063.9	6,955.7	16.2	19.2	113.69	-182.3	825.2	246.5	223.3	23.20	10.623	
7,050.0	6,921.3	7,124.1	6,999.9	16.2	19.2	115.63	-141.4	825.2	250.3	227.1	23.22	10.783	
7,100.0	6,947.7	7,185.6	7,040.4	16.2	19.2	117.33	-95.0	825.2	254.0	230.7	23.25	10.924	
7,150.0	6,970.2	7,248.4	7,076.3	16.3	19.2	118.79	-43.5	825.2	257.3	234.0	23.30	11.042	
7,200.0	6,988.8	7,312.3	7,106.8	16.4	19.3	119.99	12.6	825.2	260.2	236.8	23.39	11.124	
7,250.0	7,003.2	7,377.2	7,131.2	16.6	19.4	120.92	72.6	825.2	262.6	239.0	23.54	11.153	
7,300.0	7,013.5	7,442.7	7,148.8	16.8	19.6	121.58	135.7	825.2	264.3	240.5	23.75	11.129	
7,350.0	7,019.4	7,508.8	7,159.2	17.1	19.8	121.96	201.0	825.2	265.3	241.3	24.03	11.040	
7,393.1	7,021.0	7,565.9	7,162.0	17.3	20.1	122.07	258.0	825.2	265.6	241.2	24.34	10.911	
7,400.0	7,021.0	7,572.8	7,162.0	17.4	20.1	122.07	264.9	825.2	265.6	241.1	24.44	10.867	
7,500.0	7,021.0	7,672.8	7,162.0	18.1	20.7	122.07	364.9	825.2	265.6	239.6	25.99	10.219	
7,600.0	7,021.0	7,772.8	7,162.0	18.9	21.5	122.07	464.9	825.2	265.6	237.8	27.76	9.567	
7,700.0	7,021.0	7,872.8	7,162.0	19.9	22.3	122.07	564.9	825.2	265.6	235.9	29.73	8.934	
7,800.0	7,021.0	7,972.8	7,162.0	20.9	23.3	122.07	664.9	825.2	265.6	233.7	31.85	8.339	
7,900.0	7,021.0	8,072.8	7,162.0	22.1	24.3	122.07	764.9	825.2	265.6	231.5	34.10	7.788	
8,000.0	7,021.0	8,172.8	7,162.0	23.3	25.4	122.07	864.9	825.2	265.6	229.1	36.46	7.284	
8,100.0	7,021.0	8,272.8	7,162.0	24.6	26.6	122.07	964.9	825.2	265.6	226.7	38.90	6.827	
8,200.0	7,021.0	8,372.8	7,162.0	26.0	27.9	122.07	1,064.9	825.2	265.6	224.2	41.41	6.413	
8,300.0	7,021.0	8,472.8	7,162.0	27.4	29.2	122.07	1,164.9	825.2	265.6	221.6	43.99	6.038	
8,400.0	7,021.0	8,572.8	7,162.0	28.8	30.5	122.07	1,264.9	825.2	265.6	219.0	46.61	5.698	
8,500.0	7,021.0	8,672.8	7,162.0	30.3	31.9	122.07	1,364.9	825.2	265.6	216.3	49.27	5.391	
8,600.0	7,021.0	8,772.8	7,162.0	31.8	33.4	122.07	1,464.9	825.2	265.6	213.6	51.96	5.111	
8,700.0	7,021.0	8,872.8	7,162.0	33.3	34.8	122.07	1,564.9	825.2	265.6	210.9	54.69	4.856	

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 4G-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 4G-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
8,800.0	7,021.0	8,972.8	7,162.0	34.8	36.3	122.07	1,664.9	825.2	265.6	208.1	57.44	4.624	
8,900.0	7,021.0	9,072.8	7,162.0	36.4	37.8	122.07	1,764.9	825.2	265.6	205.4	60.21	4.411	
9,000.0	7,021.0	9,172.8	7,162.0	38.0	39.3	122.07	1,864.9	825.2	265.6	202.6	63.00	4.215	
9,100.0	7,021.0	9,272.8	7,162.0	39.6	40.9	122.07	1,964.9	825.2	265.6	199.8	65.81	4.036	
9,200.0	7,021.0	9,372.8	7,162.0	41.2	42.4	122.07	2,064.9	825.2	265.6	197.0	68.64	3.870	
9,300.0	7,021.0	9,472.8	7,162.0	42.8	44.0	122.07	2,164.9	825.2	265.6	194.1	71.47	3.716	
9,400.0	7,021.0	9,572.8	7,162.0	44.4	45.6	122.07	2,264.9	825.2	265.6	191.3	74.32	3.574	
9,500.0	7,021.0	9,672.8	7,162.0	46.1	47.2	122.07	2,364.9	825.2	265.6	188.4	77.17	3.441	
9,600.0	7,021.0	9,772.8	7,162.0	47.7	48.8	122.07	2,464.9	825.2	265.6	185.6	80.04	3.318	
9,700.0	7,021.0	9,872.8	7,162.0	49.4	50.4	122.07	2,564.9	825.2	265.6	182.7	82.91	3.203	
9,800.0	7,021.0	9,972.8	7,162.0	51.0	52.0	122.07	2,664.9	825.2	265.6	179.8	85.80	3.096	
9,900.0	7,021.0	10,072.8	7,162.0	52.7	53.7	122.06	2,764.9	825.2	265.6	176.9	88.68	2.995	
10,000.0	7,021.0	10,172.8	7,162.0	54.4	55.3	122.06	2,864.9	825.2	265.6	174.0	91.58	2.900	
10,100.0	7,021.0	10,272.8	7,162.0	56.0	57.0	122.06	2,964.9	825.2	265.6	171.1	94.48	2.811	
10,200.0	7,021.0	10,372.8	7,162.0	57.7	58.6	122.06	3,064.9	825.2	265.6	168.2	97.38	2.727	
10,300.0	7,021.0	10,472.8	7,162.0	59.4	60.3	122.06	3,164.9	825.2	265.6	165.3	100.29	2.648	
10,400.0	7,021.0	10,572.8	7,162.0	61.1	62.0	122.06	3,264.9	825.2	265.6	162.4	103.20	2.574	
10,500.0	7,021.0	10,672.8	7,162.0	62.8	63.6	122.06	3,364.9	825.2	265.6	159.5	106.12	2.503	
10,600.0	7,021.0	10,772.8	7,162.0	64.5	65.3	122.06	3,464.9	825.2	265.6	156.6	109.04	2.436	
10,700.0	7,021.0	10,872.8	7,162.0	66.2	67.0	122.06	3,564.9	825.2	265.6	153.6	111.96	2.372	
10,800.0	7,021.0	10,972.8	7,162.0	67.9	68.7	122.06	3,664.9	825.2	265.6	150.7	114.89	2.312	
10,900.0	7,021.0	11,072.8	7,162.0	69.6	70.4	122.06	3,764.9	825.2	265.6	147.8	117.82	2.254	
11,000.0	7,021.0	11,172.8	7,162.0	71.3	72.0	122.06	3,864.9	825.2	265.6	144.9	120.75	2.200	
11,100.0	7,021.0	11,272.8	7,162.0	73.0	73.7	122.06	3,964.9	825.2	265.6	141.9	123.68	2.148	
11,200.0	7,021.0	11,372.8	7,162.0	74.7	75.4	122.06	4,064.9	825.2	265.6	139.0	126.62	2.098	
11,300.0	7,021.0	11,472.8	7,162.0	76.4	77.1	122.06	4,164.9	825.2	265.6	136.1	129.55	2.050	
11,400.0	7,021.0	11,572.8	7,162.0	78.2	78.8	122.06	4,264.9	825.2	265.6	133.1	132.49	2.005	
11,500.0	7,021.0	11,672.8	7,162.0	79.9	80.5	122.06	4,364.9	825.2	265.6	130.2	135.43	1.961	
11,600.0	7,021.0	11,772.8	7,162.0	81.6	82.2	122.06	4,464.9	825.2	265.6	127.2	138.38	1.919	
11,628.2	7,021.0	11,801.0	7,162.0	82.1	82.7	122.06	4,493.1	825.2	265.6	126.4	139.21	1.908 SF	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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 4I-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	89.95	0.0	15.1	15.1				
100.0	100.0	100.0	100.0	0.1	0.1	89.95	0.0	15.1	15.1	14.9	0.24	61.807	
200.0	200.0	200.0	200.0	0.3	0.3	89.95	0.0	15.1	15.1	14.5	0.59	25.450	
300.0	300.0	300.0	300.0	0.5	0.5	89.95	0.0	15.1	15.1	14.2	0.94	16.024	CC, ES
400.0	400.0	399.5	399.4	0.6	0.6	91.68	-0.5	16.8	16.8	15.5	1.29	12.979	
500.0	500.0	498.7	498.6	0.8	0.8	-23.33	-2.0	21.7	21.0	19.4	1.64	12.827	
600.0	600.0	597.7	597.2	1.0	1.1	-21.53	-4.5	29.9	27.1	25.1	1.99	13.625	
700.0	699.9	696.4	695.1	1.2	1.3	-20.42	-8.0	41.3	34.9	32.6	2.34	14.940	
800.0	799.7	794.6	792.1	1.4	1.6	-19.78	-12.4	55.8	44.5	41.8	2.69	16.557	
900.0	899.4	892.2	888.0	1.6	2.0	-19.41	-17.7	73.5	55.8	52.8	3.04	18.357	
1,000.0	998.9	990.4	983.8	1.8	2.3	-19.26	-24.0	94.0	68.5	65.1	3.40	20.154	
1,100.0	1,098.3	1,089.7	1,080.6	2.1	2.8	-19.51	-30.4	115.1	80.0	76.2	3.76	21.258	
1,204.7	1,202.0	1,193.9	1,182.2	2.3	3.2	-20.10	-37.2	137.4	90.3	86.2	4.15	21.737	
1,300.0	1,296.4	1,288.8	1,274.7	2.6	3.6	-20.73	-43.4	157.6	98.9	94.4	4.52	21.879	
1,400.0	1,395.4	1,388.4	1,371.8	2.9	4.0	-21.29	-49.8	178.9	107.9	103.0	4.91	21.989	
1,500.0	1,494.4	1,488.0	1,468.9	3.2	4.4	-21.76	-56.3	200.1	116.9	111.6	5.30	22.071	
1,600.0	1,593.5	1,587.6	1,566.0	3.4	4.9	-22.16	-62.8	221.3	125.9	120.2	5.69	22.130	
1,700.0	1,692.5	1,687.2	1,663.0	3.7	5.3	-22.51	-69.2	242.6	134.9	128.8	6.08	22.174	
1,800.0	1,791.5	1,786.8	1,760.1	4.0	5.7	-22.82	-75.7	263.8	144.0	137.5	6.48	22.205	
1,900.0	1,890.5	1,886.3	1,857.2	4.3	6.1	-23.09	-82.2	285.1	153.0	146.1	6.88	22.228	
2,000.0	1,989.5	1,985.9	1,954.3	4.6	6.6	-23.33	-88.6	306.3	162.0	154.7	7.28	22.243	
2,100.0	2,088.5	2,085.5	2,051.4	4.9	7.0	-23.54	-95.1	327.5	171.1	163.4	7.69	22.253	
2,200.0	2,187.6	2,185.1	2,148.5	5.2	7.4	-23.73	-101.6	348.8	180.1	172.0	8.09	22.259	
2,300.0	2,286.6	2,284.7	2,245.5	5.5	7.9	-23.91	-108.0	370.0	189.1	180.6	8.50	22.262	
2,400.0	2,385.6	2,384.3	2,342.6	5.8	8.3	-24.07	-114.5	391.3	198.2	189.3	8.90	22.262	
2,500.0	2,484.6	2,483.9	2,439.7	6.1	8.7	-24.21	-121.0	412.5	207.2	197.9	9.31	22.260	
2,600.0	2,583.6	2,583.5	2,536.8	6.4	9.1	-24.34	-127.4	433.8	216.3	206.5	9.72	22.257	
2,700.0	2,682.6	2,683.1	2,633.9	6.7	9.6	-24.47	-133.9	455.0	225.3	215.2	10.12	22.253	
2,800.0	2,781.6	2,782.6	2,730.9	7.0	10.0	-24.58	-140.3	476.2	234.3	223.8	10.53	22.248	
2,900.0	2,880.7	2,882.2	2,828.0	7.3	10.4	-24.68	-146.8	497.5	243.4	232.5	10.94	22.243	
3,000.0	2,979.7	2,981.8	2,925.1	7.6	10.9	-24.78	-153.3	518.7	252.4	241.1	11.35	22.237	
3,100.0	3,078.7	3,081.4	3,022.2	7.9	11.3	-24.87	-159.7	540.0	261.5	249.7	11.76	22.230	
3,200.0	3,177.7	3,181.0	3,119.3	8.2	11.7	-24.95	-166.2	561.2	270.5	258.4	12.17	22.224	
3,300.0	3,276.7	3,280.6	3,216.4	8.5	12.2	-25.03	-172.7	582.5	279.6	267.0	12.58	22.217	
3,400.0	3,375.7	3,380.2	3,313.4	8.8	12.6	-25.11	-179.1	603.7	288.6	275.6	13.00	22.210	
3,500.0	3,474.8	3,479.8	3,410.5	9.1	13.0	-25.18	-185.6	624.9	297.7	284.3	13.41	22.203	
3,600.0	3,573.8	3,579.4	3,507.6	9.4	13.5	-25.24	-192.1	646.2	306.7	292.9	13.82	22.196	
3,700.0	3,672.8	3,678.9	3,604.7	9.7	13.9	-25.30	-198.5	667.4	315.8	301.6	14.23	22.189	
3,800.0	3,771.8	3,778.5	3,701.8	10.0	14.3	-25.36	-205.0	688.7	324.8	310.2	14.64	22.183	
3,900.0	3,870.8	3,878.1	3,798.9	10.3	14.8	-25.41	-211.5	709.9	333.9	318.8	15.06	22.176	
4,000.0	3,969.8	3,977.7	3,895.9	10.6	15.2	-25.47	-217.9	731.2	342.9	327.5	15.47	22.169	
4,100.0	4,068.8	4,077.3	3,993.0	10.9	15.6	-25.52	-224.4	752.4	352.0	336.1	15.88	22.163	
4,200.0	4,167.9	4,176.9	4,090.1	11.2	16.0	-25.56	-230.9	773.6	361.0	344.8	16.30	22.156	
4,300.0	4,266.9	4,276.5	4,187.2	11.5	16.5	-25.61	-237.3	794.9	370.1	353.4	16.71	22.150	
4,400.0	4,365.9	4,376.1	4,284.3	11.8	16.9	-25.65	-243.8	816.1	379.2	362.0	17.12	22.144	
4,500.0	4,464.9	4,475.7	4,381.3	12.1	17.3	-25.69	-250.3	837.4	388.2	370.7	17.54	22.138	
4,600.0	4,563.9	4,575.2	4,478.4	12.4	17.8	-25.73	-256.7	858.6	397.3	379.3	17.95	22.132	
4,700.0	4,662.9	4,674.8	4,575.5	12.7	18.2	-25.76	-263.2	879.9	406.3	387.9	18.36	22.126	
4,800.0	4,762.0	4,774.4	4,672.6	13.0	18.6	-25.80	-269.7	901.1	415.4	396.6	18.78	22.120	
4,900.0	4,861.0	4,877.7	4,773.4	13.3	19.1	-25.84	-276.3	922.9	424.2	405.0	19.20	22.094	
5,000.0	4,960.0	4,985.2	4,878.5	13.6	19.5	-25.95	-282.7	944.0	431.5	411.8	19.64	21.971	
5,100.0	5,059.0	5,092.9	4,984.4	13.9	19.9	-26.12	-288.6	963.2	437.0	416.9	20.09	21.750	

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 4G-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 4G-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 4I-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
5,200.0	5,158.0	5,200.8	5,090.7	14.2	20.2	-26.36	-293.8	980.5	440.6	420.1	20.55	21.438	
5,240.3	5,198.0	5,244.3	5,133.7	14.3	20.4	-26.47	-295.8	987.0	441.6	420.9	20.74	21.288	
5,300.0	5,257.1	5,308.8	5,197.5	14.5	20.6	-26.65	-298.5	996.0	442.8	421.7	21.02	21.064	
5,400.0	5,356.3	5,416.8	5,304.5	14.7	20.9	-26.91	-302.7	1,009.5	444.5	423.1	21.46	20.711	
5,500.0	5,455.8	5,524.8	5,411.9	15.0	21.1	-27.14	-306.2	1,021.1	446.1	424.2	21.89	20.381	
5,600.0	5,555.4	5,632.9	5,519.5	15.2	21.3	-27.33	-309.1	1,030.7	447.3	425.1	22.29	20.072	
5,700.0	5,655.2	5,740.9	5,627.3	15.4	21.5	-27.47	-311.5	1,038.4	448.4	425.7	22.66	19.782	
5,800.0	5,755.1	5,849.0	5,735.2	15.6	21.7	-27.59	-313.2	1,044.1	449.1	426.1	23.02	19.510	
5,900.0	5,855.0	5,957.2	5,843.2	15.7	21.8	-27.66	-314.4	1,048.0	449.6	426.3	23.35	19.253	
6,000.0	5,955.0	6,065.3	5,951.3	15.8	21.9	-27.69	-314.9	1,049.8	449.9	426.2	23.66	19.011	
6,045.0	6,000.0	6,114.0	6,000.0	15.9	22.0	90.00	-315.0	1,050.0	449.9	426.1	23.80	18.905	
6,100.0	6,055.0	6,168.9	6,055.0	15.9	22.0	90.00	-315.0	1,050.0	449.9	425.9	23.97	18.770	
6,200.0	6,155.0	6,268.9	6,155.0	16.1	22.1	90.00	-315.0	1,050.0	449.9	425.6	24.28	18.530	
6,300.0	6,255.0	6,368.9	6,255.0	16.2	22.2	90.00	-315.0	1,050.0	449.9	425.3	24.59	18.295	
6,400.0	6,355.0	6,468.9	6,355.0	16.3	22.3	90.00	-315.0	1,050.0	449.9	425.0	24.90	18.065	
6,425.0	6,380.0	6,493.9	6,380.0	16.3	22.3	89.93	-314.4	1,050.0	449.9	424.9	24.99	18.004	
6,493.1	6,448.0	6,561.2	6,446.8	16.4	22.3	89.06	-307.6	1,050.0	450.0	424.6	25.32	17.769	
6,500.0	6,455.0	6,567.9	6,453.5	16.4	22.3	88.92	-306.5	1,050.0	450.0	424.6	25.36	17.741	
6,550.0	6,504.9	6,616.2	6,500.7	16.4	22.3	87.92	-296.2	1,050.0	450.2	424.6	25.61	17.577	
6,600.0	6,554.4	6,663.9	6,546.3	16.5	22.3	86.94	-282.1	1,050.0	450.6	424.8	25.79	17.470	
6,650.0	6,603.0	6,711.1	6,590.0	16.4	22.3	86.00	-264.6	1,050.0	451.0	425.1	25.89	17.419	
6,700.0	6,650.5	6,757.6	6,631.6	16.4	22.2	85.08	-243.8	1,050.0	451.6	425.7	25.92	17.424	
6,750.0	6,696.5	6,803.7	6,671.1	16.4	22.2	84.21	-220.0	1,050.0	452.3	426.4	25.87	17.480	
6,800.0	6,740.5	6,850.0	6,708.6	16.3	22.2	83.37	-192.9	1,050.0	453.0	427.2	25.77	17.581	
6,850.0	6,782.3	6,894.6	6,742.6	16.3	22.1	82.61	-164.1	1,050.0	453.7	428.1	25.61	17.717	
6,900.0	6,821.6	6,939.4	6,774.4	16.2	22.1	81.88	-132.5	1,050.0	454.5	429.1	25.43	17.876	
6,950.0	6,858.1	6,983.9	6,803.4	16.2	22.1	81.22	-98.8	1,050.0	455.3	430.1	25.23	18.042	
7,000.0	6,891.4	7,028.1	6,829.6	16.2	22.1	80.62	-63.1	1,050.0	456.1	431.0	25.06	18.196	
7,050.0	6,921.3	7,072.0	6,852.8	16.2	22.1	80.08	-25.9	1,050.0	456.8	431.9	24.92	18.329	
7,100.0	6,947.7	7,115.7	6,872.9	16.2	22.2	79.61	12.9	1,050.0	457.4	432.5	24.92	18.354	
7,150.0	6,970.2	7,159.2	6,890.0	16.3	22.3	79.21	52.9	1,050.0	458.0	433.0	24.99	18.330	
7,200.0	6,988.8	7,200.0	6,903.3	16.4	22.3	78.90	91.4	1,050.0	458.5	433.3	25.18	18.209	
7,250.0	7,003.2	7,245.8	6,914.8	16.6	22.5	78.63	135.7	1,050.0	458.9	433.4	25.55	17.961	
7,300.0	7,013.5	7,288.9	6,922.4	16.8	22.6	78.45	178.1	1,050.0	459.2	433.1	26.07	17.612	
7,350.0	7,019.4	7,331.9	6,926.8	17.1	22.7	78.35	220.9	1,050.0	459.4	432.6	26.75	17.170	
7,393.1	7,021.0	7,369.0	6,928.0	17.3	22.9	78.32	258.0	1,050.0	459.4	432.0	27.46	16.733	
7,393.1	7,021.0	7,369.0	6,928.0	17.3	22.9	78.32	258.0	1,050.0	459.4	432.0	27.46	16.733	
7,400.0	7,021.0	7,375.9	6,928.0	17.4	22.9	78.32	264.9	1,050.0	459.4	431.9	27.56	16.667	
7,500.0	7,021.0	7,475.9	6,928.0	18.1	23.5	78.32	364.9	1,050.0	459.4	430.1	29.29	15.685	
7,600.0	7,021.0	7,575.9	6,928.0	18.9	24.1	78.32	464.9	1,050.0	459.4	428.1	31.29	14.685	
7,700.0	7,021.0	7,675.9	6,928.0	19.9	24.8	78.32	564.9	1,050.0	459.4	425.9	33.52	13.707	
7,800.0	7,021.0	7,775.9	6,928.0	20.9	25.7	78.32	664.9	1,050.0	459.4	423.5	35.94	12.784	
7,900.0	7,021.0	7,875.9	6,928.0	22.1	26.6	78.32	764.9	1,050.0	459.4	420.9	38.51	11.929	
8,000.0	7,021.0	7,975.9	6,928.0	23.3	27.6	78.32	864.9	1,050.0	459.4	418.2	41.22	11.147	
8,100.0	7,021.0	8,075.9	6,928.0	24.6	28.7	78.32	964.9	1,050.0	459.4	415.4	44.02	10.436	
8,200.0	7,021.0	8,175.9	6,928.0	26.0	29.9	78.32	1,064.9	1,050.0	459.4	412.5	46.91	9.794	
8,300.0	7,021.0	8,275.9	6,928.0	27.4	31.1	78.32	1,164.9	1,050.0	459.4	409.5	49.87	9.213	
8,400.0	7,021.0	8,375.9	6,928.0	28.8	32.4	78.32	1,264.9	1,050.0	459.4	406.5	52.88	8.687	
8,500.0	7,021.0	8,475.9	6,928.0	30.3	33.7	78.32	1,364.9	1,050.0	459.4	403.5	55.95	8.211	
8,600.0	7,021.0	8,575.9	6,928.0	31.8	35.0	78.32	1,464.9	1,050.0	459.4	400.4	59.05	7.780	
8,700.0	7,021.0	8,675.9	6,928.0	33.3	36.4	78.32	1,564.9	1,050.0	459.4	397.2	62.20	7.387	
8,800.0	7,021.0	8,775.9	6,928.0	34.8	37.8	78.32	1,664.9	1,050.0	459.4	394.1	65.37	7.028	

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 4G-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 4G-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 4I-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	7,021.0	8,875.9	6,928.0	36.4	39.3	78.32	1,764.9	1,050.0	459.4	390.9	68.56	6.701	
9,000.0	7,021.0	8,975.9	6,928.0	38.0	40.7	78.32	1,864.9	1,050.0	459.4	387.6	71.78	6.400	
9,100.0	7,021.0	9,075.9	6,928.0	39.6	42.2	78.32	1,964.9	1,050.0	459.4	384.4	75.02	6.124	
9,200.0	7,021.0	9,175.9	6,928.0	41.2	43.7	78.32	2,064.9	1,050.0	459.4	381.1	78.27	5.870	
9,300.0	7,021.0	9,275.9	6,928.0	42.8	45.2	78.32	2,164.9	1,050.0	459.4	377.9	81.54	5.634	
9,400.0	7,021.0	9,375.9	6,928.0	44.4	46.8	78.32	2,264.9	1,050.0	459.4	374.6	84.82	5.416	
9,500.0	7,021.0	9,475.9	6,928.0	46.1	48.3	78.32	2,364.9	1,050.0	459.4	371.3	88.12	5.214	
9,600.0	7,021.0	9,575.9	6,928.0	47.7	49.9	78.32	2,464.9	1,050.0	459.4	368.0	91.42	5.025	
9,700.0	7,021.0	9,675.9	6,928.0	49.4	51.5	78.32	2,564.9	1,050.0	459.4	364.7	94.74	4.849	
9,800.0	7,021.0	9,775.9	6,928.0	51.0	53.1	78.32	2,664.9	1,050.0	459.4	361.4	98.06	4.685	
9,900.0	7,021.0	9,875.9	6,928.0	52.7	54.7	78.32	2,764.9	1,050.0	459.4	358.0	101.39	4.531	
10,000.0	7,021.0	9,975.9	6,928.0	54.4	56.3	78.32	2,864.9	1,050.0	459.4	354.7	104.73	4.387	
10,100.0	7,021.0	10,075.9	6,928.0	56.0	57.9	78.32	2,964.9	1,050.0	459.4	351.3	108.07	4.251	
10,200.0	7,021.0	10,175.9	6,928.0	57.7	59.6	78.32	3,064.9	1,050.0	459.4	348.0	111.42	4.123	
10,300.0	7,021.0	10,275.9	6,928.0	59.4	61.2	78.32	3,164.9	1,050.0	459.4	344.6	114.77	4.003	
10,400.0	7,021.0	10,375.9	6,928.0	61.1	62.8	78.32	3,264.9	1,050.0	459.4	341.3	118.13	3.889	
10,500.0	7,021.0	10,475.9	6,928.0	62.8	64.5	78.32	3,364.9	1,050.0	459.4	337.9	121.50	3.781	
10,600.0	7,021.0	10,575.9	6,928.0	64.5	66.1	78.32	3,464.9	1,050.0	459.4	334.6	124.86	3.679	
10,700.0	7,021.0	10,675.9	6,928.0	66.2	67.8	78.32	3,564.9	1,050.0	459.4	331.2	128.23	3.583	
10,800.0	7,021.0	10,775.9	6,928.0	67.9	69.5	78.32	3,664.9	1,050.0	459.4	327.8	131.61	3.491	
10,900.0	7,021.0	10,875.9	6,928.0	69.6	71.1	78.32	3,764.9	1,050.0	459.4	324.4	134.99	3.403	
11,000.0	7,021.0	10,975.9	6,928.0	71.3	72.8	78.32	3,864.9	1,050.0	459.4	321.1	138.37	3.320	
11,100.0	7,021.0	11,075.9	6,928.0	73.0	74.5	78.32	3,964.9	1,050.0	459.4	317.7	141.75	3.241	
11,200.0	7,021.0	11,175.9	6,928.0	74.7	76.1	78.32	4,064.9	1,050.0	459.4	314.3	145.13	3.165	
11,300.0	7,021.0	11,275.9	6,928.0	76.4	77.8	78.32	4,164.9	1,050.0	459.4	310.9	148.52	3.093	
11,400.0	7,021.0	11,375.9	6,928.0	78.2	79.5	78.32	4,264.9	1,050.0	459.4	307.5	151.91	3.024	
11,500.0	7,021.0	11,475.9	6,928.0	79.9	81.2	78.32	4,364.9	1,050.0	459.4	304.1	155.30	2.958	
11,600.0	7,021.0	11,575.9	6,928.0	81.6	82.9	78.32	4,464.9	1,050.0	459.4	300.7	158.70	2.895	
11,628.2	7,021.0	11,604.1	6,928.0	82.1	83.4	78.32	4,493.1	1,050.0	459.4	299.8	159.65	2.878	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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	90.93	-0.4	22.4	22.4				
100.0	100.0	99.0	99.0	0.1	0.1	90.93	-0.4	22.4	22.4	22.1	0.24	92.038	
200.0	200.0	199.0	199.0	0.3	0.3	90.93	-0.4	22.4	22.4	21.8	0.59	37.820	
234.7	234.7	233.7	233.7	0.4	0.4	90.93	-0.4	22.4	22.4	21.7	0.71	31.398	CC, ES
300.0	300.0	298.6	298.6	0.5	0.5	91.17	-0.5	22.8	22.8	21.8	0.94	24.230	
400.0	400.0	397.7	397.7	0.6	0.7	92.84	-1.3	26.1	26.1	24.8	1.29	20.214	
500.0	500.0	496.6	496.3	0.8	0.9	-23.10	-3.0	32.7	32.1	30.5	1.64	19.624	
600.0	600.0	595.1	594.2	1.0	1.1	-22.11	-5.4	42.5	39.9	37.9	1.98	20.099	
700.0	699.9	693.1	691.3	1.2	1.4	-21.61	-8.7	55.5	49.4	47.1	2.33	21.184	
800.0	799.7	790.6	787.4	1.4	1.7	-21.43	-12.8	71.7	60.7	58.0	2.68	22.625	
900.0	899.4	887.5	882.2	1.6	2.1	-21.41	-17.6	90.9	73.7	70.7	3.04	24.280	
1,000.0	998.9	984.1	976.1	1.8	2.5	-21.50	-23.2	113.1	88.4	85.0	3.39	26.052	
1,100.0	1,098.3	1,083.1	1,072.0	2.1	2.9	-21.81	-29.2	137.0	102.7	99.0	3.76	27.309	
1,204.7	1,202.0	1,186.9	1,172.5	2.3	3.4	-22.39	-35.5	162.0	116.0	111.9	4.16	27.904	
1,300.0	1,296.4	1,281.5	1,264.2	2.6	3.9	-23.01	-41.2	184.9	127.3	122.8	4.53	28.122	
1,400.0	1,395.4	1,380.8	1,360.3	2.9	4.3	-23.55	-47.3	208.8	139.2	134.3	4.92	28.292	
1,500.0	1,494.4	1,480.1	1,456.5	3.2	4.8	-24.01	-53.3	232.8	151.1	145.7	5.32	28.418	
1,600.0	1,593.5	1,579.4	1,552.7	3.4	5.3	-24.40	-59.3	256.8	162.9	157.2	5.72	28.511	
1,700.0	1,692.5	1,678.7	1,648.8	3.7	5.7	-24.74	-65.3	280.8	174.8	168.7	6.12	28.580	
1,800.0	1,791.5	1,778.0	1,745.0	4.0	6.2	-25.03	-71.4	304.7	186.7	180.2	6.52	28.631	
1,900.0	1,890.5	1,877.3	1,841.1	4.3	6.7	-25.29	-77.4	328.7	198.6	191.7	6.93	28.669	
2,000.0	1,989.5	1,976.5	1,937.3	4.6	7.2	-25.52	-83.4	352.7	210.5	203.2	7.34	28.696	
2,100.0	2,088.5	2,075.8	2,033.5	4.9	7.6	-25.72	-89.4	376.6	222.4	214.7	7.75	28.715	
2,200.0	2,187.6	2,175.1	2,129.6	5.2	8.1	-25.90	-95.5	400.6	234.4	226.2	8.16	28.727	
2,300.0	2,286.6	2,274.4	2,225.8	5.5	8.6	-26.07	-101.5	424.6	246.3	237.7	8.57	28.735	
2,400.0	2,385.6	2,373.7	2,321.9	5.8	9.0	-26.22	-107.5	448.5	258.2	249.2	8.98	28.739	
2,500.0	2,484.6	2,473.0	2,418.1	6.1	9.5	-26.36	-113.6	472.5	270.1	260.7	9.40	28.741	
2,600.0	2,583.6	2,572.3	2,514.3	6.4	10.0	-26.48	-119.6	496.5	282.0	272.2	9.81	28.740	
2,700.0	2,682.6	2,671.5	2,610.4	6.7	10.5	-26.60	-125.6	520.5	293.9	283.7	10.23	28.737	
2,800.0	2,781.6	2,770.8	2,706.6	7.0	10.9	-26.71	-131.6	544.4	305.9	295.2	10.64	28.733	
2,900.0	2,880.7	2,870.1	2,802.7	7.3	11.4	-26.81	-137.7	568.4	317.8	306.7	11.06	28.728	
3,000.0	2,979.7	2,969.4	2,898.9	7.6	11.9	-26.90	-143.7	592.4	329.7	318.2	11.48	28.722	
3,100.0	3,078.7	3,068.7	2,995.1	7.9	12.4	-26.98	-149.7	616.3	341.6	329.7	11.90	28.715	
3,200.0	3,177.7	3,168.0	3,091.2	8.2	12.8	-27.06	-155.7	640.3	353.5	341.2	12.31	28.708	
3,300.0	3,276.7	3,267.3	3,187.4	8.5	13.3	-27.14	-161.8	664.3	365.5	352.7	12.73	28.701	
3,400.0	3,375.7	3,366.5	3,283.5	8.8	13.8	-27.21	-167.8	688.2	377.4	364.2	13.15	28.693	
3,500.0	3,474.8	3,465.8	3,379.7	9.1	14.3	-27.27	-173.8	712.2	389.3	375.7	13.57	28.685	
3,600.0	3,573.8	3,565.1	3,475.9	9.4	14.7	-27.33	-179.9	736.2	401.2	387.2	13.99	28.677	
3,700.0	3,672.8	3,664.4	3,572.0	9.7	15.2	-27.39	-185.9	760.2	413.2	398.7	14.41	28.670	
3,800.0	3,771.8	3,763.7	3,668.2	10.0	15.7	-27.44	-191.9	784.1	425.1	410.3	14.83	28.662	
3,900.0	3,870.8	3,863.0	3,764.3	10.3	16.2	-27.50	-197.9	808.1	437.0	421.8	15.25	28.654	
4,000.0	3,969.8	3,962.3	3,860.5	10.6	16.7	-27.54	-204.0	832.1	448.9	433.3	15.67	28.646	
4,100.0	4,068.8	4,061.5	3,956.7	10.9	17.1	-27.59	-210.0	856.0	460.9	444.8	16.09	28.638	
4,200.0	4,167.9	4,160.8	4,052.8	11.2	17.6	-27.63	-216.0	880.0	472.8	456.3	16.51	28.631	
4,300.0	4,266.9	4,260.1	4,149.0	11.5	18.1	-27.68	-222.0	904.0	484.7	467.8	16.93	28.623	
4,400.0	4,365.9	4,359.4	4,245.1	11.8	18.6	-27.72	-228.1	927.9	496.6	479.3	17.36	28.616	
4,500.0	4,464.9	4,458.7	4,341.3	12.1	19.0	-27.75	-234.1	951.9	508.6	490.8	17.78	28.609	
4,600.0	4,563.9	4,558.0	4,437.5	12.4	19.5	-27.79	-240.1	975.9	520.5	502.3	18.20	28.602	
4,700.0	4,662.9	4,657.3	4,533.6	12.7	20.0	-27.83	-246.2	999.9	532.4	513.8	18.62	28.595	
4,800.0	4,762.0	4,756.5	4,629.8	13.0	20.5	-27.86	-252.2	1,023.8	544.4	525.3	19.04	28.588	
4,900.0	4,861.0	4,855.8	4,725.9	13.3	20.9	-27.89	-258.2	1,047.8	556.3	536.8	19.46	28.581	
5,000.0	4,960.0	4,955.1	4,822.1	13.6	21.4	-27.92	-264.2	1,071.8	568.2	548.3	19.89	28.575	

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 4G-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 4G-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
5,100.0	5,059.0	5,054.4	4,918.3	13.9	21.9	-27.95	-270.3	1,095.7	580.1	559.8	20.31	28.568	
5,200.0	5,158.0	5,153.7	5,014.4	14.2	22.4	-27.98	-276.3	1,119.7	592.1	571.3	20.73	28.562	
5,240.3	5,198.0	5,193.7	5,053.2	14.3	22.6	-27.99	-278.7	1,129.4	596.9	576.0	20.90	28.560	
5,300.0	5,257.1	5,252.9	5,110.5	14.5	22.8	-28.03	-282.3	1,143.7	604.3	583.1	21.15	28.575	
5,400.0	5,356.3	5,352.0	5,206.5	14.7	23.3	-28.03	-288.3	1,167.6	617.9	596.3	21.54	28.687	
5,500.0	5,455.8	5,455.2	5,306.4	15.0	23.8	-27.97	-294.6	1,192.4	632.9	611.0	21.91	28.891	
5,600.0	5,555.4	5,581.5	5,429.7	15.2	24.3	-27.86	-301.4	1,219.5	646.8	624.5	22.29	29.015	
5,700.0	5,655.2	5,709.0	5,555.2	15.4	24.7	-27.78	-306.9	1,241.4	658.0	635.3	22.66	29.032	
5,800.0	5,755.1	5,837.5	5,682.4	15.6	25.1	-27.72	-311.1	1,258.0	666.4	643.3	23.02	28.946	
5,900.0	5,855.0	5,966.6	5,811.0	15.7	25.3	-27.69	-313.8	1,269.0	671.9	648.6	23.36	28.758	
6,000.0	5,955.0	6,096.0	5,940.4	15.8	25.4	-27.67	-315.2	1,274.5	674.7	651.0	23.70	28.472	
6,045.0	6,000.0	6,154.4	5,998.7	15.9	25.5	90.03	-315.4	1,275.1	675.0	651.1	23.84	28.310	
6,100.0	6,055.0	6,209.7	6,054.0	15.9	25.5	90.03	-315.4	1,275.1	675.0	651.0	24.01	28.109	
6,200.0	6,155.0	6,309.7	6,154.0	16.1	25.6	90.03	-315.4	1,275.1	675.0	650.6	24.32	27.749	
6,300.0	6,255.0	6,409.7	6,254.0	16.2	25.7	90.03	-315.4	1,275.1	675.0	650.3	24.64	27.397	
6,400.0	6,355.0	6,509.7	6,354.0	16.3	25.8	90.03	-315.4	1,275.1	675.0	650.0	24.95	27.053	
6,462.0	6,417.0	6,571.7	6,416.0	16.4	25.8	90.03	-315.4	1,275.1	675.0	649.8	25.14	26.843	
6,493.1	6,448.0	6,602.7	6,447.0	16.4	25.8	90.03	-315.4	1,275.1	675.0	649.7	25.24	26.740	
6,500.0	6,455.0	6,609.7	6,454.0	16.4	25.8	90.03	-315.3	1,275.1	675.0	649.7	25.26	26.722	
6,550.0	6,504.9	6,659.7	6,503.9	16.4	25.8	90.03	-312.5	1,275.1	675.0	649.6	25.34	26.634	
6,600.0	6,554.4	6,709.7	6,553.4	16.5	25.9	90.03	-305.4	1,275.1	675.0	649.6	25.37	26.610	
6,650.0	6,603.0	6,759.8	6,602.1	16.4	25.8	90.03	-294.0	1,275.1	675.0	649.6	25.34	26.642	
6,700.0	6,650.5	6,809.8	6,649.6	16.4	25.8	90.03	-278.4	1,275.1	675.0	649.7	25.26	26.720	
6,750.0	6,696.5	6,859.8	6,695.6	16.4	25.8	90.03	-258.6	1,275.1	675.0	649.8	25.15	26.833	
6,800.0	6,740.5	6,909.9	6,739.7	16.3	25.8	90.03	-235.0	1,275.1	675.0	649.9	25.03	26.967	
6,850.0	6,782.3	6,959.9	6,781.5	16.3	25.7	90.03	-207.6	1,275.1	675.0	650.1	24.90	27.105	
6,900.0	6,821.6	7,009.9	6,820.8	16.2	25.7	90.02	-176.7	1,275.1	675.0	650.2	24.79	27.227	
6,950.0	6,858.1	7,059.9	6,857.2	16.2	25.7	90.02	-142.4	1,275.1	675.0	650.3	24.71	27.314	
7,000.0	6,891.4	7,110.0	6,890.6	16.2	25.7	90.02	-105.1	1,275.1	675.0	650.3	24.68	27.344	
7,050.0	6,921.3	7,160.0	6,920.5	16.2	25.7	90.02	-65.1	1,275.1	675.0	650.2	24.73	27.297	
7,100.0	6,947.7	7,210.0	6,946.8	16.2	25.7	90.02	-22.6	1,275.1	675.0	650.1	24.85	27.159	
7,150.0	6,970.2	7,260.0	6,969.3	16.3	25.7	90.01	22.1	1,275.1	675.0	649.9	25.08	26.917	
7,200.0	6,988.8	7,310.0	6,987.9	16.4	25.8	90.01	68.5	1,275.1	675.0	649.6	25.41	26.568	
7,250.0	7,003.2	7,360.0	7,002.3	16.6	25.9	90.01	116.4	1,275.1	675.0	649.1	25.85	26.116	
7,300.0	7,013.5	7,410.0	7,012.5	16.8	26.0	90.01	165.3	1,275.1	675.0	648.6	26.40	25.572	
7,350.0	7,019.4	7,460.0	7,018.4	17.1	26.2	90.00	214.9	1,275.1	675.0	647.9	27.05	24.952	
7,393.1	7,021.0	7,503.1	7,020.0	17.3	26.3	90.00	258.0	1,275.1	675.0	647.3	27.69	24.377	
7,400.0	7,021.0	7,510.0	7,020.0	17.4	26.4	90.00	264.9	1,275.1	675.0	647.2	27.80	24.276	
7,500.0	7,021.0	7,610.0	7,020.0	18.1	26.8	90.00	364.9	1,275.1	675.0	645.4	29.56	22.831	
7,600.0	7,021.0	7,710.0	7,020.0	18.9	27.4	90.00	464.9	1,275.1	675.0	643.4	31.62	21.349	
7,700.0	7,021.0	7,810.0	7,020.0	19.9	28.0	90.00	564.9	1,275.1	675.0	641.1	33.91	19.907	
7,800.0	7,021.0	7,910.0	7,020.0	20.9	28.8	90.00	664.9	1,275.1	675.0	638.6	36.39	18.547	
7,900.0	7,021.0	8,010.0	7,020.0	22.1	29.6	90.00	764.9	1,275.1	675.0	635.9	39.04	17.292	
8,000.0	7,021.0	8,110.0	7,020.0	23.3	30.5	90.00	864.9	1,275.1	675.0	633.2	41.81	16.146	
8,100.0	7,021.0	8,210.0	7,020.0	24.6	31.5	90.00	964.9	1,275.1	675.0	630.3	44.68	15.107	
8,200.0	7,021.0	8,310.0	7,020.0	26.0	32.5	90.00	1,064.9	1,275.1	675.0	627.3	47.64	14.169	
8,300.0	7,021.0	8,410.0	7,020.0	27.4	33.6	90.00	1,164.9	1,275.1	675.0	624.3	50.67	13.321	
8,400.0	7,021.0	8,510.0	7,020.0	28.8	34.8	90.00	1,264.9	1,275.1	675.0	621.2	53.76	12.556	
8,500.0	7,021.0	8,610.0	7,020.0	30.3	36.0	90.00	1,364.9	1,275.1	675.0	618.1	56.89	11.864	
8,600.0	7,021.0	8,710.0	7,020.0	31.8	37.3	90.00	1,464.9	1,275.1	675.0	614.9	60.07	11.237	
8,700.0	7,021.0	8,810.0	7,020.0	33.3	38.6	90.00	1,564.9	1,275.1	675.0	611.7	63.28	10.666	
8,800.0	7,021.0	8,910.0	7,020.0	34.8	39.9	90.00	1,664.9	1,275.1	675.0	608.5	66.53	10.146	

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 4G-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 4G-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
8,900.0	7,021.0	9,010.0	7,020.0	36.4	41.3	90.00	1,764.9	1,275.1	675.0	605.2	69.79	9.671	
9,000.0	7,021.0	9,110.0	7,020.0	38.0	42.7	90.00	1,864.9	1,275.1	675.0	601.9	73.08	9.236	
9,100.0	7,021.0	9,210.0	7,020.0	39.6	44.1	90.00	1,964.9	1,275.1	675.0	598.6	76.39	8.836	
9,200.0	7,021.0	9,310.0	7,020.0	41.2	45.5	90.00	2,064.9	1,275.1	675.0	595.3	79.72	8.467	
9,300.0	7,021.0	9,410.0	7,020.0	42.8	47.0	90.00	2,164.9	1,275.1	675.0	591.9	83.06	8.126	
9,400.0	7,021.0	9,510.0	7,020.0	44.4	48.5	90.00	2,264.9	1,275.1	675.0	588.6	86.42	7.811	
9,500.0	7,021.0	9,610.0	7,020.0	46.1	50.0	90.00	2,364.9	1,275.1	675.0	585.2	89.78	7.518	
9,600.0	7,021.0	9,710.0	7,020.0	47.7	51.5	90.00	2,464.9	1,275.1	675.0	581.8	93.16	7.245	
9,700.0	7,021.0	9,810.0	7,020.0	49.4	53.1	90.00	2,564.9	1,275.1	675.0	578.4	96.55	6.991	
9,800.0	7,021.0	9,910.0	7,020.0	51.0	54.6	90.00	2,664.9	1,275.1	675.0	575.1	99.94	6.754	
9,900.0	7,021.0	10,010.0	7,020.0	52.7	56.2	90.00	2,764.9	1,275.1	675.0	571.6	103.34	6.532	
10,000.0	7,021.0	10,110.0	7,020.0	54.4	57.7	90.00	2,864.9	1,275.1	675.0	568.2	106.75	6.323	
10,100.0	7,021.0	10,210.0	7,020.0	56.0	59.3	90.00	2,964.9	1,275.1	675.0	564.8	110.17	6.127	
10,200.0	7,021.0	10,310.0	7,020.0	57.7	60.9	90.00	3,064.9	1,275.1	675.0	561.4	113.59	5.942	
10,300.0	7,021.0	10,410.0	7,020.0	59.4	62.5	90.00	3,164.9	1,275.1	675.0	558.0	117.02	5.768	
10,400.0	7,021.0	10,510.0	7,020.0	61.1	64.1	90.00	3,264.9	1,275.1	675.0	554.5	120.45	5.604	
10,500.0	7,021.0	10,610.0	7,020.0	62.8	65.7	90.00	3,364.9	1,275.1	675.0	551.1	123.88	5.449	
10,600.0	7,021.0	10,710.0	7,020.0	64.5	67.4	90.00	3,464.9	1,275.1	675.0	547.7	127.32	5.302	
10,700.0	7,021.0	10,810.0	7,020.0	66.2	69.0	90.00	3,564.9	1,275.1	675.0	544.2	130.76	5.162	
10,800.0	7,021.0	10,910.0	7,020.0	67.9	70.6	90.00	3,664.9	1,275.1	675.0	540.8	134.21	5.029	
10,900.0	7,021.0	11,010.0	7,020.0	69.6	72.3	90.00	3,764.9	1,275.1	675.0	537.3	137.66	4.903	
11,000.0	7,021.0	11,110.0	7,020.0	71.3	73.9	90.00	3,864.9	1,275.1	675.0	533.9	141.11	4.783	
11,100.0	7,021.0	11,210.0	7,020.0	73.0	75.6	90.00	3,964.9	1,275.1	675.0	530.4	144.57	4.669	
11,200.0	7,021.0	11,310.0	7,020.0	74.7	77.2	90.00	4,064.9	1,275.1	675.0	527.0	148.02	4.560	
11,300.0	7,021.0	11,410.0	7,020.0	76.4	78.9	90.00	4,164.9	1,275.1	675.0	523.5	151.48	4.456	
11,400.0	7,021.0	11,510.0	7,020.0	78.2	80.5	90.00	4,264.9	1,275.1	675.0	520.1	154.95	4.356	
11,500.0	7,021.0	11,610.0	7,020.0	79.9	82.2	90.00	4,364.9	1,275.1	675.0	516.6	158.41	4.261	
11,600.0	7,021.0	11,710.0	7,020.0	81.6	83.9	90.00	4,464.9	1,275.1	675.0	513.1	161.88	4.170	
11,628.2	7,021.0	11,738.2	7,020.0	82.1	84.3	90.00	4,493.1	1,275.1	675.0	512.2	162.85	4.145 SF	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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	90.67	-0.4	29.9	29.9				
100.0	100.0	99.0	99.0	0.1	0.1	90.67	-0.4	29.9	29.9	29.7	0.24	123.093	
200.0	200.0	199.0	199.0	0.3	0.3	90.67	-0.4	29.9	29.9	29.3	0.59	50.581	CC, ES
300.0	300.0	298.0	297.9	0.5	0.5	91.28	-0.7	31.6	31.6	30.6	0.94	33.558	
400.0	400.0	396.7	396.5	0.6	0.7	92.77	-1.8	36.5	36.7	35.3	1.30	28.157	
500.0	500.0	495.0	494.5	0.8	0.9	-23.59	-3.5	44.8	44.3	42.7	1.63	27.137	
600.0	600.0	592.9	591.7	1.0	1.1	-22.91	-6.0	56.2	53.8	51.8	1.98	27.164	
700.0	699.9	690.3	687.9	1.2	1.5	-22.63	-9.1	70.8	65.1	62.7	2.33	27.931	
800.0	799.7	787.0	782.9	1.4	1.8	-22.61	-12.9	88.5	78.0	75.4	2.68	29.128	
900.0	899.4	883.1	876.6	1.6	2.2	-22.73	-17.3	109.2	92.7	89.7	3.03	30.584	
1,000.0	998.9	978.4	968.9	1.8	2.7	-22.92	-22.4	132.7	109.1	105.7	3.39	32.195	
1,100.0	1,098.3	1,074.1	1,060.7	2.1	3.2	-23.16	-28.0	159.2	127.0	123.3	3.75	33.840	
1,204.7	1,202.0	1,177.3	1,159.4	2.3	3.7	-23.59	-34.3	188.5	144.9	140.8	4.15	34.914	
1,300.0	1,296.4	1,271.3	1,249.3	2.6	4.2	-24.08	-40.1	215.2	160.4	155.9	4.52	35.485	
1,400.0	1,395.4	1,370.0	1,343.7	2.9	4.8	-24.49	-46.1	243.3	176.7	171.8	4.91	35.962	
1,500.0	1,494.4	1,468.6	1,438.1	3.2	5.3	-24.84	-52.1	271.3	193.0	187.7	5.31	36.346	
1,600.0	1,593.5	1,567.3	1,532.5	3.4	5.9	-25.14	-58.1	299.4	209.3	203.6	5.71	36.659	
1,700.0	1,692.5	1,665.9	1,626.9	3.7	6.4	-25.39	-64.1	327.4	225.6	219.5	6.11	36.917	
1,800.0	1,791.5	1,764.6	1,721.3	4.0	6.9	-25.61	-70.1	355.4	241.9	235.4	6.51	37.131	
1,900.0	1,890.5	1,863.3	1,815.7	4.3	7.5	-25.80	-76.1	383.5	258.2	251.3	6.92	37.312	
2,000.0	1,989.5	1,961.9	1,910.1	4.6	8.0	-25.97	-82.1	411.5	274.5	267.2	7.33	37.466	
2,100.0	2,088.5	2,060.6	2,004.5	4.9	8.6	-26.11	-88.1	439.6	290.8	283.1	7.73	37.597	
2,200.0	2,187.6	2,159.2	2,098.9	5.2	9.1	-26.25	-94.1	467.6	307.1	299.0	8.14	37.710	
2,300.0	2,286.6	2,257.9	2,193.3	5.5	9.7	-26.37	-100.1	495.7	323.4	314.9	8.55	37.808	
2,400.0	2,385.6	2,356.6	2,287.7	5.8	10.2	-26.47	-106.1	523.7	339.7	330.8	8.96	37.894	
2,500.0	2,484.6	2,455.2	2,382.1	6.1	10.8	-26.57	-112.2	551.8	356.0	346.7	9.38	37.970	
2,600.0	2,583.6	2,553.9	2,476.5	6.4	11.3	-26.66	-118.2	579.8	372.3	362.6	9.79	38.036	
2,700.0	2,682.6	2,652.5	2,570.9	6.7	11.8	-26.75	-124.2	607.8	388.7	378.5	10.20	38.096	
2,800.0	2,781.6	2,751.2	2,665.3	7.0	12.4	-26.82	-130.2	635.9	405.0	394.4	10.62	38.149	
2,900.0	2,880.7	2,849.9	2,759.7	7.3	12.9	-26.89	-136.2	663.9	421.3	410.3	11.03	38.196	
3,000.0	2,979.7	2,948.5	2,854.1	7.6	13.5	-26.95	-142.2	692.0	437.6	426.2	11.44	38.239	
3,100.0	3,078.7	3,047.2	2,948.5	7.9	14.0	-27.01	-148.2	720.0	453.9	442.1	11.86	38.277	
3,200.0	3,177.7	3,145.8	3,042.9	8.2	14.6	-27.07	-154.2	748.1	470.2	458.0	12.27	38.312	
3,300.0	3,276.7	3,244.5	3,137.3	8.5	15.1	-27.12	-160.2	776.1	486.6	473.9	12.69	38.344	
3,400.0	3,375.7	3,343.1	3,231.7	8.8	15.7	-27.17	-166.2	804.1	502.9	489.8	13.11	38.372	
3,500.0	3,474.8	3,441.8	3,326.1	9.1	16.2	-27.22	-172.2	832.2	519.2	505.7	13.52	38.399	
3,600.0	3,573.8	3,540.5	3,420.5	9.4	16.8	-27.26	-178.3	860.2	535.5	521.6	13.94	38.423	
3,700.0	3,672.8	3,639.1	3,514.9	9.7	17.3	-27.30	-184.3	888.3	551.8	537.5	14.35	38.445	
3,800.0	3,771.8	3,737.8	3,609.3	10.0	17.9	-27.34	-190.3	916.3	568.2	553.4	14.77	38.466	
3,900.0	3,870.8	3,836.4	3,703.7	10.3	18.4	-27.37	-196.3	944.4	584.5	569.3	15.19	38.485	
4,000.0	3,969.8	3,935.1	3,798.1	10.6	19.0	-27.41	-202.3	972.4	600.8	585.2	15.60	38.502	
4,100.0	4,068.8	4,033.8	3,892.5	10.9	19.5	-27.44	-208.3	1,000.5	617.1	601.1	16.02	38.519	
4,200.0	4,167.9	4,132.4	3,986.9	11.2	20.1	-27.47	-214.3	1,028.5	633.4	617.0	16.44	38.534	
4,300.0	4,266.9	4,231.1	4,081.3	11.5	20.6	-27.50	-220.3	1,056.5	649.8	632.9	16.86	38.548	
4,400.0	4,365.9	4,329.7	4,175.7	11.8	21.1	-27.53	-226.3	1,084.6	666.1	648.8	17.27	38.561	
4,500.0	4,464.9	4,428.4	4,270.1	12.1	21.7	-27.55	-232.3	1,112.6	682.4	664.7	17.69	38.573	
4,600.0	4,563.9	4,527.1	4,364.5	12.4	22.2	-27.58	-238.3	1,140.7	698.7	680.6	18.11	38.585	
4,700.0	4,662.9	4,625.7	4,458.9	12.7	22.8	-27.60	-244.3	1,168.7	715.0	696.5	18.53	38.596	
4,800.0	4,762.0	4,724.4	4,553.3	13.0	23.3	-27.62	-250.4	1,196.8	731.4	712.4	18.94	38.606	
4,900.0	4,861.0	4,823.0	4,647.7	13.3	23.9	-27.64	-256.4	1,224.8	747.7	728.3	19.36	38.615	
5,000.0	4,960.0	4,921.7	4,742.1	13.6	24.4	-27.67	-262.4	1,252.9	764.0	744.2	19.78	38.624	
5,100.0	5,059.0	5,020.3	4,836.5	13.9	25.0	-27.69	-268.4	1,280.9	780.3	760.1	20.20	38.633	

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 4G-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 4G-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
5,200.0	5,158.0	5,119.0	4,930.9	14.2	25.5	-27.70	-274.4	1,308.9	796.7	776.0	20.62	38.641	
5,240.3	5,198.0	5,158.8	4,968.9	14.3	25.8	-27.71	-276.8	1,320.3	803.2	782.5	20.79	38.644	
5,300.0	5,257.1	5,217.6	5,025.2	14.5	26.1	-27.76	-280.4	1,337.0	813.2	792.2	21.03	38.665	
5,400.0	5,356.3	5,316.0	5,119.3	14.7	26.6	-27.80	-286.4	1,364.9	831.2	809.8	21.43	38.792	
5,500.0	5,455.8	5,433.7	5,232.2	15.0	27.2	-27.78	-293.4	1,397.6	850.2	828.4	21.83	38.943	
5,600.0	5,555.4	5,573.2	5,367.4	15.2	27.9	-27.74	-300.5	1,431.0	866.6	844.4	22.25	38.947	
5,700.0	5,655.2	5,714.3	5,505.8	15.4	28.4	-27.72	-306.4	1,458.1	879.8	857.2	22.65	38.837	
5,800.0	5,755.1	5,856.9	5,646.8	15.6	28.8	-27.70	-310.8	1,478.8	889.8	866.7	23.04	38.618	
5,900.0	5,855.0	6,000.4	5,789.6	15.7	29.0	-27.68	-313.7	1,492.6	896.4	873.0	23.41	38.290	
6,000.0	5,955.0	6,144.6	5,933.6	15.8	29.2	-27.67	-315.2	1,499.4	899.7	875.9	23.76	37.858	
6,045.0	6,000.0	6,209.6	5,998.6	15.9	29.2	90.02	-315.3	1,500.1	900.0	876.1	23.92	37.627	
6,100.0	6,055.0	6,265.0	6,054.0	15.9	29.3	90.02	-315.3	1,500.1	900.0	875.9	24.09	37.359	
6,200.0	6,155.0	6,365.0	6,154.0	16.1	29.3	90.02	-315.3	1,500.1	900.0	875.6	24.40	36.882	
6,300.0	6,255.0	6,465.0	6,254.0	16.2	29.4	90.02	-315.3	1,500.1	900.0	875.3	24.72	36.415	
6,400.0	6,355.0	6,565.0	6,354.0	16.3	29.5	90.02	-315.3	1,500.1	900.0	875.0	25.03	35.959	
6,493.1	6,448.0	6,658.1	6,447.0	16.4	29.5	90.02	-315.3	1,500.1	900.0	874.7	25.32	35.543	
6,500.0	6,455.0	6,665.0	6,454.0	16.4	29.5	90.03	-315.3	1,500.1	900.0	874.7	25.34	35.514	
6,550.0	6,504.9	6,714.9	6,503.9	16.4	29.6	90.20	-315.3	1,500.1	900.0	874.6	25.41	35.418	
6,600.0	6,554.4	6,764.4	6,553.4	16.5	29.6	90.64	-315.3	1,500.1	900.1	874.7	25.38	35.467	
6,650.0	6,603.0	6,813.6	6,602.6	16.4	29.6	91.33	-315.2	1,500.1	900.3	875.0	25.25	35.649	
6,700.0	6,650.5	6,864.5	6,653.4	16.4	29.7	92.09	-311.6	1,500.1	900.7	875.6	25.08	35.905	
6,750.0	6,696.5	6,916.6	6,704.8	16.4	29.7	92.84	-303.3	1,500.1	901.2	876.3	24.91	36.184	
6,800.0	6,740.5	6,970.0	6,756.5	16.3	29.7	93.57	-290.0	1,500.1	901.9	877.2	24.73	36.465	
6,850.0	6,782.3	7,024.8	6,808.0	16.3	29.6	94.30	-271.5	1,500.1	902.7	878.1	24.58	36.723	
6,900.0	6,821.6	7,080.9	6,858.6	16.2	29.6	94.99	-247.4	1,500.1	903.6	879.2	24.47	36.933	
6,950.0	6,858.1	7,138.4	6,907.9	16.2	29.6	95.65	-217.8	1,500.1	904.6	880.2	24.40	37.071	
7,000.0	6,891.4	7,197.3	6,955.0	16.2	29.5	96.28	-182.5	1,500.1	905.7	881.3	24.40	37.116	
7,050.0	6,921.3	7,257.5	6,999.1	16.2	29.5	96.86	-141.5	1,500.1	906.7	882.2	24.48	37.043	
7,100.0	6,947.7	7,319.1	7,039.6	16.2	29.5	97.38	-95.1	1,500.1	907.7	883.1	24.64	36.839	
7,150.0	6,970.2	7,382.0	7,075.5	16.3	29.5	97.84	-43.5	1,500.1	908.7	883.8	24.89	36.503	
7,200.0	6,988.8	7,445.9	7,106.0	16.4	29.6	98.22	12.6	1,500.1	909.5	884.3	25.23	36.053	
7,250.0	7,003.2	7,510.8	7,130.3	16.6	29.6	98.53	72.7	1,500.1	910.2	884.5	25.67	35.452	
7,300.0	7,013.5	7,576.3	7,147.9	16.8	29.7	98.74	135.8	1,500.1	910.6	884.4	26.21	34.741	
7,350.0	7,019.4	7,642.4	7,158.2	17.1	29.9	98.87	201.1	1,500.1	910.9	884.1	26.84	33.943	
7,393.1	7,021.0	7,699.4	7,161.0	17.3	30.1	98.90	258.0	1,500.1	911.0	883.6	27.44	33.198	
7,400.0	7,021.0	7,706.3	7,161.0	17.4	30.1	98.90	264.9	1,500.1	911.0	883.5	27.56	33.060	
7,500.0	7,021.0	7,806.3	7,161.0	18.1	30.5	98.90	364.9	1,500.1	911.0	881.7	29.30	31.094	
7,600.0	7,021.0	7,906.3	7,161.0	18.9	31.0	98.90	464.9	1,500.1	911.0	879.7	31.33	29.079	
7,700.0	7,021.0	8,006.3	7,161.0	19.9	31.5	98.90	564.9	1,500.1	911.0	877.4	33.60	27.117	
7,800.0	7,021.0	8,106.3	7,161.0	20.9	32.2	98.90	664.9	1,500.1	911.0	875.0	36.05	25.268	
7,900.0	7,021.0	8,206.3	7,161.0	22.1	32.9	98.90	764.9	1,500.1	911.0	872.4	38.67	23.561	
8,000.0	7,021.0	8,306.3	7,161.0	23.3	33.7	98.90	864.9	1,500.1	911.0	869.6	41.40	22.003	
8,100.0	7,021.0	8,406.3	7,161.0	24.6	34.6	98.90	964.9	1,500.1	911.0	866.8	44.25	20.590	
8,200.0	7,021.0	8,506.3	7,161.0	26.0	35.5	98.90	1,064.9	1,500.1	911.0	863.9	47.17	19.314	
8,300.0	7,021.0	8,606.3	7,161.0	27.4	36.5	98.90	1,164.9	1,500.1	911.0	860.9	50.16	18.161	
8,400.0	7,021.0	8,706.3	7,161.0	28.8	37.6	98.90	1,264.9	1,500.1	911.0	857.8	53.21	17.120	
8,500.0	7,021.0	8,806.3	7,161.0	30.3	38.7	98.90	1,364.9	1,500.1	911.0	854.7	56.31	16.178	
8,600.0	7,021.0	8,906.3	7,161.0	31.8	39.9	98.90	1,464.9	1,500.1	911.0	851.6	59.45	15.324	
8,700.0	7,021.0	9,006.3	7,161.0	33.3	41.1	98.90	1,564.9	1,500.1	911.0	848.4	62.63	14.547	
8,800.0	7,021.0	9,106.3	7,161.0	34.8	42.3	98.90	1,664.9	1,500.1	911.0	845.2	65.83	13.839	
8,900.0	7,021.0	9,206.3	7,161.0	36.4	43.6	98.90	1,764.9	1,500.1	911.0	842.0	69.06	13.192	
9,000.0	7,021.0	9,306.3	7,161.0	38.0	44.9	98.90	1,864.9	1,500.1	911.0	838.7	72.31	12.599	

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 4G-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 4G-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
9,100.0	7,021.0	9,406.3	7,161.0	39.6	46.3	98.90	1,964.9	1,500.1	911.0	835.5	75.58	12.054	
9,200.0	7,021.0	9,506.3	7,161.0	41.2	47.7	98.90	2,064.9	1,500.1	911.0	832.2	78.87	11.552	
9,300.0	7,021.0	9,606.3	7,161.0	42.8	49.1	98.90	2,164.9	1,500.1	911.0	828.9	82.17	11.087	
9,400.0	7,021.0	9,706.3	7,161.0	44.4	50.5	98.90	2,264.9	1,500.1	911.0	825.6	85.48	10.658	
9,500.0	7,021.0	9,806.3	7,161.0	46.1	51.9	98.90	2,364.9	1,500.1	911.0	822.2	88.81	10.258	
9,600.0	7,021.0	9,906.3	7,161.0	47.7	53.4	98.90	2,464.9	1,500.1	911.0	818.9	92.15	9.887	
9,700.0	7,021.0	10,006.3	7,161.0	49.4	54.9	98.90	2,564.9	1,500.1	911.0	815.6	95.49	9.541	
9,800.0	7,021.0	10,106.3	7,161.0	51.0	56.4	98.90	2,664.9	1,500.1	911.0	812.2	98.85	9.217	
9,900.0	7,021.0	10,206.3	7,161.0	52.7	57.9	98.90	2,764.9	1,500.1	911.0	808.8	102.21	8.914	
10,000.0	7,021.0	10,306.3	7,161.0	54.4	59.4	98.90	2,864.9	1,500.1	911.1	805.5	105.58	8.629	
10,100.0	7,021.0	10,406.3	7,161.0	56.0	60.9	98.90	2,964.9	1,500.2	911.1	802.1	108.95	8.362	
10,200.0	7,021.0	10,506.3	7,161.0	57.7	62.5	98.90	3,064.9	1,500.2	911.1	798.7	112.33	8.110	
10,300.0	7,021.0	10,606.3	7,161.0	59.4	64.1	98.90	3,164.9	1,500.2	911.1	795.3	115.72	7.873	
10,400.0	7,021.0	10,706.3	7,161.0	61.1	65.6	98.90	3,264.9	1,500.2	911.1	792.0	119.11	7.649	
10,500.0	7,021.0	10,806.3	7,161.0	62.8	67.2	98.90	3,364.9	1,500.2	911.1	788.6	122.50	7.437	
10,600.0	7,021.0	10,906.3	7,161.0	64.5	68.8	98.90	3,464.9	1,500.2	911.1	785.2	125.90	7.237	
10,700.0	7,021.0	11,006.3	7,161.0	66.2	70.4	98.90	3,564.9	1,500.2	911.1	781.8	129.30	7.046	
10,800.0	7,021.0	11,106.3	7,161.0	67.9	72.0	98.90	3,664.9	1,500.2	911.1	778.4	132.70	6.865	
10,900.0	7,021.0	11,206.3	7,161.0	69.6	73.6	98.90	3,764.9	1,500.2	911.1	775.0	136.11	6.693	
11,000.0	7,021.0	11,306.3	7,161.0	71.3	75.2	98.90	3,864.9	1,500.2	911.1	771.5	139.52	6.530	
11,100.0	7,021.0	11,406.3	7,161.0	73.0	76.8	98.90	3,964.9	1,500.2	911.1	768.1	142.94	6.374	
11,200.0	7,021.0	11,506.3	7,161.0	74.7	78.5	98.90	4,064.9	1,500.2	911.1	764.7	146.35	6.225	
11,300.0	7,021.0	11,606.3	7,161.0	76.4	80.1	98.90	4,164.9	1,500.2	911.1	761.3	149.77	6.083	
11,400.0	7,021.0	11,706.3	7,161.0	78.2	81.7	98.90	4,264.9	1,500.2	911.1	757.9	153.19	5.947	
11,500.0	7,021.0	11,806.3	7,161.0	79.9	83.4	98.90	4,364.9	1,500.2	911.1	754.5	156.62	5.817	
11,600.0	7,021.0	11,906.3	7,161.0	81.6	85.0	98.90	4,464.9	1,500.2	911.1	751.0	160.04	5.693	
11,628.2	7,021.0	11,934.5	7,161.0	82.1	85.5	98.90	4,493.0	1,500.2	911.1	750.1	161.00	5.659	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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
0.0	0.0	0.0	0.0	0.0	0.0	4.52	1,301.9	102.9	1,307.5				
100.0	100.0	37.0	37.0	0.1	0.1	4.52	1,301.9	102.9	1,306.0	1,305.8	0.19	6,985.894	
200.0	200.0	137.0	137.0	0.3	0.2	4.52	1,301.9	102.9	1,306.0	1,305.5	0.54	2,436.526	
300.0	300.0	237.0	237.0	0.5	0.4	4.52	1,301.9	102.9	1,306.0	1,305.1	0.89	1,475.590	
400.0	400.0	337.0	337.0	0.6	0.6	4.52	1,301.9	102.9	1,306.0	1,304.8	1.23	1,058.235	
500.0	500.0	437.0	437.0	0.8	0.8	-113.21	1,301.9	102.9	1,306.4	1,304.8	1.58	824.901	
600.0	600.0	537.0	537.0	1.0	0.9	-113.30	1,301.9	102.9	1,307.4	1,305.5	1.94	675.434	
700.0	699.9	636.9	636.9	1.2	1.1	-113.46	1,301.9	102.9	1,309.1	1,306.8	2.29	570.973	
800.0	799.7	736.7	736.7	1.4	1.3	-113.69	1,301.9	102.9	1,311.6	1,308.9	2.66	493.445	
900.0	899.4	836.4	836.4	1.6	1.5	-113.97	1,301.9	102.9	1,314.7	1,311.7	3.03	433.354	
1,000.0	998.9	935.9	935.9	1.8	1.6	-114.31	1,301.9	102.9	1,318.7	1,315.3	3.42	385.250	
1,100.0	1,098.3	1,035.3	1,035.3	2.1	1.8	-114.71	1,301.9	102.9	1,323.4	1,319.6	3.83	345.794	
1,204.7	1,202.0	1,139.0	1,139.0	2.3	2.0	-115.19	1,301.9	102.9	1,329.2	1,325.0	4.27	311.392	
1,300.0	1,296.4	1,233.4	1,233.4	2.6	2.2	-115.71	1,301.9	102.9	1,335.0	1,330.3	4.68	285.487	
1,400.0	1,395.4	1,332.4	1,332.4	2.9	2.3	-116.24	1,301.9	102.9	1,341.2	1,336.1	5.11	262.605	
1,500.0	1,494.4	1,431.4	1,431.4	3.2	2.5	-116.77	1,301.9	102.9	1,347.5	1,341.9	5.54	243.210	
1,600.0	1,593.5	1,530.5	1,530.5	3.4	2.7	-117.30	1,301.9	102.9	1,353.9	1,347.9	5.97	226.602	
1,700.0	1,692.5	1,629.5	1,629.5	3.7	2.8	-117.82	1,301.9	102.9	1,360.4	1,354.0	6.41	212.243	
1,800.0	1,791.5	1,728.5	1,728.5	4.0	3.0	-118.33	1,301.9	102.9	1,367.1	1,360.2	6.84	199.723	
1,900.0	1,890.5	1,827.5	1,827.5	4.3	3.2	-118.84	1,301.9	102.9	1,373.8	1,366.5	7.28	188.722	
2,000.0	1,989.5	1,926.5	1,926.5	4.6	3.4	-119.35	1,301.9	102.9	1,380.7	1,373.0	7.71	178.987	
2,100.0	2,088.5	2,025.5	2,025.5	4.9	3.5	-119.85	1,301.9	102.9	1,387.6	1,379.5	8.15	170.319	
2,200.0	2,187.6	2,124.6	2,124.6	5.2	3.7	-120.34	1,301.9	102.9	1,394.7	1,386.1	8.58	162.556	
2,300.0	2,286.6	2,223.6	2,223.6	5.5	3.9	-120.83	1,301.9	102.9	1,401.9	1,392.9	9.01	155.567	
2,400.0	2,385.6	2,322.6	2,322.6	5.8	4.1	-121.32	1,301.9	102.9	1,409.2	1,399.7	9.44	149.246	
2,500.0	2,484.6	2,421.6	2,421.6	6.1	4.2	-121.80	1,301.9	102.9	1,416.5	1,406.7	9.87	143.503	
2,600.0	2,583.6	2,520.6	2,520.6	6.4	4.4	-122.27	1,301.9	102.9	1,424.0	1,413.7	10.30	138.266	
2,700.0	2,682.6	2,619.6	2,619.6	6.7	4.6	-122.74	1,301.9	102.9	1,431.6	1,420.9	10.73	133.472	
2,800.0	2,781.6	2,718.6	2,718.6	7.0	4.7	-123.21	1,301.9	102.9	1,439.3	1,428.1	11.15	129.069	
2,900.0	2,880.7	2,817.7	2,817.7	7.3	4.9	-123.67	1,301.9	102.9	1,447.0	1,435.5	11.57	125.013	
3,000.0	2,979.7	2,916.7	2,916.7	7.6	5.1	-124.12	1,301.9	102.9	1,454.9	1,442.9	12.00	121.266	
3,100.0	3,078.7	3,015.7	3,015.7	7.9	5.3	-124.58	1,301.9	102.9	1,462.8	1,450.4	12.42	117.794	
3,200.0	3,177.7	3,114.7	3,114.7	8.2	5.4	-125.02	1,301.9	102.9	1,470.9	1,458.0	12.84	114.570	
3,300.0	3,276.7	3,213.7	3,213.7	8.5	5.6	-125.46	1,301.9	102.9	1,479.0	1,465.8	13.26	111.569	
3,400.0	3,375.7	3,312.7	3,312.7	8.8	5.8	-125.90	1,301.9	102.9	1,487.2	1,473.6	13.67	108.769	
3,500.0	3,474.8	3,411.8	3,411.8	9.1	6.0	-126.33	1,301.9	102.9	1,495.5	1,481.4	14.09	106.152	
3,600.0	3,573.8	3,510.8	3,510.8	9.4	6.1	-126.76	1,301.9	102.9	1,503.9	1,489.4	14.50	103.701	
3,700.0	3,672.8	3,609.8	3,609.8	9.7	6.3	-127.18	1,301.9	102.9	1,512.4	1,497.5	14.91	101.401	
3,800.0	3,771.8	3,708.8	3,708.8	10.0	6.5	-127.60	1,301.9	102.9	1,520.9	1,505.6	15.33	99.240	
3,900.0	3,870.8	3,807.8	3,807.8	10.3	6.6	-128.01	1,301.9	102.9	1,529.6	1,513.8	15.74	97.205	
4,000.0	3,969.8	3,906.8	3,906.8	10.6	6.8	-128.42	1,301.9	102.9	1,538.3	1,522.1	16.14	95.287	
4,100.0	4,068.8	4,005.8	4,005.8	10.9	7.0	-128.82	1,301.9	102.9	1,547.1	1,530.5	16.55	93.476	
6,950.0	6,858.1	6,795.1	6,795.1	16.2	11.9	-26.24	1,301.9	102.9	1,527.4	1,505.8	21.55	70.870	
7,000.0	6,891.4	6,828.4	6,828.4	16.2	11.9	-29.15	1,301.9	102.9	1,492.2	1,471.2	21.00	71.049	
7,050.0	6,921.3	6,858.3	6,858.3	16.2	12.0	-32.84	1,301.9	102.9	1,454.5	1,433.9	20.64	70.465	
7,100.0	6,947.7	6,884.7	6,884.7	16.2	12.0	-37.48	1,301.9	102.9	1,414.7	1,394.1	20.58	68.748	
7,150.0	6,970.2	6,907.2	6,907.2	16.3	12.1	-43.34	1,301.9	102.9	1,373.0	1,352.1	20.91	65.649	
7,200.0	6,988.8	6,925.8	6,925.8	16.4	12.1	-50.64	1,301.9	102.9	1,329.9	1,308.2	21.70	61.274	
7,250.0	7,003.2	6,940.2	6,940.2	16.6	12.1	-59.49	1,301.9	102.9	1,285.6	1,262.7	22.87	56.206	
7,300.0	7,013.5	6,950.5	6,950.5	16.8	12.1	-69.71	1,301.9	102.9	1,240.6	1,216.4	24.18	51.303	
7,350.0	7,019.4	6,956.4	6,956.4	17.1	12.1	-80.68	1,301.9	102.9	1,195.3	1,170.0	25.29	47.261	
7,393.1	7,021.0	6,958.0	6,958.0	17.3	12.1	-90.00	1,301.9	102.9	1,156.3	1,130.4	25.90	44.639	

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 4G-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 4G-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
7,400.0	7,021.0	6,958.0	6,958.0	17.4	12.1	-90.00	1,301.9	102.9	1,150.1	1,124.1	25.96	44.303	
7,500.0	7,021.0	6,958.0	6,958.0	18.1	12.1	-90.00	1,301.9	102.9	1,060.8	1,033.9	26.84	39.519	
7,600.0	7,021.0	6,958.0	6,958.0	18.9	12.1	-90.00	1,301.9	102.9	973.6	945.7	27.87	34.930	
7,700.0	7,021.0	6,958.0	6,958.0	19.9	12.1	-90.00	1,301.9	102.9	889.1	860.0	29.02	30.635	
7,800.0	7,021.0	6,958.0	6,958.0	20.9	12.1	-90.00	1,301.9	102.9	808.1	777.8	30.27	26.698	
7,900.0	7,021.0	6,958.0	6,958.0	22.1	12.1	-90.00	1,301.9	102.9	731.9	700.3	31.59	23.165	
8,000.0	7,021.0	6,958.0	6,958.0	23.3	12.1	-90.00	1,301.9	102.9	662.0	629.0	32.98	20.071	
8,100.0	7,021.0	6,958.0	6,958.0	24.6	12.1	-90.00	1,301.9	102.9	600.7	566.2	34.42	17.450	
8,200.0	7,021.0	6,958.0	6,958.0	26.0	12.1	-90.00	1,301.9	102.9	550.8	514.9	35.90	15.341	
8,300.0	7,021.0	6,958.0	6,958.0	27.4	12.1	-90.00	1,301.9	102.9	515.7	478.3	37.42	13.781	
8,400.0	7,021.0	6,958.0	6,958.0	28.8	12.1	-90.00	1,301.9	102.9	498.6	459.6	38.97	12.794	
8,437.1	7,021.0	6,958.0	6,958.0	29.3	12.1	-90.00	1,301.9	102.9	497.2	457.6	39.55	12.571	CC, ES
8,500.0	7,021.0	6,958.0	6,958.0	30.3	12.1	-90.00	1,301.9	102.9	501.1	460.6	40.54	12.362	SF
8,600.0	7,021.0	6,958.0	6,958.0	31.8	12.1	-90.00	1,301.9	102.9	523.2	481.1	42.13	12.419	
8,700.0	7,021.0	6,958.0	6,958.0	33.3	12.1	-90.00	1,301.9	102.9	562.4	518.7	43.74	12.859	
8,800.0	7,021.0	6,958.0	6,958.0	34.8	12.1	-90.00	1,301.9	102.9	615.6	570.2	45.36	13.571	
8,900.0	7,021.0	6,958.0	6,958.0	36.4	12.1	-90.00	1,301.9	102.9	679.3	632.3	47.00	14.455	
9,000.0	7,021.0	6,958.0	6,958.0	38.0	12.1	-90.00	1,301.9	102.9	751.1	702.4	48.64	15.441	
9,100.0	7,021.0	6,958.0	6,958.0	39.6	12.1	-90.00	1,301.9	102.9	828.7	778.4	50.30	16.475	
9,200.0	7,021.0	6,958.0	6,958.0	41.2	12.1	-90.00	1,301.9	102.9	910.6	858.7	51.96	17.525	
9,300.0	7,021.0	6,958.0	6,958.0	42.8	12.1	-90.00	1,301.9	102.9	995.9	942.3	53.63	18.569	
9,400.0	7,021.0	6,958.0	6,958.0	44.4	12.1	-90.00	1,301.9	102.9	1,083.7	1,028.4	55.31	19.593	
9,500.0	7,021.0	6,958.0	6,958.0	46.1	12.1	-90.00	1,301.9	102.9	1,173.5	1,116.5	57.00	20.588	
9,600.0	7,021.0	6,958.0	6,958.0	47.7	12.1	-90.00	1,301.9	102.9	1,264.8	1,206.1	58.69	21.551	
9,700.0	7,021.0	6,958.0	6,958.0	49.4	12.1	-90.00	1,301.9	102.9	1,357.3	1,296.9	60.38	22.479	
9,800.0	7,021.0	6,958.0	6,958.0	51.0	12.1	-90.00	1,301.9	102.9	1,450.8	1,388.7	62.08	23.370	
9,900.0	7,021.0	6,958.0	6,958.0	52.7	12.1	-90.00	1,301.9	102.9	1,545.1	1,481.3	63.78	24.226	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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
9,600.0	7,021.0	6,927.0	6,927.0	47.7	12.1	-90.00	3,912.0	92.3	1,533.6	1,475.0	58.63	26.157	
9,700.0	7,021.0	6,927.0	6,927.0	49.4	12.1	-90.00	3,912.0	92.3	1,439.6	1,379.3	60.33	23.865	
9,800.0	7,021.0	6,927.0	6,927.0	51.0	12.1	-90.00	3,912.0	92.3	1,346.5	1,284.5	62.02	21.710	
9,900.0	7,021.0	6,927.0	6,927.0	52.7	12.1	-90.00	3,912.0	92.3	1,254.5	1,190.8	63.73	19.686	
10,000.0	7,021.0	6,927.0	6,927.0	54.4	12.1	-90.00	3,912.0	92.3	1,163.8	1,098.3	65.43	17.786	
10,100.0	7,021.0	6,927.0	6,927.0	56.0	12.1	-90.00	3,912.0	92.3	1,074.7	1,007.5	67.14	16.006	
10,200.0	7,021.0	6,927.0	6,927.0	57.7	12.1	-90.00	3,912.0	92.3	987.7	918.8	68.85	14.345	
10,300.0	7,021.0	6,927.0	6,927.0	59.4	12.1	-90.00	3,912.0	92.3	903.4	832.8	70.56	12.802	
10,400.0	7,021.0	6,927.0	6,927.0	61.1	12.1	-90.00	3,912.0	92.3	822.6	750.3	72.28	11.380	
10,500.0	7,021.0	6,927.0	6,927.0	62.8	12.1	-90.00	3,912.0	92.3	746.5	672.5	74.00	10.088	
10,600.0	7,021.0	6,927.0	6,927.0	64.5	12.1	-90.00	3,912.0	92.3	676.6	600.9	75.72	8.936	
10,700.0	7,021.0	6,927.0	6,927.0	66.2	12.1	-90.00	3,912.0	92.3	615.1	537.7	77.44	7.943	
10,800.0	7,021.0	6,927.0	6,927.0	67.9	12.1	-90.00	3,912.0	92.3	564.7	485.6	79.16	7.134	
10,900.0	7,021.0	6,927.0	6,927.0	69.6	12.1	-90.00	3,912.0	92.3	528.7	447.8	80.89	6.536	
11,000.0	7,021.0	6,927.0	6,927.0	71.3	12.1	-90.00	3,912.0	92.3	510.0	427.4	82.61	6.173	
11,047.1	7,021.0	6,927.0	6,927.0	72.1	12.1	-90.00	3,912.0	92.3	507.8	424.4	83.43	6.087	CC, ES
11,100.0	7,021.0	6,927.0	6,927.0	73.0	12.1	-90.00	3,912.0	92.3	510.5	426.2	84.34	6.053	SF
11,200.0	7,021.0	6,927.0	6,927.0	74.7	12.1	-90.00	3,912.0	92.3	530.3	444.2	86.07	6.161	
11,300.0	7,021.0	6,927.0	6,927.0	76.4	12.1	-90.00	3,912.0	92.3	567.3	479.5	87.80	6.461	
11,400.0	7,021.0	6,927.0	6,927.0	78.2	12.1	-90.00	3,912.0	92.3	618.4	528.8	89.53	6.907	
11,500.0	7,021.0	6,927.0	6,927.0	79.9	12.1	-90.00	3,912.0	92.3	680.4	589.1	91.27	7.455	
11,600.0	7,021.0	6,927.0	6,927.0	81.6	12.1	-90.00	3,912.0	92.3	750.7	657.7	93.00	8.072	
11,628.2	7,021.0	6,927.0	6,927.0	82.1	12.1	-90.00	3,912.0	92.3	771.7	678.2	93.49	8.254	

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 4G-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 4G-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

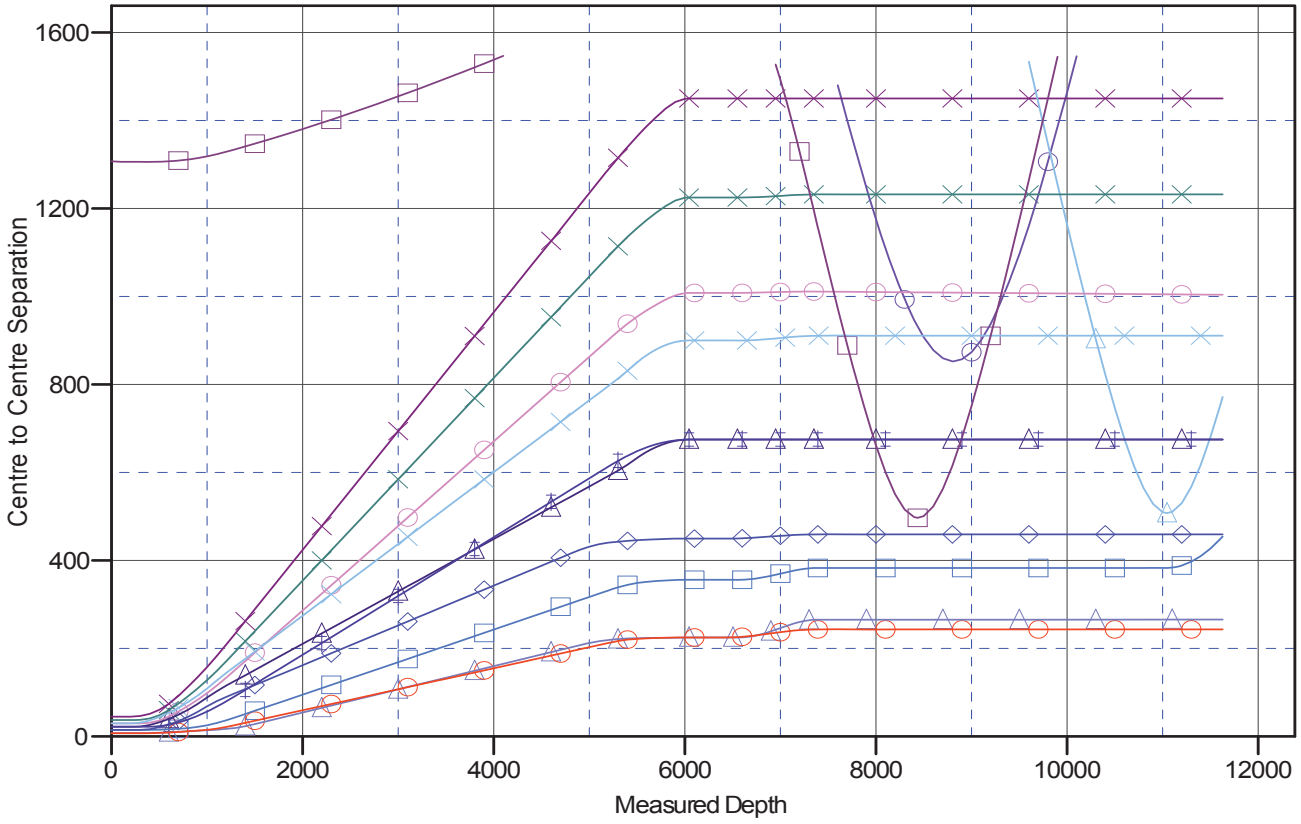
Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
7,600.0	7,021.0	6,952.0	6,952.0	18.9	12.1	-90.00	1,675.0	-252.5	1,480.3	1,452.4	27.86	53.130	
7,700.0	7,021.0	6,952.0	6,952.0	19.9	12.1	-90.00	1,675.0	-252.5	1,399.7	1,370.7	29.01	48.248	
7,800.0	7,021.0	6,952.0	6,952.0	20.9	12.1	-90.00	1,675.0	-252.5	1,321.8	1,291.6	30.26	43.686	
7,900.0	7,021.0	6,952.0	6,952.0	22.1	12.1	-90.00	1,675.0	-252.5	1,247.1	1,215.5	31.58	39.486	
8,000.0	7,021.0	6,952.0	6,952.0	23.3	12.1	-90.00	1,675.0	-252.5	1,176.1	1,143.1	32.97	35.670	
8,100.0	7,021.0	6,952.0	6,952.0	24.6	12.1	-90.00	1,675.0	-252.5	1,109.6	1,075.2	34.41	32.244	
8,200.0	7,021.0	6,952.0	6,952.0	26.0	12.1	-90.00	1,675.0	-252.5	1,048.4	1,012.5	35.89	29.208	
8,300.0	7,021.0	6,952.0	6,952.0	27.4	12.1	-90.00	1,675.0	-252.5	993.5	956.1	37.41	26.557	
8,400.0	7,021.0	6,952.0	6,952.0	28.8	12.1	-90.00	1,675.0	-252.5	946.1	907.1	38.96	24.286	
8,500.0	7,021.0	6,952.0	6,952.0	30.3	12.1	-90.00	1,675.0	-252.5	907.2	866.7	40.53	22.386	
8,600.0	7,021.0	6,952.0	6,952.0	31.8	12.1	-90.00	1,675.0	-252.5	878.1	836.0	42.12	20.849	
8,700.0	7,021.0	6,952.0	6,952.0	33.3	12.1	-90.00	1,675.0	-252.5	859.7	816.0	43.73	19.661	
8,800.0	7,021.0	6,952.0	6,952.0	34.8	12.1	-90.00	1,675.0	-252.5	852.7	807.3	45.35	18.802	
8,810.1	7,021.0	6,952.0	6,952.0	35.0	12.1	-90.00	1,675.0	-252.5	852.6	807.1	45.51	18.733	CC, ES
8,900.0	7,021.0	6,952.0	6,952.0	36.4	12.1	-90.00	1,675.0	-252.5	857.3	810.4	46.98	18.247	
9,000.0	7,021.0	6,952.0	6,952.0	38.0	12.1	-90.00	1,675.0	-252.5	873.5	824.9	48.63	17.962	
9,100.0	7,021.0	6,952.0	6,952.0	39.6	12.1	-90.00	1,675.0	-252.5	900.6	850.3	50.29	17.908	SF
9,200.0	7,021.0	6,952.0	6,952.0	41.2	12.1	-90.00	1,675.0	-252.5	937.5	885.6	51.95	18.046	
9,300.0	7,021.0	6,952.0	6,952.0	42.8	12.1	-90.00	1,675.0	-252.5	983.3	929.7	53.62	18.338	
9,400.0	7,021.0	6,952.0	6,952.0	44.4	12.1	-90.00	1,675.0	-252.5	1,036.8	981.5	55.30	18.748	
9,500.0	7,021.0	6,952.0	6,952.0	46.1	12.1	-90.00	1,675.0	-252.5	1,096.8	1,039.8	56.99	19.246	
9,600.0	7,021.0	6,952.0	6,952.0	47.7	12.1	-90.00	1,675.0	-252.5	1,162.3	1,103.6	58.68	19.809	
9,700.0	7,021.0	6,952.0	6,952.0	49.4	12.1	-90.00	1,675.0	-252.5	1,232.4	1,172.1	60.37	20.415	
9,800.0	7,021.0	6,952.0	6,952.0	51.0	12.1	-90.00	1,675.0	-252.5	1,306.5	1,244.4	62.07	21.049	
9,900.0	7,021.0	6,952.0	6,952.0	52.7	12.1	-90.00	1,675.0	-252.5	1,383.8	1,320.0	63.77	21.700	
10,000.0	7,021.0	6,952.0	6,952.0	54.4	12.1	-90.00	1,675.0	-252.5	1,463.8	1,398.4	65.47	22.358	
10,100.0	7,021.0	6,952.0	6,952.0	56.0	12.1	-90.00	1,675.0	-252.5	1,546.2	1,479.0	67.18	23.015	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Dale 4G-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 4G-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 4G-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 4I-20H-O264, 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 4D-20H-O264, HZ, Plan #1 V0