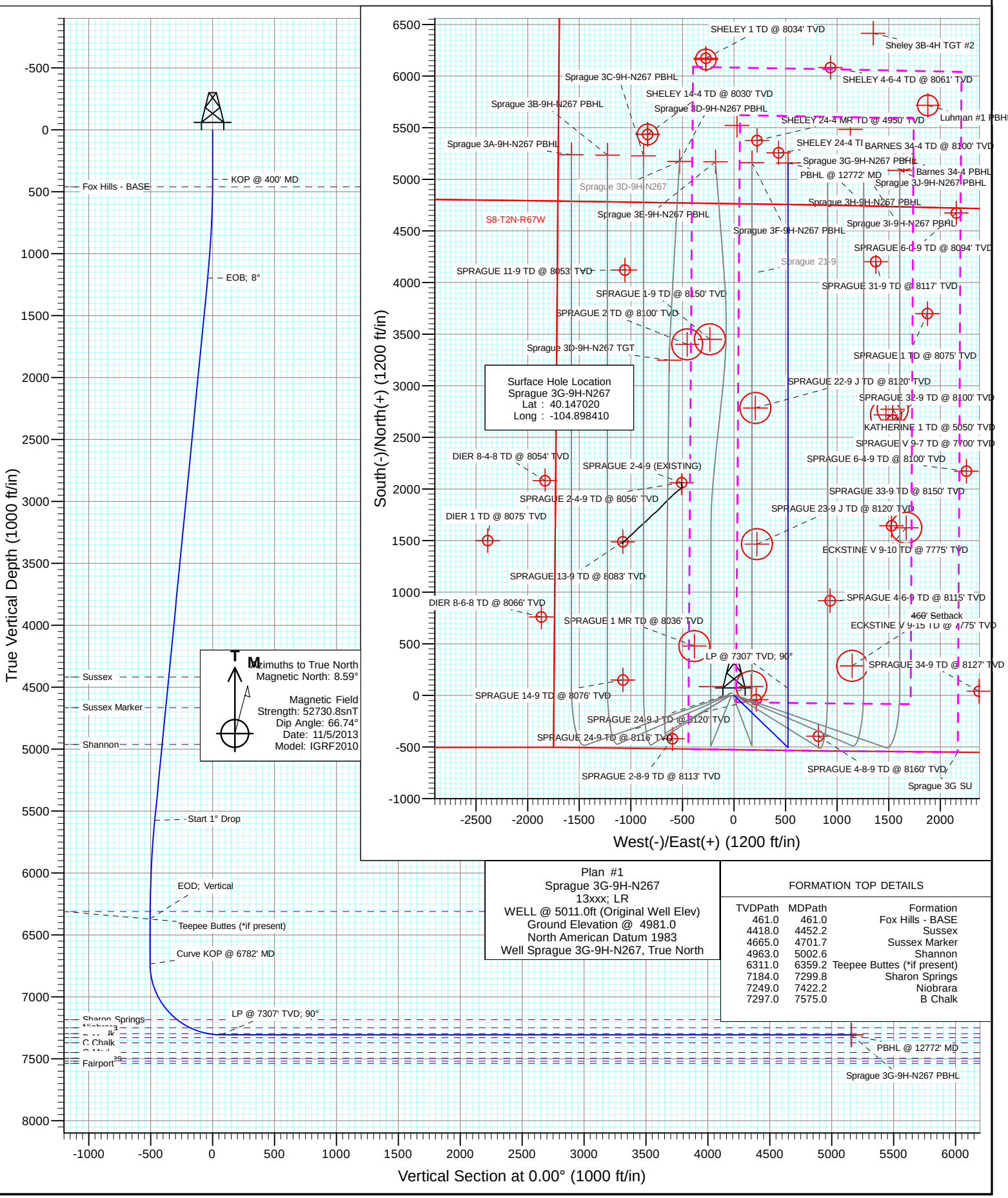
Project: DJ Wattenberg
Site: S9-T2N-R67W (Sprague)
Well: Sprague 3G-9H-N267
Wellbore: Hz
Design: Plan #1



Plan #1
Sprague 3G-9H-N267
13xxx; LR
WELL @ 5011.0ft (Original Well Elev)
Ground Elevation @ 4981.0
North American Datum 1983
Well Sprague 3G-9H-N267, True North

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
461.0	461.0	Fox Hills - BASE
4418.0	4452.2	Sussex
4665.0	4701.7	Sussex Marker
4963.0	5002.6	Shannon
6311.0	6359.2	Teepee Buttes (*if present)
7184.0	7299.8	Sharon Springs
7249.0	7422.2	Niobrara
7297.0	7575.0	B Chalk

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Sprague 3G-9H-N267
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site:	S9-T2N-R67W (Sprague)	**North Reference:**	True
Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague)

Site Position:		**Northing:**	1,298,443.90 ft	**Latitude:**	40.151070
From:	Lat/Long	**Easting:**	3,167,093.12 ft	**Longitude:**	-104.902260
Position Uncertainty:	0.0 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.39 °

Well Sprague 3G-9H-N267

Well Position	**+N/-S**	0.0 ft	**Northing:**	1,296,975.82 ft	**Latitude:**	40.147020
	+E/-W	0.0 ft	**Easting:**	3,168,179.31 ft	**Longitude:**	-104.898410
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,981.0 ft

Wellbore Hz

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/5/2013	8.59	66.74	52,731

Design Plan #1

Audit Notes:

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

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

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,200.0	8.00	134.00	1,197.4	-38.7	40.1	1.00	1.00	0.00	134.00	
5,620.0	8.00	134.00	5,574.4	-466.0	482.6	0.00	0.00	0.00	0.00	
6,420.0	0.00	0.00	6,371.8	-504.8	522.7	1.00	-1.00	0.00	180.00	
6,782.3	0.00	0.00	6,734.0	-504.8	522.7	0.00	0.00	0.00	0.00	
7,682.3	90.00	360.00	7,307.0	68.2	522.7	10.00	10.00	0.00	360.00	
12,772.4	90.00	360.00	7,307.0	5,158.3	522.7	0.00	0.00	0.00	0.00	Sprague 3G-9H-N267

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Sprague 3G-9H-N267
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site:	S9-T2N-R67W (Sprague)	**North Reference:**	True
Well:	Sprague 3G-9H-N267	**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
461.0	0.61	134.00	461.0	-0.2	0.2	-0.2	1.00	1.00	Fox Hills - BASE
500.0	1.00	134.00	500.0	-0.6	0.6	-0.6	1.00	1.00	
600.0	2.00	134.00	600.0	-2.4	2.5	-2.4	1.00	1.00	
700.0	3.00	134.00	699.9	-5.5	5.6	-5.5	1.00	1.00	
800.0	4.00	134.00	799.7	-9.7	10.0	-9.7	1.00	1.00	
900.0	5.00	134.00	899.4	-15.1	15.7	-15.1	1.00	1.00	
1,000.0	6.00	134.00	998.9	-21.8	22.6	-21.8	1.00	1.00	
1,100.0	7.00	134.00	1,098.3	-29.7	30.7	-29.7	1.00	1.00	
1,200.0	8.00	134.00	1,197.4	-38.7	40.1	-38.7	1.00	1.00	EOB; 8°
1,300.0	8.00	134.00	1,296.4	-48.4	50.1	-48.4	0.00	0.00	
1,400.0	8.00	134.00	1,395.5	-58.1	60.1	-58.1	0.00	0.00	
1,500.0	8.00	134.00	1,494.5	-67.7	70.1	-67.7	0.00	0.00	
1,600.0	8.00	134.00	1,593.5	-77.4	80.2	-77.4	0.00	0.00	
1,700.0	8.00	134.00	1,692.5	-87.1	90.2	-87.1	0.00	0.00	
1,800.0	8.00	134.00	1,791.6	-96.7	100.2	-96.7	0.00	0.00	
1,900.0	8.00	134.00	1,890.6	-106.4	110.2	-106.4	0.00	0.00	
2,000.0	8.00	134.00	1,989.6	-116.1	120.2	-116.1	0.00	0.00	
2,100.0	8.00	134.00	2,088.6	-125.7	130.2	-125.7	0.00	0.00	
2,200.0	8.00	134.00	2,187.7	-135.4	140.2	-135.4	0.00	0.00	
2,300.0	8.00	134.00	2,286.7	-145.1	150.2	-145.1	0.00	0.00	
2,400.0	8.00	134.00	2,385.7	-154.7	160.2	-154.7	0.00	0.00	
2,500.0	8.00	134.00	2,484.8	-164.4	170.3	-164.4	0.00	0.00	
2,600.0	8.00	134.00	2,583.8	-174.1	180.3	-174.1	0.00	0.00	
2,700.0	8.00	134.00	2,682.8	-183.8	190.3	-183.8	0.00	0.00	
2,800.0	8.00	134.00	2,781.8	-193.4	200.3	-193.4	0.00	0.00	
2,900.0	8.00	134.00	2,880.9	-203.1	210.3	-203.1	0.00	0.00	
3,000.0	8.00	134.00	2,979.9	-212.8	220.3	-212.8	0.00	0.00	
3,100.0	8.00	134.00	3,078.9	-222.4	230.3	-222.4	0.00	0.00	
3,200.0	8.00	134.00	3,177.9	-232.1	240.3	-232.1	0.00	0.00	
3,300.0	8.00	134.00	3,277.0	-241.8	250.3	-241.8	0.00	0.00	
3,400.0	8.00	134.00	3,376.0	-251.4	260.4	-251.4	0.00	0.00	
3,500.0	8.00	134.00	3,475.0	-261.1	270.4	-261.1	0.00	0.00	
3,600.0	8.00	134.00	3,574.0	-270.8	280.4	-270.8	0.00	0.00	
3,700.0	8.00	134.00	3,673.1	-280.4	290.4	-280.4	0.00	0.00	
3,800.0	8.00	134.00	3,772.1	-290.1	300.4	-290.1	0.00	0.00	
3,900.0	8.00	134.00	3,871.1	-299.8	310.4	-299.8	0.00	0.00	
4,000.0	8.00	134.00	3,970.2	-309.4	320.4	-309.4	0.00	0.00	
4,100.0	8.00	134.00	4,069.2	-319.1	330.4	-319.1	0.00	0.00	
4,200.0	8.00	134.00	4,168.2	-328.8	340.4	-328.8	0.00	0.00	
4,300.0	8.00	134.00	4,267.2	-338.4	350.5	-338.4	0.00	0.00	
4,400.0	8.00	134.00	4,366.3	-348.1	360.5	-348.1	0.00	0.00	
4,452.2	8.00	134.00	4,418.0	-353.2	365.7	-353.2	0.00	0.00	Sussex
4,500.0	8.00	134.00	4,465.3	-357.8	370.5	-357.8	0.00	0.00	
4,600.0	8.00	134.00	4,564.3	-367.4	380.5	-367.4	0.00	0.00	
4,700.0	8.00	134.00	4,663.3	-377.1	390.5	-377.1	0.00	0.00	
4,701.7	8.00	134.00	4,665.0	-377.3	390.7	-377.3	0.00	0.00	Sussex Marker
4,800.0	8.00	134.00	4,762.4	-386.8	400.5	-386.8	0.00	0.00	

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Sprague 3G-9H-N267
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site:	S9-T2N-R67W (Sprague)	**North Reference:**	True
Well:	Sprague 3G-9H-N267	**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
4,900.0	8.00	134.00	4,861.4	-396.4	410.5	-396.4	0.00	0.00	
5,000.0	8.00	134.00	4,960.4	-406.1	420.5	-406.1	0.00	0.00	
5,002.6	8.00	134.00	4,963.0	-406.4	420.8	-406.4	0.00	0.00	Shannon
5,100.0	8.00	134.00	5,059.4	-415.8	430.6	-415.8	0.00	0.00	
5,200.0	8.00	134.00	5,158.5	-425.4	440.6	-425.4	0.00	0.00	
5,300.0	8.00	134.00	5,257.5	-435.1	450.6	-435.1	0.00	0.00	
5,400.0	8.00	134.00	5,356.5	-444.8	460.6	-444.8	0.00	0.00	
5,500.0	8.00	134.00	5,455.6	-454.4	470.6	-454.4	0.00	0.00	
5,600.0	8.00	134.00	5,554.6	-464.1	480.6	-464.1	0.00	0.00	
5,620.0	8.00	134.00	5,574.4	-466.0	482.6	-466.0	0.00	0.00	Start 1° Drop
5,700.0	7.20	134.00	5,653.7	-473.4	490.2	-473.4	1.00	-1.00	
5,800.0	6.20	134.00	5,753.0	-481.5	498.6	-481.5	1.00	-1.00	
5,900.0	5.20	134.00	5,852.5	-488.4	505.8	-488.4	1.00	-1.00	
6,000.0	4.20	134.00	5,952.2	-494.1	511.7	-494.1	1.00	-1.00	
6,100.0	3.20	134.00	6,052.0	-498.6	516.3	-498.6	1.00	-1.00	
6,200.0	2.20	134.00	6,151.8	-501.9	519.7	-501.9	1.00	-1.00	
6,300.0	1.20	134.00	6,251.8	-503.9	521.8	-503.9	1.00	-1.00	
6,359.2	0.61	134.00	6,311.0	-504.6	522.5	-504.6	1.00	-1.00	Teepee Buttes (*if present)
6,400.0	0.20	134.00	6,351.8	-504.8	522.7	-504.8	1.00	-1.00	
6,420.0	0.00	0.00	6,371.8	-504.8	522.7	-504.8	1.00	-1.00	EOD; Vertical
6,500.0	0.00	0.00	6,451.8	-504.8	522.7	-504.8	0.00	0.00	
6,600.0	0.00	0.00	6,551.8	-504.8	522.7	-504.8	0.00	0.00	
6,700.0	0.00	0.00	6,651.8	-504.8	522.7	-504.8	0.00	0.00	
6,782.3	0.00	0.00	6,734.0	-504.8	522.7	-504.8	0.00	0.00	Curve KOP @ 6782' MD
6,800.0	1.77	360.00	6,751.8	-504.5	522.7	-504.5	10.00	10.00	
6,850.0	6.77	360.00	6,801.6	-500.8	522.7	-500.8	10.00	10.00	
6,900.0	11.77	360.00	6,851.0	-492.7	522.7	-492.7	10.00	10.00	
6,950.0	16.77	360.00	6,899.4	-480.4	522.7	-480.4	10.00	10.00	
7,000.0	21.77	360.00	6,946.6	-463.9	522.7	-463.9	10.00	10.00	
7,050.0	26.77	360.00	6,992.2	-443.4	522.7	-443.4	10.00	10.00	
7,100.0	31.77	360.00	7,035.8	-418.9	522.7	-418.9	10.00	10.00	
7,150.0	36.77	360.00	7,077.1	-390.8	522.7	-390.8	10.00	10.00	
7,200.0	41.77	360.00	7,115.7	-359.1	522.7	-359.1	10.00	10.00	
7,250.0	46.77	360.00	7,151.5	-324.2	522.7	-324.2	10.00	10.00	
7,299.8	51.75	360.00	7,184.0	-286.5	522.7	-286.5	10.00	10.00	Sharon Springs
7,300.0	51.77	360.00	7,184.1	-286.3	522.7	-286.3	10.00	10.00	
7,350.0	56.77	360.00	7,213.3	-245.8	522.7	-245.8	10.00	10.00	
7,400.0	61.77	360.00	7,238.9	-202.8	522.7	-202.8	10.00	10.00	
7,422.2	64.00	360.00	7,249.0	-183.0	522.7	-183.0	10.00	10.00	Niobrara
7,450.0	66.77	360.00	7,260.6	-157.8	522.7	-157.8	10.00	10.00	
7,500.0	71.77	360.00	7,278.3	-111.0	522.7	-111.0	10.00	10.00	
7,550.0	76.77	360.00	7,291.8	-62.9	522.7	-62.9	10.00	10.00	
7,575.0	79.28	360.00	7,297.0	-38.4	522.7	-38.4	10.00	10.00	B Chalk
7,600.0	81.77	360.00	7,301.1	-13.8	522.7	-13.8	10.00	10.00	
7,650.0	86.77	360.00	7,306.1	35.9	522.7	35.9	10.00	10.00	
7,682.3	90.00	360.00	7,307.0	68.2	522.7	68.2	10.00	10.00	LP @ 7307' TVD; 90°
7,700.0	90.00	360.00	7,307.0	85.9	522.7	85.9	0.00	0.00	
7,800.0	90.00	360.00	7,307.0	185.9	522.7	185.9	0.00	0.00	
7,900.0	90.00	360.00	7,307.0	285.9	522.7	285.9	0.00	0.00	
8,000.0	90.00	360.00	7,307.0	385.9	522.7	385.9	0.00	0.00	
8,100.0	90.00	360.00	7,307.0	485.9	522.7	485.9	0.00	0.00	
8,200.0	90.00	360.00	7,307.0	585.9	522.7	585.9	0.00	0.00	

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Site:	S9-T2N-R67W (Sprague)	**North Reference:**	True
Well:	Sprague 3G-9H-N267	**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
8,300.0	90.00	360.00	7,307.0	685.9	522.7	685.9	0.00	0.00	
8,400.0	90.00	360.00	7,307.0	785.9	522.7	785.9	0.00	0.00	
8,500.0	90.00	360.00	7,307.0	885.9	522.7	885.9	0.00	0.00	
8,600.0	90.00	360.00	7,307.0	985.9	522.7	985.9	0.00	0.00	
8,700.0	90.00	360.00	7,307.0	1,085.9	522.7	1,085.9	0.00	0.00	
8,800.0	90.00	360.00	7,307.0	1,185.9	522.7	1,185.9	0.00	0.00	
8,900.0	90.00	360.00	7,307.0	1,285.9	522.7	1,285.9	0.00	0.00	
9,000.0	90.00	360.00	7,307.0	1,385.9	522.7	1,385.9	0.00	0.00	
9,100.0	90.00	360.00	7,307.0	1,485.9	522.7	1,485.9	0.00	0.00	
9,200.0	90.00	360.00	7,307.0	1,585.9	522.7	1,585.9	0.00	0.00	
9,300.0	90.00	360.00	7,307.0	1,685.9	522.7	1,685.9	0.00	0.00	
9,400.0	90.00	360.00	7,307.0	1,785.9	522.7	1,785.9	0.00	0.00	
9,500.0	90.00	360.00	7,307.0	1,885.9	522.7	1,885.9	0.00	0.00	
9,600.0	90.00	360.00	7,307.0	1,985.9	522.7	1,985.9	0.00	0.00	
9,700.0	90.00	360.00	7,307.0	2,085.9	522.7	2,085.9	0.00	0.00	
9,800.0	90.00	360.00	7,307.0	2,185.9	522.7	2,185.9	0.00	0.00	
9,900.0	90.00	360.00	7,307.0	2,285.9	522.7	2,285.9	0.00	0.00	
10,000.0	90.00	360.00	7,307.0	2,385.9	522.7	2,385.9	0.00	0.00	
10,100.0	90.00	360.00	7,307.0	2,485.9	522.7	2,485.9	0.00	0.00	
10,200.0	90.00	360.00	7,307.0	2,585.9	522.7	2,585.9	0.00	0.00	
10,300.0	90.00	360.00	7,307.0	2,685.9	522.7	2,685.9	0.00	0.00	
10,400.0	90.00	360.00	7,307.0	2,785.9	522.7	2,785.9	0.00	0.00	
10,500.0	90.00	360.00	7,307.0	2,885.9	522.7	2,885.9	0.00	0.00	
10,600.0	90.00	360.00	7,307.0	2,985.9	522.7	2,985.9	0.00	0.00	
10,700.0	90.00	360.00	7,307.0	3,085.9	522.7	3,085.9	0.00	0.00	
10,800.0	90.00	360.00	7,307.0	3,185.9	522.7	3,185.9	0.00	0.00	
10,900.0	90.00	360.00	7,307.0	3,285.9	522.7	3,285.9	0.00	0.00	
11,000.0	90.00	360.00	7,307.0	3,385.9	522.7	3,385.9	0.00	0.00	
11,100.0	90.00	360.00	7,307.0	3,485.9	522.7	3,485.9	0.00	0.00	
11,200.0	90.00	360.00	7,307.0	3,585.9	522.7	3,585.9	0.00	0.00	
11,300.0	90.00	360.00	7,307.0	3,685.9	522.7	3,685.9	0.00	0.00	
11,400.0	90.00	360.00	7,307.0	3,785.9	522.7	3,785.9	0.00	0.00	
11,500.0	90.00	360.00	7,307.0	3,885.9	522.7	3,885.9	0.00	0.00	
11,600.0	90.00	360.00	7,307.0	3,985.9	522.7	3,985.9	0.00	0.00	
11,700.0	90.00	360.00	7,307.0	4,085.9	522.7	4,085.9	0.00	0.00	
11,800.0	90.00	360.00	7,307.0	4,185.9	522.7	4,185.9	0.00	0.00	
11,900.0	90.00	360.00	7,307.0	4,285.9	522.7	4,285.9	0.00	0.00	
12,000.0	90.00	360.00	7,307.0	4,385.9	522.7	4,385.9	0.00	0.00	
12,100.0	90.00	360.00	7,307.0	4,485.9	522.7	4,485.9	0.00	0.00	
12,200.0	90.00	360.00	7,307.0	4,585.9	522.7	4,585.9	0.00	0.00	
12,300.0	90.00	360.00	7,307.0	4,685.9	522.7	4,685.9	0.00	0.00	
12,400.0	90.00	360.00	7,307.0	4,785.9	522.7	4,785.9	0.00	0.00	
12,500.0	90.00	360.00	7,307.0	4,885.9	522.7	4,885.9	0.00	0.00	
12,600.0	90.00	360.00	7,307.0	4,985.9	522.7	4,985.9	0.00	0.00	
12,700.0	90.00	360.00	7,307.0	5,085.9	522.7	5,085.9	0.00	0.00	
12,772.4	90.00	360.00	7,307.0	5,158.3	522.7	5,158.3	0.00	0.00	PBHL @ 12772' MD

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Sprague 3G-9H-N267
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Project:	DJ Wattenberg	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site:	S9-T2N-R67W (Sprague)	**North Reference:**	True
Well:	Sprague 3G-9H-N267	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

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
Sprague 3G-9H-N267 P - plan hits target center - Point	0.00	0.00	7,307.0	5,158.3	522.7	1,302,137.53	3,168,666.95	40.161180	-104.896540

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
461.0	461.0	Fox Hills - BASE			
4,452.2	4,418.0	Sussex			
4,701.7	4,665.0	Sussex Marker			
5,002.6	4,963.0	Shannon			
6,359.2	6,311.0	Teepee Buttes (*if present)			
7,299.8	7,184.0	Sharon Springs			
7,422.2	7,249.0	Niobrara			
7,575.0	7,297.0	B 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
1,200.0	1,197.4	-38.7	40.1	EOB; 8°
5,620.0	5,574.4	-466.0	482.6	Start 1° Drop
6,420.0	6,371.8	-504.8	522.7	EOD; Vertical
6,782.3	6,734.0	-504.8	522.7	Curve KOP @ 6782' MD
7,682.3	7,307.0	68.2	522.7	LP @ 7307' TVD; 90°
12,772.4	7,307.0	5,158.3	522.7	PBHL @ 12772' MD

EnCana Oil & Gas (USA) Inc

DJ Wattenberg
S9-T2N-R67W (Sprague)
Sprague 3G-9H-N267
Hz
Plan #1

Anticollision Report

21 November, 2013

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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** 11/21/2013

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	12,772.4	Plan #1 (Hz)	Geolink MWD	Geolink MWD

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
S9-T2N-R67W (Sprague)						
Sprague 21-9 - DD - Plan #1	11,715.9	7,250.0	279.5	192.0	3.195	CC, ES, SF
SPRAGUE 2-4-9 (EXISTING) - ENCANA WELL - Plan #1	9,674.7	7,348.4	1,030.6	974.1	18.243	CC
SPRAGUE 2-4-9 (EXISTING) - ENCANA WELL - Plan #1	9,700.0	7,348.4	1,030.9	974.0	18.114	ES
SPRAGUE 2-4-9 (EXISTING) - ENCANA WELL - Plan #1	10,000.0	7,348.4	1,080.7	1,018.8	17.453	SF
SPRAGUE 2-4-9 (EXISTING) - ENCANA WELL - SURVE	9,643.5	7,331.7	1,025.7	970.1	18.451	CC, ES
SPRAGUE 2-4-9 (EXISTING) - ENCANA WELL - SURVE	10,000.0	7,339.7	1,085.8	1,024.3	17.639	SF
Sprague 3A-9H-N267 - Hz - Plan #1	200.0	200.0	61.5	60.9	103.640	CC, ES
Sprague 3A-9H-N267 - Hz - Plan #1	600.0	589.4	89.9	88.0	45.328	SF
Sprague 3B-9H-N267 - Hz - Plan #1	300.0	300.0	50.3	49.4	53.390	CC, ES
Sprague 3B-9H-N267 - Hz - Plan #1	600.0	594.0	67.0	65.1	33.710	SF
Sprague 3C-9H-N267 - Hz - Plan #1	400.0	400.0	41.9	40.6	32.467	CC, ES
Sprague 3C-9H-N267 - Hz - Plan #1	12,772.4	12,771.3	1,400.3	1,214.0	7.518	SF
Sprague 3D-9H-N267 - Hz - Plan #1	400.0	400.0	30.8	29.5	23.809	CC, ES
Sprague 3D-9H-N267 - Hz - Plan #1	12,772.4	12,876.7	1,074.2	891.4	5.878	SF
Sprague 3E-9H-N267 - Hz - Plan #1	200.0	200.0	22.4	21.8	37.687	CC
Sprague 3E-9H-N267 - Hz - Plan #1	300.0	299.8	22.7	21.8	24.081	ES
Sprague 3E-9H-N267 - Hz - Plan #1	12,772.4	12,708.1	698.6	513.2	3.768	SF
Sprague 3F-9H-N267 - Hz - Plan #1	400.0	400.0	11.2	9.9	8.658	CC, ES
Sprague 3F-9H-N267 - Hz - Plan #1	12,772.4	12,963.6	413.9	255.1	2.605	SF
Sprague 3H-9H-N267 - Hz - Plan #1	400.0	400.0	8.4	7.1	6.493	CC, ES
Sprague 3H-9H-N267 - Hz - Plan #1	12,700.0	12,960.0	445.0	284.6	2.773	SF
Sprague 3I--9H-N267 - Hz - Plan #1	300.0	300.0	19.9	19.0	21.110	CC, ES
Sprague 3I--9H-N267 - Hz - Plan #1	12,772.4	12,774.2	738.0	552.8	3.985	SF
Sprague 3J-9H-N267 - Hz - Plan #1	200.0	200.0	28.2	27.6	47.498	CC, ES
Sprague 3J-9H-N267 - Hz - Plan #1	12,772.4	13,068.3	1,109.3	927.8	6.111	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 21-9 - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
10,200.0	7,307.0	7,250.0	7,250.0	49.7	12.6	-90.00	4,101.9	243.2	1,541.5	1,480.0	61.52	25.058	
10,300.0	7,307.0	7,250.0	7,250.0	51.4	12.6	-90.00	4,101.9	243.2	1,443.3	1,380.1	63.21	22.834	
10,400.0	7,307.0	7,250.0	7,250.0	53.1	12.6	-90.00	4,101.9	243.2	1,345.3	1,280.4	64.90	20.728	
10,500.0	7,307.0	7,250.0	7,250.0	54.7	12.6	-90.00	4,101.9	243.2	1,247.7	1,181.0	66.60	18.733	
10,600.0	7,307.0	7,250.0	7,250.0	56.4	12.6	-90.00	4,101.9	243.2	1,150.4	1,082.1	68.31	16.842	
10,700.0	7,307.0	7,250.0	7,250.0	58.1	12.6	-90.00	4,101.9	243.2	1,053.7	983.7	70.01	15.050	
10,800.0	7,307.0	7,250.0	7,250.0	59.8	12.6	-90.00	4,101.9	243.2	957.6	885.9	71.72	13.352	
10,900.0	7,307.0	7,250.0	7,250.0	61.5	12.6	-90.00	4,101.9	243.2	862.5	789.1	73.43	11.745	
11,000.0	7,307.0	7,250.0	7,250.0	63.2	12.6	-90.00	4,101.9	243.2	768.6	693.4	75.15	10.228	
11,100.0	7,307.0	7,250.0	7,250.0	64.9	12.6	-90.00	4,101.9	243.2	676.4	599.5	76.86	8.800	
11,200.0	7,307.0	7,250.0	7,250.0	66.6	12.6	-90.00	4,101.9	243.2	586.8	508.2	78.58	7.467	
11,300.0	7,307.0	7,250.0	7,250.0	68.3	12.6	-90.00	4,101.9	243.2	501.1	420.8	80.30	6.241	
11,400.0	7,307.0	7,250.0	7,250.0	70.0	12.6	-90.00	4,101.9	243.2	421.8	339.8	82.02	5.143	
11,500.0	7,307.0	7,250.0	7,250.0	71.7	12.6	-90.00	4,101.9	243.2	353.2	269.5	83.74	4.218	
11,600.0	7,307.0	7,250.0	7,250.0	73.4	12.6	-90.00	4,101.9	243.2	302.6	217.1	85.47	3.540	
11,700.0	7,307.0	7,250.0	7,250.0	75.1	12.6	-90.00	4,101.9	243.2	279.9	192.8	87.19	3.211	
11,715.9	7,307.0	7,250.0	7,250.0	75.4	12.6	-90.00	4,101.9	243.2	279.5	192.0	87.47	3.195	CC, ES, SF
11,800.0	7,307.0	7,250.0	7,250.0	76.8	12.6	-90.00	4,101.9	243.2	291.9	202.9	88.92	3.282	
11,900.0	7,307.0	7,250.0	7,250.0	78.6	12.6	-90.00	4,101.9	243.2	334.7	244.0	90.65	3.692	
12,000.0	7,307.0	7,250.0	7,250.0	80.3	12.6	-90.00	4,101.9	243.2	398.5	306.1	92.38	4.314	
12,100.0	7,307.0	7,250.0	7,250.0	82.0	12.6	-90.00	4,101.9	243.2	475.0	380.9	94.11	5.047	
12,200.0	7,307.0	7,250.0	7,250.0	83.7	12.6	-90.00	4,101.9	243.2	559.0	463.1	95.84	5.832	
12,300.0	7,307.0	7,250.0	7,250.0	85.4	12.6	-90.00	4,101.9	243.2	647.5	549.9	97.57	6.636	
12,400.0	7,307.0	7,250.0	7,250.0	87.2	12.6	-90.00	4,101.9	243.2	739.0	639.6	99.31	7.441	
12,500.0	7,307.0	7,250.0	7,250.0	88.9	12.6	-90.00	4,101.9	243.2	832.4	731.3	101.04	8.238	
12,600.0	7,307.0	7,250.0	7,250.0	90.6	12.6	-90.00	4,101.9	243.2	927.2	824.4	102.78	9.021	
12,700.0	7,307.0	7,250.0	7,250.0	92.3	12.6	-90.00	4,101.9	243.2	1,023.0	918.5	104.51	9.788	
12,772.4	7,307.0	7,250.0	7,250.0	93.6	12.6	-90.00	4,101.9	243.2	1,092.8	987.0	105.77	10.332	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - SPRAGUE 2-4-9 (EXISTING) - ENCANA WELL - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
8,600.0	7,307.0	7,348.4	7,285.0	24.9	19.2	-90.00	2,060.6	-507.9	1,489.0	1,449.4	39.52	37.673	
8,700.0	7,307.0	7,348.4	7,285.0	26.2	19.2	-90.00	2,060.6	-507.9	1,418.5	1,377.5	40.99	34.608	
8,800.0	7,307.0	7,348.4	7,285.0	27.6	19.2	-90.00	2,060.6	-507.9	1,351.7	1,309.2	42.49	31.816	
8,900.0	7,307.0	7,348.4	7,285.0	29.1	19.2	-90.00	2,060.6	-507.9	1,289.3	1,245.2	44.02	29.291	
9,000.0	7,307.0	7,348.4	7,285.0	30.6	19.2	-90.00	2,060.6	-507.9	1,231.8	1,186.2	45.57	27.031	
9,100.0	7,307.0	7,348.4	7,285.0	32.1	19.2	-90.00	2,060.6	-507.9	1,180.0	1,132.8	47.15	25.028	
9,200.0	7,307.0	7,348.4	7,285.0	33.6	19.2	-90.00	2,060.6	-507.9	1,134.6	1,085.9	48.74	23.279	
9,300.0	7,307.0	7,348.4	7,285.0	35.2	19.2	-90.00	2,060.6	-507.9	1,096.6	1,046.2	50.35	21.779	
9,400.0	7,307.0	7,348.4	7,285.0	36.7	19.2	-90.00	2,060.6	-507.9	1,066.5	1,014.6	51.97	20.521	
9,500.0	7,307.0	7,348.4	7,285.0	38.3	19.2	-90.00	2,060.6	-507.9	1,045.3	991.7	53.61	19.498	
9,600.0	7,307.0	7,348.4	7,285.0	39.9	19.2	-90.00	2,060.6	-507.9	1,033.3	978.0	55.26	18.700	
9,674.7	7,307.0	7,348.4	7,285.0	41.1	19.2	-90.00	2,060.6	-507.9	1,030.6	974.1	56.49	18.243	CC
9,700.0	7,307.0	7,348.4	7,285.0	41.5	19.2	-90.00	2,060.6	-507.9	1,030.9	974.0	56.91	18.114	ES
9,800.0	7,307.0	7,348.4	7,285.0	43.2	19.2	-90.00	2,060.6	-507.9	1,038.2	979.6	58.57	17.724	
9,900.0	7,307.0	7,348.4	7,285.0	44.8	19.2	-90.00	2,060.6	-507.9	1,054.9	994.7	60.24	17.511	
10,000.0	7,307.0	7,348.4	7,285.0	46.4	19.2	-90.00	2,060.6	-507.9	1,080.7	1,018.8	61.92	17.453	SF
10,100.0	7,307.0	7,348.4	7,285.0	48.1	19.2	-90.00	2,060.6	-507.9	1,114.9	1,051.3	63.60	17.529	
10,200.0	7,307.0	7,348.4	7,285.0	49.7	19.2	-90.00	2,060.6	-507.9	1,156.7	1,091.4	65.29	17.717	
10,300.0	7,307.0	7,348.4	7,285.0	51.4	19.2	-90.00	2,060.6	-507.9	1,205.4	1,138.5	66.98	17.997	
10,400.0	7,307.0	7,348.4	7,285.0	53.1	19.2	-90.00	2,060.6	-507.9	1,260.2	1,191.5	68.68	18.350	
10,500.0	7,307.0	7,348.4	7,285.0	54.7	19.2	-90.00	2,060.6	-507.9	1,320.3	1,249.9	70.38	18.761	
10,600.0	7,307.0	7,348.4	7,285.0	56.4	19.2	-90.00	2,060.6	-507.9	1,385.0	1,312.9	72.08	19.215	
10,700.0	7,307.0	7,348.4	7,285.0	58.1	19.2	-90.00	2,060.6	-507.9	1,453.7	1,379.9	73.79	19.702	
10,800.0	7,307.0	7,348.4	7,285.0	59.8	19.2	-90.00	2,060.6	-507.9	1,525.9	1,450.4	75.49	20.212	

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 Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - SPRAGUE 2-4-9 (EXISTING) - ENCANA WELL - SURVEYS

Offset Site Error: 0.0 ft

Survey Program: 488-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
8,500.0	7,307.0	7,305.8	7,239.1	23.5	18.9	-87.43	2,028.7	-502.3	1,535.9	1,498.2	37.63	40.817	
8,600.0	7,307.0	7,308.1	7,241.3	24.9	18.9	-87.56	2,028.8	-502.4	1,463.0	1,423.9	39.06	37.458	
8,700.0	7,307.0	7,310.4	7,243.6	26.2	18.9	-87.69	2,028.9	-502.4	1,393.4	1,352.9	40.53	34.383	
8,800.0	7,307.0	7,312.6	7,245.9	27.6	18.9	-87.81	2,028.9	-502.5	1,327.8	1,285.8	42.04	31.588	
8,900.0	7,307.0	7,314.9	7,248.2	29.1	18.9	-87.94	2,029.0	-502.5	1,266.7	1,223.1	43.57	29.071	
9,000.0	7,307.0	7,317.2	7,250.4	30.6	18.9	-88.07	2,029.0	-502.5	1,210.7	1,165.6	45.13	26.825	
9,100.0	7,307.0	7,319.4	7,252.7	32.1	18.9	-88.19	2,029.1	-502.6	1,160.7	1,114.0	46.72	24.845	
9,200.0	7,307.0	7,321.7	7,255.0	33.6	18.9	-88.32	2,029.2	-502.6	1,117.4	1,069.1	48.32	23.125	
9,300.0	7,307.0	7,324.0	7,257.2	35.2	18.9	-88.45	2,029.2	-502.7	1,081.6	1,031.7	49.94	21.659	
9,400.0	7,307.0	7,326.2	7,259.5	36.7	18.9	-88.57	2,029.3	-502.7	1,054.2	1,002.6	51.57	20.441	
9,500.0	7,307.0	7,328.5	7,261.7	38.3	18.9	-88.70	2,029.3	-502.7	1,035.7	982.5	53.21	19.462	
9,600.0	7,307.0	7,330.7	7,264.0	39.9	18.9	-88.83	2,029.4	-502.8	1,026.6	971.7	54.87	18.711	
9,643.5	7,307.0	7,331.7	7,265.0	40.6	18.9	-88.88	2,029.4	-502.8	1,025.7	970.1	55.59	18.451	CC, ES
9,700.0	7,307.0	7,333.0	7,266.2	41.5	18.9	-88.95	2,029.5	-502.8	1,027.2	970.7	56.53	18.172	
9,800.0	7,307.0	7,335.2	7,268.5	43.2	18.9	-89.08	2,029.5	-502.9	1,037.5	979.3	58.20	17.827	
9,900.0	7,307.0	7,337.5	7,270.7	44.8	18.9	-89.20	2,029.6	-502.9	1,057.2	997.4	59.88	17.657	
10,000.0	7,307.0	7,339.7	7,273.0	46.4	18.9	-89.33	2,029.6	-503.0	1,085.8	1,024.3	61.56	17.639	SF
10,100.0	7,307.0	7,342.0	7,275.2	48.1	18.9	-89.45	2,029.7	-503.0	1,122.6	1,059.4	63.25	17.749	
10,200.0	7,307.0	7,344.2	7,277.5	49.7	18.9	-89.58	2,029.7	-503.1	1,166.8	1,101.9	64.94	17.968	
10,300.0	7,307.0	7,346.5	7,279.7	51.4	18.9	-89.70	2,029.8	-503.1	1,217.7	1,151.0	66.64	18.273	
10,400.0	7,307.0	7,348.7	7,282.0	53.1	18.9	-89.83	2,029.9	-503.2	1,274.4	1,206.0	68.34	18.647	
10,500.0	7,307.0	7,351.0	7,284.2	54.7	18.9	-89.95	2,029.9	-503.2	1,336.1	1,266.1	70.05	19.075	
10,600.0	7,307.0	7,353.2	7,286.4	56.4	18.9	-90.08	2,030.0	-503.3	1,402.3	1,330.5	71.75	19.543	
10,700.0	7,307.0	7,355.4	7,288.7	58.1	18.9	-90.20	2,030.0	-503.3	1,472.3	1,398.8	73.47	20.040	
10,800.0	7,307.0	7,357.7	7,290.9	59.8	18.9	-90.33	2,030.1	-503.4	1,545.5	1,470.4	75.18	20.558	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3A-9H-N267 - 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	0.1	-61.5	61.5				
100.0	100.0	100.0	100.0	0.1	0.1	-89.95	0.1	-61.5	61.5	61.3	0.24	251.696	
200.0	200.0	200.0	200.0	0.3	0.3	-89.95	0.1	-61.5	61.5	60.9	0.59	103.640	CC, ES
300.0	300.0	298.0	298.0	0.5	0.5	-90.46	-0.5	-63.1	63.1	62.2	0.94	66.998	
400.0	400.0	395.7	395.6	0.6	0.7	-91.82	-2.2	-67.8	68.0	66.7	1.30	52.150	
500.0	500.0	493.0	492.5	0.8	0.9	132.71	-4.9	-75.6	76.7	75.1	1.63	46.960	
600.0	600.0	589.4	588.2	1.0	1.1	131.77	-8.7	-86.4	89.9	88.0	1.98	45.328	SF
700.0	699.9	684.7	682.4	1.2	1.4	131.26	-13.5	-100.1	107.5	105.2	2.34	45.970	
800.0	799.7	778.5	774.6	1.4	1.8	131.05	-19.2	-116.4	129.3	126.6	2.70	47.915	
900.0	899.4	870.9	864.8	1.6	2.2	131.00	-25.8	-135.3	155.3	152.2	3.07	50.639	
1,000.0	998.9	966.7	958.0	1.8	2.6	131.21	-33.1	-156.2	183.7	180.3	3.45	53.202	
1,100.0	1,098.3	1,062.2	1,051.0	2.1	3.0	131.65	-40.3	-177.0	213.3	209.4	3.85	55.350	
1,200.0	1,197.4	1,157.4	1,143.5	2.3	3.4	132.25	-47.6	-197.7	244.0	239.7	4.27	57.167	
1,300.0	1,296.4	1,252.3	1,235.9	2.6	3.8	133.03	-54.8	-218.3	275.3	270.6	4.70	58.612	
1,400.0	1,395.5	1,347.2	1,328.2	2.9	4.2	133.66	-62.0	-239.0	306.6	301.5	5.13	59.769	
1,500.0	1,494.5	1,442.1	1,420.6	3.2	4.6	134.17	-69.3	-259.6	338.0	332.4	5.57	60.712	
1,600.0	1,593.5	1,537.0	1,513.0	3.4	5.1	134.59	-76.5	-280.3	369.3	363.3	6.01	61.493	
1,700.0	1,692.5	1,631.9	1,605.3	3.7	5.5	134.95	-83.7	-301.0	400.7	394.3	6.45	62.150	
1,800.0	1,791.6	1,726.9	1,697.7	4.0	5.9	135.25	-90.9	-321.6	432.2	425.3	6.89	62.708	
1,900.0	1,890.6	1,821.8	1,790.0	4.3	6.3	135.51	-98.2	-342.3	463.6	456.2	7.34	63.189	
2,000.0	1,989.6	1,916.7	1,882.4	4.6	6.7	135.74	-105.4	-362.9	495.0	487.2	7.78	63.606	
2,100.0	2,088.6	2,011.6	1,974.7	4.9	7.2	135.95	-112.6	-383.6	526.4	518.2	8.23	63.972	
2,200.0	2,187.7	2,106.5	2,067.1	5.2	7.6	136.13	-119.9	-404.3	557.9	549.2	8.68	64.294	
2,300.0	2,286.7	2,201.4	2,159.5	5.5	8.0	136.29	-127.1	-424.9	589.3	580.2	9.13	64.581	
2,400.0	2,385.7	2,296.3	2,251.8	5.8	8.4	136.43	-134.3	-445.6	620.8	611.2	9.57	64.837	
2,500.0	2,484.8	2,391.3	2,344.2	6.1	8.9	136.56	-141.5	-466.2	652.2	642.2	10.02	65.067	
2,600.0	2,583.8	2,486.2	2,436.5	6.4	9.3	136.68	-148.8	-486.9	683.7	673.2	10.47	65.276	
2,700.0	2,682.8	2,581.1	2,528.9	6.7	9.7	136.79	-156.0	-507.5	715.1	704.2	10.92	65.464	
2,800.0	2,781.8	2,676.0	2,621.2	7.0	10.1	136.89	-163.2	-528.2	746.6	735.2	11.37	65.637	
2,900.0	2,880.9	2,770.9	2,713.6	7.3	10.5	136.98	-170.5	-548.9	778.1	766.2	11.83	65.794	
3,000.0	2,979.9	2,865.8	2,806.0	7.6	11.0	137.06	-177.7	-569.5	809.5	797.2	12.28	65.939	
3,100.0	3,078.9	2,960.7	2,898.3	7.8	11.4	137.14	-184.9	-590.2	841.0	828.3	12.73	66.073	
3,200.0	3,177.9	3,055.7	2,990.7	8.1	11.8	137.21	-192.1	-610.8	872.5	859.3	13.18	66.196	
3,300.0	3,277.0	3,150.6	3,083.0	8.4	12.2	137.28	-199.4	-631.5	903.9	890.3	13.63	66.310	
3,400.0	3,376.0	3,245.5	3,175.4	8.7	12.7	137.34	-206.6	-652.2	935.4	921.3	14.08	66.417	
3,500.0	3,475.0	3,340.4	3,267.7	9.0	13.1	137.40	-213.8	-672.8	966.9	952.3	14.54	66.516	
3,600.0	3,574.0	3,435.3	3,360.1	9.3	13.5	137.46	-221.0	-693.5	998.3	983.3	14.99	66.608	
3,700.0	3,673.1	3,530.2	3,452.5	9.6	13.9	137.51	-228.3	-714.1	1,029.8	1,014.4	15.44	66.695	
3,800.0	3,772.1	3,625.2	3,544.8	9.9	14.4	137.55	-235.5	-734.8	1,061.3	1,045.4	15.89	66.776	
3,900.0	3,871.1	3,720.1	3,637.2	10.2	14.8	137.60	-242.7	-755.5	1,092.7	1,076.4	16.35	66.853	
4,000.0	3,970.2	3,815.0	3,729.5	10.5	15.2	137.64	-250.0	-776.1	1,124.2	1,107.4	16.80	66.924	
4,100.0	4,069.2	3,909.9	3,821.9	10.8	15.6	137.68	-257.2	-796.8	1,155.7	1,138.4	17.25	66.992	
4,200.0	4,168.2	4,004.8	3,914.2	11.1	16.1	137.72	-264.4	-817.4	1,187.2	1,169.4	17.70	67.056	
4,300.0	4,267.2	4,099.7	4,006.6	11.4	16.5	137.76	-271.6	-838.1	1,218.6	1,200.5	18.16	67.117	
4,400.0	4,366.3	4,194.6	4,099.0	11.7	16.9	137.79	-278.9	-858.8	1,250.1	1,231.5	18.61	67.174	
4,500.0	4,465.3	4,289.6	4,191.3	12.0	17.3	137.83	-286.1	-879.4	1,281.6	1,262.5	19.06	67.229	
4,600.0	4,564.3	4,384.5	4,283.7	12.3	17.8	137.86	-293.3	-900.1	1,313.0	1,293.5	19.52	67.280	
4,700.0	4,663.3	4,479.4	4,376.0	12.6	18.2	137.89	-300.5	-920.7	1,344.5	1,324.6	19.97	67.330	
4,800.0	4,762.4	4,574.3	4,468.4	12.9	18.6	137.92	-307.8	-941.4	1,376.0	1,355.6	20.42	67.377	
4,900.0	4,861.4	4,669.2	4,560.7	13.2	19.0	137.94	-315.0	-962.0	1,407.5	1,386.6	20.88	67.421	
5,000.0	4,960.4	4,764.1	4,653.1	13.5	19.5	137.97	-322.2	-982.7	1,438.9	1,417.6	21.33	67.464	
5,100.0	5,059.4	4,859.1	4,745.5	13.8	19.9	138.00	-329.5	-1,003.4	1,470.4	1,448.6	21.78	67.505	

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 Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3A-9H-N267 - 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	5,158.5	4,954.0	4,837.8	14.1	20.3	138.02	-336.7	-1,024.0	1,501.9	1,479.7	22.24	67.544	
5,300.0	5,257.5	5,048.9	4,930.2	14.4	20.7	138.04	-343.9	-1,044.7	1,533.4	1,510.7	22.69	67.581	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3B-9H-N267 - 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	-50.3	50.3				
100.0	100.0	100.0	100.0	0.1	0.1	-89.95	0.0	-50.3	50.3	50.1	0.24	205.933	
200.0	200.0	200.0	200.0	0.3	0.3	-89.95	0.0	-50.3	50.3	49.7	0.59	84.796	
300.0	300.0	300.0	300.0	0.5	0.5	-89.95	0.0	-50.3	50.3	49.4	0.94	53.390	CC, ES
400.0	400.0	398.4	398.4	0.6	0.6	-90.70	-0.6	-51.9	51.9	50.6	1.29	40.193	
500.0	500.0	496.5	496.3	0.8	0.8	133.88	-2.7	-56.5	57.3	55.6	1.64	34.976	
600.0	600.0	594.0	593.5	1.0	1.0	132.75	-6.0	-64.1	67.0	65.1	1.99	33.710	SF
700.0	699.9	690.7	689.5	1.2	1.3	131.97	-10.7	-74.7	81.2	78.8	2.35	34.600	
800.0	799.7	786.2	783.8	1.4	1.6	131.48	-16.5	-88.0	99.5	96.8	2.71	36.729	
900.0	899.4	882.5	878.6	1.6	1.9	131.27	-23.4	-103.8	121.5	118.5	3.09	39.381	
1,000.0	998.9	979.7	974.2	1.8	2.2	131.56	-30.5	-119.9	144.9	141.4	3.48	41.674	
1,100.0	1,098.3	1,076.6	1,069.5	2.1	2.6	132.17	-37.6	-136.0	169.4	165.5	3.88	43.649	
1,200.0	1,197.4	1,173.2	1,164.5	2.3	2.9	132.96	-44.6	-152.1	195.1	190.8	4.30	45.374	
1,300.0	1,296.4	1,269.6	1,259.3	2.6	3.2	133.88	-51.7	-168.1	221.4	216.6	4.73	46.809	
1,400.0	1,395.5	1,366.1	1,354.2	2.9	3.6	134.61	-58.7	-184.1	247.7	242.5	5.16	47.974	
1,500.0	1,494.5	1,462.5	1,449.0	3.2	3.9	135.20	-65.7	-200.1	274.1	268.5	5.60	48.936	
1,600.0	1,593.5	1,558.9	1,543.8	3.4	4.3	135.68	-72.8	-216.1	300.5	294.4	6.04	49.743	
1,700.0	1,692.5	1,655.3	1,638.6	3.7	4.6	136.09	-79.8	-232.2	326.9	320.4	6.48	50.428	
1,800.0	1,791.6	1,751.8	1,733.5	4.0	5.0	136.43	-86.8	-248.2	353.3	346.4	6.93	51.016	
1,900.0	1,890.6	1,848.2	1,828.3	4.3	5.3	136.73	-93.9	-264.2	379.7	372.4	7.37	51.526	
2,000.0	1,989.6	1,944.6	1,923.1	4.6	5.7	136.99	-100.9	-280.2	406.2	398.4	7.82	51.972	
2,100.0	2,088.6	2,041.1	2,017.9	4.9	6.0	137.21	-107.9	-296.2	432.6	424.4	8.26	52.366	
2,200.0	2,187.7	2,137.5	2,112.8	5.2	6.4	137.41	-114.9	-312.2	459.1	450.4	8.71	52.716	
2,300.0	2,286.7	2,233.9	2,207.6	5.5	6.7	137.59	-122.0	-328.2	485.5	476.4	9.16	53.029	
2,400.0	2,385.7	2,330.3	2,302.4	5.8	7.1	137.75	-129.0	-344.3	512.0	502.4	9.60	53.310	
2,500.0	2,484.8	2,426.8	2,397.3	6.1	7.4	137.90	-136.0	-360.3	538.4	528.4	10.05	53.564	
2,600.0	2,583.8	2,523.2	2,492.1	6.4	7.8	138.03	-143.1	-376.3	564.9	554.4	10.50	53.795	
2,700.0	2,682.8	2,619.6	2,586.9	6.7	8.1	138.15	-150.1	-392.3	591.4	580.4	10.95	54.005	
2,800.0	2,781.8	2,716.0	2,681.7	7.0	8.5	138.26	-157.1	-408.3	617.9	606.5	11.40	54.198	
2,900.0	2,880.9	2,812.5	2,776.6	7.3	8.8	138.36	-164.2	-424.3	644.3	632.5	11.85	54.375	
3,000.0	2,979.9	2,908.9	2,871.4	7.6	9.2	138.45	-171.2	-440.4	670.8	658.5	12.30	54.538	
3,100.0	3,078.9	3,005.3	2,966.2	7.8	9.5	138.54	-178.2	-456.4	697.3	684.5	12.75	54.688	
3,200.0	3,177.9	3,101.7	3,061.0	8.1	9.9	138.61	-185.3	-472.4	723.8	710.6	13.20	54.828	
3,300.0	3,277.0	3,198.2	3,155.9	8.4	10.2	138.69	-192.3	-488.4	750.2	736.6	13.65	54.958	
3,400.0	3,376.0	3,294.6	3,250.7	8.7	10.6	138.76	-199.3	-504.4	776.7	762.6	14.10	55.079	
3,500.0	3,475.0	3,391.0	3,345.5	9.0	10.9	138.82	-206.4	-520.4	803.2	788.6	14.55	55.193	
3,600.0	3,574.0	3,487.4	3,440.3	9.3	11.3	138.88	-213.4	-536.4	829.7	814.7	15.00	55.299	
3,700.0	3,673.1	3,583.9	3,535.2	9.6	11.6	138.94	-220.4	-552.5	856.2	840.7	15.45	55.398	
3,800.0	3,772.1	3,680.3	3,630.0	9.9	12.0	138.99	-227.5	-568.5	882.6	866.7	15.91	55.492	
3,900.0	3,871.1	3,776.7	3,724.8	10.2	12.3	139.04	-234.5	-584.5	909.1	892.8	16.36	55.580	
4,000.0	3,970.2	3,873.2	3,819.7	10.5	12.7	139.09	-241.5	-600.5	935.6	918.8	16.81	55.663	
4,100.0	4,069.2	3,969.6	3,914.5	10.8	13.0	139.13	-248.5	-616.5	962.1	944.8	17.26	55.741	
4,200.0	4,168.2	4,066.0	4,009.3	11.1	13.4	139.17	-255.6	-632.5	988.6	970.9	17.71	55.816	
4,300.0	4,267.2	4,162.4	4,104.1	11.4	13.8	139.21	-262.6	-648.6	1,015.1	996.9	18.16	55.886	
4,400.0	4,366.3	4,258.9	4,199.0	11.7	14.1	139.25	-269.6	-664.6	1,041.6	1,022.9	18.61	55.953	
4,500.0	4,465.3	4,355.3	4,293.8	12.0	14.5	139.29	-276.7	-680.6	1,068.0	1,049.0	19.07	56.017	
4,600.0	4,564.3	4,451.7	4,388.6	12.3	14.8	139.32	-283.7	-696.6	1,094.5	1,075.0	19.52	56.077	
4,700.0	4,663.3	4,548.1	4,483.4	12.6	15.2	139.35	-290.7	-712.6	1,121.0	1,101.1	19.97	56.135	
4,800.0	4,762.4	4,644.6	4,578.3	12.9	15.5	139.38	-297.8	-728.6	1,147.5	1,127.1	20.42	56.190	
4,900.0	4,861.4	4,741.0	4,673.1	13.2	15.9	139.41	-304.8	-744.6	1,174.0	1,153.1	20.87	56.242	
5,000.0	4,960.4	4,837.4	4,767.9	13.5	16.2	139.44	-311.8	-760.7	1,200.5	1,179.2	21.33	56.292	
5,100.0	5,059.4	4,933.8	4,862.7	13.8	16.6	139.47	-318.9	-776.7	1,227.0	1,205.2	21.78	56.340	

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 Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3B-9H-N267 - 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	5,158.5	5,030.3	4,957.6	14.1	16.9	139.49	-325.9	-792.7	1,253.5	1,231.2	22.23	56.386	
5,300.0	5,257.5	5,126.7	5,052.4	14.4	17.3	139.52	-332.9	-808.7	1,280.0	1,257.3	22.68	56.430	
5,400.0	5,356.5	5,223.1	5,147.2	14.7	17.6	139.54	-340.0	-824.7	1,306.4	1,283.3	23.13	56.473	
5,500.0	5,455.6	5,319.5	5,242.1	15.0	18.0	139.57	-347.0	-840.7	1,332.9	1,309.3	23.59	56.513	
5,600.0	5,554.6	5,416.0	5,336.9	15.3	18.3	139.59	-354.0	-856.8	1,359.4	1,335.4	24.04	56.552	
5,620.0	5,574.4	5,435.3	5,355.8	15.4	18.4	139.59	-355.4	-860.0	1,364.7	1,340.6	24.13	56.560	
5,700.0	5,653.7	5,512.5	5,431.8	15.6	18.7	139.73	-361.1	-872.8	1,385.5	1,361.0	24.52	56.515	
5,800.0	5,753.0	5,609.4	5,527.1	15.9	19.0	139.86	-368.1	-888.9	1,410.3	1,385.3	24.98	56.450	
5,900.0	5,852.5	5,706.5	5,622.6	16.1	19.4	139.93	-375.2	-905.0	1,433.8	1,408.4	25.43	56.375	
6,000.0	5,952.2	5,804.0	5,718.5	16.3	19.7	139.95	-382.3	-921.2	1,456.1	1,430.2	25.87	56.290	
6,100.0	6,052.0	5,901.7	5,814.5	16.5	20.1	139.91	-389.4	-937.4	1,477.0	1,450.7	26.28	56.195	
6,200.0	6,151.8	5,999.6	5,910.8	16.7	20.5	139.83	-396.6	-953.7	1,496.7	1,470.0	26.68	56.094	
6,300.0	6,251.8	6,097.7	6,007.3	16.8	20.8	139.71	-403.7	-970.0	1,515.0	1,488.0	27.06	55.986	
6,400.0	6,351.8	6,195.9	6,103.9	16.9	21.2	139.54	-410.9	-986.3	1,532.1	1,504.7	27.42	55.872	
6,420.0	6,371.8	6,215.6	6,123.2	16.9	21.2	-86.50	-412.3	-989.6	1,535.4	1,507.9	27.49	55.847	
6,500.0	6,451.8	6,294.3	6,200.6	17.0	21.5	-86.75	-418.1	-1,002.6	1,548.3	1,520.6	27.76	55.766	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3C-9H-N267 - 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	-41.9	41.9				
100.0	100.0	100.0	100.0	0.1	0.1	-89.95	0.0	-41.9	41.9	41.7	0.24	171.611	
200.0	200.0	200.0	200.0	0.3	0.3	-89.95	0.0	-41.9	41.9	41.3	0.59	70.663	
300.0	300.0	300.0	300.0	0.5	0.5	-89.95	0.0	-41.9	41.9	41.0	0.94	44.492	
400.0	400.0	400.0	400.0	0.6	0.6	-89.95	0.0	-41.9	41.9	40.6	1.29	32.467	CC, ES
500.0	500.0	499.4	499.4	0.8	0.8	136.22	-0.4	-42.7	43.3	41.7	1.64	26.401	
600.0	600.0	598.6	598.6	1.0	1.0	136.69	-1.8	-44.8	47.4	45.4	1.99	23.807	
700.0	699.9	697.7	697.5	1.2	1.2	137.31	-4.1	-48.5	54.2	51.8	2.34	23.112	
800.0	799.7	796.4	796.0	1.4	1.4	137.94	-7.3	-53.5	63.7	61.0	2.70	23.550	
900.0	899.4	894.6	894.0	1.6	1.6	138.51	-11.4	-60.0	75.9	72.9	3.07	24.697	
1,000.0	998.9	992.3	991.3	1.8	1.8	138.98	-16.3	-67.8	90.8	87.4	3.45	26.296	
1,100.0	1,098.3	1,089.4	1,087.7	2.1	2.0	139.35	-22.1	-76.9	108.4	104.6	3.85	28.179	
1,200.0	1,197.4	1,185.7	1,183.3	2.3	2.3	139.64	-28.7	-87.4	128.7	124.4	4.26	30.231	
1,300.0	1,296.4	1,281.6	1,278.2	2.6	2.5	139.78	-36.2	-99.1	150.9	146.2	4.68	32.252	
1,400.0	1,395.5	1,379.0	1,374.4	2.9	2.8	139.77	-44.0	-111.6	173.5	168.4	5.11	33.968	
1,500.0	1,494.5	1,476.4	1,470.7	3.2	3.1	139.76	-51.9	-124.0	196.2	190.7	5.54	35.388	
1,600.0	1,593.5	1,573.8	1,567.0	3.4	3.4	139.75	-59.8	-136.4	218.9	212.9	5.98	36.579	
1,700.0	1,692.5	1,671.2	1,663.3	3.7	3.7	139.74	-67.6	-148.9	241.6	235.2	6.43	37.589	
1,800.0	1,791.6	1,768.6	1,759.5	4.0	4.0	139.74	-75.5	-161.3	264.3	257.4	6.87	38.456	
1,900.0	1,890.6	1,866.0	1,855.8	4.3	4.3	139.73	-83.4	-173.7	287.0	279.6	7.32	39.208	
2,000.0	1,989.6	1,963.4	1,952.1	4.6	4.6	139.73	-91.2	-186.1	309.6	301.9	7.77	39.864	
2,100.0	2,088.6	2,060.8	2,048.4	4.9	4.9	139.73	-99.1	-198.6	332.3	324.1	8.22	40.443	
2,200.0	2,187.7	2,158.2	2,144.6	5.2	5.2	139.72	-107.0	-211.0	355.0	346.3	8.67	40.956	
2,300.0	2,286.7	2,255.6	2,240.9	5.5	5.5	139.72	-114.8	-223.4	377.7	368.6	9.12	41.414	
2,400.0	2,385.7	2,353.0	2,337.2	5.8	5.8	139.72	-122.7	-235.9	400.4	390.8	9.57	41.825	
2,500.0	2,484.8	2,450.4	2,433.5	6.1	6.1	139.72	-130.6	-248.3	423.1	413.0	10.03	42.196	
2,600.0	2,583.8	2,547.7	2,529.7	6.4	6.4	139.71	-138.4	-260.7	445.7	435.3	10.48	42.532	
2,700.0	2,682.8	2,645.1	2,626.0	6.7	6.7	139.71	-146.3	-273.2	468.4	457.5	10.93	42.839	
2,800.0	2,781.8	2,742.5	2,722.3	7.0	7.0	139.71	-154.2	-285.6	491.1	479.7	11.39	43.119	
2,900.0	2,880.9	2,839.9	2,818.6	7.3	7.3	139.71	-162.0	-298.0	513.8	501.9	11.84	43.376	
3,000.0	2,979.9	2,937.3	2,914.9	7.6	7.6	139.71	-169.9	-310.5	536.5	524.2	12.30	43.612	
3,100.0	3,078.9	3,034.7	3,011.1	7.8	7.9	139.71	-177.8	-322.9	559.1	546.4	12.76	43.831	
3,200.0	3,177.9	3,132.1	3,107.4	8.1	8.3	139.71	-185.6	-335.3	581.8	568.6	13.21	44.033	
3,300.0	3,277.0	3,229.5	3,203.7	8.4	8.6	139.71	-193.5	-347.8	604.5	590.8	13.67	44.222	
3,400.0	3,376.0	3,326.9	3,300.0	8.7	8.9	139.70	-201.4	-360.2	627.2	613.1	14.13	44.397	
3,500.0	3,475.0	3,424.3	3,396.2	9.0	9.2	139.70	-209.2	-372.6	649.9	635.3	14.58	44.560	
3,600.0	3,574.0	3,521.7	3,492.5	9.3	9.5	139.70	-217.1	-385.1	672.6	657.5	15.04	44.713	
3,700.0	3,673.1	3,619.1	3,588.8	9.6	9.8	139.70	-225.0	-397.5	695.2	679.7	15.50	44.857	
3,800.0	3,772.1	3,716.5	3,685.1	9.9	10.1	139.70	-232.8	-409.9	717.9	702.0	15.96	44.991	
3,900.0	3,871.1	3,813.9	3,781.3	10.2	10.4	139.70	-240.7	-422.4	740.6	724.2	16.41	45.118	
4,000.0	3,970.2	3,911.3	3,877.6	10.5	10.7	139.70	-248.5	-434.8	763.3	746.4	16.87	45.238	
4,100.0	4,069.2	4,008.6	3,973.9	10.8	11.0	139.70	-256.4	-447.2	786.0	768.6	17.33	45.350	
4,200.0	4,168.2	4,106.0	4,070.2	11.1	11.3	139.70	-264.3	-459.6	808.7	790.9	17.79	45.457	
4,300.0	4,267.2	4,203.4	4,166.4	11.4	11.6	139.70	-272.1	-472.1	831.3	813.1	18.25	45.558	
4,400.0	4,366.3	4,300.8	4,262.7	11.7	11.9	139.70	-280.0	-484.5	854.0	835.3	18.71	45.654	
4,500.0	4,465.3	4,398.2	4,359.0	12.0	12.3	139.70	-287.9	-496.9	876.7	857.5	19.16	45.745	
4,600.0	4,564.3	4,495.6	4,455.3	12.3	12.6	139.70	-295.7	-509.4	899.4	879.8	19.62	45.832	
4,700.0	4,663.3	4,593.0	4,551.5	12.6	12.9	139.70	-303.6	-521.8	922.1	902.0	20.08	45.914	
4,800.0	4,762.4	4,690.4	4,647.8	12.9	13.2	139.70	-311.5	-534.2	944.8	924.2	20.54	45.993	
4,900.0	4,861.4	4,787.8	4,744.1	13.2	13.5	139.70	-319.3	-546.7	967.4	946.4	21.00	46.068	
5,000.0	4,960.4	4,885.2	4,840.4	13.5	13.8	139.70	-327.2	-559.1	990.1	968.7	21.46	46.140	
5,100.0	5,059.4	4,982.6	4,936.6	13.8	14.1	139.70	-335.1	-571.5	1,012.8	990.9	21.92	46.208	

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 Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3C-9H-N267 - 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	5,158.5	5,080.0	5,032.9	14.1	14.4	139.69	-342.9	-584.0	1,035.5	1,013.1	22.38	46.274	
5,300.0	5,257.5	5,177.4	5,129.2	14.4	14.7	139.69	-350.8	-596.4	1,058.2	1,035.3	22.84	46.337	
5,400.0	5,356.5	5,274.8	5,225.5	14.7	15.0	139.69	-358.7	-608.8	1,080.9	1,057.6	23.30	46.397	
5,500.0	5,455.6	5,372.2	5,321.7	15.0	15.3	139.69	-366.5	-621.3	1,103.5	1,079.8	23.76	46.455	
5,600.0	5,554.6	5,469.6	5,418.0	15.3	15.7	139.69	-374.4	-633.7	1,126.2	1,102.0	24.21	46.510	
5,620.0	5,574.4	5,489.0	5,437.3	15.4	15.7	139.69	-376.0	-636.2	1,130.8	1,106.4	24.31	46.521	
5,700.0	5,653.7	5,567.0	5,514.4	15.6	16.0	139.79	-382.3	-646.1	1,148.5	1,123.8	24.69	46.518	
5,800.0	5,753.0	5,664.8	5,611.0	15.9	16.3	139.86	-390.2	-658.6	1,169.5	1,144.3	25.15	46.493	
5,900.0	5,852.5	5,762.8	5,707.9	16.1	16.6	139.86	-398.1	-671.1	1,189.2	1,163.6	25.60	46.446	
6,000.0	5,952.2	5,861.0	5,805.0	16.3	16.9	139.80	-406.0	-683.7	1,207.6	1,181.5	26.04	46.377	
6,100.0	6,052.0	5,959.4	5,902.3	16.5	17.2	139.69	-414.0	-696.2	1,224.6	1,198.2	26.46	46.289	
6,200.0	6,151.8	6,058.0	5,999.7	16.7	17.5	139.52	-421.9	-708.8	1,240.4	1,213.6	26.86	46.184	
6,300.0	6,251.8	6,156.7	6,097.3	16.8	17.8	139.30	-429.9	-721.4	1,255.0	1,227.7	27.24	46.063	
6,400.0	6,351.8	6,255.5	6,195.0	16.9	18.1	139.03	-437.9	-734.0	1,268.2	1,240.6	27.61	45.929	
6,420.0	6,371.8	6,275.3	6,214.5	16.9	18.2	-87.03	-439.5	-736.5	1,270.7	1,243.0	27.69	45.899	
6,500.0	6,451.8	6,354.4	6,292.7	17.0	18.5	-87.34	-445.9	-746.6	1,280.6	1,252.7	27.97	45.784	
6,600.0	6,551.8	6,453.2	6,390.4	17.1	18.8	-87.73	-453.9	-759.3	1,293.1	1,264.8	28.33	45.648	
6,700.0	6,651.8	6,552.1	6,488.1	17.3	19.1	-88.10	-461.8	-771.9	1,305.6	1,276.9	28.68	45.520	
6,782.3	6,734.0	6,633.4	6,568.5	17.4	19.3	-88.40	-468.4	-782.3	1,315.9	1,287.0	28.97	45.420	
6,800.0	6,751.8	6,650.9	6,585.8	17.4	19.4	-88.26	-469.8	-784.5	1,318.2	1,289.1	29.04	45.395	
6,850.0	6,801.6	6,699.9	6,634.2	17.4	19.6	-87.97	-473.8	-790.7	1,324.4	1,295.2	29.17	45.397	
6,900.0	6,851.0	6,748.0	6,681.8	17.4	19.7	-87.86	-477.7	-796.9	1,330.5	1,301.2	29.26	45.476	
6,950.0	6,899.4	6,794.9	6,728.2	17.3	19.8	-87.86	-480.3	-802.9	1,336.6	1,307.3	29.27	45.669	
7,000.0	6,946.6	6,842.7	6,775.6	17.2	19.9	-87.88	-479.2	-809.0	1,342.7	1,313.5	29.20	45.990	
7,050.0	6,992.2	6,891.9	6,824.1	17.1	20.0	-87.93	-474.0	-815.3	1,348.8	1,319.8	29.05	46.427	
7,100.0	7,035.8	6,942.5	6,873.3	17.0	20.1	-87.99	-464.2	-821.6	1,354.9	1,326.0	28.84	46.973	
7,150.0	7,077.1	6,994.6	6,922.9	16.8	20.1	-88.08	-449.5	-828.0	1,360.8	1,332.2	28.58	47.621	
7,200.0	7,115.7	7,048.6	6,972.6	16.6	20.1	-88.20	-429.7	-834.4	1,366.5	1,338.2	28.26	48.358	
7,250.0	7,151.5	7,104.3	7,021.9	16.5	20.0	-88.33	-404.3	-840.8	1,372.0	1,344.1	27.90	49.168	
7,300.0	7,184.1	7,162.1	7,070.0	16.4	20.0	-88.49	-373.0	-847.0	1,377.2	1,349.7	27.53	50.021	
7,350.0	7,213.3	7,221.9	7,116.3	16.2	19.9	-88.67	-335.7	-853.0	1,382.1	1,354.9	27.16	50.878	
7,400.0	7,238.9	7,283.8	7,159.9	16.1	19.8	-88.87	-292.1	-858.6	1,386.5	1,359.6	26.82	51.688	
7,450.0	7,260.6	7,348.0	7,199.9	16.1	19.8	-89.07	-242.3	-863.8	1,390.4	1,363.9	26.54	52.391	
7,500.0	7,278.3	7,414.2	7,235.1	16.0	19.7	-89.28	-186.5	-868.3	1,393.8	1,367.4	26.35	52.898	
7,550.0	7,291.8	7,482.3	7,264.4	16.0	19.7	-89.49	-125.1	-872.1	1,396.5	1,370.2	26.28	53.147	
7,600.0	7,301.1	7,552.2	7,286.8	16.1	19.7	-89.68	-59.0	-875.0	1,398.5	1,372.2	26.35	53.079	
7,650.0	7,306.1	7,623.5	7,301.2	16.2	19.8	-89.86	10.8	-876.9	1,399.8	1,373.2	26.60	52.626	
7,682.3	7,307.0	7,670.1	7,305.9	16.3	19.9	-89.96	57.2	-877.5	1,400.2	1,373.4	26.85	52.149	
7,700.0	7,307.0	7,695.9	7,306.9	16.3	20.0	-90.00	82.9	-877.6	1,400.3	1,373.3	27.02	51.834	
7,800.0	7,307.0	7,798.9	7,307.0	16.8	20.4	-90.00	185.9	-877.6	1,400.3	1,372.2	28.07	49.883	
7,900.0	7,307.0	7,898.9	7,307.0	17.4	20.8	-90.00	285.9	-877.6	1,400.3	1,370.8	29.50	47.469	
8,000.0	7,307.0	7,998.9	7,307.0	18.1	21.5	-90.00	385.9	-877.6	1,400.3	1,369.1	31.26	44.800	
8,100.0	7,307.0	8,098.9	7,307.0	19.0	22.2	-90.00	485.9	-877.6	1,400.3	1,367.0	33.29	42.060	
8,200.0	7,307.0	8,198.9	7,307.0	20.0	23.1	-90.00	585.9	-877.6	1,400.3	1,364.8	35.56	39.380	
8,300.0	7,307.0	8,298.9	7,307.0	21.1	24.0	-90.00	685.9	-877.6	1,400.3	1,362.3	38.01	36.836	
8,400.0	7,307.0	8,398.9	7,307.0	22.3	25.1	-90.00	785.9	-877.6	1,400.3	1,359.7	40.62	34.470	
8,500.0	7,307.0	8,498.9	7,307.0	23.5	26.2	-90.00	885.9	-877.6	1,400.3	1,357.0	43.36	32.294	
8,600.0	7,307.0	8,598.9	7,307.0	24.9	27.4	-90.00	985.9	-877.6	1,400.3	1,354.1	46.20	30.308	
8,700.0	7,307.0	8,698.9	7,307.0	26.2	28.6	-90.00	1,085.9	-877.6	1,400.3	1,351.2	49.13	28.502	
8,800.0	7,307.0	8,798.9	7,307.0	27.6	29.9	-90.00	1,185.9	-877.6	1,400.3	1,348.2	52.13	26.862	
8,900.0	7,307.0	8,898.9	7,307.0	29.1	31.2	-90.00	1,285.9	-877.6	1,400.3	1,345.1	55.19	25.373	
9,000.0	7,307.0	8,998.9	7,307.0	30.6	32.6	-90.00	1,385.9	-877.6	1,400.3	1,342.0	58.30	24.019	

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 Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3C-9H-N267 - 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	7,307.0	9,098.9	7,307.0	32.1	34.0	-90.00	1,485.9	-877.6	1,400.3	1,338.9	61.45	22.787	
9,200.0	7,307.0	9,198.9	7,307.0	33.6	35.5	-90.00	1,585.9	-877.6	1,400.3	1,335.7	64.64	21.663	
9,300.0	7,307.0	9,298.9	7,307.0	35.2	37.0	-90.00	1,685.9	-877.6	1,400.3	1,332.4	67.86	20.635	
9,400.0	7,307.0	9,398.9	7,307.0	36.7	38.4	-90.00	1,785.9	-877.6	1,400.3	1,329.2	71.11	19.692	
9,500.0	7,307.0	9,498.9	7,307.0	38.3	40.0	-90.00	1,885.9	-877.6	1,400.3	1,325.9	74.38	18.826	
9,600.0	7,307.0	9,598.9	7,307.0	39.9	41.5	-90.00	1,985.9	-877.6	1,400.3	1,322.6	77.67	18.028	
9,700.0	7,307.0	9,698.9	7,307.0	41.5	43.1	-90.00	2,085.9	-877.6	1,400.3	1,319.3	80.98	17.291	
9,800.0	7,307.0	9,798.9	7,307.0	43.2	44.6	-90.00	2,185.9	-877.6	1,400.3	1,316.0	84.31	16.609	
9,900.0	7,307.0	9,898.9	7,307.0	44.8	46.2	-90.00	2,285.9	-877.6	1,400.3	1,312.6	87.65	15.976	
10,000.0	7,307.0	9,998.9	7,307.0	46.4	47.8	-90.00	2,385.9	-877.6	1,400.3	1,309.3	91.00	15.387	
10,100.0	7,307.0	10,098.9	7,307.0	48.1	49.4	-90.00	2,485.9	-877.6	1,400.3	1,305.9	94.37	14.838	
10,200.0	7,307.0	10,198.9	7,307.0	49.7	51.0	-90.00	2,585.9	-877.6	1,400.3	1,302.5	97.74	14.326	
10,300.0	7,307.0	10,298.9	7,307.0	51.4	52.6	-90.00	2,685.9	-877.6	1,400.3	1,299.2	101.13	13.847	
10,400.0	7,307.0	10,398.9	7,307.0	53.1	54.3	-90.00	2,785.9	-877.6	1,400.3	1,295.8	104.52	13.397	
10,500.0	7,307.0	10,498.9	7,307.0	54.7	55.9	-90.00	2,885.9	-877.6	1,400.3	1,292.4	107.92	12.975	
10,600.0	7,307.0	10,598.9	7,307.0	56.4	57.5	-90.00	2,985.9	-877.6	1,400.3	1,289.0	111.32	12.578	
10,700.0	7,307.0	10,698.9	7,307.0	58.1	59.2	-90.00	3,085.9	-877.6	1,400.3	1,285.5	114.74	12.204	
10,800.0	7,307.0	10,798.9	7,307.0	59.8	60.9	-90.00	3,185.9	-877.6	1,400.3	1,282.1	118.15	11.851	
10,900.0	7,307.0	10,898.9	7,307.0	61.5	62.5	-90.00	3,285.9	-877.6	1,400.3	1,278.7	121.58	11.518	
11,000.0	7,307.0	10,998.9	7,307.0	63.2	64.2	-90.00	3,385.9	-877.6	1,400.3	1,275.3	125.00	11.202	
11,100.0	7,307.0	11,098.9	7,307.0	64.9	65.9	-90.00	3,485.9	-877.6	1,400.3	1,271.8	128.44	10.902	
11,200.0	7,307.0	11,198.9	7,307.0	66.6	67.5	-90.00	3,585.9	-877.6	1,400.3	1,268.4	131.87	10.618	
11,300.0	7,307.0	11,298.9	7,307.0	68.3	69.2	-90.00	3,685.9	-877.6	1,400.3	1,265.0	135.31	10.348	
11,400.0	7,307.0	11,398.9	7,307.0	70.0	70.9	-90.00	3,785.9	-877.6	1,400.3	1,261.5	138.76	10.092	
11,500.0	7,307.0	11,498.9	7,307.0	71.7	72.6	-90.00	3,885.9	-877.6	1,400.3	1,258.1	142.20	9.847	
11,600.0	7,307.0	11,598.9	7,307.0	73.4	74.3	-90.00	3,985.9	-877.6	1,400.3	1,254.6	145.65	9.614	
11,700.0	7,307.0	11,698.9	7,307.0	75.1	76.0	-90.00	4,085.9	-877.6	1,400.3	1,251.2	149.10	9.391	
11,800.0	7,307.0	11,798.9	7,307.0	76.8	77.7	-90.00	4,185.9	-877.6	1,400.3	1,247.7	152.56	9.179	
11,900.0	7,307.0	11,898.9	7,307.0	78.6	79.4	-90.00	4,285.9	-877.6	1,400.3	1,244.3	156.01	8.975	
12,000.0	7,307.0	11,998.9	7,307.0	80.3	81.1	-90.00	4,385.9	-877.6	1,400.3	1,240.8	159.47	8.781	
12,100.0	7,307.0	12,098.9	7,307.0	82.0	82.8	-90.00	4,485.9	-877.6	1,400.3	1,237.3	162.94	8.594	
12,200.0	7,307.0	12,198.9	7,307.0	83.7	84.5	-90.00	4,585.9	-877.6	1,400.3	1,233.9	166.40	8.415	
12,300.0	7,307.0	12,298.9	7,307.0	85.4	86.2	-90.00	4,685.9	-877.6	1,400.3	1,230.4	169.86	8.243	
12,400.0	7,307.0	12,398.9	7,307.0	87.2	87.9	-90.00	4,785.9	-877.6	1,400.3	1,226.9	173.33	8.079	
12,500.0	7,307.0	12,498.9	7,307.0	88.9	89.6	-90.00	4,885.9	-877.6	1,400.3	1,223.5	176.80	7.920	
12,600.0	7,307.0	12,598.9	7,307.0	90.6	91.3	-90.00	4,985.9	-877.6	1,400.3	1,220.0	180.27	7.768	
12,700.0	7,307.0	12,698.9	7,307.0	92.3	93.0	-90.00	5,085.9	-877.6	1,400.3	1,216.5	183.74	7.621	
12,772.4	7,307.0	12,771.3	7,307.0	93.6	94.3	-90.00	5,158.3	-877.6	1,400.3	1,214.0	186.25	7.518	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3D-9H-N267 - 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	-30.8	30.8				
100.0	100.0	100.0	100.0	0.1	0.1	-89.95	0.0	-30.8	30.8	30.5	0.24	125.848	
200.0	200.0	200.0	200.0	0.3	0.3	-89.95	0.0	-30.8	30.8	30.2	0.59	51.820	
300.0	300.0	300.0	300.0	0.5	0.5	-89.95	0.0	-30.8	30.8	29.8	0.94	32.627	
400.0	400.0	400.0	400.0	0.6	0.6	-89.95	0.0	-30.8	30.8	29.5	1.29	23.809	CC, ES
500.0	500.0	500.0	500.0	0.8	0.8	137.15	0.0	-30.8	31.4	29.7	1.64	19.128	
600.0	600.0	599.5	599.5	1.0	1.0	139.36	-0.4	-31.5	34.1	32.1	1.99	17.120	
700.0	699.9	698.8	698.7	1.2	1.2	141.36	-1.7	-33.7	39.6	37.2	2.34	16.898	
800.0	799.7	797.8	797.7	1.4	1.4	142.86	-3.8	-37.5	47.9	45.2	2.70	17.748	
900.0	899.4	896.5	896.2	1.6	1.5	143.85	-6.8	-42.6	59.0	55.9	3.06	19.270	
1,000.0	998.9	994.6	994.0	1.8	1.7	144.45	-10.6	-49.2	72.8	69.4	3.43	21.220	
1,100.0	1,098.3	1,092.2	1,091.1	2.1	2.0	144.78	-15.3	-57.2	89.4	85.6	3.81	23.441	
1,200.0	1,197.4	1,189.0	1,187.3	2.3	2.2	144.92	-20.7	-66.6	108.7	104.5	4.21	25.823	
1,300.0	1,296.4	1,285.2	1,282.7	2.6	2.4	144.86	-26.8	-77.3	129.9	125.3	4.62	28.139	
1,400.0	1,395.5	1,382.4	1,379.0	2.9	2.7	144.55	-33.6	-89.0	152.0	147.0	5.04	30.184	
1,500.0	1,494.5	1,480.0	1,475.6	3.2	3.0	144.32	-40.4	-100.7	174.1	168.6	5.46	31.889	
1,600.0	1,593.5	1,577.5	1,572.2	3.4	3.2	144.14	-47.2	-112.5	196.2	190.3	5.89	33.328	
1,700.0	1,692.5	1,675.0	1,668.8	3.7	3.5	144.00	-54.0	-124.2	218.2	211.9	6.32	34.557	
1,800.0	1,791.6	1,772.5	1,765.3	4.0	3.8	143.88	-60.7	-136.0	240.3	233.6	6.75	35.616	
1,900.0	1,890.6	1,870.1	1,861.9	4.3	4.1	143.79	-67.5	-147.7	262.4	255.2	7.18	36.539	
2,000.0	1,989.6	1,967.6	1,958.5	4.6	4.3	143.70	-74.3	-159.5	284.5	276.9	7.62	37.348	
2,100.0	2,088.6	2,065.1	2,055.1	4.9	4.6	143.63	-81.1	-171.3	306.6	298.5	8.05	38.064	
2,200.0	2,187.7	2,162.7	2,151.7	5.2	4.9	143.57	-87.9	-183.0	328.7	320.2	8.49	38.701	
2,300.0	2,286.7	2,260.2	2,248.2	5.5	5.2	143.52	-94.7	-194.8	350.8	341.8	8.93	39.271	
2,400.0	2,385.7	2,357.7	2,344.8	5.8	5.5	143.47	-101.5	-206.5	372.9	363.5	9.37	39.784	
2,500.0	2,484.8	2,455.2	2,441.4	6.1	5.8	143.43	-108.2	-218.3	395.0	385.1	9.81	40.249	
2,600.0	2,583.8	2,552.8	2,538.0	6.4	6.1	143.40	-115.0	-230.0	417.1	406.8	10.25	40.670	
2,700.0	2,682.8	2,650.3	2,634.6	6.7	6.3	143.36	-121.8	-241.8	439.1	428.4	10.70	41.055	
2,800.0	2,781.8	2,747.8	2,731.1	7.0	6.6	143.33	-128.6	-253.5	461.2	450.1	11.14	41.408	
2,900.0	2,880.9	2,845.4	2,827.7	7.3	6.9	143.30	-135.4	-265.3	483.3	471.7	11.58	41.732	
3,000.0	2,979.9	2,942.9	2,924.3	7.6	7.2	143.28	-142.2	-277.1	505.4	493.4	12.02	42.031	
3,100.0	3,078.9	3,040.4	3,020.9	7.8	7.5	143.26	-149.0	-288.8	527.5	515.0	12.47	42.308	
3,200.0	3,177.9	3,138.0	3,117.5	8.1	7.8	143.23	-155.8	-300.6	549.6	536.7	12.91	42.564	
3,300.0	3,277.0	3,235.5	3,214.0	8.4	8.1	143.22	-162.5	-312.3	571.7	558.3	13.36	42.803	
3,400.0	3,376.0	3,333.0	3,310.6	8.7	8.4	143.20	-169.3	-324.1	593.8	580.0	13.80	43.026	
3,500.0	3,475.0	3,430.5	3,407.2	9.0	8.7	143.18	-176.1	-335.8	615.9	601.6	14.25	43.233	
3,600.0	3,574.0	3,528.1	3,503.8	9.3	9.0	143.16	-182.9	-347.6	638.0	623.3	14.69	43.428	
3,700.0	3,673.1	3,625.6	3,600.4	9.6	9.2	143.15	-189.7	-359.3	660.1	644.9	15.14	43.611	
3,800.0	3,772.1	3,723.1	3,696.9	9.9	9.5	143.14	-196.5	-371.1	682.1	666.6	15.58	43.783	
3,900.0	3,871.1	3,820.7	3,793.5	10.2	9.8	143.12	-203.3	-382.8	704.2	688.2	16.03	43.945	
4,000.0	3,970.2	3,918.2	3,890.1	10.5	10.1	143.11	-210.0	-394.6	726.3	709.9	16.47	44.098	
4,100.0	4,069.2	4,015.7	3,986.7	10.8	10.4	143.10	-216.8	-406.4	748.4	731.5	16.92	44.242	
4,200.0	4,168.2	4,113.2	4,083.3	11.1	10.7	143.09	-223.6	-418.1	770.5	753.1	17.36	44.379	
4,300.0	4,267.2	4,210.8	4,179.9	11.4	11.0	143.08	-230.4	-429.9	792.6	774.8	17.81	44.508	
4,400.0	4,366.3	4,308.3	4,276.4	11.7	11.3	143.07	-237.2	-441.6	814.7	796.4	18.25	44.631	
4,500.0	4,465.3	4,405.8	4,373.0	12.0	11.6	143.06	-244.0	-453.4	836.8	818.1	18.70	44.748	
4,600.0	4,564.3	4,503.4	4,469.6	12.3	11.9	143.05	-250.8	-465.1	858.9	839.7	19.15	44.859	
4,700.0	4,663.3	4,600.9	4,566.2	12.6	12.2	143.05	-257.6	-476.9	881.0	861.4	19.59	44.965	
4,800.0	4,762.4	4,698.4	4,662.8	12.9	12.4	143.04	-264.3	-488.6	903.1	883.0	20.04	45.066	
4,900.0	4,861.4	4,795.9	4,759.3	13.2	12.7	143.03	-271.1	-500.4	925.2	904.7	20.48	45.163	
5,000.0	4,960.4	4,893.5	4,855.9	13.5	13.0	143.02	-277.9	-512.2	947.2	926.3	20.93	45.255	
5,100.0	5,059.4	4,991.0	4,952.5	13.8	13.3	143.02	-284.7	-523.9	969.3	948.0	21.38	45.343	

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 Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3D-9H-N267 - 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	5,158.5	5,088.5	5,049.1	14.1	13.6	143.01	-291.5	-535.7	991.4	969.6	21.82	45.428	
5,300.0	5,257.5	5,186.1	5,145.7	14.4	13.9	143.00	-298.3	-547.4	1,013.5	991.2	22.27	45.509	
5,400.0	5,356.5	5,283.6	5,242.2	14.7	14.2	143.00	-305.1	-559.2	1,035.6	1,012.9	22.72	45.586	
5,500.0	5,455.6	5,381.1	5,338.8	15.0	14.5	142.99	-311.8	-570.9	1,057.7	1,034.5	23.16	45.661	
5,600.0	5,554.6	5,478.7	5,435.4	15.3	14.8	142.99	-318.6	-582.7	1,079.8	1,056.2	23.61	45.733	
5,620.0	5,574.4	5,498.2	5,454.7	15.4	14.8	142.99	-320.0	-585.0	1,084.2	1,060.5	23.70	45.747	
5,700.0	5,653.7	5,576.3	5,532.1	15.6	15.1	143.07	-325.4	-594.4	1,101.5	1,077.4	24.07	45.756	
5,800.0	5,753.0	5,674.2	5,629.0	15.9	15.4	143.12	-332.2	-606.2	1,121.8	1,097.2	24.52	45.740	
5,900.0	5,852.5	5,772.3	5,726.2	16.1	15.7	143.11	-339.1	-618.1	1,140.7	1,115.8	24.96	45.693	
6,000.0	5,952.2	5,884.3	5,837.2	16.3	16.0	143.03	-346.6	-631.0	1,157.9	1,132.5	25.41	45.563	
6,100.0	6,052.0	6,002.4	5,954.5	16.5	16.3	142.94	-353.3	-642.7	1,172.2	1,146.3	25.85	45.350	
6,200.0	6,151.8	6,121.3	6,072.8	16.7	16.5	142.85	-358.9	-652.4	1,183.4	1,157.2	26.25	45.079	
6,300.0	6,251.8	6,240.7	6,192.0	16.8	16.8	142.75	-363.2	-660.0	1,191.6	1,165.0	26.63	44.748	
6,400.0	6,351.8	6,360.6	6,311.7	16.9	17.0	142.64	-366.4	-665.4	1,196.8	1,169.8	26.98	44.359	
6,420.0	6,371.8	6,384.6	6,335.7	16.9	17.0	-83.38	-366.8	-666.2	1,197.4	1,170.4	27.05	44.272	
6,500.0	6,451.8	6,480.7	6,431.7	17.0	17.2	-83.46	-368.3	-668.6	1,199.3	1,172.0	27.31	43.912	
6,600.0	6,551.8	6,600.8	6,551.8	17.1	17.3	-83.50	-368.9	-669.7	1,200.1	1,172.5	27.63	43.434	
6,700.0	6,651.8	6,700.8	6,651.8	17.3	17.4	-83.50	-368.9	-669.7	1,200.1	1,172.2	27.92	42.982	
6,782.3	6,734.0	6,783.0	6,734.0	17.4	17.5	-83.50	-368.9	-669.7	1,200.1	1,172.0	28.16	42.616	
6,800.0	6,751.8	6,800.8	6,751.8	17.4	17.5	-83.51	-368.9	-669.7	1,200.1	1,171.9	28.21	42.545	
6,850.0	6,801.6	6,850.6	6,801.6	17.4	17.6	-83.73	-368.9	-669.7	1,199.7	1,171.4	28.30	42.397	
6,900.0	6,851.0	6,900.0	6,851.0	17.4	17.7	-84.19	-368.9	-669.7	1,198.8	1,170.5	28.34	42.297	
6,950.0	6,899.4	6,948.4	6,899.4	17.3	17.7	-84.88	-368.9	-669.7	1,197.6	1,169.3	28.35	42.244	
7,000.0	6,946.6	6,995.6	6,946.6	17.2	17.8	-85.77	-368.9	-669.7	1,196.2	1,167.9	28.32	42.240	
7,050.0	6,992.2	7,037.7	6,988.6	17.1	17.8	-86.69	-367.9	-669.7	1,194.8	1,166.6	28.23	42.326	
7,100.0	7,035.8	7,079.6	7,030.4	17.0	17.8	-87.62	-364.0	-669.6	1,193.6	1,165.6	28.09	42.500	
7,150.0	7,077.1	7,122.7	7,072.9	16.8	17.8	-88.57	-356.8	-669.6	1,192.8	1,164.9	27.90	42.750	
7,200.0	7,115.7	7,167.2	7,116.0	16.6	17.8	-89.54	-346.1	-669.4	1,192.2	1,164.5	27.68	43.067	
7,250.0	7,151.5	7,213.1	7,159.6	16.5	17.8	-90.52	-331.5	-669.3	1,192.0	1,164.6	27.44	43.440	
7,251.3	7,152.5	7,214.4	7,160.8	16.5	17.8	-90.55	-331.0	-669.3	1,192.0	1,164.6	27.43	43.451	
7,300.0	7,184.1	7,260.9	7,203.5	16.4	17.7	-91.51	-312.7	-669.0	1,192.2	1,165.0	27.19	43.854	
7,350.0	7,213.3	7,310.5	7,247.3	16.2	17.6	-92.51	-289.3	-668.8	1,192.8	1,165.8	26.93	44.289	
7,400.0	7,238.9	7,362.5	7,290.8	16.1	17.6	-93.52	-260.9	-668.4	1,193.7	1,167.0	26.69	44.717	
7,450.0	7,260.6	7,417.0	7,333.4	16.1	17.5	-94.53	-227.1	-668.0	1,195.0	1,168.5	26.49	45.107	
7,500.0	7,278.3	7,474.4	7,374.6	16.0	17.4	-95.54	-187.2	-667.6	1,196.6	1,170.3	26.35	45.418	
7,550.0	7,291.8	7,535.0	7,413.6	16.0	17.4	-96.54	-140.8	-667.0	1,198.5	1,172.2	26.28	45.609	
7,600.0	7,301.1	7,599.2	7,449.3	16.1	17.3	-97.53	-87.5	-666.4	1,200.6	1,174.3	26.31	45.635	
7,650.0	7,306.1	7,667.3	7,480.4	16.2	17.4	-98.50	-26.9	-665.7	1,202.8	1,176.3	26.48	45.426	
7,682.3	7,307.0	7,713.4	7,497.2	16.3	17.4	-99.10	16.0	-665.2	1,204.2	1,177.5	26.66	45.166	
7,700.0	7,307.0	7,739.6	7,505.3	16.3	17.5	-99.48	40.9	-664.9	1,204.9	1,178.1	26.79	44.981	
7,800.0	7,307.0	7,898.1	7,529.0	16.8	18.1	-100.60	197.1	-663.1	1,206.4	1,178.4	28.00	43.093	
7,900.0	7,307.0	8,000.8	7,529.0	17.4	18.6	-100.61	299.8	-661.9	1,205.3	1,175.8	29.44	40.941	
8,000.0	7,307.0	8,100.8	7,529.0	18.1	19.4	-100.62	399.8	-660.7	1,204.1	1,172.9	31.18	38.613	
8,100.0	7,307.0	8,200.8	7,529.0	19.0	20.2	-100.64	499.8	-659.5	1,203.0	1,169.8	33.20	36.238	
8,200.0	7,307.0	8,300.8	7,529.0	20.0	21.2	-100.65	599.8	-658.4	1,201.8	1,166.4	35.43	33.921	
8,300.0	7,307.0	8,400.8	7,529.0	21.1	22.2	-100.66	699.7	-657.2	1,200.7	1,162.8	37.85	31.725	
8,400.0	7,307.0	8,500.8	7,529.0	22.3	23.3	-100.67	799.7	-656.0	1,199.5	1,159.1	40.41	29.682	
8,500.0	7,307.0	8,600.7	7,529.0	23.5	24.6	-100.68	899.7	-654.8	1,198.4	1,155.3	43.10	27.804	
8,600.0	7,307.0	8,700.7	7,529.0	24.9	25.8	-100.69	999.7	-653.7	1,197.2	1,151.3	45.89	26.088	
8,700.0	7,307.0	8,800.7	7,529.0	26.2	27.2	-100.70	1,099.7	-652.5	1,196.1	1,147.3	48.77	24.527	
8,800.0	7,307.0	8,900.7	7,529.0	27.6	28.5	-100.71	1,199.7	-651.3	1,194.9	1,143.2	51.71	23.108	
8,900.0	7,307.0	9,000.7	7,529.0	29.1	29.9	-100.72	1,299.7	-650.2	1,193.8	1,139.1	54.71	21.819	

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 Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3D-9H-N267 - 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	7,307.0	9,100.7	7,529.0	30.6	31.4	-100.73	1,399.6	-649.0	1,192.6	1,134.8	57.76	20.646	
9,100.0	7,307.0	9,200.7	7,529.0	32.1	32.9	-100.74	1,499.6	-647.8	1,191.5	1,130.6	60.86	19.578	
9,200.0	7,307.0	9,300.7	7,529.0	33.6	34.4	-100.75	1,599.6	-646.6	1,190.3	1,126.3	63.99	18.602	
9,300.0	7,307.0	9,400.7	7,529.0	35.2	35.9	-100.76	1,699.6	-645.5	1,189.2	1,122.0	67.15	17.710	
9,400.0	7,307.0	9,500.7	7,529.0	36.7	37.4	-100.77	1,799.6	-644.3	1,188.0	1,117.7	70.33	16.891	
9,500.0	7,307.0	9,600.7	7,529.0	38.3	39.0	-100.78	1,899.6	-643.1	1,186.9	1,113.3	73.54	16.138	
9,600.0	7,307.0	9,700.7	7,529.0	39.9	40.6	-100.79	1,999.6	-642.0	1,185.7	1,108.9	76.77	15.444	
9,700.0	7,307.0	9,800.7	7,529.0	41.5	42.2	-100.80	2,099.5	-640.8	1,184.6	1,104.5	80.02	14.803	
9,800.0	7,307.0	9,900.7	7,529.0	43.2	43.8	-100.81	2,199.5	-639.6	1,183.4	1,100.1	83.28	14.209	
9,900.0	7,307.0	10,000.6	7,529.0	44.8	45.4	-100.82	2,299.5	-638.5	1,182.2	1,095.7	86.56	13.658	
10,000.0	7,307.0	10,100.6	7,529.0	46.4	47.0	-100.83	2,399.5	-637.3	1,181.1	1,091.2	89.85	13.145	
10,100.0	7,307.0	10,200.6	7,529.0	48.1	48.7	-100.85	2,499.5	-636.1	1,179.9	1,086.8	93.15	12.667	
10,200.0	7,307.0	10,300.6	7,529.0	49.7	50.3	-100.86	2,599.5	-634.9	1,178.8	1,082.3	96.46	12.220	
10,300.0	7,307.0	10,400.6	7,529.0	51.4	51.9	-100.87	2,699.5	-633.8	1,177.6	1,077.9	99.78	11.802	
10,400.0	7,307.0	10,500.6	7,529.0	53.1	53.6	-100.88	2,799.5	-632.6	1,176.5	1,073.4	103.11	11.411	
10,500.0	7,307.0	10,600.6	7,529.0	54.7	55.3	-100.89	2,899.4	-631.4	1,175.3	1,068.9	106.44	11.042	
10,600.0	7,307.0	10,700.6	7,529.0	56.4	56.9	-100.90	2,999.4	-630.3	1,174.2	1,064.4	109.78	10.696	
10,700.0	7,307.0	10,800.6	7,529.0	58.1	58.6	-100.91	3,099.4	-629.1	1,173.0	1,059.9	113.13	10.369	
10,800.0	7,307.0	10,900.6	7,529.0	59.8	60.3	-100.92	3,199.4	-627.9	1,171.9	1,055.4	116.48	10.061	
10,900.0	7,307.0	11,013.5	7,529.0	61.5	62.2	-100.94	3,312.3	-626.2	1,170.5	1,050.4	120.05	9.750	
11,000.0	7,307.0	11,138.5	7,529.0	63.2	64.3	-100.98	3,437.2	-622.0	1,167.1	1,043.3	123.82	9.426	
11,100.0	7,307.0	11,249.0	7,529.0	64.9	66.1	-101.03	3,547.6	-616.3	1,162.0	1,034.7	127.34	9.125	
11,200.0	7,307.0	11,348.9	7,529.0	66.6	67.8	-101.08	3,647.3	-610.9	1,156.7	1,026.0	130.69	8.851	
11,300.0	7,307.0	11,448.7	7,529.0	68.3	69.5	-101.13	3,747.0	-605.5	1,151.4	1,017.4	134.04	8.590	
11,400.0	7,307.0	11,548.6	7,529.0	70.0	71.2	-101.18	3,846.7	-600.1	1,146.1	1,008.7	137.39	8.342	
11,500.0	7,307.0	11,648.5	7,529.0	71.7	72.9	-101.24	3,946.4	-594.7	1,140.8	1,000.0	140.74	8.105	
11,600.0	7,307.0	11,748.3	7,529.0	73.4	74.6	-101.29	4,046.1	-589.3	1,135.5	991.4	144.10	7.880	
11,700.0	7,307.0	11,848.2	7,529.0	75.1	76.3	-101.34	4,145.9	-583.9	1,130.2	982.7	147.45	7.665	
11,800.0	7,307.0	11,948.0	7,529.0	76.8	78.0	-101.40	4,245.6	-578.5	1,124.9	974.1	150.81	7.459	
11,900.0	7,307.0	12,047.9	7,529.0	78.6	79.7	-101.45	4,345.3	-573.1	1,119.6	965.4	154.17	7.262	
12,000.0	7,307.0	12,147.7	7,529.0	80.3	81.4	-101.51	4,445.0	-567.7	1,114.3	956.7	157.53	7.074	
12,100.0	7,307.0	12,247.6	7,529.0	82.0	83.1	-101.56	4,544.7	-562.3	1,109.0	948.1	160.88	6.893	
12,200.0	7,307.0	12,347.4	7,529.0	83.7	84.8	-101.62	4,644.4	-556.9	1,103.7	939.4	164.24	6.720	
12,300.0	7,307.0	12,447.3	7,529.0	85.4	86.5	-101.68	4,744.1	-551.5	1,098.4	930.8	167.60	6.553	
12,400.0	7,307.0	12,547.1	7,529.0	87.2	88.2	-101.73	4,843.8	-546.1	1,093.1	922.1	170.96	6.394	
12,500.0	7,307.0	12,647.0	7,529.0	88.9	89.9	-101.79	4,943.5	-540.7	1,087.8	913.5	174.32	6.240	
12,600.0	7,307.0	12,746.8	7,529.0	90.6	91.6	-101.85	5,043.2	-535.3	1,082.5	904.8	177.67	6.092	
12,700.0	7,307.0	12,846.7	7,529.0	92.3	93.3	-101.91	5,142.9	-529.9	1,077.2	896.1	181.03	5.950	
12,772.4	7,307.0	12,876.7	7,529.0	93.6	93.9	-101.93	5,172.9	-528.2	1,074.2	891.4	182.76	5.878 SF	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3E-9H-N267 - 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	-89.96	0.0	-22.4	22.4				
100.0	100.0	100.0	100.0	0.1	0.1	-89.96	0.0	-22.4	22.4	22.1	0.24	91.526	
200.0	200.0	200.0	200.0	0.3	0.3	-89.96	0.0	-22.4	22.4	21.8	0.59	37.687	CC
300.0	300.0	299.8	299.8	0.5	0.5	-91.99	-0.8	-22.7	22.7	21.8	0.94	24.081	ES
400.0	400.0	399.6	399.6	0.6	0.7	-97.69	-3.2	-23.7	23.9	22.6	1.30	18.436	
500.0	500.0	499.3	499.2	0.8	0.8	121.71	-7.2	-25.3	26.8	25.2	1.65	16.224	
600.0	600.0	598.8	598.5	1.0	1.0	116.91	-12.8	-27.7	31.9	29.9	2.02	15.840	
700.0	699.9	698.1	697.5	1.2	1.3	113.97	-20.0	-30.6	39.1	36.7	2.39	16.371	
800.0	799.7	797.1	796.1	1.4	1.5	112.41	-28.7	-34.2	48.3	45.5	2.78	17.371	
900.0	899.4	895.9	894.2	1.6	1.7	111.74	-39.0	-38.5	59.4	56.2	3.19	18.604	
1,000.0	998.9	994.2	991.7	1.8	2.0	111.59	-50.8	-43.3	72.4	68.7	3.63	19.938	
1,100.0	1,098.3	1,092.1	1,088.5	2.1	2.3	111.73	-64.1	-48.8	87.2	83.1	4.09	21.294	
1,200.0	1,197.4	1,189.5	1,184.6	2.3	2.6	112.02	-78.8	-54.9	103.9	99.3	4.59	22.622	
1,300.0	1,296.4	1,287.1	1,280.6	2.6	2.9	112.21	-94.9	-61.5	122.0	116.9	5.11	23.891	
1,400.0	1,395.5	1,385.4	1,377.2	2.9	3.3	112.26	-111.5	-68.4	140.3	134.7	5.63	24.922	
1,500.0	1,494.5	1,483.7	1,473.9	3.2	3.6	112.30	-128.0	-75.2	158.7	152.5	6.16	25.752	
1,600.0	1,593.5	1,582.0	1,570.5	3.4	4.0	112.33	-144.6	-82.0	177.0	170.3	6.70	26.430	
1,700.0	1,692.5	1,680.3	1,667.2	3.7	4.3	112.35	-161.2	-88.9	195.4	188.2	7.24	26.994	
1,800.0	1,791.6	1,778.6	1,763.8	4.0	4.7	112.37	-177.7	-95.7	213.8	206.0	7.78	27.469	
1,900.0	1,890.6	1,876.9	1,860.5	4.3	5.0	112.39	-194.3	-102.5	232.1	223.8	8.33	27.874	
2,000.0	1,989.6	1,975.2	1,957.2	4.6	5.4	112.40	-210.8	-109.4	250.5	241.6	8.87	28.223	
2,100.0	2,088.6	2,073.5	2,053.8	4.9	5.7	112.41	-227.4	-116.2	268.8	259.4	9.42	28.527	
2,200.0	2,187.7	2,171.8	2,150.5	5.2	6.1	112.42	-244.0	-123.0	287.2	277.2	9.97	28.793	
2,300.0	2,286.7	2,270.1	2,247.1	5.5	6.4	112.43	-260.5	-129.9	305.5	295.0	10.52	29.029	
2,400.0	2,385.7	2,368.4	2,343.8	5.8	6.8	112.44	-277.1	-136.7	323.9	312.8	11.08	29.238	
2,500.0	2,484.8	2,466.7	2,440.4	6.1	7.1	112.45	-293.6	-143.5	342.2	330.6	11.63	29.425	
2,600.0	2,583.8	2,565.0	2,537.1	6.4	7.5	112.45	-310.2	-150.4	360.6	348.4	12.18	29.594	
2,700.0	2,682.8	2,663.3	2,633.7	6.7	7.8	112.46	-326.8	-157.2	378.9	366.2	12.74	29.747	
2,800.0	2,781.8	2,761.6	2,730.4	7.0	8.2	112.47	-343.3	-164.0	397.3	384.0	13.29	29.885	
2,900.0	2,880.9	2,859.9	2,827.1	7.3	8.5	112.47	-359.9	-170.8	415.6	401.8	13.85	30.012	
3,000.0	2,979.9	2,958.2	2,923.7	7.6	8.9	112.48	-376.4	-177.7	434.0	419.6	14.41	30.127	
3,100.0	3,078.9	3,056.5	3,020.4	7.8	9.2	112.48	-393.0	-184.5	452.3	437.4	14.96	30.234	
3,200.0	3,177.9	3,158.2	3,120.4	8.1	9.6	112.51	-409.9	-191.5	470.5	455.0	15.52	30.316	
3,300.0	3,277.0	3,262.9	3,223.7	8.4	9.9	112.68	-425.7	-198.0	487.5	471.4	16.08	30.323	
3,400.0	3,376.0	3,368.1	3,327.8	8.7	10.2	113.00	-439.8	-203.8	503.2	486.6	16.63	30.269	
3,500.0	3,475.0	3,473.5	3,432.4	9.0	10.5	113.45	-452.1	-208.9	517.7	500.6	17.16	30.163	
3,600.0	3,574.0	3,579.3	3,537.5	9.3	10.8	114.03	-462.8	-213.3	531.0	513.3	17.69	30.012	
3,700.0	3,673.1	3,685.2	3,643.0	9.6	11.0	114.73	-471.6	-216.9	543.0	524.8	18.21	29.824	
3,800.0	3,772.1	3,791.2	3,748.7	9.9	11.2	115.55	-478.6	-219.8	553.9	535.1	18.71	29.607	
3,900.0	3,871.1	3,897.3	3,854.7	10.2	11.4	116.49	-483.9	-222.0	563.6	544.4	19.19	29.368	
4,000.0	3,970.2	4,003.3	3,960.6	10.5	11.5	117.54	-487.3	-223.4	572.3	552.6	19.66	29.114	
4,100.0	4,069.2	4,109.3	4,066.6	10.8	11.7	118.71	-488.9	-224.1	579.9	559.8	20.10	28.853	
4,200.0	4,168.2	4,210.9	4,168.2	11.1	11.8	119.91	-489.0	-224.1	586.9	566.4	20.52	28.595	
4,300.0	4,267.2	4,309.9	4,267.2	11.4	11.9	121.07	-489.0	-224.1	594.0	573.1	20.94	28.371	
4,400.0	4,366.3	4,409.0	4,366.3	11.7	12.0	122.19	-489.0	-224.1	601.3	580.0	21.34	28.177	
4,500.0	4,465.3	4,508.0	4,465.3	12.0	12.1	123.30	-489.0	-224.1	608.9	587.2	21.74	28.011	
4,600.0	4,564.3	4,607.0	4,564.3	12.3	12.2	124.37	-489.0	-224.1	616.7	594.6	22.13	27.869	
4,700.0	4,663.3	4,706.1	4,663.3	12.6	12.3	125.42	-489.0	-224.1	624.7	602.2	22.51	27.750	
4,800.0	4,762.4	4,805.1	4,762.4	12.9	12.5	126.44	-489.0	-224.1	633.0	610.1	22.89	27.651	
4,900.0	4,861.4	4,904.1	4,861.4	13.2	12.6	127.43	-489.0	-224.1	641.4	618.1	23.26	27.571	
5,000.0	4,960.4	5,003.1	4,960.4	13.5	12.7	128.40	-489.0	-224.1	650.0	626.3	23.63	27.509	
5,100.0	5,059.4	5,102.2	5,059.4	13.8	12.8	129.34	-489.0	-224.1	658.8	634.8	23.99	27.462	

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 Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3E-9H-N267 - 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	5,158.5	5,201.2	5,158.5	14.1	12.9	130.26	-489.0	-224.1	667.7	643.4	24.34	27.429	
5,300.0	5,257.5	5,300.2	5,257.5	14.4	13.0	131.15	-489.0	-224.1	676.9	652.2	24.69	27.409	
5,400.0	5,356.5	5,399.2	5,356.5	14.7	13.2	132.02	-489.0	-224.1	686.1	661.1	25.04	27.400	
5,500.0	5,455.6	5,498.3	5,455.6	15.0	13.3	132.87	-489.0	-224.1	695.6	670.2	25.38	27.403	
5,600.0	5,554.6	5,597.3	5,554.6	15.3	13.4	133.70	-489.0	-224.1	705.2	679.5	25.72	27.415	
5,620.0	5,574.4	5,617.1	5,574.4	15.4	13.4	133.86	-489.0	-224.1	707.1	681.3	25.79	27.418	
5,700.0	5,653.7	5,696.4	5,653.7	15.6	13.5	134.52	-489.0	-224.1	714.5	688.5	26.06	27.417	
5,800.0	5,753.0	5,795.7	5,753.0	15.9	13.7	135.24	-489.0	-224.1	722.8	696.4	26.39	27.391	
5,900.0	5,852.5	5,895.2	5,852.5	16.1	13.8	135.83	-489.0	-224.1	729.9	703.2	26.70	27.334	
6,000.0	5,952.2	5,994.9	5,952.2	16.3	13.9	136.32	-489.0	-224.1	735.8	708.8	27.01	27.244	
6,100.0	6,052.0	6,094.7	6,052.0	16.5	14.1	136.70	-489.0	-224.1	740.5	713.2	27.30	27.121	
6,200.0	6,151.8	6,194.6	6,151.8	16.7	14.2	136.97	-489.0	-224.1	743.9	716.3	27.59	26.963	
6,300.0	6,251.8	6,294.5	6,251.8	16.8	14.3	137.14	-489.0	-224.1	746.1	718.2	27.87	26.771	
6,400.0	6,351.8	6,394.5	6,351.8	16.9	14.5	137.21	-489.0	-224.1	747.0	718.8	28.14	26.545	
6,420.0	6,371.8	6,414.5	6,371.8	16.9	14.5	-88.79	-489.0	-224.1	747.0	718.8	28.19	26.495	
6,500.0	6,451.8	6,494.5	6,451.8	17.0	14.6	-88.79	-489.0	-224.1	747.0	718.6	28.42	26.289	
6,600.0	6,551.8	6,594.5	6,551.8	17.1	14.7	-88.79	-489.0	-224.1	747.0	718.3	28.69	26.034	
6,700.0	6,651.8	6,694.5	6,651.8	17.3	14.9	-88.79	-489.0	-224.1	747.0	718.0	28.97	25.783	
6,754.8	6,706.6	6,749.3	6,706.6	17.3	14.9	-88.79	-489.0	-224.1	747.0	717.9	29.13	25.646	
6,782.3	6,734.0	6,776.8	6,734.0	17.4	15.0	-88.79	-489.0	-224.1	747.0	717.8	29.20	25.579	
6,800.0	6,751.8	6,794.0	6,751.3	17.4	15.0	-88.79	-488.8	-224.1	747.0	717.8	29.24	25.547	
6,850.0	6,801.6	6,842.7	6,799.8	17.4	15.0	-88.80	-485.2	-224.1	747.0	717.7	29.26	25.528	
6,900.0	6,851.0	6,891.4	6,847.9	17.4	15.0	-88.81	-477.6	-224.1	747.0	717.8	29.20	25.579	
6,950.0	6,899.4	6,940.1	6,895.2	17.3	14.9	-88.84	-465.9	-224.1	747.0	717.9	29.07	25.695	
7,000.0	6,946.6	6,988.8	6,941.3	17.2	14.8	-88.87	-450.2	-224.1	747.0	718.1	28.87	25.872	
7,050.0	6,992.2	7,037.6	6,986.0	17.1	14.7	-88.92	-430.7	-224.1	747.0	718.4	28.62	26.102	
7,100.0	7,035.8	7,086.4	7,028.9	17.0	14.6	-88.97	-407.3	-224.1	747.0	718.6	28.32	26.377	
7,150.0	7,077.1	7,135.3	7,069.7	16.8	14.4	-89.02	-380.4	-224.1	746.9	719.0	27.99	26.688	
7,200.0	7,115.7	7,184.3	7,108.1	16.6	14.2	-89.09	-350.1	-224.1	746.9	719.3	27.64	27.020	
7,250.0	7,151.5	7,233.3	7,143.8	16.5	14.1	-89.16	-316.6	-224.1	746.9	719.6	27.30	27.359	
7,300.0	7,184.1	7,282.4	7,176.6	16.4	13.9	-89.24	-280.0	-224.1	746.9	719.9	26.98	27.686	
7,350.0	7,213.3	7,331.6	7,206.1	16.2	13.8	-89.33	-240.7	-224.1	746.9	720.2	26.69	27.981	
7,400.0	7,238.9	7,380.9	7,232.3	16.1	13.7	-89.42	-199.0	-224.1	746.9	720.4	26.46	28.222	
7,450.0	7,260.6	7,430.2	7,254.8	16.1	13.6	-89.51	-155.0	-224.1	746.8	720.5	26.31	28.388	
7,500.0	7,278.3	7,479.7	7,273.5	16.0	13.6	-89.61	-109.2	-224.1	746.8	720.6	26.24	28.460	
7,550.0	7,291.8	7,529.3	7,288.1	16.0	13.6	-89.71	-61.9	-224.1	746.8	720.5	26.27	28.423	
7,600.0	7,301.1	7,579.0	7,298.7	16.1	13.6	-89.81	-13.3	-224.1	746.8	720.4	26.42	28.269	
7,650.0	7,306.1	7,628.9	7,305.0	16.2	13.8	-89.92	36.1	-224.1	746.8	720.1	26.67	27.999	
7,682.3	7,307.0	7,661.1	7,306.8	16.3	13.9	-89.98	68.3	-224.1	746.8	719.9	26.89	27.771	
7,700.0	7,307.0	7,678.8	7,307.0	16.3	13.9	-90.00	86.0	-224.1	746.8	719.7	27.03	27.626	
7,800.0	7,307.0	7,778.8	7,307.0	16.8	14.5	-90.00	186.0	-224.1	746.8	718.7	28.10	26.579	
7,900.0	7,307.0	7,878.8	7,307.0	17.4	15.2	-90.00	286.0	-224.0	746.8	717.2	29.52	25.293	
8,000.0	7,307.0	7,978.8	7,307.0	18.1	16.0	-90.00	386.0	-224.0	746.7	715.5	31.28	23.871	
8,100.0	7,307.0	8,078.8	7,307.0	19.0	17.0	-90.00	486.0	-224.0	746.7	713.4	33.32	22.412	
8,200.0	7,307.0	8,178.8	7,307.0	20.0	18.1	-90.00	586.0	-224.0	746.7	711.1	35.58	20.984	
8,300.0	7,307.0	8,278.8	7,307.0	21.1	19.3	-90.00	686.0	-224.0	746.7	708.7	38.04	19.629	
8,400.0	7,307.0	8,378.8	7,307.0	22.3	20.6	-90.00	786.0	-224.0	746.7	706.0	40.65	18.369	
8,500.0	7,307.0	8,478.8	7,307.0	23.5	22.0	-90.00	886.0	-224.0	746.7	703.3	43.39	17.210	
8,600.0	7,307.0	8,578.8	7,307.0	24.9	23.4	-90.00	986.0	-224.0	746.7	700.4	46.23	16.152	
8,700.0	7,307.0	8,678.8	7,307.0	26.2	24.8	-90.00	1,086.0	-224.0	746.6	697.5	49.16	15.189	
8,800.0	7,307.0	8,778.8	7,307.0	27.6	26.3	-90.00	1,186.0	-223.9	746.6	694.5	52.16	14.316	
8,900.0	7,307.0	8,878.8	7,307.0	29.1	27.8	-90.00	1,286.0	-223.9	746.6	691.4	55.21	13.522	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3E-9H-N267 - 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	7,307.0	8,978.8	7,307.0	30.6	29.4	-90.00	1,386.0	-223.9	746.6	688.3	58.32	12.801	
9,100.0	7,307.0	9,078.8	7,307.0	32.1	30.9	-90.00	1,486.0	-223.9	746.6	685.1	61.48	12.144	
9,200.0	7,307.0	9,179.0	7,307.0	33.6	32.5	-90.00	1,586.2	-223.9	746.6	681.9	64.67	11.545	
9,300.0	7,307.0	9,294.0	7,307.0	35.2	34.4	-90.00	1,701.1	-222.7	745.5	677.4	68.13	10.943	
9,400.0	7,307.0	9,408.8	7,307.0	36.7	36.2	-90.00	1,816.0	-219.2	742.5	670.9	71.62	10.367	
9,500.0	7,307.0	9,523.5	7,307.0	38.3	38.1	-90.00	1,930.5	-213.4	737.5	662.3	75.14	9.815	
9,600.0	7,307.0	9,637.9	7,307.0	39.9	39.9	-90.00	2,044.6	-205.4	730.4	651.7	78.66	9.285	
9,700.0	7,307.0	9,752.0	7,307.0	41.5	41.8	-90.00	2,158.2	-195.1	721.4	639.2	82.20	8.775	
9,800.0	7,307.0	9,854.6	7,307.0	43.2	43.5	-90.00	2,260.2	-184.4	711.0	625.4	85.57	8.309	
9,900.0	7,307.0	9,954.0	7,307.0	44.8	45.1	-90.00	2,359.1	-174.0	700.5	611.6	88.90	7.880	
10,000.0	7,307.0	10,053.5	7,307.0	46.4	46.8	-90.00	2,458.1	-163.6	690.1	597.8	92.24	7.481	
10,100.0	7,307.0	10,152.9	7,307.0	48.1	48.4	-90.00	2,557.0	-153.2	679.6	584.0	95.59	7.109	
10,200.0	7,307.0	10,252.4	7,307.0	49.7	50.1	-90.00	2,655.9	-142.8	669.2	570.2	98.96	6.762	
10,300.0	7,307.0	10,351.8	7,307.0	51.4	51.8	-90.00	2,754.8	-132.4	658.7	556.4	102.33	6.437	
10,400.0	7,307.0	10,451.3	7,307.0	53.1	53.5	-90.00	2,853.7	-122.0	648.3	542.5	105.71	6.132	
10,500.0	7,307.0	10,550.7	7,307.0	54.7	55.1	-90.00	2,952.6	-111.6	637.8	528.7	109.10	5.846	
10,600.0	7,307.0	10,644.9	7,307.0	56.4	56.7	-90.00	3,046.3	-102.0	627.6	515.2	112.40	5.583	
10,700.0	7,307.0	10,734.8	7,307.0	58.1	58.3	-90.00	3,135.8	-94.0	618.7	503.1	115.64	5.350	
10,800.0	7,307.0	10,824.8	7,307.0	59.8	59.8	-90.00	3,225.6	-87.5	611.4	492.6	118.89	5.143	
10,900.0	7,307.0	10,915.1	7,307.0	61.5	61.3	-90.00	3,315.7	-82.3	605.7	483.6	122.15	4.959	
11,000.0	7,307.0	11,005.5	7,307.0	63.2	62.9	-90.00	3,406.0	-78.6	601.6	476.2	125.41	4.797	
11,100.0	7,307.0	11,100.0	7,307.0	64.9	64.5	-90.00	3,500.5	-76.2	599.1	470.3	128.75	4.653	
11,200.0	7,307.0	11,186.5	7,307.0	66.6	66.0	-90.00	3,587.0	-75.4	598.1	466.1	131.95	4.533	
11,209.7	7,307.0	11,195.3	7,307.0	66.7	66.2	-90.00	3,595.8	-75.4	598.1	465.8	132.27	4.522	
11,300.0	7,307.0	11,277.1	7,307.0	68.3	67.6	-90.00	3,677.6	-76.0	598.7	463.5	135.23	4.427	
11,400.0	7,307.0	11,367.6	7,307.0	70.0	69.1	-90.00	3,768.0	-77.9	600.9	462.4	138.51	4.338	
11,500.0	7,307.0	11,458.0	7,307.0	71.7	70.7	-90.00	3,858.4	-81.3	604.6	462.9	141.79	4.264	
11,600.0	7,307.0	11,548.3	7,307.0	73.4	72.2	-90.00	3,948.5	-86.2	610.0	464.9	145.07	4.205	
11,700.0	7,307.0	11,638.8	7,307.0	75.1	73.8	-90.00	4,038.9	-92.4	616.9	468.5	148.36	4.158	
11,800.0	7,307.0	11,738.5	7,307.0	76.8	75.5	-90.00	4,138.3	-100.0	624.5	472.7	151.80	4.114	
11,900.0	7,307.0	11,838.2	7,307.0	78.6	77.2	-90.00	4,237.7	-107.6	632.1	476.9	155.25	4.072	
12,000.0	7,307.0	11,937.9	7,307.0	80.3	79.0	-90.00	4,337.1	-115.2	639.8	481.1	158.71	4.031	
12,100.0	7,307.0	12,037.7	7,307.0	82.0	80.7	-90.00	4,436.6	-122.8	647.4	485.2	162.16	3.992	
12,200.0	7,307.0	12,137.4	7,307.0	83.7	82.4	-90.00	4,536.0	-130.4	655.0	489.4	165.62	3.955	
12,300.0	7,307.0	12,237.1	7,307.0	85.4	84.2	-90.00	4,635.4	-138.0	662.6	493.6	169.07	3.919	
12,400.0	7,307.0	12,336.8	7,307.0	87.2	85.9	-90.00	4,734.8	-145.7	670.3	497.7	172.53	3.885	
12,500.0	7,307.0	12,436.5	7,307.0	88.9	87.6	-90.00	4,834.2	-153.3	677.9	501.9	176.00	3.852	
12,600.0	7,307.0	12,536.2	7,307.0	90.6	89.3	-90.00	4,933.6	-160.9	685.5	506.0	179.46	3.820	
12,700.0	7,307.0	12,635.9	7,307.0	92.3	91.1	-90.00	5,033.1	-168.5	693.1	510.2	182.93	3.789	
12,772.4	7,307.0	12,708.1	7,307.0	93.6	92.3	-90.00	5,105.0	-174.0	698.6	513.2	185.43	3.768	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3F-9H-N267 - 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	-89.96	0.0	-11.2	11.2				
100.0	100.0	100.0	100.0	0.1	0.1	-89.96	0.0	-11.2	11.2	10.9	0.24	45.763	
200.0	200.0	200.0	200.0	0.3	0.3	-89.96	0.0	-11.2	11.2	10.6	0.59	18.844	
300.0	300.0	300.0	300.0	0.5	0.5	-89.96	0.0	-11.2	11.2	10.2	0.94	11.864	
400.0	400.0	400.0	400.0	0.6	0.6	-89.96	0.0	-11.2	11.2	9.9	1.29	8.658	CC, ES
500.0	500.0	500.0	500.0	0.8	0.8	138.97	0.0	-11.2	11.8	10.2	1.64	7.207	
600.0	600.0	600.1	600.1	1.0	1.0	142.88	-0.8	-10.9	13.5	11.5	1.99	6.770	
700.0	699.9	700.2	700.1	1.2	1.2	144.00	-3.3	-9.9	15.8	13.4	2.35	6.715	
800.0	799.7	800.3	800.1	1.4	1.4	143.24	-7.4	-8.4	18.6	15.9	2.71	6.866	
900.0	899.4	900.4	900.0	1.6	1.5	141.39	-13.1	-6.2	22.0	18.9	3.09	7.140	
1,000.0	998.9	1,000.5	999.8	1.8	1.8	139.01	-20.4	-3.5	26.1	22.6	3.48	7.488	
1,100.0	1,098.3	1,100.5	1,099.4	2.1	2.0	136.46	-29.4	-0.1	30.8	26.9	3.91	7.874	
1,200.0	1,197.4	1,200.6	1,198.8	2.3	2.2	133.93	-40.0	3.9	36.2	31.8	4.38	8.272	
1,300.0	1,296.4	1,300.6	1,298.0	2.6	2.5	130.69	-52.2	8.6	41.8	36.9	4.89	8.545	
1,400.0	1,395.5	1,400.4	1,396.8	2.9	2.7	127.20	-65.2	13.5	47.2	41.8	5.42	8.707	
1,500.0	1,494.5	1,500.2	1,495.7	3.2	3.0	124.44	-78.2	18.4	52.8	46.9	5.97	8.843	
1,600.0	1,593.5	1,600.0	1,594.5	3.4	3.3	122.22	-91.2	23.3	58.5	52.0	6.53	8.960	
1,700.0	1,692.5	1,699.9	1,693.4	3.7	3.6	120.39	-104.2	28.2	64.3	57.2	7.10	9.060	
1,800.0	1,791.6	1,799.7	1,792.2	4.0	3.9	118.86	-117.2	33.1	70.1	62.5	7.67	9.147	
1,900.0	1,890.6	1,899.5	1,891.0	4.3	4.1	117.57	-130.2	38.0	76.0	67.8	8.24	9.224	
2,000.0	1,989.6	1,999.3	1,989.9	4.6	4.4	116.46	-143.2	42.9	81.9	73.1	8.81	9.291	
2,100.0	2,088.6	2,099.1	2,088.7	4.9	4.7	115.51	-156.2	47.8	87.8	78.4	9.39	9.351	
2,200.0	2,187.7	2,198.9	2,187.6	5.2	5.0	114.67	-169.2	52.7	93.8	83.8	9.97	9.404	
2,300.0	2,286.7	2,298.7	2,286.4	5.5	5.3	113.93	-182.2	57.7	99.7	89.2	10.55	9.452	
2,400.0	2,385.7	2,398.6	2,385.3	5.8	5.6	113.28	-195.2	62.6	105.7	94.6	11.13	9.496	
2,500.0	2,484.8	2,498.4	2,484.1	6.1	5.9	112.70	-208.2	67.5	111.7	100.0	11.71	9.535	
2,600.0	2,583.8	2,598.2	2,582.9	6.4	6.2	112.17	-221.2	72.4	117.7	105.4	12.30	9.571	
2,700.0	2,682.8	2,698.0	2,681.8	6.7	6.5	111.70	-234.2	77.3	123.7	110.8	12.88	9.604	
2,800.0	2,781.8	2,797.8	2,780.6	7.0	6.8	111.27	-247.1	82.2	129.7	116.3	13.47	9.634	
2,900.0	2,880.9	2,897.6	2,879.5	7.3	7.1	110.88	-260.1	87.1	135.8	121.7	14.05	9.662	
3,000.0	2,979.9	2,997.4	2,978.3	7.6	7.4	110.52	-273.1	92.0	141.8	127.2	14.64	9.688	
3,100.0	3,078.9	3,097.3	3,077.2	7.8	7.7	110.20	-286.1	96.9	147.8	132.6	15.22	9.712	
3,200.0	3,177.9	3,197.1	3,176.0	8.1	7.9	109.89	-299.1	101.9	153.9	138.1	15.81	9.734	
3,300.0	3,277.0	3,296.9	3,274.8	8.4	8.2	109.61	-312.1	106.8	159.9	143.5	16.39	9.755	
3,400.0	3,376.0	3,396.7	3,373.7	8.7	8.5	109.35	-325.1	111.7	166.0	149.0	16.98	9.774	
3,500.0	3,475.0	3,496.5	3,472.5	9.0	8.8	109.11	-338.1	116.6	172.0	154.4	17.57	9.793	
3,600.0	3,574.0	3,596.3	3,571.4	9.3	9.1	108.89	-351.1	121.5	178.1	159.9	18.15	9.810	
3,700.0	3,673.1	3,696.1	3,670.2	9.6	9.4	108.68	-364.1	126.4	184.1	165.4	18.74	9.826	
3,800.0	3,772.1	3,795.9	3,769.1	9.9	9.7	108.48	-377.1	131.3	190.2	170.9	19.33	9.841	
3,900.0	3,871.1	3,895.8	3,867.9	10.2	10.0	108.30	-390.1	136.2	196.2	176.3	19.91	9.855	
4,000.0	3,970.2	3,995.6	3,966.7	10.5	10.3	108.12	-403.1	141.1	202.3	181.8	20.50	9.869	
4,100.0	4,069.2	4,095.4	4,065.6	10.8	10.6	107.96	-416.1	146.0	208.4	187.3	21.09	9.881	
4,200.0	4,168.2	4,195.2	4,164.4	11.1	10.9	107.81	-429.1	151.0	214.4	192.8	21.67	9.893	
4,300.0	4,267.2	4,295.2	4,263.5	11.4	11.2	107.71	-441.9	155.8	220.5	198.2	22.26	9.906	
4,400.0	4,366.3	4,395.6	4,363.1	11.7	11.5	107.99	-453.4	160.2	226.3	203.5	22.80	9.925	
4,500.0	4,465.3	4,495.8	4,462.8	12.0	11.7	108.68	-463.3	163.9	232.0	208.7	23.32	9.949	
4,600.0	4,564.3	4,596.0	4,562.6	12.3	11.9	109.77	-471.6	167.0	237.5	213.7	23.80	9.982	
4,700.0	4,663.3	4,696.0	4,662.3	12.6	12.1	111.21	-478.1	169.5	243.0	218.8	24.23	10.029	
4,800.0	4,762.4	4,795.8	4,762.0	12.9	12.3	112.99	-483.1	171.4	248.6	224.0	24.62	10.098	
4,900.0	4,861.4	4,895.3	4,861.4	13.2	12.5	115.07	-486.4	172.6	254.4	229.4	24.95	10.196	
5,000.0	4,960.4	4,994.4	4,960.5	13.5	12.6	117.43	-488.1	173.3	260.5	235.3	25.21	10.333	
5,100.0	5,059.4	5,093.4	5,059.4	13.8	12.7	120.00	-488.4	173.4	267.2	241.8	25.43	10.510	

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 Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3F-9H-N267 - 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	5,158.5	5,192.4	5,158.5	14.1	12.8	122.49	-488.4	173.4	274.5	248.9	25.61	10.717	
5,300.0	5,257.5	5,291.4	5,257.5	14.4	12.9	124.86	-488.4	173.4	282.3	256.5	25.79	10.947	
5,400.0	5,356.5	5,390.4	5,356.5	14.7	13.1	127.10	-488.4	173.4	290.5	264.6	25.95	11.196	
5,500.0	5,455.6	5,489.5	5,455.6	15.0	13.2	129.21	-488.4	173.4	299.2	273.1	26.10	11.462	
5,600.0	5,554.6	5,588.5	5,554.6	15.3	13.3	131.21	-488.4	173.4	308.2	282.0	26.25	11.742	
5,620.0	5,574.4	5,608.3	5,574.4	15.4	13.3	131.59	-488.4	173.4	310.1	283.8	26.28	11.800	
5,700.0	5,653.7	5,687.6	5,653.7	15.6	13.4	133.07	-488.4	173.4	317.2	290.8	26.39	12.019	
5,800.0	5,753.0	5,786.9	5,753.0	15.9	13.6	134.62	-488.4	173.4	325.3	298.8	26.55	12.254	
5,900.0	5,852.5	5,886.4	5,852.5	16.1	13.7	135.89	-488.4	173.4	332.4	305.7	26.72	12.440	
6,000.0	5,952.2	5,986.1	5,952.2	16.3	13.8	136.89	-488.4	173.4	338.3	311.4	26.91	12.573	
6,100.0	6,052.0	6,085.9	6,052.0	16.5	14.0	137.66	-488.4	173.4	343.1	316.0	27.12	12.652	
6,200.0	6,151.8	6,185.7	6,151.8	16.7	14.1	138.21	-488.4	173.4	346.6	319.2	27.34	12.677	
6,300.0	6,251.8	6,285.7	6,251.8	16.8	14.2	138.55	-488.4	173.4	348.8	321.2	27.58	12.648	
6,400.0	6,351.8	6,385.7	6,351.8	16.9	14.4	138.69	-488.4	173.4	349.7	321.9	27.83	12.566	
6,420.0	6,371.8	6,405.7	6,371.8	16.9	14.4	-87.31	-488.4	173.4	349.7	321.9	27.88	12.543	
6,500.0	6,451.8	6,485.7	6,451.8	17.0	14.5	-87.31	-488.4	173.4	349.7	321.6	28.11	12.443	
6,600.0	6,551.8	6,585.7	6,551.8	17.1	14.6	-87.31	-488.4	173.4	349.7	321.4	28.39	12.320	
6,700.0	6,651.8	6,685.7	6,651.8	17.3	14.8	-87.31	-488.4	173.4	349.7	321.1	28.67	12.199	
6,782.3	6,734.0	6,767.9	6,734.0	17.4	14.9	-87.31	-488.4	173.4	349.7	320.8	28.90	12.100	
6,800.0	6,751.8	6,785.7	6,751.8	17.4	14.9	-87.36	-488.4	173.4	349.7	320.8	28.95	12.079	
6,850.0	6,801.6	6,835.5	6,801.6	17.4	15.0	-87.98	-488.4	173.4	349.6	320.5	29.12	12.005	
6,900.0	6,851.0	6,884.9	6,851.0	17.4	15.0	-89.30	-488.4	173.4	349.4	320.1	29.33	11.912	
6,919.7	6,870.2	6,904.1	6,870.2	17.3	15.1	-90.00	-488.4	173.4	349.4	319.9	29.42	11.875	
6,950.0	6,899.4	6,933.3	6,899.4	17.3	15.1	-91.25	-488.4	173.4	349.4	319.9	29.57	11.819	
7,000.0	6,946.6	6,980.5	6,946.6	17.2	15.2	-93.72	-488.4	173.4	350.2	320.4	29.79	11.755	
7,050.0	6,992.2	7,029.1	6,995.1	17.1	15.2	-96.59	-487.0	173.4	352.1	322.2	29.94	11.760	
7,100.0	7,035.8	7,079.9	7,045.6	17.0	15.2	-99.47	-481.3	173.4	355.0	325.1	29.94	11.860	
7,150.0	7,077.1	7,132.8	7,097.4	16.8	15.2	-102.30	-470.7	173.4	359.0	329.2	29.77	12.058	
7,200.0	7,115.7	7,187.9	7,150.1	16.6	15.1	-105.06	-454.5	173.4	363.8	334.3	29.44	12.355	
7,250.0	7,151.5	7,245.5	7,203.2	16.5	14.9	-107.73	-432.3	173.4	369.3	340.4	28.97	12.751	
7,300.0	7,184.1	7,305.8	7,256.2	16.4	14.8	-110.27	-403.5	173.4	375.4	347.1	28.36	13.241	
7,350.0	7,213.3	7,369.1	7,308.1	16.2	14.6	-112.67	-367.4	173.4	381.9	354.2	27.65	13.812	
7,400.0	7,238.9	7,435.4	7,357.9	16.1	14.4	-114.89	-323.8	173.4	388.4	361.5	26.90	14.440	
7,450.0	7,260.6	7,504.8	7,404.3	16.1	14.2	-116.90	-272.2	173.4	394.7	368.6	26.16	15.089	
7,500.0	7,278.3	7,577.3	7,445.8	16.0	14.0	-118.66	-212.7	173.4	400.6	375.1	25.51	15.701	
7,550.0	7,291.8	7,652.8	7,480.6	16.0	13.9	-120.13	-145.9	173.4	405.7	380.7	25.03	16.207	
7,600.0	7,301.1	7,730.8	7,507.0	16.1	13.8	-121.28	-72.5	173.4	409.8	385.0	24.80	16.522	
7,650.0	7,306.1	7,810.8	7,523.5	16.2	14.0	-122.06	5.7	173.4	412.6	387.7	24.87	16.591	
7,682.3	7,307.0	7,863.2	7,528.4	16.3	14.1	-122.36	57.8	173.4	413.7	388.6	25.09	16.489	
7,700.0	7,307.0	7,891.3	7,529.0	16.3	14.2	-122.43	85.9	173.4	413.9	388.7	25.24	16.398	
7,800.0	7,307.0	7,991.3	7,529.0	16.8	14.7	-122.43	185.9	173.4	413.9	387.8	26.16	15.822	
7,900.0	7,307.0	8,091.3	7,529.0	17.4	15.4	-122.43	285.9	173.3	413.9	386.6	27.37	15.124	
8,000.0	7,307.0	8,191.3	7,529.0	18.1	16.3	-122.43	385.9	173.3	413.9	385.1	28.83	14.357	
8,100.0	7,307.0	8,291.3	7,529.0	19.0	17.3	-122.43	485.9	173.3	413.9	383.4	30.51	13.565	
8,200.0	7,307.0	8,391.3	7,529.0	20.0	18.4	-122.43	585.9	173.3	413.9	381.5	32.38	12.783	
8,300.0	7,307.0	8,491.3	7,529.0	21.1	19.6	-122.43	685.9	173.3	413.9	379.5	34.40	12.031	
8,400.0	7,307.0	8,591.3	7,529.0	22.3	20.8	-122.43	785.9	173.3	413.9	377.4	36.56	11.323	
8,500.0	7,307.0	8,691.3	7,529.0	23.5	22.2	-122.43	885.9	173.3	413.9	375.1	38.82	10.664	
8,600.0	7,307.0	8,791.3	7,529.0	24.9	23.6	-122.43	985.9	173.3	413.9	372.8	41.17	10.055	
8,700.0	7,307.0	8,891.3	7,529.0	26.2	25.0	-122.43	1,085.9	173.3	413.9	370.3	43.59	9.496	
8,800.0	7,307.0	8,991.3	7,529.0	27.6	26.5	-122.43	1,185.9	173.3	413.9	367.8	46.08	8.983	
8,900.0	7,307.0	9,091.3	7,529.0	29.1	28.0	-122.43	1,285.9	173.3	413.9	365.3	48.62	8.513	

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 Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3F-9H-N267 - 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	7,307.0	9,191.3	7,529.0	30.6	29.5	-122.43	1,385.9	173.3	413.9	362.7	51.21	8.083	
9,100.0	7,307.0	9,291.3	7,529.0	32.1	31.1	-122.43	1,485.9	173.3	413.9	360.1	53.84	7.688	
9,200.0	7,307.0	9,391.3	7,529.0	33.6	32.7	-122.43	1,585.9	173.3	413.9	357.4	56.50	7.326	
9,300.0	7,307.0	9,491.3	7,529.0	35.2	34.3	-122.43	1,685.9	173.3	413.9	354.7	59.19	6.993	
9,400.0	7,307.0	9,591.3	7,529.0	36.7	35.9	-122.43	1,785.9	173.3	413.9	352.0	61.91	6.686	
9,500.0	7,307.0	9,691.3	7,529.0	38.3	37.5	-122.43	1,885.9	173.3	413.9	349.3	64.65	6.403	
9,600.0	7,307.0	9,791.3	7,529.0	39.9	39.1	-122.43	1,985.9	173.3	413.9	346.5	67.40	6.141	
9,700.0	7,307.0	9,891.3	7,529.0	41.5	40.8	-122.43	2,085.9	173.3	413.9	343.8	70.18	5.898	
9,800.0	7,307.0	9,991.3	7,529.0	43.2	42.4	-122.43	2,185.9	173.3	413.9	341.0	72.97	5.673	
9,900.0	7,307.0	10,091.3	7,529.0	44.8	44.1	-122.43	2,285.9	173.3	413.9	338.2	75.77	5.463	
10,000.0	7,307.0	10,191.3	7,529.0	46.4	45.8	-122.43	2,385.9	173.3	413.9	335.3	78.59	5.267	
10,100.0	7,307.0	10,291.3	7,529.0	48.1	47.4	-122.43	2,485.9	173.3	413.9	332.5	81.42	5.084	
10,200.0	7,307.0	10,391.3	7,529.0	49.7	49.1	-122.43	2,585.9	173.3	413.9	329.7	84.25	4.913	
10,300.0	7,307.0	10,491.3	7,529.0	51.4	50.8	-122.43	2,685.9	173.3	413.9	326.8	87.10	4.753	
10,400.0	7,307.0	10,591.3	7,529.0	53.1	52.5	-122.43	2,785.9	173.3	413.9	324.0	89.95	4.602	
10,500.0	7,307.0	10,691.3	7,529.0	54.7	54.2	-122.43	2,885.9	173.3	413.9	321.1	92.81	4.460	
10,600.0	7,307.0	10,791.3	7,529.0	56.4	55.9	-122.43	2,985.9	173.3	413.9	318.3	95.68	4.326	
10,700.0	7,307.0	10,891.3	7,529.0	58.1	57.6	-122.43	3,085.9	173.3	413.9	315.4	98.55	4.200	
10,800.0	7,307.0	10,991.3	7,529.0	59.8	59.3	-122.43	3,185.9	173.3	413.9	312.5	101.43	4.081	
10,900.0	7,307.0	11,091.3	7,529.0	61.5	61.0	-122.43	3,285.9	173.3	413.9	309.6	104.31	3.968	
11,000.0	7,307.0	11,191.3	7,529.0	63.2	62.7	-122.43	3,385.9	173.3	413.9	306.7	107.20	3.861	
11,100.0	7,307.0	11,291.3	7,529.0	64.9	64.4	-122.43	3,485.9	173.3	413.9	303.8	110.09	3.760	
11,200.0	7,307.0	11,391.3	7,529.0	66.6	66.1	-122.43	3,585.9	173.3	413.9	300.9	112.99	3.663	
11,300.0	7,307.0	11,491.3	7,529.0	68.3	67.8	-122.43	3,685.9	173.3	413.9	298.0	115.89	3.572	
11,400.0	7,307.0	11,591.3	7,529.0	70.0	69.6	-122.43	3,785.9	173.3	413.9	295.1	118.79	3.484	
11,500.0	7,307.0	11,691.3	7,529.0	71.7	71.3	-122.43	3,885.9	173.3	413.9	292.2	121.70	3.401	
11,600.0	7,307.0	11,791.3	7,529.0	73.4	73.0	-122.43	3,985.9	173.3	413.9	289.3	124.61	3.322	
11,700.0	7,307.0	11,891.3	7,529.0	75.1	74.7	-122.43	4,085.9	173.3	413.9	286.4	127.52	3.246	
11,800.0	7,307.0	11,991.3	7,529.0	76.8	76.5	-122.43	4,185.9	173.3	413.9	283.5	130.43	3.173	
11,900.0	7,307.0	12,091.3	7,529.0	78.6	78.2	-122.43	4,285.9	173.3	413.9	280.6	133.35	3.104	
12,000.0	7,307.0	12,191.3	7,529.0	80.3	79.9	-122.43	4,385.9	173.3	413.9	277.7	136.27	3.038	
12,100.0	7,307.0	12,291.3	7,529.0	82.0	81.6	-122.43	4,485.9	173.3	413.9	274.7	139.19	2.974	
12,200.0	7,307.0	12,391.3	7,529.0	83.7	83.4	-122.43	4,585.9	173.3	413.9	271.8	142.12	2.913	
12,300.0	7,307.0	12,491.3	7,529.0	85.4	85.1	-122.43	4,685.9	173.3	413.9	268.9	145.04	2.854	
12,400.0	7,307.0	12,591.3	7,529.0	87.2	86.8	-122.43	4,785.9	173.3	413.9	266.0	147.97	2.797	
12,500.0	7,307.0	12,691.3	7,529.0	88.9	88.6	-122.43	4,885.9	173.3	413.9	263.0	150.90	2.743	
12,600.0	7,307.0	12,791.3	7,529.0	90.6	90.3	-122.43	4,985.9	173.3	413.9	260.1	153.83	2.691	
12,700.0	7,307.0	12,891.3	7,529.0	92.3	92.0	-122.43	5,085.9	173.3	413.9	257.2	156.76	2.641	
12,772.4	7,307.0	12,963.6	7,529.0	93.6	93.3	-122.43	5,158.3	173.3	413.9	255.1	158.88	2.605	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3H-9H-N267 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.06	0.0	8.4	8.4				
100.0	100.0	100.0	100.0	0.1	0.1	90.06	0.0	8.4	8.4	8.1	0.24	34.322	
200.0	200.0	200.0	200.0	0.3	0.3	90.06	0.0	8.4	8.4	7.8	0.59	14.133	
300.0	300.0	300.0	300.0	0.5	0.5	90.06	0.0	8.4	8.4	7.4	0.94	8.898	
400.0	400.0	400.0	400.0	0.6	0.6	90.06	0.0	8.4	8.4	7.1	1.29	6.493	CC, ES
500.0	500.0	499.7	499.7	0.8	0.8	-42.00	-0.9	9.9	9.2	7.6	1.64	5.632	
600.0	600.0	599.4	599.2	1.0	1.0	-37.86	-3.7	14.3	11.9	9.9	1.99	5.946	
700.0	699.9	698.8	698.3	1.2	1.2	-33.95	-8.2	21.6	16.3	13.9	2.35	6.929	
800.0	799.7	798.0	796.7	1.4	1.5	-31.07	-14.6	31.8	22.5	19.8	2.71	8.317	
900.0	899.4	897.4	895.0	1.6	1.7	-29.46	-22.5	44.4	29.9	26.9	3.07	9.754	
1,000.0	998.9	997.2	993.7	1.8	2.0	-29.68	-30.5	57.2	36.1	32.7	3.44	10.486	
1,100.0	1,098.3	1,097.1	1,092.4	2.1	2.3	-31.06	-38.5	70.1	40.8	36.9	3.83	10.635	
1,200.0	1,197.4	1,197.1	1,191.2	2.3	2.6	-33.37	-46.5	83.0	44.0	39.7	4.25	10.347	
1,300.0	1,296.4	1,297.0	1,290.0	2.6	2.9	-36.00	-54.5	95.8	46.6	41.9	4.70	9.911	
1,400.0	1,395.5	1,396.9	1,388.8	2.9	3.2	-38.35	-62.5	108.7	49.2	44.1	5.16	9.534	
1,500.0	1,494.5	1,496.9	1,487.6	3.2	3.6	-40.45	-70.5	121.6	52.0	46.3	5.64	9.204	
1,600.0	1,593.5	1,596.8	1,586.3	3.4	3.9	-42.34	-78.6	134.4	54.8	48.6	6.14	8.916	
1,700.0	1,692.5	1,696.8	1,685.1	3.7	4.2	-44.05	-86.6	147.3	57.6	51.0	6.65	8.663	
1,800.0	1,791.6	1,796.7	1,783.9	4.0	4.5	-45.60	-94.6	160.2	60.5	53.3	7.17	8.440	
1,900.0	1,890.6	1,896.7	1,882.7	4.3	4.8	-47.00	-102.6	173.0	63.4	55.7	7.70	8.243	
2,000.0	1,989.6	1,996.6	1,981.5	4.6	5.1	-48.28	-110.6	185.9	66.4	58.2	8.23	8.068	
2,100.0	2,088.6	2,096.6	2,080.3	4.9	5.4	-49.44	-118.7	198.8	69.4	60.6	8.77	7.912	
2,200.0	2,187.7	2,196.5	2,179.1	5.2	5.8	-50.51	-126.7	211.6	72.4	63.1	9.32	7.773	
2,300.0	2,286.7	2,296.5	2,277.9	5.5	6.1	-51.50	-134.7	224.5	75.5	65.6	9.87	7.647	
2,400.0	2,385.7	2,396.4	2,376.7	5.8	6.4	-52.41	-142.7	237.4	78.6	68.1	10.43	7.534	
2,500.0	2,484.8	2,496.3	2,475.4	6.1	6.7	-53.24	-150.7	250.2	81.7	70.7	10.99	7.432	
2,600.0	2,583.8	2,596.3	2,574.2	6.4	7.0	-54.02	-158.7	263.1	84.8	73.2	11.55	7.340	
2,700.0	2,682.8	2,696.2	2,673.0	6.7	7.3	-54.74	-166.8	275.9	87.9	75.8	12.11	7.256	
2,800.0	2,781.8	2,796.2	2,771.8	7.0	7.7	-55.42	-174.8	288.8	91.0	78.3	12.68	7.179	
2,900.0	2,880.9	2,896.1	2,870.6	7.3	8.0	-56.05	-182.8	301.7	94.2	80.9	13.25	7.108	
3,000.0	2,979.9	2,996.1	2,969.4	7.6	8.3	-56.63	-190.8	314.5	97.3	83.5	13.82	7.043	
3,100.0	3,078.9	3,096.0	3,068.2	7.8	8.6	-57.18	-198.8	327.4	100.5	86.1	14.39	6.984	
3,200.0	3,177.9	3,196.0	3,167.0	8.1	8.9	-57.70	-206.9	340.3	103.7	88.7	14.96	6.929	
3,300.0	3,277.0	3,295.9	3,265.8	8.4	9.2	-58.19	-214.9	353.1	106.8	91.3	15.53	6.877	
3,400.0	3,376.0	3,395.8	3,364.5	8.7	9.6	-58.64	-222.9	366.0	110.0	93.9	16.11	6.830	
3,500.0	3,475.0	3,495.8	3,463.3	9.0	9.9	-59.08	-230.9	378.9	113.2	96.5	16.69	6.786	
3,600.0	3,574.0	3,595.7	3,562.1	9.3	10.2	-59.48	-238.9	391.7	116.4	99.2	17.26	6.745	
3,700.0	3,673.1	3,695.7	3,660.9	9.6	10.5	-59.87	-247.0	404.6	119.6	101.8	17.84	6.707	
3,800.0	3,772.1	3,795.6	3,759.7	9.9	10.8	-60.24	-255.0	417.5	122.8	104.4	18.42	6.671	
3,900.0	3,871.1	3,895.6	3,858.5	10.2	11.1	-60.59	-263.0	430.3	126.1	107.1	18.99	6.637	
4,000.0	3,970.2	3,995.5	3,957.3	10.5	11.5	-60.92	-271.0	443.2	129.3	109.7	19.57	6.605	
4,100.0	4,069.2	4,095.5	4,056.1	10.8	11.8	-61.23	-279.0	456.1	132.5	112.4	20.15	6.576	
4,200.0	4,168.2	4,195.4	4,154.9	11.1	12.1	-61.53	-287.0	468.9	135.7	115.0	20.73	6.548	
4,300.0	4,267.2	4,295.4	4,253.7	11.4	12.4	-61.81	-295.1	481.8	139.0	117.7	21.31	6.521	
4,400.0	4,366.3	4,395.3	4,352.4	11.7	12.7	-62.09	-303.1	494.7	142.2	120.3	21.89	6.496	
4,500.0	4,465.3	4,495.2	4,451.2	12.0	13.1	-62.35	-311.1	507.5	145.5	123.0	22.47	6.472	
4,600.0	4,564.3	4,595.2	4,550.0	12.3	13.4	-62.60	-319.1	520.4	148.7	125.6	23.05	6.450	
4,700.0	4,663.3	4,695.1	4,648.8	12.6	13.7	-62.83	-327.1	533.3	151.9	128.3	23.63	6.429	
4,800.0	4,762.4	4,795.1	4,747.6	12.9	14.0	-63.06	-335.2	546.1	155.2	131.0	24.22	6.409	
4,900.0	4,861.4	4,895.0	4,846.4	13.2	14.3	-63.28	-343.2	559.0	158.4	133.6	24.80	6.389	
5,000.0	4,960.4	4,995.0	4,945.2	13.5	14.6	-63.49	-351.2	571.9	161.7	136.3	25.38	6.371	
5,100.0	5,059.4	5,094.9	5,044.0	13.8	15.0	-63.69	-359.2	584.7	164.9	139.0	25.96	6.354	

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 Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3H-9H-N267 - 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	5,158.5	5,194.9	5,142.8	14.1	15.3	-63.89	-367.2	597.6	168.2	141.7	26.54	6.337	
5,300.0	5,257.5	5,294.8	5,241.5	14.4	15.6	-64.07	-375.2	610.5	171.5	144.3	27.13	6.321	
5,400.0	5,356.5	5,394.8	5,340.3	14.7	15.9	-64.25	-383.3	623.3	174.7	147.0	27.71	6.306	
5,500.0	5,455.6	5,494.7	5,439.1	15.0	16.2	-64.43	-391.3	636.2	178.0	149.7	28.29	6.291	
5,600.0	5,554.6	5,594.6	5,537.9	15.3	16.6	-64.59	-399.3	649.0	181.3	152.4	28.87	6.277	
5,620.0	5,574.4	5,614.6	5,557.7	15.4	16.6	-64.63	-400.9	651.6	181.9	152.9	28.99	6.275	
5,700.0	5,653.7	5,694.6	5,636.7	15.6	16.9	-64.62	-407.3	661.9	184.8	155.3	29.42	6.280	
5,800.0	5,753.0	5,794.5	5,735.4	15.9	17.2	-64.20	-415.3	674.8	189.0	159.1	29.86	6.330	
5,900.0	5,852.5	5,894.3	5,834.1	16.1	17.5	-63.34	-423.3	687.6	194.0	163.8	30.19	6.426	
6,000.0	5,952.2	5,994.0	5,932.7	16.3	17.8	-62.08	-431.3	700.5	199.9	169.5	30.42	6.571	
6,100.0	6,052.0	6,093.6	6,031.1	16.5	18.1	-60.49	-439.3	713.3	206.8	176.2	30.55	6.767	
6,200.0	6,151.8	6,193.1	6,129.4	16.7	18.5	-58.62	-447.3	726.1	214.7	184.1	30.59	7.018	
6,300.0	6,251.8	6,292.3	6,227.5	16.8	18.8	-56.53	-455.3	738.9	223.7	193.2	30.53	7.328	
6,400.0	6,351.8	6,391.3	6,325.4	16.9	19.1	-54.27	-463.2	751.6	234.1	203.7	30.40	7.702	
6,420.0	6,371.8	6,411.1	6,344.9	16.9	19.2	80.20	-464.8	754.1	236.4	206.0	30.37	7.785	
6,500.0	6,451.8	6,490.2	6,423.1	17.0	19.4	82.07	-471.1	764.3	245.6	215.4	30.23	8.125	
6,600.0	6,551.8	6,589.0	6,520.8	17.1	19.7	84.23	-479.1	777.0	257.5	227.4	30.09	8.557	
6,700.0	6,651.8	6,687.8	6,618.5	17.3	20.0	86.19	-487.0	789.8	269.7	239.7	29.99	8.994	
6,782.3	6,734.0	6,769.1	6,698.8	17.4	20.3	87.68	-493.5	800.2	280.0	250.0	29.93	9.355	
6,800.0	6,751.8	6,786.7	6,716.1	17.4	20.4	87.82	-494.9	802.5	282.2	252.2	29.95	9.421	
6,850.0	6,801.6	6,835.6	6,764.5	17.4	20.5	88.74	-498.9	808.8	288.5	258.6	29.85	9.666	
6,900.0	6,851.0	6,883.7	6,812.1	17.4	20.7	90.36	-502.7	815.0	295.0	265.5	29.52	9.993	
6,950.0	6,899.4	6,930.6	6,858.4	17.3	20.8	92.52	-506.5	821.0	302.2	273.2	29.04	10.406	
7,000.0	6,946.6	6,975.9	6,903.2	17.2	21.0	95.04	-510.1	826.9	310.7	282.2	28.47	10.912	
7,050.0	6,992.2	7,023.7	6,950.5	17.1	21.1	97.94	-512.8	833.0	320.7	292.9	27.81	11.532	
7,100.0	7,035.8	7,074.8	7,001.1	17.0	21.2	100.81	-511.5	839.6	331.9	304.8	27.16	12.223	
7,150.0	7,077.1	7,128.6	7,054.1	16.8	21.3	103.53	-505.2	846.5	344.2	317.6	26.55	12.962	
7,200.0	7,115.7	7,185.5	7,109.2	16.6	21.3	106.10	-493.1	853.7	357.1	331.1	26.00	13.736	
7,250.0	7,151.5	7,245.9	7,166.1	16.5	21.3	108.52	-474.3	861.1	370.4	344.9	25.49	14.531	
7,300.0	7,184.1	7,310.3	7,224.2	16.4	21.3	110.78	-447.7	868.7	383.8	358.8	25.04	15.329	
7,350.0	7,213.3	7,379.1	7,282.6	16.2	21.2	112.87	-412.2	876.3	396.9	372.2	24.64	16.107	
7,400.0	7,238.9	7,452.7	7,340.0	16.1	21.1	114.77	-366.7	883.7	409.2	384.9	24.30	16.839	
7,450.0	7,260.6	7,531.3	7,394.3	16.1	21.0	116.44	-310.4	890.8	420.3	396.3	24.04	17.484	
7,500.0	7,278.3	7,614.9	7,443.1	16.0	20.9	117.85	-243.0	897.2	429.9	406.0	23.88	18.004	
7,550.0	7,291.8	7,703.0	7,483.4	16.0	20.9	118.93	-164.9	902.4	437.4	413.5	23.83	18.356	
7,600.0	7,301.1	7,794.7	7,512.2	16.1	20.9	119.64	-78.1	906.2	442.4	418.5	23.92	18.494	
7,650.0	7,306.1	7,888.6	7,527.2	16.2	21.0	119.94	14.5	908.1	444.8	420.7	24.17	18.402	
7,682.3	7,307.0	7,942.3	7,529.0	16.3	21.1	119.93	68.2	908.4	445.0	420.6	24.40	18.235	
7,700.0	7,307.0	7,960.0	7,529.0	16.3	21.1	119.93	85.9	908.4	445.0	420.4	24.54	18.131	
7,800.0	7,307.0	8,060.0	7,529.0	16.8	21.5	119.93	185.9	908.4	445.0	419.5	25.51	17.440	
7,900.0	7,307.0	8,160.0	7,529.0	17.4	21.9	119.93	285.9	908.4	445.0	418.2	26.79	16.610	
8,000.0	7,307.0	8,260.0	7,529.0	18.1	22.5	119.93	385.9	908.4	445.0	416.6	28.34	15.704	
8,100.0	7,307.0	8,360.0	7,529.0	19.0	23.3	119.93	485.9	908.4	445.0	414.9	30.11	14.778	
8,200.0	7,307.0	8,460.0	7,529.0	20.0	24.1	119.93	585.9	908.4	445.0	412.9	32.08	13.872	
8,300.0	7,307.0	8,560.0	7,529.0	21.1	25.0	119.93	685.9	908.4	445.0	410.8	34.20	13.010	
8,400.0	7,307.0	8,660.0	7,529.0	22.3	26.0	119.93	785.9	908.4	445.0	408.5	36.46	12.204	
8,500.0	7,307.0	8,760.0	7,529.0	23.5	27.1	119.93	885.9	908.4	445.0	406.2	38.83	11.461	
8,600.0	7,307.0	8,860.0	7,529.0	24.9	28.2	119.93	985.9	908.4	445.0	403.7	41.28	10.780	
8,700.0	7,307.0	8,960.0	7,529.0	26.2	29.4	119.93	1,085.9	908.4	445.0	401.2	43.81	10.157	
8,800.0	7,307.0	9,060.0	7,529.0	27.6	30.7	119.93	1,185.9	908.4	445.0	398.6	46.40	9.590	
8,900.0	7,307.0	9,160.0	7,529.0	29.1	32.0	119.93	1,285.9	908.4	445.0	395.9	49.04	9.073	
9,000.0	7,307.0	9,260.0	7,529.0	30.6	33.4	119.93	1,385.9	908.4	445.0	393.3	51.73	8.602	

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 Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3H-9H-N267 - 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	7,307.0	9,360.0	7,529.0	32.1	34.7	119.93	1,485.9	908.4	445.0	390.5	54.46	8.171	
9,200.0	7,307.0	9,460.0	7,529.0	33.6	36.2	119.93	1,585.9	908.4	445.0	387.8	57.22	7.777	
9,300.0	7,307.0	9,560.0	7,529.0	35.2	37.6	119.93	1,685.9	908.4	445.0	385.0	60.00	7.416	
9,400.0	7,307.0	9,660.0	7,529.0	36.7	39.1	119.93	1,785.9	908.4	445.0	382.2	62.81	7.084	
9,500.0	7,307.0	9,760.0	7,529.0	38.3	40.6	119.93	1,885.9	908.4	445.0	379.3	65.65	6.779	
9,600.0	7,307.0	9,860.0	7,529.0	39.9	42.1	119.93	1,985.9	908.4	445.0	376.5	68.50	6.497	
9,700.0	7,307.0	9,960.0	7,529.0	41.5	43.6	119.93	2,085.9	908.4	445.0	373.6	71.36	6.236	
9,800.0	7,307.0	10,060.0	7,529.0	43.2	45.2	119.93	2,185.9	908.4	445.0	370.8	74.24	5.994	
9,900.0	7,307.0	10,160.0	7,529.0	44.8	46.7	119.93	2,285.9	908.4	445.0	367.9	77.14	5.769	
10,000.0	7,307.0	10,260.0	7,529.0	46.4	48.3	119.93	2,385.9	908.4	445.0	365.0	80.04	5.560	
10,100.0	7,307.0	10,360.0	7,529.0	48.1	49.9	119.93	2,485.9	908.4	445.0	362.0	82.96	5.364	
10,200.0	7,307.0	10,460.0	7,529.0	49.7	51.5	119.93	2,585.9	908.4	445.0	359.1	85.88	5.182	
10,300.0	7,307.0	10,560.0	7,529.0	51.4	53.1	119.93	2,685.9	908.4	445.0	356.2	88.81	5.011	
10,400.0	7,307.0	10,660.0	7,529.0	53.1	54.7	119.93	2,785.9	908.4	445.0	353.3	91.75	4.850	
10,500.0	7,307.0	10,760.0	7,529.0	54.7	56.4	119.93	2,885.9	908.4	445.0	350.3	94.70	4.699	
10,600.0	7,307.0	10,860.0	7,529.0	56.4	58.0	119.93	2,985.9	908.4	445.0	347.4	97.65	4.557	
10,700.0	7,307.0	10,960.0	7,529.0	58.1	59.6	119.93	3,085.9	908.4	445.0	344.4	100.61	4.423	
10,800.0	7,307.0	11,060.0	7,529.0	59.8	61.3	119.93	3,185.9	908.4	445.0	341.4	103.57	4.297	
10,900.0	7,307.0	11,160.0	7,529.0	61.5	62.9	119.93	3,285.9	908.4	445.0	338.5	106.54	4.177	
11,000.0	7,307.0	11,260.0	7,529.0	63.2	64.6	119.93	3,385.9	908.4	445.0	335.5	109.51	4.064	
11,100.0	7,307.0	11,360.0	7,529.0	64.9	66.3	119.92	3,485.9	908.4	445.0	332.5	112.49	3.956	
11,200.0	7,307.0	11,460.0	7,529.0	66.6	67.9	119.92	3,585.9	908.4	445.0	329.5	115.47	3.854	
11,300.0	7,307.0	11,560.0	7,529.0	68.3	69.6	119.92	3,685.9	908.4	445.0	326.6	118.45	3.757	
11,400.0	7,307.0	11,660.0	7,529.0	70.0	71.3	119.92	3,785.9	908.4	445.0	323.6	121.44	3.664	
11,500.0	7,307.0	11,760.0	7,529.0	71.7	72.9	119.92	3,885.9	908.4	445.0	320.6	124.43	3.576	
11,600.0	7,307.0	11,860.0	7,529.0	73.4	74.6	119.92	3,985.9	908.4	445.0	317.6	127.42	3.492	
11,700.0	7,307.0	11,960.0	7,529.0	75.1	76.3	119.92	4,085.9	908.4	445.0	314.6	130.42	3.412	
11,800.0	7,307.0	12,060.0	7,529.0	76.8	78.0	119.92	4,185.9	908.4	445.0	311.6	133.41	3.336	
11,900.0	7,307.0	12,160.0	7,529.0	78.6	79.7	119.92	4,285.9	908.4	445.0	308.6	136.41	3.262	
12,000.0	7,307.0	12,260.0	7,529.0	80.3	81.4	119.92	4,385.9	908.4	445.0	305.6	139.41	3.192	
12,100.0	7,307.0	12,360.0	7,529.0	82.0	83.1	119.92	4,485.9	908.4	445.0	302.6	142.42	3.125	
12,200.0	7,307.0	12,460.0	7,529.0	83.7	84.8	119.92	4,585.9	908.4	445.0	299.6	145.42	3.060	
12,300.0	7,307.0	12,560.0	7,529.0	85.4	86.5	119.92	4,685.9	908.4	445.0	296.6	148.43	2.998	
12,400.0	7,307.0	12,660.0	7,529.0	87.2	88.2	119.92	4,785.9	908.4	445.0	293.6	151.44	2.939	
12,500.0	7,307.0	12,760.0	7,529.0	88.9	89.9	119.92	4,885.9	908.4	445.0	290.6	154.45	2.881	
12,600.0	7,307.0	12,860.0	7,529.0	90.6	91.6	119.92	4,985.9	908.4	445.0	287.6	157.46	2.826	
12,700.0	7,307.0	12,960.0	7,529.0	92.3	93.3	119.92	5,085.9	908.4	445.0	284.6	160.47	2.773	SF
12,772.4	7,307.0	12,974.1	7,529.0	93.6	93.6	119.92	5,100.0	908.4	448.8	287.1	161.78	2.774	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3I--9H-N267 - 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	100.40	-3.6	19.6	19.9				
100.0	100.0	100.0	100.0	0.1	0.1	100.40	-3.6	19.6	19.9	19.7	0.24	81.424	
200.0	200.0	200.0	200.0	0.3	0.3	100.40	-3.6	19.6	19.9	19.3	0.59	33.527	
300.0	300.0	300.0	300.0	0.5	0.5	100.40	-3.6	19.6	19.9	19.0	0.94	21.110	CC, ES
400.0	400.0	399.3	399.3	0.6	0.6	101.42	-4.3	21.1	21.6	20.3	1.29	16.720	
500.0	500.0	498.4	498.2	0.8	0.8	-31.24	-6.3	25.9	25.9	24.3	1.64	15.832	
600.0	600.0	597.2	596.7	1.0	1.1	-30.82	-9.7	33.7	32.2	30.2	1.99	16.201	
700.0	699.9	695.7	694.4	1.2	1.3	-30.93	-14.4	44.6	40.4	38.0	2.34	17.248	
800.0	799.7	793.6	791.2	1.4	1.6	-31.30	-20.4	58.5	50.4	47.7	2.70	18.684	
900.0	899.4	891.6	887.4	1.6	1.9	-31.78	-27.6	75.4	62.1	59.1	3.06	20.310	
1,000.0	998.9	990.9	984.8	1.8	2.3	-32.67	-35.3	93.3	73.4	70.0	3.44	21.352	
1,100.0	1,098.3	1,090.4	1,082.4	2.1	2.7	-33.99	-43.1	111.3	83.2	79.4	3.83	21.718	
1,200.0	1,197.4	1,190.0	1,180.0	2.3	3.0	-35.64	-50.8	129.3	91.6	87.4	4.25	21.568	
1,300.0	1,296.4	1,289.7	1,277.7	2.6	3.4	-37.37	-58.6	147.3	99.4	94.8	4.69	21.214	
1,400.0	1,395.5	1,389.3	1,375.4	2.9	3.8	-38.84	-66.3	165.3	107.3	102.2	5.14	20.881	
1,500.0	1,494.5	1,489.0	1,473.1	3.2	4.2	-40.10	-74.1	183.3	115.3	109.7	5.60	20.571	
1,600.0	1,593.5	1,588.6	1,570.9	3.4	4.6	-41.21	-81.8	201.3	123.3	117.2	6.08	20.285	
1,700.0	1,692.5	1,688.3	1,668.6	3.7	4.9	-42.18	-89.6	219.2	131.3	124.8	6.56	20.022	
1,800.0	1,791.6	1,787.9	1,766.3	4.0	5.3	-43.03	-97.3	237.2	139.4	132.3	7.05	19.781	
1,900.0	1,890.6	1,887.6	1,864.0	4.3	5.7	-43.80	-105.1	255.2	147.5	139.9	7.54	19.560	
2,000.0	1,989.6	1,987.3	1,961.7	4.6	6.1	-44.48	-112.8	273.2	155.6	147.6	8.04	19.357	
2,100.0	2,088.6	2,086.9	2,059.4	4.9	6.5	-45.10	-120.5	291.2	163.7	155.2	8.54	19.171	
2,200.0	2,187.7	2,186.6	2,157.1	5.2	6.9	-45.66	-128.3	309.2	171.9	162.8	9.05	19.001	
2,300.0	2,286.7	2,286.2	2,254.8	5.5	7.3	-46.16	-136.0	327.2	180.1	170.5	9.56	18.844	
2,400.0	2,385.7	2,385.9	2,352.5	5.8	7.6	-46.63	-143.8	345.2	188.2	178.2	10.07	18.699	
2,500.0	2,484.8	2,485.5	2,450.2	6.1	8.0	-47.05	-151.5	363.2	196.4	185.9	10.58	18.565	
2,600.0	2,583.8	2,585.2	2,547.9	6.4	8.4	-47.44	-159.3	381.2	204.6	193.6	11.10	18.441	
2,700.0	2,682.8	2,684.8	2,645.7	6.7	8.8	-47.80	-167.0	399.2	212.9	201.2	11.61	18.327	
2,800.0	2,781.8	2,784.5	2,743.4	7.0	9.2	-48.14	-174.8	417.2	221.1	208.9	12.13	18.220	
2,900.0	2,880.9	2,884.1	2,841.1	7.3	9.6	-48.44	-182.5	435.2	229.3	216.7	12.66	18.120	
3,000.0	2,979.9	2,983.8	2,938.8	7.6	10.0	-48.73	-190.3	453.2	237.5	224.4	13.18	18.027	
3,100.0	3,078.9	3,083.4	3,036.5	7.8	10.4	-49.00	-198.0	471.2	245.8	232.1	13.70	17.941	
3,200.0	3,177.9	3,183.1	3,134.2	8.1	10.7	-49.25	-205.8	489.2	254.0	239.8	14.22	17.859	
3,300.0	3,277.0	3,282.7	3,231.9	8.4	11.1	-49.49	-213.5	507.2	262.3	247.5	14.75	17.783	
3,400.0	3,376.0	3,382.4	3,329.6	8.7	11.5	-49.71	-221.3	525.2	270.5	255.3	15.27	17.711	
3,500.0	3,475.0	3,482.1	3,427.3	9.0	11.9	-49.92	-229.0	543.2	278.8	263.0	15.80	17.644	
3,600.0	3,574.0	3,581.7	3,525.0	9.3	12.3	-50.11	-236.8	561.2	287.1	270.7	16.33	17.580	
3,700.0	3,673.1	3,681.4	3,622.7	9.6	12.7	-50.30	-244.5	579.2	295.3	278.5	16.86	17.520	
3,800.0	3,772.1	3,781.0	3,720.4	9.9	13.1	-50.47	-252.3	597.2	303.6	286.2	17.38	17.463	
3,900.0	3,871.1	3,880.7	3,818.2	10.2	13.5	-50.64	-260.0	615.2	311.9	293.9	17.91	17.409	
4,000.0	3,970.2	3,980.3	3,915.9	10.5	13.8	-50.80	-267.7	633.2	320.1	301.7	18.44	17.358	
4,100.0	4,069.2	4,080.0	4,013.6	10.8	14.2	-50.95	-275.5	651.1	328.4	309.4	18.97	17.309	
4,200.0	4,168.2	4,179.6	4,111.3	11.1	14.6	-51.09	-283.2	669.1	336.7	317.2	19.50	17.263	
4,300.0	4,267.2	4,279.3	4,209.0	11.4	15.0	-51.22	-291.0	687.1	345.0	324.9	20.03	17.219	
4,400.0	4,366.3	4,378.9	4,306.7	11.7	15.4	-51.35	-298.7	705.1	353.2	332.7	20.56	17.177	
4,500.0	4,465.3	4,478.6	4,404.4	12.0	15.8	-51.48	-306.5	723.1	361.5	340.4	21.10	17.137	
4,600.0	4,564.3	4,578.2	4,502.1	12.3	16.2	-51.59	-314.2	741.1	369.8	348.2	21.63	17.099	
4,700.0	4,663.3	4,677.9	4,599.8	12.6	16.6	-51.71	-322.0	759.1	378.1	355.9	22.16	17.062	
4,800.0	4,762.4	4,777.5	4,697.5	12.9	16.9	-51.81	-329.7	777.1	386.4	363.7	22.69	17.028	
4,900.0	4,861.4	4,877.2	4,795.2	13.2	17.3	-51.92	-337.5	795.1	394.7	371.4	23.22	16.994	
5,000.0	4,960.4	4,976.9	4,892.9	13.5	17.7	-52.01	-345.2	813.1	403.0	379.2	23.76	16.962	
5,100.0	5,059.4	5,076.5	4,990.7	13.8	18.1	-52.11	-353.0	831.1	411.2	387.0	24.29	16.931	

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 Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3I--9H-N267 - 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	5,158.5	5,176.2	5,088.4	14.1	18.5	-52.20	-360.7	849.1	419.5	394.7	24.82	16.902	
5,300.0	5,257.5	5,275.8	5,186.1	14.4	18.9	-52.29	-368.5	867.1	427.8	402.5	25.35	16.874	
5,400.0	5,356.5	5,375.5	5,283.8	14.7	19.3	-52.37	-376.2	885.1	436.1	410.2	25.89	16.846	
5,500.0	5,455.6	5,475.1	5,381.5	15.0	19.7	-52.45	-384.0	903.1	444.4	418.0	26.42	16.820	
5,600.0	5,554.6	5,574.8	5,479.2	15.3	20.1	-52.53	-391.7	921.1	452.7	425.8	26.96	16.795	
5,620.0	5,574.4	5,594.7	5,498.7	15.4	20.1	-52.55	-393.3	924.7	454.4	427.3	27.06	16.790	
5,700.0	5,653.7	5,674.4	5,576.9	15.6	20.4	-52.61	-399.4	939.1	461.3	433.9	27.47	16.794	
5,800.0	5,753.0	5,773.9	5,674.5	15.9	20.8	-52.54	-407.2	957.0	471.0	443.1	27.92	16.868	
5,900.0	5,852.5	5,873.3	5,771.9	16.1	21.2	-52.32	-414.9	975.0	481.7	453.4	28.32	17.013	
6,000.0	5,952.2	5,972.5	5,869.2	16.3	21.6	-51.96	-422.6	992.9	493.6	464.9	28.65	17.228	
6,100.0	6,052.0	6,071.6	5,966.3	16.5	22.0	-51.47	-430.3	1,010.8	506.5	477.6	28.93	17.510	
6,200.0	6,151.8	6,170.4	6,063.2	16.7	22.4	-50.88	-438.0	1,028.6	520.6	491.4	29.15	17.860	
6,300.0	6,251.8	6,268.9	6,159.8	16.8	22.8	-50.18	-445.7	1,046.4	535.8	506.5	29.32	18.276	
6,400.0	6,351.8	6,367.2	6,256.1	16.9	23.1	-49.40	-453.3	1,064.2	552.3	522.8	29.44	18.759	
6,420.0	6,371.8	6,386.8	6,275.4	16.9	23.2	84.76	-454.8	1,067.7	555.7	526.3	29.46	18.863	
6,500.0	6,451.8	6,465.2	6,352.3	17.0	23.5	85.52	-460.9	1,081.9	569.6	540.1	29.53	19.293	
6,600.0	6,551.8	6,563.3	6,448.4	17.1	23.9	86.41	-468.6	1,099.6	587.2	557.6	29.62	19.825	
6,700.0	6,651.8	6,661.3	6,544.6	17.3	24.3	87.25	-476.2	1,117.3	604.8	575.1	29.72	20.349	
6,782.3	6,734.0	6,742.0	6,623.6	17.4	24.6	87.90	-482.4	1,131.9	619.5	589.6	29.82	20.773	
6,800.0	6,751.8	6,759.4	6,640.7	17.4	24.7	87.74	-483.8	1,135.0	622.6	592.7	29.93	20.803	
6,850.0	6,801.6	6,807.9	6,688.3	17.4	24.9	87.56	-487.6	1,143.8	631.4	601.3	30.11	20.975	
6,900.0	6,851.0	6,855.5	6,735.0	17.4	25.0	87.62	-490.1	1,152.4	640.2	610.1	30.13	21.252	
6,950.0	6,899.4	6,903.8	6,782.4	17.3	25.2	87.70	-488.8	1,161.1	649.1	619.0	30.05	21.602	
7,000.0	6,946.6	6,952.9	6,830.5	17.2	25.3	87.79	-483.4	1,170.0	657.9	628.0	29.88	22.017	
7,050.0	6,992.2	7,003.2	6,878.9	17.1	25.4	87.89	-473.4	1,178.9	666.5	636.9	29.63	22.493	
7,100.0	7,035.8	7,054.5	6,927.3	17.0	25.5	88.01	-458.9	1,187.8	675.0	645.7	29.31	23.027	
7,150.0	7,077.1	7,107.1	6,975.3	16.8	25.5	88.14	-439.5	1,196.6	683.3	654.4	28.94	23.612	
7,200.0	7,115.7	7,160.9	7,022.5	16.6	25.6	88.29	-415.1	1,205.3	691.2	662.7	28.52	24.235	
7,250.0	7,151.5	7,216.0	7,068.2	16.5	25.6	88.45	-385.5	1,213.7	698.7	670.6	28.08	24.882	
7,300.0	7,184.1	7,272.5	7,112.0	16.4	25.6	88.62	-350.7	1,221.8	705.7	678.1	27.64	25.532	
7,350.0	7,213.3	7,330.4	7,153.1	16.2	25.6	88.80	-310.7	1,229.4	712.2	685.0	27.23	26.157	
7,400.0	7,238.9	7,389.7	7,190.9	16.1	25.6	88.99	-265.6	1,236.3	718.0	691.1	26.86	26.726	
7,450.0	7,260.6	7,450.3	7,224.5	16.1	25.6	89.18	-215.7	1,242.5	723.0	696.5	26.58	27.203	
7,500.0	7,278.3	7,512.1	7,253.3	16.0	25.6	89.37	-161.3	1,247.8	727.3	700.9	26.41	27.541	
7,550.0	7,291.8	7,575.0	7,276.6	16.0	25.6	89.56	-103.1	1,252.1	730.7	704.3	26.36	27.714	
7,600.0	7,301.1	7,638.8	7,293.6	16.1	25.7	89.73	-41.7	1,255.2	733.1	706.6	26.46	27.703	
7,650.0	7,306.1	7,703.3	7,303.8	16.2	25.8	89.88	22.0	1,257.1	734.6	707.8	26.72	27.495	
7,682.3	7,307.0	7,745.2	7,306.7	16.3	25.8	89.98	63.8	1,257.7	735.0	708.0	26.96	27.258	
7,700.0	7,307.0	7,767.4	7,307.0	16.3	25.9	90.00	85.9	1,257.7	735.0	707.9	27.12	27.101	
7,800.0	7,307.0	7,867.4	7,307.0	16.8	26.2	90.00	185.9	1,257.7	735.0	706.8	28.19	26.072	
7,900.0	7,307.0	7,967.4	7,307.0	17.4	26.5	90.00	285.9	1,257.7	735.0	705.4	29.62	24.814	
8,000.0	7,307.0	8,067.4	7,307.0	18.1	27.0	90.00	385.9	1,257.7	735.0	703.6	31.38	23.425	
8,100.0	7,307.0	8,167.4	7,307.0	19.0	27.6	90.00	485.9	1,257.7	735.0	701.6	33.41	21.998	
8,200.0	7,307.0	8,267.4	7,307.0	20.0	28.3	90.00	585.9	1,257.7	735.0	699.3	35.68	20.602	
8,300.0	7,307.0	8,367.4	7,307.0	21.1	29.1	90.00	685.9	1,257.7	735.0	696.9	38.13	19.277	
8,400.0	7,307.0	8,467.4	7,307.0	22.3	29.9	90.00	785.9	1,257.7	735.0	694.3	40.74	18.043	
8,500.0	7,307.0	8,567.4	7,307.0	23.5	30.9	90.00	885.9	1,257.7	735.0	691.5	43.47	16.908	
8,600.0	7,307.0	8,667.4	7,307.0	24.9	31.9	90.00	985.9	1,257.7	735.0	688.7	46.31	15.871	
8,700.0	7,307.0	8,767.4	7,307.0	26.2	33.0	90.00	1,085.9	1,257.7	735.0	685.8	49.24	14.928	
8,800.0	7,307.0	8,867.4	7,307.0	27.6	34.1	90.00	1,185.9	1,257.7	735.0	682.8	52.24	14.071	
8,900.0	7,307.0	8,967.4	7,307.0	29.1	35.3	90.00	1,285.9	1,257.7	735.0	679.7	55.29	13.293	
9,000.0	7,307.0	9,067.4	7,307.0	30.6	36.5	90.00	1,385.9	1,257.7	735.0	676.6	58.40	12.586	

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 Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3I--9H-N267 - 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	7,307.0	9,167.4	7,307.0	32.1	37.8	90.00	1,485.9	1,257.7	735.0	673.5	61.55	11.941	
9,200.0	7,307.0	9,267.4	7,307.0	33.6	39.1	90.00	1,585.9	1,257.7	735.0	670.3	64.74	11.353	
9,300.0	7,307.0	9,367.4	7,307.0	35.2	40.4	90.00	1,685.9	1,257.7	735.0	667.1	67.96	10.815	
9,400.0	7,307.0	9,467.4	7,307.0	36.7	41.8	90.00	1,785.9	1,257.7	735.0	663.8	71.21	10.322	
9,500.0	7,307.0	9,567.4	7,307.0	38.3	43.2	90.00	1,885.9	1,257.7	735.0	660.6	74.48	9.869	
9,600.0	7,307.0	9,667.4	7,307.0	39.9	44.6	90.00	1,985.9	1,257.7	735.0	657.3	77.77	9.451	
9,700.0	7,307.0	9,767.4	7,307.0	41.5	46.0	90.00	2,085.9	1,257.7	735.0	654.0	81.08	9.066	
9,800.0	7,307.0	9,867.4	7,307.0	43.2	47.5	90.00	2,185.9	1,257.7	735.0	650.6	84.41	8.708	
9,900.0	7,307.0	9,967.4	7,307.0	44.8	49.0	90.00	2,285.9	1,257.7	735.0	647.3	87.75	8.377	
10,000.0	7,307.0	10,067.4	7,307.0	46.4	50.5	90.00	2,385.9	1,257.7	735.0	643.9	91.10	8.069	
10,100.0	7,307.0	10,167.4	7,307.0	48.1	52.0	90.00	2,485.9	1,257.7	735.0	640.6	94.46	7.781	
10,200.0	7,307.0	10,267.4	7,307.0	49.7	53.6	90.00	2,585.9	1,257.7	735.0	637.2	97.84	7.513	
10,300.0	7,307.0	10,367.4	7,307.0	51.4	55.1	90.00	2,685.9	1,257.7	735.0	633.8	101.22	7.262	
10,400.0	7,307.0	10,467.4	7,307.0	53.1	56.7	90.00	2,785.9	1,257.7	735.0	630.4	104.61	7.026	
10,500.0	7,307.0	10,567.4	7,307.0	54.7	58.3	90.00	2,885.9	1,257.7	735.0	627.0	108.01	6.805	
10,600.0	7,307.0	10,667.4	7,307.0	56.4	59.8	90.00	2,985.9	1,257.7	735.0	623.6	111.41	6.597	
10,700.0	7,307.0	10,767.4	7,307.0	58.1	61.4	90.00	3,085.9	1,257.7	735.0	620.2	114.83	6.401	
10,800.0	7,307.0	10,867.4	7,307.0	59.8	63.0	90.00	3,185.9	1,257.7	735.0	616.8	118.24	6.216	
10,900.0	7,307.0	10,967.4	7,307.0	61.5	64.6	90.00	3,285.9	1,257.7	735.0	613.4	121.67	6.042	
11,000.0	7,307.0	11,067.4	7,307.0	63.2	66.2	90.00	3,385.9	1,257.7	735.0	610.0	125.09	5.876	
11,100.0	7,307.0	11,167.4	7,307.0	64.9	67.9	90.00	3,485.9	1,257.7	735.0	606.5	128.52	5.719	
11,200.0	7,307.0	11,267.4	7,307.0	66.6	69.5	90.00	3,585.9	1,257.7	735.0	603.1	131.96	5.570	
11,300.0	7,307.0	11,367.4	7,307.0	68.3	71.1	90.00	3,685.9	1,257.7	735.1	599.7	135.40	5.429	
11,400.0	7,307.0	11,467.4	7,307.0	70.0	72.8	90.00	3,785.9	1,257.7	735.1	596.2	138.84	5.294	
11,500.0	7,307.0	11,567.4	7,307.0	71.7	74.4	90.00	3,885.9	1,257.7	735.1	592.8	142.29	5.166	
11,600.0	7,307.0	11,667.4	7,307.0	73.4	76.1	90.00	3,985.9	1,257.7	735.1	589.3	145.74	5.044	
11,700.0	7,307.0	11,767.4	7,307.0	75.1	77.7	90.00	4,085.9	1,257.7	735.1	585.9	149.19	4.927	
11,800.0	7,307.0	11,867.4	7,307.0	76.8	79.4	90.00	4,185.9	1,257.7	735.1	582.4	152.64	4.816	
11,900.0	7,307.0	11,967.4	7,307.0	78.6	81.0	90.00	4,285.9	1,257.7	735.1	579.0	156.10	4.709	
12,000.0	7,307.0	12,067.4	7,307.0	80.3	82.7	90.00	4,385.9	1,257.7	735.1	575.5	159.56	4.607	
12,100.0	7,307.0	12,167.4	7,307.0	82.0	84.4	90.00	4,485.9	1,257.7	735.1	572.0	163.02	4.509	
12,200.0	7,307.0	12,267.4	7,307.0	83.7	86.1	90.00	4,585.9	1,257.7	735.1	568.6	166.48	4.415	
12,300.0	7,307.0	12,367.4	7,307.0	85.4	87.7	90.00	4,685.9	1,257.7	735.1	565.1	169.95	4.325	
12,400.0	7,307.0	12,467.4	7,307.0	87.2	89.4	90.00	4,785.9	1,257.7	735.1	561.6	173.41	4.239	
12,500.0	7,307.0	12,567.4	7,307.0	88.9	91.1	90.00	4,885.9	1,257.7	735.1	558.2	176.88	4.156	
12,600.0	7,307.0	12,667.4	7,307.0	90.6	92.8	90.00	4,985.9	1,257.7	735.1	554.7	180.35	4.076	
12,700.0	7,307.0	12,767.4	7,307.0	92.3	94.5	90.00	5,085.9	1,257.7	735.1	551.2	183.82	3.999	
12,772.4	7,307.0	12,774.2	7,307.0	93.6	94.6	90.00	5,092.7	1,257.7	738.0	552.8	185.20	3.985	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3J-9H-N267 - 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	97.34	-3.6	28.0	28.2				
100.0	100.0	100.0	100.0	0.1	0.1	97.34	-3.6	28.0	28.2	27.9	0.24	115.353	
200.0	200.0	200.0	200.0	0.3	0.3	97.34	-3.6	28.0	28.2	27.6	0.59	47.498	CC, ES
300.0	300.0	299.0	299.0	0.5	0.5	98.01	-4.2	29.6	29.9	28.9	0.94	31.718	
400.0	400.0	397.8	397.6	0.6	0.7	99.64	-5.8	34.4	35.0	33.7	1.30	26.973	
500.0	500.0	496.2	495.6	0.8	0.9	-33.08	-8.6	42.4	42.8	41.1	1.64	26.138	
600.0	600.0	594.1	592.8	1.0	1.2	-32.70	-12.5	53.5	52.5	50.5	1.98	26.445	
700.0	699.9	691.4	689.0	1.2	1.5	-32.84	-17.4	67.7	64.1	61.7	2.34	27.443	
800.0	799.7	788.2	784.0	1.4	1.8	-33.24	-23.4	84.8	77.6	74.9	2.69	28.829	
900.0	899.4	884.5	878.0	1.6	2.2	-33.77	-30.3	104.8	92.9	89.8	3.05	30.419	
1,000.0	998.9	983.4	974.2	1.8	2.6	-34.54	-37.9	126.5	108.0	104.6	3.43	31.475	
1,100.0	1,098.3	1,082.4	1,070.5	2.1	3.1	-35.59	-45.5	148.3	121.8	118.0	3.83	31.819	
1,200.0	1,197.4	1,181.6	1,166.9	2.3	3.5	-36.86	-53.0	170.1	134.2	130.0	4.25	31.610	
1,300.0	1,296.4	1,280.8	1,263.5	2.6	3.9	-38.19	-60.6	191.9	146.0	141.4	4.68	31.178	
1,400.0	1,395.5	1,380.1	1,360.0	2.9	4.4	-39.32	-68.2	213.7	157.9	152.8	5.13	30.764	
1,500.0	1,494.5	1,479.3	1,456.5	3.2	4.8	-40.29	-75.8	235.5	169.8	164.2	5.59	30.372	
1,600.0	1,593.5	1,578.6	1,553.0	3.4	5.3	-41.14	-83.4	257.3	181.8	175.7	6.06	30.006	
1,700.0	1,692.5	1,677.8	1,649.6	3.7	5.7	-41.88	-91.0	279.1	193.8	187.2	6.53	29.667	
1,800.0	1,791.6	1,777.1	1,746.1	4.0	6.2	-42.53	-98.6	300.9	205.8	198.8	7.01	29.354	
1,900.0	1,890.6	1,876.3	1,842.6	4.3	6.6	-43.11	-106.2	322.7	217.8	210.3	7.49	29.065	
2,000.0	1,989.6	1,975.6	1,939.1	4.6	7.0	-43.63	-113.7	344.5	229.9	221.9	7.98	28.799	
2,100.0	2,088.6	2,074.8	2,035.7	4.9	7.5	-44.10	-121.3	366.3	242.0	233.5	8.47	28.554	
2,200.0	2,187.7	2,174.1	2,132.2	5.2	7.9	-44.52	-128.9	388.1	254.1	245.1	8.97	28.327	
2,300.0	2,286.7	2,273.3	2,228.7	5.5	8.4	-44.91	-136.5	409.9	266.2	256.7	9.47	28.118	
2,400.0	2,385.7	2,372.6	2,325.2	5.8	8.8	-45.26	-144.1	431.7	278.3	268.3	9.97	27.924	
2,500.0	2,484.8	2,471.8	2,421.8	6.1	9.3	-45.58	-151.7	453.5	290.4	280.0	10.47	27.745	
2,600.0	2,583.8	2,571.0	2,518.3	6.4	9.7	-45.88	-159.3	475.3	302.6	291.6	10.97	27.578	
2,700.0	2,682.8	2,670.3	2,614.8	6.7	10.2	-46.15	-166.8	497.1	314.7	303.2	11.48	27.423	
2,800.0	2,781.8	2,769.5	2,711.4	7.0	10.6	-46.41	-174.4	518.9	326.9	314.9	11.98	27.278	
2,900.0	2,880.9	2,868.8	2,807.9	7.3	11.1	-46.64	-182.0	540.7	339.0	326.5	12.49	27.143	
3,000.0	2,979.9	2,968.0	2,904.4	7.6	11.5	-46.86	-189.6	562.5	351.2	338.2	13.00	27.016	
3,100.0	3,078.9	3,067.3	3,000.9	7.8	11.9	-47.07	-197.2	584.3	363.4	349.8	13.51	26.897	
3,200.0	3,177.9	3,166.5	3,097.5	8.1	12.4	-47.26	-204.8	606.1	375.5	361.5	14.02	26.786	
3,300.0	3,277.0	3,265.8	3,194.0	8.4	12.8	-47.44	-212.4	627.9	387.7	373.2	14.53	26.681	
3,400.0	3,376.0	3,365.0	3,290.5	8.7	13.3	-47.60	-220.0	649.7	399.9	384.8	15.04	26.582	
3,500.0	3,475.0	3,464.3	3,387.0	9.0	13.7	-47.76	-227.5	671.5	412.1	396.5	15.56	26.489	
3,600.0	3,574.0	3,563.5	3,483.6	9.3	14.2	-47.91	-235.1	693.3	424.2	408.2	16.07	26.401	
3,700.0	3,673.1	3,662.8	3,580.1	9.6	14.6	-48.05	-242.7	715.1	436.4	419.8	16.58	26.318	
3,800.0	3,772.1	3,762.0	3,676.6	9.9	15.1	-48.19	-250.3	736.9	448.6	431.5	17.10	26.239	
3,900.0	3,871.1	3,861.3	3,773.2	10.2	15.5	-48.31	-257.9	758.7	460.8	443.2	17.61	26.164	
4,000.0	3,970.2	3,960.5	3,869.7	10.5	16.0	-48.43	-265.5	780.5	473.0	454.9	18.13	26.093	
4,100.0	4,069.2	4,059.8	3,966.2	10.8	16.4	-48.54	-273.1	802.3	485.2	466.6	18.64	26.026	
4,200.0	4,168.2	4,159.0	4,062.7	11.1	16.9	-48.65	-280.6	824.1	497.4	478.2	19.16	25.961	
4,300.0	4,267.2	4,258.3	4,159.3	11.4	17.3	-48.76	-288.2	846.0	509.6	489.9	19.68	25.900	
4,400.0	4,366.3	4,357.5	4,255.8	11.7	17.8	-48.85	-295.8	867.8	521.8	501.6	20.19	25.841	
4,500.0	4,465.3	4,456.8	4,352.3	12.0	18.2	-48.95	-303.4	889.6	534.0	513.3	20.71	25.785	
4,600.0	4,564.3	4,556.0	4,448.8	12.3	18.7	-49.04	-311.0	911.4	546.2	525.0	21.23	25.732	
4,700.0	4,663.3	4,655.3	4,545.4	12.6	19.1	-49.12	-318.6	933.2	558.4	536.7	21.74	25.681	
4,800.0	4,762.4	4,754.5	4,641.9	12.9	19.5	-49.20	-326.2	955.0	570.6	548.4	22.26	25.632	
4,900.0	4,861.4	4,853.8	4,738.4	13.2	20.0	-49.28	-333.8	976.8	582.8	560.0	22.78	25.585	
5,000.0	4,960.4	4,953.0	4,834.9	13.5	20.4	-49.36	-341.3	998.6	595.0	571.7	23.30	25.540	
5,100.0	5,059.4	5,052.3	4,931.5	13.8	20.9	-49.43	-348.9	1,020.4	607.2	583.4	23.82	25.496	

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 Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3J-9H-N267 - 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	5,158.5	5,151.5	5,028.0	14.1	21.3	-49.50	-356.5	1,042.2	619.4	595.1	24.34	25.455	
5,300.0	5,257.5	5,250.8	5,124.5	14.4	21.8	-49.57	-364.1	1,064.0	631.7	606.8	24.85	25.415	
5,400.0	5,356.5	5,350.0	5,221.1	14.7	22.2	-49.63	-371.7	1,085.8	643.9	618.5	25.37	25.376	
5,500.0	5,455.6	5,449.3	5,317.6	15.0	22.7	-49.69	-379.3	1,107.6	656.1	630.2	25.89	25.339	
5,600.0	5,554.6	5,548.5	5,414.1	15.3	23.1	-49.75	-386.9	1,129.4	668.3	641.9	26.41	25.304	
5,620.0	5,574.4	5,568.4	5,433.4	15.4	23.2	-49.76	-388.4	1,133.8	670.7	644.2	26.52	25.297	
5,700.0	5,653.7	5,647.7	5,510.6	15.6	23.6	-49.85	-394.4	1,151.2	680.9	653.9	26.92	25.290	
5,800.0	5,753.0	5,746.8	5,606.9	15.9	24.0	-49.87	-402.0	1,172.9	694.5	667.1	27.38	25.362	
5,900.0	5,852.5	5,845.7	5,703.1	16.1	24.5	-49.79	-409.6	1,194.7	709.3	681.5	27.80	25.516	
6,000.0	5,952.2	5,944.3	5,799.0	16.3	24.9	-49.62	-417.1	1,216.3	725.2	697.1	28.16	25.750	
6,100.0	6,052.0	6,042.7	5,894.8	16.5	25.3	-49.37	-424.6	1,238.0	742.3	713.8	28.48	26.060	
6,200.0	6,151.8	6,140.9	5,990.2	16.7	25.8	-49.04	-432.1	1,259.5	760.5	731.7	28.76	26.444	
6,300.0	6,251.8	6,238.7	6,085.4	16.8	26.2	-48.65	-439.6	1,281.0	779.9	750.9	28.99	26.902	
6,400.0	6,351.8	6,336.2	6,180.2	16.9	26.7	-48.20	-447.1	1,302.4	800.5	771.3	29.18	27.430	
6,420.0	6,371.8	6,355.7	6,199.1	16.9	26.8	85.90	-448.6	1,306.7	804.7	775.5	29.22	27.544	
6,500.0	6,451.8	6,433.5	6,274.8	17.0	27.1	86.41	-454.5	1,323.8	821.9	792.6	29.33	28.028	
6,600.0	6,551.8	6,530.7	6,369.4	17.1	27.5	87.02	-461.9	1,345.2	843.5	814.0	29.47	28.622	
6,700.0	6,651.8	6,628.0	6,464.0	17.3	28.0	87.60	-469.4	1,366.5	865.2	835.6	29.62	29.205	
6,782.3	6,734.0	6,708.0	6,541.8	17.4	28.3	88.05	-475.5	1,384.1	883.1	853.3	29.76	29.675	
6,800.0	6,751.8	6,725.2	6,558.5	17.4	28.4	87.77	-476.8	1,387.9	886.9	857.0	29.92	29.644	
6,850.0	6,801.6	6,773.4	6,605.4	17.4	28.6	87.17	-480.5	1,398.5	897.7	867.4	30.26	29.670	
6,900.0	6,851.0	6,820.8	6,651.5	17.4	28.9	86.83	-484.1	1,408.9	908.4	877.9	30.45	29.836	
6,950.0	6,899.4	6,867.0	6,696.4	17.3	29.1	86.70	-487.6	1,419.0	919.0	888.5	30.50	30.132	
7,000.0	6,946.6	6,911.6	6,739.8	17.2	29.3	86.75	-491.1	1,428.8	929.8	899.4	30.44	30.541	
7,050.0	6,992.2	6,954.3	6,781.4	17.1	29.5	86.91	-494.3	1,438.2	940.8	910.5	30.31	31.043	
7,100.0	7,035.8	6,994.9	6,820.8	17.0	29.6	87.12	-497.4	1,447.1	952.3	922.2	30.12	31.617	
7,150.0	7,077.1	7,032.9	6,857.8	16.8	29.8	87.33	-500.3	1,455.5	964.4	934.5	29.91	32.241	
7,200.0	7,115.7	7,068.1	6,892.0	16.6	30.0	87.46	-503.0	1,463.2	977.4	947.7	29.72	32.891	
7,250.0	7,151.5	7,100.2	6,923.3	16.5	30.1	87.45	-505.5	1,470.3	991.4	961.8	29.55	33.551	
7,300.0	7,184.1	7,144.5	6,966.4	16.4	30.3	87.95	-507.5	1,480.0	1,006.3	977.1	29.26	34.389	
7,350.0	7,213.3	7,196.3	7,016.9	16.2	30.5	88.70	-505.5	1,491.4	1,022.0	993.0	28.94	35.316	
7,400.0	7,238.9	7,256.1	7,074.6	16.1	30.7	89.68	-497.4	1,504.4	1,038.1	1,009.5	28.58	36.318	
7,450.0	7,260.6	7,327.6	7,142.1	16.1	30.9	91.04	-479.7	1,519.7	1,054.3	1,026.2	28.18	37.414	
7,500.0	7,278.3	7,417.1	7,222.8	16.0	31.0	92.93	-445.6	1,537.9	1,070.4	1,042.6	27.71	38.632	
7,550.0	7,291.8	7,534.8	7,319.2	16.0	31.2	95.49	-382.0	1,559.7	1,085.3	1,058.2	27.12	40.014	
7,600.0	7,301.1	7,694.8	7,426.0	16.1	31.3	98.56	-266.0	1,583.8	1,097.8	1,071.3	26.49	41.444	
7,650.0	7,306.1	7,906.2	7,511.9	16.2	31.4	101.09	-75.2	1,603.2	1,105.5	1,079.3	26.25	42.111	
7,682.3	7,307.0	8,051.0	7,529.0	16.3	31.6	101.57	68.2	1,607.1	1,106.9	1,080.2	26.65	41.531	
7,700.0	7,307.0	8,068.8	7,529.0	16.3	31.6	101.57	85.9	1,607.1	1,106.9	1,080.1	26.80	41.303	
7,800.0	7,307.0	8,168.8	7,529.0	16.8	31.8	101.57	185.9	1,607.1	1,106.9	1,079.0	27.85	39.740	
7,900.0	7,307.0	8,268.8	7,529.0	17.4	32.1	101.57	285.9	1,607.1	1,106.9	1,077.6	29.26	37.829	
8,000.0	7,307.0	8,368.8	7,529.0	18.1	32.5	101.57	385.9	1,607.1	1,106.9	1,075.9	30.99	35.722	
8,100.0	7,307.0	8,468.8	7,529.0	19.0	33.0	101.57	485.9	1,607.1	1,106.9	1,073.9	32.98	33.561	
8,200.0	7,307.0	8,568.8	7,529.0	20.0	33.6	101.57	585.9	1,607.1	1,106.9	1,071.7	35.20	31.446	
8,300.0	7,307.0	8,668.8	7,529.0	21.1	34.2	101.57	685.9	1,607.1	1,106.9	1,069.3	37.60	29.436	
8,400.0	7,307.0	8,768.8	7,529.0	22.3	35.0	101.57	785.9	1,607.1	1,106.9	1,066.7	40.16	27.565	
8,500.0	7,307.0	8,868.8	7,529.0	23.5	35.8	101.57	885.9	1,607.1	1,106.9	1,064.0	42.83	25.841	
8,600.0	7,307.0	8,968.8	7,529.0	24.9	36.6	101.57	985.9	1,607.1	1,106.9	1,061.3	45.61	24.267	
8,700.0	7,307.0	9,068.8	7,529.0	26.2	37.6	101.57	1,085.9	1,607.1	1,106.9	1,058.4	48.48	22.833	
8,800.0	7,307.0	9,168.8	7,529.0	27.6	38.5	101.57	1,185.9	1,607.1	1,106.9	1,055.5	51.41	21.530	
8,900.0	7,307.0	9,268.8	7,529.0	29.1	39.6	101.57	1,285.9	1,607.1	1,106.9	1,052.5	54.41	20.345	
9,000.0	7,307.0	9,368.8	7,529.0	30.6	40.7	101.57	1,385.9	1,607.1	1,106.9	1,049.4	57.45	19.267	

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 Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 S9-T2N-R67W (Sprague) - Sprague 3J-9H-N267 - Hz - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD

Offset Well Error: 0.0 ft

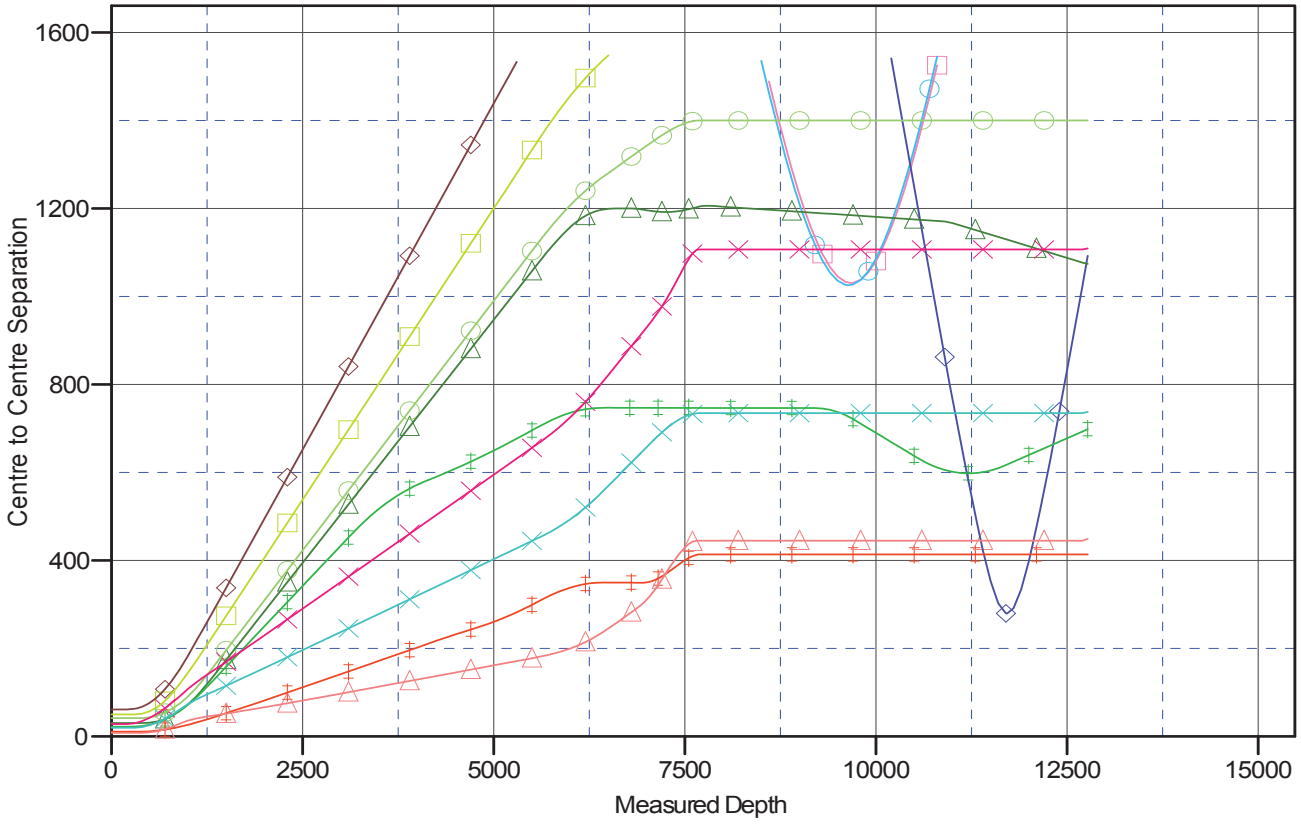
Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
9,100.0	7,307.0	9,468.8	7,529.0	32.1	41.8	101.57	1,485.9	1,607.1	1,106.9	1,046.3	60.53	18.285	
9,200.0	7,307.0	9,568.8	7,529.0	33.6	43.0	101.57	1,585.9	1,607.1	1,106.9	1,043.2	63.66	17.389	
9,300.0	7,307.0	9,668.8	7,529.0	35.2	44.2	101.57	1,685.9	1,607.1	1,106.9	1,040.1	66.81	16.568	
9,400.0	7,307.0	9,768.8	7,529.0	36.7	45.5	101.57	1,785.9	1,607.1	1,106.9	1,036.9	69.99	15.815	
9,500.0	7,307.0	9,868.8	7,529.0	38.3	46.7	101.57	1,885.9	1,607.1	1,106.9	1,033.7	73.19	15.123	
9,600.0	7,307.0	9,968.8	7,529.0	39.9	48.1	101.57	1,985.9	1,607.1	1,106.9	1,030.5	76.41	14.485	
9,700.0	7,307.0	10,068.8	7,529.0	41.5	49.4	101.57	2,085.9	1,607.1	1,106.9	1,027.2	79.66	13.896	
9,800.0	7,307.0	10,168.8	7,529.0	43.2	50.8	101.57	2,185.9	1,607.1	1,106.9	1,024.0	82.91	13.350	
9,900.0	7,307.0	10,268.8	7,529.0	44.8	52.2	101.57	2,285.9	1,607.1	1,106.9	1,020.7	86.18	12.843	
10,000.0	7,307.0	10,368.8	7,529.0	46.4	53.6	101.57	2,385.9	1,607.1	1,106.9	1,017.4	89.47	12.372	
10,100.0	7,307.0	10,468.8	7,529.0	48.1	55.0	101.57	2,485.9	1,607.1	1,106.9	1,014.1	92.76	11.932	
10,200.0	7,307.0	10,568.8	7,529.0	49.7	56.5	101.57	2,585.9	1,607.1	1,106.9	1,010.8	96.07	11.522	
10,300.0	7,307.0	10,668.8	7,529.0	51.4	57.9	101.57	2,685.9	1,607.1	1,106.9	1,007.5	99.38	11.138	
10,400.0	7,307.0	10,768.8	7,529.0	53.1	59.4	101.57	2,785.9	1,607.1	1,106.9	1,004.2	102.70	10.778	
10,500.0	7,307.0	10,868.8	7,529.0	54.7	60.9	101.57	2,885.9	1,607.1	1,106.9	1,000.9	106.03	10.439	
10,600.0	7,307.0	10,968.8	7,529.0	56.4	62.4	101.57	2,985.9	1,607.1	1,106.9	997.5	109.37	10.121	
10,700.0	7,307.0	11,068.8	7,529.0	58.1	64.0	101.57	3,085.9	1,607.1	1,106.9	994.2	112.71	9.821	
10,800.0	7,307.0	11,168.8	7,529.0	59.8	65.5	101.57	3,185.9	1,607.1	1,106.9	990.8	116.06	9.537	
10,900.0	7,307.0	11,268.8	7,529.0	61.5	67.1	101.57	3,285.9	1,607.1	1,106.9	987.5	119.41	9.270	
11,000.0	7,307.0	11,368.8	7,529.0	63.2	68.6	101.57	3,385.9	1,607.1	1,106.9	984.1	122.77	9.016	
11,100.0	7,307.0	11,468.8	7,529.0	64.9	70.2	101.57	3,485.9	1,607.1	1,106.9	980.8	126.13	8.776	
11,200.0	7,307.0	11,568.8	7,529.0	66.6	71.8	101.57	3,585.9	1,607.1	1,106.9	977.4	129.50	8.548	
11,300.0	7,307.0	11,668.8	7,529.0	68.3	73.3	101.57	3,685.9	1,607.1	1,106.9	974.0	132.87	8.331	
11,400.0	7,307.0	11,768.8	7,529.0	70.0	74.9	101.57	3,785.9	1,607.1	1,106.9	970.7	136.24	8.125	
11,500.0	7,307.0	11,868.8	7,529.0	71.7	76.5	101.57	3,885.9	1,607.1	1,106.9	967.3	139.62	7.928	
11,600.0	7,307.0	11,968.8	7,529.0	73.4	78.1	101.57	3,985.9	1,607.1	1,106.9	963.9	143.00	7.741	
11,700.0	7,307.0	12,068.8	7,529.0	75.1	79.8	101.57	4,085.9	1,607.1	1,106.9	960.5	146.38	7.562	
11,800.0	7,307.0	12,168.8	7,529.0	76.8	81.4	101.57	4,185.9	1,607.1	1,106.9	957.2	149.76	7.391	
11,900.0	7,307.0	12,268.8	7,529.0	78.6	83.0	101.57	4,285.9	1,607.1	1,106.9	953.8	153.15	7.228	
12,000.0	7,307.0	12,368.8	7,529.0	80.3	84.6	101.57	4,385.9	1,607.1	1,106.9	950.4	156.54	7.071	
12,100.0	7,307.0	12,468.8	7,529.0	82.0	86.3	101.57	4,485.9	1,607.1	1,106.9	947.0	159.93	6.921	
12,200.0	7,307.0	12,568.8	7,529.0	83.7	87.9	101.57	4,585.9	1,607.1	1,106.9	943.6	163.32	6.778	
12,300.0	7,307.0	12,668.8	7,529.0	85.4	89.5	101.57	4,685.9	1,607.1	1,106.9	940.2	166.72	6.640	
12,400.0	7,307.0	12,768.8	7,529.0	87.2	91.2	101.57	4,785.9	1,607.1	1,106.9	936.8	170.11	6.507	
12,500.0	7,307.0	12,868.8	7,529.0	88.9	92.8	101.57	4,885.9	1,607.1	1,106.9	933.4	173.51	6.380	
12,600.0	7,307.0	12,968.8	7,529.0	90.6	94.5	101.57	4,985.9	1,607.1	1,106.9	930.0	176.91	6.257	
12,659.6	7,307.0	13,028.4	7,529.0	91.6	95.5	101.57	5,045.5	1,607.1	1,106.9	928.0	178.94	6.186	
12,700.0	7,307.0	13,068.3	7,529.0	92.3	96.1	101.57	5,085.5	1,607.1	1,106.9	926.6	180.30	6.139	
12,772.4	7,307.0	13,068.3	7,529.0	93.6	96.1	101.57	5,085.5	1,607.1	1,109.3	927.8	181.54	6.111	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Sprague 3G-9H-N267
Project:	DJ Wattenberg	**TVD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Reference Site:	S9-T2N-R67W (Sprague)	**MD Reference:**	WELL @ 5011.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Sprague 3G-9H-N267	**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 @ 5011.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Sprague 3G-9H-N267
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.39°

Ladder Plot



LEGEND

-9 (EXISTING), ENCANA WELL, Plan #1 V0
-9 (EXISTING), ENCANA WELL, SURVEYS V0
D), Plan #1 V0
-N267, Hz, Plan #1 V0
Sprague 3A-9H-N267, Hz, Plan #1 V0
Sprague 3E-9H-N267, Hz, Plan #1 V0
Sprague 3B-9H-N267, Hz, Plan #1 V0
Sprague 3C-9H-N267, Hz, Plan #1 V0
Sprague 3F-9H-N267, Hz, Plan #1 V0
Sprague 3H-9H-N267, Hz, Plan #1 V0
Sprague 3I-9H-N267, Hz, Plan #1 V0
Sprague 3J-9H-N267, Hz, Plan #1 V0