

EnCana Corporation

Planning Report - Geographic

Database:	EDM	Local Co-ordinate Reference:	Well Costigan 13-20
Company:	DJ/Paradox/WTX	TVD Reference:	WELL @ 5101.0ft (Original Well Elev)
Project:	Wattenberg	MD Reference:	WELL @ 5101.0ft (Original Well Elev)
Site:	New Drills	North Reference:	True
Well:	Costigan 13-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Costigan 13-20		

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

Site		New Drills				
Site Position:		Northing:	1,278,589.08 ft	Latitude:	40° 5' 49.848 N	
From:	Lat/Long	Easting:	3,130,247.44 ft	Longitude:	105° 2' 3.912 W	
Position Uncertainty:		ft	Slot Radius:	in	Grid Convergence:	0.30 °

Well	Costigan 13-20					
Well Position	+N/-S	-23,135.3 ft	Northing:	1,255,455.52 ft	Latitude:	40° 2' 1.212 N
	+E/-W	251.8 ft	Easting:	3,130,620.92 ft	Longitude:	105° 2' 0.672 W
Position Uncertainty		ft	Wellhead Elevation:	ft	Ground Level:	5,088.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	9.13	66.77	53,080

Design	Costigan 13-20				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	312.97	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
950.0	0.00	0.00	950.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,272.2	6.44	312.97	1,271.5	12.3	-13.2	2.00	2.00	0.00	312.97	
6,951.1	6.44	312.97	6,914.5	446.7	-479.6	0.00	0.00	0.00	0.00	
7,273.2	0.00	0.00	7,236.0	459.0	-492.8	2.00	-2.00	0.00	180.00	
8,478.2	0.00	0.00	8,441.0	459.0	-492.8	0.00	0.00	0.00	0.00	Costigan 13-20

EnCana Corporation
Planning Report - Geographic

Database:	EDM	Local Co-ordinate Reference:	Well Costigan 13-20
Company:	DJ/Paradox/WTX	TVD Reference:	WELL @ 5101.0ft (Original Well Elev)
Project:	Wattenberg	MD Reference:	WELL @ 5101.0ft (Original Well Elev)
Site:	New Drills	North Reference:	True
Well:	Costigan 13-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Costigan 13-20		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude	
0.0	0.00	0.00	0.0	0.0	0.0	1,255,455.52	3,130,620.92	40° 2' 1.212 N	105° 2' 0.672 W	
900.0	0.00	0.00	900.0	0.0	0.0	1,255,455.52	3,130,620.92	40° 2' 1.212 N	105° 2' 0.672 W	
Surface										
950.0	0.00	0.00	950.0	0.0	0.0	1,255,455.52	3,130,620.92	40° 2' 1.212 N	105° 2' 0.672 W	
1,272.2	6.44	312.97	1,271.5	12.3	-13.2	1,255,467.78	3,130,607.62	40° 2' 1.334 N	105° 2' 0.842 W	
4,622.8	6.44	312.97	4,601.0	268.6	-288.4	1,255,722.59	3,130,331.13	40° 2' 3.866 N	105° 2' 4.380 W	
Sussex										
5,236.7	6.44	312.97	5,211.0	315.6	-338.8	1,255,769.28	3,130,280.47	40° 2' 4.330 N	105° 2' 5.028 W	
Shannon										
6,951.1	6.44	312.97	6,914.5	446.7	-479.6	1,255,899.65	3,130,139.00	40° 2' 5.626 N	105° 2' 6.838 W	
7,273.2	0.00	0.00	7,236.0	459.0	-492.8	1,255,911.92	3,130,125.70	40° 2' 5.748 N	105° 2' 7.008 W	
7,473.2	0.00	0.00	7,436.0	459.0	-492.8	1,255,911.92	3,130,125.70	40° 2' 5.748 N	105° 2' 7.008 W	
Niobrara										
7,893.2	0.00	0.00	7,856.0	459.0	-492.8	1,255,911.92	3,130,125.70	40° 2' 5.748 N	105° 2' 7.008 W	
Codell										
8,328.2	0.00	0.00	8,291.0	459.0	-492.8	1,255,911.92	3,130,125.70	40° 2' 5.748 N	105° 2' 7.008 W	
J Sand										
8,378.2	0.00	0.00	8,341.0	459.0	-492.8	1,255,911.92	3,130,125.70	40° 2' 5.748 N	105° 2' 7.008 W	
A Marker										
8,478.2	0.00	0.00	8,441.0	459.0	-492.8	1,255,911.92	3,130,125.70	40° 2' 5.748 N	105° 2' 7.008 W	
Production - Costigan 13-20										

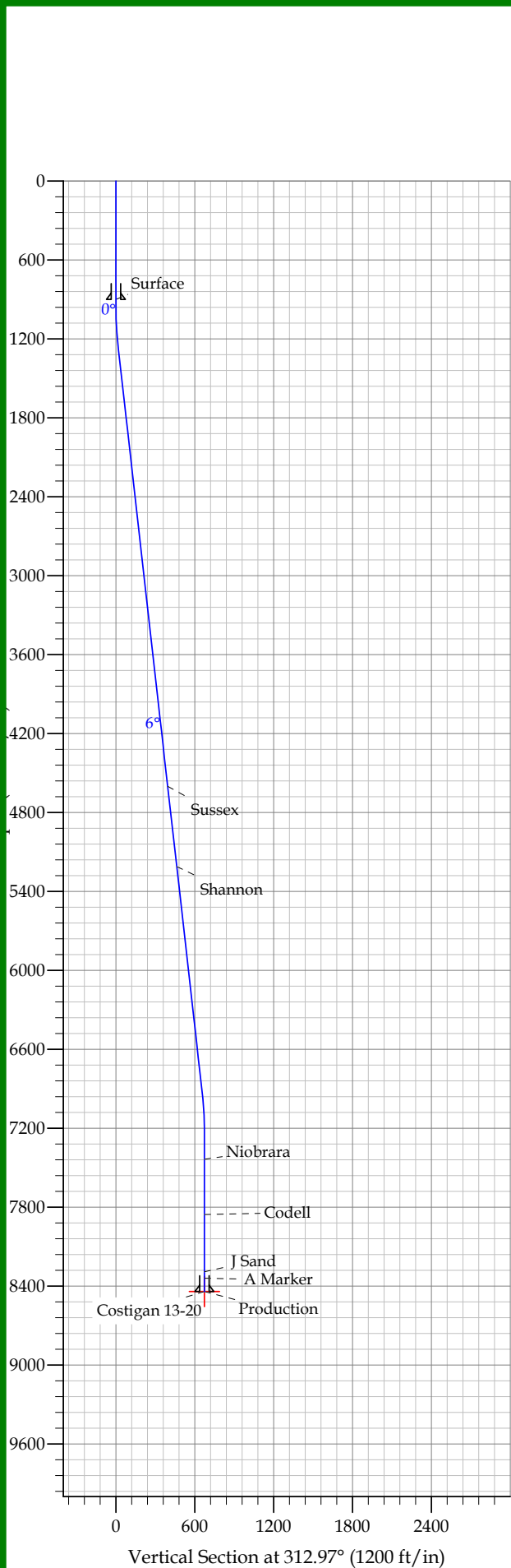
Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
- hit/miss target										
- Shape										
Costigan 13-20	0.00	0.00	8,441.0	459.0	-492.8	1,255,911.92	3,130,125.70	40° 2' 5.748 N	105° 2' 7.008 W	
- plan hits target										
- Point										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
900.0	900.0	Surface	8.625	12.250	
8,478.2	8,441.0	Production	4.500	7.785	

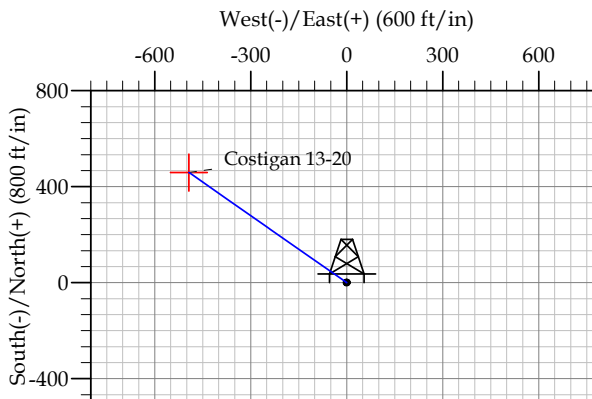
Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,622.8	4,601.0	Sussex		0.00		
5,236.7	5,211.0	Shannon		0.00		
7,473.2	7,436.0	Niobrara		0.00		
7,893.2	7,856.0	Codell		0.00		
8,328.2	8,291.0	J Sand		0.00		
8,378.2	8,341.0	A Marker		0.00		

EnCana Corporation
Planning Report - Geographic

Database:	EDM	Local Co-ordinate Reference:	Well Costigan 13-20
Company:	DJ/Paradox/WTX	TVD Reference:	WELL @ 5101.0ft (Original Well Elev)
Project:	Wattenberg	MD Reference:	WELL @ 5101.0ft (Original Well Elev)
Site:	New Drills	North Reference:	True
Well:	Costigan 13-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Costigan 13-20		



REFERENCE INFORMATION										
Co-ordinate (N/E) Reference: Well Costigan 13-20, True North										
Vertical (TVD) Reference: WELL @ 5101.0ft (Original Well Elev)										
Section (VS) Reference: Slot - (0.0N, 0.0E)										
Measured Depth Reference: WELL @ 5101.0ft (Original Well Elev)										
Calculation Method:										
WELL DETAILS: Costigan 13-20										
+N/-S		+E/-W		Northing		Ground Level: Easting		5088.0 Latitude		Longitude Slot
SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	950.0	0.00	0.00	950.0	0.0	0.0	0.00	0.00	0.0	
3	1272.2	6.44	312.97	1271.5	12.3	-13.2	2.00	312.97	18.1	
4	6951.1	6.44	312.97	6914.5	446.7	-479.6	0.00	0.00	655.4	
5	7273.2	0.00	0.00	7236.0	459.0	-492.8	2.00	180.00	673.5	
6	8478.2	0.00	0.00	8441.0	459.0	-492.8	0.00	0.00	673.5	Costigan 13-20



FORMATION TOP DETAILS			
TVDPath	MDPath	Formation	
4601.0	4622.8	Sussex	
5211.0	5236.7	Shannon	
7436.0	7473.2	Niobrara	
7856.0	7893.2	Codell	
8291.0	8328.2	J Sand	
8341.0	8378.2	A Marker	
CASING DETAILS			
TVD	MD	Name	Size
900.0	900.0	Surface	8.625
8441.0	8478.2	Production	4.500