ENSIGN Directional

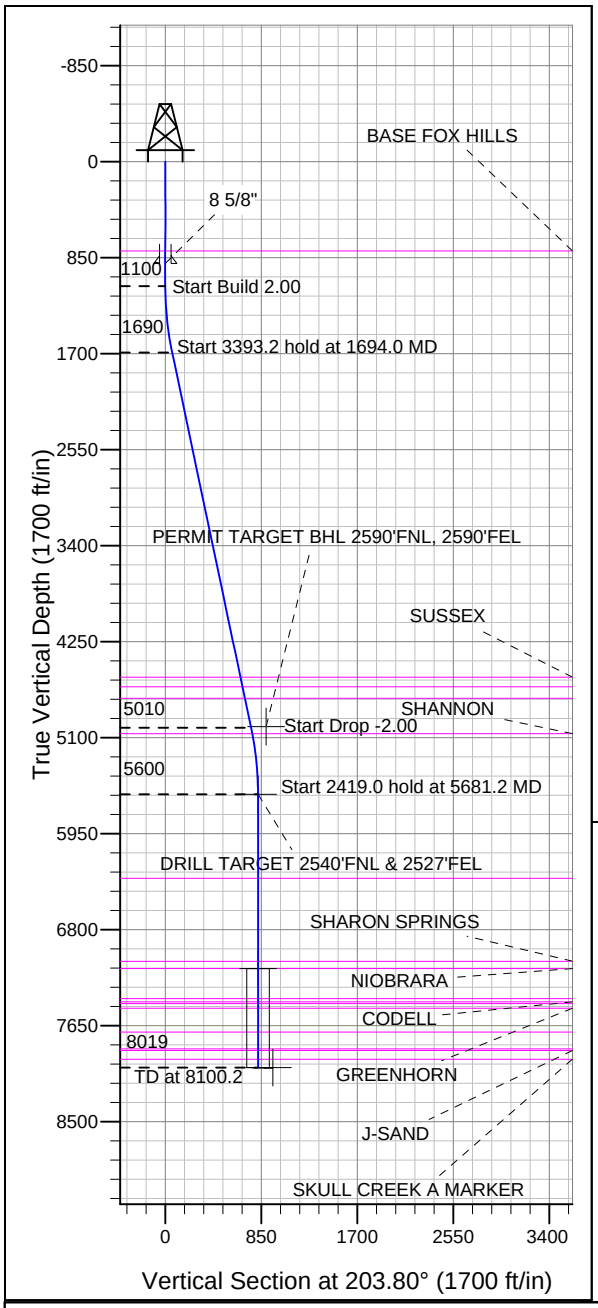
Well Name: Maier 4-4-28

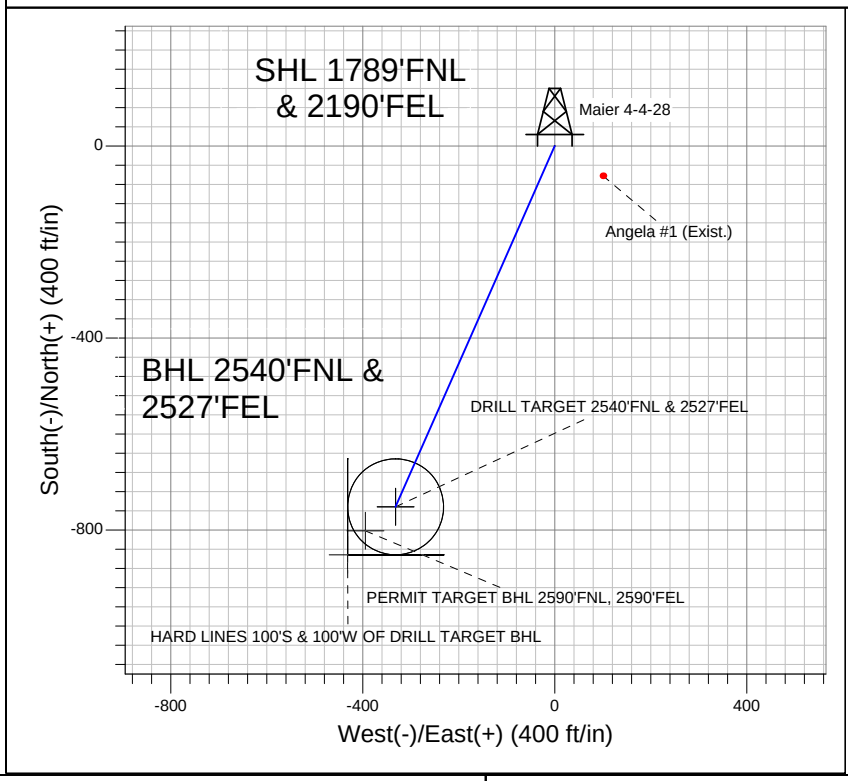
Surface Location: Maier 31-28 Pad Sec.28-T2N-R66W
North American Datum 1983 , US State Plane 1983Colorado Northern Zone
Ground Elevation: 4931.0

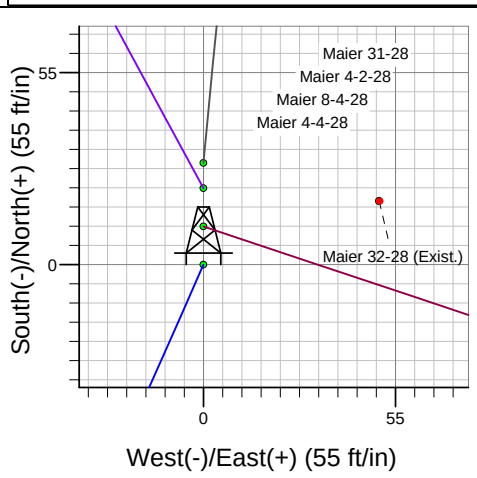
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1284268.78	3201199.67	40.111470	-104.780640	

Original Well Elev — WELL @ 4943.0ft (Original Well Elev)

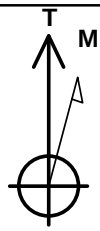
EnCana Oil & Gas Weld County CO







Maier 31-28 Pad Sec.28-T2N-R66W
Maier 4-4-28
Plan #1 (4-02-12)
13:51, April 04 2012



Azimuths to True North
Magnetic North: 8.74°

Magnetic Field
Strength: 52892.8snT
Dip Angle: 66.79°
Date: 4/2/2012
Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PERMIT TARGET BHL 2590'FNL, 2590'FEL	5000.0	-801.4	-394.4	40.109270	-104.782050	Point
DRILL TARGET 2540'FNL & 2527'FEL	5600.0	-751.4	-331.4	40.109407	-104.781825	Point
TARGET CIRCLE 2540'FNL & 2527'FEL	7143.0	-751.4	-331.4	40.109407	-104.781825	Circle (Radius: 100.0)
HARD LINES 100'S & 100'W OF DRILL TARGET BHL	8019.0	-851.4	-431.4	40.109133	-104.782182	Polygon

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	1100.0	0.00	0.00	1100.0	0.0	0.0	0.00	0.00	0.0	
3	1694.0	11.88	203.80	1689.7	-56.1	-24.8	2.00	203.80	61.4	
4	5087.2	11.88	203.80	5010.3	-695.3	-306.6	0.00	0.00	759.9	
5	5681.2	0.00	0.00	5600.0	-751.4	-331.4	2.00	180.00	821.2	DRILL TARGET 2540'FNL & 2527'FEL
6	8100.2	0.00	0.00	8019.0	-751.4	-331.4	0.00	0.00	821.2	

EnCana Oil & Gas Weld County CO

SEC.28-T2N-R66W
Maier 31-28 Pad Sec.28-T2N-R66W
Maier 4-4-28

Wellbore #1

Plan: Plan #1 (4-02-12)

Standard Planning Report

04 April, 2012

Database:	Landmark	**Local Co-ordinate Reference:**	Well Maier 4-4-28
Company:	EnCana Oil & Gas Weld County CO	**TVD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Project:	SEC.28-T2N-R66W	**MD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Site:	Maier 31-28 Pad Sec.28-T2N-R66W	**North Reference:**	True
Well:	Maier 4-4-28	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (4-02-12)		

Project SEC.28-T2N-R66W

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site Maier 31-28 Pad Sec.28-T2N-R66W

Site Position:		**Northing:**	1,284,297.93 ft	**Latitude:**	40.111550
From:	Lat/Long	**Easting:**	3,201,199.44 ft	**Longitude:**	-104.780640
Position Uncertainty:	0.0 ft	**Slot Radius:**	"	**Grid Convergence:**	0.46 °

Well Maier 4-4-28

Well Position	**+N/-S**	-29.2 ft	**Northing:**	1,284,268.78 ft	**Latitude:**	40.111470
	+E/-W	0.0 ft	**Easting:**	3,201,199.67 ft	**Longitude:**	-104.780640
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,931.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/2/2012	8.74	66.79	52,893

Design Plan #1 (4-02-12)

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	203.80

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	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,694.0	11.88	203.80	1,689.7	-56.1	-24.8	2.00	2.00	0.00	203.80	
5,087.2	11.88	203.80	5,010.3	-695.3	-306.6	0.00	0.00	0.00	0.00	
5,681.2	0.00	0.00	5,600.0	-751.4	-331.4	2.00	-2.00	0.00	180.00	DRILL TARGET 25
8,100.2	0.00	0.00	8,019.0	-751.4	-331.4	0.00	0.00	0.00	0.00	

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Project:	SEC.28-T2N-R66W	**MD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Site:	Maier 31-28 Pad Sec.28-T2N-R66W	**North Reference:**	True
Well:	Maier 4-4-28	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (4-02-12)		

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)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
760.0	0.00	0.00	760.0	0.0	0.0	0.0	0.00	0.00	0.00
789.0	0.00	0.00	789.0	0.0	0.0	0.0	0.00	0.00	0.00
BASE FOX HILLS									
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
840.0	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	0.00
880.0	0.00	0.00	880.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
8 5/8"									
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
960.0	0.00	0.00	960.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,040.0	0.00	0.00	1,040.0	0.0	0.0	0.0	0.00	0.00	0.00
1,080.0	0.00	0.00	1,080.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,120.0	0.40	203.80	1,120.0	-0.1	0.0	0.1	2.00	2.00	0.00
1,160.0	1.20	203.80	1,160.0	-0.6	-0.3	0.6	2.00	2.00	0.00
1,200.0	2.00	203.80	1,200.0	-1.6	-0.7	1.7	2.00	2.00	0.00
1,240.0	2.80	203.80	1,239.9	-3.1	-1.4	3.4	2.00	2.00	0.00
1,280.0	3.60	203.80	1,279.9	-5.2	-2.3	5.7	2.00	2.00	0.00
1,320.0	4.40	203.80	1,319.8	-7.7	-3.4	8.4	2.00	2.00	0.00
1,360.0	5.20	203.80	1,359.6	-10.8	-4.8	11.8	2.00	2.00	0.00
1,400.0	6.00	203.80	1,399.5	-14.4	-6.3	15.7	2.00	2.00	0.00
1,440.0	6.80	203.80	1,439.2	-18.4	-8.1	20.2	2.00	2.00	0.00
1,480.0	7.60	203.80	1,478.9	-23.0	-10.2	25.2	2.00	2.00	0.00
1,520.0	8.40	203.80	1,518.5	-28.1	-12.4	30.7	2.00	2.00	0.00
1,560.0	9.20	203.80	1,558.0	-33.7	-14.9	36.9	2.00	2.00	0.00
1,600.0	10.00	203.80	1,597.5	-39.8	-17.6	43.5	2.00	2.00	0.00
1,640.0	10.80	203.80	1,636.8	-46.4	-20.5	50.7	2.00	2.00	0.00
1,680.0	11.60	203.80	1,676.0	-53.5	-23.6	58.5	2.00	2.00	0.00
1,694.0	11.88	203.80	1,689.7	-56.1	-24.8	61.4	2.00	2.00	0.00
1,720.0	11.88	203.80	1,715.2	-61.0	-26.9	66.7	0.00	0.00	0.00
1,760.0	11.88	203.80	1,754.3	-68.6	-30.2	74.9	0.00	0.00	0.00
1,800.0	11.88	203.80	1,793.5	-76.1	-33.6	83.2	0.00	0.00	0.00
1,840.0	11.88	203.80	1,832.6	-83.6	-36.9	91.4	0.00	0.00	0.00
1,880.0	11.88	203.80	1,871.8	-91.2	-40.2	99.7	0.00	0.00	0.00

Database:	Landmark	**Local Co-ordinate Reference:**	Well Maier 4-4-28
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Project:	SEC.28-T2N-R66W	**MD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Site:	Maier 31-28 Pad Sec.28-T2N-R66W	**North Reference:**	True
Well:	Maier 4-4-28	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (4-02-12)		

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)	Turn Rate (°/100ft)
1,920.0	11.88	203.80	1,910.9	-98.7	-43.5	107.9	0.00	0.00	0.00
1,960.0	11.88	203.80	1,950.1	-106.2	-46.9	116.1	0.00	0.00	0.00
2,000.0	11.88	203.80	1,989.2	-113.8	-50.2	124.4	0.00	0.00	0.00
2,040.0	11.88	203.80	2,028.3	-121.3	-53.5	132.6	0.00	0.00	0.00
2,080.0	11.88	203.80	2,067.5	-128.8	-56.8	140.8	0.00	0.00	0.00
2,120.0	11.88	203.80	2,106.6	-136.4	-60.2	149.1	0.00	0.00	0.00
2,160.0	11.88	203.80	2,145.8	-143.9	-63.5	157.3	0.00	0.00	0.00
2,200.0	11.88	203.80	2,184.9	-151.4	-66.8	165.5	0.00	0.00	0.00
2,240.0	11.88	203.80	2,224.1	-159.0	-70.1	173.8	0.00	0.00	0.00
2,280.0	11.88	203.80	2,263.2	-166.5	-73.4	182.0	0.00	0.00	0.00
2,320.0	11.88	203.80	2,302.3	-174.1	-76.8	190.2	0.00	0.00	0.00
2,360.0	11.88	203.80	2,341.5	-181.6	-80.1	198.5	0.00	0.00	0.00
2,400.0	11.88	203.80	2,380.6	-189.1	-83.4	206.7	0.00	0.00	0.00
2,440.0	11.88	203.80	2,419.8	-196.7	-86.7	214.9	0.00	0.00	0.00
2,480.0	11.88	203.80	2,458.9	-204.2	-90.1	223.2	0.00	0.00	0.00
2,520.0	11.88	203.80	2,498.1	-211.7	-93.4	231.4	0.00	0.00	0.00
2,560.0	11.88	203.80	2,537.2	-219.3	-96.7	239.6	0.00	0.00	0.00
2,600.0	11.88	203.80	2,576.3	-226.8	-100.0	247.9	0.00	0.00	0.00
2,640.0	11.88	203.80	2,615.5	-234.3	-103.3	256.1	0.00	0.00	0.00
2,680.0	11.88	203.80	2,654.6	-241.9	-106.7	264.3	0.00	0.00	0.00
2,720.0	11.88	203.80	2,693.8	-249.4	-110.0	272.6	0.00	0.00	0.00
2,760.0	11.88	203.80	2,732.9	-256.9	-113.3	280.8	0.00	0.00	0.00
2,800.0	11.88	203.80	2,772.1	-264.5	-116.6	289.0	0.00	0.00	0.00
2,840.0	11.88	203.80	2,811.2	-272.0	-120.0	297.3	0.00	0.00	0.00
2,880.0	11.88	203.80	2,850.4	-279.5	-123.3	305.5	0.00	0.00	0.00
2,920.0	11.88	203.80	2,889.5	-287.1	-126.6	313.7	0.00	0.00	0.00
2,960.0	11.88	203.80	2,928.6	-294.6	-129.9	322.0	0.00	0.00	0.00
3,000.0	11.88	203.80	2,967.8	-302.1	-133.3	330.2	0.00	0.00	0.00
3,040.0	11.88	203.80	3,006.9	-309.7	-136.6	338.4	0.00	0.00	0.00
3,080.0	11.88	203.80	3,046.1	-317.2	-139.9	346.7	0.00	0.00	0.00
3,120.0	11.88	203.80	3,085.2	-324.7	-143.2	354.9	0.00	0.00	0.00
3,160.0	11.88	203.80	3,124.4	-332.3	-146.5	363.1	0.00	0.00	0.00
3,200.0	11.88	203.80	3,163.5	-339.8	-149.9	371.4	0.00	0.00	0.00
3,240.0	11.88	203.80	3,202.6	-347.3	-153.2	379.6	0.00	0.00	0.00
3,280.0	11.88	203.80	3,241.8	-354.9	-156.5	387.9	0.00	0.00	0.00
3,320.0	11.88	203.80	3,280.9	-362.4	-159.8	396.1	0.00	0.00	0.00
3,360.0	11.88	203.80	3,320.1	-369.9	-163.2	404.3	0.00	0.00	0.00
3,400.0	11.88	203.80	3,359.2	-377.5	-166.5	412.6	0.00	0.00	0.00
3,440.0	11.88	203.80	3,398.4	-385.0	-169.8	420.8	0.00	0.00	0.00
3,480.0	11.88	203.80	3,437.5	-392.5	-173.1	429.0	0.00	0.00	0.00
3,520.0	11.88	203.80	3,476.6	-400.1	-176.5	437.3	0.00	0.00	0.00
3,560.0	11.88	203.80	3,515.8	-407.6	-179.8	445.5	0.00	0.00	0.00
3,600.0	11.88	203.80	3,554.9	-415.1	-183.1	453.7	0.00	0.00	0.00
3,640.0	11.88	203.80	3,594.1	-422.7	-186.4	462.0	0.00	0.00	0.00
3,680.0	11.88	203.80	3,633.2	-430.2	-189.7	470.2	0.00	0.00	0.00
3,720.0	11.88	203.80	3,672.4	-437.7	-193.1	478.4	0.00	0.00	0.00
3,760.0	11.88	203.80	3,711.5	-445.3	-196.4	486.7	0.00	0.00	0.00
3,800.0	11.88	203.80	3,750.6	-452.8	-199.7	494.9	0.00	0.00	0.00
3,840.0	11.88	203.80	3,789.8	-460.3	-203.0	503.1	0.00	0.00	0.00
3,880.0	11.88	203.80	3,828.9	-467.9	-206.4	511.4	0.00	0.00	0.00
3,920.0	11.88	203.80	3,868.1	-475.4	-209.7	519.6	0.00	0.00	0.00
3,960.0	11.88	203.80	3,907.2	-483.0	-213.0	527.8	0.00	0.00	0.00
4,000.0	11.88	203.80	3,946.4	-490.5	-216.3	536.1	0.00	0.00	0.00
4,040.0	11.88	203.80	3,985.5	-498.0	-219.6	544.3	0.00	0.00	0.00

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Well:	Maier 4-4-28	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (4-02-12)		

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)	Turn Rate (°/100ft)
4,080.0	11.88	203.80	4,024.6	-505.6	-223.0	552.5	0.00	0.00	0.00
4,120.0	11.88	203.80	4,063.8	-513.1	-226.3	560.8	0.00	0.00	0.00
4,160.0	11.88	203.80	4,102.9	-520.6	-229.6	569.0	0.00	0.00	0.00
4,200.0	11.88	203.80	4,142.1	-528.2	-232.9	577.2	0.00	0.00	0.00
4,240.0	11.88	203.80	4,181.2	-535.7	-236.3	585.5	0.00	0.00	0.00
4,280.0	11.88	203.80	4,220.4	-543.2	-239.6	593.7	0.00	0.00	0.00
4,320.0	11.88	203.80	4,259.5	-550.8	-242.9	601.9	0.00	0.00	0.00
4,360.0	11.88	203.80	4,298.7	-558.3	-246.2	610.2	0.00	0.00	0.00
4,400.0	11.88	203.80	4,337.8	-565.8	-249.6	618.4	0.00	0.00	0.00
4,440.0	11.88	203.80	4,376.9	-573.4	-252.9	626.6	0.00	0.00	0.00
4,480.0	11.88	203.80	4,416.1	-580.9	-256.2	634.9	0.00	0.00	0.00
4,520.0	11.88	203.80	4,455.2	-588.4	-259.5	643.1	0.00	0.00	0.00
4,560.0	11.88	203.80	4,494.4	-596.0	-262.8	651.4	0.00	0.00	0.00
4,600.0	11.88	203.80	4,533.5	-603.5	-266.2	659.6	0.00	0.00	0.00
4,630.1	11.88	203.80	4,563.0	-609.2	-268.7	665.8	0.00	0.00	0.00
SUSSEX									
4,640.0	11.88	203.80	4,572.7	-611.0	-269.5	667.8	0.00	0.00	0.00
4,680.0	11.88	203.80	4,611.8	-618.6	-272.8	676.1	0.00	0.00	0.00
4,717.0	11.88	203.80	4,648.0	-625.5	-275.9	683.7	0.00	0.00	0.00
SUSSEX PAY TOP									
4,720.0	11.88	203.80	4,650.9	-626.1	-276.1	684.3	0.00	0.00	0.00
4,760.0	11.88	203.80	4,690.1	-633.6	-279.5	692.5	0.00	0.00	0.00
4,800.0	11.88	203.80	4,729.2	-641.2	-282.8	700.8	0.00	0.00	0.00
4,821.2	11.88	203.80	4,750.0	-645.2	-284.5	705.1	0.00	0.00	0.00
SUSSEX MARKER									
4,840.0	11.88	203.80	4,768.4	-648.7	-286.1	709.0	0.00	0.00	0.00
4,880.0	11.88	203.80	4,807.5	-656.2	-289.4	717.2	0.00	0.00	0.00
4,920.0	11.88	203.80	4,846.7	-663.8	-292.8	725.5	0.00	0.00	0.00
4,960.0	11.88	203.80	4,885.8	-671.3	-296.1	733.7	0.00	0.00	0.00
5,000.0	11.88	203.80	4,924.9	-678.8	-299.4	741.9	0.00	0.00	0.00
5,040.0	11.88	203.80	4,964.1	-686.4	-302.7	750.2	0.00	0.00	0.00
5,080.0	11.88	203.80	5,003.2	-693.9	-306.0	758.4	0.00	0.00	0.00
5,087.2	11.88	203.80	5,010.3	-695.3	-306.6	759.9	0.00	0.00	0.00
5,103.7	11.55	203.80	5,026.4	-698.3	-308.0	763.2	2.00	-2.00	0.00
PERMIT TARGET BHL 2590'FNL, 2590'FEL									
5,120.0	11.22	203.80	5,042.4	-701.3	-309.3	766.4	2.00	-2.00	0.00
5,141.0	10.80	203.80	5,063.0	-704.9	-310.9	770.5	2.00	-2.00	0.00
SHANNON									
5,160.0	10.42	203.80	5,081.7	-708.1	-312.3	774.0	2.00	-2.00	0.00
5,200.0	9.62	203.80	5,121.1	-714.5	-315.1	780.9	2.00	-2.00	0.00
5,240.0	8.82	203.80	5,160.6	-720.4	-317.7	787.3	2.00	-2.00	0.00
5,280.0	8.02	203.80	5,200.1	-725.7	-320.1	793.2	2.00	-2.00	0.00
5,320.0	7.22	203.80	5,239.8	-730.6	-322.2	798.5	2.00	-2.00	0.00
5,360.0	6.42	203.80	5,279.5	-734.9	-324.1	803.3	2.00	-2.00	0.00
5,400.0	5.62	203.80	5,319.3	-738.8	-325.8	807.4	2.00	-2.00	0.00
5,440.0	4.82	203.80	5,359.1	-742.1	-327.3	811.1	2.00	-2.00	0.00
5,480.0	4.02	203.80	5,399.0	-744.9	-328.6	814.2	2.00	-2.00	0.00
5,520.0	3.22	203.80	5,438.9	-747.3	-329.6	816.7	2.00	-2.00	0.00
5,560.0	2.42	203.80	5,478.9	-749.1	-330.4	818.7	2.00	-2.00	0.00
5,600.0	1.62	203.80	5,518.8	-750.3	-330.9	820.1	2.00	-2.00	0.00
5,640.0	0.82	203.80	5,558.8	-751.1	-331.3	820.9	2.00	-2.00	0.00
5,680.0	0.02	203.80	5,598.8	-751.4	-331.4	821.2	2.00	-2.00	0.00
5,681.2	0.00	0.00	5,600.0	-751.4	-331.4	821.2	2.00	-2.00	13,351.33

Database:	Landmark	**Local Co-ordinate Reference:**	Well Maier 4-4-28
Company:	EnCana Oil & Gas Weld County CO	**TVD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Project:	SEC.28-T2N-R66W	**MD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Site:	Maier 31-28 Pad Sec.28-T2N-R66W	**North Reference:**	True
Well:	Maier 4-4-28	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (4-02-12)		

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)	Turn Rate (°/100ft)
DRILL TARGET 2540'FNL & 2527'FEL									
5,720.0	0.00	0.00	5,638.8	-751.4	-331.4	821.2	0.00	0.00	0.00
5,760.0	0.00	0.00	5,678.8	-751.4	-331.4	821.2	0.00	0.00	0.00
5,800.0	0.00	0.00	5,718.8	-751.4	-331.4	821.2	0.00	0.00	0.00
5,840.0	0.00	0.00	5,758.8	-751.4	-331.4	821.2	0.00	0.00	0.00
5,880.0	0.00	0.00	5,798.8	-751.4	-331.4	821.2	0.00	0.00	0.00
5,920.0	0.00	0.00	5,838.8	-751.4	-331.4	821.2	0.00	0.00	0.00
5,960.0	0.00	0.00	5,878.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,000.0	0.00	0.00	5,918.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,040.0	0.00	0.00	5,958.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,080.0	0.00	0.00	5,998.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,120.0	0.00	0.00	6,038.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,160.0	0.00	0.00	6,078.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,200.0	0.00	0.00	6,118.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,240.0	0.00	0.00	6,158.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,280.0	0.00	0.00	6,198.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,320.0	0.00	0.00	6,238.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,360.0	0.00	0.00	6,278.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,400.0	0.00	0.00	6,318.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,424.2	0.00	0.00	6,343.0	-751.4	-331.4	821.2	0.00	0.00	0.00
TEEPEE BUTTES									
6,440.0	0.00	0.00	6,358.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,480.0	0.00	0.00	6,398.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,520.0	0.00	0.00	6,438.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,560.0	0.00	0.00	6,478.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,600.0	0.00	0.00	6,518.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,640.0	0.00	0.00	6,558.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,680.0	0.00	0.00	6,598.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,720.0	0.00	0.00	6,638.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,760.0	0.00	0.00	6,678.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,800.0	0.00	0.00	6,718.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,840.0	0.00	0.00	6,758.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,880.0	0.00	0.00	6,798.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,920.0	0.00	0.00	6,838.8	-751.4	-331.4	821.2	0.00	0.00	0.00
6,960.0	0.00	0.00	6,878.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,000.0	0.00	0.00	6,918.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,040.0	0.00	0.00	6,958.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,080.0	0.00	0.00	6,998.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,120.0	0.00	0.00	7,038.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,160.0	0.00	0.00	7,078.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,161.2	0.00	0.00	7,080.0	-751.4	-331.4	821.2	0.00	0.00	0.00
SHARON SPRINGS									
7,200.0	0.00	0.00	7,118.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,224.2	0.00	0.00	7,143.0	-751.4	-331.4	821.2	0.00	0.00	0.00
NIOBRARA - TARGET CIRCLE 2540'FNL & 2527'FEL									
7,240.0	0.00	0.00	7,158.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,280.0	0.00	0.00	7,198.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,320.0	0.00	0.00	7,238.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,360.0	0.00	0.00	7,278.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,400.0	0.00	0.00	7,318.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,440.0	0.00	0.00	7,358.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,480.0	0.00	0.00	7,398.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,491.2	0.00	0.00	7,410.0	-751.4	-331.4	821.2	0.00	0.00	0.00

Database:	Landmark	**Local Co-ordinate Reference:**	Well Maier 4-4-28
Company:	EnCana Oil & Gas Weld County CO	**TVD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Project:	SEC.28-T2N-R66W	**MD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Site:	Maier 31-28 Pad Sec.28-T2N-R66W	**North Reference:**	True
Well:	Maier 4-4-28	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (4-02-12)		

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)	Turn Rate (°/100ft)
FT. HAYES									
7,519.2	0.00	0.00	7,438.0	-751.4	-331.4	821.2	0.00	0.00	0.00
CODELL									
7,520.0	0.00	0.00	7,438.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,534.2	0.00	0.00	7,453.0	-751.4	-331.4	821.2	0.00	0.00	0.00
FAIRPORT									
7,560.0	0.00	0.00	7,478.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,576.2	0.00	0.00	7,495.0	-751.4	-331.4	821.2	0.00	0.00	0.00
GREENHORN									
7,600.0	0.00	0.00	7,518.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,640.0	0.00	0.00	7,558.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,680.0	0.00	0.00	7,598.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,720.0	0.00	0.00	7,638.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,760.0	0.00	0.00	7,678.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,786.2	0.00	0.00	7,705.0	-751.4	-331.4	821.2	0.00	0.00	0.00
GRANEROS									
7,800.0	0.00	0.00	7,718.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,840.0	0.00	0.00	7,758.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,880.0	0.00	0.00	7,798.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,920.0	0.00	0.00	7,838.8	-751.4	-331.4	821.2	0.00	0.00	0.00
7,936.2	0.00	0.00	7,855.0	-751.4	-331.4	821.2	0.00	0.00	0.00
MOWRY									
7,950.2	0.00	0.00	7,869.0	-751.4	-331.4	821.2	0.00	0.00	0.00
J-SAND									
7,960.0	0.00	0.00	7,878.8	-751.4	-331.4	821.2	0.00	0.00	0.00
8,000.0	0.00	0.00	7,918.8	-751.4	-331.4	821.2	0.00	0.00	0.00
8,028.2	0.00	0.00	7,947.0	-751.4	-331.4	821.2	0.00	0.00	0.00
SKULL CREEK A MARKER									
8,040.0	0.00	0.00	7,958.8	-751.4	-331.4	821.2	0.00	0.00	0.00
8,080.0	0.00	0.00	7,998.8	-751.4	-331.4	821.2	0.00	0.00	0.00
8,100.2	0.00	0.00	8,019.0	-751.4	-331.4	821.2	0.00	0.00	0.00
HARD LINES 100'S & 100'W OF DRILL TARGET BHL									

Database:	Landmark	**Local Co-ordinate Reference:**	Well Maier 4-4-28
Company:	EnCana Oil & Gas Weld County CO	**TVD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Project:	SEC.28-T2N-R66W	**MD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Site:	Maier 31-28 Pad Sec.28-T2N-R66W	**North Reference:**	True
Well:	Maier 4-4-28	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (4-02-12)		

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
DRILL TARGET 2540 - plan hits target center - Point	0.00	0.00	5,600.0	-751.4	-331.4	1,283,514.75	3,200,874.39	40.109407	-104.781825
TARGET CIRCLE 254 - plan hits target center - Circle (radius 100.0)	0.00	0.00	7,143.0	-751.4	-331.4	1,283,514.75	3,200,874.39	40.109407	-104.781825
HARD LINES 100'S & - plan misses target center by 141.4ft at 8100.2ft MD (8019.0 TVD, -751.4 N, -331.4 E) - Polygon	0.00	0.00	8,019.0	-851.4	-431.4	1,283,413.95	3,200,775.21	40.109133	-104.782182
Point 1			8,019.0	0.0	0.0	1,283,413.95	3,200,775.21		
Point 2			8,019.0	200.0	0.0	1,283,613.93	3,200,773.59		
Point 3			8,019.0	0.0	0.0	1,283,413.95	3,200,775.21		
Point 4			8,019.0	0.0	200.0	1,283,415.57	3,200,975.20		
PERMIT TARGET BH - plan misses target center by 137.1ft at 5103.7ft MD (5026.4 TVD, -698.3 N, -308.0 E) - Point	0.00	0.00	5,000.0	-801.4	-394.4	1,283,464.21	3,200,811.80	40.109270	-104.782050

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
900.0	900.0	8 5/8"	8-5/8	12-1/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
789.0	789.0	BASE FOX HILLS		0.00	
4,630.1	4,563.0	SUSSEX		0.00	
4,717.0	4,648.0	SUSSEX PAY TOP		0.00	
4,821.2	4,750.0	SUSSEX MARKER		0.00	
5,141.0	5,063.0	SHANNON		0.00	
6,424.2	6,343.0	TEEPEE BUTTES		0.00	
7,161.2	7,080.0	SHARON SPRINGS		0.00	
7,224.2	7,143.0	NIOBRARA		0.00	
7,491.2	7,410.0	FT. HAYES		0.00	
7,519.2	7,438.0	CODELL		0.00	
7,534.2	7,453.0	FAIRPORT		0.00	
7,576.2	7,495.0	GREENHORN		0.00	
7,786.2	7,705.0	GRANEROS		0.00	
7,936.2	7,855.0	MOWRY		0.00	
7,950.2	7,869.0	J-SAND		0.00	
8,028.2	7,947.0	SKULL CREEK A MARKER		0.00	

ENSIGN
Directional

EnCana Oil & Gas Weld County CO

SEC.28-T2N-R66W
Maier 31-28 Pad Sec.28-T2N-R66W
Maier 4-4-28

Wellbore #1
Plan #1 (4-02-12)

Anticollision Report

04 April, 2012

Company:	EnCana Oil & Gas Weld County CO	**Local Co-ordinate Reference:**	Well Maier 4-4-28
Project:	SEC.28-T2N-R66W	**TVD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Reference Site:	Maier 31-28 Pad Sec.28-T2N-R66W	**MD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Maier 4-4-28	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (4-02-12)	**Offset TVD Reference:**	Offset Datum

Reference Plan #1 (4-02-12)

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0ft	**Error Surface:**	Elliptical Conic

Warning Levels Evaluated at: 2.00 **Sigma**

Survey Tool Program **Date** 4/4/2012

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	8,100.2	Plan #1 (4-02-12) (Wellbore #1)	MWD	MWD - Standard

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
Maier 31-28 Pad Sec.28-T2N-R66W						
Angela #1 (Exist.) - Wellbore #1 - Design #1	1,403.2	1,404.6	117.1	111.1	19.596	CC, ES
Angela #1 (Exist.) - Wellbore #1 - Design #1	1,700.0	1,697.6	126.0	118.7	17.171	SF
Maier 4-2-28 - Wellbore #1 - Plan #1 (4-02-12)	1,100.0	1,100.0	21.9	17.1	4.631	CC, ES, SF
Maier 8-4-28 - Wellbore #1 - Plan #1 (4-02-12)	340.7	340.8	10.4	9.1	8.031	CC, ES
Maier 8-4-28 - Wellbore #1 - Plan #1 (4-02-12)	400.0	399.9	10.9	9.4	7.050	SF

Offset Design Maier 31-28 Pad Sec.28-T2N-R66W - Angela #1 (Exist.) - Wellbore #1 - Design #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)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	2.0	2.0	0.0	0.0	121.59	-61.9	100.7	118.2	118.2	0.00	N/A	
100.0	100.0	102.0	102.0	0.1	0.1	121.59	-61.9	100.7	118.2	118.0	0.23	515.634	
200.0	200.0	202.0	202.0	0.3	0.3	121.59	-61.9	100.7	118.2	117.5	0.68	174.154	
300.0	300.0	302.0	302.0	0.6	0.6	121.59	-61.9	100.7	118.2	117.1	1.13	104.770	
400.0	400.0	402.0	402.0	0.8	0.8	121.59	-61.9	100.7	118.2	116.6	1.58	74.921	
500.0	500.0	502.0	502.0	1.0	1.0	121.59	-61.9	100.7	118.2	116.2	2.03	58.309	
600.0	600.0	602.0	602.0	1.2	1.2	121.59	-61.9	100.7	118.2	115.7	2.48	47.727	
700.0	700.0	702.0	702.0	1.5	1.5	121.59	-61.9	100.7	118.2	115.3	2.93	40.395	
800.0	800.0	802.0	802.0	1.7	1.7	121.59	-61.9	100.7	118.2	114.8	3.38	35.016	
900.0	900.0	902.0	902.0	1.9	1.9	121.59	-61.9	100.7	118.2	114.4	3.83	30.902	
1,000.0	1,000.0	1,002.0	1,002.0	2.1	2.1	121.59	-61.9	100.7	118.2	113.9	4.28	27.652	
1,100.0	1,100.0	1,102.0	1,102.0	2.4	2.4	121.59	-61.9	100.7	118.2	113.5	4.72	25.021	
1,200.0	1,200.0	1,202.0	1,202.0	2.6	2.6	-83.05	-61.9	100.7	118.0	112.8	5.15	22.928	
1,300.0	1,299.8	1,301.8	1,301.8	2.7	2.8	-85.59	-61.9	100.7	117.5	111.9	5.55	21.175	
1,400.0	1,399.5	1,401.5	1,401.5	2.9	3.0	-89.84	-61.9	100.7	117.1	111.2	5.96	19.641	
1,403.2	1,402.6	1,404.6	1,404.6	2.9	3.0	-90.00	-61.9	100.7	117.1	111.1	5.98	19.596	CC, ES
1,500.0	1,498.7	1,500.7	1,500.7	3.1	3.3	-95.72	-61.9	100.7	117.7	111.3	6.40	18.396	
1,600.0	1,597.5	1,599.5	1,599.5	3.4	3.5	-103.02	-61.9	100.7	120.3	113.4	6.86	17.539	
1,700.0	1,695.6	1,697.6	1,697.6	3.7	3.7	-111.26	-61.9	100.7	126.0	118.7	7.34	17.171	SF
1,800.0	1,793.5	1,795.5	1,795.5	4.0	3.9	-119.30	-61.9	100.7	135.0	127.2	7.83	17.244	
1,900.0	1,891.3	1,893.3	1,893.3	4.3	4.1	-126.24	-61.9	100.7	146.3	138.0	8.31	17.604	
2,000.0	1,989.2	1,991.2	1,991.2	4.7	4.4	-132.15	-61.9	100.7	159.5	150.7	8.79	18.155	

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

Company:	EnCana Oil & Gas Weld County CO	**Local Co-ordinate Reference:**	Well Maier 4-4-28
Project:	SEC.28-T2N-R66W	**TVD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Reference Site:	Maier 31-28 Pad Sec.28-T2N-R66W	**MD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Maier 4-4-28	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (4-02-12)	**Offset TVD Reference:**	Offset Datum

Offset Design Maier 31-28 Pad Sec.28-T2N-R66W - Angela #1 (Exist.) - Wellbore #1 - Design #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)	Minimum Separation (ft)	Separation Factor	Warning
2,100.0	2,087.1	2,089.1	2,089.1	5.1	4.6	-137.12	-61.9	100.7	174.2	164.9	9.25	18.820	
2,200.0	2,184.9	2,186.9	2,186.9	5.5	4.8	-141.32	-61.9	100.7	189.9	180.2	9.72	19.546	
2,300.0	2,282.8	2,284.8	2,284.8	5.9	5.0	-144.87	-61.9	100.7	206.5	196.3	10.17	20.297	
2,400.0	2,380.6	2,382.6	2,382.6	6.3	5.2	-147.88	-61.9	100.7	223.8	213.1	10.63	21.049	
2,500.0	2,478.5	2,480.5	2,480.5	6.7	5.5	-150.47	-61.9	100.7	241.5	230.5	11.09	21.788	
2,600.0	2,576.3	2,578.3	2,578.3	7.1	5.7	-152.70	-61.9	100.7	259.7	248.2	11.54	22.504	
2,700.0	2,674.2	2,676.2	2,676.2	7.5	5.9	-154.63	-61.9	100.7	278.3	266.3	12.00	23.193	
2,800.0	2,772.1	2,774.1	2,774.1	8.0	6.1	-156.33	-61.9	100.7	297.1	284.6	12.46	23.851	
2,900.0	2,869.9	2,871.9	2,871.9	8.4	6.3	-157.82	-61.9	100.7	316.1	303.2	12.91	24.477	
3,000.0	2,967.8	2,969.8	2,969.8	8.8	6.6	-159.15	-61.9	100.7	335.3	321.9	13.37	25.072	
3,100.0	3,065.6	3,067.6	3,067.6	9.3	6.8	-160.33	-61.9	100.7	354.7	340.8	13.83	25.636	
3,200.0	3,163.5	3,165.5	3,165.5	9.7	7.0	-161.39	-61.9	100.7	374.2	359.9	14.30	26.171	
3,300.0	3,261.4	3,263.4	3,263.4	10.1	7.2	-162.34	-61.9	100.7	393.8	379.0	14.76	26.677	
3,400.0	3,359.2	3,361.2	3,361.2	10.6	7.4	-163.20	-61.9	100.7	413.5	398.2	15.22	27.157	
3,500.0	3,457.1	3,459.1	3,459.1	11.0	7.7	-163.99	-61.9	100.7	433.2	417.6	15.69	27.612	
3,600.0	3,554.9	3,556.9	3,556.9	11.5	7.9	-164.71	-61.9	100.7	453.1	436.9	16.16	28.043	
3,700.0	3,652.8	3,654.8	3,654.8	11.9	8.1	-165.36	-61.9	100.7	473.0	456.4	16.62	28.452	
3,800.0	3,750.6	3,752.6	3,752.6	12.4	8.3	-165.97	-61.9	100.7	493.0	475.9	17.09	28.841	
3,900.0	3,848.5	3,850.5	3,850.5	12.8	8.5	-166.52	-61.9	100.7	513.0	495.4	17.56	29.210	
4,000.0	3,946.4	3,948.4	3,948.4	13.2	8.8	-167.04	-61.9	100.7	533.1	515.0	18.03	29.561	
4,100.0	4,044.2	4,046.2	4,046.2	13.7	9.0	-167.52	-61.9	100.7	553.2	534.7	18.50	29.895	
4,200.0	4,142.1	4,144.1	4,144.1	14.1	9.2	-167.96	-61.9	100.7	573.3	554.3	18.98	30.213	
4,300.0	4,239.9	4,241.9	4,241.9	14.6	9.4	-168.38	-61.9	100.7	593.5	574.0	19.45	30.516	
4,400.0	4,337.8	4,339.8	4,339.8	15.0	9.6	-168.76	-61.9	100.7	613.7	593.7	19.92	30.805	
4,500.0	4,435.7	4,437.7	4,437.7	15.5	9.9	-169.12	-61.9	100.7	633.9	613.5	20.39	31.081	
4,600.0	4,533.5	4,535.5	4,535.5	15.9	10.1	-169.46	-61.9	100.7	654.1	633.3	20.87	31.345	
4,700.0	4,631.4	4,633.4	4,633.4	16.4	10.3	-169.78	-61.9	100.7	674.4	653.0	21.34	31.597	
4,800.0	4,729.2	4,731.2	4,731.2	16.8	10.5	-170.09	-61.9	100.7	694.7	672.9	21.82	31.838	
4,900.0	4,827.1	4,829.1	4,829.1	17.3	10.7	-170.37	-61.9	100.7	715.0	692.7	22.29	32.070	
5,000.0	4,924.9	4,926.9	4,926.9	17.7	11.0	-170.64	-61.9	100.7	735.3	712.5	22.77	32.291	
5,100.0	5,022.8	5,024.8	5,024.8	18.2	11.2	-170.90	-61.9	100.7	755.6	732.3	23.25	32.493	
5,200.0	5,121.1	5,123.1	5,123.1	18.5	11.4	-171.17	-61.9	100.7	773.8	750.1	23.75	32.575	
5,300.0	5,220.0	5,222.0	5,222.0	18.7	11.6	-171.38	-61.9	100.7	788.6	764.4	24.23	32.552	
5,400.0	5,319.3	5,321.3	5,321.3	19.0	11.8	-171.54	-61.9	100.7	800.0	775.4	24.67	32.431	
5,500.0	5,419.0	5,421.0	5,421.0	19.2	12.1	-171.65	-61.9	100.7	808.0	782.9	25.08	32.218	
5,600.0	5,518.8	5,520.8	5,520.8	19.3	12.3	-171.71	-61.9	100.7	812.5	787.1	25.46	31.917	
5,700.0	5,618.8	5,620.8	5,620.8	19.5	12.5	32.08	-61.9	100.7	813.7	787.9	25.83	31.507	
5,800.0	5,718.8	5,720.8	5,720.8	19.6	12.7	32.08	-61.9	100.7	813.7	787.5	26.22	31.031	
5,900.0	5,818.8	5,820.8	5,820.8	19.7	13.0	32.08	-61.9	100.7	813.7	787.1	26.62	30.567	
6,000.0	5,918.8	5,920.8	5,920.8	19.8	13.2	32.08	-61.9	100.7	813.7	786.7	27.02	30.116	
6,100.0	6,018.8	6,020.8	6,020.8	19.9	13.4	32.08	-61.9	100.7	813.7	786.3	27.42	29.676	
6,200.0	6,118.8	6,120.8	6,120.8	20.1	13.6	32.08	-61.9	100.7	813.7	785.9	27.82	29.247	
6,300.0	6,218.8	6,220.8	6,220.8	20.2	13.9	32.08	-61.9	100.7	813.7	785.5	28.22	28.829	
6,400.0	6,318.8	6,320.8	6,320.8	20.3	14.1	32.08	-61.9	100.7	813.7	785.1	28.63	28.422	
6,500.0	6,418.8	6,420.8	6,420.8	20.4	14.3	32.08	-61.9	100.7	813.7	784.6	29.03	28.024	
6,600.0	6,518.8	6,520.8	6,520.8	20.6	14.5	32.08	-61.9	100.7	813.7	784.2	29.44	27.637	
6,700.0	6,618.8	6,620.8	6,620.8	20.7	14.8	32.08	-61.9	100.7	813.7	783.8	29.85	27.259	
6,800.0	6,718.8	6,720.8	6,720.8	20.8	15.0	32.08	-61.9	100.7	813.7	783.4	30.26	26.890	
6,900.0	6,818.8	6,820.8	6,820.8	21.0	15.2	32.08	-61.9	100.7	813.7	783.0	30.67	26.530	
7,000.0	6,918.8	6,920.8	6,920.8	21.1	15.4	32.08	-61.9	100.7	813.7	782.6	31.08	26.179	
7,100.0	7,018.8	7,020.8	7,020.8	21.2	15.7	32.08	-61.9	100.7	813.7	782.2	31.49	25.837	
7,200.0	7,118.8	7,120.8	7,120.8	21.4	15.9	32.08	-61.9	100.7	813.7	781.8	31.91	25.502	

Company:	EnCana Oil & Gas Weld County CO	**Local Co-ordinate Reference:**	Well Maier 4-4-28
Project:	SEC.28-T2N-R66W	**TVD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Reference Site:	Maier 31-28 Pad Sec.28-T2N-R66W	**MD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Maier 4-4-28	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (4-02-12)	**Offset TVD Reference:**	Offset Datum

Offset Design Maier 31-28 Pad Sec.28-T2N-R66W - Angela #1 (Exist.) - Wellbore #1 - Design #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)	Minimum Separation (ft)	Separation Factor	Warning
7,300.0	7,218.8	7,220.8	7,220.8	21.5	16.1	32.08	-61.9	100.7	813.7	781.4	32.32	25.175	
7,400.0	7,318.8	7,320.8	7,320.8	21.7	16.3	32.08	-61.9	100.7	813.7	780.9	32.74	24.856	
7,500.0	7,418.8	7,420.8	7,420.8	21.8	16.6	32.08	-61.9	100.7	813.7	780.5	33.15	24.544	
7,600.0	7,518.8	7,520.8	7,520.8	22.0	16.8	32.08	-61.9	100.7	813.7	780.1	33.57	24.239	
7,700.0	7,618.8	7,620.8	7,620.8	22.1	17.0	32.08	-61.9	100.7	813.7	779.7	33.99	23.941	
7,800.0	7,718.8	7,720.8	7,720.8	22.2	17.2	32.08	-61.9	100.7	813.7	779.3	34.40	23.650	
7,900.0	7,818.8	7,820.8	7,820.8	22.4	17.5	32.08	-61.9	100.7	813.7	778.9	34.82	23.365	
8,000.0	7,918.8	7,920.8	7,920.8	22.5	17.7	32.08	-61.9	100.7	813.7	778.4	35.24	23.087	
8,057.9	7,976.7	7,978.7	7,978.7	22.6	17.8	32.08	-61.9	100.7	813.7	778.2	35.49	22.929	
8,100.0	8,018.8	8,000.0	8,000.0	22.7	17.9	32.08	-61.9	100.7	813.9	778.3	35.62	22.852	
8,100.2	8,019.0	8,000.0	8,000.0	22.7	17.9	32.08	-61.9	100.7	814.0	778.3	35.62	22.852	

Company:	EnCana Oil & Gas Weld County CO	**Local Co-ordinate Reference:**	Well Maier 4-4-28
Project:	SEC.28-T2N-R66W	**TVD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Reference Site:	Maier 31-28 Pad Sec.28-T2N-R66W	**MD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Maier 4-4-28	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (4-02-12)	**Offset TVD Reference:**	Offset Datum

Offset Design Maier 31-28 Pad Sec.28-T2N-R66W - Maier 4-2-28 - Wellbore #1 - Plan #1 (4-02-12) — **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)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	0.00	21.9	0.0	21.9				
100.0	100.0	100.0	100.0	0.1	0.1	0.00	21.9	0.0	21.9	21.6	0.22	97.246	
200.0	200.0	200.0	200.0	0.3	0.3	0.00	21.9	0.0	21.9	21.2	0.67	32.415	
300.0	300.0	300.0	300.0	0.6	0.6	0.00	21.9	0.0	21.9	20.7	1.12	19.449	
400.0	400.0	400.0	400.0	0.8	0.8	0.00	21.9	0.0	21.9	20.3	1.57	13.892	
500.0	500.0	500.0	500.0	1.0	1.0	0.00	21.9	0.0	21.9	19.8	2.02	10.805	
600.0	600.0	600.0	600.0	1.2	1.2	0.00	21.9	0.0	21.9	19.4	2.47	8.841	
700.0	700.0	700.0	700.0	1.5	1.5	0.00	21.9	0.0	21.9	18.9	2.92	7.480	
800.0	800.0	800.0	800.0	1.7	1.7	0.00	21.9	0.0	21.9	18.5	3.37	6.483	
900.0	900.0	900.0	900.0	1.9	1.9	0.00	21.9	0.0	21.9	18.0	3.82	5.720	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.00	21.9	0.0	21.9	17.6	4.27	5.118	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	0.00	21.9	0.0	21.9	17.1	4.72	4.631	CC, ES, SF
1,200.0	1,200.0	1,199.2	1,199.2	2.6	2.6	155.90	23.4	-0.8	25.0	19.8	5.14	4.860	
1,300.0	1,299.8	1,297.9	1,297.7	2.7	2.8	155.32	27.9	-3.3	34.3	28.8	5.54	6.196	
1,400.0	1,399.5	1,395.4	1,394.9	2.9	3.0	154.80	35.2	-7.2	49.8	43.9	5.95	8.379	
1,500.0	1,498.7	1,491.3	1,490.0	3.1	3.3	154.40	45.3	-12.7	71.4	65.0	6.36	11.224	
1,600.0	1,597.5	1,584.9	1,582.6	3.4	3.5	154.07	57.9	-19.5	98.8	92.1	6.78	14.579	
1,700.0	1,695.6	1,678.7	1,674.9	3.7	3.8	153.97	72.4	-27.3	131.3	124.1	7.21	18.212	
1,800.0	1,793.5	1,772.8	1,767.5	4.0	4.1	154.31	87.0	-35.3	165.2	157.6	7.67	21.543	
1,900.0	1,891.3	1,866.8	1,860.1	4.3	4.4	154.53	101.7	-43.2	199.1	191.0	8.14	24.459	
2,000.0	1,989.2	1,960.9	1,952.7	4.7	4.7	154.69	116.4	-51.1	233.0	224.4	8.63	27.000	
2,100.0	2,087.1	2,055.0	2,045.3	5.1	5.0	154.81	131.0	-59.0	266.9	257.8	9.12	29.255	
2,200.0	2,184.9	2,149.1	2,137.9	5.5	5.3	154.90	145.7	-67.0	300.8	291.2	9.63	31.244	
2,300.0	2,282.8	2,243.1	2,230.4	5.9	5.7	154.97	160.3	-74.9	334.8	324.6	10.14	33.010	
2,400.0	2,380.6	2,337.2	2,323.0	6.3	6.0	155.03	175.0	-82.8	368.7	358.0	10.66	34.586	
2,500.0	2,478.5	2,431.3	2,415.6	6.7	6.4	155.08	189.7	-90.8	402.6	391.4	11.18	35.999	
2,600.0	2,576.3	2,525.4	2,508.2	7.1	6.7	155.12	204.3	-98.7	436.5	424.8	11.71	37.270	
2,700.0	2,674.2	2,619.4	2,600.8	7.5	7.1	155.16	219.0	-106.6	470.4	458.1	12.24	38.419	
2,800.0	2,772.1	2,713.5	2,693.4	8.0	7.4	155.19	233.7	-114.5	504.3	491.5	12.78	39.461	
2,900.0	2,869.9	2,807.6	2,786.0	8.4	7.8	155.21	248.3	-122.5	538.2	524.9	13.32	40.409	
3,000.0	2,967.8	2,901.7	2,878.5	8.8	8.1	155.24	263.0	-130.4	572.1	558.3	13.86	41.276	
3,100.0	3,065.6	2,995.7	2,971.1	9.3	8.5	155.26	277.6	-138.3	606.0	591.6	14.41	42.069	
3,200.0	3,163.5	3,089.8	3,063.7	9.7	8.8	155.28	292.3	-146.3	639.9	625.0	14.95	42.799	
3,300.0	3,261.4	3,183.9	3,156.3	10.1	9.2	155.29	307.0	-154.2	673.8	658.3	15.50	43.471	
3,400.0	3,359.2	3,278.0	3,248.9	10.6	9.6	155.31	321.6	-162.1	707.8	691.7	16.05	44.093	
3,500.0	3,457.1	3,372.0	3,341.5	11.0	9.9	155.32	336.3	-170.1	741.7	725.1	16.60	44.669	
3,600.0	3,554.9	3,466.1	3,434.1	11.5	10.3	155.34	350.9	-178.0	775.6	758.4	17.16	45.205	
3,700.0	3,652.8	3,560.2	3,526.7	11.9	10.7	155.35	365.6	-185.9	809.5	791.8	17.71	45.703	
3,800.0	3,750.6	3,654.3	3,619.2	12.4	11.0	155.36	380.3	-193.8	843.4	825.1	18.27	46.168	
3,900.0	3,848.5	3,748.3	3,711.8	12.8	11.4	155.37	394.9	-201.8	877.3	858.5	18.83	46.602	
4,000.0	3,946.4	3,842.4	3,804.4	13.2	11.8	155.38	409.6	-209.7	911.2	891.8	19.38	47.010	
4,100.0	4,044.2	3,936.5	3,897.0	13.7	12.1	155.39	424.2	-217.6	945.1	925.2	19.94	47.392	
4,200.0	4,142.1	4,030.6	3,989.6	14.1	12.5	155.39	438.9	-225.6	979.0	958.5	20.50	47.751	
4,300.0	4,239.9	4,124.6	4,082.2	14.6	12.9	155.40	453.6	-233.5	1,012.9	991.9	21.06	48.089	
4,400.0	4,337.8	4,218.7	4,174.8	15.0	13.2	155.41	468.2	-241.4	1,046.9	1,025.2	21.63	48.408	
4,500.0	4,435.7	4,312.8	4,267.3	15.5	13.6	155.42	482.9	-249.3	1,080.8	1,058.6	22.19	48.710	
4,600.0	4,533.5	4,406.9	4,359.9	15.9	14.0	155.42	497.5	-257.3	1,114.7	1,091.9	22.75	48.994	
4,700.0	4,631.4	4,500.9	4,452.5	16.4	14.3	155.43	512.2	-265.2	1,148.6	1,125.3	23.31	49.264	
4,800.0	4,729.2	4,595.0	4,545.1	16.8	14.7	155.43	526.9	-273.1	1,182.5	1,158.6	23.88	49.520	
4,900.0	4,827.1	4,689.1	4,637.7	17.3	15.1	155.44	541.5	-281.1	1,216.4	1,192.0	24.44	49.763	
5,000.0	4,924.9	4,783.2	4,730.3	17.7	15.5	155.44	556.2	-289.0	1,250.3	1,225.3	25.01	49.994	
5,100.0	5,022.8	4,877.3	4,822.9	18.2	15.8	155.48	570.8	-296.9	1,284.2	1,258.6	25.59	50.191	

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

Company:	EnCana Oil & Gas Weld County CO	**Local Co-ordinate Reference:**	Well Maier 4-4-28
Project:	SEC.28-T2N-R66W	**TVD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Reference Site:	Maier 31-28 Pad Sec.28-T2N-R66W	**MD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Maier 4-4-28	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (4-02-12)	**Offset TVD Reference:**	Offset Datum

Offset Design Maier 31-28 Pad Sec.28-T2N-R66W - Maier 4-2-28 - Wellbore #1 - Plan #1 (4-02-12)

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)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,121.1	4,972.0	4,916.1	18.5	16.2	155.73	585.6	-304.9	1,316.2	1,290.0	26.20	50.239	
5,300.0	5,220.0	5,080.4	5,022.8	18.7	16.6	155.86	602.4	-314.0	1,345.1	1,318.3	26.81	50.174	
5,400.0	5,319.3	5,247.4	5,188.2	19.0	17.1	155.92	622.6	-324.9	1,367.7	1,340.2	27.43	49.858	
5,500.0	5,419.0	5,418.8	5,359.1	19.2	17.4	156.00	634.5	-331.4	1,382.0	1,354.0	27.98	49.393	
5,600.0	5,518.8	5,578.6	5,518.8	19.3	17.7	156.11	637.6	-333.0	1,387.9	1,359.5	28.43	48.815	
5,700.0	5,618.8	5,678.6	5,618.8	19.5	17.8	-0.07	637.6	-333.0	1,389.0	1,360.2	28.79	48.247	
5,800.0	5,718.8	5,778.6	5,718.8	19.6	18.0	-0.07	637.6	-333.0	1,389.0	1,359.8	29.14	47.668	
5,900.0	5,818.8	5,878.6	5,818.8	19.7	18.1	-0.07	637.6	-333.0	1,389.0	1,359.5	29.49	47.097	
6,000.0	5,918.8	5,978.6	5,918.8	19.8	18.3	-0.07	637.6	-333.0	1,389.0	1,359.1	29.85	46.537	
6,100.0	6,018.8	6,078.6	6,018.8	19.9	18.4	-0.07	637.6	-333.0	1,389.0	1,358.8	30.20	45.985	
6,200.0	6,118.8	6,178.6	6,118.8	20.1	18.6	-0.07	637.6	-333.0	1,389.0	1,358.4	30.56	45.444	
6,300.0	6,218.8	6,278.6	6,218.8	20.2	18.7	-0.07	637.6	-333.0	1,389.0	1,358.0	30.93	44.911	
6,400.0	6,318.8	6,378.6	6,318.8	20.3	18.9	-0.07	637.6	-333.0	1,389.0	1,357.7	31.29	44.387	
6,500.0	6,418.8	6,478.6	6,418.8	20.4	19.1	-0.07	637.6	-333.0	1,389.0	1,357.3	31.66	43.873	
6,600.0	6,518.8	6,578.6	6,518.8	20.6	19.2	-0.07	637.6	-333.0	1,389.0	1,356.9	32.03	43.367	
6,700.0	6,618.8	6,678.6	6,618.8	20.7	19.4	-0.07	637.6	-333.0	1,389.0	1,356.6	32.40	42.871	
6,800.0	6,718.8	6,778.6	6,718.8	20.8	19.5	-0.07	637.6	-333.0	1,389.0	1,356.2	32.77	42.383	
6,900.0	6,818.8	6,878.6	6,818.8	21.0	19.7	-0.07	637.6	-333.0	1,389.0	1,355.8	33.15	41.903	
7,000.0	6,918.8	6,978.6	6,918.8	21.1	19.9	-0.07	637.6	-333.0	1,389.0	1,355.4	33.52	41.433	
7,100.0	7,018.8	7,078.6	7,018.8	21.2	20.1	-0.07	637.6	-333.0	1,389.0	1,355.1	33.90	40.970	
7,200.0	7,118.8	7,178.6	7,118.8	21.4	20.2	-0.07	637.6	-333.0	1,389.0	1,354.7	34.28	40.516	
7,300.0	7,218.8	7,278.6	7,218.8	21.5	20.4	-0.07	637.6	-333.0	1,389.0	1,354.3	34.66	40.069	
7,400.0	7,318.8	7,378.6	7,318.8	21.7	20.6	-0.07	637.6	-333.0	1,389.0	1,353.9	35.05	39.631	
7,500.0	7,418.8	7,478.6	7,418.8	21.8	20.7	-0.07	637.6	-333.0	1,389.0	1,353.5	35.43	39.200	
7,600.0	7,518.8	7,578.6	7,518.8	22.0	20.9	-0.07	637.6	-333.0	1,389.0	1,353.1	35.82	38.777	
7,700.0	7,618.8	7,678.6	7,618.8	22.1	21.1	-0.07	637.6	-333.0	1,389.0	1,352.8	36.21	38.362	
7,800.0	7,718.8	7,778.6	7,718.8	22.2	21.3	-0.07	637.6	-333.0	1,389.0	1,352.4	36.60	37.954	
7,900.0	7,818.8	7,878.6	7,818.8	22.4	21.4	-0.07	637.6	-333.0	1,389.0	1,352.0	36.99	37.553	
8,000.0	7,918.8	7,978.6	7,918.8	22.5	21.6	-0.07	637.6	-333.0	1,389.0	1,351.6	37.38	37.159	
8,066.4	7,985.2	8,045.0	7,985.2	22.6	21.7	-0.07	637.6	-333.0	1,389.0	1,351.3	37.64	36.901	
8,100.0	8,018.8	8,077.8	8,018.0	22.7	21.8	-0.07	637.6	-333.0	1,389.0	1,351.2	37.77	36.774	
8,100.2	8,019.0	8,077.8	8,018.0	22.7	21.8	-0.07	637.6	-333.0	1,389.0	1,351.2	37.77	36.773	

Company:	EnCana Oil & Gas Weld County CO	**Local Co-ordinate Reference:**	Well Maier 4-4-28
Project:	SEC.28-T2N-R66W	**TVD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Reference Site:	Maier 31-28 Pad Sec.28-T2N-R66W	**MD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Maier 4-4-28	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (4-02-12)	**Offset TVD Reference:**	Offset Datum

Offset Design Maier 31-28 Pad Sec.28-T2N-R66W - Maier 8-4-28 - Wellbore #1 - Plan #1 (4-02-12) — **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)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	0.00	10.9	0.0	10.9	10.9	0.00	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	0.00	10.9	0.0	10.9	10.7	0.22	48.623	
200.0	200.0	200.0	200.0	0.3	0.3	0.00	10.9	0.0	10.9	10.3	0.67	16.208	
300.0	300.0	300.1	300.1	0.6	0.5	9.08	10.4	1.7	10.5	9.4	1.11	9.462	
340.7	340.7	340.8	340.7	0.7	0.6	18.45	9.8	3.3	10.4	9.1	1.29	8.031	CC, ES
400.0	400.0	399.9	399.8	0.8	0.8	37.18	8.7	6.6	10.9	9.4	1.55	7.050	SF
500.0	500.0	499.3	498.7	1.0	1.0	68.00	6.0	14.8	16.0	14.0	2.02	7.919	
600.0	600.0	597.9	596.6	1.2	1.3	85.21	2.2	26.2	26.5	24.0	2.51	10.553	
700.0	700.0	695.6	693.1	1.5	1.6	93.68	-2.6	40.6	41.2	38.2	3.00	13.728	
800.0	800.0	792.1	787.9	1.7	2.0	98.24	-8.4	57.8	59.7	56.2	3.51	17.012	
900.0	900.0	887.3	880.8	1.9	2.4	100.94	-15.0	77.8	81.6	77.6	4.03	20.263	
1,000.0	1,000.0	981.0	971.4	2.1	2.9	102.67	-22.6	100.4	106.8	102.2	4.56	23.427	
1,100.0	1,100.0	1,073.0	1,059.6	2.4	3.4	103.84	-30.9	125.2	135.1	130.0	5.10	26.480	
1,200.0	1,200.0	1,163.1	1,145.1	2.6	4.0	-99.06	-39.8	152.1	166.8	161.5	5.31	31.434	
1,300.0	1,299.8	1,251.1	1,227.6	2.7	4.6	-99.07	-49.4	180.9	202.0	196.2	5.75	35.145	
1,400.0	1,399.5	1,336.6	1,307.0	2.9	5.2	-99.54	-59.5	211.1	240.5	234.3	6.20	38.765	
1,500.0	1,498.7	1,419.6	1,383.1	3.1	5.9	-100.20	-70.0	242.6	282.4	275.7	6.68	42.255	
1,600.0	1,597.5	1,501.7	1,457.4	3.4	6.6	-100.93	-81.1	275.7	327.6	320.4	7.21	45.465	
1,700.0	1,695.6	1,589.4	1,536.5	3.7	7.4	-101.93	-93.1	311.7	374.4	366.6	7.77	48.166	
1,800.0	1,793.5	1,676.8	1,615.2	4.0	8.3	-103.70	-105.1	347.7	421.9	413.4	8.41	50.165	
1,900.0	1,891.3	1,764.2	1,693.9	4.3	9.1	-105.11	-117.1	383.6	469.5	460.5	9.08	51.712	
2,000.0	1,989.2	1,851.5	1,772.7	4.7	9.9	-106.27	-129.1	419.5	517.4	507.6	9.78	52.918	
2,100.0	2,087.1	1,938.9	1,851.4	5.1	10.7	-107.23	-141.0	455.4	565.4	554.9	10.50	53.867	
2,200.0	2,184.9	2,026.2	1,930.1	5.5	11.5	-108.04	-153.0	491.3	613.5	602.3	11.23	54.622	
2,300.0	2,282.8	2,113.6	2,008.9	5.9	12.3	-108.73	-165.0	527.2	661.7	649.7	11.98	55.227	
2,400.0	2,380.6	2,201.0	2,087.6	6.3	13.1	-109.33	-177.0	563.1	709.9	697.2	12.74	55.718	
2,500.0	2,478.5	2,288.3	2,166.3	6.7	14.0	-109.86	-189.0	599.0	758.3	744.7	13.51	56.119	
2,600.0	2,576.3	2,375.7	2,245.1	7.1	14.8	-110.32	-201.0	634.9	806.6	792.3	14.29	56.449	
2,700.0	2,674.2	2,463.0	2,323.8	7.5	15.6	-110.73	-213.0	670.9	855.0	839.9	15.07	56.725	
2,800.0	2,772.1	2,550.4	2,402.5	8.0	16.4	-111.09	-224.9	706.8	903.4	887.5	15.86	56.955	
2,900.0	2,869.9	2,637.8	2,481.2	8.4	17.3	-111.42	-236.9	742.7	951.8	935.2	16.65	57.150	
3,000.0	2,967.8	2,725.1	2,560.0	8.8	18.1	-111.72	-248.9	778.6	1,000.3	982.8	17.45	57.316	
3,100.0	3,065.6	2,812.5	2,638.7	9.3	18.9	-111.99	-260.9	814.5	1,048.8	1,030.5	18.25	57.457	
3,200.0	3,163.5	2,899.9	2,717.4	9.7	19.7	-112.23	-272.9	850.4	1,097.3	1,078.2	19.06	57.579	
3,300.0	3,261.4	2,987.2	2,796.2	10.1	20.6	-112.46	-284.9	886.3	1,145.8	1,125.9	19.86	57.683	
3,400.0	3,359.2	3,074.6	2,874.9	10.6	21.4	-112.67	-296.8	922.2	1,194.3	1,173.6	20.67	57.774	
3,500.0	3,457.1	3,161.9	2,953.6	11.0	22.2	-112.86	-308.8	958.1	1,242.8	1,221.3	21.48	57.852	
3,600.0	3,554.9	3,249.3	3,032.4	11.5	23.0	-113.03	-320.8	994.1	1,291.4	1,269.1	22.30	57.921	
3,700.0	3,652.8	3,336.7	3,111.1	11.9	23.9	-113.20	-332.8	1,030.0	1,339.9	1,316.8	23.11	57.982	
3,800.0	3,750.6	3,424.0	3,189.8	12.4	24.7	-113.35	-344.8	1,065.9	1,388.5	1,364.6	23.92	58.035	
3,900.0	3,848.5	3,511.4	3,268.6	12.8	25.5	-113.49	-356.8	1,101.8	1,437.0	1,412.3	24.74	58.081	
4,000.0	3,946.4	3,598.7	3,347.3	13.2	26.3	-113.62	-368.8	1,137.7	1,485.6	1,460.1	25.56	58.123	
4,100.0	4,044.2	3,686.1	3,426.0	13.7	27.2	-113.75	-380.7	1,173.6	1,534.2	1,507.8	26.38	58.159	
4,200.0	4,142.1	3,773.5	3,504.8	14.1	28.0	-113.86	-392.7	1,209.5	1,582.8	1,555.6	27.20	58.192	
4,300.0	4,239.9	3,860.8	3,583.5	14.6	28.8	-113.97	-404.7	1,245.4	1,631.4	1,603.3	28.02	58.220	
4,400.0	4,337.8	3,948.2	3,662.2	15.0	29.7	-114.08	-416.7	1,281.3	1,680.0	1,651.1	28.84	58.246	
4,500.0	4,435.7	4,035.6	3,741.0	15.5	30.5	-114.17	-428.7	1,317.2	1,728.5	1,698.9	29.67	58.269	
4,600.0	4,533.5	4,122.9	3,819.7	15.9	31.3	-114.27	-440.7	1,353.2	1,777.1	1,746.7	30.49	58.289	
4,700.0	4,631.4	4,210.3	3,898.4	16.4	32.1	-114.35	-452.6	1,389.1	1,825.8	1,794.4	31.31	58.307	
4,800.0	4,729.2	4,297.6	3,977.2	16.8	33.0	-114.44	-464.6	1,425.0	1,874.4	1,842.2	32.14	58.323	
4,900.0	4,827.1	4,385.0	4,055.9	17.3	33.8	-114.52	-476.6	1,460.9	1,923.0	1,890.0	32.96	58.337	
5,000.0	4,924.9	4,472.4	4,134.6	17.7	34.6	-114.59	-488.6	1,496.8	1,971.6	1,937.8	33.79	58.350	

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

Company:	EnCana Oil & Gas Weld County CO	**Local Co-ordinate Reference:**	Well Maier 4-4-28
Project:	SEC.28-T2N-R66W	**TVD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Reference Site:	Maier 31-28 Pad Sec.28-T2N-R66W	**MD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Maier 4-4-28	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (4-02-12)	**Offset TVD Reference:**	Offset Datum

Offset Design Maier 31-28 Pad Sec.28-T2N-R66W - Maier 8-4-28 - Wellbore #1 - Plan #1 (4-02-12)

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)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	5,022.8	4,559.7	4,213.4	18.2	35.5	-114.79	-500.6	1,532.7	2,020.2	1,985.5	34.66	58.293	
5,200.0	5,121.1	4,647.6	4,292.5	18.5	36.3	-115.78	-512.6	1,568.8	2,068.0	2,032.3	35.72	57.894	
5,300.0	5,220.0	4,736.1	4,372.3	18.7	37.1	-116.63	-524.8	1,605.2	2,114.4	2,077.7	36.74	57.552	
5,400.0	5,319.3	4,825.1	4,452.5	19.0	38.0	-117.35	-537.0	1,641.8	2,159.5	2,121.8	37.70	57.275	
5,500.0	5,419.0	4,914.6	4,533.2	19.2	38.8	-117.95	-549.3	1,678.6	2,203.2	2,164.6	38.61	57.065	
5,600.0	5,518.8	5,004.4	4,614.2	19.3	39.7	-118.43	-561.6	1,715.5	2,245.5	2,206.0	39.45	56.925	
5,700.0	5,618.8	5,094.5	4,695.3	19.5	40.5	85.13	-573.9	1,752.5	2,286.3	2,246.1	40.17	56.919	
5,800.0	5,718.8	5,184.6	4,776.6	19.6	41.4	85.55	-586.3	1,789.6	2,326.7	2,286.1	40.60	57.312	
5,900.0	5,818.8	5,274.8	4,857.8	19.7	42.2	85.95	-598.7	1,826.6	2,367.3	2,326.3	41.03	57.701	
6,000.0	5,918.8	5,696.1	5,249.5	19.8	45.0	87.42	-647.5	1,972.9	2,401.8	2,359.6	42.13	57.004	
6,100.0	6,018.8	6,163.2	5,704.8	19.9	46.7	88.29	-679.7	2,069.4	2,422.3	2,379.3	43.07	56.241	
6,200.0	6,118.8	6,578.5	6,118.8	20.1	47.3	88.51	-688.4	2,095.4	2,427.6	2,383.9	43.68	55.571	
6,300.0	6,218.8	6,678.5	6,218.8	20.2	47.4	88.51	-688.4	2,095.4	2,427.6	2,383.7	43.91	55.280	
6,400.0	6,318.8	6,778.5	6,318.8	20.3	47.4	88.51	-688.4	2,095.4	2,427.6	2,383.5	44.15	54.989	
6,500.0	6,418.8	6,878.5	6,418.8	20.4	47.5	88.51	-688.4	2,095.4	2,427.6	2,383.2	44.38	54.697	
6,600.0	6,518.8	6,978.5	6,518.8	20.6	47.6	88.51	-688.4	2,095.4	2,427.6	2,383.0	44.62	54.404	
6,700.0	6,618.8	7,078.5	6,618.8	20.7	47.6	88.51	-688.4	2,095.4	2,427.6	2,382.8	44.86	54.110	
6,800.0	6,718.8	7,178.5	6,718.8	20.8	47.7	88.51	-688.4	2,095.4	2,427.6	2,382.5	45.11	53.815	
6,900.0	6,818.8	7,278.5	6,818.8	21.0	47.8	88.51	-688.4	2,095.4	2,427.6	2,382.3	45.36	53.520	
7,000.0	6,918.8	7,378.5	6,918.8	21.1	47.8	88.51	-688.4	2,095.4	2,427.6	2,382.0	45.61	53.225	
7,100.0	7,018.8	7,478.5	7,018.8	21.2	47.9	88.51	-688.4	2,095.4	2,427.6	2,381.8	45.87	52.929	
7,200.0	7,118.8	7,578.5	7,118.8	21.4	48.0	88.51	-688.4	2,095.4	2,427.6	2,381.5	46.12	52.634	
7,300.0	7,218.8	7,678.5	7,218.8	21.5	48.0	88.51	-688.4	2,095.4	2,427.6	2,381.2	46.38	52.338	
7,400.0	7,318.8	7,778.5	7,318.8	21.7	48.1	88.51	-688.4	2,095.4	2,427.6	2,381.0	46.65	52.042	
7,500.0	7,418.8	7,878.5	7,418.8	21.8	48.2	88.51	-688.4	2,095.4	2,427.6	2,380.7	46.91	51.747	
7,600.0	7,518.8	7,978.5	7,518.8	22.0	48.2	88.51	-688.4	2,095.4	2,427.6	2,380.4	47.18	51.452	
7,700.0	7,618.8	8,078.5	7,618.8	22.1	48.3	88.51	-688.4	2,095.4	2,427.6	2,380.2	47.45	51.158	
7,800.0	7,718.8	8,178.5	7,718.8	22.2	48.4	88.51	-688.4	2,095.4	2,427.6	2,379.9	47.73	50.864	
7,900.0	7,818.8	8,278.5	7,818.8	22.4	48.5	88.51	-688.4	2,095.4	2,427.6	2,379.6	48.01	50.570	
8,000.0	7,918.8	8,378.5	7,918.8	22.5	48.5	88.51	-688.4	2,095.4	2,427.6	2,379.3	48.28	50.277	
8,063.0	7,981.9	8,441.5	7,981.9	22.6	48.6	88.51	-688.4	2,095.4	2,427.6	2,379.2	48.46	50.093	
8,100.0	8,018.8	8,468.6	8,009.0	22.7	48.6	88.51	-688.4	2,095.4	2,427.6	2,379.1	48.55	49.999	
8,100.2	8,019.0	8,468.6	8,009.0	22.7	48.6	88.51	-688.4	2,095.4	2,427.6	2,379.1	48.55	49.998	

Company:	EnCana Oil & Gas Weld County CO	**Local Co-ordinate Reference:**	Well Maier 4-4-28
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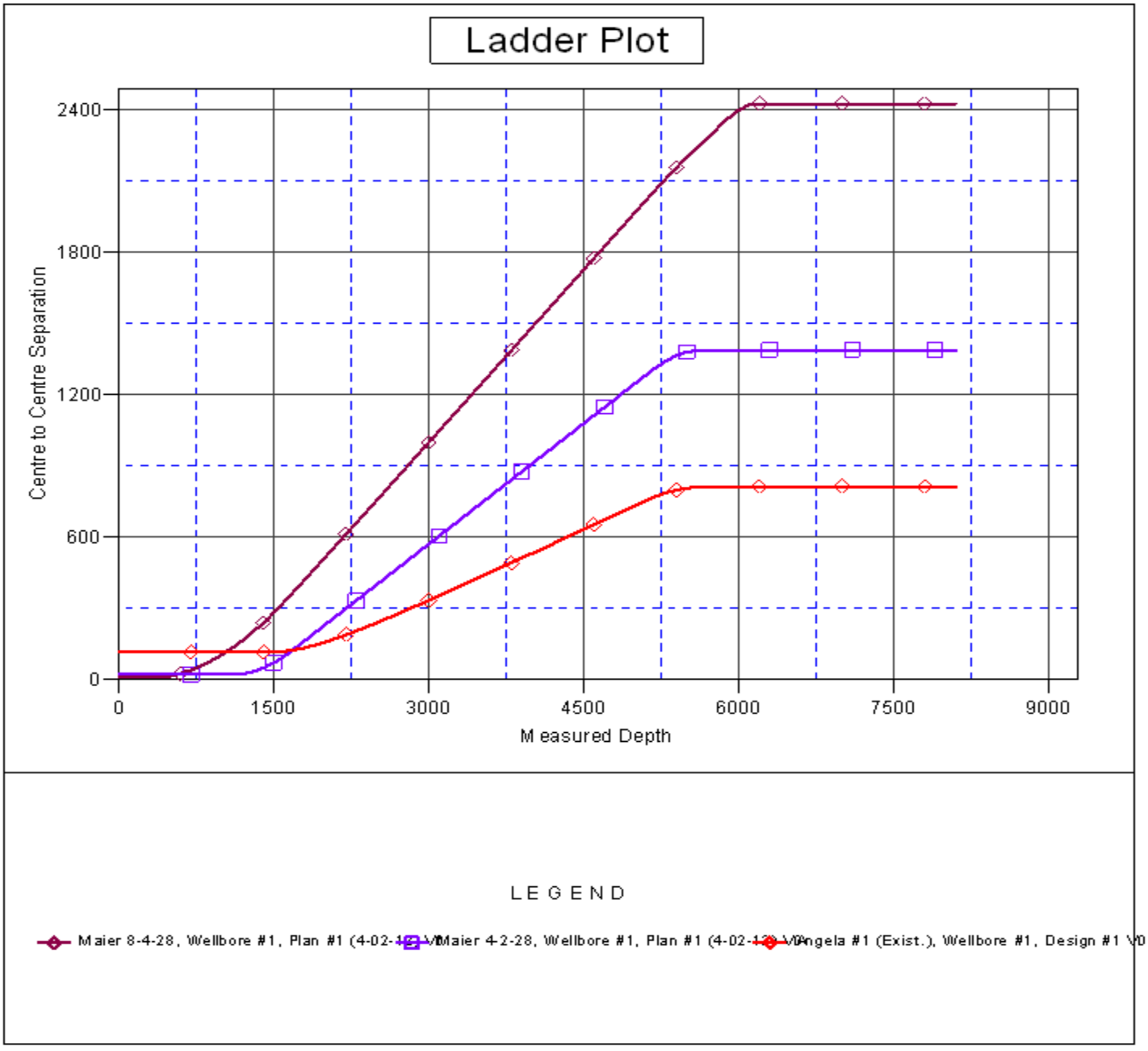
Reference Site:	Maier 31-28 Pad Sec.28-T2N-R66W	**MD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Maier 4-4-28	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (4-02-12)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4943.0ft (Original Well Elev) Coordinates are relative to: Maier 4-4-28
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.46°



Company:	EnCana Oil & Gas Weld County CO	**Local Co-ordinate Reference:**	Well Maier 4-4-28
Project:	SEC.28-T2N-R66W	**TVD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Reference Site:	Maier 31-28 Pad Sec.28-T2N-R66W	**MD Reference:**	WELL @ 4943.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Maier 4-4-28	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	Landmark
Reference Design:	Plan #1 (4-02-12)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4943.0ft (Original Well Elev) Coordinates are relative to: Maier 4-4-28
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.46°