

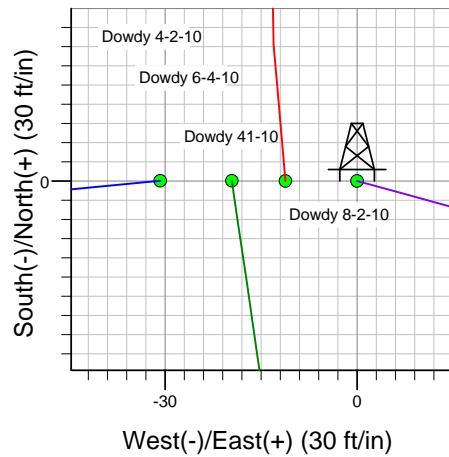
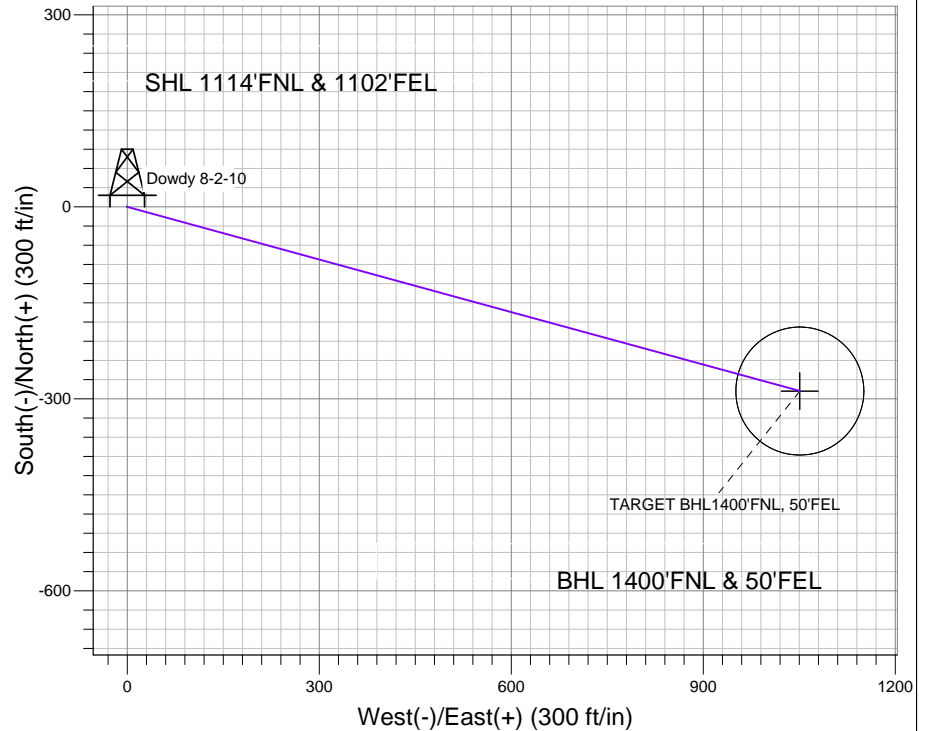
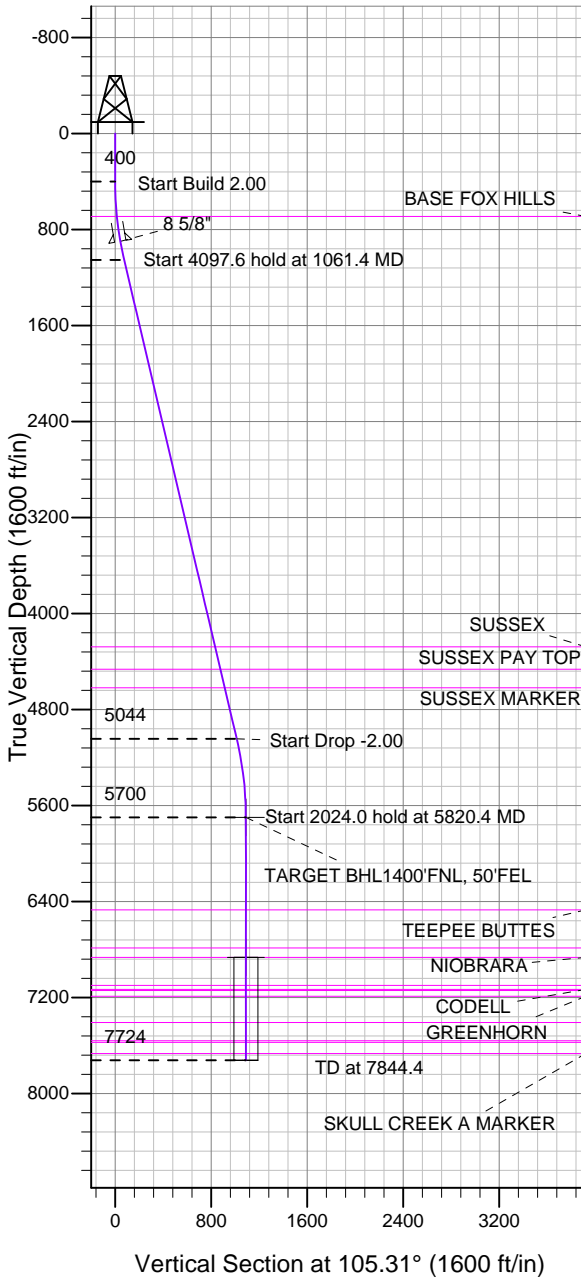
# ENSIGN

## Directional

### Well Name: Dowdy 8-2-10

Surface Location: Dowdy 4-2-10 Pad Sec.10-T2N-R65W  
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone  
 Ground Elevation: 4858.0  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 1301352.28 3239139.54 40.157440 -104.644410  
 Original Well Elev WELL @ 4870.0ft (Original Well Elev)

### EnCana Oil & Gas Weld County CO



Dowdy 4-2-10 Pad Sec.10-T2N-R65W  
 Dowdy 8-2-10  
 Plan #1 (7-09-12)  
 11:44, July 09 2012



Azimuths to True North  
 Magnetic North: 8.63°

Magnetic Field  
 Strength: 52904.1snT  
 Dip Angle: 66.84°  
 Date: 7/9/2012  
 Model: IGRF2010

### WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL1400'FNL, 50'FEL	5700.0	-287.7	1051.0	40.156650	-104.640650	Point
TARGET CIRCLE 1400'FNL & 50'FEL	6866.0	-287.7	1051.0	40.156650	-104.640650	Circle (Radius: 100.0)

### 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	400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.0	
3	1061.4	13.23	105.31	1055.5	-20.1	73.3	2.00	105.31	76.0	
4	5159.0	13.23	105.31	5044.5	-267.7	977.7	0.00	0.00	1013.7	
5	5820.4	0.00	0.00	5700.0	-287.7	1051.0	2.00	180.00	1089.7	TARGET BHL1400'FNL, 50'FEL
6	7844.4	0.00	0.00	7724.0	-287.7	1051.0	0.00	0.00	1089.7	



## **Directional**

### **EnCana Oil & Gas Weld County CO**

**SEC.10-T2N-R65W**

**Dowdy 4-2-10 Pad Sec.10-T2N-R65W**

**Dowdy 8-2-10**

**Wellbore #1**

**Plan: Plan #1 (7-09-12)**

### **Standard Planning Report**

**09 July, 2012**

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	
1,061.4	13.23	105.31	1,055.5	-20.1	73.3	2.00	2.00	0.00	105.31	
5,159.0	13.23	105.31	5,044.5	-267.7	977.7	0.00	0.00	0.00	0.00	
5,820.4	0.00	0.00	5,700.0	-287.7	1,051.0	2.00	-2.00	0.00	180.00	TARGET BHL1400'
7,844.4	0.00	0.00	7,724.0	-287.7	1,051.0	0.00	0.00	0.00	0.00	

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Dowdy 8-2-10
<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Project:</b>	SEC.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Dowdy 8-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (7-09-12)		

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	0.80	105.31	440.0	-0.1	0.3	0.3	2.00	2.00	0.00
480.0	1.60	105.31	480.0	-0.3	1.1	1.1	2.00	2.00	0.00
520.0	2.40	105.31	520.0	-0.7	2.4	2.5	2.00	2.00	0.00
560.0	3.20	105.31	559.9	-1.2	4.3	4.5	2.00	2.00	0.00
600.0	4.00	105.31	599.8	-1.8	6.7	7.0	2.00	2.00	0.00
640.0	4.80	105.31	639.7	-2.7	9.7	10.0	2.00	2.00	0.00
680.0	5.60	105.31	679.6	-3.6	13.2	13.7	2.00	2.00	0.00
691.5	5.83	105.31	691.0	-3.9	14.3	14.8	2.00	2.00	0.00
BASE FOX HILLS									
720.0	6.40	105.31	719.3	-4.7	17.2	17.9	2.00	2.00	0.00
760.0	7.20	105.31	759.1	-6.0	21.8	22.6	2.00	2.00	0.00
800.0	8.00	105.31	798.7	-7.4	26.9	27.9	2.00	2.00	0.00
840.0	8.80	105.31	838.3	-8.9	32.5	33.7	2.00	2.00	0.00
880.0	9.60	105.31	877.8	-10.6	38.7	40.1	2.00	2.00	0.00
902.6	10.05	105.31	900.0	-11.6	42.4	44.0	2.00	2.00	0.00
8 5/8"									
920.0	10.40	105.31	917.1	-12.4	45.4	47.1	2.00	2.00	0.00
960.0	11.20	105.31	956.4	-14.4	52.6	54.6	2.00	2.00	0.00
1,000.0	12.00	105.31	995.6	-16.5	60.4	62.6	2.00	2.00	0.00
1,040.0	12.80	105.31	1,034.7	-18.8	68.7	71.2	2.00	2.00	0.00
1,061.4	13.23	105.31	1,055.5	-20.1	73.3	76.0	2.00	2.00	0.00
1,080.0	13.23	105.31	1,073.6	-21.2	77.4	80.3	0.00	0.00	0.00
1,120.0	13.23	105.31	1,112.6	-23.6	86.2	89.4	0.00	0.00	0.00
1,160.0	13.23	105.31	1,151.5	-26.0	95.1	98.6	0.00	0.00	0.00
1,200.0	13.23	105.31	1,190.5	-28.4	103.9	107.7	0.00	0.00	0.00
1,240.0	13.23	105.31	1,229.4	-30.9	112.7	116.9	0.00	0.00	0.00
1,280.0	13.23	105.31	1,268.3	-33.3	121.6	126.0	0.00	0.00	0.00
1,320.0	13.23	105.31	1,307.3	-35.7	130.4	135.2	0.00	0.00	0.00
1,360.0	13.23	105.31	1,346.2	-38.1	139.2	144.3	0.00	0.00	0.00
1,400.0	13.23	105.31	1,385.2	-40.5	148.0	153.5	0.00	0.00	0.00
1,440.0	13.23	105.31	1,424.1	-42.9	156.9	162.6	0.00	0.00	0.00
1,480.0	13.23	105.31	1,463.0	-45.4	165.7	171.8	0.00	0.00	0.00
1,520.0	13.23	105.31	1,502.0	-47.8	174.5	181.0	0.00	0.00	0.00
1,560.0	13.23	105.31	1,540.9	-50.2	183.4	190.1	0.00	0.00	0.00
1,600.0	13.23	105.31	1,579.8	-52.6	192.2	199.3	0.00	0.00	0.00
1,640.0	13.23	105.31	1,618.8	-55.0	201.0	208.4	0.00	0.00	0.00
1,680.0	13.23	105.31	1,657.7	-57.4	209.8	217.6	0.00	0.00	0.00
1,720.0	13.23	105.31	1,696.7	-59.9	218.7	226.7	0.00	0.00	0.00
1,760.0	13.23	105.31	1,735.6	-62.3	227.5	235.9	0.00	0.00	0.00
1,800.0	13.23	105.31	1,774.5	-64.7	236.3	245.0	0.00	0.00	0.00
1,840.0	13.23	105.31	1,813.5	-67.1	245.2	254.2	0.00	0.00	0.00
1,880.0	13.23	105.31	1,852.4	-69.5	254.0	263.3	0.00	0.00	0.00
1,920.0	13.23	105.31	1,891.4	-72.0	262.8	272.5	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Dowdy 8-2-10
<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Project:</b>	SEC.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Dowdy 8-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (7-09-12)		

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)
1,960.0	13.23	105.31	1,930.3	-74.4	271.6	281.6	0.00	0.00	0.00
2,000.0	13.23	105.31	1,969.2	-76.8	280.5	290.8	0.00	0.00	0.00
2,040.0	13.23	105.31	2,008.2	-79.2	289.3	299.9	0.00	0.00	0.00
2,080.0	13.23	105.31	2,047.1	-81.6	298.1	309.1	0.00	0.00	0.00
2,120.0	13.23	105.31	2,086.1	-84.0	307.0	318.2	0.00	0.00	0.00
2,160.0	13.23	105.31	2,125.0	-86.5	315.8	327.4	0.00	0.00	0.00
2,200.0	13.23	105.31	2,163.9	-88.9	324.6	336.6	0.00	0.00	0.00
2,240.0	13.23	105.31	2,202.9	-91.3	333.4	345.7	0.00	0.00	0.00
2,280.0	13.23	105.31	2,241.8	-93.7	342.3	354.9	0.00	0.00	0.00
2,320.0	13.23	105.31	2,280.7	-96.1	351.1	364.0	0.00	0.00	0.00
2,360.0	13.23	105.31	2,319.7	-98.5	359.9	373.2	0.00	0.00	0.00
2,400.0	13.23	105.31	2,358.6	-101.0	368.8	382.3	0.00	0.00	0.00
2,440.0	13.23	105.31	2,397.6	-103.4	377.6	391.5	0.00	0.00	0.00
2,480.0	13.23	105.31	2,436.5	-105.8	386.4	400.6	0.00	0.00	0.00
2,520.0	13.23	105.31	2,475.4	-108.2	395.2	409.8	0.00	0.00	0.00
2,560.0	13.23	105.31	2,514.4	-110.6	404.1	418.9	0.00	0.00	0.00
2,600.0	13.23	105.31	2,553.3	-113.0	412.9	428.1	0.00	0.00	0.00
2,640.0	13.23	105.31	2,592.3	-115.5	421.7	437.2	0.00	0.00	0.00
2,680.0	13.23	105.31	2,631.2	-117.9	430.5	446.4	0.00	0.00	0.00
2,720.0	13.23	105.31	2,670.1	-120.3	439.4	455.5	0.00	0.00	0.00
2,760.0	13.23	105.31	2,709.1	-122.7	448.2	464.7	0.00	0.00	0.00
2,800.0	13.23	105.31	2,748.0	-125.1	457.0	473.9	0.00	0.00	0.00
2,840.0	13.23	105.31	2,786.9	-127.5	465.9	483.0	0.00	0.00	0.00
2,880.0	13.23	105.31	2,825.9	-130.0	474.7	492.2	0.00	0.00	0.00
2,920.0	13.23	105.31	2,864.8	-132.4	483.5	501.3	0.00	0.00	0.00
2,960.0	13.23	105.31	2,903.8	-134.8	492.3	510.5	0.00	0.00	0.00
3,000.0	13.23	105.31	2,942.7	-137.2	501.2	519.6	0.00	0.00	0.00
3,040.0	13.23	105.31	2,981.6	-139.6	510.0	528.8	0.00	0.00	0.00
3,080.0	13.23	105.31	3,020.6	-142.0	518.8	537.9	0.00	0.00	0.00
3,120.0	13.23	105.31	3,059.5	-144.5	527.7	547.1	0.00	0.00	0.00
3,160.0	13.23	105.31	3,098.5	-146.9	536.5	556.2	0.00	0.00	0.00
3,200.0	13.23	105.31	3,137.4	-149.3	545.3	565.4	0.00	0.00	0.00
3,240.0	13.23	105.31	3,176.3	-151.7	554.1	574.5	0.00	0.00	0.00
3,280.0	13.23	105.31	3,215.3	-154.1	563.0	583.7	0.00	0.00	0.00
3,320.0	13.23	105.31	3,254.2	-156.5	571.8	592.8	0.00	0.00	0.00
3,360.0	13.23	105.31	3,293.2	-159.0	580.6	602.0	0.00	0.00	0.00
3,400.0	13.23	105.31	3,332.1	-161.4	589.5	611.1	0.00	0.00	0.00
3,440.0	13.23	105.31	3,371.0	-163.8	598.3	620.3	0.00	0.00	0.00
3,480.0	13.23	105.31	3,410.0	-166.2	607.1	629.5	0.00	0.00	0.00
3,520.0	13.23	105.31	3,448.9	-168.6	615.9	638.6	0.00	0.00	0.00
3,560.0	13.23	105.31	3,487.8	-171.0	624.8	647.8	0.00	0.00	0.00
3,600.0	13.23	105.31	3,526.8	-173.5	633.6	656.9	0.00	0.00	0.00
3,640.0	13.23	105.31	3,565.7	-175.9	642.4	666.1	0.00	0.00	0.00
3,680.0	13.23	105.31	3,604.7	-178.3	651.3	675.2	0.00	0.00	0.00
3,720.0	13.23	105.31	3,643.6	-180.7	660.1	684.4	0.00	0.00	0.00
3,760.0	13.23	105.31	3,682.5	-183.1	668.9	693.5	0.00	0.00	0.00
3,800.0	13.23	105.31	3,721.5	-185.5	677.7	702.7	0.00	0.00	0.00
3,840.0	13.23	105.31	3,760.4	-188.0	686.6	711.8	0.00	0.00	0.00
3,880.0	13.23	105.31	3,799.4	-190.4	695.4	721.0	0.00	0.00	0.00
3,920.0	13.23	105.31	3,838.3	-192.8	704.2	730.1	0.00	0.00	0.00
3,960.0	13.23	105.31	3,877.2	-195.2	713.1	739.3	0.00	0.00	0.00
4,000.0	13.23	105.31	3,916.2	-197.6	721.9	748.4	0.00	0.00	0.00
4,040.0	13.23	105.31	3,955.1	-200.1	730.7	757.6	0.00	0.00	0.00
4,080.0	13.23	105.31	3,994.0	-202.5	739.5	766.8	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Dowdy 8-2-10
<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Project:</b>	SEC.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Dowdy 8-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (7-09-12)		

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)
4,120.0	13.23	105.31	4,033.0	-204.9	748.4	775.9	0.00	0.00	0.00
4,160.0	13.23	105.31	4,071.9	-207.3	757.2	785.1	0.00	0.00	0.00
4,200.0	13.23	105.31	4,110.9	-209.7	766.0	794.2	0.00	0.00	0.00
4,240.0	13.23	105.31	4,149.8	-212.1	774.9	803.4	0.00	0.00	0.00
4,280.0	13.23	105.31	4,188.7	-214.6	783.7	812.5	0.00	0.00	0.00
4,320.0	13.23	105.31	4,227.7	-217.0	792.5	821.7	0.00	0.00	0.00
4,360.0	13.23	105.31	4,266.6	-219.4	801.3	830.8	0.00	0.00	0.00
4,372.7	13.23	105.31	4,279.0	-220.2	804.1	833.7	0.00	0.00	0.00
<b>SUSSEX</b>									
4,400.0	13.23	105.31	4,305.6	-221.8	810.2	840.0	0.00	0.00	0.00
4,440.0	13.23	105.31	4,344.5	-224.2	819.0	849.1	0.00	0.00	0.00
4,480.0	13.23	105.31	4,383.4	-226.6	827.8	858.3	0.00	0.00	0.00
4,520.0	13.23	105.31	4,422.4	-229.1	836.6	867.4	0.00	0.00	0.00
4,560.0	13.23	105.31	4,461.3	-231.5	845.5	876.6	0.00	0.00	0.00
4,562.8	13.23	105.31	4,464.0	-231.6	846.1	877.2	0.00	0.00	0.00
<b>SUSSEX PAY TOP</b>									
4,600.0	13.23	105.31	4,500.2	-233.9	854.3	885.7	0.00	0.00	0.00
4,640.0	13.23	105.31	4,539.2	-236.3	863.1	894.9	0.00	0.00	0.00
4,680.0	13.23	105.31	4,578.1	-238.7	872.0	904.1	0.00	0.00	0.00
4,720.0	13.23	105.31	4,617.1	-241.1	880.8	913.2	0.00	0.00	0.00
4,723.0	13.23	105.31	4,620.0	-241.3	881.5	913.9	0.00	0.00	0.00
<b>SUSSEX MARKER</b>									
4,760.0	13.23	105.31	4,656.0	-243.6	889.6	922.4	0.00	0.00	0.00
4,800.0	13.23	105.31	4,694.9	-246.0	898.4	931.5	0.00	0.00	0.00
4,840.0	13.23	105.31	4,733.9	-248.4	907.3	940.7	0.00	0.00	0.00
4,880.0	13.23	105.31	4,772.8	-250.8	916.1	949.8	0.00	0.00	0.00
4,920.0	13.23	105.31	4,811.8	-253.2	924.9	959.0	0.00	0.00	0.00
4,960.0	13.23	105.31	4,850.7	-255.6	933.8	968.1	0.00	0.00	0.00
5,000.0	13.23	105.31	4,889.6	-258.1	942.6	977.3	0.00	0.00	0.00
5,040.0	13.23	105.31	4,928.6	-260.5	951.4	986.4	0.00	0.00	0.00
5,080.0	13.23	105.31	4,967.5	-262.9	960.2	995.6	0.00	0.00	0.00
5,120.0	13.23	105.31	5,006.5	-265.3	969.1	1,004.7	0.00	0.00	0.00
5,159.0	13.23	105.31	5,044.5	-267.7	977.7	1,013.7	0.00	0.00	0.00
5,160.0	13.21	105.31	5,045.4	-267.7	977.9	1,013.9	2.00	-2.00	0.00
5,200.0	12.41	105.31	5,084.4	-270.1	986.5	1,022.8	2.00	-2.00	0.00
5,240.0	11.61	105.31	5,123.5	-272.3	994.5	1,031.1	2.00	-2.00	0.00
5,280.0	10.81	105.31	5,162.8	-274.3	1,002.0	1,038.9	2.00	-2.00	0.00
5,320.0	10.01	105.31	5,202.1	-276.2	1,009.0	1,046.1	2.00	-2.00	0.00
5,360.0	9.21	105.31	5,241.5	-278.0	1,015.4	1,052.8	2.00	-2.00	0.00
5,400.0	8.41	105.31	5,281.1	-279.6	1,021.3	1,058.9	2.00	-2.00	0.00
5,440.0	7.61	105.31	5,320.7	-281.1	1,026.7	1,064.5	2.00	-2.00	0.00
5,480.0	6.81	105.31	5,360.4	-282.4	1,031.5	1,069.5	2.00	-2.00	0.00
5,520.0	6.01	105.31	5,400.1	-283.6	1,035.8	1,073.9	2.00	-2.00	0.00
5,560.0	5.21	105.31	5,439.9	-284.6	1,039.6	1,077.8	2.00	-2.00	0.00
5,600.0	4.41	105.31	5,479.8	-285.5	1,042.8	1,081.2	2.00	-2.00	0.00
5,640.0	3.61	105.31	5,519.7	-286.2	1,045.5	1,084.0	2.00	-2.00	0.00
5,680.0	2.81	105.31	5,559.6	-286.8	1,047.7	1,086.2	2.00	-2.00	0.00
5,720.0	2.01	105.31	5,599.6	-287.3	1,049.3	1,087.9	2.00	-2.00	0.00
5,760.0	1.21	105.31	5,639.6	-287.6	1,050.4	1,089.0	2.00	-2.00	0.00
5,800.0	0.41	105.31	5,679.6	-287.7	1,050.9	1,089.6	2.00	-2.00	0.00
5,820.4	0.00	0.00	5,700.0	-287.7	1,051.0	1,089.7	2.00	-2.00	0.00
5,840.0	0.00	0.00	5,719.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
5,880.0	0.00	0.00	5,759.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Dowdy 8-2-10
<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Project:</b>	SEC.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Dowdy 8-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (7-09-12)		

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)
5,920.0	0.00	0.00	5,799.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
5,960.0	0.00	0.00	5,839.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,879.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,040.0	0.00	0.00	5,919.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,080.0	0.00	0.00	5,959.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,120.0	0.00	0.00	5,999.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,160.0	0.00	0.00	6,039.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,200.0	0.00	0.00	6,079.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,240.0	0.00	0.00	6,119.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,280.0	0.00	0.00	6,159.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,320.0	0.00	0.00	6,199.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,360.0	0.00	0.00	6,239.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,400.0	0.00	0.00	6,279.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,440.0	0.00	0.00	6,319.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,480.0	0.00	0.00	6,359.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,520.0	0.00	0.00	6,399.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,560.0	0.00	0.00	6,439.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,590.4	0.00	0.00	6,470.0	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
<b>TEEPEE BUTTES</b>									
6,600.0	0.00	0.00	6,479.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,640.0	0.00	0.00	6,519.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,680.0	0.00	0.00	6,559.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,720.0	0.00	0.00	6,599.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,760.0	0.00	0.00	6,639.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,800.0	0.00	0.00	6,679.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,840.0	0.00	0.00	6,719.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,880.0	0.00	0.00	6,759.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,908.4	0.00	0.00	6,788.0	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
<b>SHARON SPRINGS</b>									
6,920.0	0.00	0.00	6,799.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,960.0	0.00	0.00	6,839.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
6,986.4	0.00	0.00	6,866.0	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
<b>NIOBRARA</b>									
7,000.0	0.00	0.00	6,879.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,040.0	0.00	0.00	6,919.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,080.0	0.00	0.00	6,959.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,120.0	0.00	0.00	6,999.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,160.0	0.00	0.00	7,039.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,200.0	0.00	0.00	7,079.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,219.4	0.00	0.00	7,099.0	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
<b>FT. HAYES</b>									
7,240.0	0.00	0.00	7,119.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,253.4	0.00	0.00	7,133.0	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
<b>CODELL</b>									
7,262.4	0.00	0.00	7,142.0	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
<b>FAIRPORT</b>									
7,280.0	0.00	0.00	7,159.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,311.4	0.00	0.00	7,191.0	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
<b>GREENHORN</b>									
7,320.0	0.00	0.00	7,199.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,360.0	0.00	0.00	7,239.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,400.0	0.00	0.00	7,279.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,440.0	0.00	0.00	7,319.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Dowdy 8-2-10
<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Project:</b>	SEC.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Dowdy 8-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (7-09-12)		

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)
7,480.0	0.00	0.00	7,359.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,520.0	0.00	0.00	7,399.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,528.4	0.00	0.00	7,408.0	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
<b>GRANEROS</b>									
7,560.0	0.00	0.00	7,439.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,600.0	0.00	0.00	7,479.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,640.0	0.00	0.00	7,519.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,680.0	0.00	0.00	7,559.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,680.4	0.00	0.00	7,560.0	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
<b>MOWRY</b>									
7,694.4	0.00	0.00	7,574.0	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
<b>J-SAND</b>									
7,720.0	0.00	0.00	7,599.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,760.0	0.00	0.00	7,639.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,787.4	0.00	0.00	7,667.0	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
<b>SKULL CREEK A MARKER</b>									
7,800.0	0.00	0.00	7,679.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,840.0	0.00	0.00	7,719.6	-287.7	1,051.0	1,089.7	0.00	0.00	0.00
7,844.4	0.00	0.00	7,724.0	-287.7	1,051.0	1,089.7	0.00	0.00	0.00

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
902.6	900.0	8 5/8"	8-5/8	12-1/4

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
691.5	691.0	BASE FOX HILLS		0.00	
4,372.7	4,279.0	SUSSEX		0.00	
4,562.8	4,464.0	SUSSEX PAY TOP		0.00	
4,723.0	4,620.0	SUSSEX MARKER		0.00	
6,590.4	6,470.0	TEEPEE BUTTES		0.00	
6,908.4	6,788.0	SHARON SPRINGS		0.00	
6,986.4	6,866.0	NIOBRARA		0.00	
7,219.4	7,099.0	FT. HAYES		0.00	
7,253.4	7,133.0	CODELL		0.00	
7,262.4	7,142.0	FAIRPORT		0.00	
7,311.4	7,191.0	GREENHORN		0.00	
7,528.4	7,408.0	GRANEROS		0.00	
7,680.4	7,560.0	MOWRY		0.00	
7,694.4	7,574.0	J-SAND		0.00	
7,787.4	7,667.0	SKULL CREEK A MARKER		0.00	





## **Directional**

### **EnCana Oil & Gas Weld County CO**

**SEC.10-T2N-R65W**

**Dowdy 4-2-10 Pad Sec.10-T2N-R65W**

**Dowdy 8-2-10**

**Wellbore #1**

**Plan #1 (7-09-12)**

### **Anticollision Report**

**09 July, 2012**

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Dowdy 8-2-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 8-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (7-09-12)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #1 (7-09-12)		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b> 7/9/2012			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	7,844.4	Plan #1 (7-09-12) (Wellbore #1)	MWD	MWD - Standard

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (ft)</b>	<b>Offset Measured Depth (ft)</b>	<b>Distance Between Centres (ft)</b>	<b>Distance Between Ellipses (ft)</b>	<b>Separation Factor</b>	<b>Warning</b>
<b>Offset Well - Wellbore - Design</b>						
Dowdy 4-2-10 Pad Sec.10-T2N-R65W						
Dowdy #1 (Exist.) - Wellbore #1 - Wellbore #1	960.7	956.1	75.4	54.1	3.531	CC
Dowdy #1 (Exist.) - Wellbore #1 - Wellbore #1	1,000.0	994.6	75.8	53.6	3.406	ES
Dowdy #1 (Exist.) - Wellbore #1 - Wellbore #1	1,061.4	1,054.5	78.4	54.7	3.314	SF
Dowdy 41-10 - Wellbore #1 - Plan #1 (7-09-12)	200.0	200.0	11.2	10.5	16.581	CC
Dowdy 41-10 - Wellbore #1 - Plan #1 (7-09-12)	300.0	299.9	11.5	10.3	10.179	ES
Dowdy 41-10 - Wellbore #1 - Plan #1 (7-09-12)	400.0	399.6	13.7	12.1	8.624	SF
Dowdy 42-10 (Exist.) - Wellbore #1 - Wellbore #1	3,328.9	3,261.9	532.1	453.1	6.740	CC
Dowdy 42-10 (Exist.) - Wellbore #1 - Wellbore #1	3,600.0	3,525.8	535.7	450.2	6.264	ES
Dowdy 42-10 (Exist.) - Wellbore #1 - Wellbore #1	7,844.4	7,723.0	726.6	548.8	4.088	SF

<b>Offset Design</b>												
Dowdy 4-2-10 Pad Sec.10-T2N-R65W - Dowdy #1 (Exist.) - Wellbore #1 - Wellbore #1												
Survey Program: 7800-UNKNOWN												
<b>Reference</b>		<b>Offset</b>		<b>Semi Major Axis</b>		<b>Distance</b>						
<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Reference (ft)</b>	<b>Offset (ft)</b>	<b>Highside Toolface (°)</b>	<b>Offset Wellbore Centre +N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Between Centres (ft)</b>	<b>Between Ellipses (ft)</b>	<b>Minimum Separation (ft)</b>	<b>Separation Factor</b>
0.0	0.0	0.0	0.0	0.0	0.0	51.26	58.3	72.7	93.2			
100.0	100.0	99.0	99.0	0.1	2.0	51.26	58.3	72.7	93.2	91.1	2.09	44.527
200.0	200.0	199.0	199.0	0.3	4.0	51.26	58.3	72.7	93.2	88.9	4.32	21.582
300.0	300.0	299.0	299.0	0.6	6.0	51.26	58.3	72.7	93.2	86.6	6.54	14.243
400.0	400.0	399.0	399.0	0.8	8.0	51.26	58.3	72.7	93.2	84.4	8.77	10.628
500.0	500.0	499.0	499.0	1.0	10.0	-54.95	58.3	72.7	92.2	81.2	10.97	8.399
600.0	599.8	598.8	598.8	1.2	12.0	-57.75	58.3	72.7	89.3	76.1	13.17	6.777
700.0	699.5	698.5	698.5	1.4	14.0	-62.79	58.3	72.7	84.9	69.5	15.39	5.519
800.0	798.7	797.7	797.7	1.7	16.0	-70.61	58.3	72.7	80.1	62.4	17.64	4.539
900.0	897.5	896.5	896.5	2.0	17.9	-81.70	58.3	72.7	76.3	56.3	19.94	3.824
960.7	957.1	956.1	956.1	2.2	19.1	-90.00	58.3	72.7	75.4	54.1	21.36	3.531 CC
1,000.0	995.6	994.6	994.6	2.4	19.9	-95.85	58.3	72.7	75.8	53.6	22.27	3.406 ES
1,061.4	1,055.5	1,054.5	1,054.5	2.6	21.1	-105.38	58.3	72.7	78.4	54.7	23.66	3.314 SF
1,100.0	1,093.1	1,092.1	1,092.1	2.8	21.8	-111.26	58.3	72.7	81.2	56.7	24.50	3.315
1,200.0	1,190.5	1,189.5	1,189.5	3.3	23.8	-124.39	58.3	72.7	92.2	65.6	26.62	3.463
1,300.0	1,287.8	1,286.8	1,286.8	3.7	25.7	-134.41	58.3	72.7	107.0	78.3	28.69	3.730
1,400.0	1,385.2	1,384.2	1,384.2	4.2	27.7	-141.89	58.3	72.7	124.3	93.6	30.75	4.042
1,500.0	1,482.5	1,481.5	1,481.5	4.7	29.6	-147.51	58.3	72.7	143.2	110.3	32.82	4.362

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

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Dowdy 8-2-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 8-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (7-09-12)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 7800-UNKNOWN												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
1,600.0	1,579.8	1,578.8	1,578.8	5.1	31.6	-151.81	58.3	72.7	163.1	128.2	34.90	4.672	
1,700.0	1,677.2	1,676.2	1,676.2	5.6	33.5	-155.17	58.3	72.7	183.7	146.6	37.00	4.963	
1,800.0	1,774.5	1,773.5	1,773.5	6.1	35.5	-157.85	58.3	72.7	204.7	165.6	39.11	5.234	
1,900.0	1,871.9	1,870.9	1,870.9	6.6	37.4	-160.03	58.3	72.7	226.2	184.9	41.23	5.485	
2,000.0	1,969.2	1,968.2	1,968.2	7.1	39.4	-161.83	58.3	72.7	247.8	204.5	43.36	5.716	
2,100.0	2,066.6	2,065.6	2,065.6	7.6	41.3	-163.34	58.3	72.7	269.7	224.2	45.50	5.929	
2,200.0	2,163.9	2,162.9	2,162.9	8.1	43.3	-164.63	58.3	72.7	291.8	244.1	47.64	6.125	
2,300.0	2,261.3	2,260.3	2,260.3	8.6	45.2	-165.73	58.3	72.7	313.9	264.2	49.78	6.306	
2,400.0	2,358.6	2,357.6	2,357.6	9.1	47.2	-166.69	58.3	72.7	336.2	284.3	51.93	6.474	
2,500.0	2,456.0	2,455.0	2,455.0	9.6	49.1	-167.53	58.3	72.7	358.5	304.5	54.08	6.629	
2,600.0	2,553.3	2,552.3	2,552.3	10.1	51.0	-168.28	58.3	72.7	380.9	324.7	56.23	6.774	
2,700.0	2,650.7	2,649.7	2,649.7	10.6	53.0	-168.94	58.3	72.7	403.4	345.0	58.39	6.909	
2,800.0	2,748.0	2,747.0	2,747.0	11.1	54.9	-169.53	58.3	72.7	425.9	365.3	60.55	7.034	
2,900.0	2,845.4	2,844.4	2,844.4	11.6	56.9	-170.06	58.3	72.7	448.4	385.7	62.71	7.151	
3,000.0	2,942.7	2,941.7	2,941.7	12.1	58.8	-170.54	58.3	72.7	471.0	406.1	64.87	7.261	
3,100.0	3,040.0	3,039.0	3,039.0	12.6	60.8	-170.97	58.3	72.7	493.6	426.6	67.03	7.364	
3,200.0	3,137.4	3,136.4	3,136.4	13.1	62.7	-171.37	58.3	72.7	516.2	447.0	69.19	7.461	
3,300.0	3,234.7	3,233.7	3,233.7	13.6	64.7	-171.74	58.3	72.7	538.9	467.5	71.35	7.553	
3,400.0	3,332.1	3,331.1	3,331.1	14.1	66.6	-172.07	58.3	72.7	561.5	488.0	73.51	7.639	
3,500.0	3,429.4	3,428.4	3,428.4	14.6	68.6	-172.38	58.3	72.7	584.2	508.5	75.68	7.720	
3,600.0	3,526.8	3,525.8	3,525.8	15.1	70.5	-172.67	58.3	72.7	606.9	529.1	77.84	7.797	
3,700.0	3,624.1	3,623.1	3,623.1	15.6	72.5	-172.93	58.3	72.7	629.6	549.6	80.01	7.870	
3,800.0	3,721.5	3,720.5	3,720.5	16.1	74.4	-173.18	58.3	72.7	652.4	570.2	82.17	7.939	
3,900.0	3,818.8	3,817.8	3,817.8	16.6	76.4	-173.41	58.3	72.7	675.1	590.8	84.34	8.004	
4,000.0	3,916.2	3,915.2	3,915.2	17.1	78.3	-173.63	58.3	72.7	697.8	611.3	86.51	8.067	
4,100.0	4,013.5	4,012.5	4,012.5	17.6	80.3	-173.83	58.3	72.7	720.6	631.9	88.67	8.126	
4,200.0	4,110.9	4,109.9	4,109.9	18.1	82.2	-174.02	58.3	72.7	743.4	652.5	90.84	8.183	
4,300.0	4,208.2	4,207.2	4,207.2	18.6	84.1	-174.20	58.3	72.7	766.1	673.1	93.01	8.237	
4,400.0	4,305.6	4,304.6	4,304.6	19.1	86.1	-174.36	58.3	72.7	788.9	693.7	95.18	8.289	
4,500.0	4,402.9	4,401.9	4,401.9	19.6	88.0	-174.52	58.3	72.7	811.7	714.3	97.35	8.338	
4,600.0	4,500.2	4,499.2	4,499.2	20.1	90.0	-174.67	58.3	72.7	834.5	734.9	99.51	8.385	
4,700.0	4,597.6	4,596.6	4,596.6	20.6	91.9	-174.81	58.3	72.7	857.3	755.6	101.68	8.431	
4,800.0	4,694.9	4,693.9	4,693.9	21.1	93.9	-174.95	58.3	72.7	880.1	776.2	103.85	8.474	
4,900.0	4,792.3	4,791.3	4,791.3	21.6	95.8	-175.08	58.3	72.7	902.9	796.8	106.02	8.516	
5,000.0	4,889.6	4,888.6	4,888.6	22.1	97.8	-175.20	58.3	72.7	925.7	817.5	108.19	8.556	
5,100.0	4,987.0	4,986.0	4,986.0	22.6	99.7	-175.31	58.3	72.7	948.5	838.1	110.36	8.594	
5,159.0	5,044.5	5,043.5	5,043.5	22.9	100.9	-175.38	58.3	72.7	961.9	850.3	111.64	8.616	
5,200.0	5,084.4	5,083.4	5,083.4	23.0	101.7	-175.44	58.3	72.7	971.0	858.1	112.84	8.605	
5,300.0	5,182.4	5,181.4	5,181.4	23.4	103.6	-175.56	58.3	72.7	990.7	875.0	115.69	8.564	
5,400.0	5,281.1	5,280.1	5,280.1	23.7	105.6	-175.66	58.3	72.7	1,007.0	888.6	118.42	8.504	
5,500.0	5,380.2	5,379.2	5,379.2	23.9	107.6	-175.73	58.3	72.7	1,019.9	898.8	121.03	8.427	
5,600.0	5,479.8	5,478.8	5,478.8	24.1	109.6	-175.78	58.3	72.7	1,029.3	905.8	123.50	8.334	
5,700.0	5,579.6	5,578.6	5,578.6	24.3	111.6	-175.82	58.3	72.7	1,035.2	909.4	125.83	8.227	
5,800.0	5,679.6	5,678.6	5,678.6	24.4	113.6	-175.83	58.3	72.7	1,037.7	909.6	128.01	8.106	
5,820.4	5,700.0	5,699.0	5,699.0	24.4	114.0	-70.52	58.3	72.7	1,037.7	909.3	128.44	8.080	
5,900.0	5,779.6	5,778.6	5,778.6	24.5	115.6	-70.52	58.3	72.7	1,037.7	907.6	130.16	7.973	
6,000.0	5,879.6	5,878.6	5,878.6	24.6	117.6	-70.52	58.3	72.7	1,037.7	905.4	132.33	7.842	
6,100.0	5,979.6	5,978.6	5,978.6	24.7	119.6	-70.52	58.3	72.7	1,037.7	903.2	134.50	7.716	
6,200.0	6,079.6	6,078.6	6,078.6	24.8	121.6	-70.52	58.3	72.7	1,037.7	901.1	136.67	7.593	
6,300.0	6,179.6	6,178.6	6,178.6	24.9	123.6	-70.52	58.3	72.7	1,037.7	898.9	138.84	7.474	
6,400.0	6,279.6	6,278.6	6,278.6	25.1	125.6	-70.52	58.3	72.7	1,037.7	896.7	141.01	7.359	
6,500.0	6,379.6	6,378.6	6,378.6	25.2	127.6	-70.52	58.3	72.7	1,037.7	894.5	143.18	7.248	

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

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Dowdy 8-2-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 8-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (7-09-12)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Dowdy 4-2-10 Pad Sec.10-T2N-R65W - Dowdy #1 (Exist.) - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 7800-UNKNOWN												<b>Offset Well Error:</b>	0.0 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
6,600.0	6,479.6	6,478.6	6,478.6	25.3	129.6	-70.52	58.3	72.7	1,037.7	892.4	145.36	7.139	
6,700.0	6,579.6	6,578.6	6,578.6	25.4	131.6	-70.52	58.3	72.7	1,037.7	890.2	147.54	7.034	
6,800.0	6,679.6	6,678.6	6,678.6	25.5	133.6	-70.52	58.3	72.7	1,037.7	888.0	149.71	6.931	
6,900.0	6,779.6	6,778.6	6,778.6	25.6	135.6	-70.52	58.3	72.7	1,037.7	885.8	151.89	6.832	
7,000.0	6,879.6	6,878.6	6,878.6	25.8	137.6	-70.52	58.3	72.7	1,037.7	883.7	154.07	6.735	
7,100.0	6,979.6	6,978.6	6,978.6	25.9	139.6	-70.52	58.3	72.7	1,037.7	881.5	156.25	6.641	
7,200.0	7,079.6	7,078.6	7,078.6	26.0	141.6	-70.52	58.3	72.7	1,037.7	879.3	158.44	6.550	
7,300.0	7,179.6	7,178.6	7,178.6	26.1	143.6	-70.52	58.3	72.7	1,037.7	877.1	160.62	6.461	
7,400.0	7,279.6	7,278.6	7,278.6	26.3	145.6	-70.52	58.3	72.7	1,037.7	874.9	162.80	6.374	
7,500.0	7,379.6	7,378.6	7,378.6	26.4	147.6	-70.52	58.3	72.7	1,037.7	872.7	164.99	6.290	
7,600.0	7,479.6	7,478.6	7,478.6	26.5	149.6	-70.52	58.3	72.7	1,037.7	870.6	167.17	6.207	
7,700.0	7,579.6	7,578.6	7,578.6	26.7	151.6	-70.52	58.3	72.7	1,037.7	868.4	169.36	6.127	
7,800.0	7,679.6	7,678.6	7,678.6	26.8	153.6	-70.52	58.3	72.7	1,037.7	866.2	171.55	6.049	
7,844.4	7,724.0	7,723.0	7,723.0	26.8	154.5	-70.52	58.3	72.7	1,037.7	865.2	172.52	6.015	

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Dowdy 8-2-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 8-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (7-09-12)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.98	0.0	-11.2	11.2	11.2	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	-89.98	0.0	-11.2	11.2	11.0	0.22	49.744		
200.0	200.0	200.0	200.0	0.3	0.3	-89.98	0.0	-11.2	11.2	10.5	0.67	16.581 CC		
300.0	300.0	299.9	299.9	0.6	0.6	-81.27	1.7	-11.3	11.5	10.3	1.13	10.179 ES		
400.0	400.0	399.6	399.4	0.8	0.8	-59.55	6.9	-11.8	13.7	12.1	1.59	8.624 SF		
500.0	500.0	498.7	498.2	1.0	1.0	-146.89	15.5	-12.5	21.5	19.4	2.05	10.492		
600.0	599.8	597.5	596.3	1.2	1.3	-139.46	27.1	-13.2	35.3	32.8	2.50	14.099		
700.0	699.5	696.8	694.7	1.4	1.6	-135.42	39.8	-10.9	51.3	48.3	2.96	17.345		
800.0	798.7	795.9	792.7	1.7	1.9	-132.56	53.1	-5.3	68.7	65.3	3.45	19.917		
900.0	897.5	894.6	890.1	2.0	2.2	-130.34	66.9	3.6	87.6	83.6	4.00	21.895		
1,000.0	995.6	992.4	986.4	2.4	2.6	-129.68	80.7	13.4	108.4	103.8	4.61	23.519		
1,061.4	1,055.5	1,052.2	1,045.3	2.6	2.8	-129.95	89.2	19.4	122.3	117.3	5.01	24.423		
1,100.0	1,093.1	1,089.8	1,082.3	2.8	2.9	-130.35	94.5	23.2	131.2	126.0	5.26	24.928		
1,200.0	1,190.5	1,187.0	1,178.0	3.3	3.3	-131.16	108.3	33.0	154.5	148.6	5.95	25.973		
1,300.0	1,287.8	1,284.2	1,273.8	3.7	3.6	-131.76	122.1	42.7	177.9	171.2	6.65	26.737		
1,400.0	1,385.2	1,381.4	1,369.5	4.2	4.0	-132.23	135.8	52.5	201.2	193.8	7.36	27.326		
1,500.0	1,482.5	1,478.7	1,465.3	4.7	4.4	-132.59	149.6	62.3	224.5	216.4	8.08	27.784		
1,600.0	1,579.8	1,575.9	1,561.0	5.1	4.7	-132.89	163.4	72.0	247.9	239.1	8.81	28.148		
1,700.0	1,677.2	1,673.1	1,656.8	5.6	5.1	-133.13	177.1	81.8	271.2	261.7	9.54	28.445		
1,800.0	1,774.5	1,770.4	1,752.5	6.1	5.5	-133.34	190.9	91.6	294.6	284.3	10.27	28.689		
1,900.0	1,871.9	1,867.6	1,848.3	6.6	5.9	-133.52	204.7	101.3	317.9	306.9	11.00	28.894		
2,000.0	1,969.2	1,964.8	1,944.0	7.1	6.2	-133.67	218.5	111.1	341.3	329.6	11.74	29.068		
2,100.0	2,066.6	2,062.0	2,039.8	7.6	6.6	-133.80	232.2	120.9	364.7	352.2	12.48	29.218		
2,200.0	2,163.9	2,159.3	2,135.5	8.1	7.0	-133.92	246.0	130.6	388.0	374.8	13.22	29.347		
2,300.0	2,261.3	2,256.5	2,231.3	8.6	7.4	-134.02	259.8	140.4	411.4	397.4	13.97	29.460		
2,400.0	2,358.6	2,353.7	2,327.0	9.1	7.7	-134.11	273.6	150.2	434.8	420.1	14.71	29.559		
2,500.0	2,456.0	2,451.0	2,422.8	9.6	8.1	-134.20	287.3	160.0	458.2	442.7	15.45	29.647		
2,600.0	2,553.3	2,548.2	2,518.5	10.1	8.5	-134.27	301.1	169.7	481.5	465.3	16.20	29.726		
2,700.0	2,650.7	2,645.4	2,614.3	10.6	8.9	-134.34	314.9	179.5	504.9	488.0	16.94	29.796		
2,800.0	2,748.0	2,742.6	2,710.0	11.1	9.3	-134.40	328.7	189.3	528.3	510.6	17.69	29.860		
2,900.0	2,845.4	2,839.9	2,805.8	11.6	9.6	-134.46	342.4	199.0	551.6	533.2	18.44	29.917		
3,000.0	2,942.7	2,937.1	2,901.5	12.1	10.0	-134.51	356.2	208.8	575.0	555.8	19.19	29.970		
3,100.0	3,040.0	3,034.3	2,997.3	12.6	10.4	-134.56	370.0	218.6	598.4	578.5	19.93	30.017		
3,200.0	3,137.4	3,131.6	3,093.1	13.1	10.8	-134.60	383.8	228.3	621.8	601.1	20.68	30.061		
3,300.0	3,234.7	3,228.8	3,188.8	13.6	11.1	-134.64	397.5	238.1	645.1	623.7	21.43	30.101		
3,400.0	3,332.1	3,326.0	3,284.6	14.1	11.5	-134.68	411.3	247.9	668.5	646.3	22.18	30.138		
3,500.0	3,429.4	3,423.2	3,380.3	14.6	11.9	-134.72	425.1	257.7	691.9	669.0	22.93	30.172		
3,600.0	3,526.8	3,520.5	3,476.1	15.1	12.3	-134.75	438.9	267.4	715.3	691.6	23.68	30.204		
3,700.0	3,624.1	3,617.7	3,571.8	15.6	12.7	-134.78	452.6	277.2	738.6	714.2	24.43	30.234		
3,800.0	3,721.5	3,714.9	3,667.6	16.1	13.0	-134.81	466.4	287.0	762.0	736.8	25.18	30.261		
3,900.0	3,818.8	3,812.2	3,763.3	16.6	13.4	-134.84	480.2	296.7	785.4	759.5	25.93	30.287		
4,000.0	3,916.2	3,909.4	3,859.1	17.1	13.8	-134.86	494.0	306.5	808.8	782.1	26.68	30.311		
4,100.0	4,013.5	4,006.6	3,954.8	17.6	14.2	-134.89	507.7	316.3	832.1	804.7	27.43	30.333		
4,200.0	4,110.9	4,110.6	4,057.3	18.1	14.6	-134.95	522.0	326.4	855.3	827.2	28.17	30.359		
4,300.0	4,208.2	4,221.6	4,167.3	18.6	14.9	-135.23	534.3	335.1	877.2	848.4	28.83	30.431		
4,400.0	4,305.6	4,333.0	4,278.2	19.1	15.1	-135.76	543.1	341.3	897.6	868.1	29.42	30.511		
4,500.0	4,402.9	4,444.4	4,389.3	19.6	15.3	-136.52	548.4	345.1	916.5	886.6	29.94	30.608		
4,600.0	4,500.2	4,555.3	4,500.2	20.1	15.5	-137.49	550.1	346.3	934.2	903.8	30.41	30.723		
4,700.0	4,597.6	4,652.7	4,597.6	20.6	15.6	-138.41	550.1	346.3	951.4	920.5	30.84	30.849		
4,800.0	4,694.9	4,750.0	4,694.9	21.1	15.7	-139.29	550.1	346.3	968.8	937.5	31.27	30.977		
4,900.0	4,792.3	4,847.4	4,792.3	21.6	15.9	-140.15	550.1	346.3	986.5	954.8	31.70	31.114		
5,000.0	4,889.6	4,944.7	4,889.6	22.1	16.0	-140.98	550.1	346.3	1,004.3	972.2	32.13	31.257		

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

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Dowdy 8-2-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 8-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (7-09-12)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b>												<b>Offset Site Error:</b>	0.0 ft
Dowdy 4-2-10 Pad Sec.10-T2N-R65W - Dowdy 41-10 - Wellbore #1 - Plan #1 (7-09-12)												<b>Offset Well Error:</b>	0.0 ft
Survey Program: 0-MWD													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.0	4,987.0	5,042.1	4,987.0	22.6	16.1	-141.78	550.1	346.3	1,022.4	989.8	32.55	31.406	
5,159.0	5,044.5	5,099.5	5,044.5	22.9	16.2	-142.24	550.1	346.3	1,033.1	1,000.3	32.80	31.496	
5,200.0	5,084.4	5,139.5	5,084.4	23.0	16.3	-142.63	550.1	346.3	1,040.4	1,007.4	32.99	31.541	
5,300.0	5,182.4	5,237.5	5,182.4	23.4	16.4	-143.47	550.1	346.3	1,056.3	1,022.9	33.38	31.641	
5,400.0	5,281.1	5,336.1	5,281.1	23.7	16.6	-144.15	550.1	346.3	1,069.6	1,035.8	33.76	31.685	
5,500.0	5,380.2	5,435.3	5,380.2	23.9	16.7	-144.67	550.1	346.3	1,080.1	1,046.0	34.10	31.672	
5,600.0	5,479.8	5,534.9	5,479.8	24.1	16.9	-145.04	550.1	346.3	1,087.8	1,053.4	34.42	31.602	
5,700.0	5,579.6	5,634.7	5,579.6	24.3	17.0	-145.28	550.1	346.3	1,092.7	1,058.0	34.72	31.476	
5,800.0	5,679.6	5,734.6	5,679.6	24.4	17.2	-145.37	550.1	346.3	1,094.7	1,059.7	34.98	31.294	
5,820.4	5,700.0	5,755.1	5,700.0	24.4	17.2	-40.07	550.1	346.3	1,094.8	1,059.8	35.03	31.249	
5,900.0	5,779.6	5,834.6	5,779.6	24.5	17.3	-40.07	550.1	346.3	1,094.8	1,059.5	35.27	31.040	
6,000.0	5,879.6	5,934.6	5,879.6	24.6	17.5	-40.07	550.1	346.3	1,094.8	1,059.2	35.57	30.777	
6,100.0	5,979.6	6,034.6	5,979.6	24.7	17.7	-40.07	550.1	346.3	1,094.8	1,058.9	35.88	30.517	
6,200.0	6,079.6	6,134.6	6,079.6	24.8	17.8	-40.07	550.1	346.3	1,094.8	1,058.6	36.18	30.258	
6,300.0	6,179.6	6,234.6	6,179.6	24.9	18.0	-40.07	550.1	346.3	1,094.8	1,058.3	36.49	30.001	
6,400.0	6,279.6	6,334.6	6,279.6	25.1	18.2	-40.07	550.1	346.3	1,094.8	1,058.0	36.80	29.746	
6,500.0	6,379.6	6,434.6	6,379.6	25.2	18.3	-40.07	550.1	346.3	1,094.8	1,057.7	37.12	29.493	
6,600.0	6,479.6	6,534.6	6,479.6	25.3	18.5	-40.07	550.1	346.3	1,094.8	1,057.3	37.44	29.242	
6,700.0	6,579.6	6,634.6	6,579.6	25.4	18.7	-40.07	550.1	346.3	1,094.8	1,057.0	37.76	28.994	
6,800.0	6,679.6	6,734.6	6,679.6	25.5	18.8	-40.07	550.1	346.3	1,094.8	1,056.7	38.08	28.747	
6,900.0	6,779.6	6,834.6	6,779.6	25.6	19.0	-40.07	550.1	346.3	1,094.8	1,056.4	38.41	28.503	
7,000.0	6,879.6	6,934.6	6,879.6	25.8	19.2	-40.07	550.1	346.3	1,094.8	1,056.1	38.74	28.262	
7,100.0	6,979.6	7,034.6	6,979.6	25.9	19.3	-40.07	550.1	346.3	1,094.8	1,055.7	39.07	28.022	
7,200.0	7,079.6	7,134.6	7,079.6	26.0	19.5	-40.07	550.1	346.3	1,094.8	1,055.4	39.40	27.785	
7,300.0	7,179.6	7,234.6	7,179.6	26.1	19.7	-40.07	550.1	346.3	1,094.8	1,055.1	39.74	27.551	
7,400.0	7,279.6	7,334.6	7,279.6	26.3	19.9	-40.07	550.1	346.3	1,094.8	1,054.7	40.07	27.319	
7,500.0	7,379.6	7,434.6	7,379.6	26.4	20.0	-40.07	550.1	346.3	1,094.8	1,054.4	40.41	27.089	
7,600.0	7,479.6	7,534.6	7,479.6	26.5	20.2	-40.07	550.1	346.3	1,094.8	1,054.0	40.76	26.862	
7,700.0	7,579.6	7,634.6	7,579.6	26.7	20.4	-40.07	550.1	346.3	1,094.8	1,053.7	41.10	26.637	
7,800.0	7,679.6	7,734.6	7,679.6	26.8	20.6	-40.07	550.1	346.3	1,094.8	1,053.3	41.45	26.414	
7,844.4	7,724.0	7,779.1	7,724.0	26.8	20.7	-40.07	550.1	346.3	1,094.8	1,053.2	41.60	26.316	

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Dowdy 8-2-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 8-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (7-09-12)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 7800-UNKNOWN													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	147.12	-670.3	433.3	798.1					
100.0	100.0	99.0	99.0	0.1	2.0	147.12	-670.3	433.3	798.1	796.0	2.09	381.403		
200.0	200.0	199.0	199.0	0.3	4.0	147.12	-670.3	433.3	798.1	793.8	4.32	184.863		
300.0	300.0	299.0	299.0	0.6	6.0	147.12	-670.3	433.3	798.1	791.6	6.54	121.997		
400.0	400.0	399.0	399.0	0.8	8.0	147.12	-670.3	433.3	798.1	789.4	8.77	91.038		
500.0	500.0	499.0	499.0	1.0	10.0	41.91	-670.3	433.3	796.8	785.8	10.97	72.619		
600.0	599.8	598.8	598.8	1.2	12.0	42.22	-670.3	433.3	792.9	779.8	13.16	60.245		
700.0	699.5	698.5	698.5	1.4	14.0	42.73	-670.3	433.3	786.5	771.1	15.35	51.242		
800.0	798.7	797.7	797.7	1.7	16.0	43.46	-670.3	433.3	777.6	760.0	17.53	44.349		
900.0	897.5	896.5	896.5	2.0	17.9	44.42	-670.3	433.3	766.2	746.5	19.72	38.861		
1,000.0	995.6	994.6	994.6	2.4	19.9	45.62	-670.3	433.3	752.6	730.7	21.91	34.352		
1,061.4	1,055.5	1,054.5	1,054.5	2.6	21.1	46.49	-670.3	433.3	743.2	719.9	23.26	31.948		
1,100.0	1,093.1	1,092.1	1,092.1	2.8	21.8	46.98	-670.3	433.3	737.1	712.9	24.15	30.521		
1,200.0	1,190.5	1,189.5	1,189.5	3.3	23.8	48.29	-670.3	433.3	721.4	694.9	26.46	27.261		
1,300.0	1,287.8	1,286.8	1,286.8	3.7	25.7	49.66	-670.3	433.3	706.2	677.4	28.80	24.519		
1,400.0	1,385.2	1,384.2	1,384.2	4.2	27.7	51.08	-670.3	433.3	691.3	660.2	31.16	22.187		
1,500.0	1,482.5	1,481.5	1,481.5	4.7	29.6	52.56	-670.3	433.3	676.9	643.4	33.54	20.184		
1,600.0	1,579.8	1,578.8	1,578.8	5.1	31.6	54.10	-670.3	433.3	663.0	627.1	35.93	18.451		
1,700.0	1,677.2	1,676.2	1,676.2	5.6	33.5	55.71	-670.3	433.3	649.6	611.3	38.35	16.941		
1,800.0	1,774.5	1,773.5	1,773.5	6.1	35.5	57.38	-670.3	433.3	636.8	596.0	40.78	15.616		
1,900.0	1,871.9	1,870.9	1,870.9	6.6	37.4	59.11	-670.3	433.3	624.5	581.3	43.23	14.448		
2,000.0	1,969.2	1,968.2	1,968.2	7.1	39.4	60.91	-670.3	433.3	612.8	567.2	45.69	13.414		
2,100.0	2,066.6	2,065.6	2,065.6	7.6	41.3	62.77	-670.3	433.3	601.8	553.7	48.16	12.495		
2,200.0	2,163.9	2,162.9	2,162.9	8.1	43.3	64.70	-670.3	433.3	591.5	540.8	50.65	11.677		
2,300.0	2,261.3	2,260.3	2,260.3	8.6	45.2	66.70	-670.3	433.3	581.8	528.7	53.15	10.947		
2,400.0	2,358.6	2,357.6	2,357.6	9.1	47.2	68.75	-670.3	433.3	573.0	517.3	55.66	10.294		
2,500.0	2,456.0	2,455.0	2,455.0	9.6	49.1	70.86	-670.3	433.3	564.9	506.7	58.18	9.709		
2,600.0	2,553.3	2,552.3	2,552.3	10.1	51.0	73.03	-670.3	433.3	557.6	496.9	60.70	9.186		
2,700.0	2,650.7	2,649.7	2,649.7	10.6	53.0	75.25	-670.3	433.3	551.2	488.0	63.22	8.718		
2,800.0	2,748.0	2,747.0	2,747.0	11.1	54.9	77.51	-670.3	433.3	545.7	479.9	65.75	8.300		
2,900.0	2,845.4	2,844.4	2,844.4	11.6	56.9	79.82	-670.3	433.3	541.1	472.8	68.27	7.926		
3,000.0	2,942.7	2,941.7	2,941.7	12.1	58.8	82.16	-670.3	433.3	537.4	466.6	70.78	7.593		
3,100.0	3,040.0	3,039.0	3,039.0	12.6	60.8	84.53	-670.3	433.3	534.7	461.4	73.28	7.296		
3,200.0	3,137.4	3,136.4	3,136.4	13.1	62.7	86.91	-670.3	433.3	532.9	457.1	75.76	7.034		
3,300.0	3,234.7	3,233.7	3,233.7	13.6	64.7	89.31	-670.3	433.3	532.1	453.9	78.23	6.802		
3,328.9	3,262.9	3,261.9	3,261.9	13.7	65.2	90.00	-670.3	433.3	532.1	453.1	78.94	6.740 CC		
3,400.0	3,332.1	3,331.1	3,331.1	14.1	66.6	91.70	-670.3	433.3	532.3	451.6	80.68	6.598		
3,500.0	3,429.4	3,428.4	3,428.4	14.6	68.6	94.10	-670.3	433.3	533.5	450.4	83.11	6.419		
3,600.0	3,526.8	3,525.8	3,525.8	15.1	70.5	96.48	-670.3	433.3	535.7	450.2	85.52	6.264 ES		
3,700.0	3,624.1	3,623.1	3,623.1	15.6	72.5	98.83	-670.3	433.3	538.8	450.9	87.90	6.130		
3,800.0	3,721.5	3,720.5	3,720.5	16.1	74.4	101.16	-670.3	433.3	542.9	452.6	90.25	6.015		
3,900.0	3,818.8	3,817.8	3,817.8	16.6	76.4	103.45	-670.3	433.3	547.9	455.3	92.58	5.918		
4,000.0	3,916.2	3,915.2	3,915.2	17.1	78.3	105.69	-670.3	433.3	553.8	458.9	94.88	5.837		
4,100.0	4,013.5	4,012.5	4,012.5	17.6	80.3	107.89	-670.3	433.3	560.6	463.4	97.15	5.770		
4,200.0	4,110.9	4,109.9	4,109.9	18.1	82.2	110.04	-670.3	433.3	568.2	468.8	99.40	5.716		
4,300.0	4,208.2	4,207.2	4,207.2	18.6	84.1	112.12	-670.3	433.3	576.6	475.0	101.63	5.674		
4,400.0	4,305.6	4,304.6	4,304.6	19.1	86.1	114.15	-670.3	433.3	585.8	482.0	103.83	5.642		
4,500.0	4,402.9	4,401.9	4,401.9	19.6	88.0	116.12	-670.3	433.3	595.8	489.7	106.01	5.620		
4,600.0	4,500.2	4,499.2	4,499.2	20.1	90.0	118.02	-670.3	433.3	606.4	498.2	108.17	5.606		
4,700.0	4,597.6	4,596.6	4,596.6	20.6	91.9	119.86	-670.3	433.3	617.7	507.4	110.31	5.599		
4,800.0	4,694.9	4,693.9	4,693.9	21.1	93.9	121.63	-670.3	433.3	629.6	517.2	112.44	5.600		
4,900.0	4,792.3	4,791.3	4,791.3	21.6	95.8	123.33	-670.3	433.3	642.2	527.6	114.55	5.606		

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



<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Dowdy 8-2-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 8-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (7-09-12)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Dowdy 4-2-10 Pad Sec.10-T2N-R65W - Dowdy 42-10 (Exist.) - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 7800-UNKNOWN												<b>Offset Well Error:</b>	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.0	4,889.6	4,888.6	4,888.6	22.1	97.8	124.98	-670.3	433.3	655.2	538.6	116.66	5.617	
5,100.0	4,987.0	4,986.0	4,986.0	22.6	99.7	126.56	-670.3	433.3	668.8	550.1	118.75	5.633	
5,159.0	5,044.5	5,043.5	5,043.5	22.9	100.9	127.46	-670.3	433.3	677.1	557.1	119.98	5.644	
5,200.0	5,084.4	5,083.4	5,083.4	23.0	101.7	128.15	-670.3	433.3	682.8	561.9	120.91	5.647	
5,300.0	5,182.4	5,181.4	5,181.4	23.4	103.6	129.61	-670.3	433.3	695.3	572.2	123.15	5.646	
5,400.0	5,281.1	5,280.1	5,280.1	23.7	105.6	130.78	-670.3	433.3	706.0	580.6	125.40	5.630	
5,500.0	5,380.2	5,379.2	5,379.2	23.9	107.6	131.69	-670.3	433.3	714.5	586.9	127.63	5.598	
5,600.0	5,479.8	5,478.8	5,478.8	24.1	109.6	132.34	-670.3	433.3	720.8	591.0	129.84	5.552	
5,700.0	5,579.6	5,578.6	5,578.6	24.3	111.6	132.75	-670.3	433.3	724.9	592.9	132.00	5.491	
5,800.0	5,679.6	5,678.6	5,678.6	24.4	113.6	132.92	-670.3	433.3	726.5	592.4	134.12	5.417	
5,820.4	5,700.0	5,699.0	5,699.0	24.4	114.0	-121.77	-670.3	433.3	726.6	592.0	134.54	5.400	
5,900.0	5,779.6	5,778.6	5,778.6	24.5	115.6	-121.77	-670.3	433.3	726.6	590.4	136.23	5.334	
6,000.0	5,879.6	5,878.6	5,878.6	24.6	117.6	-121.77	-670.3	433.3	726.6	588.2	138.35	5.252	
6,100.0	5,979.6	5,978.6	5,978.6	24.7	119.6	-121.77	-670.3	433.3	726.6	586.1	140.47	5.172	
6,200.0	6,079.6	6,078.6	6,078.6	24.8	121.6	-121.77	-670.3	433.3	726.6	584.0	142.60	5.095	
6,300.0	6,179.6	6,178.6	6,178.6	24.9	123.6	-121.77	-670.3	433.3	726.6	581.9	144.73	5.020	
6,400.0	6,279.6	6,278.6	6,278.6	25.1	125.6	-121.77	-670.3	433.3	726.6	579.7	146.85	4.948	
6,500.0	6,379.6	6,378.6	6,378.6	25.2	127.6	-121.77	-670.3	433.3	726.6	577.6	148.98	4.877	
6,600.0	6,479.6	6,478.6	6,478.6	25.3	129.6	-121.77	-670.3	433.3	726.6	575.5	151.11	4.808	
6,700.0	6,579.6	6,578.6	6,578.6	25.4	131.6	-121.77	-670.3	433.3	726.6	573.3	153.25	4.741	
6,800.0	6,679.6	6,678.6	6,678.6	25.5	133.6	-121.77	-670.3	433.3	726.6	571.2	155.38	4.676	
6,900.0	6,779.6	6,778.6	6,778.6	25.6	135.6	-121.77	-670.3	433.3	726.6	569.1	157.52	4.613	
7,000.0	6,879.6	6,878.6	6,878.6	25.8	137.6	-121.77	-670.3	433.3	726.6	566.9	159.65	4.551	
7,100.0	6,979.6	6,978.6	6,978.6	25.9	139.6	-121.77	-670.3	433.3	726.6	564.8	161.79	4.491	
7,200.0	7,079.6	7,078.6	7,078.6	26.0	141.6	-121.77	-670.3	433.3	726.6	562.7	163.93	4.432	
7,300.0	7,179.6	7,178.6	7,178.6	26.1	143.6	-121.77	-670.3	433.3	726.6	560.5	166.07	4.375	
7,400.0	7,279.6	7,278.6	7,278.6	26.3	145.6	-121.77	-670.3	433.3	726.6	558.4	168.22	4.319	
7,500.0	7,379.6	7,378.6	7,378.6	26.4	147.6	-121.77	-670.3	433.3	726.6	556.2	170.36	4.265	
7,600.0	7,479.6	7,478.6	7,478.6	26.5	149.6	-121.77	-670.3	433.3	726.6	554.1	172.51	4.212	
7,700.0	7,579.6	7,578.6	7,578.6	26.7	151.6	-121.77	-670.3	433.3	726.6	551.9	174.65	4.160	
7,800.0	7,679.6	7,678.6	7,678.6	26.8	153.6	-121.77	-670.3	433.3	726.6	549.8	176.80	4.110	
7,844.4	7,724.0	7,723.0	7,723.0	26.8	154.5	-121.77	-670.3	433.3	726.6	548.8	177.75	4.088 SF	



<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Dowdy 8-2-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 8-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (7-09-12)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4870.0ft (Original Well Elev) Coordinates are relative to: Dowdy 8-2-10  
 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: 0.55°



<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Dowdy 8-2-10
<b>Project:</b>	SEC.10-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Reference Site:</b>	Dowdy 4-2-10 Pad Sec.10-T2N-R65W	<b>MD Reference:</b>	WELL @ 4870.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dowdy 8-2-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (7-09-12)	<b>Offset TVD Reference:</b>	Offset Datum

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