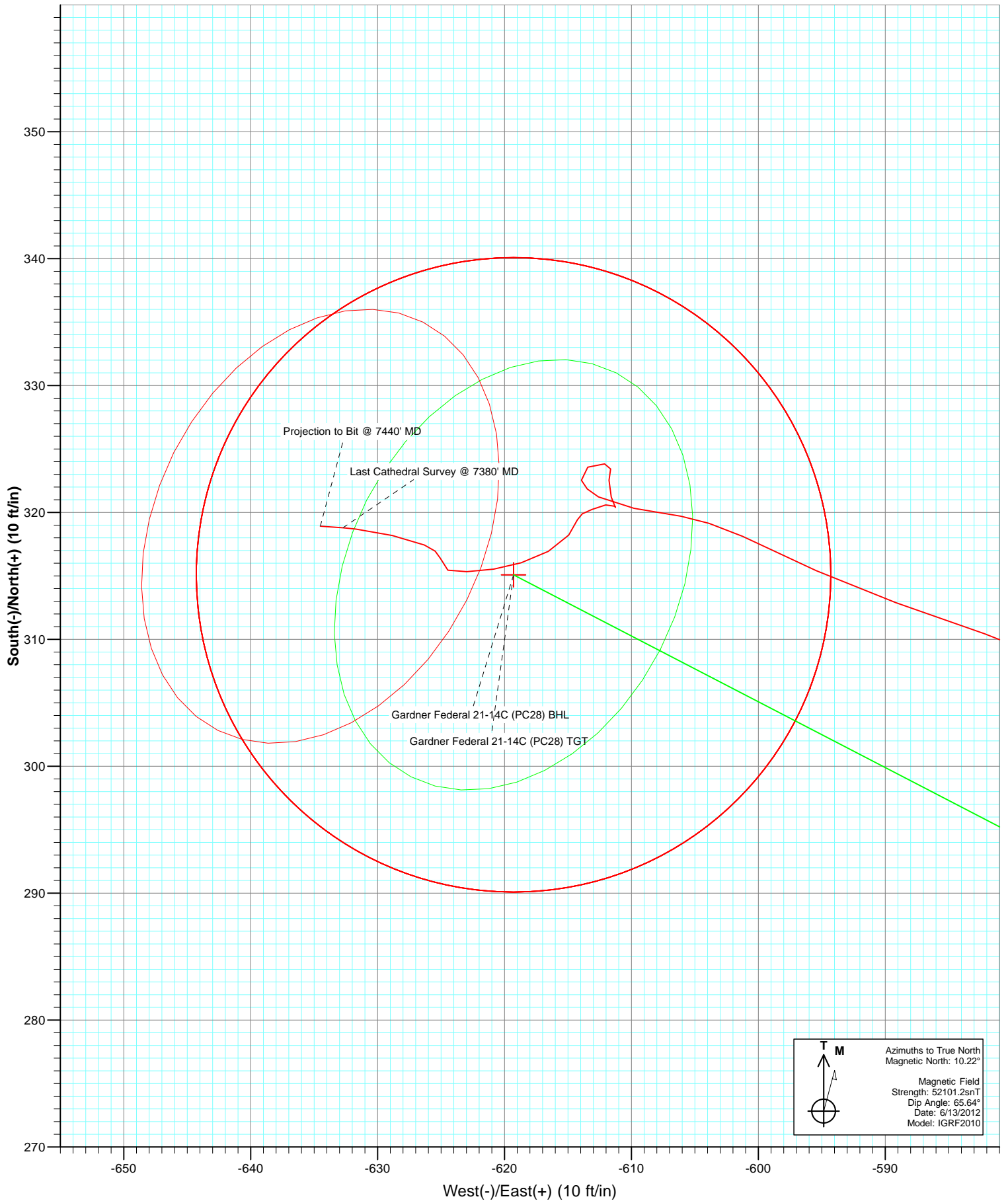


Azimuths to True North
 Magnetic North: 10.22°

Magnetic Field
 Strength: 52101.2snT
 Dip Angle: 65.64°
 Date: 6/13/2012
 Model: IGRF2010



Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Gardner 21-14C
Project:	S. Piceance (Parachute)	TVD Reference:	KBE @ 6442.0ft (Nabors M13)
Site:	NENW Sec28-T7S-R95W (PC-28)	MD Reference:	KBE @ 6442.0ft (Nabors M13)
Well:	Gardner 21-14C	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Project	S. Piceance (Parachute), Garfield County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	NENW Sec28-T7S-R95W (PC-28)			
Site Position:		Northing:	1,585,994.78 ft	Latitude: 39.415560
From:	Lat/Long	Easting:	2,292,840.18 ft	Longitude: -108.003350
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence: -1.58 °

Well	Gardner 21-14C			
Well Position	+N/-S	0.0 ft	Northing:	1,586,011.20 ft
	+E/-W	0.0 ft	Easting:	2,292,839.22 ft
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level: 6,420.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/13/2012	10.22	65.64	52,101

Design	FINAL			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	296.97

Survey Program	Date	6/17/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
143.0	7,440.0	Survey #1 (DD)	MWD	Geolink MWD

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
143.0	0.60	336.30	143.0	0.7	-0.3	0.6	0.42	0.42	
235.0	2.40	314.20	235.0	2.5	-1.9	2.8	2.02	1.96	
327.0	5.20	305.30	326.8	6.2	-6.7	8.8	3.10	3.04	
420.0	6.40	289.70	419.3	10.4	-15.0	18.1	2.12	1.29	
513.0	7.30	287.70	511.6	13.9	-25.5	29.0	1.00	0.97	
605.0	7.90	297.60	602.8	18.7	-36.7	41.1	1.56	0.65	
697.0	8.60	297.80	693.9	24.8	-48.3	54.3	0.76	0.76	
790.0	8.50	296.00	785.8	31.0	-60.7	68.2	0.31	-0.11	
881.0	8.90	295.50	875.8	37.0	-73.1	81.9	0.45	0.44	
971.0	9.50	293.80	964.6	43.0	-86.2	96.3	0.73	0.67	
1,067.0	9.80	292.40	1,059.3	49.3	-101.0	112.4	0.40	0.31	
1,125.0	10.30	293.20	1,116.4	53.3	-110.3	122.4	0.90	0.86	

Survey Report

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Site:	NENW Sec28-T7S-R95W (PC-28)	MD Reference:	KBE @ 6442.0ft (Nabors M13)
Well:	Gardner 21-14C	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
1,258.0	10.20	293.70	1,247.2	62.7	-132.0	146.1	0.10	-0.08	
1,353.0	10.60	300.40	1,340.7	70.5	-147.2	163.2	1.34	0.42	
1,448.0	10.10	301.20	1,434.1	79.2	-161.9	180.2	0.55	-0.53	
1,543.0	10.90	299.60	1,527.6	88.0	-176.8	197.5	0.90	0.84	
1,639.0	10.40	298.30	1,621.9	96.6	-192.4	215.2	0.58	-0.52	
1,734.0	9.60	296.50	1,715.5	104.2	-207.0	231.7	0.90	-0.84	
1,829.0	10.60	297.50	1,809.0	111.7	-221.8	248.4	1.07	1.05	
1,924.0	12.00	301.10	1,902.1	120.9	-238.0	267.0	1.65	1.47	
2,020.0	11.30	300.00	1,996.2	130.7	-254.7	286.3	0.76	-0.73	
2,115.0	11.00	298.50	2,089.4	139.7	-270.8	304.7	0.44	-0.32	
2,210.0	10.50	297.60	2,182.7	148.0	-286.4	322.4	0.56	-0.53	
2,304.0	10.20	297.80	2,275.2	155.9	-301.3	339.3	0.32	-0.32	
2,399.0	9.70	299.10	2,368.7	163.7	-315.8	355.7	0.58	-0.53	
2,494.0	9.30	298.70	2,462.4	171.3	-329.5	371.4	0.43	-0.42	
2,590.0	9.00	299.00	2,557.2	178.6	-342.9	386.6	0.32	-0.31	
2,685.0	8.90	297.20	2,651.1	185.6	-355.9	401.4	0.31	-0.11	
2,780.0	8.60	297.50	2,745.0	192.2	-368.8	415.8	0.32	-0.32	
2,875.0	8.20	297.70	2,838.9	198.7	-381.1	429.7	0.42	-0.42	
2,970.0	7.70	296.10	2,933.0	204.6	-392.8	442.8	0.58	-0.53	
3,066.0	7.10	296.80	3,028.2	210.1	-403.8	455.2	0.63	-0.62	
3,161.0	6.90	294.50	3,122.5	215.1	-414.3	466.8	0.36	-0.21	
3,256.0	7.30	297.70	3,216.8	220.3	-424.8	478.5	0.59	0.42	
3,352.0	8.70	301.70	3,311.9	227.0	-436.4	491.9	1.57	1.46	
3,447.0	8.80	303.10	3,405.7	234.7	-448.6	506.2	0.25	0.11	
3,540.0	8.70	303.00	3,497.7	242.4	-460.4	520.3	0.11	-0.11	
3,635.0	8.00	304.00	3,591.7	250.0	-471.9	534.0	0.75	-0.74	
3,731.0	8.00	302.60	3,686.7	257.4	-483.1	547.3	0.20	0.00	
3,827.0	8.20	298.30	3,781.8	264.2	-494.8	560.8	0.66	0.21	
3,922.0	8.30	299.10	3,875.8	270.8	-506.7	574.4	0.16	0.11	
4,017.0	7.70	298.20	3,969.9	277.1	-518.3	587.6	0.65	-0.63	
4,112.0	7.30	297.00	4,064.0	282.8	-529.3	600.0	0.45	-0.42	
4,207.0	6.80	295.90	4,158.3	288.0	-539.8	611.7	0.55	-0.53	
4,303.0	6.30	295.50	4,253.7	292.8	-549.6	622.6	0.52	-0.52	
4,398.0	5.90	302.40	4,348.2	297.7	-558.4	632.7	0.88	-0.42	
4,493.0	5.70	305.20	4,442.7	303.0	-566.4	642.2	0.36	-0.21	
4,588.0	5.30	292.20	4,537.2	307.4	-574.3	651.3	1.37	-0.42	
4,683.0	4.80	290.60	4,631.9	310.4	-582.1	659.6	0.55	-0.53	
4,778.0	4.20	287.90	4,726.6	312.9	-589.2	667.0	0.67	-0.63	
4,873.0	4.00	296.00	4,821.3	315.4	-595.4	673.7	0.64	-0.21	
4,967.0	3.80	293.90	4,915.1	318.1	-601.2	680.1	0.26	-0.21	
5,062.0	2.40	279.10	5,010.0	319.7	-606.1	685.2	1.69	-1.47	
5,158.0	2.10	279.80	5,105.9	320.3	-609.8	688.8	0.31	-0.31	
5,253.0	1.50	299.20	5,200.9	321.2	-612.6	691.7	0.89	-0.63	
5,265.1	1.40	302.29	5,213.0	321.4	-612.9	692.0	1.06	-0.85	Gardner Federal 21-14C (PC28) TGT
5,348.0	0.90	340.10	5,295.8	322.5	-613.9	693.4	1.06	-0.60	
5,443.0	1.00	66.10	5,390.8	323.6	-613.4	693.5	1.37	0.11	
5,538.0	0.70	98.40	5,485.8	323.8	-612.1	692.4	0.58	-0.32	
5,633.0	0.40	198.00	5,580.8	323.4	-611.6	691.8	0.91	-0.32	
5,727.0	0.70	182.00	5,674.8	322.5	-611.8	691.5	0.36	0.32	
5,823.0	0.90	165.20	5,770.8	321.2	-611.6	690.7	0.32	0.21	
5,918.0	0.20	127.90	5,865.8	320.4	-611.3	690.1	0.79	-0.74	
6,013.0	0.30	321.20	5,960.8	320.5	-611.3	690.2	0.52	0.11	
6,108.0	0.70	261.40	6,055.8	320.6	-612.0	690.9	0.64	0.42	

Survey Report

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Project:	S. Piceance (Parachute)	TVD Reference:	KBE @ 6442.0ft (Nabors M13)
Site:	NENW Sec28-T7S-R95W (PC-28)	MD Reference:	KBE @ 6442.0ft (Nabors M13)
Well:	Gardner 21-14C	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
6,203.0	0.70	242.40	6,150.8	320.2	-613.1	691.7	0.24	0.00	
6,299.0	0.30	253.00	6,246.8	319.9	-613.9	692.2	0.43	-0.42	
6,394.0	0.50	200.40	6,341.8	319.4	-614.2	692.3	0.42	0.21	
6,489.0	1.20	213.00	6,436.8	318.2	-614.9	692.4	0.76	0.74	
6,584.0	1.40	247.60	6,531.7	316.9	-616.5	693.2	0.84	0.21	
6,679.0	1.40	246.60	6,626.7	316.0	-618.7	694.7	0.03	0.00	
6,775.0	1.30	268.30	6,722.7	315.5	-620.8	696.4	0.54	-0.10	
6,869.0	1.30	261.00	6,816.7	315.3	-623.0	698.2	0.18	0.00	
6,965.0	0.60	304.80	6,912.7	315.5	-624.5	699.6	1.00	-0.73	
7,060.0	0.80	344.20	7,007.6	316.4	-625.0	700.6	0.53	0.21	
7,155.0	1.40	291.50	7,102.6	317.4	-626.3	702.2	1.17	0.63	
7,250.0	1.80	282.40	7,197.6	318.2	-628.8	704.8	0.50	0.42	
7,346.0	1.70	277.60	7,293.6	318.7	-631.7	707.6	0.18	-0.10	
7,375.1	1.70	274.35	7,322.6	318.8	-632.6	708.4	0.33	0.00	Gardner Federal 21-14C (PC28) BHL
7,380.0	1.70	273.80	7,327.5	318.8	-632.7	708.5	0.33	0.01	Last Cathedral Survey @ 7380' MD
7,440.0	1.70	273.80	7,387.5	318.9	-634.5	710.1	0.00	0.00	Projection to Bit @ 7440' MD

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Gardner Federal 21-14C	0.00	358.42	5,213.0	315.1	-619.3	1,586,343.23	2,292,228.85	39.416470	-108.005547
- actual wellpath misses target center by 9.0ft at 5265.1ft MD (5213.0 TVD, 321.4 N, -612.9 E)									
- Circle (radius 25.0)									
Gardner 28-4A (PC28) E	0.00	358.42	7,285.0	-179.5	-1,443.7	1,585,871.54	2,291,391.11	39.415112	-108.008465
- actual wellpath misses target center by 952.6ft at 7359.9ft MD (7307.4 TVD, 318.7 N, -632.1 E)									
- Circle (radius 25.0)									
Gardner 28-4A (PC28) T	0.00	358.42	5,385.0	-179.5	-1,443.7	1,585,871.54	2,291,391.11	39.415112	-108.008465
- actual wellpath misses target center by 970.6ft at 5427.3ft MD (5375.1 TVD, 323.4 N, -613.7 E)									
- Circle (radius 25.0)									
Gardner 28-1C (PC28) T	0.00	358.43	5,240.0	-868.6	2,252.4	1,585,080.90	2,295,066.78	39.413220	-107.995383
- actual wellpath misses target center by 3102.0ft at 5196.4ft MD (5144.2 TVD, 320.6 N, -611.1 E)									
- Point									
Gardner Federal 21-14C	0.00	358.42	7,323.0	315.1	-619.3	1,586,343.23	2,292,228.85	39.416470	-108.005547
- actual wellpath misses target center by 13.8ft at 7375.1ft MD (7322.6 TVD, 318.8 N, -632.6 E)									
- Circle (radius 25.0)									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,380.0	7,327.5	318.8	-632.7	Last Cathedral Survey @ 7380' MD
7,440.0	7,387.5	318.9	-634.5	Projection to Bit @ 7440' MD

Checked By: _____ Approved By: _____ Date: _____