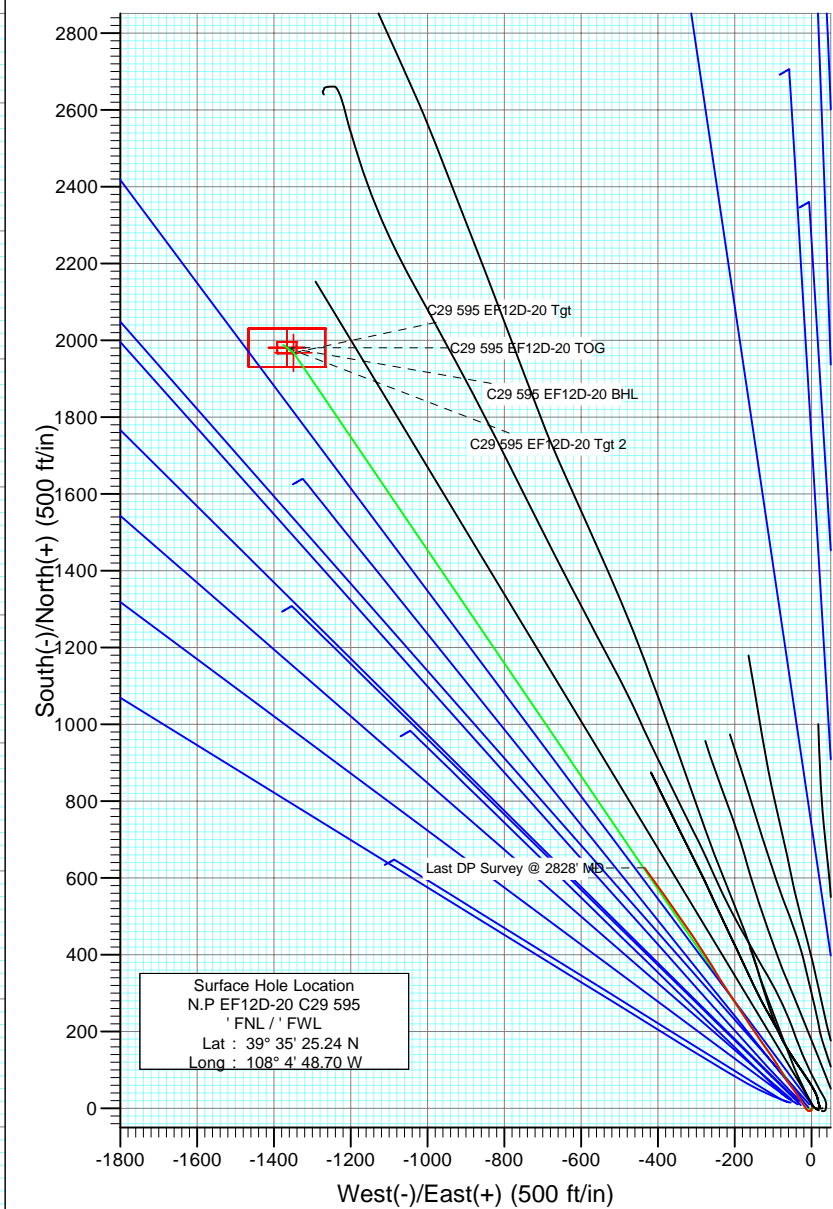
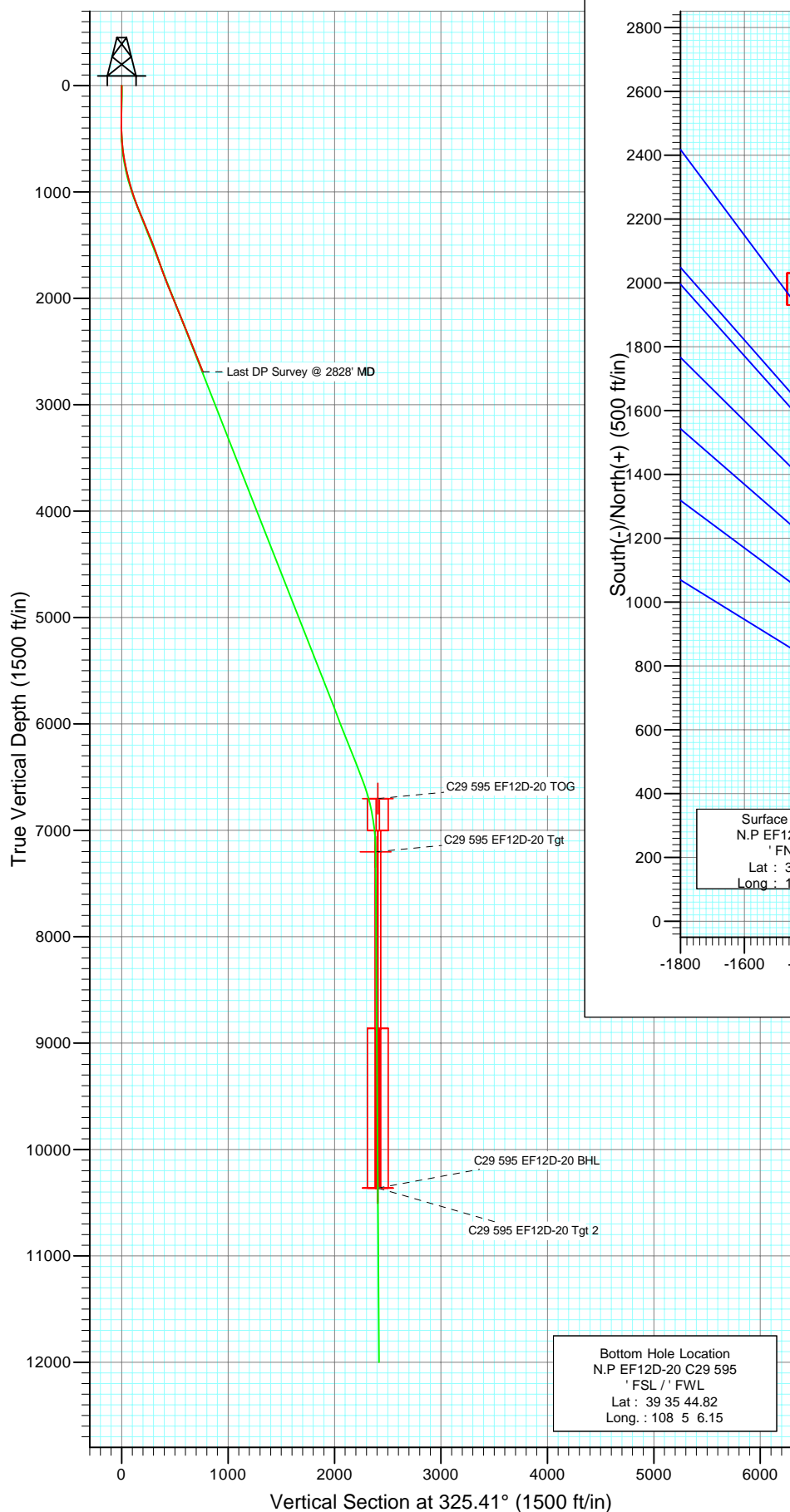




Project: North Piceance
 Site: C29 595 Pad (NENW Sec29-T5S-R95W)
 Well: N.P EF12D-20 C29 595
 Wellbore: DD
 Design: Final SH



Azimuths to True North
 Magnetic North: 10.68°

Magnetic Field
 Strength: 52541.9nT
 Dip Angle: 65.87°
 Date: 2/16/2009
 Model: IGRF200510

DESIGN DETAILS: DD

Job#:95064;LR
 KB EF12D-20 @ 7032.0ft (Patterson 308)

Target	Azimuth	Origin	N/S	E/W	From T/D
No Target (Freehand)	325.41	Slot	0.0	0.0	0.0

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well N.P EF12D-20 C29 595
Project:	North Piceance	TVD Reference:	KB EF12D-20 @ 7032.0ft (Patterson 308)
Site:	C29 595 Pad (NENW Sec29-T5S-R95W)	MD Reference:	KB EF12D-20 @ 7032.0ft (Patterson 308)
Well:	N.P EF12D-20 C29 595	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 2003.21 US Multi Users DB

Project	North Piceance		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		C29 595 Pad (NENW Sec29-T5S-R95W)			
Site Position:		Northing:	1,650,184.70 ft	Latitude:	39° 35' 24.74 N
From:	Lat/Long	Easting:	2,273,122.40 ft	Longitude:	108° 4' 46.43 W
Position Uncertainty:	0.0 ft	Slot Radius:	in	Grid Convergence:	-1.63 °

Well	N.P EF12D-20 C29 595					
Well Position	+N/-S	0.0 ft	Northing:	1,650,240.01 ft	Latitude:	39° 35' 25.24 N
	+E/-W	0.0 ft	Easting:	2,272,946.35 ft	Longitude:	108° 4' 48.70 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	7,010.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2/16/2009	10.68	65.87	52,542

Design	DD				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	325.41	

Survey Program	Date	2/26/2009			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
238.0	2,828.0	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		
238.0	1.50	175.80	238.0	-3.1	0.2	-2.7	0.63	0.63		
331.0	2.70	232.40	330.9	-5.7	-1.4	-3.9	2.42	1.29		
424.0	3.40	271.80	423.8	-6.9	-5.9	-2.3	2.32	0.75		
516.0	4.60	313.40	515.6	-4.3	-11.3	2.9	3.32	1.30		
611.0	7.00	327.00	610.1	3.2	-17.2	12.4	2.89	2.53		
699.0	9.70	330.30	697.2	14.1	-23.8	25.2	3.11	3.07		
791.0	12.30	327.80	787.5	29.2	-32.9	42.7	2.87	2.83		
882.0	14.80	322.40	875.9	46.6	-45.2	64.0	3.08	2.75		
974.0	16.70	325.90	964.5	66.8	-59.7	88.9	2.31	2.07		
1,066.0	18.80	328.40	1,052.1	90.4	-74.9	117.0	2.43	2.28		
1,158.0	21.50	328.10	1,138.4	117.3	-91.6	148.6	2.94	2.93		
1,249.0	22.50	324.50	1,222.8	145.7	-110.5	182.7	1.84	1.10		

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well N.P EF12D-20 C29 595
Project:	North Piceance	TVD Reference:	KB EF12D-20 @ 7032.0ft (Patterson 308)
Site:	C29 595 Pad (NENW Sec29-T5S-R95W)	MD Reference:	KB EF12D-20 @ 7032.0ft (Patterson 308)
Well:	N.P EF12D-20 C29 595	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 2003.21 US 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
1,341.0	22.10	324.30	1,307.9	174.1	-130.8	217.6	0.44	-0.43	
1,433.0	22.50	326.70	1,393.1	202.8	-150.6	252.5	1.08	0.43	
1,524.0	21.60	326.50	1,477.4	231.4	-169.4	286.6	0.99	-0.99	
1,616.0	20.20	326.70	1,563.4	258.8	-187.5	319.4	1.52	-1.52	
1,708.0	19.40	326.90	1,649.9	284.8	-204.5	350.6	0.87	-0.87	
1,799.0	19.50	327.20	1,735.7	310.3	-221.0	380.9	0.16	0.11	
1,891.0	20.00	326.60	1,822.3	336.3	-238.0	412.0	0.59	0.54	
1,983.0	22.30	328.10	1,908.1	364.3	-255.9	445.1	2.57	2.50	
2,075.0	22.30	328.80	1,993.2	394.0	-274.2	480.0	0.29	0.00	
2,166.0	22.00	328.20	2,077.5	423.3	-292.1	514.3	0.41	-0.33	
2,258.0	22.70	324.70	2,162.6	452.4	-311.4	549.2	1.63	0.76	
2,350.0	22.50	325.70	2,247.5	481.4	-331.6	584.6	0.47	-0.22	
2,442.0	22.60	324.00	2,332.5	510.3	-351.9	619.9	0.72	0.11	
2,533.0	21.60	324.30	2,416.8	538.0	-372.0	654.1	1.11	-1.10	
2,625.0	21.00	324.90	2,502.5	565.3	-391.3	687.5	0.69	-0.65	
2,717.0	22.00	324.40	2,588.1	592.8	-410.8	721.2	1.11	1.09	
2,773.0	22.00	325.60	2,640.0	609.9	-422.9	742.2	0.80	0.00	
2,828.0	22.00	325.60	2,691.0	626.9	-434.5	762.8	0.00	0.00	Last DP Survey @ 2828' MD

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
C29 595 EF12D-20 Tgt : - survey misses target center by 7845.1ft at 2828.0ft MD (2691.0 TVD, 626.9 N, -434.5 E) - Rectangle (sides W100.0 H200.0 D0.0)	0.00	0.00	10,362.0	1,981.2	-1,366.2	1,652,259.22	2,271,636.99	39° 35' 44.82 N	108° 5' 6.15 W
C29 595 EF12D-20 BHL - survey misses target center by 7845.1ft at 2828.0ft MD (2691.0 TVD, 626.9 N, -434.5 E) - Rectangle (sides W30.0 H50.0 D0.0)	0.00	0.00	10,362.0	1,981.2	-1,366.2	1,652,259.22	2,271,636.99	39° 35' 44.82 N	108° 5' 6.15 W
C29 595 EF12D-20 TOC - survey misses target center by 4334.7ft at 2828.0ft MD (2691.0 TVD, 626.9 N, -434.5 E) - Rectangle (sides W100.0 H200.0 D300.0)	0.00	0.00	6,702.0	1,981.2	-1,366.2	1,652,259.22	2,271,636.99	39° 35' 44.82 N	108° 5' 6.15 W
C29 595 EF12D-20 Tgt - survey misses target center by 4794.1ft at 2828.0ft MD (2691.0 TVD, 626.9 N, -434.5 E) - Point	0.00	0.00	7,202.0	1,967.8	-1,349.0	1,652,245.33	2,271,653.73	39° 35' 44.69 N	108° 5' 5.93 W

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,828.0	2,691.0	626.9	-434.5	Last DP Survey @ 2828' MD

Checked By: _____ Approved By: _____ Date: _____