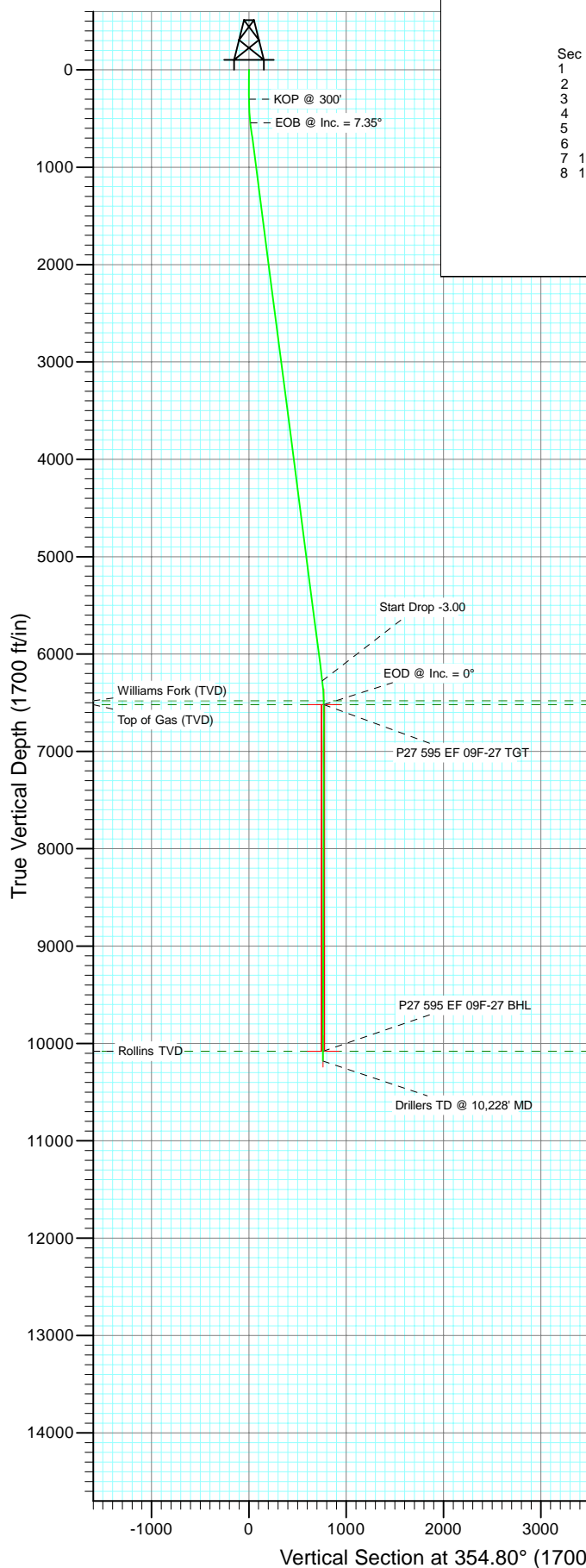


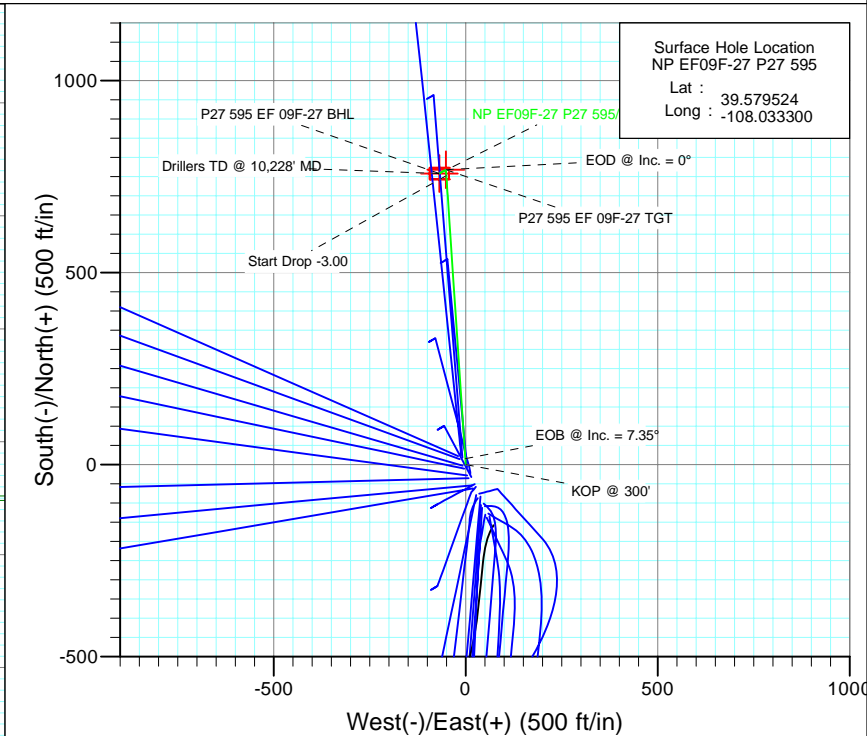


Project: North Piceance
Site: P27 595 (S27-T5S-R95W)
Well: NP EF09F-27 P27 595
Wellbore: DD
Design: Plan #1



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSECT	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	
3	544.8	7.34	356.17	544.2	15.6	-1.0	3.00	356.17	15.7	
4	6323.9	7.34	356.17	6275.8	752.8	-50.5	0.00	0.00	754.2	
5	6568.8	0.00	0.00	6520.0	768.4	-51.5	3.00	180.00	769.9	P27 595 EF 09F-27 TGT
6	6698.3	0.32	239.52	6649.5	768.2	-51.8	0.25	239.52	769.7	
7	10128.8	0.32	239.52	10080.0	758.4	-68.5	0.00	0.00	761.5	P27 595 EF 09F-27 BHL
8	10228.8	0.32	239.52	10180.0	758.1	-69.0	0.00	0.00	761.2	



Surface Hole Location
NP EF09F-27 P27 595
Lat : 39.579524
Long : -108.033300



Azimuths to True North
Magnetic North: 10.46°

Magnetic Field
Strength: 52346.7nT
Dip Angle: 65.82°
Date: 11/5/2010
Model: IGRF2010

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
6480.0	6528.8	Williams Fork (TVD)
6520.0	6568.8	Top of Gas (TVD)
10080.0	10128.8	Rollins TVD

Type	Target	Azimuth	Origin	N/S	E/W	From
TD	No Target (Freehand)	354.80	Type Slot	0.0	0.0	TVD
Name		TVD	+N/-S	+E/-W	Latitude	Longitude
P27 595 EF 09F-27 TGT		6520.0	768.4	-51.5	39.581634	-108.033482
P27 595 EF 09F-27 BHL		10080.0	758.4	-68.5	39.581606	-108.033543

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well NP EF09F-27 P27 595
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6671.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6671.0ft (Original Well Elev)
Site:	P27 595 (S27-T5S-R95W)	North Reference:	True
Well:	NP EF09F-27 P27 595	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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		P27 595 (S27-T5S-R95W)			
Site Position:		Northing:	1,645,842.89 ft	Latitude:	39.579292
From:	Lat/Long	Easting:	2,286,079.88 ft	Longitude:	-108.033175
Position Uncertainty:	0.0 ft	Slot Radius:	0.000 in	Grid Convergence:	-1.60 °

Well	NP EF09F-27 P27 595					
Well Position	+N/-S	0.0 ft	Northing:	1,645,928.49 ft	Latitude:	39.579524
	+E/-W	0.0 ft	Easting:	2,286,047.11 ft	Longitude:	-108.033300
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,649.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/5/2010	10.46	65.82	52,347

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	354.80

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	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
544.8	7.34	356.17	544.2	15.6	-1.0	3.00	3.00	0.00	356.17	
6,323.9	7.34	356.17	6,275.8	752.8	-50.5	0.00	0.00	0.00	0.00	
6,568.8	0.00	0.00	6,520.0	768.4	-51.5	3.00	-3.00	0.00	180.00	P27 595 EF 09F-27 T
6,698.3	0.32	239.52	6,649.5	768.2	-51.8	0.25	0.25	-93.04	239.52	
10,128.8	0.32	239.52	10,080.0	758.4	-68.5	0.00	0.00	0.00	0.00	P27 595 EF 09F-27 B
10,228.8	0.32	239.52	10,180.0	758.1	-69.0	0.00	0.00	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well NP EF09F-27 P27 595
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6671.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6671.0ft (Original Well Elev)
Site:	P27 595 (S27-T5S-R95W)	North Reference:	True
Well:	NP EF09F-27 P27 595	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 300'
400.0	3.00	356.17	400.0	2.6	-0.2	2.6	3.00	3.00	
500.0	6.00	356.17	499.6	10.4	-0.7	10.5	3.00	3.00	
544.8	7.34	356.17	544.2	15.6	-1.0	15.7	3.00	3.00	EOB @ Inc. = 7.35°
600.0	7.34	356.17	598.9	22.7	-1.5	22.7	0.00	0.00	
700.0	7.34	356.17	698.1	35.4	-2.4	35.5	0.00	0.00	
800.0	7.34	356.17	797.2	48.2	-3.2	48.3	0.00	0.00	
900.0	7.34	356.17	896.4	60.9	-4.1	61.1	0.00	0.00	
1,000.0	7.34	356.17	995.6	73.7	-4.9	73.8	0.00	0.00	
1,100.0	7.34	356.17	1,094.8	86.4	-5.8	86.6	0.00	0.00	
1,200.0	7.34	356.17	1,194.0	99.2	-6.6	99.4	0.00	0.00	
1,300.0	7.34	356.17	1,293.1	112.0	-7.5	112.2	0.00	0.00	
1,400.0	7.34	356.17	1,392.3	124.7	-8.4	125.0	0.00	0.00	
1,500.0	7.34	356.17	1,491.5	137.5	-9.2	137.7	0.00	0.00	
1,600.0	7.34	356.17	1,590.7	150.2	-10.1	150.5	0.00	0.00	
1,700.0	7.34	356.17	1,689.9	163.0	-10.9	163.3	0.00	0.00	
1,800.0	7.34	356.17	1,789.0	175.7	-11.8	176.1	0.00	0.00	
1,900.0	7.34	356.17	1,888.2	188.5	-12.6	188.9	0.00	0.00	
2,000.0	7.34	356.17	1,987.4	201.2	-13.5	201.6	0.00	0.00	
2,100.0	7.34	356.17	2,086.6	214.0	-14.3	214.4	0.00	0.00	
2,200.0	7.34	356.17	2,185.7	226.8	-15.2	227.2	0.00	0.00	
2,300.0	7.34	356.17	2,284.9	239.5	-16.1	240.0	0.00	0.00	
2,400.0	7.34	356.17	2,384.1	252.3	-16.9	252.8	0.00	0.00	
2,500.0	7.34	356.17	2,483.3	265.0	-17.8	265.5	0.00	0.00	
2,600.0	7.34	356.17	2,582.5	277.8	-18.6	278.3	0.00	0.00	
2,700.0	7.34	356.17	2,681.6	290.5	-19.5	291.1	0.00	0.00	
2,800.0	7.34	356.17	2,780.8	303.3	-20.3	303.9	0.00	0.00	
2,900.0	7.34	356.17	2,880.0	316.0	-21.2	316.7	0.00	0.00	
3,000.0	7.34	356.17	2,979.2	328.8	-22.0	329.4	0.00	0.00	
3,100.0	7.34	356.17	3,078.4	341.5	-22.9	342.2	0.00	0.00	
3,200.0	7.34	356.17	3,177.5	354.3	-23.7	355.0	0.00	0.00	
3,300.0	7.34	356.17	3,276.7	367.1	-24.6	367.8	0.00	0.00	
3,400.0	7.34	356.17	3,375.9	379.8	-25.5	380.6	0.00	0.00	
3,500.0	7.34	356.17	3,475.1	392.6	-26.3	393.3	0.00	0.00	
3,600.0	7.34	356.17	3,574.3	405.3	-27.2	406.1	0.00	0.00	
3,700.0	7.34	356.17	3,673.4	418.1	-28.0	418.9	0.00	0.00	
3,800.0	7.34	356.17	3,772.6	430.8	-28.9	431.7	0.00	0.00	
3,900.0	7.34	356.17	3,871.8	443.6	-29.7	444.5	0.00	0.00	
4,000.0	7.34	356.17	3,971.0	456.3	-30.6	457.2	0.00	0.00	
4,100.0	7.34	356.17	4,070.2	469.1	-31.4	470.0	0.00	0.00	
4,200.0	7.34	356.17	4,169.3	481.9	-32.3	482.8	0.00	0.00	
4,300.0	7.34	356.17	4,268.5	494.6	-33.1	495.6	0.00	0.00	
4,400.0	7.34	356.17	4,367.7	507.4	-34.0	508.4	0.00	0.00	
4,500.0	7.34	356.17	4,466.9	520.1	-34.9	521.1	0.00	0.00	
4,600.0	7.34	356.17	4,566.1	532.9	-35.7	533.9	0.00	0.00	
4,700.0	7.34	356.17	4,665.2	545.6	-36.6	546.7	0.00	0.00	
4,800.0	7.34	356.17	4,764.4	558.4	-37.4	559.5	0.00	0.00	
4,900.0	7.34	356.17	4,863.6	571.1	-38.3	572.3	0.00	0.00	
5,000.0	7.34	356.17	4,962.8	583.9	-39.1	585.0	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well NP EF09F-27 P27 595
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6671.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6671.0ft (Original Well Elev)
Site:	P27 595 (S27-T5S-R95W)	North Reference:	True
Well:	NP EF09F-27 P27 595	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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)	Comments / Formations
5,100.0	7.34	356.17	5,062.0	596.7	-40.0	597.8	0.00	0.00	
5,200.0	7.34	356.17	5,161.1	609.4	-40.8	610.6	0.00	0.00	
5,300.0	7.34	356.17	5,260.3	622.2	-41.7	623.4	0.00	0.00	
5,400.0	7.34	356.17	5,359.5	634.9	-42.6	636.2	0.00	0.00	
5,500.0	7.34	356.17	5,458.7	647.7	-43.4	648.9	0.00	0.00	
5,600.0	7.34	356.17	5,557.9	660.4	-44.3	661.7	0.00	0.00	
5,700.0	7.34	356.17	5,657.0	673.2	-45.1	674.5	0.00	0.00	
5,800.0	7.34	356.17	5,756.2	685.9	-46.0	687.3	0.00	0.00	
5,900.0	7.34	356.17	5,855.4	698.7	-46.8	700.1	0.00	0.00	
6,000.0	7.34	356.17	5,954.6	711.4	-47.7	712.8	0.00	0.00	
6,100.0	7.34	356.17	6,053.8	724.2	-48.5	725.6	0.00	0.00	
6,200.0	7.34	356.17	6,152.9	737.0	-49.4	738.4	0.00	0.00	
6,300.0	7.34	356.17	6,252.1	749.7	-50.2	751.2	0.00	0.00	
6,323.9	7.34	356.17	6,275.8	752.8	-50.5	754.2	0.00	0.00	Start Drop -3.00
6,400.0	5.06	356.17	6,351.5	761.0	-51.0	762.5	3.00	-3.00	
6,500.0	2.06	356.17	6,451.3	767.2	-51.4	768.7	3.00	-3.00	
6,528.8	1.20	356.17	6,480.0	768.0	-51.5	769.5	3.00	-3.00	Williams Fork (TVD)
6,568.8	0.00	0.00	6,520.0	768.4	-51.5	769.9	3.00	-3.00	EOD @ Inc. = 0° - Top of Gas (TVD) - P27 595
6,600.0	0.08	239.52	6,551.2	768.4	-51.5	769.9	0.25	0.25	
6,698.3	0.32	239.52	6,649.5	768.2	-51.8	769.7	0.25	0.25	
6,700.0	0.32	239.52	6,651.2	768.2	-51.8	769.7	0.00	0.00	
6,800.0	0.32	239.52	6,751.2	767.9	-52.3	769.5	0.00	0.00	
6,900.0	0.32	239.52	6,851.2	767.6	-52.8	769.3	0.00	0.00	
7,000.0	0.32	239.52	6,951.2	767.3	-53.3	769.0	0.00	0.00	
7,100.0	0.32	239.52	7,051.2	767.1	-53.8	768.8	0.00	0.00	
7,200.0	0.32	239.52	7,151.2	766.8	-54.3	768.5	0.00	0.00	
7,300.0	0.32	239.52	7,251.2	766.5	-54.7	768.3	0.00	0.00	
7,400.0	0.32	239.52	7,351.2	766.2	-55.2	768.1	0.00	0.00	
7,500.0	0.32	239.52	7,451.2	765.9	-55.7	767.8	0.00	0.00	
7,600.0	0.32	239.52	7,551.2	765.6	-56.2	767.6	0.00	0.00	
7,700.0	0.32	239.52	7,651.2	765.3	-56.7	767.3	0.00	0.00	
7,800.0	0.32	239.52	7,751.2	765.1	-57.2	767.1	0.00	0.00	
7,900.0	0.32	239.52	7,851.2	764.8	-57.7	766.8	0.00	0.00	
8,000.0	0.32	239.52	7,951.2	764.5	-58.2	766.6	0.00	0.00	
8,100.0	0.32	239.52	8,051.2	764.2	-58.6	766.4	0.00	0.00	
8,200.0	0.32	239.52	8,151.2	763.9	-59.1	766.1	0.00	0.00	
8,300.0	0.32	239.52	8,251.2	763.6	-59.6	765.9	0.00	0.00	
8,400.0	0.32	239.52	8,351.2	763.3	-60.1	765.6	0.00	0.00	
8,500.0	0.32	239.52	8,451.2	763.1	-60.6	765.4	0.00	0.00	
8,600.0	0.32	239.52	8,551.2	762.8	-61.1	765.2	0.00	0.00	
8,700.0	0.32	239.52	8,651.2	762.5	-61.6	764.9	0.00	0.00	
8,800.0	0.32	239.52	8,751.2	762.2	-62.0	764.7	0.00	0.00	
8,900.0	0.32	239.52	8,851.2	761.9	-62.5	764.4	0.00	0.00	
9,000.0	0.32	239.52	8,951.2	761.6	-63.0	764.2	0.00	0.00	
9,100.0	0.32	239.52	9,051.2	761.3	-63.5	764.0	0.00	0.00	
9,200.0	0.32	239.52	9,151.2	761.0	-64.0	763.7	0.00	0.00	
9,300.0	0.32	239.52	9,251.2	760.8	-64.5	763.5	0.00	0.00	
9,400.0	0.32	239.52	9,351.2	760.5	-65.0	763.2	0.00	0.00	
9,500.0	0.32	239.52	9,451.2	760.2	-65.5	763.0	0.00	0.00	
9,600.0	0.32	239.52	9,551.2	759.9	-65.9	762.7	0.00	0.00	
9,700.0	0.32	239.52	9,651.2	759.6	-66.4	762.5	0.00	0.00	
9,800.0	0.32	239.52	9,751.2	759.3	-66.9	762.3	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well NP EF09F-27 P27 595
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6671.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6671.0ft (Original Well Elev)
Site:	P27 595 (S27-T5S-R95W)	North Reference:	True
Well:	NP EF09F-27 P27 595	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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)	Comments / Formations
9,900.0	0.32	239.52	9,851.2	759.0	-67.4	762.0	0.00	0.00	
10,000.0	0.32	239.52	9,951.2	758.8	-67.9	761.8	0.00	0.00	
10,100.0	0.32	239.52	10,051.2	758.5	-68.4	761.5	0.00	0.00	
10,128.8	0.32	239.52	10,080.0	758.4	-68.5	761.5	0.00	0.00	Rollins TVD - P27 595 EF 09F-27 BHL
10,200.0	0.32	239.52	10,151.2	758.2	-68.9	761.3	0.00	0.00	
10,228.8	0.32	239.52	10,180.0	758.1	-69.0	761.2	0.00	0.00	Drillers TD @ 10,228' MD

Targets										
Target Name										
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting			
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	Latitude	Longitude	
P27 595 EF 09F-27 BHL	0.00	0.00	10,080.0	758.4	-68.5	1,646,688.49	2,285,999.76	39.581606	-108.033543	
- plan hits target center										
- Rectangle (sides W30.0 H50.0 D0.0)										
P27 595 EF 09F-27 TG1	0.00	0.00	6,520.0	768.4	-51.5	1,646,698.03	2,286,017.05	39.581634	-108.033482	
- plan hits target center										
- Point										

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,528.8	6,480.0	Williams Fork (TVD)				
6,568.8	6,520.0	Top of Gas (TVD)				
10,128.8	10,080.0	Rollins TVD				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
300.0	300.0	0.0	0.0	KOP @ 300'	
544.8	544.2	15.6	-1.0	EOB @ Inc. = 7.35°	
6,323.9	6,275.8	752.8	-50.5	Start Drop -3.00	
6,568.8	6,520.0	768.4	-51.5	EOD @ Inc. = 0°	
10,228.8	10,180.0	758.1	-69.0	Drillers TD @ 10,228' MD	