



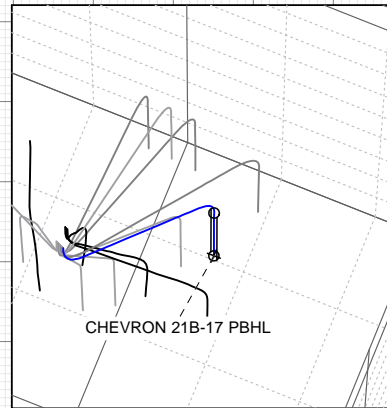
SECTION DETAILS

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	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	366.7	5.00	330.00	366.5	6.3	-3.6	3.00	330.00	6.0	
4	1142.4	27.17	294.48	1108.2	110.4	-184.3	3.00	-42.19	213.7	
5	4341.1	27.17	294.48	3953.8	715.7	-1513.8	0.00	0.00	1674.4	
6	5246.9	0.00	0.00	4826.0	803.0	-1705.6	3.00	180.00	1885.2	
7	7528.9	0.00	0.00	7108.0	803.0	-1705.6	0.00	0.00	1885.2	CHEVRON 21B-17 PBHL

Project: Garfield County, CO (UTM 12
Site: S17-T6S-R96W (PC5A)
Well: CHEVRON 21B-17
Wellbore: OH
Design: PLAN #1

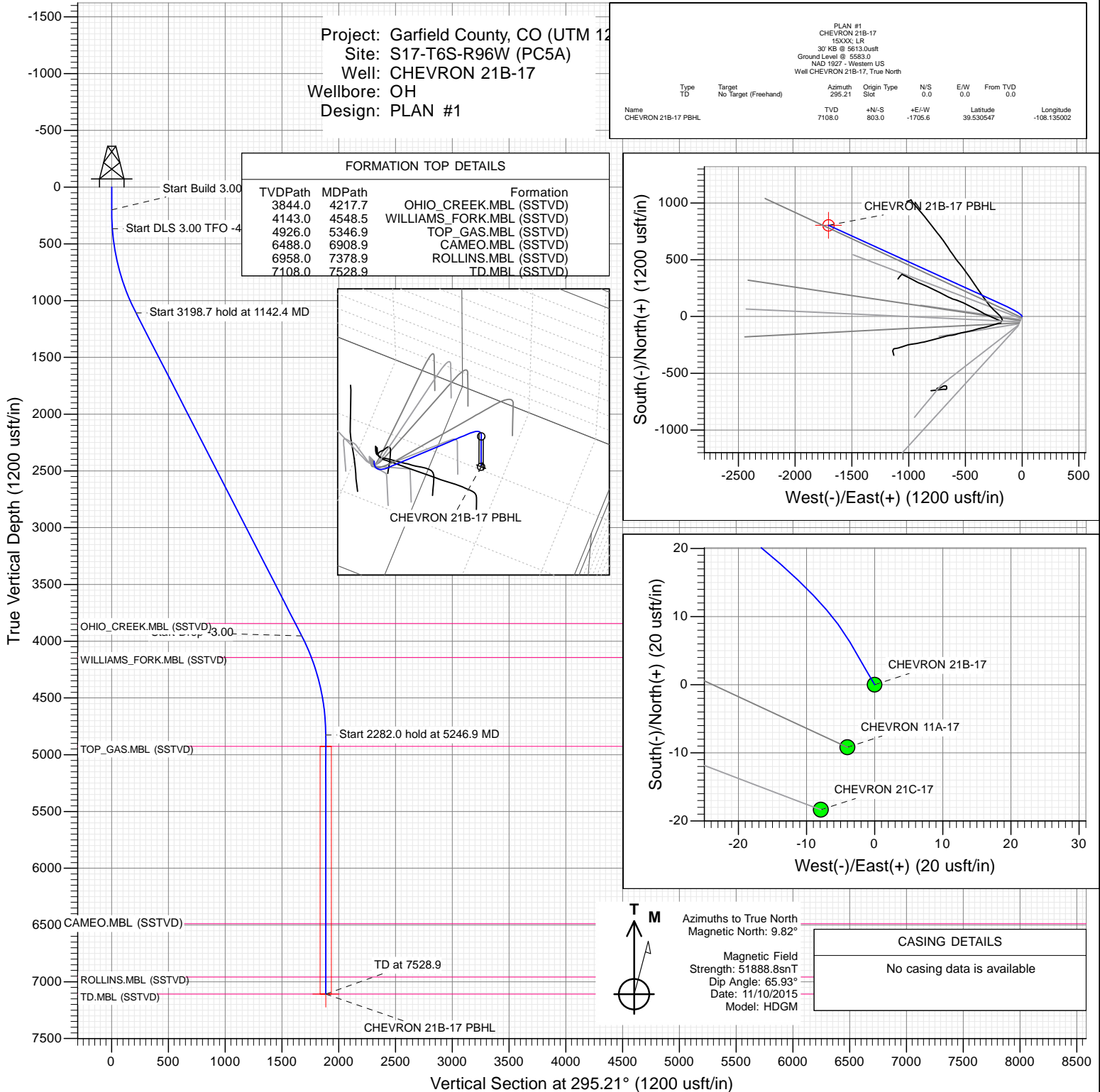
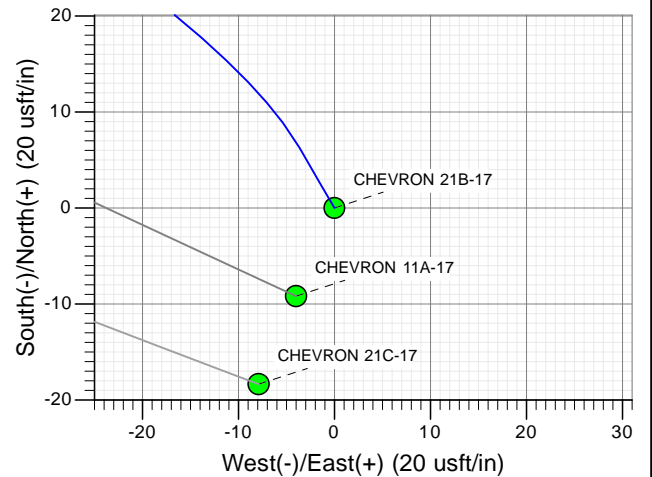
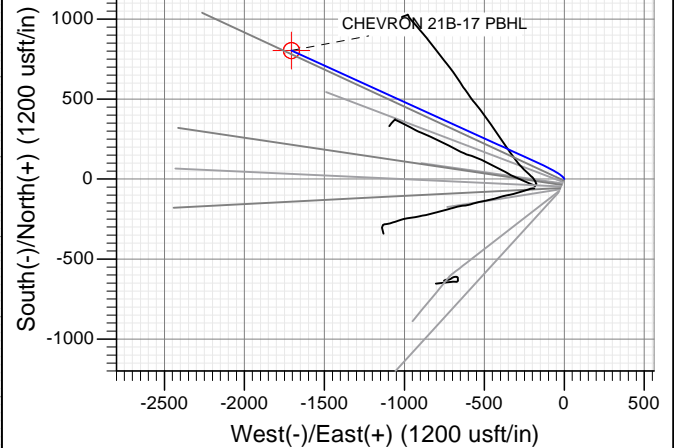
FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
3844.0	4217.7	OHIO_CREEK.MBL (SSTVD)
4143.0	4548.5	WILLIAMS_FORK.MBL (SSTVD)
4926.0	5346.9	TOP_GAS.MBL (SSTVD)
6488.0	6908.9	CAMEO.MBL (SSTVD)
6958.0	7378.9	ROLLINS.MBL (SSTVD)
7108.0	7528.9	TD.MBL (SSTVD)



PLAN #1
CHEVRON 21B-17
15XXX LR
30 KB @ 5613.0usft
Ground Level @ 5583.0
NAD 1927 - Western US
Well CHEVRON 21B-17, True North

Type	Target	Target	Target	Target	Target	Target	Target	Target	Target
TD	No	Target	Target	Target	Target	Target	Target	Target	Target
Name	TD	No	Target	Target	Target	Target	Target	Target	Target
CHEVRON 21B-17 PBHL	7108.0	803.0	-1705.6	39.530547	-108.135002				



Azimuths to True North
Magnetic North: 9.82°

Magnetic Field
Strength: 51888.8snT
Dip Angle: 65.93°
Date: 11/10/2015
Model: HDGM

CASING DETAILS

No casing data is available

WELL DETAILS: CHEVRON 21B-17

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	14367221.80	2450045.40	39.528344	-108.128958



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CHEVRON 21B-17
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 5613.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 5613.0usft
Site:	S17-T6S-R96W (PC5A)	North Reference:	True
Well:	CHEVRON 21B-17	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Project	Garfield County, CO (UTM 12N)		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site		S17-T6S-R96W (PC5A)			
Site Position:		Northing:	14,367,212.50 usft	Latitude:	39.528318
From:	Map	Easting:	2,450,041.70 usft	Longitude:	-108.128972
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.83 °

Well	CHEVRON 21B-17					
Well Position	+N/-S	0.0 usft	Northing:	14,367,221.80 usft	Latitude:	39.528344
	+E/-W	0.0 usft	Easting:	2,450,045.40 usft	Longitude:	-108.128958
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	5,583.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	11/10/2015	9.82	65.93	51,889

Design	PLAN #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	295.21

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
366.7	5.00	330.00	366.5	6.3	-3.6	3.00	3.00	0.00	330.00	
1,142.4	27.17	294.48	1,108.2	110.4	-184.3	3.00	2.86	-4.58	-42.19	
4,341.1	27.17	294.48	3,953.8	715.7	-1,513.8	0.00	0.00	0.00	0.00	
5,246.9	0.00	0.00	4,826.0	803.0	-1,705.6	3.00	-3.00	0.00	180.00	
7,528.9	0.00	0.00	7,108.0	803.0	-1,705.6	0.00	0.00	0.00	0.00	CHEVRON 21B-17 PI

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CHEVRON 21B-17
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 5613.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 5613.0usft
Site:	S17-T6S-R96W (PC5A)	North Reference:	True
Well:	CHEVRON 21B-17	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	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	Start Build 3.00
300.0	3.00	330.00	300.0	2.3	-1.3	2.1	3.00	3.00	
366.7	5.00	330.00	366.5	6.3	-3.6	6.0	3.00	3.00	Start DLS 3.00 TFO -42.19
400.0	5.78	323.32	399.6	8.9	-5.4	8.6	3.00	2.34	
500.0	8.40	311.30	498.9	17.8	-13.9	20.1	3.00	2.62	
600.0	11.22	305.12	597.4	28.2	-27.3	36.7	3.00	2.81	
700.0	14.11	301.41	695.0	40.1	-45.7	58.4	3.00	2.89	
800.0	17.03	298.95	791.3	53.6	-68.9	85.1	3.00	2.93	
900.0	19.98	297.20	886.1	68.5	-96.9	116.8	3.00	2.95	
1,000.0	22.94	295.88	979.2	84.8	-129.6	153.4	3.00	2.96	
1,100.0	25.91	294.85	1,070.2	102.5	-167.0	194.8	3.00	2.97	
1,142.4	27.17	294.48	1,108.2	110.4	-184.3	213.7	3.00	2.97	Start 3198.7 hold at 1142.4 MD
1,200.0	27.17	294.48	1,159.4	121.3	-208.2	240.0	0.00	0.00	
1,300.0	27.17	294.48	1,248.3	140.2	-249.7	285.7	0.00	0.00	
1,400.0	27.17	294.48	1,337.3	159.1	-291.3	331.3	0.00	0.00	
1,500.0	27.17	294.48	1,426.3	178.1	-332.9	377.0	0.00	0.00	
1,600.0	27.17	294.48	1,515.2	197.0	-374.4	422.7	0.00	0.00	
1,700.0	27.17	294.48	1,604.2	215.9	-416.0	468.3	0.00	0.00	
1,800.0	27.17	294.48	1,693.1	234.8	-457.6	514.0	0.00	0.00	
1,900.0	27.17	294.48	1,782.1	253.8	-499.1	559.7	0.00	0.00	
2,000.0	27.17	294.48	1,871.1	272.7	-540.7	605.3	0.00	0.00	
2,100.0	27.17	294.48	1,960.0	291.6	-582.3	651.0	0.00	0.00	
2,200.0	27.17	294.48	2,049.0	310.5	-623.8	696.7	0.00	0.00	
2,300.0	27.17	294.48	2,138.0	329.4	-665.4	742.3	0.00	0.00	
2,400.0	27.17	294.48	2,226.9	348.4	-707.0	788.0	0.00	0.00	
2,500.0	27.17	294.48	2,315.9	367.3	-748.5	833.7	0.00	0.00	
2,600.0	27.17	294.48	2,404.8	386.2	-790.1	879.3	0.00	0.00	
2,700.0	27.17	294.48	2,493.8	405.1	-831.7	925.0	0.00	0.00	
2,800.0	27.17	294.48	2,582.8	424.1	-873.2	970.7	0.00	0.00	
2,900.0	27.17	294.48	2,671.7	443.0	-914.8	1,016.3	0.00	0.00	
3,000.0	27.17	294.48	2,760.7	461.9	-956.4	1,062.0	0.00	0.00	
3,100.0	27.17	294.48	2,849.7	480.8	-997.9	1,107.7	0.00	0.00	
3,200.0	27.17	294.48	2,938.6	499.8	-1,039.5	1,153.3	0.00	0.00	
3,300.0	27.17	294.48	3,027.6	518.7	-1,081.0	1,199.0	0.00	0.00	
3,400.0	27.17	294.48	3,116.5	537.6	-1,122.6	1,244.7	0.00	0.00	
3,500.0	27.17	294.48	3,205.5	556.5	-1,164.2	1,290.3	0.00	0.00	
3,600.0	27.17	294.48	3,294.5	575.4	-1,205.7	1,336.0	0.00	0.00	
3,700.0	27.17	294.48	3,383.4	594.4	-1,247.3	1,381.7	0.00	0.00	
3,800.0	27.17	294.48	3,472.4	613.3	-1,288.9	1,427.3	0.00	0.00	
3,900.0	27.17	294.48	3,561.3	632.2	-1,330.4	1,473.0	0.00	0.00	
4,000.0	27.17	294.48	3,650.3	651.1	-1,372.0	1,518.7	0.00	0.00	
4,100.0	27.17	294.48	3,739.3	670.1	-1,413.6	1,564.3	0.00	0.00	
4,200.0	27.17	294.48	3,828.2	689.0	-1,455.1	1,610.0	0.00	0.00	
4,217.7	27.17	294.48	3,844.0	692.3	-1,462.5	1,618.1	0.00	0.00	OHIO_CREEK.MBL (SSTVD)
4,300.0	27.17	294.48	3,917.2	707.9	-1,496.7	1,655.7	0.00	0.00	
4,341.1	27.17	294.48	3,953.8	715.7	-1,513.8	1,674.4	0.00	0.00	Start Drop -3.00
4,400.0	25.41	294.48	4,006.6	726.5	-1,537.5	1,700.5	3.00	-3.00	
4,500.0	22.41	294.48	4,098.0	743.3	-1,574.4	1,741.0	3.00	-3.00	
4,548.5	20.95	294.48	4,143.0	750.7	-1,590.7	1,758.9	3.00	-3.00	WILLIAMS_FORK.MBL (SSTVD)
4,600.0	19.41	294.48	4,191.4	758.1	-1,606.9	1,776.7	3.00	-3.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CHEVRON 21B-17
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 5613.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 5613.0usft
Site:	S17-T6S-R96W (PC5A)	North Reference:	True
Well:	CHEVRON 21B-17	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
4,700.0	16.41	294.48	4,286.5	770.8	-1,634.9	1,807.5	3.00	-3.00	
4,800.0	13.41	294.48	4,383.1	781.5	-1,658.3	1,833.2	3.00	-3.00	
4,900.0	10.41	294.48	4,481.0	790.0	-1,677.0	1,853.8	3.00	-3.00	
5,000.0	7.41	294.48	4,579.8	796.4	-1,691.1	1,869.3	3.00	-3.00	
5,100.0	4.41	294.48	4,679.2	800.7	-1,700.5	1,879.6	3.00	-3.00	
5,200.0	1.41	294.48	4,779.1	802.8	-1,705.1	1,884.7	3.00	-3.00	
5,246.9	0.00	0.00	4,826.0	803.0	-1,705.6	1,885.2	3.00	-3.00	Start 2282.0 hold at 5246.9 MD
5,300.0	0.00	0.00	4,879.1	803.0	-1,705.6	1,885.2	0.00	0.00	
5,346.9	0.00	0.00	4,926.0	803.0	-1,705.6	1,885.2	0.00	0.00	TOP_GAS.MBL (SSTVD)
5,400.0	0.00	0.00	4,979.1	803.0	-1,705.6	1,885.2	0.00	0.00	
5,500.0	0.00	0.00	5,079.1	803.0	-1,705.6	1,885.2	0.00	0.00	
5,600.0	0.00	0.00	5,179.1	803.0	-1,705.6	1,885.2	0.00	0.00	
5,700.0	0.00	0.00	5,279.1	803.0	-1,705.6	1,885.2	0.00	0.00	
5,800.0	0.00	0.00	5,379.1	803.0	-1,705.6	1,885.2	0.00	0.00	
5,900.0	0.00	0.00	5,479.1	803.0	-1,705.6	1,885.2	0.00	0.00	
6,000.0	0.00	0.00	5,579.1	803.0	-1,705.6	1,885.2	0.00	0.00	
6,100.0	0.00	0.00	5,679.1	803.0	-1,705.6	1,885.2	0.00	0.00	
6,200.0	0.00	0.00	5,779.1	803.0	-1,705.6	1,885.2	0.00	0.00	
6,300.0	0.00	0.00	5,879.1	803.0	-1,705.6	1,885.2	0.00	0.00	
6,400.0	0.00	0.00	5,979.1	803.0	-1,705.6	1,885.2	0.00	0.00	
6,500.0	0.00	0.00	6,079.1	803.0	-1,705.6	1,885.2	0.00	0.00	
6,600.0	0.00	0.00	6,179.1	803.0	-1,705.6	1,885.2	0.00	0.00	
6,700.0	0.00	0.00	6,279.1	803.0	-1,705.6	1,885.2	0.00	0.00	
6,800.0	0.00	0.00	6,379.1	803.0	-1,705.6	1,885.2	0.00	0.00	
6,900.0	0.00	0.00	6,479.1	803.0	-1,705.6	1,885.2	0.00	0.00	
6,908.9	0.00	0.00	6,488.0	803.0	-1,705.6	1,885.2	0.00	0.00	CAMEO.MBL (SSTVD)
7,000.0	0.00	0.00	6,579.1	803.0	-1,705.6	1,885.2	0.00	0.00	
7,100.0	0.00	0.00	6,679.1	803.0	-1,705.6	1,885.2	0.00	0.00	
7,200.0	0.00	0.00	6,779.1	803.0	-1,705.6	1,885.2	0.00	0.00	
7,300.0	0.00	0.00	6,879.1	803.0	-1,705.6	1,885.2	0.00	0.00	
7,378.9	0.00	0.00	6,958.0	803.0	-1,705.6	1,885.2	0.00	0.00	ROLLINS.MBL (SSTVD)
7,400.0	0.00	0.00	6,979.1	803.0	-1,705.6	1,885.2	0.00	0.00	
7,500.0	0.00	0.00	7,079.1	803.0	-1,705.6	1,885.2	0.00	0.00	
7,528.9	0.00	0.00	7,108.0	803.0	-1,705.6	1,885.2	0.00	0.00	TD at 7528.9 - TD.MBL (SSTVD)

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
CHEVRON 21B-17 PBH - hit/miss target - Shape - plan hits target center - Circle (radius 50.0)	0.00	0.00	7,108.0	803.0	-1,705.6	14,367,970.00	2,448,315.00	39.530547	-108.135002

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CHEVRON 21B-17
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 5613.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 5613.0usft
Site:	S17-T6S-R96W (PC5A)	North Reference:	True
Well:	CHEVRON 21B-17	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,217.7	3,844.0	OHIO_CREEK.MBL (SSTVD)		0.00	
4,548.5	4,143.0	WILLIAMS_FORK.MBL (SSTVD)		0.00	
5,346.9	4,926.0	TOP_GAS.MBL (SSTVD)		0.00	
6,908.9	6,488.0	CAMEO.MBL (SSTVD)		0.00	
7,378.9	6,958.0	ROLLINS.MBL (SSTVD)		0.00	
7,528.9	7,108.0	TD.MBL (SSTVD)		0.00	

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
200.0	200.0	0.0	0.0	Start Build 3.00
366.7	366.5	6.3	-3.6	Start DLS 3.00 TFO -42.19
1,142.4	1,108.2	110.4	-184.3	Start 3198.7 hold at 1142.4 MD
4,341.1	3,953.8	715.7	-1,513.8	Start Drop -3.00
5,246.9	4,826.0	803.0	-1,705.6	Start 2282.0 hold at 5246.9 MD
7,528.9	7,108.0	803.0	-1,705.6	TD at 7528.9