



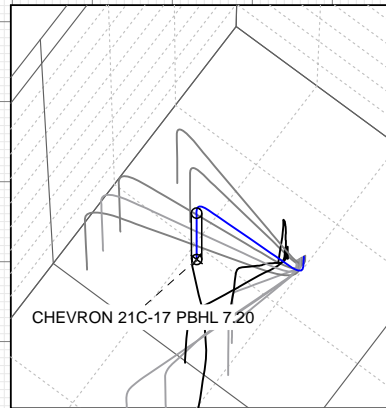
# SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	
3	1274.00	26.22	288.78	1243.81	63.28	-186.05	3.00	288.78	196.52	
4	4336.49	26.22	288.78	3991.19	498.95	-1467.05	0.00	0.001549.58		
5	5210.49	0.00	0.00	4835.00	562.23	-1653.10	3.00	180.001746.10		
6	7448.49	0.00	0.00	7073.00	562.23	-1653.10	0.00	0.001746.10		CHEVRON 21C-17 PBHL 7.20

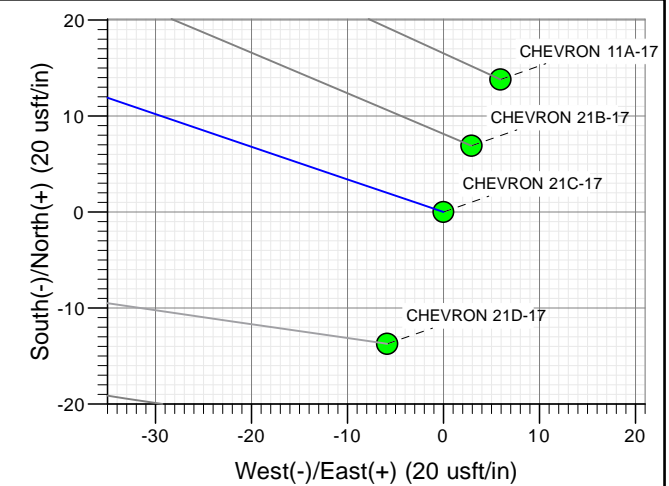
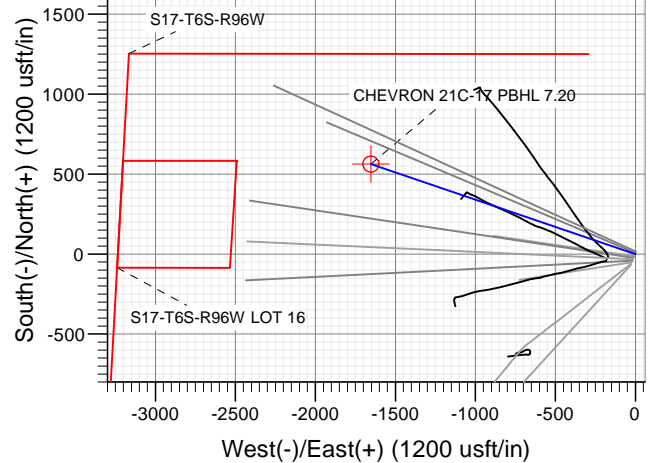
Project: Garfield County, CO (UTM 1  
Site: S17-T6S-R96W (PC5A)  
Well: CHEVRON 21C-17  
Wellbore: OH  
Design: PLAN #2

## FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3812.00	4136.75	OHIO_CREEK.MBL (TVD)
4115.00	4472.24	WILLIAMS_FORK.MBL (TVD)
4905.00	5280.49	TOP_GAS.MBL (TVD)
6453.00	6828.49	CAMEO.MBL (TVD)
6923.00	7298.49	ROLLINS.MBL (TVD)
7073.00	7448.49	TD.MBL (TVD)



Type	Target	No Target (Freehand)	Azimuth	Origin Type	N/S	E/W	From TVD
Name	CHEVRON 21C-17 PBHL 7.20		TVD	+N/-S	+E/-W	Latitude	Longitude
			7073.00	562.23	-1653.10	39.529848	-108.134837
			7103.00	557.79	-1482.86	39.529836	-108.134234

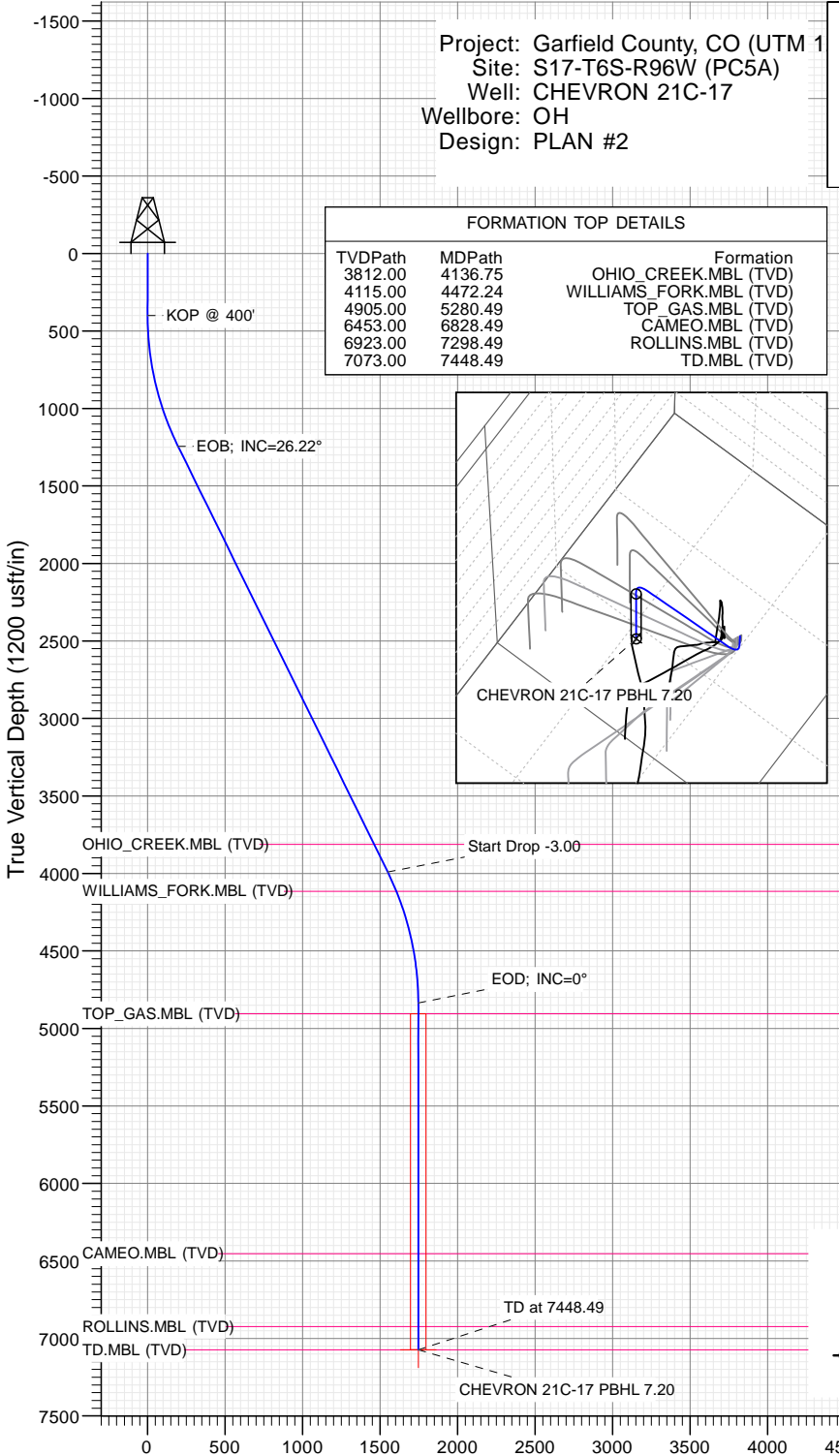


Azimuths to True North  
Magnetic North: 9.82°  
Magnetic Field  
Strength: 51888.8snT  
Dip Angle: 65.93°  
Date: 11/10/2015  
Model: HDGM

## CASING DETAILS

No casing data is available

## Vertical Section at 288.78° (1200 usft/in)



## WELL DETAILS: CHEVRON 21C-17

+N/-S	+E/-W	Northing	Ground Level:	Easting	Latitude	Longitude
0.00	0.00	14367207.80	5583.00	2450039.90	39.528306	-108.128979

CATHEDRAL



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well CHEVRON 21C-17
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 5613.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 5613.00usft
<b>Site:</b>	S17-T6S-R96W (PC5A)	<b>North Reference:</b>	True
<b>Well:</b>	CHEVRON 21C-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #2		

<b>Project</b>	Garfield County, CO (UTM 12N)		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 - Western US		
<b>Map Zone:</b>	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:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	1.83 °

Well	CHEVRON 21C-17					
Well Position	+N/-S	0.00 usft	Northing:	14,367,207.80 usft	Latitude:	39.528306
	+E/-W	0.00 usft	Easting:	2,450,039.90 usft	Longitude:	-108.128979
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	5,583.00 usft

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

<b>Design</b>	PLAN #2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	288.78

<b>Plan Sections</b>										
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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,274.00	26.22	288.78	1,243.81	63.28	-186.05	3.00	3.00	0.00	288.78	
4,336.49	26.22	288.78	3,991.19	498.95	-1,467.05	0.00	0.00	0.00	0.00	
5,210.49	0.00	0.00	4,835.00	562.23	-1,653.10	3.00	-3.00	0.00	180.00	
7,448.49	0.00	0.00	7,073.00	562.23	-1,653.10	0.00	0.00	0.00	0.00	CHEVRON 21C-17 P

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well CHEVRON 21C-17
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 5613.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 5613.00usft
<b>Site:</b>	S17-T6S-R96W (PC5A)	<b>North Reference:</b>	True
<b>Well:</b>	CHEVRON 21C-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #2		

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	KOP @ 400'
500.00	3.00	288.78	499.95	0.84	-2.48	2.62	3.00	3.00	
600.00	6.00	288.78	599.63	3.37	-9.91	10.46	3.00	3.00	
700.00	9.00	288.78	698.77	7.57	-22.26	23.51	3.00	3.00	
800.00	12.00	288.78	797.08	13.44	-39.51	41.74	3.00	3.00	
900.00	15.00	288.78	894.31	20.95	-61.61	65.08	3.00	3.00	
1,000.00	18.00	288.78	990.18	30.10	-88.50	93.48	3.00	3.00	
1,100.00	21.00	288.78	1,084.43	40.85	-120.10	126.85	3.00	3.00	
1,200.00	24.00	288.78	1,176.81	53.17	-156.32	165.12	3.00	3.00	
1,274.00	26.22	288.78	1,243.81	63.28	-186.05	196.52	3.00	3.00	EOB; INC=26.22°
1,300.00	26.22	288.78	1,267.14	66.98	-196.93	208.00	0.00	0.00	
1,400.00	26.22	288.78	1,356.85	81.20	-238.75	252.19	0.00	0.00	
1,500.00	26.22	288.78	1,446.56	95.43	-280.58	296.37	0.00	0.00	
1,600.00	26.22	288.78	1,536.27	109.65	-322.41	340.55	0.00	0.00	
1,700.00	26.22	288.78	1,625.98	123.88	-364.24	384.73	0.00	0.00	
1,800.00	26.22	288.78	1,715.69	138.11	-406.07	428.91	0.00	0.00	
1,900.00	26.22	288.78	1,805.40	152.33	-447.90	473.09	0.00	0.00	
2,000.00	26.22	288.78	1,895.11	166.56	-489.73	517.28	0.00	0.00	
2,100.00	26.22	288.78	1,984.82	180.78	-531.56	561.46	0.00	0.00	
2,200.00	26.22	288.78	2,074.53	195.01	-573.39	605.64	0.00	0.00	
2,300.00	26.22	288.78	2,164.24	209.24	-615.21	649.82	0.00	0.00	
2,400.00	26.22	288.78	2,253.95	223.46	-657.04	694.00	0.00	0.00	
2,500.00	26.22	288.78	2,343.66	237.69	-698.87	738.19	0.00	0.00	
2,600.00	26.22	288.78	2,433.37	251.92	-740.70	782.37	0.00	0.00	
2,700.00	26.22	288.78	2,523.08	266.14	-782.53	826.55	0.00	0.00	
2,800.00	26.22	288.78	2,612.79	280.37	-824.36	870.73	0.00	0.00	
2,900.00	26.22	288.78	2,702.50	294.59	-866.19	914.91	0.00	0.00	
3,000.00	26.22	288.78	2,792.22	308.82	-908.02	959.09	0.00	0.00	
3,100.00	26.22	288.78	2,881.93	323.05	-949.84	1,003.28	0.00	0.00	
3,200.00	26.22	288.78	2,971.64	337.27	-991.67	1,047.46	0.00	0.00	
3,300.00	26.22	288.78	3,061.35	351.50	-1,033.50	1,091.64	0.00	0.00	
3,400.00	26.22	288.78	3,151.06	365.72	-1,075.33	1,135.82	0.00	0.00	
3,500.00	26.22	288.78	3,240.77	379.95	-1,117.16	1,180.00	0.00	0.00	
3,600.00	26.22	288.78	3,330.48	394.18	-1,158.99	1,224.18	0.00	0.00	
3,700.00	26.22	288.78	3,420.19	408.40	-1,200.82	1,268.37	0.00	0.00	
3,800.00	26.22	288.78	3,509.90	422.63	-1,242.65	1,312.55	0.00	0.00	
3,900.00	26.22	288.78	3,599.61	436.86	-1,284.47	1,356.73	0.00	0.00	
4,000.00	26.22	288.78	3,689.32	451.08	-1,326.30	1,400.91	0.00	0.00	
4,100.00	26.22	288.78	3,779.03	465.31	-1,368.13	1,445.09	0.00	0.00	
4,136.75	26.22	288.78	3,812.00	470.54	-1,383.50	1,461.33	0.00	0.00	OHIO_CREEK.MBL (TVD)
4,200.00	26.22	288.78	3,868.74	479.53	-1,409.96	1,489.28	0.00	0.00	
4,300.00	26.22	288.78	3,958.45	493.76	-1,451.79	1,533.46	0.00	0.00	
4,336.49	26.22	288.78	3,991.19	498.95	-1,467.05	1,549.58	0.00	0.00	Start Drop -3.00
4,400.00	24.31	288.78	4,048.62	507.68	-1,492.72	1,576.69	3.00	-3.00	
4,472.24	22.15	288.78	4,115.00	516.85	-1,519.69	1,605.18	3.00	-3.00	WILLIAMS_FORK.MBL (TVD)
4,500.00	21.31	288.78	4,140.78	520.16	-1,529.42	1,615.46	3.00	-3.00	
4,600.00	18.31	288.78	4,234.85	531.08	-1,561.51	1,649.35	3.00	-3.00	
4,700.00	15.31	288.78	4,330.57	540.39	-1,588.90	1,678.28	3.00	-3.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well CHEVRON 21C-17
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 5613.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 5613.00usft
<b>Site:</b>	S17-T6S-R96W (PC5A)	<b>North Reference:</b>	True
<b>Well:</b>	CHEVRON 21C-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #2		

### 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
4,800.00	12.31	288.78	4,427.66	548.08	-1,611.50	1,702.15	3.00	-3.00	
4,900.00	9.31	288.78	4,525.87	554.12	-1,629.26	1,720.91	3.00	-3.00	
5,000.00	6.31	288.78	4,624.93	558.50	-1,642.13	1,734.51	3.00	-3.00	
5,100.00	3.31	288.78	4,724.57	561.20	-1,650.08	1,742.90	3.00	-3.00	
5,200.00	0.31	288.78	4,824.51	562.22	-1,653.08	1,746.07	3.00	-3.00	
5,210.49	0.00	0.00	4,835.00	562.23	-1,653.10	1,746.10	3.00	-3.00	EOD; INC=0°
5,280.49	0.00	0.00	4,905.00	562.23	-1,653.10	1,746.10	0.00	0.00	TOP_GAS.MBL (TVD)
5,300.00	0.00	0.00	4,924.51	562.23	-1,653.10	1,746.10	0.00	0.00	
5,400.00	0.00	0.00	5,024.51	562.23	-1,653.10	1,746.10	0.00	0.00	
5,500.00	0.00	0.00	5,124.51	562.23	-1,653.10	1,746.10	0.00	0.00	
5,600.00	0.00	0.00	5,224.51	562.23	-1,653.10	1,746.10	0.00	0.00	
5,700.00	0.00	0.00	5,324.51	562.23	-1,653.10	1,746.10	0.00	0.00	
5,800.00	0.00	0.00	5,424.51	562.23	-1,653.10	1,746.10	0.00	0.00	
5,900.00	0.00	0.00	5,524.51	562.23	-1,653.10	1,746.10	0.00	0.00	
6,000.00	0.00	0.00	5,624.51	562.23	-1,653.10	1,746.10	0.00	0.00	
6,100.00	0.00	0.00	5,724.51	562.23	-1,653.10	1,746.10	0.00	0.00	
6,200.00	0.00	0.00	5,824.51	562.23	-1,653.10	1,746.10	0.00	0.00	
6,300.00	0.00	0.00	5,924.51	562.23	-1,653.10	1,746.10	0.00	0.00	
6,400.00	0.00	0.00	6,024.51	562.23	-1,653.10	1,746.10	0.00	0.00	
6,500.00	0.00	0.00	6,124.51	562.23	-1,653.10	1,746.10	0.00	0.00	
6,600.00	0.00	0.00	6,224.51	562.23	-1,653.10	1,746.10	0.00	0.00	
6,700.00	0.00	0.00	6,324.51	562.23	-1,653.10	1,746.10	0.00	0.00	
6,800.00	0.00	0.00	6,424.51	562.23	-1,653.10	1,746.10	0.00	0.00	
6,828.49	0.00	0.00	6,453.00	562.23	-1,653.10	1,746.10	0.00	0.00	CAMEO.MBL (TVD)
6,900.00	0.00	0.00	6,524.51	562.23	-1,653.10	1,746.10	0.00	0.00	
7,000.00	0.00	0.00	6,624.51	562.23	-1,653.10	1,746.10	0.00	0.00	
7,100.00	0.00	0.00	6,724.51	562.23	-1,653.10	1,746.10	0.00	0.00	
7,200.00	0.00	0.00	6,824.51	562.23	-1,653.10	1,746.10	0.00	0.00	
7,298.49	0.00	0.00	6,923.00	562.23	-1,653.10	1,746.10	0.00	0.00	ROLLINS.MBL (TVD)
7,300.00	0.00	0.00	6,924.51	562.23	-1,653.10	1,746.10	0.00	0.00	
7,400.00	0.00	0.00	7,024.51	562.23	-1,653.10	1,746.10	0.00	0.00	
7,448.49	0.00	0.00	7,073.00	562.23	-1,653.10	1,746.10	0.00	0.00	TD at 7448.49 - TD.MBL (TVD)

### Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
CHEVRON 21C-17 PBH - hit/miss target - Shape	0.00	0.00	7,073.00	562.23	-1,653.10	14,367,717.00	2,448,369.70	39.529848	-108.134837
- plan hits target center - Circle (radius 50.00)									
CHEVRON 21C-17 PBH - plan misses target center by 172.93usft at 7448.49usft MD (7073.00 TVD, 562.23 N, -1653.10 E) - Circle (radius 50.00)	0.00	0.00	7,103.00	557.79	-1,482.86	14,367,718.00	2,448,540.00	39.529836	-108.134234

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well CHEVRON 21C-17
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 5613.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 5613.00usft
<b>Site:</b>	S17-T6S-R96W (PC5A)	<b>North Reference:</b>	True
<b>Well:</b>	CHEVRON 21C-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #2		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,136.75	3,812.00	OHIO_CREEK.MBL (TVD)				
4,472.24	4,115.00	WILLIAMS_FORK.MBL (TVD)				
5,280.49	4,905.00	TOP_GAS.MBL (TVD)				
6,828.49	6,453.00	CAMEO.MBL (TVD)				
7,298.49	6,923.00	ROLLINS.MBL (TVD)				
7,448.49	7,073.00	TD.MBL (TVD)				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
400.00	400.00	0.00	0.00	KOP @ 400'	
1,274.00	1,243.81	63.28	-186.05	EOB; INC=26.22°	
4,336.49	3,991.19	498.95	-1,467.05	Start Drop -3.00	
5,210.49	4,835.00	562.23	-1,653.10	EOD; INC=0°	
7,448.49	7,073.00	562.23	-1,653.10	TD at 7448.49	