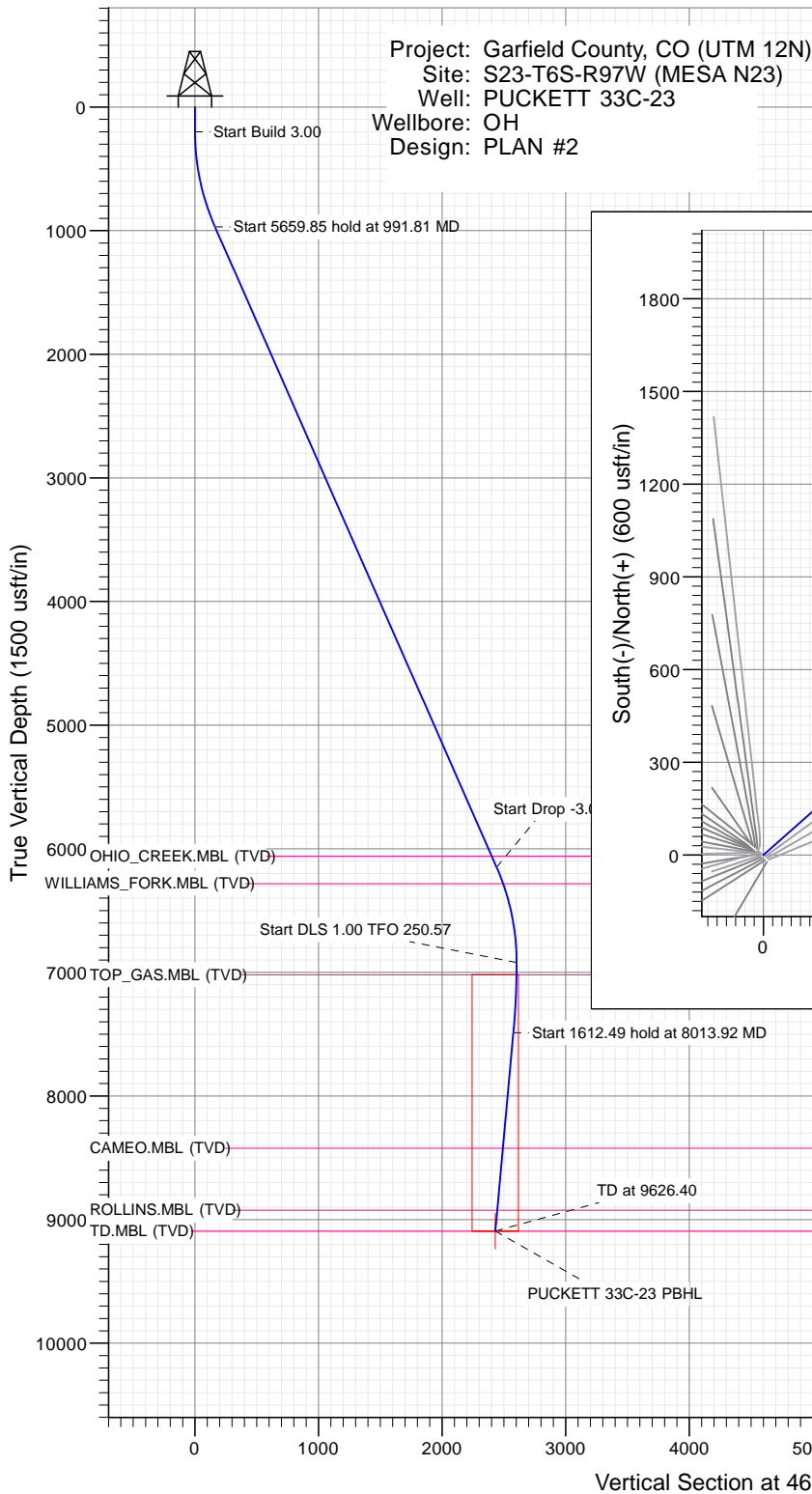


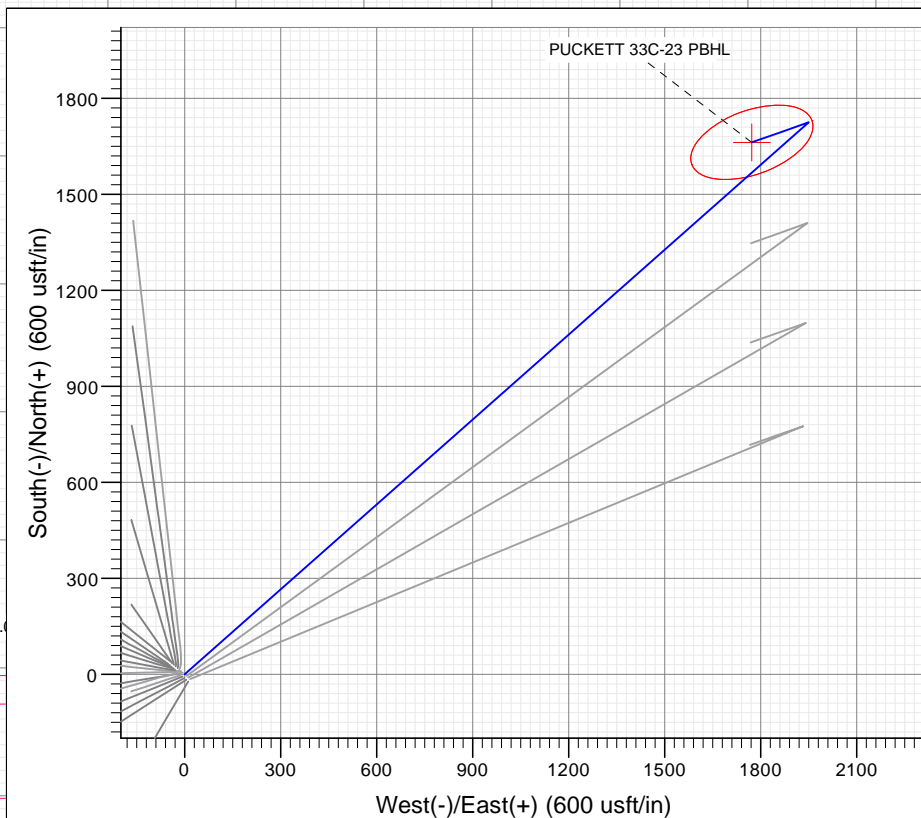


# SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	991.81	23.75	48.50	969.32	107.21	121.19	3.00	48.50	161.73	
4	6651.66	23.75	48.50	6149.68	1617.79	1828.81	0.00	0.00	2440.64	
5	7443.48	0.00	0.00	6919.00	1725.00	1950.00	3.00	180.00	2602.38	
6	8013.92	5.70	250.57	7488.50	1715.56	1923.24	1.00	250.57	2576.40	
7	9626.40	5.70	250.57	9093.00	1662.25	1772.09	0.00	0.00	2429.69	PUCKETT 33C-23 PBHL



Type	Target	Azimuth	Origin Type	N/S	E/W	From TVD
TD	No Target (Freehand)	46.83	Slot	0.00	0.00	0.00
Name	PUCKETT 33C-23 PBHL	TVD	+N/-S	+E/-W	Latitude	Longitude
		9093.00	1662.25	1772.09	39.507661	-108.181012



TVDPPath	MDPath	Formation
6060.00	6553.69	OHIO_CREEK.MBL (TVD)
6282.00	6794.03	WILLIAMS_FORK.MBL (TVD)
7019.00	7543.48	TOP_GAS.MBL (TVD)
8423.00	8953.07	CAMEO.MBL (TVD)
8923.00	9455.56	ROLLINS.MBL (TVD)
9093.00	9626.40	TD.MBL (TVD)



Azimuths to True North  
Magnetic North: 9.78°

Magnetic Field  
Strength: 51811.3snT  
Dip Angle: 65.85°  
Date: 9/14/2016  
Model: HDGM

Vertical Section at 46.83° (1500 usft/in)

## WELL DETAILS: PUCKETT 33C-23

+N/-S	+E/-W	Northing	Ground Level:	8432.00	Latitude	Longitude
0.00	0.00	14357508.20	Easting	2433880.70	39.503099	-108.187290



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 33C-23
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8462.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8462.00usft
<b>Site:</b>	S23-T6S-R97W (MESA N23)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 33C-23	<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)		

<b>Site</b>	S23-T6S-R97W (MESA N23)		
<b>Site Position:</b>		<b>Northing:</b>	14,357,518.00 usft
<b>From:</b>	Map	<b>Easting:</b>	2,433,869.00 usft
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16"
		<b>Latitude:</b>	39.503127
		<b>Longitude:</b>	-108.187330
		<b>Grid Convergence:</b>	1.79 °

<b>Well</b>	PUCKETT 33C-23		
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>
<b>Position Uncertainty</b>	0.00 usft	<b>Wellhead Elevation:</b>	0.00 usft
		<b>Latitude:</b>	39.503099
		<b>Longitude:</b>	-108.187290
		<b>Ground Level:</b>	8,432.00 usft

<b>Wellbore</b>	OH		
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>
			(°)
	HDGM	9/14/2016	9.78
			Dip Angle (°)
			65.85
			Field Strength (nT)
			51,811.30000000

<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)</b>	<b>+N/-S</b>	<b>+E/-W</b>
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction (°)
			46.83

<b>Plan Sections</b>										
<b>Measured Depth</b>	<b>Inclination</b>	<b>Azimuth</b>	<b>Vertical Depth</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Dogleg Rate</b>	<b>Build Rate</b>	<b>Turn Rate</b>	<b>TFO</b>	<b>Target</b>
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.00	0.00	0.00	0.00	0.00	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	0.00	
991.81	23.75	48.50	969.32	107.21	121.19	3.00	3.00	0.00	48.50	
6,651.66	23.75	48.50	6,149.68	1,617.79	1,828.81	0.00	0.00	0.00	0.00	
7,443.48	0.00	0.00	6,919.00	1,725.00	1,950.00	3.00	-3.00	0.00	180.00	
8,013.92	5.70	250.57	7,488.50	1,715.56	1,923.24	1.00	1.00	-19.18	250.57	
9,626.40	5.70	250.57	9,093.00	1,662.25	1,772.09	0.00	0.00	0.00	0.00	PUCKETT 33C-23 PE

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 33C-23
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8462.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8462.00usft
<b>Site:</b>	S23-T6S-R97W (MESA N23)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 33C-23	<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	Start Build 3.00
300.00	3.00	48.50	299.95	1.73	1.96	2.62	3.00	3.00	
400.00	6.00	48.50	399.63	6.93	7.84	10.46	3.00	3.00	
500.00	9.00	48.50	498.77	15.58	17.61	23.50	3.00	3.00	
600.00	12.00	48.50	597.08	27.65	31.26	41.72	3.00	3.00	
700.00	15.00	48.50	694.31	43.12	48.74	65.05	3.00	3.00	
800.00	18.00	48.50	790.18	61.93	70.01	93.44	3.00	3.00	
900.00	21.00	48.50	884.43	84.05	95.01	126.80	3.00	3.00	
991.81	23.75	48.50	969.32	107.21	121.19	161.73	3.00	3.00	Start 5659.85 hold at 991.81 MD
1,000.00	23.75	48.50	976.82	109.39	123.66	165.03	0.00	0.00	
1,100.00	23.75	48.50	1,068.34	136.08	153.83	205.29	0.00	0.00	
1,200.00	23.75	48.50	1,159.87	162.77	184.00	245.56	0.00	0.00	
1,300.00	23.75	48.50	1,251.40	189.46	214.17	285.82	0.00	0.00	
1,400.00	23.75	48.50	1,342.93	216.15	244.34	326.09	0.00	0.00	
1,500.00	23.75	48.50	1,434.46	242.84	274.51	366.35	0.00	0.00	
1,600.00	23.75	48.50	1,525.99	269.53	304.68	406.62	0.00	0.00	
1,700.00	23.75	48.50	1,617.51	296.22	334.85	446.88	0.00	0.00	
1,800.00	23.75	48.50	1,709.04	322.91	365.03	487.15	0.00	0.00	
1,900.00	23.75	48.50	1,800.57	349.60	395.20	527.41	0.00	0.00	
2,000.00	23.75	48.50	1,892.10	376.29	425.37	567.67	0.00	0.00	
2,100.00	23.75	48.50	1,983.63	402.98	455.54	607.94	0.00	0.00	
2,200.00	23.75	48.50	2,075.15	429.67	485.71	648.20	0.00	0.00	
2,300.00	23.75	48.50	2,166.68	456.36	515.88	688.47	0.00	0.00	
2,400.00	23.75	48.50	2,258.21	483.04	546.05	728.73	0.00	0.00	
2,500.00	23.75	48.50	2,349.74	509.73	576.22	769.00	0.00	0.00	
2,600.00	23.75	48.50	2,441.27	536.42	606.39	809.26	0.00	0.00	
2,700.00	23.75	48.50	2,532.79	563.11	636.56	849.53	0.00	0.00	
2,800.00	23.75	48.50	2,624.32	589.80	666.73	889.79	0.00	0.00	
2,900.00	23.75	48.50	2,715.85	616.49	696.90	930.05	0.00	0.00	
3,000.00	23.75	48.50	2,807.38	643.18	727.08	970.32	0.00	0.00	
3,100.00	23.75	48.50	2,898.91	669.87	757.25	1,010.58	0.00	0.00	
3,200.00	23.75	48.50	2,990.43	696.56	787.42	1,050.85	0.00	0.00	
3,300.00	23.75	48.50	3,081.96	723.25	817.59	1,091.11	0.00	0.00	
3,400.00	23.75	48.50	3,173.49	749.94	847.76	1,131.38	0.00	0.00	
3,500.00	23.75	48.50	3,265.02	776.63	877.93	1,171.64	0.00	0.00	
3,600.00	23.75	48.50	3,356.55	803.32	908.10	1,211.91	0.00	0.00	
3,700.00	23.75	48.50	3,448.08	830.01	938.27	1,252.17	0.00	0.00	
3,800.00	23.75	48.50	3,539.60	856.70	968.44	1,292.43	0.00	0.00	
3,900.00	23.75	48.50	3,631.13	883.39	998.61	1,332.70	0.00	0.00	
4,000.00	23.75	48.50	3,722.66	910.08	1,028.78	1,372.96	0.00	0.00	
4,100.00	23.75	48.50	3,814.19	936.77	1,058.95	1,413.23	0.00	0.00	
4,200.00	23.75	48.50	3,905.72	963.46	1,089.12	1,453.49	0.00	0.00	
4,300.00	23.75	48.50	3,997.24	990.15	1,119.30	1,493.76	0.00	0.00	
4,400.00	23.75	48.50	4,088.77	1,016.84	1,149.47	1,534.02	0.00	0.00	
4,500.00	23.75	48.50	4,180.30	1,043.52	1,179.64	1,574.29	0.00	0.00	
4,600.00	23.75	48.50	4,271.83	1,070.21	1,209.81	1,614.55	0.00	0.00	
4,700.00	23.75	48.50	4,363.36	1,096.90	1,239.98	1,654.82	0.00	0.00	
4,800.00	23.75	48.50	4,454.88	1,123.59	1,270.15	1,695.08	0.00	0.00	
4,900.00	23.75	48.50	4,546.41	1,150.28	1,300.32	1,735.34	0.00	0.00	
5,000.00	23.75	48.50	4,637.94	1,176.97	1,330.49	1,775.61	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 33C-23
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8462.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8462.00usft
<b>Site:</b>	S23-T6S-R97W (MESA N23)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 33C-23	<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
5,100.00	23.75	48.50	4,729.47	1,203.66	1,360.66	1,815.87	0.00	0.00	
5,200.00	23.75	48.50	4,821.00	1,230.35	1,390.83	1,856.14	0.00	0.00	
5,300.00	23.75	48.50	4,912.52	1,257.04	1,421.00	1,896.40	0.00	0.00	
5,400.00	23.75	48.50	5,004.05	1,283.73	1,451.17	1,936.67	0.00	0.00	
5,500.00	23.75	48.50	5,095.58	1,310.42	1,481.34	1,976.93	0.00	0.00	
5,600.00	23.75	48.50	5,187.11	1,337.11	1,511.52	2,017.20	0.00	0.00	
5,700.00	23.75	48.50	5,278.64	1,363.80	1,541.69	2,057.46	0.00	0.00	
5,800.00	23.75	48.50	5,370.17	1,390.49	1,571.86	2,097.72	0.00	0.00	
5,900.00	23.75	48.50	5,461.69	1,417.18	1,602.03	2,137.99	0.00	0.00	
6,000.00	23.75	48.50	5,553.22	1,443.87	1,632.20	2,178.25	0.00	0.00	
6,100.00	23.75	48.50	5,644.75	1,470.56	1,662.37	2,218.52	0.00	0.00	
6,200.00	23.75	48.50	5,736.28	1,497.25	1,692.54	2,258.78	0.00	0.00	
6,300.00	23.75	48.50	5,827.81	1,523.94	1,722.71	2,299.05	0.00	0.00	
6,400.00	23.75	48.50	5,919.33	1,550.63	1,752.88	2,339.31	0.00	0.00	
6,500.00	23.75	48.50	6,010.86	1,577.32	1,783.05	2,379.58	0.00	0.00	
6,553.69	23.75	48.50	6,060.00	1,591.64	1,799.25	2,401.19	0.00	0.00	OHIO_CREEK.MBL (TVD)
6,600.00	23.75	48.50	6,102.39	1,604.01	1,813.22	2,419.84	0.00	0.00	
6,651.66	23.75	48.50	6,149.68	1,617.79	1,828.81	2,440.64	0.00	0.00	Start Drop -3.00
6,700.00	22.30	48.50	6,194.16	1,630.32	1,842.97	2,459.54	3.00	-3.00	
6,794.03	19.48	48.50	6,282.00	1,652.54	1,868.09	2,493.06	3.00	-3.00	WILLIAMS_FORK.MBL (TVD)
6,800.00	19.30	48.50	6,287.63	1,653.85	1,869.57	2,495.04	3.00	-3.00	
6,900.00	16.30	48.50	6,382.83	1,674.11	1,892.47	2,525.60	3.00	-3.00	
7,000.00	13.30	48.50	6,479.50	1,691.04	1,911.61	2,551.14	3.00	-3.00	
7,100.00	10.30	48.50	6,577.37	1,704.59	1,926.93	2,571.59	3.00	-3.00	
7,200.00	7.30	48.50	6,676.18	1,714.73	1,938.39	2,586.88	3.00	-3.00	
7,300.00	4.30	48.50	6,775.66	1,721.43	1,945.97	2,596.99	3.00	-3.00	
7,400.00	1.30	48.50	6,875.53	1,724.67	1,949.63	2,601.88	3.00	-3.00	
7,443.48	0.00	0.00	6,919.00	1,725.00	1,950.00	2,602.38	3.00	-3.00	Start DLS 1.00 TFO 250.57
7,500.00	0.57	250.57	6,975.52	1,724.91	1,949.74	2,602.12	1.00	1.00	
7,543.48	1.00	250.57	7,019.00	1,724.71	1,949.18	2,601.58	1.00	1.00	TOP_GAS.MBL (TVD)
7,600.00	1.57	250.57	7,075.50	1,724.29	1,947.98	2,600.42	1.00	1.00	
7,700.00	2.57	250.57	7,175.44	1,723.09	1,944.59	2,597.12	1.00	1.00	
7,800.00	3.57	250.57	7,275.29	1,721.31	1,939.54	2,592.22	1.00	1.00	
7,900.00	4.57	250.57	7,375.04	1,718.95	1,932.86	2,585.74	1.00	1.00	
8,000.00	5.57	250.57	7,474.65	1,716.02	1,924.53	2,577.65	1.00	1.00	
8,013.92	5.70	250.57	7,488.50	1,715.56	1,923.24	2,576.40	1.00	1.00	Start 1612.49 hold at 8013.92 MD
8,100.00	5.70	250.57	7,574.16	1,712.72	1,915.17	2,568.57	0.00	0.00	
8,200.00	5.70	250.57	7,673.66	1,709.41	1,905.80	2,559.47	0.00	0.00	
8,300.00	5.70	250.57	7,773.16	1,706.10	1,896.43	2,550.37	0.00	0.00	
8,400.00	5.70	250.57	7,872.67	1,702.80	1,887.05	2,541.28	0.00	0.00	
8,500.00	5.70	250.57	7,972.17	1,699.49	1,877.68	2,532.18	0.00	0.00	
8,600.00	5.70	250.57	8,071.68	1,696.19	1,868.30	2,523.08	0.00	0.00	
8,700.00	5.70	250.57	8,171.18	1,692.88	1,858.93	2,513.98	0.00	0.00	
8,800.00	5.70	250.57	8,270.69	1,689.57	1,849.56	2,504.88	0.00	0.00	
8,900.00	5.70	250.57	8,370.19	1,686.27	1,840.18	2,495.78	0.00	0.00	
8,953.07	5.70	250.57	8,423.00	1,684.51	1,835.21	2,490.95	0.00	0.00	CAMEO.MBL (TVD)
9,000.00	5.70	250.57	8,469.70	1,682.96	1,830.81	2,486.68	0.00	0.00	
9,100.00	5.70	250.57	8,569.20	1,679.66	1,821.44	2,477.59	0.00	0.00	
9,200.00	5.70	250.57	8,668.71	1,676.35	1,812.06	2,468.49	0.00	0.00	
9,300.00	5.70	250.57	8,768.21	1,673.04	1,802.69	2,459.39	0.00	0.00	
9,400.00	5.70	250.57	8,867.72	1,669.74	1,793.32	2,450.29	0.00	0.00	
9,455.56	5.70	250.57	8,923.00	1,667.90	1,788.11	2,445.23	0.00	0.00	ROLLINS.MBL (TVD)

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 33C-23
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8462.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8462.00usft
<b>Site:</b>	S23-T6S-R97W (MESA N23)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 33C-23	<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
9,500.00	5.70	250.57	8,967.22	1,666.43	1,783.94	2,441.19	0.00	0.00	
9,600.00	5.70	250.57	9,066.73	1,663.12	1,774.57	2,432.09	0.00	0.00	
9,626.40	5.70	250.57	9,093.00	1,662.25	1,772.09	2,429.69	0.00	0.00	TD at 9626.40 - TD.MBL (TVD)

Targets									
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude Longitude
PUCKETT 33C-23 PBHI	- plan hits target center - Ellipse (radii L200.00 W100.00 on 250.00 azi)	0.00	0.00	9,093.00	1,662.25	1,772.09	14,359,225.00	2,435,600.00	39.507661 -108.181012

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,553.69	6,060.00	OHIO_CREEK.MBL (TVD)				
6,794.03	6,282.00	WILLIAMS_FORK.MBL (TVD)				
7,543.48	7,019.00	TOP_GAS.MBL (TVD)				
8,953.07	8,423.00	CAMEO.MBL (TVD)				
9,455.56	8,923.00	ROLLINS.MBL (TVD)				
9,626.40	9,093.00	TD.MBL (TVD)				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
200.00	200.00	0.00	0.00	Start Build 3.00	
991.81	969.32	107.21	121.19	Start 5659.85 hold at 991.81 MD	
6,651.66	6,149.68	1,617.79	1,828.81	Start Drop -3.00	
7,443.48	6,919.00	1,725.00	1,950.00	Start DLS 1.00 TFO 250.57	
8,013.92	7,488.50	1,715.56	1,923.24	Start 1612.49 hold at 8013.92 MD	
9,626.40	9,093.00	1,662.25	1,772.09	TD at 9626.40	