

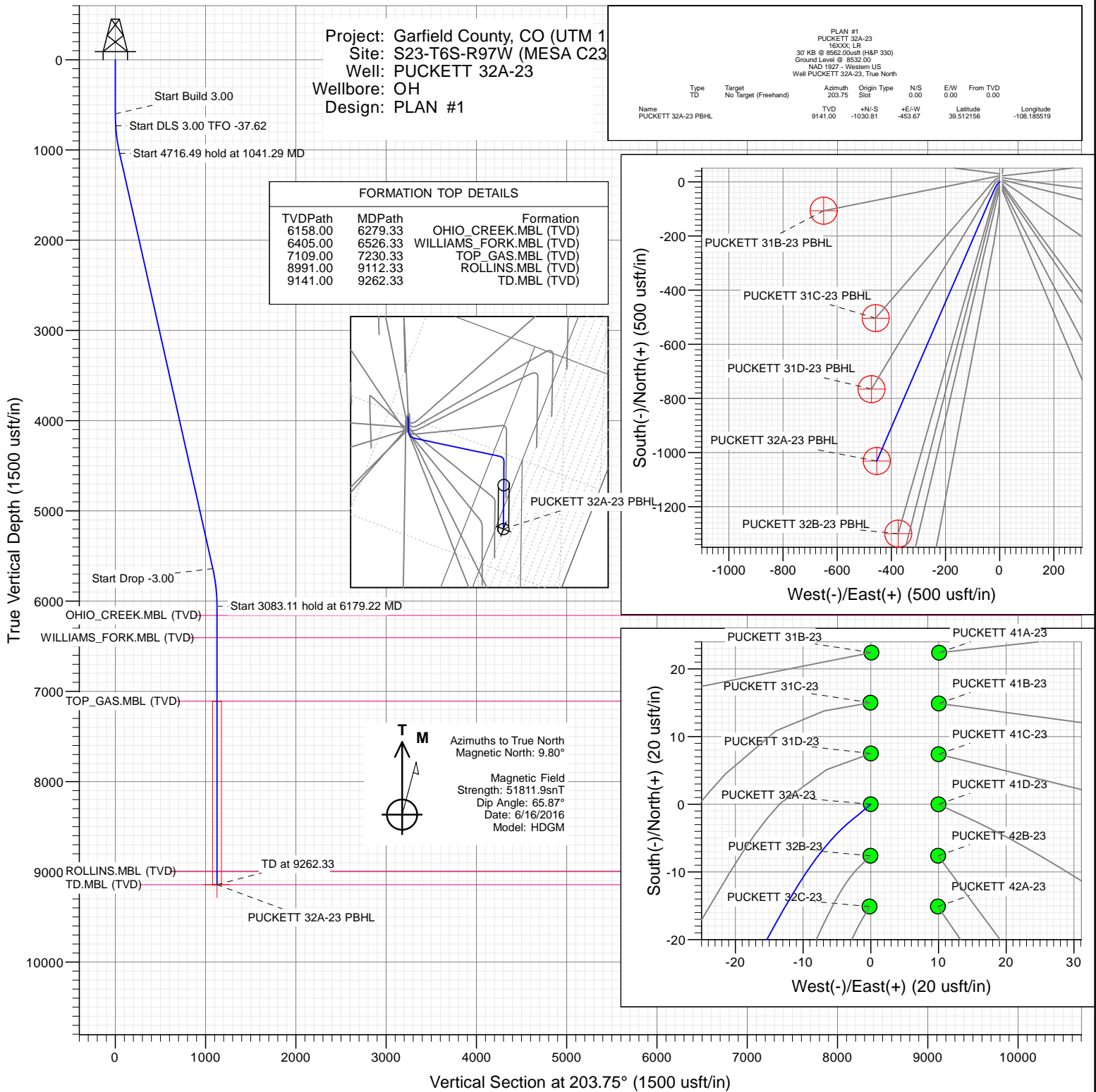


## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	
3	733.33	4.00	230.00	733.23	-2.99	-3.56	3.00	230.00	4.17	
4	1041.29	12.64	203.40	1037.74	-40.91	-25.23	3.00	-37.62	47.60	
5	5757.78	12.64	203.40	5639.86	-988.31	-435.28	0.00	0.00	1079.92	
6	6179.22	0.00	0.00	6057.89	-1030.81	-453.67	3.00	180.00	1126.23	
7	9262.33	0.00	0.00	9141.00	-1030.81	-453.67	0.00	0.00	1126.23	PUCKETT 32A-23 PBHL

Project: Garfield County, CO (UTM 1  
Site: S23-T6S-R97W (MESA C23  
Well: PUCKETT 32A-23  
Wellbore: OH  
Design: PLAN #1

Type	Target	Azimuth	Origin	Type	N/S	E/W	From
TD	No Target (Freehand)	203.75	Slot		0.00	0.00	0.00
Name		TVD	+N/-S	+E/-W	Latitude	Longitude	
PUCKETT 32A-23 PBHL		9141.00	-1030.81	-453.67	39.512156	-108.185519	



## WELL DETAILS: PUCKETT 32A-23

+N/-S	+E/-W	Northing	Ground Level:	8532.00	Latitude	Longitude
0.00	0.00	14361866.90	Easting	2434698.20	39.514985	-108.183912



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 32A-23
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8562.00usft (H&P 330)
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8562.00usft (H&P 330)
<b>Site:</b>	S23-T6S-R97W (MESA C23)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 32A-23	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

<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		S23-T6S-R97W (MESA C23)			
Site Position:		Northing:	14,361,896.90 usft	Latitude:	39.515068
From:	Map	Easting:	2,434,697.40 usft	Longitude:	-108.183912
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.79 °

Well	PUCKETT 32A-23					
Well Position	+N/-S	0.00 usft	Northing:	14,361,866.90 usft	Latitude:	39.514985
	+E/-W	0.00 usft	Easting:	2,434,698.20 usft	Longitude:	-108.183912
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	8,532.00 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</b>
			(°)	(°)	(nT)
	HDGM	6/16/2016	9.80	65.87	51,812

<b>Design</b>	PLAN #1			
<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>	<b>Direction</b>
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	203.75

<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	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
733.33	4.00	230.00	733.23	-2.99	-3.56	3.00	3.00	0.00	230.00	
1,041.29	12.64	203.40	1,037.74	-40.91	-25.23	3.00	2.81	-8.64	-37.62	
5,757.78	12.64	203.40	5,639.86	-988.31	-435.28	0.00	0.00	0.00	0.00	
6,179.22	0.00	0.00	6,057.89	-1,030.81	-453.67	3.00	-3.00	0.00	180.00	
9,262.33	0.00	0.00	9,141.00	-1,030.81	-453.67	0.00	0.00	0.00	0.00	PUCKETT 32A-23 PE

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 32A-23
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8562.00usft (H&P 330)
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8562.00usft (H&P 330)
<b>Site:</b>	S23-T6S-R97W (MESA C23)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 32A-23	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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
0.00	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	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	
700.00	3.00	230.00	699.95	-1.68	-2.01	2.35	3.00	3.00	
733.33	4.00	230.00	733.23	-2.99	-3.56	4.17	3.00	3.00	
800.00	5.72	217.65	799.65	-7.11	-7.37	9.48	3.00	2.57	
900.00	8.52	208.97	898.87	-17.54	-14.01	21.70	3.00	2.81	
1,000.00	11.43	204.62	997.35	-33.04	-21.73	38.99	3.00	2.91	
1,041.29	12.64	203.40	1,037.74	-40.91	-25.23	47.60	3.00	2.94	
1,100.00	12.64	203.40	1,095.02	-52.70	-30.33	60.45	0.00	0.00	
1,200.00	12.64	203.40	1,192.59	-72.79	-39.02	82.34	0.00	0.00	
1,300.00	12.64	203.40	1,290.17	-92.87	-47.72	104.23	0.00	0.00	
1,400.00	12.64	203.40	1,387.75	-112.96	-56.41	126.11	0.00	0.00	
1,500.00	12.64	203.40	1,485.32	-133.05	-65.11	148.00	0.00	0.00	
1,600.00	12.64	203.40	1,582.90	-153.13	-73.80	169.89	0.00	0.00	
1,700.00	12.64	203.40	1,680.47	-173.22	-82.49	191.78	0.00	0.00	
1,800.00	12.64	203.40	1,778.05	-193.31	-91.19	213.66	0.00	0.00	
1,900.00	12.64	203.40	1,875.62	-213.40	-99.88	235.55	0.00	0.00	
2,000.00	12.64	203.40	1,973.20	-233.48	-108.58	257.44	0.00	0.00	
2,100.00	12.64	203.40	2,070.77	-253.57	-117.27	279.33	0.00	0.00	
2,200.00	12.64	203.40	2,168.35	-273.66	-125.96	301.21	0.00	0.00	
2,300.00	12.64	203.40	2,265.92	-293.74	-134.66	323.10	0.00	0.00	
2,400.00	12.64	203.40	2,363.50	-313.83	-143.35	344.99	0.00	0.00	
2,500.00	12.64	203.40	2,461.07	-333.92	-152.05	366.88	0.00	0.00	
2,600.00	12.64	203.40	2,558.65	-354.01	-160.74	388.76	0.00	0.00	
2,700.00	12.64	203.40	2,656.22	-374.09	-169.43	410.65	0.00	0.00	
2,800.00	12.64	203.40	2,753.80	-394.18	-178.13	432.54	0.00	0.00	
2,900.00	12.64	203.40	2,851.37	-414.27	-186.82	454.43	0.00	0.00	
3,000.00	12.64	203.40	2,948.95	-434.35	-195.52	476.31	0.00	0.00	
3,100.00	12.64	203.40	3,046.52	-454.44	-204.21	498.20	0.00	0.00	
3,200.00	12.64	203.40	3,144.10	-474.53	-212.90	520.09	0.00	0.00	
3,300.00	12.64	203.40	3,241.67	-494.62	-221.60	541.97	0.00	0.00	
3,400.00	12.64	203.40	3,339.25	-514.70	-230.29	563.86	0.00	0.00	
3,500.00	12.64	203.40	3,436.82	-534.79	-238.99	585.75	0.00	0.00	
3,600.00	12.64	203.40	3,534.40	-554.88	-247.68	607.64	0.00	0.00	
3,700.00	12.64	203.40	3,631.98	-574.96	-256.37	629.52	0.00	0.00	
3,800.00	12.64	203.40	3,729.55	-595.05	-265.07	651.41	0.00	0.00	
3,900.00	12.64	203.40	3,827.13	-615.14	-273.76	673.30	0.00	0.00	
4,000.00	12.64	203.40	3,924.70	-635.22	-282.46	695.19	0.00	0.00	
4,100.00	12.64	203.40	4,022.28	-655.31	-291.15	717.07	0.00	0.00	
4,200.00	12.64	203.40	4,119.85	-675.40	-299.84	738.96	0.00	0.00	
4,300.00	12.64	203.40	4,217.43	-695.49	-308.54	760.85	0.00	0.00	
4,400.00	12.64	203.40	4,315.00	-715.57	-317.23	782.74	0.00	0.00	
4,500.00	12.64	203.40	4,412.58	-735.66	-325.93	804.62	0.00	0.00	
4,600.00	12.64	203.40	4,510.15	-755.75	-334.62	826.51	0.00	0.00	
4,700.00	12.64	203.40	4,607.73	-775.83	-343.31	848.40	0.00	0.00	
4,800.00	12.64	203.40	4,705.30	-795.92	-352.01	870.29	0.00	0.00	
4,900.00	12.64	203.40	4,802.88	-816.01	-360.70	892.17	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 32A-23
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8562.00usft (H&P 330)
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8562.00usft (H&P 330)
<b>Site:</b>	S23-T6S-R97W (MESA C23)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 32A-23	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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
5,000.00	12.64	203.40	4,900.45	-836.10	-369.40	914.06	0.00	0.00	
5,100.00	12.64	203.40	4,998.03	-856.18	-378.09	935.95	0.00	0.00	
5,200.00	12.64	203.40	5,095.60	-876.27	-386.78	957.84	0.00	0.00	
5,300.00	12.64	203.40	5,193.18	-896.36	-395.48	979.72	0.00	0.00	
5,400.00	12.64	203.40	5,290.75	-916.44	-404.17	1,001.61	0.00	0.00	
5,500.00	12.64	203.40	5,388.33	-936.53	-412.86	1,023.50	0.00	0.00	
5,600.00	12.64	203.40	5,485.90	-956.62	-421.56	1,045.38	0.00	0.00	
5,700.00	12.64	203.40	5,583.48	-976.70	-430.25	1,067.27	0.00	0.00	
5,757.78	12.64	203.40	5,639.86	-988.31	-435.28	1,079.92	0.00	0.00	
5,800.00	11.38	203.40	5,681.15	-996.37	-438.77	1,088.70	3.00	-3.00	
5,900.00	8.38	203.40	5,779.66	-1,012.11	-445.58	1,105.85	3.00	-3.00	
6,000.00	5.38	203.40	5,878.93	-1,023.10	-450.33	1,117.83	3.00	-3.00	
6,100.00	2.38	203.40	5,978.69	-1,029.30	-453.02	1,124.59	3.00	-3.00	
6,179.22	0.00	0.00	6,057.89	-1,030.81	-453.67	1,126.23	3.00	-3.00	
6,200.00	0.00	0.00	6,078.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
6,279.33	0.00	0.00	6,158.00	-1,030.81	-453.67	1,126.23	0.00	0.00	OHIO_CREEK.MBL (TVD)
6,300.00	0.00	0.00	6,178.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
6,400.00	0.00	0.00	6,278.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
6,500.00	0.00	0.00	6,378.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
6,526.33	0.00	0.00	6,405.00	-1,030.81	-453.67	1,126.23	0.00	0.00	WILLIAMS_FORK.MBL (TVD)
6,600.00	0.00	0.00	6,478.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
6,700.00	0.00	0.00	6,578.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
6,800.00	0.00	0.00	6,678.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
6,900.00	0.00	0.00	6,778.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
7,000.00	0.00	0.00	6,878.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
7,100.00	0.00	0.00	6,978.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
7,200.00	0.00	0.00	7,078.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
7,230.33	0.00	0.00	7,109.00	-1,030.81	-453.67	1,126.23	0.00	0.00	TOP_GAS.MBL (TVD)
7,300.00	0.00	0.00	7,178.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
7,400.00	0.00	0.00	7,278.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
7,500.00	0.00	0.00	7,378.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
7,600.00	0.00	0.00	7,478.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
7,700.00	0.00	0.00	7,578.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
7,800.00	0.00	0.00	7,678.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
7,900.00	0.00	0.00	7,778.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
8,000.00	0.00	0.00	7,878.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
8,100.00	0.00	0.00	7,978.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
8,200.00	0.00	0.00	8,078.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
8,300.00	0.00	0.00	8,178.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
8,400.00	0.00	0.00	8,278.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
8,500.00	0.00	0.00	8,378.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
8,600.00	0.00	0.00	8,478.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
8,700.00	0.00	0.00	8,578.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
8,800.00	0.00	0.00	8,678.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
8,900.00	0.00	0.00	8,778.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
9,000.00	0.00	0.00	8,878.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
9,100.00	0.00	0.00	8,978.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
9,112.33	0.00	0.00	8,991.00	-1,030.81	-453.67	1,126.23	0.00	0.00	ROLLINS.MBL (TVD)
9,200.00	0.00	0.00	9,078.67	-1,030.81	-453.67	1,126.23	0.00	0.00	
9,262.33	0.00	0.00	9,141.00	-1,030.81	-453.67	1,126.23	0.00	0.00	TD.MBL (TVD)

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 32A-23
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8562.00usft (H&P 330)
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8562.00usft (H&P 330)
<b>Site:</b>	S23-T6S-R97W (MESA C23)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 32A-23	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
PUCKETT 32A-23 PBHL	0.00	0.00	9,141.00	-1,030.81	-453.67	14,360,822.40	2,434,277.00	39.512156	-108.185519
- plan hits target center									
- Circle (radius 50.00)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
6,279.33	6,158.00	OHIO_CREEK.MBL (TVD)				
6,526.33	6,405.00	WILLIAMS_FORK.MBL (TVD)				
7,230.33	7,109.00	TOP_GAS.MBL (TVD)				
9,112.33	8,991.00	ROLLINS.MBL (TVD)				
9,262.33	9,141.00	TD.MBL (TVD)				