



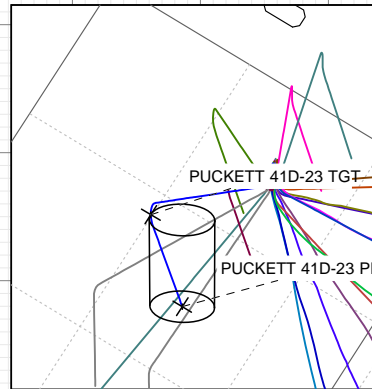
SECTION DETAILS

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	533.33	10.00	105.00	531.64	-7.51	28.03	3.00	105.00	26.41	
4	756.61	15.31	124.12	749.51	-29.09	71.21	3.00	47.87	73.45	
5	6790.96	15.31	124.12	6569.63	-922.99	1390.47	0.00	0.00	1660.06	
6	7301.38	0.00	0.00	7074.00	-961.02	1446.60	3.00	180.00	1727.57	PUCKETT 41D-23 TGT
7	7567.61	5.32	240.00	7339.84	-967.20	1435.90	2.00	240.00	1723.24	
8	9484.03	5.32	240.00	9248.00	-1056.12	1281.89	0.00	0.00	1660.91	PUCKETT 41D-23 PBHL 10.13

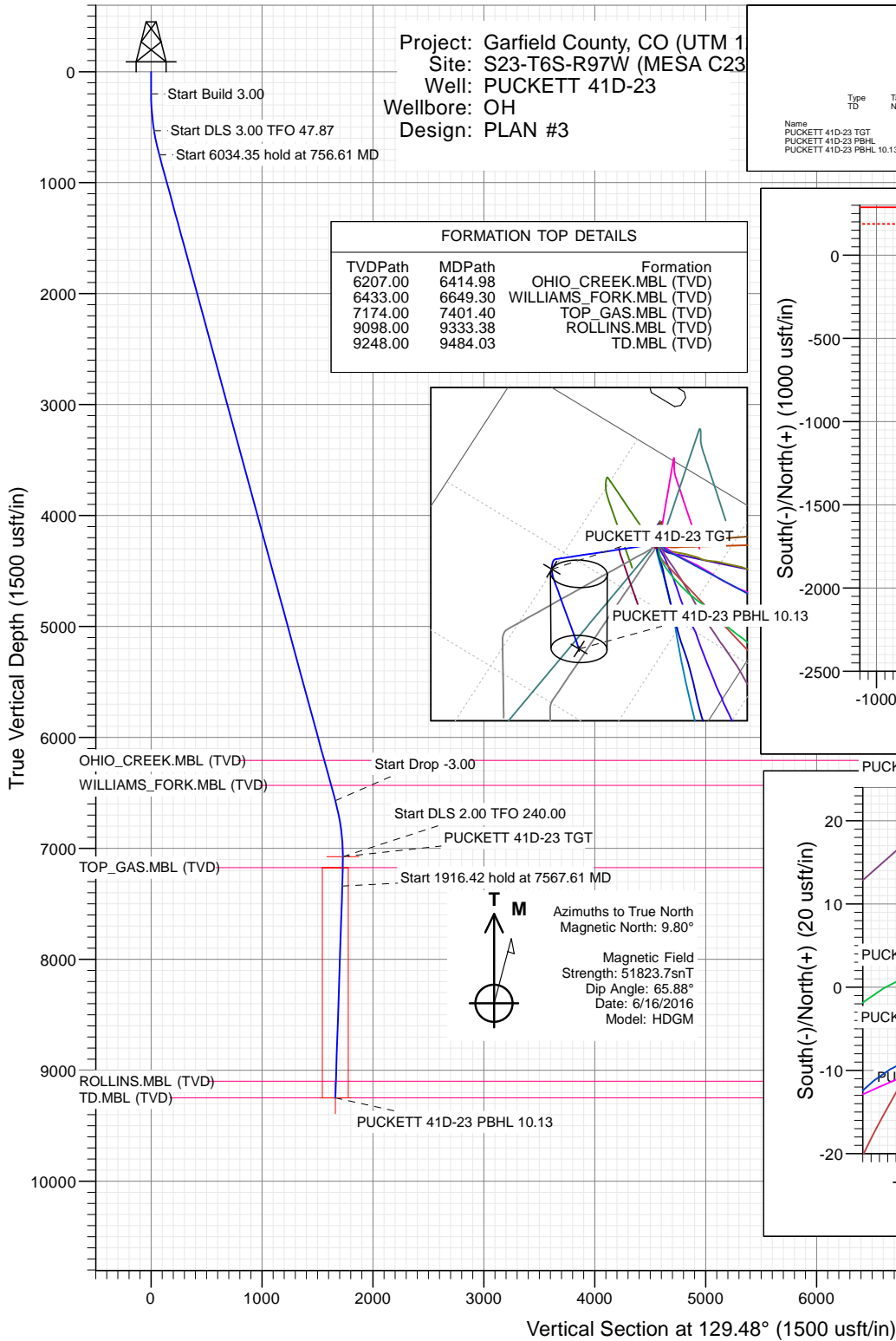
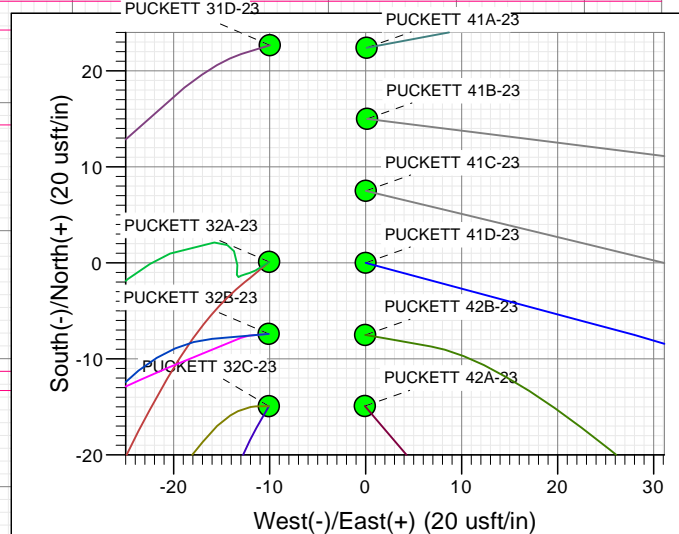
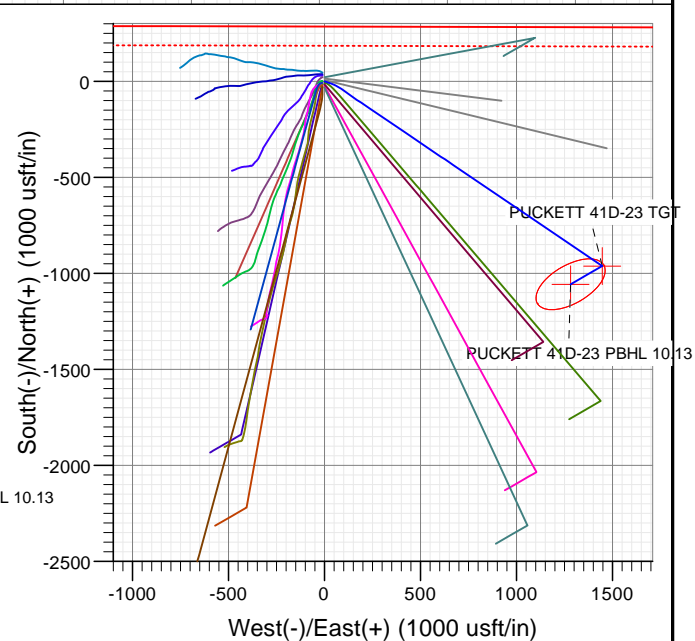
Project: Garfield County, CO (UTM 1
Site: S23-T6S-R97W (MESA C23
Well: PUCKETT 41D-23
Wellbore: OH
Design: PLAN #3

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
6207.00	6414.98	OHIO_CREEK.MBL (TVD)
6433.00	6649.30	WILLIAMS_FORK.MBL (TVD)
7174.00	7401.40	TOP_GAS.MBL (TVD)
9098.00	9333.38	ROLLINS.MBL (TVD)
9248.00	9484.03	TD.MBL (TVD)



Name	Type	TD	Target	No Target (Freehand)	Azimuth	Origin Type	Slot	N/S	E/W	From TVD
PUCKETT 41D-23 TGT		7074.00			129.48			0.00	0.00	0.00
PUCKETT 41D-23 PBHL		9248.00			129.48			0.00	0.00	0.00
PUCKETT 41D-23 PBHL 10.13		9248.00			129.48			0.00	0.00	0.00



WELL DETAILS: PUCKETT 41D-23

+N/-S	+E/-W	Northing	Ground Level:	8532.00	Latitude	Longitude
0.00	0.00	14361859.50	Easting	2434708.40	39.514964	-108.183877

CATHEDRAL

CATHEDRAL



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 41D-23
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8562.00usft (H&P 330)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8562.00usft (H&P 330)
Site:	S23-T6S-R97W (MESA C23)	North Reference:	True
Well:	PUCKETT 41D-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #3		

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		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 41D-23					
Well Position	+N/-S	0.00 usft	Northing:	14,361,859.50 usft	Latitude:	39.514964
	+E/-W	0.00 usft	Easting:	2,434,708.40 usft	Longitude:	-108.183877
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	8,532.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	6/16/2016	9.80	65.88	51,824

Design	PLAN #3			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	129.48

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
0.00	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	
533.33	10.00	105.00	531.64	-7.51	28.03	3.00	3.00	0.00	105.00	
756.61	15.31	124.12	749.51	-29.09	71.21	3.00	2.38	8.56	47.87	
6,790.96	15.31	124.12	6,569.63	-922.99	1,390.47	0.00	0.00	0.00	0.00	
7,301.38	0.00	0.00	7,074.00	-961.02	1,446.60	3.00	-3.00	0.00	180.00	PUCKETT 41D-23 TC
7,567.61	5.32	240.00	7,339.84	-967.20	1,435.90	2.00	2.00	-45.07	240.00	
9,484.03	5.32	240.00	9,248.00	-1,056.12	1,281.89	0.00	0.00	0.00	0.00	PUCKETT 41D-23 PE



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 41D-23
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8562.00usft (H&P 330)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8562.00usft (H&P 330)
Site:	S23-T6S-R97W (MESA C23)	North Reference:	True
Well:	PUCKETT 41D-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #3		

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	105.00	299.95	-0.68	2.53	2.38	3.00	3.00	
400.00	6.00	105.00	399.63	-2.71	10.11	9.52	3.00	3.00	
500.00	9.00	105.00	498.77	-6.09	22.71	21.40	3.00	3.00	
533.33	10.00	105.00	531.64	-7.51	28.03	26.41	3.00	3.00	Start DLS 3.00 TFO 47.87
600.00	11.44	112.50	597.15	-11.54	39.73	38.00	3.00	2.16	
700.00	13.85	120.66	694.72	-21.44	59.19	59.31	3.00	2.42	
756.61	15.31	124.12	749.51	-29.09	71.21	73.45	3.00	2.58	Start 6034.35 hold at 756.61 MD
800.00	15.31	124.12	791.36	-35.52	80.69	84.86	0.00	0.00	
900.00	15.31	124.12	887.81	-50.33	102.56	111.16	0.00	0.00	
1,000.00	15.31	124.12	984.26	-65.14	124.42	137.45	0.00	0.00	
1,100.00	15.31	124.12	1,080.71	-79.96	146.28	163.74	0.00	0.00	
1,200.00	15.31	124.12	1,177.16	-94.77	168.14	190.04	0.00	0.00	
1,300.00	15.31	124.12	1,273.61	-109.58	190.01	216.33	0.00	0.00	
1,400.00	15.31	124.12	1,370.06	-124.40	211.87	242.62	0.00	0.00	
1,500.00	15.31	124.12	1,466.51	-139.21	233.73	268.91	0.00	0.00	
1,600.00	15.31	124.12	1,562.96	-154.03	255.60	295.21	0.00	0.00	
1,700.00	15.31	124.12	1,659.41	-168.84	277.46	321.50	0.00	0.00	
1,800.00	15.31	124.12	1,755.86	-183.65	299.32	347.79	0.00	0.00	
1,900.00	15.31	124.12	1,852.31	-198.47	321.18	374.09	0.00	0.00	
2,000.00	15.31	124.12	1,948.76	-213.28	343.05	400.38	0.00	0.00	
2,100.00	15.31	124.12	2,045.21	-228.09	364.91	426.67	0.00	0.00	
2,200.00	15.31	124.12	2,141.66	-242.91	386.77	452.97	0.00	0.00	
2,300.00	15.31	124.12	2,238.11	-257.72	408.63	479.26	0.00	0.00	
2,400.00	15.31	124.12	2,334.56	-272.53	430.50	505.55	0.00	0.00	
2,500.00	15.31	124.12	2,431.01	-287.35	452.36	531.84	0.00	0.00	
2,600.00	15.31	124.12	2,527.46	-302.16	474.22	558.14	0.00	0.00	
2,700.00	15.31	124.12	2,623.91	-316.97	496.08	584.43	0.00	0.00	
2,800.00	15.31	124.12	2,720.36	-331.79	517.95	610.72	0.00	0.00	
2,900.00	15.31	124.12	2,816.81	-346.60	539.81	637.02	0.00	0.00	
3,000.00	15.31	124.12	2,913.26	-361.41	561.67	663.31	0.00	0.00	
3,100.00	15.31	124.12	3,009.71	-376.23	583.53	689.60	0.00	0.00	
3,200.00	15.31	124.12	3,106.16	-391.04	605.40	715.89	0.00	0.00	
3,300.00	15.31	124.12	3,202.61	-405.86	627.26	742.19	0.00	0.00	
3,400.00	15.31	124.12	3,299.06	-420.67	649.12	768.48	0.00	0.00	
3,500.00	15.31	124.12	3,395.51	-435.48	670.98	794.77	0.00	0.00	
3,600.00	15.31	124.12	3,491.96	-450.30	692.85	821.07	0.00	0.00	
3,700.00	15.31	124.12	3,588.41	-465.11	714.71	847.36	0.00	0.00	
3,800.00	15.31	124.12	3,684.86	-479.92	736.57	873.65	0.00	0.00	
3,900.00	15.31	124.12	3,781.31	-494.74	758.44	899.95	0.00	0.00	
4,000.00	15.31	124.12	3,877.76	-509.55	780.30	926.24	0.00	0.00	
4,100.00	15.31	124.12	3,974.21	-524.36	802.16	952.53	0.00	0.00	
4,200.00	15.31	124.12	4,070.66	-539.18	824.02	978.82	0.00	0.00	
4,300.00	15.31	124.12	4,167.11	-553.99	845.89	1,005.12	0.00	0.00	
4,400.00	15.31	124.12	4,263.56	-568.80	867.75	1,031.41	0.00	0.00	
4,500.00	15.31	124.12	4,360.01	-583.62	889.61	1,057.70	0.00	0.00	
4,600.00	15.31	124.12	4,456.46	-598.43	911.47	1,084.00	0.00	0.00	
4,700.00	15.31	124.12	4,552.91	-613.24	933.34	1,110.29	0.00	0.00	
4,800.00	15.31	124.12	4,649.36	-628.06	955.20	1,136.58	0.00	0.00	
4,900.00	15.31	124.12	4,745.81	-642.87	977.06	1,162.88	0.00	0.00	



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 41D-23
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8562.00usft (H&P 330)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8562.00usft (H&P 330)
Site:	S23-T6S-R97W (MESA C23)	North Reference:	True
Well:	PUCKETT 41D-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #3		

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	15.31	124.12	4,842.26	-657.68	998.92	1,189.17	0.00	0.00	
5,100.00	15.31	124.12	4,938.70	-672.50	1,020.79	1,215.46	0.00	0.00	
5,200.00	15.31	124.12	5,035.15	-687.31	1,042.65	1,241.75	0.00	0.00	
5,300.00	15.31	124.12	5,131.60	-702.13	1,064.51	1,268.05	0.00	0.00	
5,400.00	15.31	124.12	5,228.05	-716.94	1,086.37	1,294.34	0.00	0.00	
5,500.00	15.31	124.12	5,324.50	-731.75	1,108.24	1,320.63	0.00	0.00	
5,600.00	15.31	124.12	5,420.95	-746.57	1,130.10	1,346.93	0.00	0.00	
5,700.00	15.31	124.12	5,517.40	-761.38	1,151.96	1,373.22	0.00	0.00	
5,800.00	15.31	124.12	5,613.85	-776.19	1,173.82	1,399.51	0.00	0.00	
5,900.00	15.31	124.12	5,710.30	-791.01	1,195.69	1,425.80	0.00	0.00	
6,000.00	15.31	124.12	5,806.75	-805.82	1,217.55	1,452.10	0.00	0.00	
6,100.00	15.31	124.12	5,903.20	-820.63	1,239.41	1,478.39	0.00	0.00	
6,200.00	15.31	124.12	5,999.65	-835.45	1,261.28	1,504.68	0.00	0.00	
6,300.00	15.31	124.12	6,096.10	-850.26	1,283.14	1,530.98	0.00	0.00	
6,400.00	15.31	124.12	6,192.55	-865.07	1,305.00	1,557.27	0.00	0.00	
6,414.98	15.31	124.12	6,207.00	-867.29	1,308.28	1,561.21	0.00	0.00	OHIO_CREEK.MBL (TVD)
6,500.00	15.31	124.12	6,289.00	-879.89	1,326.86	1,583.56	0.00	0.00	
6,600.00	15.31	124.12	6,385.45	-894.70	1,348.73	1,609.86	0.00	0.00	
6,649.30	15.31	124.12	6,433.00	-902.00	1,359.50	1,622.82	0.00	0.00	WILLIAMS_FORK.MBL (TVD)
6,700.00	15.31	124.12	6,481.90	-909.51	1,370.59	1,636.15	0.00	0.00	
6,790.96	15.31	124.12	6,569.63	-922.99	1,390.47	1,660.06	0.00	0.00	Start Drop -3.00
6,800.00	15.04	124.12	6,578.36	-924.32	1,392.43	1,662.42	3.00	-3.00	
6,900.00	12.04	124.12	6,675.57	-937.45	1,411.82	1,685.73	3.00	-3.00	
7,000.00	9.04	124.12	6,773.87	-947.71	1,426.96	1,703.94	3.00	-3.00	
7,100.00	6.04	124.12	6,872.99	-955.07	1,437.82	1,717.01	3.00	-3.00	
7,200.00	3.04	124.12	6,972.67	-959.51	1,444.38	1,724.89	3.00	-3.00	
7,301.38	0.00	0.00	7,074.00	-961.02	1,446.60	1,727.57	3.00	-3.00	Start DLS 2.00 TFO 240.00
7,400.00	1.97	240.00	7,172.60	-961.87	1,445.13	1,726.97	2.00	2.00	
7,401.40	2.00	240.00	7,174.00	-961.89	1,445.09	1,726.96	2.00	2.00	TOP_GAS.MBL (TVD)
7,500.00	3.97	240.00	7,272.46	-964.46	1,440.64	1,725.16	2.00	2.00	
7,567.61	5.32	240.00	7,339.84	-967.20	1,435.90	1,723.24	2.00	2.00	Start 1916.42 hold at 7567.61 MD
7,600.00	5.32	240.00	7,372.10	-968.70	1,433.30	1,722.18	0.00	0.00	
7,700.00	5.32	240.00	7,471.67	-973.34	1,425.26	1,718.93	0.00	0.00	
7,800.00	5.32	240.00	7,571.23	-977.98	1,417.22	1,715.68	0.00	0.00	
7,900.00	5.32	240.00	7,670.80	-982.62	1,409.19	1,712.43	0.00	0.00	
8,000.00	5.32	240.00	7,770.37	-987.26	1,401.15	1,709.17	0.00	0.00	
8,100.00	5.32	240.00	7,869.94	-991.90	1,393.11	1,705.92	0.00	0.00	
8,200.00	5.32	240.00	7,969.51	-996.54	1,385.08	1,702.67	0.00	0.00	
8,300.00	5.32	240.00	8,069.08	-1,001.18	1,377.04	1,699.42	0.00	0.00	
8,400.00	5.32	240.00	8,168.65	-1,005.82	1,369.00	1,696.17	0.00	0.00	
8,500.00	5.32	240.00	8,268.21	-1,010.46	1,360.97	1,692.91	0.00	0.00	
8,600.00	5.32	240.00	8,367.78	-1,015.10	1,352.93	1,689.66	0.00	0.00	
8,700.00	5.32	240.00	8,467.35	-1,019.74	1,344.89	1,686.41	0.00	0.00	
8,800.00	5.32	240.00	8,566.92	-1,024.38	1,336.86	1,683.16	0.00	0.00	
8,900.00	5.32	240.00	8,666.49	-1,029.02	1,328.82	1,679.90	0.00	0.00	
9,000.00	5.32	240.00	8,766.06	-1,033.66	1,320.79	1,676.65	0.00	0.00	
9,100.00	5.32	240.00	8,865.62	-1,038.30	1,312.75	1,673.40	0.00	0.00	
9,200.00	5.32	240.00	8,965.19	-1,042.94	1,304.71	1,670.15	0.00	0.00	
9,300.00	5.32	240.00	9,064.76	-1,047.58	1,296.68	1,666.90	0.00	0.00	
9,333.38	5.32	240.00	9,098.00	-1,049.13	1,293.99	1,665.81	0.00	0.00	ROLLINS.MBL (TVD)
9,400.00	5.32	240.00	9,164.33	-1,052.22	1,288.64	1,663.64	0.00	0.00	
9,484.03	5.32	240.00	9,248.00	-1,056.12	1,281.89	1,660.91	0.00	0.00	TD at 9484.03 - TD.MBL (TVD)



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 41D-23
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8562.00usft (H&P 330)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8562.00usft (H&P 330)
Site:	S23-T6S-R97W (MESA C23)	North Reference:	True
Well:	PUCKETT 41D-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #3		

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 41D-23 PBHI	0.00	0.00	9,248.00	-1,056.12	1,281.89	14,360,844.00	2,436,022.70	39.512065	-108.179335
- plan hits target center									
- Ellipse (radii L200.00 W100.00 on 240.00 azi)									
PUCKETT 41D-23 PBHI	0.00	0.00	9,248.00	-816.02	1,180.15	14,361,080.80	2,435,913.50	39.512724	-108.179695
- plan misses target center by 260.75usft at 9481.07usft MD (9245.05 TVD, -1055.98 N, 1282.12 E)									
- Circle (radius 100.00)									
PUCKETT 41D-23 TGT	0.00	0.00	7,074.00	-961.02	1,446.60	14,360,944.21	2,436,184.36	39.512326	-108.178751
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
6,414.98	6,207.00	OHIO_CREEK.MBL (TVD)				
6,649.30	6,433.00	WILLIAMS_FORK.MBL (TVD)				
7,401.40	7,174.00	TOP_GAS.MBL (TVD)				
9,333.38	9,098.00	ROLLINS.MBL (TVD)				
9,484.03	9,248.00	TD.MBL (TVD)				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	Comment	
200.00	200.00	0.00	0.00	Start Build 3.00	
533.33	531.64	-7.51	28.03	Start DLS 3.00 TFO 47.87	
756.61	749.51	-29.09	71.21	Start 6034.35 hold at 756.61 MD	
6,790.96	6,569.63	-922.99	1,390.47	Start Drop -3.00	
7,301.38	7,074.00	-961.02	1,446.60	Start DLS 2.00 TFO 240.00	
7,567.61	7,339.84	-967.20	1,435.90	Start 1916.42 hold at 7567.61 MD	
9,484.03	9,248.00	-1,056.12	1,281.89	TD at 9484.03	