



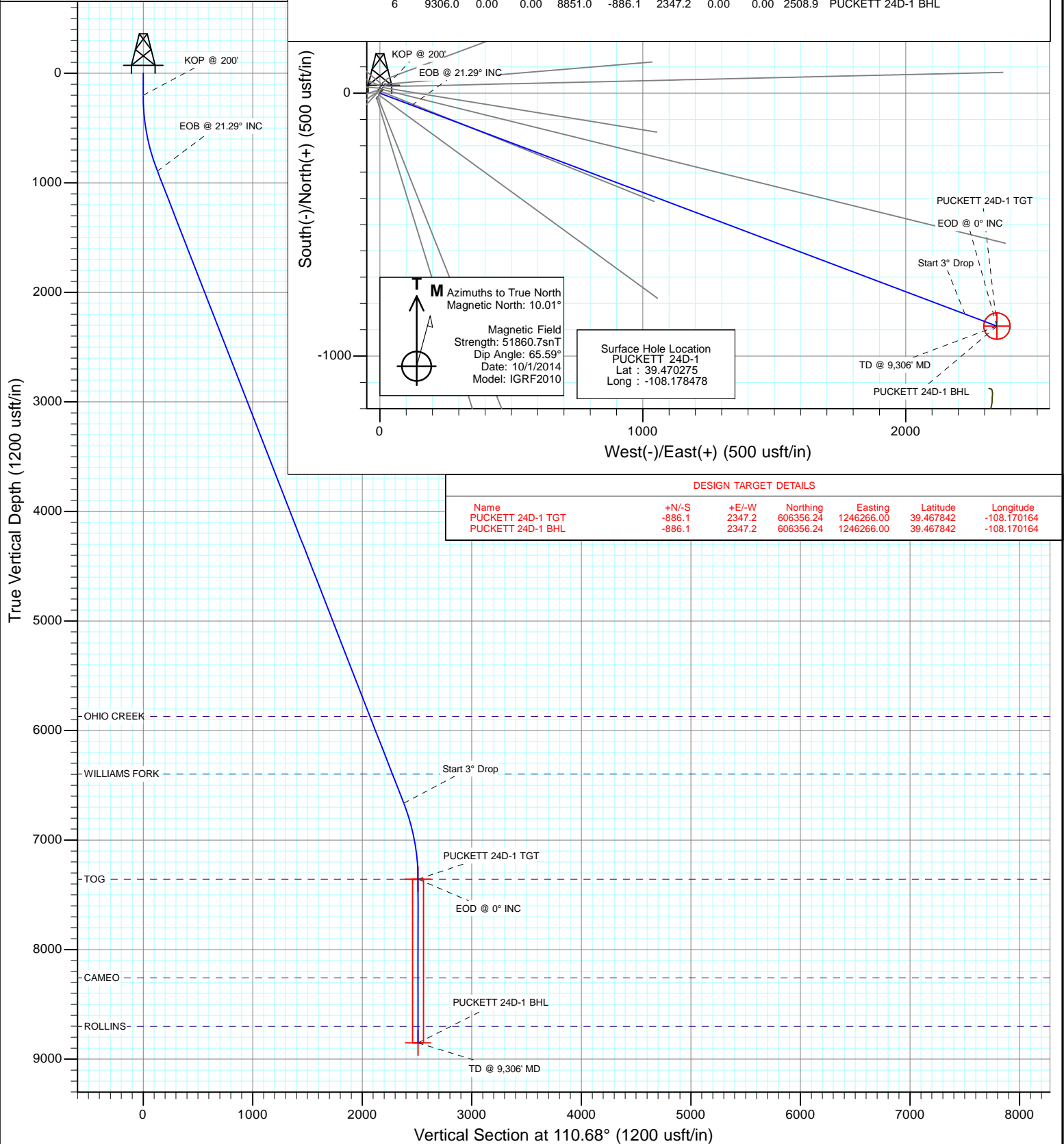
Project: Garfield County, CO
Site: S2-T7S-R97W (Puckett Pad P2)
Well: PUCKETT 24D-1
Wellbore: DD
Design: Plan #1

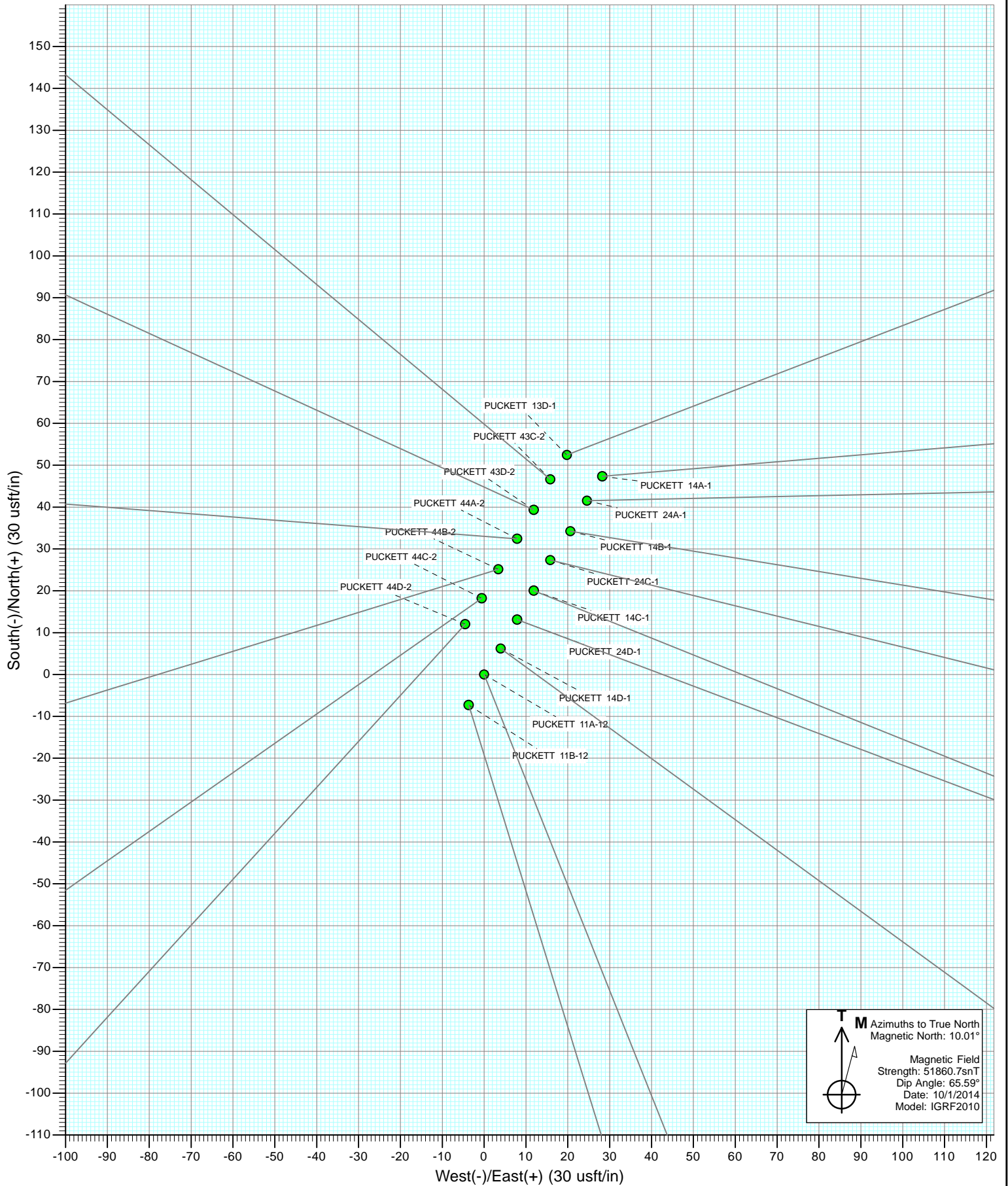


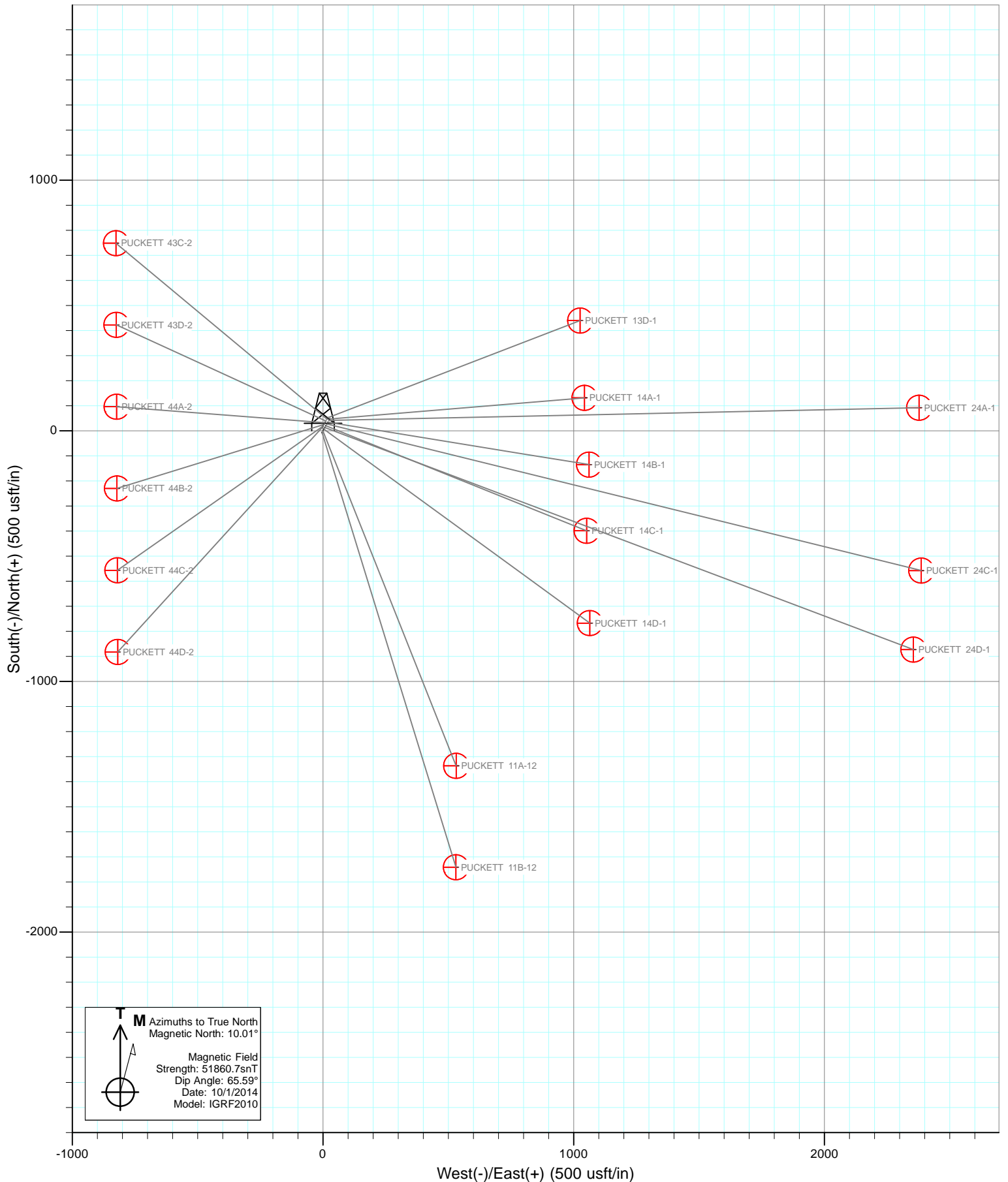
Plan #1
PUCKETT 24D-1
145XXX; SC
KB=22' @ 8446.0usft
Ground Elevation @ 8424.0
NAD 1927 (NADCON CONUS)
Well PUCKETT 24D-1, True North

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	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	909.7	21.29	110.68	893.5	-46.0	121.9	3.00	110.68	130.3	
4	7101.3	21.29	110.68	6662.5	-840.0	2225.3	0.00	0.00	2378.5	PUCKETT 24D-1 TGT
5	7811.0	0.00	0.00	7356.0	-886.1	2347.2	3.00	180.00	2508.9	PUCKETT 24D-1 BHL
6	9306.0	0.00	0.00	8851.0	-886.1	2347.2	0.00	0.00	2508.9	







Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8446.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8446.0usft
Site:	S2-T7S-R97W (Puckett Pad P2)	North Reference:	True
Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Project	Garfield County, CO		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado Central 502		

Site		S2-T7S-R97W (Puckett Pad P2)			
Site Position:		Northing:	607,291.06 usft	Latitude:	39.470219
From:	Lat/Long	Easting:	1,243,933.75 usft	Longitude:	-108.178519
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	-1.69 °

Well	PUCKETT 24D-1					
Well Position	+N/-S	0.0 usft	Northing:	607,311.10 usft	Latitude:	39.470275
	+E/-W	0.0 usft	Easting:	1,243,945.92 usft	Longitude:	-108.178478
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	8,424.0 usft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/1/2014	10.00	65.59	51,861

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	110.68

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	
909.7	21.29	110.68	893.5	-46.0	121.9	3.00	3.00	0.00	110.68	
7,101.3	21.29	110.68	6,662.5	-840.0	2,225.3	0.00	0.00	0.00	0.00	
7,811.0	0.00	0.00	7,356.0	-886.1	2,347.2	3.00	-3.00	0.00	180.00	PUCKETT 24D-1 TG1
9,306.0	0.00	0.00	8,851.0	-886.1	2,347.2	0.00	0.00	0.00	0.00	PUCKETT 24D-1 BHL

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8446.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8446.0usft
Site:	S2-T7S-R97W (Puckett Pad P2)	North Reference:	True
Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
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	KOP @ 200'
300.0	3.00	110.68	300.0	-0.9	2.4	2.6	3.00	3.00	
400.0	6.00	110.68	399.6	-3.7	9.8	10.5	3.00	3.00	
500.0	9.00	110.68	498.8	-8.3	22.0	23.5	3.00	3.00	
600.0	12.00	110.68	597.1	-14.7	39.0	41.7	3.00	3.00	
700.0	15.00	110.68	694.3	-23.0	60.9	65.1	3.00	3.00	
800.0	18.00	110.68	790.2	-33.0	87.5	93.5	3.00	3.00	
909.7	21.29	110.68	893.5	-46.0	121.9	130.3	3.00	3.00	EOB @ 21.29° INC
1,000.0	21.29	110.68	977.6	-57.6	152.6	163.1	0.00	0.00	
1,100.0	21.29	110.68	1,070.8	-70.4	186.6	199.4	0.00	0.00	
1,200.0	21.29	110.68	1,164.0	-83.3	220.6	235.8	0.00	0.00	
1,300.0	21.29	110.68	1,257.1	-96.1	254.5	272.1	0.00	0.00	
1,400.0	21.29	110.68	1,350.3	-108.9	288.5	308.4	0.00	0.00	
1,500.0	21.29	110.68	1,443.5	-121.7	322.5	344.7	0.00	0.00	
1,600.0	21.29	110.68	1,536.7	-134.6	356.4	381.0	0.00	0.00	
1,700.0	21.29	110.68	1,629.8	-147.4	390.4	417.3	0.00	0.00	
1,800.0	21.29	110.68	1,723.0	-160.2	424.4	453.6	0.00	0.00	
1,900.0	21.29	110.68	1,816.2	-173.0	458.4	489.9	0.00	0.00	
2,000.0	21.29	110.68	1,909.4	-185.9	492.3	526.2	0.00	0.00	
2,100.0	21.29	110.68	2,002.5	-198.7	526.3	562.6	0.00	0.00	
2,200.0	21.29	110.68	2,095.7	-211.5	560.3	598.9	0.00	0.00	
2,300.0	21.29	110.68	2,188.9	-224.3	594.2	635.2	0.00	0.00	
2,400.0	21.29	110.68	2,282.1	-237.1	628.2	671.5	0.00	0.00	
2,500.0	21.29	110.68	2,375.2	-250.0	662.2	707.8	0.00	0.00	
2,600.0	21.29	110.68	2,468.4	-262.8	696.2	744.1	0.00	0.00	
2,700.0	21.29	110.68	2,561.6	-275.6	730.1	780.4	0.00	0.00	
2,800.0	21.29	110.68	2,654.8	-288.4	764.1	816.7	0.00	0.00	
2,900.0	21.29	110.68	2,747.9	-301.3	798.1	853.0	0.00	0.00	
3,000.0	21.29	110.68	2,841.1	-314.1	832.0	889.3	0.00	0.00	
3,100.0	21.29	110.68	2,934.3	-326.9	866.0	925.7	0.00	0.00	
3,200.0	21.29	110.68	3,027.5	-339.7	900.0	962.0	0.00	0.00	
3,300.0	21.29	110.68	3,120.6	-352.6	933.9	998.3	0.00	0.00	
3,400.0	21.29	110.68	3,213.8	-365.4	967.9	1,034.6	0.00	0.00	
3,500.0	21.29	110.68	3,307.0	-378.2	1,001.9	1,070.9	0.00	0.00	
3,600.0	21.29	110.68	3,400.2	-391.0	1,035.9	1,107.2	0.00	0.00	
3,700.0	21.29	110.68	3,493.3	-403.9	1,069.8	1,143.5	0.00	0.00	
3,800.0	21.29	110.68	3,586.5	-416.7	1,103.8	1,179.8	0.00	0.00	
3,900.0	21.29	110.68	3,679.7	-429.5	1,137.8	1,216.1	0.00	0.00	
4,000.0	21.29	110.68	3,772.9	-442.3	1,171.7	1,252.4	0.00	0.00	
4,100.0	21.29	110.68	3,866.0	-455.1	1,205.7	1,288.8	0.00	0.00	
4,200.0	21.29	110.68	3,959.2	-468.0	1,239.7	1,325.1	0.00	0.00	
4,300.0	21.29	110.68	4,052.4	-480.8	1,273.6	1,361.4	0.00	0.00	
4,400.0	21.29	110.68	4,145.6	-493.6	1,307.6	1,397.7	0.00	0.00	
4,500.0	21.29	110.68	4,238.7	-506.4	1,341.6	1,434.0	0.00	0.00	
4,600.0	21.29	110.68	4,331.9	-519.3	1,375.6	1,470.3	0.00	0.00	
4,700.0	21.29	110.68	4,425.1	-532.1	1,409.5	1,506.6	0.00	0.00	
4,800.0	21.29	110.68	4,518.3	-544.9	1,443.5	1,542.9	0.00	0.00	
4,900.0	21.29	110.68	4,611.4	-557.7	1,477.5	1,579.2	0.00	0.00	
5,000.0	21.29	110.68	4,704.6	-570.6	1,511.4	1,615.5	0.00	0.00	
5,100.0	21.29	110.68	4,797.8	-583.4	1,545.4	1,651.9	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8446.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8446.0usft
Site:	S2-T7S-R97W (Puckett Pad P2)	North Reference:	True
Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
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
5,200.0	21.29	110.68	4,891.0	-596.2	1,579.4	1,688.2	0.00	0.00	
5,300.0	21.29	110.68	4,984.1	-609.0	1,613.3	1,724.5	0.00	0.00	
5,400.0	21.29	110.68	5,077.3	-621.9	1,647.3	1,760.8	0.00	0.00	
5,500.0	21.29	110.68	5,170.5	-634.7	1,681.3	1,797.1	0.00	0.00	
5,600.0	21.29	110.68	5,263.7	-647.5	1,715.3	1,833.4	0.00	0.00	
5,700.0	21.29	110.68	5,356.8	-660.3	1,749.2	1,869.7	0.00	0.00	
5,800.0	21.29	110.68	5,450.0	-673.1	1,783.2	1,906.0	0.00	0.00	
5,900.0	21.29	110.68	5,543.2	-686.0	1,817.2	1,942.3	0.00	0.00	
6,000.0	21.29	110.68	5,636.4	-698.8	1,851.1	1,978.6	0.00	0.00	
6,100.0	21.29	110.68	5,729.5	-711.6	1,885.1	2,015.0	0.00	0.00	
6,200.0	21.29	110.68	5,822.7	-724.4	1,919.1	2,051.3	0.00	0.00	
6,251.8	21.29	110.68	5,871.0	-731.1	1,936.7	2,070.1	0.00	0.00	OHIO CREEK
6,300.0	21.29	110.68	5,915.9	-737.3	1,953.1	2,087.6	0.00	0.00	
6,400.0	21.29	110.68	6,009.1	-750.1	1,987.0	2,123.9	0.00	0.00	
6,500.0	21.29	110.68	6,102.2	-762.9	2,021.0	2,160.2	0.00	0.00	
6,600.0	21.29	110.68	6,195.4	-775.7	2,055.0	2,196.5	0.00	0.00	
6,700.0	21.29	110.68	6,288.6	-788.6	2,088.9	2,232.8	0.00	0.00	
6,800.0	21.29	110.68	6,381.8	-801.4	2,122.9	2,269.1	0.00	0.00	
6,815.3	21.29	110.68	6,396.0	-803.3	2,128.1	2,274.7	0.00	0.00	WILLIAMS FORK
6,900.0	21.29	110.68	6,474.9	-814.2	2,156.9	2,305.4	0.00	0.00	
7,000.0	21.29	110.68	6,568.1	-827.0	2,190.8	2,341.7	0.00	0.00	
7,101.3	21.29	110.68	6,662.5	-840.0	2,225.3	2,378.5	0.00	0.00	Start 3° Drop
7,200.0	18.33	110.68	6,755.3	-851.8	2,256.5	2,412.0	3.00	-3.00	
7,300.0	15.33	110.68	6,851.1	-862.1	2,283.6	2,440.9	3.00	-3.00	
7,400.0	12.33	110.68	6,948.1	-870.5	2,306.0	2,464.8	3.00	-3.00	
7,500.0	9.33	110.68	7,046.4	-877.1	2,323.6	2,483.6	3.00	-3.00	
7,600.0	6.33	110.68	7,145.4	-881.9	2,336.3	2,497.2	3.00	-3.00	
7,700.0	3.33	110.68	7,245.0	-884.9	2,344.2	2,505.7	3.00	-3.00	
7,800.0	0.33	110.68	7,345.0	-886.0	2,347.2	2,508.9	3.00	-3.00	
7,811.0	0.00	0.00	7,356.0	-886.1	2,347.2	2,508.9	3.00	-3.00	EOD @ 0° INC - TOG
7,900.0	0.00	0.00	7,445.0	-886.1	2,347.2	2,508.9	0.00	0.00	
8,000.0	0.00	0.00	7,545.0	-886.1	2,347.2	2,508.9	0.00	0.00	
8,100.0	0.00	0.00	7,645.0	-886.1	2,347.2	2,508.9	0.00	0.00	
8,200.0	0.00	0.00	7,745.0	-886.1	2,347.2	2,508.9	0.00	0.00	
8,300.0	0.00	0.00	7,845.0	-886.1	2,347.2	2,508.9	0.00	0.00	
8,400.0	0.00	0.00	7,945.0	-886.1	2,347.2	2,508.9	0.00	0.00	
8,500.0	0.00	0.00	8,045.0	-886.1	2,347.2	2,508.9	0.00	0.00	
8,600.0	0.00	0.00	8,145.0	-886.1	2,347.2	2,508.9	0.00	0.00	
8,700.0	0.00	0.00	8,245.0	-886.1	2,347.2	2,508.9	0.00	0.00	
8,711.0	0.00	0.00	8,256.0	-886.1	2,347.2	2,508.9	0.00	0.00	CAMEO
8,800.0	0.00	0.00	8,345.0	-886.1	2,347.2	2,508.9	0.00	0.00	
8,900.0	0.00	0.00	8,445.0	-886.1	2,347.2	2,508.9	0.00	0.00	
9,000.0	0.00	0.00	8,545.0	-886.1	2,347.2	2,508.9	0.00	0.00	
9,100.0	0.00	0.00	8,645.0	-886.1	2,347.2	2,508.9	0.00	0.00	
9,156.0	0.00	0.00	8,701.0	-886.1	2,347.2	2,508.9	0.00	0.00	ROLLINS
9,200.0	0.00	0.00	8,745.0	-886.1	2,347.2	2,508.9	0.00	0.00	
9,306.0	0.00	0.00	8,851.0	-886.1	2,347.2	2,508.9	0.00	0.00	TD @ 9,306' MD

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8446.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8446.0usft
Site:	S2-T7S-R97W (Puckett Pad P2)	North Reference:	True
Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	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 24D-1 TGT	0.00	0.00	7,356.0	-886.1	2,347.2	606,356.24	1,246,266.00	39.467842	-108.170164
- plan hits target center									
- Point									
PUCKETT 24D-1 BHL	0.00	0.00	8,851.0	-886.1	2,347.2	606,356.24	1,246,266.00	39.467842	-108.170164
- plan hits target center									
- Circle (radius 50.0)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
6,251.8	5,871.0	OHIO CREEK				
6,815.3	6,396.0	WILLIAMS FORK				
7,811.0	7,356.0	TOG				
8,711.0	8,256.0	CAMEO				
9,156.0	8,701.0	ROLLINS				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
200.0	200.0	0.0	0.0	KOP @ 200'	
909.7	893.5	-46.0	121.9	EOB @ 21.29° INC	
7,101.3	6,662.5	-840.0	2,225.3	Start 3° Drop	
7,811.0	7,356.0	-886.1	2,347.2	EOD @ 0° INC	
9,306.0	8,851.0	-886.1	2,347.2	TD @ 9,306' MD	

Caerus Oil & Gas (NAD 27)

Garfield County, CO

S2-T7S-R97W (Puckett Pad P2)

PUCKETT 24D-1

DD

Plan #1

Anticollision Report

01 October, 2014

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 200.0usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	10/1/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	9,306.0	Plan #1 (DD)	ISCWSA MWD	MWD - Standard

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference	Offset	Distance		Separation Factor	Warning
	Measured Depth (usft)	Measured Depth (usft)	Between Centres (usft)	Between Ellipses (usft)		
NENW Sec 12-T7S-R97W						
Puckett 21A-12D - DD - DD						Out of range
Puckett 21B-12D - DD - DD						Out of range
Puckett 21C-12 - VH - VH						Out of range
S2-T7S-R97W (Puckett Pad P2)						
PUCKETT 11A-12 - DD - Plan #1	200.0	200.0	15.3	14.7	24.503	CC, ES
PUCKETT 11A-12 - DD - Plan #1	400.0	399.2	21.5	19.9	13.946	SF
PUCKETT 11B-12 - DD - Plan #1	200.0	200.0	23.5	22.8	37.545	CC, ES
PUCKETT 11B-12 - DD - Plan #1	500.0	496.1	43.5	41.4	20.488	SF
PUCKETT 13D-1 - DD - Plan #1	200.0	200.0	41.1	40.5	65.738	CC, ES
PUCKETT 13D-1 - DD - Plan #1	900.0	888.9	125.8	120.5	23.940	SF
PUCKETT 14A-1 - DD - Plan #1	362.7	362.5	39.2	37.9	29.086	CC
PUCKETT 14A-1 - DD - Plan #1	400.0	399.6	39.4	37.8	25.902	ES
PUCKETT 14A-1 - DD - Plan #1	700.0	697.6	63.5	60.2	18.744	SF
PUCKETT 14B-1 - DD - Plan #1	330.0	329.9	24.3	23.1	20.230	CC, ES
PUCKETT 14B-1 - DD - Plan #1	600.0	599.7	37.8	35.1	13.732	SF
PUCKETT 14C-1 - DD - Plan #1	269.2	269.2	7.9	6.9	8.488	CC
PUCKETT 14C-1 - DD - Plan #1	300.0	300.0	8.0	6.9	7.504	ES
PUCKETT 14C-1 - DD - Plan #1	400.0	399.9	11.6	10.0	7.113	SF
PUCKETT 14D-1 - DD - Plan #1	200.0	200.0	8.0	7.3	12.754	CC, ES
PUCKETT 14D-1 - DD - Plan #1	400.0	400.0	12.6	10.9	7.721	SF
PUCKETT 24A-1 - DD - Plan #1	321.2	321.0	32.5	31.4	28.145	CC, ES
PUCKETT 24A-1 - DD - Plan #1	1,800.0	1,788.7	194.1	176.1	10.788	SF
PUCKETT 24C-1 - DD - Plan #1	276.9	276.8	16.1	15.2	16.866	CC
PUCKETT 24C-1 - DD - Plan #1	300.0	299.9	16.2	15.1	15.339	ES
PUCKETT 24C-1 - DD - Plan #1	4,800.0	4,797.9	199.3	135.1	3.106	SF
PUCKETT 43C-2 - DD - Plan #1	200.0	200.0	34.4	33.8	55.092	CC
PUCKETT 43C-2 - DD - Plan #1	212.7	212.7	34.4	33.7	50.608	ES
PUCKETT 43C-2 - DD - Plan #1	500.0	493.5	55.4	53.2	24.593	SF
PUCKETT 43D-2 - DD - Plan #1	200.0	200.0	26.5	25.9	42.443	CC, ES
PUCKETT 43D-2 - DD - Plan #1	400.0	398.9	31.3	29.8	19.706	SF
PUCKETT 44A-2 - DD - Plan #1	200.0	200.0	19.3	18.7	30.887	CC, ES
PUCKETT 44A-2 - DD - Plan #1	400.0	399.5	25.1	23.4	15.378	SF
PUCKETT 44B-2 - DD - Plan #1	200.0	200.0	12.8	12.2	20.543	CC, ES
PUCKETT 44B-2 - DD - Plan #1	400.0	399.2	21.9	20.2	12.823	SF
PUCKETT 44C-2 - DD - Plan #1	200.0	200.0	9.9	9.3	15.817	CC, ES
PUCKETT 44C-2 - DD - Plan #1	300.0	299.9	12.5	11.4	10.900	SF
PUCKETT 44D-2 - DD - Plan #1	200.0	200.0	12.5	11.8	19.956	CC, ES
PUCKETT 44D-2 - DD - Plan #1	300.0	299.5	15.9	14.8	14.043	SF

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 11A-12 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance					Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-148.92	-13.1	-7.9	15.3					
100.0	100.0	100.0	100.0	0.1	0.1	-148.92	-13.1	-7.9	15.3	15.1	0.18	87.331		
200.0	200.0	200.0	200.0	0.3	0.3	-148.92	-13.1	-7.9	15.3	14.7	0.62	24.503 CC, ES		
300.0	300.0	299.7	299.7	0.5	0.5	107.60	-13.7	-7.7	16.3	15.2	1.06	15.379		
400.0	399.6	399.2	399.0	0.8	0.7	115.39	-18.5	-5.8	21.5	19.9	1.54	13.946 SF		
500.0	498.8	498.2	497.5	1.0	1.0	119.16	-28.1	-2.0	31.1	29.0	2.13	14.582		
600.0	597.1	596.7	594.8	1.4	1.3	120.32	-42.3	3.7	44.9	42.0	2.83	15.833		
700.0	694.3	694.6	690.7	1.9	1.7	120.58	-60.7	11.0	62.6	59.0	3.67	17.079		
800.0	790.2	792.4	786.2	2.4	2.1	122.88	-80.0	18.7	83.4	78.8	4.61	18.082		
900.0	884.4	889.2	880.8	3.1	2.5	126.34	-99.2	26.3	107.3	101.6	5.64	19.011		
1,000.0	977.6	985.5	974.9	3.8	2.9	129.92	-118.3	33.9	133.4	126.7	6.64	20.090		
1,100.0	1,070.8	1,081.7	1,068.9	4.5	3.4	132.37	-137.3	41.4	159.8	152.2	7.63	20.962		
1,200.0	1,164.0	1,178.0	1,163.0	5.3	3.8	134.13	-156.4	49.0	186.5	177.9	8.61	21.656		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 11B-12 - DD - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-150.44	-20.4	-11.6	23.5				
100.0	100.0	100.0	100.0	0.1	0.1	-150.44	-20.4	-11.6	23.5	23.3	0.18	133.816	
200.0	200.0	200.0	200.0	0.3	0.3	-150.44	-20.4	-11.6	23.5	22.8	0.62	37.545 CC, ES	
300.0	300.0	299.1	299.1	0.5	0.5	100.36	-22.9	-10.8	25.7	24.6	1.05	24.469	
400.0	399.6	397.9	397.6	0.8	0.7	103.57	-30.2	-8.6	32.3	30.8	1.53	21.137	
500.0	498.8	496.1	494.9	1.0	1.0	106.64	-42.3	-4.8	43.5	41.4	2.12	20.488 SF	
600.0	597.1	593.4	590.6	1.4	1.4	108.87	-59.0	0.3	59.2	56.3	2.85	20.778	
700.0	694.3	689.5	684.2	1.9	1.8	110.29	-80.0	6.8	79.3	75.6	3.72	21.335	
800.0	790.2	786.0	777.2	2.4	2.3	111.77	-104.5	14.3	103.1	98.4	4.73	21.806	
900.0	884.4	882.3	870.0	3.1	2.8	114.50	-129.1	21.9	129.2	123.3	5.86	22.038	
1,000.0	977.6	978.0	962.2	3.8	3.3	117.77	-153.6	29.4	156.9	149.9	7.03	22.332	
1,100.0	1,070.8	1,073.7	1,054.5	4.5	3.8	120.12	-178.1	37.0	185.0	176.9	8.19	22.583	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 13D-1 - DD - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-ISCWSA MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	16.78	39.3	11.9	41.1					
100.0	100.0	100.0	100.0	0.1	0.1	16.78	39.3	11.9	41.1	40.9	0.18	234.296		
200.0	200.0	200.0	200.0	0.3	0.3	16.78	39.3	11.9	41.1	40.5	0.62	65.738	CC, ES	
300.0	300.0	298.5	298.5	0.5	0.5	-96.55	40.4	12.8	42.6	41.6	1.06	40.111		
400.0	399.6	396.1	395.9	0.8	0.8	-102.03	45.2	16.8	49.5	48.0	1.55	31.978		
500.0	498.8	495.1	494.2	1.0	1.0	-107.47	52.6	24.5	61.1	59.0	2.11	28.898		
600.0	597.1	595.1	593.2	1.4	1.3	-111.09	58.8	37.2	73.6	70.9	2.75	26.732		
700.0	694.3	693.8	690.8	1.9	1.6	-115.30	64.2	51.8	87.8	84.2	3.52	24.937		
800.0	790.2	791.9	787.6	2.4	2.0	-120.67	69.7	66.3	104.9	100.5	4.36	24.045		
900.0	884.4	888.9	883.4	3.1	2.3	-126.28	75.0	80.6	125.8	120.5	5.25	23.940	SF	
1,000.0	977.6	985.2	978.5	3.8	2.7	-131.50	80.4	94.8	149.6	143.5	6.08	24.618		
1,100.0	1,070.8	1,081.5	1,073.6	4.5	3.0	-135.32	85.7	109.0	174.4	167.5	6.86	25.409		
1,200.0	1,164.0	1,177.9	1,168.7	5.3	3.3	-138.20	91.1	123.2	199.7	192.1	7.63	26.190		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 14A-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCSWA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	30.70	34.2	20.3	39.8					
100.0	100.0	100.0	100.0	0.1	0.1	30.70	34.2	20.3	39.8	39.6	0.18	227.090		
200.0	200.0	200.0	200.0	0.3	0.3	30.70	34.2	20.3	39.8	39.2	0.62	63.716		
300.0	300.0	300.0	300.0	0.5	0.5	-83.74	34.2	20.3	39.4	38.4	1.06	37.114		
362.7	362.5	362.5	362.5	0.7	0.7	-90.00	34.2	20.3	39.2	37.9	1.35	29.086 CC		
400.0	399.6	399.6	399.6	0.8	0.8	-95.13	34.2	20.3	39.4	37.8	1.52	25.902 ES		
500.0	498.8	498.7	498.7	1.0	1.0	-111.84	34.3	20.9	42.6	40.5	2.07	20.593		
600.0	597.1	597.9	597.8	1.4	1.2	-124.96	34.7	26.0	51.1	48.4	2.70	18.908		
700.0	694.3	697.6	696.9	1.9	1.4	-132.92	35.6	36.3	63.5	60.2	3.39	18.744 SF		
800.0	790.2	796.7	794.9	2.4	1.7	-137.64	36.8	50.9	78.9	74.8	4.12	19.156		
900.0	884.4	894.5	891.5	3.1	2.0	-142.26	38.0	65.9	98.5	93.6	4.88	20.166		
1,000.0	977.6	991.6	987.5	3.8	2.3	-146.40	39.2	80.7	121.0	115.5	5.52	21.914		
1,100.0	1,070.8	1,088.7	1,083.5	4.5	2.7	-149.27	40.5	95.6	144.0	137.9	6.14	23.444		
1,200.0	1,164.0	1,185.8	1,179.4	5.3	3.0	-151.34	41.7	110.4	167.3	160.5	6.77	24.728		
1,300.0	1,257.1	1,282.9	1,275.4	6.0	3.3	-152.91	42.9	125.3	190.7	183.3	7.39	25.809		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 14B-1 - DD - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-ISCSWA MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	31.02	21.1	12.7	24.7				
100.0	100.0	100.0	100.0	0.1	0.1	31.02	21.1	12.7	24.7	24.5	0.18	140.608	
200.0	200.0	200.0	200.0	0.3	0.3	31.02	21.1	12.7	24.7	24.0	0.62	39.451	
300.0	300.0	300.0	300.0	0.5	0.5	-85.74	21.1	12.7	24.3	23.3	1.06	22.896	
330.0	329.9	329.9	329.9	0.6	0.6	-90.00	21.1	12.7	24.3	23.1	1.20	20.230 CC, ES	
400.0	399.6	399.6	399.6	0.8	0.8	-103.91	21.1	12.7	25.0	23.5	1.53	16.319	
500.0	498.8	499.4	499.4	1.0	1.0	-123.58	20.7	15.3	29.8	27.7	2.11	14.091	
600.0	597.1	599.7	599.3	1.4	1.2	-135.69	19.5	23.0	37.8	35.1	2.76	13.732 SF	
700.0	694.3	700.5	699.2	1.9	1.5	-142.37	17.3	36.0	47.6	44.2	3.43	13.906	
800.0	790.2	799.6	797.1	2.4	1.8	-147.48	14.8	51.4	60.3	56.2	4.12	14.634	
900.0	884.4	897.8	894.1	3.1	2.1	-152.57	12.4	66.7	77.8	73.0	4.82	16.152	
1,000.0	977.6	995.4	990.5	3.8	2.4	-156.66	9.9	82.0	98.6	93.2	5.36	18.379	
1,100.0	1,070.8	1,093.1	1,086.9	4.5	2.8	-159.34	7.4	97.2	119.6	113.8	5.90	20.296	
1,200.0	1,164.0	1,190.7	1,183.3	5.3	3.1	-161.22	4.9	112.4	140.9	134.5	6.43	21.897	
1,300.0	1,257.1	1,288.3	1,279.7	6.0	3.5	-162.61	2.5	127.6	162.3	155.3	6.98	23.250	
1,400.0	1,350.3	1,385.9	1,376.1	6.7	3.8	-163.67	0.0	142.8	183.7	176.2	7.54	24.376	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 14C-1 - DD - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-ISCSWA MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	29.73	6.9	4.0	8.0					
100.0	100.0	100.0	100.0	0.1	0.1	29.73	6.9	4.0	8.0	7.8	0.18	45.457		
200.0	200.0	200.0	200.0	0.3	0.3	29.73	6.9	4.0	8.0	7.3	0.62	12.754		
269.2	269.2	269.2	269.2	0.5	0.5	-90.00	6.9	4.0	7.9	6.9	0.93	8.488 CC		
300.0	300.0	300.0	300.0	0.5	0.5	-99.82	6.9	4.0	8.0	6.9	1.06	7.504 ES		
400.0	399.6	399.9	399.9	0.8	0.8	-137.37	6.7	4.6	11.6	10.0	1.63	7.113 SF		
500.0	498.8	500.2	500.1	1.0	1.0	-154.68	4.7	9.4	18.1	15.9	2.25	8.070		
600.0	597.1	601.0	600.3	1.4	1.2	-162.73	0.8	19.2	25.4	22.5	2.86	8.872		
700.0	694.3	701.7	699.7	1.9	1.5	-167.42	-5.0	33.7	33.0	29.6	3.47	9.524		
800.0	790.2	800.9	797.6	2.4	1.8	-171.17	-11.2	49.0	44.8	40.7	4.10	10.925		
900.0	884.4	899.4	894.7	3.1	2.2	-173.90	-17.4	64.3	61.8	57.0	4.73	13.046		
1,000.0	977.6	997.4	991.3	3.8	2.6	-175.65	-23.5	79.5	81.9	76.7	5.21	15.711		
1,100.0	1,070.8	1,095.3	1,087.8	4.5	2.9	-176.72	-29.6	94.6	102.1	96.4	5.70	17.913		
1,200.0	1,164.0	1,193.2	1,184.4	5.3	3.3	-177.43	-35.7	109.8	122.3	116.1	6.20	19.712		
1,300.0	1,257.1	1,291.1	1,280.9	6.0	3.7	-177.95	-41.8	125.0	142.5	135.8	6.72	21.192		
1,400.0	1,350.3	1,389.1	1,377.5	6.7	4.0	-178.33	-47.9	140.1	162.7	155.5	7.26	22.421		
1,500.0	1,443.5	1,487.0	1,474.0	7.5	4.4	-178.63	-54.0	155.3	182.9	175.1	7.80	23.454		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 14D-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCSWA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-150.27	-6.9	-4.0	8.0					
100.0	100.0	100.0	100.0	0.1	0.1	-150.27	-6.9	-4.0	8.0	7.8	0.18	45.457		
200.0	200.0	200.0	200.0	0.3	0.3	-150.27	-6.9	-4.0	8.0	7.3	0.62	12.754 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	116.16	-6.9	-4.0	8.8	7.7	1.08	8.108		
400.0	399.6	400.0	400.0	0.8	0.7	136.97	-8.5	-1.8	12.6	10.9	1.63	7.721 SF		
500.0	498.8	500.3	500.0	1.0	1.0	143.96	-13.1	4.5	18.2	15.9	2.21	8.198		
600.0	597.1	600.8	599.6	1.4	1.2	145.08	-20.8	15.2	24.8	21.9	2.85	8.706		
700.0	694.3	701.2	698.3	1.9	1.6	144.05	-31.5	29.8	32.5	28.9	3.55	9.138		
800.0	790.2	800.6	795.8	2.4	2.0	145.99	-42.9	45.5	43.5	39.2	4.33	10.040		
900.0	884.4	899.3	892.6	3.1	2.4	149.77	-54.3	61.0	59.0	53.9	5.13	11.508		
1,000.0	977.6	997.5	988.9	3.8	2.8	153.19	-65.5	76.4	77.4	71.6	5.79	13.379		
1,100.0	1,070.8	1,095.7	1,085.2	4.5	3.2	155.31	-76.8	91.9	96.0	89.6	6.44	14.911		
1,200.0	1,164.0	1,193.9	1,181.6	5.3	3.6	156.74	-88.1	107.3	114.7	107.6	7.10	16.157		
1,300.0	1,257.1	1,292.1	1,277.9	6.0	4.0	157.77	-99.3	122.8	133.4	125.6	7.77	17.172		
1,400.0	1,350.3	1,390.3	1,374.2	6.7	4.4	158.55	-110.6	138.2	152.2	143.7	8.45	18.014		
1,500.0	1,443.5	1,488.5	1,470.5	7.5	4.9	159.15	-121.9	153.7	170.9	161.8	9.13	18.720		
1,600.0	1,536.7	1,586.7	1,566.9	8.3	5.3	159.64	-133.1	169.2	189.7	179.9	9.82	19.318		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 24A-1 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISCSWA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	30.39	28.4	16.7	32.9					
100.0	100.0	100.0	100.0	0.1	0.1	30.39	28.4	16.7	32.9	32.8	0.18	187.823		
200.0	200.0	200.0	200.0	0.3	0.3	30.39	28.4	16.7	32.9	32.3	0.62	52.699		
300.0	300.0	300.0	300.0	0.5	0.5	-84.84	28.4	16.7	32.6	31.5	1.06	30.677		
321.2	321.1	321.0	321.0	0.6	0.6	-86.79	28.4	16.8	32.5	31.4	1.16	28.145 CC, ES		
400.0	399.6	399.3	399.3	0.8	0.8	-94.10	28.2	19.2	33.2	31.7	1.51	22.047		
500.0	498.8	498.9	498.6	1.0	1.0	-102.58	27.5	27.0	36.2	34.1	2.04	17.744		
600.0	597.1	598.4	597.2	1.4	1.3	-109.22	26.8	39.8	41.5	38.8	2.69	15.423		
700.0	694.3	697.9	695.1	1.9	1.6	-113.71	26.4	57.8	49.5	46.0	3.48	14.220		
800.0	790.2	797.4	791.8	2.4	2.0	-116.32	26.4	80.9	59.8	55.3	4.41	13.557		
900.0	884.4	896.8	887.2	3.1	2.5	-117.59	26.7	108.9	72.2	66.7	5.50	13.123		
1,000.0	977.6	996.2	981.0	3.8	3.1	-117.07	27.3	141.7	85.7	79.0	6.73	12.744		
1,100.0	1,070.8	1,095.2	1,073.7	4.5	3.8	-115.53	28.2	176.5	99.2	91.1	8.07	12.288		
1,200.0	1,164.0	1,194.3	1,166.5	5.3	4.5	-114.36	29.0	211.2	112.6	103.2	9.45	11.922		
1,300.0	1,257.1	1,293.4	1,259.3	6.0	5.2	-113.44	29.8	245.9	126.2	115.3	10.85	11.628		
1,400.0	1,350.3	1,392.4	1,352.1	6.7	5.9	-112.69	30.6	280.6	139.7	127.5	12.26	11.392		
1,500.0	1,443.5	1,491.5	1,444.8	7.5	6.6	-112.08	31.4	315.3	153.3	139.6	13.69	11.198		
1,600.0	1,536.7	1,590.6	1,537.6	8.3	7.3	-111.57	32.2	350.1	166.9	151.8	15.12	11.037		
1,700.0	1,629.8	1,689.6	1,630.4	9.0	8.0	-111.14	33.0	384.8	180.5	163.9	16.55	10.902		
1,800.0	1,723.0	1,788.7	1,723.2	9.8	8.7	-110.76	33.8	419.5	194.1	176.1	17.99	10.788 SF		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 24C-1 - DD - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-ISCWSA MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	29.09	14.2	7.9	16.3					
100.0	100.0	100.0	100.0	0.1	0.1	29.09	14.2	7.9	16.3	16.1	0.18	92.725		
200.0	200.0	200.0	200.0	0.3	0.3	29.09	14.2	7.9	16.3	15.6	0.62	26.016		
276.9	276.8	276.8	276.8	0.5	0.5	-86.38	14.2	8.1	16.1	15.2	0.96	16.866 CC		
300.0	300.0	299.9	299.9	0.5	0.5	-88.54	14.0	8.5	16.2	15.1	1.05	15.339 ES		
400.0	399.6	399.8	399.7	0.8	0.7	-97.61	12.8	13.6	16.9	15.4	1.50	11.262		
500.0	498.8	499.8	499.1	1.0	1.0	-105.29	10.3	23.7	18.7	16.6	2.06	9.062		
600.0	597.1	600.0	598.0	1.4	1.3	-111.01	6.5	39.0	21.3	18.6	2.75	7.754		
700.0	694.3	700.3	696.1	1.9	1.7	-114.86	1.6	59.2	24.7	21.1	3.57	6.912		
800.0	790.2	800.7	793.1	2.4	2.2	-117.21	-4.7	84.4	28.6	24.1	4.53	6.320		
900.0	884.4	901.1	888.6	3.1	2.8	-118.47	-12.1	114.6	33.2	27.5	5.66	5.862		
1,000.0	977.6	1,001.4	982.4	3.8	3.5	-116.96	-20.6	149.1	37.5	30.5	6.95	5.389		
1,100.0	1,070.8	1,101.3	1,075.5	4.5	4.2	-114.77	-29.3	184.2	41.5	33.2	8.35	4.973		
1,200.0	1,164.0	1,201.2	1,168.7	5.3	4.9	-112.97	-37.9	219.2	45.6	35.8	9.78	4.660		
1,300.0	1,257.1	1,301.1	1,261.8	6.0	5.7	-111.47	-46.6	254.3	49.7	38.5	11.25	4.421		
1,400.0	1,350.3	1,401.0	1,355.0	6.7	6.4	-110.19	-55.2	289.4	53.9	41.2	12.73	4.233		
1,500.0	1,443.5	1,501.0	1,448.1	7.5	7.2	-109.10	-63.9	324.5	58.1	43.8	14.22	4.083		
1,600.0	1,536.7	1,600.9	1,541.3	8.3	7.9	-108.16	-72.5	359.5	62.3	46.5	15.72	3.961		
1,700.0	1,629.8	1,700.8	1,634.4	9.0	8.6	-107.34	-81.2	394.6	66.5	49.3	17.22	3.860		
1,800.0	1,723.0	1,800.7	1,727.6	9.8	9.4	-106.61	-89.8	429.7	70.7	52.0	18.73	3.775		
1,900.0	1,816.2	1,900.6	1,820.7	10.5	10.1	-105.97	-98.5	464.7	74.9	54.7	20.24	3.703		
2,000.0	1,909.4	2,000.5	1,913.9	11.3	10.9	-105.39	-107.2	499.8	79.2	57.4	21.75	3.641		
2,100.0	2,002.5	2,100.4	2,007.0	12.0	11.6	-104.88	-115.8	534.9	83.4	60.2	23.26	3.587		
2,200.0	2,095.7	2,200.3	2,100.2	12.8	12.4	-104.41	-124.5	570.0	87.7	62.9	24.77	3.540		
2,300.0	2,188.9	2,300.2	2,193.3	13.5	13.1	-103.99	-133.1	605.0	92.0	65.7	26.29	3.498		
2,400.0	2,282.1	2,400.1	2,286.4	14.3	13.9	-103.61	-141.8	640.1	96.2	68.4	27.80	3.461		
2,500.0	2,375.2	2,500.0	2,379.6	15.1	14.7	-103.25	-150.4	675.2	100.5	71.2	29.32	3.428		
2,600.0	2,468.4	2,599.9	2,472.7	15.8	15.4	-102.93	-159.1	710.2	104.8	73.9	30.83	3.398		
2,700.0	2,561.6	2,699.8	2,565.9	16.6	16.2	-102.63	-167.7	745.3	109.0	76.7	32.35	3.371		
2,800.0	2,654.8	2,799.7	2,659.0	17.3	16.9	-102.36	-176.4	780.4	113.3	79.5	33.86	3.347		
2,900.0	2,747.9	2,899.7	2,752.2	18.1	17.7	-102.10	-185.0	815.5	117.6	82.2	35.38	3.325		
3,000.0	2,841.1	2,999.6	2,845.3	18.9	18.4	-101.86	-193.7	850.5	121.9	85.0	36.89	3.304		
3,100.0	2,934.3	3,099.5	2,938.5	19.6	19.2	-101.64	-202.3	885.6	126.2	87.8	38.41	3.286		
3,200.0	3,027.5	3,199.4	3,031.6	20.4	19.9	-101.43	-211.0	920.7	130.5	90.6	39.92	3.268		
3,300.0	3,120.6	3,299.3	3,124.8	21.1	20.7	-101.24	-219.6	955.7	134.8	93.3	41.44	3.252		
3,400.0	3,213.8	3,399.2	3,217.9	21.9	21.4	-101.06	-228.3	990.8	139.1	96.1	42.95	3.238		
3,500.0	3,307.0	3,499.1	3,311.1	22.7	22.2	-100.89	-236.9	1,025.9	143.4	98.9	44.47	3.224		
3,600.0	3,400.2	3,599.0	3,404.2	23.4	23.0	-100.73	-245.6	1,061.0	147.6	101.7	45.98	3.211		
3,700.0	3,493.3	3,698.9	3,497.4	24.2	23.7	-100.57	-254.2	1,096.0	151.9	104.4	47.50	3.199		
3,800.0	3,586.5	3,798.8	3,590.5	24.9	24.5	-100.43	-262.9	1,131.1	156.2	107.2	49.01	3.188		
3,900.0	3,679.7	3,898.7	3,683.7	25.7	25.2	-100.29	-271.5	1,166.2	160.5	110.0	50.52	3.177		
4,000.0	3,772.9	3,998.6	3,776.8	26.5	26.0	-100.17	-280.2	1,201.2	164.8	112.8	52.04	3.168		
4,100.0	3,866.0	4,098.5	3,870.0	27.2	26.7	-100.04	-288.8	1,236.3	169.1	115.6	53.55	3.158		
4,200.0	3,959.2	4,198.4	3,963.1	28.0	27.5	-99.93	-297.5	1,271.4	173.4	118.4	55.07	3.150		
4,300.0	4,052.4	4,298.3	4,056.3	28.7	28.2	-99.82	-306.1	1,306.5	177.7	121.2	56.58	3.141		
4,400.0	4,145.6	4,398.3	4,149.4	29.5	29.0	-99.71	-314.8	1,341.5	182.0	123.9	58.09	3.134		
4,500.0	4,238.7	4,498.2	4,242.6	30.3	29.7	-99.61	-323.5	1,376.6	186.3	126.7	59.61	3.126		
4,600.0	4,331.9	4,598.1	4,335.7	31.0	30.5	-99.51	-332.1	1,411.7	190.6	129.5	61.12	3.119		
4,700.0	4,425.1	4,698.0	4,428.9	31.8	31.3	-99.42	-340.8	1,446.7	194.9	132.3	62.64	3.112		
4,800.0	4,518.3	4,797.9	4,522.0	32.5	32.0	-99.34	-349.4	1,481.8	199.3	135.1	64.15	3.106 SF		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 43C-2 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	13.27	33.5	7.9	34.4					
100.0	100.0	100.0	100.0	0.1	0.1	13.27	33.5	7.9	34.4	34.2	0.18	196.354		
200.0	200.0	200.0	200.0	0.3	0.3	13.27	33.5	7.9	34.4	33.8	0.62	55.092 CC		
212.7	212.7	212.7	212.7	0.3	0.3	-97.48	33.5	7.9	34.4	33.7	0.68	50.608 ES		
300.0	300.0	299.7	299.7	0.5	0.5	-101.87	33.6	7.8	34.9	33.9	1.06	32.825		
400.0	399.6	397.8	397.8	0.8	0.8	-117.36	36.0	4.9	40.1	38.5	1.58	25.435		
500.0	498.8	493.5	493.0	1.0	1.0	-135.09	41.5	-1.7	55.4	53.2	2.25	24.593 SF		
600.0	597.1	585.3	584.0	1.4	1.3	-147.16	49.6	-11.4	82.8	79.8	2.98	27.785		
700.0	694.3	677.7	675.2	1.9	1.6	-154.42	59.2	-22.9	118.9	115.2	3.66	32.454		
800.0	790.2	768.0	764.2	2.4	1.9	-158.80	68.5	-34.1	160.5	156.2	4.30	37.349		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 43D-2 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	8.57	26.2	4.0	26.5					
100.0	100.0	100.0	100.0	0.1	0.1	8.57	26.2	4.0	26.5	26.3	0.18	151.272		
200.0	200.0	200.0	200.0	0.3	0.3	8.57	26.2	4.0	26.5	25.9	0.62	42.443 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-107.49	26.2	4.0	27.2	26.1	1.07	25.403		
400.0	399.6	398.9	398.9	0.8	0.8	-123.58	26.8	2.7	31.3	29.8	1.59	19.706 SF		
500.0	498.8	495.6	495.3	1.0	1.0	-143.44	29.4	-3.0	45.3	43.1	2.27	19.942		
600.0	597.1	588.7	587.8	1.4	1.2	-156.35	33.8	-12.6	71.5	68.5	3.00	23.821		
700.0	694.3	681.8	680.1	1.9	1.5	-163.43	39.1	-24.1	106.2	102.5	3.67	28.942		
800.0	790.2	772.9	770.4	2.4	1.8	-167.38	44.3	-35.4	146.5	142.2	4.29	34.133		
900.0	884.4	861.8	858.4	3.1	2.1	-169.83	49.3	-46.4	191.8	186.9	4.91	39.101		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 44A-2 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	0.00	19.3	0.0	19.3					
100.0	100.0	100.0	100.0	0.1	0.1	0.00	19.3	0.0	19.3	19.1	0.18	110.084		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	19.3	0.0	19.3	18.7	0.62	30.887 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-117.55	19.3	0.0	20.4	19.3	1.08	18.818		
400.0	399.6	399.5	399.5	0.8	0.8	-133.87	19.3	-0.2	25.1	23.4	1.63	15.378 SF		
500.0	498.8	497.1	497.0	1.0	1.0	-153.06	19.6	-3.9	38.1	35.8	2.29	16.603		
600.0	597.1	591.4	591.0	1.4	1.2	-165.79	20.2	-12.2	62.4	59.4	2.99	20.824		
700.0	694.3	684.5	683.3	1.9	1.4	-172.66	21.1	-23.6	96.0	92.3	3.67	26.160		
800.0	790.2	776.2	774.4	2.4	1.7	-176.17	22.0	-35.0	135.2	130.9	4.29	31.472		
900.0	884.4	865.8	863.2	3.1	2.0	-178.16	22.8	-46.1	179.4	174.5	4.91	36.499		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 44B-2 - DD - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-ISCSWA MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-20.60	12.0	-4.5	12.8				
100.0	100.0	100.0	100.0	0.1	0.1	-20.60	12.0	-4.5	12.8	12.7	0.18	73.216	
200.0	200.0	200.0	200.0	0.3	0.3	-20.60	12.0	-4.5	12.8	12.2	0.62	20.543 CC, ES	
300.0	300.0	300.0	300.0	0.5	0.5	-138.94	12.0	-4.5	14.7	13.6	1.12	13.165	
400.0	399.6	399.2	399.2	0.8	0.8	-156.26	11.6	-5.9	21.9	20.2	1.71	12.823 SF	
500.0	498.8	496.6	496.3	1.0	1.0	-172.47	9.7	-11.9	38.5	36.1	2.37	16.231	
600.0	597.1	591.2	590.4	1.4	1.2	178.47	6.6	-22.1	65.1	62.1	3.05	21.335	
700.0	694.3	685.3	683.6	1.9	1.5	174.36	3.0	-33.6	98.6	94.9	3.69	26.684	
800.0	790.2	777.5	775.1	2.4	1.7	172.52	-0.5	-44.9	137.1	132.8	4.34	31.624	
900.0	884.4	867.6	864.5	3.1	2.0	171.63	-3.9	-55.9	180.4	175.5	4.98	36.206	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 44C-2 - DD - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-ISWWSA MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-58.97	5.1	-8.5	9.9					
100.0	100.0	100.0	100.0	0.1	0.1	-58.97	5.1	-8.5	9.9	9.7	0.18	56.375		
200.0	200.0	200.0	200.0	0.3	0.3	-58.97	5.1	-8.5	9.9	9.3	0.62	15.817	CC, ES	
300.0	300.0	299.9	299.9	0.5	0.5	-172.47	5.0	-8.6	12.5	11.4	1.15	10.900	SF	
400.0	399.6	398.8	398.7	0.8	0.7	176.04	2.8	-11.8	22.5	20.8	1.74	12.939		
500.0	498.8	495.8	495.3	1.0	1.0	167.46	-2.2	-18.9	41.5	39.1	2.38	17.410		
600.0	597.1	590.5	589.1	1.4	1.2	162.77	-9.7	-29.5	69.2	66.2	3.06	22.612		
700.0	694.3	684.7	682.3	1.9	1.5	161.14	-17.7	-40.9	102.7	98.9	3.73	27.542		
800.0	790.2	777.2	773.7	2.4	1.9	160.83	-25.5	-52.1	140.7	136.3	4.41	31.902		
900.0	884.4	867.6	863.2	3.1	2.2	161.01	-33.2	-63.1	183.4	178.2	5.12	35.846		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S2-T7S-R97W (Puckett Pad P2) - PUCKETT 44D-2 - DD - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-ISWWSA MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-95.03	-1.1	-12.4	12.5					
100.0	100.0	100.0	100.0	0.1	0.1	-95.03	-1.1	-12.4	12.5	12.3	0.18	71.126		
200.0	200.0	200.0	200.0	0.3	0.3	-95.03	-1.1	-12.4	12.5	11.8	0.62	19.956 CC, ES		
300.0	300.0	299.5	299.5	0.5	0.5	154.77	-2.2	-13.4	15.9	14.8	1.13	14.043 SF		
400.0	399.6	398.0	397.7	0.8	0.7	152.39	-6.9	-17.7	27.7	26.0	1.72	16.160		
500.0	498.8	494.4	493.5	1.0	1.0	150.31	-15.1	-25.2	48.0	45.6	2.36	20.338		
600.0	597.1	588.6	586.4	1.4	1.3	148.92	-26.5	-35.6	76.3	73.2	3.06	24.964		
700.0	694.3	682.7	679.1	1.9	1.6	148.96	-38.9	-46.9	110.0	106.2	3.76	29.221		
800.0	790.2	775.2	770.0	2.4	2.0	149.76	-51.1	-57.9	147.9	143.4	4.50	32.829		
900.0	884.4	865.8	859.2	3.1	2.4	150.76	-63.0	-68.8	190.0	184.8	5.28	35.985		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 24D-1
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8446.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad P2)	MD Reference:	KB=22' @ 8446.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 24D-1	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB=22' @ 8446.0usft
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: PUCKETT 24D-1
Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502
Grid Convergence at Surface is: -1.69°

