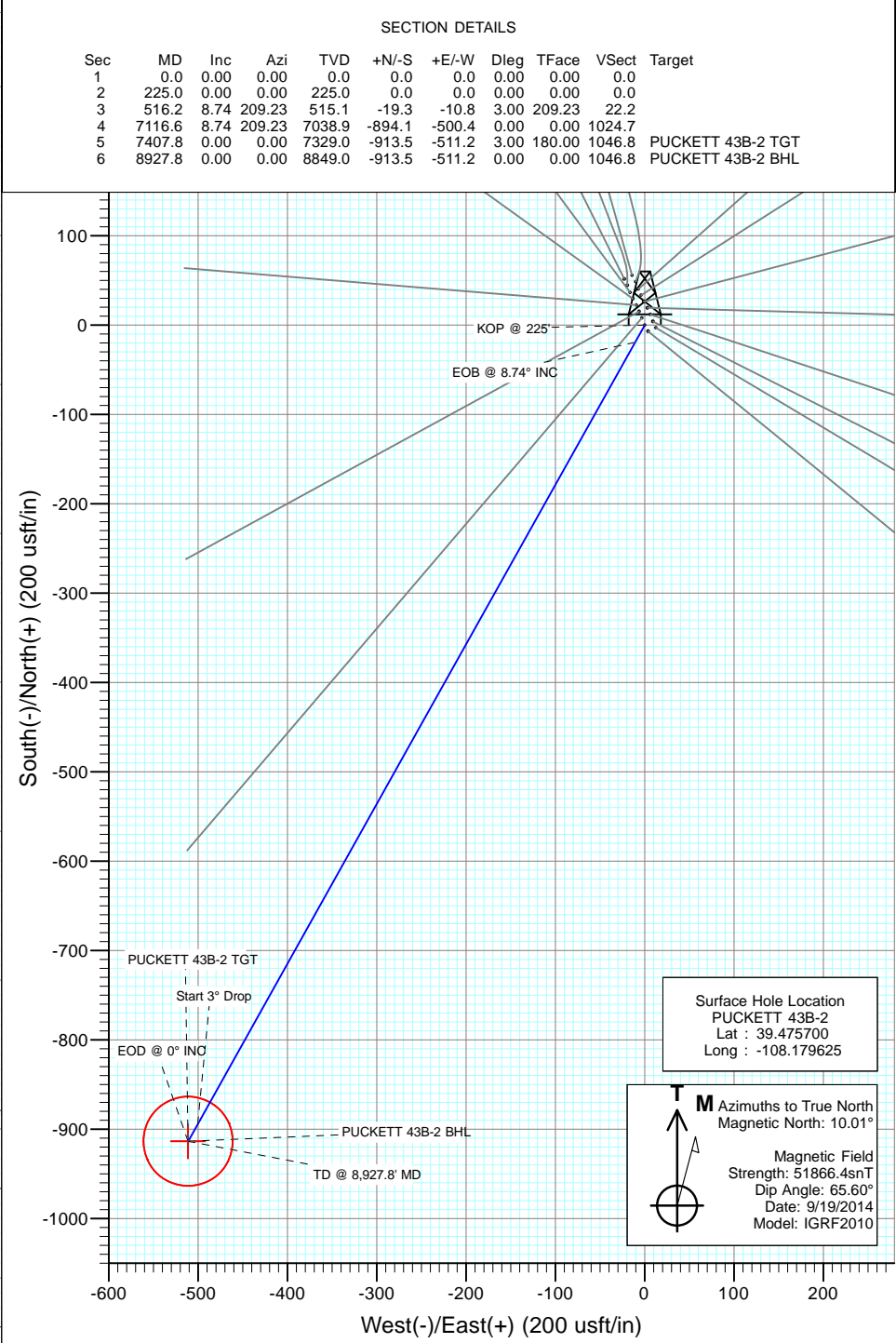
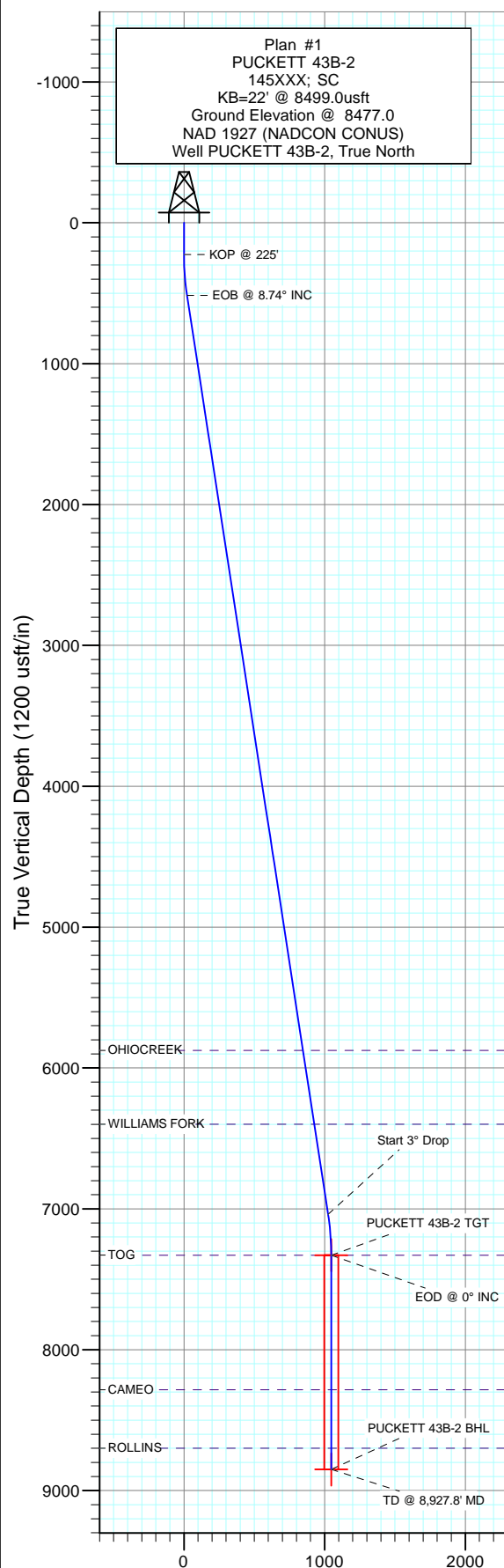




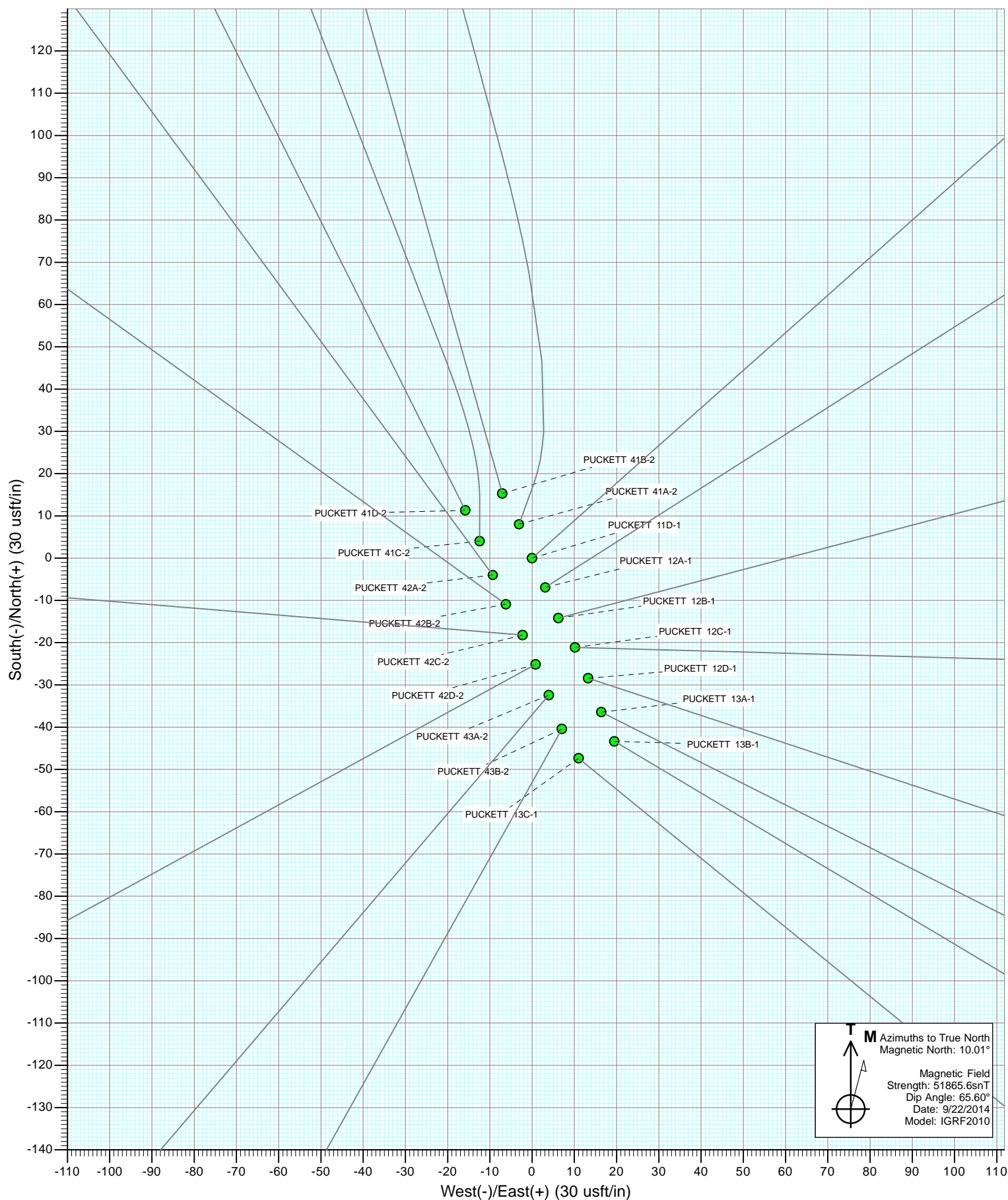
Project: Garfield County, CO
 Site: S2-T7S-R97W (Puckett Pad)
 Well: PUCKETT 43B-2
 Wellbore: DD
 Design: Plan #1

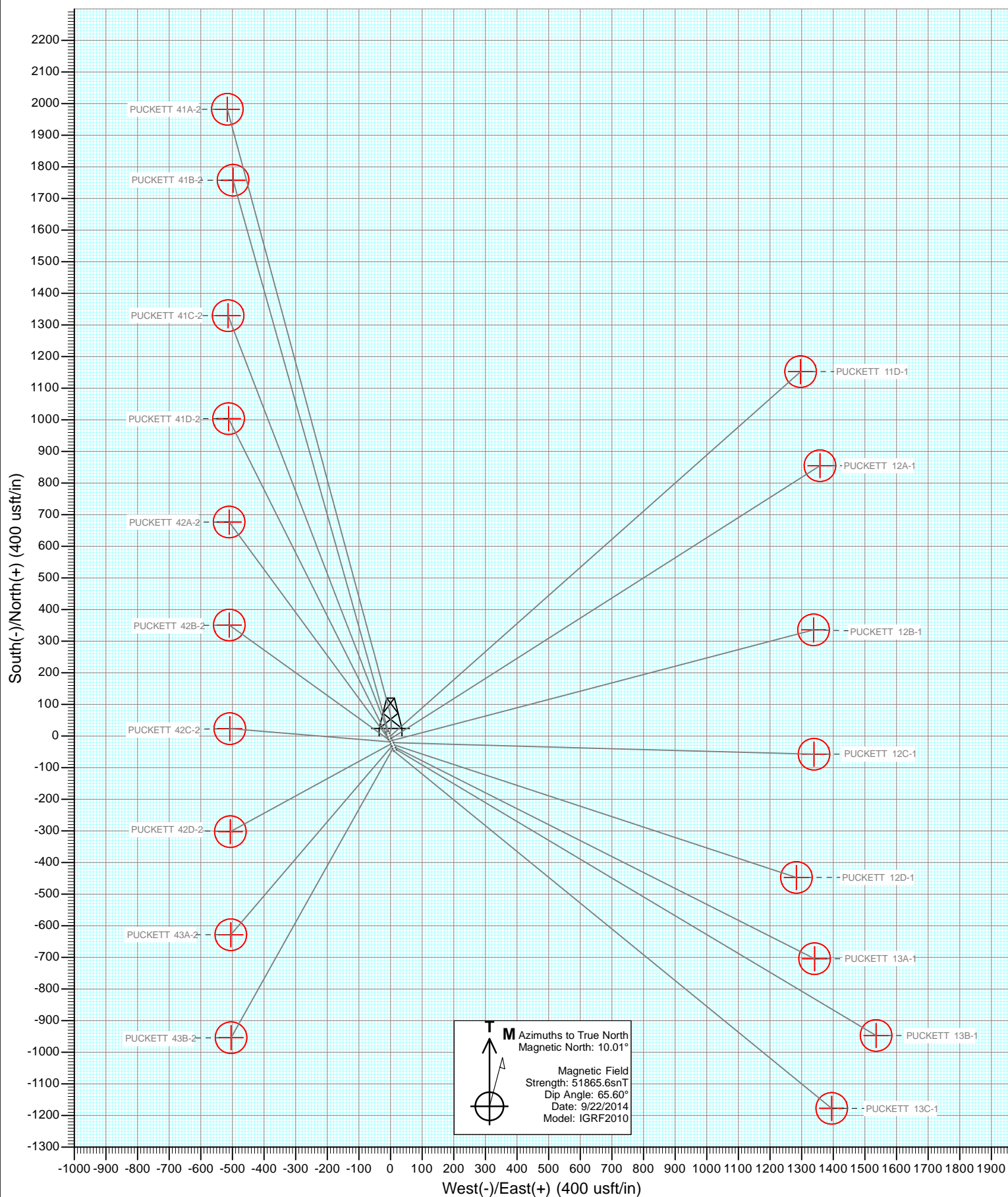


DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PUCKETT 43B-2 TGT	-913.5	-511.2	608397.74	1243142.57	39.473192	-108.181436
PUCKETT 43B-2 BHL	-913.5	-511.2	608397.74	1243142.57	39.473192	-108.181436

Vertical Section at 209.23° (1200 usft/in)





Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8499.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8499.0usft
Site:	S2-T7S-R97W (Puckett Pad)	North Reference:	True
Well:	PUCKETT 43B-2	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)			
Site Position:		Northing:	609,295.75 usft	Latitude:	39.475700
From:	Lat/Long	Easting:	1,243,680.53 usft	Longitude:	-108.179625
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.69 °

Well	PUCKETT 43B-2					
Well Position	+N/-S	0.0 usft	Northing:	609,295.74 usft	Latitude:	39.475700
	+E/-W	0.0 usft	Easting:	1,243,680.53 usft	Longitude:	-108.179625
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	8,477.0 usft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/19/2014	10.01	65.60	51,866

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	209.23

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	
225.0	0.00	0.00	225.0	0.0	0.0	0.00	0.00	0.00	0.00	
516.2	8.74	209.23	515.1	-19.3	-10.8	3.00	3.00	0.00	209.23	
7,116.6	8.74	209.23	7,038.9	-894.1	-500.4	0.00	0.00	0.00	0.00	
7,407.8	0.00	0.00	7,329.0	-913.5	-511.2	3.00	-3.00	0.00	180.00	PUCKETT 43B-2 TG1
8,927.8	0.00	0.00	8,849.0	-913.5	-511.2	0.00	0.00	0.00	0.00	PUCKETT 43B-2 BHL

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8499.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8499.0usft
Site:	S2-T7S-R97W (Puckett Pad)	North Reference:	True
Well:	PUCKETT 43B-2	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	
225.0	0.00	0.00	225.0	0.0	0.0	0.0	0.00	0.00	KOP @ 225'
300.0	2.25	209.23	300.0	-1.3	-0.7	1.5	3.00	3.00	
400.0	5.25	209.23	399.8	-7.0	-3.9	8.0	3.00	3.00	
500.0	8.25	209.23	499.1	-17.2	-9.7	19.8	3.00	3.00	
516.2	8.74	209.23	515.1	-19.3	-10.8	22.2	3.00	3.00	EOB @ 8.74° INC
600.0	8.74	209.23	597.9	-30.4	-17.0	34.9	0.00	0.00	
700.0	8.74	209.23	696.7	-43.7	-24.5	50.1	0.00	0.00	
800.0	8.74	209.23	795.6	-56.9	-31.9	65.3	0.00	0.00	
900.0	8.74	209.23	894.4	-70.2	-39.3	80.4	0.00	0.00	
1,000.0	8.74	209.23	993.3	-83.5	-46.7	95.6	0.00	0.00	
1,100.0	8.74	209.23	1,092.1	-96.7	-54.1	110.8	0.00	0.00	
1,200.0	8.74	209.23	1,190.9	-110.0	-61.5	126.0	0.00	0.00	
1,300.0	8.74	209.23	1,289.8	-123.2	-69.0	141.2	0.00	0.00	
1,400.0	8.74	209.23	1,388.6	-136.5	-76.4	156.4	0.00	0.00	
1,500.0	8.74	209.23	1,487.5	-149.7	-83.8	171.6	0.00	0.00	
1,600.0	8.74	209.23	1,586.3	-163.0	-91.2	186.8	0.00	0.00	
1,700.0	8.74	209.23	1,685.1	-176.2	-98.6	202.0	0.00	0.00	
1,800.0	8.74	209.23	1,784.0	-189.5	-106.0	217.1	0.00	0.00	
1,900.0	8.74	209.23	1,882.8	-202.7	-113.5	232.3	0.00	0.00	
2,000.0	8.74	209.23	1,981.7	-216.0	-120.9	247.5	0.00	0.00	
2,100.0	8.74	209.23	2,080.5	-229.2	-128.3	262.7	0.00	0.00	
2,200.0	8.74	209.23	2,179.3	-242.5	-135.7	277.9	0.00	0.00	
2,300.0	8.74	209.23	2,278.2	-255.8	-143.1	293.1	0.00	0.00	
2,400.0	8.74	209.23	2,377.0	-269.0	-150.6	308.3	0.00	0.00	
2,500.0	8.74	209.23	2,475.9	-282.3	-158.0	323.5	0.00	0.00	
2,600.0	8.74	209.23	2,574.7	-295.5	-165.4	338.7	0.00	0.00	
2,700.0	8.74	209.23	2,673.5	-308.8	-172.8	353.8	0.00	0.00	
2,800.0	8.74	209.23	2,772.4	-322.0	-180.2	369.0	0.00	0.00	
2,900.0	8.74	209.23	2,871.2	-335.3	-187.6	384.2	0.00	0.00	
3,000.0	8.74	209.23	2,970.1	-348.5	-195.1	399.4	0.00	0.00	
3,100.0	8.74	209.23	3,068.9	-361.8	-202.5	414.6	0.00	0.00	
3,200.0	8.74	209.23	3,167.7	-375.0	-209.9	429.8	0.00	0.00	
3,300.0	8.74	209.23	3,266.6	-388.3	-217.3	445.0	0.00	0.00	
3,400.0	8.74	209.23	3,365.4	-401.5	-224.7	460.2	0.00	0.00	
3,500.0	8.74	209.23	3,464.3	-414.8	-232.2	475.3	0.00	0.00	
3,600.0	8.74	209.23	3,563.1	-428.1	-239.6	490.5	0.00	0.00	
3,700.0	8.74	209.23	3,661.9	-441.3	-247.0	505.7	0.00	0.00	
3,800.0	8.74	209.23	3,760.8	-454.6	-254.4	520.9	0.00	0.00	
3,900.0	8.74	209.23	3,859.6	-467.8	-261.8	536.1	0.00	0.00	
4,000.0	8.74	209.23	3,958.5	-481.1	-269.2	551.3	0.00	0.00	
4,100.0	8.74	209.23	4,057.3	-494.3	-276.7	566.5	0.00	0.00	
4,200.0	8.74	209.23	4,156.1	-507.6	-284.1	581.7	0.00	0.00	
4,300.0	8.74	209.23	4,255.0	-520.8	-291.5	596.9	0.00	0.00	
4,400.0	8.74	209.23	4,353.8	-534.1	-298.9	612.0	0.00	0.00	
4,500.0	8.74	209.23	4,452.7	-547.3	-306.3	627.2	0.00	0.00	
4,600.0	8.74	209.23	4,551.5	-560.6	-313.7	642.4	0.00	0.00	
4,700.0	8.74	209.23	4,650.3	-573.8	-321.2	657.6	0.00	0.00	
4,800.0	8.74	209.23	4,749.2	-587.1	-328.6	672.8	0.00	0.00	
4,900.0	8.74	209.23	4,848.0	-600.4	-336.0	688.0	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8499.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8499.0usft
Site:	S2-T7S-R97W (Puckett Pad)	North Reference:	True
Well:	PUCKETT 43B-2	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
5,000.0	8.74	209.23	4,946.9	-613.6	-343.4	703.2	0.00	0.00	
5,100.0	8.74	209.23	5,045.7	-626.9	-350.8	718.4	0.00	0.00	
5,200.0	8.74	209.23	5,144.5	-640.1	-358.3	733.6	0.00	0.00	
5,300.0	8.74	209.23	5,243.4	-653.4	-365.7	748.7	0.00	0.00	
5,400.0	8.74	209.23	5,342.2	-666.6	-373.1	763.9	0.00	0.00	
5,500.0	8.74	209.23	5,441.1	-679.9	-380.5	779.1	0.00	0.00	
5,600.0	8.74	209.23	5,539.9	-693.1	-387.9	794.3	0.00	0.00	
5,700.0	8.74	209.23	5,638.7	-706.4	-395.3	809.5	0.00	0.00	
5,800.0	8.74	209.23	5,737.6	-719.6	-402.8	824.7	0.00	0.00	
5,900.0	8.74	209.23	5,836.4	-732.9	-410.2	839.9	0.00	0.00	
5,938.0	8.74	209.23	5,874.0	-737.9	-413.0	845.6	0.00	0.00	OHIOCREEK
6,000.0	8.74	209.23	5,935.3	-746.1	-417.6	855.1	0.00	0.00	
6,100.0	8.74	209.23	6,034.1	-759.4	-425.0	870.2	0.00	0.00	
6,200.0	8.74	209.23	6,132.9	-772.7	-432.4	885.4	0.00	0.00	
6,300.0	8.74	209.23	6,231.8	-785.9	-439.8	900.6	0.00	0.00	
6,400.0	8.74	209.23	6,330.6	-799.2	-447.3	915.8	0.00	0.00	
6,469.2	8.74	209.23	6,399.0	-808.3	-452.4	926.3	0.00	0.00	WILLIAMS FORK
6,500.0	8.74	209.23	6,429.5	-812.4	-454.7	931.0	0.00	0.00	
6,600.0	8.74	209.23	6,528.3	-825.7	-462.1	946.2	0.00	0.00	
6,700.0	8.74	209.23	6,627.1	-838.9	-469.5	961.4	0.00	0.00	
6,800.0	8.74	209.23	6,726.0	-852.2	-476.9	976.6	0.00	0.00	
6,900.0	8.74	209.23	6,824.8	-865.4	-484.4	991.8	0.00	0.00	
7,000.0	8.74	209.23	6,923.7	-878.7	-491.8	1,006.9	0.00	0.00	
7,100.0	8.74	209.23	7,022.5	-891.9	-499.2	1,022.1	0.00	0.00	
7,116.6	8.74	209.23	7,038.9	-894.1	-500.4	1,024.7	0.00	0.00	Start 3° Drop
7,200.0	6.23	209.23	7,121.6	-903.6	-505.7	1,035.5	3.00	-3.00	
7,300.0	3.23	209.23	7,221.2	-910.8	-509.8	1,043.8	3.00	-3.00	
7,407.8	0.00	0.00	7,329.0	-913.5	-511.2	1,046.8	3.00	-3.00	EOD @ 0° INC - TOG
7,500.0	0.00	0.00	7,421.2	-913.5	-511.2	1,046.8	0.00	0.00	
7,600.0	0.00	0.00	7,521.2	-913.5	-511.2	1,046.8	0.00	0.00	
7,700.0	0.00	0.00	7,621.2	-913.5	-511.2	1,046.8	0.00	0.00	
7,800.0	0.00	0.00	7,721.2	-913.5	-511.2	1,046.8	0.00	0.00	
7,900.0	0.00	0.00	7,821.2	-913.5	-511.2	1,046.8	0.00	0.00	
8,000.0	0.00	0.00	7,921.2	-913.5	-511.2	1,046.8	0.00	0.00	
8,100.0	0.00	0.00	8,021.2	-913.5	-511.2	1,046.8	0.00	0.00	
8,200.0	0.00	0.00	8,121.2	-913.5	-511.2	1,046.8	0.00	0.00	
8,300.0	0.00	0.00	8,221.2	-913.5	-511.2	1,046.8	0.00	0.00	
8,362.8	0.00	0.00	8,284.0	-913.5	-511.2	1,046.8	0.00	0.00	CAMEO
8,400.0	0.00	0.00	8,321.2	-913.5	-511.2	1,046.8	0.00	0.00	
8,500.0	0.00	0.00	8,421.2	-913.5	-511.2	1,046.8	0.00	0.00	
8,600.0	0.00	0.00	8,521.2	-913.5	-511.2	1,046.8	0.00	0.00	
8,700.0	0.00	0.00	8,621.2	-913.5	-511.2	1,046.8	0.00	0.00	
8,777.8	0.00	0.00	8,699.0	-913.5	-511.2	1,046.8	0.00	0.00	ROLLINS
8,800.0	0.00	0.00	8,721.2	-913.5	-511.2	1,046.8	0.00	0.00	
8,900.0	0.00	0.00	8,821.2	-913.5	-511.2	1,046.8	0.00	0.00	
8,927.8	0.00	0.00	8,849.0	-913.5	-511.2	1,046.8	0.00	0.00	TD @ 8,927.8' MD

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=22' @ 8499.0usft
Project:	Garfield County, CO	MD Reference:	KB=22' @ 8499.0usft
Site:	S2-T7S-R97W (Puckett Pad)	North Reference:	True
Well:	PUCKETT 43B-2	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 43B-2 BHL	0.00	0.00	8,849.0	-913.5	-511.2	608,397.74	1,243,142.57	39.473192	-108.181436
- plan hits target center									
- Circle (radius 50.0)									
PUCKETT 43B-2 TGT	0.00	0.00	7,329.0	-913.5	-511.2	608,397.74	1,243,142.57	39.473192	-108.181436
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
5,938.0	5,874.0	OHIOCREEK				
6,469.2	6,399.0	WILLIAMS FORK				
7,407.8	7,329.0	TOG				
8,362.8	8,284.0	CAMEO				
8,777.8	8,699.0	ROLLINS				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
225.0	225.0	0.0	0.0	KOP @ 225'	
516.2	515.1	-19.3	-10.8	EOB @ 8.74° INC	
7,116.6	7,038.9	-894.1	-500.4	Start 3° Drop	
7,407.8	7,329.0	-913.5	-511.2	EOD @ 0° INC	
8,927.8	8,849.0	-913.5	-511.2	TD @ 8,927.8' MD	

Caerus Oil & Gas (NAD 27)

Garfield County, CO

S2-T7S-R97W (Puckett Pad)

PUCKETT 43B-2

DD

Plan #1

Anticollision Report

22 September, 2014

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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	9/22/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	8,927.8	Plan #1 (DD)	ISCWSA MWD	MWD - Standard

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
S2-T7S-R97W (Puckett Pad)						
PUCKETT 11D-1 - DD - Plan #1	200.0	200.0	41.0	40.4	65.674	CC, ES
PUCKETT 11D-1 - DD - Plan #1	500.0	490.6	75.4	73.0	31.684	SF
PUCKETT 12A-1 - DD - Plan #1	200.0	200.0	33.7	33.1	53.992	CC, ES
PUCKETT 12A-1 - DD - Plan #1	400.0	397.8	43.9	42.2	26.237	SF
PUCKETT 12B-1 - DD - Plan #1	200.0	200.0	26.2	25.6	41.984	CC, ES
PUCKETT 12B-1 - DD - Plan #1	400.0	399.1	34.3	32.7	20.655	SF
PUCKETT 12C-1 - DD - Plan #1	200.0	200.0	19.5	18.9	31.284	CC, ES
PUCKETT 12C-1 - DD - Plan #1	400.0	399.6	27.4	25.7	16.392	SF
PUCKETT 12D-1 - DD - Plan #1	200.0	200.0	13.5	12.9	21.645	CC, ES
PUCKETT 12D-1 - DD - Plan #1	400.0	399.5	22.1	20.5	13.220	SF
PUCKETT 13A-1 - DD - Plan #1	200.0	200.0	10.1	9.5	16.226	CC
PUCKETT 13A-1 - DD - Plan #1	200.3	200.3	10.1	9.5	16.159	ES
PUCKETT 13A-1 - DD - Plan #1	300.0	299.8	11.7	10.6	10.782	SF
PUCKETT 13B-1 - DD - Plan #1	200.0	200.0	12.8	12.1	20.419	CC, ES
PUCKETT 13B-1 - DD - Plan #1	300.0	299.3	15.7	14.6	14.836	SF
PUCKETT 13C-1 - DD - Plan #1	155.6	155.6	8.0	7.5	18.754	CC
PUCKETT 13C-1 - DD - Plan #1	200.0	199.9	8.1	7.5	13.110	ES
PUCKETT 13C-1 - DD - Plan #1	300.0	299.3	11.3	10.3	10.861	SF
PUCKETT 41A-2 - DD - Plan #1	200.0	200.0	49.5	48.9	79.207	CC, ES
PUCKETT 41A-2 - DD - Plan #1	500.0	488.0	86.9	84.6	37.270	SF
PUCKETT 41B-2 - DD - Plan #1	144.4	144.4	57.5	57.1	153.244	CC, ES
PUCKETT 41B-2 - DD - Plan #1	500.0	483.7	101.4	99.1	43.837	SF
PUCKETT 41C-2 - DD - Plan #1	200.0	200.0	48.5	47.9	77.640	CC, ES
PUCKETT 41C-2 - DD - Plan #1	500.0	489.2	81.1	78.8	35.671	SF
PUCKETT 41D-2 - DD - Plan #1	155.6	155.6	56.5	56.1	133.030	CC
PUCKETT 41D-2 - DD - Plan #1	200.0	199.3	56.7	56.1	90.960	ES
PUCKETT 41D-2 - DD - Plan #1	500.0	485.4	95.9	93.6	42.305	SF
PUCKETT 42A-2 - DD - Plan #1	200.0	200.0	39.9	39.3	63.903	CC
PUCKETT 42A-2 - DD - Plan #1	216.6	216.6	40.0	39.3	57.234	ES
PUCKETT 42A-2 - DD - Plan #1	500.0	492.7	65.5	63.3	29.625	SF
PUCKETT 42B-2 - DD - Plan #1	200.0	200.0	32.3	31.7	51.764	CC, ES
PUCKETT 42B-2 - DD - Plan #1	500.0	495.9	52.2	50.1	23.847	SF
PUCKETT 42C-2 - DD - Plan #1	200.0	200.0	24.1	23.5	38.550	CC, ES
PUCKETT 42C-2 - DD - Plan #1	500.0	498.7	40.0	37.8	18.314	SF
PUCKETT 42D-2 - DD - Plan #1	200.0	200.0	16.5	15.9	26.416	CC, ES
PUCKETT 42D-2 - DD - Plan #1	500.0	500.2	28.9	26.8	13.481	SF
PUCKETT 43A-2 - DD - Plan #1	200.0	200.0	8.6	8.0	13.746	CC, ES
PUCKETT 43A-2 - DD - Plan #1	500.0	500.7	15.3	13.2	7.210	SF
SESE Sec 2-T7S-R97W						
Puckett 43D-2D - DD - Plan #1						Out of range

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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) - PUCKETT 11D-1 - 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	-9.90	40.4	-7.1	41.0					
100.0	100.0	100.0	100.0	0.1	0.1	-9.90	40.4	-7.1	41.0	40.9	0.18	234.069		
200.0	200.0	200.0	200.0	0.3	0.3	-9.90	40.4	-7.1	41.0	40.4	0.62	65.674 CC, ES		
300.0	300.0	298.7	298.7	0.5	0.5	144.88	42.1	-5.2	43.6	42.6	1.10	39.726		
400.0	399.8	396.1	395.7	0.7	0.8	155.13	47.1	0.5	54.4	52.7	1.70	32.063		
500.0	499.1	490.6	489.5	1.0	1.0	165.13	55.1	9.4	75.4	73.0	2.38	31.684 SF		
600.0	597.9	581.7	579.2	1.3	1.4	172.24	65.7	21.4	105.2	102.3	2.89	36.399		
700.0	696.7	669.7	665.0	1.7	1.7	176.89	78.6	35.9	140.0	136.7	3.37	41.529		
800.0	795.6	761.0	753.4	2.0	2.1	-179.86	93.7	52.9	178.0	174.1	3.86	46.113		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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) - PUCKETT 12A-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	-6.73	33.5	-4.0	33.7					
100.0	100.0	100.0	100.0	0.1	0.1	-6.73	33.5	-4.0	33.7	33.6	0.18	192.433		
200.0	200.0	200.0	200.0	0.3	0.3	-6.73	33.5	-4.0	33.7	33.1	0.62	53.992 CC, ES		
300.0	300.0	299.6	299.6	0.5	0.5	146.35	33.8	-3.4	35.2	34.1	1.10	32.173		
400.0	399.8	397.8	397.6	0.7	0.8	156.84	36.6	0.9	43.9	42.2	1.67	26.237 SF		
500.0	499.1	493.6	493.0	1.0	1.0	168.13	41.8	9.1	62.3	59.9	2.35	26.559		
600.0	597.9	586.3	584.6	1.3	1.3	176.10	49.4	21.0	89.4	86.5	2.85	31.354		
700.0	696.7	676.2	672.7	1.7	1.6	-178.67	58.9	36.0	121.5	118.2	3.33	36.463		
800.0	795.6	767.9	761.9	2.0	2.0	-175.03	70.3	53.9	157.1	153.3	3.82	41.093		
900.0	894.4	860.9	852.3	2.4	2.4	-172.67	81.9	72.2	193.3	189.0	4.31	44.799		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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) - PUCKETT 12B-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	-1.85	26.2	-0.8	26.2					
100.0	100.0	100.0	100.0	0.1	0.1	-1.85	26.2	-0.8	26.2	26.1	0.18	149.635		
200.0	200.0	200.0	200.0	0.3	0.3	-1.85	26.2	-0.8	26.2	25.6	0.62	41.984 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	150.48	26.2	-0.8	27.5	26.4	1.10	25.008		
400.0	399.8	399.1	399.0	0.7	0.8	159.96	26.9	1.6	34.3	32.7	1.66	20.655 SF		
500.0	499.1	496.3	496.0	1.0	1.0	172.58	28.8	8.9	49.7	47.4	2.31	21.500		
600.0	597.9	591.0	589.9	1.3	1.2	-178.07	31.8	20.6	73.2	70.4	2.80	26.095		
700.0	696.7	683.3	680.7	1.7	1.5	-171.64	36.0	36.2	101.4	98.1	3.30	30.772		
800.0	795.6	777.8	773.3	2.0	1.9	-167.26	40.8	54.6	132.4	128.6	3.81	34.771		
900.0	894.4	872.5	866.1	2.4	2.3	-164.54	45.6	73.0	163.8	159.5	4.32	37.937		
1,000.0	993.3	967.2	958.8	2.7	2.7	-162.69	50.5	91.4	195.5	190.6	4.84	40.362		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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) - PUCKETT 12C-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	9.14	19.3	3.1	19.5					
100.0	100.0	100.0	100.0	0.1	0.1	9.14	19.3	3.1	19.5	19.4	0.18	111.499		
200.0	200.0	200.0	200.0	0.3	0.3	9.14	19.3	3.1	19.5	18.9	0.62	31.284 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	161.28	19.3	3.1	20.9	19.8	1.11	18.906		
400.0	399.8	399.6	399.6	0.7	0.8	166.96	19.3	3.7	27.4	25.7	1.67	16.392 SF		
500.0	499.1	497.8	497.7	1.0	1.0	177.65	19.1	8.8	40.8	38.5	2.29	17.868		
600.0	597.9	594.1	593.5	1.3	1.2	-173.16	18.9	18.7	61.1	58.3	2.75	22.173		
700.0	696.7	688.5	686.8	1.7	1.5	-166.08	18.5	33.0	85.3	82.0	3.24	26.298		
800.0	795.6	783.0	779.4	2.0	1.8	-160.69	18.0	51.1	113.0	109.2	3.78	29.876		
900.0	894.4	878.5	873.1	2.4	2.2	-157.27	17.5	69.8	141.6	137.3	4.33	32.705		
1,000.0	993.3	974.1	966.8	2.7	2.6	-155.00	17.0	88.5	170.5	165.6	4.89	34.851		
1,100.0	1,092.1	1,069.6	1,060.5	3.1	3.0	-153.39	16.5	107.2	199.6	194.1	5.47	36.511		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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) - PUCKETT 12D-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	27.33	12.0	6.2	13.5					
100.0	100.0	100.0	100.0	0.1	0.1	27.33	12.0	6.2	13.5	13.3	0.18	77.146		
200.0	200.0	200.0	200.0	0.3	0.3	27.33	12.0	6.2	13.5	12.9	0.62	21.645 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	178.28	12.0	6.2	15.0	13.9	1.11	13.476		
400.0	399.8	399.5	399.4	0.7	0.7	-174.54	11.2	8.7	22.1	20.5	1.67	13.220 SF		
500.0	499.1	497.7	497.4	1.0	1.0	-164.52	8.8	15.9	36.6	34.3	2.28	16.035		
600.0	597.9	594.2	593.0	1.3	1.2	-157.05	4.9	27.7	57.2	54.5	2.76	20.711		
700.0	696.7	689.2	686.5	1.7	1.6	-150.87	-0.3	43.7	81.4	78.1	3.30	24.650		
800.0	795.6	785.6	781.0	2.0	1.9	-146.74	-6.3	61.6	107.3	103.5	3.88	27.676		
900.0	894.4	881.9	875.5	2.4	2.3	-144.22	-12.2	79.5	133.6	129.1	4.48	29.843		
1,000.0	993.3	978.3	970.0	2.7	2.7	-142.53	-18.1	97.4	160.0	154.9	5.09	31.428		
1,100.0	1,092.1	1,074.7	1,064.5	3.1	3.1	-141.32	-24.0	115.4	186.5	180.8	5.72	32.628		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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) - PUCKETT 13A-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	66.75	4.0	9.3	10.1					
100.0	100.0	100.0	100.0	0.1	0.1	66.75	4.0	9.3	10.1	10.0	0.18	57.831		
200.0	200.0	200.0	200.0	0.3	0.3	66.75	4.0	9.3	10.1	9.5	0.62	16.226 CC		
200.3	200.3	200.3	200.3	0.3	0.3	-142.48	4.0	9.3	10.1	9.5	0.63	16.159 ES		
300.0	300.0	299.8	299.8	0.5	0.5	-144.39	3.7	9.9	11.7	10.6	1.09	10.782 SF		
400.0	399.8	398.9	398.8	0.7	0.7	-143.44	1.4	14.5	20.3	18.6	1.62	12.530		
500.0	499.1	496.7	496.0	1.0	1.0	-141.52	-3.2	23.5	36.2	33.9	2.22	16.279		
600.0	597.9	592.7	590.9	1.3	1.3	-139.22	-9.8	36.7	58.0	55.2	2.77	20.947		
700.0	696.7	687.6	683.8	1.7	1.7	-135.85	-18.4	53.8	83.2	79.9	3.37	24.716		
800.0	795.6	784.0	777.9	2.0	2.1	-133.50	-27.8	72.4	109.7	105.7	3.99	27.487		
900.0	894.4	880.3	872.0	2.4	2.5	-132.06	-37.1	90.9	136.2	131.6	4.63	29.402		
1,000.0	993.3	976.7	966.1	2.7	2.9	-131.09	-46.5	109.5	162.8	157.5	5.29	30.773		
1,100.0	1,092.1	1,073.1	1,060.2	3.1	3.4	-130.39	-55.9	128.1	189.5	183.5	5.96	31.801		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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) - PUCKETT 13B-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	103.22	-2.9	12.4	12.8					
100.0	100.0	100.0	100.0	0.1	0.1	103.22	-2.9	12.4	12.8	12.6	0.18	72.776		
200.0	200.0	200.0	200.0	0.3	0.3	103.22	-2.9	12.4	12.8	12.1	0.62	20.419	CC, ES	
300.0	300.0	299.3	299.2	0.5	0.5	-108.23	-4.2	14.6	15.7	14.6	1.06	14.836	SF	
400.0	399.8	397.8	397.4	0.7	0.8	-116.05	-8.2	21.2	25.3	23.7	1.55	16.265		
500.0	499.1	494.9	493.7	1.0	1.0	-121.77	-14.6	31.9	42.0	39.9	2.16	19.461		
600.0	597.9	590.1	587.4	1.3	1.4	-124.19	-23.2	46.5	64.8	62.1	2.77	23.391		
700.0	696.7	683.4	678.2	1.7	1.8	-123.58	-34.1	64.7	91.5	88.1	3.41	26.816		
800.0	795.6	778.6	770.3	2.0	2.3	-122.42	-46.5	85.6	120.6	116.5	4.09	29.479		
900.0	894.4	874.3	862.8	2.4	2.8	-121.70	-59.0	106.6	149.7	144.9	4.77	31.366		
1,000.0	993.3	970.0	955.3	2.7	3.3	-121.21	-71.5	127.6	178.8	173.3	5.47	32.698		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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) - PUCKETT 13C-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	150.29	-6.9	4.0	8.0				
100.0	100.0	100.0	100.0	0.1	0.1	150.29	-6.9	4.0	8.0	7.8	0.18	45.479	
155.6	155.6	155.6	155.6	0.2	0.2	150.29	-6.9	4.0	8.0	7.5	0.43	18.754 CC	
200.0	200.0	199.9	199.9	0.3	0.3	149.88	-7.0	4.1	8.1	7.5	0.62	13.110 ES	
300.0	300.0	299.3	299.2	0.5	0.5	-72.70	-9.5	7.1	11.3	10.3	1.04	10.861 SF	
400.0	399.8	398.0	397.5	0.7	0.8	-94.16	-15.2	14.0	19.8	18.3	1.52	13.081	
500.0	499.1	495.3	493.8	1.0	1.1	-106.97	-23.9	24.7	35.4	33.3	2.11	16.731	
600.0	597.9	590.9	587.6	1.3	1.4	-112.39	-35.5	38.9	57.1	54.3	2.77	20.592	
700.0	696.7	685.0	679.0	1.7	1.9	-112.96	-49.7	56.4	83.0	79.5	3.46	23.976	
800.0	795.6	781.2	771.9	2.0	2.4	-112.71	-65.4	75.6	110.4	106.2	4.16	26.543	
900.0	894.4	877.4	864.8	2.4	2.9	-112.56	-81.1	94.8	137.7	132.9	4.87	28.305	
1,000.0	993.3	973.6	957.8	2.7	3.4	-112.47	-96.8	114.0	165.1	159.5	5.59	29.552	
1,100.0	1,092.1	1,069.7	1,050.7	3.1	3.9	-112.40	-112.5	133.2	192.5	186.2	6.32	30.466	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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) - PUCKETT 41A-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						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	-11.85	48.4	-10.2	49.5					
100.0	100.0	100.0	100.0	0.1	0.1	-11.85	48.4	-10.2	49.5	49.3	0.18	282.303		
200.0	200.0	200.0	200.0	0.3	0.3	-11.85	48.4	-10.2	49.5	48.9	0.62	79.207	CC, ES	
300.0	300.0	297.7	297.6	0.5	0.5	141.31	50.8	-9.3	52.8	51.7	1.10	48.040		
400.0	399.8	394.0	393.7	0.7	0.8	147.84	57.7	-6.8	65.0	63.3	1.69	38.578		
500.0	499.1	488.0	487.0	1.0	1.0	153.47	68.7	-4.5	86.9	84.6	2.33	37.270	SF	
600.0	597.9	579.6	577.4	1.3	1.3	156.22	83.1	-4.4	116.1	113.3	2.82	41.194		
700.0	696.7	669.1	665.1	1.7	1.7	156.84	100.9	-6.6	149.1	145.8	3.29	45.356		
800.0	795.6	756.1	749.5	2.0	2.0	156.41	121.5	-10.7	185.5	181.8	3.78	49.116		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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) - PUCKETT 41B-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	-14.21	55.7	-14.1	57.5					
100.0	100.0	100.0	100.0	0.1	0.1	-14.21	55.7	-14.1	57.5	57.3	0.18	327.876		
144.4	144.4	144.4	144.4	0.2	0.2	-14.21	55.7	-14.1	57.5	57.1	0.38	153.244	CC, ES	
200.0	200.0	198.8	198.8	0.3	0.3	-14.22	56.1	-14.2	57.9	57.3	0.62	92.871		
300.0	300.0	295.6	295.5	0.5	0.5	137.22	60.4	-15.4	63.5	62.4	1.11	57.164		
400.0	399.8	391.0	390.4	0.7	0.8	139.83	69.1	-17.9	78.0	76.3	1.68	46.320		
500.0	499.1	483.7	482.1	1.0	1.1	142.81	82.1	-21.5	101.4	99.1	2.31	43.837	SF	
600.0	597.9	573.3	570.1	1.3	1.4	145.33	98.6	-26.2	132.3	129.5	2.84	46.629		
700.0	696.7	660.1	654.4	1.7	1.8	146.62	118.4	-31.8	167.7	164.3	3.36	49.924		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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) - PUCKETT 41C-2 - DD - Plan #1													Offset Site Error: 0.0 usft	
Survey Program: 0-ISOWSA 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	-23.67	44.4	-19.5	48.5					
100.0	100.0	100.0	100.0	0.1	0.1	-23.67	44.4	-19.5	48.5	48.3	0.18	276.717		
200.0	200.0	200.0	200.0	0.3	0.3	-23.67	44.4	-19.5	48.5	47.9	0.62	77.640	CC, ES	
300.0	300.0	298.2	298.2	0.5	0.5	128.97	45.8	-19.5	50.7	49.7	1.08	46.806		
400.0	399.8	394.7	394.5	0.7	0.8	135.54	52.0	-19.5	61.2	59.6	1.63	37.483		
500.0	499.1	489.2	488.4	1.0	1.0	142.29	62.4	-20.2	81.1	78.8	2.27	35.671	SF	
600.0	597.9	581.4	579.5	1.3	1.3	146.11	76.1	-23.6	108.3	105.6	2.78	38.968		
700.0	696.7	673.2	669.5	1.7	1.6	147.35	92.9	-29.6	139.4	136.1	3.28	42.449		
800.0	795.6	767.9	762.2	2.0	2.0	147.92	111.2	-36.7	171.5	167.7	3.78	45.327		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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) - PUCKETT 41D-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						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	-23.85	51.7	-22.9	56.5					
100.0	100.0	100.0	100.0	0.1	0.1	-23.85	51.7	-22.9	56.5	56.4	0.18	322.531		
155.6	155.6	155.6	155.6	0.2	0.2	-23.85	51.7	-22.9	56.5	56.1	0.43	133.030	CC	
200.0	200.0	199.3	199.3	0.3	0.3	-23.86	51.9	-22.9	56.7	56.1	0.62	90.960	ES	
300.0	300.0	296.2	296.1	0.5	0.5	127.71	55.2	-24.6	61.4	60.3	1.09	56.161		
400.0	399.8	391.9	391.4	0.7	0.8	130.87	62.7	-28.4	74.3	72.7	1.64	45.306		
500.0	499.1	485.4	484.1	1.0	1.1	134.56	74.2	-34.1	95.9	93.6	2.27	42.305	SF	
600.0	597.9	581.7	579.1	1.3	1.4	138.09	87.9	-41.0	122.2	119.4	2.79	43.823		
700.0	696.7	677.9	674.1	1.7	1.7	140.44	101.6	-47.8	148.9	145.7	3.29	45.258		
800.0	795.6	774.1	769.1	2.0	2.1	142.08	115.4	-54.7	175.8	172.0	3.81	46.181		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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) - PUCKETT 42A-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						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	-24.21	36.4	-16.4	39.9					
100.0	100.0	100.0	100.0	0.1	0.1	-24.21	36.4	-16.4	39.9	39.8	0.18	227.756		
200.0	200.0	200.0	200.0	0.3	0.3	-24.21	36.4	-16.4	39.9	39.3	0.62	63.903 CC		
216.6	216.6	216.6	216.6	0.3	0.3	126.62	36.4	-16.4	40.0	39.3	0.70	57.234 ES		
300.0	300.0	299.5	299.5	0.5	0.5	128.12	36.5	-16.5	41.0	39.9	1.08	37.971		
400.0	399.8	396.9	396.8	0.7	0.8	132.81	39.5	-18.7	48.9	47.3	1.60	30.568		
500.0	499.1	492.7	492.2	1.0	1.0	137.42	46.4	-23.7	65.5	63.3	2.21	29.625 SF		
600.0	597.9	589.5	588.3	1.3	1.3	140.84	55.9	-30.7	87.9	85.2	2.74	32.087		
700.0	696.7	686.8	684.9	1.7	1.5	142.92	65.5	-37.8	110.6	107.4	3.24	34.166		
800.0	795.6	784.2	781.5	2.0	1.8	144.30	75.1	-44.9	133.4	129.7	3.75	35.597		
900.0	894.4	881.5	878.1	2.4	2.1	145.27	84.7	-51.9	156.3	152.0	4.27	36.604		
1,000.0	993.3	978.8	974.7	2.7	2.4	145.99	94.3	-59.0	179.2	174.4	4.80	37.340		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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) - PUCKETT 42B-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							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	-24.22	29.5	-13.3	32.3					
100.0	100.0	100.0	100.0	0.1	0.1	-24.22	29.5	-13.3	32.3	32.2	0.18	184.491		
200.0	200.0	200.0	200.0	0.3	0.3	-24.22	29.5	-13.3	32.3	31.7	0.62	51.764	CC, ES	
300.0	300.0	300.0	300.0	0.5	0.5	128.57	29.5	-13.3	33.2	32.2	1.08	30.795		
400.0	399.8	398.6	398.6	0.7	0.8	134.81	30.3	-14.4	38.8	37.2	1.59	24.331		
500.0	499.1	495.9	495.7	1.0	1.0	139.27	34.0	-19.5	52.2	50.1	2.19	23.847	SF	
600.0	597.9	594.1	593.5	1.3	1.2	142.23	39.1	-26.7	70.4	67.7	2.70	26.037		
700.0	696.7	692.4	691.4	1.7	1.5	144.04	44.3	-33.9	88.7	85.5	3.20	27.736		
800.0	795.6	790.7	789.3	2.0	1.7	145.23	49.5	-41.1	107.0	103.3	3.71	28.880		
900.0	894.4	889.0	887.2	2.4	2.0	146.07	54.6	-48.2	125.4	121.2	4.22	29.681		
1,000.0	993.3	987.3	985.0	2.7	2.3	146.70	59.8	-55.4	143.8	139.0	4.75	30.265		
1,100.0	1,092.1	1,085.6	1,082.9	3.1	2.5	147.18	65.0	-62.6	162.2	156.9	5.28	30.706		
1,200.0	1,190.9	1,183.8	1,180.8	3.4	2.8	147.57	70.2	-69.8	180.6	174.8	5.82	31.042		
1,300.0	1,289.8	1,282.1	1,278.7	3.8	3.1	147.88	75.3	-77.0	199.0	192.7	6.36	31.315		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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) - PUCKETT 42C-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							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	-22.75	22.2	-9.3	24.1					
100.0	100.0	100.0	100.0	0.1	0.1	-22.75	22.2	-9.3	24.1	23.9	0.18	137.395		
200.0	200.0	200.0	200.0	0.3	0.3	-22.75	22.2	-9.3	24.1	23.5	0.62	38.550 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	130.65	22.2	-9.3	25.0	23.9	1.08	23.136		
400.0	399.8	399.7	399.7	0.7	0.8	139.86	22.2	-9.5	29.7	28.1	1.61	18.530		
500.0	499.1	498.7	498.6	1.0	1.0	145.19	22.5	-13.3	40.0	37.8	2.18	18.314 SF		
600.0	597.9	597.7	597.3	1.3	1.2	146.67	23.1	-20.5	53.7	51.0	2.66	20.169		
700.0	696.7	696.7	696.1	1.7	1.4	147.53	23.7	-27.9	67.5	64.4	3.14	21.481		
800.0	795.6	795.7	794.8	2.0	1.7	148.10	24.3	-35.2	81.4	77.7	3.64	22.329		
900.0	894.4	894.8	893.6	2.4	1.9	148.50	24.9	-42.5	95.2	91.0	4.16	22.902		
1,000.0	993.3	993.8	992.4	2.7	2.2	148.81	25.5	-49.8	109.0	104.4	4.68	23.308		
1,100.0	1,092.1	1,092.8	1,091.1	3.1	2.4	149.04	26.1	-57.1	122.9	117.7	5.21	23.605		
1,200.0	1,190.9	1,191.9	1,189.9	3.4	2.7	149.22	26.7	-64.4	136.7	131.0	5.74	23.830		
1,300.0	1,289.8	1,290.9	1,288.7	3.8	3.0	149.38	27.3	-71.8	150.6	144.3	6.27	24.005		
1,400.0	1,388.6	1,390.0	1,387.4	4.2	3.2	149.50	27.9	-79.1	164.4	157.6	6.81	24.144		
1,500.0	1,487.5	1,489.0	1,486.2	4.5	3.5	149.61	28.5	-86.4	178.3	170.9	7.35	24.258		
1,600.0	1,586.3	1,588.0	1,584.9	4.9	3.7	149.70	29.1	-93.7	192.1	184.3	7.89	24.351		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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) - PUCKETT 42D-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							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	-22.10	15.3	-6.2	16.5					
100.0	100.0	100.0	100.0	0.1	0.1	-22.10	15.3	-6.2	16.5	16.3	0.18	94.149		
200.0	200.0	200.0	200.0	0.3	0.3	-22.10	15.3	-6.2	16.5	15.9	0.62	26.416	CC, ES	
300.0	300.0	300.0	300.0	0.5	0.5	132.42	15.3	-6.2	17.5	16.4	1.08	16.123		
400.0	399.8	400.1	400.0	0.7	0.8	141.24	14.6	-7.5	21.9	20.3	1.60	13.699		
500.0	499.1	500.2	499.9	1.0	1.0	143.57	11.5	-13.2	28.9	26.8	2.15	13.481	SF	
600.0	597.9	599.8	599.2	1.3	1.2	145.32	7.5	-20.6	38.1	35.5	2.63	14.470		
700.0	696.7	699.3	698.4	1.7	1.4	146.45	3.4	-27.9	47.3	44.2	3.12	15.157		
800.0	795.6	798.9	797.6	2.0	1.7	147.21	-0.6	-35.2	56.5	52.9	3.63	15.585		
900.0	894.4	898.5	896.8	2.4	2.0	147.76	-4.6	-42.6	65.7	61.6	4.14	15.866		
1,000.0	993.3	998.1	996.0	2.7	2.2	148.17	-8.6	-49.9	75.0	70.3	4.67	16.060		
1,100.0	1,092.1	1,097.6	1,095.3	3.1	2.5	148.50	-12.6	-57.3	84.2	79.0	5.20	16.198		
1,200.0	1,190.9	1,197.2	1,194.5	3.4	2.8	148.75	-16.6	-64.6	93.5	87.7	5.73	16.300		
1,300.0	1,289.8	1,296.8	1,293.7	3.8	3.0	148.97	-20.6	-72.0	102.7	96.4	6.27	16.378		
1,400.0	1,388.6	1,396.3	1,392.9	4.2	3.3	149.14	-24.6	-79.3	111.9	105.1	6.81	16.438		
1,500.0	1,487.5	1,495.9	1,492.1	4.5	3.6	149.29	-28.7	-86.7	121.2	113.8	7.35	16.486		
1,600.0	1,586.3	1,595.5	1,591.4	4.9	3.9	149.42	-32.7	-94.0	130.4	122.5	7.89	16.525		
1,700.0	1,685.1	1,695.1	1,690.6	5.3	4.1	149.54	-36.7	-101.3	139.7	131.2	8.44	16.558		
1,800.0	1,784.0	1,794.6	1,789.8	5.6	4.4	149.63	-40.7	-108.7	148.9	139.9	8.98	16.584		
1,900.0	1,882.8	1,894.2	1,889.0	6.0	4.7	149.72	-44.7	-116.0	158.2	148.7	9.52	16.607		
2,000.0	1,981.7	1,993.8	1,988.2	6.4	5.0	149.80	-48.7	-123.4	167.4	157.4	10.07	16.627		
2,100.0	2,080.5	2,093.3	2,087.5	6.7	5.2	149.87	-52.7	-130.7	176.7	166.1	10.61	16.644		
2,200.0	2,179.3	2,192.9	2,186.7	7.1	5.5	149.93	-56.7	-138.1	185.9	174.8	11.16	16.660		
2,300.0	2,278.2	2,292.5	2,285.9	7.5	5.8	149.98	-60.8	-145.4	195.2	183.5	11.71	16.673		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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) - PUCKETT 43A-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	-21.19	8.0	-3.1	8.6						
100.0	100.0	100.0	100.0	0.1	0.1	-21.19	8.0	-3.1	8.6	8.4	0.18	48.993			
200.0	200.0	200.0	200.0	0.3	0.3	-21.19	8.0	-3.1	8.6	8.0	0.62	13.746 CC, ES			
300.0	300.0	300.1	300.1	0.5	0.5	135.54	7.9	-3.2	9.5	8.4	1.08	8.803			
400.0	399.8	400.4	400.3	0.7	0.7	141.87	4.9	-5.8	12.0	10.5	1.57	7.657			
500.0	499.1	500.7	500.2	1.0	1.0	142.97	-2.1	-11.7	15.3	13.2	2.13	7.210 SF			
600.0	597.9	600.6	599.5	1.3	1.2	144.77	-10.8	-19.1	19.9	17.2	2.62	7.574			
700.0	696.7	700.5	698.7	1.7	1.5	146.00	-19.4	-26.5	24.5	21.3	3.12	7.836			
800.0	795.6	800.4	797.9	2.0	1.8	146.84	-28.0	-33.9	29.1	25.4	3.64	7.994			
900.0	894.4	900.3	897.2	2.4	2.1	147.44	-36.7	-41.3	33.7	29.5	4.16	8.095			
1,000.0	993.3	1,000.2	996.4	2.7	2.4	147.91	-45.3	-48.7	38.3	33.6	4.69	8.162			
1,100.0	1,092.1	1,100.1	1,095.7	3.1	2.7	148.27	-54.0	-56.1	42.9	37.7	5.23	8.209			
1,200.0	1,190.9	1,200.0	1,194.9	3.4	3.0	148.56	-62.6	-63.4	47.5	41.8	5.77	8.242			
1,300.0	1,289.8	1,299.9	1,294.2	3.8	3.4	148.80	-71.3	-70.8	52.2	45.9	6.31	8.267			
1,400.0	1,388.6	1,399.8	1,393.4	4.2	3.7	149.00	-79.9	-78.2	56.8	49.9	6.85	8.286			
1,500.0	1,487.5	1,499.7	1,492.7	4.5	4.0	149.17	-88.6	-85.6	61.4	54.0	7.40	8.300			
1,600.0	1,586.3	1,599.6	1,591.9	4.9	4.3	149.32	-97.2	-93.0	66.0	58.1	7.95	8.311			
1,700.0	1,685.1	1,699.5	1,691.1	5.3	4.6	149.45	-105.8	-100.4	70.7	62.2	8.49	8.320			
1,800.0	1,784.0	1,799.3	1,790.4	5.6	4.9	149.56	-114.5	-107.7	75.3	66.2	9.04	8.328			
1,900.0	1,882.8	1,899.2	1,889.6	6.0	5.2	149.66	-123.1	-115.1	79.9	70.3	9.59	8.334			
2,000.0	1,981.7	1,999.1	1,988.9	6.4	5.5	149.75	-131.8	-122.5	84.5	74.4	10.14	8.339			
2,100.0	2,080.5	2,099.0	2,088.1	6.7	5.9	149.83	-140.4	-129.9	89.2	78.5	10.69	8.343			
2,200.0	2,179.3	2,198.9	2,187.4	7.1	6.2	149.90	-149.1	-137.3	93.8	82.6	11.24	8.347			
2,300.0	2,278.2	2,298.8	2,286.6	7.5	6.5	149.96	-157.7	-144.7	98.4	86.6	11.79	8.350			
2,400.0	2,377.0	2,398.7	2,385.8	7.8	6.8	150.02	-166.4	-152.0	103.0	90.7	12.34	8.353			
2,500.0	2,475.9	2,498.6	2,485.1	8.2	7.1	150.08	-175.0	-159.4	107.7	94.8	12.89	8.355			
2,600.0	2,574.7	2,598.5	2,584.3	8.6	7.4	150.12	-183.6	-166.8	112.3	98.9	13.44	8.357			
2,700.0	2,673.5	2,698.4	2,683.6	8.9	7.7	150.17	-192.3	-174.2	116.9	102.9	13.99	8.359			
2,800.0	2,772.4	2,798.3	2,782.8	9.3	8.0	150.21	-200.9	-181.6	121.5	107.0	14.54	8.361			
2,900.0	2,871.2	2,898.2	2,882.1	9.7	8.4	150.25	-209.6	-189.0	126.2	111.1	15.09	8.362			
3,000.0	2,970.1	2,998.1	2,981.3	10.0	8.7	150.29	-218.2	-196.3	130.8	115.2	15.64	8.364			
3,100.0	3,068.9	3,098.0	3,080.6	10.4	9.0	150.32	-226.9	-203.7	135.4	119.2	16.19	8.365			
3,200.0	3,167.7	3,197.8	3,179.8	10.8	9.3	150.35	-235.5	-211.1	140.1	123.3	16.74	8.367			
3,300.0	3,266.6	3,297.7	3,279.0	11.1	9.6	150.38	-244.2	-218.5	144.7	127.4	17.29	8.368			
3,400.0	3,365.4	3,397.6	3,378.3	11.5	9.9	150.41	-252.8	-225.9	149.3	131.5	17.84	8.369			
3,500.0	3,464.3	3,497.5	3,477.5	11.9	10.2	150.44	-261.4	-233.3	153.9	135.5	18.39	8.370			
3,600.0	3,563.1	3,597.4	3,576.8	12.2	10.6	150.46	-270.1	-240.7	158.6	139.6	18.94	8.371			
3,700.0	3,661.9	3,697.3	3,676.0	12.6	10.9	150.48	-278.7	-248.0	163.2	143.7	19.49	8.372			
3,800.0	3,760.8	3,797.2	3,775.3	13.0	11.2	150.50	-287.4	-255.4	167.8	147.8	20.04	8.373			
3,900.0	3,859.6	3,897.1	3,874.5	13.3	11.5	150.53	-296.0	-262.8	172.4	151.9	20.59	8.374			
4,000.0	3,958.5	3,997.0	3,973.8	13.7	11.8	150.54	-304.7	-270.2	177.1	155.9	21.14	8.375			
4,100.0	4,057.3	4,096.9	4,073.0	14.1	12.1	150.56	-313.3	-277.6	181.7	160.0	21.69	8.376			
4,200.0	4,156.1	4,196.8	4,172.2	14.4	12.4	150.58	-322.0	-285.0	186.3	164.1	22.24	8.377			
4,300.0	4,255.0	4,296.7	4,271.5	14.8	12.8	150.60	-330.6	-292.3	191.0	168.2	22.79	8.378			
4,400.0	4,353.8	4,396.6	4,370.7	15.2	13.1	150.61	-339.2	-299.7	195.6	172.2	23.34	8.379			

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 43B-2
Project:	Garfield County, CO	TVD Reference:	KB=22' @ 8499.0usft
Reference Site:	S2-T7S-R97W (Puckett Pad)	MD Reference:	KB=22' @ 8499.0usft
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 43B-2	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' @ 8499.0usft
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: PUCKETT 43B-2
Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502
Grid Convergence at Surface is: -1.69°

