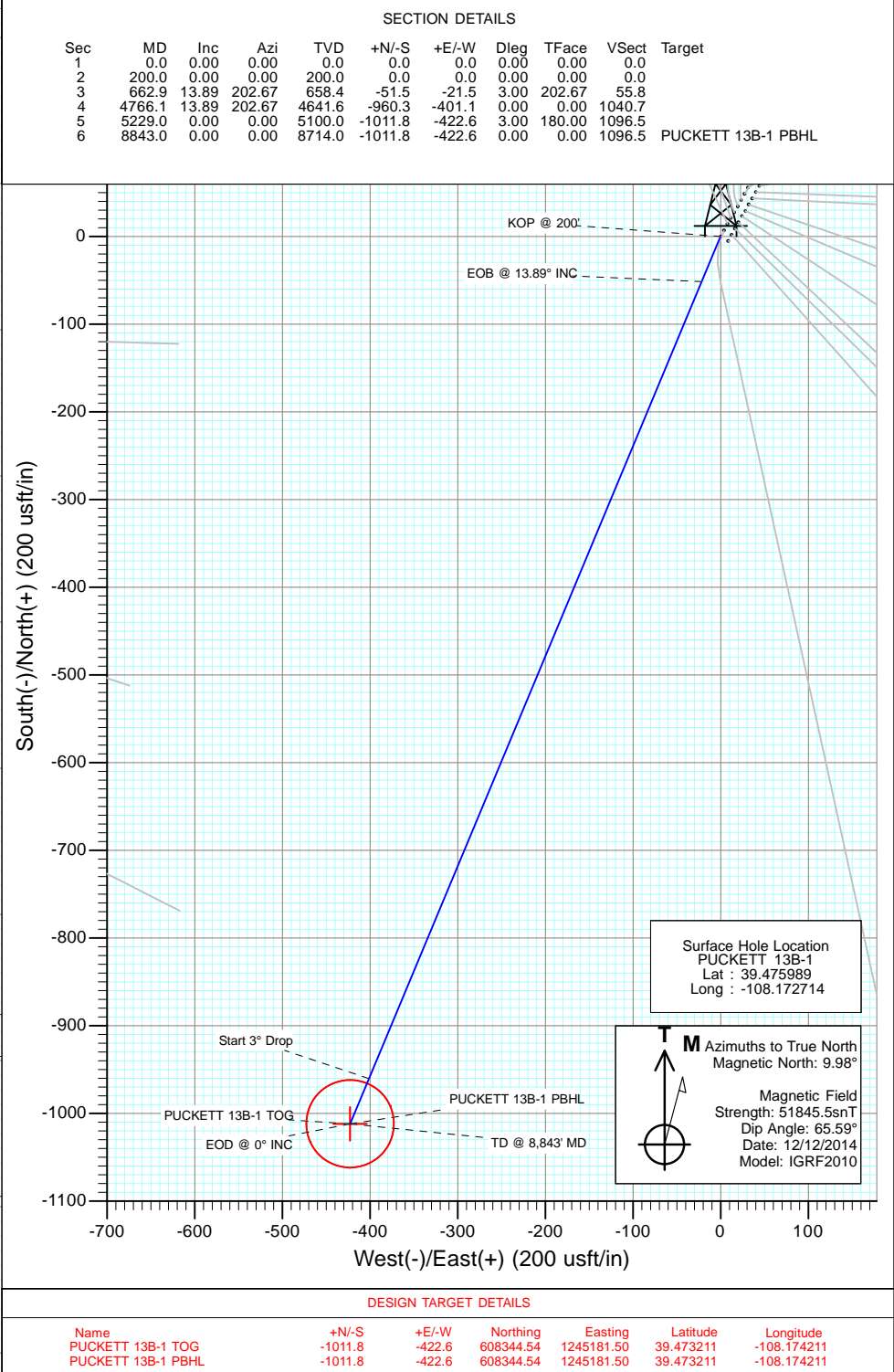
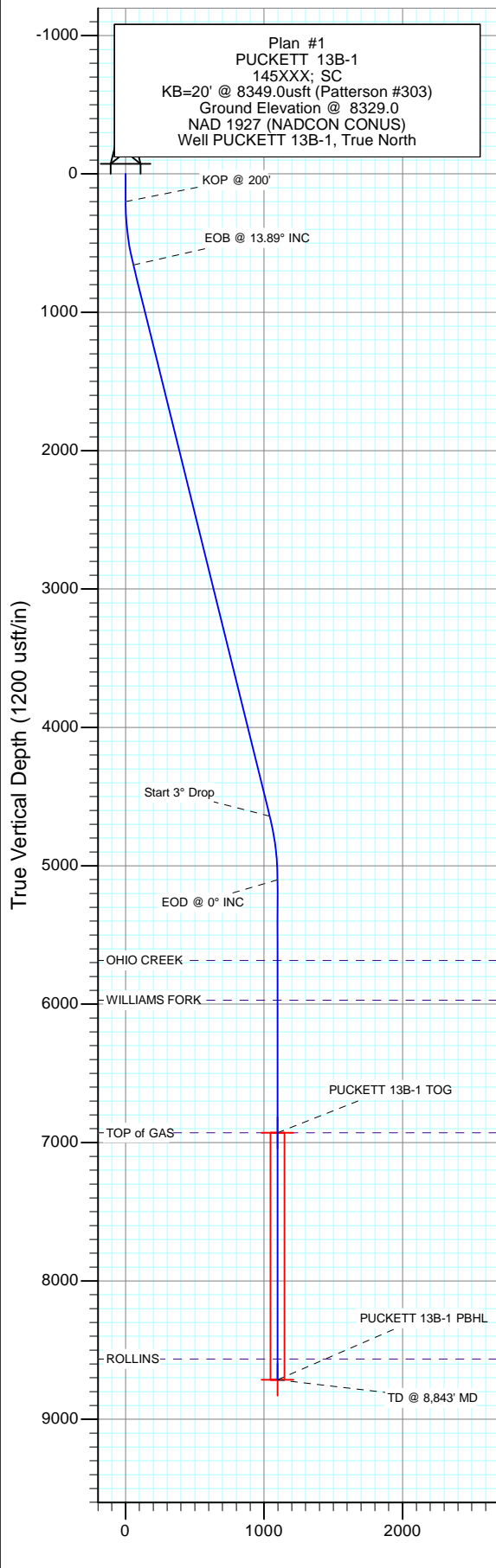
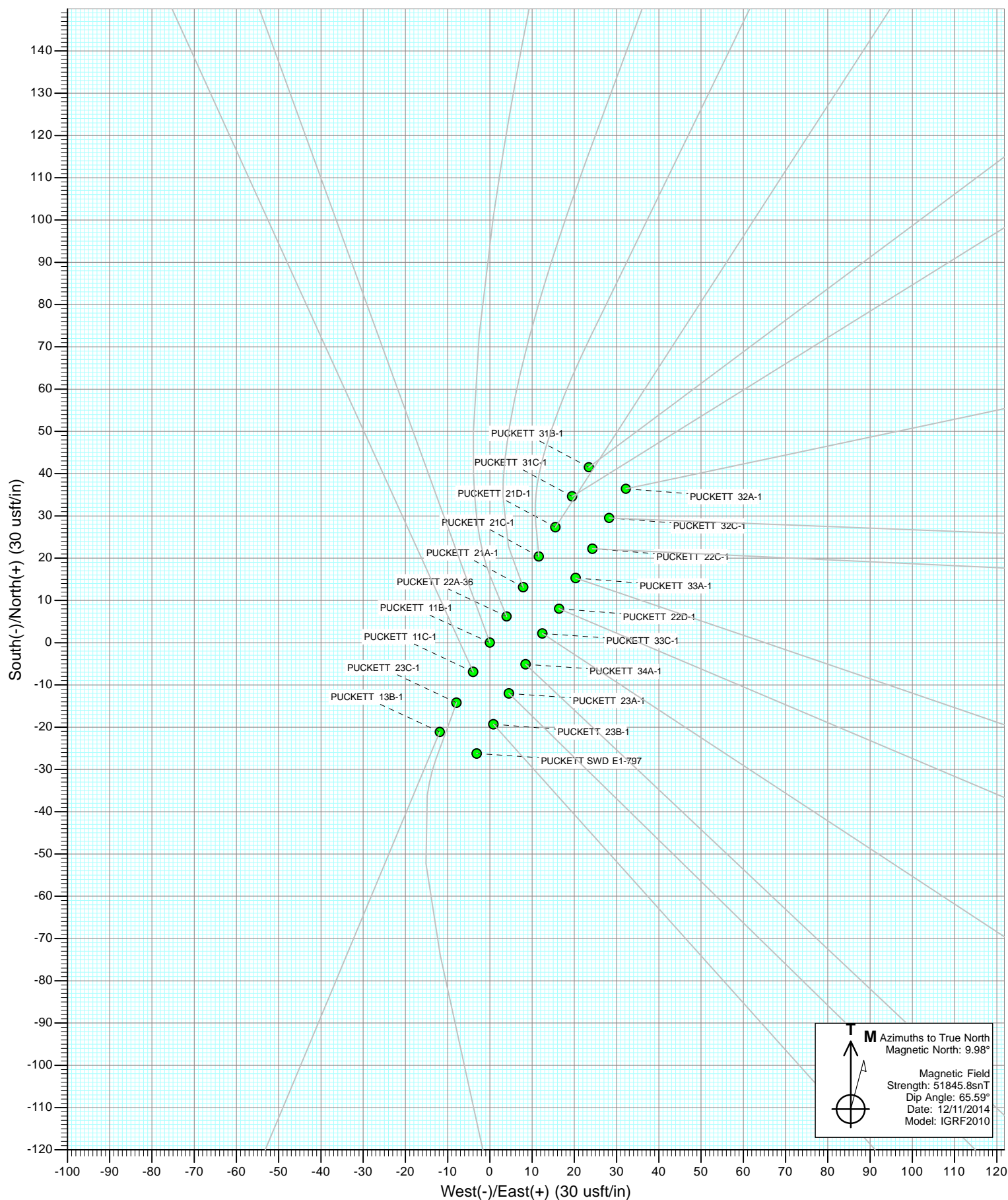
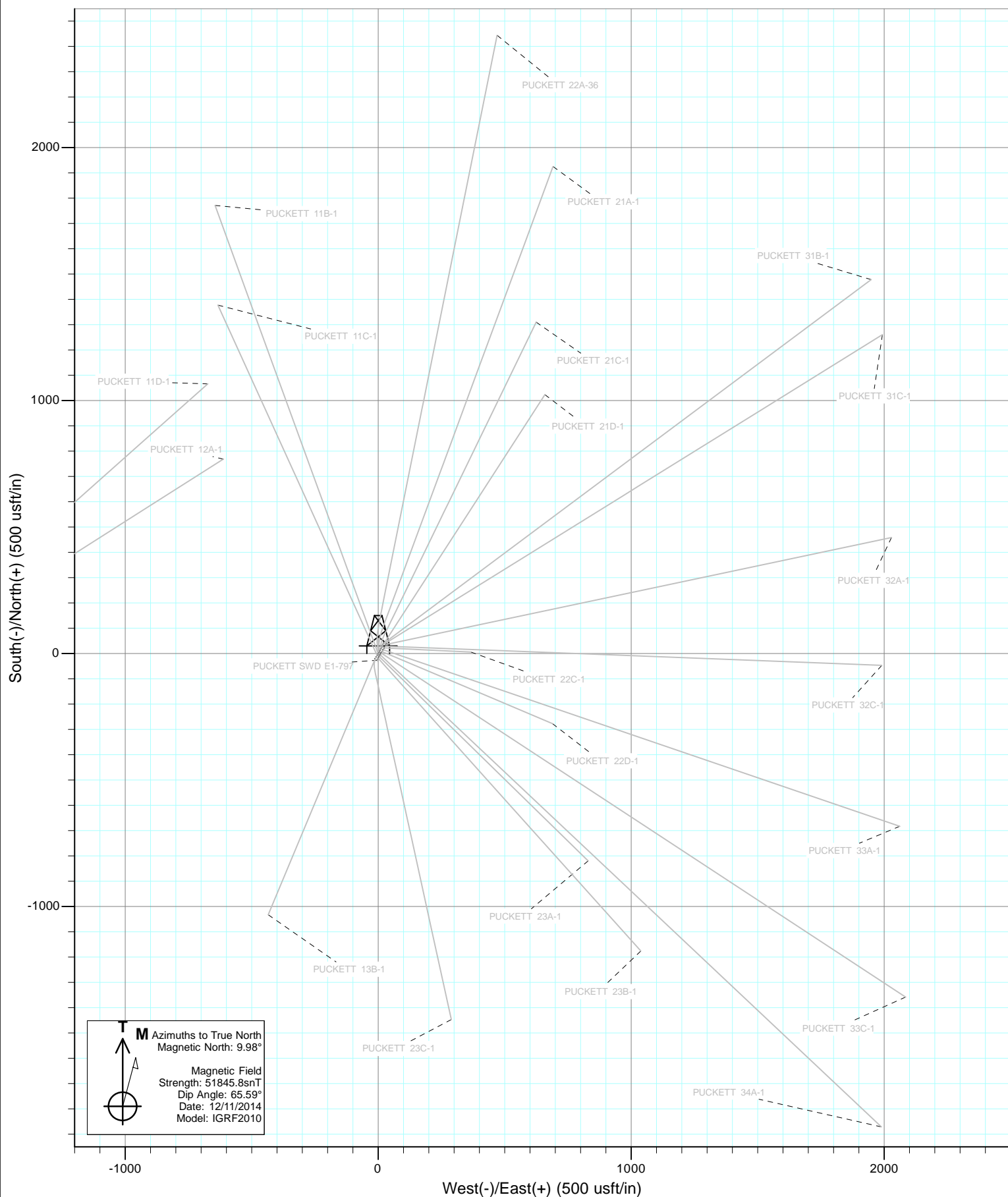




Project: Garfield County, CO
 Site: S1-T7S-R97W (Mesa E1 797)
 Well: PUCKETT 13B-1
 Wellbore: DD
 Design: Plan #1

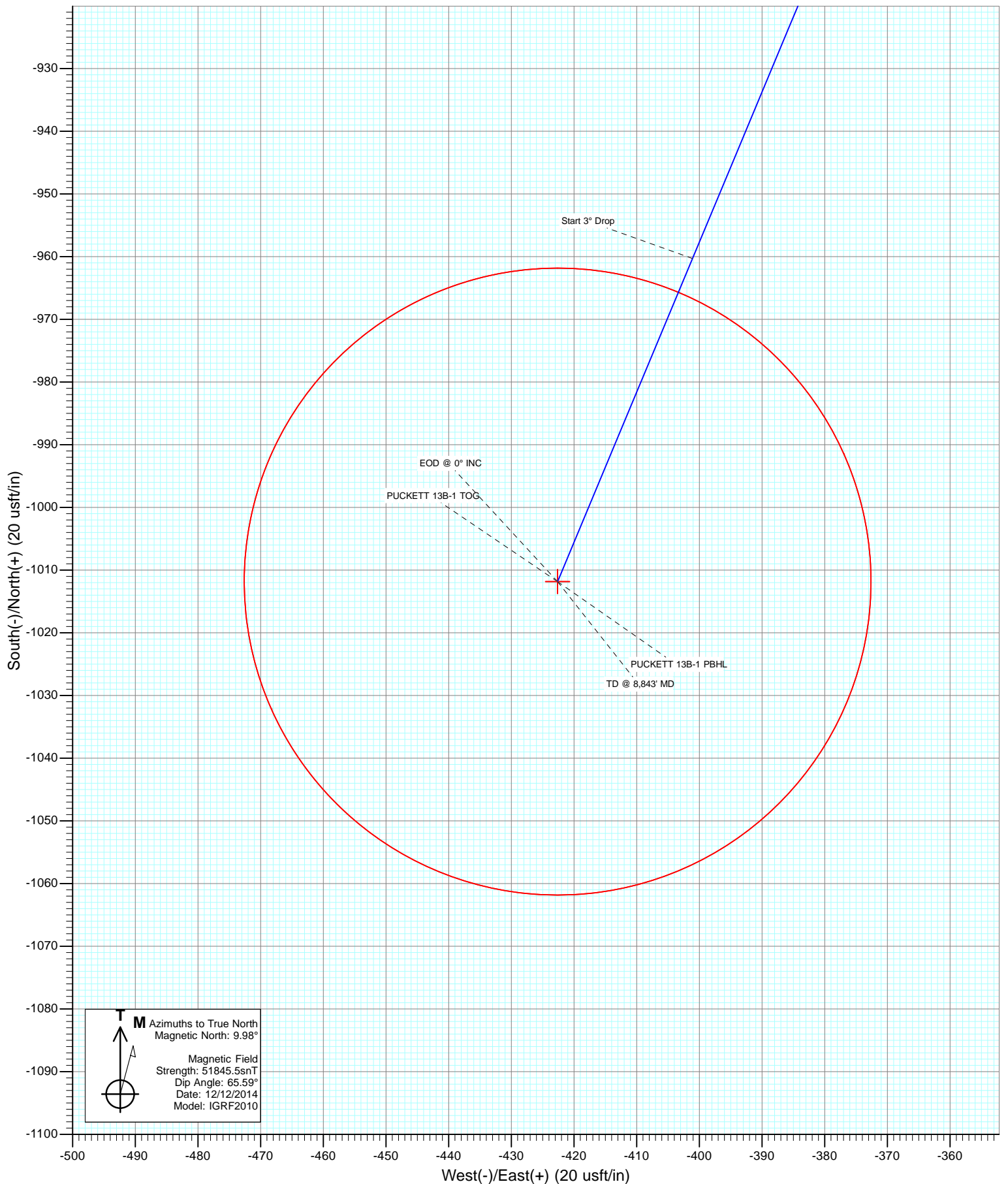








Project: Garfield County, CO
Site: S1-T7S-R97W (Mesa E1 797)
Well: PUCKETT 13B-1
Wellbore: DD
Design: Plan #1



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Project:	Garfield County, CO	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site:	S1-T7S-R97W (Mesa E1 797)	North Reference:	True
Well:	PUCKETT 13B-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		S1-T7S-R97W (Mesa E1 797)			
Site Position:		Northing:	609,370.34 usft	Latitude:	39.476064
From:	Lat/Long	Easting:	1,245,650.28 usft	Longitude:	-108.172658
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	-1.69 °

Well	PUCKETT 13B-1					
Well Position	+N/-S	0.0 usft	Northing:	609,343.49 usft	Latitude:	39.475989
	+E/-W	0.0 usft	Easting:	1,245,633.68 usft	Longitude:	-108.172714
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	8,329.0 usft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/12/2014	9.98	65.59	51,846

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	202.67

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	
662.9	13.89	202.67	658.4	-51.5	-21.5	3.00	3.00	0.00	202.67	
4,766.1	13.89	202.67	4,641.6	-960.3	-401.1	0.00	0.00	0.00	0.00	
5,229.0	0.00	0.00	5,100.0	-1,011.8	-422.6	3.00	-3.00	0.00	180.00	
8,843.0	0.00	0.00	8,714.0	-1,011.8	-422.6	0.00	0.00	0.00	0.00	PUCKETT 13B-1 PBH

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Project:	Garfield County, CO	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site:	S1-T7S-R97W (Mesa E1 797)	North Reference:	True
Well:	PUCKETT 13B-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	202.67	300.0	-2.4	-1.0	2.6	3.00	3.00	
400.0	6.00	202.67	399.6	-9.7	-4.0	10.5	3.00	3.00	
500.0	9.00	202.67	498.8	-21.7	-9.1	23.5	3.00	3.00	
600.0	12.00	202.67	597.1	-38.5	-16.1	41.7	3.00	3.00	
662.9	13.89	202.67	658.4	-51.5	-21.5	55.8	3.00	3.00	EOB @ 13.89° INC
700.0	13.89	202.67	694.4	-59.7	-24.9	64.7	0.00	0.00	
800.0	13.89	202.67	791.5	-81.9	-34.2	88.7	0.00	0.00	
900.0	13.89	202.67	888.5	-104.0	-43.4	112.7	0.00	0.00	
1,000.0	13.89	202.67	985.6	-126.2	-52.7	136.7	0.00	0.00	
1,100.0	13.89	202.67	1,082.7	-148.3	-61.9	160.7	0.00	0.00	
1,200.0	13.89	202.67	1,179.8	-170.5	-71.2	184.7	0.00	0.00	
1,300.0	13.89	202.67	1,276.9	-192.6	-80.5	208.7	0.00	0.00	
1,400.0	13.89	202.67	1,373.9	-214.8	-89.7	232.7	0.00	0.00	
1,500.0	13.89	202.67	1,471.0	-236.9	-99.0	256.7	0.00	0.00	
1,600.0	13.89	202.67	1,568.1	-259.1	-108.2	280.8	0.00	0.00	
1,700.0	13.89	202.67	1,665.2	-281.2	-117.5	304.8	0.00	0.00	
1,800.0	13.89	202.67	1,762.2	-303.4	-126.7	328.8	0.00	0.00	
1,900.0	13.89	202.67	1,859.3	-325.5	-136.0	352.8	0.00	0.00	
2,000.0	13.89	202.67	1,956.4	-347.7	-145.2	376.8	0.00	0.00	
2,100.0	13.89	202.67	2,053.5	-369.8	-154.5	400.8	0.00	0.00	
2,200.0	13.89	202.67	2,150.5	-392.0	-163.7	424.8	0.00	0.00	
2,300.0	13.89	202.67	2,247.6	-414.1	-173.0	448.8	0.00	0.00	
2,400.0	13.89	202.67	2,344.7	-436.3	-182.2	472.8	0.00	0.00	
2,500.0	13.89	202.67	2,441.8	-458.4	-191.5	496.8	0.00	0.00	
2,600.0	13.89	202.67	2,538.9	-480.5	-200.7	520.8	0.00	0.00	
2,700.0	13.89	202.67	2,635.9	-502.7	-210.0	544.8	0.00	0.00	
2,800.0	13.89	202.67	2,733.0	-524.8	-219.2	568.8	0.00	0.00	
2,900.0	13.89	202.67	2,830.1	-547.0	-228.5	592.8	0.00	0.00	
3,000.0	13.89	202.67	2,927.2	-569.1	-237.7	616.8	0.00	0.00	
3,100.0	13.89	202.67	3,024.2	-591.3	-247.0	640.8	0.00	0.00	
3,200.0	13.89	202.67	3,121.3	-613.4	-256.2	664.8	0.00	0.00	
3,300.0	13.89	202.67	3,218.4	-635.6	-265.5	688.8	0.00	0.00	
3,400.0	13.89	202.67	3,315.5	-657.7	-274.7	712.8	0.00	0.00	
3,500.0	13.89	202.67	3,412.5	-679.9	-284.0	736.8	0.00	0.00	
3,600.0	13.89	202.67	3,509.6	-702.0	-293.2	760.8	0.00	0.00	
3,700.0	13.89	202.67	3,606.7	-724.2	-302.5	784.8	0.00	0.00	
3,800.0	13.89	202.67	3,703.8	-746.3	-311.7	808.8	0.00	0.00	
3,900.0	13.89	202.67	3,800.8	-768.5	-321.0	832.8	0.00	0.00	
4,000.0	13.89	202.67	3,897.9	-790.6	-330.2	856.8	0.00	0.00	
4,100.0	13.89	202.67	3,995.0	-812.8	-339.5	880.8	0.00	0.00	
4,200.0	13.89	202.67	4,092.1	-834.9	-348.7	904.8	0.00	0.00	
4,300.0	13.89	202.67	4,189.2	-857.1	-358.0	928.8	0.00	0.00	
4,400.0	13.89	202.67	4,286.2	-879.2	-367.2	952.8	0.00	0.00	
4,500.0	13.89	202.67	4,383.3	-901.4	-376.5	976.8	0.00	0.00	
4,600.0	13.89	202.67	4,480.4	-923.5	-385.7	1,000.8	0.00	0.00	
4,700.0	13.89	202.67	4,577.5	-945.7	-395.0	1,024.8	0.00	0.00	
4,766.1	13.89	202.67	4,641.6	-960.3	-401.1	1,040.7	0.00	0.00	Start 3° Drop
4,800.0	12.87	202.67	4,674.6	-967.5	-404.1	1,048.5	3.00	-3.00	
4,900.0	9.87	202.67	4,772.6	-985.7	-411.7	1,068.3	3.00	-3.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Project:	Garfield County, CO	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site:	S1-T7S-R97W (Mesa E1 797)	North Reference:	True
Well:	PUCKETT 13B-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
5,000.0	6.87	202.67	4,871.6	-999.2	-417.3	1,082.8	3.00	-3.00	
5,100.0	3.87	202.67	4,971.1	-1,007.8	-420.9	1,092.2	3.00	-3.00	
5,200.0	0.87	202.67	5,071.0	-1,011.6	-422.5	1,096.3	3.00	-3.00	
5,229.0	0.00	0.00	5,100.0	-1,011.8	-422.6	1,096.5	3.00	-3.00	EOD @ 0° INC
5,300.0	0.00	0.00	5,171.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
5,400.0	0.00	0.00	5,271.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
5,500.0	0.00	0.00	5,371.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
5,600.0	0.00	0.00	5,471.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
5,700.0	0.00	0.00	5,571.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
5,800.0	0.00	0.00	5,671.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
5,813.0	0.00	0.00	5,684.0	-1,011.8	-422.6	1,096.5	0.00	0.00	OHIO CREEK
5,900.0	0.00	0.00	5,771.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
6,000.0	0.00	0.00	5,871.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
6,100.0	0.00	0.00	5,971.0	-1,011.8	-422.6	1,096.5	0.00	0.00	WILLIAMS FORK
6,200.0	0.00	0.00	6,071.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
6,300.0	0.00	0.00	6,171.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
6,400.0	0.00	0.00	6,271.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
6,500.0	0.00	0.00	6,371.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
6,600.0	0.00	0.00	6,471.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
6,700.0	0.00	0.00	6,571.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
6,800.0	0.00	0.00	6,671.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
6,900.0	0.00	0.00	6,771.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
7,000.0	0.00	0.00	6,871.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
7,058.0	0.00	0.00	6,929.0	-1,011.8	-422.6	1,096.5	0.00	0.00	TOP of GAS
7,100.0	0.00	0.00	6,971.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
7,200.0	0.00	0.00	7,071.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
7,300.0	0.00	0.00	7,171.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
7,400.0	0.00	0.00	7,271.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
7,500.0	0.00	0.00	7,371.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
7,600.0	0.00	0.00	7,471.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
7,700.0	0.00	0.00	7,571.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
7,800.0	0.00	0.00	7,671.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
7,900.0	0.00	0.00	7,771.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
8,000.0	0.00	0.00	7,871.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
8,100.0	0.00	0.00	7,971.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
8,200.0	0.00	0.00	8,071.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
8,300.0	0.00	0.00	8,171.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
8,400.0	0.00	0.00	8,271.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
8,500.0	0.00	0.00	8,371.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
8,600.0	0.00	0.00	8,471.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
8,693.0	0.00	0.00	8,564.0	-1,011.8	-422.6	1,096.5	0.00	0.00	ROLLINS
8,700.0	0.00	0.00	8,571.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
8,800.0	0.00	0.00	8,671.0	-1,011.8	-422.6	1,096.5	0.00	0.00	
8,843.0	0.00	0.00	8,714.0	-1,011.8	-422.6	1,096.5	0.00	0.00	TD @ 8,843' MD

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Project:	Garfield County, CO	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site:	S1-T7S-R97W (Mesa E1 797)	North Reference:	True
Well:	PUCKETT 13B-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
PUCKETT 13B-1 PBHL	0.00	0.00	8,714.0	-1,011.8	-422.6	608,344.54	1,245,181.50	39.473211	-108.174211
- plan hits target center									
- Circle (radius 50.0)									
PUCKETT 13B-1 TOG	0.00	0.00	6,929.0	-1,011.8	-422.6	608,344.54	1,245,181.50	39.473211	-108.174211
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
5,813.0	5,684.0	OHIO CREEK				
6,100.0	5,971.0	WILLIAMS FORK				
7,058.0	6,929.0	TOP of GAS				
8,693.0	8,564.0	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'	
662.9	658.4	-51.5	-21.5	EOB @ 13.89° INC	
4,766.1	4,641.6	-960.3	-401.1	Start 3° Drop	
5,229.0	5,100.0	-1,011.8	-422.6	EOD @ 0° INC	
8,843.0	8,714.0	-1,011.8	-422.6	TD @ 8,843' MD	

Caerus Oil & Gas (NAD 27)

Garfield County, CO

S1-T7S-R97W (Mesa E1 797)

PUCKETT 13B-1

DD

Plan #1

Anticollision Report

16 December, 2014

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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	12/12/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	8,843.0	Plan #1 (DD)	ISCWSA MWD	MWD - Standard	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
S1-T7S-R97W (Mesa E1 797)						
PUCKETT 11B-1 - DD - Plan #1	200.0	200.0	24.2	23.6	38.492	CC, ES
PUCKETT 11B-1 - DD - Plan #1	400.0	396.5	42.3	40.5	23.569	SF
PUCKETT 11C-1 - DD - Plan #1	200.0	200.0	16.3	15.6	25.830	CC, ES
PUCKETT 11C-1 - DD - Plan #1	400.0	398.9	27.6	25.9	15.835	SF
PUCKETT 21A-1 - HZ - Plan #1	200.0	200.0	39.5	38.9	62.813	CC, ES
PUCKETT 21A-1 - HZ - Plan #1	500.0	493.7	70.2	67.8	29.218	SF
PUCKETT 21C-1 - DD - Plan #1	200.0	200.0	47.7	47.0	75.756	CC, ES
PUCKETT 21C-1 - DD - Plan #1	500.0	494.0	75.9	73.5	31.992	SF
PUCKETT 21D-1 - DD - Plan #1	200.0	200.0	55.6	55.0	88.419	CC, ES
PUCKETT 21D-1 - DD - Plan #1	500.0	494.8	81.5	79.1	34.650	SF
PUCKETT 22A-36 - DD - Plan #1	200.0	200.0	31.6	30.9	50.156	CC, ES
PUCKETT 22A-36 - DD - Plan #1	400.0	397.7	44.6	42.9	25.441	SF
PUCKETT 22C-1 - DD - Plan #1	200.0	200.0	56.4	55.8	89.663	CC, ES
PUCKETT 22C-1 - DD - Plan #1	600.0	597.1	97.1	94.1	32.920	SF
PUCKETT 22D-1 - DD - Plan #1	200.0	200.0	40.6	39.9	64.464	CC, ES
PUCKETT 22D-1 - DD - Plan #1	500.0	498.8	63.0	60.7	27.096	SF
PUCKETT 23A-1 - DD - Plan #1	200.0	200.0	18.7	18.1	29.768	CC, ES
PUCKETT 23A-1 - DD - Plan #1	400.0	399.6	27.7	26.0	16.323	SF
PUCKETT 23B-1 - DD - Plan #1	200.0	200.0	12.8	12.2	20.390	CC, ES
PUCKETT 23B-1 - DD - Plan #1	400.0	399.6	20.3	18.6	12.137	SF
PUCKETT 23C-1 - DD - Plan #1	200.0	200.0	8.0	7.3	12.657	CC, ES
PUCKETT 23C-1 - DD - Plan #1	300.0	300.0	10.6	9.4	9.182	SF
PUCKETT 31B-1 - DD - Plan #1	200.0	200.0	71.9	71.3	114.242	CC, ES
PUCKETT 31B-1 - DD - Plan #1	500.0	483.8	115.8	113.3	47.486	SF
PUCKETT 31C-1 - DD - Plan #1	200.0	200.0	63.9	63.3	101.579	CC, ES
PUCKETT 31C-1 - DD - Plan #1	500.0	488.1	101.0	98.6	42.008	SF
PUCKETT 32A-1 - DD - Plan #1	200.0	200.0	72.5	71.8	115.125	CC, ES
PUCKETT 32A-1 - DD - Plan #1	600.0	578.3	139.5	136.4	45.520	SF
PUCKETT 32C-1 - DD - Plan #1	200.0	200.0	64.6	63.9	102.602	CC, ES
PUCKETT 32C-1 - DD - Plan #1	600.0	586.9	118.1	115.1	39.422	SF
PUCKETT 33A-1 - DD - Plan #1	200.0	200.0	48.6	48.0	77.222	CC, ES
PUCKETT 33A-1 - DD - Plan #1	500.0	496.5	73.9	71.5	31.965	SF
PUCKETT 33C-1 - DD - Plan #1	200.0	200.0	33.7	33.0	53.473	CC, ES
PUCKETT 33C-1 - DD - Plan #1	500.0	497.0	59.2	56.9	25.770	SF
PUCKETT 34A-1 - DD - Plan #1	200.0	200.0	25.9	25.2	41.118	CC, ES
PUCKETT 34A-1 - DD - Plan #1	400.0	399.6	35.4	33.7	20.709	SF
PUCKETT SWD E1-797 - VH - Plan #1	271.5	271.4	10.0	9.1	10.735	CC
PUCKETT SWD E1-797 - VH - Plan #1	300.0	300.0	10.1	9.1	9.558	ES
PUCKETT SWD E1-797 - VH - Plan #1	400.0	399.6	13.6	12.0	8.404	SF
S2-T7S-R97W (Puckett Pad H2)						
PUCKETT 12C-1 - DD - Plan #1						Out of range
PUCKETT 12D-1 - DD - Plan #1						Out of range
PUCKETT 13A-1 - DD - Plan #2						Out of range
PUCKETT 13C-1 - DD - Plan #1						Out of range
S2-T7S-R97W (Puckett Pad P2)						
PUCKETT 13D-1 - DD - Plan #1						Out of range
PUCKETT 14A-1 - DD - Plan #1						Out of range

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 11B-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		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Between Centres (usft)	Between Ellipses (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	29.30	21.1	11.9	24.2					
100.0	100.0	100.0	100.0	0.1	0.1	29.30	21.1	11.9	24.2	24.0	0.18	134.723		
200.0	200.0	200.0	200.0	0.3	0.3	29.30	21.1	11.9	24.2	23.6	0.63	38.492 CC, ES		
300.0	300.0	298.9	298.9	0.5	0.5	-177.86	23.5	11.0	28.6	27.4	1.16	24.596		
400.0	399.6	396.5	396.2	0.8	0.8	174.41	30.6	8.4	42.3	40.5	1.79	23.569 SF		
500.0	498.8	491.4	490.3	1.0	1.0	168.79	42.0	4.3	65.6	63.2	2.45	26.733		
600.0	597.1	582.5	579.9	1.4	1.4	165.35	57.0	-1.2	98.2	95.0	3.12	31.433		
700.0	694.4	668.9	664.2	1.8	1.7	163.27	74.9	-7.7	139.1	135.4	3.72	37.370		
800.0	791.5	751.5	743.9	2.3	2.1	161.80	95.4	-15.2	184.6	180.3	4.23	43.683		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 11C-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	29.09	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	90.405		
200.0	200.0	200.0	200.0	0.3	0.3	29.09	14.2	7.9	16.3	15.6	0.63	25.830 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-174.46	14.2	7.9	18.9	17.7	1.15	16.388		
400.0	399.6	398.9	398.9	0.8	0.8	-178.39	15.5	7.3	27.6	25.9	1.74	15.835 SF		
500.0	498.8	496.0	495.8	1.0	1.0	175.07	21.2	4.7	45.1	42.8	2.38	18.960		
600.0	597.1	590.0	589.2	1.4	1.2	170.18	30.9	0.3	71.8	68.7	3.04	23.640		
700.0	694.4	680.1	678.1	1.8	1.5	166.97	44.2	-5.7	106.9	103.3	3.62	29.512		
800.0	791.5	766.9	763.0	2.3	1.8	164.58	60.5	-13.2	146.8	142.6	4.11	35.694		
900.0	888.5	855.8	849.3	2.8	2.2	162.65	79.9	-21.9	189.3	184.6	4.64	40.814		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 21A-1 - HZ - 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	29.99	34.2	19.8	39.5					
100.0	100.0	100.0	100.0	0.1	0.1	29.99	34.2	19.8	39.5	39.4	0.18	219.844		
200.0	200.0	200.0	200.0	0.3	0.3	29.99	34.2	19.8	39.5	38.9	0.63	62.813 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-173.12	34.2	19.8	42.1	41.0	1.15	36.622		
400.0	399.6	397.9	397.8	0.8	0.8	-176.26	36.6	18.9	51.7	49.9	1.75	29.593		
500.0	498.8	493.7	493.3	1.0	1.0	178.67	43.5	16.4	70.2	67.8	2.40	29.218 SF		
600.0	597.1	585.6	584.6	1.4	1.2	175.66	54.0	14.9	98.3	95.3	3.05	32.285		
700.0	694.4	673.3	671.3	1.8	1.5	174.73	67.4	15.8	135.5	131.9	3.61	37.532		
800.0	791.5	757.4	753.8	2.3	1.8	174.66	83.4	18.7	177.6	173.5	4.05	43.866		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 21C-1 - 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							
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	29.43	41.5	23.4	47.7					
100.0	100.0	100.0	100.0	0.1	0.1	29.43	41.5	23.4	47.7	47.5	0.18	265.146		
200.0	200.0	200.0	200.0	0.3	0.3	29.43	41.5	23.4	47.7	47.0	0.63	75.756 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-173.58	41.5	23.4	50.3	49.1	1.15	43.699		
400.0	399.6	398.4	398.4	0.8	0.8	-174.74	42.1	23.4	58.6	56.9	1.74	33.697		
500.0	498.8	494.0	493.8	1.0	1.0	-177.60	46.9	23.0	75.9	73.5	2.37	31.992 SF		
600.0	597.1	586.3	585.7	1.4	1.2	179.68	55.9	22.7	102.7	99.6	3.03	33.864		
700.0	694.4	674.6	673.2	1.8	1.4	178.74	67.5	25.1	138.3	134.7	3.58	38.589		
800.0	791.5	759.5	756.9	2.3	1.7	178.76	81.3	30.2	178.8	174.8	4.01	44.539		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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													S1-T7S-R97W (Mesa E1 797) - PUCKETT 21D-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	29.48	48.4	27.4	55.6								
100.0	100.0	100.0	100.0	0.1	0.1	29.48	48.4	27.4	55.6	55.5	0.18	309.465					
200.0	200.0	200.0	200.0	0.3	0.3	29.48	48.4	27.4	55.6	55.0	0.63	88.419	CC, ES				
300.0	300.0	300.0	300.0	0.5	0.5	-173.49	48.4	27.4	58.2	57.1	1.15	50.627					
400.0	399.6	399.6	399.6	0.8	0.8	-174.24	48.4	27.4	66.0	64.3	1.73	38.087					
500.0	498.8	494.8	494.7	1.0	1.0	-174.96	50.4	28.7	81.5	79.1	2.35	34.650	SF				
600.0	597.1	587.0	586.7	1.4	1.2	-175.37	56.1	32.3	106.8	103.8	3.00	35.594					
700.0	694.4	675.2	674.2	1.8	1.4	-175.58	65.1	38.1	141.3	137.7	3.57	39.589					
800.0	791.5	760.0	757.8	2.3	1.7	-175.61	76.9	45.7	180.9	176.9	4.01	45.051					

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 22A-36 - 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	30.05	27.3	15.8	31.6					
100.0	100.0	100.0	100.0	0.1	0.1	30.05	27.3	15.8	31.6	31.4	0.18	175.546		
200.0	200.0	200.0	200.0	0.3	0.3	30.05	27.3	15.8	31.6	30.9	0.63	50.156 CC, ES		
300.0	300.0	299.7	299.7	0.5	0.5	-173.38	27.5	15.7	34.3	33.1	1.15	29.750		
400.0	399.6	397.7	397.7	0.8	0.8	-178.33	31.0	14.3	44.6	42.9	1.75	25.441 SF		
500.0	498.8	493.5	493.0	1.0	1.0	175.70	38.9	11.2	64.2	61.7	2.42	26.548		
600.0	597.1	585.3	584.0	1.4	1.2	172.51	50.7	8.7	93.5	90.4	3.06	30.504		
700.0	694.4	672.5	669.9	1.8	1.5	171.39	65.6	7.9	131.8	128.2	3.64	36.236		
800.0	791.5	755.9	751.5	2.3	1.9	171.06	83.3	8.5	175.2	171.1	4.09	42.873		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 22C-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	39.82	43.3	36.1	56.4					
100.0	100.0	100.0	100.0	0.1	0.1	39.82	43.3	36.1	56.4	56.2	0.18	313.821		
200.0	200.0	200.0	200.0	0.3	0.3	39.82	43.3	36.1	56.4	55.8	0.63	89.663	CC, ES	
300.0	300.0	300.0	300.0	0.5	0.5	-163.58	43.3	36.1	58.9	57.8	1.14	51.499		
400.0	399.6	399.6	399.6	0.8	0.8	-165.44	43.3	36.1	66.5	64.8	1.72	38.601		
500.0	498.8	498.8	498.8	1.0	1.0	-167.73	43.3	36.1	79.2	76.9	2.33	33.990		
600.0	597.1	597.1	597.1	1.4	1.2	-169.92	43.3	36.1	97.1	94.1	2.95	32.920	SF	
700.0	694.4	691.6	691.6	1.8	1.4	-170.78	43.2	38.3	120.9	117.4	3.49	34.684		
800.0	791.5	787.7	787.5	2.3	1.6	-170.43	43.0	43.5	147.1	143.2	3.91	37.654		
900.0	888.5	884.2	883.9	2.8	1.8	-170.17	42.8	48.8	173.4	169.1	4.35	39.887		
1,000.0	985.6	980.7	980.2	3.3	2.0	-169.97	42.5	54.1	199.7	194.9	4.81	41.542		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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													S1-T7S-R97W (Mesa E1 797) - PUCKETT 22D-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										
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	44.09	29.1	28.2	40.6								
100.0	100.0	100.0	100.0	0.1	0.1	44.09	29.1	28.2	40.6	40.4	0.18	225.623					
200.0	200.0	200.0	200.0	0.3	0.3	44.09	29.1	28.2	40.6	39.9	0.63	64.464	CC, ES				
300.0	300.0	300.0	300.0	0.5	0.5	-159.83	29.1	28.2	43.0	41.9	1.14	37.707					
400.0	399.6	399.6	399.6	0.8	0.8	-162.83	29.1	28.2	50.5	48.7	1.72	29.376					
500.0	498.8	498.8	498.8	1.0	1.0	-166.24	29.1	28.2	63.0	60.7	2.33	27.096	SF				
600.0	597.1	596.3	596.2	1.4	1.2	-167.47	28.2	30.5	81.3	78.4	2.93	27.718					
700.0	694.4	692.3	692.0	1.8	1.4	-166.09	25.4	37.1	105.4	101.9	3.48	30.316					
800.0	791.5	788.3	787.4	2.3	1.6	-163.76	21.1	47.2	131.3	127.4	3.94	33.362					
900.0	888.5	884.8	883.1	2.8	1.9	-162.11	16.7	57.6	157.5	153.1	4.44	35.448					
1,000.0	985.6	981.2	978.9	3.3	2.1	-160.93	12.3	67.9	183.8	178.8	4.98	36.880					

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 23A-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	60.92	9.1	16.4	18.7					
100.0	100.0	100.0	100.0	0.1	0.1	60.92	9.1	16.4	18.7	18.6	0.18	104.189		
200.0	200.0	200.0	200.0	0.3	0.3	60.92	9.1	16.4	18.7	18.1	0.63	29.768 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-146.17	9.1	16.4	20.9	19.7	1.12	18.563		
400.0	399.6	399.6	399.6	0.8	0.8	-155.14	9.1	16.4	27.7	26.0	1.70	16.323 SF		
500.0	498.8	498.8	498.8	1.0	1.0	-162.92	9.1	16.4	39.9	37.6	2.32	17.233		
600.0	597.1	597.5	597.5	1.4	1.2	-165.65	7.4	18.2	57.2	54.3	2.92	19.588		
700.0	694.4	695.6	695.3	1.8	1.4	-164.18	2.1	23.5	78.6	75.1	3.45	22.774		
800.0	791.5	793.4	792.2	2.3	1.6	-160.65	-6.6	32.5	100.5	96.6	3.92	25.634		
900.0	888.5	890.6	887.9	2.8	1.9	-156.17	-18.5	44.6	122.8	118.2	4.51	27.232		
1,000.0	985.6	987.6	983.3	3.3	2.3	-152.66	-31.1	57.5	145.6	140.4	5.18	28.116		
1,100.0	1,082.7	1,084.7	1,078.6	3.8	2.6	-150.10	-43.7	70.4	168.7	162.8	5.89	28.632		
1,200.0	1,179.8	1,181.7	1,174.0	4.3	3.0	-148.16	-56.3	83.3	192.2	185.5	6.64	28.940		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 23B-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							
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	81.86	1.8	12.7	12.8					
100.0	100.0	100.0	100.0	0.1	0.1	81.86	1.8	12.7	12.8	12.7	0.18	71.364		
200.0	200.0	200.0	200.0	0.3	0.3	81.86	1.8	12.7	12.8	12.2	0.63	20.390 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-129.78	1.8	12.7	14.3	13.3	1.10	13.078		
400.0	399.6	399.6	399.6	0.8	0.8	-146.95	1.8	12.7	20.3	18.6	1.67	12.137 SF		
500.0	498.8	498.8	498.8	1.0	1.0	-155.04	-0.1	14.4	31.9	29.6	2.27	14.037		
600.0	597.1	597.5	597.1	1.4	1.2	-154.79	-5.8	19.5	48.4	45.5	2.87	16.823		
700.0	694.4	695.2	694.1	1.8	1.4	-152.09	-15.1	27.9	69.2	65.7	3.47	19.947		
800.0	791.5	792.3	789.6	2.3	1.7	-147.88	-28.1	39.5	91.3	87.2	4.06	22.457		
900.0	888.5	888.6	883.3	2.8	2.1	-142.89	-44.4	54.2	114.5	109.7	4.81	23.816		
1,000.0	985.6	985.2	977.0	3.3	2.6	-138.88	-62.0	69.9	138.7	133.0	5.64	24.569		
1,100.0	1,082.7	1,081.9	1,070.7	3.8	3.0	-136.07	-79.6	85.7	163.3	156.8	6.52	25.050		
1,200.0	1,179.8	1,178.5	1,164.4	4.3	3.5	-133.99	-97.2	101.5	188.2	180.8	7.42	25.378		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 23C-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	29.75	6.9	4.0	8.0				
100.0	100.0	100.0	100.0	0.1	0.1	29.75	6.9	4.0	8.0	7.8	0.18	44.298	
200.0	200.0	200.0	200.0	0.3	0.3	29.75	6.9	4.0	8.0	7.3	0.63	12.657 CC, ES	
300.0	300.0	300.0	300.0	0.5	0.5	-174.66	6.9	4.0	10.6	9.4	1.15	9.182 SF	
400.0	399.6	400.5	400.5	0.8	0.7	-175.98	4.4	3.0	15.8	14.1	1.70	9.278	
500.0	498.8	501.3	501.0	1.0	1.0	-175.97	-3.0	0.3	21.0	18.7	2.26	9.285	
600.0	597.1	601.9	600.7	1.4	1.2	-173.34	-15.3	-3.0	26.9	24.1	2.84	9.473	
700.0	694.4	701.8	699.3	1.8	1.5	-165.20	-31.5	-3.2	36.0	32.6	3.40	10.596	
800.0	791.5	801.3	796.7	2.3	1.9	-154.42	-51.6	-0.2	45.9	41.9	3.99	11.504	
900.0	888.5	900.3	893.1	2.8	2.3	-144.74	-73.7	4.7	57.1	52.3	4.79	11.910	
1,000.0	985.6	999.3	989.5	3.3	2.8	-138.34	-95.8	9.5	69.3	63.6	5.69	12.175	
1,100.0	1,082.7	1,098.3	1,085.8	3.8	3.2	-133.89	-118.0	14.4	82.2	75.6	6.64	12.375	
1,200.0	1,179.8	1,197.3	1,182.2	4.3	3.7	-130.65	-140.1	19.2	95.4	87.8	7.61	12.539	
1,300.0	1,276.9	1,296.3	1,278.6	4.8	4.2	-128.21	-162.2	24.1	108.9	100.3	8.59	12.679	
1,400.0	1,373.9	1,395.3	1,374.9	5.3	4.6	-126.31	-184.4	29.0	122.5	112.9	9.57	12.800	
1,500.0	1,471.0	1,494.3	1,471.3	5.8	5.1	-124.79	-206.5	33.8	136.2	125.6	10.55	12.906	
1,600.0	1,568.1	1,593.3	1,567.7	6.3	5.6	-123.54	-228.7	38.7	150.0	138.4	11.54	12.999	
1,700.0	1,665.2	1,692.3	1,664.0	6.8	6.1	-122.51	-250.8	43.5	163.8	151.3	12.52	13.081	
1,800.0	1,762.2	1,791.3	1,760.4	7.3	6.5	-121.64	-272.9	48.4	177.7	164.2	13.51	13.155	
1,900.0	1,859.3	1,890.3	1,856.8	7.8	7.0	-120.89	-295.1	53.2	191.6	177.1	14.49	13.221	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 31B-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		Total		Separation		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)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	29.39	62.6	35.3	71.9					
100.0	100.0	100.0	100.0	0.1	0.1	29.39	62.6	35.3	71.9	71.7	0.18	399.846		
200.0	200.0	200.0	200.0	0.3	0.3	29.39	62.6	35.3	71.9	71.3	0.63	114.242 CC, ES		
300.0	300.0	296.4	296.4	0.5	0.5	-172.74	64.1	37.2	76.8	75.7	1.16	66.395		
400.0	399.6	391.5	391.2	0.8	0.8	-171.48	68.4	43.0	91.5	89.7	1.78	51.354		
500.0	498.8	483.8	482.7	1.0	1.0	-170.06	75.2	52.2	115.8	113.3	2.44	47.486 SF		
600.0	597.1	572.2	569.9	1.4	1.3	-168.80	84.3	64.3	149.2	146.1	3.10	48.099		
700.0	694.4	656.0	651.7	1.8	1.7	-167.85	95.0	78.7	191.1	187.4	3.69	51.828		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 31C-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							
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	29.35	55.7	31.3	63.9					
100.0	100.0	100.0	100.0	0.1	0.1	29.35	55.7	31.3	63.9	63.7	0.18	355.527		
200.0	200.0	200.0	200.0	0.3	0.3	29.35	55.7	31.3	63.9	63.3	0.63	101.579	CC, ES	
300.0	300.0	298.5	298.5	0.5	0.5	-173.31	56.0	31.9	67.1	65.9	1.15	58.266		
400.0	399.6	394.5	394.3	0.8	0.8	-172.20	58.6	36.0	79.3	77.5	1.76	45.169		
500.0	498.8	488.1	487.5	1.0	1.0	-170.52	63.5	43.9	101.0	98.6	2.40	42.008	SF	
600.0	597.1	578.2	576.6	1.4	1.3	-168.89	70.6	55.2	131.9	128.9	3.07	42.967		
700.0	694.4	663.9	660.6	1.8	1.6	-167.59	79.3	69.3	171.3	167.6	3.66	46.844		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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													S1-T7S-R97W (Mesa E1 797) - PUCKETT 32A-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	37.43	57.5	44.0	72.5								
100.0	100.0	100.0	100.0	0.1	0.1	37.43	57.5	44.0	72.5	72.3	0.18	402.937					
200.0	200.0	200.0	200.0	0.3	0.3	37.43	57.5	44.0	72.5	71.8	0.63	115.125 CC, ES					
300.0	300.0	297.8	297.7	0.5	0.5	-165.02	57.8	45.4	76.1	74.9	1.14	66.465					
400.0	399.6	393.8	393.6	0.8	0.8	-163.62	59.1	51.3	88.5	86.7	1.74	50.726					
500.0	498.8	487.6	486.8	1.0	1.0	-161.70	61.3	61.7	109.7	107.3	2.39	45.889					
600.0	597.1	578.3	576.3	1.4	1.3	-159.81	64.3	75.9	139.5	136.4	3.06	45.520 SF					
700.0	694.4	664.9	661.1	1.8	1.6	-158.29	68.0	93.4	177.3	173.6	3.69	48.077					

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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												S1-T7S-R97W (Mesa E1 797) - PUCKETT 32C-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	38.37	50.6	40.1	64.6							
100.0	100.0	100.0	100.0	0.1	0.1	38.37	50.6	40.1	64.6	64.4	0.18	359.106				
200.0	200.0	200.0	200.0	0.3	0.3	38.37	50.6	40.1	64.6	63.9	0.63	102.602	CC, ES			
300.0	300.0	300.0	300.0	0.5	0.5	-164.88	50.6	40.1	67.1	65.9	1.15	58.575				
400.0	399.6	397.4	397.4	0.8	0.7	-164.79	50.5	42.6	76.1	74.4	1.72	44.288				
500.0	498.8	493.4	493.1	1.0	1.0	-162.99	50.2	49.9	93.2	90.8	2.34	39.825				
600.0	597.1	586.9	585.9	1.4	1.2	-160.56	49.8	61.6	118.1	115.1	3.00	39.422	SF			
700.0	694.4	677.3	674.8	1.8	1.5	-158.26	49.2	77.2	150.6	147.0	3.62	41.614				
800.0	791.5	764.9	760.3	2.3	1.9	-156.05	48.4	96.3	187.1	182.9	4.18	44.736				

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 33A-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	41.47	36.4	32.2	48.6					
100.0	100.0	100.0	100.0	0.1	0.1	41.47	36.4	32.2	48.6	48.4	0.18	270.278		
200.0	200.0	200.0	200.0	0.3	0.3	41.47	36.4	32.2	48.6	48.0	0.63	77.222 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-162.13	36.4	32.2	51.1	49.9	1.14	44.690		
400.0	399.6	398.8	398.8	0.8	0.8	-163.08	36.0	33.5	59.1	57.4	1.71	34.535		
500.0	498.8	496.5	496.3	1.0	1.0	-161.26	33.9	39.5	73.9	71.5	2.31	31.965 SF		
600.0	597.1	592.3	591.4	1.4	1.2	-158.23	30.4	49.9	95.5	92.6	2.96	32.317		
700.0	694.4	685.7	683.5	1.8	1.5	-155.17	25.4	64.3	123.8	120.3	3.59	34.526		
800.0	791.5	776.9	772.7	2.3	1.9	-152.07	19.2	82.5	155.5	151.4	4.19	37.120		
900.0	888.5	866.0	858.8	2.8	2.3	-148.90	11.8	104.2	190.0	185.1	4.89	38.869		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 33C-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							
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	46.17	23.3	24.3	33.7				
100.0	100.0	100.0	100.0	0.1	0.1	46.17	23.3	24.3	33.7	33.5	0.18	187.157	
200.0	200.0	200.0	200.0	0.3	0.3	46.17	23.3	24.3	33.7	33.0	0.63	53.473 CC, ES	
300.0	300.0	299.8	299.8	0.5	0.5	-157.12	23.0	24.8	36.2	35.1	1.13	32.045	
400.0	399.6	398.9	398.7	0.8	0.7	-154.42	20.1	29.1	44.6	42.9	1.68	26.505	
500.0	498.8	497.0	496.3	1.0	1.0	-150.01	14.6	37.6	59.2	56.9	2.30	25.770 SF	
600.0	597.1	593.4	591.5	1.4	1.3	-145.82	6.4	50.0	80.1	77.1	2.98	26.920	
700.0	694.4	687.6	683.8	1.8	1.7	-142.47	-4.1	66.0	107.2	103.5	3.69	29.036	
800.0	791.5	779.9	773.2	2.3	2.1	-139.18	-16.8	85.4	137.4	132.9	4.43	31.021	
900.0	888.5	870.2	859.4	2.8	2.6	-135.77	-31.5	107.7	170.2	165.0	5.27	32.319	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT 34A-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	51.76	16.0	20.3	25.9					
100.0	100.0	100.0	100.0	0.1	0.1	51.76	16.0	20.3	25.9	25.7	0.18	143.913		
200.0	200.0	200.0	200.0	0.3	0.3	51.76	16.0	20.3	25.9	25.2	0.63	41.118 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-153.46	16.0	20.3	28.2	27.1	1.13	24.873		
400.0	399.6	399.6	399.6	0.8	0.8	-159.07	16.0	20.3	35.4	33.7	1.71	20.709 SF		
500.0	498.8	498.9	498.9	1.0	1.0	-161.47	14.3	22.2	47.6	45.3	2.30	20.741		
600.0	597.1	597.5	597.2	1.4	1.2	-159.58	9.0	27.8	64.7	61.8	2.90	22.326		
700.0	694.4	695.0	693.8	1.8	1.4	-156.23	0.4	36.9	86.3	82.8	3.48	24.783		
800.0	791.5	791.6	788.9	2.3	1.7	-151.92	-11.4	49.4	109.4	105.3	4.06	26.943		
900.0	888.5	887.1	881.8	2.8	2.1	-147.06	-26.3	65.3	133.8	129.0	4.78	27.977		
1,000.0	985.6	980.9	972.0	3.3	2.6	-142.07	-44.1	84.2	160.2	154.5	5.64	28.381		
1,100.0	1,082.7	1,072.8	1,059.0	3.8	3.1	-137.22	-64.4	105.7	189.0	182.4	6.62	28.561		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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 S1-T7S-R97W (Mesa E1 797) - PUCKETT SWD E1-797 - VH - 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	120.25	-5.1	8.8	10.1					
100.0	100.0	100.0	100.0	0.1	0.1	120.25	-5.1	8.8	10.1	10.0	0.18	56.339		
200.0	200.0	200.0	200.0	0.3	0.3	120.25	-5.1	8.8	10.1	9.5	0.63	16.097		
271.5	271.4	271.4	271.4	0.5	0.5	-90.00	-5.1	8.8	10.0	9.1	0.94	10.735 CC		
300.0	300.0	300.0	300.0	0.5	0.5	-97.26	-5.1	8.8	10.1	9.1	1.06	9.558 ES		
400.0	399.6	399.6	399.6	0.8	0.8	-132.11	-5.1	8.8	13.6	12.0	1.61	8.404 SF		
500.0	498.8	498.8	498.8	1.0	1.0	-155.37	-5.1	8.8	24.3	22.1	2.29	10.623		
600.0	597.1	597.1	597.1	1.4	1.2	-165.74	-5.1	8.8	41.6	38.7	2.94	14.158		
700.0	694.4	694.4	694.4	1.8	1.4	-170.73	-5.1	8.8	64.2	60.7	3.49	18.385		
800.0	791.5	791.5	791.5	2.3	1.6	-173.25	-5.1	8.8	88.0	84.1	3.91	22.476		
900.0	888.5	888.5	888.5	2.8	1.9	-174.69	-5.1	8.8	111.8	107.5	4.35	25.695		
1,000.0	985.6	985.6	985.6	3.3	2.1	-175.63	-5.1	8.8	135.8	131.0	4.81	28.254		
1,100.0	1,082.7	1,082.7	1,082.7	3.8	2.3	-176.29	-5.1	8.8	159.7	154.5	5.27	30.319		
1,200.0	1,179.8	1,179.8	1,179.8	4.3	2.5	-176.77	-5.1	8.8	183.7	177.9	5.74	32.008		

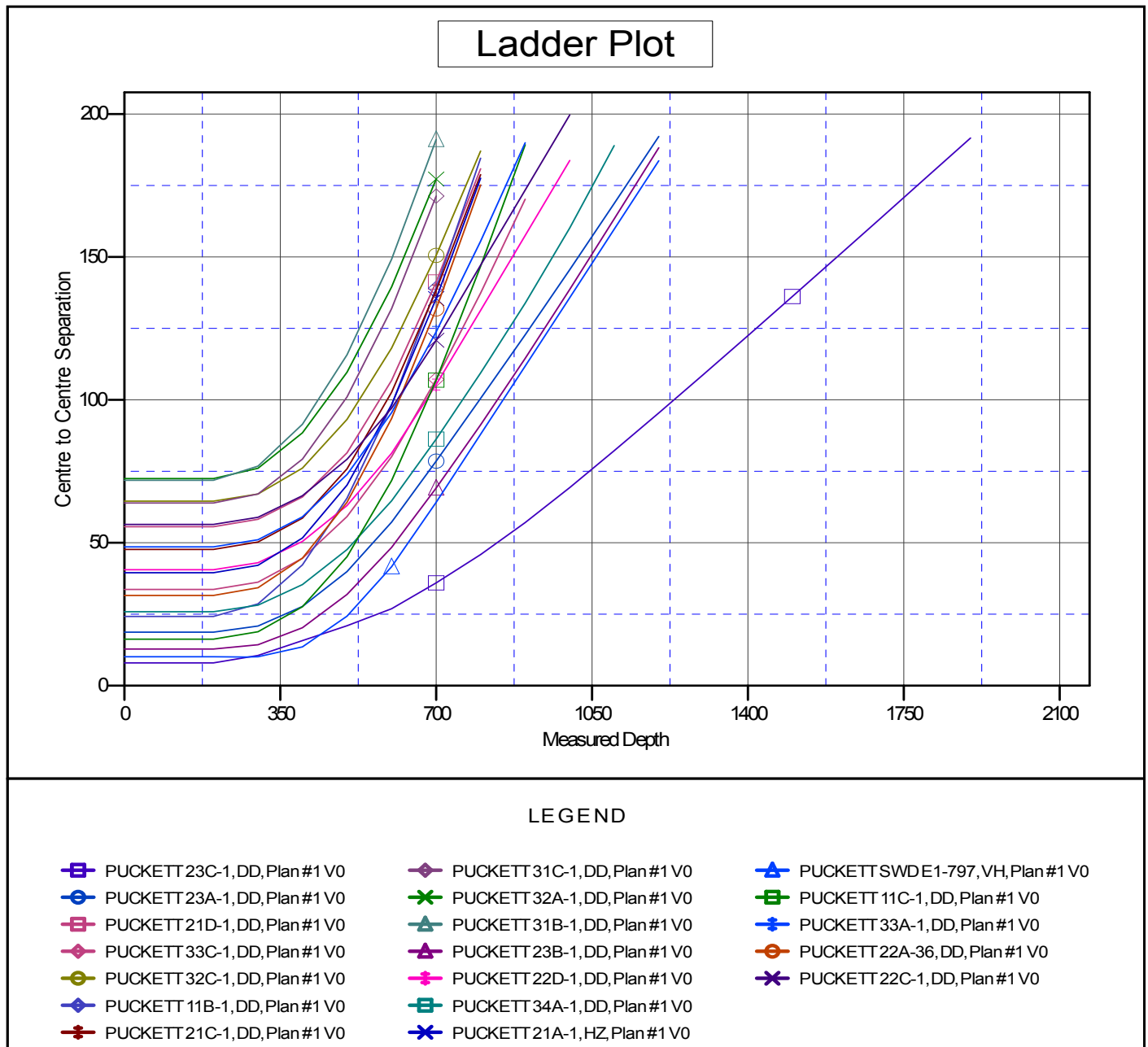
Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 13B-1
Project:	Garfield County, CO	TVD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Reference Site:	S1-T7S-R97W (Mesa E1 797)	MD Reference:	KB=20' @ 8349.0usft (Patterson #303)
Site Error:	0.0usft	North Reference:	True
Reference Well:	PUCKETT 13B-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=20' @ 8349.0usft (Patterson #303)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: PUCKETT 13B-1
Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502
Grid Convergence at Surface is: -1.69°



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