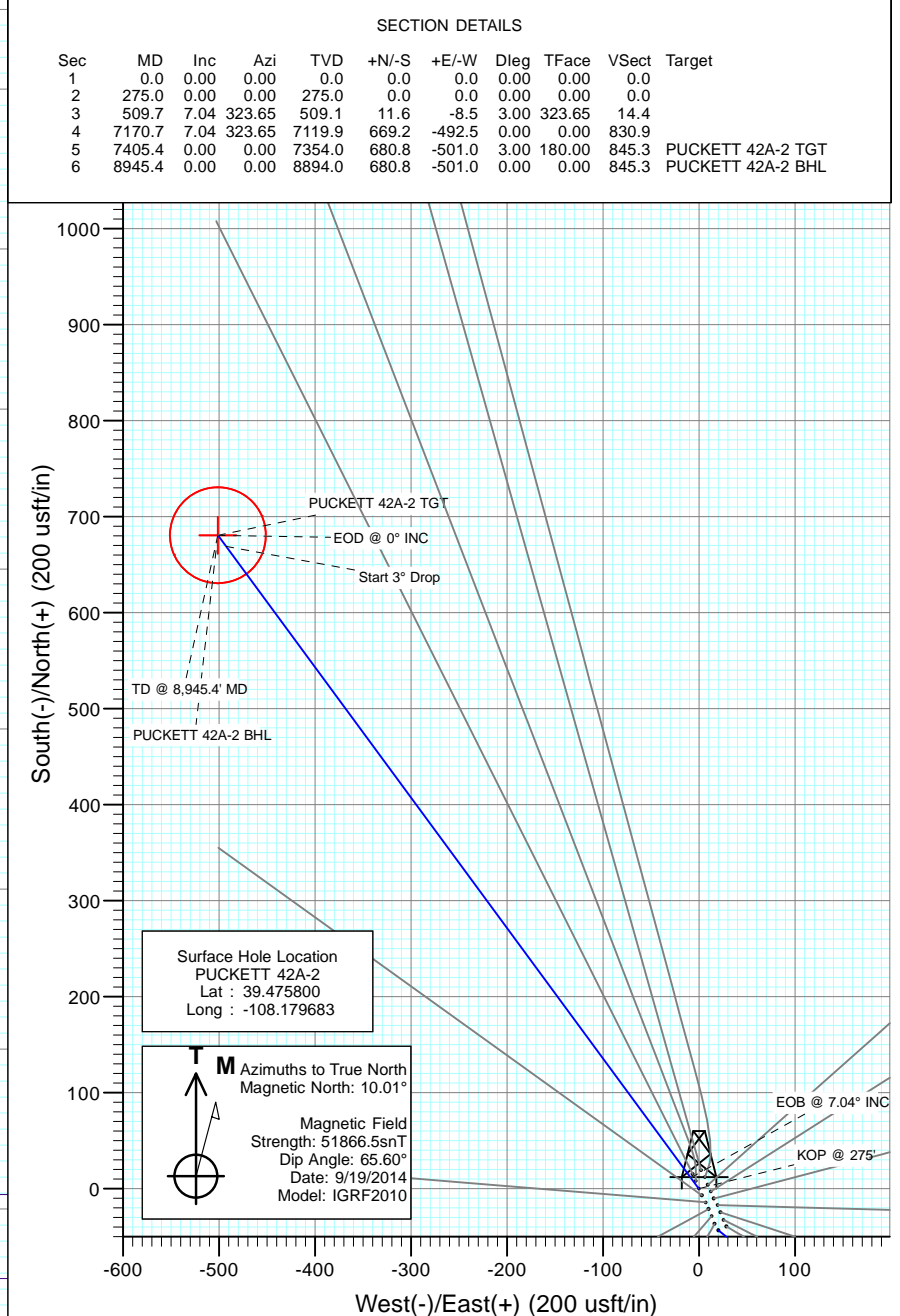
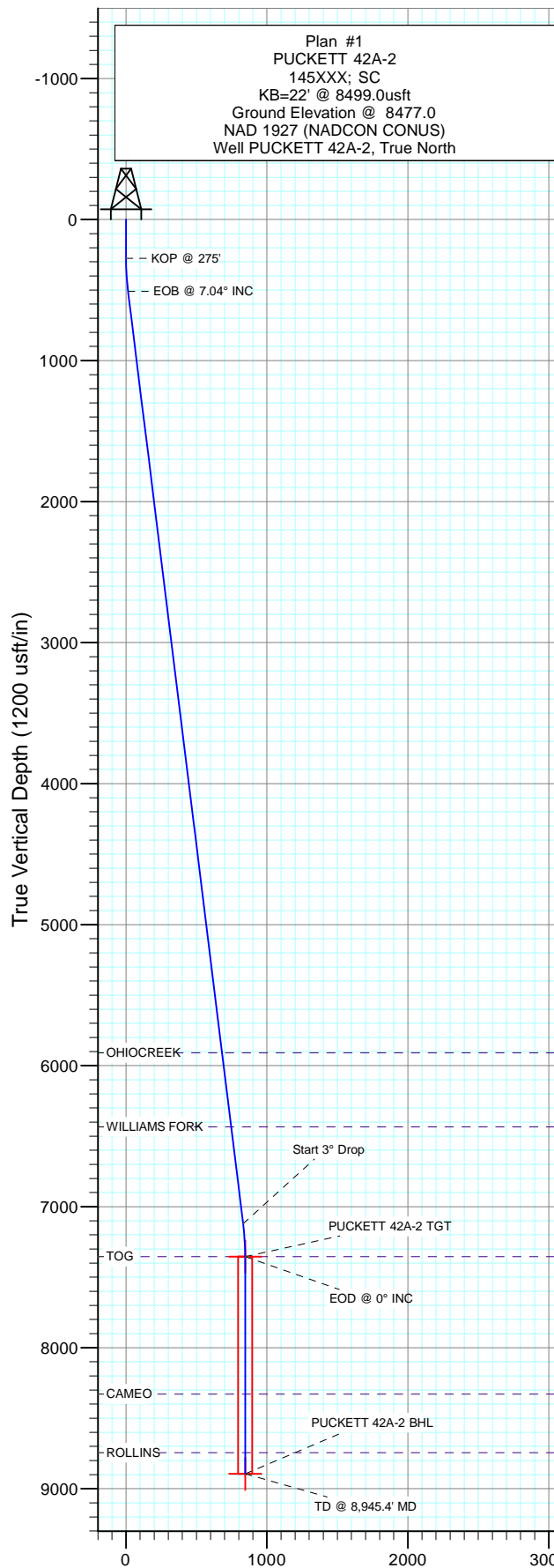


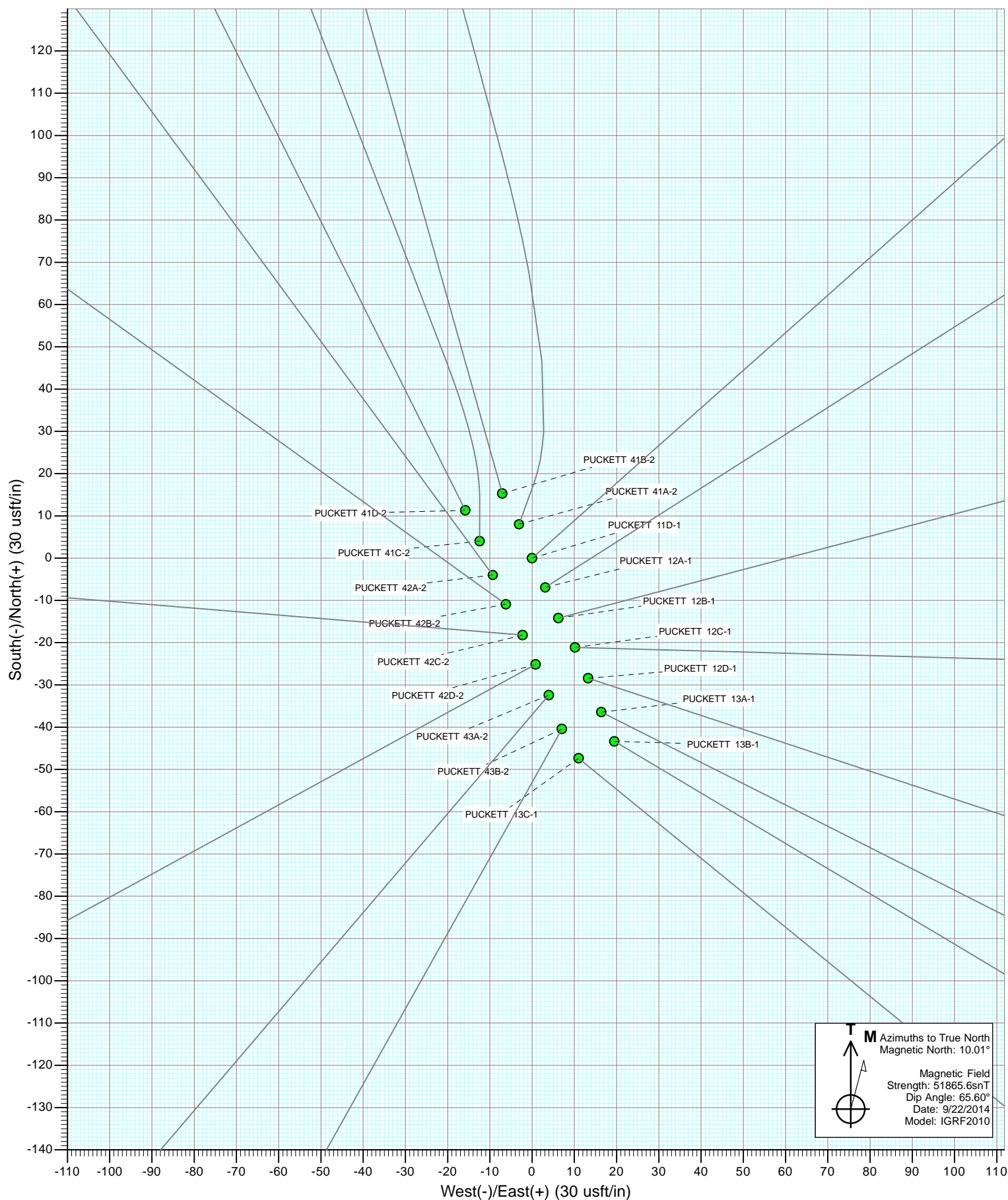


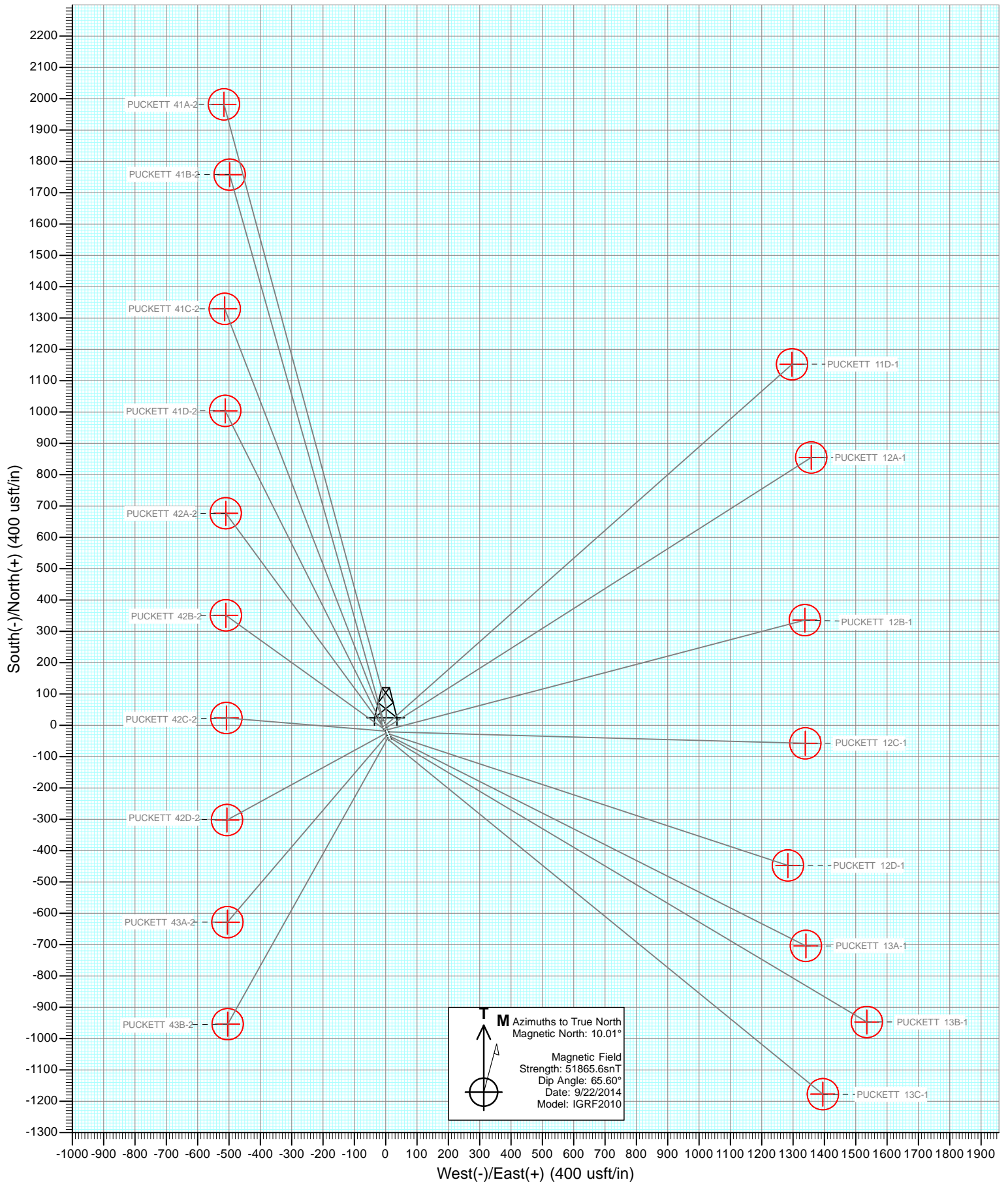
Project: Garfield County, CO
 Site: S2-T7S-R97W (Puckett Pad)
 Well: PUCKETT 42A-2
 Wellbore: DD
 Design: Plan #1



DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PUCKETT 42A-2 TGT	680.8	-501.0	610027.87	1243184.48	39.477669	-108.181458
PUCKETT 42A-2 BHL	680.8	-501.0	610027.87	1243184.48	39.477669	-108.181458





Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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 42A-2					
Well Position	+N/-S	0.0 usft	Northing:	609,332.63 usft	Latitude:	39.475800
	+E/-W	0.0 usft	Easting:	1,243,665.24 usft	Longitude:	-108.179683
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	323.65

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	
275.0	0.00	0.00	275.0	0.0	0.0	0.00	0.00	0.00	0.00	
509.7	7.04	323.65	509.1	11.6	-8.5	3.00	3.00	0.00	323.65	
7,170.7	7.04	323.65	7,119.9	669.2	-492.5	0.00	0.00	0.00	0.00	
7,405.4	0.00	0.00	7,354.0	680.8	-501.0	3.00	-3.00	0.00	180.00	PUCKETT 42A-2 TG1
8,945.4	0.00	0.00	8,894.0	680.8	-501.0	0.00	0.00	0.00	0.00	PUCKETT 42A-2 BHL

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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	
275.0	0.00	0.00	275.0	0.0	0.0	0.0	0.00	0.00	KOP @ 275'
300.0	0.75	323.65	300.0	0.1	-0.1	0.2	3.00	3.00	
400.0	3.75	323.65	399.9	3.3	-2.4	4.1	3.00	3.00	
509.7	7.04	323.65	509.1	11.6	-8.5	14.4	3.00	3.00	EOB @ 7.04° INC
600.0	7.04	323.65	598.7	20.5	-15.1	25.5	0.00	0.00	
700.0	7.04	323.65	698.0	30.4	-22.4	37.7	0.00	0.00	
800.0	7.04	323.65	797.2	40.3	-29.6	50.0	0.00	0.00	
900.0	7.04	323.65	896.5	50.1	-36.9	62.2	0.00	0.00	
1,000.0	7.04	323.65	995.7	60.0	-44.2	74.5	0.00	0.00	
1,100.0	7.04	323.65	1,095.0	69.9	-51.4	86.8	0.00	0.00	
1,200.0	7.04	323.65	1,194.2	79.7	-58.7	99.0	0.00	0.00	
1,300.0	7.04	323.65	1,293.5	89.6	-66.0	111.3	0.00	0.00	
1,400.0	7.04	323.65	1,392.7	99.5	-73.2	123.5	0.00	0.00	
1,500.0	7.04	323.65	1,491.9	109.4	-80.5	135.8	0.00	0.00	
1,600.0	7.04	323.65	1,591.2	119.2	-87.8	148.0	0.00	0.00	
1,700.0	7.04	323.65	1,690.4	129.1	-95.0	160.3	0.00	0.00	
1,800.0	7.04	323.65	1,789.7	139.0	-102.3	172.6	0.00	0.00	
1,900.0	7.04	323.65	1,888.9	148.8	-109.6	184.8	0.00	0.00	
2,000.0	7.04	323.65	1,988.2	158.7	-116.8	197.1	0.00	0.00	
2,100.0	7.04	323.65	2,087.4	168.6	-124.1	209.3	0.00	0.00	
2,200.0	7.04	323.65	2,186.7	178.5	-131.4	221.6	0.00	0.00	
2,300.0	7.04	323.65	2,285.9	188.3	-138.6	233.8	0.00	0.00	
2,400.0	7.04	323.65	2,385.2	198.2	-145.9	246.1	0.00	0.00	
2,500.0	7.04	323.65	2,484.4	208.1	-153.1	258.4	0.00	0.00	
2,600.0	7.04	323.65	2,583.6	218.0	-160.4	270.6	0.00	0.00	
2,700.0	7.04	323.65	2,682.9	227.8	-167.7	282.9	0.00	0.00	
2,800.0	7.04	323.65	2,782.1	237.7	-174.9	295.1	0.00	0.00	
2,900.0	7.04	323.65	2,881.4	247.6	-182.2	307.4	0.00	0.00	
3,000.0	7.04	323.65	2,980.6	257.4	-189.5	319.6	0.00	0.00	
3,100.0	7.04	323.65	3,079.9	267.3	-196.7	331.9	0.00	0.00	
3,200.0	7.04	323.65	3,179.1	277.2	-204.0	344.2	0.00	0.00	
3,300.0	7.04	323.65	3,278.4	287.1	-211.3	356.4	0.00	0.00	
3,400.0	7.04	323.65	3,377.6	296.9	-218.5	368.7	0.00	0.00	
3,500.0	7.04	323.65	3,476.9	306.8	-225.8	380.9	0.00	0.00	
3,600.0	7.04	323.65	3,576.1	316.7	-233.1	393.2	0.00	0.00	
3,700.0	7.04	323.65	3,675.4	326.5	-240.3	405.5	0.00	0.00	
3,800.0	7.04	323.65	3,774.6	336.4	-247.6	417.7	0.00	0.00	
3,900.0	7.04	323.65	3,873.8	346.3	-254.9	430.0	0.00	0.00	
4,000.0	7.04	323.65	3,973.1	356.2	-262.1	442.2	0.00	0.00	
4,100.0	7.04	323.65	4,072.3	366.0	-269.4	454.5	0.00	0.00	
4,200.0	7.04	323.65	4,171.6	375.9	-276.7	466.7	0.00	0.00	
4,300.0	7.04	323.65	4,270.8	385.8	-283.9	479.0	0.00	0.00	
4,400.0	7.04	323.65	4,370.1	395.6	-291.2	491.3	0.00	0.00	
4,500.0	7.04	323.65	4,469.3	405.5	-298.5	503.5	0.00	0.00	
4,600.0	7.04	323.65	4,568.6	415.4	-305.7	515.8	0.00	0.00	
4,700.0	7.04	323.65	4,667.8	425.3	-313.0	528.0	0.00	0.00	
4,800.0	7.04	323.65	4,767.1	435.1	-320.3	540.3	0.00	0.00	
4,900.0	7.04	323.65	4,866.3	445.0	-327.5	552.5	0.00	0.00	
5,000.0	7.04	323.65	4,965.5	454.9	-334.8	564.8	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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
5,100.0	7.04	323.65	5,064.8	464.7	-342.1	577.1	0.00	0.00	
5,200.0	7.04	323.65	5,164.0	474.6	-349.3	589.3	0.00	0.00	
5,300.0	7.04	323.65	5,263.3	484.5	-356.6	601.6	0.00	0.00	
5,400.0	7.04	323.65	5,362.5	494.4	-363.9	613.8	0.00	0.00	
5,500.0	7.04	323.65	5,461.8	504.2	-371.1	626.1	0.00	0.00	
5,600.0	7.04	323.65	5,561.0	514.1	-378.4	638.3	0.00	0.00	
5,700.0	7.04	323.65	5,660.3	524.0	-385.7	650.6	0.00	0.00	
5,800.0	7.04	323.65	5,759.5	533.8	-392.9	662.9	0.00	0.00	
5,900.0	7.04	323.65	5,858.8	543.7	-400.2	675.1	0.00	0.00	
5,950.6	7.04	323.65	5,909.0	548.7	-403.9	681.3	0.00	0.00	OHIOCREEK
6,000.0	7.04	323.65	5,958.0	553.6	-407.5	687.4	0.00	0.00	
6,100.0	7.04	323.65	6,057.3	563.5	-414.7	699.6	0.00	0.00	
6,200.0	7.04	323.65	6,156.5	573.3	-422.0	711.9	0.00	0.00	
6,300.0	7.04	323.65	6,255.7	583.2	-429.2	724.1	0.00	0.00	
6,400.0	7.04	323.65	6,355.0	593.1	-436.5	736.4	0.00	0.00	
6,479.6	7.04	323.65	6,434.0	600.9	-442.3	746.2	0.00	0.00	WILLIAMS FORK
6,500.0	7.04	323.65	6,454.2	603.0	-443.8	748.7	0.00	0.00	
6,600.0	7.04	323.65	6,553.5	612.8	-451.0	760.9	0.00	0.00	
6,700.0	7.04	323.65	6,652.7	622.7	-458.3	773.2	0.00	0.00	
6,800.0	7.04	323.65	6,752.0	632.6	-465.6	785.4	0.00	0.00	
6,900.0	7.04	323.65	6,851.2	642.4	-472.8	797.7	0.00	0.00	
7,000.0	7.04	323.65	6,950.5	652.3	-480.1	809.9	0.00	0.00	
7,100.0	7.04	323.65	7,049.7	662.2	-487.4	822.2	0.00	0.00	
7,170.7	7.04	323.65	7,119.9	669.2	-492.5	830.9	0.00	0.00	Start 3° Drop
7,200.0	6.16	323.65	7,149.0	671.9	-494.5	834.2	3.00	-3.00	
7,300.0	3.16	323.65	7,248.6	678.4	-499.3	842.4	3.00	-3.00	
7,405.4	0.00	0.00	7,354.0	680.8	-501.0	845.3	3.00	-3.00	EOD @ 0° INC - TOG
7,500.0	0.00	0.00	7,448.6	680.8	-501.0	845.3	0.00	0.00	
7,600.0	0.00	0.00	7,548.6	680.8	-501.0	845.3	0.00	0.00	
7,700.0	0.00	0.00	7,648.6	680.8	-501.0	845.3	0.00	0.00	
7,800.0	0.00	0.00	7,748.6	680.8	-501.0	845.3	0.00	0.00	
7,900.0	0.00	0.00	7,848.6	680.8	-501.0	845.3	0.00	0.00	
8,000.0	0.00	0.00	7,948.6	680.8	-501.0	845.3	0.00	0.00	
8,100.0	0.00	0.00	8,048.6	680.8	-501.0	845.3	0.00	0.00	
8,200.0	0.00	0.00	8,148.6	680.8	-501.0	845.3	0.00	0.00	
8,300.0	0.00	0.00	8,248.6	680.8	-501.0	845.3	0.00	0.00	
8,380.4	0.00	0.00	8,329.0	680.8	-501.0	845.3	0.00	0.00	CAMEO
8,400.0	0.00	0.00	8,348.6	680.8	-501.0	845.3	0.00	0.00	
8,500.0	0.00	0.00	8,448.6	680.8	-501.0	845.3	0.00	0.00	
8,600.0	0.00	0.00	8,548.6	680.8	-501.0	845.3	0.00	0.00	
8,700.0	0.00	0.00	8,648.6	680.8	-501.0	845.3	0.00	0.00	
8,795.4	0.00	0.00	8,744.0	680.8	-501.0	845.3	0.00	0.00	ROLLINS
8,800.0	0.00	0.00	8,748.6	680.8	-501.0	845.3	0.00	0.00	
8,900.0	0.00	0.00	8,848.6	680.8	-501.0	845.3	0.00	0.00	
8,945.4	0.00	0.00	8,894.0	680.8	-501.0	845.3	0.00	0.00	TD @ 8,945.4' MD

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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 42A-2 BHL	0.00	0.00	8,894.0	680.8	-501.0	610,027.87	1,243,184.48	39.477669	-108.181458
- plan hits target center									
- Circle (radius 50.0)									
PUCKETT 42A-2 TGT	0.00	0.00	7,354.0	680.8	-501.0	610,027.87	1,243,184.48	39.477669	-108.181458
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
5,950.6	5,909.0	OHIOCREEK				
6,479.6	6,434.0	WILLIAMS FORK				
7,405.4	7,354.0	TOG				
8,380.4	8,329.0	CAMEO				
8,795.4	8,744.0	ROLLINS				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
275.0	275.0	0.0	0.0	KOP @ 275'	
509.7	509.1	11.6	-8.5	EOB @ 7.04° INC	
7,170.7	7,119.9	669.2	-492.5	Start 3° Drop	
7,405.4	7,354.0	680.8	-501.0	EOD @ 0° INC	
8,945.4	8,894.0	680.8	-501.0	TD @ 8,945.4' MD	

Caerus Oil & Gas (NAD 27)

Garfield County, CO

S2-T7S-R97W (Puckett Pad)

PUCKETT 42A-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 42A-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 42A-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	8,945.4	Plan #1 (DD)	ISCWSA MWD	MWD - Standard

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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 Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
			Between Centres (usft)	Between Ellipses (usft)		
S2-T7S-R97W (Puckett Pad)						
PUCKETT 11D-1 - DD - Plan #1	200.0	200.0	10.1	9.5	16.229	CC, ES
PUCKETT 11D-1 - DD - Plan #1	300.0	299.4	12.7	11.6	11.752	SF
PUCKETT 12A-1 - DD - Plan #1	200.0	200.0	12.8	12.1	20.418	CC
PUCKETT 12A-1 - DD - Plan #1	237.8	237.8	12.8	12.0	16.129	ES
PUCKETT 12A-1 - DD - Plan #1	300.0	299.8	13.3	12.3	12.405	SF
PUCKETT 12B-1 - DD - Plan #1	200.0	200.0	18.6	18.0	29.728	CC
PUCKETT 12B-1 - DD - Plan #1	300.0	300.0	18.7	17.7	17.355	ES
PUCKETT 12B-1 - DD - Plan #1	400.0	399.1	24.1	22.5	14.997	SF
PUCKETT 12C-1 - DD - Plan #1	200.0	200.0	25.9	25.3	41.500	CC
PUCKETT 12C-1 - DD - Plan #1	300.0	300.0	26.1	25.0	24.166	ES
PUCKETT 12C-1 - DD - Plan #1	400.0	399.3	30.4	28.8	18.811	SF
PUCKETT 12D-1 - DD - Plan #1	200.0	200.0	33.2	32.6	53.212	CC
PUCKETT 12D-1 - DD - Plan #1	300.0	300.0	33.4	32.3	30.940	ES
PUCKETT 12D-1 - DD - Plan #1	400.0	398.2	39.6	37.9	24.448	SF
PUCKETT 13A-1 - DD - Plan #1	200.0	200.0	41.4	40.7	66.193	CC
PUCKETT 13A-1 - DD - Plan #1	238.0	238.0	41.5	40.7	52.040	ES
PUCKETT 13A-1 - DD - Plan #1	500.0	491.9	69.2	67.0	30.728	SF
PUCKETT 13B-1 - DD - Plan #1	200.0	200.0	48.7	48.1	78.017	CC, ES
PUCKETT 13B-1 - DD - Plan #1	500.0	488.6	83.3	81.0	36.462	SF
PUCKETT 13C-1 - DD - Plan #1	155.6	155.6	47.9	47.4	112.620	CC
PUCKETT 13C-1 - DD - Plan #1	200.0	199.4	48.0	47.4	77.635	ES
PUCKETT 13C-1 - DD - Plan #1	500.0	487.4	86.0	83.7	37.222	SF
PUCKETT 41A-2 - DD - Plan #1	200.0	200.0	13.5	12.9	21.652	CC, ES
PUCKETT 41A-2 - DD - Plan #1	400.0	398.0	22.1	20.6	14.188	SF
PUCKETT 41B-2 - DD - Plan #1	144.5	144.5	19.4	19.1	51.778	CC, ES
PUCKETT 41B-2 - DD - Plan #1	500.0	495.0	37.4	35.3	17.212	SF
PUCKETT 41C-2 - DD - Plan #1	200.0	200.0	8.6	8.0	13.753	CC, ES
PUCKETT 41C-2 - DD - Plan #1	400.0	399.0	12.7	11.1	7.962	SF
PUCKETT 41D-2 - DD - Plan #1	155.6	155.6	16.6	16.2	39.097	CC
PUCKETT 41D-2 - DD - Plan #1	200.0	199.8	16.8	16.2	26.866	ES
PUCKETT 41D-2 - DD - Plan #1	4,300.0	4,292.4	196.5	173.7	8.618	SF
PUCKETT 42B-2 - DD - Plan #1	200.0	200.0	7.6	7.0	12.139	CC
PUCKETT 42B-2 - DD - Plan #1	300.0	300.0	7.7	6.7	7.173	ES
PUCKETT 42B-2 - DD - Plan #1	500.0	500.7	13.6	11.5	6.273	SF
PUCKETT 42C-2 - DD - Plan #1	200.0	200.0	15.9	15.2	25.384	CC
PUCKETT 42C-2 - DD - Plan #1	300.0	300.0	16.0	14.9	14.838	ES
PUCKETT 42C-2 - DD - Plan #1	400.0	400.1	19.8	18.2	12.239	SF
PUCKETT 42D-2 - DD - Plan #1	200.0	200.0	23.4	22.8	37.517	CC
PUCKETT 42D-2 - DD - Plan #1	300.0	300.0	23.6	22.5	21.859	ES
PUCKETT 42D-2 - DD - Plan #1	500.0	499.1	37.3	35.1	17.076	SF
PUCKETT 43A-2 - DD - Plan #1	200.0	200.0	31.4	30.7	50.181	CC
PUCKETT 43A-2 - DD - Plan #1	300.0	299.8	31.6	30.5	29.414	ES
PUCKETT 43A-2 - DD - Plan #1	500.0	496.7	50.6	48.4	22.980	SF
PUCKETT 43B-2 - DD - Plan #1	200.0	200.0	39.9	39.3	63.903	CC
PUCKETT 43B-2 - DD - Plan #1	217.2	217.2	39.9	39.2	56.866	ES
PUCKETT 43B-2 - DD - Plan #1	500.0	493.6	65.6	63.4	29.454	SF

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

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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-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	66.73	4.0	9.3	10.1					
100.0	100.0	100.0	100.0	0.1	0.1	66.73	4.0	9.3	10.1	10.0	0.18	57.841		
200.0	200.0	200.0	200.0	0.3	0.3	66.73	4.0	9.3	10.1	9.5	0.62	16.229 CC, ES		
300.0	300.0	299.4	299.4	0.5	0.5	100.07	5.7	11.2	12.7	11.6	1.08	11.752 SF		
400.0	399.9	398.2	397.9	0.8	0.8	104.75	10.8	17.0	20.9	19.4	1.56	13.386		
500.0	499.5	495.8	494.6	1.0	1.1	111.36	19.2	26.4	35.6	33.5	2.11	16.913		
600.0	598.7	591.6	588.9	1.3	1.4	114.54	30.6	39.2	56.1	53.5	2.66	21.096		
700.0	698.0	685.8	680.5	1.6	1.8	114.23	44.8	55.2	80.8	77.6	3.24	24.974		
800.0	797.2	782.1	773.9	1.9	2.2	113.45	60.8	73.2	107.5	103.7	3.82	28.133		
900.0	896.5	878.5	867.2	2.2	2.7	112.98	76.8	91.2	134.1	129.7	4.41	30.436		
1,000.0	995.7	974.9	960.5	2.5	3.2	112.66	92.8	109.2	160.8	155.8	5.00	32.125		
1,100.0	1,095.0	1,071.3	1,053.8	2.8	3.7	112.44	108.8	127.2	187.4	181.8	5.61	33.405		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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-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	103.20	-2.9	12.4	12.8					
100.0	100.0	100.0	100.0	0.1	0.1	103.20	-2.9	12.4	12.8	12.6	0.18	72.770		
200.0	200.0	200.0	200.0	0.3	0.3	103.20	-2.9	12.4	12.8	12.1	0.62	20.418 CC		
237.8	237.8	237.8	237.8	0.4	0.4	139.83	-2.9	12.4	12.8	12.0	0.80	16.129 ES		
300.0	300.0	299.8	299.7	0.5	0.5	138.01	-2.6	13.0	13.3	12.3	1.08	12.405 SF		
400.0	399.9	398.9	398.7	0.8	0.8	135.04	0.2	17.3	20.0	18.4	1.59	12.624		
500.0	499.5	496.8	496.1	1.0	1.0	134.16	5.6	25.9	34.2	32.1	2.15	15.897		
600.0	598.7	593.1	591.2	1.3	1.3	132.81	13.6	38.3	54.4	51.8	2.66	20.437		
700.0	698.0	687.5	683.7	1.6	1.7	129.99	23.9	54.5	78.5	75.3	3.20	24.530		
800.0	797.2	783.4	777.0	1.9	2.1	127.50	35.8	73.3	105.0	101.3	3.76	27.959		
900.0	896.5	879.7	870.6	2.2	2.5	126.00	47.9	92.3	131.8	127.4	4.32	30.493		
1,000.0	995.7	976.1	964.3	2.5	3.0	125.01	59.9	111.2	158.5	153.6	4.89	32.389		
1,100.0	1,095.0	1,072.4	1,058.0	2.8	3.4	124.30	72.0	130.2	185.3	179.8	5.48	33.847		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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-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	123.30	-10.2	15.5	18.6					
100.0	100.0	100.0	100.0	0.1	0.1	123.30	-10.2	15.5	18.6	18.4	0.18	105.955		
200.0	200.0	200.0	200.0	0.3	0.3	123.30	-10.2	15.5	18.6	18.0	0.62	29.728 CC		
255.6	255.6	255.6	255.6	0.4	0.4	159.87	-10.2	15.5	18.8	17.9	0.88	21.411		
300.0	300.0	300.0	300.0	0.5	0.5	159.83	-10.2	15.5	18.7	17.7	1.08	17.355 ES		
400.0	399.9	399.1	399.1	0.8	0.8	158.40	-9.5	18.0	24.1	22.5	1.61	14.997 SF		
500.0	499.5	497.0	496.6	1.0	1.0	154.83	-7.6	25.3	38.0	35.8	2.20	17.268		
600.0	598.7	593.0	591.9	1.3	1.2	151.32	-4.5	37.2	58.4	55.7	2.67	21.882		
700.0	698.0	687.2	684.5	1.6	1.6	147.57	-0.3	53.4	82.8	79.6	3.16	26.197		
800.0	797.2	783.5	778.9	1.9	1.9	144.74	4.7	72.1	109.3	105.6	3.67	29.803		
900.0	896.5	879.8	873.2	2.2	2.3	143.02	9.6	90.8	136.0	131.8	4.18	32.530		
1,000.0	995.7	976.1	967.6	2.5	2.7	141.86	14.5	109.6	162.8	158.0	4.71	34.585		
1,100.0	1,095.0	1,072.4	1,061.9	2.8	3.1	141.03	19.4	128.3	189.6	184.3	5.24	36.178		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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-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	131.31	-17.1	19.5	25.9					
100.0	100.0	100.0	100.0	0.1	0.1	131.31	-17.1	19.5	25.9	25.8	0.18	147.912		
200.0	200.0	200.0	200.0	0.3	0.3	131.31	-17.1	19.5	25.9	25.3	0.62	41.500 CC		
255.6	255.6	255.6	255.6	0.4	0.4	167.76	-17.1	19.5	26.1	25.3	0.88	29.806		
300.0	300.0	300.0	300.0	0.5	0.5	167.74	-17.1	19.5	26.1	25.0	1.08	24.166 ES		
400.0	399.9	399.3	399.3	0.8	0.8	168.51	-17.1	20.1	30.4	28.8	1.62	18.811 SF		
500.0	499.5	497.0	496.9	1.0	1.0	166.43	-17.3	25.1	43.3	41.1	2.21	19.616		
600.0	598.7	592.9	592.2	1.3	1.2	163.30	-17.5	34.9	63.2	60.5	2.66	23.750		
700.0	698.0	686.8	685.0	1.6	1.5	159.92	-17.9	49.1	87.2	84.1	3.12	27.925		
800.0	797.2	781.1	777.6	1.9	1.8	156.95	-18.4	67.1	114.9	111.2	3.61	31.802		
900.0	896.5	876.9	871.6	2.2	2.2	155.02	-18.9	85.9	143.1	139.0	4.09	34.961		
1,000.0	995.7	972.8	965.6	2.5	2.6	153.73	-19.4	104.6	171.4	166.8	4.58	37.381		
1,100.0	1,095.0	1,068.6	1,059.6	2.8	3.0	152.80	-20.0	123.4	199.7	194.6	5.09	39.273		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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-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	137.22	-24.4	22.6	33.2					
100.0	100.0	100.0	100.0	0.1	0.1	137.22	-24.4	22.6	33.2	33.1	0.18	189.653		
200.0	200.0	200.0	200.0	0.3	0.3	137.22	-24.4	22.6	33.2	32.6	0.62	53.212 CC		
255.6	255.6	255.6	255.6	0.4	0.4	173.61	-24.4	22.6	33.5	32.6	0.88	38.155		
300.0	300.0	300.0	300.0	0.5	0.5	173.60	-24.4	22.6	33.4	32.3	1.08	30.940 ES		
400.0	399.9	398.2	398.1	0.8	0.7	172.43	-25.2	25.0	39.6	37.9	1.62	24.448 SF		
500.0	499.5	494.7	494.4	1.0	1.0	169.94	-27.5	32.0	55.4	53.2	2.23	24.851		
600.0	598.7	588.9	587.8	1.3	1.2	167.60	-31.2	43.3	78.8	76.1	2.69	29.305		
700.0	698.0	681.0	678.5	1.6	1.5	165.40	-36.3	58.5	106.6	103.5	3.15	33.797		
800.0	797.2	776.4	772.0	1.9	1.9	163.74	-42.1	76.3	136.5	132.9	3.62	37.744		
900.0	896.5	871.7	865.5	2.2	2.3	162.68	-48.0	94.0	166.5	162.4	4.08	40.815		
1,000.0	995.7	967.1	959.0	2.5	2.7	161.94	-53.8	111.7	196.5	191.9	4.55	43.156		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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)	Offset Wellbore Centre +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	141.61	-32.4	25.7	41.4					
100.0	100.0	100.0	100.0	0.1	0.1	141.61	-32.4	25.7	41.4	41.2	0.18	235.919		
200.0	200.0	200.0	200.0	0.3	0.3	141.61	-32.4	25.7	41.4	40.7	0.62	66.193 CC		
238.0	238.0	238.0	238.0	0.4	0.4	177.96	-32.4	25.7	41.5	40.7	0.80	52.040 ES		
300.0	300.0	299.0	299.0	0.5	0.5	177.61	-32.7	26.3	42.1	41.0	1.07	39.284		
400.0	399.9	396.5	396.3	0.8	0.7	175.42	-34.9	30.7	50.7	49.1	1.62	31.261		
500.0	499.5	491.9	491.2	1.0	1.0	172.84	-39.3	39.3	69.2	67.0	2.25	30.728 SF		
600.0	598.7	584.6	582.9	1.3	1.3	170.75	-45.6	51.8	95.4	92.6	2.72	35.086		
700.0	698.0	675.3	671.8	1.6	1.6	168.97	-53.6	67.8	126.0	122.8	3.19	39.495		
800.0	797.2	769.9	764.1	1.9	2.0	167.65	-62.8	86.0	158.4	154.8	3.65	43.414		
900.0	896.5	864.4	856.4	2.2	2.4	166.79	-72.0	104.2	190.9	186.8	4.11	46.462		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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-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	143.80	-39.3	28.8	48.7								
100.0	100.0	100.0	100.0	0.1	0.1	143.80	-39.3	28.8	48.7	48.6	0.18	278.060					
200.0	200.0	200.0	200.0	0.3	0.3	143.80	-39.3	28.8	48.7	48.1	0.62	78.017	CC, ES				
300.0	300.0	297.6	297.6	0.5	0.5	179.06	-40.6	30.9	51.3	50.2	1.07	47.974					
400.0	399.9	394.3	393.9	0.8	0.7	176.55	-44.4	37.3	62.3	60.7	1.64	37.906					
500.0	499.5	488.6	487.5	1.0	1.0	174.07	-50.5	47.5	83.3	81.0	2.29	36.462	SF				
600.0	598.7	579.9	577.4	1.3	1.3	172.18	-58.6	61.1	111.9	109.2	2.75	40.662					
700.0	698.0	668.4	663.7	1.6	1.7	170.64	-68.6	77.9	145.0	141.8	3.22	45.035					
800.0	797.2	759.6	752.0	1.9	2.2	169.40	-80.5	97.8	181.2	177.5	3.70	48.969					

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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-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	154.88	-43.3	20.3	47.9					
100.0	100.0	100.0	100.0	0.1	0.1	154.88	-43.3	20.3	47.9	47.7	0.18	273.060		
155.6	155.6	155.6	155.6	0.2	0.2	154.88	-43.3	20.3	47.9	47.4	0.43	112.620 CC		
200.0	200.0	199.4	199.4	0.3	0.3	154.80	-43.4	20.4	48.0	47.4	0.62	77.635 ES		
300.0	300.0	297.1	297.0	0.5	0.5	-170.67	-45.8	23.3	51.7	50.6	1.06	48.523		
400.0	399.9	393.5	393.1	0.8	0.8	-174.33	-51.2	30.0	63.8	62.2	1.66	38.521		
500.0	499.5	487.4	486.0	1.0	1.0	-177.94	-59.5	40.1	86.0	83.7	2.31	37.222 SF		
600.0	598.7	578.1	575.1	1.3	1.4	179.36	-70.1	53.2	115.9	113.1	2.78	41.639		
700.0	698.0	665.9	660.5	1.6	1.8	177.42	-83.0	68.9	150.3	147.1	3.26	46.163		
800.0	797.2	758.2	749.7	1.9	2.3	175.97	-98.1	87.4	187.3	183.6	3.73	50.229		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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	27.32	12.0	6.2	13.5					
100.0	100.0	100.0	100.0	0.1	0.1	27.32	12.0	6.2	13.5	13.4	0.18	77.170		
200.0	200.0	200.0	200.0	0.3	0.3	27.32	12.0	6.2	13.5	12.9	0.62	21.652 CC, ES		
300.0	300.0	299.2	299.2	0.5	0.5	63.00	14.4	7.1	16.0	15.0	1.08	14.842		
400.0	399.9	398.0	397.7	0.8	0.8	69.51	21.7	9.7	22.1	20.6	1.56	14.188 SF		
500.0	499.5	497.1	496.0	1.0	1.0	76.68	33.5	12.0	30.5	28.4	2.06	14.802		
600.0	598.7	596.1	593.6	1.3	1.4	78.08	49.7	11.7	40.0	37.4	2.61	15.321		
700.0	698.0	694.6	690.0	1.6	1.8	73.48	70.2	8.8	51.2	48.0	3.22	15.922		
800.0	797.2	792.1	784.2	1.9	2.2	66.50	94.6	3.4	64.9	61.1	3.84	16.898		
900.0	896.5	889.7	877.5	2.2	2.7	59.62	122.3	-3.9	81.6	77.1	4.47	18.266		
1,000.0	995.7	987.9	971.2	2.5	3.3	54.91	150.5	-11.5	99.2	94.2	5.07	19.557		
1,100.0	1,095.0	1,086.0	1,064.9	2.8	3.8	51.64	178.6	-19.1	117.3	111.7	5.68	20.677		
1,200.0	1,194.2	1,184.2	1,158.6	3.1	4.4	49.25	206.8	-26.7	135.7	129.4	6.27	21.636		
1,300.0	1,293.5	1,282.3	1,252.4	3.4	5.0	47.42	234.9	-34.3	154.3	147.4	6.87	22.453		
1,400.0	1,392.7	1,380.5	1,346.1	3.7	5.5	45.99	263.1	-41.9	172.9	165.5	7.47	23.157		
1,500.0	1,491.9	1,478.7	1,439.8	4.1	6.1	44.84	291.2	-49.5	191.7	183.6	8.07	23.767		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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-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	6.67	19.3	2.3	19.4					
100.0	100.0	100.0	100.0	0.1	0.1	6.67	19.3	2.3	19.4	19.3	0.18	110.861		
144.5	144.5	144.5	144.5	0.2	0.2	6.67	19.3	2.3	19.4	19.1	0.38	51.778	CC, ES	
200.0	200.0	199.6	199.6	0.3	0.3	6.22	19.7	2.1	19.8	19.2	0.62	31.734		
300.0	300.0	298.5	298.3	0.5	0.6	38.70	24.1	0.9	24.1	23.0	1.09	22.050		
400.0	399.9	396.9	396.3	0.8	0.8	37.48	33.4	-1.7	30.4	28.7	1.61	18.829		
500.0	499.5	495.0	493.3	1.0	1.1	39.19	47.5	-5.7	37.4	35.3	2.17	17.212	SF	
600.0	598.7	592.5	588.8	1.3	1.5	40.74	66.2	-11.0	47.0	44.3	2.70	17.424		
700.0	698.0	689.7	683.0	1.6	1.9	40.14	89.4	-17.5	61.1	57.8	3.26	18.757		
800.0	797.2	788.5	778.4	1.9	2.4	39.42	114.2	-24.5	76.5	72.7	3.82	20.040		
900.0	896.5	887.3	873.8	2.2	2.9	38.94	139.0	-31.5	91.9	87.5	4.38	20.962		
1,000.0	995.7	986.1	969.1	2.5	3.4	38.59	163.8	-38.4	107.3	102.3	4.96	21.642		
1,100.0	1,095.0	1,084.9	1,064.5	2.8	4.0	38.34	188.6	-45.4	122.7	117.2	5.53	22.174		
1,200.0	1,194.2	1,183.7	1,159.9	3.1	4.5	38.14	213.4	-52.4	138.1	132.0	6.12	22.579		
1,300.0	1,293.5	1,282.5	1,255.3	3.4	5.0	37.98	238.2	-59.4	153.5	146.8	6.70	22.910		
1,400.0	1,392.7	1,381.3	1,350.7	3.7	5.5	37.85	263.0	-66.4	168.9	161.7	7.29	23.184		
1,500.0	1,491.9	1,480.1	1,446.1	4.1	6.0	37.74	287.8	-73.4	184.4	176.5	7.87	23.413		
1,600.0	1,591.2	1,578.9	1,541.5	4.4	6.6	37.65	312.6	-80.4	199.8	191.3	8.46	23.608		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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-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	-21.18	8.0	-3.1	8.6					
100.0	100.0	100.0	100.0	0.1	0.1	-21.18	8.0	-3.1	8.6	8.4	0.18	49.018		
200.0	200.0	200.0	200.0	0.3	0.3	-21.18	8.0	-3.1	8.6	8.0	0.62	13.753	CC, ES	
300.0	300.0	299.7	299.6	0.5	0.5	18.49	9.5	-3.1	9.8	8.7	1.08	9.084		
400.0	399.9	399.0	398.8	0.8	0.8	33.14	15.9	-3.1	12.7	11.1	1.60	7.962	SF	
500.0	499.5	498.2	497.3	1.0	1.0	48.99	27.2	-4.0	17.1	15.0	2.11	8.123		
600.0	598.7	597.5	595.3	1.3	1.3	53.48	42.4	-8.1	23.3	20.7	2.61	8.907		
700.0	698.0	696.7	692.5	1.6	1.7	49.12	61.0	-15.0	32.0	28.8	3.17	10.097		
800.0	797.2	796.2	789.9	1.9	2.1	45.95	80.2	-22.4	41.2	37.5	3.72	11.077		
900.0	896.5	895.8	887.3	2.2	2.5	43.95	99.3	-29.7	50.6	46.3	4.28	11.816		
1,000.0	995.7	995.3	984.7	2.5	3.0	42.57	118.5	-37.1	59.9	55.1	4.84	12.387		
1,100.0	1,095.0	1,094.9	1,082.2	2.8	3.4	41.56	137.6	-44.5	69.3	63.9	5.40	12.840		
1,200.0	1,194.2	1,194.4	1,179.6	3.1	3.8	40.79	156.8	-51.8	78.7	72.8	5.96	13.206		
1,300.0	1,293.5	1,294.0	1,277.0	3.4	4.2	40.19	175.9	-59.2	88.1	81.6	6.53	13.507		
1,400.0	1,392.7	1,393.5	1,374.4	3.7	4.7	39.70	195.1	-66.5	97.6	90.5	7.09	13.760		
1,500.0	1,491.9	1,493.1	1,471.8	4.1	5.1	39.30	214.2	-73.9	107.0	99.3	7.66	13.975		
1,600.0	1,591.2	1,592.6	1,569.2	4.4	5.5	38.97	233.4	-81.3	116.4	108.2	8.22	14.160		
1,700.0	1,690.4	1,692.2	1,666.6	4.7	6.0	38.68	252.5	-88.6	125.9	117.1	8.79	14.321		
1,800.0	1,789.7	1,791.8	1,764.1	5.0	6.4	38.44	271.7	-96.0	135.3	126.0	9.36	14.462		
1,900.0	1,888.9	1,891.3	1,861.5	5.3	6.9	38.22	290.9	-103.4	144.8	134.8	9.92	14.587		
2,000.0	1,988.2	1,990.9	1,958.9	5.6	7.3	38.04	310.0	-110.7	154.2	143.7	10.49	14.698		
2,100.0	2,087.4	2,090.4	2,056.3	6.0	7.7	37.87	329.2	-118.1	163.7	152.6	11.06	14.798		
2,200.0	2,186.7	2,190.0	2,153.7	6.3	8.2	37.72	348.3	-125.4	173.1	161.5	11.63	14.888		
2,300.0	2,285.9	2,289.5	2,251.1	6.6	8.6	37.59	367.5	-132.8	182.6	170.4	12.20	14.970		
2,400.0	2,385.2	2,389.1	2,348.6	6.9	9.0	37.47	386.6	-140.2	192.0	179.2	12.76	15.044		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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									
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	-23.00	15.3	-6.5	16.6						
100.0	100.0	100.0	100.0	0.1	0.1	-23.00	15.3	-6.5	16.6	16.4	0.18	94.791			
155.6	155.6	155.6	155.6	0.2	0.2	-23.00	15.3	-6.5	16.6	16.2	0.43	39.097 CC			
200.0	200.0	199.8	199.8	0.3	0.3	-23.03	15.4	-6.6	16.8	16.2	0.62	26.866 ES			
300.0	300.0	298.8	298.7	0.5	0.5	12.75	18.9	-8.3	20.5	19.4	1.09	18.849			
400.0	399.9	397.4	396.9	0.8	0.8	13.59	26.9	-12.3	25.7	24.1	1.63	15.812			
500.0	499.5	496.1	494.6	1.0	1.1	15.77	39.3	-18.5	31.0	28.8	2.21	14.007			
600.0	598.7	596.0	593.2	1.3	1.4	18.46	53.6	-25.6	35.1	32.4	2.67	13.150			
700.0	698.0	695.9	691.8	1.6	1.8	20.60	67.8	-32.7	39.3	36.2	3.14	12.508			
800.0	797.2	795.8	790.5	1.9	2.1	22.33	82.0	-39.9	43.5	39.9	3.63	11.983			
900.0	896.5	895.7	889.1	2.2	2.5	23.75	96.3	-47.0	47.8	43.7	4.14	11.551			
1,000.0	995.7	995.6	987.7	2.5	2.9	24.94	110.5	-54.1	52.1	47.4	4.65	11.194			
1,100.0	1,095.0	1,095.5	1,086.3	2.8	3.2	25.94	124.7	-61.2	56.4	51.2	5.17	10.896			
1,200.0	1,194.2	1,195.4	1,185.0	3.1	3.6	26.81	139.0	-68.3	60.7	55.0	5.70	10.643			
1,300.0	1,293.5	1,295.3	1,283.6	3.4	3.9	27.55	153.2	-75.4	65.0	58.8	6.24	10.427			
1,400.0	1,392.7	1,395.2	1,382.2	3.7	4.3	28.21	167.4	-82.6	69.4	62.6	6.77	10.241			
1,500.0	1,491.9	1,495.1	1,480.8	4.1	4.7	28.79	181.7	-89.7	73.7	66.4	7.31	10.079			
1,600.0	1,591.2	1,595.0	1,579.5	4.4	5.0	29.30	195.9	-96.8	78.1	70.2	7.86	9.937			
1,700.0	1,690.4	1,694.9	1,678.1	4.7	5.4	29.76	210.1	-103.9	82.4	74.0	8.40	9.811			
1,800.0	1,789.7	1,794.8	1,776.7	5.0	5.8	30.17	224.4	-111.0	86.8	77.8	8.95	9.700			
1,900.0	1,888.9	1,894.7	1,875.4	5.3	6.1	30.55	238.6	-118.1	91.2	81.7	9.50	9.600			
2,000.0	1,988.2	1,994.6	1,974.0	5.6	6.5	30.88	252.8	-125.2	95.5	85.5	10.04	9.511			
2,100.0	2,087.4	2,094.5	2,072.6	6.0	6.9	31.19	267.1	-132.4	99.9	89.3	10.60	9.430			
2,200.0	2,186.7	2,194.4	2,171.2	6.3	7.3	31.48	281.3	-139.5	104.3	93.1	11.15	9.356			
2,300.0	2,285.9	2,294.3	2,269.9	6.6	7.6	31.74	295.5	-146.6	108.7	97.0	11.70	9.289			
2,400.0	2,385.2	2,394.2	2,368.5	6.9	8.0	31.98	309.8	-153.7	113.1	100.8	12.25	9.228			
2,500.0	2,484.4	2,494.1	2,467.1	7.2	8.4	32.20	324.0	-160.8	117.4	104.6	12.80	9.172			
2,600.0	2,583.6	2,594.0	2,565.7	7.5	8.7	32.41	338.2	-167.9	121.8	108.5	13.36	9.120			
2,700.0	2,682.9	2,693.9	2,664.4	7.9	9.1	32.60	352.4	-175.1	126.2	112.3	13.91	9.072			
2,800.0	2,782.1	2,793.8	2,763.0	8.2	9.5	32.78	366.7	-182.2	130.6	116.1	14.47	9.028			
2,900.0	2,881.4	2,893.7	2,861.6	8.5	9.8	32.95	380.9	-189.3	135.0	120.0	15.02	8.987			
3,000.0	2,980.6	2,993.6	2,960.3	8.8	10.2	33.10	395.1	-196.4	139.4	123.8	15.58	8.949			
3,100.0	3,079.9	3,093.5	3,058.9	9.1	10.6	33.25	409.4	-203.5	143.8	127.6	16.13	8.913			
3,200.0	3,179.1	3,193.5	3,157.5	9.4	10.9	33.39	423.6	-210.6	148.2	131.5	16.69	8.879			
3,300.0	3,278.4	3,293.4	3,256.1	9.8	11.3	33.52	437.8	-217.8	152.6	135.3	17.24	8.848			
3,400.0	3,377.6	3,393.3	3,354.8	10.1	11.7	33.64	452.1	-224.9	157.0	139.2	17.80	8.819			
3,500.0	3,476.9	3,493.2	3,453.4	10.4	12.0	33.76	466.3	-232.0	161.4	143.0	18.35	8.791			
3,600.0	3,576.1	3,593.1	3,552.0	10.7	12.4	33.87	480.5	-239.1	165.7	146.8	18.91	8.765			
3,700.0	3,675.4	3,693.0	3,650.6	11.0	12.8	33.97	494.8	-246.2	170.1	150.7	19.47	8.740			
3,800.0	3,774.6	3,792.9	3,749.3	11.4	13.1	34.07	509.0	-253.3	174.5	154.5	20.02	8.717			
3,900.0	3,873.8	3,892.8	3,847.9	11.7	13.5	34.17	523.2	-260.5	178.9	158.4	20.58	8.695			
4,000.0	3,973.1	3,992.7	3,946.5	12.0	13.9	34.26	537.5	-267.6	183.3	162.2	21.14	8.675			
4,100.0	4,072.3	4,092.6	4,045.2	12.3	14.2	34.34	551.7	-274.7	187.7	166.0	21.69	8.655			
4,200.0	4,171.6	4,192.5	4,143.8	12.6	14.6	34.43	565.9	-281.8	192.1	169.9	22.25	8.636			
4,300.0	4,270.8	4,292.4	4,242.4	12.9	15.0	34.50	580.2	-288.9	196.5	173.7	22.80	8.618 SF			

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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									
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	155.83	-6.9	3.1	7.6						
100.0	100.0	100.0	100.0	0.1	0.1	155.83	-6.9	3.1	7.6	7.4	0.18	43.265			
200.0	200.0	200.0	200.0	0.3	0.3	155.83	-6.9	3.1	7.6	7.0	0.62	12.139	CC		
255.6	255.6	255.6	255.6	0.4	0.4	-168.13	-6.9	3.1	7.8	6.9	0.88	8.877			
300.0	300.0	300.0	300.0	0.5	0.5	-168.07	-6.9	3.1	7.7	6.7	1.08	7.173	ES		
400.0	399.9	400.3	400.3	0.8	0.8	-168.47	-6.1	1.9	10.3	8.7	1.61	6.392			
500.0	499.5	500.7	500.5	1.0	1.0	-162.54	-2.2	-3.5	13.6	11.5	2.17	6.273	SF		
600.0	598.7	600.6	600.0	1.3	1.2	-157.62	3.1	-10.8	18.0	15.4	2.62	6.876			
700.0	698.0	700.5	699.5	1.6	1.5	-154.67	8.3	-18.1	22.5	19.4	3.09	7.288			
800.0	797.2	800.4	798.9	1.9	1.8	-152.70	13.6	-25.4	27.1	23.5	3.58	7.556			
900.0	896.5	900.3	898.4	2.2	2.0	-151.30	18.8	-32.7	31.6	27.6	4.09	7.740			
1,000.0	995.7	1,000.2	997.9	2.5	2.3	-150.26	24.1	-40.0	36.2	31.6	4.60	7.870			
1,100.0	1,095.0	1,100.1	1,097.4	2.8	2.6	-149.45	29.3	-47.3	40.8	35.7	5.12	7.967			
1,200.0	1,194.2	1,200.0	1,196.9	3.1	2.9	-148.80	34.6	-54.6	45.4	39.8	5.65	8.040			
1,300.0	1,293.5	1,299.9	1,296.4	3.4	3.1	-148.27	39.9	-62.0	50.0	43.8	6.18	8.097			
1,400.0	1,392.7	1,399.8	1,395.9	3.7	3.4	-147.83	45.1	-69.3	54.6	47.9	6.71	8.143			
1,500.0	1,491.9	1,499.7	1,495.3	4.1	3.7	-147.46	50.4	-76.6	59.2	52.0	7.24	8.180			
1,600.0	1,591.2	1,599.6	1,594.8	4.4	4.0	-147.15	55.6	-83.9	63.8	56.1	7.77	8.211			
1,700.0	1,690.4	1,699.4	1,694.3	4.7	4.2	-146.87	60.9	-91.2	68.4	60.1	8.31	8.237			
1,800.0	1,789.7	1,799.3	1,793.8	5.0	4.5	-146.63	66.1	-98.5	73.1	64.2	8.84	8.259			
1,900.0	1,888.9	1,899.2	1,893.3	5.3	4.8	-146.42	71.4	-105.8	77.7	68.3	9.38	8.278			
2,000.0	1,988.2	1,999.1	1,992.8	5.6	5.1	-146.23	76.7	-113.1	82.3	72.4	9.92	8.295			
2,100.0	2,087.4	2,099.0	2,092.3	6.0	5.3	-146.07	81.9	-120.5	86.9	76.4	10.46	8.309			
2,200.0	2,186.7	2,198.9	2,191.8	6.3	5.6	-145.92	87.2	-127.8	91.5	80.5	11.00	8.322			
2,300.0	2,285.9	2,298.8	2,291.2	6.6	5.9	-145.78	92.4	-135.1	96.1	84.6	11.53	8.334			
2,400.0	2,385.2	2,398.7	2,390.7	6.9	6.2	-145.66	97.7	-142.4	100.7	88.7	12.07	8.344			
2,500.0	2,484.4	2,498.6	2,490.2	7.2	6.5	-145.54	102.9	-149.7	105.4	92.7	12.61	8.354			
2,600.0	2,583.6	2,598.5	2,589.7	7.5	6.7	-145.44	108.2	-157.0	110.0	96.8	13.15	8.362			
2,700.0	2,682.9	2,698.4	2,689.2	7.9	7.0	-145.34	113.5	-164.3	114.6	100.9	13.69	8.370			
2,800.0	2,782.1	2,798.3	2,788.7	8.2	7.3	-145.26	118.7	-171.6	119.2	105.0	14.23	8.377			
2,900.0	2,881.4	2,898.2	2,888.2	8.5	7.6	-145.17	124.0	-179.0	123.8	109.1	14.77	8.384			
3,000.0	2,980.6	2,998.1	2,987.6	8.8	7.8	-145.10	129.2	-186.3	128.4	113.1	15.31	8.390			
3,100.0	3,079.9	3,098.0	3,087.1	9.1	8.1	-145.03	134.5	-193.6	133.1	117.2	15.85	8.396			
3,200.0	3,179.1	3,197.8	3,186.6	9.4	8.4	-144.96	139.7	-200.9	137.7	121.3	16.39	8.401			
3,300.0	3,278.4	3,297.7	3,286.1	9.8	8.7	-144.90	145.0	-208.2	142.3	125.4	16.93	8.406			
3,400.0	3,377.6	3,397.6	3,385.6	10.1	9.0	-144.85	150.3	-215.5	146.9	129.4	17.47	8.411			
3,500.0	3,476.9	3,497.5	3,485.1	10.4	9.2	-144.79	155.5	-222.8	151.5	133.5	18.01	8.415			
3,600.0	3,576.1	3,597.4	3,584.6	10.7	9.5	-144.74	160.8	-230.1	156.2	137.6	18.55	8.419			
3,700.0	3,675.4	3,697.3	3,684.0	11.0	9.8	-144.69	166.0	-237.5	160.8	141.7	19.09	8.423			
3,800.0	3,774.6	3,797.2	3,783.5	11.4	10.1	-144.65	171.3	-244.8	165.4	145.8	19.63	8.427			
3,900.0	3,873.8	3,897.1	3,883.0	11.7	10.3	-144.61	176.5	-252.1	170.0	149.8	20.17	8.431			
4,000.0	3,973.1	3,997.0	3,982.5	12.0	10.6	-144.56	181.8	-259.4	174.6	153.9	20.71	8.434			
4,100.0	4,072.3	4,096.9	4,082.0	12.3	10.9	-144.53	187.1	-266.7	179.3	158.0	21.25	8.437			
4,200.0	4,171.6	4,196.8	4,181.5	12.6	11.2	-144.49	192.3	-274.0	183.9	162.1	21.78	8.440			
4,300.0	4,270.8	4,296.7	4,281.0	12.9	11.5	-144.46	197.6	-281.3	188.5	166.2	22.32	8.443			
4,400.0	4,370.1	4,396.6	4,380.5	13.3	11.7	-144.42	202.8	-288.6	193.1	170.2	22.86	8.446			
4,500.0	4,469.3	4,496.5	4,479.9	13.6	12.0	-144.39	208.1	-296.0	197.7	174.3	23.40	8.449			

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 42A-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 42A-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	153.58	-14.2	7.1	15.9					
100.0	100.0	100.0	100.0	0.1	0.1	153.58	-14.2	7.1	15.9	15.7	0.18	90.473		
200.0	200.0	200.0	200.0	0.3	0.3	153.58	-14.2	7.1	15.9	15.2	0.62	25.384 CC		
255.6	255.6	255.6	255.6	0.4	0.4	-170.19	-14.2	7.1	16.1	15.2	0.88	18.319		
300.0	300.0	300.0	300.0	0.5	0.5	-170.17	-14.2	7.1	16.0	14.9	1.08	14.838 ES		
400.0	399.9	400.1	400.1	0.8	0.8	-171.69	-14.2	6.9	19.8	18.2	1.62	12.239 SF		
500.0	499.5	500.4	500.3	1.0	1.0	-167.38	-13.9	3.0	26.8	24.6	2.18	12.274		
600.0	598.7	600.1	599.7	1.3	1.2	-161.24	-13.3	-4.3	35.5	32.8	2.62	13.542		
700.0	698.0	699.7	699.0	1.6	1.4	-157.47	-12.7	-11.7	44.4	41.3	3.08	14.399		
800.0	797.2	799.2	798.3	1.9	1.7	-154.97	-12.1	-19.1	53.4	49.8	3.57	14.967		
900.0	896.5	898.8	897.6	2.2	1.9	-153.19	-11.5	-26.4	62.5	58.4	4.07	15.358		
1,000.0	995.7	998.4	996.9	2.5	2.2	-151.87	-10.9	-33.8	71.6	67.0	4.58	15.639		
1,100.0	1,095.0	1,097.9	1,096.2	2.8	2.5	-150.84	-10.2	-41.1	80.8	75.7	5.10	15.847		
1,200.0	1,194.2	1,197.5	1,195.5	3.1	2.7	-150.02	-9.6	-48.5	90.0	84.4	5.62	16.006		
1,300.0	1,293.5	1,297.1	1,294.8	3.4	3.0	-149.36	-9.0	-55.8	99.2	93.0	6.15	16.132		
1,400.0	1,392.7	1,396.6	1,394.1	3.7	3.2	-148.81	-8.4	-63.2	108.4	101.7	6.68	16.232		
1,500.0	1,491.9	1,496.2	1,493.4	4.1	3.5	-148.34	-7.8	-70.6	117.6	110.4	7.21	16.315		
1,600.0	1,591.2	1,595.8	1,592.7	4.4	3.7	-147.95	-7.2	-77.9	126.9	119.1	7.74	16.384		
1,700.0	1,690.4	1,695.4	1,692.0	4.7	4.0	-147.60	-6.6	-85.3	136.1	127.8	8.28	16.443		
1,800.0	1,789.7	1,794.9	1,791.3	5.0	4.3	-147.30	-6.0	-92.6	145.3	136.5	8.81	16.493		
1,900.0	1,888.9	1,894.5	1,890.6	5.3	4.5	-147.04	-5.4	-100.0	154.6	145.2	9.35	16.536		
2,000.0	1,988.2	1,994.1	1,989.9	5.6	4.8	-146.80	-4.8	-107.3	163.8	153.9	9.88	16.574		
2,100.0	2,087.4	2,093.6	2,089.2	6.0	5.1	-146.60	-4.2	-114.7	173.1	162.6	10.42	16.608		
2,200.0	2,186.7	2,193.2	2,188.5	6.3	5.3	-146.41	-3.6	-122.1	182.3	171.4	10.96	16.638		
2,300.0	2,285.9	2,292.8	2,287.8	6.6	5.6	-146.24	-3.0	-129.4	191.6	180.1	11.49	16.666		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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	154.31	-21.1	10.2	23.4					
100.0	100.0	100.0	100.0	0.1	0.1	154.31	-21.1	10.2	23.4	23.3	0.18	133.715		
200.0	200.0	200.0	200.0	0.3	0.3	154.31	-21.1	10.2	23.4	22.8	0.62	37.517 CC		
255.6	255.6	255.6	255.6	0.4	0.4	-169.43	-21.1	10.2	23.6	22.8	0.88	26.967		
300.0	300.0	300.0	300.0	0.5	0.5	-169.41	-21.1	10.2	23.6	22.5	1.08	21.859 ES		
400.0	399.9	399.8	399.8	0.8	0.7	-167.84	-21.8	8.9	27.5	25.9	1.61	17.126		
500.0	499.5	499.1	498.9	1.0	1.0	-160.81	-24.9	3.2	37.3	35.1	2.18	17.076 SF		
600.0	598.7	598.1	597.5	1.3	1.2	-156.01	-28.9	-4.1	50.6	48.0	2.63	19.240		
700.0	698.0	697.2	696.2	1.6	1.4	-153.25	-32.9	-11.4	64.2	61.1	3.10	20.699		
800.0	797.2	796.2	794.9	1.9	1.7	-151.45	-36.9	-18.7	77.9	74.3	3.60	21.663		
900.0	896.5	895.2	893.6	2.2	2.0	-150.19	-40.9	-26.0	91.7	87.6	4.11	22.331		
1,000.0	995.7	994.3	992.3	2.5	2.2	-149.26	-44.9	-33.3	105.5	100.9	4.62	22.814		
1,100.0	1,095.0	1,093.3	1,091.0	2.8	2.5	-148.55	-48.9	-40.6	119.3	114.1	5.15	23.176		
1,200.0	1,194.2	1,192.3	1,189.6	3.1	2.8	-147.98	-52.8	-47.9	133.1	127.4	5.67	23.455		
1,300.0	1,293.5	1,291.4	1,288.3	3.4	3.0	-147.52	-56.8	-55.2	146.9	140.7	6.21	23.677		
1,400.0	1,392.7	1,390.4	1,387.0	3.7	3.3	-147.14	-60.8	-62.5	160.8	154.0	6.74	23.857		
1,500.0	1,491.9	1,489.4	1,485.7	4.1	3.6	-146.82	-64.8	-69.8	174.6	167.3	7.27	24.006		
1,600.0	1,591.2	1,588.5	1,584.4	4.4	3.8	-146.55	-68.8	-77.1	188.5	180.7	7.81	24.131		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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-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	154.97	-28.4	13.3	31.4					
100.0	100.0	100.0	100.0	0.1	0.1	154.97	-28.4	13.3	31.4	31.2	0.18	178.849		
200.0	200.0	200.0	200.0	0.3	0.3	154.97	-28.4	13.3	31.4	30.7	0.62	50.181	CC	
250.0	250.0	250.0	250.0	0.4	0.4	-168.74	-28.4	13.3	31.5	30.7	0.85	37.016		
300.0	300.0	299.8	299.8	0.5	0.5	-168.47	-28.5	13.2	31.6	30.5	1.07	29.414	ES	
400.0	399.9	398.8	398.7	0.8	0.7	-164.21	-31.5	10.7	37.2	35.6	1.59	23.321		
500.0	499.5	496.7	496.2	1.0	1.0	-158.00	-38.2	4.9	50.6	48.4	2.20	22.980	SF	
600.0	598.7	595.0	593.8	1.3	1.2	-154.00	-46.7	-2.3	68.6	65.9	2.67	25.701		
700.0	698.0	693.2	691.5	1.6	1.5	-151.69	-55.2	-9.6	86.8	83.6	3.15	27.548		
800.0	797.2	791.5	789.1	1.9	1.8	-150.19	-63.7	-16.9	105.0	101.4	3.65	28.765		
900.0	896.5	889.8	886.8	2.2	2.1	-149.13	-72.2	-24.1	123.4	119.2	4.17	29.606		
1,000.0	995.7	988.1	984.4	2.5	2.4	-148.34	-80.7	-31.4	141.7	137.0	4.69	30.214		
1,100.0	1,095.0	1,086.4	1,082.1	2.8	2.7	-147.73	-89.2	-38.7	160.1	154.9	5.22	30.669		
1,200.0	1,194.2	1,184.7	1,179.7	3.1	3.0	-147.25	-97.7	-45.9	178.5	172.8	5.76	31.017		
1,300.0	1,293.5	1,282.9	1,277.3	3.4	3.3	-146.86	-106.2	-53.2	196.9	190.6	6.29	31.299		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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 43B-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	155.79	-36.4	16.4	39.9					
100.0	100.0	100.0	100.0	0.1	0.1	155.79	-36.4	16.4	39.9	39.8	0.18	227.756		
200.0	200.0	200.0	200.0	0.3	0.3	155.79	-36.4	16.4	39.9	39.3	0.62	63.903 CC		
217.2	217.2	217.2	217.2	0.4	0.4	-167.86	-36.4	16.4	39.9	39.2	0.70	56.866 ES		
300.0	300.0	299.0	299.0	0.5	0.5	-166.28	-37.7	15.7	41.0	39.9	1.06	38.498		
400.0	399.9	397.1	396.9	0.8	0.7	-161.43	-43.2	12.6	48.9	47.3	1.61	30.447		
500.0	499.5	493.6	492.7	1.0	1.0	-156.52	-52.9	7.2	65.6	63.4	2.23	29.454 SF		
600.0	598.7	590.3	588.3	1.3	1.3	-153.08	-65.6	0.1	88.0	85.3	2.72	32.355		
700.0	698.0	687.6	684.5	1.6	1.6	-150.99	-78.5	-7.2	110.7	107.5	3.21	34.520		
800.0	797.2	785.0	780.7	1.9	2.0	-149.62	-91.4	-14.4	133.5	129.8	3.72	35.938		
900.0	896.5	882.3	876.9	2.2	2.3	-148.65	-104.3	-21.6	156.4	152.1	4.24	36.910		
1,000.0	995.7	979.6	973.1	2.5	2.7	-147.92	-117.2	-28.8	179.3	174.5	4.77	37.607		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well PUCKETT 42A-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 42A-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 42A-2
Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502
Grid Convergence at Surface is: -1.69°

