



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Nolte 13B-13
Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Project:	Garfield County, CO	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site:	S14-T7S-R96W	North Reference:	True
Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

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		S14-T7S-R96W			
Site Position:		Northing:	592,603.28 ft	Latitude:	39.432320
From:	Lat/Long	Easting:	1,274,372.48 ft	Longitude:	-108.069280
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.62 °

Well	Nolte 13B-13					
Well Position	+N/-S	0.0 ft	Northing:	592,649.22 ft	Latitude:	39.432462
	+E/-W	0.0 ft	Easting:	1,274,573.05 ft	Longitude:	-108.068575
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,090.8 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	7/15/2013	10.11	65.62	52,003

Design	Plan #3				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	38.05	

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)	(°)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,466.7	36.50	37.78	1,386.1	296.1	229.5	3.00	3.00	0.00	37.78	
2,938.2	36.50	37.78	2,568.9	987.9	765.8	0.00	0.00	0.00	0.00	
4,155.0	0.00	0.00	3,705.0	1,284.0	995.4	3.00	-3.00	0.00	180.00	
6,380.0	0.00	0.00	5,930.0	1,284.0	995.4	0.00	0.00	0.00	0.00	Nolte 13B-13 PBHL 2

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Company:	Caerus Oil & Gas (NAD 27)	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Project:	Garfield County, CO	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site:	S14-T7S-R96W	North Reference:	True
Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	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	
250.0	0.00	0.00	250.0	0.0	0.0	0.0	0.00	0.00	KOP @ 250'MD
300.0	1.50	37.78	300.0	0.5	0.4	0.7	3.00	3.00	
400.0	4.50	37.78	399.8	4.7	3.6	5.9	3.00	3.00	
500.0	7.50	37.78	499.3	12.9	10.0	16.3	3.00	3.00	
600.0	10.50	37.78	598.0	25.3	19.6	32.0	3.00	3.00	
700.0	13.50	37.78	695.8	41.7	32.3	52.8	3.00	3.00	
800.0	16.50	37.78	792.4	62.2	48.2	78.6	3.00	3.00	
900.0	19.50	37.78	887.5	86.6	67.1	109.5	3.00	3.00	
1,000.0	22.50	37.78	980.9	114.9	89.1	145.4	3.00	3.00	9 5/8"
1,100.0	25.50	37.78	1,072.2	147.0	114.0	186.0	3.00	3.00	
1,200.0	28.50	37.78	1,161.3	182.9	141.8	231.4	3.00	3.00	
1,300.0	31.50	37.78	1,247.9	222.4	172.4	281.4	3.00	3.00	
1,400.0	34.50	37.78	1,331.8	265.5	205.8	335.9	3.00	3.00	
1,466.7	36.50	37.78	1,386.1	296.1	229.5	374.6	3.00	3.00	EOB; 36.50° Inc
1,500.0	36.50	37.78	1,412.8	311.7	241.7	394.4	0.00	0.00	
1,600.0	36.50	37.78	1,493.2	358.7	278.1	453.9	0.00	0.00	
1,700.0	36.50	37.78	1,573.6	405.8	314.6	513.4	0.00	0.00	
1,800.0	36.50	37.78	1,654.0	452.8	351.0	572.9	0.00	0.00	
1,900.0	36.50	37.78	1,734.4	499.8	387.4	632.4	0.00	0.00	
2,000.0	36.50	37.78	1,814.7	546.8	423.9	691.9	0.00	0.00	
2,100.0	36.50	37.78	1,895.1	593.8	460.3	751.3	0.00	0.00	
2,200.0	36.50	37.78	1,975.5	640.8	496.8	810.8	0.00	0.00	
2,300.0	36.50	37.78	2,055.9	687.8	533.2	870.3	0.00	0.00	
2,400.0	36.50	37.78	2,136.3	734.9	569.7	929.8	0.00	0.00	
2,500.0	36.50	37.78	2,216.7	781.9	606.1	989.3	0.00	0.00	
2,600.0	36.50	37.78	2,297.0	828.9	642.6	1,048.8	0.00	0.00	
2,700.0	36.50	37.78	2,377.4	875.9	679.0	1,108.3	0.00	0.00	
2,800.0	36.50	37.78	2,457.8	922.9	715.5	1,167.7	0.00	0.00	
2,900.0	36.50	37.78	2,538.2	969.9	751.9	1,227.2	0.00	0.00	
2,938.2	36.50	37.78	2,568.9	987.9	765.8	1,249.9	0.00	0.00	Start 3° Drop
3,000.0	34.65	37.78	2,619.2	1,016.3	787.9	1,285.9	3.00	-3.00	
3,100.0	31.65	37.78	2,702.9	1,059.5	821.4	1,340.6	3.00	-3.00	
3,102.5	31.57	37.78	2,705.0	1,060.5	822.2	1,341.9	3.00	-3.00	MESAVERDE (TVD)
3,200.0	28.65	37.78	2,789.3	1,099.2	852.1	1,390.8	3.00	-3.00	
3,300.0	25.65	37.78	2,878.3	1,135.3	880.1	1,436.4	3.00	-3.00	
3,400.0	22.65	37.78	2,969.5	1,167.6	905.1	1,477.3	3.00	-3.00	
3,500.0	19.65	37.78	3,062.8	1,196.1	927.2	1,513.4	3.00	-3.00	
3,600.0	16.65	37.78	3,157.8	1,220.7	946.3	1,544.5	3.00	-3.00	
3,700.0	13.65	37.78	3,254.3	1,241.4	962.3	1,570.7	3.00	-3.00	
3,800.0	10.65	37.78	3,352.1	1,258.0	975.2	1,591.7	3.00	-3.00	
3,900.0	7.65	37.78	3,450.8	1,270.6	985.0	1,607.6	3.00	-3.00	
4,000.0	4.65	37.78	3,550.2	1,279.0	991.5	1,618.3	3.00	-3.00	
4,100.0	1.65	37.78	3,650.0	1,283.4	994.9	1,623.8	3.00	-3.00	
4,155.0	0.00	0.00	3,705.0	1,284.0	995.4	1,624.6	3.00	-3.00	EOD; Vertical - TOP GAS (TVD)
4,200.0	0.00	0.00	3,750.0	1,284.0	995.4	1,624.6	0.00	0.00	
4,300.0	0.00	0.00	3,850.0	1,284.0	995.4	1,624.6	0.00	0.00	
4,400.0	0.00	0.00	3,950.0	1,284.0	995.4	1,624.6	0.00	0.00	
4,500.0	0.00	0.00	4,050.0	1,284.0	995.4	1,624.6	0.00	0.00	
4,600.0	0.00	0.00	4,150.0	1,284.0	995.4	1,624.6	0.00	0.00	

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Site:	S14-T7S-R96W	North Reference:	True
Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,700.0	0.00	0.00	4,250.0	1,284.0	995.4	1,624.6	0.00	0.00	
4,800.0	0.00	0.00	4,350.0	1,284.0	995.4	1,624.6	0.00	0.00	
4,900.0	0.00	0.00	4,450.0	1,284.0	995.4	1,624.6	0.00	0.00	
5,000.0	0.00	0.00	4,550.0	1,284.0	995.4	1,624.6	0.00	0.00	
5,100.0	0.00	0.00	4,650.0	1,284.0	995.4	1,624.6	0.00	0.00	
5,200.0	0.00	0.00	4,750.0	1,284.0	995.4	1,624.6	0.00	0.00	
5,300.0	0.00	0.00	4,850.0	1,284.0	995.4	1,624.6	0.00	0.00	
5,400.0	0.00	0.00	4,950.0	1,284.0	995.4	1,624.6	0.00	0.00	
5,500.0	0.00	0.00	5,050.0	1,284.0	995.4	1,624.6	0.00	0.00	
5,600.0	0.00	0.00	5,150.0	1,284.0	995.4	1,624.6	0.00	0.00	
5,700.0	0.00	0.00	5,250.0	1,284.0	995.4	1,624.6	0.00	0.00	
5,800.0	0.00	0.00	5,350.0	1,284.0	995.4	1,624.6	0.00	0.00	
5,900.0	0.00	0.00	5,450.0	1,284.0	995.4	1,624.6	0.00	0.00	
6,000.0	0.00	0.00	5,550.0	1,284.0	995.4	1,624.6	0.00	0.00	
6,080.0	0.00	0.00	5,630.0	1,284.0	995.4	1,624.6	0.00	0.00	ROLLINS (TVD)
6,100.0	0.00	0.00	5,650.0	1,284.0	995.4	1,624.6	0.00	0.00	
6,200.0	0.00	0.00	5,750.0	1,284.0	995.4	1,624.6	0.00	0.00	
6,300.0	0.00	0.00	5,850.0	1,284.0	995.4	1,624.6	0.00	0.00	
6,380.0	0.00	0.00	5,930.0	1,284.0	995.4	1,624.6	0.00	0.00	PBHL @ 6,380' MD

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Nolte 13B-13	0.00	0.00	5,930.0	1,283.6	1,004.6	593,903.88	1,275,613.53	39.435986	-108.065018
- plan misses target center by 9.2ft at 6380.0ft MD (5930.0 TVD, 1284.0 N, 995.4 E)									
- Circle (radius 50.0)									
Nolte 13B-13 PBHL 2	0.00	0.00	5,930.0	1,284.0	995.4	593,904.55	1,275,604.33	39.435987	-108.065051
- plan hits target center									
- Circle (radius 50.0)									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,000.0	980.9	9 5/8"	9.625	12.250

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,102.5	2,705.0	MESAVERDE (TVD)		0.00	
4,155.0	3,705.0	TOP GAS (TVD)		0.00	
6,080.0	5,630.0	ROLLINS (TVD)		0.00	

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Project:	Garfield County, CO	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site:	S14-T7S-R96W	North Reference:	True
Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
250.0	250.0	0.0	0.0	KOP @ 250'MD
1,466.7	1,386.1	296.1	229.5	EOB; 36.50° Inc
2,938.2	2,568.9	987.9	765.8	Start 3° Drop
4,155.0	3,705.0	1,284.0	995.4	EOD; Vertical
6,380.0	5,930.0	1,284.0	995.4	PBHL @ 6,380' MD

Caerus Oil & Gas (NAD 27)

Garfield County, CO

S14-T7S-R96W

Nolte 13B-13

DD

Plan #3

Anticollision Report

09 September, 2013

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Reference	Plan #3		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,356.1ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	8/29/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	6,380.0	Plan #3 (DD)	MWD	Geolink MWD

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Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)		Separation Factor	Warning
				Between Ellipses (ft)		
S14-T7S-R96W						
Nolte 11A-24 - DD - Plan #3	200.0	200.0	41.2	40.6	68.251	CC
Nolte 11A-24 - DD - Plan #3	227.9	227.9	41.3	40.6	58.910	ES
Nolte 11A-24 - DD - Plan #3	500.0	496.3	61.3	59.6	36.322	SF
Nolte 11B-24 - DD - Plan #3	200.0	200.0	49.0	48.4	81.135	CC, ES
Nolte 11B-24 - DD - Plan #3	500.0	492.1	78.4	76.6	45.122	SF
Nolte 11C-24 - DD - Plan #3	200.0	190.3	56.9	56.3	94.090	CC, ES
Nolte 11C-24 - DD - Plan #3	500.0	483.4	81.6	79.9	48.338	SF
Nolte 13A-13 - DD - Plan #3	200.0	200.0	8.0	7.4	13.242	CC, ES
Nolte 13A-13 - DD - Plan #3	1,500.0	1,482.7	58.2	45.2	4.484	SF
Nolte 13C-13 - DD - Plan #3	200.0	199.8	12.8	12.2	21.236	CC, ES
Nolte 13C-13 - DD - Plan #3	1,600.0	1,584.2	72.0	54.1	4.021	SF
Nolte 13D-13 - DD - Plan #3	312.2	312.1	9.9	8.9	9.915	CC, ES
Nolte 13D-13 - DD - Plan #3	500.0	499.6	14.2	12.4	8.023	SF
Nolte 14A-13 - DD - Plan #3	200.0	200.0	12.8	12.2	21.227	CC
Nolte 14A-13 - DD - Plan #3	230.1	230.1	12.9	12.2	18.154	ES
Nolte 14A-13 - DD - Plan #3	400.0	399.8	16.4	15.1	12.561	SF
Nolte 14B-13 - DD - Plan #3	200.0	200.0	18.9	18.3	31.253	CC
Nolte 14B-13 - DD - Plan #3	228.4	228.4	18.9	18.2	26.949	ES
Nolte 14B-13 - DD - Plan #3	400.0	399.8	23.6	22.2	18.043	SF
Nolte 14C-13 - DD - Plan #3	200.0	200.0	25.5	24.9	42.185	CC
Nolte 14C-13 - DD - Plan #3	228.1	228.1	25.6	24.9	36.416	ES
Nolte 14C-13 - DD - Plan #3	400.0	399.8	30.6	29.3	23.454	SF
Nolte 14D-13 - DD - Plan #3	200.0	200.0	33.5	32.9	55.502	CC
Nolte 14D-13 - DD - Plan #3	227.9	227.9	33.6	32.9	47.912	ES
Nolte 14D-13 - DD - Plan #3	500.0	498.6	49.3	47.6	29.691	SF
Nolte 43A-14 - DD - Plan #3	200.0	200.0	8.0	7.4	13.248	CC, ES
Nolte 43A-14 - DD - Plan #3	300.0	300.0	8.6	7.7	9.075	SF
Nolte 43B-14 - DD - Plan #3	200.0	200.0	16.0	15.4	26.478	CC, ES
Nolte 43B-14 - DD - Plan #3	400.0	400.3	21.3	20.0	16.407	SF
Nolte 43C-14 - DD - Plan #3	200.0	200.0	24.0	23.4	39.684	CC, ES
Nolte 43C-14 - DD - Plan #3	400.0	399.8	29.8	28.5	22.912	SF
Nolte 44A-14 - DD - Plan #3	200.0	200.0	32.0	31.4	52.900	CC, ES
Nolte 44A-14 - DD - Plan #3	400.0	399.8	37.8	36.5	29.054	SF
Nolte 44B-14 - DD - Plan #3	200.0	200.0	40.0	39.4	66.122	CC, ES
Nolte 44B-14 - DD - Plan #3	500.0	499.3	56.1	54.5	34.128	SF
Nolte 44C-14 - DD - Plan #3	200.0	200.0	48.0	47.4	79.324	CC, ES
Nolte 44C-14 - DD - Plan #3	500.0	497.1	65.8	64.1	40.028	SF
Nolte SWD 1-14 - DD - Plan #3	200.0	200.0	56.0	55.4	92.513	CC, ES
Nolte SWD 1-14 - DD - Plan #3	500.0	499.3	72.1	70.5	43.824	SF

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Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 11A-24 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-166.53	-40.1	-9.6	41.2					
100.0	100.0	100.0	100.0	0.1	0.1	-166.53	-40.1	-9.6	41.2	41.0	0.25	161.681		
200.0	200.0	200.0	200.0	0.3	0.3	-166.53	-40.1	-9.6	41.2	40.6	0.60	68.251 CC		
227.9	227.9	227.9	227.9	0.4	0.4	155.74	-40.1	-9.6	41.3	40.6	0.70	58.910 ES		
300.0	300.0	300.0	300.0	0.5	0.5	156.05	-40.1	-9.6	41.8	40.9	0.95	43.886		
400.0	399.8	398.7	398.6	0.7	0.7	155.83	-41.8	-7.8	47.9	46.6	1.31	36.665		
500.0	499.3	496.3	496.0	0.9	0.9	153.43	-47.0	-2.3	61.3	59.6	1.69	36.322 SF		
600.0	598.0	592.1	590.9	1.2	1.1	150.52	-55.4	6.6	82.0	79.9	2.12	38.705		
700.0	695.8	685.3	682.7	1.6	1.4	147.90	-66.7	18.5	110.1	107.5	2.62	42.019		
800.0	792.4	775.2	770.3	2.1	1.8	145.71	-80.5	33.1	145.2	142.0	3.20	45.439		
900.0	887.5	861.3	853.2	2.7	2.2	143.86	-96.4	49.8	187.0	183.1	3.84	48.634		
1,000.0	980.9	943.2	931.1	3.4	2.7	142.24	-113.9	68.3	235.0	230.5	4.56	51.507		
1,100.0	1,072.2	1,020.5	1,003.6	4.1	3.2	140.73	-132.5	87.9	289.0	283.6	5.35	54.060		
1,200.0	1,161.3	1,093.2	1,070.6	5.0	3.8	139.25	-151.7	108.3	348.4	342.2	6.19	56.282		
1,300.0	1,247.9	1,161.0	1,132.1	5.9	4.3	137.73	-171.3	128.9	412.7	405.6	7.10	58.124		
1,400.0	1,331.8	1,224.0	1,188.4	7.0	4.8	136.11	-190.8	149.5	481.6	473.5	8.07	59.713		
1,500.0	1,412.8	1,282.3	1,239.6	8.1	5.4	135.10	-210.0	169.8	554.4	545.4	9.08	61.082		
1,600.0	1,493.2	1,337.8	1,287.5	9.2	5.9	135.37	-229.3	190.1	629.1	619.0	10.11	62.239		
1,700.0	1,573.6	1,400.0	1,340.2	10.3	6.5	135.43	-252.0	214.1	705.1	693.9	11.19	62.993		
1,800.0	1,654.0	1,449.3	1,381.4	11.4	7.0	135.37	-270.6	233.8	781.9	769.7	12.23	63.922		
1,900.0	1,734.4	1,513.2	1,434.6	12.5	7.7	135.29	-294.8	259.4	858.9	845.5	13.35	64.339		
2,000.0	1,814.7	1,577.0	1,487.9	13.6	8.4	135.23	-319.0	284.9	935.9	921.4	14.47	64.672		
2,100.0	1,895.1	1,640.8	1,541.1	14.7	9.0	135.18	-343.2	310.5	1,012.9	997.3	15.60	64.944		
2,200.0	1,975.5	1,704.6	1,594.3	15.8	9.7	135.13	-367.4	336.0	1,089.8	1,073.1	16.72	65.172		
2,300.0	2,055.9	1,768.4	1,647.6	16.9	10.3	135.09	-391.6	361.6	1,166.8	1,149.0	17.85	65.361		
2,400.0	2,136.3	1,832.3	1,700.8	18.0	11.0	135.06	-415.9	387.1	1,243.8	1,224.8	18.98	65.523		
2,500.0	2,216.7	1,896.1	1,754.1	19.2	11.7	135.03	-440.1	412.7	1,320.8	1,300.7	20.11	65.663		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design		S14-T7S-R96W - Nolte 11B-24 - DD - Plan #3											Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-164.25	-47.2	-13.3	49.0					
100.0	100.0	100.0	100.0	0.1	0.1	-164.25	-47.2	-13.3	49.0	48.8	0.26	192.127		
200.0	200.0	200.0	200.0	0.3	0.3	-164.25	-47.2	-13.3	49.0	48.4	0.60	81.135 CC, ES		
300.0	300.0	298.4	298.4	0.5	0.5	155.88	-49.2	-11.7	51.1	50.2	0.96	53.506		
400.0	399.8	396.1	395.8	0.7	0.7	152.04	-55.0	-7.0	60.7	59.4	1.33	45.691		
500.0	499.3	492.1	490.9	0.9	1.0	148.38	-64.5	0.8	78.4	76.6	1.74	45.122 SF		
600.0	598.0	585.5	582.9	1.2	1.3	145.58	-77.2	11.2	104.0	101.8	2.19	47.391		
700.0	695.8	675.6	670.7	1.6	1.7	143.54	-92.9	23.9	137.2	134.4	2.71	50.641		
800.0	792.4	761.7	753.7	2.1	2.1	141.98	-110.8	38.5	177.5	174.2	3.28	54.069		
900.0	887.5	843.5	831.4	2.7	2.6	140.69	-130.4	54.5	224.5	220.6	3.91	57.352		
1,000.0	980.9	920.5	903.5	3.4	3.1	139.50	-151.3	71.5	277.8	273.2	4.60	60.380		
1,100.0	1,072.2	992.4	969.9	4.1	3.6	138.31	-172.8	89.0	336.8	331.4	5.34	63.081		
1,200.0	1,161.3	1,059.3	1,030.6	5.0	4.2	137.05	-194.6	106.7	401.0	394.9	6.13	65.377		
1,300.0	1,247.9	1,121.1	1,085.8	5.9	4.7	135.66	-216.1	124.3	470.0	463.0	6.98	67.372		
1,400.0	1,331.8	1,177.8	1,135.7	7.0	5.2	134.07	-237.1	141.4	543.3	535.4	7.88	68.959		
1,500.0	1,412.8	1,229.7	1,180.6	8.1	5.7	133.14	-257.3	157.8	620.3	611.4	8.83	70.241		
1,600.0	1,493.2	1,278.8	1,222.4	9.2	6.2	133.74	-277.2	174.1	699.0	689.2	9.79	71.390		
1,700.0	1,573.6	1,325.7	1,261.7	10.3	6.7	134.11	-297.1	190.2	778.9	768.2	10.76	72.393		
1,800.0	1,654.0	1,370.6	1,298.7	11.4	7.2	134.33	-316.7	206.2	859.9	848.1	11.73	73.290		
1,900.0	1,734.4	1,413.5	1,333.4	12.5	7.7	134.44	-336.2	222.1	941.7	929.0	12.71	74.112		
2,000.0	1,814.7	1,454.4	1,366.2	13.6	8.1	134.46	-355.3	237.6	1,024.5	1,010.8	13.69	74.842		
2,100.0	1,895.1	1,500.0	1,401.9	14.7	8.7	134.42	-377.2	255.5	1,108.2	1,093.5	14.70	75.396		
2,200.0	1,975.5	1,531.0	1,425.9	15.8	9.0	134.36	-392.5	267.9	1,192.6	1,176.9	15.65	76.198		
2,300.0	2,055.9	1,578.2	1,461.9	16.9	9.6	134.23	-416.1	287.2	1,277.5	1,260.9	16.69	76.562		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 11C-24 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total	Separation	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-162.60	-54.3	-17.0	57.7					
100.0	100.0	90.3	90.3	0.1	0.1	-162.60	-54.3	-17.0	56.9	56.6	0.26	220.234		
200.0	200.0	190.3	190.3	0.3	0.3	-162.60	-54.3	-17.0	56.9	56.3	0.60	94.090 CC, ES		
232.0	232.0	222.3	222.3	0.4	0.4	159.66	-54.3	-17.0	57.0	56.3	0.72	79.588		
300.0	300.0	289.5	289.5	0.5	0.5	159.51	-54.6	-16.8	57.7	56.8	0.95	60.638		
400.0	399.8	387.2	387.1	0.7	0.7	157.91	-58.4	-14.3	65.6	64.3	1.31	50.167		
500.0	499.3	483.4	482.8	0.9	0.9	155.36	-66.1	-9.1	81.6	79.9	1.69	48.338 SF		
600.0	598.0	577.2	575.6	1.2	1.2	152.82	-77.5	-1.5	105.7	103.6	2.11	50.154		
700.0	695.8	667.7	664.4	1.6	1.5	150.67	-92.1	8.3	137.7	135.1	2.57	53.467		
800.0	792.4	754.3	748.5	2.1	1.9	148.89	-109.3	19.8	177.1	174.0	3.09	57.257		
900.0	887.5	836.4	827.2	2.7	2.3	147.37	-128.5	32.6	223.6	220.0	3.66	61.048		
1,000.0	980.9	913.5	900.3	3.4	2.8	145.99	-149.1	46.4	276.7	272.4	4.28	64.634		
1,100.0	1,072.2	985.5	967.5	4.1	3.3	144.66	-170.6	60.8	335.8	330.8	4.95	67.839		
1,200.0	1,161.3	1,052.2	1,028.8	5.0	3.8	143.30	-192.3	75.3	400.3	394.7	5.67	70.627		
1,300.0	1,247.9	1,113.5	1,084.4	5.9	4.2	141.83	-213.8	89.7	469.9	463.5	6.43	73.044		
1,400.0	1,331.8	1,169.6	1,134.4	7.0	4.7	140.21	-234.8	103.7	543.9	536.7	7.26	74.920		
1,500.0	1,412.8	1,220.6	1,179.3	8.1	5.2	139.20	-254.9	117.2	621.8	613.7	8.13	76.493		
1,600.0	1,493.2	1,268.6	1,221.0	9.2	5.6	139.61	-274.8	130.4	701.5	692.5	9.00	77.981		
1,700.0	1,573.6	1,314.5	1,260.2	10.3	6.1	139.84	-294.6	143.7	782.2	772.3	9.87	79.274		
1,800.0	1,654.0	1,358.3	1,297.1	11.4	6.5	139.95	-314.2	156.8	864.0	853.2	10.75	80.375		
1,900.0	1,734.4	1,400.0	1,331.8	12.5	6.9	139.97	-333.5	169.7	946.6	935.0	11.63	81.391		
2,000.0	1,814.7	1,439.8	1,364.4	13.6	7.4	139.93	-352.5	182.4	1,030.2	1,017.7	12.53	82.250		
2,100.0	1,895.1	1,477.9	1,395.0	14.7	7.8	139.84	-371.2	194.9	1,114.6	1,101.1	13.42	83.062		
2,200.0	1,975.5	1,500.0	1,412.6	15.8	8.0	139.77	-382.3	202.4	1,199.8	1,185.6	14.25	84.217		
2,300.0	2,055.9	1,548.8	1,451.0	16.9	8.6	139.58	-407.5	219.2	1,285.5	1,270.3	15.22	84.479		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 13A-13 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	27.56	7.1	3.7	8.0					
100.0	100.0	100.0	100.0	0.1	0.1	27.56	7.1	3.7	8.0	7.7	0.25	31.369		
200.0	200.0	200.0	200.0	0.3	0.3	27.56	7.1	3.7	8.0	7.4	0.60	13.242 CC, ES		
300.0	300.0	299.5	299.5	0.5	0.5	-9.84	9.3	5.1	10.0	9.0	0.95	10.454		
400.0	399.8	398.9	398.5	0.7	0.7	-11.62	15.9	9.1	12.6	11.3	1.30	9.690		
500.0	499.3	498.1	496.9	0.9	1.0	-14.84	26.9	15.9	15.3	13.7	1.65	9.261		
600.0	598.0	597.2	594.4	1.2	1.3	-18.80	42.2	25.3	18.2	16.1	2.03	8.940		
700.0	695.8	696.2	690.6	1.6	1.8	-23.10	61.7	37.3	21.2	18.8	2.48	8.577		
800.0	792.4	795.0	785.4	2.1	2.3	-27.50	85.4	51.9	24.6	21.5	3.04	8.087		
900.0	887.5	893.7	878.5	2.7	2.9	-31.82	113.2	69.0	28.2	24.4	3.77	7.474		
1,000.0	980.9	992.2	969.7	3.4	3.6	-35.98	145.0	88.6	32.2	27.4	4.72	6.812		
1,100.0	1,072.2	1,090.6	1,058.7	4.1	4.4	-39.89	180.8	110.5	36.5	30.6	5.91	6.179		
1,200.0	1,161.3	1,188.8	1,145.2	5.0	5.3	-43.54	220.3	134.9	41.3	33.9	7.34	5.622		
1,300.0	1,247.9	1,286.9	1,229.2	5.9	6.2	-46.89	263.5	161.4	46.5	37.4	9.02	5.153		
1,400.0	1,331.8	1,384.9	1,310.3	7.0	7.3	-49.97	310.3	190.2	52.0	41.1	10.92	4.767		
1,500.0	1,412.8	1,482.7	1,388.4	8.1	8.4	-52.60	360.4	221.0	58.2	45.2	12.98	4.484 SF		
1,600.0	1,493.2	1,580.2	1,463.2	9.2	9.6	-52.33	413.7	253.8	67.2	52.5	14.68	4.575		
1,700.0	1,573.6	1,677.7	1,534.8	10.3	10.8	-49.60	470.0	288.5	79.5	63.6	15.87	5.009		
1,800.0	1,654.0	1,776.7	1,606.7	11.4	12.1	-47.07	528.0	324.1	92.8	75.8	16.96	5.473		
1,900.0	1,734.4	1,875.7	1,678.7	12.5	13.3	-45.18	585.9	359.8	106.2	88.2	18.07	5.880		
2,000.0	1,814.7	1,974.8	1,750.7	13.6	14.6	-43.71	643.9	395.4	119.8	100.6	19.20	6.238		
2,100.0	1,895.1	2,073.8	1,822.6	14.7	15.8	-42.54	701.8	431.1	133.4	113.0	20.35	6.555		
2,200.0	1,975.5	2,172.9	1,894.6	15.8	17.1	-41.59	759.8	466.7	147.0	125.5	21.51	6.835		
2,300.0	2,055.9	2,271.9	1,966.5	16.9	18.4	-40.80	817.8	502.4	160.7	138.0	22.67	7.086		
2,400.0	2,136.3	2,370.9	2,038.5	18.0	19.7	-40.13	875.7	538.0	174.4	150.5	23.85	7.311		
2,500.0	2,216.7	2,470.0	2,110.5	19.2	20.9	-39.57	933.7	573.7	188.1	163.0	25.03	7.513		
2,600.0	2,297.0	2,569.0	2,182.4	20.3	22.2	-39.07	991.6	609.3	201.8	175.6	26.22	7.696		
2,700.0	2,377.4	2,668.1	2,254.4	21.4	23.5	-38.64	1,049.6	645.0	215.6	188.1	27.41	7.863		
2,800.0	2,457.8	2,767.1	2,326.4	22.5	24.7	-38.27	1,107.5	680.6	229.3	200.7	28.61	8.015		
2,900.0	2,538.2	2,866.1	2,398.3	23.6	26.0	-37.93	1,165.5	716.3	243.1	213.3	29.81	8.155		
3,000.0	2,619.2	2,976.8	2,480.7	24.7	27.3	-37.93	1,228.5	755.0	255.5	224.3	31.20	8.190		
3,100.0	2,702.9	3,089.0	2,568.4	25.7	28.6	-38.06	1,288.1	791.7	266.9	234.3	32.54	8.200		
3,200.0	2,789.3	3,202.0	2,660.7	26.6	29.8	-38.16	1,343.5	825.8	277.4	243.6	33.78	8.212		
3,300.0	2,878.3	3,315.7	2,757.3	27.4	30.8	-38.25	1,394.5	857.1	287.1	252.2	34.89	8.228		
3,400.0	2,969.5	3,429.9	2,857.8	28.1	31.7	-38.33	1,440.8	885.6	295.8	260.0	35.88	8.245		
3,500.0	3,062.8	3,544.8	2,961.9	28.7	32.6	-38.39	1,482.1	911.0	303.7	266.9	36.75	8.263		
3,600.0	3,157.8	3,660.2	3,069.3	29.2	33.3	-38.43	1,518.1	933.1	310.5	273.0	37.50	8.281		
3,700.0	3,254.3	3,776.1	3,179.5	29.7	33.9	-38.45	1,548.6	951.9	316.4	278.3	38.12	8.300		
3,800.0	3,352.1	3,892.4	3,292.0	30.0	34.4	-38.46	1,573.5	967.2	321.2	282.6	38.62	8.318		
3,900.0	3,450.8	4,009.0	3,406.4	30.3	34.8	-38.45	1,592.5	978.9	325.0	286.0	38.99	8.337		
4,000.0	3,550.2	4,125.8	3,522.2	30.4	35.0	-38.43	1,605.6	987.0	327.8	288.5	39.23	8.354		
4,100.0	3,650.0	4,242.8	3,638.9	30.5	35.1	-38.39	1,612.6	991.3	329.4	290.1	39.36	8.370		
4,200.0	3,750.0	4,353.9	3,750.0	30.6	35.2	-0.58	1,613.9	992.1	329.9	290.4	39.44	8.364		
4,300.0	3,850.0	4,453.9	3,850.0	30.6	35.2	-0.58	1,613.9	992.1	329.9	290.3	39.58	8.336		
4,400.0	3,950.0	4,553.9	3,950.0	30.7	35.3	-0.58	1,613.9	992.1	329.9	290.2	39.71	8.307		
4,500.0	4,050.0	4,653.9	4,050.0	30.7	35.3	-0.58	1,613.9	992.1	329.9	290.0	39.85	8.278		
4,600.0	4,150.0	4,753.9	4,150.0	30.7	35.3	-0.58	1,613.9	992.1	329.9	289.9	39.99	8.249		
4,700.0	4,250.0	4,853.9	4,250.0	30.8	35.4	-0.58	1,613.9	992.1	329.9	289.8	40.13	8.220		
4,800.0	4,350.0	4,953.9	4,350.0	30.8	35.4	-0.58	1,613.9	992.1	329.9	289.6	40.28	8.190		
4,900.0	4,450.0	5,053.9	4,450.0	30.9	35.5	-0.58	1,613.9	992.1	329.9	289.5	40.43	8.160		
5,000.0	4,550.0	5,153.9	4,550.0	30.9	35.5	-0.58	1,613.9	992.1	329.9	289.3	40.58	8.130		
5,100.0	4,650.0	5,253.9	4,650.0	31.0	35.5	-0.58	1,613.9	992.1	329.9	289.2	40.73	8.100		

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 Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 13A-13 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,200.0	4,750.0	5,353.9	4,750.0	31.0	35.6	-0.58	1,613.9	992.1	329.9	289.0	40.88	8.069		
5,300.0	4,850.0	5,453.9	4,850.0	31.1	35.6	-0.58	1,613.9	992.1	329.9	288.9	41.04	8.038		
5,400.0	4,950.0	5,553.9	4,950.0	31.1	35.7	-0.58	1,613.9	992.1	329.9	288.7	41.20	8.007		
5,500.0	5,050.0	5,653.9	5,050.0	31.2	35.7	-0.58	1,613.9	992.1	329.9	288.5	41.36	7.975		
5,600.0	5,150.0	5,753.9	5,150.0	31.2	35.8	-0.58	1,613.9	992.1	329.9	288.4	41.53	7.944		
5,700.0	5,250.0	5,853.9	5,250.0	31.3	35.8	-0.58	1,613.9	992.1	329.9	288.2	41.70	7.912		
5,800.0	5,350.0	5,953.9	5,350.0	31.4	35.9	-0.58	1,613.9	992.1	329.9	288.0	41.87	7.880		
5,900.0	5,450.0	6,053.9	5,450.0	31.4	35.9	-0.58	1,613.9	992.1	329.9	287.9	42.04	7.848		
6,000.0	5,550.0	6,153.9	5,550.0	31.5	36.0	-0.58	1,613.9	992.1	329.9	287.7	42.21	7.815		
6,100.0	5,650.0	6,253.9	5,650.0	31.5	36.0	-0.58	1,613.9	992.1	329.9	287.5	42.39	7.783		
6,200.0	5,750.0	6,353.9	5,750.0	31.6	36.1	-0.58	1,613.9	992.1	329.9	287.3	42.56	7.751		
6,300.0	5,850.0	6,453.9	5,850.0	31.6	36.1	-0.58	1,613.9	992.1	329.9	287.1	42.74	7.718		
6,380.0	5,930.0	6,533.9	5,930.0	31.7	36.2	-0.58	1,613.9	992.1	329.9	287.0	42.89	7.692		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 13C-13 - DD - Plan #3														Offset Site Error:	0.0 ft
Survey Program: 0-MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	78.91	2.5	12.6	12.8						
100.0	100.0	99.8	99.8	0.1	0.1	78.91	2.5	12.6	12.8	12.6	0.25	50.386			
200.0	200.0	199.8	199.8	0.3	0.3	78.91	2.5	12.6	12.8	12.2	0.60	21.236 CC, ES			
300.0	300.0	299.2	299.1	0.5	0.5	37.27	4.3	14.4	14.5	13.6	0.95	15.236			
400.0	399.8	398.4	398.1	0.7	0.7	35.20	9.6	20.0	17.2	15.9	1.32	13.054			
500.0	499.3	497.5	496.3	0.9	1.0	35.55	18.5	29.2	20.2	18.5	1.71	11.800			
600.0	598.0	596.5	593.6	1.2	1.3	37.38	30.9	42.1	23.6	21.4	2.17	10.853			
700.0	695.8	695.2	689.7	1.6	1.8	40.05	46.8	58.5	27.3	24.6	2.74	9.974			
800.0	792.4	793.9	784.4	2.1	2.3	43.13	66.1	78.5	31.5	28.1	3.46	9.106			
900.0	887.5	892.4	877.3	2.7	2.9	46.37	88.7	101.9	36.2	31.9	4.38	8.275			
1,000.0	980.9	990.7	968.3	3.4	3.6	49.57	114.5	128.7	41.5	36.0	5.51	7.527			
1,100.0	1,072.2	1,088.8	1,057.1	4.1	4.4	52.63	143.5	158.7	47.3	40.4	6.87	6.886			
1,200.0	1,161.3	1,187.5	1,144.2	5.0	5.3	55.78	175.6	192.0	53.5	45.0	8.45	6.325			
1,300.0	1,247.9	1,287.2	1,231.8	5.9	6.2	61.90	208.7	226.3	57.8	47.3	10.52	5.493			
1,400.0	1,331.8	1,386.6	1,319.1	7.0	7.1	71.61	241.7	260.5	60.9	47.8	13.10	4.650			
1,500.0	1,412.8	1,485.5	1,406.0	8.1	7.9	84.37	274.6	294.5	65.0	49.2	15.78	4.117			
1,600.0	1,493.2	1,584.2	1,492.7	9.2	8.8	96.14	307.3	328.5	72.0	54.1	17.90	4.021 SF			
1,700.0	1,573.6	1,683.0	1,579.4	10.3	9.7	105.54	340.1	362.4	81.5	62.0	19.48	4.183			
1,800.0	1,654.0	1,781.7	1,666.2	11.4	10.6	112.85	372.9	396.4	92.7	72.0	20.70	4.478			
1,900.0	1,734.4	1,880.5	1,752.9	12.5	11.5	118.53	405.7	430.4	105.1	83.4	21.74	4.836			
2,000.0	1,814.7	1,979.2	1,839.6	13.6	12.4	122.98	438.5	464.4	118.3	95.7	22.68	5.219			
2,100.0	1,895.1	2,078.0	1,926.4	14.7	13.2	126.53	471.2	498.3	132.1	108.5	23.57	5.605			
2,200.0	1,975.5	2,176.7	2,013.1	15.8	14.1	129.40	504.0	532.3	146.3	121.8	24.45	5.983			
2,300.0	2,055.9	2,275.5	2,099.8	16.9	15.0	131.76	536.8	566.3	160.8	135.5	25.33	6.348			
2,400.0	2,136.3	2,374.2	2,186.6	18.0	15.9	133.74	569.6	600.2	175.5	149.3	26.21	6.695			
2,500.0	2,216.7	2,473.0	2,273.3	19.2	16.8	135.40	602.4	634.2	190.4	163.3	27.10	7.025			
2,600.0	2,297.0	2,571.7	2,360.0	20.3	17.7	136.82	635.2	668.2	205.4	177.4	28.00	7.336			
2,700.0	2,377.4	2,670.5	2,446.8	21.4	18.6	138.05	667.9	702.1	220.5	191.6	28.90	7.629			
2,800.0	2,457.8	2,769.2	2,533.5	22.5	19.4	139.12	700.7	736.1	235.7	205.9	29.82	7.904			
2,900.0	2,538.2	2,867.9	2,620.2	23.6	20.3	140.07	733.5	770.1	251.0	220.2	30.74	8.164			
3,000.0	2,619.2	2,966.8	2,707.1	24.7	21.2	140.93	766.3	804.1	265.5	233.9	31.69	8.381			
3,100.0	2,702.9	3,064.4	2,792.8	25.7	22.1	141.15	798.7	837.6	276.5	243.6	32.90	8.402			
3,200.0	2,789.3	3,154.8	2,873.6	26.6	22.8	141.14	826.8	866.8	285.5	251.5	34.07	8.380			
3,300.0	2,878.3	3,245.0	2,956.0	27.4	23.4	141.16	852.3	893.1	293.8	258.7	35.12	8.365			
3,400.0	2,969.5	3,335.0	3,039.9	28.1	24.0	141.18	874.9	916.6	301.3	265.2	36.05	8.357			
3,500.0	3,062.8	3,424.9	3,125.2	28.7	24.5	141.22	894.8	937.2	307.9	271.0	36.86	8.354			
3,600.0	3,157.8	3,514.7	3,211.5	29.2	24.9	141.27	911.8	954.8	313.7	276.1	37.54	8.357			
3,700.0	3,254.3	3,600.0	3,294.5	29.7	25.3	141.32	925.4	968.9	318.6	280.6	38.09	8.366			
3,800.0	3,352.1	3,694.0	3,387.0	30.0	25.5	141.38	937.3	981.3	322.7	284.1	38.53	8.373			
3,900.0	3,450.8	3,783.6	3,475.7	30.3	25.7	141.45	945.7	990.0	325.8	287.0	38.85	8.387			
4,000.0	3,550.2	3,873.0	3,564.8	30.4	25.9	141.52	951.3	995.7	328.1	289.1	39.04	8.404			
4,100.0	3,650.0	3,962.5	3,654.1	30.5	25.9	141.60	953.9	998.4	329.5	290.4	39.13	8.422			
4,200.0	3,750.0	4,058.2	3,749.8	30.6	26.0	179.43	954.1	998.7	329.9	290.7	39.21	8.414			
4,300.0	3,850.0	4,158.2	3,849.8	30.6	26.0	179.43	954.1	998.7	329.9	290.6	39.33	8.387			
4,400.0	3,950.0	4,258.2	3,949.8	30.7	26.1	179.43	954.1	998.7	329.9	290.4	39.47	8.359			
4,500.0	4,050.0	4,358.2	4,049.8	30.7	26.1	179.43	954.1	998.7	329.9	290.3	39.60	8.331			
4,600.0	4,150.0	4,458.2	4,149.8	30.7	26.2	179.43	954.1	998.7	329.9	290.2	39.74	8.302			
4,700.0	4,250.0	4,558.2	4,249.8	30.8	26.2	179.43	954.1	998.7	329.9	290.0	39.88	8.273			
4,800.0	4,350.0	4,658.2	4,349.8	30.8	26.3	179.43	954.1	998.7	329.9	289.9	40.02	8.244			
4,900.0	4,450.0	4,758.2	4,449.8	30.9	26.3	179.43	954.1	998.7	329.9	289.7	40.16	8.214			
5,000.0	4,550.0	4,858.2	4,549.8	30.9	26.4	179.43	954.1	998.7	329.9	289.6	40.31	8.184			
5,100.0	4,650.0	4,958.2	4,649.8	31.0	26.5	179.43	954.1	998.7	329.9	289.4	40.46	8.154			

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 Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 13C-13 - DD - Plan #3												Offset Site Error: 0.0 ft			
Survey Program: 0-MWD														Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor			
5,200.0	4,750.0	5,058.2	4,749.8	31.0	26.5	179.43	954.1	998.7	329.9	289.3	40.61	8.123			
5,300.0	4,850.0	5,158.2	4,849.8	31.1	26.6	179.43	954.1	998.7	329.9	289.1	40.77	8.093			
5,400.0	4,950.0	5,258.2	4,949.8	31.1	26.6	179.43	954.1	998.7	329.9	289.0	40.92	8.062			
5,500.0	5,050.0	5,358.2	5,049.8	31.2	26.7	179.43	954.1	998.7	329.9	288.8	41.08	8.030			
5,600.0	5,150.0	5,458.2	5,149.8	31.2	26.8	179.43	954.1	998.7	329.9	288.7	41.24	7.999			
5,700.0	5,250.0	5,558.2	5,249.8	31.3	26.8	179.43	954.1	998.7	329.9	288.5	41.41	7.967			
5,800.0	5,350.0	5,658.2	5,349.8	31.4	26.9	179.43	954.1	998.7	329.9	288.3	41.57	7.935			
5,900.0	5,450.0	5,758.2	5,449.8	31.4	26.9	179.43	954.1	998.7	329.9	288.2	41.74	7.903			
6,000.0	5,550.0	5,858.2	5,549.8	31.5	27.0	179.43	954.1	998.7	329.9	288.0	41.91	7.871			
6,100.0	5,650.0	5,958.2	5,649.8	31.5	27.1	179.43	954.1	998.7	329.9	287.8	42.08	7.839			
6,200.0	5,750.0	6,058.2	5,749.8	31.6	27.1	179.43	954.1	998.7	329.9	287.6	42.26	7.807			
6,300.0	5,850.0	6,158.2	5,849.8	31.6	27.2	179.43	954.1	998.7	329.9	287.5	42.44	7.774			
6,344.5	5,894.6	6,202.7	5,894.4	31.7	27.2	179.43	954.1	998.7	329.9	287.4	42.51	7.760			
6,380.0	5,930.0	6,218.4	5,910.0	31.7	27.2	179.43	954.1	998.7	330.5	287.9	42.56	7.765			

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 13D-13 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total	Separation	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	117.55	-4.6	8.9	10.0					
100.0	100.0	100.0	100.0	0.1	0.1	117.55	-4.6	8.9	10.0	9.7	0.25	39.338		
200.0	200.0	200.0	200.0	0.3	0.3	117.55	-4.6	8.9	10.0	9.4	0.60	16.580		
300.0	300.0	300.0	300.0	0.5	0.5	83.49	-4.6	8.9	9.9	9.0	0.95	10.397		
312.2	312.2	312.1	312.1	0.5	0.5	85.35	-4.6	8.9	9.9	8.9	1.00	9.915 CC, ES		
400.0	399.8	399.8	399.7	0.7	0.7	98.72	-3.2	11.1	10.9	9.5	1.33	8.188		
500.0	499.3	499.6	499.3	0.9	0.9	109.40	1.0	17.7	14.2	12.4	1.77	8.023 SF		
600.0	598.0	599.5	598.3	1.2	1.1	114.37	7.9	28.7	19.6	17.3	2.33	8.425		
700.0	695.8	699.4	696.5	1.6	1.5	115.97	17.6	44.0	26.8	23.7	3.03	8.849		
800.0	792.4	799.2	793.5	2.1	1.9	115.95	30.1	63.7	35.6	31.7	3.89	9.153		
900.0	887.5	898.9	889.1	2.7	2.5	115.23	45.2	87.5	46.2	41.2	4.95	9.336		
1,000.0	980.9	998.4	982.9	3.4	3.1	114.22	62.9	115.6	58.4	52.2	6.19	9.434		
1,100.0	1,072.2	1,097.8	1,074.8	4.1	3.8	113.12	83.2	147.6	72.2	64.6	7.62	9.477		
1,200.0	1,161.3	1,196.6	1,164.6	5.0	4.6	112.81	105.3	182.5	87.7	78.5	9.14	9.589		
1,300.0	1,247.9	1,295.0	1,253.8	5.9	5.3	114.94	127.4	217.4	105.3	94.6	10.65	9.885		
1,400.0	1,331.8	1,392.6	1,342.4	7.0	6.1	118.42	149.4	252.1	125.4	113.3	12.08	10.380		
1,500.0	1,412.8	1,489.3	1,430.2	8.1	6.8	122.56	171.1	286.4	148.6	135.2	13.38	11.101		
1,600.0	1,493.2	1,585.7	1,517.7	9.2	7.6	126.20	192.8	320.6	173.1	158.5	14.60	11.850		
1,700.0	1,573.6	1,682.2	1,605.2	10.3	8.4	128.94	214.5	354.9	198.0	182.2	15.80	12.530		
1,800.0	1,654.0	1,778.6	1,692.7	11.4	9.1	131.06	236.2	389.1	223.3	206.3	17.00	13.139		
1,900.0	1,734.4	1,875.1	1,780.2	12.5	9.9	132.76	257.8	423.4	248.9	230.7	18.19	13.684		
2,000.0	1,814.7	1,971.5	1,867.8	13.6	10.7	134.13	279.5	457.6	274.6	255.2	19.38	14.171		
2,100.0	1,895.1	2,068.0	1,955.3	14.7	11.4	135.28	301.2	491.8	300.4	279.8	20.56	14.608		
2,200.0	1,975.5	2,164.4	2,042.8	15.8	12.2	136.24	322.9	526.1	326.3	304.6	21.75	15.001		
2,300.0	2,055.9	2,260.9	2,130.3	16.9	13.0	137.06	344.6	560.3	352.3	329.4	22.94	15.356		
2,400.0	2,136.3	2,357.3	2,217.8	18.0	13.7	137.77	366.2	594.6	378.3	354.2	24.13	15.678		
2,500.0	2,216.7	2,453.8	2,305.4	19.2	14.5	138.38	387.9	628.8	404.4	379.1	25.32	15.971		
2,600.0	2,297.0	2,550.2	2,392.9	20.3	15.3	138.93	409.6	663.0	430.6	404.1	26.52	16.239		
2,700.0	2,377.4	2,646.7	2,480.4	21.4	16.0	139.41	431.3	697.3	456.7	429.0	27.71	16.484		
2,800.0	2,457.8	2,743.1	2,567.9	22.5	16.8	139.83	453.0	731.5	482.9	454.0	28.90	16.710		
2,900.0	2,538.2	2,839.6	2,655.5	23.6	17.6	140.22	474.6	765.8	509.2	479.1	30.10	16.918		
3,000.0	2,619.2	2,936.2	2,743.2	24.7	18.3	140.80	496.4	800.1	534.6	503.4	31.26	17.105		
3,100.0	2,702.9	3,033.8	2,831.7	25.7	19.1	141.15	518.3	834.7	556.5	524.0	32.50	17.121		
3,200.0	2,789.3	3,125.4	2,915.0	26.6	19.8	141.16	538.7	866.9	574.6	540.8	33.78	17.008		
3,300.0	2,878.3	3,210.0	2,993.2	27.4	20.4	141.17	555.9	894.0	590.8	555.9	34.90	16.927		
3,400.0	2,969.5	3,300.0	3,078.0	28.1	20.9	141.18	572.1	919.7	605.4	569.5	35.93	16.850		
3,500.0	3,062.8	3,379.2	3,153.6	28.7	21.3	141.24	584.7	939.5	618.3	581.5	36.75	16.824		
3,600.0	3,157.8	3,463.9	3,235.5	29.2	21.7	141.28	596.2	957.7	629.5	592.0	37.48	16.795		
3,700.0	3,254.3	3,548.5	3,318.2	29.7	22.0	141.34	605.7	972.8	638.9	600.8	38.08	16.778		
3,800.0	3,352.1	3,633.2	3,401.7	30.0	22.2	141.40	613.3	984.8	646.6	608.1	38.55	16.772		
3,900.0	3,450.8	3,717.8	3,485.7	30.3	22.4	141.46	618.9	993.6	652.6	613.7	38.90	16.775		
4,000.0	3,550.2	3,800.0	3,567.6	30.4	22.5	141.53	622.5	999.2	656.8	617.7	39.13	16.787		
4,100.0	3,650.0	3,887.1	3,654.6	30.5	22.6	141.61	624.1	1,001.8	659.3	620.1	39.22	16.808		
4,200.0	3,750.0	3,982.5	3,750.0	30.6	22.6	179.43	624.2	1,002.0	659.8	620.5	39.31	16.783		
4,300.0	3,850.0	4,082.5	3,850.0	30.6	22.7	179.43	624.2	1,002.0	659.8	620.4	39.44	16.729		
4,400.0	3,950.0	4,182.5	3,950.0	30.7	22.7	179.43	624.2	1,002.0	659.8	620.2	39.57	16.674		
4,500.0	4,050.0	4,282.5	4,050.0	30.7	22.8	179.43	624.2	1,002.0	659.8	620.1	39.70	16.618		
4,600.0	4,150.0	4,382.5	4,150.0	30.7	22.8	179.43	624.2	1,002.0	659.8	620.0	39.84	16.562		
4,700.0	4,250.0	4,482.5	4,250.0	30.8	22.9	179.43	624.2	1,002.0	659.8	619.8	39.98	16.505		
4,800.0	4,350.0	4,582.5	4,350.0	30.8	23.0	179.43	624.2	1,002.0	659.8	619.7	40.12	16.447		
4,900.0	4,450.0	4,682.5	4,450.0	30.9	23.0	179.43	624.2	1,002.0	659.8	619.5	40.26	16.389		
5,000.0	4,550.0	4,782.5	4,550.0	30.9	23.1	179.43	624.2	1,002.0	659.8	619.4	40.40	16.330		

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 Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 13D-13 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,100.0	4,650.0	4,882.5	4,650.0	31.0	23.2	179.43	624.2	1,002.0	659.8	619.2	40.55	16.270		
5,200.0	4,750.0	4,982.5	4,750.0	31.0	23.2	179.43	624.2	1,002.0	659.8	619.1	40.70	16.210		
5,300.0	4,850.0	5,082.5	4,850.0	31.1	23.3	179.43	624.2	1,002.0	659.8	618.9	40.86	16.149		
5,400.0	4,950.0	5,182.5	4,950.0	31.1	23.3	179.43	624.2	1,002.0	659.8	618.8	41.01	16.088		
5,500.0	5,050.0	5,282.5	5,050.0	31.2	23.4	179.43	624.2	1,002.0	659.8	618.6	41.17	16.027		
5,600.0	5,150.0	5,382.5	5,150.0	31.2	23.5	179.43	624.2	1,002.0	659.8	618.5	41.33	15.965		
5,700.0	5,250.0	5,482.5	5,250.0	31.3	23.6	179.43	624.2	1,002.0	659.8	618.3	41.49	15.902		
5,800.0	5,350.0	5,582.5	5,350.0	31.4	23.6	179.43	624.2	1,002.0	659.8	618.1	41.66	15.839		
5,900.0	5,450.0	5,682.5	5,450.0	31.4	23.7	179.43	624.2	1,002.0	659.8	618.0	41.82	15.776		
6,000.0	5,550.0	5,782.5	5,550.0	31.5	23.8	179.43	624.2	1,002.0	659.8	617.8	41.99	15.713		
6,100.0	5,650.0	5,882.5	5,650.0	31.5	23.8	179.43	624.2	1,002.0	659.8	617.6	42.16	15.649		
6,200.0	5,750.0	5,982.5	5,750.0	31.6	23.9	179.43	624.2	1,002.0	659.8	617.5	42.34	15.585		
6,300.0	5,850.0	6,082.5	5,850.0	31.6	24.0	179.43	624.2	1,002.0	659.8	617.3	42.51	15.520		
6,326.6	5,876.7	6,109.1	5,876.7	31.7	24.0	179.43	624.2	1,002.0	659.8	617.2	42.56	15.503		
6,380.0	5,930.0	6,122.5	5,890.0	31.7	24.0	179.43	624.2	1,002.0	661.0	618.4	42.62	15.510		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 14A-13 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	156.20	-11.7	5.2	12.8					
100.0	100.0	100.0	100.0	0.1	0.1	156.20	-11.7	5.2	12.8	12.6	0.25	50.365		
200.0	200.0	200.0	200.0	0.3	0.3	156.20	-11.7	5.2	12.8	12.2	0.60	21.227 CC		
230.1	230.1	230.1	230.1	0.4	0.4	118.88	-11.7	5.2	12.9	12.2	0.71	18.154 ES		
300.0	300.0	300.0	300.0	0.5	0.5	120.92	-11.7	5.2	13.1	12.2	0.95	13.783		
400.0	399.8	399.8	399.8	0.7	0.7	136.68	-11.7	5.2	16.4	15.1	1.31	12.561 SF		
500.0	499.3	499.8	499.8	0.9	0.8	147.69	-11.0	7.7	24.0	22.3	1.68	14.321		
600.0	598.0	599.9	599.5	1.2	1.0	149.47	-8.7	15.2	34.3	32.2	2.08	16.458		
700.0	695.8	699.9	698.7	1.6	1.3	147.69	-4.8	27.6	46.9	44.3	2.58	18.192		
800.0	792.4	799.8	796.9	2.1	1.6	144.70	0.5	45.0	61.9	58.7	3.21	19.288		
900.0	887.5	899.4	893.7	2.7	2.1	141.44	7.3	67.2	79.5	75.5	4.02	19.790		
1,000.0	980.9	998.5	988.7	3.4	2.6	138.27	15.5	94.1	99.8	94.8	5.02	19.883		
1,100.0	1,072.2	1,097.0	1,081.7	4.1	3.2	135.32	25.1	125.5	122.8	116.6	6.22	19.753		
1,200.0	1,161.3	1,194.4	1,171.8	5.0	3.9	132.77	35.8	160.6	148.6	141.1	7.57	19.647		
1,300.0	1,247.9	1,290.0	1,260.0	5.9	4.5	131.72	46.7	195.9	177.7	168.8	8.92	19.918		
1,400.0	1,331.8	1,384.6	1,347.2	7.0	5.2	131.80	57.3	230.8	210.2	199.9	10.27	20.474		
1,500.0	1,412.8	1,477.8	1,433.3	8.1	5.9	132.77	67.9	265.3	245.8	234.3	11.56	21.259		
1,600.0	1,493.2	1,570.7	1,519.0	9.2	6.6	134.09	78.4	299.6	282.4	269.5	12.84	21.999		
1,700.0	1,573.6	1,663.7	1,604.7	10.3	7.2	135.12	88.9	333.9	319.0	304.9	14.11	22.609		
1,800.0	1,654.0	1,756.6	1,690.4	11.4	7.9	135.93	99.4	368.2	355.7	340.3	15.38	23.119		
1,900.0	1,734.4	1,849.5	1,776.1	12.5	8.6	136.59	109.9	402.5	392.4	375.7	16.66	23.553		
2,000.0	1,814.7	1,942.4	1,861.8	13.6	9.3	137.13	120.4	436.9	429.2	411.2	17.94	23.926		
2,100.0	1,895.1	2,035.3	1,947.5	14.7	9.9	137.59	130.9	471.2	466.0	446.8	19.22	24.249		
2,200.0	1,975.5	2,128.3	2,033.2	15.8	10.6	137.99	141.4	505.5	502.8	482.3	20.50	24.532		
2,300.0	2,055.9	2,221.2	2,118.9	16.9	11.3	138.33	151.9	539.8	539.7	517.9	21.78	24.781		
2,400.0	2,136.3	2,314.1	2,204.6	18.0	12.0	138.62	162.4	574.1	576.5	553.5	23.06	25.003		
2,500.0	2,216.7	2,407.0	2,290.3	19.2	12.7	138.88	172.9	608.5	613.4	589.1	24.34	25.202		
2,600.0	2,297.0	2,499.9	2,376.1	20.3	13.4	139.11	183.4	642.8	650.3	624.7	25.62	25.381		
2,700.0	2,377.4	2,592.9	2,461.8	21.4	14.0	139.32	193.9	677.1	687.2	660.3	26.90	25.542		
2,800.0	2,457.8	2,685.8	2,547.5	22.5	14.7	139.51	204.4	711.4	724.1	695.9	28.19	25.689		
2,900.0	2,538.2	2,778.7	2,633.2	23.6	15.4	139.67	214.9	745.7	761.0	731.5	29.47	25.823		
3,000.0	2,619.2	2,871.9	2,719.2	24.7	16.1	140.23	225.5	780.2	797.2	766.5	30.71	25.959		
3,100.0	2,702.9	2,966.4	2,806.3	25.7	16.8	140.76	236.1	815.1	829.9	797.9	31.97	25.959		
3,200.0	2,789.3	3,062.0	2,894.5	26.6	17.5	140.97	247.0	850.4	858.7	825.4	33.29	25.791		
3,300.0	2,878.3	3,150.8	2,976.7	27.4	18.1	141.00	256.8	882.5	884.0	849.4	34.54	25.589		
3,400.0	2,969.5	3,235.9	3,056.7	28.1	18.6	141.05	265.2	910.1	906.6	870.9	35.63	25.443		
3,500.0	3,062.8	3,321.4	3,138.3	28.7	19.1	141.11	272.7	934.4	926.5	889.9	36.58	25.326		
3,600.0	3,157.8	3,407.4	3,221.5	29.2	19.5	141.18	279.1	955.3	943.8	906.4	37.40	25.236		
3,700.0	3,254.3	3,500.0	3,312.1	29.7	19.8	141.25	284.7	973.8	958.4	920.3	38.10	25.158		
3,800.0	3,352.1	3,580.6	3,391.6	30.0	20.0	141.34	288.6	986.4	970.3	931.7	38.59	25.140		
3,900.0	3,450.8	3,667.6	3,477.9	30.3	20.2	141.43	291.7	996.5	979.3	940.4	38.98	25.125		
4,000.0	3,550.2	3,754.7	3,564.8	30.4	20.3	141.52	293.6	1,002.7	985.6	946.4	39.22	25.130		
4,100.0	3,650.0	3,841.9	3,652.0	30.5	20.4	141.61	294.3	1,005.2	989.1	949.7	39.34	25.141		
4,200.0	3,750.0	3,940.0	3,750.0	30.6	20.4	179.43	294.3	1,005.2	989.7	950.2	39.44	25.096		
4,300.0	3,850.0	4,040.0	3,850.0	30.6	20.5	179.43	294.3	1,005.2	989.7	950.1	39.56	25.016		
4,400.0	3,950.0	4,140.0	3,950.0	30.7	20.5	179.43	294.3	1,005.2	989.7	950.0	39.69	24.934		
4,500.0	4,050.0	4,240.0	4,050.0	30.7	20.6	179.43	294.3	1,005.2	989.7	949.9	39.82	24.852		
4,600.0	4,150.0	4,340.0	4,150.0	30.7	20.7	179.43	294.3	1,005.2	989.7	949.7	39.96	24.769		
4,700.0	4,250.0	4,440.0	4,250.0	30.8	20.7	179.43	294.3	1,005.2	989.7	949.6	40.09	24.684		
4,800.0	4,350.0	4,540.0	4,350.0	30.8	20.8	179.43	294.3	1,005.2	989.7	949.5	40.23	24.599		
4,900.0	4,450.0	4,640.0	4,450.0	30.9	20.9	179.43	294.3	1,005.2	989.7	949.3	40.38	24.512		
5,000.0	4,550.0	4,740.0	4,550.0	30.9	20.9	179.43	294.3	1,005.2	989.7	949.2	40.52	24.425		

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 Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 14A-13 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,100.0	4,650.0	4,840.0	4,650.0	31.0	21.0	179.43	294.3	1,005.2	989.7	949.0	40.67	24.337		
5,200.0	4,750.0	4,940.0	4,750.0	31.0	21.1	179.43	294.3	1,005.2	989.7	948.9	40.82	24.248		
5,300.0	4,850.0	5,040.0	4,850.0	31.1	21.1	179.43	294.3	1,005.2	989.7	948.7	40.97	24.158		
5,400.0	4,950.0	5,140.0	4,950.0	31.1	21.2	179.43	294.3	1,005.2	989.7	948.6	41.12	24.067		
5,500.0	5,050.0	5,240.0	5,050.0	31.2	21.3	179.43	294.3	1,005.2	989.7	948.4	41.28	23.976		
5,600.0	5,150.0	5,340.0	5,150.0	31.2	21.4	179.43	294.3	1,005.2	989.7	948.2	41.44	23.884		
5,700.0	5,250.0	5,440.0	5,250.0	31.3	21.4	179.43	294.3	1,005.2	989.7	948.1	41.60	23.792		
5,800.0	5,350.0	5,540.0	5,350.0	31.4	21.5	179.43	294.3	1,005.2	989.7	947.9	41.76	23.698		
5,900.0	5,450.0	5,640.0	5,450.0	31.4	21.6	179.43	294.3	1,005.2	989.7	947.8	41.93	23.605		
6,000.0	5,550.0	5,740.0	5,550.0	31.5	21.7	179.43	294.3	1,005.2	989.7	947.6	42.10	23.511		
6,100.0	5,650.0	5,840.0	5,650.0	31.5	21.8	179.43	294.3	1,005.2	989.7	947.4	42.27	23.416		
6,200.0	5,750.0	5,940.0	5,750.0	31.6	21.8	179.43	294.3	1,005.2	989.7	947.2	42.44	23.321		
6,300.0	5,850.0	6,040.0	5,850.0	31.6	21.9	179.43	294.3	1,005.2	989.7	947.1	42.61	23.225		
6,380.0	5,930.0	6,060.0	5,870.0	31.7	21.9	179.43	294.3	1,005.2	991.5	948.8	42.70	23.219		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 14B-13 - DD - Plan #3													Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	175.53	-18.8	1.5	18.9					
100.0	100.0	100.0	100.0	0.1	0.1	175.53	-18.8	1.5	18.9	18.6	0.25	74.124		
200.0	200.0	200.0	200.0	0.3	0.3	175.53	-18.8	1.5	18.9	18.3	0.60	31.253 CC		
228.4	228.4	228.4	228.4	0.4	0.4	137.96	-18.8	1.5	18.9	18.2	0.70	26.949 ES		
300.0	300.0	300.0	300.0	0.5	0.5	139.04	-18.8	1.5	19.4	18.4	0.95	20.312		
400.0	399.8	399.8	399.8	0.7	0.7	147.34	-18.8	1.5	23.6	22.2	1.31	18.043 SF		
500.0	499.3	499.3	499.3	0.9	0.8	157.11	-18.8	1.5	32.8	31.2	1.66	19.824		
600.0	598.0	598.5	598.5	1.2	1.0	163.64	-18.8	2.1	47.4	45.4	2.00	23.698		
700.0	695.8	697.9	697.7	1.6	1.2	164.44	-18.9	7.2	65.6	63.3	2.36	27.767		
800.0	792.4	796.9	796.3	2.1	1.4	162.51	-19.1	17.4	86.9	84.2	2.78	31.281		
900.0	887.5	895.4	893.5	2.7	1.7	159.54	-19.3	32.6	111.5	108.2	3.29	33.860		
1,000.0	980.9	992.9	989.0	3.4	2.0	156.28	-19.7	52.6	139.6	135.7	3.95	35.357		
1,100.0	1,072.2	1,089.3	1,082.1	4.1	2.4	153.03	-20.1	77.1	171.4	166.6	4.77	35.919		
1,200.0	1,161.3	1,184.2	1,172.6	5.0	3.0	149.92	-20.5	105.8	206.9	201.2	5.77	35.852		
1,300.0	1,247.9	1,277.4	1,259.9	5.9	3.6	147.00	-21.1	138.3	246.2	239.2	6.94	35.449		
1,400.0	1,331.8	1,368.4	1,343.6	7.0	4.2	144.32	-21.7	173.9	289.1	280.9	8.24	35.086		
1,500.0	1,412.8	1,456.7	1,424.6	8.1	4.8	142.71	-22.3	209.3	335.8	326.2	9.56	35.133		
1,600.0	1,493.2	1,544.6	1,505.1	9.2	5.5	142.07	-22.8	244.6	383.2	372.4	10.87	35.247		
1,700.0	1,573.6	1,632.6	1,585.7	10.3	6.1	141.58	-23.4	279.8	430.8	418.6	12.20	35.308		
1,800.0	1,654.0	1,720.5	1,666.2	11.4	6.8	141.19	-24.0	315.1	478.3	464.8	13.53	35.338		
1,900.0	1,734.4	1,808.4	1,746.8	12.5	7.5	140.86	-24.6	350.4	525.8	511.0	14.88	35.350		
2,000.0	1,814.7	1,896.4	1,827.3	13.6	8.1	140.59	-25.2	385.6	573.4	557.2	16.22	35.351		
2,100.0	1,895.1	1,984.3	1,907.9	14.7	8.8	140.36	-25.8	420.9	621.0	603.4	17.57	35.346		
2,200.0	1,975.5	2,072.2	1,988.4	15.8	9.5	140.17	-26.4	456.2	668.5	649.6	18.92	35.338		
2,300.0	2,055.9	2,160.2	2,069.0	16.9	10.1	140.00	-26.9	491.4	716.1	695.8	20.27	35.327		
2,400.0	2,136.3	2,248.1	2,149.6	18.0	10.8	139.85	-27.5	526.7	763.7	742.1	21.63	35.315		
2,500.0	2,216.7	2,336.1	2,230.1	19.2	11.5	139.72	-28.1	561.9	811.3	788.3	22.98	35.302		
2,600.0	2,297.0	2,424.0	2,310.7	20.3	12.2	139.60	-28.7	597.2	858.9	834.5	24.34	35.289		
2,700.0	2,377.4	2,511.9	2,391.2	21.4	12.8	139.50	-29.3	632.5	906.5	880.8	25.70	35.277		
2,800.0	2,457.8	2,599.9	2,471.8	22.5	13.5	139.40	-29.9	667.7	954.1	927.0	27.05	35.264		
2,900.0	2,538.2	2,687.8	2,552.3	23.6	14.2	139.32	-30.5	703.0	1,001.7	973.3	28.41	35.252		
3,000.0	2,619.2	2,776.1	2,633.2	24.7	14.9	139.83	-31.0	738.4	1,048.6	1,018.9	29.74	35.261		
3,100.0	2,702.9	2,865.9	2,715.5	25.7	15.6	140.47	-31.6	774.4	1,092.2	1,061.2	31.06	35.168		
3,200.0	2,789.3	2,957.2	2,799.1	26.6	16.3	140.85	-32.2	811.0	1,132.2	1,099.8	32.41	34.936		
3,300.0	2,878.3	3,049.7	2,883.8	27.4	17.0	140.99	-32.9	848.1	1,168.6	1,134.8	33.78	34.589		
3,400.0	2,969.5	3,143.0	2,970.2	28.1	17.6	141.03	-33.5	883.4	1,201.2	1,166.2	35.06	34.266		
3,500.0	3,062.8	3,238.4	3,060.1	28.7	18.2	141.08	-34.0	915.1	1,230.1	1,193.9	36.18	33.996		
3,600.0	3,157.8	3,335.4	3,153.2	29.2	18.7	141.15	-34.4	942.8	1,255.2	1,218.0	37.16	33.777		
3,700.0	3,254.3	3,434.1	3,249.0	29.7	19.1	141.22	-34.8	965.9	1,276.2	1,238.2	37.97	33.607		
3,800.0	3,352.1	3,533.9	3,347.2	30.0	19.4	141.30	-35.1	984.3	1,293.2	1,254.5	38.62	33.485		
3,900.0	3,450.8	3,634.8	3,447.1	30.3	19.6	141.39	-35.3	997.7	1,306.0	1,266.9	39.09	33.409		
4,000.0	3,550.2	3,736.3	3,548.3	30.4	19.8	141.50	-35.5	1,005.8	1,314.6	1,275.2	39.39	33.376		
4,100.0	3,650.0	3,838.1	3,650.0	30.5	19.8	141.61	-35.5	1,008.5	1,319.0	1,279.4	39.53	33.367		
4,200.0	3,750.0	3,938.1	3,750.0	30.6	19.9	179.43	-35.5	1,008.5	1,319.6	1,279.9	39.63	33.294		
4,300.0	3,850.0	4,038.1	3,850.0	30.6	19.9	179.43	-35.5	1,008.5	1,319.6	1,279.8	39.76	33.189		
4,400.0	3,950.0	4,138.1	3,950.0	30.7	20.0	179.43	-35.5	1,008.5	1,319.6	1,279.7	39.89	33.082		
4,500.0	4,050.0	4,238.1	4,050.0	30.7	20.1	179.43	-35.5	1,008.5	1,319.6	1,279.6	40.02	32.974		
4,600.0	4,150.0	4,338.1	4,150.0	30.7	20.1	179.43	-35.5	1,008.5	1,319.6	1,279.4	40.15	32.865		
4,700.0	4,250.0	4,438.1	4,250.0	30.8	20.2	179.43	-35.5	1,008.5	1,319.6	1,279.3	40.29	32.754		
4,800.0	4,350.0	4,538.1	4,350.0	30.8	20.3	179.43	-35.5	1,008.5	1,319.6	1,279.1	40.43	32.641		
4,900.0	4,450.0	4,638.1	4,450.0	30.9	20.3	179.43	-35.5	1,008.5	1,319.6	1,279.0	40.57	32.528		
5,000.0	4,550.0	4,738.1	4,550.0	30.9	20.4	179.43	-35.5	1,008.5	1,319.6	1,278.9	40.71	32.413		

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 Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 14B-13 - DD - Plan #3												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
5,100.0	4,650.0	4,838.1	4,650.0	31.0	20.5	179.43	-35.5	1,008.5	1,319.6	1,278.7	40.86	32.297	
5,200.0	4,750.0	4,938.1	4,750.0	31.0	20.6	179.43	-35.5	1,008.5	1,319.6	1,278.6	41.01	32.180	
5,300.0	4,850.0	5,038.1	4,850.0	31.1	20.6	179.43	-35.5	1,008.5	1,319.6	1,278.4	41.16	32.062	
5,400.0	4,950.0	5,138.1	4,950.0	31.1	20.7	179.43	-35.5	1,008.5	1,319.6	1,278.3	41.31	31.943	
5,500.0	5,050.0	5,238.1	5,050.0	31.2	20.8	179.43	-35.5	1,008.5	1,319.6	1,278.1	41.47	31.823	
5,600.0	5,150.0	5,338.1	5,150.0	31.2	20.9	179.43	-35.5	1,008.5	1,319.6	1,278.0	41.62	31.702	
5,700.0	5,250.0	5,438.1	5,250.0	31.3	20.9	179.43	-35.5	1,008.5	1,319.6	1,277.8	41.79	31.580	
5,800.0	5,350.0	5,538.1	5,350.0	31.4	21.0	179.43	-35.5	1,008.5	1,319.6	1,277.6	41.95	31.457	
5,900.0	5,450.0	5,638.1	5,450.0	31.4	21.1	179.43	-35.5	1,008.5	1,319.6	1,277.5	42.11	31.334	
6,000.0	5,550.0	5,738.1	5,550.0	31.5	21.2	179.43	-35.5	1,008.5	1,319.6	1,277.3	42.28	31.210	
6,100.0	5,650.0	5,838.1	5,650.0	31.5	21.3	179.43	-35.5	1,008.5	1,319.6	1,277.1	42.45	31.086	
6,200.0	5,750.0	5,938.1	5,750.0	31.6	21.3	179.43	-35.5	1,008.5	1,319.6	1,277.0	42.62	30.960	
6,300.0	5,850.0	6,038.1	5,850.0	31.6	21.4	179.43	-35.5	1,008.5	1,319.6	1,276.8	42.80	30.835	
6,380.0	5,930.0	6,048.1	5,860.0	31.7	21.4	179.43	-35.5	1,008.5	1,321.4	1,278.6	42.88	30.820	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 14C-13 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	-175.10	-25.4	-2.2	25.5					
100.0	100.0	100.0	100.0	0.1	0.1	-175.10	-25.4	-2.2	25.5	25.2	100.013			
200.0	200.0	200.0	200.0	0.3	0.3	-175.10	-25.4	-2.2	25.5	24.9	0.60	42.185 CC		
228.1	228.1	228.1	228.1	0.4	0.4	147.24	-25.4	-2.2	25.6	24.9	0.70	36.416 ES		
300.0	300.0	300.0	300.0	0.5	0.5	147.89	-25.4	-2.2	26.0	25.1	0.95	27.310		
400.0	399.8	399.8	399.8	0.7	0.7	153.04	-25.4	-2.2	30.6	29.3	1.30	23.454 SF		
500.0	499.3	499.3	499.3	0.9	0.8	159.71	-25.4	-2.2	40.2	38.5	1.65	24.291		
600.0	598.0	598.2	598.1	1.2	1.0	162.58	-26.2	0.2	55.0	53.0	2.01	27.391		
700.0	695.8	696.3	695.9	1.6	1.2	161.28	-28.7	7.3	74.7	72.3	2.40	31.131		
800.0	792.4	793.1	791.9	2.1	1.4	158.46	-32.7	19.0	99.2	96.4	2.87	34.629		
900.0	887.5	888.1	885.4	2.7	1.7	155.27	-38.2	35.0	128.9	125.4	3.44	37.424		
1,000.0	980.9	980.9	975.8	3.4	2.1	152.18	-45.0	54.7	163.6	159.5	4.15	39.428		
1,100.0	1,072.2	1,071.1	1,062.6	4.1	2.6	149.31	-53.0	77.9	203.5	198.5	4.99	40.787		
1,200.0	1,161.3	1,158.4	1,145.4	5.0	3.1	146.68	-62.0	104.0	248.4	242.4	5.95	41.706		
1,300.0	1,247.9	1,242.6	1,224.0	5.9	3.6	144.24	-71.9	132.6	298.0	290.9	7.04	42.351		
1,400.0	1,331.8	1,323.4	1,298.1	7.0	4.2	141.95	-82.4	163.0	352.1	343.9	8.21	42.887		
1,500.0	1,412.8	1,404.1	1,371.2	8.1	4.8	140.34	-93.6	195.4	410.1	400.6	9.45	43.384		
1,600.0	1,493.2	1,485.0	1,444.4	9.2	5.5	139.90	-104.8	227.9	468.8	458.1	10.70	43.813		
1,700.0	1,573.6	1,565.9	1,517.6	10.3	6.1	139.55	-116.0	260.5	527.6	515.6	11.96	44.119		
1,800.0	1,654.0	1,646.7	1,590.8	11.4	6.7	139.27	-127.3	293.0	586.3	573.1	13.22	44.345		
1,900.0	1,734.4	1,727.6	1,664.0	12.5	7.4	139.04	-138.5	325.5	645.1	630.6	14.49	44.517		
2,000.0	1,814.7	1,808.5	1,737.2	13.6	8.0	138.85	-149.7	358.0	703.9	688.1	15.76	44.651		
2,100.0	1,895.1	1,889.4	1,810.4	14.7	8.7	138.69	-160.9	390.6	762.7	745.7	17.04	44.755		
2,200.0	1,975.5	1,970.2	1,883.5	15.8	9.3	138.55	-172.2	423.1	821.5	803.2	18.32	44.840		
2,300.0	2,055.9	2,051.1	1,956.7	16.9	10.0	138.43	-183.4	455.6	880.3	860.7	19.60	44.909		
2,400.0	2,136.3	2,132.0	2,029.9	18.0	10.7	138.33	-194.6	488.1	939.1	918.2	20.88	44.967		
2,500.0	2,216.7	2,212.9	2,103.1	19.2	11.3	138.24	-205.9	520.7	997.9	975.7	22.17	45.015		
2,600.0	2,297.0	2,293.8	2,176.3	20.3	12.0	138.15	-217.1	553.2	1,056.7	1,033.2	23.45	45.056		
2,700.0	2,377.4	2,374.6	2,249.5	21.4	12.6	138.08	-228.3	585.7	1,115.5	1,090.8	24.74	45.090		
2,800.0	2,457.8	2,455.5	2,322.7	22.5	13.3	138.01	-239.5	618.2	1,174.3	1,148.3	26.03	45.120		
2,900.0	2,538.2	2,536.4	2,395.9	23.6	13.9	137.95	-250.8	650.8	1,233.1	1,205.8	27.31	45.147		
3,000.0	2,619.2	2,617.7	2,469.5	24.7	14.6	138.74	-262.0	683.5	1,291.3	1,262.7	28.57	45.195		
3,100.0	2,702.9	2,700.9	2,544.8	25.7	15.3	139.79	-273.6	716.9	1,346.5	1,316.7	29.82	45.162		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 14D-13 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	-169.86	-33.0	-5.9	33.5					
100.0	100.0	100.0	100.0	0.1	0.1	-169.86	-33.0	-5.9	33.5	33.3	0.25	131.532		
200.0	200.0	200.0	200.0	0.3	0.3	-169.86	-33.0	-5.9	33.5	32.9	0.60	55.502 CC		
227.9	227.9	227.9	227.9	0.4	0.4	152.44	-33.0	-5.9	33.6	32.9	0.70	47.912 ES		
300.0	300.0	300.0	300.0	0.5	0.5	152.86	-33.0	-5.9	34.1	33.1	0.95	35.784		
400.0	399.8	399.8	399.8	0.7	0.7	156.33	-33.0	-5.9	38.8	37.5	1.30	29.799		
500.0	499.3	498.6	498.6	0.9	0.8	158.25	-34.4	-3.8	49.3	47.6	1.66	29.691 SF		
600.0	598.0	596.3	595.9	1.2	1.0	156.70	-38.5	2.6	66.0	64.0	2.05	32.217		
700.0	695.8	692.2	691.1	1.6	1.3	153.94	-45.1	12.8	89.1	86.6	2.51	35.570		
800.0	792.4	785.8	783.2	2.1	1.6	151.07	-54.1	26.7	118.6	115.6	3.05	38.874		
900.0	887.5	876.4	871.5	2.7	2.0	148.44	-65.2	43.7	154.4	150.7	3.70	41.778		
1,000.0	980.9	963.7	955.5	3.4	2.4	146.11	-77.9	63.4	196.2	191.7	4.44	44.226		
1,100.0	1,072.2	1,047.2	1,034.9	4.1	2.9	144.01	-92.1	85.2	243.7	238.5	5.27	46.276		
1,200.0	1,161.3	1,126.6	1,109.2	5.0	3.4	142.07	-107.3	108.7	296.7	290.5	6.18	48.012		
1,300.0	1,247.9	1,200.0	1,176.8	5.9	3.9	140.22	-122.9	132.6	354.8	347.6	7.16	49.579		
1,400.0	1,331.8	1,272.9	1,242.8	7.0	4.5	138.38	-139.7	158.5	417.5	409.2	8.24	50.669		
1,500.0	1,412.8	1,339.6	1,302.2	8.1	5.1	137.12	-156.3	184.1	484.3	475.0	9.35	51.814		
1,600.0	1,493.2	1,412.5	1,366.3	9.2	5.7	137.01	-175.0	213.1	552.5	542.0	10.51	52.548		
1,700.0	1,573.6	1,485.6	1,430.8	10.3	6.3	136.92	-193.9	242.1	620.7	609.0	11.69	53.088		
1,800.0	1,654.0	1,558.8	1,495.2	11.4	7.0	136.85	-212.8	271.2	688.8	676.0	12.88	53.502		
1,900.0	1,734.4	1,632.0	1,559.6	12.5	7.6	136.79	-231.6	300.3	757.0	743.0	14.06	53.830		
2,000.0	1,814.7	1,705.1	1,624.1	13.6	8.3	136.74	-250.5	329.3	825.2	809.9	15.25	54.093		
2,100.0	1,895.1	1,778.3	1,688.5	14.7	9.0	136.70	-269.3	358.4	893.4	876.9	16.45	54.307		
2,200.0	1,975.5	1,851.4	1,753.0	15.8	9.6	136.66	-288.2	387.5	961.5	943.9	17.65	54.484		
2,300.0	2,055.9	1,924.6	1,817.4	16.9	10.3	136.63	-307.0	416.5	1,029.7	1,010.9	18.85	54.635		
2,400.0	2,136.3	1,997.8	1,881.8	18.0	10.9	136.60	-325.9	445.6	1,097.9	1,077.8	20.05	54.762		
2,500.0	2,216.7	2,070.9	1,946.3	19.2	11.6	136.58	-344.8	474.7	1,166.0	1,144.8	21.25	54.872		
2,600.0	2,297.0	2,144.1	2,010.7	20.3	12.2	136.56	-363.6	503.7	1,234.2	1,211.8	22.45	54.967		
2,700.0	2,377.4	2,217.2	2,075.1	21.4	12.9	136.54	-382.5	532.8	1,302.4	1,278.7	23.66	55.050		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 43A-14 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total	Separation	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-152.46	-7.1	-3.7	8.0					
100.0	100.0	100.0	100.0	0.1	0.1	-152.46	-7.1	-3.7	8.0	7.7	0.26	31.383		
200.0	200.0	200.0	200.0	0.3	0.3	-152.46	-7.1	-3.7	8.0	7.4	0.60	13.248 CC, ES		
227.9	227.9	227.9	227.9	0.4	0.4	169.88	-7.1	-3.7	8.1	7.4	0.70	11.553		
300.0	300.0	300.0	300.0	0.5	0.5	170.52	-7.1	-3.7	8.6	7.7	0.95	9.075 SF		
400.0	399.8	400.3	400.2	0.7	0.7	-177.34	-4.5	-4.2	12.0	10.7	1.30	9.236		
500.0	499.3	500.3	500.0	0.9	0.9	-159.41	3.2	-5.7	18.5	16.8	1.70	10.902		
600.0	598.0	599.9	598.6	1.2	1.1	-145.98	16.0	-8.2	29.3	27.1	2.20	13.321		
700.0	695.8	698.6	695.8	1.6	1.5	-137.42	33.6	-11.6	44.7	41.9	2.86	15.652		
800.0	792.4	796.4	790.8	2.1	1.9	-131.88	55.9	-16.0	64.5	60.8	3.67	17.583		
900.0	887.5	892.9	883.4	2.7	2.4	-128.05	82.5	-21.2	88.5	83.9	4.63	19.106		
1,000.0	980.9	987.9	973.1	3.4	3.0	-125.21	113.2	-27.2	116.5	110.8	5.74	20.301		
1,100.0	1,072.2	1,081.3	1,059.7	4.1	3.6	-122.96	147.6	-33.9	148.4	141.4	6.98	21.251		
1,200.0	1,161.3	1,173.0	1,142.9	5.0	4.3	-121.08	185.3	-41.2	184.0	175.6	8.35	22.021		
1,300.0	1,247.9	1,262.8	1,222.5	5.9	5.1	-119.42	226.1	-49.2	223.1	213.3	9.85	22.659		
1,400.0	1,331.8	1,350.6	1,298.4	7.0	5.9	-117.90	269.4	-57.7	265.6	254.1	11.45	23.198		
1,500.0	1,412.8	1,436.5	1,370.6	8.1	6.7	-116.88	315.1	-66.6	311.1	298.0	13.14	23.678		
1,600.0	1,493.2	1,521.1	1,439.6	9.2	7.6	-116.31	363.2	-75.9	358.1	343.2	14.90	24.030		
1,700.0	1,573.6	1,604.3	1,505.2	10.3	8.5	-115.30	413.3	-85.7	406.1	389.4	16.72	24.293		
1,800.0	1,654.0	1,688.1	1,569.3	11.4	9.5	-114.02	466.3	-96.1	455.2	436.6	18.58	24.497		
1,900.0	1,734.4	1,774.6	1,635.1	12.5	10.5	-112.88	521.6	-106.8	504.6	484.2	20.47	24.649		
2,000.0	1,814.7	1,861.2	1,700.8	13.6	11.4	-111.95	576.8	-117.6	554.2	531.8	22.36	24.785		
2,100.0	1,895.1	1,947.7	1,766.5	14.7	12.4	-111.16	632.0	-128.4	603.8	579.6	24.24	24.907		
2,200.0	1,975.5	2,034.3	1,832.3	15.8	13.4	-110.50	687.2	-139.2	653.5	627.4	26.12	25.016		
2,300.0	2,055.9	2,120.8	1,898.0	16.9	14.4	-109.93	742.5	-149.9	703.3	675.3	28.00	25.114		
2,400.0	2,136.3	2,207.3	1,963.8	18.0	15.4	-109.43	797.7	-160.7	753.1	723.2	29.88	25.202		
2,500.0	2,216.7	2,293.9	2,029.5	19.2	16.4	-108.99	852.9	-171.5	803.0	771.2	31.76	25.282		
2,600.0	2,297.0	2,380.4	2,095.3	20.3	17.4	-108.61	908.1	-182.3	852.8	819.2	33.64	25.354		
2,700.0	2,377.4	2,466.9	2,161.0	21.4	18.4	-108.27	963.4	-193.0	902.8	867.2	35.51	25.420		
2,800.0	2,457.8	2,553.5	2,226.8	22.5	19.4	-107.96	1,018.6	-203.8	952.7	915.3	37.39	25.481		
2,900.0	2,538.2	2,640.0	2,292.5	23.6	20.4	-107.69	1,073.8	-214.6	1,002.6	963.4	39.26	25.536		
3,000.0	2,619.2	2,726.6	2,358.3	24.7	21.4	-108.38	1,129.1	-225.4	1,052.3	1,011.1	41.21	25.539		
3,100.0	2,702.9	2,813.6	2,424.5	25.7	22.4	-109.40	1,184.6	-236.2	1,100.7	1,057.6	43.11	25.530		
3,200.0	2,789.3	2,918.5	2,505.0	26.6	23.6	-110.02	1,250.5	-249.1	1,147.3	1,102.2	45.09	25.446		
3,300.0	2,878.3	3,037.3	2,600.4	27.4	24.8	-110.47	1,319.9	-262.6	1,190.4	1,143.4	47.02	25.315		
3,400.0	2,969.5	3,160.9	2,704.2	28.1	25.9	-110.84	1,385.9	-275.5	1,229.6	1,180.8	48.83	25.183		
3,500.0	3,062.8	3,289.3	2,816.3	28.7	27.0	-111.16	1,447.3	-287.5	1,264.7	1,214.2	50.48	25.053		
3,600.0	3,157.8	3,422.3	2,936.6	29.2	28.0	-111.41	1,502.9	-298.3	1,295.3	1,243.3	51.95	24.935		
3,700.0	3,254.3	3,559.5	3,064.5	29.7	28.8	-111.62	1,551.5	-307.8	1,321.2	1,268.0	53.21	24.829		
3,800.0	3,352.1	3,700.4	3,199.2	30.0	29.5	-111.79	1,591.9	-315.7	1,342.2	1,287.9	54.26	24.734		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 43B-14 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-152.44	-14.2	-7.4	16.0					
100.0	100.0	100.0	100.0	0.1	0.1	-152.44	-14.2	-7.4	16.0	15.7	0.26	62.703		
200.0	200.0	200.0	200.0	0.3	0.3	-152.44	-14.2	-7.4	16.0	15.4	0.60	26.478 CC, ES		
227.8	227.8	227.8	227.8	0.4	0.4	169.84	-14.2	-7.4	16.1	15.4	0.70	22.952		
300.0	300.0	300.0	300.0	0.5	0.5	170.17	-14.2	-7.4	16.6	15.7	0.95	17.462		
400.0	399.8	400.3	400.2	0.7	0.7	173.73	-13.5	-7.6	21.3	20.0	1.30	16.407 SF		
500.0	499.3	500.7	500.6	0.9	0.8	-176.40	-8.4	-8.8	28.4	26.8	1.66	17.160		
600.0	598.0	600.9	600.1	1.2	1.1	-165.01	1.8	-11.2	38.7	36.7	2.06	18.753		
700.0	695.8	700.3	698.3	1.6	1.4	-155.14	17.0	-14.7	53.2	50.6	2.60	20.473		
800.0	792.4	798.7	794.6	2.1	1.7	-147.46	36.9	-19.4	72.2	68.9	3.30	21.865		
900.0	887.5	896.0	888.6	2.7	2.2	-141.62	61.3	-25.1	95.6	91.5	4.18	22.893		
1,000.0	980.9	991.8	979.8	3.4	2.7	-137.12	89.8	-31.8	123.4	118.2	5.22	23.665		
1,100.0	1,072.2	1,085.9	1,067.8	4.1	3.3	-133.53	122.2	-39.4	155.4	149.0	6.40	24.273		
1,200.0	1,161.3	1,178.2	1,152.5	5.0	4.0	-130.58	157.9	-47.8	191.4	183.7	7.73	24.774		
1,300.0	1,247.9	1,268.6	1,233.6	5.9	4.7	-128.06	196.8	-56.9	231.2	222.0	9.17	25.204		
1,400.0	1,331.8	1,356.9	1,310.9	7.0	5.5	-125.83	238.3	-66.6	274.6	263.8	10.73	25.582		
1,500.0	1,412.8	1,444.1	1,385.4	8.1	6.3	-124.25	282.4	-77.0	321.1	308.8	12.36	25.978		
1,600.0	1,493.2	1,532.2	1,460.2	9.2	7.1	-123.73	327.6	-87.6	368.5	354.5	14.01	26.292		
1,700.0	1,573.6	1,620.2	1,535.1	10.3	7.9	-123.34	372.8	-98.1	415.8	400.1	15.67	26.529		
1,800.0	1,654.0	1,708.3	1,609.9	11.4	8.7	-123.02	418.0	-108.7	463.2	445.8	17.34	26.714		
1,900.0	1,734.4	1,796.3	1,684.7	12.5	9.6	-122.76	463.2	-119.3	510.5	491.5	19.01	26.862		
2,000.0	1,814.7	1,884.4	1,759.5	13.6	10.4	-122.55	508.3	-129.9	557.9	537.2	20.68	26.983		
2,100.0	1,895.1	1,972.4	1,834.4	14.7	11.2	-122.37	553.5	-140.5	605.3	582.9	22.35	27.083		
2,200.0	1,975.5	2,060.5	1,909.2	15.8	12.0	-122.22	598.7	-151.1	652.7	628.6	24.02	27.167		
2,300.0	2,055.9	2,148.5	1,984.0	16.9	12.9	-122.08	643.9	-161.7	700.0	674.3	25.70	27.240		
2,400.0	2,136.3	2,236.6	2,058.9	18.0	13.7	-121.97	689.1	-172.3	747.4	720.0	27.38	27.302		
2,500.0	2,216.7	2,324.6	2,133.7	19.2	14.5	-121.86	734.3	-182.9	794.8	765.8	29.05	27.356		
2,600.0	2,297.0	2,412.7	2,208.5	20.3	15.3	-121.77	779.4	-193.5	842.2	811.5	30.73	27.404		
2,700.0	2,377.4	2,500.7	2,283.3	21.4	16.2	-121.69	824.6	-204.1	889.6	857.2	32.41	27.446		
2,800.0	2,457.8	2,588.8	2,358.2	22.5	17.0	-121.62	869.8	-214.7	937.0	902.9	34.09	27.484		
2,900.0	2,538.2	2,676.8	2,433.0	23.6	17.8	-121.55	915.0	-225.3	984.4	948.6	35.77	27.517		
3,000.0	2,619.2	2,765.1	2,508.0	24.7	18.6	-122.27	960.3	-235.9	1,031.3	993.9	37.45	27.539		
3,100.0	2,702.9	2,854.4	2,583.9	25.7	19.5	-123.18	1,006.1	-246.7	1,075.9	1,036.9	39.09	27.522		
3,200.0	2,789.3	2,944.5	2,660.5	26.6	20.3	-123.78	1,052.3	-257.5	1,118.1	1,077.3	40.72	27.456		
3,300.0	2,878.3	3,047.5	2,749.0	27.4	21.2	-124.08	1,103.5	-269.5	1,157.3	1,114.9	42.37	27.312		
3,400.0	2,969.5	3,155.9	2,845.2	28.1	22.1	-124.33	1,152.3	-281.0	1,192.7	1,148.8	43.91	27.163		
3,500.0	3,062.8	3,267.4	2,946.8	28.7	22.9	-124.55	1,196.9	-291.4	1,224.2	1,178.9	45.30	27.024		
3,600.0	3,157.8	3,381.7	3,053.6	29.2	23.6	-124.74	1,236.5	-300.7	1,251.5	1,204.9	46.53	26.899		
3,700.0	3,254.3	3,498.6	3,165.1	29.7	24.2	-124.90	1,270.5	-308.7	1,274.5	1,226.9	47.57	26.789		
3,800.0	3,352.1	3,617.7	3,280.7	30.0	24.6	-125.04	1,298.3	-315.2	1,293.0	1,244.6	48.42	26.705		
3,900.0	3,450.8	3,738.4	3,399.5	30.3	25.0	-125.16	1,319.2	-320.1	1,307.0	1,257.9	49.06	26.642		
4,000.0	3,550.2	3,860.4	3,520.7	30.4	25.2	-125.26	1,332.9	-323.3	1,316.3	1,266.8	49.48	26.600		
4,100.0	3,650.0	3,983.1	3,643.2	30.5	25.4	-125.35	1,339.0	-324.7	1,320.8	1,271.1	49.69	26.579		
4,200.0	3,750.0	4,090.0	3,750.0	30.6	25.4	-87.60	1,339.4	-324.8	1,321.4	1,271.6	49.80	26.536		
4,300.0	3,850.0	4,190.0	3,850.0	30.6	25.5	-87.60	1,339.4	-324.8	1,321.4	1,271.5	49.90	26.481		
4,400.0	3,950.0	4,290.0	3,950.0	30.7	25.5	-87.60	1,339.4	-324.8	1,321.4	1,271.4	50.00	26.426		
4,500.0	4,050.0	4,390.0	4,050.0	30.7	25.6	-87.60	1,339.4	-324.8	1,321.4	1,271.2	50.11	26.370		
4,600.0	4,150.0	4,490.0	4,150.0	30.7	25.6	-87.60	1,339.4	-324.8	1,321.4	1,271.1	50.22	26.313		
4,700.0	4,250.0	4,590.0	4,250.0	30.8	25.7	-87.60	1,339.4	-324.8	1,321.4	1,271.0	50.33	26.255		
4,800.0	4,350.0	4,690.0	4,350.0	30.8	25.7	-87.60	1,339.4	-324.8	1,321.4	1,270.9	50.44	26.197		
4,900.0	4,450.0	4,790.0	4,450.0	30.9	25.8	-87.60	1,339.4	-324.8	1,321.4	1,270.8	50.56	26.137		
5,000.0	4,550.0	4,890.0	4,550.0	30.9	25.8	-87.60	1,339.4	-324.8	1,321.4	1,270.7	50.67	26.077		

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 Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 43B-14 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,100.0	4,650.0	4,990.0	4,650.0	31.0	25.9	-87.60	1,339.4	-324.8	1,321.4	1,270.6	50.79	26.015		
5,200.0	4,750.0	5,090.0	4,750.0	31.0	25.9	-87.60	1,339.4	-324.8	1,321.4	1,270.4	50.91	25.953		
5,300.0	4,850.0	5,190.0	4,850.0	31.1	26.0	-87.60	1,339.4	-324.8	1,321.4	1,270.3	51.04	25.890		
5,400.0	4,950.0	5,290.0	4,950.0	31.1	26.1	-87.60	1,339.4	-324.8	1,321.4	1,270.2	51.16	25.827		
5,500.0	5,050.0	5,390.0	5,050.0	31.2	26.1	-87.60	1,339.4	-324.8	1,321.4	1,270.1	51.29	25.763		
5,600.0	5,150.0	5,490.0	5,150.0	31.2	26.2	-87.60	1,339.4	-324.8	1,321.4	1,269.9	51.42	25.698		
5,700.0	5,250.0	5,590.0	5,250.0	31.3	26.3	-87.60	1,339.4	-324.8	1,321.4	1,269.8	51.55	25.632		
5,800.0	5,350.0	5,690.0	5,350.0	31.4	26.3	-87.60	1,339.4	-324.8	1,321.4	1,269.7	51.69	25.565		
5,900.0	5,450.0	5,790.0	5,450.0	31.4	26.4	-87.60	1,339.4	-324.8	1,321.4	1,269.5	51.82	25.498		
6,000.0	5,550.0	5,890.0	5,550.0	31.5	26.5	-87.60	1,339.4	-324.8	1,321.4	1,269.4	51.96	25.431		
6,100.0	5,650.0	5,990.0	5,650.0	31.5	26.5	-87.60	1,339.4	-324.8	1,321.4	1,269.3	52.10	25.363		
6,200.0	5,750.0	6,090.0	5,750.0	31.6	26.6	-87.60	1,339.4	-324.8	1,321.4	1,269.1	52.24	25.294		
6,300.0	5,850.0	6,190.0	5,850.0	31.6	26.7	-87.60	1,339.4	-324.8	1,321.4	1,269.0	52.38	25.224		
6,326.6	5,876.7	6,216.6	5,876.7	31.7	26.7	-87.60	1,339.4	-324.8	1,321.4	1,268.9	52.42	25.206		
6,380.0	5,930.0	6,229.9	5,890.0	31.7	26.7	-87.60	1,339.4	-324.8	1,322.0	1,269.5	52.47	25.194		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 43C-14 - DD - Plan #3												Offset Site Error: 0.0 ft	
Survey Program: 0-MWD												Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis		Separation Factor
0.0	0.0	0.0	0.0	0.0	0.0	-152.50	-21.3	-11.1	24.0				
100.0	100.0	100.0	100.0	0.1	0.1	-152.50	-21.3	-11.1	24.0	23.7	0.26	93.946	
200.0	200.0	200.0	200.0	0.3	0.3	-152.50	-21.3	-11.1	24.0	23.4	0.60	39.684	CC, ES
227.8	227.8	227.8	227.8	0.4	0.4	169.75	-21.3	-11.1	24.1	23.4	0.70	34.332	
300.0	300.0	300.0	300.0	0.5	0.5	169.98	-21.3	-11.1	24.6	23.7	0.95	25.836	
400.0	399.8	399.8	399.8	0.7	0.7	171.71	-21.3	-11.1	29.8	28.5	1.30	22.912	SF
500.0	499.3	500.5	500.5	0.9	0.8	176.95	-18.8	-12.0	38.6	37.0	1.65	23.411	
600.0	598.0	600.8	600.4	1.2	1.0	-174.65	-11.4	-14.7	50.2	48.2	2.02	24.897	
700.0	695.8	700.4	699.1	1.6	1.3	-165.99	0.9	-19.2	65.8	63.3	2.46	26.739	
800.0	792.4	798.8	795.9	2.1	1.6	-158.39	17.7	-25.3	86.0	82.9	3.04	28.289	
900.0	887.5	895.9	890.3	2.7	2.0	-152.12	38.8	-33.0	111.0	107.2	3.78	29.328	
1,000.0	980.9	991.2	981.8	3.4	2.5	-147.02	64.0	-42.2	140.8	136.1	4.70	29.979	
1,100.0	1,072.2	1,084.6	1,070.3	4.1	3.0	-143.08	92.2	-52.5	175.3	169.6	5.72	30.649	
1,200.0	1,161.3	1,176.7	1,157.4	5.0	3.5	-140.89	120.3	-62.8	214.0	207.2	6.78	31.576	
1,300.0	1,247.9	1,267.3	1,243.0	5.9	4.1	-139.83	148.0	-72.9	256.4	248.6	7.85	32.674	
1,400.0	1,331.8	1,356.0	1,326.9	7.0	4.6	-139.42	175.2	-82.8	302.5	293.5	8.93	33.881	
1,500.0	1,412.8	1,442.8	1,408.9	8.1	5.1	-139.72	201.7	-92.5	351.9	341.9	10.00	35.197	
1,600.0	1,493.2	1,529.1	1,490.5	9.2	5.6	-140.62	228.1	-102.2	402.1	391.0	11.06	36.362	
1,700.0	1,573.6	1,615.4	1,572.1	10.3	6.1	-141.32	254.5	-111.8	452.4	440.3	12.12	37.321	
1,800.0	1,654.0	1,701.7	1,653.7	11.4	6.6	-141.88	281.0	-121.5	502.7	489.6	13.19	38.122	
1,900.0	1,734.4	1,788.0	1,735.3	12.5	7.1	-142.34	307.4	-131.1	553.1	538.9	14.26	38.801	
2,000.0	1,814.7	1,874.3	1,816.9	13.6	7.6	-142.72	333.8	-140.8	603.5	588.2	15.32	39.384	
2,100.0	1,895.1	1,960.7	1,898.5	14.7	8.1	-143.04	360.2	-150.4	653.9	637.5	16.39	39.889	
2,200.0	1,975.5	2,047.0	1,980.1	15.8	8.6	-143.32	386.6	-160.0	704.3	686.9	17.46	40.332	
2,300.0	2,055.9	2,133.3	2,061.7	16.9	9.2	-143.56	413.0	-169.7	754.8	736.2	18.53	40.722	
2,400.0	2,136.3	2,219.6	2,143.3	18.0	9.7	-143.77	439.4	-179.3	805.2	785.6	19.61	41.070	
2,500.0	2,216.7	2,305.9	2,225.0	19.2	10.2	-143.95	465.8	-189.0	855.7	835.0	20.68	41.380	
2,600.0	2,297.0	2,392.2	2,306.6	20.3	10.7	-144.12	492.2	-198.6	906.1	884.4	21.75	41.660	
2,700.0	2,377.4	2,478.5	2,388.2	21.4	11.2	-144.26	518.6	-208.3	956.6	933.8	22.82	41.912	
2,800.0	2,457.8	2,564.8	2,469.8	22.5	11.7	-144.40	545.0	-217.9	1,007.0	983.1	23.90	42.142	
2,900.0	2,538.2	2,651.1	2,551.4	23.6	12.2	-144.51	571.4	-227.6	1,057.5	1,032.5	24.97	42.352	
3,000.0	2,619.2	2,737.9	2,633.4	24.7	12.8	-145.19	598.0	-237.3	1,107.3	1,081.3	26.00	42.587	
3,100.0	2,702.9	2,826.5	2,717.2	25.7	13.3	-145.99	625.1	-247.2	1,153.5	1,126.5	27.02	42.687	
3,200.0	2,789.3	2,916.9	2,802.7	26.6	13.8	-146.53	652.8	-257.3	1,195.9	1,167.8	28.08	42.593	
3,300.0	2,878.3	3,009.0	2,889.7	27.4	14.4	-146.85	680.9	-267.6	1,234.3	1,205.2	29.16	42.330	
3,400.0	2,969.5	3,102.3	2,977.9	28.1	14.9	-146.97	709.5	-278.0	1,268.7	1,238.5	30.26	41.923	
3,500.0	3,062.8	3,196.4	3,067.1	28.7	15.5	-146.92	737.9	-288.4	1,299.1	1,267.7	31.36	41.428	
3,600.0	3,157.8	3,291.9	3,158.6	29.2	15.9	-146.87	763.1	-297.6	1,325.4	1,293.1	32.30	41.030	
3,700.0	3,254.3	3,389.0	3,253.1	29.7	16.3	-146.86	784.3	-305.3	1,347.5	1,314.4	33.10	40.709	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 44A-14 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-152.49	-28.4	-14.8	32.0					
100.0	100.0	100.0	100.0	0.1	0.1	-152.49	-28.4	-14.8	32.0	31.7	0.26	125.167		
200.0	200.0	200.0	200.0	0.3	0.3	-152.49	-28.4	-14.8	32.0	31.4	0.60	52.900 CC, ES		
227.8	227.8	227.8	227.8	0.4	0.4	169.76	-28.4	-14.8	32.1	31.4	0.70	45.721		
300.0	300.0	300.0	300.0	0.5	0.5	169.93	-28.4	-14.8	32.6	31.7	0.95	34.219		
400.0	399.8	399.8	399.8	0.7	0.7	171.29	-28.4	-14.8	37.8	36.5	1.30	29.054 SF		
500.0	499.3	499.7	499.7	0.9	0.8	173.60	-28.0	-15.0	47.9	46.3	1.65	29.137		
600.0	598.0	599.5	599.4	1.2	1.0	178.02	-25.0	-16.7	62.0	60.0	1.99	31.173		
700.0	695.8	698.5	698.2	1.6	1.2	-176.92	-19.0	-20.1	80.2	77.9	2.34	34.233		
800.0	792.4	796.6	795.7	2.1	1.4	-172.16	-10.1	-25.0	102.9	100.2	2.73	37.679		
900.0	887.5	893.3	891.6	2.7	1.7	-168.02	1.5	-31.5	130.4	127.2	3.18	40.969		
1,000.0	980.9	988.5	985.4	3.4	2.0	-164.49	15.6	-39.5	162.5	158.8	3.71	43.764		
1,100.0	1,072.2	1,081.9	1,076.8	4.1	2.3	-161.49	32.1	-48.8	199.3	194.9	4.34	45.956		
1,200.0	1,161.3	1,173.3	1,165.6	5.0	2.7	-158.90	50.8	-59.3	240.6	235.6	5.06	47.591		
1,300.0	1,247.9	1,262.4	1,251.5	5.9	3.1	-156.63	71.4	-70.8	286.4	280.5	5.87	48.783		
1,400.0	1,331.8	1,349.1	1,334.4	7.0	3.6	-154.59	93.6	-83.3	336.3	329.6	6.77	49.653		
1,500.0	1,412.8	1,433.3	1,414.2	8.1	4.0	-153.04	117.1	-96.5	390.2	382.4	7.74	50.394		
1,600.0	1,493.2	1,516.8	1,493.2	9.2	4.5	-152.31	140.7	-109.8	445.0	436.2	8.74	50.936		
1,700.0	1,573.6	1,600.4	1,572.3	10.3	5.0	-151.74	164.3	-123.0	499.8	490.0	9.74	51.314		
1,800.0	1,654.0	1,683.9	1,651.3	11.4	5.5	-151.28	187.9	-136.3	554.6	543.9	10.75	51.584		
1,900.0	1,734.4	1,767.5	1,730.3	12.5	6.0	-150.90	211.5	-149.6	609.5	597.7	11.77	51.785		
2,000.0	1,814.7	1,851.0	1,809.4	13.6	6.4	-150.59	235.1	-162.8	664.4	651.6	12.79	51.937		
2,100.0	1,895.1	1,934.6	1,888.4	14.7	6.9	-150.32	258.7	-176.1	719.3	705.5	13.82	52.055		
2,200.0	1,975.5	2,018.1	1,967.4	15.8	7.4	-150.09	282.3	-189.3	774.2	759.3	14.85	52.147		
2,300.0	2,055.9	2,101.6	2,046.5	16.9	7.9	-149.89	305.9	-202.6	829.1	813.2	15.88	52.221		
2,400.0	2,136.3	2,185.2	2,125.5	18.0	8.4	-149.72	329.5	-215.9	884.0	867.1	16.91	52.279		
2,500.0	2,216.7	2,268.7	2,204.5	19.2	8.9	-149.57	353.1	-229.1	938.9	921.0	17.94	52.327		
2,600.0	2,297.0	2,352.4	2,283.7	20.3	9.4	-149.43	376.7	-242.4	993.9	974.9	18.98	52.375		
2,700.0	2,377.4	2,437.3	2,364.6	21.4	9.8	-149.42	399.4	-255.1	1,048.7	1,028.8	19.95	52.568		
2,800.0	2,457.8	2,522.3	2,446.2	22.5	10.3	-149.56	419.9	-266.7	1,103.5	1,082.7	20.85	52.933		
2,900.0	2,538.2	2,607.2	2,528.4	23.6	10.6	-149.83	438.3	-277.0	1,158.2	1,136.5	21.67	53.456		
3,000.0	2,619.2	2,692.4	2,611.5	24.7	11.0	-150.77	454.7	-286.2	1,212.1	1,189.7	22.36	54.196		
3,100.0	2,702.9	2,779.7	2,697.2	25.7	11.3	-151.95	469.2	-294.3	1,262.3	1,239.3	22.97	54.956		
3,200.0	2,789.3	2,869.1	2,785.4	26.6	11.5	-153.00	481.6	-301.4	1,308.4	1,284.9	23.51	55.655		
3,300.0	2,878.3	2,960.3	2,875.9	27.4	11.8	-153.95	491.9	-307.1	1,350.3	1,326.3	23.98	56.317		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 44B-14 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-152.48	-35.5	-18.5	40.0					
100.0	100.0	100.0	100.0	0.1	0.1	-152.48	-35.5	-18.5	40.0	39.7	0.26	156.402		
200.0	200.0	200.0	200.0	0.3	0.3	-152.48	-35.5	-18.5	40.0	39.4	0.60	66.122	CC, ES	
227.8	227.8	227.8	227.8	0.4	0.4	169.76	-35.5	-18.5	40.1	39.4	0.70	57.117		
300.0	300.0	300.0	300.0	0.5	0.5	169.89	-35.5	-18.5	40.6	39.7	0.95	42.607		
400.0	399.8	399.8	399.8	0.7	0.7	171.02	-35.5	-18.5	45.8	44.5	1.30	35.200		
500.0	499.3	499.3	499.3	0.9	0.8	172.64	-35.5	-18.5	56.1	54.5	1.64	34.128	SF	
600.0	598.0	597.8	597.8	1.2	1.0	176.22	-34.2	-20.6	71.8	69.8	1.99	36.174		
700.0	695.8	694.6	694.2	1.6	1.2	-178.31	-30.6	-27.1	93.6	91.2	2.34	40.018		
800.0	792.4	789.8	788.9	2.1	1.4	-173.34	-25.2	-36.5	121.7	119.0	2.71	44.901		
900.0	887.5	883.8	882.2	2.7	1.6	-170.38	-19.8	-46.0	155.3	152.2	3.10	50.123		
1,000.0	980.9	975.9	973.7	3.4	1.9	-168.66	-14.5	-55.2	194.0	190.5	3.50	55.480		
1,100.0	1,072.2	1,066.0	1,063.2	4.1	2.1	-167.66	-9.3	-64.3	237.3	233.4	3.90	60.904		
1,200.0	1,161.3	1,153.7	1,150.3	5.0	2.3	-167.08	-4.3	-73.1	285.3	281.0	4.30	66.375		
1,300.0	1,247.9	1,238.9	1,235.0	5.9	2.5	-166.73	0.6	-81.7	337.6	332.9	4.70	71.881		
1,400.0	1,331.8	1,321.3	1,316.8	7.0	2.7	-166.52	5.3	-90.0	394.2	389.1	5.09	77.405		
1,500.0	1,412.8	1,400.9	1,395.8	8.1	2.9	-166.54	9.9	-98.0	454.7	449.2	5.50	82.673		
1,600.0	1,493.2	1,479.8	1,474.2	9.2	3.1	-166.86	14.4	-106.0	516.2	510.2	5.94	86.913		
1,700.0	1,573.6	1,558.6	1,552.5	10.3	3.4	-167.11	18.9	-113.9	577.6	571.3	6.38	90.560		
1,800.0	1,654.0	1,637.5	1,630.8	11.4	3.6	-167.32	23.5	-121.9	639.1	632.3	6.82	93.729		
1,900.0	1,734.4	1,716.4	1,709.2	12.5	3.8	-167.49	28.0	-129.8	700.5	693.3	7.26	96.507		
2,000.0	1,814.7	1,795.3	1,787.5	13.6	4.0	-167.63	32.5	-137.7	762.0	754.3	7.70	98.962		
2,100.0	1,895.1	1,874.1	1,865.9	14.7	4.2	-167.75	37.0	-145.7	823.5	815.3	8.14	101.146		
2,200.0	1,975.5	1,953.0	1,944.2	15.8	4.4	-167.85	41.6	-153.6	884.9	876.4	8.58	103.101		
2,300.0	2,055.9	2,031.9	2,022.5	16.9	4.6	-167.94	46.1	-161.6	946.4	937.4	9.03	104.862		
2,400.0	2,136.3	2,110.7	2,100.9	18.0	4.8	-168.02	50.6	-169.5	1,007.9	998.4	9.47	106.457		
2,500.0	2,216.7	2,189.6	2,179.2	19.2	5.0	-168.09	55.2	-177.5	1,069.3	1,059.4	9.91	107.906		
2,600.0	2,297.0	2,268.5	2,257.5	20.3	5.2	-168.15	59.7	-185.4	1,130.8	1,120.5	10.35	109.230		
2,700.0	2,377.4	2,347.3	2,335.9	21.4	5.4	-168.21	64.2	-193.3	1,192.3	1,181.5	10.80	110.444		
2,800.0	2,457.8	2,426.2	2,414.2	22.5	5.6	-168.26	68.7	-201.3	1,253.8	1,242.5	11.24	111.560		
2,900.0	2,538.2	2,505.1	2,492.6	23.6	5.9	-168.31	73.3	-209.2	1,315.2	1,303.5	11.68	112.591		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte 44C-14 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-152.48	-42.6	-22.2	48.0					
100.0	100.0	100.0	100.0	0.1	0.1	-152.48	-42.6	-22.2	48.0	47.7	0.26	187.549		
200.0	200.0	200.0	200.0	0.3	0.3	-152.48	-42.6	-22.2	48.0	47.4	0.60	79.324	CC, ES	
227.8	227.8	227.8	227.8	0.4	0.4	169.76	-42.6	-22.2	48.1	47.4	0.70	68.496		
300.0	300.0	300.0	300.0	0.5	0.5	169.87	-42.6	-22.2	48.6	47.7	0.95	50.984		
400.0	399.8	399.8	399.8	0.7	0.7	170.83	-42.6	-22.2	53.8	52.5	1.30	41.341		
500.0	499.3	497.1	497.1	0.9	0.8	173.91	-43.0	-24.6	65.8	64.1	1.64	40.028	SF	
600.0	598.0	591.9	591.6	1.2	1.0	178.45	-44.4	-31.5	86.6	84.6	1.98	43.710		
700.0	695.8	683.4	682.5	1.6	1.2	-179.23	-49.1	-39.9	116.8	114.5	2.30	50.684		
800.0	792.4	776.3	774.9	2.1	1.4	-178.20	-55.6	-48.7	153.5	150.9	2.62	58.552		
900.0	887.5	867.3	865.1	2.7	1.7	-177.60	-62.0	-57.3	195.1	192.2	2.93	66.626		
1,000.0	980.9	955.9	953.2	3.4	1.9	-177.24	-68.2	-65.7	241.4	238.2	3.22	74.893		
1,100.0	1,072.2	1,042.0	1,038.6	4.1	2.1	-177.01	-74.2	-73.9	292.2	288.7	3.51	83.367		
1,200.0	1,161.3	1,125.3	1,121.4	5.0	2.3	-176.86	-80.1	-81.8	347.5	343.7	3.77	92.061		
1,300.0	1,247.9	1,205.6	1,201.1	5.9	2.5	-176.76	-85.7	-89.4	407.1	403.0	4.03	100.986		
1,400.0	1,331.8	1,282.7	1,277.7	7.0	2.7	-176.67	-91.1	-96.7	470.8	466.5	4.27	110.145		
1,500.0	1,412.8	1,356.5	1,351.0	8.1	2.9	-176.65	-96.3	-103.7	538.2	533.6	4.53	118.812		
1,600.0	1,493.2	1,429.6	1,423.6	9.2	3.1	-176.73	-101.5	-110.6	606.4	601.6	4.83	125.492		
1,700.0	1,573.6	1,502.7	1,496.1	10.3	3.3	-176.79	-106.6	-117.6	674.7	669.6	5.13	131.402		
1,800.0	1,654.0	1,575.7	1,568.7	11.4	3.5	-176.84	-111.7	-124.5	743.0	737.5	5.44	136.664		
1,900.0	1,734.4	1,648.8	1,641.2	12.5	3.7	-176.88	-116.8	-131.4	811.2	805.5	5.74	141.384		
2,000.0	1,814.7	1,721.9	1,713.8	13.6	3.9	-176.91	-122.0	-138.3	879.5	873.5	6.04	145.642		
2,100.0	1,895.1	1,794.9	1,786.4	14.7	4.1	-176.94	-127.1	-145.3	947.8	941.4	6.34	149.503		
2,200.0	1,975.5	1,868.0	1,858.9	15.8	4.3	-176.97	-132.2	-152.2	1,016.1	1,009.4	6.64	153.019		
2,300.0	2,055.9	1,941.1	1,931.5	16.9	4.5	-176.99	-137.4	-159.1	1,084.3	1,077.4	6.94	156.235		
2,400.0	2,136.3	2,014.2	2,004.0	18.0	4.7	-177.01	-142.5	-166.0	1,152.6	1,145.4	7.24	159.189		
2,500.0	2,216.7	2,087.2	2,076.6	19.2	4.9	-177.03	-147.6	-173.0	1,220.9	1,213.3	7.54	161.911		
2,600.0	2,297.0	2,160.3	2,149.2	20.3	5.1	-177.04	-152.7	-179.9	1,289.1	1,281.3	7.84	164.428		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S14-T7S-R96W - Nolte SWD 1-14 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-152.47	-49.6	-25.9	56.0					
100.0	100.0	100.0	100.0	0.1	0.1	-152.47	-49.6	-25.9	56.0	55.7	0.26	218.648		
200.0	200.0	200.0	200.0	0.3	0.3	-152.47	-49.6	-25.9	56.0	55.4	0.61	92.513 CC, ES		
227.8	227.8	227.8	227.8	0.4	0.4	169.76	-49.6	-25.9	56.1	55.4	0.70	79.866		
300.0	300.0	300.0	300.0	0.5	0.5	169.86	-49.6	-25.9	56.6	55.7	0.95	59.356		
400.0	399.8	399.8	399.8	0.7	0.7	170.69	-49.6	-25.9	61.8	60.5	1.30	47.478		
500.0	499.3	499.3	499.3	0.9	0.8	171.99	-49.6	-25.9	72.1	70.5	1.65	43.824 SF		
600.0	598.0	598.0	598.0	1.2	1.0	173.36	-49.6	-25.9	87.6	85.6	1.98	44.149		
700.0	695.8	695.8	695.8	1.6	1.2	174.57	-49.6	-25.9	108.3	106.0	2.32	46.739		
800.0	792.4	792.4	792.4	2.1	1.3	175.56	-49.6	-25.9	134.1	131.5	2.64	50.770		
900.0	887.5	887.5	887.5	2.7	1.5	176.33	-49.6	-25.9	164.9	162.0	2.96	55.804		
1,000.0	980.9	980.9	980.9	3.4	1.7	176.92	-49.6	-25.9	200.7	197.5	3.26	61.589		
1,100.0	1,072.2	1,072.2	1,072.2	4.1	1.8	177.38	-49.6	-25.9	241.3	237.8	3.55	67.976		
1,200.0	1,161.3	1,161.3	1,161.3	5.0	2.0	177.73	-49.6	-25.9	286.7	282.9	3.83	74.874		
1,300.0	1,247.9	1,247.9	1,247.9	5.9	2.1	178.01	-49.6	-25.9	336.7	332.6	4.09	82.227		
1,400.0	1,331.8	1,331.8	1,331.8	7.0	2.3	178.23	-49.6	-25.9	391.1	386.8	4.35	89.999		
1,500.0	1,412.8	1,412.8	1,412.8	8.1	2.4	178.42	-49.6	-25.9	449.6	445.0	4.61	97.564		
1,600.0	1,493.2	1,493.2	1,493.2	9.2	2.6	178.60	-49.6	-25.9	509.1	504.2	4.92	103.517		
1,700.0	1,573.6	1,573.6	1,573.6	10.3	2.7	178.75	-49.6	-25.9	568.6	563.4	5.23	108.779		
1,800.0	1,654.0	1,654.0	1,654.0	11.4	2.8	178.87	-49.6	-25.9	628.1	622.5	5.54	113.465		
1,900.0	1,734.4	1,734.4	1,734.4	12.5	3.0	178.97	-49.6	-25.9	687.5	681.7	5.84	117.665		
2,000.0	1,814.7	1,814.7	1,814.7	13.6	3.1	179.05	-49.6	-25.9	747.0	740.9	6.15	121.453		
2,100.0	1,895.1	1,895.1	1,895.1	14.7	3.3	179.12	-49.6	-25.9	806.5	800.0	6.46	124.886		
2,200.0	1,975.5	1,975.5	1,975.5	15.8	3.4	179.18	-49.6	-25.9	866.0	859.2	6.76	128.012		
2,300.0	2,055.9	2,055.9	2,055.9	16.9	3.5	179.23	-49.6	-25.9	925.5	918.4	7.07	130.870		
2,400.0	2,136.3	2,136.3	2,136.3	18.0	3.7	179.28	-49.6	-25.9	984.9	977.6	7.38	133.495		
2,500.0	2,216.7	2,216.7	2,216.7	19.2	3.8	179.32	-49.6	-25.9	1,044.4	1,036.7	7.68	135.913		
2,600.0	2,297.0	2,297.0	2,297.0	20.3	4.0	179.36	-49.6	-25.9	1,103.9	1,095.9	7.99	138.149		
2,700.0	2,377.4	2,377.4	2,377.4	21.4	4.1	179.39	-49.6	-25.9	1,163.4	1,155.1	8.30	140.221		
2,800.0	2,457.8	2,457.8	2,457.8	22.5	4.2	179.42	-49.6	-25.9	1,222.9	1,214.3	8.60	142.148		
2,900.0	2,538.2	2,538.2	2,538.2	23.6	4.4	179.45	-49.6	-25.9	1,282.4	1,273.4	8.91	143.945		
3,000.0	2,619.2	2,619.2	2,619.2	24.7	4.5	179.48	-49.6	-25.9	1,341.0	1,331.7	9.29	144.430		

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	Local Co-ordinate Reference:	Well Nolte 13B-13
Project:	Garfield County, CO	TVD Reference:	WELL @ 5117.8ft (Original Well Elev)
Reference Site:	S14-T7S-R96W	MD Reference:	WELL @ 5117.8ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Nolte 13B-13	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5117.8ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Nolte 13B-13
Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502
Grid Convergence at Surface is: -1.62°

