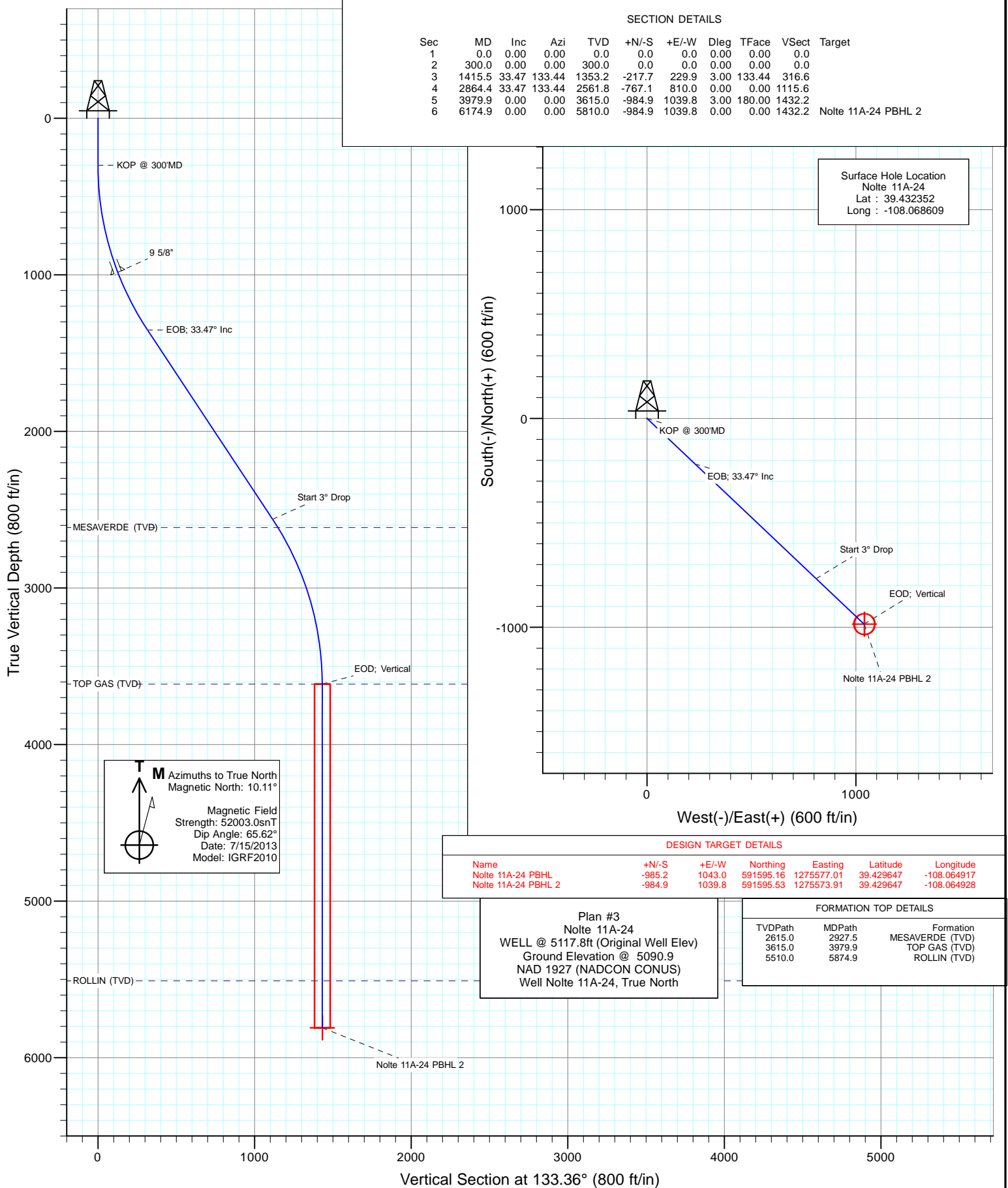




Project: Garfield County, CO  
Site: S14-T7S-R96W  
Well: Nolte 11A-24  
Wellbore: DD  
Design: Plan #3



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site:</b>	S14-T7S-R96W	<b>North Reference:</b>	True
<b>Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #3		

<b>Project</b>	Garfield County, CO		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	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 11A-24					
Well Position	+N/-S	0.0 ft	Northing:	592,609.41 ft	Latitude:	39.432352
	+E/-W	0.0 ft	Easting:	1,274,562.32 ft	Longitude:	-108.068609
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,090.9 ft

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

<b>Design</b>	Plan #3			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	133.36

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,415.5	33.47	133.44	1,353.2	-217.7	229.9	3.00	3.00	0.00	133.44	
2,864.4	33.47	133.44	2,561.8	-767.1	810.0	0.00	0.00	0.00	0.00	
3,979.9	0.00	0.00	3,615.0	-984.9	1,039.8	3.00	-3.00	0.00	180.00	
6,174.9	0.00	0.00	5,810.0	-984.9	1,039.8	0.00	0.00	0.00	0.00	Nolte 11A-24 PBHL 2

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site:</b>	S14-T7S-R96W	<b>North Reference:</b>	True
<b>Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	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	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 300'MD
400.0	3.00	133.44	400.0	-1.8	1.9	2.6	3.00	3.00	
500.0	6.00	133.44	499.6	-7.2	7.6	10.5	3.00	3.00	
600.0	9.00	133.44	598.8	-16.2	17.1	23.5	3.00	3.00	
700.0	12.00	133.44	697.1	-28.7	30.3	41.7	3.00	3.00	
800.0	15.00	133.44	794.3	-44.8	47.2	65.1	3.00	3.00	
900.0	18.00	133.44	890.2	-64.3	67.9	93.5	3.00	3.00	
1,000.0	21.00	133.44	984.4	-87.2	92.1	126.9	3.00	3.00	9 5/8"
1,100.0	24.00	133.44	1,076.8	-113.5	119.9	165.1	3.00	3.00	
1,200.0	27.00	133.44	1,167.1	-143.1	151.1	208.2	3.00	3.00	
1,300.0	30.00	133.44	1,254.9	-176.0	185.8	255.9	3.00	3.00	
1,400.0	33.00	133.44	1,340.2	-211.9	223.7	308.1	3.00	3.00	
1,415.5	33.47	133.44	1,353.1	-217.7	229.9	316.6	3.00	3.00	EOB; 33.47° Inc
1,500.0	33.47	133.44	1,423.6	-249.8	263.7	363.2	0.00	0.00	
1,600.0	33.47	133.44	1,507.1	-287.7	303.7	418.4	0.00	0.00	
1,700.0	33.47	133.44	1,590.5	-325.6	343.8	473.5	0.00	0.00	
1,800.0	33.47	133.44	1,673.9	-363.5	383.8	528.6	0.00	0.00	
1,900.0	33.47	133.44	1,757.3	-401.4	423.8	583.8	0.00	0.00	
2,000.0	33.47	133.44	1,840.7	-439.4	463.9	638.9	0.00	0.00	
2,100.0	33.47	133.44	1,924.2	-477.3	503.9	694.1	0.00	0.00	
2,200.0	33.47	133.44	2,007.6	-515.2	544.0	749.2	0.00	0.00	
2,300.0	33.47	133.44	2,091.0	-553.1	584.0	804.4	0.00	0.00	
2,400.0	33.47	133.44	2,174.4	-591.0	624.0	859.5	0.00	0.00	
2,500.0	33.47	133.44	2,257.8	-629.0	664.1	914.7	0.00	0.00	
2,600.0	33.47	133.44	2,341.3	-666.9	704.1	969.8	0.00	0.00	
2,700.0	33.47	133.44	2,424.7	-704.8	744.1	1,024.9	0.00	0.00	
2,800.0	33.47	133.44	2,508.1	-742.7	784.2	1,080.1	0.00	0.00	
2,864.4	33.47	133.44	2,561.8	-767.2	810.0	1,115.6	0.00	0.00	Start 3° Drop
2,900.0	32.40	133.44	2,591.7	-780.5	824.0	1,135.0	3.00	-3.00	
2,927.5	31.57	133.44	2,615.0	-790.5	834.6	1,149.5	3.00	-3.00	MESAVERDE (TVD)
3,000.0	29.40	133.44	2,677.5	-815.8	861.3	1,186.3	3.00	-3.00	
3,100.0	26.40	133.44	2,765.9	-847.9	895.3	1,233.1	3.00	-3.00	
3,200.0	23.40	133.44	2,856.6	-876.9	925.8	1,275.2	3.00	-3.00	
3,300.0	20.40	133.44	2,949.4	-902.5	952.9	1,312.5	3.00	-3.00	
3,400.0	17.40	133.44	3,044.0	-924.8	976.4	1,344.9	3.00	-3.00	
3,500.0	14.40	133.44	3,140.1	-943.6	996.3	1,372.2	3.00	-3.00	
3,600.0	11.40	133.44	3,237.6	-959.0	1,012.5	1,394.6	3.00	-3.00	
3,700.0	8.40	133.44	3,336.1	-970.8	1,025.0	1,411.7	3.00	-3.00	
3,800.0	5.40	133.44	3,435.3	-979.1	1,033.7	1,423.8	3.00	-3.00	
3,900.0	2.40	133.44	3,535.1	-983.7	1,038.6	1,430.6	3.00	-3.00	
3,979.9	0.00	0.00	3,615.0	-984.9	1,039.8	1,432.2	3.00	-3.00	EOD; Vertical - TOP GAS (TVD)
4,000.0	0.00	0.00	3,635.1	-984.9	1,039.8	1,432.2	0.00	0.00	
4,100.0	0.00	0.00	3,735.1	-984.9	1,039.8	1,432.2	0.00	0.00	
4,200.0	0.00	0.00	3,835.1	-984.9	1,039.8	1,432.2	0.00	0.00	
4,300.0	0.00	0.00	3,935.1	-984.9	1,039.8	1,432.2	0.00	0.00	
4,400.0	0.00	0.00	4,035.1	-984.9	1,039.8	1,432.2	0.00	0.00	
4,500.0	0.00	0.00	4,135.1	-984.9	1,039.8	1,432.2	0.00	0.00	
4,600.0	0.00	0.00	4,235.1	-984.9	1,039.8	1,432.2	0.00	0.00	
4,700.0	0.00	0.00	4,335.1	-984.9	1,039.8	1,432.2	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site:</b>	S14-T7S-R96W	<b>North Reference:</b>	True
<b>Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	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
4,800.0	0.00	0.00	4,435.1	-984.9	1,039.8	1,432.2	0.00	0.00	
4,900.0	0.00	0.00	4,535.1	-984.9	1,039.8	1,432.2	0.00	0.00	
5,000.0	0.00	0.00	4,635.1	-984.9	1,039.8	1,432.2	0.00	0.00	
5,100.0	0.00	0.00	4,735.1	-984.9	1,039.8	1,432.2	0.00	0.00	
5,200.0	0.00	0.00	4,835.1	-984.9	1,039.8	1,432.2	0.00	0.00	
5,300.0	0.00	0.00	4,935.1	-984.9	1,039.8	1,432.2	0.00	0.00	
5,400.0	0.00	0.00	5,035.1	-984.9	1,039.8	1,432.2	0.00	0.00	
5,500.0	0.00	0.00	5,135.1	-984.9	1,039.8	1,432.2	0.00	0.00	
5,600.0	0.00	0.00	5,235.1	-984.9	1,039.8	1,432.2	0.00	0.00	
5,700.0	0.00	0.00	5,335.1	-984.9	1,039.8	1,432.2	0.00	0.00	
5,800.0	0.00	0.00	5,435.1	-984.9	1,039.8	1,432.2	0.00	0.00	
5,874.9	0.00	0.00	5,510.0	-984.9	1,039.8	1,432.2	0.00	0.00	ROLLIN (TVD)
5,900.0	0.00	0.00	5,535.1	-984.9	1,039.8	1,432.2	0.00	0.00	
6,000.0	0.00	0.00	5,635.1	-984.9	1,039.8	1,432.2	0.00	0.00	
6,100.0	0.00	0.00	5,735.1	-984.9	1,039.8	1,432.2	0.00	0.00	
6,174.9	0.00	0.00	5,810.0	-984.9	1,039.8	1,432.2	0.00	0.00	PBHL @ 6,174' 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 11A-24 PBHL 2	0.00	0.00	5,810.0	-984.9	1,039.8	591,595.53	1,275,573.91	39.429647	-108.064928
- plan hits target center									
- Circle (radius 50.0)									
Nolte 11A-24 PBHL	0.00	0.00	5,810.0	-985.2	1,043.0	591,595.16	1,275,577.01	39.429647	-108.064917
- plan misses target center by 3.1ft at 6174.9ft MD (5810.0 TVD, -984.9 N, 1039.8 E)									
- Circle (radius 50.0)									

### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,000.0	984.4	9 5/8"	9.625	12.250

### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,927.5	2,615.0	MESAVERDE (TVD)		0.00	
3,979.9	3,615.0	TOP GAS (TVD)		0.00	
5,874.9	5,510.0	ROLLIN (TVD)		0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site:</b>	S14-T7S-R96W	<b>North Reference:</b>	True
<b>Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #3		

### Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
300.0	300.0	0.0	0.0	KOP @ 300'MD
1,415.5	1,353.1	-217.7	229.9	EOB; 33.47° Inc
2,864.4	2,561.8	-767.2	810.0	Start 3° Drop
3,979.9	3,615.0	-984.9	1,039.8	EOD; Vertical
6,174.9	5,810.0	-984.9	1,039.8	PBHL @ 6,174' MD

# **Caerus Oil & Gas (NAD 27)**

**Garfield County, CO**

**S14-T7S-R96W**

**Nolte 11A-24**

**DD**

**Plan #3**

## **Anticollision Report**

**09 September, 2013**

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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	6,174.9	Plan #3 (DD)	MWD	Geolink MWD	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S14-T7S-R96W						
Nolte 11B-24 - DD - Plan #3	200.0	200.0	8.0	7.4	13.234	CC, ES
Nolte 11B-24 - DD - Plan #3	1,500.0	1,474.6	86.2	75.0	7.702	SF
Nolte 11C-24 - DD - Plan #3	244.9	235.2	16.0	15.2	21.002	CC, ES
Nolte 11C-24 - DD - Plan #3	1,500.0	1,472.3	102.2	87.6	7.016	SF
Nolte 13A-13 - DD - Plan #3	200.0	200.0	49.0	48.4	81.135	CC, ES
Nolte 13A-13 - DD - Plan #3	500.0	489.8	75.9	74.2	45.139	SF
Nolte 13B-13 - DD - Plan #3	233.4	233.4	41.2	40.5	57.203	CC, ES
Nolte 13B-13 - DD - Plan #3	500.0	493.4	61.0	59.3	36.181	SF
Nolte 13C-13 - DD - Plan #3	200.0	199.8	48.0	47.4	79.535	CC, ES
Nolte 13C-13 - DD - Plan #3	500.0	490.3	72.5	70.8	42.831	SF
Nolte 13D-13 - DD - Plan #3	300.0	300.0	40.0	39.0	41.979	CC, ES
Nolte 13D-13 - DD - Plan #3	500.0	495.7	51.9	50.2	30.635	SF
Nolte 14A-13 - DD - Plan #3	300.0	300.0	32.0	31.0	33.582	CC, ES
Nolte 14A-13 - DD - Plan #3	500.0	498.7	37.6	35.9	22.298	SF
Nolte 14B-13 - DD - Plan #3	300.0	300.0	24.0	23.0	25.185	CC, ES
Nolte 14B-13 - DD - Plan #3	500.0	499.6	28.7	27.0	17.104	SF
Nolte 14C-13 - DD - Plan #3	300.0	300.0	16.5	15.5	17.301	CC, ES
Nolte 14C-13 - DD - Plan #3	500.0	499.6	21.9	20.2	13.110	SF
Nolte 14D-13 - DD - Plan #3	300.0	300.0	8.0	7.1	8.401	CC, ES
Nolte 14D-13 - DD - Plan #3	400.0	400.0	9.1	7.8	6.951	SF
Nolte 43A-14 - DD - Plan #3	300.0	300.0	33.5	32.6	35.163	CC, ES
Nolte 43A-14 - DD - Plan #3	400.0	398.2	37.5	36.2	28.762	SF
Nolte 43B-14 - DD - Plan #3	300.0	300.0	26.0	25.1	27.274	CC, ES
Nolte 43B-14 - DD - Plan #3	400.0	399.2	28.3	27.0	21.730	SF
Nolte 43C-14 - DD - Plan #3	300.0	300.0	18.9	17.9	19.795	CC, ES
Nolte 43C-14 - DD - Plan #3	400.0	400.0	20.9	19.6	16.019	SF
Nolte 44A-14 - DD - Plan #3	300.0	300.0	12.8	11.9	13.437	CC, ES
Nolte 44A-14 - DD - Plan #3	400.0	400.0	15.3	14.0	11.718	SF
Nolte 44B-14 - DD - Plan #3	300.0	300.0	10.0	9.1	10.489	CC, ES
Nolte 44B-14 - DD - Plan #3	400.0	400.0	12.5	11.2	9.633	SF
Nolte 44C-14 - DD - Plan #3	300.0	300.0	12.8	11.9	13.424	CC, ES
Nolte 44C-14 - DD - Plan #3	400.0	400.0	14.5	13.2	11.092	SF
Nolte SWD 1-14 - DD - Plan #3	300.0	300.0	18.9	17.9	19.767	CC, ES
Nolte SWD 1-14 - DD - Plan #3	500.0	499.6	24.0	22.3	14.314	SF

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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		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	-152.44	-7.1	-3.7	8.0					
100.0	100.0	100.0	100.0	0.1	0.1	-152.44	-7.1	-3.7	8.0	7.7	0.26	31.326		
200.0	200.0	200.0	200.0	0.3	0.3	-152.44	-7.1	-3.7	8.0	7.4	0.60	13.234	CC, ES	
300.0	300.0	299.7	299.7	0.5	0.5	-167.28	-9.1	-2.1	9.3	8.4	0.96	9.719		
400.0	400.0	399.2	398.8	0.7	0.7	42.34	-15.1	2.9	13.4	12.1	1.32	10.149		
500.0	499.6	498.3	497.1	0.9	1.0	35.52	-25.1	11.0	18.4	16.7	1.70	10.823		
600.0	598.8	597.2	594.3	1.1	1.3	33.08	-39.0	22.3	23.8	21.7	2.11	11.293		
700.0	697.1	695.8	690.2	1.5	1.8	32.69	-56.7	36.7	29.5	27.0	2.57	11.485		
800.0	794.3	794.1	784.6	1.9	2.3	33.38	-78.2	54.2	35.5	32.4	3.11	11.398		
900.0	890.2	892.1	877.1	2.5	2.9	34.65	-103.3	74.6	41.7	37.9	3.77	11.066		
1,000.0	984.4	989.9	967.6	3.1	3.6	36.25	-132.0	98.0	48.2	43.6	4.56	10.552		
1,100.0	1,076.8	1,087.4	1,055.8	3.8	4.4	38.04	-164.1	124.2	54.9	49.4	5.53	9.930		
1,200.0	1,167.1	1,184.6	1,141.6	4.6	5.3	39.91	-199.6	153.1	61.9	55.3	6.68	9.270		
1,300.0	1,254.9	1,281.6	1,224.7	5.5	6.2	41.81	-238.3	184.6	69.3	61.2	8.04	8.621		
1,400.0	1,340.2	1,378.3	1,304.9	6.5	7.3	43.70	-280.1	218.6	76.9	67.3	9.60	8.015		
1,500.0	1,423.6	1,474.6	1,382.1	7.6	8.4	44.84	-324.8	255.1	86.2	75.0	11.19	7.702	SF	
1,600.0	1,507.1	1,571.2	1,456.5	8.6	9.5	44.07	-372.5	293.9	99.2	86.7	12.50	7.940		
1,700.0	1,590.5	1,670.2	1,532.0	9.6	10.7	43.07	-422.2	334.4	113.3	99.5	13.73	8.248		
1,800.0	1,673.9	1,769.2	1,607.5	10.7	11.9	42.29	-471.8	374.8	127.3	112.3	14.97	8.504		
1,900.0	1,757.3	1,868.2	1,683.1	11.7	13.2	41.66	-521.4	415.2	141.4	125.2	16.21	8.720		
2,000.0	1,840.7	1,967.2	1,758.6	12.8	14.4	41.15	-571.1	455.7	155.5	138.0	17.46	8.905		
2,100.0	1,924.2	2,066.2	1,834.1	13.8	15.6	40.72	-620.7	496.1	169.6	150.9	18.71	9.065		
2,200.0	2,007.6	2,165.2	1,909.6	14.8	16.8	40.36	-670.4	536.5	183.7	163.7	19.96	9.204		
2,300.0	2,091.0	2,264.2	1,985.1	15.9	18.0	40.05	-720.0	577.0	197.8	176.6	21.21	9.326		
2,400.0	2,174.4	2,363.2	2,060.6	16.9	19.2	39.78	-769.6	617.4	211.9	189.4	22.46	9.435		
2,500.0	2,257.8	2,462.2	2,136.1	18.0	20.4	39.55	-819.3	657.8	226.0	202.3	23.71	9.532		
2,600.0	2,341.3	2,561.1	2,211.6	19.0	21.6	39.34	-868.9	698.3	240.1	215.2	24.97	9.619		
2,700.0	2,424.7	2,660.1	2,287.1	20.1	22.9	39.16	-918.6	738.7	254.3	228.0	26.22	9.698		
2,800.0	2,508.1	2,760.5	2,363.6	21.1	24.1	38.99	-968.9	779.7	268.4	240.9	27.48	9.765		
2,900.0	2,591.7	2,873.4	2,452.3	22.2	25.4	39.29	-1,023.1	823.8	279.8	250.8	29.02	9.641		
3,000.0	2,677.5	2,987.1	2,545.6	23.1	26.5	39.83	-1,073.4	864.8	289.5	258.9	30.57	9.470		
3,100.0	2,765.9	3,101.3	2,643.0	23.9	27.6	40.31	-1,119.6	902.4	298.3	266.3	31.99	9.324		
3,200.0	2,856.6	3,216.1	2,744.3	24.7	28.5	40.75	-1,161.4	936.5	306.0	272.8	33.27	9.199		
3,300.0	2,949.4	3,331.3	2,849.1	25.3	29.4	41.14	-1,198.5	966.7	312.8	278.4	34.42	9.089		
3,400.0	3,044.0	3,446.9	2,956.9	25.9	30.1	41.49	-1,230.8	993.0	318.5	283.1	35.43	8.991		
3,500.0	3,140.1	3,562.8	3,067.4	26.3	30.7	41.81	-1,258.0	1,015.1	323.2	286.9	36.30	8.904		
3,600.0	3,237.6	3,679.0	3,180.0	26.7	31.2	42.09	-1,280.0	1,033.0	326.7	289.7	37.03	8.824		
3,700.0	3,336.1	3,795.3	3,294.4	27.0	31.5	42.34	-1,296.6	1,046.6	329.2	291.6	37.62	8.750		
3,800.0	3,435.3	3,911.8	3,409.9	27.2	31.7	42.56	-1,307.9	1,055.8	330.5	292.5	38.07	8.682		
3,900.0	3,535.1	4,028.2	3,526.1	27.3	31.9	42.75	-1,313.6	1,060.5	330.8	292.4	38.38	8.617		
4,000.0	3,635.1	4,137.2	3,635.1	27.3	31.9	176.30	-1,314.5	1,061.2	330.3	291.7	38.57	8.564		
4,100.0	3,735.1	4,237.2	3,735.1	27.4	31.9	176.30	-1,314.5	1,061.2	330.3	291.6	38.69	8.536		
4,200.0	3,835.1	4,337.2	3,835.1	27.4	32.0	176.30	-1,314.5	1,061.2	330.3	291.5	38.83	8.507		
4,300.0	3,935.1	4,437.2	3,935.1	27.5	32.0	176.30	-1,314.5	1,061.2	330.3	291.3	38.96	8.477		
4,400.0	4,035.1	4,537.2	4,035.1	27.5	32.1	176.30	-1,314.5	1,061.2	330.3	291.2	39.10	8.448		
4,500.0	4,135.1	4,637.2	4,135.1	27.6	32.1	176.30	-1,314.5	1,061.2	330.3	291.0	39.24	8.417		
4,600.0	4,235.1	4,737.2	4,235.1	27.6	32.1	176.30	-1,314.5	1,061.2	330.3	290.9	39.38	8.387		
4,700.0	4,335.1	4,837.2	4,335.1	27.7	32.2	176.30	-1,314.5	1,061.2	330.3	290.8	39.52	8.356		
4,800.0	4,435.1	4,937.2	4,435.1	27.7	32.2	176.30	-1,314.5	1,061.2	330.3	290.6	39.67	8.325		
4,900.0	4,535.1	5,037.2	4,535.1	27.8	32.3	176.30	-1,314.5	1,061.2	330.3	290.5	39.82	8.294		
5,000.0	4,635.1	5,137.2	4,635.1	27.8	32.3	176.30	-1,314.5	1,061.2	330.3	290.3	39.97	8.262		

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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										
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore +N/-S (ft)	Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning				
5,100.0	4,735.1	5,237.2	4,735.1	27.9	32.4	176.30	-1,314.5	1,061.2	330.3	290.2	40.13	8.230					
5,200.0	4,835.1	5,337.2	4,835.1	27.9	32.4	176.30	-1,314.5	1,061.2	330.3	290.0	40.29	8.198					
5,300.0	4,935.1	5,437.2	4,935.1	28.0	32.5	176.30	-1,314.5	1,061.2	330.3	289.8	40.45	8.166					
5,400.0	5,035.1	5,537.2	5,035.1	28.1	32.5	176.30	-1,314.5	1,061.2	330.3	289.7	40.61	8.133					
5,500.0	5,135.1	5,637.2	5,135.1	28.1	32.6	176.30	-1,314.5	1,061.2	330.3	289.5	40.77	8.100					
5,600.0	5,235.1	5,737.2	5,235.1	28.2	32.6	176.30	-1,314.5	1,061.2	330.3	289.3	40.94	8.067					
5,700.0	5,335.1	5,837.2	5,335.1	28.2	32.7	176.30	-1,314.5	1,061.2	330.3	289.2	41.11	8.034					
5,800.0	5,435.1	5,937.2	5,435.1	28.3	32.7	176.30	-1,314.5	1,061.2	330.3	289.0	41.28	8.001					
5,900.0	5,535.1	6,037.2	5,535.1	28.4	32.8	176.30	-1,314.5	1,061.2	330.3	288.8	41.45	7.967					
6,000.0	5,635.1	6,137.2	5,635.1	28.4	32.9	176.30	-1,314.5	1,061.2	330.3	288.7	41.63	7.934					
6,100.0	5,735.1	6,237.2	5,735.1	28.5	32.9	176.30	-1,314.5	1,061.2	330.3	288.5	41.81	7.900					
6,140.8	5,775.9	6,278.1	5,775.9	28.5	32.9	176.30	-1,314.5	1,061.2	330.3	288.4	41.88	7.886					
6,174.9	5,810.0	6,292.2	5,790.0	28.5	32.9	176.30	-1,314.5	1,061.2	330.9	289.0	41.92	7.893					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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							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	-152.43	-14.2	-7.4	18.7					
100.0	100.0	90.3	90.3	0.1	0.1	-152.43	-14.2	-7.4	16.0	15.7	0.26	61.880		
200.0	200.0	190.3	190.3	0.3	0.3	-152.43	-14.2	-7.4	16.0	15.4	0.60	26.447		
244.9	244.9	235.2	235.2	0.4	0.4	-152.43	-14.2	-7.4	16.0	15.2	0.76	21.002	CC, ES	
300.0	300.0	290.1	290.1	0.5	0.5	-153.74	-14.5	-7.2	16.2	15.2	0.95	16.983		
400.0	400.0	389.6	389.5	0.7	0.7	67.73	-18.4	-4.6	17.8	16.5	1.32	13.538		
500.0	499.6	489.0	488.4	0.9	0.9	65.30	-26.6	0.9	20.6	18.8	1.74	11.857		
600.0	598.8	588.2	586.5	1.1	1.2	64.96	-39.0	9.2	24.3	22.0	2.25	10.817		
700.0	697.1	687.3	683.5	1.5	1.6	65.90	-55.6	20.3	29.0	26.1	2.89	10.024		
800.0	794.3	786.2	779.1	1.9	2.1	67.53	-76.3	34.2	34.6	30.9	3.70	9.355		
900.0	890.2	884.8	873.2	2.5	2.6	69.41	-101.1	50.7	41.2	36.6	4.70	8.782		
1,000.0	984.4	983.3	965.4	3.1	3.3	71.33	-129.8	69.9	48.9	43.0	5.89	8.302		
1,100.0	1,076.8	1,081.6	1,055.6	3.8	4.0	73.14	-162.3	91.7	57.5	50.2	7.27	7.907		
1,200.0	1,167.1	1,179.6	1,143.3	4.6	4.8	74.79	-198.6	115.9	67.2	58.3	8.85	7.586		
1,300.0	1,254.9	1,277.4	1,228.6	5.5	5.7	76.27	-238.4	142.5	77.8	67.1	10.62	7.323		
1,400.0	1,340.2	1,375.0	1,311.1	6.5	6.7	77.57	-281.7	171.5	89.3	76.8	12.57	7.108		
1,500.0	1,423.6	1,472.3	1,390.5	7.6	7.7	78.01	-328.4	202.7	102.2	87.6	14.57	7.016	SF	
1,600.0	1,507.1	1,568.9	1,466.6	8.6	8.9	76.16	-377.9	235.8	117.1	100.6	16.46	7.114		
1,700.0	1,590.5	1,664.4	1,538.6	9.6	10.1	72.87	-430.0	270.7	134.3	116.1	18.18	7.387		
1,800.0	1,673.9	1,758.3	1,606.3	10.7	11.3	68.82	-484.1	306.8	154.3	134.6	19.67	7.843		
1,900.0	1,757.3	1,850.2	1,669.4	11.7	12.6	64.53	-539.6	343.9	177.7	156.8	20.93	8.493		
2,000.0	1,840.7	1,939.7	1,727.8	12.8	13.9	60.32	-596.1	381.7	204.9	182.9	21.94	9.338		
2,100.0	1,924.2	2,026.7	1,781.3	13.8	15.2	56.39	-653.0	419.8	236.0	213.2	22.75	10.373		
2,200.0	2,007.6	2,110.7	1,830.0	14.8	16.5	52.83	-709.9	457.8	271.1	247.7	23.40	11.587		
2,300.0	2,091.0	2,191.8	1,874.1	15.9	17.9	49.67	-766.4	495.6	310.2	286.3	23.93	12.964		
2,400.0	2,174.4	2,270.9	1,914.4	16.9	19.2	46.84	-823.1	533.5	353.2	328.8	24.37	14.493		
2,500.0	2,257.8	2,372.0	1,965.6	18.0	20.8	44.00	-895.5	581.9	397.0	372.2	24.76	16.034		
2,600.0	2,341.3	2,483.5	2,027.3	19.0	22.6	42.00	-972.7	633.6	437.1	411.7	25.41	17.204		
2,700.0	2,424.7	2,600.6	2,097.8	20.1	24.3	40.78	-1,050.4	685.5	472.8	446.4	26.34	17.951		
2,800.0	2,508.1	2,722.6	2,177.2	21.1	26.1	40.17	-1,127.4	737.0	503.4	475.9	27.53	18.286		
2,900.0	2,591.7	2,848.8	2,265.3	22.2	27.7	40.23	-1,202.5	787.2	528.9	499.9	29.04	18.216		
3,000.0	2,677.5	2,977.7	2,361.3	23.1	29.3	40.66	-1,274.0	835.0	551.9	521.3	30.61	18.028		
3,100.0	2,765.9	3,108.9	2,464.7	23.9	30.7	41.05	-1,341.0	879.8	573.0	540.9	32.07	17.867		
3,200.0	2,856.6	3,242.3	2,575.3	24.7	32.0	41.40	-1,403.0	921.3	592.1	558.7	33.39	17.731		
3,300.0	2,949.4	3,377.8	2,692.6	25.3	33.2	41.70	-1,459.2	958.9	609.1	574.5	34.58	17.611		
3,400.0	3,044.0	3,515.1	2,816.2	25.9	34.3	41.97	-1,509.0	992.2	623.8	588.2	35.63	17.506		
3,500.0	3,140.1	3,654.0	2,945.2	26.3	35.1	42.21	-1,551.7	1,020.7	636.2	599.6	36.53	17.415		
3,600.0	3,237.6	3,794.4	3,079.0	26.7	35.8	42.41	-1,586.9	1,044.2	646.1	608.8	37.28	17.330		
3,700.0	3,336.1	3,935.8	3,216.6	27.0	36.4	42.57	-1,613.9	1,062.3	653.5	615.6	37.87	17.255		
3,800.0	3,435.3	4,078.0	3,357.0	27.2	36.7	42.70	-1,632.5	1,074.7	658.3	620.0	38.31	17.182		
3,900.0	3,535.1	4,220.6	3,499.1	27.3	36.9	42.80	-1,642.4	1,081.3	660.6	622.0	38.60	17.112		
4,000.0	3,635.1	4,346.9	3,625.4	27.3	37.0	176.30	-1,644.1	1,082.5	660.6	621.8	38.75	17.046		
4,100.0	3,735.1	4,446.9	3,725.4	27.4	37.0	176.30	-1,644.1	1,082.5	660.6	621.7	38.88	16.988		
4,200.0	3,835.1	4,546.9	3,825.4	27.4	37.0	176.30	-1,644.1	1,082.5	660.6	621.5	39.02	16.930		
4,300.0	3,935.1	4,646.9	3,925.4	27.5	37.1	176.30	-1,644.1	1,082.5	660.6	621.4	39.16	16.870		
4,400.0	4,035.1	4,746.9	4,025.4	27.5	37.1	176.30	-1,644.1	1,082.5	660.6	621.3	39.30	16.810		
4,500.0	4,135.1	4,846.9	4,125.4	27.6	37.1	176.30	-1,644.1	1,082.5	660.6	621.1	39.44	16.749		
4,600.0	4,235.1	4,946.9	4,225.4	27.6	37.2	176.30	-1,644.1	1,082.5	660.6	621.0	39.58	16.688		
4,700.0	4,335.1	5,046.9	4,325.4	27.7	37.2	176.30	-1,644.1	1,082.5	660.6	620.8	39.73	16.626		
4,800.0	4,435.1	5,146.9	4,425.4	27.7	37.3	176.30	-1,644.1	1,082.5	660.6	620.7	39.88	16.564		
4,900.0	4,535.1	5,246.9	4,525.4	27.8	37.3	176.30	-1,644.1	1,082.5	660.6	620.5	40.03	16.501		
5,000.0	4,635.1	5,346.9	4,625.4	27.8	37.4	176.30	-1,644.1	1,082.5	660.6	620.4	40.19	16.437		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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						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	4,735.1	5,446.9	4,725.4	27.9	37.4	176.30	-1,644.1	1,082.5	660.6	620.2	40.35	16.373		
5,200.0	4,835.1	5,546.9	4,825.4	27.9	37.4	176.30	-1,644.1	1,082.5	660.6	620.1	40.50	16.308		
5,300.0	4,935.1	5,646.9	4,925.4	28.0	37.5	176.30	-1,644.1	1,082.5	660.6	619.9	40.67	16.243		
5,400.0	5,035.1	5,746.9	5,025.4	28.1	37.5	176.30	-1,644.1	1,082.5	660.6	619.7	40.83	16.178		
5,500.0	5,135.1	5,846.9	5,125.4	28.1	37.6	176.30	-1,644.1	1,082.5	660.6	619.6	41.00	16.112		
5,600.0	5,235.1	5,946.9	5,225.4	28.2	37.6	176.30	-1,644.1	1,082.5	660.6	619.4	41.17	16.046		
5,700.0	5,335.1	6,046.9	5,325.4	28.2	37.7	176.30	-1,644.1	1,082.5	660.6	619.2	41.34	15.979		
5,800.0	5,435.1	6,146.9	5,425.4	28.3	37.7	176.30	-1,644.1	1,082.5	660.6	619.1	41.51	15.913		
5,900.0	5,535.1	6,246.9	5,525.4	28.4	37.8	176.30	-1,644.1	1,082.5	660.6	618.9	41.69	15.845		
5,964.8	5,599.9	6,311.7	5,590.2	28.4	37.8	176.30	-1,644.1	1,082.5	660.6	618.8	41.80	15.802		
6,000.0	5,635.1	6,341.5	5,620.0	28.4	37.8	176.30	-1,644.1	1,082.5	660.6	618.7	41.86	15.781		
6,100.0	5,735.1	6,341.5	5,620.0	28.5	37.8	176.30	-1,644.1	1,082.5	668.9	627.0	41.95	15.946		
6,174.9	5,810.0	6,341.5	5,620.0	28.5	37.8	176.30	-1,644.1	1,082.5	684.7	642.7	42.02	16.297		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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				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	15.75	47.2	13.3	49.0					
100.0	100.0	100.0	100.0	0.1	0.1	15.75	47.2	13.3	49.0	48.8	0.26	192.127		
200.0	200.0	200.0	200.0	0.3	0.3	15.75	47.2	13.3	49.0	48.4	0.60	81.135 CC, ES		
300.0	300.0	297.5	297.5	0.5	0.5	16.50	49.3	14.6	51.5	50.5	0.95	54.119		
400.0	400.0	394.4	394.1	0.7	0.7	-117.04	55.6	18.5	60.0	58.7	1.30	46.142		
500.0	499.6	489.8	488.7	0.9	1.0	-119.30	65.9	24.8	75.9	74.2	1.68	45.139 SF		
600.0	598.8	583.0	580.4	1.1	1.3	-122.05	79.8	33.4	99.0	96.9	2.11	46.937		
700.0	697.1	673.1	668.2	1.5	1.7	-124.42	96.8	43.8	129.5	126.9	2.60	49.753		
800.0	794.3	759.5	751.5	1.9	2.1	-126.16	116.5	55.9	167.0	163.9	3.16	52.787		
900.0	890.2	841.7	829.7	2.5	2.6	-127.31	138.2	69.3	211.3	207.5	3.79	55.704		
1,000.0	984.4	919.4	902.5	3.1	3.1	-127.94	161.2	83.5	261.8	257.3	4.48	58.383		
1,100.0	1,076.8	992.3	969.8	3.8	3.6	-128.13	185.2	98.2	318.1	312.8	5.23	60.760		
1,200.0	1,167.1	1,060.3	1,031.5	4.6	4.2	-127.92	209.4	113.1	379.7	373.6	6.05	62.778		
1,300.0	1,254.9	1,123.3	1,087.7	5.5	4.7	-127.36	233.6	128.0	446.1	439.2	6.92	64.505		
1,400.0	1,340.2	1,181.3	1,138.7	6.5	5.2	-126.44	257.2	142.5	517.0	509.1	7.85	65.870		
1,500.0	1,423.6	1,235.4	1,185.4	7.6	5.7	-127.33	280.4	156.8	591.0	582.2	8.81	67.067		
1,600.0	1,507.1	1,287.0	1,229.3	8.6	6.2	-128.24	303.6	171.1	666.7	656.9	9.78	68.161		
1,700.0	1,590.5	1,336.4	1,270.6	9.6	6.8	-128.86	326.8	185.3	743.7	732.9	10.76	69.145		
1,800.0	1,673.9	1,383.7	1,309.3	10.7	7.3	-129.28	349.7	199.4	822.0	810.3	11.73	70.075		
1,900.0	1,757.3	1,428.8	1,345.8	11.7	7.8	-129.55	372.4	213.4	901.4	888.7	12.71	70.928		
2,000.0	1,840.7	1,471.9	1,380.0	12.8	8.3	-129.71	394.8	227.1	981.9	968.2	13.69	71.733		
2,100.0	1,924.2	1,500.0	1,401.9	13.8	8.6	-129.78	409.7	236.3	1,063.5	1,048.9	14.61	72.790		
2,200.0	2,007.6	1,552.5	1,442.2	14.8	9.2	-129.82	438.3	253.9	1,145.8	1,130.2	15.65	73.212		
2,300.0	2,091.0	1,600.0	1,477.9	15.9	9.8	-129.79	465.0	270.3	1,229.2	1,212.5	16.67	73.717		
2,400.0	2,174.4	1,626.1	1,497.2	16.9	10.1	-129.74	480.0	279.5	1,313.2	1,295.6	17.61	74.578		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S14-T7S-R96W - Nolte 13B-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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning	
(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	13.47	40.1	9.6	41.2					
100.0	100.0	100.0	100.0	0.1	0.1	13.47	40.1	9.6	41.2	41.0	0.25	161.681		
200.0	200.0	200.0	200.0	0.3	0.3	13.47	40.1	9.6	41.2	40.6	0.60	68.251		
233.4	233.4	233.4	233.4	0.4	0.4	13.47	40.1	9.6	41.2	40.5	0.72	57.203	CC, ES	
300.0	300.0	299.0	299.0	0.5	0.5	13.83	40.6	10.0	41.8	40.9	0.95	43.944		
400.0	400.0	396.8	396.6	0.7	0.7	-119.69	44.5	13.1	47.8	46.5	1.30	36.642		
500.0	499.6	493.4	492.7	0.9	0.9	-121.79	52.3	19.1	61.0	59.3	1.69	36.181	SF	
600.0	598.8	588.1	586.3	1.1	1.2	-124.24	63.7	27.9	81.5	79.4	2.12	38.423		
700.0	697.1	680.1	676.5	1.5	1.5	-126.24	78.2	39.2	109.2	106.6	2.63	41.588		
800.0	794.3	768.9	762.5	1.9	2.0	-127.61	95.5	52.5	143.9	140.7	3.21	44.863		
900.0	890.2	853.9	843.9	2.5	2.4	-128.42	114.9	67.6	185.1	181.2	3.86	47.920		
1,000.0	984.4	934.7	920.2	3.1	2.9	-128.78	136.1	84.0	232.5	227.9	4.59	50.663		
1,100.0	1,076.8	1,011.1	991.1	3.8	3.4	-128.77	158.4	101.3	285.7	280.3	5.38	53.088		
1,200.0	1,167.1	1,082.8	1,056.7	4.6	4.0	-128.43	181.3	119.1	344.2	338.0	6.24	55.150		
1,300.0	1,254.9	1,149.8	1,116.9	5.5	4.5	-127.78	204.6	137.1	407.7	400.5	7.17	56.895		
1,400.0	1,340.2	1,212.1	1,171.9	6.5	5.1	-126.85	227.6	155.0	475.6	467.4	8.15	58.376		
1,500.0	1,423.6	1,270.5	1,222.7	7.6	5.6	-127.57	250.5	172.7	546.8	537.6	9.17	59.614		
1,600.0	1,507.1	1,326.6	1,270.5	8.6	6.2	-128.26	273.6	190.6	619.5	609.3	10.21	60.692		
1,700.0	1,590.5	1,380.3	1,315.5	9.6	6.8	-128.67	296.8	208.6	693.8	682.5	11.25	61.658		
1,800.0	1,673.9	1,431.8	1,357.8	10.7	7.3	-128.89	320.0	226.6	769.3	757.0	12.30	62.542		
1,900.0	1,757.3	1,485.7	1,401.3	11.7	7.9	-128.98	345.1	246.0	846.0	832.6	13.37	63.267		
2,000.0	1,840.7	1,549.5	1,452.6	12.8	8.6	-129.04	375.1	269.3	923.0	908.5	14.50	63.669		
2,100.0	1,924.2	1,613.3	1,503.9	13.8	9.3	-129.09	405.1	292.6	999.9	984.3	15.62	64.003		
2,200.0	2,007.6	1,677.1	1,555.2	14.8	10.0	-129.14	435.1	315.8	1,076.9	1,060.2	16.75	64.278		
2,300.0	2,091.0	1,741.0	1,606.5	15.9	10.7	-129.18	465.1	339.1	1,153.9	1,136.0	17.89	64.511		
2,400.0	2,174.4	1,804.8	1,657.8	16.9	11.4	-129.22	495.1	362.3	1,230.9	1,211.9	19.02	64.711		
2,500.0	2,257.8	1,868.6	1,709.1	18.0	12.1	-129.25	525.1	385.6	1,307.9	1,287.7	20.16	64.881		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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	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	27.52	42.6	22.2	48.0					
100.0	100.0	99.8	99.8	0.1	0.1	27.52	42.6	22.2	48.0	47.7	0.25	188.640		
200.0	200.0	199.8	199.8	0.3	0.3	27.52	42.6	22.2	48.0	47.4	0.60	79.535 CC, ES		
300.0	300.0	297.4	297.4	0.5	0.5	28.42	44.3	24.0	50.4	49.5	0.95	53.046		
400.0	400.0	394.4	394.1	0.7	0.7	-105.01	49.4	29.3	58.4	57.1	1.30	44.782		
500.0	499.6	490.3	489.2	0.9	1.0	-107.47	57.8	38.0	72.5	70.8	1.69	42.831 SF		
600.0	598.8	584.2	581.6	1.1	1.3	-110.64	69.3	49.9	93.1	91.0	2.15	43.302		
700.0	697.1	675.7	670.8	1.5	1.7	-113.51	83.5	64.6	120.2	117.5	2.69	44.617		
800.0	794.3	764.1	756.0	1.9	2.2	-115.75	100.0	81.7	153.6	150.3	3.33	46.130		
900.0	890.2	849.2	836.7	2.5	2.7	-117.34	118.4	100.8	193.1	189.1	4.06	47.607		
1,000.0	984.4	930.4	912.7	3.1	3.2	-118.36	138.4	121.5	238.5	233.6	4.87	48.981		
1,100.0	1,076.8	1,007.6	983.8	3.8	3.8	-118.89	159.4	143.2	289.2	283.5	5.76	50.243		
1,200.0	1,167.1	1,080.7	1,049.8	4.6	4.4	-119.01	181.1	165.7	345.0	338.3	6.72	51.331		
1,300.0	1,254.9	1,152.0	1,113.0	5.5	5.0	-118.82	203.9	189.4	405.5	397.7	7.76	52.283		
1,400.0	1,340.2	1,225.1	1,177.2	6.5	5.6	-118.60	228.2	214.5	469.3	460.4	8.87	52.914		
1,500.0	1,423.6	1,299.6	1,242.7	7.6	6.3	-120.19	252.9	240.2	534.7	524.7	10.05	53.204		
1,600.0	1,507.1	1,374.0	1,308.1	8.6	7.0	-121.73	277.6	265.8	600.5	589.2	11.24	53.407		
1,700.0	1,590.5	1,448.5	1,373.5	9.6	7.6	-122.97	302.4	291.4	666.4	654.0	12.43	53.592		
1,800.0	1,673.9	1,522.9	1,438.9	10.7	8.3	-123.99	327.1	317.0	732.5	718.9	13.63	53.760		
1,900.0	1,757.3	1,597.4	1,504.2	11.7	8.9	-124.85	351.8	342.6	798.7	783.9	14.81	53.912		
2,000.0	1,840.7	1,671.8	1,569.6	12.8	9.6	-125.57	376.5	368.2	865.0	849.0	16.00	54.048		
2,100.0	1,924.2	1,746.3	1,635.0	13.8	10.3	-126.19	401.2	393.8	931.3	914.1	17.19	54.173		
2,200.0	2,007.6	1,820.7	1,700.4	14.8	10.9	-126.73	425.9	419.4	997.7	979.4	18.38	54.287		
2,300.0	2,091.0	1,895.2	1,765.8	15.9	11.6	-127.21	450.7	445.1	1,064.2	1,044.6	19.57	54.391		
2,400.0	2,174.4	1,969.6	1,831.2	16.9	12.3	-127.62	475.4	470.7	1,130.7	1,109.9	20.75	54.485		
2,500.0	2,257.8	2,044.1	1,896.6	18.0	12.9	-128.00	500.1	496.3	1,197.2	1,175.3	21.94	54.573		
2,600.0	2,341.3	2,118.6	1,962.0	19.0	13.6	-128.33	524.8	521.9	1,263.7	1,240.6	23.12	54.653		
2,700.0	2,424.7	2,193.0	2,027.4	20.1	14.3	-128.63	549.5	547.5	1,330.3	1,306.0	24.31	54.728		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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		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	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	27.51	35.5	18.5	40.0					
100.0	100.0	100.0	100.0	0.1	0.1	27.51	35.5	18.5	40.0	39.7	0.25	157.148		
200.0	200.0	200.0	200.0	0.3	0.3	27.51	35.5	18.5	40.0	39.4	0.60	66.258		
300.0	300.0	300.0	300.0	0.5	0.5	27.51	35.5	18.5	40.0	39.0	0.95	41.979 CC, ES		
400.0	400.0	398.1	398.1	0.7	0.7	-107.46	36.8	20.6	42.9	41.6	1.31	32.887		
500.0	499.6	495.7	495.3	0.9	0.9	-110.94	40.8	26.9	51.9	50.2	1.70	30.635 SF		
600.0	598.8	592.0	590.9	1.1	1.1	-114.55	47.4	37.3	67.2	65.0	2.15	31.174		
700.0	697.1	686.7	684.1	1.5	1.4	-117.37	56.3	51.4	88.6	85.9	2.71	32.734		
800.0	794.3	779.2	774.2	1.9	1.8	-119.28	67.5	69.0	116.1	112.7	3.36	34.502		
900.0	890.2	869.1	860.8	2.5	2.3	-120.46	80.5	89.6	149.3	145.2	4.13	36.160		
1,000.0	984.4	956.1	943.3	3.1	2.8	-121.07	95.2	112.8	188.1	183.1	5.00	37.621		
1,100.0	1,076.8	1,039.9	1,021.5	3.8	3.4	-121.26	111.2	138.0	232.1	226.2	5.97	38.889		
1,200.0	1,167.1	1,120.2	1,095.2	4.6	4.0	-121.12	128.2	165.0	281.1	274.1	7.02	40.039		
1,300.0	1,254.9	1,204.1	1,171.4	5.5	4.6	-121.05	147.1	194.8	333.8	325.6	8.17	40.857		
1,400.0	1,340.2	1,286.9	1,246.5	6.5	5.3	-121.24	165.7	224.2	389.0	379.7	9.38	41.487		
1,500.0	1,423.6	1,368.3	1,320.4	7.6	5.9	-122.81	184.0	253.1	446.0	435.4	10.62	42.006		
1,600.0	1,507.1	1,449.7	1,394.2	8.6	6.5	-124.25	202.3	281.9	503.3	491.4	11.86	42.420		
1,700.0	1,590.5	1,531.1	1,468.1	9.6	7.2	-125.40	220.6	310.8	560.7	547.6	13.11	42.772		
1,800.0	1,673.9	1,612.5	1,541.9	10.7	7.8	-126.34	238.9	339.7	618.3	603.9	14.35	43.074		
1,900.0	1,757.3	1,693.8	1,615.8	11.7	8.5	-127.12	257.2	368.6	675.9	660.3	15.60	43.336		
2,000.0	1,840.7	1,775.2	1,689.6	12.8	9.1	-127.78	275.5	397.5	733.7	716.8	16.84	43.564		
2,100.0	1,924.2	1,856.6	1,763.5	13.8	9.7	-128.34	293.8	426.4	791.4	773.4	18.08	43.766		
2,200.0	2,007.6	1,938.0	1,837.3	14.8	10.4	-128.83	312.1	455.3	849.3	829.9	19.33	43.945		
2,300.0	2,091.0	2,019.4	1,911.2	15.9	11.0	-129.26	330.4	484.2	907.1	886.6	20.57	44.105		
2,400.0	2,174.4	2,100.8	1,985.0	16.9	11.7	-129.63	348.7	513.1	965.0	943.2	21.81	44.249		
2,500.0	2,257.8	2,182.2	2,058.9	18.0	12.3	-129.96	367.0	542.0	1,022.9	999.9	23.05	44.379		
2,600.0	2,341.3	2,263.6	2,132.8	19.0	13.0	-130.26	385.3	570.9	1,080.9	1,056.6	24.29	44.497		
2,700.0	2,424.7	2,344.9	2,206.6	20.1	13.6	-130.52	403.6	599.8	1,138.8	1,113.3	25.53	44.605		
2,800.0	2,508.1	2,426.3	2,280.5	21.1	14.3	-130.76	421.8	628.7	1,196.8	1,170.0	26.77	44.703		
2,900.0	2,591.7	2,507.9	2,354.4	22.2	14.9	-131.53	440.2	657.6	1,254.6	1,226.5	28.02	44.767		
3,000.0	2,677.5	2,591.0	2,429.9	23.1	15.6	-133.04	458.9	687.1	1,310.1	1,280.8	29.26	44.771		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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		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	27.50	28.4	14.8	32.0					
100.0	100.0	100.0	100.0	0.1	0.1	27.50	28.4	14.8	32.0	31.7	0.25	125.714		
200.0	200.0	200.0	200.0	0.3	0.3	27.50	28.4	14.8	32.0	31.4	0.60	53.005		
300.0	300.0	300.0	300.0	0.5	0.5	27.50	28.4	14.8	32.0	31.0	0.95	33.582 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	-110.32	28.4	14.8	32.8	31.5	1.31	25.099		
500.0	499.6	498.7	498.6	0.9	0.8	-118.34	29.1	17.2	37.6	35.9	1.69	22.298 SF		
600.0	598.8	596.9	596.6	1.1	1.0	-123.92	31.3	24.5	48.1	46.0	2.12	22.729		
700.0	697.1	694.4	693.3	1.5	1.3	-126.76	35.0	36.4	64.1	61.5	2.64	24.308		
800.0	794.3	790.8	788.0	1.9	1.6	-127.81	40.0	52.9	85.2	81.9	3.27	26.037		
900.0	890.2	885.6	880.4	2.5	2.0	-127.86	46.3	73.5	111.2	107.2	4.04	27.533		
1,000.0	984.4	978.6	969.8	3.1	2.5	-127.39	53.8	97.9	141.9	137.0	4.94	28.720		
1,100.0	1,076.8	1,069.5	1,055.9	3.8	3.0	-126.64	62.4	125.8	177.3	171.3	5.98	29.640		
1,200.0	1,167.1	1,158.2	1,138.4	4.6	3.6	-125.72	71.8	156.8	217.0	209.8	7.13	30.437		
1,300.0	1,254.9	1,248.3	1,221.6	5.5	4.2	-125.20	82.0	190.1	260.2	251.8	8.37	31.082		
1,400.0	1,340.2	1,336.9	1,303.3	6.5	4.9	-125.29	92.0	222.8	306.2	296.5	9.65	31.720		
1,500.0	1,423.6	1,424.4	1,384.0	7.6	5.5	-126.57	101.9	255.1	354.0	343.1	10.94	32.370		
1,600.0	1,507.1	1,511.8	1,464.6	8.6	6.1	-127.72	111.8	287.4	402.1	389.9	12.23	32.884		
1,700.0	1,590.5	1,599.3	1,545.3	9.6	6.8	-128.62	121.7	319.7	450.2	436.7	13.52	33.302		
1,800.0	1,673.9	1,686.7	1,626.0	10.7	7.4	-129.35	131.6	352.0	498.4	483.6	14.81	33.647		
1,900.0	1,757.3	1,774.2	1,706.6	11.7	8.0	-129.95	141.5	384.3	546.7	530.6	16.11	33.938		
2,000.0	1,840.7	1,861.6	1,787.3	12.8	8.7	-130.46	151.4	416.6	595.0	577.6	17.41	34.186		
2,100.0	1,924.2	1,949.1	1,867.9	13.8	9.3	-130.88	161.2	448.9	643.4	624.7	18.70	34.400		
2,200.0	2,007.6	2,036.5	1,948.6	14.8	10.0	-131.25	171.1	481.2	691.7	671.7	20.00	34.586		
2,300.0	2,091.0	2,124.0	2,029.3	15.9	10.6	-131.57	181.0	513.5	740.1	718.8	21.30	34.750		
2,400.0	2,174.4	2,211.4	2,109.9	16.9	11.2	-131.85	190.9	545.8	788.5	765.9	22.60	34.895		
2,500.0	2,257.8	2,298.9	2,190.6	18.0	11.9	-132.10	200.8	578.1	836.9	813.0	23.89	35.024		
2,600.0	2,341.3	2,386.3	2,271.2	19.0	12.5	-132.32	210.7	610.4	885.3	860.1	25.19	35.140		
2,700.0	2,424.7	2,473.8	2,351.9	20.1	13.2	-132.52	220.6	642.7	933.7	907.3	26.49	35.245		
2,800.0	2,508.1	2,561.2	2,432.6	21.1	13.8	-132.70	230.4	675.0	982.2	954.4	27.79	35.340		
2,900.0	2,591.7	2,648.8	2,513.3	22.2	14.5	-133.27	240.3	707.4	1,030.4	1,001.3	29.09	35.427		
3,000.0	2,677.5	2,737.7	2,595.4	23.1	15.1	-134.34	250.4	740.2	1,076.2	1,045.8	30.35	35.459		
3,100.0	2,765.9	2,828.1	2,678.8	23.9	15.8	-135.08	260.6	773.6	1,118.6	1,087.0	31.61	35.385		
3,200.0	2,856.6	2,919.8	2,763.3	24.7	16.5	-135.54	271.0	807.4	1,157.7	1,124.8	32.87	35.220		
3,300.0	2,949.4	3,012.5	2,848.8	25.3	17.1	-135.74	281.4	841.7	1,193.4	1,159.3	34.12	34.977		
3,400.0	3,044.0	3,107.3	2,936.3	25.9	17.8	-135.71	292.2	876.7	1,225.8	1,190.4	35.36	34.667		
3,500.0	3,140.1	3,219.2	3,040.9	26.3	18.5	-135.47	303.8	914.6	1,254.0	1,217.4	36.57	34.289		
3,600.0	3,237.6	3,334.4	3,150.9	26.7	19.1	-135.25	313.8	947.4	1,277.4	1,239.8	37.60	33.972		
3,700.0	3,336.1	3,452.5	3,265.5	27.0	19.6	-135.05	322.1	974.4	1,295.8	1,257.4	38.44	33.713		
3,800.0	3,435.3	3,572.9	3,383.9	27.2	20.0	-134.86	328.4	995.0	1,309.0	1,269.9	39.07	33.507		
3,900.0	3,535.1	3,695.0	3,505.2	27.3	20.2	-134.69	332.5	1,008.4	1,316.9	1,277.4	39.49	33.351		
4,000.0	3,635.1	3,818.1	3,628.1	27.3	20.4	-1.10	334.3	1,014.5	1,319.5	1,279.8	39.70	33.234		
4,100.0	3,735.1	3,925.1	3,735.1	27.4	20.4	-1.09	334.4	1,014.9	1,319.6	1,279.7	39.83	33.129		
4,200.0	3,835.1	4,025.1	3,835.1	27.4	20.5	-1.09	334.4	1,014.9	1,319.6	1,279.6	39.95	33.027		
4,300.0	3,935.1	4,125.1	3,935.1	27.5	20.5	-1.09	334.4	1,014.9	1,319.6	1,279.5	40.08	32.923		
4,400.0	4,035.1	4,225.1	4,035.1	27.5	20.6	-1.09	334.4	1,014.9	1,319.6	1,279.4	40.21	32.818		
4,500.0	4,135.1	4,325.1	4,135.1	27.6	20.7	-1.09	334.4	1,014.9	1,319.6	1,279.2	40.34	32.711		
4,600.0	4,235.1	4,425.1	4,235.1	27.6	20.7	-1.09	334.4	1,014.9	1,319.6	1,279.1	40.47	32.603		
4,700.0	4,335.1	4,525.1	4,335.1	27.7	20.8	-1.09	334.4	1,014.9	1,319.6	1,279.0	40.61	32.494		
4,800.0	4,435.1	4,625.1	4,435.1	27.7	20.9	-1.09	334.4	1,014.9	1,319.6	1,278.8	40.75	32.383		
4,900.0	4,535.1	4,725.1	4,535.1	27.8	20.9	-1.09	334.4	1,014.9	1,319.6	1,278.7	40.89	32.271		
5,000.0	4,635.1	4,825.1	4,635.1	27.8	21.0	-1.09	334.4	1,014.9	1,319.6	1,278.5	41.03	32.158		
5,100.0	4,735.1	4,925.1	4,735.1	27.9	21.1	-1.09	334.4	1,014.9	1,319.6	1,278.4	41.18	32.044		

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S14-T7S-R96W - Nolte 14A-13 - DD - Plan #3													<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD													<b>Offset Well Error:</b>	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	4,835.1	5,025.1	4,835.1	27.9	21.1	-1.09	334.4	1,014.9	1,319.6	1,278.2	41.33	31.929		
5,300.0	4,935.1	5,125.1	4,935.1	28.0	21.2	-1.09	334.4	1,014.9	1,319.6	1,278.1	41.48	31.812		
5,400.0	5,035.1	5,225.1	5,035.1	28.1	21.3	-1.09	334.4	1,014.9	1,319.6	1,277.9	41.63	31.695		
5,500.0	5,135.1	5,325.1	5,135.1	28.1	21.4	-1.09	334.4	1,014.9	1,319.6	1,277.8	41.79	31.577		
5,600.0	5,235.1	5,425.1	5,235.1	28.2	21.4	-1.09	334.4	1,014.9	1,319.6	1,277.6	41.95	31.458		
5,700.0	5,335.1	5,525.1	5,335.1	28.2	21.5	-1.09	334.4	1,014.9	1,319.6	1,277.5	42.11	31.338		
5,800.0	5,435.1	5,625.1	5,435.1	28.3	21.6	-1.09	334.4	1,014.9	1,319.6	1,277.3	42.27	31.217		
5,900.0	5,535.1	5,725.1	5,535.1	28.4	21.7	-1.09	334.4	1,014.9	1,319.6	1,277.1	42.44	31.096		
6,000.0	5,635.1	5,825.1	5,635.1	28.4	21.8	-1.09	334.4	1,014.9	1,319.6	1,277.0	42.60	30.974		
6,100.0	5,735.1	5,925.1	5,735.1	28.5	21.8	-1.09	334.4	1,014.9	1,319.6	1,276.8	42.77	30.851		
6,174.9	5,810.0	6,000.0	5,810.0	28.5	21.9	-1.09	334.4	1,014.9	1,319.6	1,276.7	42.90	30.759		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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		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)				Between Centres (ft)	Between Ellipses (ft)	
0.0	0.0	0.0	0.0	0.0	0.0	27.48	21.3	11.1	24.0					
100.0	100.0	100.0	100.0	0.1	0.1	27.48	21.3	11.1	24.0	23.7	0.25	94.233		
200.0	200.0	200.0	200.0	0.3	0.3	27.48	21.3	11.1	24.0	23.4	0.60	39.747		
300.0	300.0	300.0	300.0	0.5	0.5	27.48	21.3	11.1	24.0	23.0	0.95	25.185 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	-111.75	21.3	11.1	24.8	23.5	1.31	19.006		
500.0	499.6	499.6	499.6	0.9	0.8	-126.34	21.3	11.1	28.7	27.0	1.68	17.104 SF		
600.0	598.8	598.9	598.9	1.1	1.0	-141.29	21.3	11.7	37.8	35.8	2.05	18.472		
700.0	697.1	698.3	698.2	1.5	1.2	-148.13	21.2	16.8	51.7	49.3	2.43	21.239		
800.0	794.3	797.8	797.1	1.9	1.4	-149.91	21.0	27.1	68.8	66.0	2.88	23.925		
900.0	890.2	897.0	895.1	2.5	1.7	-149.31	20.8	42.5	88.9	85.5	3.42	25.970		
1,000.0	984.4	995.8	991.8	3.1	2.0	-147.62	20.4	62.9	111.8	107.7	4.11	27.201		
1,100.0	1,076.8	1,094.1	1,086.8	3.8	2.5	-145.46	20.0	88.0	137.7	132.7	4.97	27.700		
1,200.0	1,167.1	1,191.6	1,179.6	4.6	3.0	-143.13	19.5	117.8	166.5	160.5	6.02	27.678		
1,300.0	1,254.9	1,288.3	1,270.0	5.5	3.6	-140.77	18.9	152.0	198.4	191.1	7.25	27.351		
1,400.0	1,340.2	1,382.8	1,356.9	6.5	4.3	-138.61	18.3	189.3	233.4	224.7	8.62	27.073		
1,500.0	1,423.6	1,475.6	1,441.9	7.6	5.0	-137.81	17.7	226.5	270.7	260.7	9.99	27.105		
1,600.0	1,507.1	1,568.3	1,526.8	8.6	5.7	-137.31	17.1	263.7	308.0	296.7	11.37	27.098		
1,700.0	1,590.5	1,661.0	1,611.8	9.6	6.4	-136.91	16.5	300.9	345.4	332.7	12.76	27.070		
1,800.0	1,673.9	1,753.8	1,696.7	10.7	7.1	-136.59	15.9	338.0	382.8	368.7	14.16	27.032		
1,900.0	1,757.3	1,846.5	1,781.6	11.7	7.8	-136.33	15.2	375.2	420.2	404.7	15.57	26.992		
2,000.0	1,840.7	1,939.2	1,866.6	12.8	8.5	-136.11	14.6	412.4	457.6	440.6	16.98	26.951		
2,100.0	1,924.2	2,031.9	1,951.5	13.8	9.2	-135.93	14.0	449.6	495.0	476.7	18.40	26.912		
2,200.0	2,007.6	2,124.7	2,036.5	14.8	9.9	-135.77	13.4	486.8	532.5	512.7	19.81	26.875		
2,300.0	2,091.0	2,217.4	2,121.4	15.9	10.6	-135.63	12.8	524.0	569.9	548.7	21.23	26.840		
2,400.0	2,174.4	2,310.1	2,206.3	16.9	11.3	-135.50	12.2	561.1	607.3	584.7	22.65	26.808		
2,500.0	2,257.8	2,402.8	2,291.3	18.0	12.0	-135.40	11.5	598.3	644.7	620.7	24.08	26.777		
2,600.0	2,341.3	2,495.6	2,376.2	19.0	12.7	-135.30	10.9	635.5	682.2	656.7	25.50	26.749		
2,700.0	2,424.7	2,588.3	2,461.2	20.1	13.4	-135.22	10.3	672.7	719.6	692.7	26.93	26.723		
2,800.0	2,508.1	2,681.0	2,546.1	21.1	14.1	-135.14	9.7	709.9	757.0	728.7	28.35	26.699		
2,900.0	2,591.7	2,773.8	2,631.1	22.2	14.9	-135.35	9.1	747.1	794.2	764.5	29.77	26.683		
3,000.0	2,677.5	2,867.6	2,717.0	23.1	15.6	-135.82	8.4	784.7	828.7	797.6	31.15	26.600		
3,100.0	2,765.9	2,962.4	2,803.9	23.9	16.3	-135.97	7.8	822.7	859.7	827.1	32.58	26.389		
3,200.0	2,856.6	3,057.6	2,891.1	24.7	17.0	-135.84	7.2	860.9	887.1	853.1	34.02	26.078		
3,300.0	2,949.4	3,149.9	2,976.7	25.3	17.7	-135.64	6.6	895.5	911.4	876.0	35.30	25.815		
3,400.0	3,044.0	3,243.5	3,065.0	25.9	18.2	-135.46	6.1	926.3	932.5	896.0	36.43	25.593		
3,500.0	3,140.1	3,338.3	3,155.9	26.3	18.7	-135.31	5.6	953.1	950.4	913.0	37.41	25.407		
3,600.0	3,237.6	3,434.0	3,249.0	26.7	19.1	-135.16	5.3	975.5	965.0	926.8	38.21	25.253		
3,700.0	3,336.1	3,530.6	3,343.8	27.0	19.4	-135.04	5.0	993.4	976.3	937.5	38.86	25.127		
3,800.0	3,435.3	3,627.8	3,440.2	27.2	19.6	-134.92	4.8	1,006.5	984.2	944.9	39.33	25.025		
3,900.0	3,535.1	3,725.5	3,537.5	27.3	19.7	-134.81	4.6	1,014.8	988.6	949.0	39.63	24.944		
4,000.0	3,635.1	3,823.4	3,635.4	27.3	19.8	-1.26	4.6	1,018.1	989.7	949.9	39.80	24.865		
4,039.2	3,674.3	3,862.3	3,674.3	27.4	19.8	-1.26	4.6	1,018.1	989.7	949.8	39.85	24.835		
4,100.0	3,735.1	3,923.1	3,735.1	27.4	19.9	-1.26	4.6	1,018.1	989.7	949.8	39.92	24.790		
4,200.0	3,835.1	4,023.1	3,835.1	27.4	19.9	-1.26	4.6	1,018.1	989.7	949.6	40.05	24.713		
4,300.0	3,935.1	4,123.1	3,935.1	27.5	20.0	-1.26	4.6	1,018.1	989.7	949.5	40.17	24.636		
4,400.0	4,035.1	4,223.1	4,035.1	27.5	20.1	-1.26	4.6	1,018.1	989.7	949.4	40.30	24.558		
4,500.0	4,135.1	4,323.1	4,135.1	27.6	20.1	-1.26	4.6	1,018.1	989.7	949.3	40.43	24.478		
4,600.0	4,235.1	4,423.1	4,235.1	27.6	20.2	-1.26	4.6	1,018.1	989.7	949.1	40.56	24.398		
4,700.0	4,335.1	4,523.1	4,335.1	27.7	20.3	-1.26	4.6	1,018.1	989.7	949.0	40.70	24.316		
4,800.0	4,435.1	4,623.1	4,435.1	27.7	20.3	-1.26	4.6	1,018.1	989.7	948.8	40.84	24.234		
4,900.0	4,535.1	4,723.1	4,535.1	27.8	20.4	-1.26	4.6	1,018.1	989.7	948.7	40.98	24.150		
5,000.0	4,635.1	4,823.1	4,635.1	27.8	20.5	-1.26	4.6	1,018.1	989.7	948.6	41.12	24.066		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> 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	4,735.1	4,923.1	4,735.1	27.9	20.5	-1.26	4.6	1,018.1	989.7	948.4	41.27	23.981		
5,200.0	4,835.1	5,023.1	4,835.1	27.9	20.6	-1.26	4.6	1,018.1	989.7	948.3	41.42	23.895		
5,300.0	4,935.1	5,123.1	4,935.1	28.0	20.7	-1.26	4.6	1,018.1	989.7	948.1	41.57	23.809		
5,400.0	5,035.1	5,223.1	5,035.1	28.1	20.8	-1.26	4.6	1,018.1	989.7	948.0	41.72	23.721		
5,500.0	5,135.1	5,323.1	5,135.1	28.1	20.8	-1.26	4.6	1,018.1	989.7	947.8	41.88	23.633		
5,600.0	5,235.1	5,423.1	5,235.1	28.2	20.9	-1.26	4.6	1,018.1	989.7	947.7	42.04	23.544		
5,700.0	5,335.1	5,523.1	5,335.1	28.2	21.0	-1.26	4.6	1,018.1	989.7	947.5	42.20	23.455		
5,800.0	5,435.1	5,623.1	5,435.1	28.3	21.1	-1.26	4.6	1,018.1	989.7	947.3	42.36	23.365		
5,900.0	5,535.1	5,723.1	5,535.1	28.4	21.2	-1.26	4.6	1,018.1	989.7	947.2	42.52	23.275		
6,000.0	5,635.1	5,823.1	5,635.1	28.4	21.2	-1.26	4.6	1,018.1	989.7	947.0	42.69	23.184		
6,100.0	5,735.1	5,923.1	5,735.1	28.5	21.3	-1.26	4.6	1,018.1	989.7	946.8	42.86	23.092		
6,174.9	5,810.0	5,998.1	5,810.0	28.5	21.4	-1.26	4.6	1,018.1	989.7	946.7	42.99	23.023		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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			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	26.78	14.7	7.4	16.5					
100.0	100.0	100.0	100.0	0.1	0.1	26.78	14.7	7.4	16.5	16.2	0.25	64.702		
200.0	200.0	200.0	200.0	0.3	0.3	26.78	14.7	7.4	16.5	15.9	0.60	27.302		
300.0	300.0	300.0	300.0	0.5	0.5	26.78	14.7	7.4	16.5	15.5	0.95	17.301 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	-114.91	14.7	7.4	17.4	16.1	1.31	13.328		
500.0	499.6	499.6	499.6	0.9	0.8	-133.73	14.7	7.4	21.9	20.2	1.67	13.110 SF		
600.0	598.8	599.7	599.6	1.1	1.0	-146.71	13.9	9.9	30.9	28.9	2.04	15.160		
700.0	697.1	700.1	699.7	1.5	1.2	-151.25	11.3	17.3	42.1	39.7	2.43	17.331		
800.0	794.3	800.9	799.6	1.9	1.5	-151.96	7.0	29.8	54.9	52.0	2.88	19.023		
900.0	890.2	901.8	898.9	2.5	1.8	-150.89	1.0	47.2	69.0	65.5	3.44	20.052		
1,000.0	984.4	1,003.0	997.2	3.1	2.2	-148.95	-6.8	69.7	84.5	80.4	4.14	20.403		
1,100.0	1,076.8	1,104.3	1,094.3	3.8	2.7	-146.61	-16.2	97.1	101.5	96.5	5.03	20.195		
1,200.0	1,167.1	1,205.6	1,189.7	4.6	3.3	-144.10	-27.3	129.3	120.0	113.9	6.12	19.620		
1,300.0	1,254.9	1,307.0	1,283.2	5.5	4.1	-141.57	-40.1	166.2	140.1	132.7	7.43	18.870		
1,400.0	1,340.2	1,405.5	1,372.5	6.5	4.8	-139.49	-53.7	205.6	162.5	153.6	8.86	18.345		
1,500.0	1,423.6	1,502.4	1,460.2	7.6	5.6	-138.81	-67.1	244.6	187.2	177.0	10.25	18.266		
1,600.0	1,507.1	1,599.3	1,547.8	8.6	6.4	-138.37	-80.6	283.5	212.0	200.4	11.66	18.187		
1,700.0	1,590.5	1,696.1	1,635.5	9.6	7.1	-138.02	-94.0	322.5	236.9	223.8	13.08	18.110		
1,800.0	1,673.9	1,793.0	1,723.1	10.7	7.9	-137.73	-107.5	361.4	261.7	247.2	14.51	18.039		
1,900.0	1,757.3	1,889.9	1,810.8	11.7	8.7	-137.50	-120.9	400.4	286.5	270.6	15.94	17.974		
2,000.0	1,840.7	1,986.7	1,898.4	12.8	9.5	-137.30	-134.4	439.3	311.4	294.0	17.38	17.915		
2,100.0	1,924.2	2,083.6	1,986.1	13.8	10.3	-137.13	-147.8	478.3	336.2	317.4	18.82	17.862		
2,200.0	2,007.6	2,180.4	2,073.8	14.8	11.0	-136.98	-161.3	517.2	361.1	340.8	20.27	17.814		
2,300.0	2,091.0	2,277.3	2,161.4	15.9	11.8	-136.86	-174.7	556.2	385.9	364.2	21.72	17.771		
2,400.0	2,174.4	2,374.2	2,249.1	16.9	12.6	-136.75	-188.1	595.1	410.8	387.6	23.17	17.732		
2,500.0	2,257.8	2,471.0	2,336.7	18.0	13.4	-136.65	-201.6	634.1	435.6	411.0	24.62	17.697		
2,600.0	2,341.3	2,567.9	2,424.4	19.0	14.2	-136.56	-215.0	673.0	460.5	434.4	26.07	17.665		
2,700.0	2,424.7	2,664.7	2,512.0	20.1	15.0	-136.48	-228.5	712.0	485.3	457.8	27.52	17.635		
2,800.0	2,508.1	2,761.6	2,599.7	21.1	15.8	-136.41	-241.9	750.9	510.2	481.2	28.97	17.608		
2,900.0	2,591.7	2,858.5	2,687.4	22.2	16.6	-136.50	-255.4	789.9	534.8	504.4	30.41	17.584		
3,000.0	2,677.5	2,956.0	2,775.7	23.1	17.4	-136.58	-268.9	829.1	556.5	524.6	31.88	17.456		
3,100.0	2,765.9	3,049.1	2,860.1	23.9	18.1	-136.32	-281.7	866.2	574.7	541.4	33.35	17.235		
3,200.0	2,856.6	3,136.9	2,941.1	24.7	18.7	-136.09	-292.7	898.1	590.9	556.3	34.63	17.061		
3,300.0	2,949.4	3,225.0	3,023.9	25.3	19.2	-135.89	-302.5	926.5	605.2	569.4	35.77	16.916		
3,400.0	3,044.0	3,313.3	3,108.2	25.9	19.7	-135.72	-311.1	951.4	617.5	580.8	36.77	16.795		
3,500.0	3,140.1	3,400.0	3,192.0	26.3	20.1	-135.58	-318.3	972.2	627.9	590.3	37.61	16.698		
3,600.0	3,237.6	3,490.6	3,280.7	26.7	20.4	-135.44	-324.5	990.1	636.3	598.0	38.30	16.613		
3,700.0	3,336.1	3,579.6	3,368.4	27.0	20.6	-135.33	-329.2	1,003.8	642.8	603.9	38.85	16.546		
3,800.0	3,435.3	3,668.7	3,456.9	27.2	20.8	-135.23	-332.6	1,013.6	647.1	607.9	39.24	16.490		
3,900.0	3,535.1	3,757.8	3,545.8	27.3	20.9	-135.14	-334.6	1,019.5	649.5	610.0	39.50	16.442		
4,000.0	3,635.1	3,847.1	3,635.1	27.3	21.0	-1.62	-335.3	1,021.5	649.8	610.2	39.65	16.390		
4,100.0	3,735.1	3,947.1	3,735.1	27.4	21.0	-1.62	-335.3	1,021.5	649.8	610.1	39.77	16.340		
4,200.0	3,835.1	4,047.1	3,835.1	27.4	21.1	-1.62	-335.3	1,021.5	649.8	609.9	39.89	16.290		
4,300.0	3,935.1	4,147.1	3,935.1	27.5	21.1	-1.62	-335.3	1,021.5	649.8	609.8	40.02	16.238		
4,400.0	4,035.1	4,247.1	4,035.1	27.5	21.2	-1.62	-335.3	1,021.5	649.8	609.7	40.15	16.186		
4,500.0	4,135.1	4,347.1	4,135.1	27.6	21.3	-1.62	-335.3	1,021.5	649.8	609.5	40.28	16.133		
4,600.0	4,235.1	4,447.1	4,235.1	27.6	21.3	-1.62	-335.3	1,021.5	649.8	609.4	40.41	16.079		
4,700.0	4,335.1	4,547.1	4,335.1	27.7	21.4	-1.62	-335.3	1,021.5	649.8	609.3	40.55	16.025		
4,800.0	4,435.1	4,647.1	4,435.1	27.7	21.5	-1.62	-335.3	1,021.5	649.8	609.1	40.69	15.970		
4,900.0	4,535.1	4,747.1	4,535.1	27.8	21.5	-1.62	-335.3	1,021.5	649.8	609.0	40.83	15.915		
5,000.0	4,635.1	4,847.1	4,635.1	27.8	21.6	-1.62	-335.3	1,021.5	649.8	608.9	40.98	15.859		
5,100.0	4,735.1	4,947.1	4,735.1	27.9	21.7	-1.62	-335.3	1,021.5	649.8	608.7	41.12	15.802		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S14-T7S-R96W - Nolte 14C-13 - DD - Plan #3													<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD													<b>Offset Well Error:</b>	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	4,835.1	5,047.1	4,835.1	27.9	21.7	-1.62	-335.3	1,021.5	649.8	608.6	41.27	15.745		
5,300.0	4,935.1	5,147.1	4,935.1	28.0	21.8	-1.62	-335.3	1,021.5	649.8	608.4	41.42	15.687		
5,400.0	5,035.1	5,247.1	5,035.1	28.1	21.9	-1.62	-335.3	1,021.5	649.8	608.3	41.58	15.629		
5,500.0	5,135.1	5,347.1	5,135.1	28.1	22.0	-1.62	-335.3	1,021.5	649.8	608.1	41.73	15.571		
5,600.0	5,235.1	5,447.1	5,235.1	28.2	22.0	-1.62	-335.3	1,021.5	649.8	607.9	41.89	15.512		
5,700.0	5,335.1	5,547.1	5,335.1	28.2	22.1	-1.62	-335.3	1,021.5	649.8	607.8	42.05	15.452		
5,800.0	5,435.1	5,647.1	5,435.1	28.3	22.2	-1.62	-335.3	1,021.5	649.8	607.6	42.22	15.393		
5,900.0	5,535.1	5,747.1	5,535.1	28.4	22.3	-1.62	-335.3	1,021.5	649.8	607.4	42.38	15.332		
6,000.0	5,635.1	5,847.1	5,635.1	28.4	22.3	-1.62	-335.3	1,021.5	649.8	607.3	42.55	15.272		
6,100.0	5,735.1	5,947.1	5,735.1	28.5	22.4	-1.62	-335.3	1,021.5	649.8	607.1	42.72	15.211		
6,174.9	5,810.0	6,022.0	5,810.0	28.5	22.5	-1.62	-335.3	1,021.5	649.8	607.0	42.85	15.166		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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			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	27.52	7.1	3.7	8.0					
100.0	100.0	100.0	100.0	0.1	0.1	27.52	7.1	3.7	8.0	7.8	0.25	31.401		
200.0	200.0	200.0	200.0	0.3	0.3	27.52	7.1	3.7	8.0	7.4	0.60	13.255		
300.0	300.0	300.0	300.0	0.5	0.5	27.52	7.1	3.7	8.0	7.1	0.95	8.401 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	-121.98	7.1	3.7	9.1	7.8	1.31	6.951 SF		
500.0	499.6	500.1	500.1	0.9	0.8	-140.92	5.7	5.9	13.0	11.3	1.67	7.779		
600.0	598.8	600.5	600.2	1.1	1.0	-148.02	1.4	12.5	18.2	16.1	2.05	8.860		
700.0	697.1	701.2	700.0	1.5	1.3	-149.97	-5.8	23.6	24.0	21.6	2.48	9.708		
800.0	794.3	802.1	799.1	1.9	1.6	-149.58	-15.9	39.1	30.4	27.4	2.98	10.221		
900.0	890.2	903.2	897.4	2.5	2.1	-148.07	-28.8	59.0	37.3	33.7	3.59	10.385		
1,000.0	984.4	1,004.5	994.5	3.1	2.6	-146.00	-44.5	83.3	44.7	40.4	4.37	10.247		
1,100.0	1,076.8	1,106.0	1,090.0	3.8	3.2	-143.65	-63.1	111.9	52.7	47.4	5.33	9.893		
1,200.0	1,167.1	1,207.7	1,183.8	4.6	4.0	-141.21	-84.5	144.8	61.3	54.8	6.51	9.423		
1,300.0	1,254.9	1,309.5	1,275.5	5.5	4.8	-138.75	-108.5	182.0	70.6	62.7	7.91	8.918		
1,400.0	1,340.2	1,409.7	1,363.9	6.5	5.7	-137.05	-134.2	221.6	81.2	71.8	9.42	8.625		
1,500.0	1,423.6	1,508.8	1,451.2	7.6	6.6	-137.19	-159.8	261.0	94.1	83.4	10.78	8.733		
1,600.0	1,507.1	1,608.0	1,538.5	8.6	7.4	-137.34	-185.3	300.4	107.1	95.0	12.15	8.815		
1,700.0	1,590.5	1,707.1	1,625.9	9.6	8.3	-137.47	-210.9	339.7	120.1	106.6	13.53	8.876		
1,800.0	1,673.9	1,806.3	1,713.2	10.7	9.2	-137.56	-236.5	379.1	133.1	118.2	14.92	8.923		
1,900.0	1,757.3	1,905.4	1,800.5	11.7	10.1	-137.65	-262.0	418.5	146.1	129.8	16.30	8.959		
2,000.0	1,840.7	2,004.6	1,887.9	12.8	11.0	-137.71	-287.6	457.9	159.1	141.4	17.69	8.989		
2,100.0	1,924.2	2,103.8	1,975.2	13.8	11.9	-137.77	-313.1	497.3	172.0	152.9	19.09	9.012		
2,200.0	2,007.6	2,202.9	2,062.5	14.8	12.8	-137.82	-338.7	536.7	185.0	164.5	20.48	9.032		
2,300.0	2,091.0	2,302.1	2,149.8	15.9	13.7	-137.86	-364.2	576.1	198.0	176.1	21.88	9.049		
2,400.0	2,174.4	2,401.2	2,237.2	16.9	14.6	-137.90	-389.8	615.5	211.0	187.7	23.28	9.063		
2,500.0	2,257.8	2,500.4	2,324.5	18.0	15.4	-137.93	-415.3	654.9	224.0	199.3	24.68	9.075		
2,600.0	2,341.3	2,599.5	2,411.8	19.0	16.3	-137.96	-440.9	694.3	237.0	210.9	26.08	9.086		
2,700.0	2,424.7	2,698.7	2,499.2	20.1	17.2	-137.99	-466.5	733.7	249.9	222.5	27.48	9.095		
2,800.0	2,508.1	2,797.8	2,586.5	21.1	18.1	-138.01	-492.0	773.1	262.9	234.0	28.88	9.103		
2,900.0	2,591.7	2,897.0	2,673.8	22.2	19.0	-138.08	-517.6	812.5	275.7	245.4	30.29	9.102		
3,000.0	2,677.5	2,992.5	2,758.2	23.1	19.9	-137.80	-542.0	850.1	285.7	253.9	31.78	8.987		
3,100.0	2,765.9	3,083.6	2,840.3	23.9	20.6	-137.49	-563.4	883.1	294.4	261.2	33.14	8.883		
3,200.0	2,856.6	3,174.5	2,924.1	24.7	21.2	-137.22	-582.7	912.8	302.2	267.8	34.35	8.797		
3,300.0	2,949.4	3,265.5	3,009.4	25.3	21.7	-136.99	-599.7	939.1	309.0	273.6	35.42	8.725		
3,400.0	3,044.0	3,356.4	3,096.1	25.9	22.2	-136.79	-614.5	961.9	314.9	278.6	36.35	8.665		
3,500.0	3,140.1	3,447.2	3,184.0	26.3	22.6	-136.62	-627.1	981.3	319.9	282.8	37.14	8.615		
3,600.0	3,237.6	3,538.1	3,272.8	26.7	22.9	-136.47	-637.4	997.1	323.9	286.1	37.78	8.572		
3,700.0	3,336.1	3,628.9	3,362.5	27.0	23.2	-136.35	-645.3	1,009.4	326.9	288.6	38.30	8.536		
3,800.0	3,435.3	3,719.7	3,452.7	27.2	23.3	-136.24	-651.0	1,018.1	328.9	290.3	38.67	8.506		
3,900.0	3,535.1	3,810.6	3,543.3	27.3	23.4	-136.15	-654.2	1,023.1	330.0	291.0	38.92	8.478		
4,000.0	3,635.1	3,902.3	3,635.1	27.3	23.5	-2.65	-655.2	1,024.6	330.0	291.0	39.05	8.452		
4,100.0	3,735.1	4,002.3	3,735.1	27.4	23.5	-2.65	-655.2	1,024.6	330.0	290.9	39.17	8.425		
4,200.0	3,835.1	4,102.3	3,835.1	27.4	23.6	-2.65	-655.2	1,024.6	330.0	290.7	39.30	8.398		
4,300.0	3,935.1	4,202.3	3,935.1	27.5	23.7	-2.65	-655.2	1,024.6	330.0	290.6	39.43	8.371		
4,400.0	4,035.1	4,302.3	4,035.1	27.5	23.7	-2.65	-655.2	1,024.6	330.0	290.5	39.56	8.343		
4,500.0	4,135.1	4,402.3	4,135.1	27.6	23.8	-2.65	-655.2	1,024.6	330.0	290.3	39.69	8.315		
4,600.0	4,235.1	4,502.3	4,235.1	27.6	23.8	-2.65	-655.2	1,024.6	330.0	290.2	39.83	8.286		
4,700.0	4,335.1	4,602.3	4,335.1	27.7	23.9	-2.65	-655.2	1,024.6	330.0	290.1	39.97	8.257		
4,800.0	4,435.1	4,702.3	4,435.1	27.7	23.9	-2.65	-655.2	1,024.6	330.0	289.9	40.11	8.228		
4,900.0	4,535.1	4,802.3	4,535.1	27.8	24.0	-2.65	-655.2	1,024.6	330.0	289.8	40.26	8.198		
5,000.0	4,635.1	4,902.3	4,635.1	27.8	24.1	-2.65	-655.2	1,024.6	330.0	289.6	40.41	8.168		
5,100.0	4,735.1	5,002.3	4,735.1	27.9	24.1	-2.65	-655.2	1,024.6	330.0	289.5	40.56	8.138		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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			Distance									
Measured Depth	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore	Centre	Between	Between	Total	Separation	Warning			
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Centres	Ellipses	Uncertainty	Factor				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	Axis					
5,200.0	4,835.1	5,102.3	4,835.1	27.9	24.2	-2.65	-655.2	1,024.6	330.0	289.3	40.71	8.108				
5,300.0	4,935.1	5,202.3	4,935.1	28.0	24.2	-2.65	-655.2	1,024.6	330.0	289.2	40.86	8.077				
5,400.0	5,035.1	5,302.3	5,035.1	28.1	24.3	-2.65	-655.2	1,024.6	330.0	289.0	41.02	8.046				
5,500.0	5,135.1	5,402.3	5,135.1	28.1	24.4	-2.65	-655.2	1,024.6	330.0	288.9	41.18	8.015				
5,600.0	5,235.1	5,502.3	5,235.1	28.2	24.4	-2.65	-655.2	1,024.6	330.0	288.7	41.34	7.984				
5,700.0	5,335.1	5,602.3	5,335.1	28.2	24.5	-2.65	-655.2	1,024.6	330.0	288.5	41.50	7.952				
5,800.0	5,435.1	5,702.3	5,435.1	28.3	24.6	-2.65	-655.2	1,024.6	330.0	288.4	41.67	7.920				
5,900.0	5,535.1	5,802.3	5,535.1	28.4	24.7	-2.65	-655.2	1,024.6	330.0	288.2	41.84	7.888				
6,000.0	5,635.1	5,902.3	5,635.1	28.4	24.7	-2.65	-655.2	1,024.6	330.0	288.0	42.01	7.856				
6,100.0	5,735.1	6,002.3	5,735.1	28.5	24.8	-2.65	-655.2	1,024.6	330.0	287.9	42.18	7.824				
6,174.9	5,810.0	6,077.2	5,810.0	28.5	24.9	-2.65	-655.2	1,024.6	330.0	287.7	42.31	7.800				

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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					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)	Total Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	10.14	33.0	5.9	33.5					
100.0	100.0	100.0	100.0	0.1	0.1	10.14	33.0	5.9	33.5	33.3	0.26	131.360		
200.0	200.0	200.0	200.0	0.3	0.3	10.14	33.0	5.9	33.5	32.9	0.60	55.476		
300.0	300.0	300.0	300.0	0.5	0.5	10.14	33.0	5.9	33.5	32.6	0.95	35.163 CC, ES		
400.0	400.0	398.2	398.1	0.7	0.7	-127.89	35.5	5.4	37.5	36.2	1.30	28.762 SF		
500.0	499.6	494.9	494.5	0.9	0.9	-136.99	42.7	4.0	50.3	48.7	1.66	30.301		
600.0	598.8	588.9	587.8	1.1	1.1	-144.58	54.4	1.7	73.0	71.0	2.02	36.170		
700.0	697.1	678.9	676.4	1.5	1.4	-149.46	69.8	-1.3	105.4	103.1	2.38	44.332		
800.0	794.3	764.1	759.5	1.9	1.8	-152.36	88.1	-4.8	146.8	144.1	2.74	53.565		
900.0	890.2	843.6	836.3	2.5	2.1	-154.04	108.4	-8.8	196.5	193.4	3.11	63.159		
1,000.0	984.4	917.0	906.3	3.1	2.5	-154.94	130.0	-13.0	253.6	250.1	3.49	72.674		
1,100.0	1,076.8	984.0	969.5	3.8	2.9	-155.31	151.9	-17.3	317.5	313.6	3.88	81.762		
1,200.0	1,167.1	1,044.5	1,025.8	4.6	3.4	-155.28	173.6	-21.5	387.4	383.1	4.30	90.123		
1,300.0	1,254.9	1,100.0	1,076.8	5.5	3.7	-154.92	195.1	-25.7	462.7	458.0	4.75	97.453		
1,400.0	1,340.2	1,146.2	1,118.8	6.5	4.1	-154.17	214.0	-29.4	542.6	537.4	5.25	103.388		
1,500.0	1,423.6	1,200.0	1,167.1	7.6	4.5	-154.92	237.3	-34.0	625.8	620.1	5.72	109.397		
1,600.0	1,507.1	1,229.3	1,193.1	8.6	4.8	-155.35	250.6	-36.5	710.0	703.8	6.18	114.856		
1,700.0	1,590.5	1,267.2	1,226.4	9.6	5.1	-155.81	268.3	-40.0	795.3	788.7	6.65	119.679		
1,800.0	1,673.9	1,300.0	1,254.9	10.7	5.4	-156.12	284.1	-43.1	881.6	874.5	7.11	124.022		
1,900.0	1,757.3	1,336.5	1,286.4	11.7	5.7	-156.40	302.3	-46.6	968.8	961.2	7.58	127.844		
2,000.0	1,840.7	1,368.2	1,313.4	12.8	6.0	-156.59	318.7	-49.8	1,056.7	1,048.6	8.05	131.340		
2,100.0	1,924.2	1,400.0	1,340.2	13.8	6.3	-156.74	335.4	-53.1	1,145.3	1,136.8	8.52	134.503		
2,200.0	2,007.6	1,426.6	1,362.4	14.8	6.6	-156.84	349.8	-55.9	1,234.6	1,225.7	8.98	137.429		
2,300.0	2,091.0	1,453.5	1,384.6	15.9	6.9	-156.92	364.6	-58.8	1,324.5	1,315.1	9.45	140.100		



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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		
0.0	0.0	0.0	0.0	0.0	0.0	4.86	25.9	2.2	26.0					
100.0	100.0	100.0	100.0	0.1	0.1	4.86	25.9	2.2	26.0	25.7	0.26	101.853		
200.0	200.0	200.0	200.0	0.3	0.3	4.86	25.9	2.2	26.0	25.4	0.60	43.026		
300.0	300.0	300.0	300.0	0.5	0.5	4.86	25.9	2.2	26.0	25.1	0.95	27.274 CC, ES		
400.0	400.0	399.2	399.2	0.7	0.7	-133.03	26.5	2.1	28.3	27.0	1.30	21.730 SF		
500.0	499.6	496.8	496.6	0.9	0.8	-142.83	31.4	0.9	39.3	37.6	1.66	23.679		
600.0	598.8	591.8	591.2	1.1	1.1	-150.44	40.8	-1.3	60.3	58.3	2.01	29.996		
700.0	697.1	683.2	681.5	1.5	1.3	-154.82	54.1	-4.4	91.2	88.8	2.36	38.607		
800.0	794.3	769.8	766.4	1.9	1.6	-157.18	70.6	-8.3	131.1	128.4	2.71	48.334		
900.0	890.2	850.8	845.1	2.5	2.0	-158.43	89.5	-12.7	179.3	176.3	3.06	58.517		
1,000.0	984.4	925.7	917.0	3.1	2.4	-159.03	109.8	-17.5	235.3	231.8	3.42	68.745		
1,100.0	1,076.8	1,000.0	987.5	3.8	2.8	-159.28	132.6	-22.8	298.2	294.4	3.80	78.557		
1,200.0	1,167.1	1,056.1	1,040.1	4.6	3.1	-159.04	151.5	-27.3	367.1	363.0	4.17	88.066		
1,300.0	1,254.9	1,111.4	1,091.4	5.5	3.5	-158.61	171.7	-32.0	441.6	437.1	4.57	96.594		
1,400.0	1,340.2	1,160.4	1,136.3	6.5	3.9	-157.91	190.8	-36.5	521.0	516.0	5.02	103.864		
1,500.0	1,423.6	1,200.0	1,172.2	7.6	4.2	-158.26	207.0	-40.3	603.6	598.1	5.45	110.825		
1,600.0	1,507.1	1,245.5	1,213.1	8.6	4.5	-158.77	226.6	-44.9	687.3	681.5	5.88	116.904		
1,700.0	1,590.5	1,284.3	1,247.5	9.6	4.9	-159.08	244.0	-48.9	772.2	765.9	6.31	122.361		
1,800.0	1,673.9	1,320.8	1,279.6	10.7	5.2	-159.31	261.0	-52.9	858.1	851.3	6.74	127.220		
1,900.0	1,757.3	1,355.2	1,309.5	11.7	5.5	-159.46	277.6	-56.8	944.8	937.6	7.18	131.586		
2,000.0	1,840.7	1,400.0	1,347.9	12.8	5.9	-159.60	299.9	-62.1	1,032.5	1,024.9	7.63	135.291		
2,100.0	1,924.2	1,422.8	1,367.3	13.8	6.1	-159.65	311.6	-64.8	1,120.7	1,112.6	8.06	139.065		
2,200.0	2,007.6	1,469.4	1,406.9	14.8	6.5	-159.74	335.5	-70.4	1,209.1	1,200.6	8.52	141.940		
2,300.0	2,091.0	1,516.0	1,446.5	15.9	7.0	-159.82	359.4	-76.0	1,297.6	1,288.6	8.98	144.507		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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	-4.46	18.8	-1.5	18.9					
100.0	100.0	100.0	100.0	0.1	0.1	-4.46	18.8	-1.5	18.9	18.6	0.26	73.890		
200.0	200.0	200.0	200.0	0.3	0.3	-4.46	18.8	-1.5	18.9	18.3	0.60	31.224		
300.0	300.0	300.0	300.0	0.5	0.5	-4.46	18.8	-1.5	18.9	17.9	0.95	19.795 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	-142.69	18.8	-1.5	20.9	19.6	1.30	16.019 SF		
500.0	499.6	498.1	498.1	0.9	0.8	-152.46	21.2	-2.3	30.1	28.5	1.65	18.202		
600.0	598.8	594.1	593.8	1.1	1.0	-159.25	28.1	-4.8	49.6	47.6	2.00	24.848		
700.0	697.1	686.5	685.4	1.5	1.3	-162.59	39.0	-8.8	79.0	76.7	2.33	33.858		
800.0	794.3	774.3	771.9	1.9	1.5	-164.18	53.2	-14.0	117.6	115.0	2.67	44.142		
900.0	890.2	856.5	852.1	2.5	1.9	-164.90	69.8	-20.1	164.8	161.8	2.99	55.107		
1,000.0	984.4	932.5	925.6	3.1	2.2	-165.17	88.1	-26.8	219.8	216.5	3.31	66.392		
1,100.0	1,076.8	1,000.0	990.2	3.8	2.6	-165.14	106.6	-33.5	282.0	278.4	3.62	77.804		
1,200.0	1,167.1	1,070.2	1,056.6	4.6	2.9	-165.00	127.8	-41.3	350.2	346.3	3.95	88.586		
1,300.0	1,254.9	1,139.4	1,122.0	5.5	3.3	-164.83	149.0	-49.0	422.3	418.1	4.29	98.423		
1,400.0	1,340.2	1,204.7	1,183.8	6.5	3.7	-164.61	169.0	-56.3	497.9	493.3	4.64	107.372		
1,500.0	1,423.6	1,267.6	1,243.3	7.6	4.1	-165.10	188.2	-63.3	575.6	570.6	5.00	115.078		
1,600.0	1,507.1	1,330.4	1,302.6	8.6	4.4	-165.59	207.4	-70.4	653.4	648.0	5.37	121.675		
1,700.0	1,590.5	1,393.2	1,362.0	9.6	4.8	-165.98	226.6	-77.4	731.1	725.4	5.74	127.412		
1,800.0	1,673.9	1,456.0	1,421.4	10.7	5.2	-166.29	245.9	-84.4	808.9	802.8	6.11	132.431		
1,900.0	1,757.3	1,518.8	1,480.7	11.7	5.5	-166.55	265.1	-91.4	886.7	880.2	6.48	136.873		
2,000.0	1,840.7	1,581.5	1,540.1	12.8	5.9	-166.77	284.3	-98.4	964.5	957.6	6.85	140.823		
2,100.0	1,924.2	1,644.3	1,599.5	13.8	6.3	-166.95	303.5	-105.4	1,042.3	1,035.1	7.22	144.357		
2,200.0	2,007.6	1,707.1	1,658.8	14.8	6.6	-167.11	322.7	-112.5	1,120.1	1,112.5	7.59	147.542		
2,300.0	2,091.0	1,769.9	1,718.2	15.9	7.0	-167.25	341.9	-119.5	1,197.9	1,189.9	7.96	150.419		
2,400.0	2,174.4	1,832.7	1,777.6	16.9	7.4	-167.37	361.1	-126.5	1,275.7	1,267.4	8.34	153.037		
2,500.0	2,257.8	1,895.5	1,837.0	18.0	7.7	-167.48	380.3	-133.5	1,353.5	1,344.8	8.71	155.427		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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				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	-23.79	11.7	-5.2	12.8					
100.0	100.0	100.0	100.0	0.1	0.1	-23.79	11.7	-5.2	12.8	12.6	0.26	50.123		
200.0	200.0	200.0	200.0	0.3	0.3	-23.79	11.7	-5.2	12.8	12.2	0.60	21.192		
300.0	300.0	300.0	300.0	0.5	0.5	-23.79	11.7	-5.2	12.8	11.9	0.95	13.437 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	-161.01	11.7	-5.2	15.3	14.0	1.30	11.718 SF		
500.0	499.6	499.2	499.2	0.9	0.8	-167.27	12.1	-5.4	23.3	21.6	1.65	14.108		
600.0	598.8	596.8	596.8	1.1	1.0	-170.95	15.0	-7.0	39.4	37.5	1.99	19.858		
700.0	697.1	692.0	691.8	1.5	1.2	-172.52	20.6	-10.2	64.0	61.7	2.32	27.647		
800.0	794.3	784.0	783.3	1.9	1.4	-173.16	28.7	-14.7	96.7	94.1	2.64	36.687		
900.0	890.2	872.0	870.4	2.5	1.6	-173.40	38.8	-20.4	137.1	134.1	2.94	46.566		
1,000.0	984.4	955.3	952.6	3.1	1.9	-173.45	50.5	-26.9	184.8	181.5	3.24	57.045		
1,100.0	1,076.8	1,033.4	1,029.4	3.8	2.1	-173.39	63.3	-34.2	239.3	235.8	3.52	67.978		
1,200.0	1,167.1	1,106.0	1,100.3	4.6	2.4	-173.26	76.9	-41.8	300.2	296.4	3.79	79.258		
1,300.0	1,254.9	1,172.9	1,165.2	5.5	2.7	-173.08	90.8	-49.6	366.9	362.9	4.04	90.714		
1,400.0	1,340.2	1,233.8	1,224.1	6.5	3.0	-172.84	104.6	-57.4	438.9	434.6	4.29	102.278		
1,500.0	1,423.6	1,290.1	1,278.1	7.6	3.3	-172.89	118.3	-65.1	514.6	510.0	4.58	112.377		
1,600.0	1,507.1	1,343.9	1,329.4	8.6	3.5	-172.95	132.3	-72.9	591.5	586.6	4.88	121.324		
1,700.0	1,590.5	1,395.4	1,378.3	9.6	3.8	-172.96	146.5	-80.9	669.5	664.3	5.17	129.559		
1,800.0	1,673.9	1,457.2	1,436.8	10.7	4.2	-172.97	163.9	-90.7	748.1	742.6	5.48	136.554		
1,900.0	1,757.3	1,519.0	1,495.3	11.7	4.5	-172.97	181.4	-100.5	826.7	820.9	5.79	142.822		
2,000.0	1,840.7	1,580.9	1,553.8	12.8	4.9	-172.97	198.9	-110.3	905.2	899.1	6.10	148.427		
2,100.0	1,924.2	1,642.7	1,612.3	13.8	5.2	-172.97	216.4	-120.2	983.8	977.4	6.41	153.475		
2,200.0	2,007.6	1,704.6	1,670.8	14.8	5.6	-172.97	233.8	-130.0	1,062.4	1,055.7	6.72	158.061		
2,300.0	2,091.0	1,766.4	1,729.3	15.9	5.9	-172.97	251.3	-139.8	1,141.0	1,133.9	7.03	162.213		
2,400.0	2,174.4	1,828.3	1,787.9	16.9	6.3	-172.97	268.8	-149.6	1,219.5	1,212.2	7.35	166.016		
2,500.0	2,257.8	1,890.1	1,846.4	18.0	6.7	-172.98	286.3	-159.4	1,298.1	1,290.5	7.66	169.505		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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		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	-62.43	4.6	-8.9	10.0					
100.0	100.0	100.0	100.0	0.1	0.1	-62.43	4.6	-8.9	10.0	9.7	0.26	39.111		
200.0	200.0	200.0	200.0	0.3	0.3	-62.43	4.6	-8.9	10.0	9.4	0.60	16.541		
300.0	300.0	300.0	300.0	0.5	0.5	-62.43	4.6	-8.9	10.0	9.1	0.95	10.489 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	167.38	4.6	-8.9	12.5	11.2	1.30	9.633 SF		
500.0	499.6	499.6	499.6	0.9	0.8	172.20	4.6	-8.9	20.3	18.6	1.65	12.306		
600.0	598.8	597.0	597.0	1.1	1.0	174.55	5.9	-11.0	35.7	33.7	1.98	18.005		
700.0	697.1	691.4	691.0	1.5	1.2	175.06	9.4	-17.2	61.2	58.9	2.31	26.458		
800.0	794.3	784.3	783.4	1.9	1.4	175.13	14.6	-26.3	95.2	92.5	2.63	36.176		
900.0	890.2	876.4	874.8	2.5	1.6	175.28	19.9	-35.6	134.3	131.3	2.94	45.652		
1,000.0	984.4	966.2	964.1	3.1	1.8	175.45	25.0	-44.7	178.1	174.9	3.24	54.970		
1,100.0	1,076.8	1,053.7	1,050.9	3.8	2.1	175.61	30.1	-53.5	226.6	223.0	3.53	64.239		
1,200.0	1,167.1	1,138.5	1,135.2	4.6	2.3	175.75	34.9	-62.0	279.6	275.8	3.80	73.537		
1,300.0	1,254.9	1,220.4	1,216.5	5.5	2.5	175.86	39.6	-70.3	336.9	332.8	4.06	82.920		
1,400.0	1,340.2	1,299.2	1,294.8	6.5	2.7	175.95	44.1	-78.2	398.4	394.1	4.31	92.425		
1,500.0	1,423.6	1,375.9	1,371.0	7.6	2.9	176.15	48.5	-85.9	462.6	458.0	4.61	100.392		
1,600.0	1,507.1	1,452.5	1,447.1	8.6	3.1	176.32	52.9	-93.6	526.8	521.9	4.91	107.191		
1,700.0	1,590.5	1,529.2	1,523.2	9.6	3.3	176.45	57.3	-101.3	591.0	585.8	5.22	113.203		
1,800.0	1,673.9	1,605.8	1,599.4	10.7	3.5	176.56	61.7	-109.1	655.2	649.7	5.53	118.558		
1,900.0	1,757.3	1,682.5	1,675.5	11.7	3.7	176.64	66.1	-116.8	719.5	713.6	5.83	123.358		
2,000.0	1,840.7	1,759.1	1,751.6	12.8	3.9	176.72	70.5	-124.5	783.7	777.5	6.14	127.686		
2,100.0	1,924.2	1,835.8	1,827.8	13.8	4.1	176.78	74.9	-132.2	847.9	841.5	6.44	131.609		
2,200.0	2,007.6	1,912.4	1,903.9	14.8	4.3	176.83	79.3	-139.9	912.1	905.4	6.75	135.182		
2,300.0	2,091.0	1,989.1	1,980.0	15.9	4.5	176.88	83.7	-147.7	976.3	969.3	7.05	138.450		
2,400.0	2,174.4	2,065.7	2,056.2	16.9	4.7	176.92	88.1	-155.4	1,040.6	1,033.2	7.36	141.450		
2,500.0	2,257.8	2,142.4	2,132.3	18.0	4.9	176.96	92.5	-163.1	1,104.8	1,097.1	7.66	144.214		
2,600.0	2,341.3	2,219.0	2,208.4	19.0	5.1	176.99	96.9	-170.8	1,169.0	1,161.0	7.96	146.769		
2,700.0	2,424.7	2,295.7	2,284.6	20.1	5.3	177.02	101.3	-178.5	1,233.2	1,225.0	8.27	149.138		
2,800.0	2,508.1	2,372.3	2,360.7	21.1	5.5	177.04	105.7	-186.2	1,297.4	1,288.9	8.57	151.340		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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				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	-101.07	-2.5	-12.6	12.8					
100.0	100.0	100.0	100.0	0.1	0.1	-101.07	-2.5	-12.6	12.8	12.6	0.26	50.027		
200.0	200.0	200.0	200.0	0.3	0.3	-101.07	-2.5	-12.6	12.8	12.2	0.61	21.167		
300.0	300.0	300.0	300.0	0.5	0.5	-101.07	-2.5	-12.6	12.8	11.9	0.95	13.424 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	133.90	-2.5	-12.6	14.5	13.2	1.31	11.092 SF		
500.0	499.6	498.6	498.5	0.9	0.8	146.98	-2.9	-15.1	23.1	21.4	1.66	13.914		
600.0	598.8	596.0	595.6	1.1	1.0	152.62	-4.4	-22.3	41.2	39.2	2.02	20.385		
700.0	697.1	693.4	692.5	1.5	1.2	152.82	-9.7	-31.3	64.6	62.2	2.42	26.711		
800.0	794.3	789.5	787.9	1.9	1.5	153.21	-16.4	-40.4	92.3	89.5	2.84	32.482		
900.0	890.2	884.1	881.9	2.5	1.7	154.30	-23.1	-49.3	124.5	121.2	3.28	37.978		
1,000.0	984.4	977.0	974.2	3.1	1.9	155.54	-29.6	-58.1	161.3	157.5	3.72	43.311		
1,100.0	1,076.8	1,068.0	1,064.5	3.8	2.2	156.73	-36.0	-66.8	202.5	198.3	4.17	48.558		
1,200.0	1,167.1	1,156.7	1,152.6	4.6	2.4	157.79	-42.2	-75.2	248.2	243.6	4.62	53.761		
1,300.0	1,254.9	1,243.0	1,238.3	5.5	2.6	158.70	-48.3	-83.4	298.3	293.3	5.06	58.934		
1,400.0	1,340.2	1,326.6	1,321.3	6.5	2.9	159.46	-54.1	-91.3	352.8	347.3	5.51	64.074		
1,500.0	1,423.6	1,408.3	1,402.4	7.6	3.1	160.61	-59.9	-99.0	410.0	404.0	5.96	68.769		
1,600.0	1,507.1	1,490.0	1,483.6	8.6	3.3	161.56	-65.6	-106.8	467.3	460.9	6.42	72.783		
1,700.0	1,590.5	1,571.7	1,564.7	9.6	3.5	162.31	-71.3	-114.5	524.7	517.9	6.88	76.277		
1,800.0	1,673.9	1,653.4	1,645.8	10.7	3.7	162.91	-77.1	-122.3	582.2	574.9	7.34	79.345		
1,900.0	1,757.3	1,735.2	1,727.0	11.7	3.9	163.40	-82.8	-130.0	639.7	631.9	7.80	82.059		
2,000.0	1,840.7	1,816.9	1,808.1	12.8	4.2	163.81	-88.5	-137.7	697.2	689.0	8.25	84.478		
2,100.0	1,924.2	1,898.6	1,889.3	13.8	4.4	164.16	-94.3	-145.5	754.8	746.0	8.71	86.647		
2,200.0	2,007.6	1,980.3	1,970.4	14.8	4.6	164.46	-100.0	-153.2	812.3	803.1	9.17	88.601		
2,300.0	2,091.0	2,062.0	2,051.5	15.9	4.8	164.72	-105.7	-161.0	869.9	860.3	9.63	90.372		
2,400.0	2,174.4	2,143.7	2,132.7	16.9	5.0	164.94	-111.5	-168.7	927.5	917.4	10.08	91.985		
2,500.0	2,257.8	2,225.4	2,213.8	18.0	5.3	165.15	-117.2	-176.5	985.1	974.5	10.54	93.458		
2,600.0	2,341.3	2,307.1	2,294.9	19.0	5.5	165.32	-123.0	-184.2	1,042.7	1,031.7	11.00	94.810		
2,700.0	2,424.7	2,388.8	2,376.1	20.1	5.7	165.48	-128.7	-192.0	1,100.3	1,088.8	11.45	96.055		
2,800.0	2,508.1	2,470.5	2,457.2	21.1	5.9	165.63	-134.4	-199.7	1,157.9	1,146.0	11.91	97.205		
2,900.0	2,591.7	2,552.4	2,538.5	22.2	6.1	165.93	-140.2	-207.5	1,215.2	1,202.8	12.38	98.179		
3,000.0	2,677.5	2,636.5	2,622.1	23.1	6.4	166.45	-146.1	-215.4	1,269.2	1,256.4	12.86	98.682		
3,100.0	2,765.9	2,723.3	2,708.3	23.9	6.6	166.84	-152.2	-223.7	1,318.9	1,305.5	13.35	98.760		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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	-120.40	-9.5	-16.3	18.9					
100.0	100.0	100.0	100.0	0.1	0.1	-120.40	-9.5	-16.3	18.9	18.6	0.26	73.631		
200.0	200.0	200.0	200.0	0.3	0.3	-120.40	-9.5	-16.3	18.9	18.3	0.61	31.167		
300.0	300.0	300.0	300.0	0.5	0.5	-120.40	-9.5	-16.3	18.9	17.9	0.95	19.767 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	113.43	-9.5	-16.3	19.8	18.4	1.31	15.096		
500.0	499.6	499.6	499.6	0.9	0.8	130.77	-9.5	-16.3	24.0	22.3	1.68	14.314 SF		
600.0	598.8	598.8	598.8	1.1	1.0	147.47	-9.5	-16.3	34.0	32.0	2.03	16.720		
700.0	697.1	697.1	697.1	1.5	1.2	158.48	-9.5	-16.3	50.4	48.0	2.37	21.240		
800.0	794.3	794.3	794.3	1.9	1.3	165.06	-9.5	-16.3	72.6	69.9	2.69	26.949		
900.0	890.2	890.2	890.2	2.5	1.5	169.08	-9.5	-16.3	100.4	97.4	3.01	33.364		
1,000.0	984.4	984.4	984.4	3.1	1.7	171.64	-9.5	-16.3	133.3	130.0	3.31	40.259		
1,100.0	1,076.8	1,076.8	1,076.8	3.8	1.8	173.36	-9.5	-16.3	171.3	167.7	3.60	47.527		
1,200.0	1,167.1	1,167.1	1,167.1	4.6	2.0	174.56	-9.5	-16.3	214.2	210.3	3.89	55.119		
1,300.0	1,254.9	1,254.9	1,254.9	5.5	2.1	175.42	-9.5	-16.3	261.7	257.6	4.15	63.010		
1,400.0	1,340.2	1,340.2	1,340.2	6.5	2.3	176.06	-9.5	-16.3	313.9	309.5	4.41	71.192		
1,500.0	1,423.6	1,423.6	1,423.6	7.6	2.4	176.63	-9.5	-16.3	368.9	364.2	4.71	78.300		
1,600.0	1,507.1	1,507.1	1,507.1	8.6	2.6	177.06	-9.5	-16.3	424.0	419.0	5.02	84.393		
1,700.0	1,590.5	1,590.5	1,590.5	9.6	2.7	177.40	-9.5	-16.3	479.1	473.8	5.34	89.776		
1,800.0	1,673.9	1,673.9	1,673.9	10.7	2.9	177.67	-9.5	-16.3	534.2	528.5	5.65	94.568		
1,900.0	1,757.3	1,757.3	1,757.3	11.7	3.0	177.89	-9.5	-16.3	589.3	583.4	5.96	98.860		
2,000.0	1,840.7	1,840.7	1,840.7	12.8	3.2	178.07	-9.5	-16.3	644.4	638.2	6.27	102.728		
2,100.0	1,924.2	1,924.2	1,924.2	13.8	3.3	178.22	-9.5	-16.3	699.6	693.0	6.59	106.232		
2,200.0	2,007.6	2,007.6	2,007.6	14.8	3.5	178.35	-9.5	-16.3	754.7	747.8	6.90	109.420		
2,300.0	2,091.0	2,091.0	2,091.0	15.9	3.6	178.46	-9.5	-16.3	809.8	802.6	7.21	112.334		
2,400.0	2,174.4	2,174.4	2,174.4	16.9	3.7	178.56	-9.5	-16.3	864.9	857.4	7.52	115.007		
2,500.0	2,257.8	2,257.8	2,257.8	18.0	3.9	178.65	-9.5	-16.3	920.1	912.2	7.83	117.469		
2,600.0	2,341.3	2,341.3	2,341.3	19.0	4.0	178.72	-9.5	-16.3	975.2	967.1	8.14	119.744		
2,700.0	2,424.7	2,424.7	2,424.7	20.1	4.2	178.79	-9.5	-16.3	1,030.4	1,021.9	8.46	121.852		
2,800.0	2,508.1	2,508.1	2,508.1	21.1	4.3	178.85	-9.5	-16.3	1,085.5	1,076.7	8.77	123.810		
2,900.0	2,591.7	2,591.7	2,591.7	22.2	4.5	178.92	-9.5	-16.3	1,140.3	1,131.2	9.12	125.082		
3,000.0	2,677.5	2,677.5	2,677.5	23.1	4.6	179.00	-9.5	-16.3	1,191.7	1,182.2	9.53	125.044		
3,100.0	2,765.9	2,765.9	2,765.9	23.9	4.8	179.06	-9.5	-16.3	1,238.5	1,228.5	9.94	124.647		
3,200.0	2,856.6	2,856.6	2,856.6	24.7	4.9	179.12	-9.5	-16.3	1,280.6	1,270.2	10.33	123.938		
3,300.0	2,949.4	2,949.4	2,949.4	25.3	5.1	179.16	-9.5	-16.3	1,317.8	1,307.1	10.72	122.955		
3,400.0	3,044.0	3,044.0	3,044.0	25.9	5.3	179.19	-9.5	-16.3	1,350.2	1,339.1	11.09	121.731		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Caerus Oil & Gas (NAD 27)	<b>Local Co-ordinate Reference:</b>	Well Nolte 11A-24
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Reference Site:</b>	S14-T7S-R96W	<b>MD Reference:</b>	WELL @ 5117.8ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nolte 11A-24	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	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 11A-24  
 Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502  
 Grid Convergence at Surface is: -1.62°

