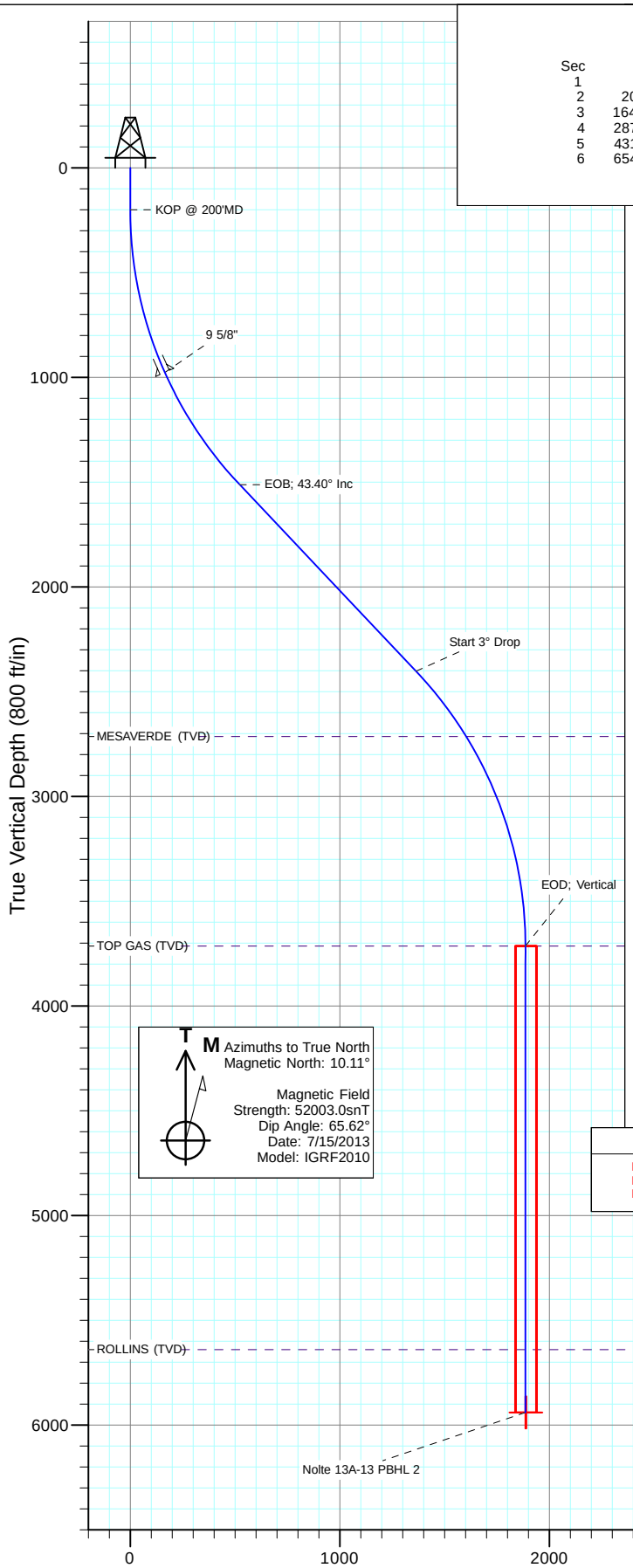
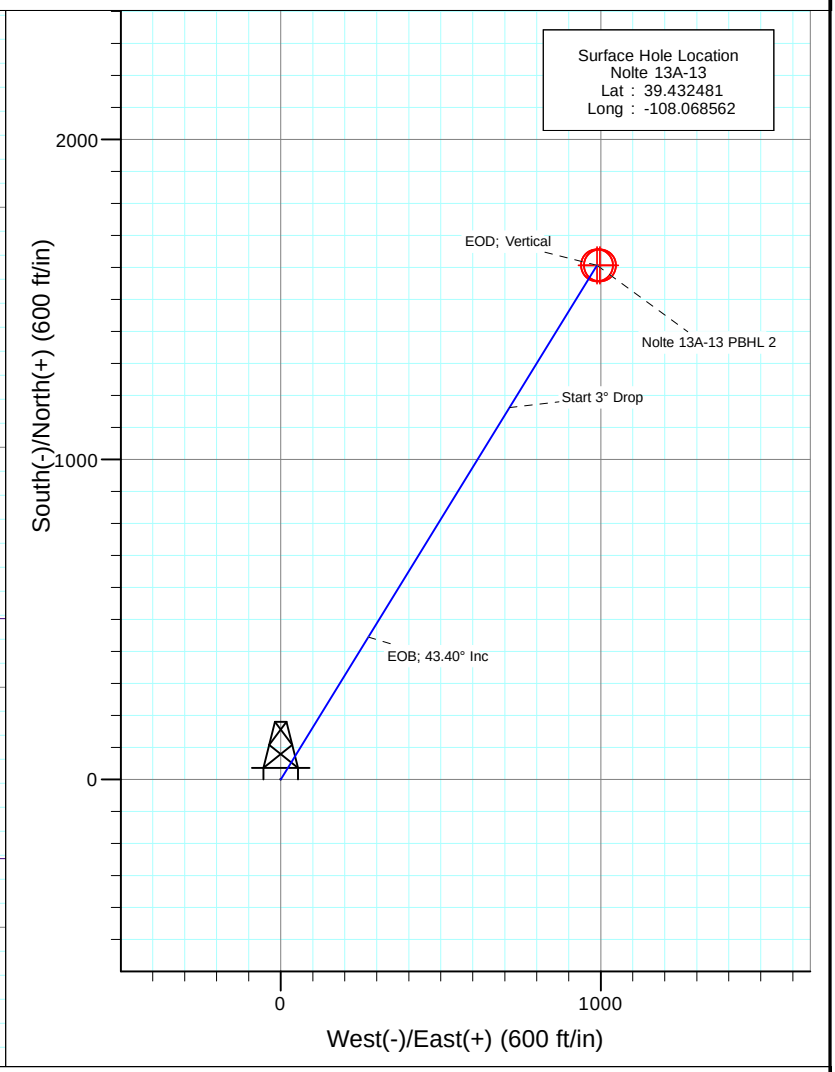
Project: Garfield County, CO
Site: S14-T7S-R96W
Well: Nolte 13A-13
Wellbore: DD
Design: Plan #3

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	1646.5	43.40	31.60	1512.1	444.7	273.6	3.00	31.60	522.1	
4	2872.4	43.40	31.60	2402.9	1162.1	714.8	0.00	0.00	1364.3	
5	4318.9	0.00	0.00	3715.0	1606.8	988.4	3.00	180.00	1886.4	
6	6543.9	0.00	0.00	5940.0	1606.8	988.4	0.00	0.00	1886.4	Nolte 13A-13 PBHL 2





T M Azimuths to True North
Magnetic North: 10.11°

Magnetic Field
Strength: 52003.0snT
Dip Angle: 65.62°
Date: 7/15/2013
Model: IGRF2010

DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Nolte 13A-13 PBHL	1606.4	997.6	594233.72	1275619.56	39.436891	-108.065030
Nolte 13A-13 PBHL 2	1606.8	988.4	594234.39	1275610.34	39.436893	-108.065062

Plan #3
Nolte 13A-13
WELL @ 5117.8ft (Original Well Elev)
Ground Elevation @ 5090.9
NAD 1927 (NADCON CONUS)
Well Nolte 13A-13, True North

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2715.0	3266.4	MESAVERDE (TVD)
3715.0	4318.9	TOP GAS (TVD)
5640.0	6243.9	ROLLINS (TVD)

Cathedral Energy Services

Planning Report

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

Project Garfield County, CO

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado Central 502		

Site S14-T7S-R96W

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

Well Nolte 13A-13

Well Position	**+N/-S**	0.0 ft	**Northing:**	592,656.20 ft	**Latitude:**	39.432481
	+E/-W	0.0 ft	**Easting:**	1,274,576.95 ft	**Longitude:**	-108.068562
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	5,090.9 ft

Wellbore DD

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

Design Plan #3

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	31.84

Plan Sections

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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,646.5	43.40	31.60	1,512.1	444.7	273.6	3.00	3.00	0.00	31.60	
2,872.4	43.40	31.60	2,402.9	1,162.1	714.8	0.00	0.00	0.00	0.00	
4,318.9	0.00	0.00	3,715.0	1,606.8	988.4	3.00	-3.00	0.00	180.00	
6,543.9	0.00	0.00	5,940.0	1,606.8	988.4	0.00	0.00	0.00	0.00	Nolte 13A-13 PBHL 2

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

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	KOP @ 200'MD
300.0	3.00	31.60	300.0	2.2	1.4	2.6	3.00	3.00	
400.0	6.00	31.60	399.6	8.9	5.5	10.5	3.00	3.00	
500.0	9.00	31.60	498.8	20.0	12.3	23.5	3.00	3.00	
600.0	12.00	31.60	597.1	35.5	21.9	41.7	3.00	3.00	
700.0	15.00	31.60	694.3	55.4	34.1	65.1	3.00	3.00	
800.0	18.00	31.60	790.2	79.6	49.0	93.5	3.00	3.00	
900.0	21.00	31.60	884.4	108.0	66.5	126.9	3.00	3.00	
1,000.0	24.00	31.60	976.8	140.6	86.5	165.1	3.00	3.00	9 5/8"
1,100.0	27.00	31.60	1,067.1	177.3	109.1	208.2	3.00	3.00	
1,200.0	30.00	31.60	1,154.9	217.9	134.1	255.9	3.00	3.00	
1,300.0	33.00	31.60	1,240.2	262.4	161.4	308.1	3.00	3.00	
1,400.0	36.00	31.60	1,322.6	310.7	191.1	364.7	3.00	3.00	
1,500.0	39.00	31.60	1,401.9	362.5	223.0	425.6	3.00	3.00	
1,600.0	42.00	31.60	1,477.9	417.8	257.0	490.6	3.00	3.00	
1,646.5	43.40	31.60	1,512.1	444.7	273.5	522.1	3.00	3.00	EOB; 43.40° Inc
1,700.0	43.40	31.60	1,551.0	476.0	292.8	558.8	0.00	0.00	
1,800.0	43.40	31.60	1,623.7	534.5	328.8	627.5	0.00	0.00	
1,900.0	43.40	31.60	1,696.3	593.0	364.8	696.2	0.00	0.00	
2,000.0	43.40	31.60	1,769.0	651.6	400.8	765.0	0.00	0.00	
2,100.0	43.40	31.60	1,841.6	710.1	436.8	833.7	0.00	0.00	
2,200.0	43.40	31.60	1,914.3	768.6	472.8	902.4	0.00	0.00	
2,300.0	43.40	31.60	1,987.0	827.1	508.8	971.1	0.00	0.00	
2,400.0	43.40	31.60	2,059.6	885.6	544.8	1,039.8	0.00	0.00	
2,500.0	43.40	31.60	2,132.3	944.2	580.8	1,108.5	0.00	0.00	
2,600.0	43.40	31.60	2,205.0	1,002.7	616.8	1,177.2	0.00	0.00	
2,700.0	43.40	31.60	2,277.6	1,061.2	652.8	1,245.9	0.00	0.00	
2,800.0	43.40	31.60	2,350.3	1,119.7	688.8	1,314.6	0.00	0.00	
2,872.4	43.40	31.60	2,402.9	1,162.1	714.8	1,364.3	0.00	0.00	Start 3° Drop
2,900.0	42.57	31.60	2,423.1	1,178.1	724.7	1,383.1	3.00	-3.00	
3,000.0	39.57	31.60	2,498.5	1,234.1	759.1	1,448.8	3.00	-3.00	
3,100.0	36.57	31.60	2,577.2	1,286.6	791.4	1,510.5	3.00	-3.00	
3,200.0	33.57	31.60	2,659.0	1,335.5	821.5	1,567.9	3.00	-3.00	
3,266.4	31.57	31.60	2,715.0	1,366.0	840.2	1,603.7	3.00	-3.00	MESAVERDE (TVD)
3,300.0	30.57	31.60	2,743.8	1,380.7	849.3	1,621.0	3.00	-3.00	
3,400.0	27.57	31.60	2,831.1	1,422.1	874.8	1,669.6	3.00	-3.00	
3,500.0	24.57	31.60	2,921.0	1,459.5	897.8	1,713.5	3.00	-3.00	
3,600.0	21.57	31.60	3,013.0	1,492.9	918.3	1,752.7	3.00	-3.00	
3,700.0	18.57	31.60	3,106.9	1,522.1	936.3	1,787.0	3.00	-3.00	
3,800.0	15.57	31.60	3,202.5	1,547.1	951.7	1,816.3	3.00	-3.00	
3,900.0	12.57	31.60	3,299.5	1,567.8	964.4	1,840.6	3.00	-3.00	
4,000.0	9.57	31.60	3,397.6	1,584.1	974.4	1,859.8	3.00	-3.00	
4,100.0	6.57	31.60	3,496.6	1,596.1	981.8	1,873.9	3.00	-3.00	
4,200.0	3.57	31.60	3,596.2	1,603.6	986.4	1,882.7	3.00	-3.00	
4,300.0	0.57	31.60	3,696.1	1,606.7	988.3	1,886.3	3.00	-3.00	
4,318.9	0.00	0.00	3,715.0	1,606.8	988.4	1,886.4	3.00	-3.00	EOD; Vertical - TOP GAS (TVD)
4,400.0	0.00	0.00	3,796.1	1,606.8	988.4	1,886.4	0.00	0.00	
4,500.0	0.00	0.00	3,896.1	1,606.8	988.4	1,886.4	0.00	0.00	
4,600.0	0.00	0.00	3,996.1	1,606.8	988.4	1,886.4	0.00	0.00	
4,700.0	0.00	0.00	4,096.1	1,606.8	988.4	1,886.4	0.00	0.00	

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

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,800.0	0.00	0.00	4,196.1	1,606.8	988.4	1,886.4	0.00	0.00	
4,900.0	0.00	0.00	4,296.1	1,606.8	988.4	1,886.4	0.00	0.00	
5,000.0	0.00	0.00	4,396.1	1,606.8	988.4	1,886.4	0.00	0.00	
5,100.0	0.00	0.00	4,496.1	1,606.8	988.4	1,886.4	0.00	0.00	
5,200.0	0.00	0.00	4,596.1	1,606.8	988.4	1,886.4	0.00	0.00	
5,300.0	0.00	0.00	4,696.1	1,606.8	988.4	1,886.4	0.00	0.00	
5,400.0	0.00	0.00	4,796.1	1,606.8	988.4	1,886.4	0.00	0.00	
5,500.0	0.00	0.00	4,896.1	1,606.8	988.4	1,886.4	0.00	0.00	
5,600.0	0.00	0.00	4,996.1	1,606.8	988.4	1,886.4	0.00	0.00	
5,700.0	0.00	0.00	5,096.1	1,606.8	988.4	1,886.4	0.00	0.00	
5,800.0	0.00	0.00	5,196.1	1,606.8	988.4	1,886.4	0.00	0.00	
5,900.0	0.00	0.00	5,296.1	1,606.8	988.4	1,886.4	0.00	0.00	
6,000.0	0.00	0.00	5,396.1	1,606.8	988.4	1,886.4	0.00	0.00	
6,100.0	0.00	0.00	5,496.1	1,606.8	988.4	1,886.4	0.00	0.00	
6,200.0	0.00	0.00	5,596.1	1,606.8	988.4	1,886.4	0.00	0.00	
6,243.9	0.00	0.00	5,640.0	1,606.8	988.4	1,886.4	0.00	0.00	ROLLINS (TVD)
6,300.0	0.00	0.00	5,696.1	1,606.8	988.4	1,886.4	0.00	0.00	
6,400.0	0.00	0.00	5,796.1	1,606.8	988.4	1,886.4	0.00	0.00	
6,500.0	0.00	0.00	5,896.1	1,606.8	988.4	1,886.4	0.00	0.00	
6,543.9	0.00	0.00	5,940.0	1,606.8	988.4	1,886.4	0.00	0.00	PBHL @ 6,543' MD

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Nolte 13A-13 PBHL 2	0.00	0.00	5,940.0	1,606.8	988.4	594,234.39	1,275,610.34	39.436893	-108.065062
- plan hits target center - Circle (radius 50.0)									
Nolte 13A-13 PBHL	0.00	0.00	5,940.0	1,606.4	997.6	594,233.72	1,275,619.56	39.436891	-108.065030
- plan misses target center by 9.2ft at 6543.9ft MD (5940.0 TVD, 1606.8 N, 988.4 E) - Circle (radius 50.0)									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,000.0	976.8	9 5/8"	9.625	12.250

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,266.4	2,715.0	MESAVERDE (TVD)		0.00	
4,318.9	3,715.0	TOP GAS (TVD)		0.00	
6,243.9	5,640.0	ROLLINS (TVD)		0.00	

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

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
200.0	200.0	0.0	0.0	KOP @ 200'MD
1,646.5	1,512.1	444.7	273.5	EOB; 43.40° Inc
2,872.4	2,402.9	1,162.1	714.8	Start 3° Drop
4,318.9	3,715.0	1,606.8	988.4	EOD; Vertical
6,543.9	5,940.0	1,606.8	988.4	PBHL @ 6,543' MD

Caerus Oil & Gas (NAD 27)

Garfield County, CO
S14-T7S-R96W
Nolte 13A-13
DD
Plan #3

Anticollision Report

09 September, 2013

Cathedral Energy Services

Anticollision Report

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

Reference Plan #3

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

Survey Tool Program **Date** 8/29/2013

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	6,543.9	Plan #3 (DD)	MWD	Geolink MWD

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
S14-T7S-R96W						
Nolte 11A-24 - DD - Plan #3	200.0	200.0	49.0	48.4	81.135	CC, ES
Nolte 11A-24 - DD - Plan #3	500.0	495.3	76.4	74.7	45.422	SF
Nolte 11B-24 - DD - Plan #3	200.0	200.0	56.9	56.3	94.105	CC, ES
Nolte 11B-24 - DD - Plan #3	500.0	490.5	93.2	91.4	53.583	SF
Nolte 11C-24 - DD - Plan #3	200.0	190.3	64.8	64.2	107.112	CC, ES
Nolte 11C-24 - DD - Plan #3	500.0	481.9	96.7	95.1	57.495	SF
Nolte 13B-13 - DD - Plan #3	200.0	200.0	8.0	7.4	13.242	CC, ES
Nolte 13B-13 - DD - Plan #3	1,500.0	1,513.0	59.4	46.1	4.480	SF
Nolte 13C-13 - DD - Plan #3	200.0	199.8	10.0	9.4	16.580	CC, ES
Nolte 13C-13 - DD - Plan #3	1,200.0	1,194.4	73.8	63.1	6.921	SF
Nolte 13D-13 - DD - Plan #3	200.0	200.0	12.8	12.2	21.221	CC, ES
Nolte 13D-13 - DD - Plan #3	1,200.0	1,198.9	128.1	119.2	14.396	SF
Nolte 14A-13 - DD - Plan #3	200.0	200.0	18.9	18.3	31.261	CC, ES
Nolte 14A-13 - DD - Plan #3	400.0	399.6	28.0	26.7	21.431	SF
Nolte 14B-13 - DD - Plan #3	200.0	200.0	26.0	25.4	43.055	CC, ES
Nolte 14B-13 - DD - Plan #3	400.0	399.6	35.7	34.3	27.339	SF
Nolte 14C-13 - DD - Plan #3	200.0	200.0	33.0	32.4	54.636	CC, ES
Nolte 14C-13 - DD - Plan #3	400.0	399.6	42.9	41.6	32.943	SF
Nolte 14D-13 - DD - Plan #3	200.0	200.0	41.2	40.6	68.236	CC, ES
Nolte 14D-13 - DD - Plan #3	500.0	497.9	64.6	62.9	39.074	SF
Nolte 43A-14 - DD - Plan #3	200.0	200.0	16.0	15.4	26.482	CC, ES
Nolte 43A-14 - DD - Plan #3	400.0	400.6	24.5	23.2	18.803	SF
Nolte 43B-14 - DD - Plan #3	200.0	200.0	24.0	23.4	39.705	CC, ES
Nolte 43B-14 - DD - Plan #3	1,500.0	1,466.3	315.6	302.8	24.751	SF
Nolte 43C-14 - DD - Plan #3	200.0	200.0	32.0	31.4	52.904	CC, ES
Nolte 43C-14 - DD - Plan #3	400.0	399.6	42.4	41.1	32.673	SF
Nolte 44A-14 - DD - Plan #3	200.0	200.0	40.0	39.4	66.111	CC, ES
Nolte 44A-14 - DD - Plan #3	500.0	499.3	63.2	61.6	38.531	SF
Nolte 44B-14 - DD - Plan #3	200.0	200.0	48.0	47.4	79.326	CC, ES
Nolte 44B-14 - DD - Plan #3	500.0	498.8	71.5	69.8	43.561	SF
Nolte 44C-14 - DD - Plan #3	200.0	200.0	56.0	55.4	92.520	CC, ES
Nolte 44C-14 - DD - Plan #3	500.0	496.2	81.0	79.4	49.456	SF
Nolte SWD 1-14 - DD - Plan #3	200.0	200.0	64.0	63.4	105.702	CC, ES
Nolte SWD 1-14 - DD - Plan #3	500.0	498.8	87.4	85.8	53.294	SF

Cathedral Energy Services

Anticollision Report

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

Offset Design S14-T7S-R96W - Nolte 11A-24 - DD - Plan #3

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-164.25	-47.2	-13.3	49.0				
100.0	100.0	100.0	100.0	0.1	0.1	-164.25	-47.2	-13.3	49.0	48.8	0.26	192.127	
200.0	200.0	200.0	200.0	0.3	0.3	-164.25	-47.2	-13.3	49.0	48.4	0.60	81.135	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	164.92	-47.2	-13.3	51.5	50.6	0.95	54.084	
400.0	399.6	398.3	398.2	0.7	0.7	164.62	-48.9	-11.5	60.3	59.0	1.30	46.203	
500.0	498.8	495.3	494.9	1.0	0.9	161.99	-54.0	-6.1	76.4	74.7	1.68	45.422	SF
600.0	597.1	590.0	588.9	1.4	1.1	158.73	-62.3	2.7	100.0	97.9	2.11	47.476	
700.0	694.3	681.8	679.3	1.8	1.4	155.69	-73.3	14.3	131.1	128.6	2.59	50.571	
800.0	790.2	769.9	765.2	2.3	1.8	153.08	-86.7	28.5	169.5	166.3	3.14	53.889	
900.0	884.4	853.8	846.1	3.0	2.2	150.86	-102.0	44.6	214.7	210.9	3.76	57.088	
1,000.0	976.8	933.0	921.5	3.7	2.7	148.91	-118.7	62.2	266.3	261.8	4.43	60.050	
1,100.0	1,067.1	1,007.4	991.3	4.5	3.1	147.12	-136.2	80.7	323.8	318.6	5.16	62.747	
1,200.0	1,154.9	1,076.6	1,055.4	5.4	3.6	145.40	-154.3	99.8	386.8	380.9	5.95	65.033	
1,300.0	1,240.2	1,140.8	1,113.9	6.4	4.1	143.67	-172.4	118.9	454.8	448.0	6.79	67.006	
1,400.0	1,322.6	1,200.0	1,167.1	7.4	4.6	141.85	-190.3	137.8	527.3	519.6	7.68	68.677	
1,500.0	1,401.9	1,253.7	1,214.6	8.6	5.1	139.88	-207.6	156.0	603.8	595.2	8.64	69.855	
1,600.0	1,477.9	1,300.0	1,254.9	9.8	5.5	137.65	-223.1	172.5	683.9	674.2	9.67	70.707	
1,700.0	1,551.0	1,347.5	1,295.8	11.1	6.0	136.85	-239.8	190.1	766.9	756.1	10.73	71.489	
1,800.0	1,623.7	1,400.0	1,340.2	12.4	6.5	137.31	-259.1	210.4	851.0	839.2	11.75	72.404	
1,900.0	1,696.3	1,435.8	1,370.1	13.6	6.9	137.52	-272.6	224.7	935.6	922.9	12.74	73.434	
2,000.0	1,769.0	1,488.6	1,414.1	14.9	7.4	137.77	-292.6	245.8	1,020.5	1,006.7	13.79	74.017	
2,100.0	1,841.6	1,541.5	1,458.2	16.2	8.0	137.98	-312.7	267.0	1,105.4	1,090.5	14.84	74.499	
2,200.0	1,914.3	1,594.3	1,502.3	17.5	8.5	138.16	-332.7	288.1	1,190.3	1,174.4	15.89	74.912	
2,300.0	1,987.0	1,647.1	1,546.4	18.7	9.1	138.32	-352.7	309.3	1,275.1	1,258.2	16.94	75.260	

Cathedral Energy Services

Anticollision Report

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

Offset Design S14-T7S-R96W - Nolte 11B-24 - DD - Plan #3

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-162.60	-54.3	-17.0	56.9				
100.0	100.0	100.0	100.0	0.1	0.1	-162.60	-54.3	-17.0	56.9	56.6	0.26	222.751	
200.0	200.0	200.0	200.0	0.3	0.3	-162.60	-54.3	-17.0	56.9	56.3	0.60	94.105	CC, ES
300.0	300.0	298.2	298.2	0.5	0.5	164.37	-56.2	-15.4	60.9	59.9	0.96	63.654	
400.0	399.6	395.4	395.0	0.7	0.7	161.03	-62.0	-10.7	72.9	71.6	1.33	54.822	
500.0	498.8	490.5	489.4	1.0	1.0	157.36	-71.4	-3.1	93.2	91.4	1.74	53.583	SF
600.0	597.1	582.7	580.2	1.4	1.3	154.21	-83.9	7.1	121.5	119.4	2.19	55.458	
700.0	694.3	671.2	666.4	1.8	1.7	151.70	-99.1	19.5	157.7	155.0	2.69	58.556	
800.0	790.2	755.4	747.6	2.3	2.1	149.68	-116.4	33.6	201.2	198.0	3.24	62.022	
900.0	884.4	834.7	823.1	3.0	2.6	147.98	-135.3	49.0	251.6	247.7	3.84	65.481	
1,000.0	976.8	909.0	892.8	3.7	3.0	146.44	-155.1	65.1	308.2	303.7	4.48	68.770	
1,100.0	1,067.1	977.9	956.5	4.5	3.5	144.97	-175.4	81.7	370.6	365.5	5.17	71.673	
1,200.0	1,154.9	1,041.4	1,014.4	5.4	4.0	143.46	-195.7	98.2	438.3	432.4	5.90	74.229	
1,300.0	1,240.2	1,100.0	1,067.1	6.4	4.5	141.84	-215.7	114.5	510.7	504.0	6.68	76.413	
1,400.0	1,322.6	1,152.4	1,113.4	7.4	5.0	140.04	-234.6	129.9	587.2	579.7	7.53	78.028	
1,500.0	1,401.9	1,200.0	1,154.9	8.6	5.4	137.99	-252.7	144.6	667.5	659.1	8.44	79.117	
1,600.0	1,477.9	1,242.9	1,191.9	9.8	5.9	135.61	-269.6	158.4	751.1	741.7	9.46	79.427	
1,700.0	1,551.0	1,281.4	1,224.5	11.1	6.2	134.79	-285.4	171.2	837.3	826.8	10.47	79.980	
1,800.0	1,623.7	1,317.9	1,255.1	12.4	6.6	135.44	-300.8	183.8	924.4	913.0	11.41	81.008	
1,900.0	1,696.3	1,352.7	1,284.0	13.6	7.0	135.93	-315.9	196.1	1,012.3	999.9	12.36	81.908	
2,000.0	1,769.0	1,400.0	1,322.6	14.9	7.5	136.42	-337.1	213.3	1,100.8	1,087.5	13.33	82.576	
2,100.0	1,841.6	1,417.7	1,336.9	16.2	7.7	136.56	-345.2	220.0	1,189.7	1,175.5	14.26	83.446	
2,200.0	1,914.3	1,448.2	1,361.2	17.5	8.1	136.76	-359.4	231.5	1,279.3	1,264.1	15.21	84.091	

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

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

Offset Design S14-T7S-R96W - Nolte 11C-24 - DD - Plan #3

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-161.35	-61.4	-20.7	65.5				
100.0	100.0	90.3	90.3	0.1	0.1	-161.35	-61.4	-20.7	64.8	64.5	0.26	250.616	
200.0	200.0	190.3	190.3	0.3	0.3	-161.35	-61.4	-20.7	64.8	64.2	0.60	107.112	CC, ES
300.0	300.0	289.4	289.4	0.5	0.5	167.25	-61.7	-20.5	67.6	66.6	0.95	70.967	
400.0	399.6	386.6	386.4	0.7	0.7	165.79	-65.4	-18.0	78.0	76.7	1.31	59.763	
500.0	498.8	481.9	481.3	1.0	0.9	163.15	-73.0	-12.9	96.7	95.1	1.68	57.495	SF
600.0	597.1	574.5	572.9	1.4	1.2	160.37	-84.2	-5.4	123.7	121.6	2.09	59.069	
700.0	694.3	663.4	660.2	1.8	1.5	157.89	-98.4	4.1	158.6	156.1	2.55	62.326	
800.0	790.2	747.9	742.3	2.3	1.9	155.78	-115.0	15.2	201.2	198.2	3.04	66.226	
900.0	884.4	827.6	818.9	3.0	2.3	153.97	-133.4	27.5	250.9	247.3	3.57	70.260	
1,000.0	976.8	900.0	887.5	3.7	2.7	152.36	-152.4	40.2	307.2	303.1	4.13	74.317	
1,100.0	1,067.1	971.0	954.0	4.5	3.2	150.80	-173.1	54.0	369.5	364.7	4.76	77.644	
1,200.0	1,154.9	1,034.3	1,012.5	5.4	3.6	149.27	-193.4	67.6	437.3	431.9	5.41	80.766	
1,300.0	1,240.2	1,100.0	1,072.2	6.4	4.1	147.67	-216.0	82.7	510.1	503.9	6.14	83.101	
1,400.0	1,322.6	1,144.3	1,112.0	7.4	4.5	145.89	-232.3	93.6	587.1	580.2	6.88	85.380	
1,500.0	1,401.9	1,200.0	1,161.3	8.6	5.0	143.99	-253.8	107.9	668.1	660.4	7.73	86.462	
1,600.0	1,477.9	1,233.1	1,190.3	9.8	5.3	141.60	-267.1	116.9	752.4	743.7	8.65	86.975	
1,700.0	1,551.0	1,270.4	1,222.6	11.1	5.6	140.72	-282.6	127.3	839.4	829.8	9.58	87.642	
1,800.0	1,623.7	1,300.0	1,247.9	12.4	5.9	141.15	-295.3	135.7	927.3	916.9	10.41	89.063	
1,900.0	1,696.3	1,339.3	1,281.2	13.6	6.3	141.58	-312.7	147.3	1,015.9	1,004.6	11.27	90.152	
2,000.0	1,769.0	1,371.3	1,308.0	14.9	6.6	141.85	-327.2	157.1	1,105.0	1,092.9	12.12	91.177	
2,100.0	1,841.6	1,400.0	1,331.8	16.2	6.9	142.02	-340.6	166.0	1,194.7	1,181.8	12.97	92.123	
2,200.0	1,914.3	1,431.1	1,357.2	17.5	7.3	142.16	-355.4	175.9	1,285.0	1,271.1	13.83	92.881	

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

Offset Design S14-T7S-R96W - Nolte 13B-13 - DD - Plan #3

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
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	0.25	31.369	
200.0	200.0	200.0	200.0	0.3	0.3	-152.44	-7.1	-3.7	8.0	7.4	0.60	13.242	CC, ES
300.0	300.0	300.2	300.2	0.5	0.5	176.35	-6.6	-3.3	10.0	9.0	0.95	10.457	
400.0	399.6	400.8	400.6	0.7	0.7	174.52	-2.4	-0.1	12.6	11.3	1.30	9.697	
500.0	498.8	501.4	500.7	1.0	0.9	171.22	6.0	6.4	15.4	13.7	1.66	9.274	
600.0	597.1	602.2	600.2	1.4	1.2	167.16	18.5	16.1	18.3	16.2	2.04	8.954	
700.0	694.3	703.2	698.9	1.8	1.6	162.74	35.2	29.1	21.3	18.9	2.49	8.588	
800.0	790.2	804.2	796.4	2.3	2.1	158.21	56.0	45.2	24.7	21.7	3.06	8.087	
900.0	884.4	905.3	892.5	3.0	2.7	153.73	80.9	64.5	28.4	24.6	3.81	7.459	
1,000.0	976.8	1,006.5	986.9	3.7	3.4	149.41	109.8	86.9	32.5	27.7	4.78	6.785	
1,100.0	1,067.1	1,107.8	1,079.3	4.5	4.2	145.32	142.6	112.4	36.9	30.9	6.01	6.143	
1,200.0	1,154.9	1,209.2	1,169.4	5.4	5.1	141.50	179.3	140.8	41.8	34.3	7.49	5.582	
1,300.0	1,240.2	1,310.7	1,257.0	6.4	6.0	137.95	219.8	172.2	47.1	37.9	9.21	5.112	
1,400.0	1,322.6	1,412.3	1,341.8	7.4	7.1	134.67	263.9	206.4	52.8	41.7	11.17	4.729	
1,500.0	1,401.9	1,513.0	1,423.3	8.6	8.2	132.11	310.7	242.7	59.4	46.1	13.25	4.480	SF
1,600.0	1,477.9	1,612.5	1,503.3	9.8	9.3	132.80	357.5	279.0	69.0	54.1	14.88	4.637	
1,700.0	1,551.0	1,711.6	1,582.9	11.1	10.4	135.65	404.1	315.1	81.7	65.7	16.01	5.106	
1,800.0	1,623.7	1,810.7	1,662.5	12.4	11.5	138.05	450.7	351.2	95.1	78.0	17.10	5.561	
1,900.0	1,696.3	1,909.7	1,742.1	13.6	12.6	139.85	497.3	387.3	108.5	90.3	18.21	5.960	
2,000.0	1,769.0	2,008.7	1,821.8	14.9	13.7	141.26	543.8	423.4	122.1	102.7	19.35	6.311	
2,100.0	1,841.6	2,107.8	1,901.4	16.2	14.8	142.39	590.4	459.5	135.7	115.2	20.49	6.621	
2,200.0	1,914.3	2,206.8	1,981.0	17.5	15.9	143.31	636.9	495.6	149.3	127.7	21.65	6.896	
2,300.0	1,987.0	2,305.8	2,060.6	18.7	17.0	144.08	683.5	531.7	163.0	140.2	22.82	7.142	
2,400.0	2,059.6	2,404.9	2,140.2	20.0	18.1	144.72	730.1	567.8	176.7	152.7	24.00	7.362	
2,500.0	2,132.3	2,503.9	2,219.8	21.3	19.2	145.28	776.6	603.9	190.4	165.2	25.18	7.561	
2,600.0	2,205.0	2,603.0	2,299.4	22.6	20.3	145.76	823.2	639.9	204.2	177.8	26.37	7.741	
2,700.0	2,277.6	2,702.0	2,379.0	23.9	21.4	146.18	869.7	676.0	217.9	190.3	27.57	7.905	
2,800.0	2,350.3	2,801.0	2,458.6	25.2	22.5	146.55	916.3	712.1	231.7	202.9	28.76	8.054	
2,900.0	2,423.1	2,900.1	2,538.3	26.4	23.6	146.91	962.9	748.2	245.3	215.3	29.96	8.186	
3,000.0	2,498.5	2,993.7	2,614.0	27.6	24.6	147.02	1,006.4	782.0	256.3	225.1	31.27	8.198	
3,100.0	2,577.2	3,083.5	2,688.8	28.7	25.5	147.09	1,045.5	812.3	266.5	234.0	32.48	8.204	
3,200.0	2,659.0	3,173.0	2,765.8	29.7	26.3	147.15	1,081.7	840.4	275.9	242.3	33.60	8.213	
3,300.0	2,743.8	3,262.3	2,844.5	30.7	27.1	147.22	1,115.0	866.2	284.7	250.1	34.61	8.224	
3,400.0	2,831.1	3,351.4	2,925.0	31.5	27.7	147.29	1,145.3	889.6	292.7	257.1	35.53	8.236	
3,500.0	2,921.0	3,440.3	3,006.9	32.3	28.3	147.35	1,172.5	910.7	299.9	263.6	36.35	8.250	
3,600.0	3,013.0	3,529.1	3,090.3	32.9	28.9	147.42	1,196.6	929.4	306.4	269.4	37.08	8.265	
3,700.0	3,106.9	3,617.7	3,174.8	33.5	29.3	147.48	1,217.6	945.7	312.2	274.5	37.70	8.280	
3,800.0	3,202.5	3,706.1	3,260.3	34.0	29.7	147.54	1,235.4	959.5	317.1	278.9	38.22	8.296	
3,900.0	3,299.5	3,800.0	3,352.1	34.4	30.0	147.60	1,250.9	971.5	321.3	282.7	38.66	8.311	
4,000.0	3,397.6	3,882.7	3,433.7	34.7	30.2	147.66	1,261.6	979.8	324.6	285.6	38.97	8.329	
4,100.0	3,496.6	3,970.9	3,521.2	35.0	30.4	147.72	1,269.9	986.2	327.2	288.0	39.20	8.346	
4,200.0	3,596.2	4,059.0	3,609.1	35.1	30.5	147.77	1,275.0	990.2	328.9	289.6	39.34	8.361	
4,300.0	3,696.1	4,147.1	3,697.2	35.2	30.6	147.82	1,276.9	991.7	329.8	290.4	39.39	8.373	
4,400.0	3,796.1	4,246.1	3,796.1	35.2	30.6	179.42	1,276.9	991.7	329.9	290.4	39.50	8.351	
4,500.0	3,896.1	4,346.1	3,896.1	35.2	30.6	179.42	1,276.9	991.7	329.9	290.3	39.64	8.323	
4,600.0	3,996.1	4,446.1	3,996.1	35.3	30.7	179.42	1,276.9	991.7	329.9	290.1	39.77	8.294	
4,700.0	4,096.1	4,546.1	4,096.1	35.3	30.7	179.42	1,276.9	991.7	329.9	290.0	39.91	8.265	
4,800.0	4,196.1	4,646.1	4,196.1	35.4	30.8	179.42	1,276.9	991.7	329.9	289.8	40.06	8.236	
4,900.0	4,296.1	4,746.1	4,296.1	35.4	30.8	179.42	1,276.9	991.7	329.9	289.7	40.20	8.206	
5,000.0	4,396.1	4,846.1	4,396.1	35.4	30.9	179.42	1,276.9	991.7	329.9	289.5	40.35	8.177	
5,100.0	4,496.1	4,946.1	4,496.1	35.5	30.9	179.42	1,276.9	991.7	329.9	289.4	40.50	8.146	

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

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

Offset Design S14-T7S-R96W - Nolte 13B-13 - DD - Plan #3

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,200.0	4,596.1	5,046.1	4,596.1	35.5	31.0	179.42	1,276.9	991.7	329.9	289.2	40.65	8.116	
5,300.0	4,696.1	5,146.1	4,696.1	35.6	31.0	179.42	1,276.9	991.7	329.9	289.1	40.80	8.085	
5,400.0	4,796.1	5,246.1	4,796.1	35.6	31.1	179.42	1,276.9	991.7	329.9	288.9	40.96	8.055	
5,500.0	4,896.1	5,346.1	4,896.1	35.7	31.1	179.42	1,276.9	991.7	329.9	288.8	41.12	8.023	
5,600.0	4,996.1	5,446.1	4,996.1	35.7	31.2	179.42	1,276.9	991.7	329.9	288.6	41.28	7.992	
5,700.0	5,096.1	5,546.1	5,096.1	35.8	31.2	179.42	1,276.9	991.7	329.9	288.5	41.44	7.961	
5,800.0	5,196.1	5,646.1	5,196.1	35.8	31.3	179.42	1,276.9	991.7	329.9	288.3	41.61	7.929	
5,900.0	5,296.1	5,746.1	5,296.1	35.9	31.3	179.42	1,276.9	991.7	329.9	288.1	41.77	7.897	
6,000.0	5,396.1	5,846.1	5,396.1	35.9	31.4	179.42	1,276.9	991.7	329.9	287.9	41.94	7.865	
6,100.0	5,496.1	5,946.1	5,496.1	36.0	31.4	179.42	1,276.9	991.7	329.9	287.8	42.12	7.833	
6,200.0	5,596.1	6,046.1	5,596.1	36.0	31.5	179.42	1,276.9	991.7	329.9	287.6	42.29	7.801	
6,300.0	5,696.1	6,146.1	5,696.1	36.1	31.6	179.42	1,276.9	991.7	329.9	287.4	42.47	7.768	
6,400.0	5,796.1	6,246.1	5,796.1	36.1	31.6	179.42	1,276.9	991.7	329.9	287.2	42.65	7.736	
6,500.0	5,896.1	6,346.1	5,896.1	36.2	31.7	179.42	1,276.9	991.7	329.9	287.1	42.83	7.703	
6,524.9	5,921.1	6,371.0	5,921.1	36.2	31.7	179.42	1,276.9	991.7	329.9	287.0	42.87	7.695	
6,543.9	5,940.0	6,380.0	5,930.0	36.2	31.7	179.42	1,276.9	991.7	330.0	287.1	42.90	7.694	

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

Offset Design S14-T7S-R96W - Nolte 13C-13 - DD - Plan #3 — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	117.55	-4.6	8.9	10.0				
100.0	100.0	99.8	99.8	0.1	0.1	117.55	-4.6	8.9	10.0	9.7	0.25	39.324	
200.0	200.0	199.8	199.8	0.3	0.3	117.55	-4.6	8.9	10.0	9.4	0.60	16.580	CC, ES
300.0	300.0	299.6	299.6	0.5	0.5	86.70	-2.8	10.7	10.6	9.7	0.97	10.989	
400.0	399.6	399.4	399.1	0.7	0.7	88.38	2.6	16.4	12.6	11.2	1.41	8.939	
500.0	498.8	499.2	498.0	1.0	1.0	90.22	11.6	25.7	15.8	13.8	1.97	8.026	
600.0	597.1	598.9	596.0	1.4	1.4	91.78	24.2	38.7	20.4	17.7	2.69	7.565	
700.0	694.3	698.5	692.8	1.8	1.8	92.94	40.3	55.4	26.2	22.6	3.58	7.310	
800.0	790.2	797.9	788.2	2.3	2.3	93.75	59.8	75.7	33.3	28.6	4.65	7.157	
900.0	884.4	897.3	881.9	3.0	3.0	94.31	82.8	99.4	41.6	35.7	5.90	7.058	
1,000.0	976.8	996.4	973.5	3.7	3.7	94.67	109.0	126.6	51.2	43.9	7.32	6.991	
1,100.0	1,067.1	1,095.4	1,063.0	4.5	4.5	94.89	138.5	157.2	61.9	53.0	8.92	6.942	
1,200.0	1,154.9	1,194.4	1,150.3	5.4	5.4	95.37	170.8	190.7	73.8	63.1	10.66	6.921	SF
1,300.0	1,240.2	1,293.5	1,237.4	6.4	6.2	98.51	203.7	224.8	86.4	73.9	12.48	6.921	
1,400.0	1,322.6	1,392.1	1,324.0	7.4	7.1	103.65	236.5	258.7	100.4	86.1	14.28	7.028	
1,500.0	1,401.9	1,490.0	1,409.9	8.6	8.0	109.77	269.0	292.4	116.8	100.8	15.93	7.330	
1,600.0	1,477.9	1,586.8	1,495.0	9.8	8.8	116.13	301.1	325.7	136.5	119.2	17.32	7.880	
1,700.0	1,551.0	1,682.6	1,579.1	11.1	9.7	122.34	332.9	358.6	160.0	141.6	18.41	8.692	
1,800.0	1,623.7	1,778.2	1,663.1	12.4	10.6	127.30	364.6	391.5	185.4	166.0	19.37	9.572	
1,900.0	1,696.3	1,873.9	1,747.1	13.6	11.4	131.07	396.4	424.4	211.7	191.4	20.29	10.435	
2,000.0	1,769.0	1,969.5	1,831.1	14.9	12.3	134.01	428.1	457.3	238.7	217.5	21.21	11.258	
2,100.0	1,841.6	2,065.1	1,915.1	16.2	13.1	136.35	459.9	490.2	266.2	244.1	22.13	12.030	
2,200.0	1,914.3	2,160.8	1,999.1	17.5	14.0	138.26	491.6	523.1	294.0	271.0	23.06	12.749	
2,300.0	1,987.0	2,256.4	2,083.1	18.7	14.8	139.83	523.4	556.0	322.1	298.1	24.01	13.416	
2,400.0	2,059.6	2,352.0	2,167.1	20.0	15.7	141.16	555.1	588.9	350.4	325.4	24.97	14.034	
2,500.0	2,132.3	2,447.6	2,251.1	21.3	16.6	142.29	586.9	621.8	378.8	352.9	25.93	14.607	
2,600.0	2,205.0	2,543.3	2,335.1	22.6	17.4	143.26	618.6	654.7	407.3	380.4	26.91	15.138	
2,700.0	2,277.6	2,638.9	2,419.1	23.9	18.3	144.10	650.4	687.6	435.9	408.1	27.89	15.631	
2,800.0	2,350.3	2,734.5	2,503.0	25.2	19.1	144.84	682.1	720.5	464.6	435.8	28.88	16.090	
2,900.0	2,423.1	2,830.2	2,587.1	26.4	20.0	145.62	713.9	753.4	493.3	463.4	29.84	16.529	
3,000.0	2,498.5	2,926.8	2,672.0	27.6	20.9	146.39	746.0	786.6	518.8	488.0	30.84	16.824	
3,100.0	2,577.2	3,024.5	2,757.8	28.7	21.7	146.73	778.4	820.2	540.1	508.1	32.03	16.865	
3,200.0	2,659.0	3,110.1	2,833.4	29.7	22.5	146.83	806.1	849.0	558.1	524.9	33.20	16.809	
3,300.0	2,743.8	3,200.0	2,914.7	30.7	23.1	146.93	832.8	876.6	574.6	540.3	34.30	16.754	
3,400.0	2,831.1	3,273.4	2,982.3	31.5	23.6	147.04	852.6	897.1	589.7	554.5	35.18	16.760	
3,500.0	2,921.0	3,354.8	3,058.6	32.3	24.1	147.15	872.4	917.7	603.4	567.3	36.02	16.750	
3,600.0	3,013.0	3,436.1	3,135.9	32.9	24.6	147.25	890.0	935.9	615.6	578.8	36.76	16.747	
3,700.0	3,106.9	3,517.4	3,214.1	33.5	24.9	147.34	905.2	951.6	626.4	589.0	37.40	16.749	
3,800.0	3,202.5	3,600.0	3,294.5	34.0	25.3	147.43	918.3	965.2	635.7	597.8	37.94	16.755	
3,900.0	3,299.5	3,679.5	3,372.7	34.4	25.5	147.52	928.6	975.9	643.5	605.2	38.36	16.775	
4,000.0	3,397.6	3,760.5	3,452.8	34.7	25.7	147.61	936.7	984.3	649.8	611.2	38.69	16.797	
4,100.0	3,496.6	3,841.4	3,533.3	35.0	25.8	147.68	942.5	990.3	654.7	615.7	38.92	16.822	
4,200.0	3,596.2	3,922.3	3,614.0	35.1	25.9	147.76	946.0	993.9	657.9	618.9	39.05	16.850	
4,300.0	3,696.1	4,004.3	3,695.9	35.2	26.0	147.82	947.0	995.0	659.7	620.6	39.09	16.878	
4,400.0	3,796.1	4,104.3	3,795.9	35.2	26.0	179.43	947.0	995.0	659.8	620.6	39.20	16.830	
4,500.0	3,896.1	4,204.3	3,895.9	35.2	26.1	179.43	947.0	995.0	659.8	620.5	39.34	16.773	
4,600.0	3,996.1	4,304.3	3,995.9	35.3	26.1	179.43	947.0	995.0	659.8	620.3	39.47	16.715	
4,700.0	4,096.1	4,404.3	4,095.9	35.3	26.2	179.43	947.0	995.0	659.8	620.2	39.61	16.657	
4,800.0	4,196.1	4,504.3	4,195.9	35.4	26.2	179.43	947.0	995.0	659.8	620.0	39.75	16.598	
4,900.0	4,296.1	4,604.3	4,295.9	35.4	26.3	179.43	947.0	995.0	659.8	619.9	39.89	16.539	
5,000.0	4,396.1	4,704.3	4,395.9	35.4	26.3	179.43	947.0	995.0	659.8	619.7	40.04	16.479	
5,100.0	4,496.1	4,804.3	4,495.9	35.5	26.4	179.43	947.0	995.0	659.8	619.6	40.19	16.418	

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

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

Offset Design S14-T7S-R96W - Nolte 13C-13 - DD - Plan #3

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,200.0	4,596.1	4,904.3	4,595.9	35.5	26.4	179.43	947.0	995.0	659.8	619.4	40.34	16.357	
5,300.0	4,696.1	5,004.3	4,695.9	35.6	26.5	179.43	947.0	995.0	659.8	619.3	40.49	16.295	
5,400.0	4,796.1	5,104.3	4,795.9	35.6	26.5	179.43	947.0	995.0	659.8	619.1	40.65	16.233	
5,500.0	4,896.1	5,204.3	4,895.9	35.7	26.6	179.43	947.0	995.0	659.8	619.0	40.80	16.170	
5,600.0	4,996.1	5,304.3	4,995.9	35.7	26.7	179.43	947.0	995.0	659.8	618.8	40.96	16.107	
5,700.0	5,096.1	5,404.3	5,095.9	35.8	26.7	179.43	947.0	995.0	659.8	618.7	41.13	16.043	
5,800.0	5,196.1	5,504.3	5,195.9	35.8	26.8	179.43	947.0	995.0	659.8	618.5	41.29	15.979	
5,900.0	5,296.1	5,604.3	5,295.9	35.9	26.8	179.43	947.0	995.0	659.8	618.3	41.46	15.914	
6,000.0	5,396.1	5,704.3	5,395.9	35.9	26.9	179.43	947.0	995.0	659.8	618.2	41.63	15.850	
6,100.0	5,496.1	5,804.3	5,495.9	36.0	27.0	179.43	947.0	995.0	659.8	618.0	41.80	15.785	
6,200.0	5,596.1	5,904.3	5,595.9	36.0	27.0	179.43	947.0	995.0	659.8	617.8	41.97	15.719	
6,300.0	5,696.1	6,004.3	5,695.9	36.1	27.1	179.43	947.0	995.0	659.8	617.6	42.15	15.654	
6,400.0	5,796.1	6,104.3	5,795.9	36.1	27.2	179.43	947.0	995.0	659.8	617.5	42.33	15.588	
6,500.0	5,896.1	6,204.3	5,895.9	36.2	27.2	179.43	947.0	995.0	659.8	617.3	42.51	15.522	
6,543.9	5,940.0	6,218.4	5,910.0	36.2	27.2	179.43	947.0	995.0	660.5	617.9	42.56	15.518	

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

Offset Design S14-T7S-R96W - Nolte 13D-13 - DD - Plan #3 — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	156.20	-11.7	5.2	12.8				
100.0	100.0	100.0	100.0	0.1	0.1	156.20	-11.7	5.2	12.8	12.6	0.25	50.331	
200.0	200.0	200.0	200.0	0.3	0.3	156.20	-11.7	5.2	12.8	12.2	0.60	21.221	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	133.13	-11.7	5.2	14.5	13.5	0.96	15.108	
400.0	399.6	400.1	400.1	0.7	0.7	142.68	-10.3	7.4	19.3	18.0	1.33	14.578	
500.0	498.8	500.5	500.1	1.0	0.9	144.55	-6.1	14.0	26.2	24.5	1.74	15.071	
600.0	597.1	600.8	599.6	1.4	1.1	142.91	0.9	25.1	34.9	32.6	2.25	15.524	
700.0	694.3	701.2	698.2	1.8	1.5	139.94	10.7	40.6	45.3	42.4	2.90	15.659	
800.0	790.2	801.4	795.7	2.3	1.9	136.64	23.3	60.5	57.7	54.0	3.72	15.507	
900.0	884.4	901.5	891.6	3.0	2.5	133.41	38.5	84.5	72.2	67.4	4.75	15.199	
1,000.0	976.8	1,001.3	985.6	3.7	3.1	130.41	56.4	112.7	88.7	82.7	5.97	14.845	
1,100.0	1,067.1	1,100.8	1,077.5	4.5	3.8	127.69	76.8	144.9	107.2	99.8	7.39	14.506	
1,200.0	1,154.9	1,198.9	1,166.6	5.4	4.6	125.83	98.7	179.6	128.1	119.2	8.90	14.396	SF
1,300.0	1,240.2	1,296.0	1,254.7	6.4	5.3	125.86	120.6	214.1	152.0	141.7	10.37	14.654	
1,400.0	1,322.6	1,392.1	1,342.0	7.4	6.1	127.03	142.2	248.2	179.0	167.2	11.79	15.174	
1,500.0	1,401.9	1,487.1	1,428.2	8.6	6.8	128.81	163.5	281.9	209.2	196.0	13.15	15.909	
1,600.0	1,477.9	1,580.6	1,513.0	9.8	7.6	130.85	184.5	315.1	243.0	228.5	14.43	16.838	
1,700.0	1,551.0	1,672.7	1,596.5	11.1	8.3	133.32	205.2	347.8	280.0	264.4	15.59	17.957	
1,800.0	1,623.7	1,764.5	1,679.9	12.4	9.0	135.60	225.9	380.4	317.9	301.2	16.72	19.020	
1,900.0	1,696.3	1,856.4	1,763.3	13.6	9.7	137.40	246.5	413.0	356.2	338.4	17.84	19.969	
2,000.0	1,769.0	1,948.3	1,846.6	14.9	10.5	138.85	267.2	445.6	394.7	375.7	18.96	20.819	
2,100.0	1,841.6	2,040.1	1,930.0	16.2	11.2	140.05	287.8	478.3	433.4	413.3	20.08	21.580	
2,200.0	1,914.3	2,132.0	2,013.4	17.5	11.9	141.05	308.5	510.9	472.2	451.0	21.21	22.265	
2,300.0	1,987.0	2,223.9	2,096.7	18.7	12.7	141.90	329.2	543.5	511.1	488.8	22.33	22.884	
2,400.0	2,059.6	2,315.7	2,180.1	20.0	13.4	142.63	349.8	576.1	550.1	526.6	23.46	23.445	
2,500.0	2,132.3	2,407.6	2,263.5	21.3	14.1	143.26	370.5	608.7	589.2	564.6	24.59	23.955	
2,600.0	2,205.0	2,499.5	2,346.8	22.6	14.9	143.81	391.1	641.3	628.3	602.6	25.73	24.422	
2,700.0	2,277.6	2,591.4	2,430.2	23.9	15.6	144.30	411.8	673.9	667.5	640.6	26.86	24.849	
2,800.0	2,350.3	2,683.2	2,513.6	25.2	16.3	144.74	432.4	706.6	706.7	678.7	27.99	25.242	
2,900.0	2,423.1	2,775.2	2,597.0	26.4	17.0	145.32	453.1	739.2	745.7	716.6	29.10	25.631	
3,000.0	2,498.5	2,868.4	2,681.6	27.6	17.8	146.15	474.0	772.3	781.9	751.7	30.16	25.924	
3,100.0	2,577.2	2,963.1	2,767.5	28.7	18.5	146.65	495.3	805.9	814.0	782.6	31.34	25.975	
3,200.0	2,659.0	3,059.0	2,854.6	29.7	19.3	146.86	516.9	840.0	841.9	809.2	32.62	25.811	
3,300.0	2,743.8	3,141.7	2,930.0	30.7	19.9	146.95	535.0	868.6	866.1	832.3	33.79	25.630	
3,400.0	2,831.1	3,219.6	3,002.2	31.5	20.4	147.04	550.6	893.3	888.3	853.5	34.83	25.504	
3,500.0	2,921.0	3,300.0	3,078.0	32.3	20.9	147.14	565.0	916.0	908.3	872.5	35.78	25.389	
3,600.0	3,013.0	3,375.8	3,150.3	32.9	21.3	147.24	577.1	935.0	926.2	889.6	36.57	25.326	
3,700.0	3,106.9	3,454.1	3,226.0	33.5	21.6	147.34	587.8	952.0	942.0	904.7	37.28	25.270	
3,800.0	3,202.5	3,532.4	3,302.5	34.0	21.9	147.43	597.0	966.4	955.5	917.6	37.87	25.229	
3,900.0	3,299.5	3,610.9	3,379.7	34.4	22.2	147.52	604.4	978.2	966.8	928.4	38.36	25.204	
4,000.0	3,397.6	3,700.0	3,468.0	34.7	22.4	147.60	610.8	988.3	976.0	937.2	38.76	25.183	
4,100.0	3,496.6	3,768.0	3,535.6	35.0	22.5	147.68	614.2	993.7	982.7	943.7	38.98	25.208	
4,200.0	3,596.2	3,846.6	3,614.1	35.1	22.5	147.76	616.5	997.3	987.3	948.2	39.13	25.230	
4,300.0	3,696.1	3,928.6	3,696.1	35.2	22.6	147.82	617.1	998.3	989.6	950.4	39.19	25.251	
4,400.0	3,796.1	4,028.6	3,796.1	35.2	22.6	179.43	617.1	998.3	989.7	950.4	39.31	25.177	
4,500.0	3,896.1	4,128.6	3,896.1	35.2	22.7	179.43	617.1	998.3	989.7	950.2	39.44	25.093	
4,600.0	3,996.1	4,228.6	3,996.1	35.3	22.8	179.43	617.1	998.3	989.7	950.1	39.57	25.008	
4,700.0	4,096.1	4,328.6	4,096.1	35.3	22.8	179.43	617.1	998.3	989.7	950.0	39.71	24.922	
4,800.0	4,196.1	4,428.6	4,196.1	35.4	22.9	179.43	617.1	998.3	989.7	949.8	39.85	24.835	
4,900.0	4,296.1	4,528.6	4,296.1	35.4	22.9	179.43	617.1	998.3	989.7	949.7	39.99	24.747	
5,000.0	4,396.1	4,628.6	4,396.1	35.4	23.0	179.43	617.1	998.3	989.7	949.5	40.14	24.659	
5,100.0	4,496.1	4,728.6	4,496.1	35.5	23.1	179.43	617.1	998.3	989.7	949.4	40.28	24.569	

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

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

Offset Design S14-T7S-R96W - Nolte 13D-13 - DD - Plan #3

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,200.0	4,596.1	4,828.6	4,596.1	35.5	23.1	179.43	617.1	998.3	989.7	949.3	40.43	24.478	
5,300.0	4,696.1	4,928.6	4,696.1	35.6	23.2	179.43	617.1	998.3	989.7	949.1	40.58	24.387	
5,400.0	4,796.1	5,028.6	4,796.1	35.6	23.2	179.43	617.1	998.3	989.7	948.9	40.74	24.295	
5,500.0	4,896.1	5,128.6	4,896.1	35.7	23.3	179.43	617.1	998.3	989.7	948.8	40.89	24.202	
5,600.0	4,996.1	5,228.6	4,996.1	35.7	23.4	179.43	617.1	998.3	989.7	948.6	41.05	24.108	
5,700.0	5,096.1	5,328.6	5,096.1	35.8	23.4	179.43	617.1	998.3	989.7	948.5	41.21	24.014	
5,800.0	5,196.1	5,428.6	5,196.1	35.8	23.5	179.43	617.1	998.3	989.7	948.3	41.38	23.919	
5,900.0	5,296.1	5,528.6	5,296.1	35.9	23.6	179.43	617.1	998.3	989.7	948.1	41.54	23.824	
6,000.0	5,396.1	5,628.6	5,396.1	35.9	23.7	179.43	617.1	998.3	989.7	948.0	41.71	23.728	
6,100.0	5,496.1	5,728.6	5,496.1	36.0	23.7	179.43	617.1	998.3	989.7	947.8	41.88	23.632	
6,200.0	5,596.1	5,828.6	5,596.1	36.0	23.8	179.43	617.1	998.3	989.7	947.6	42.05	23.535	
6,300.0	5,696.1	5,928.6	5,696.1	36.1	23.9	179.43	617.1	998.3	989.7	947.5	42.23	23.437	
6,400.0	5,796.1	6,028.6	5,796.1	36.1	24.0	179.43	617.1	998.3	989.7	947.3	42.40	23.340	
6,464.5	5,860.6	6,093.1	5,860.6	36.1	24.0	179.43	617.1	998.3	989.7	947.2	42.52	23.277	
6,500.0	5,896.1	6,122.5	5,890.0	36.2	24.0	179.43	617.1	998.3	989.7	947.1	42.58	23.245	
6,543.9	5,940.0	6,122.5	5,890.0	36.2	24.0	179.43	617.1	998.3	990.9	948.3	42.62	23.252	

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

Offset Design S14-T7S-R96W - Nolte 14A-13 - DD - Plan #3

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	175.53	-18.8	1.5	18.9				
100.0	100.0	100.0	100.0	0.1	0.1	175.53	-18.8	1.5	18.9	18.6	0.25	74.142	
200.0	200.0	200.0	200.0	0.3	0.3	175.53	-18.8	1.5	18.9	18.3	0.60	31.261	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	148.10	-18.8	1.5	21.0	20.1	0.95	22.044	
400.0	399.6	399.6	399.6	0.7	0.6	156.53	-18.8	1.5	28.0	26.7	1.31	21.431	SF
500.0	498.8	499.8	499.8	1.0	0.8	160.64	-18.0	4.0	39.0	37.3	1.67	23.416	
600.0	597.1	600.1	599.7	1.4	1.0	159.65	-15.7	11.5	52.4	50.3	2.06	25.431	
700.0	694.3	700.2	699.0	1.8	1.3	156.63	-11.9	24.0	68.3	65.7	2.54	26.880	
800.0	790.2	800.0	797.1	2.3	1.6	152.94	-6.6	41.4	86.8	83.7	3.15	27.536	
900.0	884.4	899.3	893.6	3.0	2.1	149.17	0.2	63.5	108.3	104.4	3.94	27.487	
1,000.0	976.8	997.9	988.2	3.7	2.6	145.58	8.4	90.2	132.8	127.9	4.92	27.007	
1,100.0	1,067.1	1,095.7	1,080.4	4.5	3.2	142.25	17.9	121.3	160.5	154.4	6.09	26.352	
1,200.0	1,154.9	1,191.8	1,169.4	5.4	3.8	139.31	28.5	155.9	191.3	183.9	7.41	25.832	
1,300.0	1,240.2	1,285.5	1,255.9	6.4	4.5	137.61	39.1	190.5	225.8	217.1	8.74	25.846	
1,400.0	1,322.6	1,378.0	1,341.2	7.4	5.2	136.88	49.5	224.7	264.0	253.9	10.06	26.243	
1,500.0	1,401.9	1,468.8	1,424.9	8.6	5.8	136.76	59.8	258.2	305.7	294.3	11.36	26.898	
1,600.0	1,477.9	1,557.7	1,507.0	9.8	6.5	136.98	69.8	291.1	350.9	338.2	12.65	27.742	
1,700.0	1,551.0	1,644.9	1,587.4	11.1	7.1	137.92	79.7	323.3	399.2	385.3	13.87	28.777	
1,800.0	1,623.7	1,731.8	1,667.6	12.4	7.7	139.12	89.5	355.4	448.0	432.9	15.07	29.735	
1,900.0	1,696.3	1,818.8	1,747.7	13.6	8.4	140.08	99.3	387.5	496.9	480.6	16.26	30.559	
2,000.0	1,769.0	1,905.7	1,827.9	14.9	9.0	140.87	109.2	419.6	545.9	528.5	17.46	31.275	
2,100.0	1,841.6	1,992.6	1,908.1	16.2	9.6	141.54	119.0	451.7	595.0	576.4	18.65	31.902	
2,200.0	1,914.3	2,079.6	1,988.3	17.5	10.3	142.10	128.8	483.8	644.1	624.3	19.85	32.455	
2,300.0	1,987.0	2,166.5	2,068.5	18.7	10.9	142.58	138.6	515.9	693.3	672.3	21.04	32.946	
2,400.0	2,059.6	2,253.4	2,148.7	20.0	11.6	143.00	148.5	548.0	742.5	720.3	22.24	33.385	
2,500.0	2,132.3	2,340.4	2,228.9	21.3	12.2	143.36	158.3	580.1	791.8	768.3	23.44	33.781	
2,600.0	2,205.0	2,427.3	2,309.0	22.6	12.8	143.69	168.1	612.2	841.0	816.4	24.64	34.138	
2,700.0	2,277.6	2,514.2	2,389.2	23.9	13.5	143.98	177.9	644.4	890.3	864.5	25.83	34.462	
2,800.0	2,350.3	2,601.2	2,469.4	25.2	14.1	144.23	187.8	676.5	939.6	912.6	27.03	34.758	
2,900.0	2,423.1	2,688.2	2,549.7	26.4	14.8	144.73	197.6	708.6	988.8	960.6	28.20	35.069	
3,000.0	2,498.5	2,776.7	2,631.4	27.6	15.4	145.69	207.6	741.3	1,035.2	1,005.9	29.30	35.335	
3,100.0	2,577.2	2,867.2	2,714.8	28.7	16.1	146.36	217.8	774.7	1,077.7	1,047.2	30.47	35.372	
3,200.0	2,659.0	2,959.4	2,799.8	29.7	16.8	146.78	228.3	808.8	1,116.2	1,084.5	31.71	35.207	
3,300.0	2,743.8	3,052.9	2,886.1	30.7	17.4	146.98	238.8	843.3	1,150.7	1,117.7	33.00	34.866	
3,400.0	2,831.1	3,139.5	2,966.1	31.5	18.0	147.04	248.5	874.9	1,181.3	1,147.1	34.24	34.506	
3,500.0	2,921.0	3,219.7	3,041.4	32.3	18.5	147.13	256.6	901.4	1,208.9	1,173.6	35.30	34.246	
3,600.0	3,013.0	3,300.0	3,117.8	32.9	19.0	147.22	263.8	925.0	1,233.5	1,197.3	36.25	34.031	
3,700.0	3,106.9	3,382.3	3,197.1	33.5	19.3	147.31	270.2	945.9	1,255.2	1,218.1	37.07	33.862	
3,800.0	3,202.5	3,464.5	3,277.3	34.0	19.7	147.40	275.6	963.5	1,273.7	1,236.0	37.76	33.733	
3,900.0	3,299.5	3,547.3	3,358.6	34.4	19.9	147.49	280.0	977.9	1,289.2	1,250.9	38.32	33.639	
4,000.0	3,397.6	3,630.4	3,440.9	34.7	20.1	147.57	283.4	988.9	1,301.5	1,262.8	38.76	33.579	
4,100.0	3,496.6	3,713.8	3,523.9	35.0	20.3	147.66	285.7	996.6	1,310.7	1,271.7	39.07	33.550	
4,200.0	3,596.2	3,800.0	3,610.0	35.1	20.3	147.75	287.0	1,000.8	1,316.7	1,277.5	39.24	33.552	
4,300.0	3,696.1	3,886.1	3,696.1	35.2	20.4	147.83	287.3	1,001.5	1,319.5	1,280.2	39.31	33.564	
4,400.0	3,796.1	3,986.1	3,796.1	35.2	20.5	179.43	287.3	1,001.5	1,319.6	1,280.1	39.43	33.464	
4,500.0	3,896.1	4,086.1	3,896.1	35.2	20.5	179.43	287.3	1,001.5	1,319.6	1,280.0	39.56	33.354	
4,600.0	3,996.1	4,186.1	3,996.1	35.3	20.6	179.43	287.3	1,001.5	1,319.6	1,279.9	39.69	33.243	
4,700.0	4,096.1	4,286.1	4,096.1	35.3	20.6	179.43	287.3	1,001.5	1,319.6	1,279.7	39.83	33.130	
4,800.0	4,196.1	4,386.1	4,196.1	35.4	20.7	179.43	287.3	1,001.5	1,319.6	1,279.6	39.97	33.016	
4,900.0	4,296.1	4,486.1	4,296.1	35.4	20.8	179.43	287.3	1,001.5	1,319.6	1,279.5	40.11	32.900	
5,000.0	4,396.1	4,586.1	4,396.1	35.4	20.8	179.43	287.3	1,001.5	1,319.6	1,279.3	40.25	32.783	
5,100.0	4,496.1	4,686.1	4,496.1	35.5	20.9	179.43	287.3	1,001.5	1,319.6	1,279.2	40.40	32.665	

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

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

Offset Design S14-T7S-R96W - Nolte 14A-13 - DD - Plan #3

Survey Program: 0-MWD

Offset Site Error: 0.0 ft

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,200.0	4,596.1	4,786.1	4,596.1	35.5	21.0	179.43	287.3	1,001.5	1,319.6	1,279.0	40.55	32.546	
5,300.0	4,696.1	4,886.1	4,696.1	35.6	21.0	179.43	287.3	1,001.5	1,319.6	1,278.9	40.70	32.426	
5,400.0	4,796.1	4,986.1	4,796.1	35.6	21.1	179.43	287.3	1,001.5	1,319.6	1,278.7	40.85	32.304	
5,500.0	4,896.1	5,086.1	4,896.1	35.7	21.2	179.43	287.3	1,001.5	1,319.6	1,278.6	41.00	32.182	
5,600.0	4,996.1	5,186.1	4,996.1	35.7	21.3	179.43	287.3	1,001.5	1,319.6	1,278.4	41.16	32.059	
5,700.0	5,096.1	5,286.1	5,096.1	35.8	21.3	179.43	287.3	1,001.5	1,319.6	1,278.3	41.32	31.934	
5,800.0	5,196.1	5,386.1	5,196.1	35.8	21.4	179.43	287.3	1,001.5	1,319.6	1,278.1	41.48	31.810	
5,900.0	5,296.1	5,486.1	5,296.1	35.9	21.5	179.43	287.3	1,001.5	1,319.6	1,277.9	41.65	31.684	
6,000.0	5,396.1	5,586.1	5,396.1	35.9	21.6	179.43	287.3	1,001.5	1,319.6	1,277.8	41.82	31.557	
6,100.0	5,496.1	5,686.1	5,496.1	36.0	21.6	179.43	287.3	1,001.5	1,319.6	1,277.6	41.98	31.430	
6,200.0	5,596.1	5,786.1	5,596.1	36.0	21.7	179.43	287.3	1,001.5	1,319.6	1,277.4	42.16	31.302	
6,300.0	5,696.1	5,886.1	5,696.1	36.1	21.8	179.43	287.3	1,001.5	1,319.6	1,277.2	42.33	31.174	
6,400.0	5,796.1	5,986.1	5,796.1	36.1	21.9	179.43	287.3	1,001.5	1,319.6	1,277.1	42.50	31.045	
6,454.9	5,851.0	6,041.0	5,851.0	36.1	21.9	179.43	287.3	1,001.5	1,319.6	1,277.0	42.60	30.974	
6,500.0	5,896.1	6,060.0	5,870.0	36.2	21.9	179.43	287.3	1,001.5	1,319.8	1,277.2	42.66	30.939	
6,543.9	5,940.0	6,060.0	5,870.0	36.2	21.9	179.43	287.3	1,001.5	1,321.4	1,278.7	42.70	30.947	

Cathedral Energy Services

Anticollision Report

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

Offset Design S14-T7S-R96W - Nolte 14B-13 - DD - Plan #3 — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-175.08	-25.9	-2.2	26.0				
100.0	100.0	100.0	100.0	0.1	0.1	-175.08	-25.9	-2.2	26.0	25.7	0.25	102.074	
200.0	200.0	200.0	200.0	0.3	0.3	-175.08	-25.9	-2.2	26.0	25.4	0.60	43.055	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	155.67	-25.9	-2.2	28.4	27.4	0.95	29.737	
400.0	399.6	399.6	399.6	0.7	0.7	160.80	-25.9	-2.2	35.7	34.3	1.30	27.339	SF
500.0	498.8	498.8	498.8	1.0	0.8	165.82	-25.9	-2.2	48.2	46.5	1.65	29.192	
600.0	597.1	597.6	597.6	1.4	1.0	169.12	-25.9	-1.6	65.8	63.8	1.99	33.045	
700.0	694.3	696.7	696.6	1.8	1.2	168.76	-26.0	3.4	87.0	84.7	2.35	37.073	
800.0	790.2	795.2	794.5	2.3	1.4	166.47	-26.2	13.5	111.7	108.9	2.75	40.532	
900.0	884.4	892.8	890.9	3.0	1.7	163.42	-26.4	28.4	139.9	136.6	3.26	42.968	
1,000.0	976.8	989.0	985.2	3.7	2.0	160.15	-26.7	48.0	171.9	168.1	3.89	44.212	
1,100.0	1,067.1	1,083.7	1,076.8	4.5	2.4	156.92	-27.1	71.8	208.0	203.3	4.68	44.447	
1,200.0	1,154.9	1,176.4	1,165.3	5.4	2.9	153.82	-27.6	99.6	248.2	242.5	5.64	44.035	
1,300.0	1,240.2	1,267.1	1,250.4	6.4	3.5	150.89	-28.1	130.8	292.3	285.6	6.75	43.309	
1,400.0	1,322.6	1,355.2	1,331.6	7.4	4.1	148.14	-28.7	164.9	340.5	332.5	7.98	42.644	
1,500.0	1,401.9	1,440.3	1,409.6	8.6	4.7	145.98	-29.2	199.0	392.6	383.3	9.26	42.386	
1,600.0	1,477.9	1,523.2	1,485.5	9.8	5.3	144.39	-29.8	232.3	448.4	437.8	10.55	42.514	
1,700.0	1,551.0	1,604.1	1,559.6	11.1	5.9	143.81	-30.3	264.7	507.2	495.4	11.80	42.978	
1,800.0	1,623.7	1,684.7	1,633.4	12.4	6.5	143.87	-30.9	297.1	566.4	553.3	13.04	43.432	
1,900.0	1,696.3	1,765.3	1,707.3	13.6	7.1	143.91	-31.4	329.4	625.5	611.3	14.28	43.792	
2,000.0	1,769.0	1,845.9	1,781.1	14.9	7.8	143.95	-31.9	361.7	684.7	669.2	15.53	44.083	
2,100.0	1,841.6	1,926.5	1,855.0	16.2	8.4	143.98	-32.5	394.0	743.9	727.1	16.78	44.322	
2,200.0	1,914.3	2,007.1	1,928.8	17.5	9.0	144.01	-33.0	426.3	803.1	785.0	18.04	44.522	
2,300.0	1,987.0	2,087.8	2,002.6	18.7	9.6	144.03	-33.5	458.7	862.3	843.0	19.29	44.691	
2,400.0	2,059.6	2,168.4	2,076.5	20.0	10.2	144.05	-34.1	491.0	921.4	900.9	20.55	44.836	
2,500.0	2,132.3	2,249.0	2,150.3	21.3	10.8	144.07	-34.6	523.3	980.6	958.8	21.81	44.961	
2,600.0	2,205.0	2,329.6	2,224.2	22.6	11.4	144.08	-35.2	555.6	1,039.8	1,016.7	23.07	45.071	
2,700.0	2,277.6	2,410.2	2,298.0	23.9	12.1	144.10	-35.7	588.0	1,099.0	1,074.7	24.33	45.167	
2,800.0	2,350.3	2,490.8	2,371.8	25.2	12.7	144.11	-36.2	620.3	1,158.2	1,132.6	25.59	45.252	
2,900.0	2,423.1	2,571.5	2,445.8	26.4	13.3	144.46	-36.8	652.7	1,217.2	1,190.4	26.82	45.386	
3,000.0	2,498.5	2,654.0	2,521.3	27.6	13.9	145.52	-37.3	685.7	1,273.7	1,245.7	27.97	45.541	
3,100.0	2,577.2	2,738.7	2,598.9	28.7	14.6	146.31	-37.9	719.7	1,326.6	1,297.4	29.17	45.475	

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

Cathedral Energy Services

Anticollision Report

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

Offset Design S14-T7S-R96W - Nolte 14C-13 - DD - Plan #3

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-169.74	-32.5	-5.9	33.0				
100.0	100.0	100.0	100.0	0.1	0.1	-169.74	-32.5	-5.9	33.0	32.7	0.25	129.479	
200.0	200.0	200.0	200.0	0.3	0.3	-169.74	-32.5	-5.9	33.0	32.4	0.60	54.636	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	160.18	-32.5	-5.9	35.4	34.5	0.95	37.185	
400.0	399.6	399.6	399.6	0.7	0.7	163.67	-32.5	-5.9	42.9	41.6	1.30	32.943	SF
500.0	498.8	498.8	498.8	1.0	0.8	167.37	-32.5	-5.9	55.6	53.9	1.65	33.710	
600.0	597.1	597.2	597.2	1.4	1.0	168.42	-33.3	-3.5	73.4	71.4	2.00	36.748	
700.0	694.3	694.6	694.2	1.8	1.2	166.53	-35.7	3.5	96.1	93.8	2.38	40.441	
800.0	790.2	790.3	789.1	2.3	1.4	163.53	-39.6	14.9	124.0	121.2	2.83	43.870	
900.0	884.4	883.8	881.2	3.0	1.7	160.28	-45.0	30.4	157.3	153.9	3.38	46.543	
1,000.0	976.8	974.6	969.7	3.7	2.1	157.15	-51.6	49.6	195.9	191.8	4.05	48.384	
1,100.0	1,067.1	1,062.4	1,054.3	4.5	2.5	154.24	-59.3	71.8	239.8	235.0	4.84	49.569	
1,200.0	1,154.9	1,146.8	1,134.5	5.4	3.0	151.55	-67.9	96.7	289.0	283.2	5.74	50.329	
1,300.0	1,240.2	1,227.6	1,210.1	6.4	3.5	149.04	-77.1	123.6	343.0	336.3	6.75	50.842	
1,400.0	1,322.6	1,304.6	1,281.0	7.4	4.1	146.67	-87.0	152.0	401.7	393.9	7.84	51.231	
1,500.0	1,401.9	1,380.2	1,349.5	8.6	4.6	144.42	-97.4	182.1	464.7	455.6	9.02	51.506	
1,600.0	1,477.9	1,455.0	1,417.2	9.8	5.2	142.54	-107.7	212.2	531.0	520.7	10.24	51.854	
1,700.0	1,551.0	1,527.4	1,482.8	11.1	5.8	141.85	-117.8	241.3	599.9	588.5	11.43	52.480	
1,800.0	1,623.7	1,599.5	1,548.0	12.4	6.4	141.99	-127.8	270.3	669.2	656.6	12.60	53.106	
1,900.0	1,696.3	1,671.6	1,613.3	13.6	6.9	142.10	-137.8	299.3	738.5	724.7	13.78	53.602	
2,000.0	1,769.0	1,743.8	1,678.6	14.9	7.5	142.19	-147.8	328.3	807.7	792.8	14.96	54.007	
2,100.0	1,841.6	1,815.9	1,743.8	16.2	8.1	142.27	-157.8	357.3	877.0	860.9	16.14	54.342	
2,200.0	1,914.3	1,888.0	1,809.1	17.5	8.7	142.34	-167.8	386.3	946.3	929.0	17.32	54.624	
2,300.0	1,987.0	1,960.1	1,874.3	18.7	9.3	142.39	-177.9	415.3	1,015.6	997.1	18.51	54.863	
2,400.0	2,059.6	2,032.2	1,939.6	20.0	9.8	142.44	-187.9	444.3	1,084.8	1,065.1	19.70	55.069	
2,500.0	2,132.3	2,104.3	2,004.9	21.3	10.4	142.49	-197.9	473.3	1,154.1	1,133.2	20.89	55.248	
2,600.0	2,205.0	2,176.4	2,070.1	22.6	11.0	142.53	-207.9	502.3	1,223.4	1,201.3	22.08	55.405	
2,700.0	2,277.6	2,248.5	2,135.4	23.9	11.6	142.56	-217.9	531.3	1,292.7	1,269.4	23.27	55.543	

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

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

Offset Design S14-T7S-R96W - Nolte 14D-13 - DD - Plan #3

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-166.53	-40.1	-9.6	41.2				
100.0	100.0	100.0	100.0	0.1	0.1	-166.53	-40.1	-9.6	41.2	41.0	0.25	161.646	
200.0	200.0	200.0	200.0	0.3	0.3	-166.53	-40.1	-9.6	41.2	40.6	0.60	68.236	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	162.92	-40.1	-9.6	43.7	42.8	0.95	45.865	
400.0	399.6	399.6	399.6	0.7	0.7	165.44	-40.1	-9.6	51.3	50.0	1.30	39.384	
500.0	498.8	497.9	497.9	1.0	0.8	166.08	-41.5	-7.5	64.6	62.9	1.65	39.074	SF
600.0	597.1	594.9	594.6	1.4	1.0	163.90	-45.5	-1.3	84.3	82.3	2.03	41.435	
700.0	694.3	689.7	688.6	1.8	1.3	160.79	-52.0	8.8	110.5	108.1	2.48	44.632	
800.0	790.2	781.8	779.2	2.3	1.6	157.65	-60.8	22.3	143.3	140.3	3.00	47.791	
900.0	884.4	870.5	865.7	3.0	1.9	154.78	-71.5	38.8	182.6	179.0	3.61	50.578	
1,000.0	976.8	955.3	947.5	3.7	2.3	152.22	-83.7	57.6	228.1	223.8	4.31	52.951	
1,100.0	1,067.1	1,036.0	1,024.3	4.5	2.8	149.92	-97.2	78.4	279.5	274.4	5.08	54.974	
1,200.0	1,154.9	1,112.2	1,095.8	5.4	3.3	147.79	-111.5	100.5	336.4	330.5	5.93	56.721	
1,300.0	1,240.2	1,183.8	1,162.0	6.4	3.8	145.77	-126.4	123.4	398.4	391.6	6.85	58.149	
1,400.0	1,322.6	1,250.7	1,222.9	7.4	4.3	143.77	-141.5	146.7	465.2	457.3	7.84	59.317	
1,500.0	1,401.9	1,312.9	1,278.6	8.6	4.8	141.73	-156.6	170.0	536.2	527.3	8.89	60.332	
1,600.0	1,477.9	1,375.1	1,333.4	9.8	5.4	139.64	-172.5	194.5	611.0	601.0	10.02	60.976	
1,700.0	1,551.0	1,438.6	1,389.4	11.1	5.9	138.92	-188.9	219.8	688.1	677.0	11.15	61.702	
1,800.0	1,623.7	1,501.8	1,445.0	12.4	6.5	139.27	-205.2	244.9	765.6	753.3	12.25	62.494	
1,900.0	1,696.3	1,565.1	1,500.7	13.6	7.1	139.55	-221.5	270.0	843.0	829.7	13.35	63.128	
2,000.0	1,769.0	1,628.3	1,556.4	14.9	7.6	139.78	-237.8	295.1	920.5	906.0	14.46	63.654	
2,100.0	1,841.6	1,691.5	1,612.1	16.2	8.2	139.98	-254.1	320.2	997.9	982.3	15.57	64.095	
2,200.0	1,914.3	1,754.7	1,667.8	17.5	8.7	140.15	-270.3	345.3	1,075.4	1,058.7	16.68	64.467	
2,300.0	1,987.0	1,817.9	1,723.4	18.7	9.3	140.30	-286.6	370.5	1,152.8	1,135.0	17.79	64.788	
2,400.0	2,059.6	1,881.1	1,779.1	20.0	9.9	140.43	-302.9	395.6	1,230.3	1,211.4	18.91	65.065	
2,500.0	2,132.3	1,944.4	1,834.8	21.3	10.4	140.54	-319.2	420.7	1,307.8	1,287.7	20.02	65.307	

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

Offset Design S14-T7S-R96W - Nolte 43A-14 - DD - Plan #3

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-152.45	-14.2	-7.4	16.0				
100.0	100.0	100.0	100.0	0.1	0.1	-152.45	-14.2	-7.4	16.0	15.7	0.26	62.707	
200.0	200.0	200.0	200.0	0.3	0.3	-152.45	-14.2	-7.4	16.0	15.4	0.60	26.482	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	176.51	-14.2	-7.4	18.6	17.7	0.95	19.542	
400.0	399.6	400.6	400.6	0.7	0.7	-178.44	-11.6	-7.9	24.5	23.2	1.30	18.803	SF
500.0	498.8	501.2	500.8	1.0	0.9	-169.18	-3.8	-9.4	32.3	30.6	1.68	19.237	
600.0	597.1	601.4	600.2	1.4	1.1	-159.51	9.1	-11.9	43.0	40.9	2.15	20.021	
700.0	694.3	701.2	698.2	1.8	1.5	-151.10	27.0	-15.4	57.2	54.5	2.78	20.596	
800.0	790.2	800.2	794.5	2.3	1.9	-144.31	49.7	-19.9	75.2	71.6	3.60	20.891	
900.0	884.4	898.3	888.6	3.0	2.4	-138.94	77.1	-25.2	96.9	92.2	4.60	21.036	
1,000.0	976.8	995.4	980.1	3.7	3.0	-134.64	108.7	-31.4	122.2	116.4	5.78	21.136	
1,100.0	1,067.1	1,091.3	1,068.8	4.5	3.7	-131.13	144.4	-38.3	151.0	143.9	7.11	21.235	
1,200.0	1,154.9	1,185.8	1,154.4	5.4	4.4	-128.18	183.9	-46.0	183.3	174.7	8.59	21.344	
1,300.0	1,240.2	1,279.0	1,236.7	6.4	5.2	-125.65	226.7	-54.4	218.8	208.6	10.19	21.463	
1,400.0	1,322.6	1,370.6	1,315.4	7.4	6.1	-123.40	272.7	-63.4	257.4	245.5	11.92	21.588	
1,500.0	1,401.9	1,460.7	1,390.5	8.6	7.0	-121.37	321.5	-72.9	298.9	285.2	13.77	21.716	
1,600.0	1,477.9	1,549.2	1,462.0	9.8	7.9	-119.47	372.7	-82.9	343.3	327.5	15.71	21.843	
1,700.0	1,551.0	1,636.3	1,529.9	11.1	8.9	-118.34	426.2	-93.3	389.9	372.2	17.72	21.999	
1,800.0	1,623.7	1,724.1	1,596.6	12.4	9.9	-117.62	482.2	-104.3	437.0	417.2	19.79	22.088	
1,900.0	1,696.3	1,812.1	1,663.5	13.6	10.9	-117.04	538.4	-115.2	484.2	462.4	21.85	22.157	
2,000.0	1,769.0	1,900.2	1,730.5	14.9	11.9	-116.55	594.6	-126.2	531.4	507.5	23.92	22.213	
2,100.0	1,841.6	1,988.3	1,797.4	16.2	12.9	-116.15	650.8	-137.1	578.7	552.7	26.00	22.260	
2,200.0	1,914.3	2,076.3	1,864.3	17.5	13.9	-115.81	707.0	-148.1	625.9	597.9	28.07	22.299	
2,300.0	1,987.0	2,164.4	1,931.2	18.7	14.9	-115.51	763.2	-159.1	673.2	643.1	30.14	22.333	
2,400.0	2,059.6	2,252.5	1,998.1	20.0	15.9	-115.25	819.4	-170.0	720.5	688.3	32.22	22.363	
2,500.0	2,132.3	2,340.6	2,065.0	21.3	17.0	-115.03	875.6	-181.0	767.8	733.5	34.29	22.389	
2,600.0	2,205.0	2,428.6	2,131.9	22.6	18.0	-114.83	931.8	-192.0	815.1	778.7	36.37	22.411	
2,700.0	2,277.6	2,516.7	2,198.8	23.9	19.0	-114.65	988.0	-202.9	862.4	824.0	38.45	22.431	
2,800.0	2,350.3	2,604.8	2,265.7	25.2	20.0	-114.49	1,044.2	-213.9	909.8	869.2	40.52	22.449	
2,900.0	2,423.1	2,692.9	2,332.7	26.4	21.0	-114.74	1,100.5	-224.9	957.0	914.4	42.60	22.464	
3,000.0	2,498.5	2,781.6	2,400.1	27.6	22.0	-115.77	1,157.1	-235.9	1,002.8	958.2	44.64	22.463	
3,100.0	2,577.2	2,873.4	2,470.0	28.7	23.1	-116.46	1,215.5	-247.3	1,046.7	1,000.0	46.69	22.419	
3,200.0	2,659.0	2,973.0	2,548.3	29.7	24.2	-116.98	1,276.0	-259.1	1,087.9	1,039.2	48.69	22.342	
3,300.0	2,743.8	3,075.2	2,631.7	30.7	25.2	-117.45	1,333.7	-270.4	1,126.3	1,075.7	50.59	22.264	
3,400.0	2,831.1	3,179.7	2,720.3	31.5	26.1	-117.86	1,388.2	-281.0	1,161.6	1,109.2	52.36	22.185	
3,500.0	2,921.0	3,286.6	2,813.9	32.3	27.0	-118.23	1,438.9	-290.9	1,193.7	1,139.7	53.99	22.109	
3,600.0	3,013.0	3,395.8	2,912.2	32.9	27.8	-118.56	1,485.3	-300.0	1,222.5	1,167.0	55.47	22.037	
3,700.0	3,106.9	3,507.0	3,015.1	33.5	28.5	-118.84	1,526.9	-308.1	1,247.7	1,191.0	56.78	21.974	
3,800.0	3,202.5	3,620.1	3,122.0	34.0	29.1	-119.08	1,563.0	-315.1	1,269.4	1,211.5	57.91	21.920	
3,900.0	3,299.5	3,734.9	3,232.6	34.4	29.7	-119.29	1,593.3	-321.0	1,287.4	1,228.6	58.85	21.875	
4,000.0	3,397.6	3,851.0	3,346.1	34.7	30.1	-119.46	1,617.2	-325.7	1,301.6	1,242.0	59.59	21.841	
4,100.0	3,496.6	3,968.1	3,461.9	35.0	30.4	-119.61	1,634.4	-329.1	1,311.9	1,251.7	60.13	21.817	
4,200.0	3,596.2	4,085.9	3,579.2	35.1	30.5	-119.72	1,644.7	-331.1	1,318.2	1,257.8	60.46	21.805	
4,300.0	3,696.1	4,202.9	3,696.1	35.2	30.6	-119.81	1,647.8	-331.7	1,320.6	1,260.1	60.57	21.802	
4,400.0	3,796.1	4,302.9	3,796.1	35.2	30.6	-88.22	1,647.8	-331.7	1,320.7	1,260.0	60.66	21.772	
4,500.0	3,896.1	4,402.9	3,896.1	35.2	30.7	-88.22	1,647.8	-331.7	1,320.7	1,259.9	60.75	21.741	
4,600.0	3,996.1	4,502.9	3,996.1	35.3	30.7	-88.22	1,647.8	-331.7	1,320.7	1,259.8	60.84	21.709	
4,700.0	4,096.1	4,602.9	4,096.1	35.3	30.8	-88.22	1,647.8	-331.7	1,320.7	1,259.7	60.93	21.676	
4,800.0	4,196.1	4,702.9	4,196.1	35.4	30.8	-88.22	1,647.8	-331.7	1,320.7	1,259.7	61.02	21.643	
4,900.0	4,296.1	4,802.9	4,296.1	35.4	30.9	-88.22	1,647.8	-331.7	1,320.7	1,259.6	61.12	21.609	
5,000.0	4,396.1	4,902.9	4,396.1	35.4	30.9	-88.22	1,647.8	-331.7	1,320.7	1,259.5	61.21	21.575	
5,100.0	4,496.1	5,002.9	4,496.1	35.5	31.0	-88.22	1,647.8	-331.7	1,320.7	1,259.4	61.31	21.540	

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

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

Offset Design S14-T7S-R96W - Nolte 43A-14 - DD - Plan #3

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,200.0	4,596.1	5,102.9	4,596.1	35.5	31.0	-88.22	1,647.8	-331.7	1,320.7	1,259.3	61.41	21.505	
5,300.0	4,696.1	5,202.9	4,696.1	35.6	31.1	-88.22	1,647.8	-331.7	1,320.7	1,259.2	61.52	21.469	
5,400.0	4,796.1	5,302.9	4,796.1	35.6	31.1	-88.22	1,647.8	-331.7	1,320.7	1,259.1	61.62	21.433	
5,500.0	4,896.1	5,402.9	4,896.1	35.7	31.2	-88.22	1,647.8	-331.7	1,320.7	1,258.9	61.73	21.396	
5,600.0	4,996.1	5,502.9	4,996.1	35.7	31.2	-88.22	1,647.8	-331.7	1,320.7	1,258.8	61.83	21.358	
5,700.0	5,096.1	5,602.9	5,096.1	35.8	31.3	-88.22	1,647.8	-331.7	1,320.7	1,258.7	61.94	21.321	
5,800.0	5,196.1	5,702.9	5,196.1	35.8	31.3	-88.22	1,647.8	-331.7	1,320.7	1,258.6	62.06	21.282	
5,900.0	5,296.1	5,802.9	5,296.1	35.9	31.4	-88.22	1,647.8	-331.7	1,320.7	1,258.5	62.17	21.243	
6,000.0	5,396.1	5,902.9	5,396.1	35.9	31.4	-88.22	1,647.8	-331.7	1,320.7	1,258.4	62.28	21.204	
6,100.0	5,496.1	6,002.9	5,496.1	36.0	31.5	-88.22	1,647.8	-331.7	1,320.7	1,258.3	62.40	21.165	
6,200.0	5,596.1	6,102.9	5,596.1	36.0	31.5	-88.22	1,647.8	-331.7	1,320.7	1,258.2	62.52	21.124	
6,300.0	5,696.1	6,202.9	5,696.1	36.1	31.6	-88.22	1,647.8	-331.7	1,320.7	1,258.0	62.64	21.084	
6,400.0	5,796.1	6,302.9	5,796.1	36.1	31.7	-88.22	1,647.8	-331.7	1,320.7	1,257.9	62.76	21.043	
6,500.0	5,896.1	6,402.9	5,896.1	36.2	31.7	-88.22	1,647.8	-331.7	1,320.7	1,257.8	62.88	21.002	
6,509.9	5,906.0	6,412.8	5,906.0	36.2	31.7	-88.22	1,647.8	-331.7	1,320.7	1,257.8	62.90	20.997	
6,543.9	5,940.0	6,421.8	5,915.0	36.2	31.7	-88.22	1,647.8	-331.7	1,320.9	1,258.0	62.92	20.992	

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

Offset Design S14-T7S-R96W - Nolte 43B-14 - DD - Plan #3 — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-152.44	-21.3	-11.1	24.0				
100.0	100.0	100.0	100.0	0.1	0.1	-152.44	-21.3	-11.1	24.0	23.7	0.26	93.991	
200.0	200.0	200.0	200.0	0.3	0.3	-152.44	-21.3	-11.1	24.0	23.4	0.60	39.705	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	176.35	-21.3	-11.1	26.6	25.7	0.95	27.931	
400.0	399.6	400.3	400.3	0.7	0.7	177.93	-20.6	-11.3	34.0	32.7	1.30	26.130	
500.0	498.8	501.2	501.1	1.0	0.8	-176.64	-15.4	-12.5	43.3	41.7	1.65	26.208	
600.0	597.1	602.0	601.2	1.4	1.1	-169.43	-5.1	-14.9	55.0	52.9	2.05	26.815	
700.0	694.3	702.3	700.3	1.8	1.4	-162.07	10.3	-18.5	69.6	67.0	2.55	27.249	
800.0	790.2	801.9	797.7	2.3	1.8	-155.36	30.5	-23.3	87.6	84.4	3.22	27.178	
900.0	884.4	900.7	893.1	3.0	2.2	-149.55	55.5	-29.1	109.4	105.3	4.09	26.737	
1,000.0	976.8	998.5	986.1	3.7	2.8	-144.62	84.9	-36.0	134.9	129.8	5.15	26.182	
1,100.0	1,067.1	1,095.0	1,076.3	4.5	3.4	-140.43	118.4	-43.9	164.1	157.7	6.39	25.675	
1,200.0	1,154.9	1,190.2	1,163.4	5.4	4.1	-136.83	155.8	-52.6	196.9	189.1	7.79	25.275	
1,300.0	1,240.2	1,283.9	1,247.1	6.4	4.8	-133.70	196.6	-62.2	233.2	223.9	9.34	24.982	
1,400.0	1,322.6	1,376.0	1,327.4	7.4	5.7	-130.91	240.6	-72.5	272.8	261.8	11.01	24.779	
1,500.0	1,401.9	1,466.3	1,404.3	8.6	6.5	-128.57	286.7	-83.3	315.6	302.8	12.75	24.751	SF
1,600.0	1,477.9	1,555.2	1,479.8	9.8	7.3	-127.07	332.4	-94.0	361.3	346.8	14.49	24.933	
1,700.0	1,551.0	1,642.9	1,554.3	11.1	8.1	-126.81	377.3	-104.6	409.5	393.3	16.20	25.281	
1,800.0	1,623.7	1,730.3	1,628.6	12.4	8.9	-127.15	422.2	-115.1	457.9	440.0	17.89	25.600	
1,900.0	1,696.3	1,817.8	1,702.9	13.6	9.8	-127.43	467.1	-125.6	506.4	486.8	19.58	25.859	
2,000.0	1,769.0	1,905.2	1,777.3	14.9	10.6	-127.66	511.9	-136.1	554.8	533.6	21.28	26.073	
2,100.0	1,841.6	1,992.7	1,851.6	16.2	11.4	-127.85	556.8	-146.7	603.3	580.3	22.98	26.253	
2,200.0	1,914.3	2,080.1	1,925.9	17.5	12.2	-128.01	601.7	-157.2	651.8	627.1	24.68	26.407	
2,300.0	1,987.0	2,167.5	2,000.2	18.7	13.0	-128.16	646.6	-167.7	700.3	673.9	26.39	26.540	
2,400.0	2,059.6	2,255.0	2,074.5	20.0	13.9	-128.28	691.4	-178.2	748.8	720.7	28.09	26.656	
2,500.0	2,132.3	2,342.4	2,148.8	21.3	14.7	-128.39	736.3	-188.8	797.3	767.5	29.80	26.757	
2,600.0	2,205.0	2,429.9	2,223.1	22.6	15.5	-128.48	781.2	-199.3	845.8	814.3	31.50	26.847	
2,700.0	2,277.6	2,517.3	2,297.5	23.9	16.3	-128.57	826.1	-209.8	894.3	861.1	33.21	26.928	
2,800.0	2,350.3	2,604.8	2,371.8	25.2	17.1	-128.64	870.9	-220.3	942.8	907.8	34.92	27.000	
2,900.0	2,423.1	2,692.3	2,446.1	26.4	18.0	-129.05	915.8	-230.9	991.1	954.5	36.60	27.082	
3,000.0	2,498.5	2,780.9	2,521.5	27.6	18.8	-130.12	961.3	-241.5	1,037.4	999.2	38.21	27.146	
3,100.0	2,577.2	2,870.9	2,597.9	28.7	19.6	-130.86	1,007.5	-252.3	1,080.6	1,040.7	39.87	27.103	
3,200.0	2,659.0	2,961.9	2,675.2	29.7	20.5	-131.30	1,054.2	-263.3	1,120.8	1,079.2	41.56	26.969	
3,300.0	2,743.8	3,052.8	2,753.7	30.7	21.3	-131.61	1,098.9	-273.8	1,158.0	1,114.8	43.16	26.830	
3,400.0	2,831.1	3,145.5	2,835.8	31.5	22.0	-131.88	1,140.8	-283.6	1,192.0	1,147.4	44.65	26.700	
3,500.0	2,921.0	3,239.8	2,921.4	32.3	22.7	-132.14	1,179.3	-292.6	1,223.0	1,176.9	46.01	26.580	
3,600.0	3,013.0	3,335.7	3,010.3	32.9	23.3	-132.36	1,214.2	-300.8	1,250.6	1,203.3	47.24	26.473	
3,700.0	3,106.9	3,433.0	3,102.3	33.5	23.8	-132.57	1,245.2	-308.1	1,274.8	1,226.5	48.32	26.380	
3,800.0	3,202.5	3,531.6	3,197.0	34.0	24.3	-132.75	1,271.8	-314.3	1,295.6	1,246.3	49.25	26.304	
3,900.0	3,299.5	3,631.2	3,294.0	34.4	24.7	-132.91	1,293.9	-319.5	1,312.8	1,262.8	50.02	26.244	
4,000.0	3,397.6	3,731.8	3,392.9	34.7	25.0	-133.05	1,311.2	-323.6	1,326.4	1,275.8	50.62	26.202	
4,100.0	3,496.6	3,833.0	3,493.3	35.0	25.2	-133.17	1,323.4	-326.4	1,336.4	1,285.3	51.05	26.179	
4,200.0	3,596.2	3,934.6	3,594.7	35.1	25.3	-133.28	1,330.4	-328.1	1,342.6	1,291.3	51.29	26.175	
4,300.0	3,696.1	4,036.0	3,696.1	35.2	25.4	-133.37	1,332.3	-328.5	1,345.1	1,293.7	51.39	26.175	
4,400.0	3,796.1	4,136.0	3,796.1	35.2	25.4	-101.77	1,332.3	-328.5	1,345.2	1,293.7	51.49	26.127	
4,500.0	3,896.1	4,236.0	3,896.1	35.2	25.5	-101.77	1,332.3	-328.5	1,345.2	1,293.6	51.59	26.076	
4,600.0	3,996.1	4,336.0	3,996.1	35.3	25.5	-101.77	1,332.3	-328.5	1,345.2	1,293.5	51.69	26.024	
4,700.0	4,096.1	4,436.0	4,096.1	35.3	25.6	-101.77	1,332.3	-328.5	1,345.2	1,293.4	51.80	25.971	
4,800.0	4,196.1	4,536.0	4,196.1	35.4	25.6	-101.77	1,332.3	-328.5	1,345.2	1,293.3	51.90	25.917	
4,900.0	4,296.1	4,636.0	4,296.1	35.4	25.7	-101.77	1,332.3	-328.5	1,345.2	1,293.2	52.01	25.862	
5,000.0	4,396.1	4,736.0	4,396.1	35.4	25.7	-101.77	1,332.3	-328.5	1,345.2	1,293.1	52.13	25.806	
5,100.0	4,496.1	4,836.0	4,496.1	35.5	25.8	-101.77	1,332.3	-328.5	1,345.2	1,292.9	52.24	25.750	

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

Cathedral Energy Services

Anticollision Report

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

Offset Design S14-T7S-R96W - Nolte 43B-14 - DD - Plan #3

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,200.0	4,596.1	4,936.0	4,596.1	35.5	25.9	-101.77	1,332.3	-328.5	1,345.2	1,292.8	52.36	25.693	
5,300.0	4,696.1	5,036.0	4,696.1	35.6	25.9	-101.77	1,332.3	-328.5	1,345.2	1,292.7	52.47	25.635	
5,400.0	4,796.1	5,136.0	4,796.1	35.6	26.0	-101.77	1,332.3	-328.5	1,345.2	1,292.6	52.60	25.576	
5,500.0	4,896.1	5,236.0	4,896.1	35.7	26.0	-101.77	1,332.3	-328.5	1,345.2	1,292.5	52.72	25.517	
5,600.0	4,996.1	5,336.0	4,996.1	35.7	26.1	-101.77	1,332.3	-328.5	1,345.2	1,292.3	52.84	25.457	
5,700.0	5,096.1	5,436.0	5,096.1	35.8	26.2	-101.77	1,332.3	-328.5	1,345.2	1,292.2	52.97	25.396	
5,800.0	5,196.1	5,536.0	5,196.1	35.8	26.2	-101.77	1,332.3	-328.5	1,345.2	1,292.1	53.10	25.334	
5,900.0	5,296.1	5,636.0	5,296.1	35.9	26.3	-101.77	1,332.3	-328.5	1,345.2	1,292.0	53.23	25.272	
6,000.0	5,396.1	5,736.0	5,396.1	35.9	26.4	-101.77	1,332.3	-328.5	1,345.2	1,291.8	53.36	25.210	
6,100.0	5,496.1	5,836.0	5,496.1	36.0	26.4	-101.77	1,332.3	-328.5	1,345.2	1,291.7	53.49	25.146	
6,200.0	5,596.1	5,936.0	5,596.1	36.0	26.5	-101.77	1,332.3	-328.5	1,345.2	1,291.6	53.63	25.082	
6,300.0	5,696.1	6,036.0	5,696.1	36.1	26.6	-101.77	1,332.3	-328.5	1,345.2	1,291.4	53.77	25.018	
6,400.0	5,796.1	6,136.0	5,796.1	36.1	26.6	-101.77	1,332.3	-328.5	1,345.2	1,291.3	53.91	24.953	
6,464.5	5,860.6	6,200.5	5,860.6	36.1	26.7	-101.77	1,332.3	-328.5	1,345.2	1,291.2	54.00	24.911	
6,500.0	5,896.1	6,229.9	5,890.0	36.2	26.7	-101.77	1,332.3	-328.5	1,345.2	1,291.1	54.05	24.890	
6,543.9	5,940.0	6,229.9	5,890.0	36.2	26.7	-101.77	1,332.3	-328.5	1,346.1	1,292.0	54.08	24.892	

Cathedral Energy Services

Anticollision Report

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

Offset Design S14-T7S-R96W - Nolte 43C-14 - DD - Plan #3

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-152.49	-28.4	-14.8	32.0				
100.0	100.0	100.0	100.0	0.1	0.1	-152.49	-28.4	-14.8	32.0	31.7	0.26	125.193	
200.0	200.0	200.0	200.0	0.3	0.3	-152.49	-28.4	-14.8	32.0	31.4	0.60	52.904	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	176.22	-28.4	-14.8	34.6	33.6	0.95	36.308	
400.0	399.6	399.6	399.6	0.7	0.7	176.90	-28.4	-14.8	42.4	41.1	1.30	32.673	SF
500.0	498.8	500.6	500.5	1.0	0.8	179.78	-25.9	-15.7	53.8	52.2	1.65	32.685	
600.0	597.1	601.4	601.0	1.4	1.0	-174.80	-18.4	-18.4	67.4	65.4	2.01	33.500	
700.0	694.3	701.6	700.4	1.8	1.3	-168.58	-6.0	-22.9	84.1	81.6	2.45	34.356	
800.0	790.2	801.1	798.2	2.3	1.6	-162.46	11.1	-29.2	104.3	101.3	3.01	34.671	
900.0	884.4	899.6	893.9	3.0	2.0	-156.87	32.7	-37.1	128.4	124.7	3.74	34.339	
1,000.0	976.8	996.7	987.0	3.7	2.5	-151.94	58.5	-46.5	156.7	152.0	4.66	33.619	
1,100.0	1,067.1	1,091.3	1,076.6	4.5	3.1	-147.93	87.1	-57.0	189.2	183.5	5.70	33.185	
1,200.0	1,154.9	1,184.0	1,164.3	5.4	3.6	-145.53	115.5	-67.3	226.1	219.4	6.77	33.412	
1,300.0	1,240.2	1,275.2	1,250.5	6.4	4.1	-144.20	143.4	-77.5	267.2	259.3	7.84	34.068	
1,400.0	1,322.6	1,364.6	1,335.0	7.4	4.6	-143.53	170.7	-87.5	312.0	303.1	8.91	35.004	
1,500.0	1,401.9	1,451.9	1,417.5	8.6	5.1	-143.26	197.4	-97.2	360.6	350.7	9.98	36.134	
1,600.0	1,477.9	1,536.9	1,497.9	9.8	5.6	-143.20	223.4	-106.7	412.9	401.9	11.04	37.403	
1,700.0	1,551.0	1,619.7	1,576.2	11.1	6.1	-143.84	248.8	-116.0	468.4	456.3	12.06	38.846	
1,800.0	1,623.7	1,702.3	1,654.3	12.4	6.6	-144.83	274.0	-125.2	524.3	511.3	13.05	40.177	
1,900.0	1,696.3	1,784.9	1,732.4	13.6	7.1	-145.62	299.3	-134.5	580.4	566.3	14.04	41.323	
2,000.0	1,769.0	1,867.5	1,810.4	14.9	7.6	-146.28	324.6	-143.7	636.5	621.4	15.04	42.320	
2,100.0	1,841.6	1,950.0	1,888.5	16.2	8.1	-146.83	349.8	-152.9	692.6	676.6	16.03	43.195	
2,200.0	1,914.3	2,032.6	1,966.6	17.5	8.6	-147.30	375.1	-162.1	748.8	731.8	17.03	43.970	
2,300.0	1,987.0	2,115.2	2,044.7	18.7	9.1	-147.70	400.4	-171.4	805.0	787.0	18.03	44.659	
2,400.0	2,059.6	2,197.8	2,122.7	20.0	9.5	-148.05	425.6	-180.6	861.2	842.2	19.02	45.277	
2,500.0	2,132.3	2,280.4	2,200.8	21.3	10.0	-148.36	450.9	-189.8	917.5	897.5	20.02	45.833	
2,600.0	2,205.0	2,363.0	2,278.9	22.6	10.5	-148.63	476.2	-199.1	973.8	952.8	21.02	46.337	
2,700.0	2,277.6	2,445.5	2,357.0	23.9	11.0	-148.87	501.4	-208.3	1,030.1	1,008.1	22.01	46.795	
2,800.0	2,350.3	2,528.1	2,435.1	25.2	11.5	-149.09	526.7	-217.5	1,086.4	1,063.4	23.01	47.214	
2,900.0	2,423.1	2,610.8	2,513.2	26.4	12.0	-149.56	552.0	-226.8	1,142.5	1,118.6	23.97	47.666	
3,000.0	2,498.5	2,695.3	2,593.2	27.6	12.5	-150.57	577.9	-236.2	1,195.9	1,171.0	24.86	48.111	
3,100.0	2,577.2	2,782.2	2,675.3	28.7	13.0	-151.31	604.4	-245.9	1,245.4	1,219.6	25.80	48.267	
3,200.0	2,659.0	2,871.2	2,759.4	29.7	13.6	-151.84	631.7	-255.9	1,290.8	1,264.0	26.80	48.167	
3,300.0	2,743.8	2,962.0	2,845.3	30.7	14.1	-152.17	659.5	-266.0	1,332.1	1,304.2	27.84	47.846	

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

Cathedral Energy Services

Anticollision Report

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

Offset Design S14-T7S-R96W - Nolte 44A-14 - DD - Plan #3

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-152.48	-35.5	-18.5	40.0				
100.0	100.0	100.0	100.0	0.1	0.1	-152.48	-35.5	-18.5	40.0	39.7	0.26	156.365	
200.0	200.0	200.0	200.0	0.3	0.3	-152.48	-35.5	-18.5	40.0	39.4	0.60	66.111	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	176.17	-35.5	-18.5	42.6	41.6	0.95	44.692	
400.0	399.6	399.6	399.6	0.7	0.7	176.75	-35.5	-18.5	50.4	49.1	1.30	38.825	
500.0	498.8	499.3	499.3	1.0	0.8	177.74	-35.1	-18.7	63.2	61.6	1.64	38.531	SF
600.0	597.1	599.1	599.1	1.4	1.0	-179.60	-32.1	-20.4	79.8	77.8	1.98	40.209	
700.0	694.3	698.3	698.0	1.8	1.2	-176.14	-26.1	-23.7	100.0	97.7	2.34	42.788	
800.0	790.2	796.7	795.8	2.3	1.4	-172.59	-17.2	-28.7	124.3	121.5	2.72	45.612	
900.0	884.4	893.9	892.1	3.0	1.7	-169.24	-5.5	-35.3	152.7	149.5	3.17	48.173	
1,000.0	976.8	989.8	986.6	3.7	2.0	-166.19	8.7	-43.3	185.3	181.6	3.69	50.173	
1,100.0	1,067.1	1,084.2	1,079.0	4.5	2.3	-163.46	25.5	-52.7	222.2	217.9	4.31	51.539	
1,200.0	1,154.9	1,176.8	1,169.1	5.4	2.7	-161.01	44.5	-63.4	263.2	258.2	5.03	52.351	
1,300.0	1,240.2	1,267.6	1,256.5	6.4	3.1	-158.78	65.6	-75.2	308.3	302.4	5.84	52.752	
1,400.0	1,322.6	1,356.3	1,341.2	7.4	3.6	-156.74	88.5	-88.1	357.3	350.6	6.76	52.887	
1,500.0	1,401.9	1,441.7	1,422.1	8.6	4.1	-154.91	112.4	-101.6	410.3	402.5	7.73	53.061	
1,600.0	1,477.9	1,523.9	1,499.9	9.8	4.6	-153.48	135.6	-114.6	467.2	458.4	8.72	53.569	
1,700.0	1,551.0	1,603.7	1,575.4	11.1	5.0	-152.88	158.2	-127.3	527.3	517.6	9.70	54.376	
1,800.0	1,623.7	1,683.3	1,650.7	12.4	5.5	-152.80	180.6	-139.9	587.9	577.2	10.67	55.099	
1,900.0	1,696.3	1,762.8	1,726.0	13.6	5.9	-152.74	203.1	-152.5	648.5	636.8	11.65	55.678	
2,000.0	1,769.0	1,842.4	1,801.2	14.9	6.4	-152.69	225.6	-165.2	709.1	696.4	12.63	56.151	
2,100.0	1,841.6	1,922.0	1,876.5	16.2	6.9	-152.64	248.1	-177.8	769.7	756.0	13.61	56.543	
2,200.0	1,914.3	2,001.5	1,951.7	17.5	7.3	-152.60	270.5	-190.4	830.2	815.6	14.60	56.873	
2,300.0	1,987.0	2,081.1	2,027.0	18.7	7.8	-152.57	293.0	-203.0	890.8	875.2	15.59	57.154	
2,400.0	2,059.6	2,160.6	2,102.3	20.0	8.3	-152.54	315.5	-215.7	951.4	934.8	16.58	57.395	
2,500.0	2,132.3	2,240.2	2,177.5	21.3	8.7	-152.52	338.0	-228.3	1,012.0	994.4	17.57	57.606	
2,600.0	2,205.0	2,319.8	2,252.8	22.6	9.2	-152.50	360.4	-240.9	1,072.6	1,054.0	18.56	57.790	
2,700.0	2,277.6	2,396.2	2,325.3	23.9	9.6	-152.51	381.6	-252.8	1,133.2	1,113.7	19.51	58.080	
2,800.0	2,350.3	2,471.3	2,397.1	25.2	10.0	-152.64	400.7	-263.6	1,194.2	1,173.8	20.38	58.595	
2,900.0	2,423.1	2,545.8	2,468.9	26.4	10.4	-153.15	418.1	-273.4	1,255.3	1,234.1	21.14	59.366	
3,000.0	2,498.5	2,621.8	2,542.6	27.6	10.7	-154.33	434.2	-282.4	1,313.9	1,292.2	21.76	60.379	

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

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

Offset Design S14-T7S-R96W - Nolte 44B-14 - DD - Plan #3

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-152.48	-42.6	-22.2	48.0				
100.0	100.0	100.0	100.0	0.1	0.1	-152.48	-42.6	-22.2	48.0	47.7	0.26	187.562	
200.0	200.0	200.0	200.0	0.3	0.3	-152.48	-42.6	-22.2	48.0	47.4	0.60	79.326	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	176.13	-42.6	-22.2	50.6	49.6	0.95	53.082	
400.0	399.6	399.6	399.6	0.7	0.7	176.64	-42.6	-22.2	58.4	57.1	1.30	44.982	
500.0	498.8	498.8	498.8	1.0	0.8	177.23	-42.6	-22.2	71.5	69.8	1.64	43.561	SF
600.0	597.1	597.0	597.0	1.4	1.0	179.38	-41.3	-24.3	89.7	87.7	1.98	45.309	
700.0	694.3	693.6	693.3	1.8	1.2	-176.65	-37.7	-30.7	113.5	111.1	2.33	48.617	
800.0	790.2	788.6	787.6	2.3	1.4	-172.71	-32.4	-40.1	143.1	140.4	2.71	52.753	
900.0	884.4	882.1	880.5	3.0	1.6	-170.23	-27.0	-49.5	178.0	174.9	3.11	57.270	
1,000.0	976.8	973.7	971.5	3.7	1.9	-168.72	-21.7	-58.7	217.9	214.4	3.51	62.013	
1,100.0	1,067.1	1,063.1	1,060.3	4.5	2.1	-167.80	-16.6	-67.7	262.5	258.6	3.92	66.911	
1,200.0	1,154.9	1,150.2	1,146.8	5.4	2.3	-167.24	-11.6	-76.5	311.6	307.3	4.33	71.930	
1,300.0	1,240.2	1,234.7	1,230.8	6.4	2.5	-166.88	-6.7	-85.0	365.1	360.3	4.74	77.043	
1,400.0	1,322.6	1,316.3	1,311.8	7.4	2.7	-166.64	-2.1	-93.2	422.8	417.7	5.14	82.215	
1,500.0	1,401.9	1,394.9	1,389.9	8.6	2.9	-166.45	2.5	-101.1	484.6	479.1	5.54	87.404	
1,600.0	1,477.9	1,470.2	1,464.6	9.8	3.1	-166.28	6.8	-108.7	550.4	544.4	5.95	92.550	
1,700.0	1,551.0	1,542.5	1,536.4	11.1	3.3	-166.44	10.9	-116.0	619.4	613.0	6.36	97.339	
1,800.0	1,623.7	1,614.4	1,607.8	12.4	3.5	-166.84	15.0	-123.2	688.8	682.0	6.79	101.409	
1,900.0	1,696.3	1,686.3	1,679.3	13.6	3.7	-167.17	19.2	-130.5	758.2	751.0	7.22	105.001	
2,000.0	1,769.0	1,758.2	1,750.7	14.9	3.9	-167.44	23.3	-137.7	827.7	820.0	7.65	108.195	
2,100.0	1,841.6	1,830.1	1,822.1	16.2	4.1	-167.67	27.4	-145.0	897.1	889.0	8.08	111.054	
2,200.0	1,914.3	1,902.0	1,893.5	17.5	4.3	-167.87	31.6	-152.2	966.6	958.1	8.51	113.627	
2,300.0	1,987.0	1,973.9	1,965.0	18.7	4.4	-168.04	35.7	-159.4	1,036.0	1,027.1	8.93	115.955	
2,400.0	2,059.6	2,045.8	2,036.4	20.0	4.6	-168.18	39.8	-166.7	1,105.5	1,096.1	9.36	118.072	
2,500.0	2,132.3	2,117.7	2,107.8	21.3	4.8	-168.32	43.9	-173.9	1,175.0	1,165.2	9.79	120.006	
2,600.0	2,205.0	2,189.6	2,179.2	22.6	5.0	-168.43	48.1	-181.2	1,244.4	1,234.2	10.22	121.778	
2,700.0	2,277.6	2,261.5	2,250.6	23.9	5.2	-168.54	52.2	-188.4	1,313.9	1,303.3	10.65	123.409	

Cathedral Energy Services

Anticollision Report

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

Offset Design S14-T7S-R96W - Nolte 44C-14 - DD - Plan #3

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-152.47	-49.6	-25.9	56.0				
100.0	100.0	100.0	100.0	0.1	0.1	-152.47	-49.6	-25.9	56.0	55.7	0.26	218.664	
200.0	200.0	200.0	200.0	0.3	0.3	-152.47	-49.6	-25.9	56.0	55.4	0.61	92.520	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	176.11	-49.6	-25.9	58.6	57.6	0.95	61.461	
400.0	399.6	399.6	399.6	0.7	0.7	176.55	-49.6	-25.9	66.4	65.1	1.30	51.132	
500.0	498.8	496.2	496.1	1.0	0.8	178.44	-50.1	-28.3	81.0	79.4	1.64	49.456	SF
600.0	597.1	590.0	589.7	1.4	1.0	-178.32	-51.4	-35.1	104.2	102.2	1.98	52.727	
700.0	694.3	679.9	679.1	1.8	1.2	-176.58	-55.9	-43.3	136.4	134.1	2.30	59.356	
800.0	790.2	772.0	770.5	2.3	1.4	-175.83	-62.4	-52.0	175.4	172.7	2.62	66.937	
900.0	884.4	861.9	859.8	3.0	1.7	-175.41	-68.7	-60.5	219.0	216.1	2.93	74.758	
1,000.0	976.8	949.4	946.8	3.7	1.9	-175.17	-74.8	-68.8	267.3	264.1	3.23	82.785	
1,100.0	1,067.1	1,034.3	1,031.1	4.5	2.1	-175.03	-80.8	-76.9	320.1	316.6	3.52	91.020	
1,200.0	1,154.9	1,116.4	1,112.5	5.4	2.3	-174.95	-86.6	-84.7	377.3	373.5	3.79	99.465	
1,300.0	1,240.2	1,195.3	1,190.9	6.4	2.5	-174.89	-92.1	-92.1	438.7	434.6	4.06	108.116	
1,400.0	1,322.6	1,271.0	1,266.0	7.4	2.7	-174.83	-97.4	-99.3	504.1	499.7	4.31	116.962	
1,500.0	1,401.9	1,343.1	1,337.6	8.6	2.9	-174.77	-102.5	-106.1	573.3	568.8	4.55	125.986	
1,600.0	1,477.9	1,411.5	1,405.5	9.8	3.1	-174.70	-107.3	-112.6	646.2	641.4	4.78	135.150	
1,700.0	1,551.0	1,476.5	1,470.2	11.1	3.3	-174.77	-111.8	-118.8	722.1	717.1	5.05	143.104	
1,800.0	1,623.7	1,541.2	1,534.3	12.4	3.4	-174.95	-116.4	-124.9	798.4	793.1	5.35	149.373	
1,900.0	1,696.3	1,605.8	1,598.5	13.6	3.6	-175.10	-120.9	-131.0	874.7	869.1	5.64	155.006	
2,000.0	1,769.0	1,670.4	1,662.7	14.9	3.8	-175.23	-125.4	-137.2	951.0	945.1	5.94	160.093	
2,100.0	1,841.6	1,735.1	1,726.9	16.2	3.9	-175.34	-130.0	-143.3	1,027.3	1,021.1	6.24	164.714	
2,200.0	1,914.3	1,799.7	1,791.1	17.5	4.1	-175.43	-134.5	-149.4	1,103.6	1,097.1	6.53	168.930	
2,300.0	1,987.0	1,864.3	1,855.3	18.7	4.3	-175.52	-139.1	-155.5	1,179.9	1,173.1	6.83	172.791	
2,400.0	2,059.6	1,929.0	1,919.4	20.0	4.5	-175.59	-143.6	-161.7	1,256.2	1,249.1	7.12	176.343	
2,500.0	2,132.3	1,993.6	1,983.6	21.3	4.6	-175.65	-148.1	-167.8	1,332.5	1,325.1	7.42	179.621	

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

Cathedral Energy Services

Anticollision Report

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

Offset Design S14-T7S-R96W - Nolte SWD 1-14 - DD - Plan #3

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-152.47	-56.7	-29.6	64.0				
100.0	100.0	100.0	100.0	0.1	0.1	-152.47	-56.7	-29.6	64.0	63.7	0.26	249.720	
200.0	200.0	200.0	200.0	0.3	0.3	-152.47	-56.7	-29.6	64.0	63.4	0.61	105.702	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	176.09	-56.7	-29.6	66.6	65.6	0.95	69.834	
400.0	399.6	399.6	399.6	0.7	0.7	176.49	-56.7	-29.6	74.4	73.1	1.30	57.277	
500.0	498.8	498.8	498.8	1.0	0.8	176.99	-56.7	-29.6	87.4	85.8	1.64	53.294	SF
600.0	597.1	597.1	597.1	1.4	1.0	177.49	-56.7	-29.6	105.6	103.7	1.98	53.445	
700.0	694.3	694.3	694.3	1.8	1.2	177.91	-56.7	-29.6	129.0	126.7	2.31	55.942	
800.0	790.2	790.2	790.2	2.3	1.3	178.26	-56.7	-29.6	157.4	154.7	2.63	59.932	
900.0	884.4	884.4	884.4	3.0	1.5	178.54	-56.7	-29.6	190.7	187.8	2.94	64.963	
1,000.0	976.8	976.8	976.8	3.7	1.7	178.76	-56.7	-29.6	229.0	225.7	3.24	70.778	
1,100.0	1,067.1	1,067.1	1,067.1	4.5	1.8	178.93	-56.7	-29.6	272.0	268.5	3.52	77.224	
1,200.0	1,154.9	1,154.9	1,154.9	5.4	2.0	179.06	-56.7	-29.6	319.7	315.9	3.80	84.207	
1,300.0	1,240.2	1,240.2	1,240.2	6.4	2.1	179.17	-56.7	-29.6	372.0	367.9	4.06	91.668	
1,400.0	1,322.6	1,322.6	1,322.6	7.4	2.3	179.25	-56.7	-29.6	428.6	424.3	4.30	99.568	
1,500.0	1,401.9	1,401.9	1,401.9	8.6	2.4	179.32	-56.7	-29.6	489.5	484.9	4.54	107.884	
1,600.0	1,477.9	1,477.9	1,477.9	9.8	2.5	179.37	-56.7	-29.6	554.4	549.6	4.75	116.598	
1,700.0	1,551.0	1,551.0	1,551.0	11.1	2.7	179.43	-56.7	-29.6	622.7	617.7	5.01	124.287	
1,800.0	1,623.7	1,623.7	1,623.7	12.4	2.8	179.48	-56.7	-29.6	691.4	686.1	5.31	130.296	
1,900.0	1,696.3	1,696.3	1,696.3	13.6	2.9	179.53	-56.7	-29.6	760.1	754.5	5.60	135.689	
2,000.0	1,769.0	1,769.0	1,769.0	14.9	3.0	179.57	-56.7	-29.6	828.8	822.9	5.90	140.558	
2,100.0	1,841.6	1,841.6	1,841.6	16.2	3.2	179.60	-56.7	-29.6	897.5	891.3	6.19	144.976	
2,200.0	1,914.3	1,914.3	1,914.3	17.5	3.3	179.63	-56.7	-29.6	966.2	959.7	6.48	149.005	
2,300.0	1,987.0	1,987.0	1,987.0	18.7	3.4	179.65	-56.7	-29.6	1,034.9	1,028.1	6.78	152.694	
2,400.0	2,059.6	2,059.6	2,059.6	20.0	3.5	179.68	-56.7	-29.6	1,103.6	1,096.5	7.07	156.084	
2,500.0	2,132.3	2,132.3	2,132.3	21.3	3.7	179.70	-56.7	-29.6	1,172.3	1,164.9	7.36	159.212	
2,600.0	2,205.0	2,205.0	2,205.0	22.6	3.8	179.71	-56.7	-29.6	1,241.0	1,233.4	7.66	162.106	
2,700.0	2,277.6	2,277.6	2,277.6	23.9	3.9	179.73	-56.7	-29.6	1,309.7	1,301.8	7.95	164.793	

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

Reference Depths are relative to WELL @ 5117.8ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °
Coordinates are relative to: Nolte 13A-13
Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502
Grid Convergence at Surface is: -1.62°