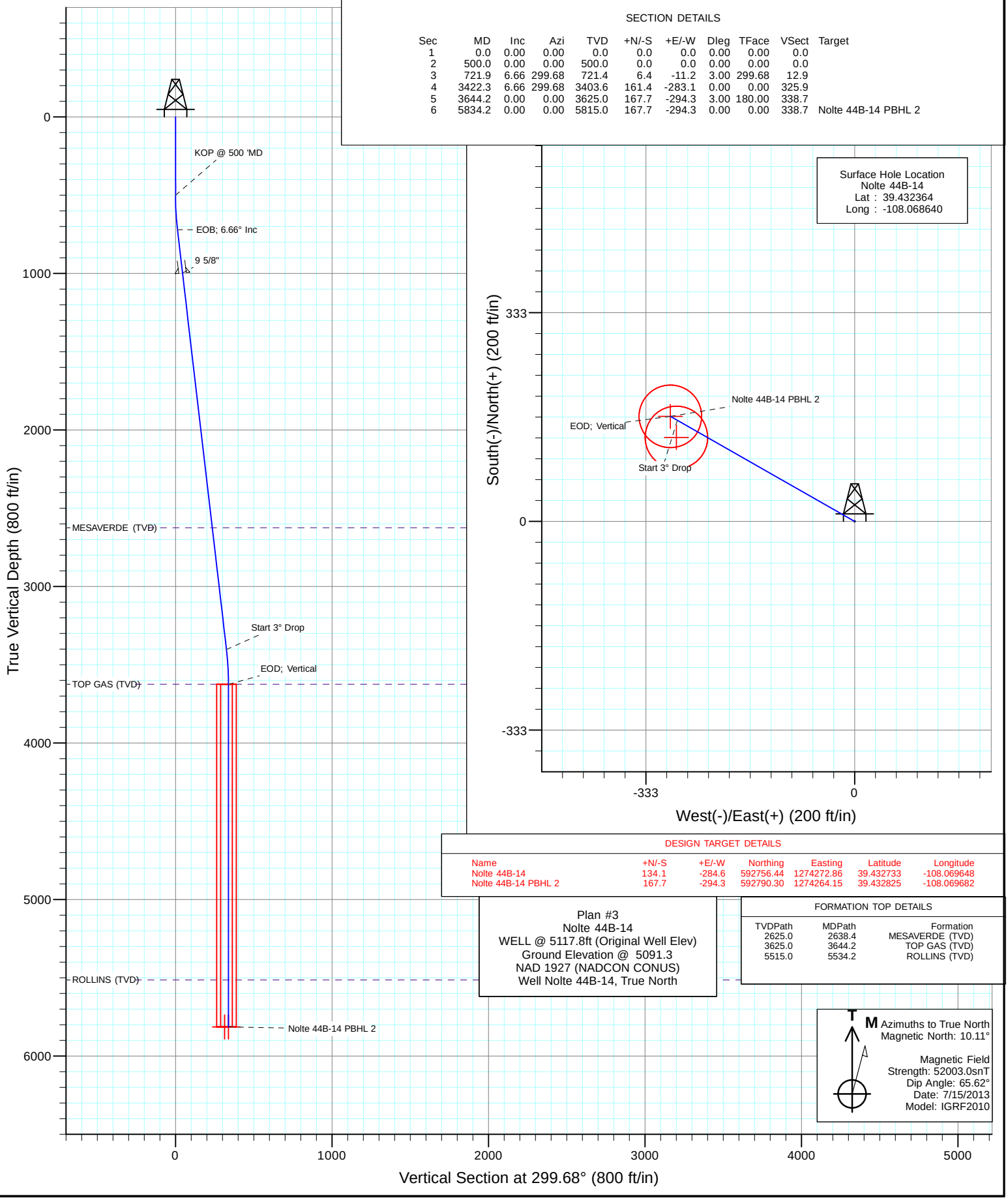
Project: Garfield County, CO
Site: S14-T7S-R96W
Well: Nolte 44B-14
Wellbore: DD
Design: Plan #3

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	500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.0	
3	721.9	6.66	299.68	721.4	6.4	-11.2	3.00	299.68	12.9	
4	3422.3	6.66	299.68	3403.6	161.4	-283.1	0.00	0.00	325.9	
5	3644.2	0.00	0.00	3625.0	167.7	-294.3	3.00	180.00	338.7	
6	5834.2	0.00	0.00	5815.0	167.7	-294.3	0.00	0.00	338.7	Nolte 44B-14 PBHL 2



DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Nolte 44B-14	134.1	-284.6	592756.44	1274272.86	39.432733	-108.069648
Nolte 44B-14 PBHL 2	167.7	-294.3	592790.30	1274264.15	39.432825	-108.069682

Plan #3
Nolte 44B-14
WELL @ 5117.8ft (Original Well Elev)
Ground Elevation @ 5091.3
NAD 1927 (NADCON CONUS)
Well Nolte 44B-14, True North

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2625.0	2638.4	MESAVERDE (TVD)
3625.0	3644.2	TOP GAS (TVD)
5515.0	5534.2	ROLLINS (TVD)

Azimuths to True North
Magnetic North: 10.11°

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

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**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 44B-14

Well Position	**+N/-S**	0.0 ft	**Northing:**	592,614.30 ft	**Latitude:**	39.432364
	+E/-W	0.0 ft	**Easting:**	1,274,553.59 ft	**Longitude:**	-108.068640
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	5,091.3 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	299.68

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	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
721.9	6.66	299.68	721.4	6.4	-11.2	3.00	3.00	0.00	299.68	
3,422.3	6.66	299.68	3,403.6	161.4	-283.1	0.00	0.00	0.00	0.00	
3,644.2	0.00	0.00	3,625.0	167.7	-294.3	3.00	-3.00	0.00	180.00	
5,834.2	0.00	0.00	5,815.0	167.7	-294.3	0.00	0.00	0.00	0.00	Nolte 44B-14 PBHL 2

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**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	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	KOP @ 500 'MD
600.0	3.00	299.68	600.0	1.3	-2.3	2.6	3.00	3.00	
700.0	6.00	299.68	699.6	5.2	-9.1	10.5	3.00	3.00	
721.9	6.66	299.68	721.4	6.4	-11.2	12.9	3.00	3.00	EOB; 6.66° Inc
800.0	6.66	299.68	799.0	10.9	-19.1	21.9	0.00	0.00	
900.0	6.66	299.68	898.3	16.6	-29.1	33.5	0.00	0.00	
1,000.0	6.66	299.68	997.6	22.3	-39.2	45.1	0.00	0.00	9 5/8"
1,100.0	6.66	299.68	1,097.0	28.1	-49.3	56.7	0.00	0.00	
1,200.0	6.66	299.68	1,196.3	33.8	-59.3	68.3	0.00	0.00	
1,300.0	6.66	299.68	1,295.6	39.6	-69.4	79.9	0.00	0.00	
1,400.0	6.66	299.68	1,394.9	45.3	-79.5	91.5	0.00	0.00	
1,500.0	6.66	299.68	1,494.3	51.0	-89.5	103.1	0.00	0.00	
1,600.0	6.66	299.68	1,593.6	56.8	-99.6	114.7	0.00	0.00	
1,700.0	6.66	299.68	1,692.9	62.5	-109.7	126.2	0.00	0.00	
1,800.0	6.66	299.68	1,792.2	68.3	-119.7	137.8	0.00	0.00	
1,900.0	6.66	299.68	1,891.6	74.0	-129.8	149.4	0.00	0.00	
2,000.0	6.66	299.68	1,990.9	79.7	-139.9	161.0	0.00	0.00	
2,100.0	6.66	299.68	2,090.2	85.5	-150.0	172.6	0.00	0.00	
2,200.0	6.66	299.68	2,189.5	91.2	-160.0	184.2	0.00	0.00	
2,300.0	6.66	299.68	2,288.9	97.0	-170.1	195.8	0.00	0.00	
2,400.0	6.66	299.68	2,388.2	102.7	-180.2	207.4	0.00	0.00	
2,500.0	6.66	299.68	2,487.5	108.4	-190.2	219.0	0.00	0.00	
2,600.0	6.66	299.68	2,586.8	114.2	-200.3	230.6	0.00	0.00	
2,638.4	6.66	299.68	2,625.0	116.4	-204.2	235.0	0.00	0.00	MESAVERDE (TVD)
2,700.0	6.66	299.68	2,686.2	119.9	-210.4	242.2	0.00	0.00	
2,800.0	6.66	299.68	2,785.5	125.7	-220.4	253.7	0.00	0.00	
2,900.0	6.66	299.68	2,884.8	131.4	-230.5	265.3	0.00	0.00	
3,000.0	6.66	299.68	2,984.1	137.1	-240.6	276.9	0.00	0.00	
3,100.0	6.66	299.68	3,083.5	142.9	-250.7	288.5	0.00	0.00	
3,200.0	6.66	299.68	3,182.8	148.6	-260.7	300.1	0.00	0.00	
3,300.0	6.66	299.68	3,282.1	154.4	-270.8	311.7	0.00	0.00	
3,400.0	6.66	299.68	3,381.5	160.1	-280.9	323.3	0.00	0.00	
3,422.3	6.66	299.68	3,403.6	161.4	-283.1	325.9	0.00	0.00	Start 3° Drop
3,500.0	4.33	299.68	3,480.9	165.1	-289.6	333.3	3.00	-3.00	
3,600.0	1.33	299.68	3,580.8	167.5	-293.9	338.2	3.00	-3.00	
3,644.2	0.00	0.00	3,625.0	167.7	-294.3	338.7	3.00	-3.00	EOD; Vertical - TOP GAS (TVD)
3,700.0	0.00	0.00	3,680.8	167.7	-294.3	338.7	0.00	0.00	
3,800.0	0.00	0.00	3,780.8	167.7	-294.3	338.7	0.00	0.00	
3,900.0	0.00	0.00	3,880.8	167.7	-294.3	338.7	0.00	0.00	
4,000.0	0.00	0.00	3,980.8	167.7	-294.3	338.7	0.00	0.00	
4,100.0	0.00	0.00	4,080.8	167.7	-294.3	338.7	0.00	0.00	
4,200.0	0.00	0.00	4,180.8	167.7	-294.3	338.7	0.00	0.00	
4,300.0	0.00	0.00	4,280.8	167.7	-294.3	338.7	0.00	0.00	
4,400.0	0.00	0.00	4,380.8	167.7	-294.3	338.7	0.00	0.00	
4,500.0	0.00	0.00	4,480.8	167.7	-294.3	338.7	0.00	0.00	
4,600.0	0.00	0.00	4,580.8	167.7	-294.3	338.7	0.00	0.00	
4,700.0	0.00	0.00	4,680.8	167.7	-294.3	338.7	0.00	0.00	

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**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	4,780.8	167.7	-294.3	338.7	0.00	0.00	
4,900.0	0.00	0.00	4,880.8	167.7	-294.3	338.7	0.00	0.00	
5,000.0	0.00	0.00	4,980.8	167.7	-294.3	338.7	0.00	0.00	
5,100.0	0.00	0.00	5,080.8	167.7	-294.3	338.7	0.00	0.00	
5,200.0	0.00	0.00	5,180.8	167.7	-294.3	338.7	0.00	0.00	
5,300.0	0.00	0.00	5,280.8	167.7	-294.3	338.7	0.00	0.00	
5,400.0	0.00	0.00	5,380.8	167.7	-294.3	338.7	0.00	0.00	
5,500.0	0.00	0.00	5,480.8	167.7	-294.3	338.7	0.00	0.00	
5,534.2	0.00	0.00	5,515.0	167.7	-294.3	338.7	0.00	0.00	ROLLINS (TVD)
5,600.0	0.00	0.00	5,580.8	167.7	-294.3	338.7	0.00	0.00	
5,700.0	0.00	0.00	5,680.8	167.7	-294.3	338.7	0.00	0.00	
5,800.0	0.00	0.00	5,780.8	167.7	-294.3	338.7	0.00	0.00	
5,834.2	0.00	0.00	5,815.0	167.7	-294.3	338.7	0.00	0.00	PBHL @ 5,834' 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 44B-14 PBHL 2	0.00	0.00	5,815.0	167.7	-294.3	592,790.30	1,274,264.15	39.432825	-108.069682
- plan hits target center									
- Circle (radius 50.0)									
Nolte 44B-14	0.00	0.00	5,815.0	134.1	-284.6	592,756.44	1,274,272.86	39.432733	-108.069648
- plan misses target center by 35.0ft at 5834.2ft MD (5815.0 TVD, 167.7 N, -294.3 E)									
- Circle (radius 50.0)									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,000.0	997.6	9 5/8"	9.625	12.250

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,638.4	2,625.0	MESAVERDE (TVD)		0.00	
3,644.2	3,625.0	TOP GAS (TVD)		0.00	
5,534.2	5,515.0	ROLLINS (TVD)		0.00	

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**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
500.0	500.0	0.0	0.0	KOP @ 500 'MD
721.9	721.4	6.4	-11.2	EOB; 6.66° Inc
3,422.3	3,403.6	161.4	-283.1	Start 3° Drop
3,644.2	3,625.0	167.7	-294.3	EOD; Vertical
5,834.2	5,815.0	167.7	-294.3	PBHL @ 5,834' MD

Caerus Oil & Gas (NAD 27)

Garfield County, CO
S14-T7S-R96W
Nolte 44B-14
DD
Plan #3

Anticollision Report

09 September, 2013

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**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	5,834.2	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	300.0	300.0	10.0	9.1	10.489	CC, ES
Nolte 11A-24 - DD - Plan #3	400.0	399.4	12.5	11.2	9.598	SF
Nolte 11B-24 - DD - Plan #3	200.0	200.0	12.8	12.2	21.174	CC, ES
Nolte 11B-24 - DD - Plan #3	300.0	299.3	15.3	14.4	15.960	SF
Nolte 11C-24 - DD - Plan #3	244.3	234.6	18.9	18.1	24.826	CC, ES
Nolte 11C-24 - DD - Plan #3	400.0	388.9	23.4	22.1	17.801	SF
Nolte 13A-13 - DD - Plan #3	200.0	200.0	48.0	47.4	79.326	CC, ES
Nolte 13A-13 - DD - Plan #3	500.0	490.4	70.8	69.0	40.497	SF
Nolte 13B-13 - DD - Plan #3	233.3	233.3	40.0	39.3	55.449	CC, ES
Nolte 13B-13 - DD - Plan #3	500.0	493.6	55.8	54.1	32.917	SF
Nolte 13C-13 - DD - Plan #3	200.0	199.8	49.0	48.4	81.141	CC, ES
Nolte 13C-13 - DD - Plan #3	500.0	490.1	71.7	70.0	41.154	SF
Nolte 13D-13 - DD - Plan #3	300.0	300.0	41.2	40.3	43.233	CC, ES
Nolte 13D-13 - DD - Plan #3	500.0	495.3	51.1	49.5	30.679	SF
Nolte 14A-13 - DD - Plan #3	400.0	400.0	33.5	32.2	25.729	CC, ES
Nolte 14A-13 - DD - Plan #3	500.0	498.4	35.8	34.2	21.695	SF
Nolte 14B-13 - DD - Plan #3	500.0	500.0	26.0	24.3	15.733	CC, ES
Nolte 14B-13 - DD - Plan #3	600.0	599.4	27.5	25.5	13.750	SF
Nolte 14C-13 - DD - Plan #3	500.0	500.0	19.2	17.5	11.604	CC, ES
Nolte 14C-13 - DD - Plan #3	600.0	599.1	22.5	20.5	11.222	SF
Nolte 14D-13 - DD - Plan #3	400.0	400.0	12.8	11.5	9.832	CC, ES
Nolte 14D-13 - DD - Plan #3	500.0	499.4	14.8	13.1	8.955	SF
Nolte 43A-14 - DD - Plan #3	300.0	300.0	32.0	31.0	33.525	CC, ES
Nolte 43A-14 - DD - Plan #3	500.0	496.7	40.6	38.9	24.008	SF
Nolte 43B-14 - DD - Plan #3	333.8	333.8	24.0	22.9	22.375	CC, ES
Nolte 43B-14 - DD - Plan #3	500.0	498.3	28.7	27.0	17.220	SF
Nolte 43C-14 - DD - Plan #3	400.0	400.0	16.0	14.7	12.278	CC, ES
Nolte 43C-14 - DD - Plan #3	500.0	499.3	17.9	16.2	10.784	SF
Nolte 44A-14 - DD - Plan #3	435.3	435.3	8.0	6.6	5.609	CC, ES
Nolte 44A-14 - DD - Plan #3	500.0	499.9	8.2	6.6	4.992	SF
Nolte 44C-14 - DD - Plan #3	400.0	400.0	8.0	6.7	6.135	CC, ES
Nolte 44C-14 - DD - Plan #3	500.0	499.7	9.8	8.2	5.935	SF
Nolte SWD 1-14 - DD - Plan #3	500.0	500.0	16.0	14.3	9.675	CC
Nolte SWD 1-14 - DD - Plan #3	600.0	600.0	16.3	14.3	8.126	ES, SF

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**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	117.57	-4.6	8.9	10.0				
100.0	100.0	100.0	100.0	0.1	0.1	117.57	-4.6	8.9	10.0	9.7	0.26	39.111	
200.0	200.0	200.0	200.0	0.3	0.3	117.57	-4.6	8.9	10.0	9.4	0.60	16.541	
300.0	300.0	300.0	300.0	0.5	0.5	117.57	-4.6	8.9	10.0	9.1	0.95	10.489	CC, ES
400.0	400.0	399.4	399.4	0.7	0.7	120.81	-6.4	10.7	12.5	11.2	1.31	9.598	SF
500.0	500.0	498.3	497.9	0.8	0.9	125.62	-11.7	16.3	20.2	18.5	1.68	12.047	
600.0	600.0	595.7	594.5	1.0	1.1	-171.64	-20.3	25.5	35.6	33.6	1.99	17.862	
700.0	699.6	690.0	687.3	1.2	1.5	-171.02	-31.9	37.7	61.0	58.6	2.33	26.218	
800.0	799.0	780.6	775.6	1.4	1.8	-170.90	-46.0	52.5	94.4	91.7	2.66	35.529	
900.0	898.3	868.0	859.7	1.7	2.3	-170.71	-62.3	69.7	132.2	129.3	2.98	44.316	
1,000.0	997.6	952.1	939.5	1.9	2.8	-170.49	-80.4	88.9	174.2	170.9	3.31	52.705	
1,100.0	1,097.0	1,032.7	1,014.8	2.2	3.3	-170.28	-100.1	109.7	220.1	216.4	3.62	60.791	
1,200.0	1,196.3	1,109.7	1,085.7	2.4	3.9	-170.09	-120.9	131.6	269.5	265.6	3.93	68.640	
1,300.0	1,295.6	1,183.3	1,152.1	2.7	4.5	-169.91	-142.6	154.5	322.4	318.1	4.23	76.229	
1,400.0	1,394.9	1,253.3	1,214.2	2.9	5.1	-169.75	-164.9	178.0	378.3	373.8	4.53	83.610	
1,500.0	1,494.3	1,319.9	1,272.1	3.2	5.7	-169.61	-187.5	201.9	437.3	432.4	4.81	90.848	
1,600.0	1,593.6	1,383.2	1,326.0	3.5	6.4	-169.49	-210.3	226.0	498.9	493.8	5.10	97.903	
1,700.0	1,692.9	1,451.4	1,383.1	3.7	7.1	-169.36	-236.0	253.1	562.8	557.4	5.39	104.494	
1,800.0	1,792.2	1,528.1	1,447.0	4.0	7.8	-169.24	-265.0	283.8	627.0	621.3	5.69	110.217	
1,900.0	1,891.6	1,604.7	1,511.0	4.2	8.6	-169.15	-294.1	314.5	691.2	685.2	5.99	115.383	
2,000.0	1,990.9	1,681.4	1,574.9	4.5	9.4	-169.07	-323.2	345.2	755.4	749.1	6.29	120.032	
2,100.0	2,090.2	1,758.0	1,638.9	4.8	10.2	-169.00	-352.2	375.9	819.6	813.0	6.60	124.264	
2,200.0	2,189.5	1,834.7	1,702.8	5.0	11.0	-168.94	-381.3	406.6	883.8	877.0	6.90	128.135	
2,300.0	2,288.9	1,911.3	1,766.8	5.3	11.8	-168.89	-410.4	437.2	948.1	940.9	7.20	131.688	
2,400.0	2,388.2	1,988.0	1,830.7	5.6	12.6	-168.85	-439.4	467.9	1,012.3	1,004.8	7.50	134.952	
2,500.0	2,487.5	2,064.6	1,894.6	5.8	13.4	-168.81	-468.5	498.6	1,076.5	1,068.7	7.80	137.962	
2,600.0	2,586.8	2,141.3	1,958.6	6.1	14.2	-168.78	-497.6	529.3	1,140.7	1,132.6	8.10	140.755	
2,700.0	2,686.2	2,217.9	2,022.5	6.4	15.0	-168.75	-526.6	560.0	1,205.0	1,196.6	8.41	143.351	
2,800.0	2,785.5	2,294.6	2,086.5	6.6	15.8	-168.72	-555.7	590.7	1,269.2	1,260.5	8.71	145.768	
2,900.0	2,884.8	2,371.2	2,150.4	6.9	16.6	-168.70	-584.8	621.4	1,333.4	1,324.4	9.01	148.021	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**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	156.21	-11.7	5.2	12.8				
100.0	100.0	100.0	100.0	0.1	0.1	156.21	-11.7	5.2	12.8	12.6	0.26	50.045	
200.0	200.0	200.0	200.0	0.3	0.3	156.21	-11.7	5.2	12.8	12.2	0.61	21.174	CC, ES
300.0	300.0	299.3	299.2	0.5	0.5	153.65	-13.7	6.8	15.3	14.4	0.96	15.960	SF
400.0	400.0	398.0	397.6	0.7	0.7	149.38	-19.7	11.6	23.0	21.6	1.35	17.059	
500.0	500.0	495.7	494.5	0.8	1.0	146.35	-29.4	19.6	35.8	34.0	1.78	20.101	
600.0	600.0	591.3	588.6	1.0	1.3	-156.00	-42.7	30.4	56.0	54.0	1.98	28.195	
700.0	699.6	683.3	678.2	1.2	1.7	-158.43	-58.9	43.6	85.7	83.4	2.31	37.032	
800.0	799.0	771.2	762.7	1.4	2.2	-160.23	-77.5	58.7	123.1	120.5	2.64	46.615	
900.0	898.3	855.7	842.9	1.7	2.7	-161.17	-98.1	75.6	164.9	161.9	2.97	55.578	
1,000.0	997.6	936.7	918.5	1.9	3.2	-161.67	-120.5	93.8	210.6	207.3	3.29	64.069	
1,100.0	1,097.0	1,014.1	989.7	2.2	3.8	-161.93	-144.2	113.1	259.9	256.3	3.60	72.201	
1,200.0	1,196.3	1,088.1	1,056.4	2.4	4.4	-162.07	-168.9	133.2	312.7	308.8	3.91	80.005	
1,300.0	1,295.6	1,158.5	1,118.7	2.7	5.0	-162.13	-194.3	153.9	368.6	364.4	4.21	87.517	
1,400.0	1,394.9	1,225.4	1,176.8	2.9	5.7	-162.15	-220.1	174.9	427.4	422.9	4.51	94.832	
1,500.0	1,494.3	1,289.0	1,230.9	3.2	6.3	-162.14	-246.0	196.0	489.0	484.2	4.80	101.946	
1,600.0	1,593.6	1,349.4	1,281.2	3.5	7.0	-162.11	-271.9	217.1	553.0	548.0	5.08	108.829	
1,700.0	1,692.9	1,400.0	1,322.6	3.7	7.5	-162.08	-294.5	235.5	619.5	614.2	5.35	115.838	
1,800.0	1,792.2	1,460.9	1,371.3	4.0	8.2	-162.03	-322.9	258.6	688.0	682.4	5.63	122.118	
1,900.0	1,891.6	1,512.3	1,411.5	4.2	8.8	-161.99	-347.8	278.9	758.6	752.7	5.90	128.544	
2,000.0	1,990.9	1,568.9	1,454.7	4.5	9.5	-161.94	-376.0	301.8	830.8	824.6	6.18	134.494	
2,100.0	2,090.2	1,637.6	1,507.2	4.8	10.3	-161.88	-410.4	329.9	903.4	896.9	6.47	139.565	
2,200.0	2,189.5	1,706.4	1,559.6	5.0	11.2	-161.83	-444.9	358.0	976.0	969.2	6.77	144.227	
2,300.0	2,288.9	1,775.2	1,612.1	5.3	12.0	-161.79	-479.4	386.1	1,048.6	1,041.5	7.06	148.480	
2,400.0	2,388.2	1,843.9	1,664.5	5.6	12.9	-161.76	-513.9	414.2	1,121.2	1,113.9	7.36	152.402	
2,500.0	2,487.5	1,912.7	1,717.0	5.8	13.7	-161.73	-548.4	442.3	1,193.8	1,186.2	7.65	156.035	
2,600.0	2,586.8	1,981.5	1,769.4	6.1	14.5	-161.70	-582.9	470.4	1,266.4	1,258.5	7.95	159.393	
2,700.0	2,686.2	2,050.2	1,821.9	6.4	15.4	-161.68	-617.3	498.4	1,339.0	1,330.8	8.24	162.512	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**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	175.53	-18.8	1.5	21.2				
100.0	100.0	90.3	90.3	0.1	0.1	175.53	-18.8	1.5	18.9	18.6	0.26	72.811	
200.0	200.0	190.3	190.3	0.3	0.3	175.53	-18.8	1.5	18.9	18.3	0.61	31.165	
244.3	244.3	234.6	234.6	0.4	0.4	175.53	-18.8	1.5	18.9	18.1	0.76	24.826	CC, ES
300.0	300.0	290.0	289.9	0.5	0.5	174.92	-19.2	1.7	19.2	18.3	0.95	20.156	
400.0	400.0	388.9	388.7	0.7	0.7	169.47	-23.0	4.3	23.4	22.1	1.32	17.801	SF
500.0	500.0	487.0	486.4	0.8	0.9	162.74	-31.0	9.6	32.7	31.0	1.72	19.031	
600.0	600.0	583.5	581.8	1.0	1.2	-143.54	-42.9	17.6	49.2	47.2	2.00	24.666	
700.0	699.6	676.8	673.3	1.2	1.5	-149.06	-58.3	27.9	75.3	73.0	2.33	32.328	
800.0	799.0	766.3	760.1	1.4	2.0	-152.76	-76.5	40.0	109.4	106.7	2.66	41.106	
900.0	898.3	852.6	842.7	1.7	2.4	-154.72	-97.2	53.9	148.1	145.1	2.99	49.497	
1,000.0	997.6	935.6	920.9	1.9	2.9	-155.79	-120.0	69.1	191.0	187.7	3.32	57.533	
1,100.0	1,097.0	1,015.1	994.8	2.2	3.5	-156.41	-144.5	85.5	237.7	234.1	3.64	65.276	
1,200.0	1,196.3	1,091.1	1,064.2	2.4	4.1	-156.77	-170.3	102.8	288.0	284.0	3.96	72.747	
1,300.0	1,295.6	1,163.6	1,129.2	2.7	4.7	-156.97	-197.0	120.6	341.5	337.3	4.27	79.954	
1,400.0	1,394.9	1,232.7	1,189.9	2.9	5.3	-157.09	-224.4	138.9	398.2	393.6	4.58	86.985	
1,500.0	1,494.3	1,300.0	1,247.9	3.2	5.9	-157.15	-252.8	157.9	457.7	452.9	4.88	93.809	
1,600.0	1,593.6	1,360.8	1,299.2	3.5	6.5	-157.17	-279.8	176.0	519.9	514.7	5.17	100.493	
1,700.0	1,692.9	1,420.0	1,348.2	3.7	7.2	-157.16	-307.5	194.5	584.6	579.1	5.46	107.011	
1,800.0	1,792.2	1,476.2	1,393.7	4.0	7.8	-157.14	-334.9	212.9	651.5	645.7	5.75	113.357	
1,900.0	1,891.6	1,529.5	1,435.9	4.2	8.4	-157.11	-362.0	230.9	720.5	714.4	6.03	119.553	
2,000.0	1,990.9	1,580.1	1,475.1	4.5	9.0	-157.08	-388.5	248.7	791.4	785.1	6.30	125.614	
2,100.0	2,090.2	1,628.0	1,511.5	4.8	9.6	-157.04	-414.4	266.0	864.1	857.6	6.57	131.523	
2,200.0	2,189.5	1,673.5	1,545.3	5.0	10.2	-157.00	-439.7	282.9	938.5	931.7	6.84	137.299	
2,300.0	2,288.9	1,700.0	1,564.7	5.3	10.5	-156.97	-454.8	293.0	1,014.6	1,007.5	7.07	143.537	
2,400.0	2,388.2	1,757.5	1,605.8	5.6	11.3	-156.91	-488.2	315.4	1,091.7	1,084.4	7.35	148.445	
2,500.0	2,487.5	1,800.0	1,635.4	5.8	11.9	-156.87	-513.6	332.3	1,170.3	1,162.7	7.61	153.738	
2,600.0	2,586.8	1,833.3	1,658.1	6.1	12.3	-156.83	-533.8	345.8	1,250.2	1,242.3	7.86	159.085	
2,700.0	2,686.2	1,868.4	1,681.5	6.4	12.8	-156.79	-555.5	360.3	1,331.1	1,323.0	8.11	164.218	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	**Offset TVD Reference:**	Offset Datum

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

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference 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	27.52	42.6	22.2	48.0				
100.0	100.0	100.0	100.0	0.1	0.1	27.52	42.6	22.2	48.0	47.7	0.26	187.562	
200.0	200.0	200.0	200.0	0.3	0.3	27.52	42.6	22.2	48.0	47.4	0.60	79.326	CC, ES
300.0	300.0	297.5	297.4	0.5	0.5	27.72	44.7	23.5	50.5	49.6	0.96	52.886	
400.0	400.0	394.4	394.1	0.7	0.7	28.22	51.0	27.4	58.2	56.8	1.33	43.696	
500.0	500.0	490.4	489.3	0.8	1.0	28.80	61.3	33.7	70.8	69.0	1.75	40.497	SF
600.0	600.0	584.9	582.3	1.0	1.3	90.77	75.5	42.4	88.4	86.4	1.98	44.645	
700.0	699.6	677.2	672.2	1.2	1.7	94.11	93.1	53.2	111.2	108.8	2.34	47.448	
800.0	799.0	766.9	758.6	1.4	2.2	97.83	113.7	65.9	139.4	136.6	2.73	51.001	
900.0	898.3	854.0	841.3	1.7	2.7	100.20	137.0	80.3	172.4	169.2	3.14	54.879	
1,000.0	997.6	938.4	920.1	1.9	3.2	101.58	162.6	96.0	209.7	206.1	3.56	58.910	
1,100.0	1,097.0	1,019.8	994.9	2.2	3.8	102.36	190.1	113.0	251.0	247.0	3.98	63.021	
1,200.0	1,196.3	1,100.0	1,067.1	2.4	4.5	102.76	219.9	131.2	296.0	291.6	4.41	67.118	
1,300.0	1,295.6	1,173.3	1,131.7	2.7	5.2	102.91	249.3	149.3	344.5	339.7	4.83	71.298	
1,400.0	1,394.9	1,245.3	1,193.9	2.9	5.8	102.93	280.2	168.3	396.2	391.0	5.25	75.443	
1,500.0	1,494.3	1,314.1	1,252.0	3.2	6.5	102.85	311.6	187.6	451.0	445.3	5.67	79.604	
1,600.0	1,593.6	1,379.7	1,306.1	3.5	7.2	102.72	343.2	207.1	508.6	502.6	6.08	83.725	
1,700.0	1,692.9	1,442.3	1,356.5	3.7	7.9	102.56	374.7	226.5	568.9	562.4	6.48	87.817	
1,800.0	1,792.2	1,500.0	1,401.9	4.0	8.6	102.39	405.1	245.2	631.6	624.8	6.87	91.971	
1,900.0	1,891.6	1,558.5	1,446.8	4.2	9.3	102.20	437.1	264.8	696.7	689.4	7.26	95.916	
2,000.0	1,990.9	1,612.4	1,487.2	4.5	10.0	102.01	467.5	283.6	763.8	756.2	7.64	99.926	
2,100.0	2,090.2	1,671.0	1,529.9	4.8	10.7	101.80	501.6	304.5	832.8	824.8	8.03	103.657	
2,200.0	2,189.5	1,742.9	1,582.2	5.0	11.6	101.58	543.7	330.4	902.3	893.8	8.45	106.722	
2,300.0	2,288.9	1,814.8	1,634.4	5.3	12.5	101.38	585.8	356.3	971.8	962.9	8.87	109.511	
2,400.0	2,388.2	1,886.7	1,686.7	5.6	13.5	101.21	627.8	382.2	1,041.2	1,031.9	9.29	112.042	
2,500.0	2,487.5	1,958.6	1,738.9	5.8	14.4	101.07	669.9	408.1	1,110.7	1,101.0	9.71	114.353	
2,600.0	2,586.8	2,030.5	1,791.2	6.1	15.3	100.94	712.0	434.0	1,180.2	1,170.0	10.13	116.475	
2,700.0	2,686.2	2,102.5	1,843.4	6.4	16.2	100.82	754.1	459.8	1,249.6	1,239.1	10.55	118.431	
2,800.0	2,785.5	2,174.4	1,895.7	6.6	17.1	100.72	796.1	485.7	1,319.1	1,308.1	10.97	120.232	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**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	27.52	35.5	18.5	40.0				
100.0	100.0	100.0	100.0	0.1	0.1	27.52	35.5	18.5	40.0	39.7	0.26	156.402	
200.0	200.0	200.0	200.0	0.3	0.3	27.52	35.5	18.5	40.0	39.4	0.60	66.122	
233.3	233.3	233.3	233.3	0.4	0.4	27.52	35.5	18.5	40.0	39.3	0.72	55.449	CC, ES
300.0	300.0	299.0	299.0	0.5	0.5	27.67	36.0	18.9	40.6	39.7	0.95	42.650	
400.0	400.0	396.7	396.5	0.7	0.7	28.78	39.9	21.9	45.7	44.4	1.31	34.899	
500.0	500.0	493.6	493.0	0.8	0.9	30.38	47.7	28.0	55.8	54.1	1.69	32.917	SF
600.0	600.0	589.2	587.4	1.0	1.2	93.84	59.2	36.9	71.0	69.0	1.99	35.719	
700.0	699.6	682.7	679.0	1.2	1.6	98.75	74.0	48.4	92.0	89.7	2.35	39.146	
800.0	799.0	773.5	767.0	1.4	2.0	103.51	91.8	62.2	119.0	116.3	2.74	43.506	
900.0	898.3	861.9	851.4	1.7	2.5	106.36	112.3	78.0	151.1	147.9	3.14	48.128	
1,000.0	997.6	947.4	932.0	1.9	3.0	107.95	135.0	95.6	187.5	184.0	3.55	52.798	
1,100.0	1,097.0	1,030.0	1,008.5	2.2	3.6	108.80	159.6	114.7	228.1	224.1	3.97	57.451	
1,200.0	1,196.3	1,109.5	1,080.8	2.4	4.2	109.22	185.7	135.0	272.4	268.0	4.39	62.071	
1,300.0	1,295.6	1,185.8	1,148.8	2.7	4.9	109.37	213.0	156.1	320.2	315.4	4.81	66.610	
1,400.0	1,394.9	1,258.8	1,212.6	2.9	5.5	109.37	241.2	178.0	371.3	366.1	5.22	71.084	
1,500.0	1,494.3	1,328.6	1,272.2	3.2	6.2	109.27	269.9	200.2	425.6	420.0	5.63	75.532	
1,600.0	1,593.6	1,400.0	1,331.8	3.5	7.0	109.11	300.9	224.3	482.8	476.7	6.05	79.812	
1,700.0	1,692.9	1,458.7	1,379.6	3.7	7.6	108.94	327.8	245.1	542.6	536.1	6.44	84.289	
1,800.0	1,792.2	1,535.4	1,441.3	4.0	8.4	108.71	363.8	273.0	604.0	597.1	6.87	87.982	
1,900.0	1,891.6	1,614.3	1,504.7	4.2	9.3	108.53	400.9	301.8	665.5	658.2	7.30	91.191	
2,000.0	1,990.9	1,693.1	1,568.1	4.5	10.2	108.37	438.0	330.5	726.9	719.2	7.73	94.029	
2,100.0	2,090.2	1,772.0	1,631.5	4.8	11.1	108.24	475.1	359.3	788.4	780.2	8.17	96.552	
2,200.0	2,189.5	1,850.9	1,694.9	5.0	11.9	108.12	512.2	388.0	849.8	841.2	8.60	98.818	
2,300.0	2,288.9	1,929.7	1,758.3	5.3	12.8	108.03	549.2	416.8	911.3	902.3	9.04	100.863	
2,400.0	2,388.2	2,008.6	1,821.7	5.6	13.7	107.94	586.3	445.5	972.8	963.3	9.47	102.717	
2,500.0	2,487.5	2,087.5	1,885.1	5.8	14.6	107.87	623.4	474.2	1,034.3	1,024.3	9.91	104.402	
2,600.0	2,586.8	2,166.4	1,948.5	6.1	15.4	107.80	660.5	503.0	1,095.7	1,085.4	10.34	105.941	
2,700.0	2,686.2	2,245.2	2,011.9	6.4	16.3	107.74	697.5	531.7	1,157.2	1,146.4	10.78	107.355	
2,800.0	2,785.5	2,324.1	2,075.3	6.6	17.2	107.69	734.6	560.5	1,218.7	1,207.4	11.22	108.657	
2,900.0	2,884.8	2,403.0	2,138.7	6.9	18.1	107.64	771.7	589.2	1,280.1	1,268.5	11.65	109.860	
3,000.0	2,984.1	2,481.8	2,202.1	7.2	19.0	107.59	808.8	618.0	1,341.6	1,329.5	12.09	110.972	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**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	39.30	37.9	31.0	49.0				
100.0	100.0	99.8	99.8	0.1	0.1	39.30	37.9	31.0	49.0	48.8	0.26	192.161	
200.0	200.0	199.8	199.8	0.3	0.3	39.30	37.9	31.0	49.0	48.4	0.60	81.141	CC, ES
300.0	300.0	297.2	297.2	0.5	0.5	39.62	39.6	32.8	51.5	50.6	0.95	54.013	
400.0	400.0	394.2	393.8	0.7	0.7	40.42	44.8	38.1	59.1	57.8	1.33	44.522	
500.0	500.0	490.1	489.0	0.8	1.0	41.38	53.2	46.9	71.7	70.0	1.74	41.154	SF
600.0	600.0	584.4	581.8	1.0	1.3	103.62	64.7	58.8	89.8	87.9	1.98	45.400	
700.0	699.6	676.2	671.3	1.2	1.7	107.01	78.9	73.5	114.3	111.9	2.34	48.928	
800.0	799.0	765.0	756.8	1.4	2.2	110.65	95.5	90.7	144.9	142.2	2.71	53.421	
900.0	898.3	851.0	838.5	1.7	2.7	112.98	114.2	110.1	180.2	177.1	3.10	58.101	
1,000.0	997.6	934.2	916.2	1.9	3.2	114.37	134.7	131.3	219.8	216.3	3.50	62.822	
1,100.0	1,097.0	1,014.2	989.8	2.2	3.8	115.17	156.6	154.0	263.3	259.4	3.90	67.534	
1,200.0	1,196.3	1,091.1	1,059.1	2.4	4.5	115.62	179.7	177.9	310.4	306.1	4.30	72.191	
1,300.0	1,295.6	1,167.0	1,126.3	2.7	5.1	115.85	204.3	203.4	360.8	356.1	4.70	76.727	
1,400.0	1,394.9	1,252.7	1,201.5	2.9	5.9	116.01	232.7	232.9	412.4	407.2	5.13	80.372	
1,500.0	1,494.3	1,338.4	1,276.8	3.2	6.6	116.14	261.2	262.4	463.9	458.4	5.56	83.427	
1,600.0	1,593.6	1,424.1	1,352.1	3.5	7.4	116.24	289.6	291.9	515.5	509.5	5.99	86.005	
1,700.0	1,692.9	1,509.8	1,427.3	3.7	8.2	116.33	318.1	321.3	567.0	560.6	6.43	88.207	
1,800.0	1,792.2	1,595.5	1,502.6	4.0	8.9	116.40	346.5	350.8	618.6	611.7	6.87	90.106	
1,900.0	1,891.6	1,681.1	1,577.8	4.2	9.7	116.45	375.0	380.3	670.1	662.8	7.30	91.757	
2,000.0	1,990.9	1,766.8	1,653.1	4.5	10.5	116.50	403.4	409.8	721.7	714.0	7.74	93.208	
2,100.0	2,090.2	1,852.5	1,728.3	4.8	11.2	116.55	431.9	439.2	773.3	765.1	8.18	94.494	
2,200.0	2,189.5	1,938.2	1,803.6	5.0	12.0	116.59	460.3	468.7	824.8	816.2	8.62	95.639	
2,300.0	2,288.9	2,023.9	1,878.9	5.3	12.8	116.62	488.7	498.2	876.4	867.3	9.07	96.665	
2,400.0	2,388.2	2,109.6	1,954.1	5.6	13.5	116.65	517.2	527.7	927.9	918.4	9.51	97.590	
2,500.0	2,487.5	2,195.2	2,029.4	5.8	14.3	116.68	545.6	557.1	979.5	969.6	9.95	98.427	
2,600.0	2,586.8	2,280.9	2,104.6	6.1	15.1	116.70	574.1	586.6	1,031.1	1,020.7	10.40	99.188	
2,700.0	2,686.2	2,366.6	2,179.9	6.4	15.8	116.72	602.5	616.1	1,082.6	1,071.8	10.84	99.883	
2,800.0	2,785.5	2,452.3	2,255.1	6.6	16.6	116.74	631.0	645.6	1,134.2	1,122.9	11.28	100.520	
2,900.0	2,884.8	2,538.0	2,330.4	6.9	17.4	116.76	659.4	675.0	1,185.7	1,174.0	11.73	101.107	
3,000.0	2,984.1	2,623.6	2,405.7	7.2	18.1	116.78	687.9	704.5	1,237.3	1,225.1	12.17	101.648	
3,100.0	3,083.5	2,709.3	2,480.9	7.4	18.9	116.79	716.3	734.0	1,288.9	1,276.2	12.62	102.149	
3,200.0	3,182.8	2,795.0	2,556.2	7.7	19.7	116.81	744.7	763.5	1,340.4	1,327.4	13.06	102.614	

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 44B-14
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 44B-14	**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	41.56	30.8	27.3	41.2				
100.0	100.0	100.0	100.0	0.1	0.1	41.56	30.8	27.3	41.2	41.0	0.26	161.532	
200.0	200.0	200.0	200.0	0.3	0.3	41.56	30.8	27.3	41.2	40.6	0.60	68.210	
300.0	300.0	300.0	300.0	0.5	0.5	41.56	30.8	27.3	41.2	40.3	0.95	43.233	CC, ES
400.0	400.0	397.9	397.8	0.7	0.7	42.48	32.2	29.5	43.7	42.4	1.30	33.555	
500.0	500.0	495.3	494.9	0.8	0.9	44.68	36.2	35.8	51.1	49.5	1.67	30.679	SF
600.0	600.0	591.4	590.3	1.0	1.1	109.29	42.7	46.1	64.4	62.4	1.99	32.321	
700.0	699.6	685.2	682.6	1.2	1.4	115.24	51.5	60.1	85.0	82.6	2.35	36.184	
800.0	799.0	776.2	771.2	1.4	1.8	120.51	62.4	77.2	112.7	110.0	2.71	41.514	
900.0	898.3	864.4	856.3	1.7	2.3	123.62	75.1	97.3	145.5	142.4	3.09	47.105	
1,000.0	997.6	949.8	937.4	1.9	2.8	125.37	89.4	119.8	182.8	179.4	3.47	52.696	
1,100.0	1,097.0	1,032.1	1,014.3	2.2	3.3	126.35	105.0	144.5	224.2	220.4	3.85	58.209	
1,200.0	1,196.3	1,111.3	1,087.1	2.4	3.9	126.87	121.6	170.7	269.4	265.2	4.23	63.644	
1,300.0	1,295.6	1,196.8	1,164.7	2.7	4.6	127.19	140.8	201.0	317.1	312.4	4.63	68.449	
1,400.0	1,394.9	1,284.6	1,244.4	2.9	5.2	127.44	160.6	232.2	364.8	359.8	5.04	72.380	
1,500.0	1,494.3	1,372.5	1,324.2	3.2	5.9	127.62	180.3	263.4	412.6	407.1	5.45	75.685	
1,600.0	1,593.6	1,460.3	1,403.9	3.5	6.6	127.77	200.1	294.6	460.4	454.5	5.86	78.496	
1,700.0	1,692.9	1,548.2	1,483.6	3.7	7.3	127.89	219.8	325.8	508.1	501.8	6.28	80.913	
1,800.0	1,792.2	1,636.0	1,563.3	4.0	8.0	127.99	239.6	357.0	555.9	549.2	6.70	83.010	
1,900.0	1,891.6	1,723.9	1,643.0	4.2	8.7	128.07	259.3	388.2	603.7	596.6	7.11	84.845	
2,000.0	1,990.9	1,811.7	1,722.7	4.5	9.4	128.14	279.1	419.3	651.4	643.9	7.53	86.464	
2,100.0	2,090.2	1,899.6	1,802.4	4.8	10.1	128.20	298.8	450.5	699.2	691.3	7.95	87.901	
2,200.0	2,189.5	1,987.4	1,882.2	5.0	10.8	128.26	318.5	481.7	747.0	738.6	8.38	89.184	
2,300.0	2,288.9	2,075.3	1,961.9	5.3	11.5	128.30	338.3	512.9	794.8	786.0	8.80	90.337	
2,400.0	2,388.2	2,163.1	2,041.6	5.6	12.2	128.35	358.0	544.1	842.5	833.3	9.22	91.379	
2,500.0	2,487.5	2,251.0	2,121.3	5.8	12.9	128.38	377.8	575.3	890.3	880.7	9.64	92.325	
2,600.0	2,586.8	2,338.8	2,201.0	6.1	13.6	128.42	397.5	606.5	938.1	928.0	10.07	93.188	
2,700.0	2,686.2	2,426.6	2,280.7	6.4	14.3	128.45	417.3	637.6	985.9	975.4	10.49	93.977	
2,800.0	2,785.5	2,514.5	2,360.5	6.6	15.0	128.47	437.0	668.8	1,033.6	1,022.7	10.91	94.702	
2,900.0	2,884.8	2,602.3	2,440.2	6.9	15.7	128.50	456.8	700.0	1,081.4	1,070.1	11.34	95.370	
3,000.0	2,984.1	2,690.2	2,519.9	7.2	16.4	128.52	476.5	731.2	1,129.2	1,117.4	11.76	95.988	
3,100.0	3,083.5	2,778.0	2,599.6	7.4	17.1	128.54	496.3	762.4	1,177.0	1,164.8	12.19	96.560	
3,200.0	3,182.8	2,865.9	2,679.3	7.7	17.8	128.56	516.0	793.6	1,224.8	1,212.1	12.61	97.092	
3,300.0	3,282.1	2,953.7	2,759.0	8.0	18.5	128.58	535.8	824.8	1,272.5	1,259.5	13.04	97.588	
3,400.0	3,381.5	3,041.6	2,838.8	8.2	19.2	128.60	555.5	855.9	1,320.3	1,306.8	13.47	98.051	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**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	44.88	23.7	23.6	33.5				
100.0	100.0	100.0	100.0	0.1	0.1	44.88	23.7	23.6	33.5	33.3	0.26	131.332	
200.0	200.0	200.0	200.0	0.3	0.3	44.88	23.7	23.6	33.5	32.9	0.60	55.457	
300.0	300.0	300.0	300.0	0.5	0.5	44.88	23.7	23.6	33.5	32.6	0.95	35.150	
400.0	400.0	400.0	400.0	0.7	0.7	44.88	23.7	23.6	33.5	32.2	1.30	25.729	CC, ES
500.0	500.0	498.4	498.3	0.8	0.8	46.79	24.5	26.1	35.8	34.2	1.65	21.695	SF
600.0	600.0	596.0	595.7	1.0	1.0	114.47	26.7	33.3	43.9	41.9	2.00	21.933	
700.0	699.6	691.7	690.6	1.2	1.3	124.51	30.2	44.9	60.2	57.9	2.36	25.556	
800.0	799.0	784.6	782.0	1.4	1.6	132.22	35.0	60.5	84.9	82.2	2.71	31.324	
900.0	898.3	874.9	870.0	1.7	2.0	136.37	40.9	79.8	115.1	112.1	3.07	37.555	
1,000.0	997.6	962.4	954.3	1.9	2.4	138.59	47.8	102.3	150.1	146.7	3.42	43.854	
1,100.0	1,097.0	1,046.9	1,034.6	2.2	2.9	139.80	55.5	127.4	189.3	185.6	3.78	50.091	
1,200.0	1,196.3	1,128.2	1,110.7	2.4	3.4	140.46	63.9	154.8	232.5	228.4	4.14	56.236	
1,300.0	1,295.6	1,213.2	1,189.2	2.7	4.0	140.83	73.4	186.0	278.7	274.2	4.50	61.927	
1,400.0	1,394.9	1,301.8	1,270.9	2.9	4.6	141.11	83.4	218.7	325.2	320.3	4.88	66.694	
1,500.0	1,494.3	1,390.3	1,352.5	3.2	5.3	141.32	93.4	251.4	371.7	366.4	5.25	70.744	
1,600.0	1,593.6	1,478.9	1,434.2	3.5	5.9	141.48	103.5	284.1	418.1	412.5	5.63	74.228	
1,700.0	1,692.9	1,567.4	1,515.9	3.7	6.5	141.61	113.5	316.8	464.6	458.6	6.01	77.253	
1,800.0	1,792.2	1,655.9	1,597.6	4.0	7.2	141.72	123.5	349.5	511.0	504.6	6.40	79.904	
1,900.0	1,891.6	1,744.5	1,679.2	4.2	7.8	141.81	133.5	382.2	557.5	550.7	6.78	82.243	
2,000.0	1,990.9	1,833.0	1,760.9	4.5	8.5	141.88	143.5	414.9	604.0	596.8	7.16	84.322	
2,100.0	2,090.2	1,921.6	1,842.6	4.8	9.1	141.94	153.5	447.6	650.4	642.9	7.55	86.181	
2,200.0	2,189.5	2,010.1	1,924.3	5.0	9.8	142.00	163.5	480.3	696.9	689.0	7.93	87.853	
2,300.0	2,288.9	2,098.7	2,005.9	5.3	10.4	142.05	173.5	513.0	743.4	735.0	8.32	89.364	
2,400.0	2,388.2	2,187.2	2,087.6	5.6	11.1	142.09	183.5	545.7	789.8	781.1	8.70	90.735	
2,500.0	2,487.5	2,275.8	2,169.3	5.8	11.7	142.13	193.5	578.5	836.3	827.2	9.09	91.985	
2,600.0	2,586.8	2,364.3	2,251.0	6.1	12.4	142.16	203.6	611.2	882.8	873.3	9.48	93.130	
2,700.0	2,686.2	2,452.9	2,332.6	6.4	13.0	142.19	213.6	643.9	929.2	919.4	9.87	94.183	
2,800.0	2,785.5	2,541.4	2,414.3	6.6	13.7	142.22	223.6	676.6	975.7	965.5	10.25	95.153	
2,900.0	2,884.8	2,630.0	2,496.0	6.9	14.3	142.25	233.6	709.3	1,022.2	1,011.5	10.64	96.050	
3,000.0	2,984.1	2,718.5	2,577.7	7.2	15.0	142.27	243.6	742.0	1,068.6	1,057.6	11.03	96.882	
3,100.0	3,083.5	2,807.1	2,659.3	7.4	15.6	142.29	253.6	774.7	1,115.1	1,103.7	11.42	97.655	
3,200.0	3,182.8	2,895.6	2,741.0	7.7	16.3	142.31	263.6	807.4	1,161.6	1,149.8	11.81	98.376	
3,300.0	3,282.1	2,984.2	2,822.7	8.0	16.9	142.33	273.6	840.1	1,208.0	1,195.9	12.20	99.050	
3,400.0	3,381.5	3,072.7	2,904.4	8.2	17.6	142.35	283.6	872.8	1,254.5	1,241.9	12.59	99.681	
3,500.0	3,480.9	3,291.7	3,109.8	8.5	18.9	142.96	305.7	944.9	1,296.7	1,283.3	13.31	97.388	
3,600.0	3,580.8	3,589.8	3,400.7	8.6	20.0	143.32	324.4	1,006.1	1,321.8	1,307.7	14.10	93.734	
3,700.0	3,680.8	3,870.8	3,680.8	8.7	20.4	82.99	329.8	1,023.7	1,327.9	1,313.2	14.72	90.195	
3,800.0	3,780.8	3,970.8	3,780.8	8.9	20.4	82.99	329.8	1,023.7	1,327.9	1,312.9	15.03	88.324	
3,900.0	3,880.8	4,070.8	3,880.8	9.0	20.5	82.99	329.8	1,023.7	1,327.9	1,312.6	15.35	86.520	
4,000.0	3,980.8	4,170.8	3,980.8	9.1	20.6	82.99	329.8	1,023.7	1,327.9	1,312.3	15.66	84.780	
4,100.0	4,080.8	4,270.8	4,080.8	9.3	20.6	82.99	329.8	1,023.7	1,327.9	1,312.0	15.98	83.102	
4,200.0	4,180.8	4,370.8	4,180.8	9.4	20.7	82.99	329.8	1,023.7	1,327.9	1,311.6	16.30	81.482	
4,300.0	4,280.8	4,470.8	4,280.8	9.5	20.8	82.99	329.8	1,023.7	1,327.9	1,311.3	16.62	79.918	
4,400.0	4,380.8	4,570.8	4,380.8	9.7	20.8	82.99	329.8	1,023.7	1,327.9	1,311.0	16.94	78.407	
4,500.0	4,480.8	4,670.8	4,480.8	9.8	20.9	82.99	329.8	1,023.7	1,327.9	1,310.7	17.26	76.947	
4,600.0	4,580.8	4,770.8	4,580.8	10.0	21.0	82.99	329.8	1,023.7	1,327.9	1,310.4	17.58	75.536	
4,700.0	4,680.8	4,870.8	4,680.8	10.1	21.0	82.99	329.8	1,023.7	1,327.9	1,310.0	17.90	74.172	
4,800.0	4,780.8	4,970.8	4,780.8	10.2	21.1	82.99	329.8	1,023.7	1,327.9	1,309.7	18.23	72.853	
4,900.0	4,880.8	5,070.8	4,880.8	10.4	21.2	82.99	329.8	1,023.7	1,327.9	1,309.4	18.55	71.576	
5,000.0	4,980.8	5,170.8	4,980.8	10.5	21.2	82.99	329.8	1,023.7	1,327.9	1,309.1	18.88	70.340	
5,100.0	5,080.8	5,270.8	5,080.8	10.7	21.3	82.99	329.8	1,023.7	1,327.9	1,308.7	19.21	69.142	

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 44B-14
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 44B-14	**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
5,200.0	5,180.8	5,370.8	5,180.8	10.8	21.4	82.99	329.8	1,023.7	1,327.9	1,308.4	19.53	67.983	
5,300.0	5,280.8	5,470.8	5,280.8	11.0	21.5	82.99	329.8	1,023.7	1,327.9	1,308.1	19.86	66.859	
5,400.0	5,380.8	5,570.8	5,380.8	11.1	21.5	82.99	329.8	1,023.7	1,327.9	1,307.8	20.19	65.769	
5,500.0	5,480.8	5,670.8	5,480.8	11.3	21.6	82.99	329.8	1,023.7	1,327.9	1,307.4	20.52	64.713	
5,600.0	5,580.8	5,770.8	5,580.8	11.4	21.7	82.99	329.8	1,023.7	1,327.9	1,307.1	20.85	63.687	
5,700.0	5,680.8	5,870.8	5,680.8	11.6	21.8	82.99	329.8	1,023.7	1,327.9	1,306.8	21.18	62.692	
5,800.0	5,780.8	5,970.8	5,780.8	11.7	21.9	82.99	329.8	1,023.7	1,327.9	1,306.4	21.51	61.726	
5,834.2	5,815.0	6,005.0	5,815.0	11.8	21.9	82.99	329.8	1,023.7	1,327.9	1,306.3	21.63	61.402	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**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	50.13	16.7	19.9	26.0				
100.0	100.0	100.0	100.0	0.1	0.1	50.13	16.7	19.9	26.0	25.7	0.26	101.773	
200.0	200.0	200.0	200.0	0.3	0.3	50.13	16.7	19.9	26.0	25.4	0.60	42.992	
300.0	300.0	300.0	300.0	0.5	0.5	50.13	16.7	19.9	26.0	25.0	0.95	27.252	
400.0	400.0	400.0	400.0	0.7	0.7	50.13	16.7	19.9	26.0	24.7	1.30	19.949	
500.0	500.0	500.0	500.0	0.8	0.8	50.13	16.7	19.9	26.0	24.3	1.65	15.733	CC, ES
600.0	600.0	599.4	599.4	1.0	1.0	116.34	16.6	20.6	27.5	25.5	2.00	13.750	SF
700.0	699.6	697.1	697.0	1.2	1.2	131.67	16.6	25.6	36.6	34.3	2.36	15.513	
800.0	799.0	792.7	792.0	1.4	1.4	143.82	16.4	35.3	55.1	52.4	2.71	20.347	
900.0	898.3	886.1	884.3	1.7	1.6	149.87	16.2	49.4	79.8	76.7	3.05	26.148	
1,000.0	997.6	976.9	973.4	1.9	2.0	152.95	15.9	67.5	109.6	106.2	3.39	32.313	
1,100.0	1,097.0	1,064.9	1,058.7	2.2	2.3	154.58	15.5	88.9	143.9	140.2	3.73	38.617	
1,200.0	1,196.3	1,149.9	1,140.1	2.4	2.8	155.46	15.1	113.4	182.6	178.5	4.06	44.962	
1,300.0	1,295.6	1,231.7	1,217.3	2.7	3.3	155.94	14.7	140.3	225.2	220.8	4.39	51.297	
1,400.0	1,394.9	1,310.1	1,290.2	2.9	3.8	156.19	14.2	169.2	271.6	266.9	4.72	57.593	
1,500.0	1,494.3	1,393.0	1,366.2	3.2	4.4	156.32	13.6	202.3	320.8	315.8	5.05	63.533	
1,600.0	1,593.6	1,479.9	1,445.9	3.5	5.0	156.42	13.1	237.1	370.3	364.9	5.39	68.685	
1,700.0	1,692.9	1,566.9	1,525.5	3.7	5.7	156.49	12.5	272.0	419.7	414.0	5.73	73.214	
1,800.0	1,792.2	1,653.8	1,605.1	4.0	6.3	156.55	11.9	306.8	469.2	463.1	6.08	77.226	
1,900.0	1,891.6	1,740.7	1,684.7	4.2	7.0	156.60	11.3	341.7	518.7	512.2	6.42	80.804	
2,000.0	1,990.9	1,827.6	1,764.3	4.5	7.6	156.64	10.7	376.5	568.1	561.4	6.76	84.015	
2,100.0	2,090.2	1,914.5	1,843.9	4.8	8.3	156.67	10.2	411.4	617.6	610.5	7.11	86.910	
2,200.0	2,189.5	2,001.4	1,923.6	5.0	8.9	156.70	9.6	446.2	667.0	659.6	7.45	89.536	
2,300.0	2,288.9	2,088.3	2,003.2	5.3	9.6	156.73	9.0	481.1	716.5	708.7	7.79	91.926	
2,400.0	2,388.2	2,175.2	2,082.8	5.6	10.3	156.75	8.4	515.9	766.0	757.8	8.14	94.111	
2,500.0	2,487.5	2,262.2	2,162.4	5.8	10.9	156.77	7.8	550.8	815.4	806.9	8.48	96.117	
2,600.0	2,586.8	2,349.1	2,242.0	6.1	11.6	156.78	7.3	585.6	864.9	856.1	8.83	97.965	
2,700.0	2,686.2	2,436.0	2,321.6	6.4	12.3	156.80	6.7	620.5	914.3	905.2	9.17	99.671	
2,800.0	2,785.5	2,522.9	2,401.3	6.6	12.9	156.81	6.1	655.3	963.8	954.3	9.52	101.253	
2,900.0	2,884.8	2,609.8	2,480.9	6.9	13.6	156.82	5.5	690.2	1,013.3	1,003.4	9.86	102.722	
3,000.0	2,984.1	2,696.7	2,560.5	7.2	14.3	156.83	4.9	725.0	1,062.7	1,052.5	10.21	104.091	
3,100.0	3,083.5	2,783.6	2,640.1	7.4	14.9	156.84	4.4	759.9	1,112.2	1,101.6	10.56	105.370	
3,200.0	3,182.8	2,870.5	2,719.7	7.7	15.6	156.85	3.8	794.7	1,161.7	1,150.8	10.90	106.567	
3,300.0	3,282.1	2,957.4	2,799.3	8.0	16.3	156.86	3.2	829.6	1,211.1	1,199.9	11.25	107.689	
3,400.0	3,381.5	3,044.4	2,878.9	8.2	16.9	156.87	2.6	864.4	1,260.6	1,249.0	11.59	108.743	
3,500.0	3,480.9	3,305.7	3,124.5	8.5	18.5	157.30	1.2	953.3	1,303.3	1,291.0	12.31	105.847	
3,600.0	3,580.8	3,613.7	3,426.2	8.6	19.6	157.54	0.2	1,013.8	1,327.4	1,314.3	13.09	101.422	
3,700.0	3,680.8	3,868.9	3,680.8	8.7	19.8	97.24	-0.1	1,027.0	1,331.9	1,318.2	13.70	97.197	
3,800.0	3,780.8	3,968.9	3,780.8	8.9	19.9	97.24	-0.1	1,027.0	1,331.9	1,317.9	14.04	94.881	
3,900.0	3,880.8	4,068.9	3,880.8	9.0	20.0	97.24	-0.1	1,027.0	1,331.9	1,317.5	14.37	92.668	
4,000.0	3,980.8	4,168.9	3,980.8	9.1	20.0	97.24	-0.1	1,027.0	1,331.9	1,317.2	14.71	90.553	
4,100.0	4,080.8	4,268.9	4,080.8	9.3	20.1	97.24	-0.1	1,027.0	1,331.9	1,316.8	15.04	88.528	
4,200.0	4,180.8	4,368.9	4,180.8	9.4	20.2	97.24	-0.1	1,027.0	1,331.9	1,316.5	15.38	86.589	
4,300.0	4,280.8	4,468.9	4,280.8	9.5	20.2	97.24	-0.1	1,027.0	1,331.9	1,316.2	15.72	84.730	
4,400.0	4,380.8	4,568.9	4,380.8	9.7	20.3	97.24	-0.1	1,027.0	1,331.9	1,315.8	16.06	82.946	
4,500.0	4,480.8	4,668.9	4,480.8	9.8	20.4	97.24	-0.1	1,027.0	1,331.9	1,315.5	16.40	81.234	
4,600.0	4,580.8	4,768.9	4,580.8	10.0	20.4	97.24	-0.1	1,027.0	1,331.9	1,315.2	16.73	79.589	
4,700.0	4,680.8	4,868.9	4,680.8	10.1	20.5	97.24	-0.1	1,027.0	1,331.9	1,314.8	17.07	78.007	
4,800.0	4,780.8	4,968.9	4,780.8	10.2	20.6	97.24	-0.1	1,027.0	1,331.9	1,314.5	17.41	76.486	
4,900.0	4,880.8	5,068.9	4,880.8	10.4	20.6	97.24	-0.1	1,027.0	1,331.9	1,314.1	17.75	75.021	
5,000.0	4,980.8	5,168.9	4,980.8	10.5	20.7	97.24	-0.1	1,027.0	1,331.9	1,313.8	18.09	73.609	
5,100.0	5,080.8	5,268.9	5,080.8	10.7	20.8	97.24	-0.1	1,027.0	1,331.9	1,313.5	18.43	72.249	

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 44B-14
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 44B-14	**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
5,200.0	5,180.8	5,368.9	5,180.8	10.8	20.9	97.24	-0.1	1,027.0	1,331.9	1,313.1	18.78	70.937	
5,300.0	5,280.8	5,468.9	5,280.8	11.0	21.0	97.24	-0.1	1,027.0	1,331.9	1,312.8	19.12	69.670	
5,400.0	5,380.8	5,568.9	5,380.8	11.1	21.0	97.24	-0.1	1,027.0	1,331.9	1,312.4	19.46	68.447	
5,500.0	5,480.8	5,668.9	5,480.8	11.3	21.1	97.24	-0.1	1,027.0	1,331.9	1,312.1	19.80	67.265	
5,600.0	5,580.8	5,768.9	5,580.8	11.4	21.2	97.24	-0.1	1,027.0	1,331.9	1,311.7	20.14	66.123	
5,700.0	5,680.8	5,868.9	5,680.8	11.6	21.3	97.24	-0.1	1,027.0	1,331.9	1,311.4	20.48	65.018	
5,800.0	5,780.8	5,968.9	5,780.8	11.7	21.4	97.24	-0.1	1,027.0	1,331.9	1,311.1	20.83	63.949	
5,834.2	5,815.0	6,003.1	5,815.0	11.8	21.4	97.24	-0.1	1,027.0	1,331.9	1,310.9	20.94	63.591	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**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	58.25	10.1	16.3	19.2				
100.0	100.0	100.0	100.0	0.1	0.1	58.25	10.1	16.3	19.2	18.9	0.26	75.024	
200.0	200.0	200.0	200.0	0.3	0.3	58.25	10.1	16.3	19.2	18.6	0.60	31.705	
300.0	300.0	300.0	300.0	0.5	0.5	58.25	10.1	16.3	19.2	18.2	0.95	20.100	
400.0	400.0	400.0	400.0	0.7	0.7	58.25	10.1	16.3	19.2	17.9	1.30	14.714	
500.0	500.0	500.0	500.0	0.8	0.8	58.25	10.1	16.3	19.2	17.5	1.65	11.604	CC, ES
600.0	600.0	599.1	599.1	1.0	1.0	129.45	9.2	18.7	22.5	20.5	2.00	11.222	SF
700.0	699.6	696.6	696.3	1.2	1.2	147.23	6.8	25.9	35.1	32.8	2.35	14.944	
800.0	799.0	791.5	790.4	1.4	1.4	157.90	2.8	37.3	57.6	54.9	2.69	21.395	
900.0	898.3	883.9	881.3	1.7	1.7	162.93	-2.5	52.6	85.7	82.6	3.02	28.334	
1,000.0	997.6	973.4	968.6	1.9	2.1	165.60	-9.0	71.5	118.6	115.3	3.35	35.396	
1,100.0	1,097.0	1,059.9	1,051.9	2.2	2.5	167.15	-16.5	93.3	156.0	152.4	3.67	42.472	
1,200.0	1,196.3	1,143.1	1,131.0	2.4	3.0	168.11	-24.9	117.7	197.6	193.6	3.99	49.520	
1,300.0	1,295.6	1,222.9	1,205.8	2.7	3.5	168.74	-34.0	144.1	243.0	238.7	4.30	56.520	
1,400.0	1,394.9	1,300.0	1,276.8	2.9	4.0	169.17	-43.8	172.4	292.1	287.5	4.60	63.448	
1,500.0	1,494.3	1,378.3	1,347.8	3.2	4.6	169.49	-54.5	203.5	344.2	339.3	4.91	70.098	
1,600.0	1,593.6	1,463.3	1,424.8	3.5	5.3	169.74	-66.3	237.7	396.8	391.6	5.23	75.903	
1,700.0	1,692.9	1,548.4	1,501.8	3.7	6.0	169.94	-78.1	271.9	449.4	443.8	5.54	81.055	
1,800.0	1,792.2	1,633.4	1,578.7	4.0	6.6	170.09	-90.0	306.1	502.0	496.1	5.86	85.654	
1,900.0	1,891.6	1,718.5	1,655.7	4.2	7.3	170.22	-101.8	340.3	554.6	548.4	6.18	89.782	
2,000.0	1,990.9	1,803.5	1,732.7	4.5	8.0	170.32	-113.6	374.5	607.2	600.7	6.49	93.510	
2,100.0	2,090.2	1,888.6	1,809.6	4.8	8.7	170.41	-125.4	408.7	659.8	653.0	6.81	96.886	
2,200.0	2,189.5	1,973.6	1,886.6	5.0	9.4	170.48	-137.2	442.9	712.4	705.3	7.13	99.964	
2,300.0	2,288.9	2,058.6	1,963.5	5.3	10.1	170.55	-149.0	477.1	765.0	757.5	7.44	102.781	
2,400.0	2,388.2	2,143.7	2,040.5	5.6	10.7	170.60	-160.8	511.3	817.6	809.8	7.76	105.370	
2,500.0	2,487.5	2,228.7	2,117.5	5.8	11.4	170.65	-172.6	545.5	870.2	862.1	8.08	107.757	
2,600.0	2,586.8	2,313.8	2,194.4	6.1	12.1	170.70	-184.4	579.7	922.8	914.4	8.39	109.964	
2,700.0	2,686.2	2,398.8	2,271.4	6.4	12.8	170.73	-196.2	613.9	975.4	966.7	8.71	112.012	
2,800.0	2,785.5	2,483.9	2,348.4	6.6	13.5	170.77	-208.0	648.1	1,028.0	1,019.0	9.02	113.914	
2,900.0	2,884.8	2,568.9	2,425.3	6.9	14.2	170.80	-219.8	682.3	1,080.6	1,071.3	9.34	115.688	
3,000.0	2,984.1	2,653.9	2,502.3	7.2	14.9	170.83	-231.6	716.5	1,133.2	1,123.6	9.66	117.347	
3,100.0	3,083.5	2,739.0	2,579.2	7.4	15.6	170.86	-243.4	750.7	1,185.8	1,175.9	9.97	118.900	
3,200.0	3,182.8	2,824.0	2,656.2	7.7	16.3	170.88	-255.2	784.9	1,238.4	1,228.2	10.29	120.359	
3,300.0	3,282.1	2,909.1	2,733.2	8.0	17.0	170.90	-267.0	819.1	1,291.1	1,280.4	10.61	121.731	
3,400.0	3,381.5	2,994.1	2,810.1	8.2	17.7	170.92	-278.8	853.3	1,343.7	1,332.7	10.92	123.023	

Cathedral Energy Services

Anticollision Report

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**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	78.89	2.5	12.6	12.8				
100.0	100.0	100.0	100.0	0.1	0.1	78.89	2.5	12.6	12.8	12.6	0.26	50.106	
200.0	200.0	200.0	200.0	0.3	0.3	78.89	2.5	12.6	12.8	12.2	0.60	21.183	
300.0	300.0	300.0	300.0	0.5	0.5	78.89	2.5	12.6	12.8	11.9	0.95	13.431	
400.0	400.0	400.0	400.0	0.7	0.7	78.89	2.5	12.6	12.8	11.5	1.30	9.832	CC, ES
500.0	500.0	499.4	499.4	0.8	0.8	85.88	1.1	14.7	14.8	13.1	1.65	8.955	SF
600.0	600.0	598.0	597.7	1.0	1.0	160.85	-3.1	21.2	24.0	22.0	2.00	11.975	
700.0	699.6	694.2	693.1	1.2	1.3	170.40	-9.8	31.5	43.8	41.5	2.34	18.744	
800.0	799.0	787.2	784.5	1.4	1.6	174.89	-18.8	45.4	72.4	69.7	2.67	27.111	
900.0	898.3	877.2	872.3	1.7	2.0	177.12	-29.8	62.3	105.8	102.8	3.00	35.273	
1,000.0	997.6	964.1	956.0	1.9	2.4	178.42	-42.5	82.0	143.6	140.3	3.32	43.221	
1,100.0	1,097.0	1,047.7	1,035.4	2.2	2.9	179.27	-56.7	103.8	185.5	181.9	3.64	50.987	
1,200.0	1,196.3	1,127.9	1,110.4	2.4	3.4	179.86	-72.1	127.5	231.3	227.4	3.95	58.601	
1,300.0	1,295.6	1,200.0	1,176.8	2.7	3.9	-179.74	-87.4	151.1	280.8	276.6	4.24	66.221	
1,400.0	1,394.9	1,277.7	1,247.1	2.9	4.5	-179.39	-105.4	178.8	333.5	329.0	4.55	73.379	
1,500.0	1,494.3	1,348.4	1,309.9	3.2	5.1	-179.13	-123.1	206.1	389.5	384.6	4.83	80.558	
1,600.0	1,593.6	1,430.4	1,382.2	3.5	5.9	-178.89	-144.2	238.7	446.7	441.6	5.14	86.835	
1,700.0	1,692.9	1,512.4	1,454.4	3.7	6.6	-178.71	-165.4	271.3	503.9	498.5	5.45	92.441	
1,800.0	1,792.2	1,594.4	1,526.6	4.0	7.3	-178.56	-186.5	303.8	561.1	555.4	5.76	97.446	
1,900.0	1,891.6	1,676.4	1,598.8	4.2	8.0	-178.44	-207.6	336.4	618.4	612.3	6.07	101.937	
2,000.0	1,990.9	1,758.4	1,671.1	4.5	8.8	-178.34	-228.8	369.0	675.6	669.2	6.37	106.004	
2,100.0	2,090.2	1,840.4	1,743.3	4.8	9.5	-178.26	-249.9	401.6	732.8	726.1	6.68	109.704	
2,200.0	2,189.5	1,922.5	1,815.5	5.0	10.2	-178.19	-271.0	434.2	790.1	783.1	6.99	113.083	
2,300.0	2,288.9	2,004.5	1,887.7	5.3	11.0	-178.13	-292.2	466.7	847.3	840.0	7.29	116.182	
2,400.0	2,388.2	2,086.5	1,959.9	5.6	11.7	-178.07	-313.3	499.3	904.5	896.9	7.60	119.027	
2,500.0	2,487.5	2,168.5	2,032.2	5.8	12.5	-178.03	-334.4	531.9	961.7	953.8	7.91	121.654	
2,600.0	2,586.8	2,250.5	2,104.4	6.1	13.2	-177.99	-355.6	564.5	1,019.0	1,010.8	8.21	124.088	
2,700.0	2,686.2	2,332.5	2,176.6	6.4	13.9	-177.95	-376.7	597.1	1,076.2	1,067.7	8.52	126.350	
2,800.0	2,785.5	2,414.5	2,248.8	6.6	14.7	-177.91	-397.8	629.6	1,133.4	1,124.6	8.82	128.456	
2,900.0	2,884.8	2,496.5	2,321.1	6.9	15.4	-177.88	-419.0	662.2	1,190.7	1,181.5	9.13	130.423	
3,000.0	2,984.1	2,578.5	2,393.3	7.2	16.1	-177.86	-440.1	694.8	1,247.9	1,238.5	9.44	132.260	
3,100.0	3,083.5	2,660.5	2,465.5	7.4	16.9	-177.83	-461.2	727.4	1,305.1	1,295.4	9.74	133.984	

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 44B-14
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 44B-14	**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	27.51	28.4	14.8	32.0				
100.0	100.0	100.0	100.0	0.1	0.1	27.51	28.4	14.8	32.0	31.7	0.26	125.005	
200.0	200.0	200.0	200.0	0.3	0.3	27.51	28.4	14.8	32.0	31.4	0.60	52.871	
300.0	300.0	300.0	300.0	0.5	0.5	27.51	28.4	14.8	32.0	31.0	0.95	33.525	CC, ES
400.0	400.0	398.6	398.6	0.7	0.7	24.84	30.9	14.3	34.0	32.7	1.31	26.047	
500.0	500.0	496.7	496.4	0.8	0.9	18.53	38.3	12.8	40.6	38.9	1.69	24.008	SF
600.0	600.0	594.0	592.8	1.0	1.1	74.42	50.5	10.4	51.3	49.3	2.02	25.417	
700.0	699.6	690.3	687.6	1.2	1.5	73.96	67.4	7.2	65.4	63.0	2.42	27.028	
800.0	799.0	785.5	780.2	1.4	1.9	74.77	88.6	3.0	83.0	80.1	2.86	28.957	
900.0	898.3	878.9	870.1	1.7	2.3	74.26	113.8	-1.9	104.8	101.5	3.33	31.487	
1,000.0	997.6	970.3	956.6	1.9	2.9	73.07	142.6	-7.5	131.0	127.2	3.80	34.477	
1,100.0	1,097.0	1,059.3	1,039.4	2.2	3.5	71.64	174.6	-13.8	161.3	157.1	4.27	37.825	
1,200.0	1,196.3	1,145.6	1,118.2	2.4	4.1	70.20	209.1	-20.5	195.8	191.1	4.72	41.453	
1,300.0	1,295.6	1,229.0	1,192.8	2.7	4.8	68.85	245.8	-27.6	234.2	229.0	5.17	45.301	
1,400.0	1,394.9	1,309.4	1,263.0	2.9	5.5	67.62	284.1	-35.1	276.4	270.8	5.60	49.320	
1,500.0	1,494.3	1,386.6	1,328.9	3.2	6.2	66.52	323.6	-42.8	322.2	316.2	6.03	53.450	
1,600.0	1,593.6	1,460.6	1,390.4	3.5	7.0	65.54	363.9	-50.7	371.5	365.0	6.44	57.663	
1,700.0	1,692.9	1,531.3	1,447.8	3.7	7.7	64.67	404.6	-58.6	424.0	417.1	6.84	61.947	
1,800.0	1,792.2	1,600.0	1,501.9	4.0	8.5	63.89	446.1	-66.7	479.4	472.2	7.24	66.260	
1,900.0	1,891.6	1,666.4	1,552.8	4.2	9.2	63.19	488.0	-74.9	537.7	530.1	7.62	70.575	
2,000.0	1,990.9	1,746.8	1,613.9	4.5	10.1	62.47	539.3	-84.9	596.9	588.9	8.03	74.355	
2,100.0	2,090.2	1,827.2	1,675.0	4.8	11.1	61.88	590.6	-94.9	656.2	647.7	8.44	77.774	
2,200.0	2,189.5	1,907.6	1,736.0	5.0	12.0	61.39	641.9	-104.9	715.5	706.6	8.85	80.878	
2,300.0	2,288.9	1,988.0	1,797.1	5.3	12.9	60.97	693.2	-114.9	774.8	765.5	9.26	83.707	
2,400.0	2,388.2	2,068.3	1,858.2	5.6	13.8	60.61	744.5	-124.9	834.1	824.5	9.67	86.297	
2,500.0	2,487.5	2,148.7	1,919.3	5.8	14.7	60.30	795.8	-135.0	893.5	883.4	10.08	88.676	
2,600.0	2,586.8	2,229.1	1,980.3	6.1	15.7	60.03	847.0	-145.0	952.9	942.4	10.49	90.870	
2,700.0	2,686.2	2,309.5	2,041.4	6.4	16.6	59.79	898.3	-155.0	1,012.3	1,001.4	10.90	92.900	
2,800.0	2,785.5	2,389.9	2,102.5	6.6	17.5	59.57	949.6	-165.0	1,071.7	1,060.4	11.31	94.782	
2,900.0	2,884.8	2,470.2	2,163.5	6.9	18.5	59.38	1,000.9	-175.0	1,131.1	1,119.4	11.72	96.531	
3,000.0	2,984.1	2,550.6	2,224.6	7.2	19.4	59.21	1,052.2	-185.0	1,190.5	1,178.4	12.13	98.163	
3,100.0	3,083.5	2,631.0	2,285.7	7.4	20.3	59.05	1,103.5	-195.0	1,250.0	1,237.4	12.54	99.689	
3,200.0	3,182.8	2,711.4	2,346.8	7.7	21.2	58.91	1,154.8	-205.0	1,309.4	1,296.5	12.95	101.118	

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 44B-14
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 44B-14	**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	27.49	21.3	11.1	24.0				
100.0	100.0	100.0	100.0	0.1	0.1	27.49	21.3	11.1	24.0	23.7	0.26	93.712	
200.0	200.0	200.0	200.0	0.3	0.3	27.49	21.3	11.1	24.0	23.4	0.61	39.646	
300.0	300.0	300.0	300.0	0.5	0.5	27.49	21.3	11.1	24.0	23.0	0.95	25.141	
333.8	333.8	333.8	333.8	0.5	0.5	27.49	21.3	11.1	24.0	22.9	1.07	22.375	CC, ES
400.0	400.0	399.5	399.5	0.7	0.7	26.51	21.9	10.9	24.5	23.2	1.30	18.794	
500.0	500.0	498.3	498.1	0.8	0.8	19.95	26.9	9.8	28.7	27.0	1.66	17.220	SF
600.0	600.0	596.4	595.8	1.0	1.1	75.34	36.7	7.4	37.0	35.0	2.02	18.355	
700.0	699.6	693.9	692.0	1.2	1.4	75.33	51.3	4.0	48.6	46.2	2.41	20.125	
800.0	799.0	790.2	786.4	1.4	1.7	76.42	70.5	-0.5	63.7	60.8	2.86	22.263	
900.0	898.3	885.2	878.2	1.7	2.1	75.51	93.8	-5.9	83.1	79.8	3.33	24.953	
1,000.0	997.6	978.2	966.9	1.9	2.7	73.74	121.0	-12.3	106.7	102.9	3.80	28.064	
1,100.0	1,097.0	1,069.0	1,052.1	2.2	3.2	71.76	151.5	-19.5	134.6	130.4	4.27	31.514	
1,200.0	1,196.3	1,157.2	1,133.4	2.4	3.8	69.86	184.9	-27.3	166.8	162.0	4.73	35.239	
1,300.0	1,295.6	1,242.6	1,210.5	2.7	4.5	68.13	220.7	-35.7	203.0	197.8	5.18	39.181	
1,400.0	1,394.9	1,325.0	1,283.2	2.9	5.2	66.60	258.4	-44.5	243.1	237.5	5.62	43.293	
1,500.0	1,494.3	1,404.3	1,351.5	3.2	5.9	65.26	297.5	-53.7	287.0	281.0	6.04	47.540	
1,600.0	1,593.6	1,492.0	1,426.1	3.5	6.7	64.03	342.5	-64.2	333.0	326.6	6.47	51.467	
1,700.0	1,692.9	1,580.6	1,501.4	3.7	7.6	63.09	387.9	-74.9	379.2	372.3	6.91	54.893	
1,800.0	1,792.2	1,669.1	1,576.6	4.0	8.4	62.35	433.4	-85.6	425.4	418.0	7.34	57.916	
1,900.0	1,891.6	1,757.7	1,651.9	4.2	9.2	61.75	478.8	-96.2	471.6	463.9	7.78	60.599	
2,000.0	1,990.9	1,846.3	1,727.2	4.5	10.0	61.26	524.3	-106.9	517.9	509.7	8.22	62.998	
2,100.0	2,090.2	1,934.8	1,802.4	4.8	10.9	60.85	569.7	-117.5	564.2	555.6	8.66	65.153	
2,200.0	2,189.5	2,023.4	1,877.7	5.0	11.7	60.51	615.1	-128.2	610.5	601.4	9.10	67.100	
2,300.0	2,288.9	2,112.0	1,953.0	5.3	12.5	60.21	660.6	-138.9	656.9	647.3	9.54	68.867	
2,400.0	2,388.2	2,200.5	2,028.2	5.6	13.3	59.95	706.0	-149.5	703.2	693.3	9.98	70.479	
2,500.0	2,487.5	2,289.1	2,103.5	5.8	14.2	59.72	751.5	-160.2	749.6	739.2	10.42	71.953	
2,600.0	2,586.8	2,377.7	2,178.8	6.1	15.0	59.52	796.9	-170.8	796.0	785.1	10.86	73.308	
2,700.0	2,686.2	2,466.2	2,254.0	6.4	15.8	59.34	842.4	-181.5	842.3	831.0	11.30	74.557	
2,800.0	2,785.5	2,554.8	2,329.3	6.6	16.7	59.18	887.8	-192.1	888.7	877.0	11.74	75.712	
2,900.0	2,884.8	2,643.4	2,404.6	6.9	17.5	59.04	933.3	-202.8	935.1	922.9	12.18	76.783	
3,000.0	2,984.1	2,731.9	2,479.8	7.2	18.3	58.91	978.7	-213.5	981.5	968.9	12.62	77.780	
3,100.0	3,083.5	2,820.5	2,555.1	7.4	19.2	58.79	1,024.2	-224.1	1,027.9	1,014.8	13.06	78.708	
3,200.0	3,182.8	2,909.1	2,630.4	7.7	20.0	58.68	1,069.6	-234.8	1,074.3	1,060.8	13.50	79.576	
3,300.0	3,282.1	3,048.4	2,749.8	8.0	21.2	58.56	1,139.4	-251.1	1,119.8	1,105.8	14.05	79.698	
3,400.0	3,381.5	3,270.5	2,949.7	8.2	22.9	58.61	1,233.5	-273.2	1,157.0	1,142.2	14.80	78.154	
3,500.0	3,480.9	3,510.3	3,176.4	8.5	24.2	59.33	1,309.0	-290.9	1,183.8	1,168.1	15.66	75.580	
3,600.0	3,580.8	3,762.5	3,423.4	8.6	25.1	59.76	1,358.0	-302.4	1,200.9	1,184.5	16.34	73.483	
3,700.0	3,680.8	4,020.7	3,680.8	8.7	25.4	-0.57	1,374.8	-306.3	1,207.1	1,190.3	16.84	71.689	
3,800.0	3,780.8	4,120.7	3,780.8	8.9	25.4	-0.57	1,374.8	-306.3	1,207.1	1,190.0	17.12	70.521	
3,900.0	3,880.8	4,220.7	3,880.8	9.0	25.5	-0.57	1,374.8	-306.3	1,207.1	1,189.7	17.40	69.382	
4,000.0	3,980.8	4,320.7	3,980.8	9.1	25.5	-0.57	1,374.8	-306.3	1,207.1	1,189.5	17.68	68.269	
4,100.0	4,080.8	4,420.7	4,080.8	9.3	25.6	-0.57	1,374.8	-306.3	1,207.1	1,189.2	17.97	67.183	
4,200.0	4,180.8	4,520.7	4,180.8	9.4	25.6	-0.57	1,374.8	-306.3	1,207.1	1,188.9	18.26	66.123	
4,300.0	4,280.8	4,620.7	4,280.8	9.5	25.7	-0.57	1,374.8	-306.3	1,207.1	1,188.6	18.55	65.088	
4,400.0	4,380.8	4,720.7	4,380.8	9.7	25.7	-0.57	1,374.8	-306.3	1,207.1	1,188.3	18.84	64.079	
4,500.0	4,480.8	4,820.7	4,480.8	9.8	25.8	-0.57	1,374.8	-306.3	1,207.1	1,188.0	19.13	63.094	
4,600.0	4,580.8	4,920.7	4,580.8	10.0	25.8	-0.57	1,374.8	-306.3	1,207.1	1,187.7	19.43	62.133	
4,700.0	4,680.8	5,020.7	4,680.8	10.1	25.9	-0.57	1,374.8	-306.3	1,207.1	1,187.4	19.73	61.195	
4,800.0	4,780.8	5,120.7	4,780.8	10.2	26.0	-0.57	1,374.8	-306.3	1,207.1	1,187.1	20.03	60.280	
4,900.0	4,880.8	5,220.7	4,880.8	10.4	26.0	-0.57	1,374.8	-306.3	1,207.1	1,186.8	20.33	59.388	
5,000.0	4,980.8	5,320.7	4,980.8	10.5	26.1	-0.57	1,374.8	-306.3	1,207.1	1,186.5	20.63	58.517	

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 44B-14
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 44B-14	**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
5,100.0	5,080.8	5,420.7	5,080.8	10.7	26.1	-0.57	1,374.8	-306.3	1,207.1	1,186.2	20.93	57.668	
5,200.0	5,180.8	5,520.7	5,180.8	10.8	26.2	-0.57	1,374.8	-306.3	1,207.1	1,185.9	21.24	56.839	
5,300.0	5,280.8	5,620.7	5,280.8	11.0	26.3	-0.57	1,374.8	-306.3	1,207.1	1,185.6	21.54	56.030	
5,400.0	5,380.8	5,720.7	5,380.8	11.1	26.3	-0.57	1,374.8	-306.3	1,207.1	1,185.3	21.85	55.241	
5,500.0	5,480.8	5,820.7	5,480.8	11.3	26.4	-0.57	1,374.8	-306.3	1,207.1	1,185.0	22.16	54.470	
5,600.0	5,580.8	5,920.7	5,580.8	11.4	26.5	-0.57	1,374.8	-306.3	1,207.1	1,184.7	22.47	53.718	
5,700.0	5,680.8	6,020.7	5,680.8	11.6	26.5	-0.57	1,374.8	-306.3	1,207.1	1,184.4	22.78	52.984	
5,800.0	5,780.8	6,120.7	5,780.8	11.7	26.6	-0.57	1,374.8	-306.3	1,207.1	1,184.0	23.10	52.267	
5,834.2	5,815.0	6,154.9	5,815.0	11.8	26.6	-0.57	1,374.8	-306.3	1,207.1	1,183.9	23.20	52.026	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**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	27.55	14.2	7.4	16.0				
100.0	100.0	100.0	100.0	0.1	0.1	27.55	14.2	7.4	16.0	15.7	0.26	62.476	
200.0	200.0	200.0	200.0	0.3	0.3	27.55	14.2	7.4	16.0	15.4	0.61	26.441	
300.0	300.0	300.0	300.0	0.5	0.5	27.55	14.2	7.4	16.0	15.0	0.95	16.769	
400.0	400.0	400.0	400.0	0.7	0.7	27.55	14.2	7.4	16.0	14.7	1.30	12.278	CC, ES
500.0	500.0	499.3	499.3	0.8	0.8	21.41	16.6	6.5	17.9	16.2	1.66	10.784	SF
600.0	600.0	598.3	598.0	1.0	1.0	75.33	23.9	3.9	23.5	21.4	2.01	11.646	
700.0	699.6	696.8	695.6	1.2	1.3	75.33	35.8	-0.5	32.1	29.6	2.42	13.276	
800.0	799.0	794.5	791.7	1.4	1.6	76.12	52.3	-6.5	43.9	41.1	2.87	15.322	
900.0	898.3	891.1	885.7	1.7	2.0	73.87	73.2	-14.1	59.9	56.5	3.34	17.934	
1,000.0	997.6	986.0	976.9	1.9	2.5	70.68	98.0	-23.2	80.0	76.2	3.81	21.014	
1,100.0	1,097.0	1,081.1	1,066.9	2.2	3.0	67.61	126.5	-33.6	104.1	99.8	4.27	24.392	
1,200.0	1,196.3	1,177.9	1,158.5	2.4	3.5	65.53	156.1	-44.5	128.9	124.2	4.73	27.249	
1,300.0	1,295.6	1,274.7	1,250.0	2.7	4.1	64.12	185.8	-55.3	153.8	148.6	5.20	29.606	
1,400.0	1,394.9	1,371.5	1,341.5	2.9	4.7	63.11	215.4	-66.1	178.8	173.1	5.66	31.578	
1,500.0	1,494.3	1,468.3	1,433.0	3.2	5.2	62.34	245.0	-76.9	203.8	197.7	6.13	33.249	
1,600.0	1,593.6	1,565.0	1,524.5	3.5	5.8	61.74	274.6	-87.7	228.8	222.2	6.60	34.682	
1,700.0	1,692.9	1,661.8	1,616.0	3.7	6.4	61.26	304.2	-98.5	253.9	246.8	7.07	35.923	
1,800.0	1,792.2	1,758.6	1,707.5	4.0	6.9	60.87	333.8	-109.4	278.9	271.4	7.54	37.008	
1,900.0	1,891.6	1,855.4	1,799.0	4.2	7.5	60.54	363.4	-120.2	304.0	296.0	8.01	37.964	
2,000.0	1,990.9	1,952.2	1,890.5	4.5	8.1	60.26	393.1	-131.0	329.1	320.6	8.48	38.813	
2,100.0	2,090.2	2,049.0	1,982.1	4.8	8.7	60.02	422.7	-141.8	354.2	345.3	8.95	39.571	
2,200.0	2,189.5	2,145.8	2,073.6	5.0	9.2	59.81	452.3	-152.6	379.3	369.9	9.42	40.252	
2,300.0	2,288.9	2,242.6	2,165.1	5.3	9.8	59.63	481.9	-163.4	404.4	394.5	9.90	40.867	
2,400.0	2,388.2	2,339.4	2,256.6	5.6	10.4	59.47	511.5	-174.3	429.5	419.1	10.37	41.426	
2,500.0	2,487.5	2,436.2	2,348.1	5.8	11.0	59.32	541.1	-185.1	454.6	443.8	10.84	41.935	
2,600.0	2,586.8	2,532.9	2,439.6	6.1	11.5	59.19	570.7	-195.9	479.7	468.4	11.31	42.402	
2,700.0	2,686.2	2,629.7	2,531.1	6.4	12.1	59.08	600.3	-206.7	504.8	493.1	11.79	42.830	
2,800.0	2,785.5	2,726.5	2,622.6	6.6	12.7	58.97	630.0	-217.5	530.0	517.7	12.26	43.225	
2,900.0	2,884.8	2,823.3	2,714.2	6.9	13.3	58.88	659.6	-228.3	555.1	542.3	12.73	43.590	
3,000.0	2,984.1	2,920.1	2,805.7	7.2	13.8	58.79	689.2	-239.1	580.2	567.0	13.21	43.929	
3,100.0	3,083.5	3,016.9	2,897.2	7.4	14.4	58.71	718.8	-250.0	605.3	591.6	13.68	44.244	
3,200.0	3,182.8	3,113.7	2,988.7	7.7	15.0	58.64	748.4	-260.8	630.4	616.3	14.16	44.537	
3,300.0	3,282.1	3,237.0	3,105.8	8.0	15.7	58.61	784.6	-274.0	654.4	639.7	14.69	44.555	
3,400.0	3,381.5	3,383.5	3,247.8	8.2	16.3	58.84	818.7	-286.5	672.1	656.8	15.29	43.951	
3,500.0	3,480.9	3,532.9	3,394.8	8.5	16.7	59.43	842.9	-295.3	683.3	667.4	15.87	43.041	
3,600.0	3,580.8	3,683.9	3,545.1	8.6	17.0	59.74	856.2	-300.2	689.7	673.4	16.31	42.298	
3,700.0	3,680.8	3,819.6	3,680.8	8.7	17.1	-0.57	858.9	-301.2	691.2	674.6	16.62	41.593	
3,800.0	3,780.8	3,919.6	3,780.8	8.9	17.2	-0.57	858.9	-301.2	691.2	674.3	16.89	40.915	
3,900.0	3,880.8	4,019.6	3,880.8	9.0	17.3	-0.57	858.9	-301.2	691.2	674.0	17.17	40.253	
4,000.0	3,980.8	4,119.6	3,980.8	9.1	17.3	-0.57	858.9	-301.2	691.2	673.8	17.45	39.607	
4,100.0	4,080.8	4,219.6	4,080.8	9.3	17.4	-0.57	858.9	-301.2	691.2	673.5	17.73	38.975	
4,200.0	4,180.8	4,319.6	4,180.8	9.4	17.5	-0.57	858.9	-301.2	691.2	673.2	18.02	38.359	
4,300.0	4,280.8	4,419.6	4,280.8	9.5	17.5	-0.57	858.9	-301.2	691.2	672.9	18.31	37.757	
4,400.0	4,380.8	4,519.6	4,380.8	9.7	17.6	-0.57	858.9	-301.2	691.2	672.6	18.60	37.169	
4,500.0	4,480.8	4,619.6	4,480.8	9.8	17.7	-0.57	858.9	-301.2	691.2	672.3	18.89	36.596	
4,600.0	4,580.8	4,719.6	4,580.8	10.0	17.8	-0.57	858.9	-301.2	691.2	672.0	19.18	36.036	
4,700.0	4,680.8	4,819.6	4,680.8	10.1	17.9	-0.57	858.9	-301.2	691.2	671.7	19.48	35.490	
4,800.0	4,780.8	4,919.6	4,780.8	10.2	17.9	-0.57	858.9	-301.2	691.2	671.4	19.77	34.957	
4,900.0	4,880.8	5,019.6	4,880.8	10.4	18.0	-0.57	858.9	-301.2	691.2	671.1	20.07	34.437	
5,000.0	4,980.8	5,119.6	4,980.8	10.5	18.1	-0.57	858.9	-301.2	691.2	670.8	20.37	33.929	
5,100.0	5,080.8	5,219.6	5,080.8	10.7	18.2	-0.57	858.9	-301.2	691.2	670.5	20.67	33.434	

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 44B-14
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 44B-14	**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
5,200.0	5,180.8	5,319.6	5,180.8	10.8	18.3	-0.57	858.9	-301.2	691.2	670.2	20.98	32.950	
5,300.0	5,280.8	5,419.6	5,280.8	11.0	18.4	-0.57	858.9	-301.2	691.2	669.9	21.28	32.479	
5,400.0	5,380.8	5,519.6	5,380.8	11.1	18.5	-0.57	858.9	-301.2	691.2	669.6	21.59	32.018	
5,500.0	5,480.8	5,619.6	5,480.8	11.3	18.6	-0.57	858.9	-301.2	691.2	669.3	21.90	31.569	
5,600.0	5,580.8	5,719.6	5,580.8	11.4	18.7	-0.57	858.9	-301.2	691.2	669.0	22.20	31.130	
5,700.0	5,680.8	5,819.6	5,680.8	11.6	18.7	-0.57	858.9	-301.2	691.2	668.7	22.51	30.702	
5,800.0	5,780.8	5,919.6	5,780.8	11.7	18.8	-0.57	858.9	-301.2	691.2	668.4	22.82	30.284	
5,834.2	5,815.0	5,953.8	5,815.0	11.8	18.9	-0.57	858.9	-301.2	691.2	668.3	22.93	30.143	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**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	27.54	7.1	3.7	8.0				
100.0	100.0	100.0	100.0	0.1	0.1	27.54	7.1	3.7	8.0	7.7	0.26	31.218	
200.0	200.0	200.0	200.0	0.3	0.3	27.54	7.1	3.7	8.0	7.4	0.61	13.219	
300.0	300.0	300.0	300.0	0.5	0.5	27.54	7.1	3.7	8.0	7.0	0.95	8.385	
400.0	400.0	400.0	400.0	0.7	0.7	27.54	7.1	3.7	8.0	6.7	1.30	6.139	
435.3	435.3	435.3	435.3	0.7	0.7	27.54	7.1	3.7	8.0	6.6	1.43	5.609	CC, ES
500.0	500.0	499.9	499.9	0.8	0.8	25.01	7.5	3.5	8.2	6.6	1.65	4.992	SF
600.0	600.0	599.7	599.6	1.0	1.0	84.01	10.5	1.8	10.1	8.1	2.01	5.012	
700.0	699.6	699.4	699.1	1.2	1.2	93.37	16.6	-1.6	13.6	11.2	2.40	5.668	
800.0	799.0	799.0	798.1	1.4	1.4	99.91	25.6	-6.7	19.3	16.4	2.85	6.763	
900.0	898.3	898.4	896.6	1.7	1.7	96.52	37.6	-13.5	26.3	22.9	3.33	7.886	
1,000.0	997.6	997.5	994.2	1.9	2.0	89.50	52.6	-21.9	35.0	31.2	3.84	9.118	
1,100.0	1,097.0	1,095.9	1,090.5	2.2	2.4	81.87	70.3	-31.8	46.1	41.8	4.34	10.623	
1,200.0	1,196.3	1,193.5	1,185.2	2.4	2.8	74.93	90.7	-43.3	60.2	55.3	4.83	12.468	
1,300.0	1,295.6	1,290.0	1,278.0	2.7	3.3	69.09	113.7	-56.2	77.3	72.0	5.28	14.641	
1,400.0	1,394.9	1,385.3	1,368.8	2.9	3.8	64.31	139.0	-70.4	97.7	92.0	5.71	17.100	
1,500.0	1,494.3	1,482.2	1,460.4	3.2	4.3	60.63	166.4	-85.8	120.3	114.1	6.14	19.600	
1,600.0	1,593.6	1,579.4	1,552.4	3.5	4.9	58.11	193.8	-101.2	143.1	136.6	6.56	21.816	
1,700.0	1,692.9	1,676.6	1,644.3	3.7	5.4	56.28	221.3	-116.7	166.2	159.2	6.99	23.777	
1,800.0	1,792.2	1,773.7	1,736.3	4.0	6.0	54.90	248.7	-132.1	189.4	181.9	7.42	25.520	
1,900.0	1,891.6	1,870.9	1,828.2	4.2	6.6	53.82	276.2	-147.5	212.6	204.8	7.85	27.074	
2,000.0	1,990.9	1,968.1	1,920.2	4.5	7.1	52.95	303.7	-162.9	236.0	227.7	8.29	28.467	
2,100.0	2,090.2	2,065.3	2,012.1	4.8	7.7	52.24	331.1	-178.4	259.3	250.6	8.72	29.722	
2,200.0	2,189.5	2,162.5	2,104.0	5.0	8.3	51.65	358.6	-193.8	282.7	273.6	9.16	30.858	
2,300.0	2,288.9	2,259.7	2,196.0	5.3	8.8	51.14	386.0	-209.2	306.1	296.5	9.60	31.890	
2,400.0	2,388.2	2,358.9	2,289.9	5.6	9.4	50.71	414.0	-225.0	329.5	319.5	10.04	32.816	
2,500.0	2,487.5	2,469.0	2,394.9	5.8	10.0	50.45	442.7	-241.1	350.6	340.1	10.51	33.358	
2,600.0	2,586.8	2,580.6	2,502.6	6.1	10.5	50.45	468.3	-255.4	368.1	357.1	11.00	33.479	
2,700.0	2,686.2	2,693.5	2,612.6	6.4	11.0	50.68	490.3	-267.8	382.0	370.5	11.50	33.225	
2,800.0	2,785.5	2,807.4	2,724.5	6.6	11.4	51.12	508.8	-278.2	392.2	380.2	12.01	32.642	
2,900.0	2,884.8	2,921.9	2,837.8	6.9	11.7	51.77	523.3	-286.4	398.7	386.2	12.55	31.772	
3,000.0	2,984.1	3,036.6	2,951.9	7.2	11.9	52.64	534.0	-292.4	401.5	388.4	13.10	30.650	
3,100.0	3,083.5	3,151.3	3,066.2	7.4	12.1	53.75	540.7	-296.1	400.8	387.1	13.67	29.312	
3,200.0	3,182.8	3,265.4	3,180.3	7.7	12.2	55.12	543.3	-297.6	396.4	382.2	14.27	27.790	
3,300.0	3,282.1	3,367.2	3,282.1	8.0	12.3	56.55	543.4	-297.7	390.0	375.1	14.85	26.268	
3,400.0	3,381.5	3,466.5	3,381.5	8.2	12.4	57.98	543.4	-297.7	383.7	368.2	15.43	24.872	
3,500.0	3,480.9	3,566.0	3,480.9	8.5	12.5	59.16	543.4	-297.7	378.4	362.5	15.93	23.761	
3,600.0	3,580.8	3,665.9	3,580.8	8.6	12.6	59.74	543.4	-297.7	375.9	359.6	16.28	23.089	
3,664.7	3,645.5	3,730.6	3,645.5	8.7	12.6	59.87	543.4	-297.7	375.4	358.9	16.47	22.795	
3,700.0	3,680.8	3,765.9	3,680.8	8.7	12.6	-0.51	543.4	-297.7	375.7	359.1	16.55	22.694	
3,800.0	3,780.8	3,865.9	3,780.8	8.9	12.7	-0.51	543.4	-297.7	375.7	358.8	16.83	22.324	
3,900.0	3,880.8	3,965.9	3,880.8	9.0	12.8	-0.51	543.4	-297.7	375.7	358.6	17.10	21.963	
4,000.0	3,980.8	4,065.9	3,980.8	9.1	12.9	-0.51	543.4	-297.7	375.7	358.3	17.38	21.610	
4,100.0	4,080.8	4,165.9	4,080.8	9.3	13.0	-0.51	543.4	-297.7	375.7	358.0	17.67	21.265	
4,200.0	4,180.8	4,265.9	4,180.8	9.4	13.1	-0.51	543.4	-297.7	375.7	357.7	17.95	20.928	
4,300.0	4,280.8	4,365.9	4,280.8	9.5	13.2	-0.51	543.4	-297.7	375.7	357.4	18.24	20.599	
4,400.0	4,380.8	4,465.9	4,380.8	9.7	13.3	-0.51	543.4	-297.7	375.7	357.1	18.53	20.278	
4,500.0	4,480.8	4,565.9	4,480.8	9.8	13.4	-0.51	543.4	-297.7	375.7	356.8	18.82	19.964	
4,600.0	4,580.8	4,665.9	4,580.8	10.0	13.5	-0.51	543.4	-297.7	375.7	356.5	19.11	19.658	
4,700.0	4,680.8	4,765.9	4,680.8	10.1	13.6	-0.51	543.4	-297.7	375.7	356.3	19.40	19.360	
4,800.0	4,780.8	4,865.9	4,780.8	10.2	13.7	-0.51	543.4	-297.7	375.7	356.0	19.70	19.069	
4,900.0	4,880.8	4,965.9	4,880.8	10.4	13.8	-0.51	543.4	-297.7	375.7	355.7	20.00	18.784	

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 44B-14
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 44B-14	**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
5,000.0	4,980.8	5,065.9	4,980.8	10.5	14.0	-0.51	543.4	-297.7	375.7	355.4	20.30	18.507	
5,100.0	5,080.8	5,165.9	5,080.8	10.7	14.1	-0.51	543.4	-297.7	375.7	355.1	20.60	18.236	
5,200.0	5,180.8	5,265.9	5,180.8	10.8	14.2	-0.51	543.4	-297.7	375.7	354.8	20.90	17.972	
5,300.0	5,280.8	5,365.9	5,280.8	11.0	14.3	-0.51	543.4	-297.7	375.7	354.4	21.21	17.714	
5,400.0	5,380.8	5,465.9	5,380.8	11.1	14.4	-0.51	543.4	-297.7	375.7	354.1	21.51	17.463	
5,500.0	5,480.8	5,565.9	5,480.8	11.3	14.5	-0.51	543.4	-297.7	375.7	353.8	21.82	17.217	
5,600.0	5,580.8	5,665.9	5,580.8	11.4	14.6	-0.51	543.4	-297.7	375.7	353.5	22.13	16.977	
5,700.0	5,680.8	5,765.9	5,680.8	11.6	14.8	-0.51	543.4	-297.7	375.7	353.2	22.44	16.743	
5,800.0	5,780.8	5,865.9	5,780.8	11.7	14.9	-0.51	543.4	-297.7	375.7	352.9	22.75	16.515	
5,834.2	5,815.0	5,900.1	5,815.0	11.8	14.9	-0.51	543.4	-297.7	375.7	352.8	22.85	16.438	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**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	-152.44	-7.1	-3.7	8.0				
100.0	100.0	100.0	100.0	0.1	0.1	-152.44	-7.1	-3.7	8.0	7.7	0.26	31.162	
200.0	200.0	200.0	200.0	0.3	0.3	-152.44	-7.1	-3.7	8.0	7.4	0.61	13.205	
300.0	300.0	300.0	300.0	0.5	0.5	-152.44	-7.1	-3.7	8.0	7.0	0.95	8.377	
400.0	400.0	400.0	400.0	0.7	0.7	-152.44	-7.1	-3.7	8.0	6.7	1.30	6.135	CC, ES
500.0	500.0	499.7	499.6	0.8	0.8	-140.31	-7.5	-6.3	9.8	8.2	1.65	5.935	SF
600.0	600.0	599.0	598.6	1.0	1.0	-71.85	-9.1	-13.7	15.5	13.5	2.01	7.703	
700.0	699.6	697.9	696.9	1.2	1.3	-84.32	-14.6	-22.8	24.2	21.8	2.40	10.099	
800.0	799.0	797.0	795.4	1.4	1.5	-96.88	-21.6	-32.2	35.2	32.4	2.84	12.408	
900.0	898.3	896.2	893.9	1.7	1.7	-103.51	-28.5	-41.6	47.1	43.8	3.29	14.307	
1,000.0	997.6	995.4	992.4	1.9	2.0	-107.45	-35.5	-51.0	59.3	55.5	3.75	15.808	
1,100.0	1,097.0	1,094.6	1,090.9	2.2	2.2	-110.04	-42.5	-60.4	71.7	67.5	4.22	17.000	
1,200.0	1,196.3	1,193.8	1,189.4	2.4	2.5	-111.86	-49.4	-69.8	84.2	79.5	4.69	17.961	
1,300.0	1,295.6	1,293.0	1,287.9	2.7	2.8	-113.21	-56.4	-79.2	96.8	91.6	5.16	18.747	
1,400.0	1,394.9	1,392.2	1,386.4	2.9	3.0	-114.25	-63.4	-88.6	109.4	103.7	5.64	19.401	
1,500.0	1,494.3	1,491.3	1,484.9	3.2	3.3	-115.07	-70.3	-98.0	122.0	115.9	6.12	19.952	
1,600.0	1,593.6	1,590.5	1,583.4	3.5	3.6	-115.74	-77.3	-107.4	134.7	128.1	6.59	20.422	
1,700.0	1,692.9	1,689.7	1,681.9	3.7	3.8	-116.29	-84.2	-116.8	147.4	140.3	7.07	20.828	
1,800.0	1,792.2	1,788.9	1,780.3	4.0	4.1	-116.76	-91.2	-126.2	160.0	152.5	7.56	21.181	
1,900.0	1,891.6	1,888.1	1,878.8	4.2	4.3	-117.16	-98.2	-135.6	172.7	164.7	8.04	21.492	
2,000.0	1,990.9	1,987.3	1,977.3	4.5	4.6	-117.50	-105.1	-145.0	185.4	176.9	8.52	21.766	
2,100.0	2,090.2	2,086.4	2,075.8	4.8	4.9	-117.80	-112.1	-154.4	198.1	189.1	9.00	22.011	
2,200.0	2,189.5	2,185.6	2,174.3	5.0	5.1	-118.06	-119.1	-163.8	210.9	201.4	9.49	22.230	
2,300.0	2,288.9	2,284.8	2,272.8	5.3	5.4	-118.29	-126.0	-173.2	223.6	213.6	9.97	22.428	
2,400.0	2,388.2	2,384.0	2,371.3	5.6	5.7	-118.50	-133.0	-182.6	236.3	225.8	10.45	22.607	
2,500.0	2,487.5	2,483.2	2,469.8	5.8	5.9	-118.69	-139.9	-192.0	249.0	238.1	10.94	22.769	
2,600.0	2,586.8	2,582.4	2,568.3	6.1	6.2	-118.86	-146.9	-201.4	261.7	250.3	11.42	22.918	
2,700.0	2,686.2	2,681.5	2,666.8	6.4	6.5	-119.01	-153.9	-210.8	274.5	262.6	11.91	23.055	
2,800.0	2,785.5	2,780.7	2,765.3	6.6	6.7	-119.15	-160.8	-220.2	287.2	274.8	12.39	23.180	
2,900.0	2,884.8	2,879.9	2,863.8	6.9	7.0	-119.28	-167.8	-229.6	299.9	287.1	12.87	23.296	
3,000.0	2,984.1	2,979.1	2,962.2	7.2	7.3	-119.39	-174.8	-239.0	312.7	299.3	13.36	23.404	
3,100.0	3,083.5	3,078.3	3,060.7	7.4	7.6	-119.50	-181.7	-248.4	325.4	311.5	13.84	23.504	
3,200.0	3,182.8	3,177.5	3,159.2	7.7	7.8	-119.60	-188.7	-257.8	338.1	323.8	14.33	23.597	
3,300.0	3,282.1	3,276.7	3,257.7	8.0	8.1	-119.70	-195.6	-267.2	350.9	336.0	14.81	23.683	
3,400.0	3,381.5	3,375.8	3,356.2	8.2	8.4	-119.78	-202.6	-276.6	363.6	348.3	15.30	23.764	
3,500.0	3,480.9	3,483.7	3,463.4	8.5	8.6	-120.03	-209.3	-285.7	374.8	359.0	15.76	23.785	
3,600.0	3,580.8	3,596.7	3,576.3	8.6	8.8	-120.21	-212.7	-290.2	380.2	364.1	16.10	23.611	
3,700.0	3,680.8	3,701.2	3,680.8	8.7	8.9	179.44	-212.9	-290.5	380.7	364.3	16.38	23.235	
3,800.0	3,780.8	3,801.2	3,780.8	8.9	9.0	179.44	-212.9	-290.5	380.7	364.0	16.66	22.852	
3,900.0	3,880.8	3,901.2	3,880.8	9.0	9.2	179.44	-212.9	-290.5	380.7	363.7	16.94	22.478	
4,000.0	3,980.8	4,001.2	3,980.8	9.1	9.3	179.44	-212.9	-290.5	380.7	363.5	17.22	22.112	
4,100.0	4,080.8	4,101.2	4,080.8	9.3	9.4	179.44	-212.9	-290.5	380.7	363.2	17.50	21.755	
4,200.0	4,180.8	4,201.2	4,180.8	9.4	9.6	179.44	-212.9	-290.5	380.7	362.9	17.78	21.407	
4,300.0	4,280.8	4,301.2	4,280.8	9.5	9.7	179.44	-212.9	-290.5	380.7	362.6	18.07	21.067	
4,400.0	4,380.8	4,401.2	4,380.8	9.7	9.8	179.44	-212.9	-290.5	380.7	362.3	18.36	20.735	
4,500.0	4,480.8	4,501.2	4,480.8	9.8	10.0	179.44	-212.9	-290.5	380.7	362.0	18.65	20.411	
4,600.0	4,580.8	4,601.2	4,580.8	10.0	10.1	179.44	-212.9	-290.5	380.7	361.7	18.94	20.095	
4,700.0	4,680.8	4,701.2	4,680.8	10.1	10.2	179.44	-212.9	-290.5	380.7	361.4	19.24	19.787	
4,800.0	4,780.8	4,801.2	4,780.8	10.2	10.4	179.44	-212.9	-290.5	380.7	361.1	19.54	19.486	
4,900.0	4,880.8	4,901.2	4,880.8	10.4	10.5	179.44	-212.9	-290.5	380.7	360.8	19.83	19.193	
5,000.0	4,980.8	5,001.2	4,980.8	10.5	10.7	179.44	-212.9	-290.5	380.7	360.5	20.13	18.906	
5,100.0	5,080.8	5,101.2	5,080.8	10.7	10.8	179.44	-212.9	-290.5	380.7	360.2	20.44	18.627	

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 44B-14
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 44B-14	**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
5,200.0	5,180.8	5,201.2	5,180.8	10.8	10.9	179.44	-212.9	-290.5	380.7	359.9	20.74	18.355	
5,300.0	5,280.8	5,301.2	5,280.8	11.0	11.1	179.44	-212.9	-290.5	380.7	359.6	21.04	18.089	
5,400.0	5,380.8	5,401.2	5,380.8	11.1	11.2	179.44	-212.9	-290.5	380.7	359.3	21.35	17.830	
5,500.0	5,480.8	5,501.2	5,480.8	11.3	11.4	179.44	-212.9	-290.5	380.7	359.0	21.66	17.577	
5,600.0	5,580.8	5,601.2	5,580.8	11.4	11.5	179.44	-212.9	-290.5	380.7	358.7	21.97	17.330	
5,700.0	5,680.8	5,701.2	5,680.8	11.6	11.7	179.44	-212.9	-290.5	380.7	358.4	22.28	17.089	
5,800.0	5,780.8	5,801.2	5,780.8	11.7	11.8	179.44	-212.9	-290.5	380.7	358.1	22.59	16.854	
5,818.3	5,799.1	5,819.5	5,799.1	11.7	11.8	179.44	-212.9	-290.5	380.7	358.0	22.64	16.811	
5,834.2	5,815.0	5,825.7	5,805.3	11.8	11.9	179.44	-212.9	-290.5	380.8	358.1	22.68	16.791	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**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	-152.44	-14.2	-7.4	16.0				
100.0	100.0	100.0	100.0	0.1	0.1	-152.44	-14.2	-7.4	16.0	15.7	0.26	62.266	
200.0	200.0	200.0	200.0	0.3	0.3	-152.44	-14.2	-7.4	16.0	15.4	0.61	26.395	
300.0	300.0	300.0	300.0	0.5	0.5	-152.44	-14.2	-7.4	16.0	15.0	0.95	16.747	
400.0	400.0	400.0	400.0	0.7	0.7	-152.44	-14.2	-7.4	16.0	14.7	1.30	12.264	
500.0	500.0	500.0	500.0	0.8	0.8	-152.44	-14.2	-7.4	16.0	14.3	1.65	9.675	CC
511.5	511.5	511.5	511.5	0.8	0.8	-92.25	-14.2	-7.4	16.0	14.3	1.69	9.444	
600.0	600.0	600.0	600.0	1.0	1.0	-101.34	-14.2	-7.4	16.3	14.3	2.01	8.126	ES, SF
700.0	699.6	699.6	699.6	1.2	1.2	-124.52	-14.2	-7.4	19.4	17.1	2.37	8.200	
800.0	799.0	799.0	799.0	1.4	1.3	-144.45	-14.2	-7.4	27.6	24.9	2.72	10.151	
900.0	898.3	898.3	898.3	1.7	1.5	-154.75	-14.2	-7.4	37.7	34.6	3.07	12.287	
1,000.0	997.6	997.6	997.6	1.9	1.7	-160.60	-14.2	-7.4	48.4	45.0	3.41	14.196	
1,100.0	1,097.0	1,097.0	1,097.0	2.2	1.9	-164.31	-14.2	-7.4	59.5	55.7	3.76	15.838	
1,200.0	1,196.3	1,196.3	1,196.3	2.4	2.0	-166.85	-14.2	-7.4	70.7	66.6	4.10	17.243	
1,300.0	1,295.6	1,295.6	1,295.6	2.7	2.2	-168.69	-14.2	-7.4	82.0	77.6	4.45	18.451	
1,400.0	1,394.9	1,394.9	1,394.9	2.9	2.4	-170.09	-14.2	-7.4	93.4	88.6	4.79	19.497	
1,500.0	1,494.3	1,494.3	1,494.3	3.2	2.6	-171.18	-14.2	-7.4	104.9	99.7	5.14	20.410	
1,600.0	1,593.6	1,593.6	1,593.6	3.5	2.7	-172.05	-14.2	-7.4	116.3	110.9	5.49	21.212	
1,700.0	1,692.9	1,692.9	1,692.9	3.7	2.9	-172.77	-14.2	-7.4	127.8	122.0	5.83	21.922	
1,800.0	1,792.2	1,792.2	1,792.2	4.0	3.1	-173.37	-14.2	-7.4	139.3	133.2	6.18	22.555	
1,900.0	1,891.6	1,891.6	1,891.6	4.2	3.3	-173.88	-14.2	-7.4	150.9	144.3	6.52	23.122	
2,000.0	1,990.9	1,990.9	1,990.9	4.5	3.4	-174.31	-14.2	-7.4	162.4	155.5	6.87	23.633	
2,100.0	2,090.2	2,090.2	2,090.2	4.8	3.6	-174.69	-14.2	-7.4	173.9	166.7	7.22	24.096	
2,200.0	2,189.5	2,189.5	2,189.5	5.0	3.8	-175.02	-14.2	-7.4	185.5	177.9	7.57	24.517	
2,300.0	2,288.9	2,288.9	2,288.9	5.3	3.9	-175.32	-14.2	-7.4	197.0	189.1	7.91	24.902	
2,400.0	2,388.2	2,388.2	2,388.2	5.6	4.1	-175.58	-14.2	-7.4	208.6	200.3	8.26	25.255	
2,500.0	2,487.5	2,487.5	2,487.5	5.8	4.3	-175.81	-14.2	-7.4	220.1	211.5	8.61	25.580	
2,600.0	2,586.8	2,586.8	2,586.8	6.1	4.5	-176.02	-14.2	-7.4	231.7	222.8	8.95	25.880	
2,700.0	2,686.2	2,686.2	2,686.2	6.4	4.6	-176.21	-14.2	-7.4	243.3	234.0	9.30	26.157	
2,800.0	2,785.5	2,785.5	2,785.5	6.6	4.8	-176.38	-14.2	-7.4	254.8	245.2	9.65	26.415	
2,900.0	2,884.8	2,884.8	2,884.8	6.9	5.0	-176.54	-14.2	-7.4	266.4	256.4	9.99	26.655	
3,000.0	2,984.1	2,984.1	2,984.1	7.2	5.2	-176.68	-14.2	-7.4	278.0	267.6	10.34	26.879	
3,100.0	3,083.5	3,083.5	3,083.5	7.4	5.3	-176.81	-14.2	-7.4	289.5	278.9	10.69	27.089	
3,200.0	3,182.8	3,182.8	3,182.8	7.7	5.5	-176.94	-14.2	-7.4	301.1	290.1	11.04	27.286	
3,300.0	3,282.1	3,282.1	3,282.1	8.0	5.7	-177.05	-14.2	-7.4	312.7	301.3	11.38	27.470	
3,400.0	3,381.5	3,381.5	3,381.5	8.2	5.9	-177.16	-14.2	-7.4	324.3	312.5	11.73	27.644	
3,500.0	3,480.9	3,480.9	3,480.9	8.5	6.0	-177.25	-14.2	-7.4	334.3	322.2	12.09	27.642	
3,600.0	3,580.8	3,580.8	3,580.8	8.6	6.2	-177.30	-14.2	-7.4	339.2	326.8	12.44	27.263	
3,700.0	3,680.8	3,680.8	3,680.8	8.7	6.4	122.38	-14.2	-7.4	339.7	326.9	12.78	26.573	
3,800.0	3,780.8	3,780.8	3,780.8	8.9	6.6	122.38	-14.2	-7.4	339.7	326.6	13.13	25.866	
3,900.0	3,880.8	3,880.8	3,880.8	9.0	6.7	122.38	-14.2	-7.4	339.7	326.2	13.48	25.196	
4,000.0	3,980.8	3,980.8	3,980.8	9.1	6.9	122.38	-14.2	-7.4	339.7	325.9	13.83	24.560	
4,100.0	4,080.8	4,080.8	4,080.8	9.3	7.1	122.38	-14.2	-7.4	339.7	325.5	14.18	23.956	
4,200.0	4,180.8	4,180.8	4,180.8	9.4	7.3	122.38	-14.2	-7.4	339.7	325.2	14.53	23.380	
4,300.0	4,280.8	4,280.8	4,280.8	9.5	7.4	122.38	-14.2	-7.4	339.7	324.8	14.88	22.831	
4,400.0	4,380.8	4,380.8	4,380.8	9.7	7.6	122.38	-14.2	-7.4	339.7	324.5	15.23	22.308	
4,500.0	4,480.8	4,480.8	4,480.8	9.8	7.8	122.38	-14.2	-7.4	339.7	324.1	15.58	21.808	
4,600.0	4,580.8	4,580.8	4,580.8	10.0	7.9	122.38	-14.2	-7.4	339.7	323.8	15.93	21.330	
4,700.0	4,680.8	4,680.8	4,680.8	10.1	8.1	122.38	-14.2	-7.4	339.7	323.4	16.28	20.872	
4,800.0	4,780.8	4,780.8	4,780.8	10.2	8.3	122.38	-14.2	-7.4	339.7	323.1	16.63	20.434	
4,900.0	4,880.8	4,880.8	4,880.8	10.4	8.5	122.38	-14.2	-7.4	339.7	322.7	16.97	20.013	
5,000.0	4,980.8	4,980.8	4,980.8	10.5	8.6	122.38	-14.2	-7.4	339.7	322.4	17.32	19.610	

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 44B-14
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 44B-14	**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

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
5,100.0	5,080.8	5,080.8	5,080.8	10.7	8.8	122.38	-14.2	-7.4	339.7	322.0	17.67	19.223	
5,200.0	5,180.8	5,180.8	5,180.8	10.8	9.0	122.38	-14.2	-7.4	339.7	321.7	18.02	18.850	
5,300.0	5,280.8	5,280.8	5,280.8	11.0	9.2	122.38	-14.2	-7.4	339.7	321.3	18.37	18.492	
5,400.0	5,380.8	5,380.8	5,380.8	11.1	9.3	122.38	-14.2	-7.4	339.7	321.0	18.72	18.147	
5,500.0	5,480.8	5,480.8	5,480.8	11.3	9.5	122.38	-14.2	-7.4	339.7	320.6	19.07	17.815	
5,600.0	5,580.8	5,580.8	5,580.8	11.4	9.7	122.38	-14.2	-7.4	339.7	320.3	19.42	17.495	
5,700.0	5,680.8	5,680.8	5,680.8	11.6	9.9	122.38	-14.2	-7.4	339.7	319.9	19.77	17.186	
5,800.0	5,780.8	5,780.8	5,780.8	11.7	10.0	122.38	-14.2	-7.4	339.7	319.6	20.12	16.887	
5,834.2	5,815.0	5,815.0	5,815.0	11.8	10.1	122.38	-14.2	-7.4	339.7	319.5	20.24	16.788	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well Nolte 44B-14
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 44B-14	**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 44B-14
Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502
Grid Convergence at Surface is: -1.62°