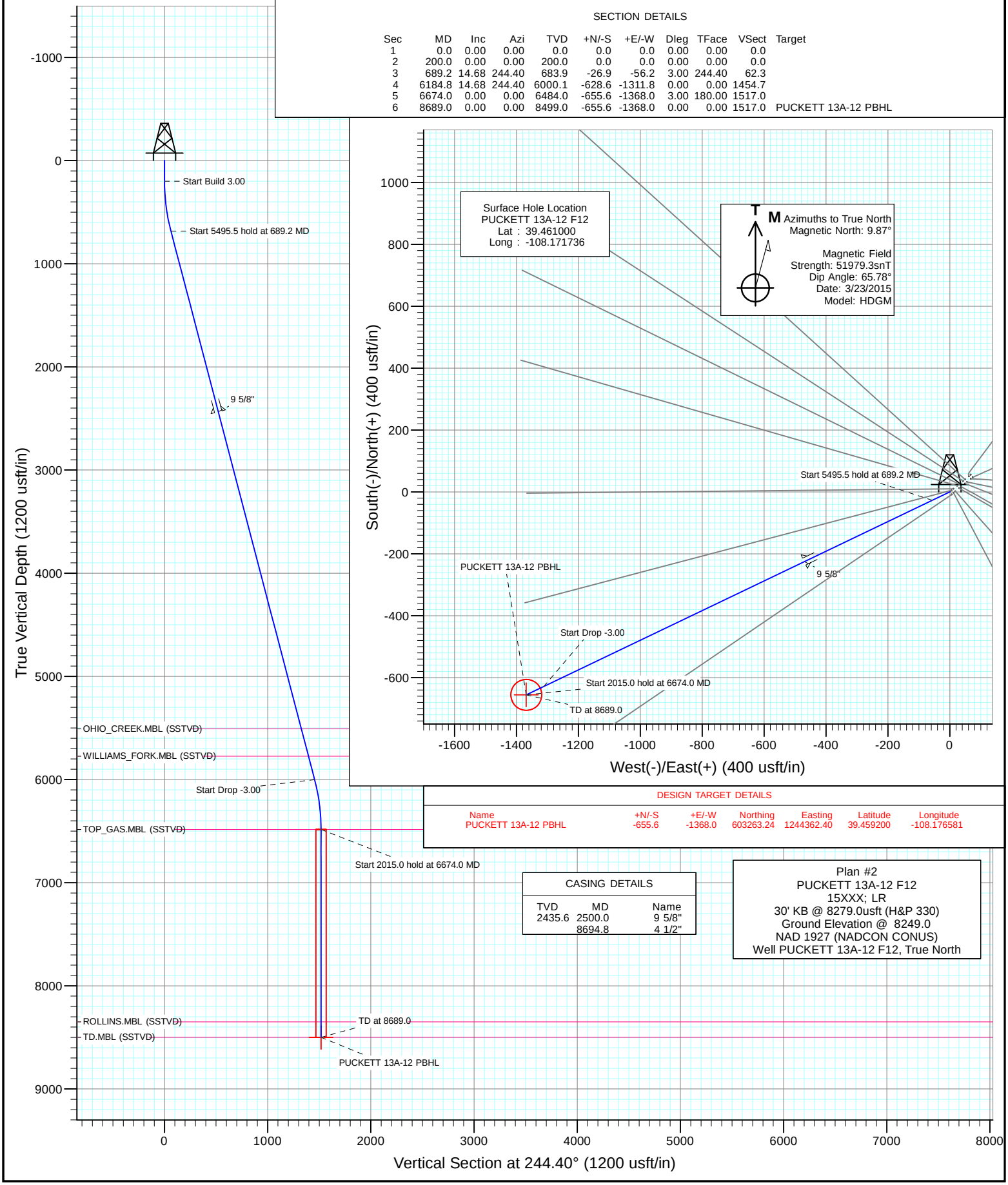
Project: Garfield County, CO
Site: S12-T7S-R97W
Well: PUCKETT 13A-12 F12
Wellbore: OH
Design: Plan #2

CAERUS OIL AND GAS LLC

CATHEDRAL

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	689.2	14.68	244.40	683.9	-26.9	-56.2	3.00	244.40	62.3	
4	6184.8	14.68	244.40	6000.1	-628.6	-1311.8	0.00	0.00	1454.7	
5	6674.0	0.00	0.00	6484.0	-655.6	-1368.0	3.00	180.00	1517.0	
6	8689.0	0.00	0.00	8499.0	-655.6	-1368.0	0.00	0.00	1517.0	PUCKETT 13A-12 PBHL



DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PUCKETT 13A-12 PBHL	-655.6	-1368.0	603263.24	1244362.40	39.459200	-108.176581

CASING DETAILS

TVD	MD	Name
2435.6	2500.0	9 5/8"
	8694.8	4 1/2"

Plan #2
PUCKETT 13A-12 F12
15XXX; LR
30' KB @ 8279.0usft (H&P 330)
Ground Elevation @ 8249.0
NAD 1927 (NADCON CONUS)
Well PUCKETT 13A-12 F12, True North

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Company:	Caerus Oil & Gas (NAD 27)	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Project:	Garfield County, CO	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site:	S12-T7S-R97W	**North Reference:**	True
Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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	S12-T7S-R97W				
Site Position:		**Northing:**	605,875.89 usft	**Latitude:**	39.466531
From:	Lat/Long	**Easting:**	1,246,355.53 usft	**Longitude:**	-108.169797
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	-1.68 °

Well	PUCKETT 13A-12 F12					
Well Position	**+N/-S**	0.0 usft	**Northing:**	603,878.29 usft	**Latitude:**	39.461000
	+E/-W	0.0 usft	**Easting:**	1,245,749.10 usft	**Longitude:**	-108.171736
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	0.0 usft	**Ground Level:**	8,249.0 usft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	HDGM	3/23/2015	9.87	65.78	51,979

Design	Plan #2				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	244.40	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
689.2	14.68	244.40	683.9	-26.9	-56.2	3.00	3.00	0.00	244.40	
6,184.8	14.68	244.40	6,000.1	-628.6	-1,311.8	0.00	0.00	0.00	0.00	
6,674.0	0.00	0.00	6,484.0	-655.6	-1,368.0	3.00	-3.00	0.00	180.00	
8,689.0	0.00	0.00	8,499.0	-655.6	-1,368.0	0.00	0.00	0.00	0.00	PUCKETT 13A-12 PE

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
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Project:	Garfield County, CO	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site:	S12-T7S-R97W	**North Reference:**	True
Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft	Build Rate (°/100u	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	Start Build 3.00
300.0	3.00	244.40	300.0	-1.1	-2.4	2.6	3.00	3.00	
400.0	6.00	244.40	399.6	-4.5	-9.4	10.5	3.00	3.00	
500.0	9.00	244.40	498.8	-10.2	-21.2	23.5	3.00	3.00	
600.0	12.00	244.40	597.1	-18.0	-37.6	41.7	3.00	3.00	
689.2	14.68	244.40	683.9	-26.9	-56.2	62.3	3.00	3.00	Start 5495.5 hold at 689.2 MD
700.0	14.68	244.40	694.3	-28.1	-58.7	65.0	0.00	0.00	
800.0	14.68	244.40	791.1	-39.1	-81.5	90.4	0.00	0.00	
900.0	14.68	244.40	887.8	-50.0	-104.4	115.7	0.00	0.00	
1,000.0	14.68	244.40	984.5	-61.0	-127.2	141.1	0.00	0.00	
1,100.0	14.68	244.40	1,081.3	-71.9	-150.1	166.4	0.00	0.00	
1,200.0	14.68	244.40	1,178.0	-82.9	-172.9	191.7	0.00	0.00	
1,300.0	14.68	244.40	1,274.7	-93.8	-195.7	217.1	0.00	0.00	
1,400.0	14.68	244.40	1,371.5	-104.8	-218.6	242.4	0.00	0.00	
1,500.0	14.68	244.40	1,468.2	-115.7	-241.4	267.7	0.00	0.00	
1,600.0	14.68	244.40	1,565.0	-126.7	-264.3	293.1	0.00	0.00	
1,700.0	14.68	244.40	1,661.7	-137.6	-287.1	318.4	0.00	0.00	
1,800.0	14.68	244.40	1,758.4	-148.5	-310.0	343.7	0.00	0.00	
1,900.0	14.68	244.40	1,855.2	-159.5	-332.8	369.1	0.00	0.00	
2,000.0	14.68	244.40	1,951.9	-170.4	-355.7	394.4	0.00	0.00	
2,100.0	14.68	244.40	2,048.6	-181.4	-378.5	419.8	0.00	0.00	
2,200.0	14.68	244.40	2,145.4	-192.3	-401.4	445.1	0.00	0.00	
2,300.0	14.68	244.40	2,242.1	-203.3	-424.2	470.4	0.00	0.00	
2,400.0	14.68	244.40	2,338.8	-214.2	-447.1	495.8	0.00	0.00	
2,500.0	14.68	244.40	2,435.6	-225.2	-469.9	521.1	0.00	0.00	9 5/8"
2,600.0	14.68	244.40	2,532.3	-236.1	-492.8	546.4	0.00	0.00	
2,700.0	14.68	244.40	2,629.1	-247.1	-515.6	571.8	0.00	0.00	
2,800.0	14.68	244.40	2,725.8	-258.0	-538.5	597.1	0.00	0.00	
2,900.0	14.68	244.40	2,822.5	-269.0	-561.3	622.4	0.00	0.00	
3,000.0	14.68	244.40	2,919.3	-279.9	-584.2	647.8	0.00	0.00	
3,100.0	14.68	244.40	3,016.0	-290.9	-607.0	673.1	0.00	0.00	
3,200.0	14.68	244.40	3,112.7	-301.8	-629.9	698.4	0.00	0.00	
3,300.0	14.68	244.40	3,209.5	-312.8	-652.7	723.8	0.00	0.00	
3,400.0	14.68	244.40	3,306.2	-323.7	-675.6	749.1	0.00	0.00	
3,500.0	14.68	244.40	3,403.0	-334.7	-698.4	774.5	0.00	0.00	
3,600.0	14.68	244.40	3,499.7	-345.6	-721.3	799.8	0.00	0.00	
3,700.0	14.68	244.40	3,596.4	-356.6	-744.1	825.1	0.00	0.00	
3,800.0	14.68	244.40	3,693.2	-367.5	-766.9	850.5	0.00	0.00	
3,900.0	14.68	244.40	3,789.9	-378.5	-789.8	875.8	0.00	0.00	
4,000.0	14.68	244.40	3,886.6	-389.4	-812.6	901.1	0.00	0.00	
4,100.0	14.68	244.40	3,983.4	-400.4	-835.5	926.5	0.00	0.00	
4,200.0	14.68	244.40	4,080.1	-411.3	-858.3	951.8	0.00	0.00	
4,300.0	14.68	244.40	4,176.9	-422.3	-881.2	977.1	0.00	0.00	
4,400.0	14.68	244.40	4,273.6	-433.2	-904.0	1,002.5	0.00	0.00	
4,500.0	14.68	244.40	4,370.3	-444.2	-926.9	1,027.8	0.00	0.00	
4,600.0	14.68	244.40	4,467.1	-455.1	-949.7	1,053.1	0.00	0.00	
4,700.0	14.68	244.40	4,563.8	-466.1	-972.6	1,078.5	0.00	0.00	
4,800.0	14.68	244.40	4,660.5	-477.0	-995.4	1,103.8	0.00	0.00	
4,900.0	14.68	244.40	4,757.3	-488.0	-1,018.3	1,129.2	0.00	0.00	
5,000.0	14.68	244.40	4,854.0	-498.9	-1,041.1	1,154.5	0.00	0.00	

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Project:	Garfield County, CO	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site:	S12-T7S-R97W	**North Reference:**	True
Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft	Build Rate (°/100u	Comments / Formations
5,100.0	14.68	244.40	4,950.8	-509.9	-1,064.0	1,179.8	0.00	0.00	
5,200.0	14.68	244.40	5,047.5	-520.8	-1,086.8	1,205.2	0.00	0.00	
5,300.0	14.68	244.40	5,144.2	-531.8	-1,109.7	1,230.5	0.00	0.00	
5,400.0	14.68	244.40	5,241.0	-542.7	-1,132.5	1,255.8	0.00	0.00	
5,500.0	14.68	244.40	5,337.7	-553.7	-1,155.4	1,281.2	0.00	0.00	
5,600.0	14.68	244.40	5,434.4	-564.6	-1,178.2	1,306.5	0.00	0.00	
5,677.1	14.68	244.40	5,509.0	-573.1	-1,195.8	1,326.0	0.00	0.00	OHIO_CREEK.MBL (SSTVD)
5,700.0	14.68	244.40	5,531.2	-575.6	-1,201.1	1,331.8	0.00	0.00	
5,800.0	14.68	244.40	5,627.9	-586.5	-1,223.9	1,357.2	0.00	0.00	
5,900.0	14.68	244.40	5,724.7	-597.5	-1,246.8	1,382.5	0.00	0.00	
5,951.0	14.68	244.40	5,774.0	-603.0	-1,258.4	1,395.4	0.00	0.00	WILLIAMS_FORK.MBL (SSTVD)
6,000.0	14.68	244.40	5,821.4	-608.4	-1,269.6	1,407.9	0.00	0.00	
6,100.0	14.68	244.40	5,918.1	-619.4	-1,292.5	1,433.2	0.00	0.00	
6,184.8	14.68	244.40	6,000.1	-628.6	-1,311.8	1,454.7	0.00	0.00	Start Drop -3.00
6,200.0	14.22	244.40	6,014.9	-630.3	-1,315.2	1,458.5	3.00	-3.00	
6,300.0	11.22	244.40	6,112.4	-639.8	-1,335.1	1,480.5	3.00	-3.00	
6,400.0	8.22	244.40	6,211.0	-647.1	-1,350.3	1,497.4	3.00	-3.00	
6,500.0	5.22	244.40	6,310.3	-652.1	-1,360.9	1,509.1	3.00	-3.00	
6,600.0	2.22	244.40	6,410.0	-654.9	-1,366.7	1,515.5	3.00	-3.00	
6,674.0	0.00	0.00	6,484.0	-655.6	-1,368.0	1,517.0	3.00	-3.00	Start 2015.0 hold at 6674.0 MD - TOP_GAS.ME
6,700.0	0.00	0.00	6,510.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
6,800.0	0.00	0.00	6,610.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
6,900.0	0.00	0.00	6,710.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
7,000.0	0.00	0.00	6,810.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
7,100.0	0.00	0.00	6,910.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
7,200.0	0.00	0.00	7,010.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
7,300.0	0.00	0.00	7,110.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
7,400.0	0.00	0.00	7,210.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
7,500.0	0.00	0.00	7,310.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
7,600.0	0.00	0.00	7,410.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
7,700.0	0.00	0.00	7,510.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
7,800.0	0.00	0.00	7,610.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
7,900.0	0.00	0.00	7,710.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
8,000.0	0.00	0.00	7,810.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
8,100.0	0.00	0.00	7,910.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
8,200.0	0.00	0.00	8,010.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
8,300.0	0.00	0.00	8,110.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
8,400.0	0.00	0.00	8,210.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
8,500.0	0.00	0.00	8,310.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
8,539.0	0.00	0.00	8,349.0	-655.6	-1,368.0	1,517.0	0.00	0.00	ROLLINS.MBL (SSTVD)
8,600.0	0.00	0.00	8,410.0	-655.6	-1,368.0	1,517.0	0.00	0.00	
8,689.0	0.00	0.00	8,499.0	-655.6	-1,368.0	1,517.0	0.00	0.00	TD at 8689.0 - TD.MBL (SSTVD)

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Project:	Garfield County, CO	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site:	S12-T7S-R97W	**North Reference:**	True
Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PUCKETT 13A-12 PBHl - plan hits target center - Circle (radius 50.0)	0.00	0.00	8,499.0	-655.6	-1,368.0	603,263.24	1,244,362.40	39.459200	-108.176581

8,694.8		4 1/2"		0	0
2,500.0	2,435.6	9 5/8"		0	0

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
5,677.1	5,509.0	OHIO_CREEK.MBL (SSTVD)		0.00	
5,951.0	5,774.0	WILLIAMS_FORK.MBL (SSTVD)		0.00	
6,674.0	6,484.0	TOP_GAS.MBL (SSTVD)		0.00	
8,539.0	8,349.0	ROLLINS.MBL (SSTVD)		0.00	
8,689.0	8,499.0	TD.MBL (SSTVD)		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
200.0	200.0	0.0	0.0	Start Build 3.00
689.2	683.9	-26.9	-56.2	Start 5495.5 hold at 689.2 MD
6,184.8	6,000.1	-628.6	-1,311.8	Start Drop -3.00
6,674.0	6,484.0	-655.6	-1,368.0	Start 2015.0 hold at 6674.0 MD
8,689.0	8,499.0	-655.6	-1,368.0	TD at 8689.0

Caerus Oil & Gas (NAD 27)

Garfield County, CO
S12-T7S-R97W
PUCKETT 13A-12 F12
OH
Plan #2

Anticollision Report

09 April, 2015

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Reference Plan #2

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 5,280.0usft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**		

Survey Tool Program **Date** 4/9/2015

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	8,689.0	Plan #2 (OH)	ISCWSA MWD	MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
S12-T7S-R97W						
PUCKETT 11C-12 F12 - OH - Plan #2	200.0	200.0	63.8	63.2	105.201	CC, ES
PUCKETT 11C-12 F12 - OH - Plan #2	8,689.0	8,801.8	1,987.2	1,919.7	29.418	SF
PUCKETT 11D-12 F12 - OH - Plan #2	200.0	200.0	55.8	55.2	91.959	CC, ES
PUCKETT 11D-12 F12 - OH - Plan #2	8,689.0	8,739.1	1,619.8	1,552.8	24.194	SF
PUCKETT 12A-12 F12 - OH - Plan #2	200.0	200.0	39.5	38.9	65.114	CC, ES
PUCKETT 12A-12 F12 - OH - Plan #2	8,689.0	8,702.9	1,372.1	1,305.8	20.697	SF
PUCKETT 12B-12 F12 - OH - Plan #2	200.0	200.0	31.7	31.1	52.255	CC, ES
PUCKETT 12B-12 F12 - OH - Plan #2	8,689.0	8,677.7	1,081.5	1,015.5	16.387	SF
PUCKETT 12C-12 F12 - OH - Plan #2	200.0	200.0	15.6	15.0	25.773	CC, ES
PUCKETT 12C-12 F12 - OH - Plan #2	8,689.0	8,658.2	651.6	586.6	10.030	SF
PUCKETT 12D-12 F12 - OH - Plan #2	200.0	200.0	7.4	6.8	12.196	CC, ES
PUCKETT 12D-12 F12 - OH - Plan #2	8,689.0	8,667.7	297.6	232.5	4.572	SF
PUCKETT 13B-12 F12 - OH - Plan #2	200.0	200.0	10.1	9.5	16.707	CC
PUCKETT 13B-12 F12 - OH - Plan #2	300.0	300.0	10.5	9.5	10.211	ES
PUCKETT 13B-12 F12 - OH - Plan #2	8,689.0	8,709.4	271.6	205.0	4.078	SF
PUCKETT 22B-12 F12 - OH - PLAN #1	200.0	200.0	79.9	79.3	131.672	CC, ES
PUCKETT 22B-12 F12 - OH - PLAN #1	600.0	584.1	139.0	136.0	46.553	SF
PUCKETT 22C-12 F12 - OH - PLAN #1	200.0	200.0	88.5	87.9	145.828	CC, ES
PUCKETT 22C-12 F12 - OH - PLAN #1	8,689.0	8,512.6	2,018.3	1,978.3	50.393	SF
PUCKETT 22D-12 F12 - OH - Plan #2	200.0	200.0	32.8	32.2	54.010	CC, ES
PUCKETT 22D-12 F12 - OH - Plan #2	400.0	398.1	45.7	44.0	26.691	SF
PUCKETT 23A-12 F12 - OH - Plan #2	200.0	200.0	18.2	17.6	29.993	CC, ES
PUCKETT 23A-12 F12 - OH - Plan #2	400.0	398.4	32.1	30.4	19.011	SF
PUCKETT 23B-12 F12 - OH - Plan #2	200.0	200.0	12.8	12.2	21.027	CC, ES
PUCKETT 23B-12 F12 - OH - Plan #2	300.0	299.8	15.1	14.0	13.789	SF
PUCKETT 32C-12 F12 - OH - PLAN #1	200.0	200.0	80.5	79.9	132.682	CC, ES
PUCKETT 32C-12 F12 - OH - PLAN #1	600.0	576.2	147.9	144.8	48.441	SF
PUCKETT 32D-12 F12 - OH - Plan #2	200.0	200.0	64.4	63.8	106.084	CC, ES
PUCKETT 32D-12 F12 - OH - Plan #2	500.0	491.4	95.6	93.3	40.540	SF
PUCKETT 33A-12 F12 - OH - Plan #2	200.0	200.0	56.5	55.9	93.034	CC, ES
PUCKETT 33A-12 F12 - OH - Plan #2	500.0	490.9	90.9	88.5	38.199	SF
PUCKETT 33B-12 F12 - OH - Plan #2	200.0	200.0	40.5	39.9	66.738	CC, ES
PUCKETT 33B-12 F12 - OH - Plan #2	400.0	395.9	57.6	55.8	32.917	SF
PUCKETT SWD F12-797 - OH - PLAN #1	200.0	200.0	87.5	86.9	144.211	CC, ES
PUCKETT SWD F12-797 - OH - PLAN #1	8,689.0	8,499.0	1,602.1	1,562.0	40.013	SF

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 11C-12 F12 - OH - Plan #2 — **Offset Site Error:** 0.0 usft

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

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	50.71	40.4	49.4	63.8				
100.0	100.0	100.0	100.0	0.1	0.1	50.71	40.4	49.4	63.8	63.7	0.16	405.776	
200.0	200.0	200.0	200.0	0.3	0.3	50.71	40.4	49.4	63.8	63.2	0.61	105.201	CC, ES
300.0	300.0	300.4	300.4	0.5	0.5	164.57	42.2	47.5	66.0	64.9	1.13	58.552	
400.0	399.6	400.3	399.9	0.8	0.8	160.00	47.5	41.6	72.9	71.2	1.72	42.461	
500.0	498.8	499.2	498.0	1.0	1.1	154.08	56.1	32.1	85.1	82.7	2.36	36.065	
600.0	597.1	596.6	593.7	1.4	1.4	148.21	68.0	19.0	103.1	100.0	3.07	33.599	
689.2	683.9	681.9	676.8	1.8	1.8	143.59	81.1	4.6	124.2	120.4	3.78	32.876	
700.0	694.3	692.1	686.7	1.9	1.8	143.13	82.8	2.7	127.0	123.1	3.85	32.980	
800.0	791.1	785.8	776.6	2.4	2.3	138.73	100.3	-16.6	154.4	149.8	4.65	33.235	
900.0	887.8	879.7	865.8	2.9	2.9	134.53	120.2	-38.5	183.9	178.3	5.56	33.075	
1,000.0	984.5	974.5	955.6	3.4	3.5	131.38	140.5	-60.8	214.1	207.5	6.52	32.845	
1,100.0	1,081.3	1,069.2	1,045.4	3.9	4.1	129.01	160.7	-83.1	244.7	237.2	7.50	32.633	
1,200.0	1,178.0	1,164.0	1,135.3	4.5	4.7	127.17	181.0	-105.5	275.7	267.2	8.49	32.472	
1,300.0	1,274.7	1,258.7	1,225.1	5.0	5.3	125.70	201.2	-127.8	306.8	297.3	9.49	32.341	
1,400.0	1,371.5	1,353.5	1,314.9	5.5	5.9	124.50	221.5	-150.1	338.1	327.6	10.49	32.238	
1,500.0	1,468.2	1,448.2	1,404.8	6.1	6.5	123.50	241.8	-172.4	369.5	358.1	11.49	32.155	
1,600.0	1,565.0	1,543.0	1,494.6	6.6	7.1	122.65	262.0	-194.7	401.1	388.6	12.50	32.090	
1,700.0	1,661.7	1,637.7	1,584.4	7.2	7.7	121.93	282.3	-217.0	432.6	419.1	13.50	32.037	
1,800.0	1,758.4	1,732.5	1,674.3	7.7	8.3	121.31	302.5	-239.3	464.2	449.7	14.51	31.996	
1,900.0	1,855.2	1,827.2	1,764.1	8.2	8.9	120.77	322.8	-261.7	495.9	480.4	15.52	31.962	
2,000.0	1,951.9	1,922.0	1,854.0	8.8	9.6	120.29	343.0	-284.0	527.6	511.1	16.52	31.935	
2,100.0	2,048.6	2,016.8	1,943.8	9.3	10.2	119.87	363.3	-306.3	559.4	541.8	17.53	31.913	
2,200.0	2,145.4	2,111.5	2,033.6	9.9	10.8	119.49	383.5	-328.6	591.1	572.6	18.53	31.896	
2,300.0	2,242.1	2,206.3	2,123.5	10.4	11.4	119.15	403.8	-350.9	622.9	603.3	19.54	31.882	
2,400.0	2,338.8	2,301.0	2,213.3	10.9	12.0	118.84	424.0	-373.2	654.7	634.1	20.54	31.872	
2,500.0	2,435.6	2,395.8	2,303.1	11.5	12.6	118.57	444.3	-395.6	686.5	664.9	21.54	31.864	
2,600.0	2,532.3	2,490.5	2,393.0	12.0	13.3	118.31	464.5	-417.9	718.3	695.8	22.55	31.858	
2,700.0	2,629.1	2,585.3	2,482.8	12.6	13.9	118.08	484.8	-440.2	750.2	726.6	23.55	31.854	
2,800.0	2,725.8	2,680.0	2,572.6	13.1	14.5	117.87	505.0	-462.5	782.0	757.4	24.55	31.852	
2,900.0	2,822.5	2,774.8	2,662.5	13.6	15.1	117.67	525.3	-484.8	813.9	788.3	25.55	31.851	
3,000.0	2,919.3	2,869.5	2,752.3	14.2	15.7	117.49	545.5	-507.1	845.7	819.2	26.55	31.851	
3,100.0	3,016.0	2,964.3	2,842.1	14.7	16.3	117.32	565.8	-529.4	877.6	850.0	27.55	31.852	
3,200.0	3,112.7	3,059.1	2,932.0	15.3	17.0	117.16	586.1	-551.8	909.5	880.9	28.55	31.854	
3,300.0	3,209.5	3,153.8	3,021.8	15.8	17.6	117.02	606.3	-574.1	941.3	911.8	29.55	31.857	
3,400.0	3,306.2	3,248.6	3,111.6	16.4	18.2	116.88	626.6	-596.4	973.2	942.7	30.55	31.861	
3,500.0	3,403.0	3,343.3	3,201.5	16.9	18.8	116.75	646.8	-618.7	1,005.1	973.6	31.54	31.865	
3,600.0	3,499.7	3,438.1	3,291.3	17.4	19.4	116.63	667.1	-641.0	1,037.0	1,004.5	32.54	31.870	
3,700.0	3,596.4	3,532.8	3,381.1	18.0	20.0	116.52	687.3	-663.3	1,068.9	1,035.4	33.53	31.875	
3,800.0	3,693.2	3,627.6	3,471.0	18.5	20.7	116.41	707.6	-685.6	1,100.8	1,066.3	34.53	31.881	
3,900.0	3,789.9	3,722.3	3,560.8	19.1	21.3	116.31	727.8	-708.0	1,132.7	1,097.2	35.52	31.887	
4,000.0	3,886.6	3,817.1	3,650.7	19.6	21.9	116.22	748.1	-730.3	1,164.6	1,128.1	36.52	31.894	
4,100.0	3,983.4	3,911.9	3,740.5	20.1	22.5	116.13	768.3	-752.6	1,196.6	1,159.1	37.51	31.901	
4,200.0	4,080.1	4,006.6	3,830.3	20.7	23.1	116.04	788.6	-774.9	1,228.5	1,190.0	38.50	31.908	
4,300.0	4,176.9	4,101.4	3,920.2	21.2	23.7	115.96	808.8	-797.2	1,260.4	1,220.9	39.49	31.915	
4,400.0	4,273.6	4,196.1	4,010.0	21.8	24.4	115.88	829.1	-819.5	1,292.3	1,251.8	40.48	31.923	
4,500.0	4,370.3	4,290.9	4,099.8	22.3	25.0	115.81	849.3	-841.9	1,324.2	1,282.8	41.47	31.931	
4,600.0	4,467.1	4,385.6	4,189.7	22.8	25.6	115.74	869.6	-864.2	1,356.2	1,313.7	42.46	31.939	
4,700.0	4,563.8	4,480.4	4,279.5	23.4	26.2	115.67	889.9	-886.5	1,388.1	1,344.6	43.45	31.948	
4,800.0	4,660.5	4,575.1	4,369.3	23.9	26.8	115.61	910.1	-908.8	1,420.0	1,375.6	44.44	31.956	
4,900.0	4,757.3	4,669.9	4,459.2	24.5	27.5	115.55	930.4	-931.1	1,451.9	1,406.5	45.42	31.965	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 11C-12 F12 - OH - Plan #2

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,000.0	4,854.0	4,764.6	4,549.0	25.0	28.1	115.49	950.6	-953.4	1,483.9	1,437.5	46.41	31.974	
5,100.0	4,950.8	4,859.4	4,638.8	25.6	28.7	115.44	970.9	-975.7	1,515.8	1,468.4	47.39	31.983	
5,200.0	5,047.5	4,954.2	4,728.7	26.1	29.3	115.38	991.1	-998.1	1,547.7	1,499.4	48.38	31.992	
5,300.0	5,144.2	5,048.9	4,818.5	26.6	29.9	115.33	1,011.4	-1,020.4	1,579.7	1,530.3	49.36	32.002	
5,400.0	5,241.0	5,143.7	4,908.3	27.2	30.5	115.28	1,031.6	-1,042.7	1,611.6	1,561.3	50.34	32.011	
5,500.0	5,337.7	5,238.4	4,998.2	27.7	31.2	115.24	1,051.9	-1,065.0	1,643.5	1,592.2	51.33	32.021	
5,600.0	5,434.4	5,333.2	5,088.0	28.3	31.8	115.19	1,072.1	-1,087.3	1,675.5	1,623.2	52.31	32.031	
5,700.0	5,531.2	5,427.9	5,177.8	28.8	32.4	115.15	1,092.4	-1,109.6	1,707.4	1,654.1	53.29	32.040	
5,800.0	5,627.9	5,522.7	5,267.7	29.3	33.0	115.10	1,112.6	-1,131.9	1,739.3	1,685.1	54.27	32.050	
5,900.0	5,724.7	5,617.4	5,357.5	29.9	33.6	115.06	1,132.9	-1,154.3	1,771.3	1,716.0	55.25	32.060	
6,000.0	5,821.4	5,712.2	5,447.4	30.4	34.3	115.02	1,153.1	-1,176.6	1,803.2	1,747.0	56.23	32.070	
6,100.0	5,918.1	5,807.0	5,537.2	31.0	34.9	114.99	1,173.4	-1,198.9	1,835.2	1,778.0	57.21	32.080	
6,184.8	6,000.1	5,887.3	5,613.3	31.4	35.4	114.96	1,190.6	-1,217.8	1,862.2	1,804.2	58.03	32.089	
6,200.0	6,014.9	5,901.7	5,627.0	31.5	35.5	115.09	1,193.7	-1,221.2	1,867.1	1,808.9	58.23	32.066	
6,300.0	6,112.4	5,996.8	5,717.2	31.9	36.1	115.82	1,214.0	-1,243.6	1,897.6	1,838.3	59.37	31.965	
6,400.0	6,211.0	6,092.3	5,807.7	32.1	36.7	116.35	1,234.4	-1,266.1	1,926.1	1,865.7	60.40	31.889	
6,500.0	6,310.3	6,187.8	5,898.3	32.4	37.4	116.67	1,254.8	-1,288.6	1,952.3	1,891.0	61.31	31.841	
6,600.0	6,410.0	6,390.6	6,092.4	32.5	38.4	116.29	1,294.1	-1,331.9	1,975.1	1,912.7	62.38	31.660	
6,674.0	6,484.0	6,630.4	6,328.2	32.6	39.2	0.13	1,322.9	-1,363.6	1,984.6	1,921.6	63.03	31.488	
6,700.0	6,510.0	6,716.8	6,414.2	32.6	39.3	-0.05	1,328.4	-1,369.6	1,986.3	1,923.1	63.17	31.444	
6,800.0	6,610.0	6,912.8	6,610.0	32.7	39.5	-0.15	1,331.7	-1,373.3	1,987.2	1,923.8	63.45	31.320	
6,900.0	6,710.0	7,012.8	6,710.0	32.8	39.6	-0.15	1,331.7	-1,373.3	1,987.2	1,923.6	63.64	31.224	
7,000.0	6,810.0	7,112.8	6,810.0	32.9	39.7	-0.15	1,331.7	-1,373.3	1,987.2	1,923.4	63.84	31.128	
7,100.0	6,910.0	7,212.8	6,910.0	33.0	39.8	-0.15	1,331.7	-1,373.3	1,987.2	1,923.2	64.04	31.030	
7,200.0	7,010.0	7,312.8	7,010.0	33.1	39.9	-0.15	1,331.7	-1,373.3	1,987.2	1,923.0	64.24	30.932	
7,300.0	7,110.0	7,412.8	7,110.0	33.2	39.9	-0.15	1,331.7	-1,373.3	1,987.2	1,922.8	64.45	30.834	
7,400.0	7,210.0	7,512.8	7,210.0	33.2	40.0	-0.15	1,331.7	-1,373.3	1,987.2	1,922.6	64.66	30.735	
7,500.0	7,310.0	7,612.8	7,310.0	33.3	40.1	-0.15	1,331.7	-1,373.3	1,987.2	1,922.4	64.87	30.635	
7,600.0	7,410.0	7,712.8	7,410.0	33.4	40.2	-0.15	1,331.7	-1,373.3	1,987.2	1,922.2	65.08	30.535	
7,700.0	7,510.0	7,812.8	7,510.0	33.5	40.3	-0.15	1,331.7	-1,373.3	1,987.2	1,921.9	65.30	30.434	
7,800.0	7,610.0	7,912.8	7,610.0	33.6	40.4	-0.15	1,331.7	-1,373.3	1,987.2	1,921.7	65.51	30.333	
7,900.0	7,710.0	8,012.8	7,710.0	33.7	40.5	-0.15	1,331.7	-1,373.3	1,987.2	1,921.5	65.73	30.232	
8,000.0	7,810.0	8,112.8	7,810.0	33.8	40.6	-0.15	1,331.7	-1,373.3	1,987.2	1,921.3	65.96	30.130	
8,100.0	7,910.0	8,212.8	7,910.0	33.9	40.7	-0.15	1,331.7	-1,373.3	1,987.2	1,921.1	66.18	30.027	
8,200.0	8,010.0	8,312.8	8,010.0	34.0	40.8	-0.15	1,331.7	-1,373.3	1,987.2	1,920.8	66.41	29.925	
8,300.0	8,110.0	8,412.8	8,110.0	34.1	40.9	-0.15	1,331.7	-1,373.3	1,987.2	1,920.6	66.64	29.822	
8,400.0	8,210.0	8,512.8	8,210.0	34.2	41.0	-0.15	1,331.7	-1,373.3	1,987.2	1,920.4	66.87	29.718	
8,500.0	8,310.0	8,612.8	8,310.0	34.4	41.0	-0.15	1,331.7	-1,373.3	1,987.2	1,920.1	67.10	29.615	
8,600.0	8,410.0	8,712.8	8,410.0	34.5	41.1	-0.15	1,331.7	-1,373.3	1,987.2	1,919.9	67.34	29.511	
8,689.0	8,499.0	8,801.8	8,499.0	34.6	41.2	-0.15	1,331.7	-1,373.3	1,987.2	1,919.7	67.55	29.418	SF

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 11D-12 F12 - OH - Plan #2

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	50.72	35.3	43.2	55.8				
100.0	100.0	100.0	100.0	0.1	0.1	50.72	35.3	43.2	55.8	55.6	0.16	354.697	
200.0	200.0	200.0	200.0	0.3	0.3	50.72	35.3	43.2	55.8	55.2	0.61	91.959	CC, ES
300.0	300.0	300.4	300.4	0.5	0.5	166.30	35.7	42.6	58.2	57.0	1.13	51.593	
400.0	399.6	401.1	400.9	0.8	0.8	163.40	38.6	38.2	64.3	62.6	1.70	37.772	
500.0	498.8	501.2	500.4	1.0	1.0	158.31	44.3	29.4	74.4	72.1	2.31	32.131	
600.0	597.1	600.3	598.3	1.4	1.3	152.48	52.8	16.4	89.1	86.1	2.99	29.825	
689.2	683.9	687.6	683.7	1.8	1.7	147.49	62.6	1.4	106.4	102.8	3.67	29.025	
700.0	694.3	698.0	693.9	1.9	1.7	146.96	63.9	-0.6	108.8	105.0	3.74	29.114	
800.0	791.1	794.5	787.2	2.4	2.2	141.71	77.4	-21.4	131.1	126.6	4.51	29.090	
900.0	887.8	890.9	879.6	2.9	2.7	136.94	92.4	-44.4	154.8	149.3	5.41	28.614	
1,000.0	984.5	987.4	972.0	3.4	3.2	133.43	107.5	-67.5	179.1	172.8	6.36	28.152	
1,100.0	1,081.3	1,083.9	1,064.5	3.9	3.8	130.76	122.5	-90.5	204.0	196.6	7.34	27.774	
1,200.0	1,178.0	1,180.3	1,157.0	4.5	4.3	128.67	137.5	-113.6	229.2	220.8	8.34	27.476	
1,300.0	1,274.7	1,276.8	1,249.4	5.0	4.9	126.99	152.6	-136.7	254.6	245.3	9.35	27.241	
1,400.0	1,371.5	1,373.3	1,341.9	5.5	5.5	125.62	167.6	-159.7	280.2	269.8	10.36	27.055	
1,500.0	1,468.2	1,469.8	1,434.4	6.1	6.0	124.47	182.6	-182.8	305.9	294.5	11.37	26.907	
1,600.0	1,565.0	1,566.2	1,526.8	6.6	6.6	123.51	197.6	-205.9	331.7	319.3	12.38	26.788	
1,700.0	1,661.7	1,662.7	1,619.3	7.2	7.2	122.68	212.7	-228.9	357.6	344.2	13.40	26.690	
1,800.0	1,758.4	1,759.2	1,711.7	7.7	7.7	121.96	227.7	-252.0	383.5	369.1	14.41	26.610	
1,900.0	1,855.2	1,855.7	1,804.2	8.2	8.3	121.34	242.7	-275.0	409.5	394.1	15.43	26.543	
2,000.0	1,951.9	1,952.1	1,896.7	8.8	8.9	120.79	257.8	-298.1	435.6	419.1	16.44	26.487	
2,100.0	2,048.6	2,048.6	1,989.1	9.3	9.4	120.30	272.8	-321.2	461.6	444.2	17.46	26.440	
2,200.0	2,145.4	2,145.1	2,081.6	9.9	10.0	119.86	287.8	-344.2	487.7	469.3	18.47	26.401	
2,300.0	2,242.1	2,241.5	2,174.0	10.4	10.6	119.47	302.8	-367.3	513.9	494.4	19.49	26.367	
2,400.0	2,338.8	2,338.0	2,266.5	10.9	11.1	119.12	317.9	-390.3	540.0	519.5	20.50	26.338	
2,500.0	2,435.6	2,434.5	2,359.0	11.5	11.7	118.80	332.9	-413.4	566.2	544.6	21.52	26.313	
2,600.0	2,532.3	2,531.0	2,451.4	12.0	12.3	118.50	347.9	-436.5	592.3	569.8	22.53	26.292	
2,700.0	2,629.1	2,627.4	2,543.9	12.6	12.8	118.23	363.0	-459.5	618.5	595.0	23.54	26.274	
2,800.0	2,725.8	2,723.9	2,636.4	13.1	13.4	117.99	378.0	-482.6	644.7	620.2	24.55	26.259	
2,900.0	2,822.5	2,820.4	2,728.8	13.6	14.0	117.76	393.0	-505.6	670.9	645.3	25.56	26.246	
3,000.0	2,919.3	2,916.8	2,821.3	14.2	14.6	117.55	408.0	-528.7	697.1	670.6	26.57	26.234	
3,100.0	3,016.0	3,013.3	2,913.7	14.7	15.1	117.36	423.1	-551.8	723.4	695.8	27.58	26.225	
3,200.0	3,112.7	3,109.8	3,006.2	15.3	15.7	117.17	438.1	-574.8	749.6	721.0	28.59	26.217	
3,300.0	3,209.5	3,206.3	3,098.7	15.8	16.3	117.01	453.1	-597.9	775.8	746.2	29.60	26.210	
3,400.0	3,306.2	3,302.7	3,191.1	16.4	16.8	116.85	468.2	-620.9	802.1	771.5	30.61	26.205	
3,500.0	3,403.0	3,399.2	3,283.6	16.9	17.4	116.70	483.2	-644.0	828.3	796.7	31.61	26.200	
3,600.0	3,499.7	3,495.7	3,376.1	17.4	18.0	116.56	498.2	-667.1	854.6	822.0	32.62	26.197	
3,700.0	3,596.4	3,592.1	3,468.5	18.0	18.6	116.43	513.2	-690.1	880.8	847.2	33.63	26.194	
3,800.0	3,693.2	3,688.6	3,561.0	18.5	19.1	116.31	528.3	-713.2	907.1	872.5	34.63	26.192	
3,900.0	3,789.9	3,785.1	3,653.4	19.1	19.7	116.19	543.3	-736.2	933.4	897.7	35.64	26.191	
4,000.0	3,886.6	3,881.6	3,745.9	19.6	20.3	116.08	558.3	-759.3	959.6	923.0	36.64	26.190	
4,100.0	3,983.4	3,978.0	3,838.4	20.1	20.8	115.98	573.4	-782.4	985.9	948.3	37.64	26.190	
4,200.0	4,080.1	4,074.5	3,930.8	20.7	21.4	115.88	588.4	-805.4	1,012.2	973.5	38.65	26.191	
4,300.0	4,176.9	4,171.0	4,023.3	21.2	22.0	115.79	603.4	-828.5	1,038.5	998.8	39.65	26.191	
4,400.0	4,273.6	4,267.5	4,115.7	21.8	22.6	115.70	618.4	-851.6	1,064.7	1,024.1	40.65	26.193	
4,500.0	4,370.3	4,363.9	4,208.2	22.3	23.1	115.61	633.5	-874.6	1,091.0	1,049.4	41.65	26.195	
4,600.0	4,467.1	4,460.4	4,300.7	22.8	23.7	115.53	648.5	-897.7	1,117.3	1,074.7	42.65	26.197	
4,700.0	4,563.8	4,556.9	4,393.1	23.4	24.3	115.45	663.5	-920.7	1,143.6	1,099.9	43.65	26.199	
4,800.0	4,660.5	4,653.3	4,485.6	23.9	24.8	115.38	678.6	-943.8	1,169.9	1,125.2	44.65	26.202	
4,900.0	4,757.3	4,749.8	4,578.1	24.5	25.4	115.31	693.6	-966.9	1,196.2	1,150.5	45.65	26.205	
5,000.0	4,854.0	4,846.3	4,670.5	25.0	26.0	115.24	708.6	-989.9	1,222.5	1,175.8	46.64	26.208	

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 PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 11D-12 F12 - OH - Plan #2

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,950.8	4,942.8	4,763.0	25.6	26.6	115.18	723.6	-1,013.0	1,248.8	1,201.1	47.64	26.212	
5,200.0	5,047.5	5,039.2	4,855.4	26.1	27.1	115.12	738.7	-1,036.0	1,275.1	1,226.4	48.64	26.215	
5,300.0	5,144.2	5,135.7	4,947.9	26.6	27.7	115.06	753.7	-1,059.1	1,301.4	1,251.7	49.63	26.219	
5,400.0	5,241.0	5,232.2	5,040.4	27.2	28.3	115.00	768.7	-1,082.2	1,327.6	1,277.0	50.63	26.223	
5,500.0	5,337.7	5,328.6	5,132.8	27.7	28.8	114.95	783.8	-1,105.2	1,353.9	1,302.3	51.62	26.228	
5,600.0	5,434.4	5,425.1	5,225.3	28.3	29.4	114.89	798.8	-1,128.3	1,380.2	1,327.6	52.62	26.232	
5,700.0	5,531.2	5,521.6	5,317.7	28.8	30.0	114.84	813.8	-1,151.3	1,406.5	1,352.9	53.61	26.237	
5,800.0	5,627.9	5,618.1	5,410.2	29.3	30.6	114.79	828.8	-1,174.4	1,432.9	1,378.2	54.60	26.242	
5,900.0	5,724.7	5,714.5	5,502.7	29.9	31.1	114.75	843.9	-1,197.5	1,459.2	1,403.6	55.59	26.247	
6,000.0	5,821.4	5,811.0	5,595.1	30.4	31.7	114.70	858.9	-1,220.5	1,485.5	1,428.9	56.58	26.252	
6,100.0	5,918.1	5,907.5	5,687.6	31.0	32.3	114.66	873.9	-1,243.6	1,511.8	1,454.2	57.58	26.257	
6,184.8	6,000.1	5,989.2	5,766.0	31.4	32.8	114.62	886.7	-1,263.1	1,534.1	1,475.6	58.41	26.262	
6,200.0	6,014.9	6,004.0	5,780.1	31.5	32.8	114.73	889.0	-1,266.6	1,538.0	1,479.5	58.59	26.251	
6,300.0	6,112.4	6,100.7	5,872.8	31.9	33.4	115.27	904.0	-1,289.8	1,563.0	1,503.3	59.63	26.211	
6,400.0	6,211.0	6,197.7	5,965.7	32.1	34.0	115.57	919.1	-1,312.9	1,585.7	1,525.2	60.57	26.178	
6,500.0	6,310.3	6,368.1	6,130.8	32.4	34.8	115.43	942.2	-1,348.3	1,604.4	1,542.9	61.56	26.062	
6,600.0	6,410.0	6,552.7	6,313.1	32.5	35.3	115.26	958.0	-1,372.5	1,615.8	1,553.6	62.23	25.966	
6,674.0	6,484.0	6,691.4	6,451.3	32.6	35.5	-0.46	963.5	-1,381.0	1,619.4	1,556.9	62.54	25.894	
6,700.0	6,510.0	6,740.4	6,500.3	32.6	35.6	-0.49	964.1	-1,381.9	1,619.8	1,557.1	62.61	25.871	
6,800.0	6,610.0	6,850.1	6,610.0	32.7	35.7	-0.50	964.2	-1,382.0	1,619.8	1,557.0	62.81	25.790	
6,900.0	6,710.0	6,950.1	6,710.0	32.8	35.7	-0.50	964.2	-1,382.0	1,619.8	1,556.8	63.01	25.709	
7,000.0	6,810.0	7,050.1	6,810.0	32.9	35.8	-0.50	964.2	-1,382.0	1,619.8	1,556.6	63.20	25.628	
7,100.0	6,910.0	7,150.1	6,910.0	33.0	35.9	-0.50	964.2	-1,382.0	1,619.8	1,556.4	63.41	25.546	
7,200.0	7,010.0	7,250.1	7,010.0	33.1	36.0	-0.50	964.2	-1,382.0	1,619.8	1,556.2	63.61	25.463	
7,300.0	7,110.0	7,350.1	7,110.0	33.2	36.1	-0.50	964.2	-1,382.0	1,619.8	1,556.0	63.82	25.381	
7,400.0	7,210.0	7,450.1	7,210.0	33.2	36.2	-0.50	964.2	-1,382.0	1,619.8	1,555.8	64.03	25.297	
7,500.0	7,310.0	7,550.1	7,310.0	33.3	36.3	-0.50	964.2	-1,382.0	1,619.8	1,555.5	64.24	25.214	
7,600.0	7,410.0	7,650.1	7,410.0	33.4	36.4	-0.50	964.2	-1,382.0	1,619.8	1,555.3	64.46	25.130	
7,700.0	7,510.0	7,750.1	7,510.0	33.5	36.5	-0.50	964.2	-1,382.0	1,619.8	1,555.1	64.67	25.045	
7,800.0	7,610.0	7,850.1	7,610.0	33.6	36.6	-0.50	964.2	-1,382.0	1,619.8	1,554.9	64.89	24.960	
7,900.0	7,710.0	7,950.1	7,710.0	33.7	36.7	-0.50	964.2	-1,382.0	1,619.8	1,554.7	65.12	24.875	
8,000.0	7,810.0	8,050.1	7,810.0	33.8	36.8	-0.50	964.2	-1,382.0	1,619.8	1,554.4	65.34	24.790	
8,100.0	7,910.0	8,150.1	7,910.0	33.9	36.9	-0.50	964.2	-1,382.0	1,619.8	1,554.2	65.57	24.704	
8,200.0	8,010.0	8,250.1	8,010.0	34.0	37.0	-0.50	964.2	-1,382.0	1,619.8	1,554.0	65.80	24.618	
8,300.0	8,110.0	8,350.1	8,110.0	34.1	37.1	-0.50	964.2	-1,382.0	1,619.8	1,553.8	66.03	24.532	
8,400.0	8,210.0	8,450.1	8,210.0	34.2	37.2	-0.50	964.2	-1,382.0	1,619.8	1,553.5	66.26	24.445	
8,500.0	8,310.0	8,550.1	8,310.0	34.4	37.3	-0.50	964.2	-1,382.0	1,619.8	1,553.3	66.50	24.358	
8,600.0	8,410.0	8,650.1	8,410.0	34.5	37.5	-0.50	964.2	-1,382.0	1,619.8	1,553.1	66.74	24.271	
8,689.0	8,499.0	8,739.1	8,499.0	34.6	37.6	-0.50	964.2	-1,382.0	1,619.8	1,552.8	66.95	24.194	SF

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 12A-12 F12 - OH - Plan #2 — **Offset Site Error:** 0.0 usft

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

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	50.51	25.1	30.5	39.5				
100.0	100.0	100.0	100.0	0.1	0.1	50.51	25.1	30.5	39.5	39.4	0.16	251.152	
200.0	200.0	200.0	200.0	0.3	0.3	50.51	25.1	30.5	39.5	38.9	0.61	65.114	CC, ES
300.0	300.0	300.8	300.8	0.5	0.5	163.60	26.3	28.1	41.0	39.9	1.12	36.528	
400.0	399.6	401.3	400.9	0.8	0.8	157.11	29.8	21.0	45.9	44.2	1.70	27.024	
500.0	498.8	501.2	499.9	1.0	1.1	149.03	35.6	9.2	54.9	52.6	2.32	23.636	
600.0	597.1	600.1	597.2	1.4	1.4	141.46	43.5	-7.0	68.7	65.7	3.03	22.671	
689.2	683.9	687.4	682.1	1.8	1.8	135.89	52.3	-25.0	85.2	81.4	3.77	22.582	
700.0	694.3	697.8	692.2	1.9	1.9	135.33	53.5	-27.4	87.4	83.6	3.85	22.679	
800.0	791.1	795.3	786.2	2.4	2.3	130.86	64.7	-50.4	108.5	103.8	4.71	23.024	
900.0	887.8	892.7	880.3	2.9	2.9	127.83	76.0	-73.3	130.0	124.3	5.64	23.059	
1,000.0	984.5	990.2	974.4	3.4	3.4	125.66	87.2	-96.3	151.7	145.1	6.59	23.005	
1,100.0	1,081.3	1,087.7	1,068.4	3.9	3.9	124.04	98.5	-119.3	173.6	166.0	7.57	22.926	
1,200.0	1,178.0	1,185.1	1,162.5	4.5	4.4	122.78	109.7	-142.2	195.6	187.1	8.56	22.852	
1,300.0	1,274.7	1,282.6	1,256.5	5.0	5.0	121.78	121.0	-165.2	217.7	208.1	9.56	22.782	
1,400.0	1,371.5	1,380.1	1,350.6	5.5	5.5	120.96	132.2	-188.2	239.8	229.3	10.55	22.722	
1,500.0	1,468.2	1,477.5	1,444.6	6.1	6.0	120.28	143.5	-211.1	262.0	250.4	11.56	22.669	
1,600.0	1,565.0	1,575.0	1,538.7	6.6	6.6	119.71	154.7	-234.1	284.2	271.6	12.56	22.624	
1,700.0	1,661.7	1,672.5	1,632.7	7.2	7.1	119.21	166.0	-257.1	306.4	292.8	13.57	22.585	
1,800.0	1,758.4	1,770.0	1,726.8	7.7	7.6	118.79	177.2	-280.0	328.7	314.1	14.57	22.552	
1,900.0	1,855.2	1,867.4	1,820.8	8.2	8.2	118.42	188.4	-303.0	350.9	335.3	15.58	22.523	
2,000.0	1,951.9	1,964.9	1,914.9	8.8	8.7	118.09	199.7	-326.0	373.2	356.6	16.59	22.497	
2,100.0	2,048.6	2,062.4	2,009.0	9.3	9.2	117.80	210.9	-348.9	395.4	377.9	17.59	22.475	
2,200.0	2,145.4	2,159.8	2,103.0	9.9	9.8	117.54	222.2	-371.9	417.7	399.1	18.60	22.456	
2,300.0	2,242.1	2,257.3	2,197.1	10.4	10.3	117.31	233.4	-394.8	440.0	420.4	19.61	22.440	
2,400.0	2,338.8	2,354.8	2,291.1	10.9	10.8	117.10	244.7	-417.8	462.3	441.7	20.62	22.425	
2,500.0	2,435.6	2,452.2	2,385.2	11.5	11.4	116.91	255.9	-440.8	484.6	463.0	21.62	22.412	
2,600.0	2,532.3	2,549.7	2,479.2	12.0	11.9	116.73	267.2	-463.7	506.9	484.3	22.63	22.401	
2,700.0	2,629.1	2,647.2	2,573.3	12.6	12.4	116.57	278.4	-486.7	529.2	505.6	23.64	22.391	
2,800.0	2,725.8	2,744.6	2,667.3	13.1	13.0	116.43	289.7	-509.7	551.6	526.9	24.64	22.383	
2,900.0	2,822.5	2,842.1	2,761.4	13.6	13.5	116.29	300.9	-532.6	573.9	548.2	25.65	22.375	
3,000.0	2,919.3	2,939.6	2,855.5	14.2	14.1	116.17	312.2	-555.6	596.2	569.6	26.65	22.369	
3,100.0	3,016.0	3,037.0	2,949.5	14.7	14.6	116.05	323.4	-578.6	618.5	590.9	27.66	22.364	
3,200.0	3,112.7	3,134.5	3,043.6	15.3	15.1	115.94	334.6	-601.5	640.9	612.2	28.66	22.359	
3,300.0	3,209.5	3,232.0	3,137.6	15.8	15.7	115.84	345.9	-624.5	663.2	633.5	29.67	22.355	
3,400.0	3,306.2	3,329.5	3,231.7	16.4	16.2	115.75	357.1	-647.4	685.5	654.8	30.67	22.352	
3,500.0	3,403.0	3,426.9	3,325.7	16.9	16.7	115.66	368.4	-670.4	707.9	676.2	31.67	22.349	
3,600.0	3,499.7	3,524.4	3,419.8	17.4	17.3	115.58	379.6	-693.4	730.2	697.5	32.68	22.347	
3,700.0	3,596.4	3,621.9	3,513.8	18.0	17.8	115.50	390.9	-716.3	752.5	718.8	33.68	22.345	
3,800.0	3,693.2	3,719.3	3,607.9	18.5	18.4	115.43	402.1	-739.3	774.9	740.2	34.68	22.344	
3,900.0	3,789.9	3,816.8	3,701.9	19.1	18.9	115.36	413.4	-762.3	797.2	761.5	35.68	22.343	
4,000.0	3,886.6	3,914.3	3,796.0	19.6	19.4	115.29	424.6	-785.2	819.5	782.9	36.68	22.343	
4,100.0	3,983.4	4,011.7	3,890.1	20.1	20.0	115.23	435.9	-808.2	841.9	804.2	37.68	22.342	
4,200.0	4,080.1	4,109.2	3,984.1	20.7	20.5	115.17	447.1	-831.2	864.2	825.5	38.68	22.343	
4,300.0	4,176.9	4,206.7	4,078.2	21.2	21.0	115.11	458.4	-854.1	886.6	846.9	39.68	22.343	
4,400.0	4,273.6	4,304.1	4,172.2	21.8	21.6	115.06	469.6	-877.1	908.9	868.2	40.68	22.344	
4,500.0	4,370.3	4,401.6	4,266.3	22.3	22.1	115.01	480.8	-900.0	931.2	889.6	41.68	22.345	
4,600.0	4,467.1	4,499.1	4,360.3	22.8	22.6	114.96	492.1	-923.0	953.6	910.9	42.67	22.346	
4,700.0	4,563.8	4,596.5	4,454.4	23.4	23.2	114.92	503.3	-946.0	975.9	932.3	43.67	22.348	
4,800.0	4,660.5	4,694.0	4,548.4	23.9	23.7	114.87	514.6	-968.9	998.3	953.6	44.67	22.350	
4,900.0	4,757.3	4,791.5	4,642.5	24.5	24.3	114.83	525.8	-991.9	1,020.6	975.0	45.66	22.351	
5,000.0	4,854.0	4,889.0	4,736.6	25.0	24.8	114.79	537.1	-1,014.9	1,043.0	996.3	46.66	22.354	

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 PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 12A-12 F12 - OH - Plan #2

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,950.8	4,986.4	4,830.6	25.6	25.3	114.75	548.3	-1,037.8	1,065.3	1,017.7	47.65	22.356	
5,200.0	5,047.5	5,083.9	4,924.7	26.1	25.9	114.71	559.6	-1,060.8	1,087.7	1,039.0	48.65	22.358	
5,300.0	5,144.2	5,181.4	5,018.7	26.6	26.4	114.68	570.8	-1,083.8	1,110.0	1,060.4	49.64	22.361	
5,400.0	5,241.0	5,278.8	5,112.8	27.2	26.9	114.64	582.1	-1,106.7	1,132.3	1,081.7	50.63	22.363	
5,500.0	5,337.7	5,376.3	5,206.8	27.7	27.5	114.61	593.3	-1,129.7	1,154.7	1,103.1	51.63	22.366	
5,600.0	5,434.4	5,473.8	5,300.9	28.3	28.0	114.58	604.6	-1,152.6	1,177.0	1,124.4	52.62	22.369	
5,700.0	5,531.2	5,571.2	5,394.9	28.8	28.6	114.55	615.8	-1,175.6	1,199.4	1,145.8	53.61	22.372	
5,800.0	5,627.9	5,668.7	5,489.0	29.3	29.1	114.52	627.0	-1,198.6	1,221.7	1,167.1	54.60	22.376	
5,900.0	5,724.7	5,766.2	5,583.0	29.9	29.6	114.49	638.3	-1,221.5	1,244.1	1,188.5	55.59	22.379	
6,000.0	5,821.4	5,863.6	5,677.1	30.4	30.2	114.47	649.5	-1,244.5	1,266.4	1,209.9	56.58	22.382	
6,100.0	5,918.1	5,961.1	5,771.2	31.0	30.7	114.44	660.8	-1,267.5	1,288.8	1,231.2	57.57	22.386	
6,184.8	6,000.1	6,043.7	5,850.9	31.4	31.2	114.42	670.3	-1,286.9	1,307.7	1,249.3	58.41	22.389	
6,200.0	6,014.9	6,058.6	5,865.2	31.5	31.2	114.51	672.0	-1,290.4	1,311.1	1,252.5	58.58	22.384	
6,300.0	6,112.4	6,156.3	5,959.5	31.9	31.8	114.93	683.3	-1,313.5	1,332.1	1,272.5	59.55	22.368	
6,400.0	6,211.0	6,283.8	6,083.2	32.1	32.3	115.04	697.0	-1,341.4	1,350.2	1,289.7	60.46	22.333	
6,500.0	6,310.3	6,428.5	6,225.5	32.4	32.8	115.07	708.3	-1,364.4	1,363.1	1,301.9	61.16	22.285	
6,600.0	6,410.0	6,575.0	6,371.3	32.5	33.1	115.07	714.8	-1,377.8	1,370.3	1,308.7	61.65	22.228	
6,674.0	6,484.0	6,684.1	6,480.2	32.6	33.2	-0.55	716.5	-1,381.2	1,372.1	1,310.2	61.87	22.176	
6,700.0	6,510.0	6,713.9	6,510.0	32.6	33.2	-0.55	716.5	-1,381.2	1,372.1	1,310.2	61.93	22.157	
6,800.0	6,610.0	6,813.9	6,610.0	32.7	33.3	-0.55	716.5	-1,381.2	1,372.1	1,310.0	62.12	22.087	
6,900.0	6,710.0	6,913.9	6,710.0	32.8	33.4	-0.55	716.5	-1,381.2	1,372.1	1,309.8	62.32	22.017	
7,000.0	6,810.0	7,013.9	6,810.0	32.9	33.5	-0.55	716.5	-1,381.2	1,372.1	1,309.6	62.52	21.946	
7,100.0	6,910.0	7,113.9	6,910.0	33.0	33.6	-0.55	716.5	-1,381.2	1,372.1	1,309.4	62.73	21.875	
7,200.0	7,010.0	7,213.9	7,010.0	33.1	33.7	-0.55	716.5	-1,381.2	1,372.1	1,309.2	62.93	21.803	
7,300.0	7,110.0	7,313.9	7,110.0	33.2	33.8	-0.55	716.5	-1,381.2	1,372.1	1,309.0	63.14	21.731	
7,400.0	7,210.0	7,413.9	7,210.0	33.2	33.9	-0.55	716.5	-1,381.2	1,372.1	1,308.8	63.35	21.658	
7,500.0	7,310.0	7,513.9	7,310.0	33.3	34.0	-0.55	716.5	-1,381.2	1,372.1	1,308.5	63.57	21.585	
7,600.0	7,410.0	7,613.9	7,410.0	33.4	34.1	-0.55	716.5	-1,381.2	1,372.1	1,308.3	63.78	21.512	
7,700.0	7,510.0	7,713.9	7,510.0	33.5	34.3	-0.55	716.5	-1,381.2	1,372.1	1,308.1	64.00	21.438	
7,800.0	7,610.0	7,813.9	7,610.0	33.6	34.4	-0.55	716.5	-1,381.2	1,372.1	1,307.9	64.22	21.364	
7,900.0	7,710.0	7,913.9	7,710.0	33.7	34.5	-0.55	716.5	-1,381.2	1,372.1	1,307.7	64.45	21.290	
8,000.0	7,810.0	8,013.9	7,810.0	33.8	34.6	-0.55	716.5	-1,381.2	1,372.1	1,307.4	64.67	21.216	
8,100.0	7,910.0	8,113.9	7,910.0	33.9	34.7	-0.55	716.5	-1,381.2	1,372.1	1,307.2	64.90	21.141	
8,200.0	8,010.0	8,213.9	8,010.0	34.0	34.8	-0.55	716.5	-1,381.2	1,372.1	1,307.0	65.13	21.066	
8,300.0	8,110.0	8,313.9	8,110.0	34.1	34.9	-0.55	716.5	-1,381.2	1,372.1	1,306.7	65.37	20.991	
8,400.0	8,210.0	8,413.9	8,210.0	34.2	35.0	-0.55	716.5	-1,381.2	1,372.1	1,306.5	65.60	20.916	
8,500.0	8,310.0	8,513.9	8,310.0	34.4	35.1	-0.55	716.5	-1,381.2	1,372.1	1,306.3	65.84	20.840	
8,600.0	8,410.0	8,613.9	8,410.0	34.5	35.3	-0.55	716.5	-1,381.2	1,372.1	1,306.0	66.08	20.765	
8,689.0	8,499.0	8,702.9	8,499.0	34.6	35.4	-0.55	716.5	-1,381.2	1,372.1	1,305.8	66.29	20.697	SF

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 12B-12 F12 - OH - Plan #2 — **Offset Site Error:** 0.0 usft

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

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	49.97	20.4	24.3	31.7				
100.0	100.0	100.0	100.0	0.1	0.1	49.97	20.4	24.3	31.7	31.6	0.16	201.555	
200.0	200.0	200.0	200.0	0.3	0.3	49.97	20.4	24.3	31.7	31.1	0.61	52.255	CC, ES
300.0	300.0	300.5	300.5	0.5	0.5	165.73	20.6	23.6	33.9	32.8	1.12	30.147	
400.0	399.6	401.3	401.2	0.8	0.8	162.04	22.1	18.5	38.6	36.9	1.69	22.894	
500.0	498.8	502.0	501.2	1.0	1.0	155.58	25.0	8.3	46.0	43.7	2.28	20.140	
600.0	597.1	602.2	600.2	1.4	1.3	148.42	29.3	-6.8	56.6	53.7	2.94	19.238	
689.2	683.9	691.0	687.1	1.8	1.7	142.48	34.4	-24.4	69.1	65.5	3.63	19.065	
700.0	694.3	701.7	697.5	1.9	1.7	141.84	35.1	-26.8	70.8	67.1	3.70	19.143	
800.0	791.1	800.3	793.1	2.4	2.2	136.18	41.8	-50.0	86.8	82.3	4.51	19.248	
900.0	887.8	898.7	888.5	2.9	2.7	132.21	48.5	-73.3	103.2	97.8	5.41	19.089	
1,000.0	984.5	997.1	983.8	3.4	3.2	129.34	55.2	-96.7	120.1	113.7	6.36	18.890	
1,100.0	1,081.3	1,095.5	1,079.2	3.9	3.7	127.18	61.9	-120.0	137.1	129.8	7.33	18.707	
1,200.0	1,178.0	1,193.9	1,174.6	4.5	4.2	125.50	68.6	-143.3	154.3	146.0	8.32	18.553	
1,300.0	1,274.7	1,292.4	1,270.0	5.0	4.7	124.16	75.3	-166.6	171.6	162.3	9.32	18.424	
1,400.0	1,371.5	1,390.8	1,365.4	5.5	5.2	123.06	82.0	-189.9	189.0	178.7	10.32	18.317	
1,500.0	1,468.2	1,489.2	1,460.7	6.1	5.7	122.15	88.7	-213.2	206.5	195.1	11.33	18.228	
1,600.0	1,565.0	1,587.6	1,556.1	6.6	6.2	121.38	95.4	-236.5	223.9	211.6	12.34	18.154	
1,700.0	1,661.7	1,686.0	1,651.5	7.2	6.7	120.72	102.1	-259.8	241.5	228.1	13.35	18.091	
1,800.0	1,758.4	1,784.5	1,746.9	7.7	7.2	120.15	108.8	-283.2	259.0	244.6	14.36	18.038	
1,900.0	1,855.2	1,882.9	1,842.3	8.2	7.7	119.65	115.5	-306.5	276.6	261.2	15.37	17.992	
2,000.0	1,951.9	1,981.3	1,937.7	8.8	8.3	119.22	122.2	-329.8	294.1	277.8	16.38	17.952	
2,100.0	2,048.6	2,079.7	2,033.0	9.3	8.8	118.83	128.9	-353.1	311.7	294.3	17.40	17.918	
2,200.0	2,145.4	2,178.1	2,128.4	9.9	9.3	118.48	135.6	-376.4	329.3	310.9	18.41	17.888	
2,300.0	2,242.1	2,276.6	2,223.8	10.4	9.8	118.17	142.3	-399.7	347.0	327.5	19.42	17.862	
2,400.0	2,338.8	2,375.0	2,319.2	10.9	10.3	117.89	149.0	-423.0	364.6	344.1	20.44	17.838	
2,500.0	2,435.6	2,473.4	2,414.6	11.5	10.8	117.63	155.7	-446.4	382.2	360.8	21.45	17.818	
2,600.0	2,532.3	2,571.8	2,510.0	12.0	11.3	117.40	162.4	-469.7	399.9	377.4	22.46	17.800	
2,700.0	2,629.1	2,670.2	2,605.3	12.6	11.8	117.18	169.1	-493.0	417.5	394.0	23.48	17.783	
2,800.0	2,725.8	2,768.7	2,700.7	13.1	12.4	116.99	175.8	-516.3	435.2	410.7	24.49	17.769	
2,900.0	2,822.5	2,867.1	2,796.1	13.6	12.9	116.81	182.5	-539.6	452.8	427.3	25.50	17.756	
3,000.0	2,919.3	2,965.5	2,891.5	14.2	13.4	116.64	189.2	-562.9	470.5	444.0	26.51	17.744	
3,100.0	3,016.0	3,063.9	2,986.9	14.7	13.9	116.48	195.9	-586.2	488.1	460.6	27.53	17.734	
3,200.0	3,112.7	3,162.3	3,082.3	15.3	14.4	116.34	202.6	-609.5	505.8	477.3	28.54	17.725	
3,300.0	3,209.5	3,260.8	3,177.6	15.8	14.9	116.21	209.3	-632.9	523.5	493.9	29.55	17.716	
3,400.0	3,306.2	3,359.2	3,273.0	16.4	15.5	116.08	216.1	-656.2	541.2	510.6	30.56	17.709	
3,500.0	3,403.0	3,457.6	3,368.4	16.9	16.0	115.96	222.8	-679.5	558.8	527.3	31.57	17.702	
3,600.0	3,499.7	3,556.0	3,463.8	17.4	16.5	115.85	229.5	-702.8	576.5	543.9	32.58	17.696	
3,700.0	3,596.4	3,654.4	3,559.2	18.0	17.0	115.75	236.2	-726.1	594.2	560.6	33.59	17.690	
3,800.0	3,693.2	3,752.8	3,654.6	18.5	17.5	115.65	242.9	-749.4	611.9	577.3	34.60	17.686	
3,900.0	3,789.9	3,851.3	3,749.9	19.1	18.0	115.56	249.6	-772.7	629.5	593.9	35.61	17.681	
4,000.0	3,886.6	3,949.7	3,845.3	19.6	18.5	115.47	256.3	-796.1	647.2	610.6	36.61	17.677	
4,100.0	3,983.4	4,048.1	3,940.7	20.1	19.1	115.39	263.0	-819.4	664.9	627.3	37.62	17.674	
4,200.0	4,080.1	4,146.5	4,036.1	20.7	19.6	115.31	269.7	-842.7	682.6	644.0	38.63	17.671	
4,300.0	4,176.9	4,244.9	4,131.5	21.2	20.1	115.23	276.4	-866.0	700.3	660.7	39.64	17.668	
4,400.0	4,273.6	4,343.4	4,226.9	21.8	20.6	115.16	283.1	-889.3	718.0	677.3	40.64	17.666	
4,500.0	4,370.3	4,441.8	4,322.2	22.3	21.1	115.10	289.8	-912.6	735.7	694.0	41.65	17.664	
4,600.0	4,467.1	4,540.2	4,417.6	22.8	21.6	115.03	296.5	-935.9	753.4	710.7	42.65	17.662	
4,700.0	4,563.8	4,638.6	4,513.0	23.4	22.2	114.97	303.2	-959.2	771.1	727.4	43.66	17.661	
4,800.0	4,660.5	4,737.0	4,608.4	23.9	22.7	114.91	309.9	-982.6	788.8	744.1	44.66	17.660	
4,900.0	4,757.3	4,835.5	4,703.8	24.5	23.2	114.85	316.6	-1,005.9	806.4	760.8	45.67	17.659	
5,000.0	4,854.0	4,933.9	4,799.1	25.0	23.7	114.80	323.3	-1,029.2	824.1	777.5	46.67	17.658	

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 PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 12B-12 F12 - OH - Plan #2

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,950.8	5,032.3	4,894.5	25.6	24.2	114.75	330.0	-1,052.5	841.8	794.2	47.68	17.658	
5,200.0	5,047.5	5,130.7	4,989.9	26.1	24.7	114.70	336.7	-1,075.8	859.5	810.9	48.68	17.657	
5,300.0	5,144.2	5,229.1	5,085.3	26.6	25.3	114.65	343.4	-1,099.1	877.2	827.5	49.68	17.657	
5,400.0	5,241.0	5,327.6	5,180.7	27.2	25.8	114.61	350.1	-1,122.4	894.9	844.2	50.68	17.657	
5,500.0	5,337.7	5,426.0	5,276.1	27.7	26.3	114.56	356.8	-1,145.8	912.6	860.9	51.69	17.657	
5,600.0	5,434.4	5,524.4	5,371.4	28.3	26.8	114.52	363.5	-1,169.1	930.3	877.6	52.69	17.658	
5,700.0	5,531.2	5,622.8	5,466.8	28.8	27.3	114.48	370.2	-1,192.4	948.0	894.3	53.69	17.658	
5,800.0	5,627.9	5,721.2	5,562.2	29.3	27.8	114.44	376.9	-1,215.7	965.7	911.0	54.69	17.659	
5,900.0	5,724.7	5,819.7	5,657.6	29.9	28.3	114.41	383.6	-1,239.0	983.4	927.7	55.69	17.659	
6,000.0	5,821.4	5,918.1	5,753.0	30.4	28.9	114.37	390.3	-1,262.3	1,001.1	944.4	56.69	17.660	
6,100.0	5,918.1	6,016.5	5,848.4	31.0	29.4	114.33	397.0	-1,285.6	1,018.8	961.1	57.69	17.661	
6,184.8	6,000.1	6,099.9	5,929.2	31.4	29.8	114.31	402.7	-1,305.4	1,033.8	975.3	58.53	17.662	
6,200.0	6,014.9	6,114.9	5,943.7	31.5	29.9	114.37	403.7	-1,308.9	1,036.5	977.8	58.69	17.661	
6,300.0	6,112.4	6,216.0	6,041.7	31.9	30.4	114.61	410.6	-1,332.8	1,052.8	993.2	59.62	17.658	
6,400.0	6,211.0	6,333.5	6,156.6	32.1	30.9	114.67	417.4	-1,356.4	1,065.9	1,005.5	60.42	17.640	
6,500.0	6,310.3	6,452.2	6,274.0	32.4	31.2	114.70	422.2	-1,373.2	1,075.0	1,014.1	61.00	17.625	
6,600.0	6,410.0	6,571.5	6,392.9	32.5	31.4	114.69	425.0	-1,383.0	1,080.3	1,018.9	61.40	17.595	
6,674.0	6,484.0	6,660.1	6,481.4	32.6	31.5	-0.94	425.8	-1,385.7	1,081.5	1,019.9	61.59	17.561	
6,700.0	6,510.0	6,688.7	6,510.0	32.6	31.5	-0.94	425.8	-1,385.7	1,081.5	1,019.9	61.64	17.546	
6,800.0	6,610.0	6,788.7	6,610.0	32.7	31.6	-0.94	425.8	-1,385.7	1,081.5	1,019.7	61.83	17.491	
6,900.0	6,710.0	6,888.7	6,710.0	32.8	31.7	-0.94	425.8	-1,385.7	1,081.5	1,019.5	62.03	17.435	
7,000.0	6,810.0	6,988.7	6,810.0	32.9	31.8	-0.94	425.8	-1,385.7	1,081.5	1,019.3	62.23	17.379	
7,100.0	6,910.0	7,088.7	6,910.0	33.0	31.9	-0.94	425.8	-1,385.7	1,081.5	1,019.1	62.44	17.322	
7,200.0	7,010.0	7,188.7	7,010.0	33.1	32.0	-0.94	425.8	-1,385.7	1,081.5	1,018.9	62.64	17.265	
7,300.0	7,110.0	7,288.7	7,110.0	33.2	32.2	-0.94	425.8	-1,385.7	1,081.5	1,018.7	62.85	17.208	
7,400.0	7,210.0	7,388.7	7,210.0	33.2	32.3	-0.94	425.8	-1,385.7	1,081.5	1,018.5	63.06	17.150	
7,500.0	7,310.0	7,488.7	7,310.0	33.3	32.4	-0.94	425.8	-1,385.7	1,081.5	1,018.3	63.28	17.092	
7,600.0	7,410.0	7,588.7	7,410.0	33.4	32.5	-0.94	425.8	-1,385.7	1,081.5	1,018.0	63.49	17.034	
7,700.0	7,510.0	7,688.7	7,510.0	33.5	32.6	-0.94	425.8	-1,385.7	1,081.5	1,017.8	63.71	16.976	
7,800.0	7,610.0	7,788.7	7,610.0	33.6	32.7	-0.94	425.8	-1,385.7	1,081.5	1,017.6	63.93	16.917	
7,900.0	7,710.0	7,888.7	7,710.0	33.7	32.8	-0.94	425.8	-1,385.7	1,081.5	1,017.4	64.16	16.858	
8,000.0	7,810.0	7,988.7	7,810.0	33.8	32.9	-0.94	425.8	-1,385.7	1,081.5	1,017.2	64.38	16.799	
8,100.0	7,910.0	8,088.7	7,910.0	33.9	33.0	-0.94	425.8	-1,385.7	1,081.5	1,016.9	64.61	16.740	
8,200.0	8,010.0	8,188.7	8,010.0	34.0	33.2	-0.94	425.8	-1,385.7	1,081.5	1,016.7	64.84	16.680	
8,300.0	8,110.0	8,288.7	8,110.0	34.1	33.3	-0.94	425.8	-1,385.7	1,081.5	1,016.5	65.07	16.620	
8,400.0	8,210.0	8,388.7	8,210.0	34.2	33.4	-0.94	425.8	-1,385.7	1,081.5	1,016.2	65.31	16.560	
8,500.0	8,310.0	8,488.7	8,310.0	34.4	33.5	-0.94	425.8	-1,385.7	1,081.5	1,016.0	65.55	16.501	
8,600.0	8,410.0	8,588.7	8,410.0	34.5	33.6	-0.94	425.8	-1,385.7	1,081.5	1,015.8	65.79	16.440	
8,689.0	8,499.0	8,677.7	8,499.0	34.6	33.7	-0.94	425.8	-1,385.7	1,081.5	1,015.5	66.00	16.387	SF

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 12C-12 F12 - OH - Plan #2

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	49.30	10.2	11.9	15.6				
100.0	100.0	100.0	100.0	0.1	0.1	49.30	10.2	11.9	15.6	15.5	0.16	99.410	
200.0	200.0	200.0	200.0	0.3	0.3	49.30	10.2	11.9	15.6	15.0	0.61	25.773	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	167.04	10.2	11.9	18.2	17.0	1.13	16.075	
400.0	399.6	400.7	400.6	0.8	0.7	167.35	10.2	9.2	23.8	22.1	1.70	14.012	
500.0	498.8	501.5	501.2	1.0	1.0	163.55	10.1	1.2	30.3	28.1	2.27	13.373	
600.0	597.1	602.5	601.2	1.4	1.3	158.10	10.0	-12.0	38.2	35.3	2.87	13.280	
689.2	683.9	692.5	689.8	1.8	1.6	152.88	9.8	-28.3	46.5	43.0	3.47	13.375	
700.0	694.3	703.4	700.4	1.9	1.6	152.26	9.8	-30.6	47.5	44.0	3.53	13.453	
800.0	791.1	803.6	797.9	2.4	2.0	145.76	9.5	-53.4	56.5	52.3	4.21	13.435	
900.0	887.8	903.0	894.6	2.9	2.5	140.67	9.3	-76.7	65.8	60.8	5.02	13.102	
1,000.0	984.5	1,002.4	991.3	3.4	3.0	136.85	9.0	-99.9	75.4	69.5	5.91	12.758	
1,100.0	1,081.3	1,101.8	1,087.9	3.9	3.5	133.91	8.8	-123.2	85.3	78.5	6.85	12.459	
1,200.0	1,178.0	1,201.3	1,184.6	4.5	3.9	131.58	8.6	-146.4	95.4	87.6	7.81	12.212	
1,300.0	1,274.7	1,300.7	1,281.3	5.0	4.4	129.70	8.3	-169.7	105.6	96.8	8.79	12.010	
1,400.0	1,371.5	1,400.1	1,377.9	5.5	4.9	128.15	8.1	-192.9	115.9	106.1	9.79	11.845	
1,500.0	1,468.2	1,499.5	1,474.6	6.1	5.4	126.86	7.9	-216.1	126.3	115.5	10.78	11.710	
1,600.0	1,565.0	1,599.0	1,571.3	6.6	5.9	125.76	7.6	-239.4	136.7	124.9	11.79	11.597	
1,700.0	1,661.7	1,698.4	1,667.9	7.2	6.4	124.82	7.4	-262.6	147.2	134.4	12.79	11.502	
1,800.0	1,758.4	1,797.8	1,764.6	7.7	6.9	124.00	7.1	-285.9	157.7	143.9	13.80	11.422	
1,900.0	1,855.2	1,897.2	1,861.3	8.2	7.4	123.29	6.9	-309.1	168.2	153.4	14.81	11.353	
2,000.0	1,951.9	1,996.6	1,957.9	8.8	7.9	122.66	6.7	-332.4	178.7	162.9	15.83	11.294	
2,100.0	2,048.6	2,096.1	2,054.6	9.3	8.4	122.10	6.4	-355.6	189.3	172.5	16.84	11.242	
2,200.0	2,145.4	2,195.5	2,151.3	9.9	8.9	121.59	6.2	-378.9	199.9	182.0	17.85	11.197	
2,300.0	2,242.1	2,294.9	2,247.9	10.4	9.4	121.14	5.9	-402.1	210.5	191.6	18.87	11.157	
2,400.0	2,338.8	2,394.3	2,344.6	10.9	9.9	120.74	5.7	-425.4	221.1	201.2	19.88	11.122	
2,500.0	2,435.6	2,493.8	2,441.3	11.5	10.4	120.37	5.5	-448.6	231.7	210.8	20.89	11.091	
2,600.0	2,532.3	2,593.2	2,538.0	12.0	10.9	120.03	5.2	-471.8	242.3	220.4	21.91	11.062	
2,700.0	2,629.1	2,692.6	2,634.6	12.6	11.4	119.72	5.0	-495.1	253.0	230.1	22.92	11.037	
2,800.0	2,725.8	2,792.0	2,731.3	13.1	11.9	119.43	4.8	-518.3	263.6	239.7	23.93	11.014	
2,900.0	2,822.5	2,891.5	2,828.0	13.6	12.4	119.17	4.5	-541.6	274.3	249.3	24.95	10.993	
3,000.0	2,919.3	2,990.9	2,924.6	14.2	12.9	118.93	4.3	-564.8	284.9	259.0	25.96	10.975	
3,100.0	3,016.0	3,090.3	3,021.3	14.7	13.4	118.70	4.0	-588.1	295.6	268.6	26.98	10.957	
3,200.0	3,112.7	3,189.7	3,118.0	15.3	13.9	118.50	3.8	-611.3	306.2	278.2	27.99	10.942	
3,300.0	3,209.5	3,289.2	3,214.6	15.8	14.4	118.30	3.6	-634.6	316.9	287.9	29.00	10.927	
3,400.0	3,306.2	3,388.6	3,311.3	16.4	14.9	118.12	3.3	-657.8	327.6	297.6	30.01	10.914	
3,500.0	3,403.0	3,488.0	3,408.0	16.9	15.4	117.95	3.1	-681.1	338.2	307.2	31.03	10.902	
3,600.0	3,499.7	3,587.4	3,504.6	17.4	15.9	117.79	2.8	-704.3	348.9	316.9	32.04	10.890	
3,700.0	3,596.4	3,686.9	3,601.3	18.0	16.4	117.63	2.6	-727.5	359.6	326.5	33.05	10.880	
3,800.0	3,693.2	3,786.3	3,698.0	18.5	16.9	117.49	2.4	-750.8	370.3	336.2	34.06	10.870	
3,900.0	3,789.9	3,885.7	3,794.6	19.1	17.4	117.36	2.1	-774.0	381.0	345.9	35.08	10.861	
4,000.0	3,886.6	3,985.1	3,891.3	19.6	17.9	117.23	1.9	-797.3	391.6	355.6	36.09	10.853	
4,100.0	3,983.4	4,084.6	3,988.0	20.1	18.4	117.11	1.6	-820.5	402.3	365.2	37.10	10.845	
4,200.0	4,080.1	4,184.0	4,084.6	20.7	18.9	117.00	1.4	-843.8	413.0	374.9	38.11	10.838	
4,300.0	4,176.9	4,283.4	4,181.3	21.2	19.4	116.89	1.2	-867.0	423.7	384.6	39.12	10.831	
4,400.0	4,273.6	4,382.8	4,278.0	21.8	19.9	116.78	0.9	-890.3	434.4	394.3	40.13	10.824	
4,500.0	4,370.3	4,482.2	4,374.6	22.3	20.4	116.69	0.7	-913.5	445.1	403.9	41.14	10.818	
4,600.0	4,467.1	4,581.7	4,471.3	22.8	20.9	116.59	0.5	-936.7	455.8	413.6	42.15	10.813	
4,700.0	4,563.8	4,681.1	4,568.0	23.4	21.4	116.50	0.2	-960.0	466.5	423.3	43.16	10.808	
4,800.0	4,660.5	4,780.5	4,664.7	23.9	21.9	116.42	0.0	-983.2	477.2	433.0	44.17	10.803	
4,900.0	4,757.3	4,879.9	4,761.3	24.5	22.4	116.34	-0.3	-1,006.5	487.9	442.7	45.18	10.798	
5,000.0	4,854.0	4,979.4	4,858.0	25.0	22.9	116.26	-0.5	-1,029.7	498.6	452.4	46.19	10.794	

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 PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 12C-12 F12 - OH - Plan #2

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,950.8	5,078.8	4,954.7	25.6	23.4	116.18	-0.7	-1,053.0	509.3	462.1	47.20	10.790	
5,200.0	5,047.5	5,178.2	5,051.3	26.1	23.9	116.11	-1.0	-1,076.2	520.0	471.8	48.21	10.786	
5,300.0	5,144.2	5,277.6	5,148.0	26.6	24.4	116.04	-1.2	-1,099.5	530.7	481.4	49.21	10.783	
5,400.0	5,241.0	5,377.1	5,244.7	27.2	24.9	115.98	-1.5	-1,122.7	541.4	491.1	50.22	10.779	
5,500.0	5,337.7	5,476.5	5,341.3	27.7	25.4	115.91	-1.7	-1,146.0	552.1	500.8	51.23	10.776	
5,600.0	5,434.4	5,575.9	5,438.0	28.3	25.9	115.85	-1.9	-1,169.2	562.8	510.5	52.24	10.773	
5,700.0	5,531.2	5,675.3	5,534.7	28.8	26.4	115.79	-2.2	-1,192.4	573.5	520.2	53.24	10.770	
5,800.0	5,627.9	5,774.8	5,631.3	29.3	26.9	115.74	-2.4	-1,215.7	584.2	529.9	54.25	10.768	
5,900.0	5,724.7	5,874.2	5,728.0	29.9	27.4	115.68	-2.7	-1,238.9	594.9	539.6	55.26	10.765	
6,000.0	5,821.4	5,973.6	5,824.7	30.4	27.9	115.63	-2.9	-1,262.2	605.6	549.3	56.26	10.763	
6,100.0	5,918.1	6,073.0	5,921.3	31.0	28.4	115.58	-3.1	-1,285.4	616.3	559.0	57.27	10.761	
6,184.8	6,000.1	6,157.3	6,003.3	31.4	28.8	115.54	-3.3	-1,305.1	625.3	567.2	58.12	10.759	
6,200.0	6,014.9	6,172.5	6,018.0	31.5	28.9	115.57	-3.4	-1,308.7	627.0	568.7	58.27	10.760	
6,300.0	6,112.4	6,271.5	6,114.7	31.9	29.3	115.64	-3.6	-1,330.2	636.2	577.2	59.03	10.777	
6,400.0	6,211.0	6,370.7	6,212.4	32.1	29.6	115.70	-3.8	-1,346.9	643.3	583.7	59.64	10.788	
6,500.0	6,310.3	6,470.0	6,311.1	32.4	29.8	115.73	-3.9	-1,358.4	648.3	588.2	60.09	10.788	
6,600.0	6,410.0	6,569.5	6,410.4	32.5	30.0	115.75	-3.9	-1,364.9	651.0	590.6	60.40	10.777	
6,674.0	6,484.0	6,643.2	6,484.0	32.6	30.1	0.15	-4.0	-1,366.3	651.6	591.1	60.56	10.760	
6,700.0	6,510.0	6,669.2	6,510.0	32.6	30.1	0.15	-4.0	-1,366.3	651.6	591.0	60.61	10.752	
6,800.0	6,610.0	6,769.2	6,610.0	32.7	30.2	0.15	-4.0	-1,366.3	651.6	590.8	60.80	10.717	
6,900.0	6,710.0	6,869.2	6,710.0	32.8	30.3	0.15	-4.0	-1,366.3	651.6	590.6	61.00	10.683	
7,000.0	6,810.0	6,969.2	6,810.0	32.9	30.4	0.15	-4.0	-1,366.3	651.6	590.4	61.20	10.648	
7,100.0	6,910.0	7,069.2	6,910.0	33.0	30.5	0.15	-4.0	-1,366.3	651.6	590.2	61.40	10.612	
7,200.0	7,010.0	7,169.2	7,010.0	33.1	30.6	0.15	-4.0	-1,366.3	651.6	590.0	61.61	10.577	
7,300.0	7,110.0	7,269.2	7,110.0	33.2	30.7	0.15	-4.0	-1,366.3	651.6	589.8	61.82	10.541	
7,400.0	7,210.0	7,369.2	7,210.0	33.2	30.8	0.15	-4.0	-1,366.3	651.6	589.6	62.03	10.505	
7,500.0	7,310.0	7,469.2	7,310.0	33.3	30.9	0.15	-4.0	-1,366.3	651.6	589.4	62.24	10.469	
7,600.0	7,410.0	7,569.2	7,410.0	33.4	31.0	0.15	-4.0	-1,366.3	651.6	589.2	62.46	10.433	
7,700.0	7,510.0	7,669.2	7,510.0	33.5	31.1	0.15	-4.0	-1,366.3	651.6	588.9	62.67	10.397	
7,800.0	7,610.0	7,769.2	7,610.0	33.6	31.3	0.15	-4.0	-1,366.3	651.6	588.7	62.89	10.360	
7,900.0	7,710.0	7,869.2	7,710.0	33.7	31.4	0.15	-4.0	-1,366.3	651.6	588.5	63.12	10.324	
8,000.0	7,810.0	7,969.2	7,810.0	33.8	31.5	0.15	-4.0	-1,366.3	651.6	588.3	63.34	10.287	
8,100.0	7,910.0	8,069.2	7,910.0	33.9	31.6	0.15	-4.0	-1,366.3	651.6	588.0	63.57	10.250	
8,200.0	8,010.0	8,169.2	8,010.0	34.0	31.7	0.15	-4.0	-1,366.3	651.6	587.8	63.80	10.213	
8,300.0	8,110.0	8,269.2	8,110.0	34.1	31.8	0.15	-4.0	-1,366.3	651.6	587.6	64.04	10.176	
8,400.0	8,210.0	8,369.2	8,210.0	34.2	32.0	0.15	-4.0	-1,366.3	651.6	587.3	64.27	10.138	
8,500.0	8,310.0	8,469.2	8,310.0	34.4	32.1	0.15	-4.0	-1,366.3	651.6	587.1	64.51	10.101	
8,600.0	8,410.0	8,569.2	8,410.0	34.5	32.2	0.15	-4.0	-1,366.3	651.6	586.9	64.75	10.064	
8,689.0	8,499.0	8,658.2	8,499.0	34.6	32.3	0.15	-4.0	-1,366.3	651.6	586.6	64.96	10.030	SF

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 12D-12 F12 - OH - Plan #2

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	46.45	5.1	5.4	7.4				
100.0	100.0	100.0	100.0	0.1	0.1	46.45	5.1	5.4	7.4	7.2	0.16	47.042	
200.0	200.0	200.0	200.0	0.3	0.3	46.45	5.1	5.4	7.4	6.8	0.61	12.196	CC, ES
300.0	300.0	300.2	300.2	0.5	0.5	165.06	4.9	4.7	9.3	8.2	1.12	8.346	
400.0	399.6	400.6	400.5	0.8	0.7	163.81	3.6	-0.4	12.2	10.5	1.67	7.313	
500.0	498.8	501.2	500.5	1.0	1.0	159.56	0.9	-10.6	15.4	13.2	2.24	6.882	
600.0	597.1	601.9	599.9	1.4	1.3	154.13	-3.1	-25.9	19.2	16.3	2.85	6.721	
689.2	683.9	691.8	687.8	1.8	1.7	149.06	-7.9	-43.8	23.1	19.6	3.47	6.652	
700.0	694.3	702.6	698.4	1.9	1.7	148.43	-8.5	-46.3	23.6	20.0	3.53	6.671	
800.0	791.1	802.6	795.5	2.4	2.2	142.48	-14.6	-69.4	27.6	23.4	4.23	6.532	
900.0	887.8	902.5	892.5	2.9	2.7	138.08	-20.7	-92.5	31.9	26.9	5.05	6.321	
1,000.0	984.5	1,002.4	989.4	3.4	3.2	134.73	-26.8	-115.7	36.4	30.4	5.95	6.120	
1,100.0	1,081.3	1,102.3	1,086.4	3.9	3.7	132.11	-32.9	-138.8	40.9	34.0	6.88	5.948	
1,200.0	1,178.0	1,202.1	1,183.4	4.5	4.2	130.03	-39.0	-162.0	45.5	37.7	7.84	5.806	
1,300.0	1,274.7	1,302.0	1,280.3	5.0	4.7	128.32	-45.1	-185.1	50.2	41.4	8.82	5.689	
1,400.0	1,371.5	1,401.9	1,377.3	5.5	5.2	126.91	-51.2	-208.2	54.9	45.1	9.81	5.593	
1,500.0	1,468.2	1,501.8	1,474.3	6.1	5.7	125.72	-57.3	-231.4	59.6	48.8	10.81	5.513	
1,600.0	1,565.0	1,601.7	1,571.3	6.6	6.2	124.71	-63.4	-254.5	64.3	52.5	11.81	5.447	
1,700.0	1,661.7	1,701.5	1,668.2	7.2	6.7	123.83	-69.5	-277.6	69.1	56.3	12.82	5.390	
1,800.0	1,758.4	1,801.4	1,765.2	7.7	7.2	123.07	-75.6	-300.8	73.9	60.0	13.83	5.341	
1,900.0	1,855.2	1,901.3	1,862.2	8.2	7.8	122.40	-81.7	-323.9	78.6	63.8	14.84	5.299	
2,000.0	1,951.9	2,001.2	1,959.2	8.8	8.3	121.81	-87.8	-347.1	83.4	67.6	15.86	5.263	
2,100.0	2,048.6	2,101.1	2,056.1	9.3	8.8	121.28	-93.9	-370.2	88.2	71.4	16.87	5.231	
2,200.0	2,145.4	2,201.0	2,153.1	9.9	9.3	120.80	-100.0	-393.3	93.1	75.2	17.89	5.203	
2,300.0	2,242.1	2,300.8	2,250.1	10.4	9.8	120.38	-106.1	-416.5	97.9	79.0	18.90	5.177	
2,400.0	2,338.8	2,400.7	2,347.0	10.9	10.3	119.99	-112.2	-439.6	102.7	82.8	19.92	5.155	
2,500.0	2,435.6	2,500.6	2,444.0	11.5	10.8	119.64	-118.3	-462.7	107.5	86.6	20.94	5.135	
2,600.0	2,532.3	2,600.5	2,541.0	12.0	11.4	119.31	-124.4	-485.9	112.3	90.4	21.96	5.117	
2,700.0	2,629.1	2,700.4	2,638.0	12.6	11.9	119.02	-130.5	-509.0	117.2	94.2	22.97	5.100	
2,800.0	2,725.8	2,800.2	2,734.9	13.1	12.4	118.75	-136.5	-532.2	122.0	98.0	23.99	5.085	
2,900.0	2,822.5	2,900.1	2,831.9	13.6	12.9	118.50	-142.6	-555.3	126.8	101.8	25.01	5.071	
3,000.0	2,919.3	3,000.0	2,928.9	14.2	13.4	118.26	-148.7	-578.4	131.7	105.6	26.03	5.059	
3,100.0	3,016.0	3,099.9	3,025.9	14.7	13.9	118.05	-154.8	-601.6	136.5	109.5	27.05	5.047	
3,200.0	3,112.7	3,199.8	3,122.8	15.3	14.4	117.84	-160.9	-624.7	141.4	113.3	28.07	5.036	
3,300.0	3,209.5	3,299.6	3,219.8	15.8	15.0	117.66	-167.0	-647.9	146.2	117.1	29.09	5.026	
3,400.0	3,306.2	3,399.5	3,316.8	16.4	15.5	117.48	-173.1	-671.0	151.0	120.9	30.10	5.017	
3,500.0	3,403.0	3,499.4	3,413.8	16.9	16.0	117.31	-179.2	-694.1	155.9	124.8	31.12	5.009	
3,600.0	3,499.7	3,599.3	3,510.7	17.4	16.5	117.16	-185.3	-717.3	160.7	128.6	32.14	5.001	
3,700.0	3,596.4	3,699.2	3,607.7	18.0	17.0	117.01	-191.4	-740.4	165.6	132.4	33.16	4.993	
3,800.0	3,693.2	3,799.1	3,704.7	18.5	17.5	116.87	-197.5	-763.5	170.4	136.3	34.18	4.986	
3,900.0	3,789.9	3,898.9	3,801.6	19.1	18.1	116.74	-203.6	-786.7	175.3	140.1	35.20	4.980	
4,000.0	3,886.6	3,998.8	3,898.6	19.6	18.6	116.62	-209.7	-809.8	180.1	143.9	36.22	4.974	
4,100.0	3,983.4	4,098.7	3,995.6	20.1	19.1	116.50	-215.8	-833.0	185.0	147.7	37.24	4.968	
4,200.0	4,080.1	4,198.6	4,092.6	20.7	19.6	116.39	-221.9	-856.1	189.8	151.6	38.25	4.962	
4,300.0	4,176.9	4,298.5	4,189.5	21.2	20.1	116.29	-228.0	-879.2	194.7	155.4	39.27	4.957	
4,400.0	4,273.6	4,398.3	4,286.5	21.8	20.6	116.19	-234.1	-902.4	199.5	159.3	40.29	4.953	
4,500.0	4,370.3	4,498.2	4,383.5	22.3	21.1	116.09	-240.2	-925.5	204.4	163.1	41.31	4.948	
4,600.0	4,467.1	4,598.1	4,480.5	22.8	21.7	116.00	-246.3	-948.7	209.3	166.9	42.33	4.944	
4,700.0	4,563.8	4,698.0	4,577.4	23.4	22.2	115.92	-252.4	-971.8	214.1	170.8	43.35	4.940	
4,800.0	4,660.5	4,797.9	4,674.4	23.9	22.7	115.83	-258.5	-994.9	219.0	174.6	44.36	4.936	
4,900.0	4,757.3	4,897.8	4,771.4	24.5	23.2	115.75	-264.6	-1,018.1	223.8	178.4	45.38	4.932	
5,000.0	4,854.0	4,997.6	4,868.3	25.0	23.7	115.68	-270.7	-1,041.2	228.7	182.3	46.40	4.929	

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 PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 12D-12 F12 - OH - Plan #2

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,950.8	5,097.5	4,965.3	25.6	24.2	115.60	-276.8	-1,064.3	233.5	186.1	47.42	4.925	
5,200.0	5,047.5	5,197.4	5,062.3	26.1	24.8	115.53	-282.9	-1,087.5	238.4	190.0	48.43	4.922	
5,300.0	5,144.2	5,297.3	5,159.3	26.6	25.3	115.47	-289.0	-1,110.6	243.3	193.8	49.45	4.919	
5,400.0	5,241.0	5,397.2	5,256.2	27.2	25.8	115.40	-295.1	-1,133.8	248.1	197.6	50.47	4.916	
5,500.0	5,337.7	5,497.0	5,353.2	27.7	26.3	115.34	-301.2	-1,156.9	253.0	201.5	51.49	4.913	
5,600.0	5,434.4	5,596.9	5,450.2	28.3	26.8	115.28	-307.3	-1,180.0	257.8	205.3	52.50	4.911	
5,700.0	5,531.2	5,696.8	5,547.2	28.8	27.3	115.22	-313.4	-1,203.2	262.7	209.2	53.52	4.908	
5,800.0	5,627.9	5,796.7	5,644.1	29.3	27.9	115.17	-319.5	-1,226.3	267.5	213.0	54.54	4.906	
5,900.0	5,724.7	5,896.6	5,741.1	29.9	28.4	115.11	-325.6	-1,249.5	272.4	216.9	55.55	4.903	
6,000.0	5,821.4	5,996.5	5,838.1	30.4	28.9	115.06	-331.7	-1,272.6	277.3	220.7	56.57	4.901	
6,100.0	5,918.1	6,096.3	5,935.0	31.0	29.4	115.01	-337.8	-1,295.7	282.1	224.5	57.59	4.899	
6,184.8	6,000.1	6,181.0	6,017.2	31.4	29.8	114.97	-342.9	-1,315.3	286.2	227.8	58.45	4.897	
6,200.0	6,014.9	6,196.2	6,032.0	31.5	29.9	114.97	-343.9	-1,318.9	287.0	228.4	58.60	4.897	
6,300.0	6,112.4	6,292.5	6,126.0	31.9	30.3	114.92	-349.1	-1,338.9	291.0	231.7	59.31	4.907	
6,400.0	6,211.0	6,388.8	6,221.0	32.1	30.5	114.87	-353.2	-1,354.2	294.1	234.2	59.89	4.911	
6,500.0	6,310.3	6,485.2	6,316.7	32.4	30.7	114.82	-356.0	-1,365.0	296.2	235.9	60.32	4.911	
6,600.0	6,410.0	6,581.5	6,412.9	32.5	30.9	114.77	-357.6	-1,371.0	297.4	236.8	60.63	4.905	
6,674.0	6,484.0	6,652.8	6,484.2	32.6	31.0	-0.87	-358.0	-1,372.5	297.6	236.8	60.78	4.897	
6,684.7	6,494.7	6,663.4	6,494.7	32.6	31.0	-0.87	-358.0	-1,372.5	297.6	236.8	60.80	4.895	
6,700.0	6,510.0	6,678.7	6,510.0	32.6	31.0	-0.87	-358.0	-1,372.5	297.6	236.8	60.83	4.893	
6,800.0	6,610.0	6,778.7	6,610.0	32.7	31.1	-0.87	-358.0	-1,372.5	297.6	236.6	61.02	4.877	
6,900.0	6,710.0	6,878.7	6,710.0	32.8	31.2	-0.87	-358.0	-1,372.5	297.6	236.4	61.21	4.862	
7,000.0	6,810.0	6,978.7	6,810.0	32.9	31.3	-0.87	-358.0	-1,372.5	297.6	236.2	61.41	4.847	
7,100.0	6,910.0	7,078.7	6,910.0	33.0	31.4	-0.87	-358.0	-1,372.5	297.6	236.0	61.61	4.831	
7,200.0	7,010.0	7,178.7	7,010.0	33.1	31.5	-0.87	-358.0	-1,372.5	297.6	235.8	61.81	4.815	
7,300.0	7,110.0	7,278.7	7,110.0	33.2	31.6	-0.87	-358.0	-1,372.5	297.6	235.6	62.01	4.799	
7,400.0	7,210.0	7,378.7	7,210.0	33.2	31.7	-0.87	-358.0	-1,372.5	297.6	235.4	62.22	4.783	
7,500.0	7,310.0	7,478.7	7,310.0	33.3	31.8	-0.87	-358.0	-1,372.5	297.6	235.2	62.42	4.767	
7,600.0	7,410.0	7,578.7	7,410.0	33.4	31.9	-0.87	-358.0	-1,372.5	297.6	235.0	62.64	4.751	
7,700.0	7,510.0	7,678.7	7,510.0	33.5	32.0	-0.87	-358.0	-1,372.5	297.6	234.8	62.85	4.735	
7,800.0	7,610.0	7,778.7	7,610.0	33.6	32.1	-0.87	-358.0	-1,372.5	297.6	234.5	63.07	4.719	
7,900.0	7,710.0	7,878.7	7,710.0	33.7	32.2	-0.87	-358.0	-1,372.5	297.6	234.3	63.29	4.703	
8,000.0	7,810.0	7,978.7	7,810.0	33.8	32.3	-0.87	-358.0	-1,372.5	297.6	234.1	63.51	4.686	
8,100.0	7,910.0	8,078.7	7,910.0	33.9	32.4	-0.87	-358.0	-1,372.5	297.6	233.9	63.73	4.670	
8,200.0	8,010.0	8,178.7	8,010.0	34.0	32.5	-0.87	-358.0	-1,372.5	297.6	233.7	63.96	4.653	
8,300.0	8,110.0	8,278.7	8,110.0	34.1	32.6	-0.87	-358.0	-1,372.5	297.6	233.4	64.18	4.637	
8,400.0	8,210.0	8,378.7	8,210.0	34.2	32.8	-0.87	-358.0	-1,372.5	297.6	233.2	64.41	4.620	
8,500.0	8,310.0	8,478.7	8,310.0	34.4	32.9	-0.87	-358.0	-1,372.5	297.6	233.0	64.65	4.604	
8,600.0	8,410.0	8,578.7	8,410.0	34.5	33.0	-0.87	-358.0	-1,372.5	297.6	232.7	64.88	4.587	
8,689.0	8,499.0	8,667.7	8,499.0	34.6	33.1	-0.87	-358.0	-1,372.5	297.6	232.5	65.09	4.572	SF

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 13B-12 F12 - OH - Plan #2

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	142.22	-8.0	6.2	10.1				
100.0	100.0	100.0	100.0	0.1	0.1	142.22	-8.0	6.2	10.1	10.0	0.16	64.440	
200.0	200.0	200.0	200.0	0.3	0.3	142.22	-8.0	6.2	10.1	9.5	0.61	16.707	CC
300.0	300.0	300.0	300.0	0.5	0.5	-101.87	-9.5	4.0	10.5	9.5	1.03	10.211	ES
400.0	399.6	400.1	399.7	0.8	0.8	-101.06	-13.9	-2.4	11.7	10.2	1.50	7.801	
500.0	498.8	500.1	498.8	1.0	1.0	-100.02	-21.2	-13.2	13.6	11.6	2.09	6.541	
600.0	597.1	600.0	597.1	1.4	1.4	-98.97	-31.5	-28.3	16.4	13.6	2.82	5.798	
689.2	683.9	689.2	683.9	1.8	1.8	-98.13	-43.1	-45.3	19.5	15.8	3.63	5.357	
700.0	694.3	700.0	694.3	1.9	1.9	-97.96	-44.6	-47.6	19.9	16.1	3.74	5.319	
800.0	791.1	799.9	790.4	2.4	2.4	-92.92	-59.8	-70.0	23.8	19.0	4.77	4.990	
900.0	887.8	899.8	886.5	2.9	2.9	-88.90	-75.2	-92.5	27.8	22.0	5.82	4.787	
1,000.0	984.5	999.7	982.6	3.4	3.5	-85.91	-90.5	-115.1	32.0	25.1	6.87	4.660	
1,100.0	1,081.3	1,099.6	1,078.7	3.9	4.1	-83.61	-105.9	-137.7	36.3	28.3	7.92	4.576	
1,200.0	1,178.0	1,199.5	1,174.9	4.5	4.6	-81.80	-121.2	-160.2	40.5	31.6	8.97	4.519	
1,300.0	1,274.7	1,299.4	1,271.0	5.0	5.2	-80.33	-136.6	-182.8	44.9	34.8	10.02	4.479	
1,400.0	1,371.5	1,399.3	1,367.1	5.5	5.8	-79.13	-151.9	-205.3	49.2	38.1	11.06	4.450	
1,500.0	1,468.2	1,499.2	1,463.2	6.1	6.3	-78.12	-167.3	-227.9	53.6	41.5	12.10	4.428	
1,600.0	1,565.0	1,599.1	1,559.3	6.6	6.9	-77.26	-182.6	-250.5	57.9	44.8	13.13	4.411	
1,700.0	1,661.7	1,699.0	1,655.4	7.2	7.5	-76.52	-198.0	-273.0	62.3	48.2	14.17	4.398	
1,800.0	1,758.4	1,798.9	1,751.5	7.7	8.0	-75.88	-213.3	-295.6	66.7	51.5	15.20	4.388	
1,900.0	1,855.2	1,898.8	1,847.6	8.2	8.6	-75.32	-228.7	-318.1	71.1	54.9	16.24	4.380	
2,000.0	1,951.9	1,998.7	1,943.7	8.8	9.2	-74.82	-244.0	-340.7	75.5	58.3	17.27	4.374	
2,100.0	2,048.6	2,098.6	2,039.8	9.3	9.8	-74.38	-259.4	-363.2	79.9	61.6	18.30	4.368	
2,200.0	2,145.4	2,198.5	2,135.9	9.9	10.3	-73.98	-274.7	-385.8	84.4	65.0	19.33	4.364	
2,300.0	2,242.1	2,298.4	2,232.0	10.4	10.9	-73.63	-290.1	-408.4	88.8	68.4	20.36	4.361	
2,400.0	2,338.8	2,398.3	2,328.1	10.9	11.5	-73.31	-305.4	-430.9	93.2	71.8	21.39	4.358	
2,500.0	2,435.6	2,498.2	2,424.2	11.5	12.1	-73.01	-320.7	-453.5	97.6	75.2	22.42	4.355	
2,600.0	2,532.3	2,598.1	2,520.3	12.0	12.6	-72.75	-336.1	-476.0	102.1	78.6	23.44	4.353	
2,700.0	2,629.1	2,698.0	2,616.4	12.6	13.2	-72.50	-351.4	-498.6	106.5	82.0	24.47	4.352	
2,800.0	2,725.8	2,797.9	2,712.5	13.1	13.8	-72.28	-366.8	-521.2	110.9	85.4	25.50	4.350	
2,900.0	2,822.5	2,897.8	2,808.6	13.6	14.4	-72.07	-382.1	-543.7	115.4	88.8	26.52	4.349	
3,000.0	2,919.3	2,997.7	2,904.7	14.2	14.9	-71.87	-397.5	-566.3	119.8	92.2	27.55	4.348	
3,100.0	3,016.0	3,097.6	3,000.8	14.7	15.5	-71.70	-412.8	-588.8	124.2	95.6	28.58	4.347	
3,200.0	3,112.7	3,197.5	3,096.9	15.3	16.1	-71.53	-428.2	-611.4	128.7	99.1	29.60	4.347	
3,300.0	3,209.5	3,297.4	3,193.0	15.8	16.7	-71.37	-443.5	-634.0	133.1	102.5	30.63	4.346	
3,400.0	3,306.2	3,397.3	3,289.1	16.4	17.2	-71.23	-458.9	-656.5	137.5	105.9	31.65	4.346	
3,500.0	3,403.0	3,497.2	3,385.2	16.9	17.8	-71.09	-474.2	-679.1	142.0	109.3	32.68	4.345	
3,600.0	3,499.7	3,597.1	3,481.3	17.4	18.4	-70.96	-489.6	-701.6	146.4	112.7	33.70	4.345	
3,700.0	3,596.4	3,697.0	3,577.4	18.0	19.0	-70.84	-504.9	-724.2	150.9	116.1	34.72	4.345	
3,800.0	3,693.2	3,796.9	3,673.5	18.5	19.5	-70.73	-520.3	-746.7	155.3	119.6	35.75	4.345	
3,900.0	3,789.9	3,896.8	3,769.6	19.1	20.1	-70.62	-535.6	-769.3	159.8	123.0	36.77	4.344	
4,000.0	3,886.6	3,996.7	3,865.7	19.6	20.7	-70.52	-551.0	-791.9	164.2	126.4	37.80	4.344	
4,100.0	3,983.4	4,096.6	3,961.8	20.1	21.3	-70.42	-566.3	-814.4	168.6	129.8	38.82	4.344	
4,200.0	4,080.1	4,196.5	4,057.9	20.7	21.9	-70.33	-581.6	-837.0	173.1	133.2	39.84	4.344	
4,300.0	4,176.9	4,296.4	4,154.0	21.2	22.4	-70.25	-597.0	-859.5	177.5	136.7	40.86	4.344	
4,400.0	4,273.6	4,396.3	4,250.1	21.8	23.0	-70.16	-612.3	-882.1	182.0	140.1	41.89	4.344	
4,500.0	4,370.3	4,496.2	4,346.2	22.3	23.6	-70.08	-627.7	-904.7	186.4	143.5	42.91	4.344	
4,600.0	4,467.1	4,596.1	4,442.3	22.8	24.2	-70.01	-643.0	-927.2	190.9	146.9	43.93	4.345	
4,700.0	4,563.8	4,696.0	4,538.4	23.4	24.7	-69.94	-658.4	-949.8	195.3	150.4	44.95	4.345	
4,800.0	4,660.5	4,795.9	4,634.5	23.9	25.3	-69.87	-673.7	-972.3	199.8	153.8	45.98	4.345	
4,900.0	4,757.3	4,895.8	4,730.6	24.5	25.9	-69.80	-689.1	-994.9	204.2	157.2	47.00	4.345	
5,000.0	4,854.0	4,995.7	4,826.8	25.0	26.5	-69.74	-704.4	-1,017.5	208.7	160.6	48.02	4.345	

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 PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 13B-12 F12 - OH - Plan #2

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,950.8	5,095.6	4,922.9	25.6	27.0	-69.68	-719.8	-1,040.0	213.1	164.1	49.04	4.345	
5,200.0	5,047.5	5,195.5	5,019.0	26.1	27.6	-69.62	-735.1	-1,062.6	217.6	167.5	50.06	4.346	
5,300.0	5,144.2	5,295.4	5,115.1	26.6	28.2	-69.57	-750.5	-1,085.1	222.0	170.9	51.08	4.346	
5,400.0	5,241.0	5,395.3	5,211.2	27.2	28.8	-69.52	-765.8	-1,107.7	226.4	174.3	52.11	4.346	
5,500.0	5,337.7	5,495.2	5,307.3	27.7	29.3	-69.47	-781.2	-1,130.3	230.9	177.8	53.13	4.346	
5,600.0	5,434.4	5,595.1	5,403.4	28.3	29.9	-69.42	-796.5	-1,152.8	235.3	181.2	54.15	4.346	
5,700.0	5,531.2	5,695.0	5,499.5	28.8	30.5	-69.37	-811.9	-1,175.4	239.8	184.6	55.17	4.347	
5,800.0	5,627.9	5,794.9	5,595.6	29.3	31.1	-69.32	-827.2	-1,197.9	244.2	188.1	56.19	4.347	
5,900.0	5,724.7	5,894.8	5,691.7	29.9	31.6	-69.28	-842.6	-1,220.5	248.7	191.5	57.21	4.347	
6,000.0	5,821.4	5,994.7	5,787.8	30.4	32.2	-69.24	-857.9	-1,243.0	253.1	194.9	58.23	4.347	
6,100.0	5,918.1	6,094.6	5,883.9	31.0	32.8	-69.20	-873.2	-1,265.6	257.6	198.3	59.25	4.348	
6,184.8	6,000.1	6,179.9	5,965.9	31.4	33.3	-69.17	-886.3	-1,284.8	261.4	201.2	60.11	4.348	
6,200.0	6,014.9	6,196.2	5,981.6	31.5	33.4	-69.19	-888.8	-1,288.4	262.0	201.7	60.26	4.348	
6,300.0	6,112.4	6,303.3	6,085.8	31.9	33.8	-69.35	-902.8	-1,309.1	265.6	204.6	61.00	4.355	
6,400.0	6,211.0	6,410.6	6,191.3	32.1	34.1	-69.48	-913.6	-1,324.9	268.4	206.8	61.60	4.357	
6,500.0	6,310.3	6,517.9	6,297.8	32.4	34.3	-69.58	-921.0	-1,335.8	270.3	208.2	62.05	4.356	
6,600.0	6,410.0	6,625.3	6,405.0	32.5	34.5	-69.66	-925.0	-1,341.7	271.3	208.9	62.36	4.350	
6,674.0	6,484.0	6,704.4	6,484.0	32.6	34.6	174.69	-925.8	-1,342.9	271.4	208.9	62.52	4.341	
6,700.0	6,510.0	6,730.4	6,510.0	32.6	34.6	174.69	-925.8	-1,342.9	271.4	208.9	62.57	4.338	
6,800.0	6,610.0	6,830.4	6,610.0	32.7	34.7	174.69	-925.8	-1,342.9	271.4	208.7	62.75	4.326	
6,900.0	6,710.0	6,930.4	6,710.0	32.8	34.7	174.69	-925.8	-1,342.9	271.4	208.5	62.93	4.313	
7,000.0	6,810.0	7,030.4	6,810.0	32.9	34.8	174.69	-925.8	-1,342.9	271.4	208.3	63.11	4.301	
7,100.0	6,910.0	7,130.4	6,910.0	33.0	34.9	174.69	-925.8	-1,342.9	271.4	208.1	63.30	4.288	
7,200.0	7,010.0	7,230.4	7,010.0	33.1	35.0	174.69	-925.8	-1,342.9	271.4	207.9	63.49	4.275	
7,300.0	7,110.0	7,330.4	7,110.0	33.2	35.1	174.69	-925.8	-1,342.9	271.4	207.7	63.68	4.262	
7,400.0	7,210.0	7,430.4	7,210.0	33.2	35.2	174.69	-925.8	-1,342.9	271.4	207.5	63.88	4.249	
7,500.0	7,310.0	7,530.4	7,310.0	33.3	35.2	174.69	-925.8	-1,342.9	271.4	207.3	64.08	4.236	
7,600.0	7,410.0	7,630.4	7,410.0	33.4	35.3	174.69	-925.8	-1,342.9	271.4	207.1	64.28	4.223	
7,700.0	7,510.0	7,730.4	7,510.0	33.5	35.4	174.69	-925.8	-1,342.9	271.4	206.9	64.48	4.209	
7,800.0	7,610.0	7,830.4	7,610.0	33.6	35.5	174.69	-925.8	-1,342.9	271.4	206.7	64.69	4.196	
7,900.0	7,710.0	7,930.4	7,710.0	33.7	35.6	174.69	-925.8	-1,342.9	271.4	206.5	64.89	4.183	
8,000.0	7,810.0	8,030.4	7,810.0	33.8	35.7	174.69	-925.8	-1,342.9	271.4	206.3	65.10	4.169	
8,100.0	7,910.0	8,130.4	7,910.0	33.9	35.8	174.69	-925.8	-1,342.9	271.4	206.1	65.32	4.155	
8,200.0	8,010.0	8,230.4	8,010.0	34.0	35.9	174.69	-925.8	-1,342.9	271.4	205.9	65.53	4.142	
8,300.0	8,110.0	8,330.4	8,110.0	34.1	36.0	174.69	-925.8	-1,342.9	271.4	205.7	65.75	4.128	
8,400.0	8,210.0	8,430.4	8,210.0	34.2	36.1	174.69	-925.8	-1,342.9	271.4	205.5	65.97	4.114	
8,500.0	8,310.0	8,530.4	8,310.0	34.4	36.2	174.69	-925.8	-1,342.9	271.4	205.2	66.19	4.101	
8,600.0	8,410.0	8,630.4	8,410.0	34.5	36.3	174.69	-925.8	-1,342.9	271.4	205.0	66.42	4.087	
8,655.6	8,465.6	8,685.9	8,465.6	34.5	36.3	174.69	-925.8	-1,342.9	271.4	204.9	66.54	4.079	
8,689.0	8,499.0	8,709.4	8,489.0	34.6	36.4	174.69	-925.8	-1,342.9	271.6	205.0	66.61	4.078	SF

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 22B-12 F12 - OH - PLAN #1 — **Offset Site Error:** 0.0 usft

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

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	50.70	50.6	61.8	79.9				
100.0	100.0	100.0	100.0	0.1	0.1	50.70	50.6	61.8	79.9	79.8	0.16	507.878	
200.0	200.0	200.0	200.0	0.3	0.3	50.70	50.6	61.8	79.9	79.3	0.61	131.672	CC, ES
300.0	300.0	299.0	299.0	0.5	0.5	165.59	52.2	61.2	83.0	81.9	1.13	73.388	
400.0	399.6	395.9	395.7	0.8	0.8	164.09	56.8	60.2	92.8	91.1	1.73	53.799	
500.0	498.8	489.3	488.9	1.0	1.0	164.07	63.1	62.7	111.8	109.5	2.34	47.747	
600.0	597.1	584.1	583.2	1.4	1.2	165.01	70.8	68.4	139.0	136.0	2.99	46.553	SF
689.2	683.9	668.5	667.2	1.8	1.4	165.91	77.8	73.6	167.6	164.0	3.54	47.403	
700.0	694.3	678.7	677.3	1.9	1.5	166.05	78.6	74.2	171.3	167.7	3.58	47.859	
800.0	791.1	772.6	770.7	2.4	1.7	167.05	86.3	80.0	205.5	201.5	4.00	51.412	
900.0	887.8	866.5	864.1	2.9	2.0	167.77	94.0	85.8	239.7	235.3	4.44	54.034	
1,000.0	984.5	960.4	957.5	3.4	2.2	168.30	101.7	91.6	274.0	269.1	4.89	56.004	
1,100.0	1,081.3	1,054.3	1,051.0	3.9	2.5	168.72	109.5	97.4	308.3	302.9	5.36	57.519	
1,200.0	1,178.0	1,148.2	1,144.4	4.5	2.8	169.06	117.2	103.1	342.6	336.7	5.84	58.689	
1,300.0	1,274.7	1,242.2	1,237.8	5.0	3.0	169.33	124.9	108.9	376.9	370.5	6.32	59.603	
1,400.0	1,371.5	1,336.1	1,331.2	5.5	3.3	169.56	132.6	114.7	411.2	404.4	6.81	60.360	
1,500.0	1,468.2	1,430.0	1,424.6	6.1	3.6	169.75	140.3	120.5	445.5	438.2	7.31	60.978	
1,600.0	1,565.0	1,523.9	1,518.1	6.6	3.9	169.91	148.0	126.3	479.8	472.0	7.80	61.491	
1,700.0	1,661.7	1,617.8	1,611.5	7.2	4.1	170.06	155.8	132.1	514.1	505.8	8.30	61.924	
1,800.0	1,758.4	1,711.7	1,704.9	7.7	4.4	170.18	163.5	137.9	548.5	539.7	8.80	62.294	
1,900.0	1,855.2	1,805.7	1,798.3	8.2	4.7	170.29	171.2	143.7	582.8	573.5	9.31	62.613	
2,000.0	1,951.9	1,899.6	1,891.7	8.8	4.9	170.39	178.9	149.5	617.1	607.3	9.81	62.891	
2,100.0	2,048.6	1,993.5	1,985.2	9.3	5.2	170.48	186.6	155.3	651.5	641.1	10.32	63.137	
2,200.0	2,145.4	2,087.4	2,078.6	9.9	5.5	170.56	194.3	161.0	685.8	675.0	10.82	63.356	
2,300.0	2,242.1	2,181.3	2,172.0	10.4	5.8	170.63	202.1	166.8	720.1	708.8	11.33	63.553	
2,400.0	2,338.8	2,275.2	2,265.4	10.9	6.0	170.69	209.8	172.6	754.5	742.6	11.84	63.731	
2,500.0	2,435.6	2,369.2	2,358.8	11.5	6.3	170.75	217.5	178.4	788.8	776.4	12.35	63.894	
2,600.0	2,532.3	2,463.1	2,452.3	12.0	6.6	170.81	225.2	184.2	823.1	810.3	12.85	64.043	
2,700.0	2,629.1	2,557.0	2,545.7	12.6	6.9	170.86	232.9	190.0	857.5	844.1	13.36	64.181	
2,800.0	2,725.8	2,650.9	2,639.1	13.1	7.1	170.90	240.6	195.8	891.8	877.9	13.87	64.310	
2,900.0	2,822.5	2,744.8	2,732.5	13.6	7.4	170.95	248.4	201.6	926.1	911.8	14.37	64.430	
3,000.0	2,919.3	2,838.8	2,825.9	14.2	7.7	170.99	256.1	207.4	960.5	945.6	14.88	64.543	
3,100.0	3,016.0	2,932.7	2,919.4	14.7	7.9	171.02	263.8	213.1	994.8	979.4	15.39	64.651	
3,200.0	3,112.7	3,026.6	3,012.8	15.3	8.2	171.06	271.5	218.9	1,029.2	1,013.3	15.89	64.752	
3,300.0	3,209.5	3,120.5	3,106.2	15.8	8.5	171.09	279.2	224.7	1,063.5	1,047.1	16.40	64.849	
3,400.0	3,306.2	3,214.4	3,199.6	16.4	8.8	171.12	286.9	230.5	1,097.8	1,080.9	16.90	64.942	
3,500.0	3,403.0	3,308.3	3,293.1	16.9	9.0	171.15	294.7	236.3	1,132.2	1,114.8	17.41	65.031	
3,600.0	3,499.7	3,402.3	3,386.5	17.4	9.3	171.18	302.4	242.1	1,166.5	1,148.6	17.91	65.117	
3,700.0	3,596.4	3,496.2	3,479.9	18.0	9.6	171.20	310.1	247.9	1,200.9	1,182.4	18.42	65.200	
3,800.0	3,693.2	3,590.1	3,573.3	18.5	9.9	171.23	317.8	253.7	1,235.2	1,216.3	18.92	65.281	
3,900.0	3,789.9	3,684.0	3,666.7	19.1	10.1	171.25	325.5	259.5	1,269.5	1,250.1	19.42	65.359	
4,000.0	3,886.6	3,777.9	3,760.2	19.6	10.4	171.27	333.2	265.3	1,303.9	1,283.9	19.93	65.435	
4,100.0	3,983.4	3,871.8	3,853.6	20.1	10.7	171.29	340.9	271.0	1,338.2	1,317.8	20.43	65.510	
4,200.0	4,080.1	3,965.8	3,947.0	20.7	10.9	171.31	348.7	276.8	1,372.6	1,351.6	20.93	65.583	
4,300.0	4,176.9	4,059.7	4,040.4	21.2	11.2	171.33	356.4	282.6	1,406.9	1,385.5	21.43	65.654	
4,400.0	4,273.6	4,153.6	4,133.8	21.8	11.5	171.34	364.1	288.4	1,441.2	1,419.3	21.93	65.724	
4,500.0	4,370.3	4,247.5	4,227.3	22.3	11.8	171.36	371.8	294.2	1,475.6	1,453.2	22.43	65.793	
4,600.0	4,467.1	4,341.4	4,320.7	22.8	12.0	171.38	379.5	300.0	1,509.9	1,487.0	22.93	65.860	
4,700.0	4,563.8	4,435.4	4,414.1	23.4	12.3	171.39	387.2	305.8	1,544.3	1,520.8	23.42	65.927	
4,800.0	4,660.5	4,529.3	4,507.5	23.9	12.6	171.41	395.0	311.6	1,578.6	1,554.7	23.92	65.993	
4,900.0	4,757.3	4,623.2	4,600.9	24.5	12.9	171.42	402.7	317.4	1,612.9	1,588.5	24.42	66.058	
5,000.0	4,854.0	4,717.1	4,694.4	25.0	13.1	171.43	410.4	323.1	1,647.3	1,622.4	24.91	66.122	

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 PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 22B-12 F12 - OH - PLAN #1

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,950.8	4,811.0	4,787.8	25.6	13.4	171.45	418.1	328.9	1,681.6	1,656.2	25.41	66.186	
5,200.0	5,047.5	4,904.9	4,881.2	26.1	13.7	171.46	425.8	334.7	1,716.0	1,690.1	25.90	66.249	
5,300.0	5,144.2	4,998.9	4,974.6	26.6	14.0	171.47	433.5	340.5	1,750.3	1,723.9	26.40	66.311	
5,400.0	5,241.0	5,092.8	5,068.0	27.2	14.2	171.48	441.3	346.3	1,784.7	1,757.8	26.89	66.373	
5,500.0	5,337.7	5,186.7	5,161.5	27.7	14.5	171.49	449.0	352.1	1,819.0	1,791.6	27.38	66.434	
5,600.0	5,434.4	5,280.6	5,254.9	28.3	14.8	171.50	456.7	357.9	1,853.3	1,825.5	27.87	66.495	
5,700.0	5,531.2	5,374.5	5,348.3	28.8	15.0	171.51	464.4	363.7	1,887.7	1,859.3	28.36	66.556	
5,800.0	5,627.9	5,468.4	5,441.7	29.3	15.3	171.52	472.1	369.5	1,922.0	1,893.2	28.85	66.616	
5,900.0	5,724.7	5,562.4	5,535.2	29.9	15.6	171.53	479.8	375.2	1,956.4	1,927.0	29.34	66.676	
6,000.0	5,821.4	5,656.3	5,628.6	30.4	15.9	171.54	487.6	381.0	1,990.7	1,960.9	29.83	66.736	
6,100.0	5,918.1	5,750.2	5,722.0	31.0	16.1	171.55	495.3	386.8	2,025.1	1,994.7	30.32	66.795	
6,184.8	6,000.1	5,829.8	5,801.2	31.4	16.4	171.56	501.8	391.7	2,054.2	2,023.4	30.73	66.845	
6,200.0	6,014.9	5,844.1	5,815.4	31.5	16.4	171.58	503.0	392.6	2,059.3	2,028.5	30.84	66.786	
6,300.0	6,112.4	5,939.2	5,909.9	31.9	16.7	171.72	510.8	398.5	2,090.5	2,059.0	31.45	66.464	
6,400.0	6,211.0	6,035.6	6,005.9	32.1	17.0	171.81	518.7	404.4	2,116.7	2,084.7	31.98	66.188	
6,500.0	6,310.3	6,133.4	6,103.1	32.4	17.3	171.85	526.8	410.4	2,137.8	2,105.4	32.41	65.961	
6,600.0	6,410.0	6,232.0	6,201.3	32.5	17.5	171.86	534.9	416.5	2,153.9	2,121.1	32.74	65.782	
6,674.0	6,484.0	6,305.4	6,274.3	32.6	17.8	56.23	540.9	421.1	2,162.5	2,129.5	32.93	65.665	
6,700.0	6,510.0	6,331.3	6,300.1	32.6	17.8	56.20	543.0	422.7	2,165.0	2,132.0	33.03	65.540	
6,800.0	6,610.0	6,641.9	6,610.0	32.7	18.5	56.07	555.5	432.0	2,169.5	2,135.7	33.77	64.243	
6,900.0	6,710.0	6,741.9	6,710.0	32.8	18.6	56.07	555.5	432.0	2,169.5	2,135.3	34.12	63.580	
7,000.0	6,810.0	6,841.9	6,810.0	32.9	18.8	56.07	555.5	432.0	2,169.5	2,135.0	34.48	62.927	
7,100.0	6,910.0	6,941.9	6,910.0	33.0	19.0	56.07	555.5	432.0	2,169.5	2,134.6	34.83	62.283	
7,200.0	7,010.0	7,041.9	7,010.0	33.1	19.1	56.07	555.5	432.0	2,169.5	2,134.3	35.19	61.649	
7,300.0	7,110.0	7,141.9	7,110.0	33.2	19.3	56.07	555.5	432.0	2,169.5	2,133.9	35.55	61.025	
7,400.0	7,210.0	7,241.9	7,210.0	33.2	19.5	56.07	555.5	432.0	2,169.5	2,133.5	35.91	60.410	
7,500.0	7,310.0	7,341.9	7,310.0	33.3	19.7	56.07	555.5	432.0	2,169.5	2,133.2	36.28	59.804	
7,600.0	7,410.0	7,441.9	7,410.0	33.4	19.9	56.07	555.5	432.0	2,169.5	2,132.8	36.64	59.207	
7,700.0	7,510.0	7,541.9	7,510.0	33.5	20.0	56.07	555.5	432.0	2,169.5	2,132.5	37.01	58.619	
7,800.0	7,610.0	7,641.9	7,610.0	33.6	20.2	56.07	555.5	432.0	2,169.5	2,132.1	37.38	58.040	
7,900.0	7,710.0	7,741.9	7,710.0	33.7	20.4	56.07	555.5	432.0	2,169.5	2,131.7	37.75	57.470	
8,000.0	7,810.0	7,841.9	7,810.0	33.8	20.6	56.07	555.5	432.0	2,169.5	2,131.3	38.12	56.909	
8,100.0	7,910.0	7,941.9	7,910.0	33.9	20.8	56.07	555.5	432.0	2,169.5	2,131.0	38.50	56.356	
8,200.0	8,010.0	8,041.9	8,010.0	34.0	21.0	56.07	555.5	432.0	2,169.5	2,130.6	38.87	55.811	
8,300.0	8,110.0	8,141.9	8,110.0	34.1	21.1	56.07	555.5	432.0	2,169.5	2,130.2	39.25	55.275	
8,400.0	8,210.0	8,241.9	8,210.0	34.2	21.3	56.07	555.5	432.0	2,169.5	2,129.8	39.63	54.748	
8,500.0	8,310.0	8,341.9	8,310.0	34.4	21.5	56.07	555.5	432.0	2,169.5	2,129.5	40.01	54.228	
8,600.0	8,410.0	8,441.9	8,410.0	34.5	21.7	56.07	555.5	432.0	2,169.5	2,129.1	40.39	53.716	
8,689.0	8,499.0	8,530.9	8,499.0	34.6	21.9	56.07	555.5	432.0	2,169.5	2,128.7	40.73	53.267	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 22C-12 F12 - OH - PLAN #1 — **Offset Site Error:** 0.0 usft

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

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	57.38	47.7	74.5	88.5				
100.0	100.0	100.0	100.0	0.1	0.1	57.38	47.7	74.5	88.5	88.3	0.16	562.478	
200.0	200.0	200.0	200.0	0.3	0.3	57.38	47.7	74.5	88.5	87.9	0.61	145.828	CC, ES
300.0	300.0	295.4	295.3	0.5	0.5	173.38	48.7	76.7	93.6	92.4	1.14	82.223	
400.0	399.6	392.8	392.6	0.8	0.7	174.29	51.2	82.4	107.6	105.9	1.76	61.059	
500.0	498.8	490.8	490.4	1.0	1.0	175.20	53.8	88.3	127.1	124.8	2.37	53.606	
600.0	597.1	587.7	587.1	1.4	1.2	176.00	56.4	94.2	151.8	148.8	2.98	50.852	
689.2	683.9	673.0	672.1	1.8	1.4	176.60	58.7	99.4	178.0	174.5	3.53	50.405	
700.0	694.3	683.2	682.3	1.9	1.5	176.67	59.0	100.0	181.4	177.8	3.57	50.765	
800.0	791.1	778.0	777.0	2.4	1.7	177.21	61.6	105.7	213.0	209.1	3.98	53.536	
900.0	887.8	872.9	871.6	2.9	1.9	177.62	64.1	111.5	244.7	240.3	4.41	55.505	
1,000.0	984.5	967.7	966.2	3.4	2.2	177.93	66.7	117.2	276.4	271.5	4.85	56.931	
1,100.0	1,081.3	1,062.6	1,060.9	3.9	2.4	178.18	69.2	123.0	308.0	302.7	5.31	57.964	
1,200.0	1,178.0	1,157.4	1,155.5	4.5	2.7	178.38	71.8	128.7	339.7	333.9	5.78	58.755	
1,300.0	1,274.7	1,252.3	1,250.1	5.0	2.9	178.55	74.3	134.5	371.4	365.1	6.26	59.358	
1,400.0	1,371.5	1,347.1	1,344.8	5.5	3.1	178.69	76.9	140.2	403.1	396.3	6.74	59.825	
1,500.0	1,468.2	1,442.0	1,439.4	6.1	3.4	178.81	79.4	146.0	434.8	427.5	7.22	60.194	
1,600.0	1,565.0	1,536.8	1,534.0	6.6	3.6	178.92	82.0	151.7	466.4	458.7	7.71	60.490	
1,700.0	1,661.7	1,631.6	1,628.7	7.2	3.9	179.01	84.6	157.5	498.1	489.9	8.20	60.732	
1,800.0	1,758.4	1,726.5	1,723.3	7.7	4.1	179.09	87.1	163.2	529.8	521.1	8.70	60.931	
1,900.0	1,855.2	1,821.3	1,817.9	8.2	4.3	179.16	89.7	169.0	561.5	552.3	9.19	61.098	
2,000.0	1,951.9	1,916.2	1,912.6	8.8	4.6	179.22	92.2	174.7	593.2	583.5	9.69	61.240	
2,100.0	2,048.6	2,011.0	2,007.2	9.3	4.8	179.28	94.8	180.5	624.9	614.7	10.18	61.363	
2,200.0	2,145.4	2,105.9	2,101.9	9.9	5.1	179.33	97.3	186.2	656.6	645.9	10.68	61.469	
2,300.0	2,242.1	2,200.7	2,196.5	10.4	5.3	179.38	99.9	192.0	688.3	677.1	11.18	61.564	
2,400.0	2,338.8	2,295.6	2,291.1	10.9	5.6	179.42	102.4	197.7	720.0	708.3	11.68	61.648	
2,500.0	2,435.6	2,390.4	2,385.8	11.5	5.8	179.46	105.0	203.5	751.7	739.5	12.18	61.724	
2,600.0	2,532.3	2,485.2	2,480.4	12.0	6.0	179.49	107.5	209.2	783.4	770.7	12.68	61.794	
2,700.0	2,629.1	2,580.1	2,575.0	12.6	6.3	179.53	110.1	215.0	815.0	801.9	13.18	61.859	
2,800.0	2,725.8	2,674.9	2,669.7	13.1	6.5	179.56	112.6	220.7	846.7	833.1	13.68	61.918	
2,900.0	2,822.5	2,769.8	2,764.3	13.6	6.8	179.59	115.2	226.5	878.4	864.3	14.17	61.975	
3,000.0	2,919.3	2,864.6	2,858.9	14.2	7.0	179.61	117.8	232.2	910.1	895.4	14.67	62.028	
3,100.0	3,016.0	2,959.5	2,953.6	14.7	7.2	179.64	120.3	238.0	941.8	926.6	15.17	62.079	
3,200.0	3,112.7	3,054.3	3,048.2	15.3	7.5	179.66	122.9	243.7	973.5	957.8	15.67	62.128	
3,300.0	3,209.5	3,149.1	3,142.8	15.8	7.7	179.68	125.4	249.5	1,005.2	989.0	16.17	62.175	
3,400.0	3,306.2	3,244.0	3,237.5	16.4	8.0	179.70	128.0	255.2	1,036.9	1,020.2	16.66	62.221	
3,500.0	3,403.0	3,338.8	3,332.1	16.9	8.2	179.72	130.5	261.0	1,068.6	1,051.4	17.16	62.266	
3,600.0	3,499.7	3,433.7	3,426.7	17.4	8.5	179.74	133.1	266.7	1,100.3	1,082.6	17.66	62.310	
3,700.0	3,596.4	3,528.5	3,521.4	18.0	8.7	179.76	135.6	272.5	1,132.0	1,113.8	18.15	62.353	
3,800.0	3,693.2	3,623.4	3,616.0	18.5	8.9	179.77	138.2	278.2	1,163.7	1,145.0	18.65	62.395	
3,900.0	3,789.9	3,718.2	3,710.6	19.1	9.2	179.79	140.7	284.0	1,195.4	1,176.2	19.15	62.437	
4,000.0	3,886.6	3,813.1	3,805.3	19.6	9.4	179.80	143.3	289.7	1,227.1	1,207.4	19.64	62.478	
4,100.0	3,983.4	3,907.9	3,899.9	20.1	9.7	179.82	145.8	295.5	1,258.8	1,238.6	20.13	62.519	
4,200.0	4,080.1	4,002.7	3,994.6	20.7	9.9	179.83	148.4	301.2	1,290.4	1,269.8	20.63	62.560	
4,300.0	4,176.9	4,097.6	4,089.2	21.2	10.1	179.84	151.0	307.0	1,322.1	1,301.0	21.12	62.601	
4,400.0	4,273.6	4,192.4	4,183.8	21.8	10.4	179.85	153.5	312.7	1,353.8	1,332.2	21.61	62.642	
4,500.0	4,370.3	4,287.3	4,278.5	22.3	10.6	179.86	156.1	318.5	1,385.5	1,363.4	22.10	62.682	
4,600.0	4,467.1	4,382.1	4,373.1	22.8	10.9	179.88	158.6	324.2	1,417.2	1,394.6	22.59	62.723	
4,700.0	4,563.8	4,477.0	4,467.7	23.4	11.1	179.89	161.2	330.0	1,448.9	1,425.8	23.09	62.763	
4,800.0	4,660.5	4,571.8	4,562.4	23.9	11.4	179.90	163.7	335.7	1,480.6	1,457.0	23.58	62.804	
4,900.0	4,757.3	4,666.7	4,657.0	24.5	11.6	179.91	166.3	341.5	1,512.3	1,488.2	24.06	62.845	
5,000.0	4,854.0	4,761.5	4,751.6	25.0	11.8	179.91	168.8	347.2	1,544.0	1,519.4	24.55	62.885	

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 PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 22C-12 F12 - OH - PLAN #1

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,950.8	4,856.3	4,846.3	25.6	12.1	179.92	171.4	353.0	1,575.7	1,550.7	25.04	62.926	
5,200.0	5,047.5	4,951.2	4,940.9	26.1	12.3	179.93	173.9	358.7	1,607.4	1,581.9	25.53	62.967	
5,300.0	5,144.2	5,046.0	5,035.5	26.6	12.6	179.94	176.5	364.5	1,639.1	1,613.1	26.01	63.007	
5,400.0	5,241.0	5,140.9	5,130.2	27.2	12.8	179.95	179.1	370.2	1,670.8	1,644.3	26.50	63.048	
5,500.0	5,337.7	5,235.7	5,224.8	27.7	13.0	179.95	181.6	376.0	1,702.5	1,675.5	26.99	63.089	
5,600.0	5,434.4	5,330.6	5,319.4	28.3	13.3	179.96	184.2	381.7	1,734.2	1,706.7	27.47	63.130	
5,700.0	5,531.2	5,425.4	5,414.1	28.8	13.5	179.97	186.7	387.5	1,765.9	1,737.9	27.95	63.172	
5,800.0	5,627.9	5,520.3	5,508.7	29.3	13.8	179.98	189.3	393.2	1,797.6	1,769.1	28.44	63.213	
5,900.0	5,724.7	5,615.1	5,603.4	29.9	14.0	179.98	191.8	399.0	1,829.3	1,800.3	28.92	63.255	
6,000.0	5,821.4	5,709.9	5,698.0	30.4	14.2	179.99	194.4	404.7	1,860.9	1,831.5	29.40	63.296	
6,100.0	5,918.1	5,804.8	5,792.6	31.0	14.5	179.99	196.9	410.5	1,892.6	1,862.8	29.88	63.338	
6,184.8	6,000.1	5,885.2	5,872.8	31.4	14.7	180.00	199.1	415.4	1,919.5	1,889.2	30.29	63.374	
6,200.0	6,014.9	5,899.6	5,887.3	31.5	14.7	180.00	199.5	416.2	1,924.3	1,893.9	30.39	63.320	
6,300.0	6,112.4	5,995.5	5,982.9	31.9	15.0	-179.99	202.1	422.1	1,952.7	1,921.7	30.98	63.031	
6,400.0	6,211.0	6,092.7	6,079.9	32.1	15.2	-179.99	204.7	428.0	1,976.1	1,944.6	31.48	62.779	
6,500.0	6,310.3	6,191.0	6,178.0	32.4	15.5	-179.98	207.3	433.9	1,994.4	1,962.5	31.88	62.567	
6,600.0	6,410.0	6,290.2	6,276.9	32.5	15.7	-179.98	210.0	439.9	2,007.4	1,975.3	32.17	62.395	
6,674.0	6,484.0	6,363.9	6,350.5	32.6	15.9	64.42	212.0	444.4	2,013.8	1,981.4	32.34	62.274	
6,700.0	6,510.0	6,389.8	6,376.4	32.6	16.0	64.42	212.7	446.0	2,015.5	1,983.1	32.44	62.137	
6,800.0	6,610.0	6,623.7	6,610.0	32.7	16.5	64.43	215.6	452.6	2,018.3	1,985.3	33.04	61.083	
6,900.0	6,710.0	6,723.7	6,710.0	32.8	16.6	64.43	215.6	452.6	2,018.3	1,984.9	33.40	60.434	
7,000.0	6,810.0	6,823.7	6,810.0	32.9	16.8	64.43	215.6	452.6	2,018.3	1,984.6	33.75	59.795	
7,100.0	6,910.0	6,923.7	6,910.0	33.0	17.0	64.43	215.6	452.6	2,018.3	1,984.2	34.11	59.165	
7,200.0	7,010.0	7,023.7	7,010.0	33.1	17.2	64.43	215.6	452.6	2,018.3	1,983.8	34.47	58.546	
7,300.0	7,110.0	7,123.7	7,110.0	33.2	17.4	64.43	215.6	452.6	2,018.3	1,983.5	34.84	57.936	
7,400.0	7,210.0	7,223.7	7,210.0	33.2	17.6	64.43	215.6	452.6	2,018.3	1,983.1	35.20	57.335	
7,500.0	7,310.0	7,323.7	7,310.0	33.3	17.8	64.43	215.6	452.6	2,018.3	1,982.8	35.57	56.744	
7,600.0	7,410.0	7,423.7	7,410.0	33.4	18.0	64.43	215.6	452.6	2,018.3	1,982.4	35.94	56.162	
7,700.0	7,510.0	7,523.7	7,510.0	33.5	18.2	64.43	215.6	452.6	2,018.3	1,982.0	36.31	55.590	
7,800.0	7,610.0	7,623.7	7,610.0	33.6	18.4	64.43	215.6	452.6	2,018.3	1,981.6	36.68	55.026	
7,900.0	7,710.0	7,723.7	7,710.0	33.7	18.6	64.43	215.6	452.6	2,018.3	1,981.3	37.05	54.472	
8,000.0	7,810.0	7,823.7	7,810.0	33.8	18.8	64.43	215.6	452.6	2,018.3	1,980.9	37.43	53.926	
8,100.0	7,910.0	7,923.7	7,910.0	33.9	19.0	64.43	215.6	452.6	2,018.3	1,980.5	37.80	53.389	
8,200.0	8,010.0	8,023.7	8,010.0	34.0	19.2	64.43	215.6	452.6	2,018.3	1,980.1	38.18	52.860	
8,300.0	8,110.0	8,123.7	8,110.0	34.1	19.4	64.43	215.6	452.6	2,018.3	1,979.8	38.56	52.340	
8,400.0	8,210.0	8,223.7	8,210.0	34.2	19.6	64.43	215.6	452.6	2,018.3	1,979.4	38.94	51.827	
8,500.0	8,310.0	8,323.7	8,310.0	34.4	19.8	64.43	215.6	452.6	2,018.3	1,979.0	39.33	51.324	
8,600.0	8,410.0	8,423.7	8,410.0	34.5	20.0	64.43	215.6	452.6	2,018.3	1,978.6	39.71	50.828	
8,689.0	8,499.0	8,512.6	8,499.0	34.6	20.1	64.43	215.6	452.6	2,018.3	1,978.3	40.05	50.393 SF	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 22D-12 F12 - OH - Plan #2 — **Offset Site Error:** 0.0 usft

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

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	68.49	12.0	30.5	32.8				
100.0	100.0	100.0	100.0	0.1	0.1	68.49	12.0	30.5	32.8	32.6	0.16	208.324	
200.0	200.0	200.0	200.0	0.3	0.3	68.49	12.0	30.5	32.8	32.2	0.61	54.010	CC, ES
300.0	300.0	299.6	299.6	0.5	0.5	-175.66	11.8	30.9	35.7	34.5	1.13	31.606	
400.0	399.6	398.1	398.1	0.8	0.7	-173.02	10.1	33.8	45.7	44.0	1.71	26.691	SF
500.0	498.8	495.6	495.3	1.0	0.9	-169.80	6.8	39.5	63.1	60.8	2.34	26.957	
600.0	597.1	592.9	592.3	1.4	1.2	-168.14	3.0	46.0	86.4	83.5	2.97	29.109	
689.2	683.9	678.5	677.7	1.8	1.4	-167.70	-0.3	51.8	111.4	107.9	3.54	31.497	
700.0	694.3	688.8	687.9	1.9	1.4	-167.70	-0.7	52.5	114.6	111.1	3.58	32.000	
800.0	791.1	784.1	783.0	2.4	1.7	-167.72	-4.4	58.9	144.8	140.8	4.03	35.946	
900.0	887.8	879.5	878.0	2.9	1.9	-167.73	-8.1	65.3	175.0	170.5	4.50	38.875	
1,000.0	984.5	974.8	973.1	3.4	2.2	-167.73	-11.8	71.7	205.2	200.2	4.99	41.091	
1,100.0	1,081.3	1,070.1	1,068.1	3.9	2.4	-167.74	-15.4	78.0	235.3	229.8	5.50	42.805	
1,200.0	1,178.0	1,165.5	1,163.2	4.5	2.7	-167.74	-19.1	84.4	265.5	259.5	6.02	44.134	
1,300.0	1,274.7	1,260.8	1,258.2	5.0	2.9	-167.75	-22.8	90.8	295.7	289.2	6.54	45.226	
1,400.0	1,371.5	1,356.2	1,353.3	5.5	3.2	-167.75	-26.5	97.2	325.9	318.8	7.07	46.109	
1,500.0	1,468.2	1,451.5	1,448.3	6.1	3.4	-167.75	-30.2	103.6	356.0	348.4	7.60	46.840	
1,600.0	1,565.0	1,546.8	1,543.4	6.6	3.7	-167.75	-33.9	110.0	386.2	378.1	8.14	47.455	
1,700.0	1,661.7	1,642.2	1,638.4	7.2	4.0	-167.75	-37.6	116.4	416.4	407.7	8.68	47.979	
1,800.0	1,758.4	1,737.5	1,733.5	7.7	4.2	-167.76	-41.3	122.8	446.6	437.3	9.22	48.430	
1,900.0	1,855.2	1,832.8	1,828.5	8.2	4.5	-167.76	-45.0	129.2	476.7	467.0	9.76	48.823	
2,000.0	1,951.9	1,928.2	1,923.6	8.8	4.7	-167.76	-48.7	135.6	506.9	496.6	10.31	49.168	
2,100.0	2,048.6	2,023.5	2,018.6	9.3	5.0	-167.76	-52.4	142.0	537.1	526.2	10.86	49.473	
2,200.0	2,145.4	2,118.9	2,113.7	9.9	5.2	-167.76	-56.1	148.4	567.3	555.9	11.40	49.747	
2,300.0	2,242.1	2,214.2	2,208.8	10.4	5.5	-167.76	-59.7	154.8	597.4	585.5	11.95	49.993	
2,400.0	2,338.8	2,309.5	2,303.8	10.9	5.7	-167.76	-63.4	161.1	627.6	615.1	12.50	50.216	
2,500.0	2,435.6	2,404.9	2,398.9	11.5	6.0	-167.76	-67.1	167.5	657.8	644.7	13.05	50.419	
2,600.0	2,532.3	2,500.2	2,493.9	12.0	6.3	-167.76	-70.8	173.9	688.0	674.4	13.59	50.605	
2,700.0	2,629.1	2,595.6	2,589.0	12.6	6.5	-167.76	-74.5	180.3	718.1	704.0	14.14	50.777	
2,800.0	2,725.8	2,690.9	2,684.0	13.1	6.8	-167.76	-78.2	186.7	748.3	733.6	14.69	50.937	
2,900.0	2,822.5	2,786.2	2,779.1	13.6	7.0	-167.76	-81.9	193.1	778.5	763.2	15.24	51.085	
3,000.0	2,919.3	2,881.6	2,874.1	14.2	7.3	-167.76	-85.6	199.5	808.7	792.9	15.79	51.224	
3,100.0	3,016.0	2,976.9	2,969.2	14.7	7.5	-167.76	-89.3	205.9	838.8	822.5	16.33	51.354	
3,200.0	3,112.7	3,072.3	3,064.2	15.3	7.8	-167.76	-93.0	212.3	869.0	852.1	16.88	51.477	
3,300.0	3,209.5	3,167.6	3,159.3	15.8	8.0	-167.77	-96.7	218.7	899.2	881.8	17.43	51.593	
3,400.0	3,306.2	3,262.9	3,254.3	16.4	8.3	-167.77	-100.4	225.1	929.4	911.4	17.98	51.703	
3,500.0	3,403.0	3,358.3	3,349.4	16.9	8.6	-167.77	-104.0	231.5	959.5	941.0	18.52	51.807	
3,600.0	3,499.7	3,453.6	3,444.4	17.4	8.8	-167.77	-107.7	237.9	989.7	970.6	19.07	51.907	
3,700.0	3,596.4	3,548.9	3,539.5	18.0	9.1	-167.77	-111.4	244.2	1,019.9	1,000.3	19.61	52.003	
3,800.0	3,693.2	3,644.3	3,634.5	18.5	9.3	-167.77	-115.1	250.6	1,050.1	1,029.9	20.16	52.094	
3,900.0	3,789.9	3,739.6	3,729.6	19.1	9.6	-167.77	-118.8	257.0	1,080.2	1,059.5	20.70	52.182	
4,000.0	3,886.6	3,835.0	3,824.6	19.6	9.8	-167.77	-122.5	263.4	1,110.4	1,089.2	21.24	52.267	
4,100.0	3,983.4	3,930.3	3,919.7	20.1	10.1	-167.77	-126.2	269.8	1,140.6	1,118.8	21.79	52.349	
4,200.0	4,080.1	4,025.6	4,014.8	20.7	10.4	-167.77	-129.9	276.2	1,170.8	1,148.4	22.33	52.428	
4,300.0	4,176.9	4,121.0	4,109.8	21.2	10.6	-167.77	-133.6	282.6	1,200.9	1,178.1	22.87	52.505	
4,400.0	4,273.6	4,216.3	4,204.9	21.8	10.9	-167.77	-137.3	289.0	1,231.1	1,207.7	23.41	52.579	
4,500.0	4,370.3	4,311.7	4,299.9	22.3	11.1	-167.77	-141.0	295.4	1,261.3	1,237.3	23.96	52.651	
4,600.0	4,467.1	4,407.0	4,395.0	22.8	11.4	-167.77	-144.7	301.8	1,291.5	1,267.0	24.50	52.722	
4,700.0	4,563.8	4,502.3	4,490.0	23.4	11.6	-167.77	-148.4	308.2	1,321.6	1,296.6	25.04	52.790	
4,800.0	4,660.5	4,597.7	4,585.1	23.9	11.9	-167.77	-152.0	314.6	1,351.8	1,326.2	25.57	52.858	
4,900.0	4,757.3	4,693.0	4,680.1	24.5	12.2	-167.77	-155.7	321.0	1,382.0	1,355.9	26.11	52.923	
5,000.0	4,854.0	4,788.4	4,775.2	25.0	12.4	-167.77	-159.4	327.3	1,412.1	1,385.5	26.65	52.987	

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 PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 22D-12 F12 - OH - Plan #2

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,950.8	4,883.7	4,870.2	25.6	12.7	-167.77	-163.1	333.7	1,442.3	1,415.1	27.19	53.050	
5,200.0	5,047.5	4,979.0	4,965.3	26.1	12.9	-167.77	-166.8	340.1	1,472.5	1,444.8	27.72	53.112	
5,300.0	5,144.2	5,074.4	5,060.3	26.6	13.2	-167.77	-170.5	346.5	1,502.7	1,474.4	28.26	53.172	
5,400.0	5,241.0	5,169.7	5,155.4	27.2	13.4	-167.77	-174.2	352.9	1,532.8	1,504.1	28.80	53.232	
5,500.0	5,337.7	5,265.0	5,250.4	27.7	13.7	-167.77	-177.9	359.3	1,563.0	1,533.7	29.33	53.290	
5,600.0	5,434.4	5,360.4	5,345.5	28.3	13.9	-167.77	-181.6	365.7	1,593.2	1,563.3	29.86	53.348	
5,700.0	5,531.2	5,455.7	5,440.5	28.8	14.2	-167.77	-185.3	372.1	1,623.4	1,593.0	30.40	53.405	
5,800.0	5,627.9	5,551.1	5,535.6	29.3	14.5	-167.77	-189.0	378.5	1,653.5	1,622.6	30.93	53.461	
5,900.0	5,724.7	5,646.4	5,630.6	29.9	14.7	-167.77	-192.7	384.9	1,683.7	1,652.3	31.46	53.516	
6,000.0	5,821.4	5,741.7	5,725.7	30.4	15.0	-167.77	-196.3	391.3	1,713.9	1,681.9	31.99	53.570	
6,100.0	5,918.1	5,837.1	5,820.8	31.0	15.2	-167.77	-200.0	397.7	1,744.1	1,711.5	32.52	53.624	
6,184.8	6,000.1	5,917.9	5,901.3	31.4	15.4	-167.77	-203.2	403.1	1,769.6	1,736.7	32.97	53.669	
6,200.0	6,014.9	5,932.4	5,915.8	31.5	15.5	-167.80	-203.7	404.1	1,774.2	1,741.1	33.08	53.637	
6,300.0	6,112.4	6,028.7	6,011.8	31.9	15.7	-167.95	-207.5	410.5	1,801.2	1,767.5	33.69	53.470	
6,400.0	6,211.0	6,126.2	6,109.0	32.1	16.0	-168.03	-211.2	417.0	1,823.2	1,789.0	34.21	53.300	
6,500.0	6,310.3	6,224.7	6,207.2	32.4	16.3	-168.05	-215.1	423.6	1,840.2	1,805.5	34.63	53.132	
6,600.0	6,410.0	6,323.9	6,306.1	32.5	16.5	-168.00	-218.9	430.3	1,852.1	1,817.1	34.97	52.966	
6,674.0	6,484.0	6,453.2	6,435.2	32.6	16.8	76.51	-222.7	436.9	1,856.7	1,821.5	35.24	52.693	
6,700.0	6,510.0	6,502.3	6,484.3	32.6	16.9	76.54	-223.4	438.0	1,857.2	1,821.9	35.36	52.525	
6,800.0	6,610.0	6,628.1	6,610.0	32.7	17.1	76.55	-223.6	438.5	1,857.4	1,821.7	35.72	52.003	
6,900.0	6,710.0	6,728.1	6,710.0	32.8	17.3	76.55	-223.6	438.5	1,857.4	1,821.4	36.03	51.558	
7,000.0	6,810.0	6,828.1	6,810.0	32.9	17.4	76.55	-223.6	438.5	1,857.4	1,821.1	36.34	51.117	
7,100.0	6,910.0	6,928.1	6,910.0	33.0	17.6	76.55	-223.6	438.5	1,857.4	1,820.8	36.65	50.680	
7,200.0	7,010.0	7,028.1	7,010.0	33.1	17.7	76.55	-223.6	438.5	1,857.4	1,820.5	36.97	50.245	
7,300.0	7,110.0	7,128.1	7,110.0	33.2	17.9	76.55	-223.6	438.5	1,857.4	1,820.1	37.29	49.815	
7,400.0	7,210.0	7,228.1	7,210.0	33.2	18.1	76.55	-223.6	438.5	1,857.4	1,819.8	37.61	49.389	
7,500.0	7,310.0	7,328.1	7,310.0	33.3	18.2	76.55	-223.6	438.5	1,857.4	1,819.5	37.93	48.966	
7,600.0	7,410.0	7,428.1	7,410.0	33.4	18.4	76.55	-223.6	438.5	1,857.4	1,819.2	38.26	48.547	
7,700.0	7,510.0	7,528.1	7,510.0	33.5	18.6	76.55	-223.6	438.5	1,857.4	1,818.8	38.59	48.132	
7,800.0	7,610.0	7,628.1	7,610.0	33.6	18.8	76.55	-223.6	438.5	1,857.4	1,818.5	38.92	47.722	
7,900.0	7,710.0	7,728.1	7,710.0	33.7	18.9	76.55	-223.6	438.5	1,857.4	1,818.2	39.26	47.315	
8,000.0	7,810.0	7,828.1	7,810.0	33.8	19.1	76.55	-223.6	438.5	1,857.4	1,817.8	39.59	46.912	
8,100.0	7,910.0	7,928.1	7,910.0	33.9	19.3	76.55	-223.6	438.5	1,857.4	1,817.5	39.93	46.514	
8,200.0	8,010.0	8,028.1	8,010.0	34.0	19.5	76.55	-223.6	438.5	1,857.4	1,817.2	40.27	46.120	
8,300.0	8,110.0	8,128.1	8,110.0	34.1	19.6	76.55	-223.6	438.5	1,857.4	1,816.8	40.62	45.730	
8,400.0	8,210.0	8,228.1	8,210.0	34.2	19.8	76.55	-223.6	438.5	1,857.4	1,816.5	40.96	45.345	
8,500.0	8,310.0	8,328.1	8,310.0	34.4	20.0	76.55	-223.6	438.5	1,857.4	1,816.1	41.31	44.963	
8,600.0	8,410.0	8,428.1	8,410.0	34.5	20.2	76.55	-223.6	438.5	1,857.4	1,815.8	41.66	44.586	
8,689.0	8,499.0	8,517.0	8,499.0	34.6	20.3	76.55	-223.6	438.5	1,857.4	1,815.5	41.96	44.271	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 23A-12 F12 - OH - Plan #2 — **Offset Site Error:** 0.0 usft

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

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	83.10	2.2	18.1	18.2				
100.0	100.0	100.0	100.0	0.1	0.1	83.10	2.2	18.1	18.2	18.0	0.16	115.688	
200.0	200.0	200.0	200.0	0.3	0.3	83.10	2.2	18.1	18.2	17.6	0.61	29.993	CC, ES
300.0	300.0	299.5	299.5	0.5	0.5	-159.70	0.9	19.2	21.7	20.6	1.11	19.492	
400.0	399.6	398.4	398.2	0.8	0.7	-156.97	-3.0	22.6	32.1	30.4	1.69	19.011	SF
500.0	498.8	496.0	495.4	1.0	1.0	-154.92	-9.3	28.2	49.5	47.2	2.31	21.394	
600.0	597.1	592.8	591.7	1.4	1.2	-154.09	-17.3	35.3	73.1	70.2	2.97	24.587	
689.2	683.9	678.4	676.8	1.8	1.5	-154.63	-24.5	41.7	98.2	94.6	3.58	27.425	
700.0	694.3	688.7	687.0	1.9	1.5	-154.77	-25.4	42.4	101.4	97.8	3.63	27.905	
800.0	791.1	784.1	781.7	2.4	1.8	-155.75	-33.4	49.5	131.5	127.3	4.16	31.614	
900.0	887.8	879.4	876.5	2.9	2.1	-156.36	-41.4	56.6	161.6	156.9	4.71	34.314	
1,000.0	984.5	974.8	971.2	3.4	2.4	-156.78	-49.4	63.7	191.7	186.4	5.28	36.328	
1,100.0	1,081.3	1,070.1	1,066.0	3.9	2.7	-157.08	-57.4	70.8	221.8	216.0	5.86	37.872	
1,200.0	1,178.0	1,165.5	1,160.7	4.5	3.0	-157.31	-65.4	77.9	252.0	245.5	6.45	39.063	
1,300.0	1,274.7	1,260.8	1,255.5	5.0	3.3	-157.50	-73.5	85.0	282.1	275.0	7.05	40.026	
1,400.0	1,371.5	1,356.2	1,350.2	5.5	3.6	-157.64	-81.5	92.0	312.2	304.6	7.65	40.809	
1,500.0	1,468.2	1,451.5	1,445.0	6.1	3.8	-157.76	-89.5	99.1	342.4	334.1	8.26	41.456	
1,600.0	1,565.0	1,546.9	1,539.7	6.6	4.1	-157.87	-97.5	106.2	372.5	363.6	8.87	41.999	
1,700.0	1,661.7	1,642.2	1,634.5	7.2	4.4	-157.95	-105.5	113.3	402.6	393.2	9.48	42.462	
1,800.0	1,758.4	1,737.6	1,729.2	7.7	4.7	-158.03	-113.5	120.4	432.8	422.7	10.10	42.860	
1,900.0	1,855.2	1,832.9	1,823.9	8.2	5.0	-158.09	-121.5	127.5	462.9	452.2	10.71	43.207	
2,000.0	1,951.9	1,928.3	1,918.7	8.8	5.3	-158.15	-129.6	134.6	493.1	481.7	11.33	43.512	
2,100.0	2,048.6	2,023.6	2,013.4	9.3	5.6	-158.20	-137.6	141.6	523.2	511.2	11.95	43.782	
2,200.0	2,145.4	2,118.9	2,108.2	9.9	5.9	-158.24	-145.6	148.7	553.3	540.8	12.57	44.024	
2,300.0	2,242.1	2,214.3	2,202.9	10.4	6.2	-158.28	-153.6	155.8	583.5	570.3	13.19	44.242	
2,400.0	2,338.8	2,309.6	2,297.7	10.9	6.5	-158.32	-161.6	162.9	613.6	599.8	13.81	44.439	
2,500.0	2,435.6	2,405.0	2,392.4	11.5	6.8	-158.35	-169.6	170.0	643.8	629.3	14.43	44.619	
2,600.0	2,532.3	2,500.3	2,487.2	12.0	7.1	-158.38	-177.6	177.1	673.9	658.9	15.05	44.785	
2,700.0	2,629.1	2,595.7	2,581.9	12.6	7.4	-158.41	-185.7	184.2	704.0	688.4	15.67	44.937	
2,800.0	2,725.8	2,691.0	2,676.7	13.1	7.7	-158.44	-193.7	191.2	734.2	717.9	16.29	45.078	
2,900.0	2,822.5	2,786.4	2,771.4	13.6	8.0	-158.46	-201.7	198.3	764.3	747.4	16.91	45.210	
3,000.0	2,919.3	2,881.7	2,866.2	14.2	8.3	-158.48	-209.7	205.4	794.5	776.9	17.53	45.332	
3,100.0	3,016.0	2,977.1	2,960.9	14.7	8.6	-158.50	-217.7	212.5	824.6	806.5	18.14	45.447	
3,200.0	3,112.7	3,072.4	3,055.7	15.3	8.9	-158.52	-225.7	219.6	854.8	836.0	18.76	45.556	
3,300.0	3,209.5	3,167.8	3,150.4	15.8	9.2	-158.54	-233.7	226.7	884.9	865.5	19.38	45.658	
3,400.0	3,306.2	3,263.1	3,245.1	16.4	9.5	-158.55	-241.8	233.8	915.0	895.0	20.00	45.755	
3,500.0	3,403.0	3,358.5	3,339.9	16.9	9.8	-158.57	-249.8	240.8	945.2	924.6	20.62	45.848	
3,600.0	3,499.7	3,453.8	3,434.6	17.4	10.1	-158.58	-257.8	247.9	975.3	954.1	21.23	45.935	
3,700.0	3,596.4	3,549.2	3,529.4	18.0	10.4	-158.59	-265.8	255.0	1,005.5	983.6	21.85	46.019	
3,800.0	3,693.2	3,644.5	3,624.1	18.5	10.7	-158.61	-273.8	262.1	1,035.6	1,013.1	22.46	46.100	
3,900.0	3,789.9	3,739.9	3,718.9	19.1	11.0	-158.62	-281.8	269.2	1,065.8	1,042.7	23.08	46.177	
4,000.0	3,886.6	3,835.2	3,813.6	19.6	11.3	-158.63	-289.8	276.3	1,095.9	1,072.2	23.69	46.251	
4,100.0	3,983.4	3,930.6	3,908.4	20.1	11.6	-158.64	-297.9	283.4	1,126.0	1,101.7	24.31	46.323	
4,200.0	4,080.1	4,025.9	4,003.1	20.7	11.9	-158.65	-305.9	290.4	1,156.2	1,131.3	24.92	46.392	
4,300.0	4,176.9	4,121.3	4,097.9	21.2	12.2	-158.66	-313.9	297.5	1,186.3	1,160.8	25.54	46.459	
4,400.0	4,273.6	4,216.6	4,192.6	21.8	12.5	-158.67	-321.9	304.6	1,216.5	1,190.3	26.15	46.523	
4,500.0	4,370.3	4,312.0	4,287.4	22.3	12.8	-158.68	-329.9	311.7	1,246.6	1,219.8	26.76	46.586	
4,600.0	4,467.1	4,407.3	4,382.1	22.8	13.1	-158.68	-337.9	318.8	1,276.8	1,249.4	27.37	46.647	
4,700.0	4,563.8	4,502.7	4,476.9	23.4	13.4	-158.69	-346.0	325.9	1,306.9	1,278.9	27.98	46.707	
4,800.0	4,660.5	4,598.0	4,571.6	23.9	13.7	-158.70	-354.0	333.0	1,337.0	1,308.4	28.59	46.765	
4,900.0	4,757.3	4,693.4	4,666.3	24.5	13.9	-158.71	-362.0	340.0	1,367.2	1,338.0	29.20	46.821	
5,000.0	4,854.0	4,788.7	4,761.1	25.0	14.2	-158.71	-370.0	347.1	1,397.3	1,367.5	29.81	46.876	

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 PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 23A-12 F12 - OH - Plan #2

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,950.8	4,884.1	4,855.8	25.6	14.5	-158.72	-378.0	354.2	1,427.5	1,397.0	30.42	46.930	
5,200.0	5,047.5	4,979.4	4,950.6	26.1	14.8	-158.73	-386.0	361.3	1,457.6	1,426.6	31.02	46.983	
5,300.0	5,144.2	5,074.8	5,045.3	26.6	15.1	-158.73	-394.0	368.4	1,487.8	1,456.1	31.63	47.035	
5,400.0	5,241.0	5,170.1	5,140.1	27.2	15.4	-158.74	-402.1	375.5	1,517.9	1,485.7	32.24	47.086	
5,500.0	5,337.7	5,265.5	5,234.8	27.7	15.7	-158.74	-410.1	382.6	1,548.0	1,515.2	32.84	47.136	
5,600.0	5,434.4	5,360.8	5,329.6	28.3	16.0	-158.75	-418.1	389.6	1,578.2	1,544.7	33.45	47.185	
5,700.0	5,531.2	5,456.2	5,424.3	28.8	16.3	-158.75	-426.1	396.7	1,608.3	1,574.3	34.05	47.233	
5,800.0	5,627.9	5,551.5	5,519.1	29.3	16.6	-158.76	-434.1	403.8	1,638.5	1,603.8	34.65	47.281	
5,900.0	5,724.7	5,646.9	5,613.8	29.9	16.9	-158.76	-442.1	410.9	1,668.6	1,633.4	35.26	47.328	
6,000.0	5,821.4	5,742.2	5,708.6	30.4	17.2	-158.77	-450.1	418.0	1,698.8	1,662.9	35.86	47.374	
6,100.0	5,918.1	5,837.5	5,803.3	31.0	17.5	-158.77	-458.2	425.1	1,728.9	1,692.4	36.46	47.419	
6,184.8	6,000.1	5,918.4	5,883.6	31.4	17.8	-158.78	-464.9	431.1	1,754.4	1,717.5	36.97	47.457	
6,200.0	6,014.9	5,932.9	5,898.1	31.5	17.8	-158.83	-466.2	432.2	1,759.0	1,721.9	37.08	47.436	
6,300.0	6,112.4	6,029.2	5,993.7	31.9	18.1	-159.09	-474.3	439.3	1,786.1	1,748.3	37.74	47.326	
6,400.0	6,211.0	6,126.6	6,090.5	32.1	18.4	-159.24	-482.4	446.6	1,808.4	1,770.1	38.32	47.196	
6,500.0	6,310.3	6,224.9	6,188.2	32.4	18.7	-159.28	-490.7	453.9	1,826.0	1,787.2	38.81	47.048	
6,600.0	6,410.0	6,373.3	6,336.0	32.5	19.1	-159.16	-501.0	463.0	1,837.7	1,798.4	39.26	46.810	
6,674.0	6,484.0	6,493.3	6,455.8	32.6	19.3	85.31	-505.2	466.7	1,841.1	1,801.6	39.49	46.625	
6,700.0	6,510.0	6,535.6	6,498.1	32.6	19.3	85.33	-505.8	467.2	1,841.3	1,801.7	39.59	46.507	
6,800.0	6,610.0	6,647.5	6,610.0	32.7	19.5	85.34	-505.9	467.3	1,841.4	1,801.5	39.89	46.163	
6,900.0	6,710.0	6,747.5	6,710.0	32.8	19.6	85.34	-505.9	467.3	1,841.4	1,801.2	40.16	45.853	
7,000.0	6,810.0	6,847.5	6,810.0	32.9	19.8	85.34	-505.9	467.3	1,841.4	1,801.0	40.43	45.543	
7,100.0	6,910.0	6,947.5	6,910.0	33.0	19.9	85.34	-505.9	467.3	1,841.4	1,800.7	40.71	45.234	
7,200.0	7,010.0	7,047.5	7,010.0	33.1	20.0	85.34	-505.9	467.3	1,841.4	1,800.4	40.99	44.925	
7,300.0	7,110.0	7,147.5	7,110.0	33.2	20.2	85.34	-505.9	467.3	1,841.4	1,800.1	41.27	44.618	
7,400.0	7,210.0	7,247.5	7,210.0	33.2	20.3	85.34	-505.9	467.3	1,841.4	1,799.8	41.56	44.311	
7,500.0	7,310.0	7,347.5	7,310.0	33.3	20.5	85.34	-505.9	467.3	1,841.4	1,799.6	41.84	44.006	
7,600.0	7,410.0	7,447.5	7,410.0	33.4	20.6	85.34	-505.9	467.3	1,841.4	1,799.3	42.14	43.701	
7,700.0	7,510.0	7,547.5	7,510.0	33.5	20.8	85.34	-505.9	467.3	1,841.4	1,799.0	42.43	43.398	
7,800.0	7,610.0	7,647.5	7,610.0	33.6	20.9	85.34	-505.9	467.3	1,841.4	1,798.7	42.73	43.096	
7,900.0	7,710.0	7,747.5	7,710.0	33.7	21.1	85.34	-505.9	467.3	1,841.4	1,798.4	43.03	42.796	
8,000.0	7,810.0	7,847.5	7,810.0	33.8	21.2	85.34	-505.9	467.3	1,841.4	1,798.1	43.33	42.497	
8,100.0	7,910.0	7,947.5	7,910.0	33.9	21.4	85.34	-505.9	467.3	1,841.4	1,797.8	43.63	42.200	
8,200.0	8,010.0	8,047.5	8,010.0	34.0	21.5	85.34	-505.9	467.3	1,841.4	1,797.5	43.94	41.905	
8,300.0	8,110.0	8,147.5	8,110.0	34.1	21.7	85.34	-505.9	467.3	1,841.4	1,797.1	44.25	41.611	
8,400.0	8,210.0	8,247.5	8,210.0	34.2	21.8	85.34	-505.9	467.3	1,841.4	1,796.8	44.57	41.319	
8,500.0	8,310.0	8,347.5	8,310.0	34.4	22.0	85.34	-505.9	467.3	1,841.4	1,796.5	44.88	41.029	
8,600.0	8,410.0	8,447.5	8,410.0	34.5	22.1	85.34	-505.9	467.3	1,841.4	1,796.2	45.20	40.741	
8,689.0	8,499.0	8,536.5	8,499.0	34.6	22.3	85.34	-505.9	467.3	1,841.4	1,795.9	45.48	40.487	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 23B-12 F12 - OH - Plan #2 — **Offset Site Error:** 0.0 usft

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

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	103.20	-2.9	12.4	12.8				
100.0	100.0	100.0	100.0	0.1	0.1	103.20	-2.9	12.4	12.8	12.6	0.16	81.103	
200.0	200.0	200.0	200.0	0.3	0.3	103.20	-2.9	12.4	12.8	12.2	0.61	21.027	CC, ES
300.0	300.0	299.8	299.8	0.5	0.5	-146.12	-3.3	12.6	15.1	14.0	1.10	13.789	SF
400.0	399.6	399.0	399.0	0.8	0.7	-149.77	-6.3	14.2	23.7	22.1	1.65	14.392	
500.0	498.8	497.4	497.0	1.0	0.9	-150.63	-12.4	17.4	38.7	36.4	2.26	17.108	
600.0	597.1	594.2	593.4	1.4	1.2	-150.46	-21.2	22.0	59.9	56.9	2.92	20.502	
689.2	683.9	679.0	677.4	1.8	1.4	-150.02	-31.3	27.3	83.9	80.3	3.55	23.623	
700.0	694.3	689.2	687.5	1.9	1.5	-150.00	-32.7	28.1	87.1	83.5	3.61	24.119	
800.0	791.1	784.3	781.4	2.4	1.8	-149.59	-45.9	35.0	117.1	112.9	4.20	27.861	
900.0	887.8	879.7	875.6	2.9	2.1	-149.34	-59.2	42.0	147.2	142.3	4.83	30.451	
1,000.0	984.5	975.1	969.8	3.4	2.5	-149.17	-72.6	49.0	177.2	171.7	5.49	32.287	
1,100.0	1,081.3	1,070.5	1,064.0	3.9	2.8	-149.05	-85.9	56.0	207.3	201.1	6.16	33.629	
1,200.0	1,178.0	1,165.8	1,158.1	4.5	3.2	-148.96	-99.2	63.0	237.3	230.5	6.85	34.631	
1,300.0	1,274.7	1,261.2	1,252.3	5.0	3.5	-148.89	-112.6	70.0	267.4	259.8	7.55	35.415	
1,400.0	1,371.5	1,356.6	1,346.5	5.5	3.9	-148.83	-125.9	77.0	297.4	289.2	8.25	36.034	
1,500.0	1,468.2	1,452.0	1,440.7	6.1	4.2	-148.79	-139.2	84.0	327.5	318.5	8.96	36.535	
1,600.0	1,565.0	1,547.3	1,534.9	6.6	4.6	-148.75	-152.5	91.0	357.5	347.9	9.68	36.947	
1,700.0	1,661.7	1,642.7	1,629.0	7.2	4.9	-148.72	-165.9	98.0	387.6	377.2	10.39	37.292	
1,800.0	1,758.4	1,738.1	1,723.2	7.7	5.3	-148.69	-179.2	105.0	417.6	406.5	11.11	37.585	
1,900.0	1,855.2	1,833.5	1,817.4	8.2	5.7	-148.67	-192.5	112.0	447.7	435.9	11.83	37.837	
2,000.0	1,951.9	1,928.8	1,911.6	8.8	6.0	-148.65	-205.9	119.1	477.8	465.2	12.55	38.057	
2,100.0	2,048.6	2,024.2	2,005.8	9.3	6.4	-148.63	-219.2	126.1	507.8	494.5	13.28	38.249	
2,200.0	2,145.4	2,119.6	2,100.0	9.9	6.7	-148.61	-232.5	133.1	537.9	523.9	14.00	38.420	
2,300.0	2,242.1	2,215.0	2,194.1	10.4	7.1	-148.60	-245.8	140.1	567.9	553.2	14.72	38.573	
2,400.0	2,338.8	2,310.4	2,288.3	10.9	7.5	-148.58	-259.2	147.1	598.0	582.5	15.45	38.711	
2,500.0	2,435.6	2,405.7	2,382.5	11.5	7.8	-148.57	-272.5	154.1	628.0	611.9	16.17	38.836	
2,600.0	2,532.3	2,501.1	2,476.7	12.0	8.2	-148.56	-285.8	161.1	658.1	641.2	16.90	38.950	
2,700.0	2,629.1	2,596.5	2,570.9	12.6	8.5	-148.55	-299.2	168.1	688.1	670.5	17.62	39.055	
2,800.0	2,725.8	2,691.9	2,665.0	13.1	8.9	-148.54	-312.5	175.1	718.2	699.8	18.34	39.152	
2,900.0	2,822.5	2,787.2	2,759.2	13.6	9.3	-148.54	-325.8	182.1	748.2	729.2	19.07	39.242	
3,000.0	2,919.3	2,882.6	2,853.4	14.2	9.6	-148.53	-339.1	189.1	778.3	758.5	19.79	39.325	
3,100.0	3,016.0	2,978.0	2,947.6	14.7	10.0	-148.52	-352.5	196.1	808.4	787.8	20.51	39.404	
3,200.0	3,112.7	3,073.4	3,041.8	15.3	10.3	-148.51	-365.8	203.1	838.4	817.2	21.24	39.478	
3,300.0	3,209.5	3,168.7	3,135.9	15.8	10.7	-148.51	-379.1	210.1	868.5	846.5	21.96	39.547	
3,400.0	3,306.2	3,264.1	3,230.1	16.4	11.1	-148.50	-392.5	217.1	898.5	875.8	22.68	39.613	
3,500.0	3,403.0	3,359.5	3,324.3	16.9	11.4	-148.50	-405.8	224.1	928.6	905.2	23.40	39.676	
3,600.0	3,499.7	3,454.9	3,418.5	17.4	11.8	-148.49	-419.1	231.1	958.6	934.5	24.13	39.735	
3,700.0	3,596.4	3,550.3	3,512.7	18.0	12.1	-148.49	-432.4	238.1	988.7	963.8	24.85	39.792	
3,800.0	3,693.2	3,645.6	3,606.8	18.5	12.5	-148.48	-445.8	245.1	1,018.7	993.2	25.57	39.847	
3,900.0	3,789.9	3,741.0	3,701.0	19.1	12.9	-148.48	-459.1	252.1	1,048.8	1,022.5	26.29	39.899	
4,000.0	3,886.6	3,836.4	3,795.2	19.6	13.2	-148.48	-472.4	259.1	1,078.8	1,051.8	27.01	39.950	
4,100.0	3,983.4	3,931.8	3,889.4	20.1	13.6	-148.47	-485.8	266.1	1,108.9	1,081.2	27.72	39.998	
4,200.0	4,080.1	4,027.1	3,983.6	20.7	13.9	-148.47	-499.1	273.1	1,138.9	1,110.5	28.44	40.045	
4,300.0	4,176.9	4,122.5	4,077.8	21.2	14.3	-148.46	-512.4	280.1	1,169.0	1,139.8	29.16	40.090	
4,400.0	4,273.6	4,217.9	4,171.9	21.8	14.7	-148.46	-525.7	287.1	1,199.1	1,169.2	29.88	40.134	
4,500.0	4,370.3	4,313.3	4,266.1	22.3	15.0	-148.46	-539.1	294.1	1,229.1	1,198.5	30.59	40.177	
4,600.0	4,467.1	4,408.6	4,360.3	22.8	15.4	-148.46	-552.4	301.1	1,259.2	1,227.9	31.31	40.219	
4,700.0	4,563.8	4,504.0	4,454.5	23.4	15.7	-148.45	-565.7	308.1	1,289.2	1,257.2	32.02	40.259	
4,800.0	4,660.5	4,599.4	4,548.7	23.9	16.1	-148.45	-579.1	315.1	1,319.3	1,286.5	32.74	40.299	
4,900.0	4,757.3	4,694.8	4,642.8	24.5	16.5	-148.45	-592.4	322.1	1,349.3	1,315.9	33.45	40.337	
5,000.0	4,854.0	4,790.1	4,737.0	25.0	16.8	-148.45	-605.7	329.1	1,379.4	1,345.2	34.16	40.375	

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 PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 23B-12 F12 - OH - Plan #2

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,950.8	4,885.5	4,831.2	25.6	17.2	-148.44	-619.0	336.1	1,409.4	1,374.6	34.88	40.412	
5,200.0	5,047.5	4,980.9	4,925.4	26.1	17.5	-148.44	-632.4	343.1	1,439.5	1,403.9	35.59	40.448	
5,300.0	5,144.2	5,076.3	5,019.6	26.6	17.9	-148.44	-645.7	350.1	1,469.5	1,433.2	36.30	40.484	
5,400.0	5,241.0	5,171.7	5,113.7	27.2	18.3	-148.44	-659.0	357.1	1,499.6	1,462.6	37.01	40.519	
5,500.0	5,337.7	5,267.0	5,207.9	27.7	18.6	-148.44	-672.4	364.1	1,529.7	1,491.9	37.72	40.553	
5,600.0	5,434.4	5,362.4	5,302.1	28.3	19.0	-148.43	-685.7	371.1	1,559.7	1,521.3	38.43	40.586	
5,700.0	5,531.2	5,457.8	5,396.3	28.8	19.3	-148.43	-699.0	378.2	1,589.8	1,550.6	39.14	40.620	
5,800.0	5,627.9	5,553.2	5,490.5	29.3	19.7	-148.43	-712.3	385.2	1,619.8	1,580.0	39.85	40.652	
5,900.0	5,724.7	5,648.5	5,584.6	29.9	20.1	-148.43	-725.7	392.2	1,649.9	1,609.3	40.55	40.684	
6,000.0	5,821.4	5,743.9	5,678.8	30.4	20.4	-148.43	-739.0	399.2	1,679.9	1,638.7	41.26	40.716	
6,100.0	5,918.1	5,839.3	5,773.0	31.0	20.8	-148.43	-752.3	406.2	1,710.0	1,668.0	41.97	40.748	
6,184.8	6,000.1	5,920.1	5,852.8	31.4	21.1	-148.42	-763.6	412.1	1,735.5	1,692.9	42.56	40.774	
6,200.0	6,014.9	5,934.7	5,867.2	31.5	21.1	-148.50	-765.7	413.2	1,740.0	1,697.3	42.69	40.760	
6,300.0	6,112.4	6,030.9	5,962.2	31.9	21.5	-148.88	-779.1	420.2	1,767.2	1,723.8	43.43	40.693	
6,400.0	6,211.0	6,128.1	6,058.2	32.1	21.9	-149.09	-792.7	427.4	1,790.2	1,746.1	44.09	40.599	
6,500.0	6,310.3	6,272.7	6,201.4	32.4	22.3	-149.11	-810.1	436.5	1,807.6	1,762.9	44.71	40.431	
6,600.0	6,410.0	6,424.3	6,352.5	32.5	22.6	-149.08	-821.4	442.5	1,817.7	1,772.6	45.13	40.278	
6,674.0	6,484.0	6,537.3	6,465.4	32.6	22.7	95.35	-825.3	444.5	1,820.5	1,775.2	45.35	40.142	
6,700.0	6,510.0	6,577.2	6,505.3	32.6	22.8	95.36	-825.7	444.7	1,820.7	1,775.2	45.44	40.064	
6,800.0	6,610.0	6,681.9	6,610.0	32.7	22.9	95.36	-825.7	444.7	1,820.7	1,775.0	45.69	39.853	
6,900.0	6,710.0	6,781.9	6,710.0	32.8	23.0	95.36	-825.7	444.7	1,820.7	1,774.8	45.92	39.651	
7,000.0	6,810.0	6,881.9	6,810.0	32.9	23.1	95.36	-825.7	444.7	1,820.7	1,774.5	46.15	39.448	
7,100.0	6,910.0	6,981.9	6,910.0	33.0	23.2	95.36	-825.7	444.7	1,820.7	1,774.3	46.39	39.244	
7,200.0	7,010.0	7,081.9	7,010.0	33.1	23.4	95.36	-825.7	444.7	1,820.7	1,774.1	46.64	39.040	
7,300.0	7,110.0	7,181.9	7,110.0	33.2	23.5	95.36	-825.7	444.7	1,820.7	1,773.8	46.88	38.835	
7,400.0	7,210.0	7,281.9	7,210.0	33.2	23.6	95.36	-825.7	444.7	1,820.7	1,773.6	47.13	38.630	
7,500.0	7,310.0	7,381.9	7,310.0	33.3	23.7	95.36	-825.7	444.7	1,820.7	1,773.3	47.38	38.424	
7,600.0	7,410.0	7,481.9	7,410.0	33.4	23.8	95.36	-825.7	444.7	1,820.7	1,773.1	47.64	38.219	
7,700.0	7,510.0	7,581.9	7,510.0	33.5	24.0	95.36	-825.7	444.7	1,820.7	1,772.8	47.90	38.013	
7,800.0	7,610.0	7,681.9	7,610.0	33.6	24.1	95.36	-825.7	444.7	1,820.7	1,772.5	48.16	37.807	
7,900.0	7,710.0	7,781.9	7,710.0	33.7	24.2	95.36	-825.7	444.7	1,820.7	1,772.3	48.42	37.601	
8,000.0	7,810.0	7,881.9	7,810.0	33.8	24.3	95.36	-825.7	444.7	1,820.7	1,772.0	48.69	37.395	
8,100.0	7,910.0	7,981.9	7,910.0	33.9	24.5	95.36	-825.7	444.7	1,820.7	1,771.7	48.96	37.189	
8,200.0	8,010.0	8,081.9	8,010.0	34.0	24.6	95.36	-825.7	444.7	1,820.7	1,771.5	49.23	36.984	
8,300.0	8,110.0	8,181.9	8,110.0	34.1	24.7	95.36	-825.7	444.7	1,820.7	1,771.2	49.50	36.778	
8,400.0	8,210.0	8,281.9	8,210.0	34.2	24.9	95.36	-825.7	444.7	1,820.7	1,770.9	49.78	36.573	
8,500.0	8,310.0	8,381.9	8,310.0	34.4	25.0	95.36	-825.7	444.7	1,820.7	1,770.6	50.06	36.369	
8,600.0	8,410.0	8,481.9	8,410.0	34.5	25.1	95.36	-825.7	444.7	1,820.7	1,770.3	50.34	36.165	
8,689.0	8,499.0	8,570.9	8,499.0	34.6	25.3	95.36	-825.7	444.7	1,820.7	1,770.1	50.60	35.983	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 32C-12 F12 - OH - PLAN #1 — **Offset Site Error:** 0.0 usft

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

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	58.06	42.6	68.3	80.5				
100.0	100.0	100.0	100.0	0.1	0.1	58.06	42.6	68.3	80.5	80.4	0.16	511.774	
200.0	200.0	200.0	200.0	0.3	0.3	58.06	42.6	68.3	80.5	79.9	0.61	132.682	CC, ES
300.0	300.0	298.2	298.2	0.5	0.5	174.09	42.6	68.9	83.6	82.5	1.13	73.944	
400.0	399.6	393.7	393.6	0.8	0.7	176.18	42.3	73.7	95.6	93.9	1.73	55.144	
500.0	498.8	486.8	486.2	1.0	1.0	179.07	41.8	83.0	117.1	114.7	2.39	49.069	
600.0	597.1	576.2	574.6	1.4	1.2	-178.14	41.1	96.1	147.9	144.8	3.05	48.441	SF
689.2	683.9	652.1	649.1	1.8	1.5	-176.03	40.3	110.4	183.0	179.3	3.65	50.127	
700.0	694.3	661.0	657.8	1.9	1.6	-175.81	40.2	112.3	187.7	184.0	3.70	50.744	
800.0	791.1	741.7	736.3	2.4	1.9	-174.01	39.1	131.2	233.1	229.0	4.16	56.013	
900.0	887.8	821.9	813.4	2.9	2.3	-172.49	37.9	153.0	282.0	277.3	4.67	60.367	
1,000.0	984.5	908.4	896.4	3.4	2.8	-171.25	36.5	177.5	331.8	326.6	5.17	64.166	
1,100.0	1,081.3	994.9	979.4	3.9	3.3	-170.33	35.2	201.9	381.7	376.0	5.69	67.069	
1,200.0	1,178.0	1,081.4	1,062.4	4.5	3.8	-169.62	33.8	226.3	431.7	425.5	6.22	69.353	
1,300.0	1,274.7	1,167.9	1,145.3	5.0	4.3	-169.07	32.4	250.8	481.7	474.9	6.78	71.013	
1,400.0	1,371.5	1,254.4	1,228.3	5.5	4.8	-168.61	31.1	275.2	531.8	524.4	7.33	72.519	
1,500.0	1,468.2	1,340.9	1,311.3	6.1	5.3	-168.24	29.7	299.6	581.8	573.9	7.90	73.689	
1,600.0	1,565.0	1,427.4	1,394.2	6.6	5.8	-167.92	28.4	324.1	631.9	623.5	8.46	74.653	
1,700.0	1,661.7	1,513.9	1,477.2	7.2	6.3	-167.65	27.0	348.5	682.0	673.0	9.04	75.459	
1,800.0	1,758.4	1,600.5	1,560.2	7.7	6.8	-167.42	25.6	372.9	732.1	722.5	9.62	76.141	
1,900.0	1,855.2	1,687.0	1,643.2	8.2	7.3	-167.21	24.3	397.4	782.2	772.0	10.20	76.725	
2,000.0	1,951.9	1,773.5	1,726.1	8.8	7.8	-167.03	22.9	421.8	832.4	821.6	10.78	77.232	
2,100.0	2,048.6	1,860.0	1,809.1	9.3	8.3	-166.87	21.6	446.2	882.5	871.1	11.36	77.675	
2,200.0	2,145.4	1,946.5	1,892.1	9.9	8.8	-166.73	20.2	470.7	932.6	920.7	11.95	78.068	
2,300.0	2,242.1	2,033.0	1,975.1	10.4	9.3	-166.61	18.8	495.1	982.8	970.2	12.53	78.417	
2,400.0	2,338.8	2,119.5	2,058.0	10.9	9.9	-166.49	17.5	519.5	1,032.9	1,019.8	13.12	78.731	
2,500.0	2,435.6	2,206.0	2,141.0	11.5	10.4	-166.39	16.1	544.0	1,083.0	1,069.3	13.71	79.015	
2,600.0	2,532.3	2,292.5	2,224.0	12.0	10.9	-166.29	14.8	568.4	1,133.2	1,118.9	14.29	79.274	
2,700.0	2,629.1	2,379.0	2,306.9	12.6	11.4	-166.21	13.4	592.8	1,183.3	1,168.4	14.88	79.512	
2,800.0	2,725.8	2,465.5	2,389.9	13.1	11.9	-166.13	12.0	617.2	1,233.5	1,218.0	15.47	79.732	
2,900.0	2,822.5	2,552.0	2,472.9	13.6	12.4	-166.05	10.7	641.7	1,283.6	1,267.6	16.06	79.935	
3,000.0	2,919.3	2,638.5	2,555.9	14.2	12.9	-165.98	9.3	666.1	1,333.8	1,317.1	16.65	80.126	
3,100.0	3,016.0	2,725.0	2,638.8	14.7	13.4	-165.92	7.9	690.5	1,383.9	1,366.7	17.23	80.304	
3,200.0	3,112.7	2,811.5	2,721.8	15.3	13.9	-165.86	6.6	715.0	1,434.1	1,416.2	17.82	80.472	
3,300.0	3,209.5	2,898.0	2,804.8	15.8	14.5	-165.81	5.2	739.4	1,484.2	1,465.8	18.41	80.630	
3,400.0	3,306.2	2,984.5	2,887.8	16.4	15.0	-165.76	3.9	763.8	1,534.4	1,515.4	18.99	80.782	
3,500.0	3,403.0	3,071.0	2,970.7	16.9	15.5	-165.71	2.5	788.3	1,584.5	1,564.9	19.58	80.926	
3,600.0	3,499.7	3,157.6	3,053.7	17.4	16.0	-165.66	1.1	812.7	1,634.7	1,614.5	20.17	81.064	
3,700.0	3,596.4	3,244.1	3,136.7	18.0	16.5	-165.62	-0.2	837.1	1,684.8	1,664.1	20.75	81.196	
3,800.0	3,693.2	3,330.6	3,219.6	18.5	17.0	-165.58	-1.6	861.6	1,735.0	1,713.7	21.33	81.323	
3,900.0	3,789.9	3,417.1	3,302.6	19.1	17.5	-165.54	-2.9	886.0	1,785.2	1,763.2	21.92	81.445	
4,000.0	3,886.6	3,503.6	3,385.6	19.6	18.0	-165.51	-4.3	910.4	1,835.3	1,812.8	22.50	81.564	
4,100.0	3,983.4	3,590.1	3,468.6	20.1	18.6	-165.47	-5.7	934.9	1,885.5	1,862.4	23.08	81.679	
4,200.0	4,080.1	3,676.6	3,551.5	20.7	19.1	-165.44	-7.0	959.3	1,935.6	1,912.0	23.67	81.791	
4,300.0	4,176.9	3,763.1	3,634.5	21.2	19.6	-165.41	-8.4	983.7	1,985.8	1,961.5	24.25	81.900	
4,400.0	4,273.6	3,849.6	3,717.5	21.8	20.1	-165.38	-9.7	1,008.2	2,035.9	2,011.1	24.83	82.006	
4,500.0	4,370.3	3,936.1	3,800.4	22.3	20.6	-165.36	-11.1	1,032.6	2,086.1	2,060.7	25.41	82.110	
4,600.0	4,467.1	4,022.6	3,883.4	22.8	21.1	-165.33	-12.5	1,057.0	2,136.3	2,110.3	25.99	82.212	
4,700.0	4,563.8	4,109.1	3,966.4	23.4	21.6	-165.30	-13.8	1,081.5	2,186.4	2,159.9	26.56	82.311	
4,800.0	4,660.5	4,195.6	4,049.4	23.9	22.1	-165.28	-15.2	1,105.9	2,236.6	2,209.5	27.14	82.409	
4,900.0	4,757.3	4,282.1	4,132.3	24.5	22.7	-165.26	-16.5	1,130.3	2,286.8	2,259.0	27.72	82.505	
5,000.0	4,854.0	4,368.6	4,215.3	25.0	23.2	-165.24	-17.9	1,154.7	2,336.9	2,308.6	28.29	82.600	

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 PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 32C-12 F12 - OH - PLAN #1

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,950.8	4,455.1	4,298.3	25.6	23.7	-165.22	-19.3	1,179.2	2,387.1	2,358.2	28.87	82.693	
5,200.0	5,047.5	4,541.6	4,381.3	26.1	24.2	-165.20	-20.6	1,203.6	2,437.2	2,407.8	29.44	82.785	
5,300.0	5,144.2	4,628.1	4,464.2	26.6	24.7	-165.18	-22.0	1,228.0	2,487.4	2,457.4	30.01	82.875	
5,400.0	5,241.0	4,714.7	4,547.2	27.2	25.2	-165.16	-23.3	1,252.5	2,537.6	2,507.0	30.59	82.965	
5,500.0	5,337.7	4,801.2	4,630.2	27.7	25.7	-165.14	-24.7	1,276.9	2,587.7	2,556.6	31.16	83.053	
5,600.0	5,434.4	4,887.7	4,713.1	28.3	26.2	-165.12	-26.1	1,301.3	2,637.9	2,606.2	31.73	83.141	
5,700.0	5,531.2	4,974.2	4,796.1	28.8	26.8	-165.11	-27.4	1,325.8	2,688.1	2,655.8	32.30	83.228	
5,800.0	5,627.9	5,060.7	4,879.1	29.3	27.3	-165.09	-28.8	1,350.2	2,738.2	2,705.4	32.87	83.314	
5,900.0	5,724.7	5,147.2	4,962.1	29.9	27.8	-165.08	-30.2	1,374.6	2,788.4	2,754.9	33.43	83.399	
6,000.0	5,821.4	5,233.7	5,045.0	30.4	28.3	-165.06	-31.5	1,399.1	2,838.5	2,804.5	34.00	83.483	
6,100.0	5,918.1	5,320.2	5,128.0	31.0	28.8	-165.05	-32.9	1,423.5	2,888.7	2,854.1	34.57	83.567	
6,184.8	6,000.1	5,393.5	5,198.3	31.4	29.2	-165.03	-34.0	1,444.2	2,931.2	2,896.2	35.05	83.638	
6,200.0	6,014.9	5,406.7	5,211.0	31.5	29.3	-165.10	-34.2	1,447.9	2,938.8	2,903.6	35.19	83.509	
6,300.0	6,112.4	5,494.8	5,295.5	31.9	29.9	-165.48	-35.6	1,472.8	2,986.1	2,950.0	36.06	82.815	
6,400.0	6,211.0	5,585.2	5,382.2	32.1	30.4	-165.77	-37.0	1,498.3	3,028.9	2,992.0	36.83	82.247	
6,500.0	6,310.3	5,677.5	5,470.7	32.4	30.9	-165.99	-38.5	1,524.4	3,067.0	3,029.5	37.49	81.805	
6,600.0	6,410.0	5,771.6	5,561.0	32.5	31.5	-166.14	-40.0	1,551.0	3,100.3	3,062.3	38.05	81.487	
6,674.0	6,484.0	5,842.2	5,628.7	32.6	31.9	78.19	-41.1	1,570.9	3,121.9	3,083.5	38.40	81.306	
6,700.0	6,510.0	5,867.1	5,652.6	32.6	32.1	78.23	-41.5	1,578.0	3,129.1	3,090.6	38.51	81.245	
6,800.0	6,610.0	5,963.1	5,744.6	32.7	32.6	78.36	-43.0	1,605.1	3,156.5	3,117.5	38.95	81.031	
6,900.0	6,710.0	6,059.0	5,836.6	32.8	33.2	78.49	-44.5	1,632.2	3,183.9	3,144.5	39.39	80.823	
7,000.0	6,810.0	7,047.2	6,810.0	32.9	36.0	79.08	-51.7	1,760.7	3,186.5	3,145.0	41.48	76.813	
7,100.0	6,910.0	7,147.2	6,910.0	33.0	36.0	79.08	-51.7	1,760.7	3,186.5	3,144.7	41.77	76.293	
7,200.0	7,010.0	7,247.2	7,010.0	33.1	36.1	79.08	-51.7	1,760.7	3,186.5	3,144.4	42.05	75.774	
7,300.0	7,110.0	7,347.2	7,110.0	33.2	36.2	79.08	-51.7	1,760.7	3,186.5	3,144.1	42.34	75.256	
7,400.0	7,210.0	7,447.2	7,210.0	33.2	36.3	79.08	-51.7	1,760.7	3,186.5	3,143.9	42.63	74.741	
7,500.0	7,310.0	7,547.2	7,310.0	33.3	36.4	79.08	-51.7	1,760.7	3,186.5	3,143.6	42.93	74.228	
7,600.0	7,410.0	7,647.2	7,410.0	33.4	36.5	79.08	-51.7	1,760.7	3,186.5	3,143.3	43.23	73.717	
7,700.0	7,510.0	7,747.2	7,510.0	33.5	36.6	79.08	-51.7	1,760.7	3,186.5	3,143.0	43.53	73.208	
7,800.0	7,610.0	7,847.2	7,610.0	33.6	36.7	79.08	-51.7	1,760.7	3,186.5	3,142.7	43.83	72.702	
7,900.0	7,710.0	7,947.2	7,710.0	33.7	36.8	79.08	-51.7	1,760.7	3,186.5	3,142.4	44.13	72.199	
8,000.0	7,810.0	8,047.2	7,810.0	33.8	36.9	79.08	-51.7	1,760.7	3,186.5	3,142.0	44.44	71.699	
8,100.0	7,910.0	8,147.2	7,910.0	33.9	37.0	79.08	-51.7	1,760.7	3,186.5	3,141.7	44.75	71.201	
8,200.0	8,010.0	8,247.2	8,010.0	34.0	37.1	79.08	-51.7	1,760.7	3,186.5	3,141.4	45.07	70.707	
8,300.0	8,110.0	8,347.2	8,110.0	34.1	37.2	79.08	-51.7	1,760.7	3,186.5	3,141.1	45.38	70.215	
8,400.0	8,210.0	8,447.2	8,210.0	34.2	37.3	79.08	-51.7	1,760.7	3,186.5	3,140.8	45.70	69.727	
8,500.0	8,310.0	8,547.2	8,310.0	34.4	37.4	79.08	-51.7	1,760.7	3,186.5	3,140.5	46.02	69.243	
8,600.0	8,410.0	8,647.2	8,410.0	34.5	37.5	79.08	-51.7	1,760.7	3,186.5	3,140.1	46.34	68.761	
8,689.0	8,499.0	8,736.2	8,499.0	34.6	37.6	79.08	-51.7	1,760.7	3,186.5	3,139.9	46.63	68.336	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 32D-12 F12 - OH - Plan #2 — **Offset Site Error:** 0.0 usft

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

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	59.77	32.4	55.6	64.4				
100.0	100.0	100.0	100.0	0.1	0.1	59.77	32.4	55.6	64.4	64.2	0.16	409.182	
200.0	200.0	200.0	200.0	0.3	0.3	59.77	32.4	55.6	64.4	63.8	0.61	106.084	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	175.55	32.4	55.6	67.0	65.9	1.13	59.027	
400.0	399.6	396.7	396.7	0.8	0.7	177.20	31.9	58.0	76.7	75.0	1.72	44.532	
500.0	498.8	491.4	491.1	1.0	1.0	-179.62	30.5	65.0	95.6	93.3	2.36	40.540	SF
600.0	597.1	582.9	581.9	1.4	1.2	-176.32	28.2	76.1	123.7	120.7	3.02	40.991	
689.2	683.9	660.9	658.8	1.8	1.5	-173.80	25.5	88.9	156.3	152.7	3.62	43.220	
700.0	694.3	670.1	667.8	1.9	1.5	-173.54	25.1	90.6	160.7	157.0	3.67	43.845	
800.0	791.1	753.4	749.1	2.4	1.8	-171.38	21.5	108.1	203.4	199.2	4.14	49.122	
900.0	887.8	833.4	826.5	2.9	2.2	-169.55	17.3	128.1	249.6	245.0	4.65	53.655	
1,000.0	984.5	916.3	905.8	3.4	2.6	-167.94	12.5	151.5	298.8	293.6	5.20	57.424	
1,100.0	1,081.3	1,002.9	988.7	3.9	3.1	-166.70	7.3	176.3	348.3	342.5	5.76	60.515	
1,200.0	1,178.0	1,089.6	1,071.6	4.5	3.6	-165.76	2.1	201.0	397.9	391.6	6.33	62.907	
1,300.0	1,274.7	1,176.2	1,154.5	5.0	4.1	-165.04	-3.0	225.8	447.6	440.7	6.91	64.740	
1,400.0	1,371.5	1,262.9	1,237.4	5.5	4.7	-164.45	-8.2	250.5	497.4	489.9	7.51	66.260	
1,500.0	1,468.2	1,349.5	1,320.2	6.1	5.2	-163.98	-13.3	275.3	547.2	539.0	8.11	67.489	
1,600.0	1,565.0	1,436.2	1,403.1	6.6	5.7	-163.58	-18.5	300.0	597.0	588.2	8.72	68.497	
1,700.0	1,661.7	1,522.8	1,486.0	7.2	6.2	-163.24	-23.6	324.8	646.8	637.4	9.33	69.339	
1,800.0	1,758.4	1,609.5	1,568.9	7.7	6.7	-162.96	-28.8	349.5	696.6	686.7	9.94	70.052	
1,900.0	1,855.2	1,696.1	1,651.8	8.2	7.3	-162.71	-33.9	374.3	746.4	735.9	10.56	70.662	
2,000.0	1,951.9	1,782.8	1,734.6	8.8	7.8	-162.49	-39.1	399.1	796.3	785.1	11.19	71.190	
2,100.0	2,048.6	1,869.4	1,817.5	9.3	8.3	-162.30	-44.3	423.8	846.2	834.3	11.81	71.652	
2,200.0	2,145.4	1,956.1	1,900.4	9.9	8.8	-162.12	-49.4	448.6	896.0	883.6	12.43	72.061	
2,300.0	2,242.1	2,042.7	1,983.3	10.4	9.4	-161.97	-54.6	473.3	945.9	932.8	13.06	72.425	
2,400.0	2,338.8	2,129.4	2,066.1	10.9	9.9	-161.83	-59.7	498.1	995.8	982.1	13.69	72.752	
2,500.0	2,435.6	2,216.0	2,149.0	11.5	10.4	-161.71	-64.9	522.8	1,045.6	1,031.3	14.31	73.048	
2,600.0	2,532.3	2,302.7	2,231.9	12.0	11.0	-161.59	-70.0	547.6	1,095.5	1,080.6	14.94	73.317	
2,700.0	2,629.1	2,389.3	2,314.8	12.6	11.5	-161.49	-75.2	572.3	1,145.4	1,129.8	15.57	73.564	
2,800.0	2,725.8	2,476.0	2,397.7	13.1	12.0	-161.40	-80.3	597.1	1,195.3	1,179.1	16.20	73.791	
2,900.0	2,822.5	2,562.6	2,480.5	13.6	12.5	-161.31	-85.5	621.9	1,245.2	1,228.4	16.83	74.002	
3,000.0	2,919.3	2,649.3	2,563.4	14.2	13.1	-161.23	-90.6	646.6	1,295.1	1,277.6	17.45	74.199	
3,100.0	3,016.0	2,735.9	2,646.3	14.7	13.6	-161.15	-95.8	671.4	1,345.0	1,326.9	18.08	74.382	
3,200.0	3,112.7	2,822.6	2,729.2	15.3	14.1	-161.08	-101.0	696.1	1,394.9	1,376.2	18.71	74.555	
3,300.0	3,209.5	2,909.2	2,812.1	15.8	14.7	-161.02	-106.1	720.9	1,444.8	1,425.4	19.34	74.718	
3,400.0	3,306.2	2,995.9	2,894.9	16.4	15.2	-160.96	-111.3	745.6	1,494.7	1,474.7	19.96	74.872	
3,500.0	3,403.0	3,082.5	2,977.8	16.9	15.7	-160.90	-116.4	770.4	1,544.6	1,524.0	20.59	75.019	
3,600.0	3,499.7	3,169.2	3,060.7	17.4	16.3	-160.85	-121.6	795.1	1,594.5	1,573.3	21.21	75.160	
3,700.0	3,596.4	3,255.8	3,143.6	18.0	16.8	-160.80	-126.7	819.9	1,644.4	1,622.5	21.84	75.294	
3,800.0	3,693.2	3,342.5	3,226.4	18.5	17.3	-160.75	-131.9	844.7	1,694.3	1,671.8	22.46	75.422	
3,900.0	3,789.9	3,429.1	3,309.3	19.1	17.8	-160.71	-137.0	869.4	1,744.2	1,721.1	23.09	75.546	
4,000.0	3,886.6	3,515.8	3,392.2	19.6	18.4	-160.67	-142.2	894.2	1,794.1	1,770.4	23.71	75.665	
4,100.0	3,983.4	3,602.4	3,475.1	20.1	18.9	-160.63	-147.3	918.9	1,844.0	1,819.7	24.33	75.780	
4,200.0	4,080.1	3,689.1	3,558.0	20.7	19.4	-160.59	-152.5	943.7	1,893.9	1,869.0	24.96	75.892	
4,300.0	4,176.9	3,775.7	3,640.8	21.2	20.0	-160.56	-157.7	968.4	1,943.8	1,918.2	25.58	76.001	
4,400.0	4,273.6	3,862.4	3,723.7	21.8	20.5	-160.52	-162.8	993.2	1,993.7	1,967.5	26.20	76.106	
4,500.0	4,370.3	3,949.0	3,806.6	22.3	21.0	-160.49	-168.0	1,017.9	2,043.6	2,016.8	26.82	76.209	
4,600.0	4,467.1	4,035.7	3,889.5	22.8	21.6	-160.46	-173.1	1,042.7	2,093.5	2,066.1	27.43	76.309	
4,700.0	4,563.8	4,122.3	3,972.4	23.4	22.1	-160.43	-178.3	1,067.4	2,143.4	2,115.4	28.05	76.407	
4,800.0	4,660.5	4,209.0	4,055.2	23.9	22.6	-160.41	-183.4	1,092.2	2,193.4	2,164.7	28.67	76.502	
4,900.0	4,757.3	4,295.6	4,138.1	24.5	23.2	-160.38	-188.6	1,117.0	2,243.3	2,214.0	29.29	76.596	
5,000.0	4,854.0	4,382.3	4,221.0	25.0	23.7	-160.35	-193.7	1,141.7	2,293.2	2,263.3	29.90	76.688	

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 PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 32D-12 F12 - OH - Plan #2

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,950.8	4,468.9	4,303.9	25.6	24.2	-160.33	-198.9	1,166.5	2,343.1	2,312.6	30.52	76.779	
5,200.0	5,047.5	4,555.6	4,386.8	26.1	24.7	-160.31	-204.0	1,191.2	2,393.0	2,361.9	31.13	76.868	
5,300.0	5,144.2	4,642.2	4,469.6	26.6	25.3	-160.28	-209.2	1,216.0	2,442.9	2,411.2	31.74	76.956	
5,400.0	5,241.0	4,728.9	4,552.5	27.2	25.8	-160.26	-214.4	1,240.7	2,492.8	2,460.5	32.36	77.042	
5,500.0	5,337.7	4,815.5	4,635.4	27.7	26.3	-160.24	-219.5	1,265.5	2,542.7	2,509.8	32.97	77.127	
5,600.0	5,434.4	4,902.2	4,718.3	28.3	26.9	-160.22	-224.7	1,290.2	2,592.6	2,559.1	33.58	77.210	
5,700.0	5,531.2	4,988.8	4,801.1	28.8	27.4	-160.20	-229.8	1,315.0	2,642.5	2,608.4	34.19	77.293	
5,800.0	5,627.9	5,075.5	4,884.0	29.3	27.9	-160.19	-235.0	1,339.8	2,692.5	2,657.7	34.80	77.375	
5,900.0	5,724.7	5,162.1	4,966.9	29.9	28.5	-160.17	-240.1	1,364.5	2,742.4	2,707.0	35.41	77.456	
6,000.0	5,821.4	5,248.8	5,049.8	30.4	29.0	-160.15	-245.3	1,389.3	2,792.3	2,756.3	36.01	77.537	
6,100.0	5,918.1	5,335.5	5,132.7	31.0	29.5	-160.13	-250.4	1,414.0	2,842.2	2,805.6	36.62	77.616	
6,184.8	6,000.1	5,408.9	5,202.9	31.4	30.0	-160.12	-254.8	1,435.0	2,884.5	2,847.4	37.13	77.683	
6,200.0	6,014.9	5,422.1	5,215.6	31.5	30.1	-160.21	-255.6	1,438.8	2,892.1	2,854.8	37.28	77.567	
6,300.0	6,112.4	5,510.3	5,299.9	31.9	30.6	-160.70	-260.8	1,464.0	2,939.2	2,901.0	38.20	76.947	
6,400.0	6,211.0	5,600.7	5,386.3	32.1	31.1	-161.09	-266.2	1,489.8	2,981.8	2,942.8	39.01	76.439	
6,500.0	6,310.3	5,692.9	5,474.6	32.4	31.7	-161.38	-271.7	1,516.2	3,020.0	2,980.3	39.71	76.044	
6,600.0	6,410.0	5,786.9	5,564.4	32.5	32.3	-161.58	-277.3	1,543.0	3,053.5	3,013.2	40.30	75.763	
6,674.0	6,484.0	5,857.3	5,631.8	32.6	32.7	82.73	-281.5	1,563.1	3,075.3	3,034.7	40.68	75.606	
6,700.0	6,510.0	5,882.2	5,655.6	32.6	32.9	82.77	-283.0	1,570.2	3,082.6	3,041.8	40.80	75.559	
6,800.0	6,610.0	5,977.8	5,747.1	32.7	33.5	82.95	-288.7	1,597.5	3,110.3	3,069.0	41.25	75.397	
6,900.0	6,710.0	6,073.5	5,838.5	32.8	34.0	83.12	-294.3	1,624.9	3,138.0	3,096.3	41.71	75.242	
7,000.0	6,810.0	7,060.1	6,810.0	32.9	36.8	83.88	-320.8	1,752.0	3,137.9	3,094.1	43.80	71.647	
7,100.0	6,910.0	7,160.1	6,910.0	33.0	36.9	83.88	-320.8	1,752.0	3,137.9	3,093.8	44.06	71.213	
7,200.0	7,010.0	7,260.1	7,010.0	33.1	37.0	83.88	-320.8	1,752.0	3,137.9	3,093.6	44.33	70.780	
7,300.0	7,110.0	7,360.1	7,110.0	33.2	37.1	83.88	-320.8	1,752.0	3,137.9	3,093.3	44.61	70.347	
7,400.0	7,210.0	7,460.1	7,210.0	33.2	37.1	83.88	-320.8	1,752.0	3,137.9	3,093.0	44.88	69.915	
7,500.0	7,310.0	7,560.1	7,310.0	33.3	37.2	83.88	-320.8	1,752.0	3,137.9	3,092.7	45.16	69.484	
7,600.0	7,410.0	7,660.1	7,410.0	33.4	37.3	83.88	-320.8	1,752.0	3,137.9	3,092.5	45.44	69.053	
7,700.0	7,510.0	7,760.1	7,510.0	33.5	37.4	83.88	-320.8	1,752.0	3,137.9	3,092.2	45.73	68.624	
7,800.0	7,610.0	7,860.1	7,610.0	33.6	37.5	83.88	-320.8	1,752.0	3,137.9	3,091.9	46.01	68.196	
7,900.0	7,710.0	7,960.1	7,710.0	33.7	37.6	83.88	-320.8	1,752.0	3,137.9	3,091.6	46.30	67.769	
8,000.0	7,810.0	8,060.1	7,810.0	33.8	37.7	83.88	-320.8	1,752.0	3,137.9	3,091.3	46.60	67.344	
8,100.0	7,910.0	8,160.1	7,910.0	33.9	37.8	83.88	-320.8	1,752.0	3,137.9	3,091.0	46.89	66.920	
8,200.0	8,010.0	8,260.1	8,010.0	34.0	37.9	83.88	-320.8	1,752.0	3,137.9	3,090.7	47.19	66.498	
8,300.0	8,110.0	8,360.1	8,110.0	34.1	38.0	83.88	-320.8	1,752.0	3,137.9	3,090.4	47.49	66.078	
8,400.0	8,210.0	8,460.1	8,210.0	34.2	38.1	83.88	-320.8	1,752.0	3,137.9	3,090.1	47.79	65.660	
8,500.0	8,310.0	8,560.1	8,310.0	34.4	38.2	83.88	-320.8	1,752.0	3,137.9	3,089.8	48.10	65.244	
8,600.0	8,410.0	8,660.1	8,410.0	34.5	38.3	83.88	-320.8	1,752.0	3,137.9	3,089.5	48.40	64.830	
8,689.0	8,499.0	8,749.1	8,499.0	34.6	38.4	83.88	-320.8	1,752.0	3,137.9	3,089.2	48.68	64.463	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 33A-12 F12 - OH - Plan #2 — **Offset Site Error:** 0.0 usft

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

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	61.06	27.3	49.4	56.5				
100.0	100.0	100.0	100.0	0.1	0.1	61.06	27.3	49.4	56.5	56.3	0.16	358.845	
200.0	200.0	200.0	200.0	0.3	0.3	61.06	27.3	49.4	56.5	55.9	0.61	93.034	CC, ES
300.0	300.0	299.0	299.0	0.5	0.5	177.28	27.1	50.0	59.5	58.4	1.13	52.634	
400.0	399.6	396.1	395.9	0.8	0.7	-179.33	25.3	54.6	70.7	69.0	1.73	40.926	
500.0	498.8	490.9	490.3	1.0	1.0	-174.87	21.7	63.5	90.9	88.5	2.38	38.199	SF
600.0	597.1	582.4	580.7	1.4	1.2	-170.88	16.7	76.2	120.1	117.1	3.06	39.309	
689.2	683.9	660.4	657.3	1.8	1.5	-168.04	11.1	90.2	153.6	149.9	3.67	41.809	
700.0	694.3	669.6	666.2	1.9	1.6	-167.77	10.4	92.1	158.1	154.3	3.73	42.425	
800.0	791.1	752.9	747.1	2.4	2.0	-165.47	3.0	110.6	201.5	197.2	4.24	47.495	
900.0	887.8	833.4	824.3	2.9	2.4	-163.51	-5.4	131.6	248.3	243.5	4.81	51.596	
1,000.0	984.5	920.5	907.5	3.4	2.9	-161.85	-15.0	155.8	296.8	291.4	5.41	54.916	
1,100.0	1,081.3	1,007.7	990.7	3.9	3.4	-160.66	-24.6	180.0	345.5	339.4	6.02	57.431	
1,200.0	1,178.0	1,094.9	1,073.9	4.5	3.9	-159.75	-34.2	204.2	394.2	387.5	6.64	59.324	
1,300.0	1,274.7	1,182.1	1,157.1	5.0	4.5	-159.05	-43.9	228.4	442.9	435.6	7.29	60.738	
1,400.0	1,371.5	1,269.3	1,240.3	5.5	5.0	-158.49	-53.5	252.6	491.8	483.8	7.94	61.935	
1,500.0	1,468.2	1,356.5	1,323.5	6.1	5.5	-158.02	-63.1	276.8	540.6	532.0	8.60	62.870	
1,600.0	1,565.0	1,443.6	1,406.7	6.6	6.1	-157.64	-72.7	301.0	589.5	580.2	9.26	63.635	
1,700.0	1,661.7	1,530.8	1,489.9	7.2	6.6	-157.31	-82.4	325.2	638.3	628.4	9.93	64.270	
1,800.0	1,758.4	1,618.0	1,573.2	7.7	7.2	-157.03	-92.0	349.4	687.2	676.6	10.60	64.806	
1,900.0	1,855.2	1,705.2	1,656.4	8.2	7.7	-156.79	-101.6	373.6	736.1	724.9	11.28	65.263	
2,000.0	1,951.9	1,792.4	1,739.6	8.8	8.3	-156.57	-111.2	397.8	785.1	773.1	11.96	65.657	
2,100.0	2,048.6	1,879.6	1,822.8	9.3	8.8	-156.39	-120.9	422.0	834.0	821.4	12.64	66.002	
2,200.0	2,145.4	1,966.8	1,906.0	9.9	9.3	-156.22	-130.5	446.2	882.9	869.6	13.32	66.307	
2,300.0	2,242.1	2,053.9	1,989.2	10.4	9.9	-156.07	-140.1	470.4	931.9	917.9	14.00	66.578	
2,400.0	2,338.8	2,141.1	2,072.4	10.9	10.4	-155.93	-149.7	494.6	980.8	966.1	14.68	66.822	
2,500.0	2,435.6	2,228.3	2,155.6	11.5	11.0	-155.81	-159.4	518.8	1,029.7	1,014.4	15.36	67.042	
2,600.0	2,532.3	2,315.5	2,238.8	12.0	11.5	-155.70	-169.0	543.0	1,078.7	1,062.6	16.04	67.243	
2,700.0	2,629.1	2,402.7	2,322.0	12.6	12.1	-155.60	-178.6	567.2	1,127.6	1,110.9	16.72	67.427	
2,800.0	2,725.8	2,489.9	2,405.2	13.1	12.6	-155.51	-188.3	591.4	1,176.6	1,159.2	17.41	67.598	
2,900.0	2,822.5	2,577.0	2,488.4	13.6	13.2	-155.42	-197.9	615.6	1,225.5	1,207.4	18.09	67.756	
3,000.0	2,919.3	2,664.2	2,571.6	14.2	13.7	-155.34	-207.5	639.8	1,274.5	1,255.7	18.77	67.904	
3,100.0	3,016.0	2,751.4	2,654.8	14.7	14.3	-155.27	-217.1	664.0	1,323.4	1,304.0	19.45	68.042	
3,200.0	3,112.7	2,838.6	2,738.0	15.3	14.8	-155.20	-226.8	688.2	1,372.4	1,352.3	20.13	68.173	
3,300.0	3,209.5	2,925.8	2,821.2	15.8	15.4	-155.14	-236.4	712.5	1,421.4	1,400.5	20.81	68.296	
3,400.0	3,306.2	3,013.0	2,904.4	16.4	15.9	-155.08	-246.0	736.7	1,470.3	1,448.8	21.49	68.413	
3,500.0	3,403.0	3,100.2	2,987.6	16.9	16.4	-155.02	-255.6	760.9	1,519.3	1,497.1	22.17	68.524	
3,600.0	3,499.7	3,187.3	3,070.8	17.4	17.0	-154.97	-265.3	785.1	1,568.2	1,545.4	22.85	68.631	
3,700.0	3,596.4	3,274.5	3,154.0	18.0	17.5	-154.92	-274.9	809.3	1,617.2	1,593.7	23.53	68.734	
3,800.0	3,693.2	3,361.7	3,237.2	18.5	18.1	-154.88	-284.5	833.5	1,666.2	1,642.0	24.21	68.832	
3,900.0	3,789.9	3,448.9	3,320.4	19.1	18.6	-154.84	-294.1	857.7	1,715.1	1,690.3	24.88	68.927	
4,000.0	3,886.6	3,536.1	3,403.6	19.6	19.2	-154.79	-303.8	881.9	1,764.1	1,738.5	25.56	69.019	
4,100.0	3,983.4	3,623.3	3,486.8	20.1	19.7	-154.76	-313.4	906.1	1,813.1	1,786.8	26.24	69.108	
4,200.0	4,080.1	3,710.4	3,570.0	20.7	20.3	-154.72	-323.0	930.3	1,862.0	1,835.1	26.91	69.194	
4,300.0	4,176.9	3,797.6	3,653.2	21.2	20.8	-154.68	-332.6	954.5	1,911.0	1,883.4	27.58	69.278	
4,400.0	4,273.6	3,884.8	3,736.4	21.8	21.4	-154.65	-342.3	978.7	1,960.0	1,931.7	28.26	69.360	
4,500.0	4,370.3	3,972.0	3,819.6	22.3	21.9	-154.62	-351.9	1,002.9	2,008.9	1,980.0	28.93	69.440	
4,600.0	4,467.1	4,059.2	3,902.8	22.8	22.5	-154.59	-361.5	1,027.1	2,057.9	2,028.3	29.60	69.518	
4,700.0	4,563.8	4,146.4	3,986.0	23.4	23.0	-154.56	-371.2	1,051.3	2,106.9	2,076.6	30.27	69.595	
4,800.0	4,660.5	4,233.6	4,069.2	23.9	23.6	-154.54	-380.8	1,075.5	2,155.9	2,124.9	30.94	69.670	
4,900.0	4,757.3	4,320.7	4,152.4	24.5	24.1	-154.51	-390.4	1,099.7	2,204.8	2,173.2	31.61	69.743	
5,000.0	4,854.0	4,407.9	4,235.6	25.0	24.7	-154.48	-400.0	1,123.9	2,253.8	2,221.5	32.28	69.815	

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 PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 33A-12 F12 - OH - Plan #2

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,950.8	4,495.1	4,318.8	25.6	25.2	-154.46	-409.7	1,148.1	2,302.8	2,269.8	32.95	69.887	
5,200.0	5,047.5	4,582.3	4,402.0	26.1	25.8	-154.44	-419.3	1,172.3	2,351.7	2,318.1	33.62	69.957	
5,300.0	5,144.2	4,669.5	4,485.2	26.6	26.3	-154.42	-428.9	1,196.5	2,400.7	2,366.4	34.28	70.026	
5,400.0	5,241.0	4,756.7	4,568.4	27.2	26.9	-154.40	-438.5	1,220.7	2,449.7	2,414.7	34.95	70.094	
5,500.0	5,337.7	4,843.8	4,651.6	27.7	27.4	-154.38	-448.2	1,244.9	2,498.7	2,463.0	35.61	70.162	
5,600.0	5,434.4	4,931.0	4,734.8	28.3	27.9	-154.36	-457.8	1,269.1	2,547.6	2,511.4	36.28	70.228	
5,700.0	5,531.2	5,018.2	4,818.0	28.8	28.5	-154.34	-467.4	1,293.4	2,596.6	2,559.7	36.94	70.294	
5,800.0	5,627.9	5,105.4	4,901.2	29.3	29.0	-154.32	-477.0	1,317.6	2,645.6	2,608.0	37.60	70.359	
5,900.0	5,724.7	5,192.6	4,984.5	29.9	29.6	-154.30	-486.7	1,341.8	2,694.5	2,656.3	38.26	70.423	
6,000.0	5,821.4	5,279.8	5,067.7	30.4	30.1	-154.29	-496.3	1,366.0	2,743.5	2,704.6	38.92	70.487	
6,100.0	5,918.1	5,367.0	5,150.9	31.0	30.7	-154.27	-505.9	1,390.2	2,792.5	2,752.9	39.58	70.551	
6,184.8	6,000.1	5,440.9	5,221.4	31.4	31.2	-154.26	-514.1	1,410.7	2,834.0	2,793.9	40.14	70.604	
6,200.0	6,014.9	5,454.2	5,234.1	31.5	31.2	-154.36	-515.6	1,414.4	2,841.4	2,801.1	40.30	70.502	
6,300.0	6,112.4	5,542.8	5,318.7	31.9	31.8	-154.99	-525.3	1,439.0	2,887.7	2,846.4	41.28	69.957	
6,400.0	6,211.0	5,633.4	5,405.1	32.1	32.4	-155.47	-535.3	1,464.1	2,929.7	2,887.5	42.15	69.510	
6,500.0	6,310.3	5,725.8	5,493.3	32.4	32.9	-155.84	-545.5	1,489.8	2,967.3	2,924.4	42.90	69.164	
6,600.0	6,410.0	5,819.7	5,582.9	32.5	33.5	-156.09	-555.9	1,515.9	3,000.5	2,957.0	43.54	68.919	
6,674.0	6,484.0	5,890.0	5,650.0	32.6	34.0	88.19	-563.7	1,535.4	3,022.2	2,978.3	43.94	68.785	
6,700.0	6,510.0	5,914.8	5,673.7	32.6	34.1	88.25	-566.4	1,542.3	3,029.4	2,985.3	44.06	68.753	
6,800.0	6,610.0	6,010.3	5,764.8	32.7	34.7	88.47	-577.0	1,568.8	3,057.0	3,012.5	44.53	68.644	
6,900.0	6,710.0	6,974.3	6,710.0	32.8	37.8	89.59	-633.3	1,710.5	3,078.6	3,031.8	46.77	65.822	
7,000.0	6,810.0	7,074.3	6,810.0	32.9	37.9	89.59	-633.3	1,710.5	3,078.6	3,031.6	47.01	65.482	
7,100.0	6,910.0	7,174.3	6,910.0	33.0	38.0	89.59	-633.3	1,710.5	3,078.6	3,031.3	47.26	65.141	
7,200.0	7,010.0	7,274.3	7,010.0	33.1	38.1	89.59	-633.3	1,710.5	3,078.6	3,031.1	47.51	64.799	
7,300.0	7,110.0	7,374.3	7,110.0	33.2	38.2	89.59	-633.3	1,710.5	3,078.6	3,030.8	47.76	64.457	
7,400.0	7,210.0	7,474.3	7,210.0	33.2	38.3	89.59	-633.3	1,710.5	3,078.6	3,030.6	48.02	64.114	
7,500.0	7,310.0	7,574.3	7,310.0	33.3	38.3	89.59	-633.3	1,710.5	3,078.6	3,030.3	48.28	63.771	
7,600.0	7,410.0	7,674.3	7,410.0	33.4	38.4	89.59	-633.3	1,710.5	3,078.6	3,030.1	48.54	63.428	
7,700.0	7,510.0	7,774.3	7,510.0	33.5	38.5	89.59	-633.3	1,710.5	3,078.6	3,029.8	48.80	63.084	
7,800.0	7,610.0	7,874.3	7,610.0	33.6	38.6	89.59	-633.3	1,710.5	3,078.6	3,029.5	49.07	62.741	
7,900.0	7,710.0	7,974.3	7,710.0	33.7	38.7	89.59	-633.3	1,710.5	3,078.6	3,029.3	49.34	62.398	
8,000.0	7,810.0	8,074.3	7,810.0	33.8	38.8	89.59	-633.3	1,710.5	3,078.6	3,029.0	49.61	62.055	
8,100.0	7,910.0	8,174.3	7,910.0	33.9	38.9	89.59	-633.3	1,710.5	3,078.6	3,028.7	49.89	61.713	
8,200.0	8,010.0	8,274.3	8,010.0	34.0	39.0	89.59	-633.3	1,710.5	3,078.6	3,028.4	50.16	61.371	
8,300.0	8,110.0	8,374.3	8,110.0	34.1	39.1	89.59	-633.3	1,710.5	3,078.6	3,028.2	50.44	61.030	
8,400.0	8,210.0	8,474.3	8,210.0	34.2	39.2	89.59	-633.3	1,710.5	3,078.6	3,027.9	50.73	60.689	
8,500.0	8,310.0	8,574.3	8,310.0	34.4	39.3	89.59	-633.3	1,710.5	3,078.6	3,027.6	51.01	60.350	
8,600.0	8,410.0	8,674.3	8,410.0	34.5	39.4	89.59	-633.3	1,710.5	3,078.6	3,027.3	51.30	60.011	
8,689.0	8,499.0	8,763.3	8,499.0	34.6	39.4	89.59	-633.3	1,710.5	3,078.6	3,027.0	51.56	59.710	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 33B-12 F12 - OH - Plan #2 — **Offset Site Error:** 0.0 usft

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

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	65.00	17.1	36.7	40.5				
100.0	100.0	100.0	100.0	0.1	0.1	65.00	17.1	36.7	40.5	40.3	0.16	257.416	
200.0	200.0	200.0	200.0	0.3	0.3	65.00	17.1	36.7	40.5	39.9	0.61	66.738	CC, ES
300.0	300.0	298.6	298.5	0.5	0.5	-176.79	15.9	38.9	44.7	43.6	1.13	39.545	
400.0	399.6	395.9	395.5	0.8	0.7	-171.27	12.3	45.5	57.6	55.8	1.75	32.917	SF
500.0	498.8	490.8	489.6	1.0	1.0	-166.10	6.4	56.0	79.5	77.1	2.41	32.978	
600.0	597.1	582.2	579.6	1.4	1.3	-162.27	-1.3	70.0	110.4	107.3	3.10	35.599	
689.2	683.9	660.0	655.6	1.8	1.7	-159.79	-9.6	85.0	145.0	141.3	3.74	38.817	
700.0	694.3	669.2	664.5	1.9	1.7	-159.59	-10.6	86.9	149.6	145.8	3.79	39.446	
800.0	791.1	752.4	744.8	2.4	2.1	-157.79	-21.3	106.1	194.1	189.7	4.36	44.544	
900.0	887.8	833.1	821.6	2.9	2.6	-156.16	-33.2	127.7	241.9	236.9	4.98	48.572	
1,000.0	984.5	920.0	903.8	3.4	3.2	-154.79	-46.7	152.1	291.1	285.5	5.62	51.750	
1,100.0	1,081.3	1,006.8	986.1	3.9	3.7	-153.81	-60.3	176.6	340.4	334.1	6.29	54.124	
1,200.0	1,178.0	1,093.7	1,068.3	4.5	4.3	-153.08	-73.8	201.0	389.8	382.8	6.98	55.869	
1,300.0	1,274.7	1,180.6	1,150.6	5.0	4.9	-152.52	-87.3	225.5	439.2	431.5	7.67	57.227	
1,400.0	1,371.5	1,267.5	1,232.8	5.5	5.4	-152.06	-100.9	249.9	488.6	480.2	8.38	58.307	
1,500.0	1,468.2	1,354.3	1,315.1	6.1	6.0	-151.70	-114.4	274.4	538.1	529.0	9.09	59.172	
1,600.0	1,565.0	1,441.2	1,397.4	6.6	6.6	-151.39	-127.9	298.8	587.5	577.7	9.81	59.880	
1,700.0	1,661.7	1,528.1	1,479.6	7.2	7.2	-151.13	-141.5	323.3	637.0	626.5	10.53	60.468	
1,800.0	1,758.4	1,614.9	1,561.9	7.7	7.8	-150.91	-155.0	347.7	686.5	675.2	11.26	60.965	
1,900.0	1,855.2	1,701.8	1,644.1	8.2	8.4	-150.72	-168.5	372.2	736.0	724.0	11.99	61.389	
2,000.0	1,951.9	1,788.7	1,726.4	8.8	8.9	-150.55	-182.1	396.6	785.5	772.8	12.72	61.755	
2,100.0	2,048.6	1,875.6	1,808.6	9.3	9.5	-150.40	-195.6	421.1	835.0	821.5	13.45	62.076	
2,200.0	2,145.4	1,962.4	1,890.9	9.9	10.1	-150.27	-209.1	445.5	884.5	870.3	14.18	62.360	
2,300.0	2,242.1	2,049.3	1,973.1	10.4	10.7	-150.15	-222.6	470.0	934.0	919.1	14.92	62.613	
2,400.0	2,338.8	2,136.2	2,055.4	10.9	11.3	-150.05	-236.2	494.4	983.5	967.8	15.65	62.841	
2,500.0	2,435.6	2,223.0	2,137.6	11.5	11.9	-149.95	-249.7	518.9	1,033.0	1,016.6	16.38	63.047	
2,600.0	2,532.3	2,309.9	2,219.9	12.0	12.4	-149.86	-263.2	543.3	1,082.5	1,065.4	17.12	63.235	
2,700.0	2,629.1	2,396.8	2,302.1	12.6	13.0	-149.78	-276.8	567.8	1,132.0	1,114.2	17.85	63.408	
2,800.0	2,725.8	2,483.6	2,384.4	13.1	13.6	-149.71	-290.3	592.2	1,181.5	1,163.0	18.59	63.567	
2,900.0	2,822.5	2,570.5	2,466.6	13.6	14.2	-149.65	-303.8	616.7	1,231.1	1,211.7	19.32	63.715	
3,000.0	2,919.3	2,657.4	2,548.9	14.2	14.8	-149.58	-317.4	641.1	1,280.6	1,260.5	20.06	63.854	
3,100.0	3,016.0	2,744.3	2,631.1	14.7	15.4	-149.53	-330.9	665.6	1,330.1	1,309.3	20.79	63.983	
3,200.0	3,112.7	2,831.1	2,713.4	15.3	16.0	-149.47	-344.4	690.0	1,379.6	1,358.1	21.52	64.106	
3,300.0	3,209.5	2,918.0	2,795.7	15.8	16.5	-149.43	-357.9	714.5	1,429.2	1,406.9	22.25	64.221	
3,400.0	3,306.2	3,004.9	2,877.9	16.4	17.1	-149.38	-371.5	738.9	1,478.7	1,455.7	22.99	64.330	
3,500.0	3,403.0	3,091.7	2,960.2	16.9	17.7	-149.34	-385.0	763.4	1,528.2	1,504.5	23.72	64.435	
3,600.0	3,499.7	3,178.6	3,042.4	17.4	18.3	-149.30	-398.5	787.8	1,577.7	1,553.3	24.45	64.535	
3,700.0	3,596.4	3,265.5	3,124.7	18.0	18.9	-149.26	-412.1	812.3	1,627.2	1,602.1	25.18	64.630	
3,800.0	3,693.2	3,352.3	3,206.9	18.5	19.5	-149.22	-425.6	836.7	1,676.8	1,650.9	25.91	64.722	
3,900.0	3,789.9	3,439.2	3,289.2	19.1	20.1	-149.19	-439.1	861.2	1,726.3	1,699.7	26.64	64.811	
4,000.0	3,886.6	3,526.1	3,371.4	19.6	20.6	-149.16	-452.7	885.6	1,775.8	1,748.5	27.36	64.896	
4,100.0	3,983.4	3,613.0	3,453.7	20.1	21.2	-149.13	-466.2	910.1	1,825.4	1,797.3	28.09	64.979	
4,200.0	4,080.1	3,699.8	3,535.9	20.7	21.8	-149.10	-479.7	934.5	1,874.9	1,846.1	28.82	65.059	
4,300.0	4,176.9	3,786.7	3,618.2	21.2	22.4	-149.07	-493.2	959.0	1,924.4	1,894.9	29.54	65.137	
4,400.0	4,273.6	3,873.6	3,700.4	21.8	23.0	-149.05	-506.8	983.4	1,973.9	1,943.7	30.27	65.213	
4,500.0	4,370.3	3,960.4	3,782.7	22.3	23.6	-149.02	-520.3	1,007.9	2,023.5	1,992.5	30.99	65.287	
4,600.0	4,467.1	4,047.3	3,864.9	22.8	24.2	-149.00	-533.8	1,032.3	2,073.0	2,041.3	31.72	65.359	
4,700.0	4,563.8	4,134.2	3,947.2	23.4	24.7	-148.98	-547.4	1,056.8	2,122.5	2,090.1	32.44	65.430	
4,800.0	4,660.5	4,221.0	4,029.4	23.9	25.3	-148.96	-560.9	1,081.2	2,172.0	2,138.9	33.16	65.499	
4,900.0	4,757.3	4,307.9	4,111.7	24.5	25.9	-148.94	-574.4	1,105.7	2,221.6	2,187.7	33.88	65.567	
5,000.0	4,854.0	4,394.8	4,194.0	25.0	26.5	-148.92	-588.0	1,130.1	2,271.1	2,236.5	34.60	65.634	

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 PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT 33B-12 F12 - OH - Plan #2

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,950.8	4,481.7	4,276.2	25.6	27.1	-148.90	-601.5	1,154.6	2,320.6	2,285.3	35.32	65.699	
5,200.0	5,047.5	4,568.5	4,358.5	26.1	27.7	-148.88	-615.0	1,179.0	2,370.2	2,334.1	36.04	65.764	
5,300.0	5,144.2	4,655.4	4,440.7	26.6	28.3	-148.86	-628.5	1,203.5	2,419.7	2,382.9	36.76	65.827	
5,400.0	5,241.0	4,742.3	4,523.0	27.2	28.9	-148.85	-642.1	1,227.9	2,469.2	2,431.7	37.48	65.889	
5,500.0	5,337.7	4,829.1	4,605.2	27.7	29.4	-148.83	-655.6	1,252.4	2,518.8	2,480.6	38.19	65.951	
5,600.0	5,434.4	4,916.0	4,687.5	28.3	30.0	-148.82	-669.1	1,276.8	2,568.3	2,529.4	38.91	66.012	
5,700.0	5,531.2	5,002.9	4,769.7	28.8	30.6	-148.80	-682.7	1,301.3	2,617.8	2,578.2	39.62	66.072	
5,800.0	5,627.9	5,089.7	4,852.0	29.3	31.2	-148.79	-696.2	1,325.7	2,667.3	2,627.0	40.33	66.131	
5,900.0	5,724.7	5,176.6	4,934.2	29.9	31.8	-148.78	-709.7	1,350.2	2,716.9	2,675.8	41.05	66.190	
6,000.0	5,821.4	5,263.5	5,016.5	30.4	32.4	-148.76	-723.3	1,374.6	2,766.4	2,724.6	41.76	66.248	
6,100.0	5,918.1	5,350.4	5,098.7	31.0	33.0	-148.75	-736.8	1,399.1	2,815.9	2,773.5	42.47	66.306	
6,184.8	6,000.1	5,424.0	5,168.5	31.4	33.5	-148.74	-748.3	1,419.8	2,857.9	2,814.8	43.07	66.354	
6,200.0	6,014.9	5,437.3	5,181.0	31.5	33.5	-148.87	-750.3	1,423.5	2,865.4	2,822.2	43.25	66.254	
6,300.0	6,112.4	5,525.5	5,264.6	31.9	34.1	-149.64	-764.1	1,448.4	2,912.4	2,868.1	44.32	65.720	
6,400.0	6,211.0	5,615.7	5,349.9	32.1	34.7	-150.24	-778.1	1,473.7	2,955.3	2,910.0	45.27	65.284	
6,500.0	6,310.3	5,707.5	5,436.9	32.4	35.4	-150.71	-792.4	1,499.6	2,994.1	2,948.0	46.10	64.948	
6,600.0	6,410.0	5,800.8	5,525.2	32.5	36.0	-151.04	-806.9	1,525.8	3,028.7	2,981.9	46.80	64.712	
6,674.0	6,484.0	5,870.5	5,591.3	32.6	36.5	93.19	-817.8	1,545.5	3,051.5	3,004.3	47.25	64.588	
6,700.0	6,510.0	5,895.2	5,614.6	32.6	36.6	93.25	-821.6	1,552.4	3,059.1	3,011.8	47.38	64.572	
6,800.0	6,610.0	5,989.9	5,704.2	32.7	37.3	93.51	-836.4	1,579.1	3,088.4	3,040.6	47.86	64.530	
6,900.0	6,710.0	7,019.1	6,710.0	32.8	40.8	94.91	-921.8	1,733.4	3,112.8	3,062.5	50.28	61.913	
7,000.0	6,810.0	7,119.1	6,810.0	32.9	40.9	94.91	-921.8	1,733.4	3,112.8	3,062.3	50.50	61.638	
7,100.0	6,910.0	7,219.1	6,910.0	33.0	40.9	94.91	-921.8	1,733.4	3,112.8	3,062.1	50.73	61.361	
7,200.0	7,010.0	7,319.1	7,010.0	33.1	41.0	94.91	-921.8	1,733.4	3,112.8	3,061.9	50.96	61.083	
7,300.0	7,110.0	7,419.1	7,110.0	33.2	41.1	94.91	-921.8	1,733.4	3,112.8	3,061.6	51.19	60.804	
7,400.0	7,210.0	7,519.1	7,210.0	33.2	41.2	94.91	-921.8	1,733.4	3,112.8	3,061.4	51.43	60.524	
7,500.0	7,310.0	7,619.1	7,310.0	33.3	41.2	94.91	-921.8	1,733.4	3,112.8	3,061.1	51.67	60.243	
7,600.0	7,410.0	7,719.1	7,410.0	33.4	41.3	94.91	-921.8	1,733.4	3,112.8	3,060.9	51.91	59.961	
7,700.0	7,510.0	7,819.1	7,510.0	33.5	41.4	94.91	-921.8	1,733.4	3,112.8	3,060.7	52.16	59.679	
7,800.0	7,610.0	7,919.1	7,610.0	33.6	41.5	94.91	-921.8	1,733.4	3,112.8	3,060.4	52.41	59.396	
7,900.0	7,710.0	8,019.1	7,710.0	33.7	41.6	94.91	-921.8	1,733.4	3,112.8	3,060.2	52.66	59.112	
8,000.0	7,810.0	8,119.1	7,810.0	33.8	41.7	94.91	-921.8	1,733.4	3,112.8	3,059.9	52.91	58.828	
8,100.0	7,910.0	8,219.1	7,910.0	33.9	41.7	94.91	-921.8	1,733.4	3,112.8	3,059.6	53.17	58.544	
8,200.0	8,010.0	8,319.1	8,010.0	34.0	41.8	94.91	-921.8	1,733.4	3,112.8	3,059.4	53.43	58.259	
8,300.0	8,110.0	8,419.1	8,110.0	34.1	41.9	94.91	-921.8	1,733.4	3,112.8	3,059.1	53.69	57.975	
8,400.0	8,210.0	8,519.1	8,210.0	34.2	42.0	94.91	-921.8	1,733.4	3,112.8	3,058.9	53.96	57.690	
8,500.0	8,310.0	8,619.1	8,310.0	34.4	42.1	94.91	-921.8	1,733.4	3,112.8	3,058.6	54.22	57.406	
8,600.0	8,410.0	8,719.1	8,410.0	34.5	42.2	94.91	-921.8	1,733.4	3,112.8	3,058.3	54.49	57.122	
8,689.0	8,499.0	8,808.1	8,499.0	34.6	42.3	94.91	-921.8	1,733.4	3,112.8	3,058.1	54.74	56.869	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT SWD F12-797 - OH - PLAN #1 — **Offset Site Error:** 0.0 usft

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

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	50.45	55.7	67.5	87.5				
100.0	100.0	100.0	100.0	0.1	0.1	50.45	55.7	67.5	87.5	87.4	0.16	556.241	
200.0	200.0	200.0	200.0	0.3	0.3	50.45	55.7	67.5	87.5	86.9	0.61	144.211	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	166.44	55.7	67.5	90.1	88.9	1.13	79.657	
400.0	399.6	399.6	399.6	0.8	0.8	167.47	55.7	67.5	97.7	96.0	1.71	56.980	
500.0	498.8	498.8	498.8	1.0	1.0	168.86	55.7	67.5	110.5	108.2	2.32	47.620	
600.0	597.1	597.1	597.1	1.4	1.2	170.34	55.7	67.5	128.4	125.5	2.93	43.772	
689.2	683.9	683.9	683.9	1.8	1.4	171.58	55.7	67.5	148.8	145.3	3.48	42.704	
700.0	694.3	694.3	694.3	1.9	1.4	171.73	55.7	67.5	151.5	147.9	3.53	42.946	
800.0	791.1	791.1	791.1	2.4	1.6	172.91	55.7	67.5	176.6	172.6	3.94	44.787	
900.0	887.8	887.8	887.8	2.9	1.8	173.80	55.7	67.5	201.8	197.4	4.38	46.074	
1,000.0	984.5	984.5	984.5	3.4	2.1	174.49	55.7	67.5	227.0	222.1	4.83	46.989	
1,100.0	1,081.3	1,081.3	1,081.3	3.9	2.3	175.04	55.7	67.5	252.2	246.9	5.29	47.651	
1,200.0	1,178.0	1,178.0	1,178.0	4.5	2.5	175.49	55.7	67.5	277.5	271.7	5.76	48.138	
1,300.0	1,274.7	1,274.7	1,274.7	5.0	2.7	175.87	55.7	67.5	302.7	296.5	6.24	48.503	
1,400.0	1,371.5	1,371.5	1,371.5	5.5	2.9	176.19	55.7	67.5	328.0	321.3	6.72	48.781	
1,500.0	1,468.2	1,468.2	1,468.2	6.1	3.2	176.46	55.7	67.5	353.3	346.1	7.21	48.995	
1,600.0	1,565.0	1,565.0	1,565.0	6.6	3.4	176.70	55.7	67.5	378.6	370.9	7.70	49.164	
1,700.0	1,661.7	1,661.7	1,661.7	7.2	3.6	176.91	55.7	67.5	403.9	395.7	8.19	49.298	
1,800.0	1,758.4	1,758.4	1,758.4	7.7	3.8	177.09	55.7	67.5	429.2	420.5	8.69	49.406	
1,900.0	1,855.2	1,855.2	1,855.2	8.2	4.0	177.25	55.7	67.5	454.5	445.3	9.18	49.494	
2,000.0	1,951.9	1,951.9	1,951.9	8.8	4.2	177.40	55.7	67.5	479.8	470.1	9.68	49.567	
2,100.0	2,048.6	2,048.6	2,048.6	9.3	4.5	177.53	55.7	67.5	505.1	495.0	10.18	49.629	
2,200.0	2,145.4	2,145.4	2,145.4	9.9	4.7	177.64	55.7	67.5	530.4	519.8	10.68	49.682	
2,300.0	2,242.1	2,242.1	2,242.1	10.4	4.9	177.75	55.7	67.5	555.8	544.6	11.18	49.727	
2,400.0	2,338.8	2,338.8	2,338.8	10.9	5.1	177.85	55.7	67.5	581.1	569.4	11.68	49.767	
2,500.0	2,435.6	2,435.6	2,435.6	11.5	5.3	177.94	55.7	67.5	606.4	594.2	12.18	49.803	
2,600.0	2,532.3	2,532.3	2,532.3	12.0	5.5	178.02	55.7	67.5	631.7	619.0	12.68	49.835	
2,700.0	2,629.1	2,629.1	2,629.1	12.6	5.8	178.10	55.7	67.5	657.0	643.9	13.18	49.865	
2,800.0	2,725.8	2,725.8	2,725.8	13.1	6.0	178.17	55.7	67.5	682.4	668.7	13.68	49.893	
2,900.0	2,822.5	2,822.5	2,822.5	13.6	6.2	178.23	55.7	67.5	707.7	693.5	14.18	49.918	
3,000.0	2,919.3	2,919.3	2,919.3	14.2	6.4	178.30	55.7	67.5	733.0	718.3	14.68	49.943	
3,100.0	3,016.0	3,016.0	3,016.0	14.7	6.6	178.35	55.7	67.5	758.3	743.2	15.18	49.966	
3,200.0	3,112.7	3,112.7	3,112.7	15.3	6.9	178.41	55.7	67.5	783.7	768.0	15.68	49.989	
3,300.0	3,209.5	3,209.5	3,209.5	15.8	7.1	178.46	55.7	67.5	809.0	792.8	16.18	50.011	
3,400.0	3,306.2	3,306.2	3,306.2	16.4	7.3	178.50	55.7	67.5	834.3	817.6	16.68	50.033	
3,500.0	3,403.0	3,403.0	3,403.0	16.9	7.5	178.55	55.7	67.5	859.7	842.5	17.17	50.054	
3,600.0	3,499.7	3,499.7	3,499.7	17.4	7.7	178.59	55.7	67.5	885.0	867.3	17.67	50.076	
3,700.0	3,596.4	3,596.4	3,596.4	18.0	7.9	178.63	55.7	67.5	910.3	892.1	18.17	50.097	
3,800.0	3,693.2	3,693.2	3,693.2	18.5	8.2	178.66	55.7	67.5	935.6	917.0	18.67	50.118	
3,900.0	3,789.9	3,789.9	3,789.9	19.1	8.4	178.70	55.7	67.5	961.0	941.8	19.17	50.139	
4,000.0	3,886.6	3,886.6	3,886.6	19.6	8.6	178.73	55.7	67.5	986.3	966.6	19.66	50.160	
4,100.0	3,983.4	3,983.4	3,983.4	20.1	8.8	178.77	55.7	67.5	1,011.6	991.5	20.16	50.181	
4,200.0	4,080.1	4,080.1	4,080.1	20.7	9.0	178.80	55.7	67.5	1,037.0	1,016.3	20.66	50.202	
4,300.0	4,176.9	4,176.9	4,176.9	21.2	9.2	178.82	55.7	67.5	1,062.3	1,041.1	21.15	50.224	
4,400.0	4,273.6	4,273.6	4,273.6	21.8	9.5	178.85	55.7	67.5	1,087.6	1,066.0	21.65	50.245	
4,500.0	4,370.3	4,370.3	4,370.3	22.3	9.7	178.88	55.7	67.5	1,113.0	1,090.8	22.14	50.267	
4,600.0	4,467.1	4,467.1	4,467.1	22.8	9.9	178.90	55.7	67.5	1,138.3	1,115.6	22.63	50.289	
4,700.0	4,563.8	4,563.8	4,563.8	23.4	10.1	178.93	55.7	67.5	1,163.6	1,140.5	23.13	50.311	
4,800.0	4,660.5	4,660.5	4,660.5	23.9	10.3	178.95	55.7	67.5	1,188.9	1,165.3	23.62	50.333	
4,900.0	4,757.3	4,757.3	4,757.3	24.5	10.5	178.97	55.7	67.5	1,214.3	1,190.2	24.11	50.355	
5,000.0	4,854.0	4,854.0	4,854.0	25.0	10.8	178.99	55.7	67.5	1,239.6	1,215.0	24.61	50.378	

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 PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design S12-T7S-R97W - PUCKETT SWD F12-797 - OH - PLAN #1

Offset Site Error: 0.0 usft

Survey Program: 0-ISCWSA MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,950.8	4,950.8	4,950.8	25.6	11.0	179.01	55.7	67.5	1,264.9	1,239.8	25.10	50.401	
5,200.0	5,047.5	5,047.5	5,047.5	26.1	11.2	179.03	55.7	67.5	1,290.3	1,264.7	25.59	50.424	
5,300.0	5,144.2	5,144.2	5,144.2	26.6	11.4	179.05	55.7	67.5	1,315.6	1,289.5	26.08	50.447	
5,400.0	5,241.0	5,241.0	5,241.0	27.2	11.6	179.07	55.7	67.5	1,340.9	1,314.4	26.57	50.470	
5,500.0	5,337.7	5,337.7	5,337.7	27.7	11.9	179.09	55.7	67.5	1,366.3	1,339.2	27.06	50.494	
5,600.0	5,434.4	5,434.4	5,434.4	28.3	12.1	179.10	55.7	67.5	1,391.6	1,364.1	27.55	50.518	
5,700.0	5,531.2	5,531.2	5,531.2	28.8	12.3	179.12	55.7	67.5	1,416.9	1,388.9	28.04	50.542	
5,800.0	5,627.9	5,627.9	5,627.9	29.3	12.5	179.13	55.7	67.5	1,442.3	1,413.8	28.52	50.566	
5,900.0	5,724.7	5,724.7	5,724.7	29.9	12.7	179.15	55.7	67.5	1,467.6	1,438.6	29.01	50.590	
6,000.0	5,821.4	5,821.4	5,821.4	30.4	12.9	179.16	55.7	67.5	1,492.9	1,463.4	29.50	50.615	
6,100.0	5,918.1	5,918.1	5,918.1	31.0	13.2	179.18	55.7	67.5	1,518.3	1,488.3	29.98	50.640	
6,184.8	6,000.1	6,000.1	6,000.1	31.4	13.3	179.19	55.7	67.5	1,539.7	1,509.4	30.39	50.661	
6,200.0	6,014.9	6,014.9	6,014.9	31.5	13.4	179.19	55.7	67.5	1,543.5	1,513.1	30.49	50.626	
6,300.0	6,112.4	6,112.4	6,112.4	31.9	13.6	179.21	55.7	67.5	1,565.6	1,534.5	31.04	50.432	
6,400.0	6,211.0	6,211.0	6,211.0	32.1	13.8	179.23	55.7	67.5	1,582.4	1,550.9	31.50	50.234	
6,500.0	6,310.3	6,310.3	6,310.3	32.4	14.0	179.24	55.7	67.5	1,594.1	1,562.3	31.86	50.037	
6,600.0	6,410.0	6,410.0	6,410.0	32.5	14.3	179.24	55.7	67.5	1,600.6	1,568.5	32.11	49.841	
6,674.0	6,484.0	6,484.0	6,484.0	32.6	14.4	63.64	55.7	67.5	1,602.1	1,569.8	32.25	49.682	
6,700.0	6,510.0	6,510.0	6,510.0	32.6	14.5	63.64	55.7	67.5	1,602.1	1,569.7	32.35	49.530	
6,800.0	6,610.0	6,610.0	6,610.0	32.7	14.7	63.64	55.7	67.5	1,602.1	1,569.3	32.72	48.964	
6,900.0	6,710.0	6,710.0	6,710.0	32.8	14.9	63.64	55.7	67.5	1,602.1	1,569.0	33.09	48.408	
7,000.0	6,810.0	6,810.0	6,810.0	32.9	15.2	63.64	55.7	67.5	1,602.1	1,568.6	33.47	47.863	
7,100.0	6,910.0	6,910.0	6,910.0	33.0	15.4	63.64	55.7	67.5	1,602.1	1,568.2	33.85	47.328	
7,200.0	7,010.0	7,010.0	7,010.0	33.1	15.6	63.64	55.7	67.5	1,602.1	1,567.8	34.23	46.802	
7,300.0	7,110.0	7,110.0	7,110.0	33.2	15.8	63.64	55.7	67.5	1,602.1	1,567.4	34.61	46.287	
7,400.0	7,210.0	7,210.0	7,210.0	33.2	16.1	63.64	55.7	67.5	1,602.1	1,567.1	34.99	45.780	
7,500.0	7,310.0	7,310.0	7,310.0	33.3	16.3	63.64	55.7	67.5	1,602.1	1,566.7	35.38	45.283	
7,600.0	7,410.0	7,410.0	7,410.0	33.4	16.5	63.64	55.7	67.5	1,602.1	1,566.3	35.76	44.795	
7,700.0	7,510.0	7,510.0	7,510.0	33.5	16.7	63.64	55.7	67.5	1,602.1	1,565.9	36.15	44.316	
7,800.0	7,610.0	7,610.0	7,610.0	33.6	17.0	63.64	55.7	67.5	1,602.1	1,565.5	36.54	43.845	
7,900.0	7,710.0	7,710.0	7,710.0	33.7	17.2	63.64	55.7	67.5	1,602.1	1,565.1	36.93	43.383	
8,000.0	7,810.0	7,810.0	7,810.0	33.8	17.4	63.64	55.7	67.5	1,602.1	1,564.7	37.32	42.929	
8,100.0	7,910.0	7,910.0	7,910.0	33.9	17.6	63.64	55.7	67.5	1,602.1	1,564.3	37.71	42.484	
8,200.0	8,010.0	8,010.0	8,010.0	34.0	17.9	63.64	55.7	67.5	1,602.1	1,564.0	38.10	42.046	
8,300.0	8,110.0	8,110.0	8,110.0	34.1	18.1	63.64	55.7	67.5	1,602.1	1,563.6	38.50	41.616	
8,400.0	8,210.0	8,210.0	8,210.0	34.2	18.3	63.64	55.7	67.5	1,602.1	1,563.2	38.89	41.193	
8,500.0	8,310.0	8,310.0	8,310.0	34.4	18.5	63.64	55.7	67.5	1,602.1	1,562.8	39.29	40.778	
8,600.0	8,410.0	8,410.0	8,410.0	34.5	18.8	63.64	55.7	67.5	1,602.1	1,562.4	39.68	40.370	
8,689.0	8,499.0	8,499.0	8,499.0	34.6	19.0	63.64	55.7	67.5	1,602.1	1,562.0	40.04	40.013 SF	

Company:	Caerus Oil & Gas (NAD 27)	**Local Co-ordinate Reference:**	Well PUCKETT 13A-12 F12
Project:	Garfield County, CO	**TVD Reference:**	30' KB @ 8279.0usft (H&P 330)
Reference Site:	S12-T7S-R97W	**MD Reference:**	30' KB @ 8279.0usft (H&P 330)
Site Error:	0.0usft	**North Reference:**	True
Reference Well:	PUCKETT 13A-12 F12	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to 30' KB @ 8279.0usft (H&P 330)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: PUCKETT 13A-12 F12
Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502
Grid Convergence at Surface is: -1.69°