



## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	225.00	0.00	0.00	225.00	0.00	0.00	0.00	0.00	0.00	
3	325.00	3.00	340.00	324.95	2.46	-0.90	3.00	340.00	2.49	
4	675.00	3.00	340.00	674.47	19.67	-7.16	0.00	0.00	19.90	
5	1197.56	18.53	323.58	1186.33	99.85	-61.48	3.00	-19.42	116.50	
6	8597.96	18.53	323.58	8202.97	1992.55	-1457.98	0.00	0.00	2467.61	
7	9215.70	0.00	0.00	8810.00	2072.24	-1516.78	3.00	180.00	2566.60	
8	9287.73	1.44	250.00	8882.03	2071.94	-1517.63	2.00	250.00	2566.88	
9	12849.83	1.44	250.00	12443.00	2041.30	-1601.78	0.00	0.00	2594.73	FED 24B-14_PBHL

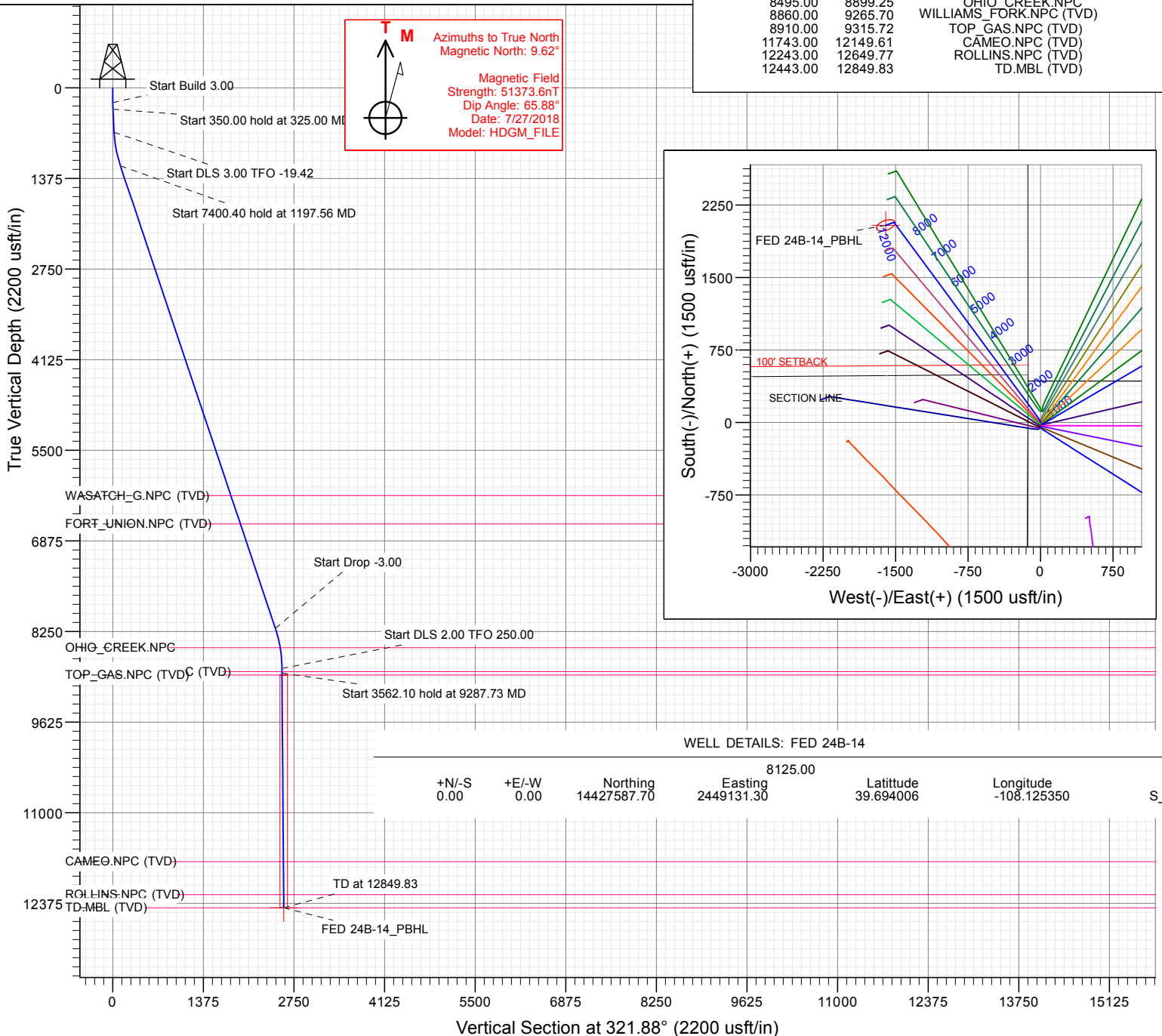
PLAN #2  
FED 24B-14  
GL + KB @ 8155.00usft  
Ground Level @ 8125.00  
NAD 1927 - Western US  
Well FED 24B-14 - Slot S\_A3, True North

Project: Garfield County, CO (UTM 12N)  
Site: S24-T4S-R96W ELU A24 496  
Well: FED 24B-14  
Wellbore: OH  
Design: PLAN #2

## FORMATION TOP DETAILS

Type	Target	Azimuth	Origin Type	N/S	E/W	From TVD
TD	No Target (Freehand)	321.88	Slot	0.00	0.00	0.00
Name		TVD	+N/-S	+E/-W	Latitude	Longitude
FED 24B-14_PBHL		12443.00	2041.30	-1601.78	39.699607	-108.131040

TVDPath	MDPath	Formation
6188.00	6472.78	WASATCH_G.NPC (TVD)
6620.00	6928.41	FORT_UNION.NPC (TVD)
8495.00	8899.25	OHIO_CREEK.NPC
8860.00	9265.70	WILLIAMS_FORK.NPC (TVD)
8910.00	9315.72	TOP_GAS.NPC (TVD)
11743.00	12149.61	CAMEO.NPC (TVD)
12243.00	12649.77	ROLLINS.NPC (TVD)
12443.00	12849.83	TD.MBL (TVD)



## WELL DETAILS: FED 24B-14

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	S_A3
0.00	0.00	14427587.70	2449131.30	39.694006	-108.125350	

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well FED 24B-14 - Slot S_A3
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	GL + KB @ 8155.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	GL + KB @ 8155.00usft
<b>Site:</b>	S24-T4S-R96W ELU A24 496	<b>North Reference:</b>	True
<b>Well:</b>	FED 24B-14	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #2		

<b>Project</b>	Garfield County, CO (UTM 12N)		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 - Western US		
<b>Map Zone:</b>	Zone 12N (114 W to 108 W)		

<b>Site</b>	S24-T4S-R96W ELU A24 496, Gravity = 0.997576		
<b>Site Position:</b>		<b>Northing:</b>	14,427,694.80 usft
<b>From:</b>	Map	<b>Easting:</b>	2,449,140.90 usft
<b>Position Uncertainty:</b>	3.28 usft	<b>Slot Radius:</b>	13-3/16"
		<b>Latitude:</b>	39.694298
		<b>Longitude:</b>	-108.125304
		<b>Grid Convergence:</b>	1.84 °

Well	FED 24B-14 - Slot S_A3					
Well Position	+N/-S	0.00 usft	Northing:	14,427,587.70 usft	Latitude:	39.694006
	+E/-W	0.00 usft	Easting:	2,449,131.30 usft	Longitude:	-108.125350
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft	Ground Level:	8,125.00 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM_FILE	7/27/2018	9.62	65.88	51,373.60000000

<b>Design</b>	PLAN #2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	321.88

<b>Plan Sections</b>										
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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
225.00	0.00	0.00	225.00	0.00	0.00	0.00	0.00	0.00	0.00	
325.00	3.00	340.00	324.95	2.46	-0.90	3.00	3.00	0.00	340.00	
675.00	3.00	340.00	674.47	19.67	-7.16	0.00	0.00	0.00	0.00	
1,197.56	18.53	323.58	1,186.33	99.85	-61.48	3.00	2.97	-3.14	-19.42	
8,597.96	18.53	323.58	8,202.97	1,992.55	-1,457.98	0.00	0.00	0.00	0.00	
9,215.70	0.00	0.00	8,810.00	2,072.24	-1,516.78	3.00	-3.00	0.00	180.00	
9,287.73	1.44	250.00	8,882.03	2,071.94	-1,517.63	2.00	2.00	-152.71	250.00	
12,849.83	1.44	250.00	12,443.00	2,041.30	-1,601.78	0.00	0.00	0.00	0.00	FED 24B-14_PBHL

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well FED 24B-14 - Slot S_A3
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	GL + KB @ 8155.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	GL + KB @ 8155.00usft
<b>Site:</b>	S24-T4S-R96W ELU A24 496	<b>North Reference:</b>	True
<b>Well:</b>	FED 24B-14	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
225.00	0.00	0.00	225.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.00
300.00	2.25	340.00	299.98	1.38	-0.50	1.40	3.00	3.00	
325.00	3.00	340.00	324.95	2.46	-0.90	2.49	3.00	3.00	Start 350.00 hold at 325.00 MD
400.00	3.00	340.00	399.85	6.15	-2.24	6.22	0.00	0.00	
500.00	3.00	340.00	499.71	11.07	-4.03	11.19	0.00	0.00	
600.00	3.00	340.00	599.58	15.98	-5.82	16.17	0.00	0.00	
675.00	3.00	340.00	674.47	19.67	-7.16	19.90	0.00	0.00	Start DLS 3.00 TFO -19.42
700.00	3.72	336.15	699.43	21.03	-7.71	21.30	3.00	2.86	
800.00	6.65	329.18	799.01	28.97	-11.99	30.19	3.00	2.94	
900.00	9.63	326.49	897.99	40.92	-19.58	44.28	3.00	2.98	
1,000.00	12.62	325.06	996.10	56.86	-30.46	63.53	3.00	2.99	
1,100.00	15.61	324.17	1,093.07	76.72	-44.59	87.88	3.00	2.99	
1,197.56	18.53	323.58	1,186.33	99.85	-61.48	116.50	3.00	2.99	Start 7400.40 hold at 1197.56 MD
1,200.00	18.53	323.58	1,188.64	100.47	-61.94	117.28	0.00	0.00	
1,300.00	18.53	323.58	1,283.45	126.05	-80.81	149.05	0.00	0.00	
1,400.00	18.53	323.58	1,378.27	151.62	-99.68	180.82	0.00	0.00	
1,500.00	18.53	323.58	1,473.08	177.20	-118.55	212.59	0.00	0.00	
1,600.00	18.53	323.58	1,567.90	202.77	-137.42	244.36	0.00	0.00	
1,700.00	18.53	323.58	1,662.71	228.35	-156.29	276.13	0.00	0.00	
1,800.00	18.53	323.58	1,757.53	253.93	-175.17	307.90	0.00	0.00	
1,900.00	18.53	323.58	1,852.34	279.50	-194.04	339.67	0.00	0.00	
2,000.00	18.53	323.58	1,947.15	305.08	-212.91	371.44	0.00	0.00	
2,100.00	18.53	323.58	2,041.97	330.65	-231.78	403.21	0.00	0.00	
2,200.00	18.53	323.58	2,136.78	356.23	-250.65	434.98	0.00	0.00	
2,300.00	18.53	323.58	2,231.60	381.80	-269.52	466.75	0.00	0.00	
2,400.00	18.53	323.58	2,326.41	407.38	-288.39	498.52	0.00	0.00	
2,500.00	18.53	323.58	2,421.23	432.96	-307.26	530.29	0.00	0.00	
2,600.00	18.53	323.58	2,516.04	458.53	-326.13	562.06	0.00	0.00	
2,700.00	18.53	323.58	2,610.86	484.11	-345.00	593.83	0.00	0.00	
2,800.00	18.53	323.58	2,705.67	509.68	-363.87	625.60	0.00	0.00	
2,900.00	18.53	323.58	2,800.48	535.26	-382.74	657.37	0.00	0.00	
3,000.00	18.53	323.58	2,895.30	560.83	-401.61	689.14	0.00	0.00	
3,100.00	18.53	323.58	2,990.11	586.41	-420.48	720.91	0.00	0.00	
3,200.00	18.53	323.58	3,084.93	611.99	-439.35	752.68	0.00	0.00	
3,300.00	18.53	323.58	3,179.74	637.56	-458.22	784.45	0.00	0.00	
3,400.00	18.53	323.58	3,274.56	663.14	-477.10	816.22	0.00	0.00	
3,500.00	18.53	323.58	3,369.37	688.71	-495.97	847.99	0.00	0.00	
3,600.00	18.53	323.58	3,464.19	714.29	-514.84	879.76	0.00	0.00	
3,700.00	18.53	323.58	3,559.00	739.86	-533.71	911.53	0.00	0.00	
3,800.00	18.53	323.58	3,653.81	765.44	-552.58	943.30	0.00	0.00	
3,900.00	18.53	323.58	3,748.63	791.02	-571.45	975.07	0.00	0.00	
4,000.00	18.53	323.58	3,843.44	816.59	-590.32	1,006.84	0.00	0.00	
4,100.00	18.53	323.58	3,938.26	842.17	-609.19	1,038.61	0.00	0.00	
4,200.00	18.53	323.58	4,033.07	867.74	-628.06	1,070.38	0.00	0.00	
4,300.00	18.53	323.58	4,127.89	893.32	-646.93	1,102.15	0.00	0.00	
4,400.00	18.53	323.58	4,222.70	918.89	-665.80	1,133.92	0.00	0.00	
4,500.00	18.53	323.58	4,317.52	944.47	-684.67	1,165.69	0.00	0.00	
4,600.00	18.53	323.58	4,412.33	970.05	-703.54	1,197.46	0.00	0.00	
4,700.00	18.53	323.58	4,507.14	995.62	-722.41	1,229.23	0.00	0.00	

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well FED 24B-14 - Slot S_A3
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	GL + KB @ 8155.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	GL + KB @ 8155.00usft
<b>Site:</b>	S24-T4S-R96W ELU A24 496	<b>North Reference:</b>	True
<b>Well:</b>	FED 24B-14	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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
4,800.00	18.53	323.58	4,601.96	1,021.20	-741.28	1,261.00	0.00	0.00	
4,900.00	18.53	323.58	4,696.77	1,046.77	-760.15	1,292.77	0.00	0.00	
5,000.00	18.53	323.58	4,791.59	1,072.35	-779.02	1,324.54	0.00	0.00	
5,100.00	18.53	323.58	4,886.40	1,097.92	-797.90	1,356.31	0.00	0.00	
5,200.00	18.53	323.58	4,981.22	1,123.50	-816.77	1,388.08	0.00	0.00	
5,300.00	18.53	323.58	5,076.03	1,149.08	-835.64	1,419.85	0.00	0.00	
5,400.00	18.53	323.58	5,170.85	1,174.65	-854.51	1,451.62	0.00	0.00	
5,500.00	18.53	323.58	5,265.66	1,200.23	-873.38	1,483.39	0.00	0.00	
5,600.00	18.53	323.58	5,360.47	1,225.80	-892.25	1,515.16	0.00	0.00	
5,700.00	18.53	323.58	5,455.29	1,251.38	-911.12	1,546.93	0.00	0.00	
5,800.00	18.53	323.58	5,550.10	1,276.95	-929.99	1,578.70	0.00	0.00	
5,900.00	18.53	323.58	5,644.92	1,302.53	-948.86	1,610.47	0.00	0.00	
6,000.00	18.53	323.58	5,739.73	1,328.11	-967.73	1,642.24	0.00	0.00	
6,100.00	18.53	323.58	5,834.55	1,353.68	-986.60	1,674.01	0.00	0.00	
6,200.00	18.53	323.58	5,929.36	1,379.26	-1,005.47	1,705.78	0.00	0.00	
6,300.00	18.53	323.58	6,024.18	1,404.83	-1,024.34	1,737.55	0.00	0.00	
6,400.00	18.53	323.58	6,118.99	1,430.41	-1,043.21	1,769.32	0.00	0.00	
6,472.78	18.53	323.58	6,188.00	1,449.02	-1,056.95	1,792.44	0.00	0.00	WASATCH_G.NPC (TVD)
6,500.00	18.53	323.58	6,213.81	1,455.98	-1,062.08	1,801.09	0.00	0.00	
6,600.00	18.53	323.58	6,308.62	1,481.56	-1,080.95	1,832.86	0.00	0.00	
6,700.00	18.53	323.58	6,403.43	1,507.14	-1,099.82	1,864.63	0.00	0.00	
6,800.00	18.53	323.58	6,498.25	1,532.71	-1,118.70	1,896.40	0.00	0.00	
6,900.00	18.53	323.58	6,593.06	1,558.29	-1,137.57	1,928.17	0.00	0.00	
6,928.41	18.53	323.58	6,620.00	1,565.55	-1,142.93	1,937.19	0.00	0.00	FORT_UNION.NPC (TVD)
7,000.00	18.53	323.58	6,687.88	1,583.86	-1,156.44	1,959.94	0.00	0.00	
7,100.00	18.53	323.58	6,782.69	1,609.44	-1,175.31	1,991.71	0.00	0.00	
7,200.00	18.53	323.58	6,877.51	1,635.02	-1,194.18	2,023.48	0.00	0.00	
7,300.00	18.53	323.58	6,972.32	1,660.59	-1,213.05	2,055.25	0.00	0.00	
7,400.00	18.53	323.58	7,067.14	1,686.17	-1,231.92	2,087.02	0.00	0.00	
7,500.00	18.53	323.58	7,161.95	1,711.74	-1,250.79	2,118.79	0.00	0.00	
7,600.00	18.53	323.58	7,256.76	1,737.32	-1,269.66	2,150.56	0.00	0.00	
7,700.00	18.53	323.58	7,351.58	1,762.89	-1,288.53	2,182.33	0.00	0.00	
7,800.00	18.53	323.58	7,446.39	1,788.47	-1,307.40	2,214.10	0.00	0.00	
7,900.00	18.53	323.58	7,541.21	1,814.05	-1,326.27	2,245.87	0.00	0.00	
8,000.00	18.53	323.58	7,636.02	1,839.62	-1,345.14	2,277.64	0.00	0.00	
8,100.00	18.53	323.58	7,730.84	1,865.20	-1,364.01	2,309.41	0.00	0.00	
8,200.00	18.53	323.58	7,825.65	1,890.77	-1,382.88	2,341.18	0.00	0.00	
8,300.00	18.53	323.58	7,920.47	1,916.35	-1,401.75	2,372.95	0.00	0.00	
8,400.00	18.53	323.58	8,015.28	1,941.92	-1,420.62	2,404.71	0.00	0.00	
8,500.00	18.53	323.58	8,110.09	1,967.50	-1,439.50	2,436.48	0.00	0.00	
8,597.96	18.53	323.58	8,202.97	1,992.55	-1,457.98	2,467.61	0.00	0.00	Start Drop -3.00
8,600.00	18.47	323.58	8,204.91	1,993.07	-1,458.37	2,468.25	3.00	-3.00	
8,700.00	15.47	323.58	8,300.54	2,016.56	-1,475.69	2,497.43	3.00	-3.00	
8,800.00	12.47	323.58	8,397.57	2,035.98	-1,490.03	2,521.56	3.00	-3.00	
8,899.25	9.49	323.58	8,495.00	2,051.20	-1,501.25	2,540.45	3.00	-3.00	OHIO_CREEK.NPC
8,900.00	9.47	323.58	8,495.74	2,051.30	-1,501.32	2,540.58	3.00	-3.00	
9,000.00	6.47	323.58	8,594.76	2,062.45	-1,509.56	2,554.44	3.00	-3.00	
9,100.00	3.47	323.58	8,694.37	2,069.43	-1,514.70	2,563.10	3.00	-3.00	
9,200.00	0.47	323.58	8,794.30	2,072.19	-1,516.74	2,566.53	3.00	-3.00	
9,215.70	0.00	0.00	8,810.00	2,072.24	-1,516.78	2,566.60	3.00	-3.00	Start DLS 2.00 TFO 250.00
9,265.70	1.00	250.00	8,860.00	2,072.10	-1,517.19	2,566.73	2.00	2.00	WILLIAMS_FORK.NPC (TVD)
9,287.73	1.44	250.00	8,882.03	2,071.94	-1,517.63	2,566.88	2.00	2.00	Start 3562.10 hold at 9287.73 MD

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well FED 24B-14 - Slot S_A3
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	GL + KB @ 8155.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	GL + KB @ 8155.00usft
<b>Site:</b>	S24-T4S-R96W ELU A24 496	<b>North Reference:</b>	True
<b>Well:</b>	FED 24B-14	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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
9,300.00	1.44	250.00	8,894.29	2,071.83	-1,517.92	2,566.98	0.00	0.00	
9,315.72	1.44	250.00	8,910.00	2,071.69	-1,518.29	2,567.10	0.00	0.00	TOP_GAS.NPC (TVD)
9,400.00	1.44	250.00	8,994.26	2,070.97	-1,520.28	2,567.76	0.00	0.00	
9,500.00	1.44	250.00	9,094.22	2,070.11	-1,522.65	2,568.54	0.00	0.00	
9,600.00	1.44	250.00	9,194.19	2,069.25	-1,525.01	2,569.32	0.00	0.00	
9,700.00	1.44	250.00	9,294.16	2,068.39	-1,527.37	2,570.10	0.00	0.00	
9,800.00	1.44	250.00	9,394.13	2,067.53	-1,529.73	2,570.89	0.00	0.00	
9,900.00	1.44	250.00	9,494.10	2,066.67	-1,532.10	2,571.67	0.00	0.00	
10,000.00	1.44	250.00	9,594.07	2,065.81	-1,534.46	2,572.45	0.00	0.00	
10,100.00	1.44	250.00	9,694.04	2,064.95	-1,536.82	2,573.23	0.00	0.00	
10,200.00	1.44	250.00	9,794.00	2,064.09	-1,539.18	2,574.01	0.00	0.00	
10,300.00	1.44	250.00	9,893.97	2,063.23	-1,541.55	2,574.79	0.00	0.00	
10,400.00	1.44	250.00	9,993.94	2,062.37	-1,543.91	2,575.58	0.00	0.00	
10,500.00	1.44	250.00	10,093.91	2,061.51	-1,546.27	2,576.36	0.00	0.00	
10,600.00	1.44	250.00	10,193.88	2,060.65	-1,548.63	2,577.14	0.00	0.00	
10,700.00	1.44	250.00	10,293.85	2,059.79	-1,551.00	2,577.92	0.00	0.00	
10,800.00	1.44	250.00	10,393.81	2,058.93	-1,553.36	2,578.70	0.00	0.00	
10,900.00	1.44	250.00	10,493.78	2,058.07	-1,555.72	2,579.48	0.00	0.00	
11,000.00	1.44	250.00	10,593.75	2,057.21	-1,558.08	2,580.27	0.00	0.00	
11,100.00	1.44	250.00	10,693.72	2,056.35	-1,560.45	2,581.05	0.00	0.00	
11,200.00	1.44	250.00	10,793.69	2,055.49	-1,562.81	2,581.83	0.00	0.00	
11,300.00	1.44	250.00	10,893.66	2,054.63	-1,565.17	2,582.61	0.00	0.00	
11,400.00	1.44	250.00	10,993.62	2,053.77	-1,567.53	2,583.39	0.00	0.00	
11,500.00	1.44	250.00	11,093.59	2,052.91	-1,569.90	2,584.18	0.00	0.00	
11,600.00	1.44	250.00	11,193.56	2,052.05	-1,572.26	2,584.96	0.00	0.00	
11,700.00	1.44	250.00	11,293.53	2,051.19	-1,574.62	2,585.74	0.00	0.00	
11,800.00	1.44	250.00	11,393.50	2,050.33	-1,576.98	2,586.52	0.00	0.00	
11,900.00	1.44	250.00	11,493.47	2,049.47	-1,579.35	2,587.30	0.00	0.00	
12,000.00	1.44	250.00	11,593.43	2,048.61	-1,581.71	2,588.08	0.00	0.00	
12,100.00	1.44	250.00	11,693.40	2,047.75	-1,584.07	2,588.87	0.00	0.00	
12,149.61	1.44	250.00	11,743.00	2,047.32	-1,585.24	2,589.25	0.00	0.00	CAMEO.NPC (TVD)
12,200.00	1.44	250.00	11,793.37	2,046.89	-1,586.43	2,589.65	0.00	0.00	
12,300.00	1.44	250.00	11,893.34	2,046.03	-1,588.80	2,590.43	0.00	0.00	
12,400.00	1.44	250.00	11,993.31	2,045.17	-1,591.16	2,591.21	0.00	0.00	
12,500.00	1.44	250.00	12,093.28	2,044.31	-1,593.52	2,591.99	0.00	0.00	
12,600.00	1.44	250.00	12,193.24	2,043.45	-1,595.88	2,592.77	0.00	0.00	
12,649.77	1.44	250.00	12,243.00	2,043.02	-1,597.06	2,593.16	0.00	0.00	ROLLINS.NPC (TVD)
12,700.00	1.44	250.00	12,293.21	2,042.59	-1,598.24	2,593.56	0.00	0.00	
12,800.00	1.44	250.00	12,393.18	2,041.73	-1,600.61	2,594.34	0.00	0.00	
12,849.83	1.44	250.00	12,443.00	2,041.30	-1,601.78	2,594.73	0.00	0.00	TD at 12849.83 - TD.MBL (TVD) - FED 24B-14_

Targets									
Target Name									
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
FED 24B-14_PBHL	0.00	0.00	12,443.00	2,041.30	-1,601.78	14,429,576.60	2,447,464.90	39.699607	-108.131040
- plan hits target center									
- Ellipse (radii L100.00 W50.00 on 250.00 azi)									

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well FED 24B-14 - Slot S_A3
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	GL + KB @ 8155.00usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	GL + KB @ 8155.00usft
<b>Site:</b>	S24-T4S-R96W ELU A24 496	<b>North Reference:</b>	True
<b>Well:</b>	FED 24B-14	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #2		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,472.78	6,188.00	WASATCH_G.NPC (TVD)				
6,928.41	6,620.00	FORT_UNION.NPC (TVD)				
8,899.25	8,495.00	OHIO_CREEK.NPC				
9,265.70	8,860.00	WILLIAMS_FORK.NPC (TVD)				
9,315.72	8,910.00	TOP_GAS.NPC (TVD)				
12,149.61	11,743.00	CAMEO.NPC (TVD)				
12,649.77	12,243.00	ROLLINS.NPC (TVD)				
12,849.83	12,443.00	TD.MBL (TVD)				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
225.00	225.00	0.00	0.00	Start Build 3.00	
325.00	324.95	2.46	-0.90	Start 350.00 hold at 325.00 MD	
675.00	674.47	19.67	-7.16	Start DLS 3.00 TFO -19.42	
1,197.56	1,186.33	99.85	-61.48	Start 7400.40 hold at 1197.56 MD	
8,597.96	8,202.97	1,992.55	-1,457.98	Start Drop -3.00	
9,215.70	8,810.00	2,072.24	-1,516.78	Start DLS 2.00 TFO 250.00	
9,287.73	8,882.03	2,071.94	-1,517.63	Start 3562.10 hold at 9287.73 MD	
12,849.83	12,443.00	2,041.30	-1,601.78	TD at 12849.83	