



## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well BATTLEMENT MESA 21A-35 795
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8994.0usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8994.0usft
<b>Site:</b>	S26-T7S-R95W (26K)	<b>North Reference:</b>	True
<b>Well:</b>	BATTLEMENT MESA 21A-35 795	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

<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>	S26-T7S-R95W (26K)				
<b>Site Position:</b>		<b>Northing:</b>	14,324,088.50 usft	<b>Latitude:</b>	39.405864
<b>From:</b>	Map	<b>Easting:</b>	2,496,462.30 usft	<b>Longitude:</b>	-107.969708
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16"	<b>Grid Convergence:</b>	1.92 °

<b>Well</b>	BATTLEMENT MESA 21A-35 795					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	14,323,602.50 usft	<b>Latitude:</b>	39.404448
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	2,497,363.80 usft	<b>Longitude:</b>	-107.966579
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>	0.0 usft	<b>Ground Level:</b>	8,964.0 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</b>
			(°)	(°)	(nT)
	HDGM	11/12/2015	9.45	65.63	51,901

<b>Design</b>	PLAN #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	180.73

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	
616.3	12.49	200.00	613.0	-42.5	-15.5	3.00	3.00	0.00	200.00	
760.7	12.48	179.88	754.0	-72.8	-20.8	3.00	0.00	-13.94	-99.90	
6,735.0	12.48	179.88	6,587.1	-1,364.2	-18.0	0.00	0.00	0.00	0.00	
7,151.2	0.00	0.00	7,000.0	-1,409.4	-17.9	3.00	-3.00	0.00	180.00	
10,071.2	0.00	0.00	9,920.0	-1,409.4	-17.9	0.00	0.00	0.00	0.00	BM 21A-35 795 PBHL

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<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8994.0usft
<b>Site:</b>	S26-T7S-R95W (26K)	<b>North Reference:</b>	True
<b>Well:</b>	BATTLEMENT MESA 21A-35 795	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

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	200.00	300.0	-2.5	-0.9	2.5	3.00	3.00	
400.0	6.00	200.00	399.6	-9.8	-3.6	9.9	3.00	3.00	
500.0	9.00	200.00	498.8	-22.1	-8.0	22.2	3.00	3.00	
600.0	12.00	200.00	597.1	-39.2	-14.3	39.4	3.00	3.00	
616.3	12.49	200.00	613.0	-42.5	-15.5	42.7	3.00	3.00	Start DLS 3.00 TFO -99.90
700.0	12.31	188.32	694.8	-59.8	-19.8	60.0	3.00	-0.22	
760.7	12.48	179.88	754.0	-72.8	-20.8	73.0	3.00	0.30	Start 5974.4 hold at 760.7 MD
800.0	12.48	179.88	792.4	-81.3	-20.7	81.5	0.00	0.00	
900.0	12.48	179.88	890.1	-102.9	-20.7	103.1	0.00	0.00	
1,000.0	12.48	179.88	987.7	-124.5	-20.7	124.7	0.00	0.00	
1,100.0	12.48	179.88	1,085.3	-146.1	-20.6	146.4	0.00	0.00	
1,200.0	12.48	179.88	1,183.0	-167.7	-20.6	168.0	0.00	0.00	
1,300.0	12.48	179.88	1,280.6	-189.3	-20.5	189.6	0.00	0.00	
1,400.0	12.48	179.88	1,378.2	-211.0	-20.5	211.2	0.00	0.00	
1,500.0	12.48	179.88	1,475.9	-232.6	-20.4	232.8	0.00	0.00	
1,600.0	12.48	179.88	1,573.5	-254.2	-20.4	254.4	0.00	0.00	
1,700.0	12.48	179.88	1,671.2	-275.8	-20.3	276.0	0.00	0.00	
1,800.0	12.48	179.88	1,768.8	-297.4	-20.3	297.7	0.00	0.00	
1,900.0	12.48	179.88	1,866.4	-319.0	-20.2	319.3	0.00	0.00	
2,000.0	12.48	179.88	1,964.1	-340.7	-20.2	340.9	0.00	0.00	
2,100.0	12.48	179.88	2,061.7	-362.3	-20.1	362.5	0.00	0.00	
2,200.0	12.48	179.88	2,159.3	-383.9	-20.1	384.1	0.00	0.00	
2,300.0	12.48	179.88	2,257.0	-405.5	-20.1	405.7	0.00	0.00	
2,400.0	12.48	179.88	2,354.6	-427.1	-20.0	427.3	0.00	0.00	
2,500.0	12.48	179.88	2,452.2	-448.7	-20.0	449.0	0.00	0.00	
2,600.0	12.48	179.88	2,549.9	-470.4	-19.9	470.6	0.00	0.00	
2,700.0	12.48	179.88	2,647.5	-492.0	-19.9	492.2	0.00	0.00	
2,800.0	12.48	179.88	2,745.1	-513.6	-19.8	513.8	0.00	0.00	
2,900.0	12.48	179.88	2,842.8	-535.2	-19.8	535.4	0.00	0.00	
3,000.0	12.48	179.88	2,940.4	-556.8	-19.7	557.0	0.00	0.00	
3,100.0	12.48	179.88	3,038.1	-578.4	-19.7	578.7	0.00	0.00	
3,200.0	12.48	179.88	3,135.7	-600.1	-19.6	600.3	0.00	0.00	
3,300.0	12.48	179.88	3,233.3	-621.7	-19.6	621.9	0.00	0.00	
3,400.0	12.48	179.88	3,331.0	-643.3	-19.5	643.5	0.00	0.00	
3,500.0	12.48	179.88	3,428.6	-664.9	-19.5	665.1	0.00	0.00	
3,600.0	12.48	179.88	3,526.2	-686.5	-19.4	686.7	0.00	0.00	
3,700.0	12.48	179.88	3,623.9	-708.2	-19.4	708.3	0.00	0.00	
3,800.0	12.48	179.88	3,721.5	-729.8	-19.4	730.0	0.00	0.00	
3,900.0	12.48	179.88	3,819.1	-751.4	-19.3	751.6	0.00	0.00	
4,000.0	12.48	179.88	3,916.8	-773.0	-19.3	773.2	0.00	0.00	
4,100.0	12.48	179.88	4,014.4	-794.6	-19.2	794.8	0.00	0.00	
4,200.0	12.48	179.88	4,112.0	-816.2	-19.2	816.4	0.00	0.00	
4,300.0	12.48	179.88	4,209.7	-837.9	-19.1	838.0	0.00	0.00	
4,400.0	12.48	179.88	4,307.3	-859.5	-19.1	859.6	0.00	0.00	
4,500.0	12.48	179.88	4,404.9	-881.1	-19.0	881.3	0.00	0.00	
4,600.0	12.48	179.88	4,502.6	-902.7	-19.0	902.9	0.00	0.00	
4,700.0	12.48	179.88	4,600.2	-924.3	-18.9	924.5	0.00	0.00	
4,800.0	12.48	179.88	4,697.9	-945.9	-18.9	946.1	0.00	0.00	
4,900.0	12.48	179.88	4,795.5	-967.6	-18.8	967.7	0.00	0.00	

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<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8994.0usft
<b>Site:</b>	S26-T7S-R95W (26K)	<b>North Reference:</b>	True
<b>Well:</b>	BATTLEMENT MESA 21A-35 795	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

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
5,000.0	12.48	179.88	4,893.1	-989.2	-18.8	989.3	0.00	0.00	
5,100.0	12.48	179.88	4,990.8	-1,010.8	-18.8	1,010.9	0.00	0.00	
5,200.0	12.48	179.88	5,088.4	-1,032.4	-18.7	1,032.6	0.00	0.00	
5,300.0	12.48	179.88	5,186.0	-1,054.0	-18.7	1,054.2	0.00	0.00	
5,400.0	12.48	179.88	5,283.7	-1,075.6	-18.6	1,075.8	0.00	0.00	
5,500.0	12.48	179.88	5,381.3	-1,097.3	-18.6	1,097.4	0.00	0.00	
5,600.0	12.48	179.88	5,478.9	-1,118.9	-18.5	1,119.0	0.00	0.00	
5,700.0	12.48	179.88	5,576.6	-1,140.5	-18.5	1,140.6	0.00	0.00	
5,800.0	12.48	179.88	5,674.2	-1,162.1	-18.4	1,162.2	0.00	0.00	
5,900.0	12.48	179.88	5,771.8	-1,183.7	-18.4	1,183.9	0.00	0.00	
6,000.0	12.48	179.88	5,869.5	-1,205.3	-18.3	1,205.5	0.00	0.00	
6,100.0	12.48	179.88	5,967.1	-1,227.0	-18.3	1,227.1	0.00	0.00	
6,200.0	12.48	179.88	6,064.8	-1,248.6	-18.2	1,248.7	0.00	0.00	
6,300.0	12.48	179.88	6,162.4	-1,270.2	-18.2	1,270.3	0.00	0.00	
6,400.0	12.48	179.88	6,260.0	-1,291.8	-18.1	1,291.9	0.00	0.00	
6,500.0	12.48	179.88	6,357.7	-1,313.4	-18.1	1,313.6	0.00	0.00	
6,600.0	12.48	179.88	6,455.3	-1,335.0	-18.1	1,335.2	0.00	0.00	
6,700.0	12.48	179.88	6,552.9	-1,356.7	-18.0	1,356.8	0.00	0.00	
6,735.0	12.48	179.88	6,587.1	-1,364.2	-18.0	1,364.4	0.00	0.00	Start Drop -3.00
6,800.0	10.54	179.88	6,650.8	-1,377.2	-18.0	1,377.3	3.00	-3.00	
6,900.0	7.54	179.88	6,749.5	-1,392.9	-17.9	1,393.0	3.00	-3.00	
7,000.0	4.54	179.88	6,849.0	-1,403.4	-17.9	1,403.5	3.00	-3.00	
7,050.1	3.03	179.88	6,899.0	-1,406.7	-17.9	1,406.8	3.00	-3.00	OHIO_CREEK.MBL (SSTVD)
7,100.0	1.54	179.88	6,948.8	-1,408.7	-17.9	1,408.8	3.00	-3.00	
7,151.2	0.00	0.00	7,000.0	-1,409.4	-17.9	1,409.5	3.00	-3.00	Start 2920.0 hold at 7151.2 MD
7,200.0	0.00	0.00	7,048.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
7,300.0	0.00	0.00	7,148.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
7,384.2	0.00	0.00	7,233.0	-1,409.4	-17.9	1,409.5	0.00	0.00	WILLIAMS_FORK.MBL (SSTVD)
7,400.0	0.00	0.00	7,248.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
7,500.0	0.00	0.00	7,348.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
7,600.0	0.00	0.00	7,448.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
7,700.0	0.00	0.00	7,548.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
7,800.0	0.00	0.00	7,648.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
7,900.0	0.00	0.00	7,748.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
8,000.0	0.00	0.00	7,848.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
8,065.2	0.00	0.00	7,914.0	-1,409.4	-17.9	1,409.5	0.00	0.00	TOP_GAS.MBL (SSTVD)
8,100.0	0.00	0.00	7,948.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
8,200.0	0.00	0.00	8,048.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
8,300.0	0.00	0.00	8,148.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
8,400.0	0.00	0.00	8,248.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
8,500.0	0.00	0.00	8,348.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
8,600.0	0.00	0.00	8,448.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
8,700.0	0.00	0.00	8,548.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
8,800.0	0.00	0.00	8,648.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
8,900.0	0.00	0.00	8,748.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
9,000.0	0.00	0.00	8,848.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
9,100.0	0.00	0.00	8,948.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
9,200.0	0.00	0.00	9,048.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
9,300.0	0.00	0.00	9,148.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
9,396.2	0.00	0.00	9,245.0	-1,409.4	-17.9	1,409.5	0.00	0.00	CAMEO.MBL (SSTVD)
9,400.0	0.00	0.00	9,248.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
9,500.0	0.00	0.00	9,348.8	-1,409.4	-17.9	1,409.5	0.00	0.00	

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<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8994.0usft
<b>Site:</b>	S26-T7S-R95W (26K)	<b>North Reference:</b>	True
<b>Well:</b>	BATTLEMENT MESA 21A-35 795	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

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
9,600.0	0.00	0.00	9,448.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
9,700.0	0.00	0.00	9,548.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
9,800.0	0.00	0.00	9,648.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
9,900.0	0.00	0.00	9,748.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
9,921.2	0.00	0.00	9,770.0	-1,409.4	-17.9	1,409.5	0.00	0.00	ROLLINS.MBL (SSTVD)
10,000.0	0.00	0.00	9,848.8	-1,409.4	-17.9	1,409.5	0.00	0.00	
10,071.2	0.00	0.00	9,920.0	-1,409.4	-17.9	1,409.5	0.00	0.00	TD at 10071.2 - TD.MBL (SSTVD) - BM 21A-35

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BM 21A-35 795 PBHL - hit/miss target - Shape - Circle (radius 50.0)	0.00	0.00	9,920.0	-1,409.4	-17.9	14,322,193.30	2,497,393.30	39.400580	-107.966642

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
7,050.1	6,899.0	OHIO_CREEK.MBL (SSTVD)		0.00		
7,384.2	7,233.0	WILLIAMS_FORK.MBL (SSTVD)		0.00		
8,065.2	7,914.0	TOP_GAS.MBL (SSTVD)		0.00		
9,396.2	9,245.0	CAMEO.MBL (SSTVD)		0.00		
9,921.2	9,770.0	ROLLINS.MBL (SSTVD)		0.00		
10,071.2	9,920.0	TD.MBL (SSTVD)		0.00		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
200.0	200.0	0.0	0.0	Start Build 3.00
616.3	613.0	-42.5	-15.5	Start DLS 3.00 TFO -99.90
760.7	754.0	-72.8	-20.8	Start 5974.4 hold at 760.7 MD
6,735.0	6,587.1	-1,364.2	-18.0	Start Drop -3.00
7,151.2	7,000.0	-1,409.4	-17.9	Start 2920.0 hold at 7151.2 MD
10,071.2	9,920.0	-1,409.4	-17.9	TD at 10071.2