



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	366.7	5.00	250.00	366.5	-2.5	-6.8	3.00	250.00	7.1	
4	781.4	17.28	237.50	772.6	-41.9	-76.0	3.00	-17.35	86.7	
5	4959.0	17.28	237.50	4761.8	-708.4	-1122.5	0.00	0.00	1327.4	
6	5534.9	0.00	0.00	5329.0	-754.7	-1195.2	3.00	180.00	1413.5	
7	7138.9	0.00	0.00	6933.0	-754.7	-1195.2	0.00	0.00	1413.5	PUCKETT 42B-18 PBHL

Project: Garfield County, CO (UTM 12  
 Site: S17-T7S-R96W (RILEY 1)  
 Well: PUCKETT 42B-18  
 Wellbore: OH  
 Design: PLAN #2

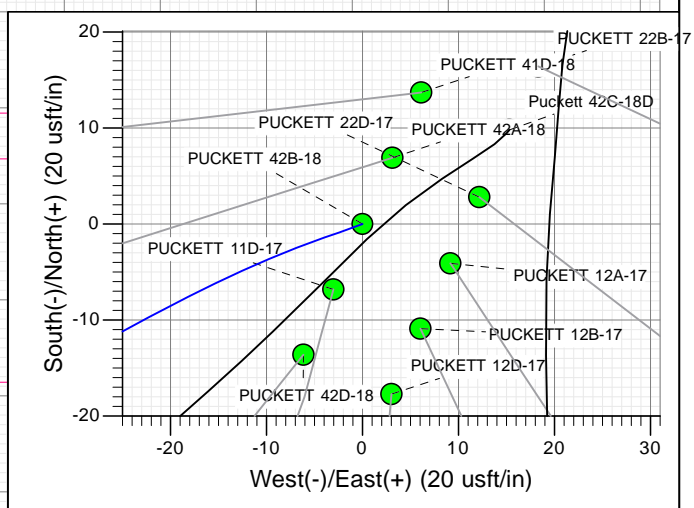
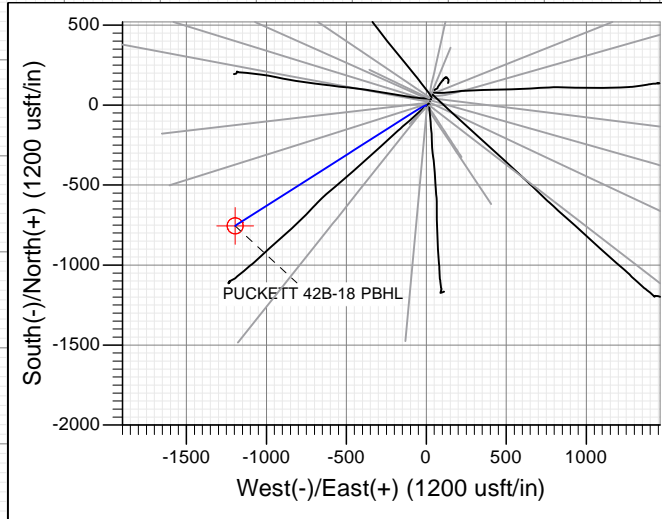
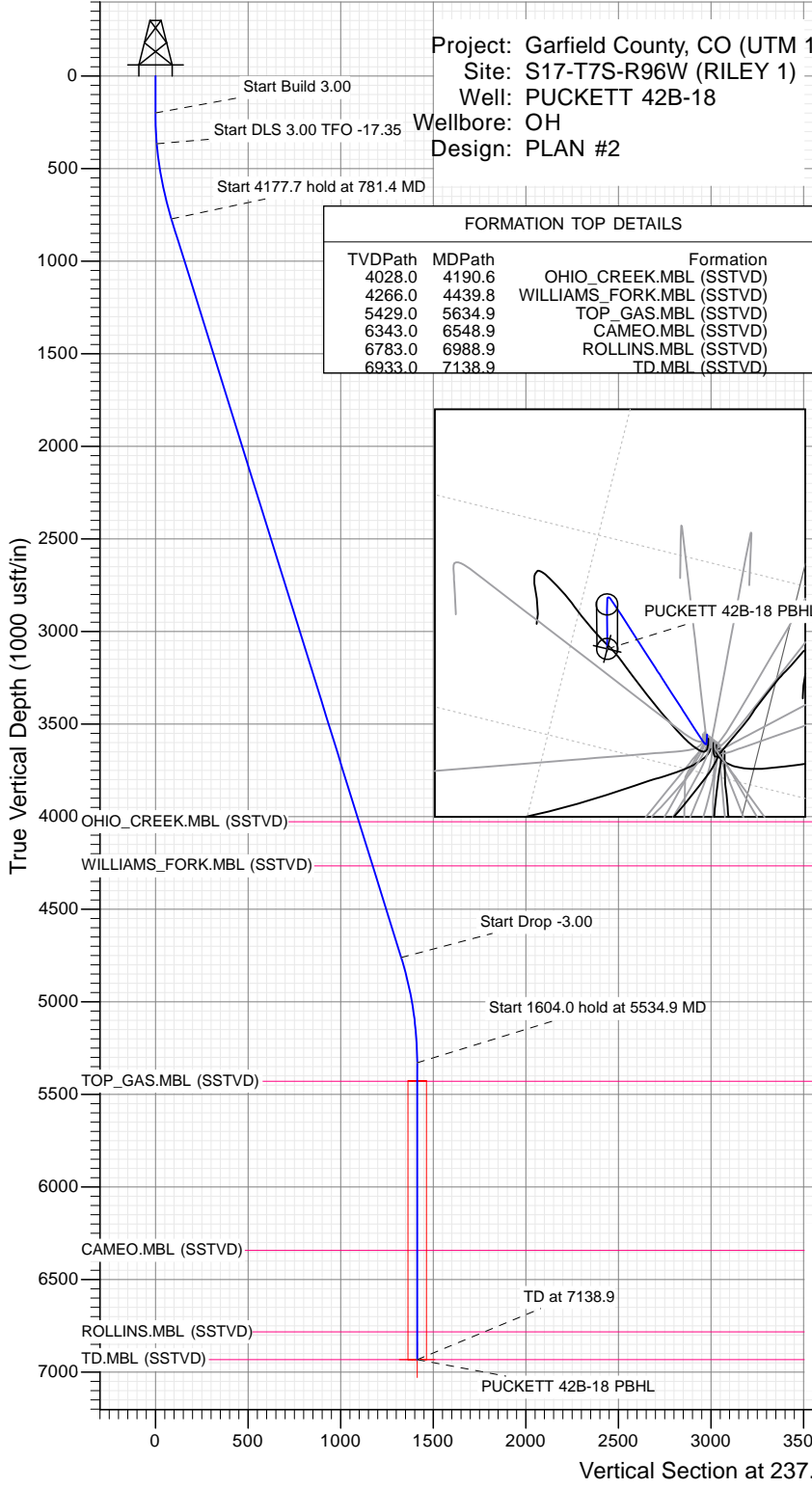
PLAN #2  
 PUCKETT 42B-18  
 15XXX; LR  
 KB @ 6764.0ust  
 Ground Level @ 6734.0  
 NAD 1927 - Western US  
 Well PUCKETT 42B-18, True North

Type	Target	Origin Type	N/S	E/W	From TVD
TD	No Target (Freehand)	Slot	0.0	0.0	0.0

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
PUCKETT 42B-18 PBHL	6933.0	-754.7	-1195.2	39.439794	-108.142275

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4028.0	4190.6	OHIO_CREEK.MBL (SSTVD)
4266.0	4439.8	WILLIAMS_FORK.MBL (SSTVD)
5429.0	5634.9	TOP_GAS.MBL (SSTVD)
6343.0	6548.9	CAMEO.MBL (SSTVD)
6783.0	6988.9	ROLLINS.MBL (SSTVD)
6933.0	7138.9	TD.MBL (SSTVD)



**T M**  
 Azimuths to True North  
 Magnetic North: 9.75°  
 Magnetic Field  
 Strength: 51971.4snT  
 Dip Angle: 65.73°  
 Date: 11/19/2015  
 Model: HDGM

CASING DETAILS  
 No casing data is available



WELL DETAILS: PUCKETT 42B-18

+N/-S	+E/-W	Northing	Ground Level:	6734.0	Latitude	Longitude
0.0	0.0	14335642.30	Easting	2448483.70	39.441856	-108.138045

## Planning Report

<b>Database:</b> USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b> Well PUCKETT 42B-18
<b>Company:</b> Caerus Oil & Gas	<b>TVD Reference:</b> KB @ 6764.0usft
<b>Project:</b> Garfield County, CO (UTM 12N)	<b>MD Reference:</b> KB @ 6764.0usft
<b>Site:</b> S17-T7S-R96W (RILEY 1)	<b>North Reference:</b> True
<b>Well:</b> PUCKETT 42B-18	<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> S17-T7S-R96W (RILEY 1)		
<b>Site Position:</b>	<b>Northing:</b> 14,335,697.50 usft	<b>Latitude:</b> 39.442005
<b>From:</b> Map	<b>Easting:</b> 2,448,508.30 usft	<b>Longitude:</b> -108.137952
<b>Position Uncertainty:</b> 0.0 usft	<b>Slot Radius:</b> 13-3/16"	<b>Grid Convergence:</b> 1.82 °

<b>Well</b> PUCKETT 42B-18			
<b>Well Position</b>	<b>+N/-S</b> 0.0 usft	<b>Northing:</b> 14,335,642.30 usft	<b>Latitude:</b> 39.441856
	<b>+E/-W</b> 0.0 usft	<b>Easting:</b> 2,448,483.70 usft	<b>Longitude:</b> -108.138045
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b> 0.0 usft	<b>Ground Level:</b> 6,734.0 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>
	HDGM	11/19/2015	(°) 9.75	(°) 65.73	(nT) 51,971

<b>Design</b> PLAN #2				
<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	237.73

<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
0.0	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	
366.7	5.00	250.00	366.5	-2.5	-6.8	3.00	3.00	0.00	250.00	
781.4	17.28	237.50	772.6	-41.9	-76.0	3.00	2.96	-3.01	-17.35	
4,959.0	17.28	237.50	4,761.8	-708.4	-1,122.5	0.00	0.00	0.00	0.00	
5,534.9	0.00	0.00	5,329.0	-754.7	-1,195.2	3.00	-3.00	0.00	180.00	
7,138.9	0.00	0.00	6,933.0	-754.7	-1,195.2	0.00	0.00	0.00	0.00	PUCKETT 42B-18 PE

Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-18
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	KB @ 6764.0usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	KB @ 6764.0usft
<b>Site:</b>	S17-T7S-R96W (RILEY 1)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 42B-18	<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
0.0	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	250.00	300.0	-0.9	-2.5	2.6	3.00	3.00	
366.7	5.00	250.00	366.5	-2.5	-6.8	7.1	3.00	3.00	Start DLS 3.00 TFO -17.35
400.0	5.96	247.13	399.6	-3.7	-9.8	10.2	3.00	2.89	
500.0	8.90	242.27	498.8	-9.3	-21.4	23.1	3.00	2.94	
600.0	11.87	239.82	597.1	-18.0	-37.2	41.1	3.00	2.97	
700.0	14.85	238.34	694.4	-29.9	-57.0	64.1	3.00	2.98	
781.4	17.28	237.50	772.6	-41.9	-76.0	86.7	3.00	2.99	Start 4177.7 hold at 781.4 MD
800.0	17.28	237.50	790.4	-44.9	-80.7	92.2	0.00	0.00	
900.0	17.28	237.50	885.9	-60.8	-105.7	121.9	0.00	0.00	
1,000.0	17.28	237.50	981.4	-76.8	-130.8	151.6	0.00	0.00	
1,100.0	17.28	237.50	1,076.9	-92.7	-155.8	181.3	0.00	0.00	
1,200.0	17.28	237.50	1,172.4	-108.7	-180.9	211.0	0.00	0.00	
1,300.0	17.28	237.50	1,267.8	-124.7	-205.9	240.7	0.00	0.00	
1,400.0	17.28	237.50	1,363.3	-140.6	-231.0	270.4	0.00	0.00	
1,500.0	17.28	237.50	1,458.8	-156.6	-256.0	300.1	0.00	0.00	
1,600.0	17.28	237.50	1,554.3	-172.5	-281.1	329.8	0.00	0.00	
1,700.0	17.28	237.50	1,649.8	-188.5	-306.1	359.5	0.00	0.00	
1,800.0	17.28	237.50	1,745.3	-204.4	-331.2	389.2	0.00	0.00	
1,900.0	17.28	237.50	1,840.8	-220.4	-356.2	418.9	0.00	0.00	
2,000.0	17.28	237.50	1,936.3	-236.3	-381.3	448.6	0.00	0.00	
2,100.0	17.28	237.50	2,031.7	-252.3	-406.3	478.3	0.00	0.00	
2,200.0	17.28	237.50	2,127.2	-268.2	-431.4	508.0	0.00	0.00	
2,300.0	17.28	237.50	2,222.7	-284.2	-456.4	537.7	0.00	0.00	
2,400.0	17.28	237.50	2,318.2	-300.2	-481.5	567.4	0.00	0.00	
2,500.0	17.28	237.50	2,413.7	-316.1	-506.5	597.1	0.00	0.00	
2,600.0	17.28	237.50	2,509.2	-332.1	-531.6	626.8	0.00	0.00	
2,700.0	17.28	237.50	2,604.7	-348.0	-556.6	656.5	0.00	0.00	
2,800.0	17.28	237.50	2,700.2	-364.0	-581.7	686.2	0.00	0.00	
2,900.0	17.28	237.50	2,795.7	-379.9	-606.7	715.9	0.00	0.00	
3,000.0	17.28	237.50	2,891.1	-395.9	-631.8	745.5	0.00	0.00	
3,100.0	17.28	237.50	2,986.6	-411.8	-656.8	775.2	0.00	0.00	
3,200.0	17.28	237.50	3,082.1	-427.8	-681.9	804.9	0.00	0.00	
3,300.0	17.28	237.50	3,177.6	-443.7	-706.9	834.6	0.00	0.00	
3,400.0	17.28	237.50	3,273.1	-459.7	-732.0	864.3	0.00	0.00	
3,500.0	17.28	237.50	3,368.6	-475.7	-757.0	894.0	0.00	0.00	
3,600.0	17.28	237.50	3,464.1	-491.6	-782.1	923.7	0.00	0.00	
3,700.0	17.28	237.50	3,559.6	-507.6	-807.1	953.4	0.00	0.00	
3,800.0	17.28	237.50	3,655.0	-523.5	-832.2	983.1	0.00	0.00	
3,900.0	17.28	237.50	3,750.5	-539.5	-857.2	1,012.8	0.00	0.00	
4,000.0	17.28	237.50	3,846.0	-555.4	-882.3	1,042.5	0.00	0.00	
4,100.0	17.28	237.50	3,941.5	-571.4	-907.3	1,072.2	0.00	0.00	
4,190.6	17.28	237.50	4,028.0	-585.8	-930.0	1,099.1	0.00	0.00	OHIO_CREEK.MBL (SSTVD)
4,200.0	17.28	237.50	4,037.0	-587.3	-932.4	1,101.9	0.00	0.00	
4,300.0	17.28	237.50	4,132.5	-603.3	-957.4	1,131.6	0.00	0.00	
4,400.0	17.28	237.50	4,228.0	-619.3	-982.4	1,161.3	0.00	0.00	
4,439.8	17.28	237.50	4,266.0	-625.6	-992.4	1,173.2	0.00	0.00	WILLIAMS_FORK.MBL (SSTVD)
4,500.0	17.28	237.50	4,323.5	-635.2	-1,007.5	1,191.0	0.00	0.00	
4,600.0	17.28	237.50	4,419.0	-651.2	-1,032.5	1,220.7	0.00	0.00	
4,700.0	17.28	237.50	4,514.4	-667.1	-1,057.6	1,250.4	0.00	0.00	

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-18
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	KB @ 6764.0usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	KB @ 6764.0usft
<b>Site:</b>	S17-T7S-R96W (RILEY 1)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 42B-18	<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
4,800.0	17.28	237.50	4,609.9	-683.1	-1,082.6	1,280.1	0.00	0.00	
4,900.0	17.28	237.50	4,705.4	-699.0	-1,107.7	1,309.8	0.00	0.00	
4,959.0	17.28	237.50	4,761.8	-708.4	-1,122.5	1,327.4	0.00	0.00	Start Drop -3.00
5,000.0	16.05	237.50	4,801.0	-714.8	-1,132.4	1,339.1	3.00	-3.00	
5,100.0	13.05	237.50	4,897.8	-728.2	-1,153.6	1,364.2	3.00	-3.00	
5,200.0	10.05	237.50	4,995.8	-739.0	-1,170.5	1,384.2	3.00	-3.00	
5,300.0	7.05	237.50	5,094.7	-747.0	-1,183.0	1,399.1	3.00	-3.00	
5,400.0	4.05	237.50	5,194.2	-752.2	-1,191.1	1,408.8	3.00	-3.00	
5,500.0	1.05	237.50	5,294.1	-754.6	-1,194.9	1,413.2	3.00	-3.00	
5,534.9	0.00	0.00	5,329.0	-754.7	-1,195.2	1,413.5	3.00	-3.00	Start 1604.0 hold at 5534.9 MD
5,600.0	0.00	0.00	5,394.1	-754.7	-1,195.2	1,413.5	0.00	0.00	
5,634.9	0.00	0.00	5,429.0	-754.7	-1,195.2	1,413.5	0.00	0.00	TOP_GAS.MBL (SSTVD)
5,700.0	0.00	0.00	5,494.1	-754.7	-1,195.2	1,413.5	0.00	0.00	
5,800.0	0.00	0.00	5,594.1	-754.7	-1,195.2	1,413.5	0.00	0.00	
5,900.0	0.00	0.00	5,694.1	-754.7	-1,195.2	1,413.5	0.00	0.00	
6,000.0	0.00	0.00	5,794.1	-754.7	-1,195.2	1,413.5	0.00	0.00	
6,100.0	0.00	0.00	5,894.1	-754.7	-1,195.2	1,413.5	0.00	0.00	
6,200.0	0.00	0.00	5,994.1	-754.7	-1,195.2	1,413.5	0.00	0.00	
6,300.0	0.00	0.00	6,094.1	-754.7	-1,195.2	1,413.5	0.00	0.00	
6,400.0	0.00	0.00	6,194.1	-754.7	-1,195.2	1,413.5	0.00	0.00	
6,500.0	0.00	0.00	6,294.1	-754.7	-1,195.2	1,413.5	0.00	0.00	
6,548.9	0.00	0.00	6,343.0	-754.7	-1,195.2	1,413.5	0.00	0.00	CAMEO.MBL (SSTVD)
6,600.0	0.00	0.00	6,394.1	-754.7	-1,195.2	1,413.5	0.00	0.00	
6,700.0	0.00	0.00	6,494.1	-754.7	-1,195.2	1,413.5	0.00	0.00	
6,800.0	0.00	0.00	6,594.1	-754.7	-1,195.2	1,413.5	0.00	0.00	
6,900.0	0.00	0.00	6,694.1	-754.7	-1,195.2	1,413.5	0.00	0.00	
6,988.9	0.00	0.00	6,783.0	-754.7	-1,195.2	1,413.5	0.00	0.00	ROLLINS.MBL (SSTVD)
7,000.0	0.00	0.00	6,794.1	-754.7	-1,195.2	1,413.5	0.00	0.00	
7,100.0	0.00	0.00	6,894.1	-754.7	-1,195.2	1,413.5	0.00	0.00	
7,138.9	0.00	0.00	6,933.0	-754.7	-1,195.2	1,413.5	0.00	0.00	TD at 7138.9 - TD.MBL (SSTVD)

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PUCKETT 42B-18 PBHL - hit/miss target - Shape - plan hits target center - Circle (radius 50.0)	0.00	0.00	6,933.0	-754.7	-1,195.2	14,334,850.00	2,447,313.10	39.439784	-108.142275

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well PUCKETT 42B-18
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	KB @ 6764.0usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	KB @ 6764.0usft
<b>Site:</b>	S17-T7S-R96W (RILEY 1)	<b>North Reference:</b>	True
<b>Well:</b>	PUCKETT 42B-18	<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 (°)
4,190.6	4,028.0	OHIO_CREEK.MBL (SSTVD)		0.00	
4,439.8	4,266.0	WILLIAMS_FORK.MBL (SSTVD)		0.00	
5,634.9	5,429.0	TOP_GAS.MBL (SSTVD)		0.00	
6,548.9	6,343.0	CAMEO.MBL (SSTVD)		0.00	
6,988.9	6,783.0	ROLLINS.MBL (SSTVD)		0.00	
7,138.9	6,933.0	TD.MBL (SSTVD)		0.00	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
200.0	200.0	0.0	0.0	Start Build 3.00	
366.7	366.5	-2.5	-6.8	Start DLS 3.00 TFO -17.35	
781.4	772.6	-41.9	-76.0	Start 4177.7 hold at 781.4 MD	
4,959.0	4,761.8	-708.4	-1,122.5	Start Drop -3.00	
5,534.9	5,329.0	-754.7	-1,195.2	Start 1604.0 hold at 5534.9 MD	
7,138.9	6,933.0	-754.7	-1,195.2	TD at 7138.9	