

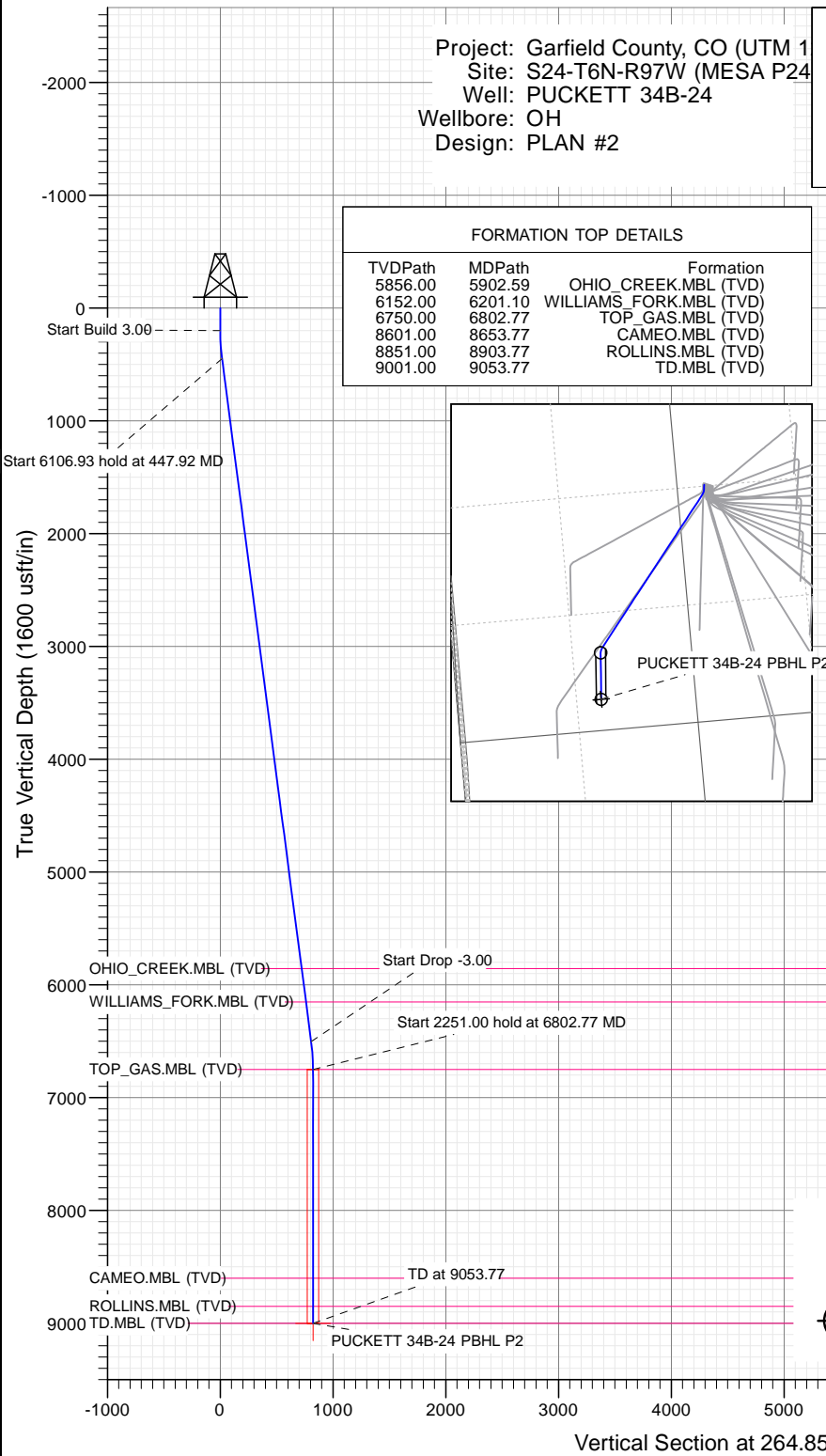


SECTION DETAILS

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	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	447.92	7.44	264.85	447.23	-1.44	-16.00	3.00	264.85	16.07	
4	6554.85	7.44	264.85	6502.77	-72.46	-803.33	0.00	0.00	806.59	
5	6802.77	0.00	0.00	6750.00	-73.90	-819.34	3.00	180.00	822.66	
6	9053.77	0.00	0.00	9001.00	-73.90	-819.34	0.00	0.00	822.66	PUCKETT 34B-24 PBHL P2

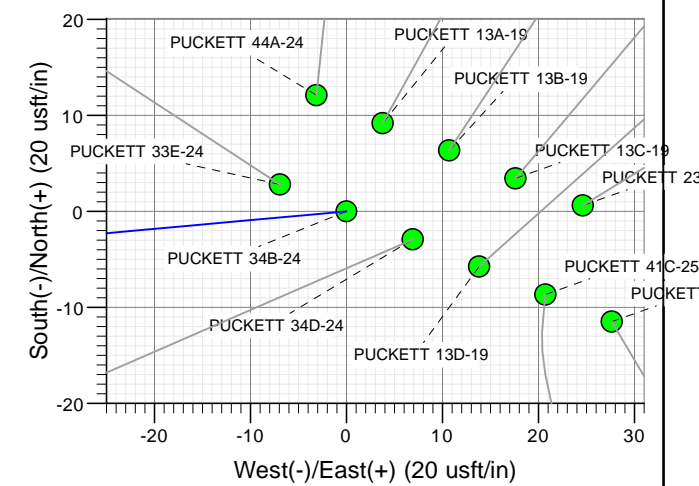
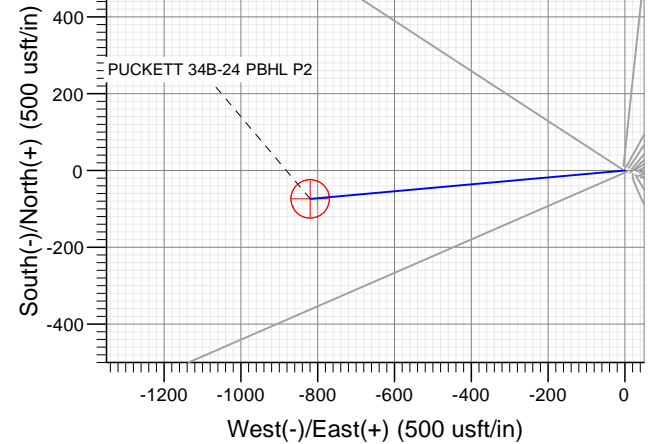
Project: Garfield County, CO (UTM 1
Site: S24-T6N-R97W (MESA P24
Well: PUCKETT 34B-24
Wellbore: OH
Design: PLAN #2

PLAN #2 PUCKETT 34B-24 16X00: LR 30' KB @ 8151.00usft Ground Level @ 8151.00 NAD 1927 - Western US Well PUCKETT 34B-24 - Slot B10, True North									
Type	Target	Azimuth	Origin	N/S	E/W	From	TVD		
TD	No Target (Freehand)	Slot	Type			0.00			
Name		TVD	+N/-S	+E/-W	Latitude	Longitude			
PUCKETT 34B-24 PBHL		9001.00	30.62	-1271.87	39.503074	-108.165702			
PUCKETT 34B-24 PBHL P2		9001.00	-73.90	-819.34	39.502787	-108.164099			



FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
5856.00	5902.59	OHIO_CREEK.MBL (TVD)
6152.00	6201.10	WILLIAMS_FORK.MBL (TVD)
6750.00	6802.77	TOP_GAS.MBL (TVD)
8601.00	8653.77	CAMEO.MBL (TVD)
8851.00	8903.77	ROLLINS.MBL (TVD)
9001.00	9053.77	TD.MBL (TVD)



Azimuths to True North
Magnetic North: 9.80°

Magnetic Field
Strength: 51880.0nT
Dip Angle: 65.87°
Date: 2/16/2016
Model: HDGM

WELL DETAILS: PUCKETT 34B-24

+N/-S	+E/-W	North	Ground Level:	8151.00	Latitude	Longitude
0.00	0.00	14357699.70	Easting	2441243.90	39.502990	-108.161197

B10

CATHEDRAL



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 34B-24 - Slot B10
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8181.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8181.00usft
Site:	S24-T6N-R97W (MESA P24)	North Reference:	True
Well:	PUCKETT 34B-24	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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

Site		S24-T6N-R97W (MESA P24)			
Site Position:		Northing:	14,357,707.60 usft	Latitude:	39.503013
From:	Map	Easting:	2,441,222.80 usft	Longitude:	-108.161271
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.81 °

Well	PUCKETT 34B-24 - Slot B10					
Well Position	+N/-S	0.00 usft	Northing:	14,357,699.70 usft	Latitude:	39.502990
	+E/-W	0.00 usft	Easting:	2,441,243.90 usft	Longitude:	-108.161197
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	8,151.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	2/16/2016	9.80	65.87	51,880.00000000

Design	PLAN #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	264.85

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
0.00	0.00	0.00	0.00	0.00	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	0.00	
447.92	7.44	264.85	447.23	-1.44	-16.00	3.00	3.00	0.00	264.85	
6,554.85	7.44	264.85	6,502.77	-72.46	-803.33	0.00	0.00	0.00	0.00	
6,802.77	0.00	0.00	6,750.00	-73.90	-819.34	3.00	-3.00	0.00	180.00	
9,053.77	0.00	0.00	9,001.00	-73.90	-819.34	0.00	0.00	0.00	0.00	PUCKETT 34B-24 PE

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 34B-24 - Slot B10
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8181.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8181.00usft
Site:	S24-T6N-R97W (MESA P24)	North Reference:	True
Well:	PUCKETT 34B-24	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
0.00	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	Start Build 3.00
300.00	3.00	264.85	299.95	-0.24	-2.61	2.62	3.00	3.00	
400.00	6.00	264.85	399.63	-0.94	-10.42	10.46	3.00	3.00	
447.92	7.44	264.85	447.23	-1.44	-16.00	16.07	3.00	3.00	Start 6106.93 hold at 447.92 MD
500.00	7.44	264.85	498.87	-2.05	-22.72	22.81	0.00	0.00	
600.00	7.44	264.85	598.02	-3.21	-35.61	35.76	0.00	0.00	
700.00	7.44	264.85	697.18	-4.37	-48.50	48.70	0.00	0.00	
800.00	7.44	264.85	796.34	-5.54	-61.40	61.64	0.00	0.00	
900.00	7.44	264.85	895.50	-6.70	-74.29	74.59	0.00	0.00	
1,000.00	7.44	264.85	994.66	-7.86	-87.18	87.53	0.00	0.00	
1,100.00	7.44	264.85	1,093.82	-9.03	-100.07	100.48	0.00	0.00	
1,200.00	7.44	264.85	1,192.98	-10.19	-112.96	113.42	0.00	0.00	
1,300.00	7.44	264.85	1,292.14	-11.35	-125.86	126.37	0.00	0.00	
1,400.00	7.44	264.85	1,391.29	-12.52	-138.75	139.31	0.00	0.00	
1,500.00	7.44	264.85	1,490.45	-13.68	-151.64	152.26	0.00	0.00	
1,600.00	7.44	264.85	1,589.61	-14.84	-164.53	165.20	0.00	0.00	
1,700.00	7.44	264.85	1,688.77	-16.00	-177.43	178.15	0.00	0.00	
1,800.00	7.44	264.85	1,787.93	-17.17	-190.32	191.09	0.00	0.00	
1,900.00	7.44	264.85	1,887.09	-18.33	-203.21	204.04	0.00	0.00	
2,000.00	7.44	264.85	1,986.25	-19.49	-216.10	216.98	0.00	0.00	
2,100.00	7.44	264.85	2,085.40	-20.66	-229.00	229.93	0.00	0.00	
2,200.00	7.44	264.85	2,184.56	-21.82	-241.89	242.87	0.00	0.00	
2,300.00	7.44	264.85	2,283.72	-22.98	-254.78	255.82	0.00	0.00	
2,400.00	7.44	264.85	2,382.88	-24.14	-267.67	268.76	0.00	0.00	
2,500.00	7.44	264.85	2,482.04	-25.31	-280.57	281.71	0.00	0.00	
2,600.00	7.44	264.85	2,581.20	-26.47	-293.46	294.65	0.00	0.00	
2,700.00	7.44	264.85	2,680.36	-27.63	-306.35	307.59	0.00	0.00	
2,800.00	7.44	264.85	2,779.51	-28.80	-319.24	320.54	0.00	0.00	
2,900.00	7.44	264.85	2,878.67	-29.96	-332.14	333.48	0.00	0.00	
3,000.00	7.44	264.85	2,977.83	-31.12	-345.03	346.43	0.00	0.00	
3,100.00	7.44	264.85	3,076.99	-32.28	-357.92	359.37	0.00	0.00	
3,200.00	7.44	264.85	3,176.15	-33.45	-370.81	372.32	0.00	0.00	
3,300.00	7.44	264.85	3,275.31	-34.61	-383.71	385.26	0.00	0.00	
3,400.00	7.44	264.85	3,374.47	-35.77	-396.60	398.21	0.00	0.00	
3,500.00	7.44	264.85	3,473.63	-36.94	-409.49	411.15	0.00	0.00	
3,600.00	7.44	264.85	3,572.78	-38.10	-422.38	424.10	0.00	0.00	
3,700.00	7.44	264.85	3,671.94	-39.26	-435.27	437.04	0.00	0.00	
3,800.00	7.44	264.85	3,771.10	-40.42	-448.17	449.99	0.00	0.00	
3,900.00	7.44	264.85	3,870.26	-41.59	-461.06	462.93	0.00	0.00	
4,000.00	7.44	264.85	3,969.42	-42.75	-473.95	475.88	0.00	0.00	
4,100.00	7.44	264.85	4,068.58	-43.91	-486.84	488.82	0.00	0.00	
4,200.00	7.44	264.85	4,167.74	-45.08	-499.74	501.77	0.00	0.00	
4,300.00	7.44	264.85	4,266.89	-46.24	-512.63	514.71	0.00	0.00	
4,400.00	7.44	264.85	4,366.05	-47.40	-525.52	527.65	0.00	0.00	
4,500.00	7.44	264.85	4,465.21	-48.56	-538.41	540.60	0.00	0.00	
4,600.00	7.44	264.85	4,564.37	-49.73	-551.31	553.54	0.00	0.00	
4,700.00	7.44	264.85	4,663.53	-50.89	-564.20	566.49	0.00	0.00	
4,800.00	7.44	264.85	4,762.69	-52.05	-577.09	579.43	0.00	0.00	
4,900.00	7.44	264.85	4,861.85	-53.22	-589.98	592.38	0.00	0.00	
5,000.00	7.44	264.85	4,961.00	-54.38	-602.88	605.32	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 34B-24 - Slot B10
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8181.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8181.00usft
Site:	S24-T6N-R97W (MESA P24)	North Reference:	True
Well:	PUCKETT 34B-24	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
5,100.00	7.44	264.85	5,060.16	-55.54	-615.77	618.27	0.00	0.00	
5,200.00	7.44	264.85	5,159.32	-56.70	-628.66	631.21	0.00	0.00	
5,300.00	7.44	264.85	5,258.48	-57.87	-641.55	644.16	0.00	0.00	
5,400.00	7.44	264.85	5,357.64	-59.03	-654.45	657.10	0.00	0.00	
5,500.00	7.44	264.85	5,456.80	-60.19	-667.34	670.05	0.00	0.00	
5,600.00	7.44	264.85	5,555.96	-61.36	-680.23	682.99	0.00	0.00	
5,700.00	7.44	264.85	5,655.11	-62.52	-693.12	695.94	0.00	0.00	
5,800.00	7.44	264.85	5,754.27	-63.68	-706.02	708.88	0.00	0.00	
5,900.00	7.44	264.85	5,853.43	-64.84	-718.91	721.83	0.00	0.00	
5,902.59	7.44	264.85	5,856.00	-64.87	-719.24	722.16	0.00	0.00	OHIO_CREEK.MBL (TVD)
6,000.00	7.44	264.85	5,952.59	-66.01	-731.80	734.77	0.00	0.00	
6,100.00	7.44	264.85	6,051.75	-67.17	-744.69	747.72	0.00	0.00	
6,200.00	7.44	264.85	6,150.91	-68.33	-757.58	760.66	0.00	0.00	
6,201.10	7.44	264.85	6,152.00	-68.35	-757.73	760.80	0.00	0.00	WILLIAMS_FORK.MBL (TVD)
6,300.00	7.44	264.85	6,250.07	-69.50	-770.48	773.60	0.00	0.00	
6,400.00	7.44	264.85	6,349.23	-70.66	-783.37	786.55	0.00	0.00	
6,500.00	7.44	264.85	6,448.38	-71.82	-796.26	799.49	0.00	0.00	
6,554.85	7.44	264.85	6,502.77	-72.46	-803.33	806.59	0.00	0.00	Start Drop -3.00
6,600.00	6.08	264.85	6,547.61	-72.94	-808.63	811.91	3.00	-3.00	
6,700.00	3.08	264.85	6,647.28	-73.65	-816.58	819.90	3.00	-3.00	
6,800.00	0.08	264.85	6,747.23	-73.90	-819.34	822.66	3.00	-3.00	
6,802.77	0.00	0.00	6,750.00	-73.90	-819.34	822.66	3.00	-3.00	Start 2251.00 hold at 6802.77 MD - TOP_GAS.I
6,900.00	0.00	0.00	6,847.23	-73.90	-819.34	822.66	0.00	0.00	
7,000.00	0.00	0.00	6,947.23	-73.90	-819.34	822.66	0.00	0.00	
7,100.00	0.00	0.00	7,047.23	-73.90	-819.34	822.66	0.00	0.00	
7,200.00	0.00	0.00	7,147.23	-73.90	-819.34	822.66	0.00	0.00	
7,300.00	0.00	0.00	7,247.23	-73.90	-819.34	822.66	0.00	0.00	
7,400.00	0.00	0.00	7,347.23	-73.90	-819.34	822.66	0.00	0.00	
7,500.00	0.00	0.00	7,447.23	-73.90	-819.34	822.66	0.00	0.00	
7,600.00	0.00	0.00	7,547.23	-73.90	-819.34	822.66	0.00	0.00	
7,700.00	0.00	0.00	7,647.23	-73.90	-819.34	822.66	0.00	0.00	
7,800.00	0.00	0.00	7,747.23	-73.90	-819.34	822.66	0.00	0.00	
7,900.00	0.00	0.00	7,847.23	-73.90	-819.34	822.66	0.00	0.00	
8,000.00	0.00	0.00	7,947.23	-73.90	-819.34	822.66	0.00	0.00	
8,100.00	0.00	0.00	8,047.23	-73.90	-819.34	822.66	0.00	0.00	
8,200.00	0.00	0.00	8,147.23	-73.90	-819.34	822.66	0.00	0.00	
8,300.00	0.00	0.00	8,247.23	-73.90	-819.34	822.66	0.00	0.00	
8,400.00	0.00	0.00	8,347.23	-73.90	-819.34	822.66	0.00	0.00	
8,500.00	0.00	0.00	8,447.23	-73.90	-819.34	822.66	0.00	0.00	
8,600.00	0.00	0.00	8,547.23	-73.90	-819.34	822.66	0.00	0.00	
8,653.77	0.00	0.00	8,601.00	-73.90	-819.34	822.66	0.00	0.00	CAMEO.MBL (TVD)
8,700.00	0.00	0.00	8,647.23	-73.90	-819.34	822.66	0.00	0.00	
8,800.00	0.00	0.00	8,747.23	-73.90	-819.34	822.66	0.00	0.00	
8,900.00	0.00	0.00	8,847.23	-73.90	-819.34	822.66	0.00	0.00	
8,903.77	0.00	0.00	8,851.00	-73.90	-819.34	822.66	0.00	0.00	ROLLINS.MBL (TVD)
9,000.00	0.00	0.00	8,947.23	-73.90	-819.34	822.66	0.00	0.00	
9,053.77	0.00	0.00	9,001.00	-73.90	-819.34	822.66	0.00	0.00	TD at 9053.77 - TD.MBL (TVD)

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 34B-24 - Slot B10
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8181.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8181.00usft
Site:	S24-T6N-R97W (MESA P24)	North Reference:	True
Well:	PUCKETT 34B-24	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
PUCKETT 34B-24 PBHL	0.00	0.00	9,001.00	-73.90	-819.34	14,357,600.00	2,440,427.30	39.502787	-108.164099
- plan hits target center									
- Circle (radius 50.00)									
PUCKETT 34B-24 PBHL	0.00	0.00	9,001.00	30.62	-1,271.87	14,357,690.20	2,439,971.70	39.503074	-108.165702
- plan misses target center by 464.44usft at 9053.77usft MD (9001.00 TVD, -73.90 N, -819.34 E)									
- Circle (radius 50.00)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
5,902.59	5,856.00	OHIO_CREEK.MBL (TVD)				
6,201.10	6,152.00	WILLIAMS_FORK.MBL (TVD)				
6,802.77	6,750.00	TOP_GAS.MBL (TVD)				
8,653.77	8,601.00	CAMEO.MBL (TVD)				
8,903.77	8,851.00	ROLLINS.MBL (TVD)				
9,053.77	9,001.00	TD.MBL (TVD)				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
200.00	200.00	0.00	0.00	Start Build 3.00	
447.92	447.23	-1.44	-16.00	Start 6106.93 hold at 447.92 MD	
6,554.85	6,502.77	-72.46	-803.33	Start Drop -3.00	
6,802.77	6,750.00	-73.90	-819.34	Start 2251.00 hold at 6802.77 MD	
9,053.77	9,001.00	-73.90	-819.34	TD at 9053.77	