

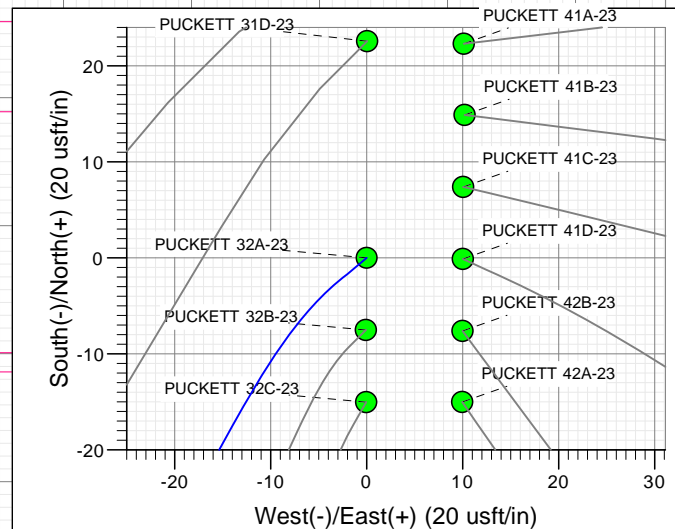
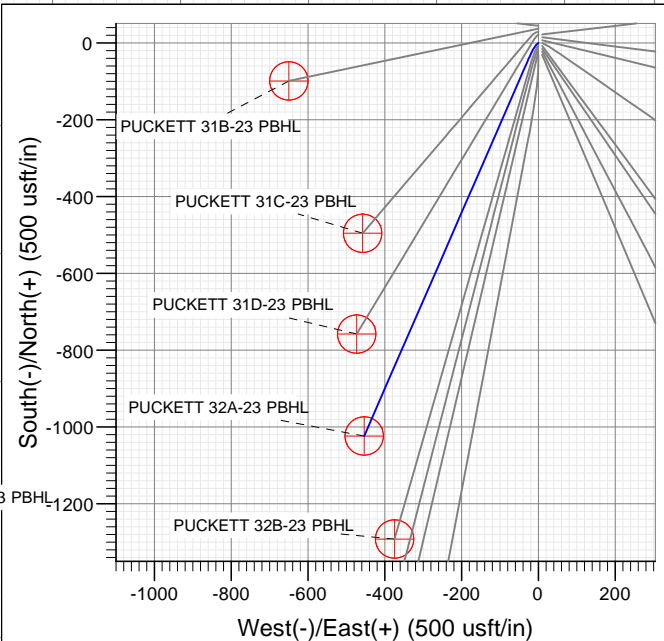
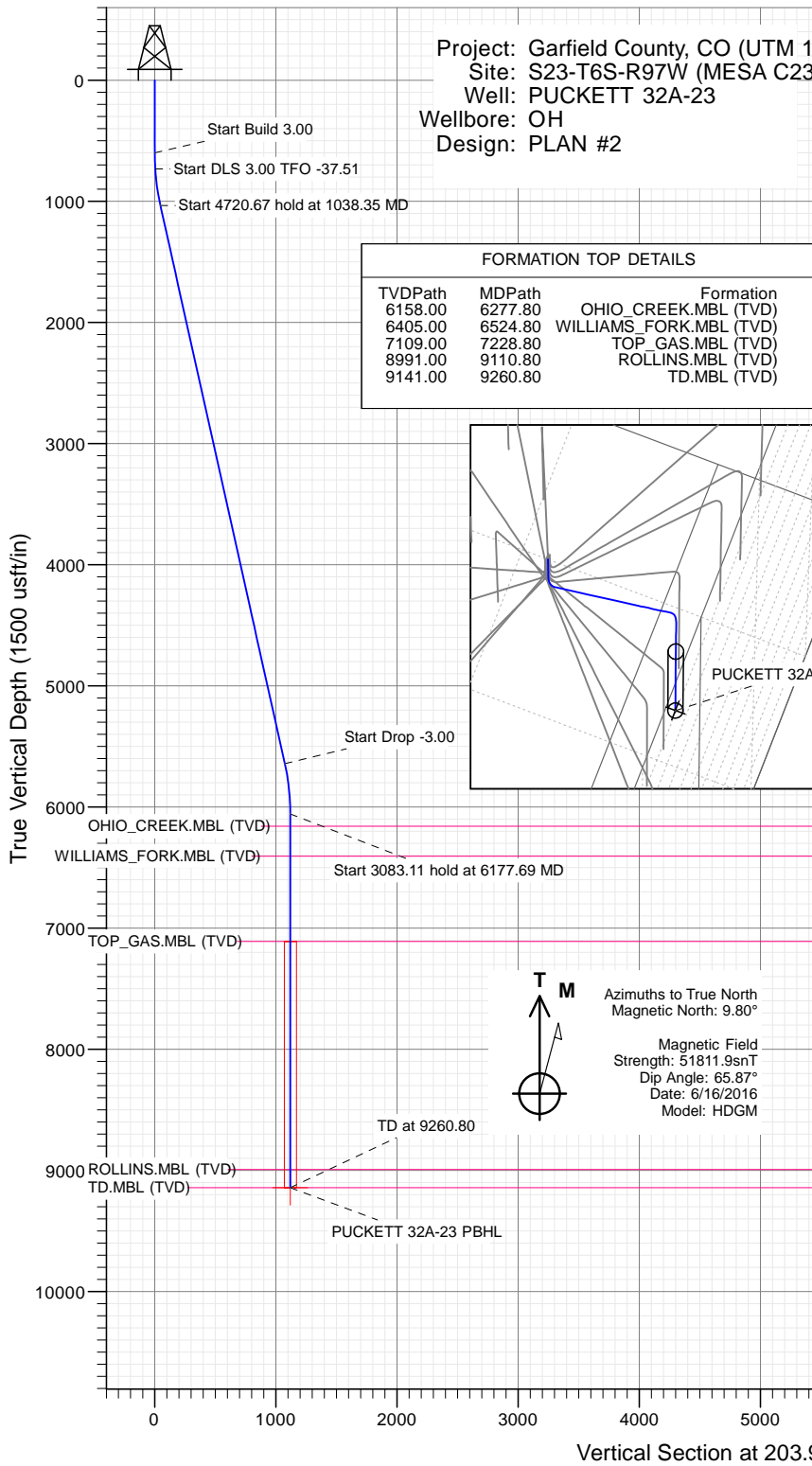


SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	
3	733.33	4.00	230.00	733.23	-2.99	-3.56	3.00	230.00	4.18	
4	1038.35	12.56	203.56	1034.86	-40.31	-25.02	3.00	-37.51	46.99	
5	5759.03	12.56	203.56	5642.57	-981.30	-435.33	0.00	0.00	1073.53	
6	6177.69	0.00	0.00	6057.89	-1023.20	-453.60	3.00	180.00	1119.24	
7	9260.80	0.00	0.00	9141.00	-1023.20	-453.60	0.00	0.00	1119.24	PUCKETT 32A-23 PBHL

Project: Garfield County, CO (UTM 1
Site: S23-T6S-R97W (MESA C23
Well: PUCKETT 32A-23
Wellbore: OH
Design: PLAN #2

Type	Target	Azimuth	Origin	Type	N/S	E/W	From
TD	No Target (Freehand)	203.91	Slot		0.00	0.00	0.00
Name		TVD	+N/-S	+E/-W	Latitude	Longitude	
PUCKETT 32A-23 PBHL		9141.00	-1023.20	-453.60	39.512156	-108.185519	



WELL DETAILS: PUCKETT 32A-23

+N/-S	+E/-W	Northing	Ground Level:	8532.00	Latitude	Longitude
0.00	0.00	14361859.29	Easting	2434698.37	39.514964	-108.183912

CATHEDRAL



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 32A-23
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8562.00usft (H&P 330)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8562.00usft (H&P 330)
Site:	S23-T6S-R97W (MESA C23)	North Reference:	True
Well:	PUCKETT 32A-23	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		S23-T6S-R97W (MESA C23)			
Site Position:		Northing:	14,361,896.90 usft	Latitude:	39.515068
From:	Map	Easting:	2,434,697.40 usft	Longitude:	-108.183912
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.79 °

Well	PUCKETT 32A-23					
Well Position	+N/-S	0.00 usft	Northing:	14,361,859.29 usft	Latitude:	39.514964
	+E/-W	0.00 usft	Easting:	2,434,698.37 usft	Longitude:	-108.183912
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	8,532.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM	6/16/2016	9.80	65.87	51,812

Design	PLAN #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	203.91

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	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
733.33	4.00	230.00	733.23	-2.99	-3.56	3.00	3.00	0.00	230.00	
1,038.35	12.56	203.56	1,034.86	-40.31	-25.02	3.00	2.81	-8.67	-37.51	
5,759.03	12.56	203.56	5,642.57	-981.30	-435.33	0.00	0.00	0.00	0.00	
6,177.69	0.00	0.00	6,057.89	-1,023.20	-453.60	3.00	-3.00	0.00	180.00	
9,260.80	0.00	0.00	9,141.00	-1,023.20	-453.60	0.00	0.00	0.00	0.00	PUCKETT 32A-23 PE

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 32A-23
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8562.00usft (H&P 330)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8562.00usft (H&P 330)
Site:	S23-T6S-R97W (MESA C23)	North Reference:	True
Well:	PUCKETT 32A-23	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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.00
700.00	3.00	230.00	699.95	-1.68	-2.01	2.35	3.00	3.00	
733.33	4.00	230.00	733.23	-2.99	-3.56	4.18	3.00	3.00	Start DLS 3.00 TFO -37.51
800.00	5.72	217.68	799.65	-7.11	-7.38	9.49	3.00	2.58	
900.00	8.53	209.03	898.87	-17.54	-14.02	21.72	3.00	2.81	
1,000.00	11.43	204.69	997.35	-33.03	-21.76	39.02	3.00	2.91	
1,038.35	12.56	203.56	1,034.86	-40.31	-25.02	46.99	3.00	2.94	Start 4720.67 hold at 1038.35 MD
1,100.00	12.56	203.56	1,095.04	-52.60	-30.37	60.39	0.00	0.00	
1,200.00	12.56	203.56	1,192.64	-72.53	-39.07	82.14	0.00	0.00	
1,300.00	12.56	203.56	1,290.25	-92.46	-47.76	103.89	0.00	0.00	
1,400.00	12.56	203.56	1,387.86	-112.40	-56.45	125.63	0.00	0.00	
1,500.00	12.56	203.56	1,485.46	-132.33	-65.14	147.38	0.00	0.00	
1,600.00	12.56	203.56	1,583.07	-152.26	-73.83	169.12	0.00	0.00	
1,700.00	12.56	203.56	1,680.68	-172.20	-82.53	190.87	0.00	0.00	
1,800.00	12.56	203.56	1,778.28	-192.13	-91.22	212.61	0.00	0.00	
1,900.00	12.56	203.56	1,875.89	-212.07	-99.91	234.36	0.00	0.00	
2,000.00	12.56	203.56	1,973.50	-232.00	-108.60	256.11	0.00	0.00	
2,100.00	12.56	203.56	2,071.11	-251.93	-117.29	277.85	0.00	0.00	
2,200.00	12.56	203.56	2,168.71	-271.87	-125.99	299.60	0.00	0.00	
2,300.00	12.56	203.56	2,266.32	-291.80	-134.68	321.34	0.00	0.00	
2,400.00	12.56	203.56	2,363.93	-311.73	-143.37	343.09	0.00	0.00	
2,500.00	12.56	203.56	2,461.53	-331.67	-152.06	364.83	0.00	0.00	
2,600.00	12.56	203.56	2,559.14	-351.60	-160.75	386.58	0.00	0.00	
2,700.00	12.56	203.56	2,656.75	-371.53	-169.45	408.33	0.00	0.00	
2,800.00	12.56	203.56	2,754.35	-391.47	-178.14	430.07	0.00	0.00	
2,900.00	12.56	203.56	2,851.96	-411.40	-186.83	451.82	0.00	0.00	
3,000.00	12.56	203.56	2,949.57	-431.33	-195.52	473.56	0.00	0.00	
3,100.00	12.56	203.56	3,047.17	-451.27	-204.21	495.31	0.00	0.00	
3,200.00	12.56	203.56	3,144.78	-471.20	-212.90	517.05	0.00	0.00	
3,300.00	12.56	203.56	3,242.39	-491.13	-221.60	538.80	0.00	0.00	
3,400.00	12.56	203.56	3,340.00	-511.07	-230.29	560.55	0.00	0.00	
3,500.00	12.56	203.56	3,437.60	-531.00	-238.98	582.29	0.00	0.00	
3,600.00	12.56	203.56	3,535.21	-550.93	-247.67	604.04	0.00	0.00	
3,700.00	12.56	203.56	3,632.82	-570.87	-256.36	625.78	0.00	0.00	
3,800.00	12.56	203.56	3,730.42	-590.80	-265.06	647.53	0.00	0.00	
3,900.00	12.56	203.56	3,828.03	-610.74	-273.75	669.27	0.00	0.00	
4,000.00	12.56	203.56	3,925.64	-630.67	-282.44	691.02	0.00	0.00	
4,100.00	12.56	203.56	4,023.24	-650.60	-291.13	712.77	0.00	0.00	
4,200.00	12.56	203.56	4,120.85	-670.54	-299.82	734.51	0.00	0.00	
4,300.00	12.56	203.56	4,218.46	-690.47	-308.52	756.26	0.00	0.00	
4,400.00	12.56	203.56	4,316.06	-710.40	-317.21	778.00	0.00	0.00	
4,500.00	12.56	203.56	4,413.67	-730.34	-325.90	799.75	0.00	0.00	
4,600.00	12.56	203.56	4,511.28	-750.27	-334.59	821.49	0.00	0.00	
4,700.00	12.56	203.56	4,608.88	-770.20	-343.28	843.24	0.00	0.00	
4,800.00	12.56	203.56	4,706.49	-790.14	-351.98	864.99	0.00	0.00	
4,900.00	12.56	203.56	4,804.10	-810.07	-360.67	886.73	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 32A-23
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8562.00usft (H&P 330)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8562.00usft (H&P 330)
Site:	S23-T6S-R97W (MESA C23)	North Reference:	True
Well:	PUCKETT 32A-23	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
5,000.00	12.56	203.56	4,901.71	-830.00	-369.36	908.48	0.00	0.00	
5,100.00	12.56	203.56	4,999.31	-849.94	-378.05	930.22	0.00	0.00	
5,200.00	12.56	203.56	5,096.92	-869.87	-386.74	951.97	0.00	0.00	
5,300.00	12.56	203.56	5,194.53	-889.80	-395.44	973.72	0.00	0.00	
5,400.00	12.56	203.56	5,292.13	-909.74	-404.13	995.46	0.00	0.00	
5,500.00	12.56	203.56	5,389.74	-929.67	-412.82	1,017.21	0.00	0.00	
5,600.00	12.56	203.56	5,487.35	-949.61	-421.51	1,038.95	0.00	0.00	
5,700.00	12.56	203.56	5,584.95	-969.54	-430.20	1,060.70	0.00	0.00	
5,759.03	12.56	203.56	5,642.57	-981.30	-435.33	1,073.53	0.00	0.00	Start Drop -3.00
5,800.00	11.33	203.56	5,682.65	-989.08	-438.72	1,082.01	3.00	-3.00	
5,900.00	8.33	203.56	5,781.17	-1,004.73	-445.55	1,099.09	3.00	-3.00	
6,000.00	5.33	203.56	5,880.45	-1,015.63	-450.30	1,110.98	3.00	-3.00	
6,100.00	2.33	203.56	5,980.22	-1,021.75	-452.97	1,117.66	3.00	-3.00	
6,177.69	0.00	0.00	6,057.89	-1,023.20	-453.60	1,119.24	3.00	-3.00	Start 3083.11 hold at 6177.69 MD
6,200.00	0.00	0.00	6,080.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
6,277.80	0.00	0.00	6,158.00	-1,023.20	-453.60	1,119.24	0.00	0.00	OHIO_CREEK.MBL (TVD)
6,300.00	0.00	0.00	6,180.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
6,400.00	0.00	0.00	6,280.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
6,500.00	0.00	0.00	6,380.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
6,524.80	0.00	0.00	6,405.00	-1,023.20	-453.60	1,119.24	0.00	0.00	WILLIAMS_FORK.MBL (TVD)
6,600.00	0.00	0.00	6,480.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
6,700.00	0.00	0.00	6,580.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
6,800.00	0.00	0.00	6,680.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
6,900.00	0.00	0.00	6,780.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
7,000.00	0.00	0.00	6,880.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
7,100.00	0.00	0.00	6,980.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
7,200.00	0.00	0.00	7,080.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
7,228.80	0.00	0.00	7,109.00	-1,023.20	-453.60	1,119.24	0.00	0.00	TOP_GAS.MBL (TVD)
7,300.00	0.00	0.00	7,180.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
7,400.00	0.00	0.00	7,280.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
7,500.00	0.00	0.00	7,380.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
7,600.00	0.00	0.00	7,480.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
7,700.00	0.00	0.00	7,580.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
7,800.00	0.00	0.00	7,680.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
7,900.00	0.00	0.00	7,780.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
8,000.00	0.00	0.00	7,880.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
8,100.00	0.00	0.00	7,980.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
8,200.00	0.00	0.00	8,080.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
8,300.00	0.00	0.00	8,180.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
8,400.00	0.00	0.00	8,280.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
8,500.00	0.00	0.00	8,380.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
8,600.00	0.00	0.00	8,480.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
8,700.00	0.00	0.00	8,580.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
8,800.00	0.00	0.00	8,680.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
8,900.00	0.00	0.00	8,780.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
9,000.00	0.00	0.00	8,880.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
9,100.00	0.00	0.00	8,980.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
9,110.80	0.00	0.00	8,991.00	-1,023.20	-453.60	1,119.24	0.00	0.00	ROLLINS.MBL (TVD)
9,200.00	0.00	0.00	9,080.20	-1,023.20	-453.60	1,119.24	0.00	0.00	
9,260.80	0.00	0.00	9,141.00	-1,023.20	-453.60	1,119.24	0.00	0.00	TD at 9260.80 - TD.MBL (TVD)

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 32A-23
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8562.00usft (H&P 330)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8562.00usft (H&P 330)
Site:	S23-T6S-R97W (MESA C23)	North Reference:	True
Well:	PUCKETT 32A-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
PUCKETT 32A-23 PBHL	0.00	0.00	9,141.00	-1,023.20	-453.60	14,360,822.40	2,434,277.00	39.512156	-108.185519
- plan hits target center									
- Circle (radius 50.00)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
6,277.80	6,158.00	OHIO_CREEK.MBL (TVD)				
6,524.80	6,405.00	WILLIAMS_FORK.MBL (TVD)				
7,228.80	7,109.00	TOP_GAS.MBL (TVD)				
9,110.80	8,991.00	ROLLINS.MBL (TVD)				
9,260.80	9,141.00	TD.MBL (TVD)				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
600.00	600.00	0.00	0.00	Start Build 3.00	
733.33	733.23	-2.99	-3.56	Start DLS 3.00 TFO -37.51	
1,038.35	1,034.86	-40.31	-25.02	Start 4720.67 hold at 1038.35 MD	
5,759.03	5,642.57	-981.30	-435.33	Start Drop -3.00	
6,177.69	6,057.89	-1,023.20	-453.60	Start 3083.11 hold at 6177.69 MD	
9,260.80	9,141.00	-1,023.20	-453.60	TD at 9260.80	