



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	150.0	0.00	0.00	150.0	0.0	0.0	0.00	0.00	0.0	
3	283.3	4.00	250.00	283.2	-1.6	-4.4	3.00	250.00	3.5	
4	452.5	4.95	207.18	451.9	-10.1	-13.3	2.00	-96.14	15.1	
5	6230.5	4.95	207.18	6208.3	-453.9	-241.2	0.00	0.00	514.0	
6	6478.1	0.00	0.00	6455.7	-463.4	-246.1	2.00	180.00	524.7	
7	9015.5	0.00	0.00	8993.0	-463.4	-246.1	0.00	0.00	524.7	PUCKETT 13A-25 PBHL

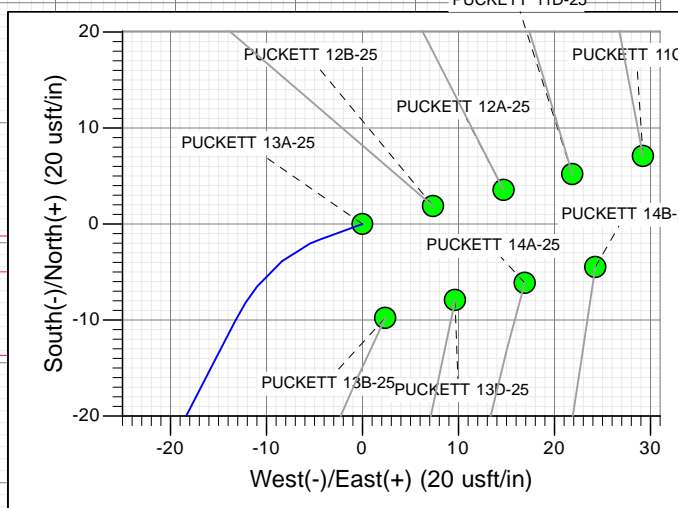
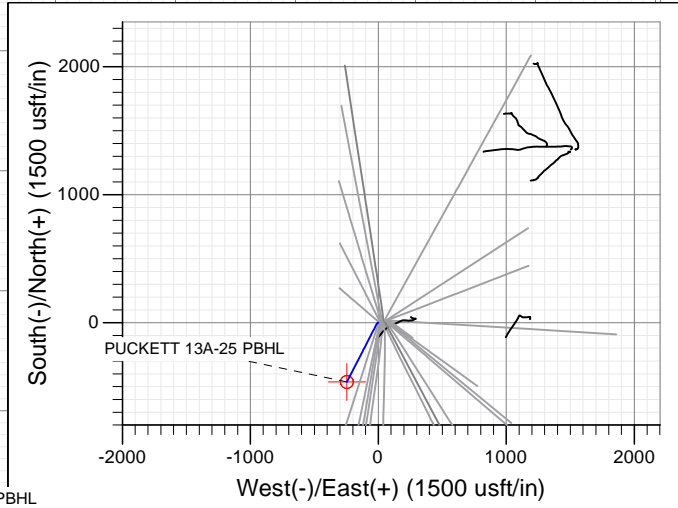
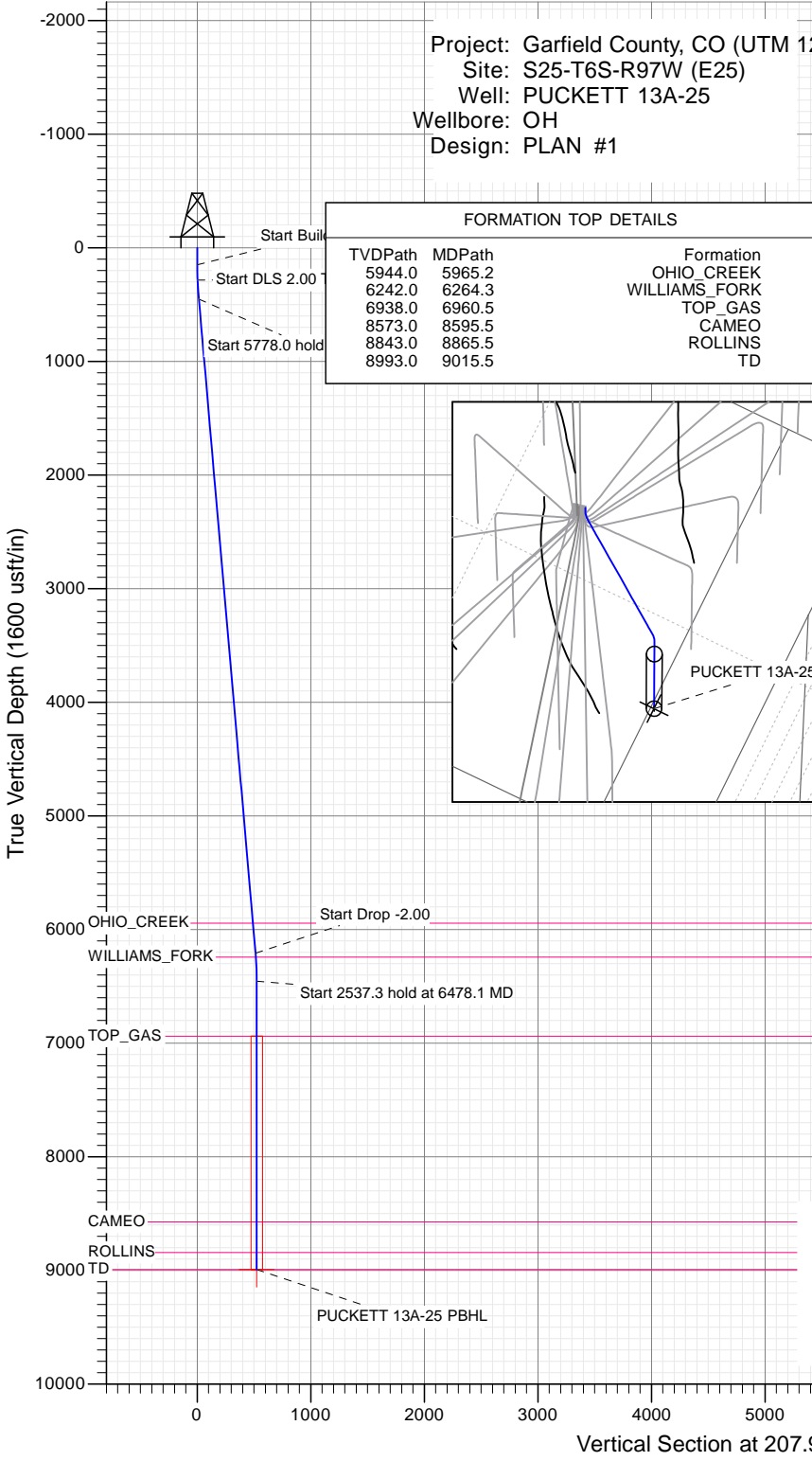
Project: Garfield County, CO (UTM 12
 Site: S25-T6S-R97W (E25)
 Well: PUCKETT 13A-25
 Wellbore: OH
 Design: PLAN #1

PLAN #1
 PUCKETT 13A-25
 15XXX LR
 30 KB @ 8406.0usft
 Ground Level @ 8376.0
 NAD 1927 - Western US
 Well PUCKETT 13A-25, True North

Type	Target	TD	Target No Target (Freehand)	Azimuth	Origin Type	N/S	E/W	From TVD
Name	TVD	+N/-S	+E/-W	Latitude	Longitude			
PUCKETT 13A-25 PBHL	8993.0	-463.4	-246.1	39.493903	-108.176537			

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
5944.0	5965.2	OHIO_CREEK
6242.0	6264.3	WILLIAMS_FORK
6938.0	6960.5	TOP_GAS
8573.0	8595.5	CAMEO
8843.0	8865.5	ROLLINS
8993.0	9015.5	TD



T M

Azimuths to True North
 Magnetic North: 9.82°

Magnetic Field
 Strength: 51888.5snT
 Dip Angle: 65.85°
 Date: 1/7/2016
 Model: HDGM

CASING DETAILS
 No casing data is available



WELL DETAILS: PUCKETT 13A-25

		Ground Level: 8376.0			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	14354725.10	2437251.00	39.495175	-108.175665



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 13A-25
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8406.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8406.0usft
Site:	S25-T6S-R97W (E25)	North Reference:	True
Well:	PUCKETT 13A-25	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

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 S25-T6S-R97W (E25)			
Site Position:		Northing:	14,354,735.00 usft
From:	Map	Easting:	2,437,287.30 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	39.495199
		Longitude:	-108.175536
		Grid Convergence:	1.80 °

Well PUCKETT 13A-25			
Well Position	+N/-S	0.0 usft	Northing: 14,354,725.10 usft
	+E/-W	0.0 usft	Easting: 2,437,251.00 usft
Position Uncertainty		0.0 usft	Wellhead Elevation: 0.0 usft
			Latitude: 39.495175
			Longitude: -108.175665
			Ground Level: 8,376.0 usft

Wellbore OH					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	1/7/2016	9.82	65.85	51,889

Design PLAN #1				
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	207.97

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	
150.0	0.00	0.00	150.0	0.0	0.0	0.00	0.00	0.00	0.00	
283.3	4.00	250.00	283.2	-1.6	-4.4	3.00	3.00	0.00	250.00	
452.5	4.95	207.18	451.9	-10.1	-13.3	2.00	0.56	-25.31	-96.14	
6,230.5	4.95	207.18	6,208.3	-453.9	-241.2	0.00	0.00	0.00	0.00	
6,478.1	0.00	0.00	6,455.7	-463.4	-246.1	2.00	-2.00	0.00	180.00	
9,015.5	0.00	0.00	8,993.0	-463.4	-246.1	0.00	0.00	0.00	0.00	PUCKETT 13A-25 PE

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 13A-25
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8406.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8406.0usft
Site:	S25-T6S-R97W (E25)	North Reference:	True
Well:	PUCKETT 13A-25	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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	
150.0	0.00	0.00	150.0	0.0	0.0	0.0	0.00	0.00	Start Build 3.00
200.0	1.50	250.00	200.0	-0.2	-0.6	0.5	3.00	3.00	
283.3	4.00	250.00	283.2	-1.6	-4.4	3.5	3.00	3.00	Start DLS 2.00 TFO -96.14
300.0	3.98	245.22	299.9	-2.0	-5.4	4.3	2.00	-0.13	
400.0	4.41	218.23	399.6	-6.5	-11.0	10.9	2.00	0.43	
452.5	4.95	207.18	451.9	-10.1	-13.3	15.1	2.00	1.04	Start 5778.0 hold at 452.5 MD
500.0	4.95	207.18	499.2	-13.8	-15.1	19.2	0.00	0.00	
600.0	4.95	207.18	598.9	-21.4	-19.1	27.9	0.00	0.00	
700.0	4.95	207.18	698.5	-29.1	-23.0	36.5	0.00	0.00	
800.0	4.95	207.18	798.1	-36.8	-27.0	45.1	0.00	0.00	
900.0	4.95	207.18	897.7	-44.5	-30.9	53.8	0.00	0.00	
1,000.0	4.95	207.18	997.4	-52.2	-34.9	62.4	0.00	0.00	
1,100.0	4.95	207.18	1,097.0	-59.8	-38.8	71.0	0.00	0.00	
1,200.0	4.95	207.18	1,196.6	-67.5	-42.7	79.7	0.00	0.00	
1,300.0	4.95	207.18	1,296.3	-75.2	-46.7	88.3	0.00	0.00	
1,400.0	4.95	207.18	1,395.9	-82.9	-50.6	96.9	0.00	0.00	
1,500.0	4.95	207.18	1,495.5	-90.6	-54.6	105.6	0.00	0.00	
1,600.0	4.95	207.18	1,595.1	-98.2	-58.5	114.2	0.00	0.00	
1,700.0	4.95	207.18	1,694.8	-105.9	-62.5	122.8	0.00	0.00	
1,800.0	4.95	207.18	1,794.4	-113.6	-66.4	131.5	0.00	0.00	
1,900.0	4.95	207.18	1,894.0	-121.3	-70.4	140.1	0.00	0.00	
2,000.0	4.95	207.18	1,993.6	-129.0	-74.3	148.7	0.00	0.00	
2,100.0	4.95	207.18	2,093.3	-136.6	-78.2	157.4	0.00	0.00	
2,200.0	4.95	207.18	2,192.9	-144.3	-82.2	166.0	0.00	0.00	
2,300.0	4.95	207.18	2,292.5	-152.0	-86.1	174.6	0.00	0.00	
2,400.0	4.95	207.18	2,392.1	-159.7	-90.1	183.3	0.00	0.00	
2,500.0	4.95	207.18	2,491.8	-167.4	-94.0	191.9	0.00	0.00	
2,600.0	4.95	207.18	2,591.4	-175.0	-98.0	200.5	0.00	0.00	
2,700.0	4.95	207.18	2,691.0	-182.7	-101.9	209.2	0.00	0.00	
2,800.0	4.95	207.18	2,790.7	-190.4	-105.9	217.8	0.00	0.00	
2,900.0	4.95	207.18	2,890.3	-198.1	-109.8	226.4	0.00	0.00	
3,000.0	4.95	207.18	2,989.9	-205.8	-113.7	235.1	0.00	0.00	
3,100.0	4.95	207.18	3,089.5	-213.5	-117.7	243.7	0.00	0.00	
3,200.0	4.95	207.18	3,189.2	-221.1	-121.6	252.3	0.00	0.00	
3,300.0	4.95	207.18	3,288.8	-228.8	-125.6	261.0	0.00	0.00	
3,400.0	4.95	207.18	3,388.4	-236.5	-129.5	269.6	0.00	0.00	
3,500.0	4.95	207.18	3,488.0	-244.2	-133.5	278.2	0.00	0.00	
3,600.0	4.95	207.18	3,587.7	-251.9	-137.4	286.9	0.00	0.00	
3,700.0	4.95	207.18	3,687.3	-259.5	-141.4	295.5	0.00	0.00	
3,800.0	4.95	207.18	3,786.9	-267.2	-145.3	304.2	0.00	0.00	
3,900.0	4.95	207.18	3,886.5	-274.9	-149.2	312.8	0.00	0.00	
4,000.0	4.95	207.18	3,986.2	-282.6	-153.2	321.4	0.00	0.00	
4,100.0	4.95	207.18	4,085.8	-290.3	-157.1	330.1	0.00	0.00	
4,200.0	4.95	207.18	4,185.4	-297.9	-161.1	338.7	0.00	0.00	
4,300.0	4.95	207.18	4,285.1	-305.6	-165.0	347.3	0.00	0.00	
4,400.0	4.95	207.18	4,384.7	-313.3	-169.0	356.0	0.00	0.00	
4,500.0	4.95	207.18	4,484.3	-321.0	-172.9	364.6	0.00	0.00	
4,600.0	4.95	207.18	4,583.9	-328.7	-176.9	373.2	0.00	0.00	
4,700.0	4.95	207.18	4,683.6	-336.3	-180.8	381.9	0.00	0.00	
4,800.0	4.95	207.18	4,783.2	-344.0	-184.7	390.5	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 13A-25
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8406.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8406.0usft
Site:	S25-T6S-R97W (E25)	North Reference:	True
Well:	PUCKETT 13A-25	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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
4,900.0	4.95	207.18	4,882.8	-351.7	-188.7	399.1	0.00	0.00	
5,000.0	4.95	207.18	4,982.4	-359.4	-192.6	407.8	0.00	0.00	
5,100.0	4.95	207.18	5,082.1	-367.1	-196.6	416.4	0.00	0.00	
5,200.0	4.95	207.18	5,181.7	-374.7	-200.5	425.0	0.00	0.00	
5,300.0	4.95	207.18	5,281.3	-382.4	-204.5	433.7	0.00	0.00	
5,400.0	4.95	207.18	5,380.9	-390.1	-208.4	442.3	0.00	0.00	
5,500.0	4.95	207.18	5,480.6	-397.8	-212.4	450.9	0.00	0.00	
5,600.0	4.95	207.18	5,580.2	-405.5	-216.3	459.6	0.00	0.00	
5,700.0	4.95	207.18	5,679.8	-413.1	-220.2	468.2	0.00	0.00	
5,800.0	4.95	207.18	5,779.4	-420.8	-224.2	476.8	0.00	0.00	
5,900.0	4.95	207.18	5,879.1	-428.5	-228.1	485.5	0.00	0.00	
5,965.2	4.95	207.18	5,944.0	-433.5	-230.7	491.1	0.00	0.00	OHIO_CREEK
6,000.0	4.95	207.18	5,978.7	-436.2	-232.1	494.1	0.00	0.00	
6,100.0	4.95	207.18	6,078.3	-443.9	-236.0	502.7	0.00	0.00	
6,200.0	4.95	207.18	6,178.0	-451.6	-240.0	511.4	0.00	0.00	
6,230.5	4.95	207.18	6,208.3	-453.9	-241.2	514.0	0.00	0.00	Start Drop -2.00
6,264.3	4.28	207.18	6,242.0	-456.3	-242.4	516.7	2.00	-2.00	WILLIAMS_FORK
6,300.0	3.56	207.18	6,277.6	-458.5	-243.5	519.1	2.00	-2.00	
6,400.0	1.56	207.18	6,377.5	-462.5	-245.6	523.6	2.00	-2.00	
6,478.1	0.00	0.00	6,455.7	-463.4	-246.1	524.7	2.00	-2.00	Start 2537.3 hold at 6478.1 MD
6,500.0	0.00	0.00	6,477.5	-463.4	-246.1	524.7	0.00	0.00	
6,600.0	0.00	0.00	6,577.5	-463.4	-246.1	524.7	0.00	0.00	
6,700.0	0.00	0.00	6,677.5	-463.4	-246.1	524.7	0.00	0.00	
6,800.0	0.00	0.00	6,777.5	-463.4	-246.1	524.7	0.00	0.00	
6,900.0	0.00	0.00	6,877.5	-463.4	-246.1	524.7	0.00	0.00	
6,960.5	0.00	0.00	6,938.0	-463.4	-246.1	524.7	0.00	0.00	TOP_GAS
7,000.0	0.00	0.00	6,977.5	-463.4	-246.1	524.7	0.00	0.00	
7,100.0	0.00	0.00	7,077.5	-463.4	-246.1	524.7	0.00	0.00	
7,200.0	0.00	0.00	7,177.5	-463.4	-246.1	524.7	0.00	0.00	
7,300.0	0.00	0.00	7,277.5	-463.4	-246.1	524.7	0.00	0.00	
7,400.0	0.00	0.00	7,377.5	-463.4	-246.1	524.7	0.00	0.00	
7,500.0	0.00	0.00	7,477.5	-463.4	-246.1	524.7	0.00	0.00	
7,600.0	0.00	0.00	7,577.5	-463.4	-246.1	524.7	0.00	0.00	
7,700.0	0.00	0.00	7,677.5	-463.4	-246.1	524.7	0.00	0.00	
7,800.0	0.00	0.00	7,777.5	-463.4	-246.1	524.7	0.00	0.00	
7,900.0	0.00	0.00	7,877.5	-463.4	-246.1	524.7	0.00	0.00	
8,000.0	0.00	0.00	7,977.5	-463.4	-246.1	524.7	0.00	0.00	
8,100.0	0.00	0.00	8,077.5	-463.4	-246.1	524.7	0.00	0.00	
8,200.0	0.00	0.00	8,177.5	-463.4	-246.1	524.7	0.00	0.00	
8,300.0	0.00	0.00	8,277.5	-463.4	-246.1	524.7	0.00	0.00	
8,400.0	0.00	0.00	8,377.5	-463.4	-246.1	524.7	0.00	0.00	
8,500.0	0.00	0.00	8,477.5	-463.4	-246.1	524.7	0.00	0.00	
8,595.5	0.00	0.00	8,573.0	-463.4	-246.1	524.7	0.00	0.00	CAMEO
8,600.0	0.00	0.00	8,577.5	-463.4	-246.1	524.7	0.00	0.00	
8,700.0	0.00	0.00	8,677.5	-463.4	-246.1	524.7	0.00	0.00	
8,800.0	0.00	0.00	8,777.5	-463.4	-246.1	524.7	0.00	0.00	
8,865.5	0.00	0.00	8,843.0	-463.4	-246.1	524.7	0.00	0.00	ROLLINS
8,900.0	0.00	0.00	8,877.5	-463.4	-246.1	524.7	0.00	0.00	
9,000.0	0.00	0.00	8,977.5	-463.4	-246.1	524.7	0.00	0.00	
9,015.5	0.00	0.00	8,993.0	-463.4	-246.1	524.7	0.00	0.00	TD at 9015.5 - TD

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 13A-25
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8406.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8406.0usft
Site:	S25-T6S-R97W (E25)	North Reference:	True
Well:	PUCKETT 13A-25	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

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 13A-25 PBHL - plan hits target center - Circle (radius 50.0)	0.00	0.00	8,993.0	-463.4	-246.1	14,354,254.20	2,437,019.60	39.493903	-108.176537

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
5,965.2	5,944.0	OHIO_CREEK				
6,264.3	6,242.0	WILLIAMS_FORK				
6,960.5	6,938.0	TOP_GAS				
8,595.5	8,573.0	CAMEO				
8,865.5	8,843.0	ROLLINS				
9,015.5	8,993.0	TD				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(usft)	(usft)	+N/-S	+E/-W		
		(usft)	(usft)		
150.0	150.0	0.0	0.0	Start Build 3.00	
283.3	283.2	-1.6	-4.4	Start DLS 2.00 TFO -96.14	
452.5	451.9	-10.1	-13.3	Start 5778.0 hold at 452.5 MD	
6,230.5	6,208.3	-453.9	-241.2	Start Drop -2.00	
6,478.1	6,455.7	-463.4	-246.1	Start 2537.3 hold at 6478.1 MD	
9,015.5	8,993.0	-463.4	-246.1	TD at 9015.5	