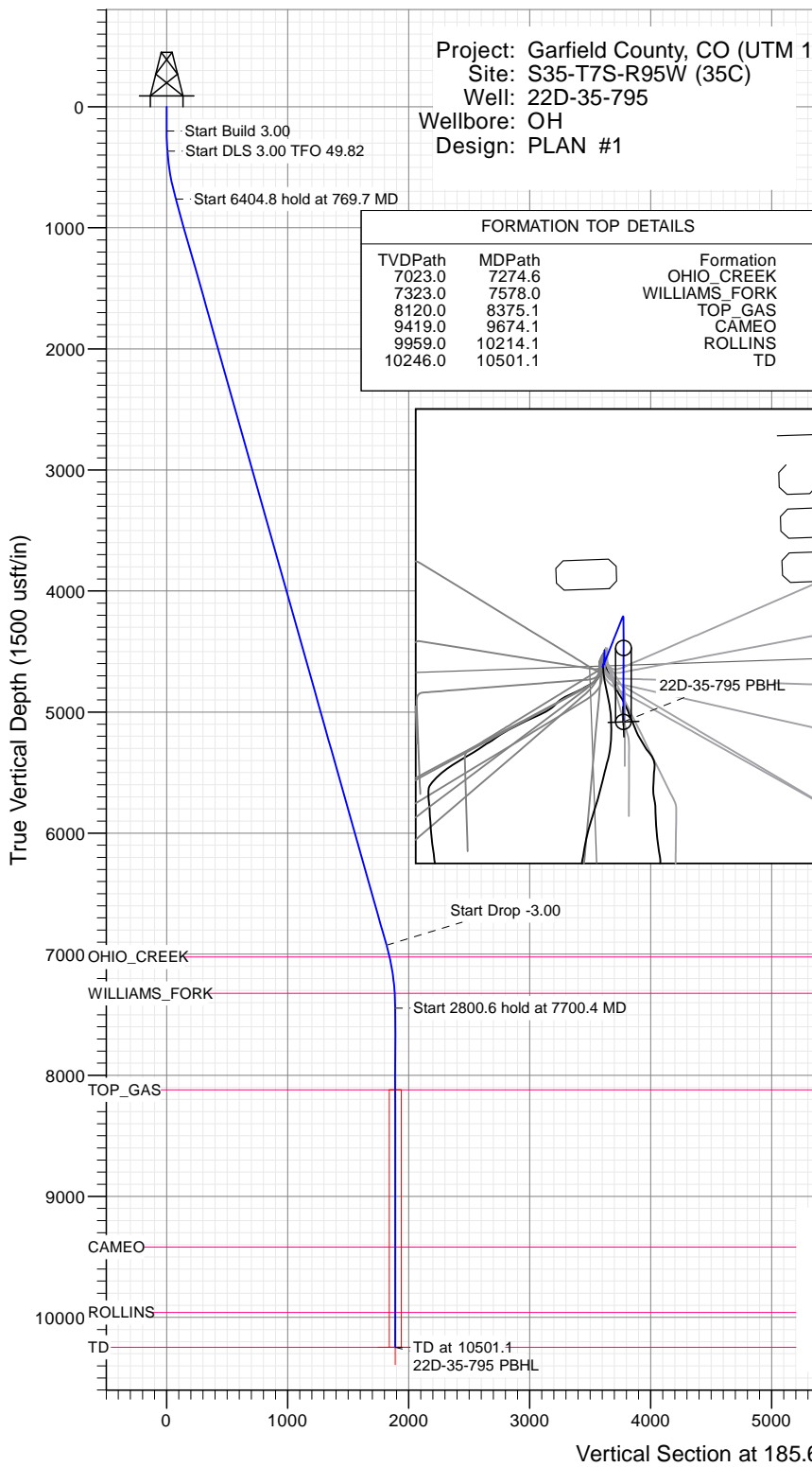




SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSection	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	150.00	366.5	-6.3	3.6	3.00	150.00	5.9	
4	769.7	15.78	186.05	762.6	-76.3	6.7	3.00	49.82	75.2	
5	7174.5	15.78	186.05	6926.0	-1808.2	-176.9	0.00	0.00	1816.8	
6	7700.4	0.00	0.00	7445.4	-1879.8	-184.5	3.00	180.00	1888.8	
7	10501.1	0.00	0.00	10246.0	-1879.8	-184.5	0.00	0.00	1888.8	22D-35-795 PBHL



PLAN #1

22D-35-795

185.61° LR

30' KB @ 9266.0usft

Ground Level @ 9236.0

NAD 1927 - Western US

Well 22D-35-795, True North

Type	Target	Azimuth	Origin Type	N/S	E/W	From TVD
	No Target (Freehand)	185.61	Slot	0.0	0.0	0.0

Name: 22D-35-795 PBHL

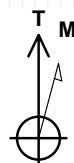
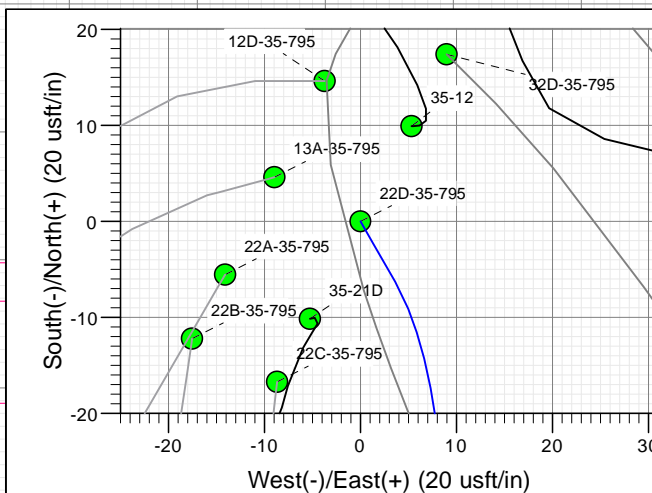
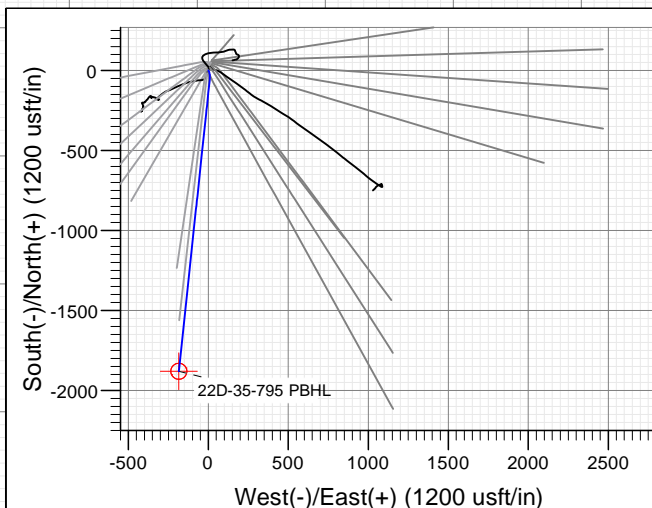
TVD: 10246.0

+N/-S: -1879.8

+E/-W: -184.5

Latitude: 39.393706

Longitude: -107.966613



Azimuths to True North
Magnetic North: 9.43°
Magnetic Field
Strength: 51875.1snT
Dip Angle: 65.62°
Date: 1/18/2016
Model: HDGM

CASING DETAILS

No casing data is available



WELL DETAILS: 22D-35-795

+N/-S: 0.0
+E/-W: 0.0
Northing: 14321574.90
Ground Level: 9236.0
Easting: 2497606.80
Latitude: 39.398865
Longitude: -107.965961



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well 22D-35-795
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 9266.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 9266.0usft
Site:	S35-T7S-R95W (35C)	North Reference:	True
Well:	22D-35-795	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		S35-T7S-R95W (35C)			
Site Position:		Northing:	14,321,562.10 usft	Latitude:	39.398831
From:	Map	Easting:	2,497,589.70 usft	Longitude:	-107.966023
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.93 °

Well	22D-35-795					
Well Position	+N/-S	0.0 usft	Northing:	14,321,574.90 usft	Latitude:	39.398865
	+E/-W	0.0 usft	Easting:	2,497,606.80 usft	Longitude:	-107.965961
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	9,236.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	1/18/2016	9.43	65.62	51,875

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	185.61	

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	
366.7	5.00	150.00	366.5	-6.3	3.6	3.00	3.00	0.00	150.00	
769.7	15.78	186.05	762.6	-76.3	6.7	3.00	2.67	8.94	49.82	
7,174.5	15.78	186.05	6,926.0	-1,808.2	-176.9	0.00	0.00	0.00	0.00	
7,700.4	0.00	0.00	7,445.4	-1,879.8	-184.5	3.00	-3.00	0.00	180.00	
10,501.1	0.00	0.00	10,246.0	-1,879.8	-184.5	0.00	0.00	0.00	0.00	22D-35-795 PBHL

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well 22D-35-795
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 9266.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 9266.0usft
Site:	S35-T7S-R95W (35C)	North Reference:	True
Well:	22D-35-795	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	
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	150.00	300.0	-2.3	1.3	2.1	3.00	3.00	
366.7	5.00	150.00	366.5	-6.3	3.6	5.9	3.00	3.00	Start DLS 3.00 TFO 49.82
400.0	5.70	157.72	399.6	-9.1	5.0	8.6	3.00	2.09	
500.0	8.17	172.02	498.9	-20.7	7.9	19.8	3.00	2.48	
600.0	10.91	179.46	597.5	-37.2	8.9	36.2	3.00	2.74	
700.0	13.76	183.90	695.2	-58.6	8.2	57.5	3.00	2.85	
769.7	15.78	186.05	762.6	-76.3	6.7	75.2	3.00	2.90	Start 6404.8 hold at 769.7 MD
800.0	15.78	186.05	791.8	-84.5	5.8	83.5	0.00	0.00	
900.0	15.78	186.05	888.0	-111.5	2.9	110.7	0.00	0.00	
1,000.0	15.78	186.05	984.2	-138.5	0.0	137.9	0.00	0.00	
1,100.0	15.78	186.05	1,080.5	-165.6	-2.8	165.1	0.00	0.00	
1,200.0	15.78	186.05	1,176.7	-192.6	-5.7	192.3	0.00	0.00	
1,300.0	15.78	186.05	1,272.9	-219.7	-8.5	219.4	0.00	0.00	
1,400.0	15.78	186.05	1,369.1	-246.7	-11.4	246.6	0.00	0.00	
1,500.0	15.78	186.05	1,465.4	-273.7	-14.3	273.8	0.00	0.00	
1,600.0	15.78	186.05	1,561.6	-300.8	-17.1	301.0	0.00	0.00	
1,700.0	15.78	186.05	1,657.8	-327.8	-20.0	328.2	0.00	0.00	
1,800.0	15.78	186.05	1,754.1	-354.9	-22.9	355.4	0.00	0.00	
1,900.0	15.78	186.05	1,850.3	-381.9	-25.7	382.6	0.00	0.00	
2,000.0	15.78	186.05	1,946.5	-408.9	-28.6	409.8	0.00	0.00	
2,100.0	15.78	186.05	2,042.8	-436.0	-31.5	437.0	0.00	0.00	
2,200.0	15.78	186.05	2,139.0	-463.0	-34.3	464.2	0.00	0.00	
2,300.0	15.78	186.05	2,235.2	-490.1	-37.2	491.4	0.00	0.00	
2,400.0	15.78	186.05	2,331.5	-517.1	-40.1	518.6	0.00	0.00	
2,500.0	15.78	186.05	2,427.7	-544.2	-42.9	545.7	0.00	0.00	
2,600.0	15.78	186.05	2,523.9	-571.2	-45.8	572.9	0.00	0.00	
2,700.0	15.78	186.05	2,620.2	-598.2	-48.7	600.1	0.00	0.00	
2,800.0	15.78	186.05	2,716.4	-625.3	-51.5	627.3	0.00	0.00	
2,900.0	15.78	186.05	2,812.6	-652.3	-54.4	654.5	0.00	0.00	
3,000.0	15.78	186.05	2,908.9	-679.4	-57.3	681.7	0.00	0.00	
3,100.0	15.78	186.05	3,005.1	-706.4	-60.1	708.9	0.00	0.00	
3,200.0	15.78	186.05	3,101.3	-733.4	-63.0	736.1	0.00	0.00	
3,300.0	15.78	186.05	3,197.6	-760.5	-65.9	763.3	0.00	0.00	
3,400.0	15.78	186.05	3,293.8	-787.5	-68.7	790.5	0.00	0.00	
3,500.0	15.78	186.05	3,390.0	-814.6	-71.6	817.7	0.00	0.00	
3,600.0	15.78	186.05	3,486.2	-841.6	-74.5	844.9	0.00	0.00	
3,700.0	15.78	186.05	3,582.5	-868.7	-77.3	872.1	0.00	0.00	
3,800.0	15.78	186.05	3,678.7	-895.7	-80.2	899.2	0.00	0.00	
3,900.0	15.78	186.05	3,774.9	-922.7	-83.1	926.4	0.00	0.00	
4,000.0	15.78	186.05	3,871.2	-949.8	-85.9	953.6	0.00	0.00	
4,100.0	15.78	186.05	3,967.4	-976.8	-88.8	980.8	0.00	0.00	
4,200.0	15.78	186.05	4,063.6	-1,003.9	-91.7	1,008.0	0.00	0.00	
4,300.0	15.78	186.05	4,159.9	-1,030.9	-94.5	1,035.2	0.00	0.00	
4,400.0	15.78	186.05	4,256.1	-1,057.9	-97.4	1,062.4	0.00	0.00	
4,500.0	15.78	186.05	4,352.3	-1,085.0	-100.3	1,089.6	0.00	0.00	
4,600.0	15.78	186.05	4,448.6	-1,112.0	-103.1	1,116.8	0.00	0.00	
4,700.0	15.78	186.05	4,544.8	-1,139.1	-106.0	1,144.0	0.00	0.00	
4,800.0	15.78	186.05	4,641.0	-1,166.1	-108.9	1,171.2	0.00	0.00	
4,900.0	15.78	186.05	4,737.3	-1,193.1	-111.7	1,198.4	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well 22D-35-795
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 9266.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 9266.0usft
Site:	S35-T7S-R95W (35C)	North Reference:	True
Well:	22D-35-795	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
5,000.0	15.78	186.05	4,833.5	-1,220.2	-114.6	1,225.5	0.00	0.00	
5,100.0	15.78	186.05	4,929.7	-1,247.2	-117.5	1,252.7	0.00	0.00	
5,200.0	15.78	186.05	5,026.0	-1,274.3	-120.3	1,279.9	0.00	0.00	
5,300.0	15.78	186.05	5,122.2	-1,301.3	-123.2	1,307.1	0.00	0.00	
5,400.0	15.78	186.05	5,218.4	-1,328.4	-126.1	1,334.3	0.00	0.00	
5,500.0	15.78	186.05	5,314.6	-1,355.4	-128.9	1,361.5	0.00	0.00	
5,600.0	15.78	186.05	5,410.9	-1,382.4	-131.8	1,388.7	0.00	0.00	
5,700.0	15.78	186.05	5,507.1	-1,409.5	-134.7	1,415.9	0.00	0.00	
5,800.0	15.78	186.05	5,603.3	-1,436.5	-137.5	1,443.1	0.00	0.00	
5,900.0	15.78	186.05	5,699.6	-1,463.6	-140.4	1,470.3	0.00	0.00	
6,000.0	15.78	186.05	5,795.8	-1,490.6	-143.3	1,497.5	0.00	0.00	
6,100.0	15.78	186.05	5,892.0	-1,517.6	-146.1	1,524.7	0.00	0.00	
6,200.0	15.78	186.05	5,988.3	-1,544.7	-149.0	1,551.9	0.00	0.00	
6,300.0	15.78	186.05	6,084.5	-1,571.7	-151.9	1,579.0	0.00	0.00	
6,400.0	15.78	186.05	6,180.7	-1,598.8	-154.7	1,606.2	0.00	0.00	
6,500.0	15.78	186.05	6,277.0	-1,625.8	-157.6	1,633.4	0.00	0.00	
6,600.0	15.78	186.05	6,373.2	-1,652.9	-160.5	1,660.6	0.00	0.00	
6,700.0	15.78	186.05	6,469.4	-1,679.9	-163.3	1,687.8	0.00	0.00	
6,800.0	15.78	186.05	6,565.7	-1,706.9	-166.2	1,715.0	0.00	0.00	
6,900.0	15.78	186.05	6,661.9	-1,734.0	-169.1	1,742.2	0.00	0.00	
7,000.0	15.78	186.05	6,758.1	-1,761.0	-171.9	1,769.4	0.00	0.00	
7,100.0	15.78	186.05	6,854.4	-1,788.1	-174.8	1,796.6	0.00	0.00	
7,174.5	15.78	186.05	6,926.0	-1,808.2	-176.9	1,816.8	0.00	0.00	Start Drop -3.00
7,200.0	15.01	186.05	6,950.6	-1,814.9	-177.6	1,823.6	3.00	-3.00	
7,274.6	12.78	186.05	7,023.0	-1,832.7	-179.5	1,841.5	3.00	-3.00	OHIO_CREEK
7,300.0	12.01	186.05	7,047.9	-1,838.2	-180.1	1,847.0	3.00	-3.00	
7,400.0	9.01	186.05	7,146.2	-1,856.3	-182.0	1,865.2	3.00	-3.00	
7,500.0	6.01	186.05	7,245.3	-1,869.3	-183.4	1,878.3	3.00	-3.00	
7,578.0	3.67	186.05	7,323.0	-1,875.9	-184.1	1,884.9	3.00	-3.00	WILLIAMS_FORK
7,600.0	3.01	186.05	7,345.0	-1,877.1	-184.2	1,886.2	3.00	-3.00	
7,700.0	0.01	186.05	7,444.9	-1,879.8	-184.5	1,888.8	3.00	-3.00	
7,700.4	0.00	0.00	7,445.4	-1,879.8	-184.5	1,888.8	3.00	-3.00	Start 2800.6 hold at 7700.4 MD
7,800.0	0.00	0.00	7,544.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
7,900.0	0.00	0.00	7,644.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
8,000.0	0.00	0.00	7,744.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
8,100.0	0.00	0.00	7,844.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
8,200.0	0.00	0.00	7,944.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
8,300.0	0.00	0.00	8,044.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
8,375.1	0.00	0.00	8,120.0	-1,879.8	-184.5	1,888.8	0.00	0.00	TOP_GAS
8,400.0	0.00	0.00	8,144.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
8,500.0	0.00	0.00	8,244.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
8,600.0	0.00	0.00	8,344.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
8,700.0	0.00	0.00	8,444.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
8,800.0	0.00	0.00	8,544.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
8,900.0	0.00	0.00	8,644.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
9,000.0	0.00	0.00	8,744.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
9,100.0	0.00	0.00	8,844.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
9,200.0	0.00	0.00	8,944.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
9,300.0	0.00	0.00	9,044.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
9,400.0	0.00	0.00	9,144.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
9,500.0	0.00	0.00	9,244.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
9,600.0	0.00	0.00	9,344.9	-1,879.8	-184.5	1,888.8	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well 22D-35-795
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 9266.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 9266.0usft
Site:	S35-T7S-R95W (35C)	North Reference:	True
Well:	22D-35-795	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
9,674.1	0.00	0.00	9,419.0	-1,879.8	-184.5	1,888.8	0.00	0.00	CAMEO
9,700.0	0.00	0.00	9,444.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
9,800.0	0.00	0.00	9,544.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
9,900.0	0.00	0.00	9,644.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
10,000.0	0.00	0.00	9,744.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
10,100.0	0.00	0.00	9,844.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
10,200.0	0.00	0.00	9,944.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
10,214.1	0.00	0.00	9,959.0	-1,879.8	-184.5	1,888.8	0.00	0.00	ROLLINS
10,300.0	0.00	0.00	10,044.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
10,400.0	0.00	0.00	10,144.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
10,500.0	0.00	0.00	10,244.9	-1,879.8	-184.5	1,888.8	0.00	0.00	
10,501.1	0.00	0.00	10,246.0	-1,879.8	-184.5	1,888.8	0.00	0.00	TD at 10501.1 - TD

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
22D-35-795 PBHL	0.00	0.00	10,246.0	-1,879.8	-184.5	14,319,690.00	2,497,485.60	39.393706	-107.966613
- hit/miss target									
- Shape									
- plan hits target center									
- Circle (radius 50.0)									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,274.6	7,023.0	OHIO_CREEK			
7,578.0	7,323.0	WILLIAMS_FORK			
8,375.1	8,120.0	TOP_GAS			
9,674.1	9,419.0	CAMEO		0.00	
10,214.1	9,959.0	ROLLINS			
10,501.1	10,246.0	TD			

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
366.7	366.5	-6.3	3.6	Start DLS 3.00 TFO 49.82
769.7	762.6	-76.3	6.7	Start 6404.8 hold at 769.7 MD
7,174.5	6,926.0	-1,808.2	-176.9	Start Drop -3.00
7,700.4	7,445.4	-1,879.8	-184.5	Start 2800.6 hold at 7700.4 MD
10,501.1	10,246.0	-1,879.8	-184.5	TD at 10501.1