



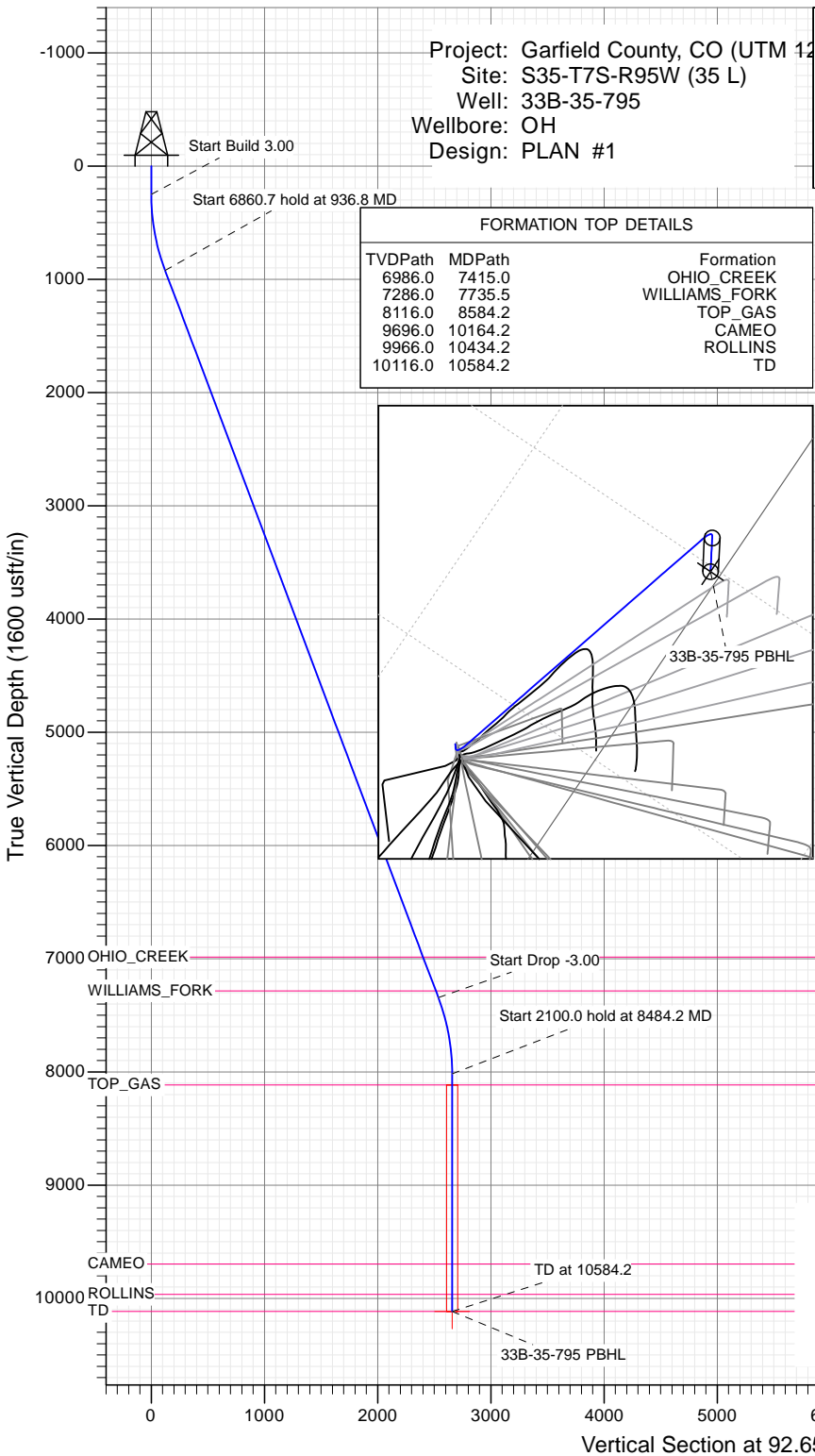
SECTION DETAILS

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	250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.0	
3	936.8	20.60	92.65	922.1	-5.6	122.0	3.00	92.65	122.2	
4	7797.4	20.60	92.65	7343.9	-117.2	2533.7	0.00	0.00	2536.4	
5	8484.2	0.00	0.00	8016.0	-122.8	2655.7	3.00	180.00	2658.5	
6	10584.2	0.00	0.00	10116.0	-122.8	2655.7	0.00	0.00	2658.5	33B-35-795 PBHL

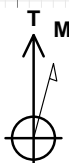
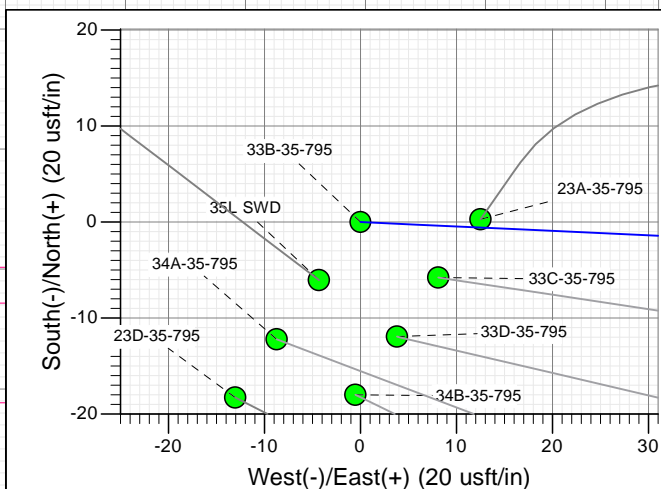
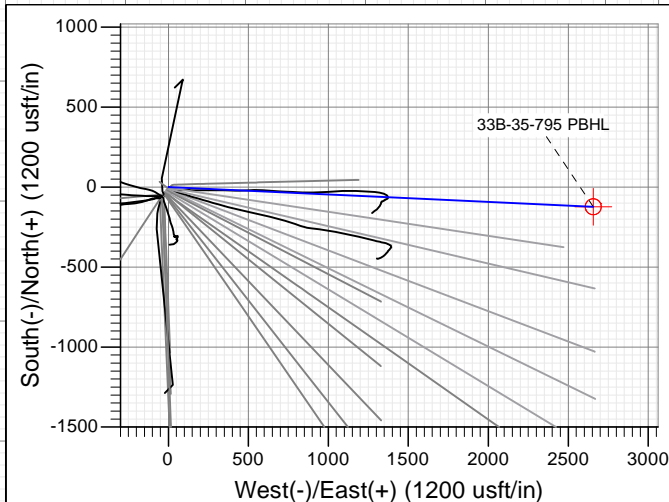
Project: Garfield County, CO (UTM 12
Site: S35-T7S-R95W (35 L)
Well: 33B-35-795
Wellbore: OH
Design: PLAN #1

FORMATION TOP DETAILS

TVDPATH	MDPATH	Formation
6986.0	7415.0	OHIO_CREEK
7286.0	7735.5	WILLIAMS_FORK
8116.0	8584.2	TOP_GAS
9696.0	10164.2	CAMEO
9966.0	10434.2	ROLLINS
10116.0	10584.2	TD



Name	Type	Target	No Target (Freehand)	Azimuth	Origin	Type	N/S	E/W	From	TVD	Latitude	Longitude
33B-35-795 PBHL	TD			92.65		Slot	0.0	0.0	0.0	10116.0	39.39237	-107.96186



Azimuths to True North
Magnetic North: 9.45°
Magnetic Field
Strength: 51888.8snT
Dip Angle: 65.60°
Date: 12/9/2015
Model: HDGM

CASING DETAILS

No casing data is available

WELL DETAILS: 33B-35-795

+N/-S	+E/-W	Northing	Ground Level:	Easting	Latitude	Longitude
0.0	0.0	14319233.60	9206.0	2496186.50	39.392574	-107.971259



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well 33B-35-795
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 9236.0usft (H&P 330)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 9236.0usft (H&P 330)
Site:	S35-T7S-R95W (35 L)	North Reference:	True
Well:	33B-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 (35 L)			
Site Position:		Northing:	14,319,233.60 usft	Latitude:	39.392574
From:	Map	Easting:	2,496,186.50 usft	Longitude:	-107.971259
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.92 °

Well	33B-35-795					
Well Position	+N/-S	0.0 usft	Northing:	14,319,233.60 usft	Latitude:	39.392574
	+E/-W	0.0 usft	Easting:	2,496,186.50 usft	Longitude:	-107.971259
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	9,206.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM	12/9/2015	9.45	65.60	51,889

Design	PLAN #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	92.65

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.00	0.00	
936.8	20.60	92.65	922.1	-5.6	122.0	3.00	3.00	0.00	92.65	
7,797.4	20.60	92.65	7,343.9	-117.2	2,533.7	0.00	0.00	0.00	0.00	
8,484.2	0.00	0.00	8,016.0	-122.8	2,655.7	3.00	-3.00	0.00	180.00	
10,584.2	0.00	0.00	10,116.0	-122.8	2,655.7	0.00	0.00	0.00	0.00	33B-35-795 PBHL

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well 33B-35-795
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 9236.0usft (H&P 330)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 9236.0usft (H&P 330)
Site:	S35-T7S-R95W (35 L)	North Reference:	True
Well:	33B-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	
250.0	0.00	0.00	250.0	0.0	0.0	0.0	0.00	0.00	Start Build 3.00
300.0	1.50	92.65	300.0	0.0	0.7	0.7	3.00	3.00	
400.0	4.50	92.65	399.8	-0.3	5.9	5.9	3.00	3.00	
500.0	7.50	92.65	499.3	-0.8	16.3	16.3	3.00	3.00	
600.0	10.50	92.65	598.0	-1.5	31.9	32.0	3.00	3.00	
700.0	13.50	92.65	695.8	-2.4	52.7	52.8	3.00	3.00	
800.0	16.50	92.65	792.4	-3.6	78.6	78.6	3.00	3.00	
900.0	19.50	92.65	887.5	-5.1	109.4	109.5	3.00	3.00	
936.8	20.60	92.65	922.1	-5.6	122.0	122.2	3.00	3.00	Start 6860.7 hold at 936.8 MD
1,000.0	20.60	92.65	981.3	-6.7	144.2	144.4	0.00	0.00	
1,100.0	20.60	92.65	1,074.9	-8.3	179.4	179.6	0.00	0.00	
1,200.0	20.60	92.65	1,168.5	-9.9	214.6	214.8	0.00	0.00	
1,300.0	20.60	92.65	1,262.1	-11.5	249.7	250.0	0.00	0.00	
1,400.0	20.60	92.65	1,355.7	-13.2	284.9	285.2	0.00	0.00	
1,500.0	20.60	92.65	1,449.3	-14.8	320.0	320.3	0.00	0.00	
1,600.0	20.60	92.65	1,542.9	-16.4	355.2	355.5	0.00	0.00	
1,700.0	20.60	92.65	1,636.5	-18.0	390.3	390.7	0.00	0.00	
1,800.0	20.60	92.65	1,730.1	-19.7	425.5	425.9	0.00	0.00	
1,900.0	20.60	92.65	1,823.7	-21.3	460.6	461.1	0.00	0.00	
2,000.0	20.60	92.65	1,917.3	-22.9	495.8	496.3	0.00	0.00	
2,100.0	20.60	92.65	2,010.9	-24.5	530.9	531.5	0.00	0.00	
2,200.0	20.60	92.65	2,104.5	-26.2	566.1	566.7	0.00	0.00	
2,300.0	20.60	92.65	2,198.1	-27.8	601.2	601.9	0.00	0.00	
2,400.0	20.60	92.65	2,291.7	-29.4	636.4	637.1	0.00	0.00	
2,500.0	20.60	92.65	2,385.3	-31.1	671.5	672.2	0.00	0.00	
2,600.0	20.60	92.65	2,478.9	-32.7	706.7	707.4	0.00	0.00	
2,700.0	20.60	92.65	2,572.5	-34.3	741.8	742.6	0.00	0.00	
2,800.0	20.60	92.65	2,666.1	-35.9	777.0	777.8	0.00	0.00	
2,900.0	20.60	92.65	2,759.7	-37.6	812.1	813.0	0.00	0.00	
3,000.0	20.60	92.65	2,853.3	-39.2	847.3	848.2	0.00	0.00	
3,100.0	20.60	92.65	2,946.9	-40.8	882.4	883.4	0.00	0.00	
3,200.0	20.60	92.65	3,040.5	-42.4	917.6	918.6	0.00	0.00	
3,300.0	20.60	92.65	3,134.1	-44.1	952.7	953.8	0.00	0.00	
3,400.0	20.60	92.65	3,227.7	-45.7	987.9	988.9	0.00	0.00	
3,500.0	20.60	92.65	3,321.4	-47.3	1,023.0	1,024.1	0.00	0.00	
3,600.0	20.60	92.65	3,415.0	-48.9	1,058.2	1,059.3	0.00	0.00	
3,700.0	20.60	92.65	3,508.6	-50.6	1,093.3	1,094.5	0.00	0.00	
3,800.0	20.60	92.65	3,602.2	-52.2	1,128.5	1,129.7	0.00	0.00	
3,900.0	20.60	92.65	3,695.8	-53.8	1,163.6	1,164.9	0.00	0.00	
4,000.0	20.60	92.65	3,789.4	-55.4	1,198.8	1,200.1	0.00	0.00	
4,100.0	20.60	92.65	3,883.0	-57.1	1,233.9	1,235.3	0.00	0.00	
4,200.0	20.60	92.65	3,976.6	-58.7	1,269.1	1,270.5	0.00	0.00	
4,300.0	20.60	92.65	4,070.2	-60.3	1,304.2	1,305.6	0.00	0.00	
4,400.0	20.60	92.65	4,163.8	-61.9	1,339.4	1,340.8	0.00	0.00	
4,500.0	20.60	92.65	4,257.4	-63.6	1,374.6	1,376.0	0.00	0.00	
4,600.0	20.60	92.65	4,351.0	-65.2	1,409.7	1,411.2	0.00	0.00	
4,700.0	20.60	92.65	4,444.6	-66.8	1,444.9	1,446.4	0.00	0.00	
4,800.0	20.60	92.65	4,538.2	-68.4	1,480.0	1,481.6	0.00	0.00	
4,900.0	20.60	92.65	4,631.8	-70.1	1,515.2	1,516.8	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well 33B-35-795
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 9236.0usft (H&P 330)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 9236.0usft (H&P 330)
Site:	S35-T7S-R95W (35 L)	North Reference:	True
Well:	33B-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	20.60	92.65	4,725.4	-71.7	1,550.3	1,552.0	0.00	0.00	
5,100.0	20.60	92.65	4,819.0	-73.3	1,585.5	1,587.2	0.00	0.00	
5,200.0	20.60	92.65	4,912.6	-74.9	1,620.6	1,622.3	0.00	0.00	
5,300.0	20.60	92.65	5,006.2	-76.6	1,655.8	1,657.5	0.00	0.00	
5,400.0	20.60	92.65	5,099.8	-78.2	1,690.9	1,692.7	0.00	0.00	
5,500.0	20.60	92.65	5,193.4	-79.8	1,726.1	1,727.9	0.00	0.00	
5,600.0	20.60	92.65	5,287.0	-81.4	1,761.2	1,763.1	0.00	0.00	
5,700.0	20.60	92.65	5,380.6	-83.1	1,796.4	1,798.3	0.00	0.00	
5,800.0	20.60	92.65	5,474.2	-84.7	1,831.5	1,833.5	0.00	0.00	
5,900.0	20.60	92.65	5,567.9	-86.3	1,866.7	1,868.7	0.00	0.00	
6,000.0	20.60	92.65	5,661.5	-87.9	1,901.8	1,903.9	0.00	0.00	
6,100.0	20.60	92.65	5,755.1	-89.6	1,937.0	1,939.0	0.00	0.00	
6,200.0	20.60	92.65	5,848.7	-91.2	1,972.1	1,974.2	0.00	0.00	
6,300.0	20.60	92.65	5,942.3	-92.8	2,007.3	2,009.4	0.00	0.00	
6,400.0	20.60	92.65	6,035.9	-94.4	2,042.4	2,044.6	0.00	0.00	
6,500.0	20.60	92.65	6,129.5	-96.1	2,077.6	2,079.8	0.00	0.00	
6,600.0	20.60	92.65	6,223.1	-97.7	2,112.7	2,115.0	0.00	0.00	
6,700.0	20.60	92.65	6,316.7	-99.3	2,147.9	2,150.2	0.00	0.00	
6,800.0	20.60	92.65	6,410.3	-100.9	2,183.0	2,185.4	0.00	0.00	
6,900.0	20.60	92.65	6,503.9	-102.6	2,218.2	2,220.6	0.00	0.00	
7,000.0	20.60	92.65	6,597.5	-104.2	2,253.3	2,255.7	0.00	0.00	
7,100.0	20.60	92.65	6,691.1	-105.8	2,288.5	2,290.9	0.00	0.00	
7,200.0	20.60	92.65	6,784.7	-107.4	2,323.6	2,326.1	0.00	0.00	
7,300.0	20.60	92.65	6,878.3	-109.1	2,358.8	2,361.3	0.00	0.00	
7,400.0	20.60	92.65	6,971.9	-110.7	2,393.9	2,396.5	0.00	0.00	
7,415.0	20.60	92.65	6,986.0	-110.9	2,399.2	2,401.8	0.00	0.00	OHIO_CREEK
7,500.0	20.60	92.65	7,065.5	-112.3	2,429.1	2,431.7	0.00	0.00	
7,600.0	20.60	92.65	7,159.1	-113.9	2,464.2	2,466.9	0.00	0.00	
7,700.0	20.60	92.65	7,252.7	-115.6	2,499.4	2,502.1	0.00	0.00	
7,735.5	20.60	92.65	7,286.0	-116.2	2,511.9	2,514.6	0.00	0.00	WILLIAMS_FORK
7,797.4	20.60	92.65	7,343.9	-117.2	2,533.7	2,536.4	0.00	0.00	Start Drop -3.00
7,800.0	20.53	92.65	7,346.3	-117.2	2,534.5	2,537.3	3.00	-3.00	
7,900.0	17.53	92.65	7,440.9	-118.7	2,567.1	2,569.9	3.00	-3.00	
8,000.0	14.53	92.65	7,537.0	-120.0	2,594.7	2,597.5	3.00	-3.00	
8,100.0	11.53	92.65	7,634.4	-121.0	2,617.2	2,620.0	3.00	-3.00	
8,200.0	8.53	92.65	7,732.8	-121.8	2,634.6	2,637.4	3.00	-3.00	
8,300.0	5.53	92.65	7,832.1	-122.4	2,646.8	2,649.6	3.00	-3.00	
8,400.0	2.53	92.65	7,931.8	-122.7	2,653.8	2,656.7	3.00	-3.00	
8,484.2	0.00	0.00	8,016.0	-122.8	2,655.7	2,658.5	3.00	-3.00	Start 2100.0 hold at 8484.2 MD
8,500.0	0.00	0.00	8,031.8	-122.8	2,655.7	2,658.5	0.00	0.00	
8,584.2	0.00	0.00	8,116.0	-122.8	2,655.7	2,658.5	0.00	0.00	TOP_GAS
8,600.0	0.00	0.00	8,131.8	-122.8	2,655.7	2,658.5	0.00	0.00	
8,700.0	0.00	0.00	8,231.8	-122.8	2,655.7	2,658.5	0.00	0.00	
8,800.0	0.00	0.00	8,331.8	-122.8	2,655.7	2,658.5	0.00	0.00	
8,900.0	0.00	0.00	8,431.8	-122.8	2,655.7	2,658.5	0.00	0.00	
9,000.0	0.00	0.00	8,531.8	-122.8	2,655.7	2,658.5	0.00	0.00	
9,100.0	0.00	0.00	8,631.8	-122.8	2,655.7	2,658.5	0.00	0.00	
9,200.0	0.00	0.00	8,731.8	-122.8	2,655.7	2,658.5	0.00	0.00	
9,300.0	0.00	0.00	8,831.8	-122.8	2,655.7	2,658.5	0.00	0.00	
9,400.0	0.00	0.00	8,931.8	-122.8	2,655.7	2,658.5	0.00	0.00	
9,500.0	0.00	0.00	9,031.8	-122.8	2,655.7	2,658.5	0.00	0.00	
9,600.0	0.00	0.00	9,131.8	-122.8	2,655.7	2,658.5	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well 33B-35-795
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 9236.0usft (H&P 330)
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 9236.0usft (H&P 330)
Site:	S35-T7S-R95W (35 L)	North Reference:	True
Well:	33B-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
9,700.0	0.00	0.00	9,231.8	-122.8	2,655.7	2,658.5	0.00	0.00	
9,800.0	0.00	0.00	9,331.8	-122.8	2,655.7	2,658.5	0.00	0.00	
9,900.0	0.00	0.00	9,431.8	-122.8	2,655.7	2,658.5	0.00	0.00	
10,000.0	0.00	0.00	9,531.8	-122.8	2,655.7	2,658.5	0.00	0.00	
10,100.0	0.00	0.00	9,631.8	-122.8	2,655.7	2,658.5	0.00	0.00	
10,164.2	0.00	0.00	9,696.0	-122.8	2,655.7	2,658.5	0.00	0.00	CAMEO
10,200.0	0.00	0.00	9,731.8	-122.8	2,655.7	2,658.5	0.00	0.00	
10,300.0	0.00	0.00	9,831.8	-122.8	2,655.7	2,658.5	0.00	0.00	
10,400.0	0.00	0.00	9,931.8	-122.8	2,655.7	2,658.5	0.00	0.00	
10,434.2	0.00	0.00	9,966.0	-122.8	2,655.7	2,658.5	0.00	0.00	ROLLINS
10,500.0	0.00	0.00	10,031.8	-122.8	2,655.7	2,658.5	0.00	0.00	
10,584.2	0.00	0.00	10,116.0	-122.8	2,655.7	2,658.5	0.00	0.00	TD at 10584.2 - TD

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
33B-35-795 PBHL	0.00	0.00	10,116.0	-122.8	2,655.7	14,319,200.00	2,498,844.80	39.392237	-107.961868
- hit/miss target									
- Shape									
- plan hits target center									
- Circle (radius 50.0)									

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,415.0	6,986.0	OHIO_CREEK			
7,735.5	7,286.0	WILLIAMS_FORK			
8,584.2	8,116.0	TOP_GAS			
10,164.2	9,696.0	CAMEO			
10,434.2	9,966.0	ROLLINS			
10,584.2	10,116.0	TD			

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
250.0	250.0	0.0	0.0	Start Build 3.00
936.8	922.1	-5.6	122.0	Start 6860.7 hold at 936.8 MD
7,797.4	7,343.9	-117.2	2,533.7	Start Drop -3.00
8,484.2	8,016.0	-122.8	2,655.7	Start 2100.0 hold at 8484.2 MD
10,584.2	10,116.0	-122.8	2,655.7	TD at 10584.2