

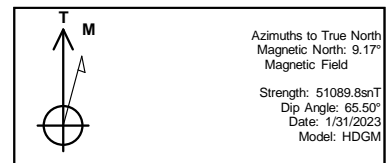


REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well WGV 412-27-697 - Slot WGV 412-27-697, True North
 Vertical (TVD) Reference: RKB @ 30' @ 8412.0ft
 Section (VS) Reference: Slot - WGV 412-27-697(0.0N, 0.0E)
 Measured Depth Reference: RKB @ 30' @ 8412.0ft
 Calculation Method: Minimum Curvature

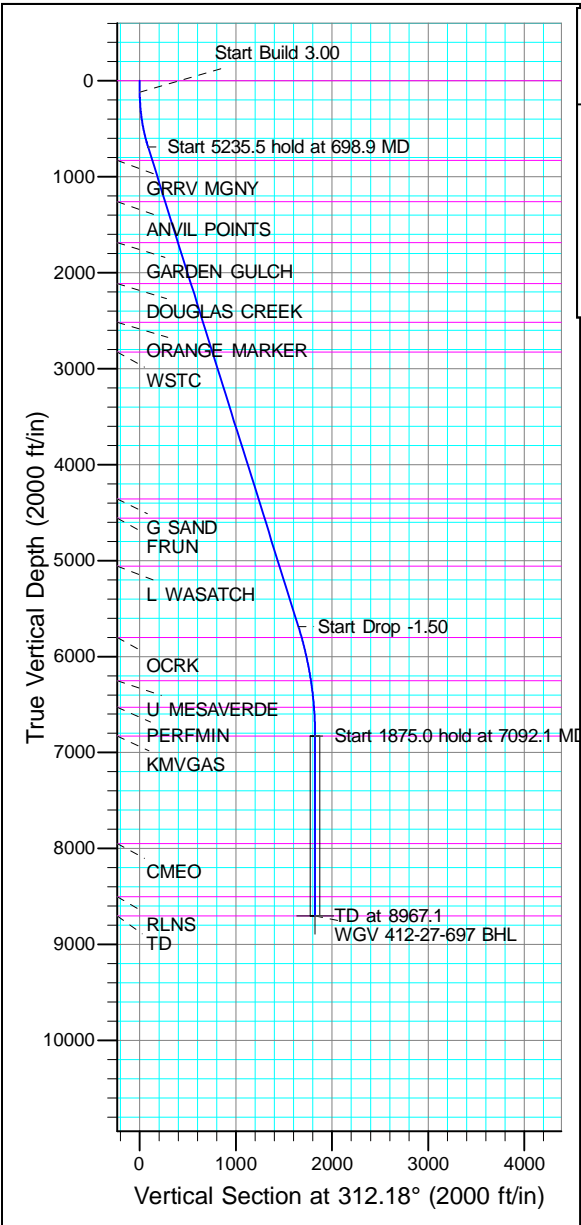


Project: Garfield County, CO (Nad 83)
 Site: Acro Deep 1-27
 Well: WGV 412-27-697
 Wellbore: OWB
 Design: Plan



WELL DETAILS: WGV 412-27-697

+N/-S	+E/-W	Northing	Ground Level:	8382.0	Longitude	SL
0/0	0.0	1615669.300	Easting	2235932.300	Latitude	39.492526
						-108.207802 WGV 412-27-697



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.00	0.0	
698.9	17.37	312.18	690.0	58.5	-64.5	3.00	312.18	87.1	Start Build 3.00
5934.4	17.37	312.18	5686.9	1107.8	-1222.5	0.00	0.00	1649.7	Start Drop -1.50
7092.1	0.00	0.00	6827.0	1224.7	-1351.5	1.50	180.00	1823.8	Start 1875.0 hold at 7092.1 MD
8967.1	0.00	0.00	8702.0	1224.7	-1351.5	0.00	0.00	1823.8	TD at 8967.1

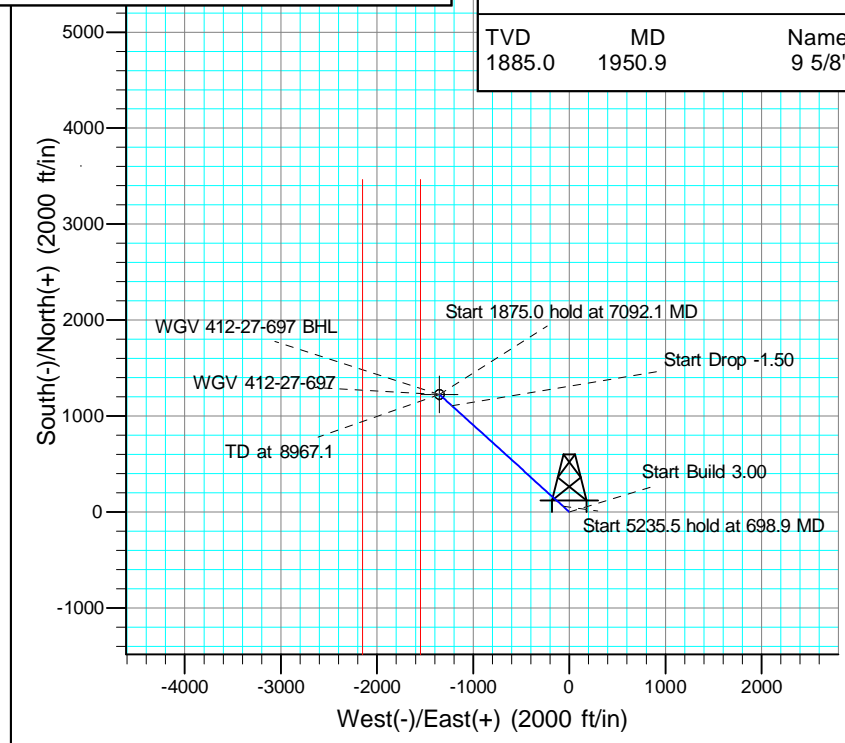
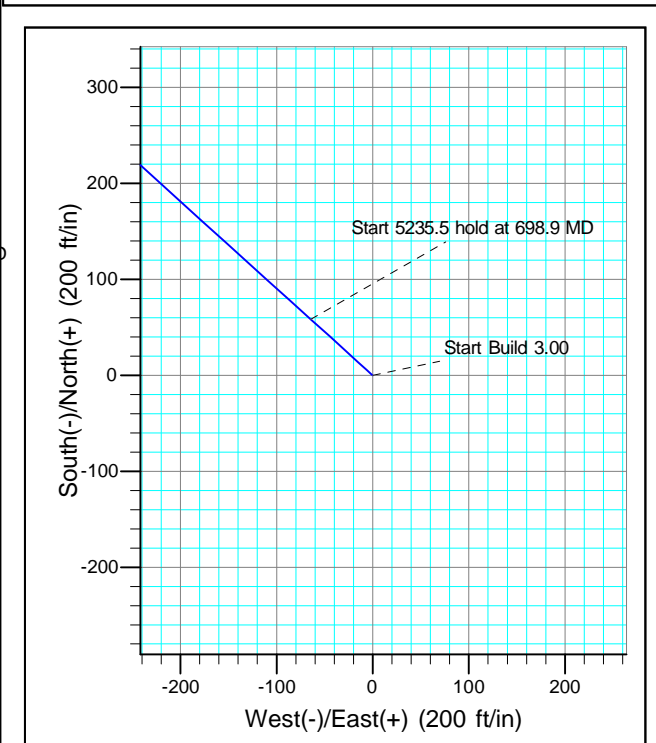
FORMATION TOP DETAILS

VDPPath	MDPath	Formation
0.0	0.0	GRRV
829.0	844.5	GRRV MGNV
1257.0	1292.9	ANVIL POINTS
1685.0	1741.3	GARDEN GULCH
2113.0	2189.8	DOUGLAS CREEK
2517.0	2613.1	ORANGE MARKER
2827.0	2937.9	WSTC
4357.0	4541.0	G SAND
4557.0	4750.5	FRUN
5057.0	5274.4	L WASATCH
5802.0	6054.4	OCRK
6252.0	6514.9	U MESAVERDE
6527.0	6791.8	PERFMIN
6827.0	7092.1	KMV GAS
7947.0	8212.1	CMEC
8502.0	8767.1	RLNS
8702.0	8967.1	TD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BHL	8702.0	1224.7	-1351.5	1616933.700	2234617.900	39.495888	-108.212592	Circle (Radius: 50.0)

- plan hits target center



CASING DETAILS

TVD	MD	Name
1885.0	1950.9	9 5/8"



Terra Energy Partners, LLP

Garfield County, CO (Nad 83)

Acro Deep 1-27

WGV 412-27-697 - Slot WGV 412-27-697

OWB

Plan: Plan

Standard Planning Report

07 March, 2023



Database:	NN	Local Co-ordinate Reference:	Well WGV 412-27-697 - Slot WGV 412-27-697
Company:	Terra Energy Partners, LLP	TVD Reference:	RKB @ 30' @ 8412.0ft
Project:	Garfield County, CO (Nad 83)	MD Reference:	RKB @ 30' @ 8412.0ft
Site:	Acro Deep 1-27	North Reference:	True
Well:	WGV 412-27-697	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan		

Project	Garfield County, CO (Nad 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	Acro Deep 1-27				
Site Position:		Northing:	1,615,634.200 usft	Latitude:	39.492428
From:	Map	Easting:	2,235,915.800 usft	Longitude:	-108.207857
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.71 °

Well	WGV 412-27-697 - Slot WGV 412-27-697					
Well Position	+N/-S	35.6 ft	Northing:	1,615,669.300 usft	Latitude:	39.492526
	+E/-W	15.4 ft	Easting:	2,235,932.300 usft	Longitude:	-108.207803
Position Uncertainty		0.0 ft	Wellhead Elevation:	8,412.0 ft	Ground Level:	8,382.0 ft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	1/31/2023	9.17	65.50	51,090

Design	Plan			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	312.18

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	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	
120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.00	0.00	0.00	
698.9	17.37	312.18	690.0	58.5	-64.5	3.00	3.00	0.00	312.18	
5,934.4	17.37	312.18	5,686.9	1,107.8	-1,222.5	0.00	0.00	0.00	0.00	
7,092.1	0.00	0.00	6,827.0	1,224.7	-1,351.5	1.50	-1.50	0.00	180.00	
8,967.1	0.00	0.00	8,702.0	1,224.7	-1,351.5	0.00	0.00	0.00	0.00	WGV 412-27-697 BHI

Database:	NN	Local Co-ordinate Reference:	Well WGV 412-27-697 - Slot WGV 412-27-697
Company:	Terra Energy Partners, LLP	TVD Reference:	RKB @ 30' @ 8412.0ft
Project:	Garfield County, CO (Nad 83)	MD Reference:	RKB @ 30' @ 8412.0ft
Site:	Acro Deep 1-27	North Reference:	True
Well:	WGV 412-27-697	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00	
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00	
Start Build 3.00										
200.0	2.40	312.18	200.0	1.1	-1.2	1.7	3.00	3.00	0.00	
300.0	5.40	312.18	299.7	5.7	-6.3	8.5	3.00	3.00	0.00	
400.0	8.40	312.18	399.0	13.8	-15.2	20.5	3.00	3.00	0.00	
500.0	11.40	312.18	497.5	25.3	-27.9	37.7	3.00	3.00	0.00	
600.0	14.40	312.18	595.0	40.3	-44.5	60.0	3.00	3.00	0.00	
698.9	17.37	312.18	690.0	58.5	-64.5	87.1	3.00	3.00	0.00	
Start 5235.5 hold at 698.9 MD										
700.0	17.37	312.18	691.1	58.7	-64.8	87.4	0.00	0.00	0.00	
800.0	17.37	312.18	786.6	78.7	-86.9	117.2	0.00	0.00	0.00	
900.0	17.37	312.18	882.0	98.8	-109.0	147.1	0.00	0.00	0.00	
1,000.0	17.37	312.18	977.5	118.8	-131.1	176.9	0.00	0.00	0.00	
1,100.0	17.37	312.18	1,072.9	138.9	-153.2	206.8	0.00	0.00	0.00	
1,200.0	17.37	312.18	1,168.3	158.9	-175.3	236.6	0.00	0.00	0.00	
1,300.0	17.37	312.18	1,263.8	178.9	-197.5	266.5	0.00	0.00	0.00	
1,400.0	17.37	312.18	1,359.2	199.0	-219.6	296.3	0.00	0.00	0.00	
1,500.0	17.37	312.18	1,454.7	219.0	-241.7	326.2	0.00	0.00	0.00	
1,600.0	17.37	312.18	1,550.1	239.1	-263.8	356.0	0.00	0.00	0.00	
1,700.0	17.37	312.18	1,645.5	259.1	-285.9	385.9	0.00	0.00	0.00	
1,800.0	17.37	312.18	1,741.0	279.1	-308.1	415.7	0.00	0.00	0.00	
1,900.0	17.37	312.18	1,836.4	299.2	-330.2	445.6	0.00	0.00	0.00	
2,000.0	17.37	312.18	1,931.9	319.2	-352.3	475.4	0.00	0.00	0.00	
2,100.0	17.37	312.18	2,027.3	339.3	-374.4	505.3	0.00	0.00	0.00	
2,200.0	17.37	312.18	2,122.8	359.3	-396.5	535.1	0.00	0.00	0.00	
2,300.0	17.37	312.18	2,218.2	379.4	-418.6	565.0	0.00	0.00	0.00	
2,400.0	17.37	312.18	2,313.6	399.4	-440.8	594.8	0.00	0.00	0.00	
2,500.0	17.37	312.18	2,409.1	419.4	-462.9	624.6	0.00	0.00	0.00	
2,600.0	17.37	312.18	2,504.5	439.5	-485.0	654.5	0.00	0.00	0.00	
2,700.0	17.37	312.18	2,600.0	459.5	-507.1	684.3	0.00	0.00	0.00	
2,800.0	17.37	312.18	2,695.4	479.6	-529.2	714.2	0.00	0.00	0.00	
2,900.0	17.37	312.18	2,790.8	499.6	-551.3	744.0	0.00	0.00	0.00	
3,000.0	17.37	312.18	2,886.3	519.6	-573.5	773.9	0.00	0.00	0.00	
3,100.0	17.37	312.18	2,981.7	539.7	-595.6	803.7	0.00	0.00	0.00	
3,200.0	17.37	312.18	3,077.2	559.7	-617.7	833.6	0.00	0.00	0.00	
3,300.0	17.37	312.18	3,172.6	579.8	-639.8	863.4	0.00	0.00	0.00	
3,400.0	17.37	312.18	3,268.1	599.8	-661.9	893.3	0.00	0.00	0.00	
3,500.0	17.37	312.18	3,363.5	619.9	-684.1	923.1	0.00	0.00	0.00	
3,600.0	17.37	312.18	3,458.9	639.9	-706.2	953.0	0.00	0.00	0.00	
3,700.0	17.37	312.18	3,554.4	659.9	-728.3	982.8	0.00	0.00	0.00	
3,800.0	17.37	312.18	3,649.8	680.0	-750.4	1,012.7	0.00	0.00	0.00	
3,900.0	17.37	312.18	3,745.3	700.0	-772.5	1,042.5	0.00	0.00	0.00	
4,000.0	17.37	312.18	3,840.7	720.1	-794.6	1,072.4	0.00	0.00	0.00	
4,100.0	17.37	312.18	3,936.1	740.1	-816.8	1,102.2	0.00	0.00	0.00	
4,200.0	17.37	312.18	4,031.6	760.2	-838.9	1,132.1	0.00	0.00	0.00	
4,300.0	17.37	312.18	4,127.0	780.2	-861.0	1,161.9	0.00	0.00	0.00	
4,400.0	17.37	312.18	4,222.5	800.2	-883.1	1,191.7	0.00	0.00	0.00	
4,500.0	17.37	312.18	4,317.9	820.3	-905.2	1,221.6	0.00	0.00	0.00	
4,600.0	17.37	312.18	4,413.4	840.3	-927.3	1,251.4	0.00	0.00	0.00	
4,700.0	17.37	312.18	4,508.8	860.4	-949.5	1,281.3	0.00	0.00	0.00	
4,800.0	17.37	312.18	4,604.2	880.4	-971.6	1,311.1	0.00	0.00	0.00	

Database:	NN	Local Co-ordinate Reference:	Well WGV 412-27-697 - Slot WGV 412-27-697
Company:	Terra Energy Partners, LLP	TVD Reference:	RKB @ 30' @ 8412.0ft
Project:	Garfield County, CO (Nad 83)	MD Reference:	RKB @ 30' @ 8412.0ft
Site:	Acro Deep 1-27	North Reference:	True
Well:	WGV 412-27-697	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,900.0	17.37	312.18	4,699.7	900.4	-993.7	1,341.0	0.00	0.00	0.00	
5,000.0	17.37	312.18	4,795.1	920.5	-1,015.8	1,370.8	0.00	0.00	0.00	
5,100.0	17.37	312.18	4,890.6	940.5	-1,037.9	1,400.7	0.00	0.00	0.00	
5,200.0	17.37	312.18	4,986.0	960.6	-1,060.1	1,430.5	0.00	0.00	0.00	
5,300.0	17.37	312.18	5,081.4	980.6	-1,082.2	1,460.4	0.00	0.00	0.00	
5,400.0	17.37	312.18	5,176.9	1,000.7	-1,104.3	1,490.2	0.00	0.00	0.00	
5,500.0	17.37	312.18	5,272.3	1,020.7	-1,126.4	1,520.1	0.00	0.00	0.00	
5,600.0	17.37	312.18	5,367.8	1,040.7	-1,148.5	1,549.9	0.00	0.00	0.00	
5,700.0	17.37	312.18	5,463.2	1,060.8	-1,170.6	1,579.8	0.00	0.00	0.00	
5,800.0	17.37	312.18	5,558.7	1,080.8	-1,192.8	1,609.6	0.00	0.00	0.00	
5,900.0	17.37	312.18	5,654.1	1,100.9	-1,214.9	1,639.5	0.00	0.00	0.00	
5,934.4	17.37	312.18	5,686.9	1,107.8	-1,222.5	1,649.7	0.00	0.00	0.00	
Start Drop -1.50										
6,000.0	16.38	312.18	5,749.7	1,120.5	-1,236.6	1,668.8	1.50	-1.50	0.00	
6,100.0	14.88	312.18	5,846.0	1,138.6	-1,256.6	1,695.7	1.50	-1.50	0.00	
6,200.0	13.38	312.18	5,943.0	1,155.0	-1,274.7	1,720.1	1.50	-1.50	0.00	
6,300.0	11.88	312.18	6,040.6	1,169.7	-1,290.9	1,742.0	1.50	-1.50	0.00	
6,400.0	10.38	312.18	6,138.7	1,182.7	-1,305.2	1,761.3	1.50	-1.50	0.00	
6,500.0	8.88	312.18	6,237.3	1,193.9	-1,317.6	1,778.0	1.50	-1.50	0.00	
6,600.0	7.38	312.18	6,336.2	1,203.4	-1,328.0	1,792.2	1.50	-1.50	0.00	
6,700.0	5.88	312.18	6,435.6	1,211.2	-1,336.6	1,803.7	1.50	-1.50	0.00	
6,800.0	4.38	312.18	6,535.2	1,217.2	-1,343.2	1,812.7	1.50	-1.50	0.00	
6,900.0	2.88	312.18	6,635.0	1,221.4	-1,347.9	1,819.0	1.50	-1.50	0.00	
7,000.0	1.38	312.18	6,734.9	1,223.9	-1,350.7	1,822.7	1.50	-1.50	0.00	
7,092.1	0.00	0.00	6,827.0	1,224.7	-1,351.5	1,823.8	1.50	-1.50	0.00	
Start 1875.0 hold at 7092.1 MD										
7,100.0	0.00	0.00	6,834.9	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
7,200.0	0.00	0.00	6,934.9	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,034.9	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,134.9	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,234.9	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,334.9	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,434.9	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,534.9	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,634.9	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,734.9	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
8,100.0	0.00	0.00	7,834.9	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
8,200.0	0.00	0.00	7,934.9	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,034.9	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,134.9	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,234.9	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,334.9	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,434.9	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,534.9	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,634.9	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
8,967.1	0.00	0.00	8,702.0	1,224.7	-1,351.5	1,823.8	0.00	0.00	0.00	
TD at 8967.1										

Database:	NN	Local Co-ordinate Reference:	Well WGV 412-27-697 - Slot WGV 412-27-697
Company:	Terra Energy Partners, LLP	TVD Reference:	RKB @ 30' @ 8412.0ft
Project:	Garfield County, CO (Nad 83)	MD Reference:	RKB @ 30' @ 8412.0ft
Site:	Acro Deep 1-27	North Reference:	True
Well:	WGV 412-27-697	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
WGV 412-27-697 BHL - plan hits target center - Circle (radius 50.0)	0.00	0.00	8,702.0	1,224.7	-1,351.5	1,616,933.700	2,234,617.900	39.495888	-108.212592

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
1,950.9	1,885.0	9 5/8"	9-5/8	12-1/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
0.0	0.0	GRRV		0.00		
844.5	829.0	GRRV MGNV		0.00		
1,292.9	1,257.0	ANVIL POINTS		0.00		
1,741.3	1,685.0	GARDEN GULCH		0.00		
2,189.8	2,113.0	DOUGLAS CREEK		0.00		
2,613.1	2,517.0	ORANGE MARKER		0.00		
2,937.9	2,827.0	WSTC		0.00		
4,541.0	4,357.0	G SAND		0.00		
4,750.5	4,557.0	FRUN		0.00		
5,274.4	5,057.0	L WASATCH		0.00		
6,054.4	5,802.0	OCRK		0.00		
6,514.9	6,252.0	U MESAVERDE		0.00		
6,791.8	6,527.0	PERFMIN		0.00		
7,092.1	6,827.0	KMVGAS		0.00		
8,212.1	7,947.0	CMEO		0.00		
8,767.1	8,502.0	RLNS		0.00		
8,967.1	8,702.0	TD		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
120.0	120.0	0.0	0.0	Start Build 3.00	
698.9	690.0	58.5	-64.5	Start 5235.5 hold at 698.9 MD	
5,934.4	5,686.9	1,107.8	-1,222.5	Start Drop -1.50	
7,092.1	6,827.0	1,224.7	-1,351.5	Start 1875.0 hold at 7092.1 MD	
8,967.1	8,702.0	1,224.7	-1,351.5	TD at 8967.1	