

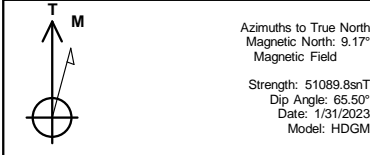


REFERENCE INFORMATION

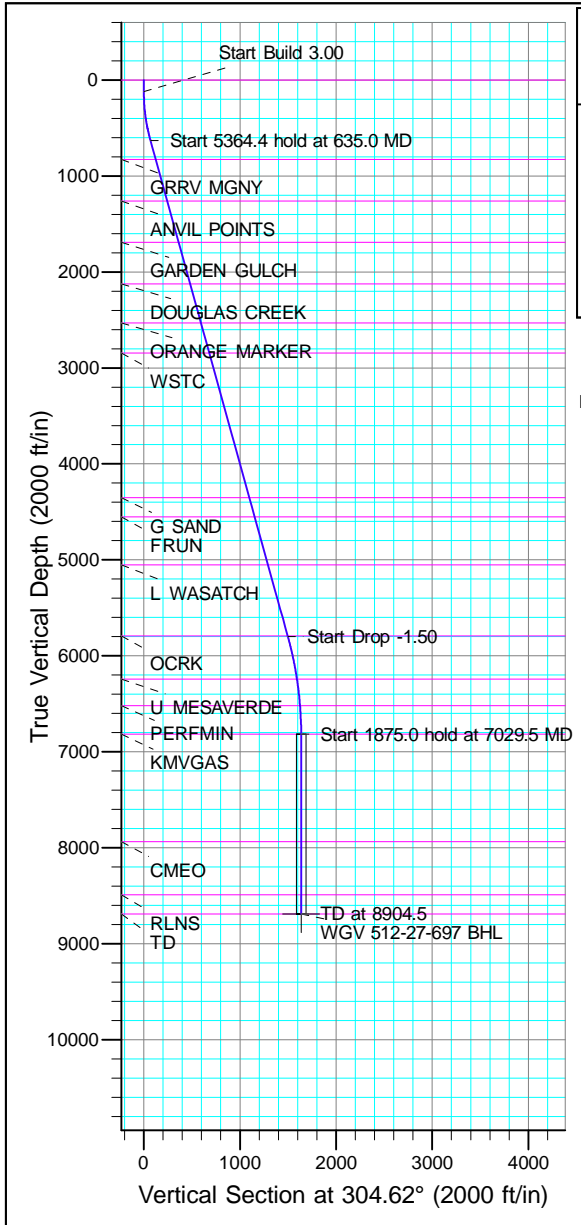
Co-ordinate (N/E) Reference: Well WGV 512-27-697 - Slot WGV 512-27-697, True North  
 Vertical (TVD) Reference: RKB @ 30' @ 8412.0ft  
 Section (VS) Reference: Slot - WGV 512-27-697(0.0N, 0.0E)  
 Measured Depth Reference: RKB @ 30' @ 8412.0ft  
 Calculation Method: Minimum Curvature



Project: Garfield County, CO (Nad 83)  
 Site: Acro Deep 1-27  
 Well: WGV 512-27-697  
 Wellbore: OWB  
 Design: Plan



WELL DETAILS: WGV 512-27-697						
+N/-S	+E/-W	Northing	Easting	Ground Level:	Latitude	Longitude
0.0	0.0	1615663.600	2235927.500	8382.0	39.492510	-108.207819 WGV 512-27-697

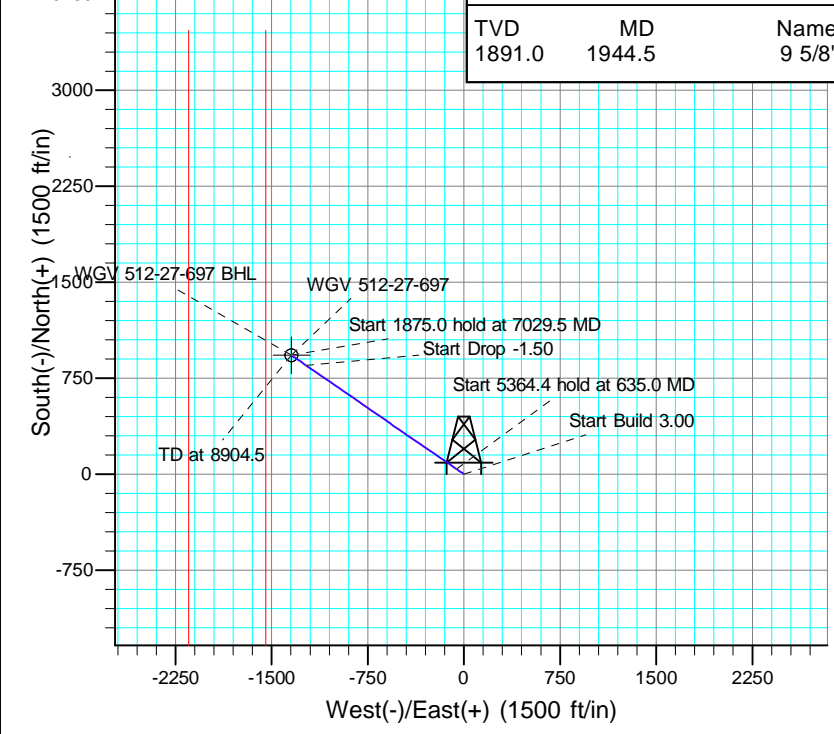
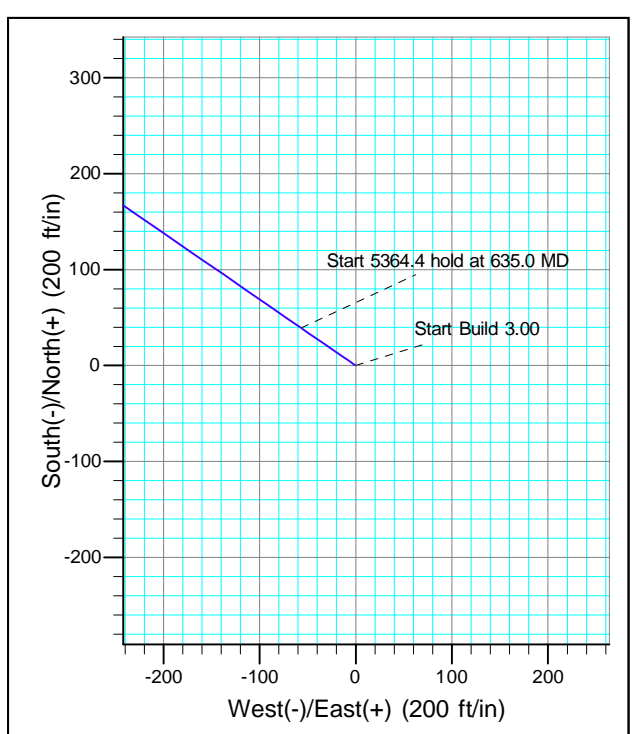


SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.00	0.0		
635.0	15.45	304.62	628.8	39.2	-56.8	3.00	304.62	69.0	Start Build 3.00	
5999.5	15.45	304.62	5799.4	851.2	-1232.9	0.00	0.00	1498.2	Start 5364.4 hold at 635.0 MD	
7029.5	0.00	0.00	6817.0	929.6	-1346.5	1.50	180.00	1636.2	Start Drop -1.50	
8904.5	0.00	0.00	8692.0	929.6	-1346.5	0.00	0.00	1636.2	Start 1875.0 hold at 7029.5 MD	
									TD at 8904.5	

FORMATION TOP DETAILS		
VDPPath	MDPath	Formation
0.0	0.0	GRRV
826.0	839.6	GRRV MGNV
1259.0	1288.8	ANVIL POINTS
1691.0	1737.0	GARDEN GULCH
2124.0	2186.3	DOUGLAS CREEK
2532.0	2609.6	ORANGE MARKER
2845.0	2934.3	WSTC
4352.0	4497.8	G SAND
4552.0	4705.3	FRUN
5022.0	5224.1	L WASATCH
5792.0	5991.8	OCRK
6242.0	6452.3	U MESAVERDE
6517.0	6729.2	PERFMIN
6817.0	7029.5	KMV GAS
7937.0	8149.5	CMEO
8492.0	8704.5	RLNS
8692.0	8904.5	TD

DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BHL	8692.0	929.6	-1346.5	1616632.900	2234609.300	39.495062	-108.212590	Circle (Radius: 50.0)
- plan hits target center								

CASING DETAILS		
TVD	MD	Name
1891.0	1944.5	9 5/8"





# **Terra Energy Partners, LLP**

**Garfield County, CO (Nad 83)**

**Acro Deep 1-27**

**WGV 512-27-697 - Slot WGV 512-27-697**

**OWB**

**Plan: Plan**

## **Standard Planning Report**

**07 March, 2023**



<b>Database:</b>	NN	<b>Local Co-ordinate Reference:</b>	Well WGV 512-27-697 - Slot WGV 512-27-697
<b>Company:</b>	Terra Energy Partners, LLP	<b>TVD Reference:</b>	RKB @ 30' @ 8412.0ft
<b>Project:</b>	Garfield County, CO (Nad 83)	<b>MD Reference:</b>	RKB @ 30' @ 8412.0ft
<b>Site:</b>	Acro Deep 1-27	<b>North Reference:</b>	True
<b>Well:</b>	WGV 512-27-697	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	Plan		

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

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

<b>Well</b>	WGV 512-27-697 - Slot WGV 512-27-697					
<b>Well Position</b>	<b>+N/-S</b>	29.7 ft	<b>Northing:</b>	1,615,663.600 usft	<b>Latitude:</b>	39.492510
	<b>+E/-W</b>	10.8 ft	<b>Easting:</b>	2,235,927.500 usft	<b>Longitude:</b>	-108.207819
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>	8,412.0 ft	<b>Ground Level:</b>	8,382.0 ft

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

<b>Design</b>	Plan			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	304.62

<b>Plan Sections</b>										
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	
635.0	15.45	304.62	628.8	39.2	-56.8	3.00	3.00	0.00	304.62	
5,999.5	15.45	304.62	5,799.4	851.2	-1,232.9	0.00	0.00	0.00	0.00	
7,029.5	0.00	0.00	6,817.0	929.6	-1,346.5	1.50	-1.50	0.00	180.00	
8,904.5	0.00	0.00	8,692.0	929.6	-1,346.5	0.00	0.00	0.00	0.00	WGV 512-27-697 BHI

<b>Database:</b>	NN	<b>Local Co-ordinate Reference:</b>	Well WGV 512-27-697 - Slot WGV 512-27-697
<b>Company:</b>	Terra Energy Partners, LLP	<b>TVD Reference:</b>	RKB @ 30' @ 8412.0ft
<b>Project:</b>	Garfield County, CO (Nad 83)	<b>MD Reference:</b>	RKB @ 30' @ 8412.0ft
<b>Site:</b>	Acro Deep 1-27	<b>North Reference:</b>	True
<b>Well:</b>	WGV 512-27-697	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	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	
<b>Start Build 3.00</b>										
200.0	2.40	304.62	200.0	1.0	-1.4	1.7	3.00	3.00	0.00	
300.0	5.40	304.62	299.7	4.8	-7.0	8.5	3.00	3.00	0.00	
400.0	8.40	304.62	399.0	11.6	-16.9	20.5	3.00	3.00	0.00	
500.0	11.40	304.62	497.5	21.4	-31.0	37.7	3.00	3.00	0.00	
600.0	14.40	304.62	595.0	34.1	-49.4	60.0	3.00	3.00	0.00	
635.0	15.45	304.62	628.8	39.2	-56.8	69.0	3.00	3.00	0.00	
<b>Start 5364.4 hold at 635.0 MD</b>										
700.0	15.45	304.62	691.4	49.0	-71.0	86.3	0.00	0.00	0.00	
800.0	15.45	304.62	787.8	64.2	-93.0	113.0	0.00	0.00	0.00	
900.0	15.45	304.62	884.2	79.3	-114.9	139.6	0.00	0.00	0.00	
1,000.0	15.45	304.62	980.6	94.5	-136.8	166.3	0.00	0.00	0.00	
1,100.0	15.45	304.62	1,077.0	109.6	-158.7	192.9	0.00	0.00	0.00	
1,200.0	15.45	304.62	1,173.4	124.7	-180.7	219.5	0.00	0.00	0.00	
1,300.0	15.45	304.62	1,269.7	139.9	-202.6	246.2	0.00	0.00	0.00	
1,400.0	15.45	304.62	1,366.1	155.0	-224.5	272.8	0.00	0.00	0.00	
1,500.0	15.45	304.62	1,462.5	170.1	-246.4	299.5	0.00	0.00	0.00	
1,600.0	15.45	304.62	1,558.9	185.3	-268.4	326.1	0.00	0.00	0.00	
1,700.0	15.45	304.62	1,655.3	200.4	-290.3	352.7	0.00	0.00	0.00	
1,800.0	15.45	304.62	1,751.7	215.5	-312.2	379.4	0.00	0.00	0.00	
1,900.0	15.45	304.62	1,848.1	230.7	-334.1	406.0	0.00	0.00	0.00	
2,000.0	15.45	304.62	1,944.4	245.8	-356.1	432.7	0.00	0.00	0.00	
2,100.0	15.45	304.62	2,040.8	260.9	-378.0	459.3	0.00	0.00	0.00	
2,200.0	15.45	304.62	2,137.2	276.1	-399.9	485.9	0.00	0.00	0.00	
2,300.0	15.45	304.62	2,233.6	291.2	-421.8	512.6	0.00	0.00	0.00	
2,400.0	15.45	304.62	2,330.0	306.4	-443.8	539.2	0.00	0.00	0.00	
2,500.0	15.45	304.62	2,426.4	321.5	-465.7	565.9	0.00	0.00	0.00	
2,600.0	15.45	304.62	2,522.8	336.6	-487.6	592.5	0.00	0.00	0.00	
2,700.0	15.45	304.62	2,619.2	351.8	-509.5	619.2	0.00	0.00	0.00	
2,800.0	15.45	304.62	2,715.5	366.9	-531.4	645.8	0.00	0.00	0.00	
2,900.0	15.45	304.62	2,811.9	382.0	-553.4	672.4	0.00	0.00	0.00	
3,000.0	15.45	304.62	2,908.3	397.2	-575.3	699.1	0.00	0.00	0.00	
3,100.0	15.45	304.62	3,004.7	412.3	-597.2	725.7	0.00	0.00	0.00	
3,200.0	15.45	304.62	3,101.1	427.4	-619.1	752.4	0.00	0.00	0.00	
3,300.0	15.45	304.62	3,197.5	442.6	-641.1	779.0	0.00	0.00	0.00	
3,400.0	15.45	304.62	3,293.9	457.7	-663.0	805.6	0.00	0.00	0.00	
3,500.0	15.45	304.62	3,390.2	472.8	-684.9	832.3	0.00	0.00	0.00	
3,600.0	15.45	304.62	3,486.6	488.0	-706.8	858.9	0.00	0.00	0.00	
3,700.0	15.45	304.62	3,583.0	503.1	-728.8	885.6	0.00	0.00	0.00	
3,800.0	15.45	304.62	3,679.4	518.3	-750.7	912.2	0.00	0.00	0.00	
3,900.0	15.45	304.62	3,775.8	533.4	-772.6	938.8	0.00	0.00	0.00	
4,000.0	15.45	304.62	3,872.2	548.5	-794.5	965.5	0.00	0.00	0.00	
4,100.0	15.45	304.62	3,968.6	563.7	-816.5	992.1	0.00	0.00	0.00	
4,200.0	15.45	304.62	4,064.9	578.8	-838.4	1,018.8	0.00	0.00	0.00	
4,300.0	15.45	304.62	4,161.3	593.9	-860.3	1,045.4	0.00	0.00	0.00	
4,400.0	15.45	304.62	4,257.7	609.1	-882.2	1,072.1	0.00	0.00	0.00	
4,500.0	15.45	304.62	4,354.1	624.2	-904.2	1,098.7	0.00	0.00	0.00	
4,600.0	15.45	304.62	4,450.5	639.3	-926.1	1,125.3	0.00	0.00	0.00	
4,700.0	15.45	304.62	4,546.9	654.5	-948.0	1,152.0	0.00	0.00	0.00	
4,800.0	15.45	304.62	4,643.3	669.6	-969.9	1,178.6	0.00	0.00	0.00	

<b>Database:</b>	NN	<b>Local Co-ordinate Reference:</b>	Well WGV 512-27-697 - Slot WGV 512-27-697
<b>Company:</b>	Terra Energy Partners, LLP	<b>TVD Reference:</b>	RKB @ 30' @ 8412.0ft
<b>Project:</b>	Garfield County, CO (Nad 83)	<b>MD Reference:</b>	RKB @ 30' @ 8412.0ft
<b>Site:</b>	Acro Deep 1-27	<b>North Reference:</b>	True
<b>Well:</b>	WGV 512-27-697	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	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	15.45	304.62	4,739.6	684.7	-991.9	1,205.3	0.00	0.00	0.00	
5,000.0	15.45	304.62	4,836.0	699.9	-1,013.8	1,231.9	0.00	0.00	0.00	
5,100.0	15.45	304.62	4,932.4	715.0	-1,035.7	1,258.5	0.00	0.00	0.00	
5,200.0	15.45	304.62	5,028.8	730.2	-1,057.6	1,285.2	0.00	0.00	0.00	
5,300.0	15.45	304.62	5,125.2	745.3	-1,079.5	1,311.8	0.00	0.00	0.00	
5,400.0	15.45	304.62	5,221.6	760.4	-1,101.5	1,338.5	0.00	0.00	0.00	
5,500.0	15.45	304.62	5,318.0	775.6	-1,123.4	1,365.1	0.00	0.00	0.00	
5,600.0	15.45	304.62	5,414.3	790.7	-1,145.3	1,391.7	0.00	0.00	0.00	
5,700.0	15.45	304.62	5,510.7	805.8	-1,167.2	1,418.4	0.00	0.00	0.00	
5,800.0	15.45	304.62	5,607.1	821.0	-1,189.2	1,445.0	0.00	0.00	0.00	
5,900.0	15.45	304.62	5,703.5	836.1	-1,211.1	1,471.7	0.00	0.00	0.00	
5,999.5	15.45	304.62	5,799.4	851.2	-1,232.9	1,498.2	0.00	0.00	0.00	
<b>Start Drop -1.50</b>										
6,000.0	15.44	304.62	5,799.9	851.2	-1,233.0	1,498.3	1.50	-1.50	0.00	
6,100.0	13.94	304.62	5,896.6	865.6	-1,253.9	1,523.7	1.50	-1.50	0.00	
6,200.0	12.44	304.62	5,994.0	878.6	-1,272.7	1,546.5	1.50	-1.50	0.00	
6,300.0	10.94	304.62	6,091.9	890.1	-1,289.3	1,566.8	1.50	-1.50	0.00	
6,400.0	9.44	304.62	6,190.3	900.2	-1,303.9	1,584.5	1.50	-1.50	0.00	
6,500.0	7.94	304.62	6,289.2	908.8	-1,316.3	1,599.6	1.50	-1.50	0.00	
6,600.0	6.44	304.62	6,388.4	915.9	-1,326.7	1,612.1	1.50	-1.50	0.00	
6,700.0	4.94	304.62	6,487.9	921.5	-1,334.8	1,622.0	1.50	-1.50	0.00	
6,800.0	3.44	304.62	6,587.6	925.7	-1,340.8	1,629.3	1.50	-1.50	0.00	
6,900.0	1.94	304.62	6,687.5	928.3	-1,344.7	1,634.0	1.50	-1.50	0.00	
7,000.0	0.44	304.62	6,787.5	929.5	-1,346.4	1,636.1	1.50	-1.50	0.00	
7,029.5	0.00	0.00	6,817.0	929.6	-1,346.5	1,636.2	1.50	-1.50	0.00	
<b>Start 1875.0 hold at 7029.5 MD</b>										
7,100.0	0.00	0.00	6,887.5	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
7,200.0	0.00	0.00	6,987.5	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,087.5	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,187.5	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,287.5	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,387.5	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,487.5	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,587.5	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,687.5	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,787.5	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
8,100.0	0.00	0.00	7,887.5	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
8,200.0	0.00	0.00	7,987.5	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,087.5	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,187.5	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,287.5	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,387.5	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,487.5	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,587.5	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,687.5	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
8,904.5	0.00	0.00	8,692.0	929.6	-1,346.5	1,636.2	0.00	0.00	0.00	
<b>TD at 8904.5</b>										

<b>Database:</b>	NN	<b>Local Co-ordinate Reference:</b>	Well WGV 512-27-697 - Slot WGV 512-27-697
<b>Company:</b>	Terra Energy Partners, LLP	<b>TVD Reference:</b>	RKB @ 30' @ 8412.0ft
<b>Project:</b>	Garfield County, CO (Nad 83)	<b>MD Reference:</b>	RKB @ 30' @ 8412.0ft
<b>Site:</b>	Acro Deep 1-27	<b>North Reference:</b>	True
<b>Well:</b>	WGV 512-27-697	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	Plan		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
WGV 512-27-697 BHL - plan hits target center - Circle (radius 50.0)	0.00	0.00	8,692.0	929.6	-1,346.5	1,616,632.900	2,234,609.300	39.495062	-108.212591

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
1,944.5	1,891.0	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		
839.6	826.0	GRRV MGNV		0.00		
1,288.8	1,259.0	ANVIL POINTS		0.00		
1,737.0	1,691.0	GARDEN GULCH		0.00		
2,186.3	2,124.0	DOUGLAS CREEK		0.00		
2,609.6	2,532.0	ORANGE MARKER		0.00		
2,934.3	2,845.0	WSTC		0.00		
4,497.8	4,352.0	G SAND		0.00		
4,705.3	4,552.0	FRUN		0.00		
5,224.1	5,052.0	L WASATCH		0.00		
5,991.8	5,792.0	OCRK		0.00		
6,452.3	6,242.0	U MESAVERDE		0.00		
6,729.2	6,517.0	PERFMIN		0.00		
7,029.5	6,817.0	KMVGAS		0.00		
8,149.5	7,937.0	CMEO		0.00		
8,704.5	8,492.0	RLNS		0.00		
8,904.5	8,692.0	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	
635.0	628.8	39.2	-56.8	Start 5364.4 hold at 635.0 MD	
5,999.5	5,799.4	851.2	-1,232.9	Start Drop -1.50	
7,029.5	6,817.0	929.6	-1,346.5	Start 1875.0 hold at 7029.5 MD	
8,904.5	8,692.0	929.6	-1,346.5	TD at 8904.5	