

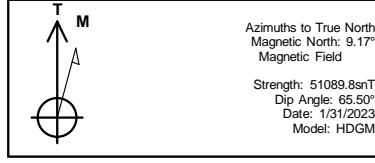


REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well WGV 11-27-697 - Slot WGV 11-27-697, True North
 Vertical (TVD) Reference: RKB @ 8412.0ft
 Section (VS) Reference: Slot - WGV 11-27-697(0.0N, 0.0E)
 Measured Depth Reference: RKB @ 8412.0ft
 Calculation Method: Minimum Curvature

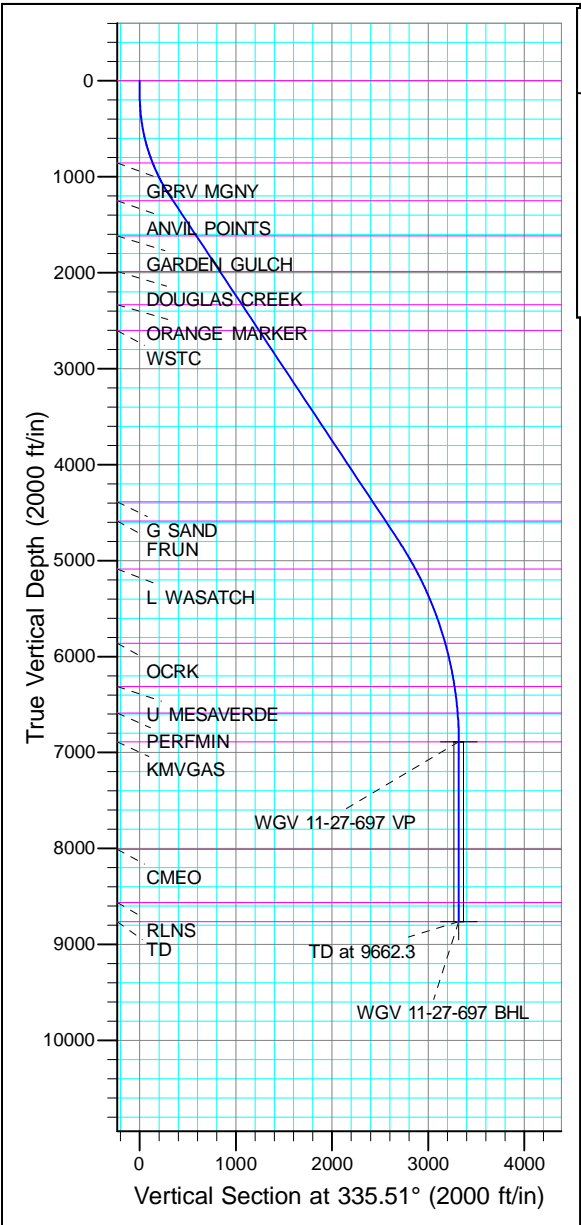


Project: Garfield County, CO (Nad 83)
 Site: Acro Deep 1-27
 Well: WGV 11-27-697
 Wellbore: OWB
 Design: Plan



WELL DETAILS: WGV 11-27-697

+N/-S	+E/-W	Northing	Ground Level:	8382.0	Longitude	SL
0/0	0.0	1615680.100	Easting	2235954.500	Latitude	WG
					39.492557	11-27-69
					-108.207725	



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	
150.0	0.00	0.00	150.0	0.0	0.0	0.00	0.00	0.0	
250.0	3.00	350.00	250.0	2.6	-0.5	3.00	350.00	2.5	Start Build 3.00
1271.0	33.52	335.38	1208.3	292.1	-125.6	3.00	-15.88	317.9	Start DLS 3.00 TFO -15.88
5552.3	33.52	335.38	4777.4	2441.6	-1110.7	0.00	0.00	2682.4	Start 4281.3 hold at 1271.0 MD
7787.3	0.00	0.00	6887.0	3019.3	-1375.5	1.50	180.00	3317.8	Start Drop -1.50
9662.3	0.00	0.00	8762.0	3019.3	-1375.5	0.00	0.00	3317.8	Start 1875.0 hold at 7787.3 MD
									TD at 9662.3

FORMATION TOP DETAILS

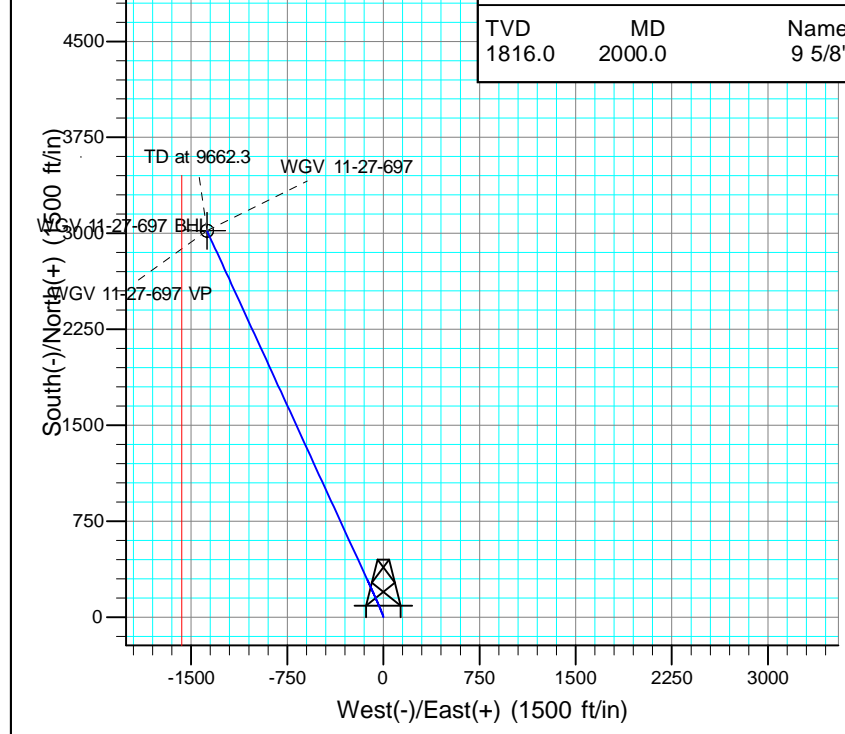
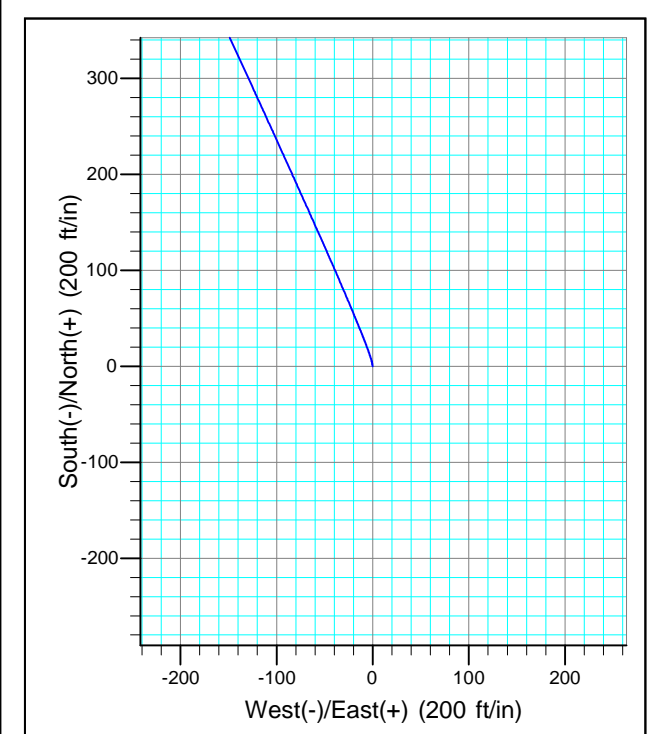
VDPPath	MDPath	Formation
0.0	0.0	GRRV
855.0	871.9	GRRV MGNV
1247.0	1317.5	ANVIL POINTS
1616.0	1760.1	GARDEN GULCH
1985.0	2202.7	DOUGLAS CREEK
2334.0	2621.4	ORANGE MARKER
2601.0	2941.6	WSTC
4387.0	5084.0	G SAND
4587.0	5323.9	FRUN
5087.0	5913.0	L WASATCH
5862.0	6749.6	OCRK
6312.0	7210.1	U MESAVERDE
6587.0	7487.0	PERFMIN
6887.0	7787.3	KMV GAS
8007.0	8907.3	CMEC
8562.0	9462.3	RLNS
8762.0	9662.3	TD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
VP	6887.0	3019.3	-1375.5	1618739.000	2234669.600	39.500846	-108.212599	Point
BHL - plan hits target center	8762.0	3019.3	-1375.5	1618739.000	2234669.600	39.500846	-108.212599	Circle (Radius: 50.0)

CASING DETAILS

TVD	MD	Name
1816.0	2000.0	9 5/8"





Terra Energy Partners, LLP

Garfield County, CO (Nad 83)

Acro Deep 1-27

WGV 11-27-697 - Slot WGV 11-27-697

OWB

Plan: Plan

Standard Planning Report

07 March, 2023



Database:	NN	Local Co-ordinate Reference:	Well WGV 11-27-697 - Slot WGV 11-27-697
Company:	Terra Energy Partners, LLP	TVD Reference:	RKB @ 8412.0ft
Project:	Garfield County, CO (Nad 83)	MD Reference:	RKB @ 8412.0ft
Site:	Acro Deep 1-27	North Reference:	True
Well:	WGV 11-27-697	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 11-27-697 - Slot WGV 11-27-697					
Well Position	+N/-S	47.0 ft	Northing:	1,615,680.100 usft	Latitude:	39.492557
	+E/-W	37.3 ft	Easting:	2,235,954.500 usft	Longitude:	-108.207725
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	335.51

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	
150.0	0.00	0.00	150.0	0.0	0.0	0.00	0.00	0.00	0.00	
250.0	3.00	350.00	250.0	2.6	-0.5	3.00	3.00	0.00	350.00	
1,271.0	33.52	335.38	1,208.3	292.1	-125.6	3.00	2.99	-1.43	-15.88	
5,552.3	33.52	335.38	4,777.4	2,441.6	-1,110.7	0.00	0.00	0.00	0.00	
7,787.3	0.00	0.00	6,887.0	3,019.3	-1,375.5	1.50	-1.50	0.00	180.00	WGV 11-27-697 VP
9,662.3	0.00	0.00	8,762.0	3,019.3	-1,375.5	0.00	0.00	0.00	0.00	WGV 11-27-697 BHL

Database:	NN	Local Co-ordinate Reference:	Well WGV 11-27-697 - Slot WGV 11-27-697
Company:	Terra Energy Partners, LLP	TVD Reference:	RKB @ 8412.0ft
Project:	Garfield County, CO (Nad 83)	MD Reference:	RKB @ 8412.0ft
Site:	Acro Deep 1-27	North Reference:	True
Well:	WGV 11-27-697	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
150.0	0.00	0.00	150.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 3.00									
200.0	1.50	350.00	200.0	0.6	-0.1	0.6	3.00	3.00	0.00
250.0	3.00	350.00	250.0	2.6	-0.5	2.5	3.00	3.00	0.00
Start DLS 3.00 TFO -15.88									
300.0	4.46	344.72	299.8	5.7	-1.2	5.7	3.00	2.92	-10.57
400.0	7.43	340.44	399.3	15.6	-4.4	16.0	3.00	2.97	-4.27
500.0	10.42	338.61	498.1	30.1	-9.8	31.5	3.00	2.99	-1.84
600.0	13.41	337.58	595.9	49.2	-17.6	52.1	3.00	2.99	-1.02
700.0	16.41	336.93	692.5	73.0	-27.5	77.8	3.00	3.00	-0.66
800.0	19.40	336.47	787.7	101.2	-39.7	108.5	3.00	3.00	-0.46
900.0	22.40	336.13	881.1	133.9	-54.0	144.2	3.00	3.00	-0.34
1,000.0	25.40	335.87	972.5	170.9	-70.5	184.7	3.00	3.00	-0.26
1,100.0	28.40	335.66	1,061.7	212.1	-89.1	230.0	3.00	3.00	-0.21
1,200.0	31.40	335.48	1,148.4	257.5	-109.7	279.8	3.00	3.00	-0.17
1,271.0	33.52	335.38	1,208.3	292.1	-125.6	317.9	3.00	3.00	-0.15
Start 4281.3 hold at 1271.0 MD									
1,300.0	33.52	335.38	1,232.4	306.7	-132.2	333.9	0.00	0.00	0.00
1,400.0	33.52	335.38	1,315.8	356.9	-155.2	389.1	0.00	0.00	0.00
1,500.0	33.52	335.38	1,399.2	407.1	-178.3	444.4	0.00	0.00	0.00
1,600.0	33.52	335.38	1,482.5	457.3	-201.3	499.6	0.00	0.00	0.00
1,700.0	33.52	335.38	1,565.9	507.5	-224.3	554.8	0.00	0.00	0.00
1,800.0	33.52	335.38	1,649.3	557.7	-247.3	610.1	0.00	0.00	0.00
1,900.0	33.52	335.38	1,732.6	607.9	-270.3	665.3	0.00	0.00	0.00
2,000.0	33.52	335.38	1,816.0	658.1	-293.3	720.5	0.00	0.00	0.00
2,100.0	33.52	335.38	1,899.4	708.3	-316.3	775.7	0.00	0.00	0.00
2,200.0	33.52	335.38	1,982.7	758.5	-339.3	831.0	0.00	0.00	0.00
2,300.0	33.52	335.38	2,066.1	808.8	-362.3	886.2	0.00	0.00	0.00
2,400.0	33.52	335.38	2,149.5	859.0	-385.4	941.4	0.00	0.00	0.00
2,500.0	33.52	335.38	2,232.8	909.2	-408.4	996.7	0.00	0.00	0.00
2,600.0	33.52	335.38	2,316.2	959.4	-431.4	1,051.9	0.00	0.00	0.00
2,700.0	33.52	335.38	2,399.6	1,009.6	-454.4	1,107.1	0.00	0.00	0.00
2,800.0	33.52	335.38	2,482.9	1,059.8	-477.4	1,162.3	0.00	0.00	0.00
2,900.0	33.52	335.38	2,566.3	1,110.0	-500.4	1,217.6	0.00	0.00	0.00
3,000.0	33.52	335.38	2,649.7	1,160.2	-523.4	1,272.8	0.00	0.00	0.00
3,100.0	33.52	335.38	2,733.0	1,210.4	-546.4	1,328.0	0.00	0.00	0.00
3,200.0	33.52	335.38	2,816.4	1,260.6	-569.4	1,383.3	0.00	0.00	0.00
3,300.0	33.52	335.38	2,899.7	1,310.8	-592.5	1,438.5	0.00	0.00	0.00
3,400.0	33.52	335.38	2,983.1	1,361.0	-615.5	1,493.7	0.00	0.00	0.00
3,500.0	33.52	335.38	3,066.5	1,411.2	-638.5	1,548.9	0.00	0.00	0.00
3,600.0	33.52	335.38	3,149.8	1,461.4	-661.5	1,604.2	0.00	0.00	0.00
3,700.0	33.52	335.38	3,233.2	1,511.6	-684.5	1,659.4	0.00	0.00	0.00
3,800.0	33.52	335.38	3,316.6	1,561.9	-707.5	1,714.6	0.00	0.00	0.00
3,900.0	33.52	335.38	3,399.9	1,612.1	-730.5	1,769.9	0.00	0.00	0.00
4,000.0	33.52	335.38	3,483.3	1,662.3	-753.5	1,825.1	0.00	0.00	0.00
4,100.0	33.52	335.38	3,566.7	1,712.5	-776.6	1,880.3	0.00	0.00	0.00
4,200.0	33.52	335.38	3,650.0	1,762.7	-799.6	1,935.5	0.00	0.00	0.00
4,300.0	33.52	335.38	3,733.4	1,812.9	-822.6	1,990.8	0.00	0.00	0.00
4,400.0	33.52	335.38	3,816.8	1,863.1	-845.6	2,046.0	0.00	0.00	0.00
4,500.0	33.52	335.38	3,900.1	1,913.3	-868.6	2,101.2	0.00	0.00	0.00
4,600.0	33.52	335.38	3,983.5	1,963.5	-891.6	2,156.5	0.00	0.00	0.00

Database:	NN	Local Co-ordinate Reference:	Well WGV 11-27-697 - Slot WGV 11-27-697
Company:	Terra Energy Partners, LLP	TVD Reference:	RKB @ 8412.0ft
Project:	Garfield County, CO (Nad 83)	MD Reference:	RKB @ 8412.0ft
Site:	Acro Deep 1-27	North Reference:	True
Well:	WGV 11-27-697	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)	
4,700.0	33.52	335.38	4,066.9	2,013.7	-914.6	2,211.7	0.00	0.00	0.00	
4,800.0	33.52	335.38	4,150.2	2,063.9	-937.6	2,266.9	0.00	0.00	0.00	
4,900.0	33.52	335.38	4,233.6	2,114.1	-960.6	2,322.1	0.00	0.00	0.00	
5,000.0	33.52	335.38	4,317.0	2,164.3	-983.7	2,377.4	0.00	0.00	0.00	
5,100.0	33.52	335.38	4,400.3	2,214.5	-1,006.7	2,432.6	0.00	0.00	0.00	
5,200.0	33.52	335.38	4,483.7	2,264.7	-1,029.7	2,487.8	0.00	0.00	0.00	
5,300.0	33.52	335.38	4,567.1	2,314.9	-1,052.7	2,543.1	0.00	0.00	0.00	
5,400.0	33.52	335.38	4,650.4	2,365.2	-1,075.7	2,598.3	0.00	0.00	0.00	
5,500.0	33.52	335.38	4,733.8	2,415.4	-1,098.7	2,653.5	0.00	0.00	0.00	
5,552.3	33.52	335.38	4,777.4	2,441.6	-1,110.7	2,682.4	0.00	0.00	0.00	
Start Drop -1.50										
5,600.0	32.81	335.38	4,817.3	2,465.3	-1,121.6	2,708.5	1.50	-1.50	0.00	
5,700.0	31.31	335.38	4,902.1	2,513.6	-1,143.7	2,761.6	1.50	-1.50	0.00	
5,800.0	29.81	335.38	4,988.2	2,559.8	-1,164.9	2,812.4	1.50	-1.50	0.00	
5,900.0	28.31	335.38	5,075.6	2,604.0	-1,185.2	2,861.0	1.50	-1.50	0.00	
6,000.0	26.81	335.38	5,164.2	2,646.0	-1,204.4	2,907.2	1.50	-1.50	0.00	
6,100.0	25.31	335.38	5,254.1	2,686.0	-1,222.7	2,951.2	1.50	-1.50	0.00	
6,200.0	23.81	335.38	5,345.0	2,723.7	-1,240.0	2,992.7	1.50	-1.50	0.00	
6,300.0	22.31	335.38	5,437.0	2,759.3	-1,256.4	3,031.9	1.50	-1.50	0.00	
6,400.0	20.81	335.38	5,530.0	2,792.7	-1,271.7	3,068.6	1.50	-1.50	0.00	
6,500.0	19.31	335.38	5,624.0	2,823.9	-1,286.0	3,102.9	1.50	-1.50	0.00	
6,600.0	17.81	335.38	5,718.7	2,852.9	-1,299.2	3,134.8	1.50	-1.50	0.00	
6,700.0	16.31	335.38	5,814.3	2,879.5	-1,311.4	3,164.1	1.50	-1.50	0.00	
6,800.0	14.81	335.38	5,910.7	2,903.9	-1,322.6	3,190.9	1.50	-1.50	0.00	
6,900.0	13.31	335.38	6,007.7	2,926.0	-1,332.7	3,215.2	1.50	-1.50	0.00	
7,000.0	11.81	335.38	6,105.3	2,945.8	-1,341.8	3,237.0	1.50	-1.50	0.00	
7,100.0	10.31	335.38	6,203.4	2,963.2	-1,349.8	3,256.1	1.50	-1.50	0.00	
7,200.0	8.81	335.38	6,302.0	2,978.3	-1,356.7	3,272.8	1.50	-1.50	0.00	
7,300.0	7.31	335.38	6,401.0	2,991.0	-1,362.6	3,286.8	1.50	-1.50	0.00	
7,400.0	5.81	335.38	6,500.4	3,001.4	-1,367.3	3,298.2	1.50	-1.50	0.00	
7,500.0	4.31	335.38	6,600.0	3,009.4	-1,371.0	3,307.0	1.50	-1.50	0.00	
7,600.0	2.81	335.38	6,699.8	3,015.1	-1,373.6	3,313.2	1.50	-1.50	0.00	
7,700.0	1.31	335.38	6,799.7	3,018.3	-1,375.1	3,316.8	1.50	-1.50	0.00	
7,787.3	0.00	0.00	6,887.0	3,019.3	-1,375.5	3,317.8	1.50	-1.50	0.00	
Start 1875.0 hold at 7787.3 MD										
7,800.0	0.00	0.00	6,899.7	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	
7,900.0	0.00	0.00	6,999.7	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,099.7	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	
8,100.0	0.00	0.00	7,199.7	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	
8,200.0	0.00	0.00	7,299.7	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	
8,300.0	0.00	0.00	7,399.7	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	
8,400.0	0.00	0.00	7,499.7	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	
8,500.0	0.00	0.00	7,599.7	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	
8,600.0	0.00	0.00	7,699.7	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	
8,700.0	0.00	0.00	7,799.7	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	
8,800.0	0.00	0.00	7,899.7	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	
8,900.0	0.00	0.00	7,999.7	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	
9,000.0	0.00	0.00	8,099.7	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	
9,100.0	0.00	0.00	8,199.7	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	
9,200.0	0.00	0.00	8,299.7	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	
9,300.0	0.00	0.00	8,399.7	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	
9,400.0	0.00	0.00	8,499.7	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	
9,500.0	0.00	0.00	8,599.7	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	
9,600.0	0.00	0.00	8,699.7	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	

Database:	NN	Local Co-ordinate Reference:	Well WGV 11-27-697 - Slot WGV 11-27-697
Company:	Terra Energy Partners, LLP	TVD Reference:	RKB @ 8412.0ft
Project:	Garfield County, CO (Nad 83)	MD Reference:	RKB @ 8412.0ft
Site:	Acro Deep 1-27	North Reference:	True
Well:	WGV 11-27-697	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)	
9,662.3	0.00	0.00	8,762.0	3,019.3	-1,375.5	3,317.8	0.00	0.00	0.00	
TD at 9662.3										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
WGV 11-27-697 VP - hit/miss target - Shape - Point	0.00	0.00	6,887.0	3,019.3	-1,375.5	1,618,739.000	2,234,669.600	39.500846	-108.212600	
WGV 11-27-697 BHL - plan hits target center - Circle (radius 50.0)	0.00	0.00	8,762.0	3,019.3	-1,375.5	1,618,739.000	2,234,669.600	39.500846	-108.212600	

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")		
2,000.0	1,816.0	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		
871.9	855.0	GRRV MGNY		0.00		
1,317.5	1,247.0	ANVIL POINTS		0.00		
1,760.1	1,616.0	GARDEN GULCH		0.00		
2,202.7	1,985.0	DOUGLAS CREEK		0.00		
2,621.4	2,334.0	ORANGE MARKER		0.00		
2,941.6	2,601.0	WSTC		0.00		
5,084.0	4,387.0	G SAND		0.00		
5,323.9	4,587.0	FRUN		0.00		
5,913.0	5,087.0	L WASATCH		0.00		
6,749.6	5,862.0	OCRK		0.00		
7,210.1	6,312.0	U MESAVERDE		0.00		
7,487.0	6,587.0	PERFMIN		0.00		
7,787.3	6,887.0	KMVGAS		0.00		
8,907.3	8,007.0	CMEO		0.00		
9,462.3	8,562.0	RLNS		0.00		
9,662.3	8,762.0	TD		0.00		

Database:	NN	Local Co-ordinate Reference:	Well WGV 11-27-697 - Slot WGV 11-27-697
Company:	Terra Energy Partners, LLP	TVD Reference:	RKB @ 8412.0ft
Project:	Garfield County, CO (Nad 83)	MD Reference:	RKB @ 8412.0ft
Site:	Acro Deep 1-27	North Reference:	True
Well:	WGV 11-27-697	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
150.0	150.0	0.0	0.0	Start Build 3.00
250.0	250.0	2.6	-0.5	Start DLS 3.00 TFO -15.88
1,271.0	1,208.3	292.1	-125.6	Start 4281.3 hold at 1271.0 MD
5,552.3	4,777.4	2,441.6	-1,110.7	Start Drop -1.50
7,787.3	6,887.0	3,019.3	-1,375.5	Start 1875.0 hold at 7787.3 MD
9,662.3	8,762.0	3,019.3	-1,375.5	TD at 9662.3