

Project: Garfield County, CO  
 Site: Sec 8, T6S, R94W  
 Well: RWF 421-8  
 Wellbore: Wellbore #1  
 Design: Plan #2  
 Latitude: 39.539220  
 Longitude: -107.903795  
 Ground Level: 5979.60  
 KB=24' @ 6003.60usft (H&P #318)

## PROJECT DETAILS: Garfield County, CO

Geodetic System: US State Plane 1983  
 Datum: North American Datum 1983  
 Ellipsoid: GRS 1980  
 Zone: Colorado Central Zone  
 System Datum: Mean Sea Level

## REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well RWF 421-8, True North  
 Vertical (TVD) Reference: KB=24' @ 6003.60usft (H&P #318)  
 Section (VS) Reference: Slot - (0.00N, 0.00E)  
 Measured Depth Reference: KB=24' @ 6003.60usft (H&P #318)  
 Calculation Method: Minimum Curvature

## WELL DETAILS: RWF 421-8

5979.60  
 0.00 +N/-S 0.00 +E/-W Northing 1630257.94 Easting 2322143.57 Latitude 39.539220 Longitude -107.903795

## WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

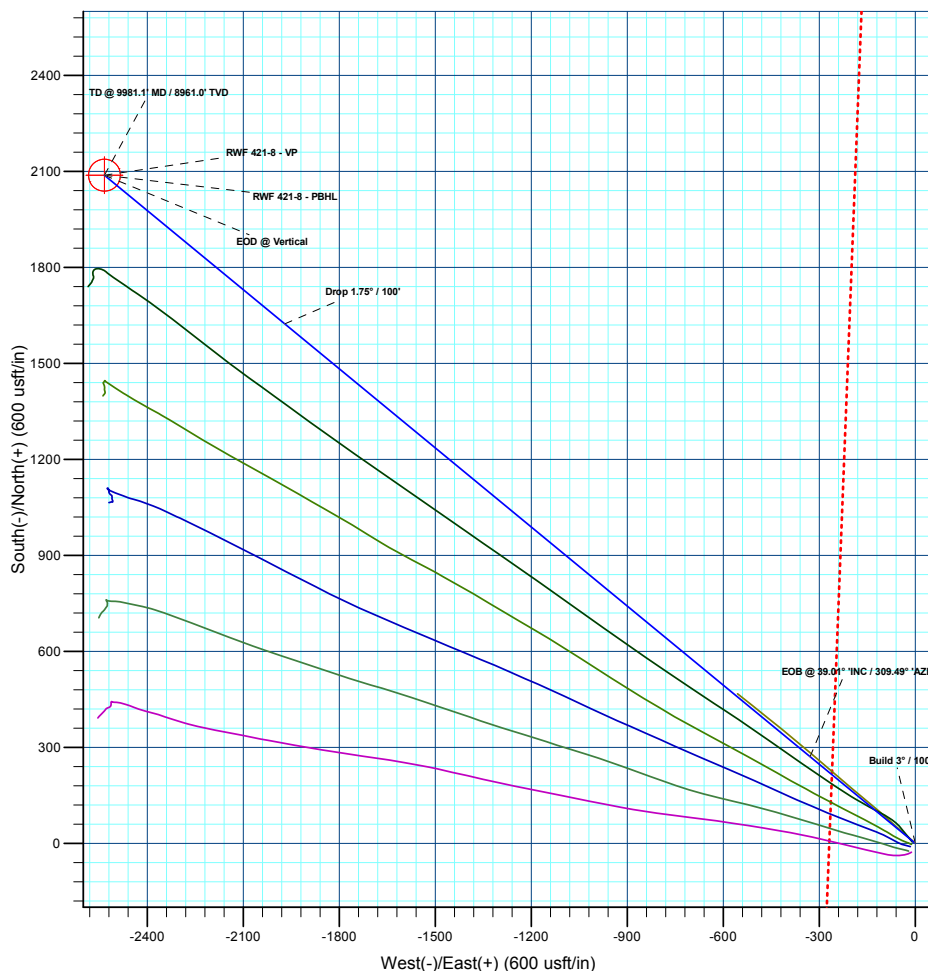
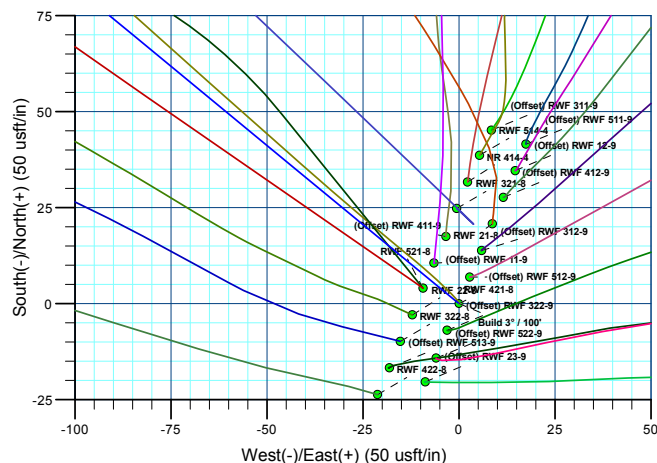
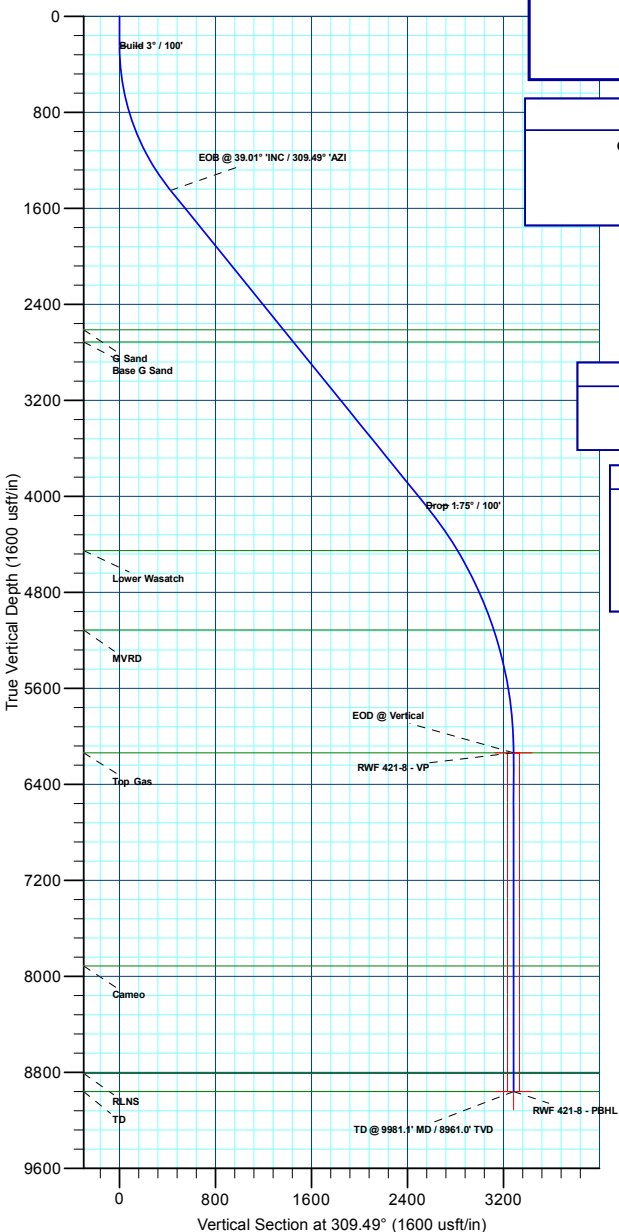
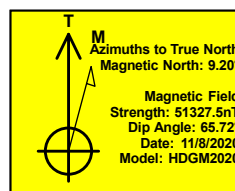
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
RWF 421-8 - VP	6139.00	2087.98	-2533.81	1632412.24	2319665.89	39.544952	-107.912780	Point
RWF 421-8 - PBHL	8961.00	2087.98	-2533.81	1632412.24	2319665.89	39.544952	-107.912780	Circle (Radius: 50.00)

## ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	Build 3" / 100'
1550.43	39.01	309.49	1452.25	270.84	-328.68	425.89	425.89	EOB @ 39.01° INC / 309.49° AZI
4929.76	39.01	309.49	4078.00	1623.68	-1970.36	2553.17	2553.17	Drop 1.75" / 100'
7159.08	0.00	0.00	6139.00	2087.98	-2533.81	3283.27	3283.27	EOD @ Vertical
9981.08	0.00	0.00	8961.00	2087.98	-2533.81	3283.27	3283.27	TD @ 9981.1' MD / 8961.0' TVD

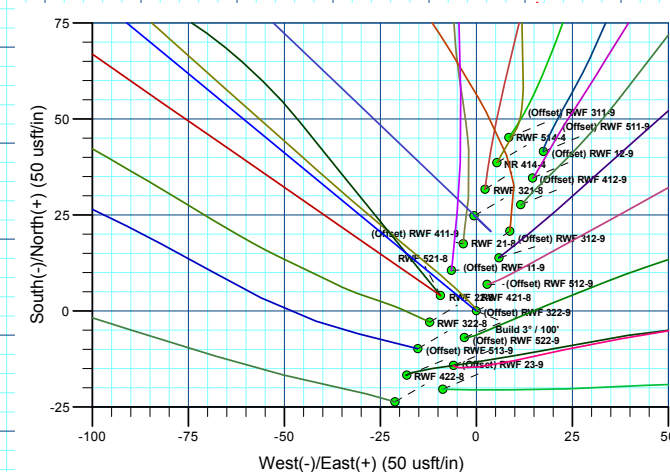
## FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2614.00	3045.60	G Sand
2714.00	3174.30	Base G Sand
4454.00	5389.11	Lower Wasatch
5114.00	6116.55	MVRD
6139.00	7159.08	Top Gas
7914.00	8934.08	Cameo
8811.00	9831.08	RLNS
8961.00	9981.08	TD



Plan: Plan #2 (RWF 421-8/Wellbore #1)

Created By: Chase Chambers Date: 12:48, November 10 2020



**Created By:** Chase Chambers **Date:** 12:49, November 10 2020



# **Terra Energy Partners, LLP**

**Garfield County, CO**

**Sec 8, T6S, R94W**

**RWF 421-8**

**Wellbore #1**

**Plan: Plan #2**

## **QES Well Planning Report**

**10 November, 2020**



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Company:</b>	Terra Energy Partners, LLP	<b>TVD Reference:</b>	KB=24' @ 6003.60usft (H&P #318)
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	KB=24' @ 6003.60usft (H&P #318)
<b>Site:</b>	Sec 8, T6S, R94W	<b>North Reference:</b>	True
<b>Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

<b>Project</b>	Garfield County, CO		
<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		

Site		Sec 8, T6S, R94W			
Site Position:		Northing:	1,630,278.47 usft	Latitude:	39.539277
From:	Lat/Long	Easting:	2,322,152.86 usft	Longitude:	-107.903764
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.52 °

Well	RWF 421-8					
Well Position	+N/-S	-20.77 usft	Northing:	1,630,257.94 usft	Latitude:	39.539220
	+E/-W	-8.74 usft	Easting:	2,322,143.57 usft	Longitude:	-107.903795
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,979.60 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM2020	11/8/2020	9.20	65.72	51,327.50000000

<b>Design</b>	Plan #2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	309.49

<b>Plan Sections</b>										
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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,550.43	39.01	309.49	1,452.25	270.84	-328.68	3.00	3.00	0.00	309.49	
4,929.76	39.01	309.49	4,078.00	1,623.68	-1,970.36	0.00	0.00	0.00	0.00	
7,159.08	0.00	0.00	6,139.00	2,087.98	-2,533.81	1.75	-1.75	0.00	180.00	RWF 421-8 - VP
9,981.08	0.00	0.00	8,961.00	2,087.98	-2,533.81	0.00	0.00	0.00	0.00	RWF 421-8 - PBHL

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Company:</b>	Terra Energy Partners, LLP	<b>TVD Reference:</b>	KB=24' @ 6003.60usft (H&P #318)
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	KB=24' @ 6003.60usft (H&P #318)
<b>Site:</b>	Sec 8, T6S, R94W	<b>North Reference:</b>	True
<b>Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Build 3° / 100'</b>									
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	1.50	309.49	299.99	0.42	-0.51	0.65	3.00	3.00	0.00
400.00	4.50	309.49	399.85	3.74	-4.54	5.89	3.00	3.00	0.00
500.00	7.50	309.49	499.29	10.39	-12.61	16.34	3.00	3.00	0.00
600.00	10.50	309.49	598.04	20.34	-24.68	31.98	3.00	3.00	0.00
700.00	13.50	309.49	695.85	33.56	-40.72	52.77	3.00	3.00	0.00
800.00	16.50	309.49	792.43	50.02	-60.70	78.65	3.00	3.00	0.00
900.00	19.50	309.49	887.52	69.67	-84.54	109.55	3.00	3.00	0.00
<b>9 5/8"</b>									
1,000.00	22.50	309.49	980.87	92.45	-112.19	145.38	3.00	3.00	0.00
1,100.00	25.50	309.49	1,072.22	118.32	-143.58	186.05	3.00	3.00	0.00
1,200.00	28.50	309.49	1,161.31	147.18	-178.61	231.44	3.00	3.00	0.00
1,300.00	31.50	309.49	1,247.90	178.98	-217.19	281.44	3.00	3.00	0.00
1,400.00	34.50	309.49	1,331.76	213.61	-259.22	335.89	3.00	3.00	0.00
1,500.00	37.50	309.49	1,412.65	250.99	-304.58	394.67	3.00	3.00	0.00
<b>EOB @ 39.01° INC / 309.49° AZI</b>									
1,550.43	39.01	309.49	1,452.25	270.84	-328.68	425.89	3.00	3.00	0.00
1,600.00	39.01	309.49	1,490.76	290.69	-352.76	457.09	0.00	0.00	0.00
1,700.00	39.01	309.49	1,568.46	330.72	-401.34	520.04	0.00	0.00	0.00
1,800.00	39.01	309.49	1,646.16	370.75	-449.92	582.99	0.00	0.00	0.00
1,900.00	39.01	309.49	1,723.86	410.79	-498.50	645.94	0.00	0.00	0.00
2,000.00	39.01	309.49	1,801.56	450.82	-547.08	708.89	0.00	0.00	0.00
2,100.00	39.01	309.49	1,879.27	490.85	-595.66	771.84	0.00	0.00	0.00
2,200.00	39.01	309.49	1,956.97	530.88	-644.24	834.79	0.00	0.00	0.00
2,300.00	39.01	309.49	2,034.67	570.92	-692.82	897.74	0.00	0.00	0.00
2,400.00	39.01	309.49	2,112.37	610.95	-741.40	960.69	0.00	0.00	0.00
2,500.00	39.01	309.49	2,190.07	650.98	-789.98	1,023.64	0.00	0.00	0.00
2,600.00	39.01	309.49	2,267.77	691.01	-838.56	1,086.59	0.00	0.00	0.00
2,700.00	39.01	309.49	2,345.47	731.05	-887.14	1,149.54	0.00	0.00	0.00
2,800.00	39.01	309.49	2,423.17	771.08	-935.72	1,212.49	0.00	0.00	0.00
2,900.00	39.01	309.49	2,500.87	811.11	-984.30	1,275.44	0.00	0.00	0.00
3,000.00	39.01	309.49	2,578.57	851.14	-1,032.88	1,338.39	0.00	0.00	0.00
<b>G Sand</b>									
3,045.60	39.01	309.49	2,614.00	869.40	-1,055.03	1,367.10	0.00	0.00	0.00
3,100.00	39.01	309.49	2,656.27	891.18	-1,081.46	1,401.34	0.00	0.00	0.00
<b>Base G Sand</b>									
3,174.30	39.01	309.49	2,714.00	920.92	-1,117.56	1,448.11	0.00	0.00	0.00
3,200.00	39.01	309.49	2,733.97	931.21	-1,130.04	1,464.29	0.00	0.00	0.00
3,300.00	39.01	309.49	2,811.67	971.24	-1,178.62	1,527.24	0.00	0.00	0.00
3,400.00	39.01	309.49	2,889.37	1,011.28	-1,227.20	1,590.19	0.00	0.00	0.00
3,500.00	39.01	309.49	2,967.07	1,051.31	-1,275.78	1,653.14	0.00	0.00	0.00
3,600.00	39.01	309.49	3,044.77	1,091.34	-1,324.36	1,716.09	0.00	0.00	0.00
3,700.00	39.01	309.49	3,122.47	1,131.37	-1,372.94	1,779.04	0.00	0.00	0.00
3,800.00	39.01	309.49	3,200.17	1,171.41	-1,421.52	1,841.99	0.00	0.00	0.00
3,900.00	39.01	309.49	3,277.87	1,211.44	-1,470.10	1,904.94	0.00	0.00	0.00
4,000.00	39.01	309.49	3,355.57	1,251.47	-1,518.68	1,967.89	0.00	0.00	0.00
4,100.00	39.01	309.49	3,433.27	1,291.50	-1,567.26	2,030.84	0.00	0.00	0.00
4,200.00	39.01	309.49	3,510.97	1,331.54	-1,615.84	2,093.79	0.00	0.00	0.00
4,300.00	39.01	309.49	3,588.67	1,371.57	-1,664.42	2,156.74	0.00	0.00	0.00
4,400.00	39.01	309.49	3,666.37	1,411.60	-1,713.00	2,219.69	0.00	0.00	0.00

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<b>Site:</b>	Sec 8, T6S, R94W	<b>North Reference:</b>	True
<b>Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,500.00	39.01	309.49	3,744.07	1,451.63	-1,761.58	2,282.63	0.00	0.00	0.00
4,600.00	39.01	309.49	3,821.77	1,491.67	-1,810.16	2,345.58	0.00	0.00	0.00
4,700.00	39.01	309.49	3,899.47	1,531.70	-1,858.75	2,408.53	0.00	0.00	0.00
4,800.00	39.01	309.49	3,977.17	1,571.73	-1,907.33	2,471.48	0.00	0.00	0.00
4,900.00	39.01	309.49	4,054.87	1,611.76	-1,955.91	2,534.43	0.00	0.00	0.00
<b>Drop 1.75° / 100'</b>									
4,929.76	39.01	309.49	4,078.00	1,623.68	-1,970.36	2,553.17	0.00	0.00	0.00
5,000.00	37.78	309.49	4,133.04	1,651.42	-2,004.03	2,596.79	1.75	-1.75	0.00
5,100.00	36.03	309.49	4,213.00	1,689.61	-2,050.38	2,656.85	1.75	-1.75	0.00
5,200.00	34.28	309.49	4,294.75	1,726.23	-2,094.81	2,714.43	1.75	-1.75	0.00
5,300.00	32.53	309.49	4,378.23	1,761.25	-2,137.30	2,769.49	1.75	-1.75	0.00
<b>Lower Wasatch</b>									
5,389.12	30.97	309.49	4,454.00	1,791.07	-2,173.50	2,816.38	1.75	-1.75	0.00
5,400.00	30.78	309.49	4,463.34	1,794.62	-2,177.81	2,821.97	1.75	-1.75	0.00
5,500.00	29.03	309.49	4,550.02	1,826.33	-2,216.29	2,871.83	1.75	-1.75	0.00
5,600.00	27.28	309.49	4,638.18	1,856.34	-2,252.71	2,919.02	1.75	-1.75	0.00
5,700.00	25.53	309.49	4,727.74	1,884.63	-2,287.03	2,963.50	1.75	-1.75	0.00
5,800.00	23.78	309.49	4,818.62	1,911.16	-2,319.22	3,005.22	1.75	-1.75	0.00
5,900.00	22.03	309.49	4,910.73	1,935.91	-2,349.26	3,044.14	1.75	-1.75	0.00
6,000.00	20.28	309.49	5,003.98	1,958.87	-2,377.12	3,080.24	1.75	-1.75	0.00
6,100.00	18.53	309.49	5,098.30	1,980.00	-2,402.76	3,113.47	1.75	-1.75	0.00
<b>MVRD</b>									
6,116.55	18.24	309.49	5,114.00	1,983.32	-2,406.79	3,118.69	1.75	-1.75	0.00
6,200.00	16.78	309.49	5,193.58	1,999.29	-2,426.17	3,143.80	1.75	-1.75	0.00
6,300.00	15.03	309.49	5,289.75	2,016.72	-2,447.33	3,171.21	1.75	-1.75	0.00
6,400.00	13.28	309.49	5,386.71	2,032.28	-2,466.20	3,195.67	1.75	-1.75	0.00
6,500.00	11.53	309.49	5,484.37	2,045.94	-2,482.79	3,217.16	1.75	-1.75	0.00
6,600.00	9.78	309.49	5,582.64	2,057.70	-2,497.06	3,235.65	1.75	-1.75	0.00
6,700.00	8.03	309.49	5,681.43	2,067.55	-2,509.01	3,251.14	1.75	-1.75	0.00
6,800.00	6.28	309.49	5,780.64	2,075.48	-2,518.63	3,263.60	1.75	-1.75	0.00
6,900.00	4.53	309.49	5,880.19	2,081.47	-2,525.90	3,273.03	1.75	-1.75	0.00
7,000.00	2.78	309.49	5,979.99	2,085.53	-2,530.83	3,279.41	1.75	-1.75	0.00
7,100.00	1.03	309.49	6,079.93	2,087.65	-2,533.40	3,282.74	1.75	-1.75	0.00
<b>EOD @ Vertical - Top Gas</b>									
7,159.08	0.00	0.00	6,139.00	2,087.98	-2,533.81	3,283.27	1.75	-1.75	0.00
7,200.00	0.00	0.00	6,179.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
7,300.00	0.00	0.00	6,279.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
7,400.00	0.00	0.00	6,379.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
7,500.00	0.00	0.00	6,479.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
7,600.00	0.00	0.00	6,579.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
7,700.00	0.00	0.00	6,679.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
7,800.00	0.00	0.00	6,779.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
7,900.00	0.00	0.00	6,879.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
8,000.00	0.00	0.00	6,979.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
8,100.00	0.00	0.00	7,079.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
8,200.00	0.00	0.00	7,179.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
8,300.00	0.00	0.00	7,279.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
8,400.00	0.00	0.00	7,379.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
8,500.00	0.00	0.00	7,479.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
8,600.00	0.00	0.00	7,579.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
8,700.00	0.00	0.00	7,679.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
8,800.00	0.00	0.00	7,779.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
8,900.00	0.00	0.00	7,879.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Company:</b>	Terra Energy Partners, LLP	<b>TVD Reference:</b>	KB=24' @ 6003.60usft (H&P #318)
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	KB=24' @ 6003.60usft (H&P #318)
<b>Site:</b>	Sec 8, T6S, R94W	<b>North Reference:</b>	True
<b>Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
<b>Cameo</b>									
8,934.08	0.00	0.00	7,914.00	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
9,000.00	0.00	0.00	7,979.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
9,100.00	0.00	0.00	8,079.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
9,200.00	0.00	0.00	8,179.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
9,300.00	0.00	0.00	8,279.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
9,400.00	0.00	0.00	8,379.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
9,500.00	0.00	0.00	8,479.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
9,600.00	0.00	0.00	8,579.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
9,700.00	0.00	0.00	8,679.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
9,800.00	0.00	0.00	8,779.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
<b>RLNS</b>									
9,831.08	0.00	0.00	8,811.00	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
9,900.00	0.00	0.00	8,879.92	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00
<b>TD @ 9981.1' MD / 8961.0' TVD - TD</b>									
9,981.08	0.00	0.00	8,961.00	2,087.98	-2,533.81	3,283.27	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
RWF 421-8 - VP - plan hits target center - Point	0.00	0.00	6,139.00	2,087.98	-2,533.81	1,632,412.23	2,319,665.89	39.544952	-107.912780
RWF 421-8 - PBHL - plan hits target center - Circle (radius 50.00)	0.00	0.00	8,961.00	2,087.98	-2,533.81	1,632,412.23	2,319,665.89	39.544952	-107.912780

Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,000.00	980.87	9 5/8"	9-5/8	12-1/4

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,045.60	2,614.00	G Sand				
3,174.30	2,714.00	Base G Sand				
5,389.12	4,454.00	Lower Wasatch				
6,116.55	5,114.00	MVRD				
7,159.08	6,139.00	Top Gas				
8,934.08	7,914.00	Cameo				
9,831.08	8,811.00	RLNS				
9,981.08	8,961.00	TD				

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Company:</b>	Terra Energy Partners, LLP	<b>TVD Reference:</b>	KB=24' @ 6003.60usft (H&P #318)
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	KB=24' @ 6003.60usft (H&P #318)
<b>Site:</b>	Sec 8, T6S, R94W	<b>North Reference:</b>	True
<b>Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
250.00	250.00	0.00	0.00	Build 3° / 100'
1,550.43	1,452.25	270.84	-328.68	EOB @ 39.01° 'INC / 309.49° 'AZI
4,929.76	4,078.00	1,623.68	-1,970.36	Drop 1.75° / 100'
7,159.08	6,139.00	2,087.98	-2,533.81	EOD @ Vertical
9,981.08	8,961.00	2,087.98	-2,533.81	TD @ 9981.1' MD / 8961.0' TVD





# **Terra Energy Partners, LLP**

**Garfield County, CO**

**Sec 8, T6S, R94W**

**RWF 421-8**

**Wellbore #1**

**Plan #2**

## **QES Anticollision Report**

**08 November, 2020**



<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Reference	Plan #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum ellipse separation of 1,000.0 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	11/8/2020	
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	9,981.1	Plan #2 (Wellbore #1)	OWSG (REV5) MWD HDGM	OWSG MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sec 8, T6S, R94W						
(Offset) RWF 11-9 - Wellbore #1 - Wellbore #1	0.0	0.4	12.4			
(Offset) RWF 11-9 - Wellbore #1 - Wellbore #1	100.0	100.3	12.4	11.8	19.721	ES
(Offset) RWF 11-9 - Wellbore #1 - Wellbore #1	500.0	493.9	42.6	36.5	6.917	SF
(Offset) RWF 12-9 - Wellbore #1 - Wellbore #1	0.0	0.4	37.6			
(Offset) RWF 12-9 - Wellbore #1 - Wellbore #1	100.0	100.3	37.7	37.1	66.011	ES
(Offset) RWF 12-9 - Wellbore #1 - Wellbore #1	400.0	394.9	52.6	49.5	16.929	SF
(Offset) RWF 23-9 - Wellbore #1 - Wellbore #1	263.3	264.0	20.6	18.3	8.995	CC, ES
(Offset) RWF 23-9 - Wellbore #1 - Wellbore #1	400.0	398.3	31.4	26.7	6.658	SF
(Offset) RWF 311-9 - Wellbore #1 - Wellbore #1	0.0	0.0	46.0			
(Offset) RWF 311-9 - Wellbore #1 - Wellbore #1	100.0	99.8	46.7	45.7	47.283	ES
(Offset) RWF 311-9 - Wellbore #1 - Wellbore #1	500.0	486.0	81.4	73.1	9.834	SF
(Offset) RWF 312-9 - Wellbore #1 - Wellbore #1	0.0	0.4	15.1			
(Offset) RWF 312-9 - Wellbore #1 - Wellbore #1	100.0	100.2	15.2	14.6	24.035	ES
(Offset) RWF 312-9 - Wellbore #1 - Wellbore #1	200.0	199.3	19.0	17.2	10.427	SF
(Offset) RWF 322-9 - Wellbore #1 - Wellbore #1	210.4	211.0	5.8	2.4	1.705	Collision Risk Procedures R
(Offset) RWF 322-9 - Wellbore #1 - Wellbore #1	250.0	250.3	7.0	2.7	1.628	Collision Risk Procedures R
(Offset) RWF 411-9 - Wellbore #1 - Wellbore #1	0.0	0.4	17.8			
(Offset) RWF 411-9 - Wellbore #1 - Wellbore #1	400.0	393.3	47.8	44.1	12.918	SF
(Offset) RWF 412-9 - Wellbore #1 - Wellbore #1	0.0	0.4	30.0			
(Offset) RWF 412-9 - Wellbore #1 - Wellbore #1	100.0	100.0	30.2	29.6	52.758	ES
(Offset) RWF 412-9 - Wellbore #1 - Wellbore #1	400.0	394.7	48.9	45.9	15.886	SF
(Offset) RWF 511-9 - Wellbore #1 - Wellbore #1	0.0	0.4	45.1			
(Offset) RWF 511-9 - Wellbore #1 - Wellbore #1	100.0	99.6	45.5	44.9	72.317	ES
(Offset) RWF 511-9 - Wellbore #1 - Wellbore #1	400.0	389.6	69.7	66.5	21.820	SF
(Offset) RWF 512-9 - Wellbore #1 - Wellbore #1	0.0	0.4	7.5			
(Offset) RWF 512-9 - Wellbore #1 - Wellbore #1	100.0	100.3	7.9	7.2	12.364	ES
(Offset) RWF 512-9 - Wellbore #1 - Wellbore #1	200.0	199.6	12.2	10.4	6.643	SF
(Offset) RWF 513-9 - Wellbore #1 - Wellbore #1	343.5	344.8	15.4	12.2	4.859	CC, ES
(Offset) RWF 513-9 - Wellbore #1 - Wellbore #1	400.0	400.5	18.3	13.7	3.943	SF
(Offset) RWF 522-9 - Wellbore #1 - Wellbore #1	262.6	263.2	14.6	12.3	6.451	CC, ES
(Offset) RWF 522-9 - Wellbore #1 - Wellbore #1	400.0	398.8	25.4	20.7	5.416	SF
NR 414-4 - Wellbore #1 - Plan #1	100.0	100.0	31.8	30.9	36.489	CC
NR 414-4 - Wellbore #1 - Plan #1	200.0	198.2	33.9	30.9	11.104	ES
NR 414-4 - Wellbore #1 - Plan #1	500.0	485.0	73.0	64.0	8.092	SF
RWF 21-8 - Wellbore #1 - Plan #1	100.0	100.0	22.5	21.7	25.882	CC
RWF 21-8 - Wellbore #1 - Plan #1	200.0	199.1	24.1	21.4	8.811	ES
RWF 21-8 - Wellbore #1 - Plan #1	4,929.8	4,904.6	530.9	427.2	5.119	SF

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sec 8, T6S, R94W						
RWF 22-8 - Wellbore #1 - Wellbore #1	0.0	0.0	12.5			
RWF 22-8 - Wellbore #1 - Wellbore #1	100.0	99.7	13.6	12.4	11.426	ES
RWF 22-8 - Wellbore #1 - Wellbore #1	600.0	593.1	44.3	33.3	4.035	SF
RWF 321-8 - Wellbore #1 - Plan #1	456.6	456.2	18.7	12.6	3.037	CC
RWF 321-8 - Wellbore #1 - Plan #1	500.0	499.5	18.9	11.9	2.710	ES
RWF 321-8 - Wellbore #1 - Plan #1	3,300.0	3,312.5	129.0	65.9	2.045	SF
RWF 322-8 - Wellbore #1 - Wellbore #1	0.0	0.0	18.1			
RWF 322-8 - Wellbore #1 - Wellbore #1	100.0	99.5	19.4	18.1	14.531	ES
RWF 322-8 - Wellbore #1 - Wellbore #1	600.0	591.3	56.4	45.9	5.395	SF
RWF 422-8 - Wellbore #1 - Wellbore #1	0.0	0.0	31.7			
RWF 422-8 - Wellbore #1 - Wellbore #1	100.0	99.4	32.6	31.5	29.457	ES
RWF 422-8 - Wellbore #1 - Wellbore #1	600.0	586.6	77.5	67.4	7.716	SF
RWF 514-4 - Wellbore #1 - Plan #1	106.9	106.9	39.0	38.0	40.628	CC
RWF 514-4 - Wellbore #1 - Plan #1	200.0	198.7	40.0	37.6	16.548	ES
RWF 514-4 - Wellbore #1 - Plan #1	500.0	494.0	53.5	47.7	9.243	SF
RWF 521-8 - Wellbore #1 - Plan #1	100.0	100.0	10.1	9.3	11.640	CC
RWF 521-8 - Wellbore #1 - Plan #1	200.0	199.5	11.8	9.0	4.285	ES
RWF 521-8 - Wellbore #1 - Plan #1	4,500.0	4,461.2	192.5	98.1	2.039	SF
RWF 521-8 - Wellbore #1 - Wellbore #1	0.0	0.0	10.1			
RWF 521-8 - Wellbore #1 - Wellbore #1	100.0	99.6	11.7	9.9	6.455	ES
RWF 521-8 - Wellbore #1 - Wellbore #1	4,800.0	4,768.8	197.3	94.5	1.919	Collision Risk Procedures R
RWF 522-8 - Wellbore #1 - Wellbore #1	0.0	0.0	29.8			
RWF 522-8 - Wellbore #1 - Wellbore #1	100.0	99.6	30.5	29.2	22.901	ES
RWF 522-8 - Wellbore #1 - Wellbore #1	400.0	397.0	43.6	38.1	7.975	SF

Offset Design											Offset Site Error:	0.0 usft
Sec 8, T6S, R94W - (Offset) RWF 11-9 - Wellbore #1 - Wellbore #1											Offset Well Error:	0.0 usft
Survey Program: 68-GYRO-NS, 427-OWSG (REV5) MWD HDGM Standard												
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.4	0.0	0.0	0.0	-31.53	10.6	-6.5	12.4			
100.0	100.0	100.3	99.9	0.4	0.2	-31.54	10.6	-6.5	12.4	11.8	19.721	ES
200.0	200.0	199.8	199.3	1.3	0.6	-24.26	13.6	-6.1	14.9	13.1	8.211	
250.0	250.0	249.3	248.7	1.4	0.8	-19.14	16.8	-5.8	17.8	15.7	8.382	
300.0	300.0	298.7	297.9	1.6	1.1	37.06	21.2	-5.4	21.4	19.0	8.698	
400.0	399.8	396.7	395.2	3.3	1.6	50.32	33.6	-4.4	30.2	26.1	7.335	
500.0	499.3	493.9	490.7	4.9	3.1	61.27	51.2	-4.0	42.6	36.5	6.917	SF
600.0	598.0	590.3	584.6	6.2	4.4	69.45	73.1	-4.4	58.1	50.7	7.815	
700.0	695.8	685.6	676.4	7.2	5.2	76.26	98.7	-4.8	76.9	68.8	9.483	
800.0	792.4	779.4	765.7	8.2	5.9	82.31	127.1	-4.3	99.2	90.6	11.519	
900.0	887.5	871.5	852.4	9.0	6.5	87.27	158.4	-3.2	125.4	116.1	13.497	
1,000.0	980.9	961.0	935.2	9.8	7.1	91.07	192.1	-1.7	155.6	145.5	15.299	
1,100.0	1,072.2	1,047.8	1,014.4	10.6	7.7	94.29	227.6	1.2	190.3	179.2	17.022	
1,200.0	1,161.3	1,130.3	1,088.5	11.2	8.2	96.94	263.6	5.6	229.7	217.4	18.604	
1,300.0	1,247.9	1,209.8	1,158.5	11.9	8.7	99.00	300.7	11.7	274.2	260.6	20.113	
1,400.0	1,331.8	1,287.8	1,226.3	12.5	9.1	100.71	338.8	19.2	323.0	308.0	21.555	
1,500.0	1,412.6	1,364.6	1,292.8	13.1	9.4	102.39	376.1	28.4	375.3	358.9	22.894	
1,550.4	1,452.2	1,402.3	1,325.3	13.2	9.5	103.18	394.3	33.4	403.1	386.0	23.578	
1,600.0	1,490.8	1,438.7	1,356.8	13.4	9.6	104.78	412.0	38.6	431.0	413.3	24.254	
1,700.0	1,568.5	1,507.2	1,415.6	13.7	9.9	107.37	445.3	49.1	489.3	470.3	25.675	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 11-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 68-GYRO-NS, 427-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
1,800.0	1,646.2	1,574.1	1,472.9	14.0	10.2	109.52	477.7	61.2	550.1	529.8	27.069	
1,900.0	1,723.9	1,642.0	1,530.9	14.3	10.5	111.38	510.5	74.4	612.7	591.1	28.344	
2,000.0	1,801.6	1,713.9	1,592.1	14.8	10.9	113.03	545.2	89.2	676.5	653.6	29.496	
2,100.0	1,879.3	1,788.5	1,655.5	16.0	11.3	114.47	581.3	104.8	740.9	716.6	30.491	
2,200.0	1,957.0	1,865.9	1,721.4	17.3	11.9	115.75	618.5	121.0	805.4	779.7	31.322	
2,300.0	2,034.7	1,944.2	1,788.1	18.6	12.4	116.84	656.1	137.1	869.9	842.8	32.042	
2,400.0	2,112.4	2,020.0	1,852.8	19.9	13.0	117.76	692.6	152.5	934.4	905.9	32.743	
2,500.0	2,190.1	2,093.5	1,915.6	21.2	13.6	118.54	727.8	167.6	999.1	969.2	33.431	
2,600.0	2,267.8	2,178.1	1,987.8	22.5	14.3	119.34	768.1	184.8	1,063.8	1,032.3	33.824	
2,700.0	2,345.5	2,257.4	2,055.7	23.8	14.9	119.99	806.1	200.3	1,127.8	1,094.9	34.268	
2,800.0	2,423.2	2,334.1	2,121.8	25.1	15.6	120.61	842.1	215.4	1,192.1	1,157.8	34.731	
2,900.0	2,500.9	2,416.1	2,192.6	26.4	16.2	121.22	880.1	231.4	1,256.1	1,220.2	35.059	
3,000.0	2,578.6	2,490.5	2,257.0	27.7	16.8	121.74	914.3	245.8	1,320.0	1,282.8	35.500	
3,100.0	2,656.3	2,571.8	2,327.4	29.0	17.5	122.24	952.0	261.5	1,384.0	1,345.3	35.780	
3,200.0	2,734.0	2,649.2	2,394.0	30.3	18.1	122.63	988.6	276.1	1,447.8	1,407.7	36.087	
3,300.0	2,811.7	2,727.1	2,460.6	31.6	18.8	122.93	1,026.5	290.7	1,511.7	1,470.1	36.352	
3,400.0	2,889.4	2,804.0	2,526.1	32.9	19.4	123.19	1,064.1	304.9	1,575.4	1,532.4	36.606	
3,500.0	2,967.1	2,876.8	2,588.0	34.2	20.1	123.40	1,099.9	318.4	1,639.4	1,594.9	36.908	
3,600.0	3,044.8	2,963.7	2,661.9	35.5	20.8	123.64	1,142.7	334.4	1,703.2	1,657.1	36.966	
3,700.0	3,122.5	3,032.2	2,720.2	36.8	21.4	123.81	1,176.4	347.0	1,766.9	1,719.5	37.294	
3,800.0	3,200.2	3,104.4	2,781.5	38.2	22.0	123.98	1,212.1	360.5	1,831.0	1,782.3	37.552	
3,900.0	3,277.9	3,181.1	2,846.5	39.5	22.7	124.14	1,250.1	374.9	1,895.2	1,845.0	37.731	
4,000.0	3,355.6	3,258.8	2,912.7	40.8	23.4	124.31	1,288.1	389.6	1,959.3	1,907.6	37.887	
4,100.0	3,433.3	3,336.0	2,978.6	42.1	24.1	124.48	1,325.5	404.2	2,023.5	1,970.3	38.045	
4,200.0	3,511.0	3,419.9	3,050.4	43.4	24.8	124.66	1,366.2	419.9	2,087.5	2,032.7	38.101	
4,300.0	3,588.7	3,499.3	3,117.7	44.7	25.5	124.78	1,405.6	434.4	2,151.2	2,094.9	38.193	
4,400.0	3,666.4	3,583.9	3,188.7	46.0	26.2	124.85	1,449.0	449.5	2,214.9	2,157.0	38.198	
4,500.0	3,744.1	3,659.4	3,252.5	47.3	26.9	124.93	1,487.1	462.8	2,278.4	2,218.9	38.311	
4,600.0	3,821.8	3,722.0	3,305.0	48.6	27.5	124.96	1,519.4	474.1	2,342.2	2,281.5	38.583	
4,700.0	3,899.5	3,824.8	3,391.1	50.0	28.4	125.02	1,572.4	492.5	2,405.9	2,343.1	38.346	
4,800.0	3,977.2	3,896.8	3,451.9	51.3	29.1	125.08	1,608.9	505.1	2,469.2	2,405.1	38.490	
4,900.0	4,054.9	3,968.2	3,512.4	52.6	29.7	125.15	1,644.6	517.8	2,532.7	2,467.1	38.642	
4,929.8	4,078.0	3,989.2	3,530.2	53.0	29.9	125.18	1,655.0	521.6	2,551.6	2,485.7	38.692	
5,000.0	4,133.0	4,046.4	3,578.9	53.9	30.4	126.04	1,683.2	531.9	2,596.0	2,528.9	38.720	
5,100.0	4,213.0	4,141.4	3,660.0	55.1	31.2	127.16	1,729.6	548.8	2,657.7	2,588.8	38.608	
5,200.0	4,294.8	4,234.8	3,741.2	56.3	32.0	128.20	1,773.0	565.1	2,717.3	2,646.7	38.525	
5,300.0	4,378.2	4,311.2	3,808.3	57.4	32.6	129.17	1,806.9	578.5	2,775.3	2,703.5	38.626	
5,400.0	4,463.3	4,386.0	3,874.0	58.4	33.2	130.04	1,840.1	591.9	2,832.1	2,759.0	38.742	
5,500.0	4,550.0	4,433.3	3,915.2	59.4	33.6	130.86	1,861.5	600.7	2,887.9	2,814.0	39.113	
5,600.0	4,638.2	4,489.8	3,964.0	60.3	34.1	131.58	1,887.7	611.7	2,942.8	2,868.1	39.391	
5,700.0	4,727.7	4,574.9	4,037.5	61.1	34.8	132.15	1,927.3	628.5	2,996.5	2,920.4	39.375	
5,800.0	4,818.6	4,651.2	4,103.3	61.9	35.5	132.67	1,962.9	643.7	3,048.5	2,971.2	39.439	
5,900.0	4,910.7	4,748.4	4,186.8	62.6	36.3	133.03	2,008.7	662.9	3,098.8	3,020.0	39.296	
6,000.0	5,004.0	4,843.5	4,268.9	63.3	37.1	133.32	2,053.0	681.4	3,147.1	3,066.7	39.172	
6,100.0	5,098.3	4,976.0	4,384.6	63.9	38.2	133.43	2,112.4	706.6	3,193.0	3,110.5	38.737	
6,200.0	5,193.6	5,182.4	4,568.4	64.4	39.8	133.21	2,199.7	740.9	3,234.4	3,148.8	37.780	
6,300.0	5,289.7	5,296.2	4,672.0	64.9	40.6	133.35	2,243.5	758.2	3,272.4	3,185.3	37.568	
6,400.0	5,386.7	5,447.7	4,811.5	65.3	41.6	133.33	2,298.3	780.1	3,307.6	3,218.5	37.138	
6,500.0	5,484.4	5,564.9	4,919.9	65.7	42.3	133.35	2,340.3	795.4	3,339.4	3,249.0	36.923	
6,600.0	5,582.6	5,663.9	5,011.6	66.0	43.0	133.37	2,375.6	807.9	3,369.0	3,277.4	36.808	
6,700.0	5,681.4	5,761.0	5,102.0	66.2	43.5	133.37	2,408.5	820.3	3,396.5	3,304.0	36.707	
6,800.0	5,780.6	5,878.8	5,212.4	66.4	44.2	133.25	2,446.8	835.4	3,422.0	3,328.3	36.505	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 11-9 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b> 68-GYRO-NS, 427-OWSG (REV5) MWD HDGM Standard												<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning	
6,900.0	5,880.2	6,020.2	5,345.5	66.6	45.1	132.98	2,491.6	852.0	3,444.4	3,349.2	36.188		
7,000.0	5,980.0	6,193.9	5,510.4	66.7	46.0	132.53	2,543.2	869.9	3,463.3	3,366.5	35.751		
7,100.0	6,079.9	6,343.3	5,654.0	66.8	46.7	132.18	2,581.9	883.1	3,478.3	3,380.2	35.452		
7,159.1	6,139.0	6,411.5	5,720.1	66.8	47.0	81.53	2,597.7	889.0	3,485.8	3,387.2	35.369		
7,200.0	6,179.9	6,460.3	5,767.5	66.8	47.2	81.36	2,608.6	893.1	3,490.7	3,391.8	35.313		
7,300.0	6,279.9	6,569.1	5,873.4	66.8	47.6	81.00	2,632.1	902.1	3,502.3	3,402.9	35.212		
7,400.0	6,379.9	6,665.3	5,967.1	66.8	47.9	80.70	2,652.1	910.0	3,514.0	3,414.1	35.157		
7,500.0	6,479.9	6,861.6	6,159.7	66.8	48.6	80.17	2,687.2	924.4	3,524.4	3,423.2	34.838		
7,600.0	6,579.9	7,082.2	6,377.9	66.8	49.2	79.71	2,717.7	935.7	3,532.0	3,429.7	34.540		
7,700.0	6,679.9	7,228.1	6,522.9	66.9	49.4	79.49	2,732.4	940.3	3,536.9	3,434.1	34.418		
7,800.0	6,779.9	7,353.4	6,647.8	66.9	49.6	79.36	2,741.6	943.9	3,541.1	3,438.0	34.346		
7,900.0	6,879.9	7,508.4	6,802.6	66.9	49.8	79.23	2,750.2	946.6	3,543.7	3,440.2	34.251		
8,000.0	6,979.9	7,649.4	6,943.6	66.9	49.9	79.17	2,753.9	948.2	3,545.3	3,441.6	34.190		
8,100.0	7,079.9	7,780.8	7,074.9	66.9	49.9	79.16	2,754.7	948.8	3,545.9	3,442.1	34.157		
8,200.0	7,179.9	7,904.4	7,198.6	66.9	49.9	79.17	2,754.4	948.6	3,545.7	3,441.8	34.156		
8,300.0	7,279.9	7,992.1	7,286.2	67.0	49.9	79.18	2,753.8	948.4	3,545.3	3,441.5	34.158		
8,400.0	7,379.9	8,086.1	7,380.3	67.0	49.9	79.19	2,752.8	948.5	3,545.2	3,441.4	34.156		
8,500.0	7,479.9	8,197.6	7,491.7	67.0	49.9	79.22	2,750.8	948.7	3,545.0	3,441.2	34.155		
8,600.0	7,579.9	8,292.0	7,586.1	67.0	49.9	79.26	2,748.5	948.9	3,544.8	3,441.0	34.159		
8,700.0	7,679.9	8,392.3	7,686.4	67.0	49.9	79.30	2,746.0	949.3	3,544.7	3,440.9	34.163		
8,800.0	7,779.9	8,516.2	7,810.2	67.0	49.9	79.34	2,743.5	949.0	3,544.1	3,440.3	34.167		
8,900.0	7,879.9	8,622.0	7,916.0	67.1	49.9	79.35	2,742.5	948.1	3,543.1	3,439.4	34.173		
9,000.0	7,979.9	8,719.3	8,013.3	67.1	49.9	79.35	2,742.3	947.2	3,542.1	3,438.4	34.177		
9,100.0	8,079.9	8,831.0	8,124.9	67.1	49.9	79.37	2,741.2	946.2	3,541.1	3,437.5	34.185		
9,200.0	8,179.9	8,931.9	8,225.9	67.1	49.9	79.40	2,739.2	945.2	3,539.7	3,436.2	34.189		
9,300.0	8,279.9	9,065.9	8,359.9	67.1	49.8	79.44	2,736.0	943.4	3,538.0	3,434.6	34.200		
9,400.0	8,379.9	9,174.7	8,468.6	67.2	49.8	79.46	2,734.5	940.9	3,535.5	3,432.1	34.197		
9,500.0	8,479.9	9,253.9	8,547.7	67.2	49.9	79.44	2,735.2	939.0	3,533.2	3,429.8	34.181		
9,600.0	8,579.9	9,328.3	8,622.1	67.2	49.9	79.42	2,736.3	937.6	3,531.7	3,428.3	34.166		
9,700.0	8,679.9	9,424.2	8,718.0	67.2	49.9	79.40	2,737.2	936.3	3,530.6	3,427.2	34.158		
9,800.0	8,779.9	9,551.8	8,845.6	67.2	49.9	79.40	2,737.2	934.5	3,529.1	3,425.8	34.159		
9,900.0	8,879.9	9,675.8	8,969.6	67.3	50.0	79.41	2,735.7	931.9	3,526.9	3,423.6	34.162		
9,981.1	8,961.0	9,766.2	9,060.0	67.3	49.9	79.43	2,734.3	929.7	3,524.6	3,421.5	34.163		

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 12-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 99-GYRO-NS, 713-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
0.0	0.0	0.4	0.0	0.0	0.0	22.97	34.6	14.7	37.6			
100.0	100.0	100.3	99.9	0.4	0.1	23.13	34.7	14.8	37.7	37.1	66.011	ES
200.0	200.0	199.0	198.6	1.3	0.5	23.58	36.3	15.8	39.6	37.9	22.712	
250.0	250.0	248.2	247.8	1.4	0.7	23.93	38.2	17.0	41.9	39.8	20.458	
300.0	300.0	297.4	296.9	1.6	0.9	75.55	40.9	18.5	44.8	42.4	19.168	
400.0	399.8	394.9	394.0	3.3	1.4	81.60	48.3	22.8	52.6	49.5	16.929	SF
500.0	499.3	490.5	488.6	4.9	1.9	90.25	59.3	29.9	65.7	61.9	17.306	
600.0	598.0	582.7	579.0	6.2	2.6	97.69	74.7	39.4	86.1	81.5	18.463	
700.0	695.8	673.2	666.4	7.2	3.1	103.26	94.6	52.0	114.9	109.1	20.032	
800.0	792.4	762.5	751.9	8.2	3.4	107.84	116.0	66.6	149.0	141.9	20.998	
900.0	887.5	850.3	835.1	9.0	3.6	111.49	138.6	82.7	188.3	179.9	22.386	
1,000.0	980.9	939.8	919.7	9.8	3.9	114.59	162.6	99.6	231.3	221.6	23.930	
1,100.0	1,072.2	1,028.5	1,003.7	10.6	4.3	117.34	186.0	115.6	276.5	265.6	25.333	
1,200.0	1,161.3	1,112.7	1,083.4	11.2	4.6	119.58	208.5	131.1	325.2	313.0	26.738	
1,300.0	1,247.9	1,196.6	1,162.8	11.9	5.0	121.55	231.0	146.5	377.1	363.7	28.053	
1,400.0	1,331.8	1,277.7	1,239.5	12.5	5.4	123.24	252.4	161.4	432.3	417.6	29.365	
1,500.0	1,412.6	1,354.6	1,312.4	13.1	5.7	124.61	272.4	175.6	491.0	475.1	30.749	
1,550.4	1,452.2	1,393.5	1,349.3	13.2	5.9	125.23	282.6	182.9	521.9	505.4	31.526	
1,600.0	1,490.8	1,432.3	1,386.0	13.4	6.1	126.71	292.7	190.0	552.7	535.6	32.296	
1,700.0	1,568.5	1,507.6	1,457.4	13.7	6.4	129.15	312.5	203.6	615.3	597.1	33.859	
1,800.0	1,646.2	1,580.6	1,526.6	14.0	6.8	131.13	331.6	217.0	678.7	659.5	35.405	
1,900.0	1,723.9	1,653.8	1,596.0	14.3	7.2	132.81	350.5	230.6	742.7	722.6	36.865	
2,000.0	1,801.6	1,736.5	1,674.5	14.8	7.6	134.45	371.5	245.7	806.8	785.6	38.001	
2,100.0	1,879.3	1,812.7	1,747.0	16.0	8.0	135.76	390.6	259.2	870.8	848.6	39.194	
2,200.0	1,957.0	1,887.2	1,817.9	17.3	8.3	136.87	409.4	272.4	935.0	911.9	40.344	
2,300.0	2,034.7	1,964.1	1,891.0	18.6	8.7	137.85	428.9	286.1	999.5	975.4	41.366	
2,400.0	2,112.4	2,046.3	1,969.2	19.9	9.1	138.78	449.7	300.3	1,063.8	1,038.6	42.189	
2,500.0	2,190.1	2,128.5	2,047.7	21.2	9.5	139.63	470.2	314.0	1,127.7	1,101.5	42.948	
2,600.0	2,267.8	2,210.5	2,126.0	22.5	9.9	140.40	490.3	327.2	1,191.4	1,164.1	43.659	
2,700.0	2,345.5	2,287.3	2,199.5	23.8	10.3	141.06	509.0	339.3	1,254.9	1,226.7	44.418	
2,800.0	2,423.2	2,365.3	2,274.2	25.1	10.7	141.68	527.9	351.6	1,318.5	1,289.3	45.104	
2,900.0	2,500.9	2,440.2	2,345.8	26.4	11.0	142.18	546.7	363.4	1,382.2	1,352.0	45.792	
3,000.0	2,578.6	2,509.8	2,412.1	27.7	11.4	142.59	564.4	374.7	1,446.1	1,415.0	46.534	
3,100.0	2,656.3	2,578.4	2,477.3	29.0	11.7	142.93	582.3	386.3	1,510.5	1,478.5	47.247	
3,200.0	2,734.0	2,649.9	2,545.0	30.3	12.1	143.23	601.5	398.7	1,575.2	1,542.3	47.858	
3,300.0	2,811.7	2,721.0	2,612.4	31.6	12.5	143.51	620.8	411.2	1,640.2	1,606.3	48.441	
3,400.0	2,889.4	2,790.5	2,678.2	32.9	12.9	143.77	639.0	423.7	1,705.4	1,670.6	49.037	
3,500.0	2,967.1	2,865.1	2,749.0	34.2	13.2	144.05	658.4	437.1	1,770.8	1,735.1	49.525	
3,600.0	3,044.8	2,938.8	2,818.9	35.5	13.6	144.31	677.5	450.4	1,836.3	1,799.6	49.979	
3,700.0	3,122.5	3,010.1	2,886.5	36.8	14.0	144.53	696.2	463.4	1,901.9	1,864.2	50.449	
3,800.0	3,200.2	3,079.3	2,951.8	38.2	14.4	144.70	715.0	476.4	1,967.7	1,929.1	50.923	
3,900.0	3,277.9	3,146.5	3,015.0	39.5	14.8	144.83	733.9	489.3	2,033.8	1,994.3	51.397	
4,000.0	3,355.6	3,229.3	3,092.7	40.8	15.3	144.96	757.7	505.4	2,100.0	2,059.2	51.555	
4,100.0	3,433.3	3,308.1	3,166.6	42.1	15.7	145.07	780.5	520.5	2,165.8	2,124.0	51.763	
4,200.0	3,511.0	3,384.5	3,238.3	43.4	16.2	145.18	802.5	535.0	2,231.7	2,188.7	51.999	
4,300.0	3,588.7	3,458.7	3,308.0	44.7	16.6	145.28	823.8	549.1	2,297.5	2,253.5	52.257	
4,400.0	3,666.4	3,527.9	3,372.9	46.0	17.0	145.36	843.7	562.3	2,363.4	2,318.5	52.587	
4,500.0	3,744.1	3,599.7	3,440.3	47.3	17.4	145.44	864.5	576.2	2,429.5	2,383.5	52.853	
4,600.0	3,821.8	3,669.3	3,505.3	48.6	17.8	145.51	884.9	589.9	2,495.7	2,448.7	53.141	
4,700.0	3,899.5	3,742.6	3,574.2	50.0	18.3	145.59	905.7	604.3	2,562.1	2,514.1	53.366	
4,800.0	3,977.2	3,832.9	3,658.8	51.3	18.8	145.68	931.7	621.8	2,628.2	2,578.9	53.311	
4,900.0	4,054.9	3,900.7	3,722.2	52.6	19.2	145.73	951.8	634.9	2,694.2	2,643.9	53.582	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 12-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 99-GYRO-NS, 713-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
4,929.8	4,078.0	3,922.8	3,742.9	53.0	19.3	145.74	958.4	639.3	2,713.9	2,663.3	53.631	
5,000.0	4,133.0	3,983.3	3,799.2	53.9	19.7	146.34	976.8	651.1	2,759.8	2,708.3	53.605	
5,100.0	4,213.0	4,067.5	3,877.6	55.1	20.2	147.09	1,002.9	667.5	2,823.2	2,770.5	53.549	
5,200.0	4,294.8	4,142.4	3,947.3	56.3	20.7	147.75	1,026.2	681.9	2,884.6	2,830.8	53.600	
5,300.0	4,378.2	4,215.7	4,015.7	57.4	21.1	148.35	1,048.4	696.2	2,944.2	2,889.4	53.660	
5,400.0	4,463.3	4,307.7	4,101.7	58.4	21.7	148.85	1,075.8	714.0	3,001.7	2,945.5	53.445	
5,500.0	4,550.0	4,407.8	4,195.3	59.4	22.3	149.26	1,105.7	732.8	3,056.5	2,999.0	53.110	
5,600.0	4,638.2	4,505.8	4,287.3	60.3	22.8	149.61	1,134.4	750.6	3,108.8	3,049.9	52.801	
5,700.0	4,727.7	4,595.0	4,371.4	61.1	23.3	149.94	1,159.6	766.5	3,158.6	3,098.6	52.607	
5,800.0	4,818.6	4,695.4	4,466.5	61.9	23.9	150.21	1,187.1	783.8	3,205.8	3,144.4	52.278	
5,900.0	4,910.7	4,765.0	4,532.3	62.6	24.3	150.49	1,206.1	795.9	3,250.8	3,188.7	52.291	
6,000.0	5,004.0	4,848.9	4,611.6	63.3	24.7	150.68	1,229.0	810.9	3,293.9	3,230.7	52.123	
6,100.0	5,098.3	4,947.4	4,704.9	63.9	25.3	150.80	1,255.4	828.3	3,334.6	3,270.2	51.789	
6,200.0	5,193.6	5,026.5	4,780.1	64.4	25.7	150.94	1,275.8	842.1	3,372.9	3,307.6	51.661	
6,300.0	5,289.7	5,154.2	4,902.0	64.9	26.3	150.94	1,306.8	863.9	3,408.6	3,341.9	51.054	
6,400.0	5,386.7	5,256.5	5,000.2	65.3	26.8	150.98	1,330.0	880.5	3,441.3	3,373.5	50.717	
6,500.0	5,484.4	5,383.3	5,122.8	65.7	27.4	150.95	1,356.6	899.3	3,470.5	3,401.3	50.181	
6,600.0	5,582.6	5,576.9	5,312.0	66.0	28.1	150.84	1,389.4	923.4	3,495.6	3,424.6	49.236	
6,700.0	5,681.4	5,720.5	5,453.5	66.2	28.5	150.82	1,409.8	937.9	3,516.5	3,444.3	48.728	
6,800.0	5,780.6	5,870.1	5,601.7	66.4	28.9	150.82	1,426.0	949.5	3,533.0	3,459.8	48.250	
6,900.0	5,880.2	5,989.6	5,720.4	66.6	29.1	150.82	1,436.6	957.2	3,545.9	3,472.0	47.949	
7,000.0	5,980.0	6,122.5	5,852.8	66.7	29.4	150.79	1,446.9	964.4	3,555.3	3,480.6	47.599	
7,100.0	6,079.9	6,223.4	5,953.3	66.8	29.6	150.76	1,453.1	969.3	3,562.0	3,486.8	47.395	
7,159.1	6,139.0	6,311.9	6,041.7	66.8	29.9	100.20	1,457.0	972.8	3,564.3	3,488.8	47.204	
7,200.0	6,179.9	6,373.2	6,102.9	66.8	30.1	100.16	1,459.1	974.7	3,565.3	3,489.6	47.101	
7,300.0	6,279.9	6,507.1	6,236.7	66.8	30.5	100.10	1,462.7	977.6	3,566.9	3,490.9	46.919	
7,400.0	6,379.9	6,627.2	6,356.8	66.8	30.8	100.07	1,464.1	979.0	3,567.9	3,491.6	46.796	
7,500.0	6,479.9	6,740.2	6,469.9	66.8	30.9	100.07	1,464.3	979.5	3,568.3	3,491.9	46.707	
7,600.0	6,579.9	6,847.1	6,576.7	66.8	30.9	100.07	1,464.0	979.7	3,568.5	3,492.0	46.650	
7,700.0	6,679.9	6,950.5	6,680.1	66.9	30.8	100.08	1,463.7	979.7	3,568.5	3,492.0	46.618	
7,800.0	6,779.9	7,052.3	6,781.9	66.9	30.6	100.09	1,462.7	979.5	3,568.5	3,491.9	46.604	
7,900.0	6,879.9	7,176.4	6,905.9	66.9	30.4	100.13	1,460.2	978.6	3,568.2	3,491.6	46.572	
8,000.0	6,979.9	7,308.4	7,038.0	66.9	30.2	100.17	1,458.3	976.6	3,566.9	3,490.3	46.547	
8,100.0	7,079.9	7,414.0	7,143.5	66.9	30.0	100.18	1,458.1	974.7	3,565.2	3,488.6	46.557	
8,200.0	7,179.9	7,493.0	7,222.5	66.9	30.0	100.18	1,457.9	973.5	3,563.7	3,487.2	46.600	
8,300.0	7,279.9	7,592.8	7,322.3	67.0	29.9	100.19	1,457.5	972.3	3,562.6	3,486.2	46.613	
8,400.0	7,379.9	7,691.3	7,420.8	67.0	29.9	100.21	1,456.7	971.0	3,561.4	3,485.0	46.628	
8,500.0	7,479.9	7,786.3	7,515.8	67.0	30.0	100.22	1,456.0	969.8	3,560.3	3,484.0	46.647	
8,600.0	7,579.9	7,877.5	7,607.0	67.0	30.0	100.24	1,455.1	968.8	3,559.4	3,483.2	46.669	
8,700.0	7,679.9	7,976.5	7,706.0	67.0	30.0	100.27	1,453.7	967.8	3,558.7	3,482.5	46.677	
8,800.0	7,779.9	8,108.1	7,837.6	67.0	30.0	100.29	1,452.5	966.0	3,557.5	3,481.2	46.642	
8,900.0	7,879.9	8,205.8	7,935.2	67.1	30.0	100.31	1,451.6	964.1	3,555.8	3,479.6	46.654	
9,000.0	7,979.9	8,286.1	8,015.6	67.1	30.0	100.33	1,450.9	963.0	3,554.5	3,478.4	46.690	
9,100.0	8,079.9	8,386.2	8,115.6	67.1	30.0	100.34	1,449.9	961.8	3,553.6	3,477.5	46.696	
9,200.0	8,179.9	8,498.0	8,227.3	67.1	30.0	100.37	1,448.5	960.2	3,552.4	3,476.3	46.686	
9,300.0	8,279.9	8,586.5	8,315.9	67.1	30.0	100.38	1,447.9	958.9	3,551.1	3,475.0	46.704	
9,400.0	8,379.9	8,663.4	8,392.7	67.2	30.0	100.39	1,447.4	958.4	3,550.5	3,474.5	46.742	
9,500.0	8,479.9	8,777.9	8,507.3	67.2	30.0	100.42	1,446.0	957.5	3,549.9	3,473.9	46.716	
9,600.0	8,579.9	8,874.1	8,603.4	67.2	30.0	100.44	1,444.7	956.4	3,549.1	3,473.1	46.720	
9,700.0	8,679.9	8,955.1	8,684.4	67.2	30.0	100.46	1,443.8	955.9	3,548.7	3,472.8	46.749	
9,752.2	8,732.1	9,002.8	8,732.1	67.2	30.0	100.47	1,443.0	955.8	3,548.7	3,472.8	46.753	
9,800.0	8,779.9	9,048.5	8,777.8	67.2	30.0	100.49	1,442.0	955.6	3,548.7	3,472.8	46.755	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b>	Sec 8, T6S, R94W - (Offset) RWF 12-9 - Wellbore #1 - Wellbore #1										<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b>	99-GYRO-NS, 713-OWSG (REV5) MWD HDGM Standard										<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
9,900.0	8,879.9	9,143.8	8,873.1	67.3	30.0	100.52	1,440.3	955.4	3,548.8	3,472.9	46.756	
9,981.1	8,961.0	9,216.8	8,946.1	67.3	30.0	100.54	1,438.7	955.3	3,549.1	3,473.2	46.771	



<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 23-9 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b> 78-GYRO-NS, 614-OWSG (REV5) MWD HDGM Standard												<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning		
0.0	0.0	0.4	0.0	0.0	0.0	-156.79	-20.4	-8.7	22.2				
100.0	100.0	100.5	100.1	0.4	0.2	-156.45	-20.4	-8.9	22.3	21.6	36.294		
200.0	200.0	200.8	200.3	1.3	0.6	-164.69	-20.5	-5.6	21.2	19.4	11.595		
250.0	250.0	250.7	250.2	1.4	0.8	-173.56	-20.5	-2.3	20.7	18.5	9.441		
263.3	263.3	264.0	263.3	1.4	0.9	-126.04	-20.6	-1.3	20.6	18.3	8.995	CC, ES	
300.0	300.0	300.5	299.7	1.6	1.1	-136.63	-20.6	2.1	21.2	18.5	8.107		
400.0	399.8	398.3	396.6	3.3	1.7	-168.74	-20.4	15.3	31.4	26.7	6.658	SF	
500.0	499.3	492.4	488.9	4.9	2.5	173.57	-19.9	33.6	56.2	49.5	8.406		
600.0	598.0	581.6	575.2	6.2	3.0	165.50	-18.9	56.1	92.7	84.7	11.591		
700.0	695.8	664.9	654.8	7.2	3.3	161.97	-18.6	80.9	138.5	129.0	14.486		
800.0	792.4	741.9	727.1	8.2	4.2	159.88	-18.4	107.3	192.8	181.5	17.072		
900.0	887.5	813.9	793.6	9.0	5.1	158.43	-18.3	134.7	254.2	241.5	20.040		
1,000.0	980.9	883.9	857.7	9.8	5.5	157.33	-18.3	162.8	321.0	307.3	23.525		
1,100.0	1,072.2	958.1	925.5	10.6	5.8	156.44	-18.0	192.9	391.6	377.1	27.019		
1,200.0	1,161.3	1,029.6	991.1	11.2	6.0	155.66	-17.2	221.5	464.8	449.5	30.417		
1,300.0	1,247.9	1,097.6	1,053.6	11.9	6.2	154.92	-16.2	248.2	540.8	524.7	33.737		
1,400.0	1,331.8	1,162.1	1,113.0	12.5	6.4	154.13	-15.0	273.3	619.4	602.7	36.981		
1,500.0	1,412.6	1,217.6	1,164.2	13.1	6.6	153.16	-13.9	294.9	700.9	683.5	40.358		
1,550.4	1,452.2	1,243.5	1,188.0	13.2	6.7	152.61	-13.5	305.0	743.1	725.5	42.205		
1,600.0	1,490.8	1,269.0	1,211.5	13.4	6.8	153.10	-13.2	314.9	784.9	767.1	44.025		
1,700.0	1,568.5	1,331.0	1,268.6	13.7	7.0	154.13	-12.4	338.8	869.2	850.7	47.140		
1,800.0	1,646.2	1,384.2	1,317.9	14.0	7.3	154.87	-11.7	359.0	953.0	934.1	50.321		
1,900.0	1,723.9	1,428.4	1,358.7	14.3	7.6	155.38	-11.2	376.0	1,037.4	1,018.0	53.650		
2,000.0	1,801.6	1,473.9	1,400.5	14.8	7.9	155.84	-10.7	393.9	1,122.2	1,102.4	56.777		
2,100.0	1,879.3	1,522.4	1,445.0	16.0	8.3	156.27	-10.4	413.1	1,207.3	1,187.0	59.622		
2,200.0	1,957.0	1,568.6	1,487.4	17.3	8.6	156.64	-10.3	431.5	1,292.5	1,271.8	62.400		
2,300.0	2,034.7	1,612.3	1,527.4	18.6	8.9	156.93	-10.1	449.2	1,378.1	1,357.0	65.144		
2,400.0	2,112.4	1,659.5	1,570.3	19.9	9.3	157.19	-9.6	468.7	1,464.0	1,442.3	67.611		
2,500.0	2,190.1	1,716.4	1,622.3	21.2	9.7	157.49	-9.3	492.0	1,549.8	1,527.5	69.517		
2,600.0	2,267.8	1,769.8	1,671.0	22.5	10.1	157.74	-9.1	513.7	1,635.4	1,612.6	71.455		
2,700.0	2,345.5	1,820.9	1,717.7	23.8	10.5	157.95	-8.6	534.5	1,721.1	1,697.6	73.376		
2,800.0	2,423.2	1,873.8	1,766.0	25.1	10.9	158.14	-8.0	556.1	1,806.8	1,782.7	75.102		
2,900.0	2,500.9	1,927.8	1,815.3	26.4	11.3	158.32	-7.5	578.0	1,892.4	1,867.7	76.680		
3,000.0	2,578.6	2,004.3	1,885.5	27.7	11.8	158.55	-6.7	608.7	1,977.6	1,952.0	77.262		
3,100.0	2,656.3	2,052.7	1,929.9	29.0	12.2	158.68	-6.0	627.8	2,062.5	2,036.4	78.853		
3,200.0	2,734.0	2,092.9	1,966.8	30.3	12.5	158.78	-5.6	643.8	2,147.7	2,121.1	80.689		
3,300.0	2,811.7	2,134.2	2,004.5	31.6	12.8	158.88	-5.2	660.5	2,233.2	2,206.1	82.411		
3,400.0	2,889.4	2,177.1	2,043.8	32.9	13.1	158.98	-4.8	678.0	2,318.9	2,291.3	83.992		
3,500.0	2,967.1	2,210.0	2,073.7	34.2	13.4	159.04	-4.5	691.5	2,404.8	2,376.8	85.914		
3,600.0	3,044.8	2,246.3	2,106.7	35.5	13.7	159.10	-4.2	706.7	2,491.0	2,462.6	87.594		
3,700.0	3,122.5	2,274.9	2,132.5	36.8	13.9	159.15	-4.0	718.9	2,577.7	2,548.9	89.548		
3,800.0	3,200.2	2,304.0	2,158.8	38.2	14.1	159.19	-3.9	731.5	2,664.8	2,635.7	91.438		
3,900.0	3,277.9	2,338.9	2,190.1	39.5	14.4	159.24	-3.8	746.8	2,752.2	2,722.6	92.991		
4,000.0	3,355.6	2,374.9	2,222.4	40.8	14.7	159.27	-3.5	762.9	2,839.9	2,809.8	94.440		
4,100.0	3,433.3	2,416.4	2,259.4	42.1	15.1	159.30	-3.0	781.7	2,927.7	2,897.0	95.612		
4,200.0	3,511.0	2,470.7	2,307.7	43.4	15.6	159.31	-2.0	806.3	3,015.5	2,984.1	96.215		
4,300.0	3,588.7	2,631.7	2,452.2	44.7	16.9	159.37	1.9	877.1	3,102.8	3,069.2	92.476		
4,400.0	3,666.4	2,732.7	2,544.4	46.0	17.7	159.48	3.6	918.2	3,188.2	3,153.3	91.234		
4,500.0	3,744.1	2,777.0	2,585.1	47.3	18.0	159.53	4.1	935.9	3,273.4	3,237.9	92.093		
4,600.0	3,821.8	2,859.5	2,661.0	48.6	18.7	159.66	4.6	968.2	3,358.3	3,321.8	91.774		
4,700.0	3,899.5	2,914.8	2,712.0	50.0	19.1	159.74	4.7	989.6	3,443.1	3,405.8	92.253		
4,800.0	3,977.2	2,970.2	2,763.1	51.3	19.5	159.83	4.6	1,010.9	3,527.8	3,489.8	92.705		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 23-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 78-GYRO-NS, 614-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
4,900.0	4,054.9	3,021.9	2,810.9	52.6	19.9	159.92	4.4	1,030.6	3,612.5	3,573.8	93.272	
4,929.8	4,078.0	3,034.4	2,822.4	53.0	20.0	159.94	4.4	1,035.4	3,637.8	3,598.9	93.545	
5,000.0	4,133.0	3,065.4	2,851.0	53.9	20.2	160.63	4.2	1,047.3	3,697.0	3,657.7	94.122	
5,100.0	4,213.0	3,122.0	2,903.2	55.1	20.6	161.51	4.3	1,069.3	3,780.0	3,739.9	94.480	
5,200.0	4,294.8	3,155.0	2,933.6	56.3	20.8	162.27	4.6	1,082.2	3,861.4	3,820.9	95.478	
5,300.0	4,378.2	3,209.5	2,983.7	57.4	21.3	162.94	5.2	1,103.8	3,941.2	3,900.1	95.766	
5,400.0	4,463.3	3,249.0	3,019.8	58.4	21.6	163.54	5.7	1,119.7	4,019.7	3,978.0	96.472	
5,500.0	4,550.0	3,282.2	3,050.0	59.4	21.8	164.08	6.2	1,133.4	4,096.7	4,054.6	97.308	
5,600.0	4,638.2	3,316.3	3,081.0	60.3	22.1	164.58	6.6	1,147.7	4,172.4	4,129.8	98.087	
5,700.0	4,727.7	3,355.2	3,116.2	61.1	22.4	165.01	7.1	1,164.3	4,246.6	4,203.5	98.689	
5,800.0	4,818.6	3,412.6	3,168.0	61.9	22.9	165.36	8.0	1,189.0	4,319.1	4,275.3	98.703	
5,900.0	4,910.7	3,479.8	3,228.5	62.6	23.5	165.65	9.3	1,218.2	4,389.6	4,345.0	98.411	
6,000.0	5,004.0	3,561.5	3,302.0	63.3	24.1	165.87	10.7	1,253.6	4,458.0	4,412.4	97.700	
6,100.0	5,098.3	3,664.3	3,394.9	63.9	25.0	166.02	12.5	1,297.7	4,524.0	4,477.1	96.423	
6,200.0	5,193.6	3,722.0	3,447.2	64.4	25.5	166.23	13.4	1,322.2	4,587.3	4,539.7	96.383	
6,300.0	5,289.7	3,773.8	3,494.0	64.9	25.9	166.44	14.2	1,344.3	4,648.8	4,600.6	96.463	
6,400.0	5,386.7	3,816.0	3,531.9	65.3	26.3	166.64	14.9	1,362.9	4,708.7	4,660.1	96.797	
6,500.0	5,484.4	3,929.0	3,633.4	65.7	27.2	166.66	16.3	1,412.5	4,766.4	4,716.4	95.261	
6,600.0	5,582.6	4,014.8	3,710.7	66.0	27.9	166.72	17.2	1,449.7	4,821.2	4,770.2	94.498	
6,700.0	5,681.4	4,232.2	3,908.3	66.2	29.7	166.49	18.9	1,540.3	4,872.2	4,818.5	90.776	
6,800.0	5,780.6	4,304.0	3,973.9	66.4	30.2	166.55	19.7	1,569.7	4,919.8	4,865.4	90.405	
6,900.0	5,880.2	4,385.0	4,047.8	66.6	30.9	166.58	20.8	1,602.7	4,964.9	4,909.6	89.860	
7,000.0	5,980.0	4,462.9	4,118.8	66.7	31.5	166.59	21.7	1,634.7	5,007.5	4,951.5	89.400	
7,100.0	6,079.9	4,622.4	4,264.7	66.8	32.7	166.42	23.0	1,699.4	5,047.2	4,989.5	87.413	
7,159.1	6,139.0	4,810.2	4,438.1	66.8	34.1	115.61	24.1	1,771.2	5,068.1	5,008.3	84.784	
7,200.0	6,179.9	5,012.1	4,627.1	66.8	35.4	115.24	24.8	1,842.1	5,081.0	5,019.1	82.046	
7,300.0	6,279.9	5,400.3	4,996.3	66.8	37.7	114.66	23.9	1,961.9	5,110.8	5,045.1	77.867	
7,400.0	6,379.9	5,589.3	5,178.3	66.8	38.6	114.39	26.5	2,012.6	5,134.5	5,067.4	76.531	
7,500.0	6,479.9	5,791.0	5,373.7	66.8	39.5	114.12	29.5	2,062.7	5,156.5	5,087.9	75.169	
7,600.0	6,579.9	6,739.0	6,308.1	66.8	42.1	113.35	39.4	2,211.0	5,175.3	5,099.9	68.669	
7,700.0	6,679.9	6,849.4	6,418.4	66.9	42.2	113.33	39.3	2,217.2	5,180.5	5,104.8	68.394	
7,800.0	6,779.9	7,134.6	6,703.4	66.9	42.4	113.30	37.7	2,226.2	5,183.3	5,106.5	67.439	
7,900.0	6,879.9	7,284.4	6,853.2	66.9	42.5	113.30	36.9	2,227.7	5,184.5	5,107.3	67.131	
8,000.0	6,979.9	7,431.4	7,000.2	66.9	42.5	113.32	35.7	2,227.0	5,184.4	5,107.0	67.032	
8,100.0	7,079.9	7,543.8	7,112.6	66.9	42.5	113.34	34.1	2,225.8	5,184.0	5,106.7	67.052	
8,200.0	7,179.9	7,658.9	7,227.6	66.9	42.5	113.36	32.8	2,224.2	5,183.1	5,105.8	67.097	
8,300.0	7,279.9	7,747.1	7,315.9	67.0	42.5	113.37	32.3	2,223.1	5,182.2	5,105.1	67.163	
8,400.0	7,379.9	7,833.4	7,402.2	67.0	42.5	113.38	31.9	2,222.4	5,181.7	5,104.6	67.229	
8,500.0	7,479.9	7,921.8	7,490.5	67.0	42.5	113.38	31.9	2,222.2	5,181.4	5,104.4	67.294	
8,583.0	7,563.0	7,994.2	7,563.0	67.0	42.5	113.38	32.0	2,222.1	5,181.3	5,104.3	67.329	
8,600.0	7,579.9	8,008.2	7,576.9	67.0	42.5	113.38	32.0	2,222.1	5,181.3	5,104.3	67.327	
8,700.0	7,679.9	8,095.0	7,663.7	67.0	42.5	113.38	31.7	2,222.2	5,181.5	5,104.5	67.296	
8,800.0	7,779.9	8,234.2	7,802.9	67.0	42.5	113.39	30.8	2,221.7	5,181.4	5,104.3	67.211	
8,846.8	7,826.7	8,258.0	7,826.7	67.1	42.5	113.39	30.8	2,221.6	5,181.3	5,104.2	67.240	
8,900.0	7,879.9	8,258.0	7,826.7	67.1	42.5	113.39	30.8	2,221.6	5,181.5	5,104.6	67.301	
9,000.0	7,979.9	8,258.0	7,826.7	67.1	42.5	113.39	30.8	2,221.6	5,183.5	5,106.7	67.450	
9,100.0	8,079.9	8,258.0	7,826.7	67.1	42.5	113.39	30.8	2,221.6	5,187.5	5,110.8	67.643	
9,200.0	8,179.9	8,258.0	7,826.7	67.1	42.5	113.39	30.8	2,221.6	5,193.3	5,116.8	67.880	
9,300.0	8,279.9	8,258.0	7,826.7	67.1	42.5	113.39	30.8	2,221.6	5,201.1	5,124.7	68.161	
9,400.0	8,379.9	8,258.0	7,826.7	67.2	42.5	113.39	30.8	2,221.6	5,210.7	5,134.6	68.485	
9,500.0	8,479.9	8,258.0	7,826.7	67.2	42.5	113.39	30.8	2,221.6	5,222.3	5,146.4	68.851	
9,600.0	8,579.9	8,258.0	7,826.7	67.2	42.5	113.39	30.8	2,221.6	5,235.7	5,160.1	69.261	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 23-9 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b> 78-GYRO-NS, 614-OWSG (REV5) MWD HDGM Standard												<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
9,700.0	8,679.9	8,258.0	7,826.7	67.2	42.5	113.39	30.8	2,221.6	5,251.0	5,175.7	69.712		
9,800.0	8,779.9	8,258.0	7,826.7	67.2	42.5	113.39	30.8	2,221.6	5,268.2	5,193.2	70.205		
9,900.0	8,879.9	8,258.0	7,826.7	67.3	42.5	113.39	30.8	2,221.6	5,287.2	5,212.5	70.739		
9,981.1	8,961.0	8,258.0	7,826.7	67.3	42.5	113.39	30.8	2,221.6	5,304.0	5,229.5	71.206		

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 311-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 149-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	-0.4	0.0	0.0	10.60	45.2	8.5	46.0			
100.0	100.0	99.8	99.4	0.4	0.6	10.99	45.8	8.9	46.7	45.7	47.283	ES
200.0	200.0	198.2	197.8	1.3	1.6	12.20	48.0	10.4	49.2	46.4	17.474	
250.0	250.0	246.9	246.3	1.4	2.4	13.29	50.6	11.9	52.1	48.4	14.052	
300.0	300.0	295.3	294.6	1.6	3.2	65.39	54.3	13.9	56.0	51.3	11.951	
400.0	399.8	391.3	389.8	3.3	4.7	70.69	65.2	18.8	66.5	59.7	9.834	
500.0	499.3	486.0	483.0	4.9	5.8	76.92	80.9	24.6	81.4	73.1	9.834	SF
600.0	598.0	579.7	574.3	6.2	6.7	82.69	101.0	31.0	100.8	91.6	10.881	
700.0	695.8	672.1	663.4	7.2	7.3	87.76	124.5	38.0	124.6	114.6	12.465	
800.0	792.4	760.8	747.9	8.2	7.9	92.28	149.8	46.4	153.0	142.3	14.264	
900.0	887.5	846.0	828.0	9.0	8.5	96.26	176.9	57.2	187.5	175.9	16.154	
1,000.0	980.9	934.2	909.8	9.8	9.0	99.71	207.5	69.9	226.8	214.3	18.048	
1,100.0	1,072.2	1,023.5	992.7	10.6	9.3	103.03	238.0	82.6	268.0	254.5	19.841	
1,200.0	1,161.3	1,108.9	1,071.9	11.2	9.5	105.91	267.3	95.5	312.3	297.8	21.574	
1,300.0	1,247.9	1,193.5	1,150.2	11.9	9.8	108.46	296.5	108.2	359.5	344.0	23.116	
1,400.0	1,331.8	1,273.8	1,224.6	12.5	10.1	110.58	324.5	120.7	410.1	393.4	24.596	
1,500.0	1,412.6	1,350.0	1,294.7	13.1	10.3	112.25	351.4	133.1	464.2	446.4	26.059	
1,550.4	1,452.2	1,387.7	1,329.4	13.2	10.5	112.96	364.9	139.4	493.0	474.6	26.821	
1,600.0	1,490.8	1,424.4	1,363.0	13.4	10.6	114.52	378.0	145.7	521.9	503.0	27.577	
1,700.0	1,568.5	1,499.9	1,432.3	13.7	10.9	117.29	405.1	158.8	581.3	561.2	28.979	
1,800.0	1,646.2	1,575.6	1,501.5	14.0	11.2	119.56	432.6	172.1	641.6	620.4	30.270	
1,900.0	1,723.9	1,650.5	1,569.9	14.3	11.5	121.41	460.1	185.4	702.7	680.4	31.481	
2,000.0	1,801.6	1,728.1	1,640.8	14.8	11.8	123.04	488.6	199.3	764.4	740.9	32.529	
2,100.0	1,879.3	1,812.7	1,718.0	16.0	12.1	124.55	519.6	214.0	826.0	801.2	33.328	
2,200.0	1,957.0	1,893.5	1,792.0	17.3	12.5	125.77	549.4	227.4	887.3	861.3	34.107	
2,300.0	2,034.7	1,975.4	1,866.8	18.6	12.8	126.83	579.8	240.8	948.6	921.4	34.790	
2,400.0	2,112.4	2,064.5	1,948.4	19.9	13.2	127.84	612.7	254.8	1,009.6	980.9	35.262	
2,500.0	2,190.1	2,149.4	2,026.4	21.2	13.6	128.70	644.0	267.1	1,069.7	1,039.8	35.747	
2,600.0	2,267.8	2,224.0	2,095.2	22.5	13.9	129.43	670.7	278.1	1,130.1	1,099.0	36.379	
2,700.0	2,345.5	2,298.0	2,163.1	23.8	14.3	130.02	698.0	289.1	1,190.8	1,158.6	36.973	
2,800.0	2,423.2	2,371.4	2,230.2	25.1	14.6	130.55	725.4	300.4	1,251.9	1,218.6	37.536	
2,900.0	2,500.9	2,448.9	2,301.3	26.4	15.0	131.08	753.8	312.6	1,313.5	1,278.9	38.005	
3,000.0	2,578.6	2,532.4	2,377.5	27.7	15.3	131.55	785.2	325.6	1,374.9	1,339.0	38.328	
3,100.0	2,656.3	2,617.4	2,454.9	29.0	15.7	131.94	818.1	338.5	1,436.0	1,398.8	38.576	
3,200.0	2,734.0	2,696.7	2,526.9	30.3	16.1	132.26	849.1	350.2	1,496.9	1,458.4	38.882	
3,300.0	2,811.7	2,767.1	2,590.9	31.6	16.5	132.53	876.5	360.9	1,558.1	1,518.5	39.314	
3,400.0	2,889.4	2,845.6	2,662.4	32.9	17.0	132.83	906.6	373.0	1,619.6	1,578.7	39.608	
3,500.0	2,967.1	2,916.6	2,727.2	34.2	17.4	133.10	933.4	384.1	1,681.2	1,639.2	40.000	
3,600.0	3,044.8	2,984.1	2,788.5	35.5	17.9	133.32	959.2	395.0	1,743.3	1,700.2	40.430	
3,700.0	3,122.5	3,053.0	2,851.0	36.8	18.4	133.52	986.0	406.5	1,805.9	1,761.7	40.816	
3,800.0	3,200.2	3,134.4	2,924.7	38.2	19.0	133.73	1,017.7	420.3	1,868.6	1,823.1	40.998	
3,900.0	3,277.9	3,233.8	3,015.2	39.5	19.7	134.01	1,055.5	436.5	1,930.9	1,883.7	40.922	
4,000.0	3,355.6	3,312.9	3,087.6	40.8	20.2	134.24	1,085.0	448.8	1,992.6	1,944.2	41.125	
4,100.0	3,433.3	3,390.6	3,158.8	42.1	20.7	134.47	1,113.6	460.9	2,054.4	2,004.7	41.343	
4,200.0	3,511.0	3,465.4	3,227.5	43.4	21.2	134.69	1,140.7	472.6	2,116.3	2,065.4	41.593	
4,300.0	3,588.7	3,533.8	3,290.5	44.7	21.7	134.90	1,165.1	483.6	2,178.4	2,126.4	41.923	
4,400.0	3,666.4	3,627.6	3,376.8	46.0	22.3	135.16	1,198.6	498.5	2,240.5	2,187.0	41.926	
4,500.0	3,744.1	3,709.9	3,452.5	47.3	22.8	135.37	1,228.2	511.2	2,302.2	2,247.5	42.057	
4,600.0	3,821.8	3,792.1	3,528.1	48.6	23.4	135.57	1,257.9	523.7	2,363.9	2,307.8	42.180	
4,700.0	3,899.5	3,865.4	3,595.5	50.0	23.9	135.73	1,284.6	534.9	2,425.5	2,368.3	42.392	
4,800.0	3,977.2	3,935.0	3,659.2	51.3	24.3	135.86	1,310.4	545.8	2,487.4	2,429.0	42.636	
4,900.0	4,054.9	4,005.0	3,723.2	52.6	24.8	135.99	1,336.3	556.9	2,549.6	2,490.1	42.870	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 311-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 149-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
4,929.8	4,078.0	4,029.9	3,746.1	53.0	25.0	136.03	1,345.5	561.0	2,568.1	2,508.2	42.893	
5,000.0	4,133.0	4,090.4	3,801.5	53.9	25.4	136.79	1,367.7	570.6	2,611.4	2,550.5	42.924	
5,100.0	4,213.0	4,169.4	3,873.9	55.1	25.9	137.74	1,396.9	583.2	2,671.4	2,609.3	43.017	
5,200.0	4,294.8	4,251.8	3,949.0	56.3	26.5	138.57	1,427.8	596.3	2,729.6	2,666.1	43.047	
5,300.0	4,378.2	4,329.1	4,019.5	57.4	27.0	139.29	1,457.1	608.6	2,785.9	2,721.3	43.109	
5,400.0	4,463.3	4,405.8	4,089.3	58.4	27.6	139.92	1,486.4	621.1	2,840.6	2,774.7	43.160	
5,500.0	4,550.0	4,494.5	4,170.0	59.4	28.2	140.44	1,520.4	635.5	2,893.2	2,826.1	43.066	
5,600.0	4,638.2	4,573.0	4,241.4	60.3	28.7	140.92	1,550.3	648.4	2,944.0	2,875.7	43.069	
5,700.0	4,727.7	4,697.7	4,355.2	61.1	29.6	141.21	1,597.1	668.1	2,992.4	2,922.2	42.608	
5,800.0	4,818.6	4,805.3	4,454.1	61.9	30.3	141.49	1,636.6	683.9	3,037.6	2,965.9	42.318	
5,900.0	4,910.7	4,893.8	4,535.6	62.6	30.9	141.76	1,668.5	696.8	3,080.7	3,007.7	42.200	
6,000.0	5,004.0	4,992.8	4,627.1	63.3	31.5	141.94	1,703.7	711.1	3,121.5	3,047.2	41.986	
6,100.0	5,098.3	5,097.9	4,724.2	63.9	32.2	142.05	1,740.9	725.7	3,159.8	3,084.1	41.714	
6,200.0	5,193.6	5,189.8	4,809.7	64.4	32.8	142.16	1,772.5	738.3	3,195.7	3,118.8	41.550	
6,300.0	5,289.7	5,354.6	4,964.2	64.9	33.8	142.02	1,825.7	759.3	3,228.8	3,149.8	40.866	
6,400.0	5,386.7	5,463.8	5,067.4	65.3	34.4	142.02	1,859.0	771.7	3,258.2	3,178.0	40.596	
6,500.0	5,484.4	5,566.0	5,164.5	65.7	34.9	142.00	1,888.9	782.6	3,284.8	3,203.4	40.369	
6,600.0	5,582.6	5,646.0	5,240.7	66.0	35.3	142.02	1,911.8	791.2	3,309.2	3,227.1	40.270	
6,700.0	5,681.4	5,732.0	5,322.9	66.2	35.8	141.99	1,935.2	800.8	3,331.8	3,248.8	40.143	
6,800.0	5,780.6	5,826.0	5,413.3	66.4	36.2	141.92	1,958.8	811.6	3,352.5	3,268.6	39.980	
6,900.0	5,880.2	5,934.9	5,518.4	66.6	36.7	141.78	1,984.5	823.9	3,370.7	3,285.9	39.740	
7,000.0	5,980.0	6,068.8	5,648.2	66.7	37.3	141.52	2,014.1	838.2	3,386.0	3,300.1	39.382	
7,100.0	6,079.9	6,204.8	5,780.7	66.8	37.8	141.22	2,041.8	851.0	3,397.9	3,310.8	39.030	
7,159.1	6,139.0	6,277.1	5,851.4	66.8	38.0	90.55	2,055.7	857.2	3,403.4	3,315.8	38.881	
7,200.0	6,179.9	6,325.4	5,898.6	66.8	38.2	90.39	2,064.6	861.3	3,406.8	3,319.0	38.795	
7,300.0	6,279.9	6,440.9	6,012.1	66.8	38.6	90.06	2,084.1	870.5	3,414.9	3,326.4	38.609	
7,400.0	6,379.9	6,609.0	6,178.2	66.8	39.1	89.67	2,107.7	882.2	3,422.0	3,332.6	38.273	
7,500.0	6,479.9	6,760.5	6,328.5	66.8	39.4	89.40	2,123.9	889.8	3,427.2	3,337.1	38.045	
7,600.0	6,579.9	7,004.2	6,571.8	66.8	39.6	89.18	2,137.2	894.1	3,428.3	3,337.4	37.722	
7,700.0	6,679.9	7,135.7	6,703.3	66.9	39.7	89.13	2,140.2	893.7	3,427.9	3,336.9	37.658	
7,800.0	6,779.9	7,231.5	6,799.1	66.9	39.8	89.11	2,141.3	893.0	3,427.3	3,336.2	37.645	
7,900.0	6,879.9	7,322.2	6,889.7	66.9	39.8	89.10	2,141.7	892.6	3,426.8	3,335.8	37.647	
8,000.0	6,979.9	7,415.3	6,982.9	66.9	39.8	89.10	2,141.8	892.4	3,426.7	3,335.6	37.648	
8,100.0	7,079.9	7,518.1	7,085.7	66.9	39.8	89.11	2,141.4	892.3	3,426.6	3,335.5	37.642	
8,200.0	7,179.9	7,634.9	7,202.5	66.9	39.8	89.13	2,140.1	891.9	3,426.2	3,335.1	37.632	
8,300.0	7,279.9	7,751.4	7,318.9	67.0	39.8	89.16	2,138.2	890.9	3,425.3	3,334.3	37.631	
8,400.0	7,379.9	7,866.4	7,433.9	67.0	39.8	89.19	2,136.3	889.3	3,423.9	3,332.9	37.631	
8,500.0	7,479.9	7,957.6	7,525.1	67.0	39.8	89.21	2,135.0	887.9	3,422.3	3,331.4	37.640	
8,600.0	7,579.9	8,036.0	7,603.5	67.0	39.8	89.23	2,134.2	887.1	3,421.3	3,330.5	37.654	
8,696.5	7,676.5	8,109.0	7,676.5	67.0	39.8	89.23	2,133.7	886.9	3,421.0	3,330.2	37.669	
8,700.0	7,679.9	8,109.0	7,676.5	67.0	39.8	89.23	2,133.7	886.9	3,421.0	3,330.2	37.672	
8,800.0	7,779.9	8,189.5	7,757.0	67.0	39.8	89.25	2,133.0	887.2	3,421.4	3,330.6	37.676	
8,900.0	7,879.9	8,280.4	7,847.9	67.1	39.8	89.26	2,132.0	888.0	3,422.2	3,331.4	37.671	
9,000.0	7,979.9	8,377.7	7,945.2	67.1	39.8	89.29	2,130.5	889.0	3,423.2	3,332.3	37.663	
9,100.0	8,079.9	8,516.1	8,083.5	67.1	39.8	89.34	2,127.7	889.5	3,423.6	3,332.6	37.631	
9,200.0	8,179.9	8,615.1	8,182.5	67.1	39.8	89.37	2,125.5	889.5	3,423.5	3,332.5	37.634	
9,300.0	8,279.9	8,733.1	8,300.4	67.1	39.8	89.41	2,123.4	889.3	3,423.3	3,332.3	37.624	
9,400.0	8,379.9	8,852.8	8,420.1	67.2	39.8	89.45	2,121.0	888.1	3,422.3	3,331.3	37.618	
9,500.0	8,479.9	8,925.7	8,493.0	67.2	39.8	89.47	2,119.4	887.5	3,421.5	3,330.6	37.632	
9,545.4	8,525.3	8,958.0	8,525.3	67.2	39.8	89.48	2,119.1	887.5	3,421.4	3,330.5	37.641	
9,600.0	8,579.9	9,005.7	8,573.0	67.2	39.8	89.48	2,119.1	887.5	3,421.5	3,330.6	37.635	
9,700.0	8,679.9	9,106.5	8,673.8	67.2	39.8	89.46	2,120.1	887.8	3,421.8	3,330.8	37.604	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b>	Sec 8, T6S, R94W - (Offset) RWF 311-9 - Wellbore #1 - Wellbore #1										<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b>	149-OWSG (REV5) MWD HDGM Standard										<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
9,800.0	8,779.9	9,205.1	8,772.4	67.2	39.9	89.44	2,121.3	887.9	3,421.9	3,330.8	37.572	
9,900.0	8,879.9	9,306.3	8,873.6	67.3	39.9	89.43	2,122.2	888.2	3,422.1	3,331.0	37.543	
9,981.1	8,961.0	9,390.0	8,957.3	67.3	39.9	89.42	2,122.7	888.3	3,422.2	3,331.0	37.521	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 312-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 68-GYRO-NS, 704-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
0.0	0.0	0.4	0.0	0.0	0.0	23.16	13.8	5.9	15.1			
100.0	100.0	100.2	99.8	0.4	0.2	23.00	14.0	5.9	15.2	14.6	24.035 ES	
200.0	200.0	199.3	198.8	1.3	0.6	28.90	16.6	9.2	19.0	17.2	10.427 SF	
250.0	250.0	248.6	248.0	1.4	0.9	32.88	19.1	12.3	22.8	20.7	10.709	
300.0	300.0	297.8	296.8	1.6	1.1	87.91	22.4	16.4	27.9	25.5	11.530	
400.0	399.8	395.2	393.4	3.3	1.7	98.25	31.1	26.3	41.8	38.6	13.129	
500.0	499.3	490.6	487.3	4.9	2.4	107.23	42.1	38.8	61.6	57.3	14.549	
600.0	598.0	584.8	579.3	6.2	3.1	113.88	55.6	53.9	88.1	82.6	15.958	
700.0	695.8	678.2	670.2	7.2	3.5	119.28	69.3	69.9	119.1	112.2	17.373	
800.0	792.4	771.7	761.2	8.2	3.7	123.51	83.9	86.3	154.1	145.9	18.880	
900.0	887.5	859.2	846.2	9.0	3.9	126.73	98.0	101.7	192.9	183.4	20.312	
1,000.0	980.9	946.9	930.8	9.8	4.1	129.40	112.8	118.9	237.3	226.5	21.899	
1,100.0	1,072.2	1,034.4	1,015.4	10.6	4.4	131.62	128.0	135.6	285.1	273.0	23.596	
1,200.0	1,161.3	1,120.3	1,098.4	11.2	4.7	133.57	142.7	151.9	336.5	323.2	25.354	
1,300.0	1,247.9	1,203.1	1,178.6	11.9	4.9	135.27	156.3	167.1	391.2	376.7	27.113	
1,400.0	1,331.8	1,280.6	1,253.8	12.5	5.2	136.62	168.5	181.6	449.9	434.4	29.009	
1,500.0	1,412.6	1,359.3	1,330.2	13.1	5.5	137.87	180.6	196.1	512.3	495.7	30.845	
1,550.4	1,452.2	1,399.0	1,368.9	13.2	5.6	138.44	186.5	203.2	544.9	527.8	31.880	
1,600.0	1,490.8	1,438.0	1,406.8	13.4	5.7	139.75	192.4	210.0	577.4	559.9	32.926	
1,700.0	1,568.5	1,511.2	1,478.0	13.7	6.0	141.84	203.5	222.5	643.1	624.7	35.078	
1,800.0	1,646.2	1,581.2	1,546.0	14.0	6.3	143.46	214.4	234.7	709.4	690.3	37.189	
1,900.0	1,723.9	1,650.2	1,613.0	14.3	6.6	144.74	225.7	247.3	776.4	756.6	39.206	
2,000.0	1,801.6	1,731.6	1,692.0	14.8	7.0	146.03	238.9	261.9	843.4	822.8	40.800	
2,100.0	1,879.3	1,813.7	1,771.9	16.0	7.3	147.17	251.8	275.7	909.9	888.4	42.263	
2,200.0	1,957.0	1,897.4	1,853.6	17.3	7.7	148.22	264.6	288.8	975.8	953.4	43.571	
2,300.0	2,034.7	1,974.8	1,929.4	18.6	8.1	149.14	275.4	300.1	1,041.3	1,018.1	44.920	
2,400.0	2,112.4	2,050.9	2,003.9	19.9	8.5	149.96	285.8	311.1	1,106.9	1,083.0	46.236	
2,500.0	2,190.1	2,129.0	2,080.6	21.2	8.8	150.74	296.0	322.0	1,172.4	1,147.7	47.441	
2,600.0	2,267.8	2,199.0	2,149.4	22.5	9.1	151.38	304.9	331.8	1,238.0	1,212.6	48.749	
2,700.0	2,345.5	2,267.7	2,216.8	23.8	9.5	151.96	313.5	341.6	1,304.1	1,278.0	50.023	
2,800.0	2,423.2	2,336.1	2,283.9	25.1	9.8	152.48	322.1	351.7	1,370.5	1,343.8	51.243	
2,900.0	2,500.9	2,404.8	2,351.2	26.4	10.1	152.96	330.5	362.0	1,437.4	1,409.9	52.405	
3,000.0	2,578.6	2,474.3	2,419.4	27.7	10.4	153.39	339.2	372.8	1,504.5	1,476.3	53.489	
3,100.0	2,656.3	2,546.5	2,490.1	29.0	10.7	153.78	348.6	384.3	1,571.8	1,542.9	54.453	
3,200.0	2,734.0	2,620.1	2,562.0	30.3	11.1	154.13	358.4	396.1	1,639.1	1,609.5	55.332	
3,300.0	2,811.7	2,693.1	2,633.4	31.6	11.4	154.45	368.2	407.8	1,706.5	1,676.1	56.173	
3,400.0	2,889.4	2,760.6	2,699.4	32.9	11.7	154.73	377.1	418.7	1,774.1	1,743.0	57.086	
3,500.0	2,967.1	2,844.1	2,781.2	34.2	12.1	155.06	388.0	432.1	1,841.6	1,809.7	57.639	
3,600.0	3,044.8	2,926.7	2,862.0	35.5	12.5	155.36	398.9	445.0	1,908.8	1,875.9	58.118	
3,700.0	3,122.5	3,000.5	2,934.3	36.8	12.9	155.61	408.7	456.2	1,975.7	1,942.1	58.747	
3,800.0	3,200.2	3,059.0	2,991.5	38.2	13.1	155.79	416.6	465.3	2,042.9	2,008.6	59.656	
3,900.0	3,277.9	3,123.9	3,054.9	39.5	13.4	155.96	425.6	475.9	2,110.5	2,075.6	60.412	
4,000.0	3,355.6	3,192.1	3,121.4	40.8	13.8	156.11	435.3	487.7	2,178.6	2,142.9	61.073	
4,100.0	3,433.3	3,265.7	3,193.0	42.1	14.1	156.26	446.0	500.3	2,246.6	2,210.1	61.591	
4,200.0	3,511.0	3,323.4	3,249.2	43.4	14.4	156.36	454.7	510.6	2,315.0	2,277.8	62.378	
4,300.0	3,588.7	3,399.1	3,322.7	44.7	14.7	156.47	466.2	524.4	2,383.6	2,345.6	62.794	
4,400.0	3,666.4	3,485.1	3,406.3	46.0	15.2	156.60	479.2	539.7	2,451.9	2,413.0	62.992	
4,500.0	3,744.1	3,564.1	3,483.1	47.3	15.5	156.70	491.7	553.6	2,519.8	2,480.0	63.291	
4,600.0	3,821.8	3,640.4	3,557.3	48.6	15.9	156.79	503.7	566.9	2,587.8	2,547.1	63.622	
4,700.0	3,899.5	3,753.3	3,667.1	50.0	16.4	156.91	522.0	585.5	2,654.8	2,612.8	63.277	
4,800.0	3,977.2	3,817.0	3,729.1	51.3	16.7	156.97	532.5	595.9	2,721.7	2,679.0	63.767	
4,900.0	4,054.9	3,874.3	3,784.7	52.6	17.0	157.02	542.0	605.5	2,789.0	2,745.6	64.357	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 312-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b> 68-GYRO-NS, 704-TWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
4,929.8	4,078.0	3,891.7	3,801.6	53.0	17.1	157.03	544.9	608.6	2,809.1	2,765.5	64.528	
5,000.0	4,133.0	3,931.1	3,839.9	53.9	17.3	157.49	551.5	615.5	2,856.2	2,812.2	64.938	
5,100.0	4,213.0	3,985.4	3,892.6	55.1	17.6	158.08	560.0	625.2	2,921.9	2,877.2	65.486	
5,200.0	4,294.8	4,047.9	3,953.4	56.3	17.9	158.63	569.1	636.5	2,985.9	2,940.6	65.848	
5,300.0	4,378.2	4,119.9	4,023.4	57.4	18.2	159.12	579.6	649.8	3,048.0	3,001.8	66.017	
5,400.0	4,463.3	4,206.3	4,107.4	58.4	18.6	159.55	591.8	665.6	3,107.8	3,060.7	65.925	
5,500.0	4,550.0	4,304.3	4,202.7	59.4	19.1	159.91	605.9	683.2	3,165.0	3,116.8	65.616	
5,600.0	4,638.2	4,399.6	4,295.6	60.3	19.5	160.21	620.0	700.0	3,219.4	3,170.1	65.317	
5,700.0	4,727.7	4,467.1	4,361.2	61.1	19.9	160.49	630.1	712.1	3,271.5	3,221.5	65.408	
5,800.0	4,818.6	4,566.7	4,458.0	61.9	20.3	160.69	644.9	730.0	3,321.3	3,270.2	64.994	
5,900.0	4,910.7	4,653.5	4,542.5	62.6	20.8	160.87	657.7	745.2	3,368.3	3,316.3	64.748	
6,000.0	5,004.0	4,750.3	4,636.7	63.3	21.2	160.99	671.9	762.3	3,412.7	3,359.7	64.338	
6,100.0	5,098.3	4,837.0	4,721.0	63.9	21.6	161.10	685.0	777.5	3,454.5	3,400.5	64.042	
6,200.0	5,193.6	4,957.3	4,838.2	64.4	22.2	161.11	703.0	798.3	3,493.4	3,438.2	63.288	
6,300.0	5,289.7	5,053.5	4,932.0	64.9	22.7	161.14	717.4	814.4	3,529.2	3,473.0	62.840	
6,400.0	5,386.7	5,143.0	5,019.2	65.3	23.1	161.15	730.4	829.2	3,562.3	3,505.3	62.466	
6,500.0	5,484.4	5,240.0	5,113.8	65.7	23.6	161.13	744.6	845.4	3,592.7	3,534.8	61.982	
6,600.0	5,582.6	5,354.2	5,225.3	66.0	24.1	161.04	760.7	863.9	3,620.2	3,561.1	61.305	
6,700.0	5,681.4	5,499.8	5,368.1	66.2	24.8	160.89	779.8	885.3	3,643.9	3,583.5	60.328	
6,800.0	5,780.6	5,725.3	5,590.5	66.4	25.9	160.60	806.2	911.4	3,662.3	3,599.9	58.725	
6,900.0	5,880.2	5,835.6	5,699.9	66.6	26.4	160.54	816.2	921.2	3,676.4	3,613.3	58.227	
7,000.0	5,980.0	5,983.7	5,847.4	66.7	27.0	160.45	825.8	931.3	3,686.6	3,622.5	57.504	
7,100.0	6,079.9	6,111.8	5,975.0	66.8	27.5	160.37	833.0	938.4	3,693.0	3,628.2	56.969	
7,159.1	6,139.0	6,204.8	6,067.9	66.8	27.8	109.79	837.3	942.2	3,694.8	3,629.6	56.635	
7,200.0	6,179.9	6,246.2	6,109.2	66.8	28.0	109.76	838.6	943.5	3,695.6	3,630.3	56.570	
7,300.0	6,279.9	6,334.6	6,197.5	66.8	28.2	109.73	840.1	945.9	3,697.6	3,632.1	56.477	
7,400.0	6,379.9	6,451.5	6,314.5	66.8	28.5	109.71	840.4	948.7	3,699.9	3,634.1	56.246	
7,500.0	6,479.9	6,548.5	6,411.4	66.8	28.7	109.71	840.1	950.4	3,701.6	3,635.6	56.121	
7,600.0	6,579.9	6,677.8	6,540.7	66.8	28.9	109.70	839.6	952.2	3,703.0	3,636.7	55.846	
7,700.0	6,679.9	6,770.9	6,633.8	66.9	29.0	109.70	839.1	953.2	3,704.2	3,637.7	55.749	
7,800.0	6,779.9	6,873.6	6,736.5	66.9	29.1	109.71	838.2	954.2	3,705.4	3,638.8	55.623	
7,900.0	6,879.9	6,994.4	6,857.3	66.9	29.0	109.73	836.7	954.9	3,706.4	3,639.6	55.456	
8,000.0	6,979.9	7,098.8	6,961.6	66.9	28.9	109.75	835.4	954.9	3,706.8	3,639.9	55.382	
8,100.0	7,079.9	7,199.6	7,062.5	66.9	28.8	109.77	834.2	955.1	3,707.4	3,640.3	55.322	
8,200.0	7,179.9	7,311.1	7,173.9	66.9	28.7	109.78	833.0	955.0	3,707.7	3,640.5	55.231	
8,300.0	7,279.9	7,406.3	7,269.2	67.0	28.7	109.79	832.5	955.0	3,707.9	3,640.7	55.188	
8,400.0	7,379.9	7,494.6	7,357.4	67.0	28.6	109.80	831.9	955.2	3,708.3	3,641.1	55.149	
8,500.0	7,479.9	7,588.7	7,451.5	67.0	28.7	109.80	831.8	955.9	3,709.0	3,641.7	55.064	
8,600.0	7,579.9	7,716.8	7,579.6	67.0	29.0	109.78	832.5	956.7	3,709.5	3,641.9	54.870	
8,700.0	7,679.9	7,827.8	7,690.7	67.0	29.0	109.78	832.7	956.6	3,709.3	3,641.6	54.834	
8,800.0	7,779.9	7,919.6	7,782.4	67.0	28.9	109.79	831.9	956.1	3,709.0	3,641.4	54.859	
8,811.8	7,791.8	7,928.9	7,791.8	67.0	28.9	109.80	831.8	956.0	3,709.0	3,641.4	54.864	
8,900.0	7,879.9	7,984.0	7,846.8	67.1	28.8	109.81	830.9	955.8	3,709.3	3,641.8	54.947	
9,000.0	7,979.9	8,078.0	7,940.8	67.1	28.7	109.83	829.5	956.2	3,710.2	3,642.6	54.897	
9,100.0	8,079.9	8,200.5	8,063.3	67.1	28.8	109.84	828.3	957.1	3,711.3	3,643.4	54.718	
9,200.0	8,179.9	8,323.3	8,186.0	67.1	28.7	109.86	827.0	956.6	3,711.2	3,643.3	54.628	
9,300.0	8,279.9	8,431.1	8,293.9	67.1	28.6	109.86	827.1	956.4	3,711.0	3,643.1	54.627	
9,400.0	8,379.9	8,554.6	8,417.4	67.2	28.5	109.86	827.5	955.7	3,710.3	3,642.4	54.615	
9,500.0	8,479.9	8,657.4	8,520.2	67.2	28.4	109.86	827.6	954.6	3,709.3	3,641.4	54.659	
9,600.0	8,579.9	8,766.5	8,629.3	67.2	28.2	109.88	827.2	953.0	3,708.1	3,640.3	54.689	
9,700.0	8,679.9	8,877.8	8,740.6	67.2	27.9	109.91	826.1	950.9	3,706.6	3,638.9	54.713	
9,800.0	8,779.9	8,986.3	8,849.0	67.2	27.7	109.94	824.5	948.2	3,704.8	3,637.1	54.741	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b>	Sec 8, T6S, R94W - (Offset) RWF 312-9 - Wellbore #1 - Wellbore #1										<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b>	68-GYRO-NS, 704-OWSG (REV5) MWD HDGM Standard										<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
9,900.0	8,879.9	9,082.2	8,944.8	67.3	27.4	109.99	822.3	945.6	3,703.0	3,635.4	54.800	
9,981.1	8,961.0	9,121.0	8,983.6	67.3	27.3	110.01	821.4	944.5	3,701.8	3,634.4	54.925	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 322-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 78-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
0.0	0.0	0.4	0.0	0.0	0.0	-155.84	-6.9	-3.1	7.6			
100.0	100.0	100.5	100.1	0.4	0.6	-160.71	-7.1	-2.5	7.5	6.4	7.018	
200.0	200.0	200.6	200.1	1.3	2.4	165.20	-5.7	1.5	5.9	2.6	1.792 Collision Risk Procedures Req.	
210.4	210.4	211.0	210.4	1.3	2.7	157.14	-5.3	2.3	5.8	2.4	1.705 Collision Risk Procedures Req., CC, ES	
250.0	250.0	250.3	249.6	1.4	3.7	123.22	-3.8	5.8	7.0	2.7	1.628 Collision Risk Procedures Req., SF	
300.0	300.0	299.6	298.5	1.6	4.6	148.51	-1.3	11.7	12.4	6.7	2.155	
400.0	399.8	397.3	394.8	3.3	5.7	138.33	4.6	26.1	31.1	23.0	3.823	
500.0	499.3	492.8	488.8	4.9	6.1	138.95	10.8	42.3	55.9	46.2	5.757	
600.0	598.0	584.4	578.3	6.2	6.5	140.82	16.9	61.2	88.2	77.1	7.962	
700.0	695.8	671.3	662.2	7.2	7.1	142.17	23.4	82.6	128.3	115.8	10.320	
800.0	792.4	753.1	740.2	8.2	7.8	142.79	30.9	106.2	175.9	162.2	12.839	
900.0	887.5	829.2	811.6	9.0	8.4	142.94	38.8	131.0	230.6	215.7	15.551	
1,000.0	980.9	899.5	876.7	9.8	8.9	142.77	46.8	156.4	291.7	275.9	18.483	
1,100.0	1,072.2	967.0	938.4	10.6	9.3	142.39	55.1	182.5	358.1	341.5	21.505	
1,200.0	1,161.3	1,033.3	998.4	11.2	9.6	141.87	63.6	209.3	428.9	411.5	24.632	
1,300.0	1,247.9	1,096.6	1,055.6	11.9	9.8	141.21	72.0	235.3	503.2	485.1	27.783	
1,400.0	1,331.8	1,156.0	1,109.1	12.5	10.0	140.43	79.5	260.0	580.7	561.9	30.952	
1,500.0	1,412.6	1,216.7	1,163.7	13.1	10.2	139.64	86.9	285.3	661.0	641.5	33.925	
1,550.4	1,452.2	1,246.9	1,191.0	13.2	10.3	139.20	90.5	297.8	702.3	682.5	35.447	
1,600.0	1,490.8	1,276.5	1,217.8	13.4	10.4	140.13	93.9	309.9	743.2	723.1	36.930	
1,700.0	1,568.5	1,337.9	1,273.5	13.7	10.6	141.77	101.0	334.7	825.5	804.8	39.724	
1,800.0	1,646.2	1,402.1	1,331.9	14.0	10.8	143.16	108.6	360.2	907.6	886.1	42.234	
1,900.0	1,723.9	1,467.9	1,392.0	14.3	11.0	144.28	116.8	385.8	989.2	967.0	44.508	
2,000.0	1,801.6	1,531.5	1,450.2	14.8	11.3	145.20	124.8	410.1	1,070.4	1,047.5	46.676	
2,100.0	1,879.3	1,582.6	1,497.1	16.0	11.5	145.84	131.2	429.5	1,151.7	1,128.2	49.026	
2,200.0	1,957.0	1,628.3	1,538.7	17.3	11.7	146.31	137.4	447.4	1,233.5	1,209.5	51.422	
2,300.0	2,034.7	1,682.2	1,587.4	18.6	11.9	146.75	145.0	469.0	1,315.8	1,291.1	53.433	
2,400.0	2,112.4	1,740.6	1,640.3	19.9	12.2	147.18	153.2	492.3	1,398.0	1,372.7	55.174	
2,500.0	2,190.1	1,801.3	1,695.4	21.2	12.4	147.58	161.8	516.5	1,480.2	1,454.1	56.760	
2,600.0	2,267.8	1,862.7	1,751.1	22.5	12.7	147.95	170.3	540.7	1,562.2	1,535.3	58.221	
2,700.0	2,345.5	1,924.7	1,807.6	23.8	13.0	148.30	178.7	564.9	1,644.0	1,616.4	59.566	
2,800.0	2,423.2	1,974.2	1,852.7	25.1	13.2	148.58	185.1	584.2	1,725.9	1,697.7	61.197	
2,900.0	2,500.9	2,021.0	1,895.4	26.4	13.4	148.84	190.7	602.5	1,808.1	1,779.4	62.846	
3,000.0	2,578.6	2,061.4	1,932.2	27.7	13.6	149.05	195.4	618.5	1,890.7	1,861.5	64.607	
3,100.0	2,656.3	2,099.3	1,966.6	29.0	13.8	149.24	199.7	633.9	1,973.9	1,944.2	66.399	
3,200.0	2,734.0	2,145.2	2,008.1	30.3	14.1	149.45	204.8	652.8	2,057.5	2,027.1	67.872	
3,300.0	2,811.7	2,197.1	2,055.0	31.6	14.4	149.67	210.5	674.2	2,141.1	2,110.1	69.092	
3,400.0	2,889.4	2,252.0	2,104.6	32.9	14.9	149.89	216.6	697.1	2,224.9	2,193.2	70.166	
3,500.0	2,967.1	2,309.2	2,156.1	34.2	15.3	150.07	223.6	720.9	2,308.6	2,276.1	71.084	
3,600.0	3,044.8	2,379.4	2,219.2	35.5	15.9	150.23	233.0	750.2	2,392.1	2,358.6	71.519	
3,700.0	3,122.5	2,431.9	2,266.3	36.8	16.3	150.33	240.5	772.0	2,475.3	2,441.2	72.448	
3,800.0	3,200.2	2,476.7	2,306.6	38.2	16.7	150.41	246.8	790.8	2,558.8	2,524.1	73.568	
3,900.0	3,277.9	2,522.3	2,347.4	39.5	17.1	150.49	253.1	810.0	2,642.5	2,607.1	74.630	
4,000.0	3,355.6	2,568.0	2,388.3	40.8	17.5	150.56	259.3	829.4	2,726.4	2,690.4	75.646	
4,100.0	3,433.3	2,623.1	2,437.5	42.1	17.9	150.65	266.9	852.9	2,810.4	2,773.6	76.331	
4,200.0	3,511.0	2,687.4	2,495.0	43.4	18.5	150.73	276.1	880.3	2,894.3	2,856.6	76.692	
4,300.0	3,588.7	2,786.0	2,583.3	44.7	19.3	150.83	290.8	921.6	2,977.7	2,938.5	76.030	
4,400.0	3,666.4	2,834.1	2,626.4	46.0	19.7	150.87	298.1	941.6	3,060.8	3,020.9	76.808	
4,500.0	3,744.1	2,888.1	2,675.0	47.3	20.1	150.93	305.9	963.9	3,143.9	3,103.3	77.390	
4,600.0	3,821.8	2,945.2	2,726.4	48.6	20.6	151.00	313.9	987.4	3,227.0	3,185.5	77.871	
4,700.0	3,899.5	3,005.6	2,781.0	50.0	21.1	151.08	322.0	1,012.2	3,310.1	3,267.7	78.234	
4,800.0	3,977.2	3,068.0	2,837.3	51.3	21.6	151.17	330.4	1,037.6	3,393.0	3,349.8	78.523	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 322-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b> 78-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
4,900.0	4,054.9	3,117.1	2,881.7	52.6	22.0	151.23	336.9	1,057.5	3,476.0	3,432.0	79.150	
4,929.8	4,078.0	3,129.5	2,892.9	53.0	22.1	151.24	338.6	1,062.6	3,500.7	3,456.6	79.395	
5,000.0	4,133.0	3,155.0	2,915.9	53.9	22.3	152.12	342.0	1,073.1	3,558.7	3,514.3	80.058	
5,100.0	4,213.0	3,207.9	2,963.5	55.1	22.7	153.26	349.3	1,095.0	3,640.2	3,595.0	80.503	
5,200.0	4,294.8	3,261.5	3,011.5	56.3	23.2	154.26	357.0	1,117.4	3,720.2	3,674.2	80.892	
5,300.0	4,378.2	3,334.6	3,077.3	57.4	23.8	155.13	366.8	1,147.8	3,798.5	3,751.5	80.761	
5,400.0	4,463.3	3,433.2	3,166.4	58.4	24.6	155.88	379.4	1,187.9	3,874.7	3,826.2	80.025	
5,500.0	4,550.0	3,481.9	3,210.6	59.4	25.0	156.59	385.6	1,207.7	3,948.8	3,899.7	80.461	
5,600.0	4,638.2	3,532.0	3,255.8	60.3	25.4	157.23	391.9	1,228.2	4,021.4	3,971.7	80.847	
5,700.0	4,727.7	3,630.5	3,345.1	61.1	26.2	157.73	403.6	1,268.2	4,092.1	4,041.0	80.116	
5,800.0	4,818.6	3,717.4	3,424.0	61.9	26.9	158.18	413.7	1,303.0	4,160.2	4,108.0	79.661	
5,900.0	4,910.7	3,781.2	3,482.1	62.6	27.4	158.62	421.2	1,328.5	4,226.3	4,173.2	79.686	
6,000.0	5,004.0	3,836.4	3,532.1	63.3	27.8	159.02	427.9	1,350.8	4,290.4	4,236.7	79.871	
6,100.0	5,098.3	3,881.6	3,572.9	63.9	28.2	159.40	433.5	1,369.4	4,352.9	4,298.6	80.243	
6,200.0	5,193.6	3,943.8	3,628.8	64.4	28.7	159.70	441.4	1,395.5	4,413.7	4,358.7	80.237	
6,300.0	5,289.7	4,047.1	3,721.6	64.9	29.5	159.84	455.0	1,438.8	4,472.1	4,415.8	79.366	
6,400.0	5,386.7	4,182.2	3,843.4	65.3	30.7	159.85	473.2	1,494.3	4,527.5	4,469.4	77.918	
6,500.0	5,484.4	4,264.1	3,917.5	65.7	31.3	159.98	484.1	1,527.5	4,580.0	4,520.9	77.518	
6,600.0	5,582.6	4,422.7	4,061.4	66.0	32.6	159.87	505.5	1,590.7	4,629.6	4,568.5	75.784	
6,700.0	5,681.4	4,515.0	4,145.7	66.2	33.3	159.92	517.4	1,626.4	4,675.8	4,613.6	75.243	
6,800.0	5,780.6	4,587.1	4,211.5	66.4	33.8	160.00	526.7	1,654.4	4,719.7	4,656.8	75.040	
6,900.0	5,880.2	4,674.9	4,291.4	66.6	34.5	160.01	538.2	1,688.8	4,761.3	4,697.4	74.583	
7,000.0	5,980.0	4,808.1	4,413.1	66.7	35.5	159.87	555.5	1,740.2	4,799.8	4,734.4	73.451	
7,100.0	6,079.9	5,103.7	4,686.3	66.8	37.6	159.25	592.3	1,846.8	4,833.7	4,764.9	70.224	
7,159.1	6,139.0	5,219.0	4,794.6	66.8	38.4	108.57	604.1	1,884.4	4,850.8	4,780.8	69.330	
7,200.0	6,179.9	5,477.8	5,040.4	66.8	39.8	107.99	628.1	1,961.5	4,861.8	4,789.2	66.923	
7,300.0	6,279.9	5,588.6	5,146.8	66.8	40.4	107.78	637.2	1,991.1	4,885.0	4,811.6	66.583	
7,400.0	6,379.9	5,879.4	5,428.3	66.8	41.7	107.29	657.5	2,060.9	4,905.4	4,829.6	64.735	
7,500.0	6,479.9	6,247.4	5,789.1	66.8	43.0	106.80	679.5	2,129.9	4,920.5	4,842.0	62.675	
7,600.0	6,579.9	6,960.7	6,498.0	66.8	44.3	106.26	707.9	2,196.4	4,928.1	4,845.8	59.907	
7,700.0	6,679.9	7,089.7	6,626.9	66.9	44.4	106.22	711.3	2,199.2	4,929.5	4,846.9	59.739	
7,800.0	6,779.9	7,210.1	6,747.3	66.9	44.4	106.19	713.0	2,200.8	4,930.3	4,847.6	59.603	
7,900.0	6,879.9	7,295.6	6,832.8	66.9	44.5	106.19	713.5	2,201.6	4,931.1	4,848.3	59.522	
8,000.0	6,979.9	7,437.4	6,974.5	66.9	44.5	106.19	713.1	2,202.4	4,931.7	4,848.6	59.353	
8,100.0	7,079.9	7,548.9	7,086.1	66.9	44.5	106.20	712.2	2,202.0	4,931.6	4,848.5	59.316	
8,200.0	7,179.9	7,651.9	7,189.0	66.9	44.5	106.22	710.7	2,201.4	4,931.5	4,848.3	59.313	
8,300.0	7,279.9	7,798.0	7,335.1	67.0	44.5	106.23	710.3	2,200.4	4,930.8	4,847.7	59.296	
8,400.0	7,379.9	7,879.0	7,416.1	67.0	44.5	106.21	711.6	2,200.0	4,930.0	4,846.9	59.304	
8,500.0	7,479.9	7,953.1	7,490.2	67.0	44.5	106.20	712.5	2,200.0	4,929.6	4,846.5	59.310	
8,600.0	7,579.9	8,070.4	7,607.5	67.0	44.6	106.19	713.3	2,199.9	4,929.3	4,846.2	59.315	
8,700.0	7,679.9	8,163.0	7,700.1	67.0	44.6	106.19	713.6	2,199.3	4,928.7	4,845.7	59.378	
8,764.1	7,744.1	8,206.9	7,744.1	67.0	44.6	106.19	713.9	2,199.2	4,928.5	4,845.5	59.379	
8,800.0	7,779.9	8,226.2	7,763.3	67.0	44.6	106.19	714.2	2,199.3	4,928.5	4,845.5	59.386	
8,900.0	7,879.9	8,286.1	7,823.2	67.1	44.6	106.17	715.1	2,200.1	4,929.3	4,846.3	59.379	
9,000.0	7,979.9	8,352.0	7,889.1	67.1	44.7	106.16	716.2	2,201.4	4,930.8	4,847.7	59.336	
9,100.0	8,079.9	8,437.1	7,974.1	67.1	44.8	106.14	717.4	2,203.5	4,932.7	4,849.5	59.243	
9,200.0	8,179.9	8,538.4	8,075.4	67.1	44.8	106.12	718.0	2,205.9	4,934.9	4,851.4	59.103	
9,300.0	8,279.9	8,791.2	8,328.2	67.1	44.8	106.14	716.6	2,206.1	4,934.6	4,850.7	58.853	
9,400.0	8,379.9	8,896.2	8,433.1	67.2	44.8	106.16	715.4	2,204.5	4,933.4	4,849.7	58.898	
9,500.0	8,479.9	9,004.9	8,541.9	67.2	44.8	106.17	714.5	2,203.0	4,932.3	4,848.7	58.958	
9,600.0	8,579.9	9,117.6	8,654.5	67.2	44.8	106.18	714.0	2,201.2	4,930.9	4,847.4	59.030	
9,700.0	8,679.9	9,199.0	8,735.9	67.2	44.8	106.20	713.0	2,199.7	4,929.5	4,846.1	59.084	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b>	Sec 8, T6S, R94W - (Offset) RWF 322-9 - Wellbore #1 - Wellbore #1										<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b>	78-OWSG (REV5) MWD HDGM Standard										<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
9,800.0	8,779.9	9,293.0	8,829.9	67.2	44.7	106.23	710.7	2,198.1	4,928.5	4,845.1	59.120	
9,900.0	8,879.9	9,387.1	8,923.9	67.3	44.7	106.27	707.6	2,196.3	4,927.6	4,844.3	59.147	
9,981.1	8,961.0	9,445.0	8,981.8	67.3	44.7	106.30	705.5	2,195.2	4,927.0	4,843.7	59.181	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 411-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 99-GYRO-NS, 698-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.4	0.0	0.0	0.0	-10.95	17.5	-3.4	17.8			
100.0	100.0	100.0	99.6	0.4	0.1	-10.04	18.7	-3.3	18.9	18.4	32.983	
200.0	200.0	198.6	198.0	1.3	0.6	-6.54	24.1	-2.8	24.4	22.6	13.811	
250.0	250.0	247.7	246.9	1.4	0.9	-4.22	28.9	-2.1	29.1	27.0	14.030	
300.0	300.0	296.5	295.3	1.6	1.2	48.44	34.8	-1.7	34.7	32.3	14.507	
400.0	399.8	393.3	390.8	3.3	1.8	51.87	50.6	-2.9	47.8	44.1	12.918	SF
500.0	499.3	489.1	484.3	4.9	2.6	55.79	71.4	-5.6	63.3	58.4	12.934	
600.0	598.0	584.5	576.4	6.2	3.3	62.60	96.1	-5.4	81.1	75.5	14.403	
700.0	695.8	679.0	667.2	7.2	3.8	71.39	122.0	-0.9	101.2	95.1	16.741	
800.0	792.4	769.3	753.2	8.2	4.5	80.14	148.0	7.2	125.5	118.7	18.451	
900.0	887.5	853.6	832.3	9.0	5.2	87.64	174.6	18.9	157.3	149.0	18.951	
1,000.0	980.9	934.4	906.5	9.8	5.7	92.79	204.0	31.8	196.7	186.7	19.634	
1,100.0	1,072.2	1,014.0	978.1	10.6	6.3	96.70	235.3	46.7	242.4	230.9	21.070	
1,200.0	1,161.3	1,095.4	1,050.6	11.2	6.7	99.93	268.4	63.0	292.1	279.4	22.935	
1,300.0	1,247.9	1,180.5	1,126.5	11.9	7.0	102.77	303.4	79.8	344.2	330.2	24.609	
1,400.0	1,331.8	1,267.5	1,204.2	12.5	7.3	105.21	339.1	95.8	397.6	382.3	25.899	
1,500.0	1,412.6	1,352.4	1,280.2	13.1	7.7	107.25	373.9	110.3	452.6	435.8	26.962	
1,550.4	1,452.2	1,390.9	1,314.7	13.2	7.8	107.99	389.7	116.7	481.1	463.6	27.572	
1,600.0	1,490.8	1,428.3	1,348.2	13.4	8.0	109.57	405.2	123.0	509.7	491.6	28.178	
1,700.0	1,568.5	1,509.2	1,420.4	13.7	8.5	112.41	439.3	136.3	568.1	548.7	29.204	
1,800.0	1,646.2	1,586.4	1,489.0	14.0	8.9	114.55	472.4	148.4	627.0	606.2	30.226	
1,900.0	1,723.9	1,658.1	1,552.4	14.3	9.4	116.17	503.8	160.1	686.9	665.0	31.298	
2,000.0	1,801.6	1,732.0	1,617.2	14.8	9.9	117.50	537.0	172.8	748.1	724.9	32.253	
2,100.0	1,879.3	1,811.7	1,686.8	16.0	10.5	118.69	573.3	186.4	809.6	785.0	32.990	
2,200.0	1,957.0	1,890.8	1,756.2	17.3	11.0	119.74	609.0	199.6	870.9	845.0	33.657	
2,300.0	2,034.7	1,971.8	1,827.4	18.6	11.6	120.71	645.0	213.1	932.3	905.1	34.227	
2,400.0	2,112.4	2,054.2	1,900.5	19.9	12.2	121.64	680.8	226.7	993.5	964.9	34.707	
2,500.0	2,190.1	2,135.2	1,972.8	21.2	12.8	122.54	714.7	239.9	1,054.5	1,024.5	35.173	
2,600.0	2,267.8	2,215.2	2,044.3	22.5	13.3	123.34	748.1	252.9	1,115.6	1,084.3	35.621	
2,700.0	2,345.5	2,300.2	2,120.3	23.8	13.9	124.10	783.5	266.4	1,176.5	1,143.7	35.941	
2,800.0	2,423.2	2,382.6	2,194.2	25.1	14.5	124.76	817.9	279.1	1,237.1	1,203.0	36.266	
2,900.0	2,500.9	2,459.4	2,262.9	26.4	15.0	125.31	850.1	290.9	1,297.8	1,262.4	36.653	
3,000.0	2,578.6	2,534.4	2,329.9	27.7	15.6	125.78	881.7	302.5	1,358.7	1,322.0	37.039	
3,100.0	2,656.3	2,602.0	2,390.4	29.0	16.1	126.20	910.0	313.2	1,419.9	1,382.1	37.522	
3,200.0	2,734.0	2,672.5	2,453.4	30.3	16.6	126.60	939.3	324.9	1,481.7	1,442.7	37.951	
3,300.0	2,811.7	2,743.2	2,516.5	31.6	17.1	126.97	968.9	337.1	1,544.2	1,503.9	38.363	
3,400.0	2,889.4	2,820.9	2,585.6	32.9	17.7	127.34	1,001.6	350.6	1,606.8	1,565.3	38.645	
3,500.0	2,967.1	2,902.6	2,658.8	34.2	18.3	127.73	1,035.2	364.8	1,669.4	1,626.4	38.853	
3,600.0	3,044.8	2,980.0	2,728.4	35.5	18.8	128.12	1,066.1	378.2	1,731.9	1,687.6	39.124	
3,700.0	3,122.5	3,059.5	2,799.9	36.8	19.4	128.48	1,098.0	391.9	1,794.4	1,748.8	39.346	
3,800.0	3,200.2	3,136.2	2,868.6	38.2	20.0	128.78	1,129.6	405.1	1,856.9	1,810.0	39.582	
3,900.0	3,277.9	3,221.6	2,945.0	39.5	20.6	129.08	1,164.9	419.7	1,919.4	1,871.0	39.680	
4,000.0	3,355.6	3,304.0	3,018.4	40.8	21.2	129.31	1,199.7	433.2	1,981.5	1,931.7	39.795	
4,100.0	3,433.3	3,375.8	3,082.2	42.1	21.7	129.50	1,230.4	445.2	2,043.8	1,992.7	40.036	
4,200.0	3,511.0	3,443.7	3,142.2	43.4	22.3	129.63	1,260.0	456.7	2,106.3	2,054.1	40.312	
4,300.0	3,588.7	3,537.9	3,225.2	44.7	23.0	129.80	1,301.6	472.6	2,168.9	2,114.9	40.226	
4,400.0	3,666.4	3,628.0	3,304.6	46.0	23.7	129.93	1,341.6	487.2	2,230.8	2,175.3	40.183	
4,500.0	3,744.1	3,701.2	3,368.9	47.3	24.3	130.02	1,374.7	498.8	2,292.6	2,235.8	40.338	
4,600.0	3,821.8	3,766.4	3,426.2	48.6	24.8	130.11	1,403.8	509.5	2,354.8	2,296.8	40.590	
4,700.0	3,899.5	3,833.0	3,485.1	50.0	25.3	130.21	1,432.9	520.9	2,417.5	2,358.3	40.830	
4,800.0	3,977.2	3,943.0	3,582.6	51.3	26.2	130.39	1,480.3	539.2	2,479.8	2,418.7	40.552	
4,900.0	4,054.9	4,011.4	3,643.5	52.6	26.7	130.52	1,509.4	550.2	2,541.7	2,479.4	40.758	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 411-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b> 99-GYRO-NS, 698-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
4,929.8	4,078.0	4,032.8	3,662.7	53.0	26.9	130.56	1,518.3	553.8	2,560.2	2,497.5		
5,000.0	4,133.0	4,087.0	3,710.9	53.9	27.3	131.36	1,541.3	562.7	2,603.5	2,539.8		
5,100.0	4,213.0	4,175.2	3,789.4	55.1	27.9	132.39	1,579.0	577.1	2,663.7	2,598.5		
5,200.0	4,294.8	4,249.4	3,855.8	56.3	28.5	133.33	1,609.8	589.1	2,722.0	2,655.6		
5,300.0	4,378.2	4,316.4	3,915.6	57.4	29.0	134.16	1,637.9	600.3	2,779.2	2,711.7		
5,400.0	4,463.3	4,446.0	4,032.0	58.4	30.0	134.86	1,690.9	621.0	2,833.7	2,764.1		
5,500.0	4,550.0	4,541.9	4,119.3	59.4	30.6	135.53	1,727.9	635.7	2,886.0	2,814.9		
5,600.0	4,638.2	4,649.6	4,217.9	60.3	31.3	136.11	1,768.0	651.6	2,935.9	2,863.2		
5,700.0	4,727.7	4,754.6	4,314.7	61.1	32.0	136.63	1,806.0	666.4	2,983.2	2,909.0		
5,800.0	4,818.6	4,866.9	4,418.3	61.9	32.7	137.03	1,846.5	681.5	3,027.9	2,952.2		
5,900.0	4,910.7	4,946.0	4,491.1	62.6	33.3	137.41	1,875.6	691.9	3,070.6	2,993.8		
6,000.0	5,004.0	5,024.9	4,563.4	63.3	33.8	137.72	1,905.3	702.7	3,111.6	3,033.7		
6,100.0	5,098.3	5,106.4	4,637.7	63.9	34.4	137.94	1,936.8	714.0	3,150.9	3,071.9		
6,200.0	5,193.6	5,178.0	4,702.4	64.4	34.9	138.12	1,966.0	724.0	3,188.4	3,108.5		
6,300.0	5,289.7	5,261.6	4,777.4	64.9	35.5	138.19	2,000.7	736.2	3,224.5	3,143.5		
6,400.0	5,386.7	5,368.7	4,873.8	65.3	36.3	138.10	2,044.7	751.6	3,258.5	3,176.0		
6,500.0	5,484.4	5,479.2	4,974.5	65.7	37.0	137.98	2,087.5	767.3	3,290.0	3,206.2		
6,600.0	5,582.6	5,571.4	5,059.2	66.0	37.6	137.93	2,121.5	780.0	3,319.2	3,234.3		
6,700.0	5,681.4	5,808.9	5,283.2	66.2	39.0	137.38	2,194.9	808.6	3,343.9	3,256.1		
6,800.0	5,780.6	5,902.0	5,372.2	66.4	39.4	137.33	2,220.2	818.4	3,365.1	3,276.5		
6,900.0	5,880.2	6,002.3	5,468.4	66.6	39.9	137.22	2,246.6	829.1	3,384.2	3,294.7		
7,000.0	5,980.0	6,139.2	5,600.5	66.7	40.5	136.97	2,279.7	842.7	3,400.3	3,309.7		
7,100.0	6,079.9	6,257.2	5,715.0	66.8	41.0	136.74	2,306.1	853.7	3,413.7	3,322.2		
7,159.1	6,139.0	6,331.2	5,787.0	66.8	41.3	86.06	2,321.9	860.3	3,420.3	3,328.3		
7,200.0	6,179.9	6,377.8	5,832.4	66.8	41.5	85.90	2,331.4	864.3	3,424.4	3,332.2		
7,300.0	6,279.9	6,467.8	5,920.4	66.8	41.8	85.62	2,349.0	872.1	3,434.8	3,342.0		
7,400.0	6,379.9	6,591.6	6,041.8	66.8	42.2	85.27	2,370.6	883.1	3,445.2	3,351.7		
7,500.0	6,479.9	6,902.6	6,349.2	66.8	43.0	84.59	2,413.4	899.9	3,451.6	3,356.3		
7,600.0	6,579.9	7,015.9	6,462.0	66.8	43.2	84.42	2,423.8	903.0	3,455.2	3,359.6		
7,700.0	6,679.9	7,145.0	6,590.8	66.9	43.4	84.27	2,433.0	906.0	3,458.2	3,362.3		
7,800.0	6,779.9	7,265.5	6,711.1	66.9	43.5	84.16	2,440.1	908.0	3,460.5	3,364.3		
7,900.0	6,879.9	7,376.0	6,821.4	66.9	43.6	84.07	2,445.4	909.4	3,462.2	3,365.8		
8,000.0	6,979.9	7,470.6	6,915.9	66.9	43.7	84.02	2,449.1	910.7	3,464.0	3,367.4		
8,100.0	7,079.9	7,586.9	7,032.2	66.9	43.8	83.96	2,452.8	912.4	3,465.8	3,369.0		
8,200.0	7,179.9	7,698.9	7,144.1	66.9	43.9	83.91	2,455.5	913.3	3,466.9	3,370.0		
8,300.0	7,279.9	7,836.7	7,281.8	67.0	43.9	83.89	2,457.3	913.9	3,467.4	3,370.4		
8,400.0	7,379.9	7,967.2	7,412.4	67.0	43.9	83.88	2,457.4	913.1	3,466.8	3,369.7		
8,500.0	7,479.9	8,072.6	7,517.8	67.0	44.0	83.88	2,457.3	912.0	3,465.8	3,368.7		
8,600.0	7,579.9	8,190.1	7,635.2	67.0	44.0	83.90	2,456.3	910.6	3,464.5	3,367.5		
8,700.0	7,679.9	8,280.0	7,725.1	67.0	44.0	83.93	2,454.4	909.3	3,462.8	3,365.9		
8,795.7	7,775.7	8,330.6	7,775.7	67.0	44.0	83.94	2,453.3	909.0	3,462.1	3,365.2		
8,800.0	7,779.9	8,332.5	7,777.6	67.0	44.0	83.94	2,453.3	909.0	3,462.1	3,365.2		
8,900.0	7,879.9	8,374.0	7,819.1	67.1	44.0	83.95	2,452.8	909.3	3,463.0	3,366.1		
9,000.0	7,979.9	8,449.7	7,894.8	67.1	44.0	83.96	2,452.4	910.9	3,465.0	3,368.1		
9,100.0	8,079.9	8,605.6	8,050.7	67.1	44.0	84.00	2,450.6	913.5	3,466.5	3,369.4		
9,200.0	8,179.9	8,708.0	8,153.1	67.1	44.0	84.03	2,448.7	914.7	3,467.4	3,370.3		
9,300.0	8,279.9	8,813.8	8,258.8	67.1	44.0	84.06	2,447.1	915.5	3,468.0	3,370.9		
9,400.0	8,379.9	8,947.1	8,392.1	67.2	44.0	84.08	2,445.9	916.0	3,468.3	3,371.1		
9,500.0	8,479.9	9,039.2	8,484.2	67.2	44.0	84.10	2,444.5	915.9	3,468.1	3,370.9		
9,600.0	8,579.9	9,151.3	8,596.2	67.2	44.0	84.13	2,442.7	915.8	3,467.8	3,370.6		
9,700.0	8,679.9	9,258.1	8,703.0	67.2	44.0	84.16	2,440.5	915.4	3,467.3	3,370.1		
9,800.0	8,779.9	9,370.7	8,815.7	67.2	44.0	84.18	2,439.3	914.6	3,466.4	3,369.2		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b>	Sec 8, T6S, R94W - (Offset) RWF 411-9 - Wellbore #1 - Wellbore #1										<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b>	99-GYRO-NS, 698-OWSG (REV5) MWD HDGM Standard										<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
9,900.0	8,879.9	9,478.2	8,923.1	67.3	44.0	84.20	2,438.2	913.4	3,465.2	3,368.1	35.683	
9,981.1	8,961.0	9,551.3	8,996.2	67.3	44.0	84.22	2,437.1	912.6	3,464.3	3,367.2	35.690	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 412-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b> 100-GYRO-NS, 980-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.4	0.0	0.0	0.0	22.66	27.7	11.6	30.0			
100.0	100.0	100.0	99.6	0.4	0.1	23.15	27.7	11.9	30.2	29.6	52.758	ES
200.0	200.0	199.0	198.6	1.3	0.5	24.40	29.6	13.4	32.5	30.8	18.604	
250.0	250.0	248.3	247.8	1.4	0.7	25.89	31.6	15.3	35.2	33.2	17.145	
300.0	300.0	297.4	296.7	1.6	1.0	79.13	34.3	18.1	38.8	36.4	16.508	
400.0	399.8	394.7	393.5	3.3	1.5	88.29	41.8	25.6	48.9	45.9	15.886	SF
500.0	499.3	490.5	488.1	4.9	2.1	97.55	52.8	35.2	64.8	61.0	16.723	
600.0	598.0	583.6	579.4	6.2	2.7	104.56	67.4	46.5	87.4	82.4	17.707	
700.0	695.8	675.0	667.9	7.2	3.5	109.73	85.3	60.4	117.0	110.8	18.875	
800.0	792.4	766.2	755.6	8.2	4.3	113.64	105.3	75.4	151.4	143.8	19.955	
900.0	887.5	857.1	842.7	9.0	5.0	117.08	125.7	91.0	189.6	180.5	20.851	
1,000.0	980.9	947.8	929.8	9.8	5.5	120.21	146.0	106.6	231.0	220.5	21.938	
1,100.0	1,072.2	1,035.6	1,014.3	10.6	5.7	123.12	164.5	121.7	275.4	263.6	23.299	
1,200.0	1,161.3	1,118.8	1,094.2	11.2	5.9	125.41	182.5	136.3	323.9	310.9	24.882	
1,300.0	1,247.9	1,200.1	1,172.0	11.9	6.0	127.28	200.6	151.2	376.8	362.6	26.562	
1,400.0	1,331.8	1,282.9	1,251.5	12.5	6.2	129.07	218.4	166.3	433.0	417.6	28.142	
1,500.0	1,412.6	1,364.3	1,329.8	13.1	6.4	130.64	235.4	180.5	492.3	475.8	29.701	
1,550.4	1,452.2	1,403.2	1,367.3	13.2	6.5	131.28	243.4	187.1	523.5	506.4	30.625	
1,600.0	1,490.8	1,441.1	1,403.8	13.4	6.6	132.70	251.1	193.5	554.6	537.0	31.575	
1,700.0	1,568.5	1,513.7	1,473.8	13.7	6.8	135.02	266.0	205.8	617.9	599.5	33.522	
1,800.0	1,646.2	1,587.3	1,544.6	14.0	7.0	136.91	281.7	218.7	682.1	662.8	35.384	
1,900.0	1,723.9	1,662.0	1,616.5	14.3	7.2	138.53	297.4	231.7	746.7	726.6	37.120	
2,000.0	1,801.6	1,735.5	1,687.1	14.8	7.5	139.85	313.0	244.5	811.6	790.7	38.788	
2,100.0	1,879.3	1,805.4	1,754.1	16.0	7.7	140.88	328.5	257.1	877.1	855.4	40.413	
2,200.0	1,957.0	1,879.7	1,825.2	17.3	8.0	141.78	345.5	270.9	942.9	920.4	41.849	
2,300.0	2,034.7	1,957.9	1,900.0	18.6	8.3	142.66	362.8	285.0	1,008.8	985.4	43.098	
2,400.0	2,112.4	2,036.4	1,975.4	19.9	8.5	143.46	379.6	298.8	1,074.4	1,050.1	44.250	
2,500.0	2,190.1	2,110.7	2,046.9	21.2	8.8	144.14	395.6	311.8	1,140.0	1,114.9	45.402	
2,600.0	2,267.8	2,184.7	2,118.0	22.5	9.1	144.75	411.4	324.7	1,205.7	1,179.8	46.487	
2,700.0	2,345.5	2,263.3	2,193.6	23.8	9.4	145.35	427.9	338.3	1,271.5	1,244.7	47.409	
2,800.0	2,423.2	2,337.3	2,264.9	25.1	9.7	145.86	443.5	350.9	1,337.1	1,309.4	48.343	
2,900.0	2,500.9	2,405.3	2,330.1	26.4	10.0	146.24	458.4	363.0	1,403.1	1,374.6	49.337	
3,000.0	2,578.6	2,483.6	2,405.1	27.7	10.3	146.61	476.2	377.0	1,469.2	1,439.8	50.043	
3,100.0	2,656.3	2,571.9	2,489.7	29.0	10.6	147.00	496.3	392.4	1,534.9	1,504.5	50.500	
3,200.0	2,734.0	2,659.4	2,573.8	30.3	11.0	147.38	515.7	406.7	1,600.0	1,568.6	50.938	
3,300.0	2,811.7	2,744.6	2,655.9	31.6	11.3	147.75	534.0	420.0	1,664.6	1,632.2	51.391	
3,400.0	2,889.4	2,826.3	2,735.0	32.9	11.7	148.13	550.6	432.1	1,728.9	1,695.6	51.829	
3,500.0	2,967.1	2,906.5	2,812.9	34.2	12.1	148.51	566.1	443.5	1,793.1	1,758.8	52.233	
3,600.0	3,044.8	2,980.3	2,884.6	35.5	12.4	148.86	579.9	453.8	1,857.2	1,821.9	52.744	
3,700.0	3,122.5	3,036.1	2,938.9	36.8	12.6	149.10	590.2	462.0	1,921.8	1,886.0	53.618	
3,800.0	3,200.2	3,098.6	2,999.5	38.2	12.9	149.35	601.9	471.7	1,987.2	1,950.7	54.367	
3,900.0	3,277.9	3,166.7	3,065.3	39.5	13.1	149.58	615.3	482.9	2,053.0	2,015.6	54.985	
4,000.0	3,355.6	3,237.3	3,133.3	40.8	13.5	149.77	630.1	494.9	2,118.9	2,080.8	55.499	
4,100.0	3,433.3	3,317.4	3,210.1	42.1	13.9	149.93	647.8	508.7	2,184.9	2,145.8	55.815	
4,200.0	3,511.0	3,399.0	3,288.4	43.4	14.3	150.07	666.4	522.8	2,250.7	2,210.6	56.070	
4,300.0	3,588.7	3,471.8	3,358.1	44.7	14.6	150.19	683.0	535.2	2,316.4	2,275.3	56.451	
4,400.0	3,666.4	3,536.6	3,420.2	46.0	14.9	150.28	697.9	546.5	2,382.3	2,340.5	56.947	
4,500.0	3,744.1	3,612.0	3,492.4	47.3	15.3	150.39	715.0	559.8	2,448.4	2,405.6	57.254	
4,600.0	3,821.8	3,676.3	3,554.1	48.6	15.6	150.50	729.1	571.0	2,514.6	2,471.1	57.734	
4,700.0	3,899.5	3,741.9	3,617.0	50.0	15.9	150.59	743.6	582.9	2,581.2	2,536.9	58.177	
4,800.0	3,977.2	3,822.1	3,693.8	51.3	16.3	150.70	761.3	597.5	2,647.8	2,602.5	58.367	
4,900.0	4,054.9	3,895.8	3,764.4	52.6	16.7	150.80	777.6	610.7	2,714.4	2,668.1	58.646	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 412-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b> 100-GYRO-NS, 980-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
4,929.8	4,078.0	3,918.3	3,786.0	53.0	16.8	150.82	782.6	614.8	2,734.2	2,687.6	58.719	
5,000.0	4,133.0	3,976.3	3,841.6	53.9	17.1	151.40	795.5	625.2	2,780.4	2,733.1	58.802	
5,100.0	4,213.0	4,068.0	3,929.4	55.1	17.5	152.13	816.2	641.5	2,844.2	2,795.7	58.723	
5,200.0	4,294.8	4,134.5	3,993.1	56.3	17.8	152.75	831.6	653.1	2,905.6	2,856.4	58.965	
5,300.0	4,378.2	4,196.0	4,051.7	57.4	18.1	153.30	846.0	664.7	2,965.7	2,915.7	59.252	
5,400.0	4,463.3	4,263.3	4,115.9	58.4	18.5	153.78	861.6	677.6	3,024.0	2,973.1	59.419	
5,500.0	4,550.0	4,357.4	4,205.7	59.4	18.9	154.18	883.1	695.4	3,080.0	3,027.9	59.165	
5,600.0	4,638.2	4,447.8	4,292.3	60.3	19.4	154.53	903.1	712.0	3,133.3	3,080.2	58.957	
5,700.0	4,727.7	4,532.1	4,373.2	61.1	19.8	154.85	921.3	727.3	3,184.3	3,130.2	58.821	
5,800.0	4,818.6	4,619.1	4,456.8	61.9	20.2	155.11	939.7	743.0	3,233.0	3,177.8	58.634	
5,900.0	4,910.7	4,718.7	4,552.5	62.6	20.7	155.31	960.7	760.9	3,279.1	3,222.8	58.266	
6,000.0	5,004.0	4,800.6	4,631.3	63.3	21.1	155.50	977.8	775.2	3,322.5	3,265.3	58.102	
6,100.0	5,098.3	4,867.3	4,695.4	63.9	21.5	155.68	991.7	787.5	3,364.0	3,306.1	58.111	
6,200.0	5,193.6	5,085.5	4,905.7	64.4	22.5	155.49	1,036.9	824.0	3,401.9	3,341.5	56.334	
6,300.0	5,289.7	5,201.7	5,018.3	64.9	23.1	155.50	1,060.1	840.5	3,434.9	3,373.3	55.772	
6,400.0	5,386.7	5,282.2	5,096.7	65.3	23.5	155.57	1,075.0	851.3	3,465.0	3,402.7	55.572	
6,500.0	5,484.4	5,358.2	5,171.0	65.7	23.9	155.64	1,087.1	861.7	3,493.3	3,430.3	55.425	
6,600.0	5,582.6	5,560.9	5,370.5	66.0	24.9	155.54	1,113.9	885.2	3,517.8	3,453.0	54.257	
6,700.0	5,681.4	5,725.7	5,533.7	66.2	25.6	155.50	1,132.8	898.8	3,536.8	3,470.7	53.509	
6,800.0	5,780.6	5,820.7	5,628.0	66.4	26.0	155.52	1,141.7	905.4	3,552.3	3,485.6	53.250	
6,900.0	5,880.2	5,935.7	5,742.5	66.6	26.4	155.53	1,150.0	912.5	3,565.0	3,497.6	52.886	
7,000.0	5,980.0	6,085.1	5,891.5	66.7	27.0	155.51	1,157.5	919.7	3,574.2	3,506.0	52.374	
7,100.0	6,079.9	6,216.6	6,022.8	66.8	27.4	155.48	1,162.3	923.7	3,579.3	3,510.4	51.992	
7,159.1	6,139.0	6,295.4	6,101.7	66.8	27.7	104.96	1,163.6	925.1	3,580.5	3,511.4	51.822	
7,200.0	6,179.9	6,336.0	6,142.2	66.8	27.8	104.95	1,164.0	925.7	3,580.9	3,511.8	51.787	
7,300.0	6,279.9	6,430.6	6,236.8	66.8	28.0	104.94	1,164.7	926.9	3,582.0	3,512.8	51.712	
7,400.0	6,379.9	6,528.3	6,334.5	66.8	28.3	104.92	1,165.4	928.4	3,583.3	3,513.9	51.625	
7,500.0	6,479.9	6,629.5	6,435.7	66.8	28.4	104.91	1,165.5	929.7	3,584.6	3,515.0	51.527	
7,600.0	6,579.9	6,730.8	6,537.0	66.8	28.5	104.92	1,164.9	930.9	3,585.8	3,516.1	51.438	
7,700.0	6,679.9	6,844.1	6,650.3	66.9	28.5	104.93	1,163.7	931.8	3,586.8	3,516.9	51.328	
7,800.0	6,779.9	6,975.9	6,782.1	66.9	28.3	104.97	1,161.7	931.7	3,587.1	3,517.1	51.220	
7,900.0	6,879.9	7,083.3	6,889.5	66.9	28.1	104.99	1,160.3	931.1	3,586.9	3,516.9	51.198	
8,000.0	6,979.9	7,194.1	7,000.3	66.9	27.9	105.01	1,159.2	930.4	3,586.6	3,516.5	51.181	
8,100.0	7,079.9	7,300.8	7,106.9	66.9	27.8	105.01	1,159.2	929.6	3,585.9	3,515.8	51.186	
8,200.0	7,179.9	7,396.9	7,203.0	66.9	27.7	105.01	1,159.2	928.9	3,585.2	3,515.2	51.215	
8,300.0	7,279.9	7,501.5	7,307.7	67.0	27.5	105.02	1,159.0	928.1	3,584.5	3,514.5	51.225	
8,400.0	7,379.9	7,595.9	7,402.0	67.0	27.4	105.03	1,158.3	927.2	3,583.8	3,513.8	51.249	
8,500.0	7,479.9	7,695.7	7,501.8	67.0	27.2	105.06	1,157.2	926.3	3,583.2	3,513.3	51.258	
8,600.0	7,579.9	7,798.1	7,604.2	67.0	27.0	105.08	1,156.2	925.3	3,582.5	3,512.6	51.261	
8,700.0	7,679.9	7,896.9	7,703.0	67.0	26.8	105.09	1,155.3	924.4	3,581.9	3,512.0	51.271	
8,800.0	7,779.9	8,008.8	7,814.9	67.0	26.6	105.12	1,154.2	923.1	3,581.0	3,511.1	51.257	
8,900.0	7,879.9	8,099.2	7,905.3	67.1	26.4	105.13	1,153.8	922.2	3,580.1	3,510.3	51.290	
9,000.0	7,979.9	8,195.2	8,001.3	67.1	26.2	105.14	1,152.9	921.3	3,579.5	3,509.7	51.306	
9,100.0	8,079.9	8,293.5	8,099.5	67.1	26.0	105.17	1,151.5	920.4	3,578.9	3,509.2	51.313	
9,200.0	8,179.9	8,402.2	8,208.2	67.1	25.8	105.20	1,149.6	919.2	3,578.3	3,508.6	51.299	
9,300.0	8,279.9	8,507.5	8,313.6	67.1	25.6	105.22	1,148.6	917.8	3,577.4	3,507.6	51.295	
9,400.0	8,379.9	8,612.3	8,418.3	67.2	25.6	105.22	1,148.9	916.9	3,576.4	3,506.7	51.291	
9,500.0	8,479.9	8,719.6	8,525.6	67.2	25.5	105.23	1,148.9	915.6	3,575.2	3,505.5	51.283	
9,600.0	8,579.9	8,837.4	8,643.4	67.2	25.4	105.26	1,147.8	913.5	3,573.7	3,504.0	51.260	
9,700.0	8,679.9	8,974.3	8,780.3	67.2	25.3	105.30	1,146.2	909.6	3,571.3	3,501.6	51.201	
9,800.0	8,779.9	9,090.9	8,896.7	67.2	25.3	105.34	1,144.7	905.6	3,568.3	3,498.6	51.180	
9,900.0	8,879.9	9,163.0	8,968.8	67.3	25.3	105.37	1,143.6	902.8	3,565.1	3,495.5	51.238	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b>	Sec 8, T6S, R94W - (Offset) RWF 412-9 - Wellbore #1 - Wellbore #1										<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b>	100-GYRO-NS, 980-OWSG (REV5) MWD HDGM Standard										<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
9,981.1	8,961.0	9,163.0	8,968.8	67.3	25.3	105.37	1,143.6	902.8	3,564.0	3,494.7	51.419	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 511-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 67-GYRO-NS, 888-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.4	0.0	0.0	0.0	22.83	41.5	17.5	45.1			
100.0	100.0	99.6	99.2	0.4	0.2	22.58	42.0	17.5	45.5	44.9	72.317	ES
200.0	200.0	197.7	197.2	1.3	0.6	22.58	45.3	18.9	49.2	47.4	27.278	
250.0	250.0	246.5	245.9	1.4	0.8	22.81	48.3	20.3	52.5	50.4	24.966	
300.0	300.0	294.7	293.9	1.6	1.1	74.19	52.2	22.4	57.0	54.6	23.742	
400.0	399.8	389.6	387.9	3.3	1.7	78.65	63.9	28.6	69.7	66.5	21.820	SF
500.0	499.3	482.6	478.9	4.9	2.4	83.40	81.3	36.3	88.5	84.6	22.683	
600.0	598.0	573.9	567.0	6.2	3.2	87.79	103.4	45.7	113.2	108.6	24.489	
700.0	695.8	665.3	654.1	7.2	4.1	91.94	128.7	56.8	142.5	137.0	25.900	
800.0	792.4	755.9	740.0	8.2	4.9	96.28	154.3	69.7	175.0	168.4	26.418	
900.0	887.5	843.7	822.6	9.0	5.5	99.91	180.8	83.0	211.2	203.4	27.013	
1,000.0	980.9	930.7	904.0	9.8	5.8	103.26	207.7	97.5	251.3	242.3	27.913	
1,100.0	1,072.2	1,018.2	985.7	10.6	6.0	106.27	235.4	112.4	294.5	284.2	28.729	
1,200.0	1,161.3	1,104.0	1,065.8	11.2	6.2	108.89	262.8	126.9	340.4	328.8	29.418	
1,300.0	1,247.9	1,187.5	1,143.3	11.9	6.4	111.05	290.3	141.0	389.4	376.5	30.137	
1,400.0	1,331.8	1,273.1	1,222.6	12.5	6.7	112.96	319.3	154.8	441.0	426.6	30.706	
1,500.0	1,412.6	1,346.3	1,290.5	13.1	7.1	114.25	344.0	166.9	495.8	480.1	31.480	
1,550.4	1,452.2	1,385.1	1,326.5	13.2	7.3	114.98	356.7	173.8	525.0	508.6	31.922	
1,600.0	1,490.8	1,424.7	1,363.3	13.4	7.4	116.61	369.8	180.7	554.1	537.0	32.361	
1,700.0	1,568.5	1,501.7	1,434.8	13.7	7.8	119.36	395.1	193.9	613.5	595.1	33.371	
1,800.0	1,646.2	1,576.1	1,503.9	14.0	8.1	121.63	419.3	206.9	673.8	654.3	34.470	
1,900.0	1,723.9	1,649.9	1,572.4	14.3	8.4	123.53	443.4	220.2	735.2	714.5	35.571	
2,000.0	1,801.6	1,726.3	1,643.3	14.8	8.8	125.20	468.5	234.0	797.1	775.3	36.566	
2,100.0	1,879.3	1,815.7	1,726.1	16.0	9.2	126.84	498.0	249.5	858.9	835.8	37.174	
2,200.0	1,957.0	1,895.9	1,800.6	17.3	9.6	128.09	524.9	262.5	920.2	895.9	37.894	
2,300.0	2,034.7	1,973.8	1,873.1	18.6	10.0	129.18	550.5	275.2	981.6	956.2	38.629	
2,400.0	2,112.4	2,049.4	1,943.3	19.9	10.4	130.09	575.7	287.5	1,043.2	1,016.7	39.370	
2,500.0	2,190.1	2,121.4	2,010.1	21.2	10.8	130.88	599.6	299.5	1,105.4	1,077.9	40.141	
2,600.0	2,267.8	2,201.2	2,084.4	22.5	11.2	131.69	625.7	312.9	1,167.8	1,139.1	40.716	
2,700.0	2,345.5	2,277.2	2,155.0	23.8	11.6	132.38	650.5	325.6	1,230.2	1,200.4	41.319	
2,800.0	2,423.2	2,366.9	2,238.5	25.1	12.1	133.11	680.1	340.3	1,292.6	1,261.5	41.623	
2,900.0	2,500.9	2,444.1	2,310.2	26.4	12.5	133.65	705.9	352.4	1,354.3	1,322.1	42.094	
3,000.0	2,578.6	2,516.4	2,377.0	27.7	12.9	134.08	730.7	364.1	1,416.6	1,383.3	42.624	
3,100.0	2,656.3	2,598.8	2,453.5	29.0	13.4	134.55	758.7	377.4	1,478.8	1,444.4	42.940	
3,200.0	2,734.0	2,671.6	2,521.1	30.3	13.8	134.96	782.8	389.1	1,541.1	1,505.6	43.409	
3,300.0	2,811.7	2,748.4	2,592.7	31.6	14.3	135.38	807.8	401.6	1,603.7	1,567.0	43.793	
3,400.0	2,889.4	2,824.3	2,663.5	32.9	14.7	135.78	832.1	413.9	1,666.3	1,628.6	44.177	
3,500.0	2,967.1	2,898.7	2,733.1	34.2	15.1	136.17	855.5	426.1	1,729.0	1,690.2	44.572	
3,600.0	3,044.8	2,973.0	2,802.6	35.5	15.5	136.53	878.7	438.4	1,792.0	1,752.1	44.953	
3,700.0	3,122.5	3,055.7	2,879.6	36.8	16.0	136.88	905.3	452.1	1,855.0	1,813.9	45.169	
3,800.0	3,200.2	3,124.7	2,943.7	38.2	16.4	137.12	928.3	463.6	1,918.0	1,875.9	45.562	
3,900.0	3,277.9	3,201.3	3,014.7	39.5	16.8	137.37	953.9	476.7	1,981.3	1,938.0	45.823	
4,000.0	3,355.6	3,279.6	3,087.3	40.8	17.3	137.60	980.1	489.9	2,044.5	2,000.1	46.039	
4,100.0	3,433.3	3,351.7	3,154.2	42.1	17.7	137.81	1,004.1	502.1	2,107.8	2,062.3	46.339	
4,200.0	3,511.0	3,420.7	3,218.1	43.4	18.2	138.00	1,027.0	514.1	2,171.4	2,124.9	46.673	
4,300.0	3,588.7	3,500.8	3,292.3	44.7	18.6	138.20	1,053.8	528.1	2,235.2	2,187.4	46.829	
4,400.0	3,666.4	3,583.8	3,369.1	46.0	19.1	138.39	1,081.7	542.4	2,298.7	2,249.7	46.930	
4,500.0	3,744.1	3,662.1	3,441.7	47.3	19.6	138.56	1,108.1	555.8	2,362.1	2,311.9	47.086	
4,600.0	3,821.8	3,738.3	3,512.3	48.6	20.1	138.72	1,133.6	568.8	2,425.6	2,374.3	47.265	
4,700.0	3,899.5	3,823.4	3,591.1	50.0	20.6	138.89	1,162.1	583.2	2,488.9	2,436.3	47.314	
4,800.0	3,977.2	3,895.9	3,658.3	51.3	21.1	139.02	1,186.7	595.5	2,552.2	2,498.5	47.517	
4,900.0	4,054.9	3,957.4	3,715.1	52.6	21.4	139.12	1,207.7	606.1	2,615.8	2,561.2	47.851	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 511-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 67-GYRO-NS, 888-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
4,929.8	4,078.0	3,974.8	3,731.0	53.0	21.6	139.14	1,213.8	609.2	2,634.8	2,579.9	47.963	
5,000.0	4,133.0	4,019.8	3,772.4	53.9	21.8	139.84	1,229.5	617.4	2,679.5	2,623.9	48.166	
5,100.0	4,213.0	4,103.4	3,849.1	55.1	22.4	140.75	1,259.2	632.6	2,741.5	2,684.6	48.155	
5,200.0	4,294.8	4,190.9	3,929.3	56.3	23.0	141.53	1,290.3	648.4	2,801.5	2,743.2	48.070	
5,300.0	4,378.2	4,304.5	4,033.7	57.4	23.7	142.19	1,330.6	668.0	2,859.0	2,799.0	47.649	
5,400.0	4,463.3	4,385.0	4,107.9	58.4	24.2	142.79	1,358.8	681.3	2,913.9	2,852.7	47.623	
5,500.0	4,550.0	4,464.4	4,181.3	59.4	24.7	143.33	1,386.2	694.6	2,967.0	2,904.7	47.603	
5,600.0	4,638.2	4,568.0	4,277.4	60.3	25.3	143.77	1,420.6	711.8	3,018.0	2,954.2	47.315	
5,700.0	4,727.7	4,668.7	4,371.5	61.1	25.9	144.17	1,452.8	727.7	3,066.3	3,001.1	47.069	
5,800.0	4,818.6	4,796.5	4,492.0	61.9	26.7	144.48	1,491.2	746.6	3,111.7	3,044.9	46.582	
5,900.0	4,910.7	4,901.5	4,591.4	62.6	27.2	144.79	1,521.6	761.0	3,153.9	3,085.8	46.320	
6,000.0	5,004.0	5,008.4	4,692.9	63.3	27.8	145.03	1,551.8	775.3	3,193.8	3,124.4	46.045	
6,100.0	5,098.3	5,118.7	4,798.1	63.9	28.3	145.21	1,582.1	789.2	3,230.6	3,160.0	45.738	
6,200.0	5,193.6	5,241.4	4,915.8	64.4	28.9	145.35	1,613.3	803.7	3,264.7	3,192.7	45.358	
6,300.0	5,289.7	5,332.0	5,003.5	64.9	29.3	145.54	1,633.9	813.8	3,295.9	3,223.1	45.233	
6,400.0	5,386.7	5,452.3	5,120.4	65.3	29.8	145.66	1,658.9	826.6	3,324.5	3,250.5	44.925	
6,500.0	5,484.4	5,555.6	5,221.4	65.7	30.1	145.78	1,678.0	836.7	3,350.1	3,275.2	44.734	
6,600.0	5,582.6	5,646.3	5,310.5	66.0	30.4	145.90	1,693.3	845.5	3,373.3	3,297.7	44.612	
6,700.0	5,681.4	5,748.5	5,410.7	66.2	30.8	145.94	1,710.6	855.6	3,394.3	3,317.9	44.419	
6,800.0	5,780.6	5,913.8	5,573.1	66.4	31.3	145.82	1,738.0	870.0	3,411.7	3,334.0	43.880	
6,900.0	5,880.2	6,021.4	5,679.2	66.6	31.6	145.77	1,753.9	878.0	3,425.5	3,347.1	43.648	
7,000.0	5,980.0	6,121.8	5,778.3	66.7	31.9	145.71	1,767.4	885.1	3,436.6	3,357.5	43.447	
7,100.0	6,079.9	6,225.4	5,880.9	66.8	32.1	145.60	1,780.1	892.4	3,445.3	3,365.6	43.237	
7,159.1	6,139.0	6,318.9	5,973.6	66.8	32.3	94.96	1,790.4	898.3	3,449.0	3,368.8	43.016	
7,200.0	6,179.9	6,394.0	6,048.4	66.8	32.5	94.84	1,797.1	902.1	3,450.7	3,370.2	42.850	
7,300.0	6,279.9	6,516.6	6,170.6	66.8	32.7	94.69	1,805.8	906.9	3,454.0	3,373.1	42.681	
7,400.0	6,379.9	6,621.3	6,275.1	66.8	32.8	94.59	1,811.3	910.7	3,457.1	3,376.0	42.587	
7,500.0	6,479.9	6,795.4	6,449.1	66.8	33.0	94.49	1,817.0	914.7	3,459.2	3,377.6	42.348	
7,600.0	6,579.9	6,918.3	6,571.9	66.8	33.0	94.45	1,819.3	915.4	3,459.7	3,377.8	42.255	
7,700.0	6,679.9	7,034.1	6,687.7	66.9	33.1	94.43	1,820.7	915.6	3,459.7	3,377.7	42.195	
7,800.0	6,779.9	7,149.3	6,802.8	66.9	33.1	94.42	1,821.3	915.1	3,459.2	3,377.2	42.168	
7,900.0	6,879.9	7,244.3	6,897.8	66.9	33.2	94.42	1,821.4	914.5	3,458.6	3,376.6	42.176	
8,000.0	6,979.9	7,327.1	6,980.7	66.9	33.2	94.42	1,821.4	914.3	3,458.3	3,376.4	42.195	
8,100.0	7,079.9	7,427.1	7,080.7	66.9	33.2	94.43	1,820.9	914.2	3,458.3	3,376.3	42.184	
8,119.2	7,099.1	7,445.5	7,099.1	66.9	33.2	94.43	1,820.8	914.2	3,458.3	3,376.3	42.183	
8,200.0	7,179.9	7,522.9	7,176.5	66.9	33.2	94.45	1,819.9	914.1	3,458.4	3,376.4	42.180	
8,300.0	7,279.9	7,616.8	7,270.4	67.0	33.2	94.47	1,818.5	914.2	3,458.5	3,376.5	42.181	
8,400.0	7,379.9	7,711.2	7,364.8	67.0	33.2	94.49	1,817.1	914.5	3,458.9	3,376.9	42.179	
8,500.0	7,479.9	7,816.2	7,469.7	67.0	33.2	94.51	1,815.9	914.7	3,459.3	3,377.2	42.157	
8,600.0	7,579.9	7,911.1	7,564.6	67.0	33.2	94.53	1,814.8	915.0	3,459.6	3,377.5	42.148	
8,700.0	7,679.9	8,014.6	7,668.1	67.0	33.2	94.55	1,813.5	915.4	3,460.1	3,378.0	42.129	
8,800.0	7,779.9	8,141.0	7,794.6	67.0	33.2	94.57	1,812.2	915.1	3,460.0	3,377.8	42.089	
8,900.0	7,879.9	8,250.4	7,903.9	67.1	33.2	94.60	1,810.5	914.4	3,459.4	3,377.2	42.081	
9,000.0	7,979.9	8,356.3	8,009.8	67.1	33.2	94.63	1,808.7	913.4	3,458.6	3,376.4	42.080	
9,100.0	8,079.9	8,458.0	8,111.5	67.1	33.2	94.65	1,807.6	912.4	3,457.7	3,375.6	42.084	
9,200.0	8,179.9	8,569.2	8,222.6	67.1	33.2	94.67	1,806.4	911.0	3,456.6	3,374.4	42.078	
9,300.0	8,279.9	8,658.9	8,312.4	67.1	33.2	94.69	1,805.6	910.0	3,455.5	3,373.4	42.094	
9,400.0	8,379.9	8,765.8	8,419.3	67.2	33.2	94.70	1,805.1	908.8	3,454.5	3,372.4	42.091	
9,500.0	8,479.9	8,878.8	8,532.3	67.2	33.2	94.70	1,804.8	907.4	3,453.2	3,371.2	42.082	
9,600.0	8,579.9	8,991.3	8,644.7	67.2	33.2	94.71	1,804.5	905.4	3,451.4	3,369.4	42.069	
9,700.0	8,679.9	9,083.4	8,736.8	67.2	33.3	94.72	1,804.0	903.7	3,449.6	3,367.7	42.075	
9,800.0	8,779.9	9,177.4	8,830.8	67.2	33.3	94.74	1,803.2	902.2	3,448.1	3,366.2	42.082	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b>	Sec 8, T6S, R94W - (Offset) RWF 511-9 - Wellbore #1 - Wellbore #1										<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b>	67-GYRO-NS, 888-OWSG (REV5) MWD HDGM Standard										<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
9,900.0	8,879.9	9,280.8	8,934.1	67.3	33.3	94.77	1,801.6	900.5	3,446.6	3,364.7	42.080	
9,981.1	8,961.0	9,363.4	9,016.7	67.3	33.3	94.79	1,800.0	899.0	3,445.3	3,363.4	42.083	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 512-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 70-GYRO-NS, 699-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
0.0	0.0	0.4	0.0	0.0	0.0	22.11	6.9	2.8	7.5			
100.0	100.0	100.3	99.9	0.4	0.2	26.01	7.1	3.4	7.9	7.2	12.364	ES
200.0	200.0	199.6	199.1	1.3	0.7	41.45	9.1	8.1	12.2	10.4	6.643	SF
250.0	250.0	248.9	248.1	1.4	0.9	47.31	11.4	12.3	16.9	14.7	7.865	
300.0	300.0	298.0	296.8	1.6	1.2	102.98	14.3	17.7	23.2	20.7	9.542	
400.0	399.8	395.4	393.0	3.3	1.9	113.04	21.7	31.1	40.5	37.0	11.848	
500.0	499.3	491.7	487.8	4.9	2.5	120.72	29.9	46.1	62.9	58.1	13.071	
600.0	598.0	586.8	581.1	6.2	3.1	126.50	38.6	62.0	90.2	83.9	14.340	
700.0	695.8	682.1	674.7	7.2	3.5	131.46	47.0	78.3	121.7	114.0	15.741	
800.0	792.4	778.0	769.1	8.2	3.7	135.78	54.8	93.3	155.9	146.6	16.880	
900.0	887.5	869.4	859.2	9.0	3.9	139.25	62.0	106.8	193.5	182.9	18.281	
1,000.0	980.9	960.1	948.6	9.8	4.1	142.17	69.1	120.1	235.7	223.9	19.921	
1,100.0	1,072.2	1,046.7	1,034.1	10.6	4.3	144.69	75.0	132.7	282.2	269.2	21.713	
1,200.0	1,161.3	1,132.5	1,118.8	11.2	4.5	146.79	80.9	145.2	333.3	319.2	23.612	
1,300.0	1,247.9	1,215.2	1,200.4	11.9	4.7	148.38	87.0	157.1	388.3	373.2	25.627	
1,400.0	1,331.8	1,293.0	1,277.1	12.5	4.9	149.56	92.9	168.4	447.6	431.5	27.803	
1,500.0	1,412.6	1,366.6	1,349.6	13.1	5.1	150.37	98.8	179.5	511.3	494.4	30.119	
1,550.4	1,452.2	1,403.3	1,385.8	13.2	5.2	150.68	101.9	185.2	545.0	527.7	31.429	
1,600.0	1,490.8	1,439.0	1,420.9	13.4	5.3	151.57	105.0	190.8	578.6	560.9	32.775	
1,700.0	1,568.5	1,512.0	1,492.7	13.7	5.6	153.08	111.4	202.2	646.6	628.3	35.356	
1,800.0	1,646.2	1,582.8	1,562.3	14.0	6.0	154.25	117.9	213.3	714.7	695.8	37.818	
1,900.0	1,723.9	1,651.4	1,629.6	14.3	6.3	155.12	124.8	224.6	783.3	763.8	40.194	
2,000.0	1,801.6	1,718.4	1,695.2	14.8	6.6	155.79	131.8	236.2	852.4	832.3	42.473	
2,100.0	1,879.3	1,783.5	1,759.0	16.0	6.9	156.34	138.8	247.9	921.9	901.3	44.681	
2,200.0	1,957.0	1,851.7	1,825.6	17.3	7.2	156.85	145.6	260.5	992.0	970.8	46.701	
2,300.0	2,034.7	1,926.8	1,899.1	18.6	7.5	157.38	152.7	274.0	1,062.0	1,040.1	48.409	
2,400.0	2,112.4	1,991.1	1,962.1	19.9	7.8	157.80	158.6	285.5	1,132.2	1,109.7	50.280	
2,500.0	2,190.1	2,071.5	2,040.9	21.2	8.2	158.27	165.7	300.0	1,202.5	1,179.2	51.615	
2,600.0	2,267.8	2,151.4	2,119.4	22.5	8.6	158.73	172.3	313.3	1,271.9	1,247.9	52.845	
2,700.0	2,345.5	2,226.2	2,192.9	23.8	8.9	159.12	178.7	325.6	1,341.3	1,316.5	54.131	
2,800.0	2,423.2	2,306.5	2,271.9	25.1	9.3	159.50	185.4	338.2	1,410.3	1,384.8	55.225	
2,900.0	2,500.9	2,372.9	2,337.3	26.4	9.6	159.79	191.0	348.7	1,479.3	1,453.1	56.558	
3,000.0	2,578.6	2,450.7	2,413.7	27.7	9.9	160.08	197.7	361.2	1,548.4	1,521.5	57.568	
3,100.0	2,656.3	2,530.1	2,491.9	29.0	10.3	160.37	204.4	373.3	1,617.1	1,589.5	58.475	
3,200.0	2,734.0	2,603.9	2,564.6	30.3	10.6	160.63	210.6	384.4	1,685.7	1,657.3	59.446	
3,300.0	2,811.7	2,671.3	2,631.0	31.6	10.9	160.84	216.3	394.7	1,754.3	1,725.3	60.499	
3,400.0	2,889.4	2,736.9	2,695.5	32.9	11.2	161.01	222.3	405.0	1,823.3	1,793.6	61.531	
3,500.0	2,967.1	2,798.7	2,756.1	34.2	11.5	161.13	228.1	415.2	1,892.5	1,862.3	62.596	
3,600.0	3,044.8	2,863.0	2,819.2	35.5	11.8	161.25	234.2	426.3	1,962.3	1,931.4	63.563	
3,700.0	3,122.5	2,953.1	2,907.7	36.8	12.2	161.44	242.0	441.3	2,031.9	2,000.1	63.911	
3,800.0	3,200.2	3,025.1	2,978.6	38.2	12.6	161.61	247.7	452.5	2,101.0	2,068.5	64.623	
3,900.0	3,277.9	3,090.0	3,042.5	39.5	12.9	161.76	252.7	462.6	2,170.2	2,137.1	65.461	
4,000.0	3,355.6	3,146.0	3,097.6	40.8	13.1	161.88	256.9	471.5	2,239.8	2,206.1	66.456	
4,100.0	3,433.3	3,207.2	3,157.8	42.1	13.4	162.00	261.5	481.7	2,309.8	2,275.4	67.304	
4,200.0	3,511.0	3,290.3	3,239.5	43.4	13.8	162.15	267.7	495.8	2,380.0	2,344.9	67.679	
4,300.0	3,588.7	3,388.6	3,336.2	44.7	14.2	162.33	275.3	511.3	2,449.4	2,413.2	67.727	
4,400.0	3,666.4	3,463.4	3,409.8	46.0	14.5	162.44	281.6	522.9	2,518.3	2,481.4	68.207	
4,500.0	3,744.1	3,525.0	3,470.4	47.3	14.8	162.52	286.9	532.7	2,587.5	2,549.9	68.914	
4,600.0	3,821.8	3,588.6	3,533.0	48.6	15.1	162.60	292.4	542.9	2,656.8	2,618.6	69.557	
4,700.0	3,899.5	3,654.2	3,597.4	50.0	15.4	162.68	297.9	553.8	2,726.5	2,687.6	70.143	
4,800.0	3,977.2	3,735.2	3,677.0	51.3	15.8	162.77	304.7	567.2	2,796.2	2,756.5	70.417	
4,900.0	4,054.9	3,836.2	3,776.5	52.6	16.2	162.89	313.0	582.8	2,865.2	2,824.4	70.321	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 512-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 70-GYRO-NS, 699-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
4,929.8	4,078.0	3,859.0	3,799.0	53.0	16.3	162.92	314.9	586.2	2,885.6	2,844.6	70.424	
5,000.0	4,133.0	3,911.8	3,850.9	53.9	16.6	163.30	319.5	594.2	2,933.3	2,891.8	70.666	
5,100.0	4,213.0	3,981.6	3,919.7	55.1	16.9	163.78	325.5	604.8	2,999.5	2,957.2	71.012	
5,200.0	4,294.8	4,071.2	4,007.9	56.3	17.3	164.21	333.3	618.4	3,063.3	3,020.2	70.954	
5,300.0	4,378.2	4,135.3	4,070.9	57.4	17.6	164.58	339.1	628.1	3,124.8	3,081.0	71.270	
5,400.0	4,463.3	4,194.2	4,128.9	58.4	17.8	164.91	344.1	637.4	3,184.5	3,140.1	71.631	
5,500.0	4,550.0	4,257.9	4,191.6	59.4	18.1	165.21	349.2	647.6	3,242.3	3,197.2	71.868	
5,600.0	4,638.2	4,348.4	4,280.5	60.3	18.5	165.46	356.2	662.4	3,297.9	3,251.9	71.624	
5,700.0	4,727.7	4,443.3	4,373.9	61.1	19.0	165.66	364.2	677.7	3,350.7	3,303.6	71.268	
5,800.0	4,818.6	4,534.6	4,463.7	61.9	19.4	165.82	372.0	692.4	3,400.7	3,352.8	70.943	
5,900.0	4,910.7	4,657.6	4,584.9	62.6	19.9	165.95	381.7	711.1	3,447.8	3,398.7	70.143	
6,000.0	5,004.0	4,744.8	4,670.9	63.3	20.3	166.08	388.2	723.5	3,491.7	3,441.7	69.857	
6,100.0	5,098.3	4,799.8	4,725.1	63.9	20.6	166.23	392.1	731.7	3,533.4	3,482.9	69.980	
6,200.0	5,193.6	4,857.3	4,781.7	64.4	20.9	166.34	396.4	740.9	3,573.4	3,522.4	70.045	
6,300.0	5,289.7	4,957.3	4,880.0	64.9	21.3	166.37	404.2	757.6	3,611.0	3,559.0	69.462	
6,400.0	5,386.7	5,067.5	4,988.5	65.3	21.8	166.37	412.5	775.4	3,645.6	3,592.6	68.747	
6,500.0	5,484.4	5,224.0	5,142.8	65.7	22.5	166.29	424.3	798.8	3,676.3	3,621.8	67.457	
6,600.0	5,582.6	5,320.0	5,237.5	66.0	23.0	166.27	431.8	812.3	3,703.4	3,648.0	66.932	
6,700.0	5,681.4	5,393.8	5,310.2	66.2	23.3	166.25	438.0	823.2	3,727.9	3,671.9	66.643	
6,800.0	5,780.6	5,496.8	5,411.6	66.4	23.8	166.15	447.2	839.0	3,749.8	3,693.0	65.989	
6,900.0	5,880.2	5,579.0	5,492.5	66.6	24.2	166.08	454.3	851.5	3,768.9	3,711.5	65.575	
7,000.0	5,980.0	5,704.3	5,616.0	66.7	24.7	165.91	464.5	870.3	3,785.2	3,726.7	64.686	
7,100.0	6,079.9	5,843.3	5,752.7	66.8	25.8	165.58	480.7	898.9	3,796.7	3,736.2	62.766	
7,159.1	6,139.0	6,041.3	5,950.3	66.8	26.2	114.98	484.9	906.6	3,800.3	3,739.2	62.222	
7,200.0	6,179.9	6,186.8	6,095.5	66.8	26.8	114.88	488.9	914.5	3,802.0	3,740.0	61.372	
7,300.0	6,279.9	6,296.2	6,204.9	66.8	27.2	114.83	491.0	918.0	3,804.1	3,741.8	61.114	
7,400.0	6,379.9	6,444.0	6,352.6	66.8	27.6	114.78	492.8	921.4	3,805.7	3,743.0	60.661	
7,500.0	6,479.9	6,567.9	6,476.4	66.8	27.9	114.76	493.9	922.3	3,806.0	3,743.0	60.428	
7,600.0	6,579.9	6,660.1	6,568.7	66.8	28.1	114.75	494.2	922.7	3,806.2	3,743.1	60.352	
7,700.0	6,679.9	6,766.9	6,675.4	66.9	28.2	114.75	494.5	923.0	3,806.4	3,743.2	60.206	
7,800.0	6,779.9	6,865.7	6,774.3	66.9	28.3	114.75	494.4	923.1	3,806.5	3,743.2	60.136	
7,900.0	6,879.9	6,954.1	6,862.7	66.9	28.2	114.75	494.0	923.2	3,806.8	3,743.5	60.100	
8,000.0	6,979.9	7,049.7	6,958.3	66.9	28.2	114.76	493.2	923.3	3,807.3	3,743.8	60.008	
8,100.0	7,079.9	7,134.2	7,042.7	66.9	28.2	114.77	492.6	923.8	3,808.1	3,744.6	59.953	
8,200.0	7,179.9	7,241.3	7,149.8	66.9	28.3	114.78	491.8	924.4	3,808.9	3,745.2	59.763	
8,300.0	7,279.9	7,333.6	7,242.1	67.0	28.3	114.79	490.9	924.9	3,809.8	3,746.0	59.661	
8,400.0	7,379.9	7,437.4	7,345.9	67.0	28.4	114.79	489.9	925.6	3,810.8	3,746.8	59.494	
8,500.0	7,479.9	7,562.5	7,471.0	67.0	28.4	114.81	488.8	925.9	3,811.4	3,747.1	59.271	
8,600.0	7,579.9	7,692.8	7,601.3	67.0	28.2	114.82	488.0	925.3	3,811.3	3,746.8	59.142	
8,700.0	7,679.9	7,792.6	7,701.1	67.0	28.0	114.84	487.0	924.2	3,810.7	3,746.3	59.173	
8,800.0	7,779.9	7,907.2	7,815.8	67.0	27.8	114.87	486.0	922.8	3,809.9	3,745.5	59.180	
8,900.0	7,879.9	8,009.2	7,917.7	67.1	27.6	114.88	485.6	921.5	3,809.0	3,744.7	59.243	
9,000.0	7,979.9	8,110.1	8,018.6	67.1	27.4	114.89	485.5	920.3	3,807.9	3,743.7	59.314	
9,100.0	8,079.9	8,193.2	8,101.6	67.1	27.2	114.90	485.4	919.5	3,807.1	3,743.0	59.411	
9,200.0	8,179.9	8,273.9	8,182.3	67.1	27.1	114.90	485.2	919.2	3,806.8	3,742.8	59.486	
9,300.0	8,279.9	8,376.2	8,284.7	67.1	27.0	114.91	484.6	918.7	3,806.7	3,742.7	59.460	
9,400.0	8,379.9	8,487.4	8,395.8	67.2	26.8	114.94	483.1	917.9	3,806.6	3,742.5	59.417	
9,500.0	8,479.9	8,601.3	8,509.7	67.2	26.6	114.97	481.6	916.2	3,805.8	3,741.8	59.403	
9,600.0	8,579.9	8,770.1	8,678.5	67.2	26.2	114.99	481.0	913.2	3,804.4	3,740.3	59.318	
9,700.0	8,679.9	8,886.0	8,794.3	67.2	26.0	115.04	480.0	908.8	3,801.4	3,737.3	59.366	
9,800.0	8,779.9	8,966.6	8,874.9	67.2	25.8	115.07	478.6	905.7	3,798.6	3,734.7	59.486	
9,900.0	8,879.9	9,042.0	8,950.2	67.3	25.5	115.11	477.3	903.0	3,796.2	3,732.5	59.617	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b>	Sec 8, T6S, R94W - (Offset) RWF 512-9 - Wellbore #1 - Wellbore #1										<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b>	70-GYRO-NS, 699-OWSG (REV5) MWD HDGM Standard										<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
9,970.3	8,950.2	9,042.0	8,950.2	67.3	25.5	115.11	477.3	903.0	3,795.5	3,732.1	59.841	
9,981.1	8,961.0	9,042.0	8,950.2	67.3	25.5	115.11	477.3	903.0	3,795.6	3,732.2	59.879	



<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 513-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 83-GYRO-NS, 612-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.4	0.0	0.0	0.0	-132.85	-16.7	-18.1	24.6			
100.0	100.0	100.5	100.1	0.4	0.2	-132.16	-16.7	-18.4	24.9	24.3	41.258	
200.0	200.0	201.5	201.0	1.3	0.6	-135.31	-15.7	-15.5	22.1	20.3	12.295	
250.0	250.0	251.7	251.2	1.4	0.8	-141.04	-15.1	-12.2	19.4	17.3	9.105	
300.0	300.0	301.7	300.9	1.6	1.1	-103.31	-14.4	-7.8	16.6	14.1	6.640	
343.5	343.4	344.8	343.8	2.3	1.3	-122.89	-13.8	-3.5	15.4	12.2	4.859	CC, ES
400.0	399.8	400.5	399.1	3.3	1.6	-154.77	-12.8	3.3	18.3	13.7	3.943	SF
500.0	499.3	497.0	494.1	4.9	2.3	172.36	-9.9	19.8	38.5	31.8	5.728	
600.0	598.0	593.0	588.7	6.2	2.7	163.96	-7.0	36.3	67.5	59.4	8.400	
700.0	695.8	685.4	679.7	7.2	3.0	161.80	-4.7	51.9	101.5	92.2	10.968	
800.0	792.4	778.5	771.3	8.2	3.4	161.21	-2.8	68.5	141.2	130.6	13.383	
900.0	887.5	871.8	863.2	9.0	3.8	160.89	0.7	84.1	183.8	172.1	15.672	
1,000.0	980.9	959.4	949.6	9.8	4.0	160.91	4.3	98.1	230.1	217.4	18.036	
1,100.0	1,072.2	1,044.3	1,033.2	10.6	4.2	161.04	7.7	112.1	281.3	267.6	20.470	
1,200.0	1,161.3	1,125.3	1,113.0	11.2	4.4	161.29	10.4	125.7	337.1	322.4	22.973	
1,300.0	1,247.9	1,202.6	1,189.2	11.9	4.6	161.53	12.6	139.1	397.6	382.0	25.565	
1,400.0	1,331.8	1,277.5	1,262.9	12.5	4.9	161.74	14.4	152.2	462.3	445.9	28.181	
1,500.0	1,412.6	1,351.2	1,335.4	13.1	5.1	161.88	16.2	165.1	530.8	513.5	30.790	
1,550.4	1,452.2	1,386.5	1,370.2	13.2	5.3	161.89	17.1	171.3	566.7	549.1	32.281	
1,600.0	1,490.8	1,420.7	1,403.8	13.4	5.4	162.34	18.0	177.3	602.4	584.6	33.789	
1,700.0	1,568.5	1,490.1	1,472.1	13.7	5.7	163.11	19.8	189.4	674.5	656.1	36.683	
1,800.0	1,646.2	1,560.3	1,541.3	14.0	6.1	163.77	21.4	201.5	746.6	727.6	39.359	
1,900.0	1,723.9	1,632.8	1,612.7	14.3	6.4	164.35	23.0	213.7	818.5	798.9	41.798	
2,000.0	1,801.6	1,703.2	1,682.1	14.8	6.7	164.84	24.5	225.3	890.2	870.1	44.127	
2,100.0	1,879.3	1,771.8	1,749.8	16.0	7.0	165.26	25.8	236.5	962.0	941.2	46.349	
2,200.0	1,957.0	1,840.4	1,817.4	17.3	7.3	165.58	27.5	248.0	1,033.9	1,012.6	48.436	
2,300.0	2,034.7	1,916.9	1,892.7	18.6	7.6	165.82	30.3	261.1	1,105.6	1,083.6	50.160	
2,400.0	2,112.4	1,983.4	1,958.2	19.9	7.9	165.99	33.0	272.4	1,177.1	1,154.5	52.016	
2,500.0	2,190.1	2,051.6	2,025.3	21.2	8.2	166.17	35.3	284.1	1,248.9	1,225.7	53.735	
2,600.0	2,267.8	2,123.1	2,095.8	22.5	8.6	166.35	37.6	296.1	1,320.6	1,296.7	55.267	
2,700.0	2,345.5	2,191.6	2,163.3	23.8	8.9	166.52	39.7	307.6	1,392.3	1,367.8	56.783	
2,800.0	2,423.2	2,265.8	2,236.4	25.1	9.2	166.67	42.0	320.0	1,464.0	1,438.7	58.065	
2,900.0	2,500.9	2,335.9	2,305.5	26.4	9.5	166.81	44.2	331.5	1,535.4	1,509.5	59.361	
3,000.0	2,578.6	2,399.6	2,368.4	27.7	9.8	166.95	45.7	341.8	1,607.1	1,580.6	60.747	
3,100.0	2,656.3	2,469.5	2,437.4	29.0	10.1	167.11	47.0	353.1	1,678.8	1,651.7	61.909	
3,200.0	2,734.0	2,543.9	2,510.7	30.3	10.4	167.26	48.4	365.0	1,750.5	1,722.7	62.898	
3,300.0	2,811.7	2,616.7	2,582.6	31.6	10.8	167.38	50.4	376.8	1,822.0	1,793.5	63.855	
3,400.0	2,889.4	2,684.6	2,649.6	32.9	11.1	167.47	52.4	387.9	1,893.5	1,864.4	64.874	
3,500.0	2,967.1	2,750.6	2,714.6	34.2	11.4	167.55	54.3	398.7	1,965.2	1,935.3	65.885	
3,600.0	3,044.8	2,818.3	2,781.3	35.5	11.7	167.63	56.0	409.9	2,036.9	2,006.4	66.806	
3,700.0	3,122.5	2,886.2	2,848.3	36.8	12.0	167.71	57.7	421.1	2,108.7	2,077.5	67.677	
3,800.0	3,200.2	2,951.1	2,912.3	38.2	12.3	167.79	59.2	431.8	2,180.6	2,148.8	68.572	
3,900.0	3,277.9	3,041.9	3,001.8	39.5	12.7	167.88	61.5	446.7	2,252.3	2,219.6	68.846	
4,000.0	3,355.6	3,123.1	3,081.9	40.8	13.0	167.95	64.1	459.5	2,323.4	2,289.9	69.305	
4,100.0	3,433.3	3,200.7	3,158.6	42.1	13.4	168.03	66.1	471.2	2,394.2	2,359.9	69.815	
4,200.0	3,511.0	3,275.8	3,232.9	43.4	13.7	168.11	68.4	482.5	2,464.9	2,429.9	70.347	
4,300.0	3,588.7	3,342.0	3,298.3	44.7	14.0	168.17	70.3	492.3	2,535.6	2,499.9	71.033	
4,400.0	3,666.4	3,396.9	3,352.5	46.0	14.2	168.22	71.8	500.6	2,606.5	2,570.2	71.916	
4,500.0	3,744.1	3,450.2	3,405.2	47.3	14.5	168.25	73.3	509.2	2,677.9	2,641.1	72.811	
4,600.0	3,821.8	3,513.6	3,467.6	48.6	14.8	168.29	75.0	519.7	2,749.6	2,712.2	73.469	
4,700.0	3,899.5	3,582.0	3,535.1	50.0	15.1	168.33	76.9	531.1	2,821.5	2,783.3	73.997	
4,800.0	3,977.2	3,656.9	3,608.9	51.3	15.4	168.38	78.7	543.4	2,893.3	2,854.4	74.373	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 513-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 83-GYRO-NS, 612-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
4,900.0	4,054.9	3,734.4	3,685.3	52.6	15.8	168.42	80.8	556.0	2,964.8	2,925.1	74.677	
4,929.8	4,078.0	3,752.4	3,703.1	53.0	15.8	168.43	81.4	559.0	2,986.1	2,946.2	74.867	
5,000.0	4,133.0	3,795.2	3,745.3	53.9	16.0	168.69	82.6	566.1	3,035.9	2,995.6	75.286	
5,100.0	4,213.0	3,850.2	3,799.5	55.1	16.3	169.02	84.3	575.4	3,105.3	3,064.4	75.898	
5,200.0	4,294.8	3,909.0	3,857.3	56.3	16.6	169.31	85.8	585.7	3,172.9	3,131.4	76.366	
5,300.0	4,378.2	3,976.2	3,923.4	57.4	16.9	169.57	87.5	597.7	3,238.6	3,196.4	76.610	
5,400.0	4,463.3	4,092.4	4,037.8	58.4	17.4	169.77	90.8	618.2	3,301.7	3,258.2	75.876	
5,500.0	4,550.0	4,175.2	4,119.3	59.4	17.8	169.95	93.5	632.1	3,361.8	3,317.4	75.743	
5,600.0	4,638.2	4,311.2	4,253.5	60.3	18.4	170.09	97.9	653.7	3,418.7	3,372.9	74.670	
5,700.0	4,727.7	4,388.8	4,330.2	61.1	18.7	170.23	100.4	665.5	3,472.6	3,426.0	74.570	
5,800.0	4,818.6	4,467.1	4,407.6	61.9	19.1	170.36	102.7	677.4	3,524.1	3,476.7	74.422	
5,900.0	4,910.7	4,561.8	4,501.1	62.6	19.5	170.46	105.4	691.8	3,573.0	3,524.7	73.986	
6,000.0	5,004.0	4,643.8	4,582.2	63.3	19.9	170.54	107.9	704.2	3,619.2	3,570.1	73.717	
6,100.0	5,098.3	4,741.4	4,678.5	63.9	20.3	170.60	110.8	719.1	3,662.8	3,612.8	73.190	
6,200.0	5,193.6	4,826.4	4,762.5	64.4	20.7	170.65	113.3	731.9	3,703.6	3,652.7	72.826	
6,300.0	5,289.7	4,908.6	4,843.7	64.9	21.0	170.68	115.9	744.7	3,741.8	3,690.2	72.478	
6,400.0	5,386.7	4,997.5	4,931.4	65.3	21.4	170.69	118.7	758.7	3,777.5	3,725.0	72.013	
6,500.0	5,484.4	5,101.8	5,034.4	65.7	21.9	170.67	121.9	775.1	3,810.2	3,756.8	71.322	
6,600.0	5,582.6	5,193.3	5,124.7	66.0	22.3	170.64	125.3	789.5	3,840.0	3,785.7	70.790	
6,700.0	5,681.4	5,288.5	5,218.6	66.2	22.7	170.60	128.3	804.4	3,867.0	3,811.9	70.204	
6,800.0	5,780.6	5,437.6	5,366.1	66.4	23.4	170.50	132.2	826.4	3,890.6	3,834.2	68.952	
6,900.0	5,880.2	5,540.6	5,468.1	66.6	23.8	170.45	134.2	840.2	3,910.5	3,853.2	68.287	
7,000.0	5,980.0	5,740.1	5,666.0	66.7	24.7	170.29	138.4	864.8	3,926.8	3,867.9	66.613	
7,100.0	6,079.9	5,906.9	5,832.1	66.8	25.3	170.16	143.1	880.5	3,936.7	3,876.5	65.412	
7,159.1	6,139.0	6,008.5	5,933.3	66.8	25.7	119.59	144.6	888.1	3,940.6	3,879.8	64.805	
7,200.0	6,179.9	6,077.7	6,002.4	66.8	26.0	119.56	145.1	892.3	3,942.6	3,881.5	64.456	
7,300.0	6,279.9	6,303.5	6,228.1	66.8	26.7	119.47	146.8	900.8	3,945.5	3,883.2	63.301	
7,400.0	6,379.9	6,447.1	6,371.7	66.8	27.0	119.47	146.6	902.4	3,946.7	3,884.0	62.879	
7,500.0	6,479.9	6,563.1	6,487.7	66.8	26.9	119.48	145.6	901.7	3,946.6	3,883.7	62.769	
7,600.0	6,579.9	6,664.8	6,589.3	66.8	26.7	119.50	144.7	901.0	3,946.4	3,883.5	62.764	
7,700.0	6,679.9	6,763.1	6,687.6	66.9	26.6	119.52	143.9	900.2	3,946.1	3,883.3	62.772	
7,740.7	6,720.6	6,796.1	6,720.6	66.9	26.5	119.52	143.5	900.0	3,946.1	3,883.3	62.794	
7,800.0	6,779.9	6,848.9	6,773.4	66.9	26.4	119.53	142.7	899.6	3,946.2	3,883.4	62.813	
7,900.0	6,879.9	6,985.6	6,910.1	66.9	26.2	119.56	141.6	898.3	3,945.8	3,882.8	62.711	
8,000.0	6,979.9	7,089.3	7,013.8	66.9	26.0	119.58	140.8	896.9	3,944.9	3,882.0	62.761	
8,100.0	7,079.9	7,196.1	7,120.5	66.9	25.8	119.60	139.8	895.2	3,944.0	3,881.2	62.804	
8,200.0	7,179.9	7,286.2	7,210.7	66.9	25.6	119.62	139.0	893.7	3,943.0	3,880.3	62.892	
8,300.0	7,279.9	7,380.3	7,304.7	67.0	25.5	119.64	138.4	892.7	3,942.4	3,879.8	62.964	
8,400.0	7,379.9	7,494.7	7,419.1	67.0	25.2	119.66	137.7	891.3	3,941.6	3,879.0	62.984	
8,500.0	7,479.9	7,570.9	7,495.3	67.0	25.1	119.67	137.4	890.4	3,940.9	3,878.4	63.104	
8,600.0	7,579.9	7,658.2	7,582.7	67.0	25.0	119.67	137.1	890.2	3,940.7	3,878.3	63.156	
8,639.7	7,619.6	7,695.2	7,619.6	67.0	25.0	119.67	137.0	890.1	3,940.7	3,878.3	63.159	
8,700.0	7,679.9	7,749.8	7,674.3	67.0	25.0	119.68	136.8	890.0	3,940.7	3,878.3	63.145	
8,800.0	7,779.9	7,844.9	7,769.3	67.0	24.9	119.69	136.1	889.8	3,941.0	3,878.5	63.083	
8,900.0	7,879.9	7,983.3	7,907.7	67.1	24.8	119.70	135.5	889.3	3,940.9	3,878.2	62.917	
9,000.0	7,979.9	8,068.0	7,992.4	67.1	24.7	119.70	135.5	888.8	3,940.4	3,877.8	63.040	
9,100.0	8,079.9	8,203.9	8,128.3	67.1	24.5	119.72	135.2	887.4	3,939.6	3,877.0	63.022	
9,200.0	8,179.9	8,333.1	8,257.5	67.1	24.2	119.74	134.9	884.8	3,938.0	3,875.5	63.054	
9,300.0	8,279.9	8,473.1	8,397.4	67.1	23.8	119.77	134.7	880.7	3,935.5	3,873.1	63.090	
9,400.0	8,379.9	8,572.1	8,496.4	67.2	23.7	119.79	135.3	877.4	3,932.3	3,870.0	63.177	
9,500.0	8,479.9	8,634.0	8,558.2	67.2	23.7	119.77	137.0	876.6	3,929.8	3,867.7	63.307	
9,600.0	8,579.9	8,702.8	8,627.0	67.2	23.8	119.74	139.4	876.7	3,928.2	3,866.2	63.351	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b>	Sec 8, T6S, R94W - (Offset) RWF 513-9 - Wellbore #1 - Wellbore #1										<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b>	83-GYRO-NS, 612-OWSG (REV5) MWD HDGM Standard										<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
9,700.0	8,679.9	8,780.0	8,704.1	67.2	23.8	119.72	141.1	876.9	3,927.4	3,865.4	63.414	
9,800.0	8,779.9	8,867.0	8,791.2	67.2	23.8	119.71	141.8	876.9	3,926.9	3,865.1	63.474	
9,868.4	8,848.3	8,925.0	8,849.2	67.2	23.9	119.70	142.4	877.1	3,926.8	3,864.9	63.497	
9,900.0	8,879.9	8,925.0	8,849.2	67.3	23.9	119.70	142.4	877.1	3,926.9	3,865.2	63.620	
9,981.1	8,961.0	8,925.0	8,849.2	67.3	23.9	119.70	142.4	877.1	3,928.4	3,867.0	63.971	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 522-9 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 78-GYRO-NS, 521-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.4	0.0	0.0	0.0	-157.34	-14.2	-5.9	15.4			
100.0	100.0	100.4	100.0	0.4	0.2	-157.95	-14.5	-5.9	15.6	15.0	25.510	
200.0	200.0	200.6	200.2	1.3	0.6	-168.04	-14.8	-3.1	15.2	13.3	8.323	
250.0	250.0	250.7	250.1	1.4	0.8	-179.49	-14.6	-0.1	14.6	12.5	6.752	
262.6	262.6	263.2	262.6	1.4	0.8	-132.79	-14.5	0.8	14.6	12.3	6.451	CC, ES
300.0	300.0	300.5	299.8	1.6	1.0	-146.73	-14.1	4.0	15.2	12.6	5.889	
400.0	399.8	398.8	397.4	3.3	1.6	178.14	-11.7	15.5	25.4	20.7	5.416	SF
500.0	499.3	494.0	491.1	4.9	2.1	162.79	-8.3	31.9	49.0	42.5	7.569	
600.0	598.0	585.3	580.1	6.2	2.8	157.51	-4.8	51.8	82.5	74.1	9.836	
700.0	695.8	672.0	663.7	7.2	4.1	155.24	-1.3	74.4	124.5	114.2	12.125	
800.0	792.4	752.5	740.3	8.2	5.1	153.56	3.4	98.8	174.2	162.3	14.645	
900.0	887.5	826.0	809.0	9.0	6.0	152.27	8.3	124.4	231.4	218.2	17.439	
1,000.0	980.9	893.2	870.8	9.8	6.7	151.18	12.9	150.4	295.6	281.2	20.493	
1,100.0	1,072.2	965.7	937.0	10.6	7.1	150.30	17.9	179.6	364.5	349.1	23.765	
1,200.0	1,161.3	1,036.2	1,001.3	11.2	7.3	149.63	22.6	207.9	436.5	420.4	27.083	
1,300.0	1,247.9	1,100.8	1,060.5	11.9	7.5	149.08	26.1	233.5	511.5	494.7	30.428	
1,400.0	1,331.8	1,157.2	1,112.1	12.5	7.7	148.28	29.2	256.3	589.9	572.5	33.879	
1,500.0	1,412.6	1,215.7	1,165.3	13.1	7.9	147.38	32.6	280.2	671.4	653.3	37.118	
1,550.4	1,452.2	1,244.9	1,191.9	13.2	8.0	146.88	34.3	292.0	713.5	695.1	38.794	
1,600.0	1,490.8	1,272.4	1,217.1	13.4	8.1	147.56	35.9	303.2	755.0	736.4	40.474	
1,700.0	1,568.5	1,324.1	1,264.2	13.7	8.3	148.63	39.1	324.1	839.0	819.9	43.868	
1,800.0	1,646.2	1,376.6	1,312.1	14.0	8.4	149.52	42.4	345.6	923.2	903.6	47.038	
1,900.0	1,723.9	1,432.2	1,362.6	14.3	8.6	150.25	46.3	368.4	1,007.4	987.2	49.902	
2,000.0	1,801.6	1,489.7	1,414.8	14.8	8.9	150.84	50.9	392.0	1,091.5	1,070.7	52.499	
2,100.0	1,879.3	1,549.0	1,468.7	16.0	9.1	151.32	56.1	416.2	1,175.4	1,153.9	54.853	
2,200.0	1,957.0	1,598.1	1,513.2	17.3	9.3	151.64	60.7	436.4	1,259.3	1,237.3	57.380	
2,300.0	2,034.7	1,647.6	1,558.0	18.6	9.5	151.91	65.5	457.0	1,343.4	1,320.9	59.763	
2,400.0	2,112.4	1,704.8	1,609.7	19.9	9.8	152.19	70.9	480.7	1,427.5	1,404.4	61.703	
2,500.0	2,190.1	1,758.2	1,658.1	21.2	10.2	152.43	75.8	502.8	1,511.6	1,487.9	63.659	
2,600.0	2,267.8	1,806.1	1,701.6	22.5	10.6	152.66	79.8	522.5	1,595.8	1,571.6	65.716	
2,700.0	2,345.5	1,852.1	1,743.4	23.8	10.9	152.88	83.2	541.5	1,680.3	1,655.5	67.694	
2,800.0	2,423.2	1,896.1	1,783.2	25.1	11.3	153.08	86.3	559.9	1,765.0	1,739.7	69.675	
2,900.0	2,500.9	1,942.7	1,825.4	26.4	11.7	153.28	89.5	579.5	1,850.0	1,824.1	71.466	
3,000.0	2,578.6	1,996.9	1,874.4	27.7	12.1	153.50	92.8	602.2	1,935.0	1,908.5	72.890	
3,100.0	2,656.3	2,042.8	1,916.1	29.0	12.5	153.70	95.3	621.4	2,020.1	1,993.0	74.524	
3,200.0	2,734.0	2,081.6	1,951.1	30.3	12.8	153.85	97.5	637.8	2,105.5	2,077.9	76.349	
3,300.0	2,811.7	2,122.5	1,988.0	31.6	13.1	153.98	99.9	655.4	2,191.2	2,163.1	78.020	
3,400.0	2,889.4	2,185.6	2,044.8	32.9	13.6	154.15	104.0	682.6	2,276.8	2,247.9	78.748	
3,500.0	2,967.1	2,246.0	2,099.1	34.2	14.1	154.29	108.4	708.6	2,362.2	2,332.5	79.534	
3,600.0	3,044.8	2,304.5	2,151.8	35.5	14.6	154.41	112.6	733.6	2,447.5	2,417.0	80.339	
3,700.0	3,122.5	2,365.5	2,207.0	36.8	15.1	154.54	116.9	759.4	2,532.6	2,501.3	81.006	
3,800.0	3,200.2	2,445.7	2,279.7	38.2	15.8	154.71	122.3	792.8	2,617.5	2,585.1	80.977	
3,900.0	3,277.9	2,518.8	2,346.3	39.5	16.3	154.85	127.5	822.5	2,701.6	2,668.3	81.162	
4,000.0	3,355.6	2,565.5	2,388.9	40.8	16.7	154.94	130.8	841.4	2,785.7	2,751.8	82.186	
4,100.0	3,433.3	2,614.4	2,433.4	42.1	17.1	155.04	134.0	861.2	2,870.0	2,835.5	83.101	
4,200.0	3,511.0	2,665.5	2,480.1	43.4	17.5	155.15	136.9	881.9	2,954.4	2,919.2	83.913	
4,300.0	3,588.7	2,710.7	2,521.4	44.7	17.8	155.25	139.3	900.1	3,038.8	3,003.0	84.887	
4,400.0	3,666.4	2,759.7	2,566.0	46.0	18.2	155.35	142.0	920.1	3,123.4	3,087.0	85.704	
4,500.0	3,744.1	2,832.2	2,632.2	47.3	18.8	155.48	146.1	949.5	3,207.8	3,170.4	85.725	
4,600.0	3,821.8	2,896.0	2,690.5	48.6	19.3	155.59	149.9	975.0	3,292.0	3,253.7	85.996	
4,700.0	3,899.5	2,948.8	2,738.7	50.0	19.7	155.65	153.7	996.4	3,376.1	3,337.1	86.565	
4,800.0	3,977.2	3,008.6	2,793.0	51.3	20.2	155.70	158.6	1,020.8	3,460.2	3,420.4	86.893	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - (Offset) RWF 522-9 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b> 78-GYRO-NS, 521-OWSG (REV5) MWD HDGM Standard												<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning	
4,900.0	4,054.9	3,070.3	2,849.1	52.6	20.7	155.74	163.9	1,046.0	3,544.2	3,503.6	87.138		
4,929.8	4,078.0	3,086.5	2,863.9	53.0	20.8	155.75	165.3	1,052.6	3,569.2	3,528.3	87.276		
5,000.0	4,133.0	3,125.4	2,899.2	53.9	21.1	156.51	168.7	1,068.4	3,627.8	3,586.4	87.569		
5,100.0	4,213.0	3,179.9	2,948.8	55.1	21.5	157.49	173.3	1,090.6	3,709.8	3,667.7	87.947		
5,200.0	4,294.8	3,233.3	2,997.4	56.3	22.0	158.35	177.8	1,112.4	3,790.3	3,747.4	88.309		
5,300.0	4,378.2	3,291.7	3,050.4	57.4	22.4	159.10	182.8	1,136.2	3,869.2	3,825.5	88.501		
5,400.0	4,463.3	3,362.1	3,114.4	58.4	23.0	159.75	188.6	1,165.0	3,946.3	3,901.6	88.343		
5,500.0	4,550.0	3,438.0	3,183.6	59.4	23.6	160.32	194.9	1,195.5	4,021.1	3,975.4	88.023		
5,600.0	4,638.2	3,496.8	3,237.3	60.3	24.0	160.84	199.7	1,219.2	4,094.0	4,047.6	88.133		
5,700.0	4,727.7	3,547.2	3,283.1	61.1	24.4	161.33	203.5	1,239.7	4,165.5	4,118.4	88.444		
5,800.0	4,818.6	3,635.7	3,363.8	61.9	25.1	161.70	209.8	1,275.5	4,234.8	4,186.6	87.782		
5,900.0	4,910.7	3,682.6	3,406.5	62.6	25.5	162.10	212.9	1,294.5	4,302.2	4,253.3	88.136		
6,000.0	5,004.0	3,752.2	3,469.8	63.3	26.0	162.42	217.4	1,323.0	4,367.7	4,318.1	87.928		
6,100.0	5,098.3	3,838.5	3,548.5	63.9	26.7	162.67	223.1	1,358.0	4,430.7	4,380.0	87.309		
6,200.0	5,193.6	3,882.8	3,588.8	64.4	27.1	162.97	226.0	1,376.1	4,491.9	4,440.7	87.659		
6,300.0	5,289.7	3,938.4	3,639.3	64.9	27.5	163.21	229.4	1,399.2	4,551.3	4,499.5	87.736		
6,400.0	5,386.7	4,017.1	3,710.7	65.3	28.1	163.38	233.7	1,432.0	4,608.6	4,555.8	87.280		
6,500.0	5,484.4	4,152.2	3,833.2	65.7	29.3	163.36	243.6	1,488.3	4,663.1	4,608.6	85.575		
6,600.0	5,582.6	4,306.2	3,973.3	66.0	30.5	163.25	256.0	1,550.7	4,713.9	4,657.5	83.599		
6,700.0	5,681.4	4,387.2	4,047.4	66.2	31.1	163.32	262.1	1,583.0	4,761.7	4,704.5	83.134		
6,800.0	5,780.6	4,527.0	4,175.7	66.4	32.2	163.22	272.5	1,637.6	4,806.3	4,747.5	81.608		
6,900.0	5,880.2	4,600.0	4,243.0	66.6	32.7	163.28	277.2	1,665.7	4,848.2	4,788.6	81.322		
7,000.0	5,980.0	4,667.0	4,304.5	66.7	33.2	163.34	281.3	1,691.8	4,888.1	4,827.8	81.158		
7,100.0	6,079.9	4,756.1	4,386.3	66.8	33.9	163.32	286.5	1,726.7	4,925.5	4,864.4	80.643		
7,159.1	6,139.0	4,903.3	4,522.1	66.8	35.0	112.55	295.2	1,783.0	4,946.0	4,883.4	78.925		
7,200.0	6,179.9	5,030.0	4,639.8	66.8	35.8	112.25	303.0	1,828.9	4,959.0	4,895.0	77.482		
7,300.0	6,279.9	5,141.4	4,744.0	66.8	36.6	112.00	309.2	1,868.0	4,989.9	4,925.0	76.968		
7,400.0	6,379.9	5,447.9	5,033.3	66.8	38.4	111.39	325.0	1,967.9	5,018.6	4,950.8	74.016		
7,500.0	6,479.9	5,959.6	5,525.0	66.8	41.0	110.52	351.4	2,105.8	5,045.1	4,972.6	69.570		
7,600.0	6,579.9	6,806.1	6,362.4	66.8	43.0	109.86	371.9	2,216.8	5,055.8	4,977.7	64.726		
7,700.0	6,679.9	7,159.5	6,715.7	66.9	43.1	109.86	370.1	2,222.2	5,056.9	4,977.9	64.024		
7,800.0	6,779.9	7,255.8	6,812.0	66.9	43.1	109.87	369.4	2,221.2	5,056.2	4,977.3	64.072		
7,900.0	6,879.9	7,344.7	6,900.9	66.9	43.1	109.88	368.5	2,220.4	5,055.6	4,976.8	64.111		
8,000.0	6,979.9	7,433.5	6,989.7	66.9	43.1	109.90	367.4	2,219.7	5,055.4	4,976.5	64.129		
8,100.0	7,079.9	7,532.2	7,088.4	66.9	43.1	109.91	366.3	2,219.2	5,055.2	4,976.4	64.127		
8,200.0	7,179.9	7,661.2	7,217.4	66.9	43.1	109.93	364.7	2,218.1	5,054.9	4,976.1	64.129		
8,300.0	7,279.9	7,758.6	7,314.8	67.0	43.1	109.94	364.5	2,217.2	5,054.1	4,975.3	64.192		
8,400.0	7,379.9	7,864.6	7,420.8	67.0	43.1	109.95	364.1	2,216.3	5,053.4	4,974.7	64.257		
8,500.0	7,479.9	7,957.8	7,513.9	67.0	43.1	109.96	363.4	2,215.2	5,052.6	4,974.0	64.307		
8,600.0	7,579.9	8,102.9	7,659.1	67.0	43.1	109.99	361.6	2,213.0	5,051.7	4,973.2	64.351		
8,700.0	7,679.9	8,211.3	7,767.4	67.0	43.1	110.00	361.3	2,210.7	5,049.7	4,971.3	64.435		
8,800.0	7,779.9	8,258.0	7,814.1	67.0	43.1	110.00	361.5	2,210.0	5,048.4	4,970.1	64.519		
8,900.0	7,879.9	8,352.0	7,908.1	67.1	43.1	110.00	361.9	2,209.6	5,047.8	4,969.6	64.535		
8,928.2	7,908.1	8,352.0	7,908.1	67.1	43.1	110.00	361.9	2,209.6	5,047.7	4,969.5	64.560		
9,000.0	7,979.9	8,380.7	7,936.8	67.1	43.1	109.99	362.0	2,209.8	5,048.0	4,969.9	64.567		
9,100.0	8,079.9	8,447.0	8,003.1	67.1	43.1	109.98	362.5	2,211.2	5,049.6	4,971.3	64.527		
9,200.0	8,179.9	8,486.4	8,042.5	67.1	43.2	109.97	362.9	2,212.5	5,051.9	4,973.7	64.542		
9,300.0	8,279.9	8,605.3	8,161.3	67.1	43.3	109.95	363.4	2,216.1	5,054.7	4,976.1	64.304		
9,400.0	8,379.9	8,745.6	8,301.6	67.2	43.3	109.95	363.0	2,218.7	5,056.4	4,977.4	64.011		
9,500.0	8,479.9	8,825.0	8,381.0	67.2	43.4	109.95	362.4	2,220.0	5,058.3	4,979.1	63.906		
9,600.0	8,579.9	8,905.1	8,461.0	67.2	43.4	109.95	361.6	2,221.6	5,060.5	4,981.2	63.800		
9,700.0	8,679.9	9,055.3	8,611.2	67.2	43.5	109.95	360.8	2,224.1	5,062.2	4,982.4	63.493		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b>	Sec 8, T6S, R94W - (Offset) RWF 522-9 - Wellbore #1 - Wellbore #1										<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b>	78-GYRO-NS, 521-OWSG (REV5) MWD HDGM Standard										<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
9,800.0	8,779.9	9,134.2	8,690.1	67.2	43.5	109.95	360.7	2,225.3	5,063.7	4,983.8	63.390	
9,900.0	8,879.9	9,203.0	8,758.9	67.3	43.5	109.95	360.1	2,226.6	5,065.8	4,985.8	63.318	
9,981.1	8,961.0	9,276.7	8,832.5	67.3	43.6	109.95	359.1	2,228.2	5,067.8	4,987.6	63.211	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design      Sec 8, T6S, R94W - NR 414-4 - Wellbore #1 - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	4.07	31.7	2.3	31.8				
100.0	100.0	100.0	100.0	0.4	0.4	4.07	31.7	2.3	31.8	30.9	36.489 CC		
200.0	200.0	198.2	198.2	1.3	1.8	4.32	33.8	2.6	33.9	30.9	11.104 ES		
250.0	250.0	246.9	246.7	1.4	2.5	4.66	37.2	3.0	37.5	33.6	9.575		
300.0	300.0	295.3	294.8	1.6	2.9	56.28	42.3	3.8	42.4	38.0	9.583		
400.0	399.8	391.1	389.5	3.3	4.4	61.91	56.8	6.8	55.2	48.5	8.251		
500.0	499.3	485.0	481.0	4.9	6.3	68.88	76.8	11.6	73.0	64.0	8.092 SF		
600.0	598.0	576.2	568.6	6.2	7.8	75.12	101.7	18.0	96.5	85.9	9.138		
700.0	695.8	664.5	651.5	7.2	9.0	80.02	130.8	25.7	125.9	114.2	10.770		
800.0	792.4	749.3	729.3	8.2	9.9	83.65	163.3	34.6	161.0	148.3	12.718		
900.0	887.5	830.4	801.7	9.0	10.8	86.22	198.5	44.5	201.5	187.9	14.836		
1,000.0	980.9	907.6	868.7	9.8	11.5	87.95	235.5	55.0	247.0	232.5	17.035		
1,100.0	1,072.2	981.0	930.3	10.6	12.1	89.01	273.8	66.0	297.0	281.6	19.268		
1,200.0	1,161.3	1,050.4	986.6	11.2	12.7	89.54	312.8	77.3	351.3	335.0	21.485		
1,300.0	1,247.9	1,116.1	1,038.0	11.9	13.1	89.62	352.0	88.7	409.3	392.1	23.751		
1,400.0	1,331.8	1,186.0	1,091.0	12.5	13.3	89.64	395.8	101.6	470.5	452.4	26.055		
1,500.0	1,412.6	1,262.1	1,148.4	13.1	13.5	89.89	443.7	115.7	532.5	513.4	27.865		
1,550.4	1,452.2	1,300.1	1,177.0	13.2	13.6	90.03	467.6	122.7	564.1	544.4	28.670		
1,600.0	1,490.8	1,337.1	1,205.0	13.4	13.6	91.29	491.0	129.6	595.4	575.1	29.383		
1,700.0	1,568.5	1,412.0	1,261.4	13.7	13.8	93.49	538.1	143.5	658.9	637.3	30.617		
1,800.0	1,646.2	1,486.8	1,317.9	14.0	14.0	95.33	585.3	157.3	722.9	700.0	31.644		
1,900.0	1,723.9	1,561.6	1,374.3	14.3	14.2	96.88	632.4	171.2	787.3	763.0	32.509		
2,000.0	1,801.6	1,636.4	1,430.7	14.8	14.4	98.20	679.5	185.0	851.9	826.3	33.240		
2,100.0	1,879.3	1,711.3	1,487.2	16.0	14.7	99.35	726.7	198.9	916.9	889.8	33.861		
2,200.0	1,957.0	1,786.1	1,543.6	17.3	14.9	100.34	773.8	212.8	982.0	953.4	34.390		
2,300.0	2,034.7	1,860.9	1,600.0	18.6	15.1	101.22	820.9	226.6	1,047.3	1,017.2	34.846		
2,400.0	2,112.4	1,935.7	1,656.5	19.9	15.5	101.99	868.1	240.5	1,112.7	1,081.1	35.227		
2,500.0	2,190.1	2,010.6	1,712.9	21.2	16.3	102.68	915.2	254.3	1,178.2	1,145.1	35.574		
2,600.0	2,267.8	2,085.4	1,769.4	22.5	17.1	103.30	962.3	268.2	1,243.8	1,209.1	35.871		
2,700.0	2,345.5	2,160.2	1,825.8	23.8	17.9	103.85	1,009.5	282.1	1,309.4	1,273.2	36.132		
2,800.0	2,423.2	2,235.0	1,882.2	25.1	18.7	104.36	1,056.6	295.9	1,375.2	1,337.3	36.363		
2,900.0	2,500.9	2,309.9	1,938.7	26.4	19.5	104.82	1,103.7	309.8	1,441.0	1,401.5	36.568		
3,000.0	2,578.6	2,384.7	1,995.1	27.7	20.4	105.24	1,150.9	323.6	1,506.8	1,465.8	36.750		
3,100.0	2,656.3	2,459.5	2,051.5	29.0	21.2	105.62	1,198.0	337.5	1,572.7	1,530.1	36.912		
3,200.0	2,734.0	2,534.3	2,108.0	30.3	22.0	105.98	1,245.1	351.4	1,638.6	1,594.4	37.058		
3,300.0	2,811.7	2,609.2	2,164.4	31.6	22.8	106.30	1,292.3	365.2	1,704.5	1,658.7	37.190		
3,400.0	2,889.4	2,684.0	2,220.8	32.9	23.7	106.61	1,339.4	379.1	1,770.5	1,723.1	37.308		
3,500.0	2,967.1	2,758.8	2,277.3	34.2	24.5	106.89	1,386.5	392.9	1,836.5	1,787.4	37.416		
3,600.0	3,044.8	2,833.6	2,333.7	35.5	25.3	107.15	1,433.7	406.8	1,902.6	1,851.8	37.514		
3,700.0	3,122.5	2,908.4	2,390.1	36.8	26.2	107.40	1,480.8	420.7	1,968.6	1,916.3	37.604		
3,800.0	3,200.2	2,983.3	2,446.6	38.2	27.0	107.62	1,528.0	434.5	2,034.7	1,980.7	37.686		
3,900.0	3,277.9	3,058.1	2,503.0	39.5	27.8	107.84	1,575.1	448.4	2,100.8	2,045.1	37.761		
4,000.0	3,355.6	3,132.9	2,559.4	40.8	28.6	108.04	1,622.2	462.2	2,166.9	2,109.6	37.831		
4,100.0	3,433.3	3,207.7	2,615.9	42.1	29.5	108.23	1,669.4	476.1	2,233.0	2,174.1	37.895		
4,200.0	3,511.0	3,282.6	2,672.3	43.4	30.3	108.41	1,716.5	489.9	2,299.1	2,238.5	37.954		
4,300.0	3,588.7	3,357.4	2,728.7	44.7	31.1	108.58	1,763.6	503.8	2,365.3	2,303.0	38.008		
4,400.0	3,666.4	3,432.2	2,785.2	46.0	32.0	108.74	1,810.8	517.7	2,431.4	2,367.5	38.059		
4,500.0	3,744.1	3,507.0	2,841.6	47.3	32.8	108.89	1,857.9	531.5	2,497.6	2,432.0	38.106		
4,600.0	3,821.8	3,581.9	2,898.0	48.6	33.6	109.03	1,905.0	545.4	2,563.7	2,496.5	38.150		
4,700.0	3,899.5	3,656.7	2,954.5	50.0	34.5	109.17	1,952.2	559.2	2,629.9	2,561.1	38.192		
4,800.0	3,977.2	3,731.5	3,010.9	51.3	35.3	109.30	1,999.3	573.1	2,696.1	2,625.6	38.230		
4,900.0	4,054.9	3,806.3	3,067.3	52.6	36.1	109.42	2,046.4	587.0	2,762.3	2,690.1	38.266		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design      Sec 8, T6S, R94W - NR 414-4 - Wellbore #1 - Plan #1											Offset Site Error:	0.0 usft
Survey Program:      0-OWSG (REV5) MWD HDGM Standard											Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
4,929.8	4,078.0	3,828.6	3,084.1	53.0	36.4	109.46	2,060.5	591.1	2,782.0	2,709.3		
5,000.0	4,133.0	3,881.4	3,123.9	53.9	37.0	110.53	2,093.7	600.9	2,828.3	2,754.5		
5,100.0	4,213.0	3,957.1	3,181.1	55.1	37.8	111.96	2,141.4	614.9	2,893.6	2,818.1		
5,200.0	4,294.8	4,033.6	3,238.8	56.3	38.7	113.27	2,189.6	629.1	2,957.9	2,880.9		
5,300.0	4,378.2	4,110.8	3,297.0	57.4	39.5	114.46	2,238.2	643.4	3,021.4	2,942.7		
5,400.0	4,463.3	4,188.5	3,355.6	58.4	40.4	115.55	2,287.2	657.8	3,083.9	3,003.7		
5,500.0	4,550.0	4,266.7	3,414.6	59.4	41.3	116.55	2,336.5	672.2	3,145.3	3,063.6		
5,600.0	4,638.2	4,345.4	3,473.9	60.3	42.1	117.44	2,386.0	686.8	3,205.7	3,122.6		
5,700.0	4,727.7	4,424.4	3,533.5	61.1	43.0	118.26	2,435.8	701.4	3,265.1	3,180.5		
5,800.0	4,818.6	4,503.7	3,593.3	61.9	43.9	118.99	2,485.7	716.1	3,323.4	3,237.4		
5,900.0	4,910.7	4,583.2	3,653.3	62.6	44.8	119.64	2,535.8	730.9	3,380.6	3,293.2		
6,000.0	5,004.0	4,662.8	3,713.3	63.3	45.7	120.23	2,586.0	745.6	3,436.6	3,348.0		
6,100.0	5,098.3	4,742.5	3,773.4	63.9	46.5	120.74	2,636.2	760.4	3,491.6	3,401.7		
6,200.0	5,193.6	4,822.2	3,833.5	64.4	47.4	121.20	2,686.4	775.1	3,545.4	3,454.3		
6,300.0	5,289.7	4,901.8	3,893.6	64.9	48.3	121.60	2,736.5	789.9	3,598.2	3,505.9		
6,400.0	5,386.7	4,981.2	3,953.5	65.3	49.2	121.95	2,786.5	804.6	3,649.8	3,556.4		
6,500.0	5,484.4	5,060.4	4,013.2	65.7	50.1	122.25	2,836.4	819.3	3,700.4	3,605.9		
6,600.0	5,582.6	5,139.3	4,072.7	66.0	51.0	122.51	2,886.1	833.9	3,749.8	3,654.4		
6,700.0	5,681.4	5,217.8	4,131.9	66.2	51.8	122.72	2,935.6	848.4	3,798.3	3,701.8		
6,800.0	5,780.6	5,295.8	4,190.8	66.4	52.7	122.90	2,984.7	862.9	3,845.6	3,748.3		
6,900.0	5,880.2	5,373.4	4,249.2	66.6	53.6	123.04	3,033.6	877.2	3,892.0	3,793.9		
7,000.0	5,980.0	5,450.3	4,307.2	66.7	54.4	123.15	3,082.0	891.5	3,937.4	3,838.5		
7,100.0	6,079.9	5,528.5	4,363.5	66.8	55.6	123.23	3,130.6	906.1	3,982.5	3,883.6		
7,159.1	6,139.0	5,574.9	4,407.2	66.8	56.0	123.28	3,166.0	916.4	4,014.4	3,914.4		
7,200.0	6,179.9	5,607.8	4,439.9	66.8	56.1	123.30	3,184.8	923.4	4,034.4	3,934.4		
7,300.0	6,279.9	5,707.7	4,539.8	66.8	56.8	123.35	3,259.8	940.6	4,109.6	4,009.6		
7,400.0	6,379.9	5,807.7	4,639.7	66.8	57.5	123.40	3,334.8	957.8	4,184.8	4,084.8		
7,500.0	6,479.9	5,907.7	4,739.6	66.8	58.2	123.43	3,409.8	975.0	4,259.8	4,159.8		
7,600.0	6,579.9	6,007.7	4,839.5	66.8	58.9	123.46	3,484.8	992.2	4,334.8	4,234.8		
7,700.0	6,679.9	6,107.7	4,939.4	66.9	59.6	123.49	3,559.8	1,009.4	4,409.8	4,309.8		
7,800.0	6,779.9	6,207.7	5,039.3	66.9	60.3	123.52	3,634.8	1,026.6	4,484.8	4,384.8		
7,900.0	6,879.9	6,307.7	5,139.2	66.9	61.0	123.55	3,709.8	1,043.8	4,559.8	4,459.8		
8,000.0	6,979.9	6,407.7	5,239.1	66.9	61.7	123.58	3,784.8	1,061.0	4,634.8	4,534.8		
8,100.0	7,079.9	6,507.7	5,339.0	66.9	62.4	123.61	3,859.8	1,078.2	4,709.8	4,609.8		
8,200.0	7,179.9	6,607.7	5,438.9	66.9	63.1	123.64	3,934.8	1,095.4	4,784.8	4,684.8		
8,300.0	7,279.9	6,707.7	5,538.8	67.0	63.8	123.67	4,009.8	1,112.6	4,859.8	4,759.8		
8,400.0	7,379.9	6,807.7	5,638.7	67.0	64.5	123.70	4,084.8	1,129.8	4,934.8	4,834.8		
8,500.0	7,479.9	6,907.7	5,738.6	67.0	65.2	123.73	4,159.8	1,147.0	5,009.8	4,909.8		
8,600.0	7,579.9	7,007.7	5,838.5	67.0	65.9	123.76	4,234.8	1,164.2	5,084.8	4,984.8		
8,700.0	7,679.9	7,107.7	5,938.4	67.0	66.6	123.79	4,309.8	1,181.4	5,159.8	5,059.8		
8,800.0	7,779.9	7,207.7	6,038.3	67.0	67.3	123.82	4,384.8	1,198.6	5,234.8	5,134.8		
8,900.0	7,879.9	7,307.7	6,138.2	67.1	68.0	123.85	4,459.8	1,215.8	5,309.8	5,209.8		
9,000.0	7,979.9	7,407.7	6,238.1	67.1	68.7	123.88	4,534.8	1,233.0	5,384.8	5,284.8		
9,100.0	8,079.9	7,507.7	6,338.0	67.1	69.4	123.91	4,609.8	1,250.2	5,459.8	5,359.8		
9,200.0	8,179.9	7,607.7	6,437.9	67.1	70.1	123.94	4,684.8	1,267.4	5,534.8	5,434.8		
9,300.0	8,279.9	7,707.7	6,537.8	67.1	70.8	123.97	4,759.8	1,284.6	5,609.8	5,509.8		
9,400.0	8,379.9	7,807.7	6,637.7	67.2	71.5	124.00	4,834.8	1,301.8	5,684.8	5,584.8		
9,500.0	8,479.9	7,907.7	6,737.6	67.2	72.2	124.03	4,909.8	1,319.0	5,759.8	5,659.8		
9,600.0	8,579.9	8,007.7	6,837.5	67.2	72.9	124.06	4,984.8	1,336.2	5,834.8	5,734.8		
9,700.0	8,679.9	8,107.7	6,937.4	67.2	73.6	124.09	5,059.8	1,353.4	5,909.8	5,809.8		
9,800.0	8,779.9	8,207.7	7,037.3	67.2	74.3	124.12	5,134.8	1,370.6	5,984.8	5,884.8		
9,900.0	8,879.9	8,307.7	7,137.2	67.3	75.0	124.15	5,209.8	1,387.8	6,059.8	5,959.8		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b>	Sec 8, T6S, R94W - NR 414-4 - Wellbore #1 - Plan #1										<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b>	0-OWSG (REV5) MWD HDGM Standard										<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
9,981.1	8,961.0	10,283.8	8,961.0	67.3	67.0	65.01	3,779.8	1,096.6	4,005.3	3,885.5	33.426	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - RWF 21-8 - Wellbore #1 - Plan #1												<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b> 0-OWSG (REV5) MWD HDGM Standard												<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	22.83	20.8	8.7	22.5				
100.0	100.0	100.0	100.0	0.4	0.4	22.83	20.8	8.7	22.5	21.7	25.882	CC	
200.0	200.0	199.1	199.0	1.3	1.5	21.64	22.4	8.9	24.1	21.4	8.811	ES	
250.0	250.0	248.7	248.7	1.4	1.7	20.10	24.9	9.1	26.5	23.5	8.674		
300.0	300.0	298.7	298.5	1.6	1.9	70.42	27.5	9.3	28.8	25.5	8.542		
400.0	399.8	398.5	398.2	3.3	2.3	76.59	32.7	9.8	32.3	28.2	7.749		
500.0	499.3	497.8	497.2	4.9	3.1	84.66	40.3	8.0	36.4	31.2	7.031		
600.0	598.0	597.2	595.8	6.2	4.6	91.07	51.6	2.7	41.6	35.3	6.566		
700.0	695.8	696.8	693.8	7.2	5.8	95.94	66.7	-6.2	48.0	40.9	6.749		
800.0	792.4	796.5	791.0	8.2	6.9	99.55	85.6	-18.5	55.2	47.3	7.026		
900.0	887.5	896.4	887.0	9.0	7.9	102.19	108.1	-34.3	63.2	54.5	7.246		
1,000.0	980.9	996.4	981.5	9.8	8.8	104.08	134.3	-53.6	72.0	62.2	7.387		
1,100.0	1,072.2	1,096.5	1,074.4	10.6	9.6	105.41	164.1	-76.3	81.4	70.4	7.449		
1,200.0	1,161.3	1,196.8	1,165.3	11.2	10.4	106.32	197.4	-102.4	91.3	79.0	7.441		
1,300.0	1,247.9	1,297.2	1,254.0	11.9	11.1	106.92	234.1	-131.8	101.8	88.0	7.375		
1,400.0	1,331.8	1,397.8	1,340.2	12.5	11.8	107.27	274.2	-164.5	112.8	97.2	7.262		
1,500.0	1,412.6	1,498.5	1,423.7	13.1	12.4	107.43	317.6	-200.3	124.2	106.7	7.113		
1,550.4	1,452.2	1,549.3	1,464.7	13.2	12.7	107.46	340.6	-219.6	130.1	111.6	7.035		
1,600.0	1,490.8	1,599.3	1,504.2	13.4	13.0	107.35	364.1	-239.3	135.8	116.3	6.966		
1,700.0	1,568.5	1,700.2	1,581.5	13.7	13.6	105.65	413.6	-281.1	146.6	124.9	6.764		
1,800.0	1,646.2	1,799.6	1,655.4	14.0	13.9	102.96	464.2	-324.2	156.9	132.9	6.545		
1,900.0	1,723.9	1,898.8	1,729.1	14.3	14.2	100.58	514.8	-367.3	167.5	141.1	6.342		
2,000.0	1,801.6	1,998.1	1,802.8	14.8	14.8	98.50	565.4	-410.3	178.4	149.5	6.166		
2,100.0	1,879.3	2,097.3	1,876.5	16.0	15.7	96.65	615.9	-453.4	189.5	158.0	6.021		
2,200.0	1,957.0	2,196.5	1,950.3	17.3	16.9	95.01	666.5	-496.4	200.7	166.7	5.894		
2,300.0	2,034.7	2,295.7	2,024.0	18.6	18.1	93.54	717.1	-539.4	212.1	175.5	5.789		
2,400.0	2,112.4	2,394.9	2,097.7	19.9	19.4	92.22	767.6	-582.5	223.7	184.4	5.700		
2,500.0	2,190.1	2,494.1	2,171.4	21.2	20.7	91.04	818.2	-625.5	235.3	193.5	5.624		
2,600.0	2,267.8	2,593.3	2,245.1	22.5	22.1	89.96	868.8	-668.6	247.0	202.6	5.560		
2,700.0	2,345.5	2,692.5	2,318.8	23.8	23.4	88.98	919.3	-711.6	258.8	211.8	5.505		
2,800.0	2,423.2	2,791.7	2,392.5	25.1	24.7	88.09	969.9	-754.6	270.7	221.1	5.457		
2,900.0	2,500.9	2,890.9	2,466.2	26.4	26.0	87.27	1,020.5	-797.7	282.6	230.4	5.416		
3,000.0	2,578.6	2,990.1	2,539.9	27.7	27.4	86.52	1,071.0	-840.7	294.6	239.8	5.380		
3,100.0	2,656.3	3,089.4	2,613.6	29.0	28.7	85.83	1,121.6	-883.8	306.6	249.3	5.349		
3,200.0	2,734.0	3,188.6	2,687.3	30.3	30.1	85.19	1,172.2	-926.8	318.7	258.8	5.322		
3,300.0	2,811.7	3,287.8	2,761.1	31.6	31.4	84.59	1,222.7	-969.8	330.8	268.3	5.297		
3,400.0	2,889.4	3,387.0	2,834.8	32.9	32.7	84.04	1,273.3	-1,012.9	342.9	277.9	5.276		
3,500.0	2,967.1	3,486.2	2,908.5	34.2	34.1	83.53	1,323.9	-1,055.9	355.0	287.5	5.256		
3,600.0	3,044.8	3,585.4	2,982.2	35.5	35.4	83.05	1,374.4	-1,099.0	367.2	297.1	5.239		
3,700.0	3,122.5	3,684.6	3,055.9	36.8	36.8	82.60	1,425.0	-1,142.0	379.4	306.8	5.224		
3,800.0	3,200.2	3,783.8	3,129.6	38.2	38.1	82.18	1,475.6	-1,185.0	391.7	316.5	5.210		
3,900.0	3,277.9	3,883.0	3,203.3	39.5	39.5	81.78	1,526.1	-1,228.1	403.9	326.2	5.198		
4,000.0	3,355.6	3,982.2	3,277.0	40.8	40.8	81.41	1,576.7	-1,271.1	416.2	336.0	5.186		
4,100.0	3,433.3	4,081.4	3,350.7	42.1	42.2	81.06	1,627.3	-1,314.2	428.5	345.7	5.176		
4,200.0	3,511.0	4,180.7	3,424.4	43.4	43.5	80.73	1,677.8	-1,357.2	440.8	355.5	5.167		
4,300.0	3,588.7	4,279.9	3,498.1	44.7	44.9	80.41	1,728.4	-1,400.2	453.1	365.3	5.158		
4,400.0	3,666.4	4,379.1	3,571.9	46.0	46.2	80.12	1,779.0	-1,443.3	465.4	375.1	5.151		
4,500.0	3,744.1	4,478.3	3,645.6	47.3	47.6	79.83	1,829.5	-1,486.3	477.8	384.9	5.144		
4,600.0	3,821.8	4,577.5	3,719.3	48.6	48.9	79.57	1,880.1	-1,529.4	490.1	394.7	5.137		
4,700.0	3,899.5	4,676.7	3,793.0	50.0	50.3	79.31	1,930.7	-1,572.4	502.5	404.6	5.131		
4,800.0	3,977.2	4,775.9	3,866.7	51.3	51.6	79.07	1,981.2	-1,615.4	514.9	414.4	5.126		
4,900.0	4,054.9	4,875.1	3,940.4	52.6	53.0	78.84	2,031.8	-1,658.5	527.2	424.3	5.120		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design											Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard											Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
4,929.8	4,078.0	4,904.6	3,962.3	53.0	53.4	78.77	2,046.8	-1,671.3	530.9	427.2	5.119	SF
5,000.0	4,133.0	4,974.3	4,014.1	53.9	54.3	78.69	2,082.3	-1,701.5	539.8	434.3	5.119	
5,100.0	4,213.0	5,073.3	4,087.6	55.1	55.7	78.34	2,132.8	-1,744.4	552.9	445.2	5.131	
5,200.0	4,294.8	5,171.9	4,160.9	56.3	57.0	77.72	2,183.1	-1,787.3	566.7	456.9	5.157	
5,300.0	4,378.2	5,270.2	4,234.0	57.4	58.4	76.87	2,233.2	-1,829.9	581.4	469.6	5.199	
5,400.0	4,463.3	5,374.5	4,312.2	58.4	59.8	75.80	2,285.7	-1,874.6	596.6	482.9	5.245	
5,500.0	4,550.0	5,481.7	4,395.1	59.4	61.1	74.80	2,337.5	-1,918.7	611.4	495.8	5.289	
5,600.0	4,638.2	5,569.8	4,481.1	60.3	62.4	73.88	2,387.2	-1,961.0	625.8	508.4	5.333	
5,700.0	4,727.7	5,658.7	4,570.3	61.1	63.6	73.05	2,434.8	-2,001.5	639.5	520.6	5.377	
5,800.0	4,818.6	5,749.4	4,662.4	61.9	64.8	72.28	2,480.1	-2,040.1	652.7	532.3	5.421	
5,900.0	4,910.7	5,841.5	4,757.5	62.6	65.9	71.59	2,523.0	-2,076.6	665.2	543.5	5.463	
6,000.0	5,004.0	5,932.2	4,855.3	63.3	66.9	70.96	2,563.4	-2,110.9	677.0	554.0	5.505	
6,100.0	5,098.3	6,024.1	4,955.8	63.9	67.8	70.39	2,601.0	-2,143.0	688.1	564.0	5.545	
6,200.0	5,193.6	6,119.4	5,058.8	64.4	68.6	69.87	2,635.8	-2,172.6	698.3	573.2	5.584	
6,300.0	5,289.7	6,215.1	5,164.0	64.9	69.3	69.41	2,667.7	-2,199.8	707.7	581.8	5.621	
6,400.0	5,386.7	6,312.1	5,271.4	65.3	70.0	68.99	2,696.5	-2,224.3	716.3	589.6	5.656	
6,500.0	5,484.4	6,409.8	5,380.7	65.7	70.6	68.62	2,722.2	-2,246.1	723.9	596.7	5.689	
6,600.0	5,582.6	6,508.0	5,481.8	66.0	71.1	68.30	2,744.6	-2,265.2	730.6	602.9	5.720	
6,700.0	5,681.4	6,606.8	5,584.4	66.2	71.5	68.02	2,763.7	-2,281.5	736.4	608.3	5.750	
6,800.0	5,780.6	6,706.0	5,686.2	66.4	71.8	67.78	2,779.3	-2,294.8	741.2	612.9	5.776	
6,900.0	5,880.2	6,805.6	5,783.1	66.6	72.1	67.58	2,791.5	-2,305.1	745.0	616.6	5.800	
7,000.0	5,980.0	6,905.4	5,883.8	66.7	72.3	67.42	2,800.1	-2,312.5	747.8	619.4	5.821	
7,100.0	6,079.9	7,005.3	5,983.7	66.8	72.4	67.29	2,805.2	-2,316.8	749.6	621.3	5.839	
7,159.1	6,139.0	7,064.4	6,042.8	66.8	72.4	16.73	2,806.4	-2,317.9	750.2	622.0	5.849	
7,200.0	6,179.9	7,105.3	6,083.7	66.8	72.4	16.71	2,806.6	-2,318.0	750.3	622.1	5.853	
7,300.0	6,279.9	7,205.3	6,183.7	66.8	72.4	16.71	2,806.6	-2,318.0	750.3	622.1	5.851	
7,400.0	6,379.9	7,305.3	6,283.7	66.8	72.4	16.71	2,806.6	-2,318.0	750.3	622.1	5.849	
7,500.0	6,479.9	7,405.3	6,383.7	66.8	72.5	16.71	2,806.6	-2,318.0	750.3	622.0	5.848	
7,600.0	6,579.9	7,505.3	6,483.7	66.8	72.5	16.71	2,806.6	-2,318.0	750.3	622.0	5.846	
7,700.0	6,679.9	7,605.3	6,583.7	66.9	72.5	16.71	2,806.6	-2,318.0	750.3	621.9	5.844	
7,800.0	6,779.9	7,705.3	6,683.7	66.9	72.5	16.71	2,806.6	-2,318.0	750.3	621.9	5.842	
7,900.0	6,879.9	7,805.3	6,783.7	66.9	72.5	16.71	2,806.6	-2,318.0	750.3	621.9	5.841	
8,000.0	6,979.9	7,905.3	6,883.7	66.9	72.5	16.71	2,806.6	-2,318.0	750.3	621.8	5.839	
8,100.0	7,079.9	8,005.3	6,983.7	66.9	72.5	16.71	2,806.6	-2,318.0	750.3	621.8	5.837	
8,200.0	7,179.9	8,105.3	7,083.7	66.9	72.6	16.71	2,806.6	-2,318.0	750.3	621.8	5.835	
8,300.0	7,279.9	8,205.3	7,183.7	67.0	72.6	16.71	2,806.6	-2,318.0	750.3	621.7	5.834	
8,400.0	7,379.9	8,305.3	7,283.7	67.0	72.6	16.71	2,806.6	-2,318.0	750.3	621.7	5.832	
8,500.0	7,479.9	8,405.3	7,383.7	67.0	72.6	16.71	2,806.6	-2,318.0	750.3	621.6	5.830	
8,600.0	7,579.9	8,505.3	7,483.7	67.0	72.6	16.71	2,806.6	-2,318.0	750.3	621.6	5.828	
8,700.0	7,679.9	8,605.3	7,583.7	67.0	72.6	16.71	2,806.6	-2,318.0	750.3	621.6	5.826	
8,800.0	7,779.9	8,705.3	7,683.7	67.0	72.7	16.71	2,806.6	-2,318.0	750.3	621.5	5.824	
8,900.0	7,879.9	8,805.3	7,783.7	67.1	72.7	16.71	2,806.6	-2,318.0	750.3	621.5	5.823	
9,000.0	7,979.9	8,905.3	7,883.7	67.1	72.7	16.71	2,806.6	-2,318.0	750.3	621.4	5.821	
9,100.0	8,079.9	9,005.3	7,983.7	67.1	72.7	16.71	2,806.6	-2,318.0	750.3	621.4	5.819	
9,200.0	8,179.9	9,105.3	8,083.7	67.1	72.7	16.71	2,806.6	-2,318.0	750.3	621.3	5.817	
9,300.0	8,279.9	9,205.3	8,183.7	67.1	72.7	16.71	2,806.6	-2,318.0	750.3	621.3	5.815	
9,400.0	8,379.9	9,305.3	8,283.7	67.2	72.7	16.71	2,806.6	-2,318.0	750.3	621.3	5.813	
9,500.0	8,479.9	9,405.3	8,383.7	67.2	72.8	16.71	2,806.6	-2,318.0	750.3	621.2	5.811	
9,600.0	8,579.9	9,505.3	8,483.7	67.2	72.8	16.71	2,806.6	-2,318.0	750.3	621.2	5.810	
9,700.0	8,679.9	9,605.3	8,583.7	67.2	72.8	16.71	2,806.6	-2,318.0	750.3	621.1	5.808	
9,800.0	8,779.9	9,705.3	8,683.7	67.2	72.8	16.71	2,806.6	-2,318.0	750.3	621.1	5.806	
9,900.0	8,879.9	9,805.3	8,783.7	67.3	72.8	16.71	2,806.6	-2,318.0	750.3	621.1	5.804	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b>	Sec 8, T6S, R94W - RWF 21-8 - Wellbore #1 - Plan #1										<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b>	0-OWSG (REV5) MWD HDGM Standard										<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
9,981.1	8,961.0	10,187.0	8,961.0	67.3	72.8	16.71	2,806.6	-2,318.0	750.3	621.0	5.802	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - RWF 22-8 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 236-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-103.51	-2.9	-12.1	12.5			
100.0	100.0	99.7	99.7	0.4	0.8	-99.88	-2.3	-13.4	13.6	12.4	11.426	ES
200.0	200.0	199.3	199.1	1.3	1.5	-91.97	-0.6	-17.1	17.2	14.4	6.216	
250.0	250.0	248.9	248.7	1.4	1.9	-87.99	0.7	-20.0	20.0	16.7	6.064	
300.0	300.0	298.3	297.9	1.6	2.4	-35.22	2.1	-23.8	23.4	19.5	5.914	
400.0	399.8	396.9	395.8	3.3	3.7	-34.82	6.1	-34.5	30.3	23.8	4.672	
500.0	499.3	495.1	492.8	4.9	4.8	-34.85	13.0	-49.1	37.2	28.3	4.167	
600.0	598.0	593.1	588.3	6.2	5.9	-34.83	23.2	-67.8	44.3	33.3	4.035	SF
700.0	695.8	690.3	681.8	7.2	7.0	-34.42	36.8	-90.6	51.9	39.0	4.045	
800.0	792.4	786.9	773.2	8.2	7.9	-35.15	52.3	-117.9	60.4	46.1	4.223	
900.0	887.5	883.1	862.2	9.0	8.6	-36.55	69.7	-149.9	70.1	54.5	4.495	
1,000.0	980.9	979.2	949.2	9.8	9.8	-38.81	88.3	-186.1	80.5	63.4	4.710	
1,100.0	1,072.2	1,076.7	1,036.0	10.6	12.6	-41.67	108.5	-225.6	90.2	69.9	4.447	
1,200.0	1,161.3	1,174.1	1,121.5	11.2	15.4	-44.94	130.2	-267.1	98.5	75.3	4.239	
1,300.0	1,247.9	1,271.5	1,205.5	11.9	18.2	-48.63	153.4	-310.5	105.7	79.8	4.082	
1,400.0	1,331.8	1,368.0	1,287.2	12.5	20.3	-52.71	177.8	-355.6	112.1	84.5	4.069	
1,500.0	1,412.6	1,464.0	1,366.0	13.1	20.8	-56.59	204.1	-403.9	119.4	91.5	4.291	
1,550.4	1,452.2	1,513.9	1,406.1	13.2	21.0	-58.57	218.7	-429.7	122.7	94.8	4.391	
1,600.0	1,490.8	1,563.2	1,445.5	13.4	21.1	-60.54	233.5	-455.4	125.9	97.8	4.470	
1,700.0	1,568.5	1,662.4	1,525.3	13.7	21.3	-64.67	262.5	-506.7	132.7	103.9	4.610	
1,800.0	1,646.2	1,760.9	1,605.1	14.0	21.5	-68.91	289.9	-557.5	140.7	111.0	4.738	
1,900.0	1,723.9	1,860.7	1,685.4	14.3	21.7	-72.40	318.3	-609.4	149.5	118.4	4.806	
2,000.0	1,801.6	1,959.4	1,765.5	14.8	22.0	-75.77	346.0	-660.2	158.4	125.6	4.837	
2,100.0	1,879.3	2,059.1	1,846.6	16.0	22.2	-79.04	373.2	-711.4	168.3	133.7	4.861	
2,200.0	1,957.0	2,161.4	1,929.3	17.3	22.5	-81.64	402.7	-763.7	177.3	140.5	4.819	
2,300.0	2,034.7	2,260.5	2,009.4	18.6	22.7	-83.77	432.5	-813.9	185.7	146.6	4.757	
2,400.0	2,112.4	2,363.3	2,092.6	19.9	23.0	-85.83	463.4	-865.7	193.9	152.5	4.682	
2,500.0	2,190.1	2,463.7	2,173.6	21.2	23.3	-87.46	495.2	-915.8	200.9	157.1	4.586	
2,600.0	2,267.8	2,562.7	2,254.3	22.5	23.7	-89.37	525.8	-964.4	208.1	161.9	4.507	
2,700.0	2,345.5	2,664.3	2,336.8	23.8	24.8	-91.06	557.7	-1,014.2	215.1	166.5	4.426	
2,800.0	2,423.2	2,762.1	2,415.8	25.1	26.0	-92.38	588.9	-1,062.8	222.3	171.3	4.357	
2,900.0	2,500.9	2,861.0	2,496.4	26.4	27.1	-93.91	619.5	-1,111.4	230.0	176.6	4.305	
3,000.0	2,578.6	2,958.2	2,576.0	27.7	28.2	-95.51	648.6	-1,159.0	238.6	182.8	4.277	
3,100.0	2,656.3	3,056.0	2,657.4	29.0	29.3	-97.58	676.1	-1,205.5	248.3	190.2	4.274	
3,200.0	2,734.0	3,155.7	2,740.3	30.3	30.4	-99.48	704.1	-1,253.2	258.4	198.0	4.277	
3,300.0	2,811.7	3,256.3	2,823.0	31.6	31.6	-100.86	733.5	-1,302.5	268.3	205.5	4.273	
3,400.0	2,889.4	3,355.0	2,902.5	32.9	32.7	-101.56	763.5	-1,352.7	278.1	212.9	4.264	
3,500.0	2,967.1	3,451.9	2,980.8	34.2	33.9	-102.28	792.1	-1,402.1	288.7	221.1	4.271	
3,600.0	3,044.8	3,550.0	3,060.8	35.5	35.1	-103.16	820.1	-1,451.5	300.0	230.0	4.289	
3,700.0	3,122.5	3,647.2	3,139.2	36.8	36.2	-103.70	848.1	-1,501.8	311.6	239.3	4.309	
3,800.0	3,200.2	3,743.6	3,217.6	38.2	37.4	-104.38	874.6	-1,551.1	324.3	249.7	4.346	
3,900.0	3,277.9	3,843.6	3,299.7	39.5	38.6	-105.26	901.4	-1,601.6	337.4	260.5	4.384	
4,000.0	3,355.6	3,951.8	3,387.9	40.8	39.9	-105.98	932.1	-1,656.3	349.3	269.8	4.393	
4,100.0	3,433.3	4,052.5	3,470.2	42.1	41.1	-106.74	962.3	-1,705.8	359.1	277.2	4.387	
4,200.0	3,511.0	4,149.2	3,550.3	43.4	42.2	-107.68	990.4	-1,752.1	369.4	285.4	4.397	
4,300.0	3,588.7	4,244.1	3,630.0	44.7	43.2	-108.88	1,016.7	-1,796.3	380.8	294.8	4.426	
4,400.0	3,666.4	4,338.1	3,710.0	46.0	44.2	-110.22	1,041.3	-1,839.1	393.6	305.7	4.478	
4,500.0	3,744.1	4,437.6	3,795.6	47.3	45.2	-111.81	1,066.4	-1,883.1	407.2	317.4	4.537	
4,600.0	3,821.8	4,538.5	3,882.3	48.6	46.2	-113.29	1,092.4	-1,927.8	420.6	329.0	4.591	
4,700.0	3,899.5	4,635.0	3,964.8	50.0	47.2	-114.51	1,117.2	-1,971.3	434.4	341.0	4.651	
4,800.0	3,977.2	4,725.2	4,042.6	51.3	48.1	-115.73	1,139.2	-2,011.1	449.6	354.6	4.735	
4,900.0	4,054.9	4,823.4	4,128.0	52.6	49.1	-117.12	1,162.4	-2,053.7	465.7	369.1	4.823	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - RWF 22-8 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b> 236-OWSG (REV5) MWD HDGM Standard												<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning	
4,929.8	4,078.0	4,851.7	4,152.8	53.0	49.3	-117.54	1,169.0	-2,065.7	470.6	373.6	4.851		
5,000.0	4,133.0	4,918.5	4,211.6	53.9	50.0	-118.70	1,184.3	-2,093.4	482.0	384.0	4.919		
5,100.0	4,213.0	5,016.6	4,298.6	55.1	50.9	-120.17	1,206.5	-2,132.9	497.5	398.1	5.004		
5,200.0	4,294.8	5,114.2	4,385.9	56.3	51.7	-121.46	1,228.4	-2,170.7	511.8	411.0	5.078		
5,300.0	4,378.2	5,209.5	4,471.9	57.4	52.5	-122.56	1,249.2	-2,206.0	525.1	423.0	5.146		
5,400.0	4,463.3	5,304.7	4,558.6	58.4	53.2	-123.50	1,269.2	-2,240.0	537.6	434.3	5.206		
5,500.0	4,550.0	5,402.1	4,647.7	59.4	54.0	-124.27	1,289.3	-2,273.7	548.9	444.4	5.253		
5,600.0	4,638.2	5,494.3	4,733.1	60.3	54.6	-124.96	1,307.4	-2,303.6	559.4	453.9	5.301		
5,700.0	4,727.7	5,586.4	4,819.2	61.1	55.2	-125.62	1,324.3	-2,331.5	569.5	463.0	5.348		
5,800.0	4,818.6	5,673.0	4,901.0	61.9	55.7	-126.20	1,338.8	-2,355.9	579.4	472.2	5.404		
5,900.0	4,910.7	5,767.0	4,990.8	62.6	56.2	-126.82	1,352.5	-2,380.2	589.7	481.7	5.461		
6,000.0	5,004.0	5,851.2	5,071.8	63.3	56.6	-127.33	1,363.1	-2,400.5	600.1	491.7	5.533		
6,100.0	5,098.3	5,955.2	5,172.6	63.9	57.1	-127.91	1,375.7	-2,423.0	609.2	499.9	5.573		
6,200.0	5,193.6	6,049.0	5,263.8	64.4	57.4	-128.38	1,387.0	-2,441.3	616.5	506.6	5.611		
6,300.0	5,289.7	6,144.0	5,356.5	64.9	57.8	-128.69	1,397.8	-2,459.2	622.6	512.2	5.636		
6,400.0	5,386.7	6,225.5	5,436.5	65.3	58.0	-128.97	1,405.5	-2,472.6	628.7	518.1	5.682		
6,500.0	5,484.4	6,321.8	5,531.7	65.7	58.3	-129.41	1,412.8	-2,484.7	634.9	523.9	5.720		
6,600.0	5,582.6	6,416.0	5,625.3	66.0	58.5	-129.87	1,419.4	-2,493.8	639.7	528.5	5.753		
6,700.0	5,681.4	6,506.3	5,715.0	66.2	58.6	-130.16	1,424.7	-2,502.0	643.7	532.4	5.783		
6,800.0	5,780.6	6,602.7	5,811.0	66.4	58.8	-130.35	1,429.3	-2,509.5	646.9	535.3	5.798		
6,900.0	5,880.2	6,696.5	5,904.6	66.6	58.9	-130.54	1,433.3	-2,514.5	648.8	537.1	5.808		
7,000.0	5,980.0	6,790.1	5,998.0	66.7	59.0	-130.59	1,436.2	-2,518.7	649.7	537.8	5.809		
7,100.0	6,079.9	6,888.4	6,096.3	66.8	59.1	-130.44	1,438.7	-2,522.8	649.2	537.1	5.789		
7,159.1	6,139.0	6,945.9	6,153.7	66.8	59.1	179.23	1,440.1	-2,525.1	648.1	535.8	5.769		
7,200.0	6,179.9	6,985.5	6,193.3	66.8	59.1	179.38	1,440.9	-2,526.9	647.3	534.8	5.755		
7,300.0	6,279.9	7,083.9	6,291.6	66.8	59.2	179.64	1,442.8	-2,529.8	645.3	532.6	5.724		
7,400.0	6,379.9	7,179.0	6,386.7	66.8	59.2	179.70	1,444.3	-2,530.5	643.8	531.0	5.707		
7,500.0	6,479.9	7,276.3	6,483.9	66.8	59.3	179.75	1,445.2	-2,531.0	642.8	529.9	5.695		
7,600.0	6,579.9	7,375.4	6,583.1	66.8	59.3	179.81	1,445.8	-2,531.7	642.2	529.3	5.684		
7,700.0	6,679.9	7,474.2	6,681.9	66.9	59.3	179.87	1,446.2	-2,532.4	641.8	528.7	5.676		
7,773.8	6,753.7	7,546.0	6,753.7	66.9	59.3	179.91	1,446.3	-2,532.8	641.7	528.6	5.674		
7,800.0	6,779.9	7,571.5	6,779.2	66.9	59.3	179.93	1,446.3	-2,533.0	641.7	528.6	5.674		
7,900.0	6,879.9	7,668.0	6,875.6	66.9	59.4	179.94	1,445.9	-2,533.1	642.1	529.1	5.682		
8,000.0	6,979.9	7,762.8	6,970.5	66.9	59.4	179.95	1,444.9	-2,533.3	643.2	530.4	5.700		
8,100.0	7,079.9	7,861.2	7,068.9	66.9	59.4	-179.96	1,443.3	-2,534.3	644.8	532.0	5.715		
8,200.0	7,179.9	7,962.6	7,170.2	66.9	59.4	-179.82	1,441.6	-2,535.9	646.5	533.5	5.723		
8,300.0	7,279.9	8,064.2	7,271.8	67.0	59.4	-179.68	1,440.3	-2,537.4	647.8	534.7	5.728		
8,400.0	7,379.9	8,166.0	7,373.6	67.0	59.4	-179.65	1,439.0	-2,537.8	649.0	535.9	5.736		
8,500.0	7,479.9	8,263.0	7,470.6	67.0	59.4	-179.69	1,438.1	-2,537.4	649.9	536.9	5.751		
8,600.0	7,579.9	8,356.5	7,564.1	67.0	59.4	-179.76	1,436.2	-2,536.5	652.0	539.3	5.783		
8,700.0	7,679.9	8,459.1	7,666.6	67.0	59.4	-179.83	1,433.7	-2,535.8	654.4	541.7	5.806		
8,800.0	7,779.9	8,557.1	7,764.6	67.0	59.4	-179.90	1,431.8	-2,534.9	656.4	543.8	5.832		
8,900.0	7,879.9	8,655.2	7,862.6	67.1	59.4	179.99	1,429.2	-2,533.7	659.0	546.6	5.864		
9,000.0	7,979.9	8,752.4	7,959.8	67.1	59.4	179.96	1,426.6	-2,533.4	661.7	549.5	5.896		
9,100.0	8,079.9	8,851.6	8,058.9	67.1	59.4	179.96	1,423.4	-2,533.3	664.9	552.7	5.928		
9,200.0	8,179.9	8,948.8	8,156.1	67.1	59.4	179.97	1,420.2	-2,533.5	668.2	556.2	5.963		
9,300.0	8,279.9	9,047.4	8,254.6	67.1	59.4	179.96	1,416.5	-2,533.4	671.9	560.0	6.001		
9,400.0	8,379.9	9,151.0	8,358.2	67.2	59.4	179.90	1,412.9	-2,532.6	675.5	563.5	6.033		
9,500.0	8,479.9	9,257.4	8,464.6	67.2	59.3	179.83	1,410.0	-2,531.8	678.2	566.1	6.053		
9,600.0	8,579.9	9,355.3	8,562.4	67.2	59.4	179.84	1,407.6	-2,531.9	680.6	568.6	6.079		
9,700.0	8,679.9	9,454.5	8,661.5	67.2	59.4	179.95	1,405.1	-2,533.2	683.2	571.2	6.099		
9,800.0	8,779.9	9,551.5	8,758.5	67.2	59.4	-179.86	1,402.2	-2,535.5	686.2	574.1	6.122		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b>	Sec 8, T6S, R94W - RWF 22-8 - Wellbore #1 - Wellbore #1										<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b>	236-OWSG (REV5) MWD HDGM Standard										<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
9,900.0	8,879.9	9,651.4	8,858.3	67.3	59.5	-179.62	1,399.0	-2,538.3	689.3	577.0	6.140	
9,981.1	8,961.0	9,660.0	8,866.9	67.3	59.5	-179.60	1,398.8	-2,538.6	695.6	585.6	6.322	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - RWF 321-8 - Wellbore #1 - Plan #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-1.30	24.8	-0.6	24.8			
100.0	100.0	100.0	100.0	0.4	0.4	-1.30	24.8	-0.6	24.8	23.9	28.459	
200.0	200.0	200.7	200.7	1.3	1.5	1.66	23.6	0.7	23.6	21.2	9.594	
250.0	250.0	250.7	250.6	1.4	1.6	6.57	21.9	2.5	22.0	19.4	8.337	
300.0	300.0	300.4	300.2	1.6	1.8	62.66	20.7	3.8	20.7	17.8	7.162	
400.0	399.8	399.8	399.7	3.3	3.2	76.16	20.9	3.7	19.0	13.9	3.714	
456.6	456.2	456.2	456.0	4.2	4.1	84.72	22.6	1.9	18.7	12.6	3.037	CC
500.0	499.3	499.5	499.2	4.9	4.7	91.35	24.7	-0.2	18.9	11.9	2.710	ES
600.0	598.0	599.5	598.6	6.2	4.9	105.48	32.1	-7.9	20.5	12.6	2.588	
700.0	695.8	699.7	697.5	7.2	6.1	116.63	43.1	-19.4	23.4	13.9	2.476	
800.0	792.4	800.1	795.7	8.2	7.1	124.60	57.7	-34.7	27.3	16.0	2.426	
900.0	887.5	900.8	892.9	9.0	8.0	130.03	75.9	-53.8	31.8	18.8	2.438	
1,000.0	980.9	1,001.8	988.8	9.8	8.9	133.63	97.6	-76.6	36.9	22.1	2.493	
1,100.0	1,072.2	1,103.0	1,083.2	10.6	9.7	135.95	122.9	-103.1	42.2	25.8	2.573	
1,200.0	1,161.3	1,204.5	1,175.7	11.2	10.4	137.38	151.7	-133.3	47.8	29.8	2.665	
1,300.0	1,247.9	1,306.2	1,266.0	11.9	11.1	138.16	183.9	-167.1	53.5	34.1	2.760	
1,400.0	1,331.8	1,408.2	1,354.0	12.5	11.7	138.48	219.4	-204.4	59.5	38.6	2.853	
1,500.0	1,412.6	1,510.4	1,439.3	13.1	12.3	138.45	258.2	-245.1	65.5	43.2	2.937	
1,550.4	1,452.2	1,562.0	1,481.2	13.2	12.6	138.33	279.0	-267.0	68.6	45.7	2.990	
1,600.0	1,490.8	1,612.8	1,521.6	13.4	12.9	137.86	300.2	-289.3	71.2	47.7	3.028	
1,700.0	1,568.5	1,715.4	1,600.6	13.7	13.4	134.71	345.3	-336.6	73.8	49.2	3.005	
1,800.0	1,646.2	1,815.5	1,675.7	14.0	13.6	129.90	390.9	-384.6	74.5	48.8	2.894	
1,900.0	1,723.9	1,915.3	1,750.5	14.3	13.8	125.21	436.5	-432.4	75.7	48.3	2.764	
2,000.0	1,801.6	2,015.1	1,825.3	14.8	14.4	120.70	482.1	-480.3	77.5	48.2	2.647	
2,100.0	1,879.3	2,114.9	1,900.1	16.0	15.7	116.41	527.6	-528.1	79.7	48.1	2.528	
2,200.0	1,957.0	2,214.7	1,974.9	17.3	17.0	112.37	573.2	-576.0	82.3	48.3	2.424	
2,300.0	2,034.7	2,314.5	2,049.7	18.6	18.3	108.59	618.7	-623.8	85.3	48.7	2.335	
2,400.0	2,112.4	2,414.3	2,124.5	19.9	19.7	105.09	664.3	-671.7	88.6	49.4	2.262	
2,500.0	2,190.1	2,514.1	2,199.3	21.2	21.0	101.85	709.9	-719.6	92.2	50.4	2.202	
2,600.0	2,267.8	2,613.9	2,274.1	22.5	22.3	98.86	755.4	-767.4	96.2	51.6	2.156	
2,700.0	2,345.5	2,713.7	2,348.9	23.8	23.6	96.12	801.0	-815.3	100.3	53.0	2.120	
2,800.0	2,423.2	2,813.5	2,423.7	25.1	25.0	93.59	846.5	-863.1	104.7	54.7	2.093	
2,900.0	2,500.9	2,913.3	2,498.5	26.4	26.3	91.28	892.1	-911.0	109.3	56.6	2.074	
3,000.0	2,578.6	3,013.1	2,573.3	27.7	27.7	89.15	937.6	-958.8	114.0	58.7	2.060	
3,100.0	2,656.3	3,112.9	2,648.1	29.0	29.0	87.19	983.2	-1,006.7	118.9	60.9	2.051	
3,200.0	2,734.0	3,212.7	2,722.8	30.3	30.4	85.39	1,028.8	-1,054.6	123.8	63.3	2.047	
3,300.0	2,811.7	3,312.5	2,797.6	31.6	31.8	83.73	1,074.3	-1,102.4	129.0	65.9	2.045	SF
3,400.0	2,889.4	3,412.3	2,872.4	32.9	33.1	82.20	1,119.9	-1,150.3	134.2	68.6	2.047	
3,500.0	2,967.1	3,512.1	2,947.2	34.2	34.5	80.78	1,165.4	-1,198.1	139.5	71.4	2.050	
3,600.0	3,044.8	3,611.9	3,022.0	35.5	35.8	79.47	1,211.0	-1,246.0	144.8	74.3	2.055	
3,700.0	3,122.5	3,711.7	3,096.8	36.8	37.2	78.25	1,256.6	-1,293.8	150.3	77.4	2.061	
3,800.0	3,200.2	3,811.5	3,171.6	38.2	38.6	77.12	1,302.1	-1,341.7	155.8	80.4	2.068	
3,900.0	3,277.9	3,911.3	3,246.4	39.5	39.9	76.06	1,347.7	-1,389.6	161.4	83.6	2.076	
4,000.0	3,355.6	4,011.1	3,321.2	40.8	41.3	75.08	1,393.2	-1,437.4	167.0	86.9	2.084	
4,100.0	3,433.3	4,110.9	3,396.0	42.1	42.7	74.16	1,438.8	-1,485.3	172.6	90.2	2.093	
4,200.0	3,511.0	4,210.7	3,470.8	43.4	44.1	73.29	1,484.3	-1,533.1	178.3	93.5	2.103	
4,300.0	3,588.7	4,310.5	3,545.6	44.7	45.4	72.49	1,529.9	-1,581.0	184.1	96.9	2.112	
4,400.0	3,666.4	4,410.3	3,620.4	46.0	46.8	71.73	1,575.5	-1,628.8	189.9	100.4	2.122	
4,500.0	3,744.1	4,510.1	3,695.2	47.3	48.2	71.01	1,621.0	-1,676.7	195.7	103.9	2.132	
4,600.0	3,821.8	4,609.9	3,770.0	48.6	49.5	70.34	1,666.6	-1,724.6	201.5	107.4	2.142	
4,700.0	3,899.5	4,709.7	3,844.8	50.0	50.9	69.70	1,712.1	-1,772.4	207.4	111.0	2.152	
4,800.0	3,977.2	4,809.5	3,919.6	51.3	52.3	69.10	1,757.7	-1,820.3	213.2	114.6	2.162	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - RWF 321-8 - Wellbore #1 - Plan #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning	
4,900.0	4,054.9	4,909.3	3,994.4	52.6	53.7	68.54	1,803.2	-1,868.1	219.2	118.2	2.172		
4,929.8	4,078.0	4,939.0	4,016.7	53.0	54.1	68.37	1,816.8	-1,882.4	220.9	119.3	2.175		
5,000.0	4,133.0	5,009.1	4,069.2	53.9	55.0	67.89	1,848.8	-1,916.0	225.4	122.3	2.186		
5,100.0	4,213.0	5,108.7	4,143.8	55.1	56.4	66.67	1,894.2	-1,963.7	232.7	127.9	2.220		
5,200.0	4,294.8	5,208.0	4,218.2	56.3	57.8	64.90	1,939.6	-2,011.3	241.5	135.4	2.275		
5,300.0	4,378.2	5,308.8	4,294.0	57.4	59.2	62.69	1,985.4	-2,059.5	251.8	144.7	2.351		
5,400.0	4,463.3	5,412.7	4,374.1	58.4	60.5	60.56	2,031.1	-2,107.5	262.4	154.4	2.430		
5,500.0	4,550.0	5,517.2	4,457.0	59.4	61.8	58.68	2,074.9	-2,153.5	272.8	164.0	2.508		
5,600.0	4,638.2	5,622.3	4,542.7	60.3	63.0	57.01	2,116.9	-2,197.6	282.9	173.5	2.585		
5,700.0	4,727.7	5,728.0	4,631.0	61.1	64.2	55.53	2,156.9	-2,239.6	292.8	182.7	2.659		
5,800.0	4,818.6	5,834.3	4,721.9	61.9	65.2	54.22	2,194.8	-2,279.5	302.3	191.6	2.730		
5,900.0	4,910.7	5,941.0	4,815.2	62.6	66.2	53.05	2,230.6	-2,317.0	311.4	200.1	2.798		
6,000.0	5,004.0	6,048.3	4,910.9	63.3	67.1	52.02	2,264.0	-2,352.2	320.0	208.3	2.863		
6,100.0	5,098.3	6,156.0	5,008.7	63.9	68.0	51.11	2,295.1	-2,384.8	328.1	215.9	2.925		
6,200.0	5,193.6	6,264.2	5,108.6	64.4	68.7	50.31	2,323.8	-2,414.9	335.6	223.1	2.983		
6,300.0	5,289.7	6,372.8	5,210.4	64.9	69.4	49.60	2,349.9	-2,442.4	342.5	229.7	3.037		
6,400.0	5,386.7	6,481.8	5,313.9	65.3	70.0	48.98	2,373.4	-2,467.1	348.8	235.8	3.087		
6,500.0	5,484.4	6,591.1	5,418.9	65.7	70.5	48.44	2,394.3	-2,489.0	354.5	241.4	3.133		
6,600.0	5,582.6	6,700.8	5,525.4	66.0	71.0	47.98	2,412.4	-2,508.0	359.5	246.3	3.176		
6,700.0	5,681.4	6,810.7	5,633.0	66.2	71.3	47.58	2,427.8	-2,524.2	363.8	250.6	3.214		
6,800.0	5,780.6	6,920.8	5,741.6	66.4	71.6	47.26	2,440.3	-2,537.3	367.3	254.3	3.249		
6,900.0	5,880.2	7,031.1	5,851.0	66.6	71.8	47.00	2,449.9	-2,547.4	370.2	257.3	3.279		
7,000.0	5,980.0	7,141.6	5,961.1	66.7	72.0	46.79	2,456.6	-2,554.5	372.3	259.7	3.306		
7,100.0	6,079.9	7,252.2	6,071.5	66.8	72.1	46.65	2,460.4	-2,558.5	373.7	261.4	3.328		
7,159.1	6,139.0	7,317.6	6,136.9	66.8	72.1	-3.92	2,461.3	-2,559.4	374.2	262.2	3.341		
7,200.0	6,179.9	7,360.6	6,179.9	66.8	72.1	-3.93	2,461.3	-2,559.4	374.2	262.3	3.344		
7,300.0	6,279.9	7,460.6	6,279.9	66.8	72.1	-3.93	2,461.3	-2,559.4	374.2	262.3	3.343		
7,400.0	6,379.9	7,560.6	6,379.9	66.8	72.1	-3.93	2,461.3	-2,559.4	374.2	262.2	3.342		
7,500.0	6,479.9	7,660.6	6,479.9	66.8	72.2	-3.93	2,461.3	-2,559.4	374.2	262.2	3.341		
7,600.0	6,579.9	7,760.6	6,579.9	66.8	72.2	-3.93	2,461.3	-2,559.4	374.2	262.2	3.339		
7,700.0	6,679.9	7,860.6	6,679.9	66.9	72.2	-3.93	2,461.3	-2,559.4	374.2	262.1	3.338		
7,800.0	6,779.9	7,960.6	6,779.9	66.9	72.2	-3.93	2,461.3	-2,559.4	374.2	262.1	3.337		
7,900.0	6,879.9	8,060.6	6,879.9	66.9	72.2	-3.93	2,461.3	-2,559.4	374.2	262.0	3.335		
8,000.0	6,979.9	8,160.6	6,979.9	66.9	72.2	-3.93	2,461.3	-2,559.4	374.2	262.0	3.334		
8,100.0	7,079.9	8,260.6	7,079.9	66.9	72.2	-3.93	2,461.3	-2,559.4	374.2	261.9	3.333		
8,200.0	7,179.9	8,360.6	7,179.9	66.9	72.3	-3.93	2,461.3	-2,559.4	374.2	261.9	3.331		
8,300.0	7,279.9	8,460.6	7,279.9	67.0	72.3	-3.93	2,461.3	-2,559.4	374.2	261.8	3.330		
8,400.0	7,379.9	8,560.6	7,379.9	67.0	72.3	-3.93	2,461.3	-2,559.4	374.2	261.8	3.329		
8,500.0	7,479.9	8,660.6	7,479.9	67.0	72.3	-3.93	2,461.3	-2,559.4	374.2	261.8	3.327		
8,600.0	7,579.9	8,760.6	7,579.9	67.0	72.3	-3.93	2,461.3	-2,559.4	374.2	261.7	3.326		
8,700.0	7,679.9	8,860.6	7,679.9	67.0	72.3	-3.93	2,461.3	-2,559.4	374.2	261.7	3.325		
8,800.0	7,779.9	8,960.6	7,779.9	67.0	72.4	-3.93	2,461.3	-2,559.4	374.2	261.6	3.323		
8,900.0	7,879.9	9,060.6	7,879.9	67.1	72.4	-3.93	2,461.3	-2,559.4	374.2	261.6	3.322		
9,000.0	7,979.9	9,160.6	7,979.9	67.1	72.4	-3.93	2,461.3	-2,559.4	374.2	261.5	3.320		
9,100.0	8,079.9	9,260.6	8,079.9	67.1	72.4	-3.93	2,461.3	-2,559.4	374.2	261.5	3.319		
9,200.0	8,179.9	9,360.6	8,179.9	67.1	72.4	-3.93	2,461.3	-2,559.4	374.2	261.4	3.318		
9,300.0	8,279.9	9,460.6	8,279.9	67.1	72.4	-3.93	2,461.3	-2,559.4	374.2	261.4	3.316		
9,400.0	8,379.9	9,560.6	8,379.9	67.2	72.5	-3.93	2,461.3	-2,559.4	374.2	261.3	3.315		
9,500.0	8,479.9	9,660.6	8,479.9	67.2	72.5	-3.93	2,461.3	-2,559.4	374.2	261.3	3.313		
9,600.0	8,579.9	9,760.6	8,579.9	67.2	72.5	-3.93	2,461.3	-2,559.4	374.2	261.2	3.312		
9,700.0	8,679.9	9,860.6	8,679.9	67.2	72.5	-3.93	2,461.3	-2,559.4	374.2	261.2	3.311		
9,800.0	8,779.9	9,960.6	8,779.9	67.2	72.5	-3.93	2,461.3	-2,559.4	374.2	261.1	3.309		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - RWF 321-8 - Wellbore #1 - Plan #1												<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b> 0-OWSG (REV5) MWD HDGM Standard												<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
9,900.0	8,879.9	10,060.6	8,879.9	67.3	72.5	-3.93	2,461.3	-2,559.4	374.2	261.1	3.308		
9,981.1	8,961.0	10,141.7	8,961.0	67.3	72.5	-3.93	2,461.3	-2,559.4	374.2	261.1	3.307		

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - RWF 322-8 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 295-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-122.85	-9.8	-15.2	18.1			
100.0	100.0	99.5	99.5	0.4	0.9	-118.97	-9.4	-17.0	19.4	18.1	14.531	ES
200.0	200.0	198.8	198.6	1.3	1.8	-110.02	-8.1	-22.2	23.7	20.6	7.739	
250.0	250.0	248.2	247.9	1.4	2.3	-105.24	-7.1	-26.1	27.1	23.5	7.457	
300.0	300.0	297.5	297.0	1.6	2.7	-51.18	-5.9	-30.8	31.1	26.9	7.384	
400.0	399.8	395.8	394.3	3.3	3.7	-47.77	-2.2	-43.3	39.6	33.4	6.384	
500.0	499.3	494.1	491.1	4.9	4.9	-45.10	5.2	-59.5	47.9	39.4	5.655	
600.0	598.0	591.3	585.5	6.2	5.9	-42.76	16.1	-79.5	56.4	45.9	5.395	SF
700.0	695.8	687.6	677.8	7.2	6.9	-42.36	28.4	-104.2	66.2	54.1	5.473	
800.0	792.4	783.4	768.1	8.2	7.6	-44.11	40.8	-133.5	77.3	64.0	5.825	
900.0	887.5	878.7	856.5	9.0	8.3	-47.02	53.4	-166.9	89.5	75.4	6.328	
1,000.0	980.9	974.7	943.6	9.8	8.8	-50.14	67.2	-204.6	102.8	87.9	6.926	
1,100.0	1,072.2	1,070.8	1,029.3	10.6	9.2	-53.02	83.2	-245.1	115.7	100.2	7.484	
1,200.0	1,161.3	1,168.3	1,114.8	11.2	9.6	-55.96	101.4	-288.2	127.5	111.2	7.843	
1,300.0	1,247.9	1,264.2	1,197.7	11.9	10.0	-59.35	120.3	-332.6	138.9	121.8	8.135	
1,400.0	1,331.8	1,361.1	1,280.0	12.5	10.4	-63.11	140.4	-379.5	150.0	131.9	8.281	
1,500.0	1,412.6	1,459.2	1,362.0	13.1	10.9	-67.09	162.5	-428.7	160.6	141.1	8.244	
1,550.4	1,452.2	1,509.6	1,404.0	13.2	11.1	-69.48	174.2	-454.0	165.5	145.2	8.174	
1,600.0	1,490.8	1,558.2	1,444.6	13.4	11.2	-72.01	185.4	-478.3	170.2	149.1	8.067	
1,700.0	1,568.5	1,654.7	1,525.3	13.7	12.0	-76.77	207.0	-526.6	181.2	158.4	7.933	
1,800.0	1,646.2	1,751.5	1,606.2	14.0	13.1	-81.16	227.4	-575.5	194.7	169.7	7.792	
1,900.0	1,723.9	1,850.6	1,688.5	14.3	14.2	-84.72	249.3	-626.2	208.8	181.5	7.644	
2,000.0	1,801.6	1,949.1	1,770.4	14.8	15.3	-87.82	271.1	-676.4	223.6	193.9	7.529	
2,100.0	1,879.3	2,047.8	1,852.7	16.0	16.3	-90.63	293.1	-726.4	238.6	206.5	7.432	
2,200.0	1,957.0	2,146.6	1,935.2	17.3	17.4	-93.17	315.0	-776.2	254.0	219.5	7.359	
2,300.0	2,034.7	2,245.0	2,017.3	18.6	18.5	-95.39	337.0	-825.6	269.5	232.6	7.302	
2,400.0	2,112.4	2,342.1	2,098.5	19.9	19.6	-97.38	358.5	-874.5	285.7	246.4	7.275	
2,500.0	2,190.1	2,442.3	2,182.2	21.2	20.7	-99.23	380.6	-924.8	302.2	260.5	7.252	
2,600.0	2,267.8	2,539.8	2,263.3	22.5	21.8	-100.70	402.9	-974.1	318.4	274.4	7.235	
2,700.0	2,345.5	2,642.1	2,348.9	23.8	23.0	-102.24	426.1	-1,025.2	334.8	288.4	7.212	
2,800.0	2,423.2	2,741.5	2,431.9	25.1	24.1	-103.54	449.6	-1,074.6	350.3	301.5	7.184	
2,900.0	2,500.9	2,836.5	2,511.0	26.4	25.2	-104.64	471.9	-1,122.2	366.3	315.3	7.182	
3,000.0	2,578.6	2,930.6	2,589.5	27.7	26.2	-105.66	492.9	-1,169.6	383.6	330.3	7.207	
3,100.0	2,656.3	3,030.2	2,673.1	29.0	27.3	-106.78	514.6	-1,219.3	401.4	345.9	7.231	
3,200.0	2,734.0	3,128.4	2,755.5	30.3	28.4	-107.79	536.2	-1,268.1	419.0	361.3	7.257	
3,300.0	2,811.7	3,224.8	2,836.3	31.6	29.5	-108.67	557.2	-1,316.3	437.0	377.1	7.291	
3,400.0	2,889.4	3,319.5	2,915.2	32.9	30.6	-109.36	577.5	-1,364.5	455.7	393.6	7.335	
3,500.0	2,967.1	3,416.3	2,996.4	34.2	31.7	-110.10	597.7	-1,413.4	474.9	410.6	7.383	
3,600.0	3,044.8	3,516.4	3,080.3	35.5	32.8	-110.81	618.6	-1,463.7	494.1	427.5	7.421	
3,700.0	3,122.5	3,615.6	3,163.0	36.8	33.9	-111.40	639.9	-1,514.0	512.9	444.1	7.452	
3,800.0	3,200.2	3,710.2	3,242.8	38.2	35.0	-112.06	659.5	-1,561.1	532.3	461.3	7.503	
3,900.0	3,277.9	3,810.5	3,327.2	39.5	36.1	-112.71	680.4	-1,611.0	551.6	478.4	7.540	
4,000.0	3,355.6	3,911.8	3,412.2	40.8	37.2	-113.27	701.9	-1,661.7	570.7	495.3	7.568	
4,100.0	3,433.3	4,013.3	3,497.4	42.1	38.3	-113.81	724.5	-1,712.1	588.8	511.1	7.584	
4,200.0	3,511.0	4,111.3	3,580.9	43.4	39.4	-114.52	745.6	-1,758.9	607.2	527.5	7.618	
4,300.0	3,588.7	4,219.9	3,673.2	44.7	40.6	-115.25	770.1	-1,810.6	624.8	542.8	7.623	
4,400.0	3,666.4	4,327.0	3,763.1	46.0	41.8	-115.78	796.2	-1,862.5	640.7	556.4	7.606	
4,500.0	3,744.1	4,424.8	3,844.9	47.3	42.9	-116.19	820.7	-1,910.4	656.0	569.6	7.595	
4,600.0	3,821.8	4,518.3	3,923.6	48.6	43.9	-116.66	843.5	-1,955.2	671.9	583.5	7.603	
4,700.0	3,899.5	4,612.4	4,004.2	50.0	44.9	-117.31	865.6	-1,998.5	688.6	598.4	7.628	
4,800.0	3,977.2	4,711.6	4,090.1	51.3	45.8	-118.12	888.3	-2,042.5	705.7	613.6	7.659	
4,900.0	4,054.9	4,805.4	4,172.0	52.6	46.8	-118.93	909.7	-2,083.2	723.0	629.2	7.704	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - RWF 322-8 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b> 295-OWSG (REV5) MWD HDGM Standard												<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning	
4,929.8	4,078.0	4,832.4	4,195.6	53.0	47.0	-119.18	915.7	-2,094.8	728.4	634.0	7.721		
5,000.0	4,133.0	4,893.8	4,249.7	53.9	47.6	-119.91	928.9	-2,120.7	741.1	645.7	7.769		
5,100.0	4,213.0	4,990.8	4,335.6	55.1	48.5	-120.90	949.0	-2,160.8	758.7	661.7	7.819		
5,200.0	4,294.8	5,079.6	4,414.8	56.3	49.3	-121.67	967.1	-2,196.8	775.3	676.8	7.870		
5,300.0	4,378.2	5,169.9	4,496.5	57.4	50.0	-122.43	984.1	-2,231.4	791.7	691.8	7.925		
5,400.0	4,463.3	5,261.0	4,579.8	58.4	50.7	-123.13	1,000.4	-2,264.5	807.4	706.2	7.978		
5,500.0	4,550.0	5,344.9	4,657.5	59.4	51.3	-123.79	1,014.3	-2,292.9	822.7	720.4	8.045		
5,600.0	4,638.2	5,430.5	4,737.8	60.3	51.8	-124.46	1,026.6	-2,319.7	838.4	735.2	8.122		
5,700.0	4,727.7	5,521.2	4,823.8	61.1	52.4	-125.15	1,038.7	-2,345.8	853.4	749.3	8.194		
5,800.0	4,818.6	5,605.6	4,904.5	61.9	52.8	-125.78	1,048.8	-2,368.1	868.0	763.1	8.277		
5,900.0	4,910.7	5,685.1	4,981.3	62.6	53.2	-126.38	1,056.6	-2,387.2	883.0	777.6	8.378		
6,000.0	5,004.0	5,772.0	5,065.8	63.3	53.5	-126.97	1,063.6	-2,406.5	897.9	791.9	8.474		
6,100.0	5,098.3	5,861.0	5,152.6	63.9	53.9	-127.50	1,069.8	-2,425.0	912.1	805.6	8.564		
6,200.0	5,193.6	5,949.2	5,239.0	64.4	54.2	-127.95	1,074.9	-2,442.1	925.6	818.6	8.651		
6,300.0	5,289.7	6,049.9	5,338.0	64.9	54.5	-128.39	1,080.1	-2,459.4	937.9	830.3	8.713		
6,400.0	5,386.7	6,151.3	5,438.1	65.3	54.8	-128.78	1,085.6	-2,474.7	948.1	839.9	8.759		
6,500.0	5,484.4	6,247.0	5,532.8	65.7	55.0	-129.08	1,090.7	-2,487.7	956.5	847.8	8.799		
6,600.0	5,582.6	6,339.7	5,624.8	66.0	55.2	-129.35	1,095.1	-2,498.1	963.5	854.5	8.835		
6,700.0	5,681.4	6,425.0	5,709.7	66.2	55.3	-129.55	1,098.2	-2,506.3	969.7	860.5	8.877		
6,800.0	5,780.6	6,523.1	5,807.5	66.4	55.5	-129.73	1,101.0	-2,513.9	974.9	865.3	8.897		
6,900.0	5,880.2	6,628.0	5,912.1	66.6	55.6	-129.89	1,104.2	-2,519.6	977.8	867.9	8.894		
7,000.0	5,980.0	6,718.8	6,002.9	66.7	55.7	-129.98	1,106.8	-2,522.8	979.1	869.0	8.895		
7,100.0	6,079.9	6,807.7	6,091.7	66.8	55.7	-130.01	1,108.3	-2,524.6	979.5	869.3	8.894		
7,159.1	6,139.0	6,864.7	6,148.6	66.8	55.7	-129.99	1,108.9	-2,525.1	979.2	869.0	8.887		
7,200.0	6,179.9	6,904.2	6,188.2	66.8	55.7	-129.99	1,109.3	-2,525.1	978.8	868.6	8.883		
7,300.0	6,279.9	7,002.2	6,286.2	66.8	55.7	-129.99	1,110.0	-2,524.3	978.0	867.8	8.875		
7,400.0	6,379.9	7,098.7	6,382.7	66.8	55.8	-129.99	1,110.5	-2,523.4	977.5	867.4	8.874		
7,432.8	6,412.7	7,128.7	6,412.7	66.8	55.8	-129.99	1,110.6	-2,523.1	977.5	867.4	8.877		
7,500.0	6,479.9	7,190.5	6,474.5	66.8	55.8	-129.99	1,110.4	-2,522.7	977.7	867.7	8.886		
7,600.0	6,579.9	7,284.6	6,568.6	66.8	55.7	-129.99	1,109.6	-2,522.2	978.5	868.6	8.904		
7,700.0	6,679.9	7,380.1	6,664.1	66.9	55.7	-129.99	1,108.2	-2,521.6	980.0	870.2	8.927		
7,800.0	6,779.9	7,478.3	6,762.3	66.9	55.7	-129.99	1,106.6	-2,521.1	981.6	872.0	8.949		
7,900.0	6,879.9	7,573.3	6,857.3	66.9	55.7	-129.99	1,104.7	-2,520.9	983.7	874.1	8.978		
8,000.0	6,979.9	7,666.9	6,950.8	66.9	55.7	-129.99	1,102.1	-2,520.5	986.4	877.0	9.016		
8,100.0	7,079.9	7,771.0	7,054.9	66.9	55.7	-129.99	1,099.3	-2,520.0	989.1	879.7	9.040		
8,200.0	7,179.9	7,869.4	7,153.2	66.9	55.7	-129.99	1,096.8	-2,519.5	991.6	882.3	9.070		
8,300.0	7,279.9	7,966.6	7,250.4	67.0	55.7	-129.99	1,094.0	-2,518.2	994.5	885.4	9.108		
8,400.0	7,379.9	8,074.6	7,358.3	67.0	55.7	-129.99	1,091.1	-2,515.9	997.3	888.1	9.135		
8,500.0	7,479.9	8,178.4	7,462.1	67.0	55.6	-129.99	1,089.3	-2,513.7	999.0	889.9	9.156		
8,600.0	7,579.9	8,280.2	7,563.8	67.0	55.6	-129.99	1,087.5	-2,511.7	1,000.8	891.8	9.180		
8,700.0	7,679.9	8,383.7	7,667.3	67.0	55.6	-129.99	1,086.1	-2,510.5	1,002.2	893.2	9.195		
8,800.0	7,779.9	8,471.6	7,755.2	67.0	55.6	-129.99	1,084.6	-2,510.1	1,004.0	895.2	9.229		
8,900.0	7,879.9	8,565.9	7,849.4	67.1	55.6	-129.99	1,081.9	-2,510.0	1,006.8	898.2	9.265		
9,000.0	7,979.9	8,668.7	7,952.2	67.1	55.6	-129.99	1,078.9	-2,510.1	1,009.8	901.1	9.290		
9,100.0	8,079.9	8,771.2	8,054.7	67.1	55.6	-129.99	1,076.2	-2,509.9	1,012.4	903.7	9.314		
9,200.0	8,179.9	8,873.6	8,157.0	67.1	55.6	-129.99	1,073.8	-2,509.0	1,014.8	906.1	9.338		
9,300.0	8,279.9	8,967.0	8,250.4	67.1	55.6	-129.99	1,071.4	-2,508.1	1,017.4	908.9	9.376		
9,400.0	8,379.9	9,070.8	8,354.2	67.2	55.6	-129.99	1,068.4	-2,507.7	1,020.2	911.7	9.400		
9,500.0	8,479.9	9,190.8	8,474.1	67.2	55.7	-129.99	1,066.6	-2,508.2	1,021.7	912.9	9.388		
9,600.0	8,579.9	9,299.1	8,582.4	67.2	55.7	-129.99	1,066.6	-2,510.2	1,021.6	912.5	9.366		
9,662.1	8,642.0	9,358.7	8,642.0	67.2	55.7	-129.99	1,066.7	-2,511.8	1,021.5	912.4	9.357		
9,700.0	8,679.9	9,393.5	8,676.8	67.2	55.8	-129.99	1,066.6	-2,512.8	1,021.6	912.4	9.355		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b>	Sec 8, T6S, R94W - RWF 322-8 - Wellbore #1 - Wellbore #1										<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b>	295-OWSG (REV5) MWD HDGM Standard										<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
9,800.0	8,779.9	9,490.0	8,773.3	67.2	55.8	179.03	1,066.0	-2,516.5	1,022.2	912.8	9.345	
9,900.0	8,879.9	9,575.0	8,858.1	67.3	55.9	179.24	1,065.4	-2,520.2	1,022.9	913.5	9.349	
9,981.1	8,961.0	9,575.0	8,858.1	67.3	55.9	179.24	1,065.4	-2,520.2	1,027.9	919.8	9.510	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - RWF 422-8 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 205-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-138.22	-23.7	-21.2	31.7			
100.0	100.0	99.4	99.4	0.4	0.7	-135.31	-23.2	-22.9	32.6	31.5	29.457	ES
200.0	200.0	198.6	198.4	1.3	1.4	-127.54	-21.7	-28.2	35.6	33.0	13.704	
250.0	250.0	247.7	247.4	1.4	2.0	-122.61	-20.7	-32.3	38.4	35.2	12.045	
300.0	300.0	296.6	296.0	1.6	2.6	-67.74	-19.6	-37.5	42.3	38.5	11.085	
400.0	399.8	394.2	392.4	3.3	4.2	-61.92	-16.3	-51.9	51.9	46.0	8.726	
500.0	499.3	490.8	486.8	4.9	5.6	-58.15	-10.7	-71.4	63.7	55.5	7.804	
600.0	598.0	586.6	579.0	6.2	6.8	-55.85	-3.0	-96.1	77.5	67.4	7.716	SF
700.0	695.8	681.6	669.0	7.2	7.7	-54.87	6.1	-125.3	92.9	81.3	8.056	
800.0	792.4	775.4	756.2	8.2	8.4	-55.04	15.9	-158.5	109.7	97.0	8.648	
900.0	887.5	868.0	840.3	9.0	9.1	-56.05	25.8	-195.8	128.6	114.9	9.405	
1,000.0	980.9	962.3	923.9	9.8	9.6	-57.10	37.5	-237.8	148.4	133.8	10.156	
1,100.0	1,072.2	1,055.1	1,004.4	10.6	10.0	-58.04	51.4	-281.8	167.9	152.5	10.903	
1,200.0	1,161.3	1,153.4	1,088.6	11.2	10.3	-59.81	66.4	-330.3	186.6	170.2	11.392	
1,300.0	1,247.9	1,248.8	1,170.0	11.9	10.6	-62.34	80.9	-377.8	203.7	186.4	11.801	
1,400.0	1,331.8	1,345.0	1,251.9	12.5	11.0	-65.68	95.0	-426.5	220.1	201.8	12.027	
1,500.0	1,412.6	1,440.3	1,332.9	13.1	11.3	-69.73	108.1	-474.9	236.2	216.7	12.099	
1,550.4	1,452.2	1,488.8	1,374.0	13.2	11.4	-72.00	114.5	-499.6	244.5	224.3	12.081	
1,600.0	1,490.8	1,536.1	1,414.3	13.4	11.6	-74.46	120.7	-523.8	252.9	231.9	12.032	
1,700.0	1,568.5	1,631.3	1,495.5	13.7	12.1	-79.10	132.5	-572.0	271.5	248.7	11.890	
1,800.0	1,646.2	1,728.8	1,579.1	14.0	13.1	-83.40	144.2	-620.9	291.6	266.7	11.699	
1,900.0	1,723.9	1,828.8	1,664.8	14.3	14.2	-87.15	157.3	-670.7	312.1	284.9	11.471	
2,000.0	1,801.6	1,929.8	1,751.2	14.8	15.2	-90.32	172.0	-721.0	332.5	302.9	11.244	
2,100.0	1,879.3	2,033.2	1,839.9	16.0	16.3	-93.18	188.8	-771.3	351.6	319.6	10.989	
2,200.0	1,957.0	2,131.7	1,923.8	17.3	17.4	-95.39	206.3	-819.8	370.5	336.2	10.792	
2,300.0	2,034.7	2,228.7	2,006.9	18.6	18.4	-97.52	223.3	-866.8	389.7	353.1	10.642	
2,400.0	2,112.4	2,324.0	2,088.5	19.9	19.4	-99.38	239.8	-913.2	409.7	370.8	10.541	
2,500.0	2,190.1	2,419.2	2,170.2	21.2	20.4	-101.12	255.7	-959.5	430.6	389.5	10.478	
2,600.0	2,267.8	2,513.5	2,250.8	22.5	21.4	-102.61	271.4	-1,005.9	452.1	408.8	10.444	
2,700.0	2,345.5	2,606.6	2,330.8	23.8	22.3	-104.07	285.8	-1,051.3	474.8	429.4	10.452	
2,800.0	2,423.2	2,703.4	2,414.9	25.1	23.3	-105.69	299.7	-1,097.0	498.2	450.7	10.473	
2,900.0	2,500.9	2,804.7	2,502.6	26.4	24.3	-107.13	315.2	-1,145.4	521.4	471.6	10.469	
3,000.0	2,578.6	2,899.1	2,583.5	27.7	25.3	-108.21	330.5	-1,191.4	544.2	492.3	10.484	
3,100.0	2,656.3	2,989.6	2,661.9	29.0	26.2	-109.29	343.9	-1,234.8	568.4	514.5	10.543	
3,200.0	2,734.0	3,090.3	2,748.9	30.3	27.3	-110.38	358.4	-1,283.4	593.1	537.0	10.573	
3,300.0	2,811.7	3,195.5	2,839.1	31.6	28.4	-111.32	375.4	-1,334.6	616.6	558.2	10.561	
3,400.0	2,889.4	3,291.6	2,921.4	32.9	29.4	-112.08	391.5	-1,381.5	639.5	579.0	10.572	
3,500.0	2,967.1	3,383.9	3,001.1	34.2	30.3	-112.88	406.3	-1,425.7	663.1	600.6	10.612	
3,600.0	3,044.8	3,485.3	3,088.2	35.5	31.4	-113.61	422.6	-1,475.0	686.9	622.3	10.623	
3,700.0	3,122.5	3,580.1	3,169.3	36.8	32.4	-114.20	438.3	-1,521.6	710.4	643.7	10.646	
3,800.0	3,200.2	3,673.8	3,250.1	38.2	33.3	-114.85	453.2	-1,566.5	734.4	665.7	10.686	
3,900.0	3,277.9	3,768.3	3,331.5	39.5	34.3	-115.44	467.9	-1,612.2	758.9	688.1	10.728	
4,000.0	3,355.6	3,861.2	3,411.8	40.8	35.3	-116.02	482.0	-1,656.9	783.8	711.1	10.780	
4,100.0	3,433.3	3,948.7	3,487.3	42.1	36.2	-116.51	494.7	-1,699.2	809.4	734.9	10.858	
4,200.0	3,511.0	4,049.1	3,574.6	43.4	37.2	-117.14	508.5	-1,746.7	835.8	759.2	10.910	
4,300.0	3,588.7	4,163.0	3,673.2	44.7	38.3	-117.75	525.9	-1,801.1	860.8	781.9	10.903	
4,400.0	3,666.4	4,262.8	3,758.8	46.0	39.4	-118.18	542.5	-1,849.6	884.6	803.6	10.913	
4,500.0	3,744.1	4,359.0	3,840.6	47.3	40.4	-118.47	558.7	-1,897.5	908.4	825.2	10.924	
4,600.0	3,821.8	4,445.0	3,914.3	48.6	41.3	-118.78	572.5	-1,939.7	932.8	847.8	10.973	
4,700.0	3,899.5	4,547.5	4,002.8	50.0	42.4	-119.20	588.7	-1,988.8	957.6	870.4	10.991	
4,800.0	3,977.2	4,653.1	4,093.4	51.3	43.5	-119.56	606.2	-2,040.2	981.6	892.2	10.988	
4,900.0	4,054.9	4,753.4	4,179.7	52.6	44.5	-119.92	623.5	-2,088.4	1,004.9	913.5	10.993	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - RWF 422-8 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 205-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
4,929.8	4,078.0	4,781.1	4,203.6	53.0	44.8	-120.04	628.2	-2,101.4	1,011.9	919.9	11.002	
5,000.0	4,133.0	4,846.9	4,261.0	53.9	45.4	-120.56	639.3	-2,131.7	1,028.1	934.8	11.022	
5,100.0	4,213.0	4,941.4	4,344.4	55.1	46.3	-121.28	655.1	-2,173.3	1,050.1	955.0	11.045	
5,200.0	4,294.8	5,030.5	4,424.0	56.3	47.1	-121.93	669.3	-2,210.7	1,071.1	974.4	11.080	
5,300.0	4,378.2	5,114.0	4,500.0	57.4	47.8	-122.59	681.6	-2,242.9	1,091.7	993.6	11.134	
5,400.0	4,463.3	5,207.5	4,586.3	58.4	48.5	-123.28	694.4	-2,276.6	1,111.4	1,012.0	11.177	
5,500.0	4,550.0	5,296.0	4,668.5	59.4	49.1	-123.87	706.0	-2,307.1	1,130.3	1,029.6	11.225	
5,600.0	4,638.2	5,380.7	4,747.9	60.3	49.6	-124.40	716.1	-2,335.0	1,148.5	1,046.6	11.281	
5,700.0	4,727.7	5,462.7	4,825.4	61.1	50.1	-124.88	724.8	-2,360.4	1,166.2	1,063.4	11.346	
5,800.0	4,818.6	5,538.0	4,897.3	61.9	50.5	-125.37	731.5	-2,381.4	1,183.9	1,080.3	11.435	
5,900.0	4,910.7	5,613.6	4,970.4	62.6	50.9	-125.89	736.6	-2,400.0	1,201.8	1,097.7	11.540	
6,000.0	5,004.0	5,696.0	5,050.8	63.3	51.2	-126.46	740.7	-2,417.6	1,219.7	1,115.0	11.648	
6,100.0	5,098.3	5,790.8	5,143.8	63.9	51.5	-127.04	744.8	-2,435.8	1,236.5	1,131.1	11.733	
6,200.0	5,193.6	5,885.3	5,236.8	64.4	51.8	-127.55	748.5	-2,452.3	1,251.8	1,145.8	11.810	
6,300.0	5,289.7	5,976.5	5,326.6	64.9	52.1	-127.96	751.6	-2,467.3	1,265.8	1,159.3	11.883	
6,400.0	5,386.7	6,066.1	5,415.1	65.3	52.3	-128.31	754.1	-2,480.8	1,278.5	1,171.6	11.952	
6,500.0	5,484.4	6,151.3	5,499.6	65.7	52.5	-128.63	755.7	-2,491.8	1,290.4	1,183.1	12.026	
6,600.0	5,582.6	6,242.0	5,589.7	66.0	52.7	-128.90	756.5	-2,502.1	1,301.2	1,193.6	12.088	
6,700.0	5,681.4	6,335.5	5,682.8	66.2	52.8	-129.13	756.8	-2,511.1	1,310.7	1,202.8	12.140	
6,800.0	5,780.6	6,442.0	5,789.0	66.4	52.9	-129.36	757.2	-2,518.4	1,318.3	1,209.9	12.165	
6,900.0	5,880.2	6,545.8	5,892.8	66.6	53.0	-129.59	758.0	-2,522.2	1,323.5	1,214.9	12.184	
7,000.0	5,980.0	6,644.2	5,991.2	66.7	53.1	-129.76	759.0	-2,524.3	1,326.6	1,217.8	12.194	
7,100.0	6,079.9	6,740.6	6,087.5	66.8	53.1	-129.81	759.5	-2,525.9	1,328.2	1,219.2	12.193	
7,159.1	6,139.0	6,807.2	6,154.2	66.8	53.1	-129.70	760.1	-2,526.9	1,328.0	1,218.9	12.174	
7,200.0	6,179.9	6,844.4	6,191.3	66.8	53.1	-129.72	760.4	-2,527.4	1,327.6	1,218.5	12.169	
7,300.0	6,279.9	6,935.9	6,282.9	66.8	53.2	-129.75	761.0	-2,528.0	1,327.0	1,217.9	12.163	
7,328.5	6,308.4	6,961.5	6,308.4	66.8	53.2	-129.76	761.0	-2,528.2	1,327.0	1,217.9	12.164	
7,400.0	6,379.9	7,029.4	6,376.4	66.8	53.2	-129.77	760.9	-2,528.6	1,327.1	1,218.1	12.165	
7,500.0	6,479.9	7,128.1	6,475.0	66.8	53.2	-129.77	760.6	-2,528.6	1,327.5	1,218.4	12.169	
7,600.0	6,579.9	7,224.4	6,571.3	66.8	53.2	-129.76	760.1	-2,528.2	1,327.9	1,218.9	12.179	
7,700.0	6,679.9	7,316.0	6,662.9	66.9	53.2	-129.74	759.3	-2,527.8	1,328.8	1,219.9	12.199	
7,800.0	6,779.9	7,412.9	6,759.8	66.9	53.2	-129.72	757.7	-2,527.3	1,330.4	1,221.6	12.220	
7,900.0	6,879.9	7,514.1	6,861.0	66.9	53.2	-129.68	756.4	-2,526.3	1,331.8	1,222.9	12.236	
8,000.0	6,979.9	7,609.0	6,955.9	66.9	53.2	-129.64	754.9	-2,525.4	1,333.4	1,224.6	12.261	
8,100.0	7,079.9	7,701.8	7,048.6	66.9	53.2	-129.61	753.0	-2,524.7	1,335.4	1,226.8	12.292	
8,200.0	7,179.9	7,800.9	7,147.7	66.9	53.2	-129.59	750.5	-2,524.2	1,337.9	1,229.3	12.320	
8,300.0	7,279.9	7,907.1	7,253.9	67.0	53.2	-129.60	748.2	-2,524.5	1,340.1	1,231.4	12.333	
8,400.0	7,379.9	8,006.2	7,352.9	67.0	53.2	-129.60	746.3	-2,524.5	1,342.0	1,233.4	12.352	
8,500.0	7,479.9	8,101.9	7,448.7	67.0	53.2	-129.61	744.2	-2,524.6	1,344.2	1,235.6	12.377	
8,600.0	7,579.9	8,195.4	7,542.1	67.0	53.2	-129.65	741.8	-2,525.7	1,346.7	1,238.1	12.403	
8,700.0	7,679.9	8,291.4	7,638.0	67.0	53.3	-129.74	738.9	-2,527.6	1,349.7	1,241.1	12.426	
8,800.0	7,779.9	8,388.8	7,735.4	67.0	53.3	-129.82	735.8	-2,529.7	1,352.9	1,244.2	12.449	
8,900.0	7,879.9	8,489.4	7,845.9	67.1	53.4	-129.92	732.5	-2,531.9	1,355.9	1,247.0	12.454	
9,000.0	7,979.9	8,603.3	7,949.7	67.1	53.4	-129.99	730.1	-2,533.7	1,358.2	1,249.2	12.462	
9,100.0	8,079.9	8,702.4	8,048.8	67.1	53.5	-129.94	727.8	-2,535.3	1,360.5	1,251.5	12.475	
9,200.0	8,179.9	8,811.8	8,158.2	67.1	53.5	-129.86	725.8	-2,537.1	1,362.4	1,253.2	12.473	
9,300.0	8,279.9	8,915.8	8,262.2	67.1	53.6	-129.78	724.3	-2,539.2	1,363.9	1,254.5	12.470	
9,400.0	8,379.9	9,010.4	8,356.7	67.2	53.6	-129.69	723.0	-2,541.1	1,365.2	1,255.8	12.476	
9,500.0	8,479.9	9,097.1	8,443.4	67.2	53.7	-129.63	721.1	-2,542.5	1,367.4	1,258.0	12.502	
9,600.0	8,579.9	9,187.4	8,533.7	67.2	53.7	-129.56	718.3	-2,544.2	1,370.5	1,261.1	12.531	
9,700.0	8,679.9	9,283.3	8,629.4	67.2	53.8	-129.48	714.9	-2,546.3	1,374.0	1,264.6	12.557	
9,800.0	8,779.9	9,380.3	8,726.4	67.2	53.9	-129.39	711.3	-2,548.4	1,377.8	1,268.3	12.583	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b>	Sec 8, T6S, R94W - RWF 422-8 - Wellbore #1 - Wellbore #1										<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b>	205-OWSG (REV5) MWD HDGM Standard										<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
9,900.0	8,879.9	9,475.7	8,821.7	67.3	53.9	-179.32	707.4	-2,550.1	1,381.9	1,272.3	12.617	
9,981.1	8,961.0	9,525.0	8,870.9	67.3	54.0	-179.29	705.4	-2,550.9	1,385.6	1,276.4	12.685	



<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design      Sec 8, T6S, R94W - RWF 514-4 - Wellbore #1 - Plan #1											Offset Site Error:	0.0 usft
Survey Program:      0-OWSG (REV5) MWD HDGM Standard											Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	7.90	38.6	5.4	39.0			
100.0	100.0	100.0	100.0	0.4	0.4	7.90	38.6	5.4	39.0	38.1	44.777	
106.9	106.9	106.9	106.9	0.5	0.5	7.90	38.6	5.4	39.0	38.0	40.628	CC
200.0	200.0	198.7	198.7	1.3	1.2	8.47	39.5	5.9	40.0	37.6	16.548	ES
250.0	250.0	248.0	247.9	1.4	1.4	9.64	41.6	7.1	42.2	39.4	15.194	
300.0	300.0	297.9	297.8	1.6	1.7	62.01	43.8	8.4	44.4	41.2	14.086	
400.0	399.8	397.1	396.8	3.3	2.0	69.37	48.5	10.9	47.4	43.3	11.540	
500.0	499.3	494.0	493.3	4.9	3.4	77.61	57.4	12.2	53.5	47.7	9.243	SF
600.0	598.0	590.1	588.2	6.2	4.5	84.04	72.5	11.9	64.4	57.6	9.410	
700.0	695.8	683.7	679.5	7.2	5.4	89.83	92.8	12.9	81.5	73.7	10.459	
800.0	792.4	774.8	767.0	8.2	6.8	94.69	117.8	16.1	105.5	96.3	11.375	
900.0	887.5	862.8	849.9	9.0	8.1	98.23	146.7	21.4	136.3	125.6	12.710	
1,000.0	980.9	947.2	927.7	9.8	9.2	100.61	178.8	28.5	173.4	161.4	14.391	
1,100.0	1,072.2	1,027.8	1,000.1	10.6	10.1	102.07	213.3	37.0	216.4	203.1	16.272	
1,200.0	1,161.3	1,100.0	1,063.1	11.2	10.8	102.71	247.2	46.1	264.9	250.5	18.397	
1,300.0	1,247.9	1,176.7	1,128.1	11.9	11.5	103.06	286.5	57.3	318.2	302.5	20.301	
1,400.0	1,331.8	1,245.0	1,184.0	12.5	12.1	102.84	323.9	68.5	376.0	359.2	22.346	
1,500.0	1,412.6	1,309.1	1,234.8	13.1	12.6	102.25	361.3	80.1	437.9	420.0	24.423	
1,550.4	1,452.2	1,342.9	1,260.9	13.2	12.7	101.91	381.8	86.5	470.4	452.0	25.547	
1,600.0	1,490.8	1,380.0	1,289.5	13.4	12.8	102.87	404.3	93.7	502.7	483.7	26.476	
1,700.0	1,568.5	1,454.8	1,347.2	13.7	12.9	104.47	449.8	108.1	568.0	547.8	28.099	
1,800.0	1,646.2	1,529.7	1,404.8	14.0	13.1	105.76	495.2	122.5	633.6	612.1	29.461	
1,900.0	1,723.9	1,604.5	1,462.5	14.3	13.4	106.80	540.7	137.0	699.3	676.4	30.609	
2,000.0	1,801.6	1,679.3	1,520.1	14.8	13.6	107.67	586.1	151.4	765.1	740.9	31.583	
2,100.0	1,879.3	1,754.1	1,577.8	16.0	13.8	108.40	631.6	165.8	831.0	805.3	32.414	
2,200.0	1,957.0	1,829.0	1,635.4	17.3	14.0	109.03	677.1	180.2	896.9	869.9	33.130	
2,300.0	2,034.7	1,903.8	1,693.1	18.6	14.3	109.57	722.5	194.6	962.9	934.4	33.741	
2,400.0	2,112.4	1,978.6	1,750.8	19.9	14.6	110.04	768.0	209.1	1,029.0	999.0	34.260	
2,500.0	2,190.1	2,053.5	1,808.4	21.2	15.0	110.46	813.5	223.5	1,095.1	1,063.5	34.732	
2,600.0	2,267.8	2,128.3	1,866.1	22.5	15.6	110.82	858.9	237.9	1,161.2	1,128.1	35.141	
2,700.0	2,345.5	2,203.1	1,923.7	23.8	16.3	111.15	904.4	252.3	1,227.3	1,192.8	35.501	
2,800.0	2,423.2	2,277.9	1,981.4	25.1	17.1	111.45	949.8	266.8	1,293.5	1,257.4	35.817	
2,900.0	2,500.9	2,352.8	2,039.1	26.4	17.9	111.71	995.3	281.2	1,359.7	1,322.0	36.099	
3,000.0	2,578.6	2,427.6	2,096.7	27.7	18.7	111.96	1,040.8	295.6	1,425.8	1,386.6	36.351	
3,100.0	2,656.3	2,502.4	2,154.4	29.0	19.4	112.18	1,086.2	310.0	1,492.1	1,451.3	36.578	
3,200.0	2,734.0	2,577.3	2,212.0	30.3	20.2	112.38	1,131.7	324.5	1,558.3	1,515.9	36.780	
3,300.0	2,811.7	2,652.1	2,269.7	31.6	21.0	112.56	1,177.2	338.9	1,624.5	1,580.5	36.964	
3,400.0	2,889.4	2,726.9	2,327.3	32.9	21.8	112.73	1,222.6	353.3	1,690.7	1,645.2	37.131	
3,500.0	2,967.1	2,801.7	2,385.0	34.2	22.6	112.89	1,268.1	367.7	1,757.0	1,709.8	37.282	
3,600.0	3,044.8	2,876.6	2,442.7	35.5	23.4	113.04	1,313.5	382.2	1,823.2	1,774.5	37.420	
3,700.0	3,122.5	2,951.4	2,500.3	36.8	24.2	113.18	1,359.0	396.6	1,889.5	1,839.2	37.547	
3,800.0	3,200.2	3,026.2	2,558.0	38.2	25.0	113.30	1,404.5	411.0	1,955.7	1,903.8	37.663	
3,900.0	3,277.9	3,101.0	2,615.6	39.5	25.8	113.42	1,449.9	425.4	2,022.0	1,968.5	37.769	
4,000.0	3,355.6	3,175.9	2,673.3	40.8	26.6	113.53	1,495.4	439.9	2,088.3	2,033.1	37.868	
4,100.0	3,433.3	3,250.7	2,730.9	42.1	27.4	113.64	1,540.9	454.3	2,154.5	2,097.8	37.959	
4,200.0	3,511.0	3,325.5	2,788.6	43.4	28.2	113.73	1,586.3	468.7	2,220.8	2,162.4	38.043	
4,300.0	3,588.7	3,400.4	2,846.3	44.7	29.0	113.83	1,631.8	483.1	2,287.1	2,227.1	38.121	
4,400.0	3,666.4	3,475.2	2,903.9	46.0	29.8	113.91	1,677.2	497.5	2,353.4	2,291.8	38.194	
4,500.0	3,744.1	3,550.0	2,961.6	47.3	30.6	114.00	1,722.7	512.0	2,419.7	2,356.4	38.261	
4,600.0	3,821.8	3,624.8	3,019.2	48.6	31.4	114.08	1,768.2	526.4	2,486.0	2,421.1	38.325	
4,700.0	3,899.5	3,699.7	3,076.9	50.0	32.2	114.15	1,813.6	540.8	2,552.3	2,485.8	38.384	
4,800.0	3,977.2	3,774.5	3,134.5	51.3	33.0	114.22	1,859.1	555.2	2,618.6	2,550.4	38.439	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - RWF 514-4 - Wellbore #1 - Plan #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
4,900.0	4,054.9	3,849.3	3,192.2	52.6	33.8	114.29	1,904.6	569.7	2,684.9	2,615.1	38.491	
4,929.8	4,078.0	3,871.6	3,209.4	53.0	34.1	114.31	1,918.1	574.0	2,704.6	2,634.4	38.507	
5,000.0	4,133.0	3,924.4	3,250.0	53.9	34.6	115.31	1,950.2	584.1	2,750.9	2,679.5	38.542	
5,100.0	4,213.0	4,000.3	3,308.5	55.1	35.4	116.63	1,996.3	598.8	2,816.0	2,743.1	38.586	
5,200.0	4,294.8	4,076.9	3,367.6	56.3	36.3	117.83	2,042.8	613.5	2,880.1	2,805.6	38.625	
5,300.0	4,378.2	4,154.3	3,427.2	57.4	37.1	118.92	2,089.9	628.5	2,943.1	2,867.0	38.661	
5,400.0	4,463.3	4,232.4	3,487.4	58.4	37.9	119.90	2,137.3	643.5	3,005.0	2,927.3	38.694	
5,500.0	4,550.0	4,311.0	3,548.0	59.4	38.8	120.78	2,185.1	658.7	3,065.6	2,986.5	38.726	
5,600.0	4,638.2	4,390.2	3,608.9	60.3	39.6	121.57	2,233.2	673.9	3,125.1	3,044.5	38.756	
5,700.0	4,727.7	4,469.8	3,670.3	61.1	40.5	122.28	2,281.5	689.3	3,183.4	3,101.3	38.787	
5,800.0	4,818.6	4,549.7	3,731.9	61.9	41.4	122.90	2,330.1	704.7	3,240.4	3,157.0	38.817	
5,900.0	4,910.7	4,629.9	3,793.7	62.6	42.2	123.45	2,378.8	720.1	3,296.2	3,211.4	38.849	
6,000.0	5,004.0	4,710.3	3,855.6	63.3	43.1	123.94	2,427.7	735.6	3,350.8	3,264.6	38.882	
6,100.0	5,098.3	4,790.9	3,917.7	63.9	44.0	124.36	2,476.6	751.2	3,404.1	3,316.6	38.919	
6,200.0	5,193.6	4,871.5	3,979.8	64.4	44.8	124.71	2,525.6	766.7	3,456.1	3,367.4	38.958	
6,300.0	5,289.7	4,952.2	4,042.0	64.9	45.7	125.02	2,574.6	782.2	3,506.9	3,417.0	39.002	
6,400.0	5,386.7	5,032.7	4,104.0	65.3	46.6	125.27	2,623.5	797.8	3,556.5	3,465.4	39.051	
6,500.0	5,484.4	5,113.0	4,165.9	65.7	47.4	125.48	2,672.3	813.3	3,604.8	3,512.6	39.106	
6,600.0	5,582.6	5,193.1	4,227.7	66.0	48.3	125.64	2,721.0	828.7	3,651.9	3,558.7	39.167	
6,700.0	5,681.4	5,272.9	4,289.1	66.2	49.2	125.76	2,769.5	844.1	3,697.9	3,603.6	39.235	
6,800.0	5,780.6	5,352.4	4,350.3	66.4	50.0	125.84	2,817.7	859.4	3,742.7	3,647.5	39.312	
6,900.0	5,880.2	5,432.8	4,412.2	66.6	50.8	125.90	2,865.9	874.7	3,788.4	3,693.4	39.391	
7,000.0	5,980.0	5,513.0	4,474.4	66.7	51.6	125.95	2,914.1	890.0	3,834.3	3,739.3	39.470	
7,100.0	6,079.9	5,593.1	4,536.6	66.8	52.4	126.00	2,962.3	905.3	3,880.1	3,785.1	39.549	
7,159.1	6,139.0	5,652.9	4,596.9	66.8	53.2	126.04	3,010.5	920.5	3,925.9	3,830.9	39.628	
7,200.0	6,179.9	5,693.1	4,637.1	66.8	53.5	126.07	3,051.7	935.7	3,966.9	3,871.9	39.697	
7,300.0	6,279.9	5,793.1	4,737.1	66.8	54.3	126.10	3,102.9	950.9	4,012.9	3,917.9	39.766	
7,400.0	6,379.9	5,893.1	4,837.1	66.8	55.1	126.13	3,154.1	966.1	4,058.9	3,963.9	39.835	
7,500.0	6,479.9	5,993.1	4,937.1	66.8	55.9	126.16	3,205.3	981.3	4,104.9	4,009.9	39.904	
7,600.0	6,579.9	6,093.1	5,037.1	66.8	56.7	126.19	3,256.5	996.5	4,150.9	4,055.9	39.973	
7,700.0	6,679.9	6,193.1	5,137.1	66.9	57.5	126.22	3,307.7	1,011.7	4,196.9	4,101.9	40.042	
7,800.0	6,779.9	6,293.1	5,237.1	66.9	58.3	126.25	3,358.9	1,026.9	4,242.9	4,147.9	40.111	
7,900.0	6,879.9	6,393.1	5,337.1	66.9	59.1	126.28	3,410.1	1,042.1	4,288.9	4,193.9	40.180	
8,000.0	6,979.9	6,493.1	5,437.1	66.9	59.9	126.31	3,461.3	1,057.3	4,334.9	4,239.9	40.249	
8,100.0	7,079.9	6,593.1	5,537.1	66.9	60.7	126.34	3,512.5	1,072.5	4,380.9	4,285.9	40.318	
8,200.0	7,179.9	6,693.1	5,637.1	66.9	61.5	126.37	3,563.7	1,087.7	4,426.9	4,331.9	40.387	
8,300.0	7,279.9	6,793.1	5,737.1	67.0	62.3	126.40	3,614.9	1,102.9	4,472.9	4,377.9	40.456	
8,400.0	7,379.9	6,893.1	5,837.1	67.0	63.1	126.43	3,666.1	1,118.1	4,518.9	4,423.9	40.525	
8,500.0	7,479.9	6,993.1	5,937.1	67.0	63.9	126.46	3,717.3	1,133.3	4,564.9	4,469.9	40.594	
8,600.0	7,579.9	7,093.1	6,037.1	67.0	64.7	126.49	3,768.5	1,148.5	4,610.9	4,515.9	40.663	
8,700.0	7,679.9	7,193.1	6,137.1	67.0	65.5	126.52	3,819.7	1,163.7	4,656.9	4,561.9	40.732	
8,800.0	7,779.9	7,293.1	6,237.1	67.0	66.3	126.55	3,870.9	1,178.9	4,702.9	4,607.9	40.801	
8,900.0	7,879.9	7,393.1	6,337.1	67.1	67.1	126.58	3,922.1	1,194.1	4,748.9	4,653.9	40.870	
9,000.0	7,979.9	7,493.1	6,437.1	67.1	67.9	126.61	3,973.3	1,209.3	4,794.9	4,699.9	40.939	
9,100.0	8,079.9	7,593.1	6,537.1	67.1	68.7	126.64	4,024.5	1,224.5	4,840.9	4,745.9	41.008	
9,200.0	8,179.9	7,693.1	6,637.1	67.1	69.5	126.67	4,075.7	1,239.7	4,886.9	4,791.9	41.077	
9,300.0	8,279.9	7,793.1	6,737.1	67.1	70.3	126.70	4,126.9	1,254.9	4,932.9	4,837.9	41.146	
9,400.0	8,379.9	7,893.1	6,837.1	67.2	71.1	126.73	4,178.1	1,270.1	4,978.9	4,883.9	41.215	
9,500.0	8,479.9	7,993.1	6,937.1	67.2	71.9	126.76	4,229.3	1,285.3	5,024.9	4,929.9	41.284	
9,600.0	8,579.9	8,093.1	7,037.1	67.2	72.7	126.79	4,280.5	1,300.5	5,070.9	4,975.9	41.353	
9,700.0	8,679.9	8,193.1	7,137.1	67.2	73.5	126.82	4,331.7	1,315.7	5,116.9	5,021.9	41.422	
9,800.0	8,779.9	8,293.1	7,237.1	67.2	74.3	126.85	4,382.9	1,330.9	5,162.9	5,067.9	41.491	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - RWF 514-4 - Wellbore #1 - Plan #1												<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b> 0-OWSG (REV5) MWD HDGM Standard												<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
9,900.0	8,879.9	10,044.4	8,879.9	67.3	61.9	69.04	3,466.9	1,065.4	3,854.3	3,738.7	33.341		
9,981.1	8,961.0	10,125.5	8,961.0	67.3	61.9	69.04	3,466.9	1,065.4	3,854.3	3,738.6	33.334		

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - RWF 521-8 - Wellbore #1 - Plan #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-66.71	4.0	-9.3	10.1			
100.0	100.0	100.0	100.0	0.4	0.4	-66.71	4.0	-9.3	10.1	9.3	11.640	CC
200.0	200.0	199.5	199.5	1.3	1.5	-65.11	4.9	-10.7	11.8	9.0	4.285	ES
250.0	250.0	249.1	249.0	1.4	2.6	-63.28	6.5	-12.9	14.5	10.5	3.675	
300.0	300.0	298.6	298.3	1.6	3.6	-11.43	8.8	-16.2	17.8	12.6	3.437	
400.0	399.8	397.3	396.3	3.3	5.2	-10.60	15.4	-25.8	24.5	16.2	2.932	
500.0	499.3	495.6	493.2	4.9	6.4	-10.90	25.0	-39.6	31.3	20.1	2.792	
600.0	598.0	593.6	588.8	6.2	7.4	-11.74	37.3	-57.3	37.9	24.5	2.830	
700.0	695.8	691.3	682.8	7.2	8.3	-12.86	52.3	-79.0	44.6	29.3	2.916	
800.0	792.4	788.7	775.1	8.2	9.1	-14.15	70.0	-104.6	51.2	34.3	3.021	
900.0	887.5	885.7	865.4	9.0	9.9	-15.55	90.2	-133.8	57.8	39.4	3.135	
1,000.0	980.9	982.5	953.5	9.8	10.6	-17.02	113.0	-166.7	64.4	44.6	3.251	
1,100.0	1,072.2	1,078.9	1,039.1	10.6	11.2	-18.53	138.2	-203.1	70.9	49.9	3.369	
1,200.0	1,161.3	1,175.1	1,122.2	11.2	11.9	-20.07	165.8	-242.9	77.5	55.2	3.486	
1,300.0	1,247.9	1,271.0	1,202.5	11.9	12.4	-21.64	195.6	-285.9	84.0	60.7	3.601	
1,400.0	1,331.8	1,366.8	1,280.1	12.5	12.9	-23.22	227.6	-332.2	90.5	66.2	3.736	
1,500.0	1,412.6	1,466.6	1,359.6	13.1	13.1	-25.51	262.0	-381.8	94.4	69.2	3.743	
1,550.4	1,452.2	1,517.0	1,399.7	13.2	13.3	-27.15	279.4	-406.9	94.6	69.1	3.703	
1,600.0	1,490.8	1,566.5	1,439.1	13.4	13.4	-28.94	296.4	-431.5	94.4	68.5	3.649	
1,700.0	1,568.5	1,666.3	1,518.5	13.7	13.7	-32.58	330.8	-481.2	94.2	67.6	3.537	
1,703.4	1,571.1	1,669.7	1,521.3	13.7	13.7	-32.70	332.0	-482.9	94.2	67.5	3.533	
1,800.0	1,646.2	1,766.1	1,598.0	14.0	14.0	-36.22	365.2	-530.9	94.4	66.7	3.417	
1,900.0	1,723.9	1,865.9	1,677.4	14.3	14.5	-39.83	399.6	-580.5	94.9	66.1	3.293	
2,000.0	1,801.6	1,965.8	1,756.9	14.8	15.7	-43.39	434.0	-630.2	95.9	65.6	3.165	
2,100.0	1,879.3	2,065.6	1,836.3	16.0	17.0	-46.86	468.4	-679.9	97.1	65.2	3.037	
2,200.0	1,957.0	2,165.4	1,915.8	17.3	18.2	-50.23	502.8	-729.5	98.8	64.9	2.912	
2,300.0	2,034.7	2,265.2	1,995.3	18.6	19.5	-53.48	537.2	-779.2	100.8	64.7	2.794	
2,400.0	2,112.4	2,365.0	2,074.7	19.9	20.7	-56.60	571.6	-828.9	103.0	64.7	2.686	
2,500.0	2,190.1	2,464.9	2,154.2	21.2	22.0	-59.57	606.0	-878.5	105.6	64.8	2.588	
2,600.0	2,267.8	2,564.7	2,233.6	22.5	23.2	-62.40	640.4	-928.2	108.5	65.1	2.501	
2,700.0	2,345.5	2,664.5	2,313.1	23.8	24.5	-65.07	674.8	-977.9	111.6	65.6	2.425	
2,800.0	2,423.2	2,764.3	2,392.6	25.1	25.7	-67.60	709.2	-1,027.6	114.9	66.2	2.359	
2,900.0	2,500.9	2,864.1	2,472.0	26.4	27.0	-69.98	743.6	-1,077.2	118.4	67.0	2.303	
3,000.0	2,578.6	2,963.9	2,551.5	27.7	28.2	-72.22	778.0	-1,126.9	122.2	68.0	2.255	
3,100.0	2,656.3	3,063.8	2,630.9	29.0	29.5	-74.32	812.4	-1,176.6	126.1	69.1	2.214	
3,200.0	2,734.0	3,163.6	2,710.4	30.3	30.8	-76.29	846.8	-1,226.2	130.1	70.4	2.179	
3,300.0	2,811.7	3,263.4	2,789.8	31.6	32.0	-78.14	881.2	-1,275.9	134.4	71.9	2.150	
3,400.0	2,889.4	3,363.2	2,869.3	32.9	33.3	-79.88	915.6	-1,325.6	138.7	73.5	2.126	
3,500.0	2,967.1	3,463.0	2,948.8	34.2	34.5	-81.51	950.0	-1,375.2	143.2	75.2	2.106	
3,600.0	3,044.8	3,562.9	3,028.2	35.5	35.8	-83.05	984.4	-1,424.9	147.7	77.0	2.090	
3,700.0	3,122.5	3,662.7	3,107.7	36.8	37.0	-84.49	1,018.8	-1,474.6	152.4	79.0	2.077	
3,800.0	3,200.2	3,762.5	3,187.1	38.2	38.3	-85.84	1,053.2	-1,524.3	157.2	81.1	2.066	
3,900.0	3,277.9	3,862.3	3,266.6	39.5	39.6	-87.11	1,087.6	-1,573.9	162.0	83.3	2.058	
4,000.0	3,355.6	3,962.1	3,346.0	40.8	40.8	-88.31	1,122.0	-1,623.6	166.9	85.5	2.051	
4,100.0	3,433.3	4,062.0	3,425.5	42.1	42.1	-89.44	1,156.4	-1,673.3	171.9	87.9	2.046	
4,200.0	3,511.0	4,161.8	3,505.0	43.4	43.4	-90.50	1,190.8	-1,722.9	177.0	90.3	2.043	
4,300.0	3,588.7	4,261.6	3,584.4	44.7	44.6	-91.51	1,225.2	-1,772.6	182.1	92.9	2.041	
4,400.0	3,666.4	4,361.4	3,663.9	46.0	45.9	-92.46	1,259.6	-1,822.3	187.2	95.4	2.040	
4,500.0	3,744.1	4,461.2	3,743.3	47.3	47.1	-93.36	1,294.0	-1,871.9	192.5	98.1	2.039	SF
4,600.0	3,821.8	4,561.1	3,822.8	48.6	48.4	-94.22	1,328.4	-1,921.6	197.7	100.8	2.040	
4,700.0	3,899.5	4,660.7	3,903.1	50.0	49.6	-95.47	1,362.0	-1,970.2	203.0	103.7	2.043	
4,800.0	3,977.2	4,760.1	3,984.6	51.3	50.8	-97.37	1,394.3	-2,016.8	208.6	106.9	2.051	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - RWF 521-8 - Wellbore #1 - Plan #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning	
4,900.0	4,054.9	4,859.0	4,067.3	52.6	51.9	-99.84	1,425.3	-2,061.5	214.7	110.9	2.068		
4,929.8	4,078.0	4,888.3	4,092.0	53.0	52.2	-100.67	1,434.2	-2,074.5	216.6	112.2	2.075		
5,000.0	4,133.0	4,957.5	4,150.9	53.9	52.9	-102.70	1,454.9	-2,104.3	221.4	115.7	2.096		
5,100.0	4,213.0	5,055.7	4,235.6	55.1	53.9	-105.36	1,483.2	-2,145.1	228.3	121.1	2.130		
5,200.0	4,294.8	5,153.7	4,321.3	56.3	54.8	-107.76	1,510.2	-2,184.1	235.3	126.8	2.168		
5,300.0	4,378.2	5,251.5	4,408.1	57.4	55.7	-109.92	1,535.8	-2,221.2	242.4	132.6	2.209		
5,400.0	4,463.3	5,349.1	4,495.9	58.4	56.5	-111.87	1,560.2	-2,256.4	249.4	138.6	2.251		
5,500.0	4,550.0	5,446.5	4,584.5	59.4	57.3	-113.62	1,583.2	-2,289.6	256.3	144.6	2.294		
5,600.0	4,638.2	5,543.8	4,674.0	60.3	58.0	-115.20	1,604.9	-2,320.9	263.0	150.4	2.337		
5,700.0	4,727.7	5,640.9	4,764.2	61.1	58.7	-116.61	1,625.3	-2,350.3	269.4	156.2	2.379		
5,800.0	4,818.6	5,737.8	4,855.2	61.9	59.3	-117.89	1,644.3	-2,377.8	275.7	161.8	2.421		
5,900.0	4,910.7	5,834.6	4,946.9	62.6	59.8	-119.03	1,662.0	-2,403.3	281.6	167.1	2.460		
6,000.0	5,004.0	5,931.3	5,039.2	63.3	60.3	-120.04	1,678.3	-2,426.9	287.1	172.2	2.498		
6,100.0	5,098.3	6,027.9	5,132.1	63.9	60.8	-120.95	1,693.3	-2,448.5	292.3	177.0	2.534		
6,200.0	5,193.6	6,124.3	5,225.6	64.4	61.2	-121.76	1,706.9	-2,468.2	297.1	181.4	2.567		
6,300.0	5,289.7	6,220.7	5,319.5	64.9	61.6	-122.47	1,719.2	-2,485.9	301.5	185.5	2.598		
6,400.0	5,386.7	6,316.9	5,413.8	65.3	61.9	-123.09	1,730.0	-2,501.6	305.5	189.2	2.627		
6,500.0	5,484.4	6,413.1	5,508.5	65.7	62.2	-123.63	1,739.6	-2,515.4	309.0	192.5	2.652		
6,600.0	5,582.6	6,509.2	5,603.6	66.0	62.4	-124.10	1,747.7	-2,527.2	312.1	195.4	2.675		
6,700.0	5,681.4	6,605.3	5,698.9	66.2	62.6	-124.49	1,754.5	-2,537.0	314.7	197.9	2.694		
6,800.0	5,780.6	6,700.0	5,793.1	66.4	62.8	-124.80	1,759.9	-2,544.7	316.9	200.1	2.712		
6,900.0	5,880.2	6,797.2	5,890.1	66.6	62.9	-125.06	1,764.0	-2,550.7	318.6	201.6	2.725		
7,000.0	5,980.0	6,893.2	5,985.9	66.7	63.0	-125.24	1,766.7	-2,554.6	319.7	202.8	2.735		
7,100.0	6,079.9	6,989.1	6,081.8	66.8	63.0	-125.36	1,768.0	-2,556.5	320.4	203.6	2.742		
7,159.1	6,139.0	7,046.3	6,139.0	66.8	63.0	-175.91	1,768.2	-2,556.7	320.6	203.8	2.745		
7,200.0	6,179.9	7,087.2	6,179.9	66.8	63.0	-175.91	1,768.2	-2,556.7	320.6	203.8	2.745		
7,300.0	6,279.9	7,187.2	6,279.9	66.8	63.1	-175.91	1,768.2	-2,556.7	320.6	203.8	2.744		
7,400.0	6,379.9	7,287.2	6,379.9	66.8	63.1	-175.91	1,768.2	-2,556.7	320.6	203.7	2.743		
7,500.0	6,479.9	7,387.2	6,479.9	66.8	63.1	-175.91	1,768.2	-2,556.7	320.6	203.7	2.742		
7,600.0	6,579.9	7,487.2	6,579.9	66.8	63.1	-175.91	1,768.2	-2,556.7	320.6	203.6	2.741		
7,700.0	6,679.9	7,587.2	6,679.9	66.9	63.1	-175.91	1,768.2	-2,556.7	320.6	203.6	2.740		
7,800.0	6,779.9	7,687.2	6,779.9	66.9	63.1	-175.91	1,768.2	-2,556.7	320.6	203.6	2.739		
7,900.0	6,879.9	7,787.2	6,879.9	66.9	63.2	-175.91	1,768.2	-2,556.7	320.6	203.5	2.738		
8,000.0	6,979.9	7,887.2	6,979.9	66.9	63.2	-175.91	1,768.2	-2,556.7	320.6	203.5	2.737		
8,100.0	7,079.9	7,987.2	7,079.9	66.9	63.2	-175.91	1,768.2	-2,556.7	320.6	203.4	2.736		
8,200.0	7,179.9	8,087.2	7,179.9	66.9	63.2	-175.91	1,768.2	-2,556.7	320.6	203.4	2.735		
8,300.0	7,279.9	8,187.2	7,279.9	67.0	63.2	-175.91	1,768.2	-2,556.7	320.6	203.3	2.734		
8,400.0	7,379.9	8,287.2	7,379.9	67.0	63.3	-175.91	1,768.2	-2,556.7	320.6	203.3	2.733		
8,500.0	7,479.9	8,387.2	7,479.9	67.0	63.3	-175.91	1,768.2	-2,556.7	320.6	203.2	2.732		
8,600.0	7,579.9	8,487.2	7,579.9	67.0	63.3	-175.91	1,768.2	-2,556.7	320.6	203.2	2.731		
8,700.0	7,679.9	8,587.2	7,679.9	67.0	63.3	-175.91	1,768.2	-2,556.7	320.6	203.2	2.730		
8,800.0	7,779.9	8,687.2	7,779.9	67.0	63.3	-175.91	1,768.2	-2,556.7	320.6	203.1	2.728		
8,900.0	7,879.9	8,787.2	7,879.9	67.1	63.4	-175.91	1,768.2	-2,556.7	320.6	203.1	2.727		
9,000.0	7,979.9	8,887.2	7,979.9	67.1	63.4	-175.91	1,768.2	-2,556.7	320.6	203.0	2.726		
9,100.0	8,079.9	8,987.2	8,079.9	67.1	63.4	-175.91	1,768.2	-2,556.7	320.6	203.0	2.725		
9,200.0	8,179.9	9,087.2	8,179.9	67.1	63.4	-175.91	1,768.2	-2,556.7	320.6	202.9	2.724		
9,300.0	8,279.9	9,187.2	8,279.9	67.1	63.4	-175.91	1,768.2	-2,556.7	320.6	202.9	2.723		
9,400.0	8,379.9	9,287.2	8,379.9	67.2	63.5	-175.91	1,768.2	-2,556.7	320.6	202.8	2.722		
9,500.0	8,479.9	9,387.2	8,479.9	67.2	63.5	-175.91	1,768.2	-2,556.7	320.6	202.8	2.721		
9,600.0	8,579.9	9,487.2	8,579.9	67.2	63.5	-175.91	1,768.2	-2,556.7	320.6	202.7	2.720		
9,700.0	8,679.9	9,587.2	8,679.9	67.2	63.5	-175.91	1,768.2	-2,556.7	320.6	202.7	2.719		
9,800.0	8,779.9	9,687.2	8,779.9	67.2	63.5	-175.91	1,768.2	-2,556.7	320.6	202.6	2.718		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - RWF 521-8 - Wellbore #1 - Plan #1												<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b> 0-OWSG (REV5) MWD HDGM Standard												<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
9,900.0	8,879.9	9,787.2	8,879.9	67.3	63.6	-175.91	1,768.2	-2,556.7	320.6	202.6	2.717		
9,908.4	8,888.3	9,795.6	8,888.3	67.3	63.6	-175.91	1,768.2	-2,556.7	320.6	202.6	2.717		
9,981.1	8,961.0	9,855.3	8,948.0	67.3	63.6	-175.91	1,768.2	-2,556.7	320.9	203.5	2.733		

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - RWF 521-8 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 475-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-66.71	4.0	-9.3	10.1			
100.0	100.0	99.6	99.6	0.4	1.4	-62.68	5.4	-10.4	11.7	9.9	6.455	ES
200.0	200.0	199.0	198.8	1.3	2.8	-55.39	9.5	-13.8	16.8	12.8	4.174	
250.0	250.0	248.5	248.2	1.4	3.4	-52.29	12.6	-16.3	20.7	15.8	4.269	
300.0	300.0	298.0	297.4	1.6	4.1	0.72	16.4	-19.4	24.8	19.1	4.345	
400.0	399.8	396.7	395.3	3.3	5.5	4.92	25.9	-27.1	32.0	23.2	3.644	
500.0	499.3	495.1	492.5	4.9	6.7	8.95	38.1	-37.1	37.6	26.0	3.232	
600.0	598.0	592.9	588.1	6.2	7.4	13.19	54.0	-50.0	43.3	29.7	3.192	
700.0	695.8	691.6	683.7	7.2	8.0	13.75	70.6	-67.9	47.6	32.4	3.137	
800.0	792.4	789.7	777.6	8.2	8.5	8.98	85.7	-91.8	49.6	32.8	2.962	
900.0	887.5	886.6	868.7	9.0	9.2	1.52	101.6	-121.1	52.0	33.7	2.840	
1,000.0	980.9	983.8	958.0	9.8	9.7	-5.85	120.0	-154.5	55.5	35.9	2.838	
1,100.0	1,072.2	1,081.5	1,046.2	10.6	10.5	-12.44	141.0	-190.9	58.5	37.6	2.799	
1,200.0	1,161.3	1,179.4	1,133.1	11.2	11.2	-18.05	164.6	-229.3	60.6	38.5	2.742	
1,300.0	1,247.9	1,277.3	1,218.3	11.9	11.7	-22.96	191.1	-269.5	61.3	38.3	2.668	
1,400.0	1,331.8	1,375.1	1,301.7	12.5	12.1	-27.78	220.1	-311.7	60.9	37.1	2.563	
1,500.0	1,412.6	1,472.4	1,382.2	13.1	12.6	-32.64	251.6	-356.2	60.0	35.4	2.445	
1,545.8	1,448.7	1,516.7	1,417.9	13.2	12.9	-34.94	266.8	-377.7	59.8	35.1	2.414	
1,550.4	1,452.2	1,521.2	1,421.4	13.2	12.9	-35.17	268.4	-379.9	59.8	35.0	2.412	
1,600.0	1,490.8	1,570.2	1,460.3	13.4	13.1	-37.72	285.5	-404.4	60.2	35.0	2.391	
1,700.0	1,568.5	1,669.1	1,538.2	13.7	13.7	-42.77	319.9	-454.6	62.2	36.2	2.393	
1,800.0	1,646.2	1,767.9	1,614.9	14.0	14.7	-46.43	355.0	-506.1	66.3	39.0	2.433	
1,900.0	1,723.9	1,867.2	1,690.7	14.3	15.9	-48.65	390.9	-559.2	71.9	43.1	2.498	
2,000.0	1,801.6	1,967.0	1,767.0	14.8	17.0	-50.79	426.8	-612.6	77.9	47.3	2.546	
2,100.0	1,879.3	2,067.2	1,844.3	16.0	18.2	-53.40	461.8	-666.0	83.7	51.1	2.570	
2,200.0	1,957.0	2,167.3	1,921.5	17.3	19.5	-55.39	497.4	-718.8	89.1	54.4	2.569	
2,300.0	2,034.7	2,267.2	1,998.7	18.6	20.7	-57.37	532.7	-771.4	94.4	57.5	2.559	
2,400.0	2,112.4	2,367.8	2,076.7	19.9	21.9	-59.17	568.4	-824.0	99.5	60.2	2.534	
2,500.0	2,190.1	2,468.3	2,154.6	21.2	23.2	-60.52	604.8	-876.0	103.8	62.2	2.494	
2,600.0	2,267.8	2,568.0	2,232.1	22.5	24.4	-61.91	640.8	-927.3	108.1	64.0	2.453	
2,700.0	2,345.5	2,668.2	2,310.3	23.8	25.7	-63.41	676.6	-978.8	112.3	65.7	2.412	
2,800.0	2,423.2	2,769.3	2,390.2	25.1	26.9	-65.60	711.9	-1,029.7	115.8	66.6	2.352	
2,900.0	2,500.9	2,869.6	2,469.5	26.4	28.1	-67.43	747.6	-1,079.7	118.9	67.0	2.290	
3,000.0	2,578.6	2,969.6	2,548.2	27.7	29.4	-68.88	783.8	-1,129.6	121.7	67.2	2.231	
3,100.0	2,656.3	3,068.5	2,625.9	29.0	30.6	-70.17	819.6	-1,179.2	124.9	67.8	2.185	
3,200.0	2,734.0	3,167.1	2,702.6	30.3	31.9	-71.05	855.0	-1,229.9	129.5	69.8	2.168	
3,300.0	2,811.7	3,267.1	2,781.2	31.6	33.1	-72.44	889.9	-1,281.1	134.3	71.9	2.152	
3,400.0	2,889.4	3,367.4	2,859.7	32.9	34.4	-73.53	925.5	-1,332.4	139.0	73.9	2.134	
3,500.0	2,967.1	3,467.1	2,937.9	34.2	35.7	-74.61	960.8	-1,383.2	143.5	75.7	2.115	
3,600.0	3,044.8	3,567.4	3,016.0	35.5	37.0	-75.32	996.7	-1,434.7	148.2	77.7	2.102	
3,700.0	3,122.5	3,666.6	3,094.0	36.8	38.2	-76.35	1,031.8	-1,485.2	152.7	79.5	2.086	
3,800.0	3,200.2	3,766.8	3,172.4	38.2	39.5	-77.14	1,067.3	-1,536.6	157.6	81.7	2.077	
3,900.0	3,277.9	3,866.5	3,251.0	39.5	40.8	-78.25	1,102.1	-1,587.0	162.3	83.7	2.065	
4,000.0	3,355.6	3,967.3	3,330.3	40.8	42.1	-79.18	1,137.6	-1,638.2	167.0	85.6	2.052	
4,100.0	3,433.3	4,066.8	3,408.8	42.1	43.3	-80.17	1,172.6	-1,688.3	171.4	87.3	2.038	
4,200.0	3,511.0	4,167.0	3,488.3	43.4	44.6	-81.34	1,207.4	-1,738.4	175.9	89.1	2.026	
4,300.0	3,588.7	4,268.3	3,568.9	44.7	45.9	-82.61	1,242.7	-1,788.4	179.9	90.3	2.008	
4,400.0	3,666.4	4,368.8	3,649.8	46.0	47.1	-84.24	1,277.3	-1,837.0	183.5	91.2	1.987	Collision Risk Procedures Req.
4,500.0	3,744.1	4,469.6	3,731.6	47.3	48.3	-86.13	1,311.8	-1,884.7	186.8	91.7	1.963	Collision Risk Procedures Req.
4,600.0	3,821.8	4,569.4	3,813.3	48.6	49.4	-88.30	1,345.4	-1,931.2	190.0	92.2	1.943	Collision Risk Procedures Req.
4,700.0	3,899.5	4,669.2	3,896.1	50.0	50.6	-90.97	1,378.1	-1,976.3	193.5	93.1	1.927	Collision Risk Procedures Req.
4,800.0	3,977.2	4,768.8	3,979.6	51.3	51.6	-94.01	1,410.0	-2,020.2	197.3	94.5	1.919	Collision Risk Procedures Req., SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - RWF 521-8 - Wellbore #1 - Wellbore #1											<b>Offset Site Error:</b>	0.0 usft
Survey Program: 475-OWSG (REV5) MWD HDGM Standard											<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
4,900.0	4,054.9	4,867.8	4,063.7	52.6	52.7	-97.46	1,440.7	-2,062.5	201.8	96.8	1.923	Collision Risk Procedures Req.
4,929.8	4,078.0	4,897.4	4,089.0	53.0	53.0	-98.54	1,449.7	-2,074.9	203.3	97.8	1.927	Collision Risk Procedures Req.
5,000.0	4,133.0	4,967.1	4,148.7	53.9	53.7	-101.00	1,470.9	-2,103.9	206.9	100.1	1.938	Collision Risk Procedures Req.
5,100.0	4,213.0	5,066.8	4,234.8	55.1	54.7	-104.00	1,500.9	-2,144.4	211.9	103.6	1.957	Collision Risk Procedures Req.
5,200.0	4,294.8	5,166.3	4,322.2	56.3	55.6	-106.96	1,529.8	-2,182.0	216.6	107.1	1.977	Collision Risk Procedures Req.
5,300.0	4,378.2	5,263.3	4,408.6	57.4	56.4	-109.58	1,557.0	-2,216.9	221.3	110.7	2.001	
5,400.0	4,463.3	5,359.6	4,496.2	58.4	57.1	-112.50	1,581.5	-2,248.1	226.8	115.7	2.041	
5,500.0	4,550.0	5,457.5	4,586.3	59.4	57.9	-115.12	1,605.1	-2,278.6	232.7	121.2	2.086	
5,600.0	4,638.2	5,554.1	4,675.9	60.3	58.5	-117.35	1,627.3	-2,307.2	238.4	126.5	2.131	
5,700.0	4,727.7	5,651.2	4,766.5	61.1	59.1	-119.26	1,648.2	-2,334.7	244.3	132.1	2.177	
5,800.0	4,818.6	5,747.2	4,856.9	61.9	59.7	-120.87	1,667.6	-2,360.5	250.0	137.5	2.223	
5,900.0	4,910.7	5,842.4	4,947.4	62.6	60.2	-122.32	1,685.1	-2,384.3	255.9	143.3	2.272	
6,000.0	5,004.0	5,937.6	5,038.8	63.3	60.7	-123.66	1,700.7	-2,406.2	262.1	149.4	2.325	
6,100.0	5,098.3	6,032.3	5,130.4	63.9	61.1	-124.89	1,714.4	-2,426.1	268.5	155.8	2.382	
6,200.0	5,193.6	6,126.1	5,221.8	64.4	61.5	-126.04	1,726.0	-2,443.7	275.3	162.7	2.445	
6,300.0	5,289.7	6,228.6	5,322.1	64.9	61.8	-127.06	1,737.7	-2,461.3	281.2	168.4	2.491	
6,400.0	5,386.7	6,323.3	5,415.0	65.3	62.1	-127.76	1,748.5	-2,476.3	285.4	172.4	2.527	
6,500.0	5,484.4	6,418.6	5,508.8	65.7	62.4	-128.30	1,757.5	-2,489.8	289.5	176.5	2.562	
6,600.0	5,582.6	6,518.6	5,607.7	66.0	62.6	-128.66	1,766.2	-2,502.5	292.6	179.2	2.580	
6,700.0	5,681.4	6,613.0	5,701.2	66.2	62.8	-128.91	1,773.4	-2,512.7	294.8	181.3	2.597	
6,800.0	5,780.6	6,712.9	5,800.5	66.4	63.0	-129.08	1,780.2	-2,521.6	296.0	182.1	2.599	
6,900.0	5,880.2	6,808.2	5,895.4	66.6	63.2	-129.13	1,785.9	-2,528.2	296.0	181.9	2.595	
7,000.0	5,980.0	6,902.9	5,989.8	66.7	63.3	-128.85	1,789.9	-2,534.4	295.8	181.4	2.586	
7,100.0	6,079.9	7,000.3	6,087.0	66.8	63.4	-128.24	1,792.8	-2,539.9	295.0	180.0	2.565	
7,159.1	6,139.0	7,057.4	6,144.0	66.8	63.4	-178.25	1,794.0	-2,542.8	294.1	178.7	2.549	
7,200.0	6,179.9	7,097.1	6,183.6	66.8	63.5	-177.88	1,794.7	-2,544.7	293.5	177.9	2.537	
7,300.0	6,279.9	7,195.0	6,281.5	66.8	63.5	-177.00	1,795.7	-2,549.1	292.7	176.3	2.515	
7,388.3	6,368.2	7,281.8	6,368.2	66.8	63.6	-176.31	1,796.2	-2,552.6	292.4	175.5	2.501	
7,400.0	6,379.9	7,293.2	6,379.6	66.8	63.6	-176.22	1,796.2	-2,553.1	292.4	175.5	2.500	
7,500.0	6,479.9	7,390.9	6,477.2	66.8	63.7	-175.34	1,796.0	-2,557.6	293.0	175.4	2.492	
7,600.0	6,579.9	7,490.3	6,576.5	66.8	63.7	-174.66	1,795.1	-2,561.2	294.1	176.0	2.490	
7,700.0	6,679.9	7,590.3	6,676.5	66.9	63.7	-174.25	1,794.3	-2,563.4	295.2	176.7	2.492	
7,800.0	6,779.9	7,688.7	6,774.8	66.9	63.7	-173.87	1,793.1	-2,565.5	296.7	178.0	2.500	
7,900.0	6,879.9	7,788.9	6,875.0	66.9	63.8	-173.63	1,791.4	-2,566.9	298.5	179.7	2.512	
8,000.0	6,979.9	7,888.6	6,974.7	66.9	63.8	-173.52	1,790.0	-2,567.7	300.0	181.1	2.524	
8,100.0	7,079.9	7,987.0	7,073.1	66.9	63.8	-173.40	1,788.0	-2,568.5	302.1	183.2	2.542	
8,200.0	7,179.9	8,086.4	7,172.4	66.9	63.8	-173.26	1,785.7	-2,569.5	304.4	185.6	2.561	
8,300.0	7,279.9	8,185.7	7,271.7	67.0	63.8	-173.22	1,783.2	-2,570.0	307.0	188.2	2.583	
8,400.0	7,379.9	8,286.3	7,372.3	67.0	63.8	-173.28	1,780.6	-2,570.0	309.6	190.9	2.607	
8,500.0	7,479.9	8,386.3	7,472.2	67.0	63.8	-173.43	1,778.1	-2,569.5	312.1	193.4	2.631	
8,600.0	7,579.9	8,485.4	7,571.3	67.0	63.8	-173.60	1,775.4	-2,568.9	314.7	196.2	2.657	
8,700.0	7,679.9	8,585.5	7,671.3	67.0	63.8	-173.78	1,772.6	-2,568.2	317.4	199.1	2.684	
8,800.0	7,779.9	8,684.0	7,769.8	67.0	63.8	-173.92	1,769.5	-2,567.8	320.4	202.4	2.715	
8,900.0	7,879.9	8,783.9	7,869.6	67.1	63.8	-173.94	1,766.2	-2,568.0	323.7	205.8	2.744	
9,000.0	7,979.9	8,886.0	7,971.7	67.1	63.8	-173.81	1,763.5	-2,569.0	326.5	208.4	2.764	
9,100.0	8,079.9	8,986.2	8,071.8	67.1	63.8	-173.57	1,761.1	-2,570.7	329.0	210.7	2.780	
9,200.0	8,179.9	9,086.6	8,172.3	67.1	63.8	-173.41	1,758.8	-2,571.8	331.5	213.0	2.798	
9,300.0	8,279.9	9,187.6	8,273.2	67.1	63.8	-173.38	1,756.7	-2,572.2	333.5	215.0	2.815	
9,400.0	8,379.9	9,286.8	8,372.4	67.2	63.9	-173.29	1,754.7	-2,573.0	335.7	217.2	2.832	
9,500.0	8,479.9	9,386.7	8,472.2	67.2	63.9	-173.09	1,752.6	-2,574.4	338.0	219.3	2.848	
9,600.0	8,579.9	9,485.1	8,570.6	67.2	63.9	-172.83	1,750.4	-2,576.3	340.3	221.5	2.865	
9,700.0	8,679.9	9,582.5	8,667.9	67.2	64.0	-172.47	1,747.6	-2,578.8	343.5	224.5	2.887	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b>	Sec 8, T6S, R94W - RWF 521-8 - Wellbore #1 - Wellbore #1										<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b>	475-OWSG (REV5) MWD HDGM Standard										<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
9,800.0	8,779.9	9,680.8	8,766.2	67.2	64.0	-172.10	1,744.3	-2,581.5	347.2	228.0	2.913	
9,900.0	8,879.9	9,780.2	8,865.4	67.3	64.1	-171.69	1,740.6	-2,584.5	351.3	231.8	2.940	
9,981.1	8,961.0	9,794.0	8,879.2	67.3	64.1	-171.63	1,740.1	-2,585.0	361.0	245.8	3.133	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design											Offset Site Error:	0.0 usft
Survey Program: 295-OWSG (REV5) MWD HDGM Standard											Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-156.56	-27.3	-11.8	29.8			
100.0	100.0	99.6	99.6	0.4	0.9	-155.53	-27.8	-12.6	30.5	22.901	ES	
200.0	200.0	199.1	199.0	1.3	1.8	-152.73	-29.0	-15.0	32.7	10.726		
250.0	250.0	248.8	248.7	1.4	2.2	-150.86	-30.0	-16.7	34.4	9.490		
300.0	300.0	298.4	298.3	1.6	2.7	-99.25	-31.2	-18.9	36.6	8.760		
400.0	399.8	397.0	396.5	3.3	3.8	-98.89	-33.8	-26.4	43.6	7.975	SF	
500.0	499.3	495.3	494.0	4.9	4.9	-99.45	-36.7	-39.0	54.2	8.141		
600.0	598.0	594.5	591.6	6.2	5.8	-99.76	-38.1	-56.5	66.8	8.673		
700.0	695.8	694.1	688.6	7.2	6.6	-99.40	-36.4	-78.8	80.0	9.138		
800.0	792.4	793.3	783.9	8.2	7.5	-98.40	-31.1	-106.0	93.3	9.644		
900.0	887.5	890.7	875.5	9.0	8.3	-97.06	-23.6	-137.9	108.1	10.248		
1,000.0	980.9	987.6	964.9	9.8	9.7	-95.90	-15.1	-174.5	125.4	10.635		
1,100.0	1,072.2	1,085.0	1,053.2	10.6	11.5	-95.58	-5.6	-214.3	143.9	10.891		
1,200.0	1,161.3	1,181.6	1,139.5	11.2	12.9	-95.88	4.8	-256.4	163.7	11.245		
1,300.0	1,247.9	1,276.4	1,223.0	11.9	13.3	-96.75	15.2	-300.2	185.3	11.661		
1,400.0	1,331.8	1,369.5	1,303.9	12.5	13.6	-98.10	24.7	-345.2	209.4	12.059		
1,500.0	1,412.6	1,462.4	1,383.3	13.1	13.9	-99.61	33.7	-392.7	236.3	12.398		
1,550.4	1,452.2	1,510.3	1,424.0	13.2	14.0	-100.52	38.3	-417.6	250.6	12.536		
1,600.0	1,490.8	1,556.5	1,463.1	13.4	14.2	-101.81	42.7	-441.7	264.9	12.664		
1,700.0	1,568.5	1,648.9	1,541.6	13.7	14.4	-104.09	50.7	-489.8	294.9	12.904		
1,800.0	1,646.2	1,742.2	1,620.9	14.0	14.7	-106.05	58.2	-538.3	325.8	13.119		
1,900.0	1,723.9	1,835.9	1,700.9	14.3	15.0	-107.77	65.3	-586.6	357.3	13.309		
2,000.0	1,801.6	1,927.6	1,778.8	14.8	15.3	-109.08	72.1	-634.6	389.4	13.505		
2,100.0	1,879.3	2,019.3	1,856.7	16.0	15.6	-110.21	78.0	-682.6	422.5	13.702		
2,200.0	1,957.0	2,116.1	1,938.7	17.3	16.1	-111.18	84.8	-733.6	455.3	13.828		
2,300.0	2,034.7	2,209.6	2,018.0	18.6	17.1	-112.00	91.1	-782.7	488.5	13.963		
2,400.0	2,112.4	2,308.8	2,101.6	19.9	18.1	-112.65	98.7	-835.5	520.9	14.017		
2,500.0	2,190.1	2,408.9	2,186.2	21.2	19.2	-113.25	106.8	-888.5	553.0	14.044		
2,600.0	2,267.8	2,512.2	2,273.7	22.5	20.3	-113.87	117.1	-942.3	583.2	14.004		
2,700.0	2,345.5	2,604.5	2,352.4	23.8	21.3	-114.44	126.3	-989.7	613.4	14.041		
2,800.0	2,423.2	2,701.9	2,435.9	25.1	22.2	-115.07	135.6	-1,039.0	644.0	14.064		
2,900.0	2,500.9	2,804.2	2,523.0	26.4	23.3	-115.58	146.5	-1,091.4	673.6	14.031		
3,000.0	2,578.6	2,897.2	2,601.5	27.7	24.3	-115.89	157.0	-1,140.2	702.8	14.033		
3,100.0	2,656.3	2,987.1	2,678.0	29.0	25.3	-116.26	166.3	-1,186.5	732.8	14.072		
3,200.0	2,734.0	3,081.7	2,759.2	30.3	26.2	-116.72	175.5	-1,234.1	763.3	14.103		
3,300.0	2,811.7	3,186.3	2,848.6	31.6	27.3	-117.15	186.2	-1,287.2	793.3	14.075		
3,400.0	2,889.4	3,283.6	2,931.8	32.9	28.3	-117.50	197.3	-1,336.7	822.4	14.064		
3,500.0	2,967.1	3,382.2	3,016.4	34.2	29.4	-117.90	208.4	-1,385.9	851.5	14.054		
3,600.0	3,044.8	3,477.8	3,097.8	35.5	30.4	-118.17	219.7	-1,434.8	880.3	14.042		
3,700.0	3,122.5	3,570.8	3,176.4	36.8	31.4	-118.34	230.5	-1,483.5	909.3	14.038		
3,800.0	3,200.2	3,655.7	3,248.6	38.2	32.3	-118.53	239.8	-1,527.2	938.9	14.080		
3,900.0	3,277.9	3,742.0	3,321.7	39.5	33.2	-118.70	248.2	-1,572.1	969.7	14.132		
4,000.0	3,355.6	3,830.5	3,396.8	40.8	34.2	-118.86	256.2	-1,618.2	1,001.1	14.181		
4,100.0	3,433.3	3,916.8	3,470.1	42.1	35.1	-119.00	263.4	-1,663.3	1,033.2	14.249		
4,200.0	3,511.0	4,005.5	3,546.0	43.4	36.0	-119.21	270.0	-1,708.6	1,066.2	14.320		
4,300.0	3,588.7	4,105.2	3,631.0	44.7	37.1	-119.38	277.5	-1,760.3	1,099.1	14.339		
4,400.0	3,666.4	4,204.6	3,715.1	46.0	38.2	-119.50	285.6	-1,812.6	1,131.4	14.346		
4,500.0	3,744.1	4,303.1	3,799.1	47.3	39.2	-119.66	293.9	-1,863.4	1,163.5	14.358		
4,600.0	3,821.8	4,401.8	3,883.3	48.6	40.3	-119.83	302.6	-1,914.1	1,195.2	14.367		
4,700.0	3,899.5	4,495.7	3,964.5	50.0	41.2	-120.07	310.8	-1,960.6	1,226.8	14.402		
4,800.0	3,977.2	4,586.5	4,044.0	51.3	42.1	-120.41	318.5	-2,003.7	1,258.7	14.461		
4,900.0	4,054.9	4,683.3	4,130.0	52.6	43.0	-120.85	326.5	-2,047.6	1,290.8	14.516		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec 8, T6S, R94W - RWF 522-8 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b> 295-OWSG (REV5) MWD HDGM Standard												<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning	
4,929.8	4,078.0	4,714.8	4,158.1	53.0	43.3	-121.01	329.1	-2,061.5	1,300.2	1,210.7	14.525		
5,000.0	4,133.0	4,780.2	4,216.6	53.9	43.9	-121.67	334.8	-2,090.0	1,322.1	1,231.4	14.572		
5,100.0	4,213.0	4,871.7	4,299.1	55.1	44.6	-122.51	342.4	-2,128.9	1,352.2	1,259.8	14.637		
5,200.0	4,294.8	4,961.8	4,381.0	56.3	45.4	-123.27	349.7	-2,165.9	1,381.1	1,287.1	14.700		
5,300.0	4,378.2	5,061.8	4,472.5	57.4	46.1	-123.97	357.4	-2,205.4	1,408.7	1,313.1	14.733		
5,400.0	4,463.3	5,175.1	4,576.5	58.4	47.0	-124.57	367.2	-2,249.2	1,433.7	1,336.3	14.716		
5,500.0	4,550.0	5,281.6	4,675.6	59.4	47.7	-125.16	377.3	-2,286.7	1,456.2	1,357.2	14.712		
5,600.0	4,638.2	5,370.2	4,759.5	60.3	48.2	-125.74	385.7	-2,314.0	1,476.9	1,376.8	14.751		
5,700.0	4,727.7	5,462.0	4,847.4	61.1	48.7	-126.34	393.8	-2,339.3	1,496.5	1,395.4	14.792		
5,800.0	4,818.6	5,547.1	4,929.3	61.9	49.1	-126.86	400.8	-2,361.1	1,515.0	1,412.9	14.842		
5,900.0	4,910.7	5,627.8	5,007.5	62.6	49.5	-127.34	406.7	-2,380.4	1,532.6	1,429.8	14.903		
6,000.0	5,004.0	5,706.8	5,084.5	63.3	49.8	-127.80	411.4	-2,397.3	1,549.7	1,446.2	14.973		
6,100.0	5,098.3	5,799.7	5,175.6	63.9	50.1	-128.26	415.8	-2,415.4	1,566.1	1,461.9	15.025		
6,200.0	5,193.6	5,915.2	5,289.2	64.4	50.5	-128.75	422.6	-2,435.1	1,579.6	1,474.5	15.029		
6,300.0	5,289.7	6,004.1	5,376.9	64.9	50.7	-129.11	427.8	-2,448.6	1,591.3	1,485.7	15.062		
6,400.0	5,386.7	6,088.6	5,460.5	65.3	50.9	-129.41	432.0	-2,460.5	1,602.0	1,495.8	15.096		
6,500.0	5,484.4	6,172.3	5,543.4	65.7	51.1	-129.67	435.4	-2,470.8	1,611.7	1,505.2	15.131		
6,600.0	5,582.6	6,256.0	5,626.6	66.0	51.3	-129.89	438.0	-2,479.9	1,620.4	1,513.5	15.165		
6,700.0	5,681.4	6,333.0	5,703.2	66.2	51.4	-130.08	439.5	-2,486.7	1,628.3	1,521.3	15.209		
6,800.0	5,780.6	6,426.0	5,796.0	66.4	51.5	-130.24	440.6	-2,493.7	1,635.2	1,527.8	15.229		
6,900.0	5,880.2	6,520.0	5,889.7	66.6	51.6	-130.31	441.0	-2,500.3	1,640.7	1,533.0	15.238		
7,000.0	5,980.0	6,625.0	5,994.6	66.7	51.7	-130.35	441.6	-2,505.8	1,644.2	1,536.2	15.224		
7,100.0	6,079.9	6,709.6	6,079.1	66.8	51.8	-130.34	441.9	-2,508.7	1,645.9	1,537.8	15.225		
7,159.1	6,139.0	6,778.4	6,147.9	66.8	51.8	179.18	442.1	-2,510.3	1,646.1	1,537.8	15.203		
7,200.0	6,179.9	6,821.8	6,191.3	66.8	51.8	179.20	442.3	-2,510.7	1,645.8	1,537.5	15.193		
7,300.0	6,279.9	6,916.7	6,286.2	66.8	51.9	179.22	442.9	-2,511.3	1,645.3	1,536.9	15.182		
7,391.9	6,371.8	7,002.3	6,371.8	66.8	51.9	179.23	443.0	-2,511.8	1,645.1	1,536.7	15.177		
7,400.0	6,379.9	7,009.3	6,378.8	66.8	51.9	179.24	443.0	-2,511.9	1,645.1	1,536.7	15.178		
7,500.0	6,479.9	7,097.5	6,467.0	66.8	51.9	179.26	442.6	-2,512.5	1,645.6	1,537.2	15.188		
7,600.0	6,579.9	7,193.2	6,562.7	66.8	51.9	179.27	441.8	-2,513.0	1,646.4	1,538.1	15.196		
7,700.0	6,679.9	7,274.4	6,643.9	66.9	51.9	179.28	440.5	-2,513.2	1,648.0	1,539.8	15.229		
7,800.0	6,779.9	7,385.1	6,754.6	66.9	51.9	179.30	438.6	-2,513.5	1,649.7	1,541.4	15.231		
7,900.0	6,879.9	7,466.0	6,835.5	66.9	51.9	179.29	436.9	-2,513.4	1,651.8	1,543.7	15.271		
8,000.0	6,979.9	7,558.9	6,928.4	66.9	52.0	179.28	434.2	-2,512.9	1,654.8	1,546.7	15.308		
8,100.0	7,079.9	7,683.0	7,052.4	66.9	52.0	179.29	431.5	-2,513.2	1,656.9	1,548.6	15.299		
8,200.0	7,179.9	7,787.6	7,157.0	66.9	52.0	179.32	429.7	-2,514.1	1,658.5	1,550.1	15.303		
8,300.0	7,279.9	7,887.7	7,257.1	67.0	52.0	179.35	428.5	-2,514.9	1,659.7	1,551.3	15.307		
8,400.0	7,379.9	7,984.5	7,353.8	67.0	52.1	179.40	427.0	-2,516.3	1,661.3	1,552.8	15.316		
8,500.0	7,479.9	8,095.4	7,464.7	67.0	52.1	179.46	425.5	-2,518.3	1,662.6	1,554.0	15.304		
8,600.0	7,579.9	8,192.7	7,561.9	67.0	52.2	179.55	424.6	-2,520.6	1,663.5	1,554.8	15.299		
8,700.0	7,679.9	8,286.4	7,655.7	67.0	52.2	179.64	423.4	-2,523.4	1,664.8	1,556.0	15.299		
8,800.0	7,779.9	8,371.8	7,741.0	67.0	52.3	179.75	421.8	-2,526.5	1,666.6	1,557.8	15.313		
8,900.0	7,879.9	8,474.2	7,843.3	67.1	52.4	179.85	419.3	-2,529.4	1,669.1	1,560.1	15.316		
9,000.0	7,979.9	8,570.6	7,939.7	67.1	52.4	179.93	417.2	-2,531.7	1,671.3	1,562.2	15.325		
9,100.0	8,079.9	8,664.5	8,033.4	67.1	52.5	-180.00	414.7	-2,533.9	1,673.9	1,564.8	15.342		
9,200.0	8,179.9	8,764.7	8,133.6	67.1	52.5	-179.93	411.9	-2,535.9	1,676.7	1,567.5	15.354		
9,300.0	8,279.9	8,864.2	8,233.1	67.1	52.6	-179.86	409.2	-2,537.9	1,679.5	1,570.2	15.366		
9,400.0	8,379.9	8,976.4	8,345.1	67.2	52.7	-179.77	406.5	-2,540.5	1,681.9	1,572.4	15.360		
9,500.0	8,479.9	9,071.9	8,440.6	67.2	52.8	-179.69	404.4	-2,543.0	1,684.1	1,574.5	15.368		
9,600.0	8,579.9	9,161.4	8,530.1	67.2	52.8	-179.60	402.0	-2,545.7	1,686.7	1,577.1	15.386		
9,700.0	8,679.9	9,252.0	8,620.6	67.2	52.9	-179.50	399.1	-2,548.5	1,690.0	1,580.3	15.407		
9,800.0	8,779.9	9,353.2	8,721.7	67.2	53.0	-179.41	395.6	-2,551.3	1,693.5	1,583.6	15.420		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

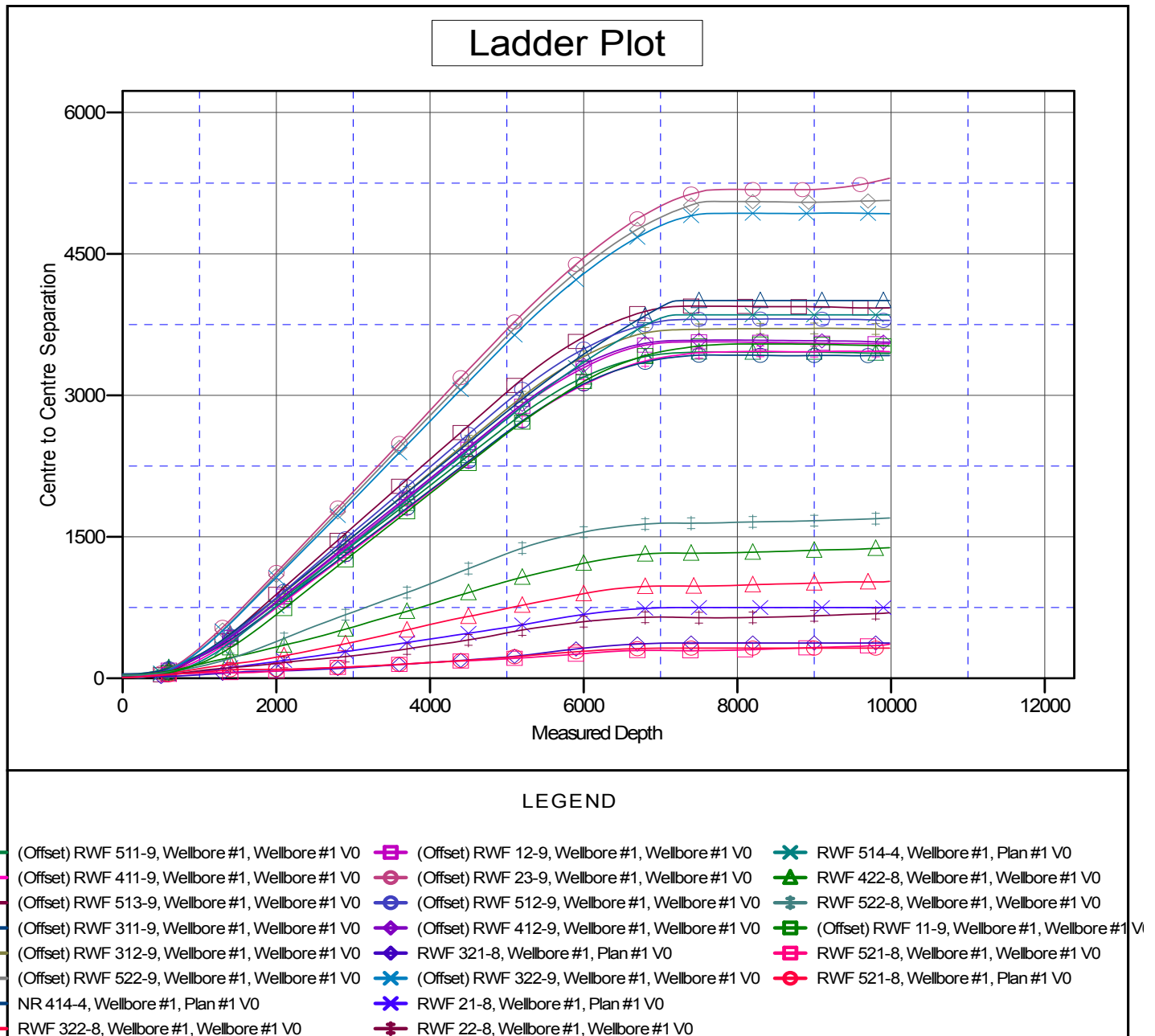
<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b>	Sec 8, T6S, R94W - RWF 522-8 - Wellbore #1 - Wellbore #1										<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b>	295-OWSG (REV5) MWD HDGM Standard										<b>Offset Well Error:</b>	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
9,900.0	8,879.9	9,455.7	8,824.1	67.3	53.1	-179.33	392.2	-2,553.7	1,696.8	1,586.8	15.432	
9,981.1	8,961.0	9,467.0	8,835.4	67.3	53.1	-179.32	391.9	-2,553.9	1,700.9	1,591.4	15.544	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Reference Depths are relative to KB=24' @ 6003.6usft (H&P #318)  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000

Coordinates are relative to: RWF 421-8  
Coordinate System is US State Plane 1983, Colorado Central Zone  
Grid Convergence at Surface is: -1.52°

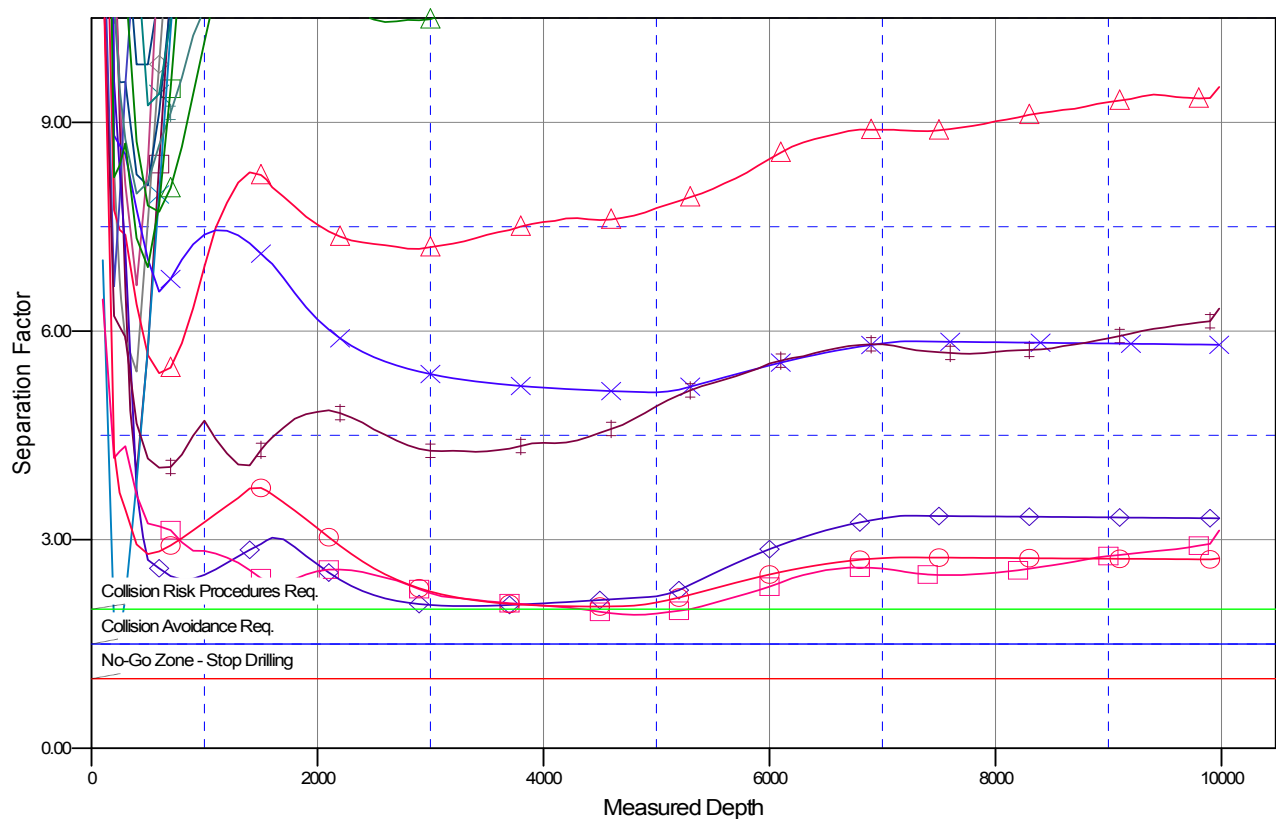


<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 421-8
<b>Project:</b>	Garfield County, CO	<b>TVD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Reference Site:</b>	Sec 8, T6S, R94W	<b>MD Reference:</b>	KB=24' @ 6003.6usft (H&P #318)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	RWF 421-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Reference Depths are relative to KB=24' @ 6003.6usft (H&P #318)  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000

Coordinates are relative to: RWF 421-8  
Coordinate System is US State Plane 1983, Colorado Central Zone  
Grid Convergence at Surface is: -1.52°

## Separation Factor Plot



## LEGEND

(Offset) RWF 511-9, Wellbore #1, Wellbore #1 V0	(Offset) RWF 12-9, Wellbore #1, Wellbore #1 V0	RWF 514-4, Wellbore #1, Plan #1 V0
(Offset) RWF 411-9, Wellbore #1, Wellbore #1 V0	(Offset) RWF 23-9, Wellbore #1, Wellbore #1 V0	RWF 422-8, Wellbore #1, Wellbore #1 V0
(Offset) RWF 513-9, Wellbore #1, Wellbore #1 V0	(Offset) RWF 512-9, Wellbore #1, Wellbore #1 V0	RWF 522-8, Wellbore #1, Wellbore #1 V0
(Offset) RWF 311-9, Wellbore #1, Wellbore #1 V0	(Offset) RWF 412-9, Wellbore #1, Wellbore #1 V0	(Offset) RWF 11-9, Wellbore #1, Wellbore #1 V0
(Offset) RWF 312-9, Wellbore #1, Wellbore #1 V0	RWF 321-8, Wellbore #1, Plan #1 V0	RWF 521-8, Wellbore #1, Wellbore #1 V0
(Offset) RWF 522-9, Wellbore #1, Wellbore #1 V0	(Offset) RWF 322-9, Wellbore #1, Wellbore #1 V0	RWF 521-8, Wellbore #1, Plan #1 V0
NR 414-4, Wellbore #1, Plan #1 V0	RWF 21-8, Wellbore #1, Plan #1 V0	
RWF 322-8, Wellbore #1, Wellbore #1 V0	RWF 22-8, Wellbore #1, Wellbore #1 V0	