



Project: Rio Blanco County, CO  
 Site: RGU 44-1-298  
 Well: FED RGU 321-12-298  
 Wellbore: Wellbore #1  
 Design: Plan 2  
 Latitude: 39.901001  
 Longitude: -108.336134  
 Ground Level: 6278.00  
 KB=30' @ 6308.00usft (H&P #329)



**PROJECT DETAILS:** Rio Blanco 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

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
FED RGU 321-12-298 - VP	8176.00	-1152.19	-1680.51	1764395.43	2202660.78	39.897838	-108.342124	Circle (Radius: 50.00)
FED RGU 321-12-298 - PBHL	11956.00	-1152.19	-1680.51	1764395.43	2202660.78	39.897838	-108.342124	Point

**REFERENCE INFORMATION**  
 Co-ordinate (N/E) Reference: Well FED RGU 321-12-298 - Slot FED RGU 321-12-298, True North  
 Vertical (TVD) Reference: KB=30' @ 6308.00usft (H&P #329)  
 Section (VS) Reference: Slot - FED RGU 321-12-298(0.00N, 0.00E)  
 Measured Depth Reference: KB=30' @ 6308.00usft (H&P #329)  
 Calculation Method: Minimum Curvature

**ANNOTATIONS**

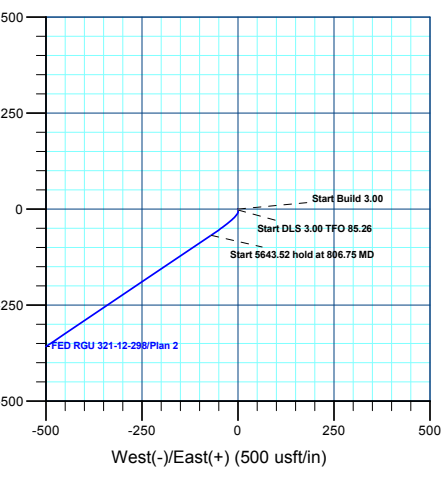
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	Start Build 3.00
220.00	3.00	160.00	219.95	-2.46	0.90	0.65	2.62	Start DLS 3.00 TFO 85.26
806.75	18.09	236.06	796.34	-68.27	-69.99	96.33	102.08	Start 5643.52 hold at 806.75 MD
6450.27	18.09	236.06	6160.87	-1046.75	-1523.86	1848.74	1854.55	Start Drop -1.50
7656.34	0.00	0.00	7347.00	-1152.19	-1680.51	2037.56	2043.38	Start 4609.00 hold at 7656.34 MD
12265.34	0.00	0.00	11956.00	-1152.19	-1680.51	2037.56	2043.38	TD at 12265.34

**WELL DETAILS: FED RGU 321-12-298**

+N/-S	+E/-W	Northing	Ground Elev.	Latitude	Longitude	Slot
0.00	0.00	1765494.60	6278.00	39.901001	-108.336134	FED RGU 321-12-298

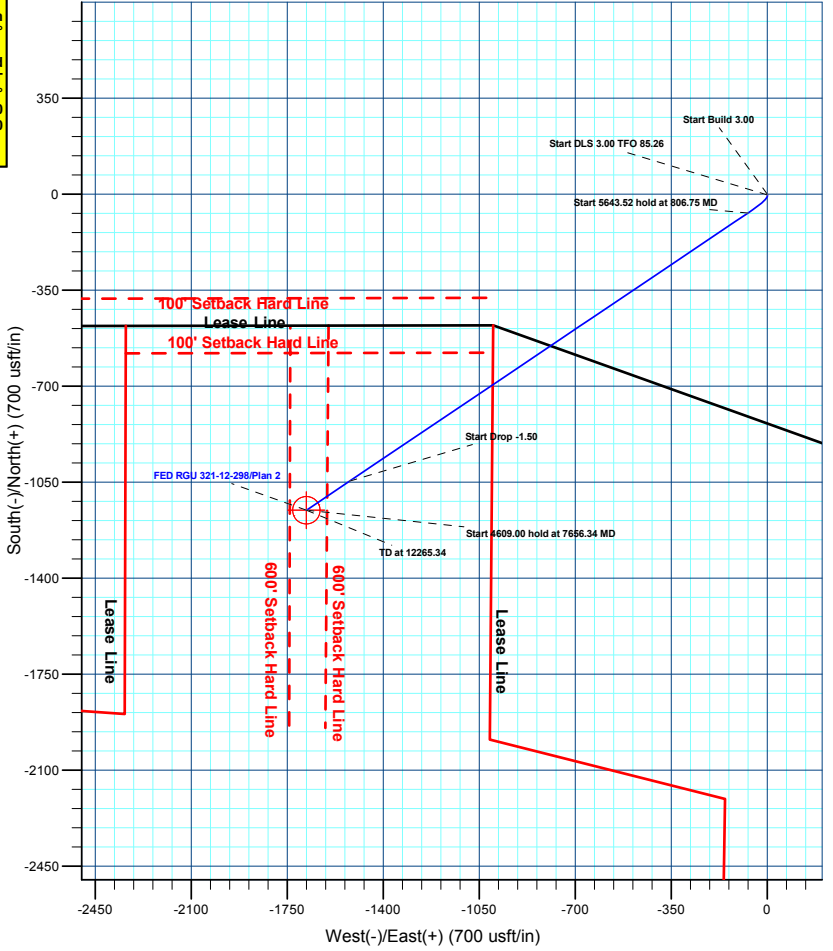
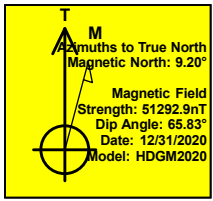
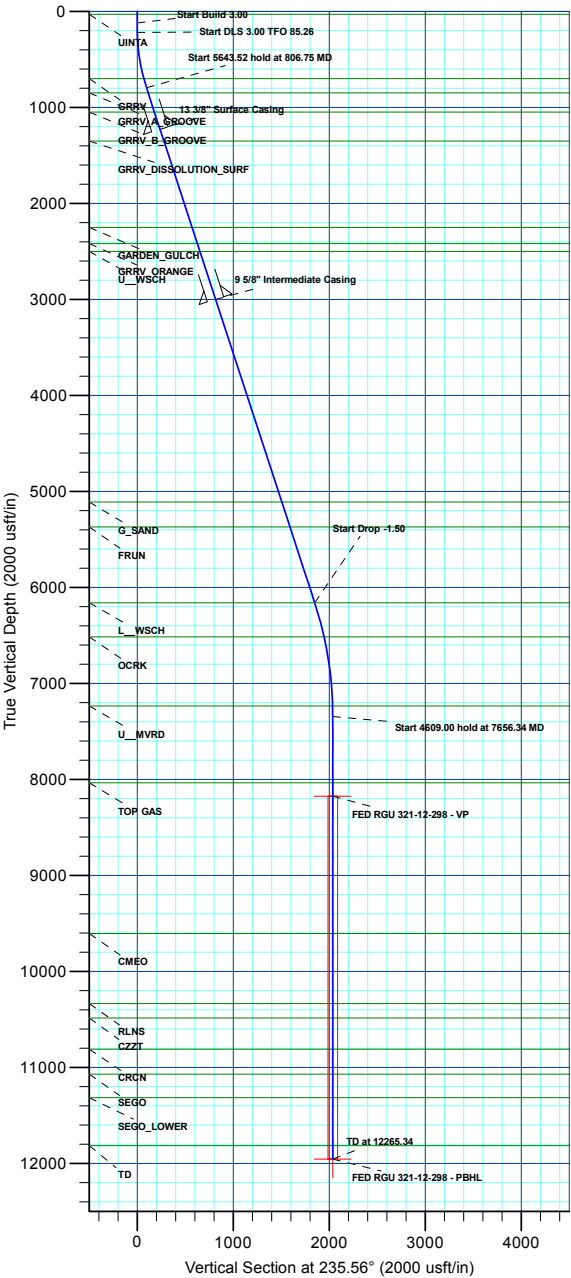
**CASING DETAILS**

TVD	MD	Name	Size
1230.00	1262.96	13 3/8" Surface Casing	13-3/8
3000.00	3125.029	5/8" Intermediate Casing	9-5/8



**FORMATION TOP DETAILS**

TVDPath	MDPath	Formation
30.00	30.00	UINTA
700.00	706.21	GRRV
850.00	863.20	GRRV_A_GROOVE
1050.00	1073.60	GRRV_B_GROOVE
1350.00	1389.20	GRRV_DISSOLUTION_SURF
2250.00	2336.01	GARDEN_GULCH
2420.00	2514.85	GRRV_ORANGE
2500.00	2599.01	U_WSCH
5110.00	5344.75	G_SAND
5370.00	5618.27	FRUN
6160.00	6449.36	L_WSCH
6516.00	6818.64	OCRK
7236.00	7545.33	U_MVRD
8036.00	8345.34	TOP GAS
9606.00	9915.34	CMEO
10336.00	10645.34	RLNS
10486.00	10795.34	CZZT
10811.00	11120.34	CRCN
11071.00	11380.34	SEGO
11316.00	11625.34	SEGO_LOWER
11816.00	12125.34	TD





## **Terra Energy Partners, LLP**

**Rio Blanco County, CO**

**RGU 44-1-298**

**FED RGU 321-12-298 - Slot FED RGU 321-12-298**

**Wellbore #1**

**Plan: Plan 2**

## **KLX Well Planning Report**

**11 May, 2022**



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well FED RGU 321-12-298 - Slot FED RGU 321-12-298
<b>Company:</b>	Terra Energy Partners, LLP	<b>TVD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Site:</b>	RGU 44-1-298	<b>North Reference:</b>	True
<b>Well:</b>	FED RGU 321-12-298	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan 2		

<b>Project</b>	Rio Blanco 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		

<b>Site</b>	RGU 44-1-298				
<b>Site Position:</b>	<b>Northing:</b>	1,765,503.75 usft	<b>Latitude:</b>	39.901031	
<b>From:</b> Map	<b>Easting:</b>	2,204,429.08 usft	<b>Longitude:</b>	-108.335948	
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	-1.79 °

<b>Well</b>	FED RGU 321-12-298 - Slot FED RGU 321-12-298					
<b>Well Position</b>	<b>+N/-S</b>	-10.79 usft	<b>Northing:</b>	1,765,494.60 usft	<b>Latitude:</b>	39.901001
	<b>+E/-W</b>	-52.33 usft	<b>Easting:</b>	2,204,376.44 usft	<b>Longitude:</b>	-108.336135
<b>Position Uncertainty</b>	0.00 usft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	6,278.00 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	12/31/2020	9.20	65.83	51,292.90000000

<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	235.56

<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	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	
220.00	3.00	160.00	219.95	-2.46	0.90	3.00	3.00	0.00	160.00	
806.75	18.09	236.06	796.34	-68.27	-69.99	3.00	2.57	12.96	85.26	
6,450.27	18.09	236.06	6,160.87	-1,046.75	-1,523.86	0.00	0.00	0.00	0.00	
7,656.34	0.00	0.00	7,347.00	-1,152.19	-1,680.51	1.50	-1.50	0.00	180.00	
12,265.34	0.00	0.00	11,956.00	-1,152.19	-1,680.51	0.00	0.00	0.00	0.00	FED RGU 321-12-298

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well FED RGU 321-12-298 - Slot FED RGU 321-12-298
<b>Company:</b>	Terra Energy Partners, LLP	<b>TVD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Site:</b>	RGU 44-1-298	<b>North Reference:</b>	True
<b>Well:</b>	FED RGU 321-12-298	<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
<b>UINTA</b>									
30.00	0.00	0.00	30.00	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
<b>Start Build 3.00</b>									
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	2.40	160.00	199.98	-1.57	0.57	0.42	3.00	3.00	0.00
<b>Start DLS 3.00 TFO 85.26</b>									
220.00	3.00	160.00	219.95	-2.46	0.90	0.65	3.00	3.00	0.00
300.00	3.99	196.82	299.81	-7.09	0.81	3.35	3.00	1.24	46.03
400.00	6.39	217.45	399.41	-14.84	-3.59	11.35	3.00	2.40	20.63
500.00	9.15	226.33	498.48	-24.75	-12.72	24.49	3.00	2.76	8.88
600.00	12.02	231.06	596.77	-36.79	-26.57	42.72	3.00	2.87	4.73
700.00	14.94	233.97	694.01	-50.92	-45.10	65.99	3.00	2.92	2.91
<b>GRRV</b>									
706.21	15.13	234.12	700.00	-51.86	-46.41	67.60	3.00	2.94	2.33
<b>Start 5643.52 hold at 806.75 MD</b>									
806.75	18.09	236.06	796.34	-68.27	-69.99	96.33	3.00	2.95	1.93
<b>GRRV_A_GROOVE</b>									
863.20	18.09	236.06	850.00	-78.06	-84.53	113.86	0.00	0.00	0.00
900.00	18.09	236.06	884.98	-84.44	-94.01	125.29	0.00	0.00	0.00
1,000.00	18.09	236.06	980.04	-101.78	-119.77	156.34	0.00	0.00	0.00
<b>GRRV_B_GROOVE</b>									
1,073.60	18.09	236.06	1,050.00	-114.54	-138.74	179.19	0.00	0.00	0.00
1,100.00	18.09	236.06	1,075.09	-119.12	-145.54	187.39	0.00	0.00	0.00
1,200.00	18.09	236.06	1,170.15	-136.45	-171.30	218.44	0.00	0.00	0.00
<b>13 3/8" Surface Casing</b>									
1,262.96	18.09	236.06	1,230.00	-147.37	-187.52	237.99	0.00	0.00	0.00
1,300.00	18.09	236.06	1,265.21	-153.79	-197.06	249.49	0.00	0.00	0.00
<b>GRRV DISSOLUTION SURF</b>									
1,389.20	18.09	236.06	1,350.00	-169.26	-220.04	277.19	0.00	0.00	0.00
1,400.00	18.09	236.06	1,360.26	-171.13	-222.82	280.55	0.00	0.00	0.00
1,500.00	18.09	236.06	1,455.32	-188.47	-248.58	311.60	0.00	0.00	0.00
1,600.00	18.09	236.06	1,550.37	-205.81	-274.34	342.65	0.00	0.00	0.00
1,700.00	18.09	236.06	1,645.43	-223.14	-300.11	373.70	0.00	0.00	0.00
1,800.00	18.09	236.06	1,740.49	-240.48	-325.87	404.75	0.00	0.00	0.00
1,900.00	18.09	236.06	1,835.54	-257.82	-351.63	435.80	0.00	0.00	0.00
2,000.00	18.09	236.06	1,930.60	-275.16	-377.39	466.86	0.00	0.00	0.00
2,100.00	18.09	236.06	2,025.66	-292.50	-403.15	497.91	0.00	0.00	0.00
2,200.00	18.09	236.06	2,120.71	-309.84	-428.92	528.96	0.00	0.00	0.00
2,300.00	18.09	236.06	2,215.77	-327.17	-454.68	560.01	0.00	0.00	0.00
<b>GARDEN_GULCH</b>									
2,336.01	18.09	236.06	2,250.00	-333.42	-463.95	571.19	0.00	0.00	0.00
2,400.00	18.09	236.06	2,310.83	-344.51	-480.44	591.06	0.00	0.00	0.00
2,500.00	18.09	236.06	2,405.88	-361.85	-506.20	622.11	0.00	0.00	0.00
<b>GRRV_ORANGE</b>									
2,514.85	18.09	236.06	2,420.00	-364.43	-510.03	626.73	0.00	0.00	0.00
<b>U_WSCH</b>									
2,599.01	18.09	236.06	2,500.00	-379.02	-531.71	652.86	0.00	0.00	0.00
2,600.00	18.09	236.06	2,500.94	-379.19	-531.96	653.17	0.00	0.00	0.00
2,700.00	18.09	236.06	2,596.00	-396.53	-557.72	684.22	0.00	0.00	0.00
2,800.00	18.09	236.06	2,691.05	-413.86	-583.49	715.27	0.00	0.00	0.00

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<b>Well:</b>	FED RGU 321-12-298	<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)
2,900.00	18.09	236.06	2,786.11	-431.20	-609.25	746.32	0.00	0.00	0.00
3,000.00	18.09	236.06	2,881.16	-448.54	-635.01	777.37	0.00	0.00	0.00
3,100.00	18.09	236.06	2,976.22	-465.88	-660.77	808.42	0.00	0.00	0.00
<b>9 5/8" Intermediate Casing</b>									
3,125.02	18.09	236.06	3,000.00	-470.22	-667.22	816.19	0.00	0.00	0.00
3,200.00	18.09	236.06	3,071.28	-483.22	-686.53	839.48	0.00	0.00	0.00
3,300.00	18.09	236.06	3,166.33	-500.56	-712.29	870.53	0.00	0.00	0.00
3,400.00	18.09	236.06	3,261.39	-517.89	-738.06	901.58	0.00	0.00	0.00
3,500.00	18.09	236.06	3,356.45	-535.23	-763.82	932.63	0.00	0.00	0.00
3,600.00	18.09	236.06	3,451.50	-552.57	-789.58	963.68	0.00	0.00	0.00
3,700.00	18.09	236.06	3,546.56	-569.91	-815.34	994.73	0.00	0.00	0.00
3,800.00	18.09	236.06	3,641.62	-587.25	-841.10	1,025.79	0.00	0.00	0.00
3,900.00	18.09	236.06	3,736.67	-604.58	-866.86	1,056.84	0.00	0.00	0.00
4,000.00	18.09	236.06	3,831.73	-621.92	-892.63	1,087.89	0.00	0.00	0.00
4,100.00	18.09	236.06	3,926.79	-639.26	-918.39	1,118.94	0.00	0.00	0.00
4,200.00	18.09	236.06	4,021.84	-656.60	-944.15	1,149.99	0.00	0.00	0.00
4,300.00	18.09	236.06	4,116.90	-673.94	-969.91	1,181.04	0.00	0.00	0.00
4,400.00	18.09	236.06	4,211.95	-691.28	-995.67	1,212.10	0.00	0.00	0.00
4,500.00	18.09	236.06	4,307.01	-708.61	-1,021.43	1,243.15	0.00	0.00	0.00
4,600.00	18.09	236.06	4,402.07	-725.95	-1,047.20	1,274.20	0.00	0.00	0.00
4,700.00	18.09	236.06	4,497.12	-743.29	-1,072.96	1,305.25	0.00	0.00	0.00
4,800.00	18.09	236.06	4,592.18	-760.63	-1,098.72	1,336.30	0.00	0.00	0.00
4,900.00	18.09	236.06	4,687.24	-777.97	-1,124.48	1,367.35	0.00	0.00	0.00
5,000.00	18.09	236.06	4,782.29	-795.30	-1,150.24	1,398.41	0.00	0.00	0.00
5,100.00	18.09	236.06	4,877.35	-812.64	-1,176.01	1,429.46	0.00	0.00	0.00
5,200.00	18.09	236.06	4,972.41	-829.98	-1,201.77	1,460.51	0.00	0.00	0.00
5,300.00	18.09	236.06	5,067.46	-847.32	-1,227.53	1,491.56	0.00	0.00	0.00
<b>G_SAND</b>									
5,344.75	18.09	236.06	5,110.00	-855.08	-1,239.06	1,505.46	0.00	0.00	0.00
5,400.00	18.09	236.06	5,162.52	-864.66	-1,253.29	1,522.61	0.00	0.00	0.00
5,500.00	18.09	236.06	5,257.58	-881.99	-1,279.05	1,553.66	0.00	0.00	0.00
5,600.00	18.09	236.06	5,352.63	-899.33	-1,304.81	1,584.72	0.00	0.00	0.00
<b>FRUN</b>									
5,618.27	18.09	236.06	5,370.00	-902.50	-1,309.52	1,590.39	0.00	0.00	0.00
5,700.00	18.09	236.06	5,447.69	-916.67	-1,330.58	1,615.77	0.00	0.00	0.00
5,800.00	18.09	236.06	5,542.74	-934.01	-1,356.34	1,646.82	0.00	0.00	0.00
5,900.00	18.09	236.06	5,637.80	-951.35	-1,382.10	1,677.87	0.00	0.00	0.00
6,000.00	18.09	236.06	5,732.86	-968.69	-1,407.86	1,708.92	0.00	0.00	0.00
6,100.00	18.09	236.06	5,827.91	-986.02	-1,433.62	1,739.97	0.00	0.00	0.00
6,200.00	18.09	236.06	5,922.97	-1,003.36	-1,459.38	1,771.03	0.00	0.00	0.00
6,300.00	18.09	236.06	6,018.03	-1,020.70	-1,485.15	1,802.08	0.00	0.00	0.00
6,400.00	18.09	236.06	6,113.08	-1,038.04	-1,510.91	1,833.13	0.00	0.00	0.00
<b>L_WSCH</b>									
6,449.36	18.09	236.06	6,160.00	-1,046.60	-1,523.62	1,848.46	0.00	0.00	0.00
<b>Start Drop -1.50</b>									
6,450.27	18.09	236.06	6,160.87	-1,046.75	-1,523.86	1,848.74	0.00	0.00	0.00
6,500.00	17.35	236.06	6,208.24	-1,055.20	-1,536.41	1,863.87	1.50	-1.50	0.00
6,600.00	15.85	236.06	6,304.07	-1,071.15	-1,560.11	1,892.43	1.50	-1.50	0.00
6,700.00	14.35	236.06	6,400.62	-1,085.69	-1,581.71	1,918.47	1.50	-1.50	0.00
6,800.00	12.85	236.06	6,497.81	-1,098.81	-1,601.21	1,941.98	1.50	-1.50	0.00
<b>OCRK</b>									
6,818.64	12.57	236.06	6,516.00	-1,101.10	-1,604.61	1,946.08	1.50	-1.50	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well FED RGU 321-12-298 - Slot FED RGU 321-12-298
<b>Company:</b>	Terra Energy Partners, LLP	<b>TVD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Site:</b>	RGU 44-1-298	<b>North Reference:</b>	True
<b>Well:</b>	FED RGU 321-12-298	<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)	
6,900.00	11.35	236.06	6,595.59	-1,110.51	-1,618.59	1,962.93	1.50	-1.50	0.00	
7,000.00	9.85	236.06	6,693.88	-1,120.78	-1,633.85	1,981.31	1.50	-1.50	0.00	
7,100.00	8.35	236.06	6,792.62	-1,129.61	-1,646.96	1,997.12	1.50	-1.50	0.00	
7,200.00	6.85	236.06	6,891.74	-1,136.98	-1,657.93	2,010.34	1.50	-1.50	0.00	
7,300.00	5.35	236.06	6,991.17	-1,142.91	-1,666.74	2,020.95	1.50	-1.50	0.00	
7,400.00	3.85	236.06	7,090.85	-1,147.39	-1,673.38	2,028.97	1.50	-1.50	0.00	
7,500.00	2.35	236.06	7,190.70	-1,150.40	-1,677.86	2,034.36	1.50	-1.50	0.00	
<b>U_MVRD</b>										
7,545.33	1.67	236.06	7,236.00	-1,151.29	-1,679.18	2,035.95	1.50	-1.50	0.00	
7,600.00	0.85	236.06	7,290.66	-1,151.96	-1,680.17	2,037.15	1.50	-1.50	0.00	
<b>Start 4609.00 hold at 7656.34 MD</b>										
7,656.34	0.00	0.00	7,347.00	-1,152.19	-1,680.51	2,037.56	1.50	-1.50	219.99	
7,700.00	0.00	0.00	7,390.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,490.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,590.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,690.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
8,100.00	0.00	0.00	7,790.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
8,200.00	0.00	0.00	7,890.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
8,300.00	0.00	0.00	7,990.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
<b>TOP GAS</b>										
8,345.34	0.00	0.00	8,036.00	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
8,400.00	0.00	0.00	8,090.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,190.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
8,600.00	0.00	0.00	8,290.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
8,700.00	0.00	0.00	8,390.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,490.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,590.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,690.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
9,100.00	0.00	0.00	8,790.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
9,200.00	0.00	0.00	8,890.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
9,300.00	0.00	0.00	8,990.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
9,400.00	0.00	0.00	9,090.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
9,500.00	0.00	0.00	9,190.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
9,600.00	0.00	0.00	9,290.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
9,700.00	0.00	0.00	9,390.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
9,800.00	0.00	0.00	9,490.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
9,900.00	0.00	0.00	9,590.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
<b>CME0</b>										
9,915.34	0.00	0.00	9,606.00	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
10,000.00	0.00	0.00	9,690.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
10,100.00	0.00	0.00	9,790.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
10,200.00	0.00	0.00	9,890.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
10,300.00	0.00	0.00	9,990.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
10,400.00	0.00	0.00	10,090.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
10,500.00	0.00	0.00	10,190.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
10,600.00	0.00	0.00	10,290.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
<b>RLNS</b>										
10,645.34	0.00	0.00	10,336.00	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
10,700.00	0.00	0.00	10,390.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
<b>CZZT</b>										
10,795.34	0.00	0.00	10,486.00	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
10,800.00	0.00	0.00	10,490.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well FED RGU 321-12-298 - Slot FED RGU 321-12-298
<b>Company:</b>	Terra Energy Partners, LLP	<b>TVD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Site:</b>	RGU 44-1-298	<b>North Reference:</b>	True
<b>Well:</b>	FED RGU 321-12-298	<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)	
10,900.00	0.00	0.00	10,590.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
11,000.00	0.00	0.00	10,690.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
11,100.00	0.00	0.00	10,790.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
<b>CRCN</b>										
11,120.34	0.00	0.00	10,811.00	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
11,200.00	0.00	0.00	10,890.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
11,300.00	0.00	0.00	10,990.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
<b>SEGO</b>										
11,380.34	0.00	0.00	11,071.00	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
11,400.00	0.00	0.00	11,090.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
11,500.00	0.00	0.00	11,190.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
11,600.00	0.00	0.00	11,290.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
<b>SEGO_LOWER</b>										
11,625.34	0.00	0.00	11,316.00	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
11,700.00	0.00	0.00	11,390.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
11,800.00	0.00	0.00	11,490.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
11,900.00	0.00	0.00	11,590.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
12,000.00	0.00	0.00	11,690.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
12,100.00	0.00	0.00	11,790.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
<b>TD</b>										
12,125.34	0.00	0.00	11,816.00	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
12,200.00	0.00	0.00	11,890.66	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	
<b>TD at 12265.34</b>										
12,265.34	0.00	0.00	11,956.00	-1,152.19	-1,680.51	2,037.56	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
FED RGU 321-12-298 - - hit/miss target - Shape	0.00	0.00	8,176.00	-1,152.19	-1,680.51	1,764,395.43	2,202,660.78	39.897838	-108.342124	
FED RGU 321-12-298 - - plan hits target center - Circle (radius 50.00)										
FED RGU 321-12-298 - - plan hits target center - Point	0.00	0.00	11,956.00	-1,152.19	-1,680.51	1,764,395.43	2,202,660.78	39.897838	-108.342124	

Casing Points						
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")		
1,262.96	1,230.00	13 3/8" Surface Casing	13-3/8	17-1/2		
3,125.02	3,000.00	9 5/8" Intermediate Casing	9-5/8	12-1/4		

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well FED RGU 321-12-298 - Slot FED RGU 321-12-298
<b>Company:</b>	Terra Energy Partners, LLP	<b>TVD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	KB=30' @ 6308.00usft (H&P #329)
<b>Site:</b>	RGU 44-1-298	<b>North Reference:</b>	True
<b>Well:</b>	FED RGU 321-12-298	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan 2		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
30.00	30.00	UINTA				
706.21	700.00	GRRV				
863.20	850.00	GRRV_A_GROOVE				
1,073.60	1,050.00	GRRV_B_GROOVE				
1,389.20	1,350.00	GRRV DISSOLUTION_SURF				
2,336.01	2,250.00	GARDEN_GULCH				
2,514.85	2,420.00	GRRV_ORANGE				
2,599.01	2,500.00	U_WSCH				
5,344.75	5,110.00	G_SAND				
5,618.27	5,370.00	FRUN				
6,449.36	6,160.00	L_WSCH				
6,818.64	6,516.00	OCRK				
7,545.33	7,236.00	U_MVRD				
8,345.34	8,036.00	TOP GAS				
9,915.34	9,606.00	CMEO				
10,645.34	10,336.00	RLNS				
10,795.34	10,486.00	CZZT				
11,120.34	10,811.00	CRCN				
11,380.34	11,071.00	SEGO				
11,625.34	11,316.00	SEGO_LOWER				
12,125.34	11,816.00	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
120.00	120.00	0.00	0.00	Start Build 3.00	
220.00	219.95	-2.46	0.90	Start DLS 3.00 TFO 85.26	
806.75	796.34	-68.27	-69.99	Start 5643.52 hold at 806.75 MD	
6,450.27	6,160.87	-1,046.75	-1,523.86	Start Drop -1.50	
7,656.34	7,347.00	-1,152.19	-1,680.51	Start 4609.00 hold at 7656.34 MD	
12,265.34	11,956.00	-1,152.19	-1,680.51	TD at 12265.34	