Project: Rio Blanco County, CO
Site: RGU 44-1-298
Well: FED RGU 322-12-298
Wellbore: Wellbore #1
Design: Plan 1
Latitude: 39.901002
Longitude: -108.336054
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 322-12-298 - VP	8036.00	-2599.17	-2095.13	1762961.73	2202223.69	39.893867	-108.343521	Circle (Radius: 100.00)
FED RGU 322-12-298 - PBHL	11816.00	-2599.17	-2095.13	1762961.73	2202223.69	39.893867	-108.343521	Point

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well FED RGU 322-12-298 - Slot FED RGU 322-12-298, True North
Vertical (TVD) Reference: KB=30' @ 6308.00usft (H&P #329)
Section (VS) Reference: Slot - FED RGU 322-12-298(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 2.00
370.00	5.00	190.00	369.68	-10.74	-1.89	9.55	10.90	Start DLS 2.00 TFO 34.82
1573.25	28.31	219.41	1515.60	-286.85	-194.96	345.68	349.29	Start 5348.73 hold at 1573.25 MD
6921.98	28.31	219.41	6224.81	-2246.32	-1805.17	2881.77	2885.49	Start Drop -1.50
8809.00	0.00	0.00	8036.00	-2599.17	-2095.13	3338.45	3342.20	Start 3780.00 hold at 8809.00 MD
12589.00	0.00	0.00	11816.00	-2599.17	-2095.13	3338.45	3342.20	TD at 12589.00

WELL DETAILS: FED RGU 322-12-298

Ground Elev: 6278.00

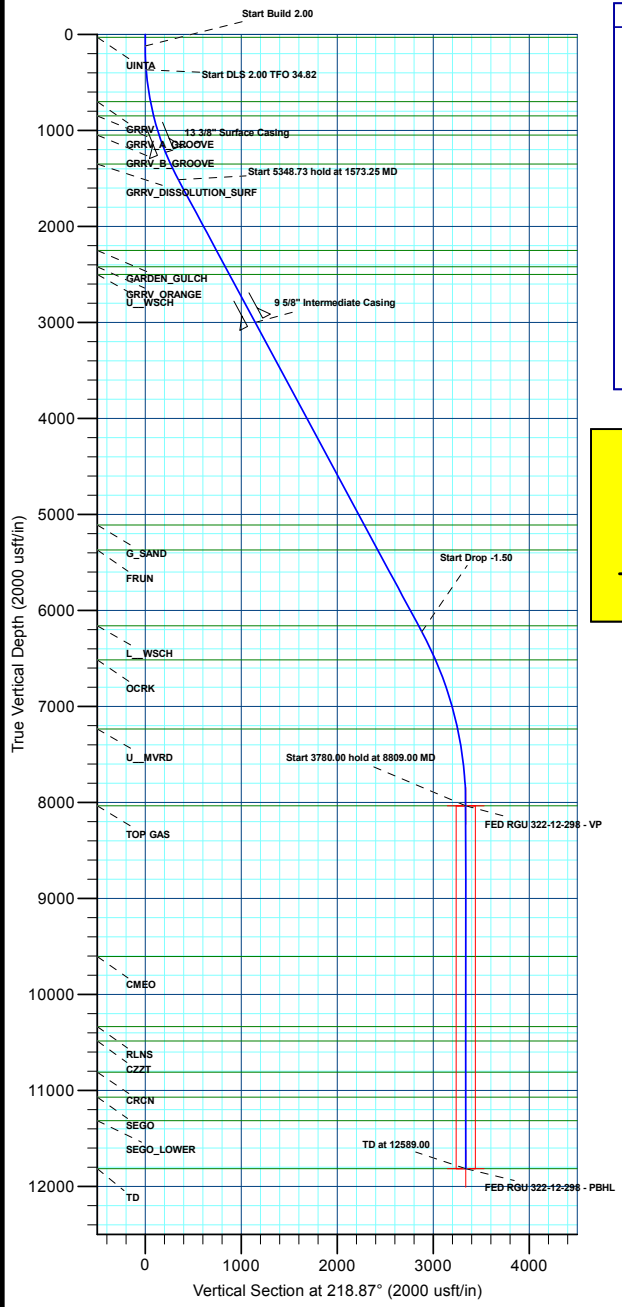
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1765494.24	2204398.93	39.901002	-108.336054	FED RGU 322-12-298

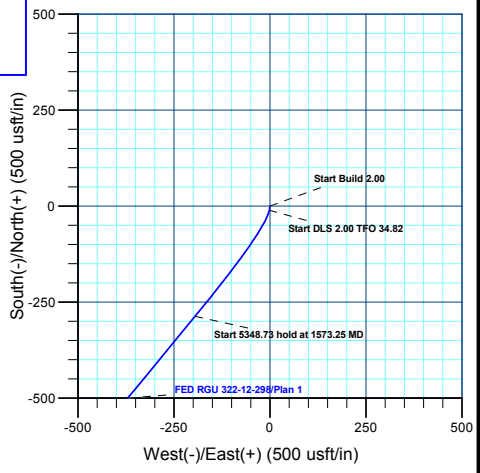
CASING DETAILS

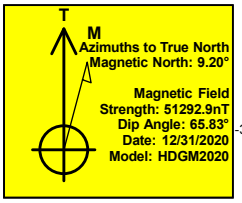
TVD	MD	Name	Size
1230.00	1257.53	13 3/8" Surface Casing	13-3/8
3000.00	3259.23	9 5/8" Intermediate Casing	9-5/8

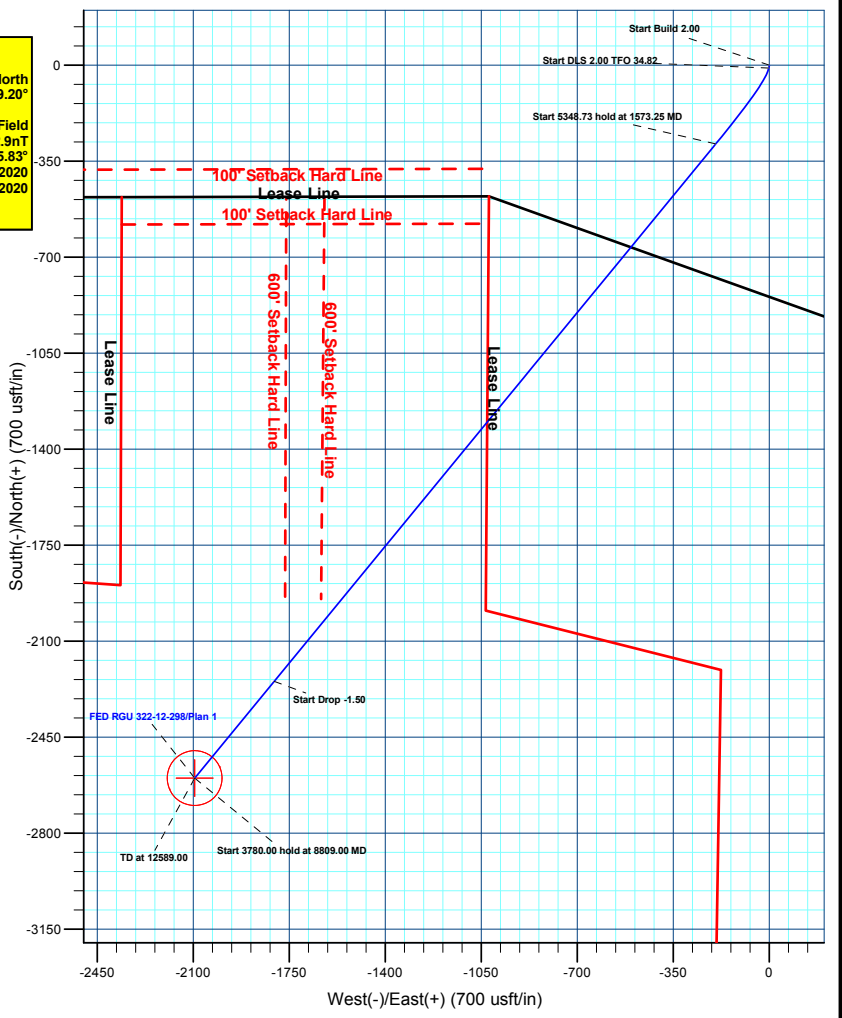
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
30.00	30.00	UINTA
700.00	703.73	GRRV
850.00	857.47	GRRV_A_GROOVE
1050.00	1065.77	GRRV_B_GROOVE
1350.00	1388.23	GRRV_DISSOLUTION_SURF
2250.00	2407.38	GARDEN_GULCH
2420.00	2600.46	GRRV_ORANGE
2500.00	2691.33	U__WSCH
5110.00	5655.78	G_SAND
5370.00	5951.08	FRUN
6160.00	6848.37	L__WSCH
6516.00	7245.72	OCRK
7236.00	8003.03	U__MVRD
8036.00	8809.00	TOP GAS
9606.00	10379.00	CMEO
10336.00	11109.00	RLNS
10486.00	11259.00	CZZT
10811.00	11584.00	CRCN
11071.00	11844.00	SEGO
11316.00	12089.00	SEGO_LOWER
11816.00	12589.00	TD









Plan: Plan 1 (FED RGU 322-12-298/Wellbore #1)

Created By: Chase Chambers Date: 10:36, May 06 2022

Terra Energy Partners, LLP

Rio Blanco County, CO
RGU 44-1-298
FED RGU 322-12-298 - Slot FED RGU 322-12-298

Wellbore #1

Plan: Plan 1

KLX Well Planning Report

05 May, 2022

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well FED RGU 322-12-298 - Slot FED RGU 322-12-298
Company:	Terra Energy Partners, LLP	**TVD Reference:**	KB=30' @ 6308.00usft (H&P #329)
Project:	Rio Blanco County, CO	**MD Reference:**	KB=30' @ 6308.00usft (H&P #329)
Site:	RGU 44-1-298	**North Reference:**	True
Well:	FED RGU 322-12-298	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Project Rio Blanco County, CO

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site RGU 44-1-298

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

Well FED RGU 322-12-298 - Slot FED RGU 322-12-298

Well Position	**+N/-S**	-10.45 usft	**Northing:**	1,765,494.24 usft	**Latitude:**	39.901002
	+E/-W	-29.84 usft	**Easting:**	2,204,398.93 usft	**Longitude:**	-108.336055
Position Uncertainty		0.00 usft	**Wellhead Elevation:**		**Ground Level:**	6,278.00 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2020	12/31/2020	9.20	65.83	51,292.90000000

Design Plan 1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	218.87

Plan Sections

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	
370.00	5.00	190.00	369.68	-10.74	-1.89	2.00	2.00	0.00	190.00	
1,573.25	28.31	219.41	1,515.60	-286.85	-194.96	2.00	1.94	2.44	34.82	
6,921.98	28.31	219.41	6,224.81	-2,246.32	-1,805.17	0.00	0.00	0.00	0.00	
8,809.00	0.00	0.00	8,036.00	-2,599.17	-2,095.13	1.50	-1.50	0.00	180.00	FED RGU 322-12-29
12,589.00	0.00	0.00	11,816.00	-2,599.17	-2,095.13	0.00	0.00	0.00	0.00	FED RGU 322-12-29

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well FED RGU 322-12-298 - Slot FED RGU 322-12-298
Company:	Terra Energy Partners, LLP	**TVD Reference:**	KB=30' @ 6308.00usft (H&P #329)
Project:	Rio Blanco County, CO	**MD Reference:**	KB=30' @ 6308.00usft (H&P #329)
Site:	RGU 44-1-298	**North Reference:**	True
Well:	FED RGU 322-12-298	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

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
UINTA									
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
Start Build 2.00									
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	1.60	190.00	199.99	-1.10	-0.19	0.98	2.00	2.00	0.00
300.00	3.60	190.00	299.88	-5.57	-0.98	4.95	2.00	2.00	0.00
Start DLS 2.00 TFO 34.82									
370.00	5.00	190.00	369.68	-10.74	-1.89	9.55	2.00	2.00	0.00
400.00	5.50	193.57	399.56	-13.42	-2.46	11.99	2.00	1.68	11.92
500.00	7.29	201.78	498.93	-23.97	-5.94	22.39	2.00	1.78	8.21
600.00	9.16	206.72	597.90	-36.97	-11.87	36.23	2.00	1.87	4.93
700.00	11.08	209.98	696.34	-52.41	-20.25	53.51	2.00	1.92	3.26
GRRV									
703.73	11.15	210.08	700.00	-53.03	-20.61	54.22	2.00	1.93	2.68
800.00	13.02	212.28	794.14	-70.25	-31.06	74.19	2.00	1.94	2.29
GRRV_A_GROOVE									
857.47	14.14	213.31	850.00	-81.59	-38.38	87.61	2.00	1.95	1.81
900.00	14.98	213.98	891.16	-90.49	-44.30	98.26	2.00	1.96	1.58
1,000.00	16.94	215.31	987.30	-113.10	-59.95	125.68	2.00	1.97	1.32
GRRV_B_GROOVE									
1,065.77	18.24	216.02	1,050.00	-129.25	-71.54	145.52	2.00	1.97	1.09
1,100.00	18.92	216.36	1,082.44	-138.05	-77.98	156.42	2.00	1.98	0.98
1,200.00	20.90	217.22	1,176.46	-165.30	-98.38	190.44	2.00	1.98	0.86
13 3/8" Surface Casing									
1,257.53	22.03	217.65	1,230.00	-182.02	-111.18	211.48	2.00	1.98	0.74
1,300.00	22.88	217.94	1,269.25	-194.84	-121.12	227.70	2.00	1.98	0.68
GRRV_DISSOLUTION_SURF									
1,388.23	24.63	218.48	1,350.00	-222.75	-143.10	263.23	2.00	1.98	0.61
1,400.00	24.86	218.55	1,360.69	-226.61	-146.17	268.16	2.00	1.99	0.57
1,500.00	26.85	219.07	1,450.68	-260.59	-173.51	311.77	2.00	1.99	0.52
Start 5348.73 hold at 1573.25 MD									
1,573.25	28.31	219.41	1,515.60	-286.85	-194.96	345.68	2.00	1.99	0.46
1,600.00	28.31	219.41	1,539.16	-296.65	-203.01	358.36	0.00	0.00	0.00
1,700.00	28.31	219.41	1,627.20	-333.28	-233.12	405.78	0.00	0.00	0.00
1,800.00	28.31	219.41	1,715.24	-369.92	-263.22	453.19	0.00	0.00	0.00
1,900.00	28.31	219.41	1,803.29	-406.55	-293.33	500.61	0.00	0.00	0.00
2,000.00	28.31	219.41	1,891.33	-443.18	-323.43	548.02	0.00	0.00	0.00
2,100.00	28.31	219.41	1,979.37	-479.82	-353.54	595.44	0.00	0.00	0.00
2,200.00	28.31	219.41	2,067.42	-516.45	-383.64	642.85	0.00	0.00	0.00
2,300.00	28.31	219.41	2,155.46	-553.09	-413.75	690.27	0.00	0.00	0.00
2,400.00	28.31	219.41	2,243.50	-589.72	-443.85	737.68	0.00	0.00	0.00
GARDEN_GULCH									
2,407.38	28.31	219.41	2,250.00	-592.42	-446.07	741.18	0.00	0.00	0.00
2,500.00	28.31	219.41	2,331.55	-626.36	-473.96	785.10	0.00	0.00	0.00
2,600.00	28.31	219.41	2,419.59	-662.99	-504.06	832.51	0.00	0.00	0.00
GRRV_ORANGE									
2,600.46	28.31	219.41	2,420.00	-663.16	-504.20	832.73	0.00	0.00	0.00
U__WSCH									
2,691.33	28.31	219.41	2,500.00	-696.45	-531.55	875.81	0.00	0.00	0.00
2,700.00	28.31	219.41	2,507.63	-699.62	-534.16	879.93	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well FED RGU 322-12-298 - Slot FED RGU 322-12-298
Company:	Terra Energy Partners, LLP	**TVD Reference:**	KB=30' @ 6308.00usft (H&P #329)
Project:	Rio Blanco County, CO	**MD Reference:**	KB=30' @ 6308.00usft (H&P #329)
Site:	RGU 44-1-298	**North Reference:**	True
Well:	FED RGU 322-12-298	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

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)
2,800.00	28.31	219.41	2,595.68	-736.26	-564.27	927.34	0.00	0.00	0.00
2,900.00	28.31	219.41	2,683.72	-772.89	-594.37	974.75	0.00	0.00	0.00
3,000.00	28.31	219.41	2,771.76	-809.53	-624.48	1,022.17	0.00	0.00	0.00
3,100.00	28.31	219.41	2,859.81	-846.16	-654.58	1,069.58	0.00	0.00	0.00
3,200.00	28.31	219.41	2,947.85	-882.80	-684.69	1,117.00	0.00	0.00	0.00
9 5/8" Intermediate Casing									
3,259.23	28.31	219.41	3,000.00	-904.49	-702.52	1,145.08	0.00	0.00	0.00
3,300.00	28.31	219.41	3,035.89	-919.43	-714.79	1,164.41	0.00	0.00	0.00
3,400.00	28.31	219.41	3,123.94	-956.06	-744.90	1,211.83	0.00	0.00	0.00
3,500.00	28.31	219.41	3,211.98	-992.70	-775.00	1,259.24	0.00	0.00	0.00
3,600.00	28.31	219.41	3,300.03	-1,029.33	-805.11	1,306.66	0.00	0.00	0.00
3,700.00	28.31	219.41	3,388.07	-1,065.97	-835.21	1,354.07	0.00	0.00	0.00
3,800.00	28.31	219.41	3,476.11	-1,102.60	-865.31	1,401.49	0.00	0.00	0.00
3,900.00	28.31	219.41	3,564.16	-1,139.24	-895.42	1,448.90	0.00	0.00	0.00
4,000.00	28.31	219.41	3,652.20	-1,175.87	-925.52	1,496.32	0.00	0.00	0.00
4,100.00	28.31	219.41	3,740.24	-1,212.51	-955.63	1,543.73	0.00	0.00	0.00
4,200.00	28.31	219.41	3,828.29	-1,249.14	-985.73	1,591.15	0.00	0.00	0.00
4,300.00	28.31	219.41	3,916.33	-1,285.77	-1,015.84	1,638.56	0.00	0.00	0.00
4,400.00	28.31	219.41	4,004.37	-1,322.41	-1,045.94	1,685.98	0.00	0.00	0.00
4,500.00	28.31	219.41	4,092.42	-1,359.04	-1,076.05	1,733.39	0.00	0.00	0.00
4,600.00	28.31	219.41	4,180.46	-1,395.68	-1,106.15	1,780.81	0.00	0.00	0.00
4,700.00	28.31	219.41	4,268.50	-1,432.31	-1,136.26	1,828.22	0.00	0.00	0.00
4,800.00	28.31	219.41	4,356.55	-1,468.95	-1,166.36	1,875.63	0.00	0.00	0.00
4,900.00	28.31	219.41	4,444.59	-1,505.58	-1,196.46	1,923.05	0.00	0.00	0.00
5,000.00	28.31	219.41	4,532.63	-1,542.21	-1,226.57	1,970.46	0.00	0.00	0.00
5,100.00	28.31	219.41	4,620.68	-1,578.85	-1,256.67	2,017.88	0.00	0.00	0.00
5,200.00	28.31	219.41	4,708.72	-1,615.48	-1,286.78	2,065.29	0.00	0.00	0.00
5,300.00	28.31	219.41	4,796.76	-1,652.12	-1,316.88	2,112.71	0.00	0.00	0.00
5,400.00	28.31	219.41	4,884.81	-1,688.75	-1,346.99	2,160.12	0.00	0.00	0.00
5,500.00	28.31	219.41	4,972.85	-1,725.39	-1,377.09	2,207.54	0.00	0.00	0.00
5,600.00	28.31	219.41	5,060.89	-1,762.02	-1,407.20	2,254.95	0.00	0.00	0.00
G_SAND									
5,655.78	28.31	219.41	5,110.00	-1,782.45	-1,423.99	2,281.40	0.00	0.00	0.00
5,700.00	28.31	219.41	5,148.94	-1,798.65	-1,437.30	2,302.37	0.00	0.00	0.00
5,800.00	28.31	219.41	5,236.98	-1,835.29	-1,467.41	2,349.78	0.00	0.00	0.00
5,900.00	28.31	219.41	5,325.02	-1,871.92	-1,497.51	2,397.20	0.00	0.00	0.00
FRUN									
5,951.08	28.31	219.41	5,370.00	-1,890.64	-1,512.89	2,421.42	0.00	0.00	0.00
6,000.00	28.31	219.41	5,413.07	-1,908.56	-1,527.61	2,444.61	0.00	0.00	0.00
6,100.00	28.31	219.41	5,501.11	-1,945.19	-1,557.72	2,492.03	0.00	0.00	0.00
6,200.00	28.31	219.41	5,589.15	-1,981.83	-1,587.82	2,539.44	0.00	0.00	0.00
6,300.00	28.31	219.41	5,677.20	-2,018.46	-1,617.93	2,586.86	0.00	0.00	0.00
6,400.00	28.31	219.41	5,765.24	-2,055.09	-1,648.03	2,634.27	0.00	0.00	0.00
6,500.00	28.31	219.41	5,853.28	-2,091.73	-1,678.14	2,681.69	0.00	0.00	0.00
6,600.00	28.31	219.41	5,941.33	-2,128.36	-1,708.24	2,729.10	0.00	0.00	0.00
6,700.00	28.31	219.41	6,029.37	-2,165.00	-1,738.35	2,776.52	0.00	0.00	0.00
6,800.00	28.31	219.41	6,117.41	-2,201.63	-1,768.45	2,823.93	0.00	0.00	0.00
L__WSCH									
6,848.37	28.31	219.41	6,160.00	-2,219.35	-1,783.01	2,846.86	0.00	0.00	0.00
6,900.00	28.31	219.41	6,205.46	-2,238.27	-1,798.56	2,871.34	0.00	0.00	0.00
Start Drop -1.50									
6,921.98	28.31	219.41	6,224.81	-2,246.32	-1,805.17	2,881.77	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well FED RGU 322-12-298 - Slot FED RGU 322-12-298
Company:	Terra Energy Partners, LLP	**TVD Reference:**	KB=30' @ 6308.00usft (H&P #329)
Project:	Rio Blanco County, CO	**MD Reference:**	KB=30' @ 6308.00usft (H&P #329)
Site:	RGU 44-1-298	**North Reference:**	True
Well:	FED RGU 322-12-298	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

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)
7,000.00	27.13	219.41	6,293.87	-2,274.36	-1,828.21	2,918.06	1.50	-1.50	0.00
7,100.00	25.63	219.41	6,383.45	-2,308.69	-1,856.43	2,962.49	1.50	-1.50	0.00
7,200.00	24.13	219.41	6,474.17	-2,341.20	-1,883.14	3,004.57	1.50	-1.50	0.00
OCRK									
7,245.72	23.45	219.41	6,516.00	-2,355.45	-1,894.85	3,023.01	1.50	-1.50	0.00
7,300.00	22.63	219.41	6,565.95	-2,371.86	-1,908.34	3,044.26	1.50	-1.50	0.00
7,400.00	21.13	219.41	6,658.74	-2,400.66	-1,932.01	3,081.53	1.50	-1.50	0.00
7,500.00	19.63	219.41	6,752.48	-2,427.57	-1,954.12	3,116.36	1.50	-1.50	0.00
7,600.00	18.13	219.41	6,847.09	-2,452.58	-1,974.67	3,148.72	1.50	-1.50	0.00
7,700.00	16.63	219.41	6,942.52	-2,475.66	-1,993.64	3,178.60	1.50	-1.50	0.00
7,800.00	15.13	219.41	7,038.70	-2,496.81	-2,011.01	3,205.97	1.50	-1.50	0.00
7,900.00	13.63	219.41	7,135.56	-2,516.00	-2,026.79	3,230.81	1.50	-1.50	0.00
8,000.00	12.13	219.41	7,233.04	-2,533.23	-2,040.94	3,253.11	1.50	-1.50	0.00
U__MVRD									
8,003.03	12.09	219.41	7,236.00	-2,533.72	-2,041.35	3,253.74	1.50	-1.50	0.00
8,100.00	10.63	219.41	7,331.07	-2,548.48	-2,053.48	3,272.85	1.50	-1.50	0.00
8,200.00	9.13	219.41	7,429.58	-2,561.74	-2,064.38	3,290.01	1.50	-1.50	0.00
8,300.00	7.63	219.41	7,528.51	-2,573.01	-2,073.63	3,304.59	1.50	-1.50	0.00
8,400.00	6.13	219.41	7,627.79	-2,582.27	-2,081.24	3,316.58	1.50	-1.50	0.00
8,500.00	4.63	219.41	7,727.34	-2,589.52	-2,087.20	3,325.96	1.50	-1.50	0.00
8,600.00	3.13	219.41	7,827.11	-2,594.76	-2,091.50	3,332.74	1.50	-1.50	0.00
8,700.00	1.63	219.41	7,927.02	-2,597.97	-2,094.15	3,336.90	1.50	-1.50	0.00
Start 3780.00 hold at 8809.00 MD - TOP GAS									
8,809.00	0.00	0.00	8,036.00	-2,599.17	-2,095.13	3,338.45	1.50	-1.50	0.00
8,900.00	0.00	0.00	8,127.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
9,000.00	0.00	0.00	8,227.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
9,100.00	0.00	0.00	8,327.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
9,200.00	0.00	0.00	8,427.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
9,300.00	0.00	0.00	8,527.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
9,400.00	0.00	0.00	8,627.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
9,500.00	0.00	0.00	8,727.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
9,600.00	0.00	0.00	8,827.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
9,700.00	0.00	0.00	8,927.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
9,800.00	0.00	0.00	9,027.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
9,900.00	0.00	0.00	9,127.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
10,000.00	0.00	0.00	9,227.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
10,100.00	0.00	0.00	9,327.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
10,200.00	0.00	0.00	9,427.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
10,300.00	0.00	0.00	9,527.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
CMEO									
10,379.00	0.00	0.00	9,606.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
10,400.00	0.00	0.00	9,627.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
10,500.00	0.00	0.00	9,727.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
10,600.00	0.00	0.00	9,827.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
10,700.00	0.00	0.00	9,927.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
10,800.00	0.00	0.00	10,027.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
10,900.00	0.00	0.00	10,127.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
11,000.00	0.00	0.00	10,227.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
11,100.00	0.00	0.00	10,327.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
RLNS									
11,109.00	0.00	0.00	10,336.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
11,200.00	0.00	0.00	10,427.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well FED RGU 322-12-298 - Slot FED RGU 322-12-298
Company:	Terra Energy Partners, LLP	**TVD Reference:**	KB=30' @ 6308.00usft (H&P #329)
Project:	Rio Blanco County, CO	**MD Reference:**	KB=30' @ 6308.00usft (H&P #329)
Site:	RGU 44-1-298	**North Reference:**	True
Well:	FED RGU 322-12-298	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

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)
CZZT									
11,259.00	0.00	0.00	10,486.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
11,300.00	0.00	0.00	10,527.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
11,400.00	0.00	0.00	10,627.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
11,500.00	0.00	0.00	10,727.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
CRCN									
11,584.00	0.00	0.00	10,811.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
11,600.00	0.00	0.00	10,827.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
11,700.00	0.00	0.00	10,927.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
11,800.00	0.00	0.00	11,027.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
SEGO									
11,844.00	0.00	0.00	11,071.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
11,900.00	0.00	0.00	11,127.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
12,000.00	0.00	0.00	11,227.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
SEGO_LOWER									
12,089.00	0.00	0.00	11,316.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
12,100.00	0.00	0.00	11,327.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
12,200.00	0.00	0.00	11,427.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
12,300.00	0.00	0.00	11,527.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
12,400.00	0.00	0.00	11,627.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
12,500.00	0.00	0.00	11,727.00	-2,599.17	-2,095.13	3,338.45	0.00	0.00	0.00
TD at 12589.00 - TD									
12,589.00	0.00	0.00	11,816.00	-2,599.17	-2,095.13	3,338.45	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
FED RGU 322-12-298 - - plan hits target center - Circle (radius 100.00)	0.00	0.00	8,036.00	-2,599.17	-2,095.13	1,762,961.73	2,202,223.69	39.893867	-108.343521
FED RGU 322-12-298 - - plan hits target center - Point	0.00	0.00	11,816.00	-2,599.17	-2,095.13	1,762,961.73	2,202,223.69	39.893867	-108.343521

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,257.53	1,230.00	13 3/8" Surface Casing	13-3/8	17-1/2
3,259.23	3,000.00	9 5/8" Intermediate Casing	9-5/8	12-1/4

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well FED RGU 322-12-298 - Slot FED RGU 322-12-298
Company:	Terra Energy Partners, LLP	**TVD Reference:**	KB=30' @ 6308.00usft (H&P #329)
Project:	Rio Blanco County, CO	**MD Reference:**	KB=30' @ 6308.00usft (H&P #329)
Site:	RGU 44-1-298	**North Reference:**	True
Well:	FED RGU 322-12-298	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
30.00	30.00	UINTA			
703.73	700.00	GRRV			
857.47	850.00	GRRV_A_GROOVE			
1,065.77	1,050.00	GRRV_B_GROOVE			
1,388.23	1,350.00	GRRV_DISSOLUTION_SURF			
2,407.38	2,250.00	GARDEN_GULCH			
2,600.46	2,420.00	GRRV_ORANGE			
2,691.33	2,500.00	U__WSCH			
5,655.78	5,110.00	G_SAND			
5,951.08	5,370.00	FRUN			
6,848.37	6,160.00	L__WSCH			
7,245.72	6,516.00	OCRK			
8,003.03	7,236.00	U__MVRD			
8,809.00	8,036.00	TOP GAS			
10,379.00	9,606.00	CMEO			
11,109.00	10,336.00	RLNS			
11,259.00	10,486.00	CZZT			
11,584.00	10,811.00	CRCN			
11,844.00	11,071.00	SEGO			
12,089.00	11,316.00	SEGO_LOWER			
12,589.00	11,816.00	TD			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
120.00	120.00	0.00	0.00	Start Build 2.00
370.00	369.68	-10.74	-1.89	Start DLS 2.00 TFO 34.82
1,573.25	1,515.60	-286.85	-194.96	Start 5348.73 hold at 1573.25 MD
6,921.98	6,224.81	-2,246.32	-1,805.17	Start Drop -1.50
8,809.00	8,036.00	-2,599.17	-2,095.13	Start 3780.00 hold at 8809.00 MD
12,589.00	11,816.00	-2,599.17	-2,095.13	TD at 12589.00