

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

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well RG 311-18-297 - Slot RG 311-18-297, True North
Vertical (TVD) Reference: KB=30' @ 6633.00usft (H&P #329)
Section (VS) Reference: Slot - RG 311-18-297(0.00N, 0.00E)
Measured Depth Reference: KB=30' @ 6633.00usft (H&P #329)
Calculation Method: Minimum Curvature

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
RG 311-18-297 - KMW Gas	7903.00	-2298.36	-370.82	1758589.50	2205790.80	39.882176	-108.330329	Circle (Radius: 50.00)
RG 311-18-297 - PBHL	11563.00	-2298.36	-370.82	1758589.50	2205790.80	39.882176	-108.330329	Point

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	Start Build 2.00
1102.66	19.35	189.17	1084.37	-159.81	-25.78	161.88	161.88	Start 5885.37 hold at 1102.66 MD
6988.04	19.35	189.17	6637.18	-2085.28	-336.44	2112.24	2112.24	Start Drop -1.50
8278.25	0.00	0.00	7903.00	-2298.36	-370.82	2328.08	2328.08	Start 3660.00 hold at 8278.25 MD
11938.25	0.00	0.00	11563.00	-2298.36	-370.82	2328.08	2328.08	TD at 11938.25

WELL DETAILS: RG 311-18-297

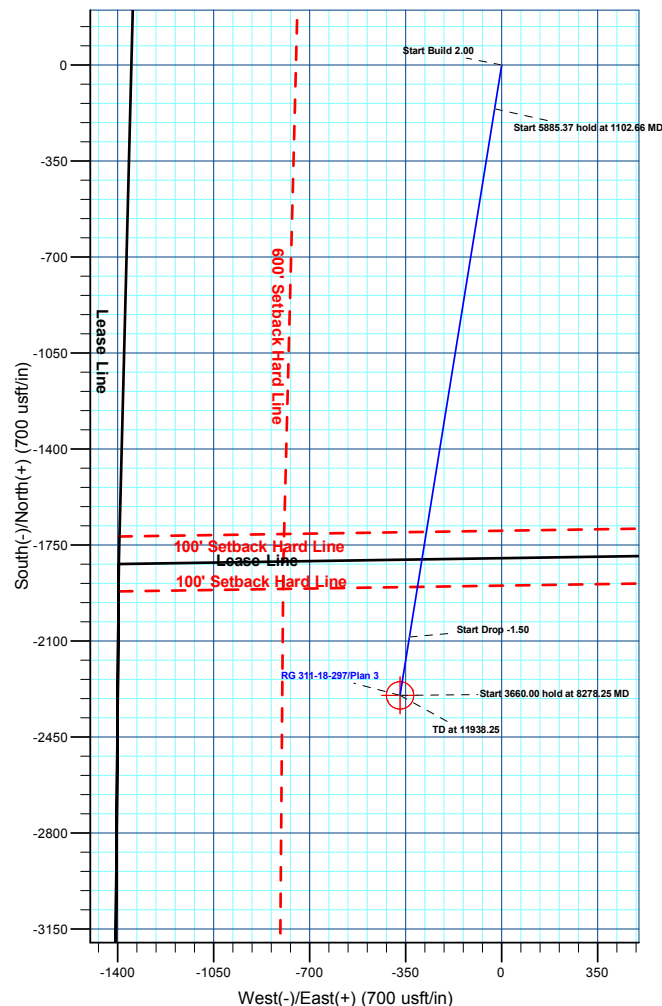
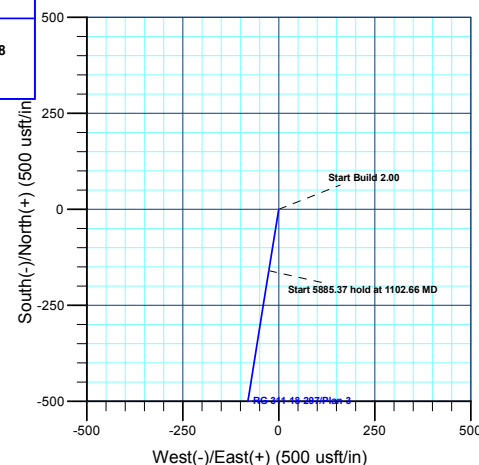
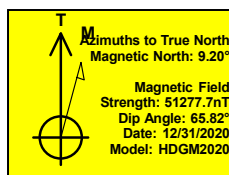
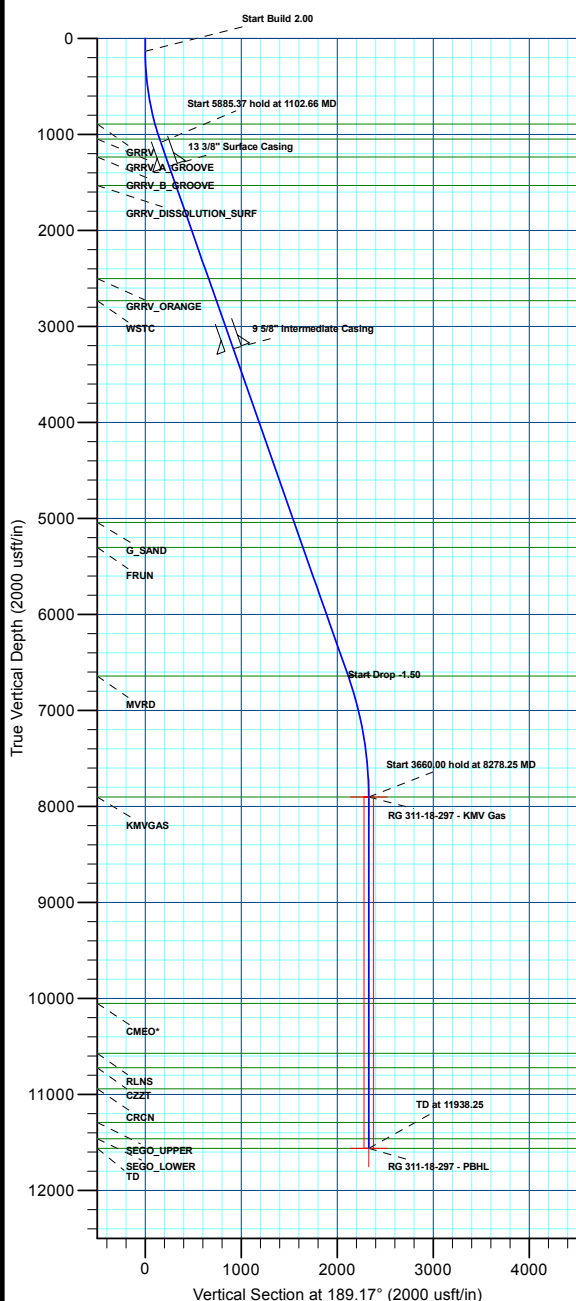
+N/-S	+E/-W	Northing	Ground Elev:	Latitude	Longitude	Slot
0.00	0.00	1760875.20	6603.00	39.888486	-108.329008	RG 311-18-297

CASING DETAILS

TVD	MD	Name	Size
1333.00	1366.19	13 3/8" Surface Casing	13-3/8
3233.00	3379.98	5/8" Intermediate Casing	9-5/8

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
893.00	902.14	GRRV
1048.00	1064.21	GRRV_A_GROOVE
1238.00	1265.50	GRRV_B_GROOVE
1533.00	1578.17	GRRV DISSOLUTION_SURF
2503.00	2606.26	GRRV_ORANGE
2733.00	2850.03	WSTC
5043.00	5298.38	G_SAND
5303.00	5573.95	FRUN
6643.00	6994.21	MVRD
7903.00	8278.25	KMVGAS
10053.00	10428.25	CMEO*
10573.00	10948.25	RLNS
10723.00	10998.25	CZT
10943.00	11318.25	CRCN
11293.00	11668.25	SEGO_UPPER
11463.00	11838.25	SEGO_LOWER
11563.00	11938.25	TD



Plan: Plan 3 (RG 311-18-297/Wellbore #1)

Created By: Chase Chambers Date: 14:57, April 06 2022



Terra Energy Partners, LLP

Rio Blanco County, CO

RGU 23-7-297 Pad

RG 311-18-297 - Slot RG 311-18-297

Wellbore #1

Plan: Plan 3

KLX Well Planning Report

22 March, 2022



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RG 311-18-297 - Slot RG 311-18-297
Company:	Terra Energy Partners, LLP	TVD Reference:	KB=30' @ 6633.00usft (H&P #329)
Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6633.00usft (H&P #329)
Site:	RGU 23-7-297 Pad	North Reference:	True
Well:	RG 311-18-297	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 3		

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 23-7-297 Pad			
Site Position:		Northing:	1,760,880.90 usft	Latitude:	39.888499
From:	Map	Easting:	2,206,203.50 usft	Longitude:	-108.329114
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.78 °

Well	RG 311-18-297 - Slot RG 311-18-297					
Well Position	+N/-S	-4.78 usft	Northing:	1,760,875.20 usft	Latitude:	39.888486
	+E/-W	29.66 usft	Easting:	2,206,233.00 usft	Longitude:	-108.329008
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	6,603.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2020	12/31/2020	9.20	65.82	51,277.70000000

Design	Plan 3			
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	189.17

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	
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,102.66	19.35	189.17	1,084.37	-159.81	-25.78	2.00	2.00	0.00	189.17	
6,988.04	19.35	189.17	6,637.18	-2,085.28	-336.44	0.00	0.00	0.00	0.00	
8,278.25	0.00	0.00	7,903.00	-2,298.36	-370.82	1.50	-1.50	0.00	180.00	RG 311-18-297 - KMA
11,938.25	0.00	0.00	11,563.00	-2,298.36	-370.82	0.00	0.00	0.00	0.00	RG 311-18-297 - PBH

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RG 311-18-297 - Slot RG 311-18-297
Company:	Terra Energy Partners, LLP	TVD Reference:	KB=30' @ 6633.00usft (H&P #329)
Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6633.00usft (H&P #329)
Site:	RGU 23-7-297 Pad	North Reference:	True
Well:	RG 311-18-297	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 3		

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
Start Build 2.00									
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	1.30	189.17	199.99	-0.73	-0.12	0.74	2.00	2.00	0.00
300.00	3.30	189.17	299.91	-4.69	-0.76	4.75	2.00	2.00	0.00
400.00	5.30	189.17	399.62	-12.09	-1.95	12.25	2.00	2.00	0.00
500.00	7.30	189.17	499.01	-22.92	-3.70	23.22	2.00	2.00	0.00
600.00	9.30	189.17	597.96	-37.17	-6.00	37.66	2.00	2.00	0.00
700.00	11.30	189.17	696.34	-54.83	-8.85	55.53	2.00	2.00	0.00
800.00	13.30	189.17	794.04	-75.86	-12.24	76.84	2.00	2.00	0.00
900.00	15.30	189.17	890.94	-100.24	-16.17	101.54	2.00	2.00	0.00
GRRV									
902.14	15.34	189.17	893.00	-100.80	-16.26	102.10	2.00	2.00	0.00
1,000.00	17.30	189.17	986.92	-127.95	-20.64	129.60	2.00	2.00	0.00
GRRV_A_GROOVE									
1,064.21	18.58	189.17	1,048.00	-147.47	-23.79	149.38	2.00	2.00	0.00
Start 5885.37 hold at 1102.66 MD									
1,102.66	19.35	189.17	1,084.37	-159.81	-25.78	161.88	2.00	2.00	0.00
1,200.00	19.35	189.17	1,176.20	-191.66	-30.92	194.14	0.00	0.00	0.00
GRRV_B_GROOVE									
1,265.50	19.35	189.17	1,238.00	-213.09	-34.38	215.84	0.00	0.00	0.00
1,300.00	19.35	189.17	1,270.55	-224.37	-36.20	227.28	0.00	0.00	0.00
13 3/8" Surface Casing									
1,366.19	19.35	189.17	1,333.00	-246.03	-39.69	249.21	0.00	0.00	0.00
1,400.00	19.35	189.17	1,364.90	-257.09	-41.48	260.41	0.00	0.00	0.00
1,500.00	19.35	189.17	1,459.25	-289.81	-46.76	293.55	0.00	0.00	0.00
GRRV DISSOLUTION_SURF									
1,578.17	19.35	189.17	1,533.00	-315.38	-50.88	319.46	0.00	0.00	0.00
1,600.00	19.35	189.17	1,553.60	-322.52	-52.04	326.69	0.00	0.00	0.00
1,700.00	19.35	189.17	1,647.95	-355.24	-57.31	359.83	0.00	0.00	0.00
1,800.00	19.35	189.17	1,742.30	-387.95	-62.59	392.97	0.00	0.00	0.00
1,900.00	19.35	189.17	1,836.65	-420.67	-67.87	426.11	0.00	0.00	0.00
2,000.00	19.35	189.17	1,931.00	-453.39	-73.15	459.25	0.00	0.00	0.00
2,100.00	19.35	189.17	2,025.35	-486.10	-78.43	492.39	0.00	0.00	0.00
2,200.00	19.35	189.17	2,119.70	-518.82	-83.71	525.53	0.00	0.00	0.00
2,300.00	19.35	189.17	2,214.05	-551.53	-88.98	558.67	0.00	0.00	0.00
2,400.00	19.35	189.17	2,308.40	-584.25	-94.26	591.81	0.00	0.00	0.00
2,500.00	19.35	189.17	2,402.75	-616.97	-99.54	624.95	0.00	0.00	0.00
2,600.00	19.35	189.17	2,497.09	-649.68	-104.82	658.08	0.00	0.00	0.00
GRRV_ORANGE									
2,606.26	19.35	189.17	2,503.00	-651.73	-105.15	660.16	0.00	0.00	0.00
2,700.00	19.35	189.17	2,591.44	-682.40	-110.10	691.22	0.00	0.00	0.00
2,800.00	19.35	189.17	2,685.79	-715.12	-115.38	724.36	0.00	0.00	0.00
WSTC									
2,850.03	19.35	189.17	2,733.00	-731.48	-118.02	740.94	0.00	0.00	0.00
2,900.00	19.35	189.17	2,780.14	-747.83	-120.66	757.50	0.00	0.00	0.00
3,000.00	19.35	189.17	2,874.49	-780.55	-125.93	790.64	0.00	0.00	0.00
3,100.00	19.35	189.17	2,968.84	-813.26	-131.21	823.78	0.00	0.00	0.00
3,200.00	19.35	189.17	3,063.19	-845.98	-136.49	856.92	0.00	0.00	0.00
3,300.00	19.35	189.17	3,157.54	-878.70	-141.77	890.06	0.00	0.00	0.00
9 5/8" Intermediate Casing									
3,379.98	19.35	189.17	3,233.00	-904.86	-145.99	916.56	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RG 311-18-297 - Slot RG 311-18-297
Company:	Terra Energy Partners, LLP	TVD Reference:	KB=30' @ 6633.00usft (H&P #329)
Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6633.00usft (H&P #329)
Site:	RGU 23-7-297 Pad	North Reference:	True
Well:	RG 311-18-297	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 3		

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)
3,400.00	19.35	189.17	3,251.89	-911.41	-147.05	923.20	0.00	0.00	0.00
3,500.00	19.35	189.17	3,346.24	-944.13	-152.33	956.34	0.00	0.00	0.00
3,600.00	19.35	189.17	3,440.59	-976.84	-157.60	989.48	0.00	0.00	0.00
3,700.00	19.35	189.17	3,534.94	-1,009.56	-162.88	1,022.62	0.00	0.00	0.00
3,800.00	19.35	189.17	3,629.29	-1,042.28	-168.16	1,055.75	0.00	0.00	0.00
3,900.00	19.35	189.17	3,723.64	-1,074.99	-173.44	1,088.89	0.00	0.00	0.00
4,000.00	19.35	189.17	3,817.99	-1,107.71	-178.72	1,122.03	0.00	0.00	0.00
4,100.00	19.35	189.17	3,912.33	-1,140.42	-184.00	1,155.17	0.00	0.00	0.00
4,200.00	19.35	189.17	4,006.68	-1,173.14	-189.28	1,188.31	0.00	0.00	0.00
4,300.00	19.35	189.17	4,101.03	-1,205.86	-194.55	1,221.45	0.00	0.00	0.00
4,400.00	19.35	189.17	4,195.38	-1,238.57	-199.83	1,254.59	0.00	0.00	0.00
4,500.00	19.35	189.17	4,289.73	-1,271.29	-205.11	1,287.73	0.00	0.00	0.00
4,600.00	19.35	189.17	4,384.08	-1,304.00	-210.39	1,320.87	0.00	0.00	0.00
4,700.00	19.35	189.17	4,478.43	-1,336.72	-215.67	1,354.01	0.00	0.00	0.00
4,800.00	19.35	189.17	4,572.78	-1,369.44	-220.95	1,387.15	0.00	0.00	0.00
4,900.00	19.35	189.17	4,667.13	-1,402.15	-226.22	1,420.28	0.00	0.00	0.00
5,000.00	19.35	189.17	4,761.48	-1,434.87	-231.50	1,453.42	0.00	0.00	0.00
5,100.00	19.35	189.17	4,855.83	-1,467.58	-236.78	1,486.56	0.00	0.00	0.00
5,200.00	19.35	189.17	4,950.18	-1,500.30	-242.06	1,519.70	0.00	0.00	0.00
G_SAND									
5,298.38	19.35	189.17	5,043.00	-1,532.49	-247.25	1,552.31	0.00	0.00	0.00
5,300.00	19.35	189.17	5,044.53	-1,533.02	-247.34	1,552.84	0.00	0.00	0.00
5,400.00	19.35	189.17	5,138.88	-1,565.73	-252.62	1,585.98	0.00	0.00	0.00
5,500.00	19.35	189.17	5,233.23	-1,598.45	-257.89	1,619.12	0.00	0.00	0.00
FRUN									
5,573.95	19.35	189.17	5,303.00	-1,622.64	-261.80	1,643.63	0.00	0.00	0.00
5,600.00	19.35	189.17	5,327.57	-1,631.17	-263.17	1,652.26	0.00	0.00	0.00
5,700.00	19.35	189.17	5,421.92	-1,663.88	-268.45	1,685.40	0.00	0.00	0.00
5,800.00	19.35	189.17	5,516.27	-1,696.60	-273.73	1,718.54	0.00	0.00	0.00
5,900.00	19.35	189.17	5,610.62	-1,729.31	-279.01	1,751.68	0.00	0.00	0.00
6,000.00	19.35	189.17	5,704.97	-1,762.03	-284.29	1,784.82	0.00	0.00	0.00
6,100.00	19.35	189.17	5,799.32	-1,794.75	-289.57	1,817.95	0.00	0.00	0.00
6,200.00	19.35	189.17	5,893.67	-1,827.46	-294.84	1,851.09	0.00	0.00	0.00
6,300.00	19.35	189.17	5,988.02	-1,860.18	-300.12	1,884.23	0.00	0.00	0.00
6,400.00	19.35	189.17	6,082.37	-1,892.89	-305.40	1,917.37	0.00	0.00	0.00
6,500.00	19.35	189.17	6,176.72	-1,925.61	-310.68	1,950.51	0.00	0.00	0.00
6,600.00	19.35	189.17	6,271.07	-1,958.33	-315.96	1,983.65	0.00	0.00	0.00
6,700.00	19.35	189.17	6,365.42	-1,991.04	-321.24	2,016.79	0.00	0.00	0.00
6,800.00	19.35	189.17	6,459.77	-2,023.76	-326.51	2,049.93	0.00	0.00	0.00
6,900.00	19.35	189.17	6,554.12	-2,056.47	-331.79	2,083.07	0.00	0.00	0.00
Start Drop -1.50									
6,988.04	19.35	189.17	6,637.18	-2,085.28	-336.44	2,112.24	0.00	0.00	0.00
MVRD									
6,994.21	19.26	189.17	6,643.00	-2,087.29	-336.76	2,114.28	1.50	-1.50	0.00
7,000.00	19.17	189.17	6,648.47	-2,089.17	-337.07	2,116.19	1.50	-1.50	0.00
7,100.00	17.67	189.17	6,743.34	-2,120.37	-342.10	2,147.79	1.50	-1.50	0.00
7,200.00	16.17	189.17	6,839.01	-2,149.11	-346.74	2,176.90	1.50	-1.50	0.00
7,300.00	14.67	189.17	6,935.41	-2,175.37	-350.97	2,203.50	1.50	-1.50	0.00
7,400.00	13.17	189.17	7,032.46	-2,199.12	-354.81	2,227.56	1.50	-1.50	0.00
7,500.00	11.67	189.17	7,130.12	-2,220.36	-358.23	2,249.07	1.50	-1.50	0.00
7,600.00	10.17	189.17	7,228.31	-2,239.07	-361.25	2,268.02	1.50	-1.50	0.00
7,700.00	8.67	189.17	7,326.95	-2,255.23	-363.86	2,284.40	1.50	-1.50	0.00
7,800.00	7.17	189.17	7,426.00	-2,268.84	-366.06	2,298.18	1.50	-1.50	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RG 311-18-297 - Slot RG 311-18-297
Company:	Terra Energy Partners, LLP	TVD Reference:	KB=30' @ 6633.00usft (H&P #329)
Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6633.00usft (H&P #329)
Site:	RGU 23-7-297 Pad	North Reference:	True
Well:	RG 311-18-297	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 3		

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)
7,900.00	5.67	189.17	7,525.36	-2,279.89	-367.84	2,309.37	1.50	-1.50	0.00
8,000.00	4.17	189.17	7,624.99	-2,288.36	-369.21	2,317.95	1.50	-1.50	0.00
8,100.00	2.67	189.17	7,724.81	-2,294.25	-370.16	2,323.92	1.50	-1.50	0.00
8,200.00	1.17	189.17	7,824.75	-2,297.57	-370.69	2,327.28	1.50	-1.50	0.00
Start 3660.00 hold at 8278.25 MD - KMGAS									
8,278.25	0.00	0.00	7,903.00	-2,298.36	-370.82	2,328.08	1.50	-1.50	0.00
8,300.00	0.00	0.00	7,924.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
8,400.00	0.00	0.00	8,024.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
8,500.00	0.00	0.00	8,124.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
8,600.00	0.00	0.00	8,224.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
8,700.00	0.00	0.00	8,324.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
8,800.00	0.00	0.00	8,424.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
8,900.00	0.00	0.00	8,524.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,000.00	0.00	0.00	8,624.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,100.00	0.00	0.00	8,724.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,200.00	0.00	0.00	8,824.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,300.00	0.00	0.00	8,924.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,400.00	0.00	0.00	9,024.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,500.00	0.00	0.00	9,124.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,600.00	0.00	0.00	9,224.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,700.00	0.00	0.00	9,324.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,800.00	0.00	0.00	9,424.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,900.00	0.00	0.00	9,524.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,000.00	0.00	0.00	9,624.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,100.00	0.00	0.00	9,724.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,200.00	0.00	0.00	9,824.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,300.00	0.00	0.00	9,924.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,400.00	0.00	0.00	10,024.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
CMEQ*									
10,428.25	0.00	0.00	10,053.00	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,500.00	0.00	0.00	10,124.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,600.00	0.00	0.00	10,224.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,700.00	0.00	0.00	10,324.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,800.00	0.00	0.00	10,424.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,900.00	0.00	0.00	10,524.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
RLNS									
10,948.25	0.00	0.00	10,573.00	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
11,000.00	0.00	0.00	10,624.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
CZZT									
11,098.25	0.00	0.00	10,723.00	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
11,100.00	0.00	0.00	10,724.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
11,200.00	0.00	0.00	10,824.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
11,300.00	0.00	0.00	10,924.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
CRCN									
11,318.25	0.00	0.00	10,943.00	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
11,400.00	0.00	0.00	11,024.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
11,500.00	0.00	0.00	11,124.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
11,600.00	0.00	0.00	11,224.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
SEGO_UPPER									
11,668.25	0.00	0.00	11,293.00	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
11,700.00	0.00	0.00	11,324.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
11,800.00	0.00	0.00	11,424.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
SEGO_LOWER									

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RG 311-18-297 - Slot RG 311-18-297
Company:	Terra Energy Partners, LLP	TVD Reference:	KB=30' @ 6633.00usft (H&P #329)
Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6633.00usft (H&P #329)
Site:	RGU 23-7-297 Pad	North Reference:	True
Well:	RG 311-18-297	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 3		

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)
11,838.25	0.00	0.00	11,463.00	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
11,900.00	0.00	0.00	11,524.75	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
TD at 11938.25 - TD									
11,938.25	0.00	0.00	11,563.00	-2,298.36	-370.82	2,328.08	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
- hit/miss target									
- Shape									
RG 311-18-297 - KMV G	0.00	0.00	7,903.00	-2,298.36	-370.82	1,758,589.50	2,205,790.80	39.882177	-108.330330
- plan hits target center									
- Circle (radius 50.00)									
RG 311-18-297 - PBHL	0.00	0.00	11,563.00	-2,298.36	-370.82	1,758,589.50	2,205,790.80	39.882177	-108.330330
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,366.19	1,333.00	13 3/8" Surface Casing	13-3/8	17-1/2	
3,379.98	3,233.00	9 5/8" Intermediate Casing	9-5/8	12-1/4	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
902.14	893.00	GRRV				
1,064.21	1,048.00	GRRV_A_GROOVE				
1,265.50	1,238.00	GRRV_B_GROOVE				
1,578.17	1,533.00	GRRV DISSOLUTION_SURF				
2,606.26	2,503.00	GRRV_ORANGE				
2,850.03	2,733.00	WSTC				
5,298.38	5,043.00	G_SAND				
5,573.95	5,303.00	FRUN				
6,994.21	6,643.00	MVRD				
8,278.25	7,903.00	KMVGAS				
10,428.25	10,053.00	CMEO*				
10,948.25	10,573.00	RLNS				
11,098.25	10,723.00	CZZT				
11,318.25	10,943.00	CRCN				
11,668.25	11,293.00	SEGO_UPPER				
11,838.25	11,463.00	SEGO_LOWER				
11,938.25	11,563.00	TD				

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RG 311-18-297 - Slot RG 311-18-297
Company:	Terra Energy Partners, LLP	TVD Reference:	KB=30' @ 6633.00usft (H&P #329)
Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6633.00usft (H&P #329)
Site:	RGU 23-7-297 Pad	North Reference:	True
Well:	RG 311-18-297	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 3		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
135.00	135.00	0.00	0.00	Start Build 2.00
1,102.66	1,084.37	-159.81	-25.78	Start 5885.37 hold at 1102.66 MD
6,988.04	6,637.18	-2,085.28	-336.44	Start Drop -1.50
8,278.25	7,903.00	-2,298.36	-370.82	Start 3660.00 hold at 8278.25 MD
11,938.25	11,563.00	-2,298.36	-370.82	TD at 11938.25