

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 511-18-297 - Slot RG 511-18-297, True North
Vertical (TVD) Reference: KB=30' @ 6633.00usft (H&P #329)
Section (VS) Reference: Slot - RG 511-18-297(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 511-18-297 - KMW Gas	7863.00	-3031.59	-395.80	1757854.60	2205757.70	39.880157	-108.330366	Circle (Radius: 50.00)
RG 511-18-297 - PBHL	11523.00	-3031.59	-395.80	1757854.60	2205757.70	39.880157	-108.330366	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
1315.57	23.61	187.44	1282.44	-237.81	-31.05	239.83	239.83	Start 6235.99 hold at 1315.57 MD
7551.56	23.61	187.44	6996.37	-2714.51	-354.40	2737.54	2737.54	Start DLS 1.50 TFO 180.00
8458.99	10.00	187.44	7863.00	-2974.05	-388.29	2999.29	2999.29	Start DLS 1.50 TFO 180.00
9125.66	0.00	0.00	8526.29	-3031.59	-395.80	3057.32	3057.32	Start 2996.71 hold at 9125.66 MD
12122.37	0.00	0.00	11523.00	-3031.59	-395.80	3057.32	3057.32	TD at 12122.37

WELL DETAILS: RG 511-18-297

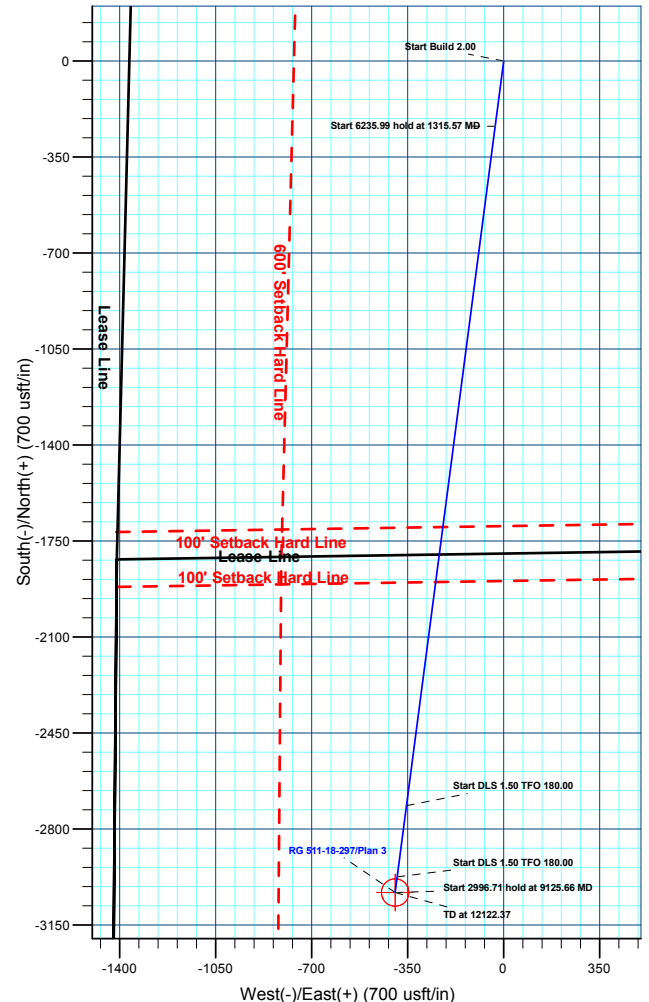
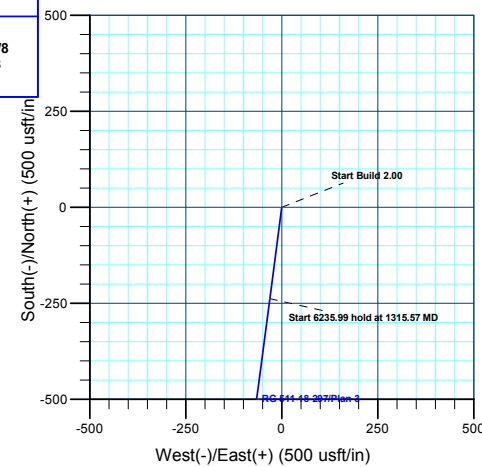
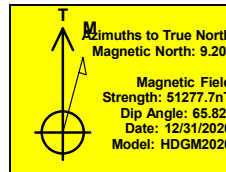
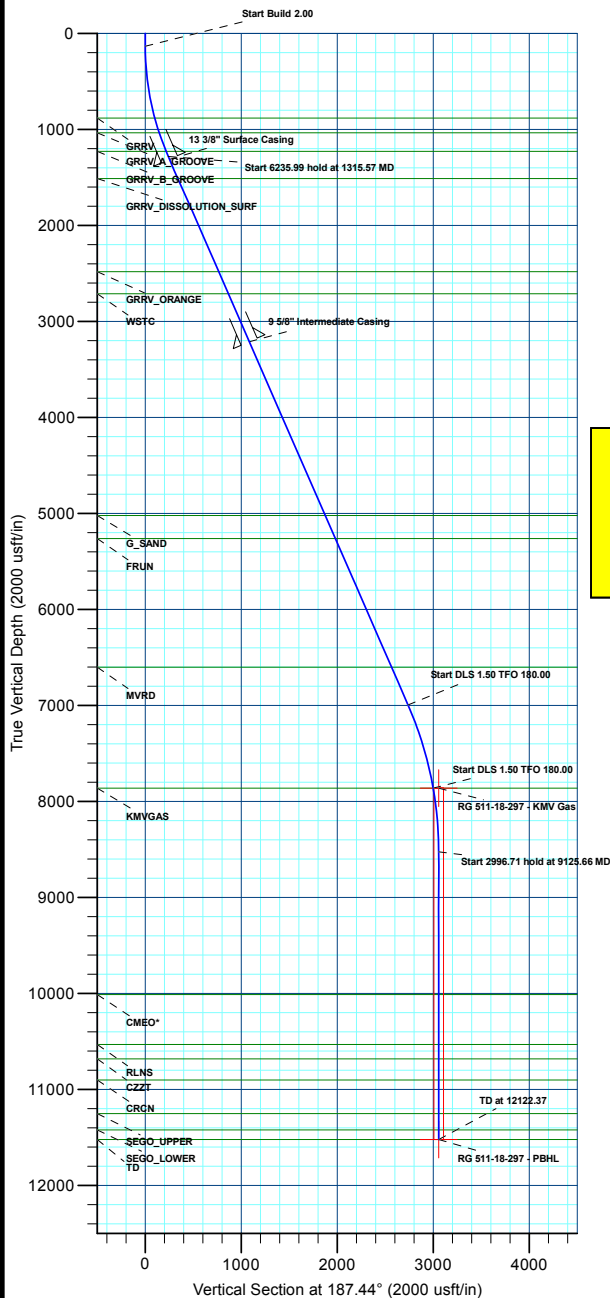
+N/-S	+E/-W	Northing	Ground Elev.	Latitude	Longitude	Slot
0.00	0.00	1760872.40	6603.00	39.888479	-108.328955	RG 511-18-297

CASING DETAILS

TVD	MD	Name	Size
1313.00	1348.92	13 3/8" Surface Casing	13-3/8
3213.00	3422.52	5/8" Intermediate Casing	9-5/8

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
863.00	891.77	GRRV
1038.00	1053.66	GRRV_A_GROOVE
1228.00	1256.42	GRRV_B_GROOVE
1513.00	1567.20	GRRV DISSOLUTION_SURF
2483.00	2625.82	GRRV_ORANGE
2713.00	2876.84	WSTC
5023.00	5397.89	G_SAND
5263.00	5659.82	FRUN
6603.00	7122.25	MVRD
7863.00	8458.99	KMVGAS
10013.00	10612.37	CMEO*
10533.00	11132.37	RLNS
10683.00	11282.37	CZT
10903.00	11502.37	CRCN
11253.00	11852.37	SEGO_UPPER
11423.00	12022.37	SEGO_LOWER
11523.00	12122.37	TD



Plan: Plan 3 (RG 511-18-297/Wellbore #1)

Created By: Chase Chambers Date: 14:43, April 06 2022



Terra Energy Partners, LLP

Rio Blanco County, CO

RGU 23-7-297 Pad

RG 511-18-297 - Slot RG 511-18-297

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 511-18-297 - Slot RG 511-18-297
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 511-18-297	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 511-18-297 - Slot RG 511-18-297					
Well Position	+N/-S	-7.12 usft	Northing:	1,760,872.40 usft	Latitude:	39.888479
	+E/-W	44.44 usft	Easting:	2,206,247.70 usft	Longitude:	-108.328956
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	187.44

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	
1,315.57	23.61	187.44	1,282.44	-237.81	-31.05	2.00	2.00	0.00	187.44	
7,551.56	23.61	187.44	6,996.37	-2,714.51	-354.40	0.00	0.00	0.00	0.00	
8,458.99	10.00	187.44	7,863.00	-2,974.05	-388.29	1.50	-1.50	0.00	180.00	
9,125.66	0.00	0.00	8,526.29	-3,031.59	-395.80	1.50	-1.50	25.88	180.00	
12,122.37	0.00	0.00	11,523.00	-3,031.59	-395.80	0.00	0.00	0.00	0.00	RG 511-18-297 - PBH

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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 511-18-297	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	187.44	199.99	-0.73	-0.10	0.74	2.00	2.00	0.00
300.00	3.30	187.44	299.91	-4.71	-0.61	4.75	2.00	2.00	0.00
400.00	5.30	187.44	399.62	-12.14	-1.59	12.25	2.00	2.00	0.00
500.00	7.30	187.44	499.01	-23.03	-3.01	23.22	2.00	2.00	0.00
600.00	9.30	187.44	597.96	-37.34	-4.87	37.66	2.00	2.00	0.00
700.00	11.30	187.44	696.34	-55.07	-7.19	55.53	2.00	2.00	0.00
800.00	13.30	187.44	794.04	-76.19	-9.95	76.84	2.00	2.00	0.00
GRRV									
891.77	15.14	187.44	883.00	-98.54	-12.87	99.38	2.00	2.00	0.00
900.00	15.30	187.44	890.94	-100.68	-13.14	101.54	2.00	2.00	0.00
1,000.00	17.30	187.44	986.92	-128.51	-16.78	129.60	2.00	2.00	0.00
GRRV_A_GROOVE									
1,053.66	18.37	187.44	1,038.00	-144.81	-18.91	146.04	2.00	2.00	0.00
1,100.00	19.30	187.44	1,081.85	-159.64	-20.84	161.00	2.00	2.00	0.00
1,200.00	21.30	187.44	1,175.64	-194.04	-25.33	195.69	2.00	2.00	0.00
GRRV_B_GROOVE									
1,256.42	22.43	187.44	1,228.00	-214.88	-28.05	216.70	2.00	2.00	0.00
1,300.00	23.30	187.44	1,268.15	-231.67	-30.25	233.63	2.00	2.00	0.00
Start 6235.99 hold at 1315.57 MD									
1,315.57	23.61	187.44	1,282.44	-237.81	-31.05	239.83	2.00	2.00	0.00
13 3/8" Surface Casing									
1,348.92	23.61	187.44	1,313.00	-251.06	-32.78	253.19	0.00	0.00	0.00
1,400.00	23.61	187.44	1,359.80	-271.35	-35.43	273.65	0.00	0.00	0.00
1,500.00	23.61	187.44	1,451.43	-311.06	-40.61	313.70	0.00	0.00	0.00
GRRV DISSOLUTION_SURF									
1,567.20	23.61	187.44	1,513.00	-337.75	-44.10	340.62	0.00	0.00	0.00
1,600.00	23.61	187.44	1,543.06	-350.78	-45.80	353.75	0.00	0.00	0.00
1,700.00	23.61	187.44	1,634.68	-390.49	-50.98	393.81	0.00	0.00	0.00
1,800.00	23.61	187.44	1,726.31	-430.21	-56.17	433.86	0.00	0.00	0.00
1,900.00	23.61	187.44	1,817.94	-469.93	-61.35	473.91	0.00	0.00	0.00
2,000.00	23.61	187.44	1,909.57	-509.64	-66.54	513.97	0.00	0.00	0.00
2,100.00	23.61	187.44	2,001.20	-549.36	-71.72	554.02	0.00	0.00	0.00
2,200.00	23.61	187.44	2,092.83	-589.07	-76.91	594.07	0.00	0.00	0.00
2,300.00	23.61	187.44	2,184.45	-628.79	-82.09	634.13	0.00	0.00	0.00
2,400.00	23.61	187.44	2,276.08	-668.51	-87.28	674.18	0.00	0.00	0.00
2,500.00	23.61	187.44	2,367.71	-708.22	-92.46	714.23	0.00	0.00	0.00
2,600.00	23.61	187.44	2,459.34	-747.94	-97.65	754.29	0.00	0.00	0.00
GRRV_ORANGE									
2,625.82	23.61	187.44	2,483.00	-758.19	-98.99	764.63	0.00	0.00	0.00
2,700.00	23.61	187.44	2,550.97	-787.66	-102.84	794.34	0.00	0.00	0.00
2,800.00	23.61	187.44	2,642.60	-827.37	-108.02	834.39	0.00	0.00	0.00
WSTC									
2,876.84	23.61	187.44	2,713.00	-857.89	-112.01	865.17	0.00	0.00	0.00
2,900.00	23.61	187.44	2,734.22	-867.09	-113.21	874.45	0.00	0.00	0.00
3,000.00	23.61	187.44	2,825.85	-906.80	-118.39	914.50	0.00	0.00	0.00
3,100.00	23.61	187.44	2,917.48	-946.52	-123.58	954.55	0.00	0.00	0.00
3,200.00	23.61	187.44	3,009.11	-986.24	-128.76	994.61	0.00	0.00	0.00
3,300.00	23.61	187.44	3,100.74	-1,025.95	-133.95	1,034.66	0.00	0.00	0.00
3,400.00	23.61	187.44	3,192.37	-1,065.67	-139.13	1,074.71	0.00	0.00	0.00

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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 511-18-297	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)
9 5/8" Intermediate Casing									
3,422.52	23.61	187.44	3,213.00	-1,074.61	-140.30	1,083.73	0.00	0.00	0.00
3,500.00	23.61	187.44	3,283.99	-1,105.38	-144.32	1,114.77	0.00	0.00	0.00
3,600.00	23.61	187.44	3,375.62	-1,145.10	-149.50	1,154.82	0.00	0.00	0.00
3,700.00	23.61	187.44	3,467.25	-1,184.82	-154.69	1,194.87	0.00	0.00	0.00
3,800.00	23.61	187.44	3,558.88	-1,224.53	-159.87	1,234.92	0.00	0.00	0.00
3,900.00	23.61	187.44	3,650.51	-1,264.25	-165.06	1,274.98	0.00	0.00	0.00
4,000.00	23.61	187.44	3,742.13	-1,303.96	-170.24	1,315.03	0.00	0.00	0.00
4,100.00	23.61	187.44	3,833.76	-1,343.68	-175.43	1,355.08	0.00	0.00	0.00
4,200.00	23.61	187.44	3,925.39	-1,383.40	-180.62	1,395.14	0.00	0.00	0.00
4,300.00	23.61	187.44	4,017.02	-1,423.11	-185.80	1,435.19	0.00	0.00	0.00
4,400.00	23.61	187.44	4,108.65	-1,462.83	-190.99	1,475.24	0.00	0.00	0.00
4,500.00	23.61	187.44	4,200.28	-1,502.55	-196.17	1,515.30	0.00	0.00	0.00
4,600.00	23.61	187.44	4,291.90	-1,542.26	-201.36	1,555.35	0.00	0.00	0.00
4,700.00	23.61	187.44	4,383.53	-1,581.98	-206.54	1,595.40	0.00	0.00	0.00
4,800.00	23.61	187.44	4,475.16	-1,621.69	-211.73	1,635.46	0.00	0.00	0.00
4,900.00	23.61	187.44	4,566.79	-1,661.41	-216.91	1,675.51	0.00	0.00	0.00
5,000.00	23.61	187.44	4,658.42	-1,701.13	-222.10	1,715.56	0.00	0.00	0.00
5,100.00	23.61	187.44	4,750.05	-1,740.84	-227.28	1,755.62	0.00	0.00	0.00
5,200.00	23.61	187.44	4,841.67	-1,780.56	-232.47	1,795.67	0.00	0.00	0.00
5,300.00	23.61	187.44	4,933.30	-1,820.27	-237.65	1,835.72	0.00	0.00	0.00
G_SAND									
5,397.89	23.61	187.44	5,023.00	-1,859.15	-242.73	1,874.93	0.00	0.00	0.00
5,400.00	23.61	187.44	5,024.93	-1,859.99	-242.84	1,875.78	0.00	0.00	0.00
5,500.00	23.61	187.44	5,116.56	-1,899.71	-248.02	1,915.83	0.00	0.00	0.00
5,600.00	23.61	187.44	5,208.19	-1,939.42	-253.21	1,955.88	0.00	0.00	0.00
FRUN									
5,659.82	23.61	187.44	5,263.00	-1,963.18	-256.31	1,979.84	0.00	0.00	0.00
5,700.00	23.61	187.44	5,299.82	-1,979.14	-258.39	1,995.94	0.00	0.00	0.00
5,800.00	23.61	187.44	5,391.44	-2,018.86	-263.58	2,035.99	0.00	0.00	0.00
5,900.00	23.61	187.44	5,483.07	-2,058.57	-268.77	2,076.04	0.00	0.00	0.00
6,000.00	23.61	187.44	5,574.70	-2,098.29	-273.95	2,116.10	0.00	0.00	0.00
6,100.00	23.61	187.44	5,666.33	-2,138.00	-279.14	2,156.15	0.00	0.00	0.00
6,200.00	23.61	187.44	5,757.96	-2,177.72	-284.32	2,196.20	0.00	0.00	0.00
6,300.00	23.61	187.44	5,849.59	-2,217.44	-289.51	2,236.25	0.00	0.00	0.00
6,400.00	23.61	187.44	5,941.21	-2,257.15	-294.69	2,276.31	0.00	0.00	0.00
6,500.00	23.61	187.44	6,032.84	-2,296.87	-299.88	2,316.36	0.00	0.00	0.00
6,600.00	23.61	187.44	6,124.47	-2,336.58	-305.06	2,356.41	0.00	0.00	0.00
6,700.00	23.61	187.44	6,216.10	-2,376.30	-310.25	2,396.47	0.00	0.00	0.00
6,800.00	23.61	187.44	6,307.73	-2,416.02	-315.43	2,436.52	0.00	0.00	0.00
6,900.00	23.61	187.44	6,399.36	-2,455.73	-320.62	2,476.57	0.00	0.00	0.00
7,000.00	23.61	187.44	6,490.98	-2,495.45	-325.80	2,516.63	0.00	0.00	0.00
7,100.00	23.61	187.44	6,582.61	-2,535.16	-330.99	2,556.68	0.00	0.00	0.00
MVRD									
7,122.25	23.61	187.44	6,603.00	-2,544.00	-332.14	2,565.59	0.00	0.00	0.00
7,200.00	23.61	187.44	6,674.24	-2,574.88	-336.17	2,596.73	0.00	0.00	0.00
7,300.00	23.61	187.44	6,765.87	-2,614.60	-341.36	2,636.79	0.00	0.00	0.00
7,400.00	23.61	187.44	6,857.50	-2,654.31	-346.54	2,676.84	0.00	0.00	0.00
7,500.00	23.61	187.44	6,949.12	-2,694.03	-351.73	2,716.89	0.00	0.00	0.00
Start DLS 1.50 TFO 180.00									
7,551.56	23.61	187.44	6,996.37	-2,714.51	-354.40	2,737.54	0.00	0.00	0.00
7,600.00	22.88	187.44	7,040.87	-2,733.47	-356.88	2,756.66	1.50	-1.50	0.00
7,700.00	21.38	187.44	7,133.50	-2,770.83	-361.76	2,794.34	1.50	-1.50	0.00

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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 511-18-297	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)
7,800.00	19.88	187.44	7,227.08	-2,805.77	-366.32	2,829.58	1.50	-1.50	0.00
7,900.00	18.38	187.44	7,321.56	-2,838.27	-370.56	2,862.36	1.50	-1.50	0.00
8,000.00	16.88	187.44	7,416.85	-2,868.31	-374.48	2,892.65	1.50	-1.50	0.00
8,100.00	15.38	187.44	7,512.91	-2,895.87	-378.08	2,920.44	1.50	-1.50	0.00
8,200.00	13.88	187.44	7,609.67	-2,920.92	-381.35	2,945.71	1.50	-1.50	0.00
8,300.00	12.38	187.44	7,707.05	-2,943.45	-384.29	2,968.43	1.50	-1.50	0.00
8,400.00	10.88	187.44	7,804.99	-2,963.45	-386.91	2,988.60	1.50	-1.50	0.00
Start DLS 1.50 TFO 180.00 - KMGAS									
8,458.99	10.00	187.44	7,863.00	-2,974.05	-388.29	2,999.29	1.50	-1.50	0.00
8,500.00	9.38	187.44	7,903.43	-2,980.90	-389.18	3,006.19	1.50	-1.50	0.00
8,600.00	7.88	187.44	8,002.29	-2,995.78	-391.13	3,021.21	1.50	-1.50	0.00
8,700.00	6.38	187.44	8,101.51	-3,008.10	-392.74	3,033.63	1.50	-1.50	0.00
8,800.00	4.88	187.44	8,201.03	-3,017.83	-394.01	3,043.45	1.50	-1.50	0.00
8,900.00	3.38	187.44	8,300.76	-3,024.98	-394.94	3,050.66	1.50	-1.50	0.00
9,000.00	1.88	187.44	8,400.65	-3,029.54	-395.54	3,055.25	1.50	-1.50	0.00
9,100.00	0.38	187.44	8,500.63	-3,031.51	-395.79	3,057.23	1.50	-1.50	0.00
Start 2996.71 hold at 9125.66 MD									
9,125.66	0.00	0.00	8,526.29	-3,031.59	-395.80	3,057.32	1.50	-1.50	672.61
9,200.00	0.00	0.00	8,600.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
9,300.00	0.00	0.00	8,700.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
9,400.00	0.00	0.00	8,800.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
9,500.00	0.00	0.00	8,900.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
9,600.00	0.00	0.00	9,000.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
9,700.00	0.00	0.00	9,100.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
9,800.00	0.00	0.00	9,200.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
9,900.00	0.00	0.00	9,300.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
10,000.00	0.00	0.00	9,400.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
10,100.00	0.00	0.00	9,500.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
10,200.00	0.00	0.00	9,600.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
10,300.00	0.00	0.00	9,700.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
10,400.00	0.00	0.00	9,800.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
10,500.00	0.00	0.00	9,900.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
10,600.00	0.00	0.00	10,000.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
CMEO*									
10,612.37	0.00	0.00	10,013.00	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
10,700.00	0.00	0.00	10,100.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
10,800.00	0.00	0.00	10,200.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
10,900.00	0.00	0.00	10,300.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
11,000.00	0.00	0.00	10,400.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
11,100.00	0.00	0.00	10,500.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
RLNS									
11,132.37	0.00	0.00	10,533.00	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
11,200.00	0.00	0.00	10,600.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
CZZT									
11,282.37	0.00	0.00	10,683.00	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
11,300.00	0.00	0.00	10,700.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
11,400.00	0.00	0.00	10,800.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
11,500.00	0.00	0.00	10,900.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
CRCN									
11,502.37	0.00	0.00	10,903.00	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
11,600.00	0.00	0.00	11,000.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
11,700.00	0.00	0.00	11,100.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
11,800.00	0.00	0.00	11,200.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RG 511-18-297 - Slot RG 511-18-297
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 511-18-297	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)
SEGO_UPPER									
11,852.37	0.00	0.00	11,253.00	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
11,900.00	0.00	0.00	11,300.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
12,000.00	0.00	0.00	11,400.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
SEGO_LOWER									
12,022.37	0.00	0.00	11,423.00	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
12,100.00	0.00	0.00	11,500.63	-3,031.59	-395.80	3,057.32	0.00	0.00	0.00
TD at 12122.37 - TD									
12,122.37	0.00	0.00	11,523.00	-3,031.59	-395.80	3,057.32	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
RG 511-18-297 - KMV C - plan misses target center by 57.16usft at 8468.76usft MD (7872.62 TVD, -2975.72 N, -388.51 E) - Circle (radius 50.00)	0.00	0.00	7,863.00	-3,031.59	-395.80	1,757,854.60	2,205,757.70	39.880157	-108.330366
RG 511-18-297 - PBHL - plan hits target center - Point	0.00	0.00	11,523.00	-3,031.59	-395.80	1,757,854.60	2,205,757.70	39.880157	-108.330366

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,348.92	1,313.00	13 3/8" Surface Casing	13-3/8	17-1/2	
3,422.52	3,213.00	9 5/8" Intermediate Casing	9-5/8	12-1/4	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RG 511-18-297 - Slot RG 511-18-297
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 511-18-297	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 3		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
891.77	883.00	GRRV				
1,053.66	1,038.00	GRRV_A_GROOVE				
1,256.42	1,228.00	GRRV_B_GROOVE				
1,567.20	1,513.00	GRRV DISSOLUTION_SURF				
2,625.82	2,483.00	GRRV_ORANGE				
2,876.84	2,713.00	WSTC				
5,397.89	5,023.00	G_SAND				
5,659.82	5,263.00	FRUN				
7,122.25	6,603.00	MVRD				
8,458.99	7,863.00	KMVGAS				
10,612.37	10,013.00	CMEQ*				
11,132.37	10,533.00	RLNS				
11,282.37	10,683.00	CZZT				
11,502.37	10,903.00	CRCN				
11,852.37	11,253.00	SEGO_UPPER				
12,022.37	11,423.00	SEGO_LOWER				
12,122.37	11,523.00	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
135.00	135.00	0.00	0.00	Start Build 2.00	
1,315.57	1,282.44	-237.81	-31.05	Start 6235.99 hold at 1315.57 MD	
7,551.56	6,996.37	-2,714.51	-354.40	Start DLS 1.50 TFO 180.00	
8,458.99	7,863.00	-2,974.05	-388.29	Start DLS 1.50 TFO 180.00	
9,125.66	8,526.29	-3,031.59	-395.80	Start 2996.71 hold at 9125.66 MD	
12,122.37	11,523.00	-3,031.59	-395.80	TD at 12122.37	