



Company: TEP Rocky Mountain LLC  
Project: Garfield County, CO NAD83  
Site: RGU 23-7-297 Pad  
Well: Federal RG 311-18-297

PROJECT DETAILS: Garfield County, CO NAD83

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

System Datum: Mean Sea Level

Plan: Plan #2 7April2020 SB-SDI

Well Details: Federal RG 311-18-297

+N/-S +E/-W Northing Easting Longitude  
0.00 0.00 1760875.2000 2206233.0000 39.8884856 -108.3290081 RGU 311-18-297

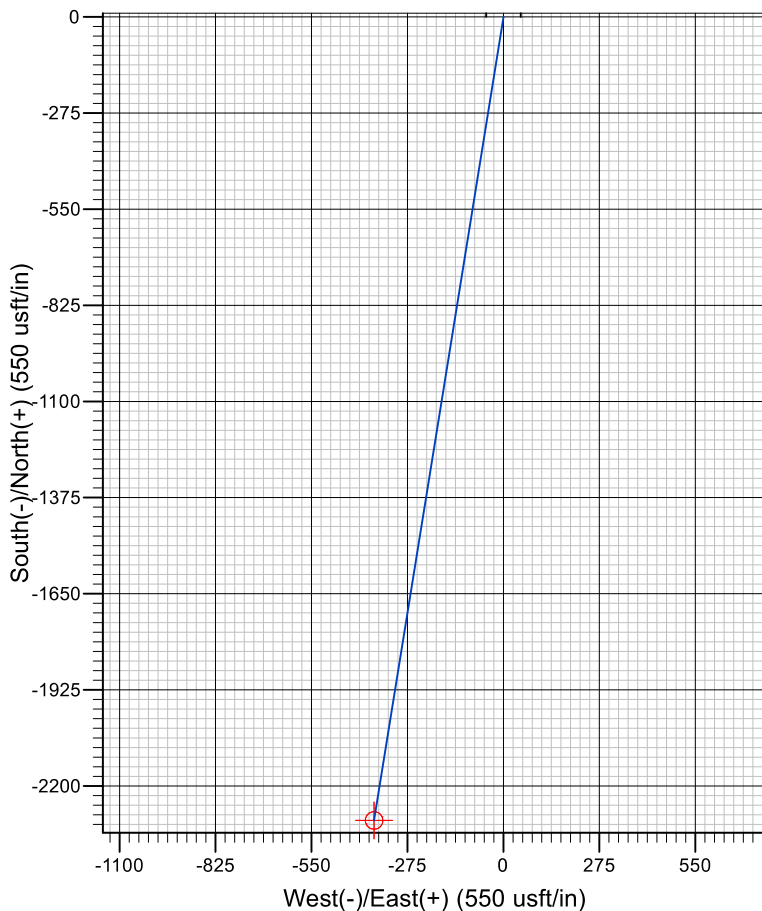
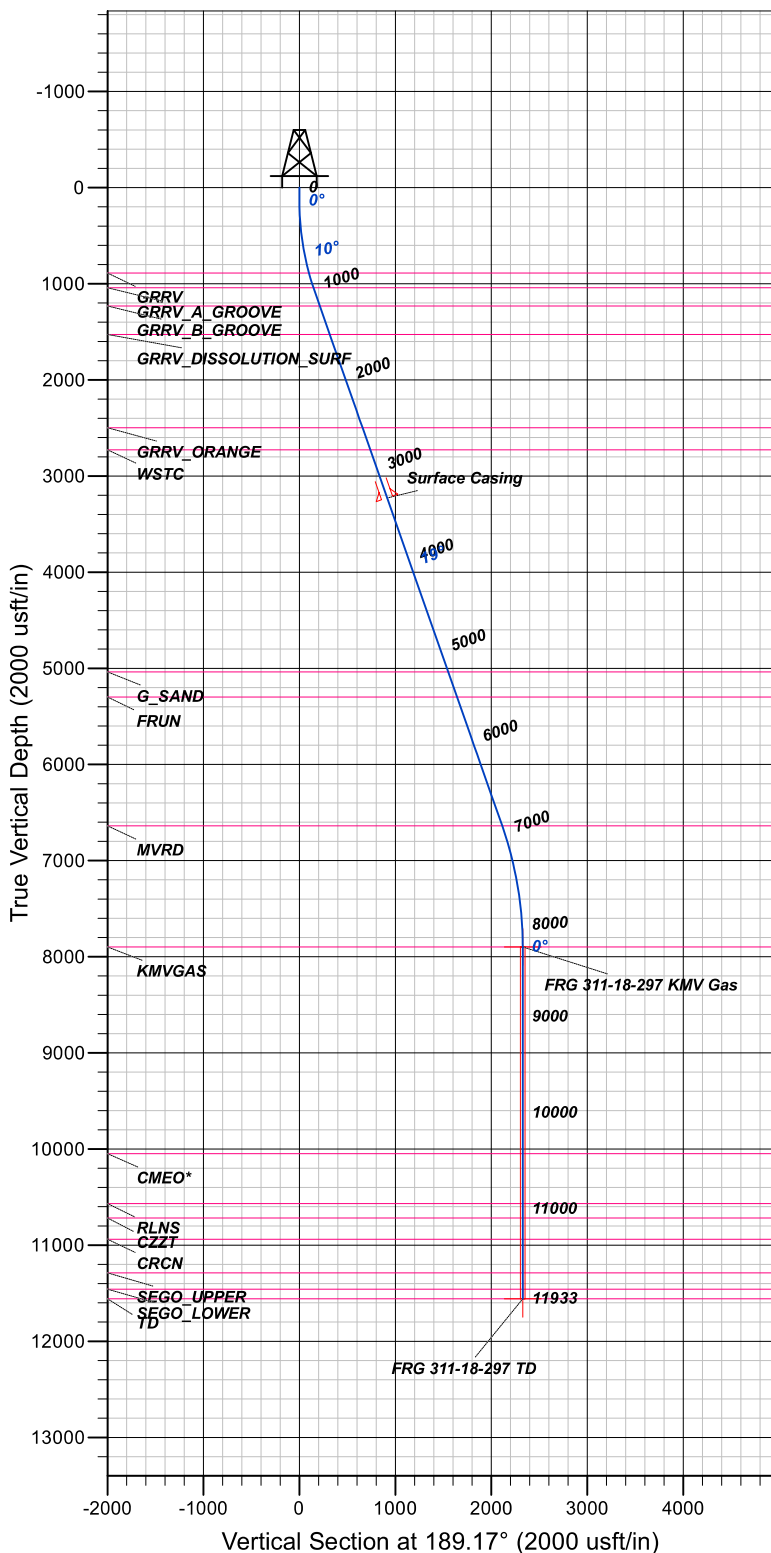


Azimuths to True North  
Magnetic North: 9.28°

Magnetic Field  
Strength: 51354.1nT  
Dip Angle: 65.83°  
Date: 4/7/2020  
Model: HDGM\_FILE

#### DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
FRG 311-18-297 KMV Gas	7897.00	-2298.36	-370.82	1758589.5000	2205790.8000	39.8821764	-108.3303294	Circle (Radius: 25.00)
FRG 311-18-297 TD	11557.00	-2298.36	-370.82	1758589.5000	2205790.8000	39.8821764	-108.3303294	Point
- plan hits target center								



#### FORMATION TOP DETAILS

TVDPth	MDPath	Formation
887.00	895.92	GRRV
1042.00	1057.88	GRRV_A_GROOVE
1232.00	1259.16	GRRV_B_GROOVE
1527.00	1571.86	GRRV DISSOLUTION_SURF
2497.00	2600.08	GRRV_ORANGE
2727.00	2843.88	WSTC
5037.00	5292.52	G_SAND
5297.00	5568.13	FRUN
6637.00	6988.55	MVRD
7897.00	8272.59	KMVGAS
10047.00	10422.59	CMEO*
10567.00	10942.59	RLNS
10717.00	11092.59	CZZT
10937.00	11312.59	CRCN
11287.00	11662.59	SEGO_UPPER
11457.00	11832.59	SEGO_LOWER
11557.00	11932.59	TD

#### CASING DETAILS

TVD	MD	Name
3227.00	3373.89	Surface Casing

#### SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect
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
1103.63	19.37	189.17	1085.28	-160.13	-25.84	2.00	189.17	162.20
6981.08	19.37	189.17	6629.96	-2084.85	-336.37	0.00	0.00	2111.81
8272.59	0.00	0.00	7897.00	-2298.36	-370.82	1.50	180.00	2328.08
11932.59	0.00	0.00	11557.00	-2298.36	-370.82	0.00	0.00	2328.08

# **TEP Rocky Mountain LLC**

**Garfield County, CO NAD83**

**RGU 23-7-297 Pad**

**Federal RG 311-18-297 - Slot RGU 311-18-297**

**OH**

**Plan: Plan #2 7April2020 SB-SDI**

## **Standard Planning Report**

**07 April, 2020**



# Scientific Drilling, Intl

## Planning Report

<b>Database:</b>	Grand Junction	<b>Local Co-ordinate Reference:</b>	Well Federal RG 311-18-297 - Slot RGU 311-18-297
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 6603' & KB 24' @ 6627.00usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 6603' & KB 24' @ 6627.00usft (H&P 318)
<b>Site:</b>	RGU 23-7-297 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Federal RG 311-18-297	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2 7April2020 SB-SDI		

<b>Project</b>	Garfield County, CO NAD83		
<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 23-7-297 Pad, Site Center : RGU 314-7-297			
<b>Site Position:</b>		<b>Northing:</b>	1,760,880.9000 usft	<b>Latitude:</b> 39.8884987
<b>From:</b> Map		<b>Easting:</b>	2,206,203.5000 usft	<b>Longitude:</b> -108.3291139
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.20 in	<b>Grid Convergence:</b> -1.78 °

<b>Well</b>	Federal RG 311-18-297 - Slot RGU 311-18-297, 1798' FSL 1350' FWL Sec7 T2S R97W			
<b>Well Position</b>	<b>+N/-S</b>	-4.78 usft	<b>Northing:</b>	1,760,875.2000 usft
	<b>+E/-W</b>	29.66 usft	<b>Easting:</b>	2,206,233.0000 usft
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	<b>Ground Level:</b> 6,603.00 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM_FILE	4/7/2020	9.28	65.83	51,354.10000000

<b>Design</b>	Plan #2 7April2020 SB-SDI			
<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	189.17

<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	
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,103.63	19.37	189.17	1,085.28	-160.13	-25.84	2.00	2.00	0.00	189.17	
6,981.08	19.37	189.17	6,629.96	-2,084.85	-336.37	0.00	0.00	0.00	0.00	
8,272.59	0.00	0.00	7,897.00	-2,298.36	-370.82	1.50	-1.50	0.00	180.00	FRG 311-18-297 KMV
11,932.59	0.00	0.00	11,557.00	-2,298.36	-370.82	0.00	0.00	0.00	0.00	FRG 311-18-297 TD

# Scientific Drilling, Intl

## Planning Report

<b>Database:</b>	Grand Junction	<b>Local Co-ordinate Reference:</b>	Well Federal RG 311-18-297 - Slot RGU 311-18-297
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 6603' & KB 24' @ 6627.00usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 6603' & KB 24' @ 6627.00usft (H&P 318)
<b>Site:</b>	RGU 23-7-297 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Federal RG 311-18-297	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2 7April2020 SB-SDI		

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	
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	0.00	
Start Build 2.00										
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	
895.92	15.22	189.17	887.00	-99.18	-16.00	100.46	2.00	2.00	0.00	
GRRV										
900.00	15.30	189.17	890.94	-100.24	-16.17	101.54	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	
1,057.88	18.46	189.17	1,042.00	-145.49	-23.47	147.37	2.00	2.00	0.00	
GRRV_A_GROOVE										
1,100.00	19.30	189.17	1,081.85	-158.94	-25.64	161.00	2.00	2.00	0.00	
1,103.63	19.37	189.17	1,085.28	-160.13	-25.84	162.20	2.00	2.00	0.00	
Start 5877.45 hold at 1103.63 MD										
1,200.00	19.37	189.17	1,176.19	-191.69	-30.93	194.17	0.00	0.00	0.00	
1,259.16	19.37	189.17	1,232.00	-211.06	-34.05	213.79	0.00	0.00	0.00	
GRRV_B_GROOVE										
1,300.00	19.37	189.17	1,270.53	-224.44	-36.21	227.34	0.00	0.00	0.00	
1,400.00	19.37	189.17	1,364.87	-257.18	-41.49	260.51	0.00	0.00	0.00	
1,500.00	19.37	189.17	1,459.21	-289.93	-46.78	293.68	0.00	0.00	0.00	
1,571.86	19.37	189.17	1,527.00	-313.46	-50.57	317.52	0.00	0.00	0.00	
GRRV DISSOLUTION SURF										
1,600.00	19.37	189.17	1,553.55	-322.68	-52.06	326.85	0.00	0.00	0.00	
1,700.00	19.37	189.17	1,647.88	-355.43	-57.34	360.02	0.00	0.00	0.00	
1,800.00	19.37	189.17	1,742.22	-388.17	-62.63	393.19	0.00	0.00	0.00	
1,900.00	19.37	189.17	1,836.56	-420.92	-67.91	426.36	0.00	0.00	0.00	
2,000.00	19.37	189.17	1,930.90	-453.67	-73.20	459.54	0.00	0.00	0.00	
2,100.00	19.37	189.17	2,025.24	-486.42	-78.48	492.71	0.00	0.00	0.00	
2,200.00	19.37	189.17	2,119.57	-519.16	-83.76	525.88	0.00	0.00	0.00	
2,300.00	19.37	189.17	2,213.91	-551.91	-89.05	559.05	0.00	0.00	0.00	
2,400.00	19.37	189.17	2,308.25	-584.66	-94.33	592.22	0.00	0.00	0.00	
2,500.00	19.37	189.17	2,402.59	-617.41	-99.61	625.39	0.00	0.00	0.00	
2,600.00	19.37	189.17	2,496.93	-650.15	-104.90	658.56	0.00	0.00	0.00	
2,600.08	19.37	189.17	2,497.00	-650.18	-104.90	658.59	0.00	0.00	0.00	
GRRV_ORANGE										
2,700.00	19.37	189.17	2,591.26	-682.90	-110.18	691.73	0.00	0.00	0.00	
2,800.00	19.37	189.17	2,685.60	-715.65	-115.46	724.90	0.00	0.00	0.00	
2,843.88	19.37	189.17	2,727.00	-730.02	-117.78	739.46	0.00	0.00	0.00	
WSTC										
2,900.00	19.37	189.17	2,779.94	-748.40	-120.75	758.08	0.00	0.00	0.00	
3,000.00	19.37	189.17	2,874.28	-781.14	-126.03	791.25	0.00	0.00	0.00	
3,100.00	19.37	189.17	2,968.62	-813.89	-131.31	824.42	0.00	0.00	0.00	
3,200.00	19.37	189.17	3,062.96	-846.64	-136.60	857.59	0.00	0.00	0.00	
3,300.00	19.37	189.17	3,157.29	-879.39	-141.88	890.76	0.00	0.00	0.00	
3,373.89	19.37	189.17	3,227.00	-903.58	-145.78	915.27	0.00	0.00	0.00	
Surface Casing										

# Scientific Drilling, Intl

## Planning Report

<b>Database:</b>	Grand Junction	<b>Local Co-ordinate Reference:</b>	Well Federal RG 311-18-297 - Slot RGU 311-18-297
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 6603' & KB 24' @ 6627.00usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 6603' & KB 24' @ 6627.00usft (H&P 318)
<b>Site:</b>	RGU 23-7-297 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Federal RG 311-18-297	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2 7April2020 SB-SDI		

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	19.37	189.17	3,251.63	-912.14	-147.16	923.93	0.00	0.00	0.00	
3,500.00	19.37	189.17	3,345.97	-944.88	-152.45	957.10	0.00	0.00	0.00	
3,600.00	19.37	189.17	3,440.31	-977.63	-157.73	990.27	0.00	0.00	0.00	
3,700.00	19.37	189.17	3,534.65	-1,010.38	-163.02	1,023.44	0.00	0.00	0.00	
3,800.00	19.37	189.17	3,628.98	-1,043.13	-168.30	1,056.61	0.00	0.00	0.00	
3,900.00	19.37	189.17	3,723.32	-1,075.87	-173.58	1,089.79	0.00	0.00	0.00	
4,000.00	19.37	189.17	3,817.66	-1,108.62	-178.87	1,122.96	0.00	0.00	0.00	
4,100.00	19.37	189.17	3,912.00	-1,141.37	-184.15	1,156.13	0.00	0.00	0.00	
4,200.00	19.37	189.17	4,006.34	-1,174.12	-189.43	1,189.30	0.00	0.00	0.00	
4,300.00	19.37	189.17	4,100.67	-1,206.86	-194.72	1,222.47	0.00	0.00	0.00	
4,400.00	19.37	189.17	4,195.01	-1,239.61	-200.00	1,255.64	0.00	0.00	0.00	
4,500.00	19.37	189.17	4,289.35	-1,272.36	-205.28	1,288.81	0.00	0.00	0.00	
4,600.00	19.37	189.17	4,383.69	-1,305.11	-210.57	1,321.98	0.00	0.00	0.00	
4,700.00	19.37	189.17	4,478.03	-1,337.85	-215.85	1,355.15	0.00	0.00	0.00	
4,800.00	19.37	189.17	4,572.37	-1,370.60	-221.13	1,388.33	0.00	0.00	0.00	
4,900.00	19.37	189.17	4,666.70	-1,403.35	-226.42	1,421.50	0.00	0.00	0.00	
5,000.00	19.37	189.17	4,761.04	-1,436.10	-231.70	1,454.67	0.00	0.00	0.00	
5,100.00	19.37	189.17	4,855.38	-1,468.84	-236.98	1,487.84	0.00	0.00	0.00	
5,200.00	19.37	189.17	4,949.72	-1,501.59	-242.27	1,521.01	0.00	0.00	0.00	
5,292.52	19.37	189.17	5,037.00	-1,531.89	-247.16	1,551.70	0.00	0.00	0.00	
<b>G_SAND</b>										
5,300.00	19.37	189.17	5,044.06	-1,534.34	-247.55	1,554.18	0.00	0.00	0.00	
5,400.00	19.37	189.17	5,138.39	-1,567.09	-252.83	1,587.35	0.00	0.00	0.00	
5,500.00	19.37	189.17	5,232.73	-1,599.83	-258.12	1,620.52	0.00	0.00	0.00	
5,568.13	19.37	189.17	5,297.00	-1,622.14	-261.72	1,643.12	0.00	0.00	0.00	
<b>FRUN</b>										
5,600.00	19.37	189.17	5,327.07	-1,632.58	-263.40	1,653.69	0.00	0.00	0.00	
5,700.00	19.37	189.17	5,421.41	-1,665.33	-268.69	1,686.86	0.00	0.00	0.00	
5,800.00	19.37	189.17	5,515.75	-1,698.08	-273.97	1,720.04	0.00	0.00	0.00	
5,900.00	19.37	189.17	5,610.08	-1,730.82	-279.25	1,753.21	0.00	0.00	0.00	
6,000.00	19.37	189.17	5,704.42	-1,763.57	-284.54	1,786.38	0.00	0.00	0.00	
6,100.00	19.37	189.17	5,798.76	-1,796.32	-289.82	1,819.55	0.00	0.00	0.00	
6,200.00	19.37	189.17	5,893.10	-1,829.07	-295.10	1,852.72	0.00	0.00	0.00	
6,300.00	19.37	189.17	5,987.44	-1,861.81	-300.39	1,885.89	0.00	0.00	0.00	
6,400.00	19.37	189.17	6,081.78	-1,894.56	-305.67	1,919.06	0.00	0.00	0.00	
6,500.00	19.37	189.17	6,176.11	-1,927.31	-310.95	1,952.23	0.00	0.00	0.00	
6,600.00	19.37	189.17	6,270.45	-1,960.06	-316.24	1,985.40	0.00	0.00	0.00	
6,700.00	19.37	189.17	6,364.79	-1,992.80	-321.52	2,018.58	0.00	0.00	0.00	
6,800.00	19.37	189.17	6,459.13	-2,025.55	-326.80	2,051.75	0.00	0.00	0.00	
6,900.00	19.37	189.17	6,553.47	-2,058.30	-332.09	2,084.92	0.00	0.00	0.00	
6,981.08	19.37	189.17	6,629.96	-2,084.85	-336.37	2,111.81	0.00	0.00	0.00	
<b>Start Drop -1.50</b>										
6,988.55	19.26	189.17	6,637.00	-2,087.29	-336.76	2,114.28	1.50	-1.50	0.00	
<b>MVRD</b>										
7,000.00	19.09	189.17	6,647.82	-2,091.00	-337.36	2,118.04	1.50	-1.50	0.00	
7,100.00	17.59	189.17	6,742.74	-2,122.07	-342.38	2,149.51	1.50	-1.50	0.00	
7,200.00	16.09	189.17	6,838.45	-2,150.66	-346.99	2,178.47	1.50	-1.50	0.00	
7,300.00	14.59	189.17	6,934.88	-2,176.78	-351.20	2,204.93	1.50	-1.50	0.00	
7,400.00	13.09	189.17	7,031.98	-2,200.39	-355.01	2,228.85	1.50	-1.50	0.00	
7,500.00	11.59	189.17	7,129.66	-2,221.49	-358.42	2,250.21	1.50	-1.50	0.00	
7,600.00	10.09	189.17	7,227.88	-2,240.05	-361.41	2,269.02	1.50	-1.50	0.00	
7,700.00	8.59	189.17	7,326.55	-2,256.07	-364.00	2,285.25	1.50	-1.50	0.00	

# Scientific Drilling, Intl

## Planning Report

<b>Database:</b>	Grand Junction	<b>Local Co-ordinate Reference:</b>	Well Federal RG 311-18-297 - Slot RGU 311-18-297
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 6603' & KB 24' @ 6627.00usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 6603' & KB 24' @ 6627.00usft (H&P 318)
<b>Site:</b>	RGU 23-7-297 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Federal RG 311-18-297	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2 7April2020 SB-SDI		

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	7.09	189.17	7,425.61	-2,269.53	-366.17	2,298.88	1.50	-1.50	0.00
7,900.00	5.59	189.17	7,525.00	-2,280.43	-367.93	2,309.92	1.50	-1.50	0.00
8,000.00	4.09	189.17	7,624.64	-2,288.76	-369.27	2,318.36	1.50	-1.50	0.00
8,100.00	2.59	189.17	7,724.47	-2,294.51	-370.20	2,324.18	1.50	-1.50	0.00
8,200.00	1.09	189.17	7,824.41	-2,297.68	-370.71	2,327.39	1.50	-1.50	0.00
8,272.59	0.00	0.00	7,897.00	-2,298.36	-370.82	2,328.08	1.50	-1.50	235.33
Start 3660.00 hold at 8272.59 MD - KVMGAS									
8,300.00	0.00	0.00	7,924.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
8,400.00	0.00	0.00	8,024.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
8,500.00	0.00	0.00	8,124.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
8,600.00	0.00	0.00	8,224.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
8,700.00	0.00	0.00	8,324.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
8,800.00	0.00	0.00	8,424.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
8,900.00	0.00	0.00	8,524.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,000.00	0.00	0.00	8,624.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,100.00	0.00	0.00	8,724.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,200.00	0.00	0.00	8,824.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,300.00	0.00	0.00	8,924.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,400.00	0.00	0.00	9,024.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,500.00	0.00	0.00	9,124.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,600.00	0.00	0.00	9,224.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,700.00	0.00	0.00	9,324.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,800.00	0.00	0.00	9,424.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
9,900.00	0.00	0.00	9,524.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,000.00	0.00	0.00	9,624.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,100.00	0.00	0.00	9,724.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,200.00	0.00	0.00	9,824.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,300.00	0.00	0.00	9,924.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,400.00	0.00	0.00	10,024.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,422.59	0.00	0.00	10,047.00	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
CMEO*									
10,500.00	0.00	0.00	10,124.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,600.00	0.00	0.00	10,224.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,700.00	0.00	0.00	10,324.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,800.00	0.00	0.00	10,424.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,900.00	0.00	0.00	10,524.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
10,942.59	0.00	0.00	10,567.00	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
RLNS									
11,000.00	0.00	0.00	10,624.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
11,092.59	0.00	0.00	10,717.00	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
CZZT									
11,100.00	0.00	0.00	10,724.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
11,200.00	0.00	0.00	10,824.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
11,300.00	0.00	0.00	10,924.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
11,312.59	0.00	0.00	10,937.00	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
CRCN									
11,400.00	0.00	0.00	11,024.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
11,500.00	0.00	0.00	11,124.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
11,600.00	0.00	0.00	11,224.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
11,662.59	0.00	0.00	11,287.00	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
SEGO_UPPER									
11,700.00	0.00	0.00	11,324.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00

# Scientific Drilling, Intl

## Planning Report

<b>Database:</b>	Grand Junction	<b>Local Co-ordinate Reference:</b>	Well Federal RG 311-18-297 - Slot RGU 311-18-297
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 6603' & KB 24' @ 6627.00usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 6603' & KB 24' @ 6627.00usft (H&P 318)
<b>Site:</b>	RGU 23-7-297 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Federal RG 311-18-297	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2 7April2020 SB-SDI		

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)
11,800.00	0.00	0.00	11,424.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
11,832.59	0.00	0.00	11,457.00	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
<b>SEGO_LOWER</b>									
11,900.00	0.00	0.00	11,524.41	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
11,932.59	0.00	0.00	11,557.00	-2,298.36	-370.82	2,328.08	0.00	0.00	0.00
<b>TD at 11932.59 - TD</b>									

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
FRG 311-18-297 KMV G - plan hits target center - Circle (radius 25.00)	0.00	0.00	7,897.00	-2,298.36	-370.82	1,758,589.5000	2,205,790.8000	39.8821764	-108.3303294
FRG 311-18-297 TD - plan hits target center - Point	0.00	0.00	11,557.00	-2,298.36	-370.82	1,758,589.5000	2,205,790.8000	39.8821764	-108.3303294

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
3,373.89	3,227.00	Surface Casing	0.00	0.00	

# Scientific Drilling, Intl

## Planning Report

<b>Database:</b>	Grand Junction	<b>Local Co-ordinate Reference:</b>	Well Federal RG 311-18-297 - Slot RGU 311-18-297
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 6603' & KB 24' @ 6627.00usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 6603' & KB 24' @ 6627.00usft (H&P 318)
<b>Site:</b>	RGU 23-7-297 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Federal RG 311-18-297	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2 7April2020 SB-SDI		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
895.92	887.00	GRRV		0.00		
1,057.88	1,042.00	GRRV_A_GROOVE		0.00		
1,259.16	1,232.00	GRRV_B_GROOVE		0.00		
1,571.86	1,527.00	GRRV DISSOLUTION_SURF		0.00		
2,600.08	2,497.00	GRRV_ORANGE		0.00		
2,843.88	2,727.00	WSTC		0.00		
5,292.52	5,037.00	G_SAND		0.00		
5,568.13	5,297.00	FRUN		0.00		
6,988.55	6,637.00	MVRD		0.00		
8,272.59	7,897.00	KMVGAS		0.00		
10,422.59	10,047.00	CMEO*		0.00		
10,942.59	10,567.00	RLNS		0.00		
11,092.59	10,717.00	CZZT		0.00		
11,312.59	10,937.00	CRCN		0.00		
11,662.59	11,287.00	SEGO_UPPER		0.00		
11,832.59	11,457.00	SEGO_LOWER		0.00		
11,932.59	11,557.00	TD		0.00		

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	
1,103.63	1,085.28	-160.13	-25.84	Start 5877.45 hold at 1103.63 MD	
6,981.08	6,629.96	-2,084.85	-336.37	Start Drop -1.50	
8,272.59	7,897.00	-2,298.36	-370.82	Start 3660.00 hold at 8272.59 MD	
11,932.59	11,557.00	-2,298.36	-370.82	TD at 11932.59	