



Company: TEP Rocky Mountain LLC  
Project: Garfield County, CO NAD83  
Site: RGU 23-7-297 Pad  
Well: Federal RG 414-7-297

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 414-7-297

+N/-S +E/-W Northing Easting Longitude  
0.00 0.00 1760879.5000 2206210.9000 39.8884955 -108.3290873 RGU 414-7-297

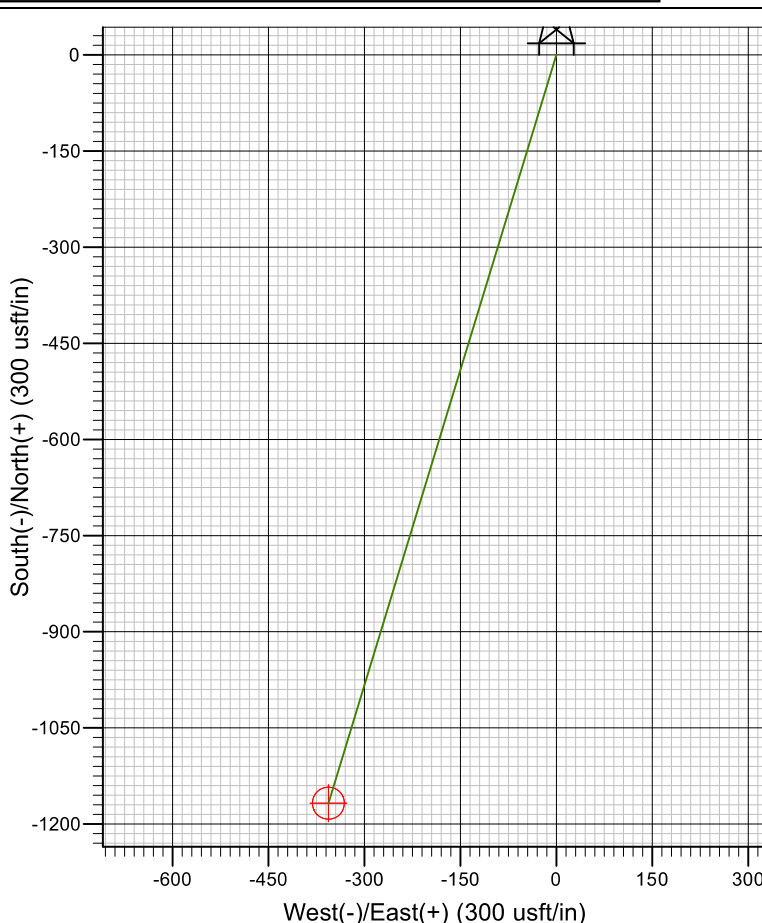
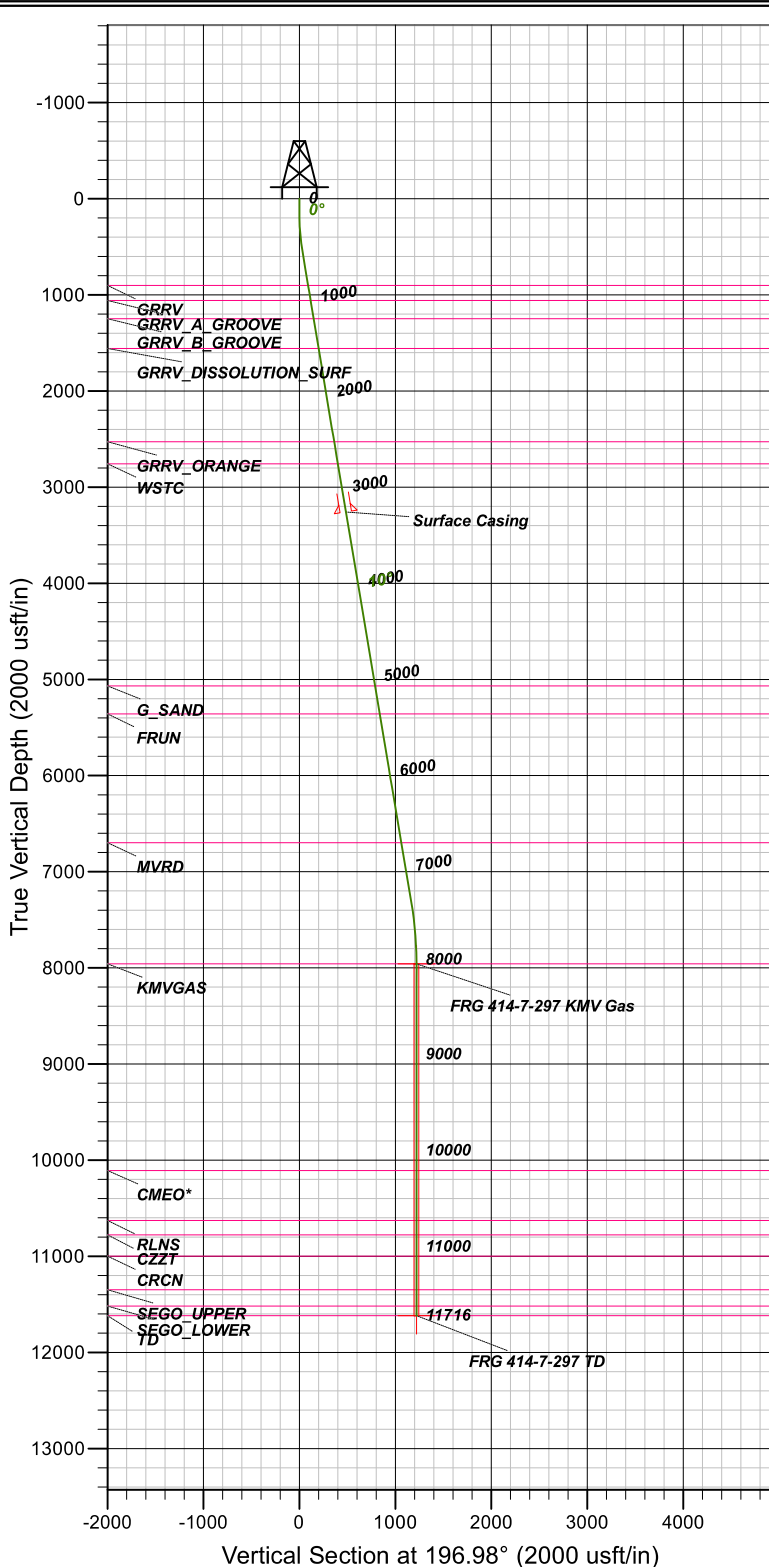


Azimuths to True North  
Magnetic North: 9.28°

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	Circle (Radius: 25.00)	Shape
FRG 414-7-297 KMV Gas	7957.00	-1167.46	-356.42	1759723.7000	2205818.3000	39.8852907	-108.3303573	Circle (Radius: 25.00)	Point
FRG 414-7-297 TD	11617.00	-1167.46	-356.42	1759723.7000	2205818.3000	39.8852907	-108.3303573		
- plan hits target center									



#### FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
902.00	908.49	GRRV
1057.00	1065.65	GRRV_A_GROOVE
1247.00	1258.30	GRRV_B_GROOVE
1557.00	1572.63	GRRV DISSOLUTION_SURF
2527.00	2556.17	GRRV_ORANGE
2757.00	2789.38	WSTC
5067.00	5131.62	G_SAND
5357.00	5425.67	FRUN
6697.00	6784.37	MVRD
7957.00	8056.06	KMGAS
10107.00	10206.06	CMEO*
10627.00	10726.06	RLNS
10777.00	10876.06	CZCT
10997.00	11096.06	CRCN
11347.00	11446.06	SEGO_UPPER
11517.00	11616.06	SEGO_LOWER
11617.00	11716.06	TD

#### CASING DETAILS

TVD	MD	NAME
3257.00	3296.36	Surface Casing

#### SECTION DETAILS

MD	INC	AZI	TVD	+N/-S	+E/-W	DLEG	TFACE	VSECT
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
595.89	9.52	196.98	593.70	-37.72	-11.51	2.00	196.98	39.44
7421.54	9.52	196.98	7325.40	-1117.17	-341.07	0.00	0.00	1168.08
8056.06	0.00	0.00	7957.00	-1167.46	-356.42	1.50	180.00	1220.66
11716.06	0.00	0.00	11617.00	-1167.46	-356.42	0.00	0.00	1220.66

# **TEP Rocky Mountain LLC**

**Garfield County, CO NAD83**

**RGU 23-7-297 Pad**

**Federal RG 414-7-297 - Slot RGU 414-7-297**

**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 414-7-297 - Slot RGU 414-7-297
<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 414-7-297	<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 414-7-297 - Slot RGU 414-7-297, 1802' FSL 1327' FWL Sec 7 T2S R97W			
<b>Well Position</b>	<b>+N/-S</b>	-1.17 usft	<b>Northing:</b>	1,760,879.5000 usft
	<b>+E/-W</b>	7.44 usft	<b>Easting:</b>	2,206,210.9000 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	196.98

<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	
595.89	9.52	196.98	593.70	-37.72	-11.51	2.00	2.00	0.00	196.98	
7,421.54	9.52	196.98	7,325.40	-1,117.17	-341.07	0.00	0.00	0.00	0.00	
8,056.06	0.00	0.00	7,957.00	-1,167.46	-356.42	1.50	-1.50	0.00	180.00	FRG 414-7-297 KMV
11,716.06	0.00	0.00	11,617.00	-1,167.46	-356.42	0.00	0.00	0.00	0.00	FRG 414-7-297 TD

# Scientific Drilling, Intl

## Planning Report

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<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 414-7-297	<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
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
200.00	1.60	196.98	199.99	-1.07	-0.33	1.12	2.00	2.00	0.00
300.00	3.60	196.98	299.88	-5.41	-1.65	5.65	2.00	2.00	0.00
400.00	5.60	196.98	399.55	-13.08	-3.99	13.67	2.00	2.00	0.00
500.00	7.60	196.98	498.89	-24.07	-7.35	25.17	2.00	2.00	0.00
595.89	9.52	196.98	593.70	-37.72	-11.51	39.44	2.00	2.00	0.00
Start 6825.66 hold at 595.89 MD									
600.00	9.52	196.98	597.76	-38.37	-11.71	40.12	0.00	0.00	0.00
700.00	9.52	196.98	696.38	-54.18	-16.54	56.65	0.00	0.00	0.00
800.00	9.52	196.98	795.00	-70.00	-21.37	73.19	0.00	0.00	0.00
900.00	9.52	196.98	893.63	-85.81	-26.20	89.72	0.00	0.00	0.00
908.49	9.52	196.98	902.00	-87.15	-26.61	91.13	0.00	0.00	0.00
GRRV									
1,000.00	9.52	196.98	992.25	-101.63	-31.03	106.26	0.00	0.00	0.00
1,065.65	9.52	196.98	1,057.00	-112.01	-34.20	117.11	0.00	0.00	0.00
GRRV_A_GROOVE									
1,100.00	9.52	196.98	1,090.87	-117.44	-35.85	122.79	0.00	0.00	0.00
1,200.00	9.52	196.98	1,189.50	-133.26	-40.68	139.33	0.00	0.00	0.00
1,258.30	9.52	196.98	1,247.00	-142.48	-43.50	148.97	0.00	0.00	0.00
GRRV_B_GROOVE									
1,300.00	9.52	196.98	1,288.12	-149.07	-45.51	155.86	0.00	0.00	0.00
1,400.00	9.52	196.98	1,386.75	-164.88	-50.34	172.40	0.00	0.00	0.00
1,500.00	9.52	196.98	1,485.37	-180.70	-55.17	188.93	0.00	0.00	0.00
1,572.63	9.52	196.98	1,557.00	-192.19	-58.67	200.94	0.00	0.00	0.00
GRRV DISSOLUTION SURF									
1,600.00	9.52	196.98	1,583.99	-196.51	-60.00	205.47	0.00	0.00	0.00
1,700.00	9.52	196.98	1,682.62	-212.33	-64.82	222.00	0.00	0.00	0.00
1,800.00	9.52	196.98	1,781.24	-228.14	-69.65	238.54	0.00	0.00	0.00
1,900.00	9.52	196.98	1,879.86	-243.96	-74.48	255.07	0.00	0.00	0.00
2,000.00	9.52	196.98	1,978.49	-259.77	-79.31	271.61	0.00	0.00	0.00
2,100.00	9.52	196.98	2,077.11	-275.59	-84.14	288.15	0.00	0.00	0.00
2,200.00	9.52	196.98	2,175.73	-291.40	-88.96	304.68	0.00	0.00	0.00
2,300.00	9.52	196.98	2,274.36	-307.22	-93.79	321.22	0.00	0.00	0.00
2,400.00	9.52	196.98	2,372.98	-323.03	-98.62	337.75	0.00	0.00	0.00
2,500.00	9.52	196.98	2,471.60	-338.85	-103.45	354.29	0.00	0.00	0.00
2,556.17	9.52	196.98	2,527.00	-347.73	-106.16	363.57	0.00	0.00	0.00
GRRV_ORANGE									
2,600.00	9.52	196.98	2,570.23	-354.66	-108.28	370.82	0.00	0.00	0.00
2,700.00	9.52	196.98	2,668.85	-370.48	-113.10	387.36	0.00	0.00	0.00
2,789.38	9.52	196.98	2,757.00	-384.61	-117.42	402.14	0.00	0.00	0.00
WSTC									
2,800.00	9.52	196.98	2,767.47	-386.29	-117.93	403.89	0.00	0.00	0.00
2,900.00	9.52	196.98	2,866.10	-402.11	-122.76	420.43	0.00	0.00	0.00
3,000.00	9.52	196.98	2,964.72	-417.92	-127.59	436.96	0.00	0.00	0.00
3,100.00	9.52	196.98	3,063.34	-433.74	-132.42	453.50	0.00	0.00	0.00
3,200.00	9.52	196.98	3,161.97	-449.55	-137.25	470.03	0.00	0.00	0.00
3,296.36	9.52	196.98	3,257.00	-464.79	-141.90	485.97	0.00	0.00	0.00
Surface Casing									
3,300.00	9.52	196.98	3,260.59	-465.36	-142.07	486.57	0.00	0.00	0.00

# Scientific Drilling, Intl

## Planning Report

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<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 414-7-297	<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	9.52	196.98	3,359.21	-481.18	-146.90	503.10	0.00	0.00	0.00	
3,500.00	9.52	196.98	3,457.84	-496.99	-151.73	519.64	0.00	0.00	0.00	
3,600.00	9.52	196.98	3,556.46	-512.81	-156.56	536.17	0.00	0.00	0.00	
3,700.00	9.52	196.98	3,655.08	-528.62	-161.39	552.71	0.00	0.00	0.00	
3,800.00	9.52	196.98	3,753.71	-544.44	-166.21	569.25	0.00	0.00	0.00	
3,900.00	9.52	196.98	3,852.33	-560.25	-171.04	585.78	0.00	0.00	0.00	
4,000.00	9.52	196.98	3,950.95	-576.07	-175.87	602.32	0.00	0.00	0.00	
4,100.00	9.52	196.98	4,049.58	-591.88	-180.70	618.85	0.00	0.00	0.00	
4,200.00	9.52	196.98	4,148.20	-607.70	-185.53	635.39	0.00	0.00	0.00	
4,300.00	9.52	196.98	4,246.83	-623.51	-190.36	651.92	0.00	0.00	0.00	
4,400.00	9.52	196.98	4,345.45	-639.33	-195.18	668.46	0.00	0.00	0.00	
4,500.00	9.52	196.98	4,444.07	-655.14	-200.01	684.99	0.00	0.00	0.00	
4,600.00	9.52	196.98	4,542.70	-670.96	-204.84	701.53	0.00	0.00	0.00	
4,700.00	9.52	196.98	4,641.32	-686.77	-209.67	718.06	0.00	0.00	0.00	
4,800.00	9.52	196.98	4,739.94	-702.59	-214.50	734.60	0.00	0.00	0.00	
4,900.00	9.52	196.98	4,838.57	-718.40	-219.32	751.13	0.00	0.00	0.00	
5,000.00	9.52	196.98	4,937.19	-734.21	-224.15	767.67	0.00	0.00	0.00	
5,100.00	9.52	196.98	5,035.81	-750.03	-228.98	784.20	0.00	0.00	0.00	
5,131.62	9.52	196.98	5,067.00	-755.03	-230.51	789.43	0.00	0.00	0.00	
<b>G_SAND</b>										
5,200.00	9.52	196.98	5,134.44	-765.84	-233.81	800.74	0.00	0.00	0.00	
5,300.00	9.52	196.98	5,233.06	-781.66	-238.64	817.27	0.00	0.00	0.00	
5,400.00	9.52	196.98	5,331.68	-797.47	-243.47	833.81	0.00	0.00	0.00	
5,425.67	9.52	196.98	5,357.00	-801.53	-244.70	838.05	0.00	0.00	0.00	
<b>FRUN</b>										
5,500.00	9.52	196.98	5,430.31	-813.29	-248.29	850.35	0.00	0.00	0.00	
5,600.00	9.52	196.98	5,528.93	-829.10	-253.12	866.88	0.00	0.00	0.00	
5,700.00	9.52	196.98	5,627.55	-844.92	-257.95	883.42	0.00	0.00	0.00	
5,800.00	9.52	196.98	5,726.18	-860.73	-262.78	899.95	0.00	0.00	0.00	
5,900.00	9.52	196.98	5,824.80	-876.55	-267.61	916.49	0.00	0.00	0.00	
6,000.00	9.52	196.98	5,923.42	-892.36	-272.43	933.02	0.00	0.00	0.00	
6,100.00	9.52	196.98	6,022.05	-908.18	-277.26	949.56	0.00	0.00	0.00	
6,200.00	9.52	196.98	6,120.67	-923.99	-282.09	966.09	0.00	0.00	0.00	
6,300.00	9.52	196.98	6,219.29	-939.81	-286.92	982.63	0.00	0.00	0.00	
6,400.00	9.52	196.98	6,317.92	-955.62	-291.75	999.16	0.00	0.00	0.00	
6,500.00	9.52	196.98	6,416.54	-971.44	-296.58	1,015.70	0.00	0.00	0.00	
6,600.00	9.52	196.98	6,515.16	-987.25	-301.40	1,032.23	0.00	0.00	0.00	
6,700.00	9.52	196.98	6,613.79	-1,003.06	-306.23	1,048.77	0.00	0.00	0.00	
6,784.37	9.52	196.98	6,697.00	-1,016.41	-310.31	1,062.72	0.00	0.00	0.00	
<b>MVRD</b>										
6,800.00	9.52	196.98	6,712.41	-1,018.88	-311.06	1,065.30	0.00	0.00	0.00	
6,900.00	9.52	196.98	6,811.03	-1,034.69	-315.89	1,081.84	0.00	0.00	0.00	
7,000.00	9.52	196.98	6,909.66	-1,050.51	-320.72	1,098.38	0.00	0.00	0.00	
7,100.00	9.52	196.98	7,008.28	-1,066.32	-325.54	1,114.91	0.00	0.00	0.00	
7,200.00	9.52	196.98	7,106.91	-1,082.14	-330.37	1,131.45	0.00	0.00	0.00	
7,300.00	9.52	196.98	7,205.53	-1,097.95	-335.20	1,147.98	0.00	0.00	0.00	
7,400.00	9.52	196.98	7,304.15	-1,113.77	-340.03	1,164.52	0.00	0.00	0.00	
7,421.54	9.52	196.98	7,325.40	-1,117.17	-341.07	1,168.08	0.00	0.00	0.00	
<b>Start Drop -1.50</b>										
7,500.00	8.34	196.98	7,402.90	-1,128.82	-344.62	1,180.26	1.50	-1.50	0.00	
7,600.00	6.84	196.98	7,502.02	-1,141.46	-348.48	1,193.47	1.50	-1.50	0.00	
7,700.00	5.34	196.98	7,601.46	-1,151.60	-351.58	1,204.08	1.50	-1.50	0.00	

# Scientific Drilling, Intl

## Planning Report

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<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	3.84	196.98	7,701.13	-1,159.26	-353.92	1,212.08	1.50	-1.50	0.00
7,900.00	2.34	196.98	7,800.98	-1,164.42	-355.49	1,217.47	1.50	-1.50	0.00
8,000.00	0.84	196.98	7,900.94	-1,167.07	-356.30	1,220.25	1.50	-1.50	0.00
8,056.06	0.00	0.00	7,957.00	-1,167.46	-356.42	1,220.66	1.50	-1.50	0.00
Start 3660.00 hold at 8056.06 MD - KMGAS									
8,100.00	0.00	0.00	8,000.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
8,200.00	0.00	0.00	8,100.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
8,300.00	0.00	0.00	8,200.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
8,400.00	0.00	0.00	8,300.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
8,500.00	0.00	0.00	8,400.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
8,600.00	0.00	0.00	8,500.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
8,700.00	0.00	0.00	8,600.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
8,800.00	0.00	0.00	8,700.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
8,900.00	0.00	0.00	8,800.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
9,000.00	0.00	0.00	8,900.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
9,100.00	0.00	0.00	9,000.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
9,200.00	0.00	0.00	9,100.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
9,300.00	0.00	0.00	9,200.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
9,400.00	0.00	0.00	9,300.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
9,500.00	0.00	0.00	9,400.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
9,600.00	0.00	0.00	9,500.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
9,700.00	0.00	0.00	9,600.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
9,800.00	0.00	0.00	9,700.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
9,900.00	0.00	0.00	9,800.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
10,000.00	0.00	0.00	9,900.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
10,100.00	0.00	0.00	10,000.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
10,200.00	0.00	0.00	10,100.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
10,206.06	0.00	0.00	10,107.00	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
CME0*									
10,300.00	0.00	0.00	10,200.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
10,400.00	0.00	0.00	10,300.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
10,500.00	0.00	0.00	10,400.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
10,600.00	0.00	0.00	10,500.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
10,700.00	0.00	0.00	10,600.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
10,726.06	0.00	0.00	10,627.00	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
RLNS									
10,800.00	0.00	0.00	10,700.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
10,876.06	0.00	0.00	10,777.00	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
CZZT									
10,900.00	0.00	0.00	10,800.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
11,000.00	0.00	0.00	10,900.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
11,096.06	0.00	0.00	10,997.00	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
CRCN									
11,100.00	0.00	0.00	11,000.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
11,200.00	0.00	0.00	11,100.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
11,300.00	0.00	0.00	11,200.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
11,400.00	0.00	0.00	11,300.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
11,446.06	0.00	0.00	11,347.00	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
SEGO_UPPER									
11,500.00	0.00	0.00	11,400.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
11,600.00	0.00	0.00	11,500.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
11,616.06	0.00	0.00	11,517.00	-1,167.46	-356.42	1,220.66	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 414-7-297 - Slot RGU 414-7-297
<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 414-7-297	<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)
<b>SEGO_LOWER</b>									
11,700.00	0.00	0.00	11,600.94	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
11,716.06	0.00	0.00	11,617.00	-1,167.46	-356.42	1,220.66	0.00	0.00	0.00
<b>TD at 11716.06 - TD</b>									

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									
FRG 414-7-297 KMV Gz	0.00	0.00	7,957.00	-1,167.46	-356.42	1,759,723.7000	2,205,818.3000	39.8852907	-108.3303574
- plan hits target center									
- Circle (radius 25.00)									
FRG 414-7-297 TD	0.00	0.00	11,617.00	-1,167.46	-356.42	1,759,723.7000	2,205,818.3000	39.8852907	-108.3303574
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
3,296.36	3,257.00	Surface Casing	0.00	0.00	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
908.49	902.00	GRRV		0.00	
1,065.65	1,057.00	GRRV_A_GROOVE		0.00	
1,258.30	1,247.00	GRRV_B_GROOVE		0.00	
1,572.63	1,557.00	GRRV DISSOLUTION_SURF		0.00	
2,556.17	2,527.00	GRRV_ORANGE		0.00	
2,789.38	2,757.00	WSTC		0.00	
5,131.62	5,067.00	G_SAND		0.00	
5,425.67	5,357.00	FRUN		0.00	
6,784.37	6,697.00	MVRD		0.00	
8,056.06	7,957.00	KMVGAS		0.00	
10,206.06	10,107.00	CMEQ*		0.00	
10,726.06	10,627.00	RLNS		0.00	
10,876.06	10,777.00	CZZT		0.00	
11,096.06	10,997.00	CRCN		0.00	
11,446.06	11,347.00	SEGO_UPPER		0.00	
11,616.06	11,517.00	SEGO_LOWER		0.00	
11,716.06	11,617.00	TD		0.00	

# Scientific Drilling, Intl

## Planning Report

<b>Database:</b>	Grand Junction	<b>Local Co-ordinate Reference:</b>	Well Federal RG 414-7-297 - Slot RGU 414-7-297
<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 414-7-297	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2 7April2020 SB-SDI		

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 2.00
595.89	593.70	-37.72	-11.51	Start 6825.66 hold at 595.89 MD
7,421.54	7,325.40	-1,117.17	-341.07	Start Drop -1.50
8,056.06	7,957.00	-1,167.46	-356.42	Start 3660.00 hold at 8056.06 MD
11,716.06	11,617.00	-1,167.46	-356.42	TD at 11716.06