

# **TEP Rocky Mountain LLC**

**Garfield County, CO NAD83**

**PA 23-26 Pad**

**PA 533-26 - Slot B7**

**OH**

**Plan: Plan #1**

## **Standard Planning Report**

**10 July, 2017**

**N/A**  
Planning Report

<b>Database:</b>	EDM_PRO	<b>Local Co-ordinate Reference:</b>	Well PA 533-26 - Slot B7
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	WELL @ 5658.0ft (Original Well Elev)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	WELL @ 5658.0ft (Original Well Elev)
<b>Site:</b>	PA 23-26 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 533-26	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

<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		

Site		PA 23-26 Pad			
Site Position:		Northing:	1,614,400.30 ft	Latitude:	39° 29' 39.674 N
From:	Map	Easting:	2,303,981.10 ft	Longitude:	107° 57' 59.978 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.56 °

Well	PA 533-26 - Slot B7, B7					
Well Position	+N/-S	-11.8 ft	Northing:	1,614,389.70 ft	Latitude:	39° 29' 39.557 N
	+E/-W	-44.6 ft	Easting:	2,303,936.24 ft	Longitude:	107° 58' 0.546 W
Position Uncertainty		0.0 ft	Wellhead Elevation:		Ground Level:	5,637.0 ft

<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>
	IGRF2015	5/19/2017	9.70	65.59	51,543.19015624

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	111.63

<b>Plan Survey Tool Program</b>	<b>Date</b>	7/10/2017			
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.0	8,512.2 Plan #1 (OH)	SDI MWD		
			SDI MWD - Standard ver 1.0.1		

<b>Plan Sections</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
550.0	5.00	165.00	549.7	-10.5	2.8	2.00	2.00	0.00	165.00	
1,235.8	16.00	110.30	1,224.1	-72.5	99.7	2.00	1.60	-7.98	-71.58	
5,515.6	16.00	110.30	5,338.1	-481.8	1,206.1	0.00	0.00	0.00	0.00	
6,582.3	0.00	0.00	6,391.0	-533.2	1,344.9	1.50	-1.50	0.00	180.00	
8,512.3	0.00	0.00	8,321.0	-533.2	1,344.9	0.00	0.00	0.00	0.00	PBHL(PA 533-26)

**N/A**  
Planning Report

<b>Database:</b>	EDM_PRO	<b>Local Co-ordinate Reference:</b>	Well PA 533-26 - Slot B7
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	WELL @ 5658.0ft (Original Well Elev)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	WELL @ 5658.0ft (Original Well Elev)
<b>Site:</b>	PA 23-26 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 533-26	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	2.00	165.00	400.0	-1.7	0.5	1.0	2.00	2.00	0.00
500.0	4.00	165.00	499.8	-6.7	1.8	4.2	2.00	2.00	0.00
550.0	5.00	165.00	549.7	-10.5	2.8	6.5	2.00	2.00	0.00
600.0	5.40	154.87	599.5	-14.8	4.4	9.5	2.00	0.80	-20.27
700.0	6.59	139.37	698.9	-23.4	10.1	18.0	2.00	1.19	-15.49
800.0	8.11	129.11	798.1	-32.2	19.3	29.8	2.00	1.52	-10.27
900.0	9.80	122.20	896.9	-41.2	32.0	44.9	2.00	1.69	-6.91
1,000.0	11.59	117.36	995.2	-50.3	48.1	63.3	2.00	1.79	-4.84
1,100.0	13.43	113.81	1,092.8	-59.6	67.7	84.9	2.00	1.85	-3.55
9 5/8"									
1,200.0	15.32	111.12	1,189.6	-69.1	90.6	109.7	2.00	1.89	-2.69
1,235.8	16.00	110.30	1,224.1	-72.5	99.7	119.4	2.00	1.90	-2.27
1,300.0	16.00	110.30	1,285.8	-78.6	116.3	137.1	0.00	0.00	0.00
1,400.0	16.00	110.30	1,382.0	-88.2	142.1	164.6	0.00	0.00	0.00
1,500.0	16.00	110.30	1,478.1	-97.8	168.0	192.2	0.00	0.00	0.00
1,600.0	16.00	110.30	1,574.2	-107.3	193.8	219.7	0.00	0.00	0.00
1,700.0	16.00	110.30	1,670.3	-116.9	219.7	247.3	0.00	0.00	0.00
1,800.0	16.00	110.30	1,766.5	-126.5	245.5	274.9	0.00	0.00	0.00
1,900.0	16.00	110.30	1,862.6	-136.0	271.4	302.4	0.00	0.00	0.00
2,000.0	16.00	110.30	1,958.7	-145.6	297.2	330.0	0.00	0.00	0.00
2,100.0	16.00	110.30	2,054.8	-155.1	323.1	357.5	0.00	0.00	0.00
2,200.0	16.00	110.30	2,151.0	-164.7	348.9	385.1	0.00	0.00	0.00
2,300.0	16.00	110.30	2,247.1	-174.3	374.8	412.6	0.00	0.00	0.00
2,400.0	16.00	110.30	2,343.2	-183.8	400.7	440.2	0.00	0.00	0.00
2,415.4	16.00	110.30	2,358.0	-185.3	404.6	444.4	0.00	0.00	0.00
Wasatch G									
2,477.8	16.00	110.30	2,418.0	-191.3	420.8	461.6	0.00	0.00	0.00
Wasatch G Base									
2,500.0	16.00	110.30	2,439.3	-193.4	426.5	467.8	0.00	0.00	0.00
2,600.0	16.00	110.30	2,535.5	-203.0	452.4	495.3	0.00	0.00	0.00
2,700.0	16.00	110.30	2,631.6	-212.5	478.2	522.9	0.00	0.00	0.00
2,800.0	16.00	110.30	2,727.7	-222.1	504.1	550.4	0.00	0.00	0.00
2,900.0	16.00	110.30	2,823.8	-231.7	529.9	578.0	0.00	0.00	0.00
3,000.0	16.00	110.30	2,920.0	-241.2	555.8	605.6	0.00	0.00	0.00
3,100.0	16.00	110.30	3,016.1	-250.8	581.6	633.1	0.00	0.00	0.00
3,200.0	16.00	110.30	3,112.2	-260.4	607.5	660.7	0.00	0.00	0.00
3,300.0	16.00	110.30	3,208.3	-269.9	633.3	688.2	0.00	0.00	0.00
3,400.0	16.00	110.30	3,304.5	-279.5	659.2	715.8	0.00	0.00	0.00
3,500.0	16.00	110.30	3,400.6	-289.1	685.0	743.4	0.00	0.00	0.00
3,600.0	16.00	110.30	3,496.7	-298.6	710.9	770.9	0.00	0.00	0.00
3,700.0	16.00	110.30	3,592.8	-308.2	736.8	798.5	0.00	0.00	0.00
3,800.0	16.00	110.30	3,689.0	-317.8	762.6	826.0	0.00	0.00	0.00
3,900.0	16.00	110.30	3,785.1	-327.3	788.5	853.6	0.00	0.00	0.00
4,000.0	16.00	110.30	3,881.2	-336.9	814.3	881.1	0.00	0.00	0.00
4,100.0	16.00	110.30	3,977.4	-346.4	840.2	908.7	0.00	0.00	0.00
4,200.0	16.00	110.30	4,073.5	-356.0	866.0	936.3	0.00	0.00	0.00
4,300.0	16.00	110.30	4,169.6	-365.6	891.9	963.8	0.00	0.00	0.00
4,400.0	16.00	110.30	4,265.7	-375.1	917.7	991.4	0.00	0.00	0.00
4,500.0	16.00	110.30	4,361.9	-384.7	943.6	1,018.9	0.00	0.00	0.00

**N/A**  
Planning Report

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<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	WELL @ 5658.0ft (Original Well Elev)
<b>Site:</b>	PA 23-26 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 533-26	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,600.0	16.00	110.30	4,458.0	-394.3	969.4	1,046.5	0.00	0.00	0.00
4,700.0	16.00	110.30	4,554.1	-403.8	995.3	1,074.1	0.00	0.00	0.00
4,800.0	16.00	110.30	4,650.2	-413.4	1,021.1	1,101.6	0.00	0.00	0.00
4,828.9	16.00	110.30	4,678.0	-416.2	1,028.6	1,109.6	0.00	0.00	0.00
<b>Ohio Creek</b>									
4,900.0	16.00	110.30	4,746.4	-423.0	1,047.0	1,129.2	0.00	0.00	0.00
5,000.0	16.00	110.30	4,842.5	-432.5	1,072.8	1,156.7	0.00	0.00	0.00
5,016.2	16.00	110.30	4,858.0	-434.1	1,077.0	1,161.2	0.00	0.00	0.00
<b>Upper MVRD</b>									
5,100.0	16.00	110.30	4,938.6	-442.1	1,098.7	1,184.3	0.00	0.00	0.00
5,200.0	16.00	110.30	5,034.7	-451.7	1,124.6	1,211.9	0.00	0.00	0.00
5,300.0	16.00	110.30	5,130.9	-461.2	1,150.4	1,239.4	0.00	0.00	0.00
5,400.0	16.00	110.30	5,227.0	-470.8	1,176.3	1,267.0	0.00	0.00	0.00
5,500.0	16.00	110.30	5,323.1	-480.4	1,202.1	1,294.5	0.00	0.00	0.00
5,515.6	16.00	110.30	5,338.1	-481.8	1,206.1	1,298.8	0.00	0.00	0.00
5,600.0	14.73	110.30	5,419.5	-489.6	1,227.1	1,321.2	1.50	-1.50	0.00
5,700.0	13.23	110.30	5,516.5	-498.0	1,249.8	1,345.3	1.50	-1.50	0.00
5,800.0	11.73	110.30	5,614.2	-505.5	1,270.1	1,367.0	1.50	-1.50	0.00
5,900.0	10.23	110.30	5,712.3	-512.1	1,287.9	1,386.0	1.50	-1.50	0.00
6,000.0	8.73	110.30	5,811.0	-517.8	1,303.4	1,402.5	1.50	-1.50	0.00
6,067.8	7.72	110.30	5,878.0	-521.2	1,312.5	1,412.2	1.50	-1.50	0.00
<b>Top of Gas</b>									
6,100.0	7.23	110.30	5,910.0	-522.6	1,316.4	1,416.4	1.50	-1.50	0.00
6,200.0	5.73	110.30	6,009.3	-526.6	1,327.0	1,427.7	1.50	-1.50	0.00
6,300.0	4.23	110.30	6,109.0	-529.6	1,335.2	1,436.3	1.50	-1.50	0.00
6,400.0	2.73	110.30	6,208.8	-531.7	1,340.9	1,442.4	1.50	-1.50	0.00
6,500.0	1.23	110.30	6,308.7	-532.9	1,344.1	1,445.9	1.50	-1.50	0.00
6,582.3	0.00	0.00	6,391.0	-533.2	1,344.9	1,446.8	1.50	-1.50	0.00
6,600.0	0.00	0.00	6,408.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
6,700.0	0.00	0.00	6,508.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
6,800.0	0.00	0.00	6,608.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
6,900.0	0.00	0.00	6,708.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
7,000.0	0.00	0.00	6,808.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
7,100.0	0.00	0.00	6,908.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
7,200.0	0.00	0.00	7,008.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
7,300.0	0.00	0.00	7,108.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
7,400.0	0.00	0.00	7,208.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
7,500.0	0.00	0.00	7,308.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
7,600.0	0.00	0.00	7,408.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
7,649.3	0.00	0.00	7,458.0	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
<b>Cameo</b>									
7,700.0	0.00	0.00	7,508.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
7,800.0	0.00	0.00	7,608.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
7,900.0	0.00	0.00	7,708.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
8,000.0	0.00	0.00	7,808.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
8,100.0	0.00	0.00	7,908.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
8,200.0	0.00	0.00	8,008.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
8,300.0	0.00	0.00	8,108.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
8,359.3	0.00	0.00	8,168.0	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
<b>RLNS</b>									
8,400.0	0.00	0.00	8,208.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
8,500.0	0.00	0.00	8,308.7	-533.2	1,344.9	1,446.8	0.00	0.00	0.00
8,512.3	0.00	0.00	8,321.0	-533.2	1,344.9	1,446.8	0.00	0.00	0.00

**N/A**  
Planning Report

<b>Database:</b>	EDM_PRO	<b>Local Co-ordinate Reference:</b>	Well PA 533-26 - Slot B7
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	WELL @ 5658.0ft (Original Well Elev)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	WELL @ 5658.0ft (Original Well Elev)
<b>Site:</b>	PA 23-26 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 533-26	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
PBHL(PA 533-26)									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL(PA 533-26)	0.00	0.00	8,321.0	-533.2	1,344.9	1,613,820.20	2,305,266.20	39° 29' 34.287 N	107° 57' 43.390 W
- plan hits target center									
- Point									

Casing Points						Casing Diameter (in)	Hole Diameter (in)
Measured Depth (ft)	Vertical Depth (ft)	Name					
1,100.0	1,092.8	9 5/8"				9.625	13.500

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,415.4	2,358.0	Wasatch G		0.00		
2,477.8	2,418.0	Wasatch G Base		0.00		
4,828.9	4,678.0	Ohio Creek		0.00		
5,016.2	4,858.0	Upper MVRD		0.00		
6,067.8	5,878.0	Top of Gas		0.00		
7,649.3	7,458.0	Cameo		0.00		
8,359.3	8,168.0	RLNS		0.00		