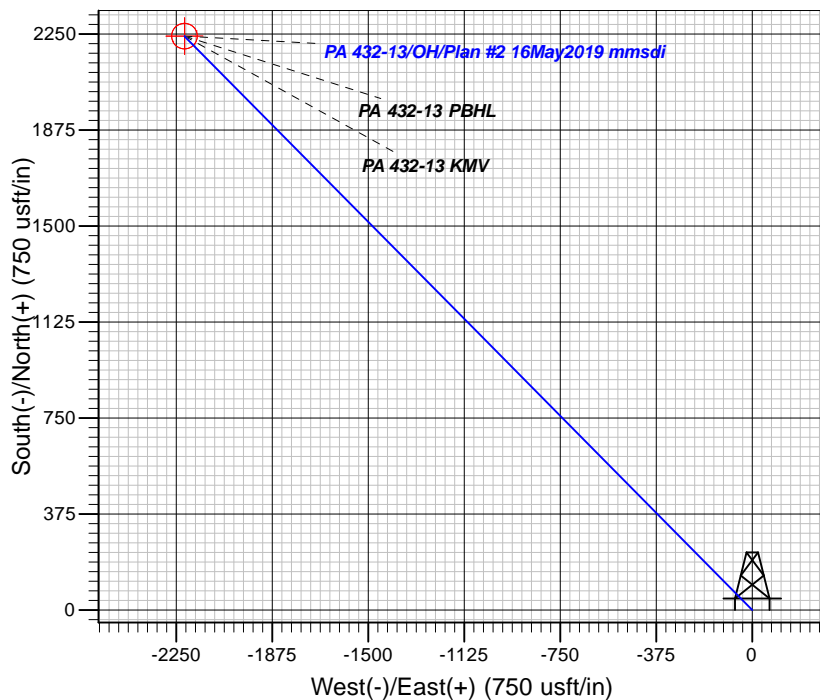
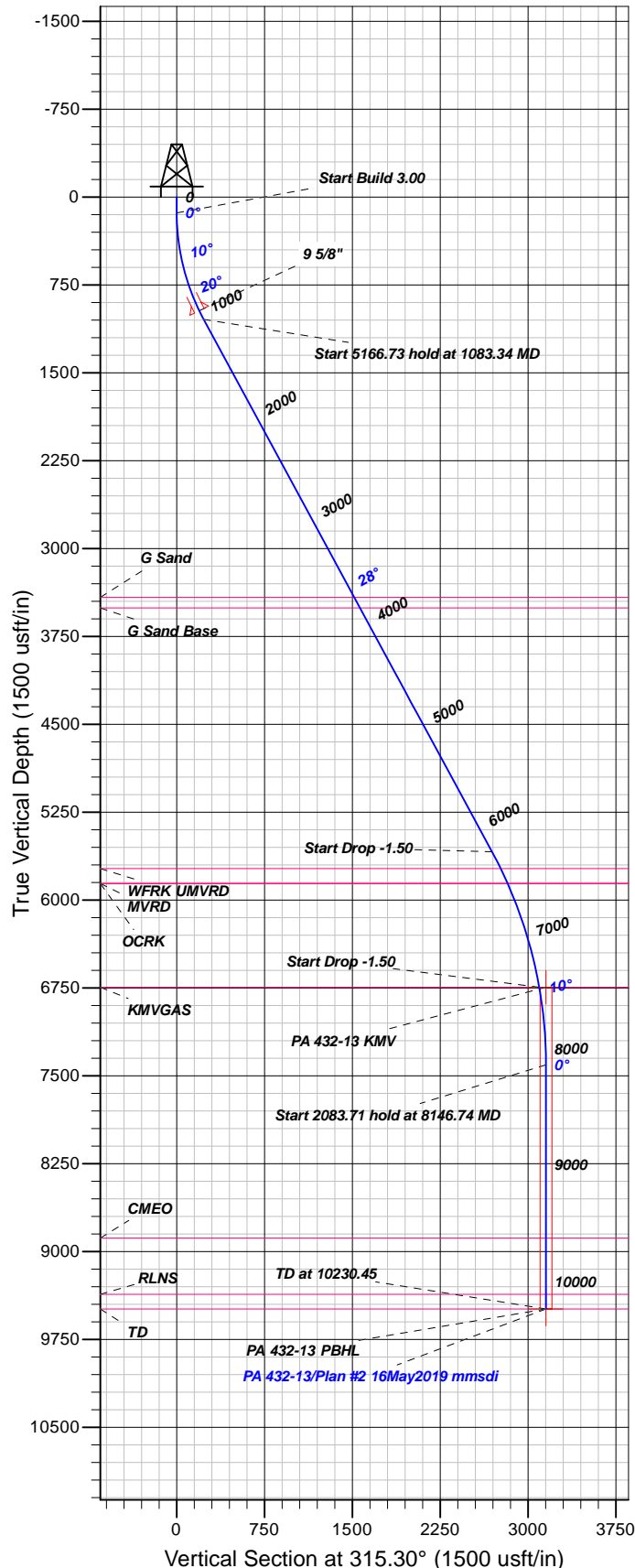




Magnetic Field  
Strength: 51491.8snT  
Dip Angle: 65.75°  
Date: 5/2/2019  
Model: HDGM

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1623803.90	2311225.80	39.5207079	-107.9418777	PA 432-13 (B10)



TVDPATH	MDPATH	FORMATION
3418.00	3782.46	G SAND
3507.00	3883.68	G SAND BASE
5732.00	6412.48	WFRK UMVRD
5860.00	6553.67	OCRK
5860.00	6553.67	MVRD
6744.00	7480.07	KMVGAS
8886.00	9625.45	CMEQ
9366.00	10105.45	RLNS
9491.00	10230.45	TD

Plan: Plan #2 16May2019 mmsdi

12:54, May 20 2019  
Created By: Mel Mireles

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

## CASING DETAILS

TVD	MD	Name	Size
970.73	1000.00	9 5/8"	9.62

## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	
3	1083.34	28.45	315.30	1044.84	163.95	-162.23	3.00	315.30	230.65	
4	6250.07	28.45	315.30	5587.60	1913.59	-1893.48	0.00	0.00	0.02692.04	
5	7480.07	10.00	315.30	6744.00	2200.25	-2177.12	1.50	180.00	0.02985.91	
6	8146.74	0.00	0.00	7407.29	2241.50	-2217.94	1.50	180.00	0.03153.34	
7	10230.45	0.00	0.00	9491.00	2241.50	-2217.94	0.00	0.00	0.03153.34	PA 432-13 PBHL

## DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PA 432-13 KMV	6744.00	2241.50	-2217.94	16261.04	20.2309068.90	39.52686615	-107.9497407	Circle (Radius: 50.00)
- plan misses target center by 57.17usft at 7490.00usft MD (6753.78 TVD, 2201.47 N, -2178.32 E)								
PA 432-13 PBHL	9491.00	2241.50	-2217.94	16261.04	20.2309068.90	39.52686615	-107.9497407	Point
- plan misses target center by 0.01usft at 10230.45usft MD (9491.00 TVD, 2241.50 N, -2217.94 E)								



# **TEP Rocky Mountain LLC**

**Garfield County, CO NAD83**

**PA 44-13 Pad**

**PA 432-13 - Slot PA 432-13 (B10)**

**OH**

**Plan: Plan #2 16May2019 mmsdi**

## **Standard Planning Report**

**20 May, 2019**



<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well PA 432-13 - Slot PA 432-13 (B10)
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 6571.1 & RKB 24' @ 6595.10usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 6571.1 & RKB 24' @ 6595.10usft (H&P 318)
<b>Site:</b>	PA 44-13 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 432-13	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2 16May2019 mmsdi		

<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 44-13 Pad			
Site Position:		Northing:	1,623,813.70 usft	Latitude:	39.5207354
From:	Map	Easting:	2,311,233.50 usft	Longitude:	-107.9418514
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-1.54 °

Well	PA 432-13 - Slot PA 432-13 (B10)					
Well Position	+N/-S	-10.00 usft	Northing:	1,623,803.90 usft	Latitude:	39.5207080
	+E/-W	-7.43 usft	Easting:	2,311,225.80 usft	Longitude:	-107.9418778
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,571.10 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	5/2/2019	9.32	65.75	51,492

<b>Design</b>	Plan #2 16May2019 mmsdi			
<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	315.30

<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	
1,083.34	28.45	315.30	1,044.84	163.95	-162.23	3.00	3.00	0.00	315.30	
6,250.07	28.45	315.30	5,587.60	1,913.59	-1,893.48	0.00	0.00	0.00	0.00	
7,480.07	10.00	315.30	6,744.00	2,200.25	-2,177.12	1.50	-1.50	0.00	180.00	
8,146.74	0.00	0.00	7,407.29	2,241.50	-2,217.94	1.50	-1.50	0.00	180.00	
10,230.45	0.00	0.00	9,491.00	2,241.50	-2,217.94	0.00	0.00	0.00	0.00	PA 432-13 PBHL

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well PA 432-13 - Slot PA 432-13 (B10)
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 6571.1 & RKB 24' @ 6595.10usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 6571.1 & RKB 24' @ 6595.10usft (H&P 318)
<b>Site:</b>	PA 44-13 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 432-13	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2 16May2019 mmsdi		

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 3.00										
200.00	1.95	315.30	199.99	0.79	-0.78	1.11	3.00	3.00	0.00	
300.00	4.95	315.30	299.79	5.06	-5.01	7.12	3.00	3.00	0.00	
400.00	7.95	315.30	399.15	13.05	-12.91	18.36	3.00	3.00	0.00	
500.00	10.95	315.30	497.78	24.72	-24.46	34.77	3.00	3.00	0.00	
600.00	13.95	315.30	595.42	40.04	-39.62	56.33	3.00	3.00	0.00	
700.00	16.95	315.30	691.79	58.97	-58.35	82.97	3.00	3.00	0.00	
800.00	19.95	315.30	786.64	81.47	-80.61	114.61	3.00	3.00	0.00	
900.00	22.95	315.30	879.71	107.46	-106.33	151.17	3.00	3.00	0.00	
1,000.00	25.95	315.30	970.73	136.88	-135.44	192.56	3.00	3.00	0.00	
9 5/8"										
1,083.34	28.45	315.30	1,044.84	163.95	-162.23	230.65	3.00	3.00	0.00	
Start 5166.73 hold at 1083.34 MD										
1,100.00	28.45	315.30	1,059.49	169.60	-167.81	238.59	0.00	0.00	0.00	
1,200.00	28.45	315.30	1,147.42	203.46	-201.32	286.23	0.00	0.00	0.00	
1,300.00	28.45	315.30	1,235.34	237.32	-234.83	333.87	0.00	0.00	0.00	
1,400.00	28.45	315.30	1,323.26	271.19	-268.34	381.51	0.00	0.00	0.00	
1,500.00	28.45	315.30	1,411.19	305.05	-301.84	429.14	0.00	0.00	0.00	
1,600.00	28.45	315.30	1,499.11	338.91	-335.35	476.78	0.00	0.00	0.00	
1,700.00	28.45	315.30	1,587.03	372.78	-368.86	524.42	0.00	0.00	0.00	
1,800.00	28.45	315.30	1,674.96	406.64	-402.37	572.06	0.00	0.00	0.00	
1,900.00	28.45	315.30	1,762.88	440.50	-435.87	619.70	0.00	0.00	0.00	
2,000.00	28.45	315.30	1,850.80	474.37	-469.38	667.34	0.00	0.00	0.00	
2,100.00	28.45	315.30	1,938.73	508.23	-502.89	714.98	0.00	0.00	0.00	
2,200.00	28.45	315.30	2,026.65	542.10	-536.40	762.62	0.00	0.00	0.00	
2,300.00	28.45	315.30	2,114.57	575.96	-569.90	810.26	0.00	0.00	0.00	
2,400.00	28.45	315.30	2,202.50	609.82	-603.41	857.90	0.00	0.00	0.00	
2,500.00	28.45	315.30	2,290.42	643.69	-636.92	905.54	0.00	0.00	0.00	
2,600.00	28.45	315.30	2,378.34	677.55	-670.43	953.18	0.00	0.00	0.00	
2,700.00	28.45	315.30	2,466.27	711.41	-703.93	1,000.82	0.00	0.00	0.00	
2,800.00	28.45	315.30	2,554.19	745.28	-737.44	1,048.46	0.00	0.00	0.00	
2,900.00	28.45	315.30	2,642.11	779.14	-770.95	1,096.10	0.00	0.00	0.00	
3,000.00	28.45	315.30	2,730.04	813.00	-804.46	1,143.73	0.00	0.00	0.00	
3,100.00	28.45	315.30	2,817.96	846.87	-837.97	1,191.37	0.00	0.00	0.00	
3,200.00	28.45	315.30	2,905.88	880.73	-871.47	1,239.01	0.00	0.00	0.00	
3,300.00	28.45	315.30	2,993.81	914.60	-904.98	1,286.65	0.00	0.00	0.00	
3,400.00	28.45	315.30	3,081.73	948.46	-938.49	1,334.29	0.00	0.00	0.00	
3,500.00	28.45	315.30	3,169.65	982.32	-972.00	1,381.93	0.00	0.00	0.00	
3,600.00	28.45	315.30	3,257.58	1,016.19	-1,005.50	1,429.57	0.00	0.00	0.00	
3,700.00	28.45	315.30	3,345.50	1,050.05	-1,039.01	1,477.21	0.00	0.00	0.00	
3,782.46	28.45	315.30	3,418.00	1,077.97	-1,066.64	1,516.49	0.00	0.00	0.00	
G Sand										
3,800.00	28.45	315.30	3,433.42	1,083.91	-1,072.52	1,524.85	0.00	0.00	0.00	
3,883.68	28.45	315.30	3,507.00	1,112.25	-1,100.56	1,564.72	0.00	0.00	0.00	
G Sand Base										
3,900.00	28.45	315.30	3,521.35	1,117.78	-1,106.03	1,572.49	0.00	0.00	0.00	
4,000.00	28.45	315.30	3,609.27	1,151.64	-1,139.53	1,620.13	0.00	0.00	0.00	
4,100.00	28.45	315.30	3,697.19	1,185.50	-1,173.04	1,667.77	0.00	0.00	0.00	

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well PA 432-13 - Slot PA 432-13 (B10)
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 6571.1 & RKB 24' @ 6595.10usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 6571.1 & RKB 24' @ 6595.10usft (H&P 318)
<b>Site:</b>	PA 44-13 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 432-13	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2 16May2019 mmsdi		

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)	
4,200.00	28.45	315.30	3,785.12	1,219.37	-1,206.55	1,715.41	0.00	0.00	0.00	
4,300.00	28.45	315.30	3,873.04	1,253.23	-1,240.06	1,763.05	0.00	0.00	0.00	
4,400.00	28.45	315.30	3,960.96	1,287.09	-1,273.56	1,810.68	0.00	0.00	0.00	
4,500.00	28.45	315.30	4,048.89	1,320.96	-1,307.07	1,858.32	0.00	0.00	0.00	
4,600.00	28.45	315.30	4,136.81	1,354.82	-1,340.58	1,905.96	0.00	0.00	0.00	
4,700.00	28.45	315.30	4,224.73	1,388.69	-1,374.09	1,953.60	0.00	0.00	0.00	
4,800.00	28.45	315.30	4,312.65	1,422.55	-1,407.59	2,001.24	0.00	0.00	0.00	
4,900.00	28.45	315.30	4,400.58	1,456.41	-1,441.10	2,048.88	0.00	0.00	0.00	
5,000.00	28.45	315.30	4,488.50	1,490.28	-1,474.61	2,096.52	0.00	0.00	0.00	
5,100.00	28.45	315.30	4,576.42	1,524.14	-1,508.12	2,144.16	0.00	0.00	0.00	
5,200.00	28.45	315.30	4,664.35	1,558.00	-1,541.63	2,191.80	0.00	0.00	0.00	
5,300.00	28.45	315.30	4,752.27	1,591.87	-1,575.13	2,239.44	0.00	0.00	0.00	
5,400.00	28.45	315.30	4,840.19	1,625.73	-1,608.64	2,287.08	0.00	0.00	0.00	
5,500.00	28.45	315.30	4,928.12	1,659.59	-1,642.15	2,334.72	0.00	0.00	0.00	
5,600.00	28.45	315.30	5,016.04	1,693.46	-1,675.66	2,382.36	0.00	0.00	0.00	
5,700.00	28.45	315.30	5,103.96	1,727.32	-1,709.16	2,430.00	0.00	0.00	0.00	
5,800.00	28.45	315.30	5,191.89	1,761.19	-1,742.67	2,477.63	0.00	0.00	0.00	
5,900.00	28.45	315.30	5,279.81	1,795.05	-1,776.18	2,525.27	0.00	0.00	0.00	
6,000.00	28.45	315.30	5,367.73	1,828.91	-1,809.69	2,572.91	0.00	0.00	0.00	
6,100.00	28.45	315.30	5,455.66	1,862.78	-1,843.19	2,620.55	0.00	0.00	0.00	
6,200.00	28.45	315.30	5,543.58	1,896.64	-1,876.70	2,668.19	0.00	0.00	0.00	
6,250.07	28.45	315.30	5,587.60	1,913.59	-1,893.48	2,692.04	0.00	0.00	0.00	
<b>Start Drop -1.50</b>										
6,300.00	27.70	315.30	5,631.66	1,930.30	-1,910.01	2,715.54	1.50	-1.50	0.00	
6,400.00	26.20	315.30	5,720.79	1,962.51	-1,941.88	2,760.87	1.50	-1.50	0.00	
6,412.48	26.01	315.30	5,732.00	1,966.42	-1,945.75	2,766.36	1.50	-1.50	0.00	
<b>WFRK UMVRD</b>										
6,500.00	24.70	315.30	5,811.09	1,993.06	-1,972.11	2,803.84	1.50	-1.50	0.00	
6,553.67	23.90	315.30	5,860.00	2,008.76	-1,987.64	2,825.92	1.50	-1.50	0.00	
<b>OCRK - MVRD</b>										
6,600.00	23.20	315.30	5,902.47	2,021.92	-2,000.66	2,844.43	1.50	-1.50	0.00	
6,700.00	21.70	315.30	5,994.89	2,049.06	-2,027.52	2,882.62	1.50	-1.50	0.00	
6,800.00	20.20	315.30	6,088.28	2,074.48	-2,052.67	2,918.38	1.50	-1.50	0.00	
6,900.00	18.70	315.30	6,182.57	2,098.15	-2,076.09	2,951.68	1.50	-1.50	0.00	
7,000.00	17.20	315.30	6,277.70	2,120.06	-2,097.77	2,982.50	1.50	-1.50	0.00	
7,100.00	15.70	315.30	6,373.60	2,140.19	-2,117.69	3,010.81	1.50	-1.50	0.00	
7,200.00	14.20	315.30	6,470.21	2,158.53	-2,135.83	3,036.61	1.50	-1.50	0.00	
7,300.00	12.70	315.30	6,567.47	2,175.06	-2,152.20	3,059.87	1.50	-1.50	0.00	
7,400.00	11.20	315.30	6,665.30	2,189.78	-2,166.76	3,080.58	1.50	-1.50	0.00	
7,480.07	10.00	315.30	6,744.00	2,200.25	-2,177.12	3,095.31	1.50	-1.50	0.00	
<b>Start Drop -1.50 - KMGVGS</b>										
7,490.00	9.85	315.30	6,753.78	2,201.47	-2,178.32	3,097.02	1.50	-1.50	0.00	
<b>PA 432-13 KMV</b>										
7,500.00	9.70	315.30	6,763.63	2,202.67	-2,179.52	3,098.72	1.50	-1.50	0.00	
7,600.00	8.20	315.30	6,862.41	2,213.73	-2,190.46	3,114.28	1.50	-1.50	0.00	
7,700.00	6.70	315.30	6,961.57	2,222.95	-2,199.58	3,127.25	1.50	-1.50	0.00	
7,800.00	5.20	315.30	7,061.02	2,230.32	-2,206.87	3,137.61	1.50	-1.50	0.00	
7,900.00	3.70	315.30	7,160.72	2,235.84	-2,212.33	3,145.38	1.50	-1.50	0.00	
8,000.00	2.20	315.30	7,260.58	2,239.50	-2,215.95	3,150.52	1.50	-1.50	0.00	
8,100.00	0.70	315.30	7,360.55	2,241.30	-2,217.74	3,153.06	1.50	-1.50	0.00	
8,146.74	0.00	0.00	7,407.29	2,241.50	-2,217.94	3,153.34	1.50	-1.50	0.00	

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well PA 432-13 - Slot PA 432-13 (B10)
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 6571.1 & RKB 24' @ 6595.10usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 6571.1 & RKB 24' @ 6595.10usft (H&P 318)
<b>Site:</b>	PA 44-13 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 432-13	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2 16May2019 mmsdi		

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)	
Start 2083.71 hold at 8146.74 MD										
8,200.00	0.00	0.00	7,460.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
8,300.00	0.00	0.00	7,560.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
8,400.00	0.00	0.00	7,660.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
8,500.00	0.00	0.00	7,760.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
8,600.00	0.00	0.00	7,860.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
8,700.00	0.00	0.00	7,960.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,060.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,160.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,260.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
9,100.00	0.00	0.00	8,360.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
9,200.00	0.00	0.00	8,460.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
9,300.00	0.00	0.00	8,560.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
9,400.00	0.00	0.00	8,660.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
9,500.00	0.00	0.00	8,760.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
9,600.00	0.00	0.00	8,860.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
9,625.45	0.00	0.00	8,886.00	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
CMEQ										
9,700.00	0.00	0.00	8,960.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
9,800.00	0.00	0.00	9,060.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
9,900.00	0.00	0.00	9,160.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
10,000.00	0.00	0.00	9,260.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
10,100.00	0.00	0.00	9,360.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
10,105.45	0.00	0.00	9,366.00	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
RLNS										
10,200.00	0.00	0.00	9,460.55	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
10,230.45	0.00	0.00	9,491.00	2,241.50	-2,217.94	3,153.34	0.00	0.00	0.00	
TD at 10230.45 - TD - PA 432-13 PBHL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
PA 432-13 KMV	0.00	0.00	6,744.00	2,241.50	-2,217.94	1,626,104.20	2,309,068.90	39.5268616	-107.9497407	
- hit/miss target										
- Shape										
- plan misses target center by 57.17usft at 7490.00usft MD (6753.78 TVD, 2201.47 N, -2178.32 E)										
- Circle (radius 50.00)										
PA 432-13 PBHL	0.00	0.00	9,491.00	2,241.50	-2,217.94	1,626,104.20	2,309,068.90	39.5268616	-107.9497407	
- hit/miss target										
- Shape										
- plan misses target center by 0.01usft at 10230.45usft MD (9491.00 TVD, 2241.50 N, -2217.94 E)										
- Point										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,000.00	970.73	9 5/8"	9.62	12.25	

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well PA 432-13 - Slot PA 432-13 (B10)
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 6571.1 & RKB 24' @ 6595.10usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 6571.1 & RKB 24' @ 6595.10usft (H&P 318)
<b>Site:</b>	PA 44-13 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 432-13	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2 16May2019 mmsdi		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,782.46	3,418.00	G Sand		0.00	0.00
3,883.68	3,507.00	G Sand Base		0.00	0.00
6,412.48	5,732.00	WFRK UMVRD		0.00	0.00
6,553.67	5,860.00	OCRK		0.00	0.00
6,553.67	5,860.00	MVRD		0.00	0.00
7,480.07	6,744.00	KMVGAS		0.00	0.00
9,625.45	8,886.00	CME0		0.00	0.00
10,105.45	9,366.00	RLNS		0.00	0.00
10,230.45	9,491.00	TD		0.00	0.00

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 3.00
1,083.34	1,044.84	163.95	-162.23	Start 5166.73 hold at 1083.34 MD
6,250.07	5,587.60	1,913.59	-1,893.48	Start Drop -1.50
7,480.07	6,744.00	2,200.25	-2,177.12	Start Drop -1.50
8,146.74	7,407.29	2,241.50	-2,217.94	Start 2083.71 hold at 8146.74 MD
10,230.45	9,491.00	2,241.50	-2,217.94	TD at 10230.45