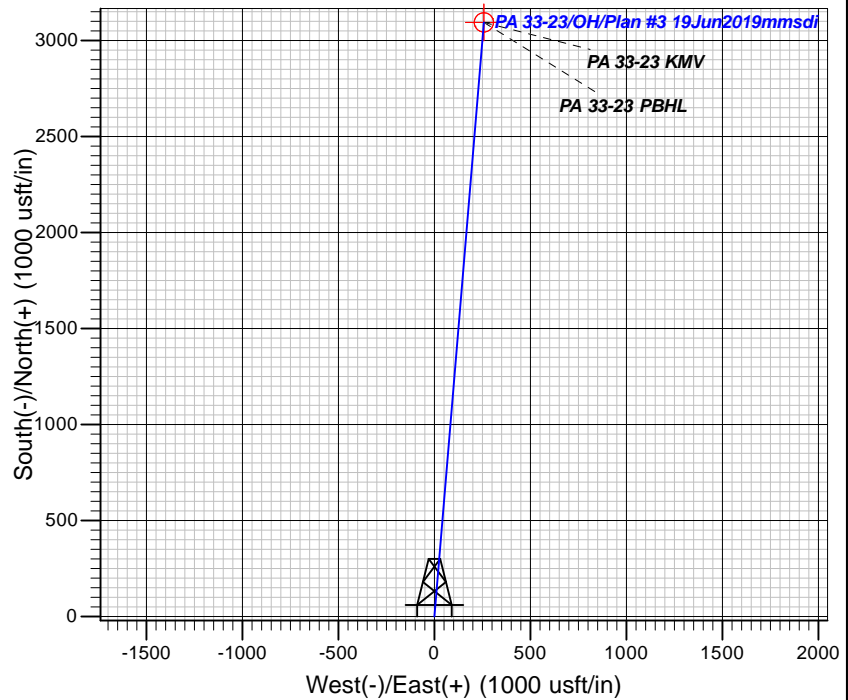
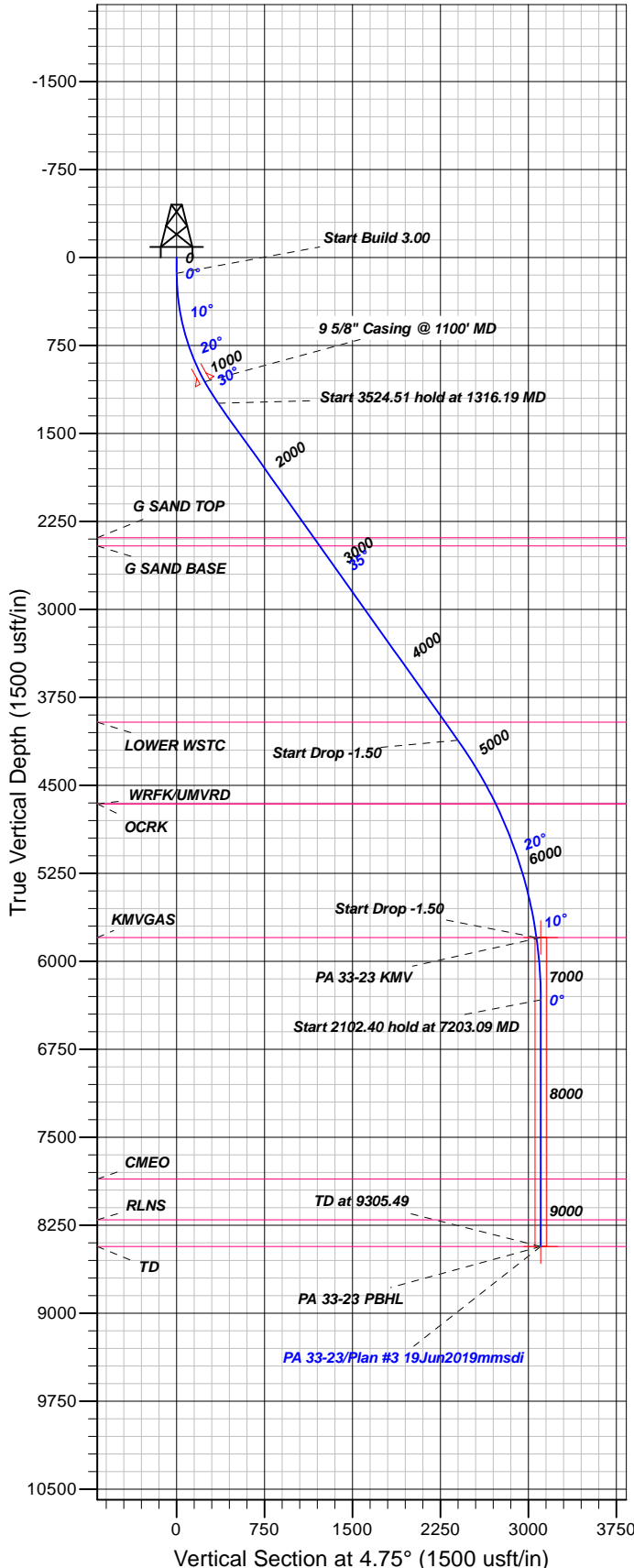


Well Details: PA 33-23

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1616451.50	2304738.60	39.5000489	-107.9641584	PA 33-23 (B2)



FORMATION TOP DETAILS

TVDPth	MDPath	Formation
2388.00	2722.34	G SAND TOP
2458.00	2808.26	G SAND BASE
3962.00	4654.19	LOWER WSTC
4658.00	5474.04	OCRK
4658.00	5474.04	WRFK/UMVRD
5797.00	6669.76	KMGAS
7856.00	8730.49	CMEQ
8203.00	9077.49	RLNS
8431.00	9305.49	TD

Plan: Plan #3 19Jun2019mmsdi

11:45, June 25 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
1059.46	1100.00	5/8" Casing @ 1100' MD	9.62

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	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	1316.19	35.44	4.75	1242.32	352.56	29.32	3.00	4.75	353.77	
4	4840.70	35.44	4.75	4113.96	2389.00	198.65	0.00	0.002397.25		
5	6669.76	8.00	4.75	5797.00	3057.07	254.20	1.50	180.003067.62		
6	7203.09	0.00	0.00	6328.60	3094.12	257.28	1.50	180.003104.79		
7	9305.49	0.00	0.00	8431.00	3094.12	257.28	0.00	0.003104.79		PA 33-23 PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PA 33-23 KMV	5797.00	3094.12	257.28	1619537.50	2305079.70	39.5085436	-107.9632466	Circle (Radius: 50.00)
- plan misses target center by 36.82usft at 6674.78usft MD (5801.98 TVD, 3057.76 N, 254.26 E)								
PA 33-23 PBHL	8431.00	3094.12	257.28	1619537.50	2305079.70	39.5085436	-107.9632466	Point
- plan hits target center								



TEP Rocky Mountain LLC

Garfield County, CO NAD83

PA 31-26 Pad

PA 33-23 - Slot PA 33-23 (B2)

OH

Plan: Plan #3 19Jun2019mmsdi

Standard Planning Report

25 June, 2019



Database:	Grand Junction District	Local Co-ordinate Reference:	Well PA 33-23 - Slot PA 33-23 (B2)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5486' & RKB 24' @ 5510.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5486' & RKB 24' @ 5510.00usft
Site:	PA 31-26 Pad	North Reference:	True
Well:	PA 33-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3 19Jun2019mmsdi		

Project	Garfield County, CO NAD83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	PA 31-26 Pad					
Site Position:		Northing:	1,616,455.80 usft	Latitude:	39.5000599	
From:	Map	Easting:	2,304,726.80 usft	Longitude:	-107.9642007	
Position Uncertainty:		0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-1.55 °

Well	PA 33-23 - Slot PA 33-23 (B2)					
Well Position	+N/-S	-3.98 usft	Northing:	1,616,451.50 usft	Latitude:	39.5000489
	+E/-W	11.91 usft	Easting:	2,304,738.60 usft	Longitude:	-107.9641585
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	5,486.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	2/26/2018	9.40	65.77	51,650

Design	Plan #3 19Jun2019mmsdi			
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	4.75

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	
1,316.19	35.44	4.75	1,242.32	352.56	29.32	3.00	3.00	0.00	4.75	
4,840.70	35.44	4.75	4,113.96	2,389.00	198.65	0.00	0.00	0.00	0.00	
6,669.76	8.00	4.75	5,797.00	3,057.07	254.20	1.50	-1.50	0.00	180.00	
7,203.09	0.00	0.00	6,328.60	3,094.12	257.28	1.50	-1.50	0.00	180.00	
9,305.49	0.00	0.00	8,431.00	3,094.12	257.28	0.00	0.00	0.00	0.00	PA 33-23 PBHL

Database:	Grand Junction District	Local Co-ordinate Reference:	Well PA 33-23 - Slot PA 33-23 (B2)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5486' & RKB 24' @ 5510.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5486' & RKB 24' @ 5510.00usft
Site:	PA 31-26 Pad	North Reference:	True
Well:	PA 33-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3 19Jun2019mmsdi		

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	4.75	199.99	1.10	0.09	1.11	3.00	3.00	0.00	
300.00	4.95	4.75	299.79	7.10	0.59	7.12	3.00	3.00	0.00	
400.00	7.95	4.75	399.15	18.29	1.52	18.36	3.00	3.00	0.00	
500.00	10.95	4.75	497.78	34.65	2.88	34.77	3.00	3.00	0.00	
600.00	13.95	4.75	595.42	56.13	4.67	56.33	3.00	3.00	0.00	
700.00	16.95	4.75	691.79	82.68	6.87	82.97	3.00	3.00	0.00	
800.00	19.95	4.75	786.64	114.22	9.50	114.61	3.00	3.00	0.00	
900.00	22.95	4.75	879.71	150.65	12.53	151.17	3.00	3.00	0.00	
1,000.00	25.95	4.75	970.73	191.90	15.96	192.56	3.00	3.00	0.00	
1,100.00	28.95	4.75	1,059.46	237.83	19.78	238.65	3.00	3.00	0.00	
9 5/8" Casing @ 1100' MD										
1,200.00	31.95	4.75	1,145.66	288.33	23.98	289.32	3.00	3.00	0.00	
1,300.00	34.95	4.75	1,229.08	343.25	28.54	344.44	3.00	3.00	0.00	
1,316.19	35.44	4.75	1,242.32	352.56	29.32	353.77	3.00	3.00	0.00	
Start 3524.51 hold at 1316.19 MD										
1,400.00	35.44	4.75	1,310.60	400.98	33.34	402.36	0.00	0.00	0.00	
1,500.00	35.44	4.75	1,392.08	458.76	38.15	460.34	0.00	0.00	0.00	
1,600.00	35.44	4.75	1,473.55	516.54	42.95	518.32	0.00	0.00	0.00	
1,700.00	35.44	4.75	1,555.03	574.32	47.76	576.30	0.00	0.00	0.00	
1,800.00	35.44	4.75	1,636.51	632.10	52.56	634.28	0.00	0.00	0.00	
1,900.00	35.44	4.75	1,717.98	689.88	57.36	692.26	0.00	0.00	0.00	
2,000.00	35.44	4.75	1,799.46	747.66	62.17	750.24	0.00	0.00	0.00	
2,100.00	35.44	4.75	1,880.94	805.44	66.97	808.22	0.00	0.00	0.00	
2,200.00	35.44	4.75	1,962.41	863.22	71.78	866.19	0.00	0.00	0.00	
2,300.00	35.44	4.75	2,043.89	921.00	76.58	924.17	0.00	0.00	0.00	
2,400.00	35.44	4.75	2,125.37	978.78	81.39	982.15	0.00	0.00	0.00	
2,500.00	35.44	4.75	2,206.84	1,036.55	86.19	1,040.13	0.00	0.00	0.00	
2,600.00	35.44	4.75	2,288.32	1,094.33	91.00	1,098.11	0.00	0.00	0.00	
2,700.00	35.44	4.75	2,369.80	1,152.11	95.80	1,156.09	0.00	0.00	0.00	
2,722.34	35.44	4.75	2,388.00	1,165.02	96.87	1,169.04	0.00	0.00	0.00	
G SAND TOP										
2,800.00	35.44	4.75	2,451.27	1,209.89	100.60	1,214.07	0.00	0.00	0.00	
2,808.26	35.44	4.75	2,458.00	1,214.66	101.00	1,218.86	0.00	0.00	0.00	
G SAND BASE										
2,900.00	35.44	4.75	2,532.75	1,267.67	105.41	1,272.05	0.00	0.00	0.00	
3,000.00	35.44	4.75	2,614.23	1,325.45	110.21	1,330.03	0.00	0.00	0.00	
3,100.00	35.44	4.75	2,695.70	1,383.23	115.02	1,388.01	0.00	0.00	0.00	
3,200.00	35.44	4.75	2,777.18	1,441.01	119.82	1,445.99	0.00	0.00	0.00	
3,300.00	35.44	4.75	2,858.65	1,498.79	124.63	1,503.96	0.00	0.00	0.00	
3,400.00	35.44	4.75	2,940.13	1,556.57	129.43	1,561.94	0.00	0.00	0.00	
3,500.00	35.44	4.75	3,021.61	1,614.35	134.24	1,619.92	0.00	0.00	0.00	
3,600.00	35.44	4.75	3,103.08	1,672.13	139.04	1,677.90	0.00	0.00	0.00	
3,700.00	35.44	4.75	3,184.56	1,729.91	143.84	1,735.88	0.00	0.00	0.00	
3,800.00	35.44	4.75	3,266.04	1,787.69	148.65	1,793.86	0.00	0.00	0.00	
3,900.00	35.44	4.75	3,347.51	1,845.47	153.45	1,851.84	0.00	0.00	0.00	
4,000.00	35.44	4.75	3,428.99	1,903.25	158.26	1,909.82	0.00	0.00	0.00	
4,100.00	35.44	4.75	3,510.47	1,961.03	163.06	1,967.80	0.00	0.00	0.00	
4,200.00	35.44	4.75	3,591.94	2,018.81	167.87	2,025.78	0.00	0.00	0.00	
4,300.00	35.44	4.75	3,673.42	2,076.59	172.67	2,083.76	0.00	0.00	0.00	
4,400.00	35.44	4.75	3,754.90	2,134.37	177.48	2,141.73	0.00	0.00	0.00	

Database:	Grand Junction District	Local Co-ordinate Reference:	Well PA 33-23 - Slot PA 33-23 (B2)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5486' & RKB 24' @ 5510.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5486' & RKB 24' @ 5510.00usft
Site:	PA 31-26 Pad	North Reference:	True
Well:	PA 33-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3 19Jun2019mmsdi		

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)
4,500.00	35.44	4.75	3,836.37	2,192.15	182.28	2,199.71	0.00	0.00	0.00
4,600.00	35.44	4.75	3,917.85	2,249.93	187.08	2,257.69	0.00	0.00	0.00
4,654.19	35.44	4.75	3,962.00	2,281.24	189.69	2,289.11	0.00	0.00	0.00
LOWER WSTC									
4,700.00	35.44	4.75	3,999.33	2,307.71	191.89	2,315.67	0.00	0.00	0.00
4,800.00	35.44	4.75	4,080.80	2,365.49	196.69	2,373.65	0.00	0.00	0.00
4,840.70	35.44	4.75	4,113.96	2,389.00	198.65	2,397.25	0.00	0.00	0.00
Start Drop -1.50									
4,900.00	34.55	4.75	4,162.54	2,422.89	201.47	2,431.25	1.50	-1.50	0.00
5,000.00	33.05	4.75	4,245.64	2,478.32	206.08	2,486.88	1.50	-1.50	0.00
5,100.00	31.55	4.75	4,330.17	2,531.57	210.50	2,540.31	1.50	-1.50	0.00
5,200.00	30.05	4.75	4,416.07	2,582.59	214.75	2,591.50	1.50	-1.50	0.00
5,300.00	28.55	4.75	4,503.28	2,631.35	218.80	2,640.43	1.50	-1.50	0.00
5,400.00	27.05	4.75	4,591.73	2,677.82	222.67	2,687.07	1.50	-1.50	0.00
5,474.04	25.94	4.75	4,658.00	2,710.74	225.40	2,720.09	1.50	-1.50	0.00
OCRK - WRFK/UMVRD									
5,500.00	25.55	4.75	4,681.38	2,721.97	226.34	2,731.37	1.50	-1.50	0.00
5,600.00	24.05	4.75	4,772.16	2,763.77	229.81	2,773.30	1.50	-1.50	0.00
5,700.00	22.55	4.75	4,864.01	2,803.18	233.09	2,812.85	1.50	-1.50	0.00
5,800.00	21.05	4.75	4,956.85	2,840.18	236.17	2,849.98	1.50	-1.50	0.00
5,900.00	19.55	4.75	5,050.64	2,874.75	239.04	2,884.67	1.50	-1.50	0.00
6,000.00	18.05	4.75	5,145.31	2,906.86	241.71	2,916.89	1.50	-1.50	0.00
6,100.00	16.55	4.75	5,240.78	2,936.48	244.17	2,946.62	1.50	-1.50	0.00
6,200.00	15.05	4.75	5,337.00	2,963.61	246.43	2,973.84	1.50	-1.50	0.00
6,300.00	13.55	4.75	5,433.90	2,988.22	248.47	2,998.53	1.50	-1.50	0.00
6,400.00	12.05	4.75	5,531.42	3,010.29	250.31	3,020.68	1.50	-1.50	0.00
6,500.00	10.55	4.75	5,629.48	3,029.81	251.93	3,040.27	1.50	-1.50	0.00
6,600.00	9.05	4.75	5,728.02	3,046.77	253.34	3,057.28	1.50	-1.50	0.00
6,669.76	8.00	4.75	5,797.00	3,057.07	254.20	3,067.62	1.50	-1.50	0.00
Start Drop -1.50 - KMGAS									
6,674.78	7.92	4.75	5,801.98	3,057.76	254.26	3,068.32	1.50	-1.50	0.00
PA 33-23 KMV									
6,700.00	7.55	4.75	5,826.97	3,061.15	254.54	3,071.71	1.50	-1.50	0.00
6,800.00	6.05	4.75	5,926.26	3,072.94	255.52	3,083.54	1.50	-1.50	0.00
6,900.00	4.55	4.75	6,025.83	3,082.14	256.28	3,092.78	1.50	-1.50	0.00
7,000.00	3.05	4.75	6,125.61	3,088.74	256.83	3,099.40	1.50	-1.50	0.00
7,100.00	1.55	4.75	6,225.52	3,092.73	257.17	3,103.40	1.50	-1.50	0.00
7,200.00	0.05	4.75	6,325.51	3,094.11	257.28	3,104.79	1.50	-1.50	0.00
7,203.09	0.00	0.00	6,328.60	3,094.12	257.28	3,104.79	1.50	-1.50	0.00
Start 2102.40 hold at 7203.09 MD									
7,300.00	0.00	0.00	6,425.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
7,400.00	0.00	0.00	6,525.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
7,500.00	0.00	0.00	6,625.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
7,600.00	0.00	0.00	6,725.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
7,700.00	0.00	0.00	6,825.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
7,800.00	0.00	0.00	6,925.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
7,900.00	0.00	0.00	7,025.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
8,000.00	0.00	0.00	7,125.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
8,100.00	0.00	0.00	7,225.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
8,200.00	0.00	0.00	7,325.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
8,300.00	0.00	0.00	7,425.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
8,400.00	0.00	0.00	7,525.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
8,500.00	0.00	0.00	7,625.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well PA 33-23 - Slot PA 33-23 (B2)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5486' & RKB 24' @ 5510.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5486' & RKB 24' @ 5510.00usft
Site:	PA 31-26 Pad	North Reference:	True
Well:	PA 33-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3 19Jun2019mmsdi		

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)
8,600.00	0.00	0.00	7,725.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
8,700.00	0.00	0.00	7,825.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
8,730.49	0.00	0.00	7,856.00	3,094.12	257.28	3,104.79	0.00	0.00	0.00
CMEO									
8,800.00	0.00	0.00	7,925.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
8,900.00	0.00	0.00	8,025.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
9,000.00	0.00	0.00	8,125.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
9,077.49	0.00	0.00	8,203.00	3,094.12	257.28	3,104.79	0.00	0.00	0.00
RLNS									
9,100.00	0.00	0.00	8,225.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
9,200.00	0.00	0.00	8,325.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
9,300.00	0.00	0.00	8,425.51	3,094.12	257.28	3,104.79	0.00	0.00	0.00
9,305.49	0.00	0.00	8,431.00	3,094.12	257.28	3,104.79	0.00	0.00	0.00
TD at 9305.49 - TD - PA 33-23 PBHL									

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
PA 33-23 KMV - plan misses target center by 36.82usft at 6674.78usft MD (5801.98 TVD, 3057.76 N, 254.26 E) - Circle (radius 50.00)	0.00	0.00	5,797.00	3,094.12	257.28	1,619,537.50	2,305,079.70	39.5085436	-107.9632466
PA 33-23 PBHL - plan hits target center - Point	0.00	0.00	8,431.00	3,094.12	257.28	1,619,537.50	2,305,079.70	39.5085436	-107.9632466

Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,100.00	1,059.46	9 5/8" Casing @ 1100' MD	9.62	13.50

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,722.34	2,388.00	G SAND TOP		0.00	0.00
2,808.26	2,458.00	G SAND BASE		0.00	0.00
4,654.19	3,962.00	LOWER WSTC		0.00	0.00
5,474.04	4,658.00	OCRK		0.00	0.00
5,474.04	4,658.00	WRFK/UMVRD		0.00	0.00
6,669.76	5,797.00	KMVGAS		0.00	0.00
8,730.49	7,856.00	CMEO		0.00	0.00
9,077.49	8,203.00	RLNS		0.00	0.00
9,305.49	8,431.00	TD		0.00	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well PA 33-23 - Slot PA 33-23 (B2)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5486' & RKB 24' @ 5510.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5486' & RKB 24' @ 5510.00usft
Site:	PA 31-26 Pad	North Reference:	True
Well:	PA 33-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3 19Jun2019mmsdi		

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
1,316.19	1,242.32	352.56	29.32	Start 3524.51 hold at 1316.19 MD
4,840.70	4,113.96	2,389.00	198.65	Start Drop -1.50
6,669.76	5,797.00	3,057.07	254.20	Start Drop -1.50
7,203.09	6,328.60	3,094.12	257.28	Start 2102.40 hold at 7203.09 MD
9,305.49	8,431.00	3,094.12	257.28	TD at 9305.49