



TEP Rocky Mountain LLC

Garfield Co., CO (NAD83)

WMC 24-17 Pad

WMC 432-20 - Slot WMC 432-20

OH

Plan: Plan #1

Standard Planning Report

07 October, 2020





Project: Garfield Co., CO (NAD83)
 Site: WMC 24-17 Pad
 Well: WMC 432-20
 Wellbore: OH
 Design: Plan #1
 Lat: 39.439032
 Long: -107.799462
 GL: 8868.00
 KB: KB=24' @ 8892.00usft



WELL DETAILS: WMC 432-20

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	WMC 432-20
0.00	0.00	1593015.70	2350634.90	39.439032	-107.799462	

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
WMC 432-20 KMW	8832.00	-2272.66	1421.07	1590707.80	2351998.00	Circle (Radius: 50.00)
WMC 432-20 PBHL	10982.00	-2272.66	1421.07	1590707.80	2351998.00	Point

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
170.00	0.00	0.00	170.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.00
1103.25	28.00	147.98	1066.55	-189.52	118.50	3.00	147.98	223.52	Start 4281.41 hold at 1103.25 MD
5384.66	28.00	147.98	4846.90	-1893.63	1184.07	0.00	0.00	2233.35	Start Drop -1.50
7251.16	0.00	0.00	6640.00	-2272.66	1421.07	1.50	180.00	2680.38	Start 4342.00 hold at 7251.16 MD
11593.16	0.00	0.00	10982.00	-2272.66	1421.07	0.00	0.00	2680.38	TD at 11593.16

CASING DETAILS

TVD	MD	Name	Size
1063.68	1100.00	9 5/8"	9-5/8

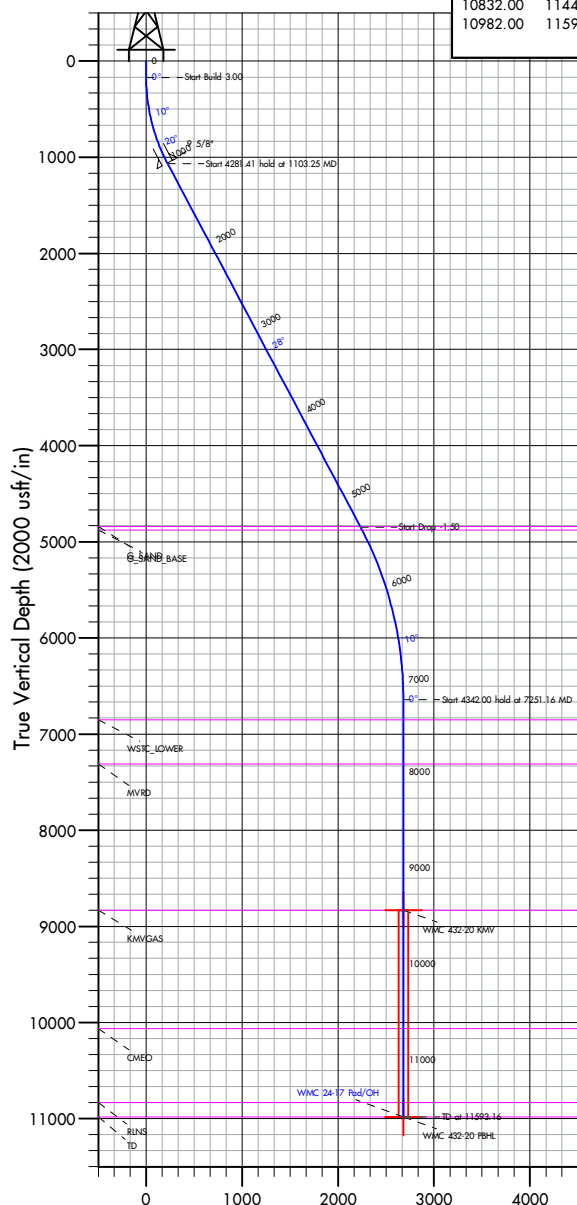
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4842.00	5379.11	G_SAND
4878.00	5419.80	G_SAND_BASE
6852.00	7463.16	WSTC_LOWER
7312.00	7923.16	MVRD
8832.00	9443.16	KMVGAS
10062.00	10673.16	CMEQ
10832.00	11443.16	RLNS
10982.00	11593.16	TD

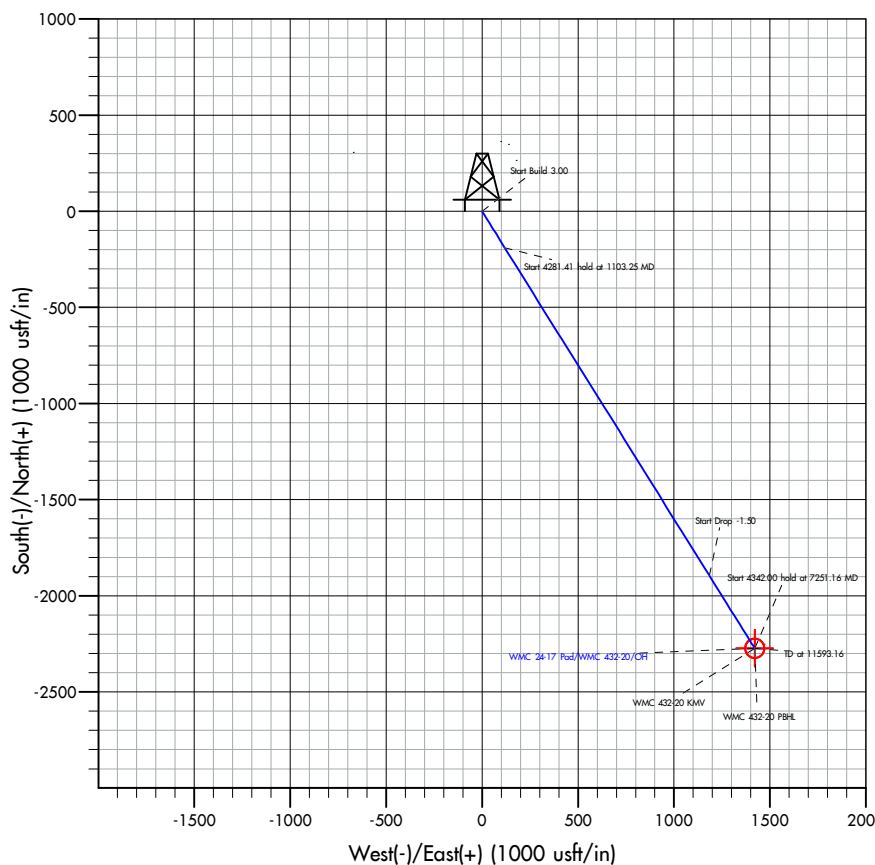


Azimuths to True North
 Magnetic North: 8.93°

Magnetic Field
 Strength: 51314.3nT
 Dip Angle: 65.48°
 Date: 9/2/2020
 Model: HDGM2020



Vertical Section at 147.98° (2000 usft/in)



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well WMC 432-20 - Slot WMC 432-20
Company:	TEP Rocky Mountain LLC	TVD Reference:	KB=24' @ 8892.00usft
Project:	Garfield Co., CO (NAD83)	MD Reference:	KB=24' @ 8892.00usft
Site:	WMC 24-17 Pad	North Reference:	True
Well:	WMC 432-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	Garfield Co., 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	WMC 24-17 Pad			
Site Position:		Northing:	1,593,032.70 usft	Latitude: 39.439076
From:	Map	Easting:	2,350,593.20 usft	Longitude: -107.799611
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	

Well	WMC 432-20 - Slot WMC 432-20			
Well Position	+N/-S	0.00 usft	Northing:	1,593,015.70 usft
	+E/-W	0.00 usft	Easting:	2,350,634.90 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft	Ground Level: 8,868.00 usft
Grid Convergence:	-1.45 °			

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2020	9/2/2020	8.93	65.48	51,314.30000000

Design	Plan #1			
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	147.98

Plan Survey Tool Program	Date	10/7/2020		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	11,593.16 Plan #1 (OH)	MWD+ HGDM	
			OWSG MWD + HGDM	

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	
170.00	0.00	0.00	170.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,103.25	28.00	147.98	1,066.55	-189.52	118.50	3.00	3.00	0.00	147.98	
5,384.66	28.00	147.98	4,846.90	-1,893.63	1,184.07	0.00	0.00	0.00	0.00	
7,251.16	0.00	0.00	6,640.00	-2,272.66	1,421.07	1.50	-1.50	0.00	180.00	
11,593.16	0.00	0.00	10,982.00	-2,272.66	1,421.07	0.00	0.00	0.00	0.00	WMC 432-20 PBHL

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well WMC 432-20 - Slot WMC 432-20
Company:	TEP Rocky Mountain LLC	TVD Reference:	KB=24' @ 8892.00usft
Project:	Garfield Co., CO (NAD83)	MD Reference:	KB=24' @ 8892.00usft
Site:	WMC 24-17 Pad	North Reference:	True
Well:	WMC 432-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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
170.00	0.00	0.00	170.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 3.00									
200.00	0.90	147.98	200.00	-0.20	0.12	0.24	3.00	3.00	0.00
300.00	3.90	147.98	299.90	-3.75	2.34	4.42	3.00	3.00	0.00
400.00	6.90	147.98	399.44	-11.73	7.33	13.83	3.00	3.00	0.00
500.00	9.90	147.98	498.36	-24.11	15.08	28.44	3.00	3.00	0.00
600.00	12.90	147.98	596.38	-40.87	25.56	48.20	3.00	3.00	0.00
700.00	15.90	147.98	693.22	-61.95	38.74	73.07	3.00	3.00	0.00
800.00	18.90	147.98	788.64	-87.31	54.59	102.97	3.00	3.00	0.00
900.00	21.90	147.98	882.35	-116.86	73.07	137.82	3.00	3.00	0.00
1,000.00	24.90	147.98	974.12	-150.53	94.12	177.53	3.00	3.00	0.00
1,100.00	27.90	147.98	1,063.68	-188.22	117.69	221.99	3.00	3.00	0.00
9 5/8"									
1,103.25	28.00	147.98	1,066.55	-189.52	118.50	223.52	3.00	3.00	0.00
Start 4281.41 hold at 1103.25 MD									
1,200.00	28.00	147.98	1,151.98	-228.02	142.58	268.93	0.00	0.00	0.00
1,300.00	28.00	147.98	1,240.27	-267.83	167.47	315.88	0.00	0.00	0.00
1,400.00	28.00	147.98	1,328.57	-307.63	192.36	362.82	0.00	0.00	0.00
1,500.00	28.00	147.98	1,416.87	-347.43	217.25	409.76	0.00	0.00	0.00
1,600.00	28.00	147.98	1,505.17	-387.24	242.13	456.71	0.00	0.00	0.00
1,700.00	28.00	147.98	1,593.46	-427.04	267.02	503.65	0.00	0.00	0.00
1,800.00	28.00	147.98	1,681.76	-466.84	291.91	550.59	0.00	0.00	0.00
1,900.00	28.00	147.98	1,770.06	-506.64	316.80	597.54	0.00	0.00	0.00
2,000.00	28.00	147.98	1,858.35	-546.45	341.69	644.48	0.00	0.00	0.00
2,100.00	28.00	147.98	1,946.65	-586.25	366.58	691.42	0.00	0.00	0.00
2,200.00	28.00	147.98	2,034.95	-626.05	391.46	738.37	0.00	0.00	0.00
2,300.00	28.00	147.98	2,123.24	-665.85	416.35	785.31	0.00	0.00	0.00
2,400.00	28.00	147.98	2,211.54	-705.66	441.24	832.25	0.00	0.00	0.00
2,500.00	28.00	147.98	2,299.84	-745.46	466.13	879.20	0.00	0.00	0.00
2,600.00	28.00	147.98	2,388.13	-785.26	491.02	926.14	0.00	0.00	0.00
2,700.00	28.00	147.98	2,476.43	-825.06	515.91	973.08	0.00	0.00	0.00
2,800.00	28.00	147.98	2,564.73	-864.87	540.79	1,020.03	0.00	0.00	0.00
2,900.00	28.00	147.98	2,653.02	-904.67	565.68	1,066.97	0.00	0.00	0.00
3,000.00	28.00	147.98	2,741.32	-944.47	590.57	1,113.91	0.00	0.00	0.00
3,100.00	28.00	147.98	2,829.62	-984.28	615.46	1,160.86	0.00	0.00	0.00
3,200.00	28.00	147.98	2,917.91	-1,024.08	640.35	1,207.80	0.00	0.00	0.00
3,300.00	28.00	147.98	3,006.21	-1,063.88	665.23	1,254.74	0.00	0.00	0.00
3,400.00	28.00	147.98	3,094.51	-1,103.68	690.12	1,301.69	0.00	0.00	0.00
3,500.00	28.00	147.98	3,182.80	-1,143.49	715.01	1,348.63	0.00	0.00	0.00
3,600.00	28.00	147.98	3,271.10	-1,183.29	739.90	1,395.57	0.00	0.00	0.00
3,700.00	28.00	147.98	3,359.40	-1,223.09	764.79	1,442.52	0.00	0.00	0.00
3,800.00	28.00	147.98	3,447.69	-1,262.89	789.68	1,489.46	0.00	0.00	0.00
3,900.00	28.00	147.98	3,535.99	-1,302.70	814.56	1,536.40	0.00	0.00	0.00
4,000.00	28.00	147.98	3,624.29	-1,342.50	839.45	1,583.35	0.00	0.00	0.00
4,100.00	28.00	147.98	3,712.58	-1,382.30	864.34	1,630.29	0.00	0.00	0.00
4,200.00	28.00	147.98	3,800.88	-1,422.11	889.23	1,677.23	0.00	0.00	0.00
4,300.00	28.00	147.98	3,889.18	-1,461.91	914.12	1,724.18	0.00	0.00	0.00
4,400.00	28.00	147.98	3,977.48	-1,501.71	939.01	1,771.12	0.00	0.00	0.00
4,500.00	28.00	147.98	4,065.77	-1,541.51	963.89	1,818.06	0.00	0.00	0.00
4,600.00	28.00	147.98	4,154.07	-1,581.32	988.78	1,865.01	0.00	0.00	0.00
4,700.00	28.00	147.98	4,242.37	-1,621.12	1,013.67	1,911.95	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well WMC 432-20 - Slot WMC 432-20
Company:	TEP Rocky Mountain LLC	TVD Reference:	KB=24' @ 8892.00usft
Project:	Garfield Co., CO (NAD83)	MD Reference:	KB=24' @ 8892.00usft
Site:	WMC 24-17 Pad	North Reference:	True
Well:	WMC 432-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
4,800.00	28.00	147.98	4,330.66	-1,660.92	1,038.56	1,958.89	0.00	0.00	0.00
4,900.00	28.00	147.98	4,418.96	-1,700.72	1,063.45	2,005.84	0.00	0.00	0.00
5,000.00	28.00	147.98	4,507.26	-1,740.53	1,088.33	2,052.78	0.00	0.00	0.00
5,100.00	28.00	147.98	4,595.55	-1,780.33	1,113.22	2,099.72	0.00	0.00	0.00
5,200.00	28.00	147.98	4,683.85	-1,820.13	1,138.11	2,146.67	0.00	0.00	0.00
5,300.00	28.00	147.98	4,772.15	-1,859.93	1,163.00	2,193.61	0.00	0.00	0.00
5,379.11	28.00	147.98	4,842.00	-1,891.42	1,182.69	2,230.75	0.00	0.00	0.00
G_SAND									
5,384.66	28.00	147.98	4,846.90	-1,893.63	1,184.07	2,233.35	0.00	0.00	0.00
Start Drop -1.50									
5,400.00	27.77	147.98	4,860.46	-1,899.71	1,187.87	2,240.53	1.50	-1.50	0.00
5,419.80	27.47	147.98	4,878.00	-1,907.50	1,192.74	2,249.70	1.50	-1.50	0.00
G_SAND_BASE									
5,500.00	26.27	147.98	4,949.54	-1,938.23	1,211.96	2,285.95	1.50	-1.50	0.00
5,600.00	24.77	147.98	5,039.78	-1,974.75	1,234.79	2,329.03	1.50	-1.50	0.00
5,700.00	23.27	147.98	5,131.12	-2,009.26	1,256.37	2,369.73	1.50	-1.50	0.00
5,800.00	21.77	147.98	5,223.50	-2,041.73	1,276.68	2,408.02	1.50	-1.50	0.00
5,900.00	20.27	147.98	5,316.84	-2,072.14	1,295.69	2,443.89	1.50	-1.50	0.00
6,000.00	18.77	147.98	5,411.09	-2,100.47	1,313.40	2,477.30	1.50	-1.50	0.00
6,100.00	17.27	147.98	5,506.19	-2,126.69	1,329.80	2,508.23	1.50	-1.50	0.00
6,200.00	15.77	147.98	5,602.06	-2,150.80	1,344.87	2,536.66	1.50	-1.50	0.00
6,300.00	14.27	147.98	5,698.64	-2,172.77	1,358.61	2,562.57	1.50	-1.50	0.00
6,400.00	12.77	147.98	5,795.87	-2,192.59	1,371.00	2,585.94	1.50	-1.50	0.00
6,500.00	11.27	147.98	5,893.67	-2,210.24	1,382.04	2,606.76	1.50	-1.50	0.00
6,600.00	9.77	147.98	5,991.99	-2,225.72	1,391.72	2,625.01	1.50	-1.50	0.00
6,700.00	8.27	147.98	6,090.75	-2,239.01	1,400.03	2,640.69	1.50	-1.50	0.00
6,800.00	6.77	147.98	6,189.89	-2,250.10	1,406.96	2,653.77	1.50	-1.50	0.00
6,900.00	5.27	147.98	6,289.33	-2,258.99	1,412.52	2,664.25	1.50	-1.50	0.00
7,000.00	3.77	147.98	6,389.02	-2,265.66	1,416.70	2,672.13	1.50	-1.50	0.00
7,100.00	2.27	147.98	6,488.88	-2,270.13	1,419.49	2,677.39	1.50	-1.50	0.00
7,200.00	0.77	147.98	6,588.84	-2,272.37	1,420.89	2,680.04	1.50	-1.50	0.00
7,251.16	0.00	0.00	6,640.00	-2,272.66	1,421.07	2,680.38	1.50	-1.50	0.00
Start 4342.00 hold at 7251.16 MD									
7,300.00	0.00	0.00	6,688.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
7,400.00	0.00	0.00	6,788.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
7,463.16	0.00	0.00	6,852.00	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
WSTC_LOWER									
7,500.00	0.00	0.00	6,888.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
7,600.00	0.00	0.00	6,988.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
7,700.00	0.00	0.00	7,088.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
7,800.00	0.00	0.00	7,188.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
7,900.00	0.00	0.00	7,288.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
7,923.16	0.00	0.00	7,312.00	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
MVRD									
8,000.00	0.00	0.00	7,388.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
8,100.00	0.00	0.00	7,488.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
8,200.00	0.00	0.00	7,588.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
8,300.00	0.00	0.00	7,688.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
8,400.00	0.00	0.00	7,788.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
8,500.00	0.00	0.00	7,888.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
8,600.00	0.00	0.00	7,988.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
8,700.00	0.00	0.00	8,088.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
8,800.00	0.00	0.00	8,188.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well WMC 432-20 - Slot WMC 432-20
Company:	TEP Rocky Mountain LLC	TVD Reference:	KB=24' @ 8892.00usft
Project:	Garfield Co., CO (NAD83)	MD Reference:	KB=24' @ 8892.00usft
Site:	WMC 24-17 Pad	North Reference:	True
Well:	WMC 432-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
8,900.00	0.00	0.00	8,288.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
9,000.00	0.00	0.00	8,388.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
9,100.00	0.00	0.00	8,488.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
9,200.00	0.00	0.00	8,588.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
9,300.00	0.00	0.00	8,688.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
9,400.00	0.00	0.00	8,788.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
9,443.16	0.00	0.00	8,832.00	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
KMVGAS									
9,500.00	0.00	0.00	8,888.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
9,600.00	0.00	0.00	8,988.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
9,700.00	0.00	0.00	9,088.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
9,800.00	0.00	0.00	9,188.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
9,900.00	0.00	0.00	9,288.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
10,000.00	0.00	0.00	9,388.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
10,100.00	0.00	0.00	9,488.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
10,200.00	0.00	0.00	9,588.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
10,300.00	0.00	0.00	9,688.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
10,400.00	0.00	0.00	9,788.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
10,500.00	0.00	0.00	9,888.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
10,600.00	0.00	0.00	9,988.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
10,673.16	0.00	0.00	10,062.00	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
CMEO									
10,700.00	0.00	0.00	10,088.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
10,800.00	0.00	0.00	10,188.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
10,900.00	0.00	0.00	10,288.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
11,000.00	0.00	0.00	10,388.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
11,100.00	0.00	0.00	10,488.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
11,200.00	0.00	0.00	10,588.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
11,300.00	0.00	0.00	10,688.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
11,400.00	0.00	0.00	10,788.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
11,443.16	0.00	0.00	10,832.00	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
RLNS									
11,500.00	0.00	0.00	10,888.84	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
11,593.16	0.00	0.00	10,982.00	-2,272.66	1,421.07	2,680.38	0.00	0.00	0.00
TD at 11593.16 - TD									

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									
WMC 432-20 KMV	0.00	0.00	8,832.00	-2,272.66	1,421.07	1,590,707.80	2,351,998.00	39.432792	-107.794431
- plan hits target center									
- Circle (radius 50.00)									
WMC 432-20 PBHL	0.00	0.00	10,982.00	-2,272.66	1,421.07	1,590,707.80	2,351,998.00	39.432792	-107.794431
- plan hits target center									
- Point									

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well WMC 432-20 - Slot WMC 432-20
Company:	TEP Rocky Mountain LLC	TVD Reference:	KB=24' @ 8892.00usft
Project:	Garfield Co., CO (NAD83)	MD Reference:	KB=24' @ 8892.00usft
Site:	WMC 24-17 Pad	North Reference:	True
Well:	WMC 432-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,100.00	1,063.68	9 5/8"	9-5/8	13-1/2

Formations						
	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
	5,379.11	4,842.00	G_SAND			
	5,419.80	4,878.00	G_SAND_BASE			
	7,463.16	6,852.00	WSTC_LOWER			
	7,923.16	7,312.00	MVRD			
	9,443.16	8,832.00	KMVGAS			
	10,673.16	10,062.00	CMEO			
	11,443.16	10,832.00	RLNS			
	11,593.16	10,982.00	TD			

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
170.00	170.00	0.00	0.00	Start Build 3.00
1,103.25	1,066.55	-189.52	118.50	Start 4281.41 hold at 1103.25 MD
5,384.66	4,846.90	-1,893.63	1,184.07	Start Drop -1.50
7,251.16	6,640.00	-2,272.66	1,421.07	Start 4342.00 hold at 7251.16 MD
11,593.16	10,982.00	-2,272.66	1,421.07	TD at 11593.16