



Company: TEP Rocky Mountain LLC
Project: Garfield County, CO NAD83
Site: RWF 43-9 Pad
Well: RWF 443-9

PROJECT DETAILS: Garfield County, CO NAD83

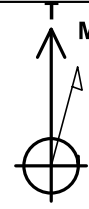
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone

System Datum: Mean Sea Level

Plan: Plan #1 8June2020 sbsdi

Well Details: RWF 443-9

+N/-S +E/-W Northing Easting Latitude Longitude
0.00 0.00 1630188.0000 2327397.3000 39.5394081 -107.8851665 RWF 443-9

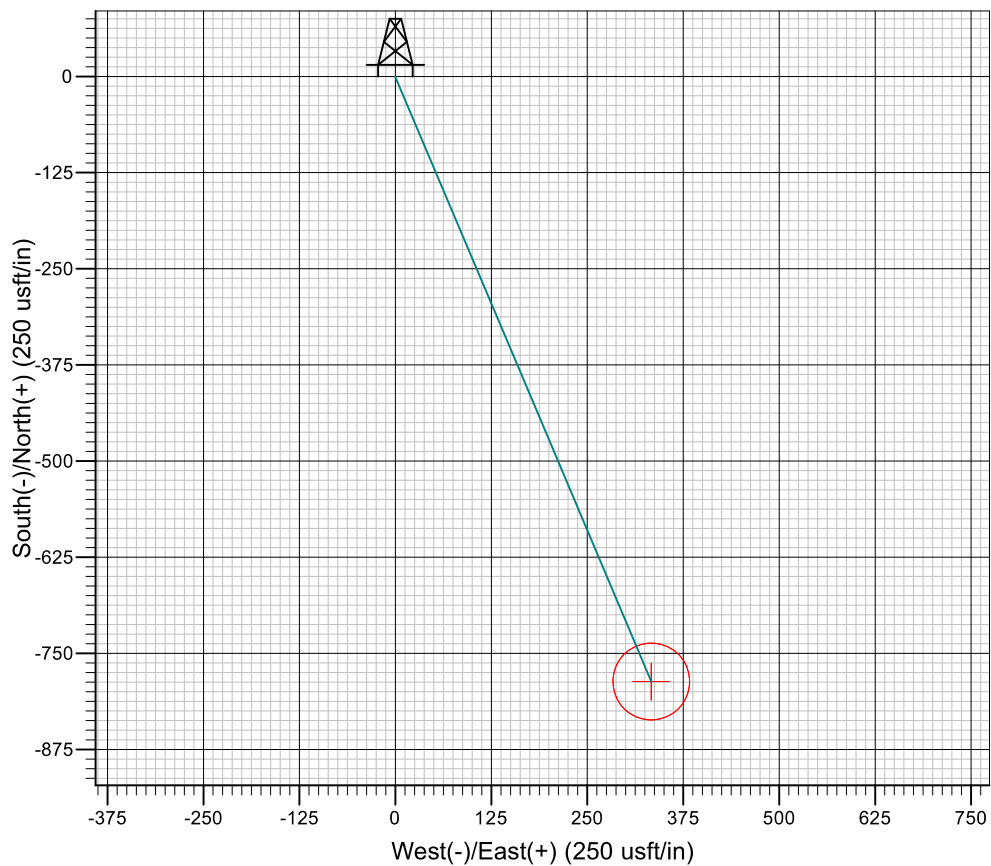
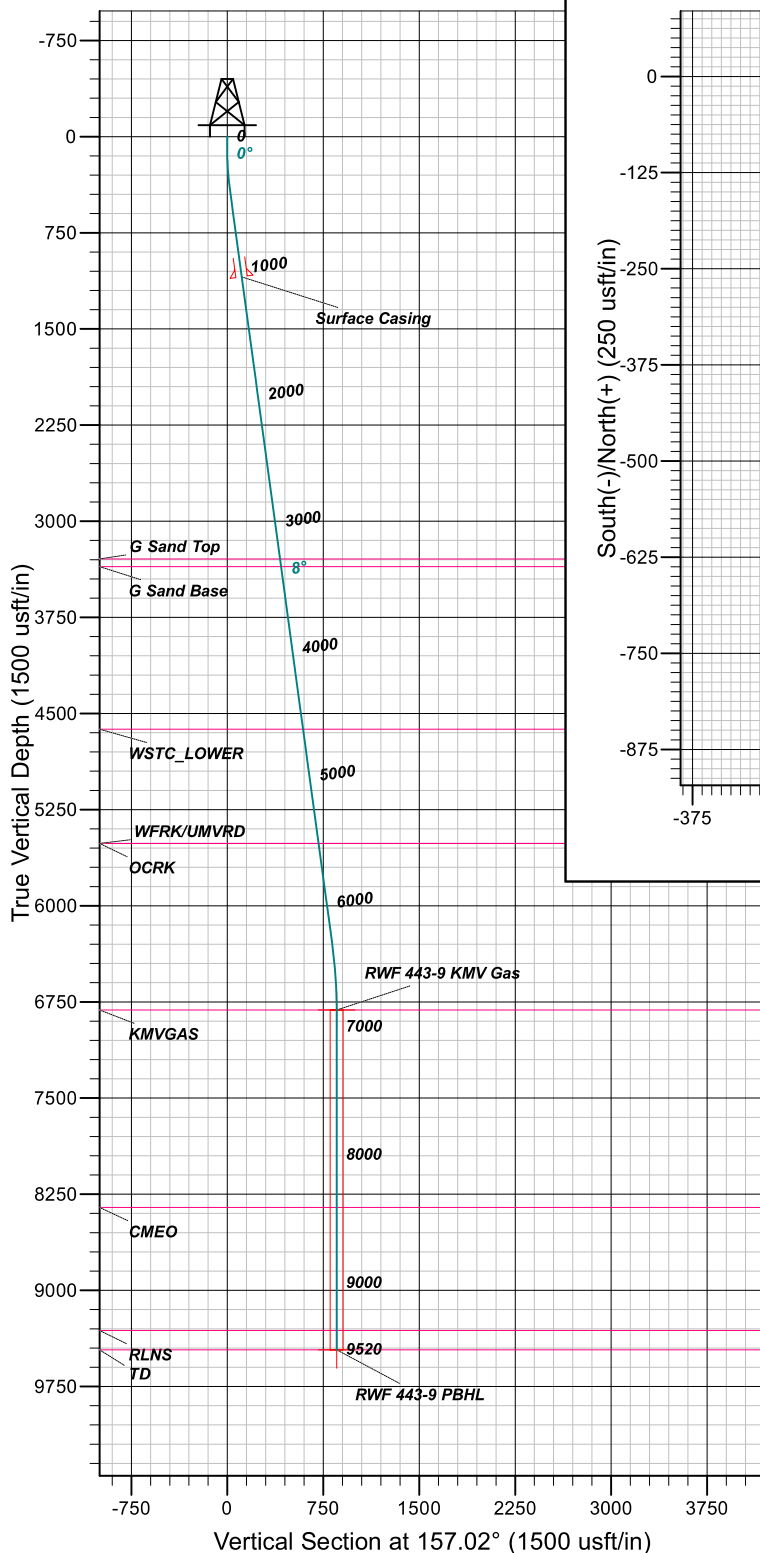


Azimuths to True North
Magnetic North: 9.22°

Magnetic Field
Strength: 51370.0nT
Dip Angle: 65.72°
Date: 6/8/2020
Model: HDGM_FILE

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Circle (Radius: 50.00)	Shape
RWF 443-9 KMW Gas	6813.00	-786.52	333.46	1629393.0000	2327710.0000	39.5372488	-107.8839841		Circle (Radius: 50.00)
RWF 443-9 PBHL	9463.00	-786.52	333.46	1629393.0000	2327710.0000	39.5372488	-107.8839841		Point



FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
3293.00	3320.41	G Sand Top
3353.00	3380.96	G Sand Base
4623.00	4662.62	WSTC_LOWER
5513.00	5560.79	OCRK
5513.00	5560.79	WFRK/UMVRD
6813.00	6869.57	KMWGAS
8353.00	8409.57	CMEO
9313.00	9369.57	RLNS
9463.00	9519.57	TD

CASING DETAILS

TVD	MD	NAME
1092.79	1100.00	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
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00
392.78	7.73	157.02	392.00	-15.99	6.78	3.00	157.02	17.37
6354.00	7.73	157.02	6299.00	-754.53	319.90	0.00	0.00	819.55
6869.57	0.00	0.00	6813.00	-786.52	333.46	1.50	180.00	854.29
9519.57	0.00	0.00	9463.00	-786.52	333.46	0.00	0.00	854.29



TEP Rocky Mountain LLC

Garfield County, CO NAD83

RWF 43-9 Pad

RWF 443-9 - Slot RWF 443-9

OH

Plan: Plan #1 8June2020 sbsdi

Standard Planning Report

10 June, 2020



www.scientificdrilling.com



Database:	Grand Junction	Local Co-ordinate Reference:	Well RWF 443-9 - Slot RWF 443-9
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 6369.4' & KB 24' @ 6393.40usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 6369.4' & KB 24' @ 6393.40usft (H&P 318)
Site:	RWF 43-9 Pad	North Reference:	True
Well:	RWF 443-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 8June2020 sbsdi		

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		RWF 43-9 Pad, Site Center : RWF 43-9			
Site Position:		Northing:	1,630,175.9000 usft	Latitude:	39.5393702
From:	Map	Easting:	2,327,330.9000 usft	Longitude:	-107.8854007
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-1.50 °

Well	RWF 443-9 - Slot RWF 443-9, 2539' FSL 484' FEL Sec 9 T6S R94W					
Well Position	+N/-S	13.84 usft	Northing:	1,630,188.0000 usft	Latitude:	39.5394082
	+E/-W	66.06 usft	Easting:	2,327,397.3000 usft	Longitude:	-107.8851665
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	6,369.40 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	6/8/2020	9.22	65.72	51,370.00000000

Design	Plan #1 8June2020 sbsdi			
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	157.02

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	
392.78	7.73	157.02	392.00	-15.99	6.78	3.00	3.00	0.00	157.02	
6,354.00	7.73	157.02	6,299.00	-754.53	319.90	0.00	0.00	0.00	0.00	
6,869.57	0.00	0.00	6,813.00	-786.52	333.46	1.50	-1.50	0.00	180.00	RWF 443-9 KVM Gas
9,519.57	0.00	0.00	9,463.00	-786.52	333.46	0.00	0.00	0.00	0.00	RWF 443-9 PBHL

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Project:	Garfield County, CO NAD83	MD Reference:	GL 6369.4' & KB 24' @ 6393.40usft (H&P 318)
Site:	RWF 43-9 Pad	North Reference:	True
Well:	RWF 443-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 8June2020 sbsdi		

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	157.02	199.99	-1.02	0.43	1.11	3.00	3.00	0.00	
300.00	4.95	157.02	299.79	-6.56	2.78	7.12	3.00	3.00	0.00	
392.78	7.73	157.02	392.00	-15.99	6.78	17.37	3.00	3.00	0.00	
Start 5961.21 hold at 392.78 MD										
400.00	7.73	157.02	399.15	-16.89	7.16	18.34	0.00	0.00	0.00	
500.00	7.73	157.02	498.24	-29.28	12.41	31.80	0.00	0.00	0.00	
600.00	7.73	157.02	597.33	-41.66	17.66	45.25	0.00	0.00	0.00	
700.00	7.73	157.02	696.42	-54.05	22.92	58.71	0.00	0.00	0.00	
800.00	7.73	157.02	795.51	-66.44	28.17	72.17	0.00	0.00	0.00	
900.00	7.73	157.02	894.60	-78.83	33.42	85.62	0.00	0.00	0.00	
1,000.00	7.73	157.02	993.69	-91.22	38.68	99.08	0.00	0.00	0.00	
1,100.00	7.73	157.02	1,092.79	-103.61	43.93	112.54	0.00	0.00	0.00	
Surface Casing										
1,200.00	7.73	157.02	1,191.87	-116.00	49.18	125.99	0.00	0.00	0.00	
1,300.00	7.73	157.02	1,290.96	-128.39	54.43	139.45	0.00	0.00	0.00	
1,400.00	7.73	157.02	1,390.05	-140.78	59.69	152.91	0.00	0.00	0.00	
1,500.00	7.73	157.02	1,489.14	-153.17	64.94	166.36	0.00	0.00	0.00	
1,600.00	7.73	157.02	1,588.23	-165.56	70.19	179.82	0.00	0.00	0.00	
1,700.00	7.73	157.02	1,687.33	-177.94	75.44	193.28	0.00	0.00	0.00	
1,800.00	7.73	157.02	1,786.42	-190.33	80.70	206.73	0.00	0.00	0.00	
1,900.00	7.73	157.02	1,885.51	-202.72	85.95	220.19	0.00	0.00	0.00	
2,000.00	7.73	157.02	1,984.60	-215.11	91.20	233.65	0.00	0.00	0.00	
2,100.00	7.73	157.02	2,083.69	-227.50	96.45	247.10	0.00	0.00	0.00	
2,200.00	7.73	157.02	2,182.78	-239.89	101.71	260.56	0.00	0.00	0.00	
2,300.00	7.73	157.02	2,281.87	-252.28	106.96	274.02	0.00	0.00	0.00	
2,400.00	7.73	157.02	2,380.96	-264.67	112.21	287.47	0.00	0.00	0.00	
2,500.00	7.73	157.02	2,480.05	-277.06	117.46	300.93	0.00	0.00	0.00	
2,599.99	7.73	157.02	2,579.14	-289.45	122.72	314.39	0.00	0.00	0.00	
2,699.99	7.73	157.02	2,678.23	-301.83	127.97	327.84	0.00	0.00	0.00	
2,799.99	7.73	157.02	2,777.32	-314.22	133.22	341.30	0.00	0.00	0.00	
2,899.99	7.73	157.02	2,876.41	-326.61	138.48	354.76	0.00	0.00	0.00	
2,999.99	7.73	157.02	2,975.50	-339.00	143.73	368.21	0.00	0.00	0.00	
3,099.99	7.73	157.02	3,074.59	-351.39	148.98	381.67	0.00	0.00	0.00	
3,199.99	7.73	157.02	3,173.68	-363.78	154.23	395.12	0.00	0.00	0.00	
3,299.99	7.73	157.02	3,272.77	-376.17	159.49	408.58	0.00	0.00	0.00	
3,320.41	7.73	157.02	3,293.00	-378.70	160.56	411.33	0.00	0.00	0.00	
G Sand Top										
3,380.96	7.73	157.02	3,353.00	-386.20	163.74	419.48	0.00	0.00	0.00	
G Sand Base										
3,399.99	7.73	157.02	3,371.86	-388.56	164.74	422.04	0.00	0.00	0.00	
3,499.99	7.73	157.02	3,470.95	-400.95	169.99	435.49	0.00	0.00	0.00	
3,599.99	7.73	157.02	3,570.04	-413.34	175.24	448.95	0.00	0.00	0.00	
3,699.99	7.73	157.02	3,669.13	-425.73	180.50	462.41	0.00	0.00	0.00	
3,799.99	7.73	157.02	3,768.22	-438.11	185.75	475.86	0.00	0.00	0.00	
3,899.99	7.73	157.02	3,867.31	-450.50	191.00	489.32	0.00	0.00	0.00	
3,999.99	7.73	157.02	3,966.40	-462.89	196.25	502.78	0.00	0.00	0.00	
4,099.99	7.73	157.02	4,065.49	-475.28	201.51	516.23	0.00	0.00	0.00	

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Well:	RWF 443-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 8June2020 sbsdi		

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)
4,199.99	7.73	157.02	4,164.58	-487.67	206.76	529.69	0.00	0.00	0.00
4,299.99	7.73	157.02	4,263.67	-500.06	212.01	543.15	0.00	0.00	0.00
4,399.99	7.73	157.02	4,362.76	-512.45	217.26	556.60	0.00	0.00	0.00
4,499.99	7.73	157.02	4,461.85	-524.84	222.52	570.06	0.00	0.00	0.00
4,599.99	7.73	157.02	4,560.94	-537.23	227.77	583.52	0.00	0.00	0.00
4,662.62	7.73	157.02	4,623.00	-544.99	231.06	591.94	0.00	0.00	0.00
WSTC_LOWER									
4,699.99	7.73	157.02	4,660.03	-549.62	233.02	596.97	0.00	0.00	0.00
4,799.99	7.73	157.02	4,759.12	-562.00	238.28	610.43	0.00	0.00	0.00
4,899.99	7.73	157.02	4,858.21	-574.39	243.53	623.89	0.00	0.00	0.00
4,999.99	7.73	157.02	4,957.30	-586.78	248.78	637.34	0.00	0.00	0.00
5,099.99	7.73	157.02	5,056.39	-599.17	254.03	650.80	0.00	0.00	0.00
5,199.99	7.73	157.02	5,155.48	-611.56	259.29	664.26	0.00	0.00	0.00
5,299.99	7.73	157.02	5,254.57	-623.95	264.54	677.71	0.00	0.00	0.00
5,399.99	7.73	157.02	5,353.67	-636.34	269.79	691.17	0.00	0.00	0.00
5,499.99	7.73	157.02	5,452.76	-648.73	275.04	704.63	0.00	0.00	0.00
5,560.79	7.73	157.02	5,513.00	-656.26	278.24	712.81	0.00	0.00	0.00
OCRK - WFRK/UMVRD									
5,599.99	7.73	157.02	5,551.85	-661.12	280.30	718.08	0.00	0.00	0.00
5,699.99	7.73	157.02	5,650.94	-673.51	285.55	731.54	0.00	0.00	0.00
5,799.99	7.73	157.02	5,750.03	-685.89	290.80	744.99	0.00	0.00	0.00
5,899.99	7.73	157.02	5,849.12	-698.28	296.05	758.45	0.00	0.00	0.00
5,999.99	7.73	157.02	5,948.21	-710.67	301.31	771.91	0.00	0.00	0.00
6,099.99	7.73	157.02	6,047.30	-723.06	306.56	785.36	0.00	0.00	0.00
6,199.99	7.73	157.02	6,146.39	-735.45	311.81	798.82	0.00	0.00	0.00
6,299.99	7.73	157.02	6,245.48	-747.84	317.06	812.28	0.00	0.00	0.00
6,354.00	7.73	157.02	6,299.00	-754.53	319.90	819.55	0.00	0.00	0.00
Start Drop -1.50									
6,399.99	7.04	157.02	6,344.60	-759.98	322.21	825.46	1.50	-1.50	0.00
6,499.99	5.54	157.02	6,444.00	-770.07	326.49	836.42	1.50	-1.50	0.00
6,599.99	4.04	157.02	6,543.65	-777.76	329.75	844.78	1.50	-1.50	0.00
6,699.99	2.54	157.02	6,643.48	-783.05	331.99	850.52	1.50	-1.50	0.00
6,799.99	1.04	157.02	6,743.43	-785.93	333.22	853.65	1.50	-1.50	0.00
6,869.57	0.00	0.00	6,813.00	-786.52	333.46	854.29	1.50	-1.50	0.00
Start 2650.00 hold at 6869.57 MD - KMGAS									
6,899.99	0.00	0.00	6,843.42	-786.52	333.46	854.29	0.00	0.00	0.00
6,999.99	0.00	0.00	6,943.42	-786.52	333.46	854.29	0.00	0.00	0.00
7,099.99	0.00	0.00	7,043.42	-786.52	333.46	854.29	0.00	0.00	0.00
7,199.99	0.00	0.00	7,143.42	-786.52	333.46	854.29	0.00	0.00	0.00
7,299.99	0.00	0.00	7,243.42	-786.52	333.46	854.29	0.00	0.00	0.00
7,399.99	0.00	0.00	7,343.42	-786.52	333.46	854.29	0.00	0.00	0.00
7,499.99	0.00	0.00	7,443.42	-786.52	333.46	854.29	0.00	0.00	0.00
7,599.98	0.00	0.00	7,543.42	-786.52	333.46	854.29	0.00	0.00	0.00
7,699.98	0.00	0.00	7,643.42	-786.52	333.46	854.29	0.00	0.00	0.00
7,799.98	0.00	0.00	7,743.42	-786.52	333.46	854.29	0.00	0.00	0.00
7,899.98	0.00	0.00	7,843.42	-786.52	333.46	854.29	0.00	0.00	0.00
7,999.98	0.00	0.00	7,943.42	-786.52	333.46	854.29	0.00	0.00	0.00
8,099.98	0.00	0.00	8,043.42	-786.52	333.46	854.29	0.00	0.00	0.00
8,199.98	0.00	0.00	8,143.42	-786.52	333.46	854.29	0.00	0.00	0.00
8,299.98	0.00	0.00	8,243.42	-786.52	333.46	854.29	0.00	0.00	0.00
8,399.98	0.00	0.00	8,343.42	-786.52	333.46	854.29	0.00	0.00	0.00
8,409.57	0.00	0.00	8,353.00	-786.52	333.46	854.29	0.00	0.00	0.00

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Wellbore:	OH		
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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)
CME0									
8,499.98	0.00	0.00	8,443.42	-786.52	333.46	854.29	0.00	0.00	0.00
8,599.98	0.00	0.00	8,543.42	-786.52	333.46	854.29	0.00	0.00	0.00
8,699.98	0.00	0.00	8,643.42	-786.52	333.46	854.29	0.00	0.00	0.00
8,799.98	0.00	0.00	8,743.42	-786.52	333.46	854.29	0.00	0.00	0.00
8,899.98	0.00	0.00	8,843.42	-786.52	333.46	854.29	0.00	0.00	0.00
8,999.98	0.00	0.00	8,943.42	-786.52	333.46	854.29	0.00	0.00	0.00
9,099.98	0.00	0.00	9,043.42	-786.52	333.46	854.29	0.00	0.00	0.00
9,199.98	0.00	0.00	9,143.42	-786.52	333.46	854.29	0.00	0.00	0.00
9,299.98	0.00	0.00	9,243.42	-786.52	333.46	854.29	0.00	0.00	0.00
9,369.57	0.00	0.00	9,313.00	-786.52	333.46	854.29	0.00	0.00	0.00
RLNS									
9,399.98	0.00	0.00	9,343.42	-786.52	333.46	854.29	0.00	0.00	0.00
9,499.98	0.00	0.00	9,443.42	-786.52	333.46	854.29	0.00	0.00	0.00
9,519.57	0.00	0.00	9,463.00	-786.52	333.46	854.29	0.00	0.00	0.00
TD at 9519.57 - 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									
RWF 443-9 KMV Gas	0.00	0.00	6,813.00	-786.52	333.46	1,629,393.0000	2,327,710.0000	39.5372489	-107.8839842
- plan hits target center									
- Circle (radius 50.00)									
RWF 443-9 PBHL	0.00	0.00	9,463.00	-786.52	333.46	1,629,393.0000	2,327,710.0000	39.5372489	-107.8839842
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,100.00	1,092.79	Surface Casing	13.50	13.50	

Database:	Grand Junction	Local Co-ordinate Reference:	Well RWF 443-9 - Slot RWF 443-9
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 6369.4' & KB 24' @ 6393.40usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 6369.4' & KB 24' @ 6393.40usft (H&P 318)
Site:	RWF 43-9 Pad	North Reference:	True
Well:	RWF 443-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 8June2020 sbsdi		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,320.41	3,293.00	G Sand Top		0.00		
3,380.96	3,353.00	G Sand Base		0.00		
4,662.62	4,623.00	WSTC_LOWER		0.00		
5,560.79	5,513.00	OCRK		0.00		
5,560.79	5,513.00	WFRK/UMVRD		0.00		
6,869.57	6,813.00	KMVGAS		0.00		
8,409.57	8,353.00	CME0		0.00		
9,369.57	9,313.00	RLNS		0.00		
9,519.57	9,463.00	TD		0.00		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
135.00	135.00	0.00	0.00	Start Build 3.00	
392.78	392.00	-15.99	6.78	Start 5961.21 hold at 392.78 MD	
6,354.00	6,299.00	-754.53	319.90	Start Drop -1.50	
6,869.57	6,813.00	-786.52	333.46	Start 2650.00 hold at 6869.57 MD	
9,519.57	9,463.00	-786.52	333.46	TD at 9519.57	