



Company: TEP Rocky Mountain LLC
Project: Garfield County, CO NAD83
Site: RWF 43-9 Pad
Well: RWF 44-9

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 44-9

+N/-S +E/-W Northing Easting Latitude Longitude
0.00 0.00 1630186.7000 2327389.9000 39.5394040 -107.8851926 RWF 44-9

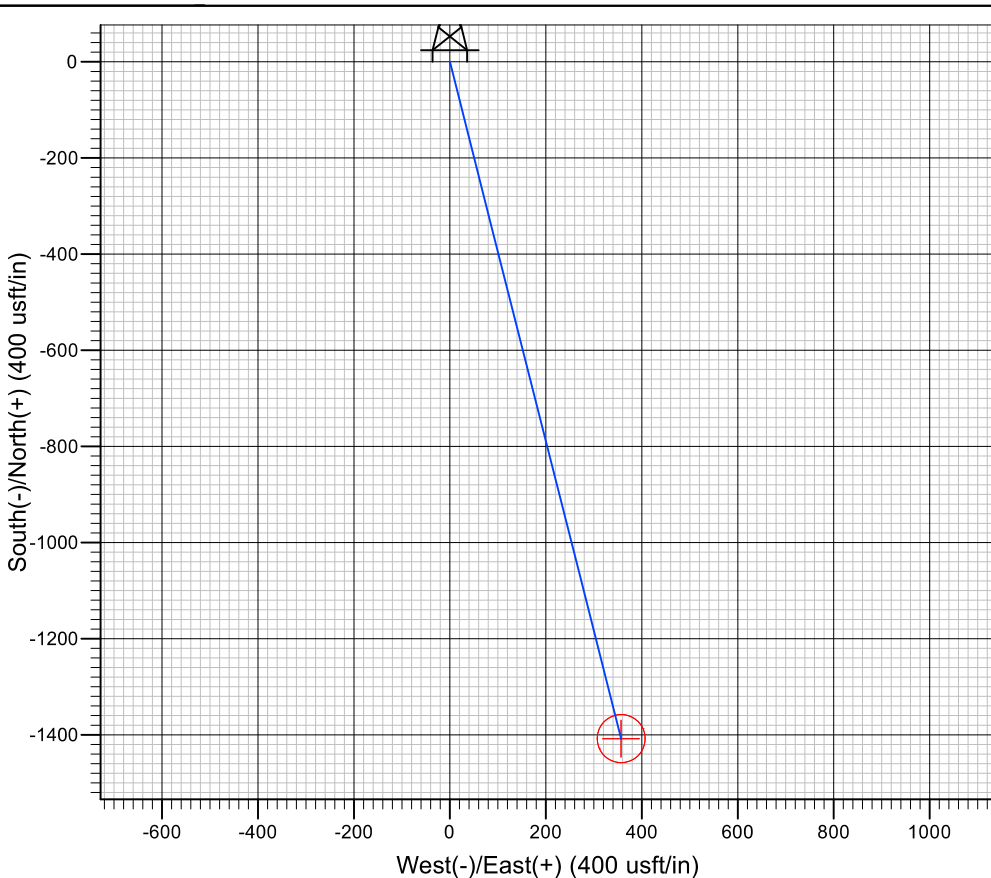
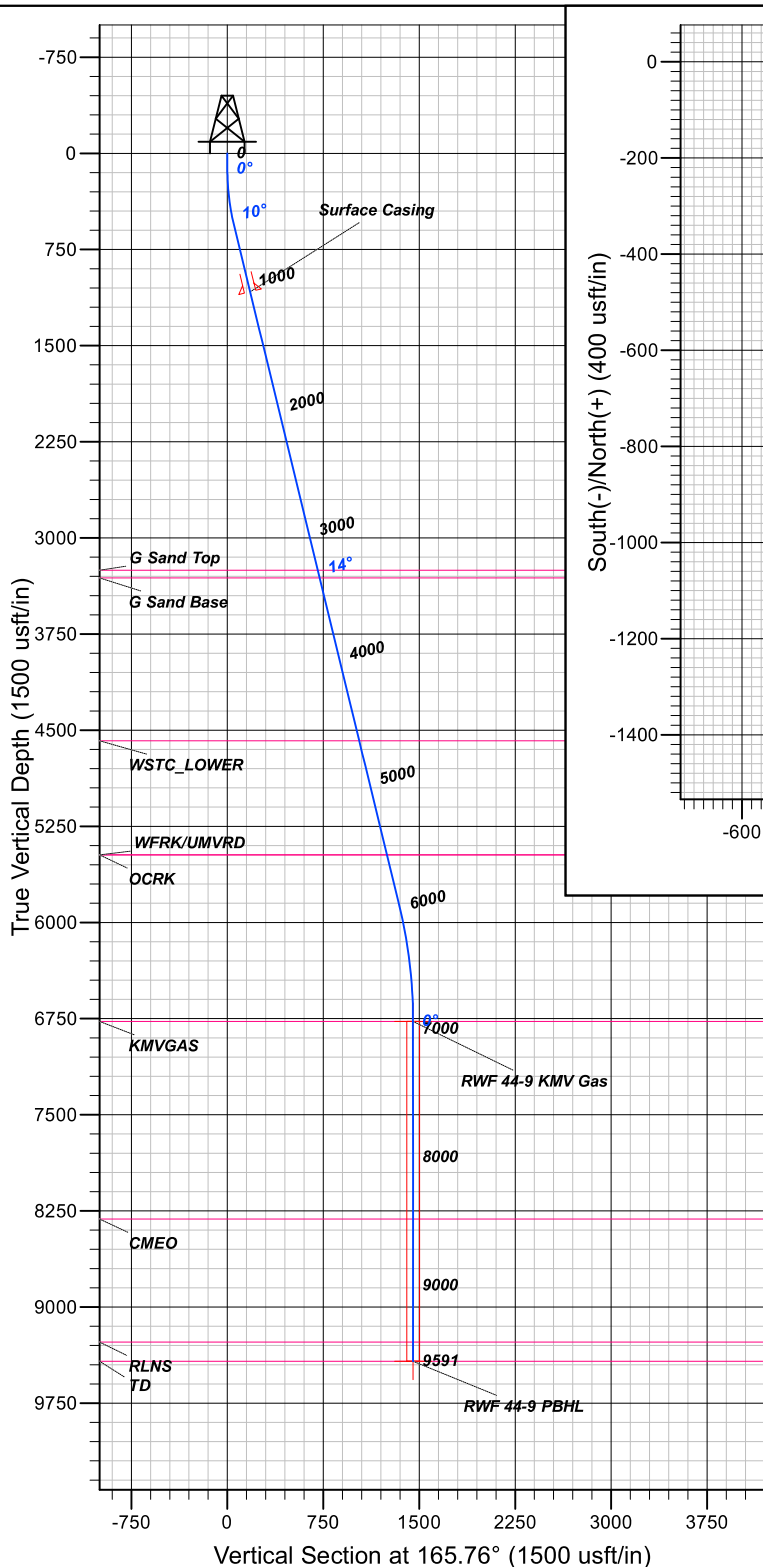


Azimuths to True North
Magnetic North: 9.22°

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	Shape
RWF 44-9 KMW Gas	6773.00	-1407.81	357.18	1628770.0000	2327710.0000	39.5355390	-107.8839262	Circle (Radius: 50.00)
RWF 44-9 PBHL	9423.00	-1407.81	357.18	1628770.0000	2327710.0000	39.5355390	-107.8839262	Point



FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
3253.00	3335.64	G Sand Top
3313.00	3397.40	G Sand Base
4583.00	4704.50	WSTC_LOWER
5473.00	5620.49	OCRK
5473.00	5620.49	WFRK/UMVRD
6773.00	6940.72	KMWGAS
8313.00	8480.72	CMEO
9273.00	9440.72	RLNS
9423.00	9590.72	TD

CASING DETAILS

TVD	MD	NAME
1080.81	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
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00
576.11	13.68	165.76	571.79	-52.54	13.33	3.00	165.76	54.21
6028.50	13.68	165.76	5869.42	-1302.73	330.52	0.00	0.00	1344.00
6940.72	0.00	0.00	6773.00	-1407.81	357.18	1.50	180.00	1452.41
9590.72	0.00	0.00	9423.00	-1407.81	357.18	0.00	0.00	1452.41



TEP Rocky Mountain LLC

Garfield County, CO NAD83

RWF 43-9 Pad

RWF 44-9 - Slot RWF 44-9

OH

Plan: Plan #1 8June2020 sbsdi

Standard Planning Report

10 June, 2020



Database:	Grand Junction	Local Co-ordinate Reference:	Well RWF 44-9 - Slot RWF 44-9
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 44-9	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
From:	Map	Easting:	2,327,330.9000 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in
		Latitude:	39.5393702
		Longitude:	-107.8854007
		Grid Convergence:	-1.50 °

Well	RWF 44-9 - Slot RWF 44-9, 2538' FSL 492' FEL Sec 9 T6S R94W					
Well Position	+N/-S	12.35 usft	Northing:	1,630,186.7000 usft	Latitude:	39.5394041
	+E/-W	58.70 usft	Easting:	2,327,389.9000 usft	Longitude:	-107.8851926
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	165.76

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	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	
576.11	13.68	165.76	571.79	-52.54	13.33	3.00	3.00	0.00	165.76	
6,028.50	13.68	165.76	5,869.42	-1,302.73	330.52	0.00	0.00	0.00	0.00	
6,940.72	0.00	0.00	6,773.00	-1,407.81	357.18	1.50	-1.50	0.00	180.00	RWF 44-9 KMW Gas
9,590.72	0.00	0.00	9,423.00	-1,407.81	357.18	0.00	0.00	0.00	0.00	RWF 44-9 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 44-9	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	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	
Start Build 3.00										
200.00	2.40	165.76	199.98	-1.62	0.41	1.68	3.00	3.00	0.00	
300.00	5.40	165.76	299.73	-8.22	2.08	8.48	3.00	3.00	0.00	
400.00	8.40	165.76	399.00	-19.86	5.04	20.49	3.00	3.00	0.00	
500.00	11.40	165.76	497.50	-36.52	9.27	37.68	3.00	3.00	0.00	
576.11	13.68	165.76	571.79	-52.54	13.33	54.21	3.00	3.00	0.00	
Start 5452.38 hold at 576.11 MD										
600.00	13.68	165.76	595.00	-58.02	14.72	59.86	0.00	0.00	0.00	
700.00	13.68	165.76	692.16	-80.95	20.54	83.51	0.00	0.00	0.00	
800.00	13.68	165.76	789.32	-103.88	26.35	107.17	0.00	0.00	0.00	
900.00	13.68	165.76	886.48	-126.81	32.17	130.82	0.00	0.00	0.00	
1,000.00	13.68	165.76	983.64	-149.73	37.99	154.48	0.00	0.00	0.00	
1,100.00	13.68	165.76	1,080.81	-172.66	43.81	178.13	0.00	0.00	0.00	
Surface Casing										
1,200.00	13.68	165.76	1,177.97	-195.59	49.62	201.79	0.00	0.00	0.00	
1,300.00	13.68	165.76	1,275.13	-218.52	55.44	225.45	0.00	0.00	0.00	
1,400.00	13.68	165.76	1,372.29	-241.45	61.26	249.10	0.00	0.00	0.00	
1,500.00	13.68	165.76	1,469.45	-264.38	67.08	272.76	0.00	0.00	0.00	
1,600.00	13.68	165.76	1,566.61	-287.31	72.89	296.41	0.00	0.00	0.00	
1,700.00	13.68	165.76	1,663.77	-310.24	78.71	320.07	0.00	0.00	0.00	
1,800.00	13.68	165.76	1,760.94	-333.17	84.53	343.72	0.00	0.00	0.00	
1,900.00	13.68	165.76	1,858.10	-356.10	90.35	367.38	0.00	0.00	0.00	
2,000.00	13.68	165.76	1,955.26	-379.03	96.16	391.03	0.00	0.00	0.00	
2,100.00	13.68	165.76	2,052.42	-401.95	101.98	414.69	0.00	0.00	0.00	
2,200.00	13.68	165.76	2,149.58	-424.88	107.80	438.35	0.00	0.00	0.00	
2,300.00	13.68	165.76	2,246.74	-447.81	113.62	462.00	0.00	0.00	0.00	
2,400.00	13.68	165.76	2,343.91	-470.74	119.43	485.66	0.00	0.00	0.00	
2,500.00	13.68	165.76	2,441.07	-493.67	125.25	509.31	0.00	0.00	0.00	
2,599.99	13.68	165.76	2,538.23	-516.60	131.07	532.97	0.00	0.00	0.00	
2,699.99	13.68	165.76	2,635.39	-539.53	136.89	556.62	0.00	0.00	0.00	
2,799.99	13.68	165.76	2,732.55	-562.46	142.70	580.28	0.00	0.00	0.00	
2,899.99	13.68	165.76	2,829.71	-585.39	148.52	603.93	0.00	0.00	0.00	
2,999.99	13.68	165.76	2,926.88	-608.32	154.34	627.59	0.00	0.00	0.00	
3,099.99	13.68	165.76	3,024.04	-631.25	160.16	651.25	0.00	0.00	0.00	
3,199.99	13.68	165.76	3,121.20	-654.17	165.97	674.90	0.00	0.00	0.00	
3,299.99	13.68	165.76	3,218.36	-677.10	171.79	698.56	0.00	0.00	0.00	
3,335.64	13.68	165.76	3,253.00	-685.28	173.86	706.99	0.00	0.00	0.00	
G Sand Top										
3,397.40	13.68	165.76	3,313.00	-699.44	177.46	721.60	0.00	0.00	0.00	
G Sand Base										
3,399.99	13.68	165.76	3,315.52	-700.03	177.61	722.21	0.00	0.00	0.00	
3,499.99	13.68	165.76	3,412.68	-722.96	183.43	745.87	0.00	0.00	0.00	
3,599.99	13.68	165.76	3,509.85	-745.89	189.24	769.52	0.00	0.00	0.00	
3,699.99	13.68	165.76	3,607.01	-768.82	195.06	793.18	0.00	0.00	0.00	
3,799.99	13.68	165.76	3,704.17	-791.75	200.88	816.83	0.00	0.00	0.00	
3,899.99	13.68	165.76	3,801.33	-814.68	206.70	840.49	0.00	0.00	0.00	
3,999.99	13.68	165.76	3,898.49	-837.61	212.51	864.15	0.00	0.00	0.00	
4,099.99	13.68	165.76	3,995.65	-860.54	218.33	887.80	0.00	0.00	0.00	

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Site:	RWF 43-9 Pad	North Reference:	True
Well:	RWF 44-9	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	13.68	165.76	4,092.81	-883.47	224.15	911.46	0.00	0.00	0.00
4,299.99	13.68	165.76	4,189.98	-906.39	229.97	935.11	0.00	0.00	0.00
4,399.99	13.68	165.76	4,287.14	-929.32	235.78	958.77	0.00	0.00	0.00
4,499.99	13.68	165.76	4,384.30	-952.25	241.60	982.42	0.00	0.00	0.00
4,599.99	13.68	165.76	4,481.46	-975.18	247.42	1,006.08	0.00	0.00	0.00
4,699.99	13.68	165.76	4,578.62	-998.11	253.24	1,029.73	0.00	0.00	0.00
4,704.50	13.68	165.76	4,583.00	-999.14	253.50	1,030.80	0.00	0.00	0.00
WSTC_LOWER									
4,799.99	13.68	165.76	4,675.78	-1,021.04	259.05	1,053.39	0.00	0.00	0.00
4,899.99	13.68	165.76	4,772.95	-1,043.97	264.87	1,077.05	0.00	0.00	0.00
4,999.99	13.68	165.76	4,870.11	-1,066.90	270.69	1,100.70	0.00	0.00	0.00
5,099.99	13.68	165.76	4,967.27	-1,089.83	276.50	1,124.36	0.00	0.00	0.00
5,199.99	13.68	165.76	5,064.43	-1,112.76	282.32	1,148.01	0.00	0.00	0.00
5,299.99	13.68	165.76	5,161.59	-1,135.69	288.14	1,171.67	0.00	0.00	0.00
5,399.99	13.68	165.76	5,258.75	-1,158.61	293.96	1,195.32	0.00	0.00	0.00
5,499.99	13.68	165.76	5,355.92	-1,181.54	299.77	1,218.98	0.00	0.00	0.00
5,599.99	13.68	165.76	5,453.08	-1,204.47	305.59	1,242.63	0.00	0.00	0.00
5,620.49	13.68	165.76	5,473.00	-1,209.17	306.78	1,247.49	0.00	0.00	0.00
OCRK - WFRK/UMVRD									
5,699.99	13.68	165.76	5,550.24	-1,227.40	311.41	1,266.29	0.00	0.00	0.00
5,799.99	13.68	165.76	5,647.40	-1,250.33	317.23	1,289.95	0.00	0.00	0.00
5,899.99	13.68	165.76	5,744.56	-1,273.26	323.04	1,313.60	0.00	0.00	0.00
5,999.99	13.68	165.76	5,841.72	-1,296.19	328.86	1,337.26	0.00	0.00	0.00
6,028.50	13.68	165.76	5,869.42	-1,302.73	330.52	1,344.00	0.00	0.00	0.00
Start Drop -1.50									
6,099.99	12.61	165.76	5,939.04	-1,318.49	334.52	1,360.26	1.50	-1.50	0.00
6,199.99	11.11	165.76	6,036.90	-1,338.41	339.57	1,380.81	1.50	-1.50	0.00
6,299.99	9.61	165.76	6,135.27	-1,355.84	344.00	1,398.80	1.50	-1.50	0.00
6,399.99	8.11	165.76	6,234.07	-1,370.77	347.78	1,414.20	1.50	-1.50	0.00
6,499.99	6.61	165.76	6,333.24	-1,383.19	350.94	1,427.01	1.50	-1.50	0.00
6,599.99	5.11	165.76	6,432.72	-1,393.09	353.45	1,437.23	1.50	-1.50	0.00
6,699.99	3.61	165.76	6,532.43	-1,400.46	355.32	1,444.83	1.50	-1.50	0.00
6,799.99	2.11	165.76	6,632.30	-1,405.30	356.54	1,449.82	1.50	-1.50	0.00
6,899.99	0.61	165.76	6,732.27	-1,407.60	357.13	1,452.20	1.50	-1.50	0.00
6,940.72	0.00	0.00	6,773.00	-1,407.81	357.18	1,452.41	1.50	-1.50	0.00
Start 2650.00 hold at 6940.72 MD - KMGAS									
6,999.99	0.00	0.00	6,832.27	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
7,099.99	0.00	0.00	6,932.27	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
7,199.99	0.00	0.00	7,032.27	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
7,299.99	0.00	0.00	7,132.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
7,399.99	0.00	0.00	7,232.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
7,499.99	0.00	0.00	7,332.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
7,599.98	0.00	0.00	7,432.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
7,699.98	0.00	0.00	7,532.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
7,799.98	0.00	0.00	7,632.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
7,899.98	0.00	0.00	7,732.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
7,999.98	0.00	0.00	7,832.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
8,099.98	0.00	0.00	7,932.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
8,199.98	0.00	0.00	8,032.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
8,299.98	0.00	0.00	8,132.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
8,399.98	0.00	0.00	8,232.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
8,480.72	0.00	0.00	8,313.00	-1,407.81	357.18	1,452.41	0.00	0.00	0.00

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Well:	RWF 44-9	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)
CMEO									
8,499.98	0.00	0.00	8,332.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
8,599.98	0.00	0.00	8,432.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
8,699.98	0.00	0.00	8,532.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
8,799.98	0.00	0.00	8,632.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
8,899.98	0.00	0.00	8,732.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
8,999.98	0.00	0.00	8,832.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
9,099.98	0.00	0.00	8,932.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
9,199.98	0.00	0.00	9,032.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
9,299.98	0.00	0.00	9,132.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
9,399.98	0.00	0.00	9,232.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
9,440.72	0.00	0.00	9,273.00	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
RLNS									
9,499.98	0.00	0.00	9,332.26	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
9,590.72	0.00	0.00	9,423.00	-1,407.81	357.18	1,452.41	0.00	0.00	0.00
TD at 9590.72 - 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 44-9 KMV Gas	0.00	0.00	6,773.00	-1,407.81	357.18	1,628,770.0000	2,327,710.0000	39.5355390	-107.8839262
- plan hits target center									
- Circle (radius 50.00)									
RWF 44-9 PBHL	0.00	0.00	9,423.00	-1,407.81	357.18	1,628,770.0000	2,327,710.0000	39.5355390	-107.8839262
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,100.00	1,080.81	Surface Casing	13.50	13.50	

Database:	Grand Junction	Local Co-ordinate Reference:	Well RWF 44-9 - Slot RWF 44-9
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 44-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 8June2020 sbsdi		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,335.64	3,253.00	G Sand Top		0.00		
3,397.40	3,313.00	G Sand Base		0.00		
4,704.50	4,583.00	WSTC_LOWER		0.00		
5,620.49	5,473.00	OCRK		0.00		
5,620.49	5,473.00	WFRK/UMVRD		0.00		
6,940.72	6,773.00	KMVGAS		0.00		
8,480.72	8,313.00	CME0		0.00		
9,440.72	9,273.00	RLNS		0.00		
9,590.72	9,423.00	TD		0.00		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
120.00	120.00	0.00	0.00	Start Build 3.00	
576.11	571.79	-52.54	13.33	Start 5452.38 hold at 576.11 MD	
6,028.50	5,869.42	-1,302.73	330.52	Start Drop -1.50	
6,940.72	6,773.00	-1,407.81	357.18	Start 2650.00 hold at 6940.72 MD	
9,590.72	9,423.00	-1,407.81	357.18	TD at 9590.72	