



Company: TEP Rocky Mountain LLC
Project: Garfield County, CO NAD83
Site: RWF 43-9 Pad
Well: RWF 344-9

PROJECT DETAILS: Garfield County, CO NAD83

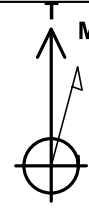
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone

System Datum: Mean Sea Level

Plan: Plan #1 8June2020 sbsdi

Well Details: RWF 344-9

+N/-S 0.00 +E/-W 0.00 Northing 1630185.3000 Easting 2327382.5000 Latitude 39.5393997 Longitude -107.8852187 RWF 344-9

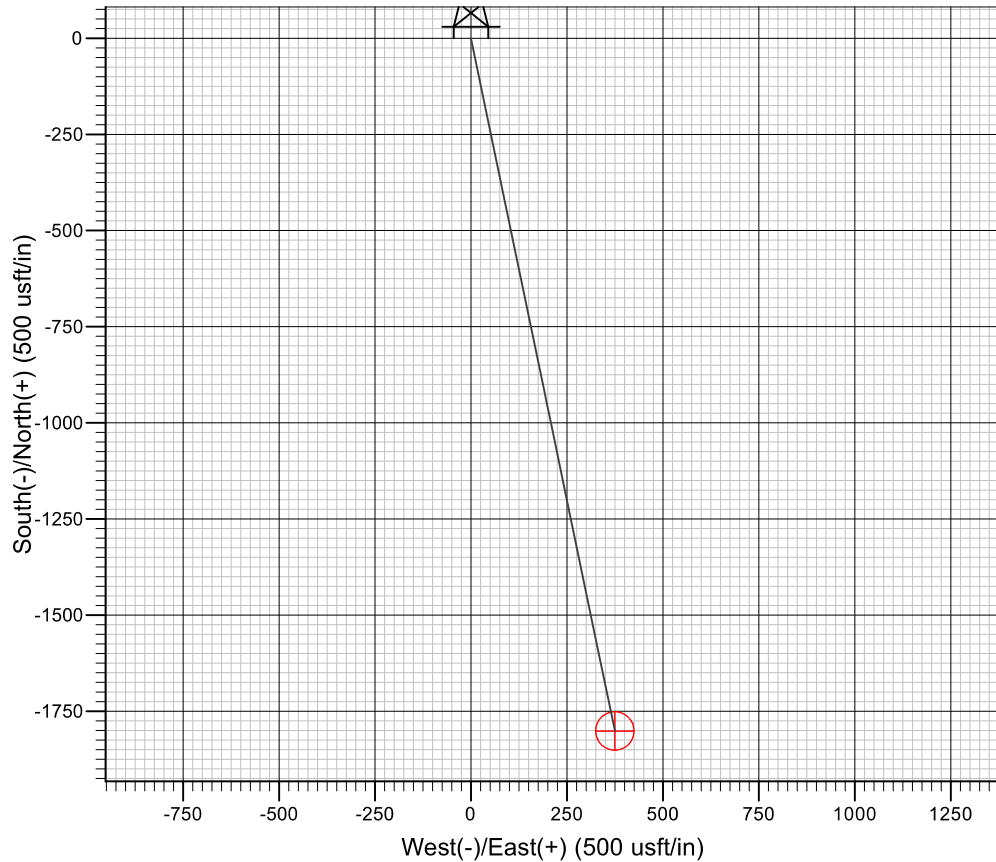
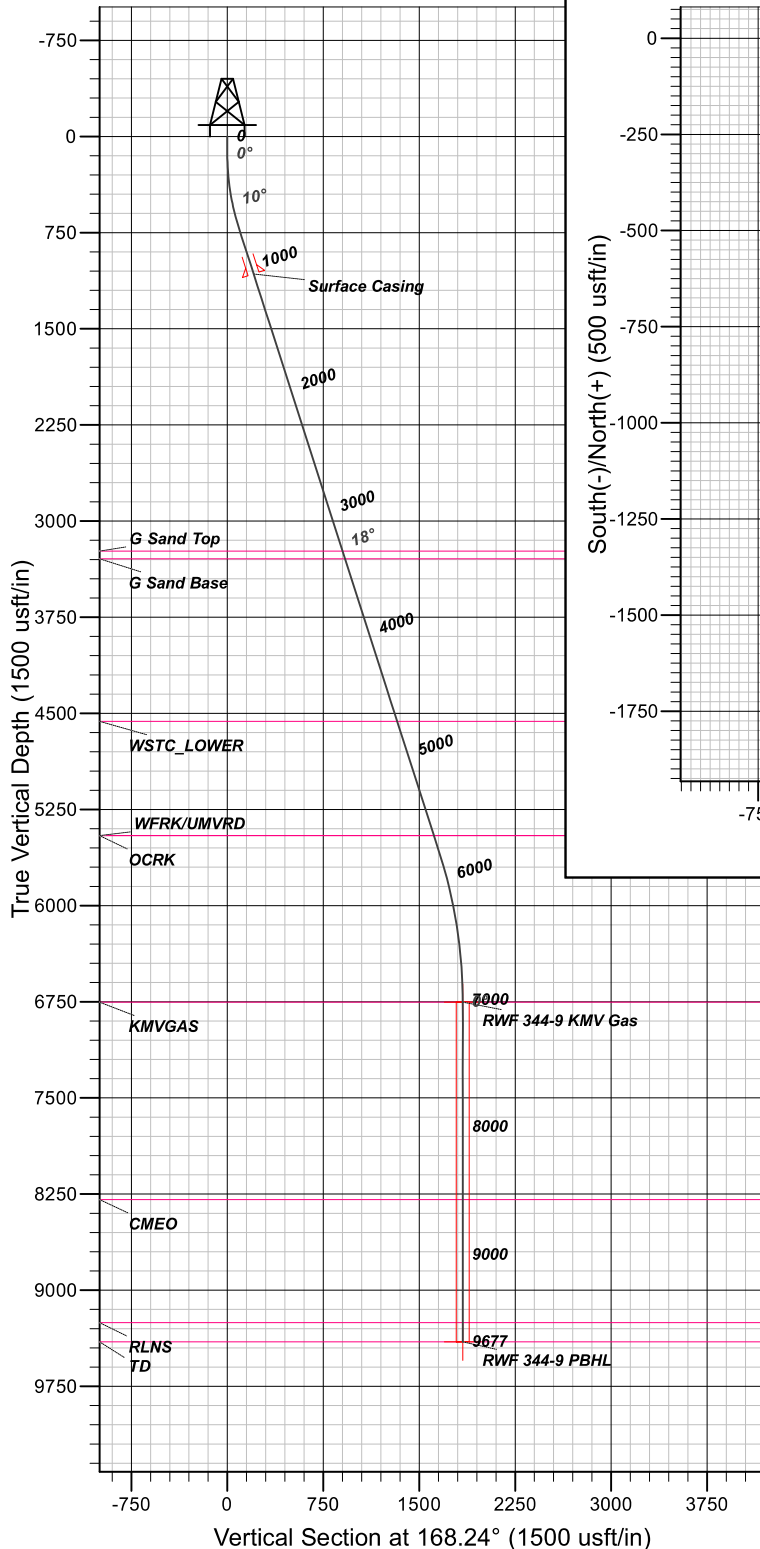


Azimuths to True North
Magnetic North: 9.22°

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 344-9 KMW Gas	6753.00	-1801.08	374.91	1628375.0000	2327710.0000	39.5344549	-107.8838894		Point
RWF 344-9 PBHL	9403.00	-1801.08	374.91	1628375.0000	2327710.0000	39.5344549	-107.8838894		Point



FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
3233.00	3369.37	G Sand Top
3293.00	3432.40	G Sand Base
4563.00	4766.49	WSTC_LOWER
5453.00	5701.40	OCRK
5453.00	5701.40	WFRK/UMVRD
6753.00	7027.07	KMWGAS
8293.00	8567.07	CMEO
9253.00	9527.07	RLNS
9403.00	9677.07	TD

CASING DETAILS

TVD	MD	NAME
1072.65	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
729.38	17.83	168.24	719.83	-89.82	18.70	3.00	168.24	91.75
5838.31	17.83	168.24	5583.33	-1621.44	337.52	0.00	0.00	1656.19
7027.07	0.00	0.00	6753.00	-1801.08	374.91	1.50	180.00	1839.69
9677.07	0.00	0.00	9403.00	-1801.08	374.91	0.00	0.00	1839.69



TEP Rocky Mountain LLC

Garfield County, CO NAD83

RWF 43-9 Pad

RWF 344-9 - Slot RWF 344-9

OH

Plan: Plan #1 8June2020 sbsdi

Standard Planning Report

10 June, 2020



www.scientificdrilling.com



Database:	Grand Junction	Local Co-ordinate Reference:	Well RWF 344-9 - Slot RWF 344-9
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 344-9	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 344-9 - Slot RWF 344-9, 2536' FSL 499' FEL Sec 9 R6S R94W		
Well Position	+N/-S	10.75 usft	Northing: 1,630,185.3000 usft
	+E/-W	51.34 usft	Easting: 2,327,382.5000 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	Latitude: 39.5393997
			Longitude: -107.8852187
			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	168.24

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	
729.38	17.83	168.24	719.83	-89.82	18.70	3.00	3.00	0.00	168.24	
5,838.31	17.83	168.24	5,583.33	-1,621.44	337.52	0.00	0.00	0.00	0.00	
7,027.07	0.00	0.00	6,753.00	-1,801.08	374.91	1.50	-1.50	0.00	180.00	RWF 344-9 KVM Gas
9,677.07	0.00	0.00	9,403.00	-1,801.08	374.91	0.00	0.00	0.00	0.00	RWF 344-9 PBHL

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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 344-9	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	168.24	199.99	-1.08	0.23	1.11	3.00	3.00	0.00	
300.00	4.95	168.24	299.79	-6.97	1.45	7.12	3.00	3.00	0.00	
400.00	7.95	168.24	399.15	-17.97	3.74	18.36	3.00	3.00	0.00	
500.00	10.95	168.24	497.78	-34.04	7.09	34.77	3.00	3.00	0.00	
600.00	13.95	168.24	595.42	-55.15	11.48	56.33	3.00	3.00	0.00	
700.00	16.95	168.24	691.79	-81.22	16.91	82.96	3.00	3.00	0.00	
729.38	17.83	168.24	719.83	-89.82	18.70	91.75	3.00	3.00	0.00	
Start 5108.93 hold at 729.38 MD										
800.00	17.83	168.24	787.06	-110.99	23.10	113.37	0.00	0.00	0.00	
900.00	17.83	168.24	882.25	-140.97	29.34	143.99	0.00	0.00	0.00	
1,000.00	17.83	168.24	977.45	-170.95	35.58	174.61	0.00	0.00	0.00	
1,100.00	17.83	168.24	1,072.65	-200.93	41.83	205.24	0.00	0.00	0.00	
Surface Casing										
1,200.00	17.83	168.24	1,167.84	-230.91	48.07	235.86	0.00	0.00	0.00	
1,300.00	17.83	168.24	1,263.04	-260.89	54.31	266.48	0.00	0.00	0.00	
1,400.00	17.83	168.24	1,358.23	-290.87	60.55	297.10	0.00	0.00	0.00	
1,500.00	17.83	168.24	1,453.43	-320.85	66.79	327.72	0.00	0.00	0.00	
1,600.00	17.83	168.24	1,548.63	-350.82	73.03	358.34	0.00	0.00	0.00	
1,700.00	17.83	168.24	1,643.82	-380.80	79.27	388.97	0.00	0.00	0.00	
1,800.00	17.83	168.24	1,739.02	-410.78	85.51	419.59	0.00	0.00	0.00	
1,900.00	17.83	168.24	1,834.21	-440.76	91.75	450.21	0.00	0.00	0.00	
2,000.00	17.83	168.24	1,929.41	-470.74	97.99	480.83	0.00	0.00	0.00	
2,100.00	17.83	168.24	2,024.60	-500.72	104.23	511.45	0.00	0.00	0.00	
2,200.00	17.83	168.24	2,119.80	-530.70	110.47	542.08	0.00	0.00	0.00	
2,300.00	17.83	168.24	2,215.00	-560.68	116.71	572.70	0.00	0.00	0.00	
2,400.00	17.83	168.24	2,310.19	-590.66	122.95	603.32	0.00	0.00	0.00	
2,500.00	17.83	168.24	2,405.39	-620.64	129.19	633.94	0.00	0.00	0.00	
2,599.99	17.83	168.24	2,500.58	-650.62	135.43	664.56	0.00	0.00	0.00	
2,699.99	17.83	168.24	2,595.78	-680.59	141.67	695.18	0.00	0.00	0.00	
2,799.99	17.83	168.24	2,690.98	-710.57	147.91	725.81	0.00	0.00	0.00	
2,899.99	17.83	168.24	2,786.17	-740.55	154.15	756.43	0.00	0.00	0.00	
2,999.99	17.83	168.24	2,881.37	-770.53	160.39	787.05	0.00	0.00	0.00	
3,099.99	17.83	168.24	2,976.56	-800.51	166.63	817.67	0.00	0.00	0.00	
3,199.99	17.83	168.24	3,071.76	-830.49	172.87	848.29	0.00	0.00	0.00	
3,299.99	17.83	168.24	3,166.96	-860.47	179.12	878.91	0.00	0.00	0.00	
3,369.37	17.83	168.24	3,233.00	-881.27	183.44	900.16	0.00	0.00	0.00	
G Sand Top										
3,399.99	17.83	168.24	3,262.15	-890.45	185.36	909.54	0.00	0.00	0.00	
3,432.40	17.83	168.24	3,293.00	-900.16	187.38	919.46	0.00	0.00	0.00	
G Sand Base										
3,499.99	17.83	168.24	3,357.35	-920.43	191.60	940.16	0.00	0.00	0.00	
3,599.99	17.83	168.24	3,452.54	-950.41	197.84	970.78	0.00	0.00	0.00	
3,699.99	17.83	168.24	3,547.74	-980.39	204.08	1,001.40	0.00	0.00	0.00	
3,799.99	17.83	168.24	3,642.94	-1,010.37	210.32	1,032.02	0.00	0.00	0.00	
3,899.99	17.83	168.24	3,738.13	-1,040.34	216.56	1,062.64	0.00	0.00	0.00	
3,999.99	17.83	168.24	3,833.33	-1,070.32	222.80	1,093.27	0.00	0.00	0.00	
4,099.99	17.83	168.24	3,928.52	-1,100.30	229.04	1,123.89	0.00	0.00	0.00	

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Site:	RWF 43-9 Pad	North Reference:	True
Well:	RWF 344-9	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	17.83	168.24	4,023.72	-1,130.28	235.28	1,154.51	0.00	0.00	0.00
4,299.99	17.83	168.24	4,118.92	-1,160.26	241.52	1,185.13	0.00	0.00	0.00
4,399.99	17.83	168.24	4,214.11	-1,190.24	247.76	1,215.75	0.00	0.00	0.00
4,499.99	17.83	168.24	4,309.31	-1,220.22	254.00	1,246.38	0.00	0.00	0.00
4,599.99	17.83	168.24	4,404.50	-1,250.20	260.24	1,277.00	0.00	0.00	0.00
4,699.99	17.83	168.24	4,499.70	-1,280.18	266.48	1,307.62	0.00	0.00	0.00
4,766.49	17.83	168.24	4,563.00	-1,300.11	270.63	1,327.98	0.00	0.00	0.00
WSTC_LOWER									
4,799.99	17.83	168.24	4,594.90	-1,310.16	272.72	1,338.24	0.00	0.00	0.00
4,899.99	17.83	168.24	4,690.09	-1,340.14	278.96	1,368.86	0.00	0.00	0.00
4,999.99	17.83	168.24	4,785.29	-1,370.11	285.20	1,399.48	0.00	0.00	0.00
5,099.99	17.83	168.24	4,880.48	-1,400.09	291.44	1,430.11	0.00	0.00	0.00
5,199.99	17.83	168.24	4,975.68	-1,430.07	297.68	1,460.73	0.00	0.00	0.00
5,299.99	17.83	168.24	5,070.88	-1,460.05	303.92	1,491.35	0.00	0.00	0.00
5,399.99	17.83	168.24	5,166.07	-1,490.03	310.16	1,521.97	0.00	0.00	0.00
5,499.99	17.83	168.24	5,261.27	-1,520.01	316.41	1,552.59	0.00	0.00	0.00
5,599.99	17.83	168.24	5,356.46	-1,549.99	322.65	1,583.21	0.00	0.00	0.00
5,699.99	17.83	168.24	5,451.66	-1,579.97	328.89	1,613.84	0.00	0.00	0.00
5,701.40	17.83	168.24	5,453.00	-1,580.39	328.97	1,614.27	0.00	0.00	0.00
OCRK - WFRK/UMVRD									
5,799.99	17.83	168.24	5,546.86	-1,609.95	335.13	1,644.46	0.00	0.00	0.00
5,838.31	17.83	168.24	5,583.33	-1,621.44	337.52	1,656.19	0.00	0.00	0.00
Start Drop -1.50									
5,899.99	16.91	168.24	5,642.20	-1,639.46	341.27	1,674.60	1.50	-1.50	0.00
5,999.99	15.41	168.24	5,738.25	-1,666.70	346.94	1,702.43	1.50	-1.50	0.00
6,099.99	13.91	168.24	5,834.99	-1,691.47	352.10	1,727.73	1.50	-1.50	0.00
6,199.99	12.41	168.24	5,932.36	-1,713.76	356.73	1,750.49	1.50	-1.50	0.00
6,299.99	10.91	168.24	6,030.30	-1,733.53	360.85	1,770.69	1.50	-1.50	0.00
6,399.99	9.41	168.24	6,128.73	-1,750.80	364.45	1,788.33	1.50	-1.50	0.00
6,499.99	7.91	168.24	6,227.59	-1,765.53	367.51	1,803.38	1.50	-1.50	0.00
6,599.99	6.41	168.24	6,326.81	-1,777.73	370.05	1,815.83	1.50	-1.50	0.00
6,699.99	4.91	168.24	6,426.32	-1,787.38	372.06	1,825.69	1.50	-1.50	0.00
6,799.99	3.41	168.24	6,526.05	-1,794.47	373.54	1,832.94	1.50	-1.50	0.00
6,899.99	1.91	168.24	6,625.94	-1,799.01	374.48	1,837.57	1.50	-1.50	0.00
6,999.99	0.41	168.24	6,725.92	-1,800.98	374.89	1,839.59	1.50	-1.50	0.00
7,027.07	0.00	0.00	6,753.00	-1,801.08	374.91	1,839.69	1.50	-1.50	-621.16
Start 2650.00 hold at 7027.07 MD - KMGAS									
7,099.99	0.00	0.00	6,825.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
7,199.99	0.00	0.00	6,925.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
7,299.99	0.00	0.00	7,025.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
7,399.99	0.00	0.00	7,125.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
7,499.99	0.00	0.00	7,225.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
7,599.98	0.00	0.00	7,325.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
7,699.98	0.00	0.00	7,425.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
7,799.98	0.00	0.00	7,525.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
7,899.98	0.00	0.00	7,625.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
7,999.98	0.00	0.00	7,725.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
8,099.98	0.00	0.00	7,825.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
8,199.98	0.00	0.00	7,925.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
8,299.98	0.00	0.00	8,025.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
8,399.98	0.00	0.00	8,125.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
8,499.98	0.00	0.00	8,225.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00

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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)
8,567.07	0.00	0.00	8,293.00	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
CMEO									
8,599.98	0.00	0.00	8,325.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
8,699.98	0.00	0.00	8,425.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
8,799.98	0.00	0.00	8,525.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
8,899.98	0.00	0.00	8,625.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
8,999.98	0.00	0.00	8,725.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
9,099.98	0.00	0.00	8,825.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
9,199.98	0.00	0.00	8,925.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
9,299.98	0.00	0.00	9,025.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
9,399.98	0.00	0.00	9,125.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
9,499.98	0.00	0.00	9,225.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
9,527.07	0.00	0.00	9,253.00	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
RLNS									
9,599.98	0.00	0.00	9,325.91	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
9,677.07	0.00	0.00	9,403.00	-1,801.08	374.91	1,839.69	0.00	0.00	0.00
TD at 9677.07 - 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 344-9 KMV Gas	0.00	0.00	6,753.00	-1,801.08	374.91	1,628,375.0000	2,327,710.0000	39.5344550	-107.8838895
- plan hits target center									
- Circle (radius 50.00)									
RWF 344-9 PBHL	0.00	0.00	9,403.00	-1,801.08	374.91	1,628,375.0000	2,327,710.0000	39.5344550	-107.8838895
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,100.00	1,072.65	Surface Casing	13.50	13.50	

Database:	Grand Junction	Local Co-ordinate Reference:	Well RWF 344-9 - Slot RWF 344-9
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 344-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 8June2020 sbsdi		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,369.37	3,233.00	G Sand Top		0.00		
3,432.40	3,293.00	G Sand Base		0.00		
4,766.49	4,563.00	WSTC_LOWER		0.00		
5,701.40	5,453.00	OCRK		0.00		
5,701.40	5,453.00	WFRK/UMVRD		0.00		
7,027.07	6,753.00	KMVGAS		0.00		
8,567.07	8,293.00	CME0		0.00		
9,527.07	9,253.00	RLNS		0.00		
9,677.07	9,403.00	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	
729.38	719.83	-89.82	18.70	Start 5108.93 hold at 729.38 MD	
5,838.31	5,583.33	-1,621.44	337.52	Start Drop -1.50	
7,027.07	6,753.00	-1,801.08	374.91	Start 2650.00 hold at 7027.07 MD	
9,677.07	9,403.00	-1,801.08	374.91	TD at 9677.07	