



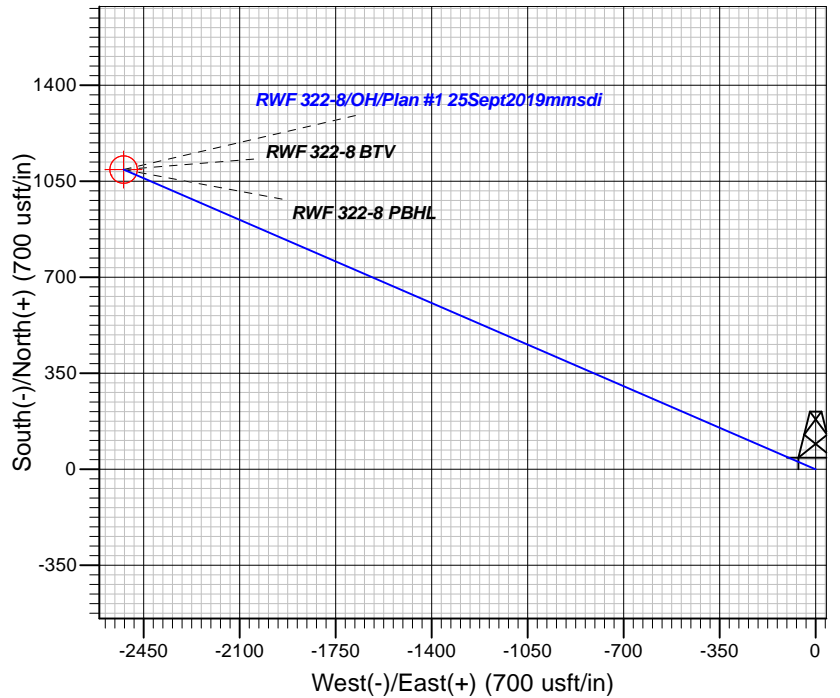
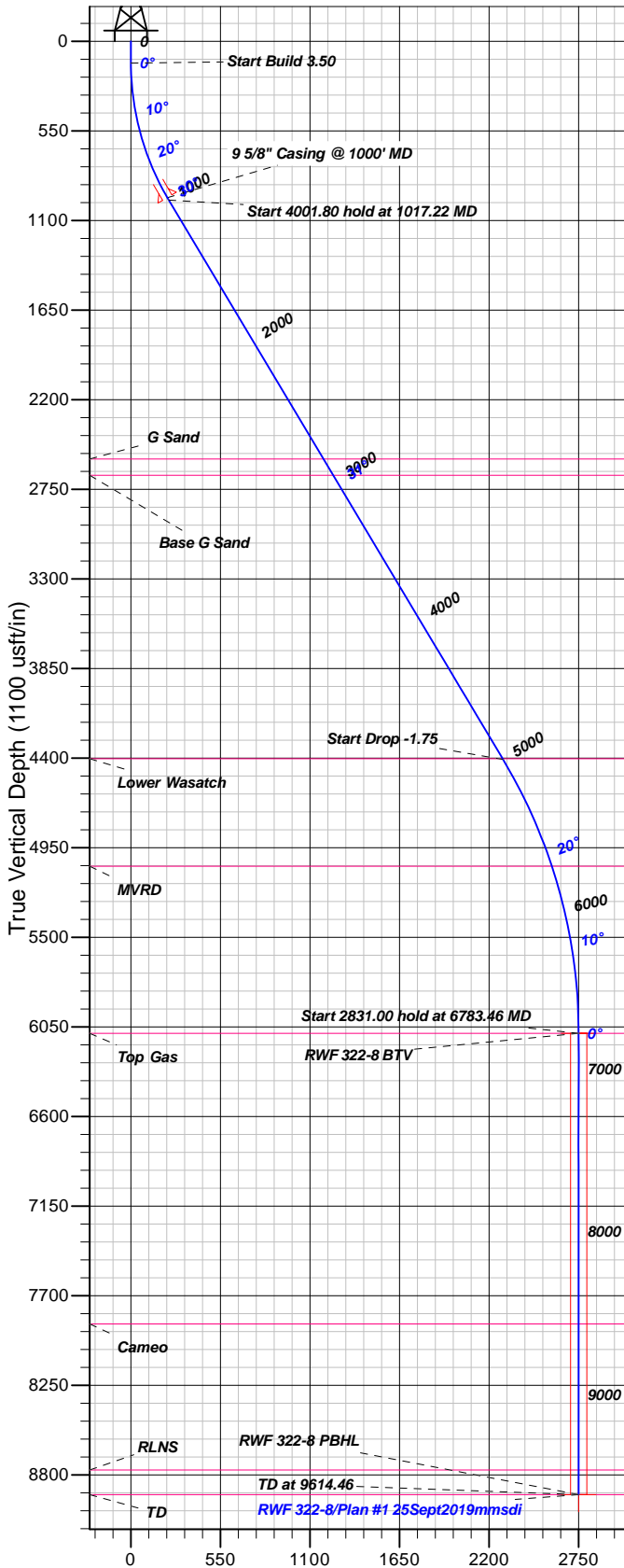
Azimuths to True North
Magnetic North: 9.30°

Magnetic Field
Strength: 51443.5snT
Dip Angle: 65.73°
Date: 9/25/2019
Model: HDGM

Well Details: RWF 322-8

GL 5979.6' & RKB 24' @ 6003.60usft

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1630248.5240	2322128.0870	39.5391930	-107.9038490	RWF 322-8 (A9)



FORMATION TOP DETAILS

TVDP	MD	Formation
2565.00	2869.64	G Sand
2665.00	2986.15	Base G Sand
4405.00	5013.50	Lower Wasatch
5065.00	5740.93	MVRD
6090.00	6783.46	Top Gas
7874.00	8567.46	Cameo
8771.00	9464.46	RLNS
8921.00	9614.46	TD

Plan: Plan #1 25Sept2019mmsdi

12:29, October 09 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
960.31	1000.00	5/8" Casing @ 1000' MD	9.62

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	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	1017.22	30.88	293.42	975.13	92.22	-212.91	3.50	293.42	232.02	
4	5019.02	30.88	293.42	4409.74	908.52	-2097.46	0.00	0.002285.77		
5	6783.46	0.00	0.00	6090.00	1092.97	-2523.28	1.75	180.002749.82		RWF 322-8 BTV
6	9614.46	0.00	0.00	8921.00	1092.97	-2523.28	0.00	0.002749.82		RWF 322-8 PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
RWF 322-8 BTV	6090.00	1092.97	-2523.28	1631407.8700	23219634.6100	39.5421933	-107.9127963	Circle (Radius: 50.00)
- plan hits target center								
RWF 322-8 PBHL	8921.00	1092.97	-2523.28	1631407.8700	23219634.6100	39.5421933	-107.9127963	Point
- plan hits target center								



TEP Rocky Mountain LLC

Garfield County, CO NAD83

RWF 12-9 Pad

RWF 322-8 - Slot RWF 322-8 (A9)

OH

Plan: Plan #1 25Sept2019mmsdi

Standard Planning Report

09 October, 2019



Database:	Grand Junction District	Local Co-ordinate Reference:	Well RWF 322-8 - Slot RWF 322-8 (A9)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5979.6' & RKB 24' @ 6003.60usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5979.6' & RKB 24' @ 6003.60usft
Site:	RWF 12-9 Pad	North Reference:	True
Well:	RWF 322-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 25Sept2019mmsdi		

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 12-9 Pad, Sec 9 T6S R94W			
Site Position:		Northing:	1,630,302.1330 usft	Latitude:	39.5393436
From:	Map	Easting:	2,322,174.9450 usft	Longitude:	-107.9036880
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-1.52 °

Well	RWF 322-8 - Slot RWF 322-8 (A9)					
Well Position	+N/-S	-54.83 usft	Northing:	1,630,248.5240 usft	Latitude:	39.5391930
	+E/-W	-45.42 usft	Easting:	2,322,128.0870 usft	Longitude:	-107.9038490
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	5,979.60 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	9/25/2019	9.30	65.73	51,444

Design	Plan #1 25Sept2019mmsdi			
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	293.42

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	
1,017.22	30.88	293.42	975.13	92.22	-212.91	3.50	3.50	0.00	293.42	
5,019.02	30.88	293.42	4,409.74	908.52	-2,097.46	0.00	0.00	0.00	0.00	
6,783.46	0.00	0.00	6,090.00	1,092.97	-2,523.28	1.75	-1.75	0.00	180.00	RWF 322-8 BTV
9,614.46	0.00	0.00	8,921.00	1,092.97	-2,523.28	0.00	0.00	0.00	0.00	RWF 322-8 PBHL

Database:	Grand Junction District	Local Co-ordinate Reference:	Well RWF 322-8 - Slot RWF 322-8 (A9)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5979.6' & RKB 24' @ 6003.60usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5979.6' & RKB 24' @ 6003.60usft
Site:	RWF 12-9 Pad	North Reference:	True
Well:	RWF 322-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 25Sept2019mmsdi		

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 3.50									
200.00	2.28	293.42	199.98	0.51	-1.18	1.29	3.50	3.50	0.00
300.00	5.78	293.42	299.72	3.30	-7.62	8.31	3.50	3.50	0.00
400.00	9.28	293.42	398.84	8.51	-19.64	21.40	3.50	3.50	0.00
500.00	12.78	293.42	496.98	16.11	-37.18	40.52	3.50	3.50	0.00
600.00	16.28	293.42	593.77	26.07	-60.19	65.60	3.50	3.50	0.00
700.00	19.78	293.42	688.85	38.37	-88.58	96.54	3.50	3.50	0.00
800.00	23.28	293.42	781.86	52.95	-122.25	133.22	3.50	3.50	0.00
900.00	26.78	293.42	872.46	69.76	-161.06	175.52	3.50	3.50	0.00
1,000.00	30.28	293.42	960.31	88.74	-204.87	223.26	3.50	3.50	0.00
9 5/8" Casing @ 1000' MD									
1,017.22	30.88	293.42	975.13	92.22	-212.91	232.02	3.50	3.50	0.00
Start 4001.80 hold at 1017.22 MD									
1,100.00	30.88	293.42	1,046.18	109.11	-251.89	274.51	0.00	0.00	0.00
1,200.00	30.88	293.42	1,132.01	129.51	-298.98	325.83	0.00	0.00	0.00
1,300.00	30.88	293.42	1,217.83	149.90	-346.08	377.15	0.00	0.00	0.00
1,400.00	30.88	293.42	1,303.66	170.30	-393.17	428.47	0.00	0.00	0.00
1,500.00	30.88	293.42	1,389.49	190.70	-440.26	479.79	0.00	0.00	0.00
1,600.00	30.88	293.42	1,475.31	211.10	-487.35	531.11	0.00	0.00	0.00
1,700.00	30.88	293.42	1,561.14	231.50	-534.45	582.43	0.00	0.00	0.00
1,800.00	30.88	293.42	1,646.96	251.90	-581.54	633.75	0.00	0.00	0.00
1,900.00	30.88	293.42	1,732.79	272.30	-628.63	685.07	0.00	0.00	0.00
2,000.00	30.88	293.42	1,818.62	292.69	-675.73	736.39	0.00	0.00	0.00
2,100.00	30.88	293.42	1,904.44	313.09	-722.82	787.71	0.00	0.00	0.00
2,200.00	30.88	293.42	1,990.27	333.49	-769.91	839.03	0.00	0.00	0.00
2,300.00	30.88	293.42	2,076.10	353.89	-817.00	890.35	0.00	0.00	0.00
2,400.00	30.88	293.42	2,161.92	374.29	-864.10	941.68	0.00	0.00	0.00
2,500.00	30.88	293.42	2,247.75	394.69	-911.19	993.00	0.00	0.00	0.00
2,600.00	30.88	293.42	2,333.58	415.08	-958.28	1,044.32	0.00	0.00	0.00
2,700.00	30.88	293.42	2,419.40	435.48	-1,005.37	1,095.64	0.00	0.00	0.00
2,800.00	30.88	293.42	2,505.23	455.88	-1,052.47	1,146.96	0.00	0.00	0.00
2,869.64	30.88	293.42	2,565.00	470.09	-1,085.26	1,182.70	0.00	0.00	0.00
G Sand									
2,900.00	30.88	293.42	2,591.06	476.28	-1,099.56	1,198.28	0.00	0.00	0.00
2,986.15	30.88	293.42	2,665.00	493.85	-1,140.13	1,242.49	0.00	0.00	0.00
Base G Sand									
3,000.00	30.88	293.42	2,676.88	496.68	-1,146.65	1,249.60	0.00	0.00	0.00
3,100.00	30.88	293.42	2,762.71	517.08	-1,193.74	1,300.92	0.00	0.00	0.00
3,200.00	30.88	293.42	2,848.54	537.47	-1,240.84	1,352.24	0.00	0.00	0.00
3,300.00	30.88	293.42	2,934.36	557.87	-1,287.93	1,403.56	0.00	0.00	0.00
3,400.00	30.88	293.42	3,020.19	578.27	-1,335.02	1,454.88	0.00	0.00	0.00
3,500.00	30.88	293.42	3,106.02	598.67	-1,382.11	1,506.20	0.00	0.00	0.00
3,600.00	30.88	293.42	3,191.84	619.07	-1,429.21	1,557.52	0.00	0.00	0.00
3,700.00	30.88	293.42	3,277.67	639.47	-1,476.30	1,608.84	0.00	0.00	0.00
3,800.00	30.88	293.42	3,363.50	659.86	-1,523.39	1,660.16	0.00	0.00	0.00
3,900.00	30.88	293.42	3,449.32	680.26	-1,570.49	1,711.48	0.00	0.00	0.00
4,000.00	30.88	293.42	3,535.15	700.66	-1,617.58	1,762.81	0.00	0.00	0.00
4,100.00	30.88	293.42	3,620.97	721.06	-1,664.67	1,814.13	0.00	0.00	0.00
4,200.00	30.88	293.42	3,706.80	741.46	-1,711.76	1,865.45	0.00	0.00	0.00
4,300.00	30.88	293.42	3,792.63	761.86	-1,758.86	1,916.77	0.00	0.00	0.00
4,400.00	30.88	293.42	3,878.45	782.25	-1,805.95	1,968.09	0.00	0.00	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well RWF 322-8 - Slot RWF 322-8 (A9)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5979.6' & RKB 24' @ 6003.60usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5979.6' & RKB 24' @ 6003.60usft
Site:	RWF 12-9 Pad	North Reference:	True
Well:	RWF 322-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 25Sept2019mmsdi		

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	30.88	293.42	3,964.28	802.65	-1,853.04	2,019.41	0.00	0.00	0.00
4,600.00	30.88	293.42	4,050.11	823.05	-1,900.13	2,070.73	0.00	0.00	0.00
4,700.00	30.88	293.42	4,135.93	843.45	-1,947.23	2,122.05	0.00	0.00	0.00
4,800.00	30.88	293.42	4,221.76	863.85	-1,994.32	2,173.37	0.00	0.00	0.00
4,900.00	30.88	293.42	4,307.59	884.25	-2,041.41	2,224.69	0.00	0.00	0.00
5,000.00	30.88	293.42	4,393.41	904.64	-2,088.50	2,276.01	0.00	0.00	0.00
5,013.50	30.88	293.42	4,405.00	907.40	-2,094.86	2,282.94	0.00	0.00	0.00
Lower Wasatch									
5,019.02	30.88	293.42	4,409.74	908.52	-2,097.46	2,285.77	0.00	0.00	0.00
Start Drop -1.75									
5,100.00	29.46	293.42	4,479.75	924.70	-2,134.80	2,326.47	1.75	-1.75	0.00
5,200.00	27.71	293.42	4,567.55	943.72	-2,178.71	2,374.31	1.75	-1.75	0.00
5,300.00	25.96	293.42	4,656.78	961.66	-2,220.13	2,419.46	1.75	-1.75	0.00
5,400.00	24.21	293.42	4,747.34	978.51	-2,259.03	2,461.85	1.75	-1.75	0.00
5,500.00	22.46	293.42	4,839.16	994.25	-2,295.38	2,501.46	1.75	-1.75	0.00
5,600.00	20.71	293.42	4,932.14	1,008.88	-2,329.14	2,538.25	1.75	-1.75	0.00
5,700.00	18.96	293.42	5,026.21	1,022.36	-2,360.27	2,572.18	1.75	-1.75	0.00
5,740.93	18.24	293.42	5,065.00	1,027.55	-2,372.25	2,585.24	1.75	-1.75	0.00
MVRD									
5,800.00	17.21	293.42	5,121.26	1,034.70	-2,388.76	2,603.22	1.75	-1.75	0.00
5,900.00	15.46	293.42	5,217.22	1,045.88	-2,414.56	2,631.35	1.75	-1.75	0.00
6,000.00	13.71	293.42	5,314.00	1,055.89	-2,437.67	2,656.53	1.75	-1.75	0.00
6,100.00	11.96	293.42	5,411.49	1,064.72	-2,458.06	2,678.74	1.75	-1.75	0.00
6,200.00	10.21	293.42	5,509.62	1,072.36	-2,475.70	2,697.97	1.75	-1.75	0.00
6,300.00	8.46	293.42	5,608.30	1,078.81	-2,490.58	2,714.19	1.75	-1.75	0.00
6,400.00	6.71	293.42	5,707.42	1,084.05	-2,502.70	2,727.39	1.75	-1.75	0.00
6,500.00	4.96	293.42	5,806.90	1,088.09	-2,512.02	2,737.56	1.75	-1.75	0.00
6,600.00	3.21	293.42	5,906.64	1,090.93	-2,518.56	2,744.68	1.75	-1.75	0.00
6,700.00	1.46	293.42	6,006.55	1,092.55	-2,522.30	2,748.76	1.75	-1.75	0.00
6,783.46	0.00	0.00	6,090.00	1,092.97	-2,523.28	2,749.82	1.75	-1.75	0.00
Start 2831.00 hold at 6783.46 MD - Top Gas - RWF 322-8 BTV									
6,800.00	0.00	0.00	6,106.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
6,900.00	0.00	0.00	6,206.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
7,000.00	0.00	0.00	6,306.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
7,100.00	0.00	0.00	6,406.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
7,200.00	0.00	0.00	6,506.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
7,300.00	0.00	0.00	6,606.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
7,400.00	0.00	0.00	6,706.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
7,500.00	0.00	0.00	6,806.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
7,600.00	0.00	0.00	6,906.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
7,700.00	0.00	0.00	7,006.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
7,800.00	0.00	0.00	7,106.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
7,900.00	0.00	0.00	7,206.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
8,000.00	0.00	0.00	7,306.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
8,100.00	0.00	0.00	7,406.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
8,200.00	0.00	0.00	7,506.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
8,300.00	0.00	0.00	7,606.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
8,400.00	0.00	0.00	7,706.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
8,500.00	0.00	0.00	7,806.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
8,567.46	0.00	0.00	7,874.00	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
Cameo									
8,600.00	0.00	0.00	7,906.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
8,700.00	0.00	0.00	8,006.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well RWF 322-8 - Slot RWF 322-8 (A9)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5979.6' & RKB 24' @ 6003.60usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5979.6' & RKB 24' @ 6003.60usft
Site:	RWF 12-9 Pad	North Reference:	True
Well:	RWF 322-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 25Sept2019mmsdi		

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)
8,800.00	0.00	0.00	8,106.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
8,900.00	0.00	0.00	8,206.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
9,000.00	0.00	0.00	8,306.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
9,100.00	0.00	0.00	8,406.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
9,200.00	0.00	0.00	8,506.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
9,300.00	0.00	0.00	8,606.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
9,400.00	0.00	0.00	8,706.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
9,464.46	0.00	0.00	8,771.00	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
RLNS									
9,500.00	0.00	0.00	8,806.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
9,600.00	0.00	0.00	8,906.54	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
9,614.46	0.00	0.00	8,921.00	1,092.97	-2,523.28	2,749.82	0.00	0.00	0.00
TD at 9614.46 - TD - RWF 322-8 PBHL									

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 322-8 BTV	0.00	0.00	6,090.00	1,092.97	-2,523.28	1,631,407.8700	2,319,634.6100	39.5421933	-107.9127963
- plan hits target center									
- Circle (radius 50.00)									
RWF 322-8 PBHL	0.00	0.00	8,921.00	1,092.97	-2,523.28	1,631,407.8700	2,319,634.6100	39.5421933	-107.9127963
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,000.00	960.31	9 5/8" Casing @ 1000' MD	9.62	13.50	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,869.64	2,565.00	G Sand		0.00	0.00
2,986.15	2,665.00	Base G Sand		0.00	0.00
5,013.50	4,405.00	Lower Wasatch		0.00	0.00
5,740.93	5,065.00	MVRD		0.00	0.00
6,783.46	6,090.00	Top Gas		0.00	0.00
8,567.46	7,874.00	Cameo		0.00	0.00
9,464.46	8,771.00	RLNS		0.00	0.00
9,614.46	8,921.00	TD		0.00	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well RWF 322-8 - Slot RWF 322-8 (A9)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5979.6' & RKB 24' @ 6003.60usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5979.6' & RKB 24' @ 6003.60usft
Site:	RWF 12-9 Pad	North Reference:	True
Well:	RWF 322-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 25Sept2019mmsdi		

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 3.50
1,017.22	975.13	92.22	-212.91	Start 4001.80 hold at 1017.22 MD
5,019.02	4,409.74	908.52	-2,097.46	Start Drop -1.75
6,783.46	6,090.00	1,092.97	-2,523.28	Start 2831.00 hold at 6783.46 MD
9,614.46	8,921.00	1,092.97	-2,523.28	TD at 9614.46