



Company: TEP Rocky Mountain LLC
Project: Garfield County, CO NAD83
Site: RWF 43-9 Pad
Well: RWF 432-9

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 432-9

+N/-S +E/-W Northing Easting Latitude Longitude
0.00 0.00 1630177.3000 2327338.3000 39.5393745 -107.8853746 RWF 432-9

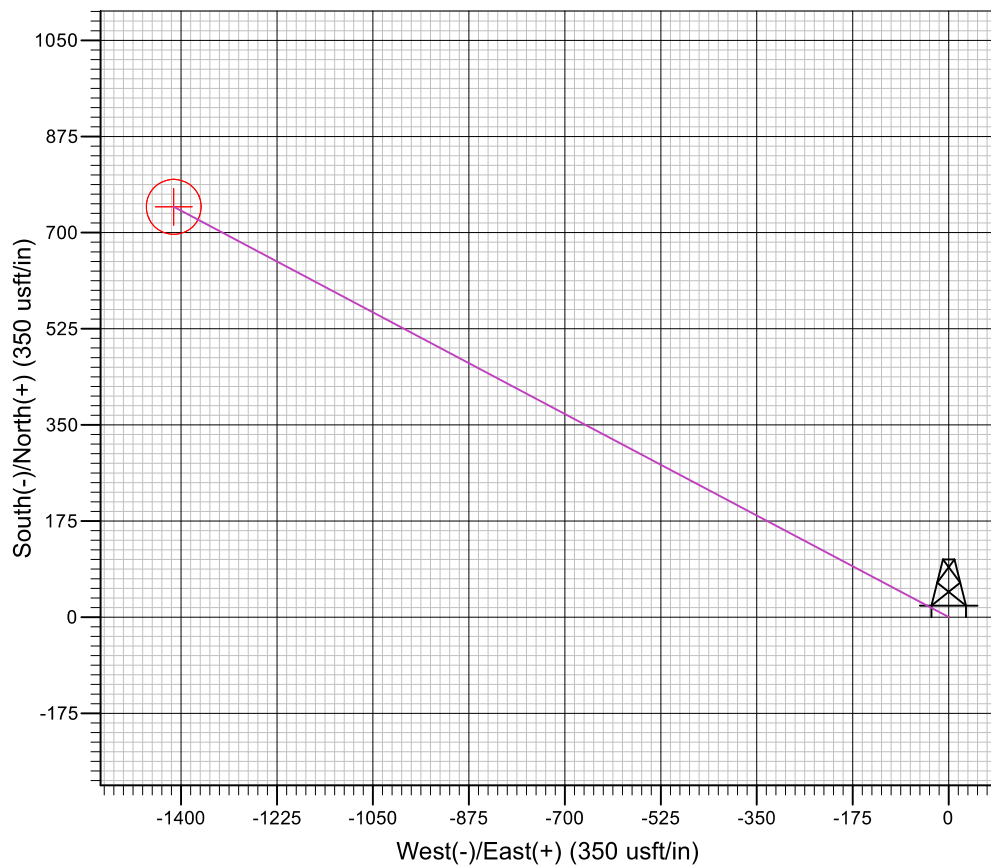
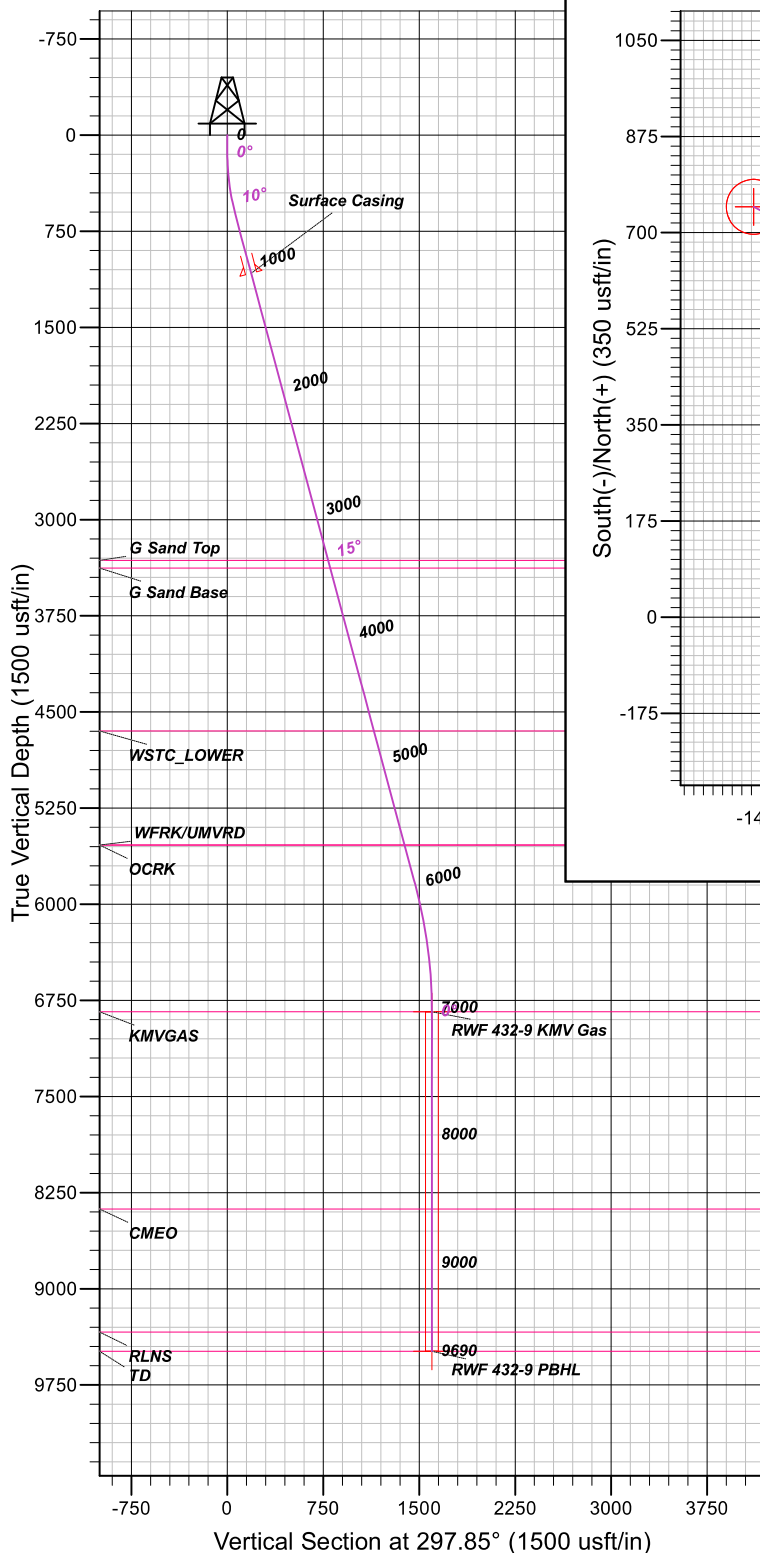


Azimuths to True North
Magnetic North: 9.22°

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 432-9 KMW Gas	6838.00	746.85	-1413.40	1630961.0000	2325945.0000	39.5414248	-107.8903863	Circle (Radius: 50.00)	Point
RWF 432-9 PBHL	9488.00	746.85	-1413.40	1630961.0000	2325945.0000	39.5414248	-107.8903863		
- plan hits target center									



FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
3318.00	3419.16	G Sand Top
3378.00	3481.29	G Sand Base
4648.00	4796.38	WSTC_LOWER
5538.00	5717.98	OCRK
5538.00	5717.98	WFRK/UMVRD
6838.00	7040.42	KMWGAS
8378.00	8580.42	CMEO
9338.00	9540.42	RLNS
9488.00	9690.42	TD

CASING DETAILS

TVD	MD	NAME
1078.36	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
636.58	15.05	297.85	630.84	30.60	-57.90	3.00	297.85	65.49
6037.26	15.05	297.85	5846.33	685.66	-1297.59	0.00	0.00	1467.61
7040.42	0.00	0.00	6838.00	746.85	-1413.40	1.50	180.00	1598.58
9690.42	0.00	0.00	9488.00	746.85	-1413.40	0.00	0.00	1598.58



TEP Rocky Mountain LLC

Garfield County, CO NAD83

RWF 43-9 Pad

RWF 432-9 - Slot RWF 432-9

OH

Plan: Plan #1 8June2020 sbsdi

Standard Planning Report

10 June, 2020



Database:	Grand Junction	Local Co-ordinate Reference:	Well RWF 432-9 - Slot RWF 432-9
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 432-9	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 432-9 - Slot RWF 432-9, 2527' FSL 543' FEL Sec 9 T6S R94W		
Well Position	+N/-S	1.59 usft	Northing: 1,630,177.3000 usft
	+E/-W	7.36 usft	Easting: 2,327,338.3000 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	Latitude: 39.5393746
			Longitude: -107.8853746
			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	297.85

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	
636.58	15.05	297.85	630.84	30.60	-57.90	3.00	3.00	0.00	297.85	
6,037.26	15.05	297.85	5,846.33	685.66	-1,297.59	0.00	0.00	0.00	0.00	
7,040.42	0.00	0.00	6,838.00	746.85	-1,413.40	1.50	-1.50	0.00	180.00	RWF 432-9 KVM Gas
9,690.42	0.00	0.00	9,488.00	746.85	-1,413.40	0.00	0.00	0.00	0.00	RWF 432-9 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 432-9	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	297.85	199.99	0.52	-0.98	1.11	3.00	3.00	0.00	
300.00	4.95	297.85	299.79	3.33	-6.30	7.12	3.00	3.00	0.00	
400.00	7.95	297.85	399.15	8.58	-16.23	18.36	3.00	3.00	0.00	
500.00	10.95	297.85	497.78	16.25	-30.74	34.77	3.00	3.00	0.00	
600.00	13.95	297.85	595.42	26.32	-49.80	56.33	3.00	3.00	0.00	
636.58	15.05	297.85	630.84	30.60	-57.90	65.49	3.00	3.00	0.00	
Start 5400.67 hold at 636.58 MD										
700.00	15.05	297.85	692.08	38.29	-72.46	81.95	0.00	0.00	0.00	
800.00	15.05	297.85	788.65	50.42	-95.41	107.91	0.00	0.00	0.00	
900.00	15.05	297.85	885.22	62.55	-118.37	133.88	0.00	0.00	0.00	
1,000.00	15.05	297.85	981.79	74.67	-141.32	159.84	0.00	0.00	0.00	
1,100.00	15.05	297.85	1,078.36	86.80	-164.28	185.80	0.00	0.00	0.00	
Surface Casing										
1,200.00	15.05	297.85	1,174.93	98.93	-187.23	211.76	0.00	0.00	0.00	
1,300.00	15.05	297.85	1,271.50	111.06	-210.18	237.72	0.00	0.00	0.00	
1,400.00	15.05	297.85	1,368.07	123.19	-233.14	263.68	0.00	0.00	0.00	
1,500.00	15.05	297.85	1,464.65	135.32	-256.09	289.65	0.00	0.00	0.00	
1,600.00	15.05	297.85	1,561.22	147.45	-279.05	315.61	0.00	0.00	0.00	
1,700.00	15.05	297.85	1,657.79	159.58	-302.00	341.57	0.00	0.00	0.00	
1,800.00	15.05	297.85	1,754.36	171.71	-324.96	367.53	0.00	0.00	0.00	
1,900.00	15.05	297.85	1,850.93	183.84	-347.91	393.49	0.00	0.00	0.00	
2,000.00	15.05	297.85	1,947.50	195.97	-370.86	419.46	0.00	0.00	0.00	
2,100.00	15.05	297.85	2,044.07	208.10	-393.82	445.42	0.00	0.00	0.00	
2,200.00	15.05	297.85	2,140.64	220.23	-416.77	471.38	0.00	0.00	0.00	
2,300.00	15.05	297.85	2,237.21	232.36	-439.73	497.34	0.00	0.00	0.00	
2,400.00	15.05	297.85	2,333.78	244.48	-462.68	523.30	0.00	0.00	0.00	
2,500.00	15.05	297.85	2,430.35	256.61	-485.64	549.27	0.00	0.00	0.00	
2,599.99	15.05	297.85	2,526.93	268.74	-508.59	575.23	0.00	0.00	0.00	
2,699.99	15.05	297.85	2,623.50	280.87	-531.54	601.19	0.00	0.00	0.00	
2,799.99	15.05	297.85	2,720.07	293.00	-554.50	627.15	0.00	0.00	0.00	
2,899.99	15.05	297.85	2,816.64	305.13	-577.45	653.11	0.00	0.00	0.00	
2,999.99	15.05	297.85	2,913.21	317.26	-600.41	679.08	0.00	0.00	0.00	
3,099.99	15.05	297.85	3,009.78	329.39	-623.36	705.04	0.00	0.00	0.00	
3,199.99	15.05	297.85	3,106.35	341.52	-646.32	731.00	0.00	0.00	0.00	
3,299.99	15.05	297.85	3,202.92	353.65	-669.27	756.96	0.00	0.00	0.00	
3,399.99	15.05	297.85	3,299.49	365.78	-692.23	782.92	0.00	0.00	0.00	
3,419.16	15.05	297.85	3,318.00	368.10	-696.62	787.90	0.00	0.00	0.00	
G Sand Top										
3,481.29	15.05	297.85	3,378.00	375.64	-710.89	804.03	0.00	0.00	0.00	
G Sand Base										
3,499.99	15.05	297.85	3,396.06	377.91	-715.18	808.89	0.00	0.00	0.00	
3,599.99	15.05	297.85	3,492.63	390.04	-738.13	834.85	0.00	0.00	0.00	
3,699.99	15.05	297.85	3,589.20	402.17	-761.09	860.81	0.00	0.00	0.00	
3,799.99	15.05	297.85	3,685.78	414.29	-784.04	886.77	0.00	0.00	0.00	
3,899.99	15.05	297.85	3,782.35	426.42	-807.00	912.73	0.00	0.00	0.00	
3,999.99	15.05	297.85	3,878.92	438.55	-829.95	938.70	0.00	0.00	0.00	
4,099.99	15.05	297.85	3,975.49	450.68	-852.91	964.66	0.00	0.00	0.00	

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Site:	RWF 43-9 Pad	North Reference:	True
Well:	RWF 432-9	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	15.05	297.85	4,072.06	462.81	-875.86	990.62	0.00	0.00	0.00
4,299.99	15.05	297.85	4,168.63	474.94	-898.81	1,016.58	0.00	0.00	0.00
4,399.99	15.05	297.85	4,265.20	487.07	-921.77	1,042.54	0.00	0.00	0.00
4,499.99	15.05	297.85	4,361.77	499.20	-944.72	1,068.50	0.00	0.00	0.00
4,599.99	15.05	297.85	4,458.34	511.33	-967.68	1,094.47	0.00	0.00	0.00
4,699.99	15.05	297.85	4,554.91	523.46	-990.63	1,120.43	0.00	0.00	0.00
4,796.38	15.05	297.85	4,648.00	535.15	-1,012.76	1,145.45	0.00	0.00	0.00
WSTC_LOWER									
4,799.99	15.05	297.85	4,651.48	535.59	-1,013.59	1,146.39	0.00	0.00	0.00
4,899.99	15.05	297.85	4,748.06	547.72	-1,036.54	1,172.35	0.00	0.00	0.00
4,999.99	15.05	297.85	4,844.63	559.85	-1,059.50	1,198.31	0.00	0.00	0.00
5,099.99	15.05	297.85	4,941.20	571.98	-1,082.45	1,224.28	0.00	0.00	0.00
5,199.99	15.05	297.85	5,037.77	584.10	-1,105.40	1,250.24	0.00	0.00	0.00
5,299.99	15.05	297.85	5,134.34	596.23	-1,128.36	1,276.20	0.00	0.00	0.00
5,399.99	15.05	297.85	5,230.91	608.36	-1,151.31	1,302.16	0.00	0.00	0.00
5,499.99	15.05	297.85	5,327.48	620.49	-1,174.27	1,328.12	0.00	0.00	0.00
5,599.99	15.05	297.85	5,424.05	632.62	-1,197.22	1,354.09	0.00	0.00	0.00
5,699.99	15.05	297.85	5,520.62	644.75	-1,220.18	1,380.05	0.00	0.00	0.00
5,717.98	15.05	297.85	5,538.00	646.93	-1,224.31	1,384.72	0.00	0.00	0.00
OCRK - WFRK/UMVRD									
5,799.99	15.05	297.85	5,617.19	656.88	-1,243.13	1,406.01	0.00	0.00	0.00
5,899.99	15.05	297.85	5,713.76	669.01	-1,266.08	1,431.97	0.00	0.00	0.00
5,999.99	15.05	297.85	5,810.34	681.14	-1,289.04	1,457.93	0.00	0.00	0.00
6,037.26	15.05	297.85	5,846.33	685.66	-1,297.59	1,467.61	0.00	0.00	0.00
Start Drop -1.50									
6,099.99	14.11	297.85	5,907.04	693.04	-1,311.55	1,483.40	1.50	-1.50	0.00
6,199.99	12.61	297.85	6,004.33	703.83	-1,331.98	1,506.50	1.50	-1.50	0.00
6,299.99	11.11	297.85	6,102.19	713.43	-1,350.14	1,527.04	1.50	-1.50	0.00
6,399.99	9.61	297.85	6,200.56	721.83	-1,366.04	1,545.02	1.50	-1.50	0.00
6,499.99	8.11	297.85	6,299.37	729.02	-1,379.65	1,560.42	1.50	-1.50	0.00
6,599.99	6.61	297.85	6,398.54	735.00	-1,390.97	1,573.22	1.50	-1.50	0.00
6,699.99	5.11	297.85	6,498.01	739.77	-1,399.99	1,583.42	1.50	-1.50	0.00
6,799.99	3.61	297.85	6,597.72	743.32	-1,406.71	1,591.02	1.50	-1.50	0.00
6,899.99	2.11	297.85	6,697.60	745.64	-1,411.11	1,596.00	1.50	-1.50	0.00
6,999.99	0.61	297.85	6,797.56	746.75	-1,413.21	1,598.37	1.50	-1.50	0.00
7,040.42	0.00	0.00	6,838.00	746.85	-1,413.40	1,598.58	1.50	-1.50	153.69
Start 2650.00 hold at 7040.42 MD - KMGAS									
7,099.99	0.00	0.00	6,897.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
7,199.99	0.00	0.00	6,997.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
7,299.99	0.00	0.00	7,097.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
7,399.99	0.00	0.00	7,197.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
7,499.99	0.00	0.00	7,297.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
7,599.98	0.00	0.00	7,397.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
7,699.98	0.00	0.00	7,497.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
7,799.98	0.00	0.00	7,597.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
7,899.98	0.00	0.00	7,697.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
7,999.98	0.00	0.00	7,797.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
8,099.98	0.00	0.00	7,897.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
8,199.98	0.00	0.00	7,997.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
8,299.98	0.00	0.00	8,097.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
8,399.98	0.00	0.00	8,197.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
8,499.98	0.00	0.00	8,297.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00

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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)
8,580.42	0.00	0.00	8,378.00	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
CME0									
8,599.98	0.00	0.00	8,397.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
8,699.98	0.00	0.00	8,497.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
8,799.98	0.00	0.00	8,597.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
8,899.98	0.00	0.00	8,697.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
8,999.98	0.00	0.00	8,797.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
9,099.98	0.00	0.00	8,897.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
9,199.98	0.00	0.00	8,997.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
9,299.98	0.00	0.00	9,097.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
9,399.98	0.00	0.00	9,197.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
9,499.98	0.00	0.00	9,297.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
9,540.42	0.00	0.00	9,338.00	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
RLNS									
9,599.98	0.00	0.00	9,397.56	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
9,690.42	0.00	0.00	9,488.00	746.85	-1,413.40	1,598.58	0.00	0.00	0.00
TD at 9690.42 - 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 432-9 KMV Gas	0.00	0.00	6,838.00	746.85	-1,413.40	1,630,961.0000	2,325,945.0000	39.5414249	-107.8903863
- plan hits target center									
- Circle (radius 50.00)									
RWF 432-9 PBHL	0.00	0.00	9,488.00	746.85	-1,413.40	1,630,961.0000	2,325,945.0000	39.5414249	-107.8903863
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,100.00	1,078.36	Surface Casing	13.50	13.50	

Database:	Grand Junction	Local Co-ordinate Reference:	Well RWF 432-9 - Slot RWF 432-9
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 432-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 8June2020 sbsdi		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,419.16	3,318.00	G Sand Top		0.00		
3,481.29	3,378.00	G Sand Base		0.00		
4,796.38	4,648.00	WSTC_LOWER		0.00		
5,717.98	5,538.00	OCRK		0.00		
5,717.98	5,538.00	WFRK/UMVRD		0.00		
7,040.42	6,838.00	KMVGAS		0.00		
8,580.42	8,378.00	CME0		0.00		
9,540.42	9,338.00	RLNS		0.00		
9,690.42	9,488.00	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	
636.58	630.84	30.60	-57.90	Start 5400.67 hold at 636.58 MD	
6,037.26	5,846.33	685.66	-1,297.59	Start Drop -1.50	
7,040.42	6,838.00	746.85	-1,413.40	Start 2650.00 hold at 7040.42 MD	
9,690.42	9,488.00	746.85	-1,413.40	TD at 9690.42	