

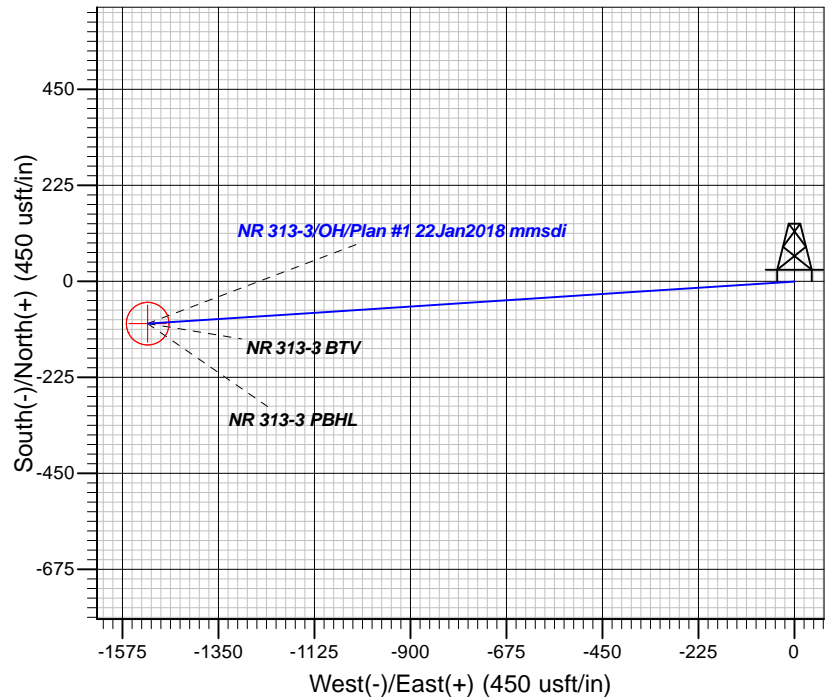
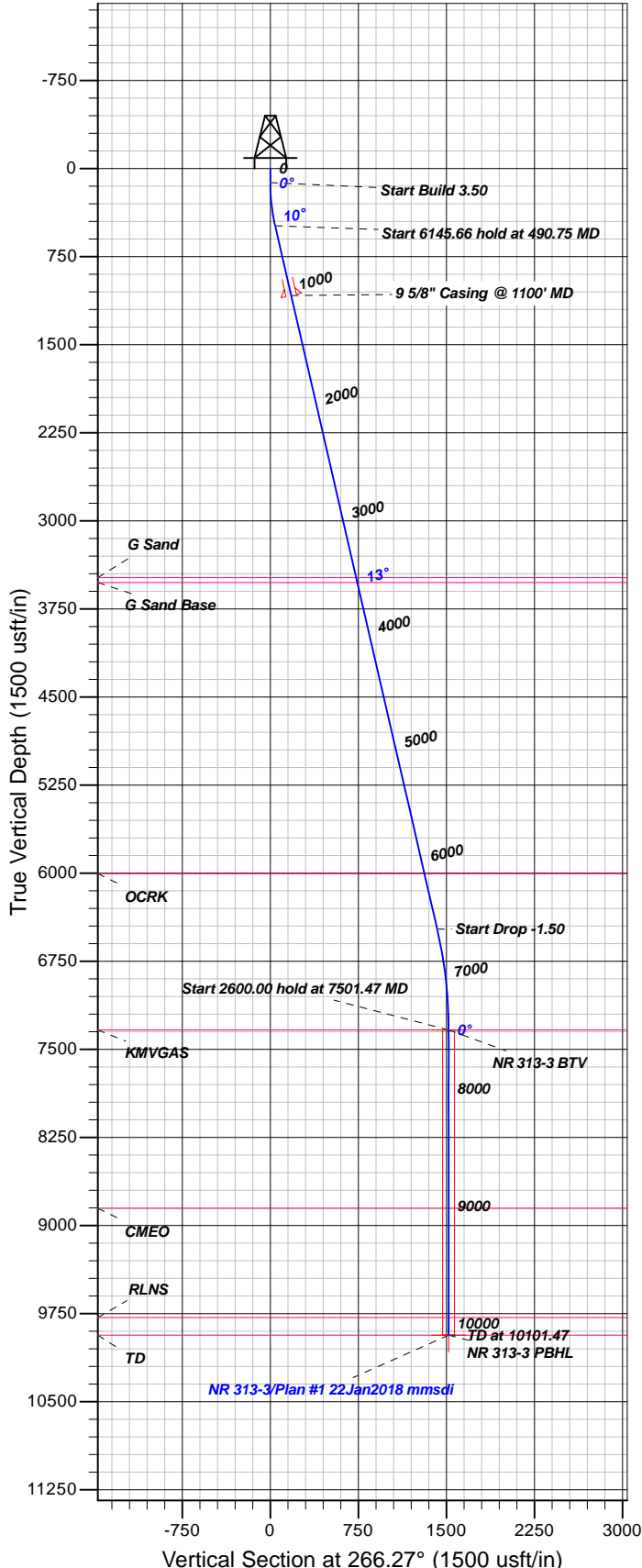


Azimuths to True North
Magnetic North: 9.50°

Magnetic Field
Strength: 51614.6snT
Dip Angle: 65.82°
Date: 1/17/2018
Model: HDGM

Well Details: NR 313-3

+N/-S	+E/-W	Northing	GL 6720' & RKB 24' @ 6744.00usft	Easting	Latitude	Longitude	Slot
0.00	0.00	1634904.55		2329757.66	39.5525224	-107.8772376	NR 313-3 (A10)



FORMATION TOP DETAILS

TVDPth	MDPath	Formation
3484.00	3565.68	G Sand
3524.00	3606.73	G Sand Base
6004.00	6151.72	OCRK
7334.00	7501.47	KMVGAS
8854.00	9021.47	CMEO
9784.00	9951.47	RLNS

Plan: Plan #1 22Jan2018 mmsdi

22:03, February 07 2018
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
1081.28	1100.00	5/8" Casing @ 1100' MD	9.62

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	
3	490.75	12.98	266.27	487.58	-2.72	-41.71	3.50	266.27	41.80	
4	6636.40	12.98	266.27	6476.30	-92.60	-1418.76	0.00	0.00	1421.78	
5	7501.47	0.00	0.00	7334.00	-98.95	-1516.09	1.50	180.00	1519.32	NR 313-3 BTV
6	10101.47	0.00	0.00	9934.00	-98.95	-1516.09	0.00	0.00	1519.32	NR 313-3 PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
NR 313-3 BTV	7334.00	-98.95	-1516.09	1634845.30	2328239.50	39.5522506	-107.8826143	Circle (Radius: 50.00)
- plan hits target center								
NR 313-3 PBHL	9934.00	-98.95	-1516.09	1634845.30	2328239.50	39.5522506	-107.8826143	Point
- plan hits target center								



TEP Rocky Mountain LLC

Garfield County, CO NAD83

NR 23-3 Pad

NR 313-3 - Slot NR 313-3 (A10)

OH

Plan: Plan #1 22Jan2018 mmsdi

Standard Planning Report

07 February, 2018



Database:	Grand Junction District	Local Co-ordinate Reference:	Well NR 313-3 - Slot NR 313-3 (A10)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Site:	NR 23-3 Pad	North Reference:	True
Well:	NR 313-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 22Jan2018 mmsdi		

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	NR 23-3 Pad			
Site Position:		Northing:	1,634,904.55 usft	Latitude: 39.5525224
From: Map		Easting:	2,329,757.66 usft	Longitude: -107.8772377
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence: -1.50 °

Well	NR 313-3 - Slot NR 313-3 (A10)			
Well Position	+N/-S	0.00 usft	Northing:	1,634,904.55 usft
	+E/-W	0.00 usft	Easting:	2,329,757.66 usft
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft
			Ground Level:	6,720.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	1/17/2018	9.50	65.82	51,615

Design	Plan #1 22Jan2018 mmsdi			
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	266.27

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	
490.75	12.98	266.27	487.58	-2.72	-41.71	3.50	3.50	0.00	266.27	
6,636.40	12.98	266.27	6,476.30	-92.60	-1,418.76	0.00	0.00	0.00	0.00	
7,501.47	0.00	0.00	7,334.00	-98.95	-1,516.09	1.50	-1.50	0.00	180.00	NR 313-3 BTV
10,101.47	0.00	0.00	9,934.00	-98.95	-1,516.09	0.00	0.00	0.00	0.00	NR 313-3 PBHL

Database:	Grand Junction District	Local Co-ordinate Reference:	Well NR 313-3 - Slot NR 313-3 (A10)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Site:	NR 23-3 Pad	North Reference:	True
Well:	NR 313-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 22Jan2018 mmsdi		

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 3.50									
200.00	2.80	266.27	199.97	-0.13	-1.95	1.95	3.50	3.50	0.00
300.00	6.30	266.27	299.64	-0.64	-9.87	9.89	3.50	3.50	0.00
400.00	9.80	266.27	398.64	-1.56	-23.84	23.89	3.50	3.50	0.00
490.75	12.98	266.27	487.58	-2.72	-41.71	41.80	3.50	3.50	0.00
Start 6145.66 hold at 490.75 MD									
500.00	12.98	266.27	496.60	-2.86	-43.79	43.88	0.00	0.00	0.00
600.00	12.98	266.27	594.05	-4.32	-66.19	66.34	0.00	0.00	0.00
700.00	12.98	266.27	691.50	-5.78	-88.60	88.79	0.00	0.00	0.00
800.00	12.98	266.27	788.94	-7.25	-111.01	111.24	0.00	0.00	0.00
900.00	12.98	266.27	886.39	-8.71	-133.42	133.70	0.00	0.00	0.00
1,000.00	12.98	266.27	983.83	-10.17	-155.82	156.15	0.00	0.00	0.00
1,100.00	12.98	266.27	1,081.28	-11.63	-178.23	178.61	0.00	0.00	0.00
9 5/8" Casing @ 1100' MD									
1,200.00	12.98	266.27	1,178.73	-13.10	-200.64	201.06	0.00	0.00	0.00
1,300.00	12.98	266.27	1,276.17	-14.56	-223.04	223.52	0.00	0.00	0.00
1,400.00	12.98	266.27	1,373.62	-16.02	-245.45	245.97	0.00	0.00	0.00
1,500.00	12.98	266.27	1,471.07	-17.48	-267.86	268.43	0.00	0.00	0.00
1,600.00	12.98	266.27	1,568.51	-18.94	-290.26	290.88	0.00	0.00	0.00
1,700.00	12.98	266.27	1,665.96	-20.41	-312.67	313.33	0.00	0.00	0.00
1,800.00	12.98	266.27	1,763.41	-21.87	-335.08	335.79	0.00	0.00	0.00
1,900.00	12.98	266.27	1,860.85	-23.33	-357.48	358.24	0.00	0.00	0.00
2,000.00	12.98	266.27	1,958.30	-24.79	-379.89	380.70	0.00	0.00	0.00
2,100.00	12.98	266.27	2,055.74	-26.26	-402.30	403.15	0.00	0.00	0.00
2,200.00	12.98	266.27	2,153.19	-27.72	-424.70	425.61	0.00	0.00	0.00
2,300.00	12.98	266.27	2,250.64	-29.18	-447.11	448.06	0.00	0.00	0.00
2,400.00	12.98	266.27	2,348.08	-30.64	-469.52	470.52	0.00	0.00	0.00
2,500.00	12.98	266.27	2,445.53	-32.11	-491.92	492.97	0.00	0.00	0.00
2,600.00	12.98	266.27	2,542.98	-33.57	-514.33	515.42	0.00	0.00	0.00
2,700.00	12.98	266.27	2,640.42	-35.03	-536.74	537.88	0.00	0.00	0.00
2,800.00	12.98	266.27	2,737.87	-36.49	-559.14	560.33	0.00	0.00	0.00
2,900.00	12.98	266.27	2,835.32	-37.96	-581.55	582.79	0.00	0.00	0.00
3,000.00	12.98	266.27	2,932.76	-39.42	-603.96	605.24	0.00	0.00	0.00
3,100.00	12.98	266.27	3,030.21	-40.88	-626.36	627.70	0.00	0.00	0.00
3,200.00	12.98	266.27	3,127.66	-42.34	-648.77	650.15	0.00	0.00	0.00
3,300.00	12.98	266.27	3,225.10	-43.81	-671.18	672.61	0.00	0.00	0.00
3,400.00	12.98	266.27	3,322.55	-45.27	-693.58	695.06	0.00	0.00	0.00
3,500.00	12.98	266.27	3,419.99	-46.73	-715.99	717.51	0.00	0.00	0.00
3,565.68	12.98	266.27	3,484.00	-47.69	-730.71	732.26	0.00	0.00	0.00
G Sand									
3,600.00	12.98	266.27	3,517.44	-48.19	-738.40	739.97	0.00	0.00	0.00
3,606.73	12.98	266.27	3,524.00	-48.29	-739.91	741.48	0.00	0.00	0.00
G Sand Base									
3,700.00	12.98	266.27	3,614.89	-49.66	-760.80	762.42	0.00	0.00	0.00
3,800.00	12.98	266.27	3,712.33	-51.12	-783.21	784.88	0.00	0.00	0.00
3,900.00	12.98	266.27	3,809.78	-52.58	-805.62	807.33	0.00	0.00	0.00
4,000.00	12.98	266.27	3,907.23	-54.04	-828.02	829.79	0.00	0.00	0.00
4,100.00	12.98	266.27	4,004.67	-55.51	-850.43	852.24	0.00	0.00	0.00
4,200.00	12.98	266.27	4,102.12	-56.97	-872.84	874.70	0.00	0.00	0.00
4,300.00	12.98	266.27	4,199.57	-58.43	-895.24	897.15	0.00	0.00	0.00
4,400.00	12.98	266.27	4,297.01	-59.89	-917.65	919.60	0.00	0.00	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well NR 313-3 - Slot NR 313-3 (A10)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Site:	NR 23-3 Pad	North Reference:	True
Well:	NR 313-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 22Jan2018 mmsdi		

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	12.98	266.27	4,394.46	-61.36	-940.06	942.06	0.00	0.00	0.00
4,600.00	12.98	266.27	4,491.90	-62.82	-962.46	964.51	0.00	0.00	0.00
4,700.00	12.98	266.27	4,589.35	-64.28	-984.87	986.97	0.00	0.00	0.00
4,800.00	12.98	266.27	4,686.80	-65.74	-1,007.28	1,009.42	0.00	0.00	0.00
4,900.00	12.98	266.27	4,784.24	-67.21	-1,029.69	1,031.88	0.00	0.00	0.00
5,000.00	12.98	266.27	4,881.69	-68.67	-1,052.09	1,054.33	0.00	0.00	0.00
5,100.00	12.98	266.27	4,979.14	-70.13	-1,074.50	1,076.78	0.00	0.00	0.00
5,200.00	12.98	266.27	5,076.58	-71.59	-1,096.91	1,099.24	0.00	0.00	0.00
5,300.00	12.98	266.27	5,174.03	-73.06	-1,119.31	1,121.69	0.00	0.00	0.00
5,400.00	12.98	266.27	5,271.48	-74.52	-1,141.72	1,144.15	0.00	0.00	0.00
5,500.00	12.98	266.27	5,368.92	-75.98	-1,164.13	1,166.60	0.00	0.00	0.00
5,600.00	12.98	266.27	5,466.37	-77.44	-1,186.53	1,189.06	0.00	0.00	0.00
5,700.00	12.98	266.27	5,563.81	-78.90	-1,208.94	1,211.51	0.00	0.00	0.00
5,800.00	12.98	266.27	5,661.26	-80.37	-1,231.35	1,233.97	0.00	0.00	0.00
5,900.00	12.98	266.27	5,758.71	-81.83	-1,253.75	1,256.42	0.00	0.00	0.00
6,000.00	12.98	266.27	5,856.15	-83.29	-1,276.16	1,278.87	0.00	0.00	0.00
6,100.00	12.98	266.27	5,953.60	-84.75	-1,298.57	1,301.33	0.00	0.00	0.00
6,151.72	12.98	266.27	6,004.00	-85.51	-1,310.16	1,312.94	0.00	0.00	0.00
OCRK									
6,200.00	12.98	266.27	6,051.05	-86.22	-1,320.97	1,323.78	0.00	0.00	0.00
6,300.00	12.98	266.27	6,148.49	-87.68	-1,343.38	1,346.24	0.00	0.00	0.00
6,400.00	12.98	266.27	6,245.94	-89.14	-1,365.79	1,368.69	0.00	0.00	0.00
6,500.00	12.98	266.27	6,343.39	-90.60	-1,388.19	1,391.15	0.00	0.00	0.00
6,600.00	12.98	266.27	6,440.83	-92.07	-1,410.60	1,413.60	0.00	0.00	0.00
6,636.40	12.98	266.27	6,476.30	-92.60	-1,418.76	1,421.78	0.00	0.00	0.00
Start Drop -1.50									
6,700.00	12.02	266.27	6,538.39	-93.50	-1,432.49	1,435.54	1.50	-1.50	0.00
6,800.00	10.52	266.27	6,636.46	-94.77	-1,452.00	1,455.09	1.50	-1.50	0.00
6,900.00	9.02	266.27	6,735.01	-95.87	-1,468.93	1,472.06	1.50	-1.50	0.00
7,000.00	7.52	266.27	6,833.97	-96.81	-1,483.29	1,486.44	1.50	-1.50	0.00
7,100.00	6.02	266.27	6,933.27	-97.58	-1,495.06	1,498.24	1.50	-1.50	0.00
7,200.00	4.52	266.27	7,032.84	-98.18	-1,504.22	1,507.42	1.50	-1.50	0.00
7,300.00	3.02	266.27	7,132.62	-98.61	-1,510.79	1,514.00	1.50	-1.50	0.00
7,400.00	1.52	266.27	7,232.54	-98.86	-1,514.75	1,517.97	1.50	-1.50	0.00
7,500.00	0.02	266.27	7,332.53	-98.95	-1,516.09	1,519.32	1.50	-1.50	0.00
7,501.47	0.00	0.00	7,334.00	-98.95	-1,516.09	1,519.32	1.50	-1.50	6,361.42
Start 2600.00 hold at 7501.47 MD - KMGAS - NR 313-3 BTV									
7,600.00	0.00	0.00	7,432.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00
7,700.00	0.00	0.00	7,532.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00
7,800.00	0.00	0.00	7,632.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00
7,900.00	0.00	0.00	7,732.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00
8,000.00	0.00	0.00	7,832.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00
8,100.00	0.00	0.00	7,932.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00
8,200.00	0.00	0.00	8,032.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00
8,300.00	0.00	0.00	8,132.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00
8,400.00	0.00	0.00	8,232.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00
8,500.00	0.00	0.00	8,332.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00
8,600.00	0.00	0.00	8,432.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00
8,700.00	0.00	0.00	8,532.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00
8,800.00	0.00	0.00	8,632.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00
8,900.00	0.00	0.00	8,732.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00
9,000.00	0.00	0.00	8,832.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00
9,021.47	0.00	0.00	8,854.00	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00

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Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Site:	NR 23-3 Pad	North Reference:	True
Well:	NR 313-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 22Jan2018 mmsdi		

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										
9,100.00	0.00	0.00	8,932.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00	
9,200.00	0.00	0.00	9,032.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00	
9,300.00	0.00	0.00	9,132.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00	
9,400.00	0.00	0.00	9,232.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00	
9,500.00	0.00	0.00	9,332.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00	
9,600.00	0.00	0.00	9,432.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00	
9,700.00	0.00	0.00	9,532.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00	
9,800.00	0.00	0.00	9,632.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00	
9,900.00	0.00	0.00	9,732.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00	
9,951.47	0.00	0.00	9,784.00	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00	
RLNS										
10,000.00	0.00	0.00	9,832.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00	
10,100.00	0.00	0.00	9,932.53	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00	
10,101.47	0.00	0.00	9,934.00	-98.95	-1,516.09	1,519.32	0.00	0.00	0.00	
TD at 10101.47 - NR 313-3 PBHL										

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
NR 313-3 BTV - plan hits target center - Circle (radius 50.00)	0.00	0.00	7,334.00	-98.95	-1,516.09	1,634,845.30	2,328,239.50	39.5522506	-107.8826143
NR 313-3 PBHL - plan hits target center - Point	0.00	0.00	9,934.00	-98.95	-1,516.09	1,634,845.30	2,328,239.50	39.5522506	-107.8826143

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,100.00	1,081.28	9 5/8" Casing @ 1100' MD	9.62	13.50	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,565.68	3,484.00	G Sand		0.00	0.00	
3,606.73	3,524.00	G Sand Base		0.00	0.00	
6,151.72	6,004.00	OCRK		0.00	0.00	
7,501.47	7,334.00	KMVGAS		0.00	0.00	
9,021.47	8,854.00	CMEO		0.00	0.00	
9,951.47	9,784.00	RLNS		0.00	0.00	

Database:	Grand Junction District	Local Co-ordinate Reference:	Well NR 313-3 - Slot NR 313-3 (A10)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 6720' & RKB 24' @ 6744.00usft
Site:	NR 23-3 Pad	North Reference:	True
Well:	NR 313-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 22Jan2018 mmsdi		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
120.00	120.00	0.00	0.00	Start Build 3.50
490.75	487.58	-2.72	-41.71	Start 6145.66 hold at 490.75 MD
6,636.40	6,476.30	-92.60	-1,418.76	Start Drop -1.50
7,501.47	7,334.00	-98.95	-1,516.09	Start 2600.00 hold at 7501.47 MD
10,101.47	9,934.00	-98.95	-1,516.09	TD at 10101.47