



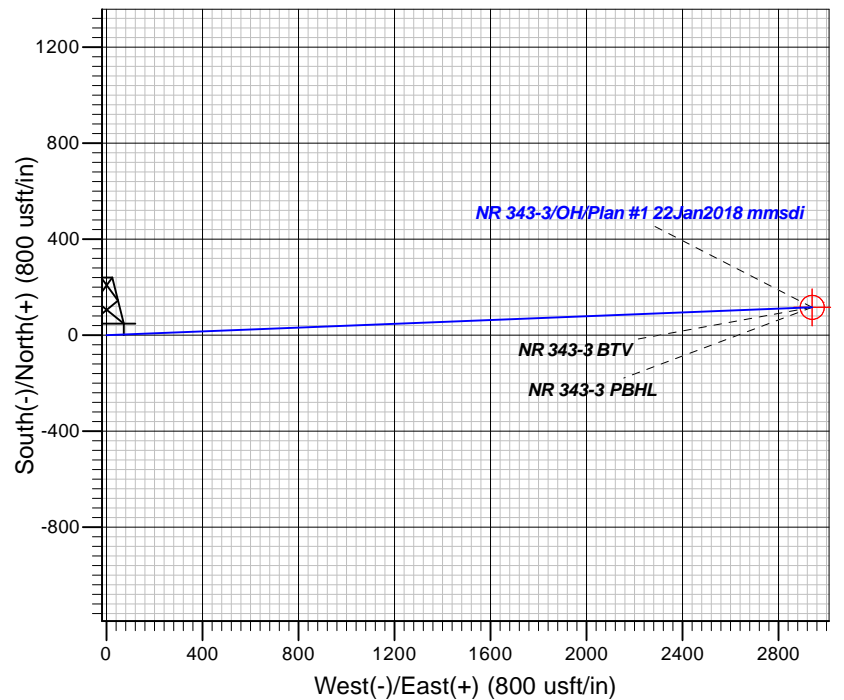
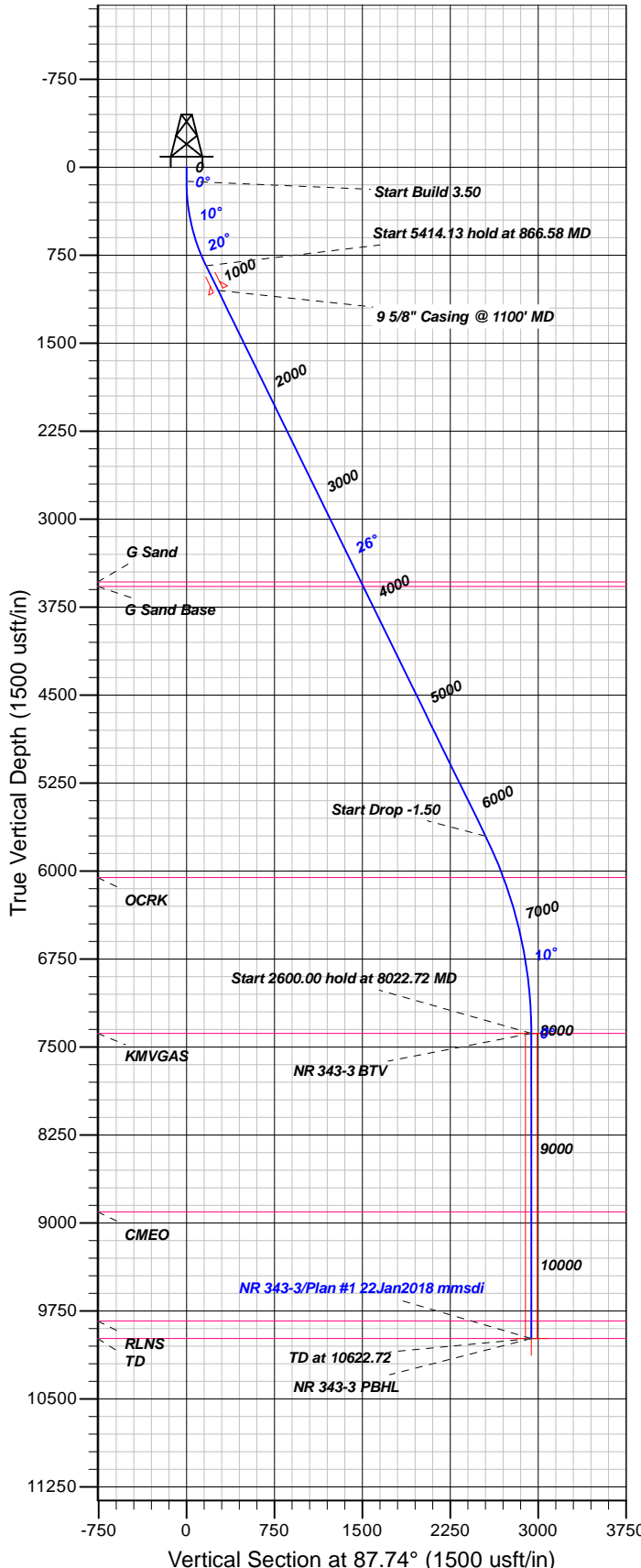
Azimuths to True North
Magnetic North: 9.48°

Magnetic Field
Strength: 51613.0snT
Dip Angle: 65.82°
Date: 1/22/2018
Model: HDGM

Well Details: NR 343-3

GL 6720' & RKB 24' @ 6744.00usft

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1634916.54	2329761.20	39.552555	-107.8772262	NR 343-3 (B9)



FORMATION TOP DETAILS

TVDP	MD	Formation
3534.00	3866.19	G Sand
3574.00	3910.74	G Sand Base
6054.00	6664.27	OCRK
7384.00	8022.72	KMGAS
8904.00	9542.72	CMEO
9834.00	10472.72	RLNS
9984.00	10622.72	TD

Plan: Plan #1 22Jan2018 mmsdi

22:33, 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
1050.53	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	866.58	26.13	87.74	840.97	6.59	167.18	3.50	87.74	167.31	
4	6280.71	26.13	87.74	5701.75	100.45	2549.79	0.00	0.00	2551.76	
5	8022.72	0.00	0.00	7384.00	115.82	2939.88	1.50	180.00	2942.16	NR 343-3 BTV
6	10622.72	0.00	0.00	9984.00	115.82	2939.88	0.00	0.00	2942.16	NR 343-3 PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
NR 343-3 BTV	7384.00	115.82	2939.88	1634955.40	2332703.10	39.5528730	-107.8668001	Circle (Radius: 50.00)
- plan hits target center								
NR 343-3 PBHL	9984.00	115.82	2939.88	1634955.40	2332703.10	39.5528730	-107.8668001	Point
- plan hits target center								



TEP Rocky Mountain LLC

Garfield County, CO NAD83

NR 23-3 Pad

NR 343-3 - Slot NR 343-3 (B9)

OH

Plan: Plan #1 22Jan2018 mmsdi

Standard Planning Report

07 February, 2018



Database:	Grand Junction District	Local Co-ordinate Reference:	Well NR 343-3 - Slot NR 343-3 (B9)
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 343-3	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 343-3 - Slot NR 343-3 (B9)			
Well Position	+N/-S	12.08 usft	Northing:	1,634,916.54 usft
	+E/-W	3.23 usft	Easting:	2,329,761.20 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	1/22/2018	9.48	65.82	51,613

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	87.74

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	
866.58	26.13	87.74	840.97	6.59	167.18	3.50	3.50	0.00	87.74	
6,280.71	26.13	87.74	5,701.75	100.45	2,549.79	0.00	0.00	0.00	0.00	
8,022.72	0.00	0.00	7,384.00	115.82	2,939.88	1.50	-1.50	0.00	180.00	NR 343-3 BTV
10,622.72	0.00	0.00	9,984.00	115.82	2,939.88	0.00	0.00	0.00	0.00	NR 343-3 PBHL

Database:	Grand Junction District	Local Co-ordinate Reference:	Well NR 343-3 - Slot NR 343-3 (B9)
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 343-3	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	87.74	199.97	0.08	1.95	1.95	3.50	3.50	0.00
300.00	6.30	87.74	299.64	0.39	9.88	9.89	3.50	3.50	0.00
400.00	9.80	87.74	398.64	0.94	23.87	23.89	3.50	3.50	0.00
500.00	13.30	87.74	496.60	1.73	43.87	43.91	3.50	3.50	0.00
600.00	16.80	87.74	593.15	2.75	69.81	69.87	3.50	3.50	0.00
700.00	20.30	87.74	687.94	4.00	101.60	101.68	3.50	3.50	0.00
800.00	23.80	87.74	780.61	5.48	139.11	139.21	3.50	3.50	0.00
866.58	26.13	87.74	840.97	6.59	167.18	167.31	3.50	3.50	0.00
Start 5414.13 hold at 866.58 MD									
900.00	26.13	87.74	870.97	7.17	181.89	182.03	0.00	0.00	0.00
1,000.00	26.13	87.74	960.75	8.90	225.90	226.07	0.00	0.00	0.00
1,100.00	26.13	87.74	1,050.53	10.63	269.90	270.11	0.00	0.00	0.00
9 5/8" Casing @ 1100' MD									
1,200.00	26.13	87.74	1,140.31	12.37	313.91	314.15	0.00	0.00	0.00
1,300.00	26.13	87.74	1,230.09	14.10	357.92	358.20	0.00	0.00	0.00
1,400.00	26.13	87.74	1,319.87	15.83	401.93	402.24	0.00	0.00	0.00
1,500.00	26.13	87.74	1,409.65	17.57	445.93	446.28	0.00	0.00	0.00
1,600.00	26.13	87.74	1,499.43	19.30	489.94	490.32	0.00	0.00	0.00
1,700.00	26.13	87.74	1,589.21	21.04	533.95	534.36	0.00	0.00	0.00
1,800.00	26.13	87.74	1,678.99	22.77	577.95	578.40	0.00	0.00	0.00
1,900.00	26.13	87.74	1,768.77	24.50	621.96	622.44	0.00	0.00	0.00
2,000.00	26.13	87.74	1,858.55	26.24	665.97	666.48	0.00	0.00	0.00
2,100.00	26.13	87.74	1,948.33	27.97	709.98	710.53	0.00	0.00	0.00
2,200.00	26.13	87.74	2,038.11	29.70	753.98	754.57	0.00	0.00	0.00
2,300.00	26.13	87.74	2,127.89	31.44	797.99	798.61	0.00	0.00	0.00
2,400.00	26.13	87.74	2,217.66	33.17	842.00	842.65	0.00	0.00	0.00
2,500.00	26.13	87.74	2,307.44	34.91	886.00	886.69	0.00	0.00	0.00
2,600.00	26.13	87.74	2,397.22	36.64	930.01	930.73	0.00	0.00	0.00
2,700.00	26.13	87.74	2,487.00	38.37	974.02	974.77	0.00	0.00	0.00
2,800.00	26.13	87.74	2,576.78	40.11	1,018.03	1,018.82	0.00	0.00	0.00
2,900.00	26.13	87.74	2,666.56	41.84	1,062.03	1,062.86	0.00	0.00	0.00
3,000.00	26.13	87.74	2,756.34	43.57	1,106.04	1,106.90	0.00	0.00	0.00
3,100.00	26.13	87.74	2,846.12	45.31	1,150.05	1,150.94	0.00	0.00	0.00
3,200.00	26.13	87.74	2,935.90	47.04	1,194.05	1,194.98	0.00	0.00	0.00
3,300.00	26.13	87.74	3,025.68	48.78	1,238.06	1,239.02	0.00	0.00	0.00
3,400.00	26.13	87.74	3,115.46	50.51	1,282.07	1,283.06	0.00	0.00	0.00
3,500.00	26.13	87.74	3,205.24	52.24	1,326.08	1,327.10	0.00	0.00	0.00
3,600.00	26.13	87.74	3,295.02	53.98	1,370.08	1,371.15	0.00	0.00	0.00
3,700.00	26.13	87.74	3,384.80	55.71	1,414.09	1,415.19	0.00	0.00	0.00
3,800.00	26.13	87.74	3,474.58	57.44	1,458.10	1,459.23	0.00	0.00	0.00
3,866.19	26.13	87.74	3,534.00	58.59	1,487.22	1,488.38	0.00	0.00	0.00
G Sand									
3,900.00	26.13	87.74	3,564.36	59.18	1,502.10	1,503.27	0.00	0.00	0.00
3,910.74	26.13	87.74	3,574.00	59.36	1,506.83	1,508.00	0.00	0.00	0.00
G Sand Base									
4,000.00	26.13	87.74	3,654.14	60.91	1,546.11	1,547.31	0.00	0.00	0.00
4,100.00	26.13	87.74	3,743.92	62.64	1,590.12	1,591.35	0.00	0.00	0.00
4,200.00	26.13	87.74	3,833.70	64.38	1,634.13	1,635.39	0.00	0.00	0.00
4,300.00	26.13	87.74	3,923.48	66.11	1,678.13	1,679.43	0.00	0.00	0.00
4,400.00	26.13	87.74	4,013.26	67.85	1,722.14	1,723.48	0.00	0.00	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well NR 343-3 - Slot NR 343-3 (B9)
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 343-3	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	26.13	87.74	4,103.04	69.58	1,766.15	1,767.52	0.00	0.00	0.00
4,600.00	26.13	87.74	4,192.81	71.31	1,810.15	1,811.56	0.00	0.00	0.00
4,700.00	26.13	87.74	4,282.59	73.05	1,854.16	1,855.60	0.00	0.00	0.00
4,800.00	26.13	87.74	4,372.37	74.78	1,898.17	1,899.64	0.00	0.00	0.00
4,900.00	26.13	87.74	4,462.15	76.51	1,942.18	1,943.68	0.00	0.00	0.00
5,000.00	26.13	87.74	4,551.93	78.25	1,986.18	1,987.72	0.00	0.00	0.00
5,100.00	26.13	87.74	4,641.71	79.98	2,030.19	2,031.76	0.00	0.00	0.00
5,200.00	26.13	87.74	4,731.49	81.72	2,074.20	2,075.81	0.00	0.00	0.00
5,300.00	26.13	87.74	4,821.27	83.45	2,118.20	2,119.85	0.00	0.00	0.00
5,400.00	26.13	87.74	4,911.05	85.18	2,162.21	2,163.89	0.00	0.00	0.00
5,500.00	26.13	87.74	5,000.83	86.92	2,206.22	2,207.93	0.00	0.00	0.00
5,600.00	26.13	87.74	5,090.61	88.65	2,250.23	2,251.97	0.00	0.00	0.00
5,700.00	26.13	87.74	5,180.39	90.38	2,294.23	2,296.01	0.00	0.00	0.00
5,800.00	26.13	87.74	5,270.17	92.12	2,338.24	2,340.05	0.00	0.00	0.00
5,900.00	26.13	87.74	5,359.95	93.85	2,382.25	2,384.09	0.00	0.00	0.00
6,000.00	26.13	87.74	5,449.73	95.59	2,426.25	2,428.14	0.00	0.00	0.00
6,100.00	26.13	87.74	5,539.51	97.32	2,470.26	2,472.18	0.00	0.00	0.00
6,200.00	26.13	87.74	5,629.29	99.05	2,514.27	2,516.22	0.00	0.00	0.00
6,280.71	26.13	87.74	5,701.75	100.45	2,549.79	2,551.76	0.00	0.00	0.00
Start Drop -1.50									
6,300.00	25.84	87.74	5,719.09	100.78	2,558.23	2,560.22	1.50	-1.50	0.00
6,400.00	24.34	87.74	5,809.65	102.45	2,600.60	2,602.62	1.50	-1.50	0.00
6,500.00	22.84	87.74	5,901.29	104.03	2,640.59	2,642.64	1.50	-1.50	0.00
6,600.00	21.34	87.74	5,993.95	105.51	2,678.17	2,680.25	1.50	-1.50	0.00
6,664.27	20.38	87.74	6,054.00	106.41	2,701.03	2,703.13	1.50	-1.50	0.00
OCRK									
6,700.00	19.84	87.74	6,087.55	106.89	2,713.31	2,715.41	1.50	-1.50	0.00
6,800.00	18.34	87.74	6,182.05	108.18	2,745.99	2,748.12	1.50	-1.50	0.00
6,900.00	16.84	87.74	6,277.37	109.37	2,776.19	2,778.34	1.50	-1.50	0.00
7,000.00	15.34	87.74	6,373.45	110.46	2,803.88	2,806.06	1.50	-1.50	0.00
7,100.00	13.84	87.74	6,470.23	111.45	2,829.05	2,831.25	1.50	-1.50	0.00
7,200.00	12.34	87.74	6,567.62	112.35	2,851.68	2,853.90	1.50	-1.50	0.00
7,300.00	10.84	87.74	6,665.58	113.14	2,871.76	2,873.99	1.50	-1.50	0.00
7,400.00	9.34	87.74	6,764.03	113.83	2,889.27	2,891.51	1.50	-1.50	0.00
7,500.00	7.84	87.74	6,862.91	114.41	2,904.19	2,906.45	1.50	-1.50	0.00
7,600.00	6.34	87.74	6,962.14	114.90	2,916.53	2,918.79	1.50	-1.50	0.00
7,700.00	4.84	87.74	7,061.66	115.28	2,926.26	2,928.53	1.50	-1.50	0.00
7,800.00	3.34	87.74	7,161.40	115.56	2,933.39	2,935.67	1.50	-1.50	0.00
7,900.00	1.84	87.74	7,261.30	115.74	2,937.91	2,940.19	1.50	-1.50	0.00
8,000.00	0.34	87.74	7,361.28	115.82	2,939.81	2,942.09	1.50	-1.50	0.00
8,022.72	0.00	0.00	7,384.00	115.82	2,939.88	2,942.16	1.50	-1.50	0.00
Start 2600.00 hold at 8022.72 MD - KMGAS - NR 343-3 BTV									
8,100.00	0.00	0.00	7,461.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00
8,200.00	0.00	0.00	7,561.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00
8,300.00	0.00	0.00	7,661.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00
8,400.00	0.00	0.00	7,761.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00
8,500.00	0.00	0.00	7,861.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00
8,600.00	0.00	0.00	7,961.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00
8,700.00	0.00	0.00	8,061.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00
8,800.00	0.00	0.00	8,161.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00
8,900.00	0.00	0.00	8,261.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00
9,000.00	0.00	0.00	8,361.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00
9,100.00	0.00	0.00	8,461.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00

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Site:	NR 23-3 Pad	North Reference:	True
Well:	NR 343-3	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)	
9,200.00	0.00	0.00	8,561.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00	
9,300.00	0.00	0.00	8,661.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00	
9,400.00	0.00	0.00	8,761.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00	
9,500.00	0.00	0.00	8,861.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00	
9,542.72	0.00	0.00	8,904.00	115.82	2,939.88	2,942.16	0.00	0.00	0.00	
CMEO										
9,600.00	0.00	0.00	8,961.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00	
9,700.00	0.00	0.00	9,061.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00	
9,800.00	0.00	0.00	9,161.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00	
9,900.00	0.00	0.00	9,261.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00	
10,000.00	0.00	0.00	9,361.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00	
10,100.00	0.00	0.00	9,461.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00	
10,200.00	0.00	0.00	9,561.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00	
10,300.00	0.00	0.00	9,661.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00	
10,400.00	0.00	0.00	9,761.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00	
10,472.72	0.00	0.00	9,834.00	115.82	2,939.88	2,942.16	0.00	0.00	0.00	
RLNS										
10,500.00	0.00	0.00	9,861.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00	
10,600.00	0.00	0.00	9,961.28	115.82	2,939.88	2,942.16	0.00	0.00	0.00	
10,622.72	0.00	0.00	9,984.00	115.82	2,939.88	2,942.16	0.00	0.00	0.00	
TD at 10622.72 - TD - NR 343-3 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 343-3 BTV - plan hits target center - Circle (radius 50.00)	0.00	0.00	7,384.00	115.82	2,939.88	1,634,955.40	2,332,703.10	39.5528731	-107.8668001
NR 343-3 PBHL - plan hits target center - Point	0.00	0.00	9,984.00	115.82	2,939.88	1,634,955.40	2,332,703.10	39.5528731	-107.8668001

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,100.00	1,050.53	9 5/8" Casing @ 1100' MD	9.62	13.50	

Database:	Grand Junction District	Local Co-ordinate Reference:	Well NR 343-3 - Slot NR 343-3 (B9)
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 343-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 22Jan2018 mmsdi		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,866.19	3,534.00	G Sand		0.00	0.00	
3,910.74	3,574.00	G Sand Base		0.00	0.00	
6,664.27	6,054.00	OCRK		0.00	0.00	
8,022.72	7,384.00	KMVGAS		0.00	0.00	
9,542.72	8,904.00	CME0		0.00	0.00	
10,472.72	9,834.00	RLNS		0.00	0.00	
10,622.72	9,984.00	TD		0.00	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 3.50	
866.58	840.97	6.59	167.18	Start 5414.13 hold at 866.58 MD	
6,280.71	5,701.75	100.45	2,549.79	Start Drop -1.50	
8,022.72	7,384.00	115.82	2,939.88	Start 2600.00 hold at 8022.72 MD	
10,622.72	9,984.00	115.82	2,939.88	TD at 10622.72	