

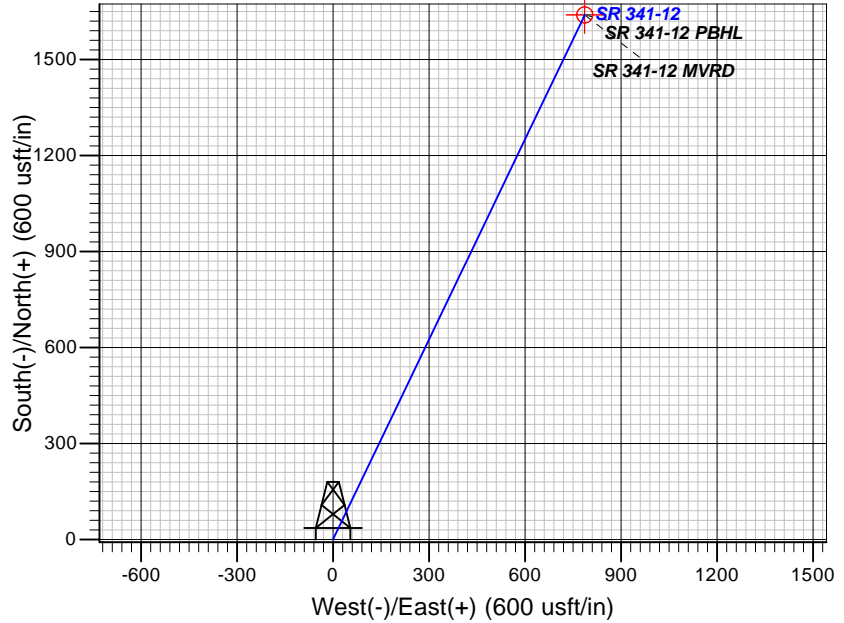
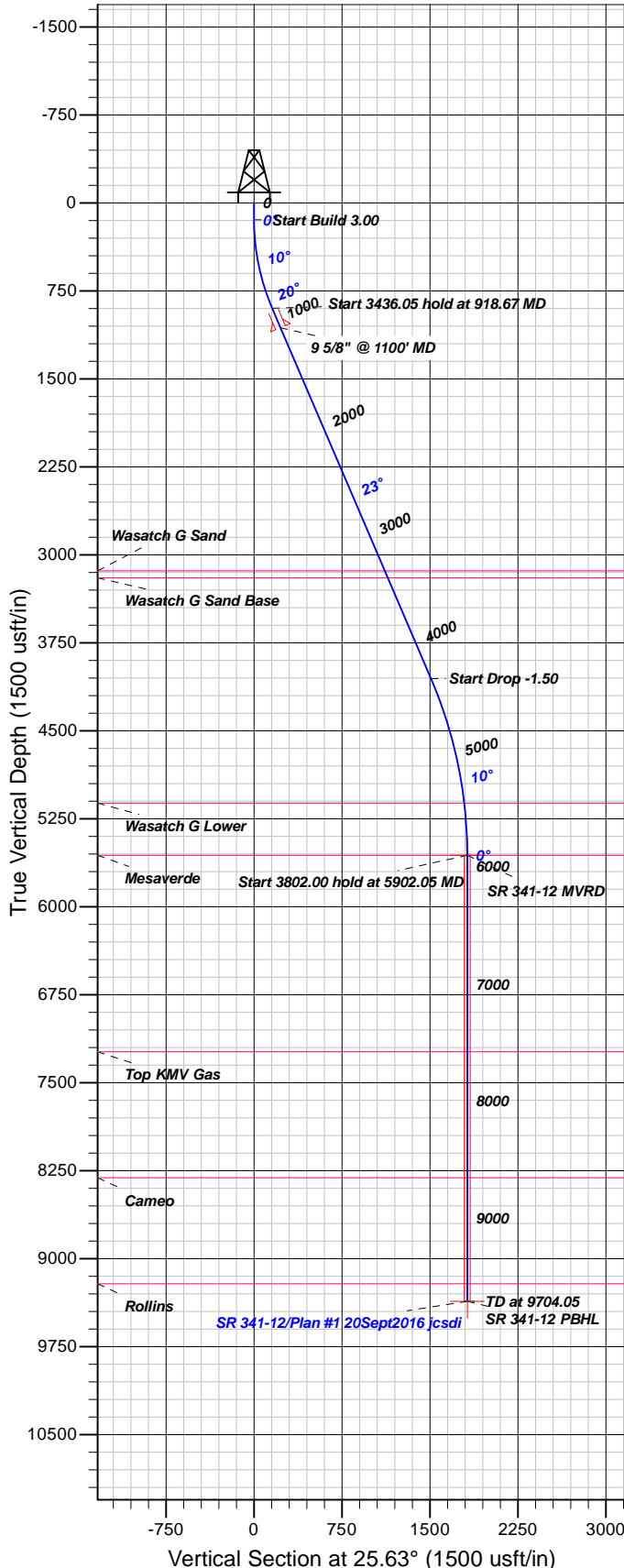
Well Details: SR 341-12

GL 7254' & RKB 24' @ 7278.00usft (H&P 318)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1599219.10	2341068.30	39.4553882	-107.8338875	B6

T M Azimuths to True North
Magnetic North: 9.60°

Magnetic Field
Strength: 51598.3snT
Dip Angle: 65.62°
Date: 9/19/2016
Model: BGGM2016



FORMATION TOP DETAILS

TVDP	MD	Formation
3137.00	3355.18	Wasatch G Sand
3197.00	3420.47	Wasatch G Sand Base
5117.00	5457.04	Wasatch G Lower
5561.00	5902.05	Mesaverde
7236.00	7577.05	Top KMV Gas
8310.00	8651.05	Cameo
9213.00	9554.05	Rollins

Plan: Plan #1 20Sept2016 jcsdi

10:59, September 30 2016
Created By: Janie Collins

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
1064.34	1100.00	9 5/8" @ 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	145.00	0.00	0.00	145.00	0.00	0.00	0.00	0.00	0.00	
3	918.67	23.21	25.63	897.68	139.37	66.85	3.00	25.63	154.57	
4	4354.72	23.21	25.63	4055.64	1360.31	652.55	0.00	0.001508.73		
5	5902.05	0.00	0.00	5561.00	1639.04	786.26	1.50	180.001817.87		SR 341-12 MVRD
6	9704.05	0.00	0.00	9363.00	1639.04	786.26	0.00	0.001817.87		SR 341-12 PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SR 341-12 MVRD	5561.00	1639.04	786.26	1600837.40	2341896.40	39.4598881	-107.8311028	Circle (Radius: 25.00)
- plan hits target center								
SR 341-12 PBHL	9363.00	1639.04	786.26	1600837.40	2341896.40	39.4598881	-107.8311028	Point
- plan hits target center								



TEP Rocky Mountain LLC

Garfield County, CO NAD83

RU 32-12 Pad

SR 341-12 - Slot B6

OH

Plan: Plan #1 20Sept2016 jcsdi

Standard Planning Report

30 September, 2016



Database:	Grand Junction District	Local Co-ordinate Reference:	Well SR 341-12 - Slot B6
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
Site:	RU 32-12 Pad	North Reference:	True
Well:	SR 341-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 20Sept2016 jcsdi		

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	RU 32-12 Pad			
Site Position:		Northing:	1,599,253.30 usft	Latitude: 39.4554808
From: Map		Easting:	2,341,050.00 usft	Longitude: -107.8339555
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence: -1.47 °

Well	SR 341-12 - Slot B6			
Well Position	+N/-S	-33.72 usft	Northing:	1,599,219.10 usft
	+E/-W	19.17 usft	Easting:	2,341,068.30 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	7,254.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2016	9/19/2016	9.60	65.62	51,598

Design	Plan #1 20Sept2016 jcsdi			
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	25.63

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	
145.00	0.00	0.00	145.00	0.00	0.00	0.00	0.00	0.00	0.00	
918.67	23.21	25.63	897.68	139.37	66.85	3.00	3.00	0.00	25.63	
4,354.72	23.21	25.63	4,055.64	1,360.31	652.55	0.00	0.00	0.00	0.00	
5,902.05	0.00	0.00	5,561.00	1,639.04	786.26	1.50	-1.50	0.00	180.00	SR 341-12 MVRD
9,704.05	0.00	0.00	9,363.00	1,639.04	786.26	0.00	0.00	0.00	0.00	SR 341-12 PBHL

Database:	Grand Junction District	Local Co-ordinate Reference:	Well SR 341-12 - Slot B6
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
Site:	RU 32-12 Pad	North Reference:	True
Well:	SR 341-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 20Sept2016 jcsdi		

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	
145.00	0.00	0.00	145.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	1.65	25.63	199.99	0.71	0.34	0.79	3.00	3.00	0.00	
300.00	4.65	25.63	299.83	5.67	2.72	6.29	3.00	3.00	0.00	
400.00	7.65	25.63	399.24	15.33	7.35	17.00	3.00	3.00	0.00	
500.00	10.65	25.63	497.96	29.66	14.23	32.90	3.00	3.00	0.00	
600.00	13.65	25.63	595.71	48.64	23.33	53.94	3.00	3.00	0.00	
700.00	16.65	25.63	692.22	72.20	34.63	80.07	3.00	3.00	0.00	
800.00	19.65	25.63	787.24	100.28	48.11	111.22	3.00	3.00	0.00	
900.00	22.65	25.63	880.49	132.81	63.71	147.30	3.00	3.00	0.00	
918.67	23.21	25.63	897.68	139.37	66.85	154.57	3.00	3.00	0.00	
1,000.00	23.21	25.63	972.43	168.27	80.72	186.63	0.00	0.00	0.00	
1,100.00	23.21	25.63	1,064.34	203.80	97.76	226.04	0.00	0.00	0.00	
9 5/8" @ 1100' MD										
1,200.00	23.21	25.63	1,156.24	239.33	114.81	265.45	0.00	0.00	0.00	
1,300.00	23.21	25.63	1,248.15	274.87	131.85	304.86	0.00	0.00	0.00	
1,400.00	23.21	25.63	1,340.06	310.40	148.90	344.27	0.00	0.00	0.00	
1,500.00	23.21	25.63	1,431.96	345.93	165.95	383.68	0.00	0.00	0.00	
1,600.00	23.21	25.63	1,523.87	381.47	182.99	423.09	0.00	0.00	0.00	
1,700.00	23.21	25.63	1,615.78	417.00	200.04	462.50	0.00	0.00	0.00	
1,800.00	23.21	25.63	1,707.68	452.53	217.08	501.91	0.00	0.00	0.00	
1,900.00	23.21	25.63	1,799.59	488.07	234.13	541.32	0.00	0.00	0.00	
2,000.00	23.21	25.63	1,891.50	523.60	251.17	580.73	0.00	0.00	0.00	
2,100.00	23.21	25.63	1,983.40	559.13	268.22	620.14	0.00	0.00	0.00	
2,200.00	23.21	25.63	2,075.31	594.67	285.26	659.55	0.00	0.00	0.00	
2,300.00	23.21	25.63	2,167.22	630.20	302.31	698.96	0.00	0.00	0.00	
2,400.00	23.21	25.63	2,259.12	665.73	319.36	738.37	0.00	0.00	0.00	
2,500.00	23.21	25.63	2,351.03	701.27	336.40	777.78	0.00	0.00	0.00	
2,600.00	23.21	25.63	2,442.94	736.80	353.45	817.19	0.00	0.00	0.00	
2,700.00	23.21	25.63	2,534.84	772.33	370.49	856.60	0.00	0.00	0.00	
2,800.00	23.21	25.63	2,626.75	807.86	387.54	896.01	0.00	0.00	0.00	
2,900.00	23.21	25.63	2,718.66	843.40	404.58	935.42	0.00	0.00	0.00	
3,000.00	23.21	25.63	2,810.56	878.93	421.63	974.83	0.00	0.00	0.00	
3,100.00	23.21	25.63	2,902.47	914.46	438.67	1,014.24	0.00	0.00	0.00	
3,200.00	23.21	25.63	2,994.38	950.00	455.72	1,053.65	0.00	0.00	0.00	
3,300.00	23.21	25.63	3,086.28	985.53	472.77	1,093.06	0.00	0.00	0.00	
3,355.18	23.21	25.63	3,137.00	1,005.14	482.17	1,114.81	0.00	0.00	0.00	
Wasatch G Sand										
3,400.00	23.21	25.63	3,178.19	1,021.06	489.81	1,132.47	0.00	0.00	0.00	
3,420.47	23.21	25.63	3,197.00	1,028.34	493.30	1,140.53	0.00	0.00	0.00	
Wasatch G Sand Base										
3,500.00	23.21	25.63	3,270.10	1,056.60	506.86	1,171.88	0.00	0.00	0.00	
3,600.00	23.21	25.63	3,362.00	1,092.13	523.90	1,211.29	0.00	0.00	0.00	
3,700.00	23.21	25.63	3,453.91	1,127.66	540.95	1,250.70	0.00	0.00	0.00	
3,800.00	23.21	25.63	3,545.82	1,163.20	557.99	1,290.11	0.00	0.00	0.00	
3,900.00	23.21	25.63	3,637.72	1,198.73	575.04	1,329.52	0.00	0.00	0.00	
4,000.00	23.21	25.63	3,729.63	1,234.26	592.08	1,368.93	0.00	0.00	0.00	
4,100.00	23.21	25.63	3,821.54	1,269.80	609.13	1,408.34	0.00	0.00	0.00	
4,200.00	23.21	25.63	3,913.44	1,305.33	626.17	1,447.75	0.00	0.00	0.00	
4,300.00	23.21	25.63	4,005.35	1,340.86	643.22	1,487.16	0.00	0.00	0.00	
4,354.72	23.21	25.63	4,055.64	1,360.31	652.55	1,508.73	0.00	0.00	0.00	

Database:	Grand Junction District	Local Co-ordinate Reference:	Well SR 341-12 - Slot B6
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
Site:	RU 32-12 Pad	North Reference:	True
Well:	SR 341-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 20Sept2016 jcsdi		

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)
4,400.00	22.53	25.63	4,097.36	1,376.17	660.16	1,526.32	1.50	-1.50	0.00
4,500.00	21.03	25.63	4,190.22	1,409.63	676.21	1,563.43	1.50	-1.50	0.00
4,600.00	19.53	25.63	4,284.02	1,440.88	691.20	1,598.09	1.50	-1.50	0.00
4,700.00	18.03	25.63	4,378.69	1,469.91	705.12	1,630.28	1.50	-1.50	0.00
4,800.00	16.53	25.63	4,474.18	1,496.69	717.97	1,659.99	1.50	-1.50	0.00
4,900.00	15.03	25.63	4,570.40	1,521.21	729.73	1,687.18	1.50	-1.50	0.00
5,000.00	13.53	25.63	4,667.31	1,543.45	740.40	1,711.85	1.50	-1.50	0.00
5,100.00	12.03	25.63	4,764.83	1,563.39	749.97	1,733.97	1.50	-1.50	0.00
5,200.00	10.53	25.63	4,862.90	1,581.03	758.43	1,753.53	1.50	-1.50	0.00
5,300.00	9.03	25.63	4,961.44	1,596.35	765.78	1,770.52	1.50	-1.50	0.00
5,400.00	7.53	25.63	5,060.39	1,609.33	772.01	1,784.92	1.50	-1.50	0.00
5,457.04	6.68	25.63	5,117.00	1,615.69	775.06	1,791.98	1.50	-1.50	0.00
Wasatch G Lower									
5,500.00	6.03	25.63	5,159.69	1,619.98	777.11	1,796.73	1.50	-1.50	0.00
5,600.00	4.53	25.63	5,259.26	1,628.28	781.09	1,805.93	1.50	-1.50	0.00
5,700.00	3.03	25.63	5,359.04	1,634.22	783.95	1,812.53	1.50	-1.50	0.00
5,800.00	1.53	25.63	5,458.96	1,637.81	785.67	1,816.51	1.50	-1.50	0.00
5,900.00	0.03	25.63	5,558.95	1,639.04	786.26	1,817.87	1.50	-1.50	0.00
5,902.05	0.00	0.00	5,561.00	1,639.04	786.26	1,817.87	1.50	-1.50	0.00
Mesaverde - SR 341-12 MVRD									
6,000.00	0.00	0.00	5,658.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
6,100.00	0.00	0.00	5,758.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
6,200.00	0.00	0.00	5,858.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
6,300.00	0.00	0.00	5,958.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
6,400.00	0.00	0.00	6,058.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
6,500.00	0.00	0.00	6,158.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
6,600.00	0.00	0.00	6,258.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
6,700.00	0.00	0.00	6,358.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
6,800.00	0.00	0.00	6,458.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
6,900.00	0.00	0.00	6,558.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
7,000.00	0.00	0.00	6,658.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
7,100.00	0.00	0.00	6,758.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
7,200.00	0.00	0.00	6,858.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
7,300.00	0.00	0.00	6,958.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
7,400.00	0.00	0.00	7,058.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
7,500.00	0.00	0.00	7,158.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
7,577.05	0.00	0.00	7,236.00	1,639.04	786.26	1,817.87	0.00	0.00	0.00
Top KMV Gas									
7,600.00	0.00	0.00	7,258.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
7,700.00	0.00	0.00	7,358.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
7,800.00	0.00	0.00	7,458.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
7,900.00	0.00	0.00	7,558.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
8,000.00	0.00	0.00	7,658.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
8,100.00	0.00	0.00	7,758.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
8,200.00	0.00	0.00	7,858.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
8,300.00	0.00	0.00	7,958.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
8,400.00	0.00	0.00	8,058.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
8,500.00	0.00	0.00	8,158.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
8,600.00	0.00	0.00	8,258.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00
8,651.05	0.00	0.00	8,310.00	1,639.04	786.26	1,817.87	0.00	0.00	0.00
Cameo									

Database:	Grand Junction District	Local Co-ordinate Reference:	Well SR 341-12 - Slot B6
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
Site:	RU 32-12 Pad	North Reference:	True
Well:	SR 341-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 20Sept2016 jcsdi		

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)	
8,700.00	0.00	0.00	8,358.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,458.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,558.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,658.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00	
9,100.00	0.00	0.00	8,758.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00	
9,200.00	0.00	0.00	8,858.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00	
9,300.00	0.00	0.00	8,958.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00	
9,400.00	0.00	0.00	9,058.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00	
9,500.00	0.00	0.00	9,158.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00	
9,554.05	0.00	0.00	9,213.00	1,639.04	786.26	1,817.87	0.00	0.00	0.00	
Rollins										
9,600.00	0.00	0.00	9,258.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00	
9,700.00	0.00	0.00	9,358.95	1,639.04	786.26	1,817.87	0.00	0.00	0.00	
9,704.05	0.00	0.00	9,363.00	1,639.04	786.26	1,817.87	0.00	0.00	0.00	
SR 341-12 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									
SR 341-12 MVRD	0.00	0.00	5,561.00	1,639.04	786.26	1,600,837.40	2,341,896.40	39.4598881	-107.8311029
- plan hits target center									
- Circle (radius 25.00)									
SR 341-12 PBHL	0.00	0.00	9,363.00	1,639.04	786.26	1,600,837.40	2,341,896.40	39.4598881	-107.8311029
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,100.00	1,064.34	9 5/8" @ 1100' MD	9.62	9.62	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,355.18	3,137.00	Wasatch G Sand		0.00	0.00
3,420.47	3,197.00	Wasatch G Sand Base		0.00	0.00
5,457.04	5,117.00	Wasatch G Lower		0.00	0.00
5,902.05	5,561.00	Mesaverde		0.00	0.00
7,577.05	7,236.00	Top KMV Gas		0.00	0.00
8,651.05	8,310.00	Cameo		0.00	0.00
9,554.05	9,213.00	Rollins		0.00	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well SR 341-12 - Slot B6
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
Site:	RU 32-12 Pad	North Reference:	True
Well:	SR 341-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 20Sept2016 jcsdi		