

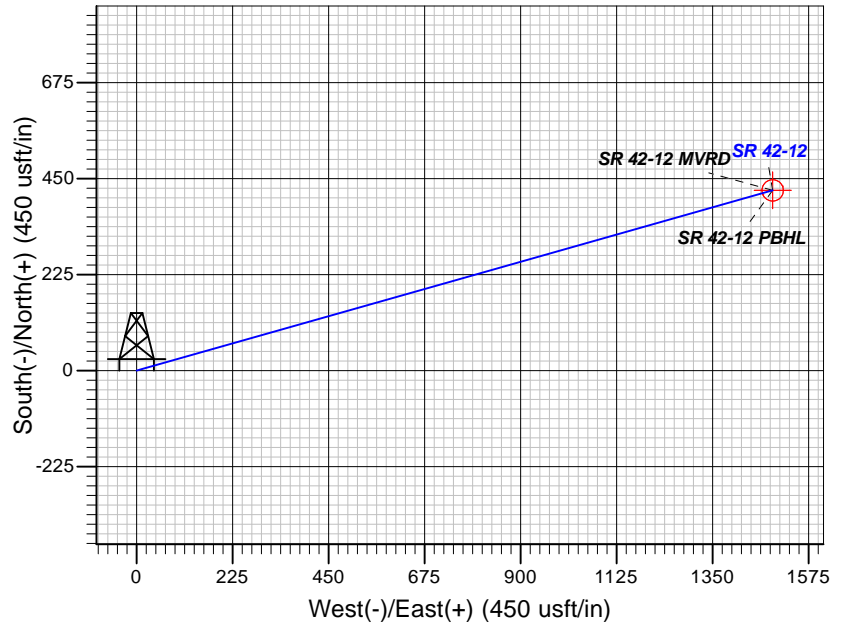
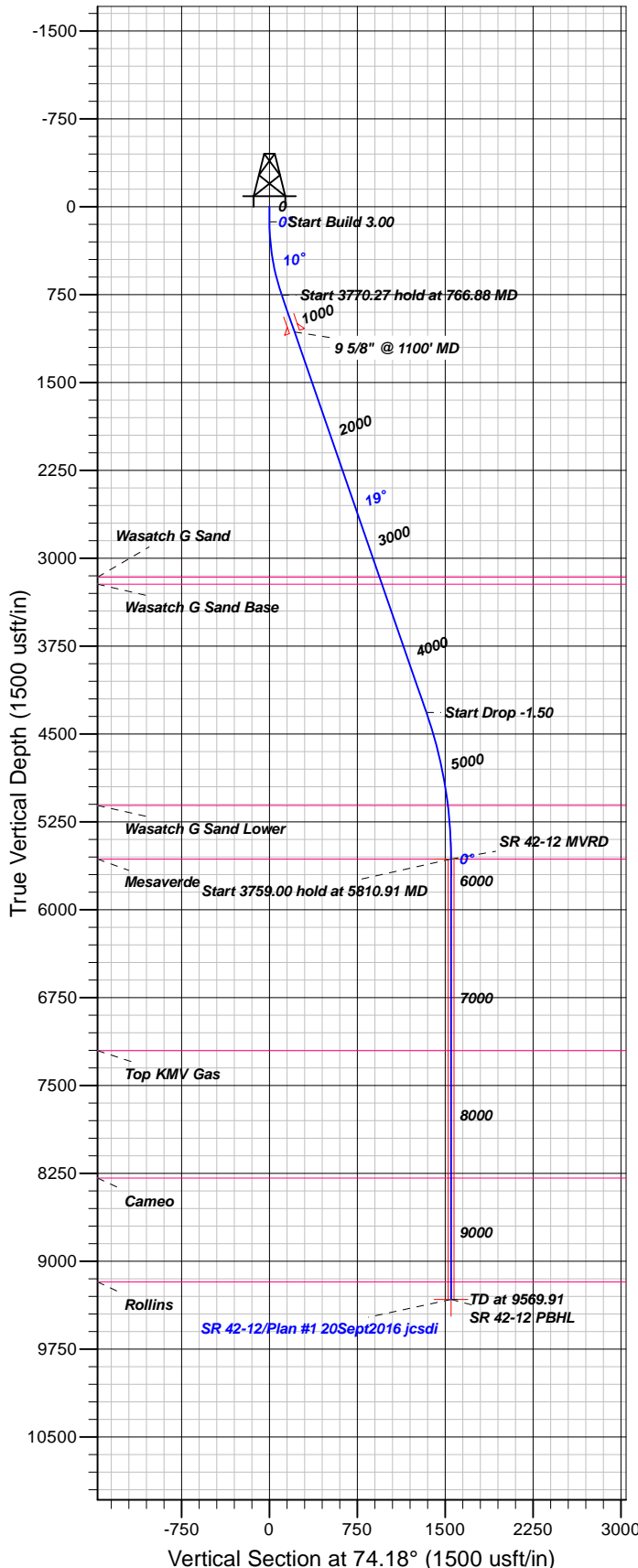
## Well Details: SR 42-12

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

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1599182.60	2341076.80	39.4552886	-107.8338541	B11

**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

TVDPath	MDPath	Formation
3162.00	3314.06	Wasatch G Sand
3222.00	3377.55	Wasatch G Sand Base
5111.00	5352.81	Wasatch G Sand Lower
5568.00	5810.91	Mesaverde
7204.00	7446.91	Top KMV Gas
8291.00	8533.91	Cameo
9177.00	9419.91	Rollins

Plan: Plan #1 20Sept2016 jcsdi

11:03, 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
1069.91	1100.00	9 5/8" @ 1100' MD	9.62

### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	130.00	0.00	0.00	130.00	0.00	0.00	0.00	0.00	0.00	
3	766.88	19.11	74.18	755.14	28.68	101.23	3.00	74.18	105.21	
4	4537.15	19.11	74.18	4317.72	365.08	1288.59	0.00	0.001339.31		
5	5810.91	0.00	0.00	5568.00	422.44	1491.04	1.50	180.001549.73		SR 42-12 MVRD
6	9569.91	0.00	0.00	9327.00	422.44	1491.04	0.00	0.001549.73		SR 42-12 PBHL

### DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SR 42-12 MVRD	5568.00	422.44	1491.04	1599566.60	2342578.20	39.4564483	-107.8285735	Circle (Radius: 25.00)
- plan hits target center								
SR 42-12 PBHL	9327.00	422.44	1491.04	1599566.60	2342578.20	39.4564483	-107.8285735	Point
- plan hits target center								



# **TEP Rocky Mountain LLC**

**Garfield County, CO NAD83**

**RU 32-12 Pad**

**SR 42-12 - Slot B11**

**OH**

**Plan: Plan #1 20Sept2016 jcsdi**

## **Standard Planning Report**

**30 September, 2016**



<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well SR 42-12 - Slot B11
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
<b>Site:</b>	RU 32-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SR 42-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1 20Sept2016 jcsdi		

<b>Project</b>	Garfield County, CO NAD83		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Central Zone		

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

<b>Well</b>	SR 42-12 - Slot B11			
<b>Well Position</b>	<b>+N/-S</b>	-69.99 usft	<b>Northing:</b>	1,599,182.60 usft
	<b>+E/-W</b>	28.61 usft	<b>Easting:</b>	2,341,076.80 usft
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	0.00 usft
			<b>Ground Level:</b>	7,254.00 usft

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

<b>Design</b>	Plan #1 20Sept2016 jcsdi			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	74.18

<b>Plan Sections</b>										
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	
130.00	0.00	0.00	130.00	0.00	0.00	0.00	0.00	0.00	0.00	
766.88	19.11	74.18	755.14	28.68	101.23	3.00	3.00	0.00	74.18	
4,537.15	19.11	74.18	4,317.72	365.08	1,288.59	0.00	0.00	0.00	0.00	
5,810.91	0.00	0.00	5,568.00	422.44	1,491.04	1.50	-1.50	0.00	180.00	SR 42-12 MVRD
9,569.91	0.00	0.00	9,327.00	422.44	1,491.04	0.00	0.00	0.00	0.00	SR 42-12 PBHL

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well SR 42-12 - Slot B11
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
<b>Site:</b>	RU 32-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SR 42-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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	
130.00	0.00	0.00	130.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	2.10	74.18	199.98	0.35	1.23	1.28	3.00	3.00	0.00	
300.00	5.10	74.18	299.78	2.06	7.27	7.56	3.00	3.00	0.00	
400.00	8.10	74.18	399.10	5.19	18.33	19.05	3.00	3.00	0.00	
500.00	11.10	74.18	497.69	9.74	34.38	35.73	3.00	3.00	0.00	
600.00	14.10	74.18	595.27	15.68	55.36	57.54	3.00	3.00	0.00	
700.00	17.10	74.18	691.58	23.01	81.23	84.43	3.00	3.00	0.00	
766.88	19.11	74.18	755.14	28.68	101.23	105.21	3.00	3.00	0.00	
800.00	19.11	74.18	786.44	31.63	111.66	116.05	0.00	0.00	0.00	
900.00	19.11	74.18	880.93	40.56	143.15	148.78	0.00	0.00	0.00	
1,000.00	19.11	74.18	975.42	49.48	174.64	181.52	0.00	0.00	0.00	
1,100.00	19.11	74.18	1,069.91	58.40	206.13	214.25	0.00	0.00	0.00	
9 5/8" @ 1100' MD										
1,200.00	19.11	74.18	1,164.40	67.32	237.63	246.98	0.00	0.00	0.00	
1,300.00	19.11	74.18	1,258.89	76.25	269.12	279.71	0.00	0.00	0.00	
1,400.00	19.11	74.18	1,353.38	85.17	300.61	312.44	0.00	0.00	0.00	
1,500.00	19.11	74.18	1,447.88	94.09	332.11	345.18	0.00	0.00	0.00	
1,600.00	19.11	74.18	1,542.37	103.01	363.60	377.91	0.00	0.00	0.00	
1,700.00	19.11	74.18	1,636.86	111.94	395.09	410.64	0.00	0.00	0.00	
1,800.00	19.11	74.18	1,731.35	120.86	426.58	443.37	0.00	0.00	0.00	
1,900.00	19.11	74.18	1,825.84	129.78	458.08	476.11	0.00	0.00	0.00	
2,000.00	19.11	74.18	1,920.33	138.70	489.57	508.84	0.00	0.00	0.00	
2,100.00	19.11	74.18	2,014.82	147.63	521.06	541.57	0.00	0.00	0.00	
2,200.00	19.11	74.18	2,109.31	156.55	552.56	574.30	0.00	0.00	0.00	
2,300.00	19.11	74.18	2,203.81	165.47	584.05	607.04	0.00	0.00	0.00	
2,400.00	19.11	74.18	2,298.30	174.39	615.54	639.77	0.00	0.00	0.00	
2,500.00	19.11	74.18	2,392.79	183.32	647.03	672.50	0.00	0.00	0.00	
2,600.00	19.11	74.18	2,487.28	192.24	678.53	705.23	0.00	0.00	0.00	
2,700.00	19.11	74.18	2,581.77	201.16	710.02	737.97	0.00	0.00	0.00	
2,800.00	19.11	74.18	2,676.26	210.08	741.51	770.70	0.00	0.00	0.00	
2,900.00	19.11	74.18	2,770.75	219.01	773.01	803.43	0.00	0.00	0.00	
3,000.00	19.11	74.18	2,865.24	227.93	804.50	836.16	0.00	0.00	0.00	
3,100.00	19.11	74.18	2,959.74	236.85	835.99	868.90	0.00	0.00	0.00	
3,200.00	19.11	74.18	3,054.23	245.77	867.48	901.63	0.00	0.00	0.00	
3,300.00	19.11	74.18	3,148.72	254.70	898.98	934.36	0.00	0.00	0.00	
3,314.06	19.11	74.18	3,162.00	255.95	903.40	938.96	0.00	0.00	0.00	
Wasatch G Sand										
3,377.55	19.11	74.18	3,222.00	261.62	923.40	959.75	0.00	0.00	0.00	
Wasatch G Sand Base										
3,400.00	19.11	74.18	3,243.21	263.62	930.47	967.09	0.00	0.00	0.00	
3,500.00	19.11	74.18	3,337.70	272.54	961.96	999.82	0.00	0.00	0.00	
3,600.00	19.11	74.18	3,432.19	281.46	993.45	1,032.56	0.00	0.00	0.00	
3,700.00	19.11	74.18	3,526.68	290.39	1,024.95	1,065.29	0.00	0.00	0.00	
3,800.00	19.11	74.18	3,621.17	299.31	1,056.44	1,098.02	0.00	0.00	0.00	
3,900.00	19.11	74.18	3,715.67	308.23	1,087.93	1,130.75	0.00	0.00	0.00	
4,000.00	19.11	74.18	3,810.16	317.15	1,119.43	1,163.49	0.00	0.00	0.00	
4,100.00	19.11	74.18	3,904.65	326.08	1,150.92	1,196.22	0.00	0.00	0.00	
4,200.00	19.11	74.18	3,999.14	335.00	1,182.41	1,228.95	0.00	0.00	0.00	
4,300.00	19.11	74.18	4,093.63	343.92	1,213.90	1,261.68	0.00	0.00	0.00	
4,400.00	19.11	74.18	4,188.12	352.84	1,245.40	1,294.42	0.00	0.00	0.00	

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well SR 42-12 - Slot B11
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<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
<b>Site:</b>	RU 32-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SR 42-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)
4,500.00	19.11	74.18	4,282.61	361.77	1,276.89	1,327.15	0.00	0.00	0.00
4,537.15	19.11	74.18	4,317.72	365.08	1,288.59	1,339.31	0.00	0.00	0.00
4,600.00	18.16	74.18	4,377.27	370.56	1,307.91	1,359.39	1.50	-1.50	0.00
4,700.00	16.66	74.18	4,472.68	378.71	1,336.70	1,389.32	1.50	-1.50	0.00
4,800.00	15.16	74.18	4,568.85	386.19	1,363.08	1,416.74	1.50	-1.50	0.00
4,900.00	13.66	74.18	4,665.70	392.97	1,387.03	1,441.63	1.50	-1.50	0.00
5,000.00	12.16	74.18	4,763.17	399.06	1,408.53	1,463.97	1.50	-1.50	0.00
5,100.00	10.66	74.18	4,861.19	404.46	1,427.57	1,483.76	1.50	-1.50	0.00
5,200.00	9.16	74.18	4,959.69	409.15	1,444.14	1,500.98	1.50	-1.50	0.00
5,300.00	7.66	74.18	5,058.61	413.14	1,458.21	1,515.61	1.50	-1.50	0.00
5,352.81	6.87	74.18	5,111.00	414.96	1,464.64	1,522.29	1.50	-1.50	0.00
Wasatch G Sand Lower									
5,400.00	6.16	74.18	5,157.88	416.42	1,469.80	1,527.65	1.50	-1.50	0.00
5,500.00	4.66	74.18	5,257.43	418.99	1,478.87	1,537.08	1.50	-1.50	0.00
5,600.00	3.16	74.18	5,357.20	420.85	1,485.44	1,543.91	1.50	-1.50	0.00
5,700.00	1.66	74.18	5,457.11	422.00	1,489.49	1,548.12	1.50	-1.50	0.00
5,800.00	0.16	74.18	5,557.09	422.44	1,491.03	1,549.71	1.50	-1.50	0.00
5,810.91	0.00	0.00	5,568.00	422.44	1,491.04	1,549.73	1.50	-1.50	0.00
Mesaverde - SR 42-12 MVRD									
5,900.00	0.00	0.00	5,657.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
6,000.00	0.00	0.00	5,757.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
6,100.00	0.00	0.00	5,857.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
6,200.00	0.00	0.00	5,957.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
6,300.00	0.00	0.00	6,057.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
6,400.00	0.00	0.00	6,157.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
6,500.00	0.00	0.00	6,257.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
6,600.00	0.00	0.00	6,357.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
6,700.00	0.00	0.00	6,457.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
6,800.00	0.00	0.00	6,557.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
6,900.00	0.00	0.00	6,657.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
7,000.00	0.00	0.00	6,757.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
7,100.00	0.00	0.00	6,857.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
7,200.00	0.00	0.00	6,957.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
7,300.00	0.00	0.00	7,057.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
7,400.00	0.00	0.00	7,157.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
7,446.91	0.00	0.00	7,204.00	422.44	1,491.04	1,549.73	0.00	0.00	0.00
Top KMV Gas									
7,500.00	0.00	0.00	7,257.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
7,600.00	0.00	0.00	7,357.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
7,700.00	0.00	0.00	7,457.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
7,800.00	0.00	0.00	7,557.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
7,900.00	0.00	0.00	7,657.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
8,000.00	0.00	0.00	7,757.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
8,100.00	0.00	0.00	7,857.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
8,200.00	0.00	0.00	7,957.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
8,300.00	0.00	0.00	8,057.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
8,400.00	0.00	0.00	8,157.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
8,500.00	0.00	0.00	8,257.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00
8,533.91	0.00	0.00	8,291.00	422.44	1,491.04	1,549.73	0.00	0.00	0.00
Cameo									
8,600.00	0.00	0.00	8,357.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00

<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well SR 42-12 - Slot B11
<b>Company:</b>	TEP Rocky Mountain LLC	<b>TVD Reference:</b>	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
<b>Project:</b>	Garfield County, CO NAD83	<b>MD Reference:</b>	GL 7254' & RKB 24' @ 7278.00usft (H&P 318)
<b>Site:</b>	RU 32-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	SR 42-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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	8,457.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,557.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,657.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,757.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00	
9,100.00	0.00	0.00	8,857.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00	
9,200.00	0.00	0.00	8,957.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00	
9,300.00	0.00	0.00	9,057.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00	
9,400.00	0.00	0.00	9,157.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00	
9,419.91	0.00	0.00	9,177.00	422.44	1,491.04	1,549.73	0.00	0.00	0.00	
Rollins										
9,500.00	0.00	0.00	9,257.09	422.44	1,491.04	1,549.73	0.00	0.00	0.00	
9,569.91	0.00	0.00	9,327.00	422.44	1,491.04	1,549.73	0.00	0.00	0.00	
SR 42-12 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 42-12 MVRD	0.00	0.00	5,568.00	422.44	1,491.04	1,599,566.60	2,342,578.20	39.4564483	-107.8285735
- plan hits target center									
- Circle (radius 25.00)									
SR 42-12 PBHL	0.00	0.00	9,327.00	422.44	1,491.04	1,599,566.60	2,342,578.20	39.4564483	-107.8285735
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,100.00	1,069.91	9 5/8" @ 1100' MD	9.62	9.62	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,314.06	3,162.00	Wasatch G Sand		0.00	0.00	
3,377.55	3,222.00	Wasatch G Sand Base		0.00	0.00	
5,352.81	5,111.00	Wasatch G Sand Lower		0.00	0.00	
5,810.91	5,568.00	Mesaverde		0.00	0.00	
7,446.91	7,204.00	Top KMV Gas		0.00	0.00	
8,533.91	8,291.00	Cameo		0.00	0.00	
9,419.91	9,177.00	Rollins		0.00	0.00	