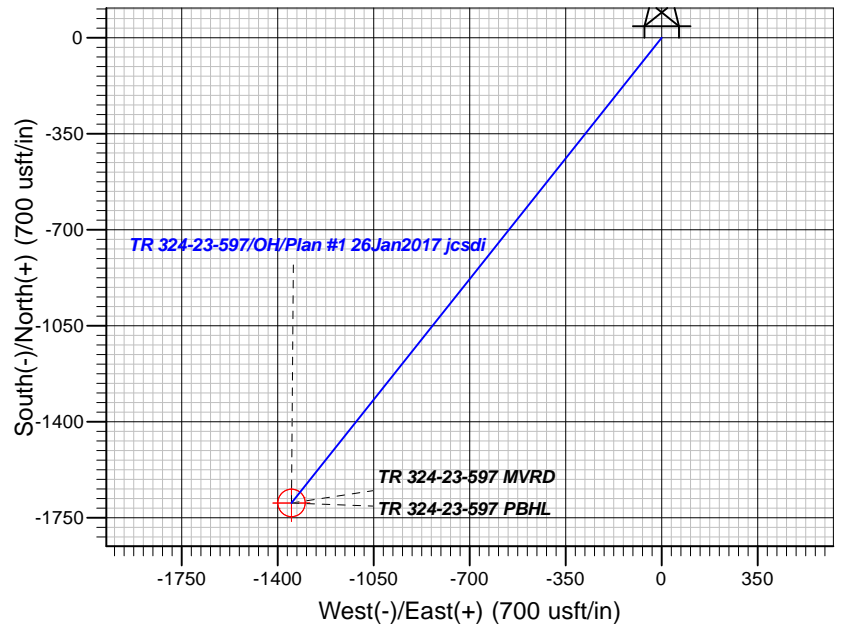
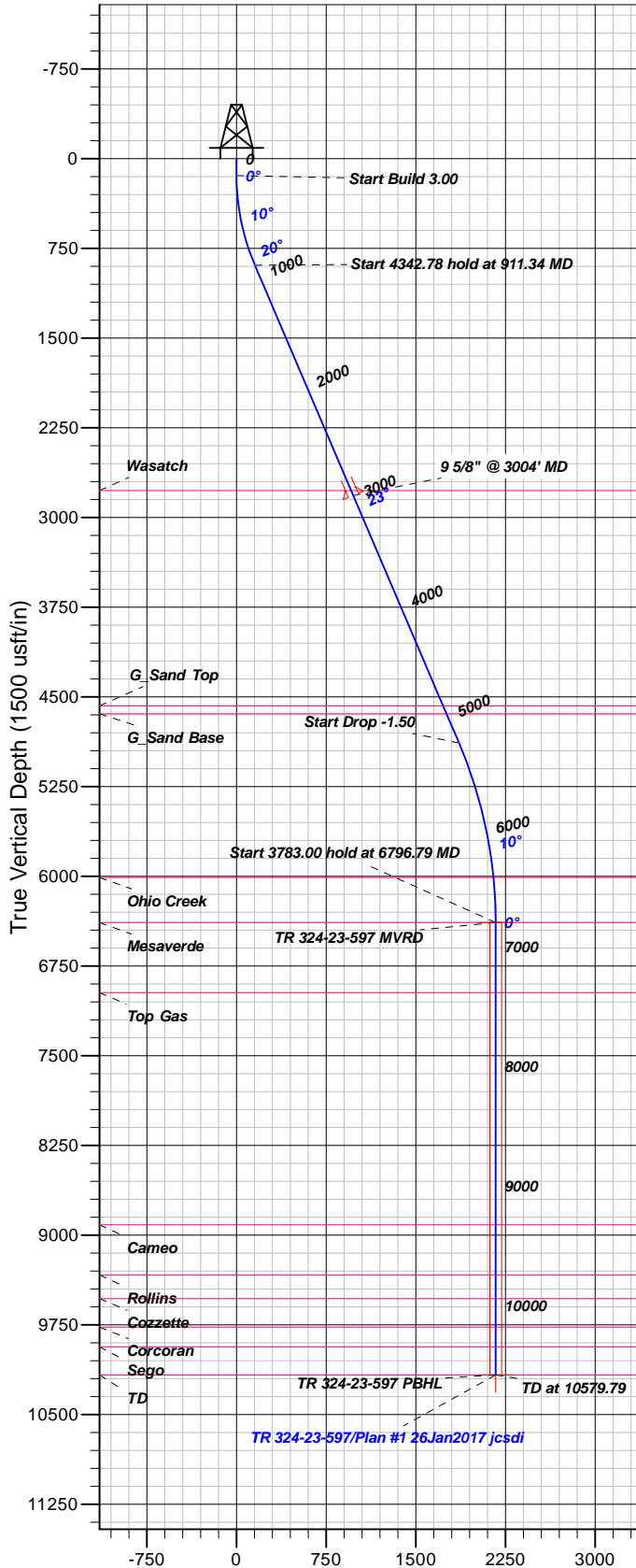


Well Details: TR 324-23-597

GL 8545.20' & RKB 24' @ 8569.20usft (H&P 318)
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1654834.10 2227593.10 39.5993140 -108.2415255 A1 (TR 324-23-597)

T M Azimuths to True North
Magnetic North: 9.80°
Magnetic Field
Strength: 51645.8snT
Dip Angle: 65.93°
Date: 1/26/2017
Model: HDGM



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2775.00	2960.67	Wasatch
4574.00	4917.07	G_Sand Top
4641.00	4989.93	G_Sand Base
6009.00	6420.18	Ohio Creek
6385.00	6796.79	Mesaverde
6972.00	7383.79	Top Gas
8912.00	9323.79	Cameo
9331.00	9742.79	Rollins
9531.00	9942.79	Cozzette
9768.00	10179.79	Corcoran
9933.00	10344.79	Sego
10168.00	10579.79	TD

Plan: Plan #1 26Jan2017 jcsdi

12:27, January 30 2017
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
2814.84	3004.00	9 5/8" @ 3004' 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	140.00	0.00	0.00	140.00	0.00	0.00	0.00	0.00	0.00	
3	911.34	23.14	218.52	890.54	-120.22	-95.69	3.00	218.52	153.65	
4	5254.11	23.14	218.52	4883.93	-1455.47	-1158.56	0.00	0.00	1860.28	
5	6796.79	0.00	0.00	6385.00	-1695.90	-1349.94	1.50	180.00	2167.59	TR 324-23-597 MVRD
6	10579.79	0.00	0.00	10168.00	-1695.90	-1349.94	0.00	0.00	2167.59	TR 324-23-597 PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
TR 324-23-597 MVRD	6385.00	-1695.90	-1349.94	1653179.70	2226192.60	39.5946581	-108.2463158	Circle (Radius: 50.00)
- plan hits target center								
TR 324-23-597 PBHL	10168.00	-1695.90	-1349.94	1653179.70	2226192.60	39.5946581	-108.2463158	Point
- plan hits target center								



TEP Rocky Mountain LLC

Garfield County, CO NAD83

TR 32-23-597 Pad

TR 324-23-597 - Slot A1 (TR 324-23-597)

OH

Plan: Plan #1 26Jan2017 jcsdi

Standard Planning Report

30 January, 2017



www.scientificdrilling.com



Database:	Grand Junction District	Local Co-ordinate Reference:	Well TR 324-23-597 - Slot A1 (TR 324-23-597)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 8545.20' & RKB 24' @ 8569.20usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 8545.20' & RKB 24' @ 8569.20usft (H&P 318)
Site:	TR 32-23-597 Pad	North Reference:	True
Well:	TR 324-23-597	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 26Jan2017 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	TR 32-23-597 Pad			
Site Position:		Northing:	1,654,899.00 usft	Latitude: 39.5994964
From: Map		Easting:	2,227,644.00 usft	Longitude: -108.2413519
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence: -1.73 °

Well	TR 324-23-597 - Slot A1 (TR 324-23-597)			
Well Position	+N/-S	-66.41 usft	Northing:	1,654,834.10 usft
	+E/-W	-48.92 usft	Easting:	2,227,593.10 usft
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft
			Ground Level:	8,545.20 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	1/26/2017	9.80	65.93	51,646

Design	Plan #1 26Jan2017 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	218.52

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	
140.00	0.00	0.00	140.00	0.00	0.00	0.00	0.00	0.00	0.00	
911.34	23.14	218.52	890.54	-120.22	-95.69	3.00	3.00	0.00	218.52	
5,254.11	23.14	218.52	4,883.93	-1,455.47	-1,158.56	0.00	0.00	0.00	0.00	
6,796.79	0.00	0.00	6,385.00	-1,695.90	-1,349.94	1.50	-1.50	0.00	180.00	TR 324-23-597 MVRI
10,579.79	0.00	0.00	10,168.00	-1,695.90	-1,349.94	0.00	0.00	0.00	0.00	TR 324-23-597 PBHL

Database:	Grand Junction District	Local Co-ordinate Reference:	Well TR 324-23-597 - Slot A1 (TR 324-23-597)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 8545.20' & RKB 24' @ 8569.20usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 8545.20' & RKB 24' @ 8569.20usft (H&P 318)
Site:	TR 32-23-597 Pad	North Reference:	True
Well:	TR 324-23-597	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 26Jan2017 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
140.00	0.00	0.00	140.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	1.80	218.52	199.99	-0.74	-0.59	0.94	3.00	3.00	0.00
300.00	4.80	218.52	299.81	-5.24	-4.17	6.70	3.00	3.00	0.00
400.00	7.80	218.52	399.20	-13.83	-11.00	17.67	3.00	3.00	0.00
500.00	10.80	218.52	497.87	-26.47	-21.07	33.83	3.00	3.00	0.00
600.00	13.80	218.52	595.57	-43.13	-34.33	55.13	3.00	3.00	0.00
700.00	16.80	218.52	692.01	-63.78	-50.77	81.51	3.00	3.00	0.00
800.00	19.80	218.52	786.94	-88.34	-70.32	112.91	3.00	3.00	0.00
900.00	22.80	218.52	880.10	-116.76	-92.94	149.23	3.00	3.00	0.00
911.34	23.14	218.52	890.54	-120.22	-95.69	153.65	3.00	3.00	0.00
1,000.00	23.14	218.52	972.07	-147.48	-117.39	188.50	0.00	0.00	0.00
1,100.00	23.14	218.52	1,064.02	-178.23	-141.87	227.80	0.00	0.00	0.00
1,200.00	23.14	218.52	1,155.98	-208.97	-166.34	267.09	0.00	0.00	0.00
1,300.00	23.14	218.52	1,247.93	-239.72	-190.82	306.39	0.00	0.00	0.00
1,400.00	23.14	218.52	1,339.89	-270.46	-215.29	345.69	0.00	0.00	0.00
1,500.00	23.14	218.52	1,431.84	-301.21	-239.76	384.99	0.00	0.00	0.00
1,600.00	23.14	218.52	1,523.80	-331.96	-264.24	424.29	0.00	0.00	0.00
1,700.00	23.14	218.52	1,615.75	-362.70	-288.71	463.58	0.00	0.00	0.00
1,800.00	23.14	218.52	1,707.71	-393.45	-313.19	502.88	0.00	0.00	0.00
1,900.00	23.14	218.52	1,799.66	-424.20	-337.66	542.18	0.00	0.00	0.00
2,000.00	23.14	218.52	1,891.62	-454.94	-362.14	581.48	0.00	0.00	0.00
2,100.00	23.14	218.52	1,983.57	-485.69	-386.61	620.78	0.00	0.00	0.00
2,200.00	23.14	218.52	2,075.52	-516.44	-411.08	660.07	0.00	0.00	0.00
2,300.00	23.14	218.52	2,167.48	-547.18	-435.56	699.37	0.00	0.00	0.00
2,400.00	23.14	218.52	2,259.43	-577.93	-460.03	738.67	0.00	0.00	0.00
2,500.00	23.14	218.52	2,351.39	-608.68	-484.51	777.97	0.00	0.00	0.00
2,600.00	23.14	218.52	2,443.34	-639.42	-508.98	817.27	0.00	0.00	0.00
2,700.00	23.14	218.52	2,535.30	-670.17	-533.46	856.56	0.00	0.00	0.00
2,800.00	23.14	218.52	2,627.25	-700.92	-557.93	895.86	0.00	0.00	0.00
2,900.00	23.14	218.52	2,719.21	-731.66	-582.40	935.16	0.00	0.00	0.00
2,960.67	23.14	218.52	2,775.00	-750.32	-597.25	959.00	0.00	0.00	0.00
Wasatch									
3,000.00	23.14	218.52	2,811.16	-762.41	-606.88	974.46	0.00	0.00	0.00
3,004.00	23.14	218.52	2,814.84	-763.64	-607.86	976.03	0.00	0.00	0.00
9 5/8" @ 3004' MD									
3,100.00	23.14	218.52	2,903.12	-793.15	-631.35	1,013.76	0.00	0.00	0.00
3,200.00	23.14	218.52	2,995.07	-823.90	-655.83	1,053.05	0.00	0.00	0.00
3,300.00	23.14	218.52	3,087.03	-854.65	-680.30	1,092.35	0.00	0.00	0.00
3,400.00	23.14	218.52	3,178.98	-885.39	-704.78	1,131.65	0.00	0.00	0.00
3,500.00	23.14	218.52	3,270.94	-916.14	-729.25	1,170.95	0.00	0.00	0.00
3,600.00	23.14	218.52	3,362.89	-946.89	-753.72	1,210.25	0.00	0.00	0.00
3,700.00	23.14	218.52	3,454.84	-977.63	-778.20	1,249.54	0.00	0.00	0.00
3,800.00	23.14	218.52	3,546.80	-1,008.38	-802.67	1,288.84	0.00	0.00	0.00
3,900.00	23.14	218.52	3,638.75	-1,039.13	-827.15	1,328.14	0.00	0.00	0.00
4,000.00	23.14	218.52	3,730.71	-1,069.87	-851.62	1,367.44	0.00	0.00	0.00
4,100.00	23.14	218.52	3,822.66	-1,100.62	-876.10	1,406.74	0.00	0.00	0.00
4,200.00	23.14	218.52	3,914.62	-1,131.37	-900.57	1,446.03	0.00	0.00	0.00
4,300.00	23.14	218.52	4,006.57	-1,162.11	-925.04	1,485.33	0.00	0.00	0.00
4,400.00	23.14	218.52	4,098.53	-1,192.86	-949.52	1,524.63	0.00	0.00	0.00

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Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 8545.20' & RKB 24' @ 8569.20usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 8545.20' & RKB 24' @ 8569.20usft (H&P 318)
Site:	TR 32-23-597 Pad	North Reference:	True
Well:	TR 324-23-597	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 26Jan2017 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	23.14	218.52	4,190.48	-1,223.61	-973.99	1,563.93	0.00	0.00	0.00
4,600.00	23.14	218.52	4,282.44	-1,254.35	-998.47	1,603.23	0.00	0.00	0.00
4,700.00	23.14	218.52	4,374.39	-1,285.10	-1,022.94	1,642.52	0.00	0.00	0.00
4,800.00	23.14	218.52	4,466.35	-1,315.84	-1,047.42	1,681.82	0.00	0.00	0.00
4,900.00	23.14	218.52	4,558.30	-1,346.59	-1,071.89	1,721.12	0.00	0.00	0.00
4,917.07	23.14	218.52	4,574.00	-1,351.84	-1,076.07	1,727.83	0.00	0.00	0.00
G_Sand Top									
4,989.93	23.14	218.52	4,641.00	-1,374.24	-1,093.90	1,756.46	0.00	0.00	0.00
G_Sand Base									
5,000.00	23.14	218.52	4,650.26	-1,377.34	-1,096.36	1,760.42	0.00	0.00	0.00
5,100.00	23.14	218.52	4,742.21	-1,408.08	-1,120.84	1,799.72	0.00	0.00	0.00
5,200.00	23.14	218.52	4,834.17	-1,438.83	-1,145.31	1,839.01	0.00	0.00	0.00
5,254.11	23.14	218.52	4,883.93	-1,455.47	-1,158.56	1,860.28	0.00	0.00	0.00
5,300.00	22.45	218.52	4,926.23	-1,469.38	-1,169.63	1,878.06	1.50	-1.50	0.00
5,400.00	20.95	218.52	5,019.14	-1,498.31	-1,192.66	1,915.04	1.50	-1.50	0.00
5,500.00	19.45	218.52	5,112.98	-1,525.33	-1,214.16	1,949.57	1.50	-1.50	0.00
5,600.00	17.95	218.52	5,207.70	-1,550.41	-1,234.13	1,981.63	1.50	-1.50	0.00
5,700.00	16.45	218.52	5,303.22	-1,573.55	-1,252.55	2,011.20	1.50	-1.50	0.00
5,800.00	14.95	218.52	5,399.49	-1,594.72	-1,269.40	2,038.27	1.50	-1.50	0.00
5,900.00	13.45	218.52	5,496.43	-1,613.92	-1,284.68	2,062.80	1.50	-1.50	0.00
6,000.00	11.95	218.52	5,593.98	-1,631.12	-1,298.38	2,084.79	1.50	-1.50	0.00
6,100.00	10.45	218.52	5,692.07	-1,646.32	-1,310.47	2,104.21	1.50	-1.50	0.00
6,200.00	8.95	218.52	5,790.64	-1,659.50	-1,320.97	2,121.06	1.50	-1.50	0.00
6,300.00	7.45	218.52	5,889.61	-1,670.66	-1,329.85	2,135.33	1.50	-1.50	0.00
6,400.00	5.95	218.52	5,988.93	-1,679.79	-1,337.12	2,147.00	1.50	-1.50	0.00
6,420.18	5.65	218.52	6,009.00	-1,681.39	-1,338.39	2,149.04	1.50	-1.50	0.00
Ohio Creek									
6,500.00	4.45	218.52	6,088.51	-1,686.89	-1,342.77	2,156.06	1.50	-1.50	0.00
6,600.00	2.95	218.52	6,188.30	-1,691.94	-1,346.79	2,162.52	1.50	-1.50	0.00
6,700.00	1.45	218.52	6,288.22	-1,694.94	-1,349.18	2,166.36	1.50	-1.50	0.00
6,796.79	0.00	0.00	6,385.00	-1,695.90	-1,349.94	2,167.59	1.50	-1.50	0.00
Mesaverde - TR 324-23-597 MVRD									
6,800.00	0.00	0.00	6,388.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
6,900.00	0.00	0.00	6,488.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
7,000.00	0.00	0.00	6,588.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
7,100.00	0.00	0.00	6,688.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
7,200.00	0.00	0.00	6,788.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
7,300.00	0.00	0.00	6,888.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
7,383.79	0.00	0.00	6,972.00	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
Top Gas									
7,400.00	0.00	0.00	6,988.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
7,500.00	0.00	0.00	7,088.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
7,600.00	0.00	0.00	7,188.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
7,700.00	0.00	0.00	7,288.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
7,800.00	0.00	0.00	7,388.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
7,900.00	0.00	0.00	7,488.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
8,000.00	0.00	0.00	7,588.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
8,100.00	0.00	0.00	7,688.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
8,200.00	0.00	0.00	7,788.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
8,300.00	0.00	0.00	7,888.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well TR 324-23-597 - Slot A1 (TR 324-23-597)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 8545.20' & RKB 24' @ 8569.20usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 8545.20' & RKB 24' @ 8569.20usft (H&P 318)
Site:	TR 32-23-597 Pad	North Reference:	True
Well:	TR 324-23-597	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 26Jan2017 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)
8,400.00	0.00	0.00	7,988.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
8,500.00	0.00	0.00	8,088.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
8,600.00	0.00	0.00	8,188.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
8,700.00	0.00	0.00	8,288.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
8,800.00	0.00	0.00	8,388.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
8,900.00	0.00	0.00	8,488.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
9,000.00	0.00	0.00	8,588.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
9,100.00	0.00	0.00	8,688.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
9,200.00	0.00	0.00	8,788.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
9,300.00	0.00	0.00	8,888.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
9,323.79	0.00	0.00	8,912.00	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
Cameo									
9,400.00	0.00	0.00	8,988.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
9,500.00	0.00	0.00	9,088.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
9,600.00	0.00	0.00	9,188.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
9,700.00	0.00	0.00	9,288.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
9,742.79	0.00	0.00	9,331.00	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
Rollins									
9,800.00	0.00	0.00	9,388.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
9,900.00	0.00	0.00	9,488.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
9,942.79	0.00	0.00	9,531.00	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
Cozzette									
10,000.00	0.00	0.00	9,588.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
10,100.00	0.00	0.00	9,688.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
10,179.79	0.00	0.00	9,768.00	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
Corcoran									
10,200.00	0.00	0.00	9,788.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
10,300.00	0.00	0.00	9,888.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
10,344.79	0.00	0.00	9,933.00	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
Sego									
10,400.00	0.00	0.00	9,988.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
10,500.00	0.00	0.00	10,088.21	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
10,579.79	0.00	0.00	10,168.00	-1,695.90	-1,349.94	2,167.59	0.00	0.00	0.00
TD - TR 324-23-597 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									
TR 324-23-597 MVRD	0.00	0.00	6,385.00	-1,695.90	-1,349.94	1,653,179.70	2,226,192.60	39.5946581	-108.2463159
- plan hits target center									
- Circle (radius 50.00)									
TR 324-23-597 PBHL	0.00	0.00	10,168.00	-1,695.90	-1,349.94	1,653,179.70	2,226,192.60	39.5946581	-108.2463159
- plan hits target center									
- Point									

Database:	Grand Junction District	Local Co-ordinate Reference:	Well TR 324-23-597 - Slot A1 (TR 324-23-597)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 8545.20' & RKB 24' @ 8569.20usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 8545.20' & RKB 24' @ 8569.20usft (H&P 318)
Site:	TR 32-23-597 Pad	North Reference:	True
Well:	TR 324-23-597	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 26Jan2017 jcsdi		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
3,004.00	2,814.84	9 5/8" @ 3004' MD	9.62	9.62	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,960.67	2,775.00	Wasatch		0.00	0.00	
4,917.07	4,574.00	G_Sand Top		0.00	0.00	
4,989.93	4,641.00	G_Sand Base		0.00	0.00	
6,420.18	6,009.00	Ohio Creek		0.00	0.00	
6,796.79	6,385.00	Mesaverde		0.00	0.00	
7,383.79	6,972.00	Top Gas		0.00	0.00	
9,323.79	8,912.00	Cameo		0.00	0.00	
9,742.79	9,331.00	Rollins		0.00	0.00	
9,942.79	9,531.00	Cozzette		0.00	0.00	
10,179.79	9,768.00	Corcoran		0.00	0.00	
10,344.79	9,933.00	Sego		0.00	0.00	
10,579.79	10,168.00	TD		0.00	0.00	