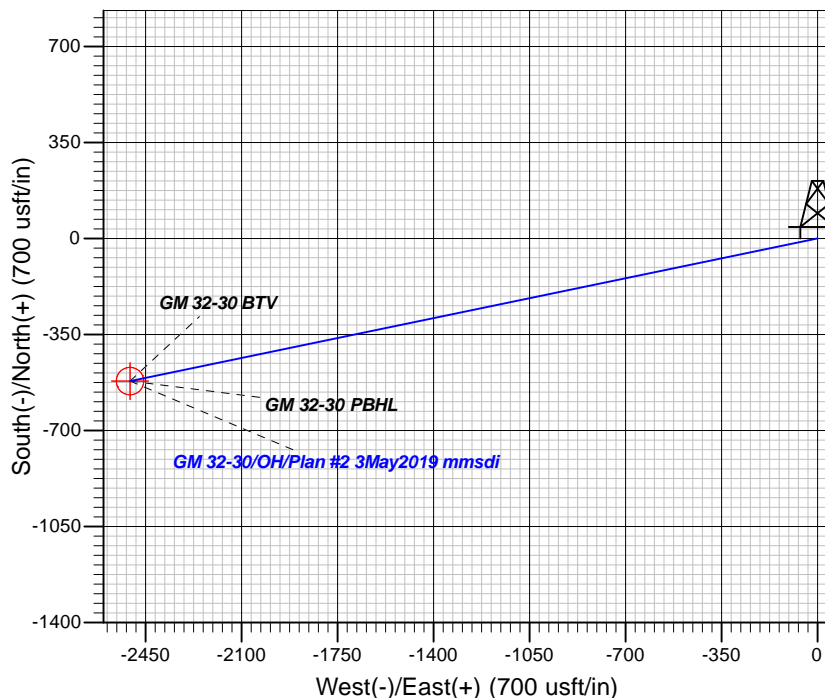




Magnetic Field
Strength: 51557.8snT
Dip Angle: 65.75°
Date: 3/20/2019
Model: HDGM

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1617156.12	2255429.50	39.4981810	-108.1388981	GM 32-30 (B6)



TVDPPath	MDPPath	Formation
2105.00	2393.84	G Sand
2205.00	2514.36	G Sand Base
2355.00	2695.13	FRUN
3755.00	4380.68	MVRD
3755.00	4380.68	Ohio Creek
4755.00	5456.40	KMVGAS
6235.00	6938.93	CMEQ
6750.00	7453.93	RLNS
6900.00	7603.93	TD

10:25, May 06 2019
Created By: Mel Mireles

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone

System Datum: Mean Sea Level

No casing data is available

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	135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	
3	983.12	33.92	258.28	934.43	-49.53	-238.75	4.00	258.28	243.84	
4	4260.15	33.92	258.28	3653.61	-421.02	-2029.56	0.00	0.00	0.00	
5	5456.40	10.00	258.28	4755.00	-511.24	-2464.45	2.00	180.00	2516.92	
6	5956.40	0.00	0.00	5252.47	-520.08	-2507.07	2.00	180.00	0.00	
7	7603.93	0.00	0.00	6900.00	-520.08	-2507.07	0.00	0.00	2560.44	GM 32-30 PBHL

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
GM 32-30 BTVD	4755.00	-520.08	-2507.07	1616709.07	2252908.38	39.4967528	-108.1477822	Circle (Radius: 50.00)
- plan misses target center by 42.88usft at 5463.63usft MD (4762.12 TVD, -511.49 N, -2465.67 E)								
GM 32-30 PBHL	6900.00	-520.08	-2507.07	1616709.07	2252908.38	39.4967528	-108.1477822	Point
- plan misses target center by 0.01usft at 7603.93usft MD (6900.00 TVD, -520.08 N, -2507.07 E)								



TEP Rocky Mountain LLC

Garfield County, CO NAD83

GR 12-29 Pad

GM 32-30 - Slot GM 32-30 (B6)

OH

Plan: Plan #2 3May2019 mmsdi

Standard Planning Report

06 May, 2019



Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 32-30 - Slot GM 32-30 (B6)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5849' & RKB 24' @ 5873.00usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 5849' & RKB 24' @ 5873.00usft (H&P 318)
Site:	GR 12-29 Pad	North Reference:	True
Well:	GM 32-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2 3May2019 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		GR 12-29 Pad			
Site Position:		Northing:	1,617,169.51 usft	Latitude:	39.4982149
From:	Map	Easting:	2,255,394.48 usft	Longitude:	-108.1390236
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-1.66 °

Well	GM 32-30 - Slot GM 32-30 (B6)					
Well Position	+N/-S	-12.37 usft	Northing:	1,617,156.12 usft	Latitude:	39.4981810
	+E/-W	35.39 usft	Easting:	2,255,429.50 usft	Longitude:	-108.1388982
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	5,849.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	3/20/2019	9.50	65.75	51,558

Design	Plan #2 3May2019 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	258.28

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	
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	0.00	
983.12	33.92	258.28	934.43	-49.53	-238.75	4.00	4.00	0.00	258.28	
4,260.15	33.92	258.28	3,653.61	-421.02	-2,029.56	0.00	0.00	0.00	0.00	
5,456.40	10.00	258.28	4,755.00	-511.24	-2,464.45	2.00	-2.00	0.00	180.00	
5,956.40	0.00	0.00	5,252.47	-520.08	-2,507.07	2.00	-2.00	20.34	180.00	
7,603.93	0.00	0.00	6,900.00	-520.08	-2,507.07	0.00	0.00	0.00	0.00	GM 32-30 PBHL

Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 32-30 - Slot GM 32-30 (B6)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5849' & RKB 24' @ 5873.00usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 5849' & RKB 24' @ 5873.00usft (H&P 318)
Site:	GR 12-29 Pad	North Reference:	True
Well:	GM 32-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2 3May2019 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	
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	0.00	
Start Build 4.00										
200.00	2.60	258.28	199.98	-0.30	-1.44	1.47	4.00	4.00	0.00	
300.00	6.60	258.28	299.64	-1.93	-9.29	9.49	4.00	4.00	0.00	
400.00	10.60	258.28	398.49	-4.96	-23.93	24.44	4.00	4.00	0.00	
500.00	14.60	258.28	496.06	-9.40	-45.29	46.25	4.00	4.00	0.00	
600.00	18.60	258.28	591.88	-15.20	-73.26	74.82	4.00	4.00	0.00	
700.00	22.60	258.28	685.46	-22.34	-107.70	109.99	4.00	4.00	0.00	
800.00	26.60	258.28	776.37	-30.80	-148.45	151.61	4.00	4.00	0.00	
900.00	30.60	258.28	864.15	-40.52	-195.31	199.47	4.00	4.00	0.00	
983.12	33.92	258.28	934.43	-49.53	-238.75	243.84	4.00	4.00	0.00	
Start 3277.03 hold at 983.12 MD										
1,000.00	33.92	258.28	948.43	-51.44	-247.98	253.26	0.00	0.00	0.00	
1,100.00	33.92	258.28	1,031.41	-62.78	-302.62	309.07	0.00	0.00	0.00	
1,200.00	33.92	258.28	1,114.39	-74.11	-357.27	364.88	0.00	0.00	0.00	
1,300.00	33.92	258.28	1,197.36	-85.45	-411.92	420.69	0.00	0.00	0.00	
1,400.00	33.92	258.28	1,280.34	-96.79	-466.57	476.50	0.00	0.00	0.00	
1,500.00	33.92	258.28	1,363.32	-108.12	-521.21	532.31	0.00	0.00	0.00	
1,600.00	33.92	258.28	1,446.29	-119.46	-575.86	588.12	0.00	0.00	0.00	
1,700.00	33.92	258.28	1,529.27	-130.80	-630.51	643.93	0.00	0.00	0.00	
1,800.00	33.92	258.28	1,612.25	-142.13	-685.15	699.74	0.00	0.00	0.00	
1,900.00	33.92	258.28	1,695.22	-153.47	-739.80	755.55	0.00	0.00	0.00	
2,000.00	33.92	258.28	1,778.20	-164.80	-794.45	811.36	0.00	0.00	0.00	
2,100.00	33.92	258.28	1,861.18	-176.14	-849.10	867.17	0.00	0.00	0.00	
2,200.00	33.92	258.28	1,944.16	-187.48	-903.74	922.98	0.00	0.00	0.00	
2,300.00	33.92	258.28	2,027.13	-198.81	-958.39	978.79	0.00	0.00	0.00	
2,393.84	33.92	258.28	2,105.00	-209.45	-1,009.67	1,031.17	0.00	0.00	0.00	
G Sand										
2,400.00	33.92	258.28	2,110.11	-210.15	-1,013.04	1,034.60	0.00	0.00	0.00	
2,500.00	33.92	258.28	2,193.09	-221.49	-1,067.68	1,090.42	0.00	0.00	0.00	
2,514.36	33.92	258.28	2,205.00	-223.11	-1,075.53	1,098.43	0.00	0.00	0.00	
G Sand Base										
2,600.00	33.92	258.28	2,276.06	-232.82	-1,122.33	1,146.23	0.00	0.00	0.00	
2,695.13	33.92	258.28	2,355.00	-243.61	-1,174.32	1,199.32	0.00	0.00	0.00	
FRUN										
2,700.00	33.92	258.28	2,359.04	-244.16	-1,176.98	1,202.04	0.00	0.00	0.00	
2,800.00	33.92	258.28	2,442.02	-255.50	-1,231.63	1,257.85	0.00	0.00	0.00	
2,900.00	33.92	258.28	2,524.99	-266.83	-1,286.27	1,313.66	0.00	0.00	0.00	
3,000.00	33.92	258.28	2,607.97	-278.17	-1,340.92	1,369.47	0.00	0.00	0.00	
3,100.00	33.92	258.28	2,690.95	-289.50	-1,395.57	1,425.28	0.00	0.00	0.00	
3,200.00	33.92	258.28	2,773.93	-300.84	-1,450.21	1,481.09	0.00	0.00	0.00	
3,300.00	33.92	258.28	2,856.90	-312.18	-1,504.86	1,536.90	0.00	0.00	0.00	
3,400.00	33.92	258.28	2,939.88	-323.51	-1,559.51	1,592.71	0.00	0.00	0.00	
3,500.00	33.92	258.28	3,022.86	-334.85	-1,614.16	1,648.52	0.00	0.00	0.00	
3,600.00	33.92	258.28	3,105.83	-346.19	-1,668.80	1,704.33	0.00	0.00	0.00	
3,700.00	33.92	258.28	3,188.81	-357.52	-1,723.45	1,760.14	0.00	0.00	0.00	
3,800.00	33.92	258.28	3,271.79	-368.86	-1,778.10	1,815.95	0.00	0.00	0.00	
3,900.00	33.92	258.28	3,354.76	-380.20	-1,832.74	1,871.76	0.00	0.00	0.00	
4,000.00	33.92	258.28	3,437.74	-391.53	-1,887.39	1,927.57	0.00	0.00	0.00	

Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 32-30 - Slot GM 32-30 (B6)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5849' & RKB 24' @ 5873.00usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 5849' & RKB 24' @ 5873.00usft (H&P 318)
Site:	GR 12-29 Pad	North Reference:	True
Well:	GM 32-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2 3May2019 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)
4,100.00	33.92	258.28	3,520.72	-402.87	-1,942.04	1,983.38	0.00	0.00	0.00
4,200.00	33.92	258.28	3,603.70	-414.20	-1,996.69	2,039.19	0.00	0.00	0.00
4,260.15	33.92	258.28	3,653.61	-421.02	-2,029.56	2,072.77	0.00	0.00	0.00
Start Drop -2.00									
4,300.00	33.13	258.28	3,686.83	-425.49	-2,051.11	2,094.77	2.00	-2.00	0.00
4,380.68	31.51	258.28	3,755.00	-434.25	-2,093.34	2,137.91	2.00	-2.00	0.00
Ohio Creek - MVRD									
4,400.00	31.13	258.28	3,771.51	-436.30	-2,103.18	2,147.95	2.00	-2.00	0.00
4,500.00	29.13	258.28	3,857.99	-446.49	-2,152.32	2,198.14	2.00	-2.00	0.00
4,600.00	27.13	258.28	3,946.18	-456.07	-2,198.48	2,245.29	2.00	-2.00	0.00
4,700.00	25.13	258.28	4,035.96	-465.01	-2,241.60	2,289.32	2.00	-2.00	0.00
4,800.00	23.13	258.28	4,127.21	-473.31	-2,281.62	2,330.20	2.00	-2.00	0.00
4,900.00	21.13	258.28	4,219.84	-480.96	-2,318.50	2,367.86	2.00	-2.00	0.00
5,000.00	19.13	258.28	4,313.73	-487.95	-2,352.19	2,402.27	2.00	-2.00	0.00
5,100.00	17.13	258.28	4,408.76	-494.27	-2,382.66	2,433.39	2.00	-2.00	0.00
5,200.00	15.13	258.28	4,504.82	-499.91	-2,409.86	2,461.16	2.00	-2.00	0.00
5,300.00	13.13	258.28	4,601.79	-504.87	-2,433.76	2,485.57	2.00	-2.00	0.00
5,400.00	11.13	258.28	4,699.56	-509.14	-2,454.33	2,506.58	2.00	-2.00	0.00
5,456.40	10.00	258.28	4,755.00	-511.24	-2,464.45	2,516.92	2.00	-2.00	0.00
Start DLS 2.00 TFO 180.00 - KMGAS									
5,463.63	9.86	258.28	4,762.12	-511.49	-2,465.67	2,518.17	2.00	-2.00	0.00
GM 32-30 BTV									
5,500.00	9.13	258.28	4,797.99	-512.71	-2,471.54	2,524.16	2.00	-2.00	0.00
5,600.00	7.13	258.28	4,896.98	-515.58	-2,485.39	2,538.30	2.00	-2.00	0.00
5,700.00	5.13	258.28	4,996.41	-517.75	-2,495.84	2,548.98	2.00	-2.00	0.00
5,800.00	3.13	258.28	5,096.14	-519.21	-2,502.89	2,556.17	2.00	-2.00	0.00
5,900.00	1.13	258.28	5,196.07	-519.97	-2,506.52	2,559.89	2.00	-2.00	0.00
5,956.40	0.00	0.00	5,252.47	-520.08	-2,507.07	2,560.44	2.00	-2.00	180.35
Start 1647.53 hold at 5956.40 MD									
6,000.00	0.00	0.00	5,296.07	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00
6,100.00	0.00	0.00	5,396.07	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00
6,200.00	0.00	0.00	5,496.07	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00
6,300.00	0.00	0.00	5,596.07	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00
6,400.00	0.00	0.00	5,696.07	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00
6,500.00	0.00	0.00	5,796.07	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00
6,600.00	0.00	0.00	5,896.07	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00
6,700.00	0.00	0.00	5,996.07	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00
6,800.00	0.00	0.00	6,096.07	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00
6,900.00	0.00	0.00	6,196.07	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00
6,938.93	0.00	0.00	6,235.00	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00
CMEO									
7,000.00	0.00	0.00	6,296.07	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00
7,100.00	0.00	0.00	6,396.07	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00
7,200.00	0.00	0.00	6,496.07	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00
7,300.00	0.00	0.00	6,596.07	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00
7,400.00	0.00	0.00	6,696.07	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00
7,453.93	0.00	0.00	6,750.00	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00
RLNS									
7,500.00	0.00	0.00	6,796.07	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00
7,600.00	0.00	0.00	6,896.07	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00
7,603.93	0.00	0.00	6,900.00	-520.08	-2,507.07	2,560.44	0.00	0.00	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 32-30 - Slot GM 32-30 (B6)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5849' & RKB 24' @ 5873.00usft (H&P 318)
Project:	Garfield County, CO NAD83	MD Reference:	GL 5849' & RKB 24' @ 5873.00usft (H&P 318)
Site:	GR 12-29 Pad	North Reference:	True
Well:	GM 32-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2 3May2019 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)
TD at 7603.93 - TD - GM 32-30 PBHL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
GM 32-30 BTV	0.00	0.00	4,755.00	-520.08	-2,507.07	1,616,709.07	2,252,908.38	39.4967528	-108.1477823
- hit/miss target									
- Shape									
- plan misses target center by 42.88usft at 5463.63usft MD (4762.12 TVD, -511.49 N, -2465.67 E)									
- Circle (radius 50.00)									
GM 32-30 PBHL	0.00	0.00	6,900.00	-520.08	-2,507.07	1,616,709.07	2,252,908.38	39.4967528	-108.1477823
- plan misses target center by 0.01usft at 7603.93usft MD (6900.00 TVD, -520.08 N, -2507.07 E)									
- Point									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,393.84	2,105.00	G Sand		0.00	0.00	
2,514.36	2,205.00	G Sand Base		0.00	0.00	
2,695.13	2,355.00	FRUN		0.00	0.00	
4,380.68	3,755.00	Ohio Creek		0.00	0.00	
4,380.68	3,755.00	MVRD		0.00	0.00	
5,456.40	4,755.00	KMVGAS		0.00	0.00	
6,938.93	6,235.00	CMEQ		0.00	0.00	
7,453.93	6,750.00	RLNS		0.00	0.00	
7,603.93	6,900.00	TD		0.00	0.00	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
135.00	135.00	0.00	0.00	Start Build 4.00	
983.12	934.43	-49.53	-238.75	Start 3277.03 hold at 983.12 MD	
4,260.15	3,653.61	-421.02	-2,029.56	Start Drop -2.00	
5,456.40	4,755.00	-511.24	-2,464.45	Start DLS 2.00 TFO 180.00	
5,956.40	5,252.47	-520.08	-2,507.07	Start 1647.53 hold at 5956.40 MD	
7,603.93	6,900.00	-520.08	-2,507.07	TD at 7603.93	