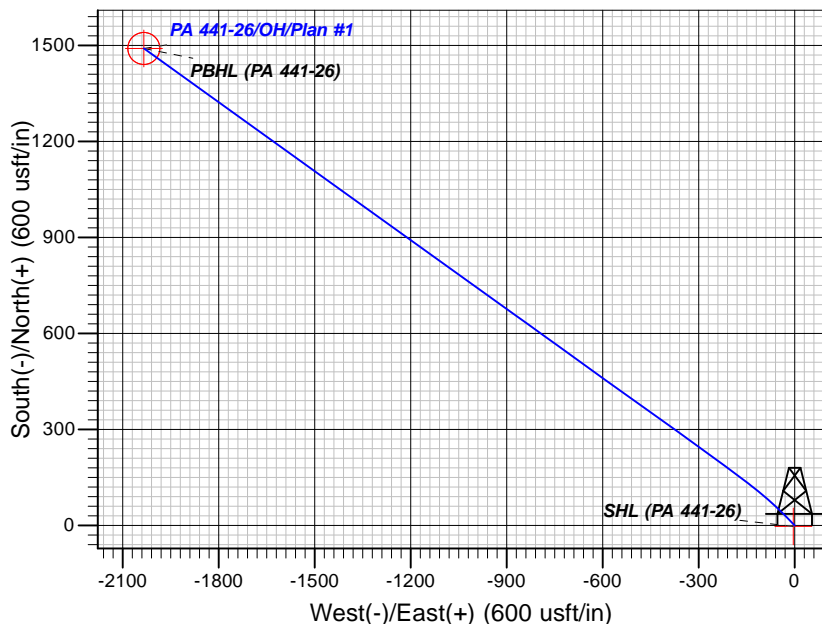


T **M** Azimuths to True North
Magnetic North: 9.45°
Magnetic Field
Strength: 51743.4nT
Dip Angle: 65.82°
Date: 5/23/2017
Model: HDGM

Magnetic Field
Strength: 51743.4snT
Dip Angle: 65.82°
Date: 5/23/2017
Model: HDGM



TVDPATH	MDP PATH	FORMATION
4323.00	4961.04	Ohio Creek
4398.00	5040.92	Upper MVRD
5548.00	6215.90	Top of Gas
6848.00	7515.93	Cameo
7848.00	8515.93	RLNS

16:45, June 04 2017
Created By: Mel Mireles

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

CASING DETAILS

TVD	MD	Name	Size
1065.28	1100.00	9 5/8" @ 1100' MD	9.62

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	180.00	0.00	0.00	180.00	0.00	0.00	0.00	0.00	0.00	
3	680.00	15.00	315.00	674.31	46.02	-46.02	3.00	315.00	64.32	
4	1325.34	34.03	305.68	1258.98	211.96	-253.72	3.00	-15.87	329.94	
5	4073.47	34.03	305.68	3536.35	1108.86	-1502.88	0.00	0.001867	67	
6	6341.93	0.00	0.00	5674.00	1490.32	-2034.15	1.50	180.00	002521.67	
7	8665.93	0.00	0.00	7998.00	1490.32	-2034.15	0.00	0.002521.67		PBHL (PA 441-26)

[illegible]



TEP Rocky Mountain LLC

Garfield County, CO NAD83

PA 22-25 Pad

PA 441-26 - Slot PA 441-26 (B7)

OH

Plan: Plan #1

Standard Planning Report

04 June, 2017



Database:	Grand Junction District	Local Co-ordinate Reference:	Well PA 441-26 - Slot PA 441-26 (B7)
Company:	TEP Rocky Mountain LLC	TVD Reference:	WELL @ 5248.00usft (Original Well Elev)
Project:	Garfield County, CO NAD83	MD Reference:	WELL @ 5248.00usft (Original Well Elev)
Site:	PA 22-25 Pad	North Reference:	True
Well:	PA 441-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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	PA 22-25 Pad			
Site Position:		Northing:	1,615,186.77 usft	Latitude: 39.4968742
From: Map		Easting:	2,308,728.18 usft	Longitude: -107.9499045
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence: -1.55 °

Well	PA 441-26 - Slot PA 441-26 (B7), B7			
Well Position	+N/-S	13.51 usft	Northing:	1,615,198.94 usft
	+E/-W	49.49 usft	Easting:	2,308,778.02 usft
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft
			Ground Level:	5,224.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/23/2017	9.45	65.82	51,743

Design	Plan #1			
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	306.23

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	
180.00	0.00	0.00	180.00	0.00	0.00	0.00	0.00	0.00	0.00	
680.00	15.00	315.00	674.31	46.02	-46.02	3.00	3.00	0.00	315.00	
1,325.34	34.03	305.68	1,258.98	211.96	-253.72	3.00	2.95	-1.44	-15.87	
4,073.47	34.03	305.68	3,536.56	1,108.87	-1,502.88	0.00	0.00	0.00	0.00	
6,341.93	0.00	0.00	5,674.00	1,490.32	-2,034.15	1.50	-1.50	0.00	180.00	
8,665.93	0.00	0.00	7,998.00	1,490.32	-2,034.15	0.00	0.00	0.00	0.00	PBHL (PA 441-26)

Database:	Grand Junction District	Local Co-ordinate Reference:	Well PA 441-26 - Slot PA 441-26 (B7)
Company:	TEP Rocky Mountain LLC	TVD Reference:	WELL @ 5248.00usft (Original Well Elev)
Project:	Garfield County, CO NAD83	MD Reference:	WELL @ 5248.00usft (Original Well Elev)
Site:	PA 22-25 Pad	North Reference:	True
Well:	PA 441-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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
SHL (PA 441-26)									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
180.00	0.00	0.00	180.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.60	315.00	200.00	0.07	-0.07	0.10	3.00	3.00	0.00
300.00	3.60	315.00	299.92	2.66	-2.66	3.72	3.00	3.00	0.00
400.00	6.60	315.00	399.51	8.95	-8.95	12.51	3.00	3.00	0.00
500.00	9.60	315.00	498.50	18.91	-18.91	26.43	3.00	3.00	0.00
600.00	12.60	315.00	596.62	32.52	-32.52	45.46	3.00	3.00	0.00
680.00	15.00	315.00	674.31	46.02	-46.02	64.32	3.00	3.00	0.00
700.00	15.58	314.39	693.60	49.73	-49.77	69.53	3.00	2.89	-3.05
800.00	18.49	311.90	789.20	69.71	-71.17	98.61	3.00	2.91	-2.49
900.00	21.42	310.06	883.19	92.06	-96.95	132.62	3.00	2.93	-1.83
1,000.00	24.37	308.66	975.30	116.71	-127.05	171.46	3.00	2.95	-1.41
1,100.00	27.33	307.54	1,065.28	143.59	-161.37	215.04	3.00	2.96	-1.12
9 5/8" @ 1100' MD									
1,200.00	30.30	306.62	1,152.89	172.63	-199.84	263.23	3.00	2.97	-0.92
1,300.00	33.27	305.85	1,237.88	203.75	-242.33	315.90	3.00	2.97	-0.77
1,325.34	34.03	305.68	1,258.98	211.96	-253.72	329.94	3.00	2.98	-0.69
1,400.00	34.03	305.68	1,320.85	236.33	-287.66	371.71	0.00	0.00	0.00
1,500.00	34.03	305.68	1,403.73	268.96	-333.11	427.67	0.00	0.00	0.00
1,600.00	34.03	305.68	1,486.61	301.60	-378.57	483.62	0.00	0.00	0.00
1,700.00	34.03	305.68	1,569.49	334.24	-424.02	539.58	0.00	0.00	0.00
1,800.00	34.03	305.68	1,652.36	366.87	-469.48	595.54	0.00	0.00	0.00
1,900.00	34.03	305.68	1,735.24	399.51	-514.93	651.49	0.00	0.00	0.00
2,000.00	34.03	305.68	1,818.12	432.15	-560.39	707.45	0.00	0.00	0.00
2,100.00	34.03	305.68	1,901.00	464.79	-605.84	763.40	0.00	0.00	0.00
2,200.00	34.03	305.68	1,983.87	497.42	-651.30	819.36	0.00	0.00	0.00
2,300.00	34.03	305.68	2,066.75	530.06	-696.75	875.31	0.00	0.00	0.00
2,400.00	34.03	305.68	2,149.63	562.70	-742.21	931.27	0.00	0.00	0.00
2,500.00	34.03	305.68	2,232.51	595.33	-787.66	987.23	0.00	0.00	0.00
2,600.00	34.03	305.68	2,315.38	627.97	-833.12	1,043.18	0.00	0.00	0.00
2,700.00	34.03	305.68	2,398.26	660.61	-878.57	1,099.14	0.00	0.00	0.00
2,800.00	34.03	305.68	2,481.14	693.24	-924.03	1,155.09	0.00	0.00	0.00
2,900.00	34.03	305.68	2,564.02	725.88	-969.48	1,211.05	0.00	0.00	0.00
3,000.00	34.03	305.68	2,646.89	758.52	-1,014.94	1,267.00	0.00	0.00	0.00
3,100.00	34.03	305.68	2,729.77	791.16	-1,060.39	1,322.96	0.00	0.00	0.00
3,200.00	34.03	305.68	2,812.65	823.79	-1,105.85	1,378.92	0.00	0.00	0.00
3,300.00	34.03	305.68	2,895.53	856.43	-1,151.30	1,434.87	0.00	0.00	0.00
3,400.00	34.03	305.68	2,978.40	889.07	-1,196.76	1,490.83	0.00	0.00	0.00
3,500.00	34.03	305.68	3,061.28	921.70	-1,242.21	1,546.78	0.00	0.00	0.00
3,600.00	34.03	305.68	3,144.16	954.34	-1,287.67	1,602.74	0.00	0.00	0.00
3,700.00	34.03	305.68	3,227.03	986.98	-1,333.12	1,658.69	0.00	0.00	0.00
3,800.00	34.03	305.68	3,309.91	1,019.61	-1,378.58	1,714.65	0.00	0.00	0.00
3,900.00	34.03	305.68	3,392.79	1,052.25	-1,424.03	1,770.61	0.00	0.00	0.00
4,000.00	34.03	305.68	3,475.67	1,084.89	-1,469.49	1,826.56	0.00	0.00	0.00
4,073.47	34.03	305.68	3,536.56	1,108.87	-1,502.88	1,867.67	0.00	0.00	0.00
4,100.00	33.63	305.68	3,558.60	1,117.48	-1,514.88	1,882.44	1.50	-1.50	0.00
4,200.00	32.13	305.68	3,642.58	1,149.14	-1,558.98	1,936.72	1.50	-1.50	0.00
4,300.00	30.63	305.68	3,727.95	1,179.51	-1,601.27	1,988.79	1.50	-1.50	0.00
4,400.00	29.13	305.68	3,814.65	1,208.56	-1,641.74	2,038.60	1.50	-1.50	0.00
4,500.00	27.63	305.68	3,902.63	1,236.28	-1,680.34	2,086.13	1.50	-1.50	0.00
4,600.00	26.13	305.68	3,991.83	1,262.65	-1,717.07	2,131.34	1.50	-1.50	0.00
4,700.00	24.63	305.68	4,082.17	1,287.65	-1,751.88	2,174.19	1.50	-1.50	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well PA 441-26 - Slot PA 441-26 (B7)
Company:	TEP Rocky Mountain LLC	TVD Reference:	WELL @ 5248.00usft (Original Well Elev)
Project:	Garfield County, CO NAD83	MD Reference:	WELL @ 5248.00usft (Original Well Elev)
Site:	PA 22-25 Pad	North Reference:	True
Well:	PA 441-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
4,800.00	23.13	305.68	4,173.61	1,311.26	-1,784.76	2,214.67	1.50	-1.50	0.00
4,900.00	21.63	305.68	4,266.08	1,333.46	-1,815.69	2,252.74	1.50	-1.50	0.00
4,961.04	20.71	305.68	4,323.00	1,346.32	-1,833.60	2,274.79	1.50	-1.50	0.00
Ohio Creek									
5,000.00	20.13	305.68	4,359.51	1,354.25	-1,844.64	2,288.38	1.50	-1.50	0.00
5,040.92	19.52	305.68	4,398.00	1,362.34	-1,855.91	2,302.25	1.50	-1.50	0.00
Upper MVRD									
5,098.40	18.65	305.68	4,452.32	1,373.30	-1,871.18	2,321.05	1.50	-1.50	0.00
PA 441-26 MVRD									
5,100.00	18.63	305.68	4,453.84	1,373.60	-1,871.59	2,321.56	1.50	-1.50	0.00
5,200.00	17.13	305.68	4,549.01	1,391.51	-1,896.53	2,352.26	1.50	-1.50	0.00
5,300.00	15.63	305.68	4,644.95	1,407.95	-1,919.43	2,380.45	1.50	-1.50	0.00
5,400.00	14.13	305.68	4,741.59	1,422.93	-1,940.29	2,406.13	1.50	-1.50	0.00
5,500.00	12.63	305.68	4,838.87	1,436.42	-1,959.09	2,429.27	1.50	-1.50	0.00
5,600.00	11.13	305.68	4,936.73	1,448.43	-1,975.81	2,449.85	1.50	-1.50	0.00
5,700.00	9.63	305.68	5,035.09	1,458.94	-1,990.44	2,467.86	1.50	-1.50	0.00
5,800.00	8.13	305.68	5,133.89	1,467.94	-2,002.98	2,483.30	1.50	-1.50	0.00
5,900.00	6.63	305.68	5,233.06	1,475.43	-2,013.41	2,496.14	1.50	-1.50	0.00
6,000.00	5.13	305.68	5,332.53	1,481.40	-2,021.73	2,506.38	1.50	-1.50	0.00
6,100.00	3.63	305.68	5,432.23	1,485.85	-2,027.93	2,514.02	1.50	-1.50	0.00
6,200.00	2.13	305.68	5,532.11	1,488.78	-2,032.01	2,519.04	1.50	-1.50	0.00
6,215.90	1.89	305.68	5,548.00	1,489.11	-2,032.47	2,519.60	1.50	-1.50	0.00
Top of Gas									
6,300.00	0.63	305.68	5,632.07	1,490.19	-2,033.97	2,521.44	1.50	-1.50	0.00
6,341.93	0.00	0.00	5,674.00	1,490.32	-2,034.15	2,521.67	1.50	-1.50	0.00
6,400.00	0.00	0.00	5,732.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
6,500.00	0.00	0.00	5,832.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
6,600.00	0.00	0.00	5,932.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
6,700.00	0.00	0.00	6,032.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
6,800.00	0.00	0.00	6,132.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
6,900.00	0.00	0.00	6,232.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
7,000.00	0.00	0.00	6,332.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
7,100.00	0.00	0.00	6,432.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
7,200.00	0.00	0.00	6,532.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
7,300.00	0.00	0.00	6,632.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
7,400.00	0.00	0.00	6,732.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
7,500.00	0.00	0.00	6,832.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
7,515.93	0.00	0.00	6,848.00	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
Cameo									
7,600.00	0.00	0.00	6,932.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
7,700.00	0.00	0.00	7,032.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
7,800.00	0.00	0.00	7,132.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
7,900.00	0.00	0.00	7,232.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
8,000.00	0.00	0.00	7,332.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
8,100.00	0.00	0.00	7,432.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
8,200.00	0.00	0.00	7,532.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
8,300.00	0.00	0.00	7,632.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
8,400.00	0.00	0.00	7,732.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
8,500.00	0.00	0.00	7,832.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
8,515.93	0.00	0.00	7,848.00	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
RLNS									
8,600.00	0.00	0.00	7,932.07	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00
8,665.93	0.00	0.00	7,998.00	1,490.32	-2,034.15	2,521.67	0.00	0.00	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well PA 441-26 - Slot PA 441-26 (B7)
Company:	TEP Rocky Mountain LLC	TVD Reference:	WELL @ 5248.00usft (Original Well Elev)
Project:	Garfield County, CO NAD83	MD Reference:	WELL @ 5248.00usft (Original Well Elev)
Site:	PA 22-25 Pad	North Reference:	True
Well:	PA 441-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
PBHL (PA 441-26) - PA 441-26 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									
SHL (PA 441-26)	0.00	0.00	0.00	-3.40	-4.55	1,615,195.67	2,308,773.38	39.4969019	-107.9497453
- plan misses target center by 5.67usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									
PBHL (PA 441-26)	0.00	0.00	7,998.00	1,490.32	-2,034.15	1,616,743.56	2,306,784.79	39.5010026	-107.9569379
- plan hits target center									
- Circle (radius 50.00)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,100.00	1,065.28	9 5/8" @ 1100' MD	9.62	13.50	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,961.04	4,323.00	Ohio Creek		0.00		
5,040.92	4,398.00	Upper MVRD		0.00		
6,215.90	5,548.00	Top of Gas		0.00		
7,515.93	6,848.00	Cameo		0.00		
8,515.93	7,848.00	RLNS		0.00		