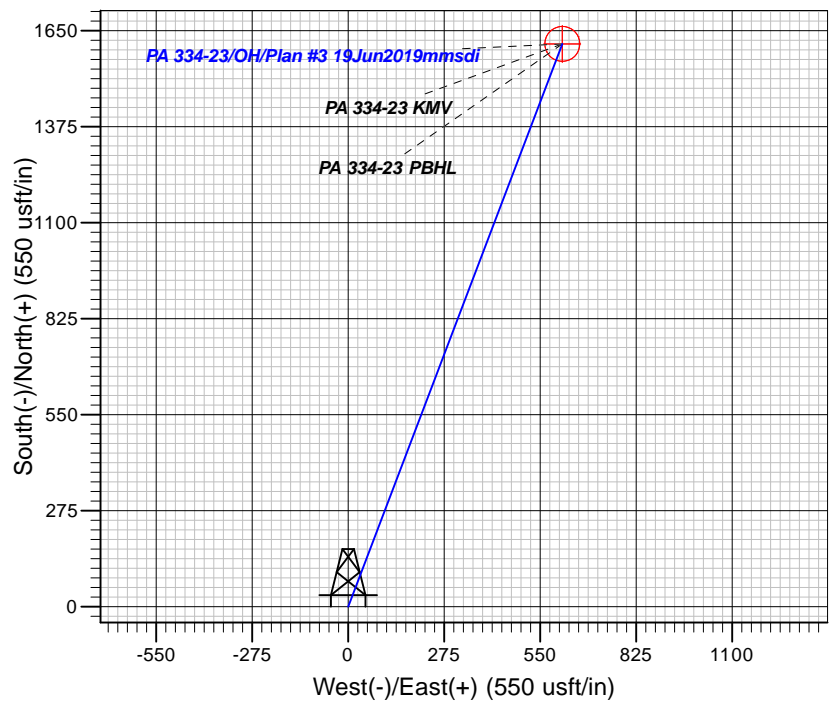
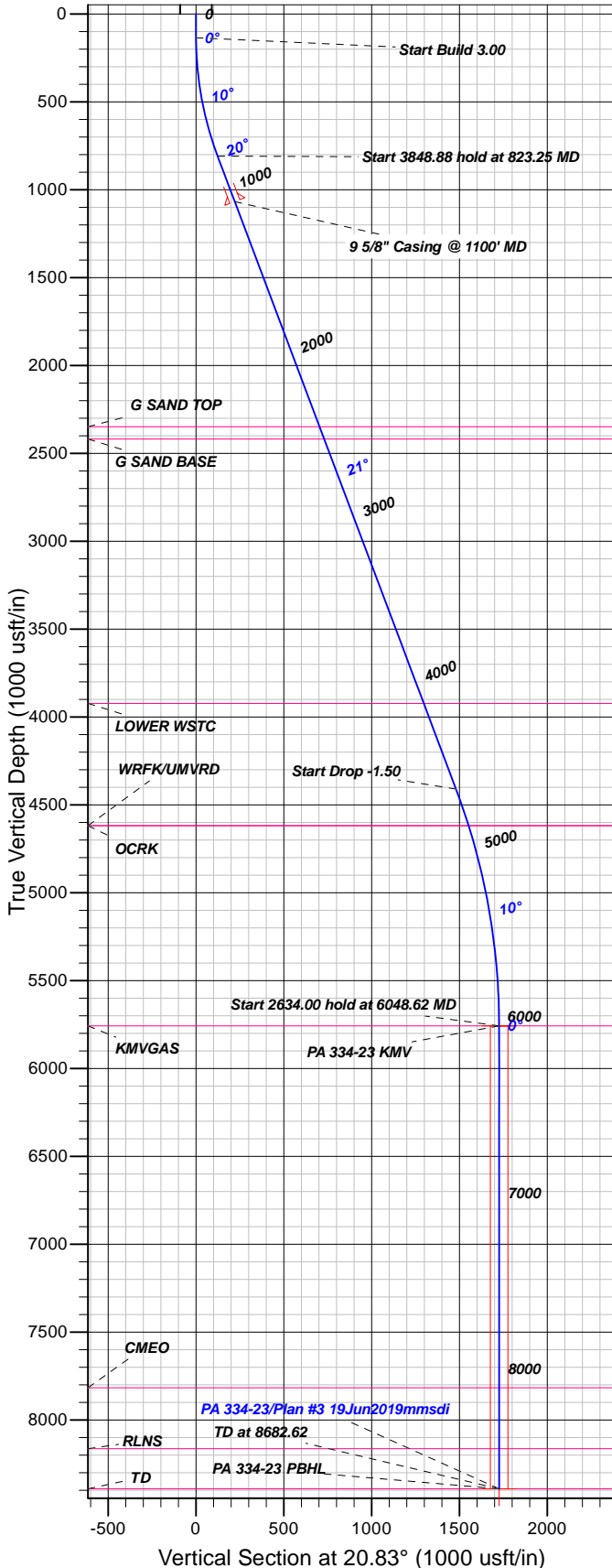


Well Details: PA 334-23

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1616437.10	2304742.80	39.500097	-107.9641422	PA 334-23 (B4)



FORMATION TOP DETAILS

TVDPth	MDPath	Formation
2348.00	2468.48	G SAND TOP
2418.00	2543.28	G SAND BASE
3922.00	4150.52	LOWER WSTC
4618.00	4892.03	OCRK
4618.00	4892.03	WRFK/UMVRD
5757.00	6048.62	KMVGAS
7816.00	8107.62	CMEO
8163.00	8454.62	RLNS
8391.00	8682.62	TD

Plan: Plan #3 19Jun2019mmsdi

11:57, June 25 2019
Created By: Mel Mireles

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
1067.42	1100.00	5/8" Casing @ 1100' MD	9.62

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	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	823.25	20.65	20.83	808.45	114.66	43.62	3.00	20.83	122.67	
4	4672.13	20.65	20.83	4410.11	1383.12	526.25	0.00	0.00	1479.85	
5	6048.62	0.00	0.00	5757.00	1612.43	613.49	1.50	180.00	1725.20	PA 334-23 KMV
6	8682.62	0.00	0.00	8391.00	1612.43	613.49	0.00	0.00	1725.20	PA 334-23 PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PA 334-23 KMV	5757.00	1612.43	613.49	1618032.30	2305399.80	39.5044365	-107.9619679	Circle (Radius: 50.00)
- plan hits target center								
PA 334-23 PBHL	8391.00	1612.43	613.49	1618032.30	2305399.80	39.5044365	-107.9619679	Point
- plan hits target center								



TEP Rocky Mountain LLC

Garfield County, CO NAD83

PA 31-26 Pad

PA 334-23 - Slot PA 334-23 (B4)

OH

Plan: Plan #3 19Jun2019mmsdi

Standard Planning Report

25 June, 2019



Database:	Grand Junction District	Local Co-ordinate Reference:	Well PA 334-23 - Slot PA 334-23 (B4)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5486' & RKB 24' @ 5510.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5486' & RKB 24' @ 5510.00usft
Site:	PA 31-26 Pad	North Reference:	True
Well:	PA 334-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3 19Jun2019mmsdi		

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 31-26 Pad			
Site Position:		Northing:	1,616,455.80 usft	Latitude:	39.5000599
From:	Map	Easting:	2,304,726.80 usft	Longitude:	-107.9642007
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-1.55

Well	PA 334-23 - Slot PA 334-23 (B4)					
Well Position	+N/-S	-18.26 usft	Northing:	1,616,437.10 usft	Latitude:	39.5000097
	+E/-W	16.50 usft	Easting:	2,304,742.80 usft	Longitude:	-107.9641422
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	5,486.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	2/26/2018	9.40	65.77	51,650

Design	Plan #3 19Jun2019mmsdi			
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	20.83

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	
823.25	20.65	20.83	808.45	114.66	43.62	3.00	3.00	0.00	20.83	
4,672.13	20.65	20.83	4,410.11	1,383.12	526.25	0.00	0.00	0.00	0.00	
6,048.62	0.00	0.00	5,757.00	1,612.43	613.49	1.50	-1.50	0.00	180.00	PA 334-23 KMV
8,682.62	0.00	0.00	8,391.00	1,612.43	613.49	0.00	0.00	0.00	0.00	PA 334-23 PBHL

Database:	Grand Junction District	Local Co-ordinate Reference:	Well PA 334-23 - Slot PA 334-23 (B4)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5486' & RKB 24' @ 5510.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5486' & RKB 24' @ 5510.00usft
Site:	PA 31-26 Pad	North Reference:	True
Well:	PA 334-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3 19Jun2019mmsdi		

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 3.00									
200.00	1.95	20.83	199.99	1.03	0.39	1.11	3.00	3.00	0.00
300.00	4.95	20.83	299.79	6.66	2.53	7.12	3.00	3.00	0.00
400.00	7.95	20.83	399.15	17.16	6.53	18.36	3.00	3.00	0.00
500.00	10.95	20.83	497.78	32.50	12.37	34.77	3.00	3.00	0.00
600.00	13.95	20.83	595.42	52.65	20.03	56.33	3.00	3.00	0.00
700.00	16.95	20.83	691.79	77.54	29.50	82.97	3.00	3.00	0.00
800.00	19.95	20.83	786.64	107.12	40.76	114.61	3.00	3.00	0.00
823.25	20.65	20.83	808.45	114.66	43.62	122.67	3.00	3.00	0.00
Start 3848.88 hold at 823.25 MD									
900.00	20.65	20.83	880.27	139.95	53.25	149.74	0.00	0.00	0.00
1,000.00	20.65	20.83	973.85	172.91	65.79	185.00	0.00	0.00	0.00
1,100.00	20.65	20.83	1,067.42	205.86	78.33	220.26	0.00	0.00	0.00
9 5/8" Casing @ 1100' MD									
1,200.00	20.65	20.83	1,161.00	238.82	90.87	255.52	0.00	0.00	0.00
1,300.00	20.65	20.83	1,254.58	271.78	103.41	290.78	0.00	0.00	0.00
1,400.00	20.65	20.83	1,348.15	304.73	115.94	326.05	0.00	0.00	0.00
1,500.00	20.65	20.83	1,441.73	337.69	128.48	361.31	0.00	0.00	0.00
1,600.00	20.65	20.83	1,535.31	370.65	141.02	396.57	0.00	0.00	0.00
1,700.00	20.65	20.83	1,628.88	403.60	153.56	431.83	0.00	0.00	0.00
1,800.00	20.65	20.83	1,722.46	436.56	166.10	467.09	0.00	0.00	0.00
1,900.00	20.65	20.83	1,816.04	469.52	178.64	502.35	0.00	0.00	0.00
2,000.00	20.65	20.83	1,909.61	502.47	191.18	537.62	0.00	0.00	0.00
2,100.00	20.65	20.83	2,003.19	535.43	203.72	572.88	0.00	0.00	0.00
2,200.00	20.65	20.83	2,096.77	568.39	216.26	608.14	0.00	0.00	0.00
2,300.00	20.65	20.83	2,190.35	601.35	228.80	643.40	0.00	0.00	0.00
2,400.00	20.65	20.83	2,283.92	634.30	241.34	678.66	0.00	0.00	0.00
2,468.48	20.65	20.83	2,348.00	656.87	249.92	702.81	0.00	0.00	0.00
G SAND TOP									
2,500.00	20.65	20.83	2,377.50	667.26	253.88	713.92	0.00	0.00	0.00
2,543.28	20.65	20.83	2,418.00	681.52	259.30	729.19	0.00	0.00	0.00
G SAND BASE									
2,600.00	20.65	20.83	2,471.08	700.22	266.42	749.19	0.00	0.00	0.00
2,700.00	20.65	20.83	2,564.65	733.17	278.96	784.45	0.00	0.00	0.00
2,800.00	20.65	20.83	2,658.23	766.13	291.50	819.71	0.00	0.00	0.00
2,900.00	20.65	20.83	2,751.81	799.09	304.03	854.97	0.00	0.00	0.00
3,000.00	20.65	20.83	2,845.38	832.04	316.57	890.23	0.00	0.00	0.00
3,100.00	20.65	20.83	2,938.96	865.00	329.11	925.49	0.00	0.00	0.00
3,200.00	20.65	20.83	3,032.54	897.96	341.65	960.76	0.00	0.00	0.00
3,300.00	20.65	20.83	3,126.11	930.91	354.19	996.02	0.00	0.00	0.00
3,400.00	20.65	20.83	3,219.69	963.87	366.73	1,031.28	0.00	0.00	0.00
3,500.00	20.65	20.83	3,313.27	996.83	379.27	1,066.54	0.00	0.00	0.00
3,600.00	20.65	20.83	3,406.84	1,029.78	391.81	1,101.80	0.00	0.00	0.00
3,700.00	20.65	20.83	3,500.42	1,062.74	404.35	1,137.06	0.00	0.00	0.00
3,800.00	20.65	20.83	3,594.00	1,095.70	416.89	1,172.33	0.00	0.00	0.00
3,900.00	20.65	20.83	3,687.57	1,128.65	429.43	1,207.59	0.00	0.00	0.00
4,000.00	20.65	20.83	3,781.15	1,161.61	441.97	1,242.85	0.00	0.00	0.00
4,100.00	20.65	20.83	3,874.73	1,194.57	454.51	1,278.11	0.00	0.00	0.00
4,150.52	20.65	20.83	3,922.00	1,211.22	460.84	1,295.92	0.00	0.00	0.00
LOWER WSTC									

Database:	Grand Junction District	Local Co-ordinate Reference:	Well PA 334-23 - Slot PA 334-23 (B4)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5486' & RKB 24' @ 5510.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5486' & RKB 24' @ 5510.00usft
Site:	PA 31-26 Pad	North Reference:	True
Well:	PA 334-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3 19Jun2019mmsdi		

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)
4,200.00	20.65	20.83	3,968.30	1,227.52	467.05	1,313.37	0.00	0.00	0.00
4,300.00	20.65	20.83	4,061.88	1,260.48	479.59	1,348.63	0.00	0.00	0.00
4,400.00	20.65	20.83	4,155.46	1,293.44	492.12	1,383.89	0.00	0.00	0.00
4,500.00	20.65	20.83	4,249.04	1,326.39	504.66	1,419.16	0.00	0.00	0.00
4,600.00	20.65	20.83	4,342.61	1,359.35	517.20	1,454.42	0.00	0.00	0.00
4,672.13	20.65	20.83	4,410.11	1,383.12	526.25	1,479.85	0.00	0.00	0.00
Start Drop -1.50									
4,700.00	20.23	20.83	4,436.22	1,392.22	529.71	1,489.58	1.50	-1.50	0.00
4,800.00	18.73	20.83	4,530.50	1,423.38	541.57	1,522.93	1.50	-1.50	0.00
4,892.03	17.35	20.83	4,618.00	1,450.02	551.70	1,551.43	1.50	-1.50	0.00
OCRK - WRFK/UMVRD									
4,900.00	17.23	20.83	4,625.61	1,452.23	552.54	1,553.80	1.50	-1.50	0.00
5,000.00	15.73	20.83	4,721.50	1,478.74	562.63	1,582.16	1.50	-1.50	0.00
5,100.00	14.23	20.83	4,818.10	1,502.90	571.82	1,608.01	1.50	-1.50	0.00
5,200.00	12.73	20.83	4,915.34	1,524.69	580.11	1,631.32	1.50	-1.50	0.00
5,300.00	11.23	20.83	5,013.16	1,544.09	587.49	1,652.07	1.50	-1.50	0.00
5,400.00	9.73	20.83	5,111.49	1,561.08	593.96	1,670.26	1.50	-1.50	0.00
5,500.00	8.23	20.83	5,210.26	1,575.67	599.51	1,685.87	1.50	-1.50	0.00
5,600.00	6.73	20.83	5,309.41	1,587.84	604.14	1,698.88	1.50	-1.50	0.00
5,700.00	5.23	20.83	5,408.86	1,597.57	607.84	1,709.30	1.50	-1.50	0.00
5,800.00	3.73	20.83	5,508.55	1,604.87	610.62	1,717.11	1.50	-1.50	0.00
5,900.00	2.23	20.83	5,608.42	1,609.73	612.47	1,722.31	1.50	-1.50	0.00
6,000.00	0.73	20.83	5,708.38	1,612.14	613.38	1,724.89	1.50	-1.50	0.00
6,048.62	0.00	0.00	5,757.00	1,612.43	613.49	1,725.20	1.50	-1.50	0.00
Start 2634.00 hold at 6048.62 MD - KMGAS - PA 334-23 KMV									
6,100.00	0.00	0.00	5,808.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
6,200.00	0.00	0.00	5,908.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
6,300.00	0.00	0.00	6,008.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
6,400.00	0.00	0.00	6,108.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
6,500.00	0.00	0.00	6,208.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
6,600.00	0.00	0.00	6,308.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
6,700.00	0.00	0.00	6,408.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
6,800.00	0.00	0.00	6,508.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
6,900.00	0.00	0.00	6,608.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
7,000.00	0.00	0.00	6,708.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
7,100.00	0.00	0.00	6,808.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
7,200.00	0.00	0.00	6,908.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
7,300.00	0.00	0.00	7,008.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
7,400.00	0.00	0.00	7,108.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
7,500.00	0.00	0.00	7,208.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
7,600.00	0.00	0.00	7,308.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
7,700.00	0.00	0.00	7,408.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
7,800.00	0.00	0.00	7,508.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
7,900.00	0.00	0.00	7,608.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
8,000.00	0.00	0.00	7,708.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
8,100.00	0.00	0.00	7,808.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
8,107.62	0.00	0.00	7,816.00	1,612.43	613.49	1,725.20	0.00	0.00	0.00
CME0									
8,200.00	0.00	0.00	7,908.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
8,300.00	0.00	0.00	8,008.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
8,400.00	0.00	0.00	8,108.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
8,454.62	0.00	0.00	8,163.00	1,612.43	613.49	1,725.20	0.00	0.00	0.00
RLNS									

Database:	Grand Junction District	Local Co-ordinate Reference:	Well PA 334-23 - Slot PA 334-23 (B4)
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5486' & RKB 24' @ 5510.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5486' & RKB 24' @ 5510.00usft
Site:	PA 31-26 Pad	North Reference:	True
Well:	PA 334-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3 19Jun2019mmsdi		

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)
8,500.00	0.00	0.00	8,208.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
8,600.00	0.00	0.00	8,308.38	1,612.43	613.49	1,725.20	0.00	0.00	0.00
8,682.62	0.00	0.00	8,391.00	1,612.43	613.49	1,725.20	0.00	0.00	0.00
TD at 8682.62 - TD - PA 334-23 PBHL									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PA 334-23 KMV - plan hits target center - Circle (radius 50.00)	0.00	0.00	5,757.00	1,612.43	613.49	1,618,032.30	2,305,399.80	39.5044366	-107.9619680
PA 334-23 PBHL - plan hits target center - Point	0.00	0.00	8,391.00	1,612.43	613.49	1,618,032.30	2,305,399.80	39.5044366	-107.9619680

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,100.00	1,067.42	9 5/8" Casing @ 1100' MD	9.62	13.50	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,468.48	2,348.00	G SAND TOP		0.00	0.00
2,543.28	2,418.00	G SAND BASE		0.00	0.00
4,150.52	3,922.00	LOWER WSTC		0.00	0.00
4,892.03	4,618.00	OCRK		0.00	0.00
4,892.03	4,618.00	WRFK/UMVRD		0.00	0.00
6,048.62	5,757.00	KMVGAS		0.00	0.00
8,107.62	7,816.00	CMEQ		0.00	0.00
8,454.62	8,163.00	RLNS		0.00	0.00
8,682.62	8,391.00	TD		0.00	0.00

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
135.00	135.00	0.00	0.00	Start Build 3.00	
823.25	808.45	114.66	43.62	Start 3848.88 hold at 823.25 MD	
4,672.13	4,410.11	1,383.12	526.25	Start Drop -1.50	
6,048.62	5,757.00	1,612.43	613.49	Start 2634.00 hold at 6048.62 MD	
8,682.62	8,391.00	1,612.43	613.49	TD at 8682.62	