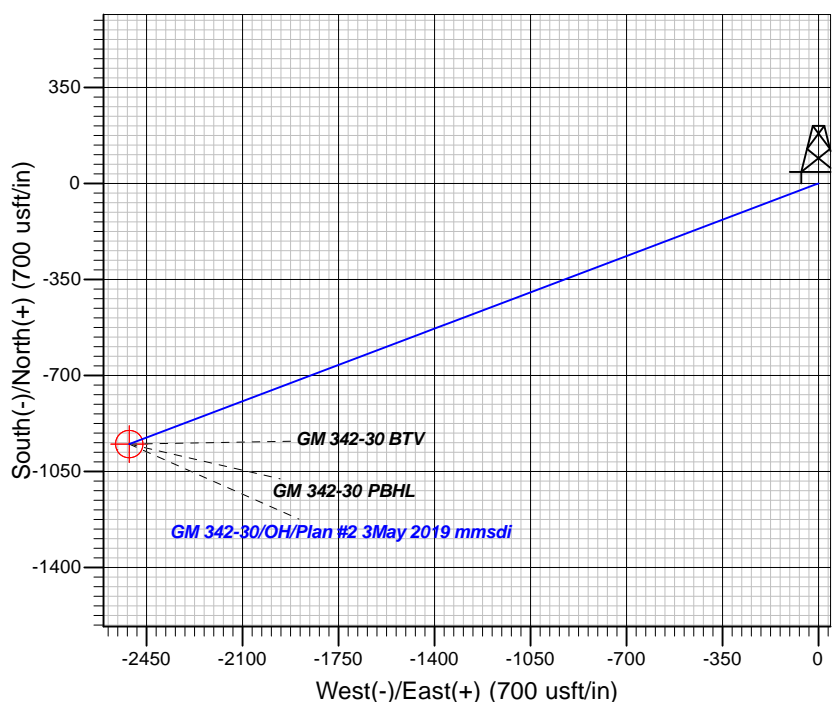
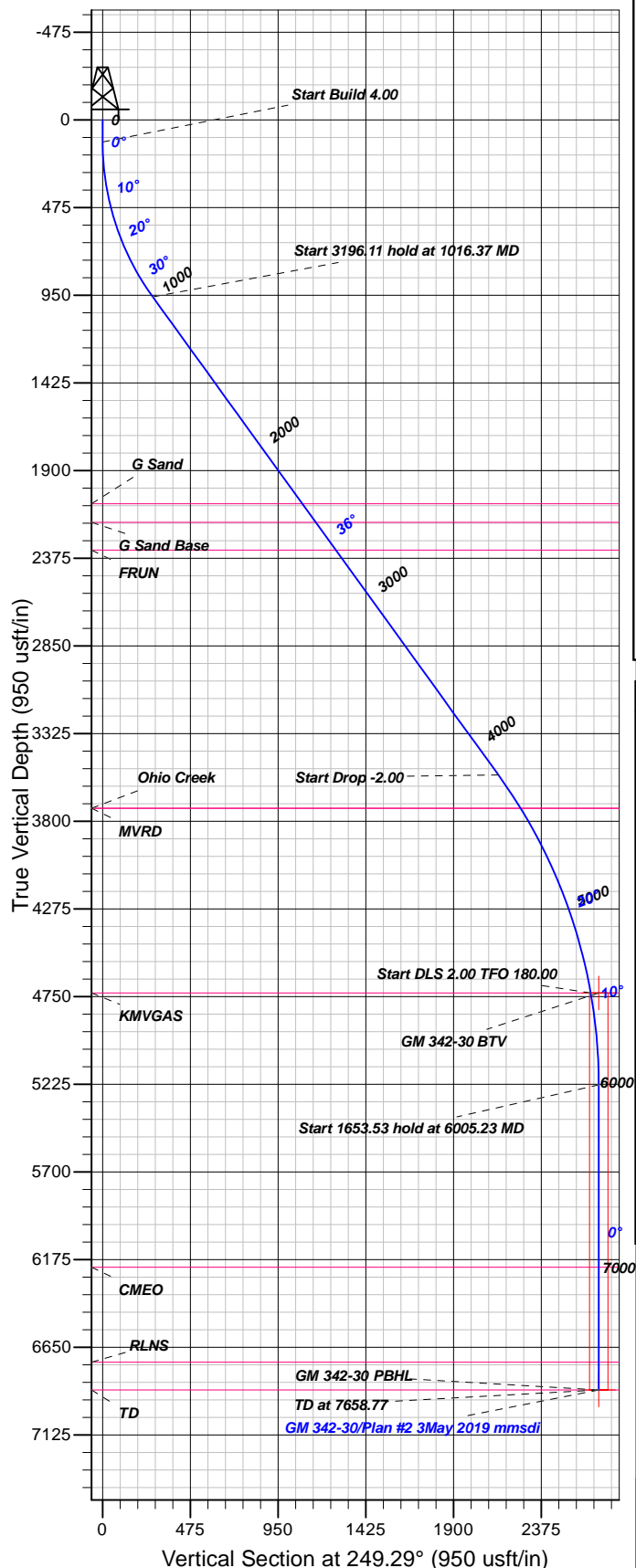




Magnetic Field
Strength: 51557.8snT
Dip Angle: 65.75°
Date: 3/20/2019
Model: HDGM

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1617153.44	2255436.50	39.4981742	-108.1388731	GM 342-30 (B7)



TVDPPath	MDPPath	Formation
2080.00	2399.46	G Sand
2180.00	2522.84	G Sand Base
2330.00	2707.91	FRUN
3730.00	4429.51	MVRD
3730.00	4429.51	Ohio Creek
4730.00	5505.23	KMVGAS
6216.00	6993.77	CMEQ
6731.00	7508.77	RLNS
6881.00	7658.77	TD

10:38, 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

CASING DETAILS

No casing data is available

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	120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	
3	1016.37	35.85	249.29	959.00	-96.00	-253.89	4.00	249.29	271.44	
4	4212.48	35.85	249.29	3549.46	-758.12	-2004.97	0.00	0.00	143.51	
5	5505.23	10.00	249.29	4730.00	-934.73	-2472.04	2.00	180.00	2642.86	
6	6005.23	0.00	0.00	5227.47	-950.12	-2512.75	2.00	180.00	2686.38	
7	7658.77	0.00	0.00	6881.00	-950.12	-2512.75	0.00	0.00	2686.38	GM 342-30 PBHL

DESIGN TARGET DETAILS

Name	TV	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
GM 342-30 BTV	4730.00	-950.12	-2512.75	161626.70	2252897.22	39.4955633	-108.1477771	Circle (Radius: 50.00)
plan misses target center by 42.87usft at 5512.08usft MD (4736.74 TV, -935.15 N, -2473.14 E)								
GM 342-30 PBHL	6881.00	-950.12	-2512.75	161626.70	2252897.22	39.4955633	-108.1477771	Point
plan misses target center by 0.01usft at 7658.77usft MD (6881.00 TV, -950.12 N, -2512.75 E)								



TEP Rocky Mountain LLC

Garfield County, CO NAD83

GR 12-29 Pad

GM 342-30 - Slot GM 342-30 (B7)

OH

Plan: Plan #2 3May 2019 mmsdi

Standard Planning Report

06 May, 2019



Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 342-30 - Slot GM 342-30 (B7)
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 342-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2 3May 2019 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 342-30 - Slot GM 342-30 (B7)					
Well Position	+N/-S	-14.84 usft	Northing:	1,617,153.44 usft	Latitude:	39.4981742
	+E/-W	42.47 usft	Easting:	2,255,436.50 usft	Longitude:	-108.1388731
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 3May 2019 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	249.29

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	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,016.37	35.85	249.29	959.00	-96.00	-253.89	4.00	4.00	0.00	249.29	
4,212.48	35.85	249.29	3,549.46	-758.12	-2,004.97	0.00	0.00	0.00	0.00	
5,505.23	10.00	249.29	4,730.00	-934.73	-2,472.04	2.00	-2.00	0.00	180.00	
6,005.23	0.00	0.00	5,227.47	-950.12	-2,512.75	2.00	-2.00	22.14	180.00	
7,658.77	0.00	0.00	6,881.00	-950.12	-2,512.75	0.00	0.00	0.00	0.00	GM 342-30 PBHL

Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 342-30 - Slot GM 342-30 (B7)
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 342-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2 3May 2019 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	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	
Start Build 4.00										
200.00	3.20	249.29	199.96	-0.79	-2.09	2.23	4.00	4.00	0.00	
300.00	7.20	249.29	299.53	-3.99	-10.56	11.29	4.00	4.00	0.00	
400.00	11.20	249.29	398.22	-9.65	-25.52	27.28	4.00	4.00	0.00	
500.00	15.20	249.29	495.56	-17.72	-46.87	50.11	4.00	4.00	0.00	
600.00	19.20	249.29	591.07	-28.18	-74.53	79.67	4.00	4.00	0.00	
700.00	23.20	249.29	684.28	-40.97	-108.34	115.83	4.00	4.00	0.00	
800.00	27.20	249.29	774.74	-56.02	-148.16	158.40	4.00	4.00	0.00	
900.00	31.20	249.29	862.02	-73.27	-193.78	207.18	4.00	4.00	0.00	
1,000.00	35.20	249.29	945.68	-92.64	-244.99	261.92	4.00	4.00	0.00	
1,016.37	35.85	249.29	959.00	-96.00	-253.89	271.44	4.00	4.00	0.00	
Start 3196.11 hold at 1016.37 MD										
1,100.00	35.85	249.29	1,026.78	-113.33	-299.71	320.42	0.00	0.00	0.00	
1,200.00	35.85	249.29	1,107.83	-134.04	-354.50	378.99	0.00	0.00	0.00	
1,300.00	35.85	249.29	1,188.88	-154.76	-409.28	437.57	0.00	0.00	0.00	
1,400.00	35.85	249.29	1,269.93	-175.48	-464.07	496.14	0.00	0.00	0.00	
1,500.00	35.85	249.29	1,350.98	-196.19	-518.86	554.71	0.00	0.00	0.00	
1,600.00	35.85	249.29	1,432.03	-216.91	-573.65	613.29	0.00	0.00	0.00	
1,700.00	35.85	249.29	1,513.08	-237.62	-628.43	671.86	0.00	0.00	0.00	
1,800.00	35.85	249.29	1,594.13	-258.34	-683.22	730.43	0.00	0.00	0.00	
1,900.00	35.85	249.29	1,675.18	-279.06	-738.01	789.01	0.00	0.00	0.00	
2,000.00	35.85	249.29	1,756.24	-299.77	-792.80	847.58	0.00	0.00	0.00	
2,100.00	35.85	249.29	1,837.29	-320.49	-847.59	906.15	0.00	0.00	0.00	
2,200.00	35.85	249.29	1,918.34	-341.21	-902.37	964.73	0.00	0.00	0.00	
2,300.00	35.85	249.29	1,999.39	-361.92	-957.16	1,023.30	0.00	0.00	0.00	
2,399.46	35.85	249.29	2,080.00	-382.53	-1,011.65	1,081.56	0.00	0.00	0.00	
G Sand										
2,400.00	35.85	249.29	2,080.44	-382.64	-1,011.95	1,081.87	0.00	0.00	0.00	
2,500.00	35.85	249.29	2,161.49	-403.36	-1,066.74	1,140.45	0.00	0.00	0.00	
2,522.84	35.85	249.29	2,180.00	-408.09	-1,079.25	1,153.83	0.00	0.00	0.00	
G Sand Base										
2,600.00	35.85	249.29	2,242.54	-424.07	-1,121.52	1,199.02	0.00	0.00	0.00	
2,700.00	35.85	249.29	2,323.59	-444.79	-1,176.31	1,257.60	0.00	0.00	0.00	
2,707.91	35.85	249.29	2,330.00	-446.43	-1,180.65	1,262.23	0.00	0.00	0.00	
FRUN										
2,800.00	35.85	249.29	2,404.64	-465.50	-1,231.10	1,316.17	0.00	0.00	0.00	
2,900.00	35.85	249.29	2,485.69	-486.22	-1,285.89	1,374.74	0.00	0.00	0.00	
3,000.00	35.85	249.29	2,566.74	-506.94	-1,340.68	1,433.32	0.00	0.00	0.00	
3,100.00	35.85	249.29	2,647.79	-527.65	-1,395.46	1,491.89	0.00	0.00	0.00	
3,200.00	35.85	249.29	2,728.84	-548.37	-1,450.25	1,550.46	0.00	0.00	0.00	
3,300.00	35.85	249.29	2,809.89	-569.09	-1,505.04	1,609.04	0.00	0.00	0.00	
3,400.00	35.85	249.29	2,890.94	-589.80	-1,559.83	1,667.61	0.00	0.00	0.00	
3,500.00	35.85	249.29	2,971.99	-610.52	-1,614.61	1,726.18	0.00	0.00	0.00	
3,600.00	35.85	249.29	3,053.04	-631.24	-1,669.40	1,784.76	0.00	0.00	0.00	
3,700.00	35.85	249.29	3,134.09	-651.95	-1,724.19	1,843.33	0.00	0.00	0.00	
3,800.00	35.85	249.29	3,215.14	-672.67	-1,778.98	1,901.90	0.00	0.00	0.00	
3,900.00	35.85	249.29	3,296.19	-693.38	-1,833.76	1,960.48	0.00	0.00	0.00	
4,000.00	35.85	249.29	3,377.24	-714.10	-1,888.55	2,019.05	0.00	0.00	0.00	

Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 342-30 - Slot GM 342-30 (B7)
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 342-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2 3May 2019 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	35.85	249.29	3,458.29	-734.82	-1,943.34	2,077.63	0.00	0.00	0.00
4,200.00	35.85	249.29	3,539.34	-755.53	-1,998.13	2,136.20	0.00	0.00	0.00
4,212.48	35.85	249.29	3,549.46	-758.12	-2,004.97	2,143.51	0.00	0.00	0.00
Start Drop -2.00									
4,300.00	34.10	249.29	3,621.16	-775.86	-2,051.89	2,193.68	2.00	-2.00	0.00
4,400.00	32.10	249.29	3,704.93	-795.18	-2,102.98	2,248.30	2.00	-2.00	0.00
4,429.51	31.51	249.29	3,730.00	-800.68	-2,117.53	2,263.85	2.00	-2.00	0.00
Ohio Creek - MVRD									
4,500.00	30.10	249.29	3,790.54	-813.45	-2,151.30	2,299.95	2.00	-2.00	0.00
4,600.00	28.10	249.29	3,877.91	-830.65	-2,196.79	2,348.59	2.00	-2.00	0.00
4,700.00	26.10	249.29	3,966.93	-846.77	-2,239.41	2,394.15	2.00	-2.00	0.00
4,800.00	24.10	249.29	4,057.47	-861.77	-2,279.09	2,436.58	2.00	-2.00	0.00
4,900.00	22.10	249.29	4,149.45	-875.65	-2,315.79	2,475.81	2.00	-2.00	0.00
5,000.00	20.10	249.29	4,242.74	-888.38	-2,349.47	2,511.82	2.00	-2.00	0.00
5,100.00	18.10	249.29	4,337.22	-899.96	-2,380.08	2,544.55	2.00	-2.00	0.00
5,200.00	16.10	249.29	4,432.80	-910.36	-2,407.59	2,573.96	2.00	-2.00	0.00
5,300.00	14.10	249.29	4,529.34	-919.58	-2,431.97	2,600.01	2.00	-2.00	0.00
5,400.00	12.10	249.29	4,626.73	-927.60	-2,453.17	2,622.69	2.00	-2.00	0.00
5,500.00	10.10	249.29	4,724.85	-934.41	-2,471.19	2,641.95	2.00	-2.00	0.00
5,505.23	10.00	249.29	4,730.00	-934.73	-2,472.04	2,642.86	2.00	-2.00	0.00
Start DLS 2.00 TFO 180.00 - KMGAS									
5,512.08	9.86	249.29	4,736.74	-935.15	-2,473.14	2,644.04	2.00	-2.00	0.00
GM 342-30 BTV									
5,600.00	8.10	249.29	4,823.58	-940.00	-2,485.99	2,657.77	2.00	-2.00	0.00
5,700.00	6.10	249.29	4,922.81	-944.38	-2,497.55	2,670.14	2.00	-2.00	0.00
5,800.00	4.10	249.29	5,022.41	-947.52	-2,505.88	2,679.03	2.00	-2.00	0.00
5,900.00	2.10	249.29	5,122.26	-949.44	-2,510.94	2,684.45	2.00	-2.00	0.00
6,000.00	0.10	249.29	5,222.23	-950.12	-2,512.75	2,686.38	2.00	-2.00	0.00
6,005.23	0.00	0.00	5,227.47	-950.12	-2,512.75	2,686.38	2.00	-2.00	0.00
Start 1653.53 hold at 6005.23 MD									
6,100.00	0.00	0.00	5,322.23	-950.12	-2,512.75	2,686.38	0.00	0.00	0.00
6,200.00	0.00	0.00	5,422.23	-950.12	-2,512.75	2,686.38	0.00	0.00	0.00
6,300.00	0.00	0.00	5,522.23	-950.12	-2,512.75	2,686.38	0.00	0.00	0.00
6,400.00	0.00	0.00	5,622.23	-950.12	-2,512.75	2,686.38	0.00	0.00	0.00
6,500.00	0.00	0.00	5,722.23	-950.12	-2,512.75	2,686.38	0.00	0.00	0.00
6,600.00	0.00	0.00	5,822.23	-950.12	-2,512.75	2,686.38	0.00	0.00	0.00
6,700.00	0.00	0.00	5,922.23	-950.12	-2,512.75	2,686.38	0.00	0.00	0.00
6,800.00	0.00	0.00	6,022.23	-950.12	-2,512.75	2,686.38	0.00	0.00	0.00
6,900.00	0.00	0.00	6,122.23	-950.12	-2,512.75	2,686.38	0.00	0.00	0.00
6,993.77	0.00	0.00	6,216.00	-950.12	-2,512.75	2,686.38	0.00	0.00	0.00
CMEO									
7,000.00	0.00	0.00	6,222.23	-950.12	-2,512.75	2,686.38	0.00	0.00	0.00
7,100.00	0.00	0.00	6,322.23	-950.12	-2,512.75	2,686.38	0.00	0.00	0.00
7,200.00	0.00	0.00	6,422.23	-950.12	-2,512.75	2,686.38	0.00	0.00	0.00
7,300.00	0.00	0.00	6,522.23	-950.12	-2,512.75	2,686.38	0.00	0.00	0.00
7,400.00	0.00	0.00	6,622.23	-950.12	-2,512.75	2,686.38	0.00	0.00	0.00
7,500.00	0.00	0.00	6,722.23	-950.12	-2,512.75	2,686.38	0.00	0.00	0.00
7,508.77	0.00	0.00	6,731.00	-950.12	-2,512.75	2,686.38	0.00	0.00	0.00
RLNS									
7,600.00	0.00	0.00	6,822.23	-950.12	-2,512.75	2,686.38	0.00	0.00	0.00
7,658.77	0.00	0.00	6,881.00	-950.12	-2,512.75	2,686.38	0.00	0.00	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 342-30 - Slot GM 342-30 (B7)
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 342-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2 3May 2019 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 7658.77 - TD - GM 342-30 PBHL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
GM 342-30 BTV	0.00	0.00	4,730.00	-950.12	-2,512.75	1,616,276.70	2,252,897.22	39.4955654	-108.1477772
- hit/miss target									
- Shape									
- plan misses target center by 42.87usft at 5512.08usft MD (4736.74 TVD, -935.15 N, -2473.14 E)									
- Circle (radius 50.00)									
GM 342-30 PBHL	0.00	0.00	6,881.00	-950.12	-2,512.75	1,616,276.70	2,252,897.22	39.4955654	-108.1477772
- plan misses target center by 0.01usft at 7658.77usft MD (6881.00 TVD, -950.12 N, -2512.75 E)									
- Point									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,399.46	2,080.00	G Sand		0.00	0.00	
2,522.84	2,180.00	G Sand Base		0.00	0.00	
2,707.91	2,330.00	FRUN		0.00	0.00	
4,429.51	3,730.00	Ohio Creek		0.00	0.00	
4,429.51	3,730.00	MVRD		0.00	0.00	
5,505.23	4,730.00	KMVGAS		0.00	0.00	
6,993.77	6,216.00	CMEQ		0.00	0.00	
7,508.77	6,731.00	RLNS		0.00	0.00	
7,658.77	6,881.00	TD		0.00	0.00	

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
120.00	120.00	0.00	0.00	Start Build 4.00
1,016.37	959.00	-96.00	-253.89	Start 3196.11 hold at 1016.37 MD
4,212.48	3,549.46	-758.12	-2,004.97	Start Drop -2.00
5,505.23	4,730.00	-934.73	-2,472.04	Start DLS 2.00 TFO 180.00
6,005.23	5,227.47	-950.12	-2,512.75	Start 1653.53 hold at 6005.23 MD
7,658.77	6,881.00	-950.12	-2,512.75	TD at 7658.77