



GMT Exploration Company, LLC

Elbert County, CO (NAD 83)

Marble-Redstone Pad

REDSTONE 6-65 24-36 3HN

Wellbore #1

Plan: Design #1

Standard Planning Report

26 May, 2019



Project: Elbert County, CO (NAD 83)
 Site: Marble-Redstone Pad
 Well: REDSTONE 6-65 24-36 3HN
 Wellbore: Wellbore #1
 Design: Design #1

GMT Exploration Company, LLC

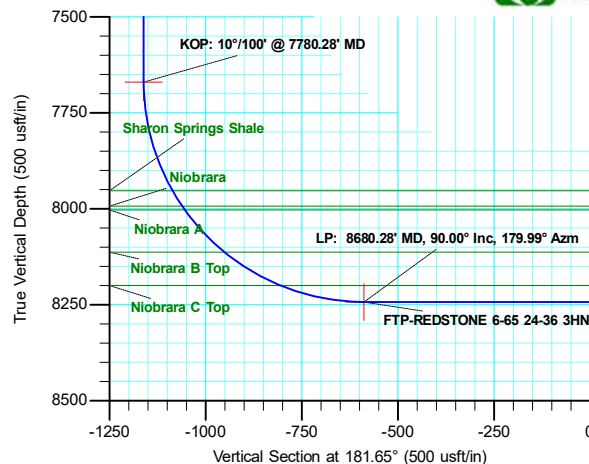
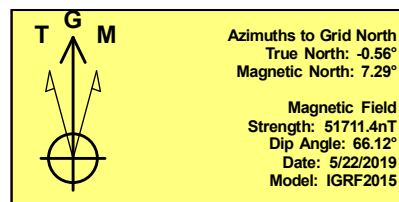
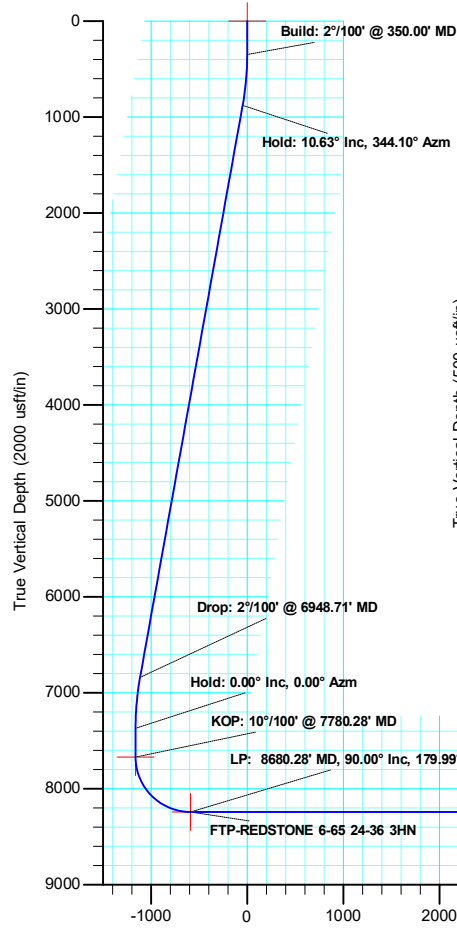
Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Central Zone
 System Datum: Mean Sea Level

WELL DETAILS: REDSTONE 6-65 24-36 3HN

+N/-S	+E/-W	Northing	Ground Level: Easting	6278.00 Latitude	Longitude
-1157.41	-807.10	1612079.92	3248904.90	39.510618	-104.617788

SECTION DETAILS

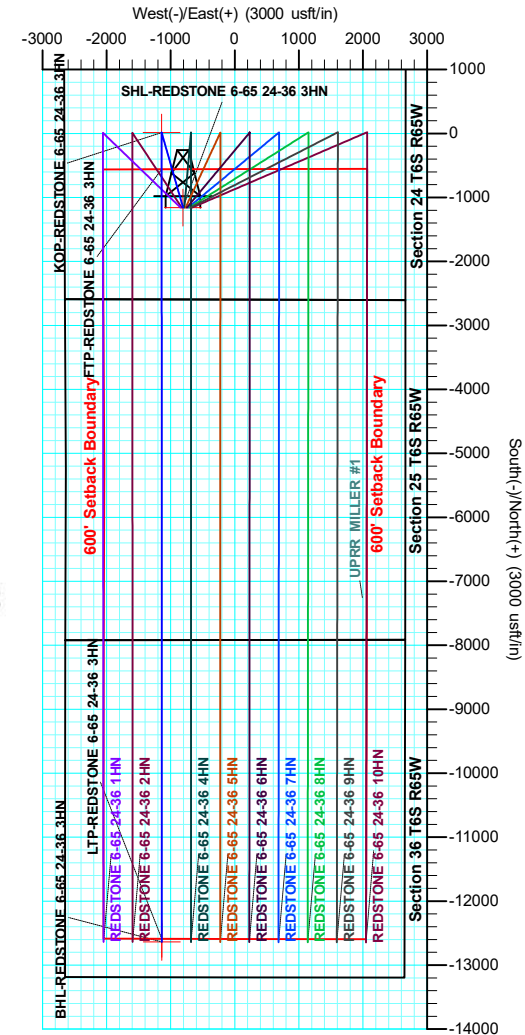
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
0.00	0.00	0.00	0.00	-1157.41	-807.10	0.00	0.00	0.00	
350.00	0.00	0.00	350.00	-1157.41	-807.10	0.00	0.00	0.00	
881.56	10.63	344.10	878.52	-1110.11	-820.57	2.00	344.10	-46.89	
6948.71	10.63	344.10	6841.53	-33.60	-1127.13	0.00	0.00	-1114.12	
7480.28	0.00	0.00	7370.04	13.69	-1140.60	2.00	180.00	-1161.01	
7780.28	0.00	0.00	7670.04	13.69	-1140.60	0.00	0.00	-1161.01	
8680.28	90.00	179.99	8243.00	-559.26	-1140.48	10.00	0.00	-588.29	FTP-REDSTONE 6-65 24-36 3HN
20708.95	90.00	179.99	8243.00	-12587.94	-1137.94	0.00	0.00	11435.32	LTP-REDSTONE 6-65 24-36 3HN
20758.95	90.00	179.99	8243.00	-12637.94	-1137.92	0.00	0.00	11485.30	BHL-REDSTONE 6-65 24-36 3HN



SHL: 1437 FSL/ 1848 FWL Sec. 24
 FTP: 2034 FSL/ 1516 FWL Sec. 24
 LTP: 600 FSL/ 1510 FWL Sec. 36
 BHL: 550 FSL/ 1510 FWL Sec. 36



TD @ 20758.95' MD/8243.00' TVD
 Hold: 90.00° Inc, 179.99° Azm
 LTP-REDSTONE 6-65 24-36 3HN
 BHL-REDSTONE 6-65 24-36 3HN



Database:	Local	Local Co-ordinate Reference:	Site Marble-Redstone Pad
Company:	GMT Exploration Company, LLC	TVD Reference:	KB @ 6298.00usft
Project:	Elbert County, CO (NAD 83)	MD Reference:	KB @ 6298.00usft
Site:	Marble-Redstone Pad	North Reference:	Grid
Well:	REDSTONE 6-65 24-36 3HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Elbert County, CO (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		Marble-Redstone Pad			
Site Position:		Northing:	1,613,237.32 usft	Latitude:	39.513774
From:	Lat/Long	Easting:	3,249,712.00 usft	Longitude:	-104.614888
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.56 °

Well	REDSTONE 6-65 24-36 3HN					
Well Position	+N/-S	-1,157.41 usft	Northing:	1,612,079.92 usft	Latitude:	39.510618
	+E/-W	-807.10 usft	Easting:	3,248,904.90 usft	Longitude:	-104.617789
Position Uncertainty	0.00 usft		Wellhead Elevation:		Ground Level:	6,278.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	5/22/2019	7.85	66.12	51,711.42174608

Design	Design #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	-1,157.41	-807.10	181.65

Plan Survey Tool Program	Date	5/26/2019		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	20,758.95	Design #1 (Wellbore #1)	MWD
				OWSG MWD - Standard

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	-1,157.41	-807.10	0.00	0.00	0.00	0.00	
350.00	0.00	0.00	350.00	-1,157.41	-807.10	0.00	0.00	0.00	0.00	
881.56	10.63	344.10	878.52	-1,110.11	-820.57	2.00	2.00	0.00	344.10	
6,948.71	10.63	344.10	6,841.53	-33.60	-1,127.13	0.00	0.00	0.00	0.00	
7,480.28	0.00	0.00	7,370.04	13.69	-1,140.60	2.00	-2.00	0.00	180.00	
7,780.28	0.00	0.00	7,670.04	13.69	-1,140.60	0.00	0.00	0.00	0.00	
8,680.28	90.00	179.99	8,243.00	-559.26	-1,140.48	10.00	10.00	0.00	0.00	FTP-REDSTONE 6
20,708.95	90.00	179.99	8,243.00	-12,587.94	-1,137.94	0.00	0.00	0.00	0.00	LTP-REDSTONE 6-
20,758.95	90.00	179.99	8,243.00	-12,637.94	-1,137.92	0.00	0.00	0.00	0.00	BHL-REDSTONE 6



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Well:	REDSTONE 6-65 24-36 3HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #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	-1,157.41	-807.10	0.00	0.00	0.00	0.00
SHL-REDSTONE 6-65 24-36 3HN									
100.00	0.00	0.00	100.00	-1,157.41	-807.10	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	-1,157.41	-807.10	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	-1,157.41	-807.10	0.00	0.00	0.00	0.00
350.00	0.00	0.00	350.00	-1,157.41	-807.10	0.00	0.00	0.00	0.00
Build: 2°/100' @ 350.00' MD									
400.00	1.00	344.10	400.00	-1,156.99	-807.22	-0.42	2.00	2.00	0.00
500.00	3.00	344.10	499.93	-1,153.63	-808.17	-3.74	2.00	2.00	0.00
600.00	5.00	344.10	599.68	-1,146.92	-810.08	-10.39	2.00	2.00	0.00
700.00	7.00	344.10	699.13	-1,136.87	-812.95	-20.36	2.00	2.00	0.00
800.00	9.00	344.10	798.15	-1,123.49	-816.76	-33.63	2.00	2.00	0.00
881.56	10.63	344.10	878.52	-1,110.11	-820.57	-46.89	2.00	2.00	0.00
Hold: 10.63° Inc, 344.10° Azm									
900.00	10.63	344.10	896.64	-1,106.84	-821.50	-50.13	0.00	0.00	0.00
1,000.00	10.63	344.10	994.92	-1,089.10	-826.55	-67.72	0.00	0.00	0.00
1,100.00	10.63	344.10	1,093.21	-1,071.36	-831.60	-85.31	0.00	0.00	0.00
1,200.00	10.63	344.10	1,191.49	-1,053.61	-836.66	-102.90	0.00	0.00	0.00
1,300.00	10.63	344.10	1,289.77	-1,035.87	-841.71	-120.49	0.00	0.00	0.00
1,400.00	10.63	344.10	1,388.06	-1,018.13	-846.76	-138.08	0.00	0.00	0.00
1,500.00	10.63	344.10	1,486.34	-1,000.38	-851.81	-155.67	0.00	0.00	0.00
1,600.00	10.63	344.10	1,584.62	-982.64	-856.87	-173.26	0.00	0.00	0.00
1,700.00	10.63	344.10	1,682.91	-964.90	-861.92	-190.85	0.00	0.00	0.00
1,800.00	10.63	344.10	1,781.19	-947.15	-866.97	-208.44	0.00	0.00	0.00
1,900.00	10.63	344.10	1,879.47	-929.41	-872.03	-226.03	0.00	0.00	0.00
2,000.00	10.63	344.10	1,977.76	-911.67	-877.08	-243.62	0.00	0.00	0.00
2,100.00	10.63	344.10	2,076.04	-893.92	-882.13	-261.21	0.00	0.00	0.00
2,200.00	10.63	344.10	2,174.32	-876.18	-887.18	-278.80	0.00	0.00	0.00
2,300.00	10.63	344.10	2,272.61	-858.44	-892.24	-296.40	0.00	0.00	0.00
2,400.00	10.63	344.10	2,370.89	-840.69	-897.29	-313.99	0.00	0.00	0.00
2,500.00	10.63	344.10	2,469.17	-822.95	-902.34	-331.58	0.00	0.00	0.00
2,600.00	10.63	344.10	2,567.46	-805.21	-907.40	-349.17	0.00	0.00	0.00
2,700.00	10.63	344.10	2,665.74	-787.46	-912.45	-366.76	0.00	0.00	0.00
2,800.00	10.63	344.10	2,764.02	-769.72	-917.50	-384.35	0.00	0.00	0.00
2,900.00	10.63	344.10	2,862.31	-751.98	-922.55	-401.94	0.00	0.00	0.00
3,000.00	10.63	344.10	2,960.59	-734.23	-927.61	-419.53	0.00	0.00	0.00
3,100.00	10.63	344.10	3,058.88	-716.49	-932.66	-437.12	0.00	0.00	0.00
3,200.00	10.63	344.10	3,157.16	-698.75	-937.71	-454.71	0.00	0.00	0.00
3,300.00	10.63	344.10	3,255.44	-681.00	-942.76	-472.30	0.00	0.00	0.00
3,400.00	10.63	344.10	3,353.73	-663.26	-947.82	-489.89	0.00	0.00	0.00
3,500.00	10.63	344.10	3,452.01	-645.52	-952.87	-507.48	0.00	0.00	0.00
3,600.00	10.63	344.10	3,550.29	-627.77	-957.92	-525.07	0.00	0.00	0.00
3,700.00	10.63	344.10	3,648.58	-610.03	-962.98	-542.66	0.00	0.00	0.00
3,800.00	10.63	344.10	3,746.86	-592.29	-968.03	-560.25	0.00	0.00	0.00
3,900.00	10.63	344.10	3,845.14	-574.54	-973.08	-577.84	0.00	0.00	0.00
4,000.00	10.63	344.10	3,943.43	-556.80	-978.13	-595.43	0.00	0.00	0.00
4,100.00	10.63	344.10	4,041.71	-539.06	-983.19	-613.02	0.00	0.00	0.00
4,200.00	10.63	344.10	4,139.99	-521.31	-988.24	-630.61	0.00	0.00	0.00
4,300.00	10.63	344.10	4,238.28	-503.57	-993.29	-648.20	0.00	0.00	0.00
4,400.00	10.63	344.10	4,336.56	-485.83	-998.35	-665.79	0.00	0.00	0.00
4,500.00	10.63	344.10	4,434.84	-468.08	-1,003.40	-683.38	0.00	0.00	0.00
4,600.00	10.63	344.10	4,533.13	-450.34	-1,008.45	-700.97	0.00	0.00	0.00
4,700.00	10.63	344.10	4,631.41	-432.60	-1,013.50	-718.56	0.00	0.00	0.00

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Well:	REDSTONE 6-65 24-36 3HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #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	10.63	344.10	4,729.69	-414.85	-1,018.56	-736.15	0.00	0.00	0.00
4,900.00	10.63	344.10	4,827.98	-397.11	-1,023.61	-753.75	0.00	0.00	0.00
5,000.00	10.63	344.10	4,926.26	-379.37	-1,028.66	-771.34	0.00	0.00	0.00
5,100.00	10.63	344.10	5,024.55	-361.62	-1,033.72	-788.93	0.00	0.00	0.00
5,200.00	10.63	344.10	5,122.83	-343.88	-1,038.77	-806.52	0.00	0.00	0.00
5,300.00	10.63	344.10	5,221.11	-326.14	-1,043.82	-824.11	0.00	0.00	0.00
5,400.00	10.63	344.10	5,319.40	-308.39	-1,048.87	-841.70	0.00	0.00	0.00
5,500.00	10.63	344.10	5,417.68	-290.65	-1,053.93	-859.29	0.00	0.00	0.00
5,600.00	10.63	344.10	5,515.96	-272.91	-1,058.98	-876.88	0.00	0.00	0.00
5,700.00	10.63	344.10	5,614.25	-255.16	-1,064.03	-894.47	0.00	0.00	0.00
5,800.00	10.63	344.10	5,712.53	-237.42	-1,069.09	-912.06	0.00	0.00	0.00
5,900.00	10.63	344.10	5,810.81	-219.68	-1,074.14	-929.65	0.00	0.00	0.00
6,000.00	10.63	344.10	5,909.10	-201.93	-1,079.19	-947.24	0.00	0.00	0.00
6,100.00	10.63	344.10	6,007.38	-184.19	-1,084.24	-964.83	0.00	0.00	0.00
6,200.00	10.63	344.10	6,105.66	-166.45	-1,089.30	-982.42	0.00	0.00	0.00
6,300.00	10.63	344.10	6,203.95	-148.70	-1,094.35	-1,000.01	0.00	0.00	0.00
6,400.00	10.63	344.10	6,302.23	-130.96	-1,099.40	-1,017.60	0.00	0.00	0.00
6,500.00	10.63	344.10	6,400.51	-113.22	-1,104.46	-1,035.19	0.00	0.00	0.00
6,600.00	10.63	344.10	6,498.80	-95.47	-1,109.51	-1,052.78	0.00	0.00	0.00
6,700.00	10.63	344.10	6,597.08	-77.73	-1,114.56	-1,070.37	0.00	0.00	0.00
6,800.00	10.63	344.10	6,695.36	-59.99	-1,119.61	-1,087.96	0.00	0.00	0.00
6,900.00	10.63	344.10	6,793.65	-42.24	-1,124.67	-1,105.55	0.00	0.00	0.00
6,948.71	10.63	344.10	6,841.53	-33.60	-1,127.13	-1,114.12	0.00	0.00	0.00
Drop: 2°/100' @ 6948.71' MD									
7,000.00	9.61	344.10	6,892.01	-24.94	-1,129.60	-1,122.71	2.00	-2.00	0.00
7,100.00	7.61	344.10	6,990.88	-10.55	-1,133.69	-1,136.98	2.00	-2.00	0.00
7,200.00	5.61	344.10	7,090.21	0.52	-1,136.84	-1,147.95	2.00	-2.00	0.00
7,300.00	3.61	344.10	7,189.89	8.24	-1,139.04	-1,155.60	2.00	-2.00	0.00
7,400.00	1.61	344.10	7,289.78	12.61	-1,140.29	-1,159.94	2.00	-2.00	0.00
7,480.28	0.00	0.00	7,370.04	13.69	-1,140.60	-1,161.01	2.00	-2.00	0.00
Hold: 0.00° Inc, 0.00° Azm									
7,500.00	0.00	0.00	7,389.77	13.69	-1,140.60	-1,161.01	0.00	0.00	0.00
7,600.00	0.00	0.00	7,489.77	13.69	-1,140.60	-1,161.01	0.00	0.00	0.00
7,700.00	0.00	0.00	7,589.77	13.69	-1,140.60	-1,161.01	0.00	0.00	0.00
7,780.28	0.00	0.00	7,670.04	13.69	-1,140.60	-1,161.01	0.00	0.00	0.00
KOP: 10°/100' @ 7780.28' MD - KOP-REDSTONE 6-65 24-36 3HN									
7,800.00	1.97	179.99	7,689.76	13.35	-1,140.60	-1,160.67	10.00	10.00	0.00
7,850.00	6.97	179.99	7,739.60	9.46	-1,140.60	-1,156.77	10.00	10.00	0.00
7,900.00	11.97	179.99	7,788.90	1.23	-1,140.59	-1,148.55	10.00	10.00	0.00
7,950.00	16.97	179.99	7,837.30	-11.26	-1,140.59	-1,136.06	10.00	10.00	0.00
8,000.00	21.97	179.99	7,884.42	-27.92	-1,140.59	-1,119.41	10.00	10.00	0.00
8,050.00	26.97	179.99	7,929.91	-48.63	-1,140.58	-1,098.71	10.00	10.00	0.00
8,100.00	31.97	179.99	7,973.43	-73.22	-1,140.58	-1,074.13	10.00	10.00	0.00
8,150.00	36.97	179.99	8,014.64	-101.51	-1,140.57	-1,045.85	10.00	10.00	0.00
8,200.00	41.97	179.99	8,053.22	-133.29	-1,140.57	-1,014.09	10.00	10.00	0.00
8,250.00	46.97	179.99	8,088.89	-168.31	-1,140.56	-979.08	10.00	10.00	0.00
8,300.00	51.97	179.99	8,121.37	-206.30	-1,140.55	-941.11	10.00	10.00	0.00
8,350.00	56.97	179.99	8,150.42	-246.98	-1,140.54	-900.45	10.00	10.00	0.00
8,400.00	61.97	179.99	8,175.80	-290.03	-1,140.53	-857.41	10.00	10.00	0.00
8,450.00	66.97	179.99	8,197.35	-335.14	-1,140.52	-812.32	10.00	10.00	0.00
8,500.00	71.97	179.99	8,214.87	-381.95	-1,140.51	-765.53	10.00	10.00	0.00
8,550.00	76.97	179.99	8,228.25	-430.11	-1,140.50	-717.39	10.00	10.00	0.00
8,600.00	81.97	179.99	8,237.39	-479.25	-1,140.49	-668.27	10.00	10.00	0.00



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Design:	Design #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)
8,650.00	86.97	179.99	8,242.20	-529.00	-1,140.48	-618.54	10.00	10.00	0.00
8,680.28	90.00	179.99	8,243.00	-559.26	-1,140.48	-588.29	10.00	10.00	0.00
LP: 8680.28' MD, 90.00° Inc, 179.99° Azm - FTP-REDSTONE 6-65 24-36 3HN									
8,700.00	90.00	179.99	8,243.00	-578.99	-1,140.47	-568.58	0.00	0.00	0.00
8,800.00	90.00	179.99	8,243.00	-678.99	-1,140.45	-468.62	0.00	0.00	0.00
8,900.00	90.00	179.99	8,243.00	-778.99	-1,140.43	-368.66	0.00	0.00	0.00
9,000.00	90.00	179.99	8,243.00	-878.99	-1,140.41	-268.70	0.00	0.00	0.00
9,100.00	90.00	179.99	8,243.00	-978.99	-1,140.39	-168.74	0.00	0.00	0.00
9,200.00	90.00	179.99	8,243.00	-1,078.99	-1,140.37	-68.79	0.00	0.00	0.00
9,300.00	90.00	179.99	8,243.00	-1,178.99	-1,140.34	31.17	0.00	0.00	0.00
9,400.00	90.00	179.99	8,243.00	-1,278.99	-1,140.32	131.13	0.00	0.00	0.00
9,500.00	90.00	179.99	8,243.00	-1,378.99	-1,140.30	231.09	0.00	0.00	0.00
9,600.00	90.00	179.99	8,243.00	-1,478.99	-1,140.28	331.05	0.00	0.00	0.00
9,700.00	90.00	179.99	8,243.00	-1,578.99	-1,140.26	431.00	0.00	0.00	0.00
9,800.00	90.00	179.99	8,243.00	-1,678.99	-1,140.24	530.96	0.00	0.00	0.00
9,900.00	90.00	179.99	8,243.00	-1,778.99	-1,140.22	630.92	0.00	0.00	0.00
10,000.00	90.00	179.99	8,243.00	-1,878.99	-1,140.20	730.88	0.00	0.00	0.00
10,100.00	90.00	179.99	8,243.00	-1,978.99	-1,140.18	830.84	0.00	0.00	0.00
10,200.00	90.00	179.99	8,243.00	-2,078.99	-1,140.15	930.79	0.00	0.00	0.00
10,300.00	90.00	179.99	8,243.00	-2,178.99	-1,140.13	1,030.75	0.00	0.00	0.00
10,400.00	90.00	179.99	8,243.00	-2,278.99	-1,140.11	1,130.71	0.00	0.00	0.00
10,500.00	90.00	179.99	8,243.00	-2,378.99	-1,140.09	1,230.67	0.00	0.00	0.00
10,600.00	90.00	179.99	8,243.00	-2,478.99	-1,140.07	1,330.62	0.00	0.00	0.00
10,700.00	90.00	179.99	8,243.00	-2,578.99	-1,140.05	1,430.58	0.00	0.00	0.00
10,800.00	90.00	179.99	8,243.00	-2,678.99	-1,140.03	1,530.54	0.00	0.00	0.00
10,900.00	90.00	179.99	8,243.00	-2,778.99	-1,140.01	1,630.50	0.00	0.00	0.00
11,000.00	90.00	179.99	8,243.00	-2,878.99	-1,139.99	1,730.46	0.00	0.00	0.00
11,100.00	90.00	179.99	8,243.00	-2,978.99	-1,139.96	1,830.41	0.00	0.00	0.00
11,200.00	90.00	179.99	8,243.00	-3,078.99	-1,139.94	1,930.37	0.00	0.00	0.00
11,300.00	90.00	179.99	8,243.00	-3,178.99	-1,139.92	2,030.33	0.00	0.00	0.00
11,400.00	90.00	179.99	8,243.00	-3,278.99	-1,139.90	2,130.29	0.00	0.00	0.00
11,500.00	90.00	179.99	8,243.00	-3,378.99	-1,139.88	2,230.25	0.00	0.00	0.00
11,600.00	90.00	179.99	8,243.00	-3,478.99	-1,139.86	2,330.20	0.00	0.00	0.00
11,700.00	90.00	179.99	8,243.00	-3,578.99	-1,139.84	2,430.16	0.00	0.00	0.00
11,800.00	90.00	179.99	8,243.00	-3,678.99	-1,139.82	2,530.12	0.00	0.00	0.00
11,900.00	90.00	179.99	8,243.00	-3,778.99	-1,139.80	2,630.08	0.00	0.00	0.00
12,000.00	90.00	179.99	8,243.00	-3,878.99	-1,139.77	2,730.04	0.00	0.00	0.00
12,100.00	90.00	179.99	8,243.00	-3,978.99	-1,139.75	2,829.99	0.00	0.00	0.00
12,200.00	90.00	179.99	8,243.00	-4,078.99	-1,139.73	2,929.95	0.00	0.00	0.00
12,300.00	90.00	179.99	8,243.00	-4,178.99	-1,139.71	3,029.91	0.00	0.00	0.00
12,400.00	90.00	179.99	8,243.00	-4,278.99	-1,139.69	3,129.87	0.00	0.00	0.00
12,500.00	90.00	179.99	8,243.00	-4,378.99	-1,139.67	3,229.82	0.00	0.00	0.00
12,600.00	90.00	179.99	8,243.00	-4,478.99	-1,139.65	3,329.78	0.00	0.00	0.00
12,700.00	90.00	179.99	8,243.00	-4,578.99	-1,139.63	3,429.74	0.00	0.00	0.00
12,800.00	90.00	179.99	8,243.00	-4,678.99	-1,139.61	3,529.70	0.00	0.00	0.00
12,900.00	90.00	179.99	8,243.00	-4,778.99	-1,139.58	3,629.66	0.00	0.00	0.00
13,000.00	90.00	179.99	8,243.00	-4,878.99	-1,139.56	3,729.61	0.00	0.00	0.00
13,100.00	90.00	179.99	8,243.00	-4,978.99	-1,139.54	3,829.57	0.00	0.00	0.00
13,200.00	90.00	179.99	8,243.00	-5,078.99	-1,139.52	3,929.53	0.00	0.00	0.00
13,300.00	90.00	179.99	8,243.00	-5,178.99	-1,139.50	4,029.49	0.00	0.00	0.00
13,400.00	90.00	179.99	8,243.00	-5,278.99	-1,139.48	4,129.45	0.00	0.00	0.00
13,500.00	90.00	179.99	8,243.00	-5,378.99	-1,139.46	4,229.40	0.00	0.00	0.00
13,600.00	90.00	179.99	8,243.00	-5,478.99	-1,139.44	4,329.36	0.00	0.00	0.00
13,700.00	90.00	179.99	8,243.00	-5,578.99	-1,139.42	4,429.32	0.00	0.00	0.00



Database:	Local	Local Co-ordinate Reference:	Site Marble-Redstone Pad
Company:	GMT Exploration Company, LLC	TVD Reference:	KB @ 6298.00usft
Project:	Elbert County, CO (NAD 83)	MD Reference:	KB @ 6298.00usft
Site:	Marble-Redstone Pad	North Reference:	Grid
Well:	REDSTONE 6-65 24-36 3HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #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)
13,800.00	90.00	179.99	8,243.00	-5,678.99	-1,139.39	4,529.28	0.00	0.00	0.00
13,900.00	90.00	179.99	8,243.00	-5,778.99	-1,139.37	4,629.24	0.00	0.00	0.00
14,000.00	90.00	179.99	8,243.00	-5,878.99	-1,139.35	4,729.19	0.00	0.00	0.00
14,100.00	90.00	179.99	8,243.00	-5,978.99	-1,139.33	4,829.15	0.00	0.00	0.00
14,200.00	90.00	179.99	8,243.00	-6,078.99	-1,139.31	4,929.11	0.00	0.00	0.00
14,300.00	90.00	179.99	8,243.00	-6,178.99	-1,139.29	5,029.07	0.00	0.00	0.00
14,400.00	90.00	179.99	8,243.00	-6,278.99	-1,139.27	5,129.02	0.00	0.00	0.00
14,500.00	90.00	179.99	8,243.00	-6,378.99	-1,139.25	5,228.98	0.00	0.00	0.00
14,600.00	90.00	179.99	8,243.00	-6,478.99	-1,139.23	5,328.94	0.00	0.00	0.00
14,700.00	90.00	179.99	8,243.00	-6,578.99	-1,139.20	5,428.90	0.00	0.00	0.00
14,800.00	90.00	179.99	8,243.00	-6,678.99	-1,139.18	5,528.86	0.00	0.00	0.00
14,900.00	90.00	179.99	8,243.00	-6,778.99	-1,139.16	5,628.81	0.00	0.00	0.00
15,000.00	90.00	179.99	8,243.00	-6,878.99	-1,139.14	5,728.77	0.00	0.00	0.00
15,100.00	90.00	179.99	8,243.00	-6,978.99	-1,139.12	5,828.73	0.00	0.00	0.00
15,200.00	90.00	179.99	8,243.00	-7,078.99	-1,139.10	5,928.69	0.00	0.00	0.00
15,300.00	90.00	179.99	8,243.00	-7,178.99	-1,139.08	6,028.65	0.00	0.00	0.00
15,400.00	90.00	179.99	8,243.00	-7,278.99	-1,139.06	6,128.60	0.00	0.00	0.00
15,500.00	90.00	179.99	8,243.00	-7,378.99	-1,139.04	6,228.56	0.00	0.00	0.00
15,600.00	90.00	179.99	8,243.00	-7,478.99	-1,139.01	6,328.52	0.00	0.00	0.00
15,700.00	90.00	179.99	8,243.00	-7,578.99	-1,138.99	6,428.48	0.00	0.00	0.00
15,800.00	90.00	179.99	8,243.00	-7,678.99	-1,138.97	6,528.44	0.00	0.00	0.00
15,900.00	90.00	179.99	8,243.00	-7,778.99	-1,138.95	6,628.39	0.00	0.00	0.00
16,000.00	90.00	179.99	8,243.00	-7,878.99	-1,138.93	6,728.35	0.00	0.00	0.00
16,100.00	90.00	179.99	8,243.00	-7,978.99	-1,138.91	6,828.31	0.00	0.00	0.00
16,200.00	90.00	179.99	8,243.00	-8,078.99	-1,138.89	6,928.27	0.00	0.00	0.00
16,300.00	90.00	179.99	8,243.00	-8,178.99	-1,138.87	7,028.22	0.00	0.00	0.00
16,400.00	90.00	179.99	8,243.00	-8,278.99	-1,138.85	7,128.18	0.00	0.00	0.00
16,500.00	90.00	179.99	8,243.00	-8,378.99	-1,138.82	7,228.14	0.00	0.00	0.00
16,600.00	90.00	179.99	8,243.00	-8,478.99	-1,138.80	7,328.10	0.00	0.00	0.00
16,700.00	90.00	179.99	8,243.00	-8,578.99	-1,138.78	7,428.06	0.00	0.00	0.00
16,800.00	90.00	179.99	8,243.00	-8,678.99	-1,138.76	7,528.01	0.00	0.00	0.00
16,900.00	90.00	179.99	8,243.00	-8,778.99	-1,138.74	7,627.97	0.00	0.00	0.00
17,000.00	90.00	179.99	8,243.00	-8,878.99	-1,138.72	7,727.93	0.00	0.00	0.00
17,100.00	90.00	179.99	8,243.00	-8,978.99	-1,138.70	7,827.89	0.00	0.00	0.00
17,200.00	90.00	179.99	8,243.00	-9,078.99	-1,138.68	7,927.85	0.00	0.00	0.00
17,300.00	90.00	179.99	8,243.00	-9,178.99	-1,138.66	8,027.80	0.00	0.00	0.00
17,400.00	90.00	179.99	8,243.00	-9,278.99	-1,138.63	8,127.76	0.00	0.00	0.00
17,500.00	90.00	179.99	8,243.00	-9,378.99	-1,138.61	8,227.72	0.00	0.00	0.00
17,600.00	90.00	179.99	8,243.00	-9,478.99	-1,138.59	8,327.68	0.00	0.00	0.00
17,700.00	90.00	179.99	8,243.00	-9,578.99	-1,138.57	8,427.64	0.00	0.00	0.00
17,800.00	90.00	179.99	8,243.00	-9,678.99	-1,138.55	8,527.59	0.00	0.00	0.00
17,900.00	90.00	179.99	8,243.00	-9,778.99	-1,138.53	8,627.55	0.00	0.00	0.00
18,000.00	90.00	179.99	8,243.00	-9,878.99	-1,138.51	8,727.51	0.00	0.00	0.00
18,100.00	90.00	179.99	8,243.00	-9,978.99	-1,138.49	8,827.47	0.00	0.00	0.00
18,200.00	90.00	179.99	8,243.00	-10,078.99	-1,138.47	8,927.42	0.00	0.00	0.00
18,300.00	90.00	179.99	8,243.00	-10,178.99	-1,138.44	9,027.38	0.00	0.00	0.00
18,400.00	90.00	179.99	8,243.00	-10,278.99	-1,138.42	9,127.34	0.00	0.00	0.00
18,500.00	90.00	179.99	8,243.00	-10,378.99	-1,138.40	9,227.30	0.00	0.00	0.00
18,600.00	90.00	179.99	8,243.00	-10,478.99	-1,138.38	9,327.26	0.00	0.00	0.00
18,700.00	90.00	179.99	8,243.00	-10,578.99	-1,138.36	9,427.21	0.00	0.00	0.00
18,800.00	90.00	179.99	8,243.00	-10,678.99	-1,138.34	9,527.17	0.00	0.00	0.00
18,900.00	90.00	179.99	8,243.00	-10,778.99	-1,138.32	9,627.13	0.00	0.00	0.00
19,000.00	90.00	179.99	8,243.00	-10,878.99	-1,138.30	9,727.09	0.00	0.00	0.00
19,100.00	90.00	179.99	8,243.00	-10,978.99	-1,138.28	9,827.05	0.00	0.00	0.00

Database:	Local	Local Co-ordinate Reference:	Site Marble-Redstone Pad
Company:	GMT Exploration Company, LLC	TVD Reference:	KB @ 6298.00usft
Project:	Elbert County, CO (NAD 83)	MD Reference:	KB @ 6298.00usft
Site:	Marble-Redstone Pad	North Reference:	Grid
Well:	REDSTONE 6-65 24-36 3HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #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)
19,200.00	90.00	179.99	8,243.00	-11,078.99	-1,138.25	9,927.00	0.00	0.00	0.00
19,300.00	90.00	179.99	8,243.00	-11,178.99	-1,138.23	10,026.96	0.00	0.00	0.00
19,400.00	90.00	179.99	8,243.00	-11,278.99	-1,138.21	10,126.92	0.00	0.00	0.00
19,500.00	90.00	179.99	8,243.00	-11,378.99	-1,138.19	10,226.88	0.00	0.00	0.00
19,600.00	90.00	179.99	8,243.00	-11,478.99	-1,138.17	10,326.84	0.00	0.00	0.00
19,700.00	90.00	179.99	8,243.00	-11,578.99	-1,138.15	10,426.79	0.00	0.00	0.00
19,800.00	90.00	179.99	8,243.00	-11,678.99	-1,138.13	10,526.75	0.00	0.00	0.00
19,900.00	90.00	179.99	8,243.00	-11,778.99	-1,138.11	10,626.71	0.00	0.00	0.00
20,000.00	90.00	179.99	8,243.00	-11,878.99	-1,138.09	10,726.67	0.00	0.00	0.00
20,100.00	90.00	179.99	8,243.00	-11,978.99	-1,138.06	10,826.62	0.00	0.00	0.00
20,200.00	90.00	179.99	8,243.00	-12,078.99	-1,138.04	10,926.58	0.00	0.00	0.00
20,300.00	90.00	179.99	8,243.00	-12,178.99	-1,138.02	11,026.54	0.00	0.00	0.00
20,400.00	90.00	179.99	8,243.00	-12,278.99	-1,138.00	11,126.50	0.00	0.00	0.00
20,500.00	90.00	179.99	8,243.00	-12,378.99	-1,137.98	11,226.46	0.00	0.00	0.00
20,600.00	90.00	179.99	8,243.00	-12,478.99	-1,137.96	11,326.41	0.00	0.00	0.00
20,708.95	90.00	179.99	8,243.00	-12,587.94	-1,137.94	11,435.32	0.00	0.00	0.00
Hold: 90.00° Inc, 179.99° Azm - LTP-REDSTONE 6-65 24-36 3HN									
20,758.95	90.00	179.99	8,243.00	-12,637.94	-1,137.92	11,485.30	0.00	0.00	0.00
TD @ 20758.95' MD/8243.00' TVD - BHL-REDSTONE 6-65 24-36 3HN									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL-REDSTONE 6-65 - plan hits target center - Point	0.00	0.00	0.00	-1,157.41	-807.10	1,612,079.92	3,248,904.90	39.510618	-104.617789
KOP-REDSTONE 6-65 - plan hits target center - Point	0.00	0.00	7,670.04	13.69	-1,140.60	1,613,251.02	3,248,571.40	39.513842	-104.618930
LTP-REDSTONE 6-65 - plan hits target center - Point	0.00	0.00	8,243.00	-12,587.94	-1,137.94	1,600,649.39	3,248,574.06	39.479247	-104.619354
FTP-REDSTONE 6-65 - plan hits target center - Point	0.00	0.00	8,243.00	-559.26	-1,140.48	1,612,678.06	3,248,571.52	39.512269	-104.618950
BHL-REDSTONE 6-65 - plan hits target center - Point	0.00	0.00	8,243.00	-12,637.94	-1,137.92	1,600,599.39	3,248,574.08	39.479109	-104.619356

Database:	Local	Local Co-ordinate Reference:	Site Marble-Redstone Pad
Company:	GMT Exploration Company, LLC	TVD Reference:	KB @ 6298.00usft
Project:	Elbert County, CO (NAD 83)	MD Reference:	KB @ 6298.00usft
Site:	Marble-Redstone Pad	North Reference:	Grid
Well:	REDSTONE 6-65 24-36 3HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
513.09	513.00	Denver				
1,628.87	1,613.00	Upper Arapahoe				
2,285.14	2,258.00	Laramie - Fox Hills				
2,458.11	2,428.00	Pierre Shale (Base of Fox Hills)				
5,703.82	5,618.00	Sussex Sandstone				
8,076.22	7,953.00	Sharon Springs Shale				
8,123.37	7,993.00	Niobrara				
8,135.57	8,003.00	Niobrara A				
8,286.61	8,113.00	Niobrara B Top				
8,456.88	8,200.00	Niobrara C Top				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
350.00	350.00	-1,157.41	-807.10	Build: 2°/100' @ 350.00' MD	
881.56	878.52	-1,110.11	-820.57	Hold: 10.63° Inc, 344.10° Azm	
6,948.71	6,841.53	-33.60	-1,127.13	Drop: 2°/100' @ 6948.71' MD	
7,480.28	7,370.04	13.69	-1,140.60	Hold: 0.00° Inc, 0.00° Azm	
7,780.28	7,670.04	13.69	-1,140.60	KOP: 10°/100' @ 7780.28' MD	
8,680.28	8,243.00	-559.26	-1,140.48	LP: 8680.28' MD, 90.00° Inc, 179.99° Azm	
20,708.95	8,243.00	-12,587.94	-1,137.94	Hold: 90.00° Inc, 179.99° Azm	
20,758.95	8,243.00	-12,637.94	-1,137.92	TD @ 20758.95' MD/8243.00' TVD	