



# **GMT Exploration Company, LLC**

**Elbert County, CO (NAD 83)**

**Ruby-Crystal Pad**

**RUBY 6-65 22-27 9HN**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**24 May, 2019**



Project: Elbert County, CO (NAD 83)  
 Site: Ruby-Crystal Pad  
 Well: RUBY 6-65 22-27 9HN  
 Wellbore: Wellbore #1  
 Design: Design #1

# GMT Exploration Company, LLC

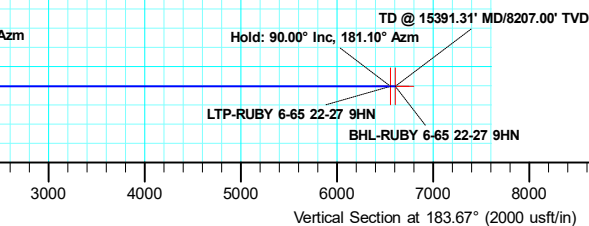
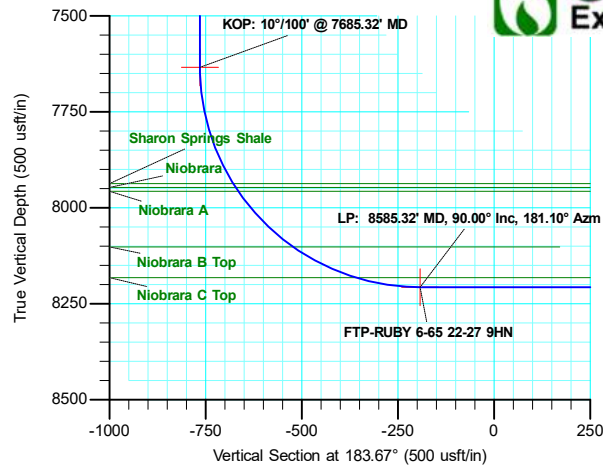
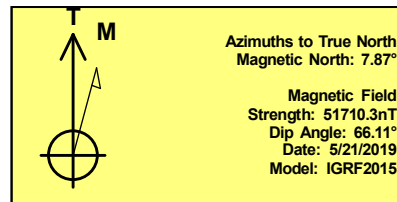
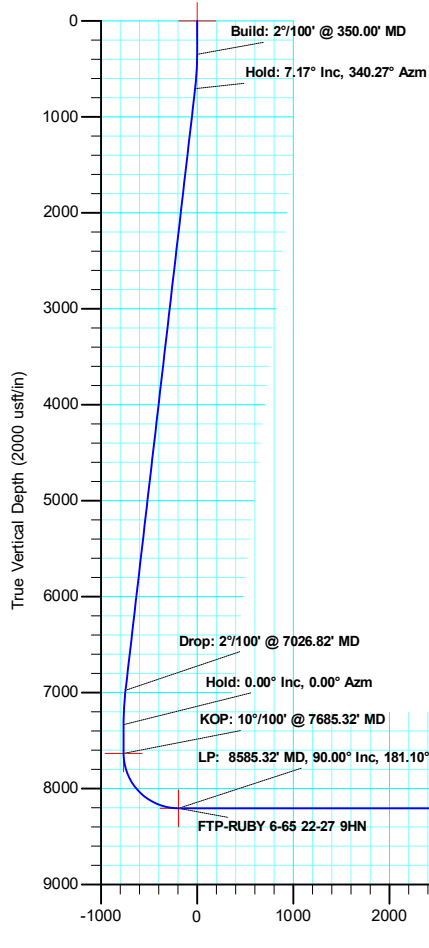
Geodetic System: US State Plane 1983  
 Datum: North American Datum 1983  
 Ellipsoid: GRS 1980  
 Zone: Colorado Central Zone  
 System Datum: Mean Sea Level

### WELL DETAILS: RUBY 6-65 22-27 9HN

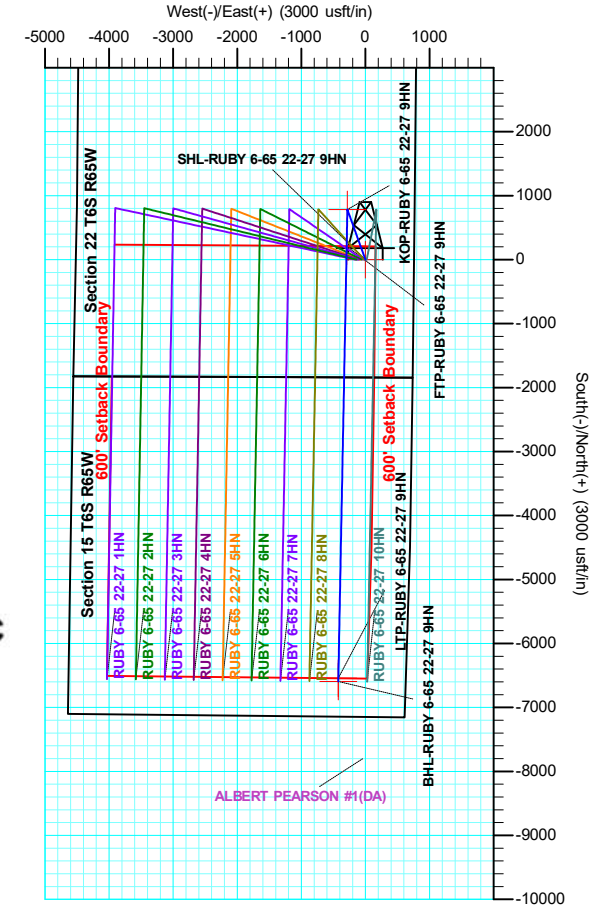
+N/-S	+E/-W	Northing	Ground Level: Easting	6177.00 Latitude	Longitude
0.00	0.00	1612493.88	3241090.14	39.511960	-104.645471

### SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
350.00	0.00	0.00	350.00	0.00	0.00	0.00	0.00	0.00	
708.49	7.17	340.27	707.56	21.09	-7.56	2.00	340.27	-20.56	
7026.82	7.17	340.27	6976.48	763.39	-273.79	0.00	0.00	-744.28	
7385.32	0.00	0.00	7334.04	784.47	-281.36	2.00	180.00	-764.83	
7685.32	0.00	0.00	7634.04	784.47	-281.36	0.00	0.00	-764.83	
8585.32	90.00	181.10	8207.00	211.62	-292.38	10.00	0.00	-192.45	FTP-RUBY 6-65 22-27 9HN
15341.31	90.00	181.10	8207.00	-6543.12	-422.37	0.00	0.00	6556.74	LTP-RUBY 6-65 22-27 9HN
15391.31	90.00	181.10	8207.00	-6593.11	-423.34	0.00	0.00	6606.69	BHL-RUBY 6-65 22-27 9HN



SHL: 1841 FSL/ 758 FEL Sec. 22  
 FTP: 2052 FSL/ 1052 FEL Sec. 22  
 LTP: 600 FSL/ 1051 FEL Sec. 27  
 BHL: 550 FSL/ 1051 FEL Sec. 27





<b>Database:</b>	Local	<b>Local Co-ordinate Reference:</b>	Well RUBY 6-65 22-27 9HN
<b>Company:</b>	GMT Exploration Company, LLC	<b>TVD Reference:</b>	KB @ 6197.00usft
<b>Project:</b>	Elbert County, CO (NAD 83)	<b>MD Reference:</b>	KB @ 6197.00usft
<b>Site:</b>	Ruby-Crystal Pad	<b>North Reference:</b>	True
<b>Well:</b>	RUBY 6-65 22-27 9HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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

<b>Site</b>	Ruby-Crystal Pad				
<b>Site Position:</b>		<b>Northing:</b>	1,613,266.75 usft	<b>Latitude:</b>	39.514130
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,239,201.95 usft	<b>Longitude:</b>	-104.652138
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.53 °

<b>Well</b>	RUBY 6-65 22-27 9HN					
<b>Well Position</b>	<b>+N/-S</b>	-790.46 usft	<b>Northing:</b>	1,612,493.88 usft	<b>Latitude:</b>	39.511960
	<b>+E/-W</b>	1,880.89 usft	<b>Easting:</b>	3,241,090.14 usft	<b>Longitude:</b>	-104.645472
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	6,177.00 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	5/21/2019	7.87	66.11	51,710.32904347

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	183.67

<b>Plan Survey Tool Program</b>	<b>Date</b>	5/24/2019		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	15,391.32	Design #1 (Wellbore #1)	MWD OWSG MWD - Standard

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
350.00	0.00	0.00	350.00	0.00	0.00	0.00	0.00	0.00	0.00	
708.49	7.17	340.27	707.56	21.09	-7.56	2.00	2.00	0.00	340.27	
7,026.82	7.17	340.27	6,976.48	763.39	-273.79	0.00	0.00	0.00	0.00	
7,385.32	0.00	0.00	7,334.04	784.47	-281.36	2.00	-2.00	0.00	180.00	
7,685.32	0.00	0.00	7,634.04	784.47	-281.36	0.00	0.00	0.00	0.00	
8,585.32	90.00	181.10	8,207.00	211.62	-292.38	10.00	10.00	0.00	0.00	FTP-RUBY 6-65 22
15,341.31	90.00	181.10	8,207.00	-6,543.12	-422.37	0.00	0.00	0.00	0.00	LTP-RUBY 6-65 22
15,391.32	90.00	181.10	8,207.00	-6,593.11	-423.34	0.00	0.00	0.00	0.00	BHL-RUBY 6-65 22



<b>Database:</b>	Local	<b>Local Co-ordinate Reference:</b>	Well RUBY 6-65 22-27 9HN
<b>Company:</b>	GMT Exploration Company, LLC	<b>TVD Reference:</b>	KB @ 6197.00usft
<b>Project:</b>	Elbert County, CO (NAD 83)	<b>MD Reference:</b>	KB @ 6197.00usft
<b>Site:</b>	Ruby-Crystal Pad	<b>North Reference:</b>	True
<b>Well:</b>	RUBY 6-65 22-27 9HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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	0.00	0.00	0.00	0.00	0.00	0.00
<b>SHL-RUBY 6-65 22-27 9HN</b>									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
350.00	0.00	0.00	350.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Build: 2°/100' @ 350.00' MD</b>									
400.00	1.00	340.27	400.00	0.41	-0.15	-0.40	2.00	2.00	0.00
500.00	3.00	340.27	499.93	3.70	-1.33	-3.60	2.00	2.00	0.00
600.00	5.00	340.27	599.68	10.26	-3.68	-10.00	2.00	2.00	0.00
708.49	7.17	340.27	707.56	21.09	-7.56	-20.56	2.00	2.00	0.00
<b>Hold: 7.17° Inc, 340.27° Azm</b>									
800.00	7.17	340.27	798.35	31.84	-11.42	-31.04	0.00	0.00	0.00
900.00	7.17	340.27	897.57	43.59	-15.63	-42.49	0.00	0.00	0.00
1,000.00	7.17	340.27	996.79	55.33	-19.85	-53.95	0.00	0.00	0.00
1,100.00	7.17	340.27	1,096.00	67.08	-24.06	-65.40	0.00	0.00	0.00
1,200.00	7.17	340.27	1,195.22	78.83	-28.27	-76.86	0.00	0.00	0.00
1,300.00	7.17	340.27	1,294.44	90.58	-32.49	-88.31	0.00	0.00	0.00
1,400.00	7.17	340.27	1,393.66	102.33	-36.70	-99.77	0.00	0.00	0.00
1,500.00	7.17	340.27	1,492.88	114.08	-40.91	-111.22	0.00	0.00	0.00
1,600.00	7.17	340.27	1,592.09	125.82	-45.13	-122.67	0.00	0.00	0.00
1,700.00	7.17	340.27	1,691.31	137.57	-49.34	-134.13	0.00	0.00	0.00
1,800.00	7.17	340.27	1,790.53	149.32	-53.55	-145.58	0.00	0.00	0.00
1,900.00	7.17	340.27	1,889.75	161.07	-57.77	-157.04	0.00	0.00	0.00
2,000.00	7.17	340.27	1,988.97	172.82	-61.98	-168.49	0.00	0.00	0.00
2,100.00	7.17	340.27	2,088.18	184.57	-66.20	-179.94	0.00	0.00	0.00
2,200.00	7.17	340.27	2,187.40	196.31	-70.41	-191.40	0.00	0.00	0.00
2,300.00	7.17	340.27	2,286.62	208.06	-74.62	-202.85	0.00	0.00	0.00
2,400.00	7.17	340.27	2,385.84	219.81	-78.84	-214.31	0.00	0.00	0.00
2,500.00	7.17	340.27	2,485.06	231.56	-83.05	-225.76	0.00	0.00	0.00
2,600.00	7.17	340.27	2,584.27	243.31	-87.26	-237.22	0.00	0.00	0.00
2,700.00	7.17	340.27	2,683.49	255.06	-91.48	-248.67	0.00	0.00	0.00
2,800.00	7.17	340.27	2,782.71	266.80	-95.69	-260.12	0.00	0.00	0.00
2,900.00	7.17	340.27	2,881.93	278.55	-99.90	-271.58	0.00	0.00	0.00
3,000.00	7.17	340.27	2,981.15	290.30	-104.12	-283.03	0.00	0.00	0.00
3,100.00	7.17	340.27	3,080.36	302.05	-108.33	-294.49	0.00	0.00	0.00
3,200.00	7.17	340.27	3,179.58	313.80	-112.55	-305.94	0.00	0.00	0.00
3,300.00	7.17	340.27	3,278.80	325.55	-116.76	-317.40	0.00	0.00	0.00
3,400.00	7.17	340.27	3,378.02	337.29	-120.97	-328.85	0.00	0.00	0.00
3,500.00	7.17	340.27	3,477.24	349.04	-125.19	-340.30	0.00	0.00	0.00
3,600.00	7.17	340.27	3,576.45	360.79	-129.40	-351.76	0.00	0.00	0.00
3,700.00	7.17	340.27	3,675.67	372.54	-133.61	-363.21	0.00	0.00	0.00
3,800.00	7.17	340.27	3,774.89	384.29	-137.83	-374.67	0.00	0.00	0.00
3,900.00	7.17	340.27	3,874.11	396.04	-142.04	-386.12	0.00	0.00	0.00
4,000.00	7.17	340.27	3,973.33	407.78	-146.25	-397.58	0.00	0.00	0.00
4,100.00	7.17	340.27	4,072.55	419.53	-150.47	-409.03	0.00	0.00	0.00
4,200.00	7.17	340.27	4,171.76	431.28	-154.68	-420.48	0.00	0.00	0.00
4,300.00	7.17	340.27	4,270.98	443.03	-158.90	-431.94	0.00	0.00	0.00
4,400.00	7.17	340.27	4,370.20	454.78	-163.11	-443.39	0.00	0.00	0.00
4,500.00	7.17	340.27	4,469.42	466.53	-167.32	-454.85	0.00	0.00	0.00
4,600.00	7.17	340.27	4,568.64	478.28	-171.54	-466.30	0.00	0.00	0.00
4,700.00	7.17	340.27	4,667.85	490.02	-175.75	-477.76	0.00	0.00	0.00
4,800.00	7.17	340.27	4,767.07	501.77	-179.96	-489.21	0.00	0.00	0.00



<b>Database:</b>	Local	<b>Local Co-ordinate Reference:</b>	Well RUBY 6-65 22-27 9HN
<b>Company:</b>	GMT Exploration Company, LLC	<b>TVD Reference:</b>	KB @ 6197.00usft
<b>Project:</b>	Elbert County, CO (NAD 83)	<b>MD Reference:</b>	KB @ 6197.00usft
<b>Site:</b>	Ruby-Crystal Pad	<b>North Reference:</b>	True
<b>Well:</b>	RUBY 6-65 22-27 9HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)	
4,900.00	7.17	340.27	4,866.29	513.52	-184.18	-500.66	0.00	0.00	0.00	
5,000.00	7.17	340.27	4,965.51	525.27	-188.39	-512.12	0.00	0.00	0.00	
5,100.00	7.17	340.27	5,064.73	537.02	-192.60	-523.57	0.00	0.00	0.00	
5,200.00	7.17	340.27	5,163.94	548.77	-196.82	-535.03	0.00	0.00	0.00	
5,300.00	7.17	340.27	5,263.16	560.51	-201.03	-546.48	0.00	0.00	0.00	
5,400.00	7.17	340.27	5,362.38	572.26	-205.25	-557.93	0.00	0.00	0.00	
5,500.00	7.17	340.27	5,461.60	584.01	-209.46	-569.39	0.00	0.00	0.00	
5,600.00	7.17	340.27	5,560.82	595.76	-213.67	-580.84	0.00	0.00	0.00	
5,700.00	7.17	340.27	5,660.03	607.51	-217.89	-592.30	0.00	0.00	0.00	
5,800.00	7.17	340.27	5,759.25	619.26	-222.10	-603.75	0.00	0.00	0.00	
5,900.00	7.17	340.27	5,858.47	631.00	-226.31	-615.21	0.00	0.00	0.00	
6,000.00	7.17	340.27	5,957.69	642.75	-230.53	-626.66	0.00	0.00	0.00	
6,100.00	7.17	340.27	6,056.91	654.50	-234.74	-638.11	0.00	0.00	0.00	
6,200.00	7.17	340.27	6,156.12	666.25	-238.95	-649.57	0.00	0.00	0.00	
6,300.00	7.17	340.27	6,255.34	678.00	-243.17	-661.02	0.00	0.00	0.00	
6,400.00	7.17	340.27	6,354.56	689.75	-247.38	-672.48	0.00	0.00	0.00	
6,500.00	7.17	340.27	6,453.78	701.49	-251.60	-683.93	0.00	0.00	0.00	
6,600.00	7.17	340.27	6,553.00	713.24	-255.81	-695.39	0.00	0.00	0.00	
6,700.00	7.17	340.27	6,652.21	724.99	-260.02	-706.84	0.00	0.00	0.00	
6,800.00	7.17	340.27	6,751.43	736.74	-264.24	-718.29	0.00	0.00	0.00	
6,900.00	7.17	340.27	6,850.65	748.49	-268.45	-729.75	0.00	0.00	0.00	
7,000.00	7.17	340.27	6,949.87	760.24	-272.66	-741.20	0.00	0.00	0.00	
7,026.82	7.17	340.27	6,976.48	763.39	-273.79	-744.28	0.00	0.00	0.00	
<b>Drop: 2°/100' @ 7026.82' MD</b>										
7,100.00	5.71	340.27	7,049.20	771.11	-276.56	-751.81	2.00	-2.00	0.00	
7,200.00	3.71	340.27	7,148.85	778.83	-279.33	-759.33	2.00	-2.00	0.00	
7,300.00	1.71	340.27	7,248.74	783.28	-280.93	-763.67	2.00	-2.00	0.00	
7,385.32	0.00	0.00	7,334.04	784.47	-281.36	-764.83	2.00	-2.00	0.00	
<b>Hold: 0.00° Inc, 0.00° Azm</b>										
7,400.00	0.00	0.00	7,348.72	784.47	-281.36	-764.83	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,448.72	784.47	-281.36	-764.83	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,548.72	784.47	-281.36	-764.83	0.00	0.00	0.00	
7,685.32	0.00	0.00	7,634.04	784.47	-281.36	-764.83	0.00	0.00	0.00	
<b>KOP: 10°/100' @ 7685.32' MD - KOP-RUBY 6-65 22-27 9HN</b>										
7,700.00	1.47	181.10	7,648.72	784.29	-281.36	-764.65	10.00	10.00	0.00	
7,750.00	6.47	181.10	7,698.59	780.83	-281.43	-761.19	10.00	10.00	0.00	
7,800.00	11.47	181.10	7,747.96	773.04	-281.58	-753.41	10.00	10.00	0.00	
7,850.00	16.47	181.10	7,796.47	760.97	-281.81	-741.35	10.00	10.00	0.00	
7,900.00	21.47	181.10	7,843.74	744.73	-282.12	-725.12	10.00	10.00	0.00	
7,950.00	26.47	181.10	7,889.41	724.43	-282.51	-704.84	10.00	10.00	0.00	
8,000.00	31.47	181.10	7,933.14	700.22	-282.98	-680.65	10.00	10.00	0.00	
8,050.00	36.47	181.10	7,974.59	672.30	-283.52	-652.75	10.00	10.00	0.00	
8,100.00	41.47	181.10	8,013.46	640.87	-284.12	-621.35	10.00	10.00	0.00	
8,150.00	46.47	181.10	8,049.43	606.18	-284.79	-586.68	10.00	10.00	0.00	
8,200.00	51.47	181.10	8,082.25	568.48	-285.51	-549.02	10.00	10.00	0.00	
8,250.00	56.47	181.10	8,111.65	528.07	-286.29	-508.64	10.00	10.00	0.00	
8,300.00	61.47	181.10	8,137.42	485.24	-287.12	-465.85	10.00	10.00	0.00	
8,350.00	66.47	181.10	8,159.35	440.34	-287.98	-420.98	10.00	10.00	0.00	
8,400.00	71.47	181.10	8,177.29	393.69	-288.88	-374.37	10.00	10.00	0.00	
8,450.00	76.47	181.10	8,191.09	345.66	-289.80	-326.38	10.00	10.00	0.00	
8,500.00	81.47	181.10	8,200.66	296.61	-290.75	-277.37	10.00	10.00	0.00	
8,550.00	86.47	181.10	8,205.91	246.91	-291.70	-227.71	10.00	10.00	0.00	
8,585.32	90.00	181.10	8,207.00	211.62	-292.38	-192.45	10.00	10.00	0.00	
<b>LP: 8585.32' MD, 90.00° Inc, 181.10° Azm - FTP-RUBY 6-65 22-27 9HN</b>										



<b>Database:</b>	Local	<b>Local Co-ordinate Reference:</b>	Well RUBY 6-65 22-27 9HN
<b>Company:</b>	GMT Exploration Company, LLC	<b>TVD Reference:</b>	KB @ 6197.00usft
<b>Project:</b>	Elbert County, CO (NAD 83)	<b>MD Reference:</b>	KB @ 6197.00usft
<b>Site:</b>	Ruby-Crystal Pad	<b>North Reference:</b>	True
<b>Well:</b>	RUBY 6-65 22-27 9HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)
8,600.00	90.00	181.10	8,207.00	196.94	-292.66	-177.79	0.00	0.00	0.00
8,700.00	90.00	181.10	8,207.00	96.96	-294.59	-77.89	0.00	0.00	0.00
8,800.00	90.00	181.10	8,207.00	-3.02	-296.51	22.01	0.00	0.00	0.00
8,900.00	90.00	181.10	8,207.00	-103.00	-298.44	121.91	0.00	0.00	0.00
9,000.00	90.00	181.10	8,207.00	-202.98	-300.36	221.81	0.00	0.00	0.00
9,100.00	90.00	181.10	8,207.00	-302.96	-302.28	321.71	0.00	0.00	0.00
9,200.00	90.00	181.10	8,207.00	-402.95	-304.21	421.61	0.00	0.00	0.00
9,300.00	90.00	181.10	8,207.00	-502.93	-306.13	521.51	0.00	0.00	0.00
9,400.00	90.00	181.10	8,207.00	-602.91	-308.06	621.41	0.00	0.00	0.00
9,500.00	90.00	181.10	8,207.00	-702.89	-309.98	721.31	0.00	0.00	0.00
9,600.00	90.00	181.10	8,207.00	-802.87	-311.90	821.21	0.00	0.00	0.00
9,700.00	90.00	181.10	8,207.00	-902.85	-313.83	921.11	0.00	0.00	0.00
9,800.00	90.00	181.10	8,207.00	-1,002.83	-315.75	1,021.01	0.00	0.00	0.00
9,900.00	90.00	181.10	8,207.00	-1,102.82	-317.68	1,120.91	0.00	0.00	0.00
10,000.00	90.00	181.10	8,207.00	-1,202.80	-319.60	1,220.80	0.00	0.00	0.00
10,100.00	90.00	181.10	8,207.00	-1,302.78	-321.53	1,320.70	0.00	0.00	0.00
10,200.00	90.00	181.10	8,207.00	-1,402.76	-323.45	1,420.60	0.00	0.00	0.00
10,300.00	90.00	181.10	8,207.00	-1,502.74	-325.37	1,520.50	0.00	0.00	0.00
10,400.00	90.00	181.10	8,207.00	-1,602.72	-327.30	1,620.40	0.00	0.00	0.00
10,500.00	90.00	181.10	8,207.00	-1,702.70	-329.22	1,720.30	0.00	0.00	0.00
10,600.00	90.00	181.10	8,207.00	-1,802.69	-331.15	1,820.20	0.00	0.00	0.00
10,700.00	90.00	181.10	8,207.00	-1,902.67	-333.07	1,920.10	0.00	0.00	0.00
10,800.00	90.00	181.10	8,207.00	-2,002.65	-334.99	2,020.00	0.00	0.00	0.00
10,900.00	90.00	181.10	8,207.00	-2,102.63	-336.92	2,119.90	0.00	0.00	0.00
11,000.00	90.00	181.10	8,207.00	-2,202.61	-338.84	2,219.80	0.00	0.00	0.00
11,100.00	90.00	181.10	8,207.00	-2,302.59	-340.77	2,319.70	0.00	0.00	0.00
11,200.00	90.00	181.10	8,207.00	-2,402.58	-342.69	2,419.60	0.00	0.00	0.00
11,300.00	90.00	181.10	8,207.00	-2,502.56	-344.61	2,519.50	0.00	0.00	0.00
11,400.00	90.00	181.10	8,207.00	-2,602.54	-346.54	2,619.40	0.00	0.00	0.00
11,500.00	90.00	181.10	8,207.00	-2,702.52	-348.46	2,719.29	0.00	0.00	0.00
11,600.00	90.00	181.10	8,207.00	-2,802.50	-350.39	2,819.19	0.00	0.00	0.00
11,700.00	90.00	181.10	8,207.00	-2,902.48	-352.31	2,919.09	0.00	0.00	0.00
11,800.00	90.00	181.10	8,207.00	-3,002.46	-354.24	3,018.99	0.00	0.00	0.00
11,900.00	90.00	181.10	8,207.00	-3,102.45	-356.16	3,118.89	0.00	0.00	0.00
12,000.00	90.00	181.10	8,207.00	-3,202.43	-358.08	3,218.79	0.00	0.00	0.00
12,100.00	90.00	181.10	8,207.00	-3,302.41	-360.01	3,318.69	0.00	0.00	0.00
12,200.00	90.00	181.10	8,207.00	-3,402.39	-361.93	3,418.59	0.00	0.00	0.00
12,300.00	90.00	181.10	8,207.00	-3,502.37	-363.86	3,518.49	0.00	0.00	0.00
12,400.00	90.00	181.10	8,207.00	-3,602.35	-365.78	3,618.39	0.00	0.00	0.00
12,500.00	90.00	181.10	8,207.00	-3,702.33	-367.70	3,718.29	0.00	0.00	0.00
12,600.00	90.00	181.10	8,207.00	-3,802.32	-369.63	3,818.19	0.00	0.00	0.00
12,700.00	90.00	181.10	8,207.00	-3,902.30	-371.55	3,918.09	0.00	0.00	0.00
12,800.00	90.00	181.10	8,207.00	-4,002.28	-373.48	4,017.99	0.00	0.00	0.00
12,900.00	90.00	181.10	8,207.00	-4,102.26	-375.40	4,117.88	0.00	0.00	0.00
13,000.00	90.00	181.10	8,207.00	-4,202.24	-377.32	4,217.78	0.00	0.00	0.00
13,100.00	90.00	181.10	8,207.00	-4,302.22	-379.25	4,317.68	0.00	0.00	0.00
13,200.00	90.00	181.10	8,207.00	-4,402.21	-381.17	4,417.58	0.00	0.00	0.00
13,300.00	90.00	181.10	8,207.00	-4,502.19	-383.10	4,517.48	0.00	0.00	0.00
13,400.00	90.00	181.10	8,207.00	-4,602.17	-385.02	4,617.38	0.00	0.00	0.00
13,500.00	90.00	181.10	8,207.00	-4,702.15	-386.95	4,717.28	0.00	0.00	0.00
13,600.00	90.00	181.10	8,207.00	-4,802.13	-388.87	4,817.18	0.00	0.00	0.00
13,700.00	90.00	181.10	8,207.00	-4,902.11	-390.79	4,917.08	0.00	0.00	0.00
13,800.00	90.00	181.10	8,207.00	-5,002.09	-392.72	5,016.98	0.00	0.00	0.00
13,900.00	90.00	181.10	8,207.00	-5,102.08	-394.64	5,116.88	0.00	0.00	0.00



<b>Database:</b>	Local	<b>Local Co-ordinate Reference:</b>	Well RUBY 6-65 22-27 9HN
<b>Company:</b>	GMT Exploration Company, LLC	<b>TVD Reference:</b>	KB @ 6197.00usft
<b>Project:</b>	Elbert County, CO (NAD 83)	<b>MD Reference:</b>	KB @ 6197.00usft
<b>Site:</b>	Ruby-Crystal Pad	<b>North Reference:</b>	True
<b>Well:</b>	RUBY 6-65 22-27 9HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)	
14,000.00	90.00	181.10	8,207.00	-5,202.06	-396.57	5,216.78	0.00	0.00	0.00	
14,100.00	90.00	181.10	8,207.00	-5,302.04	-398.49	5,316.68	0.00	0.00	0.00	
14,200.00	90.00	181.10	8,207.00	-5,402.02	-400.41	5,416.58	0.00	0.00	0.00	
14,300.00	90.00	181.10	8,207.00	-5,502.00	-402.34	5,516.48	0.00	0.00	0.00	
14,400.00	90.00	181.10	8,207.00	-5,601.98	-404.26	5,616.37	0.00	0.00	0.00	
14,500.00	90.00	181.10	8,207.00	-5,701.96	-406.19	5,716.27	0.00	0.00	0.00	
14,600.00	90.00	181.10	8,207.00	-5,801.95	-408.11	5,816.17	0.00	0.00	0.00	
14,700.00	90.00	181.10	8,207.00	-5,901.93	-410.03	5,916.07	0.00	0.00	0.00	
14,800.00	90.00	181.10	8,207.00	-6,001.91	-411.96	6,015.97	0.00	0.00	0.00	
14,900.00	90.00	181.10	8,207.00	-6,101.89	-413.88	6,115.87	0.00	0.00	0.00	
15,000.00	90.00	181.10	8,207.00	-6,201.87	-415.81	6,215.77	0.00	0.00	0.00	
15,100.00	90.00	181.10	8,207.00	-6,301.85	-417.73	6,315.67	0.00	0.00	0.00	
15,200.00	90.00	181.10	8,207.00	-6,401.83	-419.66	6,415.57	0.00	0.00	0.00	
15,300.00	90.00	181.10	8,207.00	-6,501.82	-421.58	6,515.47	0.00	0.00	0.00	
15,341.31	90.00	181.10	8,207.00	-6,543.12	-422.37	6,556.74	0.00	0.00	0.00	
<b>Hold: 90.00° Inc, 181.10° Azm - LTP-RUBY 6-65 22-27 9HN</b>										
15,391.32	90.00	181.10	8,207.00	-6,593.11	-423.34	6,606.69	0.00	0.00	0.00	
<b>TD @ 15391.31' MD/8207.00' TVD - BHL-RUBY 6-65 22-27 9HN</b>										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SHL-RUBY 6-65 22-2 - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	1,612,493.88	3,241,090.14	39.511960	-104.645472	
KOP-RUBY 6-65 22-2 - plan hits target center - Point	0.00	0.00	7,634.04	784.47	-281.36	1,613,275.67	3,240,801.42	39.514113	-104.646469	
LTP-RUBY 6-65 22-2 - plan hits target center - Point	0.00	0.00	8,207.00	-6,543.12	-422.37	1,605,947.07	3,240,729.33	39.493996	-104.646968	
FTP-RUBY 6-65 22-2 - plan hits target center - Point	0.00	0.00	8,207.00	211.62	-292.38	1,612,702.74	3,240,795.78	39.512541	-104.646508	
BHL-RUBY 6-65 22-2 - plan hits target center - Point	0.00	0.00	8,207.00	-6,593.11	-423.34	1,605,897.07	3,240,728.84	39.493859	-104.646972	

<b>Database:</b>	Local	<b>Local Co-ordinate Reference:</b>	Well RUBY 6-65 22-27 9HN
<b>Company:</b>	GMT Exploration Company, LLC	<b>TVD Reference:</b>	KB @ 6197.00usft
<b>Project:</b>	Elbert County, CO (NAD 83)	<b>MD Reference:</b>	KB @ 6197.00usft
<b>Site:</b>	Ruby-Crystal Pad	<b>North Reference:</b>	True
<b>Well:</b>	RUBY 6-65 22-27 9HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

**Formations**

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
457.02	457.00	Denver			
1,539.43	1,532.00	Upper Arapahoe			
2,244.95	2,232.00	Laramie - Fox Hills			
2,416.29	2,402.00	Pierre Shale (Base of Fox Hills)			
5,666.71	5,627.00	Sussex Sandstone			
8,004.54	7,937.00	Sharon Springs Shale			
8,016.40	7,947.00	Niobrara			
8,028.42	7,957.00	Niobrara A			
8,232.92	8,102.00	Niobrara B Top			
8,415.44	8,182.00	Niobrara C Top			

**Plan Annotations**

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
350.00	350.00	0.00	0.00	Build: 2°/100' @ 350.00' MD
708.49	707.56	21.09	-7.56	Hold: 7.17° Inc, 340.27° Azm
7,026.82	6,976.48	763.39	-273.79	Drop: 2°/100' @ 7026.82' MD
7,385.32	7,334.04	784.47	-281.36	Hold: 0.00° Inc, 0.00° Azm
7,685.32	7,634.04	784.47	-281.36	KOP: 10°/100' @ 7685.32' MD
8,585.32	8,207.00	211.62	-292.38	LP: 8585.32' MD, 90.00° Inc, 181.10° Azm
15,341.31	8,207.00	-6,543.12	-422.37	Hold: 90.00° Inc, 181.10° Azm
15,391.32	8,207.00	-6,593.11	-423.34	TD @ 15391.31' MD/8207.00' TVD