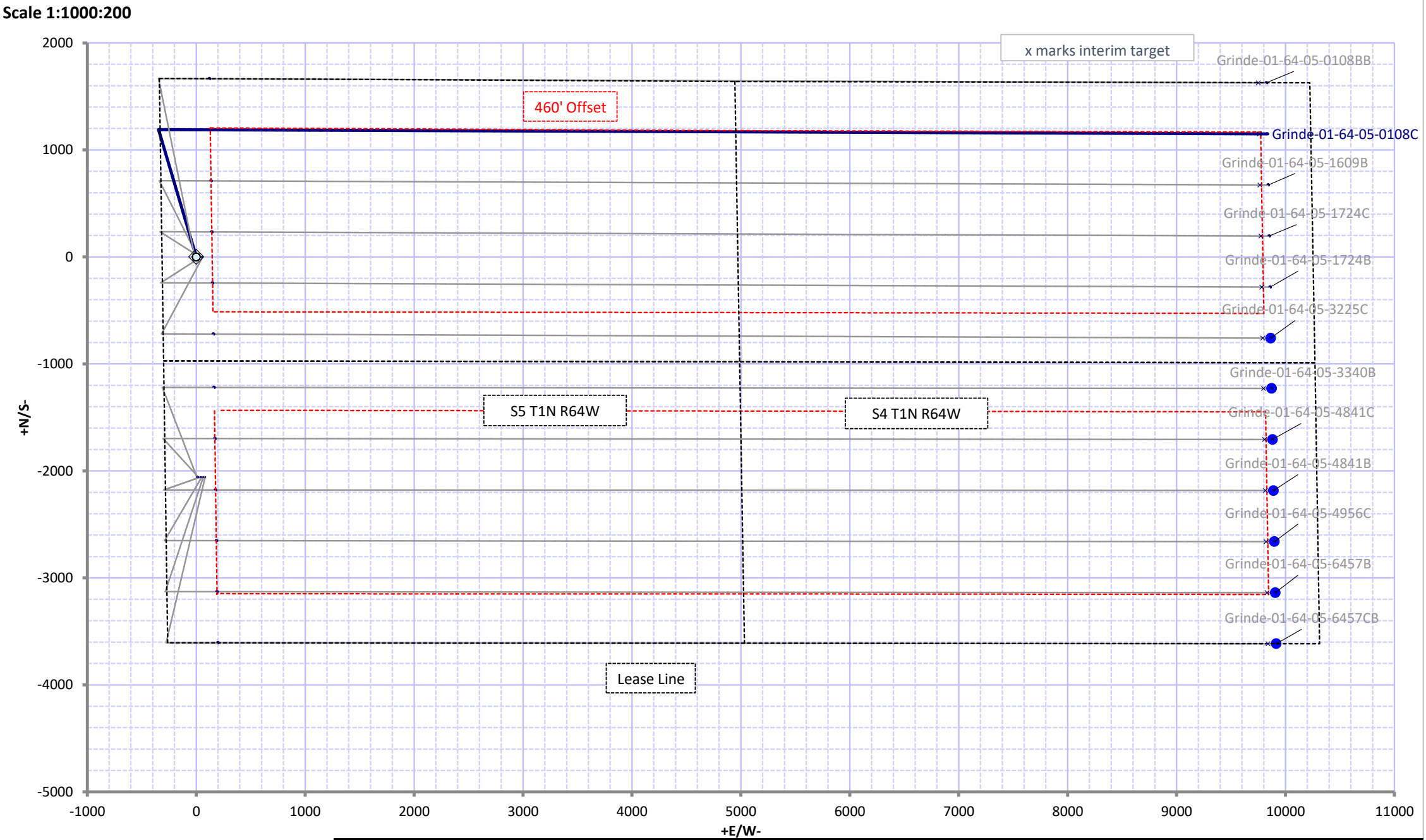
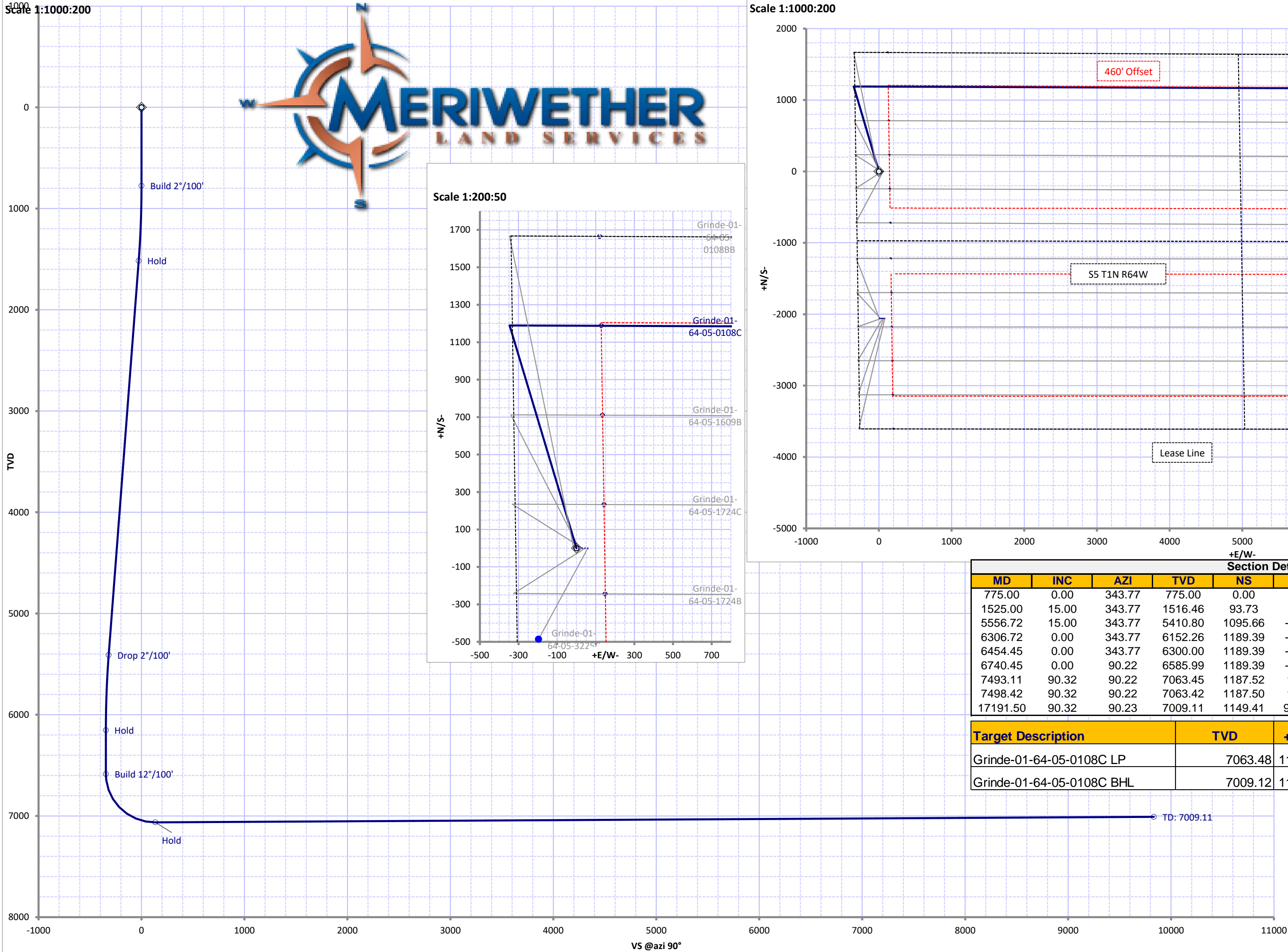


Well <b>Grinde-01-64-05-0108C</b>		Operating Company <b>Bill Barrett Corporation</b>				Rig <b>TBD, est. KB of 20'</b>	
Magnetics		Location				Other	
Curr. Datum BGGM2016 Decl., ° 8.15		Northing, ft 1,274,462.33		Latitude 40.083150		<b>Meriwether Land Services, LLC</b>	
Mag Date 14-Mar-2017 Dip Angle, ° 67.05		Easting, ft 3,256,515.89		Longitude 104.583240			
Field Str, nT 52552.70 Convergence, ° 0.5923493		Elevation, ft 5057.00		TVD Ref GL 5037' + KB 20'		Map System St. Plane Map Datum NAD83 Map Zone 0501 - Colorado North	
						North Reference True North Vert. Sect, ° 90.00 December 12, 2017	



Section Details: Grinde-01-64-05-0108C										
MD	INC	AZI	TVD	NS	EW	VS90	BR	TR	DLS	Comments
775.00	0.00	343.77	775.00	0.00	0.00	0.00	0.00	-21.63	0.00	Build 2°/100'
1525.00	15.00	343.77	1516.46	93.73	-27.27	-27.27	2.00	0.00	2.00	Hold
5556.72	15.00	343.77	5410.80	1095.66	-318.83	-318.83	0.00	0.00	0.00	Drop 2°/100'
6306.72	0.00	343.77	6152.26	1189.39	-346.11	-346.11	-2.00	0.00	2.00	Hold
6454.45	0.00	343.77	6300.00	1189.39	-346.11	-346.11	0.00	0.00	0.00	TGT#26
6740.45	0.00	90.22	6585.99	1189.39	-346.11	-346.11	0.00	23.26	0.00	Build 12°/100'
7493.11	90.32	90.22	7063.45	1187.52	134.02	134.02	12.00	0.00	12.00	Hold
7498.42	90.32	90.22	7063.42	1187.50	139.33	139.33	0.00	0.00	0.00	TGT#26
17191.50	90.32	90.23	7009.11	1149.41	9832.18	9832.18	0.00	0.00	0.00	Hold

Target Description	TVD	+N/S-	+E/W-	Latitude	Longitude	Northing	Easting
Grinde-01-64-05-0108C LP	7063.48	1187.54	128.71	40.08641	104.58278	1275651.15	3256632.31
Grinde-01-64-05-0108C BHL	7009.12	1149.42	9832.14	40.08630	104.54810	1275713.34	3266335.62

**Magnetics**  
Mag North, ° 8.15  
True North, ° 0.00  
Grid North, ° 0.59  
Mag Dip, ° 67.05  
Mag Str, nT 52552.70



## Survey Report: Grinde-01-64-05-0108C

<b>Operator</b>	Bill Barrett Corporation	<b>Northing</b>	1274462.335	<b>Date</b>	12-Dec-17
<b>Dir. Co.</b>	Meriwether Land Services, LLC	<b>Easting</b>	3256515.890	<b>System</b>	2 - St. Plane
<b>Well Name</b>	Grinde-01-64-05-0108C	<b>Elevation</b>	5037.00	<b>Datum</b>	1983 - NAD83
<b>Location</b>	Weld Cty, CO	<b>Latitude</b>	40.083150	<b>Zone</b>	0501 - Colorado North
<b>Rig</b>	TBD, est. KB of 20'	<b>Longitude</b>	104.583240	<b>Scale Fac.</b>	0.999961
<b>Job</b>		<b>Units</b>	Feet	<b>Converg.</b>	0.592349

MD	INC	AZI	TVD	+N/S-	+E/W-	VS@90°	BR	TR	DLS
0	0	0	0	0	0	0	0	0	0
0: TIE-IN									
100	0	360	100	0	0	0	0	0	0
200	0	360	200	0	0	0	0	0	0
300	0	360	300	0	0	0	0	0	0
400	0	360	400	0	0	0	0	0	0
500	0	360	500	0	0	0	0	0	0
600	0	360	600	0	0	0	0	0	0
700	0	360	700	0	0	0	0	0	0
775	0	343.77	775	0	0	0	0	-21.63	0
775: Build 2°/100'									
800	0.5	343.77	800	0.11	-0.03	-0.03	2	0	2
900	2.5	343.77	899.96	2.62	-0.76	-0.76	2	0	2
1000	4.5	343.77	999.77	8.48	-2.47	-2.47	2	0	2
1100	6.5	343.77	1099.3	17.68	-5.15	-5.15	2	0	2
1200	8.5	343.77	1198.44	30.22	-8.79	-8.79	2	0	2
1300	10.5	343.77	1297.07	46.06	-13.4	-13.4	2	0	2
1400	12.5	343.77	1395.05	65.2	-18.97	-18.97	2	0	2
1500	14.5	343.77	1492.29	87.62	-25.5	-25.5	2	0	2
1525	15	343.77	1516.46	93.73	-27.27	-27.27	2	0	2
1525: Hold									
1600	15	343.77	1588.91	112.37	-32.7	-32.7	0	0	0
1700	15	343.77	1685.5	137.22	-39.93	-39.93	0	0	0
1800	15	343.77	1782.09	162.07	-47.16	-47.16	0	0	0
1900	15	343.77	1878.68	186.92	-54.39	-54.39	0	0	0
2000	15	343.77	1975.28	211.77	-61.63	-61.63	0	0	0
2100	15	343.77	2071.87	236.62	-68.86	-68.86	0	0	0
2200	15	343.77	2168.46	261.47	-76.09	-76.09	0	0	0
2300	15	343.77	2265.05	286.33	-83.32	-83.32	0	0	0
2400	15	343.77	2361.65	311.18	-90.55	-90.55	0	0	0
2500	15	343.77	2458.24	336.03	-97.78	-97.78	0	0	0
2600	15	343.77	2554.83	360.88	-105.02	-105.02	0	0	0
2700	15	343.77	2651.42	385.73	-112.25	-112.25	0	0	0
2800	15	343.77	2748.02	410.58	-119.48	-119.48	0	0	0
2900	15	343.77	2844.61	435.43	-126.71	-126.71	0	0	0
3000	15	343.77	2941.2	460.28	-133.94	-133.94	0	0	0
3100	15	343.77	3037.79	485.13	-141.17	-141.17	0	0	0
3200	15	343.77	3134.39	509.99	-148.41	-148.41	0	0	0
3300	15	343.77	3230.98	534.84	-155.64	-155.64	0	0	0
3400	15	343.77	3327.57	559.69	-162.87	-162.87	0	0	0
3500	15	343.77	3424.16	584.54	-170.1	-170.1	0	0	0
3600	15	343.77	3520.76	609.39	-177.33	-177.33	0	0	0
3700	15	343.77	3617.35	634.24	-184.56	-184.56	0	0	0
3800	15	343.77	3713.94	659.09	-191.8	-191.79	0	0	0



## Survey Report: Grinde-01-64-05-0108C

<b>Operator</b>	Bill Barrett Corporation	<b>Northing</b>	1274462.335	<b>Date</b>	12-Dec-17
<b>Dir. Co.</b>	Meriwether Land Services, LLC	<b>Easting</b>	3256515.890	<b>System</b>	2 - St. Plane
<b>Well Name</b>	Grinde-01-64-05-0108C	<b>Elevation</b>	5037.00	<b>Datum</b>	1983 - NAD83
<b>Location</b>	Weld Cty, CO	<b>Latitude</b>	40.083150	<b>Zone</b>	0501 - Colorado North
<b>Rig</b>	TBD, est. KB of 20'	<b>Longitude</b>	104.583240	<b>Scale Fac.</b>	0.999961
<b>Job</b>		<b>Units</b>	Feet	<b>Converg.</b>	0.592349

MD	INC	AZI	TVD	+N/S-	+E/W-	VS@90°	BR	TR	DLS
3900	15	343.77	3810.54	683.94	-199.03	-199.03	0	0	0
4000	15	343.77	3907.13	708.8	-206.26	-206.26	0	0	0
4100	15	343.77	4003.72	733.65	-213.49	-213.49	0	0	0
4200	15	343.77	4100.31	758.5	-220.72	-220.72	0	0	0
4300	15	343.77	4196.91	783.35	-227.95	-227.95	0	0	0
4400	15	343.77	4293.5	808.2	-235.18	-235.18	0	0	0
4500	15	343.77	4390.09	833.05	-242.42	-242.42	0	0	0
4600	15	343.77	4486.68	857.9	-249.65	-249.65	0	0	0
4700	15	343.77	4583.28	882.75	-256.88	-256.88	0	0	0
4800	15	343.77	4679.87	907.6	-264.11	-264.11	0	0	0
4900	15	343.77	4776.46	932.46	-271.34	-271.34	0	0	0
5000	15	343.77	4873.05	957.31	-278.57	-278.57	0	0	0
5100	15	343.77	4969.65	982.16	-285.81	-285.81	0	0	0
5200	15	343.77	5066.24	1007.01	-293.04	-293.04	0	0	0
5300	15	343.77	5162.83	1031.86	-300.27	-300.27	0	0	0
5400	15	343.77	5259.42	1056.71	-307.5	-307.5	0	0	0
5500	15	343.77	5356.02	1081.56	-314.73	-314.73	0	0	0
5556.72	15	343.77	5410.8	1095.66	-318.83	-318.83	0	0	0
5556.72: Drop 2°/100'									
5600	14.13	343.77	5452.69	1106.11	-321.88	-321.88	-2	0	2
5700	12.13	343.77	5550.07	1127.93	-328.23	-328.23	-2	0	2
5800	10.13	343.77	5648.18	1146.47	-333.62	-333.62	-2	0	2
5900	8.13	343.77	5746.91	1161.71	-338.06	-338.06	-2	0	2
6000	6.13	343.77	5846.13	1173.64	-341.53	-341.53	-2	0	2
6100	4.13	343.77	5945.72	1182.23	-344.03	-344.03	-2	0	2
6200	2.13	343.77	6045.57	1187.48	-345.55	-345.55	-2	0	2
6300	0.13	343.77	6145.55	1189.38	-346.11	-346.11	-2	0	2
6306.72	0	343.77	6152.26	1189.39	-346.11	-346.11	-2	0	2
6306.72: Hold									
6400	0	343.77	6245.55	1189.39	-346.11	-346.11	0	0	0
6500	0	354.64	6345.55	1189.39	-346.11	-346.11	0	10.87	0
6600	0	38.36	6445.55	1189.39	-346.11	-346.11	0	43.72	0
6700	0	80.81	6545.55	1189.39	-346.11	-346.11	0	42.45	0
6740.45	0	90.22	6585.99	1189.39	-346.11	-346.11	0	23.26	0
6740.45: Build 12°/100'									
6800	7.15	90.22	6645.39	1189.37	-342.4	-342.4	12	0	12
6900	19.15	90.22	6742.59	1189.28	-319.7	-319.7	12	0	12
7000	31.15	90.22	6832.95	1189.12	-277.28	-277.28	12	0	12
7100	43.15	90.22	6912.51	1188.89	-217.01	-217.01	12	0	12
7200	55.15	90.22	6977.81	1188.59	-141.51	-141.51	12	0	12
7300	67.15	90.22	7025.98	1188.25	-54.08	-54.08	12	0	12
7400	79.15	90.22	7054.92	1187.88	41.44	41.44	12	0	12
7493.11	90.32	90.22	7063.45	1187.52	134.02	134.02	12	0	12
7493.11: Hold									



## Survey Report: Grinde-01-64-05-0108C

<b>Operator</b>	Bill Barrett Corporation	<b>Northing</b>	1274462.335	<b>Date</b>	12-Dec-17
<b>Dir. Co.</b>	Meriwether Land Services, LLC	<b>Easting</b>	3256515.890	<b>System</b>	2 - St. Plane
<b>Well Name</b>	Grinde-01-64-05-0108C	<b>Elevation</b>	5037.00	<b>Datum</b>	1983 - NAD83
<b>Location</b>	Weld Cty, CO	<b>Latitude</b>	40.083150	<b>Zone</b>	0501 - Colorado North
<b>Rig</b>	TBD, est. KB of 20'	<b>Longitude</b>	104.583240	<b>Scale Fac.</b>	0.999961
<b>Job</b>		<b>Units</b>	Feet	<b>Converg.</b>	0.592349

MD	INC	AZI	TVD	+N/S-	+E/W-	VS@90°	BR	TR	DLS
7500	90.32	90.22	7063.41	1187.5	140.9	140.9	0	0	0
7600	90.32	90.22	7062.85	1187.11	240.9	240.9	0	0	0
7700	90.32	90.22	7062.3	1186.72	340.9	340.9	0	0	0
7800	90.32	90.22	7061.74	1186.33	440.9	440.9	0	0	0
7900	90.32	90.22	7061.18	1185.94	540.89	540.89	0	0	0
8000	90.32	90.22	7060.62	1185.56	640.89	640.89	0	0	0
8100	90.32	90.22	7060.06	1185.17	740.89	740.89	0	0	0
8200	90.32	90.22	7059.5	1184.78	840.89	840.89	0	0	0
8300	90.32	90.22	7058.94	1184.39	940.89	940.89	0	0	0
8400	90.32	90.22	7058.39	1184	1040.88	1040.88	0	0	0
8500	90.32	90.22	7057.83	1183.61	1140.88	1140.88	0	0	0
8600	90.32	90.22	7057.27	1183.22	1240.88	1240.88	0	0	0
8700	90.32	90.22	7056.71	1182.83	1340.88	1340.88	0	0	0
8800	90.32	90.22	7056.15	1182.45	1440.87	1440.87	0	0	0
8900	90.32	90.22	7055.59	1182.06	1540.87	1540.87	0	0	0
9000	90.32	90.22	7055.03	1181.67	1640.87	1640.87	0	0	0
9100	90.32	90.22	7054.47	1181.28	1740.87	1740.87	0	0	0
9200	90.32	90.22	7053.91	1180.89	1840.86	1840.86	0	0	0
9300	90.32	90.22	7053.36	1180.5	1940.86	1940.86	0	0	0
9400	90.32	90.22	7052.8	1180.11	2040.86	2040.86	0	0	0
9500	90.32	90.22	7052.24	1179.72	2140.86	2140.86	0	0	0
9600	90.32	90.22	7051.68	1179.33	2240.86	2240.86	0	0	0
9700	90.32	90.22	7051.12	1178.94	2340.85	2340.85	0	0	0
9800	90.32	90.22	7050.56	1178.55	2440.85	2440.85	0	0	0
9900	90.32	90.22	7050	1178.16	2540.85	2540.85	0	0	0
10000	90.32	90.22	7049.44	1177.77	2640.85	2640.85	0	0	0
10100	90.32	90.22	7048.88	1177.38	2740.84	2740.84	0	0	0
10200	90.32	90.22	7048.32	1176.99	2840.84	2840.84	0	0	0
10300	90.32	90.22	7047.76	1176.59	2940.84	2940.84	0	0	0
10400	90.32	90.22	7047.2	1176.2	3040.84	3040.84	0	0	0
10500	90.32	90.22	7046.64	1175.81	3140.83	3140.83	0	0	0
10600	90.32	90.22	7046.08	1175.42	3240.83	3240.83	0	0	0
10700	90.32	90.22	7045.52	1175.03	3340.83	3340.83	0	0	0
10800	90.32	90.22	7044.96	1174.64	3440.83	3440.83	0	0	0
10900	90.32	90.22	7044.4	1174.25	3540.83	3540.83	0	0	0
11000	90.32	90.22	7043.84	1173.86	3640.82	3640.82	0	0	0
11100	90.32	90.22	7043.29	1173.46	3740.82	3740.82	0	0	0
11200	90.32	90.22	7042.73	1173.07	3840.82	3840.82	0	0	0
11300	90.32	90.22	7042.17	1172.68	3940.82	3940.82	0	0	0
11400	90.32	90.22	7041.61	1172.29	4040.81	4040.81	0	0	0
11500	90.32	90.22	7041.05	1171.9	4140.81	4140.81	0	0	0
11600	90.32	90.22	7040.49	1171.5	4240.81	4240.81	0	0	0
11700	90.32	90.22	7039.93	1171.11	4340.81	4340.81	0	0	0
11800	90.32	90.22	7039.37	1170.72	4440.8	4440.8	0	0	0



## Survey Report: Grinde-01-64-05-0108C

Operator Dir. Co. Well Name Location Rig Job	Bill Barrett Corporation			Northing Easting Elevation Latitude Longitude Units	1274462.335		Date System Datum Zone Scale Fac. Converg.	12-Dec-17	
	Meriwether Land Services, LLC				3256515.890			2 - St. Plane	
	Grinde-01-64-05-0108C				5037.00			1983 - NAD83	
	Weld Cty, CO				40.083150			0501 - Colorado North	
	TBD, est. KB of 20'				104.583240			0.999961	
					Feet			0.592349	
MD	INC	AZI	TVD	+N/S-	+E/W-	VS@90°	BR	TR	DLS
11900	90.32	90.22	7038.81	1170.33	4540.8	4540.8	0	0	0
12000	90.32	90.22	7038.25	1169.94	4640.8	4640.8	0	0	0
12100	90.32	90.22	7037.69	1169.54	4740.8	4740.8	0	0	0
12200	90.32	90.23	7037.12	1169.15	4840.79	4840.79	0	0	0
12300	90.32	90.23	7036.56	1168.76	4940.79	4940.79	0	0	0
12400	90.32	90.23	7036	1168.36	5040.79	5040.79	0	0	0
12500	90.32	90.23	7035.44	1167.97	5140.79	5140.79	0	0	0
12600	90.32	90.23	7034.88	1167.58	5240.79	5240.79	0	0	0
12700	90.32	90.23	7034.32	1167.18	5340.78	5340.78	0	0	0
12800	90.32	90.23	7033.76	1166.79	5440.78	5440.78	0	0	0
12900	90.32	90.23	7033.2	1166.4	5540.78	5540.78	0	0	0
13000	90.32	90.23	7032.64	1166	5640.78	5640.78	0	0	0
13100	90.32	90.23	7032.08	1165.61	5740.77	5740.77	0	0	0
13200	90.32	90.23	7031.52	1165.22	5840.77	5840.77	0	0	0
13300	90.32	90.23	7030.96	1164.82	5940.77	5940.77	0	0	0
13400	90.32	90.23	7030.4	1164.43	6040.77	6040.77	0	0	0
13500	90.32	90.23	7029.84	1164.03	6140.76	6140.76	0	0	0
13600	90.32	90.23	7029.28	1163.64	6240.76	6240.76	0	0	0
13700	90.32	90.23	7028.72	1163.25	6340.76	6340.76	0	0	0
13800	90.32	90.23	7028.16	1162.85	6440.76	6440.76	0	0	0
13900	90.32	90.23	7027.6	1162.46	6540.76	6540.76	0	0	0
14000	90.32	90.23	7027.03	1162.06	6640.75	6640.75	0	0	0
14100	90.32	90.23	7026.47	1161.67	6740.75	6740.75	0	0	0
14200	90.32	90.23	7025.91	1161.27	6840.75	6840.75	0	0	0
14300	90.32	90.23	7025.35	1160.88	6940.75	6940.75	0	0	0
14400	90.32	90.23	7024.79	1160.48	7040.74	7040.74	0	0	0
14500	90.32	90.23	7024.23	1160.09	7140.74	7140.74	0	0	0
14600	90.32	90.23	7023.67	1159.69	7240.74	7240.74	0	0	0
14700	90.32	90.23	7023.11	1159.3	7340.74	7340.74	0	0	0
14800	90.32	90.23	7022.55	1158.9	7440.73	7440.73	0	0	0
14900	90.32	90.23	7021.98	1158.51	7540.73	7540.73	0	0	0
15000	90.32	90.23	7021.42	1158.11	7640.73	7640.73	0	0	0
15100	90.32	90.23	7020.86	1157.72	7740.73	7740.73	0	0	0
15200	90.32	90.23	7020.3	1157.32	7840.72	7840.72	0	0	0
15300	90.32	90.23	7019.74	1156.92	7940.72	7940.72	0	0	0
15400	90.32	90.23	7019.18	1156.53	8040.72	8040.72	0	0	0
15500	90.32	90.23	7018.62	1156.13	8140.72	8140.72	0	0	0
15600	90.32	90.23	7018.05	1155.73	8240.72	8240.72	0	0	0
15700	90.32	90.23	7017.49	1155.34	8340.71	8340.71	0	0	0
15800	90.32	90.23	7016.93	1154.94	8440.71	8440.71	0	0	0
15900	90.32	90.23	7016.37	1154.55	8540.71	8540.71	0	0	0
16000	90.32	90.23	7015.81	1154.15	8640.71	8640.71	0	0	0
16100	90.32	90.23	7015.25	1153.75	8740.7	8740.7	0	0	0
16200	90.32	90.23	7014.68	1153.35	8840.7	8840.7	0	0	0





## Survey Report: Grinde-01-64-05-0108C

<b>Operator</b>	Bill Barrett Corporation	<b>Northing</b>	1274462.335	<b>Date</b>	12-Dec-17
<b>Dir. Co.</b>	Meriwether Land Services, LLC	<b>Easting</b>	3256515.890	<b>System</b>	2 - St. Plane
<b>Well Name</b>	Grinde-01-64-05-0108C	<b>Elevation</b>	5037.00	<b>Datum</b>	1983 - NAD83
<b>Location</b>	Weld Cty, CO	<b>Latitude</b>	40.083150	<b>Zone</b>	0501 - Colorado North
<b>Rig</b>	TBD, est. KB of 20'	<b>Longitude</b>	104.583240	<b>Scale Fac.</b>	0.999961
<b>Job</b>		<b>Units</b>	Feet	<b>Converg.</b>	0.592349

MD	INC	AZI	TVD	+N/S-	+E/W-	VS@90°	BR	TR	DLS
16300	90.32	90.23	7014.12	1152.96	8940.7	8940.7	0	0	0
16400	90.32	90.23	7013.56	1152.56	9040.7	9040.7	0	0	0
16500	90.32	90.23	7013	1152.16	9140.69	9140.69	0	0	0
16600	90.32	90.23	7012.44	1151.77	9240.69	9240.69	0	0	0
16700	90.32	90.23	7011.87	1151.37	9340.69	9340.69	0	0	0
16800	90.32	90.23	7011.31	1150.97	9440.69	9440.69	0	0	0
16900	90.32	90.23	7010.75	1150.57	9540.68	9540.68	0	0	0
17000	90.32	90.23	7010.19	1150.18	9640.68	9640.68	0	0	0
17100	90.32	90.23	7009.63	1149.78	9740.68	9740.68	0	0	0
17191.5	90.32	90.23	7009.11	1149.41	9832.18	9832.18	0	0	0

17191.5: TD: 7009.11