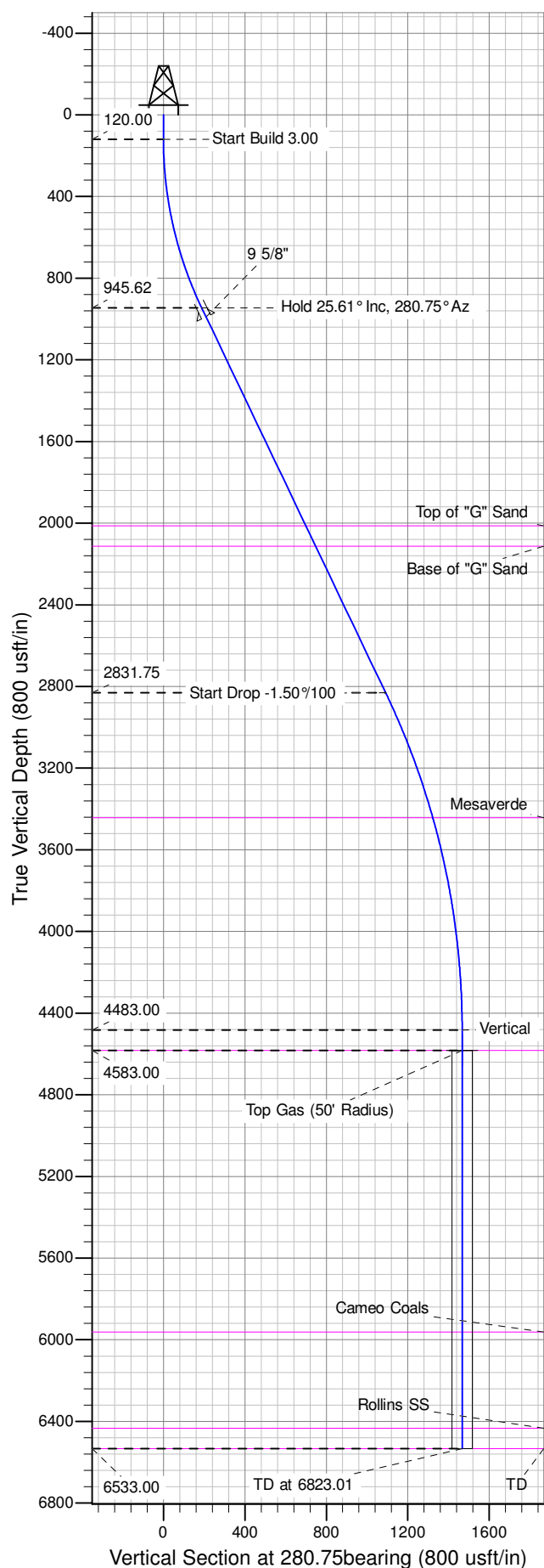
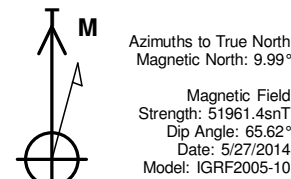
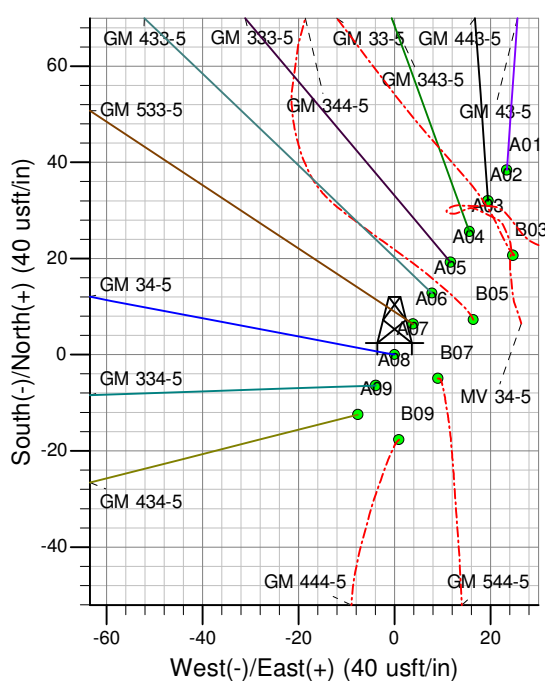
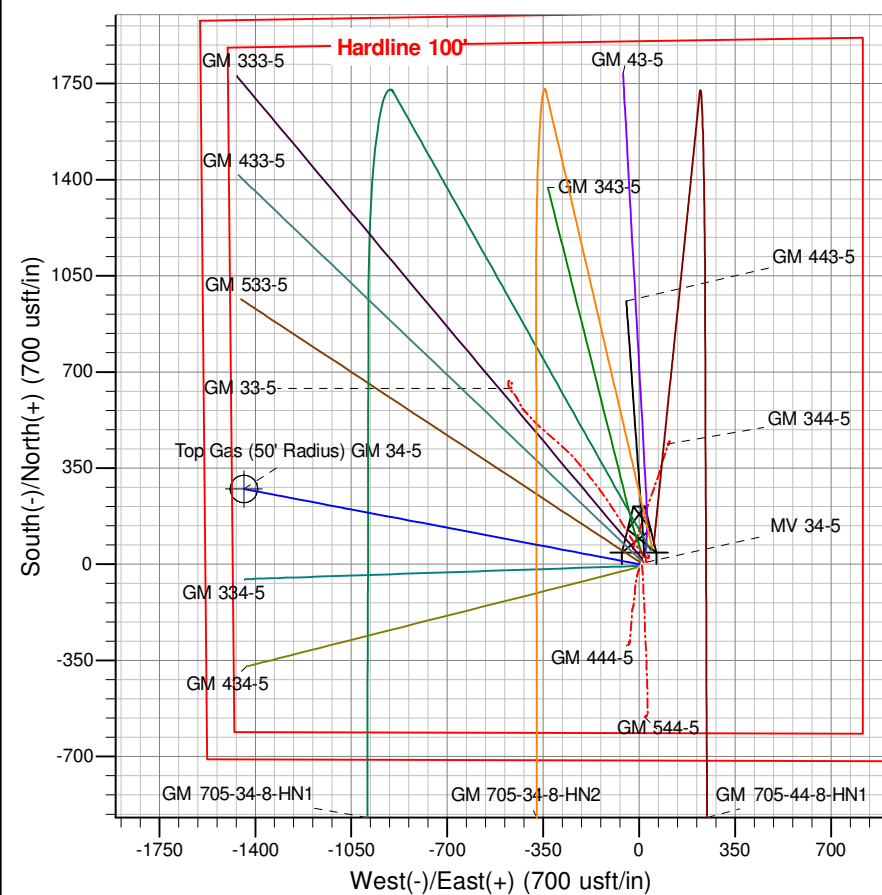




Well Name: GM 34-5  
Surface Location: MV 34-5 Pad  
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone  
Ground Elevation: 5977.00  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.00 0.00 1603507.85800 2258792.35000 39.46099 -108.12559 A07  
KELLY BUSHING @ 6003.00usft (Nabors 577 (26' RKB) mab)



ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation	
120.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.00
945.62	973.78	25.61	280.75	35.00	-184.39	187.68	187.68	Hold 25.61° Inc, 280.75° Az	
2831.75	3065.45	25.61	280.75	203.63	-1072.74	1091.90	1091.90	Start Drop -1.50°/100	
4483.00	4773.01	0.00	0.00	273.63	-1441.51	1467.25	1467.25	Vertical	
4583.00	4873.01	0.00	0.00	273.63	-1441.51	1467.25	1467.25	Top Gas	
6533.00	6823.01	0.00	0.00	273.63	-1441.51	1467.25	1467.25	TD at 6823.01	



Azimuths to True North  
Magnetic North: 9.99°  
Magnetic Field  
Strength: 51961.4snT  
Dip Angle: 65.62°  
Date: 5/27/2014  
Model: IGRF2005-10

Project: GV 05-07S-096W  
Site: MV 34-5 Pad  
Well: GM 34-5  
Design #2 24Jul14 mab

# **PICEANCE VLY NAD 83**

**GV 05-07S-096W**

**MV 34-5 Pad**

**GM 34-5 - Slot A07**

**Wellbore #1**

**Plan: Design #2 24Jul14 mab**

## **Standard Planning Report - Geographic**

**30 September, 2014**

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 34-5 - Slot A07
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 6003.00usft (Nabors 577 (26' RKB) mab)
<b>Project:</b>	GV 05-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 6003.00usft (Nabors 577 (26' RKB) mab)
<b>Site:</b>	MV 34-5 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 34-5	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 24Jul14 mab		

<b>Project</b>	GV 05-07S-096W, Garfield County, CO, 05-07S-096W		
<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		Using geodetic scale factor

<b>Site</b>	MV 34-5 Pad			
<b>Site Position:</b>		<b>Northing:</b>	1,603,540.12600 usft	<b>Latitude:</b> 39.461085
<b>From:</b> Map		<b>Easting:</b>	2,258,825.25200 usft	<b>Longitude:</b> -108.125476
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> -1.66 °

<b>Well</b>	GM 34-5 - Slot A07			
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,603,507.85800 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	2,258,792.35000 usft
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	0.00 usft
			<b>Ground Level:</b>	5,977.00 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>
	IGRF2005-10	5/27/2014	9.99	65.62	51,961

<b>Design</b>	Design #2 24Jul14 mab			
<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 (bearing)</b>
	0.00	0.00	0.00	280.75

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	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	
973.78	25.61	280.75	945.62	35.00	-184.39	3.00	3.00	0.00	280.75	
3,065.45	25.61	280.75	2,831.75	203.63	-1,072.74	0.00	0.00	0.00	0.00	
4,773.01	0.00	0.00	4,483.00	273.63	-1,441.51	1.50	-1.50	0.00	180.00	
4,873.01	0.00	0.00	4,583.00	273.63	-1,441.51	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
6,823.01	0.00	0.00	6,533.00	273.63	-1,441.51	0.00	0.00	0.00	0.00	

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 34-5 - Slot A07
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 6003.00usft (Nabors 577 (26' RKB) mab)
<b>Project:</b>	GV 05-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 6003.00usft (Nabors 577 (26' RKB) mab)
<b>Site:</b>	MV 34-5 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 34-5	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 24Jul14 mab		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	1,603,507.85800	2,258,792.35000	39.460994	-108.125589
120.00	0.00	0.00	120.00	0.00	0.00	1,603,507.85800	2,258,792.35000	39.460994	-108.125589
<b>Start Build 3.00</b>									
200.00	2.40	280.75	199.98	0.31	-1.65	1,603,508.21784	2,258,790.71391	39.460994	-108.125595
400.00	8.40	280.75	399.00	3.82	-20.13	1,603,512.25883	2,258,772.34082	39.461004	-108.125660
600.00	14.40	280.75	594.96	11.19	-58.95	1,603,520.74620	2,258,733.75150	39.461024	-108.125798
800.00	20.40	280.75	785.72	22.34	-117.68	1,603,533.58695	2,258,675.36875	39.461055	-108.126006
973.78	25.61	280.75	945.62	35.00	-184.39	1,603,548.17063	2,258,609.06148	39.461090	-108.126242
<b>Hold 25.61° Inc, 280.75° Az</b>									
1,000.00	25.61	280.75	969.27	37.11	-195.52	1,603,550.60561	2,258,597.99040	39.461095	-108.126281
1,023.78	25.61	280.75	990.71	39.03	-205.62	1,603,552.81372	2,258,587.95084	39.461101	-108.126317
<b>9 5/8"</b>									
1,200.00	25.61	280.75	1,149.62	53.24	-280.46	1,603,569.17676	2,258,513.55338	39.461140	-108.126582
1,400.00	25.61	280.75	1,329.96	69.36	-365.41	1,603,587.74791	2,258,429.11636	39.461184	-108.126883
1,600.00	25.61	280.75	1,510.31	85.49	-450.35	1,603,606.31905	2,258,344.67933	39.461228	-108.127184
1,800.00	25.61	280.75	1,690.65	101.61	-535.29	1,603,624.89020	2,258,260.24231	39.461272	-108.127485
2,000.00	25.61	280.75	1,871.00	117.74	-620.23	1,603,643.46135	2,258,175.80528	39.461317	-108.127786
2,157.47	25.61	280.75	2,013.00	130.43	-687.11	1,603,658.08364	2,258,109.32247	39.461352	-108.128022
<b>Top of "G" Sand</b>									
2,200.00	25.61	280.75	2,051.35	133.86	-705.18	1,603,662.03250	2,258,091.36827	39.461361	-108.128086
2,268.37	25.61	280.75	2,113.00	139.37	-734.21	1,603,668.38112	2,258,062.50312	39.461376	-108.128189
<b>Base of "G" Sand</b>									
2,400.00	25.61	280.75	2,231.69	149.98	-790.12	1,603,680.60365	2,258,006.93124	39.461405	-108.128387
2,600.00	25.61	280.75	2,412.04	166.11	-875.06	1,603,699.17480	2,257,922.49421	39.461450	-108.128688
2,800.00	25.61	280.75	2,592.39	182.23	-960.00	1,603,717.74595	2,257,838.05719	39.461494	-108.128989
3,000.00	25.61	280.75	2,772.73	198.36	-1,044.94	1,603,736.31710	2,257,753.62016	39.461538	-108.129290
3,065.45	25.61	280.75	2,831.75	203.63	-1,072.74	1,603,742.39475	2,257,725.98703	39.461553	-108.129388
<b>Start Drop -1.50°/100</b>									
3,200.00	23.60	280.75	2,954.08	214.08	-1,127.78	1,603,754.42673	2,257,671.28152	39.461581	-108.129583
3,400.00	20.60	280.75	3,139.37	228.11	-1,201.68	1,603,770.58385	2,257,597.82029	39.461620	-108.129845
3,600.00	17.60	280.75	3,328.34	240.31	-1,265.95	1,603,784.63585	2,257,533.93034	39.461653	-108.130072
3,719.71	15.80	280.75	3,443.00	246.72	-1,299.74	1,603,792.02326	2,257,500.34216	39.461671	-108.130192
<b>Mesaverde</b>									
3,800.00	14.60	280.75	3,520.48	250.65	-1,320.42	1,603,796.54423	2,257,479.78677	39.461682	-108.130265
4,000.00	11.60	280.75	3,715.26	259.10	-1,364.93	1,603,806.27634	2,257,435.53799	39.461705	-108.130423
4,200.00	8.60	280.75	3,912.14	265.63	-1,399.37	1,603,813.80551	2,257,401.30528	39.461723	-108.130545
4,400.00	5.60	280.75	4,110.59	270.24	-1,423.63	1,603,819.11110	2,257,377.18247	39.461735	-108.130631
4,600.00	2.60	280.75	4,310.05	272.90	-1,437.66	1,603,822.17857	2,257,363.23569	39.461743	-108.130681
4,773.01	0.00	0.00	4,483.00	273.63	-1,441.51	1,603,823.02000	2,257,359.41000	39.461745	-108.130694
<b>Vertical</b>									
4,800.00	0.00	0.00	4,509.99	273.63	-1,441.51	1,603,823.02000	2,257,359.41000	39.461745	-108.130694
4,873.01	0.00	0.00	4,583.00	273.63	-1,441.51	1,603,823.02000	2,257,359.41000	39.461745	-108.130694
<b>Top Gas - Approx. Top Gas</b>									
5,000.00	0.00	0.00	4,709.99	273.63	-1,441.51	1,603,823.02000	2,257,359.41000	39.461745	-108.130694
5,200.00	0.00	0.00	4,909.99	273.63	-1,441.51	1,603,823.02000	2,257,359.41000	39.461745	-108.130694
5,400.00	0.00	0.00	5,109.99	273.63	-1,441.51	1,603,823.02000	2,257,359.41000	39.461745	-108.130694
5,600.00	0.00	0.00	5,309.99	273.63	-1,441.51	1,603,823.02000	2,257,359.41000	39.461745	-108.130694
5,800.00	0.00	0.00	5,509.99	273.63	-1,441.51	1,603,823.02000	2,257,359.41000	39.461745	-108.130694
6,000.00	0.00	0.00	5,709.99	273.63	-1,441.51	1,603,823.02000	2,257,359.41000	39.461745	-108.130694
6,200.00	0.00	0.00	5,909.99	273.63	-1,441.51	1,603,823.02000	2,257,359.41000	39.461745	-108.130694

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 34-5 - Slot A07
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 6003.00usft (Nabors 577 (26' RKB) mab)
<b>Project:</b>	GV 05-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 6003.00usft (Nabors 577 (26' RKB) mab)
<b>Site:</b>	MV 34-5 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 34-5	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 24Jul14 mab		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
6,253.01	0.00	0.00	5,963.00	273.63	-1,441.51	1,603,823.02000	2,257,359.41000	39.461745	-108.130694	
Cameo Coals										
6,400.00	0.00	0.00	6,109.99	273.63	-1,441.51	1,603,823.02000	2,257,359.41000	39.461745	-108.130694	
6,600.00	0.00	0.00	6,309.99	273.63	-1,441.51	1,603,823.02000	2,257,359.41000	39.461745	-108.130694	
6,723.01	0.00	0.00	6,433.00	273.63	-1,441.51	1,603,823.02000	2,257,359.41000	39.461745	-108.130694	
Rollins SS										
6,800.00	0.00	0.00	6,509.99	273.63	-1,441.51	1,603,823.02000	2,257,359.41000	39.461745	-108.130694	
6,823.01	0.00	0.00	6,533.00	273.63	-1,441.51	1,603,823.02000	2,257,359.41000	39.461745	-108.130694	
TD at 6823.01 - TD										

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Top Gas (50' Radius) G1 - plan hits target center - Circle (radius 50.00)	0.00	0.00	4,583.00	273.63	-1,441.51	1,603,823.02000	2,257,359.41000	39.461745	-108.130694	

Casing Points									
Measured Depth (usft)	Vertical Depth (usft)	Name			Casing Diameter (in)	Hole Diameter (in)			
1,023.78	990.71	9 5/8"			9.625	13.500			

Formations									
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)				
2,157.47	2,013.00	Top of "G" Sand							
2,268.37	2,113.00	Base of "G" Sand							
3,719.71	3,443.00	Mesaverde							
4,873.01	4,583.00	Approx. Top Gas							
6,253.01	5,963.00	Cameo Coals							
6,723.01	6,433.00	Rollins SS							
6,823.01	6,533.00	TD							

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 34-5 - Slot A07
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 6003.00usft (Nabors 577 (26' RKB) mab)
<b>Project:</b>	GV 05-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 6003.00usft (Nabors 577 (26' RKB) mab)
<b>Site:</b>	MV 34-5 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 34-5	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 24Jul14 mab		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
120.00	120.00	0.00	0.00	Start Build 3.00
973.78	945.62	35.00	-184.39	Hold 25.61° Inc, 280.75° Az
3,065.45	2,831.75	203.63	-1,072.74	Start Drop -1.50°/100
4,773.01	4,483.00	273.63	-1,441.51	Vertical
4,873.01	4,583.00	273.63	-1,441.51	Top Gas
6,823.01	6,533.00	273.63	-1,441.51	TD at 6823.01