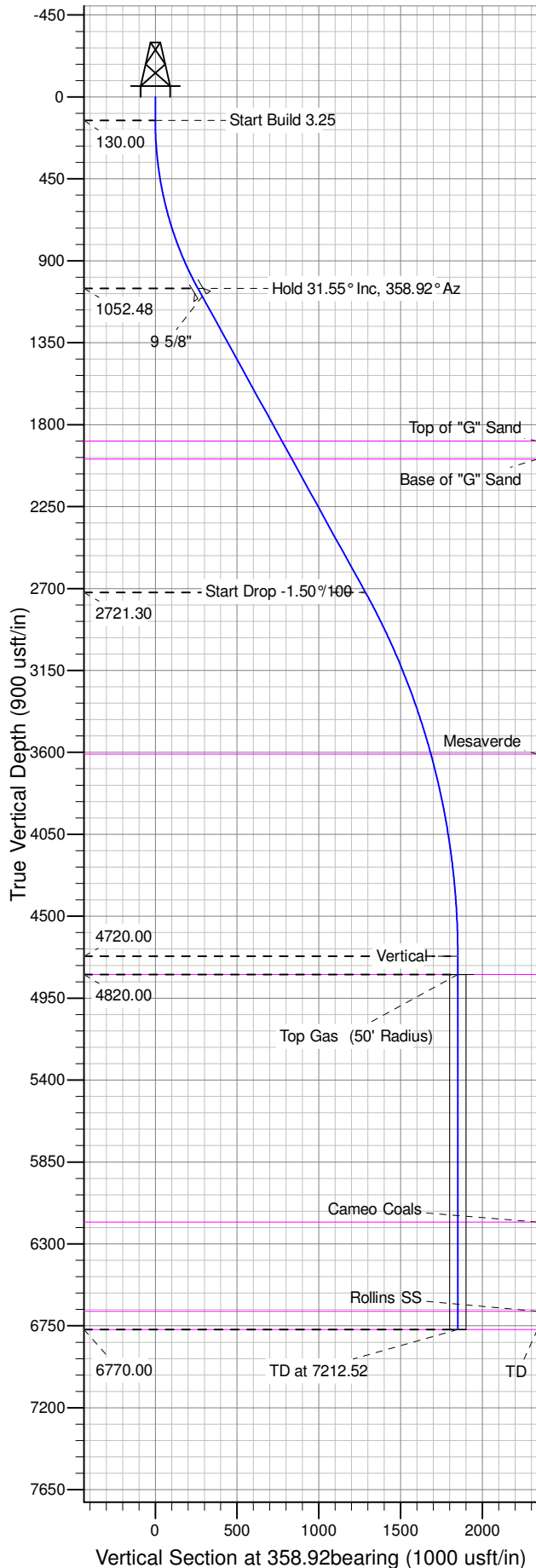
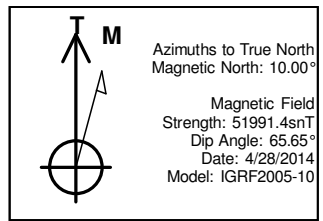
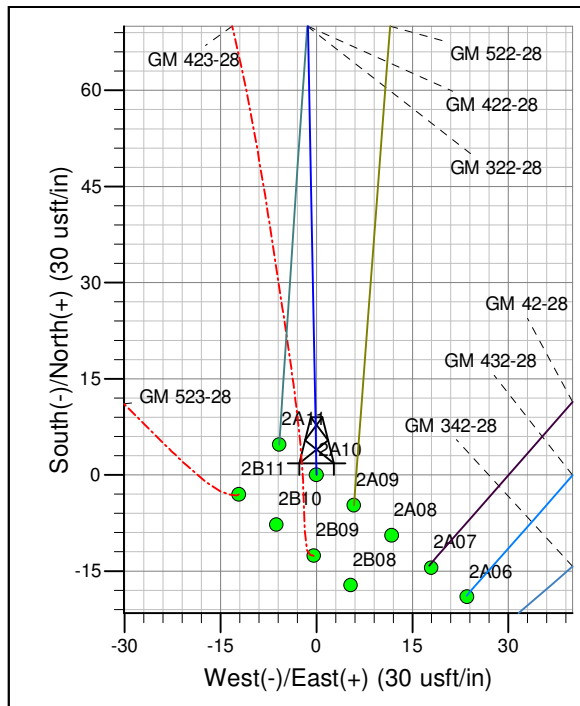
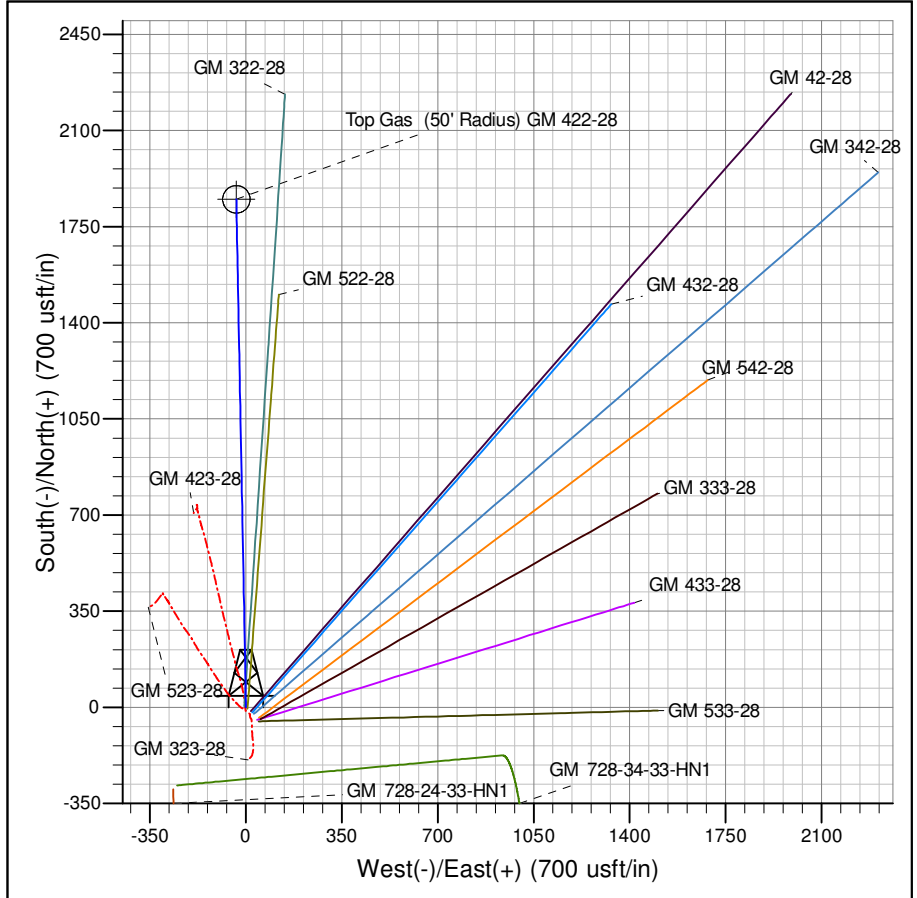




Well Name: GM 422-28  
Surface Location: GM 323-28 Pad  
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone  
Ground Elevation: 5476.00  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.00 0.00 1614779.90 2262147.50 39.49219 -108.11486 2A10  
KELLY BUSHING @ 5500.00usft (H&P 318 (24' RKB) mab)



ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
130.00	130.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.25	
1052.48	1100.80	31.55	358.92	260.56	-4.92	260.61	260.61	Hold 31.55° Inc, 358.92° Az	
2721.30	3059.12	31.55	358.92	1285.08	-24.28	1285.31	1285.31	Start Drop -1.50°/100	
4720.00	5162.52	0.00	0.00	1849.64	-34.95	1849.97	1849.97	Vertical	
4820.00	5262.52	0.00	0.00	1849.64	-34.95	1849.97	1849.97	Top Gas	
6770.00	7212.52	0.00	0.00	1849.64	-34.95	1849.97	1849.97	TD at 7212.52	



Project: GV 28-06S-096W  
Site: GM 323-28 Pad  
Well: GM 422-28  
Design #1 28Apr14 mab

# **PICEANCE VLY NAD 83**

**GV 28-06S-096W**

**GM 323-28 Pad**

**GM 422-28 - Slot 2A10**

**Wellbore #1**

**Plan: Design #1 28Apr14 mab**

## **Standard Planning Report - Geographic**

**25 June, 2014**

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 422-28 - Slot 2A10
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5500.00usft (H&P 318 (24' RKB) mab)
<b>Project:</b>	GV 28-06S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5500.00usft (H&P 318 (24' RKB) mab)
<b>Site:</b>	GM 323-28 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 422-28	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 28Apr14 mab		

<b>Project</b>	GV 28-06S-096W, 28-06S-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>	GM 323-28 Pad			
<b>Site Position:</b>		<b>Northing:</b>	1,614,757.30 usft	<b>Latitude:</b> 39.49213
<b>From:</b> Map		<b>Easting:</b>	2,262,158.50 usft	<b>Longitude:</b> -108.11482
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> -1.65 °

<b>Well</b>	GM 422-28 - Slot 2A10			
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,614,779.90 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	2,262,147.50 usft
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	0.00 usft
			<b>Ground Level:</b>	5,476.00 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	4/28/2014	10.00	65.65	51,991

<b>Design</b>	Design #1 28Apr14 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	358.92

<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	
130.00	0.00	0.00	130.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,100.80	31.55	358.92	1,052.48	260.56	-4.92	3.25	3.25	0.00	358.92	
3,059.12	31.55	358.92	2,721.30	1,285.08	-24.28	0.00	0.00	0.00	0.00	
5,162.52	0.00	0.00	4,720.00	1,849.64	-34.95	1.50	-1.50	0.00	180.00	
5,262.52	0.00	0.00	4,820.00	1,849.64	-34.95	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
7,212.52	0.00	0.00	6,770.00	1,849.64	-34.95	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 422-28 - Slot 2A10
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5500.00usft (H&P 318 (24' RKB) mab)
<b>Project:</b>	GV 28-06S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5500.00usft (H&P 318 (24' RKB) mab)
<b>Site:</b>	GM 323-28 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 422-28	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 28Apr14 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	1,614,779.90	2,262,147.50	39.49219	-108.11486
130.00	0.00	0.00	130.00	0.00	0.00	1,614,779.90	2,262,147.50	39.49219	-108.11486
Start Build 3.25									
200.00	2.28	358.92	199.98	1.39	-0.03	1,614,781.29	2,262,147.51	39.49220	-108.11486
400.00	8.78	358.92	398.95	20.63	-0.39	1,614,800.53	2,262,147.70	39.49225	-108.11486
600.00	15.28	358.92	594.45	62.27	-1.18	1,614,842.17	2,262,148.12	39.49237	-108.11487
800.00	21.78	358.92	783.99	125.77	-2.38	1,614,905.67	2,262,148.74	39.49254	-108.11487
1,000.00	28.28	358.92	965.12	210.31	-3.97	1,614,990.22	2,262,149.58	39.49277	-108.11488
1,100.80	31.55	358.92	1,052.48	260.56	-4.92	1,615,040.48	2,262,150.08	39.49291	-108.11488
Hold 31.55° Inc, 358.92° Az									
1,150.80	31.55	358.92	1,095.08	286.72	-5.42	1,615,066.64	2,262,150.34	39.49298	-108.11488
9 5/8"									
1,200.00	31.55	358.92	1,137.01	312.46	-5.90	1,615,092.38	2,262,150.59	39.49305	-108.11488
1,400.00	31.55	358.92	1,307.45	417.09	-7.88	1,615,197.03	2,262,151.63	39.49334	-108.11489
1,600.00	31.55	358.92	1,477.88	521.73	-9.86	1,615,301.67	2,262,152.66	39.49363	-108.11490
1,800.00	31.55	358.92	1,648.32	626.36	-11.83	1,615,406.31	2,262,153.70	39.49391	-108.11490
2,000.00	31.55	358.92	1,818.75	730.99	-13.81	1,615,510.95	2,262,154.73	39.49420	-108.11491
2,083.61	31.55	358.92	1,890.00	774.73	-14.64	1,615,554.70	2,262,155.17	39.49432	-108.11491
Top of "G" Sand									
2,200.00	31.55	358.92	1,989.18	835.62	-15.79	1,615,615.59	2,262,155.77	39.49449	-108.11492
2,200.96	31.55	358.92	1,990.00	836.13	-15.80	1,615,616.10	2,262,155.77	39.49449	-108.11492
Base of "G" Sand									
2,400.00	31.55	358.92	2,159.62	940.26	-17.76	1,615,720.24	2,262,156.80	39.49478	-108.11492
2,600.00	31.55	358.92	2,330.05	1,044.89	-19.74	1,615,824.88	2,262,157.84	39.49506	-108.11493
2,800.00	31.55	358.92	2,500.49	1,149.52	-21.72	1,615,929.52	2,262,158.87	39.49535	-108.11494
3,000.00	31.55	358.92	2,670.92	1,254.16	-23.69	1,616,034.16	2,262,159.91	39.49564	-108.11495
3,059.12	31.55	358.92	2,721.30	1,285.08	-24.28	1,616,065.09	2,262,160.21	39.49572	-108.11495
Start Drop -1.50°/100									
3,200.00	29.44	358.92	2,842.69	1,356.56	-25.63	1,616,136.58	2,262,160.92	39.49592	-108.11495
3,400.00	26.44	358.92	3,019.36	1,450.23	-27.40	1,616,230.26	2,262,161.85	39.49618	-108.11496
3,600.00	23.44	358.92	3,200.69	1,534.54	-28.99	1,616,314.57	2,262,162.68	39.49641	-108.11496
3,800.00	20.44	358.92	3,386.19	1,609.23	-30.40	1,616,389.27	2,262,163.42	39.49661	-108.11497
4,000.00	17.44	358.92	3,575.34	1,674.12	-31.63	1,616,454.17	2,262,164.06	39.49679	-108.11497
4,036.27	16.89	358.92	3,610.00	1,684.83	-31.83	1,616,464.87	2,262,164.17	39.49682	-108.11497
Mesaverde									
4,200.00	14.44	358.92	3,767.63	1,729.03	-32.67	1,616,509.08	2,262,164.61	39.49694	-108.11498
4,400.00	11.44	358.92	3,962.53	1,773.79	-33.51	1,616,553.85	2,262,165.05	39.49706	-108.11498
4,600.00	8.44	358.92	4,159.51	1,808.30	-34.16	1,616,588.35	2,262,165.39	39.49716	-108.11498
4,800.00	5.44	358.92	4,358.02	1,832.45	-34.62	1,616,612.51	2,262,165.63	39.49722	-108.11498
5,000.00	2.44	358.92	4,557.53	1,846.18	-34.88	1,616,626.24	2,262,165.77	39.49726	-108.11499
5,162.52	0.00	0.00	4,720.00	1,849.64	-34.95	1,616,629.70	2,262,165.80	39.49727	-108.11499
Vertical									
5,200.00	0.00	0.00	4,757.48	1,849.64	-34.95	1,616,629.70	2,262,165.80	39.49727	-108.11499
5,262.52	0.00	0.00	4,820.00	1,849.64	-34.95	1,616,629.70	2,262,165.80	39.49727	-108.11499
Top Gas - Approx. Top Gas									
5,400.00	0.00	0.00	4,957.48	1,849.64	-34.95	1,616,629.70	2,262,165.80	39.49727	-108.11499
5,600.00	0.00	0.00	5,157.48	1,849.64	-34.95	1,616,629.70	2,262,165.80	39.49727	-108.11499
5,800.00	0.00	0.00	5,357.48	1,849.64	-34.95	1,616,629.70	2,262,165.80	39.49727	-108.11499
6,000.00	0.00	0.00	5,557.48	1,849.64	-34.95	1,616,629.70	2,262,165.80	39.49727	-108.11499
6,200.00	0.00	0.00	5,757.48	1,849.64	-34.95	1,616,629.70	2,262,165.80	39.49727	-108.11499
6,400.00	0.00	0.00	5,957.48	1,849.64	-34.95	1,616,629.70	2,262,165.80	39.49727	-108.11499
6,600.00	0.00	0.00	6,157.48	1,849.64	-34.95	1,616,629.70	2,262,165.80	39.49727	-108.11499

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 422-28 - Slot 2A10
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5500.00usft (H&P 318 (24' RKB) mab)
<b>Project:</b>	GV 28-06S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5500.00usft (H&P 318 (24' RKB) mab)
<b>Site:</b>	GM 323-28 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 422-28	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 28Apr14 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
6,622.52	0.00	0.00	6,180.00	1,849.64	-34.95	1,616,629.70	2,262,165.80	39.49727	-108.11499
<b>Cameo Coals</b>									
6,800.00	0.00	0.00	6,357.48	1,849.64	-34.95	1,616,629.70	2,262,165.80	39.49727	-108.11499
7,000.00	0.00	0.00	6,557.48	1,849.64	-34.95	1,616,629.70	2,262,165.80	39.49727	-108.11499
7,112.52	0.00	0.00	6,670.00	1,849.64	-34.95	1,616,629.70	2,262,165.80	39.49727	-108.11499
<b>Rollins SS</b>									
7,200.00	0.00	0.00	6,757.48	1,849.64	-34.95	1,616,629.70	2,262,165.80	39.49727	-108.11499
7,212.52	0.00	0.00	6,770.00	1,849.64	-34.95	1,616,629.70	2,262,165.80	39.49727	-108.11499
<b>TD at 7212.52 - TD</b>									

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) G - plan hits target center - Circle (radius 50.00)	0.00	0.00	4,820.00	1,849.64	-34.95	1,616,629.70	2,262,165.80	39.49727	-108.11499

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,150.80	1,095.08	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,083.61	1,890.00	Top of "G" Sand				
2,200.96	1,990.00	Base of "G" Sand				
4,036.27	3,610.00	Mesaverde				
5,262.52	4,820.00	Approx. Top Gas				
6,622.52	6,180.00	Cameo Coals				
7,112.52	6,670.00	Rollins SS				
7,212.52	6,770.00	TD				

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 422-28 - Slot 2A10
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5500.00usft (H&P 318 (24' RKB) mab)
<b>Project:</b>	GV 28-06S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5500.00usft (H&P 318 (24' RKB) mab)
<b>Site:</b>	GM 323-28 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 422-28	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 28Apr14 mab		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
130.00	130.00	0.00	0.00	Start Build 3.25
1,100.80	1,052.48	260.56	-4.92	Hold 31.55° Inc, 358.92° Az
3,059.12	2,721.30	1,285.08	-24.28	Start Drop -1.50°/100
5,162.52	4,720.00	1,849.64	-34.95	Vertical
5,262.52	4,820.00	1,849.64	-34.95	Top Gas
7,212.52	6,770.00	1,849.64	-34.95	TD at 7212.52