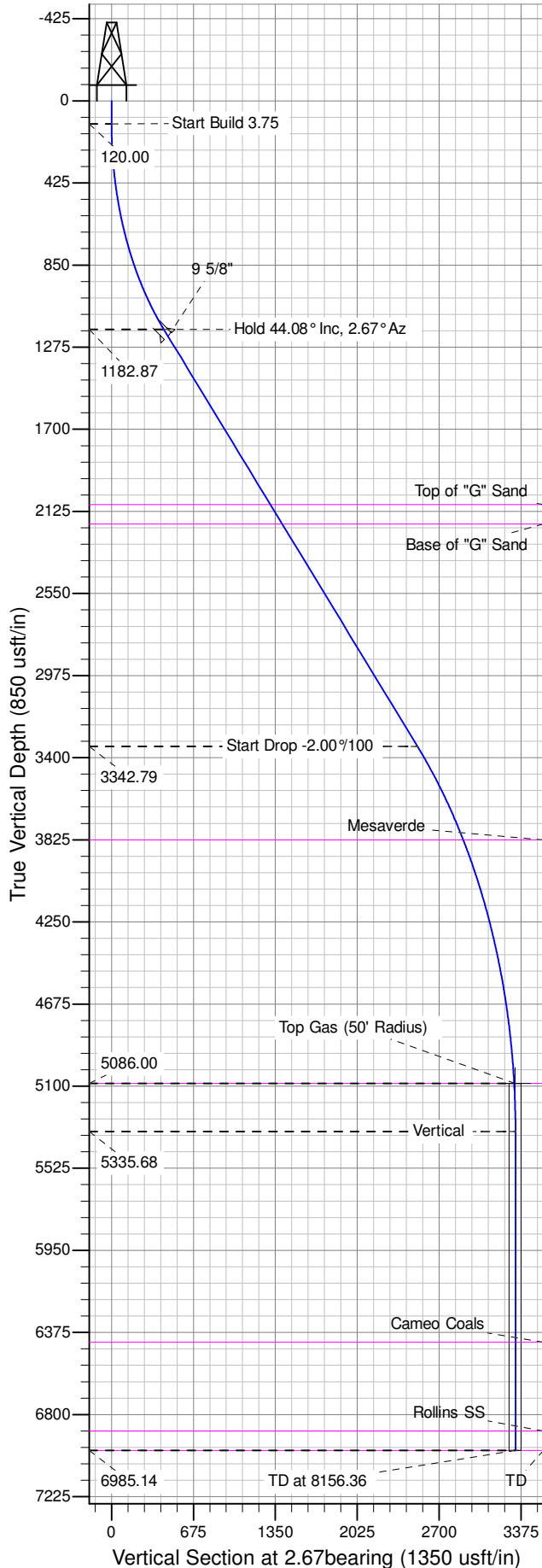
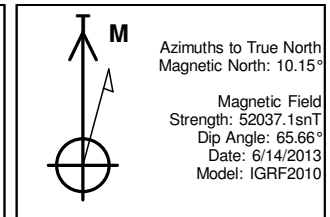
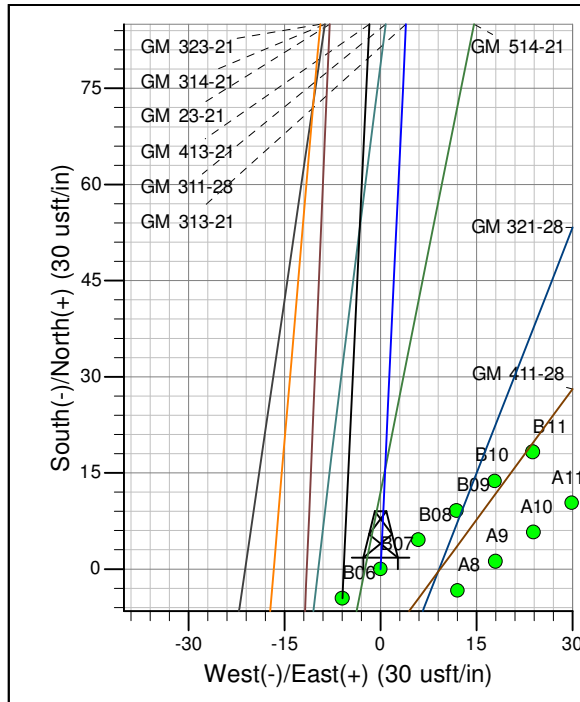
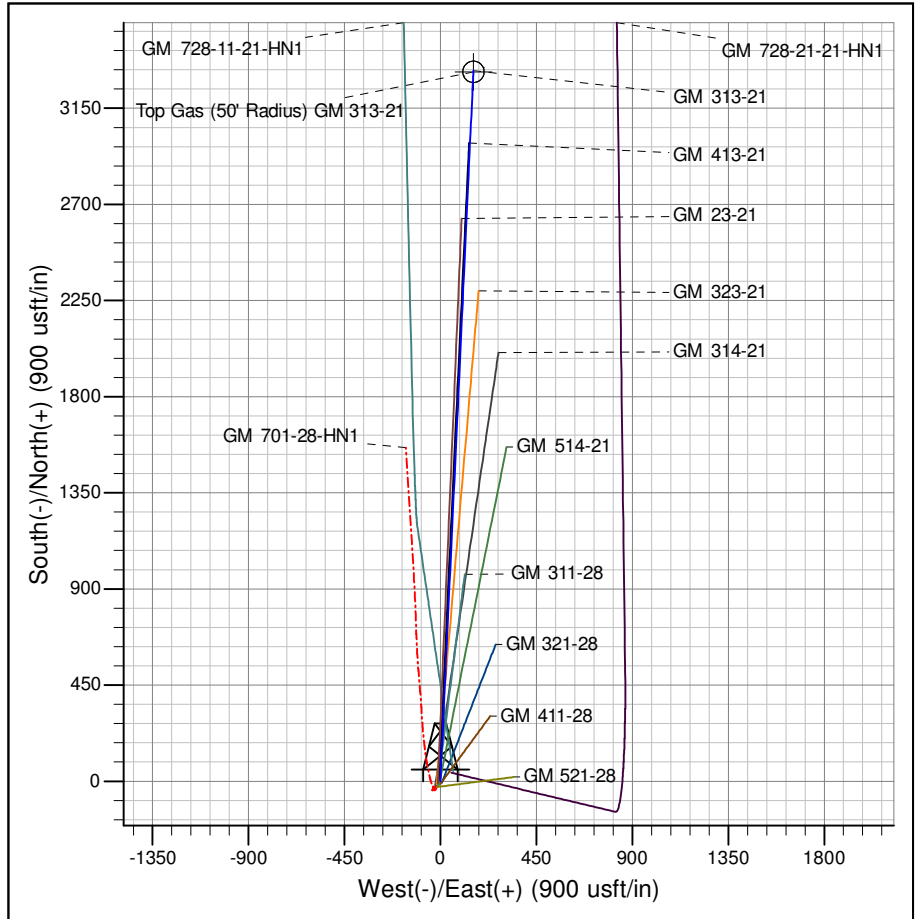




Well Name: GM 313-21  
Surface Location: GM 11-28 Pad  
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone  
Ground Elevation: 5604.00  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.00 0.00 1617281.75000 2260943.20000 39.49896 -108.11938 B07  
KELLY BUSHING @ 5630.00usft (Nabors 573 (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	Start Build 3.75	
1182.87	1295.44	44.08	2.67	429.82	20.03	430.28	430.28	Hold 44.08° Inc, 2.67° Az	
3342.79	4302.09	44.08	2.67	2519.12	117.40	2521.86	2521.86	Start Drop -2.00°/100	
5086.00	6256.04	5.00	2.67	3314.14	154.46	3317.73	3317.73	Top Gas	
5335.68	6506.04	0.00	0.00	3325.03	154.96	3328.63	3328.63	Vertical	
6985.14	8155.50	0.00	0.00	3325.03	154.96	3328.63	3328.63	TD at 8156.36	



Project: GV 28-06S-096W  
Site: GM 11-28 Pad  
Well: GM 313-21  
Design #2 28Aug14 mab

# **PICEANCE VLY NAD 83**

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

**GM 11-28 Pad**

**GM 313-21 - Slot B07**

**Wellbore #1**

**Plan: Design #2 28Aug14 mab**

## **Standard Planning Report - Geographic**

**28 August, 2014**

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 313-21 - Slot B07
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
<b>Project:</b>	GV 28-06S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
<b>Site:</b>	GM 11-28 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 313-21	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 28Aug14 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 11-28 Pad			
<b>Site Position:</b>		<b>Northing:</b>	1,617,299.30000 usft	<b>Latitude:</b> 39.49901
<b>From:</b> Map		<b>Easting:</b>	2,260,967.51000 usft	<b>Longitude:</b> -108.11930
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> -1.65 °

Well	GM 313-21 - Slot B07					
Well Position	+N-S	0.00 usft	Northing:	1,617,281.75000 usft	Latitude:	39.49896
	+E-W	0.00 usft	Easting:	2,260,943.20000 usft	Longitude:	-108.11938
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,604.00 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>
	IGRF2010	6/14/2013	10.15	65.66	52,037

<b>Design</b>	Design #2 28Aug14 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	2.67

<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	
1,295.44	44.08	2.67	1,182.87	429.82	20.03	3.75	3.75	0.00	2.67	
4,302.09	44.08	2.67	3,342.79	2,519.12	117.40	0.00	0.00	0.00	0.00	
6,256.04	5.00	2.67	5,086.00	3,314.14	154.46	2.00	-2.00	0.00	180.00	Top Gas (50' Radius)
6,506.04	0.00	0.00	5,335.68	3,325.03	154.96	2.00	-2.00	0.00	180.00	
8,156.36	0.00	0.00	6,986.00	3,325.03	154.96	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 313-21 - Slot B07
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
<b>Project:</b>	GV 28-06S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
<b>Site:</b>	GM 11-28 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 313-21	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 28Aug14 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	1,617,281.75000	2,260,943.20000	39.49896	-108.11938	
120.00	0.00	0.00	120.00	0.00	0.00	1,617,281.75000	2,260,943.20000	39.49896	-108.11938	
Start Build 3.75										
200.00	3.00	2.67	199.96	2.09	0.10	1,617,283.83788	2,260,943.35773	39.49897	-108.11938	
400.00	10.50	2.67	398.44	25.56	1.19	1,617,307.26089	2,260,945.12729	39.49903	-108.11938	
600.00	18.00	2.67	592.14	74.70	3.48	1,617,356.31466	2,260,948.83319	39.49917	-108.11937	
800.00	25.50	2.67	777.77	148.68	6.93	1,617,430.15985	2,260,954.41203	39.49937	-108.11936	
1,000.00	33.00	2.67	952.15	246.23	11.48	1,617,527.53296	2,260,961.76834	39.49964	-108.11934	
1,200.00	40.50	2.67	1,112.28	365.68	17.04	1,617,646.76789	2,260,970.77627	39.49997	-108.11932	
1,295.44	44.08	2.67	1,182.87	429.82	20.03	1,617,710.79221	2,260,975.61317	39.50014	-108.11931	
Hold 44.08° Inc, 2.67° Az										
1,345.44	44.08	2.67	1,218.79	464.56	21.65	1,617,745.47408	2,260,978.23330	39.50024	-108.11931	
9 5/8"										
1,400.00	44.08	2.67	1,257.99	502.47	23.42	1,617,783.31937	2,260,981.09243	39.50034	-108.11930	
1,600.00	44.08	2.67	1,401.66	641.45	29.89	1,617,922.04844	2,260,991.57310	39.50073	-108.11928	
1,800.00	44.08	2.67	1,545.34	780.43	36.37	1,618,060.77750	2,261,002.05376	39.50111	-108.11925	
2,000.00	44.08	2.67	1,689.02	919.41	42.85	1,618,199.50657	2,261,012.53443	39.50149	-108.11923	
2,200.00	44.08	2.67	1,832.69	1,058.39	49.33	1,618,338.23564	2,261,023.01510	39.50187	-108.11921	
2,400.00	44.08	2.67	1,976.37	1,197.37	55.80	1,618,476.96470	2,261,033.49577	39.50225	-108.11919	
2,558.18	44.08	2.67	2,090.00	1,307.29	60.93	1,618,586.68294	2,261,041.78473	39.50255	-108.11917	
Top of "G" Sand										
2,600.00	44.08	2.67	2,120.05	1,336.35	62.28	1,618,615.69377	2,261,043.97643	39.50263	-108.11916	
2,697.38	44.08	2.67	2,190.00	1,404.02	65.43	1,618,683.23968	2,261,049.07937	39.50282	-108.11915	
Base of "G" Sand										
2,800.00	44.08	2.67	2,263.72	1,475.33	68.76	1,618,754.42283	2,261,054.45710	39.50302	-108.11914	
3,000.00	44.08	2.67	2,407.40	1,614.31	75.23	1,618,893.15189	2,261,064.93777	39.50340	-108.11912	
3,200.00	44.08	2.67	2,551.07	1,753.29	81.71	1,619,031.88096	2,261,075.41844	39.50378	-108.11909	
3,400.00	44.08	2.67	2,694.75	1,892.26	88.19	1,619,170.61003	2,261,085.89910	39.50416	-108.11907	
3,600.00	44.08	2.67	2,838.43	2,031.24	94.67	1,619,309.33909	2,261,096.37977	39.50454	-108.11905	
3,800.00	44.08	2.67	2,982.10	2,170.22	101.14	1,619,448.06816	2,261,106.86044	39.50492	-108.11902	
4,000.00	44.08	2.67	3,125.78	2,309.20	107.62	1,619,586.79723	2,261,117.34111	39.50530	-108.11900	
4,200.00	44.08	2.67	3,269.46	2,448.18	114.10	1,619,725.52629	2,261,127.82177	39.50569	-108.11898	
4,302.09	44.08	2.67	3,342.79	2,519.12	117.40	1,619,796.33885	2,261,133.17150	39.50588	-108.11897	
Start Drop -2.00°/100										
4,400.00	42.12	2.67	3,414.28	2,585.95	120.52	1,619,863.04370	2,261,138.21090	39.50606	-108.11896	
4,600.00	38.12	2.67	3,567.19	2,714.66	126.52	1,619,991.52643	2,261,147.91748	39.50642	-108.11893	
4,800.00	34.12	2.67	3,728.71	2,832.41	132.00	1,620,109.06069	2,261,156.79693	39.50674	-108.11892	
4,914.78	31.83	2.67	3,825.00	2,894.81	134.91	1,620,171.34726	2,261,161.50254	39.50691	-108.11890	
Mesaverde										
5,000.00	30.12	2.67	3,898.06	2,938.61	136.95	1,620,215.07388	2,261,164.80599	39.50703	-108.11890	
5,200.00	26.12	2.67	4,074.42	3,032.76	141.34	1,620,309.04951	2,261,171.90563	39.50729	-108.11888	
5,400.00	22.12	2.67	4,256.92	3,114.38	145.15	1,620,390.52973	2,261,178.06128	39.50751	-108.11887	
5,600.00	18.12	2.67	4,444.67	3,183.09	148.35	1,620,459.11758	2,261,183.24294	39.50770	-108.11886	
5,800.00	14.12	2.67	4,636.77	3,238.56	150.93	1,620,514.47893	2,261,187.42536	39.50786	-108.11885	
6,000.00	10.12	2.67	4,832.27	3,280.50	152.89	1,620,556.34403	2,261,190.58818	39.50797	-108.11884	
6,200.00	6.12	2.67	5,030.23	3,308.71	154.20	1,620,584.50895	2,261,192.71597	39.50805	-108.11884	
6,256.04	5.00	2.67	5,086.00	3,314.14	154.46	1,620,589.92308	2,261,193.12500	39.50806	-108.11884	
Top Gas - Approx. Top Gas										
6,400.00	2.12	2.67	5,229.67	3,323.07	154.87	1,620,598.83645	2,261,193.79838	39.50809	-108.11883	
6,506.04	0.00	0.00	5,335.68	3,325.03	154.96	1,620,600.79306	2,261,193.94620	39.50809	-108.11883	
Vertical										
6,600.00	0.00	0.00	5,429.64	3,325.03	154.96	1,620,600.79306	2,261,193.94620	39.50809	-108.11883	

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 313-21 - Slot B07
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
<b>Project:</b>	GV 28-06S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
<b>Site:</b>	GM 11-28 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 313-21	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 28Aug14 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
6,800.00	0.00	0.00	5,629.64	3,325.03	154.96	1,620,600.79306	2,261,193.94620	39.50809	-108.11883
7,000.00	0.00	0.00	5,829.64	3,325.03	154.96	1,620,600.79306	2,261,193.94620	39.50809	-108.11883
7,200.00	0.00	0.00	6,029.64	3,325.03	154.96	1,620,600.79306	2,261,193.94620	39.50809	-108.11883
7,400.00	0.00	0.00	6,229.64	3,325.03	154.96	1,620,600.79306	2,261,193.94620	39.50809	-108.11883
7,596.36	0.00	0.00	6,426.00	3,325.03	154.96	1,620,600.79306	2,261,193.94620	39.50809	-108.11883
<b>Cameo Coals</b>									
7,600.00	0.00	0.00	6,429.64	3,325.03	154.96	1,620,600.79306	2,261,193.94620	39.50809	-108.11883
7,800.00	0.00	0.00	6,629.64	3,325.03	154.96	1,620,600.79306	2,261,193.94620	39.50809	-108.11883
8,000.00	0.00	0.00	6,829.64	3,325.03	154.96	1,620,600.79306	2,261,193.94620	39.50809	-108.11883
8,056.36	0.00	0.00	6,886.00	3,325.03	154.96	1,620,600.79306	2,261,193.94620	39.50809	-108.11883
<b>Rollins SS</b>									
8,156.36	0.00	0.00	6,986.00	3,325.03	154.96	1,620,600.79306	2,261,193.94620	39.50809	-108.11883
<b>TD at 8156.36 - TD</b>									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Top Gas (50' Radius) G	0.00	0.00	5,086.00	3,320.46	154.93	1,620,596.22911	2,261,193.78124	39.50808	-108.11883
- plan misses target center by 6.32usft at 6256.43usft MD (5086.39 TVD, 3314.17 N, 154.46 E)									
- Circle (radius 50.00)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,345.44	1,218.79	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,558.18	2,090.00	Top of "G" Sand				
2,697.38	2,190.00	Base of "G" Sand				
4,914.78	3,825.00	Mesaverde				
6,256.04	5,086.00	Approx. Top Gas				
7,596.36	6,426.00	Cameo Coals				
8,056.36	6,886.00	Rollins SS				
8,156.36	6,986.00	TD				

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 313-21 - Slot B07
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
<b>Project:</b>	GV 28-06S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
<b>Site:</b>	GM 11-28 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 313-21	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 28Aug14 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 3.75
1,295.44	1,182.87	429.82	20.03	Hold 44.08° Inc, 2.67° Az
4,302.09	3,342.79	2,519.12	117.40	Start Drop -2.00°/100
6,256.04	5,086.00	3,314.14	154.46	Top Gas
6,506.04	5,335.68	3,325.03	154.96	Vertical
8,156.36	6,986.00	3,325.03	154.96	TD at 8156.36