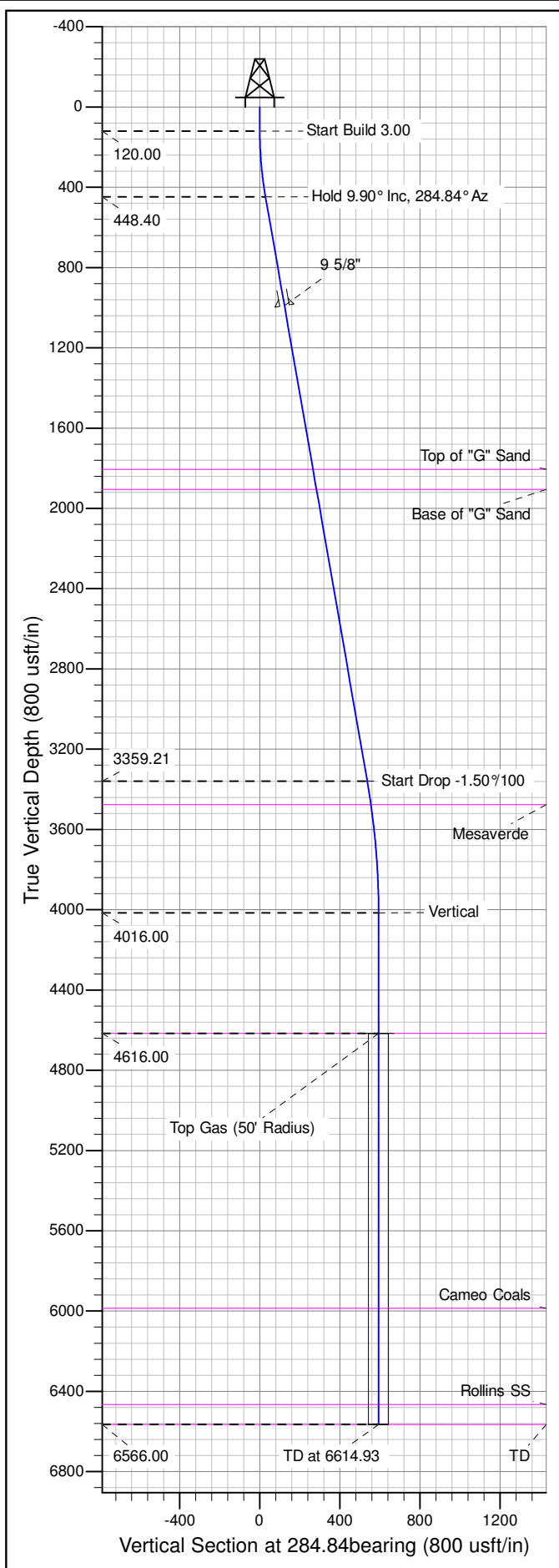
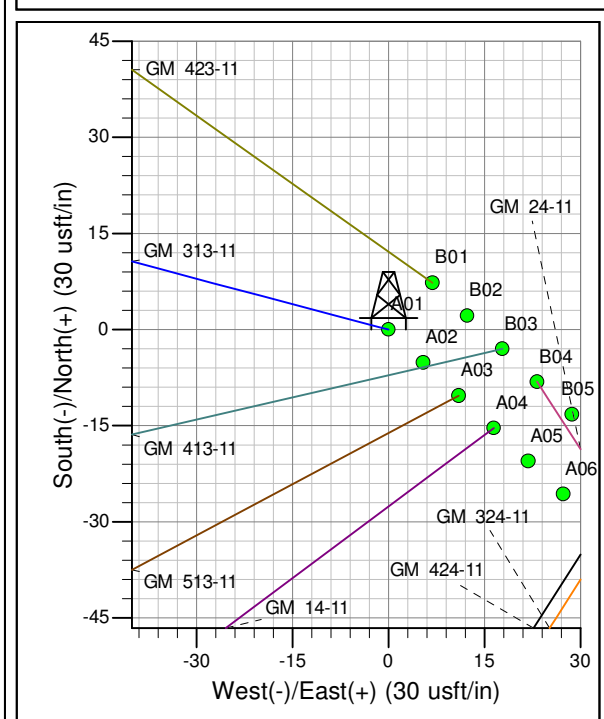
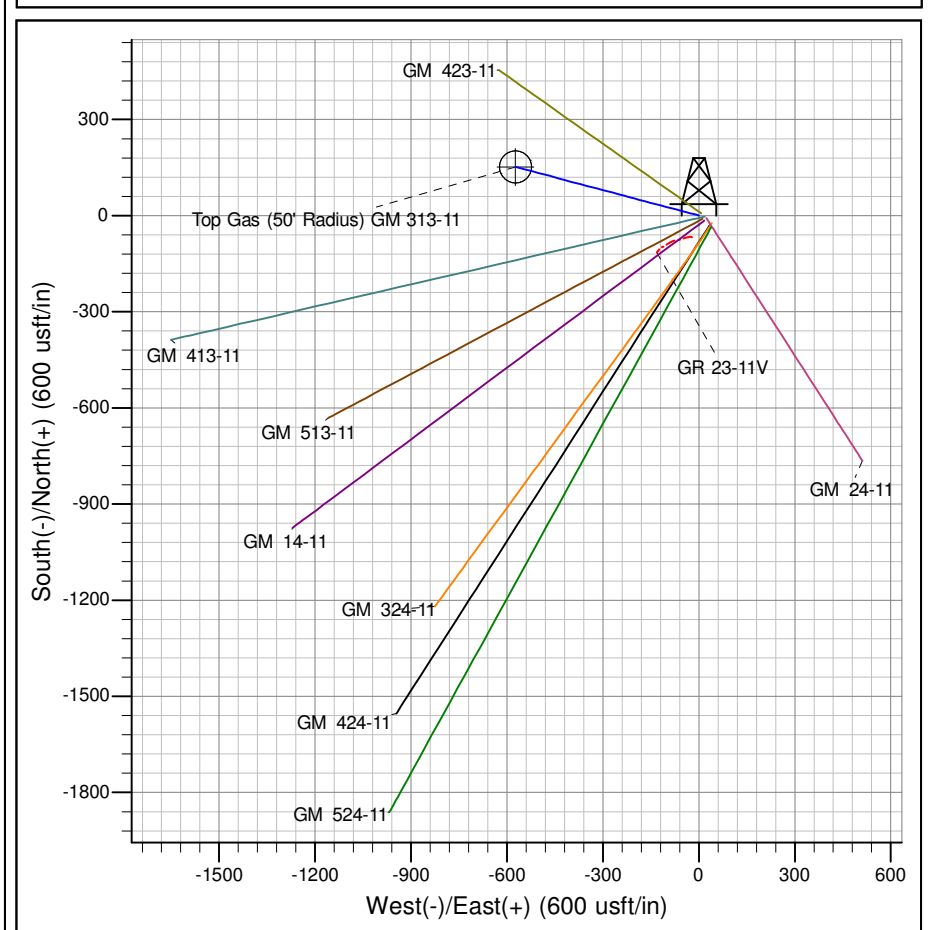




Well Name: GM 313-11  
Surface Location: GR 23-11V Pad  
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone  
Ground Elevation: 5793.00  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.00 0.00 1599239.50000 2271899.80000 39.450310 -108.078754 A01  
KELLY BUSHING @ 5817.00usft (H&P 318 (24' 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 3.00	Start Build 3.00
448.40	450.04	9.90	284.84	7.29	-27.50	28.45	28.45	Hold 9.90° Inc, 284.84° Az	Hold 9.90° Inc, 284.84° Az
3359.21	3404.86	9.90	284.84	137.42	-518.62	536.52	536.52	Start Drop -1.50%/100	Start Drop -1.50%/100
4016.00	4064.93	0.00	0.00	151.99	-573.61	593.41	593.41	Vertical	Vertical
4616.00	4664.93	0.00	0.00	151.99	-573.61	593.41	593.41	Top Gas	Top Gas
6566.00	6614.93	0.00	0.00	151.99	-573.61	593.41	593.41	TD at 6614.93	TD at 6614.93



Azimuths to True North  
Magnetic North: 10.37°

Magnetic Field  
Strength: 52255.3snT  
Dip Angle: 65.70°  
Date: 5/23/2011  
Model: IGRF2005-10

Project: GV 11-07S-096W  
Site: GR 23-11V Pad  
Well: GM 313-11  
Design #2 22Jul14 mab

# **PICEANCE VLY NAD 83**

**GV 11-07S-096W**

**GR 23-11V Pad**

**GM 313-11 - Slot A01**

**Wellbore #1**

**Plan: Design #2 22Jul14 mab**

## **Standard Planning Report - Geographic**

**11 September, 2014**

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 313-11 - Slot A01
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
<b>Project:</b>	GV 11-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
<b>Site:</b>	GR 23-11V Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 313-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 22Jul14 mab		

<b>Project</b>	GV 11-07S-096W, Garfield County, CO, 11-07S-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>	GR 23-11V Pad			
<b>Site Position:</b>		<b>Northing:</b>	1,599,207.80000 usft	<b>Latitude:</b> 39.450226
<b>From:</b> Map		<b>Easting:</b>	2,271,931.70000 usft	<b>Longitude:</b> -108.078638
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> -1.63 °

<b>Well</b>	GM 313-11 - Slot A01			
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,599,239.50000 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	2,271,899.80000 usft
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	
			<b>Ground Level:</b>	5,793.00 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	5/23/2011	10.37	65.70	52,255

<b>Design</b>	Design #2 22Jul14 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	284.84

<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	
450.04	9.90	284.84	448.40	7.29	-27.50	3.00	3.00	0.00	284.84	
3,404.86	9.90	284.84	3,359.21	137.42	-518.62	0.00	0.00	0.00	0.00	
4,064.93	0.00	0.00	4,016.00	151.99	-573.61	1.50	-1.50	0.00	180.00	
4,664.93	0.00	0.00	4,616.00	151.99	-573.61	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
6,614.93	0.00	0.00	6,566.00	151.99	-573.61	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 313-11 - Slot A01
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
<b>Project:</b>	GV 11-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
<b>Site:</b>	GR 23-11V Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 313-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 22Jul14 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	1,599,239.50000	2,271,899.80000	39.450310	-108.078754	
120.00	0.00	0.00	120.00	0.00	0.00	1,599,239.50000	2,271,899.80000	39.450310	-108.078754	
Start Build 3.00										
200.00	2.40	284.84	199.98	0.43	-1.62	1,599,239.97486	2,271,898.19352	39.450311	-108.078760	
400.00	8.40	284.84	399.00	5.25	-19.80	1,599,245.30749	2,271,880.15295	39.450325	-108.078824	
450.04	9.90	284.84	448.40	7.29	-27.50	1,599,247.56288	2,271,872.52283	39.450330	-108.078852	
Hold 9.90° Inc, 284.84° Az										
600.00	9.90	284.84	596.13	13.89	-52.42	1,599,254.87201	2,271,847.79562	39.450348	-108.078940	
800.00	9.90	284.84	793.15	22.70	-85.66	1,599,264.61982	2,271,814.81823	39.450373	-108.079058	
1,000.00	9.90	284.84	990.17	31.51	-118.91	1,599,274.36763	2,271,781.84084	39.450397	-108.079175	
9 5/8"										
1,200.00	9.90	284.84	1,187.19	40.32	-152.15	1,599,284.11544	2,271,748.86346	39.450421	-108.079293	
1,400.00	9.90	284.84	1,384.21	49.12	-185.39	1,599,293.86325	2,271,715.88607	39.450445	-108.079411	
1,600.00	9.90	284.84	1,581.23	57.93	-218.63	1,599,303.61106	2,271,682.90868	39.450469	-108.079528	
1,800.00	9.90	284.84	1,778.25	66.74	-251.88	1,599,313.35887	2,271,649.93129	39.450494	-108.079646	
1,828.17	9.90	284.84	1,806.00	67.98	-256.56	1,599,314.73164	2,271,645.28712	39.450497	-108.079663	
Top of "G" Sand										
1,929.68	9.90	284.84	1,906.00	72.45	-273.43	1,599,319.67924	2,271,628.54913	39.450509	-108.079723	
Base of "G" Sand										
2,000.00	9.90	284.84	1,975.27	75.55	-285.12	1,599,323.10668	2,271,616.95390	39.450518	-108.079764	
2,200.00	9.90	284.84	2,172.30	84.36	-318.36	1,599,332.85449	2,271,583.97652	39.450542	-108.079882	
2,400.00	9.90	284.84	2,369.32	93.17	-351.60	1,599,342.60230	2,271,550.99914	39.450566	-108.079999	
2,600.00	9.90	284.84	2,566.34	101.97	-384.84	1,599,352.35011	2,271,518.02175	39.450590	-108.080117	
2,800.00	9.90	284.84	2,763.36	110.78	-418.09	1,599,362.09792	2,271,485.04436	39.450614	-108.080235	
3,000.00	9.90	284.84	2,960.38	119.59	-451.33	1,599,371.84572	2,271,452.06698	39.450639	-108.080352	
3,200.00	9.90	284.84	3,157.40	128.40	-484.57	1,599,381.59353	2,271,419.08959	39.450663	-108.080470	
3,400.00	9.90	284.84	3,354.42	137.21	-517.81	1,599,391.34134	2,271,386.11220	39.450687	-108.080588	
3,404.86	9.90	284.84	3,359.21	137.42	-518.62	1,599,391.57814	2,271,385.31112	39.450688	-108.080591	
Start Drop -1.50°/100										
3,523.11	8.13	284.84	3,476.00	142.17	-536.53	1,599,396.82977	2,271,367.54453	39.450701	-108.080654	
Mesaverde										
3,600.00	6.97	284.84	3,552.22	144.75	-546.30	1,599,399.69343	2,271,357.85660	39.450708	-108.080689	
3,800.00	3.97	284.84	3,751.28	149.64	-564.74	1,599,405.10071	2,271,339.56350	39.450721	-108.080754	
4,000.00	0.97	284.84	3,951.07	151.85	-573.08	1,599,407.54748	2,271,331.28594	39.450727	-108.080784	
4,064.93	0.00	0.00	4,016.00	151.99	-573.61	1,599,407.70389	2,271,330.75677	39.450728	-108.080786	
Vertical										
4,200.00	0.00	0.00	4,151.07	151.99	-573.61	1,599,407.70389	2,271,330.75677	39.450728	-108.080786	
4,400.00	0.00	0.00	4,351.07	151.99	-573.61	1,599,407.70389	2,271,330.75677	39.450728	-108.080786	
4,600.00	0.00	0.00	4,551.07	151.99	-573.61	1,599,407.70389	2,271,330.75677	39.450728	-108.080786	
4,664.93	0.00	0.00	4,616.00	151.99	-573.61	1,599,407.70389	2,271,330.75677	39.450728	-108.080786	
Top Gas - Approx. Top Gas										
4,800.00	0.00	0.00	4,751.07	151.99	-573.61	1,599,407.70389	2,271,330.75677	39.450728	-108.080786	
5,000.00	0.00	0.00	4,951.07	151.99	-573.61	1,599,407.70389	2,271,330.75677	39.450728	-108.080786	
5,200.00	0.00	0.00	5,151.07	151.99	-573.61	1,599,407.70389	2,271,330.75677	39.450728	-108.080786	
5,400.00	0.00	0.00	5,351.07	151.99	-573.61	1,599,407.70389	2,271,330.75677	39.450728	-108.080786	
5,600.00	0.00	0.00	5,551.07	151.99	-573.61	1,599,407.70389	2,271,330.75677	39.450728	-108.080786	
5,800.00	0.00	0.00	5,751.07	151.99	-573.61	1,599,407.70389	2,271,330.75677	39.450728	-108.080786	
6,000.00	0.00	0.00	5,951.07	151.99	-573.61	1,599,407.70389	2,271,330.75677	39.450728	-108.080786	
6,034.93	0.00	0.00	5,986.00	151.99	-573.61	1,599,407.70389	2,271,330.75677	39.450728	-108.080786	
Cameo Coals										
6,200.00	0.00	0.00	6,151.07	151.99	-573.61	1,599,407.70389	2,271,330.75677	39.450728	-108.080786	

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 313-11 - Slot A01
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
<b>Project:</b>	GV 11-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
<b>Site:</b>	GR 23-11V Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 313-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 22Jul14 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
6,400.00	0.00	0.00	6,351.07	151.99	-573.61	1,599,407.70389	2,271,330.75677	39.450728	-108.080786
6,514.93	0.00	0.00	6,466.00	151.99	-573.61	1,599,407.70389	2,271,330.75677	39.450728	-108.080786
Rollins SS									
6,600.00	0.00	0.00	6,551.07	151.99	-573.61	1,599,407.70389	2,271,330.75677	39.450728	-108.080786
6,614.93	0.00	0.00	6,566.00	151.99	-573.61	1,599,407.70389	2,271,330.75677	39.450728	-108.080786
TD at 6614.93 - 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) GM - plan hits target center - Circle (radius 50.00)	0.00	0.00	4,616.00	151.99	-573.61	1,599,407.70389	2,271,330.75677	39.450728	-108.080786

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,000.00	990.17	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
1,828.17	1,806.00	Top of "G" Sand				
1,929.68	1,906.00	Base of "G" Sand				
3,523.11	3,476.00	Mesaverde				
4,664.93	4,616.00	Approx. Top Gas				
6,034.93	5,986.00	Cameo Coals				
6,514.93	6,466.00	Rollins SS				
6,614.93	6,566.00	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
120.00	120.00	0.00	0.00	Start Build 3.00	
450.04	448.40	7.29	-27.50	Hold 9.90° Inc, 284.84° Az	
3,404.86	3,359.21	137.42	-518.62	Start Drop -1.50°/100	
4,064.93	4,016.00	151.99	-573.61	Vertical	
4,664.93	4,616.00	151.99	-573.61	Top Gas	
6,614.93	6,566.00	151.99	-573.61	TD at 6614.93	