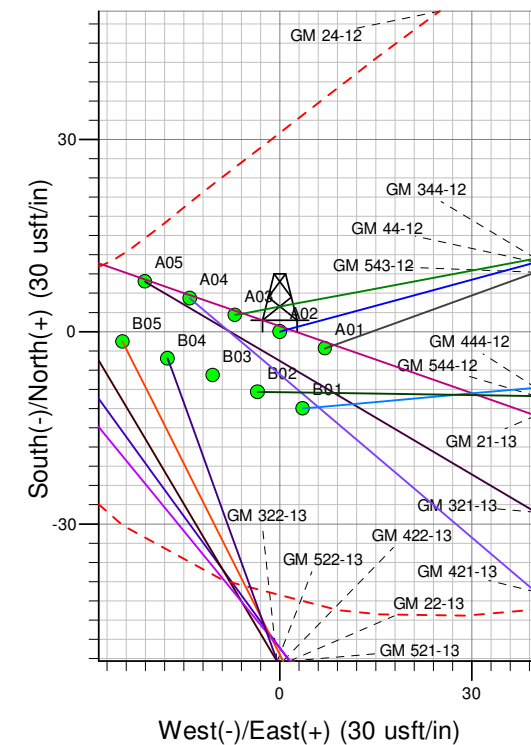
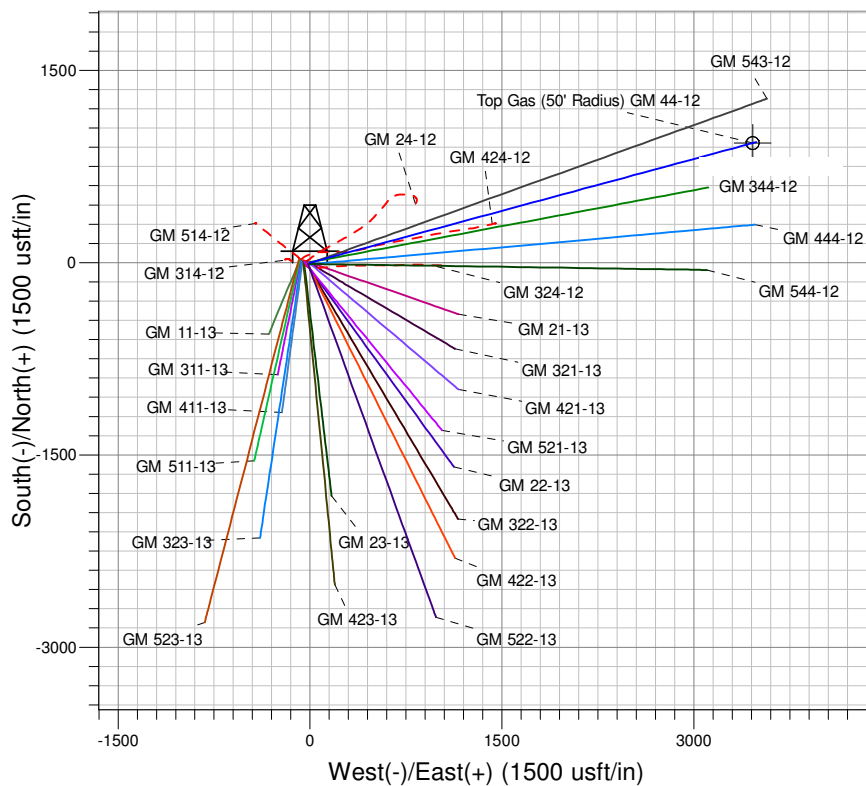
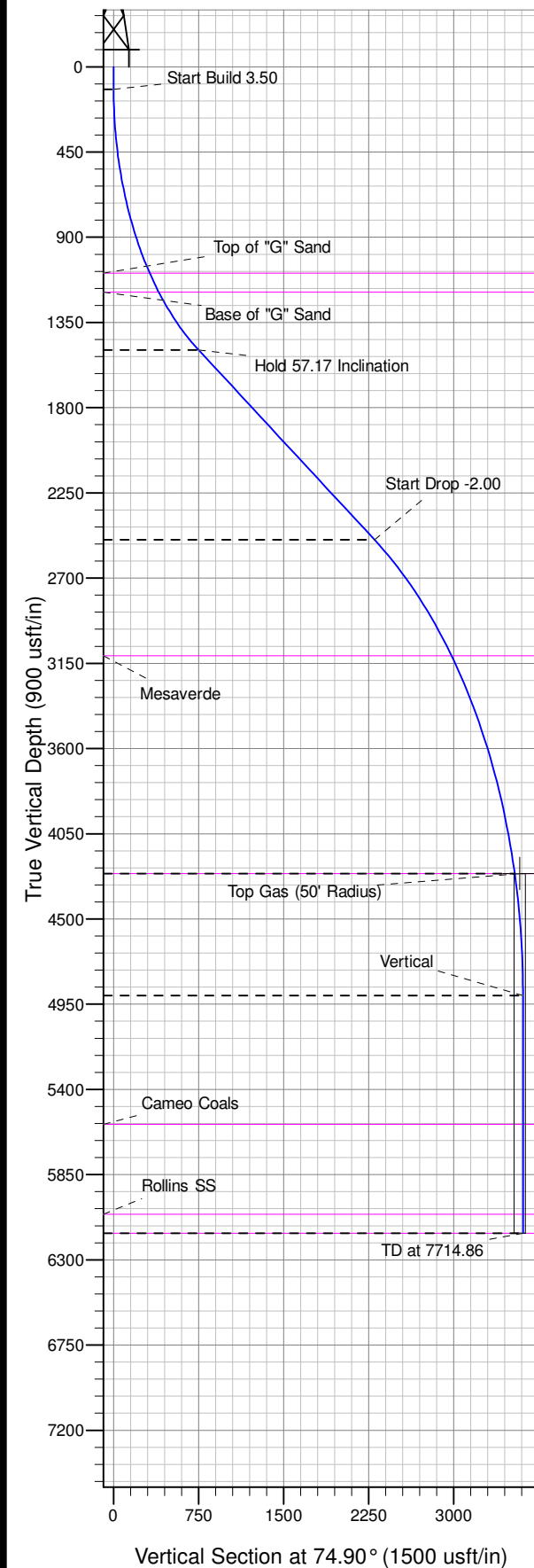




Well Name: GM 44-12  
Surface Location: GM 24-12 Pad  
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone  
Ground Elevation: 5141.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1597409.99	2275900.97	39.44560	-108.06441	A02

KELLY BUSHING @ 5165.00usft (H&P 318 (24' RKB) kjs)



Project: GV 12-07S-096W  
Site: GM 24-12 Pad  
Well: GM 44-12  
Design #1 03Mar14 kjs



Azimuths to True North  
Magnetic North: 10.03°  
Magnetic Field  
Strength: 51946.6nT  
Dip Angle: 65.61°  
Date: 3/3/2014  
Model: IGRF2010

#### 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 3.50
1495.51	1753.33	57.17	74.90	195.17	723.57	749.43	749.43	Hold 57.17 Inclination
2497.30	3600.97	57.17	74.90	599.47	2222.48	2301.91	2301.91	Start Drop -2.00
4260.00	5809.30	13.00	74.90	921.90	3417.84	3539.99	3539.99	Top Gas
4904.44	6459.30	0.00	0.00	941.02	3488.73	3613.42	3613.42	Vertical
6160.00	7714.86	0.00	0.00	941.02	3488.73	3613.42	3613.42	TD at 7714.86

# **PICEANCE VLY NAD 83**

**GV 12-07S-096W**

**GM 24-12 Pad**

**GM 44-12 - Slot A02**

**Wellbore #1**

**Plan: Design #1 03Mar14 kjs**

## **Standard Planning Report - Geographic**

**11 March, 2014**

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 44-12 - Slot A02
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5165.00usft (H&P 318 (24' RKB) kjs)
<b>Project:</b>	GV 12-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5165.00usft (H&P 318 (24' RKB) kjs)
<b>Site:</b>	GM 24-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 44-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 03Mar14 kjs		

<b>Project</b>	GV 12-07S-096W, Garfield County CO, GV 12-07W-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 24-12 Pad			
<b>Site Position:</b>		<b>Northing:</b>	1,597,443.66 usft	<b>Latitude:</b> 39.44569
<b>From:</b> Map		<b>Easting:</b>	2,275,817.52 usft	<b>Longitude:</b> -108.06471
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> -1.618 °

<b>Well</b>	GM 44-12 - Slot A02			
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,597,409.99 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	2,275,900.97 usft
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	0.00 usft
			<b>Ground Level:</b>	5,141.00 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	3/3/2014	10.028	65.611	51,947

<b>Design</b>	Design #1 03Mar14 kjs			
<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 (°)</b>
	0.00	0.00	0.00	74.90

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	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	0.000	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,753.33	57.17	74.90	1,495.51	195.17	723.57	3.50	3.50	0.00	74.905	
3,600.97	57.17	74.90	2,497.30	599.47	2,222.48	0.00	0.00	0.00	0.000	
5,809.30	13.00	74.90	4,260.00	921.90	3,417.84	2.00	-2.00	0.00	180.000	Top Gas (50' Radius)
6,459.30	0.00	0.00	4,904.44	941.02	3,488.74	2.00	-2.00	-11.52	180.000	
7,714.86	0.00	0.00	6,160.00	941.02	3,488.74	0.00	0.00	0.00	0.000	

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 44-12 - Slot A02
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5165.00usft (H&P 318 (24' RKB) kjs)
<b>Project:</b>	GV 12-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5165.00usft (H&P 318 (24' RKB) kjs)
<b>Site:</b>	GM 24-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 44-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 03Mar14 kjs		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	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	1,597,409.99	2,275,900.97	39.44560	-108.06441
100.00	0.00	0.00	100.00	0.00	0.00	1,597,409.99	2,275,900.97	39.44560	-108.06441
120.00	0.00	0.00	120.00	0.00	0.00	1,597,409.99	2,275,900.97	39.44560	-108.06441
<b>Start Build 3.50</b>									
200.00	2.80	74.90	199.97	0.51	1.89	1,597,410.44	2,275,902.87	39.44560	-108.06440
300.00	6.30	74.90	299.64	2.57	9.54	1,597,412.29	2,275,910.58	39.44561	-108.06438
400.00	9.80	74.90	398.64	6.22	23.06	1,597,415.55	2,275,924.20	39.44562	-108.06433
500.00	13.30	74.90	496.60	11.43	42.39	1,597,420.22	2,275,943.67	39.44563	-108.06426
600.00	16.80	74.90	593.15	18.20	67.46	1,597,426.27	2,275,968.91	39.44565	-108.06417
700.00	20.30	74.90	687.94	26.48	98.17	1,597,433.68	2,275,999.84	39.44567	-108.06406
800.00	23.80	74.90	780.61	36.25	134.41	1,597,442.43	2,276,036.34	39.44570	-108.06393
900.00	27.30	74.90	870.82	47.48	176.04	1,597,452.48	2,276,078.28	39.44573	-108.06379
1,000.00	30.80	74.90	958.23	60.13	222.92	1,597,463.80	2,276,125.49	39.44577	-108.06362
1,100.00	34.30	74.90	1,042.50	74.14	274.86	1,597,476.33	2,276,177.80	39.44580	-108.06344
1,158.21	36.34	74.90	1,090.00	82.90	307.35	1,597,484.18	2,276,210.52	39.44583	-108.06332
<b>Top of "G" Sand</b>									
1,200.00	37.80	74.90	1,123.34	89.46	331.67	1,597,490.05	2,276,235.02	39.44585	-108.06324
1,286.16	40.82	74.90	1,190.00	103.67	384.36	1,597,502.76	2,276,288.08	39.44589	-108.06305
<b>Base of "G" Sand</b>									
1,300.00	41.30	74.90	1,200.44	106.04	393.14	1,597,504.88	2,276,296.92	39.44589	-108.06302
1,400.00	44.80	74.90	1,273.50	123.82	459.03	1,597,520.79	2,276,363.29	39.44594	-108.06278
1,500.00	48.30	74.90	1,342.26	142.72	529.12	1,597,537.71	2,276,433.88	39.44599	-108.06254
1,600.00	51.80	74.90	1,406.47	162.68	603.12	1,597,555.57	2,276,508.41	39.44605	-108.06227
1,700.00	55.30	74.90	1,465.87	183.62	680.77	1,597,574.32	2,276,586.62	39.44611	-108.06200
1,753.33	57.17	74.90	1,495.51	195.17	723.57	1,597,584.65	2,276,629.73	39.44614	-108.06185
<b>Hold 57.17 Inclination</b>									
1,800.00	57.17	74.90	1,520.81	205.38	761.43	1,597,593.79	2,276,667.86	39.44617	-108.06171
1,855.00	57.17	74.90	1,550.63	217.42	806.05	1,597,604.56	2,276,712.80	39.44620	-108.06156
<b>9 5/8"</b>									
1,900.00	57.17	74.90	1,575.03	227.26	842.56	1,597,613.37	2,276,749.57	39.44623	-108.06143
2,000.00	57.17	74.90	1,629.25	249.15	923.68	1,597,632.95	2,276,831.28	39.44629	-108.06114
2,100.00	57.17	74.90	1,683.47	271.03	1,004.81	1,597,652.53	2,276,912.98	39.44635	-108.06085
2,200.00	57.17	74.90	1,737.69	292.91	1,085.94	1,597,672.12	2,276,994.69	39.44641	-108.06057
2,300.00	57.17	74.90	1,791.91	314.79	1,167.06	1,597,691.70	2,277,076.40	39.44647	-108.06028
2,400.00	57.17	74.90	1,846.13	336.68	1,248.19	1,597,711.28	2,277,158.10	39.44653	-108.05999
2,500.00	57.17	74.90	1,900.35	358.56	1,329.31	1,597,730.87	2,277,239.81	39.44659	-108.05970
2,600.00	57.17	74.90	1,954.57	380.44	1,410.44	1,597,750.45	2,277,321.52	39.44665	-108.05942
2,700.00	57.17	74.90	2,008.79	402.32	1,491.56	1,597,770.03	2,277,403.23	39.44671	-108.05913
2,800.00	57.17	74.90	2,063.01	424.20	1,572.69	1,597,789.61	2,277,484.93	39.44677	-108.05884
2,900.00	57.17	74.90	2,117.23	446.09	1,653.82	1,597,809.20	2,277,566.64	39.44683	-108.05855
3,000.00	57.17	74.90	2,171.45	467.97	1,734.94	1,597,828.78	2,277,648.35	39.44689	-108.05827
3,100.00	57.17	74.90	2,225.67	489.85	1,816.07	1,597,848.36	2,277,730.05	39.44695	-108.05798
3,200.00	57.17	74.90	2,279.89	511.73	1,897.19	1,597,867.95	2,277,811.76	39.44701	-108.05769
3,300.00	57.17	74.90	2,334.11	533.61	1,978.32	1,597,887.53	2,277,893.47	39.44707	-108.05741
3,400.00	57.17	74.90	2,388.33	555.50	2,059.44	1,597,907.11	2,277,975.18	39.44713	-108.05712
3,500.00	57.17	74.90	2,442.55	577.38	2,140.57	1,597,926.69	2,278,056.88	39.44719	-108.05683
3,600.00	57.17	74.90	2,496.77	599.26	2,221.70	1,597,946.28	2,278,138.59	39.44725	-108.05654
3,600.97	57.17	74.90	2,497.30	599.47	2,222.48	1,597,946.47	2,278,139.39	39.44725	-108.05654
<b>Start Drop -2.00</b>									
3,700.00	55.19	74.90	2,552.42	620.90	2,301.91	1,597,965.64	2,278,219.38	39.44731	-108.05626
3,800.00	53.19	74.90	2,610.93	642.01	2,380.20	1,597,984.54	2,278,298.23	39.44736	-108.05598
3,900.00	51.19	74.90	2,672.24	662.59	2,456.47	1,598,002.95	2,278,375.05	39.44742	-108.05571

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 44-12 - Slot A02
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5165.00usft (H&P 318 (24' RKB) kjs)
<b>Project:</b>	GV 12-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5165.00usft (H&P 318 (24' RKB) kjs)
<b>Site:</b>	GM 24-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 44-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 03Mar14 kjs		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,000.00	49.19	74.90	2,736.26	682.59	2,530.63	1,598,020.85	2,278,449.74	39.44747	-108.05545
4,100.00	47.19	74.90	2,802.93	702.00	2,602.58	1,598,038.22	2,278,522.21	39.44753	-108.05519
4,200.00	45.19	74.90	2,872.16	720.79	2,672.25	1,598,055.04	2,278,592.38	39.44758	-108.05495
4,300.00	43.19	74.90	2,943.86	738.94	2,739.54	1,598,071.28	2,278,660.15	39.44763	-108.05471
4,400.00	41.19	74.90	3,017.96	756.43	2,804.37	1,598,086.93	2,278,725.45	39.44768	-108.05448
4,500.00	39.19	74.90	3,094.35	773.23	2,866.67	1,598,101.97	2,278,788.19	39.44772	-108.05426
4,520.14	38.78	74.90	3,110.00	776.53	2,878.90	1,598,104.92	2,278,800.51	39.44773	-108.05422
<b>Mesaverde</b>									
4,600.00	37.19	74.90	3,172.94	789.33	2,926.36	1,598,116.37	2,278,848.30	39.44777	-108.05405
4,700.00	35.19	74.90	3,253.65	804.71	2,983.36	1,598,130.13	2,278,905.71	39.44781	-108.05385
4,800.00	33.19	74.90	3,336.37	819.34	3,037.60	1,598,143.23	2,278,960.35	39.44785	-108.05365
4,900.00	31.19	74.90	3,421.00	833.21	3,089.03	1,598,155.64	2,279,012.14	39.44789	-108.05347
5,000.00	29.19	74.90	3,507.43	846.30	3,137.57	1,598,167.36	2,279,061.04	39.44792	-108.05330
5,100.00	27.19	74.90	3,595.57	858.60	3,183.18	1,598,178.37	2,279,106.96	39.44796	-108.05314
5,200.00	25.19	74.90	3,685.30	870.09	3,225.78	1,598,188.65	2,279,149.87	39.44799	-108.05299
5,300.00	23.19	74.90	3,776.52	880.76	3,265.33	1,598,198.20	2,279,189.71	39.44802	-108.05285
5,400.00	21.19	74.90	3,869.11	890.60	3,301.79	1,598,207.00	2,279,226.43	39.44805	-108.05272
5,500.00	19.19	74.90	3,962.96	899.58	3,335.11	1,598,215.04	2,279,259.98	39.44807	-108.05260
5,600.00	17.19	74.90	4,057.96	907.71	3,365.24	1,598,222.32	2,279,290.33	39.44809	-108.05249
5,700.00	15.19	74.90	4,153.99	914.97	3,392.15	1,598,228.81	2,279,317.44	39.44811	-108.05240
5,800.00	13.19	74.90	4,250.94	921.35	3,415.81	1,598,234.52	2,279,341.27	39.44813	-108.05231
5,809.30	13.00	74.90	4,260.00	921.90	3,417.84	1,598,235.01	2,279,343.31	39.44813	-108.05231
<b>Top Gas - Approx. Top Gas</b>									
5,900.00	11.19	74.90	4,348.68	926.85	3,436.19	1,598,239.44	2,279,361.79	39.44815	-108.05224
6,000.00	9.19	74.90	4,447.10	931.45	3,453.26	1,598,243.56	2,279,378.99	39.44816	-108.05218
6,100.00	7.19	74.90	4,546.08	935.16	3,467.01	1,598,246.88	2,279,392.83	39.44817	-108.05213
6,200.00	5.19	74.90	4,645.49	937.97	3,477.41	1,598,249.39	2,279,403.31	39.44818	-108.05210
6,300.00	3.19	74.90	4,745.22	939.87	3,484.46	1,598,251.09	2,279,410.41	39.44818	-108.05207
6,400.00	1.19	74.90	4,845.14	940.86	3,488.14	1,598,251.98	2,279,414.12	39.44818	-108.05206
6,459.30	0.00	0.00	4,904.44	941.02	3,488.74	1,598,252.13	2,279,414.71	39.44818	-108.05206
<b>Vertical</b>									
6,500.00	0.00	0.00	4,945.14	941.02	3,488.74	1,598,252.13	2,279,414.71	39.44818	-108.05206
6,600.00	0.00	0.00	5,045.14	941.02	3,488.74	1,598,252.13	2,279,414.71	39.44818	-108.05206
6,700.00	0.00	0.00	5,145.14	941.02	3,488.74	1,598,252.13	2,279,414.71	39.44818	-108.05206
6,800.00	0.00	0.00	5,245.14	941.02	3,488.74	1,598,252.13	2,279,414.71	39.44818	-108.05206
6,900.00	0.00	0.00	5,345.14	941.02	3,488.74	1,598,252.13	2,279,414.71	39.44818	-108.05206
7,000.00	0.00	0.00	5,445.14	941.02	3,488.74	1,598,252.13	2,279,414.71	39.44818	-108.05206
7,100.00	0.00	0.00	5,545.14	941.02	3,488.74	1,598,252.13	2,279,414.71	39.44818	-108.05206
7,139.86	0.00	0.00	5,585.00	941.02	3,488.74	1,598,252.13	2,279,414.71	39.44818	-108.05206
<b>Cameo Coals</b>									
7,200.00	0.00	0.00	5,645.14	941.02	3,488.74	1,598,252.13	2,279,414.71	39.44818	-108.05206
7,300.00	0.00	0.00	5,745.14	941.02	3,488.74	1,598,252.13	2,279,414.71	39.44818	-108.05206
7,400.00	0.00	0.00	5,845.14	941.02	3,488.74	1,598,252.13	2,279,414.71	39.44818	-108.05206
7,500.00	0.00	0.00	5,945.14	941.02	3,488.74	1,598,252.13	2,279,414.71	39.44818	-108.05206
7,600.00	0.00	0.00	6,045.14	941.02	3,488.74	1,598,252.13	2,279,414.71	39.44818	-108.05206
7,614.86	0.00	0.00	6,060.00	941.02	3,488.74	1,598,252.13	2,279,414.71	39.44818	-108.05206
<b>Rollins SS</b>									
7,700.00	0.00	0.00	6,145.14	941.02	3,488.74	1,598,252.13	2,279,414.71	39.44818	-108.05206
7,714.86	0.00	0.00	6,160.00	941.02	3,488.74	1,598,252.13	2,279,414.71	39.44818	-108.05206
<b>TD at 7714.86 - TD</b>									

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 44-12 - Slot A02
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5165.00usft (H&P 318 (24' RKB) kjs)
<b>Project:</b>	GV 12-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5165.00usft (H&P 318 (24' RKB) kjs)
<b>Site:</b>	GM 24-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 44-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 03Mar14 kjs		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
Top Gas (50' Radius) GM	0.00	0.00	4,260.00	933.19	3,459.71	1,598,245.11	2,279,385.48	39.44816	-108.05216
- plan misses target center by 42.27usft at 5818.39usft MD (4268.85 TVD, 922.43 N, 3419.80 E)									
- Circle (radius 50.00)									

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(usft)	(usft)			(in)	(in)
1,855.00	1,550.63	9 5/8"		9.625	12.250

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
1,158.21	1,090.00	Top of "G" Sand				
1,286.16	1,190.00	Base of "G" Sand				
4,520.14	3,110.00	Mesaverde				
5,809.30	4,260.00	Approx. Top Gas				
7,139.86	5,585.00	Cameo Coals				
7,614.86	6,060.00	Rollins SS				
7,714.86	6,160.00	TD				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)		
120.00	120.00	0.00	0.00	Start Build 3.50	
1,753.33	1,495.51	195.17	723.57	Hold 57.17 Inclination	
3,600.97	2,497.30	599.47	2,222.48	Start Drop -2.00	
5,809.30	4,260.00	921.90	3,417.84	Top Gas	
6,459.30	4,904.44	941.02	3,488.74	Vertical	
7,714.86	6,160.00	941.02	3,488.74	TD at 7714.86	