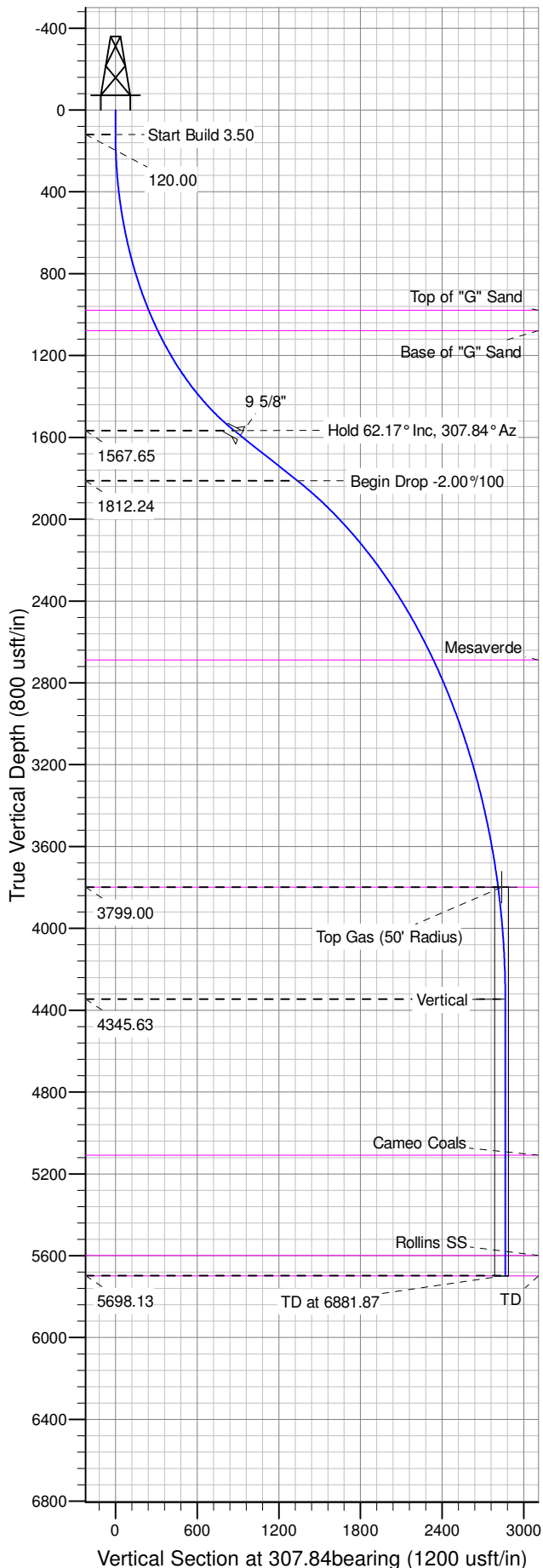
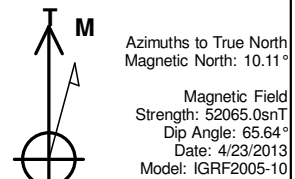
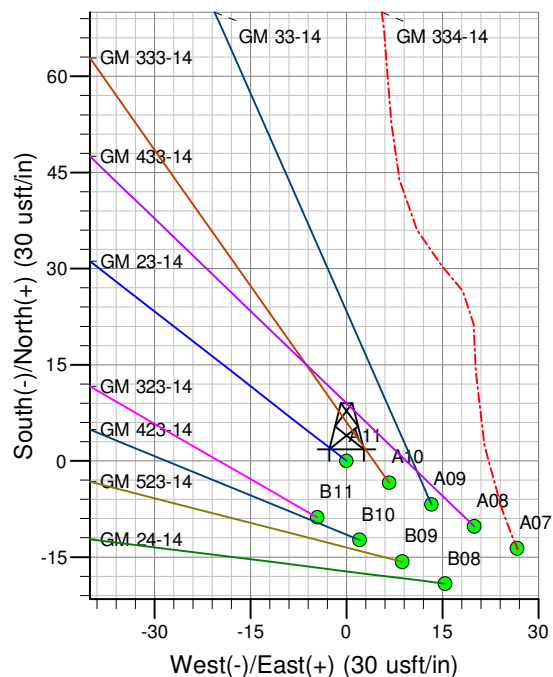
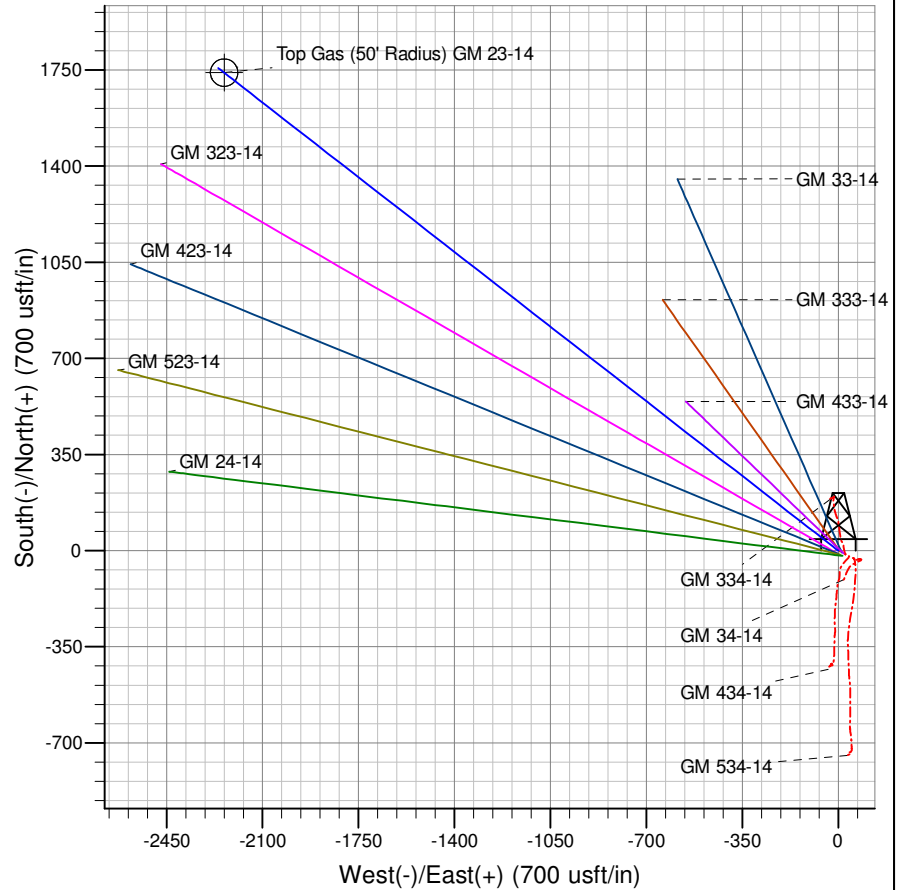




Well Name: GM 23-14
Surface Location: GM 34-14 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5173.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1592890.50000 2272786.40000 39.43296 -108.07498 A11
KELLY BUSHING @ 5199.00usft (Nabors 574 rig (26' RKB) kjs)



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	
1567.65	1896.22	62.17	307.84	535.41	-689.19	872.72	872.72	Hold 62.17° Inc, 307.84° Az	
1812.24	2420.10	62.17	307.84	819.63	-1055.04	1336.00	1336.00	Begin Drop -2.00°/100	
3799.00	4978.49	11.00	307.84	1724.30	-2219.56	2810.63	2810.63	Top Gas	
4345.63	5528.49	0.00	0.00	1756.59	-2261.12	2863.27	2863.27	Vertical	
5698.13	6881.00	0.00	0.00	1756.59	-2261.12	2863.27	2863.27	TD at 6881.87	



Project: GV 14-07S-096W
Site: GM 34-14 Pad
Well: GM 23-14
Design #2 01May14 mab

PICEANCE VLY NAD 83

GV 14-07S-096W

GM 34-14 Pad

GM 23-14 - Slot A11

Wellbore #1

Plan: Design #2 01May14 mab

Standard Planning Report - Geographic

30 May, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 23-14 - Slot A11
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5199.00usft (Nabors 574 rig (26' RKB) kjs)
Project:	GV 14-07S-096W	MD Reference:	KELLY BUSHING @ 5199.00usft (Nabors 574 rig (26' RKB) kjs)
Site:	GM 34-14 Pad	North Reference:	True
Well:	GM 23-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 01May14 mab		

Project	GV 14-07S-096W, Garfield County, CO, 14-07S-096W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		Using geodetic scale factor

Site	GM 34-14 Pad		
Site Position:		Northing:	1,592,854.30000 usft
From:	Map	Easting:	2,272,852.10000 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in
		Latitude:	39.43286
		Longitude:	-108.07474
		Grid Convergence:	-1.62 °

Well	GM 23-14 - Slot A11		
Well Position	+N/-S	0.00 usft	Northing: 1,592,890.50000 usft
	+E/-W	0.00 usft	Easting: 2,272,786.40000 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	Latitude: 39.43296
			Longitude: -108.07498
			Ground Level: 5,173.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	4/23/2013	10.11	65.64	52,065

Design	Design #2 01May14 mab				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (bearing)	
	0.00	0.00	0.00	307.84	

Plan Sections										
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	
1,896.22	62.17	307.84	1,567.65	535.41	-689.19	3.50	3.50	0.00	307.84	
2,420.10	62.17	307.84	1,812.24	819.63	-1,055.04	0.00	0.00	0.00	0.00	
4,978.49	11.00	307.84	3,799.00	1,724.30	-2,219.56	2.00	-2.00	0.00	180.00	Top Gas (50' Radius)
5,528.49	0.00	0.00	4,345.63	1,756.59	-2,261.12	2.00	-2.00	9.48	180.00	
6,881.87	0.00	0.00	5,699.00	1,756.59	-2,261.12	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 23-14 - Slot A11
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5199.00usft (Nabors 574 rig (26' RKB) kjs)
Project:	GV 14-07S-096W	MD Reference:	KELLY BUSHING @ 5199.00usft (Nabors 574 rig (26' RKB) kjs)
Site:	GM 34-14 Pad	North Reference:	True
Well:	GM 23-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 01May14 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	1,592,890.50000	2,272,786.40000	39.43296	-108.07498
120.00	0.00	0.00	120.00	0.00	0.00	1,592,890.50000	2,272,786.40000	39.43296	-108.07498
Start Build 3.50									
200.00	2.80	307.84	199.97	1.20	-1.54	1,592,891.74220	2,272,784.89129	39.43296	-108.07499
400.00	9.80	307.84	398.64	14.65	-18.86	1,592,905.68287	2,272,767.95973	39.43300	-108.07505
600.00	16.80	307.84	593.15	42.86	-55.18	1,592,934.90843	2,272,732.46396	39.43307	-108.07518
800.00	23.80	307.84	780.61	85.41	-109.94	1,592,978.98321	2,272,678.93315	39.43319	-108.07537
1,000.00	30.80	307.84	958.23	141.65	-182.33	1,593,037.25015	2,272,608.16533	39.43335	-108.07563
1,024.29	31.65	307.84	979.00	149.37	-192.28	1,593,045.25479	2,272,598.44334	39.43337	-108.07566
Top of "G" Sand									
1,144.60	35.86	307.84	1,079.00	190.37	-245.05	1,593,087.73297	2,272,546.85167	39.43348	-108.07585
Base of "G" Sand									
1,200.00	37.80	307.84	1,123.34	210.75	-271.28	1,593,108.84061	2,272,521.21548	39.43353	-108.07594
1,400.00	44.80	307.84	1,273.50	291.68	-375.45	1,593,192.68736	2,272,419.37982	39.43376	-108.07631
1,600.00	51.80	307.84	1,406.47	383.23	-493.31	1,593,287.54043	2,272,304.17650	39.43401	-108.07673
1,800.00	58.80	307.84	1,520.25	484.05	-623.07	1,593,391.98578	2,272,177.32291	39.43429	-108.07719
1,896.22	62.17	307.84	1,567.65	535.41	-689.19	1,593,445.19997	2,272,112.69187	39.43443	-108.07742
Hold 62.17° Inc, 307.84° Az									
1,946.22	62.17	307.84	1,590.99	562.53	-724.11	1,593,473.30153	2,272,078.56127	39.43450	-108.07754
9 5/8"									
2,000.00	62.17	307.84	1,616.10	591.71	-761.66	1,593,503.52963	2,272,041.84786	39.43458	-108.07768
2,200.00	62.17	307.84	1,709.48	700.21	-901.33	1,593,615.94358	2,271,905.31605	39.43488	-108.07817
2,400.00	62.17	307.84	1,802.85	808.72	-1,041.00	1,593,728.35754	2,271,768.78424	39.43518	-108.07867
2,420.10	62.17	307.84	1,812.24	819.63	-1,055.04	1,593,739.65688	2,271,755.06067	39.43521	-108.07872
Begin Drop -2.00°/100									
2,600.00	58.57	307.84	1,901.17	915.54	-1,178.51	1,593,839.02945	2,271,634.36821	39.43547	-108.07915
2,800.00	54.57	307.84	2,011.33	1,017.92	-1,310.29	1,593,945.09633	2,271,505.54519	39.43575	-108.07962
3,000.00	50.57	307.84	2,132.87	1,115.34	-1,435.68	1,594,046.02063	2,271,382.96808	39.43602	-108.08006
3,200.00	46.57	307.84	2,265.18	1,207.31	-1,554.08	1,594,141.31063	2,271,267.23408	39.43627	-108.08048
3,400.00	42.57	307.84	2,407.63	1,293.40	-1,664.89	1,594,230.50210	2,271,158.90703	39.43651	-108.08088
3,600.00	38.57	307.84	2,559.52	1,373.18	-1,767.59	1,594,313.16048	2,271,058.51468	39.43673	-108.08124
3,762.04	35.33	307.84	2,689.00	1,432.93	-1,844.50	1,594,375.06149	2,270,983.33311	39.43689	-108.08151
Mesaverde									
3,800.00	34.57	307.84	2,720.11	1,446.27	-1,861.68	1,594,388.88311	2,270,966.54613	39.43693	-108.08157
4,000.00	30.57	307.84	2,888.63	1,512.31	-1,946.68	1,594,457.30105	2,270,883.44946	39.43711	-108.08187
4,200.00	26.57	307.84	3,064.24	1,570.98	-2,022.20	1,594,518.08098	2,270,809.62949	39.43727	-108.08214
4,400.00	22.57	307.84	3,246.09	1,621.99	-2,087.86	1,594,570.92679	2,270,745.44588	39.43741	-108.08237
4,600.00	18.57	307.84	3,433.30	1,665.09	-2,143.34	1,594,615.58102	2,270,691.21131	39.43753	-108.08257
4,800.00	14.57	307.84	3,624.96	1,700.07	-2,188.37	1,594,651.82611	2,270,647.19001	39.43762	-108.08273
4,978.49	11.00	307.84	3,799.00	1,724.30	-2,219.56	1,594,676.92770	2,270,616.70299	39.43769	-108.08284
Top Gas - Approx. Top Gas									
5,000.00	10.57	307.84	3,820.13	1,726.77	-2,222.74	1,594,679.48549	2,270,613.59645	39.43770	-108.08285
5,200.00	6.57	307.84	4,017.85	1,745.05	-2,246.27	1,594,698.42438	2,270,590.59430	39.43775	-108.08293
5,400.00	2.57	307.84	4,217.18	1,754.82	-2,258.85	1,594,708.55055	2,270,578.29561	39.43777	-108.08298
5,528.49	0.00	0.00	4,345.63	1,756.59	-2,261.12	1,594,710.38182	2,270,576.07145	39.43778	-108.08299
Vertical									
5,600.00	0.00	0.00	4,417.13	1,756.59	-2,261.12	1,594,710.38182	2,270,576.07145	39.43778	-108.08299
5,800.00	0.00	0.00	4,617.13	1,756.59	-2,261.12	1,594,710.38183	2,270,576.07145	39.43778	-108.08299
6,000.00	0.00	0.00	4,817.13	1,756.59	-2,261.12	1,594,710.38183	2,270,576.07145	39.43778	-108.08299
6,200.00	0.00	0.00	5,017.13	1,756.59	-2,261.12	1,594,710.38183	2,270,576.07145	39.43778	-108.08299

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 23-14 - Slot A11
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5199.00usft (Nabors 574 rig (26' RKB) kjs)
Project:	GV 14-07S-096W	MD Reference:	KELLY BUSHING @ 5199.00usft (Nabors 574 rig (26' RKB) kjs)
Site:	GM 34-14 Pad	North Reference:	True
Well:	GM 23-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 01May14 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
6,291.87	0.00	0.00	5,109.00	1,756.59	-2,261.12	1,594,710.38183	2,270,576.07145	39.43778	-108.08299
Cameo Coals									
6,400.00	0.00	0.00	5,217.13	1,756.59	-2,261.12	1,594,710.38184	2,270,576.07145	39.43778	-108.08299
6,600.00	0.00	0.00	5,417.13	1,756.59	-2,261.12	1,594,710.38184	2,270,576.07145	39.43778	-108.08299
6,781.87	0.00	0.00	5,599.00	1,756.59	-2,261.12	1,594,710.38184	2,270,576.07145	39.43778	-108.08299
Rollins SS									
6,800.00	0.00	0.00	5,617.13	1,756.59	-2,261.12	1,594,710.38184	2,270,576.07145	39.43778	-108.08299
6,881.00	0.00	0.00	5,698.13	1,756.59	-2,261.12	1,594,710.38184	2,270,576.07145	39.43778	-108.08299
TD at 6881.87									
6,881.87	0.00	0.00	5,699.00	1,756.59	-2,261.12	1,594,710.38184	2,270,576.07145	39.43778	-108.08299
TD									

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) G1	0.00	0.00	3,799.00	1,740.20	-2,239.92	1,594,693.40000	2,270,596.80000	39.43773	-108.08291
- plan misses target center by 25.37usft at 4983.33usft MD (3803.75 TVD, 1724.86 N, -2220.28 E)									
- Circle (radius 50.00)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,946.22	1,590.99	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
1,024.29	979.00	Top of "G" Sand				
1,144.60	1,079.00	Base of "G" Sand				
3,762.04	2,689.00	Mesaverde				
4,978.49	3,799.00	Approx. Top Gas				
6,291.87	5,109.00	Cameo Coals				
6,781.87	5,599.00	Rollins SS				
6,881.87	5,699.00	TD				

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 23-14 - Slot A11
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5199.00usft (Nabors 574 rig (26' RKB) kjs)
Project:	GV 14-07S-096W	MD Reference:	KELLY BUSHING @ 5199.00usft (Nabors 574 rig (26' RKB) kjs)
Site:	GM 34-14 Pad	North Reference:	True
Well:	GM 23-14	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 01May14 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 3.50
1,896.22	1,567.65	535.41	-689.19	Hold 62.17° Inc, 307.84° Az
2,420.10	1,812.24	819.63	-1,055.04	Begin Drop -2.00°/100
4,978.49	3,799.00	1,724.30	-2,219.56	Top Gas
5,528.49	4,345.63	1,756.59	-2,261.12	Vertical
6,881.00	5,698.13	1,756.59	-2,261.12	TD at 6881.87