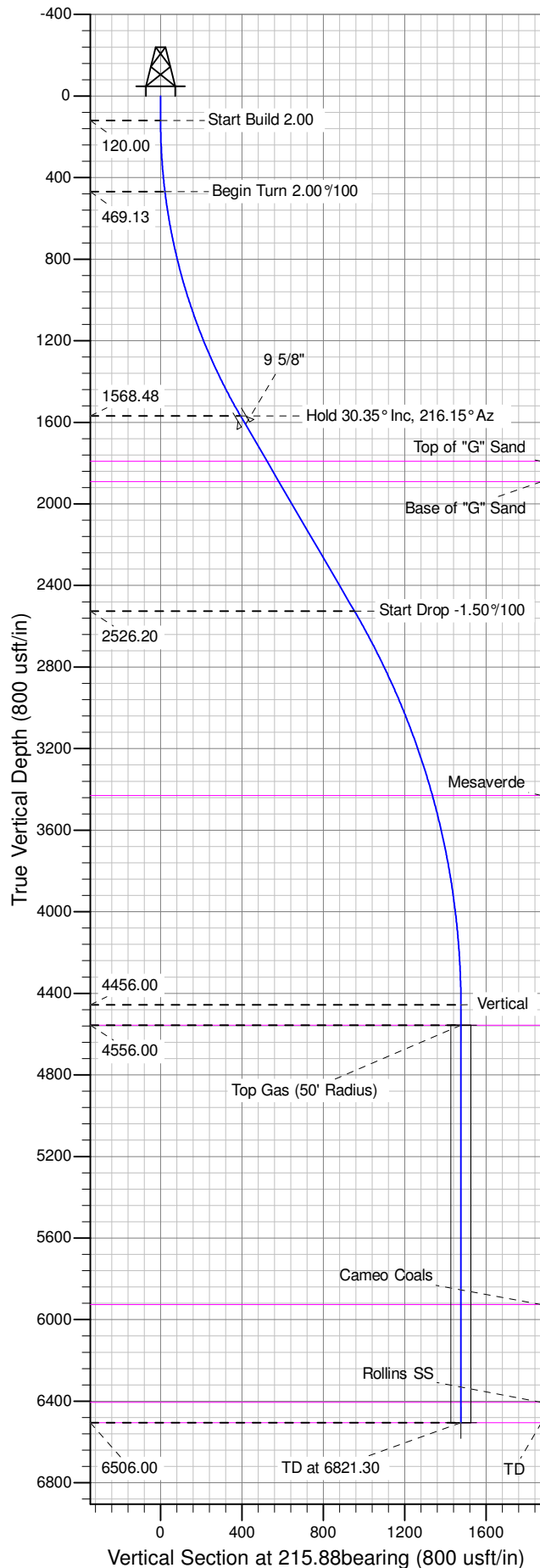
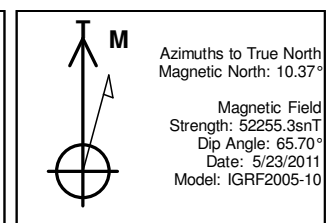
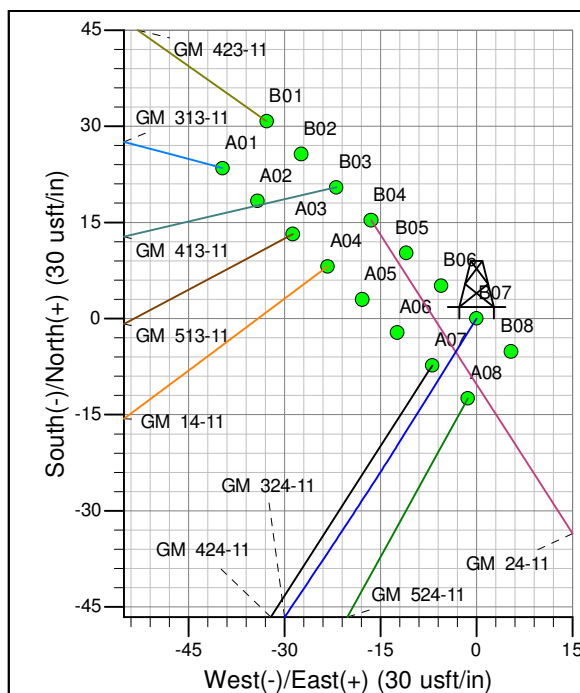
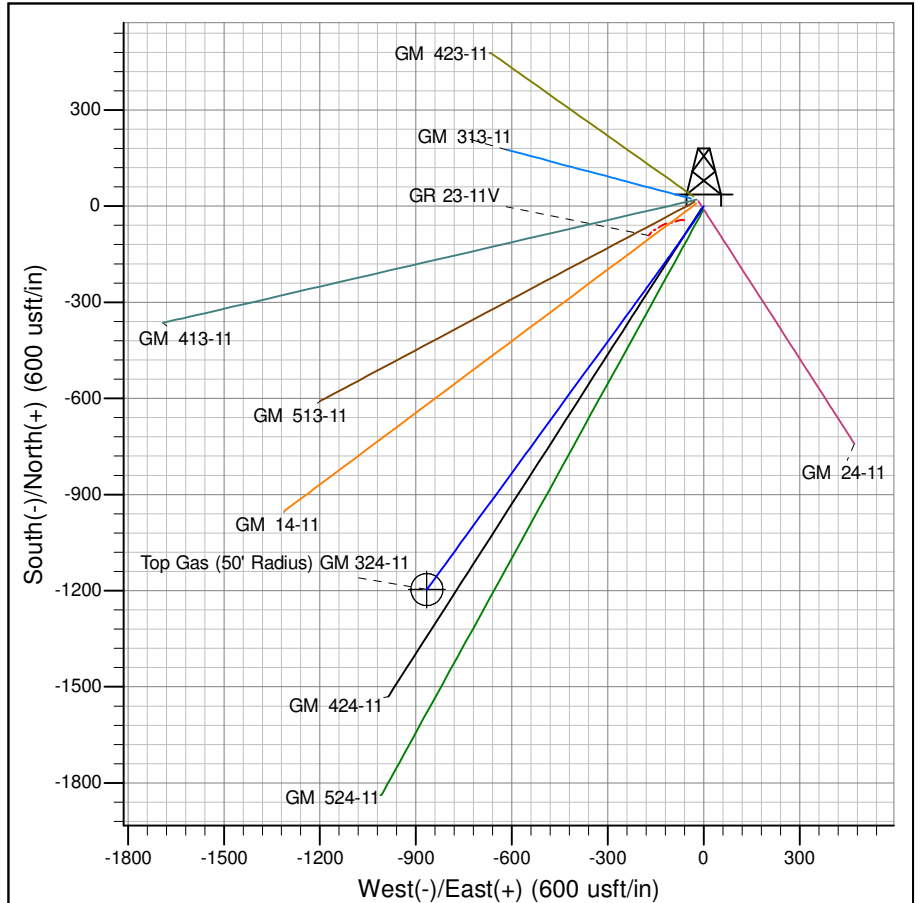




Well Name: GM 324-11
Surface Location: GR 23-11V Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5793.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1599214.90000 2271938.80000 39.450246 -108.078613 B07
KELLY BUSHING @ 5817.00usft (H&P 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 2.00	2.00
469.13	470.00	7.00	212.00	-18.11	-11.32	21.30	21.35	Begin Turn	2.00°/100
1568.48	1638.47	30.35	216.15	-321.05	-226.13	392.67	392.77	Hold 30.35° Inc, 216.15° Az	
2526.20	2748.24	30.35	216.15	-773.82	-556.84	953.34	953.45	Start Drop -1.50°/100	
4456.00	4771.30	0.00	0.00	-1196.42	-865.53	1476.67	1476.79	Vertical	
4556.00	4871.30	0.00	0.00	-1196.42	-865.53	1476.67	1476.79	Top Gas	
6506.00	6821.30	0.00	0.00	-1196.42	-865.53	1476.67	1476.79	TD at 6821.30	



Project: GV 11-07S-096W
Site: GR 23-11V Pad
Well: GM 324-11
Design #2 22Jul14 mab

PICEANCE VLY NAD 83

GV 11-07S-096W

GR 23-11V Pad

GM 324-11 - Slot B07

Wellbore #1

Plan: Design #2 22Jul14 mab

Standard Planning Report - Geographic

11 September, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 324-11 - Slot B07
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Project:	GV 11-07S-096W	MD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Site:	GR 23-11V Pad	North Reference:	True
Well:	GM 324-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 22Jul14 mab		

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

Well	GM 324-11 - Slot B07			
Well Position	+N/-S	0.00 usft	Northing:	1,599,214.90000 usft
	+E/-W	0.00 usft	Easting:	2,271,938.80000 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	
			Ground Level:	5,793.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	5/23/2011	10.37	65.70	52,255

Design	Design #2 22Jul14 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	215.88

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	
470.00	7.00	212.00	469.13	-18.11	-11.32	2.00	2.00	0.00	212.00	
1,638.47	30.35	216.15	1,568.48	-321.05	-226.13	2.00	2.00	0.35	5.28	
2,748.24	30.35	216.15	2,526.20	-773.82	-556.84	0.00	0.00	0.00	0.00	
4,771.30	0.00	0.00	4,456.00	-1,196.42	-865.53	1.50	-1.50	0.00	180.00	
6,821.30	0.00	0.00	6,506.00	-1,196.42	-865.53	0.00	0.00	0.00	0.00	TD / PBHL GM 324-1'

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 324-11 - Slot B07
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Project:	GV 11-07S-096W	MD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Site:	GR 23-11V Pad	North Reference:	True
Well:	GM 324-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	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	1,599,214.90000	2,271,938.80000	39.450246	-108.078614
120.00	0.00	0.00	120.00	0.00	0.00	1,599,214.90000	2,271,938.80000	39.450246	-108.078614
Start Build 2.00									
200.00	1.60	212.00	199.99	-0.95	-0.59	1,599,213.97000	2,271,938.18150	39.450243	-108.078616
400.00	5.60	212.00	399.55	-11.59	-7.25	1,599,203.51588	2,271,931.22888	39.450214	-108.078639
470.00	7.00	212.00	469.13	-18.11	-11.32	1,599,197.12028	2,271,926.97542	39.450196	-108.078654
Begin Turn 2.00°/100									
600.00	9.59	213.44	597.76	-33.87	-21.48	1,599,181.65697	2,271,916.36529	39.450153	-108.078690
800.00	13.59	214.58	793.64	-67.13	-44.01	1,599,149.05306	2,271,892.90848	39.450062	-108.078770
1,000.00	17.58	215.21	986.25	-111.16	-74.77	1,599,105.90960	2,271,860.90916	39.449941	-108.078879
1,200.00	21.58	215.62	1,174.65	-165.76	-113.62	1,599,052.43678	2,271,820.52324	39.449791	-108.079016
1,400.00	25.58	215.90	1,357.91	-230.66	-160.38	1,598,988.89512	2,271,771.94748	39.449613	-108.079182
1,600.00	29.58	216.11	1,535.15	-305.54	-214.81	1,598,915.59418	2,271,715.41852	39.449407	-108.079374
1,638.47	30.35	216.15	1,568.48	-321.05	-226.13	1,598,900.40669	2,271,703.65709	39.449364	-108.079414
Hold 30.35° Inc, 216.15° Az									
1,688.47	30.35	216.15	1,611.63	-341.46	-241.03	1,598,880.43791	2,271,688.18341	39.449308	-108.079467
9 5/8"									
1,800.00	30.35	216.15	1,707.88	-386.96	-274.27	1,598,835.89988	2,271,653.67120	39.449183	-108.079585
1,896.32	30.35	216.15	1,791.00	-426.25	-302.97	1,598,797.43750	2,271,623.86696	39.449076	-108.079687
Top of "G" Sand									
2,000.00	30.35	216.15	1,880.48	-468.55	-333.87	1,598,756.03254	2,271,591.78253	39.448959	-108.079796
2,012.19	30.35	216.15	1,891.00	-473.53	-337.50	1,598,751.16388	2,271,588.00984	39.448946	-108.079809
Base of "G" Sand									
2,200.00	30.35	216.15	2,053.08	-550.15	-393.47	1,598,676.16520	2,271,529.89388	39.448735	-108.080007
2,400.00	30.35	216.15	2,225.67	-631.74	-453.07	1,598,596.29787	2,271,468.00521	39.448511	-108.080218
2,600.00	30.35	216.15	2,398.27	-713.34	-512.67	1,598,516.43053	2,271,406.11655	39.448287	-108.080429
2,748.24	30.35	216.15	2,526.20	-773.82	-556.84	1,598,457.23473	2,271,360.24612	39.448121	-108.080586
Start Drop -1.50°/100									
2,800.00	29.57	216.15	2,571.05	-794.69	-572.09	1,598,436.80310	2,271,344.41379	39.448064	-108.080640
3,000.00	26.57	216.15	2,747.50	-870.67	-627.59	1,598,362.42628	2,271,286.77969	39.447855	-108.080836
3,200.00	23.57	216.15	2,928.64	-939.10	-677.57	1,598,295.45088	2,271,234.88091	39.447668	-108.081013
3,400.00	20.57	216.15	3,113.96	-999.77	-721.89	1,598,236.06049	2,271,188.85969	39.447501	-108.081170
3,600.00	17.57	216.15	3,302.97	-1,052.53	-760.43	1,598,184.41787	2,271,148.84218	39.447356	-108.081306
3,733.59	15.57	216.15	3,431.00	-1,083.29	-782.90	1,598,154.31112	2,271,125.51266	39.447272	-108.081386
Mesaverde									
3,800.00	14.57	216.15	3,495.13	-1,097.23	-793.08	1,598,140.66459	2,271,114.93805	39.447233	-108.081422
4,000.00	11.57	216.15	3,689.93	-1,133.75	-819.75	1,598,104.92056	2,271,087.24024	39.447133	-108.081516
4,200.00	8.57	216.15	3,886.82	-1,161.99	-840.38	1,598,077.28376	2,271,065.82467	39.447056	-108.081589
4,400.00	5.57	216.15	4,085.28	-1,181.86	-854.89	1,598,057.82993	2,271,050.75003	39.447001	-108.081641
4,600.00	2.57	216.15	4,284.75	-1,193.32	-863.26	1,598,046.61241	2,271,042.05765	39.446970	-108.081671
4,771.30	0.00	0.00	4,456.00	-1,196.42	-865.53	1,598,043.57674	2,271,039.70533	39.446961	-108.081679
Vertical									
4,800.00	0.00	0.00	4,484.70	-1,196.42	-865.53	1,598,043.57674	2,271,039.70533	39.446961	-108.081679
4,871.30	0.00	0.00	4,556.00	-1,196.42	-865.53	1,598,043.57674	2,271,039.70533	39.446961	-108.081679
Top Gas - Approx. Top Gas									
5,000.00	0.00	0.00	4,684.70	-1,196.42	-865.53	1,598,043.57674	2,271,039.70533	39.446961	-108.081679
5,200.00	0.00	0.00	4,884.70	-1,196.42	-865.53	1,598,043.57674	2,271,039.70533	39.446961	-108.081679
5,400.00	0.00	0.00	5,084.70	-1,196.42	-865.53	1,598,043.57674	2,271,039.70533	39.446961	-108.081679
5,600.00	0.00	0.00	5,284.70	-1,196.42	-865.53	1,598,043.57674	2,271,039.70533	39.446961	-108.081679
5,800.00	0.00	0.00	5,484.70	-1,196.42	-865.53	1,598,043.57674	2,271,039.70533	39.446961	-108.081679
6,000.00	0.00	0.00	5,684.70	-1,196.42	-865.53	1,598,043.57674	2,271,039.70533	39.446961	-108.081679

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 324-11 - Slot B07
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Project:	GV 11-07S-096W	MD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Site:	GR 23-11V Pad	North Reference:	True
Well:	GM 324-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	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
6,200.00	0.00	0.00	5,884.70	-1,196.42	-865.53	1,598,043.57674	2,271,039.70533	39.446961	-108.081679
6,241.30	0.00	0.00	5,926.00	-1,196.42	-865.53	1,598,043.57674	2,271,039.70533	39.446961	-108.081679
Cameo Coals									
6,400.00	0.00	0.00	6,084.70	-1,196.42	-865.53	1,598,043.57674	2,271,039.70533	39.446961	-108.081679
6,600.00	0.00	0.00	6,284.70	-1,196.42	-865.53	1,598,043.57674	2,271,039.70533	39.446961	-108.081679
6,721.30	0.00	0.00	6,406.00	-1,196.42	-865.53	1,598,043.57674	2,271,039.70533	39.446961	-108.081679
Rollins SS									
6,800.00	0.00	0.00	6,484.70	-1,196.42	-865.53	1,598,043.57674	2,271,039.70533	39.446961	-108.081679
6,821.30	0.00	0.00	6,506.00	-1,196.42	-865.53	1,598,043.57674	2,271,039.70533	39.446961	-108.081679
TD at 6821.30									

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	4,556.00	-1,196.42	-865.53	1,598,043.57674	2,271,039.70533	39.446961	-108.081679
TD / PBHL GM 324-11 - plan hits target center - Point	0.00	0.00	6,506.00	-1,196.42	-865.53	1,598,043.57674	2,271,039.70533	39.446961	-108.081679

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,688.47	1,611.63	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
1,896.32	1,791.00	Top of "G" Sand				
2,012.19	1,891.00	Base of "G" Sand				
3,733.59	3,431.00	Mesaverde				
4,871.30	4,556.00	Approx. Top Gas				
6,241.30	5,926.00	Cameo Coals				
6,721.30	6,406.00	Rollins SS				
6,821.30	6,506.00	TD				

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 324-11 - Slot B07
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Project:	GV 11-07S-096W	MD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Site:	GR 23-11V Pad	North Reference:	True
Well:	GM 324-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 22Jul14 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 2.00
470.00	469.13	-18.11	-11.32	Begin Turn 2.00°/100
1,638.47	1,568.48	-321.05	-226.13	Hold 30.35° Inc, 216.15° Az
2,748.24	2,526.20	-773.82	-556.84	Start Drop -1.50°/100
4,771.30	4,456.00	-1,196.42	-865.53	Vertical
4,871.30	4,556.00	-1,196.42	-865.53	Top Gas
6,821.30	6,506.00	-1,196.42	-865.53	TD at 6821.30