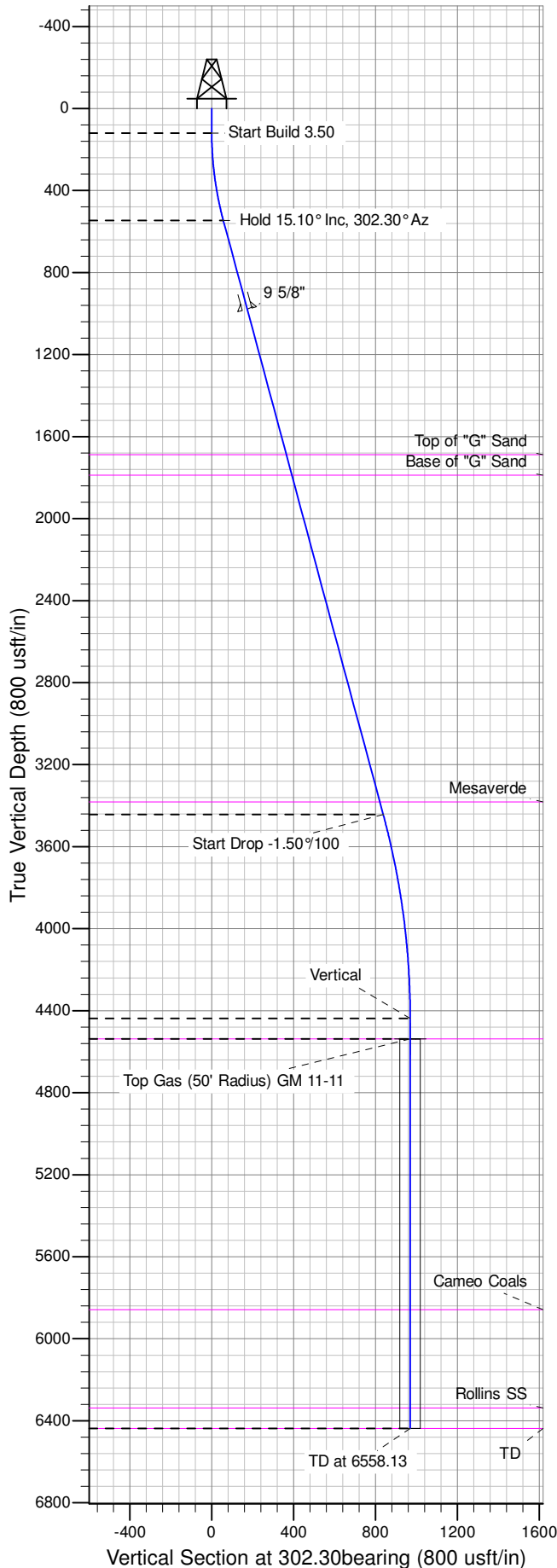
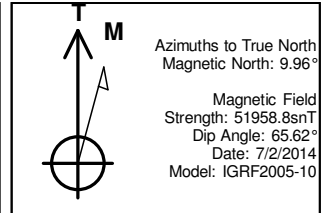
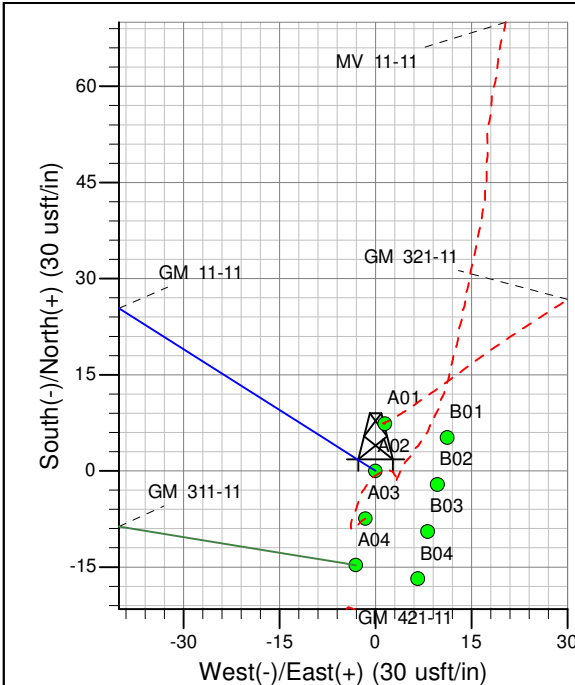
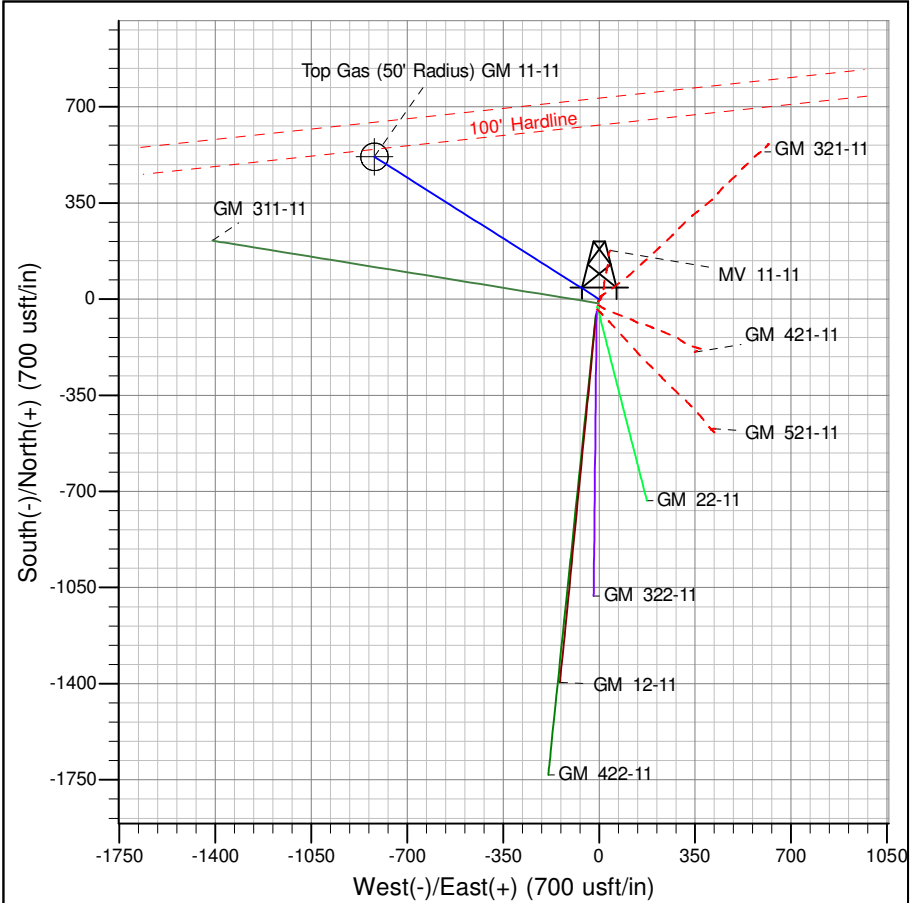




Well Name: GM 11-11
Surface Location: MV 11-11 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5559.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1601817.50 2271289.90 39.45734 -108.08117 A02
KELLY BUSHING @ 5583.00usft (H&P 318 (24' RKB) 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 3.50	
546.37	551.35	15.10	302.30	30.19	-47.76	56.50	56.50	Hold 15.10° Inc, 302.30° Az	
3443.13	3551.66	15.10	302.30	447.76	-708.29	837.95	837.95	Start Drop -1.50°/100	
4438.00	4558.13	0.00	0.00	518.20	-819.73	969.79	969.79	Vertical	
4538.00	4658.13	0.00	0.00	518.20	-819.73	969.79	969.79	Top Gas	
6438.00	6558.13	0.00	0.00	518.20	-819.73	969.79	969.79	TD at 6558.13	



Project: GV 11-07S-096W
Site: MV 11-11 Pad
Well: GM 11-11
Design #1 02Jul14 mab

PICEANCE VLY NAD 83

GV 11-07S-096W

MV 11-11 Pad

GM 11-11 - Slot A02

Wellbore #1

Plan: Design #1 02Jul14 mab

Standard Planning Report - Geographic

21 August, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 11-11 - Slot A02
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5583.00usft (H&P 318 (24' RKB) mab)
Project:	GV 11-07S-096W	MD Reference:	KELLY BUSHING @ 5583.00usft (H&P 318 (24' RKB) mab)
Site:	MV 11-11 Pad	North Reference:	True
Well:	GM 11-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 02Jul14 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	MV 11-11 Pad			
Site Position:		Northing:	1,601,781.00 usft	Latitude: 39.45724
From: Map		Easting:	2,271,281.20 usft	Longitude: -108.08120
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.63 °

Well	GM 11-11 - Slot A02			
Well Position	+N/-S	0.00 usft	Northing:	1,601,817.50 usft
	+E/-W	0.00 usft	Easting:	2,271,289.90 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	5,559.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	7/2/2014	9.96	65.62	51,959

Design	Design #1 02Jul14 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	302.30

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	
551.35	15.10	302.30	546.37	30.19	-47.76	3.50	3.50	0.00	302.30	
3,551.66	15.10	302.30	3,443.13	447.76	-708.29	0.00	0.00	0.00	0.00	
4,558.13	0.00	0.00	4,438.00	518.20	-819.73	1.50	-1.50	0.00	180.00	
4,658.13	0.00	0.00	4,538.00	518.20	-819.73	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
6,558.13	0.00	0.00	6,438.00	518.20	-819.73	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 11-11 - Slot A02
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5583.00usft (H&P 318 (24' RKB) mab)
Project:	GV 11-07S-096W	MD Reference:	KELLY BUSHING @ 5583.00usft (H&P 318 (24' RKB) mab)
Site:	MV 11-11 Pad	North Reference:	True
Well:	GM 11-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 02Jul14 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	1,601,817.50	2,271,289.90	39.45734	-108.08118	
120.00	0.00	0.00	120.00	0.00	0.00	1,601,817.50	2,271,289.90	39.45734	-108.08118	
Start Build 3.50										
200.00	2.80	302.30	199.97	1.04	-1.65	1,601,818.59	2,271,288.28	39.45734	-108.08118	
400.00	9.80	302.30	398.64	12.76	-20.19	1,601,830.83	2,271,270.08	39.45737	-108.08125	
551.35	15.10	302.30	546.37	30.19	-47.76	1,601,849.03	2,271,243.02	39.45742	-108.08134	
Hold 15.10° Inc, 302.30° Az										
600.00	15.10	302.30	593.35	36.96	-58.47	1,601,856.10	2,271,232.51	39.45744	-108.08138	
800.00	15.10	302.30	786.44	64.80	-102.50	1,601,885.18	2,271,189.29	39.45752	-108.08154	
1,000.00	15.10	302.30	979.54	92.63	-146.53	1,601,914.25	2,271,146.07	39.45759	-108.08169	
9 5/8"										
1,200.00	15.10	302.30	1,172.64	120.47	-190.56	1,601,943.32	2,271,102.85	39.45767	-108.08185	
1,400.00	15.10	302.30	1,365.74	148.30	-234.59	1,601,972.39	2,271,059.63	39.45775	-108.08201	
1,600.00	15.10	302.30	1,558.83	176.14	-278.62	1,602,001.47	2,271,016.40	39.45782	-108.08216	
1,733.79	15.10	302.30	1,688.00	194.76	-308.08	1,602,020.92	2,270,987.49	39.45787	-108.08227	
Top of "G" Sand										
1,800.00	15.10	302.30	1,751.93	203.97	-322.66	1,602,030.54	2,270,973.18	39.45790	-108.08232	
1,837.36	15.10	302.30	1,788.00	209.17	-330.88	1,602,035.97	2,270,965.11	39.45791	-108.08235	
Base of "G" Sand										
2,000.00	15.10	302.30	1,945.03	231.81	-366.69	1,602,059.61	2,270,929.96	39.45798	-108.08247	
2,200.00	15.10	302.30	2,138.12	259.64	-410.72	1,602,088.69	2,270,886.74	39.45805	-108.08263	
2,400.00	15.10	302.30	2,331.22	287.48	-454.75	1,602,117.76	2,270,843.52	39.45813	-108.08279	
2,600.00	15.10	302.30	2,524.32	315.31	-498.78	1,602,146.83	2,270,800.30	39.45820	-108.08294	
2,800.00	15.10	302.30	2,717.42	343.14	-542.81	1,602,175.91	2,270,757.08	39.45828	-108.08310	
3,000.00	15.10	302.30	2,910.51	370.98	-586.84	1,602,204.98	2,270,713.86	39.45836	-108.08325	
3,200.00	15.10	302.30	3,103.61	398.81	-630.87	1,602,234.05	2,270,670.64	39.45843	-108.08341	
3,400.00	15.10	302.30	3,296.71	426.65	-674.90	1,602,263.13	2,270,627.42	39.45851	-108.08357	
3,489.38	15.10	302.30	3,383.00	439.09	-694.58	1,602,276.12	2,270,608.11	39.45854	-108.08363	
Mesaverde										
3,551.66	15.10	302.30	3,443.13	447.76	-708.29	1,602,285.17	2,270,594.65	39.45857	-108.08368	
Start Drop -1.50°/100										
3,600.00	14.37	302.30	3,489.88	454.33	-718.68	1,602,292.03	2,270,584.45	39.45859	-108.08372	
3,800.00	11.37	302.30	3,684.83	478.13	-756.34	1,602,316.90	2,270,547.48	39.45865	-108.08385	
4,000.00	8.37	302.30	3,881.85	496.45	-785.32	1,602,336.03	2,270,519.03	39.45870	-108.08396	
4,200.00	5.37	302.30	4,080.39	509.24	-805.55	1,602,349.39	2,270,499.18	39.45874	-108.08403	
4,400.00	2.37	302.30	4,279.91	516.45	-816.96	1,602,356.92	2,270,487.98	39.45876	-108.08407	
4,558.13	0.00	0.00	4,438.00	518.20	-819.73	1,602,358.75	2,270,485.26	39.45876	-108.08408	
Vertical										
4,600.00	0.00	0.00	4,479.87	518.20	-819.73	1,602,358.75	2,270,485.26	39.45876	-108.08408	
4,658.13	0.00	0.00	4,538.00	518.20	-819.73	1,602,358.75	2,270,485.26	39.45876	-108.08408	
Top Gas - Approx. Top Gas										
4,800.00	0.00	0.00	4,679.87	518.20	-819.73	1,602,358.75	2,270,485.26	39.45876	-108.08408	
5,000.00	0.00	0.00	4,879.87	518.20	-819.73	1,602,358.75	2,270,485.26	39.45876	-108.08408	
5,200.00	0.00	0.00	5,079.87	518.20	-819.73	1,602,358.75	2,270,485.26	39.45876	-108.08408	
5,400.00	0.00	0.00	5,279.87	518.20	-819.73	1,602,358.75	2,270,485.26	39.45876	-108.08408	
5,600.00	0.00	0.00	5,479.87	518.20	-819.73	1,602,358.75	2,270,485.26	39.45876	-108.08408	
5,800.00	0.00	0.00	5,679.87	518.20	-819.73	1,602,358.75	2,270,485.26	39.45876	-108.08408	
5,978.13	0.00	0.00	5,858.00	518.20	-819.73	1,602,358.75	2,270,485.26	39.45876	-108.08408	
Cameo Coals										
6,000.00	0.00	0.00	5,879.87	518.20	-819.73	1,602,358.75	2,270,485.26	39.45876	-108.08408	
6,200.00	0.00	0.00	6,079.87	518.20	-819.73	1,602,358.75	2,270,485.26	39.45876	-108.08408	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 11-11 - Slot A02
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5583.00usft (H&P 318 (24' RKB) mab)
Project:	GV 11-07S-096W	MD Reference:	KELLY BUSHING @ 5583.00usft (H&P 318 (24' RKB) mab)
Site:	MV 11-11 Pad	North Reference:	True
Well:	GM 11-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 02Jul14 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	6,279.87	518.20	-819.73	1,602,358.75	2,270,485.26	39.45876	-108.08408
6,458.13	0.00	0.00	6,338.00	518.20	-819.73	1,602,358.75	2,270,485.26	39.45876	-108.08408
Rollins SS									
6,558.13	0.00	0.00	6,438.00	518.20	-819.73	1,602,358.75	2,270,485.26	39.45876	-108.08408
TD at 6558.13 - 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) G1 - plan hits target center - Circle (radius 50.00)	0.00	0.00	4,538.00	518.20	-819.73	1,602,358.75	2,270,485.26	39.45876	-108.08408

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,000.00	979.54	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
1,733.79	1,688.00	Top of "G" Sand				
1,837.36	1,788.00	Base of "G" Sand				
3,489.38	3,383.00	Mesaverde				
4,658.13	4,538.00	Approx. Top Gas				
5,978.13	5,858.00	Cameo Coals				
6,458.13	6,338.00	Rollins SS				
6,558.13	6,438.00	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 3.50	
551.35	546.37	30.19	-47.76	Hold 15.10° Inc, 302.30° Az	
3,551.66	3,443.13	447.76	-708.29	Start Drop -1.50°/100	
4,558.13	4,438.00	518.20	-819.73	Vertical	
4,658.13	4,538.00	518.20	-819.73	Top Gas	
6,558.13	6,438.00	518.20	-819.73	TD at 6558.13	