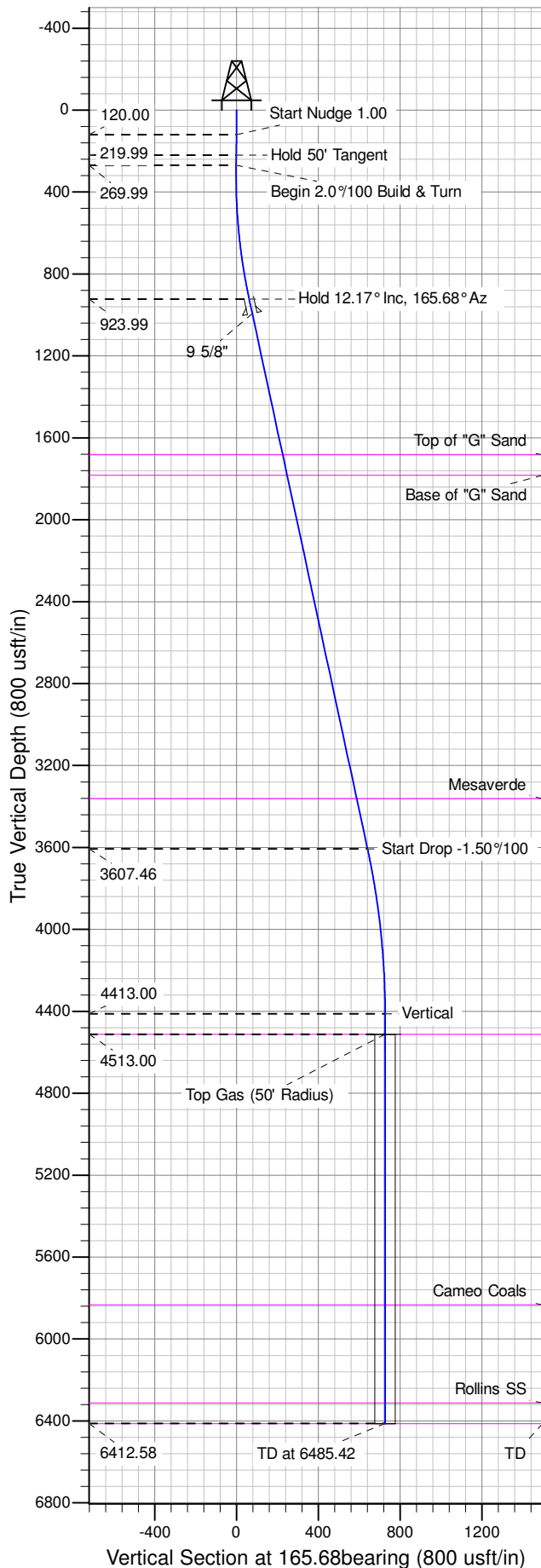
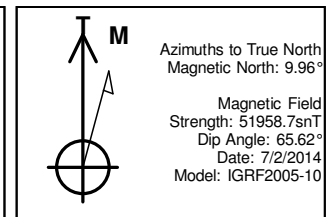
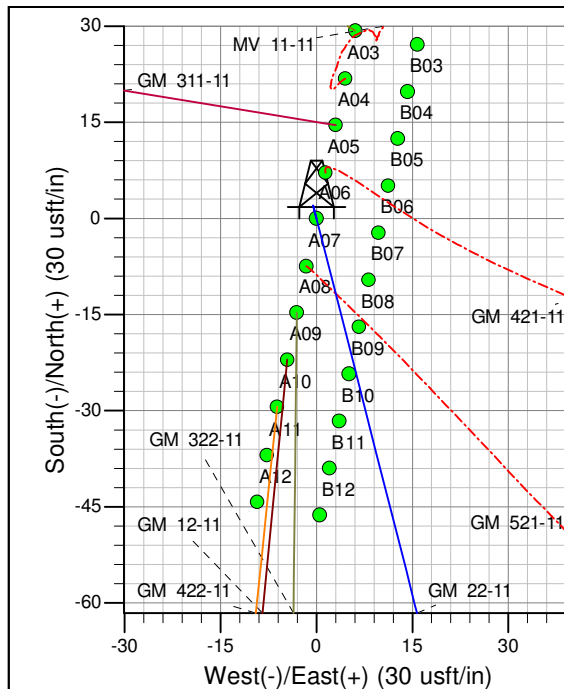
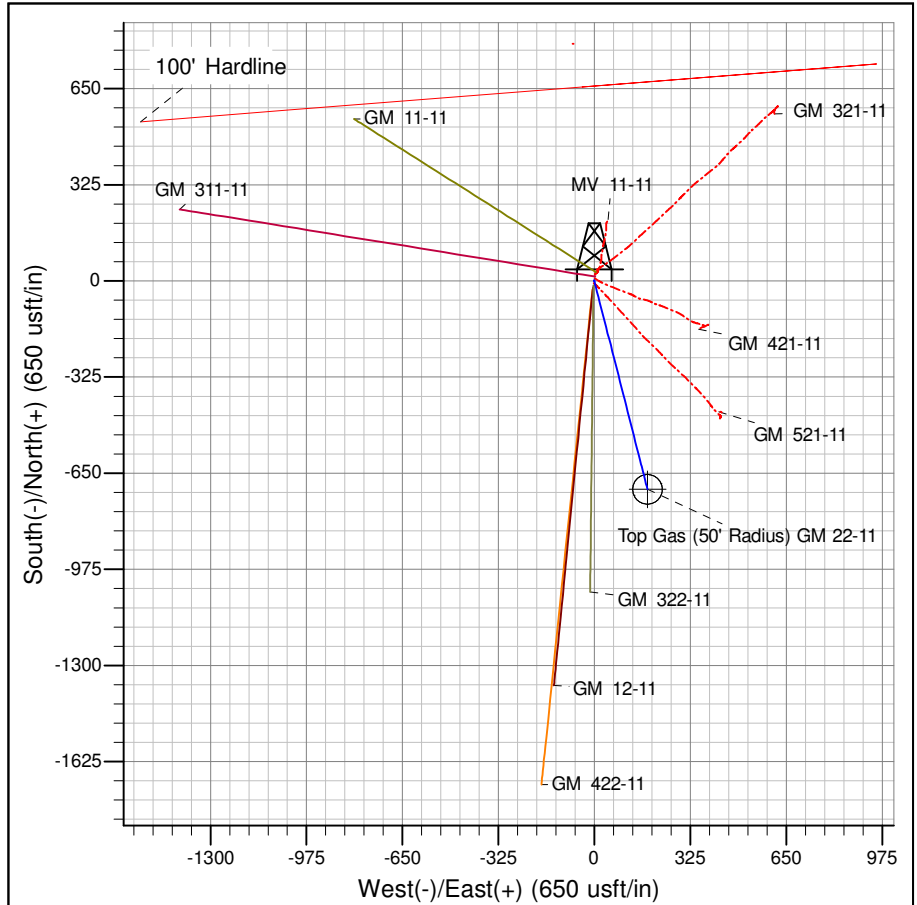




Well Name: GM 22-11
Surface Location: MV 11-11 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5559.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1601788.40000 2271283.00000 39.45726 -108.08119 A06
KELLY BUSHING @ 5583.00usft (H&P 318 (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 Nudge 1.00	
219.99	220.00	1.00	345.67	0.85	-0.22	-0.87	0.87	Hold 50' Tangent	
269.99	270.00	1.00	345.67	1.69	-0.43	-1.75	1.75	Begin 2.0°/100 Build & Turn	
923.99	928.57	12.17	165.68	-60.28	15.39	62.22	67.14	Hold 12.17° Inc, 165.68° Az	
3607.46	3673.78	12.17	165.68	-621.23	158.62	641.16	646.08	Start Drop -1.50°/100	
4413.00	4485.42	0.00	0.00	-704.46	179.87	727.06	731.99	Vertical	
4513.00	4585.42	0.00	0.00	-704.46	179.87	727.06	731.99	Top Gas	
6412.58	6485.00	0.00	0.00	-704.46	179.87	727.06	731.99	TD at 6485.42	



Project: GV 11-07S-096W
Site: MV 11-11 Pad
Well: GM 22-11
Design #2 08Jul14 sam

PICEANCE VLY NAD 83

GV 11-07S-096W

MV 11-11 Pad

GM 22-11 - Slot A06

Wellbore #1

Plan: Design #2 08Jul14 sam

Standard Planning Report - Geographic

19 August, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 22-11 - Slot A06
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 22-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 08Jul14 sam		

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:	1,601,781.00000 usft	Latitude: 39.45724
From: Map		Easting:	2,271,281.20000 usft	Longitude: -108.08120
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.63 °

Well	GM 22-11 - Slot A06			
Well Position	+N/-S	0.00 usft	Northing:	1,601,788.40000 usft
	+E/-W	0.00 usft	Easting:	2,271,283.00000 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 #2 08Jul14 sam			
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	165.68

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	
220.00	1.00	345.67	219.99	0.85	-0.22	1.00	1.00	0.00	345.67	
270.00	1.00	345.67	269.99	1.69	-0.43	0.00	0.00	0.00	0.00	
928.73	12.17	165.68	924.14	-60.31	15.40	2.00	1.70	-27.32	-179.99	
3,673.78	12.17	165.68	3,607.45	-621.23	158.62	0.00	0.00	0.00	0.00	
4,485.42	0.00	0.00	4,413.00	-704.46	179.87	1.50	-1.50	0.00	180.00	
6,485.42	0.00	0.00	6,413.00	-704.46	179.87	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 22-11 - Slot A06
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 22-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 08Jul14 sam		

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	1,601,788.40000	2,271,283.00000	39.45726	-108.08120	
120.00	0.00	0.00	120.00	0.00	0.00	1,601,788.40000	2,271,283.00000	39.45726	-108.08120	
Start Nudge 1.00										
200.00	0.80	345.67	200.00	0.54	-0.14	1,601,788.94481	2,271,282.87720	39.45726	-108.08120	
220.00	1.00	345.67	219.99	0.85	-0.22	1,601,789.25125	2,271,282.80813	39.45726	-108.08120	
Hold 50' Tangent										
270.00	1.00	345.67	269.99	1.69	-0.43	1,601,790.10248	2,271,282.61626	39.45726	-108.08120	
Begin 2.0°/100 Build & Turn										
400.00	1.60	165.68	399.97	1.03	-0.26	1,601,789.43848	2,271,282.76561	39.45726	-108.08120	
600.00	5.60	165.68	599.54	-11.13	2.84	1,601,777.19038	2,271,285.52455	39.45723	-108.08119	
800.00	9.60	165.68	797.74	-36.76	9.38	1,601,751.39215	2,271,291.33616	39.45716	-108.08116	
928.57	12.17	165.68	923.99	-60.28	15.39	1,601,727.70835	2,271,296.67155	39.45709	-108.08114	
Hold 12.17° Inc., 165.68° Az										
928.73	12.17	165.68	924.14	-60.31	15.40	1,601,727.67530	2,271,296.67899	39.45709	-108.08114	
1,000.00	12.17	165.68	993.81	-74.88	19.12	1,601,713.01327	2,271,299.98201	39.45705	-108.08113	
9 5/8"										
1,200.00	12.17	165.68	1,189.31	-115.74	29.55	1,601,671.86797	2,271,309.25110	39.45694	-108.08109	
1,400.00	12.17	165.68	1,384.82	-156.61	39.99	1,601,630.72267	2,271,318.52019	39.45683	-108.08105	
1,600.00	12.17	165.68	1,580.32	-197.48	50.42	1,601,589.57737	2,271,327.78928	39.45672	-108.08102	
1,705.05	12.17	165.68	1,683.00	-218.94	55.90	1,601,567.96674	2,271,332.65766	39.45666	-108.08100	
Top of "G" Sand										
1,800.00	12.17	165.68	1,775.82	-238.35	60.86	1,601,548.43206	2,271,337.05837	39.45660	-108.08098	
1,807.35	12.17	165.68	1,783.00	-239.85	61.24	1,601,546.92075	2,271,337.39883	39.45660	-108.08098	
Base of "G" Sand										
2,000.00	12.17	165.68	1,971.32	-279.21	71.29	1,601,507.28676	2,271,346.32746	39.45649	-108.08094	
2,200.00	12.17	165.68	2,166.82	-320.08	81.73	1,601,466.14146	2,271,355.59655	39.45638	-108.08091	
2,400.00	12.17	165.68	2,362.32	-360.95	92.16	1,601,424.99615	2,271,364.86564	39.45627	-108.08087	
2,600.00	12.17	165.68	2,557.83	-401.81	102.60	1,601,383.85086	2,271,374.13473	39.45616	-108.08083	
2,800.00	12.17	165.68	2,753.33	-442.68	113.03	1,601,342.70556	2,271,383.40382	39.45604	-108.08080	
3,000.00	12.17	165.68	2,948.83	-483.55	123.46	1,601,301.56026	2,271,392.67291	39.45593	-108.08076	
3,200.00	12.17	165.68	3,144.33	-524.42	133.90	1,601,260.41495	2,271,401.94200	39.45582	-108.08072	
3,400.00	12.17	165.68	3,339.83	-565.28	144.33	1,601,219.26965	2,271,411.21109	39.45571	-108.08069	
3,423.70	12.17	165.68	3,363.00	-570.13	145.57	1,601,214.39416	2,271,412.30943	39.45569	-108.08068	
Mesaverde										
3,600.00	12.17	165.68	3,535.34	-606.15	154.77	1,601,178.12435	2,271,420.48018	39.45559	-108.08065	
3,673.78	12.17	165.68	3,607.46	-621.23	158.62	1,601,162.94586	2,271,423.89954	39.45555	-108.08063	
Start Drop -1.50°/100										
3,800.00	10.28	165.68	3,731.26	-645.04	164.70	1,601,138.97231	2,271,429.30023	39.45549	-108.08061	
4,000.00	7.28	165.68	3,928.89	-674.62	172.25	1,601,109.19099	2,271,436.00928	39.45541	-108.08059	
4,200.00	4.28	165.68	4,127.85	-694.14	177.23	1,601,089.54047	2,271,440.43609	39.45535	-108.08057	
4,400.00	1.28	165.68	4,327.59	-703.54	179.63	1,601,080.07462	2,271,442.56853	39.45533	-108.08056	
4,485.42	0.00	0.00	4,413.00	-704.46	179.87	1,601,079.14300	2,271,442.77840	39.45532	-108.08056	
Vertical										
4,585.42	0.00	0.00	4,513.00	-704.46	179.87	1,601,079.14300	2,271,442.77840	39.45532	-108.08056	
Top Gas - Approx. Top Gas										
4,600.00	0.00	0.00	4,527.58	-704.46	179.87	1,601,079.14300	2,271,442.77840	39.45532	-108.08056	
4,800.00	0.00	0.00	4,727.58	-704.46	179.87	1,601,079.14300	2,271,442.77840	39.45532	-108.08056	
5,000.00	0.00	0.00	4,927.58	-704.46	179.87	1,601,079.14300	2,271,442.77840	39.45532	-108.08056	
5,200.00	0.00	0.00	5,127.58	-704.46	179.87	1,601,079.14300	2,271,442.77840	39.45532	-108.08056	
5,400.00	0.00	0.00	5,327.58	-704.46	179.87	1,601,079.14300	2,271,442.77840	39.45532	-108.08056	
5,600.00	0.00	0.00	5,527.58	-704.46	179.87	1,601,079.14300	2,271,442.77840	39.45532	-108.08056	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 22-11 - Slot A06
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 22-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 08Jul14 sam		

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
5,800.00	0.00	0.00	5,727.58	-704.46	179.87	1,601,079.14300	2,271,442.77840	39.45532	-108.08056
5,905.42	0.00	0.00	5,833.00	-704.46	179.87	1,601,079.14300	2,271,442.77840	39.45532	-108.08056
Cameo Coals									
6,000.00	0.00	0.00	5,927.58	-704.46	179.87	1,601,079.14300	2,271,442.77840	39.45532	-108.08056
6,200.00	0.00	0.00	6,127.58	-704.46	179.87	1,601,079.14300	2,271,442.77840	39.45532	-108.08056
6,385.42	0.00	0.00	6,313.00	-704.46	179.87	1,601,079.14300	2,271,442.77840	39.45532	-108.08056
Rollins SS									
6,400.00	0.00	0.00	6,327.58	-704.46	179.87	1,601,079.14300	2,271,442.77840	39.45532	-108.08056
6,485.00	0.00	0.00	6,412.58	-704.46	179.87	1,601,079.14300	2,271,442.77840	39.45532	-108.08056
TD at 6485.42									
6,485.42	0.00	0.00	6,413.00	-704.46	179.87	1,601,079.14300	2,271,442.77840	39.45532	-108.08056
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	4,513.00	-704.46	179.87	1,601,079.14300	2,271,442.77840	39.45532	-108.08056	

Casing Points								
Measured Depth (usft)	Vertical Depth (usft)	Name				Casing Diameter (in)	Hole Diameter (in)	
1,000.00	993.81	9 5/8"				9.625	13.500	

Formations								
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology			Dip (°)	Dip Direction (bearing)	
1,705.05	1,683.00	Top of "G" Sand						
1,807.35	1,783.00	Base of "G" Sand						
3,423.70	3,363.00	Mesaverde						
4,585.42	4,513.00	Approx. Top Gas						
5,905.42	5,833.00	Cameo Coals						
6,385.42	6,313.00	Rollins SS						
6,485.42	6,413.00	TD						

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 22-11 - Slot A06
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 22-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 08Jul14 sam		

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 Nudge 1.00
220.00	219.99	0.85	-0.22	Hold 50' Tangent
270.00	269.99	1.69	-0.43	Begin 2.0°/100 Build & Turn
928.57	923.99	-60.28	15.39	Hold 12.17° Inc, 165.68° Az
3,673.78	3,607.46	-621.23	158.62	Start Drop -1.50°/100
4,485.42	4,413.00	-704.46	179.87	Vertical
4,585.42	4,513.00	-704.46	179.87	Top Gas
6,485.00	6,412.58	-704.46	179.87	TD at 6485.42