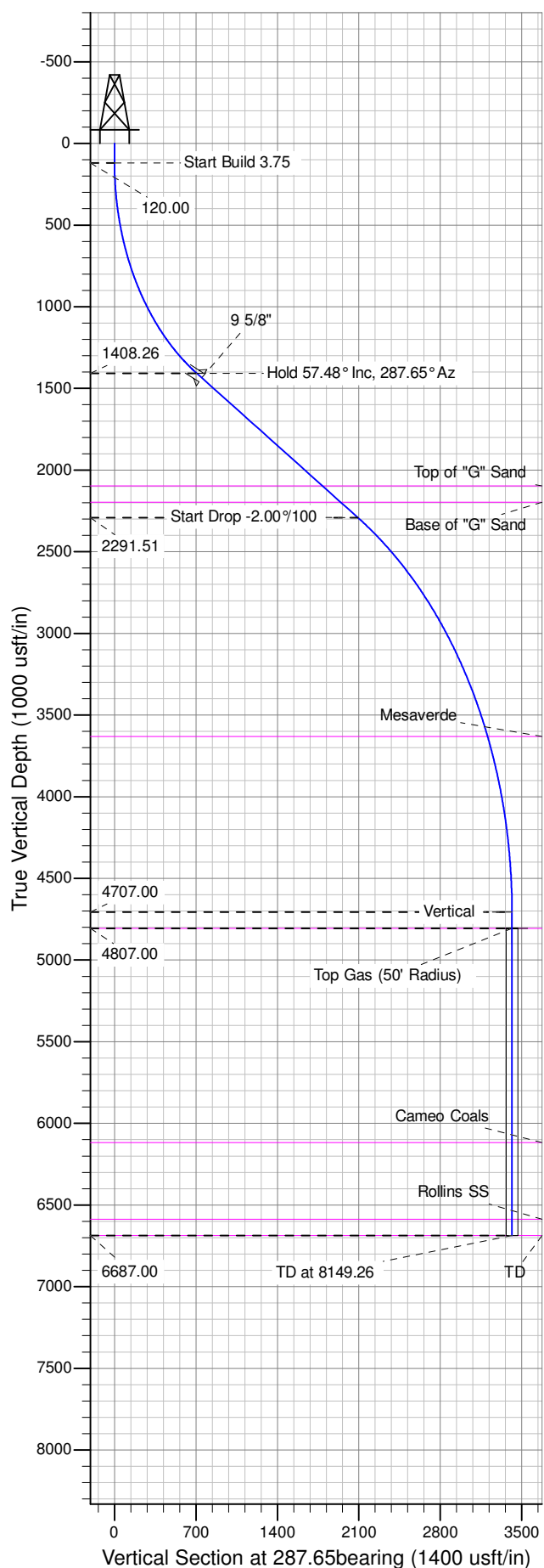
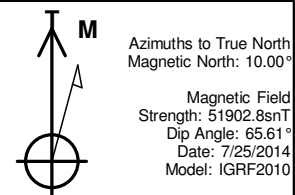
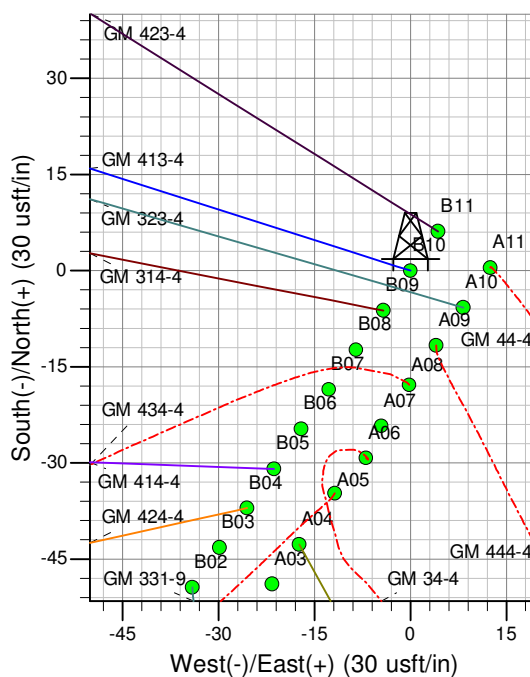
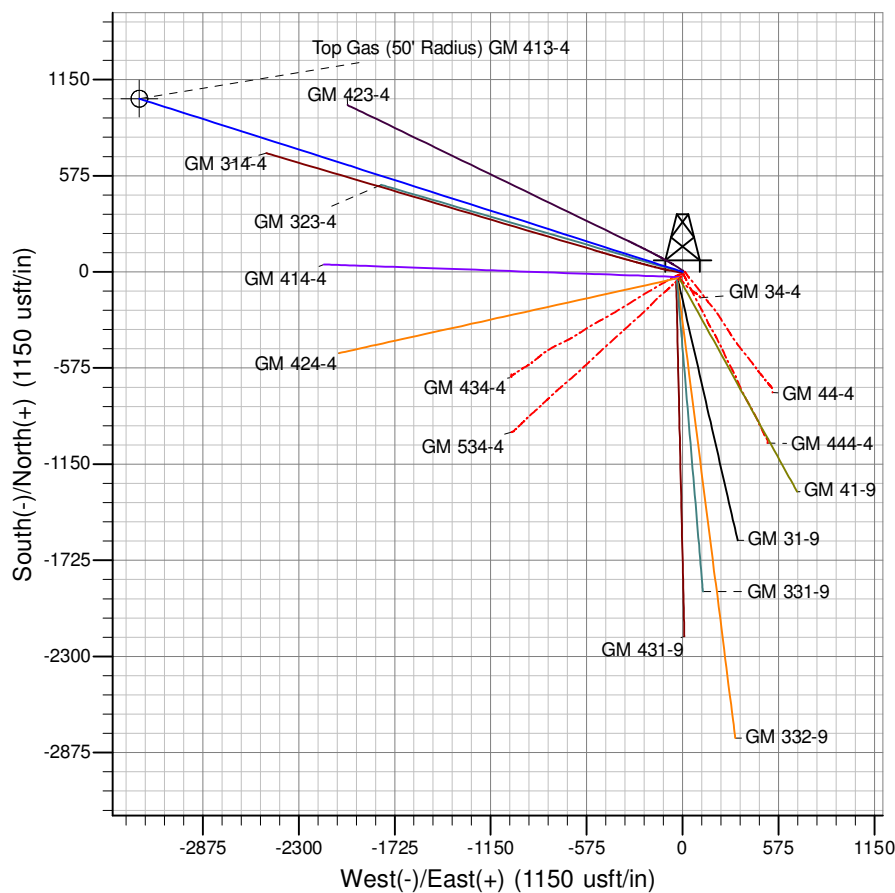




Well Name: GM 413-4
Surface Location: GM 34-4 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 6023.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1603693.50000 2263181.90000 39.461850 -108.110067 B10
KELLY BUSHING @ 6047.00usft (H&P 318 (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 3.75	
1408.26	1652.69	57.48	287.65	214.17	-673.16	706.41	706.41	Hold 57.48° Inc, 287.65° Az	
2291.51	3295.47	57.48	287.65	634.11	-1993.10	2091.55	2091.55	Start Drop -2.00°/100	
4707.00	6169.26	0.00	0.00	1035.67	-3255.28	3416.06	3416.06	Vertical	
4807.00	6269.26	0.00	0.00	1035.67	-3255.28	3416.06	3416.06	Top Gas	
6687.00	8149.26	0.00	0.00	1035.67	-3255.28	3416.06	3416.06	TD at 8149.26	



Project: GV 04-07S-096W
Site: GM 34-4 Pad
Well: GM 413-4
Design #1 25Jul14 mab

PICEANCE VLY NAD 83

GV 04-07S-096W

GM 34-4 Pad

GM 413-4 - Slot B10

Wellbore #1

Plan: Design #1 25Jul14 mab

Standard Planning Report - Geographic

25 September, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 413-4 - Slot B10
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6047.00usft (H&P 318 (24' RKB) mab)
Project:	GV 04-07S-096W	MD Reference:	KELLY BUSHING @ 6047.00usft (H&P 318 (24' RKB) mab)
Site:	GM 34-4 Pad	North Reference:	True
Well:	GM 413-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 25Jul14 mab		

Project	GV 04-07S-096W, Garfield County, CO, 04-07S-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 34-4 Pad			
Site Position:		Northing:	1,603,693.60000 usft	Latitude: 39.461851
From: Map		Easting:	2,263,194.40000 usft	Longitude: -108.110023
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.65 °

Well	GM 413-4 - Slot B10			
Well Position	+N/-S	0.00 usft	Northing:	1,603,693.50000 usft
	+E/-W	0.00 usft	Easting:	2,263,181.90000 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	6,023.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/25/2014	10.00	65.61	51,903

Design	Design #1 25Jul14 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	287.65

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	
1,652.69	57.48	287.65	1,408.26	214.17	-673.16	3.75	3.75	0.00	287.65	
3,295.47	57.48	287.65	2,291.51	634.11	-1,993.10	0.00	0.00	0.00	0.00	
6,169.26	0.00	0.00	4,707.00	1,035.67	-3,255.28	2.00	-2.00	0.00	180.00	
6,269.26	0.00	0.00	4,807.00	1,035.67	-3,255.28	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
8,149.26	0.00	0.00	6,687.00	1,035.67	-3,255.28	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 413-4 - Slot B10
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6047.00usft (H&P 318 (24' RKB) mab)
Project:	GV 04-07S-096W	MD Reference:	KELLY BUSHING @ 6047.00usft (H&P 318 (24' RKB) mab)
Site:	GM 34-4 Pad	North Reference:	True
Well:	GM 413-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 25Jul14 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	1,603,693.50000	2,263,181.90000	39.461850	-108.110067	
120.00	0.00	0.00	120.00	0.00	0.00	1,603,693.50000	2,263,181.90000	39.461850	-108.110067	
Start Build 3.75										
200.00	3.00	287.65	199.96	0.63	-2.00	1,603,694.19186	2,263,179.92379	39.461852	-108.110074	
400.00	10.50	287.65	398.44	7.76	-24.38	1,603,701.95348	2,263,157.75350	39.461872	-108.110154	
600.00	18.00	287.65	592.14	22.67	-71.26	1,603,718.20828	2,263,111.32327	39.461912	-108.110320	
800.00	25.50	287.65	777.77	45.12	-141.83	1,603,742.67815	2,263,041.42754	39.461974	-108.110569	
1,000.00	33.00	287.65	952.15	74.73	-234.89	1,603,774.94440	2,262,949.26222	39.462055	-108.110899	
1,200.00	40.50	287.65	1,112.28	110.99	-348.84	1,603,814.45494	2,262,836.40432	39.462155	-108.111303	
1,400.00	48.00	287.65	1,255.44	153.27	-481.74	1,603,860.53374	2,262,704.78483	39.462271	-108.111773	
1,600.00	55.50	287.65	1,379.17	200.85	-631.30	1,603,912.39238	2,262,556.65582	39.462402	-108.112303	
1,652.69	57.48	287.65	1,408.26	214.17	-673.16	1,603,926.90624	2,262,515.19841	39.462438	-108.112451	
Hold 57.48° Inc, 287.65° Az										
1,702.69	57.48	287.65	1,435.14	226.95	-713.34	1,603,940.83670	2,262,475.40747	39.462473	-108.112594	
9 5/8"										
1,800.00	57.48	287.65	1,487.46	251.82	-791.52	1,603,967.94647	2,262,397.97113	39.462542	-108.112871	
2,000.00	57.48	287.65	1,594.99	302.95	-952.22	1,604,023.66483	2,262,238.81721	39.462682	-108.113440	
2,200.00	57.48	287.65	1,702.53	354.08	-1,112.92	1,604,079.38319	2,262,079.66329	39.462822	-108.114009	
2,400.00	57.48	287.65	1,810.06	405.20	-1,273.61	1,604,135.10155	2,261,920.50937	39.462963	-108.114578	
2,600.00	57.48	287.65	1,917.59	456.33	-1,434.31	1,604,190.81990	2,261,761.35545	39.463103	-108.115147	
2,800.00	57.48	287.65	2,025.12	507.45	-1,595.00	1,604,246.53826	2,261,602.20154	39.463243	-108.115716	
2,933.69	57.48	287.65	2,097.00	541.63	-1,702.42	1,604,283.78360	2,261,495.81395	39.463337	-108.116097	
Top of "G" Sand										
3,000.00	57.48	287.65	2,132.65	558.58	-1,755.70	1,604,302.25662	2,261,443.04761	39.463384	-108.116285	
3,119.68	57.48	287.65	2,197.00	589.17	-1,851.86	1,604,335.59956	2,261,347.80685	39.463468	-108.116626	
Base of "G" Sand										
3,200.00	57.48	287.65	2,240.18	609.70	-1,916.40	1,604,357.97498	2,261,283.89370	39.463524	-108.116855	
3,295.47	57.48	287.65	2,291.51	634.11	-1,993.10	1,604,384.57229	2,261,207.92115	39.463591	-108.117126	
Start Drop -2.00°/100										
3,400.00	55.39	287.65	2,349.31	660.51	-2,076.10	1,604,413.34814	2,261,125.72582	39.463663	-108.117420	
3,600.00	51.39	287.65	2,468.57	709.17	-2,229.04	1,604,466.37933	2,260,974.24753	39.463797	-108.117962	
3,800.00	47.39	287.65	2,598.74	755.19	-2,373.69	1,604,516.53253	2,260,830.98994	39.463923	-108.118474	
4,000.00	43.39	287.65	2,739.18	798.35	-2,509.33	1,604,563.56340	2,260,696.65095	39.464042	-108.118955	
4,200.00	39.39	287.65	2,889.20	838.43	-2,635.30	1,604,607.24281	2,260,571.88506	39.464152	-108.119401	
4,400.00	35.39	287.65	3,048.09	875.23	-2,751.00	1,604,647.35797	2,260,457.30014	39.464253	-108.119811	
4,600.00	31.39	287.65	3,215.05	908.59	-2,855.85	1,604,683.71343	2,260,353.45440	39.464344	-108.120182	
4,800.00	27.39	287.65	3,389.28	938.34	-2,949.35	1,604,716.13208	2,260,260.85378	39.464426	-108.120513	
5,000.00	23.39	287.65	3,569.94	964.33	-3,031.04	1,604,744.45597	2,260,179.94943	39.464497	-108.120803	
5,067.28	22.04	287.65	3,632.00	972.20	-3,055.79	1,604,753.03936	2,260,155.43181	39.464519	-108.120890	
Mesaverde										
5,200.00	19.39	287.65	3,756.13	986.43	-3,100.52	1,604,768.54711	2,260,111.13549	39.464558	-108.121049	
5,400.00	15.39	287.65	3,946.95	1,004.55	-3,157.45	1,604,788.28813	2,260,054.74724	39.464608	-108.121250	
5,600.00	11.39	287.65	4,141.48	1,018.58	-3,201.56	1,604,803.58286	2,260,011.05938	39.464646	-108.121407	
5,800.00	7.39	287.65	4,338.76	1,028.47	-3,232.64	1,604,814.35678	2,259,980.28475	39.464673	-108.121517	
6,000.00	3.39	287.65	4,537.84	1,034.16	-3,250.52	1,604,820.55741	2,259,962.57329	39.464689	-108.121580	
6,169.26	0.00	0.00	4,707.00	1,035.67	-3,255.28	1,604,822.20902	2,259,957.85561	39.464693	-108.121597	
Vertical										
6,200.00	0.00	0.00	4,737.74	1,035.67	-3,255.28	1,604,822.20902	2,259,957.85561	39.464693	-108.121597	
6,269.26	0.00	0.00	4,807.00	1,035.67	-3,255.28	1,604,822.20902	2,259,957.85561	39.464693	-108.121597	
Top Gas - Approx. Top Gas										
6,400.00	0.00	0.00	4,937.74	1,035.67	-3,255.28	1,604,822.20902	2,259,957.85561	39.464693	-108.121597	
6,600.00	0.00	0.00	5,137.74	1,035.67	-3,255.28	1,604,822.20902	2,259,957.85561	39.464693	-108.121597	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 413-4 - Slot B10
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6047.00usft (H&P 318 (24' RKB) mab)
Project:	GV 04-07S-096W	MD Reference:	KELLY BUSHING @ 6047.00usft (H&P 318 (24' RKB) mab)
Site:	GM 34-4 Pad	North Reference:	True
Well:	GM 413-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 25Jul14 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
6,800.00	0.00	0.00	5,337.74	1,035.67	-3,255.28	1,604,822.20902	2,259,957.85561	39.464693	-108.121597
7,000.00	0.00	0.00	5,537.74	1,035.67	-3,255.28	1,604,822.20902	2,259,957.85561	39.464693	-108.121597
7,200.00	0.00	0.00	5,737.74	1,035.67	-3,255.28	1,604,822.20902	2,259,957.85561	39.464693	-108.121597
7,400.00	0.00	0.00	5,937.74	1,035.67	-3,255.28	1,604,822.20902	2,259,957.85561	39.464693	-108.121597
7,579.26	0.00	0.00	6,117.00	1,035.67	-3,255.28	1,604,822.20902	2,259,957.85561	39.464693	-108.121597
Cameo Coals									
7,600.00	0.00	0.00	6,137.74	1,035.67	-3,255.28	1,604,822.20902	2,259,957.85561	39.464693	-108.121597
7,800.00	0.00	0.00	6,337.74	1,035.67	-3,255.28	1,604,822.20902	2,259,957.85561	39.464693	-108.121597
8,000.00	0.00	0.00	6,537.74	1,035.67	-3,255.28	1,604,822.20902	2,259,957.85561	39.464693	-108.121597
8,049.26	0.00	0.00	6,587.00	1,035.67	-3,255.28	1,604,822.20902	2,259,957.85561	39.464693	-108.121597
Rollins SS									
8,149.26	0.00	0.00	6,687.00	1,035.67	-3,255.28	1,604,822.20902	2,259,957.85561	39.464693	-108.121597
TD at 8149.26									

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	358.35	4,807.00	1,035.67	-3,255.28	1,604,822.20902	2,259,957.85561	39.464693	-108.121597
- plan hits target center									
- Circle (radius 50.00)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,702.69	1,435.14	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,933.69	2,097.00	Top of "G" Sand				
3,119.68	2,197.00	Base of "G" Sand				
5,067.28	3,632.00	Mesaverde				
6,269.26	4,807.00	Approx. Top Gas				
7,579.26	6,117.00	Cameo Coals				
8,049.26	6,587.00	Rollins SS				
8,149.26	6,687.00	TD				

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 413-4 - Slot B10
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6047.00usft (H&P 318 (24' RKB) mab)
Project:	GV 04-07S-096W	MD Reference:	KELLY BUSHING @ 6047.00usft (H&P 318 (24' RKB) mab)
Site:	GM 34-4 Pad	North Reference:	True
Well:	GM 413-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 25Jul14 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 3.75
1,652.69	1,408.26	214.17	-673.16	Hold 57.48° Inc, 287.65° Az
3,295.47	2,291.51	634.11	-1,993.10	Start Drop -2.00°/100
6,169.26	4,707.00	1,035.67	-3,255.28	Vertical
6,269.26	4,807.00	1,035.67	-3,255.28	Top Gas
8,149.26	6,687.00	1,035.67	-3,255.28	TD at 8149.26