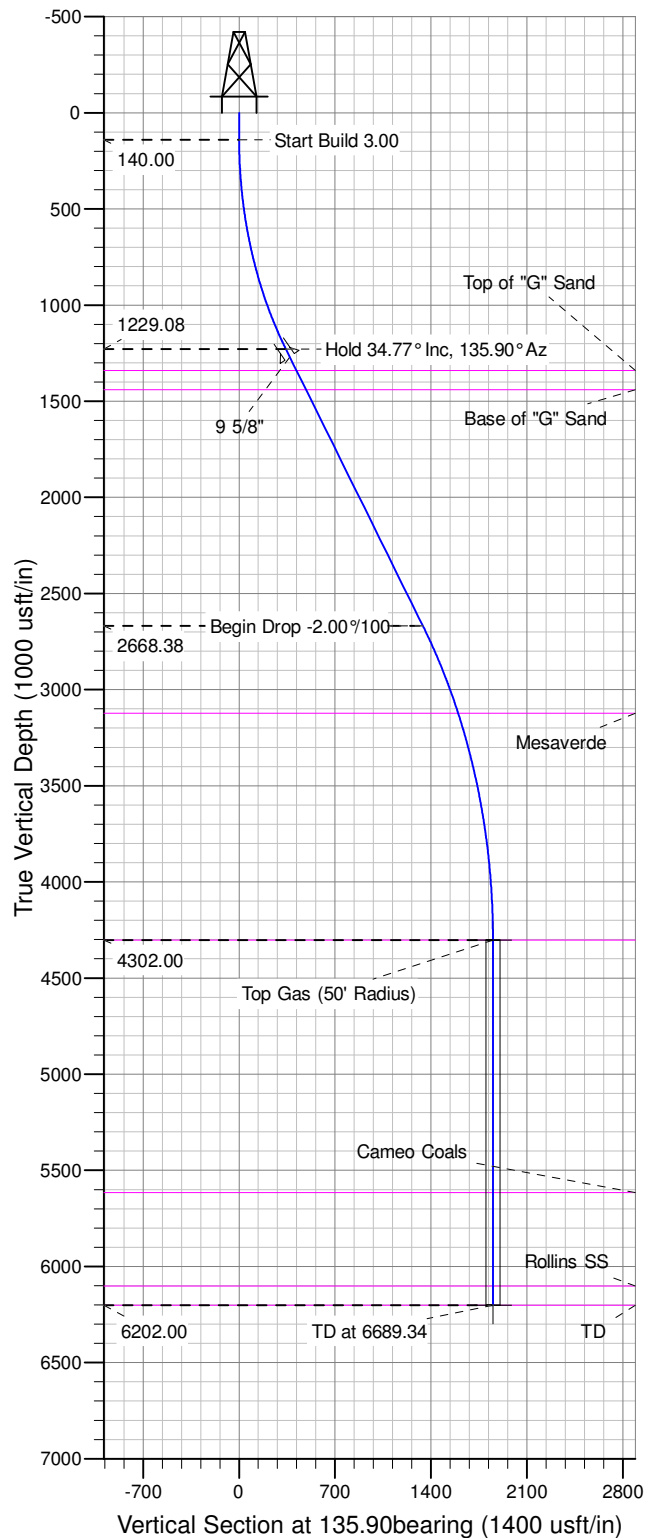
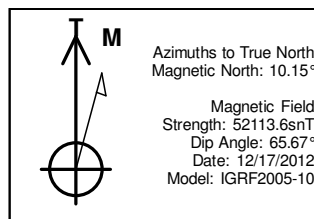
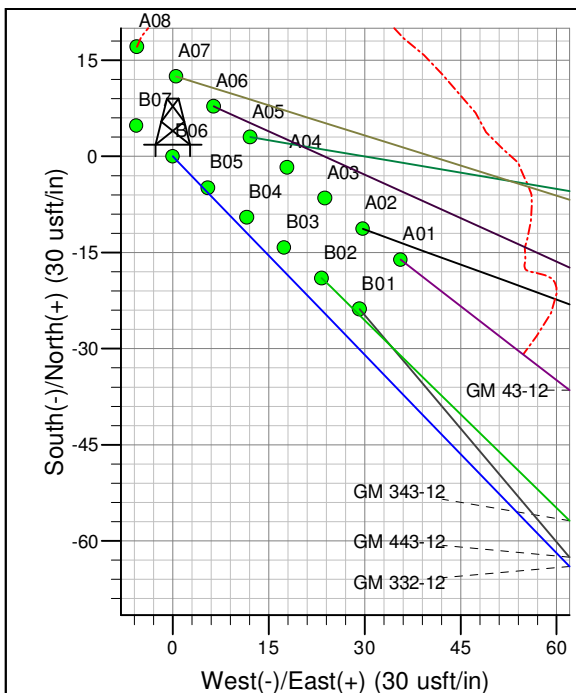
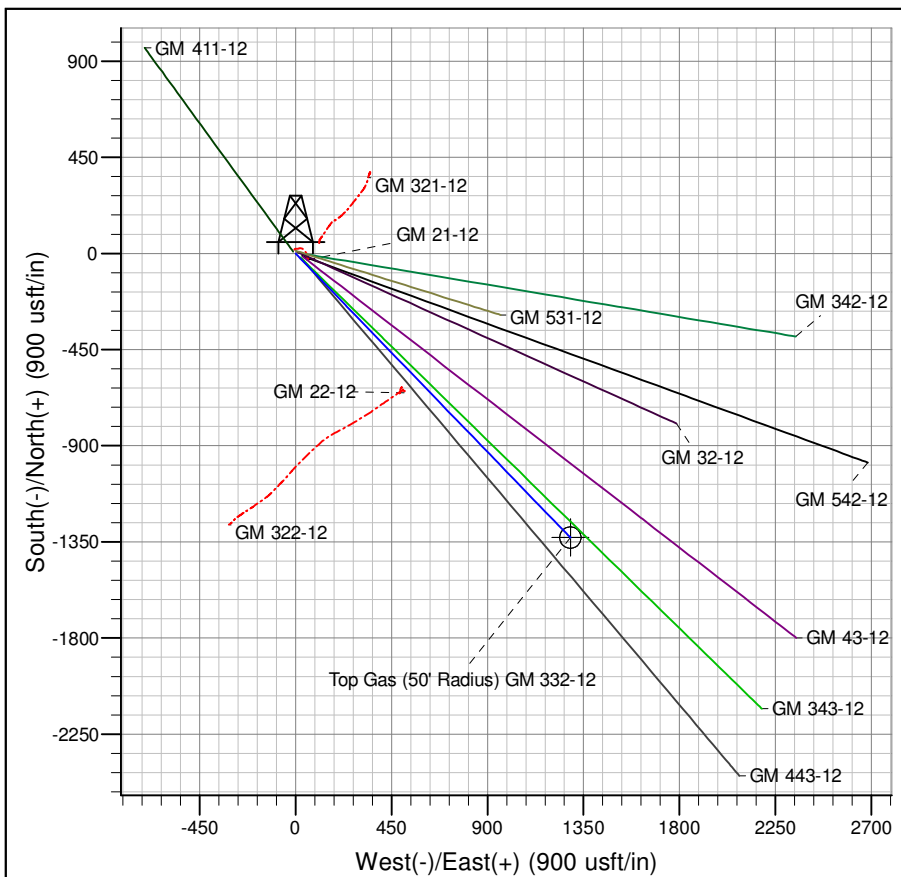




Well Name: GM 332-12
Surface Location: GM 21-12 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5125.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1601322.97 2276835.99 39.45641 -108.06149 B06
KELLY BUSHING @ 5151.00usft (Nabors (26' RKB))



ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
140.00	140.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.00	
1229.08	1298.90	34.77	135.90	-244.84	237.28	340.95	340.95	Hold 34.77° Inc, 135.90° Az	
2668.38	3050.99	34.77	135.90	-962.30	932.60	1340.06	1340.06	Begin Drop -2.00%/100	
4302.00	4789.34	0.00	0.00	-1329.56	1288.53	1851.49	1851.49	Top Gas	
6202.00	6689.34	0.00	0.00	-1329.56	1288.53	1851.49	1851.49	TD at 6689.34	



Project: GV 12-07S-096W
Site: GM 21-12 Pad
Well: GM 332-12
Design #3 15Apr14 mab

PICEANCE VLY NAD 83

GV 12-07S-096W

GM 21-12 Pad

GM 332-12 - Slot B06

Wellbore #1

Plan: Design #3 15Apr14 mab

Standard Planning Report - Geographic

07 May, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 332-12 - Slot B06
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5151.00usft (Nabors (26' RKB))
Project:	GV 12-07S-096W	MD Reference:	KELLY BUSHING @ 5151.00usft (Nabors (26' RKB))
Site:	GM 21-12 Pad	North Reference:	True
Well:	GM 332-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3 15Apr14 mab		

Project	GV 12-07S-096W, Garfield County CO, GV 12-07W-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 21-12 Pad			
Site Position:		Northing:	1,601,340.21 usft	Latitude: 39.45646
From: Map		Easting:	2,276,830.88 usft	Longitude: -108.06151
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.62 °

Well	GM 332-12 - Slot B06			
Well Position	+N/-S	0.00 usft	Northing:	1,601,322.96 usft
	+E/-W	0.00 usft	Easting:	2,276,835.99 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	
			Ground Level:	5,125.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	12/17/2012	10.15	65.67	52,114

Design	Design #3 15Apr14 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	135.90

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	
140.00	0.00	0.00	140.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,298.90	34.77	135.90	1,229.08	-244.84	237.28	3.00	3.00	0.00	135.90	
3,050.99	34.77	135.90	2,668.38	-962.30	932.60	0.00	0.00	0.00	0.00	
4,789.34	0.00	0.00	4,302.00	-1,329.56	1,288.53	2.00	-2.00	0.00	180.00	Top Gas (50' Radius)
6,689.34	0.00	0.00	6,202.00	-1,329.56	1,288.53	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 332-12 - Slot B06
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5151.00usft (Nabors (26' RKB))
Project:	GV 12-07S-096W	MD Reference:	KELLY BUSHING @ 5151.00usft (Nabors (26' RKB))
Site:	GM 21-12 Pad	North Reference:	True
Well:	GM 332-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3 15Apr14 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	1,601,322.96	2,276,835.99	39.45641	-108.06149
140.00	0.00	0.00	140.00	0.00	0.00	1,601,322.96	2,276,835.99	39.45641	-108.06149
Start Build 3.00									
200.00	1.80	135.90	199.99	-0.68	0.66	1,601,322.27	2,276,836.63	39.45641	-108.06149
400.00	7.80	135.90	399.20	-12.69	12.30	1,601,309.93	2,276,847.93	39.45638	-108.06145
600.00	13.80	135.90	595.57	-39.59	38.37	1,601,282.31	2,276,873.23	39.45630	-108.06136
800.00	19.80	135.90	786.94	-81.08	78.58	1,601,239.70	2,276,912.25	39.45619	-108.06121
1,000.00	25.80	135.90	971.23	-136.71	132.49	1,601,182.58	2,276,964.57	39.45604	-108.06102
1,200.00	31.80	135.90	1,146.41	-205.87	199.51	1,601,111.56	2,277,029.62	39.45585	-108.06078
1,298.90	34.77	135.90	1,229.08	-244.84	237.28	1,601,071.54	2,277,066.27	39.45574	-108.06065
Hold 34.77° Inc, 135.90° Az									
1,348.90	34.77	135.90	1,270.15	-265.31	257.12	1,601,050.52	2,277,085.52	39.45568	-108.06058
9 5/8"									
1,400.00	34.77	135.90	1,312.13	-286.24	277.40	1,601,029.03	2,277,105.21	39.45563	-108.06051
1,435.14	34.77	135.90	1,341.00	-300.63	291.35	1,601,014.25	2,277,118.74	39.45559	-108.06046
Top of "G" Sand									
1,556.87	34.77	135.90	1,441.00	-350.48	339.66	1,600,963.07	2,277,165.62	39.45545	-108.06029
Base of "G" Sand									
1,600.00	34.77	135.90	1,476.43	-368.14	356.77	1,600,944.93	2,277,182.23	39.45540	-108.06023
1,800.00	34.77	135.90	1,640.72	-450.03	436.14	1,600,860.83	2,277,259.26	39.45518	-108.05995
2,000.00	34.77	135.90	1,805.02	-531.93	515.52	1,600,776.73	2,277,336.28	39.45495	-108.05967
2,200.00	34.77	135.90	1,969.31	-613.83	594.89	1,600,692.63	2,277,413.31	39.45473	-108.05938
2,400.00	34.77	135.90	2,133.61	-695.73	674.26	1,600,608.54	2,277,490.34	39.45450	-108.05910
2,600.00	34.77	135.90	2,297.90	-777.62	753.63	1,600,524.44	2,277,567.36	39.45428	-108.05882
2,800.00	34.77	135.90	2,462.20	-859.52	833.00	1,600,440.34	2,277,644.39	39.45405	-108.05854
3,000.00	34.77	135.90	2,626.50	-941.42	912.37	1,600,356.24	2,277,721.42	39.45383	-108.05826
3,050.99	34.77	135.90	2,668.38	-962.30	932.60	1,600,334.80	2,277,741.06	39.45377	-108.05819
Begin Drop -2.00°/100									
3,200.00	31.79	135.90	2,792.95	-1,021.01	989.50	1,600,274.51	2,277,796.27	39.45361	-108.05799
3,400.00	27.79	135.90	2,966.49	-1,092.34	1,058.63	1,600,201.26	2,277,863.36	39.45341	-108.05774
3,574.23	24.30	135.90	3,123.00	-1,147.26	1,111.86	1,600,144.86	2,277,915.02	39.45326	-108.05755
Mesaverde									
3,600.00	23.79	135.90	3,146.53	-1,154.80	1,119.16	1,600,137.12	2,277,922.11	39.45324	-108.05753
3,800.00	19.79	135.90	3,332.21	-1,208.10	1,170.81	1,600,082.39	2,277,972.23	39.45310	-108.05735
4,000.00	15.79	135.90	3,522.61	-1,251.96	1,213.32	1,600,037.35	2,278,013.49	39.45298	-108.05719
4,200.00	11.79	135.90	3,716.81	-1,286.18	1,246.49	1,600,002.21	2,278,045.67	39.45288	-108.05708
4,400.00	7.79	135.90	3,913.86	-1,310.59	1,270.14	1,599,977.15	2,278,068.63	39.45281	-108.05699
4,600.00	3.79	135.90	4,112.80	-1,325.07	1,284.17	1,599,962.28	2,278,082.24	39.45277	-108.05694
4,789.34	0.00	0.00	4,302.00	-1,329.56	1,288.53	1,599,957.67	2,278,086.47	39.45276	-108.05693
Top Gas - Approx. Top Gas									
4,800.00	0.00	0.00	4,312.66	-1,329.56	1,288.53	1,599,957.67	2,278,086.47	39.45276	-108.05693
5,000.00	0.00	0.00	4,512.66	-1,329.56	1,288.53	1,599,957.67	2,278,086.47	39.45276	-108.05693
5,200.00	0.00	0.00	4,712.66	-1,329.56	1,288.53	1,599,957.67	2,278,086.47	39.45276	-108.05693
5,400.00	0.00	0.00	4,912.66	-1,329.56	1,288.53	1,599,957.67	2,278,086.47	39.45276	-108.05693
5,600.00	0.00	0.00	5,112.66	-1,329.56	1,288.53	1,599,957.67	2,278,086.47	39.45276	-108.05693
5,800.00	0.00	0.00	5,312.66	-1,329.56	1,288.53	1,599,957.67	2,278,086.47	39.45276	-108.05693
6,000.00	0.00	0.00	5,512.66	-1,329.56	1,288.53	1,599,957.67	2,278,086.47	39.45276	-108.05693
6,103.34	0.00	0.00	5,616.00	-1,329.56	1,288.53	1,599,957.67	2,278,086.47	39.45276	-108.05693
Cameo Coals									
6,200.00	0.00	0.00	5,712.66	-1,329.56	1,288.53	1,599,957.67	2,278,086.47	39.45276	-108.05693
6,400.00	0.00	0.00	5,912.66	-1,329.56	1,288.53	1,599,957.67	2,278,086.47	39.45276	-108.05693

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 332-12 - Slot B06
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5151.00usft (Nabors (26' RKB))
Project:	GV 12-07S-096W	MD Reference:	KELLY BUSHING @ 5151.00usft (Nabors (26' RKB))
Site:	GM 21-12 Pad	North Reference:	True
Well:	GM 332-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3 15Apr14 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
6,589.34	0.00	0.00	6,102.00	-1,329.56	1,288.53	1,599,957.67	2,278,086.47	39.45276	-108.05693
Rollins SS									
6,600.00	0.00	0.00	6,112.66	-1,329.56	1,288.53	1,599,957.67	2,278,086.47	39.45276	-108.05693
6,689.34	0.00	0.00	6,202.00	-1,329.56	1,288.53	1,599,957.67	2,278,086.47	39.45276	-108.05693
TD at 6689.34 - 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) GM - plan hits target center - Circle (radius 50.00)	0.00	0.00	4,302.00	-1,329.56	1,288.53	1,599,957.67	2,278,086.47	39.45276	-108.05693
TD/PBHL GM 332-12 - plan hits target center - Point	0.00	0.00	6,202.00	-1,329.56	1,288.53	1,599,957.67	2,278,086.47	39.45276	-108.05693

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,348.90	1,270.15	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
1,435.14	1,341.00	Top of "G" Sand				
1,556.87	1,441.00	Base of "G" Sand				
3,574.23	3,123.00	Mesaverde				
4,789.34	4,302.00	Approx. Top Gas				
6,103.34	5,616.00	Cameo Coals				
6,589.34	6,102.00	Rollins SS				
6,689.34	6,202.00	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
140.00	140.00	0.00	0.00	Start Build 3.00	
1,298.90	1,229.08	-244.84	237.28	Hold 34.77° Inc, 135.90° Az	
3,050.99	2,668.38	-962.30	932.60	Begin Drop -2.00°/100	
4,789.34	4,302.00	-1,329.56	1,288.53	Top Gas	
6,689.34	6,202.00	-1,329.56	1,288.53	TD at 6689.34	