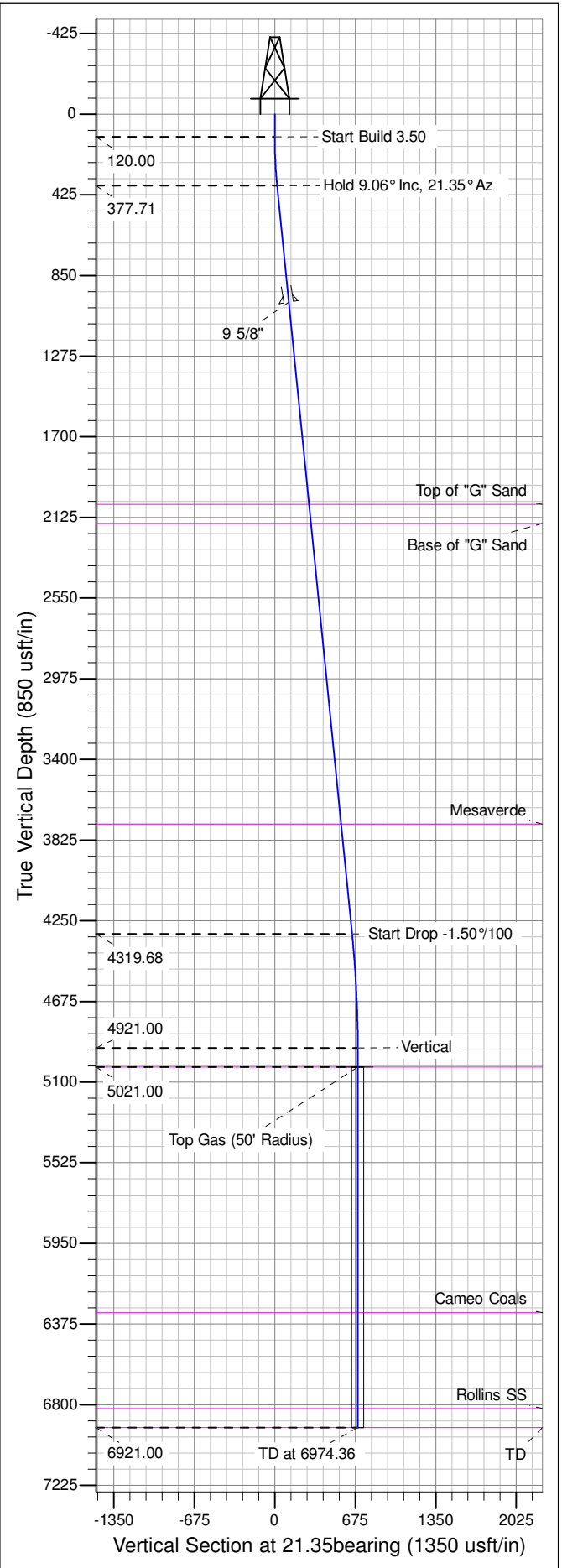




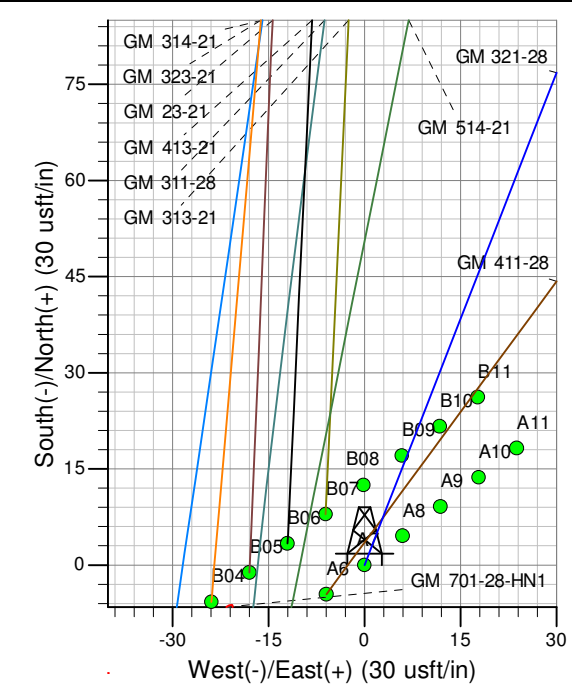
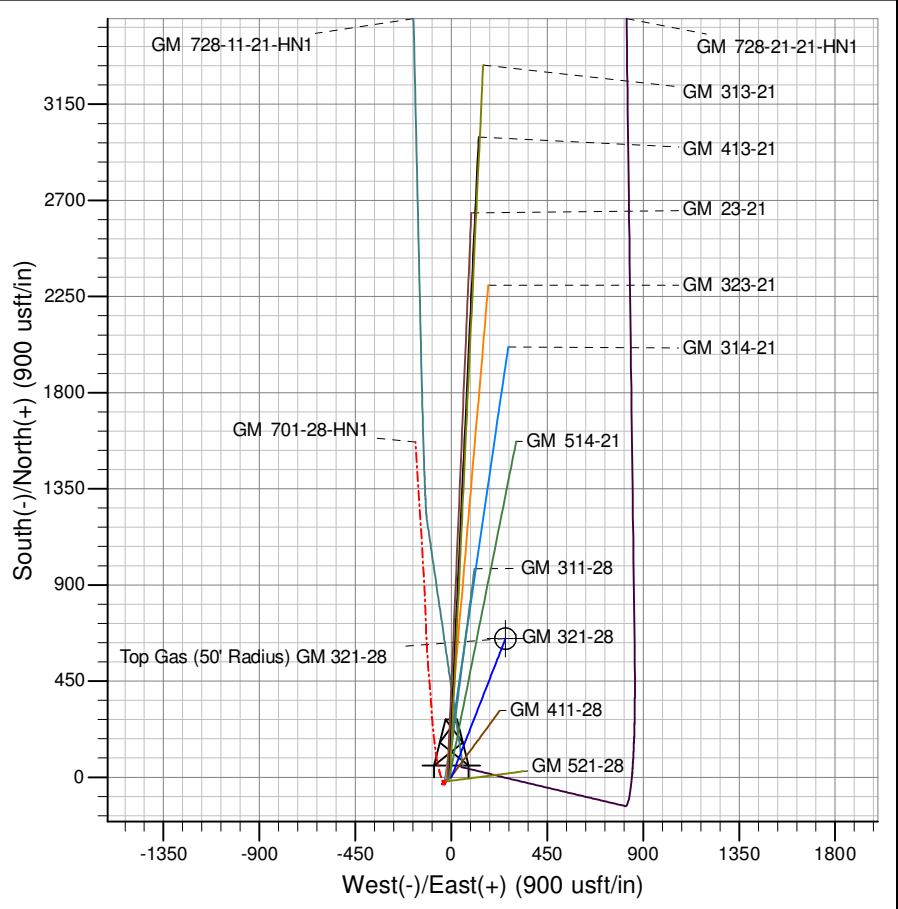
Well Name: GM 321-28
Surface Location: GM 11-28 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5604.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1617273.65	2260949.05	39.49894	-108.11936	A7

KELLY BUSHING @ 5630.00usft (Nabors 573 (26' 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	
377.71	378.78	9.06	21.35	19.01	7.43	20.41	20.41	Hold 9.06° Inc, 21.35° Az	
4319.68	4370.53	9.06	21.35	604.28	236.21	648.81	648.81	Start Drop -1.50%/100	
4921.00	4974.36	0.00	0.00	648.64	253.55	696.44	696.44	Vertical	
5021.00	5074.36	0.00	0.00	648.64	253.55	696.44	696.44	Top Gas	
6921.00	6974.36	0.00	0.00	648.64	253.55	696.44	696.44	TD at 6974.36	



Azimuths to True North
Magnetic North: 10.15°

Magnetic Field
Strength: 52037.1snT
Dip Angle: 65.66°
Date: 6/14/2013
Model: IGRF2010

Project: GV 28-06S-096W
Site: GM 11-28 Pad
Well: GM 321-28
Plan #3 28Aug14 mab

PICEANCE VLY NAD 83

GV 28-06S-096W

GM 11-28 Pad

GM 321-28 - Slot A7

Wellbore #1

Plan: Plan #3 28Aug14 mab

Standard Planning Report - Geographic

28 August, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 321-28 - Slot A7
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
Project:	GV 28-06S-096W	MD Reference:	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
Site:	GM 11-28 Pad	North Reference:	True
Well:	GM 321-28	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 28Aug14 mab		

Project	GV 28-06S-096W, 28-06S-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 11-28 Pad			
Site Position:		Northing:	1,617,299.30000 usft	Latitude: 39.49901
From: Map		Easting:	2,260,967.51000 usft	Longitude: -108.11930
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.65 °

Well	GM 321-28 - Slot A7			
Well Position	+N/-S	0.00 usft	Northing:	1,617,273.65000 usft
	+E/-W	0.00 usft	Easting:	2,260,949.05000 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	
			Ground Level:	5,604.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/14/2013	10.15	65.66	52,037

Design	Plan #3 28Aug14 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	21.35

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	
378.78	9.06	21.35	377.71	19.01	7.43	3.50	3.50	0.00	21.35	
4,370.53	9.06	21.35	4,319.68	604.28	236.21	0.00	0.00	0.00	0.00	
4,974.36	0.00	0.00	4,921.00	648.64	253.55	1.50	-1.50	0.00	180.00	
5,074.36	0.00	0.00	5,021.00	648.64	253.55	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
6,974.36	0.00	0.00	6,921.00	648.64	253.55	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 321-28 - Slot A7
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
Project:	GV 28-06S-096W	MD Reference:	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
Site:	GM 11-28 Pad	North Reference:	True
Well:	GM 321-28	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 28Aug14 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	1,617,273.65000	2,260,949.05000	39.49894	-108.11936	
120.00	0.00	0.00	120.00	0.00	0.00	1,617,273.65000	2,260,949.05000	39.49894	-108.11936	
Start Build 3.50										
200.00	2.80	21.35	199.97	1.82	0.71	1,617,275.44891	2,260,949.81368	39.49895	-108.11936	
378.78	9.06	21.35	377.71	19.01	7.43	1,617,292.43826	2,260,957.02610	39.49900	-108.11934	
Hold 9.06° Inc, 21.35° Az										
400.00	9.06	21.35	398.66	22.12	8.65	1,617,295.51248	2,260,958.33119	39.49900	-108.11933	
600.00	9.06	21.35	596.17	51.45	20.11	1,617,324.49282	2,260,970.63408	39.49908	-108.11929	
800.00	9.06	21.35	793.67	80.77	31.57	1,617,353.47316	2,260,982.93698	39.49916	-108.11925	
1,000.00	9.06	21.35	991.18	110.09	43.04	1,617,382.45349	2,260,995.23988	39.49925	-108.11921	
9 5/8"										
1,200.00	9.06	21.35	1,188.68	139.42	54.50	1,617,411.43383	2,261,007.54278	39.49933	-108.11917	
1,400.00	9.06	21.35	1,386.19	168.74	65.96	1,617,440.41417	2,261,019.84568	39.49941	-108.11913	
1,600.00	9.06	21.35	1,583.70	198.07	77.42	1,617,469.39450	2,261,032.14858	39.49949	-108.11909	
1,800.00	9.06	21.35	1,781.20	227.39	88.89	1,617,498.37484	2,261,044.45147	39.49957	-108.11905	
2,000.00	9.06	21.35	1,978.71	256.71	100.35	1,617,527.35517	2,261,056.75437	39.49965	-108.11901	
2,078.27	9.06	21.35	2,056.00	268.19	104.84	1,617,538.69624	2,261,061.56895	39.49968	-108.11899	
Top of "G" Sand										
2,179.53	9.06	21.35	2,156.00	283.04	110.64	1,617,553.36937	2,261,067.79807	39.49972	-108.11897	
Base of "G" Sand										
2,200.00	9.06	21.35	2,176.21	286.04	111.81	1,617,556.33551	2,261,069.05727	39.49973	-108.11897	
2,400.00	9.06	21.35	2,373.72	315.36	123.28	1,617,585.31585	2,261,081.36017	39.49981	-108.11892	
2,600.00	9.06	21.35	2,571.23	344.69	134.74	1,617,614.29618	2,261,093.66307	39.49989	-108.11888	
2,800.00	9.06	21.35	2,768.73	374.01	146.20	1,617,643.27651	2,261,105.96597	39.49997	-108.11884	
3,000.00	9.06	21.35	2,966.24	403.34	157.66	1,617,672.25685	2,261,118.26887	39.50005	-108.11880	
3,200.00	9.06	21.35	3,163.75	432.66	169.13	1,617,701.23718	2,261,130.57176	39.50013	-108.11876	
3,400.00	9.06	21.35	3,361.25	461.98	180.59	1,617,730.21752	2,261,142.87466	39.50021	-108.11872	
3,600.00	9.06	21.35	3,558.76	491.31	192.05	1,617,759.19785	2,261,155.17756	39.50029	-108.11868	
3,783.53	9.06	21.35	3,740.00	518.22	202.57	1,617,785.79170	2,261,166.46733	39.50037	-108.11864	
Mesaverde										
3,800.00	9.06	21.35	3,756.26	520.63	203.51	1,617,788.17819	2,261,167.48046	39.50037	-108.11864	
4,000.00	9.06	21.35	3,953.77	549.96	214.98	1,617,817.15853	2,261,179.78336	39.50045	-108.11860	
4,200.00	9.06	21.35	4,151.28	579.28	226.44	1,617,846.13886	2,261,192.08626	39.50053	-108.11856	
4,370.53	9.06	21.35	4,319.68	604.28	236.21	1,617,870.84921	2,261,202.57643	39.50060	-108.11852	
Start Drop -1.50°/100										
4,400.00	8.62	21.35	4,348.80	608.50	237.86	1,617,875.01583	2,261,204.34528	39.50061	-108.11852	
4,600.00	5.62	21.35	4,547.24	631.57	246.88	1,617,897.81622	2,261,214.02463	39.50068	-108.11849	
4,800.00	2.62	21.35	4,746.70	644.94	252.11	1,617,911.02611	2,261,219.63256	39.50071	-108.11847	
4,974.36	0.00	0.00	4,921.00	648.64	253.55	1,617,914.68850	2,261,221.18734	39.50072	-108.11846	
Vertical										
5,000.00	0.00	0.00	4,946.64	648.64	253.55	1,617,914.68850	2,261,221.18734	39.50072	-108.11846	
5,074.36	0.00	0.00	5,021.00	648.64	253.55	1,617,914.68850	2,261,221.18734	39.50072	-108.11846	
Top Gas - Approx. Top Gas										
5,200.00	0.00	0.00	5,146.64	648.64	253.55	1,617,914.68850	2,261,221.18734	39.50072	-108.11846	
5,400.00	0.00	0.00	5,346.64	648.64	253.55	1,617,914.68850	2,261,221.18734	39.50072	-108.11846	
5,600.00	0.00	0.00	5,546.64	648.64	253.55	1,617,914.68850	2,261,221.18734	39.50072	-108.11846	
5,800.00	0.00	0.00	5,746.64	648.64	253.55	1,617,914.68850	2,261,221.18734	39.50072	-108.11846	
6,000.00	0.00	0.00	5,946.64	648.64	253.55	1,617,914.68850	2,261,221.18734	39.50072	-108.11846	
6,200.00	0.00	0.00	6,146.64	648.64	253.55	1,617,914.68850	2,261,221.18734	39.50072	-108.11846	
6,369.36	0.00	0.00	6,316.00	648.64	253.55	1,617,914.68850	2,261,221.18734	39.50072	-108.11846	
Cameo Coals										

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 321-28 - Slot A7
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
Project:	GV 28-06S-096W	MD Reference:	KELLY BUSHING @ 5630.00usft (Nabors 573 (26' RKB) mab)
Site:	GM 11-28 Pad	North Reference:	True
Well:	GM 321-28	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 28Aug14 mab		

Planned Survey										
Measured			Vertical			Map	Map			
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Map	Map	Latitude	Longitude	
(usft)	(°)	(bearing)	(usft)	(usft)	(usft)	Northing	Easting			
						(usft)	(usft)			
6,400.00	0.00	0.00	6,346.64	648.64	253.55	1,617,914.68850	2,261,221.18734	39.50072	-108.11846	
6,600.00	0.00	0.00	6,546.64	648.64	253.55	1,617,914.68850	2,261,221.18734	39.50072	-108.11846	
6,800.00	0.00	0.00	6,746.64	648.64	253.55	1,617,914.68850	2,261,221.18734	39.50072	-108.11846	
6,874.36	0.00	0.00	6,821.00	648.64	253.55	1,617,914.68850	2,261,221.18734	39.50072	-108.11846	
Rollins SS										
6,974.36	0.00	0.00	6,921.00	648.64	253.55	1,617,914.68850	2,261,221.18734	39.50072	-108.11846	
TD at 6974.36 - TD										

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	0.00	5,021.00	648.64	253.55	1,617,914.68850	2,261,221.18734	39.50072	-108.11846	
- plan hits target center										
- Circle (radius 50.00)										

Casing Points							Casing Diameter (in)	Hole Diameter (in)
Measured Depth (usft)	Vertical Depth (usft)	Name						
1,000.00	991.18	9 5/8"					9.625	13.500

Formations							Dip (°)	Dip Direction (bearing)
Measured Depth (usft)	Vertical Depth (usft)	Name		Lithology				
2,078.27	2,056.00	Top of "G" Sand						
2,179.53	2,156.00	Base of "G" Sand						
3,783.53	3,740.00	Mesaverde						
5,074.36	5,021.00	Approx. Top Gas						
6,369.36	6,316.00	Cameo Coals						
6,874.36	6,821.00	Rollins SS						
6,974.36	6,921.00	TD						

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 3.50	
378.78	377.71	19.01	7.43	Hold 9.06° Inc, 21.35° Az	
4,370.53	4,319.68	604.28	236.21	Start Drop -1.50°/100	
4,974.36	4,921.00	648.64	253.55	Vertical	
5,074.36	5,021.00	648.64	253.55	Top Gas	
6,974.36	6,921.00	648.64	253.55	TD at 6974.36	