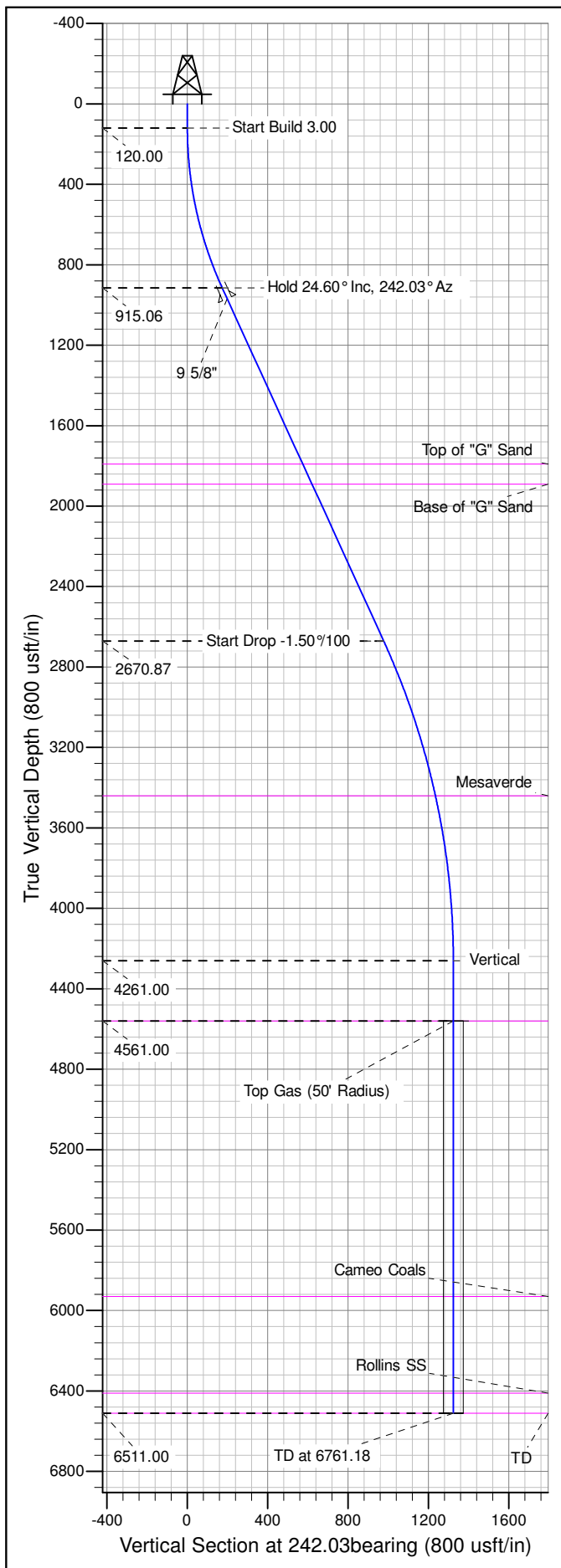
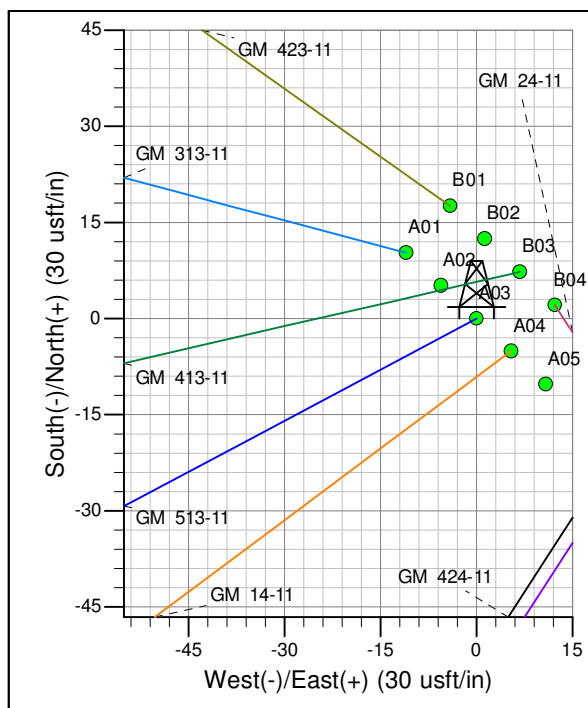
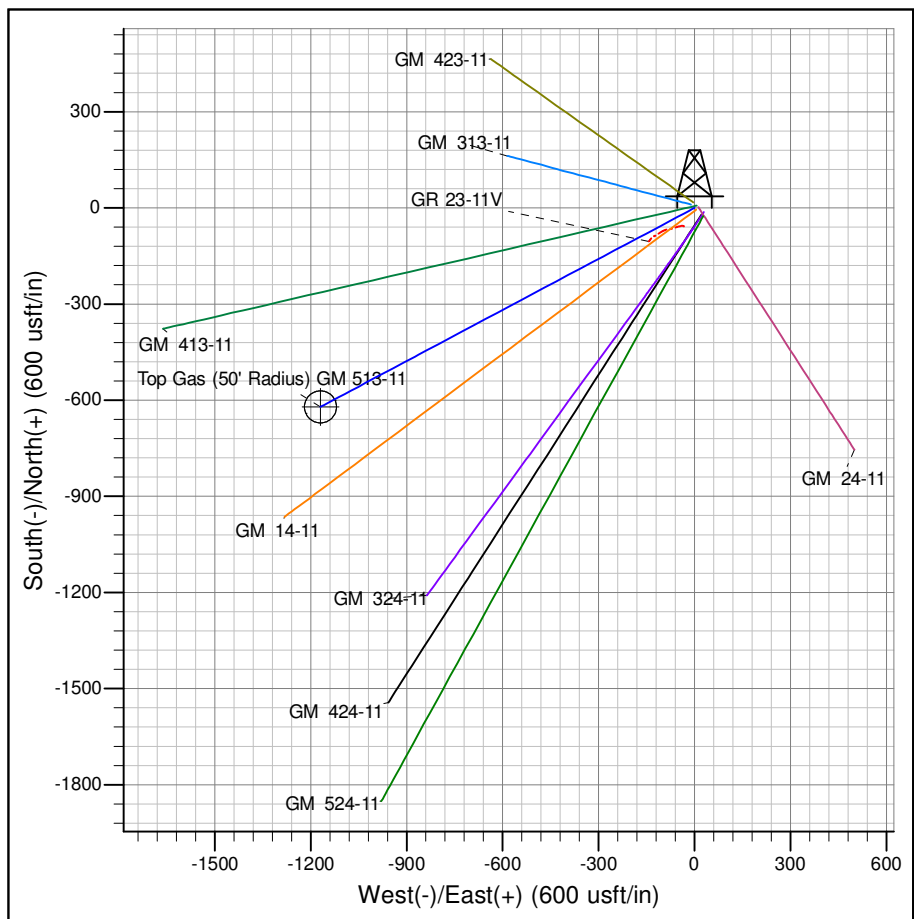




Well Name: GM 513-11
Surface Location: GR 23-11V Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5793.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1599228.90000 2271910.50000 39.450282 -108.078715 A03
KELLY BUSHING @ 5817.00usft (H&P 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 3.00	
915.06	940.03	24.60	242.03	-81.30	-153.11	173.36	173.36	Hold 24.60° Inc, 242.03° Az	
2670.87	2871.12	24.60	242.03	-458.31	-863.33	977.26	977.26	Start Drop -1.50°/100	
4261.00	4511.18	0.00	0.00	-620.91	-1169.35	1323.98	1323.98	Vertical	
4561.00	4811.18	0.00	0.00	-620.91	-1169.35	1323.98	1323.98	Top Gas	
6511.00	6761.18	0.00	0.00	-620.91	-1169.35	1323.98	1323.98	TD at 6761.18	



Azimuths to True North
Magnetic North: 10.37°

Magnetic Field
Strength: 52255.3snT
Dip Angle: 65.70°
Date: 5/23/2011
Model: IGRF2005-10

Project: GV 11-07S-096W
Site: GR 23-11V Pad
Well: GM 513-11
Design #2 22Jul14 mab

PICEANCE VLY NAD 83

GV 11-07S-096W

GR 23-11V Pad

GM 513-11 - Slot A03

Wellbore #1

Plan: Design #2 22Jul14 mab

Standard Planning Report - Geographic

11 September, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 513-11 - Slot A03
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Project:	GV 11-07S-096W	MD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Site:	GR 23-11V Pad	North Reference:	True
Well:	GM 513-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 22Jul14 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	GR 23-11V Pad		
Site Position:		Northing:	1,599,207.80000 usft
From:	Map	Easting:	2,271,931.70000 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in
		Latitude:	39.450226
		Longitude:	-108.078638
		Grid Convergence:	-1.63 °

Well	GM 513-11 - Slot A03		
Well Position	+N/-S	0.00 usft	Northing: 1,599,228.90000 usft
	+E/-W	0.00 usft	Easting: 2,271,910.50000 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	Latitude: 39.450282
			Longitude: -108.078715
			Ground Level: 5,793.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	5/23/2011	10.37	65.70	52,255

Design	Design #2 22Jul14 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	242.03	

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	
940.03	24.60	242.03	915.06	-81.30	-153.11	3.00	3.00	0.00	242.03	
2,871.12	24.60	242.03	2,670.87	-458.31	-863.13	0.00	0.00	0.00	0.00	
4,511.18	0.00	0.00	4,261.00	-620.91	-1,169.35	1.50	-1.50	0.00	180.00	
4,811.18	0.00	0.00	4,561.00	-620.91	-1,169.35	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
6,761.18	0.00	0.00	6,511.00	-620.91	-1,169.35	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 513-11 - Slot A03
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Project:	GV 11-07S-096W	MD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Site:	GR 23-11V Pad	North Reference:	True
Well:	GM 513-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 22Jul14 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	1,599,228.90000	2,271,910.50000	39.450282	-108.078715	
120.00	0.00	0.00	120.00	0.00	0.00	1,599,228.90000	2,271,910.50000	39.450282	-108.078715	
Start Build 3.00										
200.00	2.40	242.03	199.98	-0.79	-1.48	1,599,228.15669	2,271,908.99875	39.450280	-108.078721	
400.00	8.40	242.03	399.00	-9.61	-18.10	1,599,219.80938	2,271,892.13988	39.450256	-108.078779	
600.00	14.40	242.03	594.96	-28.14	-52.99	1,599,202.27739	2,271,856.73089	39.450205	-108.078903	
800.00	20.40	242.03	785.72	-56.17	-105.79	1,599,175.75279	2,271,803.15973	39.450128	-108.079090	
940.03	24.60	242.03	915.06	-81.30	-153.11	1,599,151.98162	2,271,755.14962	39.450059	-108.079258	
Hold 24.60° Inc, 242.03° Az										
1,000.00	24.60	242.03	969.59	-93.01	-175.16	1,599,140.90422	2,271,732.77682	39.450027	-108.079336	
9 5/8"										
1,200.00	24.60	242.03	1,151.44	-132.05	-248.70	1,599,103.96252	2,271,658.16646	39.449919	-108.079596	
1,400.00	24.60	242.03	1,333.28	-171.10	-322.23	1,599,067.02081	2,271,583.55610	39.449812	-108.079856	
1,600.00	24.60	242.03	1,515.13	-210.15	-395.77	1,599,030.07912	2,271,508.94575	39.449705	-108.080117	
1,800.00	24.60	242.03	1,696.98	-249.19	-469.30	1,598,993.13742	2,271,434.33539	39.449598	-108.080377	
1,903.41	24.60	242.03	1,791.00	-269.38	-507.32	1,598,974.03653	2,271,395.75774	39.449542	-108.080512	
Top of "G" Sand										
2,000.00	24.60	242.03	1,878.82	-288.24	-542.84	1,598,956.19572	2,271,359.72503	39.449491	-108.080638	
2,013.39	24.60	242.03	1,891.00	-290.85	-547.76	1,598,953.72170	2,271,354.72832	39.449484	-108.080655	
Base of "G" Sand										
2,200.00	24.60	242.03	2,060.67	-327.29	-616.37	1,598,919.25402	2,271,285.11467	39.449384	-108.080898	
2,400.00	24.60	242.03	2,242.51	-366.33	-689.91	1,598,882.31231	2,271,210.50431	39.449276	-108.081158	
2,600.00	24.60	242.03	2,424.36	-405.38	-763.44	1,598,845.37061	2,271,135.89396	39.449169	-108.081419	
2,800.00	24.60	242.03	2,606.21	-444.42	-836.98	1,598,808.42891	2,271,061.28361	39.449062	-108.081679	
2,871.12	24.60	242.03	2,670.87	-458.31	-863.13	1,598,795.29161	2,271,034.75048	39.449024	-108.081772	
Start Drop -1.50°/100										
3,000.00	22.67	242.03	2,788.93	-482.54	-908.76	1,598,772.36872	2,270,988.45362	39.448957	-108.081933	
3,200.00	19.67	242.03	2,975.42	-516.40	-972.54	1,598,740.32866	2,270,923.74300	39.448864	-108.082159	
3,400.00	16.67	242.03	3,165.43	-545.65	-1,027.61	1,598,712.66292	2,270,867.86710	39.448784	-108.082354	
3,600.00	13.67	242.03	3,358.44	-570.18	-1,073.82	1,598,689.44733	2,270,820.97908	39.448717	-108.082518	
3,684.75	12.40	242.03	3,441.00	-579.15	-1,090.70	1,598,680.96836	2,270,803.85428	39.448692	-108.082578	
Mesaverde										
3,800.00	10.67	242.03	3,553.92	-589.95	-1,111.05	1,598,670.74552	2,270,783.20745	39.448662	-108.082650	
4,000.00	7.67	242.03	3,751.34	-604.89	-1,139.19	1,598,656.60876	2,270,754.65573	39.448621	-108.082749	
4,200.00	4.67	242.03	3,950.16	-614.97	-1,158.16	1,598,647.07578	2,270,735.40218	39.448594	-108.082816	
4,400.00	1.67	242.03	4,149.84	-620.15	-1,167.92	1,598,642.17273	2,270,725.49958	39.448579	-108.082851	
4,511.18	0.00	0.00	4,261.00	-620.91	-1,169.35	1,598,641.45486	2,270,724.04971	39.448577	-108.082856	
Vertical										
4,600.00	0.00	0.00	4,349.82	-620.91	-1,169.35	1,598,641.45486	2,270,724.04971	39.448577	-108.082856	
4,800.00	0.00	0.00	4,549.82	-620.91	-1,169.35	1,598,641.45486	2,270,724.04971	39.448577	-108.082856	
4,811.18	0.00	0.00	4,561.00	-620.91	-1,169.35	1,598,641.45486	2,270,724.04971	39.448577	-108.082856	
Top Gas - Approx. Top Gas										
5,000.00	0.00	0.00	4,749.82	-620.91	-1,169.35	1,598,641.45486	2,270,724.04971	39.448577	-108.082856	
5,200.00	0.00	0.00	4,949.82	-620.91	-1,169.35	1,598,641.45486	2,270,724.04971	39.448577	-108.082856	
5,400.00	0.00	0.00	5,149.82	-620.91	-1,169.35	1,598,641.45486	2,270,724.04971	39.448577	-108.082856	
5,600.00	0.00	0.00	5,349.82	-620.91	-1,169.35	1,598,641.45486	2,270,724.04971	39.448577	-108.082856	
5,800.00	0.00	0.00	5,549.82	-620.91	-1,169.35	1,598,641.45486	2,270,724.04971	39.448577	-108.082856	
6,000.00	0.00	0.00	5,749.82	-620.91	-1,169.35	1,598,641.45486	2,270,724.04971	39.448577	-108.082856	
6,181.18	0.00	0.00	5,931.00	-620.91	-1,169.35	1,598,641.45486	2,270,724.04971	39.448577	-108.082856	
Cameo Coals										
6,200.00	0.00	0.00	5,949.82	-620.91	-1,169.35	1,598,641.45486	2,270,724.04971	39.448577	-108.082856	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 513-11 - Slot A03
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Project:	GV 11-07S-096W	MD Reference:	KELLY BUSHING @ 5817.00usft (H&P 318 (24' RKB) mab)
Site:	GR 23-11V Pad	North Reference:	True
Well:	GM 513-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 22Jul14 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	6,149.82	-620.91	-1,169.35	1,598,641.45486	2,270,724.04971	39.448577	-108.082856
6,600.00	0.00	0.00	6,349.82	-620.91	-1,169.35	1,598,641.45486	2,270,724.04971	39.448577	-108.082856
6,661.18	0.00	0.00	6,411.00	-620.91	-1,169.35	1,598,641.45486	2,270,724.04971	39.448577	-108.082856
Rollins SS									
6,761.18	0.00	0.00	6,511.00	-620.91	-1,169.35	1,598,641.45486	2,270,724.04971	39.448577	-108.082856
TD at 6761.18 - 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	4,561.00	-620.91	-1,169.35	1,598,641.45486	2,270,724.04971	39.448577	-108.082856

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,000.00	969.59	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
1,903.41	1,791.00	Top of "G" Sand				
2,013.39	1,891.00	Base of "G" Sand				
3,684.75	3,441.00	Mesaverde				
4,811.18	4,561.00	Approx. Top Gas				
6,181.18	5,931.00	Cameo Coals				
6,661.18	6,411.00	Rollins SS				
6,761.18	6,511.00	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 3.00	
940.03	915.06	-81.30	-153.11	Hold 24.60° Inc, 242.03° Az	
2,871.12	2,670.87	-458.31	-863.13	Start Drop -1.50°/100	
4,511.18	4,261.00	-620.91	-1,169.35	Vertical	
4,811.18	4,561.00	-620.91	-1,169.35	Top Gas	
6,761.18	6,511.00	-620.91	-1,169.35	TD at 6761.18	