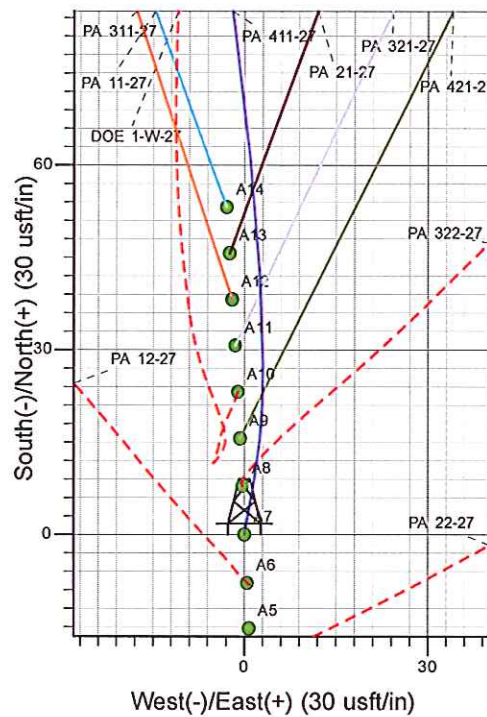
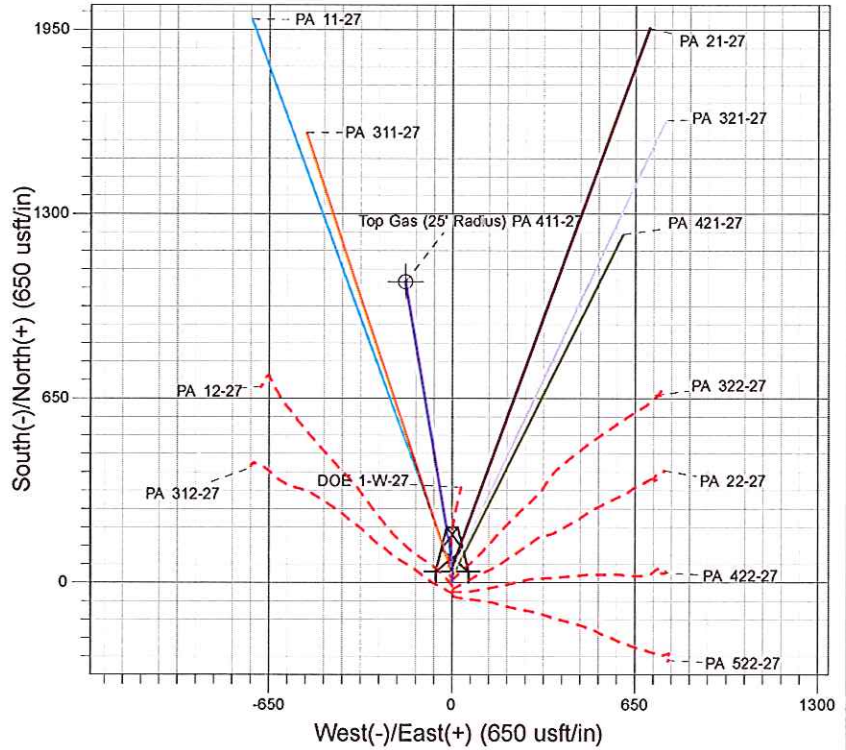
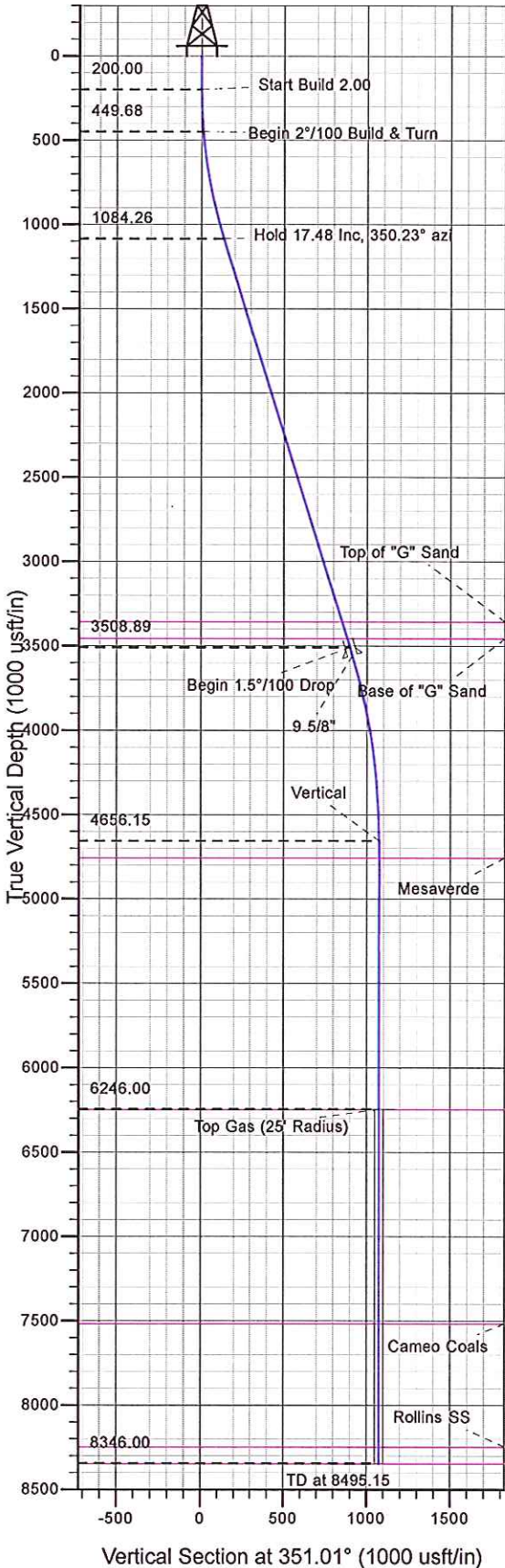




Well Name: PA 411-27
 Surface Location: DOE 1-W-27 Pad
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 5840.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1615405.20	2297661.60	39.49665	-107.98913	A7

KELLY BUSHING @ 5866.00usft (Nabors 577 (26' KB))



Project: PA 27-06S-095W
 Site: DOE 1-W-27 Pad
 Well: PA 411-27
 Design #2 10Jan13 kjs



Azimuths to True North
 Magnetic North: 11.45°
 Magnetic Field
 Strength: 53050.4nT
 Dip Angle: 65.99°
 Date: 12/31/2004
 Model: IGRF2000

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	V Sect	Departure	Annotation
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	Start Build 2.00
450.00	5.00	10.00	449.68	10.74	1.89	10.31	10.90	Begin 2°/100 Build & Turn
1098.21	17.46	350.31	1084.26	135.48	-9.79	135.34	136.58	Hold 17.48 Inc, 350.23° azi
3639.91	17.46	350.31	3508.89	887.10	-138.15	897.79	899.08	Begin 1.5°/100 Drop
4805.15	0.00	0.00	4656.15	1060.90	-167.83	1074.09	1075.40	Vertical
6395.00	0.00	0.00	6246.00	1060.90	-167.83	1074.10	1075.40	Top Gas
8495.00	0.00	0.00	8346.00	1060.91	-167.83	1074.10	1075.41	TD at 8495.15



PICEANCE VLY NAD 83

PA 27-06S-095W

DOE 1-W-27 Pad

PA 411-27 - Slot A7

Wellbore #1

Plan: Design #2 10Jan13 kjs

Standard Planning Report - Geographic

10 January, 2013



WPX Energy
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 411-27 - Slot A7
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5866.00usft (Nabors 577 (26' KB))
Project:	PA 27-06S-095W	MD Reference:	KELLY BUSHING @ 5866.00usft (Nabors 577 (26' KB))
Site:	DOE 1-W-27 Pad	North Reference:	True
Well:	PA 411-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 10Jan13 kjs		

Project	PA 27-06S-095W, Garfield County, CO, 27-06S-095W		
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	DOE 1-W-27 Pad				
Site Position:		Northing:	1,615,428.38 usft	Latitude:	39.49671
From:	Map	Easting:	2,297,661.11 usft	Longitude:	-107.98913
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	-1.57 °

Well	PA 411-27 - Slot A7					
Well Position	+N/-S	0.00 usft	Northing:	1,615,405.20 usft	Latitude:	39.49665
	+E/-W	0.00 usft	Easting:	2,297,661.60 usft	Longitude:	-107.98913
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,840.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2000	12/31/2004	11.45	65.99	53,050

Design	Design #2 10Jan13 kjs			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	351.01

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
450.00	5.00	10.00	449.68	10.74	1.89	2.00	2.00	0.00	10.00	
1,092.86	17.46	350.31	1,079.16	133.89	-9.52	2.00	1.94	-3.06	-27.02	
3,641.18	17.46	350.31	3,510.10	887.47	-138.21	0.00	0.00	0.00	0.00	
4,805.00	0.00	0.00	4,656.00	1,060.90	-167.83	1.50	-1.50	0.83	180.00	
8,495.00	0.00	0.00	8,346.00	1,060.91	-167.83	0.00	0.00	0.00	0.00	



WPX Energy
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well PA 411-27 - Slot A7
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5866.00usft (Nabors 577 (26' KB))
Project:	PA 27-06S-095W	MD Reference:	KELLY BUSHING @ 5866.00usft (Nabors 577 (26' KB))
Site:	DOE 1-W-27 Pad	North Reference:	True
Well:	PA 411-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 10Jan13 kjs		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	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	1,615,405.20	2,297,661.60	39.49665	-107.98913	
200.00	0.00	0.00	200.00	0.00	0.00	1,615,405.20	2,297,661.60	39.49665	-107.98913	
Start Build 2.00										
450.00	5.00	10.00	449.68	10.74	1.89	1,615,415.88	2,297,663.79	39.49668	-107.98912	
Begin 2°/100 Build & Turn										
500.00	5.91	5.58	499.46	15.44	2.52	1,615,420.56	2,297,664.55	39.49669	-107.98912	
1,000.00	15.62	351.22	990.14	107.81	-5.27	1,615,513.10	2,297,659.29	39.49694	-107.98915	
1,092.86	17.46	350.31	1,079.16	133.89	-9.52	1,615,539.30	2,297,655.75	39.49702	-107.98916	
1,098.21	17.46	350.31	1,084.26	135.48	-9.79	1,615,540.88	2,297,655.52	39.49702	-107.98916	
Hold 17.48 Inc, 350.23° azi										
1,500.00	17.46	350.31	1,467.55	254.29	-30.08	1,615,660.21	2,297,638.50	39.49735	-107.98924	
2,000.00	17.46	350.31	1,944.52	402.15	-55.33	1,615,808.70	2,297,617.31	39.49775	-107.98933	
2,500.00	17.46	350.31	2,421.49	550.01	-80.58	1,615,957.18	2,297,596.12	39.49816	-107.98942	
3,000.00	17.46	350.31	2,898.46	697.87	-105.83	1,616,105.67	2,297,574.93	39.49856	-107.98950	
3,479.64	17.46	350.31	3,356.00	839.70	-130.05	1,616,248.11	2,297,554.61	39.49895	-107.98959	
Top of "G" Sand										
3,500.00	17.46	350.31	3,375.43	845.73	-131.08	1,616,254.16	2,297,553.74	39.49897	-107.98959	
3,584.47	17.46	350.31	3,456.00	870.70	-135.35	1,616,279.24	2,297,550.16	39.49904	-107.98961	
Base of "G" Sand										
3,639.91	17.46	350.31	3,508.89	887.10	-138.15	1,616,295.71	2,297,547.81	39.49908	-107.98962	
Begin 1.5°/100 Drop										
3,641.18	17.46	350.31	3,510.10	887.47	-138.21	1,616,296.09	2,297,547.76	39.49909	-107.98962	
3,689.20	16.74	350.31	3,556.00	901.39	-140.59	1,616,310.06	2,297,545.77	39.49912	-107.98963	
9 5/8"										
4,000.00	12.08	350.31	3,856.94	977.59	-153.60	1,616,386.59	2,297,534.85	39.49933	-107.98967	
4,500.00	4.58	350.31	4,351.32	1,048.90	-165.78	1,616,458.20	2,297,524.63	39.49953	-107.98972	
4,805.00	0.00	0.00	4,656.00	1,060.90	-167.83	1,616,470.25	2,297,522.91	39.49956	-107.98972	
4,805.15	0.00	0.00	4,656.15	1,060.90	-167.83	1,616,470.25	2,297,522.91	39.49956	-107.98972	
Vertical										
4,905.00	0.00	0.00	4,756.00	1,060.90	-167.83	1,616,470.25	2,297,522.91	39.49956	-107.98972	
Mesaverde										
5,000.00	0.00	0.00	4,851.00	1,060.90	-167.83	1,616,470.25	2,297,522.91	39.49956	-107.98972	
5,500.00	0.00	0.00	5,351.00	1,060.90	-167.83	1,616,470.25	2,297,522.91	39.49956	-107.98972	
6,000.00	0.00	0.00	5,851.00	1,060.90	-167.83	1,616,470.26	2,297,522.91	39.49956	-107.98972	
6,395.00	0.00	0.00	6,246.00	1,060.90	-167.83	1,616,470.26	2,297,522.91	39.49956	-107.98972	
Top Gas - Approx. Top Gas										
6,500.00	0.00	0.00	6,351.00	1,060.90	-167.83	1,616,470.26	2,297,522.91	39.49956	-107.98972	
7,000.00	0.00	0.00	6,851.00	1,060.91	-167.83	1,616,470.26	2,297,522.91	39.49956	-107.98972	
7,500.00	0.00	0.00	7,351.00	1,060.91	-167.83	1,616,470.26	2,297,522.91	39.49956	-107.98972	
7,665.00	0.00	0.00	7,516.00	1,060.91	-167.83	1,616,470.26	2,297,522.91	39.49956	-107.98972	
Cameo Coals										
8,000.00	0.00	0.00	7,851.00	1,060.91	-167.83	1,616,470.26	2,297,522.91	39.49956	-107.98972	
8,395.00	0.00	0.00	8,246.00	1,060.91	-167.83	1,616,470.26	2,297,522.91	39.49956	-107.98972	
Rollins SS										
8,495.00	0.00	0.00	8,346.00	1,060.91	-167.83	1,616,470.26	2,297,522.91	39.49956	-107.98972	
TD										



WPX Energy
Planning Report - Geographic

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Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5866.00usft (Nabors 577 (26' KB))
Project:	PA 27-06S-095W	MD Reference:	KELLY BUSHING @ 5866.00usft (Nabors 577 (26' KB))
Site:	DOE 1-W-27 Pad	North Reference:	True
Well:	PA 411-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 10Jan13 kjs		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
Top Gas (25' Radius) P/ - plan hits target center - Circle (radius 25.00)	0.00	0.00	6,246.00	1,060.90	-167.83	1,616,470.25	2,297,522.91	39.49956	-107.98972

Casing Points					
Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter	
(usft)	(usft)		(in)	(in)	
3,689.20	3,556.00	9 5/8"	9.625	13.500	

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
3,479.64	3,356.00	Top of "G" Sand				
3,584.47	3,456.00	Base of "G" Sand				
4,905.00	4,756.00	Mesaverde				
6,395.00	6,246.00	Approx. Top Gas				
7,665.00	7,516.00	Cameo Coals				
8,395.00	8,246.00	Rollins SS				
8,495.00	8,346.00	TD				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(usft)	(usft)	+N/-S	+E/-W		
		(usft)	(usft)		
200.00	200.00	0.00	0.00	Start Build 2.00	
450.00	449.68	10.74	1.89	Begin 2°/100 Build & Turn	
1,098.21	1,084.26	135.48	-9.79	Hold 17.48 Inc, 350.23° azi	
3,639.91	3,508.89	887.10	-138.15	Begin 1.5°/100 Drop	
4,805.15	4,656.15	1,060.90	-167.83	Vertical	
6,395.00	6,246.00	1,060.90	-167.83	Top Gas	
8,495.15				TD at 8495.15	