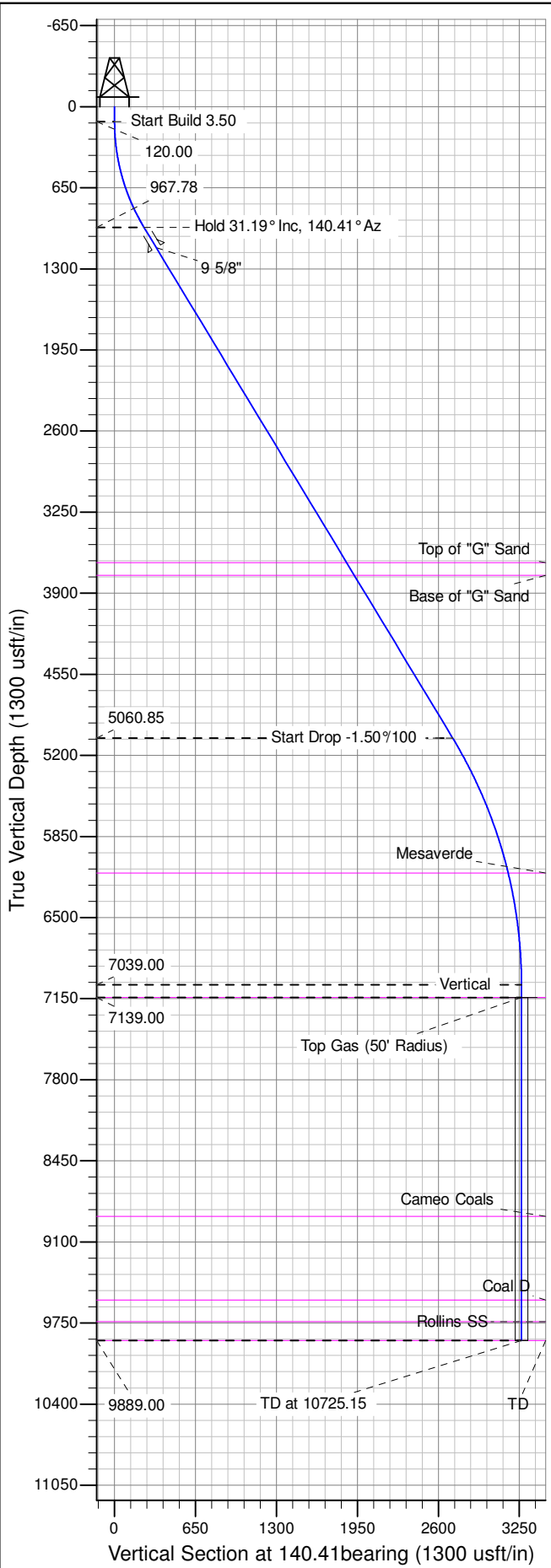
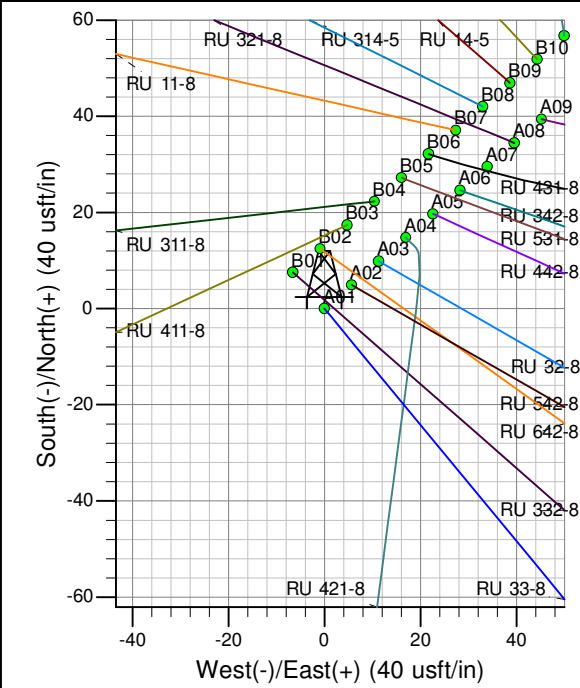
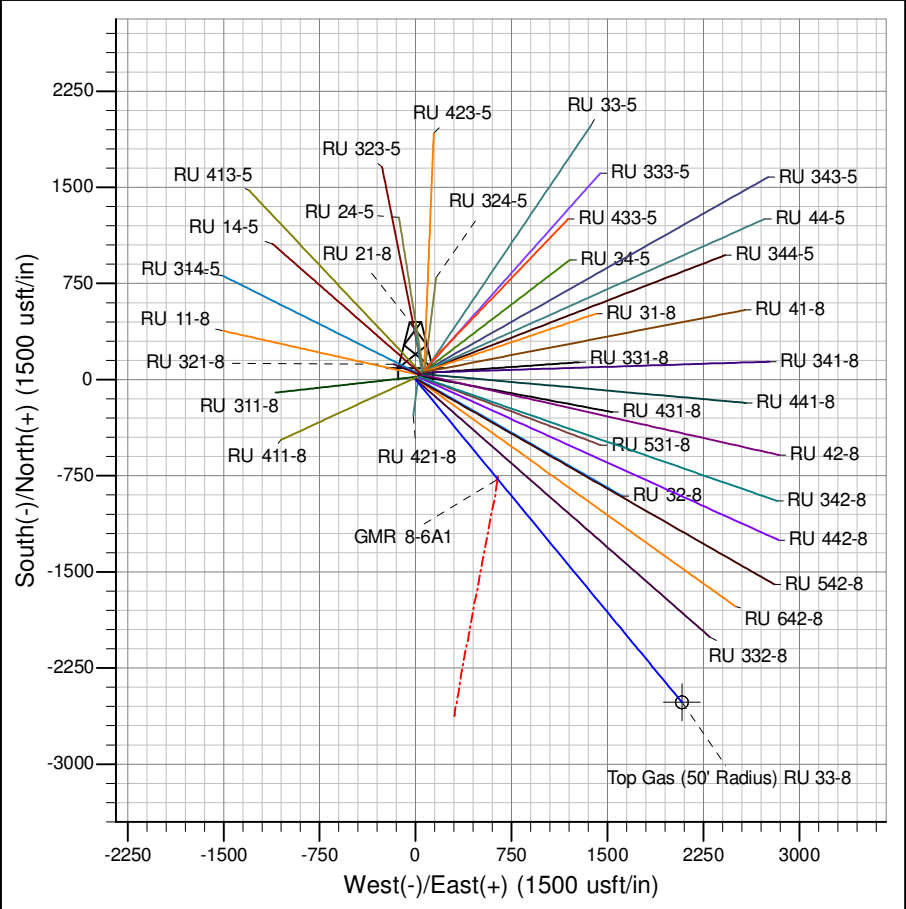




Well Name: RU 33-8
Surface Location: RU 21-8 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 7736.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1602626.43 2350457.36 39.46540 -107.80095 A01
KELLY BUSHING @ 7762.00usft (Nabors 576 (26' 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	
967.78	1011.14	31.19	140.41	-182.36	150.79	236.62	236.62	Hold 31.19° Inc, 140.41° Az	
5060.85	5795.82	31.19	140.41	-2091.97	1729.79	2714.50	2714.50	Start Drop -1.50°/100	
7039.00	7875.15	0.00	0.00	-2517.47	2081.63	3266.62	3266.62	Vertical	
7139.00	7975.15	0.00	0.00	-2517.47	2081.63	3266.62	3266.62	Top Gas	
9889.00	10725.15	0.00	0.00	-2517.47	2081.63	3266.62	3266.62	TD at 10725.15	



Azimuths to True North
Magnetic North: 9.84°

Magnetic Field
Strength: 51918.9snT
Dip Angle: 65.66°
Date: 9/5/2014
Model: IGRF2010

Project: RU 08-07S-093W
Site: RU 21-8 Pad
Well: RU 33-8
Design #1 05Sep14 mab

PICEANCE VLY NAD 83

RU 08-07S-093W

RU 21-8 Pad

RU 33-8 - Slot A01

Wellbore #1

Plan: Design #1 05Sep14 mab

Standard Planning Report - Geographic

28 November, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 33-8 - Slot A01
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Project:	RU 08-07S-093W	MD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Site:	RU 21-8 Pad	North Reference:	True
Well:	RU 33-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 05Sep14 mab		

Project	RU 08-07S-093W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	RU 21-8 Pad			
Site Position:		Northing:	1,602,707.70 usft	Latitude: 39.46563
From: Map		Easting:	2,350,555.60 usft	Longitude: -107.80061
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.45 °

Well	RU 33-8 - Slot A01			
Well Position	+N/-S	0.00 usft	Northing:	1,602,626.42 usft
	+E/-W	0.00 usft	Easting:	2,350,457.36 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	7,736.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/5/2014	9.84	65.66	51,919

Design	Design #1 05Sep14 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	140.41

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	
1,011.14	31.19	140.41	967.78	-182.36	150.79	3.50	3.50	0.00	140.41	
5,795.82	31.19	140.41	5,060.85	-2,091.97	1,729.79	0.00	0.00	0.00	0.00	
7,875.15	0.00	0.00	7,039.00	-2,517.47	2,081.63	1.50	-1.50	0.00	180.00	
7,975.15	0.00	0.00	7,139.00	-2,517.47	2,081.63	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
10,725.15	0.00	0.00	9,889.00	-2,517.47	2,081.63	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 33-8 - Slot A01
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Project:	RU 08-07S-093W	MD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Site:	RU 21-8 Pad	North Reference:	True
Well:	RU 33-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 05Sep14 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	1,602,626.42	2,350,457.36	39.46540	-107.80095
120.00	0.00	0.00	120.00	0.00	0.00	1,602,626.42	2,350,457.36	39.46540	-107.80095
Start Build 3.50									
200.00	2.80	140.41	199.97	-1.51	1.25	1,602,624.89	2,350,458.57	39.46539	-107.80095
400.00	9.80	140.41	398.64	-18.41	15.22	1,602,607.64	2,350,472.11	39.46535	-107.80090
600.00	16.80	140.41	593.15	-53.85	44.52	1,602,571.47	2,350,500.51	39.46525	-107.80080
800.00	23.80	140.41	780.61	-107.29	88.71	1,602,516.93	2,350,543.33	39.46510	-107.80064
1,000.00	30.80	140.41	958.23	-177.94	147.13	1,602,444.82	2,350,599.94	39.46491	-107.80043
1,011.14	31.19	140.41	967.78	-182.36	150.79	1,602,440.31	2,350,603.48	39.46490	-107.80042
Hold 31.19° Inc, 140.41° Az									
1,200.00	31.19	140.41	1,129.34	-257.73	213.11	1,602,363.38	2,350,663.88	39.46469	-107.80020
9 5/8"									
1,400.00	31.19	140.41	1,300.43	-337.55	279.11	1,602,281.91	2,350,727.84	39.46447	-107.79997
1,600.00	31.19	140.41	1,471.52	-417.38	345.12	1,602,200.44	2,350,791.80	39.46425	-107.79973
1,800.00	31.19	140.41	1,642.61	-497.20	411.12	1,602,118.97	2,350,855.76	39.46403	-107.79950
2,000.00	31.19	140.41	1,813.70	-577.02	477.12	1,602,037.51	2,350,919.72	39.46381	-107.79926
2,200.00	31.19	140.41	1,984.79	-656.84	543.12	1,601,956.04	2,350,983.68	39.46359	-107.79903
2,400.00	31.19	140.41	2,155.88	-736.66	609.13	1,601,874.57	2,351,047.64	39.46338	-107.79880
2,600.00	31.19	140.41	2,326.97	-816.49	675.13	1,601,793.10	2,351,111.60	39.46316	-107.79856
2,800.00	31.19	140.41	2,498.06	-896.31	741.13	1,601,711.63	2,351,175.56	39.46294	-107.79833
3,000.00	31.19	140.41	2,669.15	-976.13	807.14	1,601,630.17	2,351,239.52	39.46272	-107.79810
3,200.00	31.19	140.41	2,840.25	-1,055.95	873.14	1,601,548.70	2,351,303.48	39.46250	-107.79786
3,400.00	31.19	140.41	3,011.34	-1,135.77	939.14	1,601,467.23	2,351,367.44	39.46228	-107.79763
3,600.00	31.19	140.41	3,182.43	-1,215.60	1,005.14	1,601,385.76	2,351,431.40	39.46206	-107.79739
3,800.00	31.19	140.41	3,353.52	-1,295.42	1,071.15	1,601,304.30	2,351,495.36	39.46184	-107.79716
4,000.00	31.19	140.41	3,524.61	-1,375.24	1,137.15	1,601,222.83	2,351,559.32	39.46162	-107.79693
4,153.59	31.19	140.41	3,656.00	-1,436.54	1,187.84	1,601,160.26	2,351,608.44	39.46145	-107.79675
Top of "G" Sand									
4,200.00	31.19	140.41	3,695.70	-1,455.06	1,203.15	1,601,141.36	2,351,623.28	39.46140	-107.79669
4,270.49	31.19	140.41	3,756.00	-1,483.19	1,226.41	1,601,112.65	2,351,645.82	39.46133	-107.79661
Base of "G" Sand									
4,400.00	31.19	140.41	3,866.79	-1,534.88	1,269.15	1,601,059.89	2,351,687.24	39.46118	-107.79646
4,600.00	31.19	140.41	4,037.88	-1,614.71	1,335.16	1,600,978.42	2,351,751.20	39.46097	-107.79623
4,800.00	31.19	140.41	4,208.97	-1,694.53	1,401.16	1,600,896.96	2,351,815.16	39.46075	-107.79599
5,000.00	31.19	140.41	4,380.06	-1,774.35	1,467.16	1,600,815.49	2,351,879.12	39.46053	-107.79576
5,200.00	31.19	140.41	4,551.15	-1,854.17	1,533.16	1,600,734.02	2,351,943.08	39.46031	-107.79552
5,400.00	31.19	140.41	4,722.25	-1,933.99	1,599.17	1,600,652.55	2,352,007.04	39.46009	-107.79529
5,600.00	31.19	140.41	4,893.34	-2,013.81	1,665.17	1,600,571.08	2,352,071.00	39.45987	-107.79506
5,795.82	31.19	140.41	5,060.85	-2,091.97	1,729.79	1,600,491.32	2,352,133.62	39.45965	-107.79483
Start Drop -1.50°/100									
5,800.00	31.13	140.41	5,064.43	-2,093.64	1,731.17	1,600,489.62	2,352,134.96	39.45965	-107.79482
6,000.00	28.13	140.41	5,238.26	-2,169.82	1,794.17	1,600,411.86	2,352,196.00	39.45944	-107.79460
6,200.00	25.13	140.41	5,417.03	-2,238.90	1,851.28	1,600,341.36	2,352,251.35	39.45925	-107.79440
6,400.00	22.13	140.41	5,600.24	-2,300.66	1,902.36	1,600,278.32	2,352,300.84	39.45908	-107.79422
6,600.00	19.13	140.41	5,787.40	-2,354.96	1,947.25	1,600,222.91	2,352,344.35	39.45893	-107.79406
6,800.00	16.13	140.41	5,977.99	-2,401.63	1,985.84	1,600,175.28	2,352,381.74	39.45880	-107.79392
6,971.76	13.55	140.41	6,144.00	-2,435.52	2,013.87	1,600,140.68	2,352,408.90	39.45871	-107.79382
Mesaverde									
7,000.00	13.13	140.41	6,171.48	-2,440.54	2,018.02	1,600,135.56	2,352,412.93	39.45870	-107.79381
7,200.00	10.13	140.41	6,367.36	-2,471.61	2,043.70	1,600,103.85	2,352,437.82	39.45861	-107.79372
7,400.00	7.13	140.41	6,565.07	-2,494.72	2,062.82	1,600,080.26	2,352,456.34	39.45855	-107.79365
7,600.00	4.13	140.41	6,764.08	-2,509.84	2,075.32	1,600,064.84	2,352,468.45	39.45851	-107.79360

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 33-8 - Slot A01
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Project:	RU 08-07S-093W	MD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Site:	RU 21-8 Pad	North Reference:	True
Well:	RU 33-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 05Sep14 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
7,800.00	1.13	140.41	6,963.85	-2,516.90	2,081.16	1,600,057.63	2,352,474.11	39.45849	-107.79358
7,875.15	0.00	0.00	7,039.00	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
Vertical									
7,975.15	0.00	0.00	7,139.00	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
Top Gas - Approx. Top Gas									
8,000.00	0.00	0.00	7,163.85	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
8,200.00	0.00	0.00	7,363.85	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
8,400.00	0.00	0.00	7,563.85	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
8,600.00	0.00	0.00	7,763.85	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
8,800.00	0.00	0.00	7,963.85	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
9,000.00	0.00	0.00	8,163.85	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
9,200.00	0.00	0.00	8,363.85	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
9,400.00	0.00	0.00	8,563.85	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
9,600.00	0.00	0.00	8,763.85	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
9,732.15	0.00	0.00	8,896.00	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
Cameo Coals									
9,800.00	0.00	0.00	8,963.85	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
10,000.00	0.00	0.00	9,163.85	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
10,200.00	0.00	0.00	9,363.85	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
10,400.00	0.00	0.00	9,563.85	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
10,402.15	0.00	0.00	9,566.00	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
Coal D									
10,575.15	0.00	0.00	9,739.00	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
Rollins SS									
10,600.00	0.00	0.00	9,763.85	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
10,725.15	0.00	0.00	9,889.00	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358
TD at 10725.15 - 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) RL - plan hits target center - Circle (radius 50.00)	0.00	358.55	7,139.00	-2,517.47	2,081.63	1,600,057.04	2,352,474.57	39.45849	-107.79358

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,200.00	1,129.34	9 5/8"	9.625	13.500	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 33-8 - Slot A01
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Project:	RU 08-07S-093W	MD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Site:	RU 21-8 Pad	North Reference:	True
Well:	RU 33-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 05Sep14 mab		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
4,153.59	3,656.00	Top of "G" Sand				
4,270.49	3,756.00	Base of "G" Sand				
6,971.76	6,144.00	Mesaverde				
7,975.15	7,139.00	Approx. Top Gas				
9,732.15	8,896.00	Cameo Coals				
10,402.15	9,566.00	Coal D				
10,575.15	9,739.00	Rollins SS				
10,725.15	9,889.00	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 3.50	
1,011.14	967.78	-182.36	150.79	Hold 31.19° Inc, 140.41° Az	
5,795.82	5,060.85	-2,091.97	1,729.79	Start Drop -1.50°/100	
7,875.15	7,039.00	-2,517.47	2,081.63	Vertical	
7,975.15	7,139.00	-2,517.47	2,081.63	Top Gas	
10,725.15	9,889.00	-2,517.47	2,081.63	TD at 10725.15	