



PICEANCE HL NAD 83

RG 36-01S-098W

RGU 33-36-198 Pad

RGU 33-36-198 - Slot A6

Wellbore #1

Plan: Design #1 18Oct11 kjs

Standard Planning Report - Geographic

05 March, 2012



WPX Energy
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RGU 33-36-198 - Slot A6
Company:	PICEANCE HL NAD 83	TVD Reference:	WELL @ 6595.00usft (Original Well Elev)
Project:	RG 36-01S-098W	MD Reference:	WELL @ 6595.00usft (Original Well Elev)
Site:	RGU 33-36-198 Pad	North Reference:	True
Well:	RGU 33-36-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 18Oct11 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	1,771,048.90	2,203,514.30	39° 54' 58.199 N	108° 20' 23.368 W
120.00	0.00	0.00	120.00	0.00	0.00	1,771,048.90	2,203,514.30	39° 54' 58.199 N	108° 20' 23.368 W
Start Build 2.25									
513.14	8.85	357.64	511.58	30.26	-1.25	1,771,079.19	2,203,514.00	39° 54' 58.498 N	108° 20' 23.384 W
Hold 8.85 Inclination									
1,093.46	8.85	357.64	1,085.00	119.42	-4.92	1,771,168.42	2,203,513.12	39° 54' 59.380 N	108° 20' 23.431 W
Green River Fm									
1,245.27	8.85	357.64	1,235.00	142.75	-5.88	1,771,191.77	2,203,512.88	39° 54' 59.610 N	108° 20' 23.443 W
A Groove									
1,437.55	8.85	357.64	1,425.00	172.29	-7.10	1,771,221.34	2,203,512.59	39° 54' 59.902 N	108° 20' 23.459 W
B Groove									
1,741.17	8.85	357.64	1,725.00	218.94	-9.02	1,771,268.02	2,203,512.13	39° 55' 0.363 N	108° 20' 23.484 W
Dissolution Surface									
2,768.38	8.85	357.64	2,740.00	376.77	-15.52	1,771,425.98	2,203,510.56	39° 55' 1.923 N	108° 20' 23.567 W
Garden Gulch									
2,945.49	8.85	357.64	2,915.00	403.98	-16.64	1,771,453.22	2,203,510.29	39° 55' 2.192 N	108° 20' 23.581 W
Orange Marker									
3,168.14	8.85	357.64	3,135.00	438.19	-18.05	1,771,487.45	2,203,509.96	39° 55' 2.530 N	108° 20' 23.600 W
Wasatch									
3,674.16	8.85	357.64	3,635.00	515.93	-21.25	1,771,565.26	2,203,509.19	39° 55' 3.298 N	108° 20' 23.641 W
9 5/8"									
5,566.67	8.85	357.64	5,505.00	806.71	-33.23	1,771,856.28	2,203,506.30	39° 55' 6.172 N	108° 20' 23.794 W
G' Sand									
5,910.76	8.85	357.64	5,845.00	859.57	-35.40	1,771,909.19	2,203,505.78	39° 55' 6.694 N	108° 20' 23.822 W
Ft. Union									
6,915.33	8.85	357.64	6,837.63	1,013.92	-41.76	1,772,063.67	2,203,504.25	39° 55' 8.219 N	108° 20' 23.904 W
Start Drop -1.50									
7,304.96	3.00	357.64	7,225.00	1,054.08	-43.41	1,772,103.86	2,203,503.85	39° 55' 8.616 N	108° 20' 23.925 W
Ohio Creek									
7,505.05	0.00	0.00	7,425.00	1,059.31	-43.63	1,772,109.10	2,203,503.80	39° 55' 8.668 N	108° 20' 23.928 W
Vertical									
7,605.05	0.00	0.00	7,525.00	1,059.31	-43.63	1,772,109.10	2,203,503.80	39° 55' 8.668 N	108° 20' 23.928 W
Mesaverde - Mesaverde - Mesaverde (25' Radius) RGU 33-36-198									
8,975.05	0.00	0.00	8,895.00	1,059.31	-43.63	1,772,109.10	2,203,503.80	39° 55' 8.668 N	108° 20' 23.928 W
Top Gas									
10,725.05	0.00	0.00	10,645.00	1,059.31	-43.63	1,772,109.10	2,203,503.80	39° 55' 8.668 N	108° 20' 23.928 W
Cameo Coals									
11,285.05	0.00	0.00	11,205.00	1,059.31	-43.63	1,772,109.10	2,203,503.80	39° 55' 8.668 N	108° 20' 23.928 W
Rollins SS									
11,425.05	0.00	0.00	11,345.00	1,059.31	-43.63	1,772,109.10	2,203,503.80	39° 55' 8.668 N	108° 20' 23.928 W
Cozzette									
11,655.05	0.00	0.00	11,575.00	1,059.31	-43.63	1,772,109.10	2,203,503.80	39° 55' 8.668 N	108° 20' 23.928 W
Corcoran									
12,040.05	0.00	0.00	11,960.00	1,059.31	-43.63	1,772,109.10	2,203,503.80	39° 55' 8.668 N	108° 20' 23.928 W
Upper Sego									
12,285.05	0.00	0.00	12,205.00	1,059.31	-43.63	1,772,109.10	2,203,503.80	39° 55' 8.668 N	108° 20' 23.928 W
Lower Sego									
12,535.05	0.00	0.00	12,455.00	1,059.31	-43.63	1,772,109.10	2,203,503.80	39° 55' 8.668 N	108° 20' 23.928 W
TD at 12535.05 - TD									



WPX Energy
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Project:	RG 36-01S-098W	MD Reference:	WELL @ 6595.00usft (Original Well Elev)
Site:	RGU 33-36-198 Pad	North Reference:	True
Well:	RGU 33-36-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 18Oct11 kjs		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Mesaverde (25' Radius) - plan hits target center - Circle (radius 25.00)	0.00	0.00	7,525.00	1,059.31	-43.63	1,772,109.10	2,203,503.80	39° 55' 8.668 N	108° 20' 23.928 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
3,674.16	3,635.00	9 5/8"	9.625	14.750

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,093.46	1,085.00	Green River Fm			
1,245.27	1,235.00	A Groove			
1,437.55	1,425.00	B Groove			
1,741.17	1,725.00	Dissolution Surface			
2,768.38	2,740.00	Garden Gulch			
2,945.49	2,915.00	Orange Marker			
3,168.14	3,135.00	Wasatch			
5,566.67	5,505.00	G' Sand			
5,910.76	5,845.00	Ft. Union			
7,304.96	7,225.00	Ohio Creek			
7,605.05	7,525.00	Mesaverde			
8,975.05	8,895.00	Top Gas			
10,725.05	10,645.00	Cameo Coals			
11,285.05	11,205.00	Rollins SS			
11,425.05	11,345.00	Cozzette			
11,655.05	11,575.00	Corcoran			
12,040.05	11,960.00	Upper Sego			
12,285.05	12,205.00	Lower Sego			
12,535.05	12,455.00	TD			

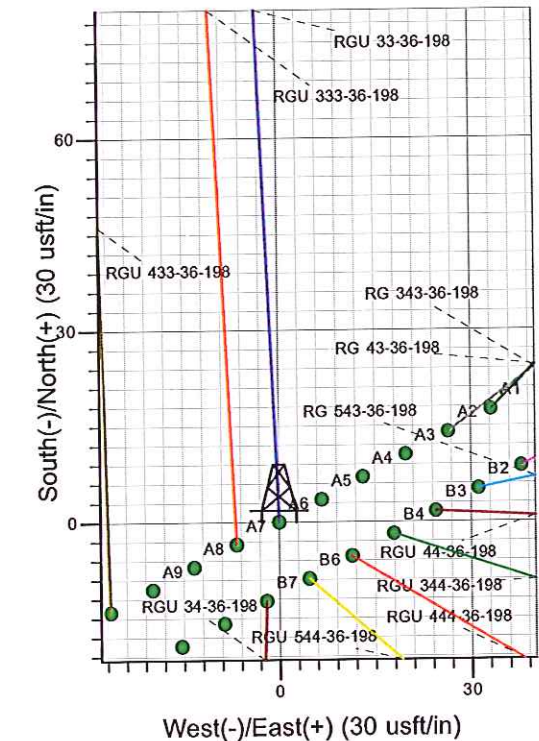
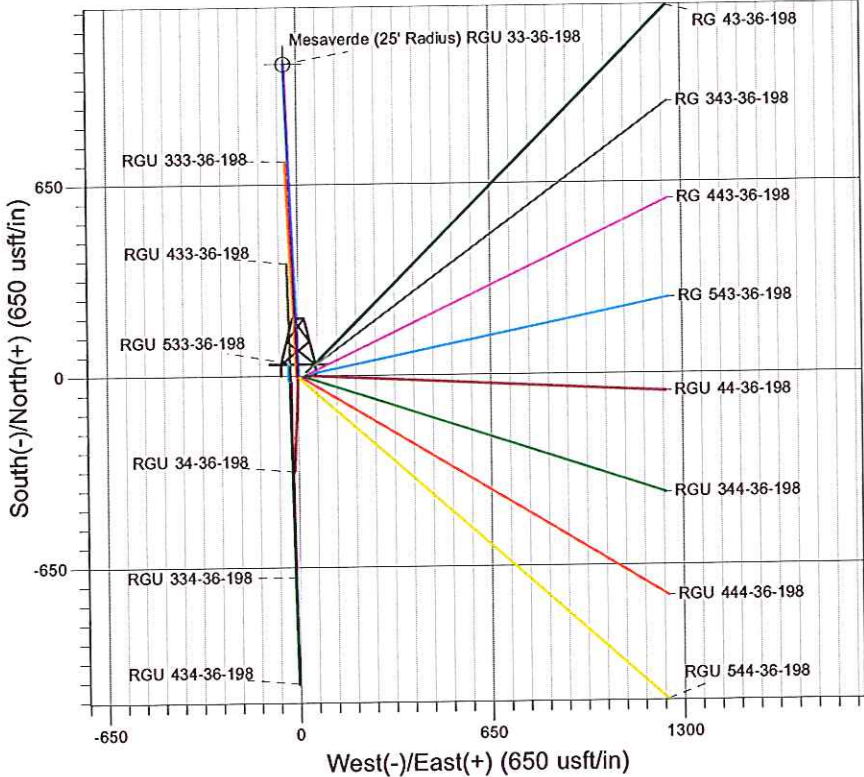
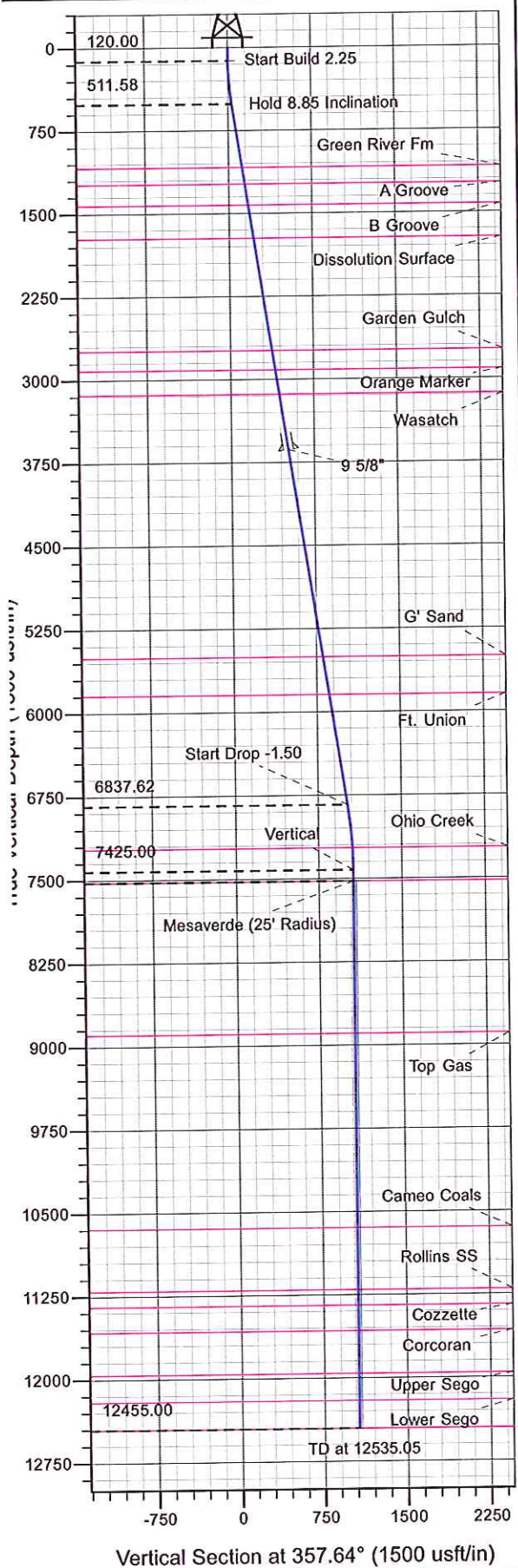
Plan Annotations

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 2.25
513.14	511.58	30.26	-1.25	Hold 8.85 Inclination
6,915.33	6,837.63	1,013.92	-41.76	Start Drop -1.50
7,505.05	7,425.00	1,059.31	-43.63	Vertical
7,605.05	7,525.00	1,059.31	-43.63	Mesaverde
12,535.05	12,455.00	1,059.31	-43.63	TD at 12535.05



Surface Location: RGU 33-36-198 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 6574.00
Well @ 6595.00usft (Original Well Elev)

+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1771048.90 2203514.30 39° 54' 58.199 N 108° 20' 23.368 W A6



Project: RG 36-01S-098W
Site: RGU 33-36-198 Pad
Well: RGU 33-36-198
Design #1 18Oct11 kjs

Azimuths to True North
Magnetic North: 10.49°
Magnetic Field
Strength: 52428.5nT
Dip Angle: 66.02°
Date: 10/18/2011
Model: IGRF2005-10

ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	Start Build 2.25	
513.14	8.85	357.64	511.58	30.26	-1.25	30.29	30.29	Hold 8.85 Inclination	
6915.33	8.85	357.64	6837.62	1013.92	-41.76	1014.78	1014.78	Start Drop -1.50	
7505.05	0.00	0.00	7425.00	1059.31	-43.63	1060.21	1060.21	Vertical	
7605.05	0.00	0.00	7525.00	1059.31	-43.63	1060.21	1060.21	Mesaverde	
12535.05	0.00	0.00	12455.00	1059.31	-43.63	1060.21	1060.21	TD at 12535.05	



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Project:	RG 36-01S-098W	MD Reference:	WELL @ 6595.00usft (Original Well Elev)
Site:	RGU 33-36-198 Pad	North Reference:	True
Well:	RGU 33-36-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 18Oct11 kjs		

Project	RG 36-01S-098W, Rio Blanco County, CO, RG 36-01S-098W		
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	RGU 33-36-198 Pad			
Site Position:		Northing:	1,771,032.40 usft	Latitude: 39° 54' 58.026 N
From:	Map	Easting:	2,203,480.60 usft	Longitude: 108° 20' 23.794 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.791 °

Well	RGU 33-36-198 - Slot A6			
Well Position	+N/-S	0.00 usft	Northing:	1,771,048.90 usft
	+E/-W	0.00 usft	Easting:	2,203,514.30 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	Ground Level: 6,574.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	10/18/2011	10.489	66.023	52,429

Design	Design #1 18Oct11 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	357.64

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	0.000	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.000	
513.14	8.85	357.64	511.58	30.26	-1.25	2.25	2.25	0.00	357.642	
6,915.33	8.85	357.64	6,837.63	1,013.92	-41.76	0.00	0.00	0.00	0.000	
7,505.05	0.00	0.00	7,425.00	1,059.31	-43.63	1.50	-1.50	0.00	180.000	
7,605.05	0.00	0.00	7,525.00	1,059.31	-43.63	0.00	0.00	0.00	0.000	Mesaverde (25' Radiu
12,535.05	0.00	0.00	12,455.00	1,059.31	-43.63	0.00	0.00	0.00	0.000	