

GEOLOGIC & DRILLING PROGNOSIS

Prepared: 05-06-2013 RMW

WELL NAME: RGU 532-26-198
Directional from the pad RGU 42-26-198

STATE: CO API:
COUNTY: RIO BLANCO
BOTTOM HOLE LOCATION: Sec. 26 T 1 S R 98 W 10 acre
TYPE OF UNIT: Ryan Gulch Unit - FED
SURFACE HOLE FOOTAGE: 2442' FNL 906' FEL Sec. 26 T 1 S R 98 W
BOTTOM HOLE FOOTAGE: 2641' FNL 1901' FEL
SURFACE HOLE XY: 2199594.60 1778090.90
BOTTOM HOLE XY: 2198594.53 1777927.95
FEDERAL EA: NA
HARDLINE: No

ELEVATION (ft): PAD: 6622
KELLY BUSHING: 6643

RIG INFORMATION:

RIG NAME: Cyclone 29
KB HEIGHT (ft): 21

ESTIMATE TOPS:

Formation	TVD	MD
Uinta	Surface	surface
Green River Fm	1228.00	1234
A Groove	1408.00	1416
B Groove	1613.00	1622
Dissolution Surface	1898.00	1909
Garden Gulch	2983.00	3002
Orange Marker	3158.00	3178
Wasatch	3378.00	3400
Top of "G" Sand	5633.00	5686
Fort Union	5988.00	6046
Ohio Creek	7368.00	7442
Mesaverde	7633.00	7707
Approx. Top Gas	9063.00	9137
Cameo Coals	10683.00	10757
Rollins SS	11253.00	11327
Cozzette	11388.00	11462
Corcoran	11603.00	11677
Upper Sego	11983.00	12057
Lower Sego	12223.00	12297
TD	12473.00	12547

Formation Notes

Aquifer, Cement Basket @ 1700'
Aquifer, Tapered Surface from 14.75 to 13.5 @ 1750'
Possible lost circulation zone, Cmt Stage Tool @ 1800'
Cement Basket @ 1950' and 2100'

Surface casing at 3906'
Possible lost circulation zone

Possible lost circulation zone

Vertical hole from top of
Mesaverde to TD. Interval is
4840' long

MUD LOGGING:

Type: Remote Gas Unit
Interval: For training well run from surface to TD including chromat and CO2. Otherwise base surf csg to TD w/total gas only.

OPEN HOLE LOGS:

Specifics: None
Interval: None
Training well: N/A

CASED HOLE LOGS:

Specifics: Baker RPM-3D Pulsed Neutron from plugged back depth to 7000'MD, GR to surface
Processing: Emulation Triple Combo Using OH logs and training well
Cement Evaluation: Baker Hughes Radial Bond Log c/w CCL/GR from plugged back depth to surface shoe

CSG & CEMENT PROGRAM: SHOE TEST REQUIRED

	Csg Size (in)	Depth Set (tvd)	Depth Set (md)	Hole Size (in)	Approx. Cmt Tail (ft3)	Tail Yield (ft3/sx)	Approx. Sx Tail	Approx. Cmt Lead (ft3)	Lead Yield (ft3/sx)	Approx. Sx Lead	WOC (hrs)
Conductor:	18	80	80	30	To Surface-Ready Mix	1.96	973	754	1.70	443	8
Surface:	9.625	3878	3906	14.75/13.5	1908	1.96	973	754	1.70	443	8
Intermediate:											
Liner or Production:	4.5	12473	12547	8.75/7.875	1109	1.75	634	1607	1.91	653	
					Surface (sacks): 1417		Prod. (sacks): 1287				

ANTICIPATED PRESSURES (psi)

MASP	Prod Csg Test Pressure	Anticipated BHP	Prod. Csg. Grade
2,869	8,500	5,613	P-110

MUD PROGRAM: (Do not deviate from mud engineer's recommendation without prior consent from Parachute office)

FROM (md)	TO (md)	TYPE MUD	#/GAL	VIS	WL	CHEMICALS
0	3906	Spud/RCA	Water	45-50		
3906	12547	Water Based	8.0-9.5	40-50	8-10	

(Write mud added to system on tour sheets and report all mud mixed and daily cost in morning report)

LOST CIRCULATION: Report depth and bbls of mud lost on morning report and tour sheet - Any severe lost circulation problems should be reported immediately to well supervisor.

SURVEYS: Run every 100' on surface hole and trips unless otherwise instructed.

WILLIAMS GEOLOGISTS:

	Office	Home	Cell
Renee Wild	303- 260-4551	renee.wild@wpenergy.com	720-431-0381
Kim Roberts	303- 629-8438	303-979-2709 kim.roberts@wpenergy.com	303-646-7411

(note: if there are questions concerning TD or logging, please call Geologist)

CASING & CEMENTING PLAN

Operator: WPX Energy
Well Name & Number: RGU 532-26-198
Location: Ryan Gulch

Casing Design Calculations											
Type of Casing	Size of Hole (inches)	Size of Casing (inches)	Weight per Foot (lbs/ft)	Grade	Thread	Interval (ft - ft)	Length (feet)	Setting Depth (TVD feet)	Collapse (psi)	Burst (psi)	Tension (psi)
Surface	14.750	9.625	36.0	J-55	ST&C	0-3906	3,906	3,878	2,020	3,520	394,000
Production	8.750	4.500	11.6	P-110	LT&C	0-12547	12,547	12,473	7,580	10,690	279,000

Surface Casing Shoe		Production Casing Shoe	
Max MW =	9.0 ppg	Max MW =	9.5 ppg
HP =	1,815 psi	HP =	6,162 psi

True Vertical Depth = 12,473 ft
Bottom Hole Pressure = 5,613 psi
Gradient = 0.45 psi/ft
Max. Sur. Pressure = 2,869 psi
BOP Required = 3M System
5M system will be used as per Master APD

Casing Safety Factors			
Surface Casing	Pb = 1.23	Min = 1.000	0
	Pc = 1.11	Min = 1.100	0
	Sj = 2.82	Min = 1.600	0
Production Casing	Pb = 3.73	Min = 1.000	0
	Pc = 1.23	Min = 1.125	0
	Sj = 1.92	Min = 1.600	0

Cement Design Calculations

Estimating Cement for Ryan Gulch Wells (Permitting purpose only)

Critical Depths - Permitting Purposes Only	
Casing/Formation	Measured Depth
Cement DV Tool	1,800 ft
Surface Casing	3,906
Top of Mesaverde	7,707 ft
Top of Gas	9,137 ft
Total Depth	12,547 ft

Production Cement Tops (Permitting Purposes Only)	
Cement Slurry	TOC - Measured Depth
1st Lead	3,706 ft
2nd Lead	7,507 ft
Tail	8,937 ft

	1st Stage		2nd Stage
	Lead	Tail	Tail
Surface Cement			
Volume, bbls	75	68	122
Volume, ft ³	754	681	1226
Volume, sacks	443	348	626
Slurry Weight, ppg	12.8	12.8	12.8
Slurry Yield, ft ³ /sk	1.700	1.960	1.960
Mixwater, gal/sk	13.440	13.440	13.440
Annular Capacity (BBI)	0.0679	0.0679	0.0679
Annular Capacity (CF)	0.6814	0.6814	0.6814
Total Sacks =		1,417	
Total Cubic Ft. =		2,661	

Production Cement	1st Lead	2nd Lead	Tail
Volume, bbls	208	78	197
Volume, cu ft	1,167	439	1109
Volume, sacks	423	230	634
Slurry Weight, ppg	11.0	12.7	13.5
Slurry Yield, cu ft/sk	2.760	1.910	1.750
Annular Capacity (BBI)	0.0547	0.0547	0.0547
Annular Capacity (CF)	0.3072	0.3072	0.3072
Total Sacks =		1,287	
Total Cubic Ft. =		2,716	

NOTES:

Surface Casing 14-3/4" hole - Cement to surface. Assumed 14-3/4" hole is actually tapered to 13-1/2".

Production Casing 8-3/4" hole - Cement 100' to last casing string. Assumed 8-3/4" hole is actually tapered to 7-7/8".

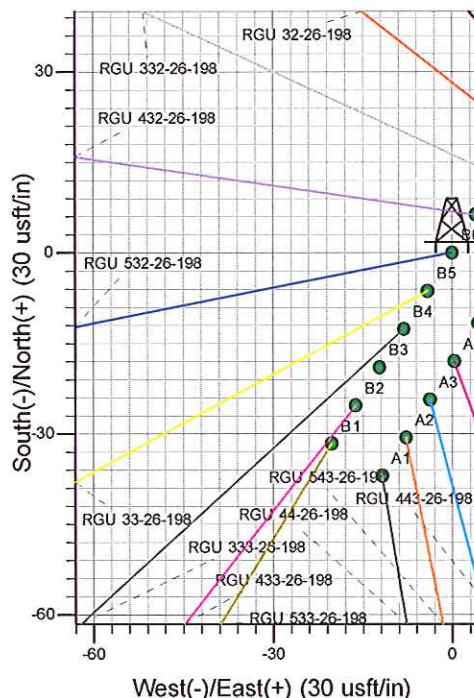
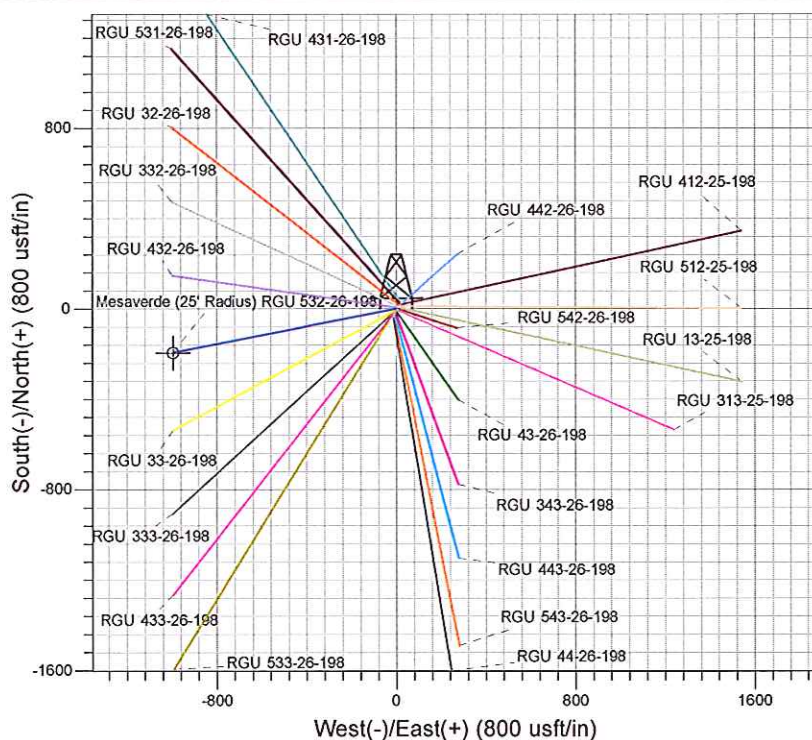
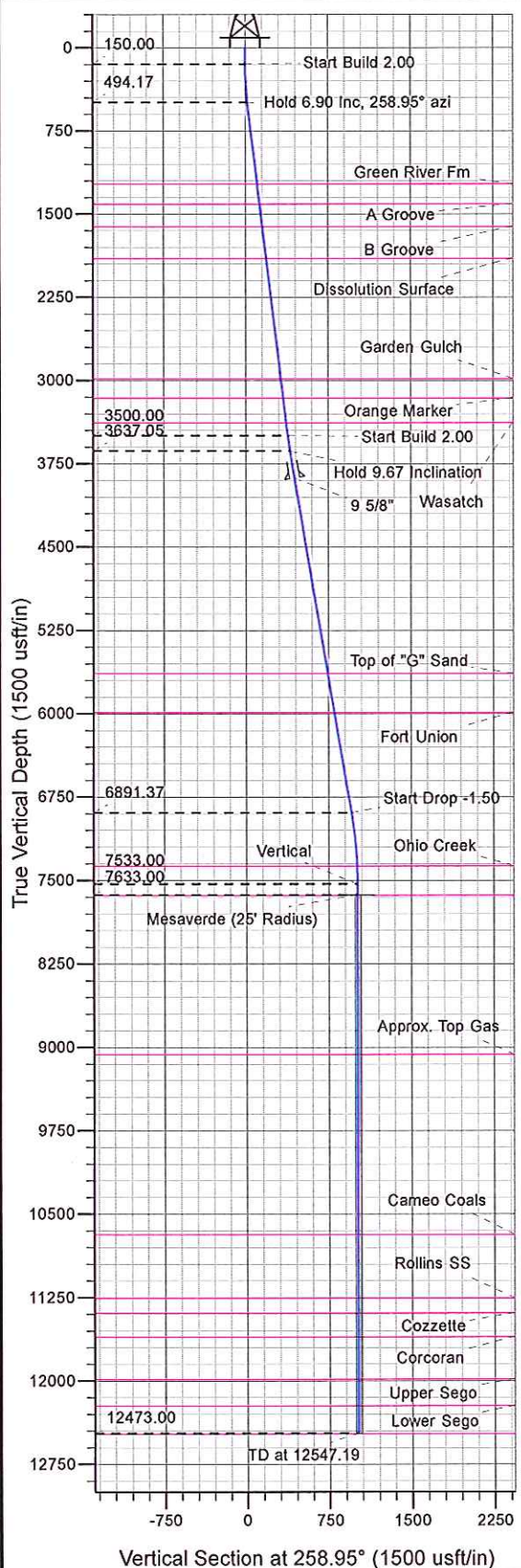
No excess is included in calculations.

Normal Surface excess is 40% over gauge hole for 1st Stage and 70% over gauge hole for 2nd Stage.

Normal Production excess is 45% over gauge hole.



Well Name: RGU 532-26-198
 Surface Location: RGU 42-26-198
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 6622.00
 Northing 1778090.90 Easting 2199594.60 Latitude 39.93515 Longitude -108.35458 Slot B6
 KELLY BUSHING @ 6643.00usft (Cylcone 29 (21' RKB) kjs)



Project: RG 26-01S-098W
 Site: RGU 42-26-198
 Well: RGU 532-26-198
 Design #1 24Jan13 kjs

Azimuths to True North
 Magnetic North: 10.36°
 Magnetic Field
 Strength: 52273.7snT
 Dip Angle: 65.99°
 Date: 1/24/2013
 Model: IGRF2010

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	Start Build 2.00
495.00	6.90	258.95	494.17	-3.98	-20.36	20.75	20.75	Hold 6.90 Inc, 258.95° azi
3522.76	6.90	258.95	3500.00	-73.72	-377.36	384.49	384.49	Start Build 2.00
3661.28	9.67	258.95	3637.05	-77.55	-396.95	404.45	404.45	Hold 9.67 Inclination
6962.50	9.67	258.95	6891.37	-183.88	-941.19	958.98	958.98	Start Drop -1.50
7607.19	0.00	0.00	7533.00	-194.28	-994.46	1013.26	1013.26	Vertical
7707.19	0.00	0.00	7633.00	-194.28	-994.46	1013.26	1013.26	Mesaverde
12547.19	0.00	0.00	12473.00	-194.28	-994.46	1013.26	1013.26	TD at 12547.19



PICEANCE HL NAD 83

RG 26-01S-098W

RGU 42-26-198

RGU 532-26-198 - Slot B6

Wellbore #1

Plan: Design #1 24Jan13 kjs

Standard Planning Report - Geographic

09 April, 2013



WPX Energy
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RGU 532-26-198 - Slot B6
Company:	PICEANCE HL NAD 83	TVD Reference:	KELLY BUSHING @ 6643.00usft (Cylcone 29 (21' RKB) kjs)
Project:	RG 26-01S-098W	MD Reference:	KELLY BUSHING @ 6643.00usft (Cylcone 29 (21' RKB) kjs)
Site:	RGU 42-26-198	North Reference:	True
Well:	RGU 532-26-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 24Jan13 kjs		

Project	RG 26-01S-098W, Rio Blanco County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	RGU 42-26-198				
Site Position:		Northing:	1,778,121.90 usft	Latitude:	39.93524
From:	Map	Easting:	2,199,615.70 usft	Longitude:	-108.35451
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	-1.8003 °

Well	RGU 532-26-198 - Slot B6					
Well Position	+N/-S	0.00 usft	Northing:	1,778,090.90 usft	Latitude:	39.93515
	+E/-W	0.00 usft	Easting:	2,199,594.60 usft	Longitude:	-108.35458
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	6,622.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/24/2013	10.3617	65.9893	52,274

Design	Design #1 24Jan13 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	258.95

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	0.0000	
150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.0000	
495.00	6.90	258.95	494.17	-3.98	-20.36	2.00	2.00	0.00	258.9455	
3,522.76	6.90	258.95	3,500.00	-73.72	-377.36	0.00	0.00	0.00	0.0000	
3,661.28	9.67	258.95	3,637.05	-77.55	-396.95	2.00	2.00	0.00	0.0000	
6,962.50	9.67	258.95	6,891.37	-183.88	-941.19	0.00	0.00	0.00	0.0000	
7,607.19	0.00	0.00	7,533.00	-194.28	-994.46	1.50	-1.50	0.00	180.0000	
7,707.19	0.00	0.00	7,633.00	-194.28	-994.46	0.00	0.00	0.00	0.0000	Mesaverde (25' Radiu
12,547.19	0.00	0.00	12,473.00	-194.28	-994.46	0.00	0.00	0.00	0.0000	



WPX Energy
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RGU 532-26-198 - Slot B6
Company:	PICEANCE HL NAD 83	TVD Reference:	KELLY BUSHING @ 6643.00usft (Cylcone 29 (21' RKB) kjs)
Project:	RG 26-01S-098W	MD Reference:	KELLY BUSHING @ 6643.00usft (Cylcone 29 (21' RKB) kjs)
Site:	RGU 42-26-198	North Reference:	True
Well:	RGU 532-26-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 24Jan13 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	1,778,090.90	2,199,594.60	39.93515	-108.35458	
150.00	0.00	0.00	150.00	0.00	0.00	1,778,090.90	2,199,594.60	39.93515	-108.35458	
Start Build 2.00										
495.00	6.90	258.95	494.17	-3.98	-20.36	1,778,087.56	2,199,574.12	39.93514	-108.35465	
Hold 6.90 Inc, 258.95° azi										
500.00	6.90	258.95	499.13	-4.09	-20.95	1,778,087.47	2,199,573.53	39.93514	-108.35466	
1,000.00	6.90	258.95	995.51	-15.61	-79.91	1,778,077.81	2,199,514.24	39.93511	-108.35487	
1,234.19	6.90	258.95	1,228.00	-21.01	-107.52	1,778,073.28	2,199,486.47	39.93509	-108.35497	
Green River Fm										
1,415.50	6.90	258.95	1,408.00	-25.18	-128.90	1,778,069.78	2,199,464.97	39.93508	-108.35504	
A Groove										
1,500.00	6.90	258.95	1,491.89	-27.13	-138.86	1,778,068.15	2,199,454.95	39.93508	-108.35508	
1,622.00	6.90	258.95	1,613.00	-29.94	-153.25	1,778,065.79	2,199,440.49	39.93507	-108.35513	
B Groove										
1,909.08	6.90	258.95	1,898.00	-36.55	-187.09	1,778,060.24	2,199,406.45	39.93505	-108.35525	
Dissolution Surface										
2,000.00	6.90	258.95	1,988.27	-38.65	-197.81	1,778,058.49	2,199,395.67	39.93505	-108.35529	
2,500.00	6.90	258.95	2,484.65	-50.16	-256.77	1,778,048.83	2,199,336.38	39.93501	-108.35550	
3,000.00	6.90	258.95	2,981.02	-61.68	-315.72	1,778,039.17	2,199,277.09	39.93498	-108.35571	
3,001.99	6.90	258.95	2,983.00	-61.73	-315.96	1,778,039.13	2,199,276.86	39.93498	-108.35571	
Garden Gulch										
3,178.27	6.90	258.95	3,158.00	-65.79	-336.74	1,778,035.72	2,199,255.96	39.93497	-108.35578	
Orange Marker										
3,399.87	6.90	258.95	3,378.00	-70.89	-362.87	1,778,031.44	2,199,229.68	39.93496	-108.35588	
Wasatch										
3,500.00	6.90	258.95	3,477.40	-73.20	-374.68	1,778,029.51	2,199,217.81	39.93495	-108.35592	
3,522.76	6.90	258.95	3,500.00	-73.72	-377.36	1,778,029.07	2,199,215.11	39.93495	-108.35593	
Start Build 2.00										
3,661.28	9.67	258.95	3,637.05	-77.55	-396.95	1,778,025.86	2,199,195.41	39.93494	-108.35600	
Hold 9.67 Inclination										
3,905.69	9.67	258.95	3,878.00	-85.42	-437.24	1,778,019.26	2,199,154.89	39.93492	-108.35614	
9 5/8"										
4,000.00	9.67	258.95	3,970.97	-88.46	-452.79	1,778,016.71	2,199,139.25	39.93491	-108.35620	
4,500.00	9.67	258.95	4,463.86	-104.56	-535.22	1,778,003.20	2,199,056.36	39.93486	-108.35649	
5,000.00	9.67	258.95	4,956.76	-120.67	-617.65	1,777,989.70	2,198,973.46	39.93482	-108.35678	
5,500.00	9.67	258.95	5,449.65	-136.77	-700.08	1,777,976.19	2,198,890.57	39.93478	-108.35708	
5,685.99	9.67	258.95	5,633.00	-142.76	-730.74	1,777,971.16	2,198,859.73	39.93476	-108.35719	
Top of "G" Sand										
6,000.00	9.67	258.95	5,942.55	-152.88	-782.51	1,777,962.68	2,198,807.67	39.93473	-108.35737	
6,046.11	9.67	258.95	5,988.00	-154.36	-790.11	1,777,961.44	2,198,800.03	39.93473	-108.35740	
Fort Union										
6,500.00	9.67	258.95	6,435.44	-168.98	-864.94	1,777,949.18	2,198,724.77	39.93469	-108.35767	
6,962.50	9.67	258.95	6,891.37	-183.88	-941.19	1,777,936.68	2,198,648.10	39.93465	-108.35794	
Start Drop -1.50										
7,000.00	9.11	258.95	6,928.37	-185.05	-947.20	1,777,935.70	2,198,642.06	39.93464	-108.35796	
7,442.13	2.48	258.95	7,368.00	-193.60	-990.96	1,777,928.53	2,198,598.05	39.93462	-108.35812	
Ohio Creek										
7,500.00	1.61	258.95	7,425.83	-194.00	-992.98	1,777,928.20	2,198,596.01	39.93462	-108.35812	
7,607.19	0.00	0.00	7,533.00	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813	
Vertical										



WPX Energy
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RGU 532-26-198 - Slot B6
Company:	PICEANCE HL NAD 83	TVD Reference:	KELLY BUSHING @ 6643.00usft (Cylcone 29 (21' RKB) kjs)
Project:	RG 26-01S-098W	MD Reference:	KELLY BUSHING @ 6643.00usft (Cylcone 29 (21' RKB) kjs)
Site:	RGU 42-26-198	North Reference:	True
Well:	RGU 532-26-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 24Jan13 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
7,707.19	0.00	0.00	7,633.00	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
Mesaverde - Mesaverde									
8,000.00	0.00	0.00	7,925.81	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
8,500.00	0.00	0.00	8,425.81	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
9,000.00	0.00	0.00	8,925.81	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
9,137.19	0.00	0.00	9,063.00	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
Approx. Top Gas									
9,500.00	0.00	0.00	9,425.81	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
10,000.00	0.00	0.00	9,925.81	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
10,500.00	0.00	0.00	10,425.81	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
10,757.19	0.00	0.00	10,683.00	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
Cameo Coals									
11,000.00	0.00	0.00	10,925.81	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
11,327.19	0.00	0.00	11,253.00	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
Rollins SS									
11,462.19	0.00	0.00	11,388.00	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
Cozzette									
11,500.00	0.00	0.00	11,425.81	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
11,677.19	0.00	0.00	11,603.00	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
Corcoran									
12,000.00	0.00	0.00	11,925.81	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
12,057.19	0.00	0.00	11,983.00	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
Upper Sego									
12,297.19	0.00	0.00	12,223.00	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
Lower Sego									
12,500.00	0.00	0.00	12,425.81	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
12,547.19	0.00	0.00	12,473.00	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
TD at 12547.19 - TD									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Mesaverde (25' Radius)	0.00	0.00	7,633.00	-194.28	-994.46	1,777,927.95	2,198,594.53	39.93462	-108.35813
- plan hits target center									
- Circle (radius 25.00)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
3,905.69	3,878.00	9 5/8"	9.625	13.500	



WPX Energy
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RGU 532-26-198 - Slot B6
Company:	PICEANCE HL NAD 83	TVD Reference:	KELLY BUSHING @ 6643.00usft (Cylcone 29 (21' RKB) kjs)
Project:	RG 26-01S-098W	MD Reference:	KELLY BUSHING @ 6643.00usft (Cylcone 29 (21' RKB) kjs)
Site:	RGU 42-26-198	North Reference:	True
Well:	RGU 532-26-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 24Jan13 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,234.19	1,228.00	Green River Fm				
1,415.50	1,408.00	A Groove				
1,622.00	1,613.00	B Groove				
1,909.08	1,898.00	Dissolution Surface				
3,001.99	2,983.00	Garden Gulch				
3,178.27	3,158.00	Orange Marker				
3,399.87	3,378.00	Wasatch				
5,685.99	5,633.00	Top of "G" Sand				
6,046.11	5,988.00	Fort Union				
7,442.13	7,368.00	Ohio Creek				
7,707.19	7,633.00	Mesaverde				
9,137.19	9,063.00	Approx. Top Gas				
10,757.19	10,683.00	Cameo Coals				
11,327.19	11,253.00	Rollins SS				
11,462.19	11,388.00	Cozzette				
11,677.19	11,603.00	Corcoran				
12,057.19	11,983.00	Upper Sego				
12,297.19	12,223.00	Lower Sego				
12,547.19	12,473.00	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
150.00	150.00	0.00	0.00	Start Build 2.00	
495.00	494.17	-3.98	-20.36	Hold 6.90 Inc, 258.95° azi	
3,522.76	3,500.00	-73.72	-377.36	Start Build 2.00	
3,661.28	3,637.05	-77.55	-396.95	Hold 9.67 Inclination	
6,962.50	6,891.37	-183.88	-941.19	Start Drop -1.50	
7,607.19	7,533.00	-194.28	-994.46	Vertical	
7,707.19	7,633.00	-194.28	-994.46	Mesaverde	
12,547.19	12,473.00	-194.28	-994.46	TD at 12547.19	