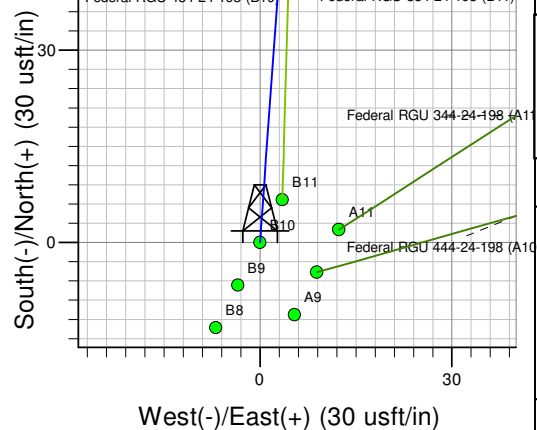
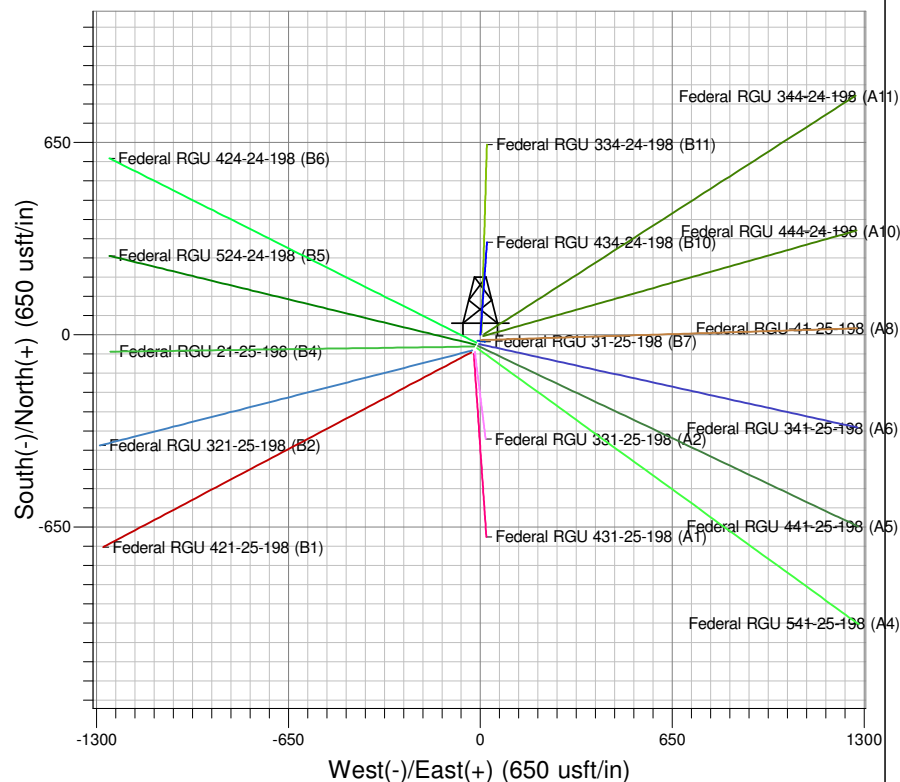


Well Name: Federal RGU 434-24-198
 Surface Location: RGU 31-25-198 Pad
 NAD 1927 (NADCON CONUS), US State Plane 1927 (Exact solution) Colorado North 501
 Ground Elevation: 6640.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 234099.20 1203938.86 39° 56' 27.620 N 108° 20' 22.098 W B10
 Cyclone 29 (21' RKB) KILLY BUSHING @ 6661.0usft (Cyclone 29 (21' RKB) jib)



Project: RG 25-01S-098W
 Site: RGU 31-25-198 Pad
 Well: Federal RGU 434-24-198
 Plan: Plan #1 14Jan09 kjs

Azimuths to True North
 Magnetic North: 10.85°
 Magnetic Field
 Strength: 52701.8snT
 Dip Angle: 66.11°
 Date: 2/12/2009
 Model: IGRF200510

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.000	0.0	
120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.000	0.0	
237.7	2.35	4.08	237.7	2.4	0.2	2.00	4.079	2.4	
7740.4	2.35	4.08	7734.1	309.9	22.1	0.00	0.000	310.6	
7897.4	0.00	0.00	7891.0	313.1	22.3	1.50	180.000	313.8	Mesaverde (25' Radius) Federal RGU 434-24-198
2797.4	0.00	0.00	12791.0	313.1	22.3	0.00	0.000	313.8	

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
120.0	120.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 2.00
237.7	237.7	2.35	4.08	2.4	0.2	2.4	2.4	Hold 2.35 inc
7734.1	7740.4	2.35	4.08	309.9	22.1	310.6	310.7	Start Drop -1.50
7891.0	7897.4	0.00	0.00	313.1	22.3	313.8	313.9	Vertical
12791.0	12797.4	0.00	0.00	313.1	22.3	313.8	313.9	TD at 12797.4

PICEANCE HL NAD 27

RG 25-01S-098W

RGU 31-25-198 Pad

Federal RGU 434-24-198 - Slot B10

Wellbore #1

Plan: Plan #1 14Jan09 kjs

Standard Planning Report - Geographic

25 January, 2010

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well Federal RGU 434-24-198 (B10) - Slot B10
Company:	PICEANCE HL NAD 27	TVD Reference:	KELLY BUSHING @ 6661.0usft (Cyclone 29 (21' RKB) jib)
Project:	RG 25-01S-098W	MD Reference:	KELLY BUSHING @ 6661.0usft (Cyclone 29 (21' RKB) jib)
Site:	RGU 31-25-198 Pad	North Reference:	True
Well:	Federal RGU 434-24-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 14Jan09 kjs		

Project	RG 25-01S-098W, Rio Blanco County, CO, RG 25-01S-098W		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado North 501		Using geodetic scale factor

Site		RGU 31-25-198 Pad				
Site Position:		Northing:	234,112.07 usft	Latitude:	39° 56' 27.745 N	
From:	Map	Easting:	1,203,931.20 usft	Longitude:	108° 20' 22.202 W	
Position Uncertainty:		0.0 usft	Slot Radius:	0.000 in	Grid Convergence:	-1.835 °

Well	Federal RGU 434-24-198 - Slot B10					
Well Position	+N/-S	0.0 usft	Northing:	234,099.20 usft	Latitude:	39° 56' 27.620 N
	+E/-W	0.0 usft	Easting:	1,203,938.86 usft	Longitude:	108° 20' 22.098 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	6,640.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2/12/2009	10.848	66.113	52,702

Design	Plan #1 14Jan09 kjs			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	2.70

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.000	
120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.00	0.00	0.000	
237.7	2.35	4.08	237.7	2.4	0.2	2.00	2.00	0.00	4.079	
7,740.4	2.35	4.08	7,734.1	309.9	22.1	0.00	0.00	0.00	0.000	
7,897.4	0.00	0.00	7,891.0	313.1	22.3	1.50	-1.50	0.00	180.000	Mesaverde (25' Radiu
12,797.4	0.00	0.00	12,791.0	313.1	22.3	0.00	0.00	0.00	0.000	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well Federal RGU 434-24-198 (B10) - Slot B10
Company:	PICEANCE HL NAD 27	TVD Reference:	KELLY BUSHING @ 6661.0usft (Cyclone 29 (21' RKB) jib)
Project:	RG 25-01S-098W	MD Reference:	KELLY BUSHING @ 6661.0usft (Cyclone 29 (21' RKB) jib)
Site:	RGU 31-25-198 Pad	North Reference:	True
Well:	Federal RGU 434-24-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 14Jan09 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
0.0	0.00	0.00	0.0	0.0	0.0	234,099.20	1,203,938.86	39° 56' 27.620 N	108° 20' 22.098 W
120.0	0.00	0.00	120.0	0.0	0.0	234,099.20	1,203,938.86	39° 56' 27.620 N	108° 20' 22.098 W
237.7	2.35	4.08	237.7	2.4	0.2	234,101.60	1,203,939.11	39° 56' 27.644 N	108° 20' 22.096 W
7,740.4	2.35	4.08	7,734.1	309.9	22.1	234,408.19	1,203,970.86	39° 56' 30.683 N	108° 20' 21.814 W
7,897.4	0.00	0.00	7,891.0	313.1	22.3	234,411.40	1,203,971.20	39° 56' 30.714 N	108° 20' 21.811 W
12,797.4	0.00	0.00	12,791.0	313.1	22.3	234,411.40	1,203,971.20	39° 56' 30.714 N	108° 20' 21.811 W

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 25.0)	0.00	0.00	7,891.0	313.1	22.3	234,411.40	1,203,971.20	39° 56' 30.714 N	108° 20' 21.811 W
Mesaverde (50' Radius) - plan hits target center - Circle (radius 50.0)	0.00	0.00	7,891.0	313.1	22.3	234,411.40	1,203,971.20	39° 56' 30.714 N	108° 20' 21.811 W

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
3,924.0	3,920.9	9 5/8"	9.625	12.250	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well Federal RGU 434-24-198 (B10) - Slot B10
Company:	PICEANCE HL NAD 27	TVD Reference:	KELLY BUSHING @ 6661.0usft (Cyclone 29 (21' RKB) jjb)
Project:	RG 25-01S-098W	MD Reference:	KELLY BUSHING @ 6661.0usft (Cyclone 29 (21' RKB) jjb)
Site:	RGU 31-25-198 Pad	North Reference:	True
Well:	Federal RGU 434-24-198	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 14Jan09 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,271.9	1,271.0	Green River Fm				
1,467.1	1,466.0	A Groove				
1,672.2	1,671.0	B Groove				
1,962.5	1,961.0	Dissolution Surface				
3,018.4	3,016.0	Garden Gulch				
3,193.5	3,191.0	Orange Marker				
3,423.7	3,421.0	Wasatch				
5,850.8	5,846.0	G' Sand				
6,226.1	6,221.0	Ft. Union				
7,607.3	7,601.0	Ohio Creek				
7,897.4	7,891.0	Mesaverde				
8,867.4	8,861.0	Top Gas				
11,197.4	11,191.0	Cameo Coals				
11,577.4	11,571.0	Rollins SS				
11,712.4	11,706.0	Cozzette				
11,927.4	11,921.0	Corcoran				
12,317.4	12,311.0	Upper Sego				
12,547.4	12,541.0	Lower Sego				
12,797.4	12,791.0	TD		0.000		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
120.0	120.0	0.0	0.0	Start Build 2.00	
237.7	237.7	2.4	0.2	Hold 2.35 inc	
7,740.4	7,734.1	309.9	22.1	Start Drop -1.50	
7,897.4	7,891.0	313.1	22.3	Vertical	
12,797.4	12,791.0	313.1	22.3	TD at 12797.4	