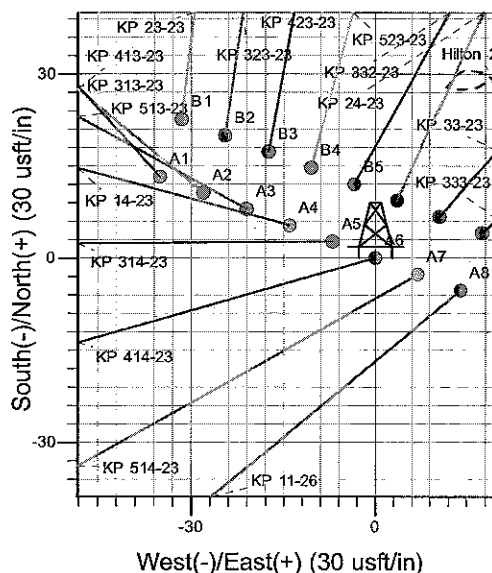
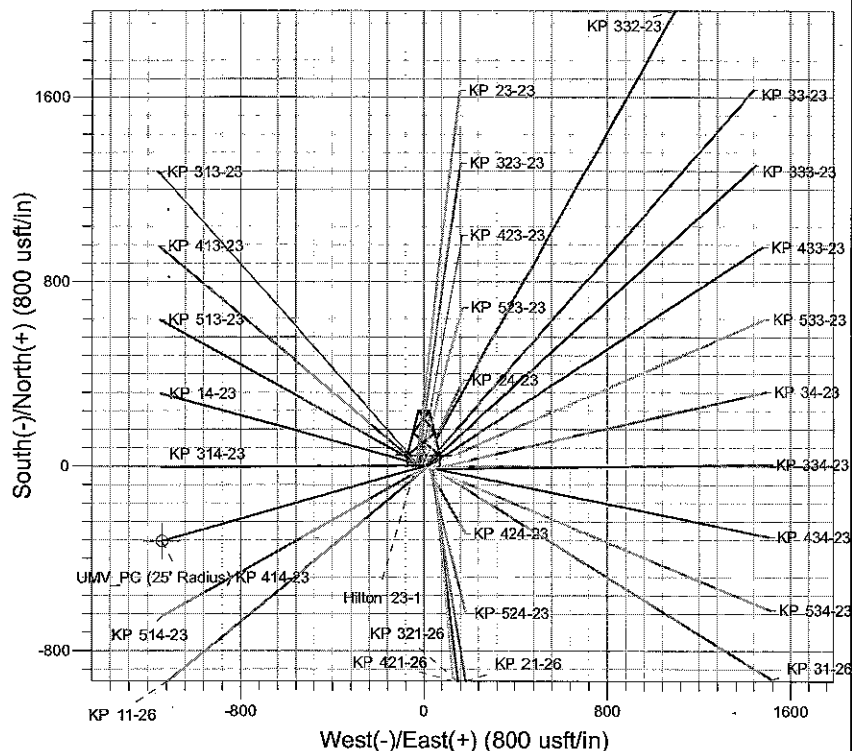
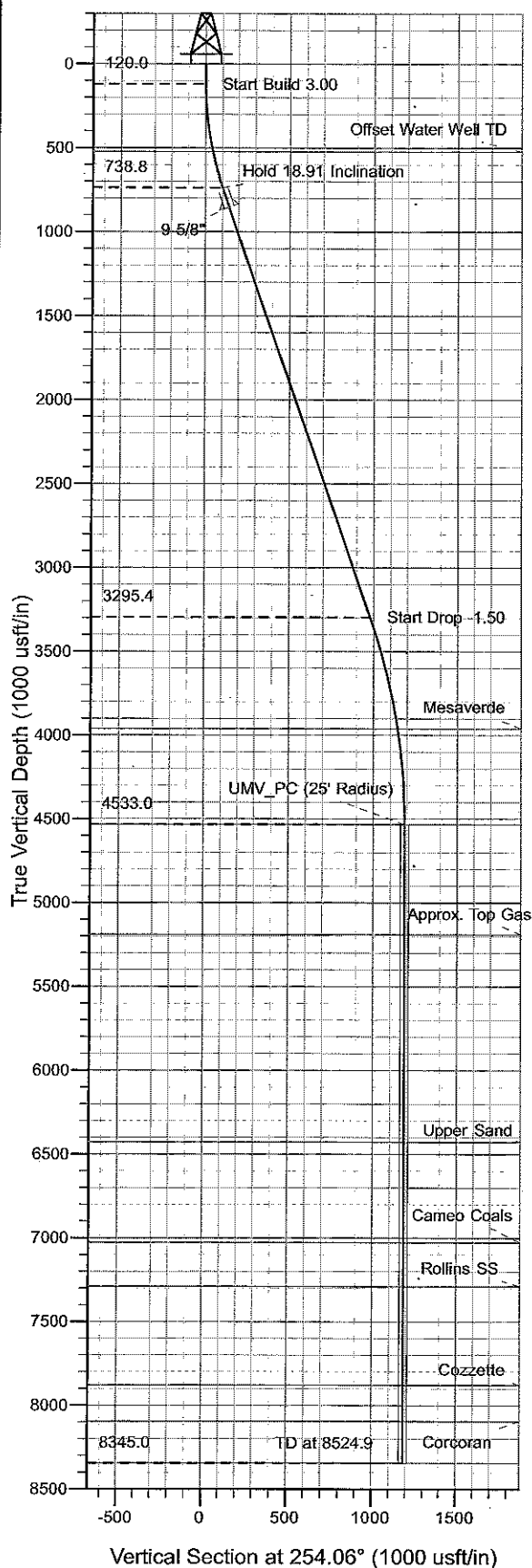




Well Name: KP 414-23
 Surface Location: KP 24-23 Pad
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 6321.0
 +N/-S 0.0 +E/-W 0.0 Northing 1616656.14 Easting 2428825.28 Latitude 39° 30' 32.494 N Longitude 107° 31' 28.364 W Slot A6
 KELLY BUSHING @ 6345.0usft (Koko Rig 2 (24' KB) kjs)



Project: Sec. 23-T6S-R91W
 Site: KP 24-23 Pad
 Well: KP 414-23
 Design #1 10Feb10 kjs

Azimuths to True North
 Magnetic North: 10.31°
 Magnetic Field
 Strength: 52452.1nT
 Dip Angle: 65.87°
 Date: 2/10/2010
 Model: IGRF2010

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
120.0	120.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 3.00
738.8	750.2	18.91	254.06	-28.3	-99.1	103.0	103.0	Hold 18.91 Inclination
3295.4	3452.6	18.91	254.06	-268.7	-941.0	978.6	978.6	Start Drop -1.50
4533.0	4712.9	0.00	0.00	-325.3	-1139.1	1184.7	1184.7	UMV_PC
8345.0	8524.9	0.00	0.00	-325.3	-1139.1	1184.7	1184.7	TD at 8524.9

KOKOPELLI FIELD

Sec. 23-T6S-R91W

KP 24-23 Pad

KP 414-23 - Slot A6

Wellbore #1

Plan: Design #1 10Feb10 kjs

Standard Planning Report - Geographic

29 March, 2010

Williams

Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 414-23 - Slot A6
Company:	KOKOPELLI FIELD	TVD Reference:	KELLY BUSHING @ 6345.0usft (Koko Rig 2 (24' KB) kjs)
Project:	Sec. 23-T6S-R91W	MD Reference:	KELLY BUSHING @ 6345.0usft (Koko Rig 2 (24' KB) kjs)
Site:	KP 24-23 Pad	North Reference:	True
Well:	KP 414-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 10Feb10 kjs		

Project	Sec. 23-T6S-R91W, Garfield 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	KP 24-23 Pad			
Site Position:		Northing:	1,616,658.70 usft	Latitude: 39° 30' 32.535 N
From:	Map	Easting:	2,428,899.10 usft	Longitude: 107° 31' 27.423 W
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence: -1.277 °

Well	KP 414-23 - Slot A6			
Well Position	+N/-S	0.0 usft	Northing: 1,616,656.14 usft	Latitude: 39° 30' 32.494 N
	+E/-W	0.0 usft	Easting: 2,428,825.28 usft	Longitude: 107° 31' 28.364 W
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level: 6,321.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/10/2010	10.314	65.875	52,452

Design	Design #1 10Feb10 kjs			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	254.06

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	
750.2	18.91	254.06	738.8	-28.3	-99.1	3.00	3.00	0.00	254.062	
3,452.6	18.91	254.06	3,295.4	-268.7	-941.0	0.00	0.00	0.00	0.000	
4,712.9	0.00	0.00	4,533.0	-325.3	-1,139.1	1.50	-1.50	0.00	180.000	UMV_PC (25' Radius)
8,524.9	0.00	0.00	8,345.0	-325.3	-1,139.1	0.00	0.00	0.00	0.000	

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Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 414-23 - Slot A6
Company:	KOKOPELLI FIELD	TVD Reference:	KELLY BUSHING @ 6345.0usft (Koko Rig 2 (24' KB) kjs)
Project:	Sec. 23-T6S-R91W	MD Reference:	KELLY BUSHING @ 6345.0usft (Koko Rig 2 (24' KB) kjs)
Site:	KP 24-23 Pad	North Reference:	True
Well:	KP 414-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 10Feb10 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	1,616,656.14	2,428,825.28	39° 30' 32.494 N	107° 31' 28.364 W	
120.0	0.00	0.00	120.0	0.0	0.0	1,616,656.14	2,428,825.28	39° 30' 32.494 N	107° 31' 28.364 W	
Start Build 3.00										
528.1	12.24	254.06	525.0	-11.9	-41.8	1,616,645.14	2,428,783.26	39° 30' 32.376 N	107° 31' 28.897 W	
Offset Water Well TD										
750.2	18.91	254.06	738.8	-28.3	-99.1	1,616,630.06	2,428,725.61	39° 30' 32.214 N	107° 31' 29.628 W	
Hold 18.91 Inclination										
869.8	18.91	254.06	852.0	-38.9	-136.3	1,616,620.25	2,428,688.11	39° 30' 32.109 N	107° 31' 30.104 W	
9 5/8"										
3,452.6	18.91	254.06	3,295.4	-268.7	-941.0	1,616,408.45	2,427,878.54	39° 30' 29.838 N	107° 31' 40.370 W	
Start Drop -1.50										
4,138.7	8.61	254.06	3,961.0	-313.5	-1,097.7	1,616,367.20	2,427,720.87	39° 30' 29.395 N	107° 31' 42.370 W	
Mesaverde										
4,712.9	0.00	0.00	4,533.0	-325.3	-1,139.1	1,616,356.30	2,427,679.20	39° 30' 29.278 N	107° 31' 42.898 W	
UMV_PC - UMV_PC										
5,369.9	0.00	0.00	5,190.0	-325.3	-1,139.1	1,616,356.30	2,427,679.20	39° 30' 29.278 N	107° 31' 42.898 W	
Approx. Top Gas										
6,607.9	0.00	0.00	6,428.0	-325.3	-1,139.1	1,616,356.30	2,427,679.20	39° 30' 29.278 N	107° 31' 42.898 W	
Upper Sand										
7,207.9	0.00	0.00	7,028.0	-325.3	-1,139.1	1,616,356.30	2,427,679.20	39° 30' 29.278 N	107° 31' 42.898 W	
Cameo Coals										
7,469.9	0.00	0.00	7,290.0	-325.3	-1,139.1	1,616,356.30	2,427,679.20	39° 30' 29.278 N	107° 31' 42.898 W	
Rollins SS										
8,059.9	0.00	0.00	7,880.0	-325.3	-1,139.1	1,616,356.30	2,427,679.20	39° 30' 29.278 N	107° 31' 42.898 W	
Cozzette										
8,274.9	0.00	0.00	8,095.0	-325.3	-1,139.1	1,616,356.30	2,427,679.20	39° 30' 29.278 N	107° 31' 42.898 W	
Corcoran										
8,524.9	0.00	0.00	8,345.0	-325.3	-1,139.1	1,616,356.30	2,427,679.20	39° 30' 29.278 N	107° 31' 42.898 W	
TD at 8524.9 - 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										
UMV_PC (25' Radius) K	0.00	0.00	4,533.0	-325.3	-1,139.1	1,616,356.30	2,427,679.20	39° 30' 29.278 N	107° 31' 42.898 W	
- plan hits target center										
- Circle (radius 25.0)										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
869.8	852.0	9 5/8"	9.625	12.250	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 414-23 - Slot A6
Company:	KOKEPELLI FIELD	TVD Reference:	KELLY BUSHING @ 6345.0usft (Koko Rig 2 (24' KB) kjs)
Project:	Sec. 23-T6S-R91W	MD Reference:	KELLY BUSHING @ 6345.0usft (Koko Rig 2 (24' KB) kjs)
Site:	KP 24-23 Pad	North Reference:	True
Well:	KP 414-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 10Feb10 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
528.1	525.0	Offset Water Well TD				
4,138.7	3,961.0	Mesaverde				
4,712.9	4,533.0	UMV_PC				
5,369.9	5,190.0	Approx. Top Gas				
6,607.9	6,428.0	Upper Sand				
7,207.9	7,028.0	Cameo Coals				
7,469.9	7,290.0	Rollins SS				
8,059.9	7,880.0	Cozzette				
8,274.9	8,095.0	Corcoran				
8,524.9	8,345.0	TD				

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 3.00	
750.2	738.8	-28.3	-99.1	Hold 18.91 Inclination	
3,452.6	3,295.4	-268.7	-941.0	Start Drop -1.50	
4,712.9	4,533.0	-325.3	-1,139.1	UMV_PC	
8,524.9	8,345.0	-325.3	-1,139.1	TD at 8524.9	