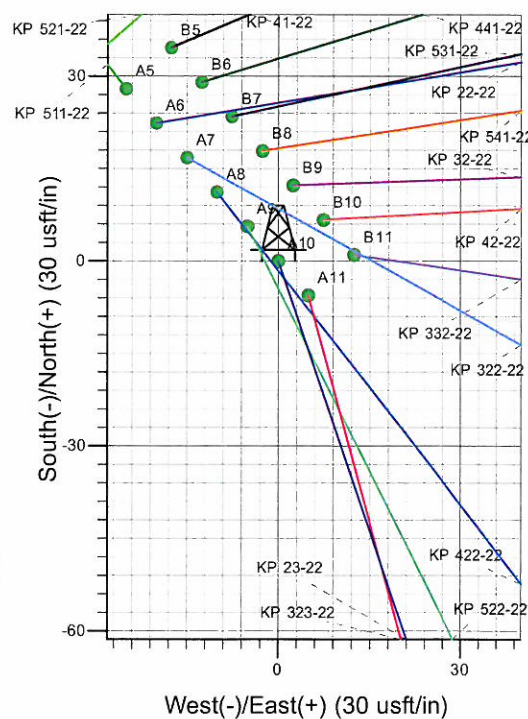
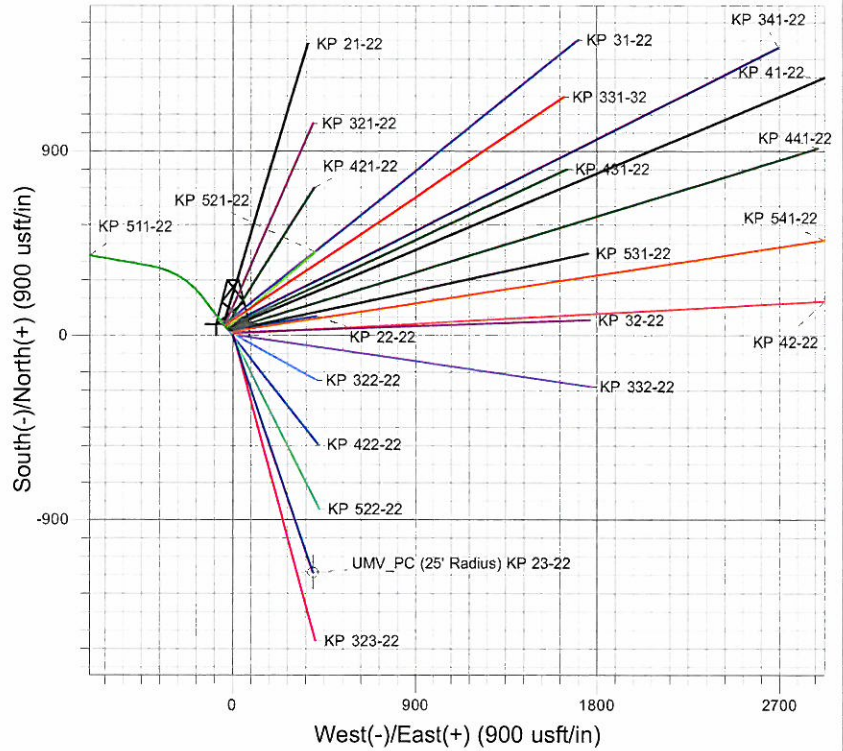
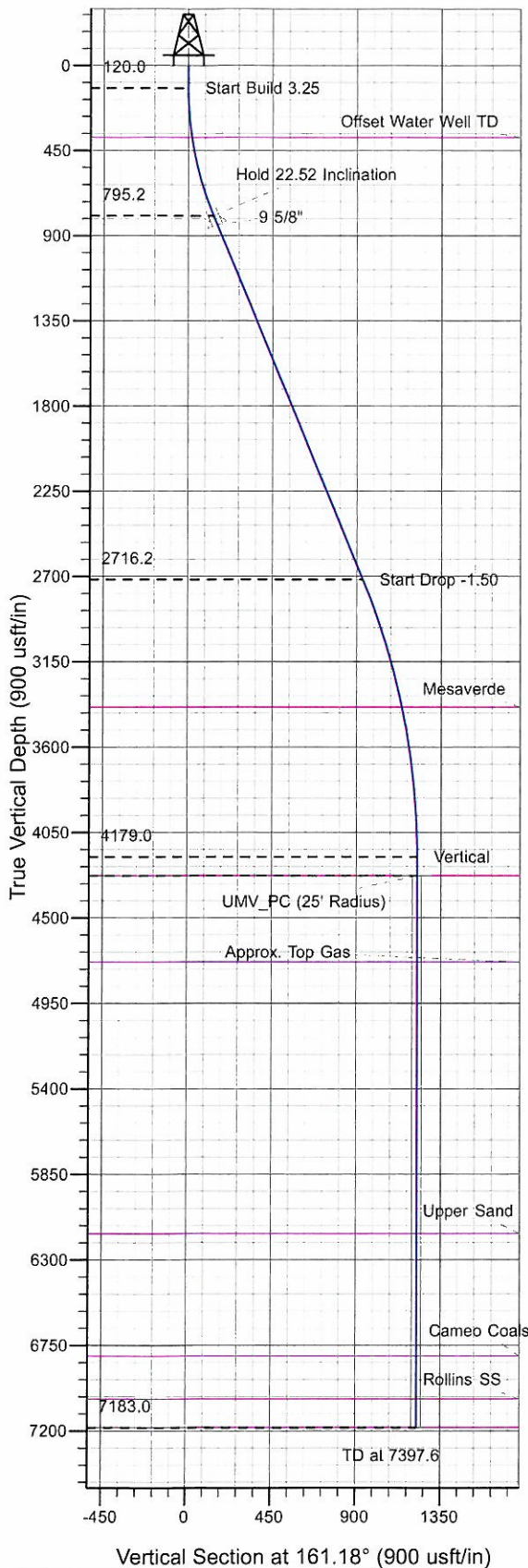




Well Name: KP 23-22
 Surface Location: KP 22-22 Pad
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 6186.0
 +N/-S 0.0 +E/-W 0.0 Northing 1619536.20 Easting 2423296.70 Latitude 39° 30' 59.728 N Longitude 107° 32' 39.714 W Slot A10
 WELL @ 6209.0usft (Cyclone 30 (23' RKB) kjs)



Project: Sec. 22-T6S-R91W
 Site: KP 22-22 Pad
 Well: KP 23-22
 Design #1 17Nov10 kjs



Azimuths to True North
 Magnetic North: 10.20°
 Magnetic Field
 Strength: 52406.8snT
 Dip Angle: 65.87°
 Date: 11/17/2010
 Model: IGRF200510

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 3.25
795.2	812.9	22.52	161.18	-127.2	43.3	134.4	134.4	Hold 22.52 Inclination
2716.2	2892.4	22.52	161.18	-881.1	300.2	930.8	930.8	Start Drop -1.50
4179.0	4393.6	0.00	0.00	-1156.7	394.1	1222.0	1222.0	Vertical
4279.0	4493.6	0.00	0.00	-1156.7	394.1	1222.0	1222.0	UMV_PC
7183.0	7397.6	0.00	0.00	-1156.7	394.1	1222.0	1222.0	TD at 7397.6

KOKOPELLI FIELD

Sec. 22-T6S-R91W

KP 22-22 Pad

KP 23-22 - Slot A10

Wellbore #1

Plan: Design #1 17Nov10 kjs

Standard Planning Report - Geographic

30 November, 2010

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 23-22 - Slot A10
Company:	KOKOPELLI FIELD	TVD Reference:	WELL @ 6209.0usft (Cyclone 30 (23' RKB) kjs)
Project:	Sec. 22-T6S-R91W	MD Reference:	WELL @ 6209.0usft (Cyclone 30 (23' RKB) kjs)
Site:	KP 22-22 Pad	North Reference:	True
Well:	KP 23-22	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 17Nov10 kjs		

Project	Sec. 22-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 22-22 Pad			
Site Position:		Northing:	1,619,530.50 usft	Latitude: 39° 30' 59.673 N
From: Map		Easting:	2,423,301.50 usft	Longitude: 107° 32' 39.651 W
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence: -1.289 °

Well	KP 23-22 - Slot A10			
Well Position	+N/-S	0.0 usft	Northing:	1,619,536.20 usft
	+E/-W	0.0 usft	Easting:	2,423,296.70 usft
Position Uncertainty	0.0 usft		Wellhead Elevation:	Ground Level: 6,186.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/17/2010	10.198	65.868	52,407

Design	Design #1 17Nov10 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	161.18

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	
812.9	22.52	161.18	795.2	-127.2	43.3	3.25	3.25	0.00	161.185	
2,892.4	22.52	161.18	2,716.2	-881.1	300.2	0.00	0.00	0.00	0.000	
4,393.6	0.00	0.00	4,179.0	-1,156.7	394.1	1.50	-1.50	0.00	180.000	
4,493.6	0.00	0.00	4,279.0	-1,156.7	394.1	0.00	0.00	0.00	0.000	UMV_PC (25' Radius)
7,397.6	0.00	0.00	7,183.0	-1,156.7	394.1	0.00	0.00	0.00	0.000	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 23-22 - Slot A10
Company:	KOKOPELLI FIELD	TVD Reference:	WELL @ 6209.0usft (Cyclone 30 (23' RKB) kjs)
Project:	Sec. 22-T6S-R91W	MD Reference:	WELL @ 6209.0usft (Cyclone 30 (23' RKB) kjs)
Site:	KP 22-22 Pad	North Reference:	True
Well:	KP 23-22	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 17Nov10 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	1,619,536.20	2,423,296.70	39° 30' 59.728 N	107° 32' 39.714 W
120.0	0.00	0.00	120.0	0.0	0.0	1,619,536.20	2,423,296.70	39° 30' 59.728 N	107° 32' 39.714 W
Start Build 3.25									
382.0	8.51	161.18	381.0	-18.4	6.3	1,619,517.67	2,423,302.55	39° 30' 59.546 N	107° 32' 39.634 W
Offset Water Well TD									
812.9	22.52	161.18	795.2	-127.2	43.3	1,619,408.03	2,423,337.18	39° 30' 58.471 N	107° 32' 39.161 W
Hold 22.52 Inclination									
863.0	22.52	161.18	841.5	-145.4	49.5	1,619,389.72	2,423,342.96	39° 30' 58.291 N	107° 32' 39.082 W
9 5/8"									
2,892.4	22.52	161.18	2,716.2	-881.1	300.2	1,618,648.59	2,423,577.01	39° 30' 51.020 N	107° 32' 35.883 W
Start Drop -1.50									
3,598.9	11.92	161.18	3,390.0	-1,078.8	367.6	1,618,449.45	2,423,639.90	39° 30' 49.066 N	107° 32' 35.024 W
Mesaverde									
4,393.6	0.00	0.00	4,179.0	-1,156.7	394.1	1,618,370.90	2,423,664.70	39° 30' 48.296 N	107° 32' 34.685 W
Vertical									
4,493.6	0.00	0.00	4,279.0	-1,156.7	394.1	1,618,370.90	2,423,664.70	39° 30' 48.296 N	107° 32' 34.685 W
UMV_PC - UMW_PC									
4,947.6	0.00	0.00	4,733.0	-1,156.7	394.1	1,618,370.90	2,423,664.70	39° 30' 48.296 N	107° 32' 34.685 W
Approx. Top Gas									
6,376.6	0.00	0.00	6,162.0	-1,156.7	394.1	1,618,370.90	2,423,664.70	39° 30' 48.296 N	107° 32' 34.685 W
Upper Sand									
7,021.6	0.00	0.00	6,807.0	-1,156.7	394.1	1,618,370.90	2,423,664.70	39° 30' 48.296 N	107° 32' 34.685 W
Cameo Coals									
7,247.6	0.00	0.00	7,033.0	-1,156.7	394.1	1,618,370.90	2,423,664.70	39° 30' 48.296 N	107° 32' 34.685 W
Rollins SS									
7,397.6	0.00	0.00	7,183.0	-1,156.7	394.1	1,618,370.90	2,423,664.70	39° 30' 48.296 N	107° 32' 34.685 W
TD at 7397.6 - TD									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
UMV_PC (25' Radius) K	0.00	0.00	4,279.0	-1,156.7	394.1	1,618,370.90	2,423,664.70	39° 30' 48.296 N	107° 32' 34.685 W
- hit/miss target									
- Shape									
- plan hits target center									
- Circle (radius 25.0)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
863.0	841.5	9 5/8"	9.625	12.250	

Williams

Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 23-22 - Slot A10
Company:	KOKOPELLI FIELD	TVD Reference:	WELL @ 6209.0usft (Cyclone 30 (23' RKB) kjs)
Project:	Sec. 22-T6S-R91W	MD Reference:	WELL @ 6209.0usft (Cyclone 30 (23' RKB) kjs)
Site:	KP 22-22 Pad	North Reference:	True
Well:	KP 23-22	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 17Nov10 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
382.0	381.0	Offset Water Well TD				
3,598.9	3,390.0	Mesaverde				
4,493.6	4,279.0	UMV_PC				
4,947.6	4,733.0	Approx. Top Gas				
6,376.6	6,162.0	Upper Sand				
7,021.6	6,807.0	Cameo Coals				
7,247.6	7,033.0	Rollins SS				
7,397.6	7,183.0	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 3.25	
812.9	795.2	-127.2	43.3	Hold 22.52 Inclination	
2,892.4	2,716.2	-881.1	300.2	Start Drop -1.50	
4,393.6	4,179.0	-1,156.7	394.1	Vertical	
4,493.6	4,279.0	-1,156.7	394.1	UMV_PC	
7,397.6	7,183.0	-1,156.7	394.1	TD at 7397.6	