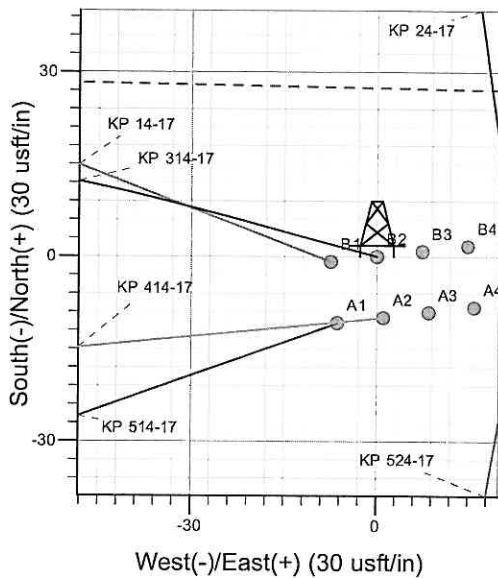
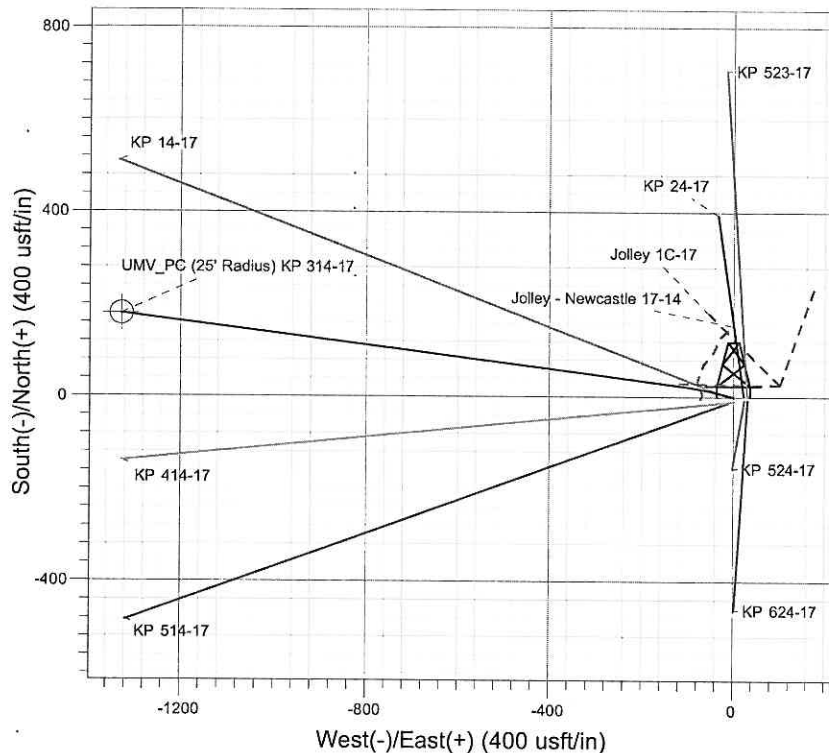
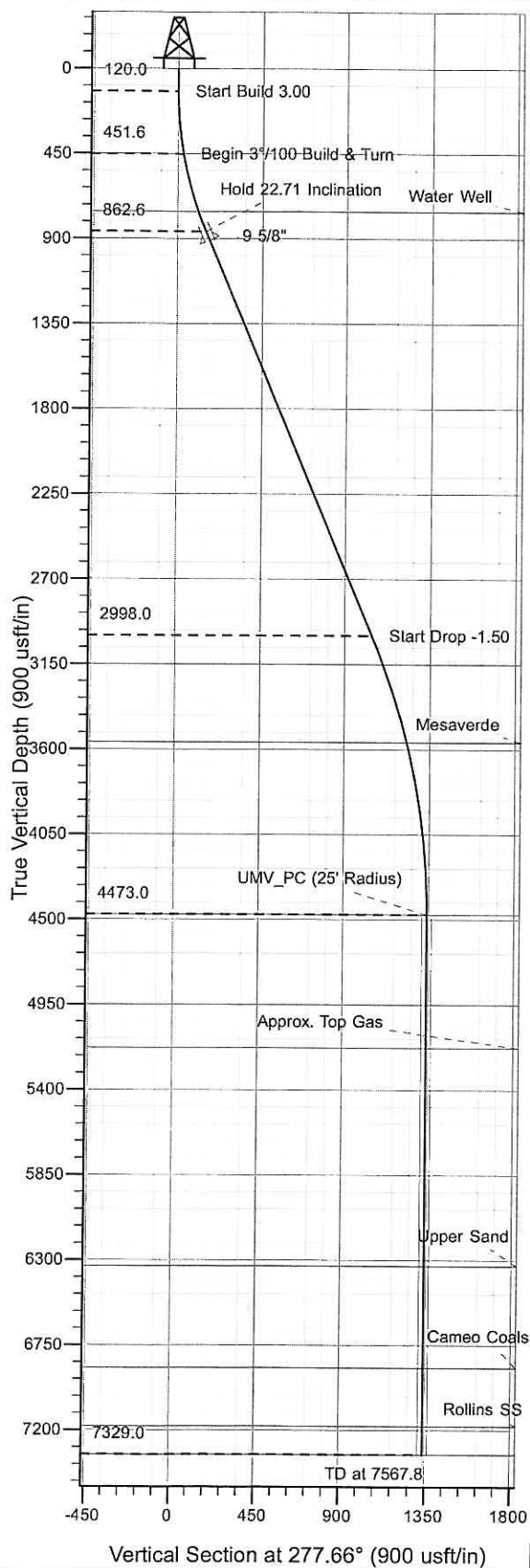




Well Name: KP 314-17  
 Surface Location: KP 24-17 Pad  
 North American Datum 1983 , US State Plane 1983, Colorado Central Zone  
 Ground Elevation: 6290.0

+N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 1621794.04 2413083.79 39° 31' 19.746 N 107° 34' 50.663 W B2  
 KELLY BUSHING @ 6316.0usft (SSD 574 (26' KB) kjs)



Project: Sec. 17-06S-091W  
 Site: KP 24-17 Pad  
 Well: KP 314-17  
 Plan #2 17Mar10 kjs

**M** Azimuths to True North  
 Magnetic North: 10.37°  
 Magnetic Field  
 Strength: 52519.1snT  
 Dip Angle: 65.90°  
 Date: 9/16/2009  
 Model: IGRF2005-10

#### ANNOTATIONS

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 3.00
451.6	453.3	10.00	285.00	7.5	-28.0	28.8	29.0	Begin 3°/100 Build & Turn
862.6	882.4	22.72	277.28	27.7	-146.7	149.1	149.5	Hold 22.71 Inclination
2998.0	3197.4	22.72	277.28	141.1	-1033.4	1043.0	1043.4	Start Drop -1.50
4473.0	4711.8	0.00	0.00	178.6	-1327.3	1339.3	1339.7	UMV_PC
7329.0	7567.8	0.00	0.00	178.6	-1327.3	1339.3	1339.7	TD at 7567.8

# **KOKOPELLI FIELD**

**Sec. 17-06S-091W**

**KP 24-17 Pad**

**KP 314-17 - Slot B2**

**Wellbore #1**

**Plan: Plan #2 17Mar10 kjs**

## **Standard Planning Report - Geographic**

**13 April, 2010**

**Williams**  
Planning Report - Geographic

<b>Database:</b>	Compass R5000 WIN AUTH	<b>Local Co-ordinate Reference:</b>	Well KP 314-17 - Slot B2
<b>Company:</b>	KOKOPELLI FIELD	<b>TVD Reference:</b>	KELLY BUSHING @ 6316.0usft (SSD 574 (26' KB) kjs)
<b>Project:</b>	Sec. 17-06S-091W	<b>MD Reference:</b>	KELLY BUSHING @ 6316.0usft (SSD 574 (26' KB) kjs)
<b>Site:</b>	KP 24-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	KP 314-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 17Mar10 kjs		

<b>Project</b>	Sec. 17-06S-091W, Garfield County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Central Zone		

Site	KP 24-17 Pad					
Site Position:		Northing:	1,621,790.60 usft	Latitude:	39° 31' 19.729 N	
From:	Map	Easting:	2,413,156.80 usft	Longitude:	107° 34' 49.730 W	
Position Uncertainty:		0.0 usft	Slot Radius:	13.200 in	Grid Convergence:	-1.312 °

Well	KP 314-17 - Slot B2					
Well Position	+N/-S	0.0 usft	Northing:	1,621,794.03 usft	Latitude:	39° 31' 19.746 N
	+E/-W	0.0 usft	Easting:	2,413,083.80 usft	Longitude:	107° 34' 50.663 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	6,290.0 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2005-10	9/16/2009	10.370	65.897	52,519

Design	Plan #2 17Mar10 kjs				
Audit Notes:					
Version:	.	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.0	0.0	0.0	277.66	

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	
453.3	10.00	285.00	451.6	7.5	-28.0	3.00	3.00	0.00	285.000	
882.4	22.72	277.28	862.6	27.7	-146.7	3.00	2.96	-1.80	-13.460	
3,197.4	22.72	277.28	2,998.0	141.1	-1,033.4	0.00	0.00	0.00	0.000	
4,711.8	0.00	0.00	4,473.0	178.6	-1,327.3	1.50	-1.50	0.00	180.000	UMV_PC (25' Radius)
7,567.8	0.00	0.00	7,329.0	178.6	-1,327.3	0.00	0.00	0.00	0.000	TD / PBHL KP 314-17

**Williams**  
Planning Report - Geographic

<b>Database:</b>	Compass R5000 WIN AUTH	<b>Local Co-ordinate Reference:</b>	Well KP 314-17 - Slot B2
<b>Company:</b>	KOKOPELLI FIELD	<b>TVD Reference:</b>	KELLY BUSHING @ 6316.0usft (SSD 574 (26' KB) kjs)
<b>Project:</b>	Sec. 17-06S-091W	<b>MD Reference:</b>	KELLY BUSHING @ 6316.0usft (SSD 574 (26' KB) kjs)
<b>Site:</b>	KP 24-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	KP 314-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 17Mar10 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	1,621,794.03	2,413,083.80	39° 31' 19.746 N	107° 34' 50.663 W	
120.0	0.00	0.00	120.0	0.0	0.0	1,621,794.03	2,413,083.80	39° 31' 19.746 N	107° 34' 50.663 W	
Start Build 3.00										
453.3	10.00	285.00	451.6	7.5	-28.0	1,621,802.18	2,413,055.95	39° 31' 19.821 N	107° 34' 51.020 W	
Begin 3°/100 Build & Turn										
768.3	19.31	278.37	756.0	22.2	-106.1	1,621,818.66	2,412,978.20	39° 31' 19.966 N	107° 34' 52.017 W	
Water Well										
882.4	22.72	277.28	862.6	27.7	-146.7	1,621,825.13	2,412,937.78	39° 31' 20.021 N	107° 34' 52.535 W	
Hold 22.71 Inclination										
932.0	22.72	277.28	908.3	30.2	-165.7	1,621,827.99	2,412,918.85	39° 31' 20.044 N	107° 34' 52.777 W	
9 5/8"										
3,197.4	22.72	277.28	2,998.0	141.1	-1,033.4	1,621,958.72	2,412,053.86	39° 31' 21.140 N	107° 35' 3.851 W	
Start Drop -1.50										
3,790.9	13.81	277.28	3,561.0	164.6	-1,217.8	1,621,986.49	2,411,870.14	39° 31' 21.373 N	107° 35' 6.203 W	
Mesaverde										
4,711.8	0.00	0.00	4,473.0	178.6	-1,327.3	1,622,003.00	2,411,760.90	39° 31' 21.511 N	107° 35' 7.602 W	
UMV_PC - UMV_PC										
5,417.8	0.00	0.00	5,179.0	178.6	-1,327.3	1,622,003.00	2,411,760.90	39° 31' 21.511 N	107° 35' 7.602 W	
Approx. Top Gas										
6,570.8	0.00	0.00	6,332.0	178.6	-1,327.3	1,622,003.00	2,411,760.90	39° 31' 21.511 N	107° 35' 7.602 W	
Upper Sand										
7,108.8	0.00	0.00	6,870.0	178.6	-1,327.3	1,622,003.00	2,411,760.90	39° 31' 21.511 N	107° 35' 7.602 W	
Cameo Coals										
7,417.8	0.00	0.00	7,179.0	178.6	-1,327.3	1,622,003.00	2,411,760.90	39° 31' 21.511 N	107° 35' 7.602 W	
Rollins SS										
7,567.8	0.00	0.00	7,329.0	178.6	-1,327.3	1,622,003.00	2,411,760.90	39° 31' 21.511 N	107° 35' 7.602 W	
TD at 7567.8 - 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 - hit/miss target - Shape	0.00	0.00	4,473.0	178.6	-1,327.3	1,622,003.00	2,411,760.90	39° 31' 21.511 N	107° 35' 7.602 W	
TD / PBHL KP 314-17 - plan hits target center - Point	0.00	0.00	7,329.0	178.6	-1,327.3	1,622,003.00	2,411,760.90	39° 31' 21.511 N	107° 35' 7.602 W	

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
932.0	908.3	9 5/8"	9.625	12.250	

**Williams**  
Planning Report - Geographic

<b>Database:</b>	Compass R5000 WIN AUTH	<b>Local Co-ordinate Reference:</b>	Well KP 314-17 - Slot B2
<b>Company:</b>	KOKOPELLI FIELD	<b>TVD Reference:</b>	KELLY BUSHING @ 6316.0usft (SSD 574 (26' KB) kjs)
<b>Project:</b>	Sec. 17-06S-091W	<b>MD Reference:</b>	KELLY BUSHING @ 6316.0usft (SSD 574 (26' KB) kjs)
<b>Site:</b>	KP 24-17 Pad	<b>North Reference:</b>	True
<b>Well:</b>	KP 314-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 17Mar10 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
768.3	756.0	Water Well		0.000		
3,790.9	3,561.0	Mesaverde		0.000		
4,711.8	4,473.0	UMV_PC		0.000		
5,417.8	5,179.0	Approx. Top Gas		0.000		
6,570.8	6,332.0	Upper Sand		0.000		
7,108.8	6,870.0	Cameo Coals		0.000		
7,417.8	7,179.0	Rollins SS		0.000		
7,567.8	7,329.0	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 3.00	
453.3	451.6	7.5	-28.0	Begin 3°/100 Build & Turn	
882.4	862.6	27.7	-146.7	Hold 22.71 Inclination	
3,197.4	2,998.0	141.1	-1,033.4	Start Drop -1.50	
4,711.8	4,473.0	178.6	-1,327.3	UMV_PC	
7,567.8	7,329.0	178.6	-1,327.3	TD at 7567.8	