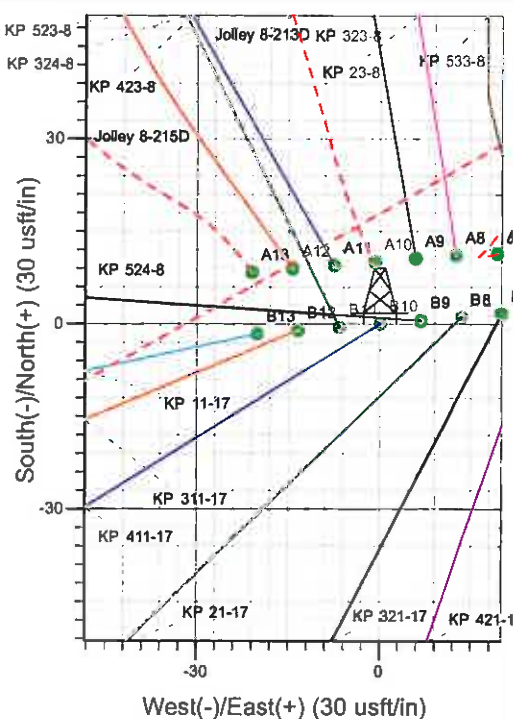
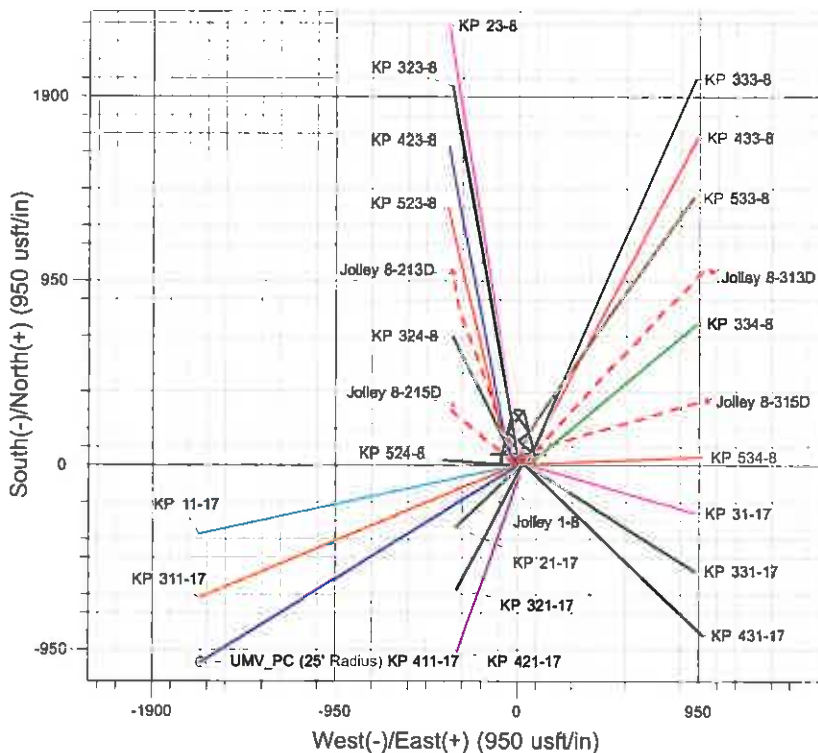
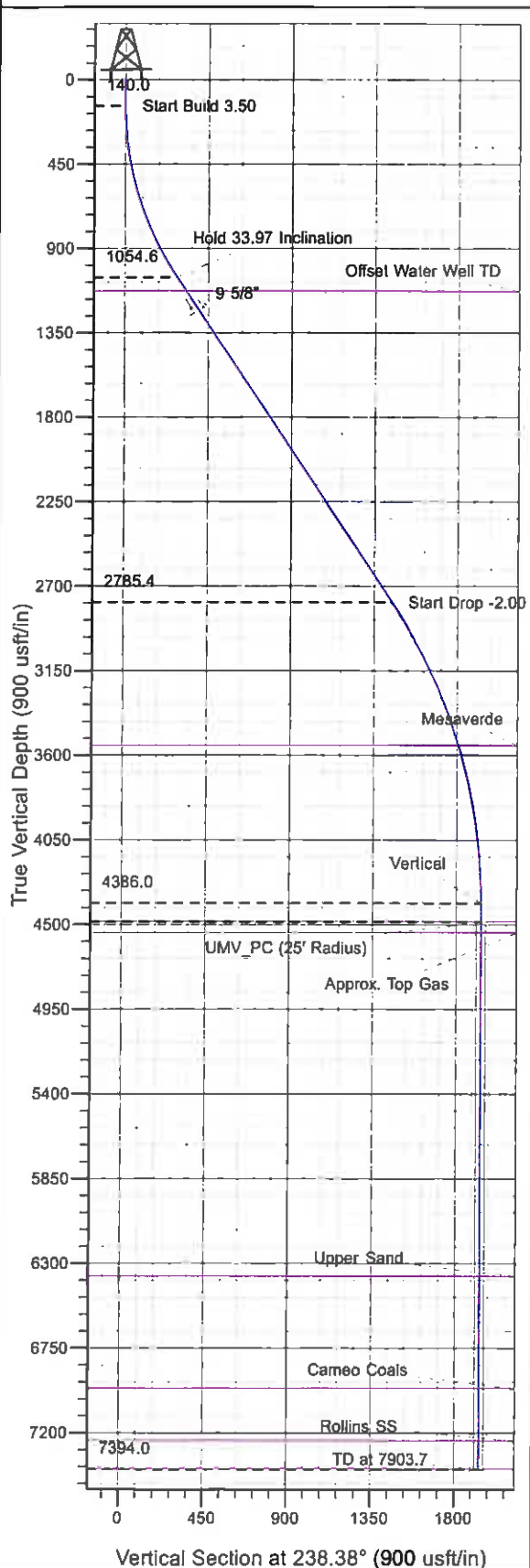




Well Name: KP 411-17
 Surface Location: KP 24-8 Pad
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 6526.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1626651.40	2413456.60	39° 32' 7.826 N	107° 34' 47.325 W	B10

KELLY BUSHING @ 6548.0usft (Cyclone 17 (22' RKB) kjs)



Project: Sec. 08-T6S-R91W
 Site: KP 24-8 Pad
 Well: KP 411-17
 Design #1 04May11 kjs



Azimuths to True North
 Magnetic North: 10.16°
 Magnetic Field
 Strength: 52364.7nT
 Dip Angle: 65.86°
 Date: 5/4/2011
 Model: IGRF200510

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
140.0	140.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 3.50
1054.6	1110.5	33.97	238.38	-146.4	-237.9	279.3	279.3	Hold 33.97 Inclination
2785.4	3197.4	33.97	238.38	-757.7	-1230.8	1445.3	1445.3	Start Drop -2.00
4386.0	4895.7	0.00	0.00	-1013.9	-1647.1	1934.1	1934.1	Vertical
4886.0	4995.7	0.00	0.00	-1013.9	-1647.1	1934.1	1934.1	UMV_PC
7394.0	7903.7	0.00	0.00	-1013.9	-1647.1	1934.1	1934.1	TD at 7903.7

KOKOPELLI FIELD

Sec. 08-T6S-R91W

KP 24-8 Pad

KP 411-17 - Slot B10

Wellbore #1

Plan: Design #1 04May11 kjs

Standard Planning Report - Geographic

23 June, 2011

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 411-17 - Slot B10
Company:	KOKOPELLI FIELD	TVD Reference:	KELLY BUSHING @ 6548.0usft (Cyclone 17 (22' RKB) kjs)
Project:	Sec. 08-T6S-R91W	MD Reference:	KELLY BUSHING @ 6548.0usft (Cyclone 17 (22' RKB) kjs)
Site:	KP 24-8 Pad	North Reference:	True
Well:	KP 411-17	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 04May11 kjs		

Project	Sec. 08-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		Using geodetic scale factor

Site		KP 24-8 Pad			
Site Position:		Northing:	1,626,664.90 usft	Latitude:	39° 32' 7.973 N
From:	Map	Easting:	2,413,516.10 usft	Longitude:	107° 34' 46.570 W
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence:	-1.312 °

Well	KP 411-17 - Slot B10					
Well Position	+N/-S	0.0 usft	Northing:	1,626,651.40 usft	Latitude:	39° 32' 7.826 N
	+E/-W	0.0 usft	Easting:	2,413,456.60 usft	Longitude:	107° 34' 47.325 W
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level:	6,526.0 usft	

Wellbore	Wellbore #1			
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	5/4/2011	10.156	65.865	52,365

Design	Design #1 04May11 kjs			
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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	238.38

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	
140.0	0.00	0.00	140.0	0.0	0.0	0.00	0.00	0.00	0.000	
1,110.5	33.97	238.38	1,054.6	-146.4	-237.9	3.50	3.50	0.00	238.384	
3,197.4	33.97	238.38	2,785.4	-757.7	-1,230.8	0.00	0.00	0.00	0.000	
4,895.7	0.00	0.00	4,386.0	-1,013.9	-1,647.1	2.00	-2.00	0.00	180.000	
4,995.7	0.00	0.00	4,486.0	-1,013.9	-1,647.1	0.00	0.00	0.00	0.000	UMV_PC (25' Radius)
7,903.7	0.00	0.00	7,394.0	-1,013.9	-1,647.1	0.00	0.00	0.00	0.000	

Williams
Planning Report - Geographic

Database: Compass R5000 WIN AUTH
Company: KOKOPELLI FIELD

Project: Sec. 08-T6S-R91W

Site: KP 24-8 Pad
Well: KP 411-17
Wellbore: Wellbore #1
Design: Design #1 04May11 kjs

Local Co-ordinate Reference: Well KP 411-17 - Slot B10
TVD Reference: KELLY BUSHING @ 6548.0usft (Cyclone 17 (22" RKB) kjs)
MD Reference: KELLY BUSHING @ 6548.0usft (Cyclone 17 (22" RKB) kjs)
North Reference: True
Survey Calculation Method: Minimum Curvature

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	1,626,651.40	2,413,456.60	39° 32' 7.826 N	107° 34' 47.325 W
140.0	0.00	0.00	140.0	0.0	0.0	1,626,651.40	2,413,456.60	39° 32' 7.826 N	107° 34' 47.325 W
Start Build 3.50									
1,110.5	33.97	238.38	1,054.6	-146.4	-237.9	1,626,510.45	2,413,215.45	39° 32' 6.379 N	107° 34' 50.361 W
Hold 33.97 Inclination									
1,200.2	33.97	238.38	1,129.0	-172.7	-280.5	1,626,485.17	2,413,172.19	39° 32' 6.119 N	107° 34' 50.906 W
Offset Water Well TD									
1,320.7	33.97	238.38	1,229.0	-208.0	-337.9	1,626,451.18	2,413,114.03	39° 32' 5.770 N	107° 34' 51.638 W
9 5/8"									
3,197.4	33.97	238.38	2,785.4	-757.7	-1,230.8	1,625,922.15	2,412,208.83	39° 32' 0.338 N	107° 35' 3.034 W
Start Drop -2.00									
4,048.4	16.95	238.38	3,551.0	-948.7	-1,541.2	1,625,738.26	2,411,894.19	39° 31' 58.449 N	107° 35' 6.995 W
Mesaverde									
4,895.7	0.00	0.00	4,386.0	-1,013.9	-1,647.1	1,625,675.50	2,411,786.80	39° 31' 57.805 N	107° 35' 8.347 W
Vertical									
4,995.7	0.00	0.00	4,486.0	-1,013.9	-1,647.1	1,625,675.50	2,411,786.80	39° 31' 57.805 N	107° 35' 8.347 W
UMV_PC - UMW_PC									
5,053.7	0.00	0.00	4,544.0	-1,013.9	-1,647.1	1,625,675.50	2,411,786.80	39° 31' 57.805 N	107° 35' 8.347 W
Approx. Top Gas									
6,880.7	0.00	0.00	6,371.0	-1,013.9	-1,647.1	1,625,675.50	2,411,786.80	39° 31' 57.805 N	107° 35' 8.347 W
Upper Sand									
7,474.7	0.00	0.00	6,965.0	-1,013.9	-1,647.1	1,625,675.50	2,411,786.80	39° 31' 57.805 N	107° 35' 8.347 W
Cameo Coals									
7,753.7	0.00	0.00	7,244.0	-1,013.9	-1,647.1	1,625,675.50	2,411,786.80	39° 31' 57.805 N	107° 35' 8.347 W
Rollins SS									
7,903.7	0.00	0.00	7,394.0	-1,013.9	-1,647.1	1,625,675.50	2,411,786.80	39° 31' 57.805 N	107° 35' 8.347 W
TD at 7903.7 - TD									

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
UMV_PC (25' Radius) K - plan hits target center - Circle (radius 25.0)	0.00	0.00	4,486.0	-1,013.9	-1,647.1	1,625,675.50	2,411,786.80	39° 31' 57.805 N	107° 35' 8.347 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,320.7	1,229.0	9 5/8"	9.625	12.250

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 411-17 - Slot B10
Company:	KOKOPELLI FIELD	TVD Reference:	KELLY BUSHING @ 6548.0usft (Cyclone 17 (22' RKB) kjs)
Project:	Sec. 08-T6S-R91W	MD Reference:	KELLY BUSHING @ 6548.0usft (Cyclone 17 (22' RKB) kjs)
Site:	KP 24-8 Pad	North Reference:	True
Well:	KP 411-17	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 04May11 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,200.2	1,129.0	Offset Water Well TD				
4,048.4	3,551.0	Mesaverde				
4,995.7	4,486.0	UMV_PC				
5,053.7	4,544.0	Approx. Top Gas				
6,880.7	6,371.0	Upper Sand				
7,474.7	6,965.0	Cameo Coals				
7,753.7	7,244.0	Rollins SS				
7,903.7	7,394.0	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
140.0	140.0	0.0	0.0	Start Build 3.50	
1,110.5	1,054.6	-146.4	-237.9	Hold 33.97 Inclination	
3,197.4	2,785.4	-757.7	-1,230.8	Start Drop -2.00	
4,895.7	4,386.0	-1,013.9	-1,647.1	Vertical	
4,995.7	4,486.0	-1,013.9	-1,647.1	UMV_PC	
7,903.7	7,394.0	-1,013.9	-1,647.1	TD at 7903.7	