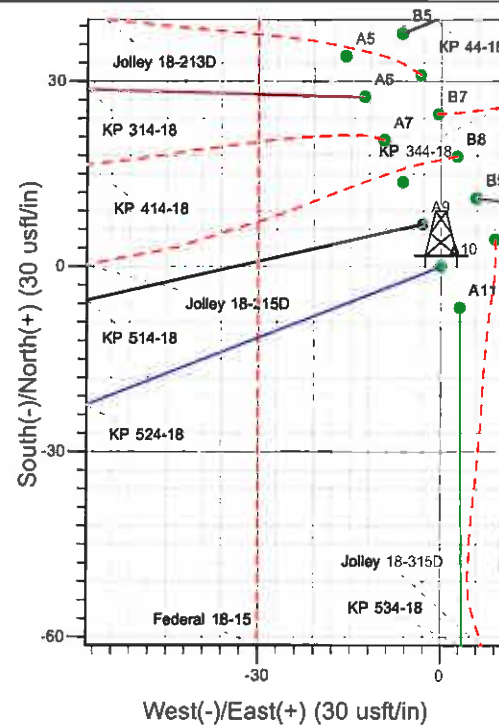
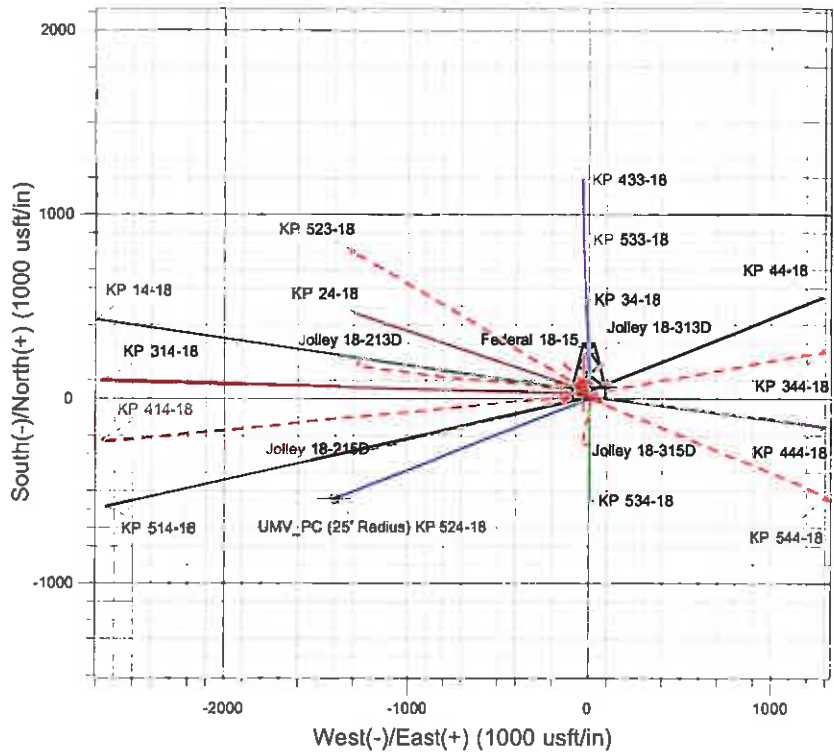
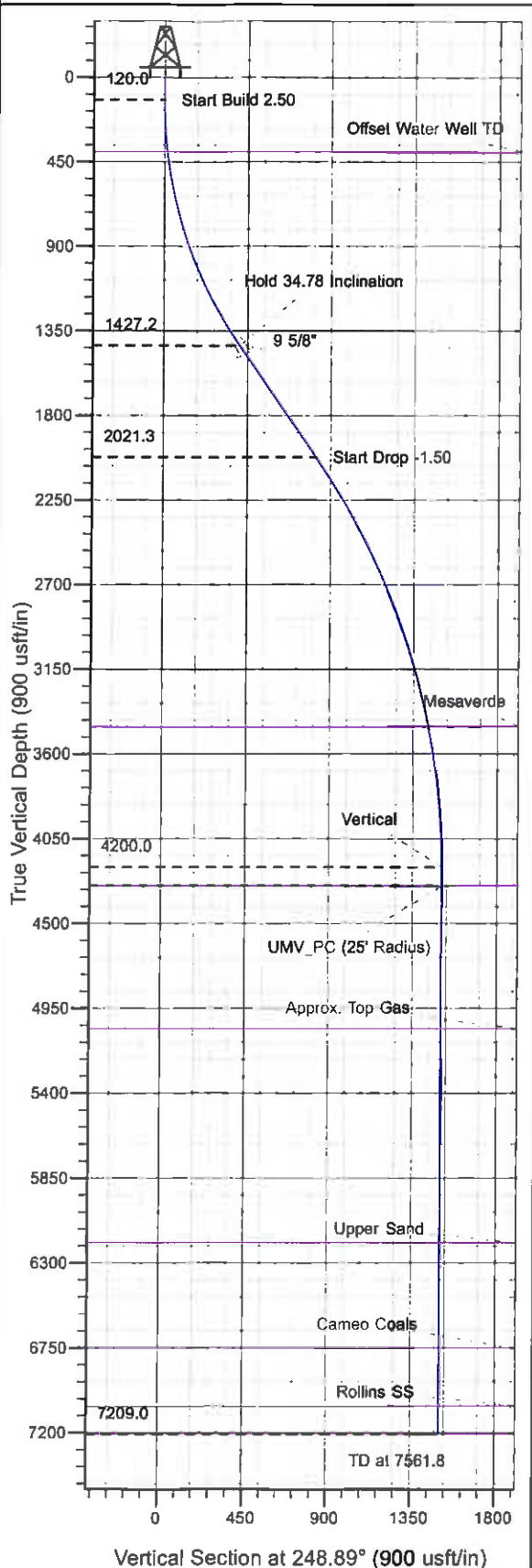




Well Name: KP 524-18
 Surface Location: KP 34-18 Pad
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 5918.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1621889.90 2409153.90 39° 31' 19.801 N 107° 35' 40.829 W A10
 KELLY BUSHING @ 5941.0usft (Cyclone 30 (23' RKB) kjs)



Project: Sec. 18-T6S-R91W
 Site: KP 34-18 Pad
 Well: KP 524-18
 Design #1 04Dec09 kjs



Azimuths to True North
 Magnetic North: 10.35°
 Magnetic Field
 Strength: 52499 1nT
 Dip Angle: 65.89°
 Date: 12/4/2009
 Model: IGRF2005-10

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 2.50
1427.2	1511.1	34.78	248.89	-147.5	-381.9	409.4	409.4	Hold 34.78 Inclination
2021.3	2234.3	34.78	248.89	-296.0	-766.7	821.9	821.9	Start Drop -1.50
4200.0	4552.8	0.00	0.00	-541.8	-1403.2	1504.2	1504.2	Vertical
4300.0	4652.8	0.00	0.00	-541.8	-1403.2	1504.2	1504.2	UMW_PC
7209.0	7561.8	0.00	0.00	-541.8	-1403.2	1504.2	1504.2	TD at 7561.8

KOKOPELLI FIELD

Sec. 18-T6S-R91W

KP 34-18 Pad

KP 524-18 - Slot A10

Wellbore #1

Plan: Design #1 04Dec09 kjs

Standard Planning Report - Geographic

18 March, 2011

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 524-18 - Slot A10
Company:	KOKOPELLI FIELD	TVD Reference:	KELLY BUSHING @ 5941.0usft (Cyclone 30 (23' RKB) kjs)
Project:	Sec. 18-T6S-R91W	MD Reference:	KELLY BUSHING @ 5941.0usft (Cyclone 30 (23' RKB) kjs)
Site:	KP 34-18 Pad	North Reference:	True
Well:	KP 524-18	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 04Dec09 kjs		

Project	Sec. 18-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 34-18 Pad		
Site Position:		Northing:	1,621,893.85 usft
From:	Map	Easting:	2,409,163.01 usft
Position Uncertainty:	0.0 usft	Slot Radius:	0 "
		Latitude:	39° 31' 19.842 N
		Longitude:	107° 35' 40.714 W
		Grid Convergence:	-1.32 °

Well	KP 524-18 - Slot A10		
Well Position	+N/-S	0.0 usft	Northing: 1,621,889.90 usft
	+E/-W	0.0 usft	Easting: 2,409,153.90 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Ground Level: 5,918.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2005-10	12/4/2009	10.35
			Dip Angle (°)
			65.89
			Field Strength (nT)
			52,499

Design	Design #1 04Dec09 kjs		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°)
			248.89

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	0.00	
120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,511.1	34.78	248.89	1,427.2	-147.5	-381.9	2.50	2.50	0.00	248.89	
2,234.3	34.78	248.89	2,021.3	-296.0	-766.7	0.00	0.00	0.00	0.00	
4,552.8	0.00	0.00	4,200.0	-541.8	-1,403.2	1.50	-1.50	0.00	180.00	
4,652.8	0.00	0.00	4,300.0	-541.8	-1,403.2	0.00	0.00	0.00	0.00	UMV_PC (25' Radius)
7,561.8	0.00	0.00	7,209.0	-541.8	-1,403.2	0.00	0.00	0.00	0.00	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 524-18 - Slot A10
Company:	KOKOPELLI FIELD	TVD Reference:	KELLY BUSHING @ 5941.0usft (Cyclone 30 (23' RKB) kjs)
Project:	Sec. 18-T6S-R91W	MD Reference:	KELLY BUSHING @ 5941.0usft (Cyclone 30 (23' RKB) kjs)
Site:	KP 34-18 Pad	North Reference:	True
Well:	KP 524-18	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 04Dec09 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	1,621,889.90	2,409,153.90	39° 31' 19.801 N	107° 35' 40.829 W
120.0	0.00	0.00	120.0	0.0	0.0	1,621,889.90	2,409,153.90	39° 31' 19.801 N	107° 35' 40.829 W
Start Build 2.50									
397.7	6.94	248.89	397.0	-6.1	-15.7	1,621,884.21	2,409,138.10	39° 31' 19.741 N	107° 35' 41.029 W
Offset Water Well TD									
1,511.1	34.78	248.89	1,427.2	-147.5	-381.9	1,621,751.28	2,408,768.71	39° 31' 18.344 N	107° 35' 45.703 W
Hold 34.78 Inclination									
1,561.0	34.78	248.89	1,468.2	-157.7	-408.5	1,621,741.65	2,408,741.94	39° 31' 18.242 N	107° 35' 46.042 W
9 5/8"									
2,234.3	34.78	248.89	2,021.3	-296.0	-766.7	1,621,611.62	2,408,380.59	39° 31' 16.875 N	107° 35' 50.613 W
Start Drop -1.50									
3,803.0	11.25	248.89	3,455.0	-515.4	-1,334.8	1,621,405.43	2,407,807.63	39° 31' 14.707 N	107° 35' 57.863 W
Mesaverde									
4,552.8	0.00	0.00	4,200.0	-541.8	-1,403.2	1,621,380.60	2,407,738.60	39° 31' 14.446 N	107° 35' 58.736 W
Vertical									
4,652.8	0.00	0.00	4,300.0	-541.8	-1,403.2	1,621,380.60	2,407,738.60	39° 31' 14.446 N	107° 35' 58.736 W
UMV_PC - UMV_PC									
5,411.8	0.00	0.00	5,059.0	-541.8	-1,403.2	1,621,380.60	2,407,738.60	39° 31' 14.446 N	107° 35' 58.736 W
Approx. Top Gas									
6,546.8	0.00	0.00	6,194.0	-541.8	-1,403.2	1,621,380.60	2,407,738.60	39° 31' 14.446 N	107° 35' 58.736 W
Upper Sand									
7,105.8	0.00	0.00	6,753.0	-541.8	-1,403.2	1,621,380.60	2,407,738.60	39° 31' 14.446 N	107° 35' 58.736 W
Cameo Coals									
7,411.8	0.00	0.00	7,059.0	-541.8	-1,403.2	1,621,380.60	2,407,738.60	39° 31' 14.446 N	107° 35' 58.736 W
Rollins SS									
7,561.8	0.00	0.00	7,209.0	-541.8	-1,403.2	1,621,380.60	2,407,738.60	39° 31' 14.446 N	107° 35' 58.736 W
TD at 7561.8 - 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	4,300.0	-541.8	-1,403.2	1,621,380.60	2,407,738.60	39° 31' 14.446 N	107° 35' 58.736 W
- plan hits target center									
- Circle (radius 25.0)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,561.0	1,468.2	9 5/8"	9-5/8	12-1/4	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well KP 524-18 - Slot A10
Company:	KOKOPELLI FIELD	TVD Reference:	KELLY BUSHING @ 5941.0usft (Cyclone 30 (23' RKB) kjs)
Project:	Sec. 18-T6S-R91W	MD Reference:	KELLY BUSHING @ 5941.0usft (Cyclone 30 (23' RKB) kjs)
Site:	KP 34-18 Pad	North Reference:	True
Well:	KP 524-18	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 04Dec09 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (")	Dip Direction (")	
397.7	397.0	Offset Water Well TD				
3,803.0	3,455.0	Mesaverde				
4,652.8	4,300.0	UMV_PC				
5,411.8	5,059.0	Approx. Top Gas				
6,546.8	6,194.0	Upper Sand				
7,105.8	6,753.0	Cameo Coals				
7,411.8	7,059.0	Rollins SS				
7,561.8	7,209.0	TD				

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
120.0	120.0	0.0	0.0	Start Build 2.50
1,511.1	1,427.2	-147.5	-381.9	Hold 34.78 Inclination
2,234.3	2,021.3	-296.0	-766.7	Start Drop -1.50
4,552.8	4,200.0	-541.8	-1,403.2	Vertical
4,652.8	4,300.0	-541.8	-1,403.2	UMV_PC
7,561.8	7,209.0	-541.8	-1,403.2	TD at 7561.8