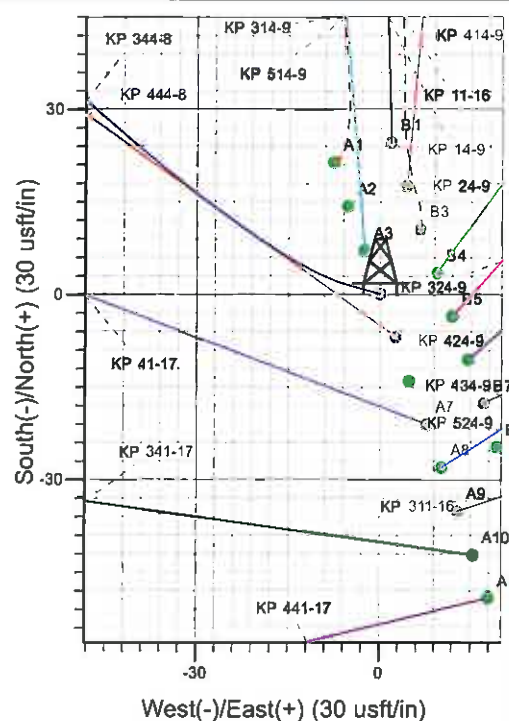
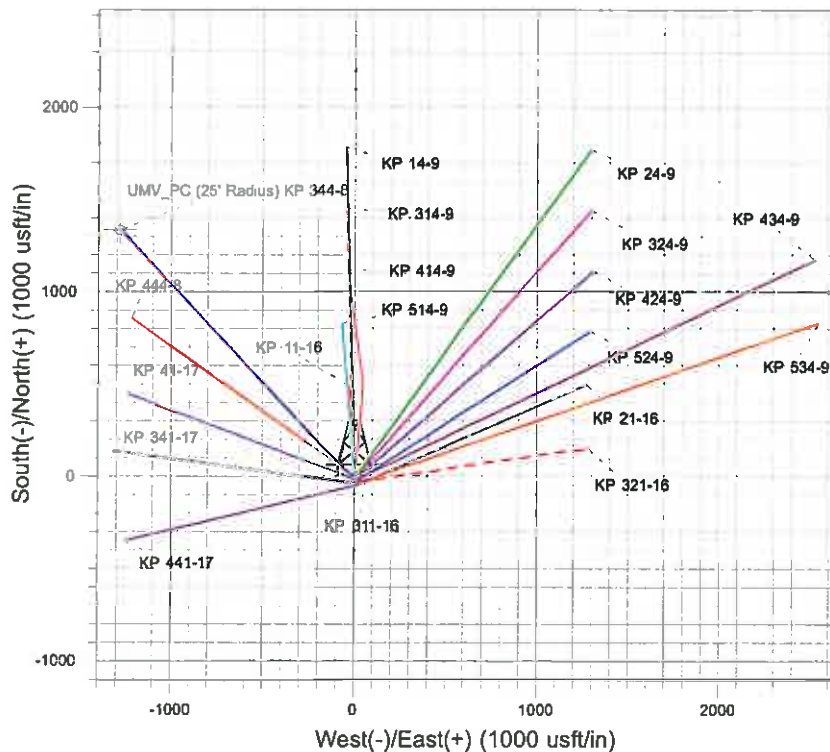
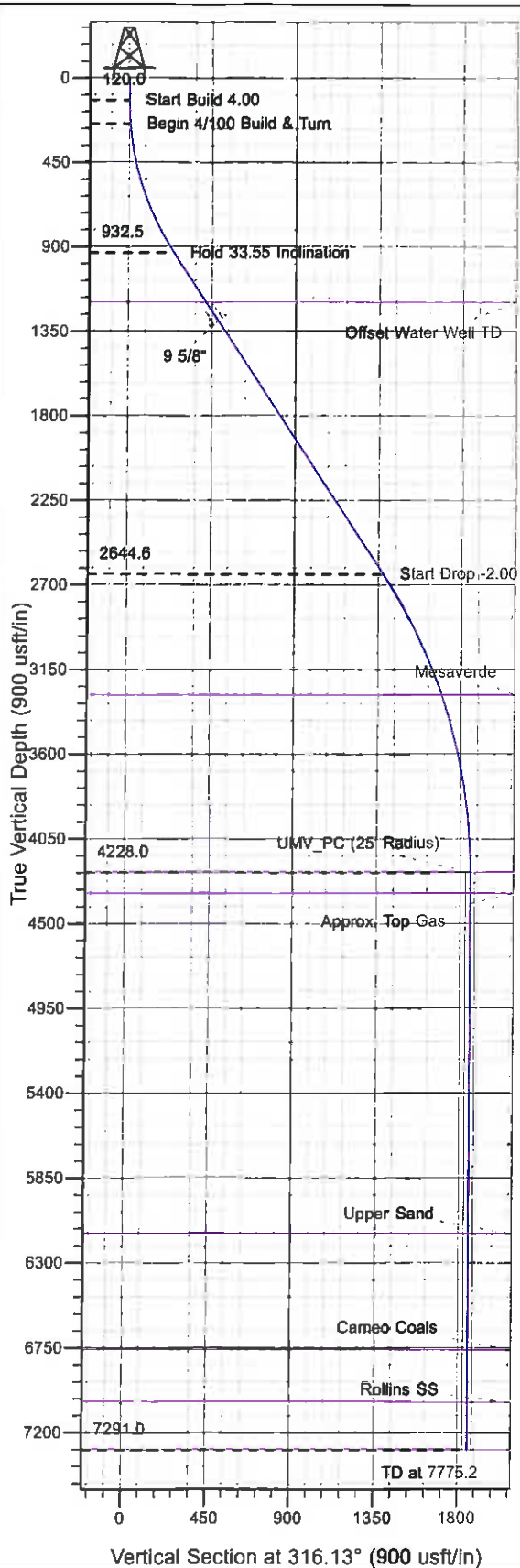




Well Name: KP 344-8
 Surface Location: KP 11-16 Pad
 North American Datum 1983, US State Plane 1983 Colorado Central Zone
 Ground Elevation: 6632.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1625807.90 2417098.80 39° 32' 0.313 N 107° 34' 0.603 W A4
 KELLY BUSHING @ 6654.0usft (Cyclone 17 (22' RKB) kjs)



Project: Sec. 16-T6S-R91W
 Site: KP 11-16 Pad
 Well: KP 344-8
 Design #1 15Aug11 kjs



Azimuths to True North
 Magnetic North: 10.11°
 Magnetic Field
 Strength: 52336.6nT
 Dip Angle: 65.86°
 Date: 8/15/2011
 Model: IGRF2005-10

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	V	Sect	Departure	Annotation
120.0	120.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	Start Build 4.00
244.8	245.0	5.00	285.00	1.4	-5.3	4.7	5.5	5.5	Begin 4/100 Build & Turn
932.5	980.1	33.55	316.75	161.2	-179.2	240.4	242.7	242.7	Hold 33.55 Inclination
2644.6	3034.6	33.55	316.75	988.3	-957.2	1375.9	1378.2	1378.2	Start Drop -2.00
4228.0	4712.2	0.00	0.00	1336.0	-1284.2	1653.2	1655.6	1655.6	UMV_PC
7291.0	7775.2	0.00	0.00	1336.0	-1284.2	1653.2	1655.6	1655.6	TD at 7775.2

KOKOPELLI FIELD

Sec. 16-T6S-R91W

KP 11-16 Pad

KP 344-8 - Slot A4

Wellbore #1

Plan: Design #1 15Aug11 kjs

Standard Planning Report - Geographic

12 October, 2011

Williams
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well KP 344-8 - Slot A4
Company:	KOKOPELLI FIELD	TVD Reference:	KELLY BUSHING @ 6654.0usft (Cyclone 17 (22' RKB) kjs)
Project:	Sec. 16-T6S-R91W	MD Reference:	KELLY BUSHING @ 6654.0usft (Cyclone 17 (22' RKB) kjs)
Site:	KP 11-16 Pad	North Reference:	True
Well:	KP 344-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 15Aug11 kjs		

Project	Sec. 16-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 11-16 Pad		
Site Position:		Northing:	1,625,762.90 usft
From:	Map	Easting:	2,417,113.40 usft
Position Uncertainty:	0.0 usft	Slot Radius:	0 "
		Latitude:	39° 31' 59.871 N
		Longitude:	107° 34' 0.404 W
		Grid Convergence:	-1.30 "

Well	KP 344-8 - Slot A4		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	
		Latitude:	39° 32' 0.313 N
		Longitude:	107° 34' 0.603 W
		Ground Level:	6,632.0 usft

Wellbore	Wellbore #1		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	8/15/2011	10.11	65.86	52,337

Design	Design #1 15Aug11 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	316.13

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	
245.0	5.00	285.00	244.8	1.4	-5.3	4.00	4.00	0.00	285.00	
980.1	33.55	316.75	932.5	161.2	-179.2	4.00	3.88	4.32	36.33	
3,034.6	33.55	316.75	2,644.6	988.3	-957.2	0.00	0.00	0.00	0.00	
4,712.2	0.00	0.00	4,228.0	1,336.0	-1,284.2	2.00	-2.00	0.00	180.00	UMV_PC (25' Radius
7,775.2	0.00	0.00	7,291.0	1,336.0	-1,284.2	0.00	0.00	0.00	0.00	TD / PBHL KP 344-8

Williams
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well KP 344-8 - Slot A4
Company:	KOKOPELLI FIELD	TVD Reference:	KELLY BUSHING @ 6654.0usft (Cyclone 17 (22' RKB) kjs)
Project:	Sec. 16-T6S-R91W	MD Reference:	KELLY BUSHING @ 6654.0usft (Cyclone 17 (22' RKB) kjs)
Site:	KP 11-16 Pad	North Reference:	True
Well:	KP 344-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 15Aug11 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	1,625,807.90	2,417,098.80	39° 32' 0.313 N	107° 34' 0.603 W
120.0	0.00	0.00	120.0	0.0	0.0	1,625,807.90	2,417,098.80	39° 32' 0.313 N	107° 34' 0.603 W
Start Build 4.00									
245.0	5.00	285.00	244.8	1.4	-5.3	1,625,809.43	2,417,093.57	39° 32' 0.327 N	107° 34' 0.670 W
Begin 4/100 Build & Turn									
980.1	33.55	316.75	932.5	161.2	-179.2	1,625,973.14	2,416,923.29	39° 32' 1.906 N	107° 34' 2.891 W
Hold 33.55 Inclination									
1,296.3	33.55	316.75	1,196.0	288.5	-299.0	1,626,103.13	2,416,806.48	39° 32' 3.164 N	107° 34' 4.419 W
Offset Water Well TD									
1,416.3	33.55	316.75	1,296.0	336.8	-344.4	1,626,152.46	2,416,762.15	39° 32' 3.642 N	107° 34' 4.999 W
9 5/8"									
3,034.6	33.55	316.75	2,644.6	988.3	-957.2	1,626,817.75	2,416,164.34	39° 32' 10.081 N	107° 34' 12.821 W
Start Drop -2.00									
3,755.5	19.13	316.75	3,289.0	1,220.8	-1,175.8	1,627,055.08	2,415,951.08	39° 32' 12.378 N	107° 34' 15.611 W
Mesaverde									
4,712.2	0.00	0.00	4,228.0	1,336.0	-1,284.2	1,627,172.80	2,415,845.30	39° 32' 13.517 N	107° 34' 16.995 W
UMV_PC - UMV_PC - UMV_PC (25' Radius) KP 344-8									
4,825.2	0.00	0.00	4,341.0	1,336.0	-1,284.2	1,627,172.80	2,415,845.30	39° 32' 13.517 N	107° 34' 16.995 W
Approx. Top Gas									
6,630.2	0.00	0.00	6,146.0	1,336.0	-1,284.2	1,627,172.80	2,415,845.30	39° 32' 13.517 N	107° 34' 16.995 W
Upper Sand									
7,247.2	0.00	0.00	6,763.0	1,336.0	-1,284.2	1,627,172.80	2,415,845.30	39° 32' 13.517 N	107° 34' 16.995 W
Cameo Coals									
7,525.2	0.00	0.00	7,041.0	1,336.0	-1,284.2	1,627,172.80	2,415,845.30	39° 32' 13.517 N	107° 34' 16.995 W
Rollins SS									
7,775.2	0.00	0.00	7,291.0	1,336.0	-1,284.2	1,627,172.80	2,415,845.30	39° 32' 13.517 N	107° 34' 16.995 W
TD at 7775.2 - TD - TD / PBHL KP 344-8									

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	4,228.0	1,336.0	-1,284.2	1,627,172.80	2,415,845.30	39° 32' 13.517 N	107° 34' 16.995 W
- plan hits target center									
- Circle (radius 25.0)									
TD / PBHL KP 344-8	0.00	0.00	7,291.0	1,336.0	-1,284.2	1,627,172.80	2,415,845.30	39° 32' 13.517 N	107° 34' 16.995 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,416.3	1,296.0	9 5/8"	9-5/8	12-1/4	

Williams
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well KP 344-8 - Slot A4
Company:	KOKOPELLI FIELD	TVD Reference:	KELLY BUSHING @ 6654.0usft (Cyclone 17 (22' RKB) kjs)
Project:	Sec. 16-T6S-R91W	MD Reference:	KELLY BUSHING @ 6654.0usft (Cyclone 17 (22' RKB) kjs)
Site:	KP 11-16 Pad	North Reference:	True
Well:	KP 344-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 15Aug11 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (")	Dip Direction (")	
1,296.3	1,196.0	Offset Water Well TD				
3,755.5	3,289.0	Mesaverde				
4,712.2	4,228.0	UMV_PC				
4,825.2	4,341.0	Approx. Top Gas				
6,630.2	6,146.0	Upper Sand				
7,247.2	6,763.0	Cameo Coals				
7,525.2	7,041.0	Rollins SS				
7,775.2	7,291.0	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 4.00	
245.0	244.8	1.4	-5.3	Begin 4/100 Build & Turn	
980.1	932.5	161.2	-179.2	Hold 33.55 Inclination	
3,034.6	2,644.6	988.3	-957.2	Start Drop -2.00	
4,712.2	4,228.0	1,336.0	-1,284.2	UMV_PC	
7,775.2	7,291.0	1,336.0	-1,284.2	TD at 7775.2	