

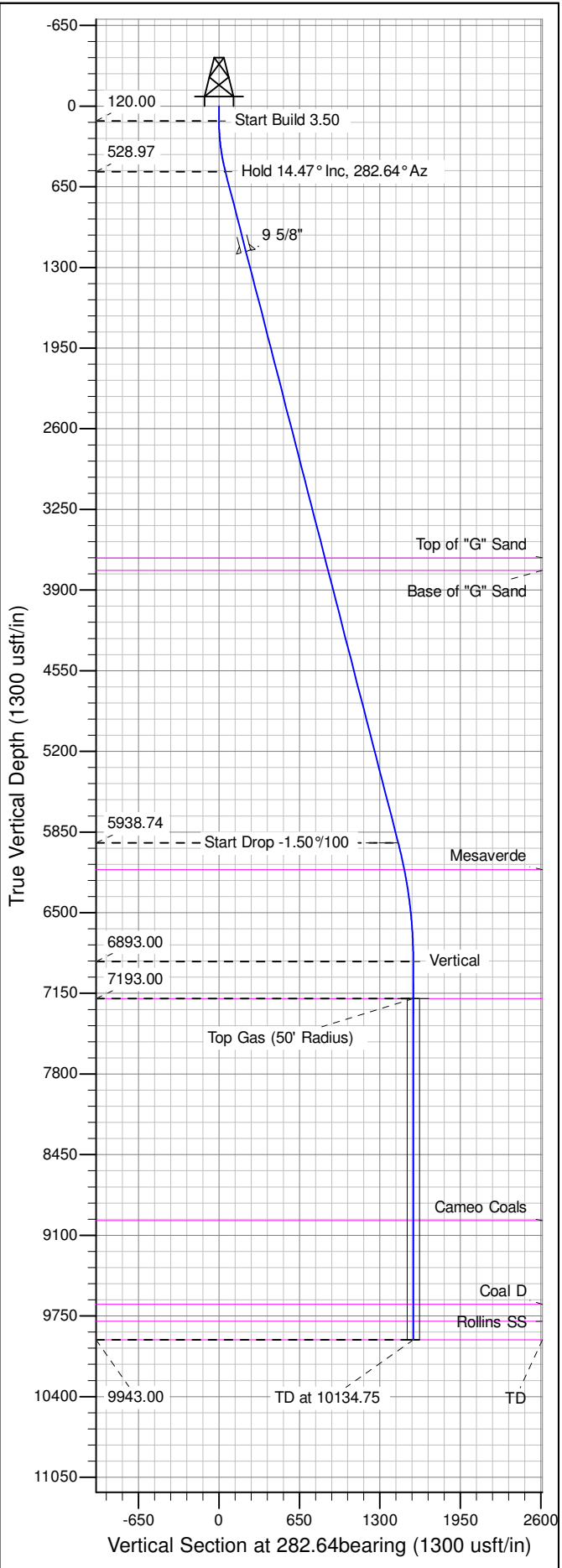


Well Name: RU 11-8
 Surface Location: RU 21-8 Pad

North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 7736.00

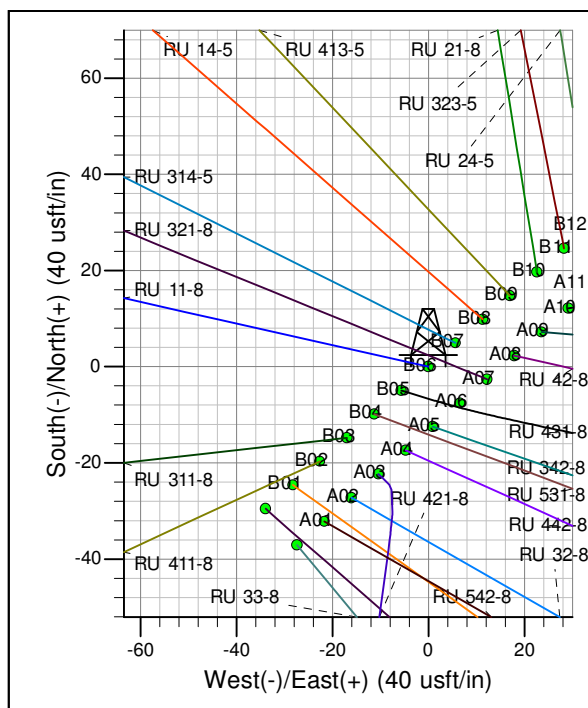
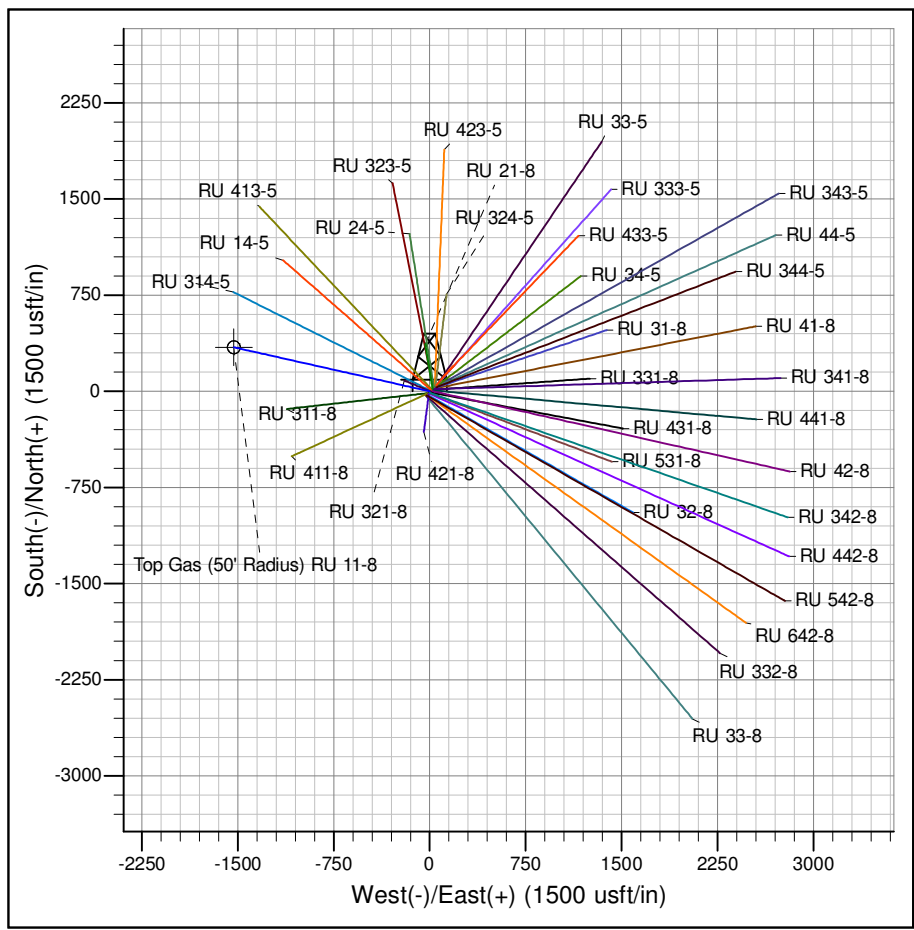
+N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.00 0.00 1602662.82 2350485.66 39.46550 -107.80086 B07

KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)



ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
120.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.50
528.97	533.35	14.47	282.64	11.36	-50.65	51.91	1447.66	Hold 14.47° Inc, 282.64° Az
5938.74	6120.27	14.47	282.64	316.88	-1412.55	1447.66	1568.78	Start Drop -1.50°/100
6893.00	7084.75	0.00	0.00	343.39	-1530.74	1568.78	1568.78	Vertical
7193.00	7384.75	0.00	0.00	343.39	-1530.74	1568.78	1568.78	Top Gas
9943.00	10134.75	0.00	0.00	343.39	-1530.74	1568.78	1568.78	TD at 10134.75



Azimuths to True North
 Magnetic North: 9.84°

Magnetic Field
 Strength: 51917.9snT
 Dip Angle: 65.66°
 Date: 9/9/2014
 Model: IGRF2010

Project: RU 08-07S-093W
 Site: RU 21-8 Pad
 Well: RU 11-8
 Design #1 09Sep14 mab

PICEANCE VLY NAD 83

RU 08-07S-093W

RU 21-8 Pad

RU 11-8 - Slot B07

Wellbore #1

Plan: Design #1 09Sep14 mab

Standard Planning Report - Geographic

26 November, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 11-8 - Slot B07
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Project:	RU 08-07S-093W	MD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Site:	RU 21-8 Pad	North Reference:	True
Well:	RU 11-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 09Sep14 mab		

Project	RU 08-07S-093W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	RU 21-8 Pad				
Site Position:		Northing:	1,602,707.70 usft	Latitude:	39.46563
From:	Map	Easting:	2,350,555.60 usft	Longitude:	-107.80061
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	-1.45 °

Well	RU 11-8 - Slot B07					
Well Position	+N/-S	0.00 usft	Northing:	1,602,662.81 usft	Latitude:	39.46550
	+E/-W	0.00 usft	Easting:	2,350,485.66 usft	Longitude:	-107.80086
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	7,736.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/9/2014	9.84	65.66	51,918

Design	Design #1 09Sep14 mab			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (bearing)
	0.00	0.00	0.00	282.64

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	
533.35	14.47	282.64	528.97	11.36	-50.65	3.50	3.50	0.00	282.64	
6,120.27	14.47	282.64	5,938.74	316.88	-1,412.55	0.00	0.00	0.00	0.00	
7,084.75	0.00	0.00	6,893.00	343.39	-1,530.74	1.50	-1.50	0.00	180.00	
7,384.75	0.00	0.00	7,193.00	343.39	-1,530.74	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
10,134.75	0.00	0.00	9,943.00	343.39	-1,530.74	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 11-8 - Slot B07
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Project:	RU 08-07S-093W	MD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Site:	RU 21-8 Pad	North Reference:	True
Well:	RU 11-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 09Sep14 mab		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	1,602,662.81	2,350,485.66	39.46550	-107.80086	
120.00	0.00	0.00	120.00	0.00	0.00	1,602,662.81	2,350,485.66	39.46550	-107.80086	
Start Build 3.50										
200.00	2.80	282.64	199.97	0.43	-1.91	1,602,663.29	2,350,483.77	39.46550	-107.80086	
400.00	9.80	282.64	398.64	5.23	-23.31	1,602,668.63	2,350,462.49	39.46551	-107.80094	
533.35	14.47	282.64	528.97	11.36	-50.65	1,602,675.45	2,350,435.32	39.46553	-107.80104	
Hold 14.47° Inc, 282.64° Az										
600.00	14.47	282.64	593.51	15.01	-66.90	1,602,679.51	2,350,419.17	39.46554	-107.80109	
800.00	14.47	282.64	787.17	25.94	-115.65	1,602,691.68	2,350,370.70	39.46557	-107.80127	
1,000.00	14.47	282.64	980.82	36.88	-164.40	1,602,703.85	2,350,322.24	39.46560	-107.80144	
1,200.00	14.47	282.64	1,174.48	47.82	-213.16	1,602,716.01	2,350,273.78	39.46563	-107.80161	
9 5/8"										
1,400.00	14.47	282.64	1,368.14	58.75	-261.91	1,602,728.18	2,350,225.32	39.46566	-107.80179	
1,600.00	14.47	282.64	1,561.80	69.69	-310.66	1,602,740.35	2,350,176.86	39.46569	-107.80196	
1,800.00	14.47	282.64	1,755.46	80.63	-359.42	1,602,752.52	2,350,128.40	39.46572	-107.80213	
2,000.00	14.47	282.64	1,949.12	91.56	-408.17	1,602,764.69	2,350,079.94	39.46575	-107.80230	
2,200.00	14.47	282.64	2,142.77	102.50	-456.92	1,602,776.85	2,350,031.48	39.46578	-107.80248	
2,400.00	14.47	282.64	2,336.43	113.44	-505.68	1,602,789.02	2,349,983.02	39.46581	-107.80265	
2,600.00	14.47	282.64	2,530.09	124.37	-554.43	1,602,801.19	2,349,934.56	39.46584	-107.80282	
2,800.00	14.47	282.64	2,723.75	135.31	-603.18	1,602,813.36	2,349,886.10	39.46587	-107.80299	
3,000.00	14.47	282.64	2,917.41	146.25	-651.94	1,602,825.52	2,349,837.64	39.46590	-107.80317	
3,200.00	14.47	282.64	3,111.07	157.18	-700.69	1,602,837.69	2,349,789.18	39.46593	-107.80334	
3,400.00	14.47	282.64	3,304.72	168.12	-749.44	1,602,849.86	2,349,740.72	39.46596	-107.80351	
3,600.00	14.47	282.64	3,498.38	179.06	-798.20	1,602,862.03	2,349,692.26	39.46599	-107.80369	
3,747.29	14.47	282.64	3,641.00	187.11	-834.10	1,602,870.99	2,349,656.57	39.46601	-107.80381	
Top of "G" Sand										
3,800.00	14.47	282.64	3,692.04	190.00	-846.95	1,602,874.20	2,349,643.79	39.46602	-107.80386	
3,850.56	14.47	282.64	3,741.00	192.76	-859.27	1,602,877.27	2,349,631.54	39.46603	-107.80390	
Base of "G" Sand										
4,000.00	14.47	282.64	3,885.70	200.93	-895.70	1,602,886.36	2,349,595.33	39.46605	-107.80403	
4,200.00	14.47	282.64	4,079.36	211.87	-944.46	1,602,898.53	2,349,546.87	39.46608	-107.80420	
4,400.00	14.47	282.64	4,273.01	222.81	-993.21	1,602,910.70	2,349,498.41	39.46611	-107.80438	
4,600.00	14.47	282.64	4,466.67	233.74	-1,041.96	1,602,922.87	2,349,449.95	39.46614	-107.80455	
4,800.00	14.47	282.64	4,660.33	244.68	-1,090.72	1,602,935.04	2,349,401.49	39.46617	-107.80472	
5,000.00	14.47	282.64	4,853.99	255.62	-1,139.47	1,602,947.20	2,349,353.03	39.46620	-107.80489	
5,200.00	14.47	282.64	5,047.65	266.55	-1,188.22	1,602,959.37	2,349,304.57	39.46623	-107.80507	
5,400.00	14.47	282.64	5,241.31	277.49	-1,236.98	1,602,971.54	2,349,256.11	39.46626	-107.80524	
5,600.00	14.47	282.64	5,434.96	288.43	-1,285.73	1,602,983.71	2,349,207.65	39.46629	-107.80541	
5,800.00	14.47	282.64	5,628.62	299.36	-1,334.48	1,602,995.87	2,349,159.19	39.46632	-107.80558	
6,000.00	14.47	282.64	5,822.28	310.30	-1,383.23	1,603,008.04	2,349,110.73	39.46635	-107.80576	
6,120.27	14.47	282.64	5,938.74	316.88	-1,412.55	1,603,015.36	2,349,081.58	39.46637	-107.80586	
Start Drop -1.50°/100										
6,200.00	13.27	282.64	6,016.14	321.06	-1,431.20	1,603,020.01	2,349,063.05	39.46638	-107.80593	
6,341.06	11.16	282.64	6,154.00	327.59	-1,460.32	1,603,027.28	2,349,034.11	39.46640	-107.80603	
Mesaverde										
6,400.00	10.27	282.64	6,211.91	329.99	-1,471.01	1,603,029.95	2,349,023.48	39.46641	-107.80607	
6,600.00	7.27	282.64	6,409.55	336.66	-1,500.76	1,603,037.38	2,348,993.91	39.46642	-107.80617	
6,800.00	4.27	282.64	6,608.51	341.07	-1,520.38	1,603,042.27	2,348,974.40	39.46644	-107.80624	
7,000.00	1.27	282.64	6,808.26	343.18	-1,529.82	1,603,044.63	2,348,965.02	39.46644	-107.80628	
7,084.75	0.00	0.00	6,893.00	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
Vertical										
7,200.00	0.00	0.00	7,008.25	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 11-8 - Slot B07
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Project:	RU 08-07S-093W	MD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Site:	RU 21-8 Pad	North Reference:	True
Well:	RU 11-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 09Sep14 mab		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
7,384.75	0.00	0.00	7,193.00	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
Top Gas - Approx. Top Gas										
7,400.00	0.00	0.00	7,208.25	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
7,600.00	0.00	0.00	7,408.25	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
7,800.00	0.00	0.00	7,608.25	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
8,000.00	0.00	0.00	7,808.25	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
8,200.00	0.00	0.00	8,008.25	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
8,400.00	0.00	0.00	8,208.25	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
8,600.00	0.00	0.00	8,408.25	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
8,800.00	0.00	0.00	8,608.25	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
9,000.00	0.00	0.00	8,808.25	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
9,173.75	0.00	0.00	8,982.00	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
Cameo Coals										
9,200.00	0.00	0.00	9,008.25	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
9,400.00	0.00	0.00	9,208.25	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
9,600.00	0.00	0.00	9,408.25	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
9,800.00	0.00	0.00	9,608.25	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
9,847.75	0.00	0.00	9,656.00	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
Coal D										
9,984.75	0.00	0.00	9,793.00	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
Rollins SS										
10,000.00	0.00	0.00	9,808.25	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
10,134.75	0.00	0.00	9,943.00	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	
TD at 10134.75 - TD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Top Gas (50' Radius) RL - hit/miss target - Shape - Circle (radius 50.00)	0.00	358.55	7,193.00	343.39	-1,530.74	1,603,044.86	2,348,964.11	39.46644	-107.80628	

Casing Points						
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)		
1,200.00	1,174.48	9 5/8"	9.625	13.500		

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 11-8 - Slot B07
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Project:	RU 08-07S-093W	MD Reference:	KELLY BUSHING @ 7762.00usft (Nabors 576 (26' RKB) mab)
Site:	RU 21-8 Pad	North Reference:	True
Well:	RU 11-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 09Sep14 mab		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
3,747.29	3,641.00	Top of "G" Sand				
3,850.56	3,741.00	Base of "G" Sand				
6,341.06	6,154.00	Mesaverde				
7,384.75	7,193.00	Approx. Top Gas				
9,173.75	8,982.00	Cameo Coals				
9,847.75	9,656.00	Coal D				
9,984.75	9,793.00	Rollins SS				
10,134.75	9,943.00	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
120.00	120.00	0.00	0.00	Start Build 3.50	
533.35	528.97	11.36	-50.65	Hold 14.47° Inc, 282.64° Az	
6,120.27	5,938.74	316.88	-1,412.55	Start Drop -1.50°/100	
7,084.75	6,893.00	343.39	-1,530.74	Vertical	
7,384.75	7,193.00	343.39	-1,530.74	Top Gas	
10,134.75	9,943.00	343.39	-1,530.74	TD at 10134.75	