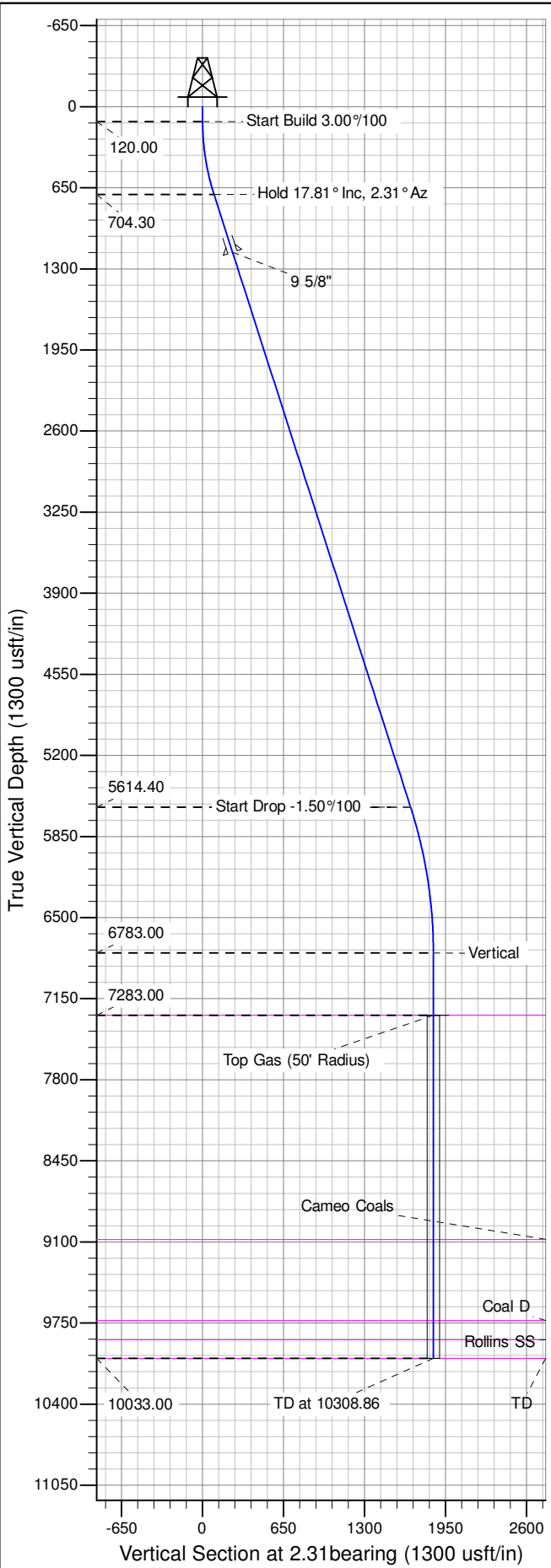
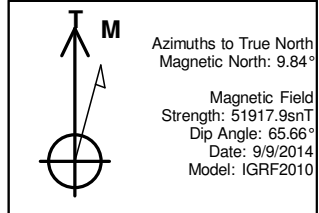
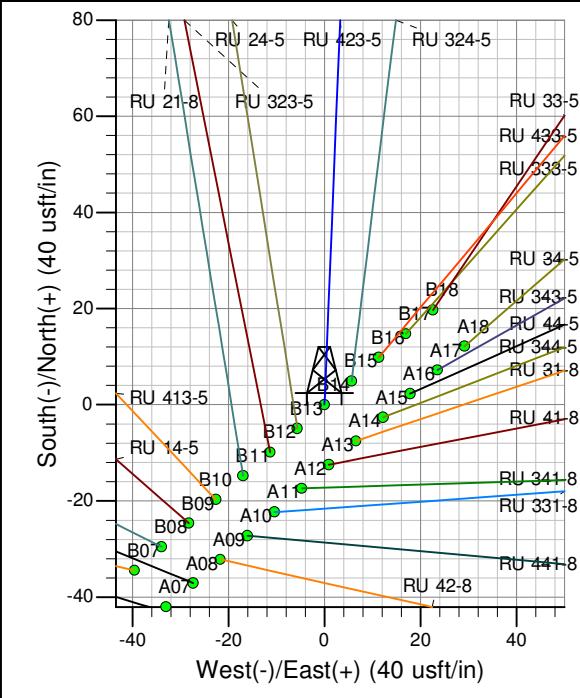
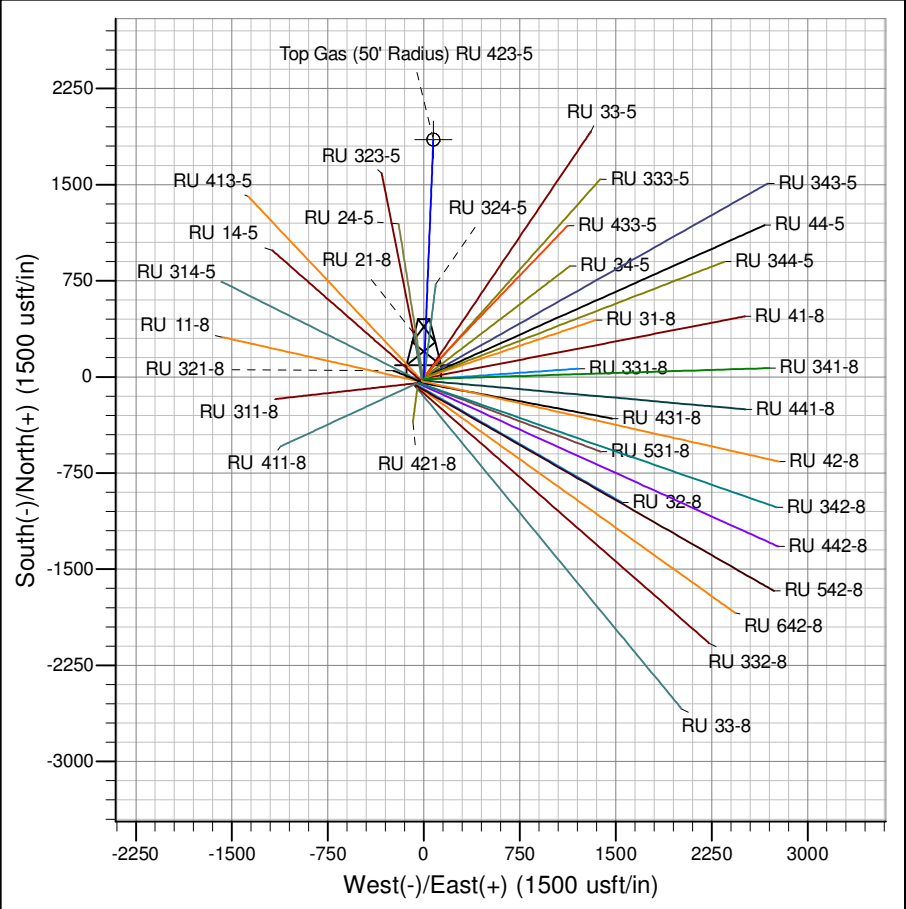




Well Name: RU 423-5
Surface Location: RU 21-8 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 7736.00
+N/-S 0.00 +E/-W 0.00 Northing 1602696.28 Easting 2350526.11 Latitude 39.46559 Longitude -107.80071 Slot B14
KELLY BUSHING @ 7762.00usft (Nabors 576 (26' 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 3.00%/100	
704.30	713.82	17.81	2.31	91.50	3.70	91.58	91.58	Hold 17.81° Inc, 2.31° Az	
5614.40	5871.21	17.81	2.31	1668.06	67.43	1669.42	1669.42	Start Drop -1.50%/100	
6783.00	7058.86	0.00	0.00	1851.06	74.83	1852.57	1852.57	Vertical	
7283.00	7558.86	0.00	0.00	1851.06	74.83	1852.57	1852.57	Top Gas	
10033.00	10308.86	0.00	0.00	1851.06	74.83	1852.57	1852.57	TD at 10308.86	



Project: RU 08-07S-093W
Site: RU 21-8 Pad
Well: RU 423-5
Design #1 RU 423-5

PICEANCE VLY NAD 83

RU 08-07S-093W

RU 21-8 Pad

RU 423-5 - Slot B14

Wellbore #1

Plan: Design #1 RU 423-5

Standard Planning Report - Geographic

04 November, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 423-5 - Slot B14
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 423-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 RU 423-5		

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:	1,602,707.70000 usft	Latitude: 39.46563
From: Map		Easting:	2,350,555.60000 usft	Longitude: -107.80061
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.45 °

Well	RU 423-5 - Slot B14			
Well Position	+N/-S	0.00 usft	Northing:	1,602,696.28244 usft
	+E/-W	0.00 usft	Easting:	2,350,526.11035 usft
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 RU 423-5			
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	2.31

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	
713.82	17.81	2.31	704.30	91.50	3.70	3.00	3.00	0.00	2.31	
5,871.21	17.81	2.31	5,614.40	1,668.06	67.43	0.00	0.00	0.00	0.00	
7,058.86	0.00	0.00	6,783.00	1,851.06	74.83	1.50	-1.50	0.00	180.00	
7,558.86	0.00	0.00	7,283.00	1,851.06	74.83	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
10,308.86	0.00	0.00	10,033.00	1,851.06	74.83	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 423-5 - Slot B14
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 423-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 RU 423-5		

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	1,602,696.28244	2,350,526.11035	39.46559	-107.80072	
120.00	0.00	0.00	120.00	0.00	0.00	1,602,696.28244	2,350,526.11035	39.46559	-107.80072	
Start Build 3.00°/100										
200.00	2.40	2.31	199.98	1.67	0.07	1,602,697.95410	2,350,526.22038	39.46560	-107.80072	
400.00	8.40	2.31	399.00	20.47	0.83	1,602,716.72654	2,350,527.45607	39.46565	-107.80071	
600.00	14.40	2.31	594.96	59.95	2.42	1,602,756.15462	2,350,530.05139	39.46576	-107.80071	
713.82	17.81	2.31	704.30	91.50	3.70	1,602,787.66009	2,350,532.12522	39.46585	-107.80070	
Hold 17.81° Inc, 2.31° Az										
800.00	17.81	2.31	786.35	117.84	4.76	1,602,813.96851	2,350,533.85695	39.46592	-107.80070	
1,000.00	17.81	2.31	976.76	178.98	7.24	1,602,875.02411	2,350,537.87590	39.46609	-107.80069	
1,200.00	17.81	2.31	1,167.17	240.12	9.71	1,602,936.07971	2,350,541.89484	39.46625	-107.80068	
9 5/8"										
1,400.00	17.81	2.31	1,357.58	301.26	12.18	1,602,997.13530	2,350,545.91378	39.46642	-107.80067	
1,600.00	17.81	2.31	1,547.99	362.40	14.65	1,603,058.19090	2,350,549.93272	39.46659	-107.80067	
1,800.00	17.81	2.31	1,738.40	423.53	17.12	1,603,119.24650	2,350,553.95166	39.46676	-107.80066	
2,000.00	17.81	2.31	1,928.81	484.67	19.59	1,603,180.30210	2,350,557.97061	39.46693	-107.80065	
2,200.00	17.81	2.31	2,119.22	545.81	22.06	1,603,241.35770	2,350,561.98955	39.46709	-107.80064	
2,400.00	17.81	2.31	2,309.63	606.95	24.54	1,603,302.41330	2,350,566.00849	39.46726	-107.80063	
2,600.00	17.81	2.31	2,500.04	668.08	27.01	1,603,363.46890	2,350,570.02743	39.46743	-107.80062	
2,800.00	17.81	2.31	2,690.45	729.22	29.48	1,603,424.52449	2,350,574.04638	39.46760	-107.80061	
3,000.00	17.81	2.31	2,880.86	790.36	31.95	1,603,485.58009	2,350,578.06532	39.46776	-107.80060	
3,200.00	17.81	2.31	3,071.27	851.50	34.42	1,603,546.63569	2,350,582.08426	39.46793	-107.80060	
3,400.00	17.81	2.31	3,261.68	912.64	36.89	1,603,607.69128	2,350,586.10320	39.46810	-107.80059	
3,600.00	17.81	2.31	3,452.09	973.77	39.37	1,603,668.74688	2,350,590.12215	39.46827	-107.80058	
3,800.00	17.81	2.31	3,642.50	1,034.91	41.84	1,603,729.80248	2,350,594.14109	39.46844	-107.80057	
4,000.00	17.81	2.31	3,832.91	1,096.05	44.31	1,603,790.85807	2,350,598.16003	39.46860	-107.80056	
4,200.00	17.81	2.31	4,023.32	1,157.19	46.78	1,603,851.91367	2,350,602.17897	39.46877	-107.80055	
4,400.00	17.81	2.31	4,213.73	1,218.32	49.25	1,603,912.96927	2,350,606.19792	39.46894	-107.80054	
4,600.00	17.81	2.31	4,404.14	1,279.46	51.72	1,603,974.02487	2,350,610.21686	39.46911	-107.80053	
4,800.00	17.81	2.31	4,594.55	1,340.60	54.20	1,604,035.08047	2,350,614.23580	39.46928	-107.80053	
5,000.00	17.81	2.31	4,784.96	1,401.74	56.67	1,604,096.13607	2,350,618.25474	39.46944	-107.80052	
5,200.00	17.81	2.31	4,975.37	1,462.88	59.14	1,604,157.19167	2,350,622.27368	39.46961	-107.80051	
5,400.00	17.81	2.31	5,165.78	1,524.01	61.61	1,604,218.24726	2,350,626.29263	39.46978	-107.80050	
5,600.00	17.81	2.31	5,356.19	1,585.15	64.08	1,604,279.30286	2,350,630.31157	39.46995	-107.80049	
5,800.00	17.81	2.31	5,546.60	1,646.29	66.55	1,604,340.35846	2,350,634.33051	39.47011	-107.80048	
5,871.21	17.81	2.31	5,614.40	1,668.06	67.43	1,604,362.09814	2,350,635.76151	39.47017	-107.80048	
Start Drop -1.50°/100										
6,000.00	15.88	2.31	5,737.65	1,705.35	68.94	1,604,399.34425	2,350,638.21321	39.47028	-107.80047	
6,200.00	12.88	2.31	5,931.36	1,754.99	70.95	1,604,448.91124	2,350,641.47592	39.47041	-107.80047	
6,400.00	9.88	2.31	6,127.41	1,794.42	72.54	1,604,488.29424	2,350,644.06828	39.47052	-107.80046	
6,600.00	6.88	2.31	6,325.25	1,823.55	73.72	1,604,517.38528	2,350,645.98318	39.47060	-107.80046	
6,800.00	3.88	2.31	6,524.34	1,842.30	74.48	1,604,536.10464	2,350,647.21537	39.47065	-107.80045	
7,000.00	0.88	2.31	6,724.15	1,850.61	74.81	1,604,544.40100	2,350,647.76147	39.47068	-107.80045	
7,058.86	0.00	0.00	6,783.00	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045	
Vertical										
7,200.00	0.00	0.00	6,924.14	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045	
7,400.00	0.00	0.00	7,124.14	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045	
7,558.86	0.00	0.00	7,283.00	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045	
Top Gas - Approx. Top Gas										
7,600.00	0.00	0.00	7,324.14	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045	
7,800.00	0.00	0.00	7,524.14	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045	
8,000.00	0.00	0.00	7,724.14	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 423-5 - Slot B14
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 423-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 RU 423-5		

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
8,200.00	0.00	0.00	7,924.14	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045
8,400.00	0.00	0.00	8,124.14	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045
8,600.00	0.00	0.00	8,324.14	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045
8,800.00	0.00	0.00	8,524.14	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045
9,000.00	0.00	0.00	8,724.14	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045
9,200.00	0.00	0.00	8,924.14	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045
9,356.86	0.00	0.00	9,081.00	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045
Cameo Coals									
9,400.00	0.00	0.00	9,124.14	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045
9,600.00	0.00	0.00	9,324.14	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045
9,800.00	0.00	0.00	9,524.14	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045
10,000.00	0.00	0.00	9,724.14	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045
10,006.86	0.00	0.00	9,731.00	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045
Coal D									
10,158.86	0.00	0.00	9,883.00	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045
Rollins SS									
10,200.00	0.00	0.00	9,924.14	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045
10,308.86	0.00	0.00	10,033.00	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045
TD at 10308.86 - TD									

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target - Shape										
Top Gas (50' Radius) RL - plan hits target center - Circle (radius 50.00)	0.00	358.55	7,283.00	1,851.06	74.83	1,604,544.85344	2,350,647.79125	39.47068	-107.80045	

Casing Points							Casing Diameter (in)	Hole Diameter (in)
Measured Depth (usft)	Vertical Depth (usft)	Name						
1,200.00	1,167.17	9 5/8"					9.625	13.500

Formations							Dip (°)	Dip Direction (bearing)
Measured Depth (usft)	Vertical Depth (usft)	Name		Lithology				
7,558.86	7,283.00	Approx. Top Gas						
9,356.86	9,081.00	Cameo Coals						
10,006.86	9,731.00	Coal D						
10,158.86	9,883.00	Rollins SS						
10,308.86	10,033.00	TD						

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 423-5 - Slot B14
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 423-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 RU 423-5		

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 3.00°/100
713.82	704.30	91.50	3.70	Hold 17.81° Inc, 2.31° Az
5,871.21	5,614.40	1,668.06	67.43	Start Drop -1.50°/100
7,058.86	6,783.00	1,851.06	74.83	Vertical
7,558.86	7,283.00	1,851.06	74.83	Top Gas
10,308.86	10,033.00	1,851.06	74.83	TD at 10308.86