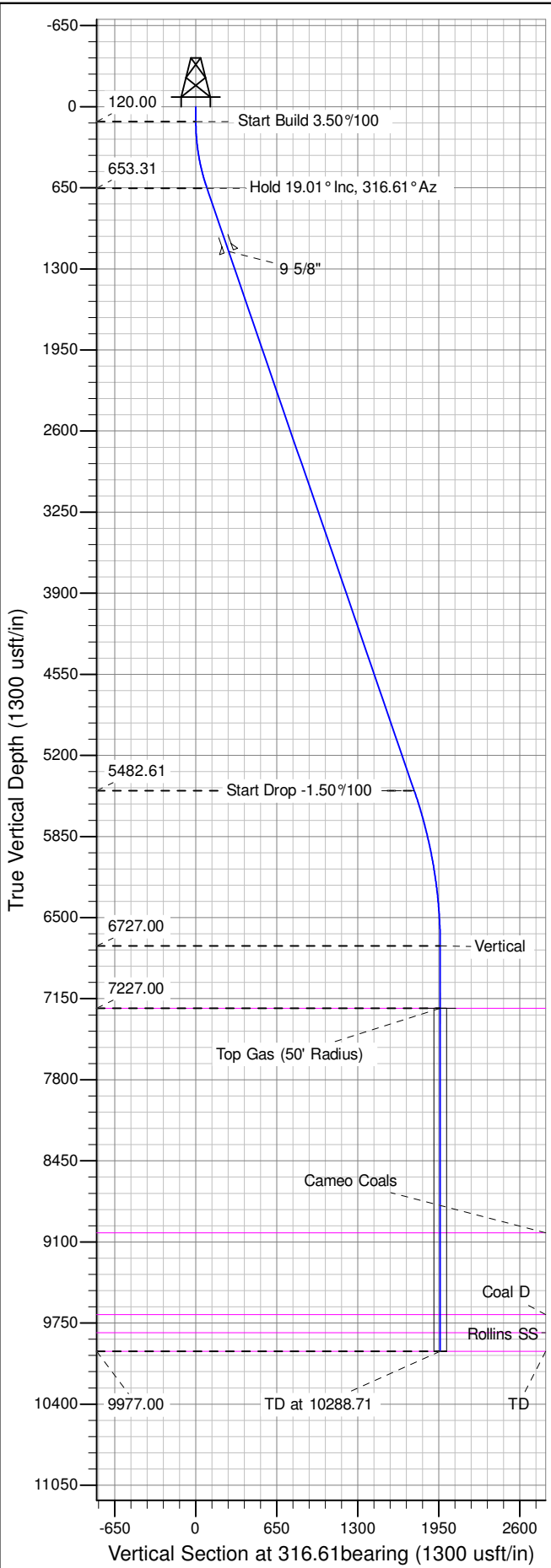
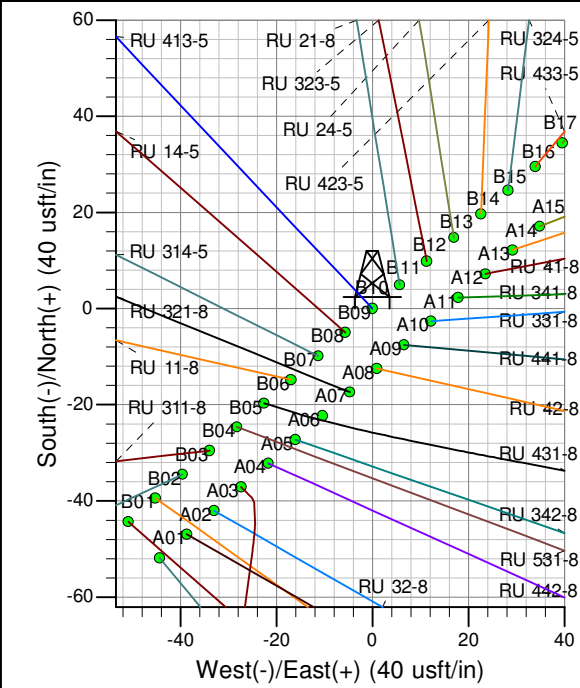
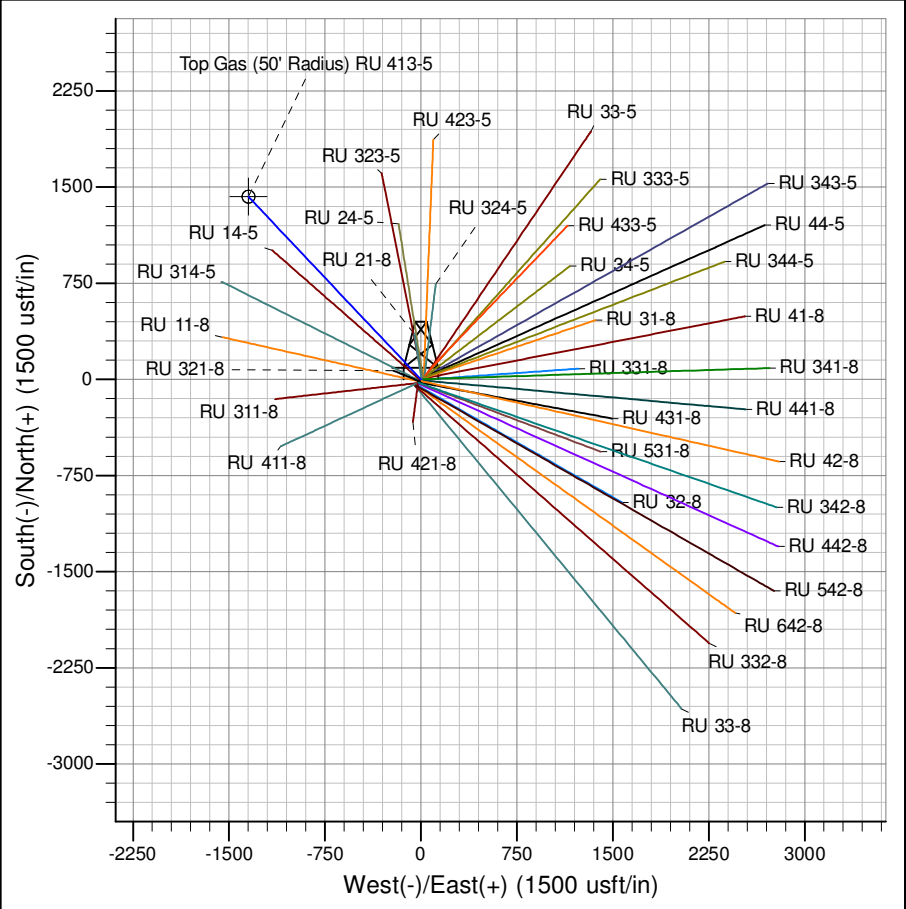




Well Name: RU 413-5
Surface Location: RU 21-8 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 7736.00
+N/-S 0.00 +E/-W 0.00 Northing 1602677.16 Easting 2350502.99 Latitude 39.46554 Longitude -107.80080 Slot B10
KELLY BUSHING @ 7762.00usft (Nabors 576 (26' 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°/100
653.31	663.22	19.01	316.61	64.90	-61.35	89.31	89.31	Hold	19.01° Inc, 316.61° Az
5482.61	5771.19	19.01	316.61	1274.23	-1204.45	1753.38	1753.38	Start Drop	-1.50°/100
6727.00	7038.71	0.00	0.00	1425.66	-1347.59	1961.76	1961.76	Vertical	
7227.00	7538.71	0.00	0.00	1425.66	-1347.59	1961.76	1961.76	Top Gas	
9977.00	10288.71	0.00	0.00	1425.66	-1347.59	1961.76	1961.76	TD at	10288.71



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 413-5
Design #1 09Sep14 mab

PICEANCE VLY NAD 83

RU 08-07S-093W

RU 21-8 Pad

RU 413-5 - Slot B10

Wellbore #1

Plan: Design #1 09Sep14 mab

Standard Planning Report - Geographic

04 November, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 413-5 - Slot B10
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 413-5	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:	1,602,707.70000 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 413-5 - Slot B10			
Well Position	+N/-S	0.00 usft	Northing:	1,602,677.15980 usft
	+E/-W	0.00 usft	Easting:	2,350,502.99490 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 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	316.61

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	
663.22	19.01	316.61	653.31	64.90	-61.35	3.50	3.50	0.00	316.61	
5,771.19	19.01	316.61	5,482.61	1,274.23	-1,204.45	0.00	0.00	0.00	0.00	
7,038.71	0.00	0.00	6,727.00	1,425.66	-1,347.59	1.50	-1.50	0.00	180.00	
7,538.71	0.00	0.00	7,227.00	1,425.66	-1,347.59	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
10,288.71	0.00	0.00	9,977.00	1,425.66	-1,347.59	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 413-5 - Slot B10
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 413-5	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	1,602,677.15980	2,350,502.99490	39.46554	-107.80080
120.00	0.00	0.00	120.00	0.00	0.00	1,602,677.15980	2,350,502.99490	39.46554	-107.80080
Start Build 3.50°/100									
200.00	2.80	316.61	199.97	1.42	-1.34	1,602,678.61364	2,350,501.68878	39.46554	-107.80080
400.00	9.80	316.61	398.64	17.36	-16.41	1,602,694.92950	2,350,487.03073	39.46559	-107.80086
600.00	16.80	316.61	593.15	50.78	-47.99	1,602,729.13448	2,350,456.30122	39.46568	-107.80097
663.22	19.01	316.61	653.31	64.90	-61.35	1,602,743.59421	2,350,443.31070	39.46572	-107.80102
Hold 19.01° Inc, 316.61° Az									
800.00	19.01	316.61	782.62	97.28	-91.96	1,602,776.74094	2,350,413.53191	39.46581	-107.80112
1,000.00	19.01	316.61	971.71	144.63	-136.71	1,602,825.20979	2,350,369.98785	39.46594	-107.80128
1,200.00	19.01	316.61	1,160.80	191.99	-181.47	1,602,873.67863	2,350,326.44380	39.46607	-107.80144
9 5/8"									
1,400.00	19.01	316.61	1,349.89	239.34	-226.23	1,602,922.14747	2,350,282.89974	39.46620	-107.80160
1,600.00	19.01	316.61	1,538.98	286.69	-270.99	1,602,970.61632	2,350,239.35568	39.46633	-107.80176
1,800.00	19.01	316.61	1,728.07	334.04	-315.74	1,603,019.08515	2,350,195.81161	39.46646	-107.80192
2,000.00	19.01	316.61	1,917.16	381.39	-360.50	1,603,067.55399	2,350,152.26755	39.46659	-107.80207
2,200.00	19.01	316.61	2,106.25	428.74	-405.26	1,603,116.02284	2,350,108.72349	39.46672	-107.80223
2,400.00	19.01	316.61	2,295.34	476.09	-450.02	1,603,164.49168	2,350,065.17943	39.46685	-107.80239
2,600.00	19.01	316.61	2,484.43	523.44	-494.77	1,603,212.96052	2,350,021.63537	39.46698	-107.80255
2,800.00	19.01	316.61	2,673.51	570.79	-539.53	1,603,261.42937	2,349,978.09130	39.46711	-107.80271
3,000.00	19.01	316.61	2,862.60	618.14	-584.29	1,603,309.89821	2,349,934.54725	39.46724	-107.80287
3,200.00	19.01	316.61	3,051.69	665.49	-629.05	1,603,358.36705	2,349,891.00319	39.46737	-107.80303
3,400.00	19.01	316.61	3,240.78	712.84	-673.80	1,603,406.83588	2,349,847.45913	39.46750	-107.80318
3,600.00	19.01	316.61	3,429.87	760.19	-718.56	1,603,455.30473	2,349,803.91507	39.46763	-107.80334
3,800.00	19.01	316.61	3,618.96	807.54	-763.32	1,603,503.77357	2,349,760.37101	39.46776	-107.80350
4,000.00	19.01	316.61	3,808.05	854.89	-808.08	1,603,552.24241	2,349,716.82694	39.46789	-107.80366
4,200.00	19.01	316.61	3,997.14	902.24	-852.83	1,603,600.71126	2,349,673.28288	39.46802	-107.80382
4,400.00	19.01	316.61	4,186.23	949.59	-897.59	1,603,649.18010	2,349,629.73882	39.46815	-107.80398
4,600.00	19.01	316.61	4,375.32	996.95	-942.35	1,603,697.64894	2,349,586.19476	39.46828	-107.80414
4,800.00	19.01	316.61	4,564.41	1,044.30	-987.11	1,603,746.11779	2,349,542.65071	39.46841	-107.80429
5,000.00	19.01	316.61	4,753.49	1,091.65	-1,031.86	1,603,794.58662	2,349,499.10664	39.46854	-107.80445
5,200.00	19.01	316.61	4,942.58	1,139.00	-1,076.62	1,603,843.05546	2,349,455.56258	39.46867	-107.80461
5,400.00	19.01	316.61	5,131.67	1,186.35	-1,121.38	1,603,891.52431	2,349,412.01852	39.46880	-107.80477
5,600.00	19.01	316.61	5,320.76	1,233.70	-1,166.14	1,603,939.99315	2,349,368.47446	39.46893	-107.80493
5,771.19	19.01	316.61	5,482.61	1,274.23	-1,204.45	1,603,981.47958	2,349,331.20335	39.46904	-107.80506
Start Drop -1.50°/100									
5,800.00	18.58	316.61	5,509.89	1,280.97	-1,210.82	1,603,988.38550	2,349,324.99911	39.46906	-107.80509
6,000.00	15.58	316.61	5,701.04	1,323.66	-1,251.17	1,604,032.07919	2,349,285.74501	39.46917	-107.80523
6,200.00	12.58	316.61	5,895.01	1,359.02	-1,284.59	1,604,068.27088	2,349,253.23067	39.46927	-107.80535
6,400.00	9.58	316.61	6,091.26	1,386.95	-1,310.99	1,604,096.86135	2,349,227.54519	39.46935	-107.80544
6,600.00	6.58	316.61	6,289.25	1,407.38	-1,330.30	1,604,117.77225	2,349,208.75899	39.46940	-107.80551
6,800.00	3.58	316.61	6,488.44	1,420.25	-1,342.47	1,604,130.94626	2,349,196.92355	39.46944	-107.80555
7,000.00	0.58	316.61	6,688.29	1,425.52	-1,347.46	1,604,136.34728	2,349,192.07131	39.46945	-107.80557
7,038.71	0.00	0.00	6,727.00	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557
Vertical									
7,200.00	0.00	0.00	6,888.29	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557
7,400.00	0.00	0.00	7,088.29	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557
7,538.71	0.00	0.00	7,227.00	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557
Top Gas - Approx. Top Gas									
7,600.00	0.00	0.00	7,288.29	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557
7,800.00	0.00	0.00	7,488.29	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557
8,000.00	0.00	0.00	7,688.29	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 413-5 - Slot B10
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 413-5	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	
8,200.00	0.00	0.00	7,888.29	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557	
8,400.00	0.00	0.00	8,088.29	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557	
8,600.00	0.00	0.00	8,288.29	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557	
8,800.00	0.00	0.00	8,488.29	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557	
9,000.00	0.00	0.00	8,688.29	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557	
9,200.00	0.00	0.00	8,888.29	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557	
9,338.71	0.00	0.00	9,027.00	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557	
Cameo Coals										
9,400.00	0.00	0.00	9,088.29	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557	
9,600.00	0.00	0.00	9,288.29	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557	
9,800.00	0.00	0.00	9,488.29	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557	
9,994.71	0.00	0.00	9,683.00	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557	
Coal D										
10,000.00	0.00	0.00	9,688.29	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557	
10,138.71	0.00	0.00	9,827.00	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557	
Rollins SS										
10,200.00	0.00	0.00	9,888.29	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557	
10,288.71	0.00	0.00	9,977.00	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557	
TD at 10288.71 - 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	7,227.00	1,425.66	-1,347.59	1,604,136.49320	2,349,191.94022	39.46945	-107.80557	

Casing Points						
Measured Depth (usft)	Vertical Depth (usft)	Name			Casing Diameter (in)	Hole Diameter (in)
1,200.00	1,160.80	9 5/8"			9.625	13.500

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
7,538.71	7,227.00	Approx. Top Gas				
9,338.71	9,027.00	Cameo Coals				
9,994.71	9,683.00	Coal D				
10,138.71	9,827.00	Rollins SS				
10,288.71	9,977.00	TD				

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 413-5 - Slot B10
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 413-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 09Sep14 mab		

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°/100
663.22	653.31	64.90	-61.35	Hold 19.01° Inc, 316.61° Az
5,771.19	5,482.61	1,274.23	-1,204.45	Start Drop -1.50°/100
7,038.71	6,727.00	1,425.66	-1,347.59	Vertical
7,538.71	7,227.00	1,425.66	-1,347.59	Top Gas
10,288.71	9,977.00	1,425.66	-1,347.59	TD at 10288.71