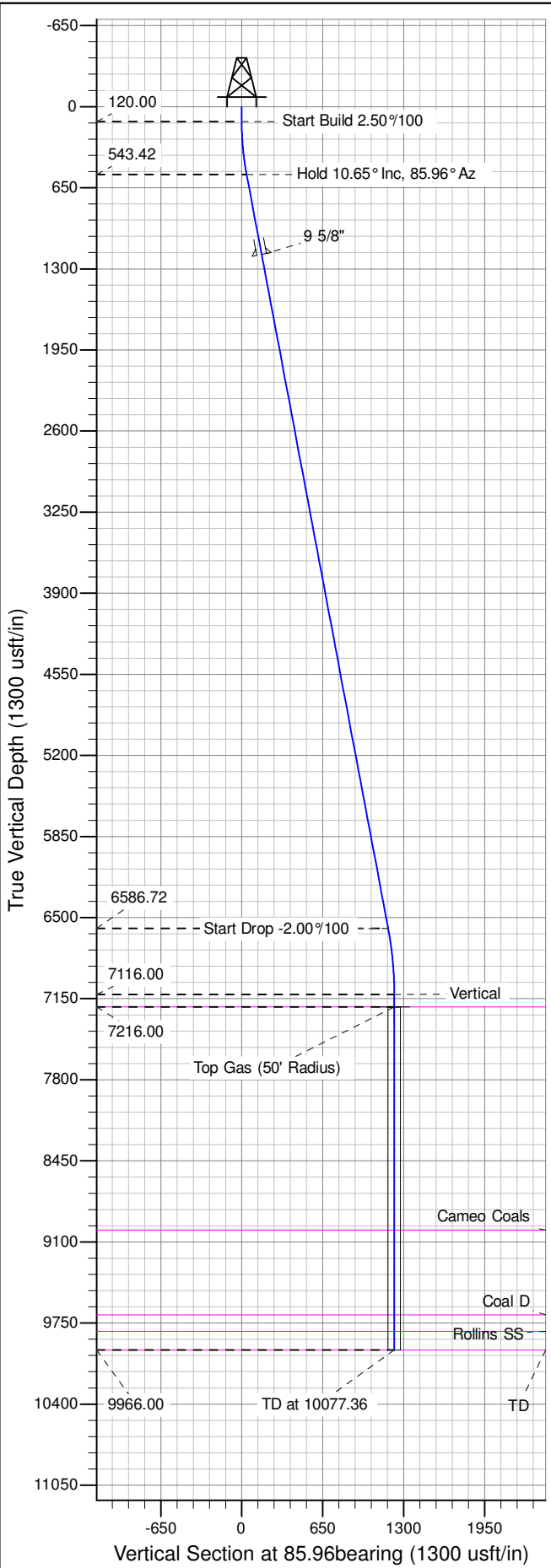
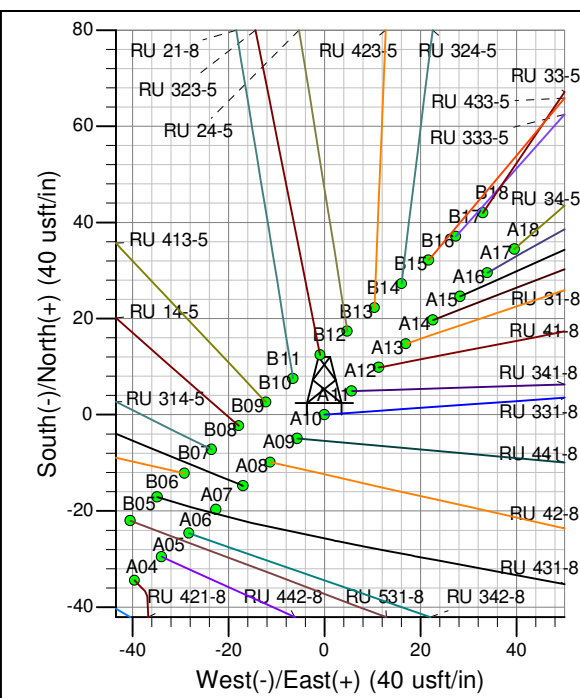
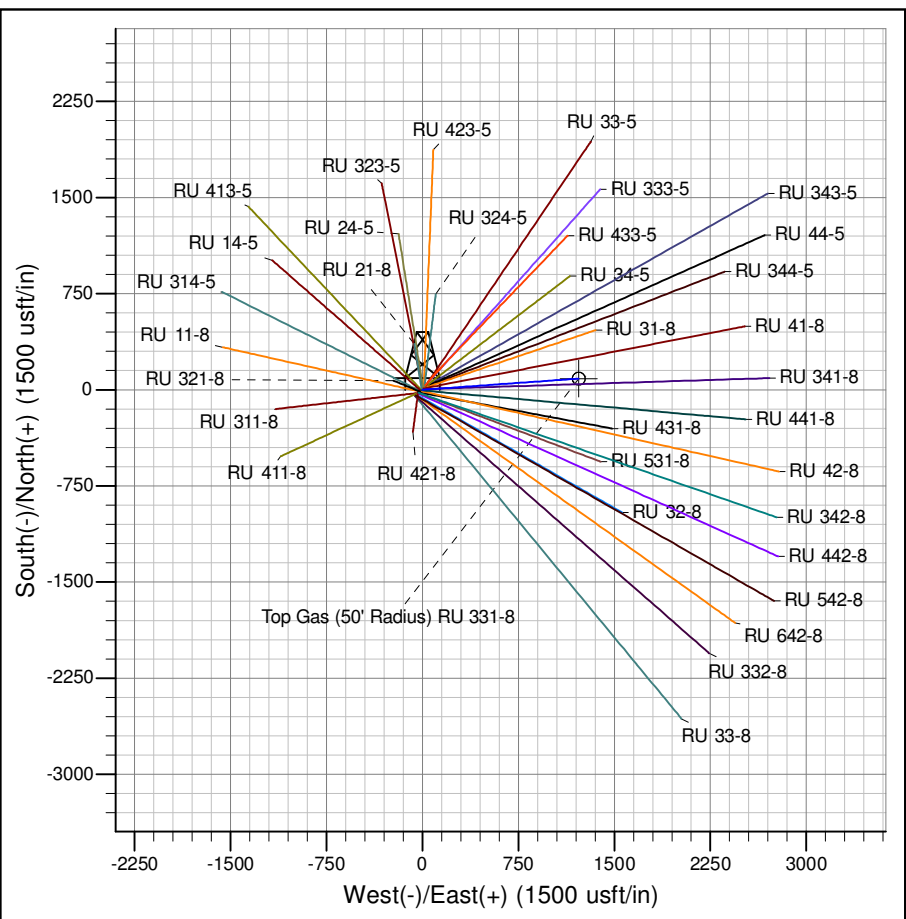




Well Name: RU 331-8
Surface Location: RU 21-8 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 7736.00
+N/-S 0.00 +E/-W 0.00 Northing 1602674.24 Easting 2350515.15 Latitude 39.46553 Longitude -107.80075 Slot A11
KELLY BUSHING @ 7762.00usft (Nabors 576 (26' 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 2.50°/100	
543.42	545.87	10.65	85.96	2.78	39.36	39.45	39.45	Hold 10.65° Inc, 85.96° Az	
6586.72	6695.03	10.65	85.96	82.75	1172.61	1175.53	1175.53	Start Drop -2.00°/100	
7116.00	7227.36	0.00	0.00	86.22	1221.80	1224.84	1224.84	Vertical	
7216.00	7327.36	0.00	0.00	86.22	1221.80	1224.84	1224.84	Top Gas	
9966.00	10077.36	0.00	0.00	86.22	1221.80	1224.84	1224.84	TD at 10077.36	



Azimuths to True North
Magnetic North: 9.84°

Magnetic Field
Strength: 51918.2snT
Dip Angle: 65.66°
Date: 9/8/2014
Model: IGRF2010

Project: RU 08-07S-093W
Site: RU 21-8 Pad
Well: RU 331-8
Design #1 08Sep14 mab

PICEANCE VLY NAD 83

RU 08-07S-093W

RU 21-8 Pad

RU 331-8 - Slot A11

Wellbore #1

Plan: Design #1 08Sep14 mab

Standard Planning Report - Geographic

04 November, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 331-8 - Slot A11
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 331-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 08Sep14 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 331-8 - Slot A11			
Well Position	+N/-S	0.00 usft	Northing:	1,602,674.23530 usft
	+E/-W	0.00 usft	Easting:	2,350,515.14800 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	9/8/2014	9.84	65.66	51,918

Design	Design #1 08Sep14 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	85.96

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	
545.87	10.65	85.96	543.42	2.78	39.36	2.50	2.50	0.00	85.96	
6,695.03	10.65	85.96	6,586.72	82.75	1,172.61	0.00	0.00	0.00	0.00	
7,227.36	0.00	0.00	7,116.00	86.22	1,221.80	2.00	-2.00	0.00	180.00	
7,327.36	0.00	0.00	7,216.00	86.22	1,221.80	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
10,077.36	0.00	0.00	9,966.00	86.22	1,221.80	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 331-8 - Slot A11
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 331-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 08Sep14 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	1,602,674.23530	2,350,515.14800	39.46553	-107.80075
120.00	0.00	0.00	120.00	0.00	0.00	1,602,674.23530	2,350,515.14800	39.46553	-107.80075
Start Build 2.50°/100									
200.00	2.00	85.96	199.98	0.10	1.39	1,602,674.29828	2,350,516.54270	39.46553	-107.80075
400.00	7.00	85.96	399.30	1.20	17.04	1,602,675.00597	2,350,532.21357	39.46554	-107.80069
545.87	10.65	85.96	543.42	2.78	39.36	1,602,676.01520	2,350,554.56150	39.46554	-107.80062
Hold 10.65° Inc, 85.96° Az									
600.00	10.65	85.96	596.62	3.48	49.33	1,602,676.46638	2,350,564.55234	39.46554	-107.80058
800.00	10.65	85.96	793.18	6.08	86.19	1,602,678.13335	2,350,601.46521	39.46555	-107.80045
1,000.00	10.65	85.96	989.74	8.68	123.05	1,602,679.80031	2,350,638.37808	39.46556	-107.80032
1,200.00	10.65	85.96	1,186.29	11.29	159.91	1,602,681.46728	2,350,675.29095	39.46556	-107.80019
9 5/8"									
1,400.00	10.65	85.96	1,382.85	13.89	196.77	1,602,683.13425	2,350,712.20382	39.46557	-107.80006
1,600.00	10.65	85.96	1,579.41	16.49	233.63	1,602,684.80122	2,350,749.11669	39.46558	-107.79993
1,800.00	10.65	85.96	1,775.96	19.09	270.48	1,602,686.46819	2,350,786.02955	39.46559	-107.79980
2,000.00	10.65	85.96	1,972.52	21.69	307.34	1,602,688.13515	2,350,822.94243	39.46559	-107.79967
2,200.00	10.65	85.96	2,169.08	24.29	344.20	1,602,689.80212	2,350,859.85530	39.46560	-107.79954
2,400.00	10.65	85.96	2,365.63	26.89	381.06	1,602,691.46909	2,350,896.76817	39.46561	-107.79940
2,600.00	10.65	85.96	2,562.19	29.49	417.92	1,602,693.13606	2,350,933.68104	39.46561	-107.79927
2,800.00	10.65	85.96	2,758.75	32.09	454.78	1,602,694.80303	2,350,970.59391	39.46562	-107.79914
3,000.00	10.65	85.96	2,955.31	34.70	491.64	1,602,696.47000	2,351,007.50678	39.46563	-107.79901
3,200.00	10.65	85.96	3,151.86	37.30	528.50	1,602,698.13696	2,351,044.41965	39.46564	-107.79888
3,400.00	10.65	85.96	3,348.42	39.90	565.36	1,602,699.80393	2,351,081.33252	39.46564	-107.79875
3,600.00	10.65	85.96	3,544.98	42.50	602.21	1,602,701.47090	2,351,118.24539	39.46565	-107.79862
3,800.00	10.65	85.96	3,741.53	45.10	639.07	1,602,703.13787	2,351,155.15825	39.46566	-107.79849
4,000.00	10.65	85.96	3,938.09	47.70	675.93	1,602,704.80484	2,351,192.07112	39.46566	-107.79836
4,200.00	10.65	85.96	4,134.65	50.30	712.79	1,602,706.47181	2,351,228.98400	39.46567	-107.79823
4,400.00	10.65	85.96	4,331.20	52.90	749.65	1,602,708.13877	2,351,265.89687	39.46568	-107.79810
4,600.00	10.65	85.96	4,527.76	55.51	786.51	1,602,709.80574	2,351,302.80974	39.46569	-107.79797
4,800.00	10.65	85.96	4,724.32	58.11	823.37	1,602,711.47271	2,351,339.72261	39.46569	-107.79784
5,000.00	10.65	85.96	4,920.88	60.71	860.23	1,602,713.13968	2,351,376.63548	39.46570	-107.79771
5,200.00	10.65	85.96	5,117.43	63.31	897.08	1,602,714.80665	2,351,413.54835	39.46571	-107.79758
5,400.00	10.65	85.96	5,313.99	65.91	933.94	1,602,716.47361	2,351,450.46122	39.46571	-107.79745
5,600.00	10.65	85.96	5,510.55	68.51	970.80	1,602,718.14058	2,351,487.37409	39.46572	-107.79732
5,800.00	10.65	85.96	5,707.10	71.11	1,007.66	1,602,719.80755	2,351,524.28696	39.46573	-107.79719
6,000.00	10.65	85.96	5,903.66	73.71	1,044.52	1,602,721.47452	2,351,561.19982	39.46574	-107.79705
6,200.00	10.65	85.96	6,100.22	76.31	1,081.38	1,602,723.14149	2,351,598.11269	39.46574	-107.79692
6,400.00	10.65	85.96	6,296.78	78.92	1,118.24	1,602,724.80846	2,351,635.02556	39.46575	-107.79679
6,600.00	10.65	85.96	6,493.33	81.52	1,155.10	1,602,726.47542	2,351,671.93844	39.46576	-107.79666
6,695.03	10.65	85.96	6,586.72	82.75	1,172.61	1,602,727.26746	2,351,689.47703	39.46576	-107.79660
Start Drop -2.00°/100									
6,800.00	8.55	85.96	6,690.22	83.98	1,190.07	1,602,728.05694	2,351,706.95898	39.46576	-107.79654
7,000.00	4.55	85.96	6,888.88	85.59	1,212.81	1,602,729.08552	2,351,729.73561	39.46577	-107.79646
7,200.00	0.55	85.96	7,088.64	86.22	1,221.67	1,602,729.48643	2,351,738.61337	39.46577	-107.79643
7,227.36	0.00	0.00	7,116.00	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643
Vertical									
7,327.36	0.00	0.00	7,216.00	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643
Top Gas - Approx. Top Gas									
7,400.00	0.00	0.00	7,288.64	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643
7,600.00	0.00	0.00	7,488.64	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643
7,800.00	0.00	0.00	7,688.64	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643
8,000.00	0.00	0.00	7,888.64	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 331-8 - Slot A11
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 331-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 08Sep14 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	8,088.64	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643	
8,400.00	0.00	0.00	8,288.64	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643	
8,600.00	0.00	0.00	8,488.64	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643	
8,800.00	0.00	0.00	8,688.64	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643	
9,000.00	0.00	0.00	8,888.64	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643	
9,116.36	0.00	0.00	9,005.00	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643	
Cameo Coals										
9,200.00	0.00	0.00	9,088.64	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643	
9,400.00	0.00	0.00	9,288.64	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643	
9,600.00	0.00	0.00	9,488.64	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643	
9,796.36	0.00	0.00	9,685.00	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643	
Coal D										
9,800.00	0.00	0.00	9,688.64	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643	
9,927.36	0.00	0.00	9,816.00	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643	
Rollins SS										
10,000.00	0.00	0.00	9,888.64	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643	
10,077.36	0.00	0.00	9,966.00	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643	
TD at 10077.36										

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	0.00	358.55	7,216.00	86.22	1,221.80	1,602,729.49233	2,351,738.74391	39.46577	-107.79643	
- plan hits target center										
- Circle (radius 50.00)										

Casing Points							Casing Diameter (in)	Hole Diameter (in)
Measured Depth (usft)	Vertical Depth (usft)	Name						
1,200.00	1,186.29	9 5/8"					9.625	13.500

Formations							Dip (°)	Dip Direction (bearing)
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology					
7,327.36	7,216.00	Approx. Top Gas						
9,116.36	9,005.00	Cameo Coals						
9,796.36	9,685.00	Coal D						
9,927.36	9,816.00	Rollins SS						
10,077.36	9,966.00	TD						

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 331-8 - Slot A11
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 331-8	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 08Sep14 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 2.50°/100
545.87	543.42	2.78	39.36	Hold 10.65° Inc, 85.96° Az
6,695.03	6,586.72	82.75	1,172.61	Start Drop -2.00°/100
7,227.36	7,116.00	86.22	1,221.80	Vertical
7,327.36	7,216.00	86.22	1,221.80	Top Gas
10,077.36	9,966.00	86.22	1,221.80	TD at 10077.36