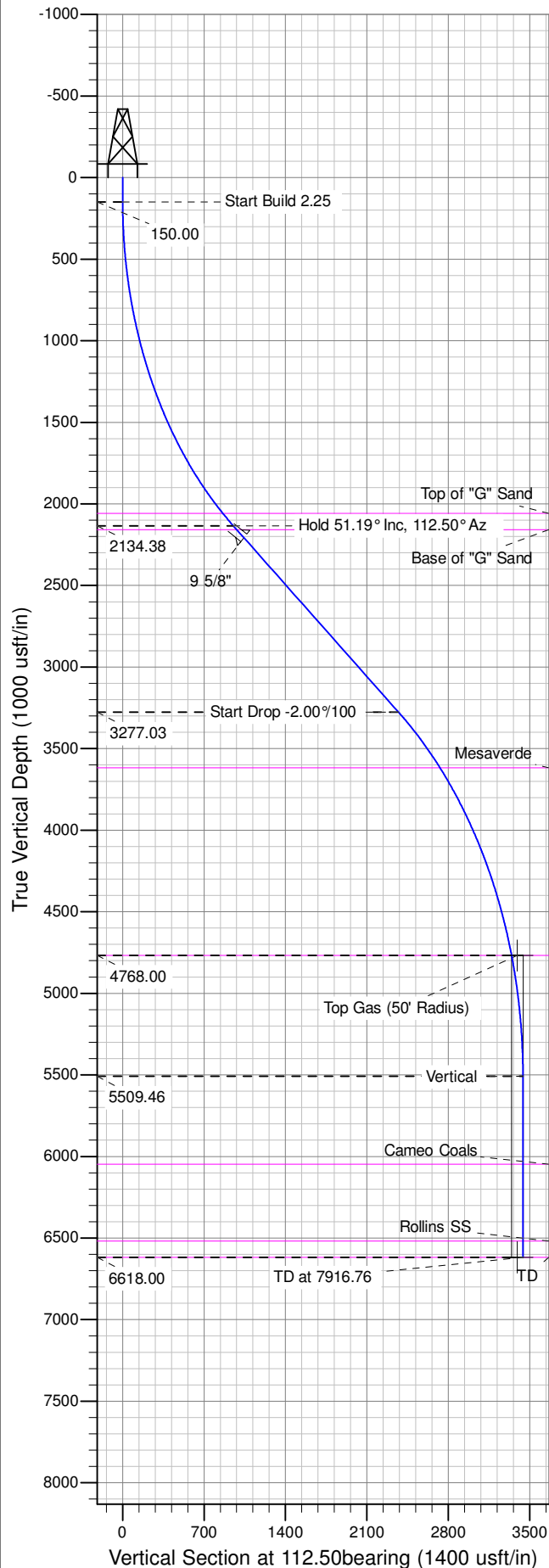
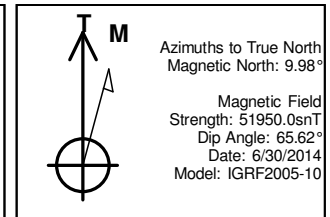
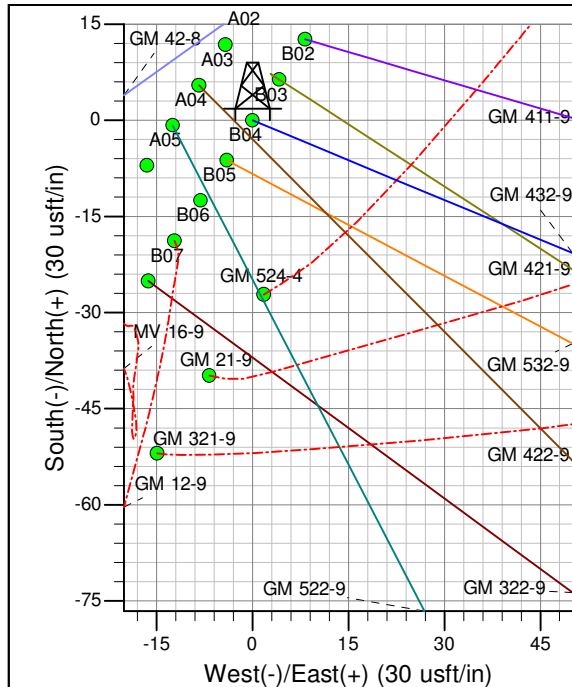
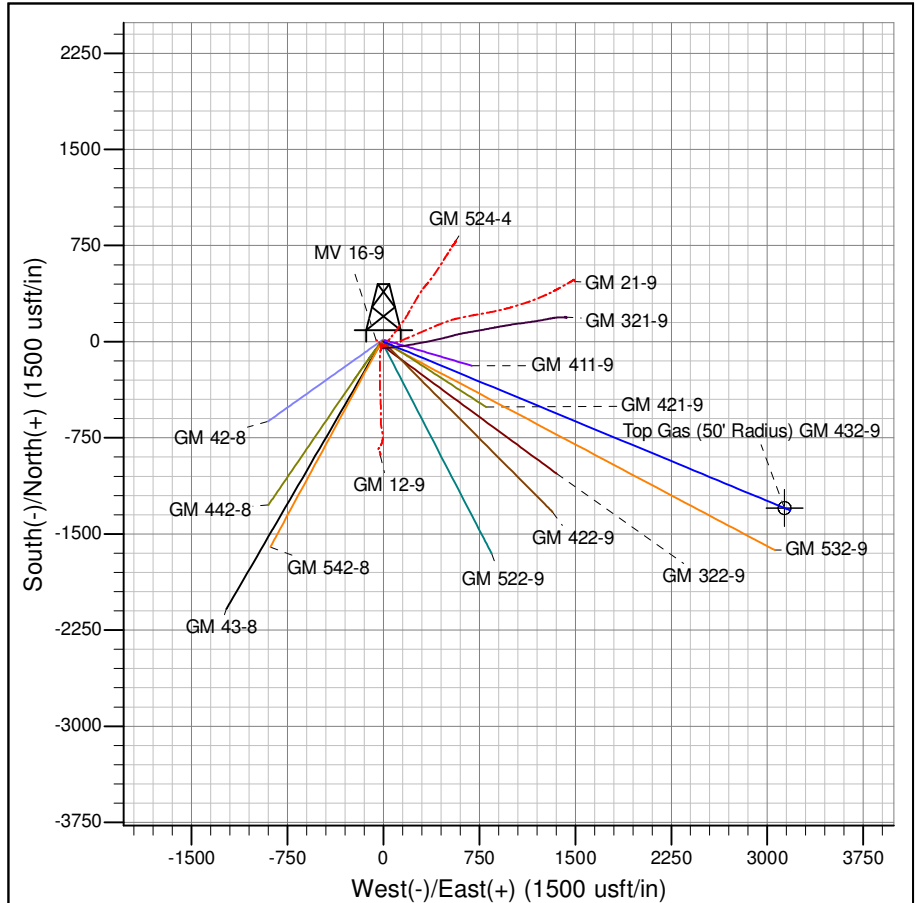




Well Name: GM 432-9
Surface Location: MV 16-9 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 6087.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1601969.20000 2260351.90000 39.45689 -108.11991 B03
KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)



ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
150.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.25	
2134.38	2425.26	51.19	112.50	-363.71	878.29	950.62	950.62	Hold 51.19° Inc, 112.50° Az	
3277.03	4248.55	51.19	112.50	-907.33	2191.01	2371.45	2371.45	Start Drop -2.00°/100	
4768.00	6058.23	15.00	112.50	-1279.15	3088.89	3343.28	3343.28	Top Gas	
5509.46	6808.23	0.00	0.00	-1316.50	3179.08	3440.89	3440.89	Vertical	
6618.00	7916.76	0.00	0.00	-1316.50	3179.08	3440.89	3440.89	TD at 7916.76	



Project: GV 09-07S-096W
Site: MV 16-9 Pad
Well: GM 432-9
Design #1 30Jun14 mab

PICEANCE VLY NAD 83

GV 09-07S-096W

MV 16-9 Pad

GM 432-9 - Slot B03

Wellbore #1

Plan: Design #1 30Jun14 mab

Standard Planning Report - Geographic

04 August, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 432-9 - Slot B03
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Project:	GV 09-07S-096W	MD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Site:	MV 16-9 Pad	North Reference:	True
Well:	GM 432-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 30Jun14 mab		

Project	GV 09-07S-096W, Garfield County, CO, 09-07S-096W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		Using geodetic scale factor

Site	MV 16-9 Pad			
Site Position:		Northing:	1,601,987.30000 usft	Latitude: 39.45695
From: Map		Easting:	2,260,352.30000 usft	Longitude: -108.11991
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.65 °

Well	GM 432-9 - Slot B03			
Well Position	+N/-S	0.00 usft	Northing:	1,601,969.20000 usft
	+E/-W	0.00 usft	Easting:	2,260,351.90000 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	6,087.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	6/30/2014	9.98	65.62	51,950

Design	Design #1 30Jun14 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	112.50

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	
150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,425.26	51.19	112.50	2,134.38	-363.71	878.29	2.25	2.25	0.00	112.50	
4,248.55	51.19	112.50	3,277.03	-907.33	2,191.01	0.00	0.00	0.00	0.00	
6,058.23	15.00	112.50	4,768.00	-1,279.15	3,088.89	2.00	-2.00	0.00	180.00	Top Gas (50' Radius)
6,808.23	0.00	0.00	5,509.46	-1,316.50	3,179.08	2.00	-2.00	0.00	180.00	
7,916.76	0.00	0.00	6,618.00	-1,316.50	3,179.08	0.00	0.00	0.00	0.00	TD / PBHL GM 432-9

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 432-9 - Slot B03
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Project:	GV 09-07S-096W	MD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Site:	MV 16-9 Pad	North Reference:	True
Well:	GM 432-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 30Jun14 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	1,601,969.20000	2,260,351.90000	39.45690	-108.11991	
150.00	0.00	0.00	150.00	0.00	0.00	1,601,969.20000	2,260,351.90000	39.45690	-108.11991	
Start Build 2.25										
200.00	1.13	112.50	200.00	-0.19	0.45	1,601,968.99920	2,260,352.34789	39.45689	-108.11991	
400.00	5.63	112.50	399.60	-4.69	11.33	1,601,964.18401	2,260,363.08852	39.45688	-108.11987	
600.00	10.13	112.50	597.66	-15.17	36.64	1,601,952.97743	2,260,388.08561	39.45685	-108.11978	
800.00	14.63	112.50	792.96	-31.57	76.23	1,601,935.44855	2,260,427.18505	39.45681	-108.11964	
1,000.00	19.13	112.50	984.30	-53.78	129.86	1,601,911.70544	2,260,480.14577	39.45675	-108.11945	
1,200.00	23.63	112.50	1,170.50	-81.66	197.19	1,601,881.89449	2,260,546.64125	39.45667	-108.11921	
1,400.00	28.13	112.50	1,350.40	-115.04	277.81	1,601,846.19948	2,260,626.26153	39.45658	-108.11893	
1,600.00	32.63	112.50	1,522.90	-153.73	371.22	1,601,804.84051	2,260,718.51573	39.45647	-108.11860	
1,800.00	37.13	112.50	1,686.94	-197.47	476.85	1,601,758.07254	2,260,822.83506	39.45635	-108.11822	
2,000.00	41.63	112.50	1,841.50	-246.00	594.04	1,601,706.18393	2,260,938.57635	39.45622	-108.11781	
2,200.00	46.13	112.50	1,985.64	-299.02	722.08	1,601,649.49458	2,261,065.02604	39.45607	-108.11736	
2,306.76	48.53	112.50	2,058.00	-329.05	794.60	1,601,617.38729	2,261,136.64367	39.45599	-108.11710	
Top of "G" Sand										
2,400.00	50.63	112.50	2,118.46	-356.21	860.17	1,601,588.35401	2,261,201.40452	39.45592	-108.11687	
2,425.26	51.19	112.50	2,134.38	-363.71	878.29	1,601,580.33314	2,261,219.29565	39.45590	-108.11680	
Hold 51.19° Inc, 112.50° Az										
2,462.95	51.19	112.50	2,158.00	-374.95	905.42	1,601,568.32091	2,261,246.08979	39.45587	-108.11671	
Base of "G" Sand										
2,542.73	51.19	112.50	2,208.00	-398.73	962.86	1,601,542.88802	2,261,302.81968	39.45580	-108.11650	
9 5/8"										
2,600.00	51.19	112.50	2,243.89	-415.81	1,004.09	1,601,524.63177	2,261,343.54157	39.45575	-108.11636	
2,800.00	51.19	112.50	2,369.23	-475.44	1,148.09	1,601,460.87727	2,261,485.75058	39.45559	-108.11585	
3,000.00	51.19	112.50	2,494.57	-535.07	1,292.08	1,601,397.12278	2,261,627.95960	39.45543	-108.11534	
3,200.00	51.19	112.50	2,619.91	-594.70	1,436.08	1,601,333.36829	2,261,770.16860	39.45526	-108.11483	
3,400.00	51.19	112.50	2,745.25	-654.33	1,580.07	1,601,269.61379	2,261,912.37761	39.45510	-108.11432	
3,600.00	51.19	112.50	2,870.58	-713.96	1,724.07	1,601,205.85929	2,262,054.58662	39.45494	-108.11381	
3,800.00	51.19	112.50	2,995.92	-773.59	1,868.06	1,601,142.10480	2,262,196.79563	39.45477	-108.11330	
4,000.00	51.19	112.50	3,121.26	-833.22	2,012.06	1,601,078.35030	2,262,339.00464	39.45461	-108.11279	
4,200.00	51.19	112.50	3,246.60	-892.85	2,156.05	1,601,014.59580	2,262,481.21364	39.45444	-108.11228	
4,248.55	51.19	112.50	3,277.03	-907.33	2,191.01	1,600,999.11787	2,262,515.73831	39.45440	-108.11215	
Start Drop -2.00°/100										
4,400.00	48.16	112.50	3,375.01	-951.50	2,297.68	1,600,951.88977	2,262,621.08399	39.45428	-108.11178	
4,600.00	44.16	112.50	3,513.50	-1,006.68	2,430.94	1,600,892.88709	2,262,752.69374	39.45413	-108.11130	
4,742.30	41.32	112.50	3,618.00	-1,043.63	2,520.16	1,600,853.38468	2,262,840.80672	39.45403	-108.11099	
Mesaverde										
4,800.00	40.16	112.50	3,661.72	-1,058.04	2,554.95	1,600,837.97996	2,262,875.16805	39.45399	-108.11086	
5,000.00	36.16	112.50	3,818.93	-1,105.31	2,669.11	1,600,787.43589	2,262,987.91026	39.45386	-108.11046	
5,200.00	32.16	112.50	3,984.39	-1,148.28	2,772.86	1,600,741.50111	2,263,090.37110	39.45374	-108.11009	
5,400.00	28.16	112.50	4,157.27	-1,186.72	2,865.69	1,600,700.39943	2,263,182.05138	39.45364	-108.10976	
5,600.00	24.16	112.50	4,336.74	-1,220.45	2,947.15	1,600,664.33108	2,263,262.50445	39.45354	-108.10948	
5,800.00	20.16	112.50	4,521.92	-1,249.32	3,016.85	1,600,633.47178	2,263,331.33833	39.45347	-108.10923	
6,000.00	16.16	112.50	4,711.92	-1,273.17	3,074.44	1,600,607.97189	2,263,388.21770	39.45340	-108.10903	
6,058.23	15.00	112.50	4,768.00	-1,279.15	3,088.89	1,600,601.57391	2,263,402.48885	39.45338	-108.10897	
Top Gas - Approx. Top Gas										
6,200.00	12.16	112.50	4,905.80	-1,291.89	3,119.65	1,600,587.95562	2,263,432.86543	39.45335	-108.10887	
6,400.00	8.16	112.50	5,102.62	-1,305.39	3,152.26	1,600,573.52050	2,263,465.06401	39.45331	-108.10875	
6,600.00	4.16	112.50	5,301.42	-1,313.61	3,172.09	1,600,564.73685	2,263,484.65657	39.45329	-108.10868	
6,800.00	0.16	112.50	5,501.24	-1,316.49	3,179.07	1,600,561.64747	2,263,491.54766	39.45328	-108.10865	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 432-9 - Slot B03
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Project:	GV 09-07S-096W	MD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Site:	MV 16-9 Pad	North Reference:	True
Well:	GM 432-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 30Jun14 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
6,808.23	0.00	0.00	5,509.46	-1,316.50	3,179.08	1,600,561.64264	2,263,491.55843	39.45328	-108.10865
Vertical									
7,000.00	0.00	0.00	5,701.24	-1,316.50	3,179.08	1,600,561.64264	2,263,491.55843	39.45328	-108.10865
7,200.00	0.00	0.00	5,901.24	-1,316.50	3,179.08	1,600,561.64264	2,263,491.55843	39.45328	-108.10865
7,346.76	0.00	0.00	6,048.00	-1,316.50	3,179.08	1,600,561.64264	2,263,491.55843	39.45328	-108.10865
Cameo Coals									
7,400.00	0.00	0.00	6,101.24	-1,316.50	3,179.08	1,600,561.64264	2,263,491.55843	39.45328	-108.10865
7,600.00	0.00	0.00	6,301.24	-1,316.50	3,179.08	1,600,561.64264	2,263,491.55843	39.45328	-108.10865
7,800.00	0.00	0.00	6,501.24	-1,316.50	3,179.08	1,600,561.64264	2,263,491.55843	39.45328	-108.10865
7,816.76	0.00	0.00	6,518.00	-1,316.50	3,179.08	1,600,561.64264	2,263,491.55843	39.45328	-108.10865
Rollins SS									
7,916.76	0.00	0.00	6,618.00	-1,316.50	3,179.08	1,600,561.64264	2,263,491.55843	39.45328	-108.10865
TD at 7916.76 - 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) GM	0.00	0.00	4,768.00	-1,298.12	3,134.58	1,600,581.29777	2,263,447.60155	39.45333	-108.10881
- plan misses target center by 47.81usft at 6069.84usft MD (4779.23 TVD, -1280.29 N, 3091.65 E)									
- Circle (radius 50.00)									
TD / PBHL GM 432-9	0.00	0.00	6,618.00	-1,298.12	3,134.58	1,600,581.29777	2,263,447.60155	39.45333	-108.10881
- plan misses target center by 48.15usft at 7916.76usft MD (6618.00 TVD, -1316.50 N, 3179.08 E)									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,542.73	2,208.00	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,306.76	2,058.00	Top of "G" Sand				
2,462.95	2,158.00	Base of "G" Sand				
4,742.30	3,618.00	Mesaverde				
6,058.23	4,768.00	Approx. Top Gas				
7,346.76	6,048.00	Cameo Coals				
7,816.76	6,518.00	Rollins SS				
7,916.76	6,618.00	TD				

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 432-9 - Slot B03
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Project:	GV 09-07S-096W	MD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Site:	MV 16-9 Pad	North Reference:	True
Well:	GM 432-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 30Jun14 mab		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
150.00	150.00	0.00	0.00	Start Build 2.25
2,425.26	2,134.38	-363.71	878.29	Hold 51.19° Inc, 112.50° Az
4,248.55	3,277.03	-907.33	2,191.01	Start Drop -2.00°/100
6,058.23	4,768.00	-1,279.15	3,088.89	Top Gas
6,808.23	5,509.46	-1,316.50	3,179.08	Vertical
7,916.76	6,618.00	-1,316.50	3,179.08	TD at 7916.76