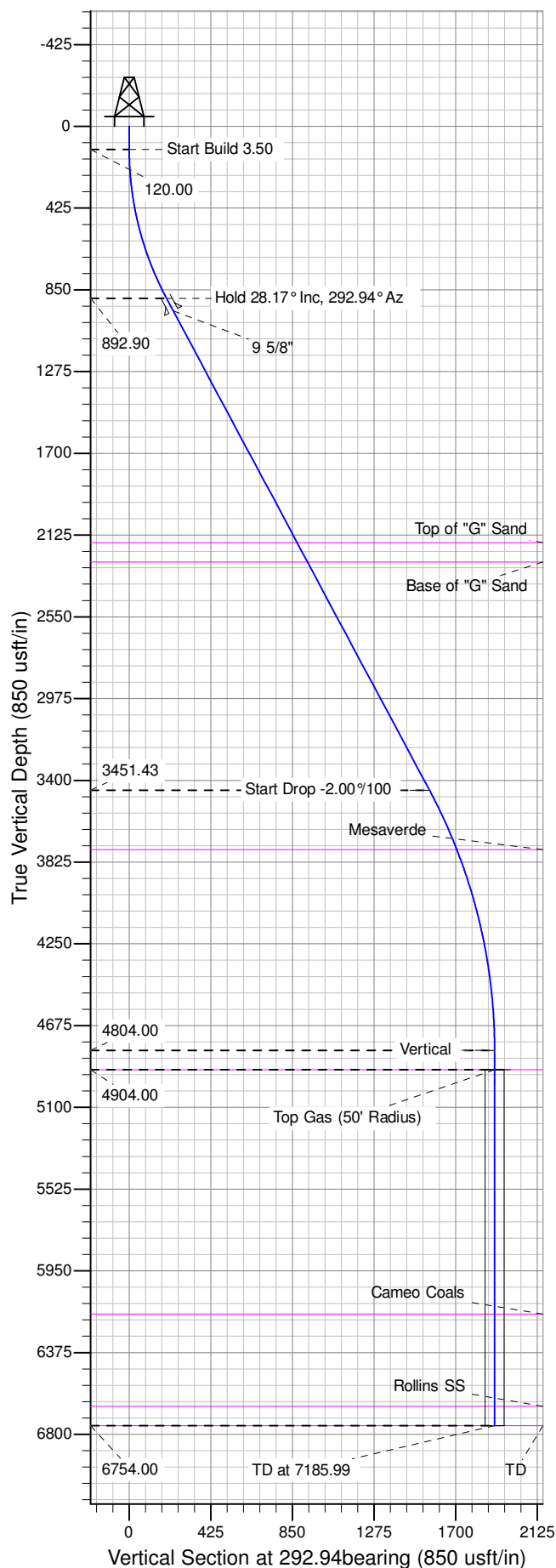
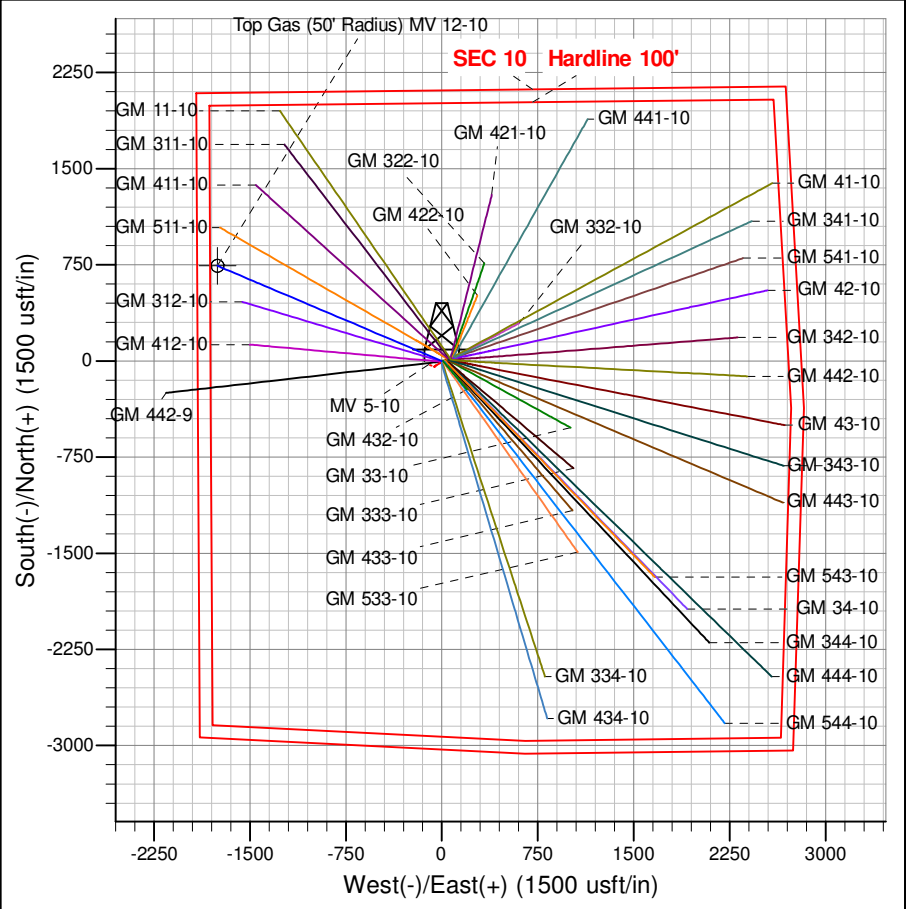




Well Name: GM 12-10
Surface Location: MV 5-10 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 6148.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1600356.50000 2266885.70000 39.45298 -108.09662 B04
KELLY BUSHING @ 6174.00usft (Nabors (26' 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	
892.90	924.95	28.17	292.94	75.60	-178.61	193.95	193.95	Hold 28.17° Inc, 292.94° Az	
3451.43	3827.33	28.17	292.94	609.74	-1440.54	1564.27	1564.27	Start Drop -2.00°/100	
4804.00	5235.99	0.00	0.00	742.04	-1753.10	1903.68	1903.68	Vertical	
4904.00	5335.99	0.00	0.00	742.04	-1753.10	1903.68	1903.68	Top Gas	
6754.00	7185.99	0.00	0.00	742.04	-1753.10	1903.68	1903.68	TD at 7185.99	



PICEANCE VLY NAD 83

GV 10-07S-096W

MV 5-10 Pad

GM 12-10 - Slot B04

Wellbore #1

Plan: Design #1 07Aug14 mab

Standard Planning Report - Geographic

13 October, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 12-10 - Slot B04
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
Project:	GV 10-07S-096W	MD Reference:	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
Site:	MV 5-10 Pad	North Reference:	True
Well:	GM 12-10	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 07Aug14 mab		

Project	GV 10-07S-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 5-10 Pad			
Site Position:		Northing:	1,600,354.00000 usft	Latitude: 39.45298
From: Map		Easting:	2,266,910.20000 usft	Longitude: -108.09653
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.64 °

Well	GM 12-10 - Slot B04			
Well Position	+N/-S	0.00 usft	Northing:	1,600,356.50000 usft
	+E/-W	0.00 usft	Easting:	2,266,885.70000 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	6,148.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/7/2014	9.99	65.60	51,895

Design	Design #1 07Aug14 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	292.94

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	
924.95	28.17	292.94	892.90	75.60	-178.61	3.50	3.50	0.00	292.94	
3,827.33	28.17	292.94	3,451.43	609.74	-1,440.54	0.00	0.00	0.00	0.00	
5,235.99	0.00	0.00	4,804.00	742.04	-1,753.10	2.00	-2.00	0.00	180.00	
5,335.99	0.00	0.00	4,904.00	742.04	-1,753.10	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
7,185.99	0.00	0.00	6,754.00	742.04	-1,753.10	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 12-10 - Slot B04
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
Project:	GV 10-07S-096W	MD Reference:	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
Site:	MV 5-10 Pad	North Reference:	True
Well:	GM 12-10	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 07Aug14 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	1,600,356.50000	2,266,885.70000	39.45298	-108.09662	
120.00	0.00	0.00	120.00	0.00	0.00	1,600,356.50000	2,266,885.70000	39.45298	-108.09662	
Start Build 3.50										
200.00	2.80	292.94	199.97	0.76	-1.80	1,600,357.31289	2,266,883.92279	39.45299	-108.09663	
400.00	9.80	292.94	398.64	9.31	-22.00	1,600,366.43562	2,266,863.97791	39.45301	-108.09670	
600.00	16.80	292.94	593.15	27.23	-64.34	1,600,385.56073	2,266,822.16498	39.45306	-108.09685	
800.00	23.80	292.94	780.61	54.26	-128.20	1,600,414.40312	2,266,759.10731	39.45313	-108.09707	
924.95	28.17	292.94	892.90	75.60	-178.61	1,600,437.16832	2,266,709.33611	39.45319	-108.09725	
Hold 28.17° Inc, 292.94° Az										
1,000.00	28.17	292.94	959.06	89.41	-211.24	1,600,451.90724	2,266,677.11263	39.45323	-108.09737	
9 5/8"										
1,200.00	28.17	292.94	1,135.37	126.22	-298.20	1,600,491.18263	2,266,591.24546	39.45333	-108.09767	
1,400.00	28.17	292.94	1,311.67	163.03	-385.16	1,600,530.45802	2,266,505.37830	39.45343	-108.09798	
1,600.00	28.17	292.94	1,487.98	199.83	-472.11	1,600,569.73341	2,266,419.51114	39.45353	-108.09829	
1,800.00	28.17	292.94	1,664.28	236.64	-559.07	1,600,609.00879	2,266,333.64397	39.45363	-108.09860	
2,000.00	28.17	292.94	1,840.59	273.45	-646.03	1,600,648.28417	2,266,247.77681	39.45374	-108.09891	
2,200.00	28.17	292.94	2,016.89	310.25	-732.99	1,600,687.55956	2,266,161.90964	39.45384	-108.09921	
2,366.88	28.17	292.94	2,164.00	340.97	-805.55	1,600,720.33092	2,266,090.26212	39.45392	-108.09947	
Top of "G" Sand										
2,400.00	28.17	292.94	2,193.20	347.06	-819.95	1,600,726.83495	2,266,076.04247	39.45394	-108.09952	
2,480.32	28.17	292.94	2,264.00	361.84	-854.87	1,600,742.60787	2,266,041.55837	39.45398	-108.09965	
Base of "G" Sand										
2,600.00	28.17	292.94	2,369.50	383.87	-906.91	1,600,766.11033	2,265,990.17532	39.45404	-108.09983	
2,800.00	28.17	292.94	2,545.81	420.67	-993.86	1,600,805.38572	2,265,904.30815	39.45414	-108.10014	
3,000.00	28.17	292.94	2,722.11	457.48	-1,080.82	1,600,844.66111	2,265,818.44098	39.45424	-108.10045	
3,200.00	28.17	292.94	2,898.42	494.29	-1,167.78	1,600,883.93649	2,265,732.57381	39.45434	-108.10075	
3,400.00	28.17	292.94	3,074.72	531.10	-1,254.74	1,600,923.21188	2,265,646.70665	39.45444	-108.10106	
3,600.00	28.17	292.94	3,251.03	567.90	-1,341.70	1,600,962.48727	2,265,560.83949	39.45454	-108.10137	
3,800.00	28.17	292.94	3,427.33	604.71	-1,428.66	1,601,001.76266	2,265,474.97232	39.45464	-108.10168	
3,827.33	28.17	292.94	3,451.43	609.74	-1,440.54	1,601,007.13043	2,265,463.23684	39.45466	-108.10172	
Start Drop -2.00°/100										
4,000.00	24.72	292.94	3,606.00	639.71	-1,511.35	1,601,039.11022	2,265,393.31991	39.45474	-108.10197	
4,166.31	21.39	292.94	3,759.00	665.09	-1,571.32	1,601,066.19710	2,265,334.10028	39.45481	-108.10218	
Mesaverde										
4,200.00	20.72	292.94	3,790.44	669.81	-1,582.47	1,601,071.23233	2,265,323.09183	39.45482	-108.10222	
4,400.00	16.72	292.94	3,979.83	694.83	-1,641.57	1,601,097.92477	2,265,264.73458	39.45489	-108.10243	
4,600.00	12.72	292.94	4,173.22	714.63	-1,688.36	1,601,119.05747	2,265,218.53248	39.45495	-108.10260	
4,800.00	8.72	292.94	4,369.69	729.13	-1,722.61	1,601,134.52750	2,265,184.71061	39.45499	-108.10272	
5,000.00	4.72	292.94	4,568.28	738.25	-1,744.15	1,601,144.25947	2,265,163.43375	39.45501	-108.10280	
5,200.00	0.72	292.94	4,768.01	741.95	-1,752.89	1,601,148.20597	2,265,154.80557	39.45502	-108.10283	
5,235.99	0.00	0.00	4,804.00	742.04	-1,753.10	1,601,148.30000	2,265,154.60000	39.45502	-108.10283	
Vertical										
5,335.99	0.00	0.00	4,904.00	742.04	-1,753.10	1,601,148.30000	2,265,154.60000	39.45502	-108.10283	
Top Gas - Approx. Top Gas										
5,400.00	0.00	0.00	4,968.01	742.04	-1,753.10	1,601,148.30000	2,265,154.60000	39.45502	-108.10283	
5,600.00	0.00	0.00	5,168.01	742.04	-1,753.10	1,601,148.30000	2,265,154.60000	39.45502	-108.10283	
5,800.00	0.00	0.00	5,368.01	742.04	-1,753.10	1,601,148.30000	2,265,154.60000	39.45502	-108.10283	
6,000.00	0.00	0.00	5,568.01	742.04	-1,753.10	1,601,148.30000	2,265,154.60000	39.45502	-108.10283	
6,200.00	0.00	0.00	5,768.01	742.04	-1,753.10	1,601,148.30000	2,265,154.60000	39.45502	-108.10283	
6,400.00	0.00	0.00	5,968.01	742.04	-1,753.10	1,601,148.30000	2,265,154.60000	39.45502	-108.10283	
6,600.00	0.00	0.00	6,168.01	742.04	-1,753.10	1,601,148.30000	2,265,154.60000	39.45502	-108.10283	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 12-10 - Slot B04
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
Project:	GV 10-07S-096W	MD Reference:	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
Site:	MV 5-10 Pad	North Reference:	True
Well:	GM 12-10	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 07Aug14 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
6,605.99	0.00	0.00	6,174.00	742.04	-1,753.10	1,601,148.30000	2,265,154.60000	39.45502	-108.10283
Cameo Coals									
6,800.00	0.00	0.00	6,368.01	742.04	-1,753.10	1,601,148.30000	2,265,154.60000	39.45502	-108.10283
7,000.00	0.00	0.00	6,568.01	742.04	-1,753.10	1,601,148.30000	2,265,154.60000	39.45502	-108.10283
7,085.99	0.00	0.00	6,654.00	742.04	-1,753.10	1,601,148.30000	2,265,154.60000	39.45502	-108.10283
Rollins SS									
7,185.99	0.00	0.00	6,754.00	742.04	-1,753.10	1,601,148.30000	2,265,154.60000	39.45502	-108.10283
TD at 7185.99 - 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) M\	0.00	358.36	4,904.00	742.04	-1,753.10	1,601,148.30000	2,265,154.60000	39.45502	-108.10283
- plan hits target center									
- Circle (radius 50.00)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,000.00	959.06	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,366.88	2,164.00	Top of "G" Sand				
2,480.32	2,264.00	Base of "G" Sand				
4,166.31	3,759.00	Mesaverde				
5,335.99	4,904.00	Approx. Top Gas				
6,605.99	6,174.00	Cameo Coals				
7,085.99	6,654.00	Rollins SS				
7,185.99	6,754.00	TD				

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
120.00	120.00	0.00	0.00	Start Build 3.50
924.95	892.90	75.60	-178.61	Hold 28.17° Inc, 292.94° Az
3,827.33	3,451.43	609.74	-1,440.54	Start Drop -2.00°/100
5,235.99	4,804.00	742.04	-1,753.10	Vertical
5,335.99	4,904.00	742.04	-1,753.10	Top Gas
7,185.99	6,754.00	742.04	-1,753.10	TD at 7185.99