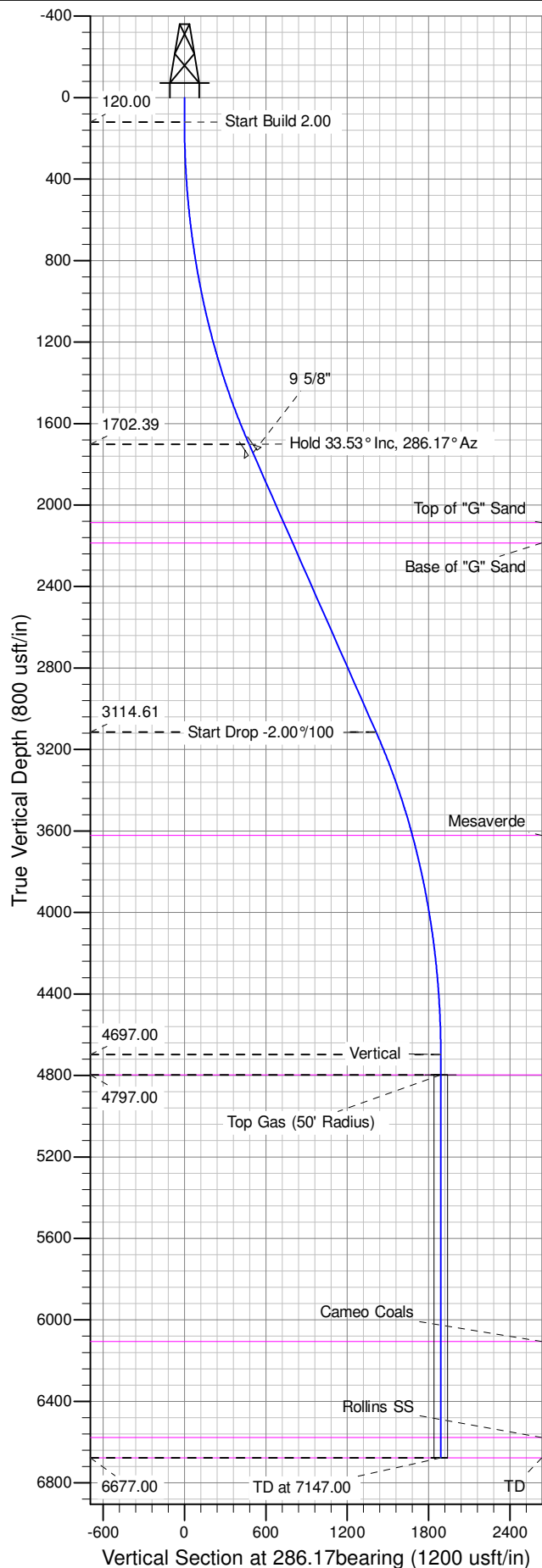
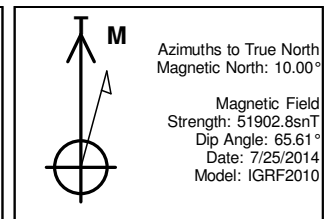
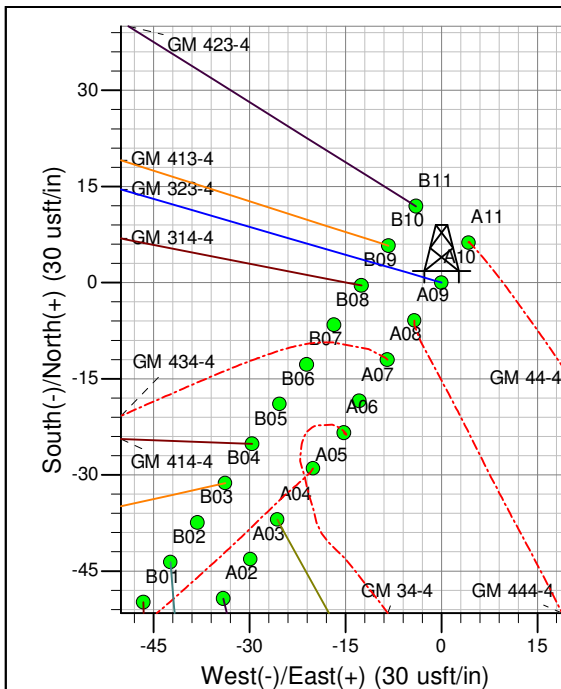
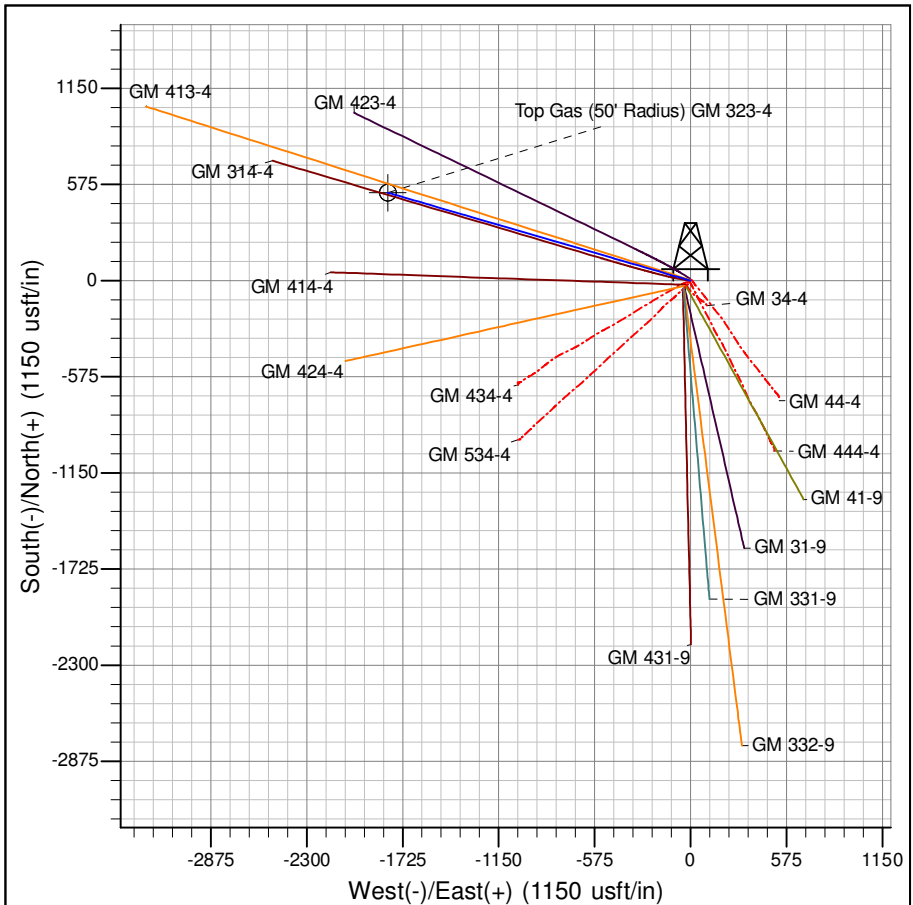




Well Name: GM 323-4
Surface Location: GM 34-4 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 6023.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1603687.50000 2263190.00000 39.461834 -108.110038 A10
KELLY BUSHING @ 6047.00usft (H&P 318 (24' 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 2.00	
1702.39	1796.45	33.53	286.17	132.75	-457.83	476.68	476.68	Hold 33.53° Inc, 286.17° Az	
3114.61	3490.55	33.53	286.17	393.34	-1356.56	1412.44	1412.44	Start Drop -2.00°/100	
4697.00	5167.00	0.00	0.00	526.08	-1814.39	1889.12	1889.12	Vertical	
4797.00	5267.00	0.00	0.00	526.08	-1814.39	1889.12	1889.12	Top Gas	
6677.00	7147.00	0.00	0.00	526.08	-1814.39	1889.12	1889.12	TD at 7147.00	



Project: GV 04-07S-096W
Site: GM 34-4 Pad
Well: GM 323-4
Design #1 25Jul14 mab

PICEANCE VLY NAD 83

GV 04-07S-096W

GM 34-4 Pad

GM 323-4 - Slot A10

Wellbore #1

Plan: Design #1 25Jul14 mab

Standard Planning Report - Geographic

25 September, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 323-4 - Slot A10
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6047.00usft (H&P 318 (24' RKB) mab)
Project:	GV 04-07S-096W	MD Reference:	KELLY BUSHING @ 6047.00usft (H&P 318 (24' RKB) mab)
Site:	GM 34-4 Pad	North Reference:	True
Well:	GM 323-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 25Jul14 mab		

Project	GV 04-07S-096W, Garfield County, CO, 04-07S-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	GM 34-4 Pad			
Site Position:		Northing:	1,603,693.60000 usft	Latitude: 39.461851
From: Map		Easting:	2,263,194.40000 usft	Longitude: -108.110023
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.65 °

Well	GM 323-4 - Slot A10			
Well Position	+N/-S	0.00 usft	Northing:	1,603,687.50000 usft
	+E/-W	0.00 usft	Easting:	2,263,190.00000 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	6,023.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/25/2014	10.00	65.61	51,903

Design	Design #1 25Jul14 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	286.17

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	
1,796.45	33.53	286.17	1,702.39	132.75	-457.83	2.00	2.00	0.00	286.17	
3,490.55	33.53	286.17	3,114.61	393.34	-1,356.56	0.00	0.00	0.00	0.00	
5,167.00	0.00	0.00	4,697.00	526.08	-1,814.39	2.00	-2.00	0.00	180.00	
5,267.00	0.00	0.00	4,797.00	526.08	-1,814.39	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
7,147.00	0.00	0.00	6,677.00	526.08	-1,814.39	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 323-4 - Slot A10
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6047.00usft (H&P 318 (24' RKB) mab)
Project:	GV 04-07S-096W	MD Reference:	KELLY BUSHING @ 6047.00usft (H&P 318 (24' RKB) mab)
Site:	GM 34-4 Pad	North Reference:	True
Well:	GM 323-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 25Jul14 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	1,603,687.50000	2,263,190.00000	39.461834	-108.110038	
120.00	0.00	0.00	120.00	0.00	0.00	1,603,687.50000	2,263,190.00000	39.461834	-108.110038	
Start Build 2.00										
200.00	1.60	286.17	199.99	0.31	-1.07	1,603,687.84172	2,263,188.93667	39.461835	-108.110042	
400.00	5.60	286.17	399.55	3.81	-13.13	1,603,691.68300	2,263,176.98374	39.461845	-108.110084	
600.00	9.60	286.17	597.76	11.17	-38.53	1,603,699.77393	2,263,151.80715	39.461865	-108.110174	
800.00	13.60	286.17	793.63	22.37	-77.15	1,603,712.07509	2,263,113.52955	39.461896	-108.110311	
1,000.00	17.60	286.17	986.23	37.34	-128.79	1,603,728.52655	2,263,062.33743	39.461937	-108.110494	
1,200.00	21.60	286.17	1,174.60	56.02	-193.22	1,603,749.04816	2,262,998.48019	39.461988	-108.110722	
1,400.00	25.60	286.17	1,357.83	78.32	-270.10	1,603,773.53995	2,262,922.26894	39.462049	-108.110995	
1,600.00	29.60	286.17	1,535.04	104.12	-359.08	1,603,801.88258	2,262,834.07498	39.462120	-108.111310	
1,796.45	33.53	286.17	1,702.39	132.75	-457.83	1,603,833.33758	2,262,736.19624	39.462199	-108.111659	
Hold 33.53° Inc, 286.17° Az										
1,800.00	33.53	286.17	1,705.35	133.29	-459.71	1,603,833.93742	2,262,734.32970	39.462200	-108.111666	
1,846.45	33.53	286.17	1,744.07	140.44	-484.35	1,603,841.78701	2,262,709.90407	39.462220	-108.111753	
9 5/8"										
2,000.00	33.53	286.17	1,872.07	164.06	-565.81	1,603,867.73545	2,262,629.16015	39.462285	-108.112042	
2,200.00	33.53	286.17	2,038.79	194.82	-671.91	1,603,901.53348	2,262,523.99060	39.462369	-108.112418	
2,257.83	33.53	286.17	2,087.00	203.72	-702.59	1,603,911.30594	2,262,493.58157	39.462394	-108.112526	
Top of "G" Sand										
2,377.79	33.53	286.17	2,187.00	222.17	-766.23	1,603,931.57812	2,262,430.50051	39.462444	-108.112752	
Base of "G" Sand										
2,400.00	33.53	286.17	2,205.52	225.59	-778.01	1,603,935.33151	2,262,418.82105	39.462454	-108.112793	
2,600.00	33.53	286.17	2,372.24	256.35	-884.12	1,603,969.12954	2,262,313.65150	39.462538	-108.113169	
2,800.00	33.53	286.17	2,538.96	287.11	-990.22	1,604,002.92757	2,262,208.48194	39.462623	-108.113545	
3,000.00	33.53	286.17	2,705.68	317.88	-1,096.32	1,604,036.72560	2,262,103.31239	39.462707	-108.113921	
3,200.00	33.53	286.17	2,872.40	348.64	-1,202.42	1,604,070.52363	2,261,998.14285	39.462791	-108.114297	
3,400.00	33.53	286.17	3,039.12	379.41	-1,308.52	1,604,104.32166	2,261,892.97329	39.462876	-108.114672	
3,490.55	33.53	286.17	3,114.61	393.34	-1,356.56	1,604,119.62441	2,261,845.35564	39.462914	-108.114842	
Start Drop -2.00°/100										
3,600.00	31.34	286.17	3,206.98	409.68	-1,412.94	1,604,137.58208	2,261,789.47665	39.462959	-108.115042	
3,800.00	27.34	286.17	3,381.28	436.97	-1,507.04	1,604,167.55790	2,261,696.20068	39.463034	-108.115375	
4,000.00	23.34	286.17	3,562.00	460.80	-1,589.24	1,604,193.74066	2,261,614.72759	39.463099	-108.115667	
4,065.03	22.04	286.17	3,622.00	467.79	-1,613.33	1,604,201.41491	2,261,590.84757	39.463118	-108.115752	
Mesaverde										
4,200.00	19.34	286.17	3,748.25	481.06	-1,659.12	1,604,216.00283	2,261,545.45427	39.463155	-108.115914	
4,400.00	15.34	286.17	3,939.13	497.66	-1,716.36	1,604,234.23592	2,261,488.71823	39.463200	-108.116117	
4,600.00	11.34	286.17	4,133.69	510.51	-1,760.67	1,604,248.35112	2,261,444.79588	39.463236	-108.116274	
4,800.00	7.34	286.17	4,331.00	519.55	-1,791.84	1,604,258.27964	2,261,413.90121	39.463261	-108.116384	
5,000.00	3.34	286.17	4,530.09	524.73	-1,809.72	1,604,263.97314	2,261,396.18474	39.463275	-108.116447	
5,167.00	0.00	0.00	4,697.00	526.08	-1,814.39	1,604,265.46198	2,261,391.55188	39.463278	-108.116464	
Vertical										
5,200.00	0.00	0.00	4,730.00	526.08	-1,814.39	1,604,265.46198	2,261,391.55188	39.463278	-108.116464	
5,267.00	0.00	0.00	4,797.00	526.08	-1,814.39	1,604,265.46198	2,261,391.55188	39.463278	-108.116464	
Top Gas - Approx. Top Gas										
5,400.00	0.00	0.00	4,930.00	526.08	-1,814.39	1,604,265.46198	2,261,391.55188	39.463278	-108.116464	
5,600.00	0.00	0.00	5,130.00	526.08	-1,814.39	1,604,265.46198	2,261,391.55188	39.463278	-108.116464	
5,800.00	0.00	0.00	5,330.00	526.08	-1,814.39	1,604,265.46198	2,261,391.55188	39.463278	-108.116464	
6,000.00	0.00	0.00	5,530.00	526.08	-1,814.39	1,604,265.46198	2,261,391.55188	39.463278	-108.116464	
6,200.00	0.00	0.00	5,730.00	526.08	-1,814.39	1,604,265.46198	2,261,391.55188	39.463278	-108.116464	
6,400.00	0.00	0.00	5,930.00	526.08	-1,814.39	1,604,265.46198	2,261,391.55188	39.463278	-108.116464	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 323-4 - Slot A10
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6047.00usft (H&P 318 (24' RKB) mab)
Project:	GV 04-07S-096W	MD Reference:	KELLY BUSHING @ 6047.00usft (H&P 318 (24' RKB) mab)
Site:	GM 34-4 Pad	North Reference:	True
Well:	GM 323-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 25Jul14 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
6,577.00	0.00	0.00	6,107.00	526.08	-1,814.39	1,604,265.46198	2,261,391.55188	39.463278	-108.116464
Cameo Coals									
6,600.00	0.00	0.00	6,130.00	526.08	-1,814.39	1,604,265.46198	2,261,391.55188	39.463278	-108.116464
6,800.00	0.00	0.00	6,330.00	526.08	-1,814.39	1,604,265.46198	2,261,391.55188	39.463278	-108.116464
7,000.00	0.00	0.00	6,530.00	526.08	-1,814.39	1,604,265.46198	2,261,391.55188	39.463278	-108.116464
7,047.00	0.00	0.00	6,577.00	526.08	-1,814.39	1,604,265.46198	2,261,391.55188	39.463278	-108.116464
Rollins SS									
7,147.00	0.00	0.00	6,677.00	526.08	-1,814.39	1,604,265.46198	2,261,391.55188	39.463278	-108.116464
TD at 7147.00 - TD									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Top Gas (50' Radius) G1 - plan hits target center - Circle (radius 50.00)	0.00	358.35	4,797.00	526.08	-1,814.39	1,604,265.46199	2,261,391.55188	39.463278	-108.116464

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,846.45	1,744.07	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,257.83	2,087.00	Top of "G" Sand				
2,377.79	2,187.00	Base of "G" Sand				
4,065.03	3,622.00	Mesaverde				
5,267.00	4,797.00	Approx. Top Gas				
6,577.00	6,107.00	Cameo Coals				
7,047.00	6,577.00	Rollins SS				
7,147.00	6,677.00	TD				

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 323-4 - Slot A10
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6047.00usft (H&P 318 (24' RKB) mab)
Project:	GV 04-07S-096W	MD Reference:	KELLY BUSHING @ 6047.00usft (H&P 318 (24' RKB) mab)
Site:	GM 34-4 Pad	North Reference:	True
Well:	GM 323-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 25Jul14 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 2.00
1,796.45	1,702.39	132.75	-457.83	Hold 33.53° Inc, 286.17° Az
3,490.55	3,114.61	393.34	-1,356.56	Start Drop -2.00°/100
5,167.00	4,697.00	526.08	-1,814.39	Vertical
5,267.00	4,797.00	526.08	-1,814.39	Top Gas
7,147.00	6,677.00	526.08	-1,814.39	TD at 7147.00