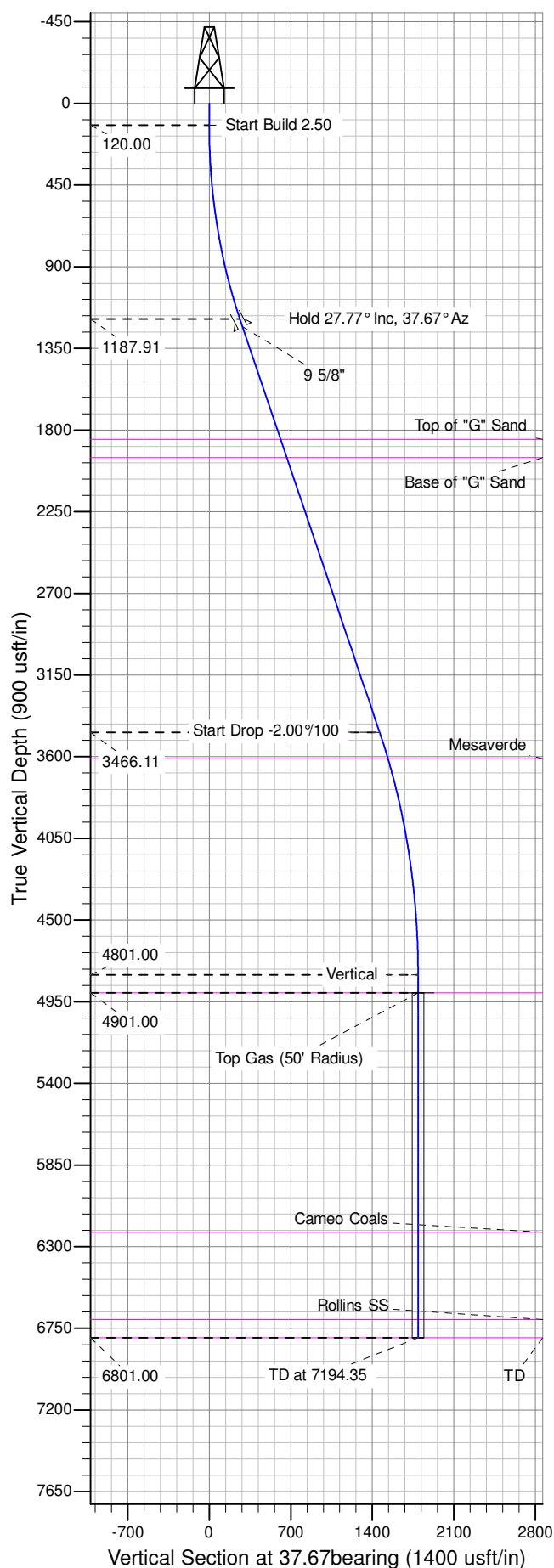
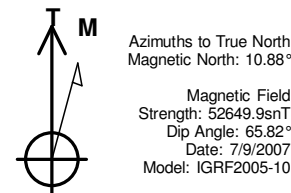
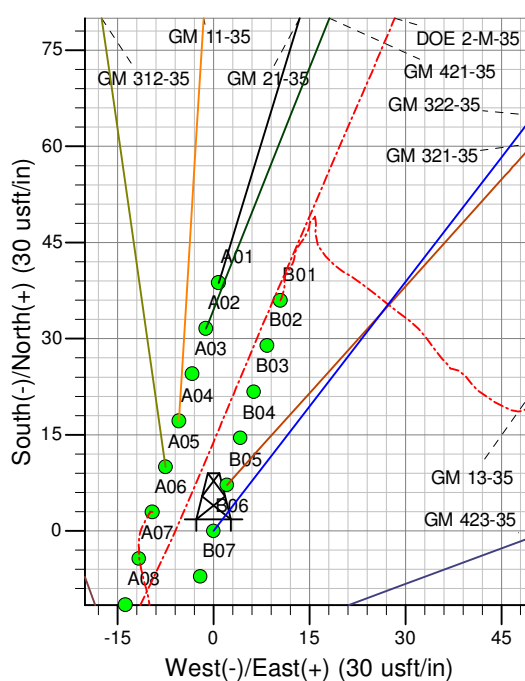
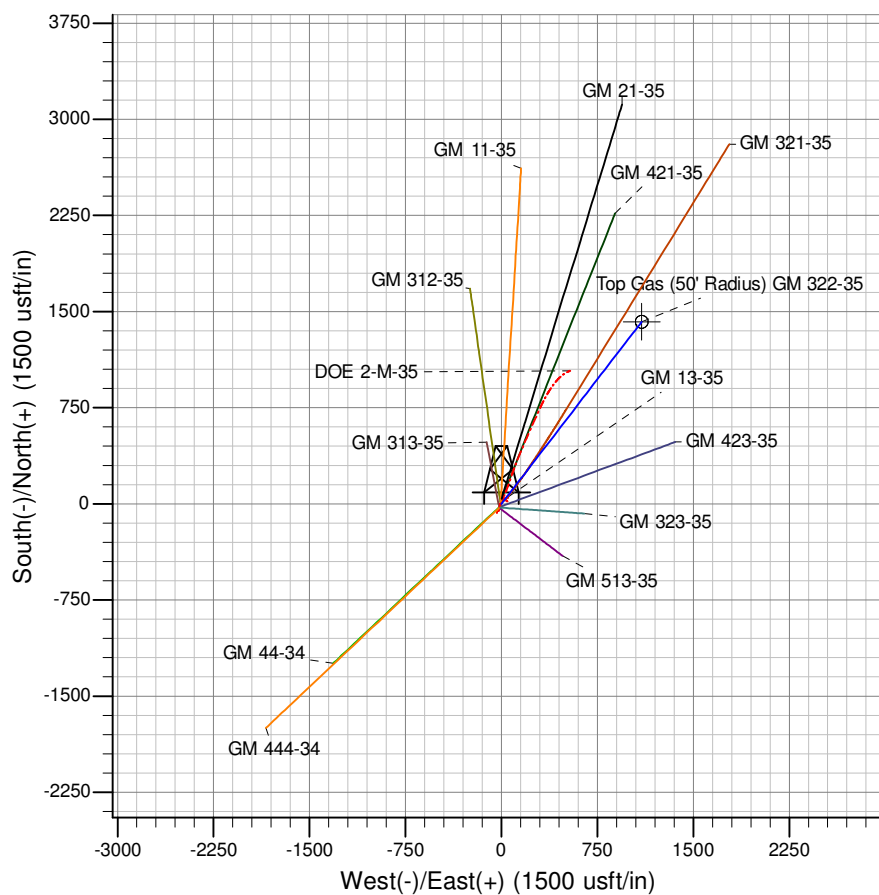




Well Name: GM 322-35
Surface Location: DOE 2-M-35 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5445.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1609664.60000 2271151.70000 39.47886 -108.08245 B06
KELLY BUSHING @ 5471.00usft (Nabors 573 (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	
1187.91	1230.91	27.77	37.67	208.97	161.35	264.01	264.01	Hold 27.77° Inc, 37.67° Az	
3466.11	3805.71	27.77	37.67	1158.62	894.57	1463.78	1463.78	Start Drop -2.00%/100	
4801.00	5194.35	0.00	0.00	1419.84	1096.25	1793.80	1793.80	Vertical	
4901.00	5294.35	0.00	0.00	1419.84	1096.25	1793.80	1793.80	Top Gas	
6801.00	7194.35	0.00	0.00	1419.84	1096.25	1793.80	1793.80	TD at 7194.35	



Project: GV 35-06S-096W
Site: DOE 2-M-35 Pad
Well: GM 322-35
Design #2 07Jul14 mab

PICEANCE VLY NAD 83

GV 35-06S-096W

DOE 2-M-35 Pad

GM 322-35 - Slot B06

GM 322-35

Plan: Design #2 07Jul14 mab

Standard Planning Report - Geographic

18 August, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 322-35 - Slot B06
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5471.00usft (Nabors 573 (26' RKB) mab)
Project:	GV 35-06S-096W	MD Reference:	KELLY BUSHING @ 5471.00usft (Nabors 573 (26' RKB) mab)
Site:	DOE 2-M-35 Pad	North Reference:	True
Well:	GM 322-35	Survey Calculation Method:	Minimum Curvature
Wellbore:	GM 322-35		
Design:	Design #2 07Jul14 mab		

Project	GV 35-06S-096W, Garfield County, CO, 35-06S-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	DOE 2-M-35 Pad			
Site Position:		Northing:	1,609,700.26000 usft	Latitude: 39.47896
From: Map		Easting:	2,271,163.17000 usft	Longitude: -108.08242
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.63 °

Well	GM 322-35 - Slot B06			
Well Position	+N/-S	0.00 usft	Northing:	1,609,664.60000 usft
	+E/-W	0.00 usft	Easting:	2,271,151.70000 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	
			Ground Level:	5,445.00 usft

Wellbore	GM 322-35				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	7/9/2007	10.88	65.82	52,650

Design	Design #2 07Jul14 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	37.67

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	
1,230.91	27.77	37.67	1,187.91	208.97	161.35	2.50	2.50	0.00	37.67	
3,805.71	27.77	37.67	3,466.11	1,158.62	894.57	0.00	0.00	0.00	0.00	
5,194.35	0.00	0.00	4,801.00	1,419.84	1,096.25	2.00	-2.00	0.00	180.00	
5,294.35	0.00	0.00	4,901.00	1,419.84	1,096.25	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
7,194.35	0.00	0.00	6,801.00	1,419.84	1,096.25	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 322-35 - Slot B06
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5471.00usft (Nabors 573 (26' RKB) mab)
Project:	GV 35-06S-096W	MD Reference:	KELLY BUSHING @ 5471.00usft (Nabors 573 (26' RKB) mab)
Site:	DOE 2-M-35 Pad	North Reference:	True
Well:	GM 322-35	Survey Calculation Method:	Minimum Curvature
Wellbore:	GM 322-35		
Design:	Design #2 07Jul14 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	1,609,664.60000	2,271,151.70000	39.47886	-108.08245	
120.00	0.00	0.00	120.00	0.00	0.00	1,609,664.60000	2,271,151.70000	39.47886	-108.08245	
Start Build 2.50										
200.00	2.00	37.67	199.98	1.11	0.85	1,609,665.68033	2,271,152.58425	39.47887	-108.08245	
400.00	7.00	37.67	399.30	13.52	10.44	1,609,677.81888	2,271,162.51962	39.47890	-108.08242	
600.00	12.00	37.67	596.50	39.64	30.61	1,609,703.35371	2,271,183.41980	39.47897	-108.08235	
800.00	17.00	37.67	790.07	79.27	61.20	1,609,742.09046	2,271,215.12572	39.47908	-108.08224	
1,000.00	22.00	37.67	978.54	132.09	101.99	1,609,793.73434	2,271,257.39610	39.47923	-108.08209	
1,200.00	27.00	37.67	1,160.47	197.72	152.66	1,609,857.89231	2,271,309.90922	39.47941	-108.08191	
1,230.91	27.77	37.67	1,187.91	208.97	161.35	1,609,868.89429	2,271,318.91431	39.47944	-108.08188	
Hold 27.77° Inc, 37.67° Az										
1,280.91	27.77	37.67	1,232.16	227.41	175.59	1,609,886.92271	2,271,333.67052	39.47949	-108.08183	
9 5/8"										
1,400.00	27.77	37.67	1,337.53	271.34	209.50	1,609,929.86258	2,271,368.81669	39.47961	-108.08171	
1,600.00	27.77	37.67	1,514.49	345.10	266.45	1,610,001.97590	2,271,427.84124	39.47981	-108.08151	
1,800.00	27.77	37.67	1,691.45	418.87	323.41	1,610,074.08922	2,271,486.86579	39.48001	-108.08131	
1,980.33	27.77	37.67	1,851.00	485.38	374.76	1,610,139.10856	2,271,540.08395	39.48020	-108.08113	
Top of "G" Sand										
2,000.00	27.77	37.67	1,868.41	492.63	380.36	1,610,146.20253	2,271,545.89034	39.48022	-108.08111	
2,093.35	27.77	37.67	1,951.00	527.06	406.94	1,610,179.85963	2,271,573.43859	39.48031	-108.08101	
Base of "G" Sand										
2,200.00	27.77	37.67	2,045.37	566.40	437.31	1,610,218.31585	2,271,604.91489	39.48042	-108.08090	
2,400.00	27.77	37.67	2,222.33	640.16	494.27	1,610,290.42917	2,271,663.93944	39.48062	-108.08070	
2,600.00	27.77	37.67	2,399.29	713.93	551.22	1,610,362.54249	2,271,722.96399	39.48082	-108.08050	
2,800.00	27.77	37.67	2,576.25	787.69	608.17	1,610,434.65581	2,271,781.98854	39.48103	-108.08030	
3,000.00	27.77	37.67	2,753.21	861.46	665.13	1,610,506.76913	2,271,841.01310	39.48123	-108.08010	
3,200.00	27.77	37.67	2,930.17	935.22	722.08	1,610,578.88244	2,271,900.03765	39.48143	-108.07990	
3,400.00	27.77	37.67	3,107.13	1,008.99	779.03	1,610,650.99576	2,271,959.06220	39.48163	-108.07969	
3,600.00	27.77	37.67	3,284.09	1,082.75	835.99	1,610,723.10908	2,272,018.08674	39.48184	-108.07949	
3,800.00	27.77	37.67	3,461.05	1,156.52	892.94	1,610,795.22240	2,272,077.11130	39.48204	-108.07929	
3,805.71	27.77	37.67	3,466.11	1,158.62	894.57	1,610,797.28168	2,272,078.79681	39.48204	-108.07929	
Start Drop -2.00°/100										
3,967.16	24.54	37.67	3,611.00	1,214.95	938.06	1,610,852.34986	2,272,123.86997	39.48220	-108.07913	
Mesaverde										
4,000.00	23.89	37.67	3,640.95	1,225.62	946.29	1,610,862.77299	2,272,132.40127	39.48223	-108.07910	
4,200.00	19.89	37.67	3,826.50	1,284.62	991.84	1,610,920.45256	2,272,179.61184	39.48239	-108.07894	
4,400.00	15.89	37.67	4,016.79	1,333.23	1,029.38	1,610,967.97622	2,272,218.50983	39.48252	-108.07881	
4,600.00	11.89	37.67	4,210.91	1,371.21	1,058.71	1,611,005.11243	2,272,248.90572	39.48263	-108.07870	
4,800.00	7.89	37.67	4,407.90	1,398.39	1,079.69	1,611,031.68028	2,272,270.65142	39.48270	-108.07863	
5,000.00	3.89	37.67	4,606.80	1,414.62	1,092.22	1,611,047.55032	2,272,283.64101	39.48275	-108.07858	
5,194.35	0.00	0.00	4,801.00	1,419.84	1,096.25	1,611,052.64955	2,272,287.81471	39.48276	-108.07857	
Vertical										
5,200.00	0.00	0.00	4,806.65	1,419.84	1,096.25	1,611,052.64955	2,272,287.81471	39.48276	-108.07857	
5,294.35	0.00	0.00	4,901.00	1,419.84	1,096.25	1,611,052.64955	2,272,287.81471	39.48276	-108.07857	
Top Gas - Approx. Top Gas										
5,400.00	0.00	0.00	5,006.65	1,419.84	1,096.25	1,611,052.64955	2,272,287.81471	39.48276	-108.07857	
5,600.00	0.00	0.00	5,206.65	1,419.84	1,096.25	1,611,052.64955	2,272,287.81471	39.48276	-108.07857	
5,800.00	0.00	0.00	5,406.65	1,419.84	1,096.25	1,611,052.64955	2,272,287.81471	39.48276	-108.07857	
6,000.00	0.00	0.00	5,606.65	1,419.84	1,096.25	1,611,052.64955	2,272,287.81471	39.48276	-108.07857	
6,200.00	0.00	0.00	5,806.65	1,419.84	1,096.25	1,611,052.64955	2,272,287.81471	39.48276	-108.07857	
6,400.00	0.00	0.00	6,006.65	1,419.84	1,096.25	1,611,052.64955	2,272,287.81471	39.48276	-108.07857	
6,600.00	0.00	0.00	6,206.65	1,419.84	1,096.25	1,611,052.64955	2,272,287.81471	39.48276	-108.07857	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 322-35 - Slot B06
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5471.00usft (Nabors 573 (26' RKB) mab)
Project:	GV 35-06S-096W	MD Reference:	KELLY BUSHING @ 5471.00usft (Nabors 573 (26' RKB) mab)
Site:	DOE 2-M-35 Pad	North Reference:	True
Well:	GM 322-35	Survey Calculation Method:	Minimum Curvature
Wellbore:	GM 322-35		
Design:	Design #2 07Jul14 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
6,614.35	0.00	0.00	6,221.00	1,419.84	1,096.25	1,611,052.64955	2,272,287.81471	39.48276	-108.07857
Cameo Coals									
6,800.00	0.00	0.00	6,406.65	1,419.84	1,096.25	1,611,052.64955	2,272,287.81471	39.48276	-108.07857
7,000.00	0.00	0.00	6,606.65	1,419.84	1,096.25	1,611,052.64955	2,272,287.81471	39.48276	-108.07857
7,094.35	0.00	0.00	6,701.00	1,419.84	1,096.25	1,611,052.64955	2,272,287.81471	39.48276	-108.07857
Rollins SS									
7,194.35	0.00	0.00	6,801.00	1,419.84	1,096.25	1,611,052.64955	2,272,287.81471	39.48276	-108.07857
TD at 7194.35 - 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) G	0.00	0.00	4,901.00	1,419.84	1,096.25	1,611,052.64955	2,272,287.81471	39.48276	-108.07857
- plan hits target center									
- Circle (radius 50.00)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,280.91	1,232.16	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
1,980.33	1,851.00	Top of "G" Sand				
2,093.35	1,951.00	Base of "G" Sand				
3,967.16	3,611.00	Mesaverde				
5,294.35	4,901.00	Approx. Top Gas				
6,614.35	6,221.00	Cameo Coals				
7,094.35	6,701.00	Rollins SS				
7,194.35	6,801.00	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 2.50	
1,230.91	1,187.91	208.97	161.35	Hold 27.77° Inc, 37.67° Az	
3,805.71	3,466.11	1,158.62	894.57	Start Drop -2.00°/100	
5,194.35	4,801.00	1,419.84	1,096.25	Vertical	
5,294.35	4,901.00	1,419.84	1,096.25	Top Gas	
7,194.35	6,801.00	1,419.84	1,096.25	TD at 7194.35	