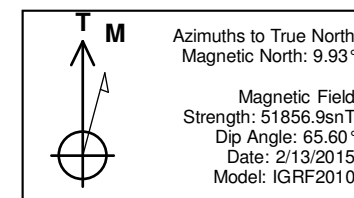




Well Name: GM 704-32-9HMB2
Surface Location: GM 41-4 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5460.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1607130.62	2264060.02	39.471352	-108.107307	A1

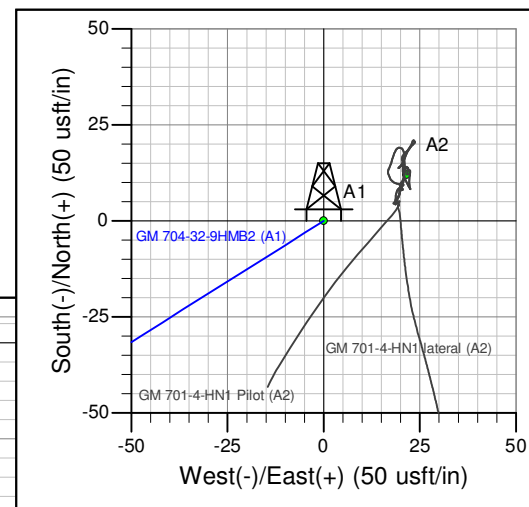
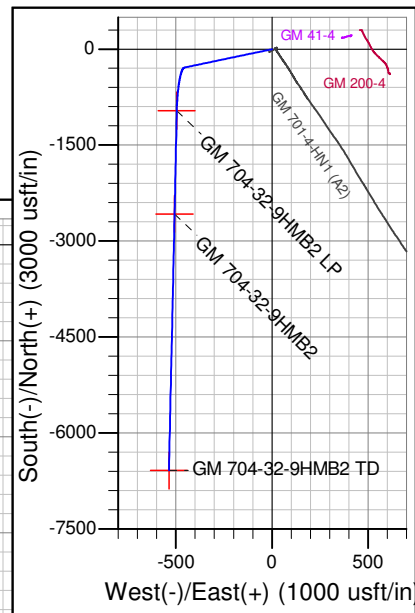
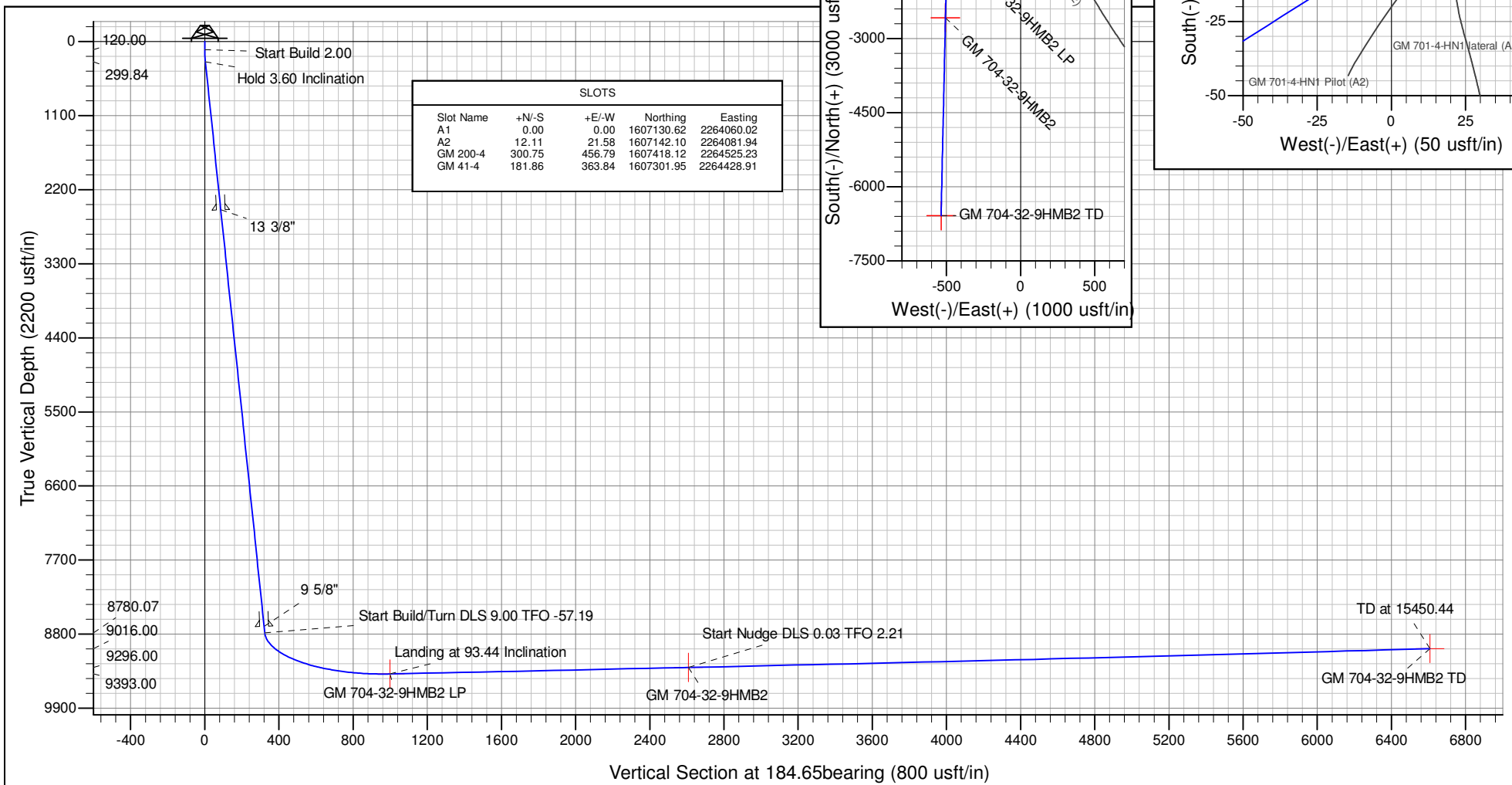
KB @ 5493.00usft (Nabors X21)



DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
GM 704-32-9HMB2 TD	9016.00	-6586.01	-535.87	1600562.98	2263335.41	39.453271	-108.109205	Point	
- plan hits target center									
GM 704-32-9HMB2	9296.00	-2576.98	-506.30	1604569.34	2263480.00	39.464277	-108.109101	Point	
- plan hits target center									
GM 704-32-9HMB2 LP	9393.00	-961.96	-495.00	1606183.30	2263537.64	39.468711	-108.109061	Point	
- plan hits target center									

Project: GV 04-07S-096W
Site: GM 41-4 Pad
Well: GM 704-32-9HMB2
Design #1 13Feb15 sam

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	
299.84	299.96	3.60	237.72	-3.02	-4.78	3.39	5.65	Hold 3.60 Inclination	
8780.07	8796.94	3.60	237.72	-287.86	-455.76	323.87	539.05	Start Build/Turn DLS 9.00 TFO -57.19	
9393.00	9813.50	93.44	180.40	-961.96	-495.00	998.94	1224.97	Landing at 93.44 Inclination	
9296.00	11431.47	93.44	180.40	-2576.98	-506.30	2609.55	2840.03	Start Nudge DLS 0.03 TFO 2.21	
9016.00	15450.44	94.55	180.44	-6586.01	-535.87	6607.78	6849.17	TD at 15450.44	



PICEANCE VLY NAD 83

GV 04-07S-096W

GM 41-4 Pad

GM 704-32-9HMB2 - Slot A1

Plan #1 13Feb15 sam

Plan: Design #1 13Feb15 sam

Standard Planning Report - Geographic

26 February, 2015

WPX

Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 704-32-9HMB2 (A1) - Slot A1
Company:	PICEANCE VLY NAD 83	TVD Reference:	KB @ 5493.00usft (Nabors X21)
Project:	GV 04-07S-096W	MD Reference:	KB @ 5493.00usft (Nabors X21)
Site:	GM 41-4 Pad	North Reference:	True
Well:	GM 704-32-9HMB2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan #1 13Feb15 sam		
Design:	Design #1 13Feb15 sam		

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 41-4 Pad			
Site Position:		Northing:	1,607,142.09 usft	Latitude:	39.471385
From:	Map	Easting:	2,264,081.94 usft	Longitude:	-108.107231
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	-1.64 °

Well	GM 704-32-9HMB2 - Slot A1					
Well Position	+N/-S	0.00 usft	Northing:	1,607,130.62 usft	Latitude:	39.471352
	+E/-W	0.00 usft	Easting:	2,264,060.02 usft	Longitude:	-108.107308
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	5,460.00 usft

Wellbore	Plan #1 13Feb15 sam				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/13/2015	9.93	65.60	51,857

Design	Design #1 13Feb15 sam			
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	184.65

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	
299.96	3.60	237.72	299.84	-3.02	-4.78	2.00	2.00	0.00	237.72	
8,796.94	3.60	237.72	8,780.07	-287.86	-455.76	0.00	0.00	0.00	0.00	
9,813.50	93.44	180.40	9,393.00	-961.96	-495.00	9.00	8.84	-5.64	-57.19	GM 704-32-9HMB2 LI
11,431.47	93.44	180.40	9,296.00	-2,576.98	-506.30	0.00	0.00	0.00	0.00	GM 704-32-9HMB2
15,450.44	94.55	180.44	9,016.00	-6,586.01	-535.87	0.03	0.03	0.00	2.21	GM 704-32-9HMB2 T

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 704-32-9HMB2 (A1) - Slot A1
Company:	PICEANCE VLY NAD 83	TVD Reference:	KB @ 5493.00usft (Nabors X21)
Project:	GV 04-07S-096W	MD Reference:	KB @ 5493.00usft (Nabors X21)
Site:	GM 41-4 Pad	North Reference:	True
Well:	GM 704-32-9HMB2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan #1 13Feb15 sam		
Design:	Design #1 13Feb15 sam		

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	1,607,130.62	2,264,060.02	39.471352	-108.107308
120.00	0.00	0.00	120.00	0.00	0.00	1,607,130.62	2,264,060.02	39.471352	-108.107308
Start Build 2.00									
299.96	3.60	237.72	299.84	-3.02	-4.78	1,607,127.74	2,264,055.16	39.471344	-108.107325
Hold 3.60 Inclination									
2,252.13	3.60	237.72	2,248.16	-68.46	-108.39	1,607,065.30	2,263,949.72	39.471164	-108.107692
Base Ft. Union									
2,504.47	3.60	237.72	2,500.00	-76.92	-121.78	1,607,057.23	2,263,936.09	39.471141	-108.107739
13 3/8"									
3,226.35	3.60	237.72	3,220.46	-101.12	-160.10	1,607,034.14	2,263,897.09	39.471074	-108.107875
Mesaverde									
5,651.45	3.60	237.72	5,640.78	-182.41	-288.81	1,606,956.57	2,263,766.11	39.470851	-108.108331
Cameo Coals									
6,234.79	3.60	237.72	6,222.97	-201.97	-319.77	1,606,937.92	2,263,734.60	39.470798	-108.108440
Rollins									
6,502.03	3.60	237.72	6,489.68	-210.93	-333.95	1,606,929.37	2,263,720.17	39.470773	-108.108491
Cozzette									
6,794.20	3.60	237.72	6,781.27	-220.72	-349.46	1,606,920.02	2,263,704.38	39.470746	-108.108545
Corcoran									
6,929.81	3.60	237.72	6,916.62	-225.27	-356.66	1,606,915.69	2,263,697.06	39.470734	-108.108571
Upper Sego									
7,273.83	3.60	237.72	7,259.96	-236.80	-374.92	1,606,904.68	2,263,678.48	39.470702	-108.108636
Lower Sego									
7,706.60	3.60	237.72	7,691.87	-251.31	-397.89	1,606,890.84	2,263,655.10	39.470662	-108.108717
Lloyd									
8,418.57	3.60	237.72	8,402.44	-275.17	-435.68	1,606,868.07	2,263,616.65	39.470597	-108.108851
Castlegate Hot GR									
8,703.69	3.60	237.72	8,687.00	-284.73	-450.81	1,606,858.95	2,263,601.25	39.470570	-108.108904
9 5/8"									
8,781.54	3.60	237.72	8,764.69	-287.34	-454.94	1,606,856.46	2,263,597.04	39.470563	-108.108919
Mancos B									
8,796.94	3.60	237.72	8,780.07	-287.86	-455.76	1,606,855.97	2,263,596.21	39.470562	-108.108922
Start Build/Turn DLS 9.00 TFO -57.19									
9,309.48	48.15	183.30	9,231.45	-498.53	-481.75	1,606,646.14	2,263,564.18	39.469983	-108.109014
Top Mancos B2									
9,813.50	93.44	180.40	9,393.00	-961.96	-495.00	1,606,183.30	2,263,537.64	39.468711	-108.109061
Landing at 93.44 Inclination - GM 704-32-9HMB2 LP									
11,431.47	93.44	180.40	9,296.00	-2,576.98	-506.30	1,604,569.34	2,263,480.00	39.464277	-108.109101
Start Nudge DLS 0.03 TFO 2.21 - GM 704-32-9HMB2									
15,450.44	94.55	180.44	9,016.00	-6,586.01	-535.87	1,600,562.98	2,263,335.41	39.453271	-108.109205
TD at 15450.44 - GM 704-32-9HMB2 TD									

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 704-32-9HMB2 (A1) - Slot A1
Company:	PICEANCE VLY NAD 83	TVD Reference:	KB @ 5493.00usft (Nabors X21)
Project:	GV 04-07S-096W	MD Reference:	KB @ 5493.00usft (Nabors X21)
Site:	GM 41-4 Pad	North Reference:	True
Well:	GM 704-32-9HMB2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan #1 13Feb15 sam		
Design:	Design #1 13Feb15 sam		

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
GM 704-32-9HMB2 TD - plan hits target center - Point	0.00	0.00	9,016.00	-6,586.01	-535.87	1,600,562.98	2,263,335.41	39.453271	-108.109205
GM 704-32-9HMB2 - plan hits target center - Point	0.00	0.00	9,296.00	-2,576.98	-506.30	1,604,569.34	2,263,480.00	39.464277	-108.109101
GM 704-32-9HMB2 LP - plan hits target center - Point	0.00	0.00	9,393.00	-961.96	-495.00	1,606,183.30	2,263,537.64	39.468711	-108.109061

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,504.47	2,500.00	13 3/8"	13.375	17.500	
8,703.69	8,687.00	9 5/8"	9.625	12.250	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,252.13	2,248.16	Base Ft. Union		4.50	45.00	
3,226.35	3,220.46	Mesaverde		4.50	45.00	
5,651.45	5,640.78	Cameo Coals		4.50	45.00	
6,234.79	6,222.97	Rollins		4.50	45.00	
6,502.03	6,489.68	Cozzette		4.50	45.00	
6,794.20	6,781.27	Corcoran		4.50	45.00	
6,929.81	6,916.62	Upper Sego		4.50	45.00	
7,273.83	7,259.96	Lower Sego		4.50	45.00	
7,706.60	7,691.87	Lloyd		4.50	45.00	
8,418.57	8,402.44	Castlegate Hot GR		4.50	45.00	
8,781.54	8,764.69	Mancos B		4.50	45.00	
9,309.48	9,231.45	Top Mancos B2		4.50	45.00	

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	
299.96	299.84	-3.02	-4.78	Hold 3.60 Inclination	
8,796.94	8,780.07	-287.86	-455.76	Start Build/Turn DLS 9.00 TFO -57.19	
9,813.50	9,393.00	-961.96	-495.00	Landing at 93.44 Inclination	
11,431.47	9,296.00	-2,576.98	-506.30	Start Nudge DLS 0.03 TFO 2.21	
15,450.44	9,016.00	-6,586.01	-535.87	TD at 15450.44	