



CARRIZO

CARRIZO OIL & GAS, INC.

Field: Niobrara CONZ'83

Site: Bringelson Ranch 34-41-9-58 Pad

Well: 3-34-9-58

Wellpath: Original Hole

Plan: Plan #3

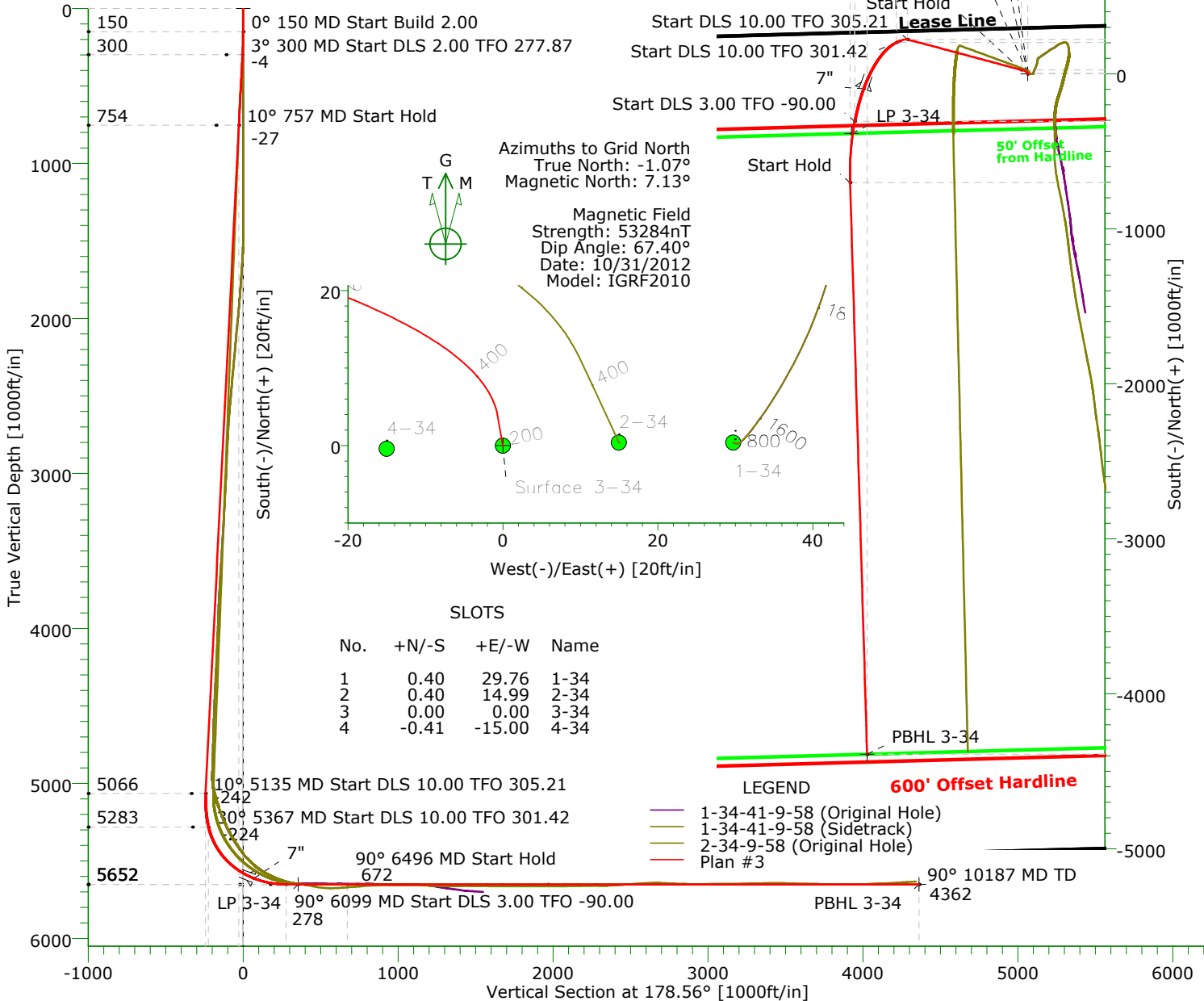


Precision

Directional Services

CASING DETAILS

No.	TVD	MD	Name	Size
1	5613.50	5877.12	7"	7.000



TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Surface 3-34	0.00	0.00	0.00	1507293.53	3458782.17	40°42'50.944N	103°50'41.957W	Point
LP 3-34	5652.00	-383.98	-1137.45	1506909.55	3457644.72	40°42'47.360N	103°50'56.819W	Point
PBHL 3-34	5652.00	-4389.70	-1036.71	1502903.83	3457745.46	40°42'07.767N	103°50'56.479W	Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	
3	300.00	3.00	350.00	299.93	3.87	-0.68	2.00	350.00	-3.88	
4	757.08	10.00	285.00	754.19	25.96	-41.18	2.00	277.87	-26.99	
5	5135.23	10.00	285.00	5065.83	222.73	-775.53	0.00	0.00	-242.15	
6	5366.88	30.00	245.00	5283.17	203.20	-848.44	10.00	305.21	-224.45	
7	6099.37	90.00	190.20	5652.00	-305.96	-1116.85	10.00	301.42	277.80	
8	6496.04	90.00	178.30	5652.00	-700.83	-1146.20	3.00	-90.00	671.80	
9	10186.53	90.00	178.30	5652.00	-4389.70	-1036.71	0.00	0.00	4362.26	PBHL 3-34

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC. Field: Niobrara CONZ'83 Site: Bringelson Ranch 34-41-9-58 Pad Well: 3-34-9-58 Wellpath: Original Hole	Date: 11/01/2012 Co-ordinate(NE) Reference: Well: 3-34-9-58, Grid North Vertical (TVD) Reference: 4736'GL+17"KB 4753.0 Section (VS) Reference: Well (0.00N,0.00E,178.56Azi) Plan: Plan #3	Time: 12:06:45 Page: 1
---	--	---

Field: Niobrara CONZ'83	
Map System: US State Plane Coordinate System 1983 Geo Datum: GRS 1980 Sys Datum: Mean Sea Level	Map Zone: Colorado, Northern Zone Coordinate System: Well Centre Geomagnetic Model: IGRF2010

Site: Bringelson Ranch 34-41-9-58 Pad	
Site Position: From: Map Position Uncertainty: 0.00 ft Ground Level: 4736.00 ft	Northing: 1507293.93 ft Easting: 3458811.93 ft Latitude: 40 42 50.942 N Longitude: 103 50 41.571 W North Reference: Grid Grid Convergence: 1.07 deg

Well: 3-34-9-58 Centered on 1-23-41-9-58 Well Position: +N/-S -0.40 ft +E/-W -29.76 ft Position Uncertainty: 0.00 ft	Slot Name: Latitude: 40 42 50.944 N Longitude: 103 50 41.957 W
---	---

Wellpath: Original Hole Current Datum: 4736'GL+17"KB Magnetic Data: 10/31/2012 Field Strength: 53284 nT Vertical Section: Depth From (TVD) ft	Height 4753.00 ft	Drilled From: Surface Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: 8.20 deg Mag Dip Angle: 67.40 deg +E/-W ft Direction deg
0.00	0.00	0.00 178.56

Plan: Plan #3 Principal: No	Date Composed: 09/28/2012 Version: 1 Tied-to: From Surface
--	---

Plan Section Information										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	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	
300.00	3.00	350.00	299.93	3.87	-0.68	2.00	2.00	0.00	350.00	
757.08	10.00	285.00	754.19	25.96	-41.18	2.00	1.53	-14.22	277.87	
5135.23	10.00	285.00	5065.83	222.73	-775.53	0.00	0.00	0.00	0.00	
5366.88	30.00	245.00	5283.17	203.20	-848.44	10.00	8.63	-17.27	305.21	
6099.37	90.00	190.20	5652.00	-305.96	-1116.85	10.00	8.19	-7.48	301.42	
6496.04	90.00	178.30	5652.00	-700.83	-1146.20	3.00	0.00	-3.00	-90.00	
10186.53	90.00	178.30	5652.00	-4389.70	-1036.71	0.00	0.00	0.00	0.00	PBHL 3-34

Survey										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
200.00	1.00	350.00	200.00	0.43	-0.08	-0.43	2.00	2.00	0.00	MWD
300.00	3.00	350.00	299.93	3.87	-0.68	-3.88	2.00	2.00	0.00	MWD
400.00	3.83	318.80	399.76	8.95	-3.33	-9.04	2.00	0.83	-31.20	MWD
500.00	5.32	301.78	499.45	13.91	-9.47	-14.14	2.00	1.49	-17.01	MWD
600.00	7.06	292.65	598.86	18.71	-19.09	-19.19	2.00	1.75	-9.14	MWD
700.00	8.92	287.20	697.89	23.37	-32.16	-24.17	2.00	1.85	-5.45	MWD
757.08	10.00	285.00	754.19	25.96	-41.18	-26.99	2.00	1.90	-3.85	MWD
800.00	10.00	285.00	796.46	27.89	-48.38	-29.10	0.00	0.00	0.00	MWD
900.00	10.00	285.00	894.94	32.39	-65.15	-34.01	0.00	0.00	0.00	MWD
1000.00	10.00	285.00	993.42	36.88	-81.92	-38.93	0.00	0.00	0.00	MWD
1100.00	10.00	285.00	1091.90	41.38	-98.70	-43.84	0.00	0.00	0.00	MWD
1200.00	10.00	285.00	1190.38	45.87	-115.47	-48.76	0.00	0.00	0.00	MWD

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Bringelson Ranch 34-41-9-58 Pad
Well: 3-34-9-58
Wellpath: Original Hole

Date: 11/01/2012
Co-ordinate(NE) Reference: Well: 3-34-9-58, Grid North
Vertical (TVD) Reference: 4736'GL+17"KB 4753.0
Section (VS) Reference: Well (0.00N,0.00E,178.56Azi)
Plan: Plan #3

Page: 2

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1300.00	10.00	285.00	1288.86	50.36	-132.24	-53.67	0.00	0.00	0.00	MWD
1400.00	10.00	285.00	1387.34	54.86	-149.02	-58.59	0.00	0.00	0.00	MWD
1500.00	10.00	285.00	1485.82	59.35	-165.79	-63.50	0.00	0.00	0.00	MWD
1600.00	10.00	285.00	1584.30	63.85	-182.56	-68.42	0.00	0.00	0.00	MWD
1700.00	10.00	285.00	1682.79	68.34	-199.34	-73.33	0.00	0.00	0.00	MWD
1800.00	10.00	285.00	1781.27	72.84	-216.11	-78.24	0.00	0.00	0.00	MWD
1900.00	10.00	285.00	1879.75	77.33	-232.88	-83.16	0.00	0.00	0.00	MWD
2000.00	10.00	285.00	1978.23	81.82	-249.65	-88.07	0.00	0.00	0.00	MWD
2100.00	10.00	285.00	2076.71	86.32	-266.43	-92.99	0.00	0.00	0.00	MWD
2200.00	10.00	285.00	2175.19	90.81	-283.20	-97.90	0.00	0.00	0.00	MWD
2300.00	10.00	285.00	2273.67	95.31	-299.97	-102.82	0.00	0.00	0.00	MWD
2400.00	10.00	285.00	2372.15	99.80	-316.75	-107.73	0.00	0.00	0.00	MWD
2500.00	10.00	285.00	2470.63	104.30	-333.52	-112.65	0.00	0.00	0.00	MWD
2600.00	10.00	285.00	2569.11	108.79	-350.29	-117.56	0.00	0.00	0.00	MWD
2700.00	10.00	285.00	2667.59	113.29	-367.07	-122.47	0.00	0.00	0.00	MWD
2800.00	10.00	285.00	2766.07	117.78	-383.84	-127.39	0.00	0.00	0.00	MWD
2900.00	10.00	285.00	2864.55	122.27	-400.61	-132.30	0.00	0.00	0.00	MWD
3000.00	10.00	285.00	2963.04	126.77	-417.39	-137.22	0.00	0.00	0.00	MWD
3100.00	10.00	285.00	3061.52	131.26	-434.16	-142.13	0.00	0.00	0.00	MWD
3200.00	10.00	285.00	3160.00	135.76	-450.93	-147.05	0.00	0.00	0.00	MWD
3300.00	10.00	285.00	3258.48	140.25	-467.71	-151.96	0.00	0.00	0.00	MWD
3400.00	10.00	285.00	3356.96	144.75	-484.48	-156.88	0.00	0.00	0.00	MWD
3500.00	10.00	285.00	3455.44	149.24	-501.25	-161.79	0.00	0.00	0.00	MWD
3600.00	10.00	285.00	3553.92	153.73	-518.02	-166.70	0.00	0.00	0.00	MWD
3700.00	10.00	285.00	3652.40	158.23	-534.80	-171.62	0.00	0.00	0.00	MWD
3800.00	10.00	285.00	3750.88	162.72	-551.57	-176.53	0.00	0.00	0.00	MWD
3900.00	10.00	285.00	3849.36	167.22	-568.34	-181.45	0.00	0.00	0.00	MWD
4000.00	10.00	285.00	3947.84	171.71	-585.12	-186.36	0.00	0.00	0.00	MWD
4100.00	10.00	285.00	4046.32	176.21	-601.89	-191.28	0.00	0.00	0.00	MWD
4200.00	10.00	285.00	4144.80	180.70	-618.66	-196.19	0.00	0.00	0.00	MWD
4300.00	10.00	285.00	4243.29	185.19	-635.44	-201.11	0.00	0.00	0.00	MWD
4400.00	10.00	285.00	4341.77	189.69	-652.21	-206.02	0.00	0.00	0.00	MWD
4500.00	10.00	285.00	4440.25	194.18	-668.98	-210.93	0.00	0.00	0.00	MWD
4600.00	10.00	285.00	4538.73	198.68	-685.76	-215.85	0.00	0.00	0.00	MWD
4700.00	10.00	285.00	4637.21	203.17	-702.53	-220.76	0.00	0.00	0.00	MWD
4800.00	10.00	285.00	4735.69	207.67	-719.30	-225.68	0.00	0.00	0.00	MWD
4900.00	10.00	285.00	4834.17	212.16	-736.08	-230.59	0.00	0.00	0.00	MWD
5000.00	10.00	285.00	4932.65	216.66	-752.85	-235.51	0.00	0.00	0.00	MWD
5100.00	10.00	285.00	5031.13	221.15	-769.62	-240.42	0.00	0.00	0.00	MWD
5135.23	10.00	285.00	5065.83	222.73	-775.53	-242.15	0.00	0.00	0.00	MWD
5150.00	10.92	278.62	5080.35	223.27	-778.15	-242.76	10.00	6.21	-43.22	MWD
5200.00	14.71	263.72	5129.11	223.29	-789.15	-243.05	10.00	7.58	-29.80	MWD
5250.00	19.06	255.14	5176.95	220.50	-803.36	-240.62	10.00	8.70	-17.16	MWD
5300.00	23.66	249.72	5223.51	214.93	-820.67	-235.48	10.00	9.20	-10.83	MWD
5350.00	28.39	246.01	5268.43	206.61	-840.95	-227.68	10.00	9.46	-7.43	MWD
5366.88	30.00	245.00	5283.17	203.20	-848.44	-224.45	10.00	9.57	-5.97	MWD
5400.00	31.84	239.64	5311.58	195.28	-863.49	-216.92	10.00	5.56	-16.19	MWD
5450.00	34.99	232.58	5353.33	179.89	-886.27	-202.11	10.00	6.30	-14.12	MWD
5500.00	38.49	226.60	5393.41	160.48	-908.97	-183.27	10.00	7.00	-11.96	MWD
5550.00	42.25	221.50	5431.50	137.18	-931.42	-160.54	10.00	7.51	-10.20	MWD
5600.00	46.20	217.10	5467.34	110.18	-953.46	-134.11	10.00	7.90	-8.79	MWD
5650.00	50.30	213.26	5500.63	79.69	-974.91	-104.16	10.00	8.20	-7.68	MWD
5700.00	54.51	209.86	5531.14	45.93	-995.60	-70.94	10.00	8.42	-6.81	MWD

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Bringelson Ranch 34-41-9-58 Pad
Well: 3-34-9-58
Wellpath: Original Hole

Date: 11/01/2012
Co-ordinate(NE) Reference: Well: 3-34-9-58, Grid North
Vertical (TVD) Reference: 4736'GL+17'KB 4753.0
Section (VS) Reference: Well (0.00N,0.00E,178.56Azi)
Plan: Plan #3

Page: 3

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
5750.00	58.81	206.80	5558.62	9.17	-1015.39	-34.68	10.00	8.60	-6.12	MWD
5800.00	63.17	204.00	5582.86	-30.33	-1034.12	4.33	10.00	8.73	-5.58	MWD
5850.00	67.59	201.42	5603.69	-72.25	-1051.65	45.80	10.00	8.83	-5.17	MWD
5877.12	70.00	200.09	5613.50	-95.89	-1060.60	69.20	10.00	8.89	-4.91	7"
5900.00	72.04	199.00	5620.95	-116.28	-1067.84	89.40	10.00	8.92	-4.77	MWD
5950.00	76.52	196.69	5634.49	-162.08	-1082.57	134.82	10.00	8.96	-4.61	MWD
6000.00	81.02	194.47	5644.23	-209.30	-1095.74	181.70	10.00	9.00	-4.44	MWD
6050.00	85.54	192.31	5650.08	-257.60	-1107.23	229.69	10.00	9.03	-4.33	MWD
6099.37	90.00	190.20	5652.00	-305.96	-1116.85	277.80	10.00	9.04	-4.28	MWD
6200.00	90.00	187.18	5652.00	-405.43	-1132.06	376.85	3.00	0.00	-3.00	MWD
6300.00	90.00	184.18	5652.00	-504.93	-1141.96	476.07	3.00	0.00	-3.00	MWD
6400.00	90.00	181.18	5652.00	-604.81	-1146.63	575.80	3.00	0.00	-3.00	MWD
6496.04	90.00	178.30	5652.00	-700.83	-1146.20	671.80	3.00	0.00	-3.00	MWD
6500.00	90.00	178.30	5652.00	-704.79	-1146.08	675.77	0.00	0.00	0.00	MWD
6600.00	90.00	178.30	5652.00	-804.75	-1143.11	775.77	0.00	0.00	0.00	MWD
6700.00	90.00	178.30	5652.00	-904.70	-1140.15	875.77	0.00	0.00	0.00	MWD
6800.00	90.00	178.30	5652.00	-1004.66	-1137.18	975.77	0.00	0.00	0.00	MWD
6900.00	90.00	178.30	5652.00	-1104.62	-1134.21	1075.76	0.00	0.00	0.00	MWD
7000.00	90.00	178.30	5652.00	-1204.57	-1131.25	1175.76	0.00	0.00	0.00	MWD
7100.00	90.00	178.30	5652.00	-1304.53	-1128.28	1275.76	0.00	0.00	0.00	MWD
7200.00	90.00	178.30	5652.00	-1404.48	-1125.31	1375.76	0.00	0.00	0.00	MWD
7300.00	90.00	178.30	5652.00	-1504.44	-1122.35	1475.76	0.00	0.00	0.00	MWD
7400.00	90.00	178.30	5652.00	-1604.40	-1119.38	1575.76	0.00	0.00	0.00	MWD
7500.00	90.00	178.30	5652.00	-1704.35	-1116.41	1675.76	0.00	0.00	0.00	MWD
7600.00	90.00	178.30	5652.00	-1804.31	-1113.45	1775.76	0.00	0.00	0.00	MWD
7700.00	90.00	178.30	5652.00	-1904.26	-1110.48	1875.76	0.00	0.00	0.00	MWD
7800.00	90.00	178.30	5652.00	-2004.22	-1107.51	1975.76	0.00	0.00	0.00	MWD
7900.00	90.00	178.30	5652.00	-2104.18	-1104.55	2075.75	0.00	0.00	0.00	MWD
8000.00	90.00	178.30	5652.00	-2204.13	-1101.58	2175.75	0.00	0.00	0.00	MWD
8100.00	90.00	178.30	5652.00	-2304.09	-1098.61	2275.75	0.00	0.00	0.00	MWD
8200.00	90.00	178.30	5652.00	-2404.04	-1095.65	2375.75	0.00	0.00	0.00	MWD
8300.00	90.00	178.30	5652.00	-2504.00	-1092.68	2475.75	0.00	0.00	0.00	MWD
8400.00	90.00	178.30	5652.00	-2603.96	-1089.71	2575.75	0.00	0.00	0.00	MWD
8500.00	90.00	178.30	5652.00	-2703.91	-1086.75	2675.75	0.00	0.00	0.00	MWD
8600.00	90.00	178.30	5652.00	-2803.87	-1083.78	2775.75	0.00	0.00	0.00	MWD
8700.00	90.00	178.30	5652.00	-2903.82	-1080.81	2875.75	0.00	0.00	0.00	MWD
8800.00	90.00	178.30	5652.00	-3003.78	-1077.85	2975.74	0.00	0.00	0.00	MWD
8900.00	90.00	178.30	5652.00	-3103.74	-1074.88	3075.74	0.00	0.00	0.00	MWD
9000.00	90.00	178.30	5652.00	-3203.69	-1071.91	3175.74	0.00	0.00	0.00	MWD
9100.00	90.00	178.30	5652.00	-3303.65	-1068.94	3275.74	0.00	0.00	0.00	MWD
9200.00	90.00	178.30	5652.00	-3403.60	-1065.98	3375.74	0.00	0.00	0.00	MWD
9300.00	90.00	178.30	5652.00	-3503.56	-1063.01	3475.74	0.00	0.00	0.00	MWD
9400.00	90.00	178.30	5652.00	-3603.52	-1060.04	3575.74	0.00	0.00	0.00	MWD
9500.00	90.00	178.30	5652.00	-3703.47	-1057.08	3675.74	0.00	0.00	0.00	MWD
9600.00	90.00	178.30	5652.00	-3803.43	-1054.11	3775.74	0.00	0.00	0.00	MWD
9700.00	90.00	178.30	5652.00	-3903.38	-1051.14	3875.74	0.00	0.00	0.00	MWD
9800.00	90.00	178.30	5652.00	-4003.34	-1048.18	3975.73	0.00	0.00	0.00	MWD
9900.00	90.00	178.30	5652.00	-4103.30	-1045.21	4075.73	0.00	0.00	0.00	MWD
10000.00	90.00	178.30	5652.00	-4203.25	-1042.24	4175.73	0.00	0.00	0.00	MWD
10100.00	90.00	178.30	5652.00	-4303.21	-1039.28	4275.73	0.00	0.00	0.00	MWD
10186.53	90.00	178.30	5652.00	-4389.70	-1036.71	4362.26	0.00	0.00	0.00	PBHL 3-34

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Bringelson Ranch 34-41-9-58 Pad
Well: 3-34-9-58
Wellpath: Original Hole

Date: 11/01/2012
Co-ordinate(NE) Reference: Well: 3-34-9-58, Grid North
Vertical (TVD) Reference: 4736'GL+17"KB 4753.0
Section (VS) Reference: Well (0.00N,0.00E,178.56Azi)
Plan: Plan #3

Page: 4

Targets

Name	Description	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ---->			<--- Longitude --->				
	Dip.							Deg	Min	Sec	Deg	Min	Sec		
Surface 3-34			0.00	0.00	0.00	1507293.53	3458782.17	40	42	50.944	N	103	50	41.957	W
LP 3-34			5652.00	-383.98	-1137.45	1506909.55	3457644.72	40	42	47.360	N	103	50	56.819	W
PBHL 3-34			5652.00	-4389.70	-1036.71	1502903.83	3457745.46	40	42	7.767	N	103	50	56.479	W

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
5877.12	5613.50	7.000	8.750	7"