



CARRIZO

CARRIZO OIL & GAS, INC.

Field: Niobrara CONZ'83
Site: Bringelson Ranch 6-34-9-58 Pad
Well: 6-34-9-58
Wellpath: Original Hole
Plan: Plan #2

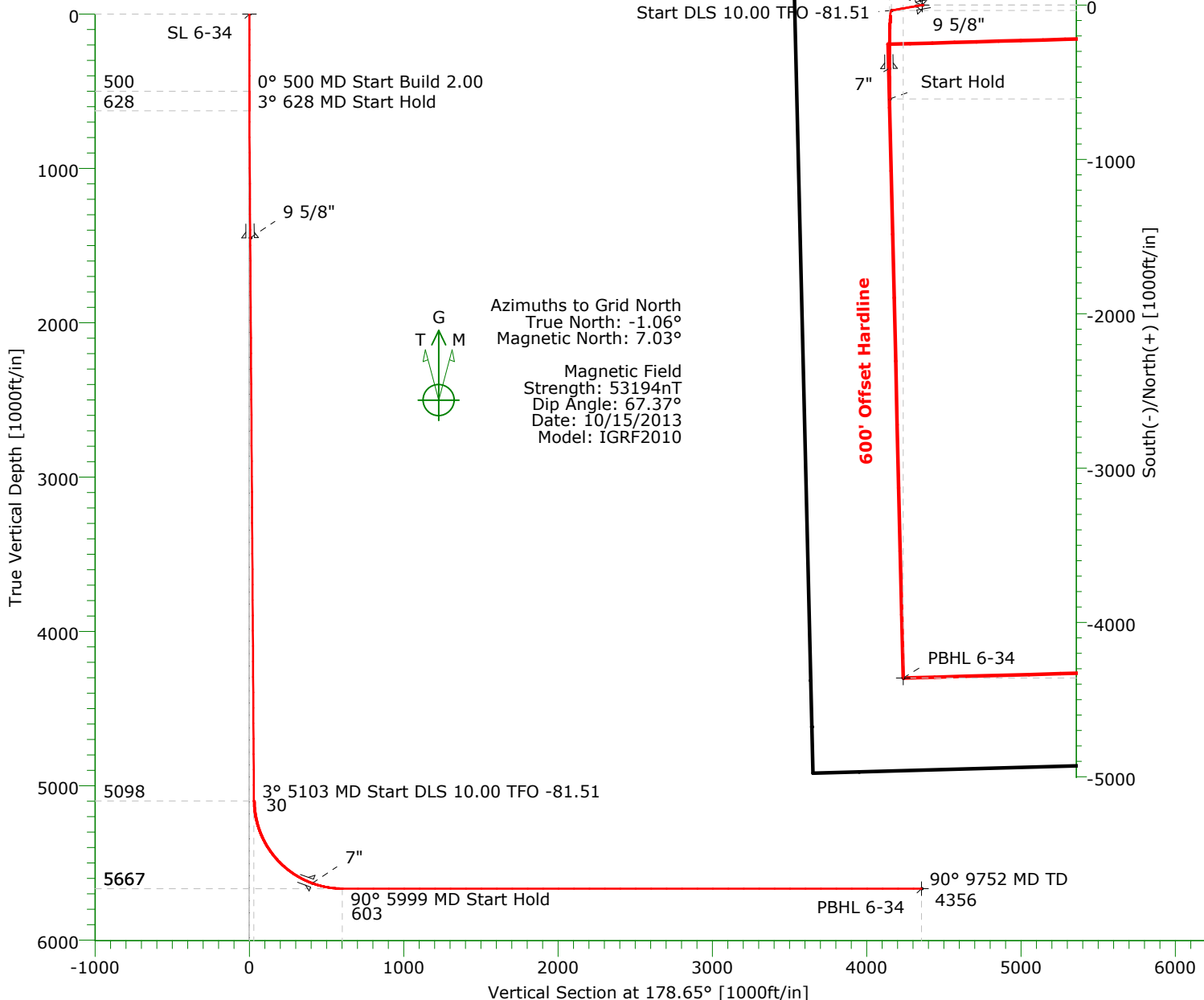


Precision

Directional Services

CASING DETAILS

No.	TVD	MD	Name	Size
1	1450.00	1450.87	9 5/8"	9.625
2	5632.41	5798.91	7"	7.000



TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SL 6-34	0.00	0.00	0.00	1507152.01	3455635.07	40°42'50.124N	103°51'22.853W	Point
PBHL 6-34	5667.00	-4360.14	-123.10	1502791.87	3455511.97	40°42'07.070N	103°51'25.500W	Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	260.16	0.00	0.00	0.00	0.00	0.00	0.00	
2	500.00	0.00	260.16	500.00	0.00	0.00	0.00	260.16	0.00	
3	628.10	2.56	260.16	628.06	-0.49	-2.82	2.00	0.00	0.42	
4	5102.90	2.56	260.16	5098.38	-34.69	-199.91	0.00	0.00	29.97	
5	5999.11	90.00	178.65	5667.00	-608.07	-211.56	10.00	-81.51	602.92	
6	9752.23	90.00	178.65	5667.00	-4360.14	-123.08	0.00	0.00	4356.03	PBHL 6-34

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC. Field: Niobrara CONZ'83 Site: Bringelson Ranch 6-34-9-58 Pad Well: 6-34-9-58 Wellpath: Original Hole	Date: 09/11/2013 Co-ordinate(NE) Reference: Well: 6-34-9-58, Grid North Vertical (TVD) Reference: GL4805+17'KB 4822.0 Section (VS) Reference: Well (0.00N,0.00E,178.65Azi) Plan: Plan #2	Time: 09:08:30 Page: 1
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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
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Site: Bringelson Ranch 6-34-9-58 Pad			
Weld County, CO			
Site Position:	Northing: 1507137.11 ft	Latitude: 40 42 49.977 N	
From: Map	Easting: 3455633.31 ft	Longitude: 103 51 22.879 W	
Position Uncertainty: 0.00 ft		North Reference: Grid	
Ground Level: 4804.90 ft		Grid Convergence: 1.06 deg	

Well: 6-34-9-58	Slot Name: 6-34
Well Position: +N/-S 14.90 ft	Latitude: 40 42 50.124 N
+E/-W 1.76 ft	Longitude: 103 51 22.853 W
Position Uncertainty: 0.00 ft	

Wellpath: Original Hole	Drilled From: Surface
Current Datum: GL4805+17'KB	Tie-on Depth: 0.00 ft
Magnetic Data: 10/15/2013	Above System Datum: Mean Sea Level
Field Strength: 53194 nT	Declination: 8.09 deg
Vertical Section: Depth From (TVD)	Mag Dip Angle: 67.37 deg
ft	+E/-W ft
0.00	0.00
0.00	178.65

Plan: Plan #2	Date Composed: 09/11/2013
Adjusted PBHL to 600' FSL	Version: 1
Principal: No	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	260.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	260.16	500.00	0.00	0.00	0.00	0.00	0.00	260.16	
628.10	2.56	260.16	628.06	-0.49	-2.82	2.00	2.00	0.00	0.00	
5102.90	2.56	260.16	5098.38	-34.69	-199.91	0.00	0.00	0.00	0.00	
5999.11	90.00	178.65	5667.00	-608.07	-211.56	10.00	9.76	-9.09	-81.51	
9752.23	90.00	178.65	5667.00	-4360.14	-123.08	0.00	0.00	0.00	0.00	PBHL 6-34

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
0.00	0.00	260.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	260.16	100.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
200.00	0.00	260.16	200.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
300.00	0.00	260.16	300.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
400.00	0.00	260.16	400.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
500.00	0.00	260.16	500.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
600.00	2.00	260.16	599.98	-0.30	-1.72	0.26	2.00	2.00	0.00	MWD
628.10	2.56	260.16	628.06	-0.49	-2.82	0.42	2.00	2.00	0.00	MWD
700.00	2.56	260.16	699.89	-1.04	-5.99	0.90	0.00	0.00	0.00	MWD
800.00	2.56	260.16	799.79	-1.80	-10.39	1.56	0.00	0.00	0.00	MWD
900.00	2.56	260.16	899.69	-2.57	-14.80	2.22	0.00	0.00	0.00	MWD
1000.00	2.56	260.16	999.59	-3.33	-19.20	2.88	0.00	0.00	0.00	MWD
1100.00	2.56	260.16	1099.49	-4.10	-23.61	3.54	0.00	0.00	0.00	MWD
1200.00	2.56	260.16	1199.39	-4.86	-28.01	4.20	0.00	0.00	0.00	MWD
1300.00	2.56	260.16	1299.29	-5.62	-32.41	4.86	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 6-34-9-58 Pad
Well: 6-34-9-58
Wellpath: Original Hole

Date: 09/11/2013
Co-ordinate(NE) Reference: Well: 6-34-9-58, Grid North
Vertical (TVD) Reference: GL4805+17"KB 4822.0
Section (VS) Reference: Well (0.00N,0.00E,178.65Azi)
Plan: Plan #2

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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
1400.00	2.56	260.16	1399.19	-6.39	-36.82	5.52	0.00	0.00	0.00	MWD
1450.87	2.56	260.16	1450.00	-6.78	-39.06	5.86	0.00	0.00	0.00	9 5/8"
1500.00	2.56	260.16	1499.09	-7.15	-41.22	6.18	0.00	0.00	0.00	MWD
1600.00	2.56	260.16	1598.99	-7.92	-45.63	6.84	0.00	0.00	0.00	MWD
1700.00	2.56	260.16	1698.89	-8.68	-50.03	7.50	0.00	0.00	0.00	MWD
1800.00	2.56	260.16	1798.79	-9.45	-54.44	8.16	0.00	0.00	0.00	MWD
1900.00	2.56	260.16	1898.69	-10.21	-58.84	8.82	0.00	0.00	0.00	MWD
2000.00	2.56	260.16	1998.59	-10.98	-63.25	9.48	0.00	0.00	0.00	MWD
2100.00	2.56	260.16	2098.49	-11.74	-67.65	10.14	0.00	0.00	0.00	MWD
2200.00	2.56	260.16	2198.39	-12.50	-72.05	10.80	0.00	0.00	0.00	MWD
2300.00	2.56	260.16	2298.29	-13.27	-76.46	11.46	0.00	0.00	0.00	MWD
2400.00	2.56	260.16	2398.19	-14.03	-80.86	12.12	0.00	0.00	0.00	MWD
2500.00	2.56	260.16	2498.09	-14.80	-85.27	12.78	0.00	0.00	0.00	MWD
2600.00	2.56	260.16	2597.99	-15.56	-89.67	13.44	0.00	0.00	0.00	MWD
2700.00	2.56	260.16	2697.89	-16.33	-94.08	14.10	0.00	0.00	0.00	MWD
2800.00	2.56	260.16	2797.79	-17.09	-98.48	14.76	0.00	0.00	0.00	MWD
2900.00	2.56	260.16	2897.69	-17.85	-102.88	15.42	0.00	0.00	0.00	MWD
3000.00	2.56	260.16	2997.59	-18.62	-107.29	16.09	0.00	0.00	0.00	MWD
3100.00	2.56	260.16	3097.49	-19.38	-111.69	16.75	0.00	0.00	0.00	MWD
3200.00	2.56	260.16	3197.39	-20.15	-116.10	17.41	0.00	0.00	0.00	MWD
3300.00	2.56	260.16	3297.29	-20.91	-120.50	18.07	0.00	0.00	0.00	MWD
3400.00	2.56	260.16	3397.19	-21.68	-124.91	18.73	0.00	0.00	0.00	MWD
3500.00	2.56	260.16	3497.09	-22.44	-129.31	19.39	0.00	0.00	0.00	MWD
3600.00	2.56	260.16	3596.99	-23.20	-133.72	20.05	0.00	0.00	0.00	MWD
3700.00	2.56	260.16	3696.89	-23.97	-138.12	20.71	0.00	0.00	0.00	MWD
3800.00	2.56	260.16	3796.79	-24.73	-142.52	21.37	0.00	0.00	0.00	MWD
3900.00	2.56	260.16	3896.69	-25.50	-146.93	22.03	0.00	0.00	0.00	MWD
4000.00	2.56	260.16	3996.59	-26.26	-151.33	22.69	0.00	0.00	0.00	MWD
4100.00	2.56	260.16	4096.49	-27.03	-155.74	23.35	0.00	0.00	0.00	MWD
4200.00	2.56	260.16	4196.39	-27.79	-160.14	24.01	0.00	0.00	0.00	MWD
4300.00	2.56	260.16	4296.29	-28.55	-164.55	24.67	0.00	0.00	0.00	MWD
4400.00	2.56	260.16	4396.19	-29.32	-168.95	25.33	0.00	0.00	0.00	MWD
4500.00	2.56	260.16	4496.09	-30.08	-173.36	25.99	0.00	0.00	0.00	MWD
4600.00	2.56	260.16	4595.99	-30.85	-177.76	26.65	0.00	0.00	0.00	MWD
4700.00	2.56	260.16	4695.89	-31.61	-182.16	27.31	0.00	0.00	0.00	MWD
4800.00	2.56	260.16	4795.79	-32.38	-186.57	27.97	0.00	0.00	0.00	MWD
4900.00	2.56	260.16	4895.69	-33.14	-190.97	28.63	0.00	0.00	0.00	MWD
5000.00	2.56	260.16	4995.59	-33.90	-195.38	29.29	0.00	0.00	0.00	MWD
5102.90	2.56	260.16	5098.38	-34.69	-199.91	29.97	0.00	0.00	0.00	MWD
5150.00	5.68	205.05	5145.37	-36.98	-201.94	32.22	10.00	6.63	-116.98	MWD
5200.00	10.40	192.60	5194.87	-43.64	-203.97	38.82	10.00	9.43	-24.90	MWD
5250.00	15.29	187.96	5243.60	-54.58	-205.87	49.71	10.00	9.79	-9.28	MWD
5300.00	20.24	185.54	5291.20	-69.73	-207.62	64.82	10.00	9.89	-4.84	MWD
5350.00	25.21	184.04	5337.31	-88.97	-209.21	84.02	10.00	9.93	-3.00	MWD
5400.00	30.19	183.01	5381.57	-112.16	-210.62	107.16	10.00	9.95	-2.06	MWD
5450.00	35.17	182.25	5423.64	-139.12	-211.85	134.09	10.00	9.97	-1.52	MWD
5500.00	40.16	181.66	5463.21	-169.64	-212.88	164.58	10.00	9.97	-1.19	MWD
5550.00	45.14	181.17	5499.97	-203.49	-213.71	198.40	10.00	9.98	-0.97	MWD
5600.00	50.14	180.77	5533.65	-240.42	-214.33	235.31	10.00	9.98	-0.81	MWD
5650.00	55.13	180.42	5563.99	-280.14	-214.73	275.01	10.00	9.98	-0.70	MWD
5700.00	60.12	180.11	5590.75	-322.36	-214.92	317.21	10.00	9.99	-0.62	MWD
5750.00	65.11	179.83	5613.74	-366.74	-214.89	361.58	10.00	9.99	-0.56	MWD
5798.91	70.00	179.57	5632.41	-411.93	-214.65	406.76	10.00	9.99	-0.52	7"
5800.00	70.11	179.57	5632.78	-412.96	-214.65	407.79	10.00	9.99	-0.50	MWD

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Bringelson Ranch 6-34-9-58 Pad
Well: 6-34-9-58
Wellpath: Original Hole

Date: 09/11/2013
Co-ordinate(NE) Reference: Well: 6-34-9-58, Grid North
Vertical (TVD) Reference: GL4805+17'KB 4822.0
Section (VS) Reference: Well (0.00N,0.00E,178.65Azi)
Plan: Plan #2

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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
5850.00	75.10	179.32	5647.72	-460.65	-214.18	455.48	10.00	9.99	-0.49	MWD
5900.00	80.10	179.09	5658.46	-509.47	-213.51	504.30	10.00	9.99	-0.46	MWD
5950.00	85.09	178.87	5664.90	-559.03	-212.62	553.86	10.00	9.99	-0.45	MWD
5999.11	90.00	178.65	5667.00	-608.07	-211.56	602.92	10.00	9.99	-0.44	MWD
6100.00	90.00	178.65	5667.00	-708.93	-209.18	703.80	0.00	0.00	0.00	MWD
6200.00	90.00	178.65	5667.00	-808.90	-206.82	803.80	0.00	0.00	0.00	MWD
6300.00	90.00	178.65	5667.00	-908.87	-204.47	903.80	0.00	0.00	0.00	MWD
6400.00	90.00	178.65	5667.00	-1008.84	-202.11	1003.80	0.00	0.00	0.00	MWD
6500.00	90.00	178.65	5667.00	-1108.82	-199.75	1103.80	0.00	0.00	0.00	MWD
6600.00	90.00	178.65	5667.00	-1208.79	-197.39	1203.80	0.00	0.00	0.00	MWD
6700.00	90.00	178.65	5667.00	-1308.76	-195.04	1303.80	0.00	0.00	0.00	MWD
6800.00	90.00	178.65	5667.00	-1408.73	-192.68	1403.80	0.00	0.00	0.00	MWD
6900.00	90.00	178.65	5667.00	-1508.71	-190.32	1503.80	0.00	0.00	0.00	MWD
7000.00	90.00	178.65	5667.00	-1608.68	-187.96	1603.80	0.00	0.00	0.00	MWD
7100.00	90.00	178.65	5667.00	-1708.65	-185.61	1703.80	0.00	0.00	0.00	MWD
7200.00	90.00	178.65	5667.00	-1808.62	-183.25	1803.80	0.00	0.00	0.00	MWD
7300.00	90.00	178.65	5667.00	-1908.59	-180.89	1903.80	0.00	0.00	0.00	MWD
7400.00	90.00	178.65	5667.00	-2008.57	-178.53	2003.80	0.00	0.00	0.00	MWD
7500.00	90.00	178.65	5667.00	-2108.54	-176.18	2103.80	0.00	0.00	0.00	MWD
7600.00	90.00	178.65	5667.00	-2208.51	-173.82	2203.80	0.00	0.00	0.00	MWD
7700.00	90.00	178.65	5667.00	-2308.48	-171.46	2303.80	0.00	0.00	0.00	MWD
7800.00	90.00	178.65	5667.00	-2408.45	-169.11	2403.80	0.00	0.00	0.00	MWD
7900.00	90.00	178.65	5667.00	-2508.43	-166.75	2503.80	0.00	0.00	0.00	MWD
8000.00	90.00	178.65	5667.00	-2608.40	-164.39	2603.80	0.00	0.00	0.00	MWD
8100.00	90.00	178.65	5667.00	-2708.37	-162.03	2703.80	0.00	0.00	0.00	MWD
8200.00	90.00	178.65	5667.00	-2808.34	-159.68	2803.80	0.00	0.00	0.00	MWD
8300.00	90.00	178.65	5667.00	-2908.32	-157.32	2903.80	0.00	0.00	0.00	MWD
8400.00	90.00	178.65	5667.00	-3008.29	-154.96	3003.80	0.00	0.00	0.00	MWD
8500.00	90.00	178.65	5667.00	-3108.26	-152.60	3103.80	0.00	0.00	0.00	MWD
8600.00	90.00	178.65	5667.00	-3208.23	-150.25	3203.80	0.00	0.00	0.00	MWD
8700.00	90.00	178.65	5667.00	-3308.20	-147.89	3303.80	0.00	0.00	0.00	MWD
8800.00	90.00	178.65	5667.00	-3408.18	-145.53	3403.80	0.00	0.00	0.00	MWD
8900.00	90.00	178.65	5667.00	-3508.15	-143.17	3503.80	0.00	0.00	0.00	MWD
9000.00	90.00	178.65	5667.00	-3608.12	-140.82	3603.80	0.00	0.00	0.00	MWD
9100.00	90.00	178.65	5667.00	-3708.09	-138.46	3703.80	0.00	0.00	0.00	MWD
9200.00	90.00	178.65	5667.00	-3808.07	-136.10	3803.80	0.00	0.00	0.00	MWD
9300.00	90.00	178.65	5667.00	-3908.04	-133.74	3903.80	0.00	0.00	0.00	MWD
9400.00	90.00	178.65	5667.00	-4008.01	-131.39	4003.80	0.00	0.00	0.00	MWD
9500.00	90.00	178.65	5667.00	-4107.98	-129.03	4103.80	0.00	0.00	0.00	MWD
9600.00	90.00	178.65	5667.00	-4207.95	-126.67	4203.80	0.00	0.00	0.00	MWD
9700.00	90.00	178.65	5667.00	-4307.93	-124.31	4303.80	0.00	0.00	0.00	MWD
9752.23	90.00	178.65	5667.00	-4360.14	-123.08	4356.03	0.00	0.00	0.00	PBHL 6-34

Targets

Name	Description	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude --->			<--- Longitude --->				
								Deg	Min	Sec	Deg	Min	Sec		
SL 6-34			0.00	0.00	0.00	1507152.01	3455635.07	40	42	50.124	N	103	51	22.853	W
PBHL 6-34			5667.00	-4360.14	-123.10	1502791.87	3455511.97	40	42	7.070	N	103	51	25.500	W

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Bringelson Ranch 6-34-9-58 Pad
Well: 6-34-9-58
Wellpath: Original Hole

Date: 09/11/2013
Co-ordinate(NE) Reference: Well: 6-34-9-58, Grid North
Vertical (TVD) Reference: GL4805+17'KB 4822.0
Section (VS) Reference: Well (0.00N,0.00E,178.65Azi)
Plan: Plan #2

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Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
1450.87	1450.00	9.625	12.250	9 5/8"
5798.91	5632.41	7.000	8.500	7"