

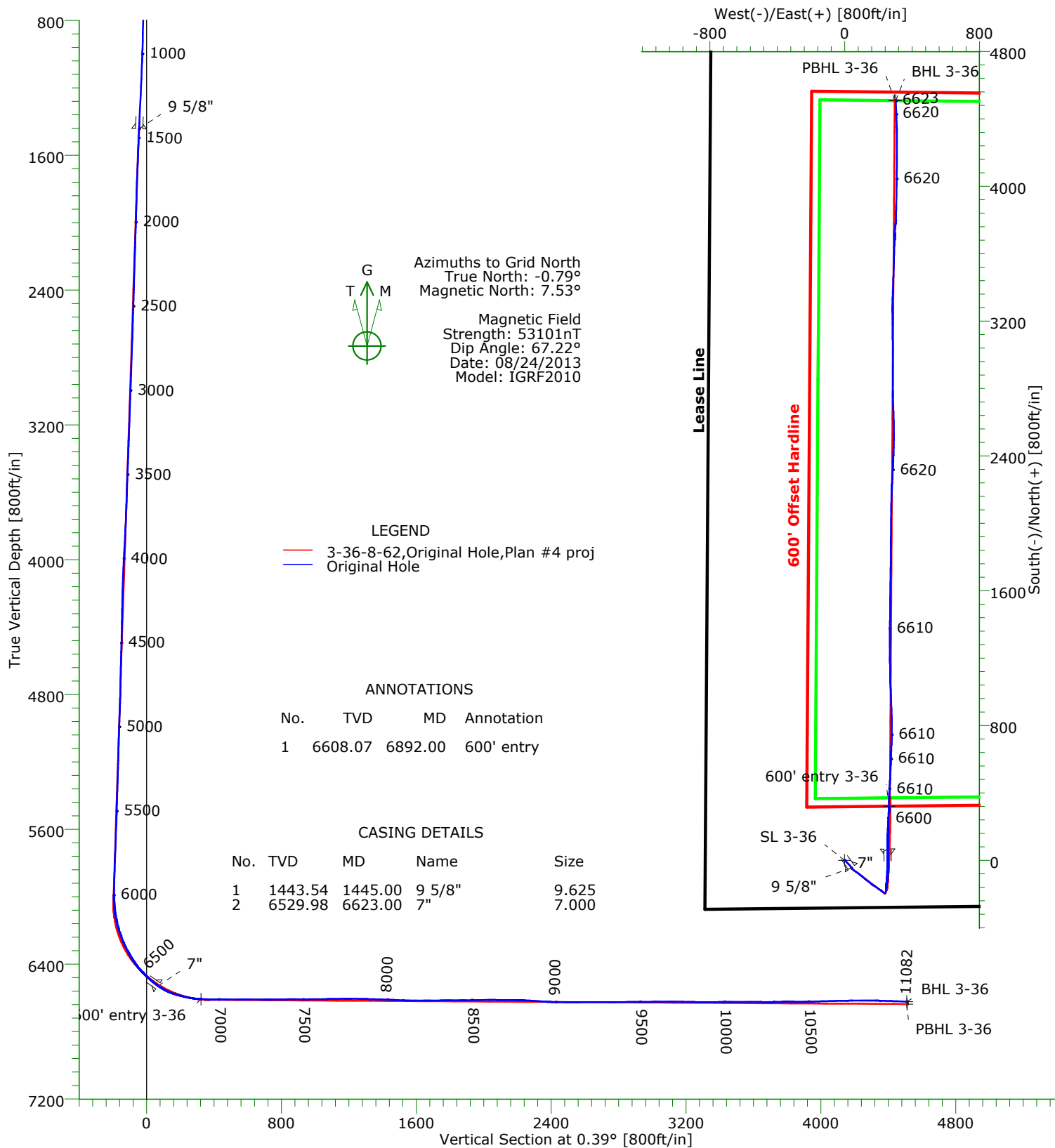


CARRIZO

CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Bob White 2-36-8-62 Pad
Well: 3-36-8-62
Wellpath: Original Hole



Precision
Directional Services



TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SL 3-36	0.00	0.00	0.00	1467811.85	3340086.34	40°36'39.907N104°16'30.290W		Point
600' entry 3-36	6608.07	320.96	262.79	1468132.81	3340349.13	40°36'43.042N104°16'26.826W		Point
BHL 3-36	6623.25	4508.35	303.49	1472320.20	3340389.83	40°37'24.410N104°16'25.547W		Point
PBHL 3-36	6637.55	4508.96	296.82	1472320.81	3340383.16	40°37'24.417N104°16'25.633W		Point

Wellpath: (3-36-8-62/Original Hole)

Created By: Shane Nelson

Date: 09/03/2013

PRECISION DIRECTIONAL SERVICES, INC.

713.435.6250

Precision Directional Services, Inc.

Survey Report

Company: CARRIZO OIL & GAS, INC. Field: Niobrara CONZ'83 Site: Bob White 2-36-8-62 Pad Well: 3-36-8-62 Wellpath: Original Hole	Date: 09/03/2013 Co-ordinate(NE) Reference: Vertical (TVD) Reference: Section (VS) Reference: Survey Calculation Method:	Time: 12:45:35 Well: 3-36-8-62, Grid North 4939'GL+17'KB 4956.0 Well (0.00N,0.00E,0.39Azi) Minimum Curvature	Page: 1 Db: Adapti
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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: Bob White 2-36-8-62 Pad			
Weld County			
Site Position:	Northing: 1467812.21 ft	Latitude: 40 36 39.912 N	
From: Map	Easting: 3340071.27 ft	Longitude: 104 16 30.485 W	
Position Uncertainty: 0.00 ft		North Reference: Grid	
Ground Level: 4939.00 ft		Grid Convergence: 0.79 deg	

Well: 3-36-8-62 offset from site 8/8/13 Well Position: +N/-S -0.36 ft +E/-W 15.07 ft Position Uncertainty: 0.00 ft	Slot Name: 3-36 Latitude: 40 36 39.907 N Longitude: 104 16 30.290 W
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Wellpath: Original Hole Current Datum: 4939'GL+17'KB Magnetic Data: 08/24/2013 Field Strength: 53101 nT Vertical Section: Depth From (TVD) ft	Height 4956.00 ft	Drilled From: Surface Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: 8.32 deg Mag Dip Angle: 67.22 deg +E/-W ft Direction deg
0.00	0.00	0.00 0.39

Survey Program for Definitive Wellpath			
Date: 09/01/2013	Validated: No	Version: 5	
Actual From ft	To ft	Survey	Toolcode Tool Name
111.00	11020.00	Survey #1 (111.00-11020.00)	MWD Std MWD
11082.00	11082.00	Survey #2 (11082.00-11082.00)	Project Projection

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIE LINE
111.00	0.40	15.30	111.00	0.37	0.10	0.37	0.36	0.36	0.00	MWD
141.00	0.40	49.00	141.00	0.54	0.21	0.54	0.77	0.00	112.33	MWD
235.00	2.80	136.80	234.96	-0.92	2.03	-0.90	2.99	2.55	93.40	MWD
326.00	2.80	133.80	325.85	-4.07	5.15	-4.04	0.16	0.00	-3.30	MWD
420.00	2.70	135.70	419.74	-7.25	8.36	-7.19	0.14	-0.11	2.02	MWD
511.00	2.70	137.10	510.64	-10.35	11.31	-10.27	0.07	0.00	1.54	MWD
602.00	2.60	140.10	601.54	-13.51	14.10	-13.41	0.19	-0.11	3.30	MWD
694.00	2.50	135.40	693.45	-16.53	16.84	-16.42	0.25	-0.11	-5.11	MWD
785.00	2.20	135.20	784.38	-19.19	19.47	-19.05	0.33	-0.33	-0.22	MWD
877.00	2.20	130.60	876.31	-21.59	22.05	-21.44	0.19	0.00	-5.00	MWD
968.00	2.30	127.40	967.24	-23.84	24.83	-23.67	0.18	0.11	-3.52	MWD
1060.00	3.10	141.20	1059.14	-26.90	27.86	-26.70	1.11	0.87	15.00	MWD
1151.00	3.10	145.00	1150.00	-30.83	30.81	-30.62	0.23	0.00	4.18	MWD
1242.00	3.20	143.10	1240.87	-34.88	33.75	-34.64	0.16	0.11	-2.09	MWD
1334.00	3.20	145.00	1332.72	-39.03	36.76	-38.78	0.12	0.00	2.07	MWD
1409.00	3.30	144.50	1407.60	-42.50	39.21	-42.24	0.14	0.13	-0.67	MWD
1458.00	3.20	146.00	1456.52	-44.79	40.80	-44.51	0.27	-0.20	3.06	MWD
1500.00	3.00	149.20	1498.46	-46.70	42.02	-46.41	0.63	-0.48	7.62	MWD
1584.00	2.70	138.00	1582.36	-50.06	44.47	-49.76	0.75	-0.36	-13.33	MWD
1669.00	3.30	135.30	1667.24	-53.29	47.53	-52.96	0.73	0.71	-3.18	MWD
1754.00	3.00	130.90	1752.11	-56.48	50.93	-56.13	0.45	-0.35	-5.18	MWD

Precision Directional Services, Inc.

Survey Report

Company: CARRIZO OIL & GAS, INC. Field: Niobrara CONZ'83 Site: Bob White 2-36-8-62 Pad Well: 3-36-8-62 Wellpath: Original Hole	Date: 09/03/2013 Time: 12:45:35 Page: 2 Co-ordinate(NE) Reference: Well: 3-36-8-62, Grid North Vertical (TVD) Reference: 4939'GL+17"KB 4956.0 Section (VS) Reference: Well (0.00N,0.00E,0.39Azi) Survey Calculation Method: Minimum Curvature Db: Adapti
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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
1839.00	2.70	125.00	1837.01	-59.09	54.25	-58.72	0.49	-0.35	-6.94	MWD
1925.00	3.10	118.40	1922.90	-61.35	57.95	-60.96	0.61	0.47	-7.67	MWD
2010.00	3.30	125.00	2007.77	-63.85	61.98	-63.43	0.49	0.24	7.76	MWD
2095.00	2.90	125.50	2092.64	-66.50	65.73	-66.05	0.47	-0.47	0.59	MWD
2180.00	3.10	122.30	2177.53	-68.98	69.43	-68.51	0.31	0.24	-3.76	MWD
2265.00	3.30	122.50	2262.39	-71.52	73.43	-71.02	0.24	0.24	0.24	MWD
2350.00	3.20	122.30	2347.26	-74.10	77.50	-73.58	0.12	-0.12	-0.24	MWD
2435.00	3.00	130.60	2432.13	-76.82	81.20	-76.27	0.58	-0.24	9.76	MWD
2520.00	2.50	135.30	2517.03	-79.59	84.19	-79.01	0.64	-0.59	5.53	MWD
2606.00	2.60	126.00	2602.95	-82.06	87.09	-81.47	0.49	0.12	-10.81	MWD
2690.00	3.30	125.30	2686.84	-84.58	90.60	-83.96	0.83	0.83	-0.83	MWD
2775.00	3.40	127.20	2771.69	-87.52	94.61	-86.87	0.18	0.12	2.24	MWD
2860.00	3.30	128.60	2856.55	-90.57	98.53	-89.90	0.15	-0.12	1.65	MWD
2946.00	3.20	130.60	2942.41	-93.68	102.28	-92.98	0.18	-0.12	2.33	MWD
3031.00	3.20	133.60	3027.28	-96.86	105.80	-96.13	0.20	0.00	3.53	MWD
3116.00	3.00	128.60	3112.15	-99.88	109.26	-99.13	0.40	-0.24	-5.88	MWD
3201.00	3.30	126.50	3197.02	-102.72	112.96	-101.95	0.38	0.35	-2.47	MWD
3286.00	2.80	131.50	3281.90	-105.55	116.48	-104.76	0.67	-0.59	5.88	MWD
3371.00	3.60	132.90	3366.77	-108.75	119.99	-107.93	0.95	0.94	1.65	MWD
3456.00	3.30	133.90	3451.62	-112.26	123.71	-111.41	0.36	-0.35	1.18	MWD
3541.00	2.70	131.30	3536.50	-115.28	126.98	-114.41	0.72	-0.71	-3.06	MWD
3627.00	3.40	125.00	3622.38	-118.08	130.59	-117.18	0.90	0.81	-7.33	MWD
3712.00	4.10	124.40	3707.19	-121.24	135.16	-120.32	0.82	0.82	-0.71	MWD
3797.00	4.30	126.70	3791.97	-124.86	140.22	-123.90	0.31	0.24	2.71	MWD
3881.00	4.80	126.90	3875.70	-128.85	145.56	-127.86	0.60	0.60	0.24	MWD
3966.00	4.50	130.00	3960.42	-133.13	150.96	-132.10	0.46	-0.35	3.65	MWD
4050.00	3.90	136.60	4044.20	-137.32	155.44	-136.26	0.92	-0.71	7.86	MWD
4135.00	3.10	131.80	4129.04	-140.96	159.14	-139.87	1.00	-0.94	-5.65	MWD
4220.00	2.50	124.60	4213.94	-143.54	162.38	-142.43	0.82	-0.71	-8.47	MWD
4305.00	1.60	127.80	4298.88	-145.32	164.85	-144.20	1.07	-1.06	3.76	MWD
4391.00	2.30	118.40	4384.83	-146.88	167.31	-145.74	0.89	0.81	-10.93	MWD
4476.00	2.60	121.40	4469.75	-148.69	170.46	-147.53	0.38	0.35	3.53	MWD
4561.00	3.40	119.50	4554.63	-150.94	174.30	-149.75	0.95	0.94	-2.24	MWD
4646.00	2.90	119.90	4639.51	-153.25	178.36	-152.03	0.59	-0.59	0.47	MWD
4731.00	2.50	116.50	4724.41	-155.15	181.88	-153.91	0.51	-0.47	-4.00	MWD
4817.00	2.70	127.90	4810.32	-157.23	185.16	-155.97	0.64	0.23	13.26	MWD
4902.00	3.30	127.40	4895.21	-159.95	188.68	-158.66	0.71	0.71	-0.59	MWD
4987.00	3.00	129.30	4980.08	-162.84	192.34	-161.53	0.37	-0.35	2.24	MWD
5071.00	2.70	131.10	5063.97	-165.54	195.54	-164.20	0.37	-0.36	2.14	MWD
5156.00	3.00	119.90	5148.87	-167.96	198.97	-166.60	0.74	0.35	-13.18	MWD
5242.00	3.30	118.60	5234.74	-170.27	203.10	-168.88	0.36	0.35	-1.51	MWD
5326.00	4.00	120.00	5318.57	-172.89	207.76	-171.47	0.84	0.83	1.67	MWD
5412.00	3.30	122.30	5404.39	-175.71	212.45	-174.26	0.83	-0.81	2.67	MWD
5497.00	2.70	123.20	5489.28	-178.12	216.19	-176.64	0.71	-0.71	1.06	MWD
5582.00	3.10	134.10	5574.17	-180.81	219.52	-179.31	0.80	0.47	12.82	MWD
5667.00	3.30	132.70	5659.04	-184.07	222.97	-182.55	0.25	0.24	-1.65	MWD
5752.00	3.40	126.00	5743.89	-187.21	226.80	-185.66	0.48	0.12	-7.88	MWD
5837.00	3.80	121.60	5828.72	-190.17	231.24	-188.59	0.57	0.47	-5.18	MWD
5922.00	3.30	121.80	5913.56	-192.93	235.72	-191.32	0.59	-0.59	0.24	MWD
5956.00	3.20	121.80	5947.51	-193.95	237.36	-192.33	0.29	-0.29	0.00	MWD
5959.00	3.10	122.70	5950.50	-194.04	237.50	-192.42	3.72	-3.33	30.00	MWD
6002.00	2.40	117.40	5993.45	-195.08	239.27	-193.45	1.73	-1.63	-12.33	MWD
6045.00	3.40	39.20	6036.41	-194.51	240.88	-192.86	8.69	2.33	-181.86	MWD

Precision Directional Services, Inc.

Survey Report

Company: CARRIZO OIL & GAS, INC.	Date: 09/03/2013	Time: 12:45:35	Page: 3
Field: Niobrara CONZ'83	Co-ordinate(NE) Reference: Well: 3-36-8-62, Grid North		
Site: Bob White 2-36-8-62 Pad	Vertical (TVD) Reference: 4939'GL+17"KB 4956.0		
Well: 3-36-8-62	Section (VS) Reference: Well (0.00N,0.00E,0.39Azi)		
Wellpath: Original Hole	Survey Calculation Method: Minimum Curvature		Db: Adapti

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
6087.00	7.20	20.70	6078.23	-191.08	242.60	-189.42	9.81	9.05	-44.05	MWD
6130.00	10.60	11.60	6120.70	-184.68	244.35	-183.01	8.53	7.91	-21.16	MWD
6172.00	14.50	2.30	6161.70	-175.64	245.33	-173.96	10.43	9.29	-22.14	MWD
6215.00	18.10	2.10	6202.96	-163.58	245.80	-161.90	8.37	8.37	-0.47	MWD
6257.00	21.20	5.60	6242.51	-149.50	246.78	-147.81	7.89	7.38	8.33	MWD
6300.00	24.20	7.50	6282.18	-133.02	248.69	-131.32	7.18	6.98	4.42	MWD
6342.00	26.90	4.70	6320.07	-115.01	250.59	-113.30	7.04	6.43	-6.67	MWD
6385.00	30.80	3.10	6357.72	-94.31	251.98	-92.60	9.25	9.07	-3.72	MWD
6427.00	35.10	1.90	6392.96	-71.50	252.96	-69.77	10.35	10.24	-2.86	MWD
6470.00	39.80	1.70	6427.09	-45.37	253.78	-43.64	10.93	10.93	-0.47	MWD
6513.00	44.60	3.00	6458.93	-16.52	254.98	-14.79	11.35	11.16	3.02	MWD
6555.00	48.70	0.00	6487.76	14.00	255.75	15.74	11.06	9.76	-7.14	MWD
6582.00	50.70	358.60	6505.22	34.58	255.50	36.32	8.40	7.41	-5.19	MWD
6639.00	56.70	0.00	6538.96	80.50	254.96	82.23	10.71	10.53	2.46	MWD
6681.00	63.90	0.90	6559.75	116.95	255.26	118.69	17.24	17.14	2.14	MWD
6724.00	71.60	1.20	6576.02	156.71	255.99	158.45	17.92	17.91	0.70	MWD
6766.00	75.40	2.80	6587.95	196.95	257.40	198.70	9.76	9.05	3.81	MWD
6809.00	78.30	2.60	6597.73	238.77	259.37	240.53	6.76	6.74	-0.47	MWD
6851.00	82.70	2.60	6604.66	280.14	261.25	281.92	10.48	10.48	0.00	MWD
6892.00	87.75	1.74	6608.07	320.96	262.79	322.74	12.50	12.33	-2.09	600' entry
6894.00	88.00	1.70	6608.14	322.96	262.85	324.74	12.50	12.33	-2.08	MWD
6936.00	88.30	1.40	6609.50	364.92	263.99	366.71	1.01	0.71	-0.71	MWD
6979.00	90.00	3.00	6610.14	407.88	265.64	409.68	5.43	3.95	3.72	MWD
7022.00	90.90	3.50	6609.80	450.81	268.08	452.62	2.39	2.09	1.16	MWD
7064.00	90.00	2.40	6609.47	492.75	270.24	494.58	3.38	-2.14	-2.62	MWD
7107.00	90.00	2.80	6609.47	535.71	272.19	537.55	0.93	0.00	0.93	MWD
7149.00	89.30	2.40	6609.73	577.66	274.09	579.51	1.92	-1.67	-0.95	MWD
7192.00	89.40	1.00	6610.21	620.64	275.37	622.50	3.26	0.23	-3.26	MWD
7235.00	89.40	2.40	6610.67	663.62	276.65	665.49	3.26	0.00	3.26	MWD
7277.00	90.90	2.30	6610.56	705.58	278.37	707.46	3.58	3.57	-0.24	MWD
7320.00	90.70	0.30	6609.95	748.56	279.34	750.45	4.67	-0.47	-4.65	MWD
7362.00	90.40	0.00	6609.55	790.56	279.45	792.44	1.01	-0.71	-0.71	MWD
7405.00	90.20	359.10	6609.33	833.56	279.12	835.44	2.14	-0.47	-2.09	MWD
7448.00	89.80	358.60	6609.33	876.55	278.25	878.42	1.49	-0.93	-1.16	MWD
7490.00	89.80	358.00	6609.47	918.53	277.01	920.40	1.43	0.00	-1.43	MWD
7532.00	90.70	358.00	6609.29	960.50	275.54	962.36	2.14	2.14	0.00	MWD
7575.00	90.60	357.70	6608.80	1003.47	273.93	1005.31	0.74	-0.23	-0.70	MWD
7618.00	90.60	357.00	6608.35	1046.42	271.94	1048.25	1.63	0.00	-1.63	MWD
7660.00	91.40	358.70	6607.62	1088.38	270.36	1090.20	4.47	1.90	4.05	MWD
7703.00	90.70	359.60	6606.83	1131.37	269.73	1133.18	2.65	-1.63	2.09	MWD
7745.00	90.90	358.90	6606.24	1173.36	269.18	1175.17	1.73	0.48	-1.67	MWD
7787.00	89.30	359.80	6606.17	1215.36	268.70	1217.16	4.37	-3.81	2.14	MWD
7830.00	89.10	359.40	6606.77	1258.35	268.40	1260.15	1.04	-0.47	-0.93	MWD
7873.00	88.50	0.50	6607.67	1301.34	268.36	1303.14	2.91	-1.40	2.56	MWD
7915.00	88.00	359.60	6608.95	1343.32	268.40	1345.12	2.45	-1.19	-2.14	MWD
7958.00	88.40	1.20	6610.31	1386.30	268.70	1388.10	3.83	0.93	3.72	MWD
8000.00	88.00	0.90	6611.62	1428.27	269.47	1430.07	1.19	-0.95	-0.71	MWD
8043.00	87.20	0.00	6613.43	1471.23	269.81	1473.03	2.80	-1.86	-2.09	MWD
8085.00	87.50	359.80	6615.37	1513.19	269.73	1514.99	0.86	0.71	-0.48	MWD
8128.00	89.10	0.90	6616.64	1556.17	270.00	1557.97	4.51	3.72	2.56	MWD
8171.00	89.80	0.90	6617.06	1599.16	270.67	1600.96	1.63	1.63	0.00	MWD
8213.00	89.80	1.20	6617.20	1641.15	271.44	1642.96	0.71	0.00	0.71	MWD
8256.00	91.10	1.20	6616.86	1684.14	272.34	1685.95	3.02	3.02	0.00	MWD
8298.00	90.90	1.00	6616.13	1726.12	273.15	1727.94	0.67	-0.48	-0.48	MWD

Precision Directional Services, Inc.

Survey Report

Company: CARRIZO OIL & GAS, INC. Field: Niobrara CONZ'83 Site: Bob White 2-36-8-62 Pad Well: 3-36-8-62 Wellpath: Original Hole	Date: 09/03/2013 Time: 12:45:35 Co-ordinate(NE) Reference: Well: 3-36-8-62, Grid North Vertical (TVD) Reference: 4939'GL+17"KB 4956.0 Section (VS) Reference: Well (0.00N,0.00E,0.39Azi) Survey Calculation Method: Minimum Curvature Db: Adapti
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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
8341.00	90.60	0.70	6615.57	1769.12	273.79	1770.94	0.99	-0.70	-0.70	MWD
8383.00	90.10	0.10	6615.31	1811.11	274.08	1812.94	1.86	-1.19	-1.43	MWD
8426.00	89.90	0.00	6615.31	1854.11	274.12	1855.94	0.52	-0.47	-0.23	MWD
8468.00	90.90	0.70	6615.02	1896.11	274.37	1897.94	2.91	2.38	1.67	MWD
8511.00	90.90	0.50	6614.34	1939.10	274.82	1940.93	0.47	0.00	-0.47	MWD
8553.00	90.70	0.70	6613.76	1981.10	275.26	1982.93	0.67	-0.48	0.48	MWD
8596.00	90.70	0.50	6613.23	2024.09	275.71	2025.92	0.47	0.00	-0.47	MWD
8638.00	89.20	0.50	6613.27	2066.09	276.08	2067.92	3.57	-3.57	0.00	MWD
8681.00	89.40	1.40	6613.79	2109.08	276.79	2110.91	2.14	0.47	2.09	MWD
8724.00	89.60	1.70	6614.17	2152.06	277.96	2153.90	0.84	0.47	0.70	MWD
8766.00	89.90	2.40	6614.35	2194.03	279.46	2195.89	1.81	0.71	1.67	MWD
8809.00	87.40	3.10	6615.37	2236.97	281.52	2238.83	6.04	-5.81	1.63	MWD
8851.00	86.60	3.00	6617.56	2278.85	283.75	2280.73	1.92	-1.90	-0.24	MWD
8894.00	86.10	3.10	6620.30	2321.70	286.03	2323.60	1.19	-1.16	0.23	MWD
8936.00	85.60	2.30	6623.34	2363.55	288.01	2365.45	2.24	-1.19	-1.90	MWD
8978.00	88.50	1.90	6625.50	2405.46	289.54	2407.37	6.97	6.90	-0.95	MWD
9021.00	89.30	1.20	6626.33	2448.43	290.71	2450.36	2.47	1.86	-1.63	MWD
9063.00	88.90	0.90	6626.99	2490.42	291.48	2492.35	1.19	-0.95	-0.71	MWD
9105.00	90.40	359.80	6627.24	2532.42	291.73	2534.35	4.43	3.57	-2.62	MWD
9147.00	91.20	359.30	6626.66	2574.41	291.40	2576.34	2.25	1.90	-1.19	MWD
9190.00	90.70	358.70	6625.94	2617.40	290.65	2619.32	1.82	-1.16	-1.40	MWD
9232.00	90.10	358.40	6625.65	2659.38	289.59	2661.29	1.60	-1.43	-0.71	MWD
9275.00	89.60	358.00	6625.76	2702.36	288.24	2704.26	1.49	-1.16	-0.93	MWD
9317.00	89.60	357.70	6626.06	2744.33	286.66	2746.22	0.71	0.00	-0.71	MWD
9360.00	90.60	0.10	6625.98	2787.32	285.84	2789.20	6.05	2.33	5.58	MWD
9403.00	90.80	0.10	6625.46	2830.32	285.91	2832.20	0.47	0.47	0.00	MWD
9445.00	90.60	0.50	6624.94	2872.31	286.13	2874.19	1.06	-0.48	0.95	MWD
9488.00	90.10	0.10	6624.68	2915.31	286.36	2917.19	1.49	-1.16	-0.93	MWD
9530.00	90.60	359.80	6624.42	2957.31	286.32	2959.19	1.39	1.19	-0.71	MWD
9573.00	90.70	359.60	6623.94	3000.31	286.10	3002.19	0.52	0.23	-0.47	MWD
9616.00	90.20	359.40	6623.60	3043.30	285.72	3045.18	1.25	-1.16	-0.47	MWD
9658.00	90.00	359.60	6623.52	3085.30	285.36	3087.17	0.67	-0.48	0.48	MWD
9701.00	89.70	359.30	6623.64	3128.30	284.94	3130.17	0.99	-0.70	-0.70	MWD
9743.00	89.50	359.40	6623.93	3170.30	284.47	3172.16	0.53	-0.48	0.24	MWD
9786.00	89.10	359.80	6624.46	3213.29	284.17	3215.15	1.32	-0.93	0.93	MWD
9829.00	88.50	359.60	6625.36	3256.28	283.94	3258.14	1.47	-1.40	-0.47	MWD
9871.00	89.90	1.00	6625.94	3298.28	284.16	3300.13	4.71	3.33	3.33	MWD
9914.00	90.40	1.60	6625.83	3341.26	285.14	3343.13	1.82	1.16	1.40	MWD
9956.00	90.70	2.10	6625.43	3383.24	286.49	3385.11	1.39	0.71	1.19	MWD
9999.00	90.60	2.30	6624.94	3426.21	288.14	3428.09	0.52	-0.23	0.47	MWD
10041.00	90.20	1.70	6624.65	3468.18	289.61	3470.07	1.72	-0.95	-1.43	MWD
10084.00	90.00	1.70	6624.57	3511.16	290.88	3513.06	0.47	-0.47	0.00	MWD
10126.00	89.90	1.70	6624.61	3553.14	292.13	3555.05	0.24	-0.24	0.00	MWD
10168.00	89.50	1.60	6624.83	3595.12	293.34	3597.04	0.98	-0.95	-0.24	MWD
10211.00	89.40	1.40	6625.24	3638.11	294.47	3640.03	0.52	-0.23	-0.47	MWD
10254.00	89.70	0.30	6625.58	3681.10	295.10	3683.02	2.65	0.70	-2.56	MWD
10296.00	91.40	5.10	6625.17	3723.04	297.08	3724.97	12.12	4.05	11.43	MWD
10339.00	91.20	5.40	6624.20	3765.85	301.01	3767.81	0.84	-0.47	0.70	MWD
10381.00	90.00	2.30	6623.76	3807.74	303.83	3809.72	7.91	-2.86	-7.38	MWD
10424.00	89.10	1.40	6624.10	3850.72	305.22	3852.71	2.96	-2.09	-2.09	MWD
10466.00	90.20	0.90	6624.35	3892.71	306.06	3894.70	2.88	2.62	-1.19	MWD
10509.00	92.10	0.90	6623.49	3935.69	306.74	3937.69	4.42	4.42	0.00	MWD
10551.00	91.90	1.20	6622.02	3977.66	307.51	3979.66	0.86	-0.48	0.71	MWD

Precision Directional Services, Inc.

Survey Report

Company: CARRIZO OIL & GAS, INC. Field: Niobrara CONZ'83 Site: Bob White 2-36-8-62 Pad Well: 3-36-8-62 Wellpath: Original Hole	Date: 09/03/2013 Time: 12:45:35 Page: 5 Co-ordinate(NE) Reference: Well: 3-36-8-62, Grid North Vertical (TVD) Reference: 4939'GL+17'KB 4956.0 Section (VS) Reference: Well (0.00N,0.00E,0.39Azi) Survey Calculation Method: Minimum Curvature Db: Adapti
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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
10594.00	91.70	0.70	6620.67	4020.63	308.22	4022.64	1.25	-0.47	-1.16	MWD
10636.00	91.60	0.90	6619.46	4062.61	308.81	4064.62	0.53	-0.24	0.48	MWD
10679.00	91.30	0.70	6618.38	4105.59	309.41	4107.60	0.84	-0.70	-0.47	MWD
10722.00	90.90	0.90	6617.55	4148.58	310.01	4150.59	1.04	-0.93	0.47	MWD
10764.00	90.30	0.30	6617.11	4190.58	310.45	4192.59	2.02	-1.43	-1.43	MWD
10807.00	90.30	0.10	6616.89	4233.57	310.60	4235.59	0.47	0.00	-0.47	MWD
10849.00	90.00	359.60	6616.78	4275.57	310.49	4277.59	1.39	-0.71	-1.19	MWD
10892.00	89.50	359.10	6616.96	4318.57	310.00	4320.58	1.64	-1.16	-1.16	MWD
10935.00	88.20	357.90	6617.83	4361.55	308.88	4363.55	4.11	-3.02	-2.79	MWD
10977.00	88.10	357.70	6619.18	4403.49	307.26	4405.48	0.53	-0.24	-0.48	MWD
11020.00	87.70	358.00	6620.76	4446.43	305.65	4448.41	1.16	-0.93	0.70	MWD
11082.00	87.70	358.00	6623.25	4508.35	303.49	4510.31	0.00	0.00	0.00	Project

Annotation

MD ft	TVD ft	
6892.00	6608.07	600' entry