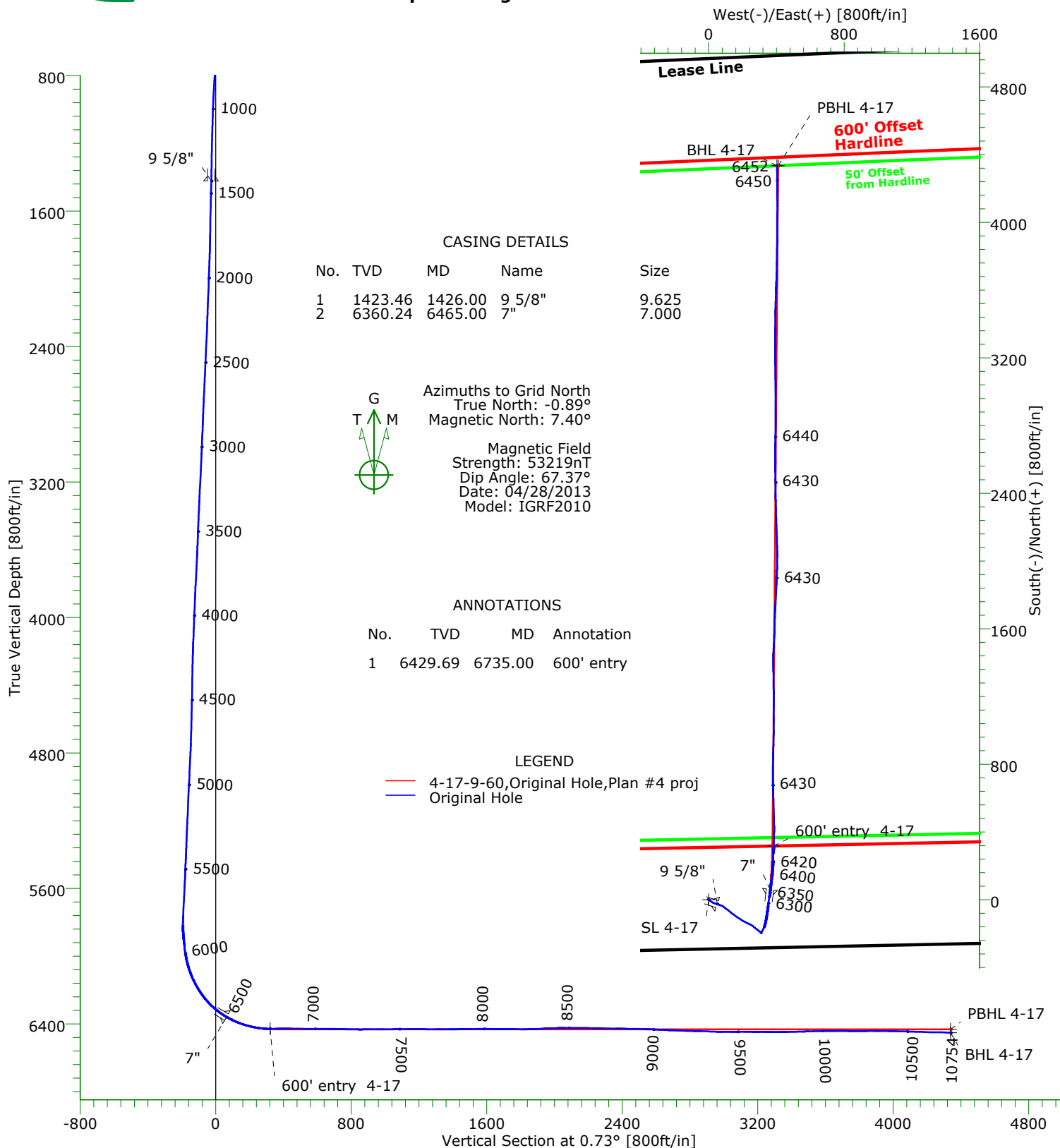




CARRIZO OIL & GAS, INC.

Field: Niobrara CONZ'83
Site: Nelson 2-17-9-60 Pad
Well: 4-17-9-60
Wellpath: Original Hole



CASING DETAILS				
No.	TVD	MD	Name	Size
1	1423.46	1426.00	9 5/8"	9.625
2	6360.24	6465.00	7"	7.000

Azimuths to Grid North
True North: -0.89°
Magnetic North: 7.40°

Magnetic Field
Strength: 53219nT
Dip Angle: 67.37°
Date: 04/28/2013
Model: IGRF2010

ANNOTATIONS			
No.	TVD	MD	Annotation
1	6429.69	6735.00	600' entry

LEGEND

4-17-9-60, Original Hole, Plan #4 proj

Original Hole

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SL 4-17	0.00	0.00	0.00	1516491.03	3382040.99	40°44'34.783N104°07'16.547W		Point
600' entry 4-17	6429.00	317.00	383.01	1516808.03	3382424.00	40°44'37.856N104°07'11.508W		Point
PBHL 4-17	6432.00	4334.52	410.25	1520825.55	3382451.24	40°45'17.545N104°07'10.342W		Point
BHL 4-17	6452.07	4334.00	402.38	1520825.03	3382443.37	40°45'17.541N104°07'10.444W		Point

Wellpath: (4-17-9-60/Original Hole)

Created By: Shane Nelson Date: 05/14/2013

PRECISION DIRECTIONAL SERVICES, INC.

713.435.6250

Precision Directional Services, Inc.

Survey Report

Company: CARRIZO OIL & GAS, INC.		Date: 05/14/2013		Time: 13:56:25		Page: 1	
Field: Niobrara CONZ'83		Co-ordinate(NE) Reference: Well: 4-17-9-60, Grid North					
Site: Nelson 2-17-9-60 Pad		Vertical (TVD) Reference: 4991'GL+17"KB 4508.0					
Well: 4-17-9-60		Section (VS) Reference: Well (0.00N,0.00E,0.73Azi)					
Wellpath: Original Hole		Survey Calculation Method: Minimum Curvature		Db: Sybase			

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

Site: Nelson 2-17-9-60 Pad			
Weld County, CO			
Site Position:	Northing: 1516469.00 ft	Latitude: 40 44 34.562 N	
From: Map	Easting: 3382061.35 ft	Longitude: 104 7 16.287 W	
Position Uncertainty: 0.00 ft		North Reference: Grid	
Ground Level: 4991.00 ft		Grid Convergence: 0.89 deg	

Well: 4-17-9-60 centered on 2-17		Slot Name: 4-17	
Well Position: +N/-S 22.03 ft	Northing: 1516491.03 ft	Latitude: 40 44 34.783 N	
+E/-W -20.36 ft	Easting : 3382040.99 ft	Longitude: 104 7 16.547 W	
Position Uncertainty: 0.00 ft			

Wellpath: Original Hole		Drilled From: Surface	
Current Datum: 4991'GL+17"KB		Tie-on Depth: 0.00 ft	
Magnetic Data: 04/28/2013		Above System Datum: Mean Sea Level	
Field Strength: 53219 nT		Declination: 8.29 deg	
Vertical Section: Depth From (TVD)		Mag Dip Angle: 67.37 deg	
ft	+N/-S ft	+E/-W ft	Direction deg
0.00	0.00	0.00	0.73

Survey Program for Definitive Wellpath			
Date: 05/14/2013		Validated: No	
Actual From ft		Version: 1	
To ft		Toolcode	
Survey		Tool Name	
112.00	10696.00	Survey #1 (112.00-10696.00)	MWD
10754.00	10754.00	Survey #2 (10754.00-10754.00)	Std MWD 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
112.00	0.80	289.70	112.00	0.26	-0.74	0.25	0.71	0.71	0.00	MWD
142.00	0.70	299.10	141.99	0.42	-1.09	0.41	0.53	-0.33	31.33	MWD
234.00	0.70	308.60	233.99	1.05	-2.02	1.02	0.13	0.00	10.33	MWD
326.00	0.70	297.50	325.98	1.66	-2.96	1.62	0.15	0.00	-12.07	MWD
418.00	0.60	301.50	417.97	2.17	-3.87	2.12	0.12	-0.11	4.35	MWD
510.00	0.50	286.10	509.97	2.53	-4.67	2.47	0.19	-0.11	-16.74	MWD
602.00	0.60	137.90	601.97	2.29	-4.73	2.22	1.15	0.11	-161.09	MWD
694.00	4.00	122.40	693.88	0.21	-1.70	0.19	3.72	3.70	-16.85	MWD
786.00	5.70	125.60	785.55	-4.17	4.73	-4.11	1.87	1.85	3.48	MWD
878.00	6.00	126.60	877.07	-9.70	12.30	-9.54	0.34	0.33	1.09	MWD
970.00	4.80	120.80	968.66	-14.54	19.47	-14.29	1.43	-1.30	-6.30	MWD
1062.00	4.50	114.50	1060.36	-18.00	26.06	-17.67	0.64	-0.33	-6.85	MWD
1154.00	4.10	109.70	1152.10	-20.61	32.44	-20.19	0.58	-0.43	-5.22	MWD
1246.00	4.00	107.10	1243.87	-22.66	38.60	-22.17	0.23	-0.11	-2.83	MWD
1338.00	3.80	104.50	1335.66	-24.37	44.62	-23.80	0.29	-0.22	-2.83	MWD
1365.00	3.80	106.10	1362.60	-24.84	46.35	-24.25	0.39	0.00	5.93	MWD
1448.00	4.00	109.00	1445.40	-26.54	51.73	-25.88	0.34	0.24	3.49	MWD
1490.00	3.90	111.30	1487.30	-27.54	54.44	-26.84	0.45	-0.24	5.48	MWD
1575.00	4.10	110.80	1572.10	-29.67	59.98	-28.90	0.24	0.24	-0.59	MWD
1661.00	4.10	105.40	1657.88	-31.58	65.82	-30.74	0.45	0.00	-6.28	MWD
1746.00	3.90	103.90	1742.67	-33.08	71.55	-32.17	0.27	-0.24	-1.76	MWD

Precision Directional Services, Inc.

Survey Report

Company: CARRIZO OIL & GAS, INC. Field: Niobrara CONZ'83 Site: Nelson 2-17-9-60 Pad Well: 4-17-9-60 Wellpath: Original Hole	Date: 05/14/2013 Time: 13:56:25 Page: 2 Co-ordinate(NE) Reference: Well: 4-17-9-60, Grid North Vertical (TVD) Reference: 4991'GL+17"KB 4508.0 Section (VS) Reference: Well (0.00N,0.00E,0.73Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
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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
1777.00	4.20	105.90	1773.59	-33.64	73.67	-32.70	1.07	0.97	6.45	MWD
1863.00	3.80	123.60	1859.39	-36.08	79.07	-35.07	1.50	-0.47	20.58	MWD
1948.00	3.20	124.90	1944.23	-39.00	83.36	-37.93	0.71	-0.71	1.53	MWD
2033.00	3.80	127.90	2029.07	-42.09	87.53	-40.97	0.74	0.71	3.53	MWD
2118.00	3.70	126.40	2113.89	-45.44	91.96	-44.27	0.16	-0.12	-1.76	MWD
2203.00	3.30	127.10	2198.73	-48.55	96.12	-47.32	0.47	-0.47	0.82	MWD
2288.00	4.00	127.70	2283.56	-51.84	100.42	-50.55	0.82	0.82	0.71	MWD
2374.00	4.20	126.40	2369.34	-55.54	105.32	-54.19	0.26	0.23	-1.51	MWD
2459.00	4.40	126.40	2454.10	-59.32	110.45	-57.91	0.24	0.24	0.00	MWD
2544.00	4.40	128.40	2538.85	-63.28	115.63	-61.80	0.18	0.00	2.35	MWD
2629.00	4.00	129.80	2623.62	-67.21	120.47	-65.66	0.49	-0.47	1.65	MWD
2714.00	3.90	130.10	2708.42	-70.96	124.95	-69.37	0.12	-0.12	0.35	MWD
2799.00	3.70	133.50	2793.23	-74.71	129.16	-73.06	0.35	-0.24	4.00	MWD
2884.00	4.30	123.10	2878.02	-78.34	133.81	-76.63	1.10	0.71	-12.24	MWD
2970.00	3.90	127.30	2963.80	-81.88	138.84	-80.10	0.58	-0.47	4.88	MWD
3054.00	4.80	123.60	3047.56	-85.55	144.04	-83.71	1.12	1.07	-4.40	MWD
3139.00	4.70	126.80	3132.27	-89.61	149.79	-87.69	0.33	-0.12	3.76	MWD
3225.00	4.50	128.70	3217.99	-93.83	155.25	-91.84	0.29	-0.23	2.21	MWD
3310.00	4.10	129.10	3302.75	-97.83	160.21	-95.78	0.47	-0.47	0.47	MWD
3395.00	4.70	124.30	3387.50	-101.71	165.44	-99.59	0.83	0.71	-5.65	MWD
3481.00	4.40	120.50	3473.23	-105.37	171.19	-103.18	0.49	-0.35	-4.42	MWD
3565.00	3.90	118.40	3557.01	-108.36	176.48	-106.10	0.62	-0.60	-2.50	MWD
3650.00	5.00	124.70	3641.75	-111.84	182.07	-109.51	1.41	1.29	7.41	MWD
3735.00	5.50	122.90	3726.40	-116.17	188.54	-113.75	0.62	0.59	-2.12	MWD
3819.00	5.60	123.60	3810.00	-120.62	195.33	-118.12	0.14	0.12	0.83	MWD
3904.00	4.90	121.00	3894.64	-124.78	201.90	-122.20	0.87	-0.82	-3.06	MWD
3989.00	4.80	119.10	3979.34	-128.38	208.12	-125.72	0.22	-0.12	-2.24	MWD
4074.00	4.70	116.40	4064.05	-131.66	214.34	-128.92	0.29	-0.12	-3.18	MWD
4160.00	4.90	119.20	4149.75	-135.02	220.71	-132.20	0.36	0.23	3.26	MWD
4245.00	3.30	118.90	4234.53	-137.97	226.02	-135.08	1.88	-1.88	-0.35	MWD
4330.00	3.00	108.20	4319.40	-139.85	230.27	-136.91	0.77	-0.35	-12.59	MWD
4416.00	2.90	106.20	4405.29	-141.16	234.50	-138.16	0.17	-0.12	-2.33	MWD
4501.00	2.90	120.60	4490.18	-142.86	238.41	-139.81	0.85	0.00	16.94	MWD
4586.00	3.30	114.10	4575.05	-144.95	242.50	-141.85	0.63	0.47	-7.65	MWD
4671.00	3.80	113.40	4659.89	-147.07	247.32	-143.90	0.59	0.59	-0.82	MWD
4756.00	3.90	118.20	4744.70	-149.55	252.45	-146.32	0.40	0.12	5.65	MWD
4840.00	4.30	127.00	4828.48	-152.80	257.48	-149.50	0.89	0.48	10.48	MWD
4925.00	4.40	130.30	4913.24	-156.82	262.51	-153.47	0.32	0.12	3.88	MWD
5010.00	4.10	132.20	4998.01	-160.97	267.25	-157.55	0.39	-0.35	2.24	MWD
5095.00	4.00	128.60	5082.79	-164.86	271.82	-161.39	0.32	-0.12	-4.24	MWD
5180.00	4.00	132.20	5167.59	-168.70	276.33	-165.17	0.30	0.00	4.24	MWD
5265.00	4.20	127.10	5252.37	-172.57	281.01	-168.98	0.49	0.24	-6.00	MWD
5351.00	3.40	128.60	5338.18	-176.06	285.52	-172.41	0.94	-0.93	1.74	MWD
5436.00	4.50	125.90	5422.98	-179.59	290.19	-175.88	1.31	1.29	-3.18	MWD
5521.00	3.40	128.40	5507.77	-183.11	294.86	-179.34	1.31	-1.29	2.94	MWD
5607.00	4.30	134.20	5593.58	-186.94	299.17	-183.12	1.14	1.05	6.74	MWD
5692.00	4.10	132.20	5678.35	-191.21	303.71	-187.32	0.29	-0.24	-2.35	MWD
5776.00	4.20	134.40	5762.13	-195.38	308.13	-191.44	0.22	0.12	2.62	MWD
5834.00	2.70	125.60	5820.02	-197.66	310.76	-193.68	2.74	-2.59	-15.17	MWD
5877.00	3.40	16.60	5862.99	-197.03	311.95	-193.04	11.59	1.63	-253.49	MWD
5919.00	8.10	1.60	5904.77	-192.87	312.39	-188.88	11.65	11.19	-35.71	MWD
5962.00	7.00	28.50	5947.41	-187.54	313.72	-183.53	8.52	-2.56	62.56	MWD
6004.00	9.10	32.20	5988.99	-182.48	316.71	-178.43	5.15	5.00	8.81	MWD

Precision Directional Services, Inc.

Survey Report

Company: CARRIZO OIL & GAS, INC.	Date: 05/14/2013	Time: 13:56:25	Page: 3
Field: Niobrara CONZ'83	Co-ordinate(NE) Reference: Well: 4-17-9-60, Grid North		
Site: Nelson 2-17-9-60 Pad	Vertical (TVD) Reference: 4991'GL+17'KB 4508.0		
Well: 4-17-9-60	Section (VS) Reference: Well (0.00N,0.00E,0.73Azi)		
Wellpath: Original Hole	Survey Calculation Method: Minimum Curvature	Db: Sybase	

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
6047.00	14.10	25.20	6031.10	-174.86	320.76	-170.76	12.06	11.63	-16.28	MWD
6090.00	18.60	19.90	6072.35	-163.66	325.33	-159.51	11.01	10.47	-12.33	MWD
6132.00	23.00	16.10	6111.61	-149.47	329.88	-145.26	10.95	10.48	-9.05	MWD
6175.00	27.10	12.40	6150.56	-131.83	334.32	-127.56	10.20	9.53	-8.60	MWD
6217.00	30.40	9.90	6187.38	-112.01	338.20	-107.69	8.36	7.86	-5.95	MWD
6259.00	35.10	8.70	6222.69	-89.59	341.86	-85.23	11.30	11.19	-2.86	MWD
6302.00	40.40	8.50	6256.68	-63.57	345.79	-59.16	12.33	12.33	-0.47	MWD
6344.00	45.60	8.00	6287.39	-35.23	349.89	-30.77	12.41	12.38	-1.19	MWD
6387.00	50.60	8.00	6316.09	-3.55	354.34	0.96	11.63	11.63	0.00	MWD
6409.00	53.50	8.00	6329.62	13.63	356.76	18.17	13.18	13.18	0.00	MWD
6448.00	58.20	7.40	6351.51	45.60	361.08	50.20	12.12	12.05	-1.54	MWD
6479.00	61.40	7.10	6367.10	72.18	364.46	76.82	10.36	10.32	-0.97	MWD
6521.00	66.50	6.60	6385.54	109.63	368.95	114.32	12.19	12.14	-1.19	MWD
6564.00	71.20	6.40	6401.05	149.46	373.49	154.21	10.94	10.93	-0.47	MWD
6606.00	76.00	4.60	6412.91	189.56	377.34	194.35	12.15	11.43	-4.29	MWD
6649.00	80.20	2.00	6421.77	231.55	379.76	236.37	11.42	9.77	-6.05	MWD
6692.00	84.00	2.00	6427.68	274.11	381.24	278.94	8.84	8.84	0.00	MWD
6734.00	90.50	2.70	6429.69	316.00	382.96	320.86	15.57	15.48	1.67	MWD
6735.00	90.52	2.70	6429.69	317.00	383.01	321.86	1.69	1.63	-0.47	600' entry
6777.00	91.20	2.50	6429.06	358.95	384.91	363.83	1.69	1.63	-0.47	MWD
6820.00	90.70	0.60	6428.34	401.93	386.08	406.82	4.57	-1.16	-4.42	MWD
6862.00	89.30	359.00	6428.34	443.93	385.93	448.81	5.06	-3.33	-3.81	MWD
6904.00	89.30	358.50	6428.86	485.91	385.01	490.78	1.19	0.00	-1.19	MWD
6947.00	89.20	358.50	6429.42	528.89	383.89	533.74	0.23	-0.23	0.00	MWD
6989.00	90.00	358.50	6429.71	570.88	382.79	575.71	1.90	1.90	0.00	MWD
7032.00	90.00	358.10	6429.71	613.86	381.51	618.67	0.93	0.00	-0.93	MWD
7075.00	89.70	357.60	6429.83	656.83	379.90	661.62	1.36	-0.70	-1.16	MWD
7117.00	88.80	359.50	6430.38	698.81	378.84	703.58	5.01	-2.14	4.52	MWD
7160.00	88.50	0.20	6431.39	741.80	378.72	746.56	1.77	-0.70	1.63	MWD
7203.00	88.70	1.10	6432.44	784.78	379.21	789.55	2.14	0.47	2.09	MWD
7245.00	89.20	1.10	6433.21	826.77	380.02	831.54	1.19	1.19	0.00	MWD
7288.00	90.70	1.80	6433.25	869.75	381.11	874.54	3.85	3.49	1.63	MWD
7331.00	90.50	1.10	6432.80	912.73	382.19	917.53	1.69	-0.47	-1.63	MWD
7373.00	90.20	1.10	6432.54	954.73	383.00	959.53	0.71	-0.71	0.00	MWD
7415.00	90.40	0.60	6432.32	996.72	383.62	1001.53	1.28	0.48	-1.19	MWD
7458.00	90.40	0.60	6432.02	1039.72	384.07	1044.53	0.00	0.00	0.00	MWD
7500.00	90.20	0.10	6431.80	1081.72	384.33	1086.52	1.28	-0.48	-1.19	MWD
7543.00	90.20	0.10	6431.65	1124.72	384.40	1129.52	0.00	0.00	0.00	MWD
7585.00	90.00	359.50	6431.58	1166.72	384.26	1171.52	1.51	-0.48	-1.43	MWD
7627.00	89.50	359.40	6431.76	1208.71	383.85	1213.51	1.21	-1.19	-0.24	MWD
7669.00	89.00	358.80	6432.31	1250.70	383.20	1255.48	1.86	-1.19	-1.43	MWD
7711.00	89.00	359.40	6433.04	1292.69	382.54	1297.46	1.43	0.00	1.43	MWD
7754.00	90.50	359.40	6433.23	1335.69	382.09	1340.45	3.49	3.49	0.00	MWD
7796.00	90.70	358.70	6432.79	1377.68	381.39	1382.43	1.73	0.48	-1.67	MWD
7839.00	91.20	0.60	6432.08	1420.67	381.13	1425.41	4.57	1.16	4.42	MWD
7881.00	90.70	2.30	6431.38	1462.65	382.19	1467.40	4.22	-1.19	4.05	MWD
7924.00	90.90	3.00	6430.78	1505.60	384.18	1510.37	1.69	0.47	1.63	MWD
7967.00	90.80	3.00	6430.14	1548.54	386.43	1553.33	0.23	-0.23	0.00	MWD
8010.00	89.00	1.60	6430.22	1591.50	388.15	1596.31	5.30	-4.19	-3.26	MWD
8052.00	88.80	1.10	6431.02	1633.48	389.14	1638.30	1.28	-0.48	-1.19	MWD
8095.00	89.60	2.70	6431.62	1676.45	390.57	1681.29	4.16	1.86	3.72	MWD
8138.00	90.10	3.40	6431.74	1719.39	392.86	1724.25	2.00	1.16	1.63	MWD
8180.00	89.60	2.50	6431.85	1761.33	395.02	1766.22	2.45	-1.19	-2.14	MWD
8223.00	89.70	2.30	6432.11	1804.29	396.82	1809.20	0.52	0.23	-0.47	MWD

Precision Directional Services, Inc.

Survey Report

Company: CARRIZO OIL & GAS, INC. Field: Niobrara CONZ'83 Site: Nelson 2-17-9-60 Pad Well: 4-17-9-60 Wellpath: Original Hole	Date: 05/14/2013 Co-ordinate(NE) Reference: Vertical (TVD) Reference: Section (VS) Reference: Survey Calculation Method:	Time: 13:56:25 Well: 4-17-9-60, Grid North 4991'GL+17"KB 4508.0 Well (0.00N,0.00E,0.73Azi) Minimum Curvature	Page: 4 Db: Sybase
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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
8266.00	90.80	3.00	6431.92	1847.25	398.81	1852.18	3.03	2.56	1.63	MWD
8308.00	92.90	2.70	6430.57	1889.17	400.89	1894.12	5.05	5.00	-0.71	MWD
8351.00	93.10	2.20	6428.31	1932.07	402.73	1937.04	1.25	0.47	-1.16	MWD
8393.00	92.00	0.60	6426.45	1974.01	403.75	1979.00	4.62	-2.62	-3.81	MWD
8436.00	92.20	0.40	6424.87	2016.98	404.13	2021.97	0.66	0.47	-0.47	MWD
8478.00	89.70	359.00	6424.17	2058.97	403.91	2063.95	6.82	-5.95	-3.33	MWD
8521.00	89.60	358.80	6424.44	2101.96	403.08	2106.93	0.52	-0.23	-0.47	MWD
8563.00	89.50	358.30	6424.77	2143.95	402.02	2148.90	1.21	-0.24	-1.19	MWD
8606.00	89.30	357.90	6425.22	2186.92	400.59	2191.85	1.04	-0.47	-0.93	MWD
8648.00	89.00	357.60	6425.84	2228.89	398.95	2233.79	1.01	-0.71	-0.71	MWD
8690.00	88.80	358.80	6426.65	2270.86	397.63	2275.74	2.90	-0.48	2.86	MWD
8733.00	88.90	358.70	6427.51	2313.84	396.69	2318.70	0.33	0.23	-0.23	MWD
8775.00	88.90	358.10	6428.32	2355.81	395.52	2360.66	1.43	0.00	-1.43	MWD
8818.00	89.30	359.90	6428.99	2398.80	394.77	2403.64	4.29	0.93	4.19	MWD
8859.00	89.10	359.40	6429.56	2439.80	394.52	2444.62	1.31	-0.49	-1.22	MWD
8903.00	88.50	358.70	6430.49	2483.78	393.79	2488.59	2.10	-1.36	-1.59	MWD
8945.00	88.50	358.70	6431.58	2525.75	392.83	2530.55	0.00	0.00	0.00	MWD
8988.00	87.70	0.40	6433.01	2568.73	392.50	2573.52	4.37	-1.86	3.95	MWD
9030.00	87.40	359.90	6434.81	2610.69	392.61	2615.48	1.39	-0.71	-1.19	MWD
9073.00	87.30	359.50	6436.79	2653.64	392.38	2658.43	0.96	-0.23	-0.93	MWD
9115.00	87.80	0.90	6438.59	2695.60	392.53	2700.38	3.54	1.19	3.33	MWD
9153.00	87.90	1.10	6440.01	2733.57	393.19	2738.36	0.59	0.26	0.53	MWD
9196.00	88.10	1.10	6441.52	2776.54	394.02	2781.33	0.47	0.47	0.00	MWD
9238.00	88.50	0.80	6442.76	2818.51	394.71	2823.31	1.19	0.95	-0.71	MWD
9281.00	88.30	0.40	6443.96	2861.49	395.16	2866.29	1.04	-0.47	-0.93	MWD
9323.00	88.30	359.90	6445.21	2903.47	395.27	2908.27	1.19	0.00	-1.19	MWD
9366.00	88.20	359.70	6446.52	2946.45	395.12	2951.25	0.52	-0.23	-0.47	MWD
9409.00	89.40	359.70	6447.42	2989.44	394.90	2994.23	2.79	2.79	0.00	MWD
9451.00	89.50	359.20	6447.83	3031.44	394.49	3036.22	1.21	0.24	-1.19	MWD
9494.00	90.70	359.40	6447.75	3074.43	393.97	3079.20	2.83	2.79	0.47	MWD
9536.00	90.70	359.00	6447.24	3116.43	393.38	3121.19	0.95	0.00	-0.95	MWD
9578.00	90.30	358.80	6446.87	3158.42	392.58	3163.16	1.06	-0.95	-0.48	MWD
9621.00	89.20	0.10	6447.06	3201.41	392.16	3206.15	3.96	-2.56	3.02	MWD
9663.00	88.50	359.50	6447.90	3243.40	392.02	3248.14	2.19	-1.67	-1.43	MWD
9706.00	89.90	0.60	6448.50	3286.40	392.05	3291.13	4.14	3.26	2.56	MWD
9748.00	89.60	359.70	6448.68	3328.40	392.16	3333.12	2.26	-0.71	-2.14	MWD
9791.00	91.60	1.10	6448.23	3371.39	392.46	3376.12	5.68	4.65	3.26	MWD
9833.00	91.50	0.80	6447.10	3413.37	393.16	3418.10	0.75	-0.24	-0.71	MWD
9875.00	91.60	0.40	6445.96	3455.35	393.60	3460.09	0.98	0.24	-0.95	MWD
9918.00	91.70	1.80	6444.72	3498.32	394.42	3503.07	3.26	0.23	3.26	MWD
9961.00	91.60	1.60	6443.49	3541.29	395.70	3546.04	0.52	-0.23	-0.47	MWD
10003.00	91.70	1.50	6442.28	3583.25	396.83	3588.02	0.34	0.24	-0.24	MWD
10046.00	90.40	2.50	6441.49	3626.22	398.34	3631.00	3.81	-3.02	2.33	MWD
10089.00	89.30	1.50	6441.60	3669.19	399.84	3673.99	3.46	-2.56	-2.33	MWD
10131.00	88.70	1.30	6442.33	3711.17	400.86	3715.98	1.51	-1.43	-0.48	MWD
10174.00	89.90	1.30	6442.86	3754.16	401.84	3758.97	2.79	2.79	0.00	MWD
10216.00	90.10	0.80	6442.86	3796.15	402.61	3800.97	1.28	0.48	-1.19	MWD
10259.00	90.40	0.40	6442.67	3839.15	403.06	3843.97	1.16	0.70	-0.93	MWD
10301.00	90.70	0.40	6442.27	3881.15	403.35	3885.97	0.71	0.71	0.00	MWD
10343.00	89.30	0.60	6442.27	3923.14	403.72	3927.97	3.37	-3.33	0.48	MWD
10386.00	89.30	0.40	6442.79	3966.14	404.09	3970.96	0.47	0.00	-0.47	MWD
10429.00	88.70	0.40	6443.54	4009.13	404.39	4013.96	1.40	-1.40	0.00	MWD
10471.00	88.40	0.20	6444.61	4051.12	404.61	4055.94	0.86	-0.71	-0.48	MWD

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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
10514.00	88.50	0.10	6445.77	4094.10	404.72	4098.92	0.33	0.23	-0.23	MWD
10556.00	88.20	359.70	6446.98	4136.08	404.65	4140.90	1.19	-0.71	-0.95	MWD
10599.00	88.50	359.70	6448.22	4179.06	404.43	4183.88	0.70	0.70	0.00	MWD
10642.00	88.50	359.40	6449.34	4222.05	404.09	4226.85	0.70	0.00	-0.70	MWD
10684.00	88.70	359.20	6450.37	4264.03	403.58	4268.83	0.67	0.48	-0.48	MWD
10696.00	88.60	359.00	6450.65	4276.03	403.39	4280.82	1.86	-0.83	-1.67	MWD
10754.00	88.60	359.00	6452.07	4334.00	402.38	4338.78	0.00	0.00	0.00	PROJECTED to TD

Annotation

MD ft	TVD ft	
6735.00	6429.69	600' entry