

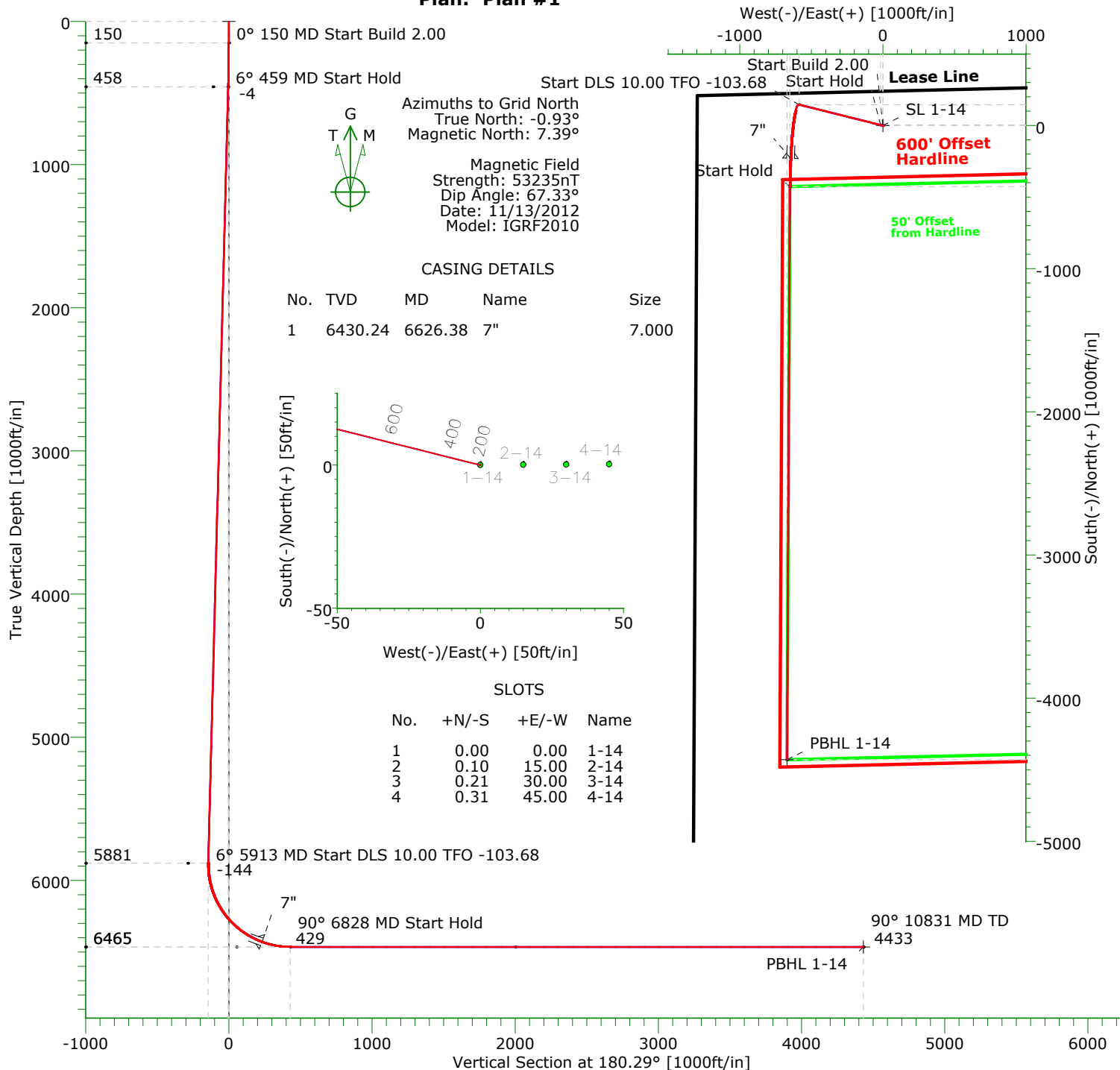


CARRIZO OIL & GAS, INC.

Field: Niobrara CONZ'83
Site: Schneider 1-14-8-60 Pad
Well: 1-14-8-60
Wellpath: Original Hole
Plan: Plan #1



Precision
Directional Services



Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SL 1-14	0.00	0.00	0.00	1489828.00	3398701.77	40°40'08.739N	104°03'45.740W	Point
PBHL 1-14	6465.00	-4429.53	-669.73	1485398.47	3398032.04	40°39'25.082N	104°03'55.360W	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	458.89	6.18	284.05	458.29	4.04	-16.14	2.00	0.00	-3.96	
4	5912.87	6.18	284.05	5880.60	146.48	-585.52	0.00	0.00	-143.51	
5	6827.54	90.00	180.29	6465.00	-425.98	-649.81	10.00	-103.68	429.26	VP 1-14
6	10831.14	90.00	180.29	6465.00	-4429.53	-669.73	0.00	0.00	4432.86	PBHL 1-14

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC. Field: Niobrara CONZ'83 Site: Schneider 1-14-8-60 Pad Well: 1-14-8-60 Wellpath: Original Hole	Date: 11/14/2012 Co-ordinate(NE) Reference: Vertical (TVD) Reference: Section (VS) Reference: Plan:	Time: 07:17:26 Well: 1-14-8-60, Grid North 4945'GL+17'KB 4962.0 Well (0.00N,0.00E,180.29Azi) Plan #1	Page: 1
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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: Schneider 1-14-8-60 Pad			
Weld County, CO			
Site Position:	Northing: 1489828.00 ft	Latitude: 40 40 8.739 N	
From: Map	Easting: 3398701.77 ft	Longitude: 104 3 45.740 W	
Position Uncertainty: 0.00 ft		North Reference: Grid	
Ground Level: 4945.00 ft		Grid Convergence: 0.93 deg	

Well: 1-14-8-60		Slot Name:	
Well Position: +N/-S 0.00 ft	Northing: 1489828.00 ft	Latitude: 40 40 8.739 N	
+E/-W 0.00 ft	Easting : 3398701.77 ft	Longitude: 104 3 45.740 W	
Position Uncertainty: 0.00 ft			

Wellpath: Original Hole		Drilled From: Surface	
Current Datum: 4945'GL+17'KB	Height 4962.00 ft	Tie-on Depth: 0.00 ft	
Magnetic Data: 11/13/2012		Above System Datum: Mean Sea Level	
Field Strength: 53235 nT		Declination: 8.31 deg	
Vertical Section: Depth From (TVD)	+N/-S	Mag Dip Angle: 67.33 deg	
ft	ft	+E/-W	Direction
		ft	deg
0.00	0.00	0.00	180.29

Plan: Plan #1		Date Composed: 11/13/2012	
Principal: No		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	
458.89	6.18	284.05	458.29	4.04	-16.14	2.00	2.00	0.00	0.00	
5912.87	6.18	284.05	5880.60	146.48	-585.52	0.00	0.00	0.00	0.00	
6827.54	90.00	180.29	6465.00	-425.98	-649.81	10.00	9.16	-11.34	-103.68	
10831.14	90.00	180.29	6465.00	-4429.53	-669.73	0.00	0.00	0.00	0.00	PBHL 1-14

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	
200.00	1.00	284.05	200.00	0.11	-0.42	-0.10	2.00	2.00	0.00	
300.00	3.00	284.05	299.93	0.95	-3.81	-0.93	2.00	2.00	0.00	
400.00	5.00	284.05	399.68	2.65	-10.58	-2.59	2.00	2.00	0.00	
458.89	6.18	284.05	458.29	4.04	-16.14	-3.96	2.00	2.00	0.00	
500.00	6.18	284.05	499.16	5.11	-20.43	-5.01	0.00	0.00	0.00	
600.00	6.18	284.05	598.58	7.72	-30.87	-7.57	0.00	0.00	0.00	
700.00	6.18	284.05	698.00	10.33	-41.31	-10.13	0.00	0.00	0.00	
800.00	6.18	284.05	797.42	12.95	-51.75	-12.68	0.00	0.00	0.00	
900.00	6.18	284.05	896.84	15.56	-62.19	-15.24	0.00	0.00	0.00	
1000.00	6.18	284.05	996.26	18.17	-72.63	-17.80	0.00	0.00	0.00	
1100.00	6.18	284.05	1095.68	20.78	-83.07	-20.36	0.00	0.00	0.00	
1200.00	6.18	284.05	1195.10	23.39	-93.51	-22.92	0.00	0.00	0.00	
1300.00	6.18	284.05	1294.52	26.00	-103.95	-25.48	0.00	0.00	0.00	
1400.00	6.18	284.05	1393.94	28.62	-114.39	-28.04	0.00	0.00	0.00	

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Schneider 1-14-8-60 Pad
Well: 1-14-8-60
Wellpath: Original Hole

Date: 11/14/2012
Co-ordinate(NE) Reference: Well: 1-14-8-60, Grid North
Vertical (TVD) Reference: 4945'GL+17"KB 4962.0
Section (VS) Reference: Well (0.00N,0.00E,180.29Azi)
Plan: Plan #1

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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
1500.00	6.18	284.05	1493.36	31.23	-124.83	-30.60	0.00	0.00	0.00	
1600.00	6.18	284.05	1592.78	33.84	-135.27	-33.15	0.00	0.00	0.00	
1700.00	6.18	284.05	1692.19	36.45	-145.71	-35.71	0.00	0.00	0.00	
1800.00	6.18	284.05	1791.61	39.06	-156.15	-38.27	0.00	0.00	0.00	
1900.00	6.18	284.05	1891.03	41.67	-166.59	-40.83	0.00	0.00	0.00	
2000.00	6.18	284.05	1990.45	44.29	-177.03	-43.39	0.00	0.00	0.00	
2100.00	6.18	284.05	2089.87	46.90	-187.47	-45.95	0.00	0.00	0.00	
2200.00	6.18	284.05	2189.29	49.51	-197.91	-48.51	0.00	0.00	0.00	
2300.00	6.18	284.05	2288.71	52.12	-208.35	-51.07	0.00	0.00	0.00	
2400.00	6.18	284.05	2388.13	54.73	-218.79	-53.62	0.00	0.00	0.00	
2500.00	6.18	284.05	2487.55	57.34	-229.23	-56.18	0.00	0.00	0.00	
2600.00	6.18	284.05	2586.97	59.96	-239.66	-58.74	0.00	0.00	0.00	
2700.00	6.18	284.05	2686.39	62.57	-250.10	-61.30	0.00	0.00	0.00	
2800.00	6.18	284.05	2785.81	65.18	-260.54	-63.86	0.00	0.00	0.00	
2900.00	6.18	284.05	2885.23	67.79	-270.98	-66.42	0.00	0.00	0.00	
3000.00	6.18	284.05	2984.64	70.40	-281.42	-68.98	0.00	0.00	0.00	
3100.00	6.18	284.05	3084.06	73.01	-291.86	-71.54	0.00	0.00	0.00	
3200.00	6.18	284.05	3183.48	75.63	-302.30	-74.10	0.00	0.00	0.00	
3300.00	6.18	284.05	3282.90	78.24	-312.74	-76.65	0.00	0.00	0.00	
3400.00	6.18	284.05	3382.32	80.85	-323.18	-79.21	0.00	0.00	0.00	
3500.00	6.18	284.05	3481.74	83.46	-333.62	-81.77	0.00	0.00	0.00	
3600.00	6.18	284.05	3581.16	86.07	-344.06	-84.33	0.00	0.00	0.00	
3700.00	6.18	284.05	3680.58	88.68	-354.50	-86.89	0.00	0.00	0.00	
3800.00	6.18	284.05	3780.00	91.30	-364.94	-89.45	0.00	0.00	0.00	
3900.00	6.18	284.05	3879.42	93.91	-375.38	-92.01	0.00	0.00	0.00	
4000.00	6.18	284.05	3978.84	96.52	-385.82	-94.57	0.00	0.00	0.00	
4100.00	6.18	284.05	4078.26	99.13	-396.26	-97.12	0.00	0.00	0.00	
4200.00	6.18	284.05	4177.68	101.74	-406.70	-99.68	0.00	0.00	0.00	
4300.00	6.18	284.05	4277.10	104.35	-417.14	-102.24	0.00	0.00	0.00	
4400.00	6.18	284.05	4376.51	106.97	-427.58	-104.80	0.00	0.00	0.00	
4500.00	6.18	284.05	4475.93	109.58	-438.02	-107.36	0.00	0.00	0.00	
4600.00	6.18	284.05	4575.35	112.19	-448.46	-109.92	0.00	0.00	0.00	
4700.00	6.18	284.05	4674.77	114.80	-458.90	-112.48	0.00	0.00	0.00	
4800.00	6.18	284.05	4774.19	117.41	-469.34	-115.04	0.00	0.00	0.00	
4900.00	6.18	284.05	4873.61	120.02	-479.78	-117.59	0.00	0.00	0.00	
5000.00	6.18	284.05	4973.03	122.64	-490.22	-120.15	0.00	0.00	0.00	
5100.00	6.18	284.05	5072.45	125.25	-500.66	-122.71	0.00	0.00	0.00	
5200.00	6.18	284.05	5171.87	127.86	-511.10	-125.27	0.00	0.00	0.00	
5300.00	6.18	284.05	5271.29	130.47	-521.54	-127.83	0.00	0.00	0.00	
5400.00	6.18	284.05	5370.71	133.08	-531.98	-130.39	0.00	0.00	0.00	
5500.00	6.18	284.05	5470.13	135.69	-542.42	-132.95	0.00	0.00	0.00	
5600.00	6.18	284.05	5569.55	138.31	-552.86	-135.51	0.00	0.00	0.00	
5700.00	6.18	284.05	5668.97	140.92	-563.30	-138.06	0.00	0.00	0.00	
5800.00	6.18	284.05	5768.38	143.53	-573.74	-140.62	0.00	0.00	0.00	
5900.00	6.18	284.05	5867.80	146.14	-584.18	-143.18	0.00	0.00	0.00	
5912.87	6.18	284.05	5880.60	146.48	-585.52	-143.51	0.00	0.00	0.00	
5950.00	6.41	249.72	5917.52	146.24	-589.40	-143.26	10.00	0.62	-92.44	
6000.00	9.40	219.72	5967.06	142.13	-594.63	-139.12	10.00	5.98	-60.01	
6050.00	13.62	206.01	6016.05	133.70	-599.82	-130.66	10.00	8.44	-27.42	
6100.00	18.23	198.90	6064.12	121.00	-604.94	-117.94	10.00	9.23	-14.21	
6150.00	23.00	194.62	6110.91	104.14	-609.94	-101.05	10.00	9.54	-8.55	
6200.00	27.85	191.76	6156.06	83.24	-614.79	-80.12	10.00	9.70	-5.72	
6250.00	32.74	189.70	6199.22	58.46	-619.46	-55.32	10.00	9.78	-4.13	
6300.00	37.66	188.12	6240.06	29.99	-623.89	-26.84	10.00	9.83	-3.16	

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Schneider 1-14-8-60 Pad
Well: 1-14-8-60
Wellpath: Original Hole

Date: 11/14/2012
Co-ordinate(NE) Reference: Well: 1-14-8-60, Grid North
Vertical (TVD) Reference: 4945'GL+17"KB 4962.0
Section (VS) Reference: Well (0.00N,0.00E,180.29Azi)
Plan: Plan #1

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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
6350.00	42.59	186.85	6278.28	-1.95	-628.07	5.12	10.00	9.87	-2.53	
6400.00	47.54	185.81	6313.59	-37.11	-631.96	40.31	10.00	9.89	-2.09	
6450.00	52.49	184.91	6345.71	-75.24	-635.52	78.46	10.00	9.91	-1.78	
6500.00	57.45	184.13	6374.40	-116.05	-638.74	119.28	10.00	9.92	-1.56	
6550.00	62.41	183.43	6399.45	-159.21	-641.59	162.45	10.00	9.93	-1.40	
6600.00	67.38	182.80	6420.66	-204.40	-644.05	207.66	10.00	9.93	-1.28	
6626.38	70.00	182.48	6430.24	-228.95	-645.18	232.21	10.00	9.94	-1.21	7"
6650.00	72.35	182.20	6437.86	-251.29	-646.09	254.55	10.00	9.94	-1.17	
6700.00	77.32	181.64	6450.94	-299.50	-647.70	302.78	10.00	9.94	-1.12	
6750.00	82.29	181.10	6459.79	-348.68	-648.88	351.96	10.00	9.94	-1.08	
6800.00	87.26	180.57	6464.34	-398.46	-649.60	401.74	10.00	9.94	-1.06	
6827.54	90.00	180.29	6465.00	-425.98	-649.81	429.26	10.00	9.95	-1.05	
6900.00	90.00	180.29	6465.00	-498.44	-650.17	501.73	0.00	0.00	0.00	
7000.00	90.00	180.29	6465.00	-598.44	-650.67	601.73	0.00	0.00	0.00	
7100.00	90.00	180.29	6465.00	-698.44	-651.17	701.73	0.00	0.00	0.00	
7200.00	90.00	180.29	6465.00	-798.44	-651.66	801.73	0.00	0.00	0.00	
7300.00	90.00	180.29	6465.00	-898.44	-652.16	901.73	0.00	0.00	0.00	
7400.00	90.00	180.29	6465.00	-998.44	-652.66	1001.73	0.00	0.00	0.00	
7500.00	90.00	180.29	6465.00	-1098.44	-653.16	1101.73	0.00	0.00	0.00	
7600.00	90.00	180.29	6465.00	-1198.43	-653.65	1201.73	0.00	0.00	0.00	
7700.00	90.00	180.29	6465.00	-1298.43	-654.15	1301.73	0.00	0.00	0.00	
7800.00	90.00	180.29	6465.00	-1398.43	-654.65	1401.73	0.00	0.00	0.00	
7900.00	90.00	180.29	6465.00	-1498.43	-655.15	1501.73	0.00	0.00	0.00	
8000.00	90.00	180.29	6465.00	-1598.43	-655.64	1601.73	0.00	0.00	0.00	
8100.00	90.00	180.29	6465.00	-1698.43	-656.14	1701.73	0.00	0.00	0.00	
8200.00	90.00	180.29	6465.00	-1798.43	-656.64	1801.73	0.00	0.00	0.00	
8300.00	90.00	180.29	6465.00	-1898.43	-657.14	1901.73	0.00	0.00	0.00	
8400.00	90.00	180.29	6465.00	-1998.42	-657.63	2001.73	0.00	0.00	0.00	
8500.00	90.00	180.29	6465.00	-2098.42	-658.13	2101.73	0.00	0.00	0.00	
8600.00	90.00	180.29	6465.00	-2198.42	-658.63	2201.73	0.00	0.00	0.00	
8700.00	90.00	180.29	6465.00	-2298.42	-659.13	2301.73	0.00	0.00	0.00	
8800.00	90.00	180.29	6465.00	-2398.42	-659.62	2401.73	0.00	0.00	0.00	
8900.00	90.00	180.29	6465.00	-2498.42	-660.12	2501.73	0.00	0.00	0.00	
9000.00	90.00	180.29	6465.00	-2598.42	-660.62	2601.73	0.00	0.00	0.00	
9100.00	90.00	180.29	6465.00	-2698.42	-661.12	2701.73	0.00	0.00	0.00	
9200.00	90.00	180.29	6465.00	-2798.41	-661.61	2801.73	0.00	0.00	0.00	
9300.00	90.00	180.29	6465.00	-2898.41	-662.11	2901.73	0.00	0.00	0.00	
9400.00	90.00	180.29	6465.00	-2998.41	-662.61	3001.73	0.00	0.00	0.00	
9500.00	90.00	180.29	6465.00	-3098.41	-663.11	3101.73	0.00	0.00	0.00	
9600.00	90.00	180.29	6465.00	-3198.41	-663.60	3201.73	0.00	0.00	0.00	
9700.00	90.00	180.29	6465.00	-3298.41	-664.10	3301.73	0.00	0.00	0.00	
9800.00	90.00	180.29	6465.00	-3398.41	-664.60	3401.73	0.00	0.00	0.00	
9900.00	90.00	180.29	6465.00	-3498.41	-665.10	3501.73	0.00	0.00	0.00	
10000.00	90.00	180.29	6465.00	-3598.40	-665.59	3601.73	0.00	0.00	0.00	
10100.00	90.00	180.29	6465.00	-3698.40	-666.09	3701.73	0.00	0.00	0.00	
10200.00	90.00	180.29	6465.00	-3798.40	-666.59	3801.73	0.00	0.00	0.00	
10300.00	90.00	180.29	6465.00	-3898.40	-667.09	3901.73	0.00	0.00	0.00	
10400.00	90.00	180.29	6465.00	-3998.40	-667.58	4001.73	0.00	0.00	0.00	
10500.00	90.00	180.29	6465.00	-4098.40	-668.08	4101.73	0.00	0.00	0.00	
10600.00	90.00	180.29	6465.00	-4198.40	-668.58	4201.73	0.00	0.00	0.00	
10700.00	90.00	180.29	6465.00	-4298.40	-669.08	4301.73	0.00	0.00	0.00	
10800.00	90.00	180.29	6465.00	-4398.40	-669.58	4401.73	0.00	0.00	0.00	
10831.14	90.00	180.29	6465.00	-4429.53	-669.73	4432.86	0.00	0.00	0.00	PBHL 1-14

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC. Field: Niobrara CONZ'83 Site: Schneider 1-14-8-60 Pad Well: 1-14-8-60 Wellpath: Original Hole	Date: 11/14/2012 Co-ordinate(NE) Reference: Well: 1-14-8-60, Grid North Vertical (TVD) Reference: 4945'GL+17"KB 4962.0 Section (VS) Reference: Well (0.00N,0.00E,180.29Azi) Plan: Plan #1	Page: 4
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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

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ---> Deg Min Sec			<--- Longitude ---> Deg Min Sec		
SL 1-14			0.00	0.00	0.00	1489828.00	3398701.77	40	40	8.739 N	104	3	45.740 W
PBHL 1-14			6465.00	-4429.53	-669.73	1485398.47	3398032.04	40	39	25.082 N	104	3	55.360 W

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
6626.38	6430.24	7.000	8.750	7"