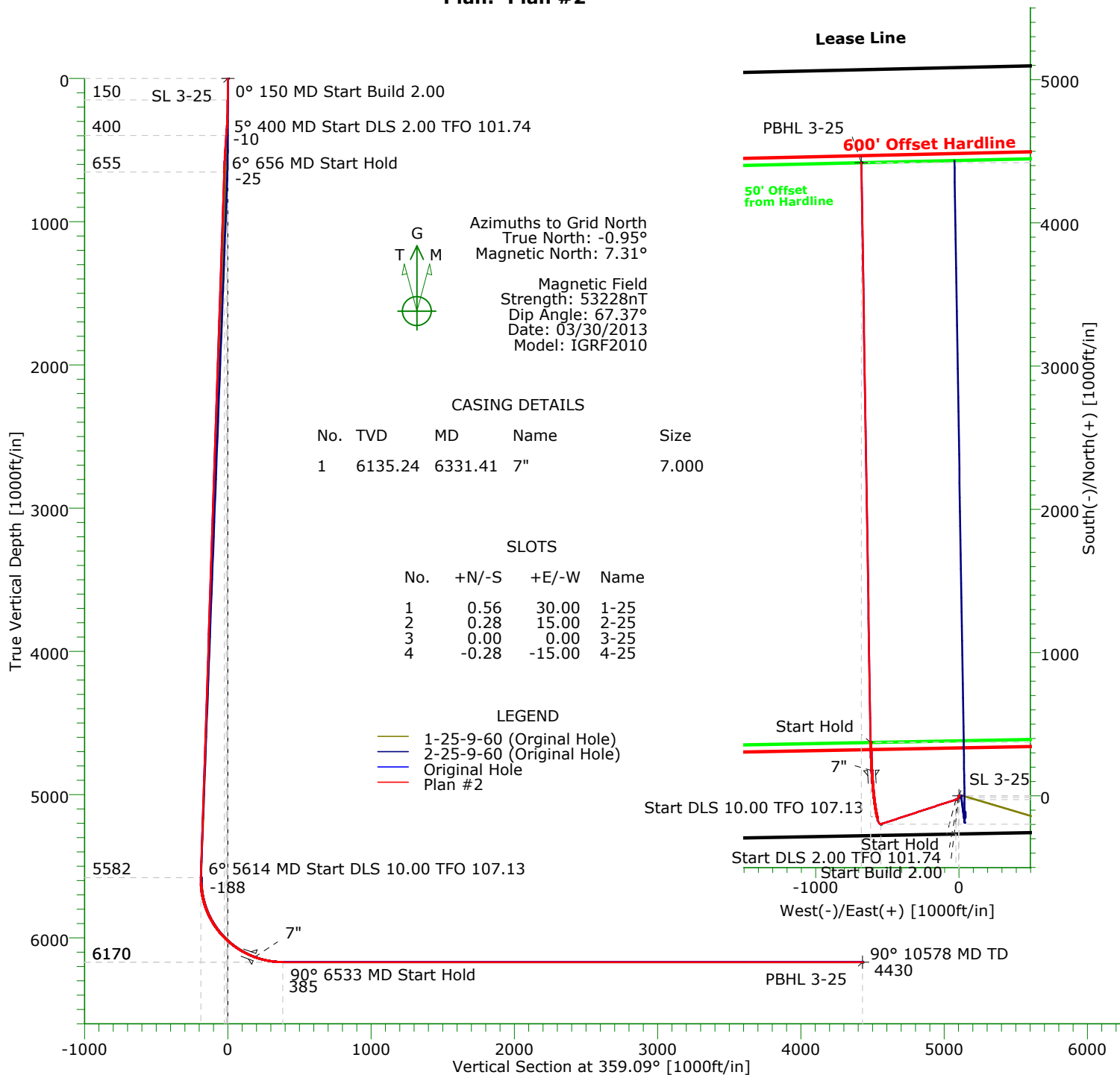




# CARRIZO OIL & GAS, INC.

Field: Niobrara CONZ'83  
Site: Shull 1-25-9-60 Pad  
Well: 3-25-9-60  
Wellpath: Original Hole  
Plan: Plan #2



Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SL 3-25	0.00	0.00	0.00	1506559.14	3406059.43	40°42'52.852N	104°02'06.683W	Point
PBHL 3-25	6170.00	4420.08	-681.14	1510979.22	3405378.29	40°43'36.633N	104°02'14.580W	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	400.00	5.00	200.00	399.68	-10.24	-3.73	2.00	200.00	-10.18	
4	656.38	6.39	251.87	654.95	-25.19	-21.11	2.00	101.74	-24.85	
5	5613.72	6.39	251.87	5581.52	-196.82	-545.20	0.00	0.00	-188.14	
6	6532.60	90.00	359.09	6170.00	374.76	-617.17	10.00	107.13	384.51	
7	10578.43	90.00	359.09	6170.00	4420.08	-681.14	0.00	0.00	4430.34	PBHL 3-25

# Precision Directional Services, Inc.

## Planning Report

<b>Company:</b> CARRIZO OIL & GAS, INC.		<b>Date:</b> 02/13/2013		<b>Time:</b> 11:11:49		<b>Page:</b> 1	
<b>Field:</b> Niobrara CONZ'83		<b>Co-ordinate(NE) Reference:</b> Well: 3-25-9-60, Grid North					
<b>Site:</b> Shull 1-25-9-60 Pad		<b>Vertical (TVD) Reference:</b> 4943'GL+17'KB 4960.0					
<b>Well:</b> 3-25-9-60		<b>Section (VS) Reference:</b> Well (0.00N,0.00E,359.09Azi)					
<b>Wellpath:</b> Original Hole		<b>Plan:</b> Plan #2					

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

<b>Site:</b> Shull 1-25-9-60 Pad			
<b>Weld County, CO</b>			
<b>Site Position:</b>	<b>Northing:</b> 1511404.05 ft	<b>Latitude:</b> 40 43 40.724 N	
<b>From:</b> Map	<b>Easting:</b> 3406027.06 ft	<b>Longitude:</b> 104 2 6.064 W	
<b>Position Uncertainty:</b> 0.00 ft		<b>North Reference:</b> Grid	
<b>Ground Level:</b> 4943.00 ft		<b>Grid Convergence:</b> 0.95 deg	

<b>Well:</b> 3-25-9-60		<b>Slot Name:</b> 3-25	
265 FSL 1339 FEL			
<b>Well Position:</b> +N/-S -4844.91 ft	<b>Northing:</b> 1506559.14 ft	<b>Latitude:</b> 40 42 52.852 N	
+E/-W 32.37 ft	<b>Easting :</b> 3406059.43 ft	<b>Longitude:</b> 104 2 6.683 W	
<b>Position Uncertainty:</b> 0.00 ft			

<b>Wellpath:</b> Original Hole		<b>Drilled From:</b> Surface	
<b>Current Datum:</b> 4943'GL+17'KB		<b>Tie-on Depth:</b> 0.00 ft	
<b>Magnetic Data:</b> 03/30/2013		<b>Above System Datum:</b> Mean Sea Level	
<b>Field Strength:</b> 53228 nT		<b>Declination:</b> 8.25 deg	
<b>Vertical Section:</b> Depth From (TVD)		<b>Mag Dip Angle:</b> 67.37 deg	
ft	+N/-S ft	+E/-W ft	<b>Direction</b> deg
0.00	0.00	0.00	359.09

<b>Plan:</b> Plan #2		<b>Date Composed:</b> 02/13/2013	
<b>Principal:</b> Yes		<b>Version:</b> 1	
		<b>Tied-to:</b> 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	
400.00	5.00	200.00	399.68	-10.24	-3.73	2.00	2.00	0.00	200.00	
656.38	6.39	251.87	654.95	-25.19	-21.11	2.00	0.54	20.23	101.74	
5613.72	6.39	251.87	5581.52	-196.82	-545.20	0.00	0.00	0.00	0.00	
6532.60	90.00	359.09	6170.00	374.76	-617.17	10.00	9.10	11.67	107.13	
10578.43	90.00	359.09	6170.00	4420.08	-681.14	0.00	0.00	0.00	0.00	PBHL 3-25

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	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	MWD
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	200.00	200.00	-0.41	-0.15	-0.41	2.00	2.00	0.00	MWD
300.00	3.00	200.00	299.93	-3.69	-1.34	-3.67	2.00	2.00	0.00	MWD
400.00	5.00	200.00	399.68	-10.24	-3.73	-10.18	2.00	2.00	0.00	MWD
500.00	4.99	223.12	499.31	-17.52	-8.19	-17.38	2.00	-0.01	23.12	MWD
600.00	5.73	243.17	598.88	-22.94	-15.62	-22.69	2.00	0.74	20.05	MWD
656.38	6.39	251.87	654.95	-25.19	-21.11	-24.85	2.00	1.17	15.43	MWD
700.00	6.39	251.87	698.30	-26.70	-25.73	-26.29	0.00	0.00	0.00	MWD
800.00	6.39	251.87	797.68	-30.16	-36.30	-29.58	0.00	0.00	0.00	MWD
900.00	6.39	251.87	897.06	-33.63	-46.87	-32.88	0.00	0.00	0.00	MWD
1000.00	6.39	251.87	996.44	-37.09	-57.44	-36.17	0.00	0.00	0.00	MWD
1100.00	6.39	251.87	1095.82	-40.55	-68.01	-39.46	0.00	0.00	0.00	MWD
1200.00	6.39	251.87	1195.20	-44.01	-78.59	-42.76	0.00	0.00	0.00	MWD

# Precision Directional Services, Inc.

## Planning Report

**Company:** CARRIZO OIL & GAS, INC.  
**Field:** Niobrara CONZ'83  
**Site:** Shull 1-25-9-60 Pad  
**Well:** 3-25-9-60  
**Wellpath:** Original Hole

**Date:** 02/13/2013  
**Co-ordinate(NE) Reference:** Well: 3-25-9-60, Grid North  
**Vertical (TVD) Reference:** 4943'GL+17'KB 4960.0  
**Section (VS) Reference:** Well (0.00N,0.00E,359.09Azi)  
**Plan:** Plan #2

**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	6.39	251.87	1294.57	-47.47	-89.16	-46.05	0.00	0.00	0.00	MWD
1400.00	6.39	251.87	1393.95	-50.94	-99.73	-49.35	0.00	0.00	0.00	MWD
1500.00	6.39	251.87	1493.33	-54.40	-110.30	-52.64	0.00	0.00	0.00	MWD
1600.00	6.39	251.87	1592.71	-57.86	-120.87	-55.93	0.00	0.00	0.00	MWD
1700.00	6.39	251.87	1692.09	-61.32	-131.45	-59.23	0.00	0.00	0.00	MWD
1800.00	6.39	251.87	1791.47	-64.78	-142.02	-62.52	0.00	0.00	0.00	MWD
1900.00	6.39	251.87	1890.85	-68.25	-152.59	-65.81	0.00	0.00	0.00	MWD
2000.00	6.39	251.87	1990.23	-71.71	-163.16	-69.11	0.00	0.00	0.00	MWD
2100.00	6.39	251.87	2089.61	-75.17	-173.73	-72.40	0.00	0.00	0.00	MWD
2200.00	6.39	251.87	2188.99	-78.63	-184.31	-75.70	0.00	0.00	0.00	MWD
2300.00	6.39	251.87	2288.37	-82.09	-194.88	-78.99	0.00	0.00	0.00	MWD
2400.00	6.39	251.87	2387.75	-85.56	-205.45	-82.28	0.00	0.00	0.00	MWD
2500.00	6.39	251.87	2487.13	-89.02	-216.02	-85.58	0.00	0.00	0.00	MWD
2600.00	6.39	251.87	2586.51	-92.48	-226.59	-88.87	0.00	0.00	0.00	MWD
2700.00	6.39	251.87	2685.89	-95.94	-237.17	-92.16	0.00	0.00	0.00	MWD
2800.00	6.39	251.87	2785.26	-99.41	-247.74	-95.46	0.00	0.00	0.00	MWD
2900.00	6.39	251.87	2884.64	-102.87	-258.31	-98.75	0.00	0.00	0.00	MWD
3000.00	6.39	251.87	2984.02	-106.33	-268.88	-102.05	0.00	0.00	0.00	MWD
3100.00	6.39	251.87	3083.40	-109.79	-279.45	-105.34	0.00	0.00	0.00	MWD
3200.00	6.39	251.87	3182.78	-113.25	-290.03	-108.63	0.00	0.00	0.00	MWD
3300.00	6.39	251.87	3282.16	-116.72	-300.60	-111.93	0.00	0.00	0.00	MWD
3400.00	6.39	251.87	3381.54	-120.18	-311.17	-115.22	0.00	0.00	0.00	MWD
3500.00	6.39	251.87	3480.92	-123.64	-321.74	-118.52	0.00	0.00	0.00	MWD
3600.00	6.39	251.87	3580.30	-127.10	-332.31	-121.81	0.00	0.00	0.00	MWD
3700.00	6.39	251.87	3679.68	-130.56	-342.89	-125.10	0.00	0.00	0.00	MWD
3800.00	6.39	251.87	3779.06	-134.03	-353.46	-128.40	0.00	0.00	0.00	MWD
3900.00	6.39	251.87	3878.44	-137.49	-364.03	-131.69	0.00	0.00	0.00	MWD
4000.00	6.39	251.87	3977.82	-140.95	-374.60	-134.98	0.00	0.00	0.00	MWD
4100.00	6.39	251.87	4077.20	-144.41	-385.17	-138.28	0.00	0.00	0.00	MWD
4200.00	6.39	251.87	4176.57	-147.88	-395.75	-141.57	0.00	0.00	0.00	MWD
4300.00	6.39	251.87	4275.95	-151.34	-406.32	-144.87	0.00	0.00	0.00	MWD
4400.00	6.39	251.87	4375.33	-154.80	-416.89	-148.16	0.00	0.00	0.00	MWD
4500.00	6.39	251.87	4474.71	-158.26	-427.46	-151.45	0.00	0.00	0.00	MWD
4600.00	6.39	251.87	4574.09	-161.72	-438.03	-154.75	0.00	0.00	0.00	MWD
4700.00	6.39	251.87	4673.47	-165.19	-448.61	-158.04	0.00	0.00	0.00	MWD
4800.00	6.39	251.87	4772.85	-168.65	-459.18	-161.33	0.00	0.00	0.00	MWD
4900.00	6.39	251.87	4872.23	-172.11	-469.75	-164.63	0.00	0.00	0.00	MWD
5000.00	6.39	251.87	4971.61	-175.57	-480.32	-167.92	0.00	0.00	0.00	MWD
5100.00	6.39	251.87	5070.99	-179.03	-490.89	-171.22	0.00	0.00	0.00	MWD
5200.00	6.39	251.87	5170.37	-182.50	-501.47	-174.51	0.00	0.00	0.00	MWD
5300.00	6.39	251.87	5269.75	-185.96	-512.04	-177.80	0.00	0.00	0.00	MWD
5400.00	6.39	251.87	5369.13	-189.42	-522.61	-181.10	0.00	0.00	0.00	MWD
5500.00	6.39	251.87	5468.51	-192.88	-533.18	-184.39	0.00	0.00	0.00	MWD
5600.00	6.39	251.87	5567.88	-196.35	-543.75	-187.68	0.00	0.00	0.00	MWD
5613.72	6.39	251.87	5581.52	-196.82	-545.20	-188.14	0.00	0.00	0.00	MWD
5700.00	9.08	317.12	5667.15	-193.32	-554.42	-184.49	10.00	3.12	75.63	MWD
5800.00	17.79	339.63	5764.38	-173.16	-565.13	-164.17	10.00	8.70	22.51	MWD
5900.00	27.38	347.18	5856.63	-136.33	-575.58	-127.17	10.00	9.59	7.55	MWD
6000.00	37.17	350.99	5941.08	-83.94	-585.44	-74.63	10.00	9.80	3.81	MWD
6100.00	47.04	353.38	6015.18	-17.58	-594.41	-8.14	10.00	9.87	2.39	MWD
6200.00	56.95	355.11	6076.68	60.72	-602.22	70.28	10.00	9.91	1.72	MWD
6300.00	66.88	356.48	6123.70	148.60	-608.64	158.25	10.00	9.93	1.37	MWD
6331.41	70.00	356.86	6135.24	177.76	-610.34	187.43	10.00	9.93	1.23	7"

# Precision Directional Services, Inc.

## Planning Report

**Company:** CARRIZO OIL & GAS, INC.  
**Field:** Niobrara CONZ'83  
**Site:** Shull 1-25-9-60 Pad  
**Well:** 3-25-9-60  
**Wellpath:** Original Hole

**Date:** 02/13/2013  
**Co-ordinate(NE) Reference:** Well: 3-25-9-60, Grid North  
**Vertical (TVD) Reference:** 4943'GL+17'KB 4960.0  
**Section (VS) Reference:** Well (0.00N,0.00E,359.09Azi)  
**Plan:** Plan #2

**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
6400.00	76.82	357.66	6154.81	243.38	-613.47	253.10	10.00	9.94	1.16	MWD
6500.00	86.76	358.75	6169.08	342.18	-616.56	351.93	10.00	9.94	1.09	MWD
6532.60	90.00	359.09	6170.00	374.76	-617.17	384.51	10.00	9.94	1.06	MWD
6600.00	90.00	359.09	6170.00	442.15	-618.24	451.91	0.00	0.00	0.00	MWD
6700.00	90.00	359.09	6170.00	542.14	-619.82	551.91	0.00	0.00	0.00	MWD
6800.00	90.00	359.09	6170.00	642.13	-621.40	651.91	0.00	0.00	0.00	MWD
6900.00	90.00	359.09	6170.00	742.11	-622.98	751.91	0.00	0.00	0.00	MWD
7000.00	90.00	359.09	6170.00	842.10	-624.56	851.91	0.00	0.00	0.00	MWD
7100.00	90.00	359.09	6170.00	942.09	-626.14	951.91	0.00	0.00	0.00	MWD
7200.00	90.00	359.09	6170.00	1042.08	-627.72	1051.91	0.00	0.00	0.00	MWD
7300.00	90.00	359.09	6170.00	1142.06	-629.30	1151.91	0.00	0.00	0.00	MWD
7400.00	90.00	359.09	6170.00	1242.05	-630.88	1251.91	0.00	0.00	0.00	MWD
7500.00	90.00	359.09	6170.00	1342.04	-632.47	1351.91	0.00	0.00	0.00	MWD
7600.00	90.00	359.09	6170.00	1442.03	-634.05	1451.91	0.00	0.00	0.00	MWD
7700.00	90.00	359.09	6170.00	1542.01	-635.63	1551.91	0.00	0.00	0.00	MWD
7800.00	90.00	359.09	6170.00	1642.00	-637.21	1651.91	0.00	0.00	0.00	MWD
7900.00	90.00	359.09	6170.00	1741.99	-638.79	1751.91	0.00	0.00	0.00	MWD
8000.00	90.00	359.09	6170.00	1841.98	-640.37	1851.91	0.00	0.00	0.00	MWD
8100.00	90.00	359.09	6170.00	1941.96	-641.95	1951.91	0.00	0.00	0.00	MWD
8200.00	90.00	359.09	6170.00	2041.95	-643.53	2051.91	0.00	0.00	0.00	MWD
8300.00	90.00	359.09	6170.00	2141.94	-645.11	2151.91	0.00	0.00	0.00	MWD
8400.00	90.00	359.09	6170.00	2241.93	-646.70	2251.91	0.00	0.00	0.00	MWD
8500.00	90.00	359.09	6170.00	2341.91	-648.28	2351.91	0.00	0.00	0.00	MWD
8600.00	90.00	359.09	6170.00	2441.90	-649.86	2451.91	0.00	0.00	0.00	MWD
8700.00	90.00	359.09	6170.00	2541.89	-651.44	2551.91	0.00	0.00	0.00	MWD
8800.00	90.00	359.09	6170.00	2641.88	-653.02	2651.91	0.00	0.00	0.00	MWD
8900.00	90.00	359.09	6170.00	2741.86	-654.60	2751.91	0.00	0.00	0.00	MWD
9000.00	90.00	359.09	6170.00	2841.85	-656.18	2851.91	0.00	0.00	0.00	MWD
9100.00	90.00	359.09	6170.00	2941.84	-657.76	2951.91	0.00	0.00	0.00	MWD
9200.00	90.00	359.09	6170.00	3041.83	-659.35	3051.91	0.00	0.00	0.00	MWD
9300.00	90.00	359.09	6170.00	3141.81	-660.93	3151.91	0.00	0.00	0.00	MWD
9400.00	90.00	359.09	6170.00	3241.80	-662.51	3251.91	0.00	0.00	0.00	MWD
9500.00	90.00	359.09	6170.00	3341.79	-664.09	3351.91	0.00	0.00	0.00	MWD
9600.00	90.00	359.09	6170.00	3441.78	-665.67	3451.91	0.00	0.00	0.00	MWD
9700.00	90.00	359.09	6170.00	3541.76	-667.25	3551.91	0.00	0.00	0.00	MWD
9800.00	90.00	359.09	6170.00	3641.75	-668.83	3651.91	0.00	0.00	0.00	MWD
9900.00	90.00	359.09	6170.00	3741.74	-670.41	3751.91	0.00	0.00	0.00	MWD
10000.00	90.00	359.09	6170.00	3841.73	-671.99	3851.91	0.00	0.00	0.00	MWD
10100.00	90.00	359.09	6170.00	3941.71	-673.58	3951.91	0.00	0.00	0.00	MWD
10200.00	90.00	359.09	6170.00	4041.70	-675.16	4051.91	0.00	0.00	0.00	MWD
10300.00	90.00	359.09	6170.00	4141.69	-676.74	4151.91	0.00	0.00	0.00	MWD
10400.00	90.00	359.09	6170.00	4241.68	-678.32	4251.91	0.00	0.00	0.00	MWD
10500.00	90.00	359.09	6170.00	4341.66	-679.90	4351.91	0.00	0.00	0.00	MWD
10578.43	90.00	359.09	6170.00	4420.08	-681.14	4430.34	0.00	0.00	0.00	PBHL 3-25

### 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		
SL 3-25			0.00	0.00	0.00	1506559.14	3406059.43	40	42	52.852	N	104	2	6.683	W
PBHL 3-25			6170.00	4420.08	-681.14	1510979.22	3405378.29	40	43	36.633	N	104	2	14.580	W

# Precision Directional Services, Inc.

## Planning Report

**Company:** CARRIZO OIL & GAS, INC.

**Field:** Niobrara CONZ'83

**Site:** Shull 1-25-9-60 Pad

**Well:** 3-25-9-60

**Wellpath:** Original Hole

**Date:** 02/13/2013

**Time:** 11:11:49

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**Co-ordinate(NE) Reference:** Well: 3-25-9-60, Grid North

**Vertical (TVD) Reference:** 4943'GL+17'KB 4960.0

**Section (VS) Reference:** Well (0.00N,0.00E,359.09Azi)

**Plan:** Plan #2

### Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
6331.41	6135.24	7.000	8.750	7"