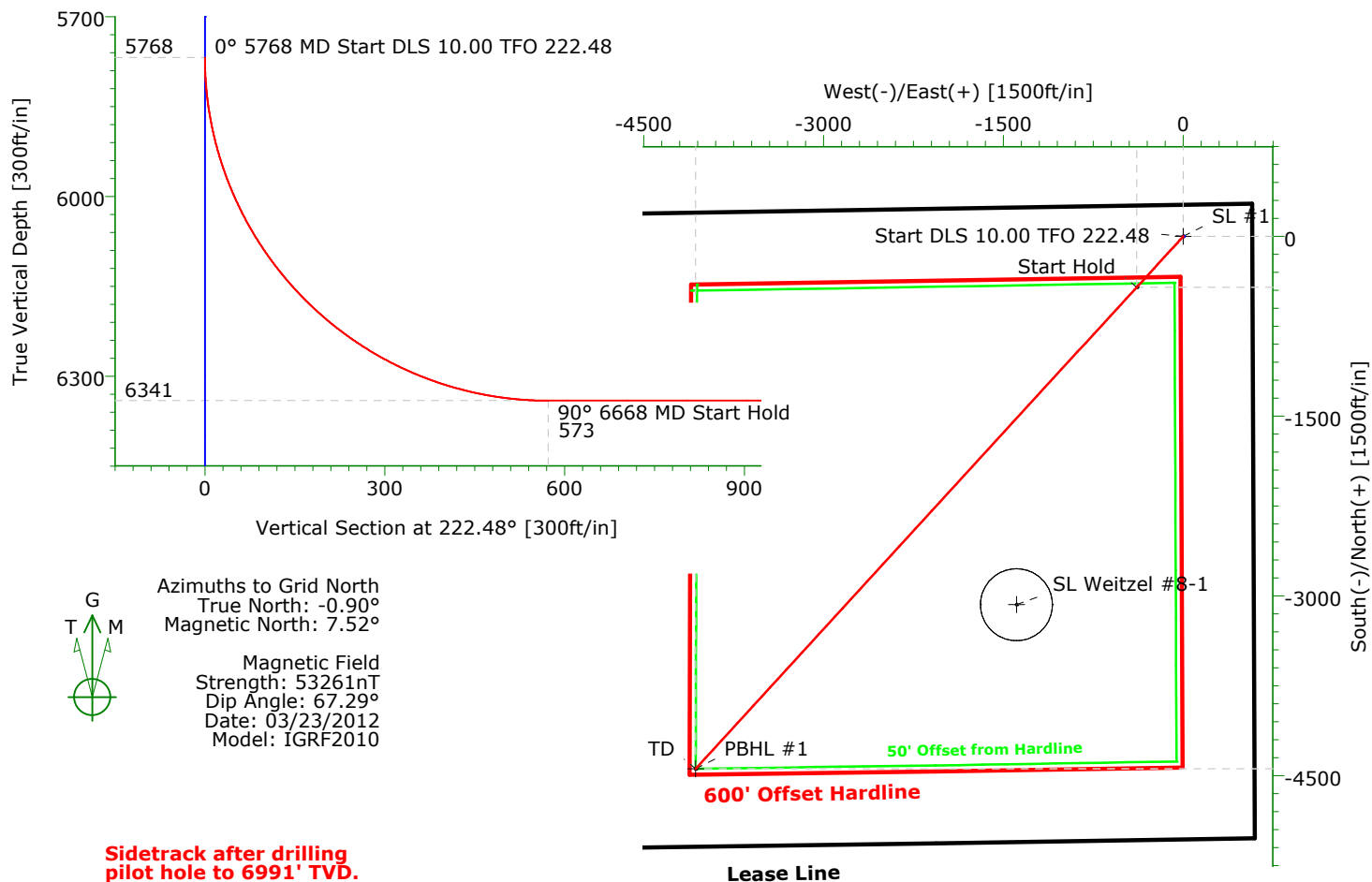


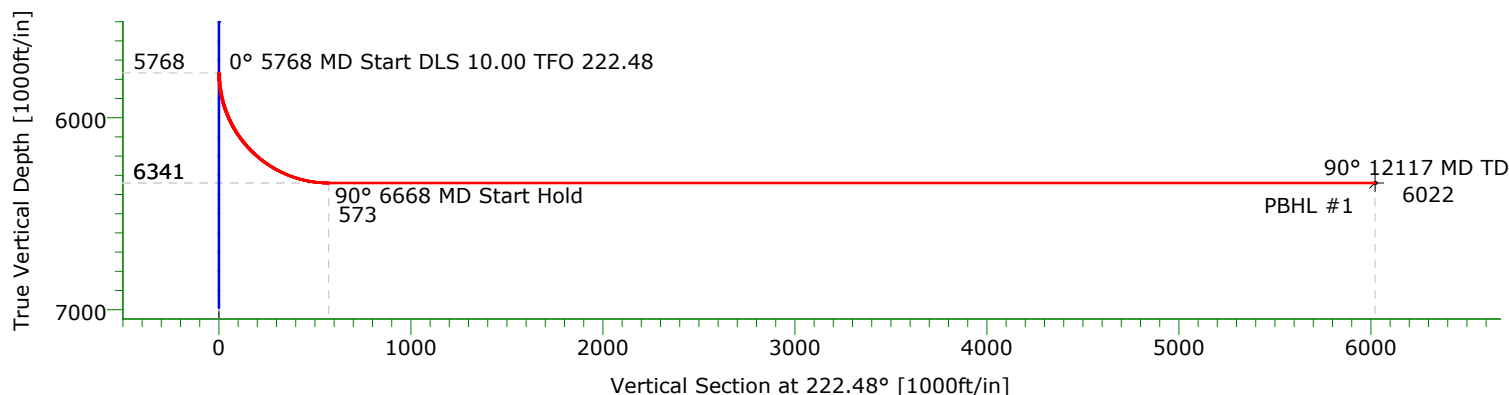


CARRIZO OIL & GAS, INC.

Field: Niobrara CONZ'83
Site: Pergamos
Well: 1-8-41-7-60
Wellpath: Original Hole
Plan: Plan #1



Sidetrack after drilling pilot hole to 6991' TVD.



TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SL #1	0.00	0.00	0.00	1463077.48	3386126.26	40°35'46.420N104°06'34.360W		Point
SL Weitzel #8-1	0.00	-3072.29	-1391.04	1460005.19	3384735.22	40°35'16.280N104°06'53.013W		Circle (Radius: 300)
PBHL #1	6341.00	-4441.23	-4066.78	1458636.25	3382059.48	40°35'03.166N104°07'27.966W		Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	5768.04	0.00	0.00	5768.04	0.00	0.00	0.00	0.00	0.00	
2	6668.04	90.00	222.48	6341.00	-422.56	-386.94	10.00	222.48	572.96	
3	12116.98	90.00	222.48	6341.00	-4441.23	-4066.78	0.00	0.00	6021.90	PBHL #1

Company: CARRIZO OIL & GAS, INC. Field: Niobrara CONZ'83 Site: Pergamos Well: 1-8-41-7-60 Wellpath: Original Hole	Date: 03/23/2012 Co-ordinate(NE) Reference: Well: 1-8-41-7-60, Grid North Vertical (TVD) Reference: 4870'GL+17'KB 4887.0 Section (VS) Reference: Well (0.00N,0.00E,222.48Azi) Plan: Plan #1	Page: 1
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Field: Niobrara CONZ'83
Weld County, CO

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

Site: Pergamos
S:8,T:7N,R60W
Weld County

Site Position:	Northing: 1463077.48 ft	Latitude: 40 35 46.420 N
From: Map	Easting: 3386126.26 ft	Longitude: 104 6 34.360 W
Position Uncertainty: 0.00 ft		North Reference: Grid
Ground Level: 4870.00 ft		Grid Convergence: 0.90 deg

Well: 1-8-41-7-60

Slot Name:

Well Position: +N/-S 0.00 ft	Northing: 1463077.48 ft	Latitude: 40 35 46.420 N
+E/-W 0.00 ft	Easting : 3386126.26 ft	Longitude: 104 6 34.360 W
Position Uncertainty: 0.00 ft		

Wellpath: Original Hole

Drilled From: Pilot Hole
Tie-on Depth: 6991.00 ft
Above System Datum: Mean Sea Level
Declination: 8.41 deg
Mag Dip Angle: 67.29 deg
+E/-W
Direction
 deg

Current Datum: 4870'GL+17'KB
Magnetic Data: 04/23/2012
Field Strength: 53252 nT
Vertical Section: Depth From (TVD) ft
 0.00

Height 4887.00 ft
 +N/-S ft
 0.00

0.00 222.48

Plan: Plan #1

Date Composed: 03/23/2012
Version: 1
Tied-to: From: Definitive Path

Principal: No

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
5768.04	0.00	0.00	5768.04	0.00	0.00	0.00	0.00	0.00	0.00	
6668.04	90.00	222.48	6341.00	-422.56	-386.94	10.00	10.00	-15.28	222.48	
12116.98	90.00	222.48	6341.00	-4441.23	-4066.78	0.00	0.00	0.00	0.00	PBHL #1

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
5768.04	0.00	0.00	5768.04	0.00	0.00	0.00	0.00	0.00	0.00	
5800.00	3.20	222.48	5799.98	-0.66	-0.60	0.89	10.00	10.00	0.00	
5850.00	8.20	222.48	5849.72	-4.32	-3.95	5.85	10.00	10.00	0.00	
5900.00	13.20	222.48	5898.84	-11.16	-10.22	15.13	10.00	10.00	0.00	
5950.00	18.20	222.48	5946.96	-21.13	-19.35	28.65	10.00	10.00	0.00	
6000.00	23.20	222.48	5993.72	-34.16	-31.28	46.32	10.00	10.00	0.00	
6050.00	28.20	222.48	6038.76	-50.14	-45.92	67.99	10.00	10.00	0.00	
6100.00	33.20	222.48	6081.74	-68.96	-63.15	93.51	10.00	10.00	0.00	
6150.00	38.20	222.48	6122.33	-90.47	-82.84	122.67	10.00	10.00	0.00	
6200.00	43.20	222.48	6160.23	-114.51	-104.85	155.26	10.00	10.00	0.00	
6250.00	48.20	222.48	6195.14	-140.89	-129.01	191.03	10.00	10.00	0.00	
6300.00	53.20	222.48	6226.80	-169.41	-155.13	229.71	10.00	10.00	0.00	
6350.00	58.20	222.48	6254.97	-199.87	-183.02	271.00	10.00	10.00	0.00	
6400.00	63.20	222.48	6279.44	-232.01	-212.45	314.59	10.00	10.00	0.00	
6450.00	68.20	222.48	6300.01	-265.61	-243.22	360.14	10.00	10.00	0.00	
6500.00	73.20	222.48	6316.53	-300.40	-275.07	407.32	10.00	10.00	0.00	
6550.00	78.20	222.48	6328.88	-336.12	-307.78	455.75	10.00	10.00	0.00	
6600.00	83.20	222.48	6336.96	-372.50	-341.10	505.08	10.00	10.00	0.00	

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Pergamos
Well: 1-8-41-7-60
Wellpath: Original Hole

Date: 03/23/2012
Co-ordinate(NE) Reference: Well: 1-8-41-7-60, Grid North
Vertical (TVD) Reference: 4870'GL+17'KB 4887.0
Section (VS) Reference: Well (0.00N,0.00E,222.48Azi)
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
6650.00	88.20	222.48	6340.71	-409.26	-374.76	554.92	10.00	10.00	0.00	
6668.04	90.00	222.48	6341.00	-422.56	-386.94	572.96	10.00	10.00	0.00	
6700.00	90.00	222.48	6341.00	-446.14	-408.52	604.92	0.00	0.00	0.00	
6800.00	90.00	222.48	6341.00	-519.89	-476.05	704.92	0.00	0.00	0.00	
6900.00	90.00	222.48	6341.00	-593.64	-543.59	804.92	0.00	0.00	0.00	
7000.00	90.00	222.48	6341.00	-667.39	-611.12	904.92	0.00	0.00	0.00	
7100.00	90.00	222.48	6341.00	-741.14	-678.65	1004.92	0.00	0.00	0.00	
7200.00	90.00	222.48	6341.00	-814.89	-746.19	1104.92	0.00	0.00	0.00	
7300.00	90.00	222.48	6341.00	-888.64	-813.72	1204.92	0.00	0.00	0.00	
7400.00	90.00	222.48	6341.00	-962.39	-881.25	1304.92	0.00	0.00	0.00	
7500.00	90.00	222.48	6341.00	-1036.15	-948.79	1404.92	0.00	0.00	0.00	
7600.00	90.00	222.48	6341.00	-1109.90	-1016.32	1504.92	0.00	0.00	0.00	
7700.00	90.00	222.48	6341.00	-1183.65	-1083.85	1604.92	0.00	0.00	0.00	
7800.00	90.00	222.48	6341.00	-1257.40	-1151.39	1704.92	0.00	0.00	0.00	
7900.00	90.00	222.48	6341.00	-1331.15	-1218.92	1804.92	0.00	0.00	0.00	
8000.00	90.00	222.48	6341.00	-1404.90	-1286.45	1904.92	0.00	0.00	0.00	
8100.00	90.00	222.48	6341.00	-1478.65	-1353.99	2004.92	0.00	0.00	0.00	
8200.00	90.00	222.48	6341.00	-1552.41	-1421.52	2104.92	0.00	0.00	0.00	
8300.00	90.00	222.48	6341.00	-1626.16	-1489.05	2204.92	0.00	0.00	0.00	
8400.00	90.00	222.48	6341.00	-1699.91	-1556.59	2304.92	0.00	0.00	0.00	
8500.00	90.00	222.48	6341.00	-1773.66	-1624.12	2404.92	0.00	0.00	0.00	
8600.00	90.00	222.48	6341.00	-1847.41	-1691.65	2504.92	0.00	0.00	0.00	
8700.00	90.00	222.48	6341.00	-1921.16	-1759.18	2604.92	0.00	0.00	0.00	
8800.00	90.00	222.48	6341.00	-1994.91	-1826.72	2704.92	0.00	0.00	0.00	
8900.00	90.00	222.48	6341.00	-2068.67	-1894.25	2804.92	0.00	0.00	0.00	
9000.00	90.00	222.48	6341.00	-2142.42	-1961.78	2904.92	0.00	0.00	0.00	
9100.00	90.00	222.48	6341.00	-2216.17	-2029.32	3004.92	0.00	0.00	0.00	
9200.00	90.00	222.48	6341.00	-2289.92	-2096.85	3104.92	0.00	0.00	0.00	
9300.00	90.00	222.48	6341.00	-2363.67	-2164.38	3204.92	0.00	0.00	0.00	
9400.00	90.00	222.48	6341.00	-2437.42	-2231.92	3304.92	0.00	0.00	0.00	
9500.00	90.00	222.48	6341.00	-2511.17	-2299.45	3404.92	0.00	0.00	0.00	
9600.00	90.00	222.48	6341.00	-2584.92	-2366.98	3504.92	0.00	0.00	0.00	
9700.00	90.00	222.48	6341.00	-2658.68	-2434.52	3604.92	0.00	0.00	0.00	
9800.00	90.00	222.48	6341.00	-2732.43	-2502.05	3704.92	0.00	0.00	0.00	
9900.00	90.00	222.48	6341.00	-2806.18	-2569.58	3804.92	0.00	0.00	0.00	
10000.00	90.00	222.48	6341.00	-2879.93	-2637.12	3904.92	0.00	0.00	0.00	
10100.00	90.00	222.48	6341.00	-2953.68	-2704.65	4004.92	0.00	0.00	0.00	
10200.00	90.00	222.48	6341.00	-3027.43	-2772.18	4104.92	0.00	0.00	0.00	
10300.00	90.00	222.48	6341.00	-3101.18	-2839.72	4204.92	0.00	0.00	0.00	
10400.00	90.00	222.48	6341.00	-3174.94	-2907.25	4304.92	0.00	0.00	0.00	
10500.00	90.00	222.48	6341.00	-3248.69	-2974.78	4404.92	0.00	0.00	0.00	
10600.00	90.00	222.48	6341.00	-3322.44	-3042.32	4504.92	0.00	0.00	0.00	
10700.00	90.00	222.48	6341.00	-3396.19	-3109.85	4604.92	0.00	0.00	0.00	
10800.00	90.00	222.48	6341.00	-3469.94	-3177.38	4704.92	0.00	0.00	0.00	
10900.00	90.00	222.48	6341.00	-3543.69	-3244.92	4804.92	0.00	0.00	0.00	
11000.00	90.00	222.48	6341.00	-3617.44	-3312.45	4904.92	0.00	0.00	0.00	
11100.00	90.00	222.48	6341.00	-3691.20	-3379.98	5004.92	0.00	0.00	0.00	
11200.00	90.00	222.48	6341.00	-3764.95	-3447.52	5104.92	0.00	0.00	0.00	
11300.00	90.00	222.48	6341.00	-3838.70	-3515.05	5204.92	0.00	0.00	0.00	
11400.00	90.00	222.48	6341.00	-3912.45	-3582.58	5304.92	0.00	0.00	0.00	
11500.00	90.00	222.48	6341.00	-3986.20	-3650.12	5404.92	0.00	0.00	0.00	
11600.00	90.00	222.48	6341.00	-4059.95	-3717.65	5504.92	0.00	0.00	0.00	
11700.00	90.00	222.48	6341.00	-4133.70	-3785.18	5604.92	0.00	0.00	0.00	

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Pergamos
Well: 1-8-41-7-60
Wellpath: Original Hole

Date: 03/23/2012
Co-ordinate(NE) Reference: Well: 1-8-41-7-60, Grid North
Vertical (TVD) Reference: 4870'GL+17'KB 4887.0
Section (VS) Reference: Well (0.00N,0.00E,222.48Azi)
Plan: Plan #1

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
11800.00	90.00	222.48	6341.00	-4207.45	-3852.71	5704.92	0.00	0.00	0.00	
11900.00	90.00	222.48	6341.00	-4281.21	-3920.25	5804.92	0.00	0.00	0.00	
12000.00	90.00	222.48	6341.00	-4354.96	-3987.78	5904.92	0.00	0.00	0.00	
12100.00	90.00	222.48	6341.00	-4428.71	-4055.31	6004.92	0.00	0.00	0.00	
12116.98	90.00	222.48	6341.00	-4441.23	-4066.78	6021.90	0.00	0.00	0.00	PBHL #1

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ---->			<--- Longitude --->		
SL #1			0.00	0.00	0.00	1463077.48	3386126.26	40	35	46.420 N	104	6	34.360 W
SL Weitzel #8-1 -Circle (Radius: 300)			0.00	-3072.29	-1391.04	1460005.19	3384735.22	40	35	16.280 N	104	6	53.013 W
PBHL #1			6341.00	-4441.23	-4066.78	1458636.25	3382059.48	40	35	3.166 N	104	7	27.966 W