

**Project:** Weld County, CO NAD83  
**Site:** Sec 4-T9N-R61W  
**Well:** Newton 1-4H  
**Wellbore:** Original Hole  
**Plan:** Plan 2  
**Rig:** Rig TBD

## SECTION DETAILS Plan 2

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	
6112.53	0.00	0.00	6112.53	0.00	0.00	0.00	0.00	0.00	
6862.26	89.97	180.00	6590.00	-477.19	0.00	12.00	180.00	477.19	
15522.07	89.97	180.00	6595.00	-9137.00	0.00	0.00	0.00	9137.00	PBHL

Surface Location:  
SHL 250' FNL & 700' FEL Sec 4-T9N-R61W

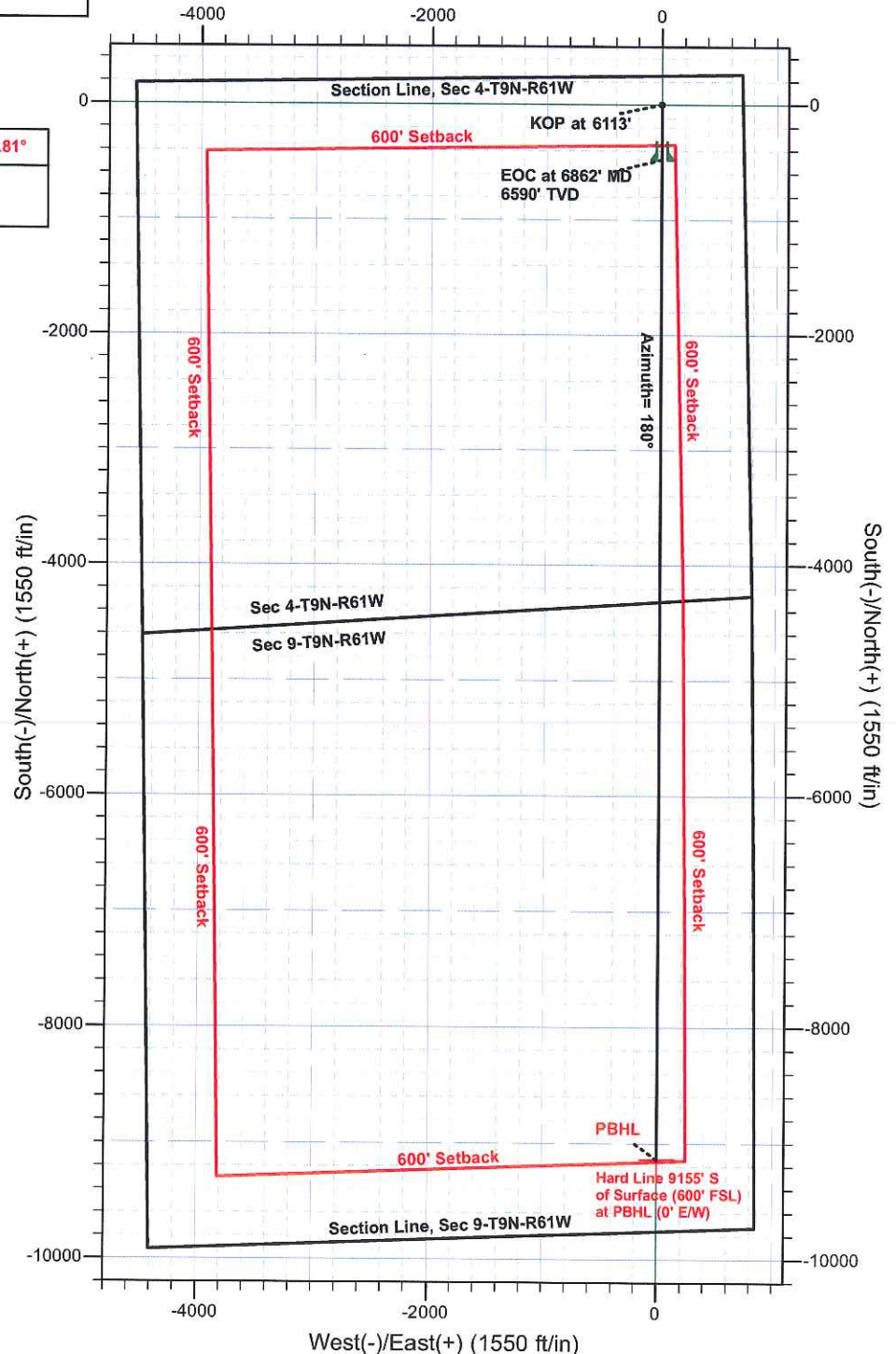
US State Plane 1983  
Colorado Northern Zone  
Elevation: 4985' GL + 20' KB @ 5005.00ft (Rig TBD)  
Northing Easting Latitude Longitude  
1530745.68 3358904.68 40° 46' 59.095 N 104° 12' 14.299 W

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
PBHL	6595.00	-9137.00	0.00	40° 45' 28.822 N	104° 12' 16.034 W

To convert a Magnetic Direction to a Grid Direction, Add 7.81°

Magnetic Model: IGRF2010 Date: 15-Jan-11  
Azimuths & Coordinates to NAD83 Grid



**Project:** Weld County, CO NAD83  
**Site:** Sec 4-T9N-R61W  
**Well:** Newton 1-4H  
**Wellbore:** Original Hole  
**Plan 2**  
**Rig:** Rig TBD



## SECTION DETAILS Plan 2

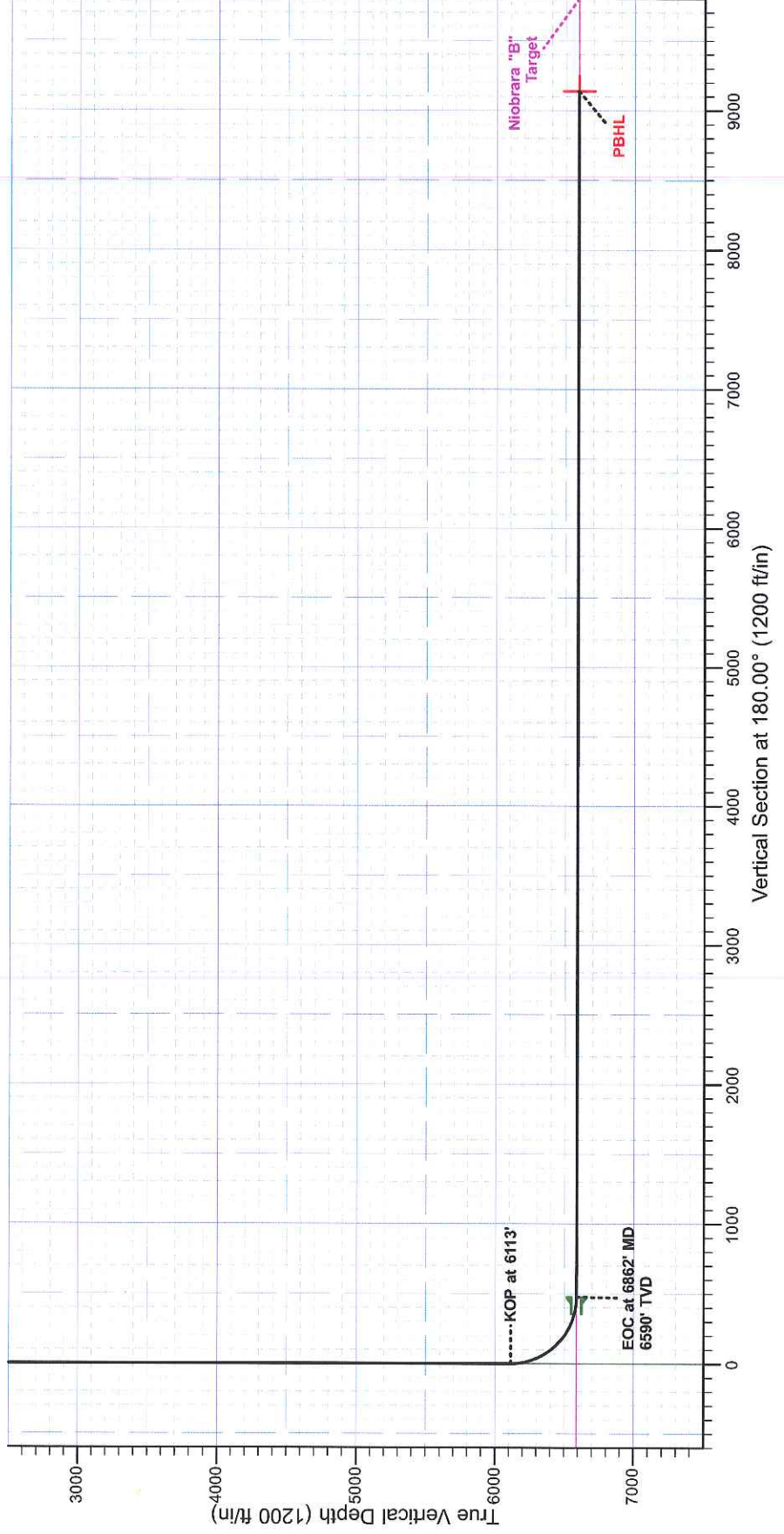
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6112.53	0.00	0.00	6112.53	0.00	0.00	0.00	0.00	0.00	
6862.26	89.97	180.00	6590.00	-477.19	0.00	12.00	180.00	477.19	
15522.07	89.97	180.00	6595.00	-9137.00	0.00	0.00	0.00	9137.00	<b>PBHL</b>

**Surface Location:**  
SHL 250' FNL & 700' FEL Sec 4-T9N-R61W

US State Plane 1983  
Colorado Northern Zone  
Elevation: 4985' GL + 20' KB @ 5005.00ft (Rig TBD)  
Northing Easting Latitude Longitude  
1530745.68 3358904.68 40° 46' 59.095 N 104° 12' 14.299 W

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
<b>PBHL</b>	6595.00	-9137.00	0.00	40° 45' 28.822 N	104° 12' 16.034 W





Project: Weld County, CO NAD83  
Site: Sec 4-T9N-R61W  
Well: Newton 1-4H  
Wellbore: Original Hole  
Plan: Plan 2  
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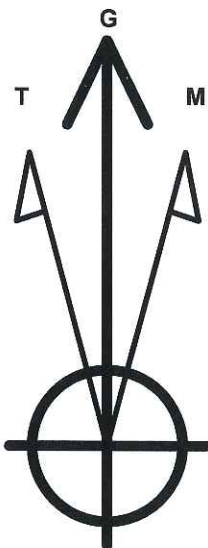
Surface Location:  
SHL 250' FNL & 700' FEL Sec 4-T9N-R61W

US State Plane 1983  
Colorado Northern Zone  
Elevation: 4985' GL + 20' KB @ 5005.00ft (Rig TBD)  

Northing	Easting	Latitude	Longitude
1530745.68	3358904.68	40° 46' 59.095 N	104° 12' 14.299 W

To convert a Magnetic Direction to a Grid Direction, Add 7.81°

Magnetic Model: IGRF2010 Date: 15-Jan-11  
Azimuths & Coordinates to NAD83 Grid



## Azimuths to NAD83 Grid North

True North: -0.84°  
Magnetic North: 7.81°

Magnetic Field  
Strength: 53432.9snT  
Dip Angle: 67.47°  
Date: 2011/01/15  
Model: IGRF2010

Grid North is 0.84° East of True North (Grid Convergence)  
To convert a True Direction to a Grid Direction, Subtract 0.84°  
**To convert a Magnetic Direction to a Grid Direction, Add 7.81°**  
To convert a Magnetic Direction to a True Direction, Add 8.65° East



# **Continental Resources Inc.**

**Weld County, CO NAD83**

**Sec 4-T9N-R61W**

**Newton 1-4H**

**Original Hole**

**Plan: Plan 2**

## **Standard Planning Report**

**01 December, 2010**



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Newton 1-4H
<b>Company:</b>	Continental Resources Inc.	<b>TVD Reference:</b>	4985' GL + 20' KB @ 5005.00ft (Rig TBD)
<b>Project:</b>	Weld County, CO NAD83	<b>MD Reference:</b>	4985' GL + 20' KB @ 5005.00ft (Rig TBD)
<b>Site:</b>	Sec 4-T9N-R61W	<b>North Reference:</b>	Grid
<b>Well:</b>	Newton 1-4H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	Plan 2		

<b>Project</b>	Weld County, CO NAD83		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site		Sec 4-T9N-R61W			
Site Position:		Northing:	1,530,745.68 ft	Latitude:	40° 46' 59.095 N
From:	Lat/Long	Easting:	3,358,904.68 ft	Longitude:	104° 12' 14.299 W
Position Uncertainty:	0.00 ft	Slot Radius:	0 "	Grid Convergence:	0.84 °

Well	Newton 1-4H					
Well Position	+N/-S	0.00 ft	Northing:	1,530,745.68 ft	Latitude:	40° 46' 59.095 N
	+E/-W	0.00 ft	Easting:	3,358,904.68 ft	Longitude:	104° 12' 14.299 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,985.00 ft

<b>Wellbore</b>	Original Hole				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	2011/01/15	7.81° E of Grid	67.47	53,433

<b>Design</b>	Plan 2			
<b>Audit Notes:</b>	SHL 250' FNL & 700' FEL Sec 4-T9N-R61W			
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	180.00

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,112.53	0.00	0.00	6,112.53	0.00	0.00	0.00	0.00	0.00	0.00	
6,862.26	89.97	180.00	6,590.00	-477.19	0.00	12.00	12.00	0.00	180.00	
15,522.07	89.97	180.00	6,595.00	-9,137.00	0.00	0.00	0.00	0.00	0.00	PBHL



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Newton 1-4H
<b>Company:</b>	Continental Resources Inc.	<b>TVD Reference:</b>	4985' GL + 20' KB @ 5005.00ft (Rig TBD)
<b>Project:</b>	Weld County, CO NAD83	<b>MD Reference:</b>	4985' GL + 20' KB @ 5005.00ft (Rig TBD)
<b>Site:</b>	Sec 4-T9N-R61W	<b>North Reference:</b>	Grid
<b>Well:</b>	Newton 1-4H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	Plan 2		

## Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,112.53	0.00	0.00	6,112.53	0.00	0.00	0.00	0.00	0.00	0.00
<b>KOP at 6113'</b>									
6,200.00	10.50	180.00	6,199.51	-7.99	0.00	7.99	12.00	12.00	0.00
6,300.00	22.50	180.00	6,295.22	-36.33	0.00	36.33	12.00	12.00	0.00
6,400.00	34.50	180.00	6,382.95	-83.95	0.00	83.95	12.00	12.00	0.00
6,500.00	46.50	180.00	6,458.85	-148.77	0.00	148.77	12.00	12.00	0.00
6,600.00	58.50	180.00	6,519.62	-227.96	0.00	227.96	12.00	12.00	0.00
6,700.00	70.50	180.00	6,562.60	-318.05	0.00	318.05	12.00	12.00	0.00
6,800.00	82.50	180.00	6,585.91	-415.11	0.00	415.11	12.00	12.00	0.00
6,862.26	89.97	180.00	6,590.00	-477.19	0.00	477.19	12.00	12.00	0.00
<b>EOC at 6862' MD, 6590' TVD - Niobrara "B" Target - 7" Casing Point</b>									
6,900.00	89.97	180.00	6,590.02	-514.93	0.00	514.93	0.00	0.00	0.00
7,000.00	89.97	180.00	6,590.08	-614.93	0.00	614.93	0.00	0.00	0.00
7,100.00	89.97	180.00	6,590.14	-714.93	0.00	714.93	0.00	0.00	0.00
7,200.00	89.97	180.00	6,590.20	-814.93	0.00	814.93	0.00	0.00	0.00
7,300.00	89.97	180.00	6,590.25	-914.93	0.00	914.93	0.00	0.00	0.00
7,400.00	89.97	180.00	6,590.31	-1,014.93	0.00	1,014.93	0.00	0.00	0.00
7,500.00	89.97	180.00	6,590.37	-1,114.93	0.00	1,114.93	0.00	0.00	0.00
7,600.00	89.97	180.00	6,590.43	-1,214.93	0.00	1,214.93	0.00	0.00	0.00
7,700.00	89.97	180.00	6,590.48	-1,314.93	0.00	1,314.93	0.00	0.00	0.00
7,800.00	89.97	180.00	6,590.54	-1,414.93	0.00	1,414.93	0.00	0.00	0.00
7,900.00	89.97	180.00	6,590.60	-1,514.93	0.00	1,514.93	0.00	0.00	0.00
8,000.00	89.97	180.00	6,590.66	-1,614.93	0.00	1,614.93	0.00	0.00	0.00
8,100.00	89.97	180.00	6,590.71	-1,714.93	0.00	1,714.93	0.00	0.00	0.00
8,200.00	89.97	180.00	6,590.77	-1,814.93	0.00	1,814.93	0.00	0.00	0.00
8,300.00	89.97	180.00	6,590.83	-1,914.93	0.00	1,914.93	0.00	0.00	0.00
8,400.00	89.97	180.00	6,590.89	-2,014.93	0.00	2,014.93	0.00	0.00	0.00
8,500.00	89.97	180.00	6,590.95	-2,114.93	0.00	2,114.93	0.00	0.00	0.00
8,600.00	89.97	180.00	6,591.00	-2,214.93	0.00	2,214.93	0.00	0.00	0.00
8,700.00	89.97	180.00	6,591.06	-2,314.93	0.00	2,314.93	0.00	0.00	0.00
8,800.00	89.97	180.00	6,591.12	-2,414.93	0.00	2,414.93	0.00	0.00	0.00
8,900.00	89.97	180.00	6,591.18	-2,514.93	0.00	2,514.93	0.00	0.00	0.00
9,000.00	89.97	180.00	6,591.23	-2,614.93	0.00	2,614.93	0.00	0.00	0.00
9,100.00	89.97	180.00	6,591.29	-2,714.93	0.00	2,714.93	0.00	0.00	0.00
9,200.00	89.97	180.00	6,591.35	-2,814.93	0.00	2,814.93	0.00	0.00	0.00
9,300.00	89.97	180.00	6,591.41	-2,914.93	0.00	2,914.93	0.00	0.00	0.00
9,400.00	89.97	180.00	6,591.47	-3,014.93	0.00	3,014.93	0.00	0.00	0.00
9,500.00	89.97	180.00	6,591.52	-3,114.93	0.00	3,114.93	0.00	0.00	0.00
9,600.00	89.97	180.00	6,591.58	-3,214.93	0.00	3,214.93	0.00	0.00	0.00
9,700.00	89.97	180.00	6,591.64	-3,314.93	0.00	3,314.93	0.00	0.00	0.00
9,800.00	89.97	180.00	6,591.70	-3,414.93	0.00	3,414.93	0.00	0.00	0.00
9,900.00	89.97	180.00	6,591.75	-3,514.93	0.00	3,514.93	0.00	0.00	0.00
10,000.00	89.97	180.00	6,591.81	-3,614.93	0.00	3,614.93	0.00	0.00	0.00
10,100.00	89.97	180.00	6,591.87	-3,714.93	0.00	3,714.93	0.00	0.00	0.00
10,200.00	89.97	180.00	6,591.93	-3,814.93	0.00	3,814.93	0.00	0.00	0.00
10,300.00	89.97	180.00	6,591.99	-3,914.93	0.00	3,914.93	0.00	0.00	0.00
10,400.00	89.97	180.00	6,592.04	-4,014.93	0.00	4,014.93	0.00	0.00	0.00
10,500.00	89.97	180.00	6,592.10	-4,114.93	0.00	4,114.93	0.00	0.00	0.00
10,600.00	89.97	180.00	6,592.16	-4,214.93	0.00	4,214.93	0.00	0.00	0.00
10,700.00	89.97	180.00	6,592.22	-4,314.93	0.00	4,314.93	0.00	0.00	0.00
10,800.00	89.97	180.00	6,592.27	-4,414.93	0.00	4,414.93	0.00	0.00	0.00
10,900.00	89.97	180.00	6,592.33	-4,514.93	0.00	4,514.93	0.00	0.00	0.00
11,000.00	89.97	180.00	6,592.39	-4,614.93	0.00	4,614.93	0.00	0.00	0.00





<b>Local Co-ordinate Reference:</b>	Well Newton 1-4H
<b>TVD Reference:</b>	4985' GL + 20' KB @ 5005.00ft (Rig TBD)
<b>MD Reference:</b>	4985' GL + 20' KB @ 5005.00ft (Rig TBD)
<b>North Reference:</b>	Grid
<b>Survey Calculation Method:</b>	Minimum Curvature

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
11,100.00	89.97	180.00	6,592.45	-4,714.93	0.00	4,714.93	0.00	0.00	0.00
11,200.00	89.97	180.00	6,592.50	-4,814.93	0.00	4,814.93	0.00	0.00	0.00
11,300.00	89.97	180.00	6,592.56	-4,914.93	0.00	4,914.93	0.00	0.00	0.00
11,400.00	89.97	180.00	6,592.62	-5,014.93	0.00	5,014.93	0.00	0.00	0.00
11,500.00	89.97	180.00	6,592.68	-5,114.93	0.00	5,114.93	0.00	0.00	0.00
11,600.00	89.97	180.00	6,592.74	-5,214.93	0.00	5,214.93	0.00	0.00	0.00
11,700.00	89.97	180.00	6,592.79	-5,314.93	0.00	5,314.93	0.00	0.00	0.00
11,800.00	89.97	180.00	6,592.85	-5,414.93	0.00	5,414.93	0.00	0.00	0.00
11,900.00	89.97	180.00	6,592.91	-5,514.93	0.00	5,514.93	0.00	0.00	0.00
12,000.00	89.97	180.00	6,592.97	-5,614.93	0.00	5,614.93	0.00	0.00	0.00
12,100.00	89.97	180.00	6,593.02	-5,714.93	0.00	5,714.93	0.00	0.00	0.00
12,200.00	89.97	180.00	6,593.08	-5,814.93	0.00	5,814.93	0.00	0.00	0.00
12,300.00	89.97	180.00	6,593.14	-5,914.93	0.00	5,914.93	0.00	0.00	0.00
12,400.00	89.97	180.00	6,593.20	-6,014.93	0.00	6,014.93	0.00	0.00	0.00
12,500.00	89.97	180.00	6,593.26	-6,114.93	0.00	6,114.93	0.00	0.00	0.00
12,600.00	89.97	180.00	6,593.31	-6,214.93	0.00	6,214.93	0.00	0.00	0.00
12,700.00	89.97	180.00	6,593.37	-6,314.93	0.00	6,314.93	0.00	0.00	0.00
12,800.00	89.97	180.00	6,593.43	-6,414.93	0.00	6,414.93	0.00	0.00	0.00
12,900.00	89.97	180.00	6,593.49	-6,514.93	0.00	6,514.93	0.00	0.00	0.00
13,000.00	89.97	180.00	6,593.54	-6,614.93	0.00	6,614.93	0.00	0.00	0.00
13,100.00	89.97	180.00	6,593.60	-6,714.93	0.00	6,714.93	0.00	0.00	0.00
13,200.00	89.97	180.00	6,593.66	-6,814.93	0.00	6,814.93	0.00	0.00	0.00
13,300.00	89.97	180.00	6,593.72	-6,914.93	0.00	6,914.93	0.00	0.00	0.00
13,400.00	89.97	180.00	6,593.77	-7,014.93	0.00	7,014.93	0.00	0.00	0.00
13,500.00	89.97	180.00	6,593.83	-7,114.93	0.00	7,114.93	0.00	0.00	0.00
13,600.00	89.97	180.00	6,593.89	-7,214.93	0.00	7,214.93	0.00	0.00	0.00
13,700.00	89.97	180.00	6,593.95	-7,314.93	0.00	7,314.93	0.00	0.00	0.00
13,800.00	89.97	180.00	6,594.01	-7,414.93	0.00	7,414.93	0.00	0.00	0.00
13,900.00	89.97	180.00	6,594.06	-7,514.93	0.00	7,514.93	0.00	0.00	0.00
14,000.00	89.97	180.00	6,594.12	-7,614.93	0.00	7,614.93	0.00	0.00	0.00
14,100.00	89.97	180.00	6,594.18	-7,714.93	0.00	7,714.93	0.00	0.00	0.00
14,200.00	89.97	180.00	6,594.24	-7,814.93	0.00	7,814.93	0.00	0.00	0.00
14,300.00	89.97	180.00	6,594.29	-7,914.93	0.00	7,914.93	0.00	0.00	0.00
14,400.00	89.97	180.00	6,594.35	-8,014.93	0.00	8,014.93	0.00	0.00	0.00
14,500.00	89.97	180.00	6,594.41	-8,114.93	0.00	8,114.93	0.00	0.00	0.00
14,600.00	89.97	180.00	6,594.47	-8,214.93	0.00	8,214.93	0.00	0.00	0.00
14,700.00	89.97	180.00	6,594.53	-8,314.93	0.00	8,314.93	0.00	0.00	0.00
14,800.00	89.97	180.00	6,594.58	-8,414.93	0.00	8,414.93	0.00	0.00	0.00
14,900.00	89.97	180.00	6,594.64	-8,514.93	0.00	8,514.93	0.00	0.00	0.00
15,000.00	89.97	180.00	6,594.70	-8,614.93	0.00	8,614.93	0.00	0.00	0.00
15,100.00	89.97	180.00	6,594.76	-8,714.93	0.00	8,714.93	0.00	0.00	0.00
15,200.00	89.97	180.00	6,594.81	-8,814.93	0.00	8,814.93	0.00	0.00	0.00
15,300.00	89.97	180.00	6,594.87	-8,914.93	0.00	8,914.93	0.00	0.00	0.00
15,400.00	89.97	180.00	6,594.93	-9,014.93	0.00	9,014.93	0.00	0.00	0.00
15,500.00	89.97	180.00	6,594.99	-9,114.93	0.00	9,114.93	0.00	0.00	0.00
15,522.07	89.97	180.00	6,595.00	-9,137.00	0.00	9,137.00	0.00	0.00	0.00
PBHL									

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Newton 1-4H
<b>Company:</b>	Continental Resources Inc.	<b>TVD Reference:</b>	4985' GL + 20' KB @ 5005.00ft (Rig TBD)
<b>Project:</b>	Weld County, CO NAD83	<b>MD Reference:</b>	4985' GL + 20' KB @ 5005.00ft (Rig TBD)
<b>Site:</b>	Sec 4-T9N-R61W	<b>North Reference:</b>	Grid
<b>Well:</b>	Newton 1-4H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	Plan 2		

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
6,862.26	6,590.00	7" Casing	7	7-1/2

Formations				
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip Direction (°)
6,862.26	6,590.00	Niobrara "B" Target		0.03 180.00

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
6,112.53	6,112.53	0.00	0.00	KOP at 6113'
6,862.26	6,590.00	-477.19	0.00	EOC at 6862' MD, 6590' TVD
6,862.26	6,590.00	-477.19	0.00	Azimuth= 180°