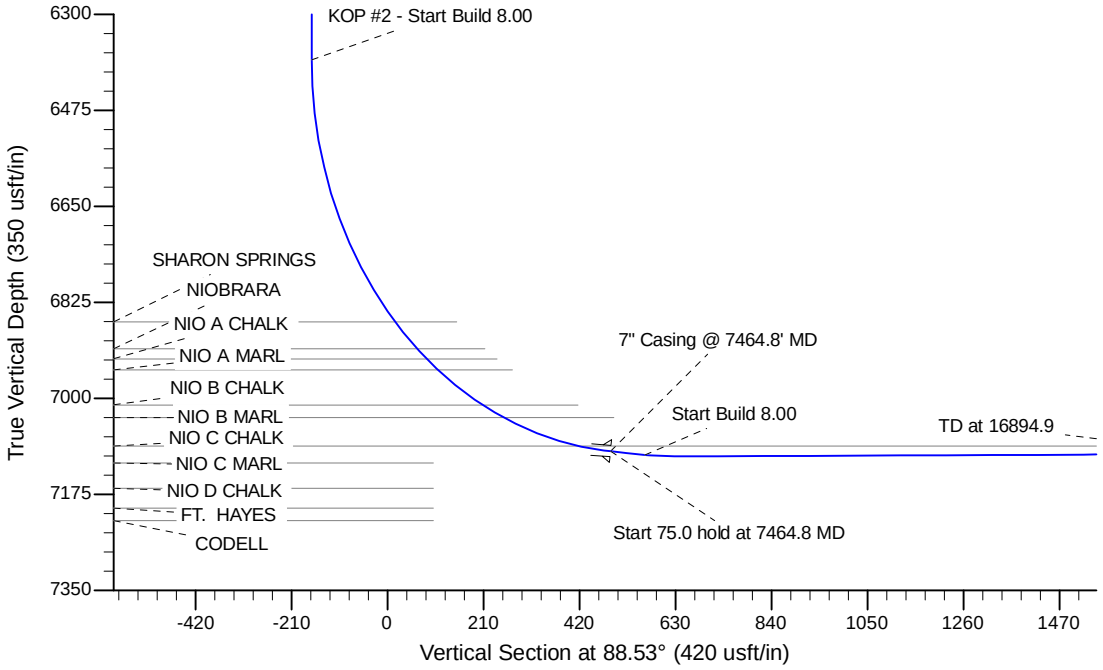
Project: Wattenberg Field
Site: K (Sec.27-T04-R66W) Weld County, CO
Well: Burton K25-69-1HNL
Wellbore: Original Drilling
Design: APD - Rev 1

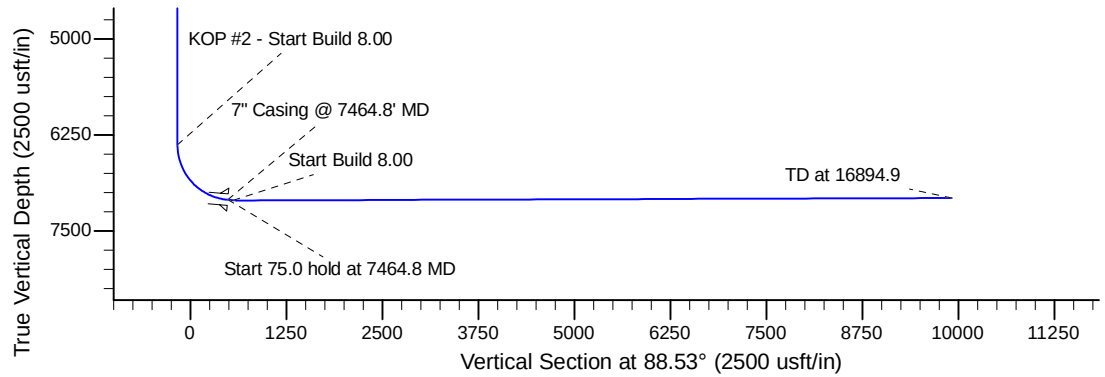
Northern Region Drilling

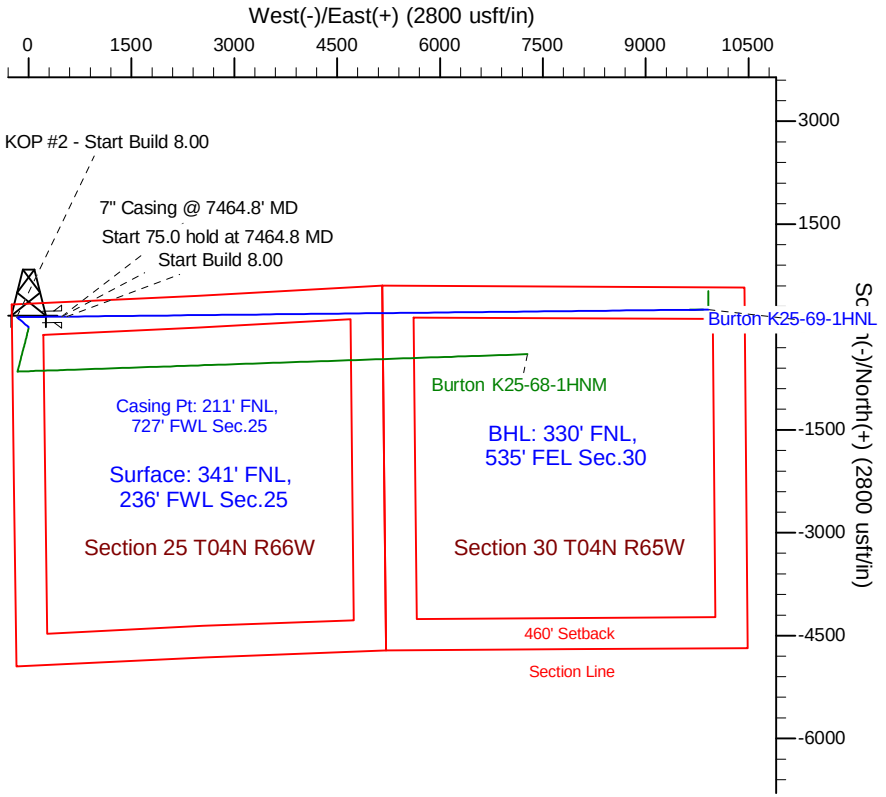
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	
3	2104.4	12.09	310.46	2099.9	41.2	-48.3	2.00	310.46	-47.2	
4	2564.8	12.09	310.46	2550.1	103.8	-121.7	0.00	0.00	-119.0	
5	3169.2	0.00	0.00	3150.0	145.0	-170.0	2.00	180.00	-166.2	
6	6402.3	0.00	0.00	6383.1	145.0	-170.0	0.00	0.00	-166.2	
7	7464.8	85.00	89.37	7096.6	152.1	483.7	8.00	89.37	487.5	
8	7539.8	85.00	89.37	7103.1	153.0	558.4	0.00	0.00	562.2	
9	7604.8	90.20	89.37	7105.8	153.7	623.4	8.00	0.00	627.1	
10	16894.9	90.20	89.37	7073.4	255.2	9912.9	0.00	0.00	9916.2	Burton K25-69-1HNL BHL 330'FNL, 535'FEL







T G M

Azimuths to Grid North
True North: -0.49°
Magnetic North: 8.04°

Magnetic Field
Strength: 52901.3snT
Dip Angle: 66.91°
Date: 5/17/2013
Model: IGRF200510

WELL DETAILS: Burton K25-69-1HNL

Ground Level: 4752.0

		Northing	Easting	Latittude	Longitude
0.0	0.0	1349148.67	3213665.17	40.289280	-104.734070

Plan: APD - Rev 1 (Burton K25-69-1HNL/Original Drilling)

Created By: Shailey Jewell Date: 8:13, June 12 2013

Checked: _____ Date: _____

Reviewed: _____ Date: _____

Approved: _____ Date: _____

Northern Region Drilling

Wattenberg Field
K (04-66W)
Burton K25-69-1HNL

Original Drilling

Plan: APD - Rev 1

Standard Planning Report

12 June, 2013

Database:	EDM Production	**Local Co-ordinate Reference:**	Well Burton K25-69-1HNL
Company:	Northern Region Drilling	**TVD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Project:	Wattenberg Field	**MD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Site:	K (04-66W)	**North Reference:**	Grid
Well:	Burton K25-69-1HNL	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD - Rev 1		

Project Wattenberg Field, Weld County CO

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site K (04-66W)

Site Position:		**Northing:**	1,345,613.68 usft	**Latitude:**	40.279820
From:	Lat/Long	**Easting:**	3,203,135.01 usft	**Longitude:**	-104.771920
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.47 °

Well Burton K25-69-1HNL

Well Position	**+N/-S**	3,535.1 usft	**Northing:**	1,349,148.67 usft	**Latitude:**	40.289280
	+E/-W	10,530.6 usft	**Easting:**	3,213,665.17 usft	**Longitude:**	-104.734070
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	4,752.0 usft

Wellbore Original Drilling

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	5/17/2013	8.53	66.91	52,901

Design APD - Rev 1

Audit Notes:					
Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	88.53

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	

Database:	EDM Production	**Local Co-ordinate Reference:**	Well Burton K25-69-1HNL
Company:	Northern Region Drilling	**TVD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Project:	Wattenberg Field	**MD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Site:	K (04-66W)	**North Reference:**	Grid
Well:	Burton K25-69-1HNL	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD - Rev 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
50.0	0.00	0.00	50.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
150.0	0.00	0.00	150.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
250.0	0.00	0.00	250.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
350.0	0.00	0.00	350.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
450.0	0.00	0.00	450.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
550.0	0.00	0.00	550.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
650.0	0.00	0.00	650.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
750.0	0.00	0.00	750.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
850.0	0.00	0.00	850.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
950.0	0.00	0.00	950.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,050.0	0.00	0.00	1,050.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,150.0	0.00	0.00	1,150.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,250.0	0.00	0.00	1,250.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,350.0	0.00	0.00	1,350.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,450.0	0.00	0.00	1,450.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 2.00									
1,550.0	1.00	310.46	1,550.0	0.3	-0.3	-0.3	2.00	2.00	0.00
1,600.0	2.00	310.46	1,600.0	1.1	-1.3	-1.3	2.00	2.00	0.00
1,650.0	3.00	310.46	1,649.9	2.5	-3.0	-2.9	2.00	2.00	0.00
1,700.0	4.00	310.46	1,699.8	4.5	-5.3	-5.2	2.00	2.00	0.00
1,750.0	5.00	310.46	1,749.7	7.1	-8.3	-8.1	2.00	2.00	0.00
1,800.0	6.00	310.46	1,799.5	10.2	-11.9	-11.7	2.00	2.00	0.00
1,850.0	7.00	310.46	1,849.1	13.9	-16.2	-15.9	2.00	2.00	0.00
1,900.0	8.00	310.46	1,898.7	18.1	-21.2	-20.7	2.00	2.00	0.00
1,950.0	9.00	310.46	1,948.2	22.9	-26.8	-26.2	2.00	2.00	0.00
2,000.0	10.00	310.46	1,997.5	28.2	-33.1	-32.4	2.00	2.00	0.00
2,050.0	11.00	310.46	2,046.6	34.2	-40.0	-39.2	2.00	2.00	0.00
2,100.0	12.00	310.46	2,095.6	40.6	-47.6	-46.6	2.00	2.00	0.00
2,104.4	12.09	310.46	2,099.9	41.2	-48.3	-47.2	2.00	2.00	0.00
2,150.0	12.09	310.46	2,144.5	47.4	-55.6	-54.4	0.00	0.00	0.00
2,200.0	12.09	310.46	2,193.4	54.2	-63.6	-62.1	0.00	0.00	0.00
2,250.0	12.09	310.46	2,242.3	61.0	-71.5	-69.9	0.00	0.00	0.00
2,300.0	12.09	310.46	2,291.2	67.8	-79.5	-77.7	0.00	0.00	0.00
2,350.0	12.09	310.46	2,340.1	74.6	-87.5	-85.5	0.00	0.00	0.00
2,400.0	12.09	310.46	2,389.0	81.4	-95.4	-93.3	0.00	0.00	0.00
2,450.0	12.09	310.46	2,437.9	88.2	-103.4	-101.1	0.00	0.00	0.00
2,500.0	12.09	310.46	2,486.8	95.0	-111.4	-108.9	0.00	0.00	0.00
2,550.0	12.09	310.46	2,535.6	101.8	-119.3	-116.7	0.00	0.00	0.00

Database:	EDM Production	**Local Co-ordinate Reference:**	Well Burton K25-69-1HNL
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Project:	Wattenberg Field	**MD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Site:	K (04-66W)	**North Reference:**	Grid
Well:	Burton K25-69-1HNL	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD - Rev 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,564.8	12.09	310.46	2,550.1	103.8	-121.7	-119.0	0.00	0.00	0.00
Start Drop -2.00									
2,600.0	11.38	310.46	2,584.6	108.4	-127.1	-124.3	2.00	-2.00	0.00
2,650.0	10.38	310.46	2,633.7	114.6	-134.3	-131.3	2.00	-2.00	0.00
2,700.0	9.38	310.46	2,682.9	120.1	-140.8	-137.7	2.00	-2.00	0.00
2,750.0	8.38	310.46	2,732.3	125.1	-146.7	-143.4	2.00	-2.00	0.00
2,800.0	7.38	310.46	2,781.9	129.6	-151.9	-148.5	2.00	-2.00	0.00
2,850.0	6.38	310.46	2,831.5	133.5	-156.5	-153.0	2.00	-2.00	0.00
2,900.0	5.38	310.46	2,881.2	136.8	-160.4	-156.8	2.00	-2.00	0.00
2,950.0	4.38	310.46	2,931.1	139.6	-163.6	-160.0	2.00	-2.00	0.00
3,000.0	3.38	310.46	2,980.9	141.8	-166.2	-162.5	2.00	-2.00	0.00
3,050.0	2.38	310.46	3,030.9	143.4	-168.1	-164.4	2.00	-2.00	0.00
3,100.0	1.38	310.46	3,080.9	144.5	-169.4	-165.6	2.00	-2.00	0.00
3,150.0	0.38	310.46	3,130.8	145.0	-170.0	-166.2	2.00	-2.00	0.00
3,169.2	0.00	0.00	3,150.0	145.0	-170.0	-166.2	2.00	-2.00	0.00
3,200.0	0.00	0.00	3,180.8	145.0	-170.0	-166.2	0.00	0.00	0.00
3,250.0	0.00	0.00	3,230.8	145.0	-170.0	-166.2	0.00	0.00	0.00
3,300.0	0.00	0.00	3,280.8	145.0	-170.0	-166.2	0.00	0.00	0.00
3,350.0	0.00	0.00	3,330.8	145.0	-170.0	-166.2	0.00	0.00	0.00
3,400.0	0.00	0.00	3,380.8	145.0	-170.0	-166.2	0.00	0.00	0.00
3,450.0	0.00	0.00	3,430.8	145.0	-170.0	-166.2	0.00	0.00	0.00
3,500.0	0.00	0.00	3,480.8	145.0	-170.0	-166.2	0.00	0.00	0.00
3,550.0	0.00	0.00	3,530.8	145.0	-170.0	-166.2	0.00	0.00	0.00
3,600.0	0.00	0.00	3,580.8	145.0	-170.0	-166.2	0.00	0.00	0.00
3,650.0	0.00	0.00	3,630.8	145.0	-170.0	-166.2	0.00	0.00	0.00
3,700.0	0.00	0.00	3,680.8	145.0	-170.0	-166.2	0.00	0.00	0.00
3,750.0	0.00	0.00	3,730.8	145.0	-170.0	-166.2	0.00	0.00	0.00
3,800.0	0.00	0.00	3,780.8	145.0	-170.0	-166.2	0.00	0.00	0.00
3,850.0	0.00	0.00	3,830.8	145.0	-170.0	-166.2	0.00	0.00	0.00
3,900.0	0.00	0.00	3,880.8	145.0	-170.0	-166.2	0.00	0.00	0.00
3,950.0	0.00	0.00	3,930.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,000.0	0.00	0.00	3,980.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,050.0	0.00	0.00	4,030.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,100.0	0.00	0.00	4,080.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,150.0	0.00	0.00	4,130.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,200.0	0.00	0.00	4,180.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,250.0	0.00	0.00	4,230.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,300.0	0.00	0.00	4,280.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,350.0	0.00	0.00	4,330.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,400.0	0.00	0.00	4,380.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,450.0	0.00	0.00	4,430.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,500.0	0.00	0.00	4,480.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,550.0	0.00	0.00	4,530.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,600.0	0.00	0.00	4,580.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,650.0	0.00	0.00	4,630.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,700.0	0.00	0.00	4,680.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,750.0	0.00	0.00	4,730.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,800.0	0.00	0.00	4,780.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,850.0	0.00	0.00	4,830.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,900.0	0.00	0.00	4,880.8	145.0	-170.0	-166.2	0.00	0.00	0.00
4,950.0	0.00	0.00	4,930.8	145.0	-170.0	-166.2	0.00	0.00	0.00
5,000.0	0.00	0.00	4,980.8	145.0	-170.0	-166.2	0.00	0.00	0.00
5,050.0	0.00	0.00	5,030.8	145.0	-170.0	-166.2	0.00	0.00	0.00

Database:	EDM Production	**Local Co-ordinate Reference:**	Well Burton K25-69-1HNL
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Well:	Burton K25-69-1HNL	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD - Rev 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,100.0	0.00	0.00	5,080.8	145.0	-170.0	-166.2	0.00	0.00	0.00
5,150.0	0.00	0.00	5,130.8	145.0	-170.0	-166.2	0.00	0.00	0.00
5,200.0	0.00	0.00	5,180.8	145.0	-170.0	-166.2	0.00	0.00	0.00
5,250.0	0.00	0.00	5,230.8	145.0	-170.0	-166.2	0.00	0.00	0.00
5,300.0	0.00	0.00	5,280.8	145.0	-170.0	-166.2	0.00	0.00	0.00
5,350.0	0.00	0.00	5,330.8	145.0	-170.0	-166.2	0.00	0.00	0.00
5,400.0	0.00	0.00	5,380.8	145.0	-170.0	-166.2	0.00	0.00	0.00
5,450.0	0.00	0.00	5,430.8	145.0	-170.0	-166.2	0.00	0.00	0.00
5,500.0	0.00	0.00	5,480.8	145.0	-170.0	-166.2	0.00	0.00	0.00
5,550.0	0.00	0.00	5,530.8	145.0	-170.0	-166.2	0.00	0.00	0.00
5,600.0	0.00	0.00	5,580.8	145.0	-170.0	-166.2	0.00	0.00	0.00
5,650.0	0.00	0.00	5,630.8	145.0	-170.0	-166.2	0.00	0.00	0.00
5,700.0	0.00	0.00	5,680.8	145.0	-170.0	-166.2	0.00	0.00	0.00
5,750.0	0.00	0.00	5,730.8	145.0	-170.0	-166.2	0.00	0.00	0.00
5,800.0	0.00	0.00	5,780.8	145.0	-170.0	-166.2	0.00	0.00	0.00
5,850.0	0.00	0.00	5,830.8	145.0	-170.0	-166.2	0.00	0.00	0.00
5,900.0	0.00	0.00	5,880.8	145.0	-170.0	-166.2	0.00	0.00	0.00
5,950.0	0.00	0.00	5,930.8	145.0	-170.0	-166.2	0.00	0.00	0.00
6,000.0	0.00	0.00	5,980.8	145.0	-170.0	-166.2	0.00	0.00	0.00
6,050.0	0.00	0.00	6,030.8	145.0	-170.0	-166.2	0.00	0.00	0.00
6,100.0	0.00	0.00	6,080.8	145.0	-170.0	-166.2	0.00	0.00	0.00
6,150.0	0.00	0.00	6,130.8	145.0	-170.0	-166.2	0.00	0.00	0.00
6,200.0	0.00	0.00	6,180.8	145.0	-170.0	-166.2	0.00	0.00	0.00
6,250.0	0.00	0.00	6,230.8	145.0	-170.0	-166.2	0.00	0.00	0.00
6,300.0	0.00	0.00	6,280.8	145.0	-170.0	-166.2	0.00	0.00	0.00
6,350.0	0.00	0.00	6,330.8	145.0	-170.0	-166.2	0.00	0.00	0.00
6,400.0	0.00	0.00	6,380.8	145.0	-170.0	-166.2	0.00	0.00	0.00
6,402.3	0.00	0.00	6,383.1	145.0	-170.0	-166.2	0.00	0.00	0.00
KOP #2 - Start Build 8.00									
6,450.0	3.82	89.37	6,430.8	145.0	-168.4	-164.6	8.01	8.01	0.00
6,500.0	7.82	89.37	6,480.5	145.1	-163.3	-159.6	8.00	8.00	0.00
6,550.0	11.82	89.37	6,529.8	145.2	-154.8	-151.0	8.00	8.00	0.00
6,600.0	15.82	89.37	6,578.3	145.3	-142.9	-139.1	8.00	8.00	0.00
6,650.0	19.82	89.37	6,625.9	145.5	-127.6	-123.8	8.00	8.00	0.00
6,700.0	23.82	89.37	6,672.3	145.7	-109.0	-105.2	8.00	8.00	0.00
6,750.0	27.82	89.37	6,717.3	145.9	-87.2	-83.4	8.00	8.00	0.00
6,800.0	31.82	89.37	6,760.7	146.2	-62.4	-58.6	8.00	8.00	0.00
6,850.0	35.82	89.37	6,802.2	146.5	-34.5	-30.8	8.00	8.00	0.00
6,900.0	39.82	89.37	6,841.7	146.8	-3.9	-0.1	8.00	8.00	0.00
6,950.0	43.82	89.37	6,879.0	147.2	29.4	33.2	8.00	8.00	0.00
7,000.0	47.82	89.37	6,913.8	147.6	65.3	69.1	8.00	8.00	0.00
7,050.0	51.82	89.37	6,946.1	148.0	103.5	107.2	8.00	8.00	0.00
7,100.0	55.82	89.37	6,975.6	148.4	143.8	147.6	8.00	8.00	0.00
7,150.0	59.82	89.37	7,002.2	148.9	186.1	189.9	8.00	8.00	0.00
7,200.0	63.82	89.37	7,025.8	149.4	230.2	234.0	8.00	8.00	0.00
7,250.0	67.82	89.37	7,046.3	149.9	275.8	279.6	8.00	8.00	0.00
7,300.0	71.82	89.37	7,063.5	150.4	322.7	326.5	8.00	8.00	0.00
7,350.0	75.82	89.37	7,077.5	150.9	370.7	374.5	8.00	8.00	0.00
7,400.0	79.82	89.37	7,088.0	151.4	419.6	423.3	8.00	8.00	0.00
7,450.0	83.82	89.37	7,095.1	152.0	469.1	472.8	8.00	8.00	0.00
7,464.8	85.00	89.37	7,096.6	152.1	483.8	487.5	7.97	7.97	0.00
Start 75.0 hold at 7464.8 MD - 7" Casing @ 7464.8' MD									
7,500.0	85.00	89.37	7,099.6	152.5	518.8	522.6	0.00	0.00	0.00
7,539.8	85.00	89.37	7,103.1	153.0	558.5	562.2	0.00	0.00	0.00

Database:	EDM Production	**Local Co-ordinate Reference:**	Well Burton K25-69-1HNL
Company:	Northern Region Drilling	**TVD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Project:	Wattenberg Field	**MD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Site:	K (04-66W)	**North Reference:**	Grid
Well:	Burton K25-69-1HNL	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD - Rev 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Start Build 8.00									
7,550.0	85.82	89.37	7,103.9	153.1	568.7	572.4	8.04	8.04	0.00
7,600.0	89.82	89.37	7,105.8	153.6	618.6	622.4	8.00	8.00	0.00
7,604.8	90.20	89.37	7,105.8	153.7	623.4	627.1	8.00	8.00	0.00
7,650.0	90.20	89.37	7,105.7	154.2	668.6	672.4	0.00	0.00	0.00
7,700.0	90.20	89.37	7,105.5	154.7	718.6	722.3	0.00	0.00	0.00
7,750.0	90.20	89.37	7,105.3	155.3	768.6	772.3	0.00	0.00	0.00
7,800.0	90.20	89.37	7,105.1	155.8	818.6	822.3	0.00	0.00	0.00
7,850.0	90.20	89.37	7,105.0	156.4	868.6	872.3	0.00	0.00	0.00
7,900.0	90.20	89.37	7,104.8	156.9	918.6	922.3	0.00	0.00	0.00
7,950.0	90.20	89.37	7,104.6	157.4	968.6	972.3	0.00	0.00	0.00
8,000.0	90.20	89.37	7,104.4	158.0	1,018.6	1,022.3	0.00	0.00	0.00
8,050.0	90.20	89.37	7,104.3	158.5	1,068.6	1,072.3	0.00	0.00	0.00
8,100.0	90.20	89.37	7,104.1	159.1	1,118.6	1,122.3	0.00	0.00	0.00
8,150.0	90.20	89.37	7,103.9	159.6	1,168.6	1,172.3	0.00	0.00	0.00
8,200.0	90.20	89.37	7,103.8	160.2	1,218.6	1,222.3	0.00	0.00	0.00
8,250.0	90.20	89.37	7,103.6	160.7	1,268.6	1,272.3	0.00	0.00	0.00
8,300.0	90.20	89.37	7,103.4	161.3	1,318.6	1,322.3	0.00	0.00	0.00
8,350.0	90.20	89.37	7,103.2	161.8	1,368.6	1,372.3	0.00	0.00	0.00
8,400.0	90.20	89.37	7,103.1	162.4	1,418.6	1,422.3	0.00	0.00	0.00
8,450.0	90.20	89.37	7,102.9	162.9	1,468.6	1,472.3	0.00	0.00	0.00
8,500.0	90.20	89.37	7,102.7	163.5	1,518.6	1,522.3	0.00	0.00	0.00
8,550.0	90.20	89.37	7,102.5	164.0	1,568.5	1,572.3	0.00	0.00	0.00
8,600.0	90.20	89.37	7,102.4	164.5	1,618.5	1,622.2	0.00	0.00	0.00
8,650.0	90.20	89.37	7,102.2	165.1	1,668.5	1,672.2	0.00	0.00	0.00
8,700.0	90.20	89.37	7,102.0	165.6	1,718.5	1,722.2	0.00	0.00	0.00
8,750.0	90.20	89.37	7,101.8	166.2	1,768.5	1,772.2	0.00	0.00	0.00
8,800.0	90.20	89.37	7,101.7	166.7	1,818.5	1,822.2	0.00	0.00	0.00
8,850.0	90.20	89.37	7,101.5	167.3	1,868.5	1,872.2	0.00	0.00	0.00
8,900.0	90.20	89.37	7,101.3	167.8	1,918.5	1,922.2	0.00	0.00	0.00
8,950.0	90.20	89.37	7,101.1	168.4	1,968.5	1,972.2	0.00	0.00	0.00
9,000.0	90.20	89.37	7,101.0	168.9	2,018.5	2,022.2	0.00	0.00	0.00
9,050.0	90.20	89.37	7,100.8	169.5	2,068.5	2,072.2	0.00	0.00	0.00
9,100.0	90.20	89.37	7,100.6	170.0	2,118.5	2,122.2	0.00	0.00	0.00
9,150.0	90.20	89.37	7,100.4	170.6	2,168.5	2,172.2	0.00	0.00	0.00
9,200.0	90.20	89.37	7,100.3	171.1	2,218.5	2,222.2	0.00	0.00	0.00
9,250.0	90.20	89.37	7,100.1	171.7	2,268.5	2,272.2	0.00	0.00	0.00
9,300.0	90.20	89.37	7,099.9	172.2	2,318.5	2,322.2	0.00	0.00	0.00
9,350.0	90.20	89.37	7,099.7	172.7	2,368.5	2,372.2	0.00	0.00	0.00
9,400.0	90.20	89.37	7,099.6	173.3	2,418.5	2,422.2	0.00	0.00	0.00
9,450.0	90.20	89.37	7,099.4	173.8	2,468.5	2,472.1	0.00	0.00	0.00
9,500.0	90.20	89.37	7,099.2	174.4	2,518.5	2,522.1	0.00	0.00	0.00
9,550.0	90.20	89.37	7,099.0	174.9	2,568.5	2,572.1	0.00	0.00	0.00
9,600.0	90.20	89.37	7,098.9	175.5	2,618.5	2,622.1	0.00	0.00	0.00
9,650.0	90.20	89.37	7,098.7	176.0	2,668.5	2,672.1	0.00	0.00	0.00
9,700.0	90.20	89.37	7,098.5	176.6	2,718.5	2,722.1	0.00	0.00	0.00
9,750.0	90.20	89.37	7,098.3	177.1	2,768.5	2,772.1	0.00	0.00	0.00
9,800.0	90.20	89.37	7,098.2	177.7	2,818.5	2,822.1	0.00	0.00	0.00
9,850.0	90.20	89.37	7,098.0	178.2	2,868.5	2,872.1	0.00	0.00	0.00
9,900.0	90.20	89.37	7,097.8	178.8	2,918.5	2,922.1	0.00	0.00	0.00
9,950.0	90.20	89.37	7,097.6	179.3	2,968.5	2,972.1	0.00	0.00	0.00
10,000.0	90.20	89.37	7,097.5	179.8	3,018.5	3,022.1	0.00	0.00	0.00
10,050.0	90.20	89.37	7,097.3	180.4	3,068.5	3,072.1	0.00	0.00	0.00
10,100.0	90.20	89.37	7,097.1	180.9	3,118.4	3,122.1	0.00	0.00	0.00

Database:	EDM Production	**Local Co-ordinate Reference:**	Well Burton K25-69-1HNL
Company:	Northern Region Drilling	**TVD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Project:	Wattenberg Field	**MD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Site:	K (04-66W)	**North Reference:**	Grid
Well:	Burton K25-69-1HNL	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD - Rev 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,150.0	90.20	89.37	7,096.9	181.5	3,168.4	3,172.1	0.00	0.00	0.00
10,200.0	90.20	89.37	7,096.8	182.0	3,218.4	3,222.1	0.00	0.00	0.00
10,250.0	90.20	89.37	7,096.6	182.6	3,268.4	3,272.1	0.00	0.00	0.00
10,300.0	90.20	89.37	7,096.4	183.1	3,318.4	3,322.0	0.00	0.00	0.00
10,350.0	90.20	89.37	7,096.2	183.7	3,368.4	3,372.0	0.00	0.00	0.00
10,400.0	90.20	89.37	7,096.1	184.2	3,418.4	3,422.0	0.00	0.00	0.00
10,450.0	90.20	89.37	7,095.9	184.8	3,468.4	3,472.0	0.00	0.00	0.00
10,500.0	90.20	89.37	7,095.7	185.3	3,518.4	3,522.0	0.00	0.00	0.00
10,550.0	90.20	89.37	7,095.5	185.9	3,568.4	3,572.0	0.00	0.00	0.00
10,600.0	90.20	89.37	7,095.4	186.4	3,618.4	3,622.0	0.00	0.00	0.00
10,650.0	90.20	89.37	7,095.2	187.0	3,668.4	3,672.0	0.00	0.00	0.00
10,700.0	90.20	89.37	7,095.0	187.5	3,718.4	3,722.0	0.00	0.00	0.00
10,750.0	90.20	89.37	7,094.8	188.0	3,768.4	3,772.0	0.00	0.00	0.00
10,800.0	90.20	89.37	7,094.7	188.6	3,818.4	3,822.0	0.00	0.00	0.00
10,850.0	90.20	89.37	7,094.5	189.1	3,868.4	3,872.0	0.00	0.00	0.00
10,900.0	90.20	89.37	7,094.3	189.7	3,918.4	3,922.0	0.00	0.00	0.00
10,950.0	90.20	89.37	7,094.2	190.2	3,968.4	3,972.0	0.00	0.00	0.00
11,000.0	90.20	89.37	7,094.0	190.8	4,018.4	4,022.0	0.00	0.00	0.00
11,050.0	90.20	89.37	7,093.8	191.3	4,068.4	4,072.0	0.00	0.00	0.00
11,100.0	90.20	89.37	7,093.6	191.9	4,118.4	4,122.0	0.00	0.00	0.00
11,150.0	90.20	89.37	7,093.5	192.4	4,168.4	4,171.9	0.00	0.00	0.00
11,200.0	90.20	89.37	7,093.3	193.0	4,218.4	4,221.9	0.00	0.00	0.00
11,250.0	90.20	89.37	7,093.1	193.5	4,268.4	4,271.9	0.00	0.00	0.00
11,300.0	90.20	89.37	7,092.9	194.1	4,318.4	4,321.9	0.00	0.00	0.00
11,350.0	90.20	89.37	7,092.8	194.6	4,368.4	4,371.9	0.00	0.00	0.00
11,400.0	90.20	89.37	7,092.6	195.1	4,418.4	4,421.9	0.00	0.00	0.00
11,450.0	90.20	89.37	7,092.4	195.7	4,468.4	4,471.9	0.00	0.00	0.00
11,500.0	90.20	89.37	7,092.2	196.2	4,518.4	4,521.9	0.00	0.00	0.00
11,550.0	90.20	89.37	7,092.1	196.8	4,568.4	4,571.9	0.00	0.00	0.00
11,600.0	90.20	89.37	7,091.9	197.3	4,618.3	4,621.9	0.00	0.00	0.00
11,650.0	90.20	89.37	7,091.7	197.9	4,668.3	4,671.9	0.00	0.00	0.00
11,700.0	90.20	89.37	7,091.5	198.4	4,718.3	4,721.9	0.00	0.00	0.00
11,750.0	90.20	89.37	7,091.4	199.0	4,768.3	4,771.9	0.00	0.00	0.00
11,800.0	90.20	89.37	7,091.2	199.5	4,818.3	4,821.9	0.00	0.00	0.00
11,850.0	90.20	89.37	7,091.0	200.1	4,868.3	4,871.9	0.00	0.00	0.00
11,900.0	90.20	89.37	7,090.8	200.6	4,918.3	4,921.9	0.00	0.00	0.00
11,950.0	90.20	89.37	7,090.7	201.2	4,968.3	4,971.9	0.00	0.00	0.00
12,000.0	90.20	89.37	7,090.5	201.7	5,018.3	5,021.9	0.00	0.00	0.00
12,050.0	90.20	89.37	7,090.3	202.3	5,068.3	5,071.8	0.00	0.00	0.00
12,100.0	90.20	89.37	7,090.1	202.8	5,118.3	5,121.8	0.00	0.00	0.00
12,150.0	90.20	89.37	7,090.0	203.3	5,168.3	5,171.8	0.00	0.00	0.00
12,200.0	90.20	89.37	7,089.8	203.9	5,218.3	5,221.8	0.00	0.00	0.00
12,250.0	90.20	89.37	7,089.6	204.4	5,268.3	5,271.8	0.00	0.00	0.00
12,300.0	90.20	89.37	7,089.4	205.0	5,318.3	5,321.8	0.00	0.00	0.00
12,350.0	90.20	89.37	7,089.3	205.5	5,368.3	5,371.8	0.00	0.00	0.00
12,400.0	90.20	89.37	7,089.1	206.1	5,418.3	5,421.8	0.00	0.00	0.00
12,450.0	90.20	89.37	7,088.9	206.6	5,468.3	5,471.8	0.00	0.00	0.00
12,500.0	90.20	89.37	7,088.7	207.2	5,518.3	5,521.8	0.00	0.00	0.00
12,550.0	90.20	89.37	7,088.6	207.7	5,568.3	5,571.8	0.00	0.00	0.00
12,600.0	90.20	89.37	7,088.4	208.3	5,618.3	5,621.8	0.00	0.00	0.00
12,650.0	90.20	89.37	7,088.2	208.8	5,668.3	5,671.8	0.00	0.00	0.00
12,700.0	90.20	89.37	7,088.0	209.4	5,718.3	5,721.8	0.00	0.00	0.00
12,750.0	90.20	89.37	7,087.9	209.9	5,768.3	5,771.8	0.00	0.00	0.00
12,800.0	90.20	89.37	7,087.7	210.4	5,818.3	5,821.8	0.00	0.00	0.00

Database:	EDM Production	**Local Co-ordinate Reference:**	Well Burton K25-69-1HNL
Company:	Northern Region Drilling	**TVD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Project:	Wattenberg Field	**MD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Site:	K (04-66W)	**North Reference:**	Grid
Well:	Burton K25-69-1HNL	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD - Rev 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,850.0	90.20	89.37	7,087.5	211.0	5,868.3	5,871.8	0.00	0.00	0.00
12,900.0	90.20	89.37	7,087.3	211.5	5,918.3	5,921.7	0.00	0.00	0.00
12,950.0	90.20	89.37	7,087.2	212.1	5,968.3	5,971.7	0.00	0.00	0.00
13,000.0	90.20	89.37	7,087.0	212.6	6,018.3	6,021.7	0.00	0.00	0.00
13,050.0	90.20	89.37	7,086.8	213.2	6,068.3	6,071.7	0.00	0.00	0.00
13,100.0	90.20	89.37	7,086.6	213.7	6,118.3	6,121.7	0.00	0.00	0.00
13,150.0	90.20	89.37	7,086.5	214.3	6,168.2	6,171.7	0.00	0.00	0.00
13,200.0	90.20	89.37	7,086.3	214.8	6,218.2	6,221.7	0.00	0.00	0.00
13,250.0	90.20	89.37	7,086.1	215.4	6,268.2	6,271.7	0.00	0.00	0.00
13,300.0	90.20	89.37	7,085.9	215.9	6,318.2	6,321.7	0.00	0.00	0.00
13,350.0	90.20	89.37	7,085.8	216.5	6,368.2	6,371.7	0.00	0.00	0.00
13,400.0	90.20	89.37	7,085.6	217.0	6,418.2	6,421.7	0.00	0.00	0.00
13,450.0	90.20	89.37	7,085.4	217.6	6,468.2	6,471.7	0.00	0.00	0.00
13,500.0	90.20	89.37	7,085.3	218.1	6,518.2	6,521.7	0.00	0.00	0.00
13,550.0	90.20	89.37	7,085.1	218.6	6,568.2	6,571.7	0.00	0.00	0.00
13,600.0	90.20	89.37	7,084.9	219.2	6,618.2	6,621.7	0.00	0.00	0.00
13,650.0	90.20	89.37	7,084.7	219.7	6,668.2	6,671.7	0.00	0.00	0.00
13,700.0	90.20	89.37	7,084.6	220.3	6,718.2	6,721.7	0.00	0.00	0.00
13,750.0	90.20	89.37	7,084.4	220.8	6,768.2	6,771.6	0.00	0.00	0.00
13,800.0	90.20	89.37	7,084.2	221.4	6,818.2	6,821.6	0.00	0.00	0.00
13,850.0	90.20	89.37	7,084.0	221.9	6,868.2	6,871.6	0.00	0.00	0.00
13,900.0	90.20	89.37	7,083.9	222.5	6,918.2	6,921.6	0.00	0.00	0.00
13,950.0	90.20	89.37	7,083.7	223.0	6,968.2	6,971.6	0.00	0.00	0.00
14,000.0	90.20	89.37	7,083.5	223.6	7,018.2	7,021.6	0.00	0.00	0.00
14,050.0	90.20	89.37	7,083.3	224.1	7,068.2	7,071.6	0.00	0.00	0.00
14,100.0	90.20	89.37	7,083.2	224.7	7,118.2	7,121.6	0.00	0.00	0.00
14,150.0	90.20	89.37	7,083.0	225.2	7,168.2	7,171.6	0.00	0.00	0.00
14,200.0	90.20	89.37	7,082.8	225.7	7,218.2	7,221.6	0.00	0.00	0.00
14,250.0	90.20	89.37	7,082.6	226.3	7,268.2	7,271.6	0.00	0.00	0.00
14,300.0	90.20	89.37	7,082.5	226.8	7,318.2	7,321.6	0.00	0.00	0.00
14,350.0	90.20	89.37	7,082.3	227.4	7,368.2	7,371.6	0.00	0.00	0.00
14,400.0	90.20	89.37	7,082.1	227.9	7,418.2	7,421.6	0.00	0.00	0.00
14,450.0	90.20	89.37	7,081.9	228.5	7,468.2	7,471.6	0.00	0.00	0.00
14,500.0	90.20	89.37	7,081.8	229.0	7,518.2	7,521.6	0.00	0.00	0.00
14,550.0	90.20	89.37	7,081.6	229.6	7,568.2	7,571.6	0.00	0.00	0.00
14,600.0	90.20	89.37	7,081.4	230.1	7,618.2	7,621.6	0.00	0.00	0.00
14,650.0	90.20	89.37	7,081.2	230.7	7,668.1	7,671.5	0.00	0.00	0.00
14,700.0	90.20	89.37	7,081.1	231.2	7,718.1	7,721.5	0.00	0.00	0.00
14,750.0	90.20	89.37	7,080.9	231.8	7,768.1	7,771.5	0.00	0.00	0.00
14,800.0	90.20	89.37	7,080.7	232.3	7,818.1	7,821.5	0.00	0.00	0.00
14,850.0	90.20	89.37	7,080.5	232.9	7,868.1	7,871.5	0.00	0.00	0.00
14,900.0	90.20	89.37	7,080.4	233.4	7,918.1	7,921.5	0.00	0.00	0.00
14,950.0	90.20	89.37	7,080.2	233.9	7,968.1	7,971.5	0.00	0.00	0.00
15,000.0	90.20	89.37	7,080.0	234.5	8,018.1	8,021.5	0.00	0.00	0.00
15,050.0	90.20	89.37	7,079.8	235.0	8,068.1	8,071.5	0.00	0.00	0.00
15,100.0	90.20	89.37	7,079.7	235.6	8,118.1	8,121.5	0.00	0.00	0.00
15,150.0	90.20	89.37	7,079.5	236.1	8,168.1	8,171.5	0.00	0.00	0.00
15,200.0	90.20	89.37	7,079.3	236.7	8,218.1	8,221.5	0.00	0.00	0.00
15,250.0	90.20	89.37	7,079.1	237.2	8,268.1	8,271.5	0.00	0.00	0.00
15,300.0	90.20	89.37	7,079.0	237.8	8,318.1	8,321.5	0.00	0.00	0.00
15,350.0	90.20	89.37	7,078.8	238.3	8,368.1	8,371.5	0.00	0.00	0.00
15,400.0	90.20	89.37	7,078.6	238.9	8,418.1	8,421.5	0.00	0.00	0.00
15,450.0	90.20	89.37	7,078.4	239.4	8,468.1	8,471.5	0.00	0.00	0.00
15,500.0	90.20	89.37	7,078.3	240.0	8,518.1	8,521.4	0.00	0.00	0.00

Database:	EDM Production	**Local Co-ordinate Reference:**	Well Burton K25-69-1HNL
Company:	Northern Region Drilling	**TVD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Project:	Wattenberg Field	**MD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Site:	K (04-66W)	**North Reference:**	Grid
Well:	Burton K25-69-1HNL	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD - Rev 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,550.0	90.20	89.37	7,078.1	240.5	8,568.1	8,571.4	0.00	0.00	0.00
15,600.0	90.20	89.37	7,077.9	241.1	8,618.1	8,621.4	0.00	0.00	0.00
15,650.0	90.20	89.37	7,077.7	241.6	8,668.1	8,671.4	0.00	0.00	0.00
15,700.0	90.20	89.37	7,077.6	242.1	8,718.1	8,721.4	0.00	0.00	0.00
15,750.0	90.20	89.37	7,077.4	242.7	8,768.1	8,771.4	0.00	0.00	0.00
15,800.0	90.20	89.37	7,077.2	243.2	8,818.1	8,821.4	0.00	0.00	0.00
15,850.0	90.20	89.37	7,077.0	243.8	8,868.1	8,871.4	0.00	0.00	0.00
15,900.0	90.20	89.37	7,076.9	244.3	8,918.1	8,921.4	0.00	0.00	0.00
15,950.0	90.20	89.37	7,076.7	244.9	8,968.1	8,971.4	0.00	0.00	0.00
16,000.0	90.20	89.37	7,076.5	245.4	9,018.1	9,021.4	0.00	0.00	0.00
16,050.0	90.20	89.37	7,076.3	246.0	9,068.1	9,071.4	0.00	0.00	0.00
16,100.0	90.20	89.37	7,076.2	246.5	9,118.1	9,121.4	0.00	0.00	0.00
16,150.0	90.20	89.37	7,076.0	247.1	9,168.0	9,171.4	0.00	0.00	0.00
16,200.0	90.20	89.37	7,075.8	247.6	9,218.0	9,221.4	0.00	0.00	0.00
16,250.0	90.20	89.37	7,075.7	248.2	9,268.0	9,271.4	0.00	0.00	0.00
16,300.0	90.20	89.37	7,075.5	248.7	9,318.0	9,321.4	0.00	0.00	0.00
16,350.0	90.20	89.37	7,075.3	249.2	9,368.0	9,371.3	0.00	0.00	0.00
16,400.0	90.20	89.37	7,075.1	249.8	9,418.0	9,421.3	0.00	0.00	0.00
16,450.0	90.20	89.37	7,075.0	250.3	9,468.0	9,471.3	0.00	0.00	0.00
16,500.0	90.20	89.37	7,074.8	250.9	9,518.0	9,521.3	0.00	0.00	0.00
16,550.0	90.20	89.37	7,074.6	251.4	9,568.0	9,571.3	0.00	0.00	0.00
16,600.0	90.20	89.37	7,074.4	252.0	9,618.0	9,621.3	0.00	0.00	0.00
16,650.0	90.20	89.37	7,074.3	252.5	9,668.0	9,671.3	0.00	0.00	0.00
16,700.0	90.20	89.37	7,074.1	253.1	9,718.0	9,721.3	0.00	0.00	0.00
16,750.0	90.20	89.37	7,073.9	253.6	9,768.0	9,771.3	0.00	0.00	0.00
16,800.0	90.20	89.37	7,073.7	254.2	9,818.0	9,821.3	0.00	0.00	0.00
16,850.0	90.20	89.37	7,073.6	254.7	9,868.0	9,871.3	0.00	0.00	0.00
16,894.9	90.20	89.37	7,073.4	255.2	9,912.9	9,916.2	0.00	0.00	0.00
TD at 16894.9 - Burton K25-69-1HNL BHL 330'FNL, 535'FEL									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Burton K25-69-1HNL BH - plan hits target center - Point	0.00	0.00	7,073.4	255.2	9,912.9	1,349,403.87	3,223,577.69	40.289740	-104.698530

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
7,464.8	7,096.6	7" Casing @ 7464.8' MD	7	8-3/4

Database:	EDM Production	**Local Co-ordinate Reference:**	Well Burton K25-69-1HNL
Company:	Northern Region Drilling	**TVD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Project:	Wattenberg Field	**MD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Site:	K (04-66W)	**North Reference:**	Grid
Well:	Burton K25-69-1HNL	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD - Rev 1		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1,500.0	1,500.0	0.0	0.0	KOP - Start Build 2.00
2,564.8	2,550.1	41.2	-48.3	Start Drop -2.00
6,402.3	6,383.1	103.8	-121.7	KOP #2 - Start Build 8.00
7,464.8	7,096.6	145.0	-170.0	Start 75.0 hold at 7464.8 MD
7,539.8	7,103.1	145.0	-170.0	Start Build 8.00
16,894.9	7,073.4	152.1	483.7	TD at 16894.9

Northern Region Drilling

Wattenberg Field
K (04-66W)
Burton K25-69-1HNL

Original Drilling
APD - Rev 1

Anticollision Summary Report

12 June, 2013

Noble Energy Inc

Anticollision Summary Report

Company:	Northern Region Drilling	**Local Co-ordinate Reference:**	Well Burton K25-69-1HNL
Project:	Wattenberg Field	**TVD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Reference Site:	K (04-66W)	**MD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Burton K25-69-1HNL	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.54 sigma
Reference Wellbore	Original Drilling	**Database:**	EDM Production
Reference Design:	APD - Rev 1	**Offset TVD Reference:**	Offset Datum

Reference APD - Rev 1

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0 usft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 6/12/2013

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	0.0	APD - Rev 1 (Original Drilling)		

Summary

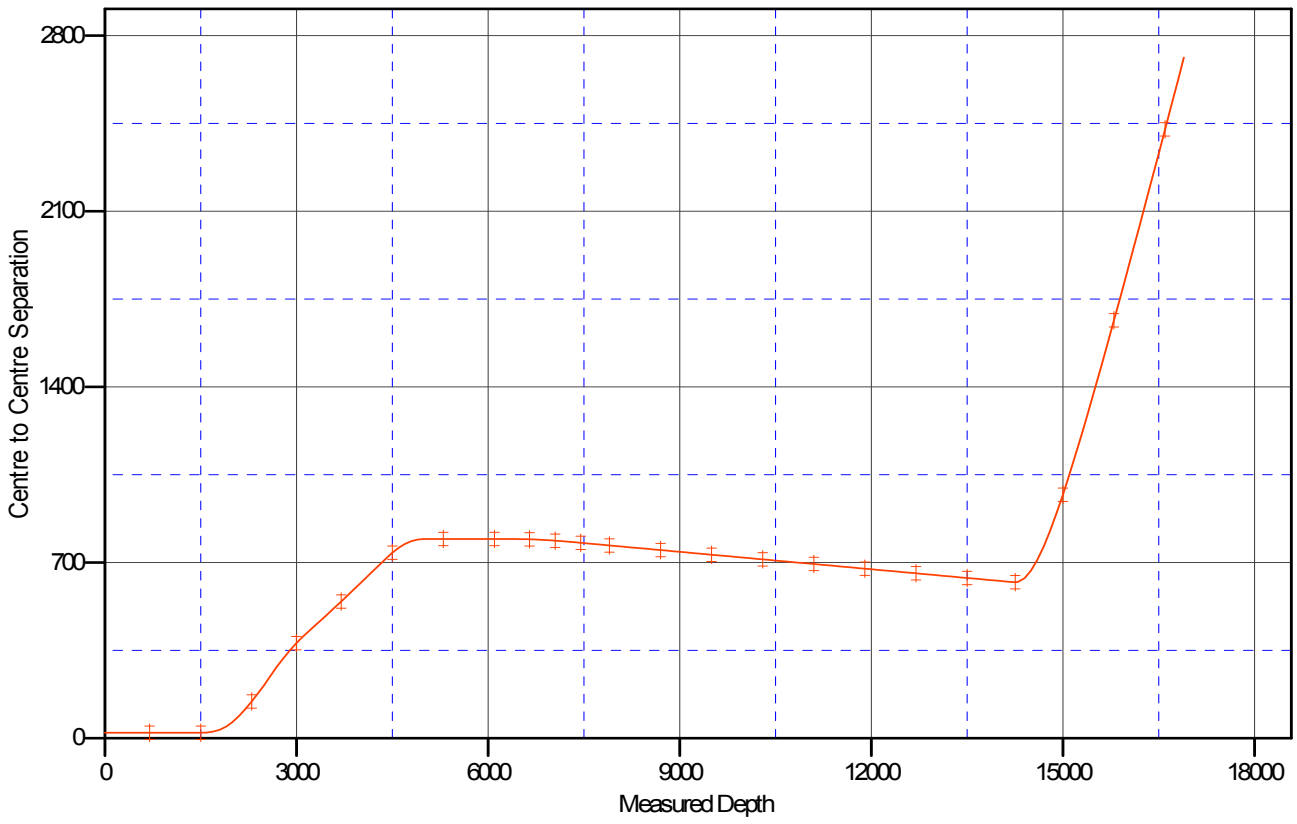
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
K (04-66W)						
Burton K25-68-1HNM - Original Drilling - APD - Rev 0	1,500.0	1,500.0	21.9	15.4	3.372	CC, ES
Burton K25-68-1HNM - Original Drilling - APD - Rev 0	14,300.0	14,314.6	623.3	211.9	1.515	SF

Company:	Northern Region Drilling	**Local Co-ordinate Reference:**	Well Burton K25-69-1HNL
Project:	Wattenberg Field	**TVD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Reference Site:	K (04-66W)	**MD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Burton K25-69-1HNL	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.54 sigma
Reference Wellbore	Original Drilling	**Database:**	EDM Production
Reference Design:	APD - Rev 1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4768.0usft (Original Well Ele
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: Burton K25-69-1HNL
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.49°

Ladder Plot



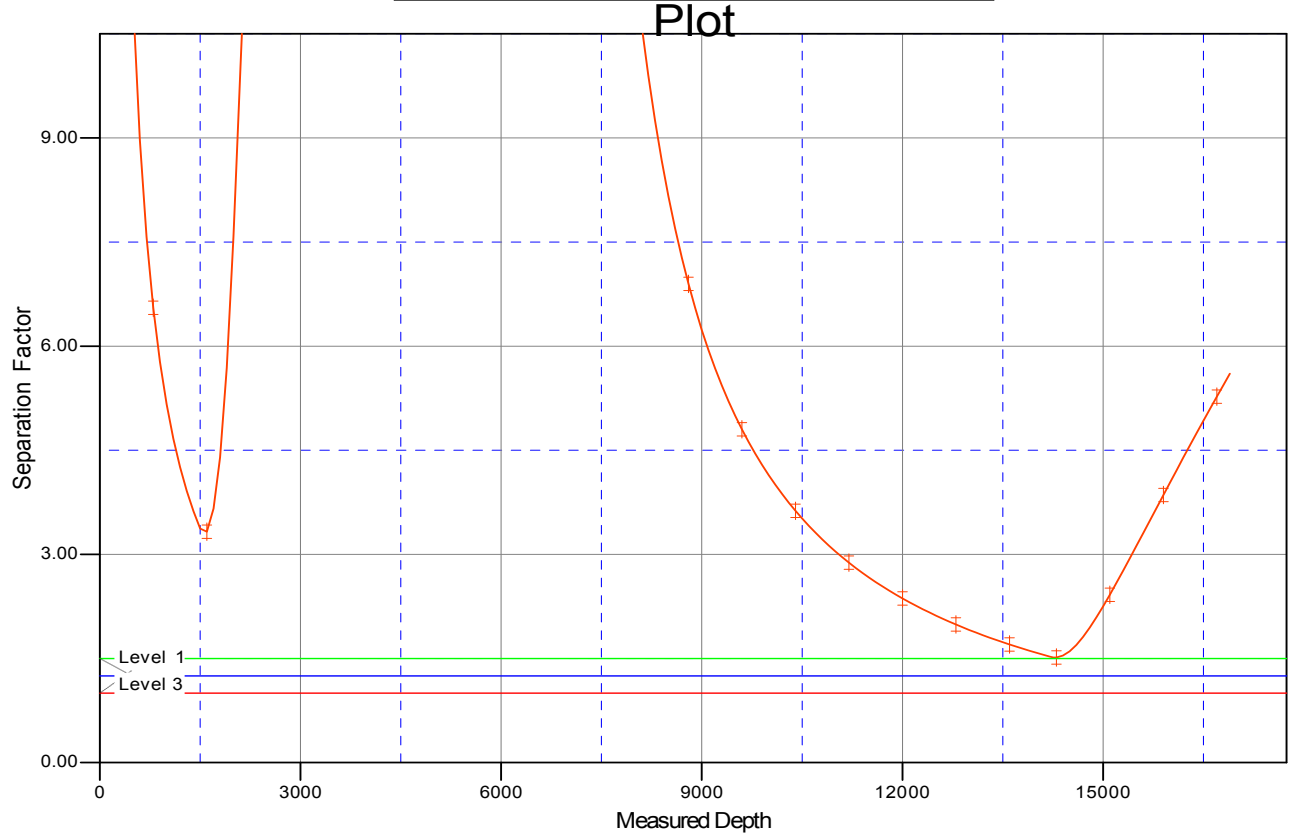
LEGEND

rton K25-68-1HNM, Original Drilling, APD - Rev 0 V0

Company:	Northern Region Drilling	**Local Co-ordinate Reference:**	Well Burton K25-69-1HNL
Project:	Wattenberg Field	**TVD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Reference Site:	K (04-66W)	**MD Reference:**	WELL @ 4768.0usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Burton K25-69-1HNL	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.54 sigma
Reference Wellbore	Original Drilling	**Database:**	EDM Production
Reference Design:	APD - Rev 1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4768.0usft (Original Well Ele
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: Burton K25-69-1HNL
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.49°



LEGEND

rton K25-68-1HNM, Original Drilling, APD - Rev 0 V0