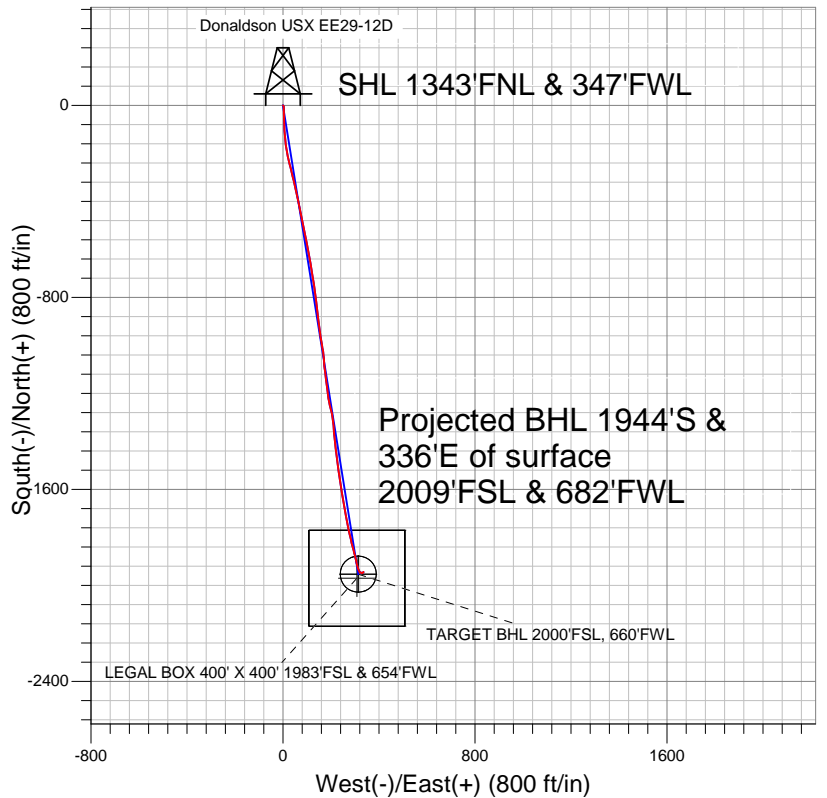


NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- Donaldson USX EE29-12D, Wellbore #1, Noble Donaldson USX EE29-12D Plan #1 (5-04-11) VO
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
7901'MD & 7502'TVD @ 1973' VS
0.3 deg Inc 42.6 deg AZ

Project: SEC.29-T7N-R65W
Site: Donaldson USX EE29-12D Pad Sec.29-T7N-R65W
Well: Donaldson USX EE29-12D
Plan: Wellbore #1



NOBLE ENERGY INC WELD COUNTY CO

SEC.29-T7N-R65W

Donaldson USX EE29-12D Pad Sec.29-T7N-R65W

Donaldson USX EE29-12D

Wellbore #1

Survey: Survey #1

Standard Survey Report

27 September, 2011



| | | | |
|------------------|---|-------------------------------------|--------------------------------------|
| Company: | NOBLE ENERGY INC WELD COUNTY CO | Local Co-ordinate Reference: | Well Donaldson USX EE29-12D |
| Project: | SEC.29-T7N-R65W | TVD Reference: | WELL @ 4937.0ft (Original Well Elev) |
| Site: | Donaldson USX EE29-12D Pad Sec.29-T7N-R65W | MD Reference: | WELL @ 4937.0ft (Original Well Elev) |
| Well: | Donaldson USX EE29-12D | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | Landmark |

| | | | |
|--------------------|--|----------------------|-----------------------------|
| Project | SEC.29-T7N-R65W, Weld County, Colorado | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | Using Well Reference Point |
| Map Zone: | Colorado Northern Zone | | Using geodetic scale factor |

| | | | | | |
|-----------------------|--|--------------|-----------------|-------------------|-------------|
| Site | Donaldson USX EE29-12D Pad Sec.29-T7N-R65W | | | | |
| Site Position: | | Northing: | 1,444,056.55 ft | Latitude: | 40.549550 |
| From: | Lat/Long | Easting: | 3,223,614.25 ft | Longitude: | -104.695320 |
| Position Uncertainty: | 0.0 ft | Slot Radius: | " | Grid Convergence: | 0.52 ° |

| | | | | | | |
|----------------------|------------------------|--------|---------------------|-----------------|---------------|-------------|
| Well | Donaldson USX EE29-12D | | | | | |
| Well Position | +N-S | 0.0 ft | Northing: | 1,444,056.54 ft | Latitude: | 40.549550 |
| | +E-W | 0.0 ft | Easting: | 3,223,614.25 ft | Longitude: | -104.695320 |
| Position Uncertainty | | 0.0 ft | Wellhead Elevation: | ft | Ground Level: | 4,924.0 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Wellbore #1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 8/29/2011 | 8.81 | 67.18 | 53,195 |

| | | | | | |
|--------------------------|------------------------------|-------------------|-------------------|----------------------|-----|
| Design | Wellbore #1 | | | | |
| Audit Notes: | | | | | |
| Version: | 1.0 | Phase: | ACTUAL | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) | |
| | 0.0 | 0.0 | 0.0 | 170.20 | |

| | | | | | |
|-----------------------|-----------------------|--------------------------|------------------|--------------------|--|
| Survey Program | Date 9/27/2011 | | | | |
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description | |
| 104.0 | 7,901.0 | Survey #1 (Wellbore #1) | MWD | MWD - Standard | |

| | | | | | | | | | | |
|----------------------------|------------------------|--------------------|----------------------------|-------------------|-------------------|------------------------------|------------------------------|-----------------------------|----------------------------|--|
| 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) | |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | |
| 104.0 | 0.60 | 102.10 | 104.0 | -0.1 | 0.5 | 0.2 | 0.58 | 0.58 | 0.00 | |
| 198.0 | 1.00 | 137.10 | 198.0 | -0.8 | 1.6 | 1.1 | 0.65 | 0.43 | 37.23 | |
| 291.0 | 1.60 | 153.50 | 291.0 | -2.6 | 2.7 | 3.0 | 0.75 | 0.65 | 17.63 | |
| 363.0 | 1.90 | 164.70 | 362.9 | -4.6 | 3.5 | 5.1 | 0.63 | 0.42 | 15.56 | |
| 444.0 | 3.10 | 176.90 | 443.9 | -8.1 | 3.9 | 8.7 | 1.61 | 1.48 | 15.06 | |
| 526.0 | 4.70 | 184.20 | 525.7 | -13.7 | 3.8 | 14.1 | 2.04 | 1.95 | 8.90 | |
| 608.0 | 6.20 | 177.90 | 607.3 | -21.4 | 3.7 | 21.8 | 1.97 | 1.83 | -7.68 | |
| 659.0 | 6.10 | 178.10 | 658.0 | -26.9 | 3.9 | 27.2 | 0.20 | -0.20 | 0.39 | |
| 750.0 | 5.50 | 173.30 | 748.5 | -36.1 | 4.6 | 36.3 | 0.85 | -0.66 | -5.27 | |
| 831.0 | 7.20 | 178.40 | 829.0 | -45.0 | 5.2 | 45.2 | 2.21 | 2.10 | 6.30 | |
| 913.0 | 9.90 | 179.00 | 910.1 | -57.2 | 5.5 | 57.3 | 3.29 | 3.29 | 0.73 | |

| | | | |
|------------------|---|-------------------------------------|--------------------------------------|
| Company: | NOBLE ENERGY INC WELD COUNTY CO | Local Co-ordinate Reference: | Well Donaldson USX EE29-12D |
| Project: | SEC.29-T7N-R65W | TVD Reference: | WELL @ 4937.0ft (Original Well Elev) |
| Site: | Donaldson USX EE29-12D Pad Sec.29-T7N-R65W | MD Reference: | WELL @ 4937.0ft (Original Well Elev) |
| Well: | Donaldson USX EE29-12D | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | Landmark |

| 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) |
| 995.0 | 12.10 | 182.70 | 990.6 | -72.8 | 5.2 | 72.6 | 2.82 | 2.68 | 4.51 |
| 1,077.0 | 13.80 | 175.80 | 1,070.5 | -91.2 | 5.5 | 90.8 | 2.80 | 2.07 | -8.41 |
| 1,158.0 | 16.60 | 176.50 | 1,148.7 | -112.4 | 6.9 | 111.9 | 3.46 | 3.46 | 0.86 |
| 1,240.0 | 19.10 | 174.60 | 1,226.7 | -137.4 | 8.9 | 136.9 | 3.13 | 3.05 | -2.32 |
| 1,322.0 | 21.30 | 172.60 | 1,303.7 | -165.5 | 12.1 | 165.2 | 2.81 | 2.68 | -2.44 |
| 1,404.0 | 23.00 | 168.10 | 1,379.6 | -196.0 | 17.3 | 196.1 | 2.93 | 2.07 | -5.49 |
| 1,485.0 | 24.10 | 166.10 | 1,453.9 | -227.5 | 24.5 | 228.4 | 1.68 | 1.36 | -2.47 |
| 1,567.0 | 25.50 | 167.90 | 1,528.3 | -261.0 | 32.2 | 262.7 | 1.94 | 1.71 | 2.20 |
| 1,649.0 | 26.10 | 164.90 | 1,602.1 | -295.7 | 40.6 | 298.3 | 1.75 | 0.73 | -3.66 |
| 1,730.0 | 26.70 | 167.90 | 1,674.7 | -330.7 | 49.1 | 334.2 | 1.81 | 0.74 | 3.70 |
| 1,812.0 | 26.40 | 167.90 | 1,748.1 | -366.5 | 56.8 | 370.9 | 0.37 | -0.37 | 0.00 |
| 1,894.0 | 26.40 | 168.20 | 1,821.5 | -402.2 | 64.3 | 407.3 | 0.16 | 0.00 | 0.37 |
| 1,976.0 | 25.20 | 167.90 | 1,895.3 | -437.1 | 71.7 | 443.0 | 1.47 | -1.46 | -0.37 |
| 2,057.0 | 24.70 | 168.90 | 1,968.8 | -470.6 | 78.6 | 477.1 | 0.81 | -0.62 | 1.23 |
| 2,139.0 | 24.60 | 167.20 | 2,043.3 | -504.1 | 85.7 | 511.3 | 0.87 | -0.12 | -2.07 |
| 2,221.0 | 25.70 | 169.60 | 2,117.5 | -538.2 | 92.7 | 546.1 | 1.83 | 1.34 | 2.93 |
| 2,303.0 | 25.80 | 168.90 | 2,191.4 | -573.2 | 99.3 | 581.7 | 0.39 | 0.12 | -0.85 |
| 2,384.0 | 25.40 | 170.40 | 2,264.4 | -607.6 | 105.6 | 616.7 | 0.94 | -0.49 | 1.85 |
| 2,466.0 | 24.00 | 168.90 | 2,338.9 | -641.3 | 111.7 | 651.0 | 1.87 | -1.71 | -1.83 |
| 2,548.0 | 25.20 | 171.20 | 2,413.5 | -674.9 | 117.6 | 685.1 | 1.87 | 1.46 | 2.80 |
| 2,630.0 | 24.50 | 170.90 | 2,487.9 | -709.0 | 123.0 | 719.6 | 0.87 | -0.85 | -0.37 |
| 2,711.0 | 23.70 | 170.00 | 2,561.8 | -741.6 | 128.5 | 752.6 | 1.09 | -0.99 | -1.11 |
| 2,793.0 | 24.40 | 171.80 | 2,636.7 | -774.6 | 133.7 | 786.0 | 1.24 | 0.85 | 2.20 |
| 2,875.0 | 23.80 | 173.30 | 2,711.6 | -807.8 | 138.1 | 819.5 | 1.05 | -0.73 | 1.83 |
| 2,957.0 | 25.60 | 175.30 | 2,786.1 | -841.9 | 141.5 | 853.7 | 2.42 | 2.20 | 2.44 |
| 3,038.0 | 24.10 | 172.10 | 2,859.6 | -875.7 | 145.2 | 887.6 | 2.49 | -1.85 | -3.95 |
| 3,120.0 | 24.70 | 171.90 | 2,934.2 | -909.2 | 149.9 | 921.5 | 0.74 | 0.73 | -0.24 |
| 3,202.0 | 24.90 | 170.90 | 3,008.7 | -943.3 | 155.0 | 955.9 | 0.57 | 0.24 | -1.22 |
| 3,284.0 | 25.00 | 173.00 | 3,083.0 | -977.5 | 159.9 | 990.4 | 1.09 | 0.12 | 2.56 |
| 3,365.0 | 22.60 | 169.80 | 3,157.1 | -1,009.8 | 164.7 | 1,023.1 | 3.36 | -2.96 | -3.95 |
| 3,447.0 | 22.60 | 173.90 | 3,232.8 | -1,041.0 | 169.2 | 1,054.6 | 1.92 | 0.00 | 5.00 |
| 3,529.0 | 24.30 | 176.30 | 3,308.1 | -1,073.5 | 171.9 | 1,087.1 | 2.38 | 2.07 | 2.93 |
| 3,610.0 | 26.60 | 172.80 | 3,381.2 | -1,108.1 | 175.3 | 1,121.8 | 3.39 | 2.84 | -4.32 |
| 3,692.0 | 25.60 | 172.30 | 3,454.8 | -1,143.9 | 180.0 | 1,157.8 | 1.25 | -1.22 | -0.61 |
| 3,774.0 | 23.70 | 172.50 | 3,529.4 | -1,177.8 | 184.5 | 1,192.0 | 2.32 | -2.32 | 0.24 |
| 3,856.0 | 23.00 | 172.80 | 3,604.7 | -1,210.0 | 188.7 | 1,224.5 | 0.87 | -0.85 | 0.37 |
| 3,937.0 | 22.50 | 166.80 | 3,679.4 | -1,240.8 | 194.2 | 1,255.8 | 2.93 | -0.62 | -7.41 |
| 4,019.0 | 23.10 | 166.80 | 3,755.0 | -1,271.8 | 201.4 | 1,287.5 | 0.73 | 0.73 | 0.00 |
| 4,101.0 | 22.50 | 172.50 | 3,830.6 | -1,303.0 | 207.2 | 1,319.2 | 2.79 | -0.73 | 6.95 |
| 4,183.0 | 22.40 | 174.60 | 3,906.3 | -1,334.1 | 210.7 | 1,350.5 | 0.99 | -0.12 | 2.56 |
| 4,264.0 | 24.40 | 175.50 | 3,980.7 | -1,366.1 | 213.4 | 1,382.5 | 2.51 | 2.47 | 1.11 |
| 4,346.0 | 25.60 | 173.50 | 4,055.0 | -1,400.6 | 216.8 | 1,417.1 | 1.79 | 1.46 | -2.44 |
| 4,428.0 | 27.00 | 174.00 | 4,128.5 | -1,436.7 | 220.7 | 1,453.3 | 1.73 | 1.71 | 0.61 |
| 4,510.0 | 28.50 | 173.00 | 4,201.1 | -1,474.7 | 225.1 | 1,491.5 | 1.92 | 1.83 | -1.22 |
| 4,591.0 | 29.20 | 170.40 | 4,272.0 | -1,513.3 | 230.7 | 1,530.5 | 1.77 | 0.86 | -3.21 |
| 4,673.0 | 26.50 | 171.20 | 4,344.5 | -1,551.1 | 236.8 | 1,568.8 | 3.32 | -3.29 | 0.98 |
| 4,755.0 | 27.00 | 173.00 | 4,417.7 | -1,587.7 | 241.9 | 1,605.7 | 1.16 | 0.61 | 2.20 |
| 4,837.0 | 26.60 | 170.40 | 4,490.9 | -1,624.3 | 247.2 | 1,642.7 | 1.51 | -0.49 | -3.17 |
| 4,918.0 | 24.70 | 170.00 | 4,564.0 | -1,658.8 | 253.2 | 1,677.7 | 2.36 | -2.35 | -0.49 |
| 5,000.0 | 22.90 | 170.50 | 4,639.0 | -1,691.4 | 258.8 | 1,710.8 | 2.21 | -2.20 | 0.61 |
| 5,082.0 | 23.60 | 168.90 | 4,714.3 | -1,723.3 | 264.6 | 1,743.2 | 1.15 | 0.85 | -1.95 |
| 5,164.0 | 22.40 | 168.20 | 4,789.8 | -1,754.7 | 271.0 | 1,775.2 | 1.50 | -1.46 | -0.85 |
| 5,245.0 | 19.90 | 166.80 | 4,865.3 | -1,783.2 | 277.3 | 1,804.4 | 3.15 | -3.09 | -1.73 |

| | | | |
|------------------|---|-------------------------------------|--------------------------------------|
| Company: | NOBLE ENERGY INC WELD COUNTY CO | Local Co-ordinate Reference: | Well Donaldson USX EE29-12D |
| Project: | SEC.29-T7N-R65W | TVD Reference: | WELL @ 4937.0ft (Original Well Elev) |
| Site: | Donaldson USX EE29-12D Pad Sec.29-T7N-R65W | MD Reference: | WELL @ 4937.0ft (Original Well Elev) |
| Well: | Donaldson USX EE29-12D | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | Landmark |

| 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) |
| 5,327.0 | 18.20 | 167.50 | 4,942.8 | -1,809.3 | 283.2 | 1,831.1 | 2.09 | -2.07 | 0.85 |
| 5,409.0 | 17.00 | 165.30 | 5,021.0 | -1,833.4 | 289.0 | 1,855.8 | 1.67 | -1.46 | -2.68 |
| 5,491.0 | 14.70 | 165.10 | 5,099.9 | -1,855.1 | 294.8 | 1,878.2 | 2.81 | -2.80 | -0.24 |
| 5,572.0 | 12.80 | 167.50 | 5,178.6 | -1,873.7 | 299.3 | 1,897.4 | 2.45 | -2.35 | 2.96 |
| 5,654.0 | 12.10 | 164.40 | 5,258.6 | -1,890.9 | 303.6 | 1,915.0 | 1.18 | -0.85 | -3.78 |
| 5,736.0 | 9.30 | 169.30 | 5,339.2 | -1,905.7 | 307.2 | 1,930.2 | 3.59 | -3.41 | 5.98 |
| 5,817.0 | 6.20 | 166.70 | 5,419.4 | -1,916.4 | 309.4 | 1,941.1 | 3.85 | -3.83 | -3.21 |
| 5,899.0 | 4.70 | 162.10 | 5,501.1 | -1,923.9 | 311.4 | 1,948.8 | 1.90 | -1.83 | -5.61 |
| 5,981.0 | 3.20 | 162.60 | 5,582.9 | -1,929.3 | 313.1 | 1,954.4 | 1.83 | -1.83 | 0.61 |
| 6,063.0 | 2.50 | 158.60 | 5,664.8 | -1,933.1 | 314.5 | 1,958.4 | 0.89 | -0.85 | -4.88 |
| 6,144.0 | 2.00 | 160.10 | 5,745.7 | -1,936.1 | 315.6 | 1,961.6 | 0.62 | -0.62 | 1.85 |
| 6,226.0 | 1.70 | 139.90 | 5,827.7 | -1,938.4 | 316.9 | 1,964.0 | 0.87 | -0.37 | -24.63 |
| 6,308.0 | 1.40 | 158.40 | 5,909.6 | -1,940.2 | 318.0 | 1,966.0 | 0.71 | -0.37 | 22.56 |
| 6,390.0 | 1.10 | 162.60 | 5,991.6 | -1,941.9 | 318.6 | 1,967.8 | 0.38 | -0.37 | 5.12 |
| 6,398.5 | 1.08 | 162.13 | 6,000.1 | -1,942.1 | 318.7 | 1,968.0 | 0.27 | -0.25 | -5.55 |
| TARGET BHL 2000'FSL, 660'FWL | | | | | | | | | |
| 6,471.0 | 0.90 | 157.20 | 6,072.6 | -1,943.2 | 319.1 | 1,969.2 | 0.27 | -0.25 | -6.80 |
| 6,553.0 | 1.10 | 141.70 | 6,154.6 | -1,944.4 | 319.9 | 1,970.5 | 0.41 | 0.24 | -18.90 |
| 6,635.0 | 0.60 | 129.90 | 6,236.6 | -1,945.3 | 320.7 | 1,971.5 | 0.64 | -0.61 | -14.39 |
| 6,717.0 | 0.90 | 123.40 | 6,318.6 | -1,946.0 | 321.5 | 1,972.3 | 0.38 | 0.37 | -7.93 |
| 6,798.0 | 0.70 | 99.70 | 6,399.6 | -1,946.4 | 322.6 | 1,972.9 | 0.47 | -0.25 | -29.26 |
| 6,880.0 | 0.60 | 93.70 | 6,481.6 | -1,946.5 | 323.5 | 1,973.2 | 0.15 | -0.12 | -7.32 |
| 6,962.0 | 0.90 | 106.00 | 6,563.6 | -1,946.7 | 324.5 | 1,973.5 | 0.41 | 0.37 | 15.00 |
| 7,044.0 | 0.90 | 107.10 | 6,645.6 | -1,947.1 | 325.8 | 1,974.1 | 0.02 | 0.00 | 1.34 |
| 7,125.0 | 0.70 | 83.50 | 6,726.5 | -1,947.2 | 326.9 | 1,974.4 | 0.47 | -0.25 | -29.14 |
| 7,207.0 | 0.80 | 109.20 | 6,808.5 | -1,947.3 | 327.9 | 1,974.7 | 0.42 | 0.12 | 31.34 |
| 7,289.0 | 1.10 | 125.90 | 6,890.5 | -1,948.0 | 329.1 | 1,975.6 | 0.49 | 0.37 | 20.37 |
| 7,371.0 | 0.70 | 93.70 | 6,972.5 | -1,948.5 | 330.2 | 1,976.3 | 0.77 | -0.49 | -39.27 |
| 7,425.2 | 0.69 | 78.87 | 7,026.7 | -1,948.4 | 330.9 | 1,976.3 | 0.33 | -0.02 | -27.36 |
| LEGAL BOX 400' X 400' 1983'FSL & 654'FWL | | | | | | | | | |
| 7,425.3 | 0.69 | 78.87 | 7,026.8 | -1,948.4 | 330.9 | 1,976.3 | 0.00 | 0.00 | 0.00 |
| TARGET CIRCLE 2000'FSL & 660'FWL | | | | | | | | | |
| 7,452.0 | 0.70 | 71.60 | 7,053.5 | -1,948.4 | 331.2 | 1,976.3 | 0.33 | 0.04 | -27.22 |
| 7,534.0 | 1.00 | 54.70 | 7,135.5 | -1,947.8 | 332.2 | 1,975.9 | 0.47 | 0.37 | -20.61 |
| 7,616.0 | 1.00 | 45.10 | 7,217.5 | -1,946.9 | 333.3 | 1,975.2 | 0.20 | 0.00 | -11.71 |
| 7,697.0 | 0.80 | 51.00 | 7,298.5 | -1,946.0 | 334.3 | 1,974.5 | 0.27 | -0.25 | 7.28 |
| 7,779.0 | 0.90 | 31.00 | 7,380.5 | -1,945.1 | 335.0 | 1,973.8 | 0.38 | 0.12 | -24.39 |
| 7,850.0 | 0.50 | 57.90 | 7,451.5 | -1,944.5 | 335.6 | 1,973.2 | 0.71 | -0.56 | 37.89 |
| 7,901.0 | 0.30 | 42.60 | 7,502.5 | -1,944.3 | 335.9 | 1,973.0 | 0.44 | -0.39 | -30.00 |

| | | |
|-------------------|--------------------|-------------|
| Checked By: _____ | Approved By: _____ | Date: _____ |
|-------------------|--------------------|-------------|