

TABLE 9: DATA FOR TOTAL AMMONIA NITROGEN AND NITRATE NITROGEN CONCENTRATION (EXPERIMENT 3: SAME COUNT) - SUPPLEMENT FOR FIGURE 4c

| EXPERIMENT ID | TRIAL NUMBER | WASTEWATER QU | | | | | | | | | | | |
|--------------------|--------------|---------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | | NITRATE NITROGEN CONCENTRATION (mg/L) | | | | | | | | | | | |
| | | TREATMENT | | | | | | | | | | | |
| | | GYROID MEDIUM | | | GYROID LARGE | | | K1 | | | GYROID SMALL | | |
| | | [NO3-N] AT 0.75 HR. | [NO3-N] AT 4.75 HR. | [NO3-N] AT 8.75 HR. | [NO3-N] AT 0.75 HR. | [NO3-N] AT 4.75 HR. | [NO3-N] AT 8.75 HR. | [NO3-N] AT 0.75 HR. | [NO3-N] AT 4.75 HR. | [NO3-N] AT 8.75 HR. | [NO3-N] AT 0.75 HR. | [NO3-N] AT 4.75 HR. | [NO3-N] AT 8.75 HR. |
| 3 | 1 | 0.00 | 1.08 | 2.91 | 0.00 | 1.80 | 2.36 | 0.00 | 0.17 | 0.27 | 0.00 | 0.28 | 0.47 |
| 3 | 1 | 0.00 | 0.95 | 2.67 | 0.00 | 1.76 | 2.91 | 0.00 | 0.16 | 0.23 | 0.00 | 0.33 | 0.46 |
| 3 | 1 | 0.00 | 1.11 | 2.16 | 0.00 | 1.98 | 3.14 | 0.00 | 0.21 | 0.22 | 0.00 | 0.29 | 0.47 |
| 3 | 1 | 0.00 | 1.29 | 2.65 | 0.00 | 2.08 | 3.77 | 0.00 | 0.29 | 0.50 | 0.00 | 0.23 | 0.51 |
| 3 | 1 | 0.00 | 1.29 | 2.51 | 0.00 | 2.42 | 3.38 | 0.00 | 0.30 | 0.60 | 0.00 | 0.24 | 0.52 |
| 3 | 1 | 0.00 | 1.29 | 2.48 | 0.00 | 2.10 | 3.48 | 0.00 | 0.28 | 0.54 | 0.00 | 0.25 | 0.51 |
| 3 | 1 | 0.00 | 1.33 | 2.94 | 0.00 | 2.12 | 3.02 | 0.00 | 0.12 | 0.28 | 0.00 | 0.24 | 0.54 |
| 3 | 1 | 0.00 | 1.30 | 2.71 | 0.00 | 2.14 | 3.21 | 0.00 | 0.11 | 0.25 | 0.00 | 0.23 | 0.50 |
| 3 | 1 | 0.00 | 1.29 | 2.87 | 0.00 | 2.20 | 2.73 | 0.00 | 0.12 | 0.25 | 0.00 | 0.25 | 0.50 |
| 3 | 2 | 0.00 | 1.23 | 3.60 | 0.00 | 2.70 | 4.90 | 0.00 | 0.33 | 0.48 | 0.00 | 0.43 | 0.64 |
| 3 | 2 | 0.00 | 2.04 | 4.36 | 0.00 | 2.70 | 4.20 | 0.00 | 0.34 | 0.48 | 0.00 | 0.48 | 0.72 |
| 3 | 2 | 0.00 | 1.91 | 4.98 | 0.00 | 2.42 | 4.11 | 0.00 | 0.29 | 0.57 | 0.00 | 0.37 | 0.56 |
| 3 | 2 | 0.00 | 1.02 | 3.23 | 0.00 | 1.54 | 4.55 | 0.00 | 0.38 | 0.83 | 0.00 | 0.58 | 0.55 |
| 3 | 2 | 0.00 | 0.72 | 3.75 | 0.00 | 1.57 | 4.51 | 0.00 | 0.36 | 1.00 | 0.00 | 0.47 | 0.61 |
| 3 | 2 | 0.00 | 0.67 | 3.45 | 0.00 | 1.70 | 5.10 | 0.00 | 0.36 | 0.94 | 0.00 | 0.59 | 0.66 |
| 3 | 2 | 0.00 | 0.62 | 3.80 | 0.00 | 0.81 | 2.95 | 0.00 | 0.16 | 0.41 | 0.00 | 0.21 | 0.62 |
| 3 | 2 | 0.00 | 0.57 | 3.05 | 0.00 | 0.70 | 3.46 | 0.00 | 0.18 | 0.48 | 0.00 | 0.15 | 0.61 |
| 3 | 2 | 0.00 | 0.60 | 3.88 | 0.00 | 1.24 | 3.04 | 0.00 | 0.21 | 0.41 | 0.00 | 0.37 | 0.56 |
| 3 | 3 | 0.00 | 1.64 | 2.28 | 0.00 | 2.20 | 2.69 | 0.00 | 0.20 | 0.27 | 0.00 | 0.23 | 0.31 |
| 3 | 3 | 0.00 | 2.06 | 2.01 | 0.00 | 1.93 | 2.54 | 0.00 | 0.14 | 0.27 | 0.00 | 0.28 | 0.31 |
| 3 | 3 | 0.00 | 1.98 | 2.27 | 0.00 | 2.22 | 2.75 | 0.00 | 0.13 | 0.24 | 0.00 | 0.24 | 0.30 |
| 3 | 3 | 0.00 | 1.14 | 2.05 | 0.00 | 1.18 | 2.08 | 0.00 | 0.18 | 0.19 | 0.00 | 0.19 | 0.29 |
| 3 | 3 | 0.00 | 0.98 | 2.04 | 0.00 | 1.51 | 1.69 | 0.00 | 0.15 | 0.20 | 0.00 | 0.19 | 0.27 |
| 3 | 3 | 0.00 | 1.47 | 1.73 | 0.00 | 1.44 | 1.84 | 0.00 | 0.15 | 0.15 | 0.00 | 0.17 | 0.27 |
| 3 | 3 | 0.00 | 1.22 | 2.07 | 0.00 | 1.09 | 1.81 | 0.00 | 0.11 | 0.16 | 0.00 | 0.15 | 0.26 |
| 3 | 3 | 0.00 | 1.55 | 1.86 | 0.00 | 1.40 | 1.70 | 0.00 | 0.08 | 0.19 | 0.00 | 0.18 | 0.25 |
| 3 | 3 | 0.00 | 1.74 | 2.05 | 0.00 | 1.61 | 1.57 | 0.00 | 0.10 | 0.14 | 0.00 | 0.11 | 0.23 |
| MEAN | | 0.00 | 1.26 | 2.83 | 0.00 | 1.80 | 3.09 | 0.00 | 0.21 | 0.39 | 0.00 | 0.29 | 0.46 |
| STANDARD DEVIATION | | 0.00 | 0.43 | 0.81 | 0.00 | 0.52 | 0.99 | 0.00 | 0.09 | 0.23 | 0.00 | 0.12 | 0.14 |

TABLE 9: DATA FOR TOTAL AMMONIA NITROGEN AND NITRATE NITROGEN CONCENTRATION (EXPERIMENT 3: SAME COUNT) - SUPPLEMENT FOR FIGURE 4c

| EXPERIMENT ID | TRIAL NUMBER | ALITY PARAMETER | | | | | | | | | | | |
|--------------------|--------------|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | | TOTAL AMMONIA NITROGEN CONCENTRATION (mg / L) | | | | | | | | | | | |
| | | TREATMENT | | | | | | | | | | | |
| | | GYROID MEDIUM | | | GYROID LARGE | | | K1 | | | GYROID SMALL | | |
| | | [NH3-N] AT 0.75 HR. | [NH3-N] AT 4.75 HR. | [NH3-N] AT 8.75 HR. | [NH3-N] AT 0.75 HR. | [NH3-N] AT 4.75 HR. | [NH3-N] AT 8.75 HR. | [NH3-N] AT 0.75 HR. | [NH3-N] AT 4.75 HR. | [NH3-N] AT 8.75 HR. | [NH3-N] AT 0.75 HR. | [NH3-N] AT 4.75 HR. | [NH3-N] AT 8.75 HR. |
| 3 | 1 | 1.90 | 1.40 | 1.00 | 2.10 | 1.08 | 0.34 | 2.00 | 2.08 | 1.70 | 1.90 | 1.72 | 1.40 |
| 3 | 1 | 1.90 | 1.56 | 0.98 | 2.00 | 1.12 | 0.36 | 2.00 | 2.28 | 1.80 | 2.00 | 2.20 | 1.20 |
| 3 | 1 | 2.10 | 1.60 | 0.96 | 2.10 | 1.16 | 0.30 | 2.20 | 2.08 | 1.70 | 2.10 | 2.16 | 1.40 |
| 3 | 1 | 2.00 | 1.28 | 0.54 | 1.80 | 0.44 | 0.12 | 1.90 | 2.04 | 1.40 | 2.10 | 2.00 | 1.40 |
| 3 | 1 | 1.80 | 1.28 | 0.54 | 1.90 | 0.44 | 0.08 | 2.00 | 1.96 | 1.40 | 2.10 | 1.96 | 1.40 |
| 3 | 1 | 2.10 | 1.24 | 0.54 | 2.10 | 0.44 | 0.06 | 2.00 | 2.12 | 1.50 | 1.70 | 1.76 | 1.20 |
| 3 | 1 | 1.80 | 1.12 | 0.40 | 1.70 | 0.40 | 0.12 | 1.90 | 2.16 | 1.50 | 1.80 | 1.92 | 1.50 |
| 3 | 1 | 2.10 | 1.04 | 0.34 | 1.90 | 0.44 | 0.14 | 2.00 | 1.92 | 1.40 | 1.90 | 1.96 | 1.50 |
| 3 | 1 | 1.90 | 1.12 | 0.34 | 2.30 | 0.40 | 0.10 | 2.00 | 1.96 | 1.40 | 2.10 | 2.08 | 1.60 |
| 3 | 2 | 2.10 | 1.24 | 1.00 | 2.60 | 1.04 | 0.18 | 2.40 | 2.00 | 1.50 | 2.40 | 1.80 | 1.30 |
| 3 | 2 | 2.10 | 1.24 | 1.02 | 2.10 | 0.96 | 0.14 | 2.40 | 2.00 | 1.50 | 2.30 | 1.84 | 1.40 |
| 3 | 2 | 2.30 | 1.40 | 1.04 | 2.20 | 1.04 | 0.16 | 2.30 | 1.92 | 1.50 | 2.40 | 1.92 | 1.30 |
| 3 | 2 | 2.40 | 1.76 | 1.06 | 2.00 | 0.72 | 0.02 | 2.30 | 1.84 | 1.20 | 2.30 | 1.80 | 1.20 |
| 3 | 2 | 2.20 | 1.64 | 1.08 | 2.10 | 0.84 | 0.02 | 2.20 | 1.88 | 1.30 | 2.40 | 1.72 | 1.30 |
| 3 | 2 | 2.10 | 1.72 | 1.08 | 2.20 | 0.72 | 0.04 | 2.20 | 2.00 | 1.70 | 2.30 | 1.76 | 1.30 |
| 3 | 2 | 2.50 | 1.64 | 1.20 | 2.50 | 1.56 | 0.14 | 2.10 | 2.40 | 1.80 | 2.20 | 2.04 | 1.50 |
| 3 | 2 | 2.20 | 1.92 | 1.20 | 2.30 | 1.68 | 0.10 | 2.30 | 2.00 | 1.70 | 2.20 | 2.20 | 1.70 |
| 3 | 2 | 2.30 | 1.80 | 1.24 | 2.50 | 1.60 | 0.12 | 2.40 | 2.24 | 1.70 | 2.20 | 2.00 | 1.70 |
| 3 | 3 | 2.00 | 1.96 | 1.72 | 2.10 | 1.44 | 0.88 | 2.00 | 2.12 | 1.70 | 2.50 | 2.36 | 1.70 |
| 3 | 3 | 1.90 | 2.12 | 1.76 | 2.00 | 1.40 | 0.86 | 1.90 | 2.20 | 1.70 | 2.40 | 2.16 | 1.70 |
| 3 | 3 | 2.10 | 1.96 | 1.74 | 2.20 | 1.44 | 0.82 | 2.10 | 2.20 | 1.70 | 2.60 | 2.16 | 1.70 |
| 3 | 3 | 1.90 | 1.96 | 1.64 | 2.00 | 1.96 | 1.64 | 2.10 | 2.24 | 2.00 | 2.10 | 2.12 | 1.70 |
| 3 | 3 | 1.80 | 2.08 | 1.76 | 1.90 | 1.96 | 1.70 | 2.00 | 2.32 | 1.80 | 2.20 | 2.12 | 1.70 |
| 3 | 3 | 2.10 | 2.04 | 1.70 | 2.10 | 1.96 | 1.70 | 2.20 | 2.24 | 1.90 | 2.00 | 2.16 | 1.70 |
| 3 | 3 | 2.10 | 1.80 | 1.46 | 2.00 | 1.96 | 1.56 | 2.30 | 2.12 | 1.70 | 2.00 | 2.08 | 1.60 |
| 3 | 3 | 2.00 | 1.76 | 1.44 | 1.90 | 1.92 | 1.50 | 2.20 | 2.24 | 1.80 | 1.90 | 2.00 | 1.50 |
| 3 | 3 | 2.20 | 1.72 | 1.34 | 2.20 | 2.00 | 1.52 | 2.40 | 2.04 | 1.80 | 1.80 | 2.12 | 1.50 |
| MEAN | | 2.07 | 1.61 | 1.12 | 2.10 | 1.19 | 0.55 | 2.14 | 2.10 | 1.62 | 2.14 | 2.00 | 1.49 |
| STANDARD DEVIATION | | 0.18 | 0.32 | 0.44 | 0.21 | 0.56 | 0.61 | 0.16 | 0.14 | 0.19 | 0.22 | 0.17 | 0.17 |