

| Withoogte Final                              |           |                       | SANS 241:2015   | Compliance Calculations    |                                |                       |             |         |
|--|-----------|-----------------------|---|----------------------------|--------------------------------|-----------------------|-------------|---------|
| Parameter                                    | Unit      | Risk                  | Standard Limits<br>(SANS 241-2011<br>and SANS 241-<br>2006 Class I) | Total Number of<br>Samples | Number of Samples<br>Complying | % Compliance Achieved | Performance | Average |
| pH (at 25°C)                                 |           | Operational           | ≥5.0 - ≤ 9.7  | 24                         | 24                             | 100.0%                | Excellent   | 8.92    |
| Conductivity                                 | mS/m      | Aesthetic             | ≤ 170   | 24                         | 24                             | 100.0%                | Excellent   | 37.10   |
| Turbidity                                    | NTU       | Operational           | ≤ 1   | 24                         | 24                             | 100.0%                | Excellent   | 0.64    |
|  |           | Aesthetic             | ≤ 5   | 24                         | 24                             | 100.0%                | Excellent   |         |
| Free Chlorine                                | mg/L      | Chronic Health        | ≤ 5   | 24                         | 24                             | 100.0%                | Excellent   | 0.93    |
| Colour                                       | mg/L      | Aesthetic             | ≤ 15  | 20                         | 20                             | 100.0%                | Excellent   | 5.30    |
| Alkalinity (as CaCO <sub>3</sub> )           | mg/L      |                       | -   | 23                         |                                |                       |             | 42.09   |
| Total Hardness (as CaCO <sub>3</sub> )       | mg/L      |                       | -   | 22                         |                                |                       |             | 112.05  |
| Calcium (as Ca)                              | mg/L      | Aesthetic / Operation | ≤ 150   | 1                          | 1                              | 100.0%                | Excellent   |         |
| Magnesium (as Mg)                            | mg/L      | Aesthetic / Health    | ≤ 70  | 1                          | 1                              | 100.0%                | Excellent   |         |
| Sodium (as Na)                               | mg/L      | Aesthetic             | ≤ 200   | 1                          | 1                              | 100.0%                | Excellent   |         |
| Potassium (as K)                             | mg/L      | Operational / Health  | ≤ 50  | 0                          | 0                              |                       |             |         |
| Zinc (as Zn)                                 | mg/L      | Aesthetic             | ≤ 5   | 1                          | 1                              | 100.0%                | Excellent   |         |
| Chloride (as Cl)                             | mg/L      | Aesthetic             | ≤ 300   | 21                         | 21                             | 100.0%                | Excellent   | 56.17   |
| Fluoride (as F)                              | mg/L      | Chronic Health        | ≤ 1.5   | 1                          | 1                              | 100.0%                | Excellent   |         |
| Sulphate (as SO <sub>4</sub> <sup>2-</sup> ) | mg/L      | Acute Health Chemical | ≤ 500   | 1                          | 1                              | 100.0%                | Excellent   |         |
|  |           | Aesthetic             | ≤ 250   | 1                          | 1                              | 100.0%                | Excellent   |         |
| Total Dissolved Solids                       | mg/L      | Aesthetic             | ≤ 1 200   | 23                         | 23                             | 100.0%                | Excellent   | 242.74  |
| Ammonia Nitrogen (as N)                      | mg/L      | Aesthetic             | ≤ 1.5   | 1                          | 1                              | 100.0%                | Excellent   |         |
| Nitrate & Nitrite Nitrogen (as N)            | mg/L      | Acute Health Chemical | ≤ 12  | 1                          | 1                              | 100.0%                | Excellent   |         |
| Iron (as Fe)                                 | ug/L      | Chronic Health        | ≤ 2000  | 19                         | 19                             | 100.0%                | Excellent   | 74.05   |
|  |           | Aesthetic             | ≤ 300   | 19                         | 18                             | 94.7%                 | Excellent   |         |
| Manganese (as Mn)                            | ug/L      | Chronic Health        | ≤ 400   | 19                         | 19                             | 100.0%                | Excellent   | 1.58    |
|  |           | Aesthetic             | ≤ 100   | 19                         | 19                             | 100.0%                | Excellent   |         |
| Aluminium (as Al)                            | ug/L      | Operational           | ≤ 300   | 19                         | 19                             | 100.0%                | Excellent   | 3.47    |
| Total Coliform Count (<1 taken as 0)         | cfu/100ml | Operational           | ≤ 10  | 24                         | 23                             | 95.8%                 | Excellent   | 1.03    |
| E.Coli (<1 taken as 0)                       | cfu/100ml | Acute Health Micro    | ≤ 0   | 24                         | 24                             | 100.0%                | Excellent   | 0.00    |
| Heterotrophic Plate Count                    | cfu/ml    | Operational           | ≤ 1000  | 23                         | 23                             | 100.0%                | Excellent   | 20.66   |
| Cytopathogenic Viruses                       | cfu/10 l  | Acute Health Micro    | ≤ 0   | 0                          | 0                              |                       |             |         |
| Cryptosporidium Species                      | cfu/10 l  | Acute Health Micro    | ≤ 0   | 0                          | 0                              |                       |             |         |
| Giardia Species                              | cfu/10 l  | Acute Health Micro    | ≤ 0   | 0                          | 0                              |                       |             |         |
| Chloroform                                   | mg/L      | Chronic Health        | ≤ 0.3   | 0                          | 0                              |                       |             |         |
| Bromodichloromethane                         | mg/L      | Chronic Health        | ≤ 0.06  | 0                          | 0                              |                       |             |         |
| Dibromochloromethane                         | mg/L      | Chronic Health        | ≤ 0.1   | 0                          | 0                              |                       |             |         |
| Bromoform                                    | mg/L      | Chronic Health        | ≤ 0.1   | 0                          | 0                              |                       |             |         |
| Combined Trihalomethanes                     | mg/L      | Chronic Health        | ≤ 1   | 0                          | 0                              |                       |             |         |
| Phenols                                      | ug/L      | Aesthetic             | ≤ 10  | 0                          | 0                              |                       |             |         |
| Calcium Hardness (as CaCO <sub>3</sub> )     | mg/L      |                       | -   | 0                          |                                |                       |             |         |
| Magnesium Hardness (as CaCO <sub>3</sub> )   | mg/L      |                       | -   | 0                          |                                |                       |             |         |
| Nitrate as N                                 | mg/L      | Acute Health Chemical | ≤ 11  | 0                          | 0                              |                       |             |         |
| Nitrite as N                                 | mg/L      | Acute Health Chemical | ≤ 0.9   | 0                          | 0                              |                       |             |         |
| Antimony (as Sb)                             | ug/L      | Chronic Health        | ≤ 20  | 0                          | 0                              |                       |             |         |
| Arsenic (as As)                              | ug/L      | Chronic Health        | ≤ 10  | 0                          | 0                              |                       |             |         |
| Cadmium (as Cd)                              | ug/L      | Chronic Health        | ≤ 3   | 0                          | 0                              |                       |             |         |
| Chromium (as Cr)                             | ug/L      | Chronic Health        | ≤ 50  | 0                          | 0                              |                       |             |         |
| Cobalt (as Co)                               | ug/L      | Chronic Health        | ≤ 500   | 0                          | 0                              |                       |             |         |
| Copper (as Cu)                               | ug/L      | Chronic Health        | ≤ 2000  | 0                          | 0                              |                       |             |         |
| Lead (as Pb)                                 | ug/L      | Chronic Health        | ≤ 10  | 0                          | 0                              |                       |             |         |
| Mercury (as Hg)                              | ug/L      | Chronic Health        | ≤ 6   | 0                          | 0                              |                       |             |         |
| Nickel (as Ni)                               | ug/L      | Chronic Health        | ≤ 70  | 0                          | 0                              |                       |             |         |
| Selenium (as Se)                             | ug/L      | Chronic Health        | ≤ 40  | 0                          | 0                              |                       |             |         |
| Vanadium (as V)                              | ug/L      | Chronic Health        | ≤ 200   | 0                          | 0                              |                       |             |         |
| Cyanide                                      | ug/L      | Acute Health Chemical | ≤ 200   | 0                          | 0                              |                       |             |         |
| Total Organic Carbon                         | mg/L      | Chronic Health        | ≤ 10  | 0                          | 0                              |                       |             |         |

|                              |     |     |        |           |
|------------------------------|-----|-----|--------|-----------|
| Acute Health Chemical        | 2   | 2   | 100.0% | Excellent |
| Acute Health Microbiological | 24  | 24  | 100.0% | Excellent |
| Chronic Health               | 63  | 63  | 100.0% | Excellent |
| Aesthetic                    | 156 | 155 | 99.4%  | Excellent |
| Operational Efficiency       | 115 | 114 | 99.1%  | Excellent |

| Moorreesburg                                 |           |                       | SANS 241:2015   | Compliance Calculations |                             |                       |             |         |
|--|-----------|-----------------------|---|-------------------------|-----------------------------|-----------------------|-------------|---------|
| Parameter                                    | Unit      | Risk                  | Standard Limits<br>(SANS 241:2011<br>and SANS 241-<br>2006 Class I) | Total Number of Samples | Number of Samples Complying | % Compliance Achieved | Performance | Average |
| pH (at 25°C)                                 |           | Operational           | ≥5.0 - ≤ 9.7  | 1                       | 1                           | 100.0%                | Excellent   | 8.66    |
| Conductivity                                 | mS/m      | Aesthetic             | ≤ 170   | 1                       | 1                           | 100.0%                | Excellent   | 34.50   |
| Turbidity                                    | NTU       | Operational           | ≤ 1   | 1                       | 1                           | 100.0%                | Excellent   | 0.62    |
|  |           | Aesthetic             | ≤ 5   | 1                       | 1                           | 100.0%                | Excellent   |         |
| Colour                                       | mg/L      | Aesthetic             | ≤ 15  | 1                       | 1                           | 100.0%                | Excellent   | 4.00    |
| Alkalinity (as CaCO <sub>3</sub> )           | mg/L      |                       | -   | 0                       |                             |                       |             |         |
| Total Hardness (as CaCO <sub>3</sub> )       | mg/L      |                       | -   | 0                       |                             |                       |             |         |
| Calcium Hardness (as CaCO <sub>3</sub> )     | mg/L      |                       | -   | 0                       |                             |                       |             |         |
| Calcium (as Ca)                              | mg/L      | Aesthetic / Operation | ≤ 150   | 1                       | 1                           | 100.0%                | Excellent   | 17.70   |
| Magnesium Hardness (as CaCO <sub>3</sub> )   | mg/L      |                       | -   | 0                       |                             |                       |             |         |
| Magnesium (as Mg)                            | mg/L      | Aesthetic / Health    | ≤ 70  | 1                       | 1                           | 100.0%                | Excellent   | 6.50    |
| Chloride (as Cl)                             | mg/L      | Aesthetic             | ≤ 300   | 1                       | 1                           | 100.0%                | Excellent   | 60.30   |
| Fluoride (as F)                              | mg/L      | Chronic Health        | ≤ 1.5   | 1                       | 1                           | 100.0%                | Excellent   | 0.10    |
| Sodium (as Na)                               | mg/L      | Aesthetic             | ≤ 200   | 1                       | 1                           | 100.0%                | Excellent   | 35.20   |
| Potassium (as K)                             | mg/L      | Operational / Health  | ≤ 50  | 1                       | 1                           | 100.0%                | Excellent   | 3.10    |
| Zinc (as Zn)                                 | mg/L      | Aesthetic             | ≤ 5   | 1                       | 1                           | 100.0%                | Excellent   | 0.01    |
| Ammonia Nitrogen (as N)                      | mg/L      | Aesthetic             | ≤ 1.5   | 1                       | 1                           | 100.0%                | Excellent   | 0.15    |
| Nitrate & Nitrite Nitrogen (as N)            | mg/L      | Acute Health Chemical | ≤ 12  | 1                       | 1                           | 100.0%                | Excellent   | 0.42    |
| Nitrate as N                                 | mg/L      | Acute Health Chemical | ≤ 11  | 1                       | 1                           | 100.0%                | Excellent   | 0.34    |
| Nitrite as N                                 | mg/L      | Acute Health Chemical | ≤ 0.9   | 1                       | 1                           | 100.0%                | Excellent   | 0.08    |
| Sulphate (as SO <sub>4</sub> <sup>2-</sup> ) | mg/L      | Acute Health Chemical | ≤ 500   | 1                       | 1                           | 100.0%                | Excellent   | 25.30   |
|  |           | Aesthetic             | ≤ 250   | 1                       | 1                           | 100.0%                | Excellent   |         |
| Total Dissolved Solids                       | mg/L      | Aesthetic             | ≤ 1 200   | 1                       | 1                           | 100.0%                | Excellent   | 233.00  |
| Iron (as Fe)                                 | ug/L      | Chronic Health        | ≤ 2000  | 1                       | 1                           | 100.0%                | Excellent   | 43.00   |
|  |           | Aesthetic             | ≤ 300   | 1                       | 1                           | 100.0%                | Excellent   |         |
| Manganese (as Mn)                            | ug/L      | Chronic Health        | ≤ 400   | 1                       | 1                           | 100.0%                | Excellent   | 19.00   |
|  |           | Aesthetic             | < 100   | 1                       | 1                           | 100.0%                | Excellent   |         |
| Aluminium (as Al)                            | ug/L      | Operational           | ≤ 300   | 1                       | 1                           | 100.0%                | Excellent   | 12.00   |
| E.Coli (<1 taken as 0)                       | cfu/100ml | Acute Health Micro    | ≤ 0   | 30                      | 30                          | 100.0%                | Excellent   | 0.00    |
| Total Coliform Count (<1 taken as 0)         | cfu/100ml | Operational           | ≤ 10  | 30                      | 28                          | 93.3%                 | Excellent   | 90.33   |
| Heterotrophic Plate Count                    | cfu/ml    | Operational           | ≤ 1000  | 1                       | 1                           | 100.0%                | Excellent   | 98.00   |
| Free Chlorine                                | mg/L      | Chronic Health        | ≤ 5   | 1                       | 1                           | 100.0%                | Excellent   | 0.05    |
| Antimony (as Sb)                             | ug/L      | Chronic Health        | ≤ 20  | 1                       | 1                           | 100.0%                | Excellent   | 10.00   |
| Arsenic (as As)                              | ug/L      | Chronic Health        | ≤ 10  | 1                       | 1                           | 100.0%                | Excellent   | 3.00    |
| Cadmium (as Cd)                              | ug/L      | Chronic Health        | ≤ 3   | 1                       | 1                           | 100.0%                | Excellent   | 1.00    |
| Chromium (as Cr)                             | ug/L      | Chronic Health        | ≤ 50  | 1                       | 1                           | 100.0%                | Excellent   | 12.00   |
| Cobalt (as Co)                               | ug/L      | Chronic Health        | ≤ 500   | 0                       | 0                           |                       |             |         |
| Copper (as Cu)                               | ug/L      | Chronic Health        | ≤ 2000  | 1                       | 1                           | 100.0%                | Excellent   | 8.00    |
| Lead (as Pb)                                 | ug/L      | Chronic Health        | ≤ 10  | 1                       | 1                           | 100.0%                | Excellent   | 7.00    |
| Mercury (as Hg)                              | ug/L      | Chronic Health        | ≤ 6   | 1                       | 1                           | 100.0%                | Excellent   | 6.00    |
| Nickel (as Ni)                               | ug/L      | Chronic Health        | ≤ 70  | 1                       | 1                           | 100.0%                | Excellent   | 2.00    |
| Selenium (as Se)                             | ug/L      | Chronic Health        | ≤ 40  | 1                       | 1                           | 100.0%                | Excellent   | 10.00   |
| Vanadium (as V)                              | ug/L      | Chronic Health        | ≤ 200   | 0                       | 0                           |                       |             |         |
| Cyanide                                      | ug/L      | Acute Health Chemical | ≤ 200   | 1                       | 1                           | 100.0%                | Excellent   | 50.00   |
| Total Organic Carbon                         | mg/L      | Chronic Health        | < 10  | 1                       | 1                           | 100.0%                | Excellent   | 0.60    |
| CaCO <sub>3</sub> Precipitation Potential    |           |                       | -   | 0                       |                             |                       |             |         |
| Cytopathogenic Viruses                       | cfu/10 l  | Acute Health Micro    | ≤ 0   | 0                       | 0                           |                       |             |         |
| Cryptosporidium Species                      | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                       | 1                           | 100.0%                | Excellent   | 0.00    |
| Giardia Species                              | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                       | 1                           | 100.0%                | Excellent   | 0.00    |
| Chloroform                                   | ug/L      | Chronic Health        | ≤ 300   | 1                       | 1                           | 100.0%                | Excellent   | 35.00   |
| Bromodichloromethane                         | ug/L      | Chronic Health        | ≤ 60  | 1                       | 1                           | 100.0%                | Excellent   | 23.00   |
| Dibromochloromethane                         | ug/L      | Chronic Health        | ≤ 100   | 1                       | 1                           | 100.0%                | Excellent   | 16.00   |
| Bromoform                                    | ug/L      | Chronic Health        | ≤ 100   | 1                       | 1                           | 100.0%                | Excellent   | 2.00    |
| Somatic Coliphages                           | cfu/10ml  | Operational           | ≤ 0   | 1                       | 1                           | 100.0%                | Excellent   | 0.00    |
| Phenols                                      | ug/L      | Aesthetic             | ≤ 10  | 1                       | 1                           | 100.0%                | Excellent   | 0.01    |
| Combined Trihalomethanes                     | mg/L      | Chronic Health        | ≤ 1   | 1                       | 1                           | 100.0%                | Excellent   | 0.68    |
| Uranium (as U)                               | ug/L      | Chronic Health        | ≤ 30  | 1                       | 1                           | 100.0%                | Excellent   | 15.00   |
| Microcystin (as LR)                          | ug/L      | Chronic Health        | ≤ 1   | 1                       | 1                           | 100.0%                | Excellent   | 0.15    |
| Monochloramine                               | mg/L      | Chronic Health        | ≤ 3   | 1                       | 1                           | 100.0%                | Excellent   | 0.05    |
| Barium (as Ba)                               | ug/L      | Chronic Health        | ≤ 700   | 1                       | 1                           | 100.0%                | Excellent   | 11.70   |
| Baron (as B)                                 | mg/L      | Chronic Health        | ≤ 2.4   | 1                       | 1                           | 100.0%                | Excellent   | 0.10    |

|                              |    |    |        |           |
|------------------------------|----|----|--------|-----------|
| Acute Health Chemical        | 5  | 5  | 100.0% | Excellent |
| Acute Health Microbiological | 32 | 32 | 100.0% | Excellent |
| Chronic Health               | 24 | 24 | 100.0% | Excellent |
| Aesthetic                    | 14 | 14 | 100.0% | Excellent |
| Operational Efficiency       | 37 | 35 | 94.6%  | Excellent |

| Koringberg                                   |           |                       | SANS 241:2015   | Compliance Calculations    |                                |                          |             |         |
|--|-----------|-----------------------|---|----------------------------|--------------------------------|--------------------------|-------------|---------|
| Parameter                                    | Unit      | Risk                  | Standard Limits<br>(SANS 241-2011<br>and SANS 241-<br>2006 Class I) | Total Number of<br>Samples | Number of Samples<br>Complying | % Compliance<br>Achieved | Performance | Average |
| pH (at 25°C)                                 |           | Operational           | ≥5.0 - ≤ 9.7  | 25                         | 25                             | 100.0%                   | Excellent   | 8.88    |
| Conductivity                                 | mS/m      | Aesthetic             | ≤ 170   | 25                         | 25                             | 100.0%                   | Excellent   | 37.28   |
| Turbidity                                    | NTU       | Operational           | ≤ 1   | 25                         | 23                             | 92.0%                    | Good        | 0.53    |
|  |           | Aesthetic             | ≤ 5   | 25                         | 25                             | 100.0%                   | Excellent   |         |
| Free Chlorine                                | mg/L      | Chronic Health        | ≤ 5   | 25                         | 25                             | 100.0%                   | Excellent   | 0.14    |
| Colour                                       | mg/L      | Aesthetic             | ≤ 15  | 1                          | 1                              | 100.0%                   | Excellent   | 7.00    |
| Alkalinity (as CaCO <sub>3</sub> )           | mg/L      |                       | -   | 0                          |                                |                          |             |         |
| Total Hardness (as CaCO <sub>3</sub> )       | mg/L      |                       | -   | 0                          |                                |                          |             |         |
| Calcium (as Ca)                              | mg/L      | Aesthetic / Operation | ≤ 150   | 1                          | 1                              | 100.0%                   | Excellent   | 18.20   |
| Magnesium (as Mg)                            | mg/L      | Aesthetic / Health    | ≤ 70  | 1                          | 1                              | 100.0%                   | Excellent   | 6.20    |
| Sodium (as Na)                               | mg/L      | Aesthetic             | ≤ 200   | 1                          | 1                              | 100.0%                   | Excellent   | 33.20   |
| Potassium (as K)                             | mg/L      | Operational / Health  | ≤ 50  | 1                          | 1                              | 100.0%                   | Excellent   | 2.70    |
| Zinc (as Zn)                                 | mg/L      | Aesthetic             | ≤ 5   | 1                          | 1                              | 100.0%                   | Excellent   | 0.01    |
| Chloride (as Cl)                             | mg/L      | Aesthetic             | ≤ 300   | 1                          | 1                              | 100.0%                   | Excellent   | 60.80   |
| Fluoride (as F)                              | mg/L      | Chronic Health        | ≤ 1.5   | 1                          | 1                              | 100.0%                   | Excellent   | 0.10    |
|  |           | Acute Health Chemical | ≤ 500   | 1                          | 1                              | 100.0%                   | Excellent   |         |
| Sulphate (as SO <sub>4</sub> <sup>2-</sup> ) | mg/L      | Aesthetic             | ≤ 250   | 1                          | 1                              | 100.0%                   | Excellent   | 24.60   |
|  |           |                       |   |                            |                                |                          |             |         |
| Total Dissolved Solids                       | mg/L      | Aesthetic             | ≤ 1 200   | 1                          | 1                              | 100.0%                   | Excellent   | 230.00  |
| Ammonia Nitrogen (as N)                      | mg/L      | Aesthetic             | ≤ 1.5   | 1                          | 1                              | 100.0%                   | Excellent   | 0.15    |
| Nitrate & Nitrite Nitrogen (as N)            | mg/L      | Acute Health Chemical | ≤ 12  | 1                          | 1                              | 100.0%                   | Excellent   | 0.56    |
| Iron (as Fe)                                 | ug/L      | Chronic Health        | ≤ 2000  | 1                          | 1                              | 100.0%                   | Excellent   | 30.00   |
|  |           | Aesthetic             | ≤ 300   | 1                          | 1                              | 100.0%                   | Excellent   |         |
| Manganese (as Mn)                            | ug/L      | Chronic Health        | ≤ 400   | 1                          | 1                              | 100.0%                   | Excellent   | 19.00   |
|  |           | Aesthetic             | < 100   | 1                          | 1                              | 100.0%                   | Excellent   |         |
| Aluminium (as Al)                            | ug/L      | Operational           | ≤300  | 2                          | 2                              | 100.0%                   | Excellent   | 6.00    |
| Total Coliform Count (<1 taken as 0)         | cfu/100ml | Operational           | ≤ 10  | 25                         | 24                             | 96.0%                    | Excellent   | 1.38    |
| E.Coli (<1 taken as 0)                       | cfu/100ml | Acute Health Micro    | ≤ 0   | 25                         | 24                             | 96.0%                    | Good        | 0.02    |
| Heterotrophic Plate Count                    | cfu/ml    | Operational           | ≤ 1000  | 23                         | 23                             | 100.0%                   | Excellent   | 42.01   |
| Calcium Hardness (as CaCO <sub>3</sub> )     | mg/L      |                       | -   | 0                          |                                |                          |             |         |
| Magnesium Hardness (as CaCO <sub>3</sub> )   | mg/L      |                       | -   | 0                          |                                |                          |             |         |
| Nitrate as N                                 | mg/L      | Acute Health Chemical | ≤ 11  | 1                          | 1                              | 100.0%                   | Excellent   | 0.48    |
| Nitrite as N                                 | mg/L      | Acute Health Chemical | ≤ 0.9   | 1                          | 1                              | 100.0%                   | Excellent   | 0.08    |
| Antimony (as Sb)                             | ug/L      | Chronic Health        | ≤ 20  | 1                          | 1                              | 100.0%                   | Excellent   | 10.00   |
| Arsenic (as As)                              | ug/L      | Chronic Health        | ≤ 10  | 1                          | 1                              | 100.0%                   | Excellent   | 3.00    |
| Cadmium (as Cd)                              | ug/L      | Chronic Health        | ≤ 3   | 1                          | 1                              | 100.0%                   | Excellent   | 1.00    |
| Chromium (as Cr)                             | ug/L      | Chronic Health        | ≤ 50  | 1                          | 1                              | 100.0%                   | Excellent   | 8.00    |
| Cobalt (as Co)                               | ug/L      | Chronic Health        | ≤ 500   |                            |                                |                          |             |         |
| Copper (as Cu)                               | ug/L      | Chronic Health        | ≤ 2000  | 1                          | 1                              | 100.0%                   | Excellent   | 6.00    |
| Lead (as Pb)                                 | ug/L      | Chronic Health        | ≤ 10  | 1                          | 1                              | 100.0%                   | Excellent   | 7.00    |
| Mercury (as Hg)                              | ug/L      | Chronic Health        | ≤ 6   | 1                          | 1                              | 100.0%                   | Excellent   | 6.00    |
| Nickel (as Ni)                               | ug/L      | Chronic Health        | ≤ 70  | 1                          | 1                              | 100.0%                   | Excellent   | 1.00    |
| Selenium (as Se)                             | ug/L      | Chronic Health        | ≤ 40  | 1                          | 1                              | 100.0%                   | Excellent   | 10.00   |
| Vanadium (as V)                              | ug/L      | Chronic Health        | ≤ 200   |                            |                                |                          |             |         |
| Cyanide                                      | ug/L      | Acute Health Chemical | ≤ 200   | 1                          | 1                              | 100.0%                   | Excellent   | 50.00   |
| Total Organic Carbon                         | mg/L      | Chronic Health        | < 10  | 1                          | 1                              | 100.0%                   | Excellent   | 0.60    |
| CaCO <sub>3</sub> Precipitation Potential    |           |                       | -   | 0                          |                                |                          |             |         |
| Cytopathogenic Viruses                       | cfu/10 l  | Acute Health Micro    | ≤ 0   |                            |                                |                          |             |         |
| Cryptosporidium Species                      | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                          | 1                              | 100.0%                   | Excellent   | 0.00    |
| Giardia Species                              | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                          | 1                              | 100.0%                   | Excellent   | 0.00    |
| Chloroform                                   | ug/L      | Chronic Health        | ≤ 300   | 1                          | 1                              | 100.0%                   | Excellent   | 33.00   |
| Bromodichloromethane                         | ug/L      | Chronic Health        | ≤ 60  | 1                          | 1                              | 100.0%                   | Excellent   | 24.00   |
| Dibromochloromethane                         | ug/L      | Chronic Health        | ≤ 100   | 1                          | 1                              | 100.0%                   | Excellent   | 20.00   |
| Bromoform                                    | ug/L      | Chronic Health        | ≤ 100   | 1                          | 1                              | 100.0%                   | Excellent   | 4.00    |
| Somatic Coliphages                           | cfu/10ml  | Operational           | ≤ 0   | 1                          | 1                              | 100.0%                   | Excellent   | 0.00    |
| Phenols                                      | ug/L      | Aesthetic             | ≤10   | 1                          | 1                              | 100.0%                   | Excellent   | 0.01    |
| Combined Trihalomethanes                     | mg/L      | Chronic Health        | ≤ 1   | 1                          | 1                              | 100.0%                   | Excellent   | 0.75    |
| Uranium (as U)                               | ug/L      | Chronic Health        | ≤ 30  | 1                          | 1                              | 100.0%                   | Excellent   | 15.00   |
| Microcystin (as LR)                          | ug/L      | Chronic Health        | ≤ 1   | 1                          | 1                              | 100.0%                   | Excellent   | 0.15    |
| Monochloramine                               | mg/L      | Chronic Health        | ≤ 3   | 1                          | 1                              | 100.0%                   | Excellent   | 0.05    |
| Barium (as Ba)                               | ug/L      | Chronic Health        | ≤ 700   | 1                          | 1                              | 100.0%                   | Excellent   | 11.90   |
| Baron (as B)                                 | mg/L      | Chronic Health        | ≤ 2.4   | 1                          | 1                              | 100.0%                   | Excellent   | 0.10    |

|                              |     |     |        |           |
|------------------------------|-----|-----|--------|-----------|
| Acute Health Chemical        | 5   | 5   | 100.0% | Excellent |
| Acute Health Microbiological | 27  | 26  | 96.3%  | Good      |
| Chronic Health               | 48  | 48  | 100.0% | Excellent |
| Aesthetic                    | 62  | 62  | 100.0% | Excellent |
| Operational Efficiency       | 103 | 100 | 97.1%  | Excellent |

| Swartland Final                              |           |                       | SANS 241:2015   | Compliance Calculations |                                |                       |              |         |
|--|-----------|-----------------------|---|-------------------------|--------------------------------|-----------------------|--------------|---------|
| Parameter                                    | Unit      | Risk                  | Standard Limits<br>(SANS 241-2011<br>and SANS 241-<br>2006 Class I) | Total Number of Samples | Number of Samples<br>Complying | % Compliance Achieved | Performance  | Average |
| pH (at 25°C)                                 |           | Operational           | ≥5.0 - ≤ 9.7  | 24                      | 13                             | 54.2%                 | Unacceptable | 9.48    |
| Conductivity                                 | mS/m      | Aesthetic             | ≤ 170   | 24                      | 24                             | 100.0%                | Excellent    | 16.08   |
| Turbidity                                    | NTU       | Operational           | ≤ 1   | 24                      | 21                             | 87.5%                 | Unacceptable | 0.59    |
|  |           | Aesthetic             | ≤ 5   | 24                      | 24                             | 100.0%                | Excellent    |         |
| Free Chlorine                                | mg/L      | Chronic Health        | ≤ 5   | 24                      | 24                             | 100.0%                | Excellent    | 0.60    |
| Colour                                       | mg/L      | Aesthetic             | ≤ 15  | 24                      | 24                             | 100.0%                | Excellent    | 4.92    |
| Alkalinity (as CaCO <sub>3</sub> )           | mg/L      |                       | -   | 24                      |                                |                       |              | 28.33   |
| Total Hardness (as CaCO <sub>3</sub> )       | mg/L      |                       | -   | 24                      |                                |                       |              | 89.13   |
| Calcium (as Ca)                              | mg/L      | Aesthetic / Operation | ≤ 150   | 1                       | 1                              | 100.0%                | Excellent    | 12.70   |
| Magnesium (as Mg)                            | mg/L      | Aesthetic / Health    | ≤ 70  | 1                       | 1                              | 100.0%                | Excellent    | 2.80    |
| Sodium (as Na)                               | mg/L      | Aesthetic             | ≤ 200   | 1                       | 1                              | 100.0%                | Excellent    | 13.90   |
| Potassium (as K)                             | mg/L      | Operational / Health  | ≤ 50  | 0                       | 0                              |                       |              |         |
| Zinc (as Zn)                                 | mg/L      | Aesthetic             | ≤ 5   | 1                       | 1                              | 100.0%                | Excellent    | 0.00    |
| Chloride (as Cl)                             | mg/L      | Aesthetic             | ≤ 300   | 23                      | 23                             | 100.0%                | Excellent    | 24.89   |
| Fluoride (as F)                              | mg/L      | Chronic Health        | ≤ 1.5   | 1                       | 1                              | 100.0%                | Excellent    | 0.12    |
| Sulphate (as SO <sub>4</sub> <sup>2-</sup> ) | mg/L      | Acute Health Chemical | ≤ 500   | 1                       | 1                              | 100.0%                | Excellent    | 12.70   |
|  |           | Aesthetic             | ≤ 250   | 1                       | 1                              | 100.0%                | Excellent    |         |
| Total Dissolved Solids                       | mg/L      | Aesthetic             | ≤ 1 200   | 24                      | 24                             | 100.0%                | Excellent    | 105.83  |
| Ammonia Nitrogen (as N)                      | mg/L      | Aesthetic             | ≤ 1.5   | 1                       | 1                              | 100.0%                | Excellent    | 0.35    |
| Nitrate & Nitrite Nitrogen (as N)            | mg/L      | Acute Health Chemical | ≤ 12  | 1                       | 1                              | 100.0%                | Excellent    | 0.20    |
| Iron (as Fe)                                 | ug/L      | Chronic Health        | ≤ 2000  | 22                      | 22                             | 100.0%                | Excellent    | 25.77   |
|  |           | Aesthetic             | ≤ 300   | 22                      | 22                             | 100.0%                | Excellent    |         |
| Manganese (as Mn)                            | ug/L      | Chronic Health        | ≤ 400   | 22                      | 22                             | 100.0%                | Excellent    | 1.18    |
|  |           | Aesthetic             | ≤ 100   | 22                      | 22                             | 100.0%                | Excellent    |         |
| Aluminium (as Al)                            | ug/L      | Operational           | ≤300  | 22                      | 22                             | 100.0%                | Excellent    | 1.32    |
| Total Coliform Count (<1 taken as 0)         | cfu/100ml | Operational           | ≤ 10  | 22                      | 22                             | 100.0%                | Excellent    | 0.05    |
| E.Coli (<1 taken as 0)                       | cfu/100ml | Acute Health Micro    | ≤ 0   | 23                      | 23                             | 100.0%                | Excellent    | 0.00    |
| Heterotrophic Plate Count                    | cfu/ml    | Operational           | ≤ 1000  | 21                      | 21                             | 100.0%                | Excellent    | 16.07   |
| Cytopathogenic Viruses                       | cfu/10 l  | Acute Health Micro    | ≤ 0   | 0                       | 0                              |                       |              |         |
| Cryptosporidium Species                      | cfu/10 l  | Acute Health Micro    | ≤ 0   | 0                       | 0                              |                       |              |         |
| Giardia Species                              | cfu/10 l  | Acute Health Micro    | ≤ 0   | 0                       | 0                              |                       |              |         |
| Chloroform                                   | mg/L      | Chronic Health        | ≤ 0.3   | 0                       | 0                              |                       |              |         |
| Bromodichloromethane                         | mg/L      | Chronic Health        | ≤ 0.06  | 0                       | 0                              |                       |              |         |
| Dibromochloromethane                         | mg/L      | Chronic Health        | ≤ 0.1   | 0                       | 0                              |                       |              |         |
| Bromoform                                    | mg/L      | Chronic Health        | ≤ 0.1   | 0                       | 0                              |                       |              |         |
| Combined Trihalomethanes                     | mg/L      | Chronic Health        | ≤ 1   | 0                       | 0                              |                       |              |         |
| Phenols                                      | ug/L      | Aesthetic             | ≤10   | 0                       | 0                              |                       |              |         |
| Calcium Hardness (as CaCO <sub>3</sub> )     | mg/L      |                       | -   | 0                       |                                |                       |              |         |
| Magnesium Hardness (as CaCO <sub>3</sub> )   | mg/L      |                       | -   | 0                       |                                |                       |              |         |
| Nitrate as N                                 | mg/L      | Acute Health Chemical | ≤ 11  | 0                       | 0                              |                       |              |         |
| Nitrite as N                                 | mg/L      | Acute Health Chemical | ≤ 0.9   | 0                       | 0                              |                       |              |         |
| Antimony (as Sb)                             | ug/L      | Chronic Health        | ≤ 20  | 0                       | 0                              |                       |              |         |
| Arsenic (as As)                              | ug/L      | Chronic Health        | ≤ 10  | 0                       | 0                              |                       |              |         |
| Cadmium (as Cd)                              | ug/L      | Chronic Health        | ≤ 3   | 0                       | 0                              |                       |              |         |
| Chromium (as Cr)                             | ug/L      | Chronic Health        | ≤ 50  | 0                       | 0                              |                       |              |         |
| Cobalt (as Co)                               | ug/L      | Chronic Health        | ≤ 500   | 0                       | 0                              |                       |              |         |
| Copper (as Cu)                               | ug/L      | Chronic Health        | ≤ 2000  | 0                       | 0                              |                       |              |         |
| Lead (as Pb)                                 | ug/L      | Chronic Health        | ≤ 10  | 0                       | 0                              |                       |              |         |
| Mercury (as Hg)                              | ug/L      | Chronic Health        | ≤ 6   | 0                       | 0                              |                       |              |         |
| Nickel (as Ni)                               | ug/L      | Chronic Health        | ≤ 70  | 0                       | 0                              |                       |              |         |
| Selenium (as Se)                             | ug/L      | Chronic Health        | ≤ 40  | 0                       | 0                              |                       |              |         |
| Vanadium (as V)                              | ug/L      | Chronic Health        | ≤ 200   | 0                       | 0                              |                       |              |         |
| Cyanide                                      | ug/L      | Acute Health Chemical | ≤ 200   | 0                       | 0                              |                       |              |         |
| Total Organic Carbon                         | mg/L      | Chronic Health        | < 10  | 0                       | 0                              |                       |              |         |

|                              |     |     |        |              |
|------------------------------|-----|-----|--------|--------------|
| Acute Health Chemical        | 2   | 2   | 100.0% | Excellent    |
| Acute Health Microbiological | 23  | 23  | 100.0% | Excellent    |
| Chronic Health               | 69  | 69  | 100.0% | Excellent    |
| Aesthetic                    | 169 | 169 | 100.0% | Excellent    |
| Operational Efficiency       | 114 | 100 | 87.7%  | Unacceptable |

| Malmesbury                                   |           |                       | SANS 241:2015   | Compliance Calculations |                             |                       |              |         |
|--|-----------|-----------------------|---|-------------------------|-----------------------------|-----------------------|--------------|---------|
| Parameter                                    | Unit      | Risk                  | Standard Limits<br>(SANS 241-2011<br>and SANS 241-<br>2006 Class I) | Total Number of Samples | Number of Samples Complying | % Compliance Achieved | Performance  | Average |
| pH (at 25°C)                                 |           | Operational           | ≥5.0 - < 9.7  | 27                      | 17                          | 63.0%                 | Unacceptable | 9.52    |
| Conductivity                                 | mS/m      | Aesthetic             | ≤ 170   | 27                      | 27                          | 100.0%                | Excellent    | 16.87   |
| Turbidity                                    | NTU       | Operational           | ≤ 1   | 27                      | 24                          | 88.9%                 | Unacceptable | 0.66    |
|  |           | Aesthetic             | ≤ 5   | 27                      | 27                          | 100.0%                | Excellent    |         |
| Free Chlorine                                | mg/L      | Chronic Health        | ≤ 5   | 27                      | 27                          | 100.0%                | Excellent    | 0.33    |
| Colour                                       | mg/L      | Aesthetic             | ≤ 15  | 3                       | 3                           | 100.0%                | Excellent    | 4.67    |
| Alkalinity (as CaCO <sub>3</sub> )           | mg/L      |                       | -   | 0                       |                             |                       |              |         |
| Total Hardness (as CaCO <sub>3</sub> )       | mg/L      |                       | -   | 0                       |                             |                       |              |         |
| Calcium (as Ca)                              | mg/L      | Aesthetic / Operation | ≤ 150   | 3                       | 3                           | 100.0%                | Excellent    | 15.70   |
| Magnesium (as Mg)                            | mg/L      | Aesthetic / Health    | ≤ 70  | 3                       | 3                           | 100.0%                | Excellent    | 3.00    |
| Sodium (as Na)                               | mg/L      | Aesthetic             | ≤ 200   | 3                       | 3                           | 100.0%                | Excellent    | 13.80   |
| Potassium (as K)                             | mg/L      | Operational / Health  | ≤ 50  | 3                       | 3                           | 100.0%                | Excellent    | 1.03    |
| Zinc (as Zn)                                 | mg/L      | Aesthetic             | ≤ 5   | 3                       | 3                           | 100.0%                | Excellent    | 0.02    |
| Chloride (as Cl)                             | mg/L      | Aesthetic             | ≤ 300   | 3                       | 3                           | 100.0%                | Excellent    | 25.87   |
| Fluoride (as F)                              | mg/L      | Chronic Health        | ≤ 1.5   | 3                       | 3                           | 100.0%                | Excellent    | 0.30    |
| Sulphate (as SO <sub>4</sub> <sup>2-</sup> ) | mg/L      | Acute Health Chemical | ≤ 500   | 3                       | 3                           | 100.0%                | Excellent    | 18.77   |
|  |           | Aesthetic             | ≤ 250   | 3                       | 3                           | 100.0%                | Excellent    |         |
| Total Dissolved Solids                       | mg/L      | Aesthetic             | ≤ 1 200   | 3                       | 3                           | 100.0%                | Excellent    | 137.00  |
| Ammonia Nitrogen (as N)                      | mg/L      | Aesthetic             | ≤ 1.5   | 3                       | 3                           | 100.0%                | Excellent    | 0.15    |
| Nitrate & Nitrite Nitrogen (as N)            | mg/L      | Acute Health Chemical | ≤ 12  | 3                       | 3                           | 100.0%                | Excellent    | 0.10    |
|  |           | Chronic Health        | ≤ 2000  | 3                       | 3                           | 100.0%                | Excellent    |         |
| Iron (as Fe)                                 | ug/L      | Aesthetic             | ≤ 300   | 3                       | 3                           | 100.0%                | Excellent    | 106.00  |
|  |           | Chronic Health        | ≤ 400   | 3                       | 3                           | 100.0%                | Excellent    |         |
| Manganese (as Mn)                            | ug/L      | Aesthetic             | < 100   | 3                       | 3                           | 100.0%                | Excellent    | 19.00   |
|  |           | Chronic Health        | ≤ 400   | 3                       | 3                           | 100.0%                | Excellent    |         |
| Aluminium (as Al)                            | ug/L      | Operational           | ≤ 300   | 3                       | 3                           | 100.0%                | Excellent    | 12.00   |
| Total Coliform Count (<1 taken as 0)         | cfu/100ml | Operational           | ≤ 10  | 41                      | 41                          | 100.0%                | Excellent    | 0.00    |
| E.Coli (<1 taken as 0)                       | cfu/100ml | Acute Health Micro    | ≤ 0   | 41                      | 41                          | 100.0%                | Excellent    | 0.00    |
| Heterotrophic Plate Count                    | cfu/ml    | Operational           | ≤ 1000  | 25                      | 25                          | 100.0%                | Excellent    | 4.45    |
| Calcium Hardness (as CaCO <sub>3</sub> )     | mg/L      |                       | -   | 0                       |                             |                       |              |         |
| Magnesium Hardness (as CaCO <sub>3</sub> )   | mg/L      |                       | -   | 0                       |                             |                       |              |         |
| Nitrate as N                                 | mg/L      | Acute Health Chemical | ≤ 11  | 3                       | 3                           | 100.0%                | Excellent    | 0.22    |
| Nitrite as N                                 | mg/L      | Acute Health Chemical | ≤ 0.9   | 3                       | 3                           | 100.0%                | Excellent    | 0.80    |
| Antimony (as Sb)                             | ug/L      | Chronic Health        | ≤ 20  | 3                       | 3                           | 100.0%                | Excellent    | 10.00   |
| Arsenic (as As)                              | ug/L      | Chronic Health        | ≤ 10  | 3                       | 3                           | 100.0%                | Excellent    | 3.00    |
| Cadmium (as Cd)                              | ug/L      | Chronic Health        | ≤ 3   | 3                       | 3                           | 100.0%                | Excellent    | 1.00    |
| Chromium (as Cr)                             | ug/L      | Chronic Health        | ≤ 50  | 3                       | 3                           | 100.0%                | Excellent    | 7.00    |
| Cobalt (as Co)                               | ug/L      | Chronic Health        | ≤ 500   | 0                       |                             |                       |              |         |
| Copper (as Cu)                               | ug/L      | Chronic Health        | ≤ 2000  | 3                       | 3                           | 100.0%                | Excellent    | 6.00    |
| Lead (as Pb)                                 | ug/L      | Chronic Health        | ≤ 10  | 3                       | 3                           | 100.0%                | Excellent    | 7.00    |
| Mercury (as Hg)                              | ug/L      | Chronic Health        | ≤ 6   | 3                       | 3                           | 100.0%                | Excellent    | 5.00    |
| Nickel (as Ni)                               | ug/L      | Chronic Health        | ≤ 70  | 3                       | 3                           | 100.0%                | Excellent    | 1.33    |
| Selenium (as Se)                             | ug/L      | Chronic Health        | ≤ 40  | 3                       | 3                           | 100.0%                | Excellent    | 10.00   |
| Vanadium (as V)                              | ug/L      | Chronic Health        | ≤ 200   | 0                       |                             |                       |              |         |
| Cyanide                                      | ug/L      | Acute Health Chemical | ≤ 200   | 3                       | 3                           | 100.0%                | Excellent    | 35.00   |
| Total Organic Carbon                         | mg/L      | Chronic Health        | < 10  | 3                       | 3                           | 100.0%                | Excellent    | 0.51    |
| CaCO <sub>3</sub> Precipitation Potential    |           |                       | -   | 0                       |                             |                       |              |         |
| Cytopathogenic Viruses                       | cfu/10 l  | Acute Health Micro    | ≤ 0   | 0                       |                             |                       |              |         |
| Cryptosporidium Species                      | cfu/10 l  | Acute Health Micro    | ≤ 0   | 3                       | 3                           | 100.0%                | Excellent    | 0.00    |
| Giardia Species                              | cfu/10 l  | Acute Health Micro    | ≤ 0   | 3                       | 3                           | 100.0%                | Excellent    | 0.00    |
| Chloroform                                   | ug/L      | Chronic Health        | ≤ 300   | 3                       | 3                           | 100.0%                | Excellent    | 20.67   |
| Bromodichloromethane                         | ug/L      | Chronic Health        | ≤ 60  | 3                       | 3                           | 100.0%                | Excellent    | 7.67    |
| Dibromochloromethane                         | ug/L      | Chronic Health        | ≤ 100   | 3                       | 3                           | 100.0%                | Excellent    | 4.33    |
| Bromoform                                    | ug/L      | Chronic Health        | ≤ 100   | 3                       | 3                           | 100.0%                | Excellent    | 1.00    |
| Somatic Coliphages                           | cfu/10ml  | Operational           | ≤ 0   | 3                       | 3                           | 100.0%                | Excellent    | 0.00    |
| Phenols                                      | ug/L      | Aesthetic             | ≤ 10  | 3                       | 3                           | 100.0%                | Excellent    | 0.01    |
| Combined Trihalomethanes                     | mg/L      | Chronic Health        | ≤ 1   | 3                       | 3                           | 100.0%                | Excellent    | 0.25    |
| Uranium (as U)                               | ug/L      | Chronic Health        | ≤ 30  | 3                       | 3                           | 100.0%                | Excellent    | 15.00   |
| Microcystin (as LR)                          | ug/L      | Chronic Health        | ≤ 1   | 3                       | 3                           | 100.0%                | Excellent    | 0.15    |
| Monochloramine                               | mg/L      | Chronic Health        | ≤ 3   | 3                       | 3                           | 100.0%                | Excellent    | 0.05    |
| Barium (as Ba)                               | ug/L      | Chronic Health        | ≤ 700   | 3                       | 3                           | 100.0%                | Excellent    | 11.33   |
| Baron (as B)                                 | mg/L      | Chronic Health        | ≤ 2.4   | 3                       | 3                           | 100.0%                | Excellent    | 0.10    |

|                              |     |     |        |           |
|------------------------------|-----|-----|--------|-----------|
| Acute Health Chemical        | 15  | 15  | 100.0% | Excellent |
| Acute Health Microbiological | 47  | 47  | 100.0% | Excellent |
| Chronic Health               | 96  | 96  | 100.0% | Excellent |
| Aesthetic                    | 90  | 90  | 100.0% | Excellent |
| Operational Efficiency       | 132 | 119 | 90.2%  | Good      |

| Darling                                      |           |                       | SANS 241:2015   | Compliance Calculations |                                |                       |              |         |
|--|-----------|-----------------------|---|-------------------------|--------------------------------|-----------------------|--------------|---------|
| Parameter                                    | Unit      | Risk                  | Standard Limits<br>(SANS 241-2011<br>and SANS 241-<br>2006 Class I) | Total Number of Samples | Number of Samples<br>Complying | % Compliance Achieved | Performance  | Average |
| pH (at 25°C)                                 |           | Operational           | ≥5.0 - ≤ 9.7  | 26                      | 10                             | 38.5%                 | Unacceptable | 9.73    |
| Conductivity                                 | mS/m      | Aesthetic             | ≤ 170   | 26                      | 26                             | 100.0%                | Excellent    | 17.12   |
| Turbidity                                    | NTU       | Operational           | ≤ 1   | 26                      | 24                             | 92.3%                 | Good         | 0.64    |
|  |           | Aesthetic             | ≤ 5   | 26                      | 26                             | 100.0%                | Excellent    |         |
| Free Chlorine                                | mg/L      | Chronic Health        | ≤ 5   | 26                      | 26                             | 100.0%                | Excellent    | 0.03    |
| Colour                                       | mg/L      | Aesthetic             | ≤ 15  | 1                       | 1                              | 100.0%                | Excellent    | 6.00    |
| Alkalinity (as CaCO <sub>3</sub> )           | mg/L      |                       | -   | 0                       |                                |                       |              |         |
| Total Hardness (as CaCO <sub>3</sub> )       | mg/L      |                       | -   | 0                       |                                |                       |              |         |
| Calcium (as Ca)                              | mg/L      | Aesthetic / Operation | ≤ 150   | 1                       | 1                              | 100.0%                | Excellent    | 16.40   |
| Magnesium (as Mg)                            | mg/L      | Aesthetic / Health    | ≤ 70  | 1                       | 1                              | 100.0%                | Excellent    | 3.10    |
| Sodium (as Na)                               | mg/L      | Aesthetic             | ≤ 200   | 1                       | 1                              | 100.0%                | Excellent    | 13.70   |
| Potassium (as K)                             | mg/L      | Operational / Health  | ≤ 50  | 1                       | 1                              | 100.0%                | Excellent    | 1.00    |
| Zinc (as Zn)                                 | mg/L      | Aesthetic             | ≤ 5   | 1                       | 1                              | 100.0%                | Excellent    | 0.01    |
| Chloride (as Cl)                             | mg/L      | Aesthetic             | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent    | 25.80   |
| Fluoride (as F)                              | mg/L      | Chronic Health        | ≤ 1.5   | 1                       | 1                              | 100.0%                | Excellent    | 0.11    |
|  |           | Acute Health Chemical | ≤ 500   | 1                       | 1                              | 100.0%                | Excellent    |         |
| Sulphate (as SO <sub>4</sub> <sup>2-</sup> ) | mg/L      | Aesthetic             | ≤ 250   | 1                       | 1                              | 100.0%                | Excellent    | 18.80   |
|  |           | Aesthetic             | ≤ 1 200   | 1                       | 1                              | 100.0%                | Excellent    |         |
| Total Dissolved Solids                       | mg/L      | Aesthetic             | ≤ 1 200   | 1                       | 1                              | 100.0%                | Excellent    | 135.00  |
| Ammonia Nitrogen (as N)                      | mg/L      | Aesthetic             | ≤ 1.5   | 1                       | 1                              | 100.0%                | Excellent    | 0.15    |
| Nitrate & Nitrite Nitrogen (as N)            | mg/L      | Acute Health Chemical | ≤ 12  | 1                       | 1                              | 100.0%                | Excellent    | 0.10    |
| Iron (as Fe)                                 | ug/L      | Chronic Health        | ≤ 2000  | 1                       | 1                              | 100.0%                | Excellent    | 36.00   |
|  |           | Aesthetic             | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent    |         |
| Manganese (as Mn)                            | ug/L      | Chronic Health        | ≤ 400   | 1                       | 1                              | 100.0%                | Excellent    | 19.00   |
|  |           | Aesthetic             | < 100   | 1                       | 1                              | 100.0%                | Excellent    |         |
| Aluminium (as Al)                            | ug/L      | Operational           | ≤300  | 1                       | 1                              | 100.0%                | Excellent    | 12.00   |
| Total Coliform Count (<1 taken as 0)         | cfu/100ml | Operational           | ≤ 10  | 39                      | 39                             | 100.0%                | Excellent    | 0.00    |
| E.Coli (<1 taken as 0)                       | cfu/100ml | Acute Health Micro    | ≤ 0   | 39                      | 39                             | 100.0%                | Excellent    | 0.00    |
| Heterotrophic Plate Count                    | cfu/ml    | Operational           | ≤ 1000  | 25                      | 25                             | 100.0%                | Excellent    | 19.84   |
| Calcium Hardness (as CaCO <sub>3</sub> )     | mg/L      |                       | -   | 0                       |                                |                       |              |         |
| Magnesium Hardness (as CaCO <sub>3</sub> )   | mg/L      |                       | -   | 0                       |                                |                       |              |         |
| Nitrate as N                                 | mg/L      | Acute Health Chemical | ≤ 11  | 1                       | 1                              | 100.0%                | Excellent    | 0.20    |
| Nitrite as N                                 | mg/L      | Acute Health Chemical | ≤ 0.9   | 1                       | 1                              | 100.0%                | Excellent    | 0.08    |
| Antimony (as Sb)                             | ug/L      | Chronic Health        | ≤ 20  | 1                       | 1                              | 100.0%                | Excellent    | 10.00   |
| Arsenic (as As)                              | ug/L      | Chronic Health        | ≤ 10  | 1                       | 1                              | 100.0%                | Excellent    | 3.00    |
| Cadmium (as Cd)                              | ug/L      | Chronic Health        | ≤ 3   | 1                       | 1                              | 100.0%                | Excellent    | 1.00    |
| Chromium (as Cr)                             | ug/L      | Chronic Health        | ≤ 50  | 1                       | 1                              | 100.0%                | Excellent    | 7.00    |
| Cobalt (as Co)                               | ug/L      | Chronic Health        | ≤ 500   | 0                       |                                |                       |              |         |
| Copper (as Cu)                               | ug/L      | Chronic Health        | ≤ 2000  | 1                       | 1                              | 100.0%                | Excellent    | 11.00   |
| Lead (as Pb)                                 | ug/L      | Chronic Health        | ≤ 10  | 1                       | 1                              | 100.0%                | Excellent    | 7.00    |
| Mercury (as Hg)                              | ug/L      | Chronic Health        | ≤ 6   | 1                       | 1                              | 100.0%                | Excellent    | 6.00    |
| Nickel (as Ni)                               | ug/L      | Chronic Health        | ≤ 70  | 1                       | 1                              | 100.0%                | Excellent    | 1.00    |
| Selenium (as Se)                             | ug/L      | Chronic Health        | ≤ 40  | 1                       | 1                              | 100.0%                | Excellent    | 10.00   |
| Vanadium (as V)                              | ug/L      | Chronic Health        | ≤ 200   | 0                       |                                |                       |              |         |
| Cyanide                                      | ug/L      | Acute Health Chemical | ≤ 200   | 1                       | 1                              | 100.0%                | Excellent    | 50.00   |
| Total Organic Carbon                         | mg/L      | Chronic Health        | < 10  | 1                       | 1                              | 100.0%                | Excellent    | 0.50    |
| CaCO <sub>3</sub> Precipitation Potential    |           |                       | -   | 0                       |                                |                       |              |         |
| Cytopathogenic Viruses                       | cfu/10 l  | Acute Health Micro    | ≤ 0   | 0                       |                                |                       |              |         |
| Cryptosporidium Species                      | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                       | 1                              | 100.0%                | Excellent    | 0.00    |
| Giardia Species                              | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                       | 1                              | 100.0%                | Excellent    | 0.00    |
| Chloroform                                   | ug/L      | Chronic Health        | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent    | 24.00   |
| Bromodichloromethane                         | ug/L      | Chronic Health        | ≤ 60  | 1                       | 1                              | 100.0%                | Excellent    | 8.00    |
| Dibromochloromethane                         | ug/L      | Chronic Health        | ≤ 100   | 1                       | 1                              | 100.0%                | Excellent    | 4.00    |
| Bromoform                                    | ug/L      | Chronic Health        | ≤ 100   | 1                       | 1                              | 100.0%                | Excellent    | 1.00    |
| Somatic Coliphages                           | cfu/10ml  | Operational           | ≤ 0   | 1                       | 1                              | 100.0%                | Excellent    | 0.00    |
| Phenols                                      | ug/L      | Aesthetic             | ≤10   | 1                       | 1                              | 100.0%                | Excellent    | 0.01    |
| Combined Trihalomethanes                     | mg/L      | Chronic Health        | ≤ 1   | 1                       | 1                              | 100.0%                | Excellent    | 0.26    |
| Uranium (as U)                               | ug/L      | Chronic Health        | ≤ 30  | 1                       | 1                              | 100.0%                | Excellent    | 15.00   |
| Microcystin (as LR)                          | ug/L      | Chronic Health        | ≤ 1   | 1                       | 1                              | 100.0%                | Excellent    | 0.15    |
| Monochloramine                               | mg/L      | Chronic Health        | ≤ 3   | 1                       | 1                              | 100.0%                | Excellent    | 0.05    |
| Barium (as Ba)                               | ug/L      | Chronic Health        | ≤ 700   | 1                       | 1                              | 100.0%                | Excellent    | 11.80   |
| Baron (as B)                                 | mg/L      | Chronic Health        | ≤ 2.4   | 1                       | 1                              | 100.0%                | Excellent    | 0.10    |

|                              |     |     |        |              |
|------------------------------|-----|-----|--------|--------------|
| Acute Health Chemical        | 5   | 5   | 100.0% | Excellent    |
| Acute Health Microbiological | 41  | 41  | 100.0% | Excellent    |
| Chronic Health               | 49  | 49  | 100.0% | Excellent    |
| Aesthetic                    | 64  | 64  | 100.0% | Excellent    |
| Operational Efficiency       | 120 | 102 | 85.0%  | Unacceptable |

| Riebeek Kasteel                              |           |                       | SANS 241:2015   | Compliance Calculations |                                |                       |             |         |
|--|-----------|-----------------------|---|-------------------------|--------------------------------|-----------------------|-------------|---------|
| Parameter                                    | Unit      | Risk                  | Standard Limits<br>(SANS 241-2011<br>and SANS 241-<br>2006 Class I) | Total Number of Samples | Number of Samples<br>Complying | % Compliance Achieved | Performance | Average |
| pH (at 25°C)                                 |           | Operational           | ≥5.0 - ≤9.7   | 1                       | 1                              | 100.0%                | Excellent   | 8.72    |
| Conductivity                                 | mS/m      | Aesthetic             | ≤ 170   | 1                       | 1                              | 100.0%                | Excellent   | 20.50   |
| Turbidity                                    | NTU       | Operational           | ≤ 1   | 1                       | 1                              | 100.0%                | Excellent   | 0.58    |
|  |           | Aesthetic             | ≤ 5   | 1                       | 1                              | 100.0%                | Excellent   |         |
| Colour                                       | mg/L      | Aesthetic             | ≤ 15  | 1                       | 1                              | 100.0%                | Excellent   | 4.00    |
| Alkalinity (as CaCO <sub>3</sub> )           | mg/L      |                       | -   | 0                       |                                |                       |             |         |
| Total Hardness (as CaCO <sub>3</sub> )       | mg/L      |                       | -   | 0                       |                                |                       |             |         |
| Calcium Hardness (as CaCO <sub>3</sub> )     | mg/L      |                       | -   | 0                       |                                |                       |             |         |
| Calcium (as Ca)                              | mg/L      | Aesthetic / Operation | ≤ 150   | 1                       | 1                              | 100.0%                | Excellent   | 15.30   |
| Magnesium Hardness (as CaCO <sub>3</sub> )   | mg/L      |                       | -   | 0                       |                                |                       |             |         |
| Magnesium (as Mg)                            | mg/L      | Aesthetic / Health    | ≤ 70  | 1                       | 1                              | 100.0%                | Excellent   | 3.10    |
| Chloride (as Cl)                             | mg/L      | Aesthetic             | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent   | 25.50   |
| Fluoride (as F)                              | mg/L      | Chronic Health        | ≤ 1.5   | 1                       | 1                              | 100.0%                | Excellent   | 0.29    |
| Sodium (as Na)                               | mg/L      | Aesthetic             | ≤ 200   | 1                       | 1                              | 100.0%                | Excellent   | 13.90   |
| Potassium (as K)                             | mg/L      | Operational / Health  | ≤ 50  | 1                       | 1                              | 100.0%                | Excellent   | 1.00    |
| Zinc (as Zn)                                 | mg/L      | Aesthetic             | ≤ 5   | 1                       | 1                              | 100.0%                | Excellent   | 0.00    |
| Ammonia Nitrogen (as N)                      | mg/L      | Aesthetic             | ≤ 1.5   | 1                       | 1                              | 100.0%                | Excellent   | 0.15    |
| Nitrate & Nitrite Nitrogen (as N)            | mg/L      | Acute Health Chemical | ≤ 12  | 1                       | 1                              | 100.0%                | Excellent   | 0.15    |
| Nitrate as N                                 | mg/L      | Acute Health Chemical | ≤ 11  | 1                       | 1                              | 100.0%                | Excellent   | 0.20    |
| Nitrite as N                                 | mg/L      | Acute Health Chemical | ≤ 0.9   | 1                       | 1                              | 100.0%                | Excellent   | 0.08    |
| Sulphate (as SO <sub>4</sub> <sup>2-</sup> ) | mg/L      | Acute Health Chemical | ≤ 500   | 1                       | 1                              | 100.0%                | Excellent   | 19.20   |
|  |           | Aesthetic             | ≤ 250   | 1                       | 1                              | 100.0%                | Excellent   |         |
| Total Dissolved Solids                       | mg/L      | Aesthetic             | ≤ 1 200   | 1                       | 1                              | 100.0%                | Excellent   | 139.00  |
| Iron (as Fe)                                 | ug/L      | Chronic Health        | ≤ 2000  | 1                       | 1                              | 100.0%                | Excellent   | 24.00   |
|  |           | Aesthetic             | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent   |         |
| Manganese (as Mn)                            | ug/L      | Chronic Health        | ≤ 400   | 1                       | 1                              | 100.0%                | Excellent   | 19.00   |
|  |           | Aesthetic             | < 100   | 1                       | 1                              | 100.0%                | Excellent   |         |
| Aluminium (as Al)                            | ug/L      | Operational           | ≤300  | 1                       | 1                              | 100.0%                | Excellent   | 12.00   |
| E.Coli (<1 taken as 0)                       | cfu/100ml | Acute Health Micro    | ≤ 0   | 7                       | 7                              | 100.0%                | Excellent   | 0.00    |
| Total Coliform Count (<1 taken as 0)         | cfu/100ml | Operational           | ≤ 10  | 7                       | 7                              | 100.0%                | Excellent   | 2.43    |
| Heterotrophic Plate Count                    | cfu/ml    | Operational           | ≤ 1000  | 1                       | 1                              | 100.0%                | Excellent   | 32.00   |
| Free Chlorine                                | mg/L      | Chronic Health        | ≤ 5   | 1                       | 1                              | 100.0%                | Excellent   | 0.05    |
| Antimony (as Sb)                             | ug/L      | Chronic Health        | ≤ 20  | 1                       | 1                              | 100.0%                | Excellent   | 10.00   |
| Arsenic (as As)                              | ug/L      | Chronic Health        | ≤ 10  | 1                       | 1                              | 100.0%                | Excellent   | 3.00    |
| Cadmium (as Cd)                              | ug/L      | Chronic Health        | ≤ 3   | 1                       | 1                              | 100.0%                | Excellent   | 1.00    |
| Chromium (as Cr)                             | ug/L      | Chronic Health        | ≤ 50  | 1                       | 1                              | 100.0%                | Excellent   | 16.00   |
| Cobalt (as Co)                               | ug/L      | Chronic Health        | ≤ 500   | 0                       |                                |                       |             |         |
| Copper (as Cu)                               | ug/L      | Chronic Health        | ≤ 2000  | 1                       | 1                              | 100.0%                | Excellent   | 6.00    |
| Lead (as Pb)                                 | ug/L      | Chronic Health        | ≤ 10  | 1                       | 1                              | 100.0%                | Excellent   | 7.00    |
| Mercury (as Hg)                              | ug/L      | Chronic Health        | ≤ 6   | 1                       | 1                              | 100.0%                | Excellent   | 6.00    |
| Nickel (as Ni)                               | ug/L      | Chronic Health        | ≤ 70  | 1                       | 1                              | 100.0%                | Excellent   | 1.00    |
| Selenium (as Se)                             | ug/L      | Chronic Health        | ≤ 40  | 1                       | 1                              | 100.0%                | Excellent   | 10.00   |
| Vanadium (as V)                              | ug/L      | Chronic Health        | ≤ 200   | 0                       |                                |                       |             |         |
| Cyanide                                      | ug/L      | Acute Health Chemical | ≤ 200   | 1                       | 1                              | 100.0%                | Excellent   | 50.00   |
| Total Organic Carbon                         | mg/L      | Chronic Health        | < 10  | 0                       | 0                              |                       |             |         |
| CaCO <sub>3</sub> Precipitation Potential    |           |                       | -   | 0                       |                                |                       |             |         |
| Cytopathogenic Viruses                       | cfu/10 l  | Acute Health Micro    | ≤ 0   | 0                       |                                |                       |             |         |
| Cryptosporidium Species                      | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                       | 1                              | 100.0%                | Excellent   | 0.00    |
| Giardia Species                              | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                       | 1                              | 100.0%                | Excellent   | 0.00    |
| Chloroform                                   | ug/L      | Chronic Health        | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent   | 21.00   |
| Bromodichloromethane                         | ug/L      | Chronic Health        | ≤ 60  | 1                       | 1                              | 100.0%                | Excellent   | 7.00    |
| Dibromochloromethane                         | ug/L      | Chronic Health        | ≤ 100   | 1                       | 1                              | 100.0%                | Excellent   | 2.00    |
| Bromoform                                    | ug/L      | Chronic Health        | ≤ 100   | 1                       | 1                              | 100.0%                | Excellent   | 1.00    |
| Somatic Coliphages                           | cfu/10ml  | Operational           | ≤ 0   | 1                       | 1                              | 100.0%                | Excellent   | 0.00    |
| Phenols                                      | ug/L      | Aesthetic             | ≤10   | 1                       | 1                              | 100.0%                | Excellent   | 0.01    |
| Combined Trihalomethanes                     | mg/L      | Chronic Health        | ≤ 1   | 1                       | 1                              | 100.0%                | Excellent   | 0.22    |
| Uranium (as U)                               | ug/L      | Chronic Health        | ≤ 30  | 1                       | 1                              | 100.0%                | Excellent   | 15.00   |
| Microcystin (as LR)                          | ug/L      | Chronic Health        | ≤ 1   | 1                       | 1                              | 100.0%                | Excellent   | 0.15    |
| Monochloramine                               | mg/L      | Chronic Health        | ≤ 3   | 1                       | 1                              | 100.0%                | Excellent   | 0.05    |
| Barium (as Ba)                               | ug/L      | Chronic Health        | ≤ 700   | 1                       | 1                              | 100.0%                | Excellent   | 11.70   |
| Baron (as B)                                 | mg/L      | Chronic Health        | ≤ 2.4   | 1                       | 1                              | 100.0%                | Excellent   | 0.10    |

|                              |    |    |        |           |
|------------------------------|----|----|--------|-----------|
| Acute Health Chemical        | 5  | 5  | 100.0% | Excellent |
| Acute Health Microbiological | 9  | 9  | 100.0% | Excellent |
| Chronic Health               | 23 | 23 | 100.0% | Excellent |
| Aesthetic                    | 14 | 14 | 100.0% | Excellent |
| Operational Efficiency       | 14 | 14 | 100.0% | Excellent |

| Riebeeck Wes                                 |           |                       | SANS 241:2015   | Compliance Calculations |                                |                       |             |         |
|--|-----------|-----------------------|---|-------------------------|--------------------------------|-----------------------|-------------|---------|
| Parameter                                    | Unit      | Risk                  | Standard Limits<br>(SANS 241-2011<br>and SANS 241-<br>2006 Class I) | Total Number of Samples | Number of Samples<br>Complying | % Compliance Achieved | Performance | Average |
| pH (at 25°C)                                 |           | Operational           | ≥5.0 - ≤ 9.7  | 1                       | 1                              | 100.0%                | Excellent   | 8.77    |
| Conductivity                                 | mS/m      | Aesthetic             | ≤ 170   | 1                       | 1                              | 100.0%                | Excellent   | 20.50   |
| Turbidity                                    | NTU       | Operational           | ≤ 1   | 1                       | 1                              | 100.0%                | Excellent   | 0.50    |
|  |           | Aesthetic             | ≤ 5   | 1                       | 1                              | 100.0%                | Excellent   |         |
| Colour                                       | mg/L      | Aesthetic             | ≤ 15  | 1                       | 1                              | 100.0%                | Excellent   | 4.00    |
| Alkalinity (as CaCO <sub>3</sub> )           | mg/L      |                       | -   | 0                       |                                |                       |             |         |
| Total Hardness (as CaCO <sub>3</sub> )       | mg/L      |                       | -   | 0                       |                                |                       |             |         |
| Calcium Hardness (as CaCO <sub>3</sub> )     | mg/L      |                       | -   | 0                       |                                |                       |             |         |
| Calcium (as Ca)                              | mg/L      | Aesthetic / Operation | ≤ 150   | 1                       | 1                              | 100.0%                | Excellent   | 15.30   |
| Magnesium Hardness (as CaCO <sub>3</sub> )   | mg/L      |                       | -   | 0                       |                                |                       |             |         |
| Magnesium (as Mg)                            | mg/L      | Aesthetic / Health    | ≤ 70  | 1                       | 1                              | 100.0%                | Excellent   | 3.20    |
| Chloride (as Cl)                             | mg/L      | Aesthetic             | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent   | 25.10   |
| Fluoride (as F)                              | mg/L      | Chronic Health        | ≤ 1.5   | 1                       | 1                              | 100.0%                | Excellent   | 0.10    |
| Sodium (as Na)                               | mg/L      | Aesthetic             | ≤ 200   | 1                       | 1                              | 100.0%                | Excellent   | 13.90   |
| Potassium (as K)                             | mg/L      | Operational / Health  | ≤ 50  | 1                       | 1                              | 100.0%                | Excellent   | 1.00    |
| Zinc (as Zn)                                 | mg/L      | Aesthetic             | ≤ 5   | 1                       | 1                              | 100.0%                | Excellent   | 0.00    |
| Ammonia Nitrogen (as N)                      | mg/L      | Aesthetic             | ≤ 1.5   | 1                       | 1                              | 100.0%                | Excellent   | 0.15    |
| Nitrate & Nitrite Nitrogen (as N)            | mg/L      | Acute Health Chemical | ≤ 12  | 1                       | 1                              | 100.0%                | Excellent   | 0.28    |
| Nitrate as N                                 | mg/L      | Acute Health Chemical | ≤ 11  | 1                       | 1                              | 100.0%                | Excellent   | 0.20    |
| Nitrite as N                                 | mg/L      | Acute Health Chemical | ≤ 0.9   | 1                       | 1                              | 100.0%                | Excellent   | 0.08    |
| Sulphate (as SO <sub>4</sub> <sup>2-</sup> ) | mg/L      | Acute Health Chemical | ≤ 500   | 1                       | 1                              | 100.0%                | Excellent   | 19.90   |
|  |           | Aesthetic             | ≤ 250   | 1                       | 1                              | 100.0%                | Excellent   |         |
| Total Dissolved Solids                       | mg/L      | Aesthetic             | ≤ 1 200   | 1                       | 1                              | 100.0%                | Excellent   | 137.00  |
| Iron (as Fe)                                 | ug/L      | Chronic Health        | ≤ 2000  | 1                       | 1                              | 100.0%                | Excellent   | 26.00   |
|  |           | Aesthetic             | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent   |         |
| Manganese (as Mn)                            | ug/L      | Chronic Health        | ≤ 400   | 1                       | 1                              | 100.0%                | Excellent   | 19.00   |
|  |           | Aesthetic             | ≤ 100   | 1                       | 1                              | 100.0%                | Excellent   |         |
| Aluminium (as Al)                            | ug/L      | Operational           | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent   | 12.00   |
| E.Coli (<1 taken as 0)                       | cfu/100ml | Acute Health Micro    | ≤ 0   | 8                       | 8                              | 100.0%                | Excellent   | 0.00    |
| Total Coliform Count (<1 taken as 0)         | cfu/100ml | Operational           | ≤ 10  | 8                       | 8                              | 100.0%                | Excellent   | 0.00    |
| Heterotrophic Plate Count                    | cfu/ml    | Operational           | ≤ 1000  | 1                       | 1                              | 100.0%                | Excellent   | 40.00   |
| Free Chlorine                                | mg/L      | Chronic Health        | ≤ 5   | 1                       | 1                              | 100.0%                | Excellent   | 0.05    |
| Antimony (as Sb)                             | ug/L      | Chronic Health        | ≤ 20  | 1                       | 1                              | 100.0%                | Excellent   | 10.00   |
| Arsenic (as As)                              | ug/L      | Chronic Health        | ≤ 10  | 1                       | 1                              | 100.0%                | Excellent   | 3.00    |
| Cadmium (as Cd)                              | ug/L      | Chronic Health        | ≤ 3   | 1                       | 1                              | 100.0%                | Excellent   | 1.00    |
| Chromium (as Cr)                             | ug/L      | Chronic Health        | ≤ 50  | 1                       | 1                              | 100.0%                | Excellent   | 7.00    |
| Cobalt (as Co)                               | ug/L      | Chronic Health        | ≤ 500   | 0                       |                                |                       |             |         |
| Copper (as Cu)                               | ug/L      | Chronic Health        | ≤ 2000  | 1                       | 1                              | 100.0%                | Excellent   | 6.00    |
| Lead (as Pb)                                 | ug/L      | Chronic Health        | ≤ 10  | 1                       | 1                              | 100.0%                | Excellent   | 7.00    |
| Mercury (as Hg)                              | ug/L      | Chronic Health        | ≤ 6   | 1                       | 1                              | 100.0%                | Excellent   | 6.00    |
| Nickel (as Ni)                               | ug/L      | Chronic Health        | ≤ 70  | 1                       | 1                              | 100.0%                | Excellent   | 1.00    |
| Selenium (as Se)                             | ug/L      | Chronic Health        | ≤ 40  | 1                       | 1                              | 100.0%                | Excellent   | 10.00   |
| Vanadium (as V)                              | ug/L      | Chronic Health        | ≤ 200   | 0                       |                                |                       |             |         |
| Cyanide                                      | ug/L      | Acute Health Chemical | ≤ 200   | 1                       | 1                              | 100.0%                | Excellent   | 50.00   |
| Total Organic Carbon                         | mg/L      | Chronic Health        | < 10  | 1                       | 1                              | 100.0%                | Excellent   | 0.39    |
| CaCO <sub>3</sub> Precipitation Potential    |           |                       | -   | 0                       |                                |                       |             |         |
| Cytopathogenic Viruses                       | cfu/10 l  | Acute Health Micro    | ≤ 0   | 0                       |                                |                       |             |         |
| Cryptosporidium Species                      | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                       | 1                              | 100.0%                | Excellent   | 0.00    |
| Giardia Species                              | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                       | 1                              | 100.0%                | Excellent   | 0.00    |
| Chloroform                                   | ug/L      | Chronic Health        | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent   | 15.00   |
| Bromodichloromethane                         | ug/L      | Chronic Health        | ≤ 60  | 1                       | 1                              | 100.0%                | Excellent   | 4.00    |
| Dibromochloromethane                         | ug/L      | Chronic Health        | ≤ 100   | 1                       | 1                              | 100.0%                | Excellent   | 1.00    |
| Bromoform                                    | ug/L      | Chronic Health        | ≤ 100   | 1                       | 1                              | 100.0%                | Excellent   | 1.00    |
| Somatic Coliphages                           | cfu/10ml  | Operational           | ≤ 0   | 1                       | 1                              | 100.0%                | Excellent   | 0.00    |
| Phenols                                      | ug/L      | Aesthetic             | ≤ 10  | 1                       | 1                              | 100.0%                | Excellent   | 0.01    |
| Combined Trihalomethanes                     | mg/L      | Chronic Health        | ≤ 1   | 1                       | 1                              | 100.0%                | Excellent   | 0.14    |
| Uranium (as U)                               | ug/L      | Chronic Health        | ≤ 30  | 1                       | 1                              | 100.0%                | Excellent   | 15.00   |
| Microcystin (as LR)                          | ug/L      | Chronic Health        | ≤ 1   | 1                       | 1                              | 100.0%                | Excellent   | 0.15    |
| Monochloramine                               | mg/L      | Chronic Health        | ≤ 3   | 1                       | 1                              | 100.0%                | Excellent   | 0.05    |
| Barium (as Ba)                               | ug/L      | Chronic Health        | ≤ 700   | 1                       | 1                              | 100.0%                | Excellent   | 11.30   |
| Baron (as B)                                 | mg/L      | Chronic Health        | ≤ 2.4   | 1                       | 1                              | 100.0%                | Excellent   | 0.10    |

|                              |    |    |        |           |
|------------------------------|----|----|--------|-----------|
| Acute Health Chemical        | 5  | 5  | 100.0% | Excellent |
| Acute Health Microbiological | 10 | 10 | 100.0% | Excellent |
| Chronic Health               | 24 | 24 | 100.0% | Excellent |
| Aesthetic                    | 14 | 14 | 100.0% | Excellent |
| Operational Efficiency       | 15 | 15 | 100.0% | Excellent |



| Yzerfontein                                  |           |                       | SANS 241:2015   | Compliance Calculations |                                |                       |              |         |
|--|-----------|-----------------------|---|-------------------------|--------------------------------|-----------------------|--------------|---------|
| Parameter                                    | Unit      | Risk                  | Standard Limits<br>(SANS 241-2011<br>and SANS 241-<br>2006 Class I) | Total Number of Samples | Number of Samples<br>Complying | % Compliance Achieved | Performance  | Average |
| pH (at 25°C)                                 |           | Operational           | ≥5.0 - ≤9.7   | 24                      | 3                              | 12.5%                 | Unacceptable | 9.84    |
| Conductivity                                 | mS/m      | Aesthetic             | ≤ 170   | 24                      | 24                             | 100.0%                | Excellent    | 17.56   |
| Turbidity                                    | NTU       | Operational           | ≤ 1   | 24                      | 22                             | 91.7%                 | Good         | 0.61    |
|  |           | Aesthetic             | ≤ 5   | 24                      | 24                             | 100.0%                | Excellent    |         |
| Free Chlorine                                | mg/L      | Chronic Health        | ≤ 5   | 24                      | 24                             | 100.0%                | Excellent    | 0.00    |
| Colour                                       | mg/L      | Aesthetic             | ≤ 15  | 1                       | 1                              | 100.0%                | Excellent    | 4.00    |
| Alkalinity (as CaCO <sub>3</sub> )           | mg/L      |                       | -   | 0                       |                                |                       |              |         |
| Total Hardness (as CaCO <sub>3</sub> )       | mg/L      |                       | -   | 0                       |                                |                       |              |         |
| Calcium (as Ca)                              | mg/L      | Aesthetic / Operation | ≤ 150   | 1                       | 1                              | 100.0%                | Excellent    | 16.60   |
| Magnesium (as Mg)                            | mg/L      | Aesthetic / Health    | ≤ 70  | 1                       | 1                              | 100.0%                | Excellent    | 3.00    |
| Sodium (as Na)                               | mg/L      | Aesthetic             | ≤ 200   | 1                       | 1                              | 100.0%                | Excellent    | 13.70   |
| Potassium (as K)                             | mg/L      | Operational / Health  | ≤ 50  | 1                       | 1                              | 100.0%                | Excellent    | 1.00    |
| Zinc (as Zn)                                 | mg/L      | Aesthetic             | ≤ 5   | 1                       | 1                              | 100.0%                | Excellent    | 0.02    |
| Chloride (as Cl)                             | mg/L      | Aesthetic             | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent    | 25.90   |
| Fluoride (as F)                              | mg/L      | Chronic Health        | ≤ 1.5   | 1                       | 1                              | 100.0%                | Excellent    | 0.10    |
|  |           | Acute Health Chemical | ≤ 500   | 1                       | 1                              | 100.0%                | Excellent    |         |
| Sulphate (as SO <sub>4</sub> <sup>2-</sup> ) | mg/L      | Aesthetic             | ≤ 250   | 1                       | 1                              | 100.0%                | Excellent    | 22.80   |
| Total Dissolved Solids                       | mg/L      | Aesthetic             | ≤ 1 200   | 1                       | 1                              | 100.0%                | Excellent    | 144.00  |
| Ammonia Nitrogen (as N)                      | mg/L      | Aesthetic             | ≤ 1.5   | 1                       | 1                              | 100.0%                | Excellent    | 0.15    |
| Nitrate & Nitrite Nitrogen (as N)            | mg/L      | Acute Health Chemical | ≤ 12  | 1                       | 1                              | 100.0%                | Excellent    | 0.25    |
| Iron (as Fe)                                 | ug/L      | Chronic Health        | ≤ 2000  | 1                       | 1                              | 100.0%                | Excellent    | 60.00   |
|  |           | Aesthetic             | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent    |         |
| Manganese (as Mn)                            | ug/L      | Chronic Health        | ≤ 400   | 1                       | 1                              | 100.0%                | Excellent    | 19.00   |
|  |           | Aesthetic             | < 100   | 1                       | 1                              | 100.0%                | Excellent    |         |
| Aluminium (as Al)                            | ug/L      | Operational           | ≤300  | 1                       | 1                              | 100.0%                | Excellent    | 14.00   |
| Total Coliform Count (<1 taken as 0)         | cfu/100ml | Operational           | ≤ 10  | 25                      | 25                             | 100.0%                | Excellent    | 0.12    |
| E.Coli (<1 taken as 0)                       | cfu/100ml | Acute Health Micro    | ≤ 0   | 25                      | 25                             | 100.0%                | Excellent    | 0.00    |
| Heterotrophic Plate Count                    | cfu/ml    | Operational           | ≤ 1000  | 24                      | 24                             | 100.0%                | Excellent    | 52.08   |
| Calcium Hardness (as CaCO <sub>3</sub> )     | mg/L      |                       | -   | 0                       |                                |                       |              |         |
| Magnesium Hardness (as CaCO <sub>3</sub> )   | mg/L      |                       | -   | 0                       |                                |                       |              |         |
| Nitrate as N                                 | mg/L      | Acute Health Chemical | ≤ 11  | 1                       | 1                              | 100.0%                | Excellent    | 0.20    |
| Nitrite as N                                 | mg/L      | Acute Health Chemical | ≤ 0.9   | 1                       | 1                              | 100.0%                | Excellent    | 0.08    |
| Antimony (as Sb)                             | ug/L      | Chronic Health        | ≤ 20  | 1                       | 1                              | 100.0%                | Excellent    | 10.00   |
| Arsenic (as As)                              | ug/L      | Chronic Health        | ≤ 10  | 1                       | 1                              | 100.0%                | Excellent    | 3.00    |
| Cadmium (as Cd)                              | ug/L      | Chronic Health        | ≤ 3   | 1                       | 1                              | 100.0%                | Excellent    | 1.00    |
| Chromium (as Cr)                             | ug/L      | Chronic Health        | ≤ 50  | 1                       | 1                              | 100.0%                | Excellent    | 7.00    |
| Cobalt (as Co)                               | ug/L      | Chronic Health        | ≤ 500   | 0                       |                                |                       |              |         |
| Copper (as Cu)                               | ug/L      | Chronic Health        | ≤ 2000  | 1                       | 1                              | 100.0%                | Excellent    | 35.00   |
| Lead (as Pb)                                 | ug/L      | Chronic Health        | ≤ 10  | 1                       | 1                              | 100.0%                | Excellent    | 7.00    |
| Mercury (as Hg)                              | ug/L      | Chronic Health        | ≤ 6   | 1                       | 1                              | 100.0%                | Excellent    | 6.00    |
| Nickel (as Ni)                               | ug/L      | Chronic Health        | ≤ 70  | 1                       | 1                              | 100.0%                | Excellent    | 1.00    |
| Selenium (as Se)                             | ug/L      | Chronic Health        | ≤ 40  | 1                       | 1                              | 100.0%                | Excellent    | 10.00   |
| Vanadium (as V)                              | ug/L      | Chronic Health        | ≤ 200   | 0                       |                                |                       |              |         |
| Cyanide                                      | ug/L      | Acute Health Chemical | ≤ 200   | 1                       | 1                              | 100.0%                | Excellent    | 50.00   |
| Total Organic Carbon                         | mg/L      | Chronic Health        | < 10  | 1                       | 1                              | 100.0%                | Excellent    | 0.40    |
| CaCO <sub>3</sub> Precipitation Potential    |           |                       | -   | 0                       |                                |                       |              |         |
| Cytopathogenic Viruses                       | cfu/10 l  | Acute Health Micro    | ≤ 0   | 0                       |                                |                       |              |         |
| Cryptosporidium Species                      | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                       | 1                              | 100.0%                | Excellent    | 0.00    |
| Giardia Species                              | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                       | 1                              | 100.0%                | Excellent    | 0.00    |
| Chloroform                                   | ug/L      | Chronic Health        | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent    | 24.00   |
| Bromodichloromethane                         | ug/L      | Chronic Health        | ≤ 60  | 1                       | 1                              | 100.0%                | Excellent    | 10.00   |
| Dibromochloromethane                         | ug/L      | Chronic Health        | ≤ 100   | 1                       | 1                              | 100.0%                | Excellent    | 6.00    |
| Bromoform                                    | ug/L      | Chronic Health        | ≤ 100   | 1                       | 1                              | 100.0%                | Excellent    | 1.00    |
| Somatic Coliphages                           | cfu/10ml  | Operational           | ≤ 0   | 1                       | 1                              | 100.0%                | Excellent    | 0.00    |
| Phenols                                      | ug/L      | Aesthetic             | ≤10   | 1                       | 1                              | 100.0%                | Excellent    | 0.01    |
| Combined Trihalomethanes                     | mg/L      | Chronic Health        | ≤ 1   | 1                       | 1                              | 100.0%                | Excellent    | 0.32    |
| Uranium (as U)                               | ug/L      | Chronic Health        | ≤ 30  | 1                       | 1                              | 100.0%                | Excellent    | 15.00   |
| Microcystin (as LR)                          | ug/L      | Chronic Health        | ≤ 1   | 1                       | 1                              | 100.0%                | Excellent    | 0.15    |
| Monochloramine                               | mg/L      | Chronic Health        | ≤ 3   | 1                       | 1                              | 100.0%                | Excellent    | 0.05    |
| Barium (as Ba)                               | ug/L      | Chronic Health        | ≤ 700   | 1                       | 1                              | 100.0%                | Excellent    | 12.80   |
| Baron (as B)                                 | mg/L      | Chronic Health        | ≤ 2.4   | 1                       | 1                              | 100.0%                | Excellent    | 0.10    |

|                              |     |    |        |              |
|------------------------------|-----|----|--------|--------------|
| Acute Health Chemical        | 5   | 5  | 100.0% | Excellent    |
| Acute Health Microbiological | 27  | 27 | 100.0% | Excellent    |
| Chronic Health               | 47  | 47 | 100.0% | Excellent    |
| Aesthetic                    | 60  | 60 | 100.0% | Excellent    |
| Operational Efficiency       | 101 | 78 | 77.2%  | Unacceptable |

| Riverlands                                   |           |                       | SANS 241:2015   | Compliance Calculations |                                |                       |             |         |
|--|-----------|-----------------------|---|-------------------------|--------------------------------|-----------------------|-------------|---------|
| Parameter                                    | Unit      | Risk                  | Standard Limits<br>(SANS 241-2011<br>and SANS 241-<br>2006 Class I) | Total Number of Samples | Number of Samples<br>Complying | % Compliance Achieved | Performance | Average |
| pH (at 25°C)                                 |           | Operational           | ≥5.0 - ≤9.7   | 1                       | 1                              | 100.0%                | Excellent   | 8.88    |
| Conductivity                                 | mS/m      | Aesthetic             | ≤ 170   | 1                       | 1                              | 100.0%                | Excellent   | 21.50   |
| Turbidity                                    | NTU       | Operational           | ≤ 1   | 1                       | 1                              | 100.0%                | Excellent   | 0.44    |
|  |           | Aesthetic             | ≤ 5   | 1                       | 1                              | 100.0%                | Excellent   |         |
| Colour                                       | mg/L      | Aesthetic             | ≤ 15  | 1                       | 1                              | 100.0%                | Excellent   | 4.00    |
| Alkalinity (as CaCO <sub>3</sub> )           | mg/L      |                       | -   | 0                       |                                |                       |             |         |
| Total Hardness (as CaCO <sub>3</sub> )       | mg/L      |                       | -   | 0                       |                                |                       |             |         |
| Calcium Hardness (as CaCO <sub>3</sub> )     | mg/L      |                       | -   | 0                       |                                |                       |             |         |
| Calcium (as Ca)                              | mg/L      | Aesthetic / Operation | ≤ 150   | 1                       | 1                              | 100.0%                | Excellent   | 16.90   |
| Magnesium Hardness (as CaCO <sub>3</sub> )   | mg/L      |                       | -   | 0                       |                                |                       |             |         |
| Magnesium (as Mg)                            | mg/L      | Aesthetic / Health    | ≤ 70  | 1                       | 1                              | 100.0%                | Excellent   | 2.90    |
| Chloride (as Cl)                             | mg/L      | Aesthetic             | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent   | 26.10   |
| Fluoride (as F)                              | mg/L      | Chronic Health        | ≤ 1.5   | 1                       | 1                              | 100.0%                | Excellent   | 0.10    |
| Sodium (as Na)                               | mg/L      | Aesthetic             | ≤ 200   | 1                       | 1                              | 100.0%                | Excellent   | 13.60   |
| Potassium (as K)                             | mg/L      | Operational / Health  | ≤ 50  | 1                       | 1                              | 100.0%                | Excellent   | 1.00    |
| Zinc (as Zn)                                 | mg/L      | Aesthetic             | ≤ 5   | 1                       | 1                              | 100.0%                | Excellent   | 0.00    |
| Ammonia Nitrogen (as N)                      | mg/L      | Aesthetic             | ≤ 1.5   | 1                       | 1                              | 100.0%                | Excellent   | 0.15    |
| Nitrate & Nitrite Nitrogen (as N)            | mg/L      | Acute Health Chemical | ≤ 12  | 1                       | 1                              | 100.0%                | Excellent   | 0.24    |
| Nitrate as N                                 | mg/L      | Acute Health Chemical | ≤ 11  | 1                       | 1                              | 100.0%                | Excellent   | 0.20    |
| Nitrite as N                                 | mg/L      | Acute Health Chemical | ≤ 0.9   | 1                       | 1                              | 100.0%                | Excellent   | 0.08    |
| Sulphate (as SO <sub>4</sub> <sup>2-</sup> ) | mg/L      | Acute Health Chemical | ≤ 500   | 1                       | 1                              | 100.0%                | Excellent   | 19.20   |
|  |           | Aesthetic             | ≤ 250   | 1                       | 1                              | 100.0%                | Excellent   |         |
| Total Dissolved Solids                       | mg/L      | Aesthetic             | ≤ 1 200   | 1                       | 1                              | 100.0%                | Excellent   | 144.00  |
| Iron (as Fe)                                 | ug/L      | Chronic Health        | ≤ 2000  | 1                       | 1                              | 100.0%                | Excellent   | 26.00   |
|  |           | Aesthetic             | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent   |         |
| Manganese (as Mn)                            | ug/L      | Chronic Health        | ≤ 400   | 1                       | 1                              | 100.0%                | Excellent   | 19.00   |
|  |           | Aesthetic             | < 100   | 1                       | 1                              | 100.0%                | Excellent   |         |
| Aluminium (as Al)                            | ug/L      | Operational           | ≤300  | 1                       | 1                              | 100.0%                | Excellent   | 12.00   |
| E.Coli (<1 taken as 0)                       | cfu/100ml | Acute Health Micro    | ≤ 0   | 5                       | 5                              | 100.0%                | Excellent   | 0.00    |
| Total Coliform Count (<1 taken as 0)         | cfu/100ml | Operational           | ≤ 10  | 5                       | 5                              | 100.0%                | Excellent   | 0.20    |
| Heterotrophic Plate Count                    | cfu/ml    | Operational           | ≤ 1000  | 1                       | 1                              | 100.0%                | Excellent   | 26.00   |
| Free Chlorine                                | mg/L      | Chronic Health        | ≤ 5   | 1                       | 1                              | 100.0%                | Excellent   | 0.05    |
| Antimony (as Sb)                             | ug/L      | Chronic Health        | ≤ 20  | 1                       | 1                              | 100.0%                | Excellent   | 10.00   |
| Arsenic (as As)                              | ug/L      | Chronic Health        | ≤ 10  | 1                       | 1                              | 100.0%                | Excellent   | 3.00    |
| Cadmium (as Cd)                              | ug/L      | Chronic Health        | ≤ 3   | 1                       | 1                              | 100.0%                | Excellent   | 1.00    |
| Chromium (as Cr)                             | ug/L      | Chronic Health        | ≤ 50  | 1                       | 1                              | 100.0%                | Excellent   | 7.00    |
| Cobalt (as Co)                               | ug/L      | Chronic Health        | ≤ 500   | 0                       |                                |                       |             |         |
| Copper (as Cu)                               | ug/L      | Chronic Health        | ≤ 2000  | 1                       | 1                              | 100.0%                | Excellent   | 6.00    |
| Lead (as Pb)                                 | ug/L      | Chronic Health        | ≤ 10  | 1                       | 1                              | 100.0%                | Excellent   | 7.00    |
| Mercury (as Hg)                              | ug/L      | Chronic Health        | ≤ 6   | 1                       | 1                              | 100.0%                | Excellent   | 6.00    |
| Nickel (as Ni)                               | ug/L      | Chronic Health        | ≤ 70  | 1                       | 1                              | 100.0%                | Excellent   | 1.00    |
| Selenium (as Se)                             | ug/L      | Chronic Health        | ≤ 40  | 1                       | 1                              | 100.0%                | Excellent   | 10.00   |
| Vanadium (as V)                              | ug/L      | Chronic Health        | ≤ 200   | 0                       |                                |                       |             |         |
| Cyanide                                      | ug/L      | Acute Health Chemical | ≤ 200   | 1                       | 1                              | 100.0%                | Excellent   | 50.00   |
| Total Organic Carbon                         | mg/L      | Chronic Health        | < 10  | 1                       | 1                              | 100.0%                | Excellent   | 0.58    |
| CaCO <sub>3</sub> Precipitation Potential    |           |                       | -   | 0                       |                                |                       |             |         |
| Cytopathogenic Viruses                       | cfu/10 l  | Acute Health Micro    | ≤ 0   | 0                       |                                |                       |             |         |
| Cryptosporidium Species                      | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                       | 1                              | 100.0%                | Excellent   | 0.00    |
| Giardia Species                              | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                       | 1                              | 100.0%                | Excellent   | 0.00    |
| Chloroform                                   | ug/L      | Chronic Health        | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent   | 20.00   |
| Bromodichloromethane                         | ug/L      | Chronic Health        | ≤ 60  | 1                       | 1                              | 100.0%                | Excellent   | 9.00    |
| Dibromochloromethane                         | ug/L      | Chronic Health        | ≤ 100   | 1                       | 1                              | 100.0%                | Excellent   | 5.00    |
| Bromoform                                    | ug/L      | Chronic Health        | ≤ 100   | 1                       | 1                              | 100.0%                | Excellent   | 1.00    |
| Somatic Coliphages                           | cfu/10ml  | Operational           | ≤ 0   | 1                       | 1                              | 100.0%                | Excellent   | 0.00    |
| Phenols                                      | ug/L      | Aesthetic             | ≤10   | 1                       | 1                              | 100.0%                | Excellent   | 0.01    |
| Combined Trihalomethanes                     | mg/L      | Chronic Health        | ≤ 1   | 1                       | 1                              | 100.0%                | Excellent   | 0.28    |
| Uranium (as U)                               | ug/L      | Chronic Health        | ≤ 30  | 1                       | 1                              | 100.0%                | Excellent   | 15.00   |
| Microcystin (as LR)                          | ug/L      | Chronic Health        | ≤ 1   | 1                       | 1                              | 100.0%                | Excellent   | 0.15    |
| Monochloramine                               | mg/L      | Chronic Health        | ≤ 3   | 1                       | 1                              | 100.0%                | Excellent   | 0.05    |
| Barium (as Ba)                               | ug/L      | Chronic Health        | ≤ 700   | 1                       | 1                              | 100.0%                | Excellent   | 12.30   |
| Baron (as B)                                 | mg/L      | Chronic Health        | ≤ 2.4   | 1                       | 1                              | 100.0%                | Excellent   | 0.10    |

|                              |    |    |        |           |
|------------------------------|----|----|--------|-----------|
| Acute Health Chemical        | 5  | 5  | 100.0% | Excellent |
| Acute Health Microbiological | 7  | 7  | 100.0% | Excellent |
| Chronic Health               | 24 | 24 | 100.0% | Excellent |
| Aesthetic                    | 14 | 14 | 100.0% | Excellent |
| Operational Efficiency       | 12 | 12 | 100.0% | Excellent |

| Abbotsdale                                   |           |                       | SANS 241:2015   | Compliance Calculations |                             |                       |             |         |
|--|-----------|-----------------------|---|-------------------------|-----------------------------|-----------------------|-------------|---------|
| Parameter                                    | Unit      | Risk                  | Standard Limits<br>(SANS 241-2011<br>and SANS 241-<br>2006 Class I) | Total Number of Samples | Number of Samples Complying | % Compliance Achieved | Performance | Average |
| pH (at 25°C)                                 |           | Operational           | ≥5.0 - ≤ 9.7  | 1                       | 1                           | 100.0%                | Excellent   | 7.63    |
| Conductivity                                 | mS/m      | Aesthetic             | ≤ 170   | 1                       | 1                           | 100.0%                | Excellent   | 20.50   |
| Turbidity                                    | NTU       | Operational           | ≤ 1   | 1                       | 1                           | 100.0%                | Excellent   | 0.67    |
|  |           | Aesthetic             | ≤ 5   | 1                       | 1                           | 100.0%                | Excellent   |         |
| Colour                                       | mg/L      | Aesthetic             | ≤ 15  | 1                       | 1                           | 100.0%                | Excellent   | 4.00    |
| Alkalinity (as CaCO <sub>3</sub> )           | mg/L      |                       | -   | 0                       |                             |                       |             |         |
| Total Hardness (as CaCO <sub>3</sub> )       | mg/L      |                       | -   | 0                       |                             |                       |             |         |
| Calcium Hardness (as CaCO <sub>3</sub> )     | mg/L      |                       | -   | 0                       |                             |                       |             |         |
| Calcium (as Ca)                              | mg/L      | Aesthetic / Operation | ≤ 150   | 1                       | 1                           | 100.0%                | Excellent   | 16.00   |
| Magnesium Hardness (as CaCO <sub>3</sub> )   | mg/L      |                       | -   | 0                       |                             |                       |             |         |
| Magnesium (as Mg)                            | mg/L      | Aesthetic / Health    | ≤ 70  | 1                       | 1                           | 100.0%                | Excellent   | 3.20    |
| Chloride (as Cl)                             | mg/L      | Aesthetic             | ≤ 300   | 1                       | 1                           | 100.0%                | Excellent   | 26.30   |
| Fluoride (as F)                              | mg/L      | Chronic Health        | ≤ 1.5   | 1                       | 1                           | 100.0%                | Excellent   | 0.10    |
| Sodium (as Na)                               | mg/L      | Aesthetic             | ≤ 200   | 1                       | 1                           | 100.0%                | Excellent   | 14.20   |
| Potassium (as K)                             | mg/L      | Operational / Health  | ≤ 50  | 1                       | 1                           | 100.0%                | Excellent   | 1.10    |
| Zinc (as Zn)                                 | mg/L      | Aesthetic             | ≤ 5   | 1                       | 1                           | 100.0%                | Excellent   | 0.01    |
| Ammonia Nitrogen (as N)                      | mg/L      | Aesthetic             | ≤ 1.5   | 1                       | 1                           | 100.0%                | Excellent   | 0.15    |
| Nitrate & Nitrite Nitrogen (as N)            | mg/L      | Acute Health Chemical | ≤ 12  | 1                       | 1                           | 100.0%                | Excellent   | 0.21    |
| Nitrate as N                                 | mg/L      | Acute Health Chemical | ≤ 11  | 1                       | 1                           | 100.0%                | Excellent   | 0.20    |
| Nitrite as N                                 | mg/L      | Acute Health Chemical | ≤ 0.9   | 1                       | 1                           | 100.0%                | Excellent   | 0.08    |
| Sulphate (as SO <sub>4</sub> <sup>2-</sup> ) | mg/L      | Acute Health Chemical | ≤ 500   | 1                       | 1                           | 100.0%                | Excellent   | 20.40   |
|  |           | Aesthetic             | ≤ 250   | 1                       | 1                           | 100.0%                | Excellent   |         |
| Total Dissolved Solids                       | mg/L      | Aesthetic             | ≤ 1 200   | 1                       | 1                           | 100.0%                | Excellent   | 140.00  |
| Iron (as Fe)                                 | ug/L      | Chronic Health        | ≤ 2000  | 1                       | 1                           | 100.0%                | Excellent   | 28.00   |
|  |           | Aesthetic             | ≤ 300   | 1                       | 1                           | 100.0%                | Excellent   |         |
| Manganese (as Mn)                            | ug/L      | Chronic Health        | ≤ 400   | 1                       | 1                           | 100.0%                | Excellent   | 19.00   |
|  |           | Aesthetic             | < 100   | 1                       | 1                           | 100.0%                | Excellent   |         |
| Aluminium (as Al)                            | ug/L      | Operational           | ≤ 300   | 1                       | 1                           | 100.0%                | Excellent   | 12.00   |
| E.Coli (<1 taken as 0)                       | cfu/100ml | Acute Health Micro    | ≤ 0   | 5                       | 5                           | 100.0%                | Excellent   | 0.00    |
| Total Coliform Count (<1 taken as 0)         | cfu/100ml | Operational           | ≤ 10  | 5                       | 5                           | 100.0%                | Excellent   | 0.00    |
| Free Chlorine                                | mg/L      | Chronic Health        | ≤ 5   | 0                       | 0                           |                       |             |         |
| Antimony (as Sb)                             | ug/L      | Chronic Health        | ≤ 20  | 1                       | 1                           | 100.0%                | Excellent   | 10.00   |
| Arsenic (as As)                              | ug/L      | Chronic Health        | ≤ 10  | 1                       | 1                           | 100.0%                | Excellent   | 3.00    |
| Cadmium (as Cd)                              | ug/L      | Chronic Health        | ≤ 3   | 1                       | 1                           | 100.0%                | Excellent   | 1.00    |
| Chromium (as Cr)                             | ug/L      | Chronic Health        | ≤ 50  | 1                       | 1                           | 100.0%                | Excellent   | 7.00    |
| Cobalt (as Co)                               | ug/L      | Chronic Health        | ≤ 500   | 0                       |                             |                       |             |         |
| Copper (as Cu)                               | ug/L      | Chronic Health        | ≤ 2000  | 1                       | 1                           | 100.0%                | Excellent   | 6.00    |
| Lead (as Pb)                                 | ug/L      | Chronic Health        | ≤ 10  | 1                       | 1                           | 100.0%                | Excellent   | 7.00    |
| Mercury (as Hg)                              | ug/L      | Chronic Health        | ≤ 6   | 1                       | 1                           | 100.0%                | Excellent   | 6.00    |
| Nickel (as Ni)                               | ug/L      | Chronic Health        | ≤ 70  | 1                       | 1                           | 100.0%                | Excellent   | 1.00    |
| Selenium (as Se)                             | ug/L      | Chronic Health        | ≤ 40  | 1                       | 1                           | 100.0%                | Excellent   | 10.00   |
| Vanadium (as V)                              | ug/L      | Chronic Health        | ≤ 200   | 0                       |                             |                       |             |         |
| Cyanide                                      | ug/L      | Acute Health Chemical | ≤ 200   | 1                       | 1                           | 100.0%                | Excellent   | 50.00   |
| Total Organic Carbon                         | mg/L      | Chronic Health        | < 10  | 1                       | 1                           | 100.0%                | Excellent   | 0.40    |
| CaCO <sub>3</sub> Precipitation Potential    |           |                       | -   | 0                       |                             |                       |             |         |
| Heterotrophic Plate Count                    | cfu/ml    | Operational           | ≤ 1000  | 1                       | 1                           | 100.0%                | Excellent   | 7.00    |
| Cytopathogenic Viruses                       | cfu/10 l  | Acute Health Micro    | ≤ 0   | 0                       |                             |                       |             |         |
| Cryptosporidium Species                      | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                       | 1                           | 100.0%                | Excellent   | 0.00    |
| Giardia Species                              | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                       | 1                           | 100.0%                | Excellent   | 0.00    |
| Chloroform                                   | ug/L      | Chronic Health        | ≤ 300   | 1                       | 1                           | 100.0%                | Excellent   | 10.00   |
| Bromodichloromethane                         | ug/L      | Chronic Health        | ≤ 60  | 1                       | 1                           | 100.0%                | Excellent   | 3.00    |
| Dibromochloromethane                         | ug/L      | Chronic Health        | ≤ 100   | 1                       | 1                           | 100.0%                | Excellent   | 41.00   |
| Bromoform                                    | ug/L      | Chronic Health        | ≤ 100   | 1                       | 1                           | 100.0%                | Excellent   | 1.00    |
| Somatic Coliphages                           | cfu/10ml  | Operational           | ≤ 0   | 1                       | 1                           | 100.0%                | Excellent   | 0.00    |
| Phenols                                      | ug/L      | Aesthetic             | ≤ 10  | 1                       | 1                           | 100.0%                | Excellent   | 0.01    |
| Combined Trihalomethanes                     | mg/L      | Chronic Health        | ≤ 1   | 1                       | 1                           | 100.0%                | Excellent   | 0.12    |
| Uranium (as U)                               | ug/L      | Chronic Health        | ≤ 30  | 1                       | 1                           | 100.0%                | Excellent   | 15.00   |
| Microcystin (as LR)                          | ug/L      | Chronic Health        | ≤ 1   | 1                       | 1                           | 100.0%                | Excellent   | 0.15    |
| Monochloramine                               | mg/L      | Chronic Health        | ≤ 3   | 1                       | 1                           | 100.0%                | Excellent   | 0.05    |
| Barium (as Ba)                               | ug/L      | Chronic Health        | ≤ 700   | 1                       | 1                           | 100.0%                | Excellent   | 12.00   |
| Baron (as B)                                 | mg/L      | Chronic Health        | ≤ 2.4   | 1                       | 1                           | 100.0%                | Excellent   | 0.10    |
| Acute Health Chemical                        |           |                       |   | 5                       | 5                           | 100.0%                | Excellent   |         |
| Acute Health Microbiological                 |           |                       |   | 7                       | 7                           | 100.0%                | Excellent   |         |
| Chronic Health                               |           |                       |   | 23                      | 23                          | 100.0%                | Excellent   |         |
| Aesthetic                                    |           |                       |   | 14                      | 14                          | 100.0%                | Excellent   |         |
| Operational Efficiency                       |           |                       |   | 12                      | 12                          | 100.0%                | Excellent   |         |

| Chatsworth                                   |           |                       | SANS 241:2015   | Compliance Calculations    |                                |                          |             |         |
|--|-----------|-----------------------|---|----------------------------|--------------------------------|--------------------------|-------------|---------|
| Parameter                                    | Unit      | Risk                  | Standard Limits<br>(SANS 241-2011<br>and SANS 241-<br>2006 Class I) | Total Number of<br>Samples | Number of Samples<br>Complying | % Compliance<br>Achieved | Performance | Average |
| pH (at 25°C)                                 |           | Operational           | ≥5.0 - ≤ 9.7  | 1                          | 1                              | 100.0%                   | Excellent   | 7.84    |
| Conductivity                                 | mS/m      | Aesthetic             | ≤ 170   | 1                          | 1                              | 100.0%                   | Excellent   | 21.00   |
| Turbidity                                    | NTU       | Operational           | ≤ 1   | 1                          | 1                              | 100.0%                   | Excellent   | 0.40    |
|  |           | Aesthetic             | ≤ 5   | 1                          | 1                              | 100.0%                   | Excellent   |         |
| Colour                                       | mg/L      | Aesthetic             | ≤ 15  | 1                          | 1                              | 100.0%                   | Excellent   | 4.00    |
| Alkalinity (as CaCO <sub>3</sub> )           | mg/L      |                       | -   | 0                          |                                |                          |             |         |
| Total Hardness (as CaCO <sub>3</sub> )       | mg/L      |                       | -   | 0                          |                                |                          |             |         |
| Calcium Hardness (as CaCO <sub>3</sub> )     | mg/L      |                       | -   | 0                          |                                |                          |             |         |
| Calcium (as Ca)                              | mg/L      | Aesthetic / Operation | ≤ 150   | 1                          | 1                              | 100.0%                   | Excellent   | 17.00   |
| Magnesium Hardness (as CaCO <sub>3</sub> )   | mg/L      |                       | -   | 0                          |                                |                          |             |         |
| Magnesium (as Mg)                            | mg/L      | Aesthetic / Health    | ≤ 70  | 1                          | 1                              | 100.0%                   | Excellent   | 3.00    |
| Chloride (as Cl)                             | mg/L      | Aesthetic             | ≤ 300   | 1                          | 1                              | 100.0%                   | Excellent   | 26.10   |
| Fluoride (as F)                              | mg/L      | Chronic Health        | ≤ 1.5   | 1                          | 1                              | 100.0%                   | Excellent   | 0.13    |
| Sodium (as Na)                               | mg/L      | Aesthetic             | ≤ 200   | 1                          | 1                              | 100.0%                   | Excellent   | 13.90   |
| Potassium (as K)                             | mg/L      | Operational / Health  | ≤ 50  | 1                          | 1                              | 100.0%                   | Excellent   | 11.00   |
| Zinc (as Zn)                                 | mg/L      | Aesthetic             | ≤ 5   | 1                          | 1                              | 100.0%                   | Excellent   | 0.00    |
| Ammonia Nitrogen (as N)                      | mg/L      | Aesthetic             | ≤ 1.5   | 1                          | 1                              | 100.0%                   | Excellent   | 0.15    |
| Nitrate & Nitrite Nitrogen (as N)            | mg/L      | Acute Health Chemical | ≤ 12  | 1                          | 1                              | 100.0%                   | Excellent   | 0.10    |
| Nitrate as N                                 | mg/L      | Acute Health Chemical | ≤ 11  | 1                          | 1                              | 100.0%                   | Excellent   | 0.20    |
| Nitrite as N                                 | mg/L      | Acute Health Chemical | ≤ 0.9   | 1                          | 1                              | 100.0%                   | Excellent   | 0.08    |
| Sulphate (as SO <sub>4</sub> <sup>2-</sup> ) | mg/L      | Acute Health Chemical | ≤ 500   | 1                          | 1                              | 100.0%                   | Excellent   | 19.30   |
|  |           | Aesthetic             | ≤ 250   | 1                          | 1                              | 100.0%                   | Excellent   |         |
| Total Dissolved Solids                       | mg/L      | Aesthetic             | ≤ 1 200   | 1                          | 1                              | 100.0%                   | Excellent   | 145.00  |
| Iron (as Fe)                                 | ug/L      | Chronic Health        | ≤ 2000  | 1                          | 1                              | 100.0%                   | Excellent   | 24.00   |
|  |           | Aesthetic             | ≤ 300   | 1                          | 1                              | 100.0%                   | Excellent   |         |
| Manganese (as Mn)                            | ug/L      | Chronic Health        | ≤ 400   | 1                          | 1                              | 100.0%                   | Excellent   | 19.00   |
|  |           | Aesthetic             | < 100   | 1                          | 1                              | 100.0%                   | Excellent   |         |
| Aluminium (as Al)                            | ug/L      | Operational           | ≤300  | 1                          | 1                              | 100.0%                   | Excellent   | 12.00   |
| E.Coli (<1 taken as 0)                       | cfu/100ml | Acute Health Micro    | ≤ 0   | 5                          | 5                              | 100.0%                   | Excellent   | 0.00    |
| Total Coliform Count (<1 taken as 0)         | cfu/100ml | Operational           | ≤ 10  | 5                          | 5                              | 100.0%                   | Excellent   | 0.20    |
| Heterotrophic Plate Count                    | cfu/ml    | Operational           | ≤ 1000  | 1                          | 1                              | 100.0%                   | Excellent   | 15.00   |
| Free Chlorine                                | mg/L      | Chronic Health        | ≤ 5   | 1                          | 1                              | 100.0%                   | Excellent   | 0.05    |
| Antimony (as Sb)                             | ug/L      | Chronic Health        | ≤ 20  | 1                          | 1                              | 100.0%                   | Excellent   | 10.00   |
| Arsenic (as As)                              | ug/L      | Chronic Health        | ≤ 10  | 1                          | 1                              | 100.0%                   | Excellent   | 3.00    |
| Cadmium (as Cd)                              | ug/L      | Chronic Health        | ≤ 3   | 1                          | 1                              | 100.0%                   | Excellent   | 1.00    |
| Chromium (as Cr)                             | ug/L      | Chronic Health        | ≤ 50  | 1                          | 1                              | 100.0%                   | Excellent   | 7.00    |
| Cobalt (as Co)                               | ug/L      | Chronic Health        | ≤ 500   | 0                          |                                |                          |             |         |
| Copper (as Cu)                               | ug/L      | Chronic Health        | ≤ 2000  | 1                          | 1                              | 100.0%                   | Excellent   | 6.00    |
| Lead (as Pb)                                 | ug/L      | Chronic Health        | ≤ 10  | 1                          | 1                              | 100.0%                   | Excellent   | 7.00    |
| Mercury (as Hg)                              | ug/L      | Chronic Health        | ≤ 6   | 1                          | 1                              | 100.0%                   | Excellent   | 6.00    |
| Nickel (as Ni)                               | ug/L      | Chronic Health        | ≤ 70  | 1                          | 1                              | 100.0%                   | Excellent   | 1.00    |
| Selenium (as Se)                             | ug/L      | Chronic Health        | < 40  | 1                          | 1                              | 100.0%                   | Excellent   | 10.00   |
| Vanadium (as V)                              | ug/L      | Chronic Health        | ≤ 200   | 0                          |                                |                          |             |         |
| Cyanide                                      | ug/L      | Acute Health Chemical | ≤ 200   | 1                          | 1                              | 100.0%                   | Excellent   | 50.00   |
| Total Organic Carbon                         | mg/L      | Chronic Health        | < 10  | 1                          | 1                              | 100.0%                   | Excellent   | 0.36    |
| CaCO <sub>3</sub> Precipitation Potential    |           |                       | -   | 0                          |                                |                          |             |         |
| Cytopathogenic Viruses                       | cfu/10 l  | Acute Health Micro    | ≤ 0   | 0                          |                                |                          |             |         |
| Cryptosporidium Species                      | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                          | 1                              | 100.0%                   | Excellent   | 0.00    |
| Giardia Species                              | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                          | 1                              | 100.0%                   | Excellent   | 0.00    |
| Chloroform                                   | ug/L      | Chronic Health        | ≤ 300   | 1                          | 1                              | 100.0%                   | Excellent   | 22.00   |
| Bromodichloromethane                         | ug/L      | Chronic Health        | ≤ 60  | 1                          | 1                              | 100.0%                   | Excellent   | 7.00    |
| Dibromochloromethane                         | ug/L      | Chronic Health        | ≤ 100   | 1                          | 1                              | 100.0%                   | Excellent   | 1.00    |
| Bromoform                                    | ug/L      | Chronic Health        | ≤ 100   | 1                          | 1                              | 100.0%                   | Excellent   | 1.00    |
| Somatic Coliphages                           | cfu/10ml  | Operational           | ≤ 0   | 1                          | 1                              | 100.0%                   | Excellent   | 0.00    |
| Phenols                                      | ug/L      | Aesthetic             | ≤10   | 1                          | 1                              | 100.0%                   | Excellent   | 0.01    |
| Combined Trihalomethanes                     | mg/L      | Chronic Health        | ≤ 1   | 1                          | 1                              | 100.0%                   | Excellent   | 0.21    |
| Uranium (as U)                               | ug/L      | Chronic Health        | ≤ 30  | 1                          | 1                              | 100.0%                   | Excellent   | 15.00   |
| Microcystin (as LR)                          | ug/L      | Chronic Health        | ≤ 1   | 1                          | 1                              | 100.0%                   | Excellent   | 0.15    |
| Monochloramine                               | mg/L      | Chronic Health        | ≤ 3   | 1                          | 1                              | 100.0%                   | Excellent   | 0.05    |
| Barium (as Ba)                               | ug/L      | Chronic Health        | ≤ 700   | 1                          | 1                              | 100.0%                   | Excellent   | 12.00   |
| Baron (as B)                                 | mg/L      | Chronic Health        | ≤ 2.4   | 1                          | 1                              | 100.0%                   | Excellent   | 0.10    |

|                              |    |    |        |           |
|------------------------------|----|----|--------|-----------|
| Acute Health Chemical        | 5  | 5  | 100.0% | Excellent |
| Acute Health Microbiological | 7  | 7  | 100.0% | Excellent |
| Chronic Health               | 25 | 25 | 100.0% | Excellent |
| Aesthetic                    | 14 | 14 | 100.0% | Excellent |
| Operational Efficiency       | 12 | 12 | 100.0% | Excellent |

| Kalbaskraal                                  |           |                       | SANS 241:2015   | Compliance Calculations |                                |                       |              |         |
|--|-----------|-----------------------|---|-------------------------|--------------------------------|-----------------------|--------------|---------|
| Parameter                                    | Unit      | Risk                  | Standard Limits<br>(SANS 241-2011<br>and SANS 241-<br>2006 Class I) | Total Number of Samples | Number of Samples<br>Complying | % Compliance Achieved | Performance  | Average |
| pH (at 25°C)                                 |           | Operational           | ≥5.0 - ≤ 9.7  | 1                       | 1                              | 100.0%                | Excellent    | 8.62    |
| Conductivity                                 | mS/m      | Aesthetic             | ≤ 170   | 1                       | 1                              | 100.0%                | Excellent    | 22.50   |
| Turbidity                                    | NTU       | Operational           | ≤ 1   | 1                       | 0                              | 0.0%                  | Unacceptable | 1.40    |
|  |           | Aesthetic             | ≤ 5   | 1                       | 1                              | 100.0%                | Excellent    |         |
| Colour                                       | mg/L      | Aesthetic             | ≤ 15  | 1                       | 1                              | 100.0%                | Excellent    | 4.00    |
| Alkalinity (as CaCO <sub>3</sub> )           | mg/L      |                       | -   | 0                       |                                |                       |              |         |
| Total Hardness (as CaCO <sub>3</sub> )       | mg/L      |                       | -   | 0                       |                                |                       |              |         |
| Calcium Hardness (as CaCO <sub>3</sub> )     | mg/L      |                       | -   | 0                       |                                |                       |              |         |
| Calcium (as Ca)                              | mg/L      | Aesthetic / Operation | ≤ 150   | 1                       | 1                              | 100.0%                | Excellent    | 17.30   |
| Magnesium Hardness (as CaCO <sub>3</sub> )   | mg/L      |                       | -   | 0                       |                                |                       |              |         |
| Magnesium (as Mg)                            | mg/L      | Aesthetic / Health    | ≤ 70  | 1                       | 1                              | 100.0%                | Excellent    | 2.90    |
| Chloride (as Cl)                             | mg/L      | Aesthetic             | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent    | 28.00   |
| Fluoride (as F)                              | mg/L      | Chronic Health        | ≤ 1.5   | 1                       | 1                              | 100.0%                | Excellent    | 0.47    |
| Sodium (as Na)                               | mg/L      | Aesthetic             | ≤ 200   | 1                       | 1                              | 100.0%                | Excellent    | 13.60   |
| Potassium (as K)                             | mg/L      | Operational / Health  | ≤ 50  | 1                       | 1                              | 100.0%                | Excellent    | 1.00    |
| Zinc (as Zn)                                 | mg/L      | Aesthetic             | ≤ 5   | 1                       | 1                              | 100.0%                | Excellent    | 0.01    |
| Ammonia Nitrogen (as N)                      | mg/L      | Aesthetic             | ≤ 1.5   | 1                       | 1                              | 100.0%                | Excellent    | 0.10    |
| Nitrate & Nitrite Nitrogen (as N)            | mg/L      | Acute Health Chemical | ≤ 12  | 1                       | 1                              | 100.0%                | Excellent    | 0.20    |
| Nitrate as N                                 | mg/L      | Acute Health Chemical | ≤ 11  | 1                       | 1                              | 100.0%                | Excellent    | 0.20    |
| Nitrite as N                                 | mg/L      | Acute Health Chemical | ≤ 0.9   | 1                       | 1                              | 100.0%                | Excellent    | 0.20    |
| Sulphate (as SO <sub>4</sub> <sup>2-</sup> ) | mg/L      | Acute Health Chemical | ≤ 500   | 1                       | 1                              | 100.0%                | Excellent    | 11.40   |
|  |           | Aesthetic             | ≤ 250   | 1                       | 1                              | 100.0%                | Excellent    |         |
| Total Dissolved Solids                       | mg/L      | Aesthetic             | ≤ 1 200   | 1                       | 1                              | 100.0%                | Excellent    | 146.00  |
| Iron (as Fe)                                 | ug/L      | Chronic Health        | ≤ 2000  | 1                       | 1                              | 100.0%                | Excellent    | 55.00   |
|  |           | Aesthetic             | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent    |         |
| Manganese (as Mn)                            | ug/L      | Chronic Health        | ≤ 400   | 1                       | 1                              | 100.0%                | Excellent    | 19.00   |
|  |           | Aesthetic             | ≤ 100   | 1                       | 1                              | 100.0%                | Excellent    |         |
| Aluminium (as Al)                            | ug/L      | Operational           | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent    | 20.00   |
| E.Coli (<1 taken as 0)                       | cfu/100ml | Acute Health Micro    | ≤ 0   | 1                       | 1                              | 100.0%                | Excellent    | 0.00    |
| Total Coliform Count (<1 taken as 0)         | cfu/100ml | Operational           | ≤ 10  | 1                       | 1                              | 100.0%                | Excellent    | 0.00    |
| Heterotrophic Plate Count                    | cfu/ml    | Operational           | ≤ 1000  | 1                       | 1                              | 100.0%                | Excellent    | 79.00   |
| Free Chlorine                                | mg/L      | Chronic Health        | ≤ 5   | 1                       | 1                              | 100.0%                | Excellent    | 0.05    |
| Antimony (as Sb)                             | ug/L      | Chronic Health        | ≤ 20  | 1                       | 1                              | 100.0%                | Excellent    | 10.00   |
| Arsenic (as As)                              | ug/L      | Chronic Health        | ≤ 10  | 1                       | 1                              | 100.0%                | Excellent    | 3.00    |
| Cadmium (as Cd)                              | ug/L      | Chronic Health        | ≤ 3   | 1                       | 1                              | 100.0%                | Excellent    | 1.00    |
| Chromium (as Cr)                             | ug/L      | Chronic Health        | ≤ 50  | 1                       | 1                              | 100.0%                | Excellent    | 7.00    |
| Cobalt (as Co)                               | ug/L      | Chronic Health        | ≤ 500   | 0                       |                                |                       |              |         |
| Copper (as Cu)                               | ug/L      | Chronic Health        | ≤ 2000  | 1                       | 1                              | 100.0%                | Excellent    | 23.00   |
| Lead (as Pb)                                 | ug/L      | Chronic Health        | ≤ 10  | 1                       | 1                              | 100.0%                | Excellent    | 7.00    |
| Mercury (as Hg)                              | ug/L      | Chronic Health        | ≤ 6   | 1                       | 1                              | 100.0%                | Excellent    | 6.00    |
| Nickel (as Ni)                               | ug/L      | Chronic Health        | ≤ 70  | 1                       | 1                              | 100.0%                | Excellent    | 1.00    |
| Selenium (as Se)                             | ug/L      | Chronic Health        | ≤ 40  | 1                       | 1                              | 100.0%                | Excellent    | 10.00   |
| Vanadium (as V)                              | ug/L      | Chronic Health        | ≤ 200   | 0                       |                                |                       |              |         |
| Cyanide                                      | ug/L      | Acute Health Chemical | ≤ 200   | 1                       | 1                              | 100.0%                | Excellent    | 50.00   |
| Total Organic Carbon                         | mg/L      | Chronic Health        | < 10  | 1                       | 1                              | 100.0%                | Excellent    | 0.32    |
| CaCO <sub>3</sub> Precipitation Potential    |           |                       | -   | 0                       |                                |                       |              |         |
| Cytopathogenic Viruses                       | cfu/10 l  | Acute Health Micro    | ≤ 0   | 0                       |                                |                       |              |         |
| Cryptosporidium Species                      | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                       | 1                              | 100.0%                | Excellent    | 0.00    |
| Giardia Species                              | cfu/10 l  | Acute Health Micro    | ≤ 0   | 1                       | 1                              | 100.0%                | Excellent    | 0.00    |
| Chloroform                                   | ug/L      | Chronic Health        | ≤ 300   | 1                       | 1                              | 100.0%                | Excellent    | 16.00   |
| Bromodichloromethane                         | ug/L      | Chronic Health        | ≤ 60  | 1                       | 1                              | 100.0%                | Excellent    | 5.00    |
| Dibromochloromethane                         | ug/L      | Chronic Health        | ≤ 100   | 1                       | 1                              | 100.0%                | Excellent    | 4.00    |
| Bromoform                                    | ug/L      | Chronic Health        | ≤ 100   | 1                       | 1                              | 100.0%                | Excellent    | 1.00    |
| Somatic Coliphages                           | cfu/10ml  | Operational           | ≤ 0   | 1                       | 1                              | 100.0%                | Excellent    | 0.00    |
| Phenols                                      | ug/L      | Aesthetic             | ≤ 10  | 1                       | 1                              | 100.0%                | Excellent    | 0.01    |
| Combined Trihalomethanes                     | mg/L      | Chronic Health        | ≤ 1   | 1                       | 1                              | 100.0%                | Excellent    | 0.19    |
| Uranium (as U)                               | ug/L      | Chronic Health        | ≤ 30  | 1                       | 1                              | 100.0%                | Excellent    | 15.00   |
| Microcystin (as LR)                          | ug/L      | Chronic Health        | ≤ 1   | 1                       | 1                              | 100.0%                | Excellent    | 0.15    |
| Monochloramine                               | mg/L      | Chronic Health        | ≤ 3   | 1                       | 1                              | 100.0%                | Excellent    | 0.05    |
| Barium (as Ba)                               | ug/L      | Chronic Health        | ≤ 700   | 1                       | 1                              | 100.0%                | Excellent    | 11.60   |
| Baron (as B)                                 | mg/L      | Chronic Health        | ≤ 2.4   | 1                       | 1                              | 100.0%                | Excellent    | 0.10    |

|                              |    |    |        |              |
|------------------------------|----|----|--------|--------------|
| Acute Health Chemical        | 5  | 5  | 100.0% | Excellent    |
| Acute Health Microbiological | 3  | 3  | 100.0% | Excellent    |
| Chronic Health               | 21 | 21 | 100.0% | Excellent    |
| Aesthetic                    | 14 | 14 | 100.0% | Excellent    |
| Operational Efficiency       | 8  | 7  | 87.5%  | Unacceptable |