

## **Drinking Water Quality Report**

The City of Ekurhuleni is responsible for providing its citizens with clean and safe drinking water. The Department of Water Affairs introduced the Blue Drop certification to ensure that municipalities provide residents with clean and safe water. The quality and drinkability of water is measured against the South African National Standards for Drinking water (SANS) 241 which compares the quality of water supplied by a municipality against microbiological, physical, aesthetic and chemical determinants.

### **Blue Drop Certification and Drinking Water Quality Report 2018 - 2019 Financial Year**

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#### **Blue Drop Certification**

The National Department of Water and Sanitation introduced the Blue Drop certification programme in September 2008 to ensure that municipalities provide their citizens with clean and healthy water. Blue Drop Certification is an incentive-based regulation programme that acknowledges the management of drinking water quality according to the risk management principles endorsed by the World Health Organisation and in line with the legislative requirements of Section 62 of the Water Services Act. This implies that Blue Drop Certification does not only reflect on the actual quality of the tap water but also the ability of the municipality to sustain the quality, as well as preparedness to deal with any incident that may pose a health risk to the public. This prestigious certification is only awarded to municipalities that achieve a score above 95% of the Blue Drop certification programme criteria. These criteria are Water Safety Planning; Drinking Water Quality Process Management & Control; Drinking Water Quality Verification; Management, Accountability & Local Regulation; Asset Management; and Water Use Efficiency and Water Loss Management. Municipalities are assessed on all these criteria and they must comply with all of them.

#### **The City of Ekurhuleni's Blue Drop Performance**

Through the City of Ekurhuleni's dedication to providing our consumers with excellent water services, the City of Ekurhuleni was awarded Blue Drop Status during the release of the 2014 Blue Drop report, with a score of 96.62%. The City of Ekurhuleni was also awarded a Platinum Blue Drop Award as recognition for obtain the certification for the 4<sup>th</sup> consecutive year since the Blue Drop Certification was introduced by the National Department of Water and Sanitation and has again obtained Blue Drop Certification for 2014.

Ekurhuleni has been in the top ten of the Blue Drop Certification recipients since the inception of the certification programme. The Platinum Blue Drop status and the constant Blue Drop achievement by EMM are indicative of EMM's efficiency with regards to overall management of drinking water quality.

The Department of Water and Sanitation intended to conduct a full Blue drop audit only every second year and a progress report (PAT) in between. However only the Provincial office has conducted PAT assessments since 2015. The purpose of these PAT assessments is to assist Water Services Institutions with regard to the management of the risks that might affect their water services as per blue drop requirements. The water quality data are uploaded monthly on the Department of Water and Sanitation's Integrated Regulatory Information System (IRIS) and the COE website. The 2017 PAT results were the last results that were received from the Department of Water and Sanitation for the period January 2016 - December 2016. Despite the unavailability of full audit reports from the Department of Water and Sanitation, the City of Ekurhuleni continue to work towards complying with the Blue Drop criteria and providing the community with safe water in accordance with the Drinking Water Standard, SANS 241

## Drinking Water Quality Requirements

The quality and drinkability of water is measured against the South African National Standard for Drinking Water (SANS 241). The standard compares the quality of water supplied by a municipality against the microbiological, physical, aesthetic, operational and chemical determinants. As part of our efforts towards transparency we are publishing this report highlighting the City of Ekurhuleni's water quality compliance with SANS 241.

**Acute Health:** Determinant that poses an immediate unacceptable health risk if present at concentration values exceeding the numerical limits as specified in SANS 241.

**Aesthetic:** Determinant that taint water with respect to taste, odour or colour and that does not pose an unacceptable health risk if present at concentration values exceeding the numerical limits as specified in SANS 241.

**Chronic Health:** Determinant that poses an unacceptable health risk if ingested over an extended period if present at concentration values exceeding the numerical limits as specified in SANS 241.

**Microbiological Health Compliance:** Microbial water quality is the state of the water with respect to the absence (good water quality) or presence (poor water quality) of certain disease causing micro-organisms. Where a microbiological value exceeds the numerical limit as specified in SANS 241 an unacceptable risk to human health is implied. As the microbiological value increases, an increasing risk to health is implied.

**Operational:** Determinant that is essential for assessing the efficient operation of treatment systems and risks to infrastructure.

## The City of Ekurhuleni's Water Quality Management Performance

Through SANS 241, Municipalities are also obligated to publish annual Water Quality Reports. As indicated in the detailed full year water quality report below (Table 1), it is evident that the City of Ekurhuleni has met all the SANS 241 compliance requirements and is still providing its residents with excellent quality drinking water.

**Table 1: Detailed full year water quality report indicating level of compliance to SANS241:2015**  
**RISK ANALYSIS COMPLIANCE ACCORDING TO SANS 241 - 2015**  
**For the period 2018/07/01 to 2019/06/30**

|   | DETERMINANT    | UNIT OF MEASUREMENT | NO. ANALYSIS  | NO. COMPLIANT ANALYSIS | % COMPLIANCE  |
|---|----------------|---------------------|---------------|------------------------|---------------|
| <b>1. Acute Health Microbiological Compliance</b> |                |                     |               |                        |               |
| 1.  | CRYPTO         | Count/10l           | 4             | 4                      | 100.00        |
| 2.  | ECOLI          | Count/100ml         | 4 682         | 4 665                  | 99.64         |
| 3.  | GIARDIA        | Count/10l           | 4             | 4                      | 100.00        |
| 4.  | <b>SUMMARY</b> | -                   | <b>4 690</b>  | <b>4 673</b>           | <b>99.64</b>  |
| <b>2. Acute Health Chemical Compliance</b>        |                |                     |               |                        |               |
| 1.  | CN             | mg/l                | 4             | 4                      | 100.00        |
| 2.  | NO2            | mg/l                | 276           | 276                    | 100.00        |
| 3.  | NO3            | mg/l                | 276           | 276                    | 100.00        |
| 4.  | NO3_NO2 RATION | Calc                | 276           | 276                    | 100.00        |
| 5.  | SULPHATES      | mg/l                | 276           | 276                    | 100.00        |
| 6.  | <b>SUMMARY</b> | -                   | <b>1 108</b>  | <b>1 108</b>           | <b>100.00</b> |
| <b>3. Chronic Health Chemical Compliance</b>      |                |                     |               |                        |               |
| 1.  | ASS            | ug/l                | 4             | 4                      | 100.00        |
| 2.  | B              | mg/l                | 4             | 4                      | 100.00        |
| 3.  | BA             | mg/l                | 4             | 4                      | 100.00        |
| 4.  | BDCM           | ug/l                | 276           | 276                    | 100.00        |
| 5.  | BROMOFORM      | ug/l                | 276           | 276                    | 100.00        |
| 6.  | CD             | ug/l                | 4             | 4                      | 100.00        |
| 7.  | CHLOROFORM     | ug/l                | 276           | 276                    | 100.00        |
| 8.  | CL_FREE        | mg/l                | 4 648         | 4 648                  | 100.00        |
| 9.  | CL_RES         | mg/l                | 4 648         | 4 648                  | 100.00        |
| 10.   | CR_TOT         | mg/l                | 276           | 276                    | 100.00        |
| 11.   | CU             | mg/l                | 276           | 276                    | 100.00        |
| 12.   | DBCM           | ug/l                | 276           | 276                    | 100.00        |
| 13.   | F              | mg/l                | 276           | 276                    | 100.00        |
| 14.   | FE             | mg/                 | 620           | 620                    | 100.00        |
| 15.   | HG             | ug/l                | 4             | 4                      | 100.00        |
| 16.   | MCIST          | ug/l                | 0             | 0                      | 0.00          |
| 17.   | MCIST_TOT      | ug/l                | 4             | 4                      | 100.00        |
| 18.   | MN             | mg/l                | 276           | 276                    | 100.00        |
| 19.   | NI             | mg/l                | 276           | 276                    | 100.00        |
| 20.   | PB             | ug/l                | 4             | 4                      | 100.00        |
| 21.   | SB             | ug/l                | 4             | 4                      | 100.00        |
| 22.   | SE             | ug/l                | 4             | 4                      | 100.00        |
| 23.   | THM RATIO      | Calc                | 276           | 275                    | 99.64         |
| 24.   | TOC            | mg/l                | 4             | 4                      | 100.00        |
| 25.   | U              | ug/l                | 4             | 4                      | 100.00        |
| 26.   | <b>SUMMARY</b> | -                   | <b>12 720</b> | <b>12 719</b>          | <b>99.99</b>  |
| <b>4. Operational Compliance</b>                  |                |                     |               |                        |               |
| 1.  | AL             | mg/l                | 276           | 276                    | 100.00        |
| 2.  | HPC            | Count/ml            | 4 684         | 4 633                  | 98.91         |
| 3.  | PH             | pH units            | 4 597         | 4 597                  | 100.00        |
| 4.  | SCOLI          | Count/10ml          | 4             | 4                      | 100.00        |
| 5.  | TCOLI          | Count/100ml         | 4 682         | 4 645                  | 99.21         |



|    | DETERMINANT    | UNIT OF MEASUREMENT | NO. ANALYSIS  | NO. COMPLIANT ANALYSIS | % COMPLIANCE |
|----|----------------|---------------------|---------------|------------------------|--------------|
| 6. | TURB           | NTU                 | 4 613         | 4 583                  | 99.35        |
| 7. | <b>SUMMARY</b> | -                   | <b>18 856</b> | <b>18 738</b>          | <b>99.37</b> |

| 5. Aesthetic Compliance |                |            |              |              |              |
|-------------------------|----------------|------------|--------------|--------------|--------------|
| 1.                      | CHLORIDE       | mg/l       | 276          | 276          | 100.00       |
| 2.                      | COLOUR         | mg/l Pt-Co | 4            | 4            | 100.00       |
| 3.                      | CONDUCTIVITY   | mS/m       | 5            | 5            | 100.00       |
| 4.                      | FE             | mg/l       | 620          | 620          | 100.00       |
| 5.                      | MN             | mg/l       | 276          | 276          | 100.00       |
| 6.                      | N              | mg/l       | 4            | 4            | 100.00       |
| 7.                      | NA             | mg/l       | 276          | 276          | 100.00       |
| 8.                      | PHENOLS        | mg/l       | 4            | 4            | 100.00       |
| 9.                      | SULPHATES      | mg/l       | 276          | 276          | 100.00       |
| 10.                     | TDS            | mg/l       | 276          | 276          | 100.00       |
| 11.                     | TURB           | NTU        | 4 613        | 4 611        | 99.96        |
| 12.                     | ZN             | mg/l       | 276          | 276          | 100.00       |
| 13.                     | <b>SUMMARY</b> | -          | <b>6 906</b> | <b>6 904</b> | <b>99.97</b> |

| 6. SUMMARY: Drinking Water Quality Compliance |   |  |        |        |        |
|---|---|--|--------|--------|--------|
| 1.  | Acute Health Microbiological Compliance |  | 4 690  | 4 673  | 99.64  |
| 2.  | Acute Health Chemical Compliance        |  | 1 108  | 1 108  | 100.00 |
| 3.  | Chronic Health Chemical Compliance      |  | 12 720 | 12 719 | 99.99  |
| 4.  | Operational Compliance                  |  | 18 856 | 18 738 | 99.37  |
| 5.  | Aesthetic Compliance                    |  | 6 906  | 6 904  | 99.97  |

KEY:  = Unacceptable       = Good       = Excellent


In an effort to increase transparency Ekurhuleni's monthly water quality reports are published on the Ekurhuleni Website and the water quality data is loaded on the Department of Water and Sanitation's IRIS website on a monthly basis. Consumers can check the quality of the drinking water in their area by going to the Ekurhuleni Website: [www.ekurhuleni.gov.za](http://www.ekurhuleni.gov.za) or to the Department of Water and Sanitation IRIS website: <http://ws.dwa.gov.za/IRIS/mywater.aspx>

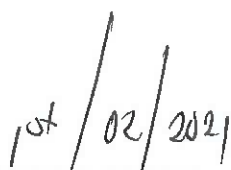
Any City of Ekurhuleni Water Quality complaints can also be reported at the following numbers.

**Contacts:**

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 Signature

  
 Date