

REQUEST FOR QUOTATION: WATER QUALITY MONITORING REGULATED SANS 241-2015 (FULL SANS 241-2015) FOR EMALAHLENI LOCAL MUNICIPALITY ONCE OFF

SCOPE OF WORK FOR WATER QUALITY MONITORING REGULATED SANS 241-2015 FOR EMALAHLENI LOCAL MUNICIPALITY

Requirements:

- A SANAS Accredited Laboratory;
 - SACNASP Registered Technicians
 - Trained samplers
 - Safety file
- ❖ During sample collection the following should be adhered to:
- Record date of sample collection;
 - Record weather condition;
 - Record chlorine level dosage;
 - Record free chlorine level;
 - Record the name of the duty Process Controller;
 - Record availability of water;
 - Record any other critical observations around the sample site.
- ❖ The critical information that must be reflected on the certificate of analysis is the following:
- Laboratory name;
 - Date of sample;
 - Type of water sample e.g. potable, surface, etc
 - Physical condition of the sample on receipt;
 - Date of sample receipt;
 - Form of custody must be completed by both the sampler and the Laboratory
 - Completion date of analysis completion;
 - Lab sample reference number;
 - Lab certificate number;
 - Name of sampler, etc;
 - SANAS Logo;
 - PTS Membership number for NLA and SABS.

REPORTING OF CERTIFIED ANALYTICAL RESULTS

- In the event that a microbial non-compliance is detected, the SANAS Laboratory shall call for a repeat sample within 14 days;
- If the microbial non-compliance is detected, it shall be recorded as such and an investigation shall be initiated in order to determine the root cause for the failure. Re-sampling shall take place within 14 days and ONLY after corrective action has been confirmed;
- The turnaround time for microbial results is 5 days;
- The turnaround time for chemical results is 21 days.
- The submission of preliminary results is acceptable where investigation into non-compliance results exceeds the prescribed turnaround times.

INCIDENT SERVICES/SPECIAL SAMPLES

Provision for repeat sample due to water quality failures.

Provision for special sampling due to unforeseeable incidents within the water supply chain and/ or the catchment, E.g. Industrial spillages, illegal wastewater discharges, etc

WATER SUPPLY SYSTEMS

Emalahleni Local Municipality has five Water Supply Systems AND two critical water intermediaries as listed below:

- 1) Witbank Water Supply System (This system is supported by 3 water treatment works)
- 2) Rietspruit Water Supply System
- 3) Kriel/Ga-Nala Water Supply System;
- 4) Kendal/Wilge Water Supply System (Network only);
- 5) Phola/Ogies Water Supply System (Network only)

The water Supply Systems and water intermediaries cover a kilometre radius of 260km

Number of samples per registered Water Supply Systems (WQM REGULATED SANS 241-2015)

Water Supply System	Number of sample points as per treatment works Raw and Final	Number of Critical Points for SANS-241 and Risk defined program
Witbank	2	10
Rietspruit	2	2
Kriel/Ga-Nala	2	2
Kendal/Wilge	0	1
Phola/Ogies	0	2
Total number of sample points	6	17

Sampling Points and Frequency

IRIS ID NO	RAW WATER Sampling Point	Frequency Micro	Frequency Physical/Chemical
151823	Witbank	N/A	Once
15124	Rietspruit	N/A	Once
15125	Ga-Nala/Kriel	N/A	Once
IRIS ID NO	FINAL WATER Sampling Point	Frequency Micro	Frequency Physical/Chemical Monthly
4621	Witbank Final	Once	Once
1649	Rietspruit Final	Once	Once
5548	Ga-Nala/Kriel Final	Once	Once
3110	Phola/Ogies		

IRIS ID NO	Sampling Point	SUPPLY SYSTEM	Frequency MICRO	Frequency Physical/Chemical
14134	Anglo American-Anglo Plant	Witbank	Once	Once
3435	Hlalanikahle Clinic- Point E	Witbank	Once	Once
14131	Rietspruit Clinic- Rietspruit Reservoir	Rietspruit	Once	Once
18413 0	Thubelihle Clinic- Thubelihle Reservoir	Kriel/ Ga-Nala	Once	Once
14128	Wilge House No.70- Kendal Power Station	Kendal Power Station	Once	Once
20076	Nu Water Tap- Nu Water Plant	Witbank	Once	Once
2507	Vosman Police Station- Point E	Witbank	Once	Once
3439	Point A	Witbank	Once	Once
3440	Point B	Witbank	Once	Once
4601	Point C	Witbank	Once	Once
3441	Point D	Witbank	Once	Once
3442	Point E	Witbank	Once	Once
3438	Phola Reservoir	Phola/Ogies	Once	Once
3443	Rietspruit Reservoir	Rietspruit	Once	Once
3445	Total Garage (Tasbet Park)	Witbank	Once	Once
14145	Ogies Municipal Office	Phola/Ogies	Once	Once
3436	Jacaranda Reservoir	Ga-Nala/Kriel	Once	Once

Analysis Parameters

	Raw	Final	Distribution/Network
Item	Description	Description	Description
1	pH	pH	pH
2	Conductivity	Conductivity	Conductivity
3	Total Dissolved Solids	Total Dissolved Solids	Total Dissolved Solids
4	True Color	True Color	True Color
5	Nitrate	Nitrate	Nitrate
6	Nitrite	Nitrite	Nitrite
7	Combined Nitrate plus Nitrate	Combined Nitrate plus Nitrate	Combined Nitrate plus Nitrate
8	Sulphate	Sulphate	Sulphate
9	Fluoride	Fluoride	Fluoride
10	Ammonia	Ammonia	Ammonia
11	Chloride	Chloride	Chloride
12	Sodium	Sodium	Sodium
13	Zinc	Zinc	Zinc
14	Monochloroamine	Monochloroamine	Monochloroamine
15	Free Chlorine	Free Chlorine	Free Chlorine
16	E.coli	E.coli	E.coli
17	Cryptosporidium species	Cryptosporidium species	Cryptosporidium species
18	Giardia Species	Giardia Species	Giardia Species
19	Total coliforms	Total coliforms	Total coliforms
20	<i>Heterotrophic Plate Count</i>	<i>Heterotrophic Plate Count</i>	<i>Heterotrophic Plate Count</i>
21	<i>Somatic Coliphages</i>	<i>Somatic Coliphages</i>	<i>Somatic Coliphages</i>
22	Aluminium	Aluminium	Aluminium
23	Antimony	Antimony	Antimony
24	Arsenic	Arsenic	Arsenic
25	Boron	Boron	Boron
26	Cadmium	Cadmium	Cadmium
27	Total Chromium	Total Chromium	Total Chromium
28	Copper	Copper	Copper
29	Iron	Iron	Iron
30	Lead	Lead	Lead
31	Manganese	Manganese	Manganese
33	Mercury	Mercury	Mercury
34	Nickel	Nickel	Nickel
35	Selenium	Selenium	Selenium
36	Uranium	Uranium	Uranium
37	Cyanide(Recoverable)	Cyanide(Recoverable)	Cyanide(Recoverable)
38	Phenols	Phenols	Phenols
39	Total Organic Carbon	Total Organic Carbon	Total Organic Carbon
40	Total microcystin	Total microcystin	Total microcystin
41	Combined trihalomethane	Combined trihalomethane	Combined trihalomethane
