

Water, Sewage & Industrial Effluent Testing Laboratory

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The Director: Technical Services
Ilembe District Municipality
P.O. Box 1788
KwaDukuza
4450
Attention: Mr. H.N. Maphumulo

E-mail: Group 3 Details

Dear Sir,

**MANDENI WATER TREATMENT WORKS:
APRIL 2014**

Four routine inspection visits at Mandeni water treatment works was conducted on 01st, 07th, 16th, 22nd, and 29th of April 2014 when samples were collected for analysis in accordance with the yearly visit schedule. Our report is submitted hereunder and results of analysis of the samples are appended on the attached Certificate of Analysis.

1. TREATED WATER - CHEMICAL QUALITY

The physical and chemical quality of the final treated water was satisfactory when all parameters complied to the requirements except for the turbidity concentration in week two. Turbidity concentration improved drastically and must be maintained in this manner.

2. BACTERIOLOGICAL QUALITY AND DISINFECTION

Bacteriological quality of the treated water was excellent for the four weeks and complied with the SANS 241- specifications in all respects. Disinfection was being practiced using chlorine gas and the free and total chlorine residuals monitored for the review period were deemed adequate and must be maintained in this manner.

3. RECOMMENDATIONS AND OBSERVATION

The filters must be backwashed to the present pattern as the turbidity concentration has decreased. The flocculant being used and the dosage rate must also be considered as this would also lead to high turbidities when operating incorrectly. Daily on-site tests must be performed to monitor and maintain the turbidity concentration. General housekeeping was neat.

Yours faithfully

B N KIRK (NATAL) CC



**V. DHEVNANAN
PROCESS TECHNICIAN**