


**MICROBIOLOGICAL ANALYSIS
 TEST REPORT**

Sample From:

**Nkangala District Municipality
 Municipal Health Services
 Emakhazeni Town Council**

Address: Posbus 437

**Walter Sisulu
 Middelburg
 1050**

Date Received:

13-Dec-17

Date Analyzed:

13-Dec-17

Date Reported:

15-Dec-17

Quantity Analyzed:

9

Ref No: L 1010 - 1018 / 17 B

LAB REF ID	LAB NO	SAMPLE NAME	STERILIZED BOTTLE		STANDARD LIMITS				
					≤ 10	Nil	Nil	≤ 1000	
					TOTAL COLIFORM BACTERIA PER / 100ML	FAECAL COLIFORM PER / 100 ML	ESCHERICHIA COLIFORM PER 100 ML	HETEROTROPHIC PLATE COUNT PER 1.0 ML	
		MACHADODORP	YES	NO		A / B			
D	L 1010	MH3/12/17: Machado Waterworks Final	x		Nil	B	Nil	Nil	120
D	L 1011	MH17/12/17: Machado Clinic	x		Nil	B	Nil	Nil	52
D	L 1012	MH18/12/17: Highway Nissan Garage	x		Nil	B	Nil	Nil	127
D	L 1013	MH19/12/17: Speelgoed Creche'	x		1	B	Nil	Nil	131
D	L 1014	MH20/12/17: Cement Reservoir	x		34	B	Nil	Nil	94
D	L 1015	MH22/12/17: Steeltank	x		14	B	3	1	88
D	L 1016	MH12/12/17: Emthonjeni Sewer Final	x		-	B	>1000	-	-
S	L 1017	MH5/12/17: Leeuwspuit Before Sewerworks	x		>2420	B	400	326	337
S	L 1018	MH7/12/17: Leeuwspuit After Sewerworks	x		>2420	B	1210	816	442
METHOD USED					A - SANAS 5221 OR B - COLILERT		SANS 5221	COLILERT	SANS 5221

S.A.N.S. 241-1:2015 MICROBIOLOGICAL REQUIREMENTS
 Allowable compliance for **DRINKING WATER**

Determinant	Risk	Unit	Standard limits
Escherichia Coliform / or Faecal Coliform bacteria	Acute Health - 1	Count per 100 ml	Not Detected
Heterotrophic Plate Count	Operational	Count per 1 ml	≤ 1 000
Total Coliform Bacteria	Operational	Count per 100 ml	≤ 10

Results exceeding alert levels will require immediate remedial action and follow-up sampling.

EFFLUENT WATERRegional Standard (Department Water Affairs and Forestry) of 26 March 2004 No.399 for Waste water specifies: Waste water or Effluent shall **not** contain more than 1000 Faecal Coliform per 100 ml.

These results relate only to samples tested.

Opinions and interpretations expressed herein are outside the scope of SANAS accreditation.

- Samples highlighted in grey are not within the limits as specified.

REMARKS:

- a.) Sample MH20/12/17: Cement Reservoir has a Total Coliform count not within the SANS 241:2015 limit. These bacteria are not pathogenic (disease forming) but it is advised to chlorinate the water for total disinfection.
- a.) Samples MH22/12/17: Steeltank and MH12/12/17: Emthonjeni Sewer Final tested positive for Faecal coliform. These bacteria are pathogenic (disease forming) in nature and the water is not safe for human consumption. It is recommended to investigate the source of contaminator and chlorinate the water for total disinfection. **DO NOT DRINK THIS WATER.**
- b.) Sample MH22/12/17: Steeltank does not comply with the limit for E.coli in drinking water as set out in the SANS 241:2015 standard. These bacteria are pathogenic (disease forming) in nature and the water is not safe for human consumption. It is recommended to investigate the source of contamination and chlorinate the water for total disinfection. **DO NOT DRINK THIS WATER.**
- c.) Samples MH3/12/17: Machado Waterworks Final, MH17/12/17: Machado Clinic, MH18/12/17: Highway Nissan Garage, MH19/12/17: Speelgoed Creche' complies with the SANS 241:2015 microbiological drinking water standard for the tested parameters. The water is bacteriologically suitable for domestic use.

P.L.G. UYS (M.D.)
 Technical Signatory

SANS
 241-1
 Edition 2
 2015