


**MICROBIOLOGICAL ANALYSIS
 TEST REPORT**

Sample From:

**Nkangala District Municipality
 Municipal Health Services
 Emakhazeni Town Council**
**Address: Posbus 437
 Walter Sisulu
 Middelburg
 1050**

Date Received:

28-Feb-18

Date Analyzed:

28-Feb-18

Date Reported:

2-Mar-18

Quantity Analyzed:

12

Ref No: B 1810 - 1821 / 18 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	B 1810	MH23/2/18: Machado Waterworks Final	x			Nil	B	Nil	Nil	1080		
D	B 1811	MH24/2/18: Cement Reservoir	x			8	B	Nil	Nil	837		
D	B 1812	MH25/2/18: Steeltank	x			24	B	Nil	Nil	1050		
D	B 1813	MH26/2/18: Emthonjeni Clinic	x			2	B	Nil	Nil	1100		
D	B 1814	MH27/2/18: TPA Offices	x			5	B	Nil	Nil	889		
D	B 1815	MH28/2/18: Stand 1485	x			6	B	Nil	Nil	973		
D	B 1816	MH29/2/18: Machado Clinic	x			15	B	Nil	Nil	783		
D	B 1817	MH30/2/18: Highway Nissan Garage	x			Nil	B	Nil	Nil	908		
D	B 1818	MH31/2/18: Speelgoed Creche'	x			11	B	Nil	Nil	823		
D	B 1819	MH39/2/18: Leeuwspruit Before Sewer	x			>2420	B	650	548	1640		
D	B 1820	MH41/2/18: Leeuwspruit After Sewer	x			>2420	B	2200	1986	1917		
S	B 1821	MH43/2/18:Emthonjeni Sewerworks Final	x			-	B	>1000	-	-		
METHOD USED					A - SANAS 5221 OR B - COLILERT		SANAS 5221		COLILERT		SANAS 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 WATER

Regional 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:

- Samples MH25/2/18: Steeltank, MH29/2/18: Machado Clinic and MH31/2/18: Speelgoed Creche' 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.
- Sample MH39/2/18: Leeuwspruit Before Sewer 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 contamination and chlorinate the water for total disinfection. **DO NOT DRINK THIS WATER.**
- Sample MH39/2/18: Leeuwspruit Before Sewer 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.**
- Samples MH23/2/18: Machado Waterworks Final, MH25/2/18: Steeltank and MH26/2/18: Emthonjeni Clinic does not comply with the SANS 241:2015 drinking water standard for Heterotrophic Plate Count in water. These bacteria are not pathogenic (disease forming) but it is advised to chlorinate the water for total disinfection.
- Samples MH24/2/18: Cement Reservoir, MH27/2/18: TPA Offices, MH28/2/18: Stand 1485, MH30/2/18: Highway Nissan Garage 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