



CK. 89/14418/23
REGEN WATERS
 LABORATORY • LABORATORIUM

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MICROBIOLOGICAL ANALYSIS TEST REPORT

Sample From: Nkangala District Municipality
 Municipal Health Services
 Emakhazeni Town Council

Address: Posbus 437
 Walter Sisulu
 Middelburg
 1050

Date Received: 7-Mar-18
Date Analyzed: 7-Mar-18
Date Reported: 9-Mar-18
Quantity Analyzed: 21

Ref No: C 287 - 307 / 18 B

LAB REF ID	LAB NO	SAMPLE NAME	STERILIZED BOTTLE		STANDARD LIMITS				
					≤ 10 TOTAL COLIFORM BACTERIA PER / 100ML	Nil FAECAL COLIFORM PER / 100 ML	Nil ESCHERISCHIA COLIFORM PER 100 ML	≤ 1000 HETEROTROPHIC PLATE COUNT PER 1.0 ML	
		MACHADODORP	YES	NO		A / B			
D	C 287	MH3/3/18: Machado Waterworks Final	X		Nil	B	Nil	9	
D	C 288	MH14/3/18: Emthonjeni Clinic	X		Nil	B	Nil	8	
D	C 289	MH15/3/18: TPA Offices	X		Nil	B	Nil	80	
D	C 290	MH16/3/18: Stand 1485	X		1	B	Nil	203	
D	C 291	MH17/3/18: Machado Clinic	X		Nil	B	Nil	234	
D	C 292	MH18/3/18: Highway Nissan Garage	X		Nil	B	Nil	20	
D	C 293	MH19/3/18: Speelgoed Creche'	X		Nil	B	Nil	14	
D	C 294	MH20/3/18: Cement Reservoir	X		Nil	B	Nil	28	
D	C 295	MH22/3/18: Steeltank	X		15	B	Nil	165	
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 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:

- a.) Sample MH22/3/18: Steeltank 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.
- e.) Samples MH3/3/18: Machado Waterworks Final, MH14/3/18: Emthonjeni Clinic, MH15/3/18: TPA Offices, MH16/3/18: Stand 1485, MH17/3/18: Machado Clinic, MH18/3/18: Highway Nissan Garage, MH19/3/18: Speelgoed Creche', MH20/3/18: Cement Reservoir complies with the SANS 241:2015 microbiological drinking water

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

SANS
 241-1
 Edition 2
 2015



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		MACHADODORP				A / B			
D	C 296	MH05/03/18: Leeuwspruit Before Sewerworks	X		1986	B	120	91	1263
D	C 297	MH07/03/18: Leeuwspruit After Sewerworks	X		>2420	B	480	387	1881
S	C 298	MH12/03/18: Emthonjeni Sewerworks	X		-	B	>1000	-	
METHOD USED					A- SANAS 5221 OR B- COLLERT		SANS 5221	COLILERT	SANS 5221

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

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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 species: Waste water or Effluent shall **not** contain more than 1000 Faecal Coliform per 100 ml.

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

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REMARKS:

- a.)
- b.) Samples MH05/03/18: Leeuwspruit Before Sewerworks and MH07/03/18: Leeuwspruit After Sewerworks 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.**
- c.) Samples MH05/03/18: Leeuwspruit Before Sewerworks and MH07/03/18: Leeuwspruit After Sewerworks 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.**
- d.)
- e.)

P.L.G UYS (M.D.)
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**MICROBIOLOGICAL ANALYSIS
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		BELFAST	YES	NO		A / B			
D	C 299	BF3/3/18: Belfast Waterworks Final	X		130	B	Nil	Nil	390
D	C 300	BF10/3/18: Siyathuthuka Clinic	X		145	B	Nil	Nil	216
D	C 301	BF11/3/18: Leratong Creche'	X		165	B	Nil	Nil	309
D	C 302	BF12/3/18: Stand 3423/3	X		130	B	10	6	241
D	C 303	BF13/3/418: HA Grove Hospital	X		145	B	5	2	438
D	C 304	BF14/3/18: Bottom End Liquor Store	X		35	B	Nil	Nil	134
D	C 305	BF15/3/18: Belfast Old Age Home	X		50	B	Nil	Nil	115
D	C 306	BF18/3/18: Belfast Old Reservoir	X		130	B	Nil	Nil	147
D	C 307	BF16/3/18: Siyathuthuka Reservoir	X		165	B	Nil	Nil	211
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
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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.

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REMARKS:

- a.) Samples BF3/3/18: Belfast Waterworks Final, BF10/3/18: Siyathuthuka Clinic, BF11/3/18: Leratong Creche', BF14/3/18: Bottom End Liquor Store, BF15/3/18: Belfast Old Age Home, BF18/3/18: Belfast Old Reservoir and BF16/3/18: Siyathuthuka Reservoir has a Total Coliform count not within the SANS 241:2015 limit. These bacteria are
- b.) Samples BF12/3/18: Stand 3423/3 and BF13/3/418: HA Grove Hospital 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.**
- c.) Samples BF12/3/18: Stand 3423/3 and BF13/3/418: HA Grove Hospital 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.**
- d.)
- e.)

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