



CK: 89/14418/23
REGEN WATERS
 LABORATORY - LABORATORIUM

4 Woltemade Street
 P.O. Box 8328
 WITBANK 1035
 Tel.: 013-690-1487
 Fax: 013-656-5050
 E-mail: regenlab@mweb.co.za

MICROBIOLOGICAL ANALYSIS TEST REPORT

Sample From:

Nkangala District Municipality
 Municipal Health Services
 Emakhazeni Town Council

Address: Posbus 437
 Walter Sisulu
 Middelburg
 1050

Date Received:

20-Apr-18

Date Analyzed:

20-Apr-18

Date Reported:

22-Apr-18

Quantity Analyzed:

25

Ref No: D 1084 - 1108 / 18 B

LAB REF ID	LAB NO	SAMPLE NAME	STERILIZED BOTTLE		STANDARD LIMITS					
					≤ 10		Nil	Nil	≤ 1000	
					TOTAL COLIFORM BACTERIA PER / 100ML	A / B	FAECAL COLIFORM PER / 100 ML	ESCHERICHIA COLIFORM PER 100 ML	HETEROTROPHIC PLATE COUNT PER 1.0 ML	
MACHADODORP					YES	NO				
	D 1084	Machadodorp Waterworks Final	X		Nil	B	Nil	Nil	14	
	D 1085	Leeuwspruit Upstream From Sewerworks	X		>2420	B	130	108	2335	
S	D 1086	Leeuwspruit Downstream Sewerworks	X		>2420	B	950	816	1774	
D	D 1087	Emthonjeni Sewerworks Final	X		-	B	Nil	-	-	
D	D 1088	Emthonjeni Clinic	X		Nil	B	Nil	Nil	34	
D	D 1089	TPA Offices	X		Nil	B	Nil	Nil	16	
D	D 1090	Stand 1485	X		Nil	B	Nil	Nil	5	
D	D 1091	Machado Clinic	X		Nil	B	Nil	Nil	7	
D	D 1092	Highway Nissan Garage	X		Nil	B	Nil	Nil	4	
D	D 1093	Speelgoed Creche'	X		Nil	B	Nil	Nil	36	
					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.) Samples Emthonjeni Sewerworks Final, Emthonjeni Clinic, TPA Offices, Stand 1485, Machado Clinic, Highway Nissan Garage , 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



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

4 Woltemade Street
 P.O. Box 8328
 WITBANK 1035
 Tel.: 013-690-1487
 Fax: 013-656-5050
 E-mail: regenlab@mweb.co.za

**MICROBIOLOGICAL ANALYSIS
 TEST REPORT**

Sample From:

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

Address: **Posbus 437
 Walter Sisulu
 Middelburg
 1050**

Date Received: **20-Apr-18**
 Date Analyzed: **20-Apr-18**
 Date Reported: **22-Apr-18**
 Quantity Analyzed: **25**

Ref No: **D 1084 - 1108 / 18 B**

LAB REF ID	LAB NO	SAMPLE NAME	STERILIZED BOTTLE		STANDARD LIMITS				
					≤ 10		Nil	Nil	≤ 1000
					TOTAL COLIFORM BACTERIA PER / 100ML	A / B	FAECAL COLIFORM PER / 100 ML	ESCHERICHIA COLIFORM PER 100 ML	HETEROTROPHIC PLATE COUNT PER 1.0 ML
		DULLSTROOM	YES	NO					
D	D 1094	DS3/4/18: Dullstroom Waterworks Final	x		Nil	B	Nil	Nil	150
S	D 1095	DS8/4/18:Dullstroom Sewerworks Final	x		-	B	>1000	-	-
D	D 1096	DS10/4/18: Sakhelwe Clinic	x		Nil	B	Nil	Nil	9
D	D 1097	DS11/4/18: Cosmo General Dealer	x		Nil	B	Nil	Nil	14
D	D 1098	DS12/4/18: Sakhelwe Community Creche'	x		Nil	B	Nil	Nil	11
D	D 1099	DS13/4/18: La Bamba Centre	x		Nil	B	Nil	Nil	16
D	D 1100	DS14/4/18: Municipal Offices	x		1	B	Nil	Nil	8
D	D 1101	DS15/4/18: SA Epilepsy Centre	x		Nil	B	Nil	Nil	7
D	D 1102	DS16/4/18: Sakhelwe Reservoir	x		Nil	B	Nil	Nil	30
D	D 1103	DS18/4/18: Dullstroom Reservoir	x		Nil	B	Nil	Nil	9
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.) Samples DS3/4/18: Dullstroom Waterworks Final, DS10/4/18: Sakhelwe Clinic, DS11/4/18: Cosmo General Dealer, DS12/4/18: Sakhelwe Community Creche', DS13/4/18: La Bamba Centre, DS14/4/18: Municipal Offices, DS15/4/18: SA Epilepsy Centre, DS16/4/18: Sakhelwe Reservoir, DS18/4/18: Dullstroom Reservoir 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



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

4 Woltemade Street
 P.O. Box 8328
 WITBANK 1035
 Tel.: 013-690-1487
 Fax: 013-656-5050
 E-mail: regenlab@mweb.co.za

MICROBIOLOGICAL ANALYSIS TEST REPORT

Sample From:

Nkangala District Municipality
 Municipal Health Services
 Emakhazeni Town Council

Address: Posbus 437
 Walter Sisulu
 Middelburg
 1050

Date Received:

20-Apr-18

Date Analyzed:

20-Apr-18

Date Reported:

22-Apr-18

Quantity Analyzed:

25

Ref No: D 1084 - 1108 / 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
YES	NO	A / B							
D	D 1104	MH20/04/18: Cement Reservoir	X		Nil	B	Nil	Nil	9
D	D 1105	MH22/4/18: Steeltank	X		Nil	B	Nil	Nil	12
D	D 1106	WB18/4/18: Elandsrivier Before Sewerworks	X		>2420	B	150	110	1292
D	D 1107	WB20/4/18: Elandsrivier After Sewerworks	X		>2420	B	1150	1046	2020
D	D 1108	RA1/2/18: Norman Du Randt Stand 590	X		18	B	Nil	Nil	41
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:

- Sample RA1/2/18: Norman Du Randt Stand 590 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.
- Samples MH20/04/18: Cement Reservoir, MH22/4/18: Steeltank complies with the SANS 241:2015 microbiological drinking water standard for the tested parameters. The water is bacteriologically suitable for domestic use.
- Samples WB18/4/18: Elandsrivier Before Sewerworks and WB20/4/18: Elandsrivier 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.**
- Samples WB18/4/18: Elandsrivier Before Sewerworks and WB20/4/18: Elandsrivier 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.**

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

SANS
 241-1
 Edition 2
 2015