



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: 28-Mar-18  
 Date Analyzed: 28-Mar-18  
 Date Reported: 30-Mar-18  
 Quantity Analyzed: 30

Ref No: C 1672 - 1701 / 18 B

LAB REF ID	LAB NO	SAMPLE NAME	STERILIZED BOTTLE		STANDARD LIMITS				
					≤ 10	Nil	Nil	≤ 1000	
			YES	NO	A / B	FAECAL COLIFORM PER / 100 ML	ESCHERICHIA COLIFORM PER 100 ML	HETEROTROPHIC PLATE COUNT PER 1.0 ML	
<b>RA SAMPLES</b>									
D	C 1672	RA6/3/18: Norman Du Randt Dullstroom Borehole	x		22	B	10	9	45
D	C 1673	RA7/3/18: Elgin Dairy	x		>200	B	20	18	380
D	C 1674	RA8/3/18: Smith Dairy	x		31	B	Nil	Nil	130
D	C 1675	RA9/3/18: Critchley Hotel Swimming Pool	x		Nil	B	Nil	Nil	20
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 RA8/3/18: Smith Dairy 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 RA9/3/18: Critchley Hotel Swimming Pool complies with the SANS 241:2015 microbiological drinking water standard for the tested parameters. The water is bacteriologically suitable for domestic use.
- Sample RA7/3/18: Elgin Dairy 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 RA7/3/18: Elgin Dairy 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



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:

28-Mar-18

Date Analyzed:

28-Mar-18

Date Reported:

30-Mar-18

Quantity Analyzed:

30

Ref No: C 1672 - 1701 / 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	ESCHERISCHIA COLIFORM PER 100 ML	HETEROTROPHIC PLATE COUNT PER 1.0 ML	
			YES	NO	A / B				
D	C 1676	BF41/3/18: Belfast Old Age Home	x		5	B	Nil	Nil	44
D	C 1677	RA1/3/18: Life Esidimeni Core Centre Tap 1	x		4	B	Nil	Nil	24
D	C 1678	RA2/3/18: Life Esidimeni Core Centre Tap 2	x		Nil	B	Nil	Nil	29
D	C 1679	RA3/3/18: The Irish Thurst Quencher	x		Nil	B	Nil	Nil	30
D	C 1680	RA4/3/18: Belfast Old Age Home Borehole	x		145	B	Nil	Nil	151
D	C 1681	RA5/3/18: HA Grove Hospital Tap 2	x		24	B	Nil	Nil	33
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 RA4/3/18: Belfast Old Age Home Borehole and RA5/3/18: HA Grove Hospital Tap 2 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.
- b.) Samples BF41/3/18: Belfast Old Age Home, RA1/3/18: Life Esidimeni Core Centre Tap 1, RA2/3/18: Life Esidimeni Core Centre Tap 2, RA3/3/18: The Irish Thurst Quencher 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:

28-Mar-18

Date Analyzed:

28-Mar-18

Date Reported:

30-Mar-18

Quantity Analyzed:

30

Ref No: C 1672 - 1701 / 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	ESCHERISCHIA COLIFORM PER 100 ML	HETEROTROPHIC PLATE COUNT PER 1.0 ML	
		<b>BELFAST</b>	YES	NO	A / B				
S	C 1682	BF8/3/18: Belfast Sewerworks	X		-	B	10	-	-
D	C 1683	BF26/3/18: Belfast Waterworks Final	X		>200	B	Nil	Nil	211
D	C 1684	BF27/3/18: Siyathuthuka Reservoir	X		25	B	Nil	Nil	29
D	C 1685	BF28/3/18: Belfast Old Reservoir	X		200	B	Nil	Nil	232
D	C 1686	BF29/3/18: Belfast New Reservoir	X		>200	B	Nil	Nil	235
D	C 1687	BF36/3/18: Siyathuthuka Clinic	X		31	B	Nil	Nil	44
D	C 1688	BF37/3/18: Leratong Creche'	X		18	B	Nil	Nil	27
D	C 1689	BF38/3/18: Stand 3423/3	X		29	B	Nil	Nil	44
D	C 1690	BF39/3/18: HA Grove Hospital	X		14	B	Nil	Nil	91
D	C 1691	BF40/3/18: Bottom End Liquor Store	X		14	B	Nil	Nil	36
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 species : 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.

SANS  
 241-1  
 Edition 2  
 2015

#### REMARKS:

- a.) Samples BF26/3/18: Belfast Waterworks Final, BF27/3/18: Siyathuthuka Reservoir, BF28/3/18: Belfast Old Reservoir, BF29/3/18: Belfast New Reservoir, BF36/3/18: Siyathuthuka Clinic, BF37/3/18: Leratong Creche', BF38/3/18: Stand 3423/3, BF39/3/18: HA Grove Hospital and BF40/3/18: Bottom End Liquor Store 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.

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



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:

**28-Mar-18**

Date Analyzed:

**28-Mar-18**

Date Reported:

**30-Mar-18**

Quantity Analyzed:

**30**

Ref No: **C 1672 - 1701 / 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
		<b>DULLSTROOM</b>	YES	NO					
S	C 1692	DS8/3/18: Dullstroom Sewerworks Final	X		-	A	400	-	-
D	C 1693	DS20/3/18: Dullstroom Waterworks Final	X		Nil	B	Nil	Nil	45
D	C 1694	DS21/3/18: Sakhelwe Reservoir	X		Nil	B	Nil	Nil	20
D	C 1695	DS22/3/18: Dullstroom Reservoir	X		Nil	B	Nil	Nil	138
D	C 1696	DS23/3/18: Sakhelwe Clinic	X		Nil	B	Nil	Nil	23
D	C 1697	DS24/3/18: Cosmo General Dealer	X		Nil	B	Nil	Nil	17
D	C 1698	DS25/3/18: Sakhelwe Creche'	X		Nil	B	Nil	Nil	20
D	C 1699	DS26/3/18: La Bamba Centre	X		Nil	B	Nil	Nil	17
D	C 1700	DS27/3/18: Municipal Offices	X		Nil	B	Nil	Nil	26
D	C 1701	DS28/3/18: SA Epilepsy Centre	X		Nil	B	Nil	Nil	26
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 DS20/3/18: Dullstroom Waterworks Final, DS21/3/18: Sakhelwe Reservoir, DS22/3/18: Dullstroom Reservoir, DS23/3/18: Sakhelwe Clinic, DS24/3/18: Cosmo General Dealer, DS25/3/18: Sakhelwe Creche', DS26/3/18: La Bamba Centre, DS27/3/18: Municipal Offices , DS28/3/18: SA Epilepsy Centre 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**