



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:

19-Dec-17

Date Analyzed:

19-Dec-17

Date Reported:

21-Dec-17

Quantity Analyzed:

22

Ref No: L 1341 - 1362 / 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	ESCHERISCHIA COLIFORM PER 100 ML	HETEROTROPHIC PLATE COUNT PER 1.0 ML	
<b>BELFAST</b>			YES	NO		A / B			
D	L 1341	BF3/12/17: Belfast Waterworks Final	x		Nil	B	Nil	8	
S	L 1342	BF8/12/17: Belfast Sewerworks Final	x		-	B	Nil	-	
D	L 1343	BF10/12/17: Siyathuthuka Clinic	x		8	B	Nil	123	
D	L 1344	BF11/12/17: Leratong Creche'	x		5	B	Nil	141	
D	L 1345	BF12/12/17: Stand 3423/3	x		6	B	Nil	105	
D	L 1346	BF13/12/17: HA Grove Hospital	x		27	B	Nil	117	
D	L 1347	BF14/12/17: Bottom End Liquor Store	x		5	B	Nil	61	
D	L 1348	BF15/12/17: Belfast Old Age Home	x		27	B	Nil	130	
D	L 1349	BF16/12/17: Siyathuthuka Reservoir	x		Nil	B	Nil	47	
D	L 1350	BF18/12/17: Belfast Old Reservoir	x		34	B	Nil	148	
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 BF13/12/17: HA Grove Hospital, BF15/12/17: Belfast Old Age Home and BF18/12/17: Belfast Old 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.
- b.) Samples BF3/12/17: Belfast Waterworks Final, BF10/12/17: Siyathuthuka Clinic, BF11/12/17: Leratong Creche', BF12/12/17: Stand 3423/3, BF14/12/17: Bottom End Liquor Store, BF16/12/17: Siyathuthuka 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**



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		<b>BELFAST</b>	YES	NO		A / B			
<b>D</b>	<b>L 1351</b>	<b>BF20/12/17: Belfast New Reservoir</b>	<b>X</b>		<b>Nil</b>	<b>B</b>	<b>Nil</b>	<b>Nil</b>	<b>8</b>
METHOD USED					B - COLILERT	5221	COLILERT	5221	

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

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Total Coliform Bacteria	Operational	Count per 100 ml	≤ 10

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#### EFFLUENT WATER

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#### REMARKS:

- a.) Sample BF20/12/17: Belfast New Reservoir complies with the SANS 241:2015 microbiological drinking water standard for the tested parameters. The water is bacteriologically suitable for domestic use.

  
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		<b>WATERVALBOVEN</b>	YES	NO		A / B			
D	L 1352	WB22/12/17: Watervalboven Waterworks Final	x		Nil	B	Nil	Nil	38
D	L 1353	WB23/12/17: Boven Reservoir	x		1	B	Nil	Nil	32
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**

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Escherichia Coliform / or Faecal Coliform bacteria	Acute Health - 1	Count per 100 ml	Not Detected
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**SANS  
 241-1  
 Edition 2  
 2015**

## REMARKS:

- a.) Samples WB22/12/17: Watervalboven Waterworks Final, WB23/12/17: Boven Reservoir complies with the SANS 241:2015 microbiological drinking water standard for the tested parameters. The water is bacteriologically suitable for domestic use.

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		<b>MACHADODORP</b>	YES	NO		A / B			
D	L 1354	MH23/12/17: Machado Waterworks Final	x		Nil	B	Nil	Nil	9
D	L 1355	MH24/12/17: Cement Reservoir	x		Nil	B	Nil	Nil	20
D	L 1356	MH25/12/17: Steeltank	x		1	B	Nil	Nil	227
S	L 1357	MH30/12/17: Emthonjeni Sewer Final	x		-	B	800	-	-
D	L 1358	MH26/12/17: Leeuwspruit Before Sewerworks	x		>2420	B	1450	1203	1414
D	L 1359	MH28/12/17: Leeuwspruit After Sewerworks	x		>2420	B	790	613	1538
D	L 1360	MH14/12/17: Emthonjeni Clinic	x		Nil	B	Nil	Nil	18
D	L 1361	MH15/12/17: TPA Offices	x		Nil	B	Nil	Nil	6
D	L 1362	MH16/12/17: Stand 1485	x		Nil	B	Nil	Nil	8
METHOD USED					A- SANAS 5221 OR B - COLILERT		SANS 5221	COLILERT	SANS 5221

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 Allowable compliance for **DRINKING WATER**

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## REMARKS:

- a.) Samples MH26/12/17: Leeuwspruit Before Sewerworks and MH28/12/17: 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.**
- b.) Samples MH26/12/17: Leeuwspruit Before Sewerworks and MH28/12/17: 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.**
- c.) Samples MH23/12/17: Machado Waterworks Final, MH24/12/17: Cement Reservoir, MH25/12/17: Steeltank, MH14/12/17: Emthonjeni Clinic, MH15/12/17: TPA Offices, MH16/12/17: Stand 1485 complies with the SANS 241:2015 microbiological drinking water standard for the tested parameters. The water is bacteriologically suitable for domestic use.

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