



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

**CERTIFICATE OF MICROBIOLOGICAL ANALYSIS  
 TEST REPORT**

Sample From:

Nkangala District Municipality

Address: Posbus 437

Municipal Health Services

Walter Sisulu

Emakhazeni Town Council

Middelburg

1050

Date Received:

6-Nov-17

Date Analyzed:

7-Nov-17

Date Reported:

9-Nov-17

Quantity Analyzed:

20

Ref No:

K 267 - 286 / 17 B

LAB NO	WB	SAMPLE NAME	STERILIZED BOTTLE		STANDARD LIMITS				
			YES	NO	≤ 10	Nil	Nil	≤ 1000	
				TOTAL COLIFORM BACTERIA PER / 100ML	A / B	FAECAL COLIFORM PER / 100 ML	ESCHERISCHIA COLIFORM PER 100 ML	HETEROTROPHIC PLATE COUNT PER 1.0 ML	
K 267	3/11/17	Watervalboven Waterworks Final	X		Nil	B	Nil	3	
K 268	8/11/17	Watervalboven Sewerworks Final	X		-	A	>1000	-	
K 269	16/11/17	Boven Reservoir	X		Nil	B	Nil	7	
K 270	18/11/17	Elandsriver Before Sewerworks	X		2420	B	310	250	
K 271	19/11/17	Elandsriver After Sewerworks	X		>2420	B	680	548	
					A- SANAS 5221 OR B - COLILERT		SANS 5221	COLILERT	SANS 5221

**S.A.N.S. 241-1:2015 Ed 2 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:

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

Technical Signatory

SANS  
 241-1  
 Edition 2  
 2015



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					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				
K 272	3/11/17	Belfast Waterworks Final	X		Nil	B	Nil	Nil	5
K 273	8/11/17	Belfast Sewerworks Final	X		-	A	Nil	-	-
K 274	18/11/17	Belfast Old Reservoir	X		Nil	B	Nil	Nil	21
K 275	20/11/17	Belfast New Reservoir	X		Nil	B	Nil	Nil	10
K 276	16/11/17	Siyathuthuka Reservoir	X		Nil	B	Nil	Nil	8
					A- SANAS 5221 OR B - COLILERT		SANS 5221	COLILERT	SANS 5221

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REMARKS:

- a.) These samples fulfill the bacteriological criteria as specified by SANS 241 Standard for Human Consumption.

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

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					≤ 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				
K 277	3/11/17	Machado Waterworks Final	X		Nil	B	Nil	Nil	11
K 278	12/11/17	Emthonjeni Sewerworks Final	X		-	B	>1000	-	-
K 279	5/11/17	Leeuwspruit Upstream Sewerworks	X		1553	B	70	57	1162
K 280	6/11/17	Leeuwspruit Downstream Sewerworks	X		>2420	B	290	225	1851
K 281	20/11/17	Cement Reservoir	X		Nil	B	Nil	Nil	3
K 282	22/11/17	Steeltank	X		Nil	B	Nil	Nil	38
					A- SANAS 5221 OR B - COLILERT		SANS 5221	COLILERT	SANS 5221

**S.A.N.S. 241-1:2015 Ed 2 MICROBIOLOGICAL REQUIREMENTS  
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					TOTAL COLIFORM BACTERIA PER / 100ML	A / B	FAECAL COLIFORM PER / 100 ML	ESCHERISCHIA COLIFORM PER 100 ML	HETEROTROPHIC PLATE COUNT PER 1.0 ML
		<b>DULLSTROOM</b>	YES	NO					
K 283	03/11/17	Dullstroom Waterworks Final	X		Nil	B	Nil	Nil	5
K 284	08/11/17	Dullstroom Sewerworks Final	X		-	B	>1000	-	-
K 285	16/11/17	Sakhelwe Reservoir	X		Nil	B	Nil	Nil	6
K 286	19/11/17	Dullstroom Reservoir	X		101	B	Nil	Nil	29
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REMARKS:

- a.) **The sample DULLSTROOM RESERVOIR contains high levels of Total Coliform Bacteria. These bacteria are not pathogenic (disease forming) in nature, however it is advisable to chlorinate this water to achieve complete disinfection.**

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