

# b. n. Kirk (natal) cc Reg. No. CK 1994/015428/23

LABORATORY SERVICE

Water, Sewage & Industrial Effluent Testing Laboratory

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## Ilembe District Municipality Blythedale Beach WTW Bacteriological Sample

L/PR/ROUTINE/2014 -

20-05-2014

21-05-2014

EMAIL: GROUP DETAILS

Attention: Mr. H N Maphumulo

Dear Sir

### PRELIMINARY BACTERIOLOGICAL RESULTS

Find to follow the results for the bacteriological sample collected on 20-05-2014 that does not comply with the bacteriological requirements as per SANS-241-2011.

TEST PERFORMED					
SAMPLE NAME	Method No (P09/103) Total Plate Count / 1ml	Method No (P09/102) Total Coliform Bacteria / 100 ml	Method No (P09/046) Faecal Coliform Bacteria / 100ml	Method No (P09/046) E Coli Type 1 Bacteria / 100 ml	Method No (P09/023) Free residual Chlorine mg/l
Blythedale Combined Borehole-Final Water	In progress	10	6	6	0.06
<b>SANS 241-1:2011 Microbiological Determinands</b>					
	1	2	3	4	5
<b>1</b> Determinand	Total Plate Count	Total Coliform Bacteria	Faecal Coliform Bacteria (a)	E.coli Type 1 Bacteria (b)	Free Residual Chlorine
<b>2</b> Risk	Operational	Operational	Acute health -1	Acute health -1	Chronic health
<b>3</b> Units	cfu/1ml	cfu/100ml	cfu/100ml	cfu/100ml	mg/l
<b>4</b> Standard Limit	≤1000	≤10	<i>Not detected</i>	<i>Not detected</i>	≤5

**a** = Indicator of unacceptable microbial water quality, could be tested instead of *E.coli*, but is not the preferred Indicator of faecal pollution. Also provides information on treatment efficiency and aftergrowth in distribution Networks.

**b** = Definitive, preferred indicator of faecal pollution.

## **Laboratory Comment**

The current chlorine concentration is low which indicates inadequate disinfection. The residual chlorine concentration should be increased urgently to ensure proper disinfection. The presence of faecal coliforms & *E.coli* bacteria pose a health hazard if consumed as these are disease causing bacteria of faecal origin. The water should be boiled prior to consumption. A resample of the water should be analyzed to confirm corrective actions. Please instruct laboratory ASAP.



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Laboratory Manager



Lisa Govender  
Microbiologist