

# TEST REPORT

CSI Consolidated Holdings  
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**FOOD& WATER CHEMISTRY**

Your ref: PAID  
 Dated: 2014-12-02  
 Our ref: 432023  
 Enquiries: J Morobi  
 Tel (012) 428-6844  
 Date: 2015-01-27  
**Job No: CSI Consolidated H(P)**  
**Sample No: Jan GROBBELAAR**  
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**PRELIMINARY REPORT**  
**WATER SAMPLE to SANS 241 (Drinking Water)**  
**RESULTS OF ANALYSIS (Sample received in good condition)**

Date received: 2014-12-02

Date commence: 2014-12-02

Method used	Test performed	Results: TRITOFLEX Sample	SANS 241-1:2011 Standard Limits
<b>Physical and aesthetic requirements</b>			
DPD Comparator	Free Chlorine as Cl <sub>2</sub> - in mg/l	<0,1	≤5
	Monochloramine as Cl <sub>2</sub> - in mg/l	<0,1	≤3
SANS 7887:2005	Colour in mg/l Pt-Co	<10	≤15
T0319-5,4-01B	Conductivity at 25°C mS/m (Automated)	2,48	≤170
SM 2150B & 2160B	Odour & Taste	Inoffensive	Inoffensive
SANS 5213:2010	Dissolved solids at 180°C in mg/l	150	≤1 200
SANS 375:2005	Turbidity in nephelometric units (NTU)	<0,5	≤5
T0319-5,4-01B	pH at 25°C (Automated)	6,5	≥5 to ≤9,7
<b>Chemical Requirements: Macro-determinands</b>			
Aquakem-colorimetric	Nitrate as N in mg/l	5,85	≤11
	Nitrite as N in mg/l	<0,01	≤0,9
	Sulfate as SO <sub>4</sub> in mg/l	2,75	≤250
	Fluoride as F in mg/l	0,12	≤1,5
	Ammonia as N in mg/l	0,16	≤1,5
	Chloride as Cl in mg/l	0,64	≤300
SANS 11885:2008 & T0139-5.4-01A	Sodium as Na in mg/l	0,50	≤200
	Zinc as Zn in mg/l	0,05	≤5

Results contd.....

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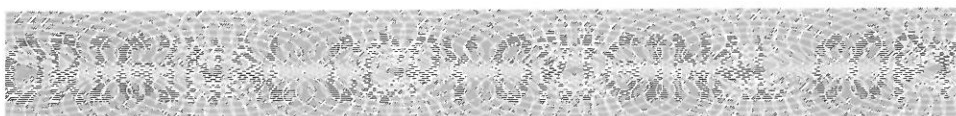
Date received: 2014-12-02

Date commenced: 2014-12-02

Method used	Test performed	Results: TRITOFLEX Sample	SANS 241-1:2011 Standard Limits
<b>Chemical Requirements: Micro-determinands</b>			
SANS 11885:2008 & T0319-5.4-01A	Aluminium as Al in µg/l	<10	≤300
ICP-MS	Antimony as Sb in µg/l	<0,10	≤20
	Arsenic as As in µg/l	<0,20	≤10
SANS 11885:2008 & T0319-5.4-01A	Cadmium as Cd in µg/l	<3	≤3
	Total Chromium as Cr in µg/l	<10	≤50
	Cobalt as Co in µg/l	<4	≤500
Sub-contracted lab SANAS T0007	Copper as Cu in µg/l	<10	≤2000
Continuous Flow Analyser	Cyanide (recoverable) as CN in µg/l	<0,005	≤70
SANS 11885:2008 & T0319-5.4-01A	Iron as Fe in µg/l	78	≤300
	Lead as Pb in µg/l	<4	≤10
	Manganese as Mn in µg/l	<4	≤100
ICP-MS	Mercury as Hg in µg/l	<0,10	≤6
SANS 11885:2008 & T0319-5.4-01A	Nickel as Ni in µg/l	<5	≤70
ICP-MS	Selenium as Se in µg/l	<0,30	≤10
Sub- contracted Lab T0168	Uranium as U in µg/l	<10	≤15
SANS 11885:2008 & T0319-5.4-01A	Vanadium as V in µg/l	0,02	≤200
<b>Chemical requirements: Organic determinands</b>			
Sub-contracted lab SANAS T0007	Total organic carbon as C, mg/l	<0,5	≤10
Sub-contracted lab SANAS T0007	Trihalomethanes:	<0,010	
	Chloroform, mg/l	<0,010	≤0,3
	Bromoform, mg/l	<0,010	≤0,1
	Dibromochloromethane, mg/l	<0,010	≤0,1
	Bromodichloromethane, mg/l	<0,010	≤0,06
Sub Contracted Lab T0046	Microcystin as LR, µg/l	ND	≤1
Sub- contracted Lab T0007	Phenols, µg/l	<10	≤10

ND- Not determined, operational verification of water source turning green

Results contd.....



Date received: 2014-12-02

Date commenced: 2014-12-02

Method used	Test performed	Results: TRITOFLEX Sample	SANS 241-1: 2011 Standard Limits
<b>Microbiological requirements</b>			
SANS 5221:2006 & FM 5.4 W-B Sub-contacted lab SANAS T0269	Heterotrophic plate count/ 1 ml	Not requested	≤1 000
	Total coliforms /100 m l	Not requested	≤10
	E-coliforms/ 100 m l	Not requested	Not Detected
Sub-contacted lab SANAS T0007	Somatic coliphages / 10 m l	ND	Not Detected
	Cytopathogenic viruses, 10 l	ND	Not Detected
	Protozoan parasite Cryptosporidium species, 10 l Giardia species, 10 l	ND	Not Detected

ND - Not determined, operational requirement at water purification treatment plant.

Note: Water sample tested complies to the chemical requirements of SANS 241:2011 "Drinking Water".

*Jabu Morobi*  
Jabu Morobi: Manager

*KB Mashamaite*  
KB Mashamaite: Test Officer

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