



AVENTURA LOSKOP

Private Bag X 1525
MIDDELBURG
1050

CHEMICAL ANALYSIS

Our Ref: KRA / 122 - 123/E /11/10

Date Received: 16 November 2010
Date Reported : 6 December 2010
Quantity Analyzed: 2

Attention: Mr. M. Schmidt
Attention: Mr. Frans Ellis

Analysis Results mg/l	Loskopdam Raw	SANS Standards -241 (2005)	
		Class I (recommended operational limit)	Class II (max. allowable for limited duration)
Total Dissolved Solids	280	< 1 000	> 1 000 - 2 400
Nitrate & Nitrite as N	0.36	< 10	> 10 - 20
Chlorides as Cl	17	< 200	> 200 - 600
Total Alkalinity as CaCO ₃	62		
Fluoride as F	0.36	< 1.0	> 1.0 - 1.5
Sulphate as SO ₄	127	< 400	> 400 - 600
Total Hardness as CaCO ₃	150		
Calcium Hardness as CaCO ₃	73		
Magnesium Hardness as CaCO ₃	77		
Calcium as Ca	29.4	< 150	> 150 - 300
Magnesium as Mg	18.6	< 70	> 70 - 100
Sodium as Na	24.8	< 200	> 200 - 400
Potassium as K	4.51	< 50	> 50 - 100
Iron as Fe	<0.01	< 0.20	> 0.20 - 2.0
Manganese as Mn	<0.01	< 0.10	> 0.10 - 1.0
Conductivity at 25° C in mS/m	43.0	< 150	> 150 - 370
pH-Value at 25 ° C	8.05	5.0 - 9.5	> 4.0 - 10.0
Turbidity as N.T.U.	3.20	< 1	> 1 - 5
Free Residual Chlorine Cl ₂	<0.1		
Total Residual Chlorine Cl ₂	<0.1		
Free & Saline Ammonia NH ₃ as N	<0.20		
Aluminium as Al	<0.01	< 0.30	> 0.30 - 0.50

All heavy metal analyses have been performed on filtered samples.
Tests marked with an asterisk * are not SANAS accredited
These results are related only to the items tested

QUALITY CONTROL CHECKS	
Cation Balance	4.19
Anion Balance	4.41
% Difference	-2.5
Measured TDS	280
Calculated TDS	261
Limits > 1.0 - <1.2	1.1
Calcul TDS / E.C. (0.55 - 0.70)	0.6

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



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		Class 1 (recommended operational limit)	Class 2 (max allowable for limited duration)
Selenium as Se	<0.01	<0.02	>0.02 - 0.05
Vanadium as V	<0.01	<0.20	>0.2 - 0.5
Total Organic Carbon (TOC)	To Follow		
Phenolic Compounds	<0.005	<0.01	>0.01 - 0.07
Cyanide as CN	<0.01	<0.05	>0.05 - 0.07
Cadmium as Cd	<0.003	<0.005	>0.005 - 0.01
Cobalt as Co	<0.01	<0.50	>0.50 - 1.0
Total Chromium as Cr	<0.01	<0.10	>0.10 - 0.50
Copper as Cu	<0.01	<1.0	>1.0 - 2.0
Antimony as Sb	<0.005	<0.01	>0.01 - 0.05
Nickel as Ni	<0.01	<0.15	>0.15 - 0.35
Lead as Pb	<0.01	<0.02	>0.02 - 0.05
Zinc as Zn	0.02	<5.0	>5.0 - 10.0
Arsenic as As	<0.01	<0.01	>0.01 - 0.05
Mercury as Hg	<0.001	<0.001	>0.001 - 0.005
Colour as Pt-Co*	5	<20	>20 - 50
Odour*	No offensive odour		
Taste*	Acceptable Taste		

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Analysis Results mg/l	Loskop Final	SANS Standards -241 (2005)	
		Class I (recommended operational limit)	Class II (max. allowable for limited duration)
Total Dissolved Solids	308	< 1 000	> 1 000 - 2 400
Nitrate & Nitrite as N	0.41	< 10	> 10 - 20
Chlorides as Cl	19	< 200	> 200 - 600
Total Alkalinity as CaCO ₃	103		
Fluoride as F	0.32	< 1.0	> 1.0 - 1.5
Sulphate as SO ₄	108	< 400	> 400 - 600
Total Hardness as CaCO ₃	166		
Calcium Hardness as CaCO ₃	98		
Magnesium Hardness as CaCO ₃	67		
Calcium as Ca	39.4	< 150	> 150 - 300
Magnesium as Mg	16.4	< 70	> 70 - 100
Sodium as Na	27.4	< 200	> 200 - 400
Potassium as K	4.76	< 50	> 50 - 100
Iron as Fe	<0.01	< 0.20	> 0.20 - 2.0
Manganese as Mn	<0.01	< 0.10	> 0.10 - 1.0
Conductivity at 25° C in mS/m	46.8	< 150	> 150 - 370
pH-Value at 25 ° C	7.70	5.0 - 9.5	> 4.0 - 10.0
Turbidity as N.T.U.	0.62	< 1	> 1 - 5
Free Residual Chlorine Cl ₂	<0.1		
Total Residual Chlorine Cl ₂	0.2		
Free & Saline Ammonia NH ₃ as N	<0.20		
Aluminium as Al	<0.01	< 0.30	> 0.30 - 0.50

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QUALITY CONTROL CHECKS	
Cation Balance	4.63
Anion Balance	4.89
% Difference	-2.7
Measured TDS	308
Calculated TDS	280
Limits > 1.0 - <1.2	1.1
Calcul TDS / E.C. (0.55 - 0.70)	0.6

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



REGEN WATERS

LABORATORY • LABORATORIUM

CK. 89/14418/23

4 Woltemade Street
P.O. Box 8328
WITBANK 1035

Tel.: 013-690-1487
Fax: 013-656-5050

E-mail: regenlab@mweb.co.za

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Selenium as Se	<0.01	<0.02	>0.02 - 0.05
Vanadium as V	<0.01	<0.20	>0.2 - 0.5
Total Organic Carbon (TOC)	To follow		
Phenolic Compounds	<0.005	<0.01	>0.01 - 0.07
Cyanide as CN	<0.01	<0.05	>0.05 - 0.07
Cadmium as Cd	<0.003	<0.005	>0.005 - 0.01
Cobalt as Co	<0.01	<0.50	>0.50 - 1.0
Total Chromium as Cr	<0.01	<0.10	>0.10 - 0.50
Copper as Cu	<0.01	<1.0	>1.0 - 2.0
Antimony as Sb	<0.005	<0.01	>0.01 - 0.05
Nickel as Ni	0.01	<0.15	>0.15 - 0.35
Lead as Pb	<0.01	<0.02	>0.02 - 0.05
Zinc as Zn	0.09	<5.0	>5.0 - 10.0
Arsenic as As	<0.01	<0.01	>0.01 - 0.05
Mercury as Hg	<0.001	<0.001	>0.001 - 0.005
Colour as Pt-Co*	5	<20	>20 - 50
Odour*	No offensive odour		
Taste*	Acceptable Taste		

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Mercury as Hg	<0.001	<0.001	>0.001 - 0.005
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