

FR0030 :INFORMATION SHEET TO ANALYSIS REPORT

Methods used, tests and accredited ranges for WearCheck Water Lab:

DETERMINAND	Method code Johannesburg	Method code Cape Town	Accredited	Ave. Uncertainty	Technique	Limit of Detection	Analytical range
pH	M460	M860	Yes	2.4%	Electro-metric	0.30	4.00-10.0
Conductivity	M461	-	Yes	6.2%	Electro-metric	1 mS/m	1-2000 mS/m
Conductivity	-	M861	Yes	3.8%	Electro-metric	1 mS/m	1-1000 mS/m
Alkalinity	M463	M863	Yes	4.2%	Titration	10mg/L CaCO ₃	10 - 2000 mg/L CaCO ₃
Ammonia Nitrogen	M464	-	Yes	13.1% NH ₄ 2.5 and 2.40 % for NH ₄ 77.6	Automated Photometric	0.1 mg/L NH ₃ -N	0.1 - 77.6 mg/L NH ₃ -N
Ammonia Nitrogen	-	M864	Yes	1.8%	Automated Photometric	0.1 mg/L NH ₃ -N	0.1 - 2.0 mg/L NH ₃ -N
Nitrate Nitrogen	M465	M865	Yes	Calculated from M467 and M466 or M867and M866	Automated Photometric	0.1mg/L NO ₃ -	Calculated from M467 and M466 / M867and M866
Nitrite Nitrogen	M466	M866	Yes	11.8%	Automated Photometric	0.1 mg/L NO ₂ -N	0 - 2 mg/L NO ₂ -N
Nitrate and Nitrate Nitrogen	M467	M867	Yes	12.5%	Automated Photometric	0.1 mg/L NO ₃ +NO ₂ - N	0.1 - 12.5 mg/L NO ₃ +NO ₂ - N
Ortho Phosphate	M468	M868	Yes	20.00%	Automated Photometric	0.1 mg/L o-PO ₄ -P	0.1 - 5 mg/L o-PO ₄ -P
Chloride	M469	M869	Yes	4.90%	Automated Photometric	3 mg/L Cl	3 - 100 mg/L Cl
Fluoride	M475	M875	Yes	6.40%	Automated Photometric	0.1 mg/L F	0.1 - 2 mg/L F
Sulphate	M476	M876	Yes	15.50%	Automated Photometric	3 mg/L SO ₄	3 - 100 mg/L SO ₄
Hexavalent Chromium	M471	-	Yes	3.00%	Automated Photometric	0.005 mg/L Cr ⁶⁺	0.005 - 0.2 mg/L Cr ⁶⁺
COD	M462	M862	Yes	1.30%	Closed reflux/colourmetric	10mg/L O ₂	10-1500mg/L O ₂
Total Suspended Solids	M472	M872	Yes	6.40%	Gravimetric	10mg/L TSS	10-1500mg/L TSS
Total Dissolved Solids	M473	M873	Yes	1.50%	Gravimetric	10mg/L TDS	10-1500mg/L TDS
Total Coliform and Ecoli	M477	M877	Yes	1.29%	Membrane Filtration	-	0-500 cfu/100ml
Urea Content by Refractive Index	M478	-	Yes	0.05%	Potentiometric	-	0-0.4%
Biuret	M479	-	Yes	3.04%	Colourmetric	-	0-35%
Al	-	M874	Yes	0.94%	ICP-OES	0.05 mg/L	0.05-100 mg/L
Al	M474	-	Yes	5.90%	ICP-OES	0.05 mg/L	0.05-25mg/L
Ag	M474	-	Yes	3.20%	ICP-MS	0.50 ug/L	0.50 - 50 ug/L
As	-	M874	Yes	1.43%	ICP-OES	0.05 mg/L	0.05 - 100 mg/L
As	M474	-	Yes	3.30%	ICP-MS	0.50 ug/L	0.50 - 50 ug/L
B	-	M874	Yes	1.14%	ICP-OES	0.06 mg/L	0.06 - 100mg/L
B	M474	-	Yes	5.23%	ICP-OES	0.02 mg/L	0.02 - 25 mg/L
Ba	-	M874	Yes	1.00%	ICP-OES	0.01 mg/L	0.01 - 50 mg/L
Ba	M474	-	Yes	3.00%	ICP-MS	0.30 ug/L	0.30 - 100 ug/L
Be	-	M874	Yes	1.53%	ICP-OES	0.01 mg/L	0.01 - 50 mg/L
Be	M474	-	Yes	3.70%	ICP-MS	0.10 ug/L	0.10 - 50 ug/L
Ca	M474	M874	Yes	6.70%	ICP-OES	0.09 mg/L	0.09 - 100 mg/L
Cd		M874	Yes	3.03%	ICP-OES	0.01 mg/L	0.01 - 100 mg/L
Cd	M474	-	Yes	3.60%	ICP-MS	0.10 ug/L	0.10 - 50 ug/L
Co		M874	Yes	1.39%	ICP-OES	0.05 mg/L	0.05 - 100 mg/L
Co	M474	-	Yes	3.60%	ICP-MS	0.20 ug/L	0.20 - 50 ug/L
Cr		M874	Yes	1.68%	ICP-OES	0.04 mg/L	0.04- 100 mg/L
Cr	M474	-	Yes	3.60%	ICP-MS	3.00 ug/L	3.0 - 100 ug/L
Cu		M874	Yes	1.26%	ICP-OES	0.06 mg/L	0.06- 100mg/L

Cu	M474	-	Yes	3.60%	ICP-MS	1.0 ug/L	1.0 - 100 ug/L
Fe		M874	Yes	2.68%	ICP-OES	0.02 mg/L	0.02 - 100 mg/L
Fe	M474		Yes	4.87%	ICP-OES	0.01 mg/L	0.01 - 25.0mg/L
Hg	M474	-	Yes	0.40%	ICP-MS	0.50 ug/L	0.50 - 5 ug/L
K		M874	Yes	0.98%	ICP-OES	0.05 mg/L	0.05 - 100 mg/L
K	M474		Yes	3.75%	ICP-OES	0.50 mg/L	0.50 - 100 mg/L
Mg	M474	M874	Yes	1.23%	ICP-OES	0.03 mg/L	0.03 - 100 mg/L
Mn		M874	Yes	2.30%	ICP-OES	0.01 mg/L	0.01 - 100 mg/L
Mn	M474	-	Yes	4.00%	ICP-MS	0.25 ug/L	0.25 - 50 ug/L
Mo		M874	Yes	1.29%	ICP-OES	0.03mg/L	0.03 - 100 mg/L
Mo	M474	-	Yes	3.60%	ICP-MS	1.0 ug/L	1.0 - 50 ug/L
Na	M474	M874	Yes	2.12%	ICP-OES	0.16 mg/L	0.16 - 100 mg/L
Ni		M874	Yes	2.72%	ICP-OES	0.02 mg/L	0.02 - 100mg/L
Ni	M474	-	Yes	3.30%	ICP-MS	1.0 ug/L	1.0 - 100 ug/L
Pb		M874	Yes	2.44%	ICP-OES	0.05 mg/L	0.05 - 100 mg/L
Pb	M474	-	Yes	3.70%	ICP-MS	1.0 ug/L	1.0 - 100 ug/L
Si		M874	Yes	1.68%	ICP-OES	0.06mg/L	0.06 - 100 mg/L
Sb	M474	-	Yes	3.50%	ICP-MS	0.50 ug/L	0.50 - 50 ug/L
Se	M474	-	Yes	3.50%	ICP-MS	2.0 ug/L	2.0 - 50 ug/L
Sn	M474	-	Yes	4.10%	ICP-MS	0.20 ug/L	0.20 - 50 ug/L
Sr		M874	Yes	1.19%	ICP-OES	0.01 mg/L	0.01 - 100 mg/L
Sr	M474	-	Yes	3.20%	ICP-MS	0.50 ug/L	0.50 - 50 ug/L
U	M474	-	Yes	3.00%	ICP-MS	0.20 ug/L	0.20 - 50 ug/L
V		M874	Yes	2.16%	ICP-OES	0.07 mg/L	0.07 - 100 mg/L
V	M474	-	Yes	3.60%	ICP-MS	0.20 ug/L	0.20 - 50 ug/L
Zn	-	M874	Yes	3.14%	ICP-OES	0.01 mg/L	0.01 - 100 mg/L
Zn	M474	-	Yes	4.90%	ICP-OES	0.06 mg/L	0.06 - 100 mg/L

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Compiled and approved by: L Hotane

Note: All other tests or elements reported are not accredited unless specified otherwise.

Any results where dilutions were necessary or the element fell outside the working range will be reported as unaccredited.