

Central Water Laboratory

Final Task Report

Report Reference

WL2010-9213

Date 2010/09/13
Tel. No. +27 11 629 5596
Fax. No. +27 11 629 5528

Attention	Tshidi Mosehle
Client Name	Arnot power station
Address	Private Bag X2
Fax	086 539 2067
Telephone	013 297 9067

Report Title WMC

TEST RESULTS FOR THE ANALYSIS OF WATER
SAMPLES

Number of Samples 1

Description of Samples ACCEPTABLE

Date Registered 04-August-2010

Date Reported 13-September-2010

Task Comments:

Approved By : _____

Cody Makhuba

Snr Technician

011 629 5596

Date : _____

Tests marked "Not SANAS accredited" in this report are not included in the SANAS Schedule of Accreditation for this laboratory.

Opinions and interpretations expressed herein are outside the scope of SANAS accreditation,

PLEASE NOTE: The test results relate only to the specified samples tested as identified in this report.

This test report shall not be reproduced except in full, without written approval of ESKOM holdings (Cleveland) Chemical Technologies.

Eskom Central Water Laboratory Test Results



Laboratory Number T0055

Sample ID	2204593	WMC-2010-09-8/33	WL2010-9213
Cat-Inlet			
Arnot Cation Inlet			
Component		Unit	Value
Alkalinity M		mg/l CaCO ₃	54.2
Alkalinity Total		mg/l CaCO ₃	54.2
Ammonia as N		mg/l	<0.090
Anions		mg/l	74.815
Cations		mg/l	71.512
Cat/Anion Balance		%	-2.257
Calcium as Ca		mg/l	9.9
Chloride as Cl		mg/l	7.06
Conductivity		µS/cm	142
Fats, Oil and Grease		mg/l	1.5
Flouride as F		mg/l	0.07
Potassium as K		mg/l	1.4
Magnesium as Mg		mg/l	7.5
Sodium as Na		mg/l	6.5
Nitrate as N		mg/l	0.14
pH @ 25 °C			7.35
Reactive Silica as SiO ₂		mg/l	1.18
Sulphate as SO ₄		mg/l	9.59
High Level TOC		mg/l	3.12
Ca Hardness as CaCO ₃		mg/l	24.73
Mg Hardness as CaCO ₃		mg/l	30.86
Total Hardness as CaCO ₃		mg/l	55.59
Turbidity		NTU	0.212

The analyses were performed using the following methods:

Alkalinity M	ESKOM METHOD NO 304	Accredited
Alkalinity Total	ESKOM METHOD NO 304	Accredited
Ammonia as N (mg/l) SPEQ	ESKOM METHOD NO 8	Not Accredited
Calcium ICP (mg/l)	ESKOM METHOD NO 415	Accredited
Cation Anion Balance		Not Accredited
Chloride IC (mg/l)	ESKOM METHOD NO 307	Accredited
Conductivity @ 25 °C (µS/cm)	ESKOM METHOD NO 302A	Accredited
Fats, Oil and Grease	ESKOM METHOD NO 421	Not Accredited
Flouride IC (mg/l)	ESKOM METHOD NO 307	Not Accredited
Magnesium ICP (mg/l)	ESKOM METHOD NO 415	Accredited
Nitrate as N IC (mg/l)	ESKOM METHOD NO 307	Accredited
pH @ 25 °C	ESKOM METHOD NO 300A	Accredited
Potassium ICP (mg/l)	ESKOM METHOD NO 415	Accredited
Reactive Silica by UV/VIS Spec	ESKOM METHOD NO 322	Accredited
Sodium ICP (mg/l)	ESKOM METHOD NO 415	Accredited
Sulphate IC (mg/l)	ESKOM METHOD NO 307	Accredited
TOC on Appollo	ESKOM METHOD NO 414	Accredited

The analyses were performed using the following methods:

Total Hardness (mg/l)
Turbidity

ESKOM METHOD NO 015
ESKOM METHOD NO 418

Not Accredited
Not Accredited

Eskom Central Water Lab Disclaimer

The acceptance of an item for test and issue of a certificate of analysis are to the requirements laid down in Eskom Holding, R&S ISO 17025.

1. If published or reproduced by the customer a test report shall be reproduced in full, ie the reproduction shall contain the printed as well as the typed parts of the report, nothing exempted. In special circumstance an abridged form of the report or certain parts of the report may be published or reproduced, provided that the abridged form or partial version of the report is approved in writing by the responsible Manager before publication or issue.
2. A certificate of analysis related only to an item submitted for the actual test. It furnishes or implies no guarantee whatsoever in respect of a similar item that has not been tested.
3. While every endeavour will be made to ensure that a test is representative and accurately performed, and that the report is accurate and the quoted results and conclusions drawn from the test, its officers shall in no way be liable for any error made in carrying out the test or for erroneous statement, whether in fact or opinion, contained in a report pursuant to a test.
4. With the exception of all microbiological analyses, unless otherwise stated, sampling is not carried out by the laboratory.
5. All water samples are preserved according to procedure P511 unless otherwise stated.
6. Unless otherwise specified all analyses on water samples give the dissolved constituents.

End of the Report