



DD SCIENCE cc ENVIRONMENTAL MONITORING



TEST REPORT

COOKEPLANT
OFF R559

TEL (082) 654-0478
FAX (086) 520-1390

CC CK97/47253/23
34 LARK CRESCENT
GREENHILLS
RANDFONTEIN
1759

Mr G Krige
AED

Tel. No.: (011) 956-6537
Fax. No.:
e-mail: garfield@aed.co.za

Date: 12-Aug-2011
Ref: 110711/9683

Attention: Garfield Krige

Section 01: Sample identification and test results:

Type of sample:

Number of samples:

Condition of sample(s):

Water Sample			
4			
Acceptable			

Sampling plan: N/A

Sampling procedure: N/A

Date of receipt(where
critical to validity and
application of results):

11-Jul-2011

Date(s) of testing(where
critical to validity and
application of results):

11-Jul-2011

Identification of methods used and tests
subcontracted:

Please refer to Section 03 of this report: Methods used and
tests subcontracted

Sample ID	Units	Nyl Dam	Nyl 1	Nyl 4	Quarry
Lab ID		9683/1	9683/2	9683/3	9683/4
pH	@25°C	7.2	6.6	7.6	9.2
Conductivity	mS/m @25°C	22	11	75	98
Total Alkalinity	mg/l CaCO3	70	29	168	459
Total Hardness	mg/l	36	18	88	68
Calcium	mg/l	9.0	4.0	29	74
Magnesium	mg/l	6.3	1.9	19	14
Potassium	mg/l	9.8	3.9	9.9	3.5
Sodium	mg/l	11	9.3	45	27
Chloride	mg/l	19	16	83	76
Sulphate	mg/l	<50 (24)	<50 (22)	<50 (12)	<50 (43)
Nitrate	mg/l N	0.5	0.4	0.4	0.4
Orthophosphate	mg/l P	0.1	0.1	0.1	0.1
Chrome Six	mg/l	<0.03	<0.03	<0.03	<0.03
Aluminium	µg/l	1158	4.9	0.8	4.4
Antimony	µg/l	0.2	0.1	0.1	0.03
Arsenic	µg/l	14	0.3	0.6	0.3
Barium	µg/l	95	46	73	133
Beryllium	µg/l	0.05	0.02	0.01	0.01
Bismuth	µg/l	0.02	0.01	0.03	0.03
Cadmium	µg/l	2.0	1.4	0.1	0.1
Caesium	µg/l	0.1	0.01	0.02	0.01
Chromium	µg/l	5.3	0.2	0.2	1.0
Cobalt	µg/l	2.9	0.9	0.2	0.1
Copper	µg/l	245	43	5.3	1.0
Indium	µg/l	0.002	0.001	0.001	<0.001
Lanthanum	µg/l	0.7	0.05	0.01	0.01
Lead	µg/l	2.2	0.2	0.5	0.047
Lithium	µg/l	2.1	0.6	1.4	3.5
Mercury	µg/l	0.8	0.9	1.8	1.0
Molybdenum	µg/l	0.5	0.2	0.3	0.2
Manganese	µg/l	15	20	1.1	0.8
Nickel	µg/l	59	7.5	2.0	1.4
Platinum	µg/l	0.05	0.02	0.05	0.02
Rubidium	µg/l	3.6	2.1	2.6	0.5
Selenium	µg/l	3.1	0.5	0.4	0.4
Tellurium	µg/l	0.03	0.01	0.1	0.01
Thallium	µg/l	0.1	0.1	0.3	0.2
Tin	µg/l	0.1	0.2	0.03	0.04
Titanium	µg/l	48	0.3	0.1	0.2
Tungsten	µg/l	0.3	0.1	0.5	0.2
Vanadium	µg/l	3.9	0.3	0.1	2.8
Uranium	µg/l	3.9	0.4	0.7	2.5
Zinc	µg/l	52	29	1.6	11
Iron	µg/l	931	62	49	37

Section 02: Opinions and interpretations (if any):

Reviewed by:



Alfred Molubi (Technical Signatory)

Compiled and
approved by:



D. Dorling (Executive Manager)

Date of issue: 12-Aug-2011

Please note:

- 1. Results relate only to the samples tested;*
- 2. Opinions and interpretations expressed herein are outside the scope of SANAS accreditation;*
- 3. This report shall not be reproduced, except in full, without the written approval of DD Science cc Environmental Monitoring;*
- 4. While every effort is made to provide a service of the highest quality, the liability of DD Science cc Environmental Monitoring shall not extend beyond the cost of services rendered;*
- 5. Samples will be disposed of two weeks after the date of issue of this report, unless otherwise instructed by the client.*

Methods used and tests subcontracted:

DETERMINAND	METHOD CODE	ACCREDITED	SUBCONTRACTED	TECHNIQUE
pH @ 25 ⁰ C	M001	Yes	No	Potentiometric
EC (Electical Conductivity) @ 25 ⁰ C	M002	Yes	No	Conductometric
COD (Chemical Oxygen Demand)	M003	Yes	No	UV-VIS
Oxygen Absorbed (OA)	M004	No	No	Titrimetric
Dissolved Solids @ 180 ⁰ C	M005	Yes	No	Gravimetric
Suspended Solids @ 105 ⁰ C	M006	Yes	No	Gravimetric
Turbidity	M007	No	No	UV-VIS
Settleable Solids	M008	No	No	Imhoff cone
Calcium	M009	No	No	AAS
Magnesium	M010	No	No	AAS
Potassium	M011	No	No	AAS
Sodium	M012	No	No	AAS
Iron	M013	No	No	AAS
Manganese	M014	No	No	AAS
Total alkalinity	M015	No	No	Titrimetric
Chloride	M016	Yes	No	Titrimetric
Fluoride	M017	No	No	UV-VIS
Nitrate as N	M018	No	No	UV-VIS
Nitrite as N	M019	No	No	UV-VIS
Sulphate	M020	Yes	No	Gravimetric
	M021	No	No	UV-VIS
Orthophosphate	M022	No	No	UV-VIS
Total Phosphate	M023	No	No	UV-VIS
Free chlorine	M024	No	No	UV-VIS
Total chlorine	M025	No	No	UV-VIS
Ammonium as N	M026	No	No	UV-VIS
Free and saline ammonia as N	M027	No	No	UV-VIS
Free cyanide	M028	No	No	Titrimetric
Total cyanide	M029	Yes	No	Distillation
Radium 226	M030	No	No	UV-VIS
Uranium	M031	Yes	No	UV-VIS
Aluminium	M032	No	Yes	ICP
Antimony	M033	No	Yes	ICP
Beryllium	M034	No	Yes	ICP
Boron	M035	No	Yes	ICP
Cadmium	M036	No	Yes	ICP
Chromium (III+VI)	M037	No	Yes	ICP
Chromium (VI)	M038	No	Yes	UV-VIS
Cobalt	M039	No	Yes	ICP
Copper	M040	No	Yes	ICP
Lead	M041	No	Yes	ICP
Lithium	M042	No	Yes	ICP
Molybdenum	M043	No	Yes	ICP
Nickel	M044	No	Yes	ICP
Tin	M045	No	Yes	ICP
Titanium	M046	No	Yes	ICP
Vanadium	M047	No	Yes	ICP
Zinc	M048	No	Yes	ICP
Arsenic	M049	No	Yes	ICP-MS
Mercury	M050	No	Yes	ICP-MS
Selenium	M051	No	Yes	ICP-MS
Standard Total Plate Count	M052	Yes	No	Pour plate
Total Coliforms	M053	Yes	No	Membrane Filtration
Faecal Coliforms	M054	Yes	No	Membrane Filtration
E. Coli	M054	Yes	No	Membrane Filtration
Faecal streptococci	M056	No	No	Membrane Filtration
Pseudomonas	M057	No	No	Pour plate
SRB	M058	No	No	Serial dilution
SOB	M059	No	No	Serial dilution

END OF DOCUMENT