

CERTIFICATE OF ACCREDITATION

In terms of section 22(2) (b) of the Accreditation for Conformity Assessment, Calibration and Good Laboratory Practice Act, 2006 (Act 19 of 2006), read with sections 23(1), (2) and (3) of the said Act, I hereby certify that:-

ELEMENT MATERIALS TECHNOLOGY SOUTH AFRICA (PTY) LTD

Co. Reg. No.: 2015/025446/07

Facility Accreditation Number: **T0729**

is a South African National Accreditation System accredited facility provided that all conditions and requirements are complied with

This certificate is valid as per the scope as stated in the accompanying schedule of accreditation, Annexure "A", bearing the above accreditation number for

CHEMICAL ANALYSIS

The facility is accredited in accordance with the recognised International Standard

ISO/IEC 17025:2017

The accreditation demonstrates technical competency for a defined scope and the operation of a quality management system

While this certificate remains valid, the Accredited Facility named above is authorised to use the relevant accreditation symbol to issue facility reports and/or certificates

Mr R Josias
Chief Executive Officer

Effective Date: 20 December 2020
Certificate Expires: 13 July 2021

ANNEXURE A
SCHEDULE OF ACCREDITATION

Facility Number: **T0729**

Permanent Address of Laboratory:

Element Materials Technology South Africa (Pty) Ltd
 Unit D2,
 Firgrove Business Park
 9 Quantum Road
 Somerset West
 7130

Technical Signatories:

- Ms P Booie (SA TM 004 W, SA TM 005 & SA TM 015 W&S, SA TM 036 W&S, SA TM015W, SA TM 016 W&S)
- Ms M Tiki (All methods excl. SA TM 015 W&S, SA TM 004 W, SA TM 005, SA TM 036 W&S and SA TM 016 W&S)
- Ms T Ntshingila (SA TM019, SA TM0 20W, SA TM 027, SA TM 028, SA TM0 32W, SA TM 037W, SA TM048W, SA TM 057W)
- Ms N Sijula (SA TM 019, SA TM 020W, SA TM 027, SA TM 028, SA TM 032W, SA TM 037W, SA TM 048W, SA TM 057W, SA TM 191W)
- Mr M Menziwa (SA TM 015W, SA TM 015S, SA TM 036W, SA TM 036S)
- Mr S Sibanda (SA TM 019, SA TM 028, SA TM 057W)
- Ms M Magwentshu (SA TM 019, SA TM 020W, SA TM 028, SA TM 032W, SA TM 037W, SA TM 057W, SA TM 057W, SA TM 191W)
- Ms M Ludaka (SA TM 037W, SA TM 028, SA TM 019, SA TM 191W, SA TM 032W)
- Mr G Ondrejkojovic (SA TM 032W, SA TM 019, SA TM 028, SA TM 027, SA TM 057W, SA TM 020W, SA TM 037W, SA TM 015S, SA TM 015W, SA TM 016S, SA TM 016W, SA TM 005, SA TM 191W)

Postal Address:

Unit D2, Firgrove Business Park
 9 Quantum Road
 Somerset West
 7130

Nominated Representative:

Ms T Ntshingila

Tel: (021) 842 - 0071

Issue No.: 10

Fax: N/A

Date of Issue: 13 February 2020

E-mail: thobeka.Ntshingila@element.com

Expiry Date: 13 July 2021

| Material or Products Tested | Type of Tests/ Properties Measured, Range of Measurement | Standard Specifications, Techniques / Equipment Used |
|---------------------------------------|--|--|
| CHEMICAL | | |
| Surface water, tap water, groundwater | Determination of Chemical Oxygen Demand | SA TM 057W |
| | Determination of Electrical Conductivity (EC) at 25°C | SA TM 028 |
| | Determination of Total Suspended solids | SA TM 037W |
| | Volatile Organic Compound and Fuel Oxygenates by GC-MS Headspace | SA TM 015W |
| | PAH's by GC-MS | SA TM 004W |
| | GRO, MBTEX and CWG by GC-FID | SA TM 036W |

| | | |
|---|--|------------------------|
| | Semi Volatile Organic Compounds (SVOCs) by GCMS | SA TM 016W |
| | Determination of Orthophosphate as PO ₄ by Colorimetric measurement | SA TM 191W |
| Surface water, tap water, groundwater, Soil | Determination pH at 25°C | SA TM 019 |
| | Determination of Hydrocarbons (MTBE, TAME, Benzene, Toluene, Ethylbenzene, m/p Xylene, O-Xylene, Naphthalene) | SA TM 015W; SA TM 015S |
| | Determination of Extractable Petroleum Hydrocarbons between C ₈ - 40 | SA TM 005 |
| Surface water, groundwater | Determination of Ferrous iron (Fell) | SA TM 048W |
| | Determination of Total Alkalinity | SA TM 032W |
| | Determination of Total Dissolved solids and Total solids | SA TM 020W |
| | Determination of Flouride, Chloride, Calcium, Magnesium, Ammonium, Nitrite, Nitrate & Sulphate, Potassium, Sodium. | SA TM 027 |
| Soils | Anions in Soils | SA TM 027 |
| | Volatile Organic Compound by GC-MS | SA TM 015S |
| | GRO, MBTEX and CWG by GC-FID | SA TM 036S |
| | Semi Volatile Organic Compounds (SVOCs) by GCMS | SA TM 016S |

Original Date of Accreditation: 14 July 2016

ISSUED BY THE SOUTH AFRICAN NATIONAL ACCREDITATION SYSTEM

Accreditation Manager