

## REVISED SCOPE OF WORK & TECHNICAL CRITERIA

SERVICE, MAINTENANCE AND REPAIRS AS WELL AS SUPPLY OF SPARES AND CONSUMABLES FOR SI ANALYTICAL COULOMETERS

### SCOPE OF WORK AND TECHNICAL EVALUATION

A **Term Services – Long Term contract** is required. The following tasks will be done as part of the order:

#### 1. Scope of Work

Provision of service, maintenance, and repairs as well as supply of spares and consumables for SI Analytics coulometers I instruments to all Petroleum and Flow Sciences laboratories as and when required for the period of three (3) years.

1.1 Provide service and maintenance on SI Analytics coulometers for all P&FS Laboratories annually, see list of instruments on table 1 below. Maintenance on these instruments will be done as and when require.

**Table 1 List of Instruments**

Serial Numbers	Description	Frequency in 3 years
10048116	7500 KF Titroline coulometer – Seshego Oil Laboratory	3
10048118	7500 KF Titroline coulometer – Witbank Oil Laboratory	3
10048119	7500 KF Titroline coulometer – Klerksdorp Oil Laboratory	3
10048117	7500 KF Titroline coulometer – Rosherville Oil Laboratory	3
10048259	7500 KF M3 Titroline coulometer – Brackenfell Oil Laboratory	3
10048115	7500 KF Titroline coulometer – Port Elizabeth Oil Laboratory	3

#### 1.2 Requirements:

- a. Supplier to provide a report after each service/repairs done in each laboratory.
- b. Service/repair agent must respond to the request within 48hrs of purchase order being issued.
- c. Calibration certificate must contain minimum information as follows:
  - ✓ Name of the requester,
  - ✓ unique number for the certificate,
  - ✓ address of requester and supplier,
  - ✓ supplier company name,
  - ✓ accreditation number (if accredited),
  - ✓ Serial number of instruments being calibrated,
  - ✓ Summary of status,
  - ✓ Results,
  - ✓ Uncertainty of measurements,
  - ✓ Environmental conditions at the time of calibration,
  - ✓ Date calibrated,

## REVISED SCOPE OF WORK & TECHNICAL CRITERIA

### SERVICE, MAINTENANCE AND REPAIRS AS WELL AS SUPPLY OF SPARES AND CONSUMABLES FOR SI ANALYTICAL COULOMETERS

- ✓ Name and signature of the technician calibrated the instrument
- d. Supplier to provide proof that the instrument used to calibrate SI Analytical equipment is calibrated and calibration is traceable to NIST.
- e. If the supplier is not accredited according to ISO 17025 or any other equivalent standard, the following documents as per SANAS TR 25 section 3.3 in house calibration must be provided:
  - ✓ A documented and validated calibrated procedure or method;
  - ✓ A calibration certificate or report, or some other suitable method of recording the calibration and measurement data;
  - ✓ Appropriate educational and training records to demonstrate the competence of the personnel performing the calibration;
  - ✓ Copies of certificates and reports to demonstrate traceability to the SI system of units or RMs;
  - ✓ All reference standards and measuring instruments shall be calibrated at appropriate intervals, the facility shall have and apply a documented procedure for establishing these calibration intervals;
  - ✓ A documented procedure for the estimation of the measurement uncertainty, which shall be applied for at least each type of calibration. The uncertainty of measurement shall be taken into account when making a statement of compliance.
  - ✓ Records to demonstrate the assurance of the calibration results i.e. participation in Inter-Laboratory Comparisons or Proficiency Testing;
  - ✓ Documented requirements for environmental conditions, and records where applicable; and
  - ✓ Evidence of internal audits of all activities that could influence the quality of calibration results.

- 1.3. Supply of spares and consumables as and when required for a period of three (3) years.

Table 2 List of spares and consumables

ITEM SERVICE	/	PART	ADDITIONAL CATALOGUE INFORMATION	TOTAL
Electrode 1150	KF	KF 1150	Descriptor: electrode; type: karl fisher 1150 including to platinum pins; material: glass and platinum; dimensions: dia 8 x lg 60mm; temperature range: -20 to 70 degree celsius; ph range: 0-14; application: measurement of water content in transformer oil	50
KF Starter kit		TZ 1789	TYPE: TITRATION STARTER PACK; APPLICATION: KARL FISCHER TITRATION; COMPRISING: 1 X COULOMAT OIL 500ML; 1 X COULOMAT CG (10 IN A BOX) 10 X 5ML; 1 X MOLECULAR SIEVE 100ML; SPEFICATION: MOLECULAR SIEVE - REGULATION (ec) NO 1272/2008	25
Titration vessel		TZ 1751	Descriptor: vessel; type: titration; capacity: estimate 250ml; rating: unknown; material: glass; color: transparent; fft: measurement: estimate lg 13mm x dia 75mm	25
Generator electrode With diaphragm		TZ 1753	Descriptor: electrode; type: generator with diaphragm; material: glass with a platinum mash; dimensions: dia 12 x lg 230mm; temperature range: -20 to 70 degree celsius; ph range: 0-14; application: measurement of water content in transformer oil	50

## REVISED SCOPE OF WORK & TECHNICAL CRITERIA

### SERVICE, MAINTENANCE AND REPAIRS AS WELL AS SUPPLY OF SPARES AND CONSUMABLES FOR SI ANALYTICAL COULOMETERS

Power supply	TZ 1853	Descriptor: adaptor, power supply; type: titrator; voltage rating: 12v output; current rating: 2.5 amp; power rating: 30 v-amp; frequency: 50/60 hertz; dimensions: 120 x 80 mm; port type: single pin; port quantity: one; material: polyvinylchloride (pvc); surface treatment: polyvinylchloride (pvc); special features: none; application: coulometer 7500; specification: measurement control and laboratory bsen010; standard: en61326-1:2006	15
stand rod	TZ 1748	Descriptor: rod; type: stand; dimensions: lg 240mm; material: stainless steel; application: holding titration vessel in place; specification: not specified	10
Retaining clamp	TZ 1749	Descriptor: clamp, loop; style designator: u shaped; material: plastic; clamping range: circumference 235mm; width: 75 mm; fastening device type: screws; specification: not specified	15
Connection cable	TZ 1577	Type: connection cable between coulometer and magnetic stirrer; dimensions: lg 830 x dia 5 mm; connection size: lg830 x dia 5mm; connection type: pin contact; material: pvc; material grade: flexible grade waterproof pvc; material specification: astm f512-19; surface treatment: aluminium; special features: none; mounting method: insertion type; specification: female-to-female; standard: sans 10142-1	20
<b>SERVICE</b>			
Calibration	Once a year	Descriptor: calibrate, equipment; type: titrator; frequency: annually; method: on-site, qualified technician, calibration certificate required	15
Maintenance	As and when required	Descriptor: maintain, equipment; type: titrator-adhoc; frequency: as and when required; method: on-site, qualified technician, maintenance report	30
<b>General</b>			
Delivery Charges			30
Labour rate per hour (certified technician)			50
Travel time			52,2
Travel rate per km			4745,4

#### 1.4. Requirements:

- Spares/consumables must be for SI Analytics coulometers brand of equipment.

#### 1.5. Other requirements

Supplier to include in the quotation:

- ✓ Labour rate per hour (certified technician)
- ✓ Travel rate per km
- ✓ Travel time per hour
- ✓ Delivery charge

#### 1.6. Instrument service/calibration/repairs/spares and consumables to be delivered to the following addresses:

- P&FS laboratory (Rosherville)  
Eskom Research & Innovation Centre  
Oil lab - Block B - Reception  
Lower Germiston Road  
Rosherville  
2022

## REVISED SCOPE OF WORK & TECHNICAL CRITERIA

SERVICE, MAINTENANCE AND REPAIRS AS WELL AS SUPPLY OF SPARES AND CONSUMABLES FOR SI ANALYTICAL COULOMETERS

- P&FS laboratory (Witbank)  
Oil lab  
Eskom Park  
Next to Electrical Workshop  
Watermeyer Street  
Witbank  
1035
- Eskom Klerksdorp Distribution (Klerksdorp)  
Goue Weg 22  
Townlands  
Klerksdorp 2571
- P&FS laboratory (Seshego) Polokwane  
Oil lab – Eskom  
53 Moletsi Street  
Seshego  
Polokwane
- P&FS laboratory (Brackenfell)  
Oil lab  
Eskom Road  
Brackenfell  
Cape Town  
7535
- P&FS laboratory Port Elizabeth  
Eskom, Oil Laboratory,  
Eastern Cape Training Centre,  
Spondo Road  
Struandale  
Port Elizabeth

### 1.7. Requirements:

- Supplier must be able to provide service to all the P&FS Laboratories.
- Service/repair agent must respond to the request within 48hr.

## REVISED SCOPE OF WORK & TECHNICAL CRITERIA

SERVICE, MAINTENANCE AND REPAIRS AS WELL AS SUPPLY OF SPARES AND CONSUMABLES FOR SI ANALYTICAL COULOMETERS

### 2. Technical Evaluation

Technical Criteria	Description	Proof	Score allocation	Total Score (%)
Availability of Spares and consumables	Supplier to provide all the spares/consumables as per the scope of work provided	Quotation	10	10
Competency	Supplier to prove that they can service and repair SI Analytics coulometers.	Supplier to provide 1. Competency certificate on SI instruments and 2. An example of previous service report on SI instruments	20	20
		If the supplier provides only 1) or 2)	10	
On-site service and repairs	Supplier must be able to perform service and repairs on all P&FS laboratories sites	Confirm on a letterhead that service & Calibration can be delivered: - • On all sites as per scope	15	15
		• To five (5) sites	10	
		• To two (2) sites	5	
Turnaround time	The supplier must respond to request for repairs within 48 hours of receiving the purchase order number.	Confirm commitment on company letterhead: <b>within 48hrs</b>	10	10
		Confirm commitment on company letterhead: >48hrs	5	
Service certificate / report	Service /Calibration certificate / report must comply with guidelines as indicated in the scope of the tender document	Example of a certificates / reports must have at least: All items (100%)	10	10
		90% items	8	
		50% items	3	
Experience	Relevant experience of not less than three (3) years on working with SI Analytics coulometers	Submit three (3) letter/s of reference from customer/s where related services were rendered.	15	15
		Submit two (2) letter/s of reference from customer/s where related services were rendered.	10	
OEM	OEM supplier If not an OEM - must provide letter from OEM that they will support your tender	Provide a letter indicating that supplier is an OEM or a sole distributor	20	20
		Submit a letter from OEM that they will support tenderer with	15	

REVISED SCOPE OF WORK & TECHNICAL CRITERIA

SERVICE, MAINTENANCE AND REPAIRS AS WELL AS SUPPLY OF SPARES AND CONSUMABLES FOR SI ANALYTICAL COULOMETERS

		sale of spares and consumables.		
<b>Total</b>				<b>100%</b>

**Threshold = 75%**

**Compiled by:** Dulcie Kitshoff    **Date:**

**Approved by:** Zanele NN Khuzwayo

**Date:** 20 July 2022

Signature:

