Trinity Metals

Client representative: Greg Brooker

PROPOSAL 24-078 R1

Date of issue:	**08 May 2024**
Validity:	**07 August 2024**
Title:	***Wolframite Test***

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1. INTRODUCTION

Greg Brooker of Trinity Metals requested a quote for metallurgical testwork on a wolframite ore. The scope of work will entail the following:

- Sample preparation
- Detailed head analysis
- Bulk milling and screening
- Spiral Test
- Shaking Table Test
- Lab flotation check
- Bulk Float
- Magnetic separation

The metallurgical testwork will be undertaken by Maelgwyn at its metallurgical laboratories in Randburg except for the magnetic separation testwork which will be outsourced Multotec. The sample analysis will be undertaken by SGS (SANAS accredited).

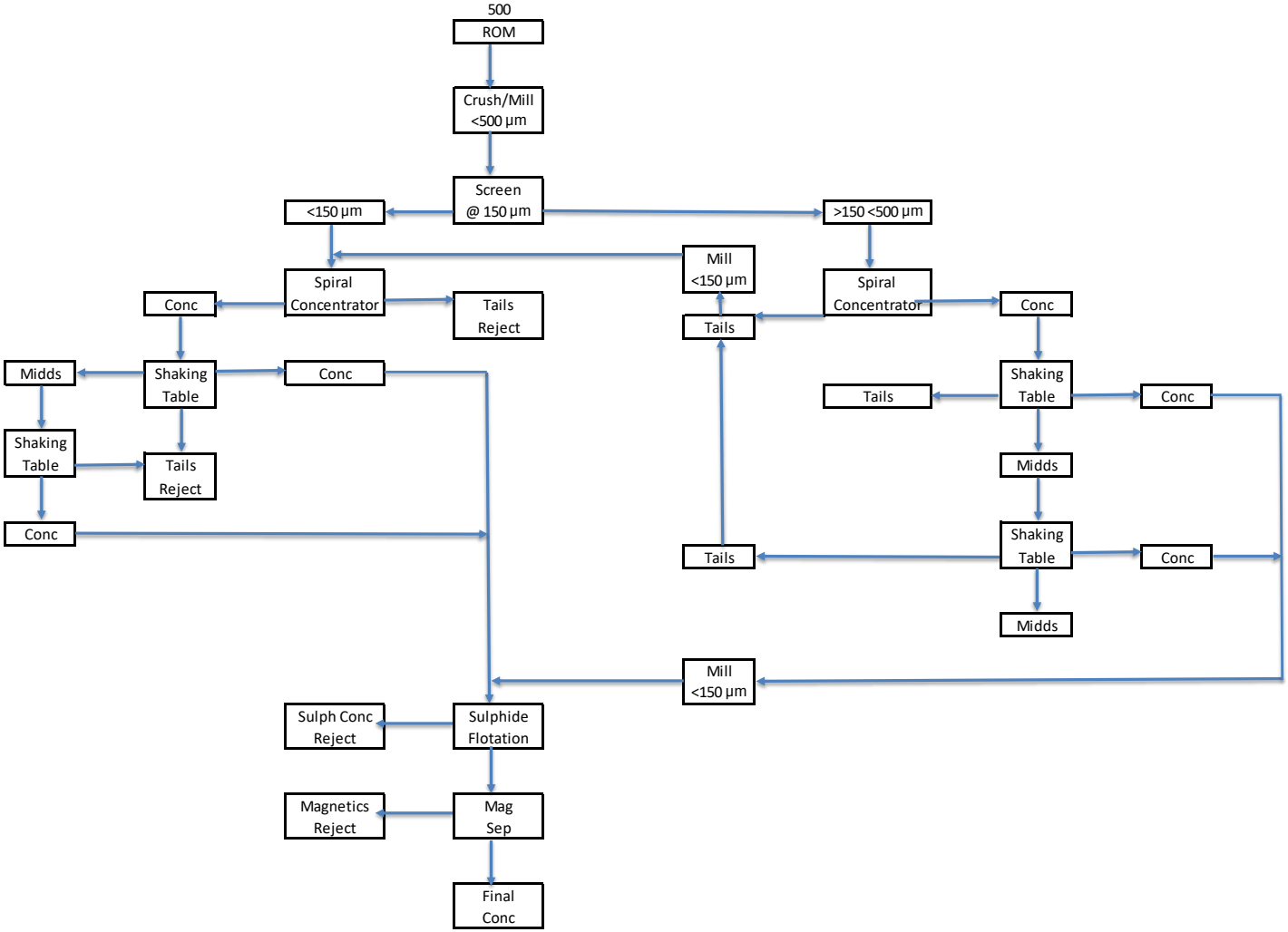
2. OVERALL SAMPLE REQUIREMENTS

3500 kg of sample is expected for the testwork.

The sample should be as representative as possible as Maelgwyn cannot accept responsibility for non-representative samples. The samples cannot be radioactive. Maelgwyn holds a licence with the DOE to treat samples with traces of radiation, however upon sample receipt the samples will be scanned for radiation and if the sample exceeds 500 counts per second the sample will not be accepted onto Maelgwyn premises. Samples are supplied at own risk.

3. SCOPE OF WORK

Each of the four composite samples will be tested using the flowsheet below.


500
ROM
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3.1 Sample preparation

Each of the samples will be air dried (if required) crushed to 100 %<1.7 mm, blended and split into smaller fractions which are manageable for the testwork.

3.2 Detailed head analysis

A portion of each sample split out from the bulk will be submitted for detailed chemical head assay using ICP-OES to identify the major base metals, as well as ICP-MS to identify the minor elements present in the sample. MSA XRF will also be used to assay the head sample. Total Carbon and Total Sulphur will be determined using LECO.

3.3 Bulk milling and screening

Milling for the spiral test will be carried out using the continuous ball mill. Samples will be milled to a specified grind (80%<500µm). Once milled, samples will be screened using a 150-micron screen to make up the separate two fractions which will be fed to the spiral.

3.4 Spiral Test

Each of the 2 fractions per sample will undergo gravity separation using the spiral. Several products from the spiral will be collected to identify the cut point for the spiral test. All the spiral products will be assayed using XRF and ICP.

3.5 Shaking Table Test

Shake table tests will be used to clean the products from the spiral tests. The Holman-Wilfley shaking Table will be used. The incline on the table, as well as the shaking rate will be adjusted as required to ensure a good separation.

3.6 Lab flotation check

Lab scale rougher tests will be carried out using conditions to remove sulphide minerals from the shaking table concentrates. A few rougher tests will be carried out and the optimum conditions chosen.

3.7 Bulk Float

A bulk float test will be carried out using conditions scaled up from the lab float tests. The bulk flotation tests will be undertaken using the Denver 200L flotation cell to produce the concentrate for magnetic separation.

3.8 Magnetic separation

Magnetic separation tests will be carried out by Multotec. LIMS or WHIMS tests will be carried out as dictated by the characteristics of the samples.

4. SAMPLE STORAGE

The Client shall upon conclusion of the project, be responsible for collection and/or disposal of any unused sample materials and products from the test work. Should the Client fail to do so after notice to this effect, Maelgwyn may in its sole discretion return or dispose any unused sample materials and test work products at the Client's risk and expense.

5. COST

The costs for the testwork on the four samples are detailed below.

Action	Details	Unit Price	Number of Tests	Total
Sample prep	per kg: blend, split	R 27.30	3500	R 95 550.00
Detailed head analysis	XRF, ICP-OES, ICP-MS, Total S, Total C	R 4 950.00	4	R 19 800.00
Bulk continuous milling	Typically 1 tonne sample to 100%<500µm	R 13 764.52	4	R 48 175.82
Wet Screening at 150µm	Screening per kg & sample prep	R 15.00	3500	R 52 500.00
Spiral Test	plus 150um and minus 150um	R 23 663.46	8	R 189 307.71
XRF	Estimate 5x cut samples per spiral	R 390.00	40	R 15 600.00
Shaking Table Test	Two Shake Table runs per fraction	R 8 752.70	16	R 140 043.20
XRF	Est. Conc, Midds Tails (3x samples per table test)	R 390.00	48	R 18 720.00
Milling for flotation	50 kg bulk batch milling	R 4 780.41	4	R 19 121.65
Lab flotation check	Rougher	R 5 755.20	8	R 46 041.60
XRF	Rougher conc and tails assays	R 390.00	16	R 6 240.00
Leco Total S	Rougher conc and tails assays	R 388.00	16	R 6 208.00
Bulk Float	Denver Float Cell (~50 kg Float)	R 10 731.05	4	R 42 924.20
XRF	Bulk float conc and tails	R 390.00	8	R 3 120.00
ICP	Bulk float conc and tails	R 769.00	8	R 6 152.00
Leco Total S	Bulk float conc and tails	R 388.00	8	R 3 104.00
Magnetic separation	Magsep (Multotec)	R 13 450.00	4	R 53 800.00
XRF	Final conc and tails	R 390.00	8	R 3 120.00
ICP	Final conc and tails	R 769.00	8	R 6 152.00
Leco Total S	Final conc and tails	R 388.00	8	R 3 104.00
Consumables		R 38 939.21	1	R 38 939.21
Management and Reporting		R 155 756.84	1	R 155 756.84
Total Excluding VAT and other taxes				**R 973 480.23**
Total Including 15% VAT				**R 1 119 502.26**

6. TERMS & CONDITIONS

Payment will be 50% with the order, 50% on completion of test work. Standard Maelgwyn terms and conditions will apply to the test work which is available upon request.

7. ACCEPTANCE

On accepting this Proposal, kindly complete and return (fax, email, post) the attached page of “Acceptance of Proposal” together with an order for the work to be undertaken.

For further questions or comments relating to his proposal, please contact:

Sonestie Janse van Rensburg

Telephone: +27 11 474 0705 | **Mobile:** +27 82 920 5122 | **Fax:** +27 11 474 5580

email: sonestie@maelgwynafrica.com | **Website:** www.maelgwynafrica.com

PROPOSAL ACCEPTANCE

This Proposal is accepted by the Client, and Maelgwyn undertakes to carry out the test work as outlined in the Proposal.

TITLE: ***Wolframite Test***

PROPOSAL No.: **24-078 R 1**

DATE : 08 May 2024

Administrative information (please complete to facilitate the communication):

Project administrative information, client side:			
	name:	location:	e-mail:
Technical project management : Responsible entity (**company** details)			
Technical project management: **Contact person**			
Commercially responsible (**legal entity** to which invoices must be sent)			
Commercial and administrative **contact person**			

Accepted by:

NAME : _____

DESIGNATION : _____

DATE : _____

ORDER NO : _____

Please send to: