SCROOBY'S LABORATORY SERVICE CC

Spectrographic, Chemical and Mechanical Testing of Materials

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RaySA Engineering Solutions 1 Charl Street, Ifafi **HARTBEESPORT** 0260

Date Received: 13 October 2021 Date Tested: 20 October 2021 Date Reported: 21 October 2021

Order No: 1141

REFERENCE No: 29957

ATTENTION: Mr Jean-Pierre du Plessis

CERTIFICATE of ANALYSIS

CopperMass %99.1Ironppm 5681 Sulphurppm 124 Siliconppm 124 Cobaltppm 76 Arsenicppm 36 Manganeseppm 14 Antimonyppm 3 Aluminiumppm 51 Leadppm 51 Telleriumppm 51 Nickelppm 51 Magnesiumppm 51 Bismuth 51	Composition Sample ID:				
CopperMass %99.1Ironppm 5681 Sulphurppm 124 Siliconppm 124 Cobaltppm 76 Arsenicppm 36 Manganeseppm 14 Antimonyppm 3 Aluminiumppm ≤ 1 Leadppm ≤ 1 Telleriumppm ≤ 1 Nickelppm ≤ 1 Magnesiumppm ≤ 1 Bismuthppm ≤ 1					
Ironppm 5681 Sulphurppm 124 Siliconppm 124 Cobaltppm 76 Arsenicppm 36 Manganeseppm 14 Antimonyppm 3 Aluminiumppm ≤ 1 Leadppm ≤ 1 Telleriumppm ≤ 1 Nickelppm ≤ 1 Magnesiumppm ≤ 1 Bismuthppm ≤ 1	ELEMENT	UNIT	Shavings		
Ironppm 5681 Sulphurppm 124 Siliconppm 124 Cobaltppm 76 Arsenicppm 36 Manganeseppm 14 Antimonyppm 3 Aluminiumppm ≤ 1 Leadppm ≤ 1 Telleriumppm ≤ 1 Nickelppm ≤ 1 Magnesiumppm ≤ 1 Bismuthppm ≤ 1	Copper	Mass %	99.1		
Sulphur ppm 124 Silicon ppm 124 Cobalt ppm 76 Arsenic ppm 36 Manganese ppm 14 Antimony ppm ≤1 Lead ppm ≤1 Tellerium ppm ≤1 Nickel ppm ≤1 Magnesium ppm ≤1 Bismuth ppm ≤1					
$\begin{array}{llllllllllllllllllllllllllllllllllll$					
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			124		
$\begin{array}{llllllllllllllllllllllllllllllllllll$	Cobalt		76		
$\begin{array}{llllllllllllllllllllllllllllllllllll$	Arsenic		36		
$\begin{array}{llllllllllllllllllllllllllllllllllll$	Manganese		14		
Leadppm ≤ 1 Telleriumppm ≤ 1 Nickelppm ≤ 1 Magnesiumppm ≤ 1 Bismuthppm ≤ 1	Antimony		3		
Telleriumppm ≤ 1 Nickelppm ≤ 1 Magnesiumppm ≤ 1 Bismuthppm ≤ 1	Aluminium		≤ 1		
Nickelppm ≤ 1 Magnesiumppm ≤ 1 Bismuthppm ≤ 1	Lead		≤ 1		
$\begin{array}{ll} \text{Magnesium} & \text{ppm} & \leq 1 \\ \text{Bismuth} & \text{ppm} & \leq 1 \end{array}$	Tellerium	ppm	≤ 1		
Bismuth ppm ≤ 1	Nickel	ppm	≤ 1		
11	Magnesium	ppm	≤ 1		
Selenium ppm ≤ 1	Bismuth	ppm	≤ 1		
	Selenium	ppm	≤ 1		

Description of samples

Method #: SLS-ICP

The results relate only to the item as received and tested.

Copper shavings

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Technical Signatory

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