

QOTHO MINERALS (PTY) LTD

A SANAS Accredited PT Provider: PTS0012

36 Pelindaba Road, Broederstroom, Madibeng, 0240
PostNet Suite 173, Private Bag X0003, Ifafi, 0260, North West
Province, South Africa
Tel: +27(0) 87 004 3200



Certificate of Participation

for successful participation in the QOTHO PTS TANTALUM - 09 - 2025

For the Lab Participant
Global Sampling and Analysis (XRF Finish)

Lab Code: [REDACTED]

Contact person: Natalya Laposhina

Country: Rwanda

Telephone: 078-830-2573

Analyst (s): Didiane, Elizabeth, Alexey, Artem, Natalya

Assessment of Laboratory's Result (s)

Measurand	Sample	Unit	Result	Assigned value	z score (absolute)	Successful result
As	20-005-C	µg/g	820.000	0.000		Not Evaluated
As	20-006-T	µg/g	988.500	0.000		Not Evaluated
As	20-007-C	µg/g	825.000	0.000		Not Evaluated
As	20-008-T	µg/g	977.000	0.000		Not Evaluated
Be	20-005-C	µg/g	84.000	0.000		Not Evaluated
Be	20-007-C	µg/g	82.500	0.000		Not Evaluated
Ca	20-005-C	%	1.292	1.308	0.350	Yes
Ca	20-006-T	%	2.964	2.970	0.299	Yes
Ca	20-007-C	%	1.286	1.308	0.495	Yes

The analytical method listed above pertains to the main analyte of this scheme. Please note that different methods may have been used for the determination of other analytes included in this certificate.

The test results were reported and released by the Technical signatory: Natalya Laposhina

The analysis was conducted by Didiane, Elizabeth, Alexey, Artem, Natalya who is deemed competent or not by the assessment of the laboratory performance.

Issued by:

Takudzwa Tsapayi (Technical Signatory)

Date: 14/11/2025

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Measurand	Sample	Unit	Result	Assigned value	z score (absolute)	Successful result
Ca	20-008-T	%	2.957	2.970	0.680	Yes
Cr	20-005-C	%	0.043	0.037	0.809	Yes
Cr	20-006-T	%	0.046	0.000		Not Evaluated
Cr	20-007-C	%	0.043	0.037	0.809	Yes
Cr	20-008-T	%	0.046	0.000		Not Evaluated
Cu	20-005-C	%	0.036	0.000		Not Evaluated
Cu	20-006-T	%	0.049	0.000		Not Evaluated
Cu	20-007-C	%	0.037	0.000		Not Evaluated
Cu	20-008-T	%	0.051	0.000		Not Evaluated
Fe	20-005-C	%	12.379	11.978	1.107	Yes
Fe	20-006-T	%	5.150	5.041	0.587	Yes
Fe	20-007-C	%	12.370	11.978	1.082	Yes
Fe	20-008-T	%	5.144	5.041	0.555	Yes
K	20-005-C	%	0.701	0.707	0.410	Yes
K	20-006-T	%	0.927	0.936	0.396	Yes
K	20-007-C	%	0.705	0.707	0.149	Yes
K	20-008-T	%	0.931	0.936	0.198	Yes
Li	20-005-C	%	0.108	0.120	0.940	Yes
Li	20-006-T	%	0.185	0.178	0.298	Yes

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Li	20-007-C	%	0.110	0.120	0.786	Yes
Li	20-008-T	%	0.174	0.178	0.123	Yes
Mg	20-005-C	%	0.633	0.616	0.562	Yes
Mg	20-006-T	%	0.736	0.722	0.776	Yes
Mg	20-007-C	%	0.628	0.616	0.405	Yes
Mg	20-008-T	%	0.741	0.722	1.058	Yes
Mn	20-005-C	%	5.204	4.973	0.909	Yes
Mn	20-006-T	%	1.515	1.428	1.757	Yes
Mn	20-007-C	%	5.178	4.973	0.807	Yes
Mn	20-008-T	%	1.514	1.428	1.747	Yes
Nb	20-005-C	%	15.059	14.914	0.272	Yes
Nb	20-006-T	%	6.189	6.261	0.469	Yes
Nb	20-007-C	%	14.870	14.914	0.084	Yes
Nb	20-008-T	%	6.196	6.261	0.426	Yes
P2O5	20-005-C	%	2.217	0.000		Not Evaluated
P2O5	20-006-T	%	4.324	0.000		Not Evaluated
P2O5	20-007-C	%	2.208	0.000		Not Evaluated
P2O5	20-008-T	%	4.329	0.000		Not Evaluated
Sn	20-005-C	%	8.020	7.977	0.150	Yes

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Measurand	Sample	Unit	Result	Assigned value	z score (absolute)	Successful result
Sn	20-006-T	%	19.407	19.328	0.211	Yes
Sn	20-007-C	%	8.007	7.977	0.103	Yes
Sn	20-008-T	%	19.393	19.328	0.174	Yes
Ta	20-005-C	%	9.120	9.121	0.005	Yes
Ta	20-006-T	%	4.412	4.422	0.138	Yes
Ta	20-007-C	%	9.113	9.121	0.036	Yes
Ta	20-008-T	%	4.416	4.422	0.076	Yes
U	20-005-C	%	382.000	438.394	0.854	Yes
U	20-007-C	µg/g	378.500	438.394	0.907	Yes
W	20-005-C	µg/g	1551.500	0.000		Not Evaluated
W	20-006-T	µg/g	604.000	0.000		Not Evaluated
W	20-007-C	µg/g	1548.000	0.000		Not Evaluated
W	20-008-T	µg/g	584.000	0.000		Not Evaluated
Zn	20-005-C	%	0.236	0.233	0.275	Yes
Zn	20-006-T	%	0.634	0.000		Not Evaluated
Zn	20-007-C	%	0.235	0.233	0.231	Yes
Zn	20-008-T	%	0.633	0.000		Not Evaluated

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QOTHO PTS TANTALUM - 09 - 2025

Summary of Results

Global Sampling and Analysis (XRF Finish)

Lab code: [REDACTED]

Analyte	Successful	Total	Percentage	Within tolerance limits	Too few labs	20-005-C	20-006-T	20-007-C	20-008-T
As		4	50.000 %	0	4	too few labs	too few labs	too few labs	too few labs
Be		2	0.000 %	0	2	too few labs	---	too few labs	---
Ca	Yes	4	100.000 %	4	0	-0.350	-0.299	-0.495	-0.680
Cr	Yes	4	100.000 %	2	2	0.809	too few labs	0.809	too few labs
Cu		4	0.000 %	0	4	too few labs	too few labs	too few labs	too few labs
Fe	Yes	4	100.000 %	4	0	1.107	0.587	1.082	0.555
K	Yes	4	100.000 %	4	0	-0.410	-0.396	-0.149	-0.198
Li	Yes	4	100.000 %	4	0	-0.940	0.298	-0.786	-0.123
Mg	Yes	4	100.000 %	4	0	0.562	0.776	0.405	1.058
Mn	Yes	4	100.000 %	4	0	0.909	1.757	0.807	1.747
Nb	Yes	4	100.000 %	4	0	0.272	-0.469	-0.084	-0.426

Signed:

Takudzwa Tsapayi (Technical Signatory)

Date: 14/11/2025



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Analyte	Successful	Total	Percentage	Within tolerance limits	Too few labs	20-005-C	20-006-T	20-007-C	20-008-T
P205		4		0	4	too few labs	too few labs	too few labs	too few labs
Sn	Yes	4	100.000 %	4	0	0.150	0.211	0.103	0.174
Ta	Yes	4	100.000 %	4	0	-0.005	-0.138	-0.036	-0.076
U	Yes	2	100.000 %	2	0	-0.854	---	-0.907	---
W		4		0	4	too few labs	too few labs	too few labs	too few labs
Zn	Yes	4	100.000 %	2	2	0.275	too few labs	0.231	too few labs

Summarised assessment

38 of 60 sample/measurand combinations examined successfully, which is equivalent to 100.00% (minimum requirement: 80%).

Therewith the minimum requirements for a successful participation in the ring test are fulfilled.

Signed:

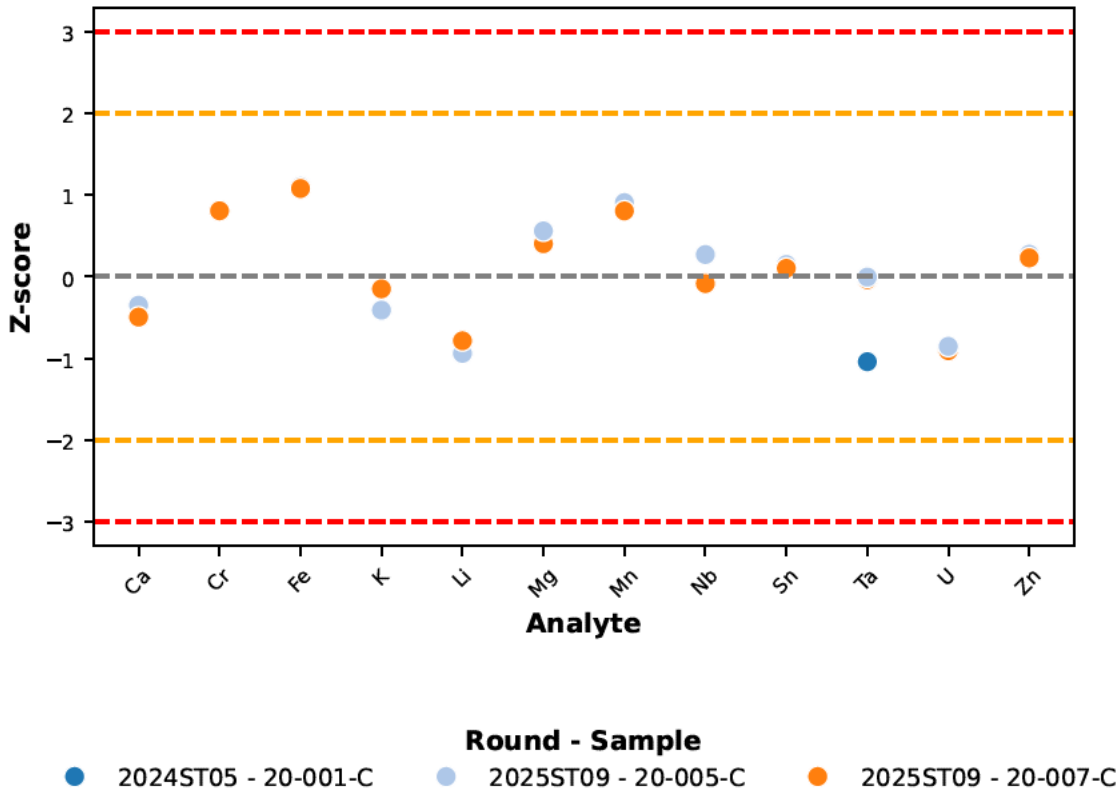
Takudzwa Tsapayi (Technical Signatory)

Date: 14/11/2025



Z-score Trend for Tantalum Concentrate Samples

Z-scores by analyte across multiple PT samples and rounds over the last 3 rounds



Z-score Trend for Tantalum Tail Samples

Z-scores by analyte across multiple PT samples and rounds over the last 3 rounds

