



MEG, LLC

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Certificate of Analysis Au.21.01

MEAN =	0.428	ppm Au	
95% Confidence =	0.379	to	0.476
MEAN =	241.6	ppm Ag	
95% Confidence =	211.7	to	271.5

Prepared By: MEG, LLC
Analyzed By: Ajeet Milliard, PhD
Manufactured for: MEG, LLC
Date of Certification: Friday, August 12, 2022

Origin of Reference Material:

Reference material Au.21.01 was created from gold mineralized welded tuff and doped with gold and silver to generate reported assay values.

This material is not intended to be matrix-matched to any specific ore lithology.

Method of Preparation:

110 kg of ore was jaw crushed and roll crushed.

The batch was comminuted to powder in a ceramic ball mill for 216 hours

Sizing tests of the final product show greater than 95% pass -178um (-80 mesh).

The standard was packaged in 60 g envelopes, each envelope with a removable sticker-label.

Method of Analysis:

Homogeneity and characterization tests were conducted at one lab to estimate multi-element distributions from a 4-acid digestion (0.5 gram) from each of 10 samples.

Ten samples each to 10 laboratories were analyzed using lead fire assayed for gold and silver on 30 gram subsamples, and these data were used to certify the material for gold and silver concentration.

Summarized Assay Results:

PROJECT: Au.21.01

GOLD (LAB) Au reported in ppm (parts per million) **PPM**

DATA POINTS (LAB AVERAGE DATA)	9
MEAN (LABS)	0.428
STANDARD DEVIATION (LABS)	0.024
CV (% RSD)	5.7
RANGE OF VALUES - HIGH	0.475
RANGE OF VALUES - LOW	0.394
95% CONFIDENCE LIMITS	0.379 to 0.476

DATA POINTS (LAB DATA)	9
MEAN (LABS)	241.6
STANDARD DEVIATION (LABS)	14.9
% RSD	6.2
RANGE OF VALUES - HIGH	269.9
RANGE OF VALUES - LOW	222.8
95% CONFIDENCE LIMITS	211.7 to 271.5

Statistical Procedures:

Acceptable assay limits are based on the results of 10 samples shipped to each of 10 laboratories.

Some labs assayed submitted samples twice, in different months, or different years.

The samples were submitted with other MEG standards in randomized order, so that as much as possible, real operating conditions were obtained from the participating laboratories. All of the data were used to determine an acceptable range, based on the mean and standard deviation of the "Lab Average Data". The acceptable reporting range is the "95% Confidence Limit", which is the mean +/- 2 standard deviations. Other statistics are provided to help the user assign viable acceptance boundaries.

Standards with an RSD (Relative Standard Deviation) of near or less than 5% are termed "Certified", while RSD's 5% to 15% are designated "Provisional". RSD's over 15% are "Informational".

Instructions and Recommendations for Use:

Submit the entire contents of one 60 g envelope in random locations in the submittal, approximately every 10-20 samples. Use of blanks (samples with "below detection" concentration of analyte) are also recommended, randomly placed every 30-40 samples.

The analytical request should be the same as that used for the round robin assays that generated this

Intended Use:

The standard material can be used to validate the analysis of samples from gold ores with a similar grade.

As a control sample in routine assay laboratory operations, it should behave within the limits as indicated statistically in this certificate of analysis. Its intended use is to monitor inter-laboratory and instrumental bias

The recommended concentrations and limits for this material are based on multiple assays from several laboratories and reflects a consensus of the inherent chemical concentration. These values are a first attempt at a chemical characterization to which later data may be added as experience with the material increases.

Later data may be added and recommended concentrations changed as experience with the material increases.

Slight variations in analytical procedures between laboratories will result in slight biases to the recommended statistical limits.

This standard material is not recommended for method development, nor instrumental calibration.

Handling Instructions:

The material is packaged in manila tin-top envelopes for easy open and close use. The material should be reblended just prior to use in the assay laboratory. This can be done with a micro-riffle splitter or rubber Simple agitation and shaking is not sufficient to rehomogenize prior to use.

Normal safety precautions for handling powders are recommended. The use of safety glasses, dust inhalation protection, gloves, and a laboratory coat are suggested.

Safety Notice:

A Material Safety Data Sheet (MSDS) is not required for this material. This material will not release or otherwise result in exposure to a hazardous chemical, under normal conditions of use. Use regular precautions as for any work with fine powder material.

Legal Notice:

This certificate and the referenced material have been prepared with due care and attention. However, MEG, LLC and Ajee Milliard, PhD., P.G., accept no liability for any decisions or actions taken following the use of this geochemical reference material.

Assay Data Used to Calculate "True" Gold Value:

Sample	Au (ppm)	SD
LAB 1	0.48	0.02
LAB 2	0.42	0.02
LAB 3	0.43	0.02
LAB 4	0.44	0.03
LAB 5	0.42	0.03
LAB 6	0.45	0.02
LAB 7	0.43	0.03
LAB 8	0.39	0.01
LAB 9	0.40	0.02

Major Constituents as Oxides

Average of 10 samples: 4-acid, ICPMS (Total Digestion)

Raw Data:	Al%	Ca%	Fe%	K%	Mg%	Na%	P%
ICP/MS Data (n=10)	6.68	0.41	0.40	3.67	0.05	2.80	0.00
Conversion Factor	1.8899	1.3992	1.4297	1.2046	1.6579	1.348	2.2916
	AlO2	CaO	Fe2O3	K2O	MgO	Na2O	P2O5
% Oxide:	12.62	0.58	0.57	4.42	0.08	3.77	0.01
Raw Data:	S%	Ti%	Si%				
ICP/MS Data (n=5)	0.01	0.05					
Conversion Factor	2.4953	1.6681	2.1392				
	SO3	TiO2	SiO2				
% Oxide:	0.02	0.08	77.85	estimated			

Participating Laboratories:

American Assay Labs, Sparks
Activation Labs, Ancaster
Activation Labs, Kamloops
ALS, Loughrea
ALS, Vancouver

Bureau Veritas-Inspectorate, Sparks
Kappes Cassidy & Associates (Reno)
McClelland, Reno
Paragon Labs (Sparks)

Certified By:



Ajeet Milliard, PhD

