CDN Resource Laboratories Ltd.

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REFERENCE MATERIAL: CDN-GS-4M

Recommended value and the "Between Laboratory" two standard deviations

Gold	**3.78 g/t ± 0.29 g/t**	**Certified value**	**30g FA / AA or ICP Finish**
Silver	**96 g/t ± 8 g/t**	**Certified value**	**4 Acid Digestion/ ICP or AA Finish**
Silver	**95 g/t ± 8 g/t**	**Certified value**	**FA / Gravimetric Finish**

PREPARED BY: CDN Resource Laboratories Ltd.
CERTIFIED BY: Ali Alizadeh, MSc, MBA, P Geo
INDEPENDENT GEOCHEMIST: Dr. Barry Smee., Ph.D., P. Geo.
DATE OF CERTIFICATION: July 10th, 2023

ORIGIN OF REFERENCE MATERIAL:

Standard CDN-GS-4M was prepared from material that was provided to CDN Resource Laboratories by Artemis gold Inc from their Blackwater Gold Project located in British Columbia, Canada. The main matrix of this standard is from felsic to intermediate volcanic rocks with very low signs of alteration Argillic alteration.

550 kg of Artemis gold Inc's Blackwater deposit was blended with 10Kg of high-grade gold ore supplied by Teuton Resources from their Clone gold property in B.C., Canada. Silver in CDN-GS-4M sourced from 300kg of Hecla Mining's Greens Creek deposit.

The Blackwater deposit is considered an example of a volcanic-hosted, epithermal-style gold silver deposit. Pervasive stockwork veined and disseminated sulphide mineralization at Blackwater is hosted within felsic to intermediate volcanic rocks that have undergone extensive silicification and hydrofracturing. The geological setting, style of gold-silver mineralization, and associated alteration assemblage for the Blackwater deposit share the characteristics of both low and intermediate sulphidation epithermal deposit types, according to the classification system of Sillitoe and Hedenquist (2003). Gold-silver mineralization is associated with a variable assemblage of pyrite-sphaleritemarcasite-pyrrhotite ± chalcopyrite ± galena ± arsenopyrite (± stibnite ± tetrahedrite ± bismuthite). Sulphide and gangue mineralogy are reasonably characteristic of an intermediate sulphidation regime as defined by Sillitoe and Hedenquist (2003). However, the massive finegrained silicification present at Blackwater is more typical of high-sulphidation deposits and minor carbonate gangue of a low-sulphidation environment.

Mineralization of Clone gold property is localized within highly silicified semi-massive to massive specular hematite.

Gold occurs as fine disseminations and is associated with oxide mineralization. The major lithology is light grey to green andesitic pyroclastic intercalated with fine grained to aphanitic andesite.

The Greens Creek deposit is a polymetallic, stratiform, massive sulfide deposit. The host rock consists of predominantly marine sedimentary, and mafic to ultramafic volcanic and plutonic rocks, which have been subjected to multiple periods of deformation. Mineralization occurs discontinuously along the contact between a structural hanging wall of quartz mica carbonate phyllites, and a structural footwall of graphitic and calcareous argillite.

Ore lithologies fall into two broad groups: massive ores with over 50% sulfides and white ores with less than 50% sulfides. The massive ores are further subdivided as either base-metal or pyrite dominant. Massive ores vary greatly in precious-metal grade from uneconomic to bonanza Au (>.5 opt) and Ag (>100 opt).

METHOD OF PREPARATION:

Material was dried, crushed, pulverized, and then passed twice through a 270-mesh screen. The +270 material was discarded. The -270 material was mixed for 5 days in a double-cone blender. Splits were taken and sent to 11 commercial laboratories for round robin assaying.

ASSAY PROCEDURES:

Au: 30g FA / AA or ICP Finish
Ag: 30g FA / Gravimetric Finish
Ag: 4 Acid Digestion/ ICP or AA Finish
The whole rock analysis was conducted on 3 samples.

STATISTICAL PROCEDURES:

The final limits were calculated after first determining if all data was compatible within a spread normally expected for similar analytical methods done by reputable laboratories. Data from any one laboratory was removed from further calculations when the mean of all analyses from that laboratory failed a t test of the global means of the other laboratories. The mean and standard deviation were calculated using all remaining data. Any analysis that fell outside of the mean ±2 standard deviations was removed from the ensuing database. The mean and standard deviations were again calculated using the remaining data. This method is different from that used by Government agencies in that the actual "between-laboratory" standard deviation is used in the calculations. This produces upper and lower limits that reflect actual individual analyses rather than a grouped set of analyses. The limits can therefore be used to monitor accuracy from individual analyses, unlike the Confidence Limits published on other standards.

Our certified gold values are based on 30 g Fire Assay determinations. For optimal results, we strongly recommend you assay our standards with similar methods using "at least" 30 g of material. Using a smaller sample weight may result in erratic values.

Printed results from Round Robin Assaying are available in Appendix II and can be provided upon request.

Quality Assurance and Quality Control Procedures:

CDN completed a screening and a homogeneity study on CDN-GS-4M, based on ISO 13528-2022 Annex B (Homogeneity and Stability of proficiency test items).

Screening Test: After completion of homogenization, three samples, 300g each of homogenized material was randomly collected and was re-screened by a testing sieve. Over size material of this standard and based on CDN's screening test was ~%1.0. (Appendix III).

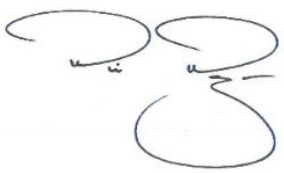
Homogeneity Test: During homogeneity test, 15 randomly selected samples from CDN-GS-4M were sent to one of the round-robin participating labs. Each sample was assaying twice and reported separately.

Assay results went through a statistical work-up by checking the mean, standard deviation, and %RSD. Based on performed statistical works outlined by ISO 13528; CDN-GS-4M is statistically homogenized (Appendix III).

LEGAL NOTICE:

This certificate and the reference material described in it have been prepared with due care and attention. However, CDN Resource Laboratories Ltd. nor Barry Smee accept any liability for any decisions or actions taken following the use of the reference material. Our liability is limited solely to the cost of the reference material.

Certified by



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Geochemist

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Dr. Barry Smee, PhD, P. Geo.

APPENDIX I:

Whole rock analysis and 30 element ICP analysis (4-acid digestion) were also conducted on 3 samples.

APPROXIMATE CHEMICAL COMPOSITION (by whole rock analysis):

Analyte	Percent	Analyte	Percent
SiO_2	65.3	**Na_2O**	3.6
Al_2O_3	12.8	**MgO**	1.7
Fe_2O3	6.2	**K2O**	1.7
CaO	3.0	**TiO_2**	0.4
MnO	0.1	**LOI**	2.5
Total S	1.0	**Total C**	0.3

APPENDIX II:

RESULTS FROM ROUND ROBIN ASSAYING:

Sample	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5	Lab 6	Lab 7	Lab 8	Lab 9	Lab 10	Lab 11	Lab 12	Lab 13	Lab 14	Lab 15
	Au by Fire Assay, 30g sample size and Instrumental finish														
GS-4M	3.52	3.91	3.70	3.86	3.92	3.77	3.71	4.00	3.35	3.754	3.932	3.887	3.70	3.93	3.25
	3.57	3.50	3.95	3.31	3.98	3.75	3.71	3.86	3.65	3.926	3.861	3.913	3.88	3.82	3.39
	3.54	3.84	3.95	3.90	4.12	3.97	3.52	3.57	3.87	3.678	3.901	3.884	3.59	3.84	2.47
	3.58	3.63	3.86	3.85	4.08	3.73	3.84	3.84	3.52	3.712	3.843	3.818	3.72	3.82	3.22
	3.61	3.75	3.87	3.71	4.11	3.77	3.74	3.67	3.59	3.685	3.813	4.056	3.71	3.74	3.36
	3.70	3.64	3.89	3.68	3.82	3.87	3.44	3.92	3.70	3.764	3.918	4.014	3.68	3.88	3.12
	3.73	3.77	3.42	3.91	4.13	3.61	3.70	3.89	3.66	3.931	3.931	3.944	3.76	3.61	3.29
	3.57	3.59	3.71	3.85	4.04	3.87	3.66	3.90	3.59	3.706	3.881	3.984	3.47	3.91	3.19
	3.67	3.77	3.98	3.60	4.26	3.79	3.50	3.95	3.58	3.713	3.895	3.897	3.84	3.62	2.81
	3.60	3.85	4.01	3.85	3.83	3.77	3.60	3.69	3.53	3.816	3.873	3.849	3.61	4.14	3.29
Mean	3.61	3.73	3.83	3.75	4.03	3.79	3.64	4	3.60	3.769	3.885	3.925	3.70	3.83	3.14
Std. Devn.	0.07	0.13	0.18	0.19	0.14	0.10	0.12	0.14	0.13	0.09	0.04	0.07	0.12	0.15	0.29
% RSD	1.92	3.50	4.67	4.97	3.50	2.55	3.42	3.63	3.74	2.49	1.00	1.90	3.24	4.04	9.10
	Ag by 4 Acid digestion and ICP finish														
GS-4M	92	99	101	97	98	100	99	95	98.0	100	90.8	100	<100	91	99.4
	96	100	89	98	98	98	94	92	98.0	96	91.8	97	101	94	88.8
	94	91	88	101	100	99	101	93	96.5	98	90.4	95	101	90	93.9
	92	96	91	97	100	101	102	95	98.0	95	89.8	100	<100	90	99.0
	95	93	92	95	98	99	97	99	101.0	99	89.2	101	<100	91	96.1
	95	96	94	95	99	103	95	98	104.0	101	92.4	94	<100	96	108.0
	100	90	92	95	97	101	101	89	102.0	92	90.1	96	<100	95	105.0
	94	95	93	96	98	99	96	94	102.0	97	89.7	101	<100	91	97.9
	96	96	89	100	96	104	97	95	103.0	98	92.0	99	<100	92	97.2
	94	101	92	98	98	101	99	95	97.5	99	90.7	91	<100	93	98.6
Mean	95	96	92	97	98	101	98	95	100.0	98	90.7	97	101	92	98.4
Std. Devn.	2.30	3.65	3.76	2.10	1.23	1.90	2.726	2.84	2.68	2.64	1.07	3.37	0.00	2.11	5.34
% RSD	2.43	3.82	4.08	2.16	1.25	1.89	2.779	3.00	2.68	2.70	1.18	3.46	0.00	2.29	5.43
	Ag (g/t) by Fire Assay Gravimetric finish														
GS-4M	97	105		93	93	93	94	93		103	<100	104	105	97	80.9
	96	102		94	90	95	95	94		95	<100	105	98	94	82.9
	96	109		96	90	96	96	91		97	<100	103	98	94	56.9
	96	109		94	87	96	97	93		98	<100	93	93	93	85.0
	95	107		94	93	94	98	92		104	<100	101	108	96	87.0
	97	101		95	78	91	95	93		96	<100	90	100	99	75.0
	97	101		95	91	97	95	92		99	<100	89	98	95	83.6
	96	107		95	93	96	98	94		100	<100	160	98	98	84.6
	99	103		96	90	95	96	91		98	<100	95	100	92	80.2
	93	102		93	90	95	95	93		98	<100	89	98	92	85.3
Mean	96	105		95	90	95	96	93		99	#DIV/0!	103	100	95	80.1
Std. Devn.	1.55	3.20		1.08	4.45	1.75	1.370	1.07		2.86	#DIV/0!	21.04	4.17	2.45	8.84
% RSD	1.61	3.06		1.14	4.98	1.85	1.429	1.16		2.89	#DIV/0!	20.44	4.19	2.58	11.04

Au and Ag by gravimetric finish results from Lab 15 were removed for failing the

PARTICIPATING LABORATORIES: (not in same order as table of assays)

Activation Labs, Ancaster, Ontario, Canada	Bureau Veritas, Perth, Australia
Activation Labs, Thunder Bay, Ontario, Canada	Bureau Veritas, Vancouver, BC, Canada
AGAT, Mississauga, Ontario, Canada	Certimin S.A., Lima, Peru
ALS, Brisbane, Australia	MS Analytical, Langley, BC, Canada
ALS, Lima, Peru	SGS, Vancouver, BC, Canada
ALS, Loughrea, Ireland	SGS, Lakefield, ON, Canada
ALS, Perth Australia	SRC, Saskatoon, SK, Canada
ALS Canada, North Vancouver, BC, Canada	

APPENDIX III: QAQC

The table below illustrates percentages of over size (+275 mesh) material in CDN-GS-4M.

Standard	Study Date	Total weight Screened (g)	Total weight Over size (g)	Percentage
CDN-GS-4M	3/6/2023	300	0.5	0.2%
CDN-GS-4M	3/6/2023	300	0.5	0.2%
CDN-GS-4M	3/6/2023	300	0.45	0.2%

The table below illustrates the Homogeneity study results of CDN-GS-4M.

	Au Original	Au Repeat	Between Sample Variance Wt	Sample Avg. Xt	Stdev of Sample Avg	Within-Sample Std.
GS-4M	3.611	3.704	0.093	3.658	0.004	0.009
	3.692	3.674	0.018	3.683	0.007	0.000
	3.609	3.501	0.108	3.555	0.002	0.012
	3.510	3.766	0.256	3.638	0.002	0.066
	3.670	3.632	0.038	3.651	0.003	0.001
	3.487	3.535	0.048	3.511	0.007	0.002
	3.407	3.578	0.171	3.493	0.011	0.029
	3.522	3.654	0.132	3.588	0.000	0.017
	3.640	3.663	0.023	3.652	0.003	0.001
	3.559	3.800	0.241	3.680	0.007	0.058
	3.651	3.604	0.047	3.628	0.001	0.002
	3.632	3.388	0.244	3.510	0.008	0.060
	3.593	3.556	0.037	3.575	0.000	0.001
	3.569	3.532	0.037	3.551	0.002	0.001
	3.484	3.676	0.192	3.580	0.000	0.037
Statistics			**Gavg**	**SX**	**SW**	**SS**
Mean	3.576	3.618	**3.597**	**0.064**	**0.099**	**0.029**
SD	0.0803	0.1066	**C**	**C SQRT**		
RSD	2.246	2.945	**0.0139**	**0.12**		

Based on Statistical procedures outlined in Annex B, ISO 13528:2015 guidelines, if "SS is < square root of C" Standard is considered homogeneous. **GS-4M is statistically homogenous**

APPENDIX IV: General Notes

Intended Use

This Certified Reference Material, fit for use as a control sample in routine assay laboratory quality control when inserted within runs of test samples and measured in parallel to test samples. This material can also be used for method development, use as independent calibration verification check standard or for validation of accuracy in a method validation exercise.
This CRM can also be used to assess inter-laboratory or instrument bias and establish within-laboratory precision and within-laboratory reproducibility. The certified concentrations and expanded uncertainty for this material are property values based on an inter-laboratory measurement campaign and reflect consensus results from the laboratories that took part in the exercise.

Handling

Do not use if the seal is broken or there are any signs of contamination.
The material is packaged in either Tin Tie envelopes, foil envelopes or jars that must be shaken before use.

Storage information

The material should be stored in a dry place, in such a way that it does not compromise the integrity of the CRM. The material should be stored in conditions which will ensure it does not absorb moisture.

Metrological Traceability

The values quoted herein are based on the consensus values derived from statistical analysis of the data from an inter-laboratory measurement program. Traceability to SI units is via the standards used by the individual laboratories the majority of which are accredited to the ISO17025 general requirements for the competence of testing and calibration laboratories and who have maintained measurement traceability during the analytical process.

Period of Validity

The certified values are valid for this product, while still sealed in its original packaging, until notification to the contrary.
The stability of the material will be subject to continuous testing for the duration of the inventory. Should product stability become an issue, all customers will be notified and notification to that effect will be placed on the http://www.cdnlabs.com/ website.

Minimum Sample Size

Most of the laboratory's reporting used a 0.5g sample size for the ICP and a 30g sample size for the fire assay.
Our certified gold values are based on 30 g Fire Assay determinations. For optimal results, we strongly recommend you assay our standards with similar methods using "at least" 30 g of material. Using a smaller sample weight may result in erratic values. These are the recommended minimum sample sizes for the use of this material.