

CDN Resource Laboratories Ltd.

REFERENCE MATERIAL: CDN-GS-2AD

Recommended value and the "Between Laboratory" two standard deviations

Gold	1.925 g/t ± 0.182 g/t	Certified value	30g FA / AA or ICP Finish
Silver	12.0 g/t ± 1.2 g/t	Certified value	4 Acid digestion/ ICP-MS
Silver	11.8 g/t ± 1.1 g/t	Certified value	4 Acid digestion/ AAS
Silver	11.9 g/t ± 1.1 g/t	Certified value	Aqua digestion/ AAS

PREPARED BY: CDN Resource Laboratories Ltd.
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DATE OF CERTIFICATION: January 9th, 2023

ORIGIN OF REFERENCE MATERIAL:

Standard CDN-GS-2AD 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 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.

The alteration model indicates the presence of two centers of texture destructive sericitic alteration cored by the ammonium-bearing overprint and haloed by early potassic alteration and hornfelsed andesite.

METHOD OF PREPARATION:

Reject ore material was dried, crushed, pulverized, and then passed 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 15 commercial laboratories for round robin assaying.

ASSAY PROCEDURES:

Au: 30 gr Fire assay pre-concentration, Instrumental finish.
Ag: 4 Acid digestion with ICP-MS finish
Ag: 4 Acid digestion with ICP / AAS finish
Ag: Aqua Regia digestion with ICP / AAS finish

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 data base. 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" 30g of material. Using a smaller sample weight may result in erratic values. Results from Round Robin Assaying is available in Appendix 1 and can be provided upon request.

Quality Assurance and Quality Control Procedures:

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.

Homogeneity Test:

15 samples were selected selectively throughout the batch and were sent to an independent assay Laboratories for Homogeneity testing following directions of Annex B, Homogeneity and Stability of proficiency test items, ISO 13528:2015 guidelines.

GS-2AD	Au Original	Au Repeat	Between Sample Variance, Wt	Sample Avg. Xt	Stdev of Sample Avg	Within-Sample Std.
	2.041	1.826	0.215	1.934	0.000	0.046
	1.920	1.998	0.078	1.959	0.000	0.006
	1.937	1.859	0.078	1.898	0.003	0.006
	1.990	2.005	0.015	1.998	0.002	0.000
	1.979	1.884	0.095	1.932	0.000	0.009
	1.971	1.925	0.046	1.948	0.000	0.002
	2.002	1.920	0.082	1.961	0.000	0.007
	1.923	1.893	0.030	1.908	0.002	0.001
	1.966	1.978	0.012	1.972	0.000	0.000
	1.893	2.051	0.158	1.972	0.000	0.025
	2.038	1.888	0.150	1.963	0.000	0.023
	2.109	1.969	0.140	2.039	0.008	0.020
	1.835	1.954	0.119	1.895	0.003	0.014
	1.920	1.938	0.018	1.929	0.001	0.000
	2.002	1.936	0.066	1.969	0.000	0.004
Statistics			Gavg	SX	SS	
Mean	1.968	1.935	1.952	0.038	0.036	
SD	0.0676	0.0599	C	C SQRT		
RSD	3.433	3.096	0.0063	0.08		
Proof of Homogeneity	Based on Statistical procedures outlined in Annex B, ISO 13528:2015 guidelines, If “SS is < square root of C” Standard is considered homogeneous. GS-2AD is statistically homogenous.					

Whole rock analysis and 30 element ICP analysis (4-acid digestion) were also conducted on 5 samples.

APPROXIMATE CHEMICAL COMPOSITION (by whole rock analysis):

Analyte	Percent	Analyte	Percent
SiO ₂	65.5	Na ₂ O	0.1
Al ₂ O ₃	15.7	MgO	0.6
Fe ₂ O ₃	6.6	K ₂ O	5.1
CaO	0.1	TiO ₂	0.4
MnO	0.2	LOI	4.7
Total S	1.7	Total C	<0.01


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	

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



Ali Alizadeh, MSc, MBA, P.Geo.

Geochemist



Dr. Barry Smee, Ph.D., P. Geo.

APPENDIX I:
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-2AD	1.91	1.86	1.74	1.990	1.790	1.955	1.935	1.890	1.73	2.058	1.905	1.940	1.87	2.02	2.00
	1.97	1.80	1.86	1.950	1.860	1.965	1.945	2.080	1.85	1.863	1.956	2.025	1.76	2.21	1.93
	1.86	1.89	1.81	1.975	1.900	2.020	2.020	2.040	1.87	2.085	1.995	1.973	1.79	1.98	1.85
	1.97	2.13	1.87	1.810	1.920	1.865	1.795	1.835	1.94	2.056	1.928	1.941	1.75	2.13	2.02
	1.98	2.00	1.62	1.795	1.835	1.975	1.795	2.150	1.99	2.150	1.972	1.911	1.82	1.99	2.02
	1.91	1.87	1.82	1.925	1.885	2.100	1.820	1.775	2.10	1.930	1.925	1.881	1.92	2.09	1.96
	1.95	1.86	1.90	1.815	1.895	2.040	1.950	1.800	1.93	1.821	1.933	2.085	1.69	1.91	1.93
	2.03	1.88	1.74	2.070	1.995	2.120	1.800	2.030	1.84	1.962	1.905	2.070	1.71	2.04	1.92
	1.94	1.91	1.85	1.870	1.975	2.050	1.935	1.965	1.80	1.967	1.923	1.957	1.88	1.97	2.00
	1.85	1.95	1.67	1.830	1.815	1.965	1.745	1.940	2.00	2.025	1.950	1.972	1.95	1.84	1.87
Mean	1.94	1.92	1.79	1.903	1.887	2.006	1.874	1.951	1.91	1.992	1.939	1.976	1.81	2.02	1.95
Std. Devn.	0.06	0.09	0.09	0.09	0.07	0.08	0.09	0.13	0.11	0.10	0.03	0.07	0.09	0.11	0.06
% RSD	2.87	4.86	5.16	4.89	3.48	3.79	4.94	6.43	5.70	5.14	1.49	3.34	4.90	5.30	3.11
Ag by 4 Acid digestion and ICP-MS finish															
GS-2AD	13	13	11.4	14	12	12	12	13	11.5	12	11.7	11	12.3	11	11
	13	13	12.4	14	12	12	12	12	11.5	14	11.6	12	12.8	11	11
	11	14	11.9	12	13	13	13	22	11.5	12	11.8	10	11.4	12	11
	13	13	11.9	12	13	12	11	14	11.5	12	11.4	12	11.7	12	11
	13	13	11.3	12	12	12	12	12	12.0	12	11.5	12	12.2	11	13
	12	12	11.7	12	12	12	12	12	12.5	12	11.8	9	12.6	13	12
	14	15	12.1	15	13	13	12	12	11.5	12	11.4	12	11.5	12	11
	14	14	11.9	11	12	12	11	13	11.5	12	11.6	12	12.8	11	12
	12	12	11.8	12	12	13	12	13	12.0	11	11.4	11	12.0	12	12
	12	13	11.5	13	11	12	12	13	12.0	12	11.6	11	12.3	12	12
Mean	13	13	11.8	13	12	12	12	14	11.8	12	11.6	11	12.2	12	12
Std. Devn.	0.95	0.92	0.33	1.25	0.63	0.48	0.57	3.026	0.35	0.74	0.15	1.03	0.51	0.67	0.70
% RSD															
Ag by 4 Acid digestion and ICP/ AAS finish															
GS-2AD	12	12	11.7	11	11	12	12	12	11.8		11.8	13	11.2	12	11.5
	12	14	11.1	12	12	12	13	12	12.3		11.5	13	11.5	13	11.4
	10	12	10.8	13	12	12	12	12	11.9		11.2	11	11.7	11	11.4
	11	12	11.5	12	11	11	12	12	12.1		11.6	12	11.3	12	11.6
	12	13	11.0	12	12	12	12	12	11.5		11.5	11	11.6	11	11.0
	13	13	12.1	12	12	11	12	12	11.8		11.3	10	11.3	11	11.6
	14	10	11.2	12	11	12	13	12	11.9		11.4	12	11.4	12	11.2
	14	12	11.9	12	12	12	12	12	11.8		11.3	12	11.8	12	11.1
	13	14	11.7	12	11	12	12	13	12.1		11.5	11	11.2	12	12.0
	11	14	11.7	10	11	12	12	11	11.9		11.0	10	11.9	11	11.1
Mean	12	13	11.5	12	12	12	12	12	11.9		11.4	12	11.5	12	11.4
Std. Devn.	1.32	1.26	0.42	0.79	0.53	0.42	0.42	0.471	0.22		0.22	1.08	0.25	0.67	0.30
% RSD	10.79	10.04	3.70	6.68	4.58	3.57	3.46	3.928	1.83		1.96	9.39	2.19	5.77	2.66
Ag by Aqua Regia and ICP/ AAS finish															
GS-2AD		12			11.55	10.95	12.10	12.65	11.5			11.12			12.6
		12			11.30	10.90	12.45	12.15	11.5			11.35			12.4
		12			11.30	10.90	12.35	11.95	11.5			11.44			12.3
		12			11.50	12.60	12.30	12.75	11.5			11.59			12.7
		12			11.70	12.15	12.75	13.75	12.0			11.55			13.6
		12			11.15	11.25	12.50	11.95	12.5			11.35			11.6
		12			11.80	11.35	12.00	13.10	11.5			11.47			11.7
		12			10.40	11.80	12.40	12.00	11.5			10.84			12.4
		13			11.15	11.05	12.20	12.50	12.0			11.14			11.9
		14			10.85	11.20	13.05	12.70	12.0			11.34			11.6
Mean		12			11.27	11.42	12.41	12.55	11.8			11.32			12.3
Std. Devn.		0.67			0.42	0.58	0.31	0.577	0.35			0.23			0.62
% RSD		5.49			3.70	5.10	2.49	4.600	3.01			2.01			5.05