

CDN Resource Laboratories Ltd.

REFERENCE MATERIAL: CDN-GS-3X

Recommended value and the "Between Laboratory" two standard deviations

Gold	3.226 g/t ± 0.199 g/t	Certified value	30g FA / AA or ICP Finish
Silver	85 g/t ± 5 g/t	Certified value	4 Acid digestion/ Instrumental
Silver	84 g/t ± 6 g/t	Certified value	Aqua digestion/ Instrumental

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: October 4th, 2021

ORIGIN OF REFERENCE MATERIAL:

Standard CDN-GS-3X was prepared from material that became available to CDN Resource Laboratories from Pipeline complex, Cortez Hill Mine, Nevada, blended with 15Kg high-grade gold ore supplied by Teuton Resources from their Clone gold property in B.C., Canada and 30 kg of ore provided by Hecla Green Creek property.

The Pipeline deposit is situated along the Cortez/Battle Mountain trend in the north-central Nevada basin-and-range province. Submicroscopic gold particles are evenly distributed throughout carbonate host rocks. The two-principal lithological units are a sheared and altered thinly-bedded calcareous siltstone and quaternary alluvium varying from chert, argillite, siltstone, limestone and quartzite to fine sands and silts. Major known alterations include; contact metamorphism, decarbonatization, oxidation, silicification and sulfidation.

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 the 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.

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 Instrumental finish
Ag: Aqua Regia digestion with Instrumental 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, 150g 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.

	Au Original	Au Repeat	Between Sample Variance Wt	Sample Avg. Xt	Stdev of Sample Avg	Within-Sample Std.
GS-3X	3.499	3.541	0.042	3.52	0.015	0.002
	3.359	3.369	0.01	3.364	0.001	0.000
	3.394	3.497	0.103	3.446	0.002	0.011
	3.465	3.516	0.051	3.491	0.009	0.003
	3.435	3.455	0.02	3.445	0.002	0.00
	3.271	3.427	0.156	3.349	0.002	0.024
	3.371	3.579	0.208	3.475	0.006	0.043
	3.398	3.342	0.056	3.37	0.001	0.003
	3.583	3.414	0.169	3.499	0.011	0.029
	3.254	3.496	0.242	3.375	0.000	0.059
	3.291	3.279	0.012	3.285	0.012	0.000
	3.185	3.303	0.118	3.244	0.023	0.014
	3.417	3.31	0.107	3.364	0.001	0.011
	3.393	3.347	0.046	3.37	0.001	0.002
	3.352	3.327	0.025	3.34	0.003	0.001
Statistics			Gavg	SX	SW	
Mean	3.378	3.413	3.396	0.08	0.082	
SD	0.1009	0.0963	C	C SQRT	SS	
RSD	2.988	2.821	0.0157	0.13	0.056	
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-3X 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	51.0	Na ₂ O	0.02
Al ₂ O ₃	5.5	MgO	5.4
Fe ₂ O ₃	4.2	K ₂ O	1.5
CaO	13.5	TiO ₂	0.3
MnO	0.06	LOI	17
Total S	2.5	Total C	5.5

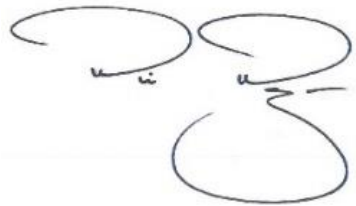
PARTICIPATING LABORATORIES: (not in same order as table of assays)

Activation Labs, Ancaster, Ontario, Canada	Bureau Veritas, Vancouver, BC, Canada
Activation Labs, Thunder Bay, Ontario, Canada	Certimin S.A., Lima, Peru
ALS, Lima, Peru	MS Analytical, Langley, BC, Canada
ALS, Loughrea, Ireland	SGS, Vancouver, BC, Canada
ALS, Perth Australia	SGS, Lakefield, ON, Canada
ALS Reno, USA	Skyline Assayers & Laboratories, Tucson, USA
ALS Canada, North Vancouver, BC, Canada	TSL Laboratories Ltd., Saskatoon, SK, Canada
Bureau Veritas, Perth, Australia	

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.Geol.

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-3X-1	3.20	3.32	3.20	3.01	3.15	3.04	3.61	3.154	3.370	3.330	3.33	3.33	3.10	3.253	3.31
GS-3X-2	3.08	3.42	3.24	3.13	3.08	3.02	3.41	3.176	3.357	3.316	3.23	3.28	3.13	2.824	3.09
GS-3X-3	3.25	3.35	3.15	3.13	3.27	3.11	3.70	3.361	3.324	3.147	3.27	3.23	3.24	2.990	3.08
GS-3X-4	2.89	3.20	3.22	3.15	3.30	3.15	3.72	3.142	3.374	3.060	3.23	3.34	3.14	3.288	3.14
GS-3X-5	3.32	3.17	3.10	3.09	3.23	3.26	3.50	3.220	3.303	3.139	3.22	3.35	3.24	3.155	3.23
GS-3X-6	3.45	3.27	3.24	3.07	3.15	3.31	3.49	3.336	3.322	3.126	3.43	3.40	3.10	3.122	3.13
GS-3X-7	3.43	3.28	3.18	3.06	3.14	3.17	3.63	3.393	3.297	3.211	3.37	3.28	3.21	3.132	3.22
GS-3X-8	3.30	3.32	3.34	3.17	3.22	3.32	3.43	3.132	3.355	3.206	3.23	3.24	3.23	3.293	3.15
GS-3X-9	3.37	3.29	3.33	3.18	3.26	3.28	3.60	3.222	3.392	3.227	3.42	3.13	3.13	3.203	3.17
GS-3X-10	3.28	3.18	3.25	3.14	3.06	3.31	3.48	3.468	3.308	3.042	3.10	3.33	3.17	3.240	3.27
Mean	3.26	3.28	3.23	3.11	3.19	3.20	3.56	3.260	3.34	3.180	3.28	3.29	3.17	3.150	3.18
Std. Devn.	0.169	0.079	0.074	0.054	0.082	0.115	0.110	0.120	0.033	0.097	0.103	0.077	0.057	0.147	0.076
% RSD	5.174	2.413	2.294	1.734	2.572	3.582	3.086	3.666	1.003	3.037	3.150	2.338	1.788	4.661	2.398
Ag by 4 Acid digestion and Instrumental finish															
GS-3X-1	86	88	81	85	91	82	78.5	86	89	85	81.0	85	84.4	80.1	89
GS-3X-2	80	87	82	84	88	83	86.0	91	89	81	82.1	83	82.5	83.8	85
GS-3X-3	82	81	84	90	88	84	82.5	88	83	80	83.9	85	84.8	80.7	86
GS-3X-4	79	83	85	89	88	84	84.5	89	83	84	80.4	82	87.7	82.6	87
GS-3X-5	80	82	83	88	87	85	83.0	86	86	85	80.8	82	89.4	81.2	90
GS-3X-6	79	81	85	85	87	83	85.0	90	89	86	85.4	83	87.3	83.5	87
GS-3X-7	85	85	87	85	84	85	83.5	92	87	83	82.8	83	85.5	81.1	85
GS-3X-8	81	83	85	90	87	84	76.0	88	84	87	86.7	86	88.3	82.3	91
GS-3X-9	80	82	85	85	88	85	81.5	90	88	86	85.1	82	87.6	81.2	89
GS-3X-10	81	86	85	83	89	85	78.0	92	85	88	82.7	84	86.8	80.3	84
Mean	81	84	84	86	88	84	82	89	86	85	83.1	84	86.4	81.7	87
Std. Devn.	2.406	2.530	1.751	2.591	1.767	1.054	3.317	2.201	2.452	2.550	2.138	1.434	2.089	1.299	2.359
% RSD	2.959	3.019	2.080	2.998	2.015	1.255	4.053	2.467	2.841	3.017	2.573	1.717	2.417	1.591	2.703
Ag by Aqua Regia and Instrumental finish															
GS-3X-1	84	91	82	86	89	88	86.6	82	82.1	82.3	82.6	84	79.0		91
GS-3X-2	80	86	84	82	86	87	79.0	85	85.3	79.9	83.6	81	79.4		83
GS-3X-3	80	88	82	84	96	89	77.7	84	83.0	85.4	80.0	83	82.8		83
GS-3X-4	84	91	85	89	86	91	75.1	83	82.4	88.5	83.7	82	82.3		88
GS-3X-5	81	89	86	83	86	85	80.2	84	84.0	84.1	83.4	85	84.0		88
GS-3X-6	81	90	81	87	88	91	85.5	83	86.7	87.5	81.0	83	82.8		84
GS-3X-7	79	95	85	91	85	90	87.7	84	86.2	84.7	83.5	82	83.0		87
GS-3X-8	79	84	87	84	81	87	83.8	83	82.5	83.0	83.8	81	82.4		88
GS-3X-9	77	87	83	90	82	89	67.9	84	83.7	86.1	85.7	82	83.0		87
GS-3X-10	78	89	86	87	79	90	72.8	84	83.7	83.0	82.7	84	84.3		86
Mean	80	89	84	86	86	89	80	84	84.0	84.5	83.0	83	82.3		87
Std. Devn.	2.312	3.055	2.025	3.057	4.756	1.947	6.453	0.843	1.613	2.561	1.579	1.368	1.754		2.550
% RSD	2.879	3.433	2.408	3.542	5.543	2.194	8.104	1.009	1.921	3.033	1.902	1.654	2.131		2.947

Notes:

Labs 14 did not report Ag by aqua regia digest assay results.
 Au results from Lab 7 were removed for failing the t test.