

CDN Resource Laboratories Ltd.

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REFERENCE MATERIAL: CDN-GS-7J

Recommended value and the "Between Laboratory" two standard deviations

Gold	7.34 g/t ± 0.29 g/t	Certified value	30g, FA / Instrumental
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PREPARED BY: CDN Resource Laboratories Ltd.
CERTIFIED BY: Duncan Sanderson, B.Sc., Licensed Assayer of British Columbia
INDEPENDENT GEOCHEMIST: Dr. Barry Smee, PhD, P Geo
DATE OF CERTIFICATION: November 22nd, 2019

ORIGIN OF REFERENCE MATERIAL:

Standard CDN-GS-7J was prepared from material that became available to CDN Resource Laboratories from Pipeline complex, Cortez Hill Mine, Nevada, blended with double refractory ore from the same mine.

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.

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 blender. Splits were taken and sent to 15 commercial laboratories for round robin assaying.

ASSAY PROCEDURES:

Au: 30 gr Fire assay pre-concentration, gravimetric finish.
Whole rock analysis and 30 element ICP analysis (4-acid digestion) were also conducted on 5 samples.

APPROXIMATE CHEMICAL COMPOSITION (by whole rock analysis):

	Percent		Percent
SiO ₂	58.3	Na ₂ O	0.2
Al ₂ O ₃	7.7	MgO	3.7
Fe ₂ O ₃	4.9	K ₂ O	2.0
CaO	10.8	TiO ₂	0.3
MnO	<0.1	LOI	10.0
Total S	2.2	Total C	3.0

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" 30 g of material. Using a smaller sample weight may result in erratic values.

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 (g/t) by Fire Assay, 30g sample size and Gravimetric finish														
GS-7J-1	7.3	7.68	7.54	7.08	7.27	7.06	7.16	7.30	7.30	7.341	7.55	6.98	7.3	7.37	7.58
GS-7J-2	7.4	7.70	7.18	7.35	7.41	7.38	7.29	7.40	7.50	7.418	7.38	7.09	7.6	7.58	7.15
GS-7J-3	7.5	8.16	7.37	7.19	7.32	7.53	7.03	7.41	7.38	7.155	7.36	7.39	7.5	7.24	7.33
GS-7J-4	7.2	7.72	7.49	7.20	7.20	7.51	7.13	7.30	7.40	7.307	7.25	7.39	7.5	7.37	7.32
GS-7J-5	7.2	7.92	7.79	7.74	7.06	7.49	7.55	7.31	7.60	7.237	7.53	7.14	7.4	7.23	7.26
GS-7J-6	7.2	7.97	7.39	7.11	7.27	7.22	7.03	7.37	7.51	7.131	7.25	7.10	7.5	7.30	7.63
GS-7J-7	7.4	8.04	7.44	7.48	7.24	7.46	7.13	7.34	7.38	7.232	7.42	7.26	7.5	7.23	7.38
GS-7J-8	7.2	7.87	7.52	7.11	7.15	7.53	7.11	7.42	7.50	7.357	7.57	7.57	7.4	7.48	7.80
GS-7J-9	7.4	7.83	7.53	7.38	7.31	7.39	7.12	7.42	7.43	7.464	7.58	7.30	7.5	7.27	6.93
GS-7J-10	7.3	7.90	7.37	7.31	7.09	7.39	7.42	7.31	7.45	7.153	7.25	7.50	7.5	7.34	7.40
Mean	7.3	7.88	7.46	7.30	7.23	7.40	7.20	7.36	7.45	7.280	7.41	7.27	7.5	7.34	7.38
Std. Devn.	0.11	0.15	0.16	0.20	0.11	0.15	0.17	0.05	0.09	0.12	0.14	0.19	0.08	0.12	0.25
% RSD	1.51	1.96	2.12	2.81	1.50	2.05	2.37	0.70	1.15	1.60	1.85	2.65	1.10	1.57	3.37

****Note: Au results from Lab. 2 were removed for failing the t test.**


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

AGAT Labs, Ontario, Canada	Certimin S.A., Lima, Peru
ALS Reno, Nevada, USA	SGS, Lima, Peru
ALS Canada, North Vancouver, BC, Canada	SGS, Lakefield, Ontario, Canada
ALS, Loughrea, Ireland	SGS, Vancouver, BC, Canada
ALS, Lima, Peru	Skyline Assayers & Laboratories, AZ, USA
ALS, Perth, Australia	MS Analytical, Langley, BC, Canada
Bureau Veritas, Perth, Australia	TSL Laboratories Ltd., Saskatoon, SK, Canada
Bureau Veritas, 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 
 Duncan Sanderson, Certified Assayer of B.C.

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