# CDN Resource Laboratories Ltd.

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# **GOLD ORE REFERENCE STANDARD: CDN-GS-9A**

Recommended value and the "Between Laboratory" two standard deviations

Gold concentration:  $9.31 \pm 0.69 \text{ g/t}$ 

**PREPARED BY**: CDN Resource Laboratories Ltd.

**CERTIFIED BY:** Duncan Sanderson, B.Sc., Licensed Assayer of British Columbia

INDEPENDENT GEOCHEMIST: Dr. Barry Smee., Ph.D., P. Geo.

**DATE OF CERTIFICATION:** October 11, 2011

## **ORIGIN OF REFERENCE MATERIAL:**

Standard CDN-GS-9A was prepared using ore supplied by Williams Operating Corporation from their Williams Mine in Ontario, Canada.

#### **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 6 days in a double-cone blender. Splits were taken and sent to 15 commercial laboratories for round robin assaying. Round robin results are displayed below:

	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
Sample	Au gpt														
GS-9A-1	8.90	9.35	9.54	9.39	9.17	9.27	9.90	8.81	10.28	11.11	9.05	9.26	9.64	9.15	10.20
GS-9A-2	8.90	9.82	8.95	9.58	9.10	9.33	9.53	9.06	9.51	10.63	8.88	9.50	9.81	8.91	9.95
GS-9A-3	9.00	9.68	9.47	9.45	8.93	9.42	9.00	9.00	9.66	9.82	8.78	9.26	9.93	8.17	10.40
GS-9A-4	9.40	9.31	9.24	8.83	9.08	9.58	9.53	8.80	10.84	10.03	8.85	9.49	9.78	9.34	9.92
GS-9A-5	9.00	9.17	9.32	9.52	8.85	9.57	8.99	9.09	9.61	9.99	9.19	9.30	9.74	9.16	9.88
GS-9A-6	8.70	9.88	9.06	9.27	9.01	9.23	9.87	8.86	10.07	9.89	8.78	9.57	9.80	8.72	10.60
GS-9A-7	8.80	9.67	9.10	9.30	8.89	9.23	9.28	8.61	9.61	9.71	8.61	9.39	9.62	9.20	9.93
GS-9A-8	9.20	9.50	9.15	9.52	9.02	9.32	9.67	9.02	10.39	9.67	9.12	9.58	9.57	9.34	9.87
GS-9A-9	9.10	9.45	9.06	9.36	9.04	9.02	9.36	8.88	10.20	9.67	8.85	9.28	9.47	9.19	10.30
GS-9A-10	9.10	9.49	9.29	9.94	8.94	9.32	9.12	9.19	9.69	9.86	9.12	9.42	9.83	8.82	10.40
Mean	9.01	9.53	9.22	9.42	9.00	9.33	9.43	8.93	9.99	10.04	8.92	9.41	9.72	9.00	10.15
Std. Dev.	0.202	0.228	0.190	0.281	0.101	0.166	0.332	0.171	0.439	0.469	0.188	0.126	0.140	0.360	0.268
%RSD	2.25	2.39	2.06	2.99	1.12	1.78	3.53	1.92	4.40	4.67	2.10	1.34	1.44	3.99	2.64

Assay Procedure: all assays were fire assay, gravimetric finish on 30g samples.

Results from Laboratory 15 were excluded for failing the t test.

# APPROXIMATE CHEMICAL COMPOSITION (by whole rock analysis):

	Percent		Percent
SiO2	69.4	Na2O	2.2
Al2O3	11.6	MgO	1.6
Fe2O3	5.6	K2O	2.3
CaO	2.2	TiO2	0.4
MnO	0.1	LOI	3.0
S	1.5	С	0.2

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#### **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  $\pm 2$  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.

#### Participating Laboratories:

(not in same order as table of assays)

Acme Analytical Laboratories Ltd., Vancouver, Canada Activation Laboratories, Ancaster, Ontario, Canada Activation Laboratories, Thunder Bay, Ontario, Canada Activation Laboratories, Stewart, B.C., Canada AGAT, Mississauga, Ontario, Canada AHK Geochem, Alaska, USA Alex Stewart Group, Kamloops, B.C., Canada Alex Stewart Argentina SA ALS Chemex, North Vancouver, Canada CIMM, Peru Inspectorate, Richmond, B.C., Canada Omac Laboratory, Ireland Skyline Assayers & Laboratories Ltd, Arizona, USA SGS, Lima, Peru TSL Laboratories Ltd., Saskatoon, Canada

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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 ON Amer

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