# CDN Resource Laboratories Ltd.

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## **REFERENCE MATERIAL: CDN-GS-P1A**

Recommended value and the "Between Laboratory" two standard deviations

Gold	0.143 g/t	±	0.008 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., Ph.D., P. Geo.

**DATE OF CERTIFICATION:** September 5<sup>th</sup>, 2017

#### **ORIGIN OF REFERENCE MATERIAL:**

Standard CDN-GS-P1A was prepared from material that became available to CDN Resource Laboratories from Pipeline complex, Cortez Hill Mine, Nevada.

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 sulfidization. CDN-GS-P1A was prepared from material with very low to no sulfidization and oxidation alteration.

### **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:** Fire assay pre-concentration, AA or ICP finish.

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

#### APPROXIMATE CHEMICAL COMPOSITION (by whole rock analysis):

	Percent		Percent
SiO2	42.2	Na2O	0.2
Al2O3	6.5	MgO	6.5
Fe2O3	1.6	K2O	1.3
CaO	19.2	TiO2	0.3
MnO	<0.1	LOI	21.9
Total S	<0.1	Total C	5.7

#### **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:**

Instrumental	Lab1	Lab2	Lab3	Lab4	Lab5	Lab6	Lab7	Lab8	Lab9	Lab10	Lab11	Lab12	Lab13	Lab14	Lab15
SAMPLE	Au g/t														
GS-P1A-1	0.153	0.140	0.143	0.145	0.148	0.141	0.149	0.137	0.137	0.145	0.139	0.138	0.140	0.145	0.146
GS-P1A-2	0.149	0.132	0.144	0.146	0.151	0.141	0.150	0.134	0.135	0.145	0.140	0.143	0.139	0.145	0.147
GS-P1A-3	0.174	0.135	0.143	0.142	0.145	0.140	0.159	0.140	0.147	0.145	0.140	0.141	0.141	0.145	0.143
GS-P1A-4	0.170	0.136	0.140	0.142	0.141	0.141	0.159	0.136	0.144	0.143	0.138	0.137	0.139	0.140	0.147
GS-P1A-5	0.163	0.153	0.139	0.143	0.143	0.140	0.158	0.132	0.138	0.145	0.139	0.139	0.139	0.145	0.147
GS-P1A-6	0.167	0.156	0.147	0.135	0.139	0.143	0.148	0.139	0.146	0.143	0.141	0.136	0.141	0.147	0.145
GS-P1A-7	0.146	0.149	0.140	0.146	0.145	0.144	0.151	0.138	0.138	0.144	0.141	0.146	0.143	0.154	0.143
GS-P1A-8	0.162	0.158	0.144	0.143	0.142	0.147	0.147	0.138	0.143	0.142	0.143	0.140	0.142	0.149	0.145
GS-P1A-9	0.148	0.147	0.148	0.144	0.144	0.140	0.152	0.140	0.149	0.144	0.142	0.139	0.136	0.140	0.142
GS-P1A-10	0.163	0.153	0.142	0.148	0.140	0.145	0.153	0.135	0.138	0.143	0.141	0.137	0.137	0.145	0.143
Mean	0.160	0.146	0.143	0.143	0.144	0.142	0.153	0.137	0.142	0.144	0.140	0.140	0.140	0.146	0.145
Std. Dev'n	0.0099	0.0095	0.0029	0.0035	0.0037	0.0024	0.0046	0.0026	0.0049	0.0011	0.0015	0.0031	0.0022	0.0041	0.0019
%RSD	6.18	6.48	2.06	2.46	2.56	1.72	2.98	1.93	3.45	0.76	1.07	2.19	1.55	2.79	1.33

Note: Results from laboratory 1 were removed for failing the t test.

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

Activation Laboratories, Ancaster, Ontario, Canada

Activation Laboratories, Thunder Bay, Ontario, Canada

AGAT Labs, Mississauga, Ontario, Canada

ALS Canada, North Vancouver, BC, Canada

ALS, Loughrea, Ireland

ALS, Lima, Peru

Bureau Veritas, Vancouver, BC, Canada

Bureau Veritas, Perth, Australia

Bureau Veritas, Reno, USA

Certimin S.A., Lima, Peru

MS Analytical, Langley, BC, Canada

SGS, Vancouver, BC, Canada

SGS, Lima, Peru

SGS, Lakefield, Ontario, Canada

TSL Laboratories Ltd., Saskatoon, SK, 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

Duscan Sanderson, Certified Assayer of B.C.

Geochemist \_\_\_\_\_

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