

# CDN Resource Laboratories Ltd.

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## REFERENCE MATERIAL: CDN-ME-1101

Recommended values and the “Between Lab” Two Standard Deviations

<i>Gold</i>	<i>0.564 g/t ± 0.056 g/t</i>	<i>Certified value</i>
<i>Silver</i>	<i>68.2 g/t ± 4.6 g/t</i>	<i>Certified value</i>
<i>Copper</i>	<i>0.663 % ± 0.042 %</i>	<i>Certified value</i>
<i>Lead</i>	<i>0.459 % ± 0.024 %</i>	<i>Certified value</i>
<i>Zinc</i>	<i>1.56 % ± 0.09 %</i>	<i>Certified value</i>

**Note:** Standards with an RSD of near or less than 5% are certified; RSD's of between 5% and 15% are Provisional; RSD's over 15% are Indicated. Provisional and Indicated values cannot be used to monitor accuracy with a high degree of certainty.

**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:** January 12, 2012

### **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 mixer. Splits were taken and sent to 14 laboratories for round robin assaying.

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

This standard is made from a mixture of ores.

**Approximate chemical composition (from whole rock analysis) is as follows:**

	Percent		Percent
SiO <sub>2</sub>	61.3	MgO	3.0
Al <sub>2</sub> O <sub>3</sub>	12.1	K <sub>2</sub> O	1.4
Fe <sub>2</sub> O <sub>3</sub>	8.9	TiO <sub>2</sub>	0.6
CaO	3.5	LOI	3.4
Na <sub>2</sub> O	2.3	S	3.0
C	0.1		

### **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 means and standard deviations 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.

### **Assay Procedures:**

**Au:** Fire assay pre-concentration, AA or ICP finish (30g sub-sample).  
**Ag, Cu, Pb, Zn:** 4-acid digestion, AA or ICP finish.

**REFERENCE MATERIAL CDN-ME-1101**

**Results from round-robin assaying:**

	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
	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t	Au g/t
ME-1101-1	0.586	0.563	0.558	0.605	0.51	0.563	0.562	0.609	0.620	0.550	0.540	0.550	0.550	0.599
ME-1101-2	0.618	0.565	0.559	0.605	0.54	0.587	0.631	0.551	0.620	0.582	0.545	0.527	0.600	0.547
ME-1101-3	0.643	0.600	0.543	0.614	0.57	0.569	0.614	0.563	0.590	0.557	0.527	0.518	0.570	0.573
ME-1101-4	0.602	0.533	0.551	0.612	0.59	0.536	0.561	0.604	0.590	0.561	0.531	0.530	0.510	0.556
ME-1101-5	0.637	0.552	0.540	0.594	0.50	0.550	0.646	0.602	0.580	0.552	0.537	0.544	0.500	0.542
ME-1101-6	0.606	0.590	0.557	0.595	0.55	0.596	0.563	0.548	0.540	0.562	0.549	0.514	0.570	0.514
ME-1101-7	0.617	0.564	0.555	0.593	0.54	0.559	0.588	0.621	0.630	0.574	0.558	0.512	0.570	0.525
ME-1101-8	0.611	0.515	0.556	0.593	0.56	0.598	0.594	0.554	0.650	0.575	0.544	0.531	0.570	0.567
ME-1101-9	0.654	0.559	0.523	0.584	0.59	0.572	0.560	0.594	0.590	0.571	0.573	0.526	0.530	0.560
ME-1101-10	0.630	0.579	0.533	0.615	0.52	0.590	0.564	0.607	0.610	0.589	0.540	0.549	0.550	0.575
Mean	0.620	0.562	0.548	0.601	0.547	0.572	0.588	0.585	0.602	0.567	0.544	0.530	0.552	0.556
Std. Devn.	0.0207	0.0251	0.0123	0.0105	0.0313	0.0207	0.0322	0.0280	0.0308	0.0130	0.0133	0.0138	0.0308	0.0250
% RSD	3.33	4.47	2.25	1.74	5.72	3.61	5.47	4.78	5.12	2.28	2.45	2.60	5.59	4.50
	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t	Ag g/t
ME-1101-1	69.6	69.5	71	69.4	68.0	69	64	66.9	57.5	67.5	68.3	70	69	68
ME-1101-2	69.9	67.5	70	65.6	70.0	69	65	65.2	57.6	67.4	69.5	70	68	72
ME-1101-3	71.5	67.9	72	68.2	70.0	69	63	66.1	57.6	67.7	69.3	67	69	66
ME-1101-4	71.1	70.0	71	67.3	68.5	72	63	66.5	58.0	65.4	67.8	67	70	67
ME-1101-5	71.4	71.4	72	65.3	75.5	71	61	65.2	58.9	66.1	68.2	64	69	63
ME-1101-6	71.3	69.5	70	67.8	72.0	70	66	68.6	56.3	68.0	66.7	66	67	66
ME-1101-7	68.6	71.2	71	66.8	73.5	71	62	65.8	56.8	67.5	70.0	64	68	63
ME-1101-8	70.3	68.6	72	66.8	71.5	70	63	66.3	57.1	65.1	69.6	66	70	68
ME-1101-9	68.5	67.8	70	66.6	70.0	69	61	66.7	59.6	66.2	70.6	67	68	68
ME-1101-10	67.9	62.3	71	65.4	69.5	69	59	66.0	58.0	68.2	70.1	65	69	66
Mean	70	69	71	67	71	70	63	66	58	67	69	67	69	67
Std. Devn.	1.3329	2.5863	0.8165	1.3240	2.3100	1.1005	2.0575	0.9799	0.9663	1.1120	1.2170	2.1187	0.9487	2.6268
% RSD	1.90	3.77	1.15	1.98	3.26	1.57	3.28	1.48	1.67	1.66	1.76	3.18	1.38	3.94

**Note:** Au data from Lab 1 was removed for failing the t test.  
Ag data from Lab 9 was removed for failing the t test.

**REFERENCE MATERIAL CDN-ME-1101**

**Results from round-robin assaying:**

	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
	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu
ME-1101-1	0.682	0.661	0.69	0.635	0.66	0.669	0.64		0.630	0.684	0.640	0.635	0.66	0.653
ME-1101-2	0.662	0.660	0.68	0.630	0.66	0.741	0.65		0.630	0.694	0.670	0.709	0.71	0.715
ME-1101-3	0.692	0.648	0.69	0.632	0.66	0.656	0.64		0.670	0.676	0.670	0.687	0.66	0.638
ME-1101-4	0.687	0.634	0.66	0.628	0.66	0.691	0.65		0.630	0.689	0.660	0.691	0.67	0.651
ME-1101-5	0.709	0.641	0.66	0.635	0.67	0.672	0.65		0.660	0.685	0.660	0.656	0.66	0.638
ME-1101-6	0.693	0.646	0.69	0.643	0.67	0.686	0.65		0.640	0.679	0.660	0.813	0.65	0.630
ME-1101-7	0.691	0.673	0.68	0.628	0.66	0.679	0.65		0.690	0.671	0.710	0.663	0.65	0.600
ME-1101-8	0.689	0.648	0.70	0.645	0.66	0.653	0.64		0.670	0.671	0.670	0.647	0.67	0.636
ME-1101-9	0.676	0.648	0.68	0.629	0.66	0.685	0.64		0.660	0.672	0.670	0.675	0.73	0.626
ME-1101-10	0.701	0.632	0.66	0.638	0.67	0.700	0.65		0.660	0.686	0.690	0.738	0.66	0.626
Mean	0.688	0.649	0.679	0.634	0.663	0.683	0.646		0.654	0.681	0.670	0.691	0.671	0.641
Std. Devn.	0.0130	0.0126	0.0145	0.0059	0.0045	0.0251	0.0052		0.0207	0.0081	0.0189	0.0525	0.0245	0.0300
% RSD	1.89	1.94	2.13	0.94	0.69	3.68	0.80		3.16	1.19	2.81	7.59	3.66	4.68
	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb
ME-1101-1	0.48	0.439	0.47	0.468	0.42	0.46	0.46	0.455	0.460	0.47	0.46	0.454	0.45	0.456
ME-1101-2	0.48	0.440	0.47	0.461	0.46	0.43	0.47	0.456	0.470	0.47	0.45	0.465	0.45	0.516
ME-1101-3	0.47	0.443	0.46	0.467	0.45	0.45	0.47	0.457	0.460	0.47	0.45	0.445	0.45	0.474
ME-1101-4	0.48	0.433	0.47	0.452	0.41	0.47	0.47	0.454	0.470	0.46	0.45	0.446	0.45	0.468
ME-1101-5	0.47	0.438	0.47	0.464	0.42	0.46	0.47	0.456	0.520	0.47	0.46	0.431	0.45	0.453
ME-1101-6	0.48	0.440	0.47	0.465	0.51	0.46	0.47	0.454	0.490	0.48	0.45	0.436	0.45	0.458
ME-1101-7	0.47	0.439	0.46	0.466	0.43	0.45	0.47	0.450	0.480	0.47	0.45	0.432	0.45	0.443
ME-1101-8	0.47	0.449	0.47	0.452	0.46	0.42	0.47	0.451	0.490	0.47	0.45	0.449	0.45	0.451
ME-1101-9	0.47	0.446	0.47	0.461	0.51	0.44	0.47	0.451	0.470	0.47	0.47	0.449	0.45	0.449
ME-1101-10	0.47	0.429	0.46	0.463	0.40	0.46	0.48	0.456	0.480	0.47	0.46	0.438	0.45	0.461
Mean	0.47	0.44	0.47	0.46	0.45	0.45	0.47	0.45	0.48	0.47	0.46	0.44	0.45	0.46
Std. Devn.	0.0043	0.0058	0.0048	0.0058	0.0394	0.0156	0.0047	0.0026	0.0179	0.0047	0.0071	0.0106	0.0021	0.0208
% RSD	0.92	1.31	1.03	1.26	8.84	3.47	1.00	0.56	3.74	1.00	1.55	2.38	0.47	4.49
	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn
ME-1101-1	1.60	1.57	1.52	1.51	1.56	1.64	1.52	1.52	1.54	1.53	1.73	1.56	1.55	1.62
ME-1101-2	1.59	1.57	1.51	1.50	1.57	1.63	1.55	1.54	1.59	1.56	1.59	1.57	1.55	1.81
ME-1101-3	1.59	1.57	1.52	1.50	1.60	1.63	1.56	1.55	1.53	1.52	1.61	1.55	1.55	1.84
ME-1101-4	1.58	1.56	1.51	1.50	1.58	1.69	1.58	1.52	1.59	1.55	1.59	1.53	1.54	1.70
ME-1101-5	1.58	1.58	1.52	1.51	1.59	1.65	1.57	1.52	1.65	1.52	1.61	1.51	1.54	1.62
ME-1101-6	1.59	1.53	1.52	1.50	1.51	1.66	1.58	1.53	1.66	1.54	1.56	1.52	1.54	1.61
ME-1101-7	1.55	1.54	1.52	1.49	1.54	1.64	1.58	1.50	1.59	1.52	1.59	1.49	1.54	1.56
ME-1101-8	1.56	1.57	1.51	1.51	1.51	1.65	1.58	1.53	1.66	1.54	1.59	1.52	1.56	1.62
ME-1101-9	1.56	1.57	1.52	1.50	1.52	1.61	1.58	1.53	1.60	1.55	1.66	1.53	1.54	1.61
ME-1101-10	1.56	1.58	1.51	1.50	1.50	1.62	1.58	1.54	1.62	1.52	1.63	1.51	1.54	1.60
Mean	1.58	1.56	1.52	1.50	1.55	1.64	1.57	1.53	1.60	1.54	1.62	1.53	1.54	1.66
Std. Devn.	0.0166	0.0155	0.0052	0.0053	0.0368	0.0225	0.0199	0.0145	0.0457	0.0151	0.0484	0.0247	0.0075	0.0931
% RSD	1.05	0.99	0.34	0.35	2.37	1.37	1.27	0.95	2.85	0.98	2.99	1.62	0.49	5.61

**Note:** Pb data from Lab 5 was removed for failing the t test.  
Lab 8 did not supply Cu data.

**REFERENCE MATERIAL CDN-ME-1101**

**Participating Laboratories:**

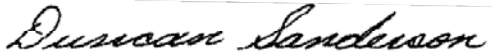
(not in same order as listed in table of results)

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AGAT, Mississauga, Ontario, Canada  
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Certified by

  
\_\_\_\_\_  
Duncan Sanderson, Certified Assayer of B.C.

Geochemist

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