

CDN Resource Laboratories Ltd.

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REFERENCE MATERIAL: CDN-CM-21

Recommended values and the “Between Lab” Two Standard Deviations

<i>Gold</i>	<i>0.467 g/t ± 0.052 g/t</i>	<i>Certified value</i>	<i>30g FA / ICP or AA</i>
<i>Copper</i>	<i>0.527 % ± 0.022 %</i>	<i>Certified value</i>	<i>4-acid / ICP or AA</i>
<i>Copper</i>	<i>0.530 % ± 0.028 %</i>	<i>Certified value</i>	<i>Aqua regia / ICP or AA</i>
<i>Molybdenum</i>	<i>0.036 % ± 0.002 %</i>	<i>Certified value</i>	<i>4-acid / ICP or AA</i>
<i>Molybdenum</i>	<i>0.035 % ± 0.008 %</i>	**Provisional**	<i>Aqua regia / ICP or AA</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: December 09, 2011

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 15 laboratories for round robin assaying.

ORIGIN OF REFERENCE MATERIAL:

Standard CDN-CM-21 was prepared using 783 kg of a granitic rock blended with 17 kg of a Cu-Au-Mo concentrate.

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

	Percent		Percent
SiO ₂	70.2	MgO	1.9
Al ₂ O ₃	11.5	K ₂ O	1.1
Fe ₂ O ₃	5.7	TiO ₂	0.5
CaO	3.2	LOI	2.1
Na ₂ O	2.9	S	0.6
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 ±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.

REFERENCE MATERIAL CDN-CM-21

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	Lab 15
	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	Au g/t
CM-21-1	0.499	0.468	0.480	0.457	0.475	0.44	0.468	0.498	0.49	0.465	0.421	0.474	0.452	0.448	0.43
CM-21-2	0.467	0.476	0.451	0.494	0.457	0.48	0.402	0.495	0.44	0.466	0.451	0.508	0.386	0.476	0.47
CM-21-3	0.419	0.466	0.447	0.477	0.556	0.51	0.453	0.492	0.45	0.473	0.524	0.486	0.437	0.512	0.45
CM-21-4	0.513	0.454	0.476	0.474	0.566	0.41	0.481	0.506	0.42	0.499	0.493	0.473	0.422	0.457	0.46
CM-21-5	0.465	0.473	0.475	0.498	0.547	0.46	0.466	0.507	0.44	0.482	0.500	0.472	0.440	0.492	0.45
CM-21-6	0.469	0.458	0.440	0.485	0.545	0.47	0.456	0.499	0.46	0.414	0.387	0.506	0.459	0.436	0.48
CM-21-7	0.530	0.467	0.463	0.474	0.547	0.48	0.461	0.503	0.42	0.468	0.466	0.484	0.397	0.452	0.45
CM-21-8	0.510	0.472	0.484	0.467	0.510	0.47	0.595	0.505	0.43	0.421	0.474	0.495	0.459	0.443	0.43
CM-21-9	0.452	0.481	0.458	0.463	0.518	0.51	0.426	0.501	0.48	0.416	0.510	0.508	0.464	0.487	0.45
CM-21-10	0.410	0.474	0.481	0.470	0.526	0.46	0.479	0.497	0.44	0.431	0.424	0.489	0.413	0.460	0.43
Mean	0.473	0.469	0.466	0.476	0.525	0.469	0.469	0.500	0.447	0.454	0.465	0.490	0.433	0.466	0.450
Std. Devn.	0.0399	0.0082	0.0158	0.0131	0.0356	0.0300	0.0505	0.0050	0.0236	0.0304	0.0441	0.0143	0.0274	0.0245	0.0170
% RSD	8.43	1.75	3.40	2.75	6.78	6.39	10.78	0.99	5.28	6.69	9.48	2.93	6.33	5.25	3.78
4-acid	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu
CM-21-1	0.508	0.524	0.539	0.508	0.537	0.494	0.549	0.53	0.55	0.52	0.521	0.530	0.53	0.530	0.537
CM-21-2	0.511	0.540	0.499	0.517	0.522	0.499	0.541	0.53	0.53	0.51	0.526	0.539	0.54	0.527	0.526
CM-21-3	0.501	0.529	0.529	0.506	0.526	0.501	0.535	0.53	0.55	0.52	0.519	0.531	0.54	0.516	0.538
CM-21-4	0.505	0.510	0.535	0.507	0.526	0.504	0.537	0.52	0.54	0.51	0.525	0.536	0.53	0.528	0.534
CM-21-5	0.512	0.534	0.531	0.514	0.539	0.488	0.513	0.53	0.54	0.51	0.520	0.530	0.53	0.530	0.530
CM-21-6	0.503	0.512	0.525	0.522	0.531	0.481	0.501	0.53	0.56	0.52	0.543	0.534	0.51	0.519	0.540
CM-21-7	0.508	0.524	0.533	0.512	0.515	0.464	0.530	0.53	0.55	0.52	0.520	0.534	0.53	0.525	0.530
CM-21-8	0.505	0.527	0.545	0.513	0.526	0.494	0.528	0.53	0.53	0.52	0.537	0.529	0.52	0.541	0.531
CM-21-9	0.507	0.506	0.527	0.513	0.530	0.494	0.531	0.53	0.53	0.51	0.520	0.529	0.53	0.530	0.551
CM-21-10	0.509	0.528	0.549	0.514	0.525	0.494	0.542	0.53	0.54	0.53	0.527	0.529	0.52	0.533	0.546
Mean	0.507	0.523	0.531	0.513	0.528	0.491	0.531	0.529	0.542	0.517	0.526	0.532	0.528	0.528	0.536
Std. Devn.	0.0034	0.0109	0.0137	0.0048	0.0069	0.0115	0.0143	0.0032	0.0103	0.0067	0.0082	0.0035	0.0092	0.0070	0.0078
% RSD	0.68	2.08	2.57	0.94	1.31	2.33	2.69	0.60	1.91	1.31	1.56	0.65	1.74	1.33	1.45
Aqua regia	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu
CM-21-1	0.530	0.560	0.565	0.511	0.459	0.546	0.531	0.52	0.53	0.51	0.527	0.537	0.53	0.511	0.541
CM-21-2	0.528	0.552	0.556	0.504	0.456	0.557	0.533	0.53	0.54	0.52	0.529	0.536	0.53	0.513	0.543
CM-21-3	0.524	0.542	0.551	0.511	0.459	0.548	0.520	0.53	0.53	0.52	0.535	0.534	0.53	0.516	0.550
CM-21-4	0.527	0.547	0.563	0.513	0.463	0.560	0.526	0.52	0.53	0.51	0.533	0.528	0.54	0.510	0.540
CM-21-5	0.524	0.562	0.575	0.521	0.458	0.550	0.514	0.53	0.54	0.50	0.531	0.535	0.54	0.525	0.521
CM-21-6	0.527	0.547	0.541	0.509	0.456	0.556	0.517	0.53	0.53	0.49	0.530	0.529	0.53	0.510	0.534
CM-21-7	0.520	0.549	0.575	0.519	0.450	0.548	0.532	0.52	0.53	0.50	0.524	0.532	0.53	0.524	0.533
CM-21-8	0.523	0.561	0.576	0.511	0.457	0.546	0.528	0.53	0.54	0.51	0.528	0.537	0.54	0.516	0.529
CM-21-9	0.523	0.550	0.568	0.501	0.463	0.541	0.534	0.52	0.54	0.52	0.505	0.531	0.53	0.509	0.535
CM-21-10	0.519	0.540	0.544	0.516	0.464	0.549	0.529	0.53	0.54	0.51	0.531	0.539	0.54	0.509	0.511
Mean	0.525	0.551	0.561	0.512	0.458	0.550	0.526	0.526	0.535	0.509	0.527	0.534	0.534	0.514	0.534
Std. Devn.	0.0035	0.0078	0.0129	0.0062	0.0042	0.0058	0.0070	0.0052	0.0053	0.0099	0.0085	0.0037	0.0052	0.0060	0.0113
% RSD	0.67	1.41	2.30	1.21	0.91	1.05	1.34	0.98	0.99	1.95	1.61	0.69	0.97	1.16	2.11

Note: Au data from Lab 5 was excluded for failing the t test.
Four acid Cu data from Lab 6 was excluded for failing the t test.
Aqua regia Cu data from Lab 5 was excluded for failing the t test.

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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	Lab 15
4-acid	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo
CM-21-1	0.036	0.035	0.035	0.036	0.036	0.037	0.037	0.03	0.038	0.04	0.036	0.034	0.037	0.037	0.036
CM-21-2	0.036	0.036	0.033	0.036	0.036	0.036	0.036	0.03	0.039	0.03	0.036	0.035	0.036	0.037	0.036
CM-21-3	0.036	0.036	0.039	0.035	0.036	0.036	0.035	0.03	0.040	0.03	0.037	0.035	0.038	0.036	0.037
CM-21-4	0.035	0.036	0.036	0.036	0.037	0.036	0.036	0.03	0.038	0.04	0.035	0.035	0.037	0.037	0.036
CM-21-5	0.036	0.037	0.037	0.036	0.036	0.036	0.035	0.04	0.039	0.04	0.037	0.035	0.037	0.037	0.036
CM-21-6	0.036	0.035	0.037	0.036	0.037	0.035	0.033	0.03	0.039	0.03	0.037	0.035	0.036	0.036	0.035
CM-21-7	0.036	0.036	0.037	0.036	0.036	0.032	0.036	0.03	0.040	0.04	0.037	0.035	0.036	0.037	0.035
CM-21-8	0.036	0.036	0.037	0.036	0.035	0.036	0.035	0.04	0.041	0.03	0.036	0.035	0.036	0.037	0.035
CM-21-9	0.036	0.036	0.037	0.036	0.035	0.036	0.035	0.03	0.040	0.03	0.037	0.034	0.037	0.037	0.037
CM-21-10	0.035	0.036	0.036	0.036	0.036	0.036	0.037	0.03	0.038	0.03	0.037	0.035	0.036	0.037	0.036
Mean	0.036	0.036	0.036	0.036	0.036	0.036	0.035	0.032	0.039	0.034	0.036	0.035	0.037	0.037	0.036
Std. Devn.	0.0004	0.0006	0.0016	0.0003	0.0006	0.0014	0.0011	0.0042	0.0010	0.0052	0.0007	0.0004	0.0007	0.0004	0.0006
% RSD	1.18	1.58	4.33	0.88	1.56	4.00	3.17	13.18	2.63	15.19	1.99	1.21	1.91	1.15	1.64
Aqua regia	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo
CM-21-1	0.035	0.040	0.036	0.026	0.026	0.041	0.024	0.03	0.038	0.04	0.036	0.035	0.034	0.037	0.036
CM-21-2	0.036	0.037	0.036	0.026	0.026	0.040	0.025	0.03	0.039	0.04	0.037	0.036	0.033	0.037	0.038
CM-21-3	0.037	0.036	0.037	0.026	0.026	0.041	0.024	0.03	0.039	0.04	0.038	0.035	0.034	0.037	0.039
CM-21-4	0.036	0.038	0.037	0.026	0.026	0.041	0.024	0.03	0.039	0.04	0.037	0.035	0.034	0.036	0.037
CM-21-5	0.036	0.037	0.038	0.025	0.027	0.041	0.023	0.03	0.038	0.03	0.037	0.035	0.033	0.037	0.036
CM-21-6	0.035	0.037	0.036	0.027	0.026	0.040	0.023	0.03	0.039	0.03	0.037	0.035	0.033	0.036	0.038
CM-21-7	0.035	0.037	0.037	0.026	0.026	0.041	0.025	0.03	0.039	0.03	0.037	0.036	0.033	0.037	0.038
CM-21-8	0.035	0.036	0.038	0.026	0.026	0.041	0.025	0.03	0.039	0.03	0.037	0.034	0.035	0.036	0.038
CM-21-9	0.035	0.040	0.036	0.027	0.026	0.039	0.025	0.03	0.040	0.03	0.035	0.036	0.033	0.036	0.038
CM-21-10	0.035	0.040	0.037	0.026	0.027	0.040	0.025	0.03	0.039	0.03	0.037	0.035	0.034	0.036	0.036
Mean	0.036	0.038	0.037	0.026	0.026	0.041	0.024	0.030	0.039	0.034	0.037	0.035	0.034	0.037	0.037
Std. Devn.	0.0007	0.0016	0.0008	0.0006	0.0002	0.0006	0.0007	0.0000	0.0006	0.0052	0.0007	0.0006	0.0007	0.0005	0.0010
% RSD	1.99	4.28	2.14	2.17	0.70	1.44	2.72	0.00	1.46	15.19	1.78	1.80	2.08	1.44	2.70

Note: Four acid Mo data from Lab 8 was excluded for failing the t test.
Aqua regia Mo data from Lab 7 was excluded for failing the t test.

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Participating Laboratories:

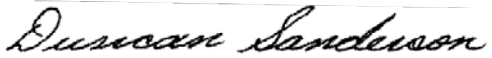
(not in same order as listed in table of results)

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Certified by


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