

CDN Resource Laboratories Ltd.

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REFERENCE MATERIAL: CDN-CM-18

Recommended values and the “Between Lab” Two Standard Deviations

<i>Gold</i>	<i>5.28 g/t ± 0.35 g/t</i>	<i>Certified value</i>	<i>30g FA / instrumental</i>
<i>Gold</i>	<i>5.32 g/t ± 0.35 g/t</i>	<i>Certified value</i>	<i>30g FA / gravimetric</i>
<i>Copper</i>	<i>2.42 % ± 0.22 %</i>	<i>Certified value</i>	<i>4-acid / ICP or AA</i>
<i>Copper</i>	<i>2.37 % ± 0.22 %</i>	<i>Certified value</i>	<i>Aqua regia / ICP or AA</i>
<i>Molybdenum</i>	<i>0.247 % ± 0.030 %</i>	<i>**Provisional**</i>	<i>4-acid / ICP or AA</i>
<i>Molybdenum</i>	<i>0.239 % ± 0.038 %</i>	<i>**Provisional**</i>	<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: November 25, 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-18 was prepared using 700 kg of a granitic rock blended with 100 kg of a Cu-Au-Mo concentrate.

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

	Percent		Percent
SiO ₂	60.5	MgO	2.2
Al ₂ O ₃	11.4	K ₂ O	1.0
Fe ₂ O ₃	10.9	TiO ₂	0.6
CaO	3.4	LOI	4.4
Na ₂ O	2.7	S	4.7
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-18

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
Instrumental	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-18-1	4.99	5.70	5.43	5.27	5.03	5.04	5.41	5.73	5.47	5.60	5.28			5.02	5.14
CM-18-2	5.02	5.10	5.15	5.10	4.99	5.28	5.23	5.18	5.43	5.50	5.10			5.54	5.32
CM-18-3	5.02	5.49	5.35	5.19	4.89	5.18	5.24	5.69	5.28	5.33	5.06			5.22	5.22
CM-18-4	5.04	5.24	5.49	5.34	5.12	5.35	5.58	5.39	5.60	5.53	5.34			5.22	5.19
CM-18-5	5.24	5.61	5.69	5.13	5.01	5.30	5.33	5.33	5.25	5.73	5.08			5.25	5.30
CM-18-6	5.30	4.70	5.40	5.07	5.19	5.25	5.41	5.71	5.45	5.47	5.11			5.43	5.23
CM-18-7	5.35	5.78	5.19	5.13	5.30	5.24	5.38	5.32	5.41	5.47	5.19			5.38	5.33
CM-18-8	5.34	5.43	5.69	5.27	5.18	5.19	5.55	5.39	5.36	5.47	5.06			4.96	5.20
CM-18-9	5.18	5.41	5.69	5.05	5.24	5.39	5.39	5.27	5.34	5.53	5.04			5.55	5.35
CM-18-10	5.19	4.88	5.14	5.03	5.15	5.16	5.04	5.22	5.26	5.47	5.07			5.21	5.32
Mean	5.17	5.33	5.42	5.16	5.11	5.24	5.35	5.42	5.39	5.51	5.13			5.28	5.26
Std. Devn.	0.1417	0.3528	0.2194	0.1054	0.1270	0.1023	0.1573	0.2090	0.1074	0.1034	0.1015			0.1999	0.0713
% RSD	2.74	6.61	4.05	2.04	2.49	1.95	2.94	3.85	1.99	1.88	1.98			3.79	1.36
	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
Gravimetric	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-18-1	5.40	5.38	5.55	5.21	4.99	5.03	5.43	5.65	5.36	5.47	5.50	5.44	5.29	5.38	5.42
CM-18-2	5.20	5.13	5.14	5.12	5.12	5.20	5.59	5.18	5.32	5.50	5.03	5.79	5.42	5.31	5.31
CM-18-3	5.40	5.40	5.63	4.97	5.21	5.10	5.70	5.50	5.21	5.60	4.95	5.56	5.20	5.38	5.42
CM-18-4	5.40	5.31	5.32	5.01	5.05	5.33	5.32	5.61	5.46	5.47	5.25	5.36	5.44	5.35	5.26
CM-18-5	5.30	5.16	5.54	5.30	5.04	5.23	5.45	5.24	5.13	5.39	5.08	5.62	5.36	5.42	5.20
CM-18-6	5.20	5.39	5.14	4.95	5.32	5.10	5.42	5.77	5.52	5.47	5.35	5.81	5.44	5.31	5.20
CM-18-7	5.20	5.12	5.22	5.43	5.20	5.57	5.52	5.41	5.53	5.66	4.75	5.62	5.24	5.38	5.36
CM-18-8	5.30	5.25	5.62	5.05	4.99	5.53	5.32	5.19	5.27	5.52	5.30	5.51	5.34	5.45	5.27
CM-18-9	5.20	5.15	5.35	5.01	5.22	5.47	5.26	5.30	5.08	5.60	4.30	5.38	5.24	5.18	5.38
CM-18-10	5.00	5.09	5.25	4.99	4.94	5.10	5.18	5.23	5.30	5.53	5.28	5.59	5.24	5.56	5.24
Mean	5.26	5.24	5.38	5.10	5.11	5.27	5.42	5.41	5.32	5.52	5.08	5.57	5.32	5.37	5.31
Std. Devn.	0.1265	0.1230	0.1934	0.1604	0.1250	0.1969	0.1561	0.2134	0.1539	0.0798	0.3499	0.1532	0.0915	0.0994	0.0834
% RSD	2.40	2.35	3.60	3.14	2.45	3.74	2.88	3.95	2.89	1.45	6.89	2.75	1.72	1.85	1.57
4-acid	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu
CM-18-1	2.48	2.55	2.53	2.53	2.37	2.47	2.49	2.42	2.36	2.22	2.26	2.52	2.38	2.43	2.58
CM-18-2	2.36	2.62	2.23	2.64	2.40	2.55	2.66	2.41	2.47	2.37	2.18	2.42	2.34	2.32	2.55
CM-18-3	2.44	2.67	2.32	2.60	2.33	2.52	2.57	2.53	2.33	2.17	2.16	2.44	2.35	2.43	2.34
CM-18-4	2.27	2.75	2.31	2.50	2.37	2.57	2.56	2.34	2.48	2.12	2.27	2.75	2.28	2.43	2.31
CM-18-5	2.45	2.48	2.44	2.44	2.28	2.50	2.58	2.37	2.33	2.19	2.37	2.35	2.29	2.52	2.47
CM-18-6	2.43	2.32	2.44	2.49	2.30	2.46	2.81	2.60	2.36	2.34	2.35	2.42	2.26	2.47	2.47
CM-18-7	2.31	2.57	2.43	2.40	2.31	2.43	2.76	2.29	2.31	2.16	2.50	2.42	2.26	2.32	2.44
CM-18-8	2.32	2.45	2.46	2.47	2.28	2.47	2.50	2.47	2.31	2.26	2.80	2.42	2.29	2.24	2.35
CM-18-9	2.34	2.65	2.34	2.53	2.31	2.55	2.45	2.46	2.43	2.50	2.67	2.41	2.34	2.40	2.50
CM-18-10	2.41	2.59	2.51	2.53	2.26	2.50	2.63	2.35	2.34	2.36	2.40	2.41	2.39	2.57	2.48
Mean	2.38	2.57	2.40	2.51	2.32	2.50	2.60	2.42	2.37	2.27	2.40	2.46	2.32	2.41	2.45
Std. Devn.	0.0691	0.1233	0.0964	0.0709	0.0458	0.0461	0.1163	0.0938	0.0643	0.1199	0.2078	0.1103	0.0480	0.0990	0.0912
% RSD	2.91	4.81	4.02	2.82	1.97	1.84	4.47	3.87	2.71	5.29	8.67	4.49	2.07	4.11	3.73

Note: Grav. Au data from Lab 11 was excluded for failing the t test.

REFERENCE MATERIAL CDN-CM-18

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
Aqua regia	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu
CM-18-1	2.51	2.55	2.33		2.25	2.37	2.51	2.45	2.35	2.26	2.89	2.47	2.36	2.37	2.41
CM-18-2	2.35	2.32	2.25		2.28	2.39	2.78	2.29	2.43	2.20	2.60	2.42	2.37	2.30	2.46
CM-18-3	2.51	2.54	2.34		2.22	2.40	2.53	2.19	2.32	2.18	2.39	2.38	2.27	2.54	2.50
CM-18-4	2.33	2.36	2.47		2.25	2.38	2.57	2.26	2.43	2.35	2.39	2.54	2.27	2.39	2.35
CM-18-5	2.44	2.36	2.32		2.32	2.42	2.46	2.44	2.32	2.13	2.43	2.48	2.25	2.35	2.40
CM-18-6	2.56	2.31	2.26		2.29	2.42	2.36	2.28	2.29	2.18	2.76	2.48	2.30	2.31	2.52
CM-18-7	2.30	2.31	2.44		2.26	2.64	2.68	2.28	2.26	2.24	3.20	2.38	2.30	2.32	2.44
CM-18-8	2.35	2.32	2.48		2.27	2.35	2.40	2.25	2.21	2.36	2.42	2.54	2.23	2.43	2.54
CM-18-9	2.43	2.41	2.34		2.29	2.60	2.53	2.33	2.24	2.29	2.57	2.51	2.37	2.41	2.48
CM-18-10	2.49	2.50	2.26		2.25	2.40	2.54	2.46	2.14	2.18	2.39	2.47	2.28	2.41	2.34
Mean	2.43	2.40	2.35		2.27	2.44	2.54	2.32	2.30	2.24	2.60	2.47	2.30	2.38	2.44
Std. Devn.	0.0882	0.0968	0.0863		0.0282	0.0983	0.1236	0.0945	0.0919	0.0773	0.2716	0.0560	0.0506	0.0713	0.0708
% RSD	3.64	4.04	3.68		1.24	4.04	4.87	4.07	4.00	3.46	10.43	2.27	2.20	2.99	2.90
4-acid	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo
CM-18-1	0.262	0.261	0.258	0.255	0.219	0.241	0.230	0.246	0.22	0.247	0.26	0.246	0.24	0.253	0.211
CM-18-2	0.261	0.257	0.256	0.263	0.218	0.234	0.230	0.251	0.22	0.248	0.27	0.247	0.23	0.246	0.228
CM-18-3	0.270	0.263	0.247	0.270	0.217	0.243	0.230	0.252	0.22	0.254	0.27	0.247	0.22	0.250	0.228
CM-18-4	0.252	0.272	0.249	0.265	0.222	0.262	0.230	0.248	0.22	0.252	0.27	0.262	0.23	0.249	0.221
CM-18-5	0.260	0.263	0.259	0.256	0.213	0.221	0.230	0.247	0.22	0.253	0.26	0.250	0.23	0.253	0.227
CM-18-6	0.255	0.259	0.259	0.254	0.214	0.239	0.230	0.258	0.23	0.246	0.28	0.255	0.23	0.252	0.235
CM-18-7	0.246	0.269	0.254	0.253	0.221	0.237	0.240	0.244	0.22	0.246	0.27	0.251	0.23	0.248	0.233
CM-18-8	0.255	0.263	0.251	0.257	0.218	0.234	0.240	0.251	0.22	0.252	0.26	0.253	0.23	0.243	0.220
CM-18-9	0.256	0.264	0.255	0.271	0.220	0.240	0.230	0.253	0.22	0.253	0.27	0.250	0.22	0.250	0.233
CM-18-10	0.256	0.276	0.250	0.270	0.220	0.240	0.230	0.248	0.22	0.251	0.27	0.254	0.24	0.249	0.228
Mean	0.257	0.265	0.254	0.261	0.218	0.239	0.232	0.250	0.221	0.250	0.268	0.251	0.230	0.249	0.226
Std. Devn.	0.0064	0.0059	0.0043	0.0072	0.0029	0.0103	0.0042	0.0040	0.0032	0.0031	0.0063	0.0047	0.0067	0.0031	0.0073
% RSD	2.51	2.23	1.71	2.77	1.33	4.33	1.82	1.62	1.43	1.25	2.36	1.87	2.90	1.26	3.21
Aqua regia	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo
CM-18-1	0.256	0.255	0.251		0.194	0.209	0.270	0.242	0.21	0.246	0.25	0.215	0.24	0.233	0.239
CM-18-2	0.251	0.257	0.252		0.197	0.222	0.270	0.236	0.22	0.244	0.24	0.217	0.23	0.239	0.247
CM-18-3	0.257	0.266	0.26		0.195	0.221	0.270	0.223	0.22	0.252	0.25	0.208	0.22	0.239	0.234
CM-18-4	0.248	0.260	0.257		0.195	0.205	0.270	0.227	0.22	0.249	0.24	0.215	0.23	0.243	0.236
CM-18-5	0.249	0.260	0.258		0.192	0.216	0.270	0.221	0.21	0.249	0.23	0.211	0.23	0.246	0.222
CM-18-6	0.255	0.256	0.256		0.193	0.216	0.260	0.216	0.22	0.252	0.26	0.207	0.23	0.252	0.228
CM-18-7	0.244	0.262	0.272		0.203	0.207	0.270	0.216	0.21	0.249	0.27	0.224	0.23	0.244	0.240
CM-18-8	0.247	0.258	0.273		0.202	0.213	0.260	0.229	0.21	0.248	0.25	0.234	0.22	0.240	0.223
CM-18-9	0.249	0.258	0.256		0.193	0.228	0.270	0.228	0.22	0.242	0.23	0.217	0.24	0.244	0.233
CM-18-10	0.259	0.265	0.257		0.210	0.210	0.270	0.230	0.21	0.244	0.24	0.226	0.23	0.242	0.243
Mean	0.252	0.260	0.259		0.197	0.215	0.268	0.227	0.215	0.248	0.246	0.217	0.230	0.242	0.235
Std. Devn.	0.0049	0.0037	0.0075		0.0058	0.0073	0.0042	0.0083	0.0053	0.0034	0.0126	0.0084	0.0067	0.0050	0.0083
% RSD	1.97	1.42	2.89		2.94	3.41	1.57	3.64	2.45	1.38	5.14	3.85	2.90	2.08	3.52

Note: 4-acid Mo data from Lab 5 was excluded for failing the t test.
Aqua regia Mo data from Lab 5 was excluded for failing the t test.

Some laboratories were not able to provide all the analyses.

REFERENCE MATERIAL CDN-CM-18

Participating Laboratories:

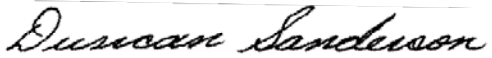
(not in same order as listed in table of results)

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