CDN Resource Laboratories Ltd.

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REFERENCE MATERIAL: CDN-CM-39

Recommended values and the "Between Lab" Two Standard Deviations

Gold	***0.687 g/t***	**±**	***0.064 g/t***	***Certified value***	***30g FA / ICP or AA***
Silver	***5.3 g/t***	**±**	***0.5 g/t***	***Certified value***	***4-acid / ICP or AA***
Silver	***5.1 g/t***	**±**	***0.4 g/t***	***Certified value***	***Aqua regia / ICP or AA***
Copper	***0.538 %***	**±**	***0.024 %***	***Certified value***	***4-acid / ICP or AA***
Copper	***0.533 %***	**±**	***0.020 %***	***Certified value***	***Aqua regia / ICP or AA***
Molybdenum	***0.0137 %***	**±**	***0.0013 %***	***Certified value***	***4-acid / ICP or AA***
Molybdenum	***0.0135 %***	**±**	***0.0014%***	***Certified value***	***Aqua regia / ICP or AA***

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.

The certified value and between lab 2SD calculated for each element are done so for a specific analytical procedure. It is inappropriate to apply them to other techniques (eg. geochemical analyses).

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 20, 2014

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-39 was prepared using ore from a project in the south-central Far East. The ore is from K-silicate, silicic and sericitic altered intermediate volcanic and related intrusive rocks exhibiting porphyry-style copper and gold mineralization. 800 kg of this ore was combined with 4 kg of a gold-copper-molybdenum concentrate.

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

	Percent			Percent
SiO2	66.8		MgO	1.1
Al2O3	12.5		K2O	2.8
Fe2O3	9.3		TiO2	0.4
CaO	1.2		LOI	4.3
Na2O	0.6		S	4.3

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-39

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-39-1	0.728	0.673	0.705	0.707	0.689	0.685	0.678	0.708	0.634	0.764	0.614	0.703	0.688	0.705	0.65
CM-39-2	0.717	0.633	0.726	0.680	0.730	0.718	0.671	0.709	0.660	0.760	0.600	0.744	0.645	0.709	0.62
CM-39-3	0.734	0.685	0.743	0.721	0.669	0.664	0.680	0.710	0.606	0.789	0.622	0.732	0.647	0.694	0.66
CM-39-4	0.635	0.704	0.702	0.695	0.621	0.709	0.658	0.706	0.655	0.758	0.613	0.694	0.694	0.672	0.67
CM-39-5	0.651	0.697	0.715	0.692	0.724	0.732	0.673	0.701	0.651	0.812	0.645	0.725	0.707	0.683	0.66
CM-39-6	0.689	0.686	0.767	0.721	0.659	0.662	0.667	0.714	0.670	0.769	0.678	0.743	0.700	0.658	0.70
CM-39-7	0.684	0.707	0.727	0.720	0.685	0.678	0.646	0.696	0.639	0.806	0.634	0.677	0.692	0.663	0.65
CM-39-8	0.744	0.697	0.724	0.710	0.774	0.777	0.641	0.697	0.614	0.767	0.691	0.701	0.671	0.696	0.70
CM-39-9	0.689	0.747	0.707	0.734	0.750	0.811	0.650	0.710	0.693	0.729	0.691	0.662	0.697	0.662	0.64
CM-39-10	0.719	0.669	0.747	0.681	0.724	0.672	0.696	0.701	0.627	0.760	0.612	0.687	0.723	0.696	0.68
Mean	0.699	0.690	0.726	0.706	0.703	0.711	0.666	0.705	0.645	0.771	0.640	0.707	0.686	0.684	0.663
Std. Devn.	0.0360	0.0295	0.0209	0.0185	0.0462	0.0503	0.0172	0.0061	0.0264	0.0247	0.0347	0.0282	0.0251	0.0189	0.0254
% RSD	5.14	4.28	2.87	2.61	6.57	7.07	2.58	0.86	4.09	3.20	5.42	3.99	3.65	2.76	3.83

4-acid	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	Ag g/t
CM-39-1	8.0	5.3	5.2	6.0	5.1	5.3	5.4	5.3	6.2	5.2	5.5	5.1	5.0	5.2	5.5
CM-39-2	5.0	5.4	5.2	5.0	5.6	5.6	5.1	5.5	5.7	5.3	5.5	4.8	5.0	5.1	5.5
CM-39-3	6.0	5.4	5.5	5.0	5.2	5.1	5.6	5.3	5.5	5.2	5.6	5.1	6.0	5.7	5.5
CM-39-4	6.0	5.3	5.5	6.0	5.7	5.3	5.0	5.2	5.5	5.0	5.4	4.8	5.0	5.6	5.5
CM-39-5	5.0	5.1	5.6	6.0	5.1	5.3	5.3	5.2	5.4	4.7	5.7	4.9	5.0	5.1	6.0
CM-39-6	5.0	5.1	4.9	6.0	5.1	5.3	5.1	5.3	5.8	5.2	5.5	5.1	5.0	5.5	5.5
CM-39-7	6.0	5.8	5.2	5.0	5.1	5.2	5.1	5.2	5.4	5.0	5.6	4.8	5.0	5.2	6.0
CM-39-8	6.0	5.7	5.2	5.0	5.1	5.3	5.2	5.3	5.7	5.3	5.7	5.0	5.0	5.4	5.5
CM-39-9	6.0	5.4	5.1	5.0	5.2	5.6	5.3	5.4	5.2	4.9	5.1	5.1	5.0	5.3	5.5
CM-39-10	5.0	6.0	5.1	6.0	5.5	5.3	5.2	5.2	5.2	4.8	5.7	4.8	6.0	5.4	5.0
Mean	5.8	5.5	5.3	5.5	5.3	5.3	5.2	5.3	5.6	5.1	5.5	5.0	5.2	5.4	5.6
Std. Devn.	0.9189	0.2953	0.2173	0.5270	0.2359	0.1567	0.1767	0.0994	0.3026	0.2119	0.1829	0.1434	0.4216	0.2068	0.2838
% RSD	15.84	5.42	4.14	9.58	4.48	2.94	3.38	1.88	5.44	4.19	3.31	2.90	8.11	3.87	5.11

4-acid	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu
CM-39-1	0.541	0.556	0.536	0.540	0.532	0.566	0.504	0.557	0.546	0.534	0.540	0.529	0.513	0.551	0.548
CM-39-2	0.544	0.563	0.548	0.534	0.523	0.574	0.498	0.549	0.557	0.526	0.540	0.521	0.522	0.549	0.539
CM-39-3	0.545	0.559	0.547	0.526	0.523	0.552	0.486	0.556	0.547	0.533	0.550	0.529	0.520	0.541	0.544
CM-39-4	0.549	0.522	0.541	0.535	0.534	0.546	0.501	0.556	0.560	0.537	0.540	0.522	0.515	0.542	0.532
CM-39-5	0.529	0.528	0.517	0.528	0.534	0.561	0.506	0.548	0.552	0.532	0.540	0.520	0.522	0.549	0.540
CM-39-6	0.539	0.538	0.526	0.532	0.521	0.546	0.512	0.555	0.557	0.535	0.550	0.524	0.513	0.552	0.536
CM-39-7	0.538	0.578	0.525	0.540	0.528	0.538	0.495	0.548	0.541	0.526	0.540	0.529	0.517	0.540	0.543
CM-39-8	0.542	0.586	0.536	0.528	0.534	0.535	0.489	0.556	0.551	0.524	0.540	0.524	0.519	0.547	0.546
CM-39-9	0.553	0.575	0.528	0.524	0.529	0.573	0.493	0.548	0.547	0.533	0.550	0.521	0.518	0.548	0.537
CM-39-10	0.545	0.581	0.509	0.524	0.542	0.552	0.510	0.548	0.547	0.537	0.540	0.525	0.517	0.547	0.532
Mean	0.543	0.559	0.531	0.531	0.530	0.554	0.499	0.552	0.551	0.532	0.543	0.524	0.518	0.546	0.540
Std. Devn.	0.0065	0.0227	0.0127	0.0060	0.0065	0.0139	0.0087	0.0041	0.0060	0.0049	0.0048	0.0035	0.0033	0.0042	0.0056
% RSD	1.20	4.06	2.38	1.14	1.23	2.51	1.75	0.75	1.09	0.92	0.89	0.67	0.63	0.77	1.03

4-acid	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo
CM-39-1	0.0130	0.0126	0.0138	0.0140	0.0134	0.0156	0.0136	0.0140	0.0125	0.0146	0.0140	0.0130	0.0137	0.0132	0.0147
CM-39-2	0.0140	0.0137	0.0137	0.0140	0.0132	0.0159	0.0131	0.0140	0.0136	0.0148	0.0140	0.0130	0.0131	0.0126	0.0129
CM-39-3	0.0140	0.0131	0.0136	0.0140	0.0133	0.0152	0.0129	0.0140	0.0139	0.0142	0.0150	0.0140	0.0129	0.0125	0.0137
CM-39-4	0.0140	0.0131	0.0138	0.0140	0.0133	0.0156	0.0132	0.0140	0.0141	0.0149	0.0150	0.0140	0.0132	0.0126	0.0143
CM-39-5	0.0140	0.0137	0.0131	0.0140	0.0139	0.0159	0.0128	0.0140	0.0142	0.0148	0.0150	0.0140	0.0133	0.0127	0.0152
CM-39-6	0.0130	0.0137	0.0134	0.0130	0.0128	0.0149	0.0128	0.0140	0.0140	0.0150	0.0140	0.0130	0.0134	0.0127	0.0144
CM-39-7	0.0140	0.0142	0.0132	0.0130	0.0138	0.0151	0.0133	0.0140	0.0135	0.0151	0.0140	0.0130	0.0135	0.0128	0.0144
CM-39-8	0.0140	0.0142	0.0134	0.0130	0.0131	0.0149	0.0133	0.0140	0.0137	0.0149	0.0150	0.0140	0.0135	0.0129	0.0139
CM-39-9	0.0140	0.0138	0.0134	0.0140	0.0140	0.0156	0.0131	0.0140	0.0134	0.0148	0.0150	0.0130	0.0135	0.0126	0.0138
CM-39-10	0.0140	0.0143	0.0131	0.0130	0.0136	0.0155	0.0134	0.0140	0.0137	0.0147	0.0150	0.0140	0.0132	0.0127	0.0144
Mean	0.0138	0.0136	0.0135	0.0136	0.0134	0.0154	0.0132	0.0140	0.0137	0.0148	0.0146	0.0135	0.0133	0.0127	0.0142
Std. Devn.	0.0004	0.0006	0.0003	0.0005	0.0004	0.0004	0.0003	0.0000	0.0005	0.0002	0.0005	0.0005	0.0002	0.0002	0.0006
% RSD	3.06	4.06	1.99	3.80	2.83	2.42	2.00	0.00	3.54	1.68	3.54	3.90	1.77	1.57	4.44

Notes: Au results from laboratory 10 were removed for failing the t test.
Four acid Ag results from laboratory 1 were removed for failing the t test.
Four acid Cu results from laboratory 7 were removed for failing the t test.
Four acid Mo results from laboratory 6 were removed for failing the t test.

REFERENCE MATERIAL CDN-CM-39

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	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	Ag g/t
CM-39-1	5.0	5.2	5.3	5.0	5.3	5.0	5.2	5.2	5.3	5.2		4.9	6.0	5.3	5.6
CM-39-2	6.0	5.1	5.4	6.0	5.1	5.1	5.3	5.1	5.5	5.2		5.1	5.0	5.2	5.8
CM-39-3	5.0	5.0	5.5	6.0	5.0	5.0	5.1	5.2	5.4	5.4		4.9	5.0	5.3	5.4
CM-39-4	5.0	4.9	5.1	6.0	5.1	5.1	5.0	5.0	5.1	5.3		5.0	6.0	5.2	5.9
CM-39-5	5.0	4.9	5.1	6.0	4.9	5.1	5.0	5.2	5.4	5.2		4.8	5.0	5.0	5.5
CM-39-6	5.0	5.0	5.2	7.0	5.0	5.0	5.1	5.6	5.4	5.4		5.0	5.0	5.1	5.5
CM-39-7	5.0	5.1	5.4	5.0	5.0	5.2	5.3	4.9	5.4	5.4		4.8	5.0	5.3	5.4
CM-39-8	5.0	5.1	5.4	6.0	5.0	5.1	5.1	5.0	5.3	5.1		5.0	6.0	5.1	5.9
CM-39-9	5.0	5.1	5.4	7.0	5.1	5.2	5.1	4.8	5.4	5.1		4.9	5.0	5.1	5.6
CM-39-10	5.0	5.1	5.4	7.0	5.0	5.1	5.1	5.1	5.9	5.1		4.8	6.0	5.2	5.7
Mean	5.1	5.1	5.3	6.1	5.1	5.1	5.1	5.1	5.4	5.2		4.9	5.4	5.2	5.6
Std. Devn.	0.3162	0.0972	0.1398	0.7379	0.1080	0.0738	0.1059	0.2183	0.2025	0.1265		0.1033	0.5164	0.1033	0.1761
% RSD	6.20	1.92	2.63	12.10	2.14	1.45	2.07	4.27	3.74	2.41		2.10	9.56	1.99	3.14
Aqua regia	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu
CM-39-1	0.543	0.523	0.519	0.539	0.545	0.516	0.534	0.55	0.552	0.535	0.520	0.528	0.540	0.543	0.542
CM-39-2	0.530	0.524	0.508	0.550	0.516	0.543	0.547	0.55	0.546	0.544	0.520	0.509	0.532	0.537	0.529
CM-39-3	0.548	0.535	0.506	0.542	0.518	0.533	0.538	0.55	0.549	0.538	0.520	0.528	0.528	0.533	0.521
CM-39-4	0.526	0.519	0.496	0.544	0.521	0.537	0.532	0.54	0.523	0.543	0.520	0.522	0.530	0.521	0.533
CM-39-5	0.536	0.515	0.492	0.529	0.525	0.534	0.530	0.54	0.539	0.539	0.520	0.509	0.530	0.520	0.525
CM-39-6	0.533	0.523	0.497	0.542	0.511	0.533	0.538	0.55	0.545	0.542	0.530	0.519	0.538	0.518	0.515
CM-39-7	0.523	0.536	0.522	0.531	0.516	0.531	0.544	0.55	0.550	0.534	0.510	0.517	0.535	0.537	0.524
CM-39-8	0.524	0.525	0.517	0.521	0.527	0.544	0.543	0.55	0.537	0.540	0.520	0.529	0.528	0.522	0.538
CM-39-9	0.541	0.524	0.529	0.532	0.525	0.534	0.529	0.55	0.543	0.536	0.520	0.529	0.543	0.534	0.532
CM-39-10	0.534	0.518	0.517	0.540	0.527	0.538	0.524	0.55	0.523	0.546	0.520	0.518	0.533	0.537	0.529
Mean	0.534	0.524	0.510	0.537	0.523	0.534	0.536	0.547	0.541	0.540	0.520	0.521	0.534	0.530	0.529
Std. Devn.	0.0084	0.0067	0.0124	0.0086	0.0094	0.0075	0.0074	0.0037	0.0104	0.0040	0.0047	0.0078	0.0052	0.0090	0.0080
% RSD	1.57	1.29	2.44	1.60	1.80	1.40	1.38	0.67	1.93	0.74	0.91	1.49	0.97	1.69	1.51
Aqua regia	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo	% Mo
CM-39-1	0.0130	0.0141	0.0133	0.0130	0.0092	0.0146	0.0112	0.0130	0.0129	0.0140	0.0140	0.0130	0.0135	0.0118	0.0138
CM-39-2	0.0130	0.0142	0.0133	0.0140	0.0091	0.0152	0.0111	0.0140	0.0119	0.0139	0.0150	0.0130	0.0131	0.0115	0.0140
CM-39-3	0.0140	0.0142	0.0133	0.0140	0.0089	0.0143	0.0109	0.0140	0.0119	0.0137	0.0140	0.0140	0.0127	0.0113	0.0133
CM-39-4	0.0130	0.0138	0.0129	0.0140	0.0090	0.0149	0.0109	0.0140	0.0116	0.0139	0.0140	0.0140	0.0130	0.0112	0.0142
CM-39-5	0.0130	0.0137	0.0130	0.0140	0.0091	0.0151	0.0104	0.0140	0.0112	0.0138	0.0140	0.0130	0.0126	0.0111	0.0133
CM-39-6	0.0130	0.0141	0.0132	0.0140	0.0085	0.0142	0.0109	0.0140	0.0126	0.0138	0.0140	0.0140	0.0125	0.0110	0.0135
CM-39-7	0.0130	0.0144	0.0133	0.0130	0.0089	0.0145	0.0113	0.0140	0.0122	0.0135	0.0140	0.0130	0.0125	0.0116	0.0136
CM-39-8	0.0130	0.0141	0.0135	0.0130	0.0088	0.0145	0.0111	0.0140	0.0106	0.0135	0.0140	0.0140	0.0138	0.0111	0.0139
CM-39-9	0.0130	0.0140	0.0133	0.0130	0.0088	0.0146	0.0110	0.0140	0.0120	0.0138	0.0140	0.0130	0.0128	0.0111	0.0138
CM-39-10	0.0130	0.0135	0.0132	0.0150	0.0091	0.0139	0.0111	0.0140	0.0128	0.0139	0.0140	0.0130	0.0130	0.0107	0.0139
Mean	0.0131	0.0140	0.0132	0.0137	0.0089	0.0146	0.0110	0.0139	0.0120	0.0138	0.0141	0.0134	0.0130	0.0112	0.0137
Std. Devn.	0.0003	0.0003	0.0002	0.0007	0.0002	0.0004	0.0002	0.0003	0.0007	0.0002	0.0003	0.0005	0.0004	0.0003	0.0003
% RSD	2.41	1.92	1.29	4.93	2.31	2.76	2.25	2.28	5.99	1.22	2.24	3.85	3.32	2.85	2.17

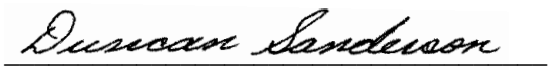
Notes: Aqua regia Ag results from laboratories 4 and 11 were removed for failing the t test.
Aqua regia Cu results from laboratory 3 were removed for failing the t test.
Aqua regia Mo results from laboratories 5 and 7 were removed for failing the t test.
Laboratory 11 did not report aqua regia Ag results.

REFERENCE MATERIAL CDN-CM-39

Participating Laboratories:

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

Bureau Veritas (Acme) , Vancouver, BC, Canada
Activation Laboratories, Ancaster, Ontario, Canada
Activation Laboratories, Thunder Bay, Ontario, Canada
AGAT, Mississauga, Ontario, Canada
ALS Canada, North Vancouver, B.C., Canada
ALS, Loughrea, Ireland
American Assay Laboratories Inc., Sparks, Nevada, USA
Certimin S.A., Lima, Peru
Inspectorate, Lima, Peru
Met-Solve Analytical Services Ltd., Langley, BC, Canada
SGS, Lima, Peru
SGS, Vancouver, BC, Canada
Skyline Assayers & Laboratories, Arizona, USA
TSL Laboratories Ltd., Saskatoon, SK, Canada
Bureau Veritas (Ultra Trace), Perth., Australia

Certified by 

Duncan Sanderson, Certified Assayer of B.C.

Geochemist 

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