

CDN Resource Laboratories Ltd.

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REFERENCE MATERIAL: CDN-ME-19

Recommended values and the “Between Lab” Two Standard Deviations

<i>Gold</i>	<i>0.620 g/t ± 0.062 g/t</i>	<i>Certified value</i>
<i>Silver</i>	<i>103 g/t ± 7 g/t</i>	<i>Certified value</i>
<i>Copper</i>	<i>0.474 % ± 0.018 %</i>	<i>Certified value</i>
<i>Lead</i>	<i>0.98 % ± 0.06 %</i>	<i>Certified value</i>
<i>Zinc</i>	<i>0.75 % ± 0.04 %</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: 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:

The ore was supplied by Capstone Mining Corp. from the Minto Mine in Yukon, Canada. Mineralization is primary chalcopyrite and bornite pervasively disseminated and as stringers within foliated granodiorite units rich in secondary biotite. Sulphide mineralization is typically accompanied by magnetite. Gold is associated with the sulphide mineralization, typically intimately associated with bornite and rarely observed as free gold. 733 kg of the Minto ore was combined with 67 kg of a Au, Ag, Cu, Pb, Zn concentrate.

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

	Percent		Percent
SiO ₂	61.8	MgO	1.3
Al ₂ O ₃	15.1	K ₂ O	2.9
Fe ₂ O ₃	5.7	TiO ₂	0.4
CaO	3.4	LOI	2.7
Na ₂ O	3.6	S	1.5
C	0.3		

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.

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.

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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
	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
ME-19-1	0.597	0.593	0.580	0.612	0.581	0.581	0.571	0.646	0.690	0.614	0.578	0.629	0.639	0.620	0.685
ME-19-2	0.602	0.657	0.601	0.596	0.578	0.628	0.607	0.604	0.634	0.574	0.580	0.628	0.644	0.590	0.720
ME-19-3	0.593	0.613	0.620	0.601	0.631	0.610	0.723	0.651	0.603	0.598	0.595	0.614	0.626	0.610	0.695
ME-19-4	0.603	0.615	0.573	0.616	0.485	0.583	0.600	0.625	0.722	0.633	0.671	0.617	0.672	0.600	0.675
ME-19-5	0.598	0.598	0.592	0.602	0.596	0.558	0.640	0.642	0.586	0.637	0.600	0.599	0.635	0.600	0.685
ME-19-6	0.661	0.657	0.638	0.603	0.623	0.642	0.618	0.623	0.602	0.589	0.617	0.638	0.624	0.600	0.705
ME-19-7	0.655	0.66	0.630	0.610	0.597	0.652	0.603	0.600	0.612	0.603	0.542	0.624	0.667	0.630	0.680
ME-19-8	0.603	0.682	0.610	0.596	0.637	0.593	0.631	0.624	0.592	0.576	0.599	0.614	0.679	0.570	0.715
ME-19-9	0.585	0.699	0.627	0.606	0.629	0.587	0.662	0.685	0.654	0.603	0.680	0.606	0.639	0.570	0.685
ME-19-10	0.663	0.621	0.601	0.603	0.596	0.607	0.669	0.627	0.664	0.622	0.678	0.632	0.666	0.580	0.710
Mean	0.616	0.640	0.607	0.605	0.595	0.604	0.632	0.633	0.636	0.605	0.614	0.620	0.649	0.597	0.696
Std. Devn.	0.0307	0.0364	0.0217	0.0065	0.0442	0.0296	0.0435	0.0247	0.0456	0.0218	0.0473	0.0122	0.0200	0.0200	0.0159
% RSD	4.98	5.69	3.58	1.08	7.43	4.89	6.88	3.90	7.16	3.61	7.70	1.97	3.09	3.35	2.28
	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
ME-19-1	99.3	103	104	95.0	99.2	102	96	101	103.2	108	102	103	106	88	102
ME-19-2	100.2	106	110	100.6	99.1	99	100	99	107.9	107	102	100	105	87	105
ME-19-3	99.5	104	109	100.6	99.7	102	103	103	105.2	110	99	106	107	87	100
ME-19-4	97.3	102	106	100.9	100.7	102	92	102	108.2	108	106	107	107	90	101
ME-19-5	98.4	103	106	101.1	99.4	102	93	101	106.9	109	98	107	108	98	103
ME-19-6	100.6	105	108	100.5	100.4	104	96	102	102.2	110	101	104	105	98	104
ME-19-7	103.0	106	109	100.1	100.5	105	96	98	105.2	110	100	106	104	89	100
ME-19-8	98.9	103	107	100.0	100.8	104	93	98	111.0	113	103	105	107	90	103
ME-19-9	106.8	108	106	99.6	101.2	103	95	98	108.3	112	101	103	105	85	103
ME-19-10	101.6	104	106	99.7	101.3	103	91	102	107.0	108	101	103	103	93	102
Mean	101	104	107	100	100	103	96	100	107	110	101	104	106	91	102
Std. Devn.	2.7257	1.8379	1.8529	1.7514	0.8193	1.6465	3.6893	1.9551	2.6269	1.9003	2.2136	2.2211	1.5670	4.5031	1.6364
% RSD	2.71	1.76	1.73	1.75	0.82	1.60	3.86	1.95	2.47	1.74	2.19	2.13	1.48	4.98	1.60

Note: Ag data from Lab 14 was removed for failing the t test.

REFERENCE MATERIAL CDN-ME-19

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
	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu
ME-19-1	0.474	0.454	0.47	0.470	0.47	0.473	0.47	0.47	0.488	0.486	0.445	0.458	0.47	0.44	0.48
ME-19-2	0.479	0.482	0.47	0.466	0.46	0.471	0.49	0.46	0.487	0.479	0.438	0.465	0.49	0.44	0.47
ME-19-3	0.473	0.456	0.47	0.471	0.47	0.470	0.50	0.47	0.481	0.480	0.432	0.460	0.47	0.44	0.47
ME-19-4	0.472	0.460	0.48	0.470	0.46	0.473	0.48	0.47	0.486	0.474	0.436	0.476	0.47	0.43	0.48
ME-19-5	0.486	0.457	0.47	0.469	0.46	0.473	0.48	0.47	0.487	0.479	0.439	0.466	0.46	0.44	0.49
ME-19-6	0.483	0.474	0.48	0.468	0.47	0.478	0.47	0.48	0.480	0.488	0.449	0.467	0.48	0.44	0.48
ME-19-7	0.487	0.463	0.48	0.460	0.46	0.479	0.47	0.47	0.482	0.485	0.418	0.482	0.48	0.44	0.48
ME-19-8	0.462	0.459	0.48	0.469	0.46	0.478	0.47	0.47	0.485	0.489	0.432	0.472	0.48	0.44	0.48
ME-19-9	0.483	0.477	0.47	0.469	0.46	0.477	0.47	0.48	0.485	0.496	0.442	0.464	0.48	0.44	0.48
ME-19-10	0.483	0.470	0.48	0.468	0.46	0.479	0.48	0.47	0.491	0.483	0.436	0.463	0.45	0.43	0.47
Mean	0.478	0.465	0.475	0.468	0.463	0.475	0.478	0.471	0.485	0.484	0.437	0.467	0.473	0.438	0.478
Std. Devn.	0.0078	0.0098	0.0053	0.0031	0.0048	0.0034	0.0103	0.0057	0.0034	0.0063	0.0085	0.0074	0.0116	0.0042	0.0063
% RSD	1.64	2.11	1.11	0.66	1.04	0.73	2.16	1.21	0.70	1.30	1.95	1.58	2.45	0.96	1.32
	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb
ME-19-1	1.03	0.971	1.01	0.994	0.97	0.96	0.94	0.95	1.022	0.913	0.953	0.979	0.94	0.78	0.96
ME-19-2	1.05	0.971	1.01	1.007	0.94	0.97	0.97	0.97	1.020	0.931	0.935	0.960	0.96	0.77	0.98
ME-19-3	1.03	0.983	1.01	1.018	0.97	0.98	0.97	0.97	1.009	0.944	0.928	0.971	0.96	0.75	0.99
ME-19-4	1.01	0.983	1.03	1.033	0.97	0.97	0.96	0.97	1.017	0.923	0.934	0.975	0.95	0.76	0.97
ME-19-5	1.03	0.983	1.01	1.026	0.97	0.96	0.96	0.97	1.032	0.947	0.912	0.987	0.96	0.78	1.00
ME-19-6	1.05	0.954	1.03	1.002	0.96	0.96	0.95	0.98	1.023	0.941	0.921	0.967	0.94	0.76	0.98
ME-19-7	1.05	0.950	1.03	1.003	0.97	0.98	0.95	0.96	1.025	0.942	0.923	0.974	0.90	0.75	0.96
ME-19-8	1.00	0.983	1.03	0.999	0.98	0.98	0.94	0.96	1.029	0.951	0.956	0.961	0.98	0.76	0.98
ME-19-9	1.02	0.966	1.02	1.006	0.97	0.97	0.95	0.97	1.037	0.963	0.943	0.953	0.94	0.77	0.98
ME-19-10	1.03	0.959	1.03	0.997	1.00	0.97	0.97	0.95	1.038	0.951	0.923	0.957	0.92	0.76	0.97
Mean	1.03	0.97	1.02	1.01	0.97	0.97	0.96	0.97	1.03	0.94	0.93	0.97	0.95	0.76	0.98
Std. Devn.	0.0181	0.0128	0.0099	0.0129	0.0149	0.0082	0.0117	0.0097	0.0090	0.0147	0.0143	0.0107	0.0227	0.0107	0.0125
% RSD	1.75	1.32	0.97	1.28	1.54	0.84	1.23	1.01	0.88	1.56	1.53	1.11	2.41	1.41	1.28
	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn
ME-19-1	0.753	0.767	0.73	0.767	0.76	0.77	0.75	0.75	0.816	0.712	0.764	0.764	0.77	0.58	0.71
ME-19-2	0.726	0.759	0.75	0.764	0.73	0.76	0.77	0.75	0.802	0.710	0.756	0.749	0.78	0.57	0.70
ME-19-3	0.749	0.761	0.74	0.778	0.74	0.77	0.77	0.75	0.790	0.728	0.752	0.762	0.77	0.57	0.70
ME-19-4	0.741	0.764	0.74	0.768	0.71	0.77	0.77	0.74	0.805	0.702	0.770	0.762	0.77	0.56	0.70
ME-19-5	0.765	0.756	0.73	0.765	0.71	0.77	0.77	0.75	0.823	0.722	0.731	0.768	0.77	0.57	0.68
ME-19-6	0.764	0.743	0.76	0.764	0.72	0.78	0.75	0.76	0.816	0.721	0.746	0.756	0.76	0.56	0.72
ME-19-7	0.772	0.731	0.75	0.764	0.70	0.78	0.76	0.75	0.817	0.721	0.747	0.763	0.75	0.56	0.70
ME-19-8	0.724	0.759	0.76	0.762	0.72	0.78	0.75	0.75	0.834	0.732	0.768	0.757	0.80	0.56	0.69
ME-19-9	0.744	0.755	0.75	0.768	0.72	0.77	0.76	0.76	0.849	0.740	0.761	0.757	0.76	0.57	0.71
ME-19-10	0.759	0.753	0.76	0.770	0.75	0.78	0.78	0.75	0.835	0.728	0.752	0.750	0.75	0.56	0.71
Mean	0.75	0.75	0.75	0.77	0.73	0.77	0.76	0.75	0.82	0.72	0.75	0.76	0.77	0.57	0.70
Std. Devn.	0.0162	0.0106	0.0116	0.0047	0.0190	0.0067	0.0106	0.0057	0.0175	0.0113	0.0118	0.0061	0.0148	0.0070	0.0114
% RSD	2.16	1.41	1.55	0.61	2.61	0.87	1.39	0.76	2.14	1.56	1.56	0.81	1.92	1.24	1.62

Note: Cu data from Lab 11 was removed for failing the t test.
Pb and Zn data from Lab 14 was removed for failing the t test.

REFERENCE MATERIAL CDN-ME-19

Participating Laboratories:

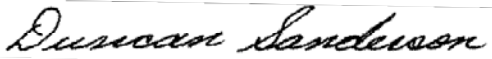
(not in same order as listed in table of results)

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Certified by



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