

CDN Resource Laboratories Ltd.

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REFERENCE MATERIAL: CDN-ME-17

Recommended values and the “Between Lab” Two Standard Deviations

<i>Gold</i>	<i>0.452 g/t ± 0.058 g/t</i>	<i>provisional value (RSD = 6.38%)</i>
<i>Silver</i>	<i>38.2 g/t ± 3.3 g/t</i>	<i>Certified value</i>
<i>Copper</i>	<i>1.36 % ± 0.10 %</i>	<i>Certified value</i>
<i>Lead</i>	<i>0.676 % ± 0.054 %</i>	<i>Certified value</i>
<i>Zinc</i>	<i>7.34 % ± 0.37 %</i>	<i>Certified value</i>

Note 1: Revised certificate on March 16, 2013 to reflect Ag 2 SD = 3.3 g/t

Note 2: 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: February 18, 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 is described as massive to semi-massive sulphides from the Izok Lake orebody, an Archean aged VMS deposit in the Slave structural province of Canada. It consists of pyrite, pyrrhotite, chalcopyrite, sphalerite and minor galena. Gangue minerals include quartz, chlorite, feldspar, cordierite, biotite, magnetite, anthophyllite and grunerite.

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

	Percent		Percent
SiO ₂	45.8	MgO	1.6
Al ₂ O ₃	6.5	K ₂ O	1.2
Fe ₂ O ₃	24.0	TiO ₂	0.2
CaO	1.4	LOI	12.4
Na ₂ O	1.1	S	19.7
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.

Assay Procedures:

Au: Fire assay pre-concentration, AA or ICP finish (10 or 15g 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-17-1	0.45	0.436	0.48	0.534	0.43	0.425	0.552	0.431	0.427	0.49	0.367	0.457	0.459	0.46	0.49
ME-17-2	0.46	0.435	0.50	0.509	0.47	0.416	0.480	0.453	0.420	0.41	0.408	0.457	0.472	0.47	0.42
ME-17-3	0.48	0.450	0.51	0.500	0.43	0.425	0.512	0.455	0.403	0.46	0.405	0.421	0.43	0.52	0.42
ME-17-4	0.46	0.437	0.49	0.446	0.45	0.426	0.545	0.477	0.427	0.48	0.351	0.422	0.475	0.52	0.43
ME-17-5	0.45	0.452	0.51	0.447	0.43	0.375	0.517	0.463	0.408	0.44	0.439	0.460	0.435	0.48	0.41
ME-17-6	0.47	0.568	0.49	0.413	0.45	0.450	0.500	0.407	0.428	0.50	0.401	0.468	0.455	0.53	0.48
ME-17-7	0.47	0.436	0.50	0.443	0.46	0.428	0.464	0.429	0.388	0.45	0.417	0.457	0.435	0.47	0.47
ME-17-8	0.45	0.525	0.47	0.644	0.44	0.378	0.506	0.465	0.433	0.44	0.366	0.420	0.46	0.47	0.44
ME-17-9	0.47	0.446	0.48	0.398	0.42	0.490	0.605	0.429	0.409	0.43	0.369	0.418	0.437	0.50	0.42
ME-17-10	0.46	0.472	0.50	0.436	0.45	0.447	0.527	0.447	0.427	0.45	0.413	0.471	0.448	0.54	0.42
Mean	0.462	0.466	0.493	0.477	0.443	0.426	0.521	0.446	0.417	0.455	0.394	0.445	0.451	0.496	0.440
Std. Devn.	0.0098	0.0452	0.0134	0.0728	0.0162	0.0335	0.0399	0.0213	0.0144	0.0280	0.0284	0.0219	0.0161	0.0295	0.0291
% RSD	2.12	9.70	2.71	15.27	3.65	7.87	7.66	4.77	3.45	6.15	7.22	4.92	3.57	5.95	6.60
	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-17-1	40.3	40	39.0	37	37.9	36.4	40	38.2	34.7	37.9	35.0	39	39	37.0	38.6
ME-17-2	38.8	40	40.5	39	36.4	38.0	41	38.5	36.5	38.6	35.1	39	37	38.4	39.3
ME-17-3	39.5	40	37.5	38	37.7	37.1	39	38.6	36.9	38.6	32.7	38	36	35.5	39.2
ME-17-4	39.6	39	40.5	35	37.4	37.6	39	37.8	35.3	38.4	35.8	40	37	35.4	38.8
ME-17-5	39.1	40	41.0	43	36.8	37.2	40	37.3	34.9	39.6	32.2	37	33	36.2	38.6
ME-17-6	39.0	39	40.5	37	36.9	36.8	40	35.9	34.1	38.3	30.9	37	35	37.5	39.0
ME-17-7	39.4	39	38.0	37	35.5	37.1	40	36.9	35.3	37.7	36.5	38	34	37.4	39.0
ME-17-8	39.5	41	41.0	36	36.6	38.0	41	38.2	32.3	38.3	34.6	37	42	36.4	39.5
ME-17-9	40.1	40	39.0	38	38.4	37.5	41	37.7	33.9	38.7	35.2	38	42	36.1	38.3
ME-17-10	38.8	40	38.5	40	36.3	36.2	41	39.1	33.6	38.9	32.1	37	37	37.1	39.4
Mean	39.4	39.8	39.6	38.0	37.0	37.2	40.2	37.8	34.8	38.5	34.0	38.0	37.2	36.7	39.0
Std. Devn.	0.5087	0.6325	1.3006	2.2608	0.8774	0.6100	0.7888	0.9319	1.3657	0.5306	1.8752	1.0541	3.0478	0.9487	0.3917
% RSD	1.29	1.59	3.29	5.95	2.37	1.64	1.96	2.46	3.93	1.38	5.51	2.77	8.19	2.58	1.01

Note: Au results from Laboratories 7 and 11 were removed for failing the “t” test.
Ag results from Laboratory 11 were removed 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
	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu	% Cu
ME-17-1	1.33	1.42	1.32	1.36	1.37	1.39	1.44	1.39	1.23	1.37	1.34	1.37	1.42	1.27	1.31
ME-17-2	1.33	1.44	1.39	1.37	1.38	1.38	1.43	1.43	1.22	1.36	1.30	1.36	1.32	1.29	1.29
ME-17-3	1.36	1.46	1.32	1.37	1.37	1.39	1.47	1.38	1.22	1.36	1.25	1.33	1.45	1.27	1.32
ME-17-4	1.36	1.45	1.32	1.31	1.39	1.39	1.45	1.39	1.22	1.36	1.21	1.38	1.37	1.29	1.28
ME-17-5	1.34	1.45	1.34	1.34	1.37	1.41	1.48	1.38	1.19	1.36	1.33	1.38	1.36	1.28	1.27
ME-17-6	1.34	1.44	1.29	1.37	1.35	1.41	1.44	1.39	1.22	1.37	1.35	1.38	1.30	1.34	1.28
ME-17-7	1.35	1.44	1.33	1.38	1.37	1.40	1.44	1.37	1.23	1.36	1.28	1.37	1.45	1.31	1.27
ME-17-8	1.36	1.46	1.26	1.34	1.36	1.39	1.46	1.37	1.19	1.37	1.23	1.37	1.35	1.29	1.29
ME-17-9	1.35	1.44	1.31	1.37	1.35	1.37	1.48	1.36	1.22	1.36	1.31	1.42	1.38	1.27	1.31
ME-17-10	1.33	1.46	1.29	1.37	1.35	1.39	1.48	1.42	1.19	1.36	1.30	1.35	1.36	1.30	1.31
Mean	1.35	1.44	1.32	1.36	1.36	1.39	1.46	1.39	1.21	1.36	1.29	1.37	1.38	1.29	1.29
Std. Devn.	0.0127	0.0109	0.0347	0.0205	0.0137	0.0123	0.0182	0.0220	0.0164	0.0050	0.0471	0.0233	0.0506	0.0218	0.0183
% RSD	0.94	0.75	2.63	1.51	1.00	0.88	1.25	1.59	1.35	0.37	3.65	1.70	3.68	1.69	1.41
	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb	% Pb
ME-17-1	0.71	0.673	0.642	0.685	0.658	0.690	0.72	0.70	0.657	0.664	0.737	0.683	0.596	0.63	0.68
ME-17-2	0.71	0.685	0.634	0.669	0.665	0.690	0.73	0.73	0.655	0.680	0.710	0.692	0.662	0.63	0.68
ME-17-3	0.72	0.689	0.645	0.684	0.665	0.680	0.72	0.69	0.656	0.667	0.651	0.687	0.592	0.62	0.68
ME-17-4	0.72	0.686	0.629	0.668	0.664	0.690	0.70	0.70	0.662	0.671	0.641	0.697	0.601	0.63	0.67
ME-17-5	0.71	0.685	0.636	0.662	0.668	0.690	0.72	0.69	0.641	0.670	0.714	0.666	0.613	0.61	0.67
ME-17-6	0.70	0.680	0.630	0.662	0.667	0.700	0.70	0.71	0.659	0.675	0.719	0.680	0.539	0.64	0.68
ME-17-7	0.71	0.685	0.651	0.697	0.675	0.680	0.71	0.69	0.678	0.662	0.670	0.672	0.562	0.62	0.66
ME-17-8	0.72	0.690	0.620	0.685	0.658	0.690	0.72	0.69	0.652	0.677	0.635	0.677	0.674	0.62	0.65
ME-17-9	0.71	0.682	0.649	0.683	0.659	0.670	0.73	0.70	0.668	0.687	0.698	0.693	0.678	0.62	0.66
ME-17-10	0.70	0.682	0.637	0.651	0.664	0.680	0.72	0.72	0.647	0.669	0.688	0.658	0.622	0.63	0.61
Mean	0.711	0.684	0.637	0.674	0.664	0.686	0.717	0.702	0.658	0.672	0.686	0.681	0.614	0.625	0.664
Std. Devn.	0.0074	0.0049	0.0097	0.0140	0.0051	0.0084	0.0106	0.0140	0.0104	0.0076	0.0354	0.0125	0.0464	0.0085	0.0217
% RSD	1.04	0.71	1.52	2.08	0.76	1.23	1.48	1.99	1.58	1.13	5.16	1.84	7.56	1.36	3.27
	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn	% Zn
ME-17-1	7.45	7.21	7.17	7.63	7.42	7.53	7.43	7.19	6.63	7.26	7.84	7.31	7.31	7.40	6.96
ME-17-2	7.48	7.25	7.31	7.57	7.42	7.47	7.59	7.41	6.99	7.48	7.81	7.53	7.15	7.32	7.04
ME-17-3	7.50	7.38	7.26	7.60	7.46	7.48	7.53	7.13	7.05	7.48	7.77	7.38	7.22	7.18	6.88
ME-17-4	7.57	7.32	7.03	7.15	7.72	7.51	7.32	7.17	6.83	7.52	7.37	7.48	7.16	7.26	6.84
ME-17-5	7.43	7.34	7.13	7.39	7.58	7.51	7.52	7.16	6.77	7.38	8.01	7.32	7.02	7.25	6.92
ME-17-6	7.42	7.24	7.07	7.44	7.45	7.55	7.40	7.22	6.67	7.35	7.86	7.36	7.08	7.30	7.00
ME-17-7	7.53	7.29	7.23	7.49	7.53	7.48	7.36	7.09	6.86	7.32	7.09	7.29	7.15	7.21	7.00
ME-17-8	7.58	7.34	7.05	7.26	7.47	7.47	7.61	7.12	6.31	7.35	6.43	7.29	7.25	7.23	7.08
ME-17-9	7.49	7.22	7.26	7.40	7.42	7.32	7.58	7.17	6.62	7.69	7.68	7.46	7.33	7.22	7.04
ME-17-10	7.37	7.29	7.10	7.47	7.33	7.44	7.72	7.36	6.73	7.71	7.53	7.03	7.02	7.40	7.08
Mean	7.48	7.29	7.16	7.44	7.48	7.48	7.51	7.20	6.75	7.45	7.54	7.35	7.17	7.28	6.98
Std. Devn.	0.0668	0.0571	0.0995	0.1493	0.1069	0.0636	0.1260	0.1038	0.2103	0.1509	0.4740	0.1391	0.1096	0.0767	0.0826
% RSD	0.89	0.78	1.39	2.01	1.43	0.85	1.68	1.44	3.12	2.02	6.29	1.89	1.53	1.05	1.18

Note: Cu results from Laboratory 9 were removed for failing the “t” test.
Pb results from Laboratory 13 were removed for failing the “t” test.
Zn results from Laboratory 9 were removed for failing the “t” test

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Participating Laboratories:

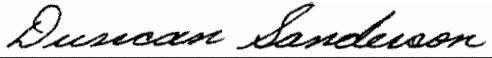
(not in same order as listed in table of results)

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Certified by


Duncan Sanderson, Certified Assayer of B.C.

Geochemist


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