

# CDN Resource Laboratories Ltd.

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## ORE REFERENCE STANDARD: CDN-W-4

Recommended values and the "Between Lab" Two Standard Deviations

<i>Gold</i>	<i>0.319 ± 0.040 g/t</i>	<i>("provisional value, RSD = 6.4%)</i>
<i>Copper</i>	<i>0.139 ± 0.008 %</i>	
<i>Molybdenum</i>	<i>0.110 ± 0.008 %</i>	
<i>Tungsten</i>	<i>0.366 ± 0.024 %</i>	

### **\*\* Note:**

Standards with an RSD of near or less than 5 % are certified, RSD's of between 5 % and 15 % are Provisional, and 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 15, 2008

### **METHOD OF PREPARATION:**

Reject ore material was dried, crushed, pulverized and then passed through a 200 mesh screen. The +200 material was discarded. The -200 material was mixed for 5 days in a double-cone blender. Splits were taken and sent to twelve laboratories for round robin assaying.

### **ORIGIN OF REFERENCE MATERIAL:**

The tungsten ore was supplied from underground workings at North America Tungsten's Cantung mine in the NWT. It is high sulphide consisting primarily of pyrite containing chalcopyrite. Native gold and bismuth are associated with the chalcopyrite. The tungsten occurs as scheelite. 155 kg of this ore was combined with various Cu / Mo / Au ores to make 800 kg of standard CDN-W4

### **Approximate chemical composition is as follows:**

	Percent		Percent
SiO <sub>2</sub>	56.2	MgO	2.3
Al <sub>2</sub> O <sub>3</sub>	12.7	K <sub>2</sub> O	2.4
Fe <sub>2</sub> O <sub>3</sub>	13.7	TiO <sub>2</sub>	0.5
CaO	3.8	LOI	4.5
Na <sub>2</sub> O	2.0	S	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.

## STANDARD REFERENCE MATERIAL CDN-W-4

### Results from round-robin assaying:

#### Assay Procedures:

- Au:** Fire assay pre-concentration, AA or ICP finish (30g sub-sample).  
**Cu, Mo:** 4-acid digestion, AA or ICP finish.  
**W:** variety of methods: fusion/XRF, pressed pellet/XRF, 4-acid/AA or ICP

	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5	Lab 6	Lab 7	Lab 8	Lab 9	Lab 10	Lab 11	Lab 12
	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
CDN-W4-1	0.339	0.311	0.343	0.339	0.314	0.30	0.328	0.308	0.324	0.305	0.399	0.317
CDN-W4-2	0.302	0.297	0.294	0.341	0.317	0.30	0.326	0.307	0.313	0.310	0.326	0.325
CDN-W4-3	0.356	0.307	0.290	0.333	0.330	0.36	0.304	0.306	0.355	0.315	0.323	0.322
CDN-W4-4	0.347	0.332	0.297	0.341	0.337	0.31	0.356	0.289	0.335	0.280	0.295	0.325
CDN-W4-5	0.325	0.319	0.299	0.285	0.327	0.33	0.303	0.296	0.335	0.283	0.329	0.330
CDN-W4-6	0.304	0.297	0.301	0.348	0.314	0.27	0.322	0.288	0.319	0.304	0.357	0.393
CDN-W4-7	0.330	0.334	0.333	0.315	0.326	0.32	0.340	0.315	0.380	0.304	0.326	0.305
CDN-W4-8	0.307	0.306	0.296	0.359	0.324	0.34	0.315	0.344	0.346	0.326	0.347	0.322
CDN-W4-9	0.311	0.297	0.322	0.325	0.326	0.34	0.325	0.301	0.303	0.308	0.288	0.308
CDN-W4-10	0.302	0.297	0.289	0.363	0.334	0.31	0.315	0.293	0.312	0.291	0.331	0.320
Mean	0.322	0.310	0.306	0.335	0.325	0.318	0.323	0.305	0.332	0.303	0.332	0.327
Std. Devn.	0.0200	0.0143	0.0191	0.0227	0.0080	0.0257	0.0160	0.0164	0.0233	0.0142	0.0313	0.0245
% RSD	6.22	4.62	6.25	6.77	2.45	8.09	4.95	5.38	7.01	4.71	9.42	7.51
	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %	Cu %
CDN-W4-1	0.136	0.144	0.139	0.126	0.144	0.139	0.141	0.134	0.139	0.144	0.136	0.137
CDN-W4-2	0.136	0.146	0.139	0.126	0.143	0.138	0.141	0.133	0.138	0.143	0.140	0.135
CDN-W4-3	0.135	0.144	0.135	0.122	0.142	0.139	0.141	0.133	0.138	0.143	0.138	0.133
CDN-W4-4	0.137	0.144	0.135	0.127	0.145	0.139	0.141	0.132	0.139	0.142	0.134	0.136
CDN-W4-5	0.132	0.144	0.139	0.134	0.143	0.140	0.141	0.132	0.137	0.142	0.143	0.135
CDN-W4-6	0.138	0.143	0.136	0.120	0.143	0.137	0.141	0.132	0.140	0.143	0.132	0.134
CDN-W4-7	0.136	0.139	0.138	0.117	0.144	0.139	0.142	0.133	0.140	0.143	0.145	0.140
CDN-W4-8	0.135	0.142	0.137	0.121	0.145	0.138	0.141	0.133	0.138	0.142	0.128	0.142
CDN-W4-9	0.137	0.140	0.139	0.117	0.143	0.139	0.142	0.133	0.139	0.144	0.143	0.141
CDN-W4-10	0.145	0.144	0.136	0.120	0.145	0.140	0.141	0.133	0.138	0.143	0.130	0.144
Mean	0.137	0.143	0.137	0.123	0.144	0.139	0.141	0.133	0.139	0.143	0.137	0.138
Std. Devn.	0.0033	0.0021	0.0017	0.0053	0.0011	0.0009	0.0004	0.0006	0.0010	0.0007	0.0059	0.0038
% RSD	2.44	1.47	1.24	4.28	0.74	0.66	0.30	0.48	0.70	0.52	4.29	2.74

**Note:** 1. "Cu" data from laboratory 4 was excluded from the calculations for failing the "t" test

**STANDARD REFERENCE MATERIAL CDN-W-4**

	Lab 1	Lab 2	Lab 3	Lab 4	Lab 5	Lab 6	Lab 7	Lab 8	Lab 9	Lab 10	Lab 11	Lab 12
	Mo %	Mo %	Mo %	Mo %	Mo %	Mo %	Mo %	Mo %	Mo %	Mo %	Mo %	Mo %
CDN-W4-1	0.109	0.109	0.104	0.108	0.115	0.106	0.115	0.108	0.105	0.120	0.112	0.111
CDN-W4-2	0.110	0.111	0.105	0.114	0.114	0.105	0.115	0.108	0.103	0.119	0.114	0.111
CDN-W4-3	0.111	0.109	0.110	0.111	0.113	0.108	0.115	0.109	0.104	0.121	0.117	0.113
CDN-W4-4	0.109	0.110	0.107	0.108	0.114	0.106	0.115	0.107	0.102	0.119	0.114	0.114
CDN-W4-5	0.110	0.112	0.108	0.107	0.115	0.105	0.115	0.108	0.101	0.119	0.117	0.113
CDN-W4-6	0.107	0.111	0.103	0.109	0.113	0.106	0.117	0.107	0.103	0.118	0.116	0.115
CDN-W4-7	0.110	0.109	0.109	0.107	0.113	0.107	0.118	0.108	0.107	0.121	0.118	0.115
CDN-W4-8	0.111	0.108	0.108	0.113	0.116	0.107	0.117	0.106	0.104	0.119	0.114	0.111
CDN-W4-9	0.111	0.110	0.102	0.111	0.113	0.107	0.117	0.108	0.105	0.120	0.120	0.112
CDN-W4-10	0.112	0.114	0.106	0.108	0.113	0.108	0.117	0.108	0.103	0.118	0.119	0.116
Mean	0.110	0.110	0.106	0.110	0.114	0.107	0.116	0.108	0.104	0.119	0.116	0.113
Std. Devn.	0.0014	0.0018	0.0027	0.0025	0.0011	0.0011	0.0012	0.0008	0.0017	0.0011	0.0026	0.0019
% RSD	1.29	1.60	2.50	2.28	0.97	1.01	1.03	0.76	1.64	0.90	2.20	1.64
	W %	W %	W %	W %	W %	W %	W %	W %	W %	W %	W %	W %
CDN-W4-1	0.373	0.34	0.369	0.365	0.289	0.353	0.364	0.392		0.362	0.375	0.368
CDN-W4-2	0.375	0.34	0.370	0.363	0.300	0.354	0.364	0.403		0.361	0.355	0.368
CDN-W4-3	0.375	0.35	0.368	0.358	0.262	0.359	0.370	0.385		0.356	0.369	0.368
CDN-W4-4	0.369	0.34	0.382	0.365	0.231	0.360	0.365	0.396		0.365	0.386	0.369
CDN-W4-5	0.376	0.35	0.367	0.366	0.281	0.350	0.373	0.377		0.362	0.369	0.368
CDN-W4-6	0.372	0.34	0.403	0.372	0.284	0.346	0.366	0.391		0.356	0.371	0.366
CDN-W4-7	0.376	0.35	0.393	0.366	0.260	0.345	0.365	0.378		0.362	0.359	0.367
CDN-W4-8	0.381	0.35	0.395	0.359	0.295	0.361	0.370	0.367		0.365	0.362	0.362
CDN-W4-9	0.386	0.35	0.394	0.366	0.278	0.343	0.372	0.374		0.365	0.363	0.368
CDN-W4-10	0.386	0.34	0.391	0.369	0.300	0.336	0.369	0.372		0.361	0.351	0.366
Mean	0.377	0.345	0.383	0.365	0.278	0.351	0.368	0.384		0.362	0.366	0.367
Std. Devn.	0.0057	0.0053	0.0136	0.0042	0.0215	0.0082	0.0034	0.0117		0.0033	0.0102	0.0020
% RSD	1.51	1.53	3.56	1.14	7.75	2.34	0.92	3.05		0.92	2.80	0.54

**Note:**

1. "Mo" data from laboratory 10 was excluded from the calculations for failing the "t" test
2. "W" data from laboratory 5 was excluded from the calculations for failing the "t" test
3. Lab 9 was unable to perform the "W" assays.

**STANDARD REFERENCE MATERIAL CDN-W-4**

**Participating Laboratories:**

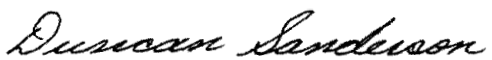
(not in same order as listed in table of results)

Acme Analytical Laboratories Ltd., Vancouver  
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ALS Chemex Laboratories, North Vancouver  
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Certified by

  
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Duncan Sanderson, Certified Assayer of B.C.

Geochemist

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