

# Certificate of Analysis

## Shea Clark Smith /MEG, Inc.

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### MEG-Li.10.13

Certified Reference Material

MEAN = 0.118 percent Li  
95% Confidence = 0.099 to 0.138

**Prepared By:** Shea Clark Smith / Minerals Exploration & Environmental Geochemistry

**Certified By:** Shea Clark Smith, MSc.( Geochemistry)

**Manufactured for:** MEG LABS

**Date of Certification:** 3/21/2011

#### Origin of Reference Material:

Certified Reference Material MEG-Li.10.13 was created from mineralized rock from Silver Peak Lithium Mine, Esmeralda County, NV.

This material is not intended to be matrix-matched to any specific ore lithology.

#### Method of Preparation:

110 Kg of naturally mineralized rock was dried at 100C, jaw crushed, and roll crushed to -400 um.

The batch was comminuted to powder in a ceramic ball mill.

Sizing tests of the final product show greater than 92% pass -74um (-200 mesh).

The standard was packaged in 50 g envelopes, each envelope with a removable sticky-label.

#### Method of Analysis:

Using the ICP-AES capabilities of five laboratories, homogeneity tests were done to estimate multi-element distributions from a 4-acid digestion (0.5 gram) from each of 5 samples.

Five samples each to 11 laboratories were analyzed by 4-acid digestion and ICP-AES using 0.5 gram subsamples, and these data were used to certify the material for lithium concentration.

Five samples were analyzed by Na<sub>2</sub>O<sub>2</sub> fusion and ICP-AES finish using a 0.2g subsample to certify boron concentration.

#### Summarized Results:

**PROJECT:** MEG-Li.10.13 reported in % (percent)

FUSION-LITHIUM (%)	%
DATA POINTS (ALL DATA)	43
MEAN (ALL DATA)	0.118
STANDARD DEVIATION (ALL DATA)	0.010
% RSD	8.268
RANGE OF VALUES - HIGH	0.140
RANGE OF VALUES - LOW	0.099
95% CONFIDENCE LIMITS	0.099 to 0.138

DATA POINTS (LAB DATA)	8
MEAN (LABS)	0.1180
STANDARD DEVIATION (LABS)	0.0095
% RSD	8.0933
RANGE OF VALUES - HIGH	0.1317
RANGE OF VALUES - LOW	0.1031
95% CONFIDENCE LIMITS	0.0989 to 0.1371

FUSION-BORON (%)	%
DATA POINTS (ALL DATA)	43
MEAN (ALL DATA)	1.739
STANDARD DEVIATION (ALL DATA)	0.141
% RSD	8.096
RANGE OF VALUES - HIGH	1.900
RANGE OF VALUES - LOW	1.439
95% CONFIDENCE LIMITS	1.457 to 2.020

<b>FUSION-BORON (%)</b>			<b>%</b>
<b>DATA POINTS (LAB DATA)</b>			<b>5</b>
<b>MEAN (LABS)</b>			<b>1.737</b>
<b>STANDARD DEVIATION (LABS)</b>			<b>0.144</b>
<b>% RSD</b>			<b>8.292</b>
<b>RANGE OF VALUES - HIGH</b>			<b>1.858</b>
<b>RANGE OF VALUES - LOW</b>			<b>1.497</b>
<b>95% CONFIDENCE LIMITS</b>	<b>1.449</b>	<b>to</b>	<b>2.025</b>

**Statistical Procedures:**

Acceptable assay limits are based on the results of 5 samples shipped to each of 5 laboratories.

The samples were submitted with other MEG standards in randomized order, so that as much as possible, real operating conditions were obtained from the participating laboratories. All of the data were used to determine an acceptable range, based on the mean and standard deviation of the "Lab Average Data". The acceptable reporting range is the "95% Confidence Limit", which is the mean  $\pm$  2 standard deviations. Other statistics are provided to help the user assign viable acceptance boundaries.

Standards with an RSD (Relative Standard Deviation) of near or less than 5% are termed "Certified", while RSD's between 5% to 15% are designated "Provisional". RSD's over 15% are "Informational".

**Instructions and Recommendations for Use:**

Submit the entire contents of one 25 g envelope in random locations in the submittal, approximately every 10-20 samples. Use of blanks (samples with "below detection" concentration of analyte) are also recommended, randomly placed every 30-40 samples. The analytical request should be the same as that used for the round robin assays that generated this certificate.

**Intended Use:**

The standard material can be used to validate the analysis of samples from gold ores with a similar grade.

As a control sample in routine assay laboratory operations, it should behave within the limits as indicated statistically in this certification. Its intended use is to monitor inter-laboratory and instrumental bias within these limits.

The recommended concentrations and limits for this material are based on multiple assays from several laboratories and reflect a consensus of the inherent chemical concentration. These values are a first attempt at a chemical characterization to which later data may be added as experience with the material increases.

Slight variations in analytical procedures between laboratories will result in slight biases to the recommended statistical limits.

This standard material is not recommended for method development, nor instrumental calibration.

**Handling Instructions:**

The material is packaged in manila tin-top envelopes for easy open and close use. The material should be reblended just prior to use in the assay laboratory. This can be done with a micro-riffle splitter or rubber sheeting. Simple agitation and shaking is not sufficient to rehomogenize prior to use.

Normal safety precautions for handling powders are recommended. The use of safety glasses, dust inhalation protection, gloves, and a laboratory coat are suggested.

**Safety Notice:**

A Material Safety Data Sheet (MSDS) is not required for this material. This material will not release or otherwise result in exposure to a hazardous chemical, under normal conditions of use. Use regular precautions as for any work with fine powder material.

**Legal Notice:**

This certificate and the referenced material have been prepared with due care and attention. However, Minerals Exploration & Environmental Geochemistry (MEG Labs), and Shea Clark Smith, MSc, P.G., accept no liability for any decisions or actions taken following the use of this geochemical reference material.

**Data Used to Calculate Lithium and Boron Value:**

Sample	Lab 1		Lab 2		Lab 3		Lab 4		Lab 5	
	Li (ppm)	B (%)	Li (ppm)	B (%)	Li (ppm)	B (%)	Li (ppm)	B (%)	Li (ppm)	B (%)
1	1400.0	1.89	1065.00	1.49	1290.0	1.80	1220.0	1.88	1100.0	1.79
2	1300.0	1.90	1005.00	1.53	1230.0	1.90	1170.0	1.78	1200.0	1.79
3	1300.0	1.85	1119.00	1.53	1270.0	1.80	1190.0	1.83	1200.0	1.73
4	1300.0	1.81	1081.00	1.58	1270.0	1.80	1220.0	1.85	1100.0	1.59
5	1300.0	1.89	1050.00	1.54	1280.0	1.90	1200.0	1.83	1100.0	1.59
6	1300.0	1.81	1004.00	1.44	1180.0	1.84			1300.0	1.76
7	1200.0	1.74	1054.00	1.49	1190.0	1.83			1100.0	1.79
8	1200.0	1.74	1033.00	1.52	1220.0	1.85				
9	1200.0	1.77	1075.00	1.56	1210.0	1.85				
10	1200.0	1.79	989.00	1.48	1200.0	1.84				
11	1200.0	1.79			1492.5					

**Major Constituents as Oxides**

Average of 10 samples: 2-acid, ICPMS (Partial Digestion)

Raw Data:	Al%	Ca%	Fe%	K%	Mg%	Na%	S%	Ti%	Si%
ICP/MS Data (n=10)	0.59	7.60	0.51	0.83	3.86	3.72	0.08	0.03	
Conversion Factor	1.8899	1.3992	1.4297	1.2046	1.6579	1.348	2.4953	1.6681	2.1392
	<b>AlO2</b>	<b>CaO</b>	<b>Fe2O3</b>	<b>K2O</b>	<b>MgO</b>	<b>Na2O</b>	<b>SO3</b>	<b>TiO2</b>	<b>SiO2</b> estimated
% Oxide:	<b>1.12</b>	<b>10.64</b>	<b>0.73</b>	<b>0.98</b>	<b>6.39</b>	<b>5.01</b>	<b>0.19</b>	<b>0.06</b>	<b>100.00</b>

**Participating Laboratories:**

- Activation Labs (Ancaster, ON)
- American Assay Labs (Sparks, NV)
- ALS (Vancouver)
- ALS (Loughrea)
- Bureau Veritas (Vancouver)



Certified By: \_\_\_\_\_

**Shea Clark Smith, MSc., P.G.**