

# Certificate of Analysis

## MEG, LLC

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### Li.23.08

#### Certified Reference Material

MEAN =	2536.1	ppm Li	Aqua Regia
95% Confidence =	2247.0	to	2760.0
MEAN =	2641.7	ppm Li	Four Acid
95% Confidence =	2879.9	to	2879.9

**Prepared By:** MEG LLC  
**Certified By:** Ajeet Milliard, PhD.  
**Manufactured for:** Surge Battery Metals  
**Date of Certification:** Friday, August 30, 2024

#### Origin of Reference Material:

Geochemical Reference Material Li.23.08 was created from mineralized clay material from Northern Elko County, Nevada. 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 25 gram sachets with a removable sticky-label.

#### Method of Analysis:

Homogeneity tests were done to estimate multi-element distribution and lithium concentration from a 4-acid digestion (0.5 gram) and ICP-MS from each of ten (10) samples at one lab. Ten (10) samples were sent to ten (10) labs and analyzed using 4-acid digestion and ICP-MS or ICP-AES, in addition to an aqua regia digestion (2-acid) with ICP-MS or ICP-OES.

#### Summarized Results:

**PROJECT:** Li.23.08

#### LAB DATA

Aqua Regia	Li (ppm)	Mg (%)	Ca (%)	Fe (%)
COUNT	9	10	10	10
LAB AVERAGE	2536.06	2.89	6.26	1.24
SD	162.52	0.12	0.20	0.05
RSD	6.4	4.3	3.2	4.2
10%	2789.7	0.29	0.63	0.12
2SD	2282.45	0.25	0.41	0.10
+10%	2861.09	3.18	6.89	1.37
-10%	2211.02	2.60	5.64	1.12
+2SD	2760.00	3.14	6.67	1.34
-2SD	2247.00	2.64	5.86	1.14
MAXIMUM	8730.20	3.12	6.65	1.34
MINIMUM	8115.70	2.71	5.87	1.12

**LAB DATA**

4-Acid	Li (ppm)	Mg (%)	Ca (%)	Fe (%)
<b>COUNT</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>9</b>
<b>LAB AVERAGE</b>	<b>2641.74</b>	<b>2.95</b>	<b>6.38</b>	<b>1.31</b>
<b>SD</b>	<b>119.07</b>	<b>0.08</b>	<b>0.31</b>	<b>0.02</b>
<b>RSD</b>	<b>4.5</b>	<b>2.7</b>	<b>4.9</b>	<b>1.3</b>
<b>10%</b>	<b>264.2</b>	<b>0.30</b>	<b>0.64</b>	<b>0.13</b>
<b>2SD</b>	<b>238.14</b>	<b>0.16</b>	<b>0.63</b>	<b>0.03</b>
<b>+10%</b>	2905.92	3.25	7.02	1.44
<b>-10%</b>	2377.57	2.66	5.75	1.18
<b>+2SD</b>	2879.88	3.11	7.01	1.34
<b>-2SD</b>	2403.60	2.79	5.76	1.28
<b>MAXIMUM</b>	2370.13	2.82	6.02	1.28
<b>MINIMUM</b>	2775.64	3.09	6.88	1.33

**RSD SCALE**    Certified    Provisional    Informational

**Statistical Procedures:**

Acceptable assay limits are based on the results of 10 samples from 14 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.

Standard Ratings:

RSD (Relative Standard Deviation) near or less than 5% - "Certified".

RSD's between 5% to 15% - "Provisional"

RSD's over 15% - "Informational"

**Instructions and Recommendations for Use:**

Submit the entire contents of one 25 g sachet in random locations within a 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 lithium 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- and intra-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; gloves, appropriate mask or respirator, and safety glasses.

**Legal Notice:**

This certificate and the reference material have been prepared with due care and attention. However, MEG LLC, and Ajeet Milliard, PhD., accept no liability for any decisions or actions taken following the use of this reference material.

**Data Used to Calculate True Lithium Value:****Aqua Regia Digestion**

LAB	Lab Average	Standard Deviation
1	-	-
2	2328.0	52.9
3	2515.0	104.3
4	2760.0	55.7
5	2720.0	37.7
6	2639.2	14.8
7	2639.2	14.8
8	2471.2	24.5
9	2247.0	38.2
10	2504.9	40.2

**Four Acid Digestion**

LAB	Lab Average	Standard Deviation
1	2634.2	57.7
2	2585.0	30.1
3	2528.3	21.1
4	2752.0	57.4
5	2706.0	15.6
6	2775.6	15.6
7	2773.7	15.1
8	2656.1	41.9
9	2370.1	29.9
10	2636.3	37.4

**Major Constituents as Oxides**

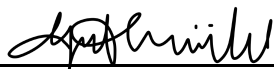
Average of 100 samples: 4-acid, ICP-AES

Raw Data:	Al%	Ca%	Fe%	K%	Mg%	Na%	S%	Ti%	Si%
ICP/MS Data (n=10)	3.50	6.40	1.31	3.92	2.95	0.09	0.83	0.14	-
Conversion Factor	1.8899	1.3992	1.4297	1.2046	1.6579	1.348	2.4953	1.6681	2.1392
	<b>Al<sub>2</sub>O<sub>3</sub></b>	<b>CaO</b>	<b>Fe<sub>2</sub>O<sub>3</sub></b>	<b>K<sub>2</sub>O</b>	<b>MgO</b>	<b>Na<sub>2</sub>O</b>	<b>SO<sub>3</sub></b>	<b>TiO<sub>2</sub></b>	<b>SiO<sub>2</sub></b> estimated
<b>% Oxide:</b>	6.62	8.96	1.87	4.72	4.89	0.13	2.08	0.23	70.73

**Participating Laboratories:**

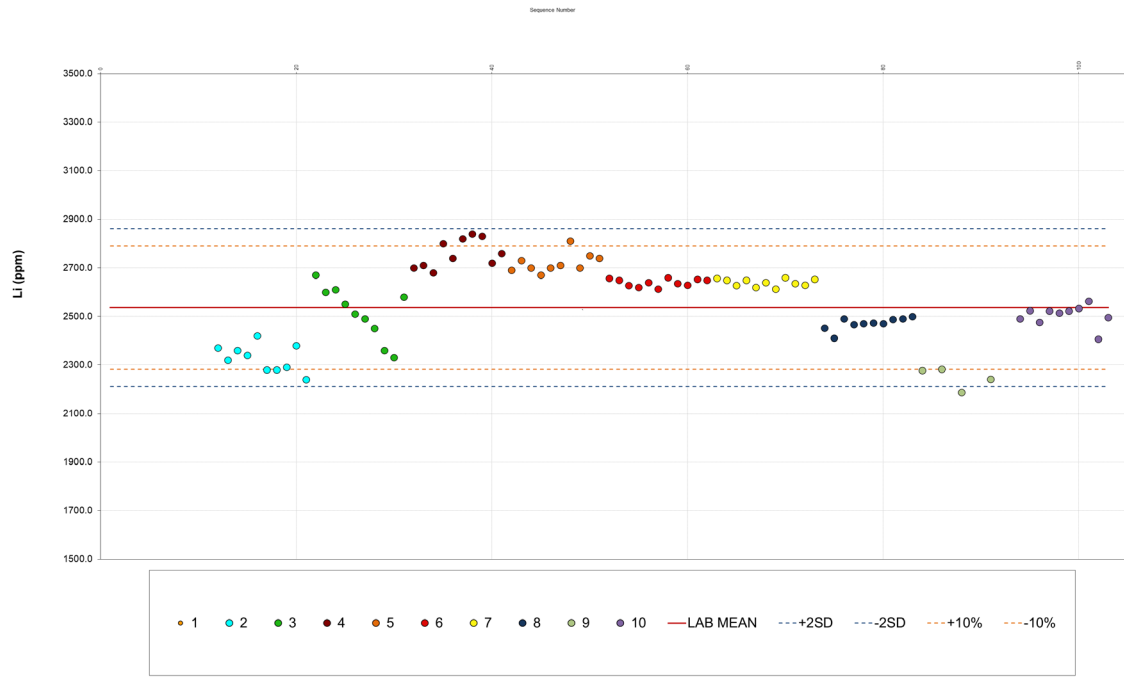
American Assay Labs (Sparks)	Florin (Reno)
Activation Laboratories (Ancaster)	Intertek (Perth)
Activation Laboratories (Kamloops)	International Plasma
ALS (Vancouver)	MSA LABS (Langley, BC)
ALS (Loughrea)	Skyline (Tucson)
Bureau Veritas (Vancouver)	SGS (Burnaby)

Certified By:



Ajeet Milliard, Ph.D.

Li.23.08: Lithium (Aqua Regia)



Li.23.08: Lithium (Four Acid)

