Student Chapter Annual Report Cover Page

Submission Deadline: September 30th
Submit to: studentprograms@segweb.org

Month/Year Reported: From 10/2018 – To 09/2019

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Chapter Executive Committee (in office during the time frame captured on this report) (type “Vacant” if position not filled): The new committee is reported on the Student Chapter Membership Information form (SCMIF).

President: Florian Dax 
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Secretary: Alexandra Russ 
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Members of the SEG Student Chapter Leoben 2018/19

*Florian Dax
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*Alexandra Russ
*Gabriel Nievoll
*Peter Brandner
*Jakob Kulich
*Christian Harrer
*Timotheus Steiner
*Florian Hutter
*Elisabeth Böhm
*Jaqueline Krivetz
*Veronika Gartner
*Matthias Hahn
*Elias Grantl
*Berenice Ebner
Katharina Haider
Tristan Hajek

*SEG Student Members
Annual Report

2018/19

SEG Student Chapter

Montanuniversitaet Leoben

October 2018 – September 2019
1.) **Regular meetings and lectures**

<table>
<thead>
<tr>
<th>Date</th>
<th>Details</th>
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<tbody>
<tr>
<td>September 2018</td>
<td>Exchange and discussion of ideas (Chapter Executive Committee)</td>
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<tr>
<td>October 2, 2018</td>
<td><strong>First regular meeting.</strong> Detailed discussion of the following:</td>
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<td>- Excursion to a former Bauxite ore mine in Austria (planned for October, had to be cancelled due to safety issues in the adit)</td>
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<td>- Excursion to a former MVT ore mine in Slovenia (November)</td>
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<td>- Workshop on salt tectonics with special consideration of mining issues (January)</td>
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<td></td>
<td>- Excursion to an active Magnesite mine in Austria (spring)</td>
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<td></td>
<td>Further ideas were exchanged.</td>
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<td></td>
<td>11 participants</td>
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<tr>
<td>November 6, 2018</td>
<td><strong>Regular meeting.</strong> Topic of this meeting were</td>
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<td>- Excursion to Mesiza (MVT deposit) in Slovenia</td>
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<td>- Planning an alternative workshop because the salt tectonic workshop planned for January had to be cancelled. Idea: Iron ore deposit/mine Erzberg.</td>
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<td></td>
<td>9 participants</td>
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<tr>
<td>December 11, 2018</td>
<td><strong>Regular meeting.</strong> Panning a lecture about the biggest mining incident in Austria since World War 2 which happened 20 years ago near to Leoben in Lassing.</td>
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<td>Further topics: Feedback of the Wallace Funding, SEG Meeting in Briston, potential lecture from Dr. H. Paulick (Austrian Geological Survey), Erzberg Workshop</td>
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<tr>
<td></td>
<td>8 participants</td>
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<tr>
<td>December 13, 2018</td>
<td>Lecture <strong>“20 years mine incident Lassing”</strong> held by Prof. W. Prochaska</td>
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<td>Ca. 60 participants</td>
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<td>January 15, 2019</td>
<td><strong>Regular meeting</strong> which was mainly about the Erzberg Workshop (planned for April)</td>
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<tr>
<td></td>
<td>11 participants</td>
</tr>
<tr>
<td>February 19, 2019</td>
<td><strong>Regular meeting.</strong> Erzberg Workshop, further minor issues</td>
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<td></td>
<td>8 participants</td>
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<tr>
<td>March 10, 2019</td>
<td><strong>Regular meeting,</strong> Erzberg Workshop and a planned lecture from Dr. H. Paulick</td>
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<tr>
<td></td>
<td>9 participants</td>
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</tbody>
</table>
April 2018  no regular meeting due to long Easter holidays.

May 15, 2019  Regular meeting, evaluation of the Erzberg Workshop, first thoughts about the next year, discussion of a potential excursion to an active graphite mine in Austria
10 participants

May 21, 2019  Lecture “The global resources of rare earth elements”
from Dr. H. Paulick (Austrian Geological Survey)
25 participants

June 18, 2019  Regular meeting. Exchanging ideas about the coming year.
7 participants
2.) Field trips

November 24, 2018  **Field trip to a former underground Pb-Zn mine in Mezica (Slovenia)**  
*Academic Guide: Prof. Johann Raith (Montanuniversitaet Leoben).*

In Mezica, Slovenia, a former carbonate-hosted lead-zinc mine is located. It is a Mississippi-Valley Type deposit at the eastern edge of the Karavanke Mountains. Today Mezica is a tourist mine with an enclosed mining museum and can therefore be easily visited.

16 participants guided by our University Professors Johann Raith received a special tour for geologists in the adits of a former Pb-Zn mine. Johann Raith gave a detailed talk about the genesis of the MVT deposit and linked it to other MVT deposits and the regional geology of the vicinity. In addition, a local Slovenian guide gave a talk on mining issues. A short visit at the mining museum was also possible.

The participants gained a field-based understanding of MVT deposits.

Unfortunately, two planned excursions (former bauxite ore mine and an active magnesite mine) had to be cancelled due to safety issues/ cancellation from the mine operator.
3.) Financial use of the Wallace fund

In 2019 SEG student chapter Leoben was rewarded $500 for the planned excursion to Mezica and Styromag (Magnesite mine).

In euros the SEG SC Leoben received 426.55€ at its bank account (foreign exchange fee already subtracted).

The funded field trip to Mezica (Slovenia) was conducted according to plan. The planned excursion to a local magnesite mine had to be cancelled due to the cancellation from the pit operator. A major reason for choosing a local magnesite mine as one of the next field trips, was to get an insight into a local mining industry. Because also the iron ore mine at Erzberg is a big player in the Austrian mining industry, we decided to use the money instead for the field trip to the Erzberg, which was part of the Erzberg workshop.

Funded outgoing Mezica excursion: 354.85€ for transportation with two small buses. This covered the total cost of transportation including bus leasing and fuel. Participants of the excursion (if they were SEG Members) therefore only had to pay for the guide at the mine.

Funded outgoing Erzberg excursions: 71.70 € supported part of the transportation cost with three small buses.
4.) Erzberg Workshop

April 12 - 13, 2019

**Workshop about the active Siderite mine Erzberg, Styria**

*Guides: Prof. Dr. Frank Melcher and Prof. Dr. Walter Prochaska (both Montanuniversitaet Leoben), DI Hannes Pluch (VA Erzberg), Dr. Ronny Boch (Technical University of Graz)*

The open pit Siderite mine Erzberg in the Austrian Greywacke zone is the biggest siderite deposits worldwide and is active as an open pit mine to supply voestalpine Steel plants in Austria with iron ore.

**April 12:** The first day of the Workshop took place at the University of Leoben as a theory session. Main topics were recent academic papers on the Erzberg deposit and related issues (e.g. age dating, thermometry).

**April 13:** The second day was held entirely at the mine as a field workshop:

24 participants guided by two of our University Professors and the head of mining activities VA Erzberg visited the active open pit Siderite mine Erzberg in the Austrian Greywacke zone. It is the biggest siderite deposits worldwide and is still active as an open pit mine to supply voestalpine Steel plants in Austria with iron ore.

First, DI Hannes Pluch gave a detailed talk about mining issues. After that, a discussion about the genesis of the Siderite deposit followed. Prof Prochaska explained his theory of an epigenetic model. After that Prof. Melcher explained a theory about a syngenetic model. Both models were discussed within the group. Afterwards, different outcrops in the mine were visited to evaluate the models.

Participants learned – beside other issues - about the geology of the Greywacke zone, the models of the possible genesis of the Siderite deposit and mining activities, including (geological) challenges the mine had/have and will have to face.
5.) Participation in workshops

- 

6.) Fund-raising programs

- 

7.) Other programs

-
8.) Future plans

**A) WORKSHOP 2020 – Metallogeny of the Greywacke Zone**

A 2-4 day workshop focusing on the Metallogeny of the Greywacke Zone in southern central Europe. Stratigraphic correlations have been suggested form the Iberian Peninsula to the Black Sea. The unit is first most described in Austria and many ore deposits are associated with it. We would have both key-note speakers along with perhaps student presentations if any whom are studying relevant deposits are willing to present. Field trips in Austria would also be included in this workshop. Detailed planning will start as soon as the SEG members are back from the winter holidays. The preliminary date for the workshop is April 6 – 9.

**B) Stubaital, Tirol fieldtrip**

The head of the Chair of Geology and Economic Geology did his master studies on gold in the Stubaital region of Tirol, Austria and is willing to guide an excursion to the region. He knows the area very well as he goes there continuously for field work. Besides gold there are several other interesting deposits and geological units in the area. More details are to be settled in the start of 2020. The excursion would require 2 – 3 nights as it involves intense, alpine hiking to get to the localities along with nights in alpine cabins. Due to snow conditions the time is limited to late summer and the excursion will probably take place in August.

**C) Slovakia Field trip – Brno SEG**

During a conference we got in contact with the Brno SEG Student Chapter (Czech Republic) and were discussing the possibility on a joint excursion to Slovakia, foremost lead by the Brno group. As this would be a longer trip, we would rent a bus and fill that bus with as many interested as possible. The excursion is scheduled to take place during April to May. Many key deposits and geological units will be visited.

**D) Key-deposits of the region around Leoben, Austria**

There are several fantastic deposits in the, relative, area around Leoben, which not always are visited or available for students. We aim to visit these. One of these deposits is the active exploration project on spodumene pegmatites in the Wolfsberg area. The locality is very limited to times of active exploration, which hopefully will happen this spring/summer. This was informed to us by meeting with the exploration manager at their drill core facility. Exact dates and possibilities will be discussed in a few months when there is a better idea of the exploration plans.

Furthermore, we are planning on visiting the Waldenstein hematite mine, which is one of the world’s biggest producers of micaceous hematite. The Kraubaut Massif is close by Leoben and contains Cr and Mn mineralizations, with great outcrops. These would also be included in this field trip. The excursions would be 2 or 3 days and at the moment the date depends on the exploration company’s availability.