Student Chapter Annual Report Cover Page

Submission Deadline: September 30th
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Month/Year Reported: From ___________________________(mm/yyyy) – To _______________________________(mm/yyyy)

STUDENT CHAPTER:
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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: Kai Cui / begin 09/2019 Yunwei Qu / 596912242@qq.com / yunwei.qu@outlook.com
Vice President: Yunwei Qu / begin 09/2019 Chao Yu / yunwei.qu@outlook.com / 547357893@qq.com
Secretary: Chao Yu / begin 09/2019 Jiaming Xia / 547357893@qq.com / jiaming_xia@qq.com
Treasurer: Xiaoyu Shan / begin 09/2019 Hao Cui / xy.shan@outlook.com / 1073594029@qq.com

Chapter Academic Sponsor:
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University of Science and Technology Beijing, 30 Xueyuan Road, Haidian District, Beijing, China

Chapter Industry Sponsor (not affiliated with the student chapter’s institution):
Richard Goldfarb / rjgoldfarb@me.com

Sponsoring Institution or Company (name): Colorado School of Mines
University of Science and Technology Beijing (USTB)
SEG Student Chapter

Annual Report
2019

No. 30 Xueyuan Road, Haidian District, Beijing, China
USTB SEG Student Chapter has been established for more than three years. During the academic year 2018-2019, the USTB student chapter has 22 active members including two sponsors. Student members included 12 M.S. and 8 Ph.D. students. The USTB chapter continued to hold student talks this year and 14 talks were successfully hosted. Six rounds of field trips have been successfully arranged during this academic year.

This annual report records academic activities and field trips that we held in 2019.

<table>
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<tr>
<th>Committee</th>
<th>2018-2019</th>
<th>2019-2020</th>
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<tr>
<td>President</td>
<td>Kai Cui* (Ph.D.)</td>
<td>Yunwei Qu* (Ph.D.)</td>
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<tr>
<td>Vice President</td>
<td>Yunwei Qu* (Ph.D.)</td>
<td>Chao Yu* (Ph.D.)</td>
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<tr>
<td>Secretary</td>
<td>Chao Yu* (Ph.D.)</td>
<td>Jiaming Xia* (Ph.D.)</td>
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<tr>
<td>Treasurer</td>
<td>Xiaoyu Shan* (Ph.D.)</td>
<td>Hao Cui* (Ph.D.)</td>
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(*national members of SEG)

**Members**

**M.S.**

Chang Yu*

Huan Chen*

Wenhui Guo*

Jiajing Sun*

Shuifan Zhong*

Boyang Meng*

Daobo Wang*

Wenke Chen*

Jiaqi Li*

Xiaoya Zheng*

Yanxia Li*

Yi Deng*

**Ph.D.**

Kai Cui*

Xiaoyu Shan*

Chester Gatse Ebotehouna

Azeuda Ndonfack Kevin Igor
Academic activities

2019.06 Workshop: Porphyry and Epithermal Deposit

This 2 days’ workshop was organized by Chinese Academy of Geological Sciences (CAGS). Lectures about porphyry and epithermal deposit were given by Prof. Noel White. Staff and students of USTB and other facilities attended this workshop. Prof. Noel White shared his understanding and experiences about ore-formation and exploration of porphyry and epithermal deposits in this workshop.

Photo: Prof. White and USTB SEG student members after the workshop, Beijing, China

2019.07-09 Technical report by students

Student members are working on different fields of geoscience. In the middle of 2019, all student members gave short reports to present their research progresses and understandings of their researches.

Students talks:

- Azeuda Ndonfack Kevin Igor. Genesis and timing of primary gold deposit in the Pan-African belt of central Africa (district mining of East Cameroon): constraints from mineralogical, fluid inclusions, geochemical, isotopic and geochronological studies
- Bicheng Li. Origin of the H9 unit of Bayan Obo Group and its prospecting
significance.

- Boyang Meng. Mineralization process and genetic study of Hetian Jade, Xinjiang, Northwest China (a brief review).
- Chao Yu. Multi-stage magmatism, ore formation and prospecting at Hua’naote Ag-polymetallic deposit, Inner Mongolia, northeast China.
- Chesther Gatse Ebotehouna. Genesis of High grade iron ore hosted by Nabeba banded iron formation (BIF), district of Souanké, northwestern Republic of Congo.
- Huan Chen. Study on sulfate solubility in silica-saturated system: A new method for solubility study by fused silica capillary capsule (a brief review).
- Jiajing Sun. Mineralogical and genetic study of the Proterozoic Changcheng Group strata, Beijing, China (a brief review).
- Wenhui Guo. Genetic relationship between mafic dykes and gold mineralization in Heilan’gou gold deposit, jiaodong, China (a brief review).
- Xiaoyu Shan. Study of metallogenic potential and prospecting targets at Hongling Pb-Zn-polymetallic deposit, Inner Mongolia, northeast China.
- Yunwei Qu. Study of genetic model and metallogenic potential at Chaihulanzi gold deposit, Inner Mongolia, north China.
- Zhibin Li. Jade resources in Chaihulanzi gold deposit: mineralogical characteristics and resource potential.

Field trips

USTB student chapter organized 6 field trips to the Jiaodong gold province and Inner Mongolia. Participants explored different types of deposit, including Bujinhei Pb-Zn-polymetallic deposit, Hua’naote Ag-polymetallic deposit, Heilan’gou gold deposit, Chaihulanzi gold deposit and Bayan Obo Fe-Nb-REE deposit. Sample collecting and scientific study are the main purpose of these field trips. Students learned from a wide range of deposit types in China, which also encouraged and promoted their interests in geosciences. All these field trips were supported by Prof. Xie and mining companies.
2019.7 Bujinhei Pb-Zn-polymetallic mine

The Bujinhei is located in the north area of Inner Mongolia. It’s an epithermal Pb-Zn-polymetallic deposit which was formed during the event of cratonic destruction of NCC. Prof. Xie and three student members participate in this trip, aiming to set prospecting target for the mining company.

![Bujinhei field trip](image1.jpg)

Photo: Prof. Xie and student members field trip at Bujinhei, Inner Mongolia, northeast China

2019.8 Hua’naote Ag-polymetallic mine

The Hua’naote Ag-polymetallic deposit is also an epithermal type deposit with a large amount of Ag resource. Working in such an astonishing landscape is a gift for geologists.

![Hua’naote field trip](image2.jpg)

Photo: Prof. Xie, Dr. Liang and student members field trip at Hua’naote, Inner Mongolia, northeast China

2019.07 Heilan’gou Au mine

The Heilan’gou Au deposit is not famous in Jiaodong province. However, it could be a key to end the debate of the genesis of the so-called “Jiaodong-type gold deposit”. Dr. Liang and Wenhui went there for field observation and sample
collecting in July. This field trip was fully supported by Shandong Gold Group Co., Ltd.

**2019.07 Bayan Obo Fe-Nb-Ree mine**

The giant Bayan Obo Fe-Nb-REE is well known for its huge REE resources. Scientific research on this deposit has been carried out for decades, but here are still lots of unsolved issues. Dr. Liang and two student members arranged a field trip to Bayan Obo in July. It’s a marvelous opportunity for students to have a close observation on this world-class deposit.

**2019.05 & 2019.08 Chaihulanzi Au mine**

The Chaihulanzi Au deposit is a hydrothermal gold deposit which is situated in the basement of north China craton. Because of the intensive post-ore deformation, metamorphism and hydrothermal alteration from Archaean to Cenozoic, the geological feature of the Chaihulanzi became extremely complicated. USTB student members arranged two field trips to Chaihulanzi in May and August, respectively. Sample collection and drill core observation was carried out during these days.
USTB-SEG Student Chapter

Photo: Prof. Xie, Dr. Liang and student members field trip at Chaihulanzi gold deposit, Inner Mongolia, north China

**Future Plans**

- Organizing a field trip to northern Hebei area with other SEG student chapters.
- Holding students technical talks.
- Inviting economic geologists for academic lectures.
- Organizing workshop about geosciences and related fields.