



SOCIETY OF ECONOMIC GEOLOGISTS, INC.

7811 Shaffer Parkway • Littleton, CO 80127-3732 USA • Tel: +1.720.981.7882 • Fax: +1.720.981.7874

E-mail: studentprograms@segweb.org

Student Chapter Annual Report Form

This form is used to report on Student Chapter activities over the previous year. The report provides a useful medium to document the status and progress of individual chapters. Annual Reports are used to evaluate applications for SEG support and to keep information up-to-date on the SEG website. Please provide a summary of chapter activities in a concise form as suggested below. Description of programs may be supported by a limited number of photographs and figures in a format appropriate for publishing on our website.

Submission Deadline: September 30th

Submit to: studentprograms@segweb.org

Month/Year Reported: From 09/2017 (mm/yyyy) – To 09/2018 (mm/yyyy)
 Chapter Name: University Laval - INRS-ETE
 Chapter Mailing Address: 2325 Rue de l'Université, Québec, QC, G1V 0A6
 Chapter E-mail: info@segulaval.ca
 Chapter Website: www.segulaval.ca
 Chapter Facebook: Chapitre Etudiant SEG Laval-INRS-ETE

Chapter Executive Committee (*in office during the time frame captured on this report*) (type "Vacant" if position not filled):

President:	<u>Alexandre Krushnisky</u>	<u>alexandre.krushnisky@ete.inrs.ca</u>
	Name	E-mail
Vice President:	<u>Jean-Phillipe Fleury</u>	<u>jp.fleury88@gmail.com</u>
	Name	E-mail
Secretary:	<u>Victor De Bronac de Vazelhes</u>	<u>victor.de-bronac-de-vazelhes.1@ulaval</u>
	Name	E-mail
Treasurer:	<u>François-Xavier Masson</u>	<u>francois-xavier.masson.1@ulaval.ca</u>
	Name	E-mail

Chapter Academic Sponsor (*SEG Fellow membership in good standing*):

<u>Georges Beaudoin</u>	<u>Georges.Beaudoin@ggl.ulaval.ca</u>	<u>418-656-3141</u>
Name	E-mail	Phone
<u>1065, avenue de la Médecine, Université Laval, Québec, Qc, G1V 0A6</u>		
Address		Fax

Chapter Industry Sponsor (*SEG Fellow membership in good standing and not affiliated with the student chapter's institution*):

<u>Benoit Dube</u>	<u>benoit.dube@canada.ca</u>	<u>418-654-2669</u>
Name	E-mail	Phone
<u>Natural Resources Canada 490 rue de la Couronne Quebec, Canada</u>		<u>418-654-2615</u>
Address		Fax

Sponsoring Institution or Company (name): Geological Survey of Canada

Attach: 1. a list of names of *all* Student Chapter members (please indicate by * if SEG Student Member).
2. complete Student Chapter Membership Information form with the current Executive Committee listed on page 1.

On a separate page(s) provide a summary of student chapter annual activities:

- Regular meetings, lectures
- Field trips (dates, area visited, field trip leaders, number of participants, sponsors, benefits for students).
Note: this is not the place for a detailed field trip report that is required from a chapter who has received funding from the Stewart R. Wallace Fund.
- If your chapter received funding from the Stewart R. Wallace Fund, please submit a separate actual accounting of how chapter funds were spent/used.
- Organization of conferences, workshops, short courses (theme, number of participants, benefits for students)
- Participation in conferences, workshops, short courses (theme, number of participants from the chapter, benefits for students)
- Fund-raising programs
- Other programs
- Future plans



Université Laval-INRS-ETE SEG Student Chapter

Summary of annual activities 2017-2018

François-Xavier Masson
Alexandre Krushnisky

Overview of activities

- A meeting was held on September 20th, 2017 and was attended by all the members of the student chapter. The objective was to present the chapter and the activities to be held in the year 2017-2018.
- A short course, organized by Alexandre Krushnisky, was given by Jean-François Ravenelle at the AEMQ Xplor conference in Montréal, on October 17th, 2017, and was entitled «Structural geology applied to exploration».
- A short course, organized by Alexandre Krushnisky, was given by Stephen Piercey at the Québec Mines conference in Québec City, on November 20th, 2017, and was entitled «Geochemical exploration methods for gold».
- The annual international field trip took place from the 15th of May to the 29th of May 2018, in Spain (Iberian Pyrite Belt).

Short courses

Two short courses took place this year, and the profits will be used to finance the SEG student chapter 2017-2018 activities.

AEMQ Xplor 2017 convention, October 17th, 2017 :




The short course, organized by Alexandre Krushnisky, was given by Jean-François Ravenelle on «Structural geology applied to exploration». 27 participants included students, industrial and academic geologists.


Québec Mines 2017 convention, November 20th, 2017 :


Since 2003 the Université Laval-INRS-ETE SEG Student Chapter organizes a short course presenting an aspect of the economic geology field of study at a Québec Mines convention. The short course, organized by Alexandre Krushnisky, will be given by Stephen Piercey on «Geochemical exploration methods for gold», for our chapter. This short course is joint with UQAM (Université du Québec à Montréal) and UQAC (Université du Québec à Chicoutimi) SEG student chapters.. The theme of this short course was on « Gold deposits : Genetic models and exploration tools ».


**Gold Deposits :
Genetic Models and Exploration Tools**

A one-day short course presented by the UQAM, Laval-INRS-ETE and UQAC student chapters of the Society of Economic Geologists (SEG)

 **Richard Goldfarb** (China University of Geosciences and Colorado School of Mines): Orogenic gold deposits



 **Ian Pitcairn** (Stockholm University, Sweden): Source of gold in metamorphosed areas

 **Stephen Piercey** (Memorial University): Geochemical exploration methods for gold

Monday, November 20th, 2017 at Québec Mines

Online registration: <http://mern.gouv.qc.ca/quebec-mines/inscription>

Fees: 350\$/Regular 75\$/Student

Field trip

International Field Trip, Iberian Pyrite Belt, Spain (15th - 29th of May 2018)

Four students from the SEG Université Laval-INRS-ETE Student Chapter participated in a fifteen-days field trip to the Iberian Pyrite Belt in Southern Spain visiting mines, project and geological sites. The field trip itinerary was designed to focus on the Iberian Pyrite Belt with VMS, skarn, epithermal, nickel-chrome, strontium and mercury deposits. The main objectives are to acquire first-hand knowledge about economic geology of southern Spain through guided visits with local industry and academic personnel of key outcrops linked to exploration; to visit mining districts, underground and opencast mining operations; to learn about ore deposits geology, exploration methods and mining as well as different types of mining infrastructure and the machinery used; to compare work health and safety procedures and regulations; to understand the impact of mines on the environment and the population and to learn about methods of mining waste management and environmental rehabilitation techniques.

During this field trip, the group visited several geological sites :

- the Ni-Cr La Gallega mine.
- The Ca-Mg skarn open pit nearby La Gallega mine.
- The strontium mine (Solvay Escùzar).
- The neogene volcanic complex at The Cabo de Gata-Níjar Natural Park.
- The Los Frailes volcanoes.
- The Rodalquilar gold mine (epithermal high sulphidation).
- Columnar basaltic andesite flow of the Playa El Mónsul outcrops.
- The Almadén mining district, Castilla-La Mancha (disseminated cinnabar (1-7% Hg) and native mercury hosted in the Criadero Quartzite).
- The Alconchel Cu-Au exploration project, Badajoz.
- The Atalaya Mining, Rio Tinto Mine, copper deposit (VMS).
- The Magdalena mine, Cu-Zn-Au deposit (VMS).
- The Tharsis mine, Cu-Au-Zn-Pb-Ag deposit (VMS).
- The Parque Minero de Riotinto and Río Tinto River, Rio Tinto mining district.
- The Grutas de las Maravillas and the Museo Histórico-Minero Francisco Pablo Holgado Escuela de Ingeniería Minera e Industrial de Almadén of the University of Castilla-La Mancha.

Legend : (A) La Gallega mine. With Mr. Juan Carlos Romero and Rocío Pedreira Pérez. (B) Celestine pit. With Ignacio Aguilar. (C) Valoriza minería core shacks at Zafra's head office. (D) Outcrops in the Alconchel Project, Badajoz. (E) Rio Tinto mines, Atalaya Mining PLC. Huelva, Andalusia. (F) Corta Atalaya pit. Inactive. (G) Rio Tinto Mine's geology with Mr. Angelo Farsi in Cerro Colorado. (H) Magdalena mine.



Fund-raising activities

The Université Laval–INRS-ETE SEG Student Chapter fund-raising programs are designed to sponsor the Student Chapter activities.

In 2017–2018, the Student Chapter received sponsorships from the SEG for most of its local activities. Further sponsorship was attributed to fund international field trips. Sponsors were: Prospector and Developers Association of Canada (PDAC); Niobec mine.

Funding was also provided through the incomes of the short courses at AEMQ Xplor 2017 and Québec Mines 2017 conventions and also by various other fundraising activities organized by the student chapter.

2018-2019 activities planning

A meeting was held on September 18th, 2018, to talk about this year's activities. To date, two destinations for the 2019 international field trip have been proposed : Argentina and Mexico. A vote will be held at the next meeting to choose the final destination and the trip leader.

We aim to provide our chapter very active for the year 2018-2019. We are organizing three short courses this year, one at the AEMQ Xplor 2018 convention (entitled, «Techniques for 3D Analysis and Modeling Applied to Mineral Exploration and Targeting», by Jean-Philippe Paiement and Gervais Perron, Mira Geoscience), the other at the Québec Mines 2018 convention (entitled, «Machine-learning applied to mineral exploration», by Antoine Caté, for our chapter) and at the GAC-MAC 2019 convention (under the theme «Where geosciences converge»). Such as last year, the Québec Mines short course is joint with UQAM (Université du Québec à Montreal) and UQAC (Université du Québec à Chicoutimi) SEG student chapters. We will also invite lecturers at Laval University and organize a local field trips (Thetford mine, for chromite beds outcrops and ophiolite, and Bathurst Mining Camp for VMS deposits).

Financial support will be given to the chapter members who participate in the AEMQ convention in Montreal (17-18th of October 2018), Québec Mines (19-22th of November 2018) in Québec City and PDAC (3-6th of March 2019) in Toronto.

For the 20th year now, the Université Laval-INRS-ETE student Chapter will take part of the « Journée des sciences de la Terre » conference held at Université Laval in March 2019 and will sponsor a prize for the best conference on mineral deposits or exploration geology.

Exploration for base and precious metals in volcanosedimentary environments: entering a new era



**A one-day shortcourse presented by the UQAM,
Laval-INRS-ETE & UQAC student chapters of the
Society of Economic Geologists (SEG)**



Module 1: VMS systems: lessons from the seafloor (J. Jamieson)

Module 2: Fertility assessment, targeting and vectoring for volcanic-associated base and precious metal systems (D. Huston)

Module 3: Machine-learning applied to mineral exploration (A. Caté)

Monday, November 19th, 2018 at Québec Mines+Énergie

Online registration: <https://mern.gouv.qc.ca/quebec-mines/inscription>

Fees: 350\$/Regular 75\$/Student



Appendix A

List of SEG Student Chapter Members, 2017-2018

Name	Email	University	Cycle
Maude marquis	maude.marquis.2@ulaval.ca	Université Laval	Bsc
Simon Jean Leblanc	simonjl94@hotmail.com	Université Laval	Bsc
Thierry Karl Gélinas	thierrygelinas@gmail.com	Université Laval	Bsc
Alexandra paré	alex-pare@live.ca	Université Laval	Bsc
Benjamin Latutrie	benjamin.latutrie@ete.inrs.ca	INRS-ETE	Msc
Brandon Saint- Pierre	braydenst-pierre.geo@gmail.com	INRS-ETE	Msc
Philip Lypaczewski	lypaczew@ualberta.ca	Université Laval	PhD
Jean-Philippe Fleury	jp.fleury88@gmail.com	Université Laval	Msc
Alexe Lepage	alex.lepage.2@ulaval.ca	Université Laval	Bsc
Diane-Yeli-Therese-Kam	diane-yeli-therese-kam.1@ulaval.ca	Université Laval	Bsc
Gaëlle St-Louis	gaelle.saint-louis.1@ulaval.ca	Université Laval	Bsc
Sarah Galloway	sarah-galloway@hotmail.com	INRS-ETE	Msc
Alan Sanchez	alan0sanchez@gmail.com	Université Laval	Bsc
Marc-Antoine Vanier	marc-antoine.vanier.1@ulaval.ca	Université Laval	Msc
Victor De Bronac de Vazelhes	victor.de-bronac-de-vazelhes.1@ulaval.ca	Université Laval	Msc
Alexandre Krushnisky	alexandre.Krushnisky@ete.inrs.ca	INRS-ETE	Msc
François-Xavier Masson	francois-xavier.masson.1@ulaval.ca	Université Laval	PhD
Kloé Langlois Rioux	kloe_langlois@hotmail.com	Université Laval	Bsc
Amy Laberge	amy.laberge.1@ulaval.ca	Université Laval	Bsc
Roman Hanes	roman.hanes.1@ulaval.ca	Université Laval	PhD
Marjorie Sciuba	marjorie.sciuba.1@ulaval.ca	Université Laval	PhD
Arnaud Fontaine	arnaud.Fontaine@ete.inrs.ca	INRS-ETE	PhD
Xiang Fang	xiang.fang.1@ulaval.ca	Université Laval	PhD