



SOCIETY OF ECONOMIC GEOLOGISTS, INC.

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Student Chapter Annual Report Cover Page

Submission Deadline: September 30th

Submit to: studentprograms@segweb.org

Month/Year Reported: From 09/2022 (mm/yyyy) – To 09/2023 (mm/yyyy)

STUDENT CHAPTER:

Check if update needed at segweb.org

Name: UFRN SEG Student Chapter

University Affiliation: Universidade Federal do Rio Grande do Norte

Mailing Address: Departamento de Geologia - Rua das Engenharias, s/n - CEP: 59078-970 - Lagoa Nova, Natal - RN

Dedicated E-mail: segufrn@gmail.com

Website: _____

Logo: https://drive.google.com/file/d/1gdo2XLjk0WvKyzN6j0HorcVcQ3DpQPM_/view?usp=drive_link

Facebook: _____

Twitter: _____

Instagram: https://www.instagram.com/seg.ufrn/

LinkedIn: https://www.linkedin.com/in/ufrn-seg-student-chapter-18286a221/

YouTube: https://www.youtube.com/channel/UCGqmsre_Nup_FLP1LYL8mXw

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: Rafael Dantas de Oliveira rafael.dantas.080@ufrn.edu.br
Name E-mail

VicePresident: Joelson Inacio Dantas Teixeira joelson.teixeira.123@ufrn.edu.br
Name E-mail

Secretary: Mateus Oliveira Teixeira mateus.teixeira.017@ufrn.edu.br
Name E-mail

Treasurer: Eloisa da Silva Filgueira Eloisa.filgueira.071@ufrn.br
Name E-mail

Chapter Academic Sponsor: Check if SEG Fellowship in good standing

Francisco Oliveira da Silva francisco.silva@ufrn.br +55 84 98770-4497
Name E-mail Phone

Departamento de Geologia - Rua das Engenharias, s/n - CEP: 59078-970 - Lagoa Nova, Natal - RN
Address Fax

Chapter Industry Sponsor (*not affiliated with the student chapter's institution*): Check if SEG Fellowship in good standing

Luiz Carlos Bertolino lcbertolino@cetem.gov.br +55 21 98787-1225
Name E-mail Phone

Av. Pedro Calmon, 900 - CEP: 21941-908, Cidade Universitária UFRJ, Rio de Janeiro - RJ
Address Fax

Sponsoring Institution or Company(name): _____

1. INTRODUCTION

1.1. History

The UFRN SEG Student Chapter emerged from the idea of 4 students interested in spreading the knowledge of economic geology to other students in the state, both at UFRN and at IFRN - Federal Institute of Rio Grande do Norte. From this, some previous projects were carried out to verify if the initiative would get approval from the target public. The aforementioned projects were the "Geoweeek: economic geology week of RN" and the Leapfrog software minicourses. Upon public participation and student demand to know how to participate in the project, the chapter was created on September 27, 2021. Currently, the chapter has 23 members, all undergraduate students of Geology at UFRN, among which 3 are associated with SEG.

1.2. UFRN SEG Student Chapter Executive Committee and Members

During the period January/2023 and January/2024, the chapter was composed of the following members:

- 1 - President: Rafael Dantas de Oliveira
- 2 - Vice-President: Joelson Inacio Dantas Teixeira
- 3 - Secretary: Mateus Oliveira Teixeira
- 4 - Treasurer: Eloisa da Silva Filgueira

Other chapter members:

Mariana Izabel Thomaz de Lima
Larissa Caroline Mendonça da Silva
Vitória Pereira Alves de Medeiros
Jose Italo da Silva
Leandro Miguel Caceres Lima
Arthur Pereira da Silva Santos
Eloisa da Silva Filgueira
Thales José Cordeiro Santos
Julio Nakao Gurgel do Amaral

1.3. Achievements

During the period, in the second year of the chapter, the training of members in geological modeling and resource estimation software continued. The training will specialize the chapter's members to work in internships and opportunities in the mining industry, where we have two current members and 5 former members as jobs in exploration companies. In addition, we organized lectures, mini-courses, and debates around the economic geology theme for the entire geology academic population in the state, always prioritizing dissemination in order to attract new members and new opportunities for the chapter. We are finalizing the third selection process for adding new members to the chapter, which is taking place from September 4th to October 2nd.

2. REGULAR MEETINGS

The chapter met every month, in general meetings at the Geology Department of UFRN, to discuss the progress of the chapter, members' participation and next activities to be carried out. The most frequent meetings were in study groups, held weekly via Google Meet or in person at Geopro - Geoprocessing Laboratory of UFRN, with the following themes: modeling and database, prospecting and metallogenesis.

3. LECTURES

With regard to lectures, in addition to those held during the events that will be mentioned, the chapter promoted a cycle of lectures focusing on the Seridó mineral province. One lecture will be held each month, broadcast on the chapter's YouTube channel.

The first lecture (Figure 2) was given by Msc. Dinarte Lucas da Silva Júnior (ICg-USP) and its theme was "Metamorphic and metasomatic evolution of the Bodó Mineral District, in the Seridó Mineral Province (PMS)", which took place on September 21 (Figure 3).

The second is scheduled for October 3 and will be presented by Msc. Marceonila Marcela Bezerra da Cunha, on the subject of "The São Francisco gold deposit: petrographic characterization of orogenic gold in the Seridó Belt, Currais Novos (RN)" (Figure 4). Two more lectures are planned before the end of the year.



PALESTRA

EVOLUÇÃO METAMÓRFICA E METASSOMÁTICA DO W-SKARN DO DISTRITO MINERAL DE BODO, PROVINCIA MINERAL SERIDO (PROVINCIA BORBOREMA)

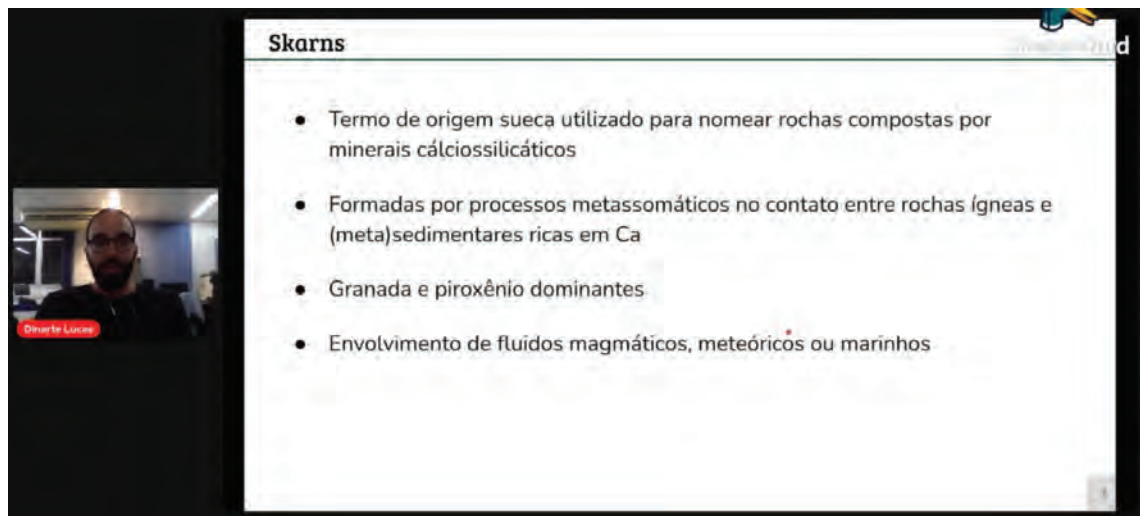
Dinarte Lucas

Técnico em Geologia (2015) pelo Instituto Federal de Educação Ciência e Tecnologia do Rio Grande do Norte (IFRN), graduação em Geologia (2019) pela Universidade Federal do Rio Grande do Norte (UFRN) e mestre em Ciências (2023) pelo Programa de Pós-graduação em Geotectônica do Instituto de Geociências da Universidade de São Paulo (IGC-USP), onde desenvolveu estudo sobre skarns da Província Mineral Seridó. Atualmente é doutorando em Geotectônica no IGC-USP.

21 Setembro, 2023 | 19h00

Transmissão - Ao vivo pelo YouTube UFRN SEC Student Chapter

Figure 2 - Lecture by Dinarte Lucas.



Skarns

- Termo de origem sueca utilizado para nomear rochas compostas por minerais cálcio-silicáticos
- Formadas por processos metassomáticos no contato entre rochas ígneas e (meta)sedimentares ricas em Ca
- Granada e piroxênio dominantes
- Envolvimento de fluidos magmáticos, meteóricos ou marinhos

Figure 3 - Lecture by Dinarte Lucas.

CICLO DE PALESTRAS - PROVÍNCIA MINERAL SERIDÓ

**DEPÓSITO AURÍFERO SÃO FRANCISCO:
CARACTERIZAÇÃO PETROGRÁFICA/TEXTURAL
DO OURO OROGÊNICO NA FAIXA SERIDÓ,
CURRAIS NOVOS (RN)**

Marceonila Cunha

Geóloga graduada pela Universidade Federal do Rio Grande do Norte (UFRN) e mestra em Geoquímica, Geofísica e Evolução Crustal pela Universidade Federal de Pernambuco (UFPE). Faz parte da Sociedade Brasileira de Geologia (SBGEO).

03 Outubro, 2023 | 19h00

Transmissão - Ao vivo pelo YouTube UFRN SEG Student Chapter

Figure 4 - Lecture by Marceonila Cunha.

4. ORGANIZATION OF CONFERENCES, WORKSHOPS AND SHORT COURSES

To date, 3 courses have been organized by the UFRN SEG student chapter. The first courses were about the Seequent company's software, Leapfrog Geo and fundamentals (figure 6). Lectured by Seequent's geology intern, Guilherme Araujo. The course was given on May 8 and 9, 2023 at the II Economic Geoweek and was open to undergraduate geology students at UFRN.

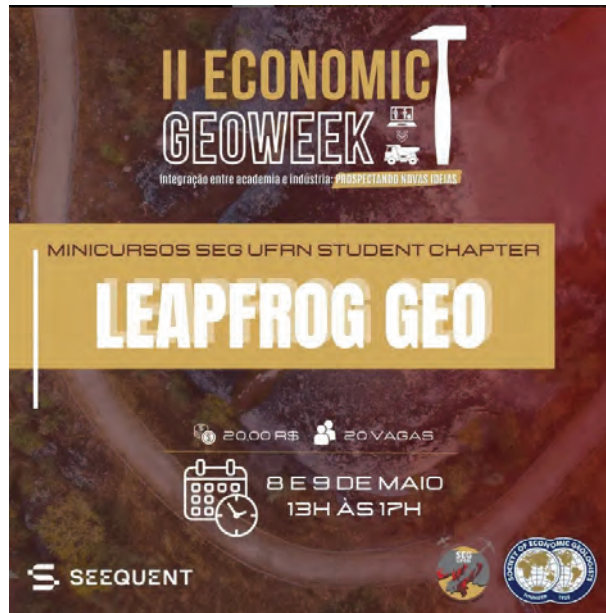


Figure 6 - Banner advertising Leapfrog Geo's course.

Another course offered by the SEG UFRN Student Chapter, was on geological modeling and resource estimation with Studio RM. This software is offered by Datamine (figure 7). The course was an internal training for members and given by one of the members. The member who taught the course participates in the Datamine Universities Program, an agreement between Brazilian universities and Datamine Brazil.

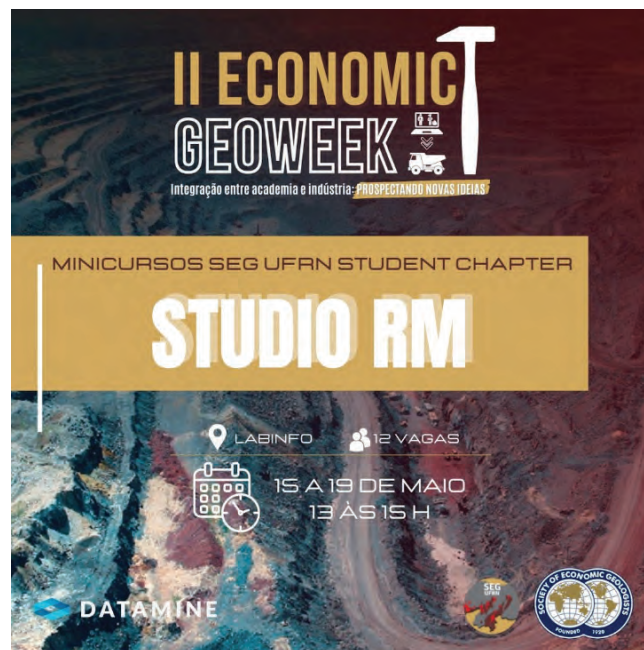


Figure 7 - Banner advertising the Studio RM course

The last course offered by the SEG UFRN Student Chapter was on analyzing and interpreting geological and geochemical data. This software is offered by IMDEX (Figure 8). The course was given to members from all over Brazil as part of the II Economic Geoweeek, On May 12, 2023.

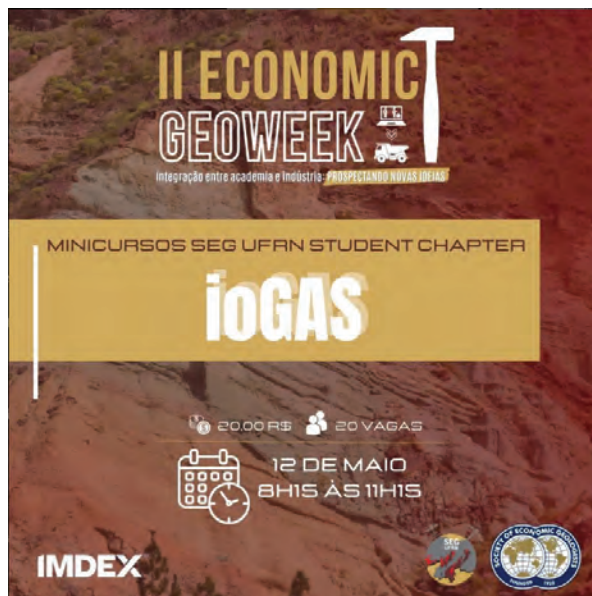


Figure 8 - Banner advertising the ioGAS mini-course, in partnership with IMDEX, given by IMDEX geologist Henrique Cunha at the II Economic Geoweeek.

5. PARTICIPATION IN CONFERENCES

Following the annual activities of the student chapter, the SEG UFRN Student Chapter had the opportunity in the organization of the Second Economic Geoweeek: integration between academia and industry (II ECONOMIC GEOWEEK) with the objective of contributing to the expansion of knowledge about economic geology.

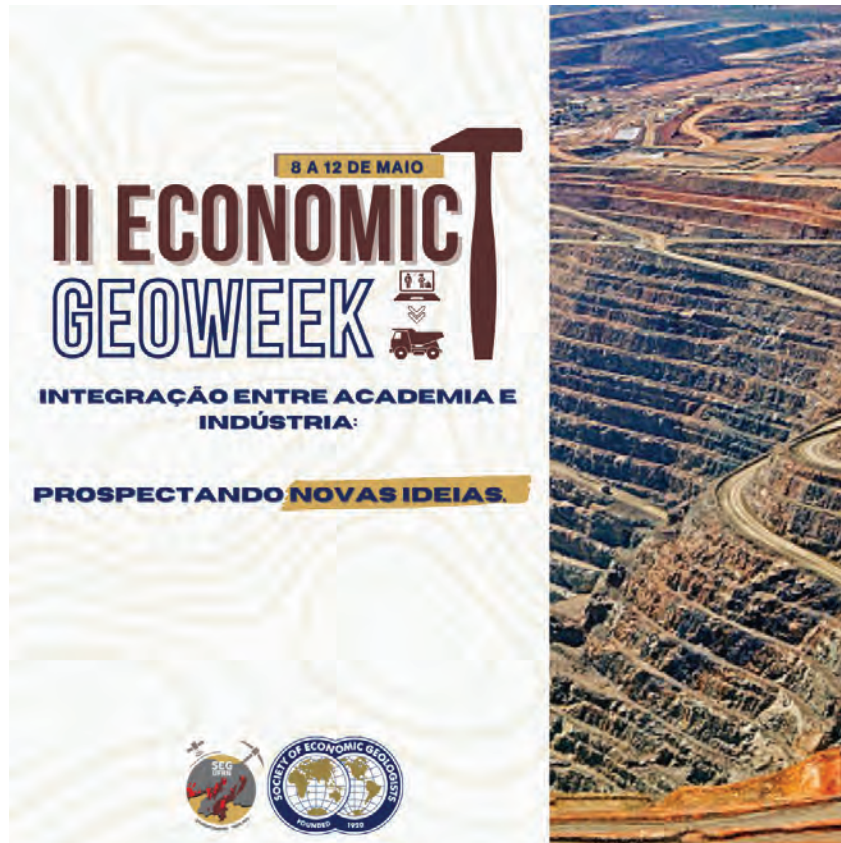


Figure 9 - II ECONOMIC GEOWEEK Visual Identity

The II Economic GeoweeK is an event organized by the UFRN SEG Student Chapter and its main theme is "Integration between academia and industry: prospecting for new ideas". It is an academic and non-profit event, which aims to stimulate the dissemination of Economic Geology, as well as promoting interaction between future collaborators and partners with mining and mineral prospecting companies.

In this sense, the event brought lectures that sought to add knowledge about the most interesting topics in Economic Geology at the time; through extremely qualified and experienced speakers from both academia and industry. It also offered short courses on the technical skills needed to carry out activities in the mining industry. The event had the support and partnership of various companies and organizations in the mining sector, in addition to ten (10) lectures delivered by highly esteemed professionals, both from the mineral industry and academia. (Figure 10).

The RN522 Workshop – EXPLORING RICHES: Metallogeny of Rio Grande do Norte took place on August 25, 2023, in person at Amphitheater A of the Center for Exact and Earth Sciences (CCET) at the Universidade Federal do Rio Grande do Norte (UFRN). The event emerged as an initiative of the members of the SEG UFRN Student Chapter (Figure 11) with the aim of promoting the development of geology and metallogeny in Rio Grande do Norte, expanding knowledge to the entire interested academic community. The event also had the merit of honoring the 522 years of Rio Grande do Norte celebrated in the month of August.



Figure 11 - SEG UFRN student chapter members in the organization of RN522.

The event had the participation of 82 attendees, including internal members, undergraduate and graduate students, and professors, as well as external individuals, including industry professionals and students from other institutions. As anticipated, the Workshop provided enriching learning experiences for all participants, fostering a networking environment where attendees interacted, shared information with professionals, and discussed topics related to geology and metallogeny. This exchange promoted mutual enrichment and contributed to the academic development of all involved. The event was an opportunity for the academic community to come together more closely to disseminate knowledge and continue growing together.

The event featured three lectures (Figure 12), each presentation lasting 45 minutes, with an additional 15 minutes allocated for questions.

1st Speaker: Prof. Dr. João Adauto de Souza Neto (UFPE)

Topic: Skarn Deposit W-Mo & Au-Bi-Te Bonfim, Lajes (RN)

2nd Speaker: Prof. Dr. Ricardo Guimarães Sallet (UFRN)

Topic: Petrology and Metallic Potential of the Pegmatite Province of Seridó, RN-PB

3rd Speaker: Dr. Francisco Augusto de Medeiros Neto (Paraíba Mine)

Topic: Skarn Deposit W-Mo & Au-Bi-Te Bonfim, Lajes (RN)



Figure 12 - RN522 visual identify and lectures.

6. CHAPTER SOCIAL MEDIA

The chapter's social networks were created with the aim of increasing the dissemination of Economic Geology in our society, as well as to publicize the work carried out by the chapter.

The chapter's regular publications are divided into two sections: SEG News and thematic sessions. SEG NEWS are updates on the main news in the national mining market (figure 13).



Figure 13 - SEG NEWS post: session on national mining market updates

The thematic sessions focus on various aspects of mining. The first thematic series was on the types of boreholes that are used in mining (figure 14).



Figure 14 - Post on the thematic session on types of drilling in mining

Social media was also used to publicize the events organized by SEG UFRN: II Economic GeoweeK and the RN522 workshop. The posts were to publicize the schedule, the description of each lecture at the event and the mini-courses given at the events (figure 15). The selection process for 2023 was also announced on the official Instagram page (figure 16).



Figure 15 - Posts promoting the II Economic GeoweeK.



Figure 16 - Post announcing the third SEG UFRN selection process.

Our Instagram has currently made 69 posts on the @seg.ufrn page which can be accessed through the link that is displayed here via <<https://www.instagram.com/seg.ufrn/>>. At the moment we have 643 followers since the beginning of our participation as a chapter.

Another social network that was widely used to broadcast lectures and short courses was YouTube. So far, 29 videos have been published on our channel, with 338 subscribers. The channel has broadcast the two economic geoweeks, as well as the lectures from the Seridó Mineral Province Lecture Series (figure 17). The channel link is <https://www.youtube.com/channel/UCGqmsre_Nup_FLP1LYL8mXw>

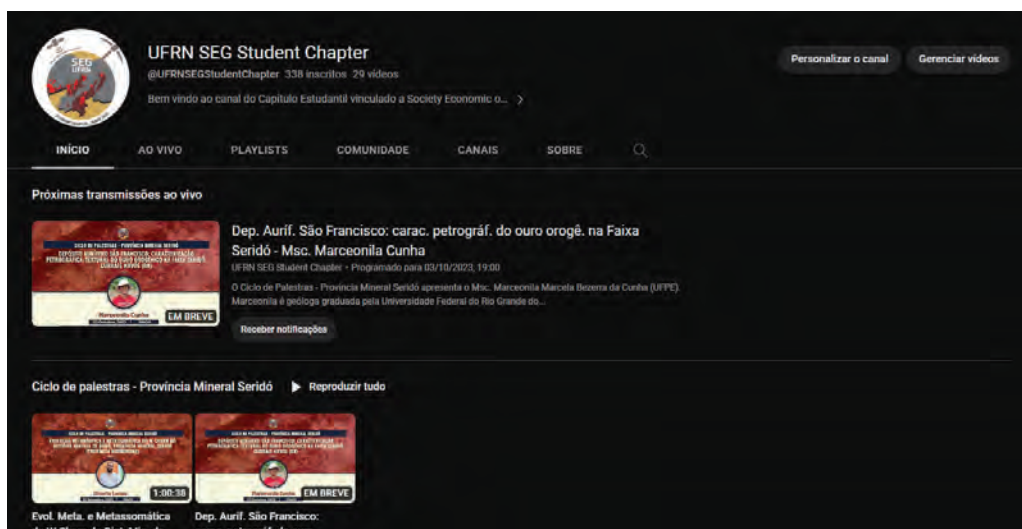


Figure 17 - Home of the official SEG UFRN student chapter channel.

Last year, SEG UFRN reactivated its LinkedIn page. The page is also used to publicize events organized by SEG UFRN (figure 18).

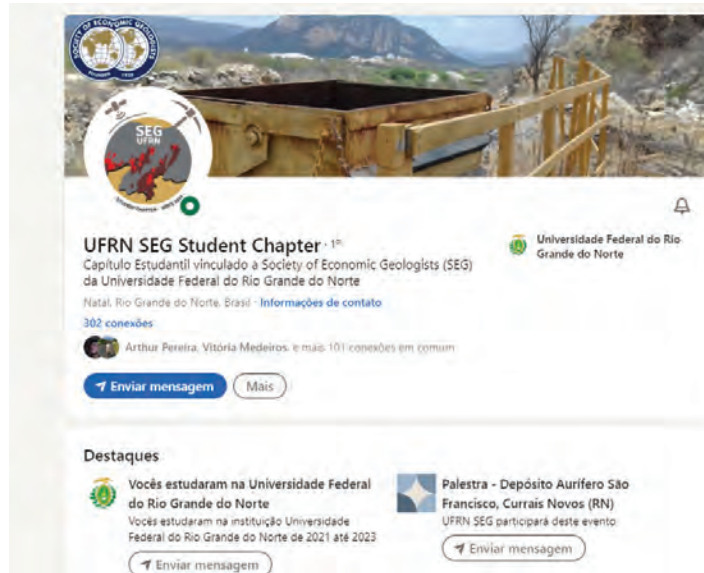


Figure 18 - SEG UFRN's LinkedIn homepage.

7. STUDY GROUPS

Initially, the chapter consisted of seven study groups, these being:

- Database Management and Modeling;
- Geoprocessing
- Geotechnics;
- Prospecting

However, due to the search for optimization and better management of the groups it was decided to reformulate them, so the groups were reduced to four, consisting of: database and modeling, metallogenesis, prospecting and Frank Arnott Awards.

Through the database and modeling group, the members were trained in Datamine's Studio RM and Sequent's Leapfrog Geo software, as well as a brief theoretical concept about geological modeling.

The groups dedicated to metallogenesis and prospecting engaged in discussions covering the fundamental principles of mineral deposits, including their geological characteristics and classification. The goal was to familiarize members with these concepts, with a particular emphasis on the Seridó Mineral Province (SMP). The main processes responsible for the formation of mineral deposit systems were analyzed, with a focus on skarn deposits. Additionally, a lecture titled

"Metamorphic and Metasomatic Evolution of the Bodó Mineral District in the SMP," was delivered by Master Dinarte Lucas da Silva Júnior.

The Frank Arnott group, inspired by the Frank Arnott - Next Generation Explorers Award (NGEA™) Challenge, an international competition promoted by the Prospectors Developers Association of Canada (PDAC), was established by the SEG Student Chapter at UFRN. This study group was envisioned as part of the chapter's preparation for future participation in the challenge. The primary objective was to acquaint members with issues related to economic geology. The group's activities included debates on mineral deposits, as well as geophysical and geochemical methods applied to mineral exploration.

8. FUNDRAISING PROGRAMS

This year, our student chapter was invited to participate in the Student Associates program offered by Seequent Ltd., an online program to bring geological modeling with Leapfrog Geo to the academic community through undergraduate students.

In April 2023, two of the chapter's members, together with participants from other student chapters, received basic to intermediate training in the software, as well as the Edge extension for resource estimation ministered by Seequent employees, and were tasked with sharing what they learned with the rest of our peers through courses offered to both students and teachers from geoscience-related areas, from college and technical degrees.

For the second consecutive year, one of the members of the SEG UFRN student chapter was selected to participate in the Datamine Universities Program. This program is an agreement between Datamine Brasil and Brazilian universities aimed at disseminating knowledge about the company's modeling and geostatistics software in mining engineering and geology courses. Throughout the year, training sessions were conducted in geological modeling, resource estimation, geostatistics, as well as other training sessions in photogrammetric modeling and structural analysis. With this training, the member was able to deliver courses using Studio RM, PixPro, Sirovision as well as assist professors and students in modeling courses and projects.

Two Studio RM courses were conducted, one open to the entire UFRN geological academic community and the second one restricted to members of the UFRN SEG student chapter.

9. PLANS

In taking stock of the chapter's achievements, we have set new goals and outlined our plans for the future. By the end of this year, our intention is to complete the remaining lectures from the event "Cycle of Lectures dedicated to the Seridó Mineral Province". In addition, we plan to include the new members selected during the selection process in our study groups.

In addition, we are planning our trip financed by the Stewart R. Wallace Fund to the interior of the state of Rio Grande do Norte. The purpose of this visit is to explore an underground mine, study outcrops that highlight the geological wealth present in the Borborema Province and learn about the facilities related to mineral treatment.

Next year, we plan to hold the third edition of our annual event, "Economic Geoweeek". We intend to hold it in a hybrid way, with lectures taking place both at our university and remotely. We also plan to continue promoting monthly lectures, similar to the "Cycle of Lectures dedicated to the Seridó Mineral Province", with a new theme to be defined. Finally, we are planning to hold a new selection process to admit new members to the chapter.

10. SEG UFRN cash flow for the period October 2022 to October 2023

During the period from October 2022 to October 2023, SEG UFRN's cash flow had a positive movement with payments for mini-courses in partnership with companies and the Stewart R Wallace fund, in addition to the sponsorship received by the Brazilian company Ígnea Geologia e Meio Ambiente (Table 1).

Expenses included the purchase of mugs with II Economic Geoweeek themed tie rods.

FLUXO DE CAIXA SEG UFRN
SALDO GERAL (R\$)
30/10.23

Período: 2022	TOTAL DO CAIXA ANO 2022 (R\$)	374.5				
Mês: Novembro						
Data	Entradas	Valor (R\$)	Data	Saídas	Valor (R\$)	Saldo
-	-	-	-	-	-	0
Total			Total			
Mês: Dezembro						
Data	Entradas	Valor (R\$)	Data	Saídas	Valor (R\$)	Saldo
-	-	0	-	-	0	0
Total		0	Total		0	0
Período: 2023						
TOTAL DO CAIXA ANO 2023 (R\$)	2635.73					
Mês: Janeiro Fevereiro Março Abril						
Data	Entradas	Valor (R\$)	Data	Saídas	Valor (R\$)	Saldo
-	-	0	-	-	0	0
Total		0	Total		0	0
Mês: Maio						
Data	Entradas	Valor (R\$)	Data	Saídas	Valor (R\$)	Saldo
08/05-09/05	Cursos de Leapfrog	220	05/05	Copos e Tirantes II Economic Geoweek	720	
12/05	Curso de IGAS	230				230
04/05	Patrocinio Ignea Geologia e Meio Ambiente	500				
Total		950	Total		720	
Mês: Junho Julho						
Data	Entradas	Valor (R\$)	Data	Saídas	Valor (R\$)	Saldo
-	-	-	-	-	-	0
Total			Total			
Mês: Agosto						
Data	Entradas	Valor (R\$)	Data	Saídas	Valor (R\$)	Saldo
30/08	Stewart R. Wallace Fund 2022	2405.73	-	-	0	2405.73
Total		2405.73	Total		0	
Mês: Setembro						
Data	Entradas	Valor (R\$)	Data	Saídas	Valor (R\$)	Saldo
30/08	-	-	-	-	0	0
Total			Total		0	
Mês: Outubro						
Data	Entradas	Valor (R\$)	Data	Saídas	Valor (R\$)	Saldo
30/08	-	-	-	-	0	0
Total			Total		0	
Mês: Novembro						
Data	Entradas	Valor (R\$)	Data	Saídas	Valor (R\$)	Saldo
26/11	-	-	-	Bandeira	0	0
Total			Total		0	