



CPRM

Serviço Geológico do Brasil

LAMIN-BE: SAMPLE PREPARATION AND LABS



Marcelo Vasquez

Geoscience Researcher / GERIDE Supervisor

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LAMIN-BE HISTORY

LAMIN-BE was opened in 1970s

Analysis were stopped in 1990s and 2000s

In 2013 SEM lab was opened

FL lab started in 2016



MINERAL ANALYSIS LABORATORY - LAMIN

LAMIN Network



SAMPLES PREPARATION

Petrography and metalography specimes

Mineral concentrate (geochronology, prospection,...)

Geochemistry specimes (rock, soil, sediments,...)

SEM and XRD specimes (rock, ore, minerals, clays,...)

ANALYSIS

Petrography and metalography

FI microanalysis (in test)

SEM (EDS microanalysis, SE, BSE, CL images)

(EBSD microanalysis in test)

THIN / POLISHED SECTIONS

Cutting / Shaping



Thinning



Grinding



Grinding / Polishing



Epoxy impregnation



Hydraulic press



CRUSHING AND MILLING

Bowl mills



Shatter box



Crusher, disk mills



Dust exaustion systems



Dust exaustion systems



MINERAL CONCENTRATION

Sieving



Magnetic separator



Gravity methods



Bowl shaking

Picking



Zircon concentrate



Heavy liquid

MOUNTING

Cold mouting



Hot mounting

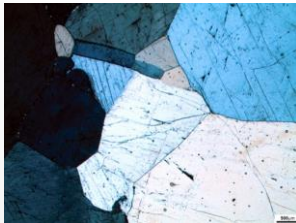
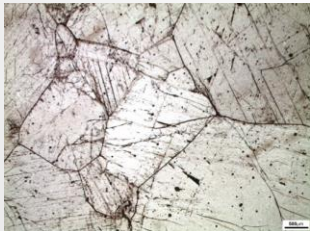


Thermopress

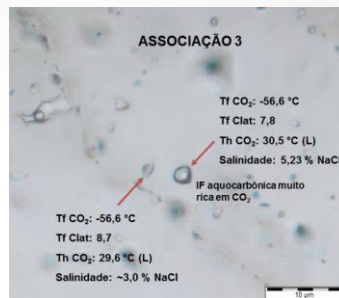


PETROGRAPHY AND FLUID INCLUSIONS

Microscopes and stereomicroscopes



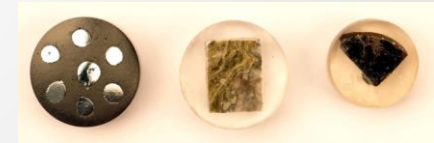
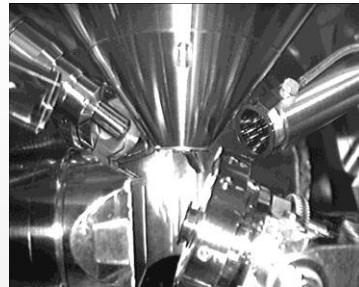
FI workstation



SEM LAB

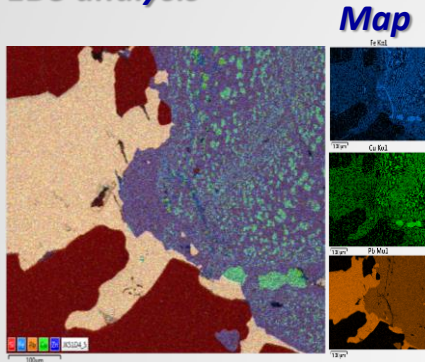
SE / BSE / EP-SE / CL / EDS / EBSD

Sample preparation

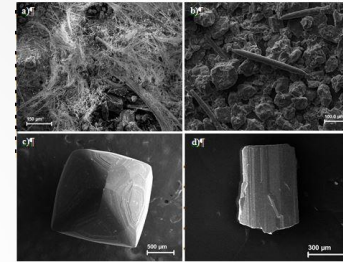
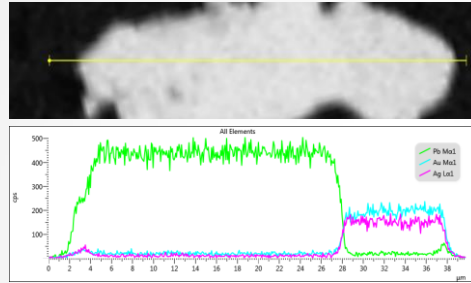


SEM IMAGES AND ANALYSIS

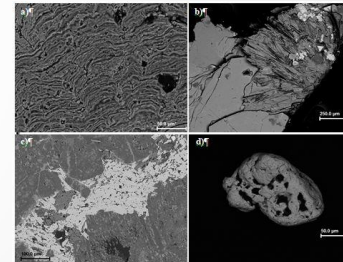
EDS analysis



Line scan

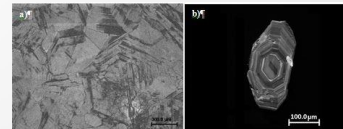
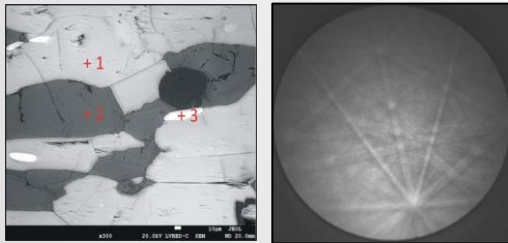


SE Image



BSE Image

EBSB test



CL Image

SAMPLE COLLECTION BUILDING

Sample Collection Office



Final storage



Geochemistry samples



Sample register



Preliminary storage

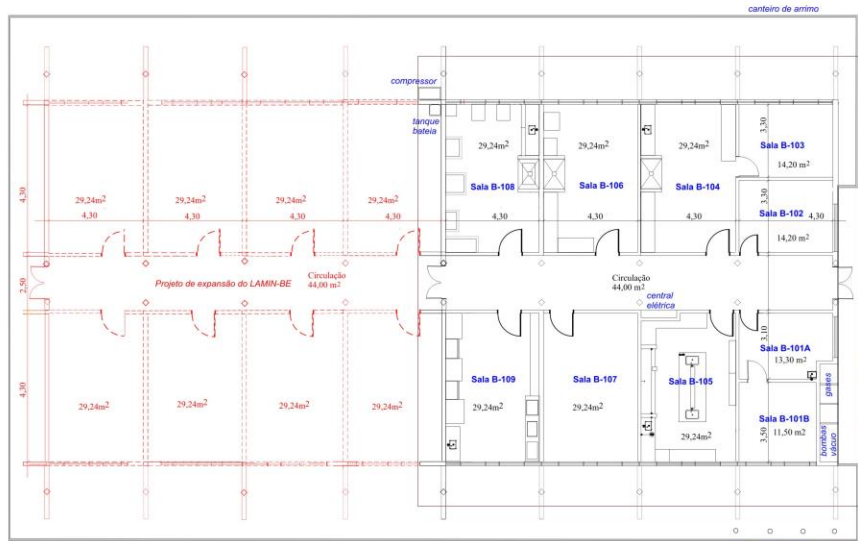


Geochronological samples



EXPANSION OF LAMIN-BE

Ground floor project



Salas do LAMIN-BE

- B-101A - preparação de amostras de MEV
- B-101B - laboratório de MEV
- B-102 - laboratório de petrografia e IF
- B-103 - gerenciamento
- B-104 - laminação e polimento
- B-105 - separação mineral
- B-106 - preparação de amostra 1
- B-107 - acervos de amostras e dos técnicos
- B-108 - preparação de amostra 2
- B-109 - secagem de amostras



Área Construída = 272,64 m²
 Área em expansão = 277,92 m²

Figura 1: Esquema em planta baixa do LAMIN-BE com área construída (em preto) e área planejada para futura expansão (em vermelho).

Previous fundation



LAMIN-BE STAFF



Thank You!