



IGRM



INTEMIN

ARGENTINA: MINING RESOURCES

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Secretario Ejecutivo

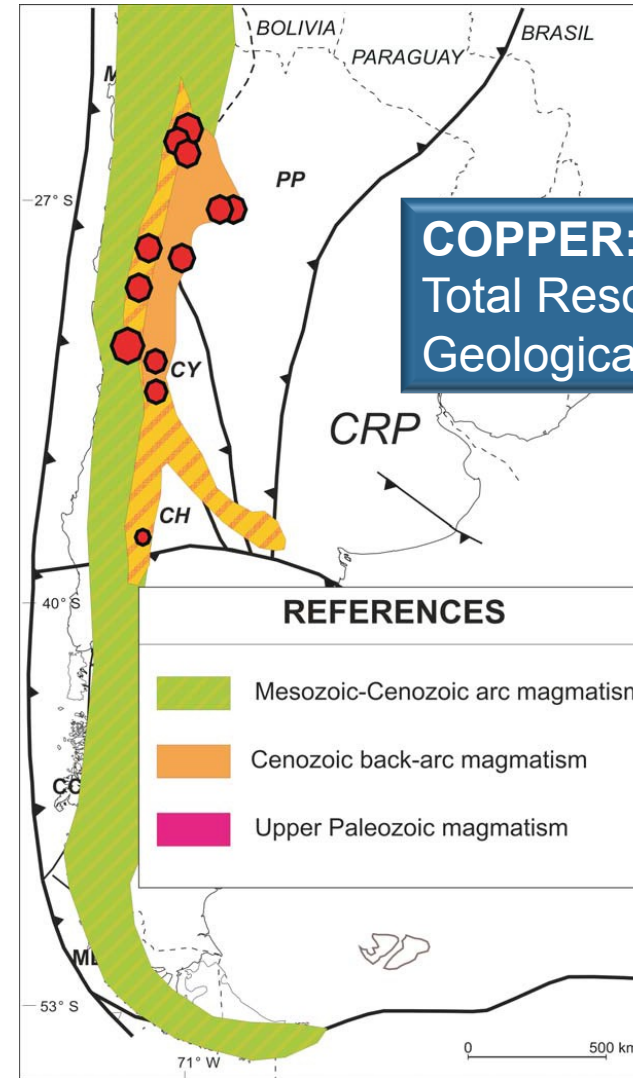
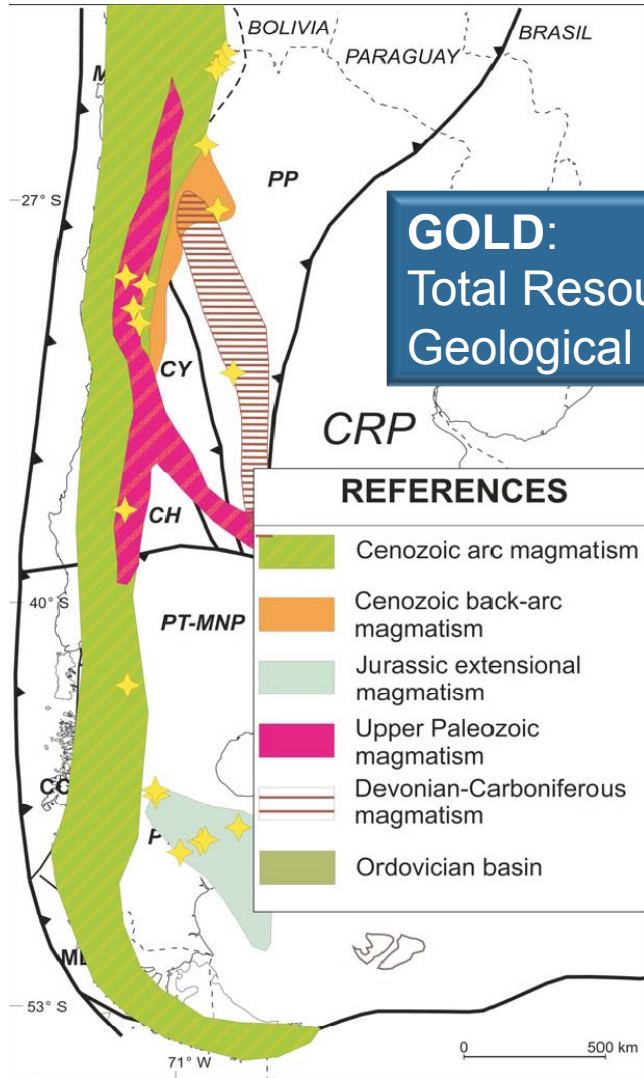
EU-Latin America Dialogue on Raw Materials: enhancing the co-operation
Santiago de Chile - April 25th and 26th

CIRCULARITY: OUR CORE VALUE

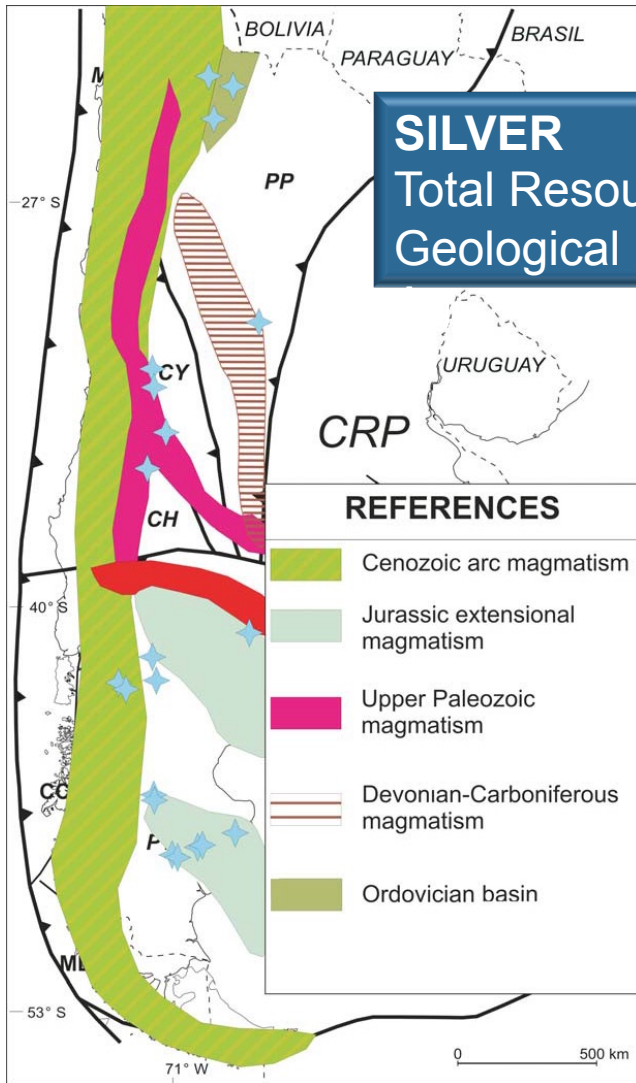


- **KNOWLEDGE**
- **TECHNOLOGY**
- **VALUE ADDED**

ARGENTINA: MINERAL RESOURCES FOR MINING DEVELOPMENT



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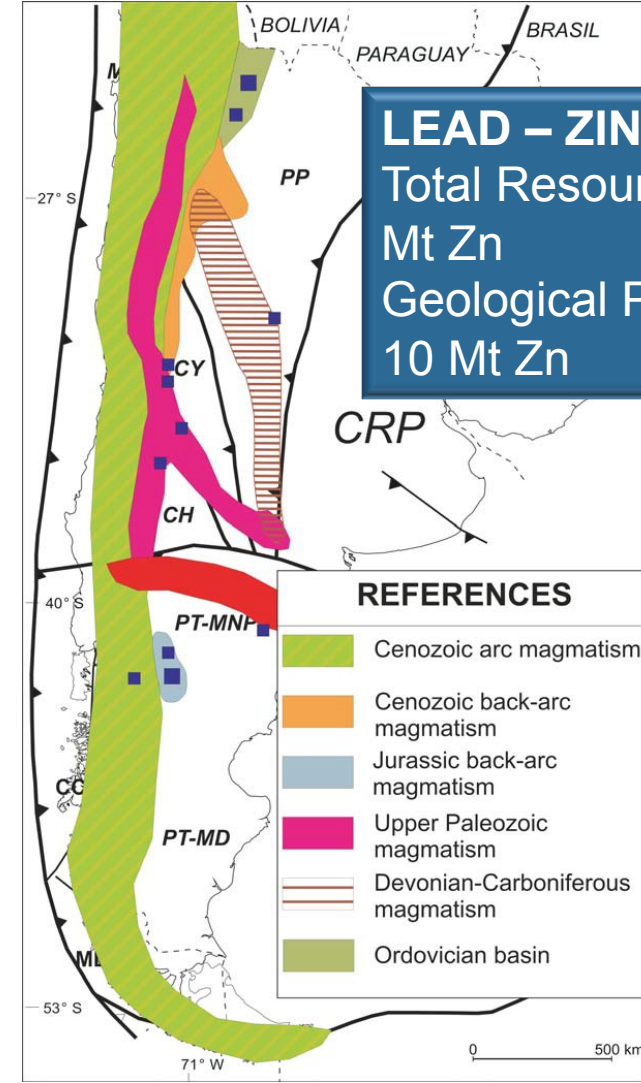


SILVER

Total Resources 4000 M oz Ag
Geological Potential 12000 M oz

REFERENCES

- Cenozoic arc magmatism
- Jurassic extensional magmatism
- Upper Paleozoic magmatism
- Devonian-Carboniferous magmatism
- Ordovician basin



LEAD – ZINC

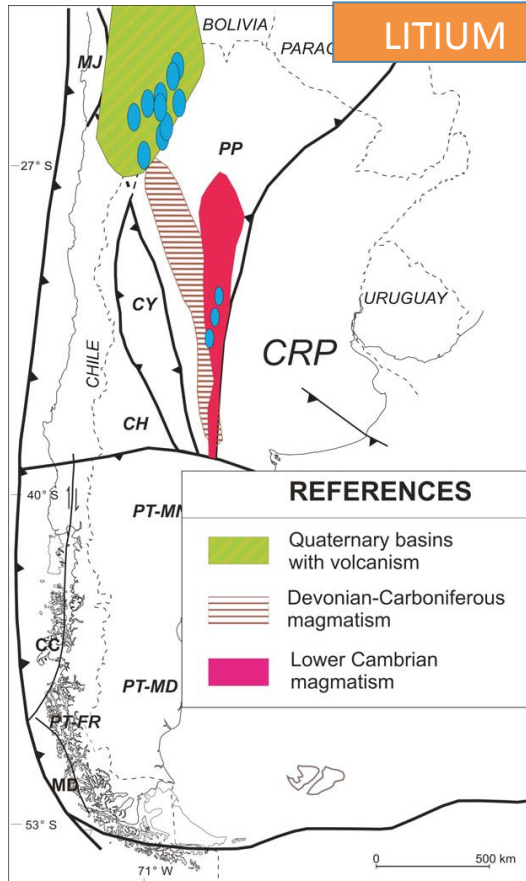
Total Resources 5,2 Mt Pb and 5 Mt Zn
Geological Potential 9 Mt Pb and 10 Mt Zn

REFERENCES

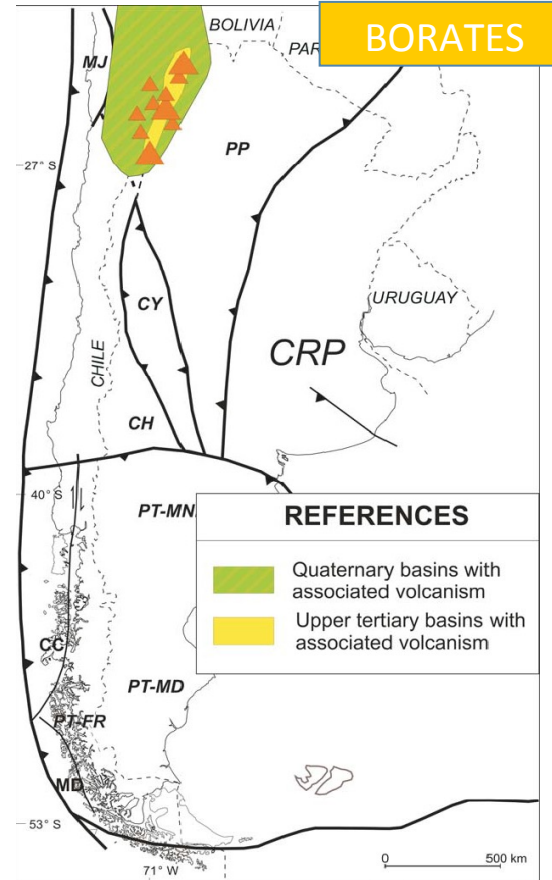
- Cenozoic arc magmatism
- Cenozoic back-arc magmatism
- Jurassic back-arc magmatism
- Upper Paleozoic magmatism
- Devonian-Carboniferous magmatism
- Ordovician basin

ARGENTINA: MINERAL RESOURCES FOR MINING DEVELOPMENT

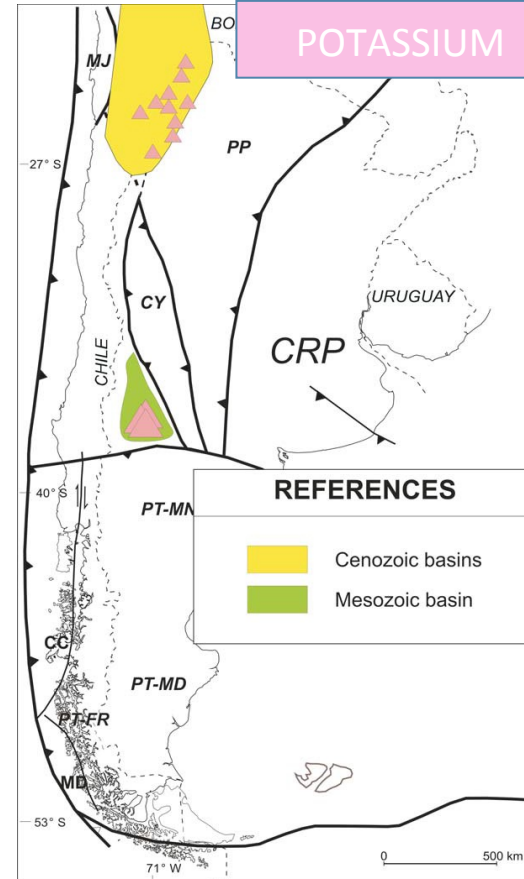
LITIUM



BORATES



POTASSIUM



LITIUM:

TOTAL RESOURCES 40,4 M t Li carbonate

GEOLOGICAL POTENTIAL: 100 M t Li carbonate

BORATES:

TOTAL RESOURCES 123 M t

GEOLOGICAL POTENTIAL: 250 M t

POTASSIUM:

TOTAL RESOURCES: 932 M t

CIK

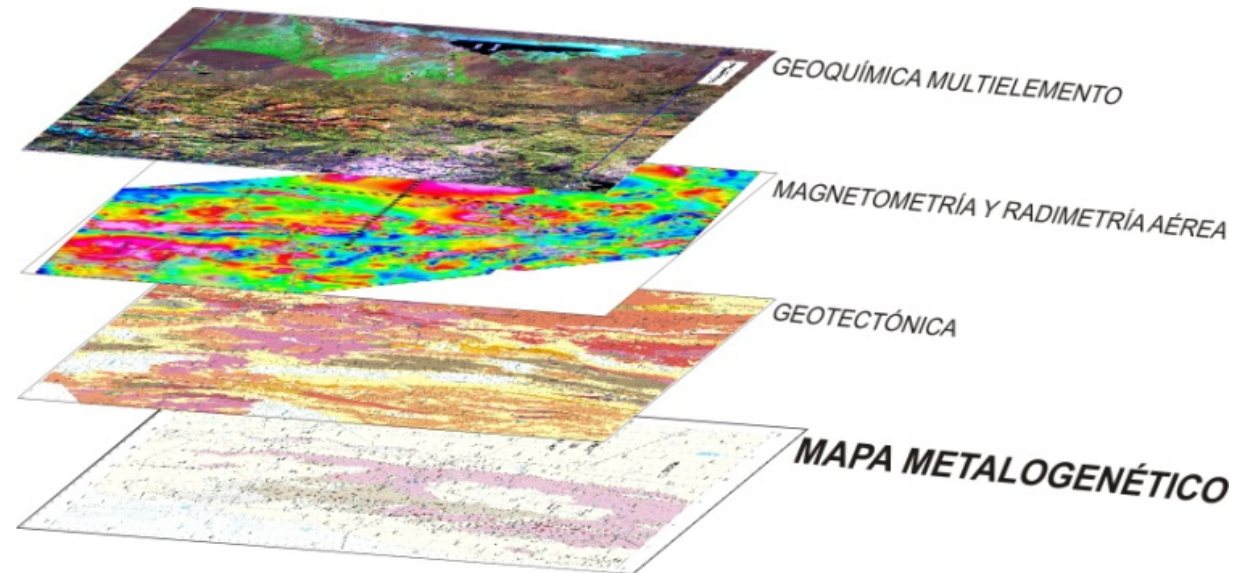
GEOLOGICAL POTENTIAL: 2750 M t CIK

ARGENTINA: GEOLOGICAL AND MINING INFORMATION AVAILABLE

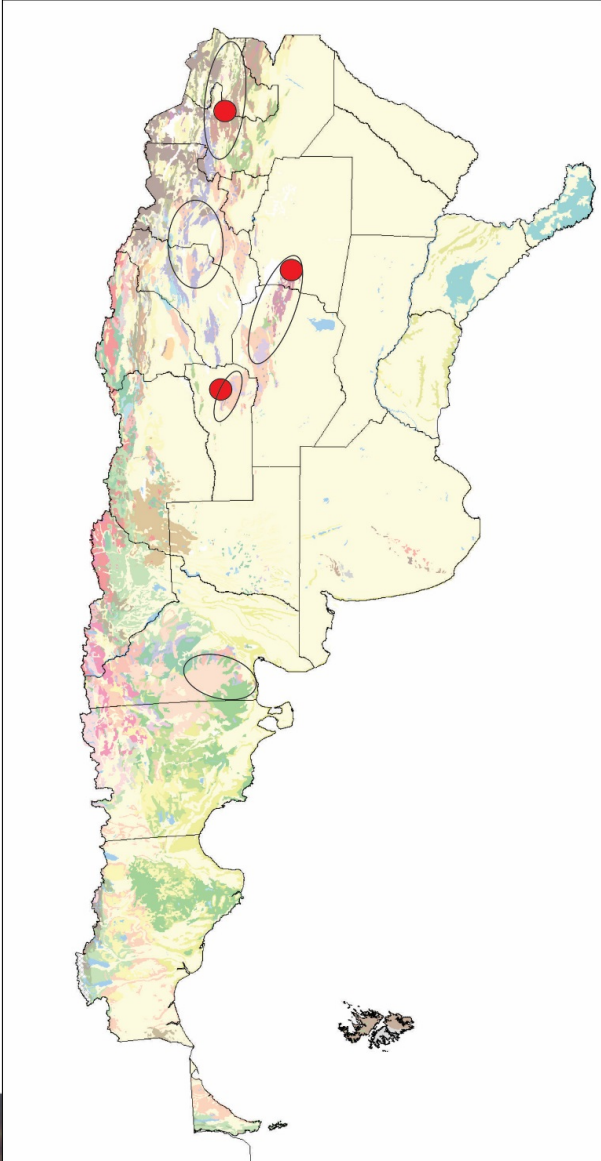


Argentine Mining Geological Survey. **SEGEMAR** provides scientific-technological information for mining in Argentina:

- Geochemical sampling of the national territory
- Geological information
- Mineral deposits Databases
- Magnetometry and air Radimetry
- Laboratories and Applied Research Centers



CRM Critical Raw Materials–REE (Rare Earth Elements) in ARGENTINA



REE mineralizations:

- RANGEL (5 Mt with 0,5 % REE)
- JASIMAMPA
- RODEO DE LOS MOLLES (1-2 % TREO)
- Others not evaluated



Areas with potencial for REE exploration

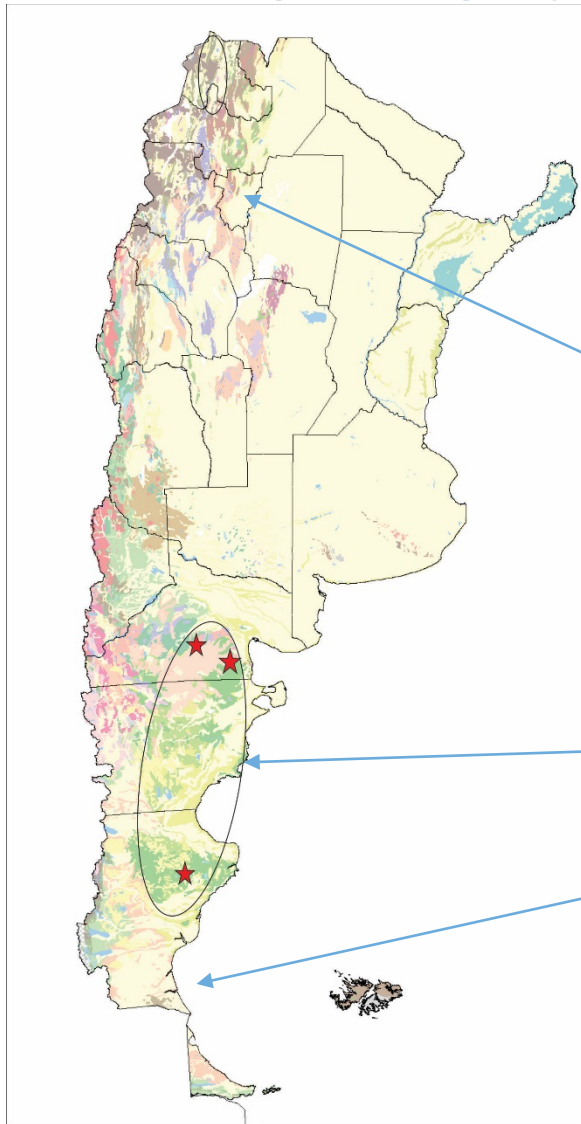
Models of mineralization (Prospection Program*):

- Ion adsorption type REO (“wheathered crust elution”-deposited REE ore)
- Hydrothermal
- Alkaline Magmatism
- Pegmatites

*REE Prospection Program (ongoing in SEGEMAR):

- Review of multi-element geochemical data.
- Review of geophysical data (Thorium anomalies channel from aerial survey of gamma spectrometry).
- Inventory of Rare Earths mineralization associated with alkaline magmatism.
- REE background determination in granitic rocks.

CRM Critical Raw Materials – INDIUM (In), in ARGENTINA



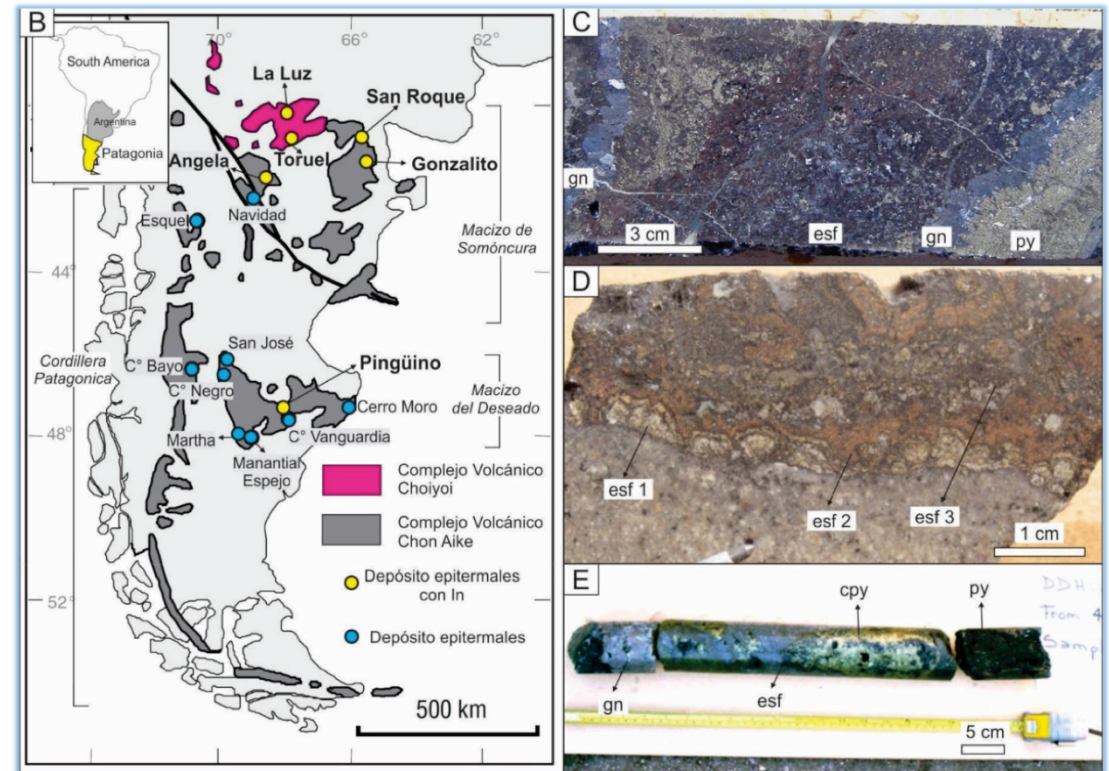
Indium in Ag-Zn ores

Projects (with advanced exploration):

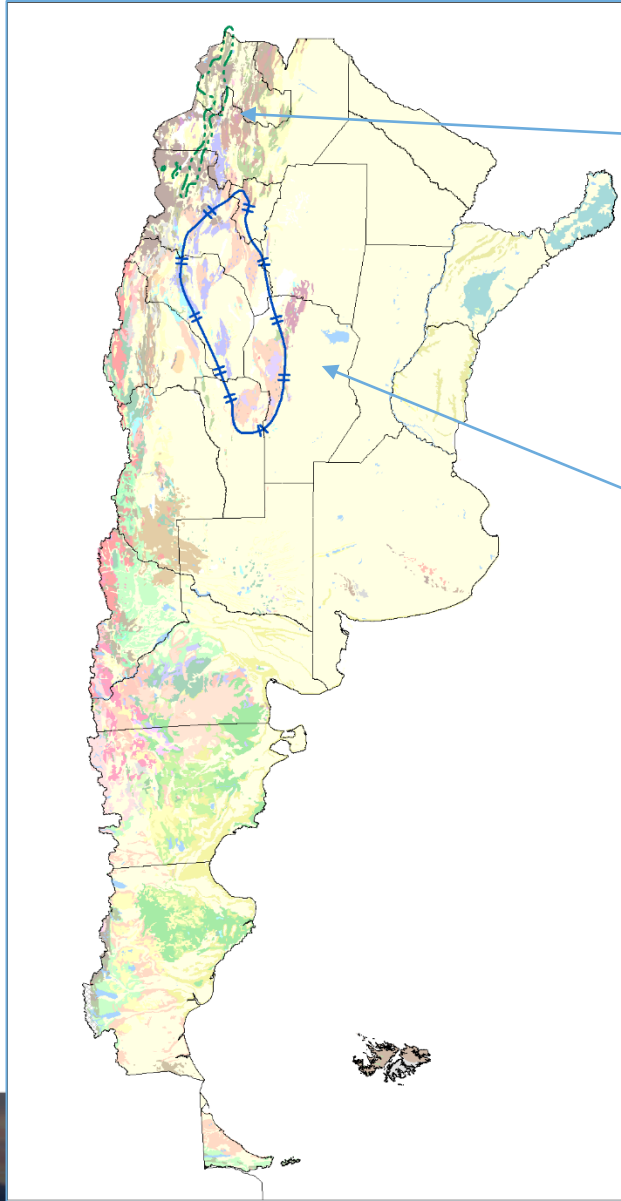
- San Roque (Zn-In-Cu-Pb) hasta 15000 ppm In.
- Pingüino (Au-Ag-In) 1000 ppm In

Model of mineralization:

epithermal, polymetallic and/or intermediate sulphide deposits in **Patagonia, Argentina**



CRM Critical Raw Materials – ANTIMONY (Sb), in ARGENTINA



Metallogenetic Belt in Puna Region : Sb (\pm Au) deposits hosted in ordovician sediments.

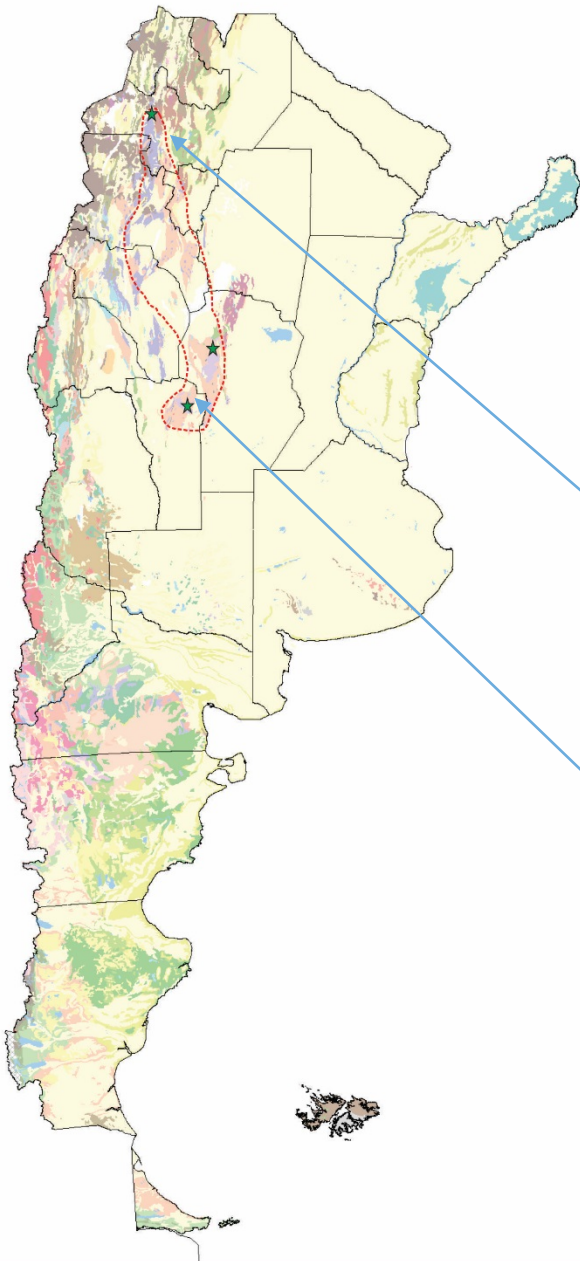
Pabellón mine and others mineral deposits at Sierra de Rinconada (Jujuy province): old mines partially mined by Sb and Au.

Metallogenetic Belt in Pampean Ranges Region with Sb veins into basement rocks near faults.

La Cébila District: Sb veins; Sb disseminated.



CRM Critical Raw Materials – NIOBIUM & TANTALIUM (Nb-Ta) in ARGENTINA



MODEL DEPOSITS: Nb-Ta Pegmatites
Types: LCT and NYF Pegmatites or “Pegmatitas complejas”.

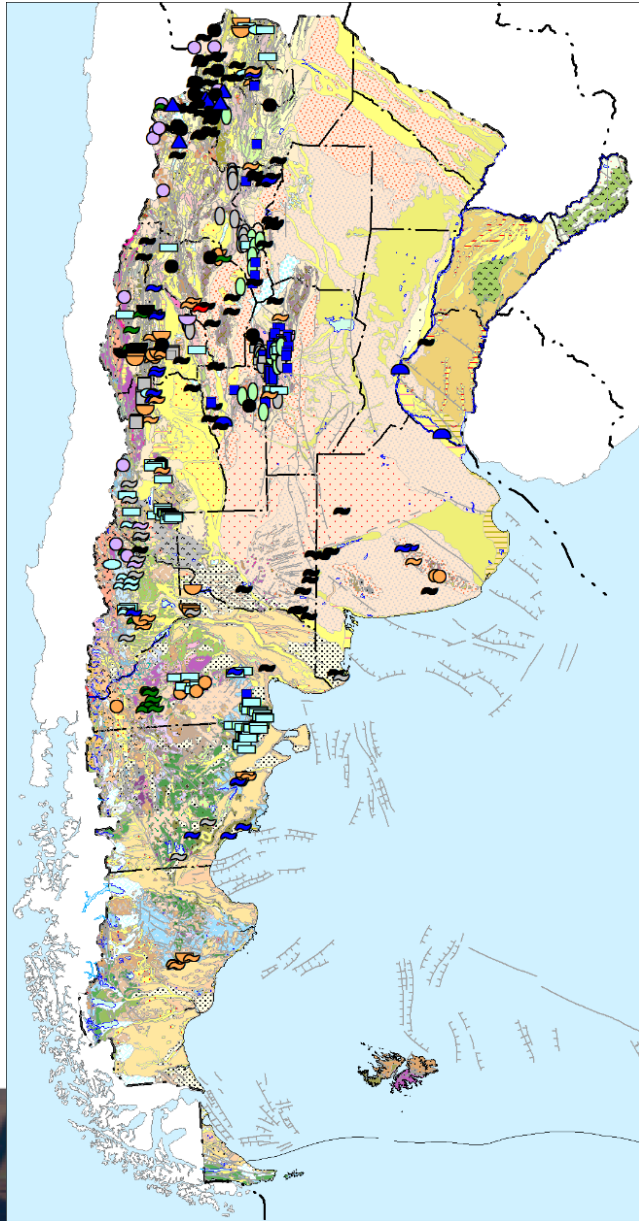
DISTRIBUTION IN ARGENTINA:
Metamorphic areas with arc-magmatism and post-collisional magmatism. In Pampean Ranges and Cordillera Oriental.

El Quemado District, Cachi Range, Salta province

- 30 pegmatites + placer deposits.
- 200-300 m length (individually); 2-30 m width; 100 m heigth.
- 0,01 – 0,035 % Nb₂O₅ + Ta₂O₅

Other occurrences: Pegmatites of San Luis province (El Zapallar, La Florida) and Córdoba province (Sierra de Comechingones). Placer deposits in San Luis province (Cañada Honda)

Industrial Minerals and Rocks, in ARGENTINA



- Borates
- Litium
- ClK
- Carbonates
- Fluorspar
- Dimensional rocks
- Marbles
- Clays
- Bentonites
- Gypsum
- Quartz high quality





Thank you!

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