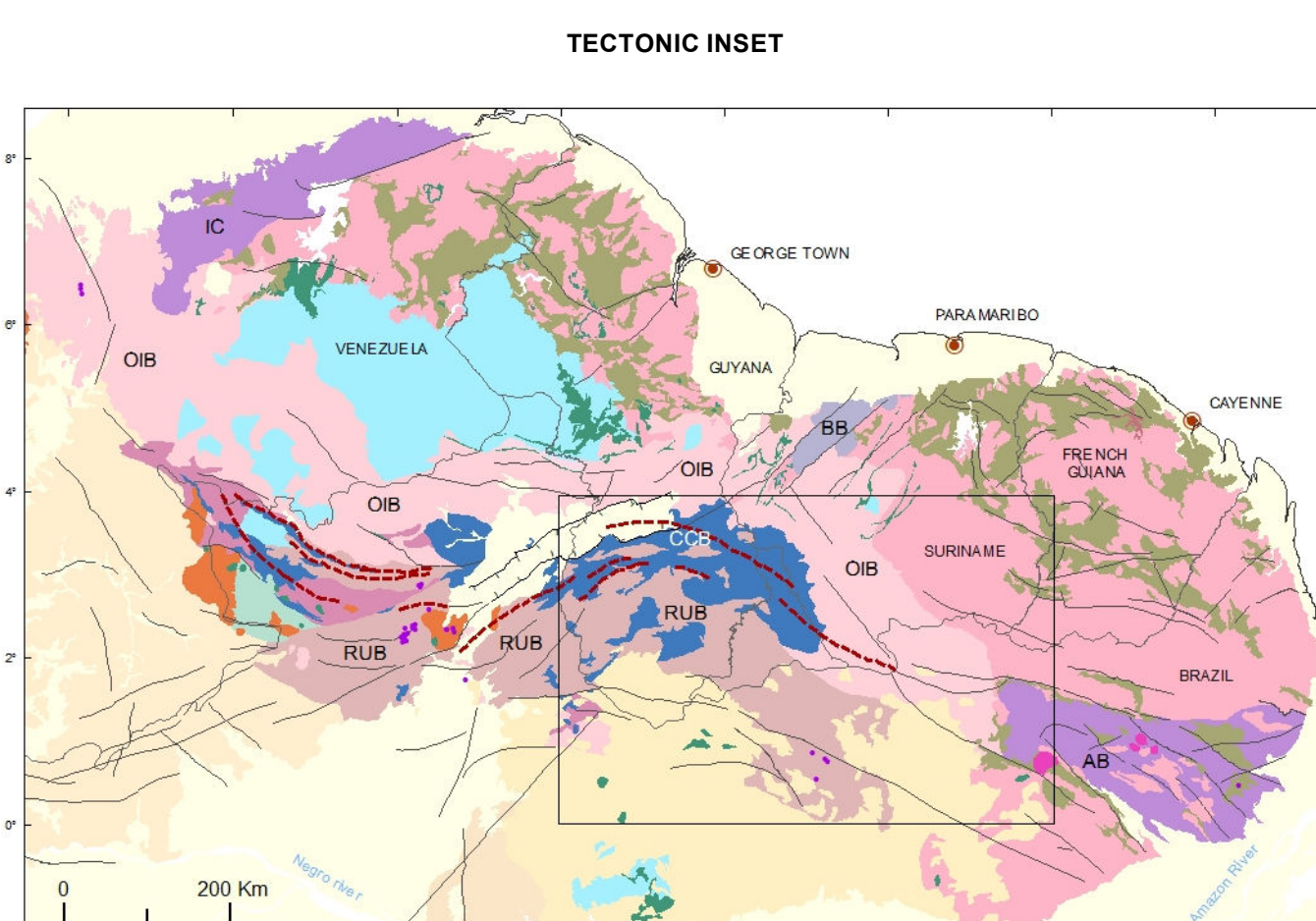
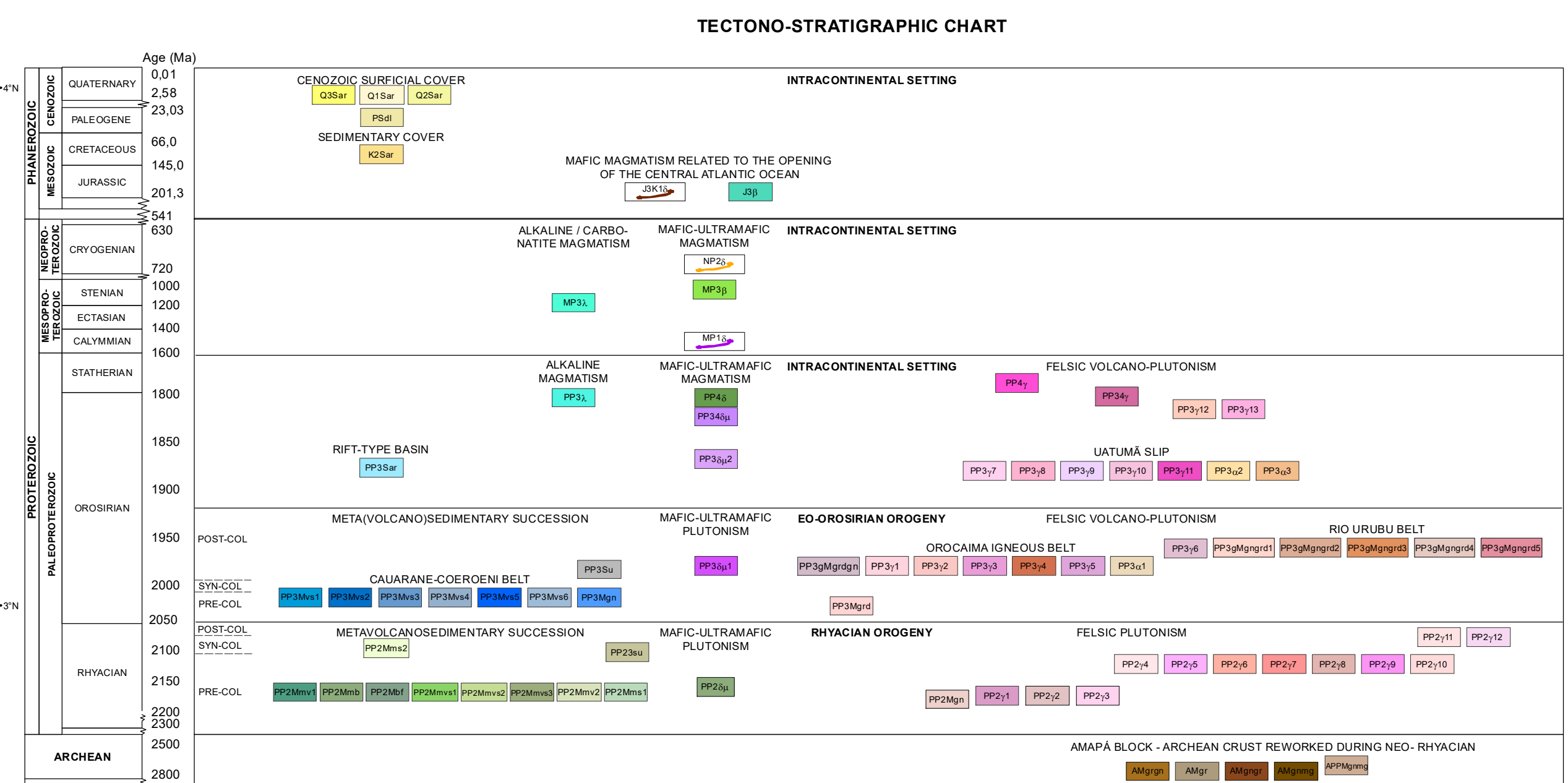
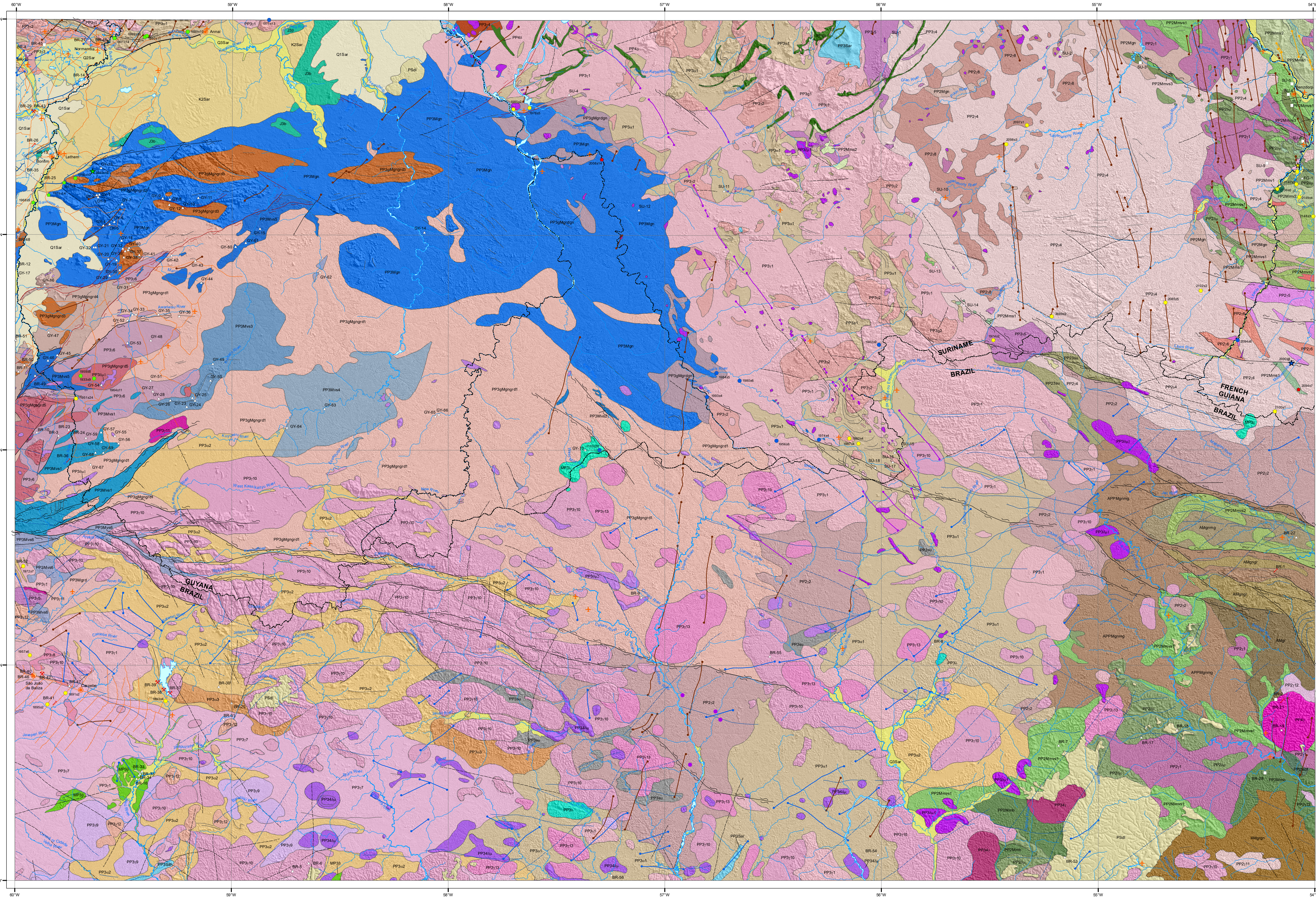


**GEOLOGICAL AND MINERAL RESOURCES MAP OF SOUTH AMERICA
(GIS - SOUTH AMERICA, 1:1 M)**

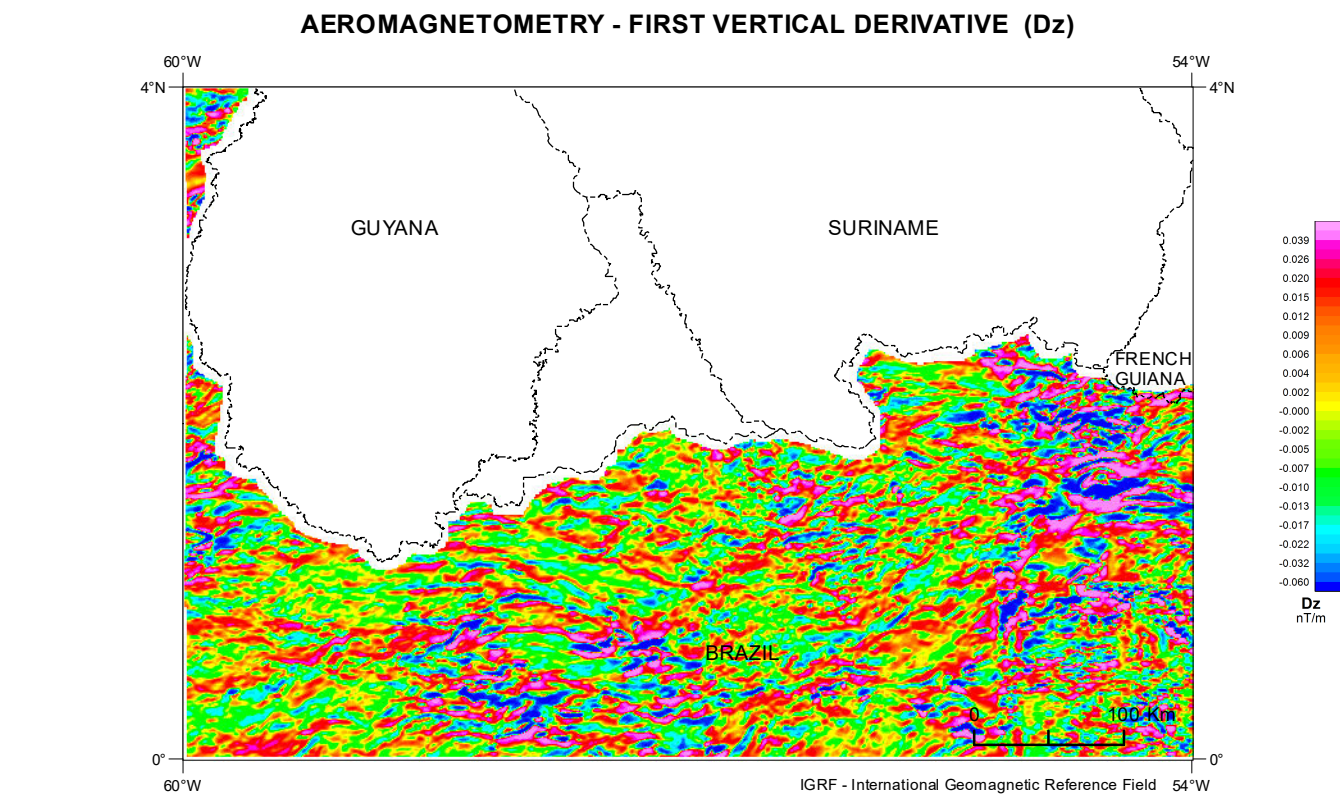


SHEET NA.21

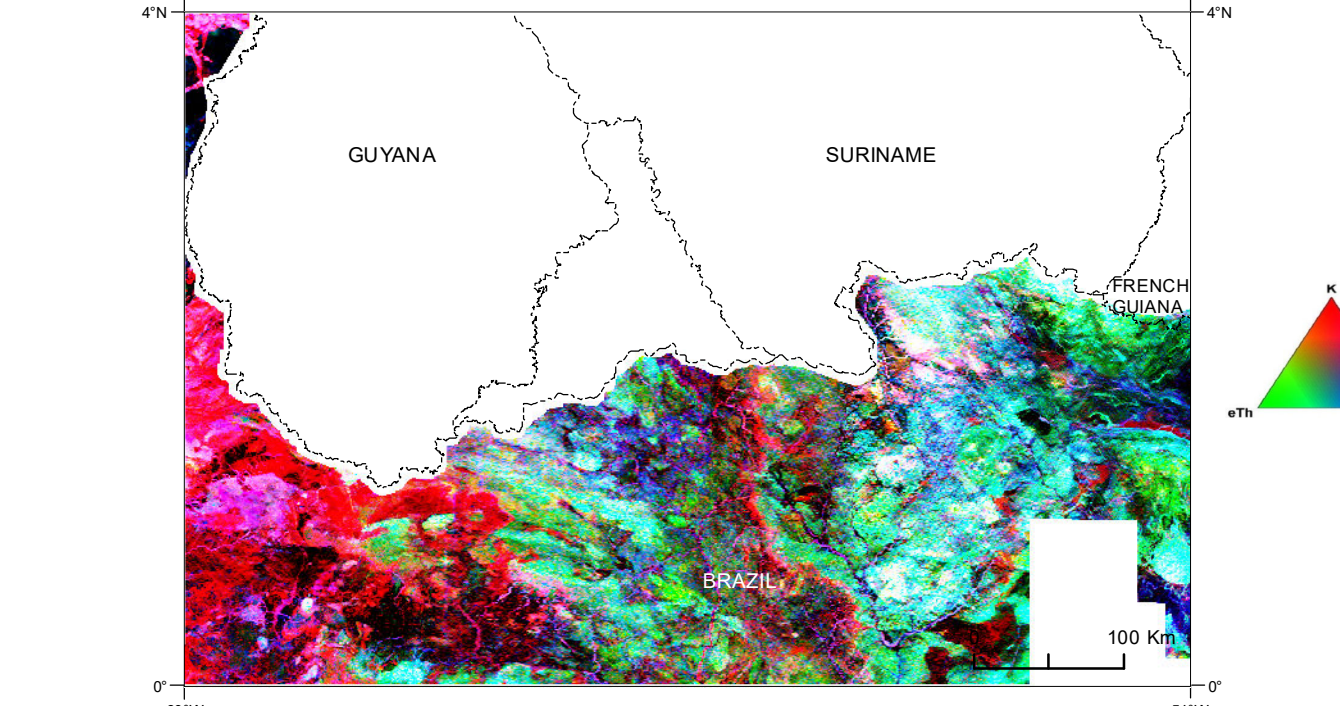


Phanerozoic Cover
 - Archaean and associated rocks (< 50 Ga)
 - Archaean granites and associated rocks (50-74 Ga)
 - Basement complex and unfoliated rocks (< 10 Ga)
 - Intracontinental magmatic rocks (10-15 Ga)
 - Subduction-related igneous and metamorphic rocks (15-20 Ga)
 - Volcanic rocks (15-20 Ga)
 - Metasedimentary rocks (15-20 Ga)
 - Metavolcanic rocks (15-20 Ga)
 - Metasedimentary rocks (20-24 Ga)
 - Metavolcanic rocks (20-24 Ga)
 - Metasedimentary rocks (24-28 Ga)
 - Metavolcanic rocks (24-28 Ga)
 - Metasedimentary rocks (28-32 Ga)
 - Metavolcanic rocks (28-32 Ga)
 - Metasedimentary rocks (32-36 Ga)
 - Metavolcanic rocks (32-36 Ga)
 - Metasedimentary rocks (36-40 Ga)
 - Metavolcanic rocks (36-40 Ga)
 - Metasedimentary rocks (40-44 Ga)
 - Metavolcanic rocks (40-44 Ga)
 - Metasedimentary rocks (44-48 Ga)
 - Metavolcanic rocks (44-48 Ga)
 - Metasedimentary rocks (48-52 Ga)
 - Metavolcanic rocks (48-52 Ga)
 - Metasedimentary rocks (52-56 Ga)
 - Metavolcanic rocks (52-56 Ga)
 - Metasedimentary rocks (56-60 Ga)
 - Metavolcanic rocks (56-60 Ga)

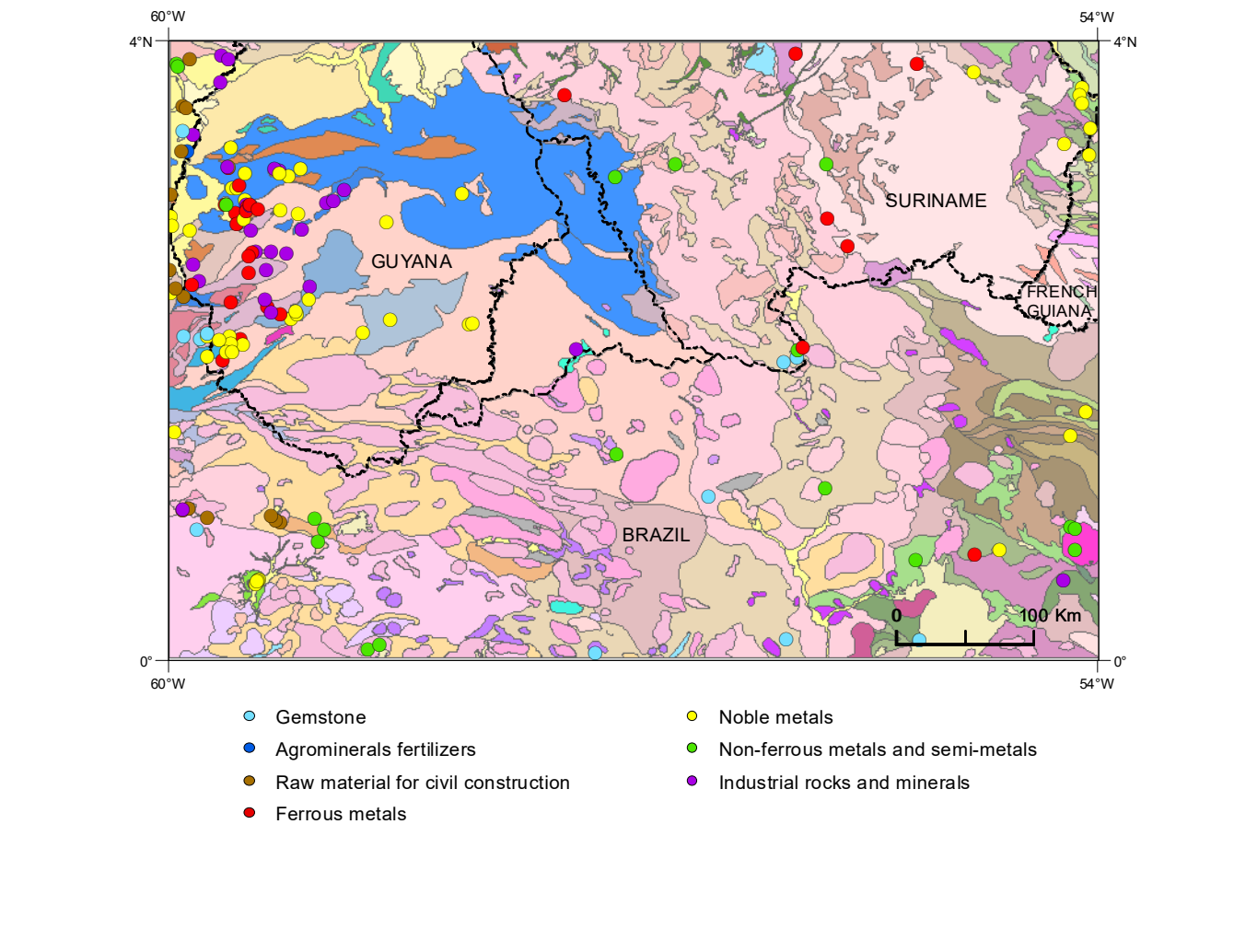
AEROMAGNETOMETRY - FIRST VERTICAL DERIVATIVE (Dz)



AEROGAMMASPECTROMETRY - TERNARY RGB COMPOSITION (K, Th, eU)

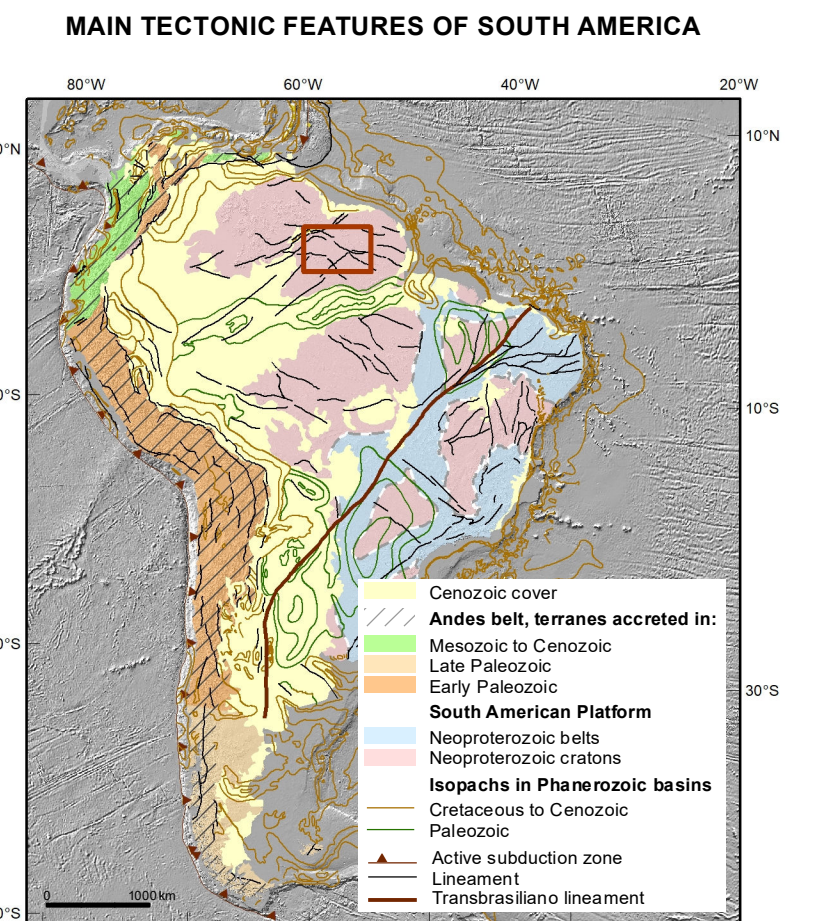
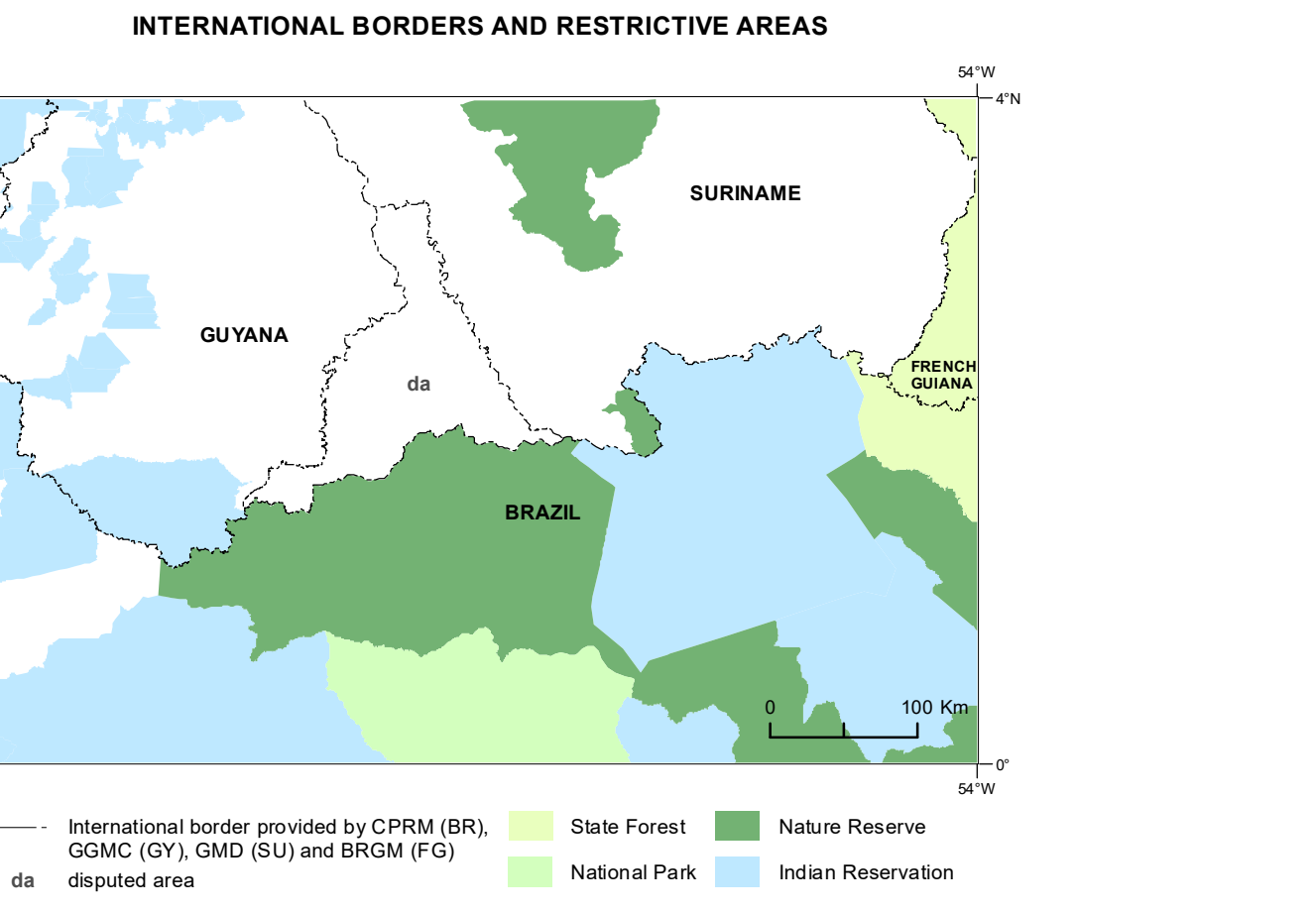


CLASSES OF MINERAL RESOURCES



MINERAL RESOURCES

Code	Name	Code	Name
BR-01 Au	TUMUCUMAQUE	BR-17 B	SPILVAJUN RIVER
BR-02 Ag	MAPIREIA	BR-18 B	SAKARAJ RIVER BASIN
BR-03 Si	REIJA CREEK	BR-19 B	SAKARAJ RIVER
BR-04 Fe	GUAYANA MOUNTAIN	BR-20 B	SAKARAJ RIVER
BR-05 Ni	BARALON RIVER	BR-21 B	SAKARAJ RIVER
BR-06 Cu	FOLIA E FERRUM MARINA VILLAGEM	BR-22 B	SAKARAJ RIVER
BR-07 Pb	FOLIA E FERRUM MARINA VILLAGEM	BR-23 B	SAKARAJ RIVER
BR-08 Zn	FOLIA E FERRUM MARINA VILLAGEM	BR-24 B	SAKARAJ RIVER
BR-09 Mn	FOLIA E FERRUM MARINA VILLAGEM	BR-25 B	SAKARAJ RIVER
BR-10 Cr	TORAJU MOUNTAIN	BR-26 B	SAKARAJ RIVER
BR-11 U	TORAJU MOUNTAIN	BR-27 B	SAKARAJ RIVER
BR-12 U	TORAJU MOUNTAIN	BR-28 B	SAKARAJ RIVER
BR-13 Ba	TORAJU MOUNTAIN	BR-29 B	SAKARAJ RIVER
BR-14 Mo	TORAJU MOUNTAIN	BR-30 B	SAKARAJ RIVER
BR-15 Co	TORAJU MOUNTAIN	BR-31 B	SAKARAJ RIVER
BR-16 Ni	TORAJU MOUNTAIN	BR-32 B	SAKARAJ RIVER
BR-33 Au	SAKARAJ RIVER	BR-34 Au	SAKARAJ RIVER
BR-35 Ag	SAKARAJ RIVER	BR-36 Ag	SAKARAJ RIVER
BR-37 Si	SAKARAJ RIVER	BR-38 Si	SAKARAJ RIVER
BR-39 Fe	SAKARAJ RIVER	BR-40 Fe	SAKARAJ RIVER
BR-41 Ni	SAKARAJ RIVER	BR-42 Ni	SAKARAJ RIVER
BR-43 Cu	SAKARAJ RIVER	BR-44 Cu	SAKARAJ RIVER
BR-45 Zn	SAKARAJ RIVER	BR-46 Zn	SAKARAJ RIVER
BR-47 Mn	SAKARAJ RIVER	BR-48 Mn	SAKARAJ RIVER
BR-49 Cr	SAKARAJ RIVER	BR-50 Cr	SAKARAJ RIVER
BR-51 U	SAKARAJ RIVER	BR-52 U	SAKARAJ RIVER
BR-53 Ba	SAKARAJ RIVER	BR-54 Ba	SAKARAJ RIVER
BR-55 Mo	SAKARAJ RIVER	BR-56 Mo	SAKARAJ RIVER
BR-57 Co	SAKARAJ RIVER	BR-58 Co	SAKARAJ RIVER
BR-59 Ni	SAKARAJ RIVER	BR-60 Ni	SAKARAJ RIVER
BR-61 Au	SAKARAJ RIVER	BR-62 Au	SAKARAJ RIVER
BR-63 Ag	SAKARAJ RIVER	BR-64 Ag	SAKARAJ RIVER
BR-65 Si	SAKARAJ RIVER	BR-66 Si	SAKARAJ RIVER
BR-67 Fe	SAKARAJ RIVER	BR-68 Fe	SAKARAJ RIVER
BR-69 Ni	SAKARAJ RIVER	BR-70 Ni	SAKARAJ RIVER
BR-71 Cu	SAKARAJ RIVER	BR-72 Cu	SAKARAJ RIVER
BR-73 Zn	SAKARAJ RIVER	BR-74 Zn	SAKARAJ RIVER
BR-75 Mn	SAKARAJ RIVER	BR-76 Mn	SAKARAJ RIVER
BR-77 Cr	SAKARAJ RIVER	BR-78 Cr	SAKARAJ RIVER
BR-79 U	SAKARAJ RIVER	BR-80 U	SAKARAJ RIVER
BR-81 Ba	SAKARAJ RIVER	BR-82 Ba	SAKARAJ RIVER
BR-83 Mo	SAKARAJ RIVER	BR-84 Mo	SAKARAJ RIVER
BR-85 Co	SAKARAJ RIVER	BR-86 Co	SAKARAJ RIVER
BR-87 Ni	SAKARAJ RIVER	BR-88 Ni	SAKARAJ RIVER
BR-89 Au	SAKARAJ RIVER	BR-90 Au	SAKARAJ RIVER
BR-91 Ag	SAKARAJ RIVER	BR-92 Ag	SAKARAJ RIVER
BR-93 Si	SAKARAJ RIVER	BR-94 Si	SAKARAJ RIVER
BR-95 Fe	SAKARAJ RIVER	BR-96 Fe	SAKARAJ RIVER
BR-97 Ni	SAKARAJ RIVER	BR-98 Ni	SAKARAJ RIVER
BR-99 Cu	SAKARAJ RIVER	BR-100 Cu	SAKARAJ RIVER



COMPOSITION OF ACRONYMS OF LITHOSTRATIGRAPHIC UNITS

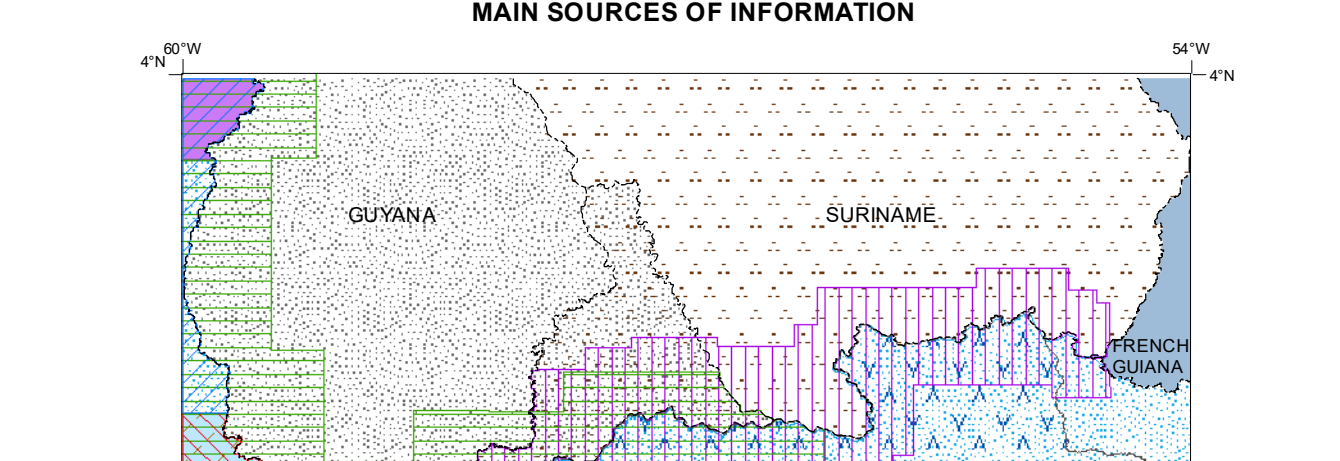
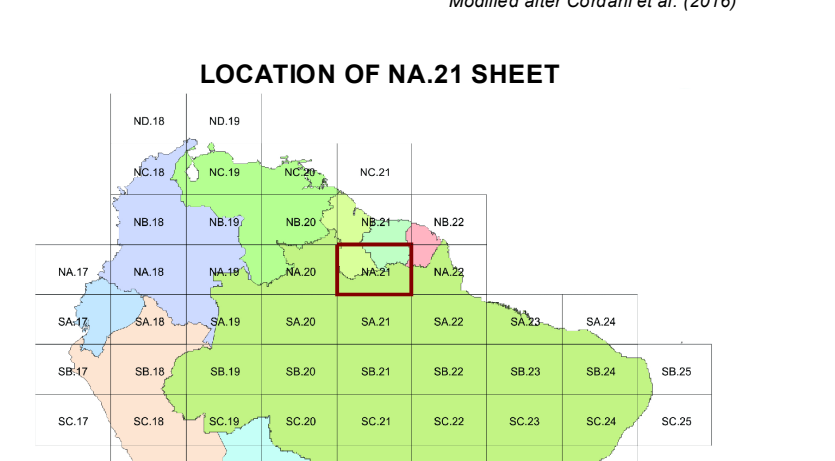
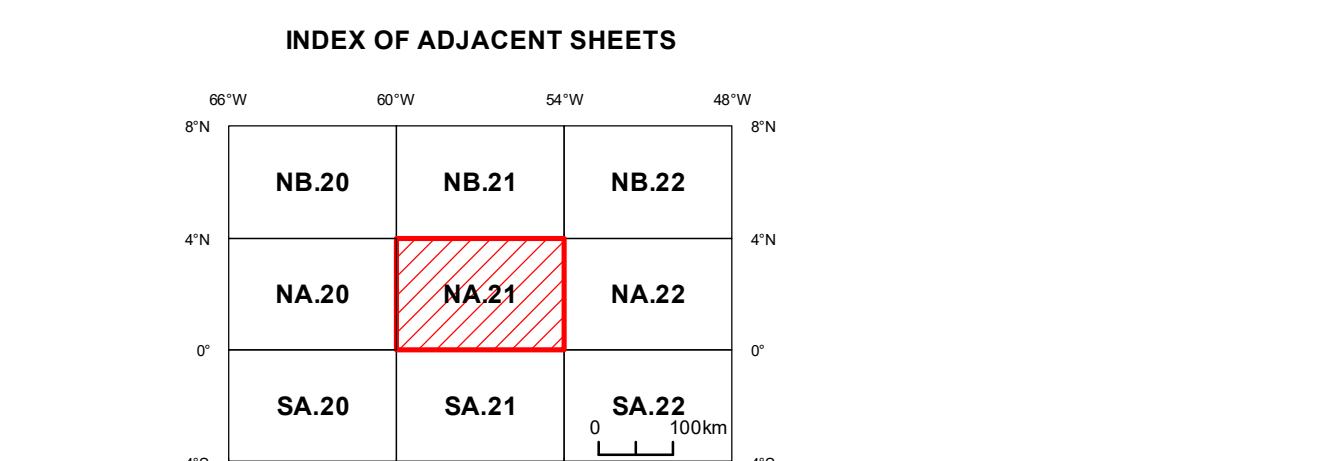
METAMORPHIC ROCKS (M)

- Felsic volcanism: Amf, Amphibolite
- Mafic volcanism: Gf, Gneiss
- Granulite: Gf, Gneiss
- Metagabbro: Gf, Metagabbro
- Metabasalt: Gf, Metabasalt
- Alkaline volcanism and plutonism: Mf, Metadiabase
- Diabase: Mf, Diabase
- Sedimentary: Mf, Mylonite-Belt
- Argillite: Mf, Argillite
- Completament: Mf, Schist
- Diastematis: Mf, Migmatite

SEDIMENTARY ROCKS AND SEGMENTS (S)

- Sedimentary: Mf, Sedimentary
- Argillite: Mf, Argillite
- Completament: Mf, Schist
- Diastematis: Mf, Migmatite

The number to the right of the Greek symbol indicates the relative age (1..2). The first number indicates the oldest age.



CARTOGRAPHIC BASE

Cartographic base for Brazil, Guyana, Suriname and French Guiana constructed from the International Map of the World 1:11M M.W. elaborated by the Brazilian Institute of Geography and Statistics (IBGE), the National Agency of Electric Energy (ANEEL) and the Geological Survey of Brazil (CPRM). Hydrographic simplifications adopted and modifications were undertaken by CPMR, according to images from Landsat 5, Landsat 7 and JERS 1. For the geometric correction of the image, a simple polygon was used as an average of 240 control points by Landsat image, with an average error of 248, 13 m collected from common points among images, hydrographic vectors and road system.

Note

The applied designations and the presentation of data in this publication do not interfere in any expression of opinion by part of the CPMR, ASGMI and CPMR in particular regarding the legal status of any country, or city, or area, or territory, or of its authorities, or concerning the delimitation of its borders or boundaries. The legal boundaries of Brazil, Guyana, Suriname and French Guiana were respectively provided by CPMR, GGMG, GMD and BRGM.

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GEOLOGICAL AND MINERAL RESOURCES MAP OF SOUTH AMERICA SHEET NA.21
 1:1,000,000 SCALE

UNIVERSAL TRANSVERSE MERCATOR PROJECTION
 Geodesic System: SIRGAS 2000
 Origin latitude: 0° S
 Origin longitude: 57° W
 Standard parallels: 0° 40' N e 3° 20' N

2020

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