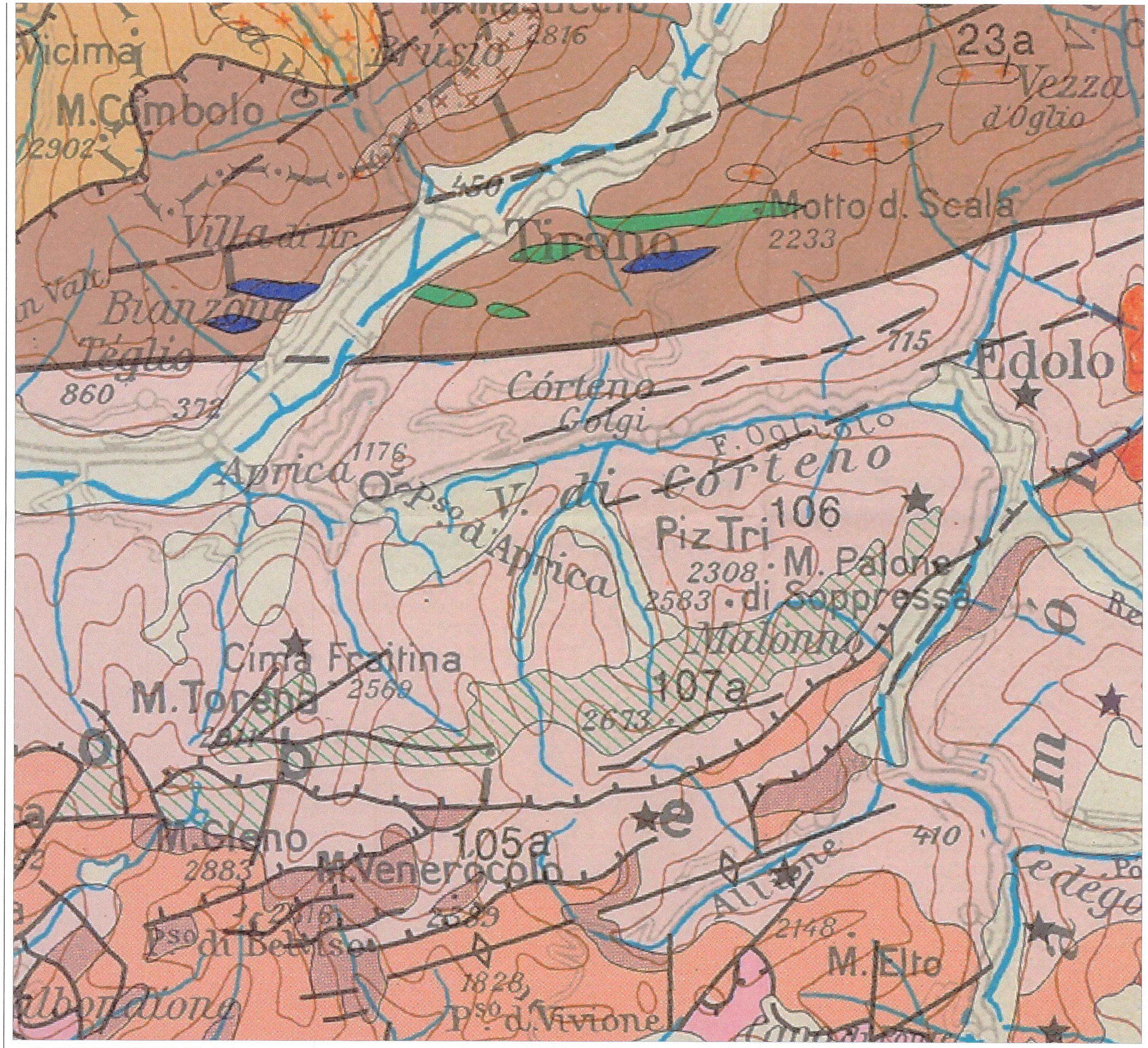

LEGENDA

UPPER-AUSTROALPINE UNITS OF THE CENTRAL ALPINE ZONE

19 — Post-Hercynian sedimentary cover: carbonate sequences (a), *Cretaceous–Jurassic*; dolostones and limestones (b), *Triassic*, including incompetent beds (c), *Carnian-Raibl*; undifferentiated Blaser nappe (d), *Jurassic-Triassic*

20 — Vernucano (a), *Scythian–Permian*; rhyolite volcanic and volcaniclastic beds (b), *Permian*; Sondalo cumulus gabbro, (c), *Triassic–Permian* boundary; metaconglomerates (d), *Upper Carboniferous*

21 — Basement rocks: phyllites with interbedded porphyroids and greenstones (a), *Lower Paleozoic*; micaschists (b) and paragneisses (c)

22 — Associated marbles (a), amphibolites and greenstones (b); HT eclogites (c); subcontinental upper-mantle peridotite slices (d)

23 — Late-Hercynian granitoids (a); undifferentiated orthogneisses (b), mainly from *Silurian-Ordovician* granitoids; cordierite-bearing granitic gneisses (c); intermediate composition orthogneisses (d)

LOWER-AUSTROALPINE UNITS

24 — **Basement units of the Grisons-Bernina area**: undifferentiated post-Hercynian sedimentary cover, *Cenomanian-Permian*, including the Sálvaer scarp breccias, slates, cherts and *palombini* limestones

25 — Basement rocks: deformed Hercynian granitoids (a) and quartzofeldspathic monzonites (b); orthogneisses (c); minor paraschists and undifferentiated Sella unit (d)

26 — **Innsbruck Phyllite Unit**: post-Hercynian carbonate cover (a), mainly *Middle Triassic*; metaclastic deposits (b), *Scythian*; serpentinite slices (c)

27 — Basement rocks: phyllites and quartzites (a), *Lower Paleozoic?*, including marbles (b) and basaltic greenstones (c)

28 — **Malraí Zone**: tectonic melange of Austroalpine basement slices and Piemont-Ligurian calcschists and metaophiolites within the Tauern window

POST-OROGENIC DEPOSITS OF THE CHAIN, THE FOREDEEP AND OF THE FORELAND postdating the tortonian tectonic event in the western sector

92 — Undifferentiated deposits, *Quaternary*

93 — Terrigenous deposits at Biella (a), Varese and Como (b), **Pliocene**; mainly calcareous conglomerates ("Conglomerati pontici" Auct.) at Brescia and Gallo (c), **Pliocene–Tortonian**, mainly **Messinian** (Western Sector only)

Southern Alpine Units

CLASTIC DEPOSITS, SEDIMENTARY AND MAGMATIC ROCKS predating the Messinian–Pleistocene tectonic events (eastern sector) or Tortonian tectonic event (western and central sectors) and postdating the upper Cretaceous and/or Eocene tectonic phases

Eastern Sector (mainly on the sheet n.2)

94 — Clayey deposits at Cornuda (a), *Pliocene*; mainly calcareous conglomerates, Montello and Vittorio Veneto; sandstones, clays, pliocontic arenites ("Mrázza calíma" Auct.), (b), *Messinian–Upper Oligocene*; siliciclastic, locally nummulitic, turbidites filling a basin E-W trending, Belluno and Vittorio Veneto (c), *Eocene*

Central Sector

95 — Fossiliferous sand – limestones (a), *Middle Miocene–Upper Oligocene*; quartz-conglomerates and sandstones, M.Parei (Corlina d'Ampezzo) (b), *lowermost Miocene–Upper Oligocene*; nummulitic limestones with basaltic volcanites and minor conglomerates (c), *Paleogene*

96 — Alkaline volcanic (M.Lessini and Trento Region) and subvolcanic bodies of Euganei Hills: basaltic flows, breccias, hyaloclastics, fossiliferous tuffites (a), rhyolites, rhyodacites, trachites (b), latites (c), *Paleogene*

Western Sector

97 — Clastic deposits filling a basin E-W trending (Gonfolite Group" Auct.), Lombardy, *Miocene–Upper Oligocene*

98 — Adamello (30-40 my) and Magliano (31 my) calcalkaline plutons: granites-granodiorites (a), tonalites (b), gabbros (c)

TRIASSIC CYCLE

First rearrangement of the pre-alpine paleogeography

102 — Platform and basinal deposits: undifferentiated, mainly carbonate deposits, *Carnian-Anisian p.p.*; volcanic conglomerates unconformable on uppermost Ladinian thrust (Dolomites); incompetent and evaporitic deposits acting as décollement horizons ("Raibian beds" Ia. Auct.) (a)

103 — Shoshonitic basalt flows, breccias, hyaloclastics and subvolcanic bodies, volcanic conglomerates and sandstones, mélange assemblages (a), *Carnian-Ladinian*; mainly granites and monzonites (b) of Predazzo and Monzoni, *?Carnian–Upper Ladinian*; andesites, rhyolites, rhyodacites as flows, ignimbrites and subvolcanic bodies (c), *Ladinian*

LATE- AND POST-HERCYNIAN DEPOSITS AND IGNEOUS ROCKS

104 — Undifferentiated, mainly clastic, alluvial, deltaic and shallow marine deposits, mainly *lowermost Anisian–Middle/Permian*, locally including basal late Hercynian clastics, *Lower Permian–Upper Carboniferous*; evaporites triggering tectonic décollement (a), *Anisian* and *Upper Permian*

105 — Rhyolites, rhyodacites, dacites and minor andesites (a), *Permian*; granitoids (b), *early Permian*; locally including the underlying late Hercynian clastics, *Upper Carboniferous*

HERCYNIAN AND PRE-HERCYNIAN BASEMENT

Southalpine crystalline Basement and Paleozoic Range Basement

106 — Upper to intermediate continental crust

Phyllites, micaschists and minor paragneisses (a), marbles (b), *pre-Upper Carboniferous*

107 — Hercynian orthogneisses (a); porphyroids and paragneisses (b), *Paleozoic*; metabasites in greenschist and amphibolite facies (c); anchimetamorphic volcanics at the Paleozoic Range (mainly on the sheet n.2) (d), *Middle–Lower Carboniferous*

COMUNE DI TIRANO (SO)
COMUNE DI VILLA DI TIRANO (SO)
COMUNE DI CORTENO GOLGI (BS)

STUDIO DI FATTIBILITA'

Proposta di un nuovo collegamento di facile utilizzo tra la stazione di Tirano e gli impianti di risalita Aprica

DATA	SCALA	TAV. N.
luglio 2010	1 :50:000	7

CARTA GEOLOGICA

AGGIORNAMENTI	Data	Descrizione	Redatto	Controllato	Approvato
f					
e					
d					
c					
b					
a					

Progettista e Direttore Lavori	Committente
STUDIO TECNICO *Dott. Antonioli Ing. Emilio* *Via Mazzini n°. 16* *25043 Breno (BS)* *Tel. 0364/326561*	VA.MI.RO. Hotels S.r.l. Via Filippo Corridoni n. 1 20122 MILANO C.F/P.IVA 03675230407

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