

Origin, facies: a) transitional and alkali oceanic island type intraplate basalts formed in a shallow marine environment (< 500 m below sea level). b) tholeiitic basalts extruded > 500 m below the sea level. The interpretation of the environment fits best with extensional processes in oceanic domains (marginal basin, oceanic plateau, sill-sediment complex connected with a continental rift zone; SCHLAEGEL-BLAUT, 1990; LOESCHKE & HEINISCH, 1993).

Chronostratigraphic age: a) Devonian (upper Emsian); for b) a younger age, possibly continuing until ?lower Carboniferous is assumed (HEINISCH, 1988; LOESCHKE & HEINISCH, 1993).

Biostratigraphy: -

Thickness: a) some hundreds of m (basalts 350 m, pyroclastics 400 m in maximum); b) 400 m.

Lithostratigraphically higher rank unit: -

Lithostratigraphic subdivision: -

Underlying unit(s): Kinglerkar Formation, Löhnersbach Formation (HEINISCH et al., 1995, 2003; SCHLAEGEL-BLAUT, 1990; LOESCHKE & HEINISCH, 1993).

Overlying unit(s): Schattberg Formation.

Lateral unit(s): In deeper parts Kinglerkar Formation; Schattberg Formation (LOESCHKE & HEINISCH, 1993).

Geographic distribution: W-GWZ; Salzburg, Kitzbüheler Alpen.

Remarks: Firstly the basic metavolcanics were regarded as Ordovician ocean floor basalts within the "Lower Wildschönau Schists" below the Blasseneck Porphyry (COLINS et al., 1980; MOSTLER, 1984).

Complementary references: SCHÖNLAUB (1980a), SCHÖNLAUB & HEINISCH (1993), EBNER et al. (2008).

Schattberg-Formation / Schattberg Formation

FRITZ EBNER

Validity: Valid; formalized by HEINISCH et al. (1987).

Type area: Glemmtal Unit of the Kitzbüheler Alpen W Zell am See (ÖK50-UTM, map sheet 3220 Mittersill, ÖK50-BMN, map sheet 123 Zell am See).

Type section: No type section was explicitly nominated. The formation was described due to the situation in the Schattberg area (Mittlerer Schattberg: N 47°21'47" / E 12°37'38"; ÖK50-UTM, map sheet 3220 Mittersill, ÖK50-BMN, map sheet 123 Zell am See).

Reference section(s): -

Derivation of name: After Schattberg in the Kitzbüheler Alpen (ÖK50-UTM, map sheet 3220 Mittersill, ÖK50-BMN, map sheet 123 Zell am See).

Synonyms: Partim Wildschönauer Schichten in older literature (e.g., MOSTLER, 1968).

Lithology: Alternation of argillaceous schists, metasilstones and metasandstones. At one locality a layer of a metabreccia (with components up to 80 cm) occurs above the top of the Kinglerkar Formation (HEINISCH et al., 1987).

Fossils: -

Origin, facies: Basinal siliciclastic proximal turbidite facies in which the coarse grained intercalations are channel deposits of submarine fans (HEINISCH et al., 1988).

Chronostratigraphic age: Middle Devonian–?lower Carboniferous (HEINISCH et al., 1987; SCHÖNLAUB & HEINISCH, 1993).

Biostratigraphy: -

Thickness: > 450 m.

Lithostratigraphically higher rank unit: Wildschönau Group (sensu SCHÖNLAUB & HEINISCH, 1993).

Lithostratigraphic subdivision: -

Underlying unit(s): Metabasite Group (HEINISCH et al., 1995, 2003; SCHLAEGEL-BLAUT, 1990).

Overlying unit(s): -

Lateral unit(s): In deeper parts Metabasite Group (LOESCHKE & HEINISCH, 1993).

Geographic distribution: W-GWZ; Salzburg, Kitzbüheler Alpen.

Remarks: -

Complementary references: SCHÖNLAUB (1979, 1980a), HEINISCH (1986, 1988), EBNER et al. (1989, 2008).

Carbonate facies (partim Wildseeloder unit in the Kitzbüheler Alpen)

Blasseneck Porphyroid / Blasseneck Porphyry (description see E-GWZ)

Konglomerate / Conglomerates

FRITZ EBNER

Validity: Invalid; not formalized informal working term.

Type area: ÖK50-UTM, map sheet 3214 Kitzbühel (ÖK50-BMN, map sheet 122 Kitzbühel).

Type section: Not yet indicated; best outcrops in the section of the Klausenbachgraben W of Kitzbühel (ÖK50-UTM, map sheet 3214 Kitzbühel; ÖK50-BMN, map sheet 122 Kitzbühel).

Reference section(s): -

Derivation of name: After the predominant lithology.

Synonyms: "Geröllführende Quarzporphyrtuff- und Grauwackenschiefer" (OHNESORGE, 1919).

Lithology: Schists with pebbles of porphyroid, feldspar- and quartzsandstones, lydites and basic volcanics. The sequence starts with fining upwards conglomerates which continue to a fine sandy horizon followed again by conglomerates. The "porphyroidic" matrix of deeper parts of the sequence changes to a clayey-sandy one in the upper parts. In the same direction the number of porphyroid pebbles decreases (MOSTLER, 1968).

Fossils: -

Origin, facies: Transgression conglomerate.

Chronostratigraphic age: Lowermost Silurian.

Biostratigraphy: -

Thickness: Up to 80 m.

Lithostratigraphically higher rank unit: -

Lithostratigraphic subdivision: -

Underlying unit(s): Blasseneck Porphyry. A correlation with the lower Silurian global transgression suggests a strati-

graphic gap between the Conglomerates and the Blasseneck Porphyry (MOSTLER, 1968, 1970; SCHÖNLAUB, 1979).

Overlying unit(s): “Dolomites, Limestones with tuff” (MOSTLER, 1968, 1970).

Lateral unit(s): Arkose sandstone, fine grained conglomerate and graded sandstone (MOSTLER, 1968, 1970; AL-HASANI & MOSTLER, 1969) and shallow water limestones and dolomites (=“Dolomites, Limestones with tuffs” of the ASC 2004; MOSTLER, 1970; SCHÖNLAUB, 1979: Fig. 53, 1980a).

Geographic distribution: W-GWZ; Tyrol, Kitzbüheler Alpen.

Remarks: The primary position of the “Conglomerates” below or above the Blasseneck Porphyry is not clear due to tectonic complication (MALZER, 1964; MOSTLER, 1968: p. 122).

Complementary references: OHNESORGE (1905, 1909), TOLLMANN (1977), SCHÖNLAUB (1980a), EBNER et al. (1989), SCHÖNLAUB & HEINISCH (1993).

Dolomite, Kalke mit Tuffen / Dolomites, Limestones with tuffs

FRITZ EBNER

Validity: Invalid; not formalized informal working term.

Type area: In domains related to the Wildseeloder Unit (HEINISCH, 1988); ÖK50-UTM, map sheet 3213 Kufstein (ÖK50-BMN, map sheet 121 Neunkirchen), ÖK50-UTM, map sheet 3214 Kitzbühel (ÖK50-BMN, map sheet 122 Kitzbühel).

Type section: No type locality selected.

Reference section(s): Some sections at Lachtal-Grundlam, Lengfilzenbach, and Westendorf were described by MOSTLER (1968).

Derivation of name: After the main occurring lithologies.

Synonyms: “Kalke des tieferen Silurs”, “Kalke der amorphognathoides Zone” (MOSTLER, 1968); “Silur-Transgressionsbildungen” (SCHÖNLAUB, 1979).

Lithology: Strong regional variation of siliceous dolomites, red bedded siliceous limestones, nodular siliceous limestones, flaser limestone, black micritic limestone, stromatolitic and onkolithic dolomite, biogene-rich allodapic limestone; sometimes intercalations of sandy and volcanic (tuffitic) materials.

Fossils: Conodonts, ostracods, agglutinated foraminifers, bivalves, gastropods, crinoids.

Origin, facies: Marine shallow water and swell facies.

Chronostratigraphic age: Llandovery and lower Wenlock.

Biostratigraphy: *celloni* and *amorphognathoides* conodont zones (MOSTLER, 1968).

Thickness: Limestones of the swell facies: 5 m; shallow water carbonates up to 30 m.

Lithostratigraphically higher rank unit: -

Lithostratigraphic subdivision: -

Underlying unit(s): Conglomerates.

Overlying unit(s): Dolomite-Lyditite Group.

Lateral unit(s): Transgression conglomerates (“Conglomerates”) or much more basinal fine-clastic rocks, sometimes influenced by gravitationally transported (calcareous and siliciclastic) materials (MOSTLER, 1970; SCHÖNLAUB, 1979: Fig. 53; not indicated in Text-Fig. 2).

Geographic distribution: W-GWZ; Tyrol, Kitzbüheler Alpen (Wildseeloder Unit).

Remarks: Informal unit summarizing Llandovery–lower Wenlock ± siliceous limestones and dolomites which may also include sandy and volcanic materials (MOSTLER, 1968, 1970; SCHÖNLAUB, 1979: Tab. 3).

Complementary references: TOLLMANN (1977), SCHÖNLAUB (1980a), EBNER et al. (1989), SCHÖNLAUB & HEINISCH (1993).

Dolomit-Kieselschiefer-Gruppe / Dolomite-Lyditite Group

FRITZ EBNER

Validity: Invalid; used in terms of a formation but not formalized.

Type area: ÖK50-UTM, map sheet 3214 Kitzbühel (ÖK50-BMN, map sheet 122 Kitzbühel); ÖK50-UTM, map sheet 3221 Zell am See (ÖK50-BMN, map sheet 124 Saalfelden).

Type section: No type section selected.

Reference section(s): -

Derivation of name: According to the prevailing lithology.

Synonyms: “Dolomit-Kieselschiefer-Komplex” (MOSTLER, 1966a), “Kalk-Kieselschiefer-Serie” (SCHÖNLAUB, 1979).

Lithology: Alternation of dark grey to black lydites with predominantly laminated biogene-rich dolomites (Kitzbühel area; MOSTLER, 1966a, 1968). The sequence of the Entachenalm (MOSTLER, 1966b) consists of an alternation of lydites/siliceous shales, black magnesite, dolomite and limestone.

Fossils: Conodonts, sponge-spicula, radiolarians, ostracods, bryozoans, agglutinated foraminifers, holothurians, crinoids (MOSTLER, 1966a, b, 1968).

Origin, facies: Partly euxinic basinal development.

Chronostratigraphic age: Middle Wenlock–lower Ludlow.

Biostratigraphy: *patula*, *sagitta*, *crassa* and *ploeckensis* conodont zones (MOSTLER, 1966a, b, 1968).

Thickness: 10–30 m.

Lithostratigraphically higher rank unit: -

Lithostratigraphic subdivision: -

Underlying unit(s): Dienten Schists.

Overlying unit(s): “Dolomites”.

Lateral unit(s): Dienten Schists, Orthoceratid Limestone (at Spiessnägel, N 47°21'21" / E 12°18'27"; ÖK50-UTM, map sheet 3219 Neunkirchen; ÖK50-BMN, map sheet 121 Neunkirchen; AL-HASANI, 1969); parts of the Löhnersbach Formation.

Not shown in the ASC 2004 and Text-Fig. 2: Ludlow limestone of the Steigwand (N 47°19'26" / E 13°01'19"; ÖK50-UTM, map sheet 3222 St. Johann im Pongau, ÖK50-BMN, map sheet 124 Saalfelden; BAUER et al., 1969); alternation of calcareous schists and lydites from Langeck (N 47°21'21" / E 12°55'01"; ÖK50-UTM, map sheet 3221 Zell am See, ÖK50-BMN, map sheet 124 Saalfelden; BAUER et al., 1969).

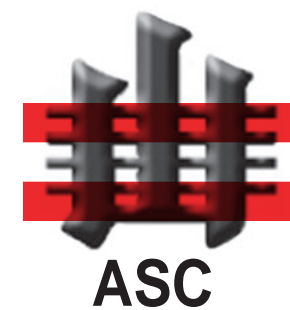
Geographic distribution: W-GWZ; Tyrol, Salzburg; Kitzbüheler Alpen, Dientener Berge.

Remarks: -

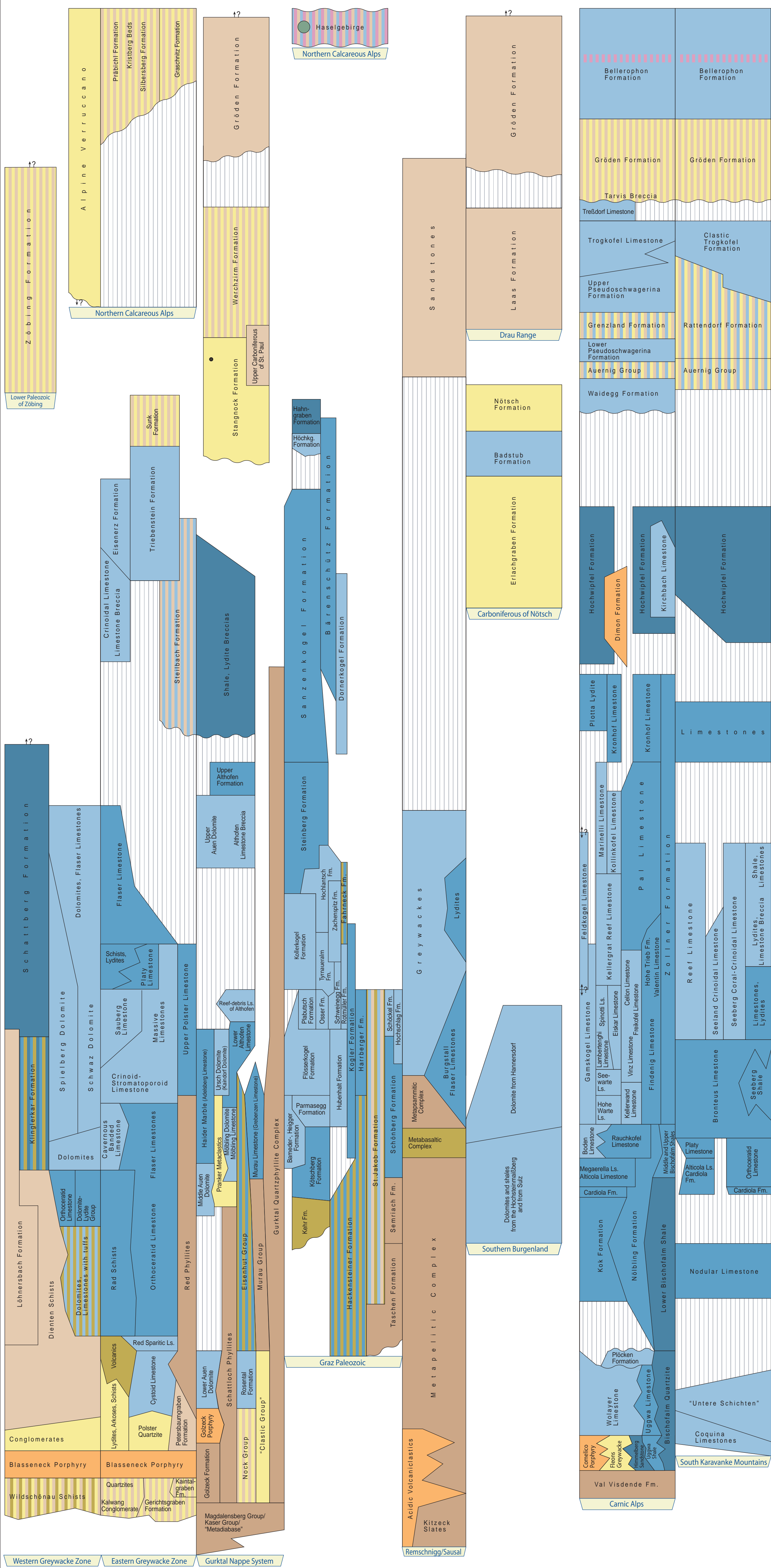
Austrian Stratigraphic Chart 2004 - Paleozoic

(sedimentary successions)

Austrian Stratigraphic Commission



ERA	SYSTEM / PERIOD / SERIES / EPOCH	STAGE / AGE	DURATION Ma	Global Classification					
				ERATHM / ERA	SYSTEM / PERIOD / SERIES / EPOCH				
PALEOZOIC	PERMIAN	CHANGHSINGIAN / Dorashanian	251	PERMIAN	MID PERMIAN / GUADALUPIAN / LOPINGIAN				
		WUCHIAPINGIAN / Dufuflian	255						
		CAPITANIAN	260						
		WORDIAN	265						
		ROADIAN	270						
		PERMIAN	LOWER PERMIAN / CISURALIAN			KUNGURIAN	275		
						ARTINSKIAN	280		
						SAKMARIAN	285		
						ASSELIAN	290		
		PERMIAN	TRIAS			GZHELIAN	295	TRIAS	U. CARBONIFEROUS / PENNSYLVANIAN
KASIMOVIAN	300								
MOSKOVIAN	305								
BASHKIRIAN	310								
PERMIAN	LOWER PERMIAN / CISURALIAN			SERPUKHOVIAN	315				
				VISEAN	320				
				TOURNAISIAN	325				
PERMIAN	DEVONIAN			FAMENNIAN	350	DEVONIAN	UPPER DEVONIAN		
				FRASNIAN	355				
				GIVETIAN	360				
		EIFELIAN	365						
		EMSIAN	370						
		PERMIAN	LOWER DEVONIAN	LOCHKOVIAN	375				
				PRAGIAN	380				
				Zlichovian	385				
				Dalejian	390				
		PERMIAN	DEVONIAN	LUDFORDIAN / GORSTIAN	395			DEVONIAN	MIDDLE DEVONIAN
HOMERIAN / SHEINWOOD	400								
TELYCHIAN	405								
AERONIAN	410								
RHUDDANIAN	415								
PERMIAN	UPPER ORDOVICIAN			HIRNANTIAN	420				
				WEN-LUD-LOCKLOW	425				
				WEN-LUD-LOCKLOW	430				
				WEN-LUD-LOCKLOW	435				
PERMIAN	ORDOVICIAN			DARRIWILIAN	440	ORDOVICIAN	MIDDLE ORDOVICIAN		
		REDFLOID	443.7						
		REDFLOID	445						
		REDFLOID	447						
		PERMIAN	LOWER ORDOVICIAN	TREMACIAN	450				
				TREMACIAN	455				
				TREMACIAN	460				
				TREMACIAN	465				
		PERMIAN	CAMBRIAN	PAIBIAN	470			CAMBRIAN	UPPER CAMBRIAN
				PAIBIAN	475				
PAIBIAN	480								
PAIBIAN	485								
PERMIAN	MIDDLE CAMBRIAN			PAIBIAN	490				
				PAIBIAN	495				
				PAIBIAN	500				
				PAIBIAN	505				
PERMIAN	CAMBRIAN			PAIBIAN	510	CAMBRIAN	LOWER CAMBRIAN		
				PAIBIAN	515				
		PAIBIAN	520						
		PAIBIAN	525						
		PERMIAN	MIDDLE CAMBRIAN	PAIBIAN	530				
				PAIBIAN	535				
				PAIBIAN	540				
				PAIBIAN	542				



Legend

- pelagic, offshore, siliciclastic
- pelagic, nearshore, calcareous
- shallow marin, neritic
- terrestrial-continental, coarse clastic
- terrestrial-continental, fine clastic
- evaporite (chloride, sulphate)
- rhyolite, dacite
- (basaltic) andesite, trachyandesite
- basalt
- phyllite
- mixed-facies (in corresponding colors)
- coal (may include several seams)
- ? position/age doubtful/controversial
- | equal units
- \ older unit left \ younger unit right
- hiatus
- unconformity
- GSSP
- Fm. Formation
- Ls. Limestone

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