

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: -

Complementary references: TOLLMANN (1977), SCHÖNLAUB (1979, 1980a), EBNER et al. (1989), SCHÖNLAUB & HEINISCH (1993).

Orthocerenkalk / Orthoceratid Limestone

FRITZ EBNER

Validity: Invalid; not formalized. After the first description (AL-HASANI & MOSTLER, 1969) used as informal working term (SCHÖNLAUB, 1979, Tab. 3).

Type area: Spiessnägel in the Kitzbüheler Alpen/Tyrol; ÖK50-UTM, map sheet 3219 Neunkirchen (ÖK50-BMN, map sheet 121 Neunkirchen).

Type section: Spiessnägel S Kirchberg/Tyrol (N 47°21'21"/E 12°18'27"; ÖK50-UTM, map sheet 3219 Neunkirchen; ÖK50-BMN, map sheet 121 Neunkirchen; AL-HASANI & MOSTLER, 1969).

Reference section(s): -

Derivation of name: After lithologic characteristics and the occurrence of orthocon nautiloid cephalopods.

Synonyms: -

Lithology: Grey and rarely black limestones with strongly silicified nautiloids.

Fossils: Nautiloids, conodonts.

Origin, facies: Pelagic basinal facies.

Chronostratigraphic age: Lower–upper Ludlow.

Biostratigraphy: Conodonts of *ploeckensis*–*eosteinhornensis* Zone.

Thickness: 17 m.

Lithostratigraphically higher rank unit: -

Lithostratigraphic subdivision: -

Underlying unit(s): “Dolomite, Limestone with tuffs”.

Overlying unit(s): In the Spiessnägel section “Dolomites” with inclusions of magnesite (AL-HASANI & MOSTLER, 1969).

Lateral unit(s): Dolomite-Lydite Group, upper parts of Di-enten Schists.

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

Remarks: -

Complementary references: MOSTLER (1968), TOLLMANN (1977), SCHÖNLAUB (1980a), EBNER et al. (1989), SCHÖNLAUB & HEINISCH (1993).

Dolomit / Dolomites

FRITZ EBNER

Validity: Invalid; not formalized informal working term.

Type area: Kitzbüheler Alpen (ÖK50-UTM, map sheet 3219 Neunkirchen, ÖK50-BMN, map sheet 121 Neunkirchen; ÖK50-UTM, map sheet 3214 Kitzbühel, ÖK50-BMN, map sheet 122 Kitzbühel).

Type section: Within the Wildseeloder Unit (HEINISCH, 1988), but not indicated.

Reference section(s): -

Derivation of name: Named after the dominant lithology.

Synonyms: “Dolomite mit Magnesiteinschaltungen” (AL-HASANI & MOSTLER, 1969); “Schwarze Dolomite und Hellgraue Dolomite der Südfazies” (MAVRIDIS & MOSTLER, 1970); “Graue Dolomite der Kitzbühler Horn-Serie” (EMMANUILIDIS & MOSTLER, 1970).

Lithology: Different types of black and grey, massive to bedded dolomites, subordinate with intercalations of limestone, calcareous dolomite, magnesite and siliceous shales (MAVRIDIS & MOSTLER, 1970).

Fossils: Conodonts, ostracods, radiolarians; from Lower Devonian limestone intercalations: crinoids, agglutinated foraminifers and brachiopods (AL-HASANI & MOSTLER, 1969; MAVRIDIS & MOSTLER, 1970; EMMANUILIDIS & MOSTLER, 1970).

Origin, facies: Pelagic basinal environment.

Chronostratigraphic age: Upper Ludlow–Lochkovian.

Biostratigraphy: Sporadic findings of conodonts indicate without a more exact determination late Silurian to Early Devonian (Lochkovian) ages (MOSTLER, 1968; AL-HASANI & MOSTLER, 1969; MAVRIDIS & MOSTLER, 1970; EMMANUILIDIS & MOSTLER, 1970).

Thickness: Mostly not indicated in the literature. Light grey Lochkovian dolomite of the “Südfazies” (MAVRIDIS & MOSTLER, 1970) may reach up to 140 m. In the hanging parts they include siliceous shales with a thickness of 3 m and intercalations of 22 m thick “Netzkalke” (MAVRIDIS & MOSTLER, 1970).

Lithostratigraphically higher rank unit: “Südfazies” (MAVRIDIS & MOSTLER, 1970), “Kitzbühler Horn-Serie” (EMMANUILIDIS & MOSTLER, 1970) – both informal.

Lithostratigraphic subdivision: -

Underlying unit(s): Dolomite-Lydite Group.

Overlying unit(s): Spielberg and Schwaz Dolomite as well as “Dolomites, Flaser Limestones”.

Lateral unit(s): -

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

Remarks: In the Kitzbüheler Alpen, especially within the Wildseeloder Unit (HEINISCH, 1988) the sequence above the Orthoceratid Limestone and the Dolomite-Lydite Group is made up of a carbonate facies (= partly “Südfazies” of MAVRIDIS & MOSTLER, 1970) dominated by thick dolomites. The Spielberg Dolomite and Schwaz Dolomite form two distinct Lower Devonian “formations” within this facies. Other dolomite niveaus were named in the ASC 2004 by working terms as “Dolomites” (uppermost Silurian–Lower Devonian) and “Dolomites, Flaser Limestones” (Lower Devonian; Frasnian–Famennian), respectively.

Complementary references: AL-HASANI & MOSTLER (1969), TOLLMANN (1977), SCHÖNLAUB (1979, 1980a), HEINISCH & SCHÖNLAUB (1993).

Schwaz-Dolomite / Schwaz Dolomite

FRITZ EBNER

Validity: Invalid; since the first denomination (PICHLER, 1860) and detailed description (PIRKL, 1961) used in terms of a formation but without formalization.

Type area: ÖK50-UTM, map sheet 2224 Schwaz (ÖK50-BMN, map sheets 119 Schwaz and 120 Wörgl).

Type section: Not yet indicated.

Reference section(s): -

Derivation of name: After the town of Schwaz in Tyrol (ÖK50-UTM, map sheet 2224 Schwaz, ÖK50-BMN, map sheet 119 Schwaz) and the predominant lithology.

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 / Dzhulfian	255						
		CAPITANIAN	260						
		WORDIAN	265						
		ROADIAN	270						
		PERMIAN	LOWER PERMIAN / CISURALIAN			KUNGURIAN	275		
						ARTINSKIAN	280		
						SAKMARIAN	285		
						ASSELIAN	290		
		PERMIAN	UPPER PERMIAN / CARBONIFEROUS / PENNSYLVANIAN			GZHELIAN	295	PERMIAN	LOWER PERMIAN / CISURALIAN
KASIMOVIAN	300								
MOSKOVIAN	305								
BASHKIRIAN	310								
PERMIAN	UPPER PERMIAN / CARBONIFEROUS / PENNSYLVANIAN			SERPUKHOVIAN	315				
				VISEAN	320				
					325				
PERMIAN	LOWER PERMIAN / MISSISSIPPIAN			TOURNAISIAN	330	PERMIAN	LOWER PERMIAN / MISSISSIPPIAN		
				335					
				340					
		345							
		350							
		355							
		359.2							
		PERMIAN	UPPER DEVONIAN	FAMENNIAN	365			PERMIAN	UPPER DEVONIAN
				FRASNIAN	370				
				375					
380									
385									
390									
395									
400									
405									
410									
PERMIAN	LOWER DEVONIAN	EMSIAN	415	PERMIAN	LOWER DEVONIAN				
		PRAGIAN	420						
		LOCHKOVIAN	425						
		430							
		435							
		440							
		443.7							
		445							
		PERMIAN	UPPER ORDOVICIAN			HIRNANTIAN	447	PERMIAN	UPPER ORDOVICIAN
						450			
455									
460									
465									
470									
475									
480									
485									
488.3									
PERMIAN	MIDDLE ORDOVICIAN	TREMA-DOCIAN	490	PERMIAN	MIDDLE ORDOVICIAN				
		495							
		500							
		505							
		510							
		515							
		520							
		525							
		530							
		535							
PERMIAN	LOWER ORDOVICIAN	PAIBIAN	540	PERMIAN	LOWER ORDOVICIAN				
		545							
		550							
		555							
		560							
		565							
		570							
		575							
		580							
		585							
CAMBRIAN	UPPER CAMBRIAN	495	CAMBRIAN	UPPER CAMBRIAN					
		500							
		505							
		510							
		515							
		520							
		525							
		530							
		535							
		540							
CAMBRIAN	MIDDLE CAMBRIAN	545	CAMBRIAN	MIDDLE CAMBRIAN					
		550							
		555							
		560							
		565							
		570							
		575							
		580							
		585							
		590							
CAMBRIAN	LOWER CAMBRIAN	595	CAMBRIAN	LOWER CAMBRIAN					
		600							
		605							
		610							
		615							
		620							
		625							
		630							
		635							
		640							



- 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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Cutout and English adaptation of the "Die Stratigraphische Tabelle von Österreich 2004": Geological Survey of Austria

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