Summarised description

Unit name

Lambermont Formation

Code

LAM

Status

Formal Formation

Parent unit

none

Child units

Verviers Member, Hony Horizon

Characteristic description

Shale, calcareous shale, bioclastic and nodular limestone, varigated in colour (reddish, greenish, dark grey, brown).

Age

Late Frasnian-earliest Famennian

Thickness

40 to 100 m in the type area (but local tectonics may produce and overestimation of the thickness).

Area of occurrence

Vesdre area and Theux Window

Type locality

Western access road to the motorway Verviers–Prüm at Lambermont

Alternative names

none

Authors

Laloux et al. (1996a)

Modified after

Mottequin, B., Denayer, J., Delcambre, B., Marion, J.-M. & Poty, E., 2024. Upper Devonian lithostratigraphy of Belgium. Geologica Belgica, 27/3-4, 193–270.

Date

23/09/2025

Cite as

Mottequin, B., Denayer, J., Delcambre, B., Marion, J.-M. & Poty, E., 2025. The Lambermont Formation, 23/09/2025. National Commission for Stratigraphy Belgium. https://ncs.naturalscienes.be/lithostratigraphy/Lambermont-Formation

Full description

Unit name

Lambermont Formation

Code

LAM

Status

Formal Formation

Parent unit

none

Child units

Verviers Member, Hony Horizon

Origin of the name

After the village of Lambermont (Verviers) in the Vesdre River valley.

Alternative names

none

Authors

Laloux et al. (1996a, p. 25): *Formation de Lambermont*

Modified after

Mottequin, B., Denayer, J., Delcambre, B., Marion, J.-M. & Poty, E., 2024. Upper Devonian lithostratigraphy of Belgium. Geologica Belgica, 27/3-4, 193–270.

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Characteristic description

The Lambermont Formation starts with 6 m of green and grey shale with scarce calcareous nodules; they are rich in atrypide and spiriferide brachiopods and fenestellid bryozoans. Then follows a mixed argillaceous-calcareous, red to green unit, known as the *facies de Verviers* (Dubrul in Dumon et al., 1954, p. 174), referred to as the **Verviers Member** (Mottequin et al., 2024). This c. 12 m thick unit starts with a biostromal limestone bed rich in colonial rugose corals (*Frechastraea*, *Potyphyllum* and *Iowaphyllum*) known as the *troisième biostrome à Phillipsastrea* of Coen et al. (1977) and overlain by reddish to greenish argillaceous, nodular limestone and nodular shale with colonial rugose corals. The Verviers Member is overlain by 24 m of essentially shaly deposits that were subdivided into two parts by Laloux et al. (1996a): (1) 10 m thick package of green shale and nodular limestone alternations, with very rare micaceous sandstone beds then (2) 10 m of dark grey shale (Matagne Facies; see Marche-en-Famenne Formation) with dissociated valves of lingulide brachiopods and rare calcareous nodules in the upper part, a 1 m thick set of c. 10 thin layers of limestone alternating with shale at 10

m above the base that corresponds to the **Hony Horizon** (Mottequin et al., 2024, p. 224; see also Marche-en-Famenne Formation), and c. 3 m of black shale corresponding to the upper Kellwasser Event (Matagne Facies). In the eponymous locality, the Hony Horizon (bed 48t in Streel et al., 1975 (pl. 3) and Sandberg et al., 1988) is 0.5 m thick and includes thin beds of bioclastic limestone alternating with shale containing mainly bivalves and brachiopods. The Hony Horizon was interpreted by Sandberg et al. (1988) as being related to a eustatic fall, but it reflects a series of at least seven tsunamites after Poty et al. (2014) and Mottequin & Poty (2016).

See also Coen-Aubert (1974, 2012, 2016), Vanguestaine et al. (1983), Bultynck et al.(1988), Laloux et al. (1996a, 1996b), Schmidt (1994), Laloux & Ghysel (1999), Paquay (2002), Vanbrabant et al. (2003).

Area of occurrence

The Lambermont Formation is known from the Vesdre area (Laloux et al., 1996a, 1996b), but towards the German border, it crops out only sporadically. The Verviers Member is particularly well developed between Pepinster and Les Surdents (Dubrul in Dumon et al., 1954); it can be traced from Chaudfontaine to the west up to Membach to the east, where it passes laterally to nodular shale with corals (*facies d'Eupen ou oriental* of Dubrul in Dumon et al., 1954, p. 175). In the Fond des Cris quarries at Chaudfontaine, the 5 m thick Verviers Member lies directly on top of the limestone of the Aisemont Formation (Coen-Aubert, 1974). Nevertheless, it displays strong and fast lateral variations, notably in the Fond des Cris quarries and the Chaudfontaine school borehole (Graulich & Vandenven, 1978; Dejonghe, 1987). At Hony, the Verviers Member is lacking. The Lambermont Formation and the Verviers Member are also known in the Theux Window (Coen-Aubert, 1974; Graulich, 1979) and the Bolland and Soumagne boreholes (Coen-Aubert, 1974; Dejonghe, 1987).

Type locality

Western access road to the motorway Verviers–Prüm (A27, exit no. 4) at Lambermont (Laloux et al., 1996a; Vanbrabant et al., 2003). This is also the type section selected here for the Verviers Member. It can be complemented by a series of sections listed by Laloux et al. (1996a, 1996b) in the Vesdre area, notably that located along the right bank of the Vesdre River, below the *rue des Récollets* at Renoupré and that situated immediately to the northwest of the confluence between the Vesdre River and the Fond des Cris Creek, east of Chaudfontaine.

Age

The base of the Lambermont Formation is dated from the top of the lower *rhenana* conodont Zone whereas its top is earliest latest Frasnian–earliest Famennian in age (Mouravieff, 1970; Coen-Aubert, 1974; Dreesen, 1982a; Sandberg et al. in Bultynck et al., 1988). The coral beds above the Verviers Member (*troisième biostrome à Phillipsastrea* of Coen et al., 1977) yield *Frechastraea pentagona*, *F. limitata*, *Potyphyllum veserense* and *Iowaphyllum rhenanum* that typify the *faune 3* of Coen et al. (1977). This association is typical of the upper Frasnian and allows the correlation of the Lambermont Formation with the Barvaux Facies (Marche-en-Famenne Formation) on the south-eastern limb of the Dinant Synclinorium and the Valisettes Member of the Marche-en-Famenne Formation in the Durbuy–Philippeville Anticlinorium (Coen-Aubert, 2016). The late Frasnian atrypides *Spinatrypa* (*S.*) *lambermontensis* and *S.* (*S.*) sp. are present in the basal shaly part of the Formation whereas *Iowatrypa ultima* occurs in the Verviers Member. This *Iowatrypa* species and *Radiatrypa* sp. are known from the shale that overlies the Verviers Member, whereas *Spinatrypa* (*S.*) sp. and *I. ultima* are also known from the Barvaux Facies of the Marche-en-Famenne Formation (Mottequin, 2003).

Thickness

Quite variable in the Vesdre area but it could be overestimated by tectonics: from 42 m to more than 100 m (Laloux et al., 1996a, 1996b); c. 71 m at Hony (including at its top the 0.3–0.4 m thick Hony Horizon overlain by c. 1.2 m of black shale); 30 m within the Polleur viaduct boreholes in the Theux Window (Graulich, 1979).

Lower boundary

Base of the first shale bed overlying the limestone (or dolostone) of the underlying Aisemont Formation.

Upper boundary

Contrary to Laloux et al. (1996a, 1996b) and Laloux & Ghysel (1999), the boundary between the Lambermont and Hodimont formations is herein placed at the top of the black shale (upper Kellwasser Event) overlying the Hony Horizon rather than at the base of the first oolitic ironstone horizon (horizon I of Dreesen, 1982a, 1982b), because the shaly successions observed on both sides of the latter are very similar and hence indistinguishable if this ironstone horizon is not exposed.

Regional correlations

The Lambermont Formation is named *Matagne-Schichten* in Germany (Deutsche Stratigraphische Kommission, 2016). It correlates with the Marche-en-Famenne Formation (Valisettes Member, including the Barvaux and Matagne Facies).

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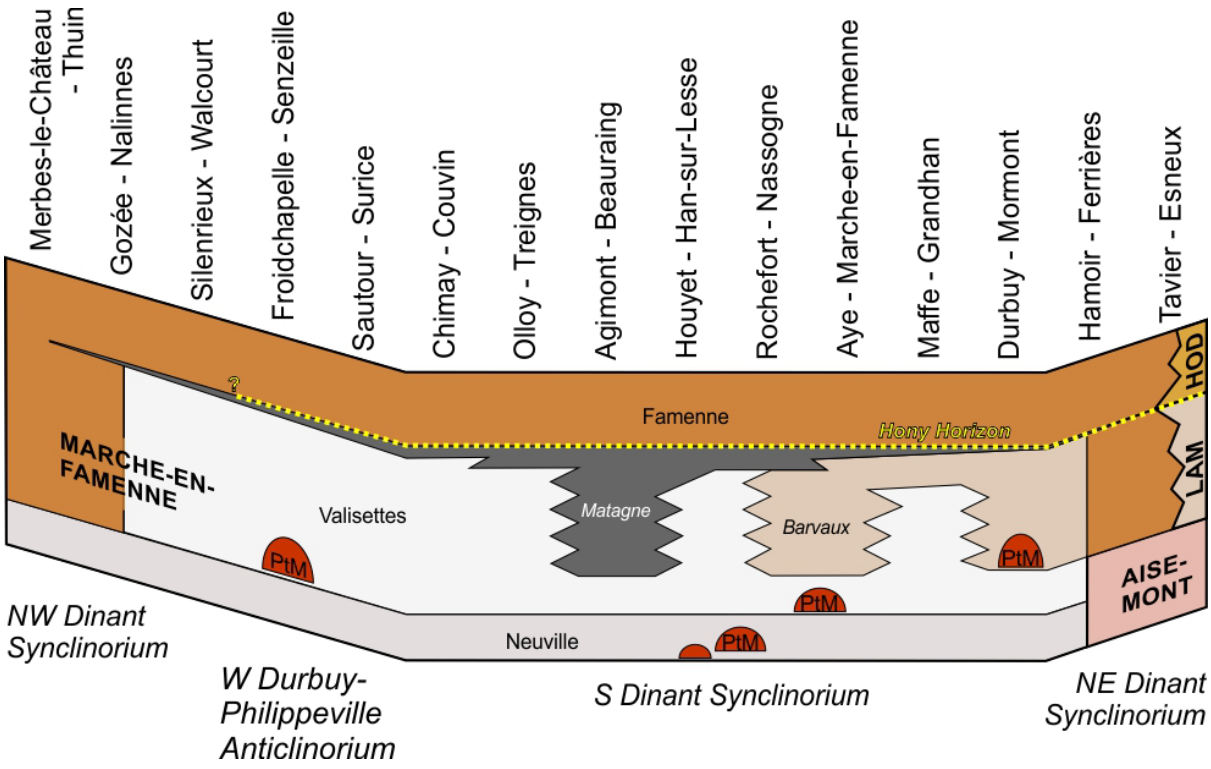
Figures



Lateral variations of the members and facies recognised within the Marche-en-Famenne Formation (late Frasnian–early Famennian) in the Dinant Synclinorium. The mounds of the Petit-Mont Member are represented by the red bodies. Formations are in capital letters, members in regular letters, facies in italics. Abbreviations: HOD, Hodimont Formation; LAM, Lambermont Formation; PtM, Petit-Mont Member. After Mottequin et al. (2024).