

Summarised description

Unit name

Oignies Formation

Code

OIG

Status

Formal Formation

Parent unit

none

Child units

none

Characteristic description

Red, purple-red, green or variegated, often finely micaceous, shale and siltstone with lenticular beds of quartzitic or arkosic sandstone and decalcified nodules.

Age

Middle to late Lochkovian

Thickness

200 to 400 metres

Area of occurrence

Southern limb of the Dinant Synclinoirum up to Manhay.

Type locality

The Moulin de Frétogne section along the Meuse River, north of Fépin.

Alternative names

Schistes bigarrés d'Oignies

Authors

Gosselet & Malaise (1868)

Modified after

Denayer, J. & Mottequin, B., 2024. Lower Devonian lithostratigraphy of Belgium. *Geologica Belgica*, 27/3-4, 115–154.

Date

23/09/2025

Cite as

Denayer, J. & Mottequin, B., 2025. The Oignies Formation, 23/09/2025. National Commission for Stratigraphy Belgium. <https://ncs.naturalsciences.be/lithostratigraphy/Oignies-Formation>

Full description

Unit name

Oignies Formation

Code

OIG

Status

Formal Formation

Parent unit

none

Child units

none

Origin of the name

After the village of Oignies-en-Thiérarche.

Alternative names

Schistes bigarrés d'Oignies

Authors

Gosselet & Malaise (1868, p. 68): *Schistes bigarrés d'Oignies*

Modified after

Denayer, J. & Mottequin, B., 2024. Lower Devonian lithostratigraphy of Belgium. *Geologica Belgica*, 27/3-4, 115–154.

Date

23/09/2025

Cite as

Denayer, J. & Mottequin, B., 2025. The Oignies Formation, 23/09/2025. National Commission for Stratigraphy Belgium. <https://ncs.naturalsciences.be/lithostratigraphy/Oignies-Formation>

Characteristic description

The rocks encountered within the Oignies Formation are reddish, a characteristic colour not found in the underlying and overlying units. The dominant lithology is red, purple-red, green or variegated shale and siltstone, often finely micaceous. Quartzitic or arkosic sandstone form lenticular beds up to several decimetres in thickness in the lower and upper parts of the Formation. Horizons with decalcified nodules, probably of paedogenetic origin, occur in the upper half of the unit. The various lithologies are arranged in several metre-thick, fining-upwards sequences. Each of them starts with coarse-grained arkosic sandstone on an erosive base, passes to fine-grained sandstone and siltstone, and ends with red shale. Fossil remains are extremely rare (Godefroid, 1982).

Area of occurrence

Besides the development of the sandstone lenses, the Oignies Formation is rather homogenous along the southern limb of the Dinant Synclinorium.

Type locality

The historical section along the Ruisseau de Nouée at Oignies-en-Thiérache offers a very poor exposure. The sections along the Ry de Rome dam and along the road N964, between the Fonds de l'Eau south of Couvin and la Forestière near Brûly-de-Pesche, expose the main lithologies. The Moulin de Frétogne section along the Meuse River, north of Fépin, exposes almost entirely the Formation and its boundaries with the overlying and underlying units (Meilliez & Blicek, 1994).

Age

In the Couvin area, the upper part of the Oignies Formation yielded a palyno-assemblage indicating the BZ Zone and therefore is late Lochkovian. In the Saint-Hubert section, the top of the formation belongs to the Siß Zone, i.e. the middle part of the Lochkovian. Hence, the Oignies Formation is older eastwards (Meilliez & Blicek, 1994).

Thickness

In the Moulin de Frétogne section in the Meuse River valley, the Formation is c. 200 m thick, and a thickness of 400 m is commonly attributed to it in the Couvin area (Meilliez & Blicek, 1994).

Lower boundary

First bed of red-coloured siltstone and shale.

Upper boundary

Last bed of red-coloured siltstone and shale.

Regional correlations

Along the northeastern limb of the Dinant Synclinorium, the Oignies Formation passes to the upper part of the Marteau Member of the Foz Formation near Manhay. In the Ardenne Anticlinorium, the Oignies Formation is replaced by the slightly metamorphic Anloy Formation south of the Vencimont Fault (Asselberghs, 1946). On the northern flank of the Givonne Anticlinorium, the Oignies Formation is richer in sandstone beds and dominantly greenish in colour. It was therefore mapped with the overlying Saint-Hubert Formation (Belanger & Ghysel, 2017).

References

- Asselberghs, E., 1946. L'Éodévien de l'Ardenne et des régions voisines. Mémoires de l'Institut géologique de l'Université de Louvain, 14, 1–598.
- Belanger, I. & Ghysel, P., 2017. Carte géologique de Wallonie : Vivy – Paliseul 64/5-6. 1/25 000. Service public de Wallonie, Direction générale de l'Agriculture, des Ressources naturelles et de l'Environnement, Namur, and its explanatory booklet, 48 p.
- Godefroid, J., 1982. Gedinnian lithostratigraphy and biostratigraphy of Belgium. Historical subdivisions and brachiopod biostratigraphy, a synopsis. Courier Forschungsinstitut Senckenberg, 55, 97–134.
- Gosselet, J. & Malaise, C., 1868. Observations sur le terrain silurien de l'Ardenne. Bulletin de l'Académie royale des Sciences, des Lettres et des Beaux-Arts de Belgique, 2^e série, 26/7, 61–118.
- Meilliez, F. & Blicek, A., 1994c. OIG - Formation d'Oignies. In Godefroid, J. et al., Les formations du Dévonien inférieur du Massif de la Vesdre, de la Fenêtre de Theux et du Synclinorium de Dinant (Belgique, France). Mémoires pour servir à l'Explication des Cartes géologiques et minières de la Belgique, 38, 29–32.