

Genk Member (Bolderberg Formation)

Unit name: Genk Member

Hierarchical unit name: Bolderberg Formation

Type: Member

Code: BbGe

Author(s):

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- Modification of: de Heinzelin & Glibert (1956); revised by De Meuter & Laga (1976)

Alternative names: /

Origin of the name: The origin of the name of the unit is discussed in De Meuter & Laga (1976) and Louwye et al. (2020).

Status: Formal

Date: 01/05/2022

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Characterizing description

Fine-grained to fairly coarse-grained sand with lignite and gravel layers (De Meuter & Laga, 1976; Louwye et al., 2020). Lignite is generally dispersed, but can locally form about 3 m thick complexes as observed in the Sibelco sand pit in Opgrimbie (Gullentops, 1963, 1972-1973). Molluscs are generally lacking, but become apparent in the northernmost parts of occurrences, such as the Wijshagen and Molenbeersel boreholes (Deckers & Louwye, 2017). The Genk Member has a modal grain size of $172 \pm 12 \mu\text{m}$, a clay content of $2.1 \pm 0.7\%$ and a D90 of $411 \pm 274 \mu\text{m}$, based on a small amount of samples (Verhaegen, 2020). One of those samples has a second coarse mode of $623 \mu\text{m}$ explaining also the large variation in D90. The colour of the sand is yellowish in the east Brabant area, brownish to yellowish in the subsurface in the Hasselt area and becomes white in the easternmost part of Limburg (Opgrimbie Facies).

Type section, type locality, type borehole, type CPT and/or type geophysical borehole

The type locality is Genk. The first type section defined was in a now disappeared sand quarry near the railway station of Genk (De Meuter & Laga, 1976, after Murlon, 1898). The Genk Member in the Wijshagen borehole (DOV [kb18d48w-B181](#); GSB 048W0180; depth 94 m and 162 m) is an alternative type section. The Gruitrode borehole (DOV [kb18d48w-B186](#); GSB 048W0185) is a type geophysical borehole (located near the Wijshagen borehole) with the Genk Member expressed by low gamma-ray and high resistivity values between 92 m and 159 m depth.

Description upper boundary

The Genk Member is unconformably covered by the basal gravel of the Diest Formation or by the Molenbeersel Formation in the easternmost part of the Limburg province (Molenbeersel wells DOV [kb18d49w-B225](#) and [kb18d49w-B226](#); GSB 049W0225 and 049W0226, Roer Valley Graben).

Description lower boundary

The boundary with the subjacent Houthalen Member is gradual and characterized by a downward increase in glauconite.

Thickness

The thickness of the Genk Member is 68 m in the Wijshagen borehole (DOV [kb18d48w-B181](#); GSB 048W0180) and reaches a maximum of 128 m in the Molenbeersel boreholes (DOV [kb18d49w-B225](#) and [kb18d49w-B226](#); GSB 049W0225 and 049W0226) in the differentially subsiding Roer Valley Graben.

Occurrence

The Genk member is present in the central and eastern part of the Limburg province.

Regional correlations

The Genk Member is coeval with the greater part of the Antwerpen Member and the Zonderschot Member of the Berchem Formation (Louwye et al., 2020). It largely correlates with the Heksenberg Member of the Groote Heide Formation in the Netherlands (Deckers & Munsterman, 2020; Munsterman et al. 2019).

Age

Palynological analysis with dinoflagellate cysts from the Wijshagen borehole indicate deposition during Langhian – earliest Serravallian interval (Deckers & Louwye, 2017; Louwye & Laga, 2008).

Dataset

Data in this LIS are part of the [DOV-Neogene data collection](#), including links to the GSB-collection data sheets.

Subset of the lower and middle Miocene: <https://www.dov.vlaanderen.be/data/opdracht/2020-022192>

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Annexes

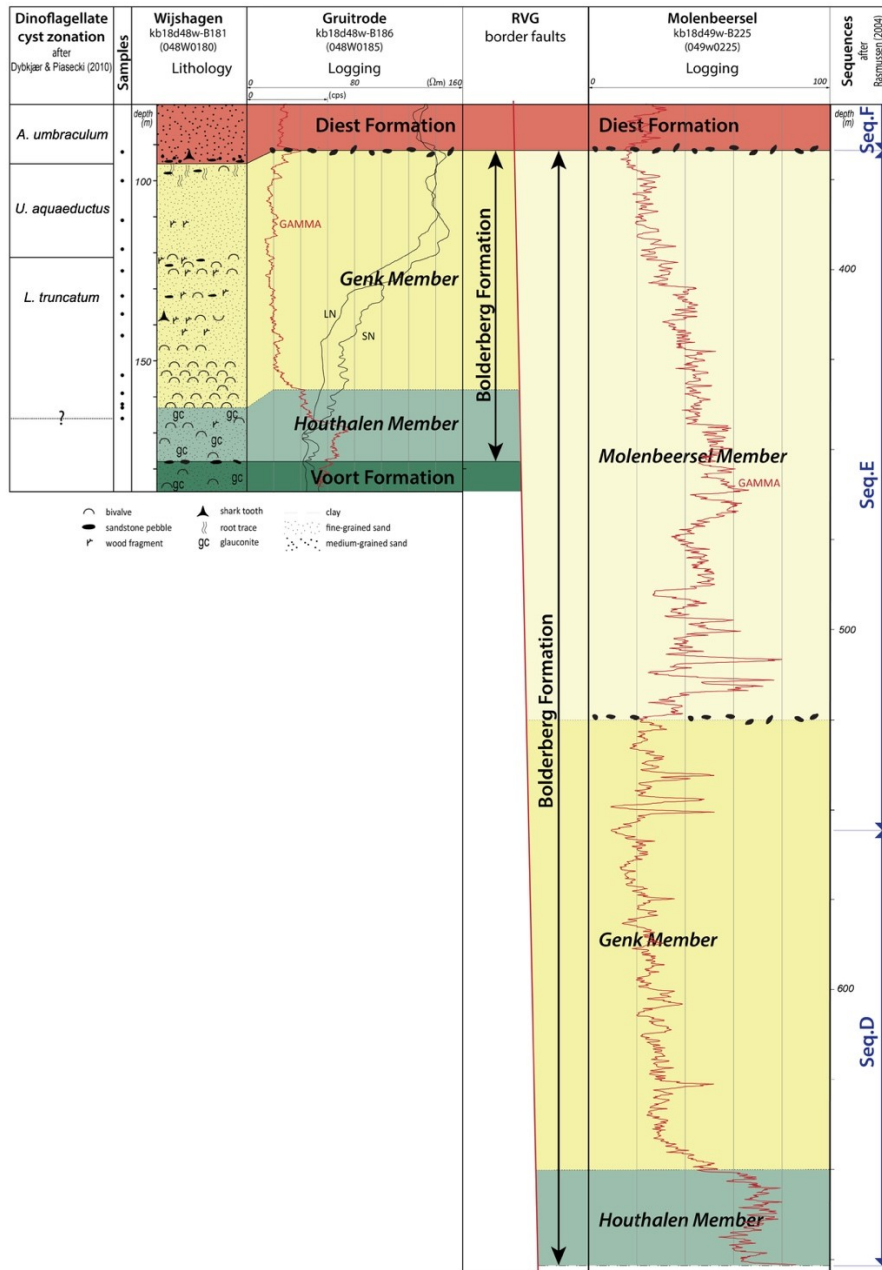


Figure 0-1. The Bolderberg Formation in the Wijshagen, Gruitrode and Molenbeersel wells. See Louwe et al. (2020) for further information.