

# **Participating quarry information**

#### 1. Contact information

Company:	Norcem A.S Brevik
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Quarry:	Bjørntvet brudd
> Latitude / Longitude:	59.1251°N / 9.6689°E
➤ City:	Porsgrunn
➤ Region:	Telemark
➤ Country:	Norway

# 2. General description

The Bjørntvet limestone quarry opened in 1955. The quarry has had a total excavation of about 50 million tons. Approximately 600 000 tons limestone per year are currently transported ten kilometers by train to Brevik for the cement production. The quarry is about 0.5 square kilometer.

The quarry is placed just in the middle of the city of Porsgrunn. There are several houses quite close to the quarry on all sides. The forest between the quarry and the houses is important and popular for hiking and recreation.

In connection to Norcems railway in the east part of the quarry you find the existing main railway between the cities of Porsgrunn and Larvik. In this area a new high-speed railway is under construction.





The limestone quarry "Bjørntvet brudd".

## **Topographical description**

There are nine levels in the quarry. The old and closed levels are about 10 meters high and 10 meters wide. Approximately 0.5 - 1 meters topsoil has been placed on the closed levels and with time the surrounding vegetation such as shrubs and other plants re-colonialize the area and readapts to the local flora.

The lowest level during the autumn of 2011 has an altitude of 30 meters above the sea level. The highest point on the highest level is about 130 meters above the sea level. Penetrating groundwater and surface water needs to be pumped out from the lowest level in the quarry.





The areal picture illustrates the different levels in the quarry and the surrounding town of Porsgrunn.

## 3. Special habitats, flora and fauna

In the period 1999-2002 the local government in Porsgrunn made a green area classification of the local area. There are three different categories; A, B and C.

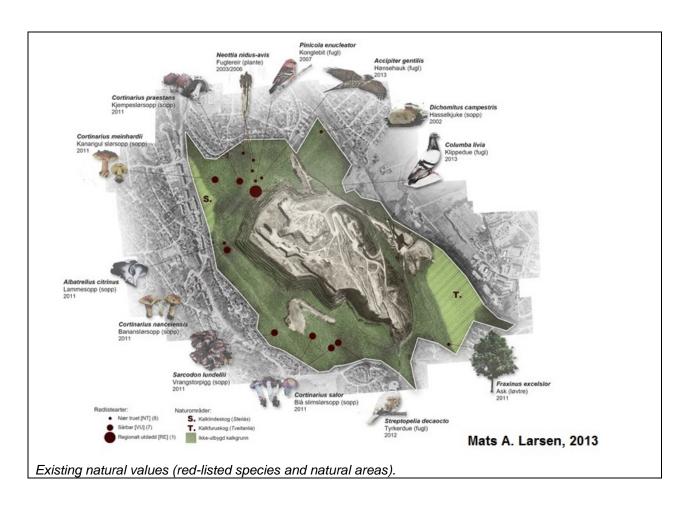
The Bjørntvet quarry is defined as a B-area with a very important value of recreation and landscape.

Bjørntvetbruddet and the surrounding woodlands have high potential for biodiversity because of the calcareous soils.

The vulnerable habitats lime linden forest and lime pine forest are represented in two places (Steilås and Tveitanlia).

A number of red-listed species have been registrated in this area, some of them are listed in the map below made by Mats A. Larsen (QLA-participant 2012).







The top-levels in the quarry depicting the reintroduced vegetation in the topsoil layer placed on the benches.