

## Participating quarry information

### 1. Contact information

<b>Company:</b>	<b>Sand &amp; Grus AB Jehander</b>
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<b>Quarry:</b>	<b>Löten</b>
➤ Latitude / Longitude:	59.422972°N / 17.582068°E
➤ City:	Munsö
➤ Region:	Stockholm
➤ Country:	Sweden

### 2. General description

The Löten quarry has a long history in Jehander. The excavating started in the late 19<sup>th</sup> century. Most of the sand and gravel products, and in recent years also rock products, have been shipped by boat to Stockholm and its surroundings.

The plant has had an excavating area about 200 hectares. Most of it has been recultivated in different periods. The former ridge today consists of a gently undulating landscape with small hills and lakes. The area has become very attractive for outdoor life. In some of the small lakes there are crayfish in another salmon and other game fish. There are also trails for jogging in the summer and skiing in the winter. A beekeeper will exhibit his hives in the plant area every summer.



*In the foreground is seen gravel plant and in the background crushed rock plant. Total production is now about 400 000 tons per year. 30 years ago it was about 1 000 000 tons.*

### **Topographical description**

The extraction area lies in a ridge formation running from north-west to south-east at the northern part of the island Munsö. The area borders Långtarmen, a water filled rift valley to the east. To the west the area borders to agricultural land and the almost overgrown lake Snorran. A significant mark in the landscape is the power line that runs over Långtarmen, and cuts through the extraction area and the agricultural land at northern Munsö.

The extraction area originally consisted of a 6 kilometres long ridge stretching 20-35 metres above lake Mälaren. The ridge was mostly covered by forest; the top and the east side with conifers and the west side with inclusions of leaf trees. During the years of active gravel extraction the height of the ridge has decreased and the landscape has shifted into smaller hills and knolls, small ridges and lakes.



*2 kilometers of the northern part of Löt with the production equipment in the foreground and the harbor to the right. In the foreground is also one of five lakes, Rheaxsjön, about 1 hectare, and in the background the biggest lake, Laxsjön, which still is under exploration.*

### **3. Special habitats, flora and fauna**

Original vegetation has actively been reintroduced with an increased proportion of leaf trees. The number of species – both flora and fauna – is large. Approximately 1 kilometre of untouched gravel ridge remains in the south and is since 2007 defined as a nature conservation area (naturskyddsområde).

The area has a strong presence of animals such as moose, deer, boar and hare. Birds like sand martins occur in high numbers too due to their untouched nests in the area. Osprey is another bird breeding in the area.



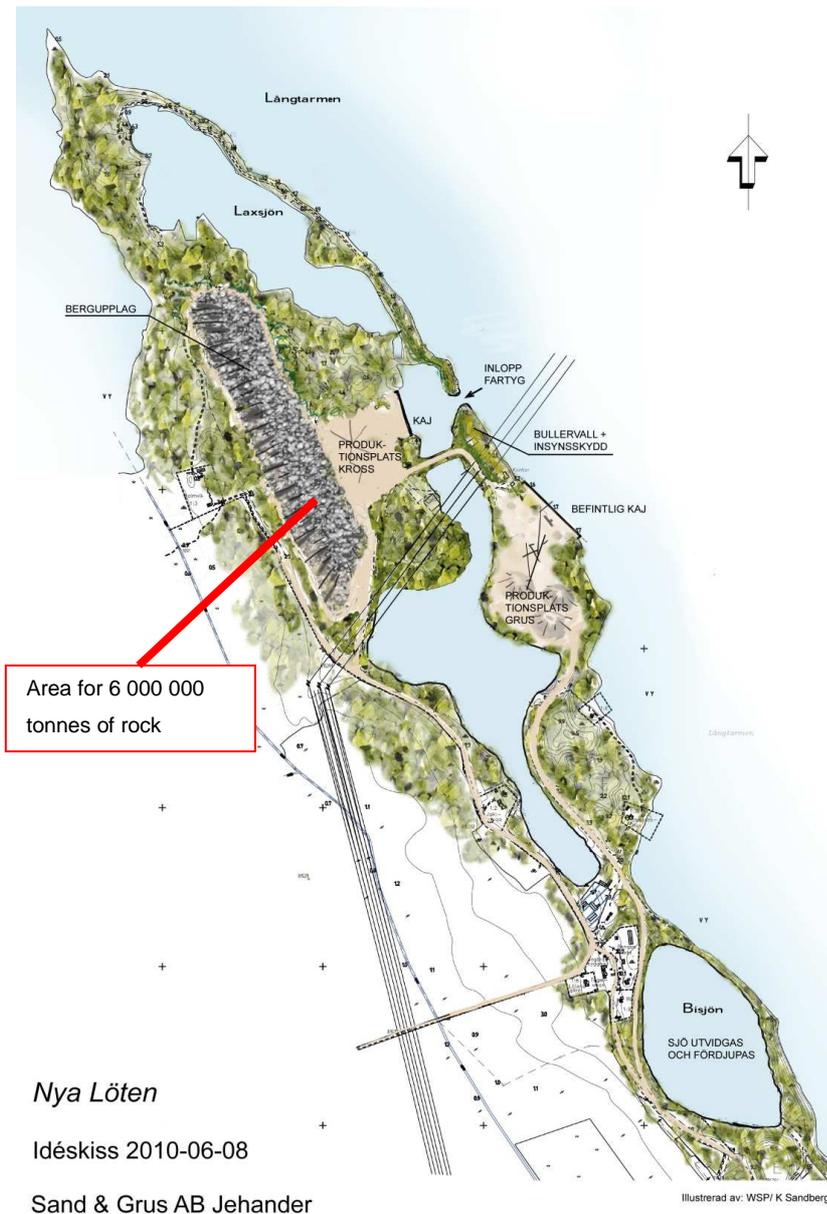
*Openings in the pine plantations close to the quarry give the red listed butterfly klöversobermal a sanctuary. The surrounding pine trees are about 20-30 years old.*

#### **4. Ongoing nature projects**

##### **Nature protection projects**

- The southern part of the quarry is since 2007 a nature conservation area (naturskyddsområde) which Jehander owns. The area was prior 2007 a part of the planned excavation area but extraction was never initiated.
- Plans exist to accept up to 6 000 000 tonnes of rock from a tunnel construction site outside of Stockholm. The rock would be crushed into suitable fractions on site and be sold thereafter. This amount of rock requires the use of a storage site of about 15 hectares which is today an already recultivated part of the old quarry enjoying a large biodiversity. A biodiversity management plan has been established and points at how other parts of the quarry should be treated to create favourable conditions for the species that would be lost at the storing site.

- Special boxes for sand martins have been bought. They will be placed in the quarry by local ornithologists and will hopefully be inhabited by sand martins during their breeding season.





#### **Socio-economical projects**

- As a consequence of the infrastructure project “Förbifart Stockholm” large volumes of extracted bedrock will be available and needs to be stored before further use. Lötén offers a suitable site for temporary storage of the extracted material (see illustration above). The storage needs to be planned along both practical needs and with environmental consideration. Solutions focusing on nature protection, compensatory measures along with establishing a storage site will be of great future value.
- Members in a local fishing club, Spiggen, are responsible for the upkeeping of Laxsjön which is the largest of the five lakes in the area (see the areal view above). Since the establishment of the club in 1995 it has grown to be one of Sweden’s largest fishing clubs with approximately 500 members. The club fills the lake with game fish such as salmon trout and char which members and guests can fish for. The fishing club is also responsible for maintaining the surroundings of the lake including running and skiing tracks, cabins, swimming sites and barbecues, parking lots and sign posts.
- Lötén, and especially Laxsjön, is a popular recreational place for visitors arriving by car, bike or boat.

It is possible to moor up at the beach outside of Laxsjön.

- A local bee keeper places his beehives in a number of places in the excavation area. The honey produced is of excellent quality and is sold to stores and private customers.
- Local kennels uses the quarry for training as well as competitions in tracing.
- The fishing club Spiggen arranges a yearly angling competition from Jehander's shipping quay.