

EGEM

Clay- and sand-pit of othe "Ampe Steenbakkerij N.V."

Description : Dr. S. GEETS

A. Profile at the eastern edge of the pit

- 0 - 0,9 m : alternation of light-brown, very-fine-sandy, clayey silt, fine sand and very-fine-sandy, coarse-silty clay ;
- 0,9 - 1,6 m : brown, oxydized, clayey, coarse-silty very fine sand and very fine-sandy, clayey, very fine silt, with distinct horizontal stratification ; sandstone layer at 1,4 m ;
- 1,6 - 2,4 m : light-brown, very-fine-sandy, clayey coarse silt, oxydized, less distinctly stratified ;
- 2,4 - 3,0 m : gray, clayey coarse silt, oxydized, strongly micaceous and faintly layered ;
- 3,0 - 4,0 m : gray, very-fine silty, clayey fine sand, with many coarse glauconite grains ;
- 4,0 - 4,4 m : fossiliferous, clayey sandstone layer ;
- 4,4 - 7,0 m : glauconiferous, gray, fine (at the top) till very fine sand, with many fossil fragments ;
- 7,0 - 7,04 m : light-gray, clayey coarse silt ;
- 7,04 - 7,5 m : glauconiferous, gray, very fine sand, rich in fossil fragments ;
- 7,5 - 8,0 m : glauconiferous and micaceous very fine sand, fossileferous at the bottom.

Lithostratigraphical interpretation :

0 - 4,4 m : Gent Formation, sandy-clayey complex (Plc of the Geological Map 1/40.000).

4,4 - 8,0 m : Tielt Formation, top sandy complex (Yd of the Geological Map 1/40.000).

B. Profile in the middle of the quarry, beneath an old exploitation level ; it apparently continues the former one.

0 - 1 m : allochthonous material ;

1 - 2 m : gray-brown, homogenous, badly sorted very fine sand (with brown claybits and fossil fragments) ;

2 - 2,2 m : medging-out layer (max. 40 cm thick), consisting of horizontal claylayers, alternating with brown, clayey, very fine sand ; at the bottom a sandlayer (5 cm), upon a claylayers ;

2,2 - 2,6 m : gray-brown, well-sorted very fine sand, finely horizontally laminated by alternation of brown and nearly black laminae. Small discontinuous claylayers locally appear ;

2,6 - 2,75 m : alternation of very-fine-sandy clay and very fine sand, locally as cross laminated sets ;

2,75 - 3,65 m : brown, homogeneous, well sorted, very fine sand ;

3,65 - 3,75 m : alternation of laminae very-fine-sandy, coarse-silty clay and very fine sand ;

3,75 - 4,05 m : brown, homogenous, badly sorted very fine sand ;

- 4,05 - 4,15 m : compact, very-fine-silty clay-lense, max. 40 cm thick ;
- 4,15 - 4,25 m : horizontally laminated, badly sorted, very fine sand ;
- 4,25 - 4,35 m : brown, clayey, coarse silty, very fine sand.

Both layers wedge out in southern direction :

- 4,35 - 5,05 m : horizontally laminated, badly sorted, very fine sand.
- 5,05 - 5,45 m : moderately sorted very fine sand, with fossil fragments ;
- 5,45 - 5,8 m : gray, homogenous, partly finely laminated, well sorted, very fine sand.

Lithostratigraphic interpretation :

- 1 - 5,8 m : Tielt Formation, top sandy complex (Yd of the Geological Map 1/40.000).

C. Profile at the northern edge, near the bottom of the clay-pit

- 0 - 2 m : homogenous, very badly sorted, very fine sand, with plant fragments at the top ;
- 2 - 7 m : darkgreen, clayey very fine sand with fossil fragments ;
- 7 - 8 m : green, clayey, coarse-silty very fine sand ;
- 8 - 9 m : grey-blue, coarse-silty clay with fossil fragments ;

- 9 - 10 m : grey-blue, rudely stratified, very-fine-sandy, coarse-silty clay ;
- 11- 12 m : grey-blue, coarse-silty clay.

#### Lithostratigraphic interpretation

- 0 - 12 m : Tielt Formation, top sandy complex ; (silty faciës from 7 m on) Yd of the Geological Map 1/40.000)

#### Marke

Not far from the claypit a borehole has been effectuated till -40 m ; as in the upper part of this will the same sediments occur as in the exposure, the total column gives a more complete sequence of the sedimentation history in this place.

The sampling and a detailed description has been carried out by Prof. G. De Moor. The grain-size distribution is given in fig...

#### Short description

- 0 - 0,5 m : light-brown, clayey loam ;
- 0,5 - 4,5 m : light-brown/gray to -blue/gray, micaceous, very-fine-silty clay, with gypsum cristals at the base,
- 4,5 - 11 m : blue-gray, (clayey) coarse to fine silt, with black humic spots, small pyritic veins, fossil fragments ; same fine laminations ;

- 11 - 20 m : dark blue-gray, (clayey) medium to very fine silt, micaceous, finely laminated ; dispersed fossil fragments, sometimes concentrated in layers (many Turritella) ;
- 20 - 31 m : blue-gray, clayey very fine silt, upwards passing into clayey, coarse to medium silt, rich in fossil fragments, sometimes concentrated in layers ; pyritic veins ;
- 31 - 40 m : dark blue-grey, (clayey) coarse to medium silt, micaceous, with fossil fragments, coarse glauconite grains and pyritic spots.

Lithostratigraphic interpretation :

- 0 - 0,5 m : Quaternary
- 0,5 - 4,5 m : Kortrijk Formation, Aalbeke Member
- 4,5 - 40 m : Kortrijk Formation, Moen Member

Egem. Clay- and sand-pit of the "Ampe"

Steentrabberij n.v.

Tiel: Bunnik

A. Profile at the eastern edge of the pit.

0 - 0,9 m: alternation of light-brown, very-fine-sandy, clayey silt, fine sand and very-fine-sandy, coarse-silty clay;

0,9 - 1,6 m: brown, cyclical; clayey, coarse-silty very fine sand or very-fine-sandy, clayey, very fine silt, with distinct horizontal stratification; sandstone layer at 1,4 m;

1,6 - 2,4 m: light-brown, very-fine-sandy, clayey coarse silt, cyclical, less distinctly stratified;

2,4 - 3,0 m: gray, clayey coarse silt, cyclical, strongly micaceous and faintly layered;

3,0 - 4,0 m: gray, very-fine silty, clayey fine sand, with many coarse glauconite grains;

4,0 - 4,4 m: fossiliferous, clayey sandstone layer;

4,4 - 7,0 m: glauconiferous, gray, fine (at the top) till very fine sand, with many fossil fragments;

7,0 - 7,0 light-gray, clayey coarse silt;

7,04 - 7,5 m: glauconiferous, gray, very fine-sand, rich in fossil fragments;

7,5 - 8,0 m: glauconiferous and micaceous very fine sand, fossiliferous at the bottom

Stratigraphical interpretation:

0 - 4,4 m: Gent Formation, sandy-clayey complex (P1c of the Geological Map 1/40.000).

4,4 - 8,0 m: Tiel Formation, top sandy complex (Td of the Geological Map 1/40.000).

B. Profile in the middle of the quarry, beneath an old exploitation level; it apparently continues the former one.

0 - 1 m: allocthonous material;

1 - 2 m: gray-brown, homogeneous, badly sorted very fine sand (with brown clayfrits and fossil fragments);

2 - 2, 2 m: wedging-out layer (max. 40 cm thick), consisting of horizontal claylayers, alternating with brown, clayey, very fine sand; at the bottom a sandlayer (5 cm), upon a claylayer;

2, 2 - 2, 6 m: gray-brown, well-sorted very fine sand, finely horizontally laminated by alternation of brown and nearly black laminae. Small discontinuous claylayers locally appear.

2, 6 - 2, 75 m: alternation of very-fine-sandy clay and very fine sand, locally as cross laminated sets;

2, 75 - 3, 65 m: brown, homogeneous, well-sorted, very fine sand;

3, 65 - 3, 75 m: alternation of laminae very-fine-sandy, coarse-silty clay and very fine sand;

3, 75 - 4, 05 m: brown, homogeneous, badly sorted very fine sand;

4, 05 - 4, 15 m: compact, very-fine-silty clay-lense, max. 40 cm thick;

4, 15 - 4, 25 m: horizontally laminated, badly sorted, very fine sand;

4, 25 - 4, 35 m: brown, clayey, coarse silty, very fine sand.

Both layers wedge out in southern direction;

- 4,35 - 5,05 m: horizontally laminated, badly sorted, very fine sand;
- 5,05 - 5,45 m: moderately sorted very fine sand, with fossil fragments;
- 5,45 - 5,8 m: gray, homogeneous, partly finely laminated, well sorted, very fine sand.

ditch

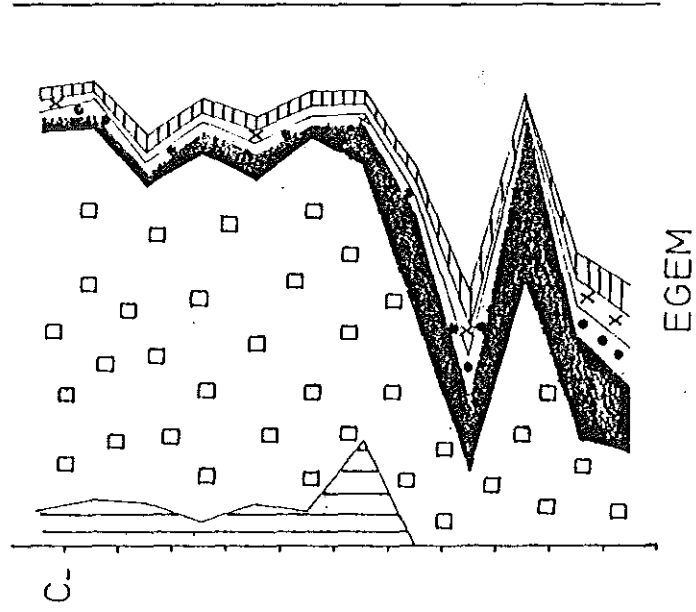
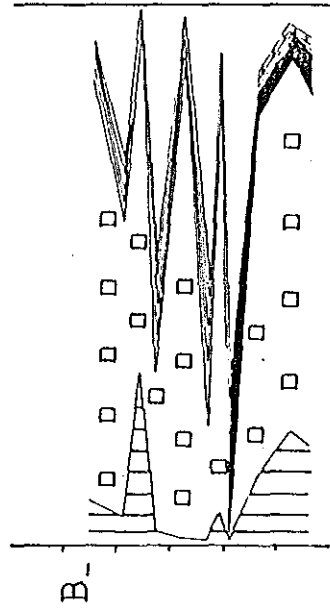
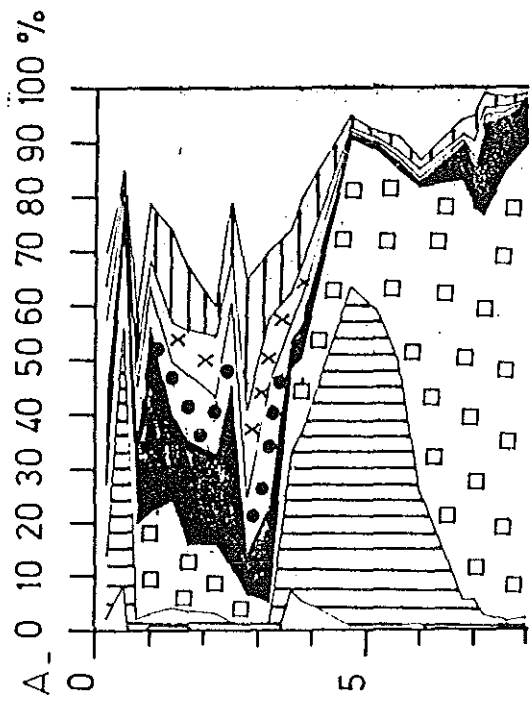
Stratigraphic interpretation:

- 1- 5,8 m: Tilt Formation, top sandy complex (Yd of the Geological Map 1/40.000).
- §6. Profile at the northern edge, near the bottom of the clay-pit;
  - 0 - 2 m: homogeneous, very badly sorted, very fine sand, with plant fragments at the top;
  - 2 - 4 m: darkgreen, clayey very fine sand with fossil fragments;
  - 4 - 8 m: green, clayey, coarse-silty very fine sand;
  - 8 - 9 m: gray-blue, coarse-silty clay with fossil-fragments;
  - 9 - 10 m: gray-blue, coarse-silty very fine sand;
  - 10 - 11 m: gray-blue, weakly stratified, very-fine-sandy, coarse-silty clay;
  - 11 - 12 m: grey-blue, coarse-silty clay.

Stratigraphic interpretation:

- 0 - 12 m: Tilt Formation, top sandy complex, (silty facies from 7 m on) (Yd of the Geological Map 1/40.000).





EGEM

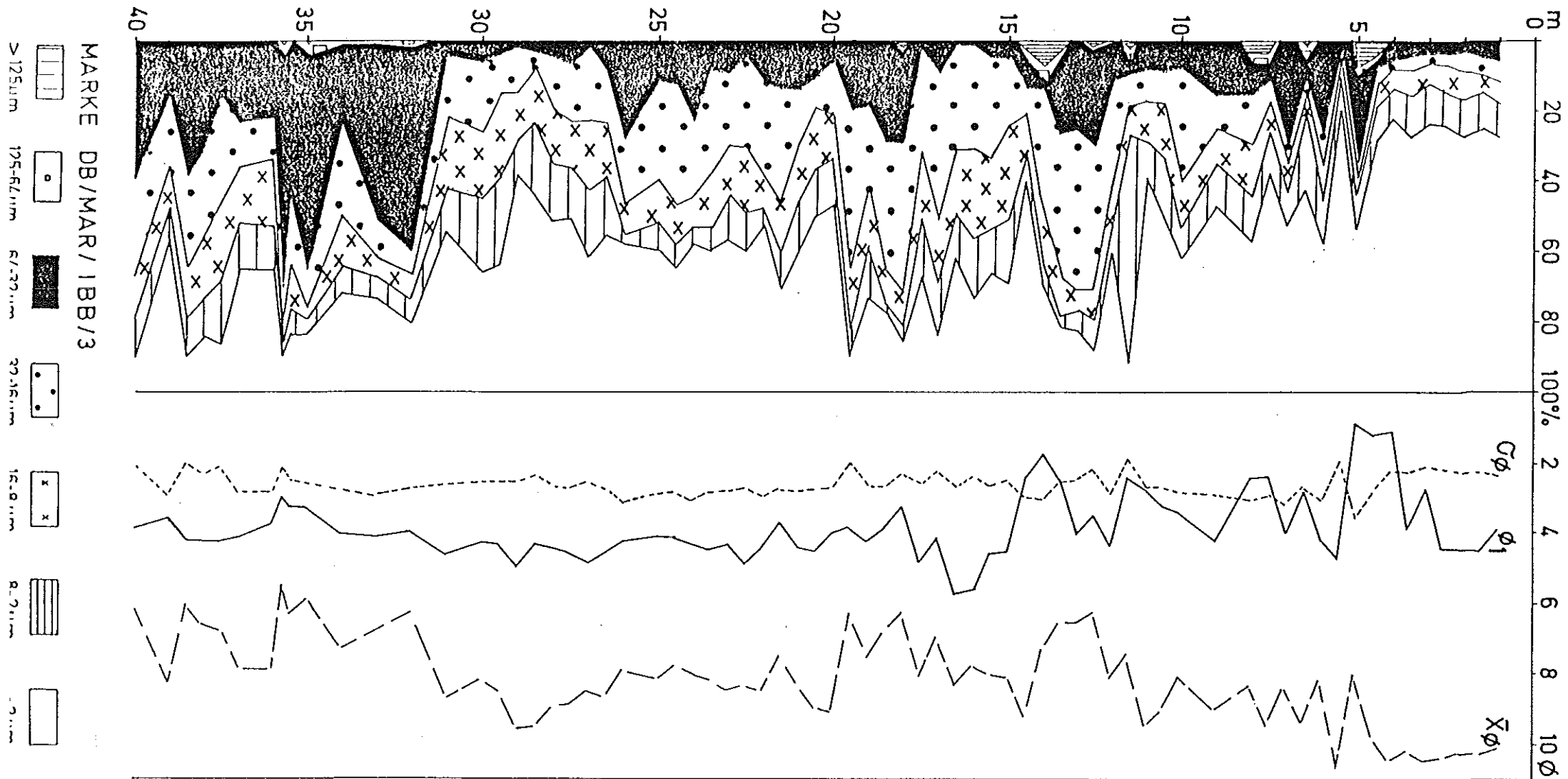


Fig. 4. Grain-size distribution of the sediments in the Marke borehole by S. GEETS.

## Notes.

Not far from the claypit a borehole has been effectuated till - 40 m; as in the upper part of this well the same sediments occur as in the exposure, the total column gives a more complete sequence of the sedimentation history in this place.

The sampling and a detailed description has been carried out by Prof. G. De Moor. The grain-size distribution is given in fig. !!

Shore description:

0 - 0,5 m: light-brown, clayey loam;

0,5 - 4,5 m: light-browngray to - bluegray, micaceous, very-fine-silty clay, with gypsum crystals at the base;

4,5 - 11 m: blue-gray, (clayey) coarse to fine silt, with black humic spots, small pyritic veins, fossil fragments; some fine laminations;

11 - 20 m: <sup>92</sup>dark blue-gray; (clayey) medium to very fine silt, micaceous, finely laminated; disperse fossil fragments, sometimes concentrated in layers (many Turritella);

20 - 31 m: blue-gray, clayey very fine silt, upwards passing into clayey, coarse to medium silt, rich in fossil fragments, sometimes concentrated in layers; pyritic veins;

31 - 40 m: dark blue-gray, (clayey) coarse to medium silt, micaceous, with fossil fragments, coarse glauconitic grains and pyritic

- l. Zeef-textuur : aanwezigheid van overvloedige inklusies binnen grote sponsachtige kristallen.
- m. Protoklastische of autoklastische textuur : gegranuleerde en afgeronde korrels, door voortvloeien van magma vóór de totale konsolidatie.

4,5 - 40 m : " " " " " "  
 0,5 - 4,5 m : " " " " " "  
 0 - 0,5 m : " " " " " "  
 dikteverschillen in sedimenten : " " " " " "

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