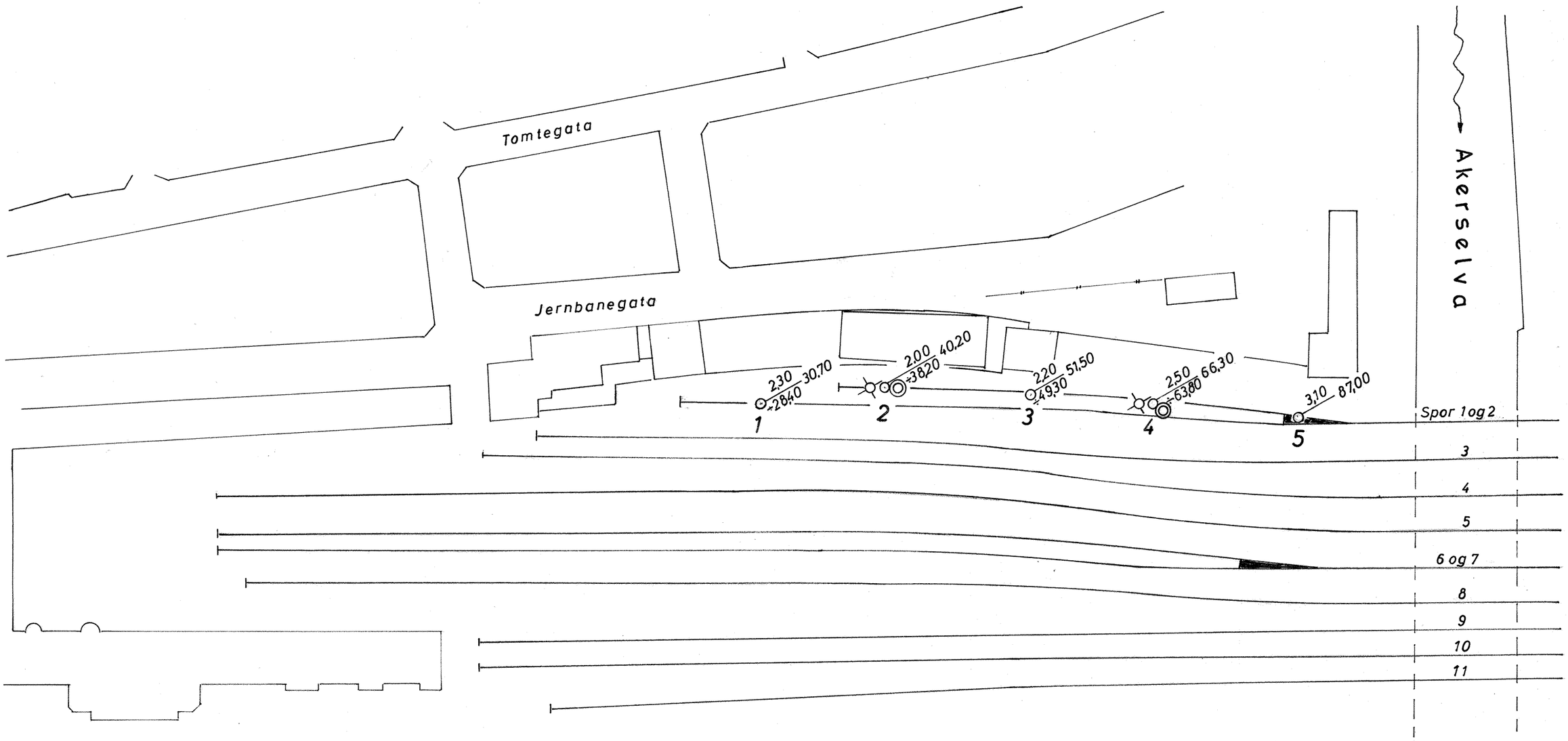
Situasjon M=1:1000

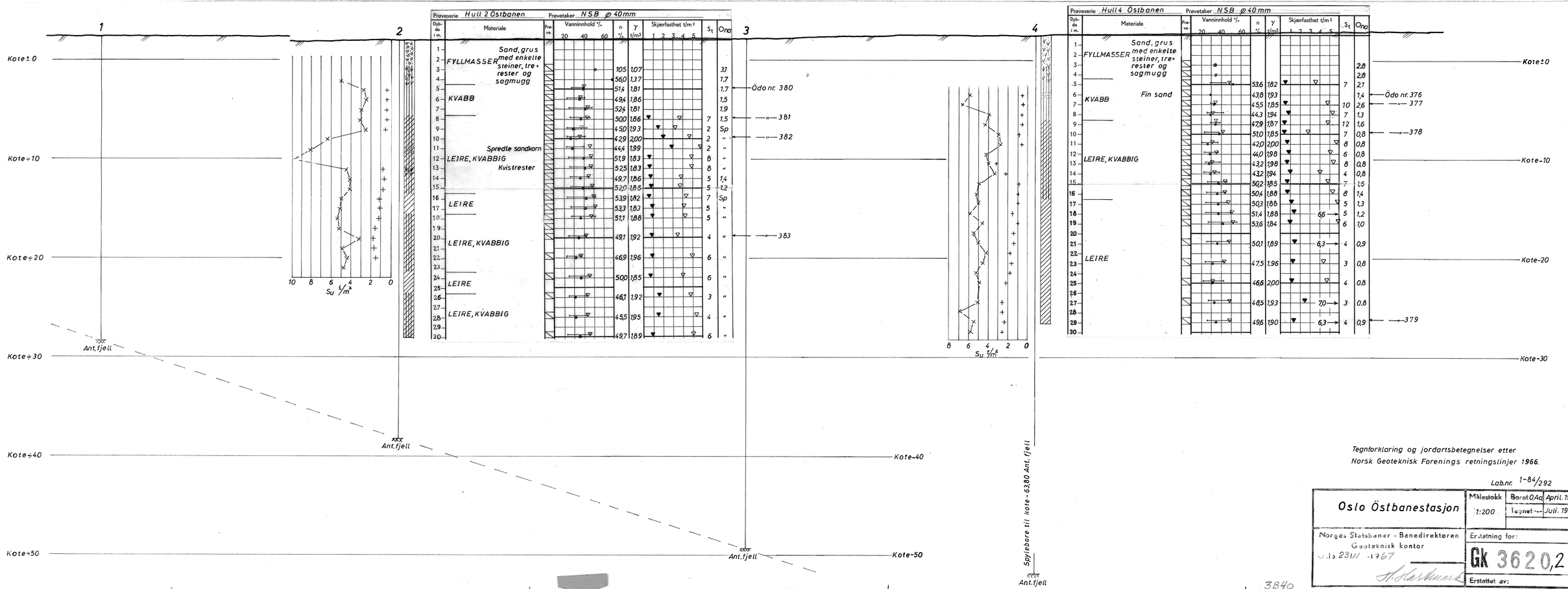


Tegnforklaring og jordartsbetegnelser etter Norsk Geoteknisk Forenings retningslinjer 1966.

Kartgrunnlag. Östbanen indre område. Kart nr. 1160
Kotehöyder NGO. NN. 1954

Oslo Östbanestasjon	Målestokk 1:1000	Boret OAa	April 1967
		Tegnet ---	Juli 1967
Norges Statsbaner – Banedirektøren Geoteknisk kontor Oslo 23/11 -1967 A. Sletteark	Erstatning for: Gk 3620,1		
	Erstattet av:		

13 HF56



Tegnforklaring og jordartsbetegnelser etter
Norsk Geoteknisk Forenings retningslinjer 1966.

Lab.nr. 1-84/292

Oslo Østbanestasjon	Målestokk 1:200	Boret OAc	April 1967
		Tegnet --	Juli 1967
Norges Statsbaner - Banedirektøren Geoteknisk kontor Oslo 23/11 1967	Erstatning for: Gk 3620,2		
	Erstattet av:		

3840

Gk 3620

Ødometerforsök 376-379 ØSTBANEN, Hull 4

Beregning av:

Sammentrykningstall $m_v = \frac{\Delta\delta}{h\,\Delta p}$

Konsolideringskoeff. $c_v = 0{,}0492\ h^2/t_{50}$

Permeabilitetskoeff. $k_{10} = c_v \cdot m_v \cdot \gamma_{w_{10}}$

Forsök nr. 376.

$\Delta p = 10\ t/m^2$, $\Delta\delta = 1.150 - 0.780 = 0.370$ m/m

$m_v = \frac{0.370}{18{,}83 \cdot 10} = \underline{1{,}96 \cdot 10^{-3}}\ m^2/t$

$t_{50} = 0{,}56$ min.

(svakt OC) → $c_v = 0.0492\ \frac{18{,}83^2 \cdot 10^{-6}}{0{,}56 \cdot 60} = \underline{5{,}2 \cdot 10^{-7}}\ m^2/sek$

$k_{10} = 5{,}2 \cdot 10^{-7} \cdot 1.96 \cdot 10^{-3} = \underline{1{,}02 \cdot 10^{-9}}\ m/sek$

Forsök nr. 377

$\Delta p = 10\ t/m^2$, $\Delta\delta = 1.741 - 1{,}138 = 0{,}603$ m/m

$m_v = \frac{0{,}603}{18{,}6 \cdot 10} = \underline{3{,}23 \cdot 10^{-3}}\ m^2/t$

$t_{50} = 1{,}0$ min.

(NC) → $c_v = \frac{0.0492 \cdot 18{,}6^2 \cdot 10^{-6}}{1{,}0 \cdot 60} = \underline{3{,}0 \cdot 10^{-7}}\ m^2/sek$

$k_{10} = 3{,}0 \cdot 10^{-7} \cdot 3{,}23 \cdot 10^{-3} = \underline{9{,}69 \cdot 10^{-10}}\ m/sek$

Forsök nr. 378.

$\Delta p = 20\ t/m^2$, $\Delta\delta = 1{,}932 - 1{,}456 = 0{,}476$ m

$m_v = \frac{0{,}476}{18{,}45 \cdot 20} = \underline{1{,}29 \cdot 10^{-3}}\ m^2/sek$

$t_{50} = 1{,}32$ min.

(NC) → $c_v = 0.0492 \cdot \frac{18{,}45^2 \cdot 10^{-6}}{1{,}32 \cdot 60} = \underline{2{,}12 \cdot 10^{-7}}\ m^2/sek$

$k_{10} = 2.12 \cdot 10^{-7} \cdot 1{,}29 \cdot 10^{-3} = \underline{2{,}73 \cdot 10^{-10}}\ m/sek$

Försök nr. 379

$\Delta p = 40\ kg/m^2$, $\Delta \delta = 2{,}430 - 1{,}703 = 0{,}727$ mm/m

$$m_v = \frac{0{,}727}{19{,}27 - 40} = 0{,}94 \cdot 10^{-3}\ m^2/kg$$

$t_{50} = 3{,}1$ min.

(NC, Kvikk?) $\rightarrow$ $$c_v = 0{,}0492 \cdot \frac{19{,}3^2 \cdot 10^{-6}}{3{,}1 \cdot 60} = 0{,}98 \cdot 10^{-7}\ m^2/sek$$

$$k_{10} = 0.98 \cdot 10^{-7} \cdot 0{,}94 \cdot 10^{-3} = 0{,}92 \cdot 10^{-10}\ m/sek$$

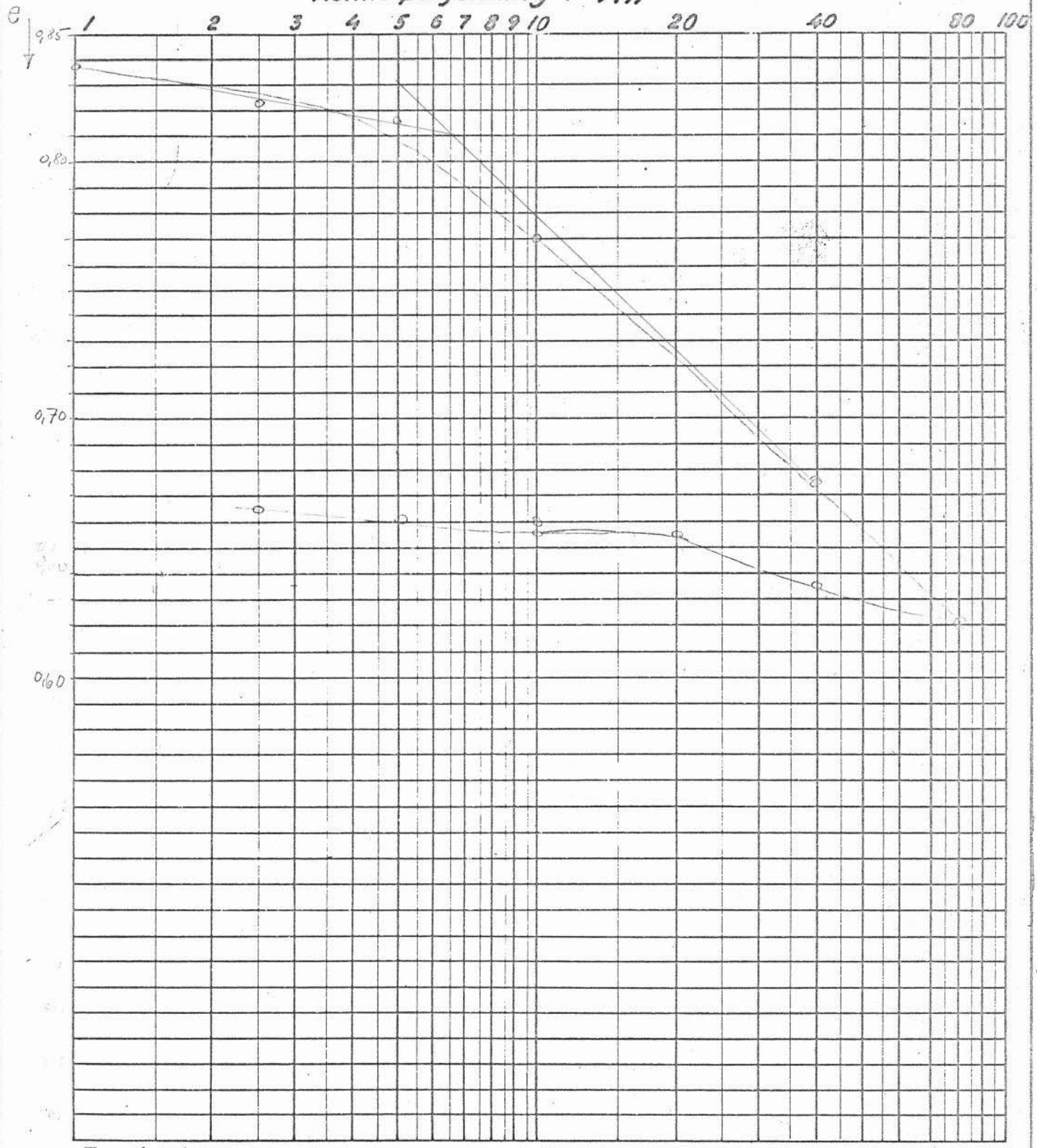
Bilag.

Ödometerforsök.

no. 376

Sted
Tenkote
Dybde 5,9
Lab.no.

Normalpåkjenning i t/m²



Jordart:

Norges Statsbaner
Geoteknisk kontor.

Oslo, den / 195

Gk.

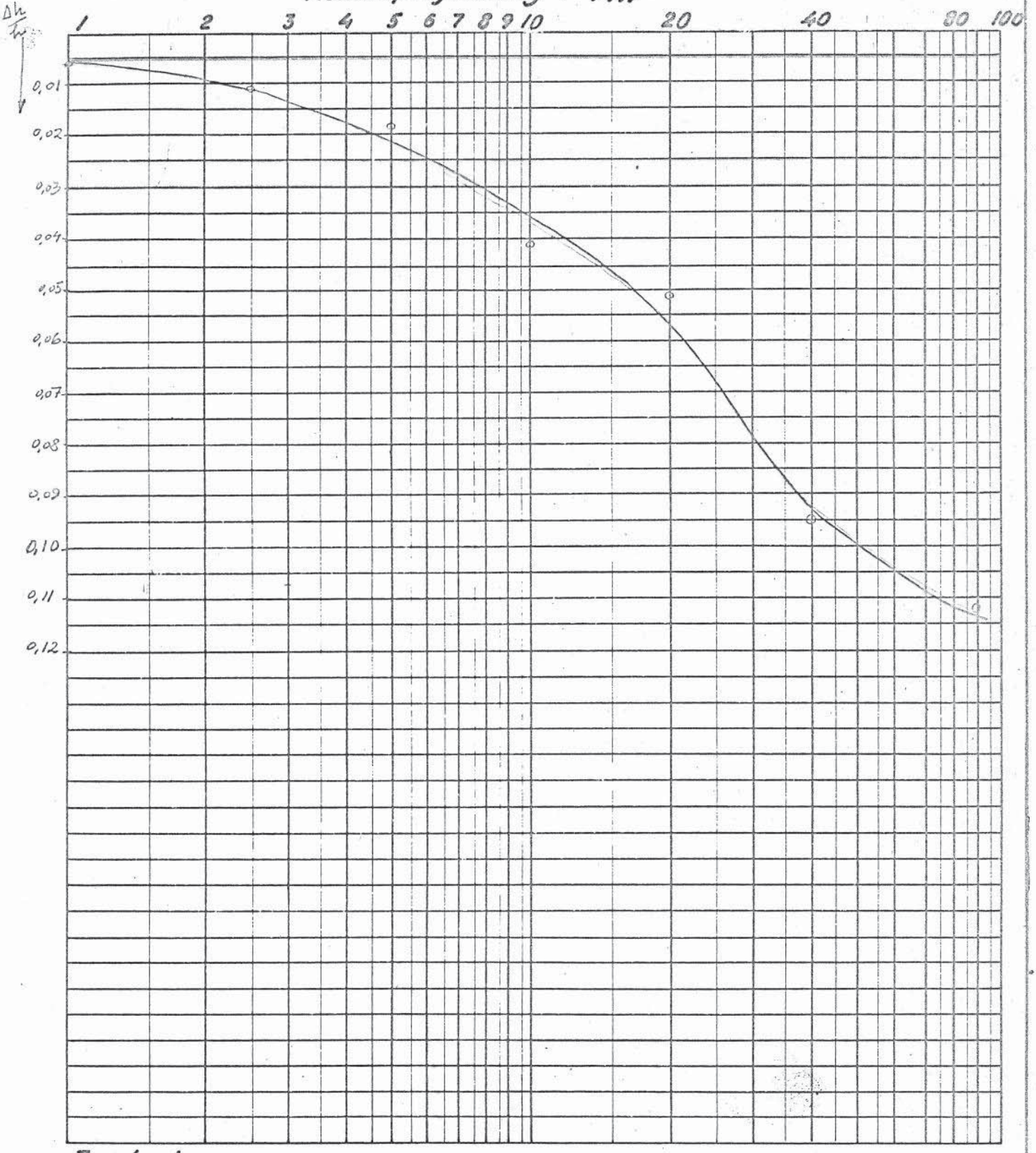
Bilag.

Ödometerforsök.

no. 376

Sted Østbanen
Terr.kote
Dybde 5,90
Lab.no.

Normalpåkjenning i t/m²



Jordart:

Norges Statsbaner
Geoteknisk kontor.

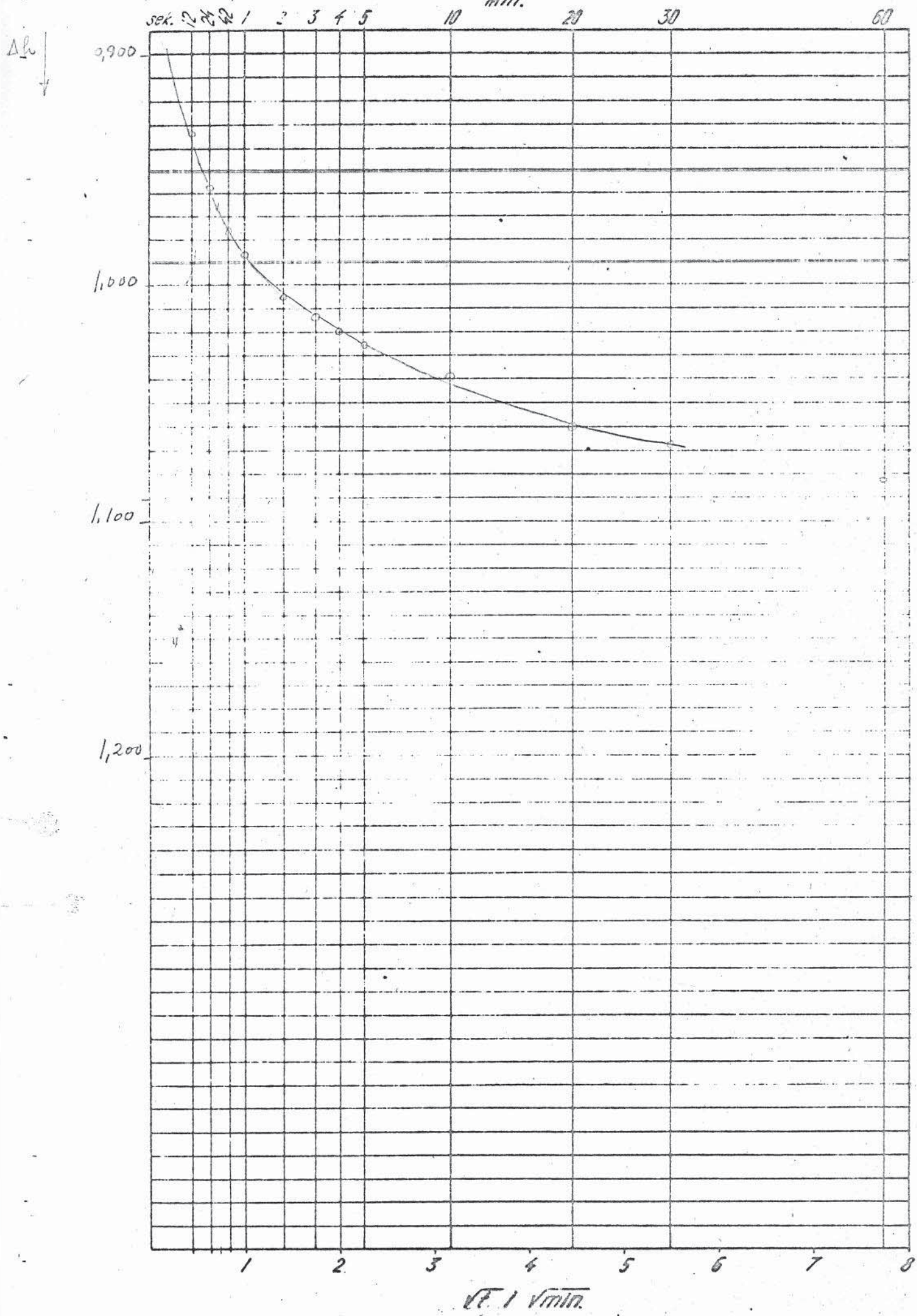
Oslo den / 195

Gk.

Nr. 376

Kvadratmetoden.

$20\ kg/m^2$



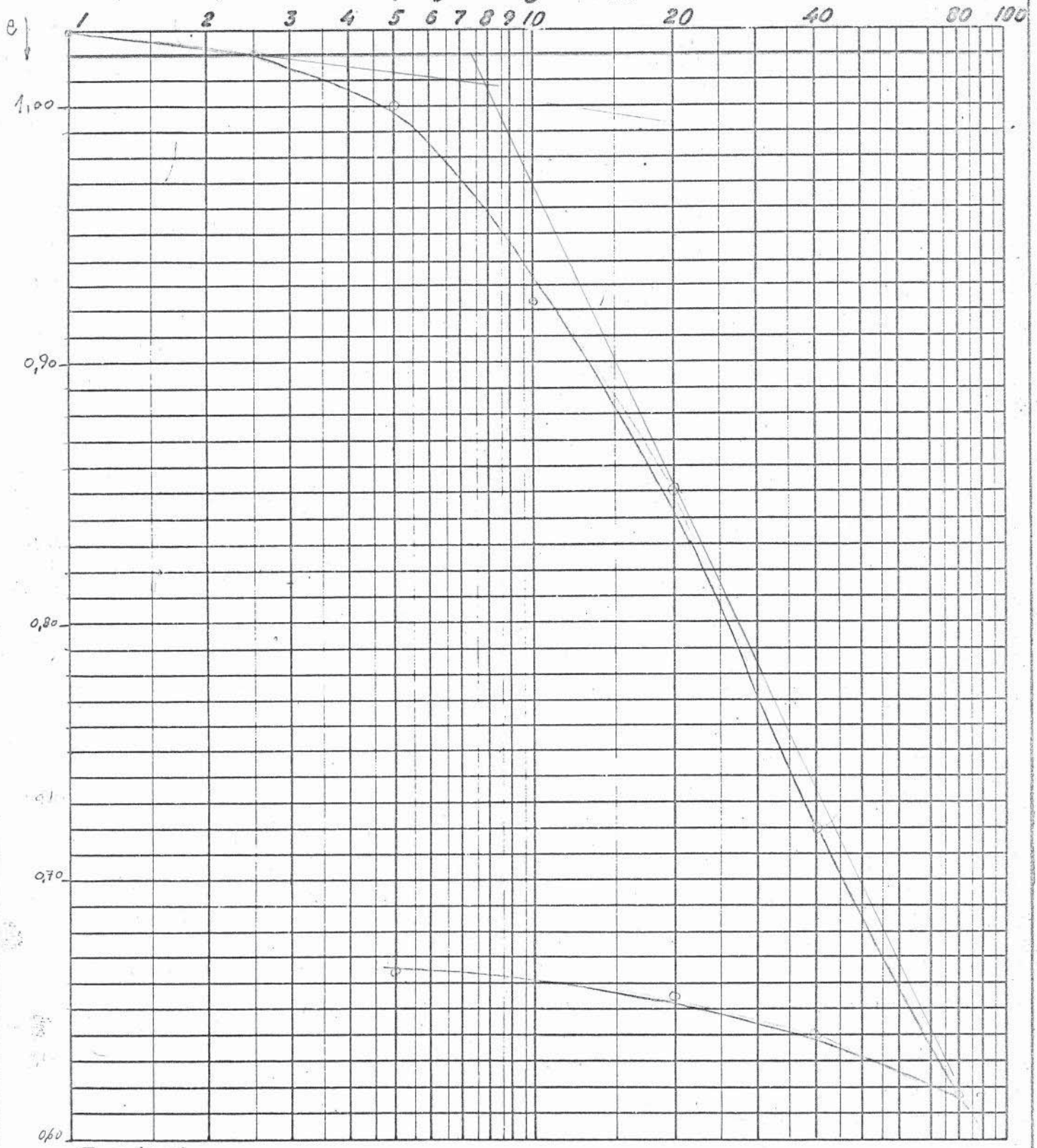
Bilag.

Ödometerforsök.

no. 377

Sted
Terr.kote
Dybde 6,8
Lab.no.

Normalpåkjenning i t/m²



Jordart:

Norges Statsbaner
Geoteknisk kontor.

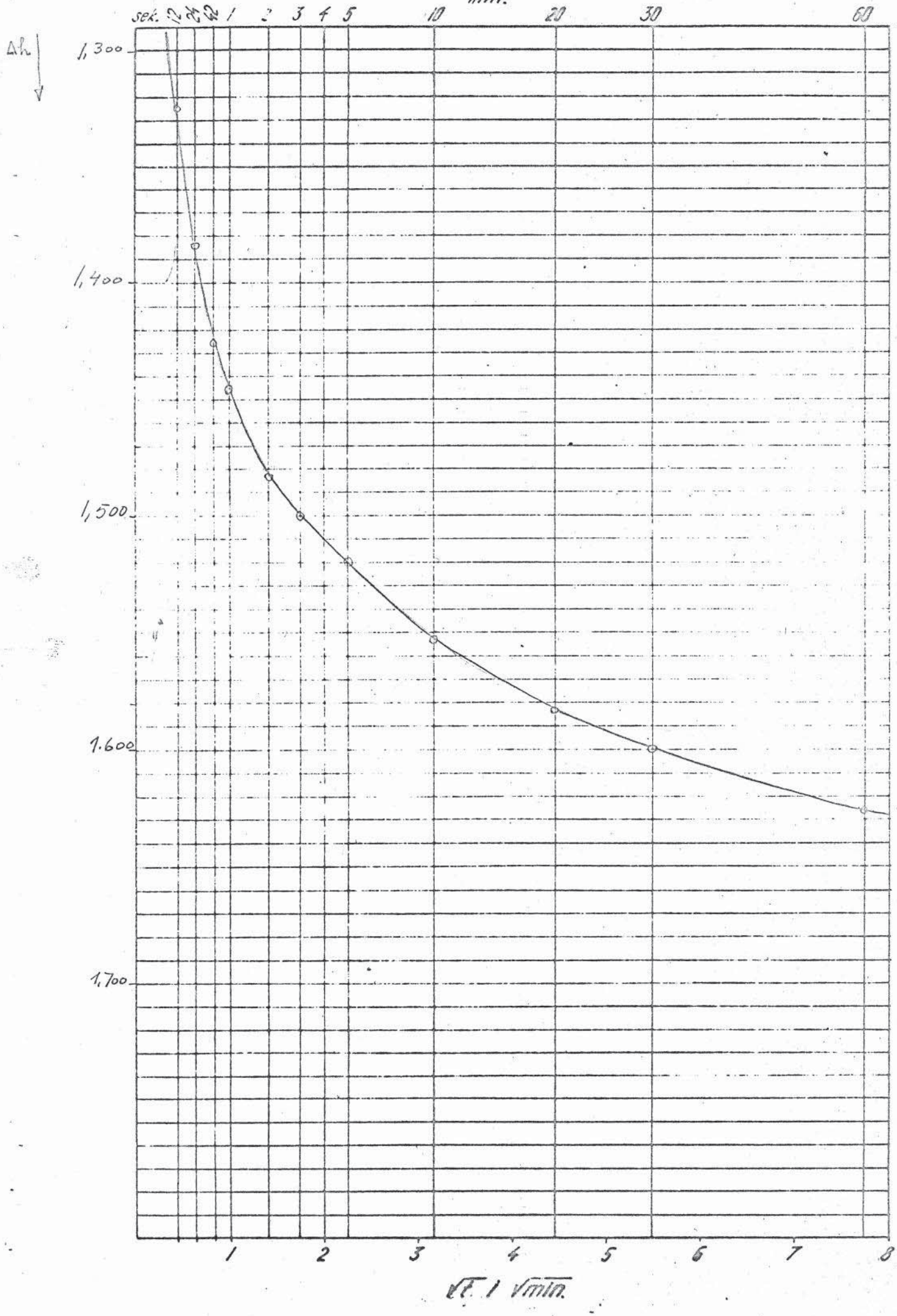
Oslo, den / 195

Gk.

Nr. 377

Kvadratmetoden.

20 t/m²



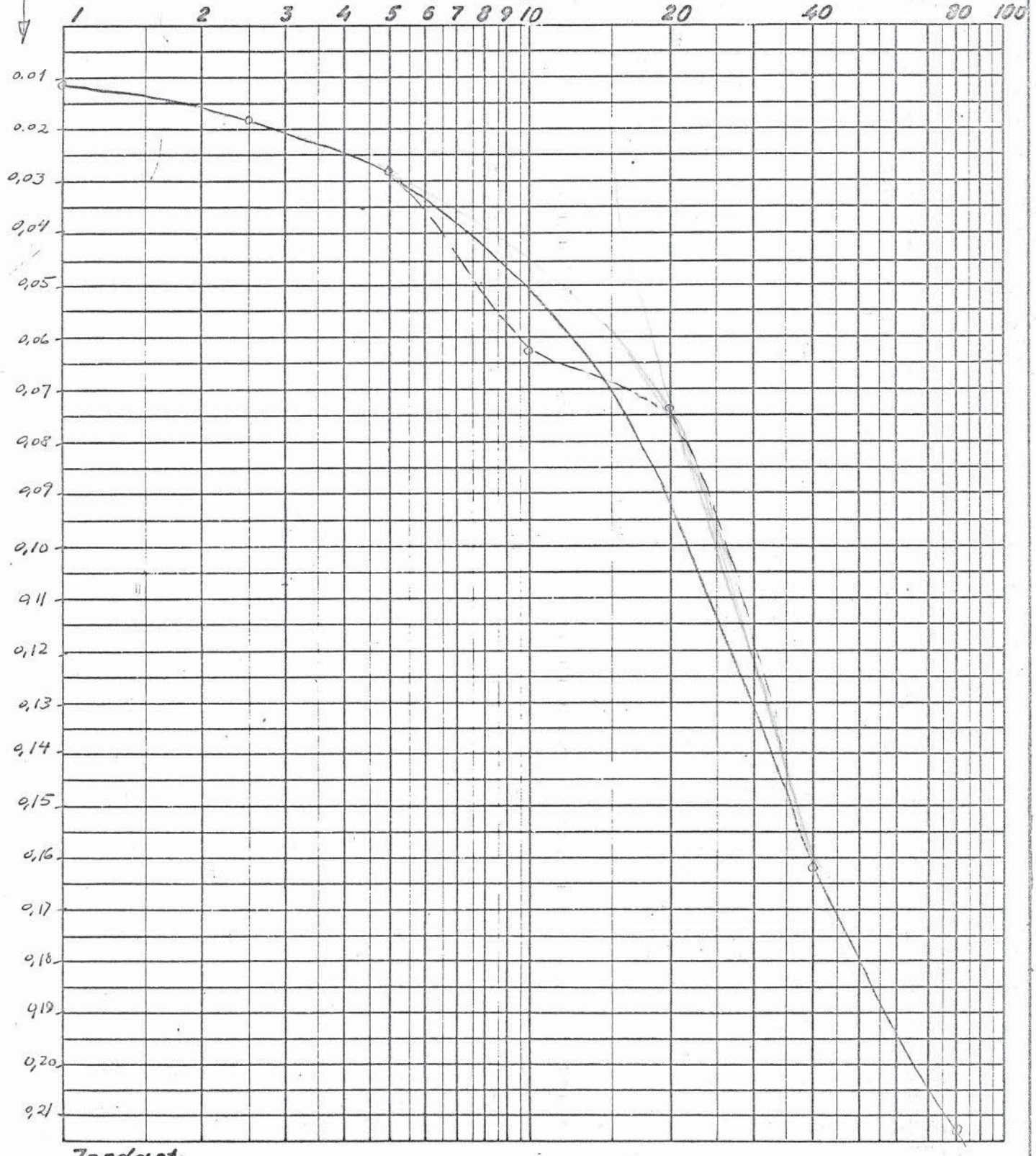
Bilag.

Ödometerforsök.

no. 377

Sted
Terr.kote
Dybde
Lab.no.

Normalpåkjenning i t/m²



Jordart:

Norges Statsbaner
Geoteknisk kontor.

Oslo den / 195

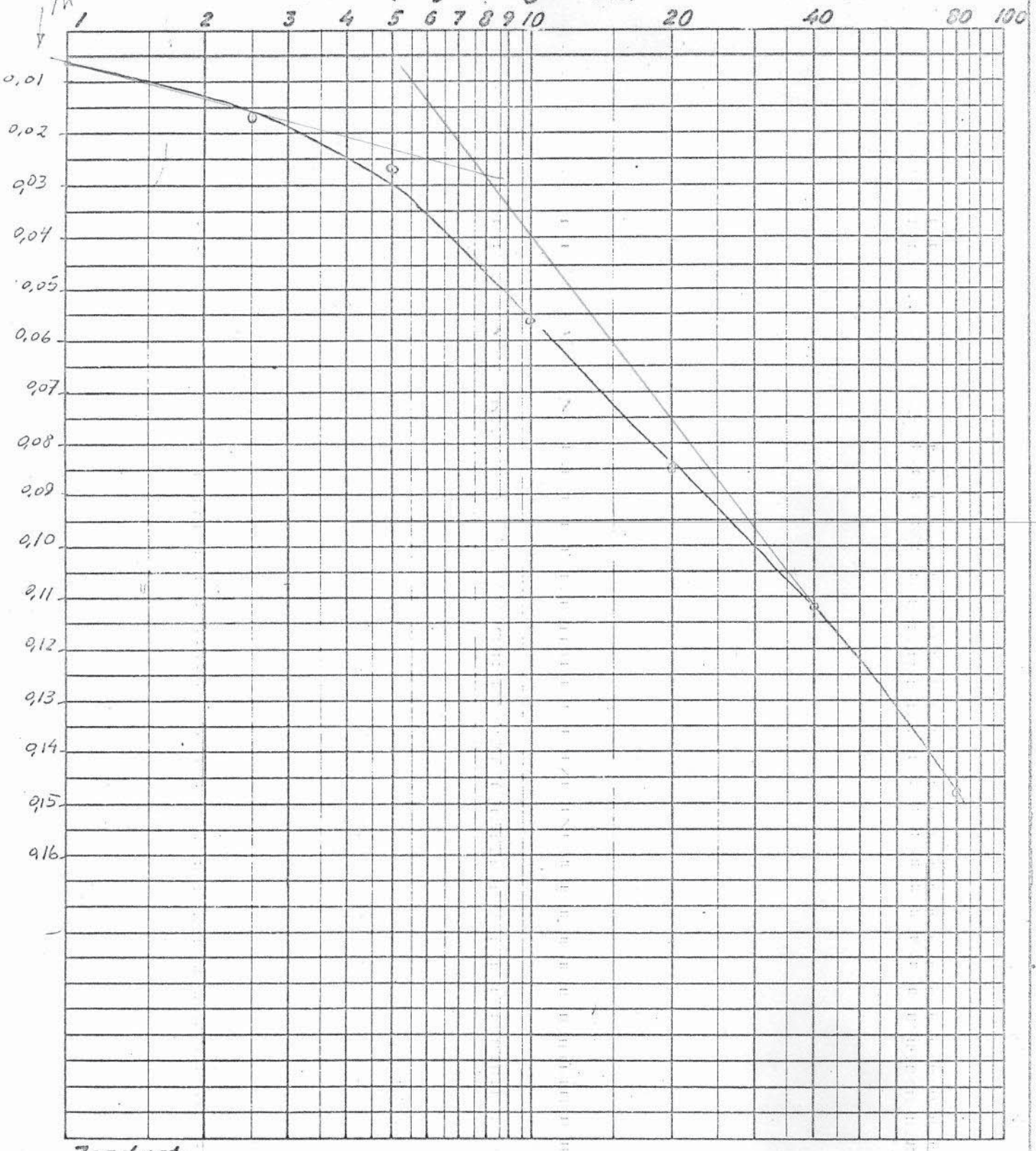
Gk.

Bilag.

Ödometerforsök,
no. 378

Sted Østbanen
Terr.kote
Dybde 9,90
Lab.no.

Normalpåkjenning i t/m²



Jordart:

Norges Statsbaner
Geoteknisk kontor.

Oslo, den / 195

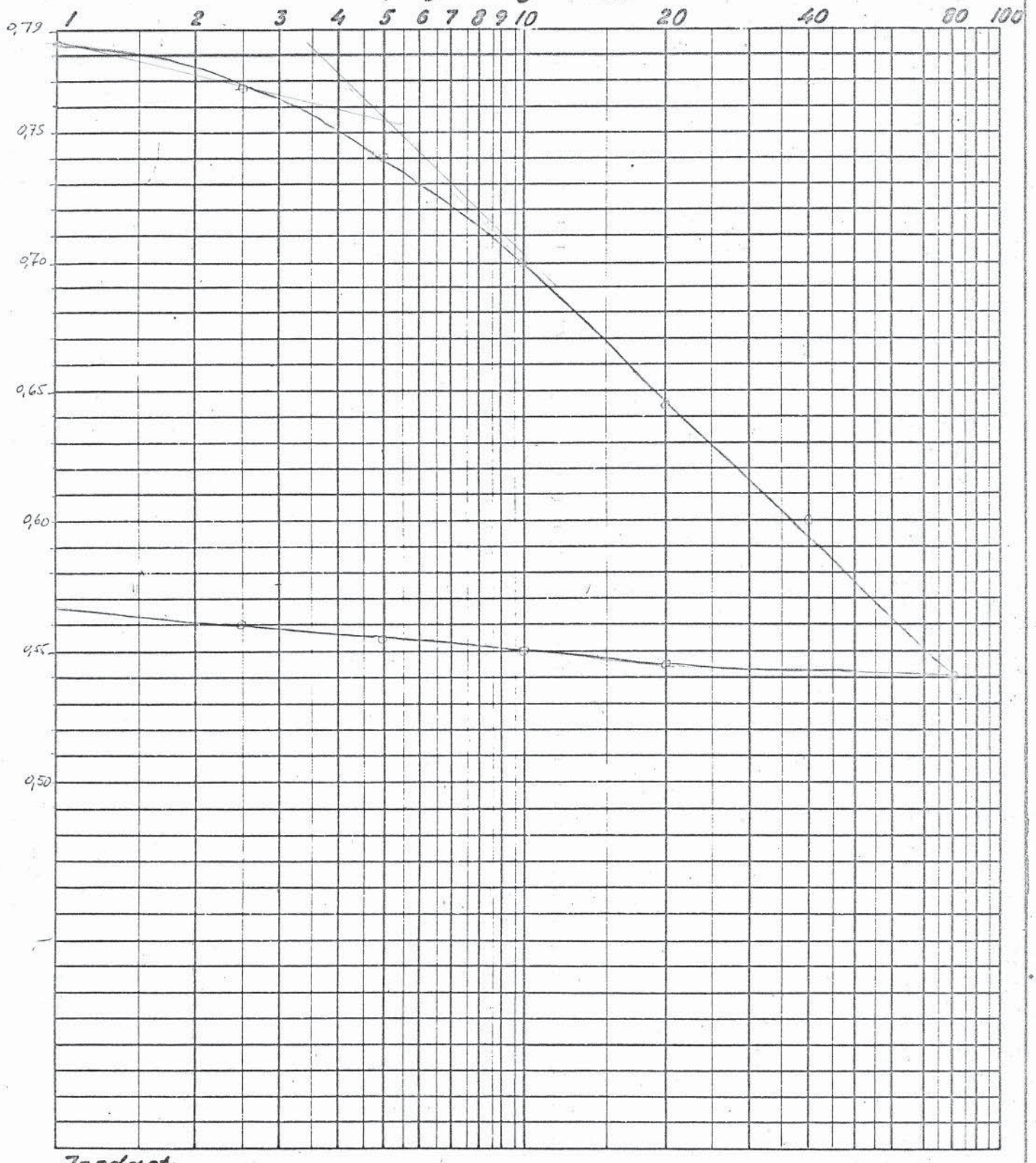
GK.

Bilag.

Ödometerforsök,
no. 378

Sted Østbanen
Terr.kote
Dybde 19,90
Lab.no.

Normalpåkjenning i t/m²



Jordart:

Norges Statsbaner
Geoteknisk kontor.

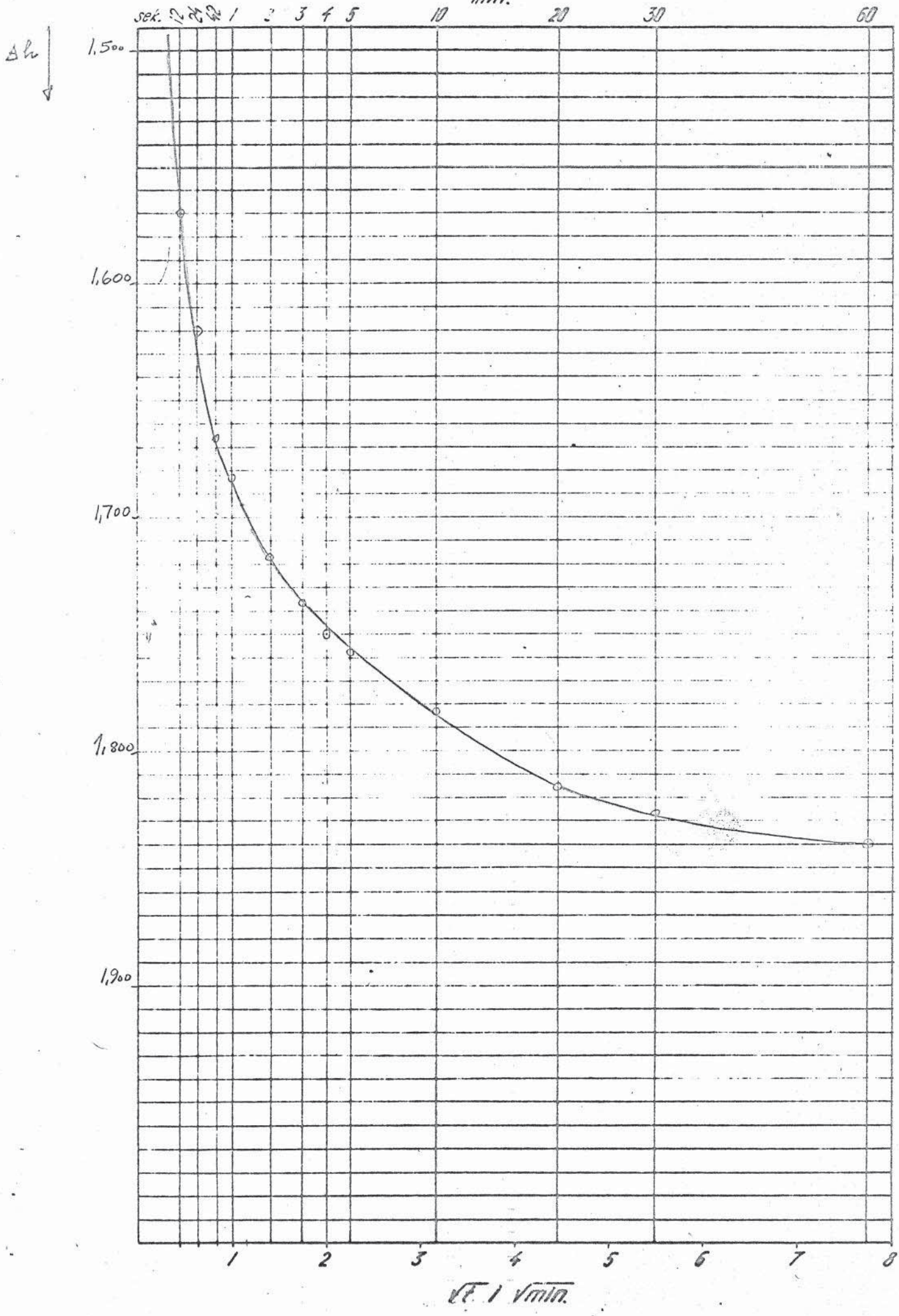
Oslo den / 195

Gk.

NR. 378

Kvadratmetoden.

40 t/m²

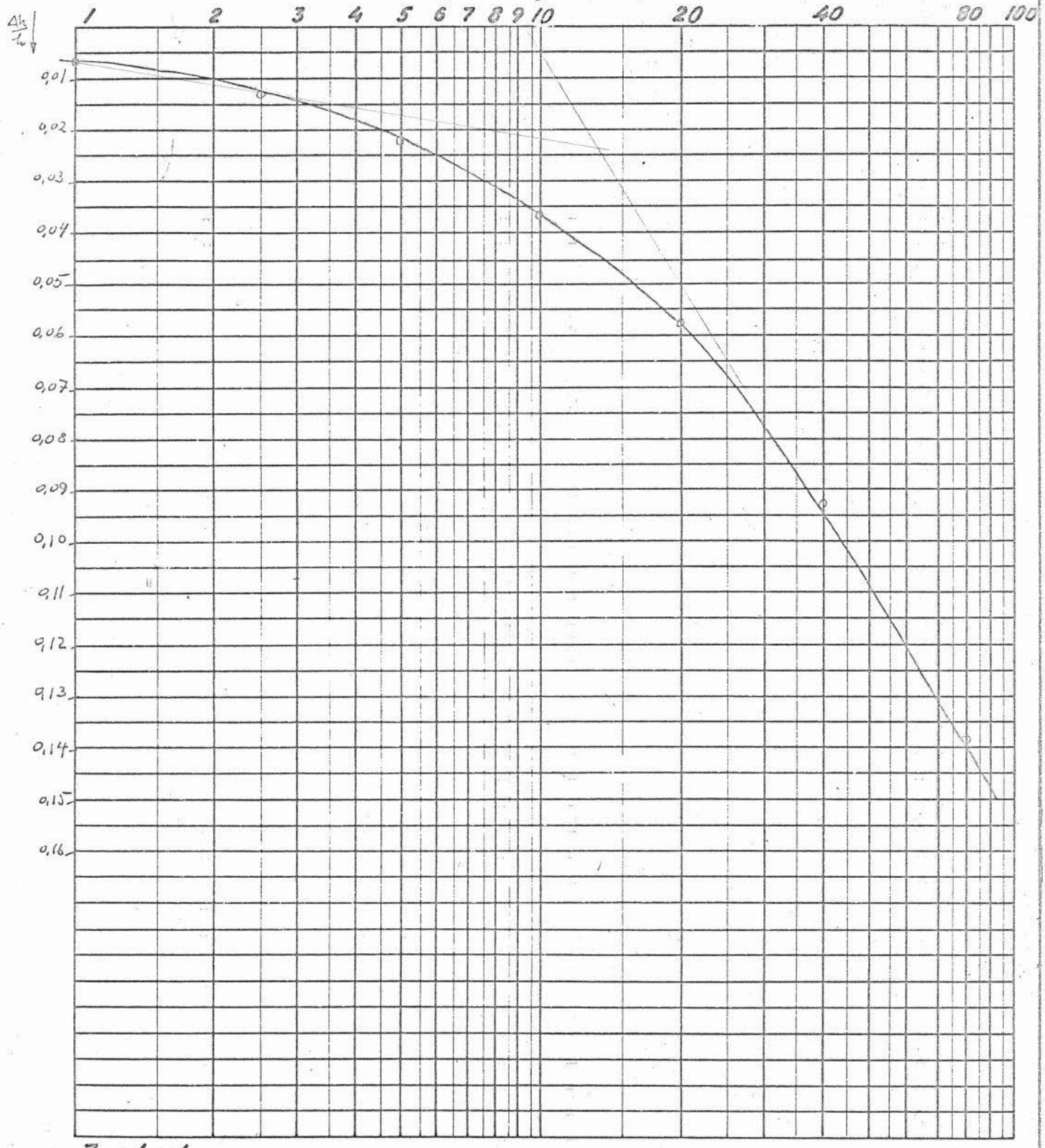


Bilag.

Ödometerforsök, no. 379

Sted Østbanen
Terr.kote
Dybde 28,90.
Lab.no.

Normalpåkjenning i t/m²



Jordart:

Norges Statsbaner
Geoteknisk kontor.

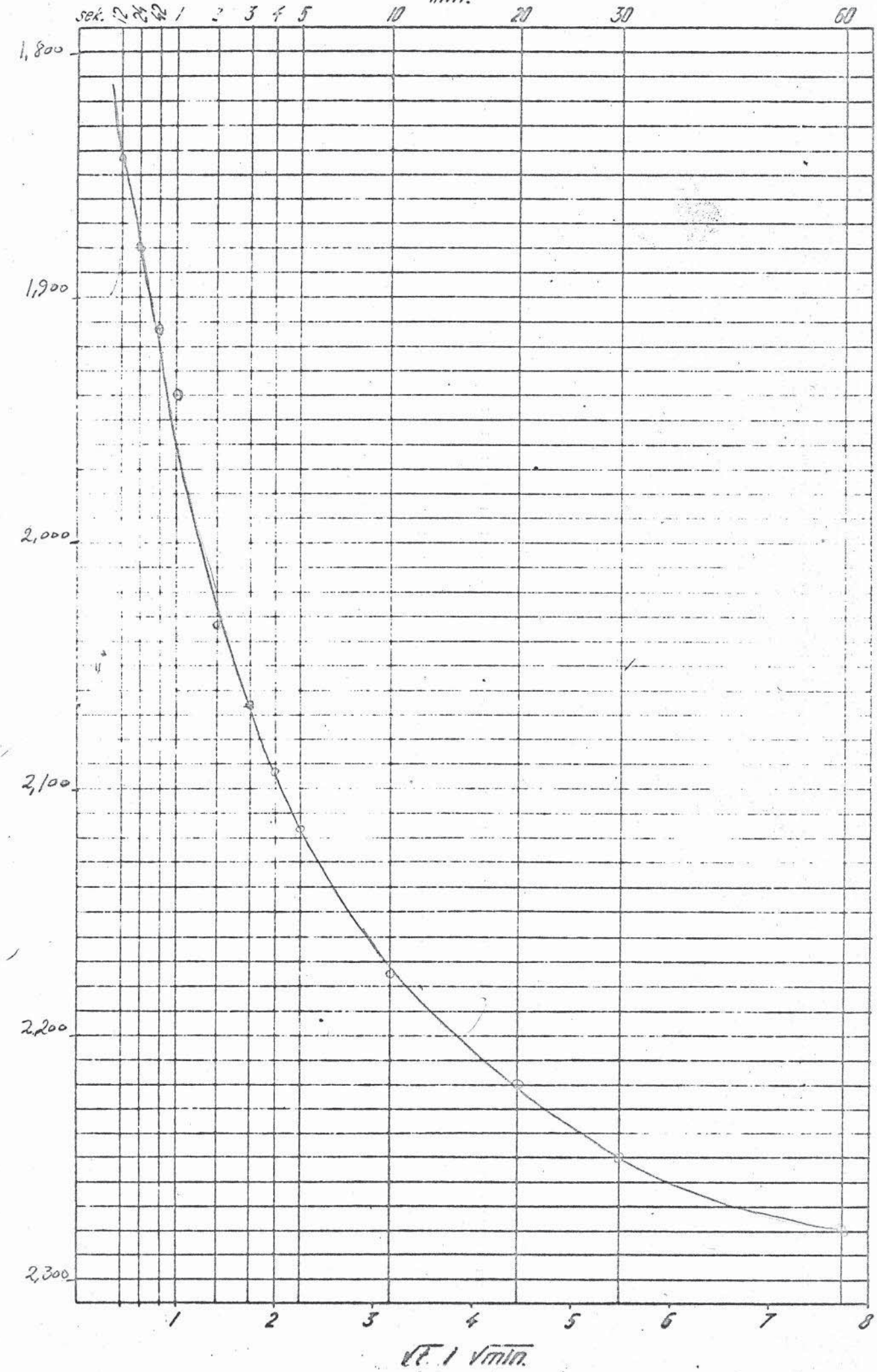
Oslo, den / 195

Gk.

NR. 379

Kvadratmetoden.

80 kg/m²



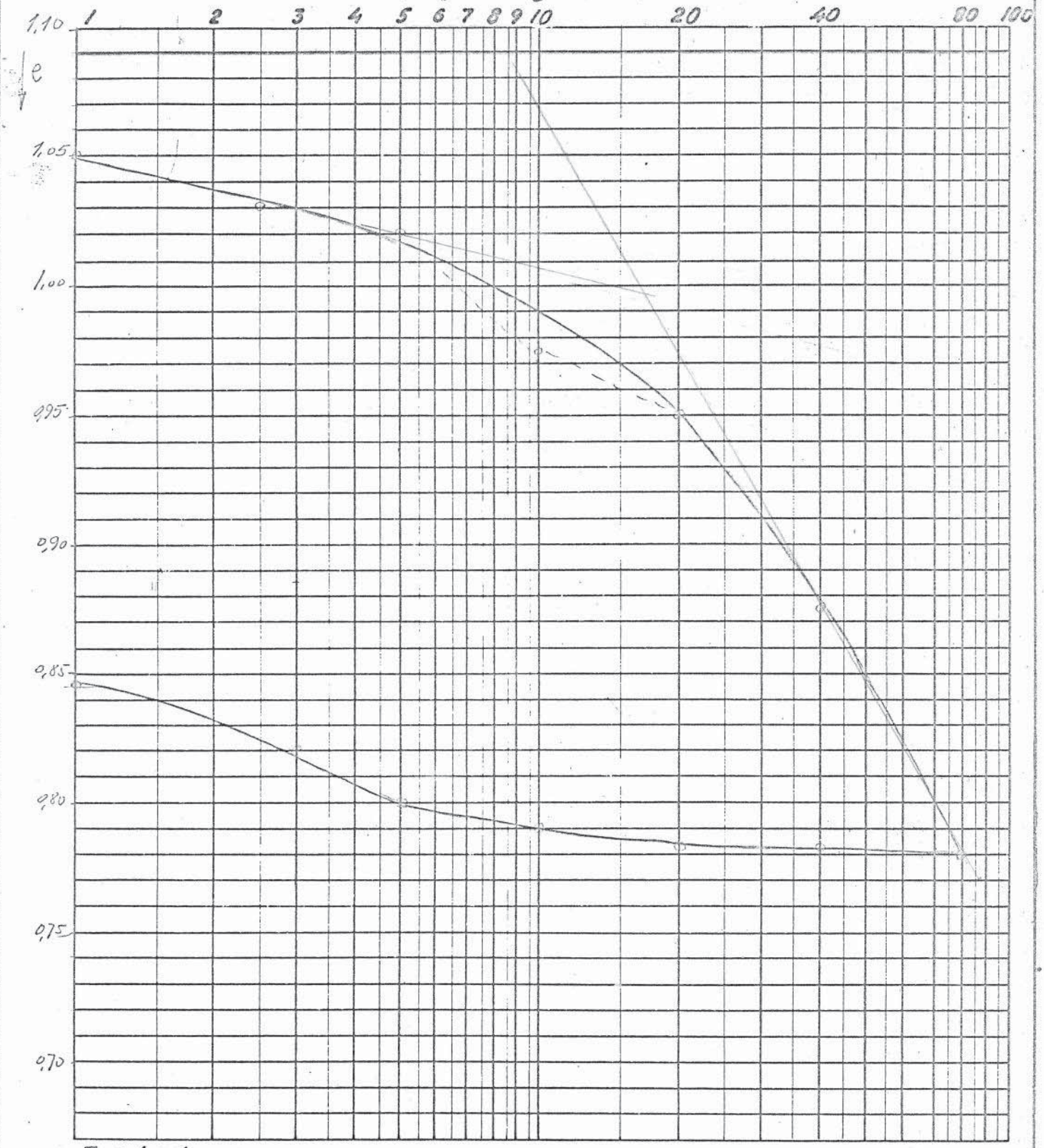
Bilag.

Ödometerforsök,

no. 379

Sted Østbanen
Terr.kote
Dybde 28,90
Lab.no.

Normalpåkjenning i t/m²



Jordart:

Norges Statsbaner
Geoteknisk kontor.

Oslo, den / 195

Gk.

Beregninger i tilknytning til Ødometerprøver.

Sted: ØSTBANEN.

Sammentrykningstall:	$m_v = \frac{\Delta\delta}{h\,\Delta p}$
Konsolideringskoeff	$c_v = 0.0492\ h^2/t_{50}$
Permeabilitet	$K_{10} = c_v \cdot m_v \cdot \gamma_w$

Forsøk nr. 380

$\Delta p = 5\ t/m^2$, $\Delta\delta = 1{,}279 - 0{,}590 = 0{,}689$ mm/m

$m_v = \frac{0{,}689}{19{,}06 \cdot 5} = \underline{7{,}22 \cdot 10^{-3}\ m^2/t}$

$t_{50} = 0{,}81$ min.

$c_v = 0.0492 \cdot \frac{19{,}06^2 \cdot 10^{-6}}{0{,}81 \cdot 60} = \underline{3{,}68 \cdot 10^{-7}\ m^2/sek}$

$K_{10} = 3.68 \cdot 10^{-7} \cdot 7{,}22\ 10^{-3} = \underline{2{,}66 \cdot 10^{-9}\ m/sek}$

Forsøk nr. 381

$\Delta p = 5\ t/m^2$, $\Delta\delta = 1{,}467 - 0{,}991 = 0{,}476$ mm/m

$t_{50} = 10$ min

$m_v = \frac{0{,}476}{18{,}81 \cdot 5} = \underline{5{,}04 \cdot 10^{-3}\ m^2/t}$

$c_v = 0{,}0492 \cdot \frac{18{,}81^2 \cdot 10^{-6}}{10 \cdot 60} = \underline{0{,}29 \cdot 10^{-7}\ m^2/sek}$

$K_{10} = 5{,}04 \cdot 10^{-3} \cdot 0{,}29 \cdot 10^{-7} = \underline{1{,}46 \cdot 10^{-10}\ m/sek}$

Forsøk nr. 382.

$\Delta p = 20\ t/m^2$, $\Delta \delta = 1{,}760 - 1{,}241 = 0{,}519$ m/m

$$m_v = \frac{0{,}519}{19{,}28 \cdot 20} = 1{,}34 \cdot 10^{-3}\ m^2/t$$

$t_{50} = 2{,}66$ min.

$$c_v = 0{,}0492\ \frac{19{,}3^2 \cdot 10^{-6}}{2{,}66 \cdot 60} = 1{,}14 \cdot 10^{-7}\ m^2/sek$$

$$k_{10} = 1{,}34 \cdot 10^{-3} \cdot 1{,}14 \cdot 10^{-7} = 1{,}53 \cdot 10^{-10}\ m/sek$$

Forsøk nr. 383.

$\Delta p = 20\ t/m^2$, $\Delta \delta = 1{,}737 - 1{,}231 = 0{,}506$ m/m

$$m_v = \frac{0{,}506}{19{,}2 \cdot 20} = 1{,}32 \cdot 10^{-3}\ m^2/t$$

$t_{50} = 2{,}1$ min.

$$c_v = \frac{0{,}0492 \cdot 19{,}2^2 \cdot 10^{-6}}{2{,}1 \cdot 60} = 1{,}44 \cdot 10^{-7}\ m^2/sek$$

$$k_{10} = 1{,}32 \cdot 10^{-3} \cdot 1{,}44 \cdot 10^{-7} = 1{,}90 \cdot 10^{-10}\ m/sek$$

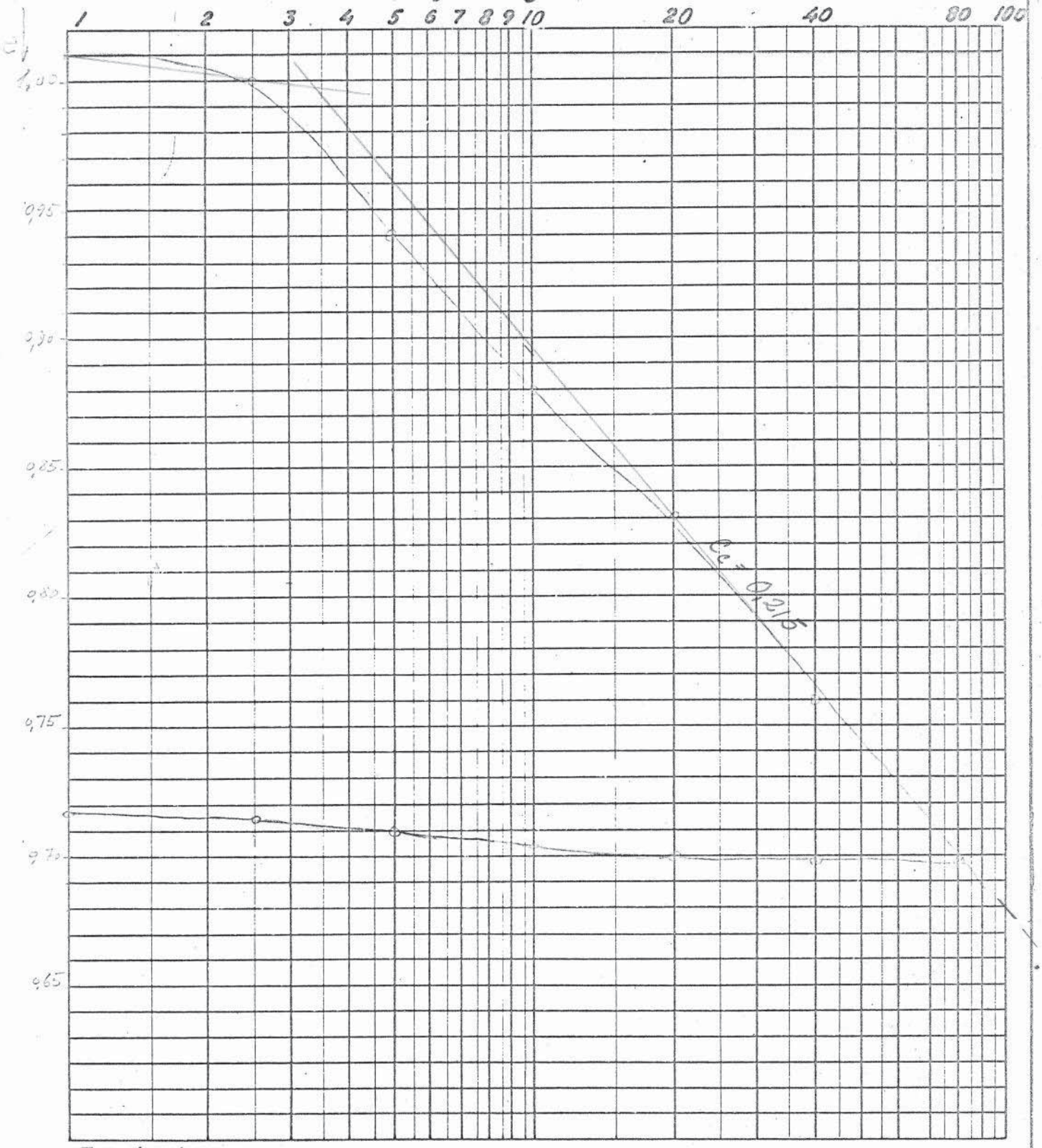
Bilag.

Ödometerforsök,
no. 380

Sted ØSTBANEN; [illegible]2
Terr.kote
Dybde [illegible]4,90
Lab.no.

P →

Normalpåkjenning i t/m²



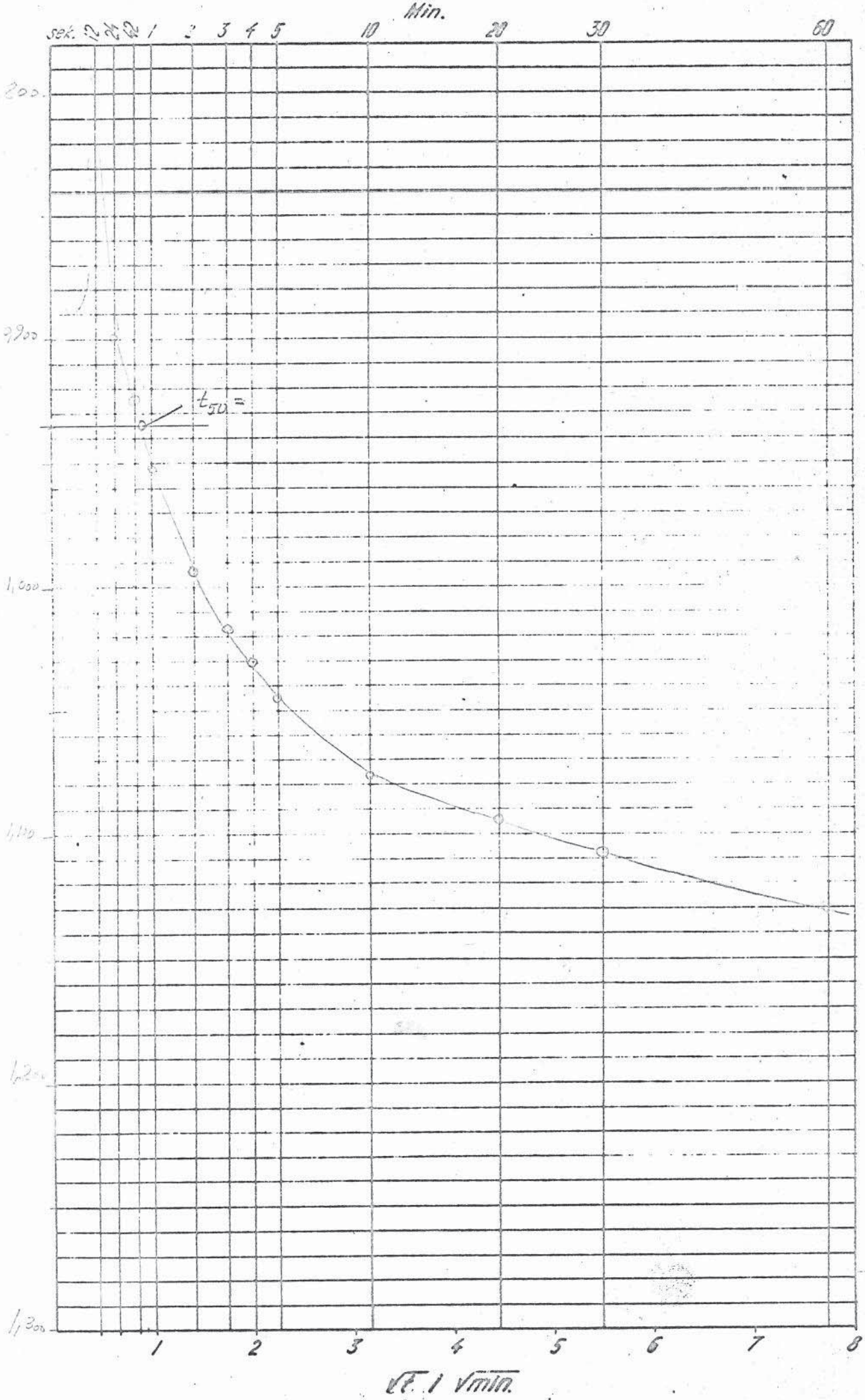
Jordart:

Norges Statsbaner Geoteknisk kontor.	
Oslo, den / 195	Gk.

Kvadratmetoden.

Belastning 10 kg/cm²

Ø 380

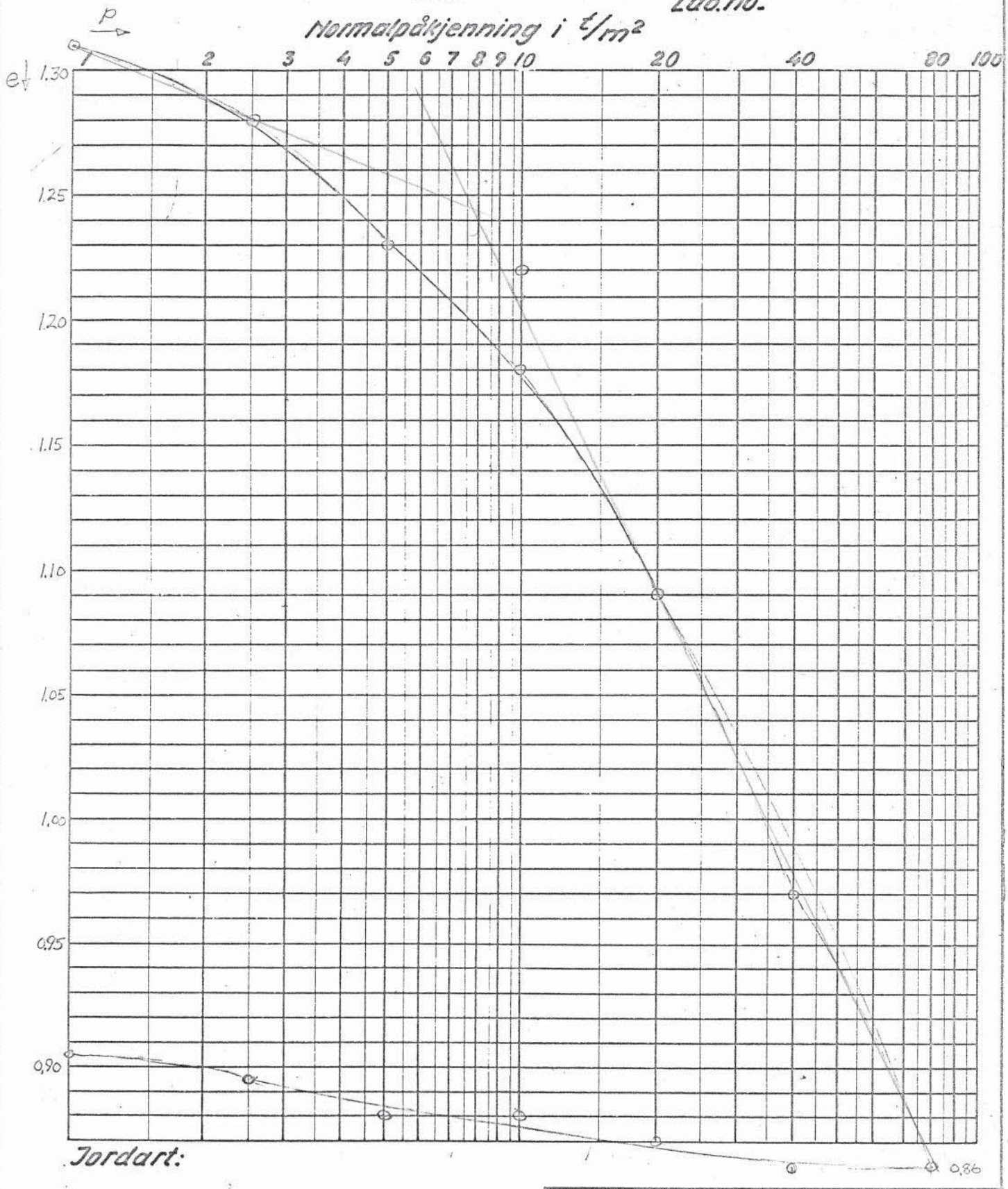


Bilag.

Ödometerforsök.

no. 381

Sted ØSTBANEN, HULL 2
Terr.kote
Dybde 7.90 m
Lab.no.



Jordart:

Norges Statsbaner
Geoteknisk kontor.

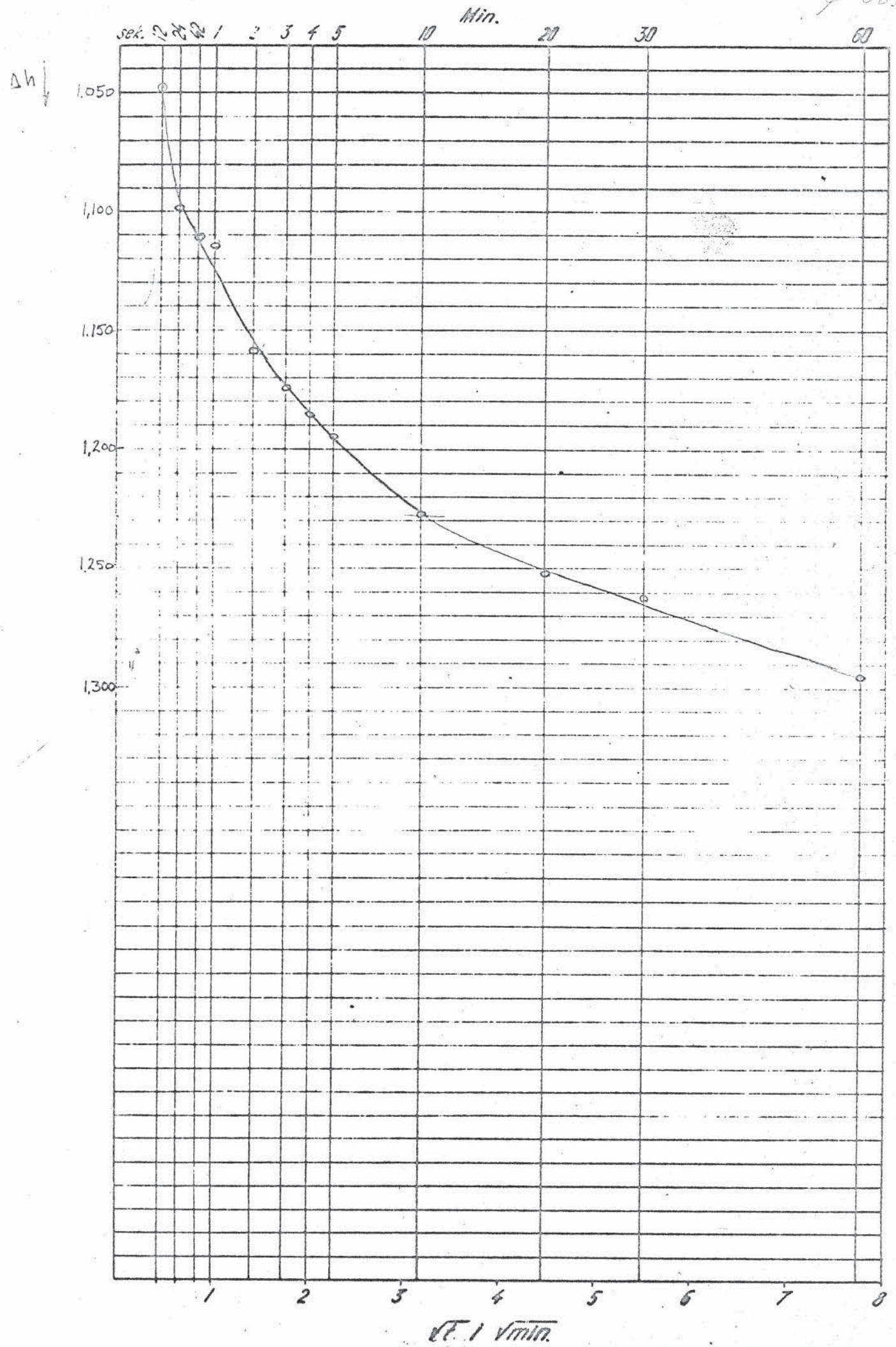
Oslo. den / 195

Gk.

Kvadratmetoden.

$\Delta p = 5$ kg/m²

Ø 381



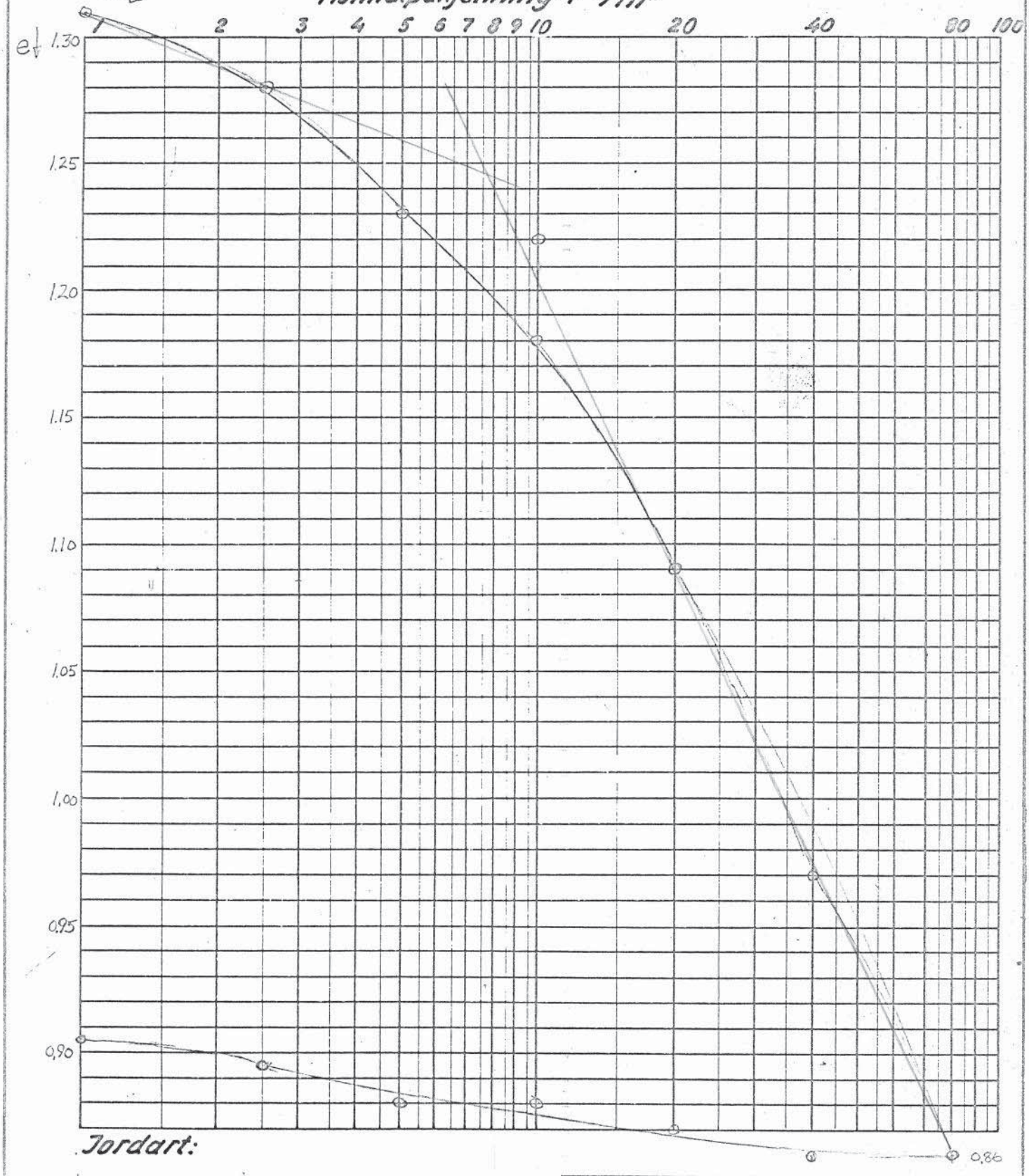
Bilag.

Ödometerforsök.

no. 381

Sted ØSTBANEN, HULL 2
Terr.kote
Dybde 7.90 m
Lab.no.

Normalpåkjenning i t/m²



Jordart:

Norges Statsbaner
Geoteknisk kontor.

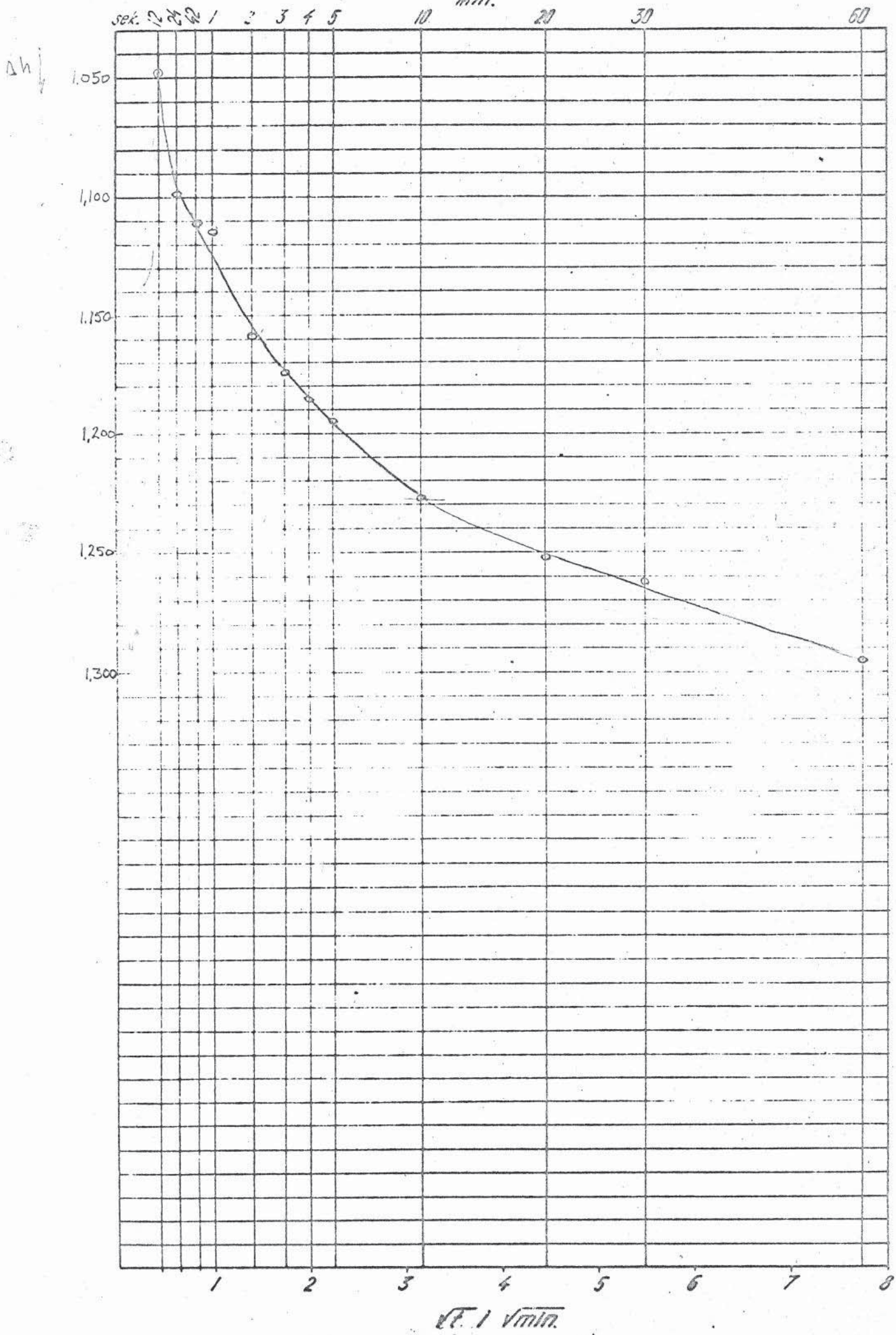
Oslo, den / 195

Gk.

Kvadratmetoden.

$\Delta p = 5$ kg/m²

Ø 301.

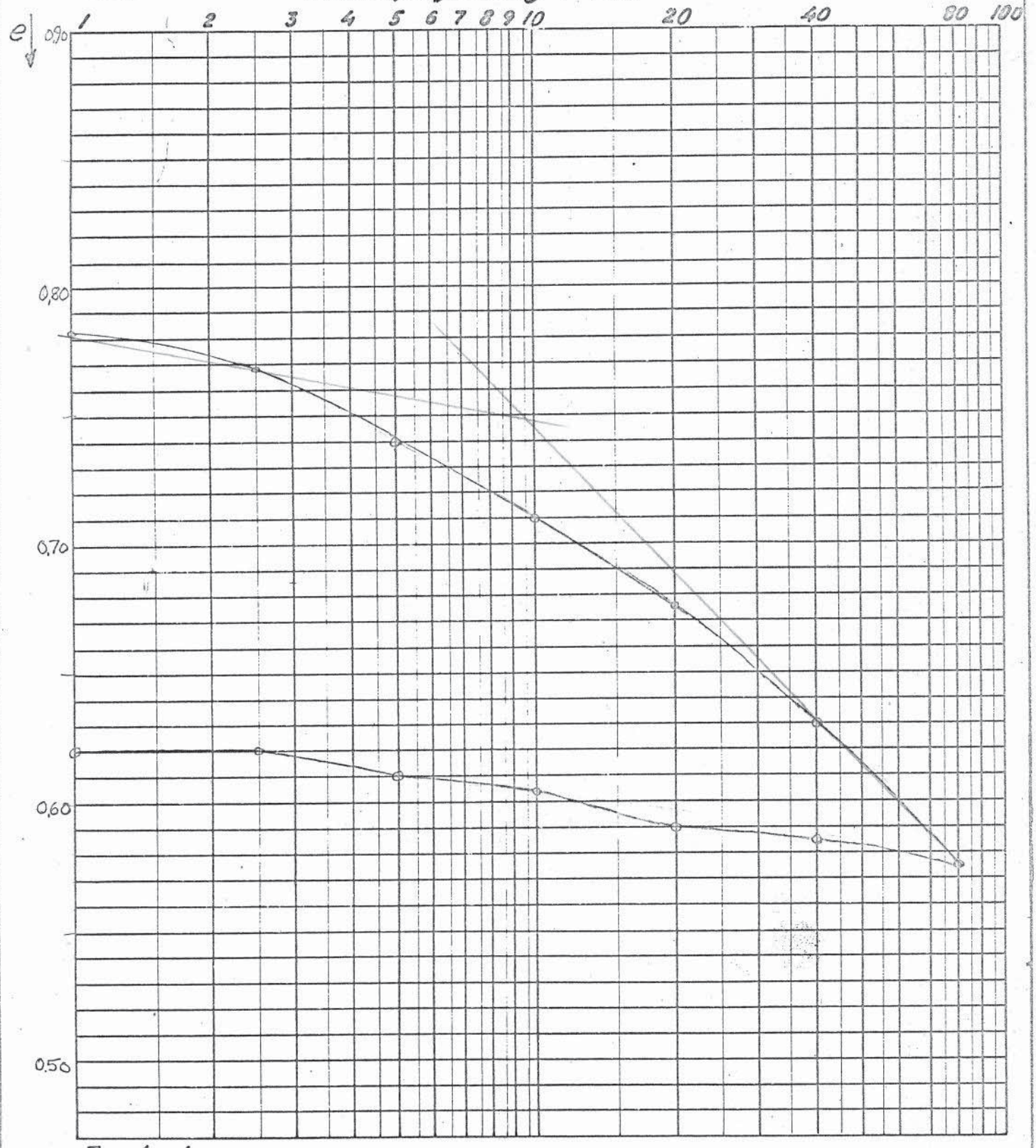


Bilag.

Ödometerforsök, no. 382

Sted ØSTBANEN, HULL 2
Terr.kote
Dybde 9.90
Lab.no.

P → Normalpåkjenning i t/m²



Jordart:

Norges Statsbaner
Geoteknisk kontor.

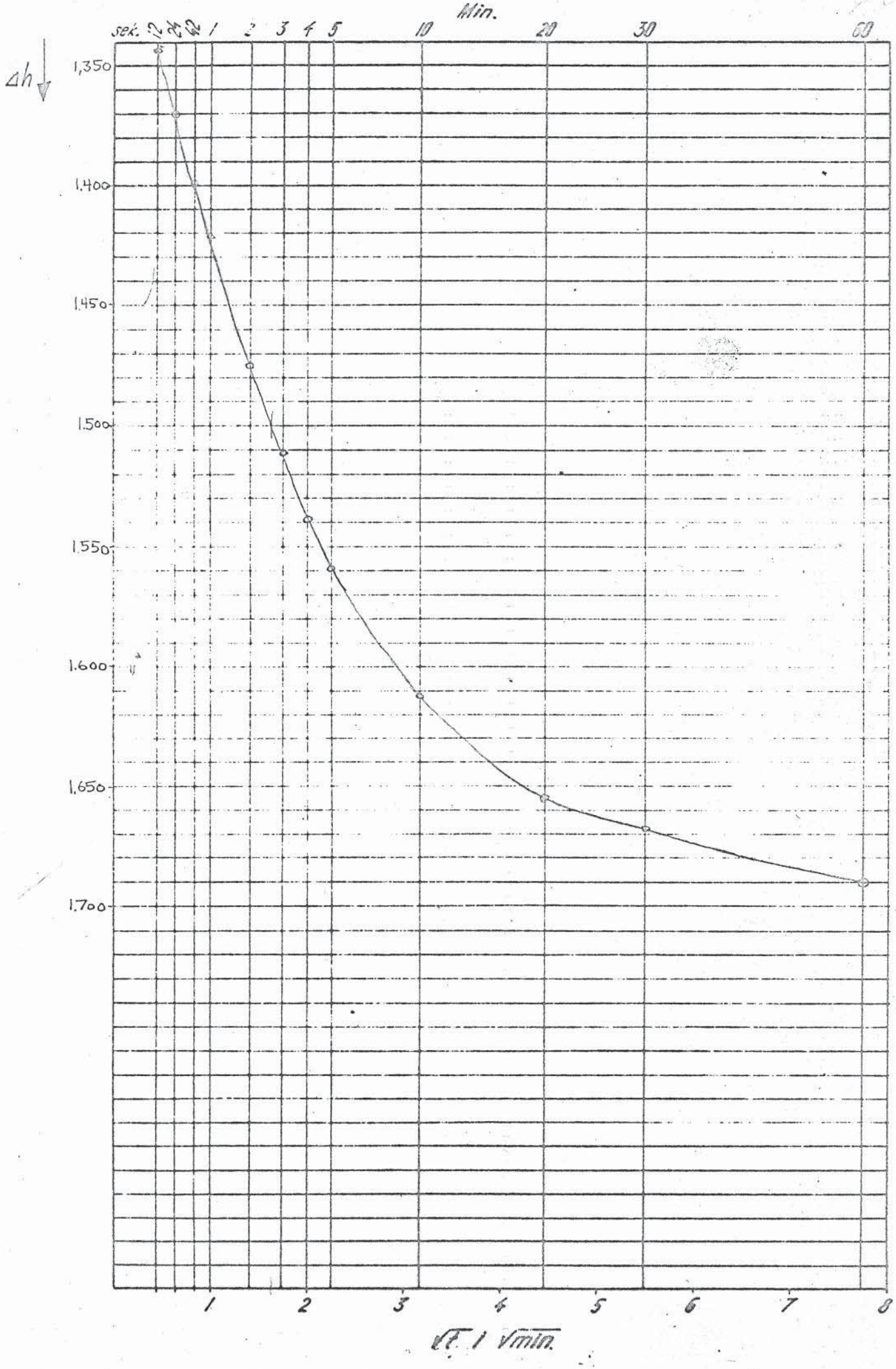
Oslo, den / 195

Gk.

Kvadratmetoden.

Belastning 40 t/m²

ø 382.

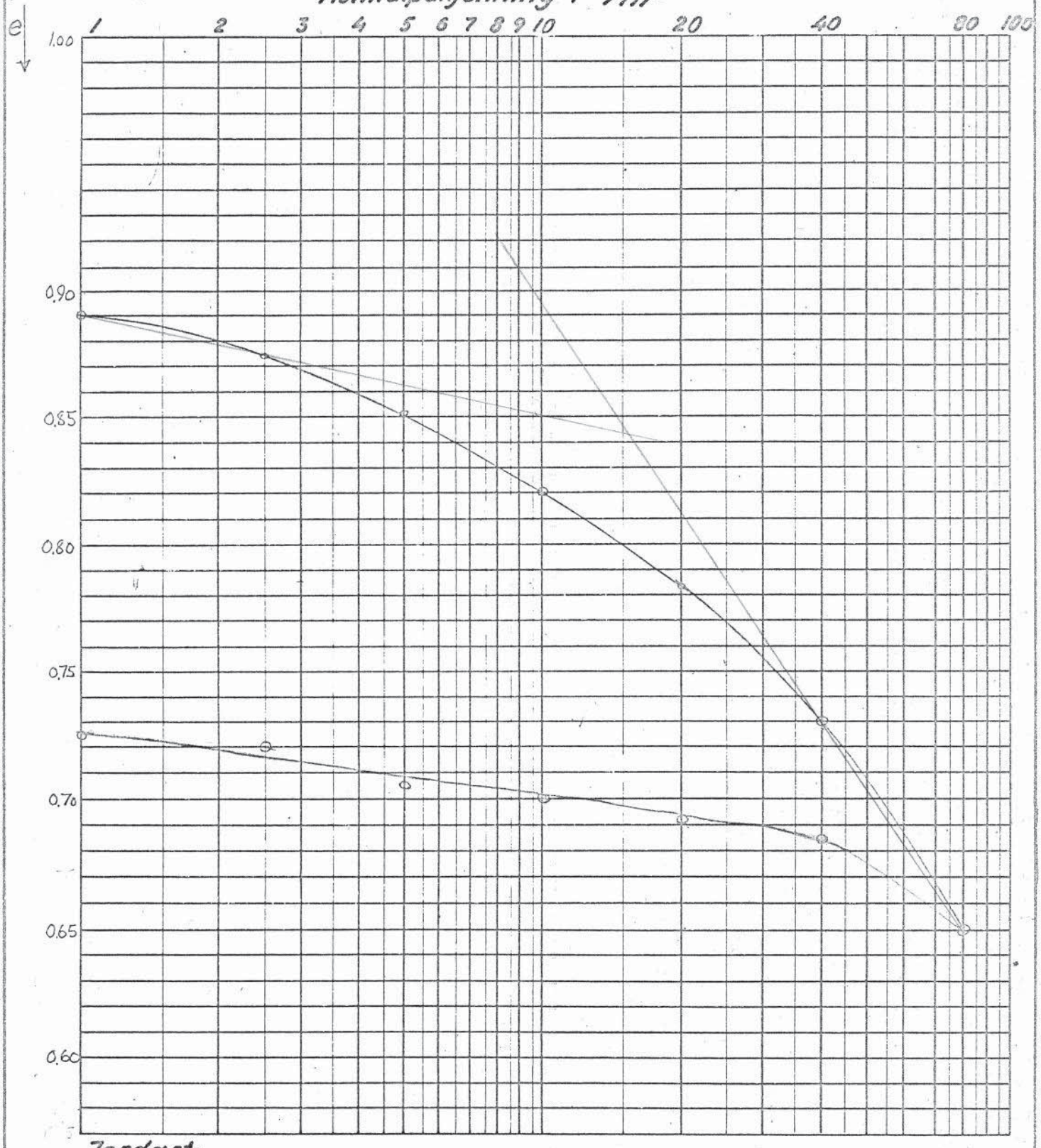


Bilag.

Ödometerforsök, no. 383

Sted ØSTBANEN, HULL 2.
Terr.kote
Dybde 19,90
Lab.no.

Normalpåkjenning i t/m²



Jordart:

Norges Statsbaner
Geoteknisk kontor.

Oslo, den / 195

Gk.

Kvadratmetoden.

$\Delta p = 20$ t/m²

ϕ 383