

Cirkels criterium	maximum t
c_u [kPa]	50.4

Voor beproeving

Fasenummer	1
Monsternaam	B003B203_CIU-1
m_i [g]	940.0
D_i [mm]	67.0
h_i [mm]	139.0
w_i [%]	25.1
$\rho_{i,bulk}$ [kg/m ³]	1918
$\rho_{i,dry}$ [kg/m ³]	1533
Grondsoort	klei

Procedure proctor verdichting, $w = 0.25$

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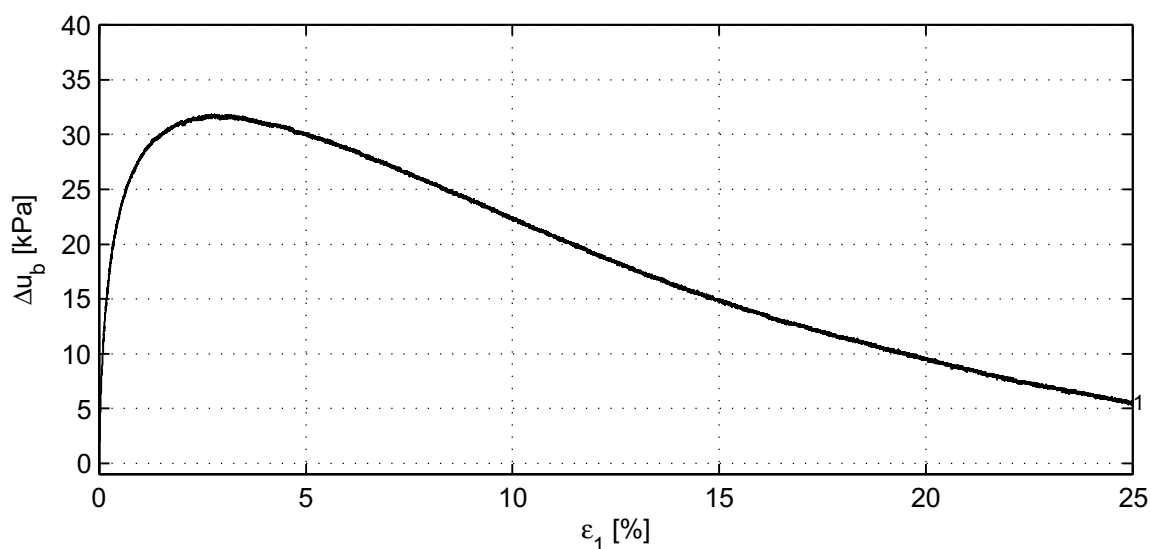
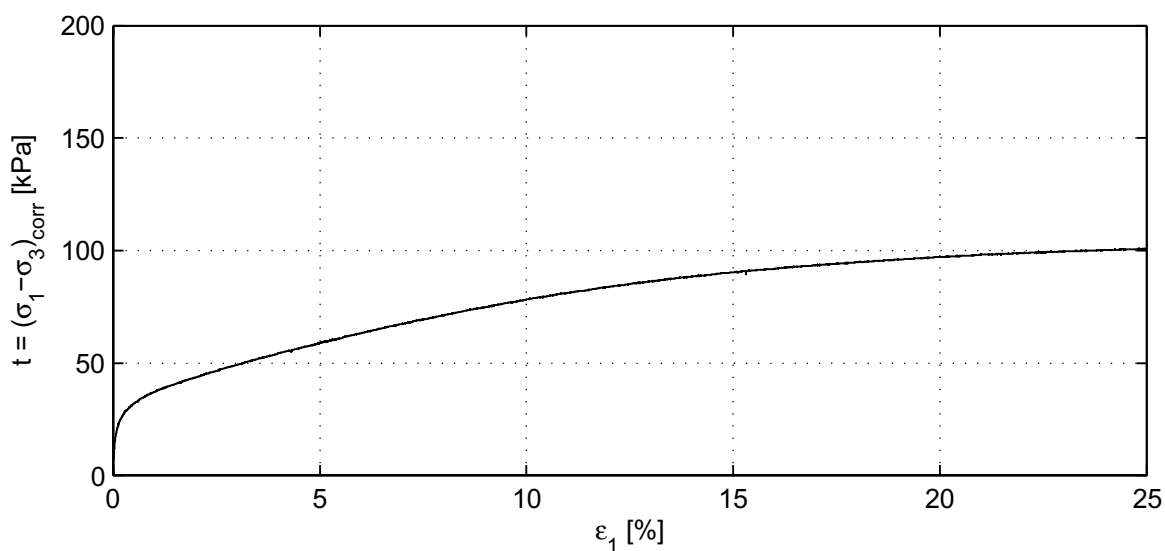
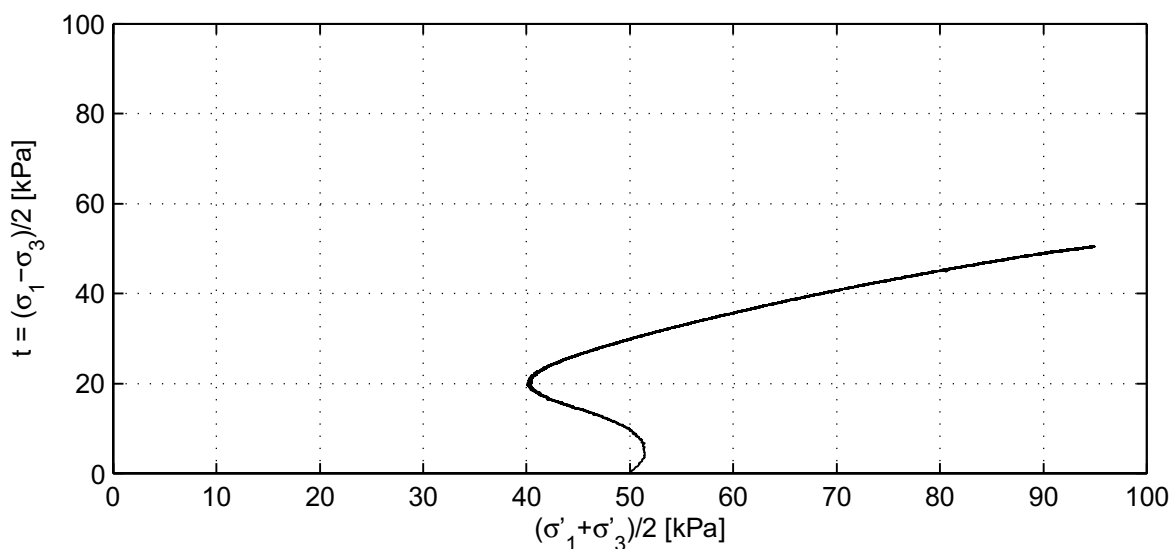
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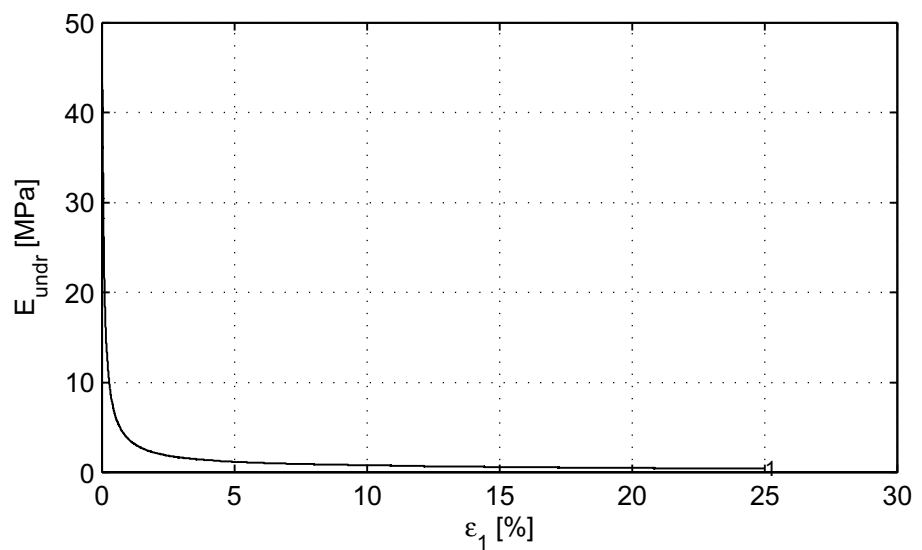
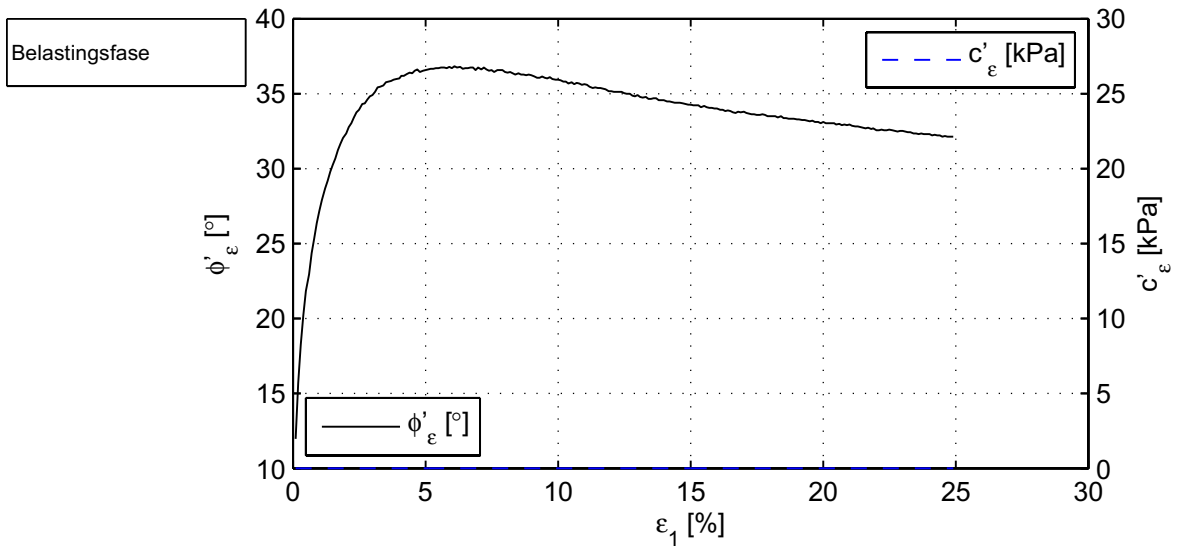
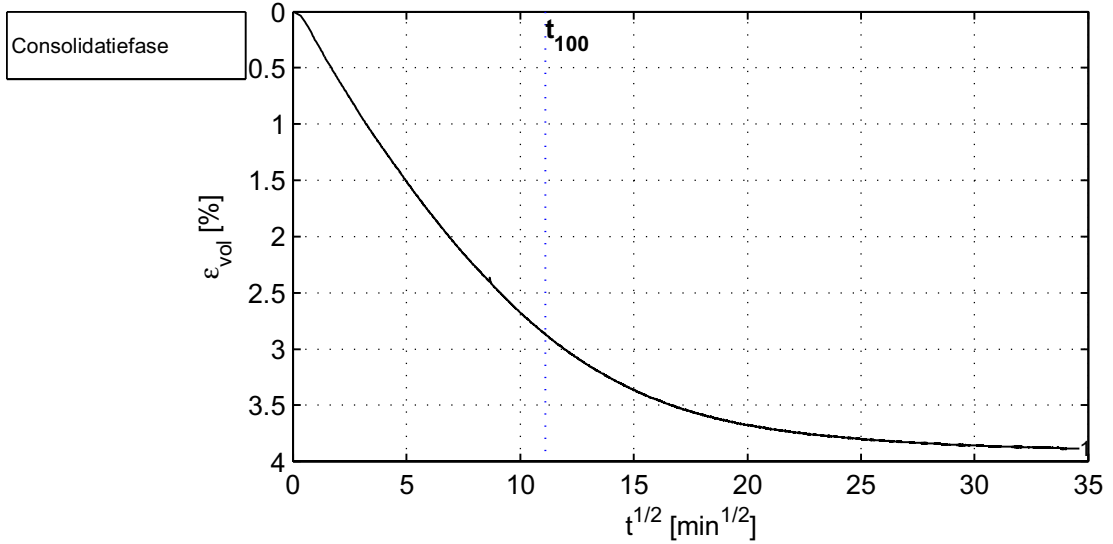
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	Belastingsfase	1	2	3
Verzadigingsfase	B_0 [-]	0.98		
	B_1 [-]	0.98		
Consolidatiefase	$\sigma'_{1,c}$ [kPa]	50.1		
	$\sigma'_{3,c}$ [kPa]	49.9		
	t_{100} [min]	123.2		
	h_c [mm]	136.6		
	V_c [cm ³]	471.0		
	$\rho_{n,c}$ [kg/m ³]	1968		
	w_c [%]	23.4		
	u_{bk} [kPa]	500		
	P [-]	2.30		
	Creep rate [%/h]	0.004		
Belastingsfase	v_{max} [%/h]	1.1		
	v [%/h]	0.7		
	Stopcriterium	ϵ_1 25%		
	Correction text	MP (Deltares)		
Na beproeving	$\sigma_{1,u} - \sigma_{3,u}$ [kPa]	100.8		
	f_{undr} [kPa]	50.4		
	$\epsilon_{1,50}$ [%]	3.25		
	E_{50} [MPa]	1.6		
	w_e [%]	22.7		
	Bezwijkfiguur			

Verticale rek [%]	$(\sigma'_1 + \sigma'_3)/2$ [kPa]	$(\sigma_1 - \sigma_3)/2$ [kPa]	c_u [kPa]
2.0	40.8	21.8	21.8
5.0	49.3	29.4	29.4
10.0	66.7	39.1	39.1
$\epsilon_{1,tmax}$ [%]	94.8	50.4	50.4

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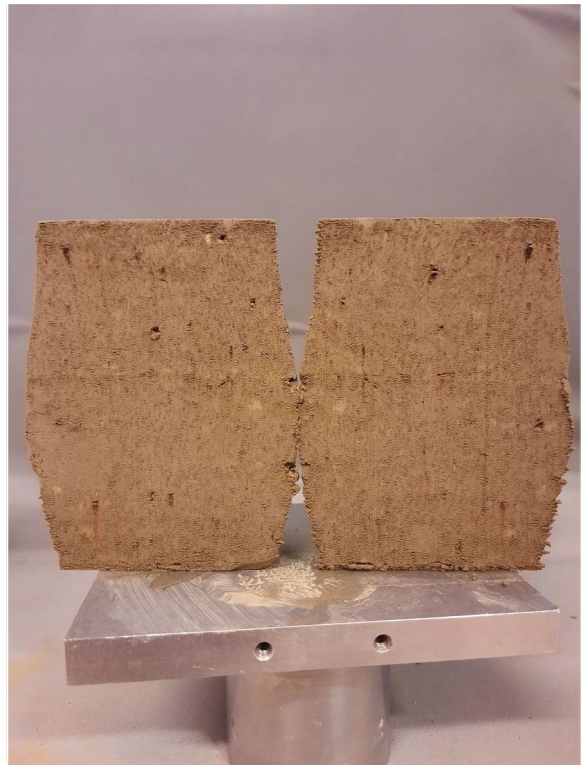
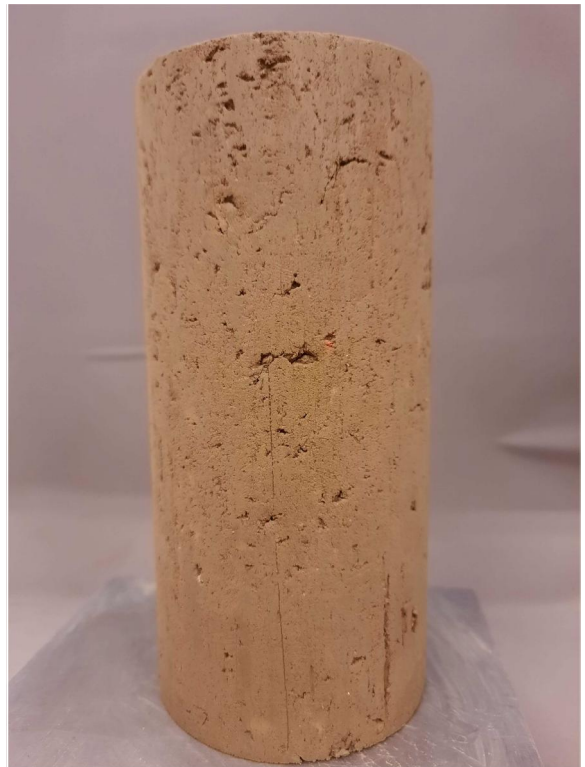
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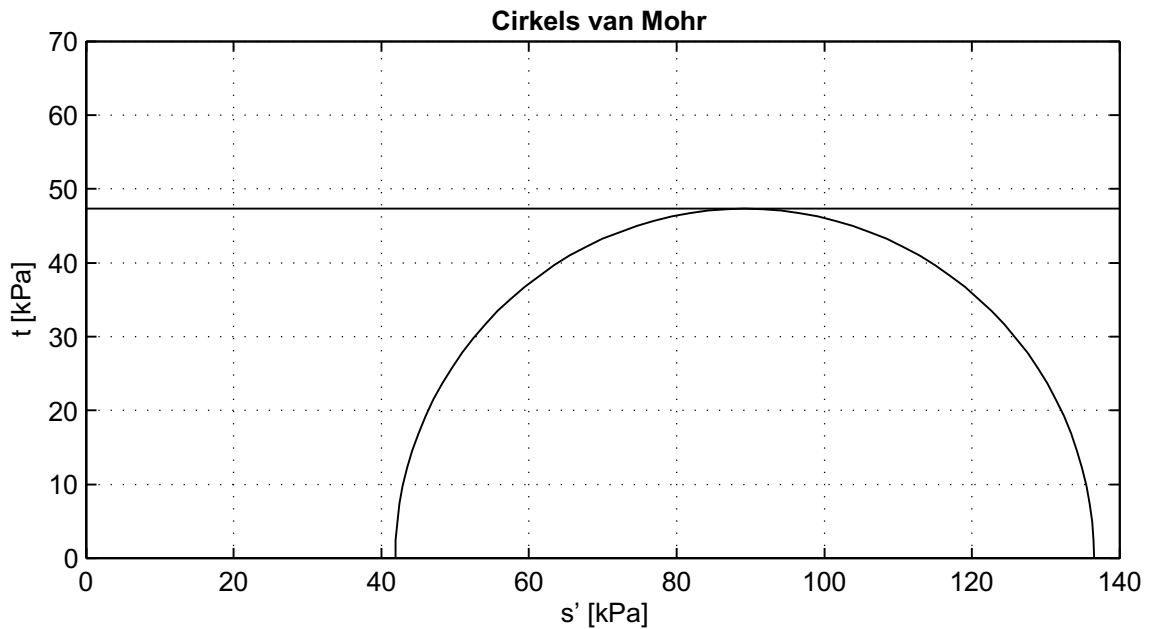
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Cirkels criterium	maximum t
c_u [kPa]	47.3

Voor beproeving

Fasenummer	1
Monsternaam	B003B203_CIU-2
m_i [g]	299.4
D_i [mm]	45.5
h_i [mm]	97.5
w_i [%]	16.7
$\rho_{i,bulk}$ [kg/m ³]	1887
$\rho_{i,dry}$ [kg/m ³]	1617
Grondsoort	klei

Procedure proctor verdichting, $w = 0.15$

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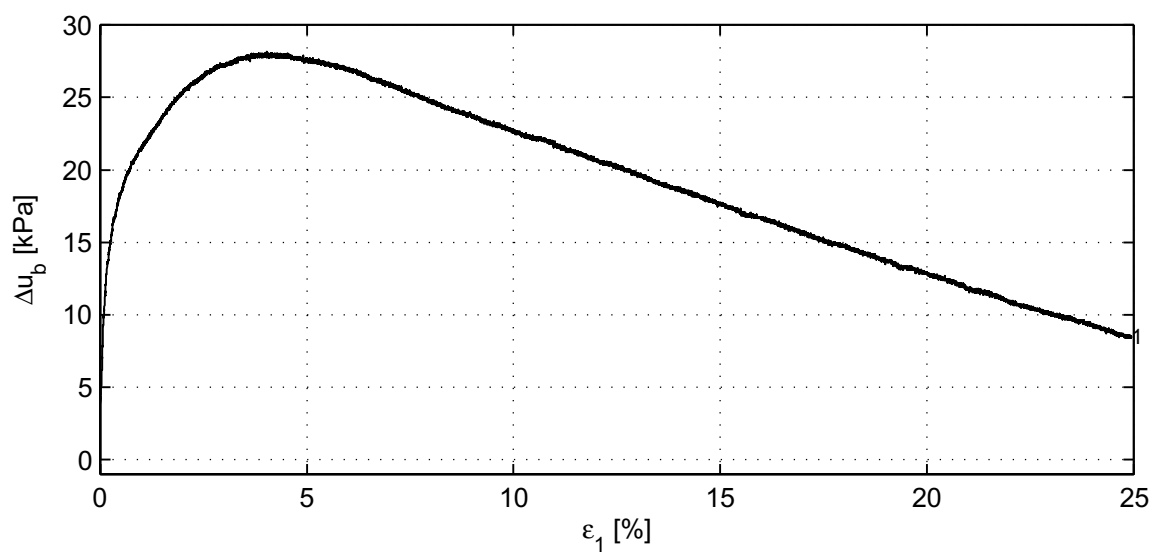
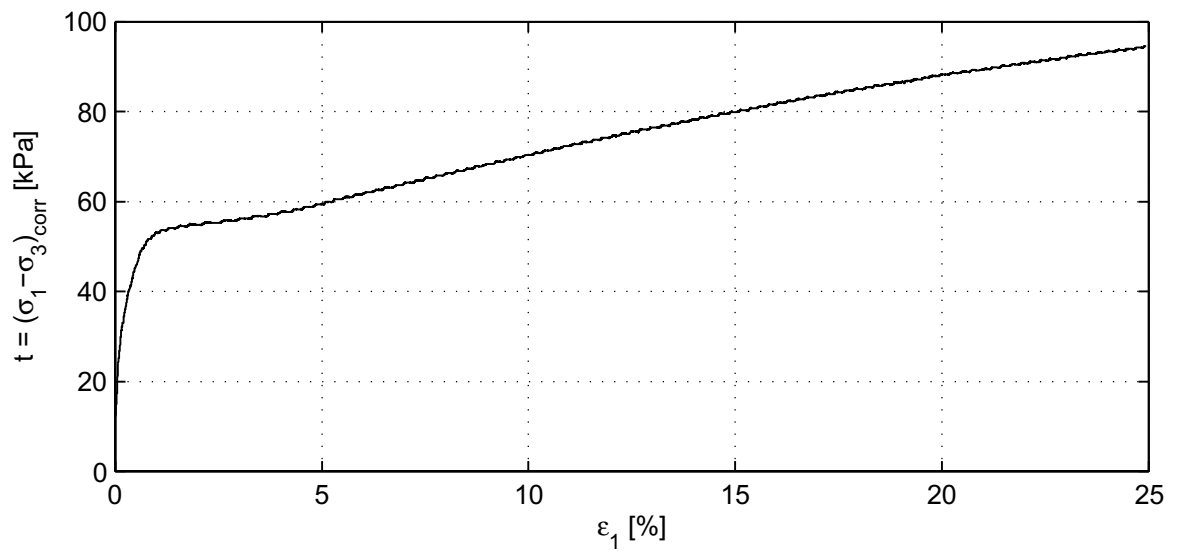
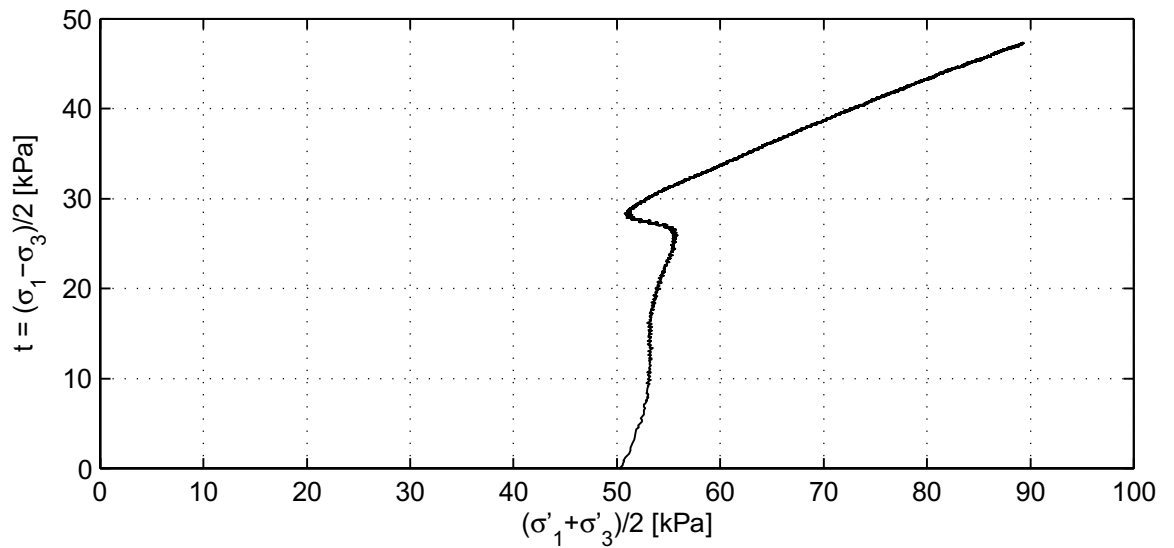
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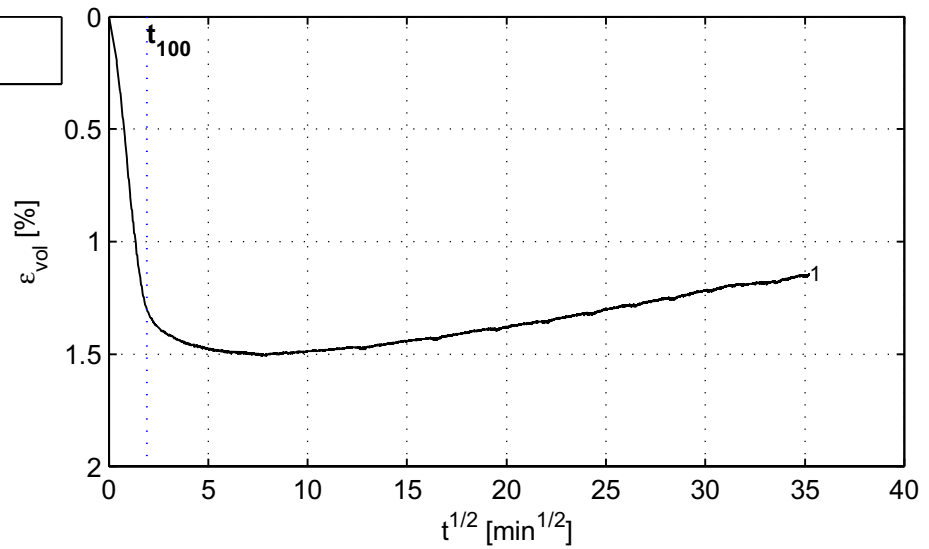
	Belastingsfase	1	2	3
Verzadigingsfase	B_0 [-]	0.98		
	B_1 [-]	0.98		
Consolidatiefase	$\sigma'_{1,c}$ [kPa]	50.5		
	$\sigma'_{3,c}$ [kPa]	50.4		
	t_{100} [min]	3.7		
	h_c [mm]	97.2		
	V_c [cm ³]	156.9		
	$\rho_{n,c}$ [kg/m ³]	2048		
	w_c [%]	25.2		
	u_{bk} [kPa]	1002		
	P [-]	2.30		
	Creep rate [%/h]	-0.017		
Belastingsfase	v_{max} [%/h]	35.4		
	v [%/h]	1.0		
	Stopcriterium	ϵ_1 25%		
	Correction text	MP (Deltares)		
	$\sigma_{1,u} - \sigma_{3,u}$ [kPa]	94.6		
Na beproeving	f_{undr} [kPa]	47.3		
	$\epsilon_{1,50}$ [%]	0.57		
	E_{50} [MPa]	8.3		
	w_e [%]	23.1		
	Bezwijkfiguur			

Verticale rek [%]	$(\sigma'_1 + \sigma'_3)/2$ [kPa]	$(\sigma_1 - \sigma_3)/2$ [kPa]	c_u [kPa]
2.0	52.7	27.4	27.4
5.0	52.5	29.7	29.7
10.0	62.9	35.2	35.2
$\epsilon_{1,max}$ [%]	89.2	47.3	47.3

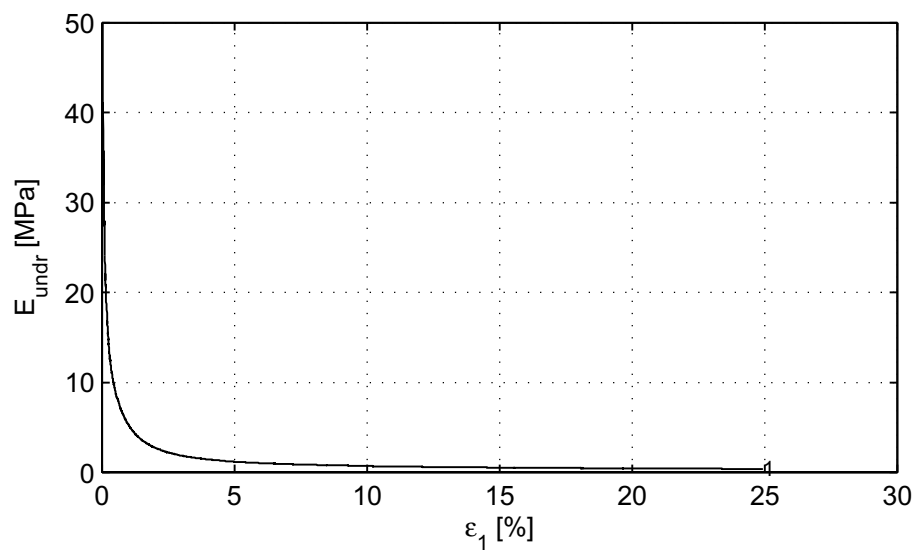
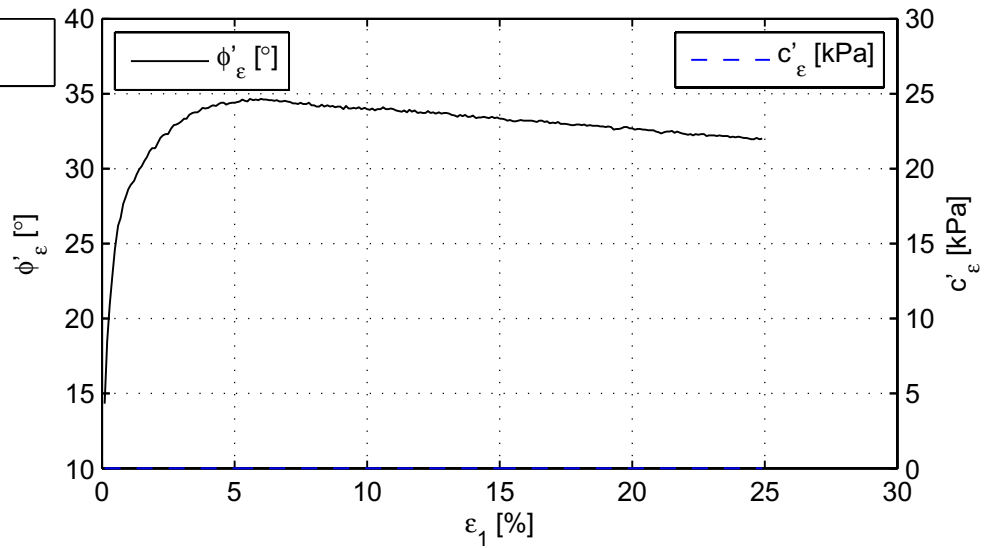
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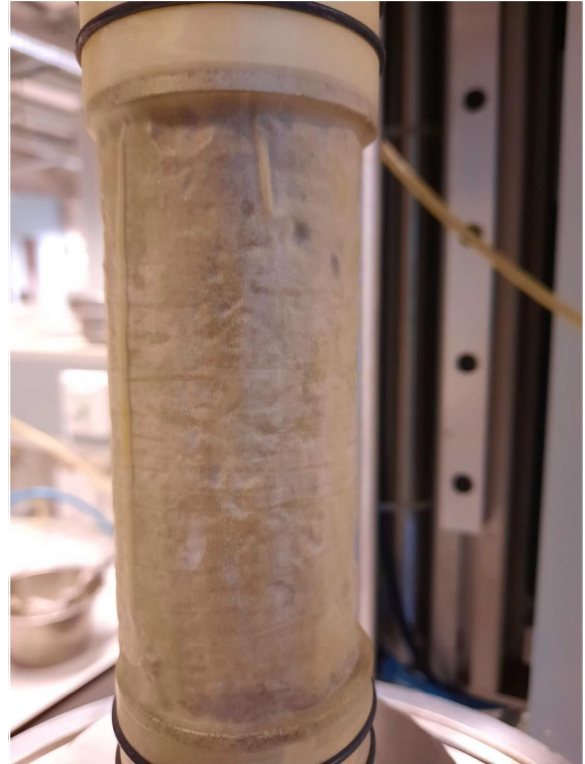
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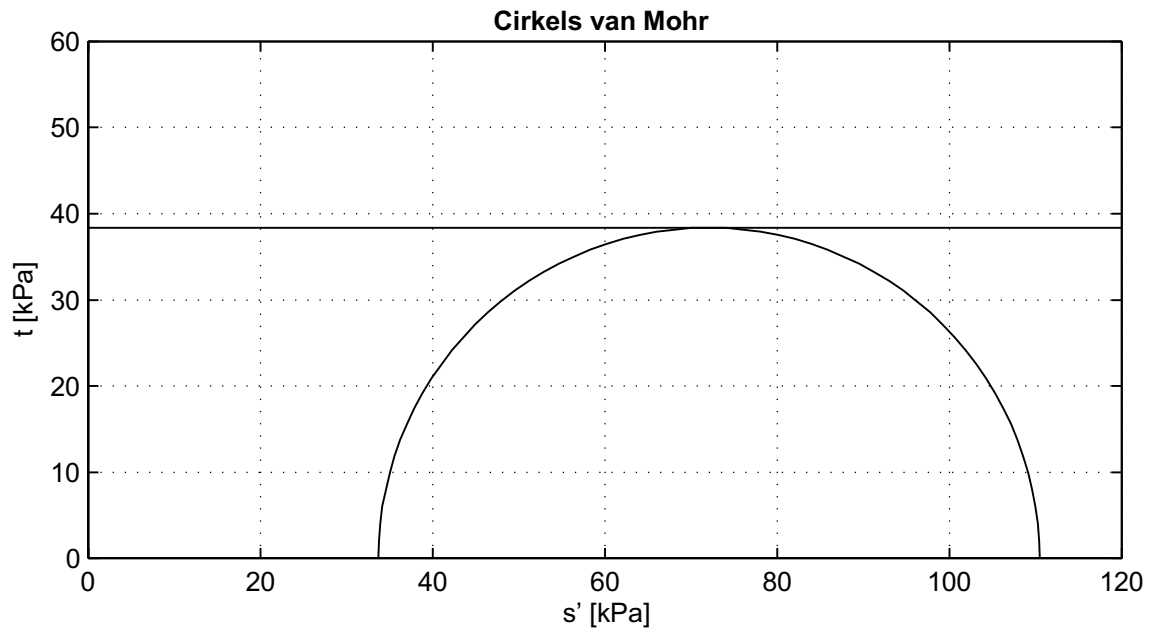
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Cirkels criterium	maximum t
c_u [kPa]	38.4

Voor beproeving

Fasenummer	1
Monsternaam	B003B203_CIU-3
m_i [g]	852.4
D_i [mm]	66.1
h_i [mm]	130.5
w_i [%]	27.6
$\rho_{i,bulk}$ [kg/m ³]	1902
$\rho_{i,dry}$ [kg/m ³]	1490
Grondsoort	klei

Procedure proctor verdichting, $w = 0.30$

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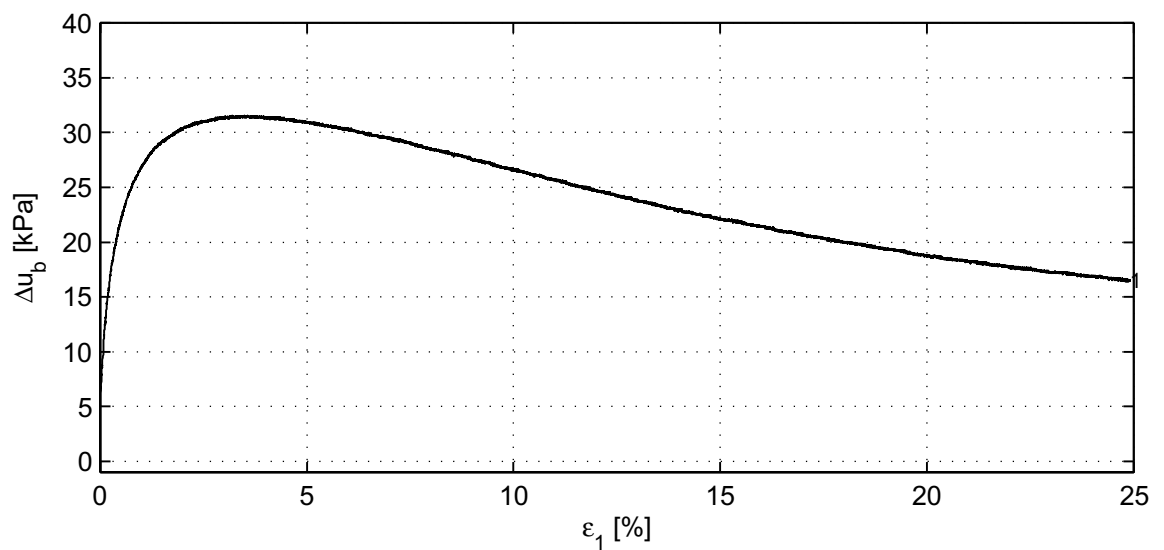
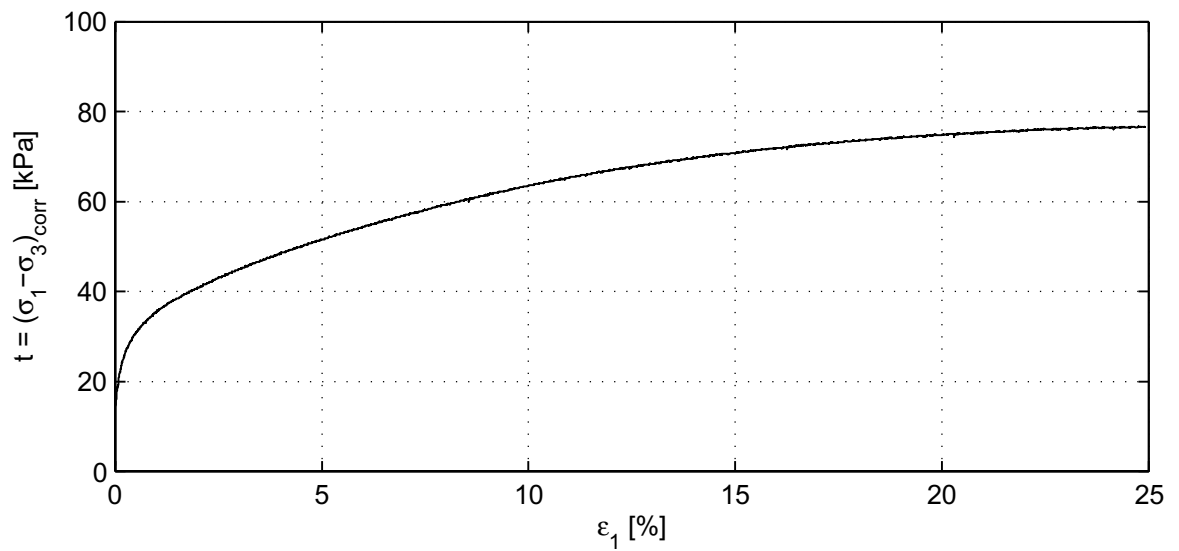
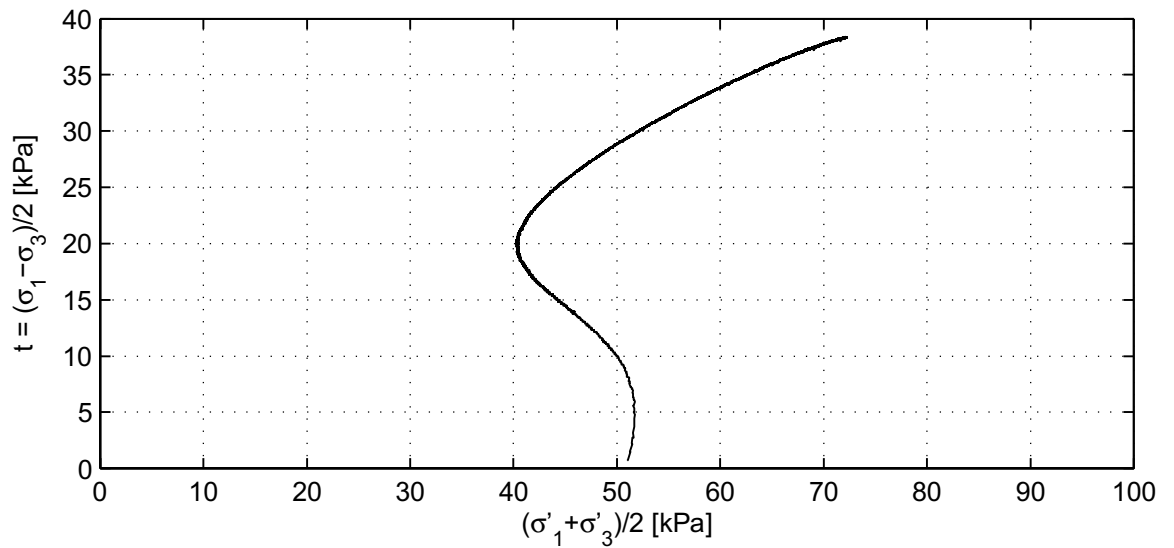
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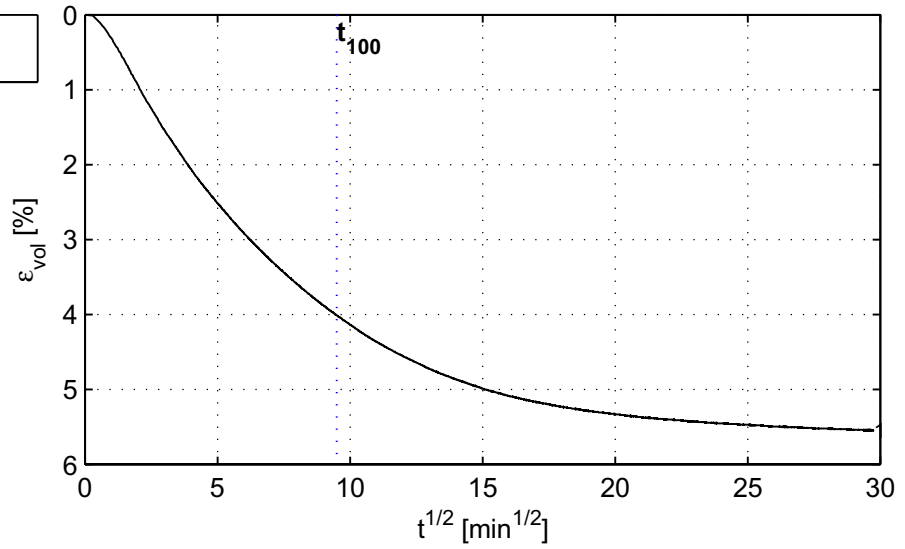
	Belastingsfase	1	2	3
Verzadigingsfase	B_0 [-]	0.87		
	B_1 [-]	0.98		
Consolidatiefase	$\sigma'_{1,c}$ [kPa]	51.7		
	$\sigma'_{3,c}$ [kPa]	50.3		
	t_{100} [min]	90.4		
	h_c [mm]	127.7		
	V_c [cm ³]	423.2		
	$\rho_{n,c}$ [kg/m ³]	1979		
	w_c [%]	25.4		
	u_{bk} [kPa]	500		
	P [-]	2.30		
	Creep rate [%/h]	0.014		
Belastingsfase	v_{max} [%/h]	1.4		
	v [%/h]	1.0		
	Stopcriterium	ϵ_1 25%		
	Correction text	MP (Deltares)		
Na beproeving	$\sigma_{1,u} - \sigma_{3,u}$ [kPa]	76.7		
	f_{undr} [kPa]	38.4		
	$\epsilon_{1,50}$ [%]	1.61		
	E_{50} [MPa]	2.3		
	w_e [%]	24.9		
	Bezwijkfiguur			

Verticale rek [%]	$(\sigma'_1 + \sigma'_3)/2$ [kPa]	$(\sigma_1 - \sigma_3)/2$ [kPa]	c_u [kPa]
2.0	40.5	20.4	20.4
5.0	45.2	25.8	25.8
10.0	55.5	31.8	31.8
$\epsilon_{1,tmax}$ [%]	72.1	38.4	38.4

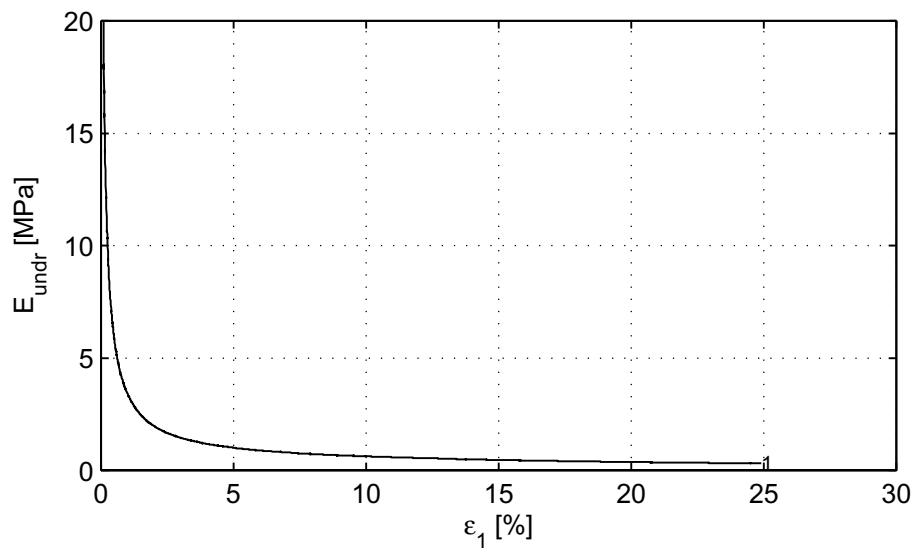
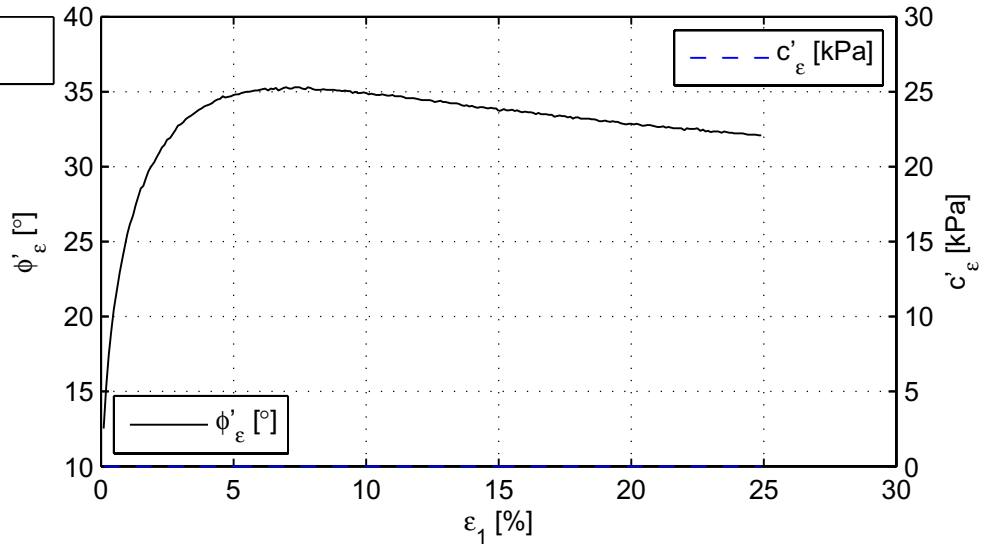
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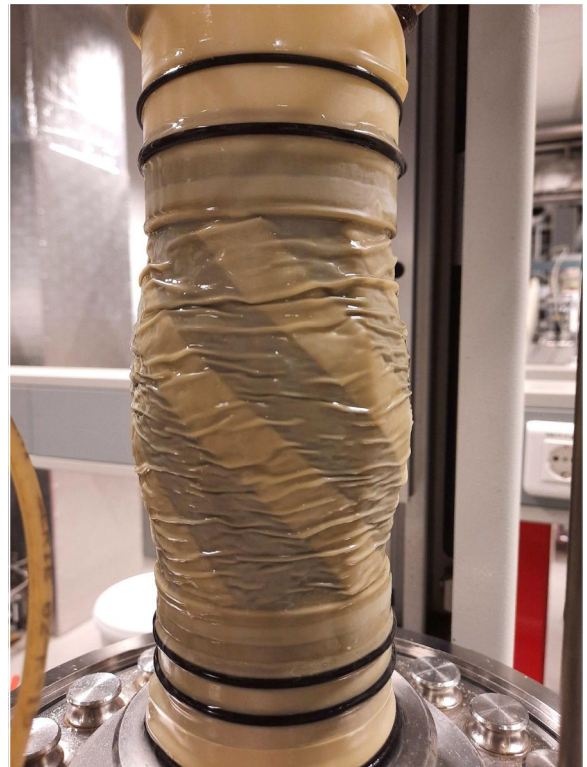
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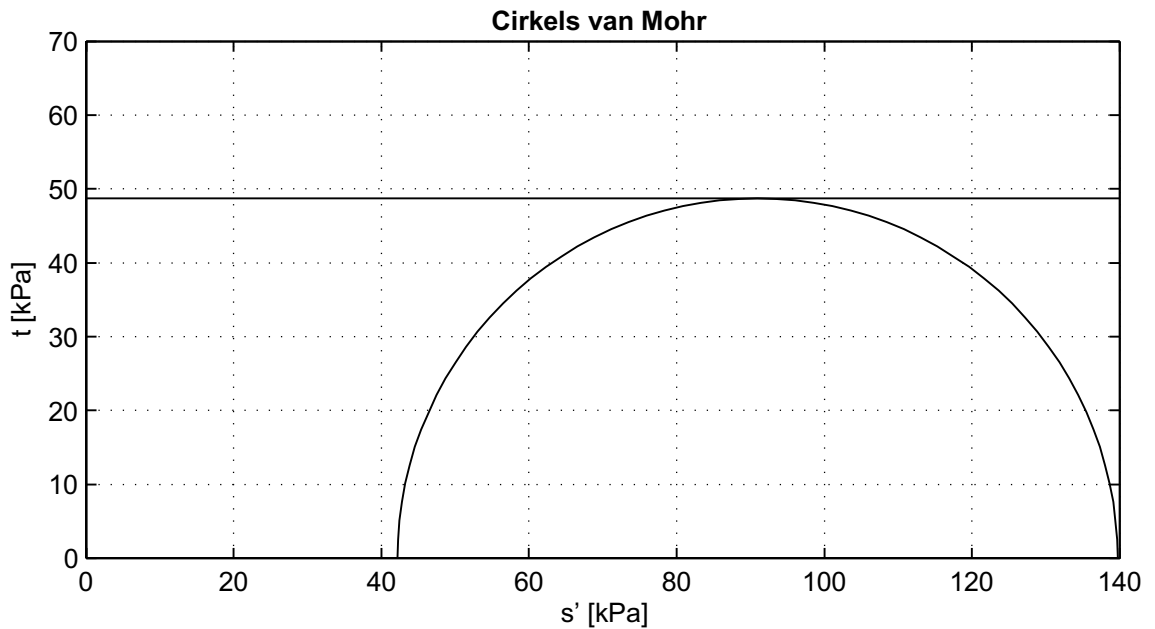
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Cirkels criterium	maximum t
c_u [kPa]	48.8

Voor beproeving

Fasenummer	1
Monsternaam	B003B203_CIU-4
m_i [g]	863.6
D_i [mm]	66.6
h_i [mm]	129.3
w_i [%]	25.2
$\rho_{i,bulk}$ [kg/m ³]	1919
$\rho_{i,dry}$ [kg/m ³]	1532
Grondsoort	klei

Procedure proctor verdichting, $w = 0.25$

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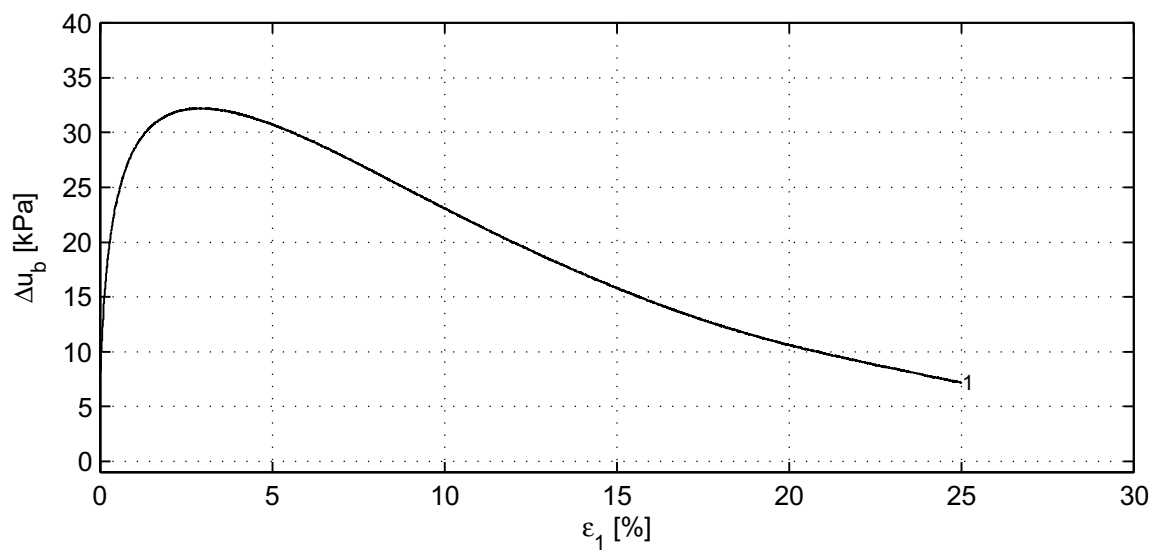
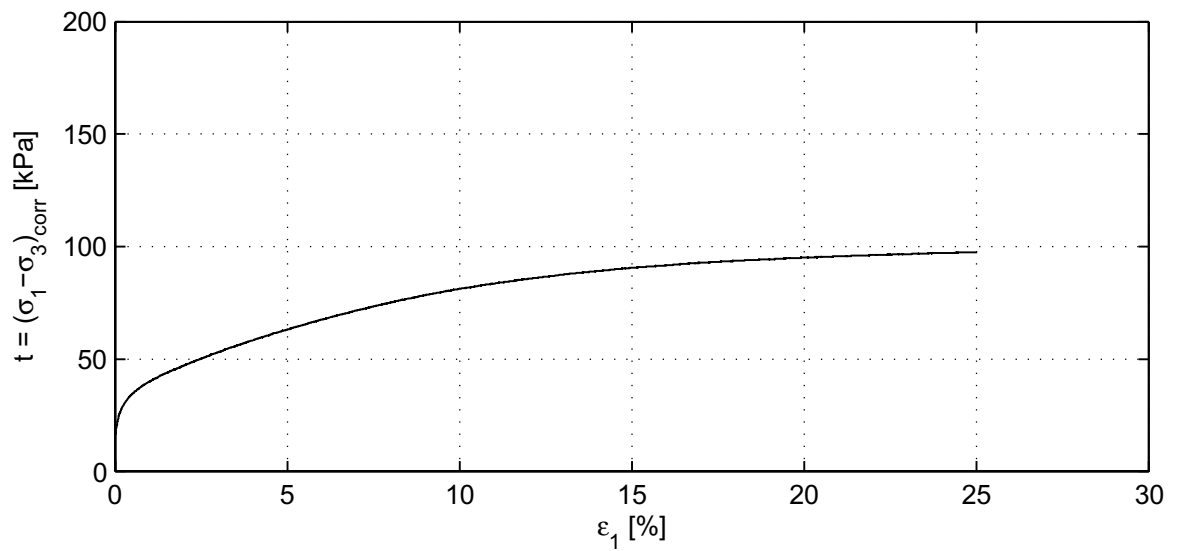
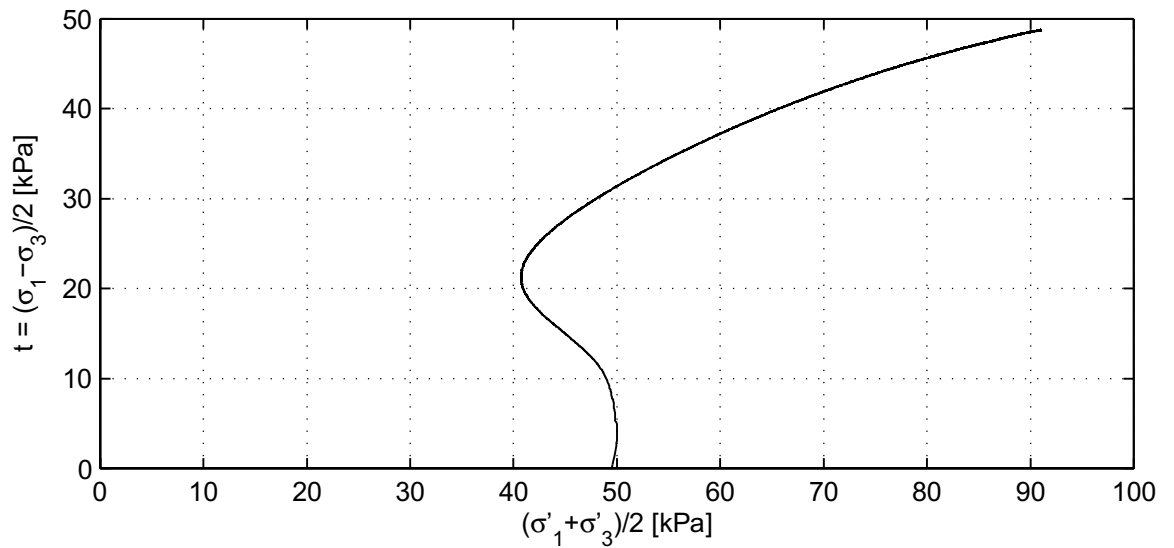
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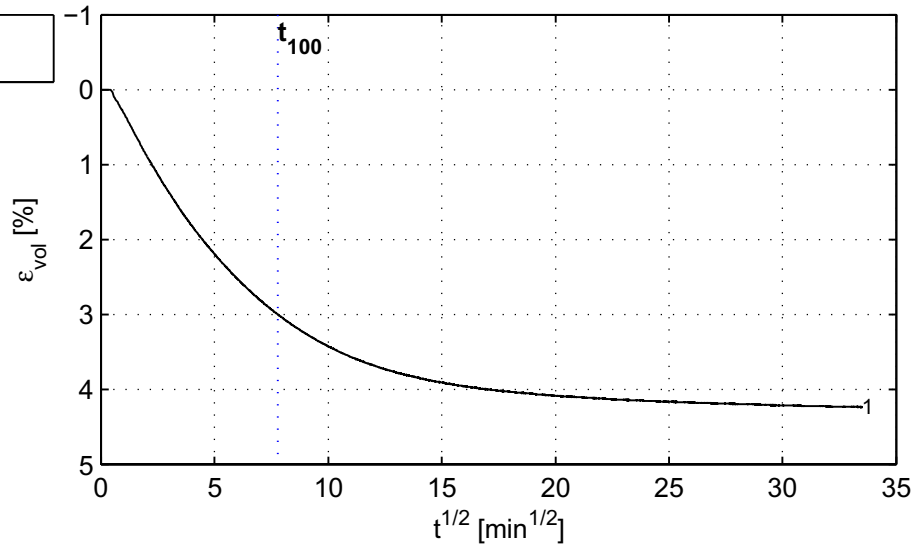
	Belastingsfase	1	2	3
Verzadigingsfase	B_0 [-]	0.98		
	B_1 [-]	0.98		
Consolidatiefase	$\sigma'_{1,c}$ [kPa]	49.6		
	$\sigma'_{3,c}$ [kPa]	49.4		
	t_{100} [min]	60.7		
	h_c [mm]	126.8		
	V_c [cm ³]	431.0		
	$\rho_{n,c}$ [kg/m ³]	2000		
	w_c [%]	25.0		
	u_{bk} [kPa]	499		
	P [-]	2.30		
	Creep rate [%/h]	0.005		
Belastingsfase	v_{max} [%/h]	2.1		
	v [%/h]	1.0		
	Stopcriterium	ϵ_1 25%		
	Correction text	MP (Deltares)		
Na beproeving	$\sigma_{1,u} - \sigma_{3,u}$ [kPa]	97.5		
	f_{undr} [kPa]	48.8		
	$\epsilon_{1,50}$ [%]	2.28		
	E_{50} [MPa]	2.1		
	w_e [%]	23.7		
	Bezwijkfiguur			

Verticale rek [%]	$(\sigma'_1 + \sigma'_3)/2$ [kPa]	$(\sigma_1 - \sigma_3)/2$ [kPa]	c_u [kPa]
2.0	41.4	23.6	23.6
5.0	50.3	31.6	31.6
10.0	67.0	40.6	40.6
$\epsilon_{1,tmax}$ [%]	90.9	48.8	48.8

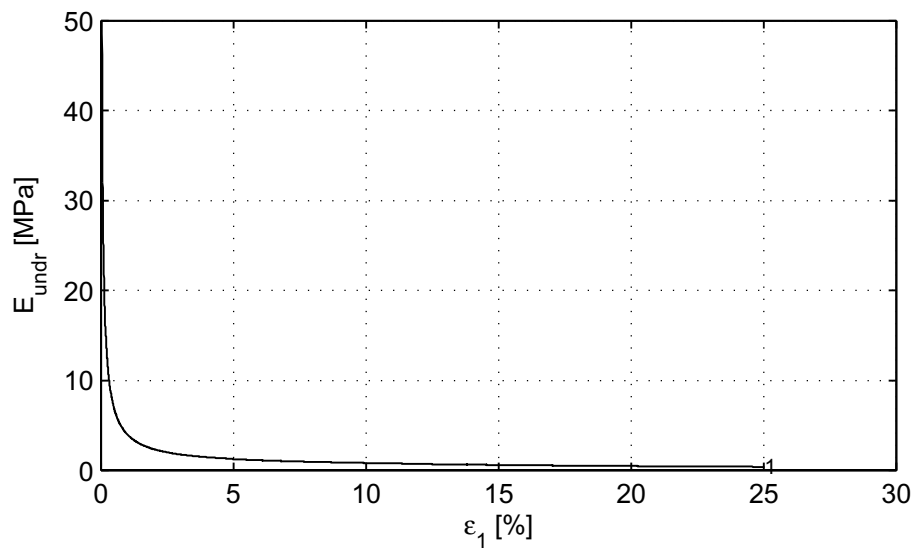
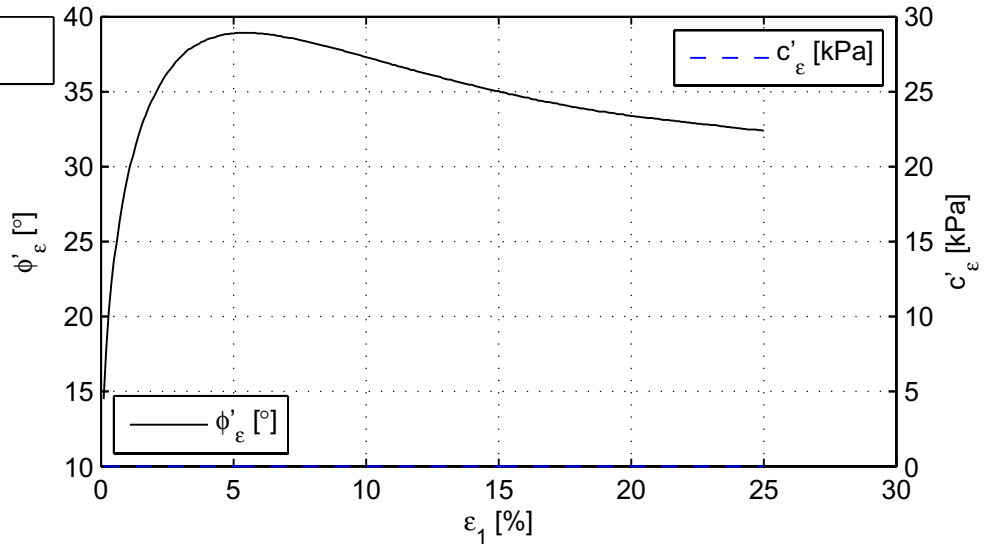
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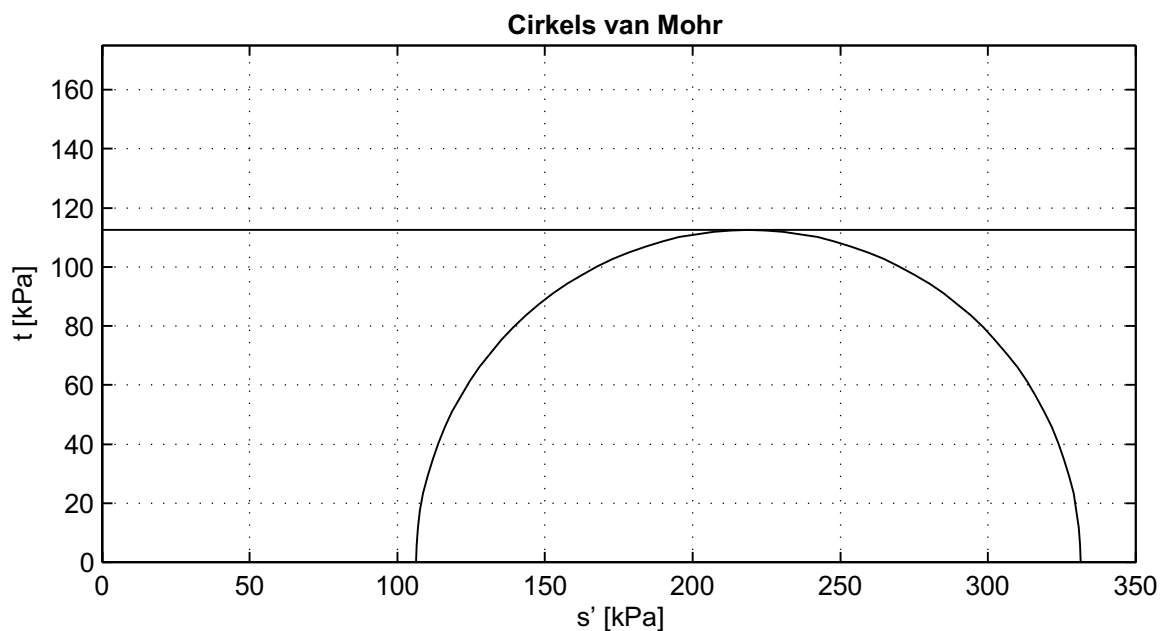
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Cirkels criterium	maximum t
c_u [kPa]	112.5

Voor beproeving

Fasenummer	1
Monsternaam	B003B203_CIU-5
m_i [g]	339.5
D_i [mm]	48.3
h_i [mm]	97.2
w_i [%]	20.0
$\rho_{i,bulk}$ [kg/m ³]	1906
$\rho_{i,dry}$ [kg/m ³]	1589
Grondsoort	klei

Procedure proctor verdichting, $w = 0.20$

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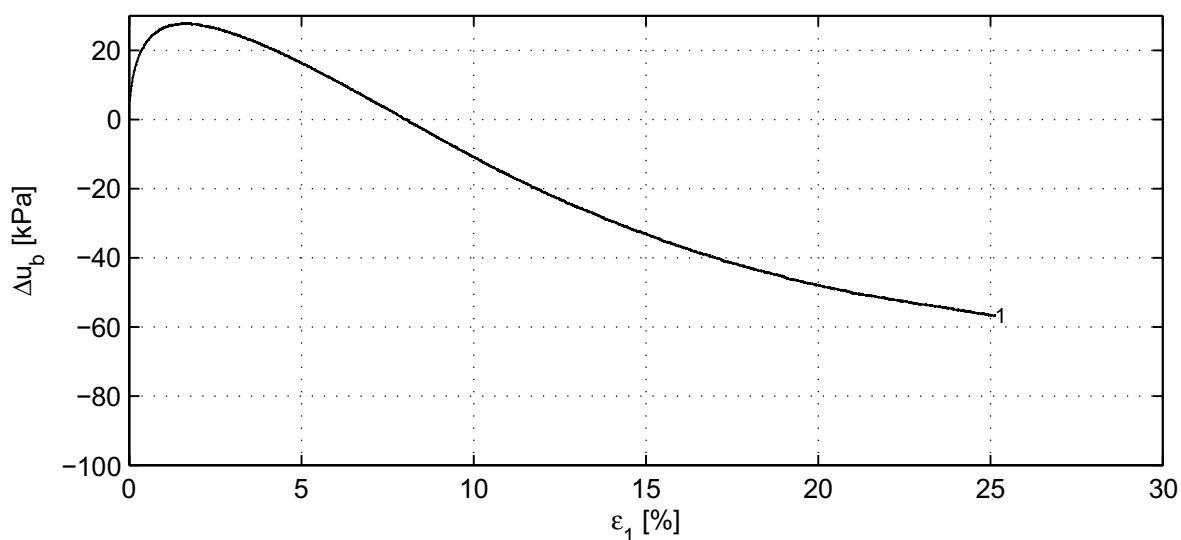
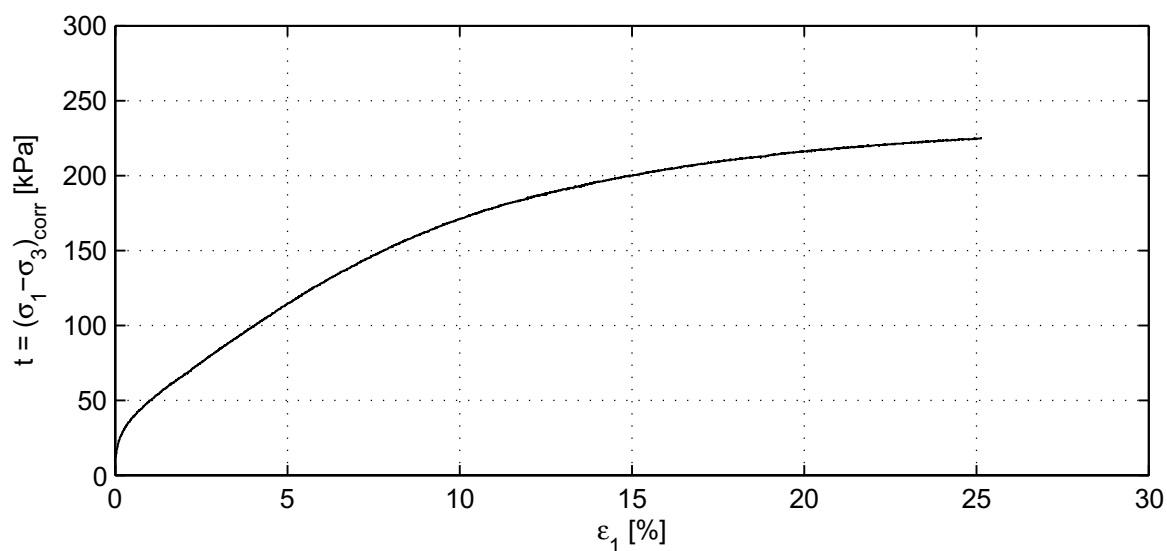
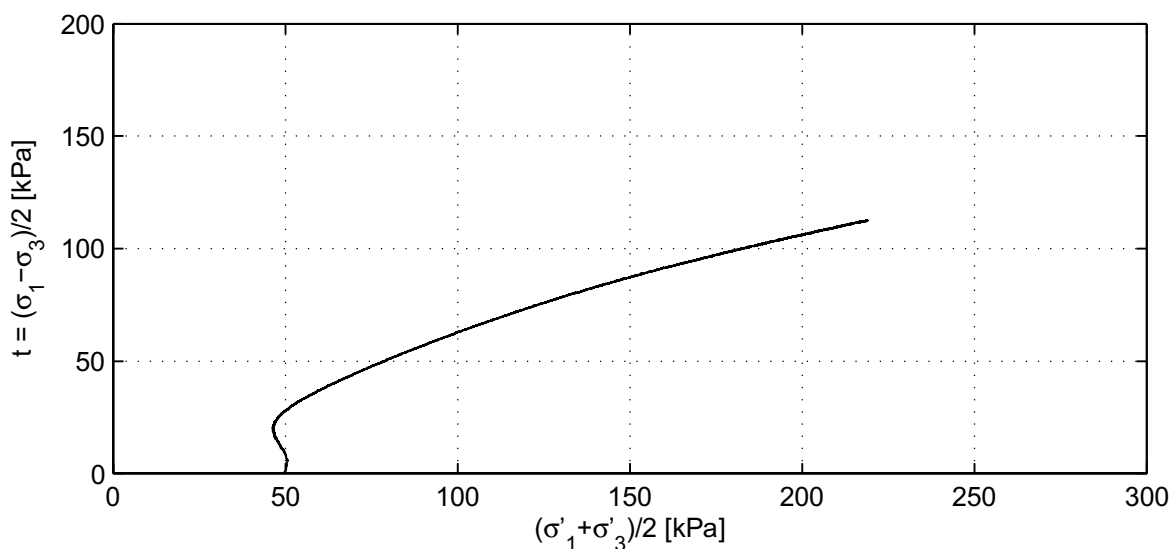
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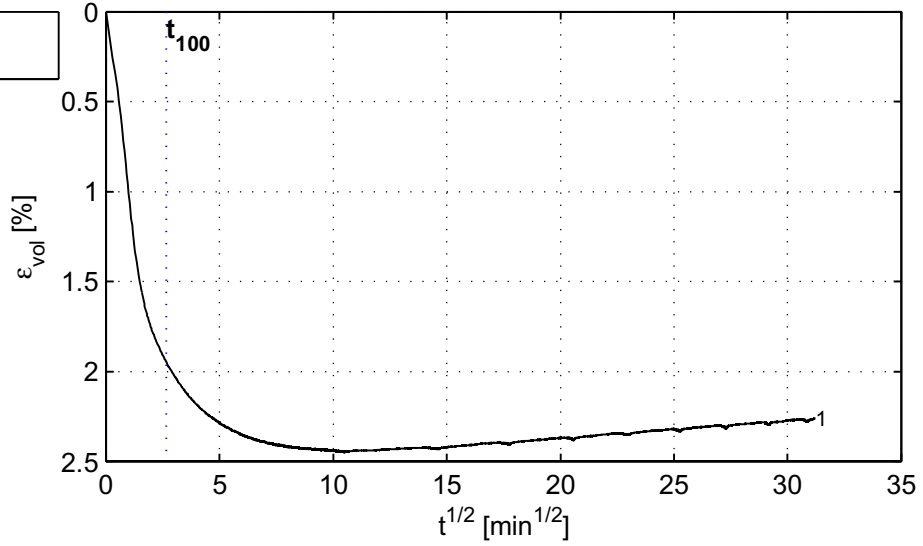
	Belastingsfase	1	2	3
Verzadigingsfase	B_0 [-]	0.95		
	B_1 [-]	0.99		
Consolidatiefase	$\sigma'_{1,c}$ [kPa]	49.7		
	$\sigma'_{3,c}$ [kPa]	49.6		
	t_{100} [min]	7.0		
	h_c [mm]	96.2		
	V_c [cm ³]	174.1		
	$\rho_{n,c}$ [kg/m ³]	2012		
	w_c [%]	23.8		
	u_{bk} [kPa]	500		
	P [-]	2.30		
	Creep rate [%/h]	-0.012		
Belastingsfase	v_{max} [%/h]	18.5		
	v [%/h]	1.0		
	Stopcriterium	ϵ_1 25%		
	Correction text	MP (Deltares)		
	$\sigma_{1,u} - \sigma_{3,u}$ [kPa]	225.0		
Na beproeving	f_{undr} [kPa]	112.5		
	$\epsilon_{1,50}$ [%]	4.87		
	E_{50} [MPa]	2.3		
	w_e [%]	22.3		
	Bezwijkfiguur			

Verticale rek [%]	$(\sigma'_1 + \sigma'_3)/2$ [kPa]	$(\sigma_1 - \sigma_3)/2$ [kPa]	c_u [kPa]
2.0	55.6	33.4	33.4
5.0	90.7	57.3	57.3
10.0	145.9	85.5	85.5
$\epsilon_{1,max}$ [%]	218.8	112.5	112.5

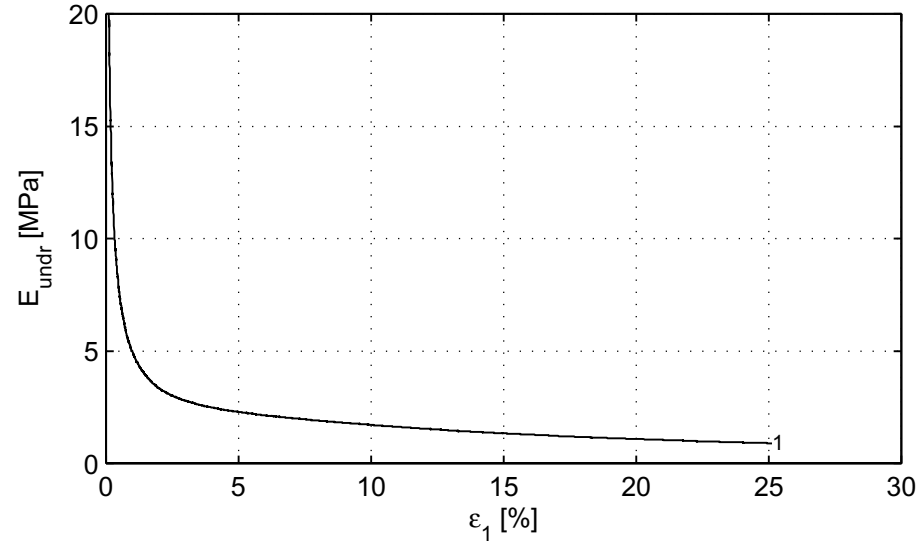
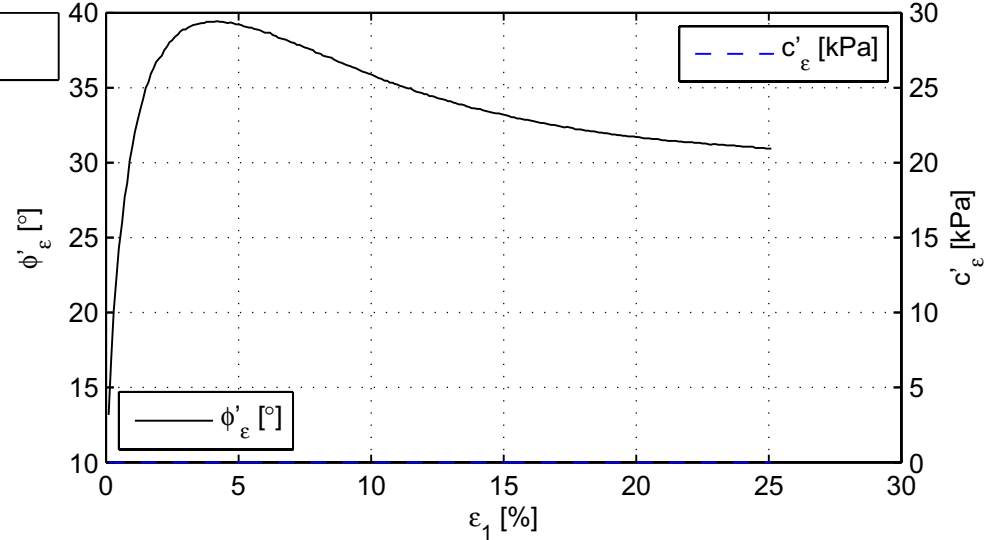
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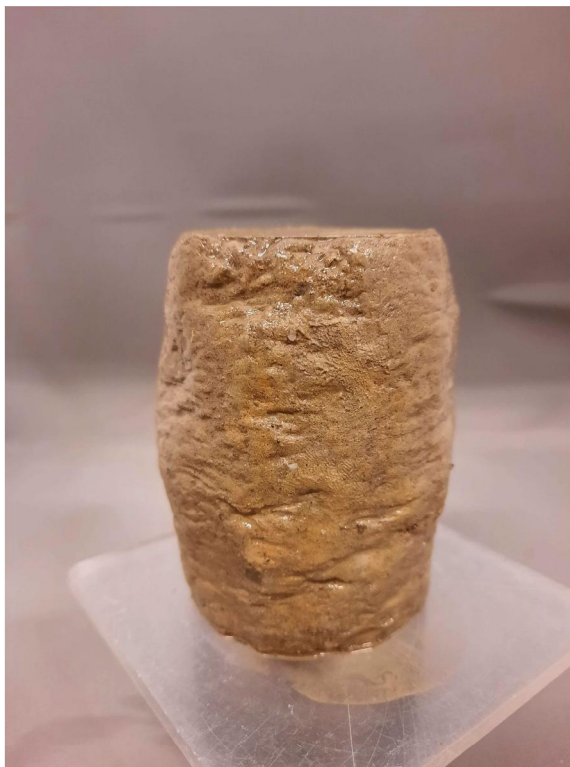


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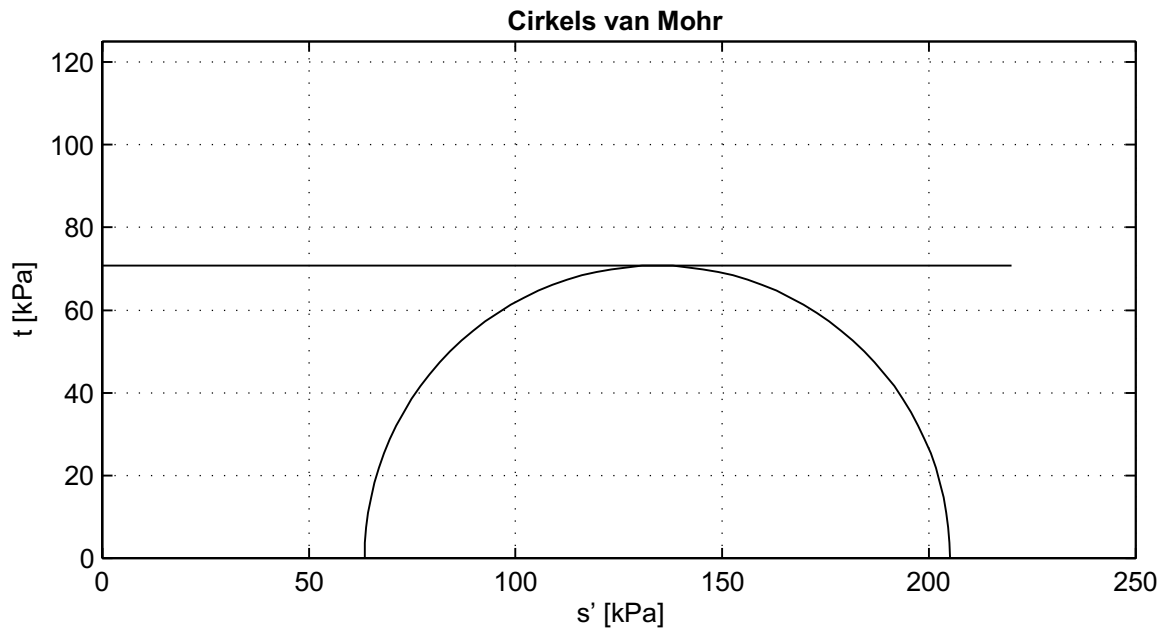
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Cirkels criterium	maximum t
c_u [kPa]	70.8

Voor beproeving

Fasenummer	1
Monsternaam	B003B203_CIU-6
m_i [g]	998.0
D_i [mm]	67.0
h_i [mm]	140.9
w_i [%]	14.9
$\rho_{i,bulk}$ [kg/m ³]	2009
$\rho_{i,dry}$ [kg/m ³]	1749
Grondsoort	klei

Procedure proctor verdichting, $w = 0.15$

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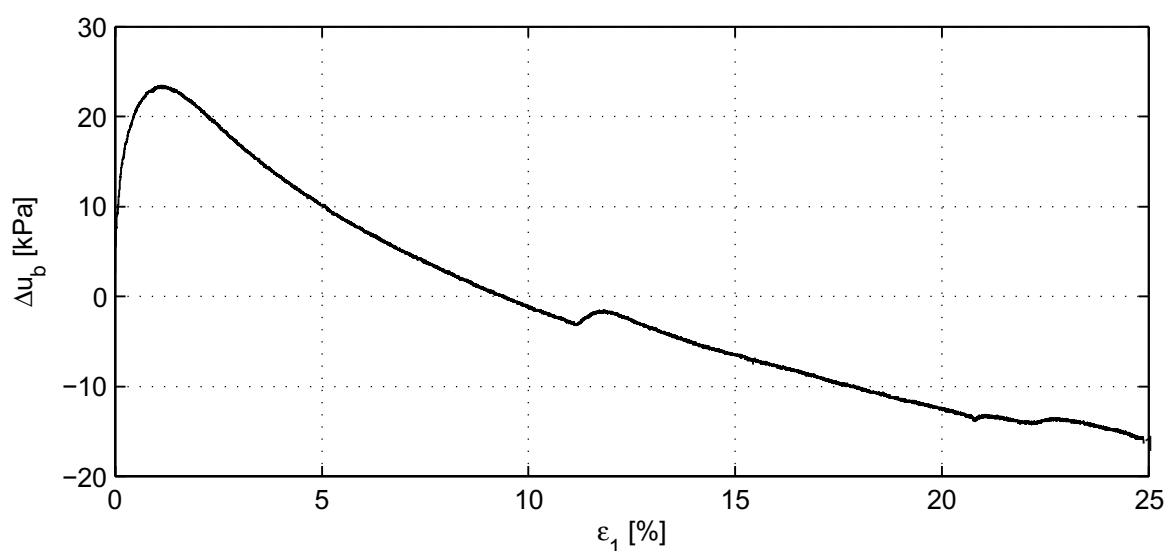
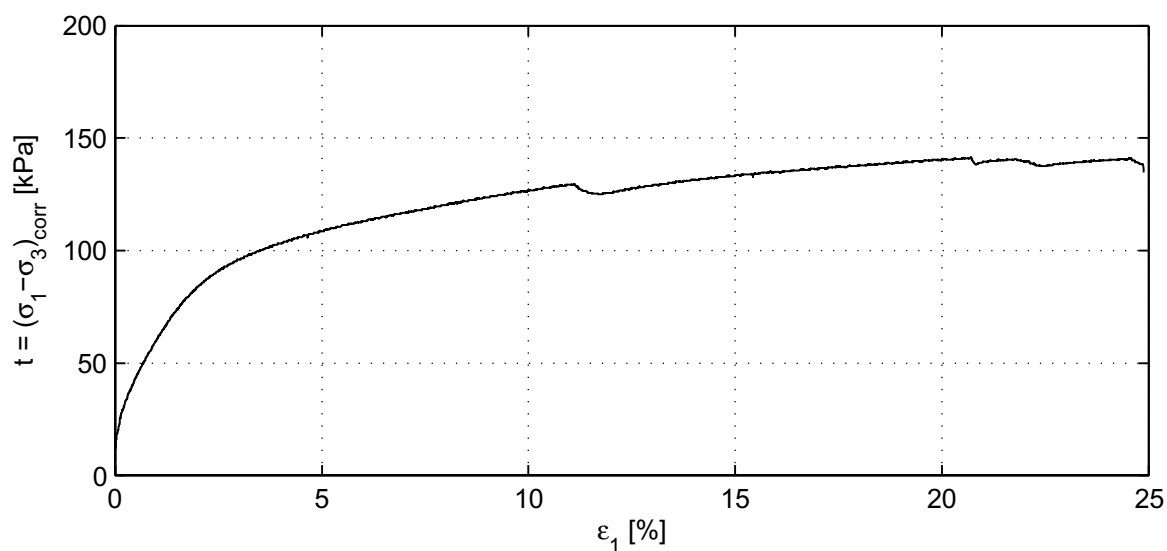
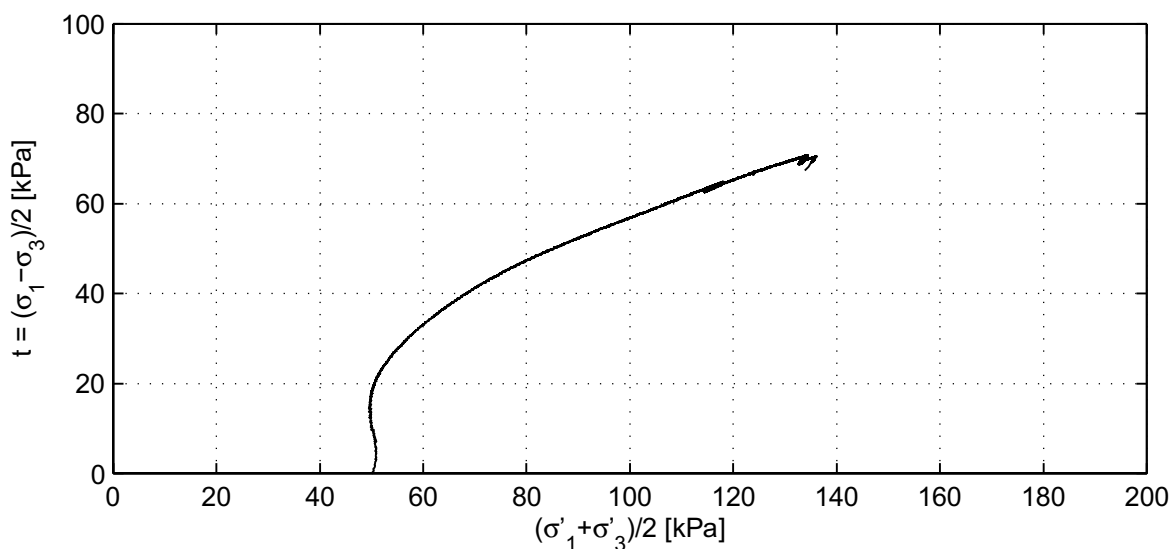
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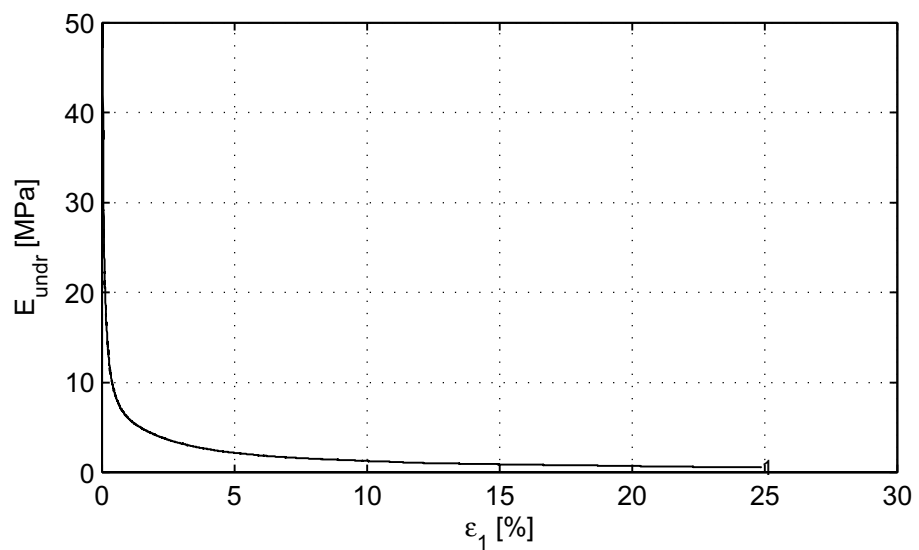
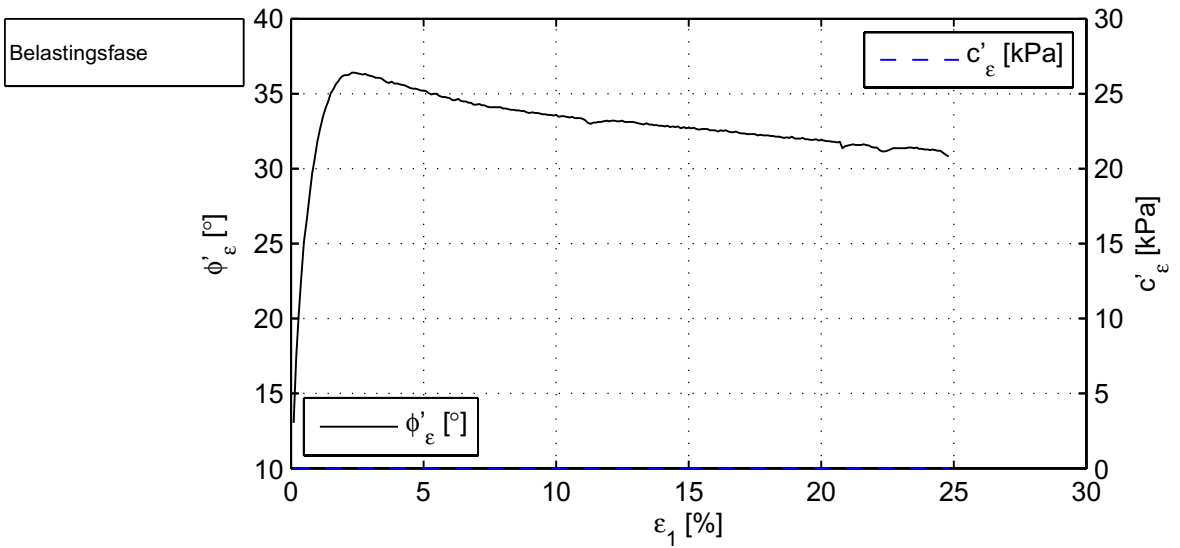
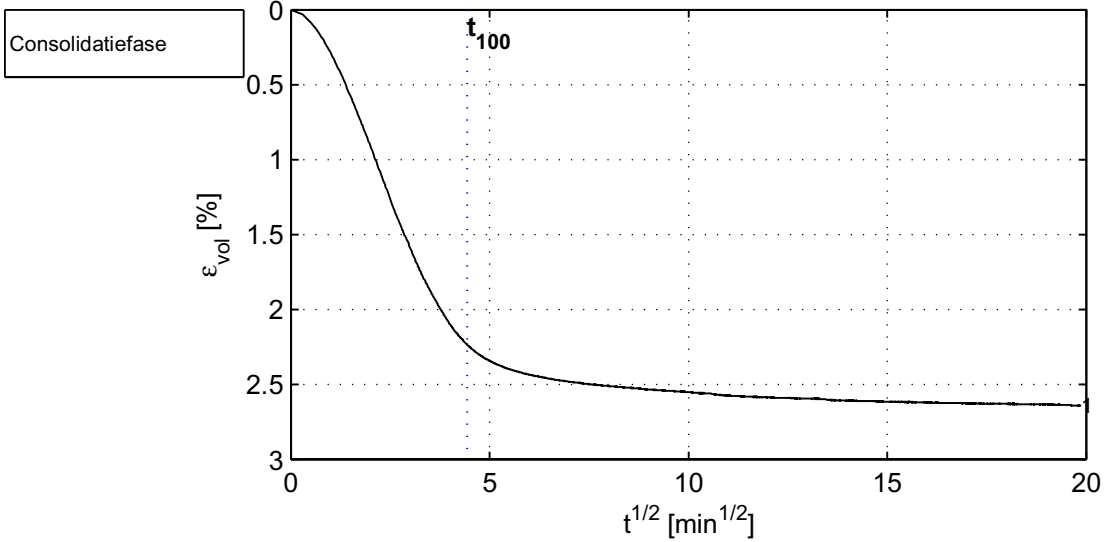
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	Belastingsfase	1	2	3
Verzadigingsfase	B_0 [-]	1.00		
	B_1 [-]	1.00		
Consolidatiefase	$\sigma'_{1,c}$ [kPa]	50.3		
	$\sigma'_{3,c}$ [kPa]	50.2		
	t_{100} [min]	19.6		
	h_c [mm]	139.0		
	V_c [cm ³]	483.6		
	$\rho_{n,c}$ [kg/m ³]	2050		
	w_c [%]	14.1		
	u_{bk} [kPa]	698		
	P [-]	2.30		
	Creep rate [%/h]	0.012		
Belastingsfase	v_{max} [%/h]	6.6		
	v [%/h]	1.0		
	Stopcriterium	ϵ_1 25%		
	Correction text	MP (Deltares)		
Na beproeving	$\sigma_{1,u} - \sigma_{3,u}$ [kPa]	141.6		
	f_{undr} [kPa]	70.8		
	$\epsilon_{1,50}$ [%]	1.37		
	E_{50} [MPa]	5.2		
	w_e [%]	21.9		
	Bezwijkfiguur			

Verticale rek [%]	$(\sigma'_1 + \sigma'_3)/2$ [kPa]	$(\sigma_1 - \sigma_3)/2$ [kPa]	c_u [kPa]
2.0	71.1	42.0	42.0
5.0	94.3	54.4	54.4
10.0	114.8	63.5	63.5
$\epsilon_{1,max}$ [%]	134.3	70.8	70.8

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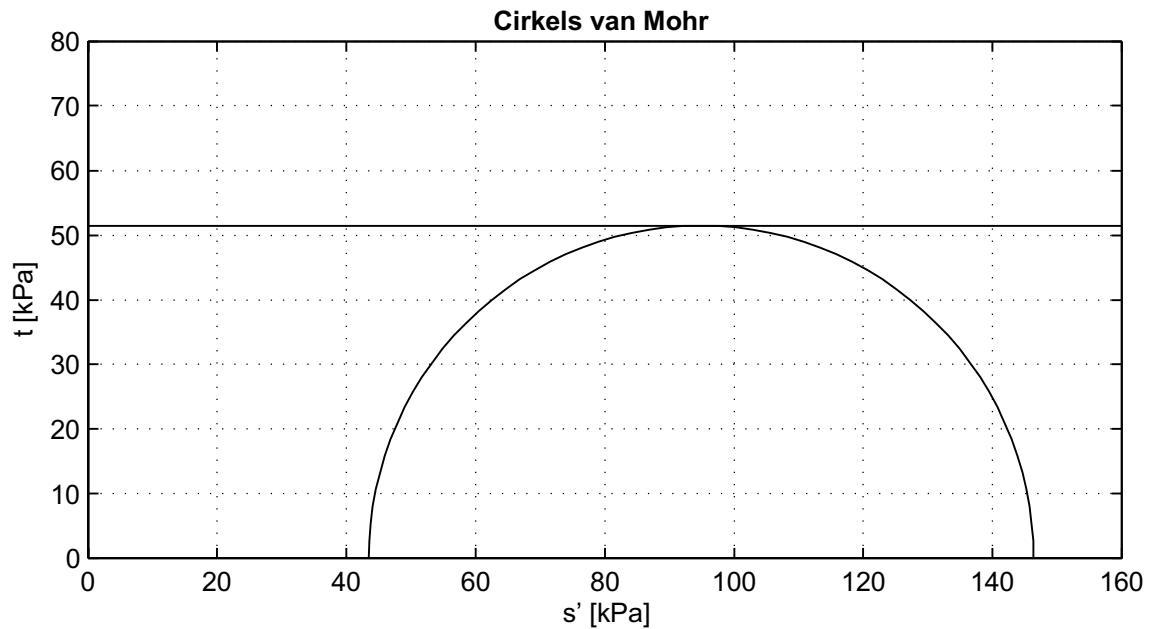
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Cirkels criterium	maximum t
c_u [kPa]	51.5

Voor beproeving

Fasenummer	1
Monsternaam	B003B203_CIU-7
m_i [g]	909.6
D_i [mm]	66.3
h_i [mm]	135.4
w_i [%]	25.6
$\rho_{i,bulk}$ [kg/m ³]	1947
$\rho_{i,dry}$ [kg/m ³]	1551
Grondsoort	klei

Procedure proctor verdichting, $w = 0.25$

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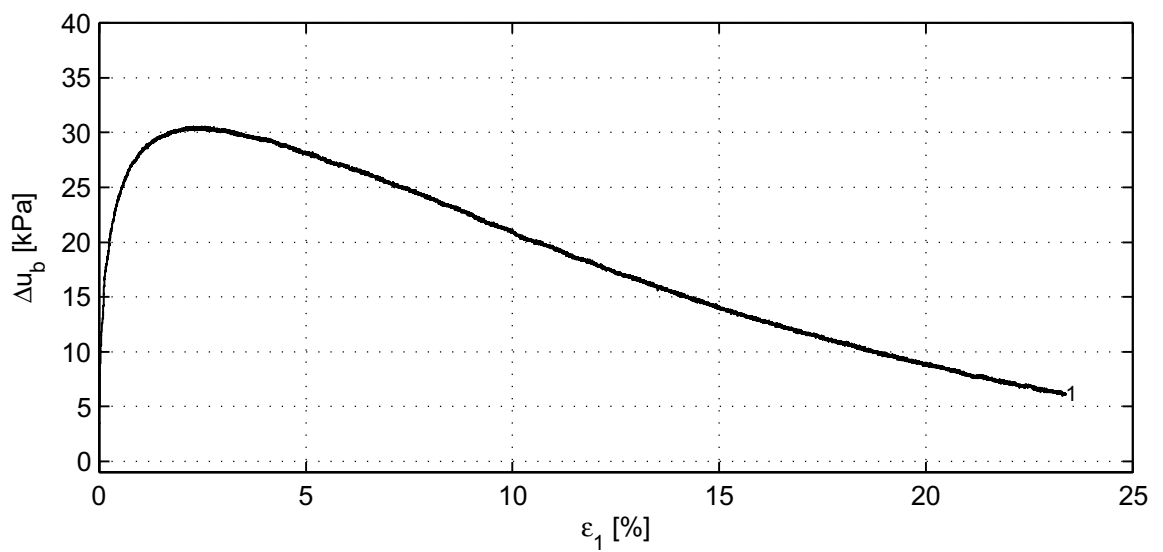
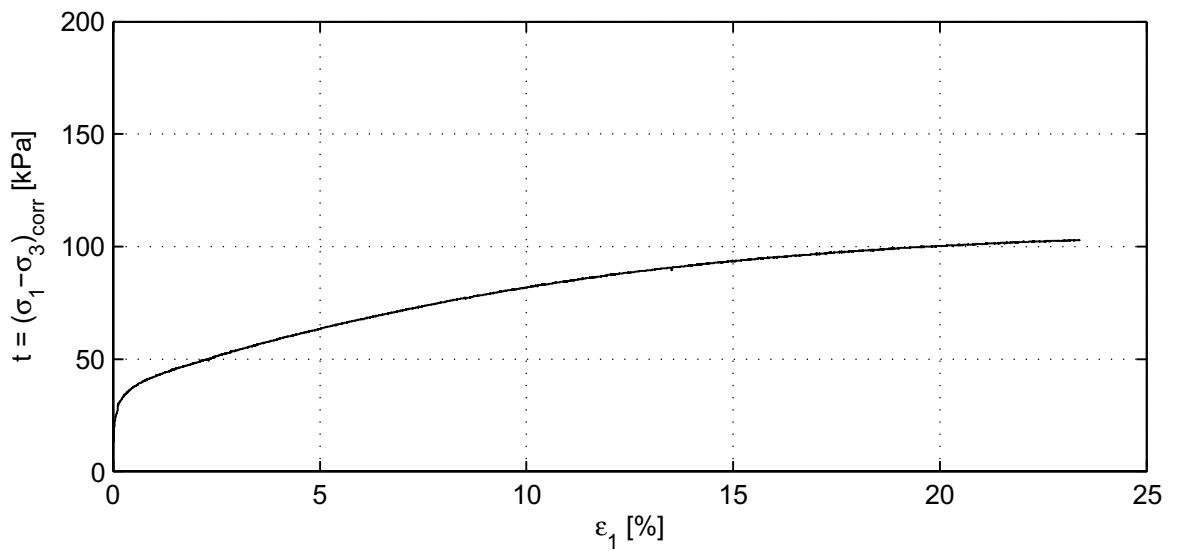
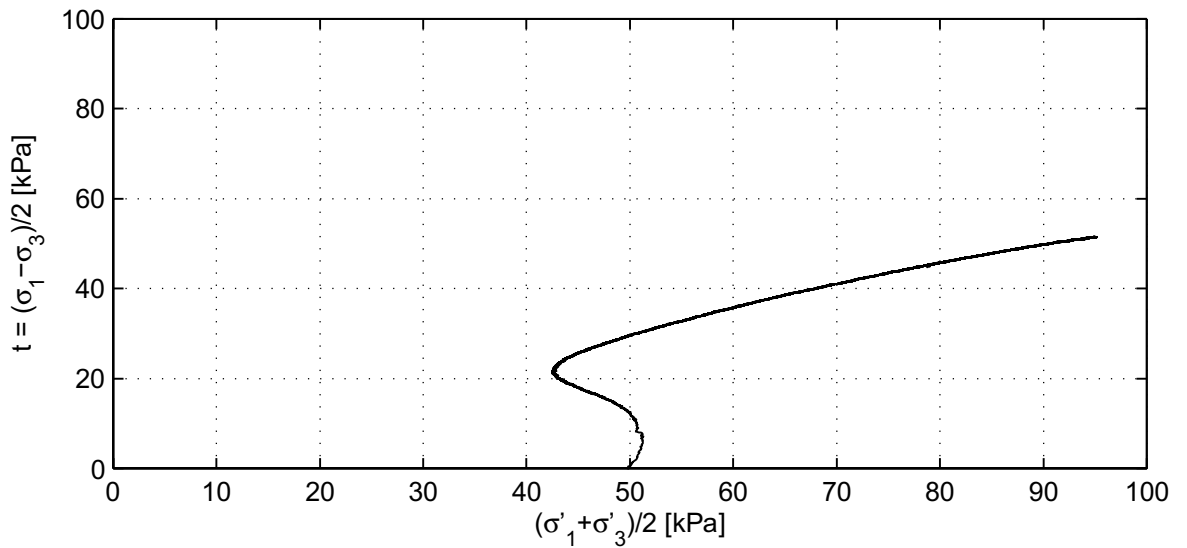
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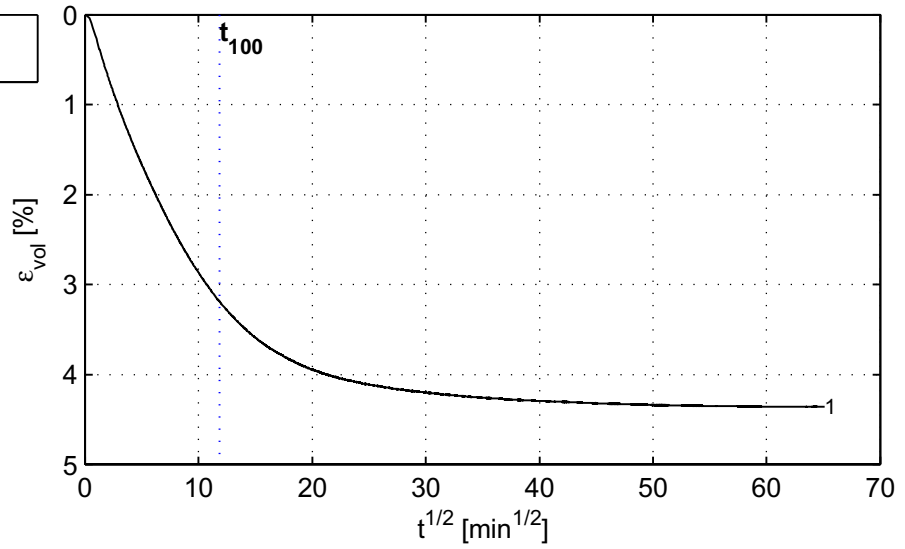
	Belastingsfase	1	2	3
Verzadigingsfase	B_0 [-]	1.00		
	B_1 [-]	1.00		
Consolidatiefase	$\sigma'_{1,c}$ [kPa]	49.7		
	$\sigma'_{3,c}$ [kPa]	49.7		
	t_{100} [min]	139.9		
	h_c [mm]	133.4		
	V_c [cm ³]	446.8		
	$\rho_{n,c}$ [kg/m ³]	1998		
	w_c [%]	23.2		
	u_{bk} [kPa]	499		
	P [-]	2.30		
	Creep rate [%/h]	-0.000		
Belastingsfase	v_{max} [%/h]	0.9		
	v [%/h]	0.6		
	Stopcriterium	ϵ_1 25%		
	Correction text	MP (Deltares)		
	$\sigma_{1,u} - \sigma_{3,u}$ [kPa]	102.9		
Na beproeving	f_{undr} [kPa]	51.5		
	$\epsilon_{1,50}$ [%]	2.54		
	E_{50} [MPa]	2.0		
	w_e [%]	22.5		
	Bezwijkfiguur			

Verticale rek [%]	$(\sigma'_1 + \sigma'_3)/2$ [kPa]	$(\sigma_1 - \sigma_3)/2$ [kPa]	c_u [kPa]
2.0	43.6	24.1	24.1
5.0	53.4	31.7	31.7
10.0	69.7	40.9	40.9
$\epsilon_{1,tmax}$ [%]	94.9	51.5	51.5

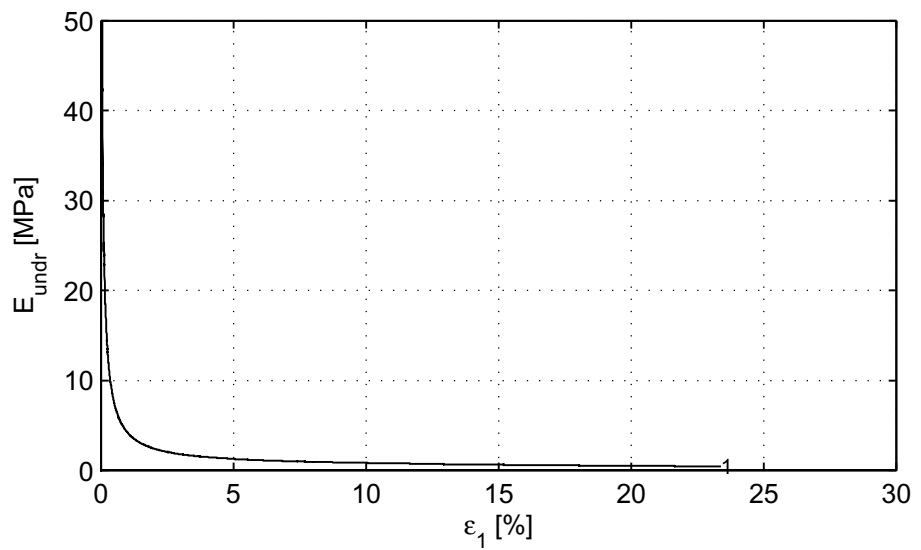
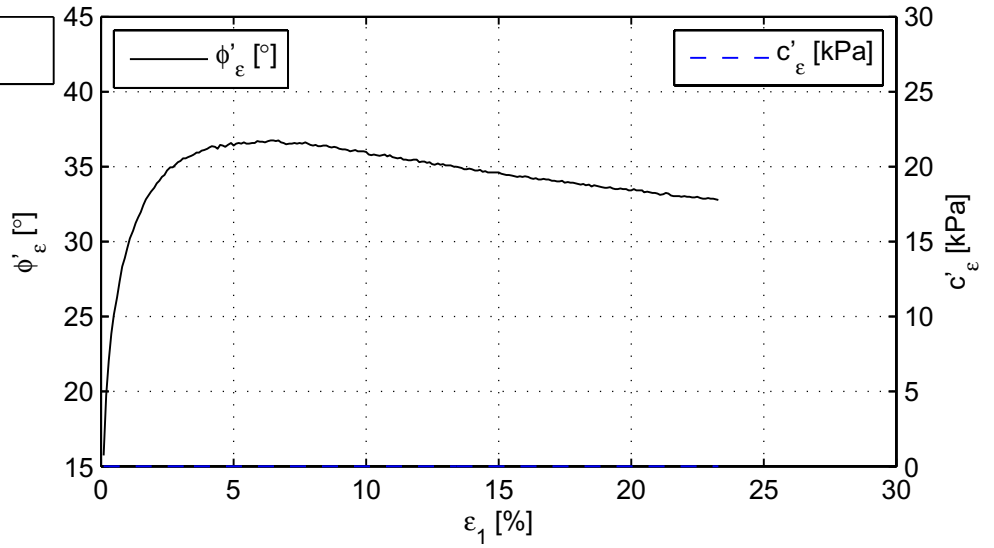
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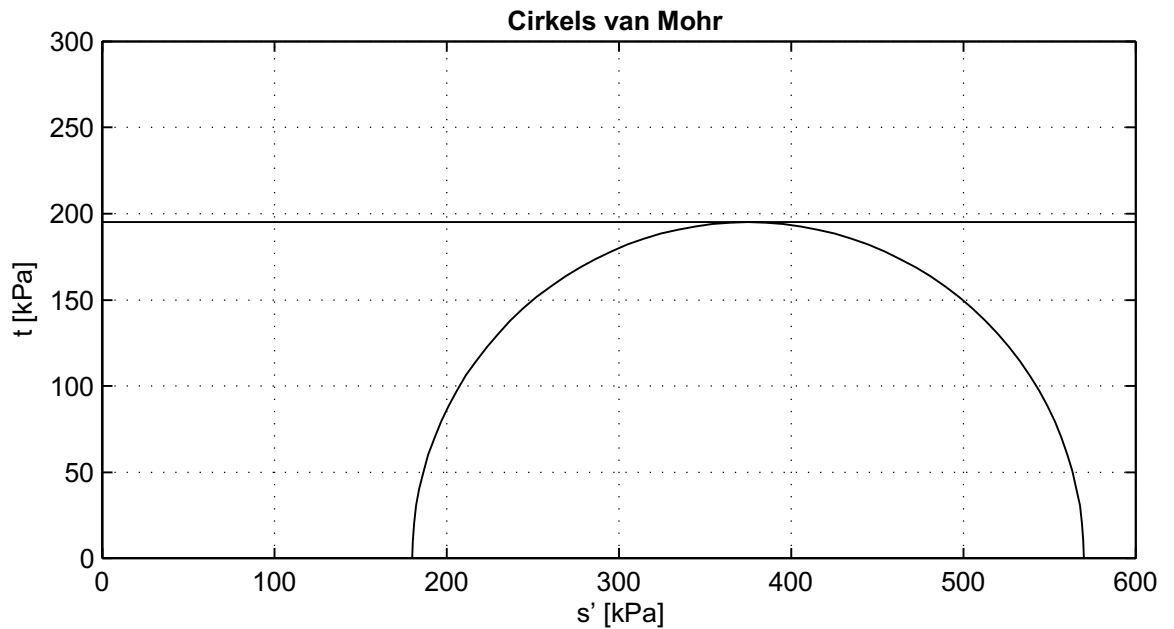
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Cirkels criterium	maximum t
c_u [kPa]	194.9

Voor beproeving

Fasenummer	1
Monsternaam	B003B203_CIU-..
m_i [g]	390.0
D_i [mm]	48.8
h_i [mm]	100.4
w_i [%]	16.6
$\rho_{i,bulk}$ [kg/m ³]	2079
$\rho_{i,dry}$ [kg/m ³]	1783
Grondsoort	klei

Procedure proctor verdichting, $w = 0.15$

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Boring B003, Sample CIU-8-2, depth 9.20 till 5.20m NAP

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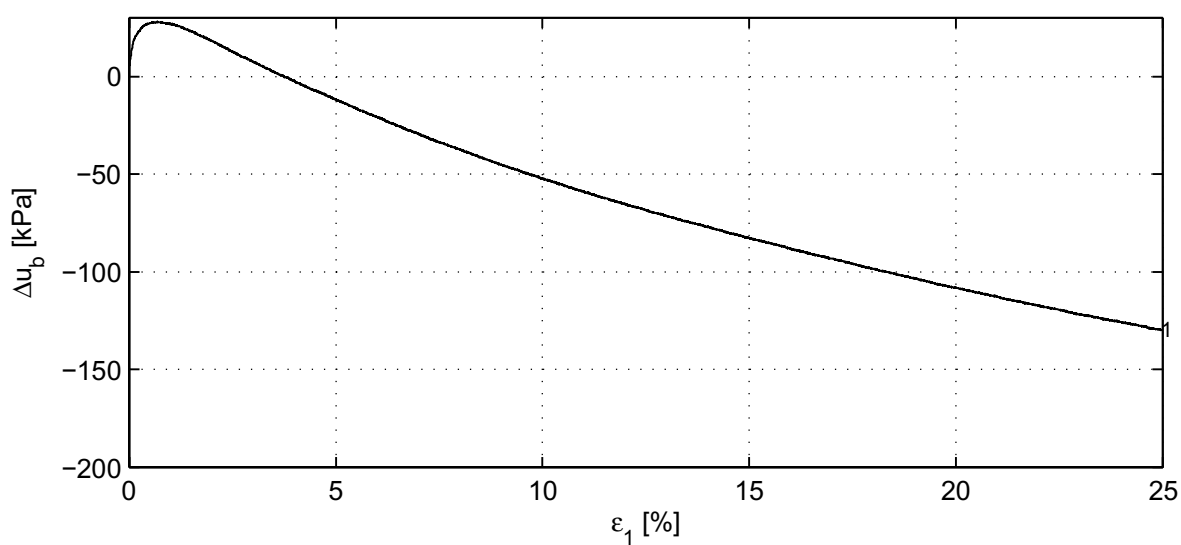
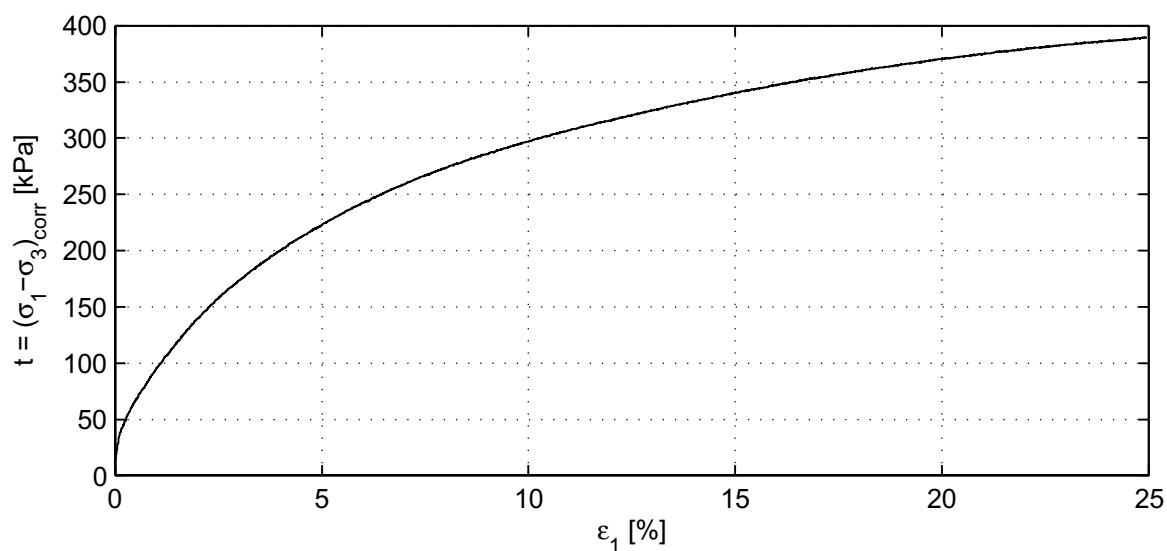
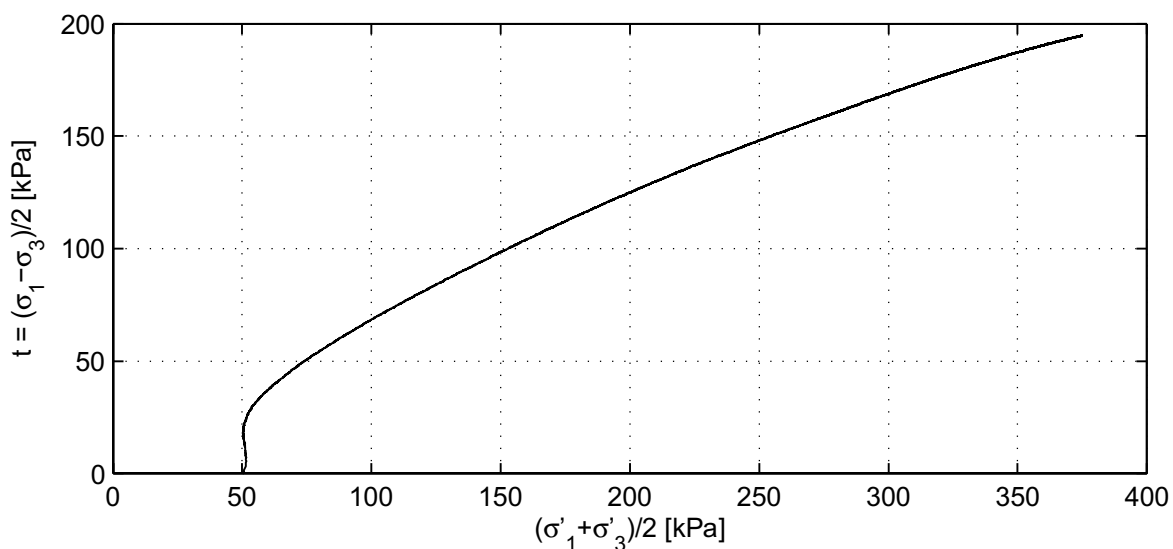
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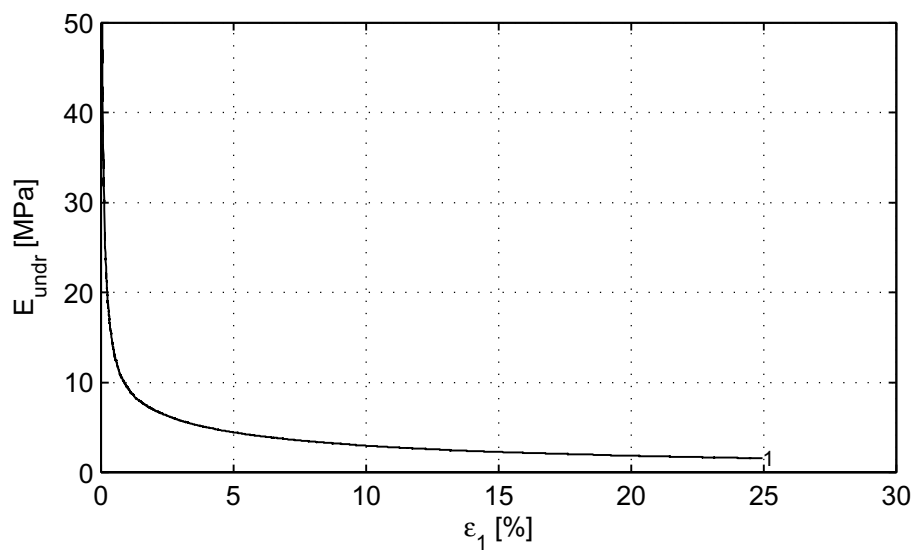
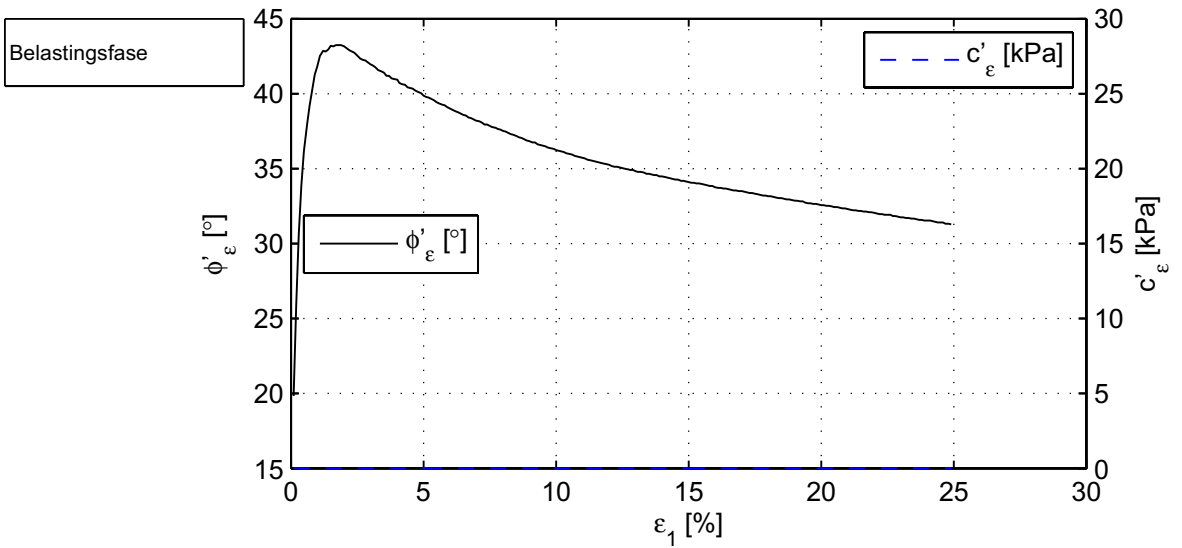
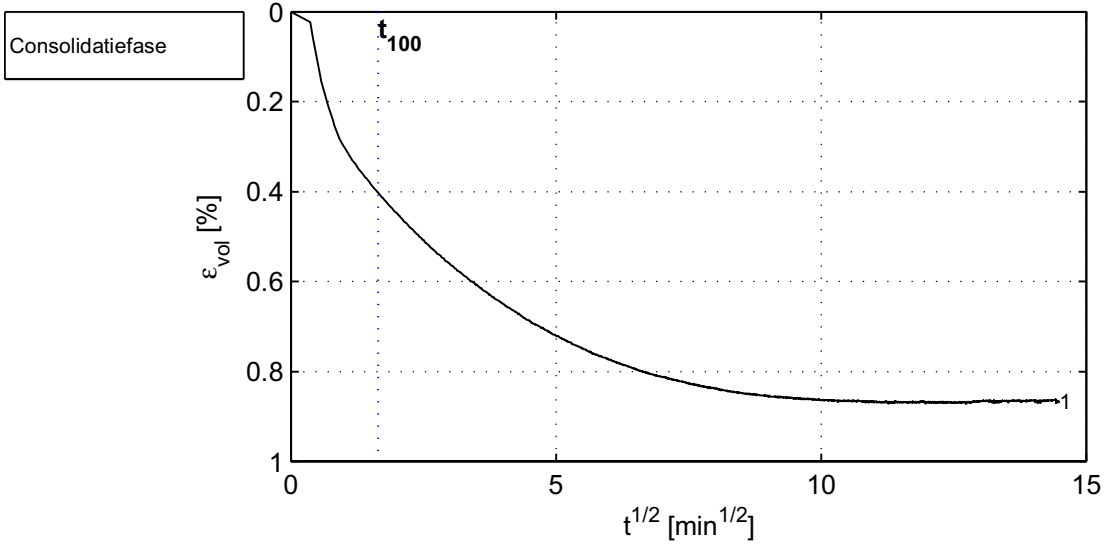
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	Belastingsfase	1	2	3
Verzadigingsfase	B_0 [-]	0.98		
	B_1 [-]	0.98		
Consolidatiefase	$\sigma'_{1,c}$ [kPa]	50.8		
	$\sigma'_{3,c}$ [kPa]	50.5		
	t_{100} [min]	2.7		
	h_c [mm]	100.1		
	V_c [cm ³]	185.9		
	$\rho_{n,c}$ [kg/m ³]	2170		
	w_c [%]	20.6		
	u_{bk} [kPa]	1002		
	P [-]	2.30		
	Creep rate [%/h]	0.003		
Belastingsfase	v_{max} [%/h]	48.4		
	v [%/h]	1.0		
	Stopcriterium	ϵ_1 25%		
	Correction text	MP (Deltares)		
	$\sigma_{1,u} - \sigma_{3,u}$ [kPa]	389.9		
Na beproeving	f_{undr} [kPa]	194.9		
	$\epsilon_{1,50}$ [%]	3.78		
	E_{50} [MPa]	5.1		
	w_e [%]	19.1		
	Bezwijkfiguur			

Verticale rek [%]	$(\sigma'_1 + \sigma'_3)/2$ [kPa]	$(\sigma_1 - \sigma_3)/2$ [kPa]	c_u [kPa]
2.0	102.0	69.7	69.7
5.0	173.6	111.3	111.3
10.0	251.2	148.5	148.5
$\epsilon_{1,tmax}$ [%]	374.9	194.9	194.9

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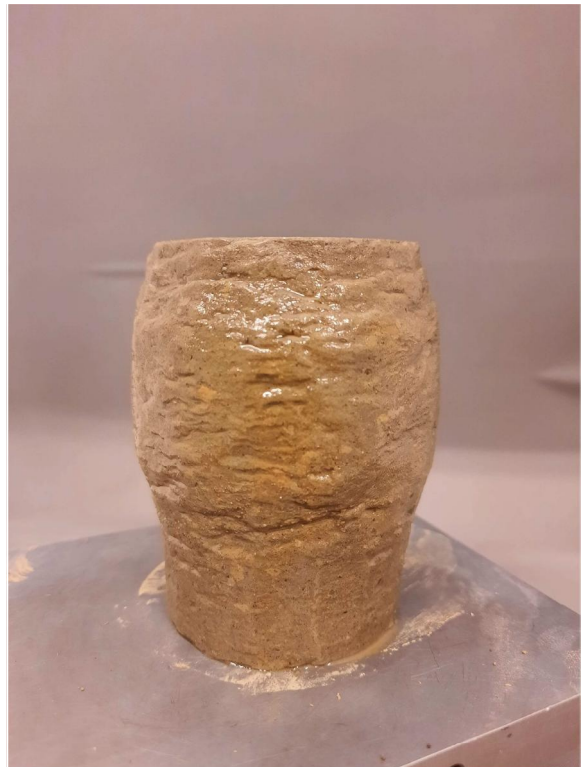
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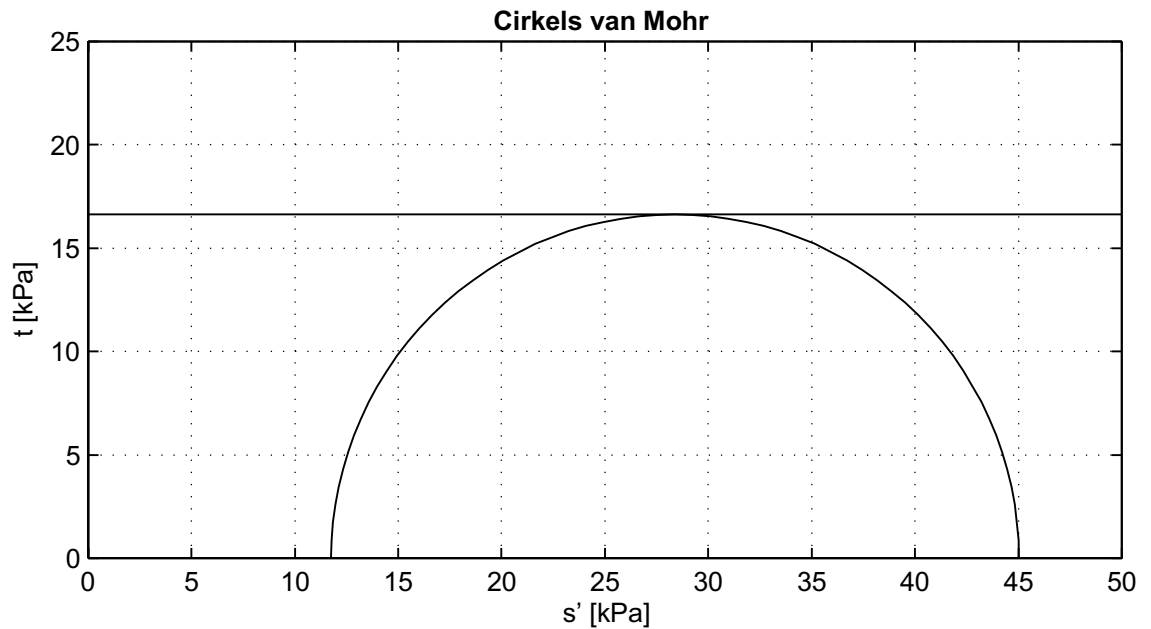
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Cirkels criterium	maximum t
c_u [kPa]	16.6

Voor beproeving

Fasenummer	1
Monsternaam	B003B203_CIU-9
m_i [g]	310.3
D_i [mm]	46.2
h_i [mm]	96.8
w_i [%]	29.9
$\rho_{i,bulk}$ [kg/m ³]	1912
$\rho_{i,dry}$ [kg/m ³]	1472
Grondsoort	klei

Remoulded, verdichting $w = 0.30$

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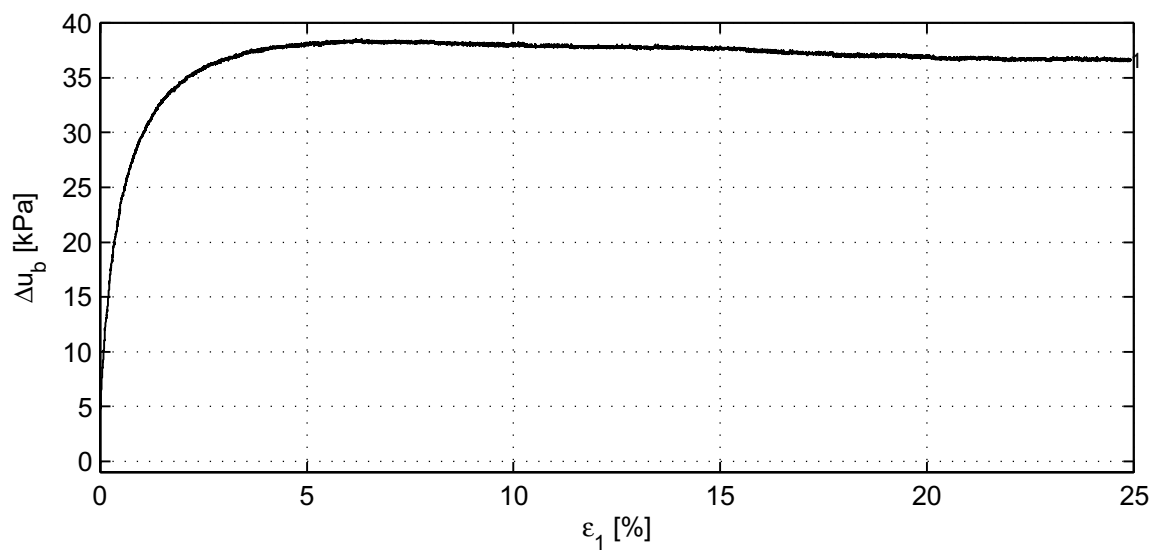
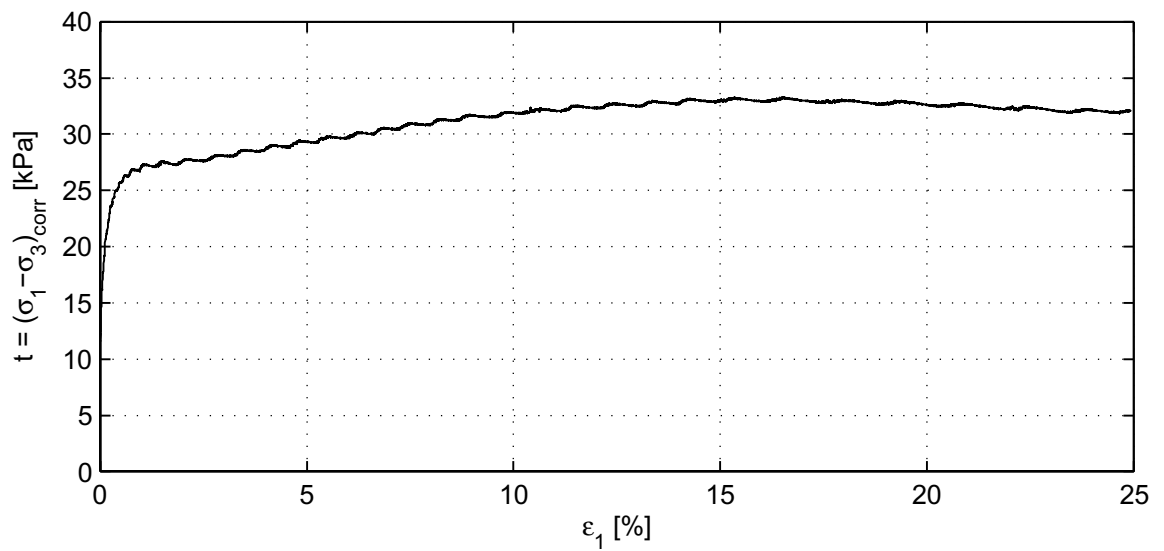
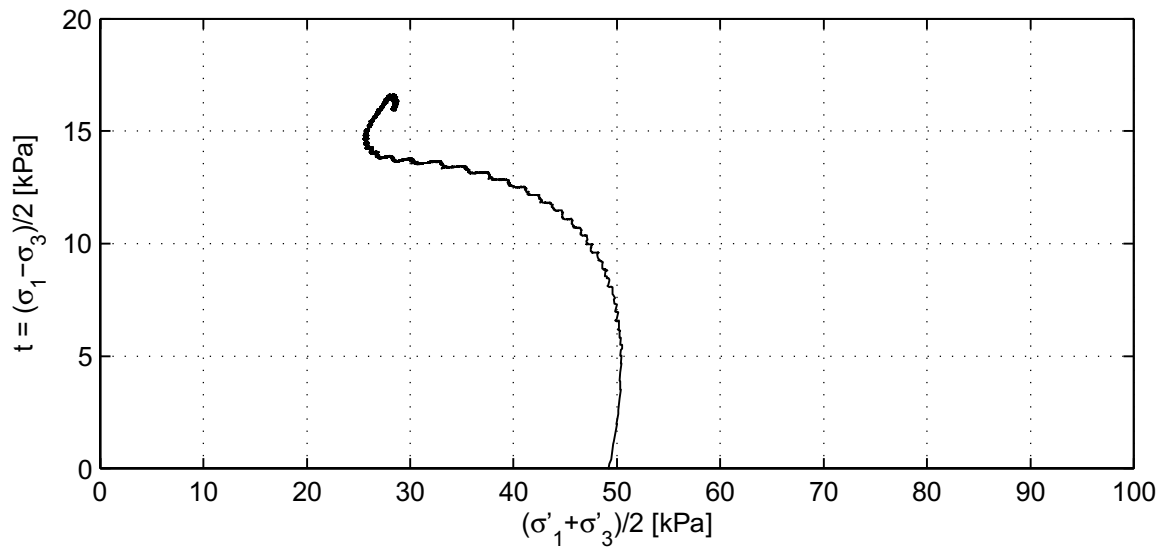
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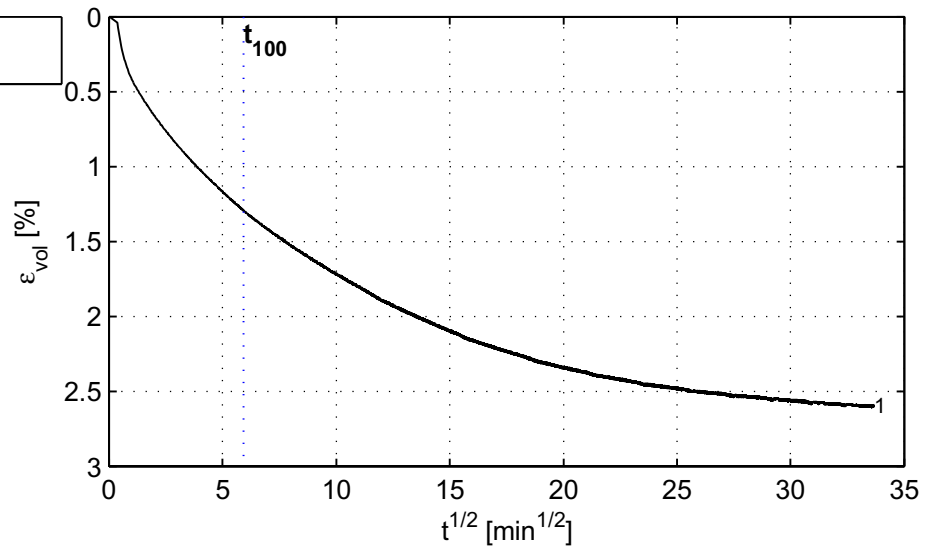
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Verzadigingsfase	B_0 [-]	0.97		
	B_1 [-]	0.97		
Consolidatiefase	$\sigma'_{1,c}$ [kPa]	49.1		
	$\sigma'_{3,c}$ [kPa]	49.1		
	t_{100} [min]	35.1		
	h_c [mm]	95.5		
	V_c [cm ³]	158.1		
	$\rho_{n,c}$ [kg/m ³]	1962		
	w_c [%]	29.8		
	u_{bk} [kPa]	501		
	P [-]	2.30		
	Creep rate [%/h]	0.007		
Belastingsfase	v_{max} [%/h]	3.7		
	v [%/h]	1.0		
	Stopcriterium	ϵ_1 25%		
	Correction text	MP (Deltares)		
Na beproeving	$\sigma_{1,u} - \sigma_{3,u}$ [kPa]	33.3		
	f_{undr} [kPa]	16.6		
	$\epsilon_{1,50}$ [%]	0.06		
	E_{50} [MPa]	30.3		
	w_e [%]	28.6		
	Bezwijkfiguur			

Verticale rek [%]	$(\sigma'_1 + \sigma'_3)/2$ [kPa]	$(\sigma_1 - \sigma_3)/2$ [kPa]	c_u [kPa]
2.0	28.3	13.8	13.8
5.0	25.6	14.7	14.7
10.0	27.1	16.0	16.0
$\epsilon_{1,max}$ [%]	28.4	16.6	16.6

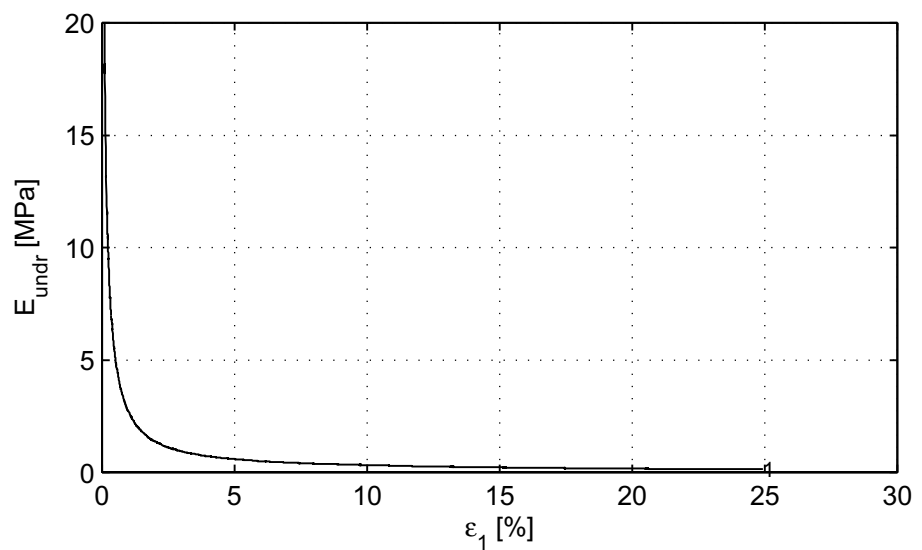
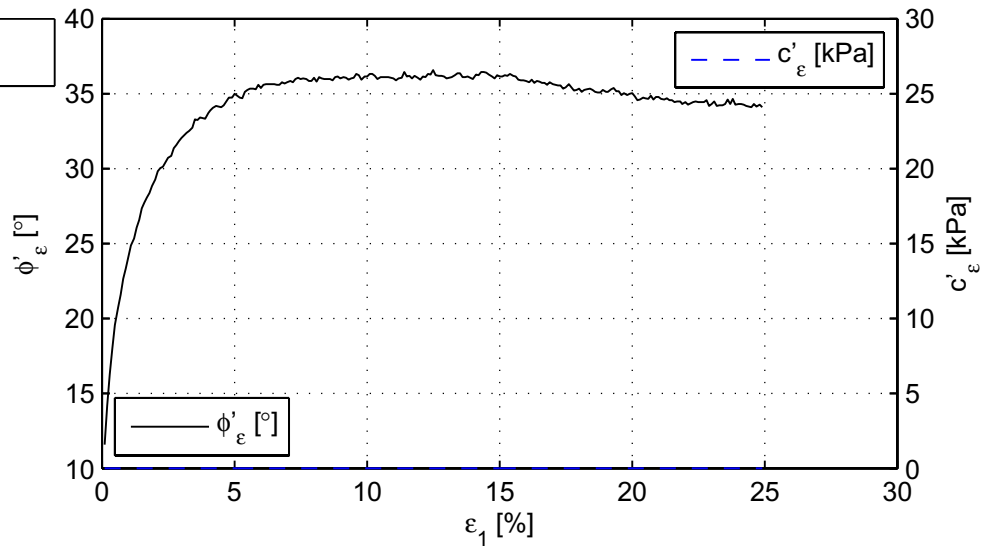
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Consolidatiefase



Belastingsfase



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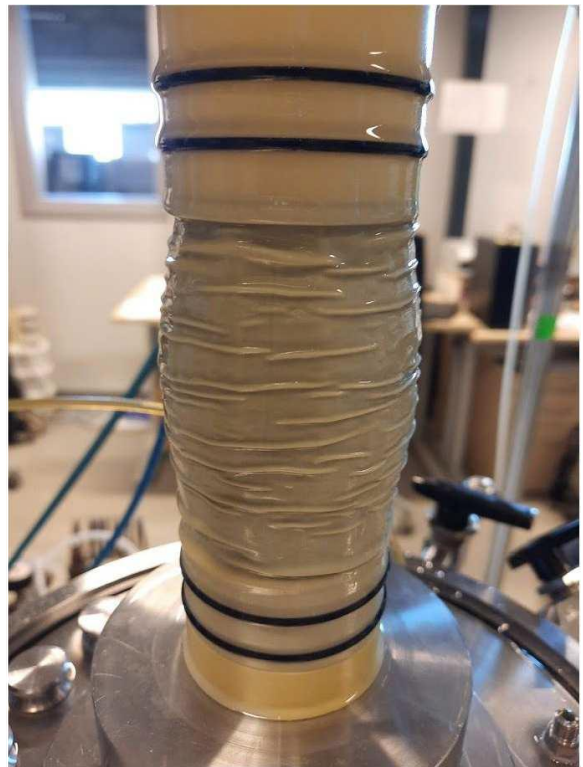
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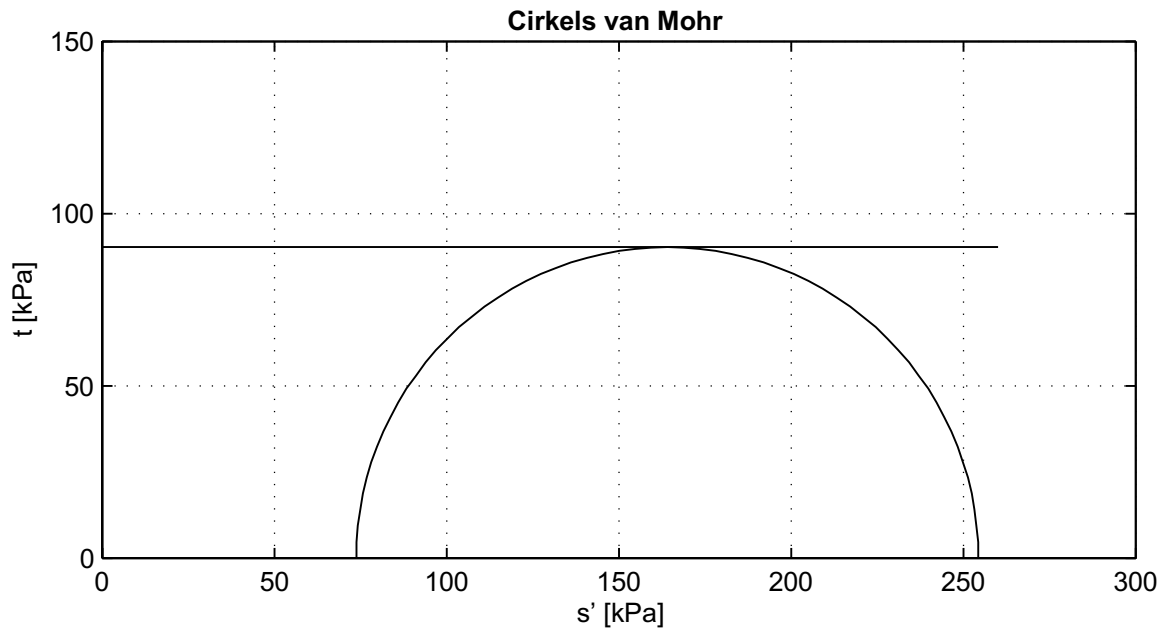
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Cirkels criterium	maximum t
c_u [kPa]	90.3

Voor beproeving

Fasenummer	1
Monsternaam	B003B203_CIU..
m_i [g]	337.1
D_i [mm]	47.6
h_i [mm]	97.2
w_i [%]	14.8
$\rho_{i,bulk}$ [kg/m ³]	1949
$\rho_{i,dry}$ [kg/m ³]	1697
Grondsoort	klei

Remoulded, verdichting $w = 0.15$

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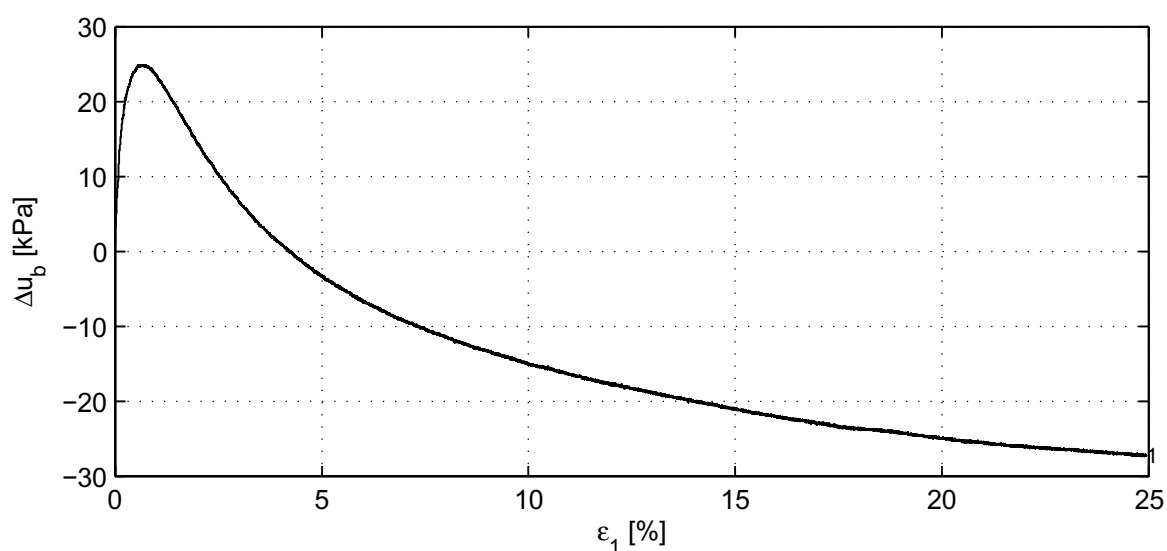
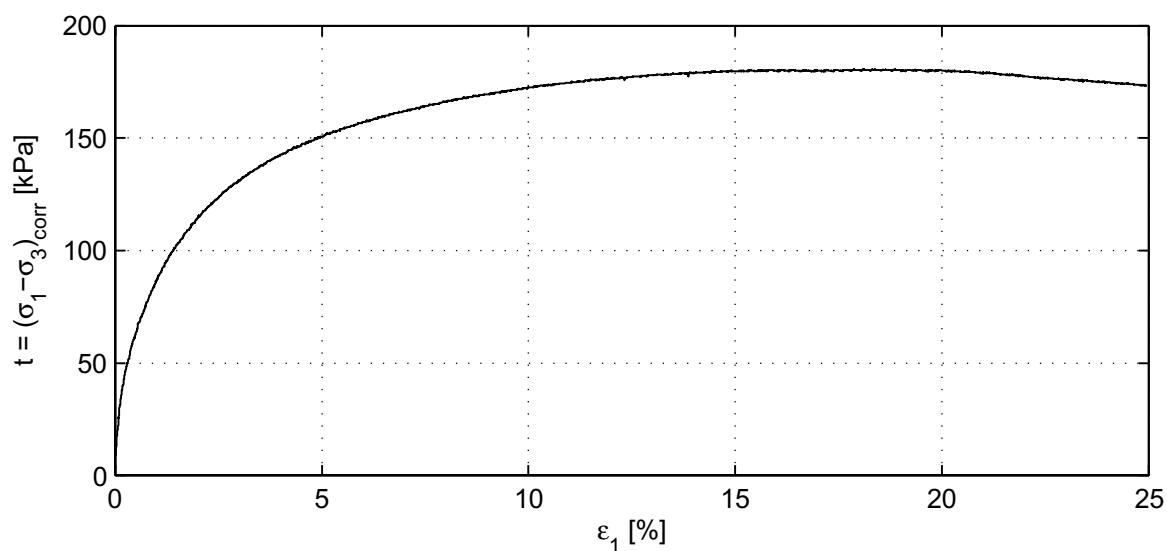
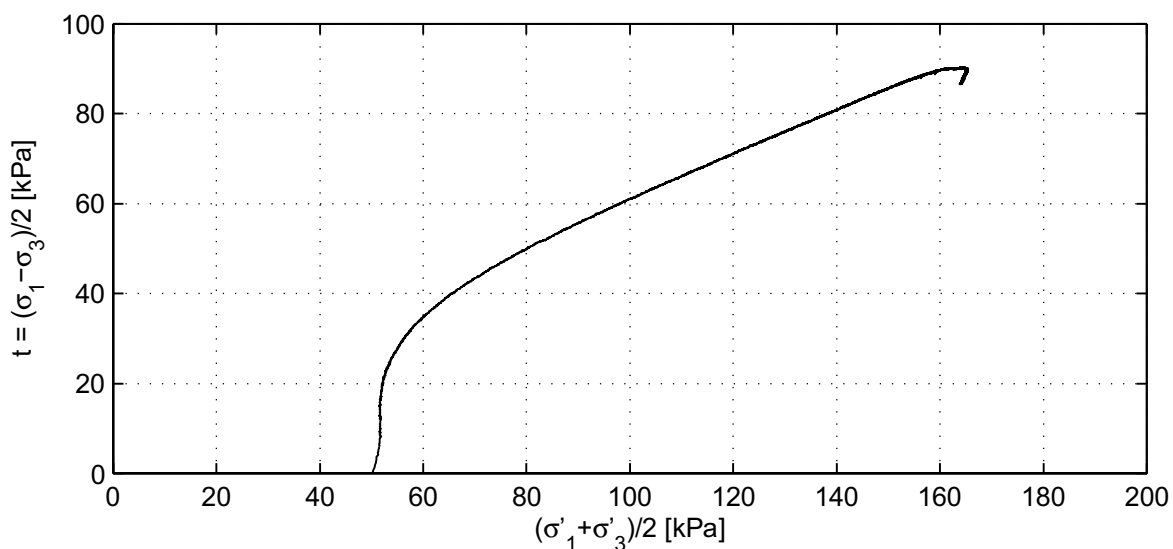
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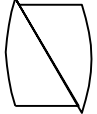
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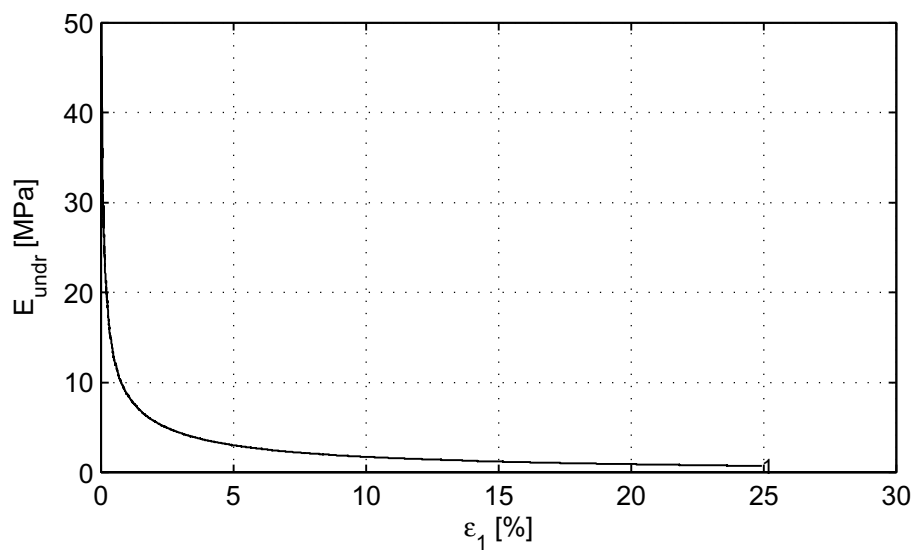
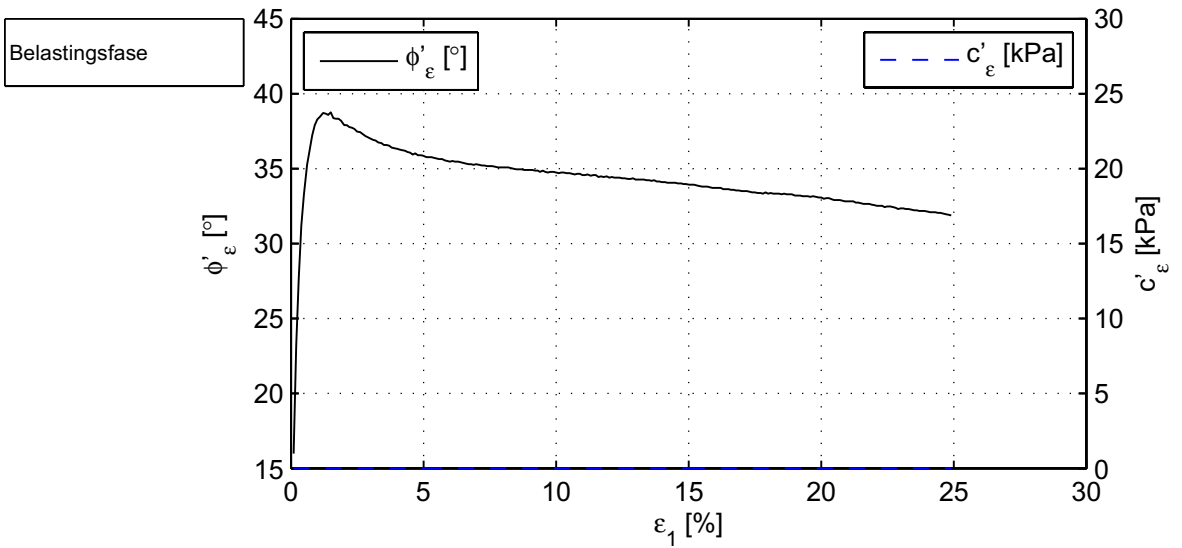
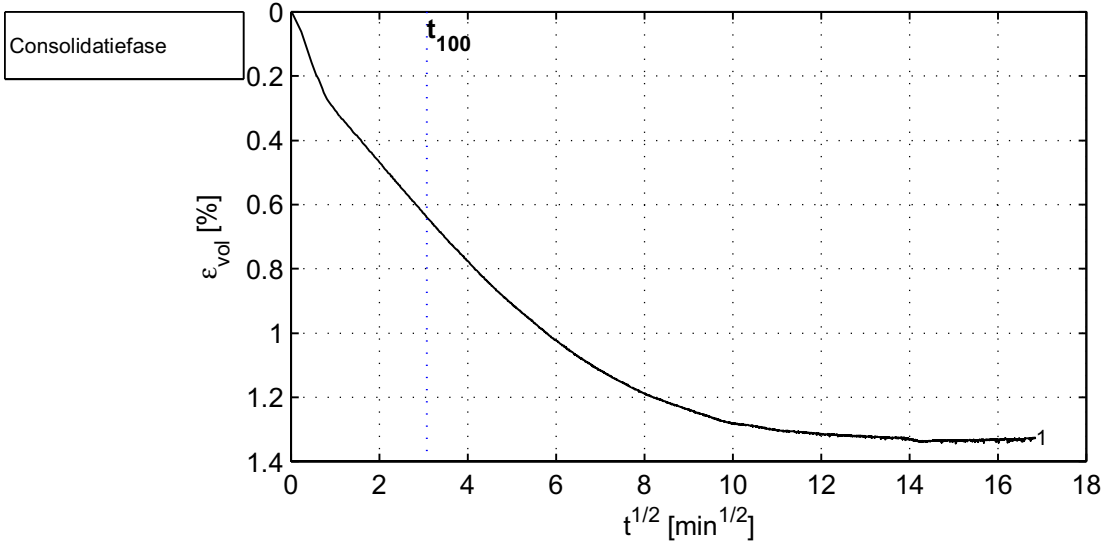
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	Belastingsfase	1	2	3
Verzadigingsfase	B_0 [-]	1.00		
	B_1 [-]	1.00		
Consolidatiefase	$\sigma'_{1,c}$ [kPa]	50.1		
	$\sigma'_{3,c}$ [kPa]	50.1		
	t_{100} [min]	9.5		
	h_c [mm]	97.0		
	V_c [cm ³]	170.7		
	$\rho_{n,c}$ [kg/m ³]	2123		
	w_c [%]	23.4		
	u_{bk} [kPa]	1002		
	P [-]	2.30		
	Creep rate [%/h]	-0.010		
Belastingsfase	v_{max} [%/h]	13.7		
	v [%/h]	1.0		
	Stopcriterium	ϵ_1 25%		
	Correction text	MP (Deltares)		
Na beproeving	$\sigma_{1,u} - \sigma_{3,u}$ [kPa]	180.5		
	f_{undr} [kPa]	90.3		
	$\epsilon_{1,50}$ [%]	1.10		
	E_{50} [MPa]	8.2		
	w_e [%]	21.8		
	Bezwijkfiguur			

Verticale rek [%]	$(\sigma'_1 + \sigma'_3)/2$ [kPa]	$(\sigma_1 - \sigma_3)/2$ [kPa]	c_u [kPa]
2.0	93.1	57.2	57.2
5.0	128.7	75.4	75.4
10.0	151.6	86.3	86.3
$\epsilon_{1,tmax}$ [%]	164.1	90.3	90.3

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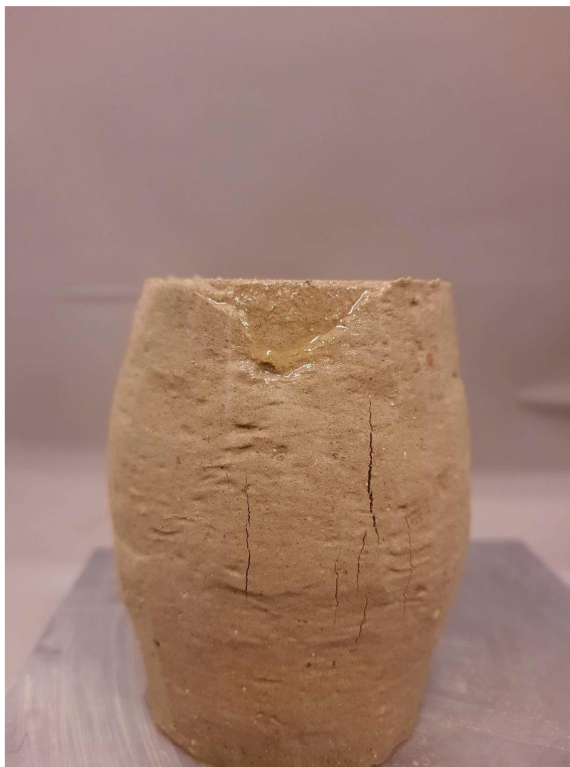
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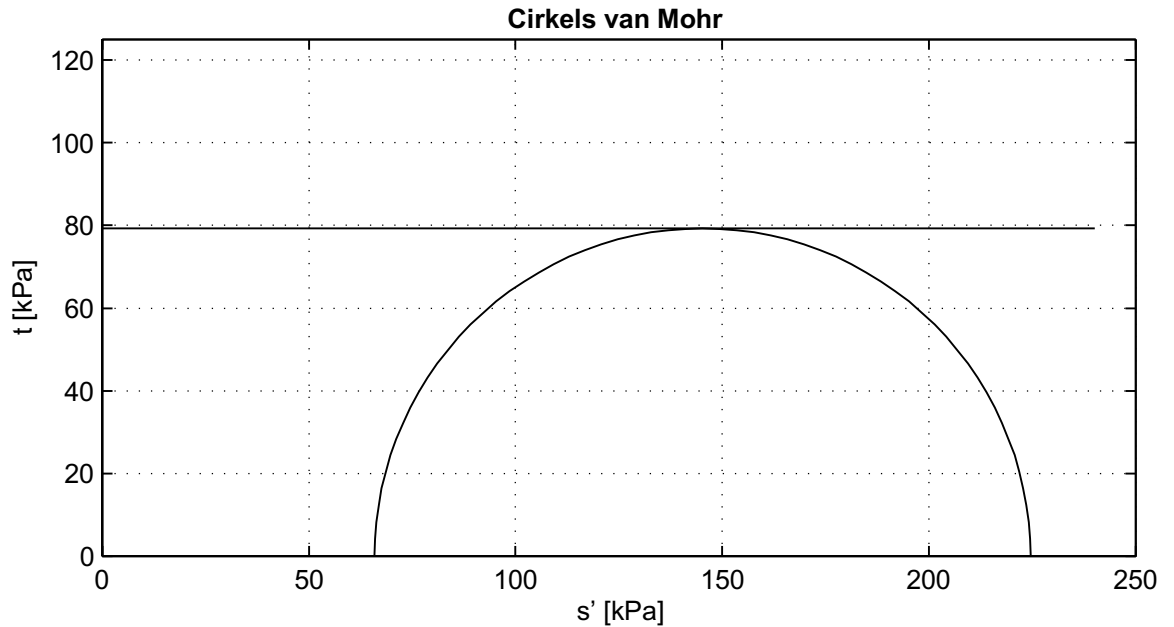
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Cirkels criterium	maximum t
c_u [kPa]	79.3

Voor beproeving

Fasenummer	1
Monsternaam	B003B203_CIU..
m_i [g]	405.7
D_i [mm]	50.6
h_i [mm]	99.9
w_i [%]	19.5
$\rho_{i,bulk}$ [kg/m ³]	2019
$\rho_{i,dry}$ [kg/m ³]	1690
Grondsoort	klei

Remoulded, verdichting $w = 0.20$
Er is geen consolidatie

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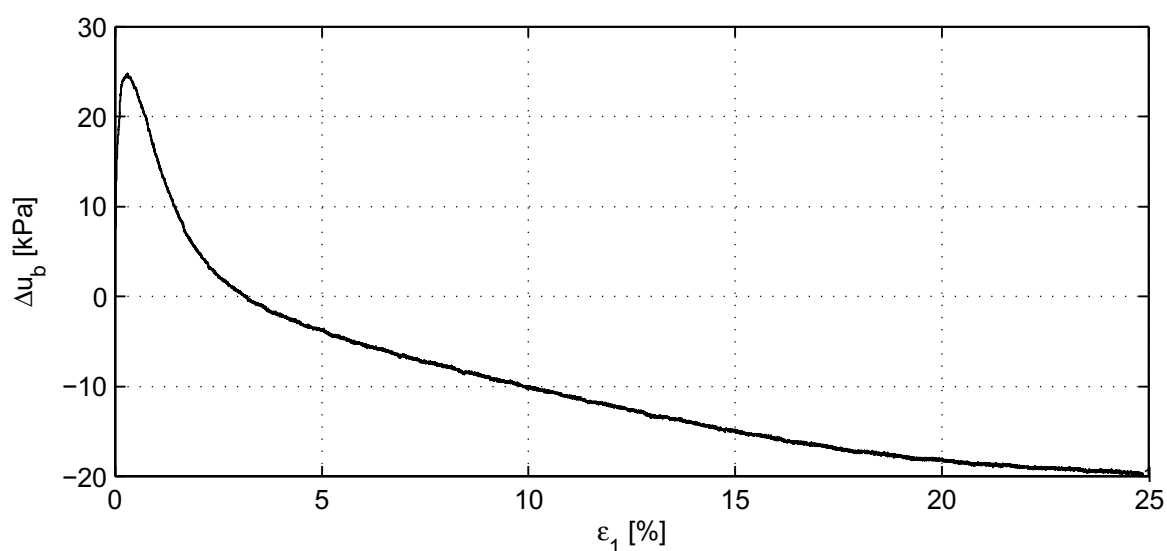
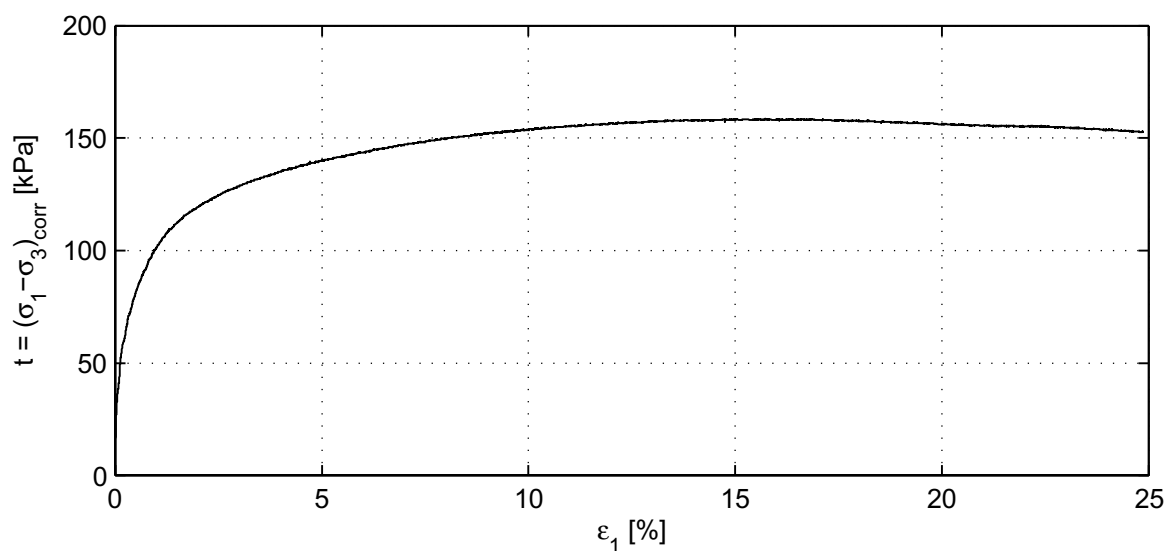
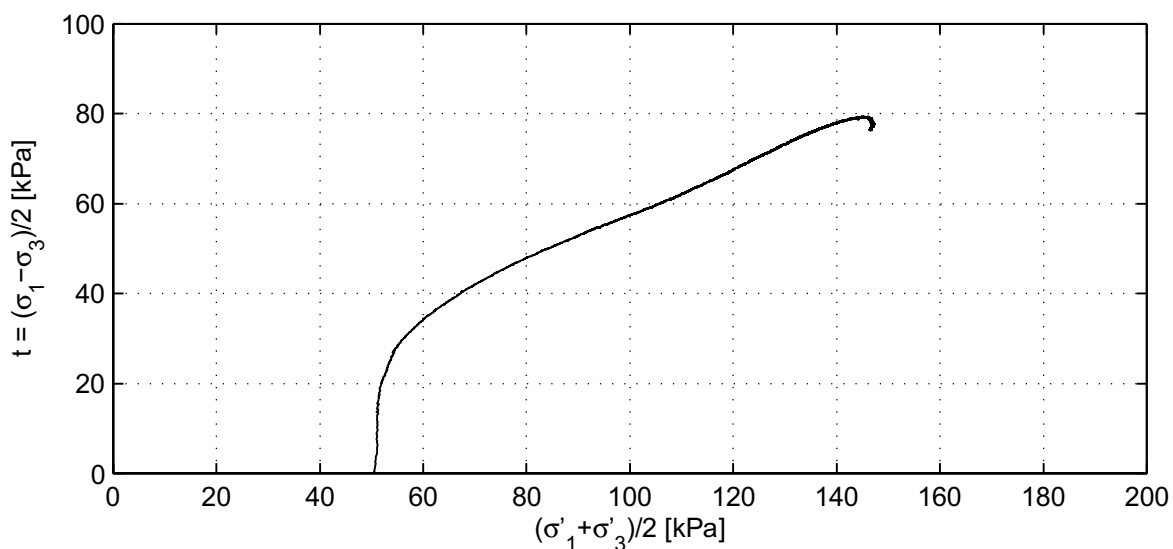
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KPP WK01 2020 – Kennis voor Keringen: Verlenging metingen

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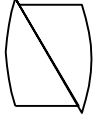
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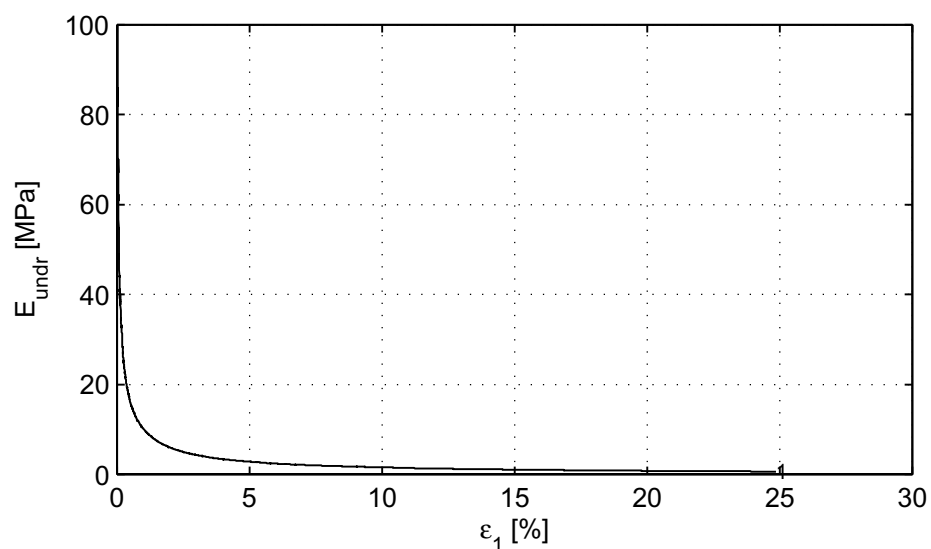
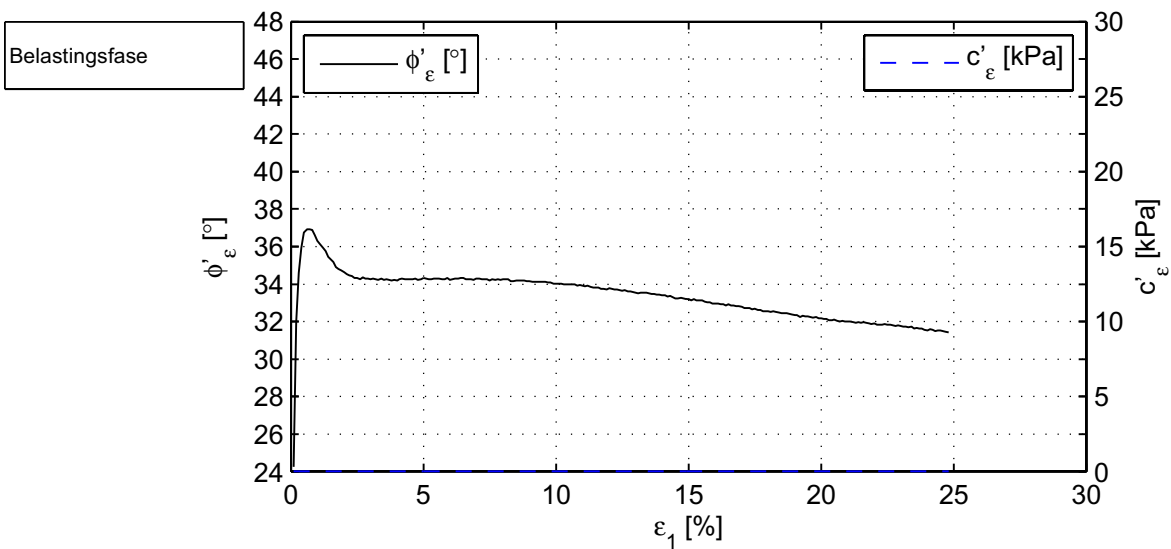
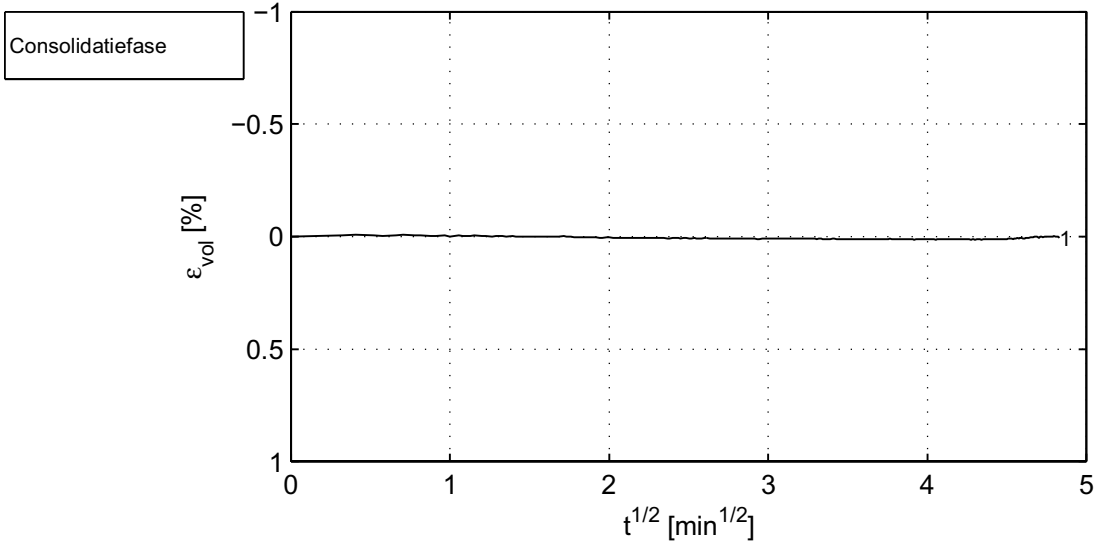
*) Gecontroleerd en vrijgegeven door konstadi op 2020-12-19

	Belastingsfase	1	2	3
Verzadigingsfase	B_0 [-]	0.95		
	B_1 [-]	0.97		
Consolidatiefase	$\sigma'_{1,c}$ [kPa]	50.4		
	$\sigma'_{3,c}$ [kPa]	50.4		
	t_{100} [min]	-		
	h_c [mm]	-		
	V_c [cm ³]	200.9		
	$\rho_{n,c}$ [kg/m ³]	2068		
	w_c [%]	22.3		
	u_{bk} [kPa]	700		
	P [-]	2.30		
	Creep rate [%/h]	-0.001		
Belastingsfase	v_{max} [%/h]	-		
	v [%/h]	1.0		
	Stopcriterium	ϵ_1 25%		
	Correction text	MP (Deltares)		
	$\sigma_{1,u} - \sigma_{3,u}$ [kPa]	158.6		
Na beproeving	f_{undr} [kPa]	79.3		
	$\epsilon_{1,50}$ [%]	0.47		
	E_{50} [MPa]	17.1		
	w_e [%]	22.5		
	Bezwijkfiguur			

Verticale rek [%]	$(\sigma'_1 + \sigma'_3)/2$ [kPa]	$(\sigma_1 - \sigma_3)/2$ [kPa]	c_u [kPa]
2.0	105.0	59.7	59.7
5.0	124.2	70.0	70.0
10.0	137.4	76.8	76.8
$\epsilon_{1,tmax}$ [%]	145.2	79.3	79.3

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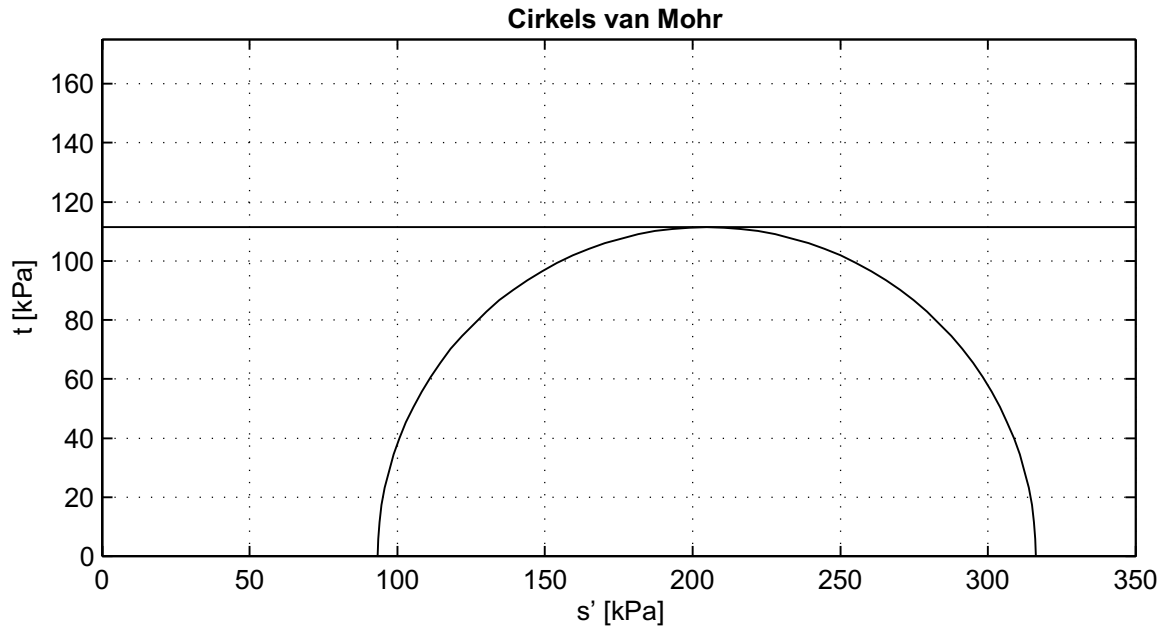
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Cirkels criterium	maximum t
c_u [kPa]	111.4

Voor beproeving

Fasenummer	1
Monsternaam	B003B203_CIU..
m_i [g]	282.4
D_i [mm]	45.2
h_i [mm]	93.8
w_i [%]	7.0
$\rho_{i,bulk}$ [kg/m ³]	1876
$\rho_{i,dry}$ [kg/m ³]	1754
Grondsoort	klei

Remoulded, verdichting $w = 0.07$
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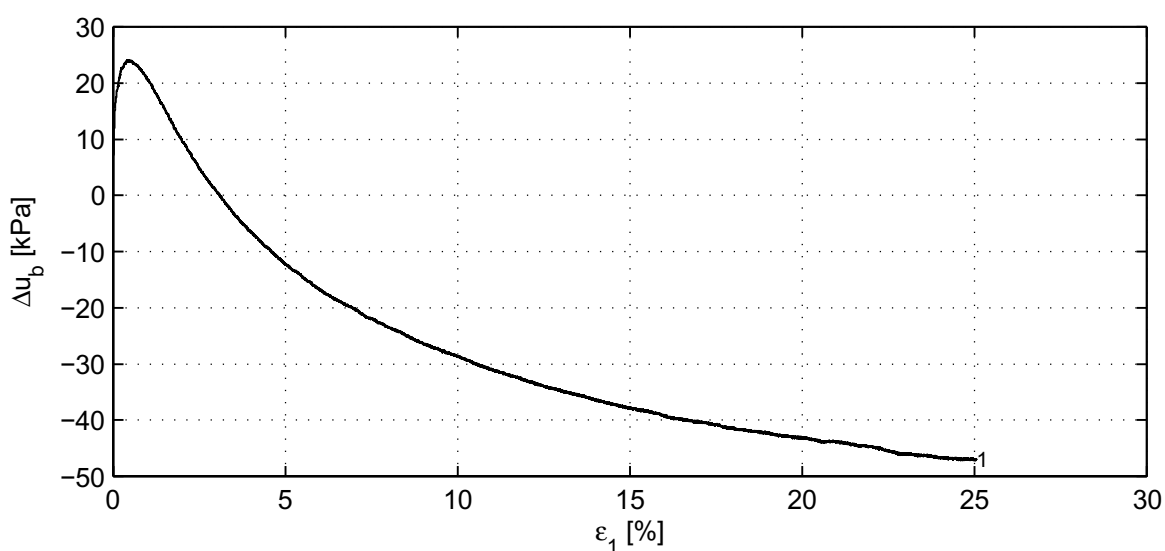
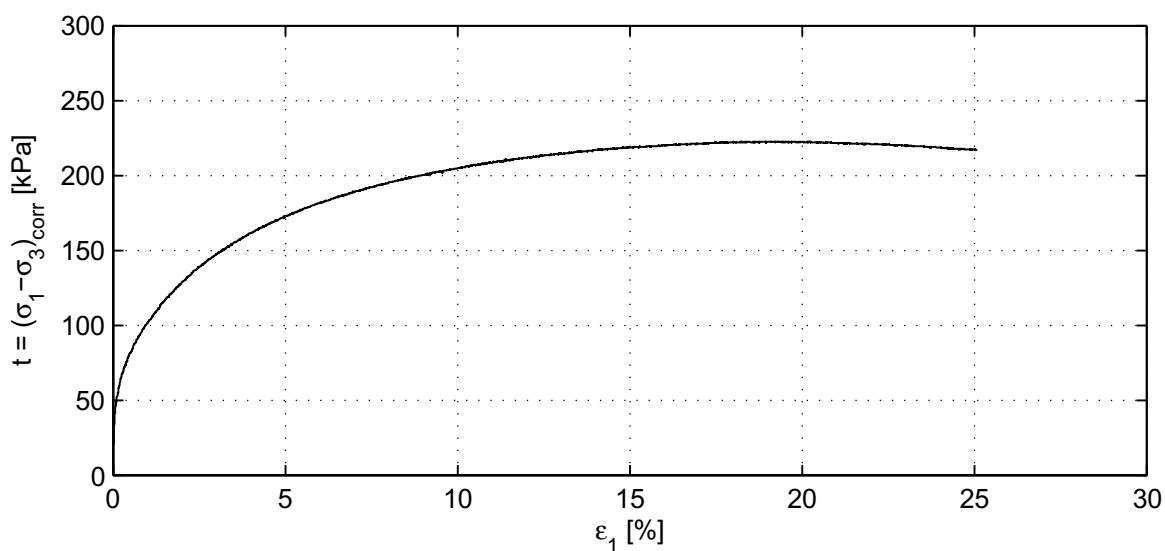
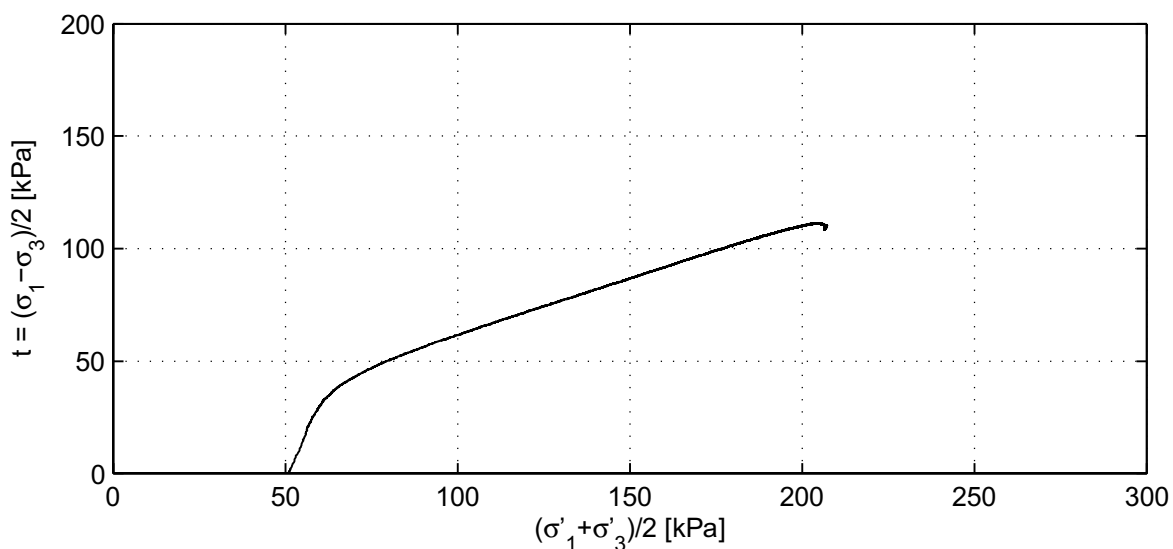
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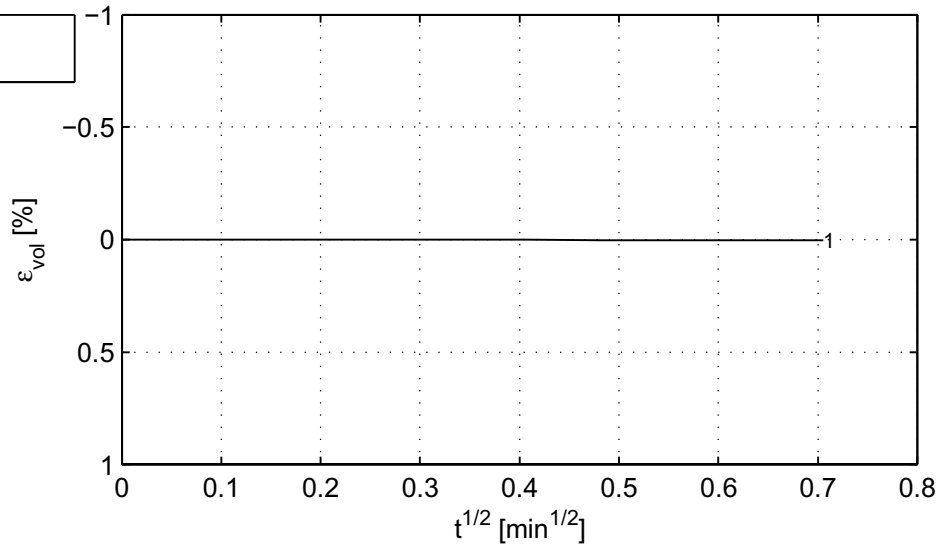
	Belastingsfase	1	2	3
Verzadigingsfase	B_0 [-]	0.88		
	B_1 [-]	0.96		
Consolidatiefase	$\sigma'_{1,c}$ [kPa]	51.4		
	$\sigma'_{3,c}$ [kPa]	50.8		
	t_{100} [min]	-		
	h_c [mm]	93.8		
	V_c [cm ³]	150.5		
	$\rho_{n,c}$ [kg/m ³]	2140		
	w_c [%]	22.0		
	u_{bk} [kPa]	1203		
	P [-]	2.30		
	Creep rate [%/h]	1.094		
Belastingsfase	v_{max} [%/h]	-		
	v [%/h]	1.0		
	Stopcriterium	ϵ_1 25%		
	Correction text	MP (Deltares)		
	$\sigma_{1,u} - \sigma_{3,u}$ [kPa]	222.9		
Na beproeving	f_{undr} [kPa]	111.4		
	$\epsilon_{1,50}$ [%]	1.34		
	E_{50} [MPa]	8.3		
	w_e [%]	21.7		
	Bezwijkfiguur			

Verticale rek [%]	$(\sigma'_1 + \sigma'_3)/2$ [kPa]	$(\sigma_1 - \sigma_3)/2$ [kPa]	c_u [kPa]
2.0	105.4	64.3	64.3
5.0	149.3	86.3	86.3
10.0	181.9	102.5	102.5
$\epsilon_{1,tmax}$ [%]	204.7	111.4	111.4

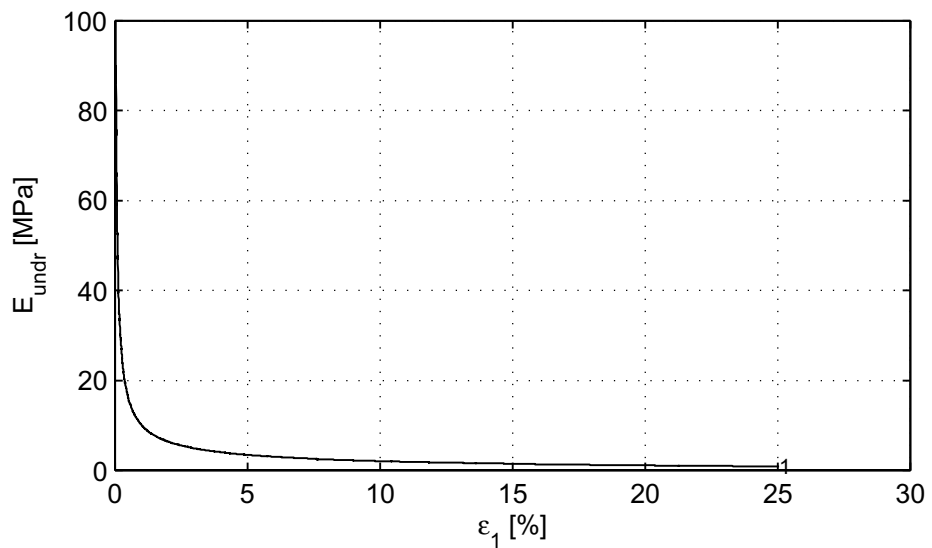
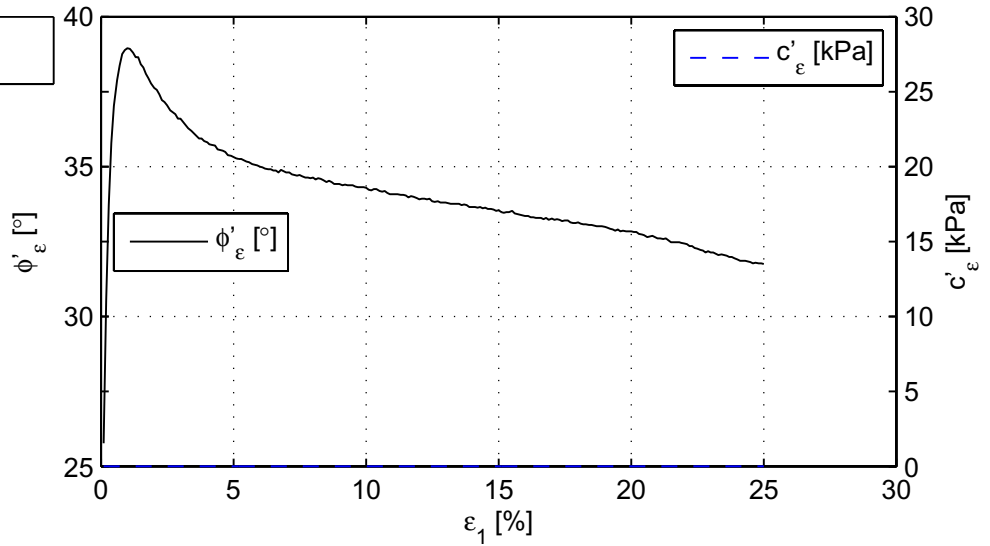
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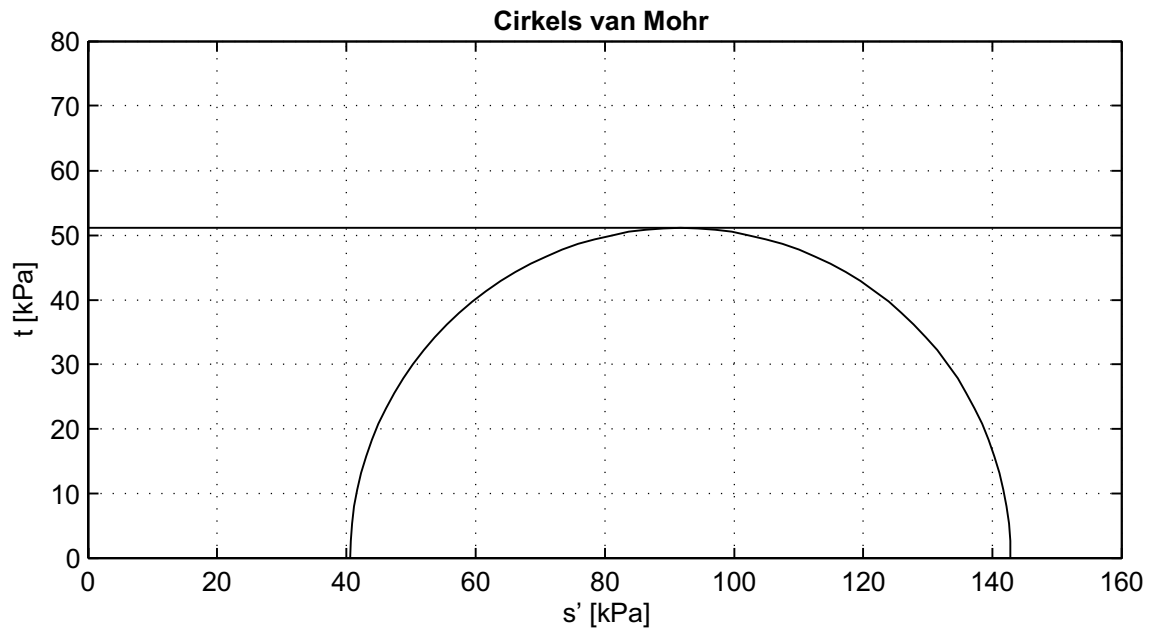
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Cirkels criterium	maximum t
c_u [kPa]	51.1

Voor beproeving

Fasenummer	1
Monsternaam	B003B203_CIU..
m_i [g]	396.6
D_i [mm]	50.3
h_i [mm]	99.3
w_i [%]	21.6
$\rho_{i,bulk}$ [kg/m ³]	2010
$\rho_{i,dry}$ [kg/m ³]	1653
Grondsoort	klei

Remoulded, verdichting $w = 0.22$

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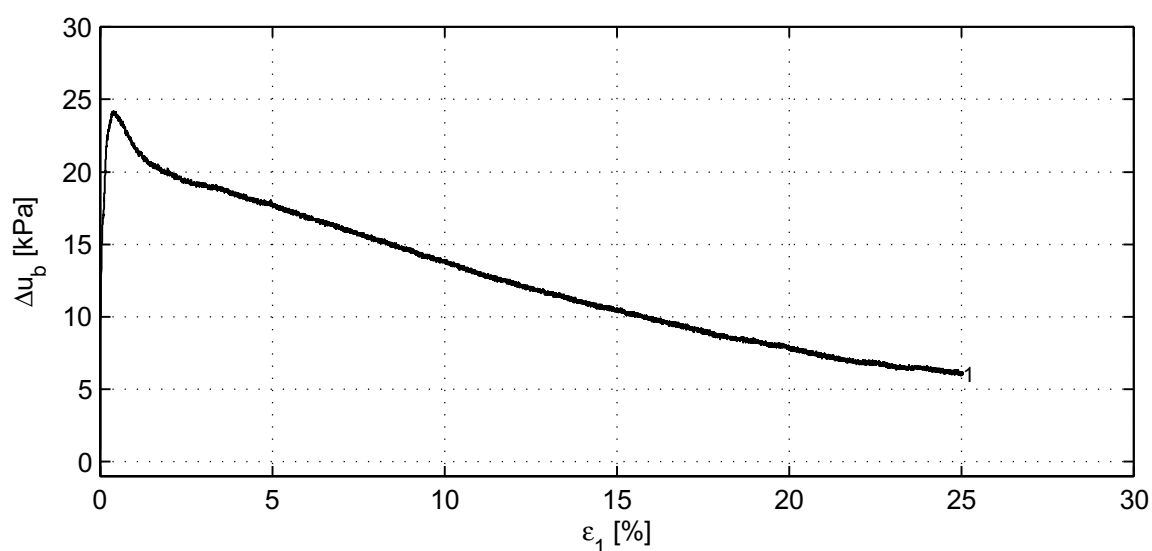
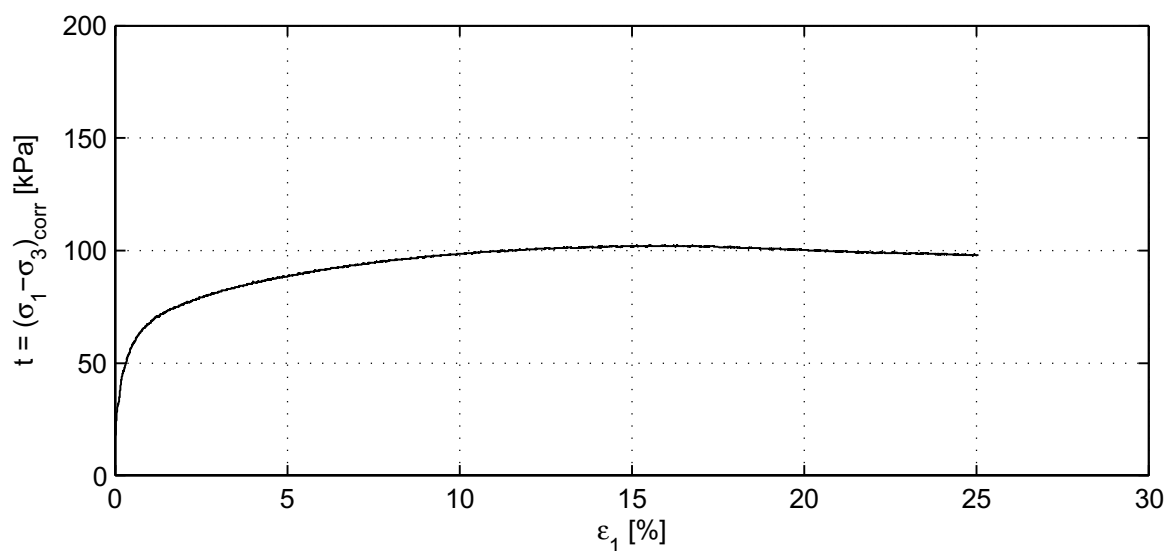
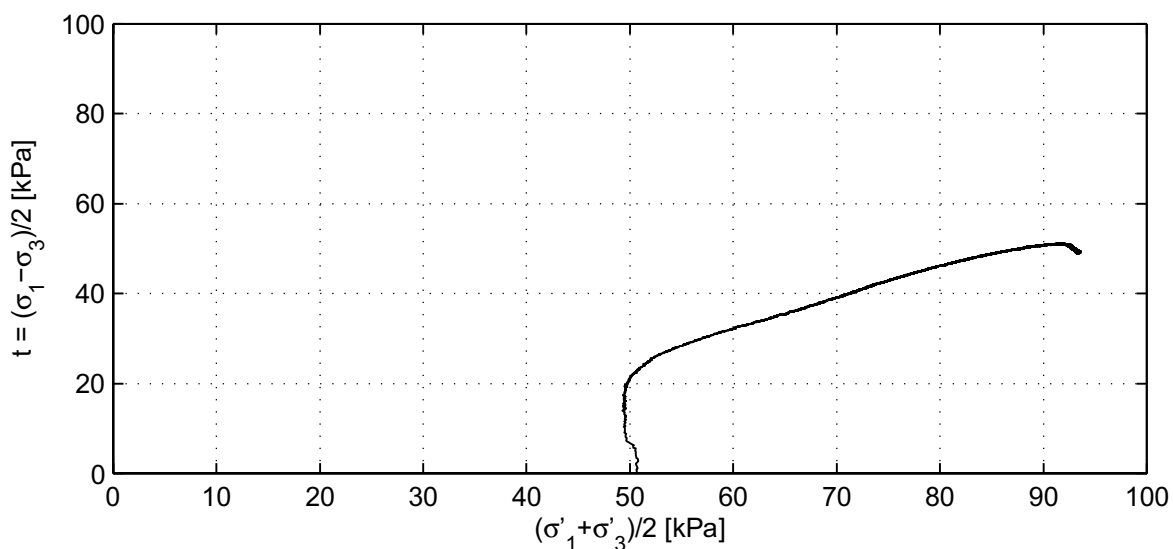
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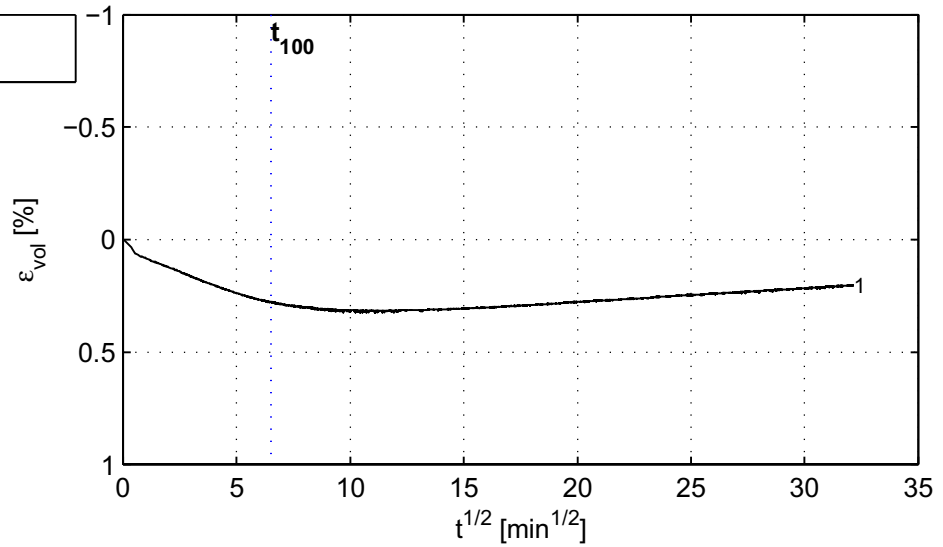
	Belastingsfase	1	2	3
Verzadigingsfase	B_0 [-]	0.95		
	B_1 [-]	0.98		
Consolidatiefase	$\sigma'_{1,c}$ [kPa]	50.5		
	$\sigma'_{3,c}$ [kPa]	50.5		
	t_{100} [min]	42.3		
	h_c [mm]	99.1		
	V_c [cm ³]	196.9		
	$\rho_{n,c}$ [kg/m ³]	2012		
	w_c [%]	21.5		
	u_{bk} [kPa]	801		
	P [-]	2.30		
	Creep rate [%/h]	-0.005		
Belastingsfase	v_{max} [%/h]	3.1		
	v [%/h]	1.0		
	Stopcriterium	ϵ_1 25%		
	Correction text	MP (Deltares)		
	$\sigma_{1,u} - \sigma_{3,u}$ [kPa]	102.2		
Na beproeving	f_{undr} [kPa]	51.1		
	$\epsilon_{1,50}$ [%]	0.34		
	E_{50} [MPa]	15.1		
	w_e [%]	23.6		
	Bezwijkfiguur			

Verticale rek [%]	$(\sigma'_1 + \sigma'_3)/2$ [kPa]	$(\sigma'_1 - \sigma'_3)/2$ [kPa]	c_u [kPa]
2.0	68.8	38.1	38.1
5.0	77.0	44.2	44.2
10.0	85.9	49.3	49.3
$\epsilon_{1,max}$ [%]	91.7	51.1	51.1

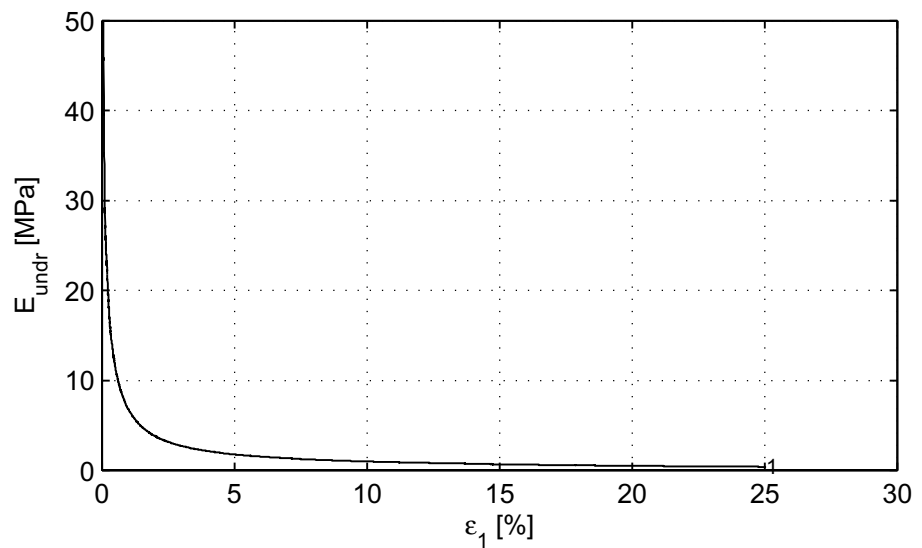
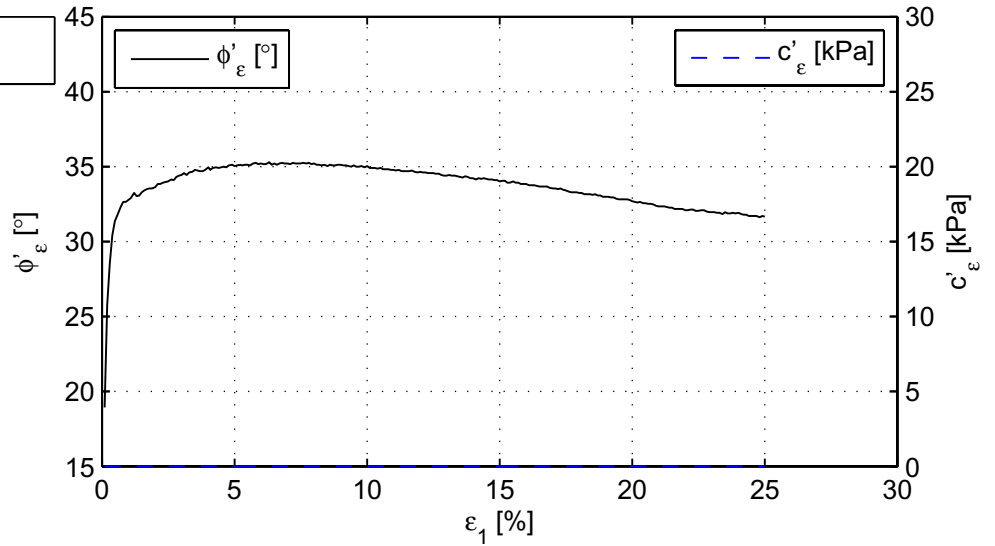
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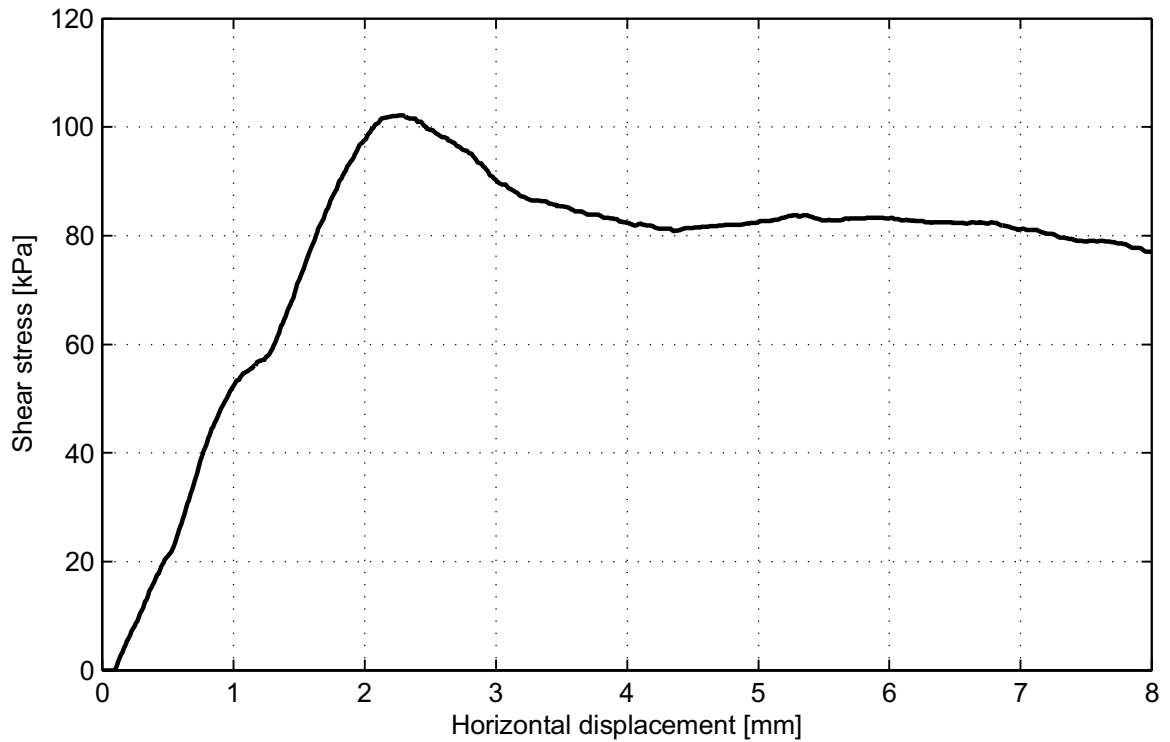
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Description of soil sample:

Material	Klei, zwak siltig
Temperature [°C]	20.5
Pressure area [cm ²]	31.17
Test method	dry
Sample quality	undisturbed
Sample identification	2
Bor. No.	B003
Depth top [m]	8.50
Diameter [mm]	63
Initial height [mm]	21
ρ (initial) [g/cm ³]	1.61
e (initial) [-]	-
e (final) [-]	-
w (initial) [%]	13.7
w (final) [%]	14.3
Shear rate [mm/h]	8.3
ρ_{solid} [gr/cm ³]	-
Mean vertical stress [kPa]	9.0
Maximum shear stress [kPa]	102.1

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Direct Shear test on sample 2

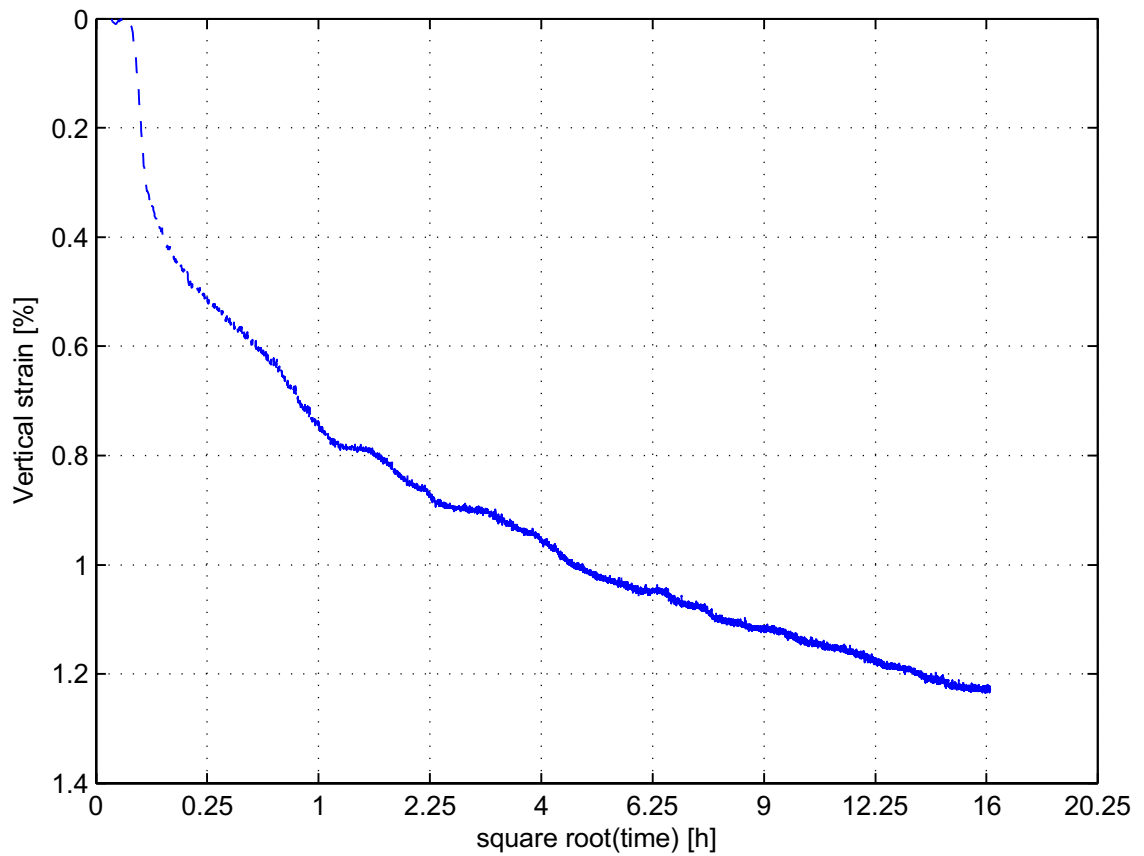
Direct Shear Test

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Direct Shear test on sample 2

Direct Shear Test

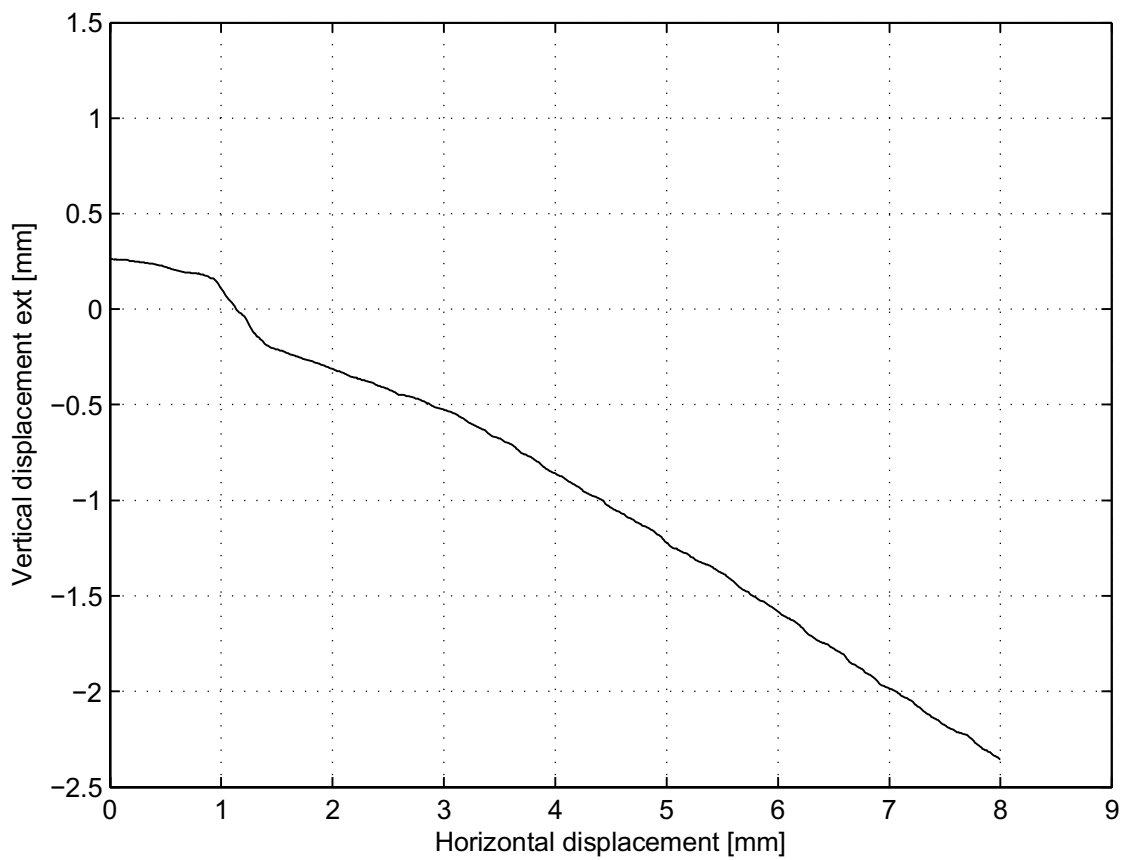
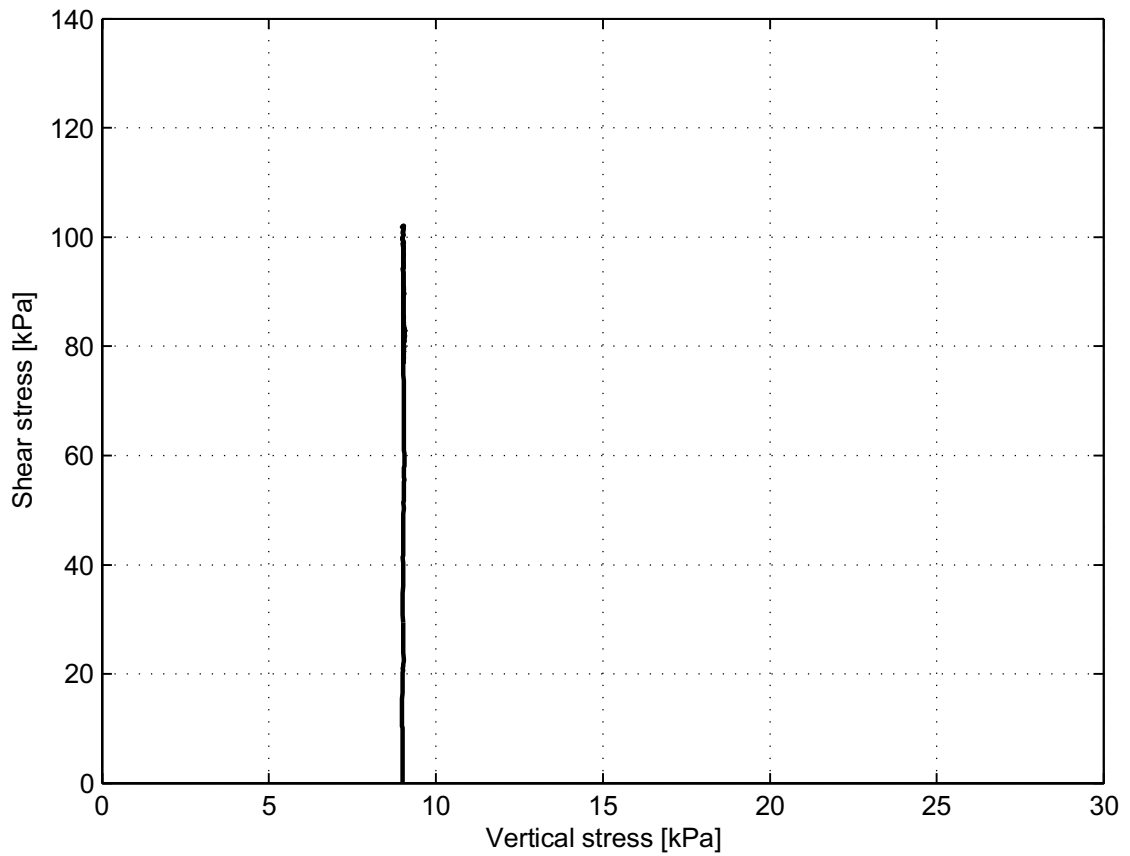
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Direct Shear test on sample 2

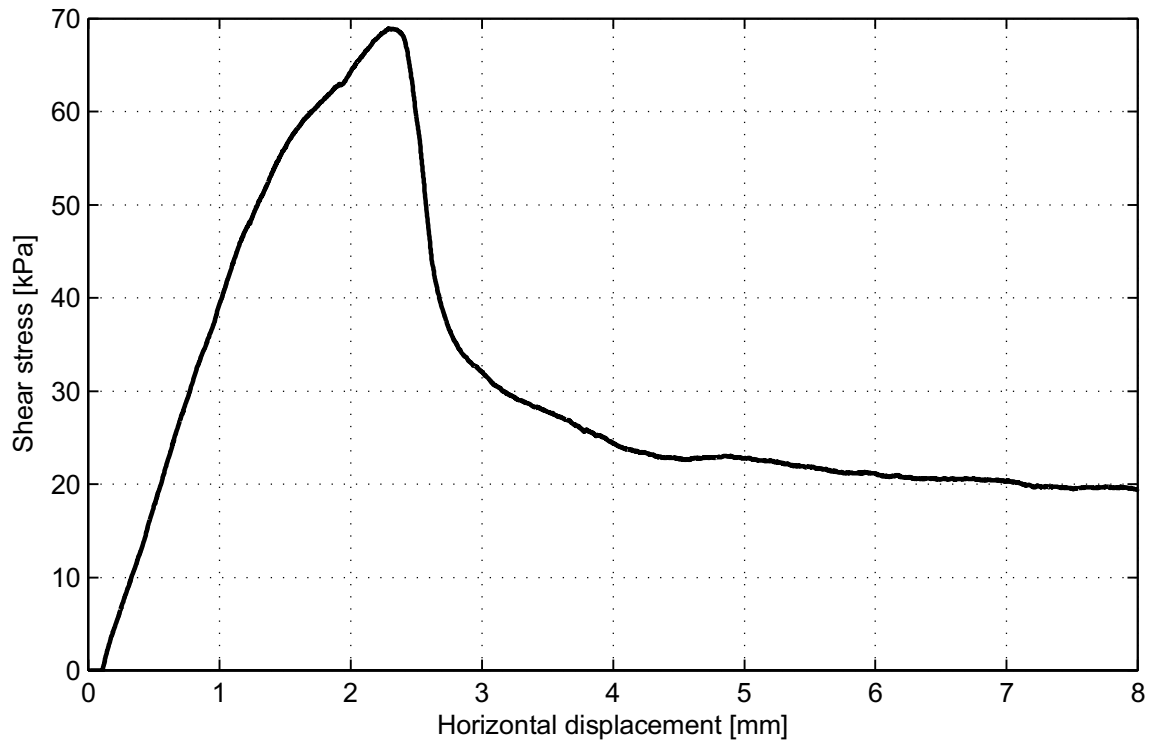
Direct Shear Test

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Description of soil sample:

Material	Klei, zwak siltig
Temperature [°C]	20.5
Pressure area [cm ²]	31.17
Test method	dry
Sample quality	undisturbed
Sample identification	14
Bor. No.	B203
Depth top [m]	9.70
Diameter [mm]	63
Initial height [mm]	21
ρ (initial) [g/cm ³]	1.79
e (initial) [-]	-
e (final) [-]	-
w (initial) [%]	13.2
w (final) [%]	13.0
Shear rate [mm/h]	1.6
ρ_{solid} [gr/cm ³]	-
Mean vertical stress [kPa]	11.0
Maximum shear stress [kPa]	68.9

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Direct Shear test on sample 14

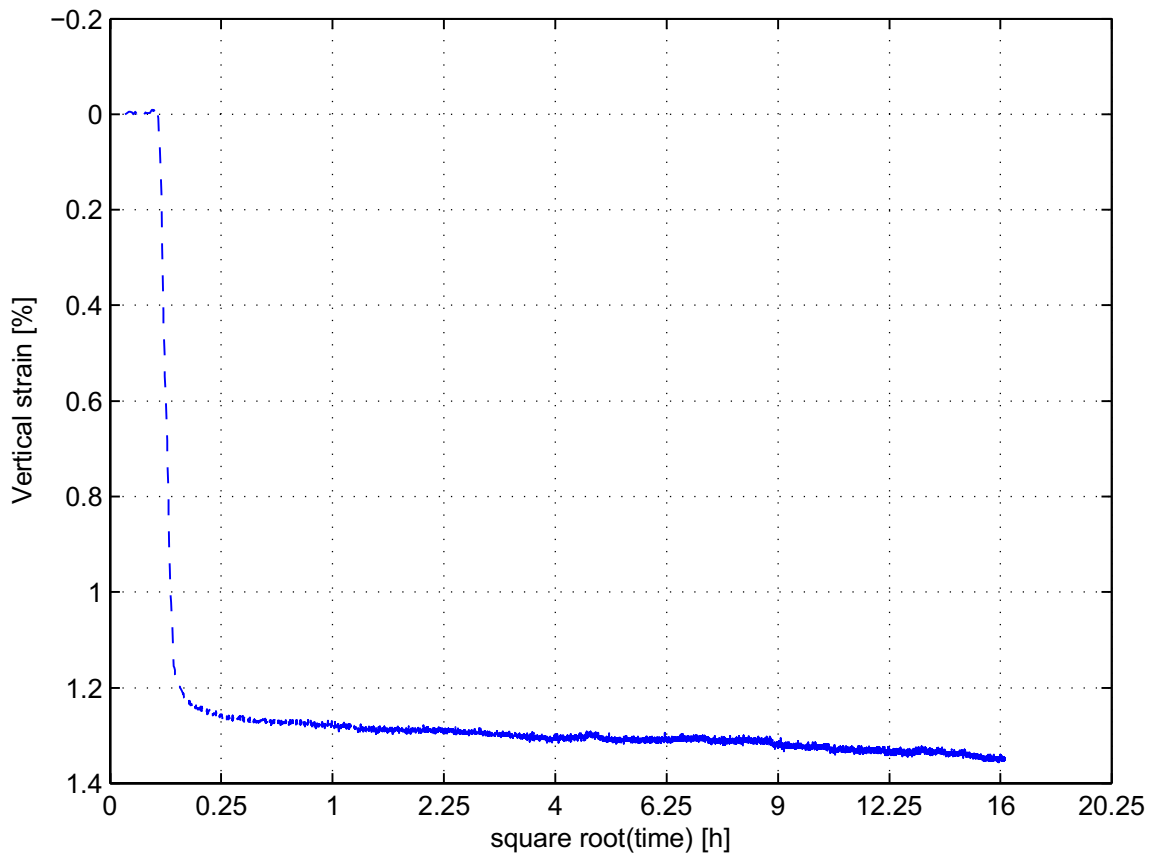
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Direct Shear test on sample 14

Direct Shear Test

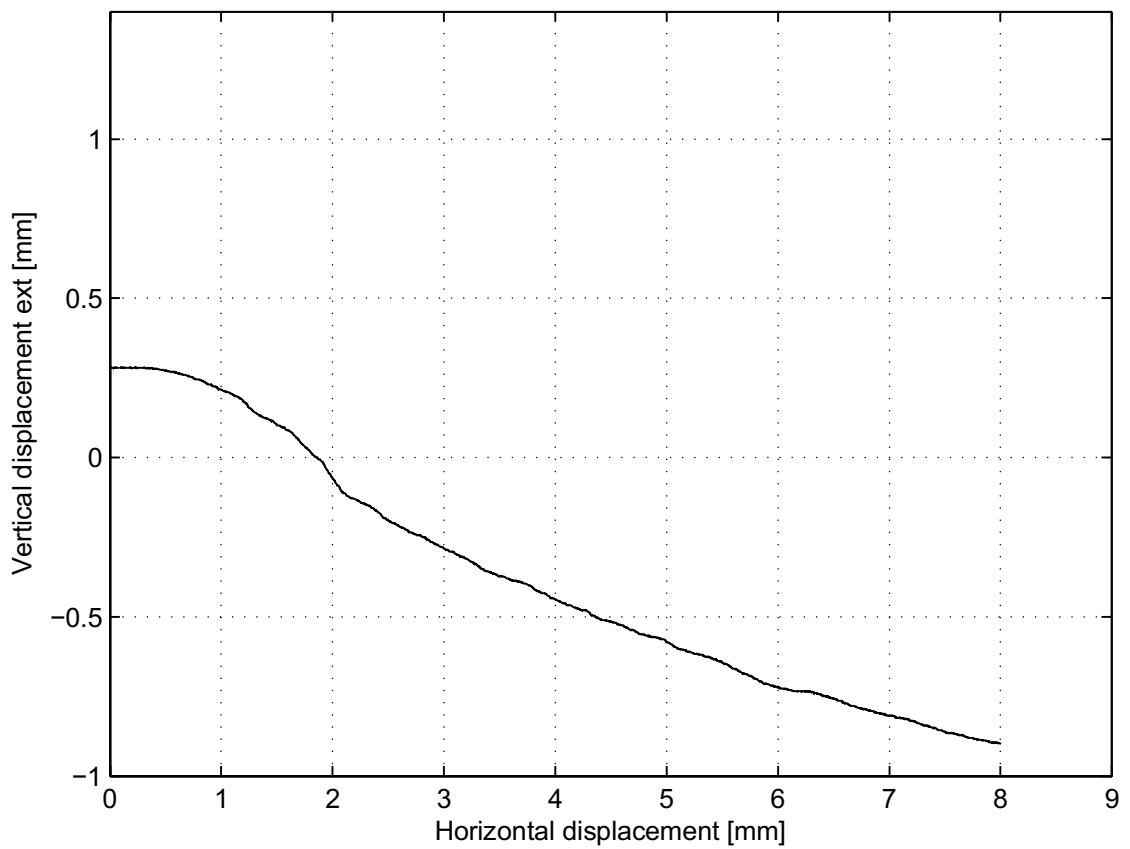
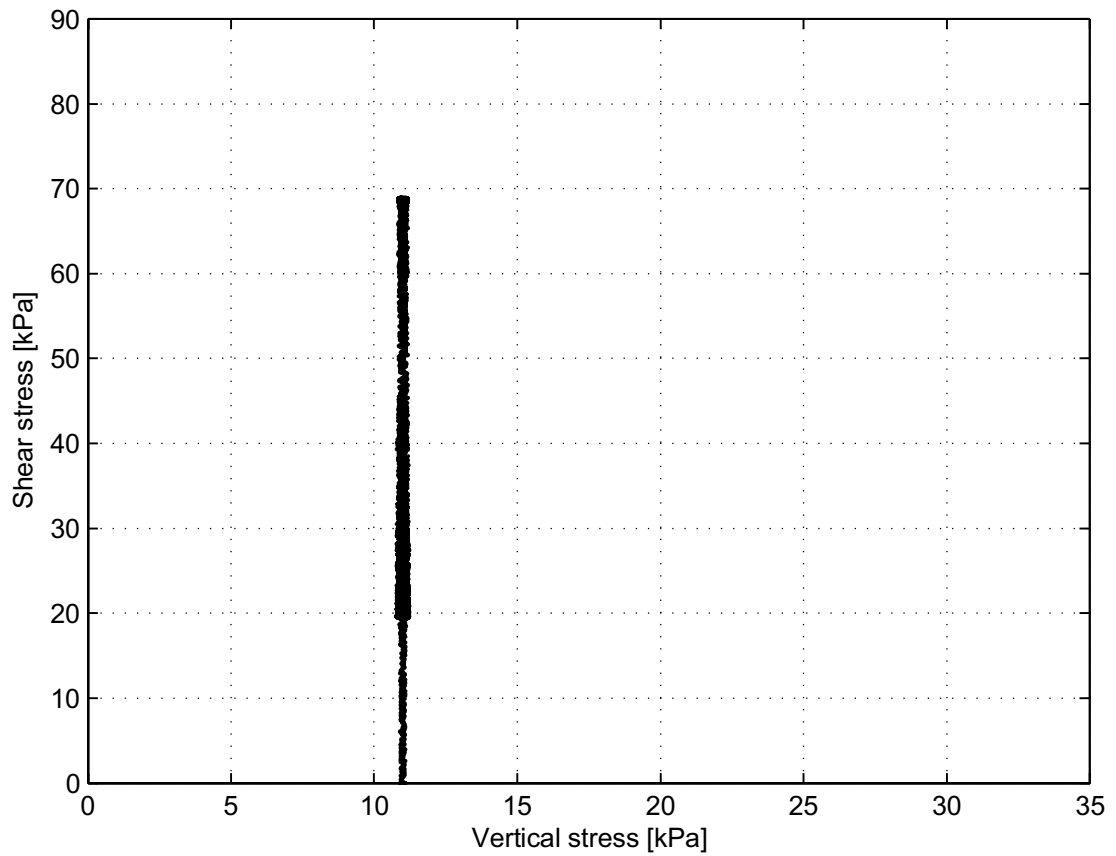
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KPP WK01 2020 – Kennis voor Keringen: Verlenging metingen

Direct Shear test on sample 14

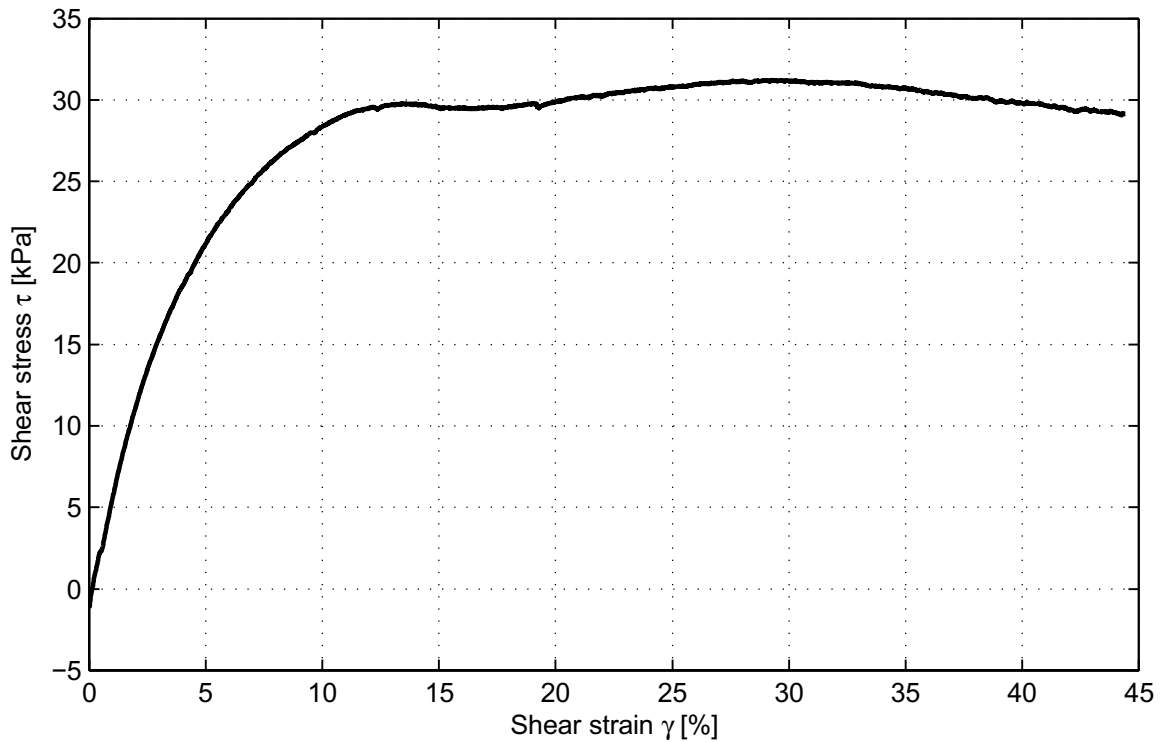
Direct Shear Test

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11205262.12

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Description of soil sample:

NEN5104 voluit	Clay, slightly silty
Pressure area [cm ²]	31.17
Mean temperature during shear [°C]	21.9
Test type	Constant stress
Apparaatcode	DSS-C-132-500N
Monsternaam	4
Code Boring	B003
Diepte van NAP [m]	7.25
Diepte tot NAP [m]	7.20
Specimen condition	Intact
Trimming procedure	With cutting ring
ρ_s [g/cm ³]	1.86
S_o [%]	-
Void ratio start shear [-]	-
w_o [%]	24.5
w_{final} [%]	26.8
Consolidation stress [kPa]	29.1
Consolidation strain [%]	0.85
Strain rate [%/h]	8.0
Max shear stress [kPa]	31.2
Vert. stress at max shear stress [kPa]	29.1
Shear strain at max shear stress [kPa]	28.9
σ_v at $\gamma = 40\%$ [kPa]	28.9
τ at $\gamma = 40\%$ [kPa]	29.8
Sample Disturbance Index [%]	-
SDI qualification	-

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2020-10-22

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KPP WK01 2020 – Kennis voor Keringen: Verlenging metingen

Direct Simple Shear test on sample 4

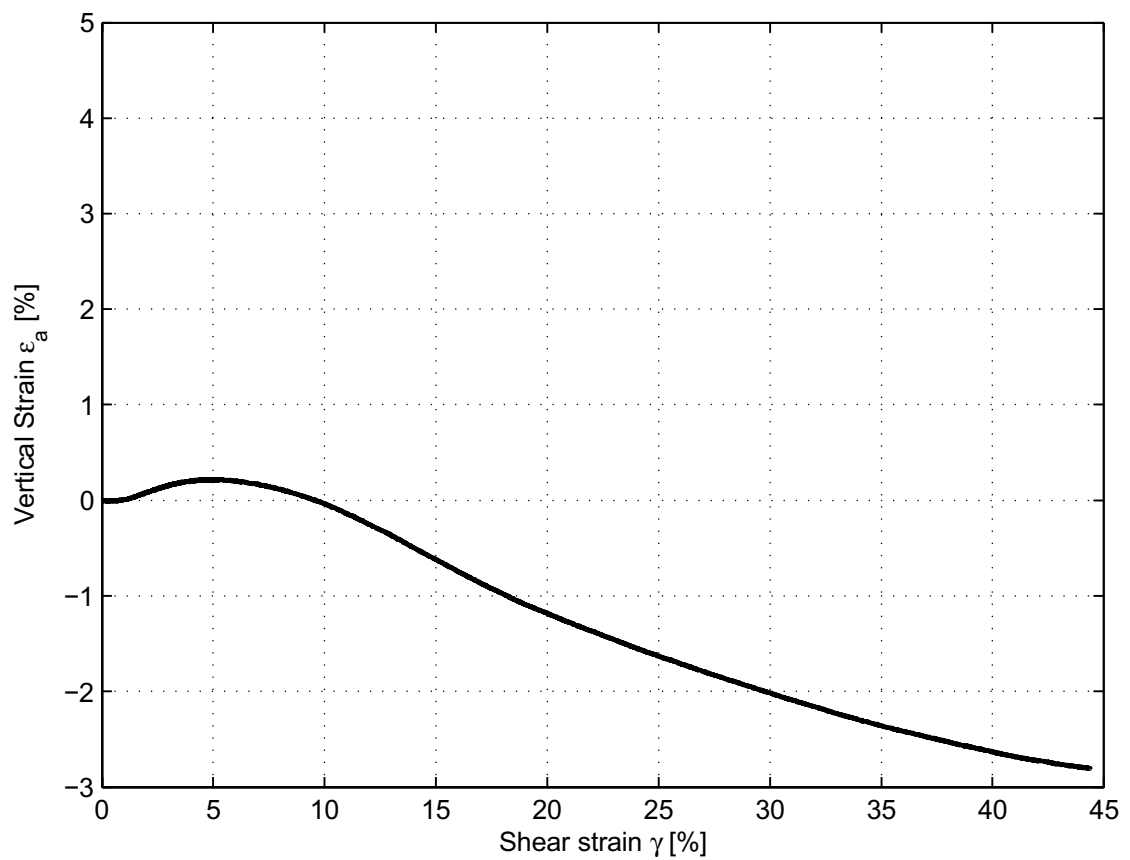
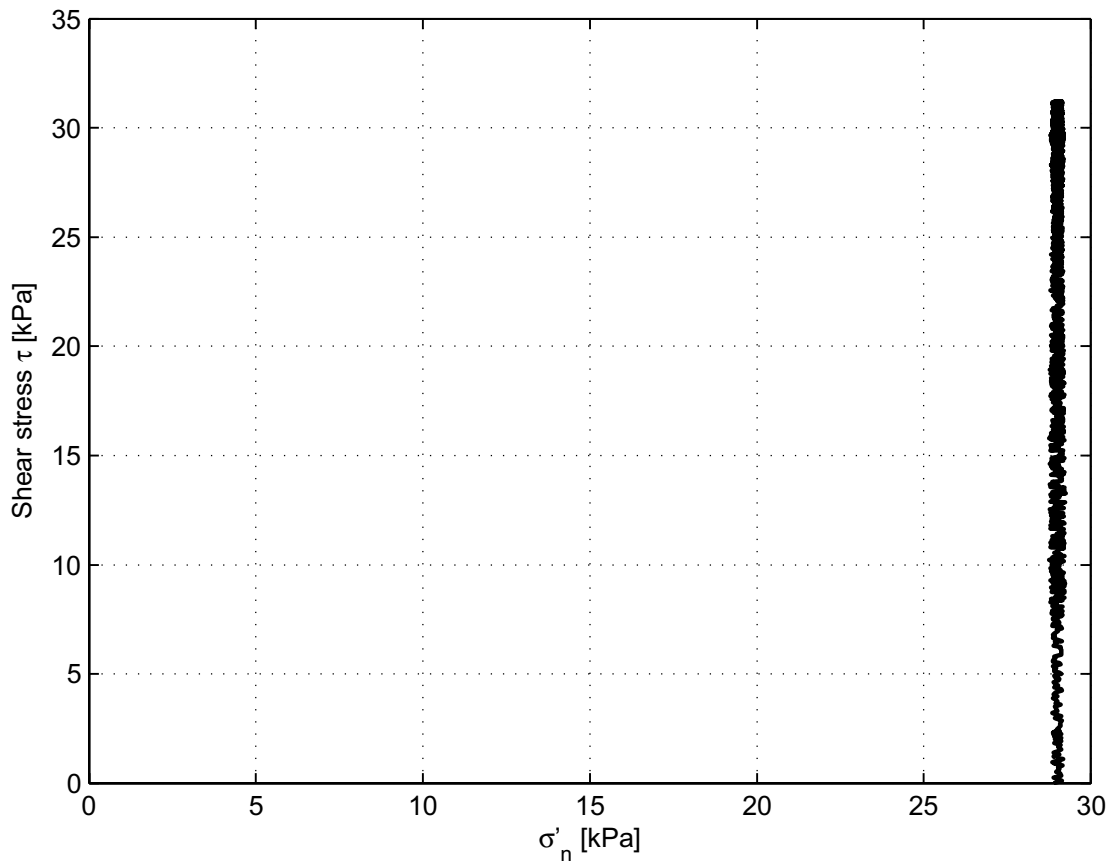
Direct Simple Shear Test

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Direct Simple Shear test on sample 4

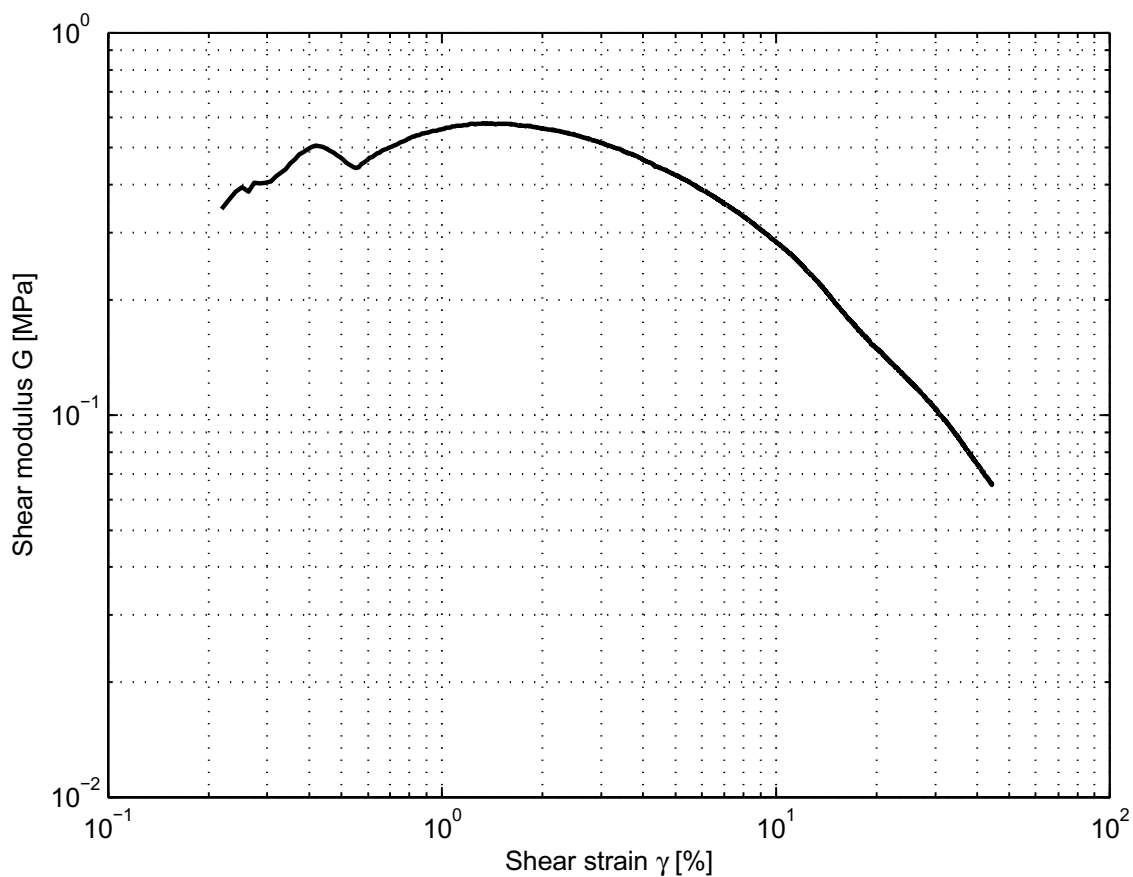
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γ [%]	τ [kPa]	ϵ_a [%]	σ'_n [kPa]	Δu_s [kPa]	G [MPa]
5% deformation	21.2	0.21	29.2	-0.1	0.42
15% deformation	29.5	-0.62	29.1	-0.0	0.20
30% deformation	31.2	-2.02	29.0	0.1	0.10
Maximum strain	29.1	-2.81	28.9	0.2	0.07
Maximum τ	31.2	-1.94	28.9	0.2	0.11

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Direct Simple Shear test on sample 4

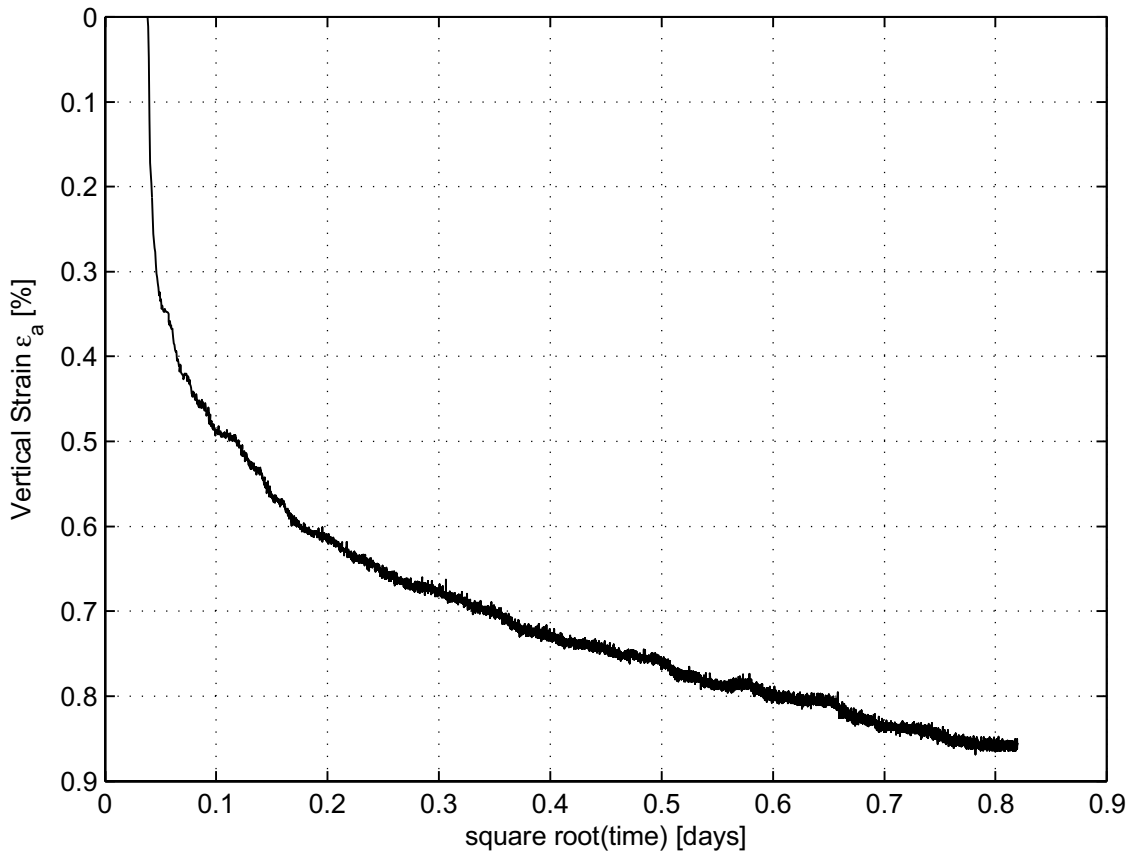
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Direct Simple Shear test on sample 4

Direct Simple Shear Test

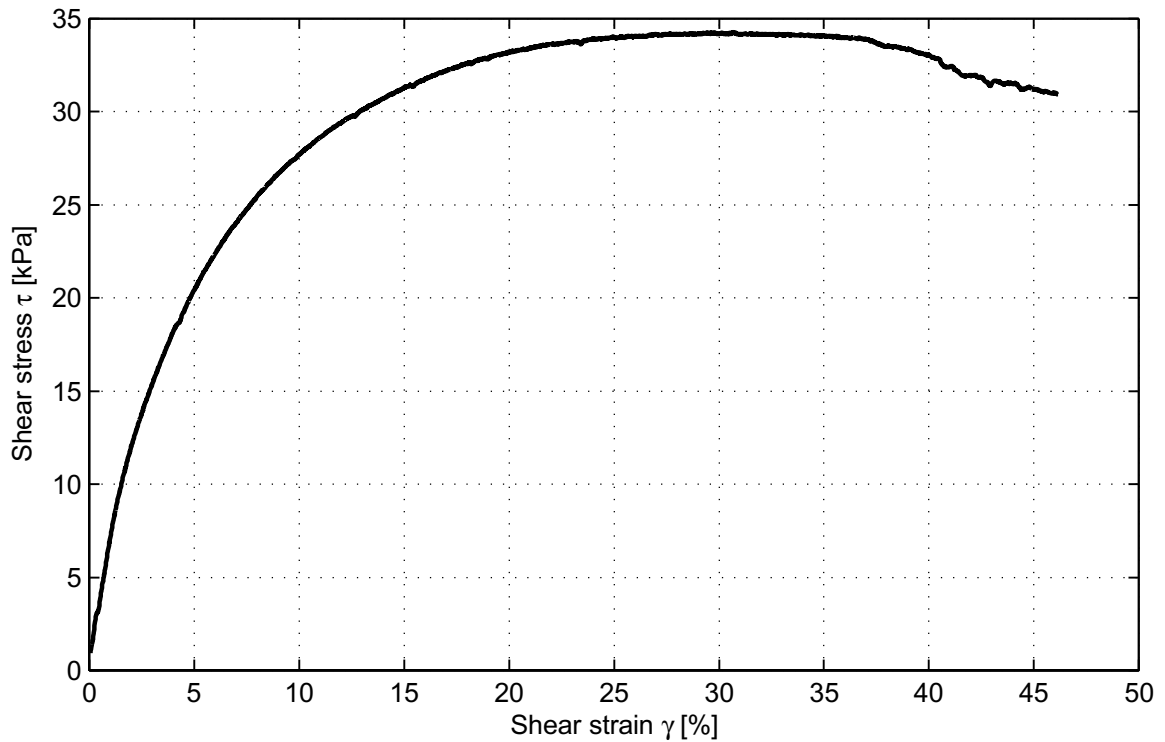
project
11205262.12

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*) Gecontroleerd en vrijgegeven door konstadi op 2020-10-26



Description of soil sample:

NEN5104 voluit	Sand, extremely silty
Pressure area [cm ²]	31.17
Mean temperature during shear [°C]	21.9
Test type	Constant stress
Apparaatcode	DSS-C-132-500N
Monsternaam	8
Code Boring	B003
Diepte van NAP [m]	6.10
Diepte tot NAP [m]	6.05
Specimen condition	Intact
Trimming procedure	With cutting ring
ρ_s [g/cm ³]	1.94
S_o [%]	-
Void ratio start shear [-]	-
w_o [%]	25.6
w_{final} [%]	24.4
Consolidation stress [kPa]	50.9
Consolidation strain [%]	3.06
Strain rate [%/h]	8.0
Max shear stress [kPa]	34.3
Vert. stress at max shear stress [kPa]	51.1
Shear strain at max shear stress [kPa]	30.7
σ_v at $\gamma = 40\%$ [kPa]	51.1
τ at $\gamma = 40\%$ [kPa]	33.0
Sample Disturbance Index [%]	-
SDI qualification	-

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KPP WK01 2020 – Kennis voor Keringen: Verlenging metingen

Direct Simple Shear test on sample 8

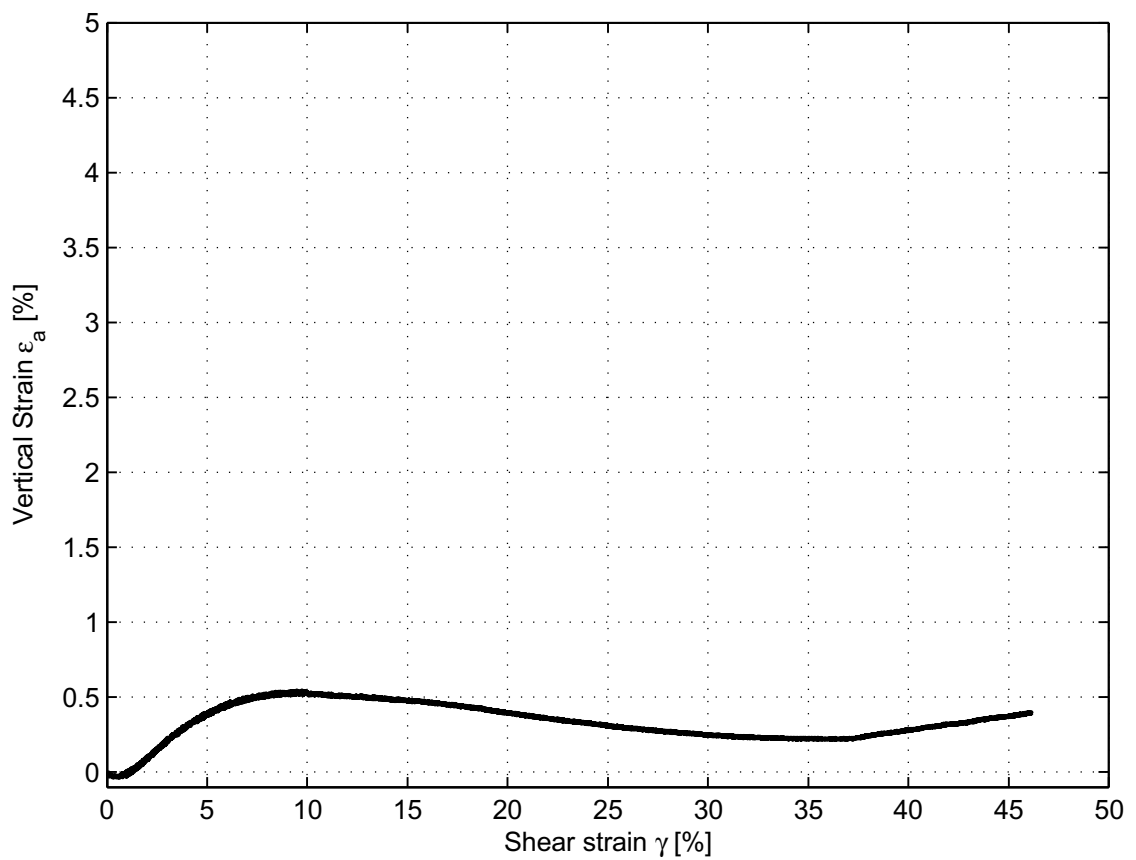
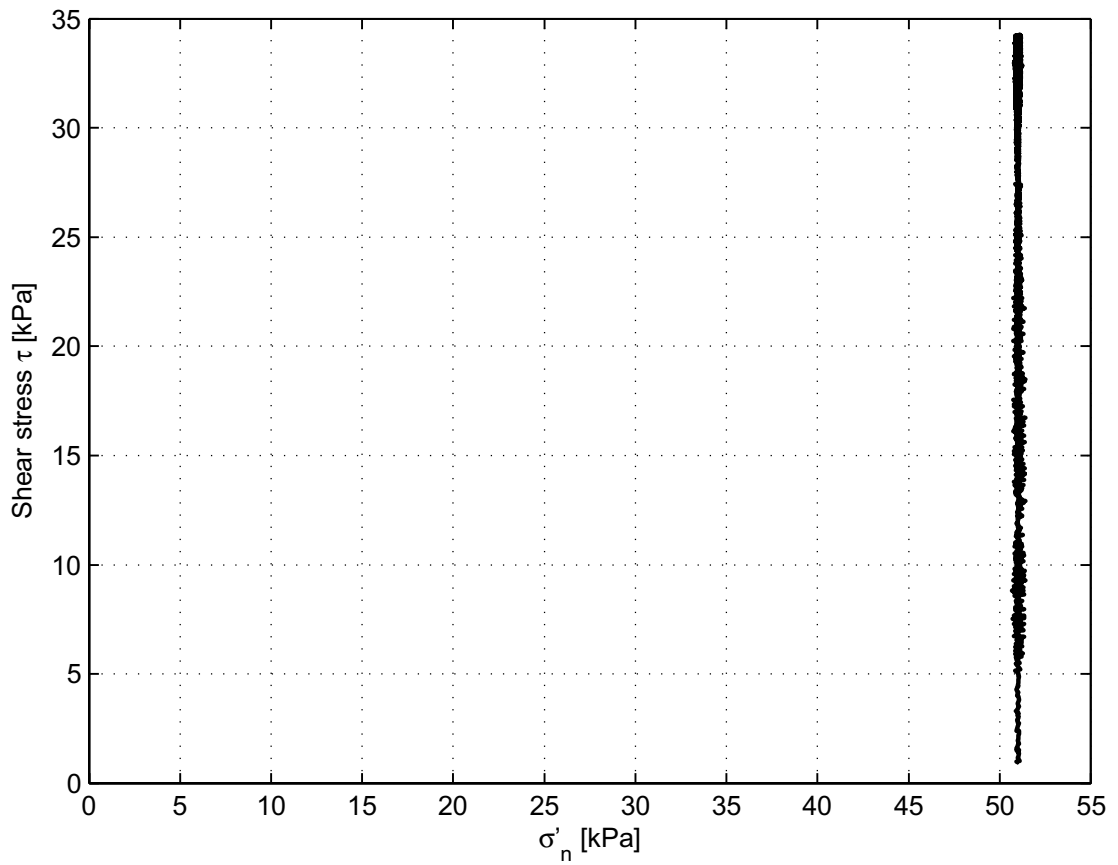
Direct Simple Shear Test

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Direct Simple Shear test on sample 8

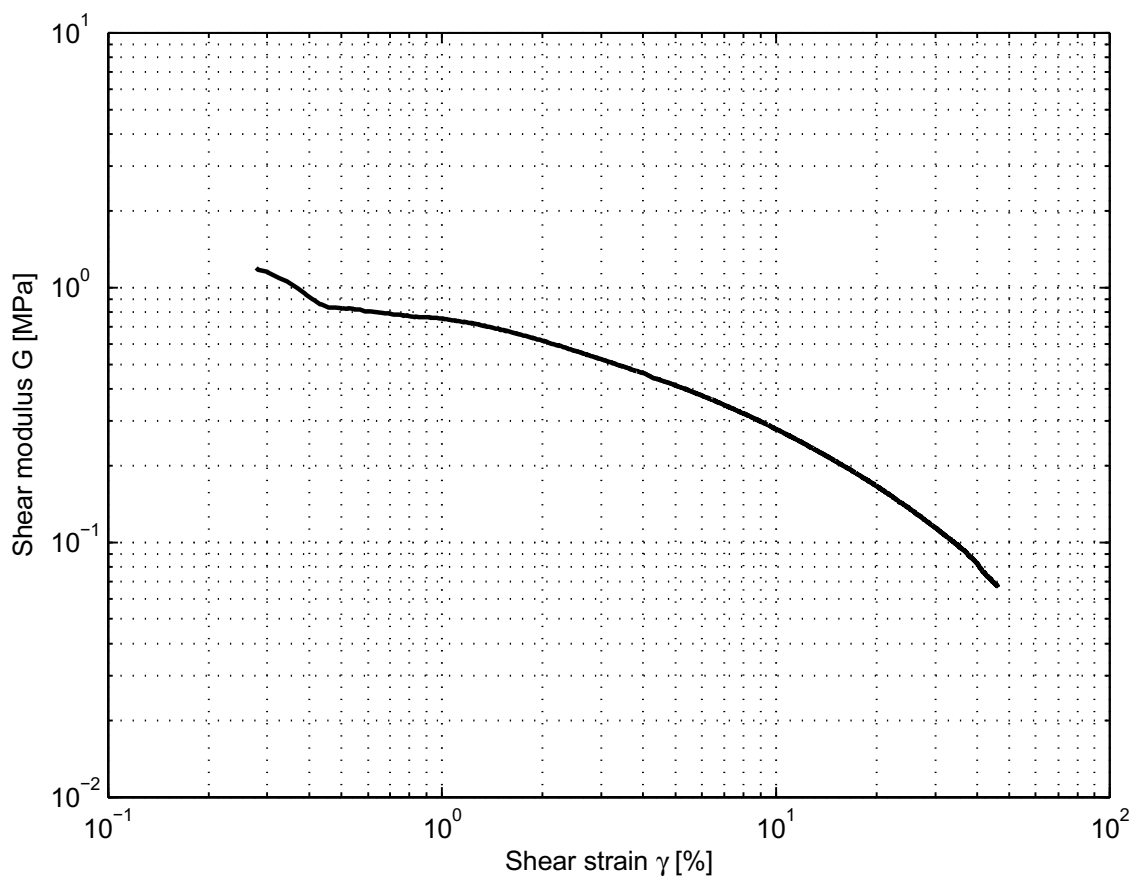
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γ [%]	τ [kPa]	ϵ_a [%]	σ'_n [kPa]	Δu_s [kPa]	G [MPa]
5% deformation	20.4	0.38	51.2	-0.1	0.41
15% deformation	31.3	0.47	50.9	0.1	0.21
30% deformation	34.2	0.25	50.9	0.2	0.11
Maximum strain	30.9	0.40	51.1	-0.0	0.07
Maximum τ	34.3	0.24	51.1	-0.1	0.11

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Direct Simple Shear test on sample 8

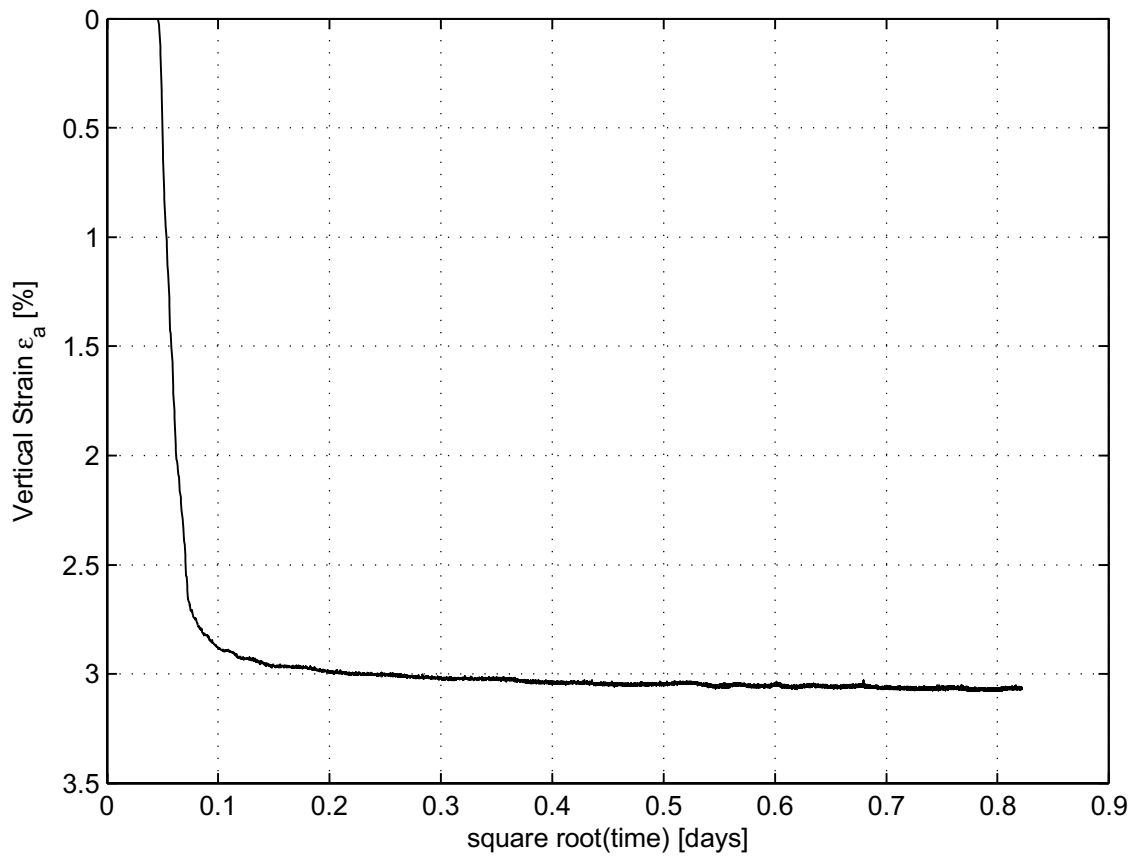
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Direct Simple Shear test on sample 8

Direct Simple Shear Test

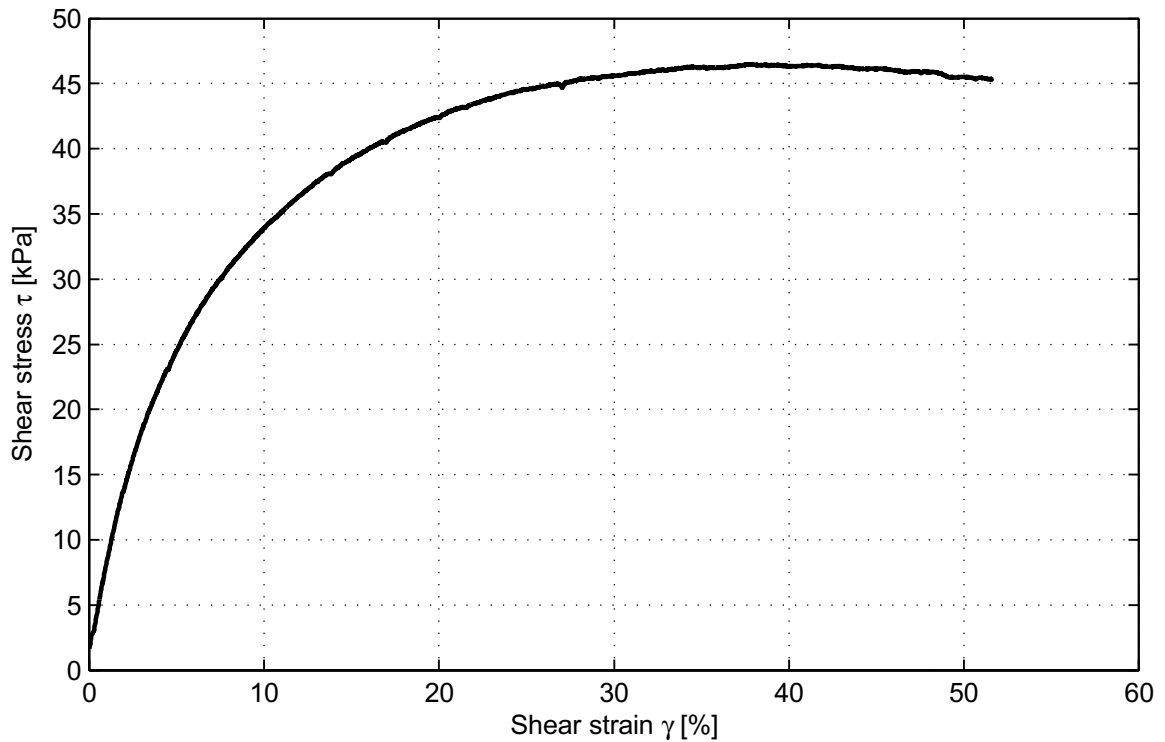
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*) Gecontroleerd en vrijgegeven door konstadi op 2020-10-26



Description of soil sample:

NEN5104 voluit	Clay, moderately silty
Pressure area [cm ²]	31.17
Mean temperature during shear [°C]	22.1
Test type	Constant stress
Apparaatcode	DSS-C-132-500N
Monsternaam	10
Code Boring	B003
Diepte van NAP [m]	5.02
Diepte tot NAP [m]	5.00
Specimen condition	Intact
Trimming procedure	With cutting ring
ρ_s [g/cm ³]	1.95
S_v [%]	-
Void ratio start shear [-]	-
w_p [%]	27.4
w_{final} [%]	24.5
Consolidation stress [kPa]	72.9
Consolidation strain [%]	3.53
Strain rate [%/h]	9.0
Max shear stress [kPa]	46.5
Vert. stress at max shear stress [kPa]	73.2
Shear strain at max shear stress [kPa]	37.9
σ_v at $\gamma = 40\%$ [kPa]	72.9
τ at $\gamma = 40\%$ [kPa]	46.3
Sample Disturbance Index [%]	-
SDI qualification	-

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Direct Simple Shear test on sample 10

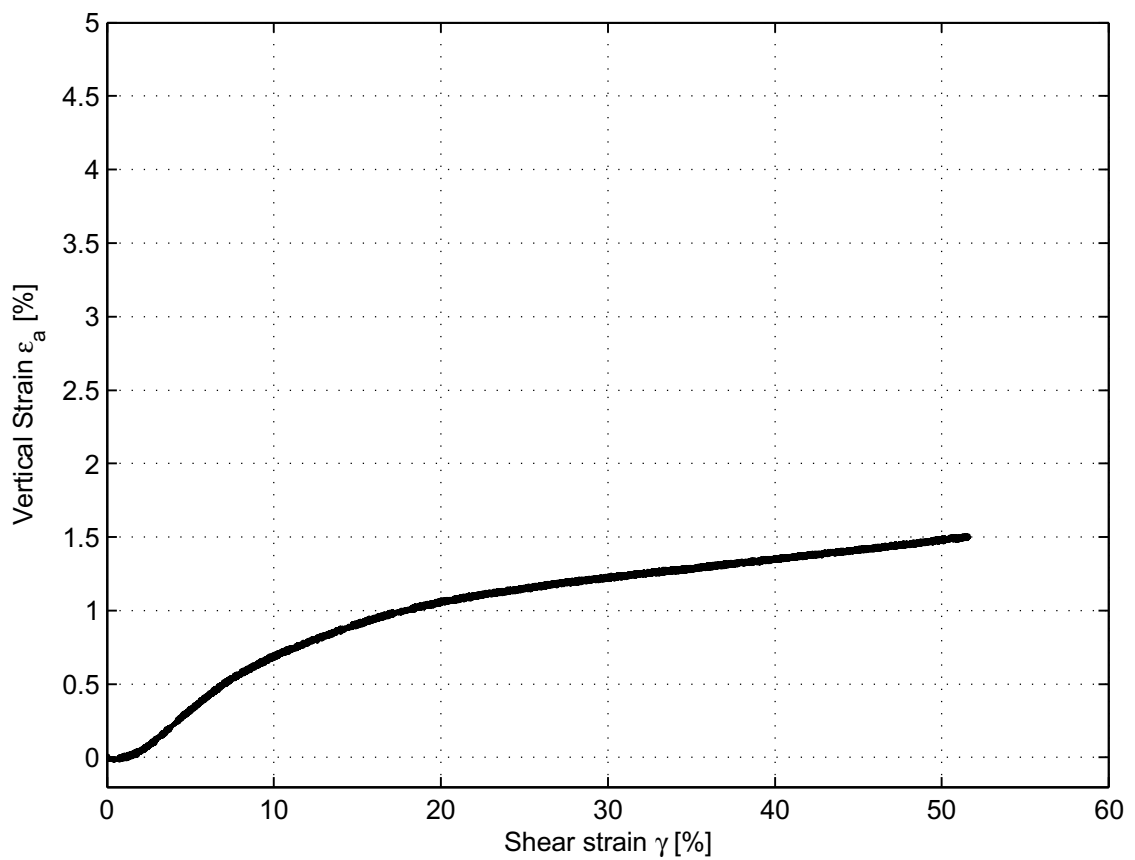
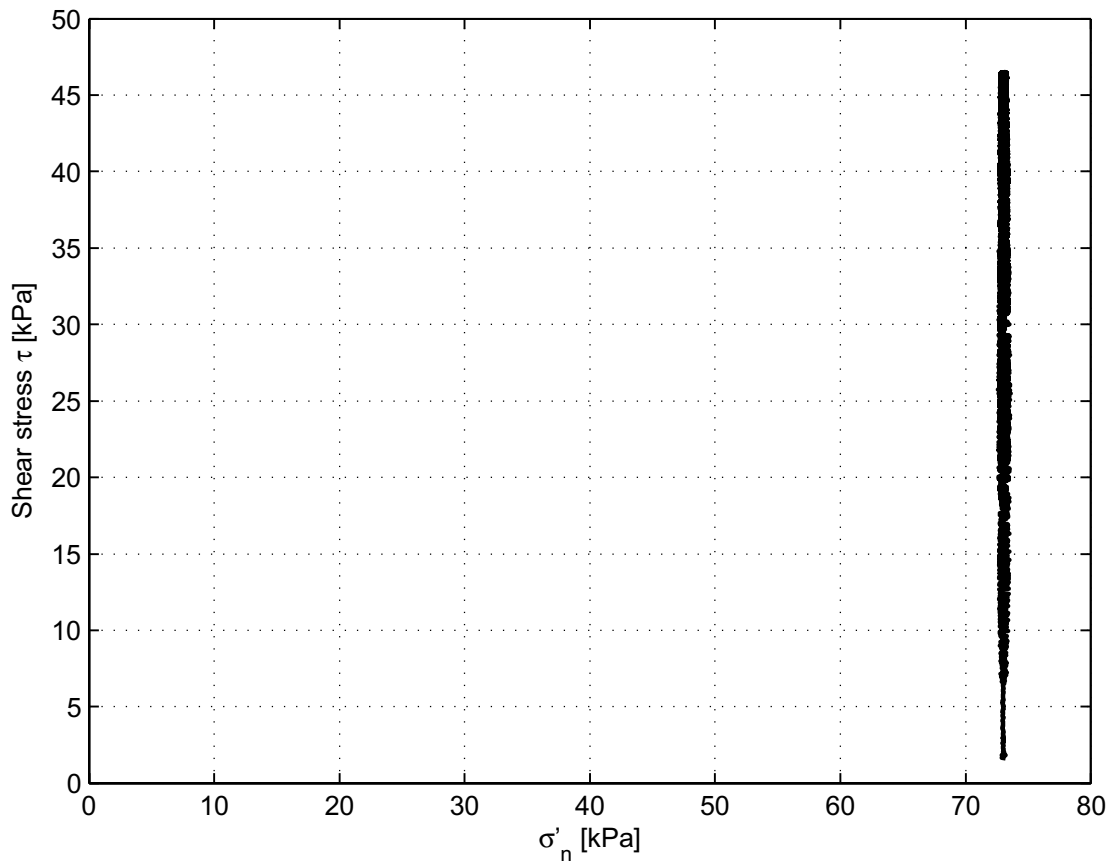
Direct Simple Shear Test

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Direct Simple Shear test on sample 10

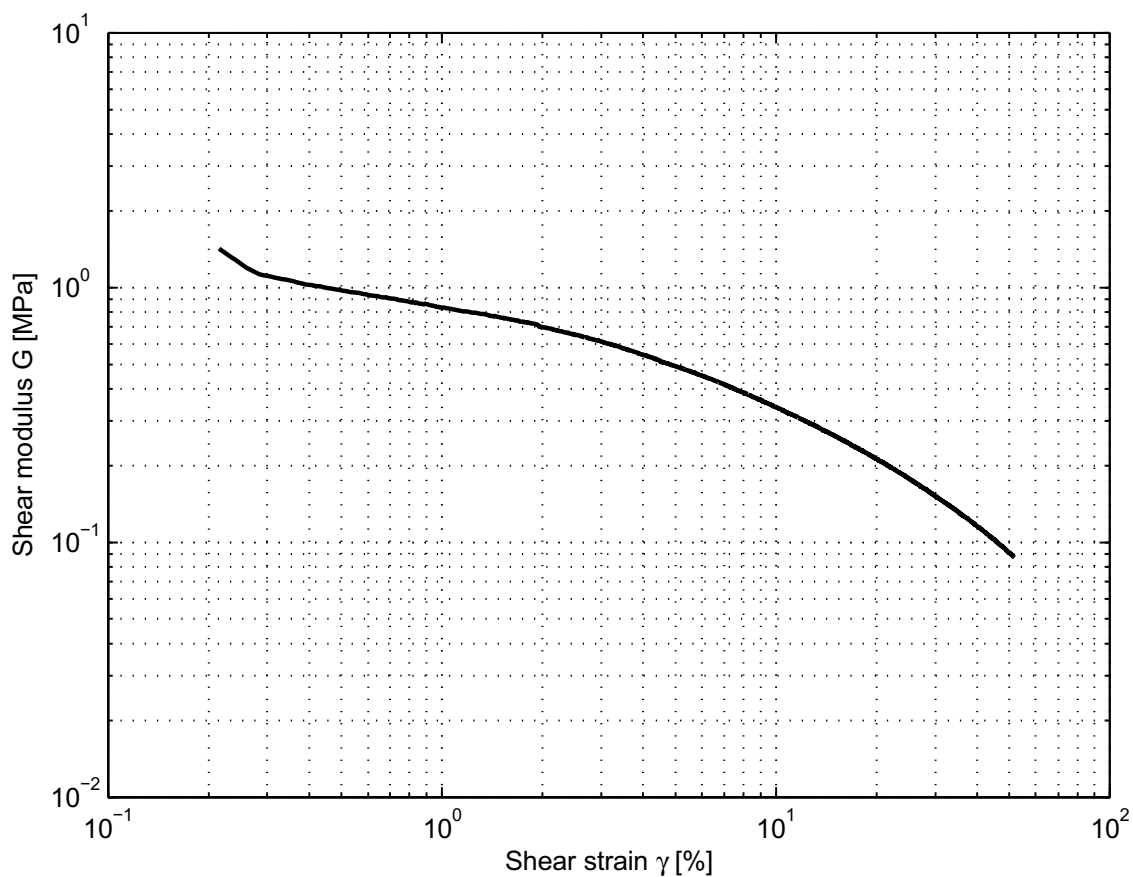
Direct Simple Shear Test

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γ [%]	τ [kPa]	ϵ_a [%]	σ'_n [kPa]	Δu_s [kPa]	G [MPa]
5% deformation	24.5	0.34	73.1	0.1	0.49
15% deformation	39.2	0.89	73.0	0.2	0.26
30% deformation	45.6	1.22	72.9	0.4	0.15
Maximum strain	45.3	1.50	72.9	0.3	0.09
Maximum τ	46.5	1.32	73.2	0.0	0.12

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Direct Simple Shear test on sample 10

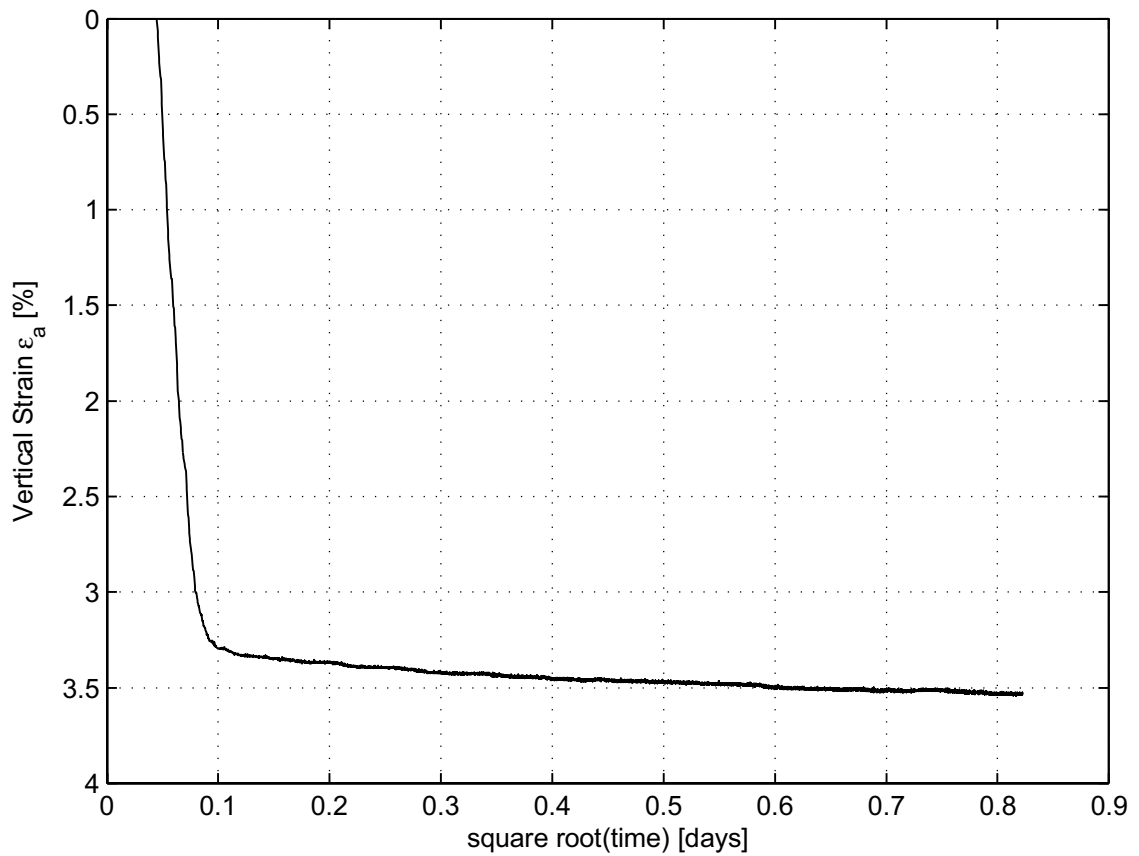
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Direct Simple Shear test on sample 10

Direct Simple Shear Test

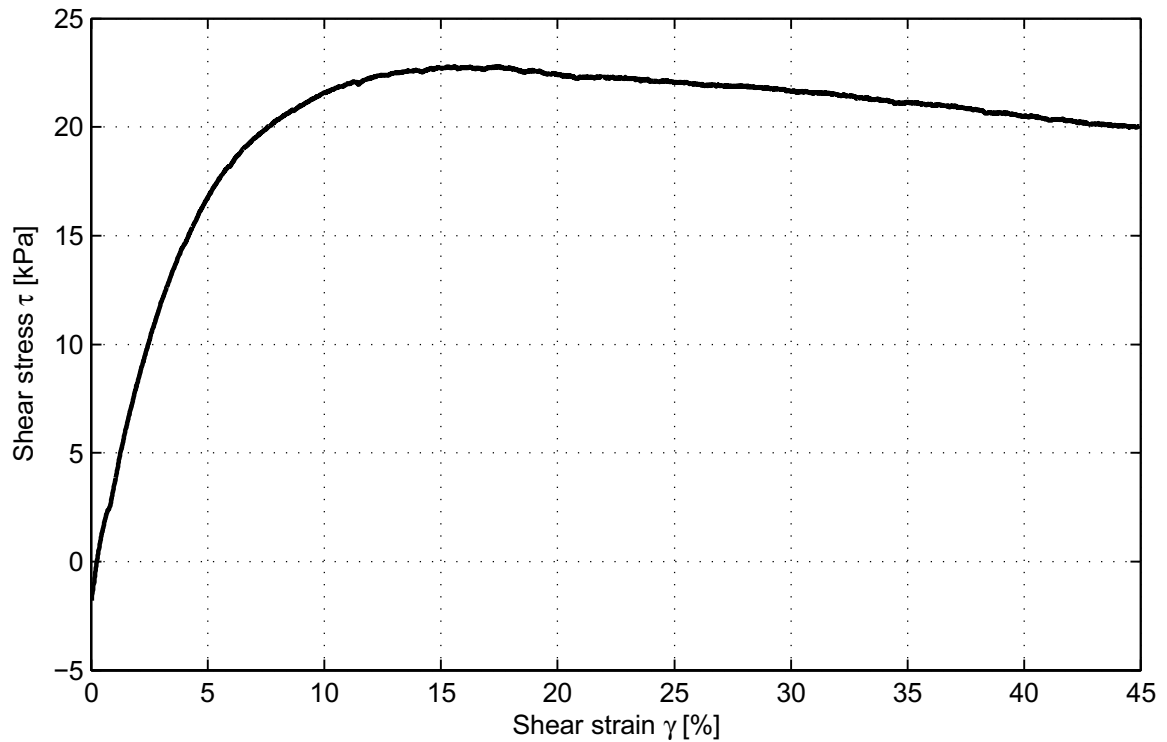
project
11205262.12

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*) Gecontroleerd en vrijgegeven door konstadi op 2020-10-26



Description of soil sample:

NEN5104 voluit	Clay, slightly silty
Pressure area [cm ²]	31.17
Mean temperature during shear [°C]	22.2
Test type	Constant stress
Apparaatcode	DSS-C-132-500N
Monsternaam	16
Code Boring	B203
Diepte van NAP [m]	8.85
Diepte tot NAP [m]	8.80
Specimen condition	Intact
Trimming procedure	With cutting ring
ρ_s [g/cm ³]	1.93
S_o [%]	-
Void ratio start shear [-]	-
w_o [%]	26.6
w_{final} [%]	28.6
Consolidation stress [kPa]	26.0
Consolidation strain [%]	1.24
Strain rate [%/h]	8.0
Max shear stress [kPa]	22.8
Vert. stress at max shear stress [kPa]	26.0
Shear strain at max shear stress [kPa]	17.4
σ_v at $\gamma = 40\%$ [kPa]	26.0
τ at $\gamma = 40\%$ [kPa]	20.5
Sample Disturbance Index [%]	-
SDI qualification	-

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Direct Simple Shear test on sample 16

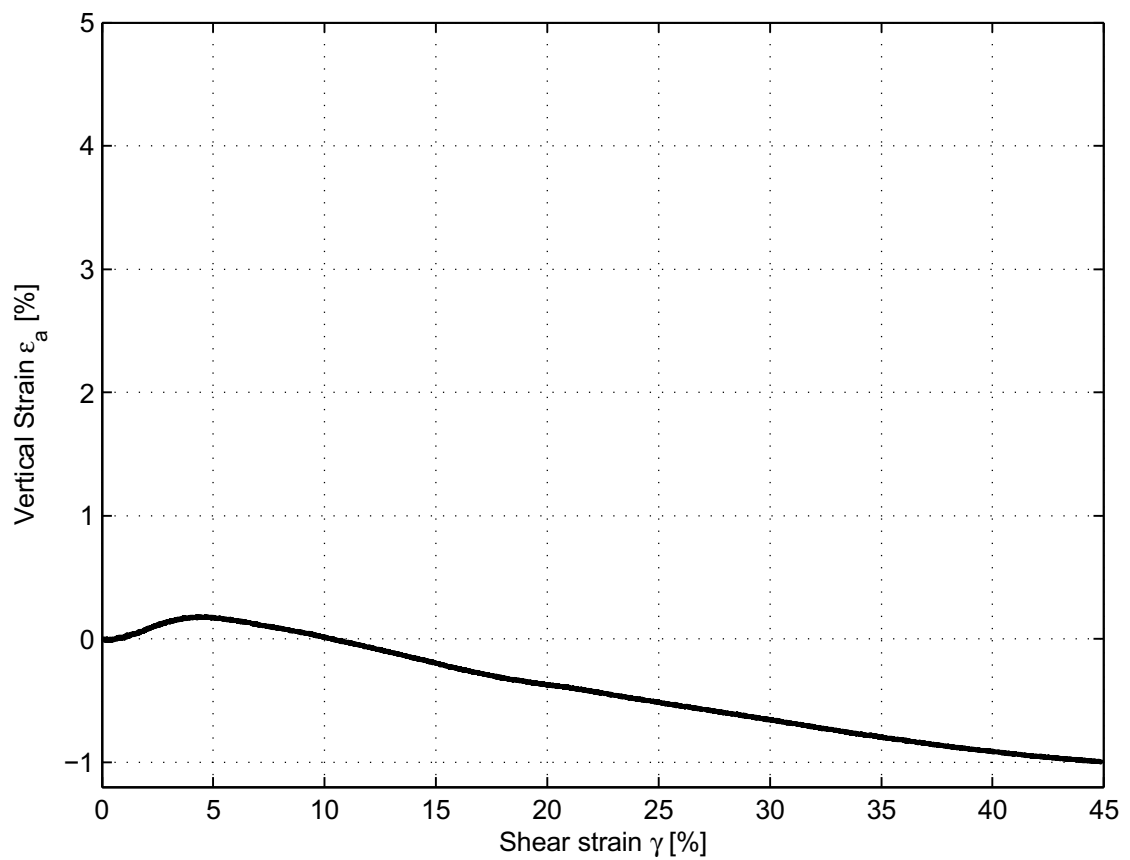
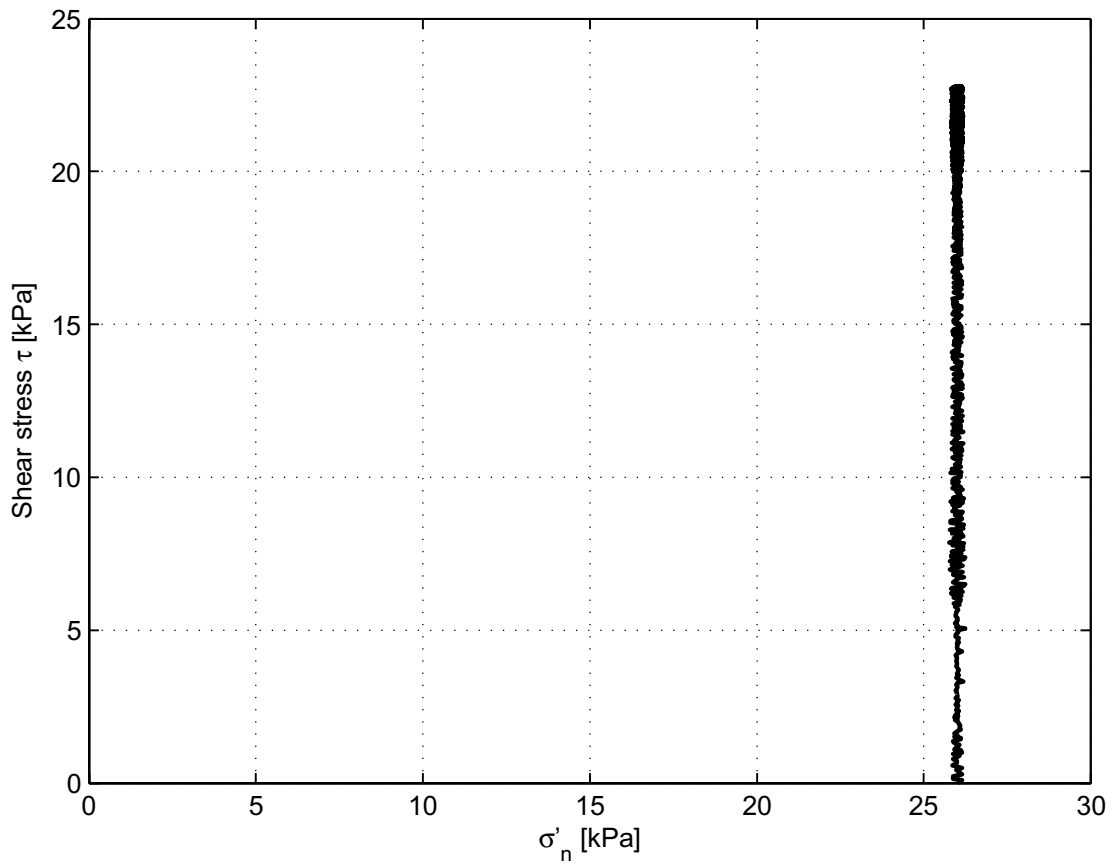
Direct Simple Shear Test

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Direct Simple Shear test on sample 16

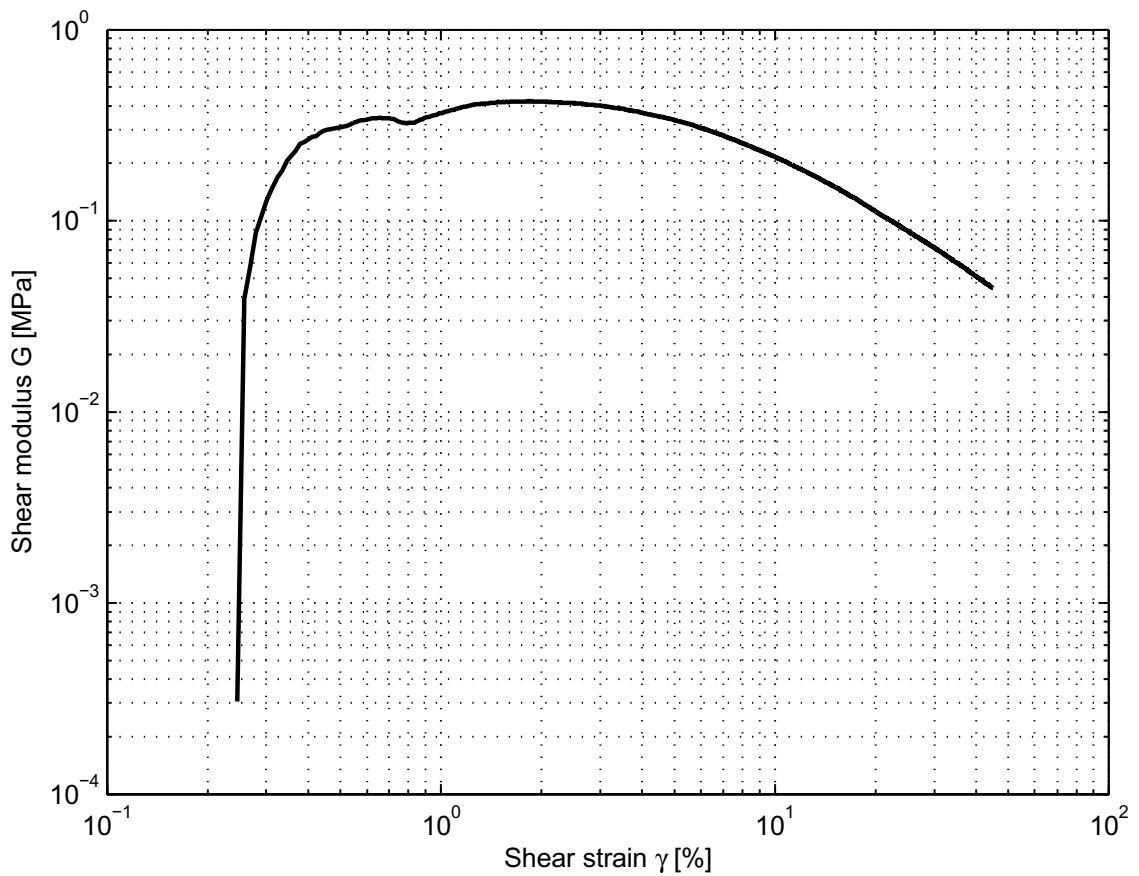
Direct Simple Shear Test

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γ [%]	τ [kPa]	ϵ_a [%]	σ'_n [kPa]	Δu_s [kPa]	G [MPa]
5% deformation	16.8	0.17	26.0	-0.1	0.34
15% deformation	22.7	-0.20	25.9	0.0	0.15
30% deformation	21.7	-0.65	26.1	-0.2	0.07
Maximum strain	20.0	-1.00	26.0	-0.0	0.04
Maximum τ	22.8	-0.29	26.0	-0.1	0.13

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Direct Simple Shear test on sample 16

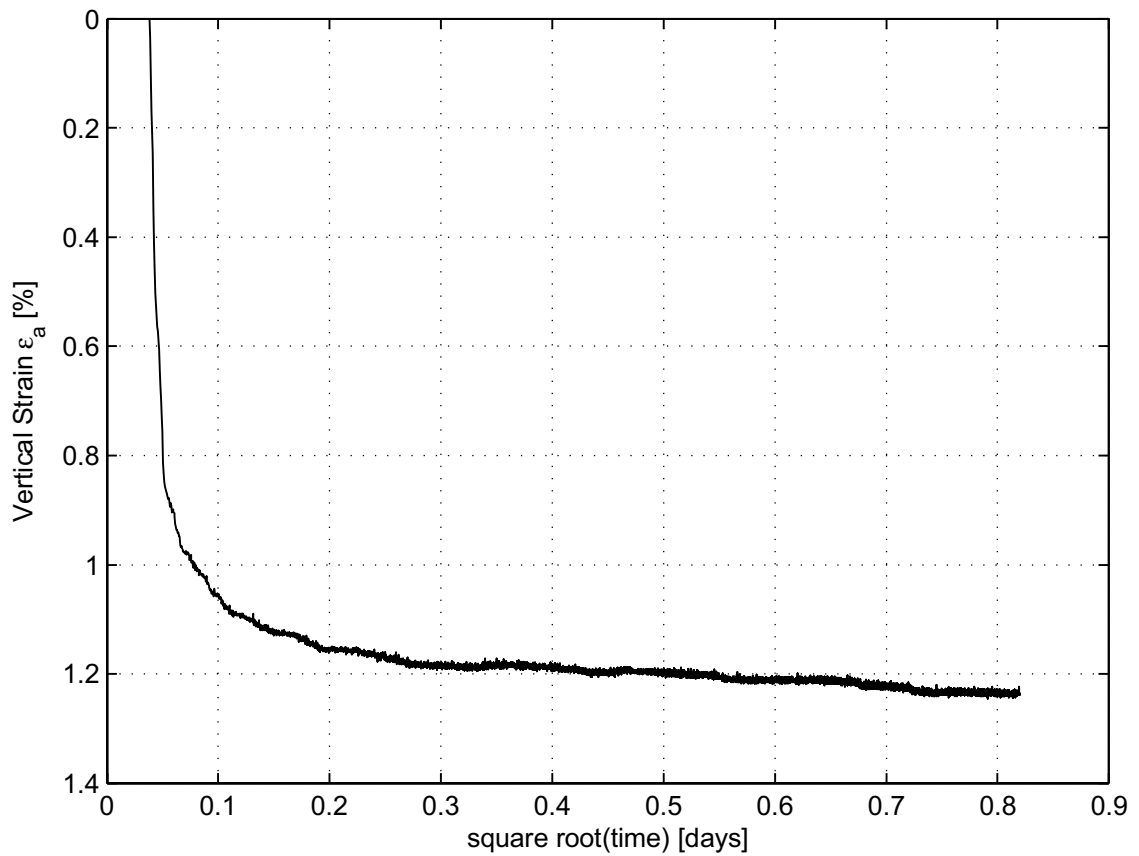
Direct Simple Shear Test

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Direct Simple Shear test on sample 16

Direct Simple Shear Test

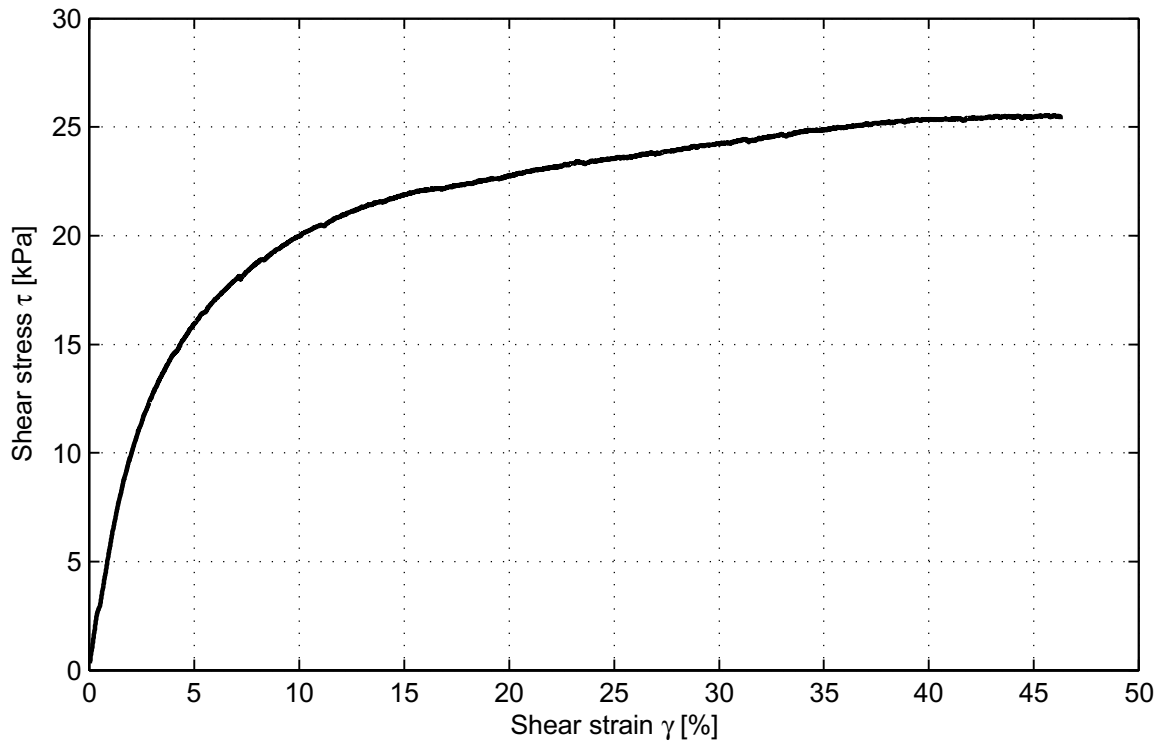
project
11205262.12

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1.3

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DSS 16

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*) Gecontroleerd en vrijgegeven door konstadi op 2020-12-19



Description of soil sample:

NEN5104 voluit	Clay, moderately silty
Pressure area [cm ²]	31.17
Mean temperature during shear [°C]	22.1
Test type	Constant stress
Apparaatcode	DSS-C-132-500N
Monsternaam	20
Code Boring	B203
Diepte van NAP [m]	7.70
Diepte tot NAP [m]	7.65
Specimen condition	Intact
Trimming procedure	With cutting ring
ρ_s [g/cm ³]	1.65
S_o [%]	-
Void ratio start shear [-]	-
w_o [%]	60.7
w_{final} [%]	55.4
Consolidation stress [kPa]	43.9
Consolidation strain [%]	3.56
Strain rate [%/h]	8.0
Max shear stress [kPa]	25.5
Vert. stress at max shear stress [kPa]	44.1
Shear strain at max shear stress [kPa]	45.6
σ_v at $\gamma = 40\%$ [kPa]	44.1
τ at $\gamma = 40\%$ [kPa]	25.3
Sample Disturbance Index [%]	-
SDI qualification	-

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Direct Simple Shear test on sample 20

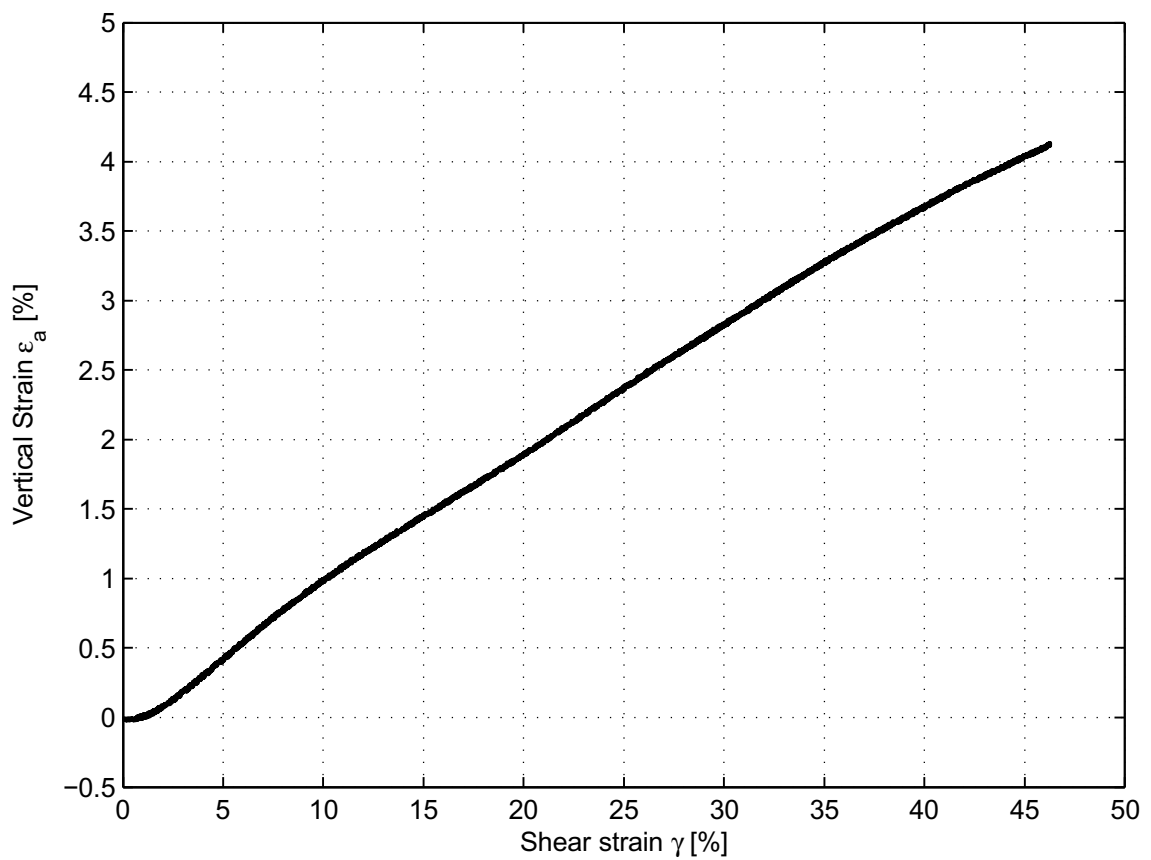
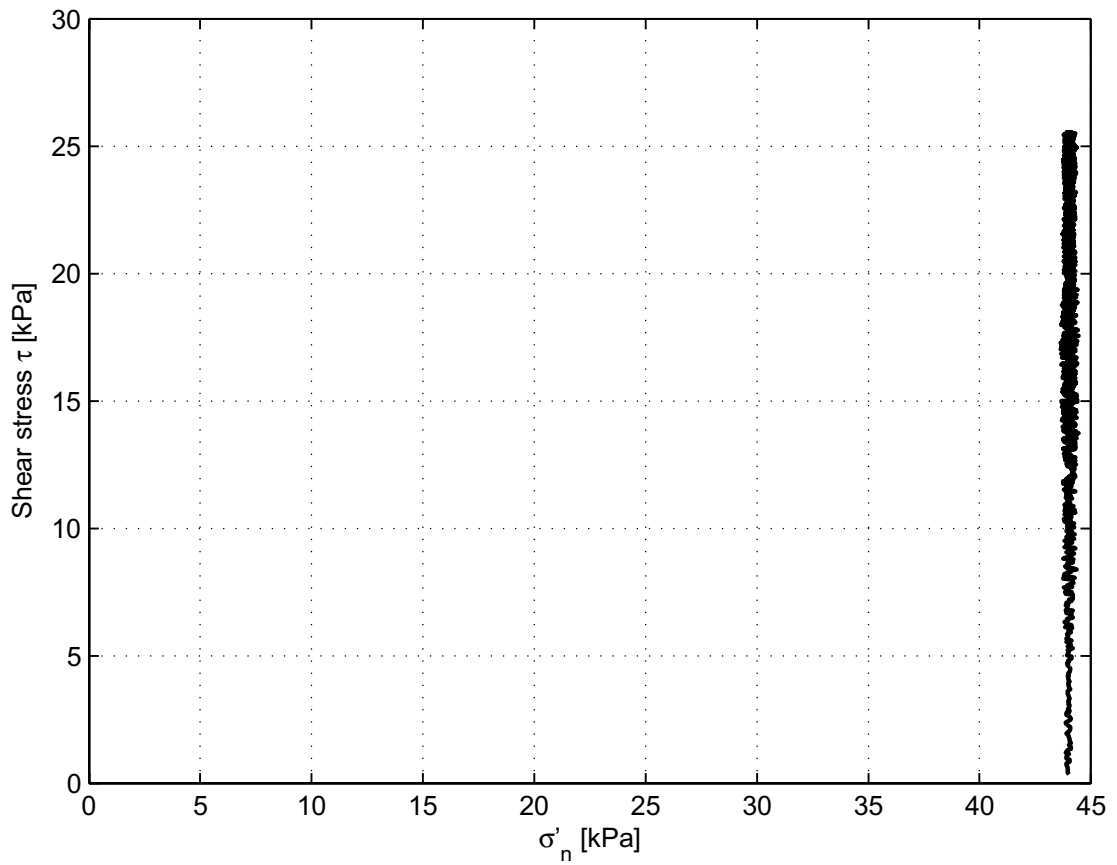
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Direct Simple Shear test on sample 20

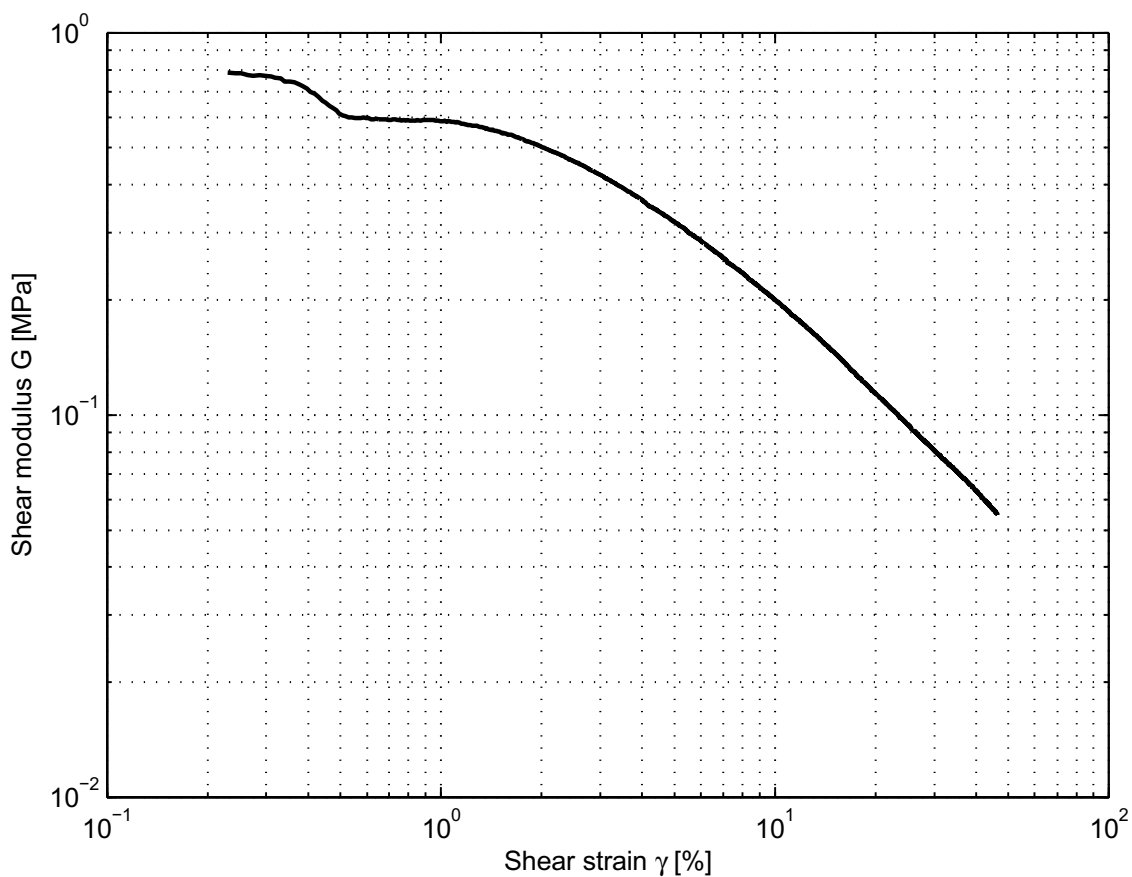
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γ [%]	τ [kPa]	ϵ_a [%]	σ'_n [kPa]	Δu_s [kPa]	G [MPa]
5% deformation	16.0	0.41	44.2	-0.2	0.32
15% deformation	21.9	1.45	44.3	-0.3	0.15
30% deformation	24.2	2.83	43.9	0.1	0.08
Maximum strain	25.5	4.13	44.0	0.0	0.06
Maximum τ	25.5	4.08	44.1	-0.1	0.06

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Direct Simple Shear test on sample 20

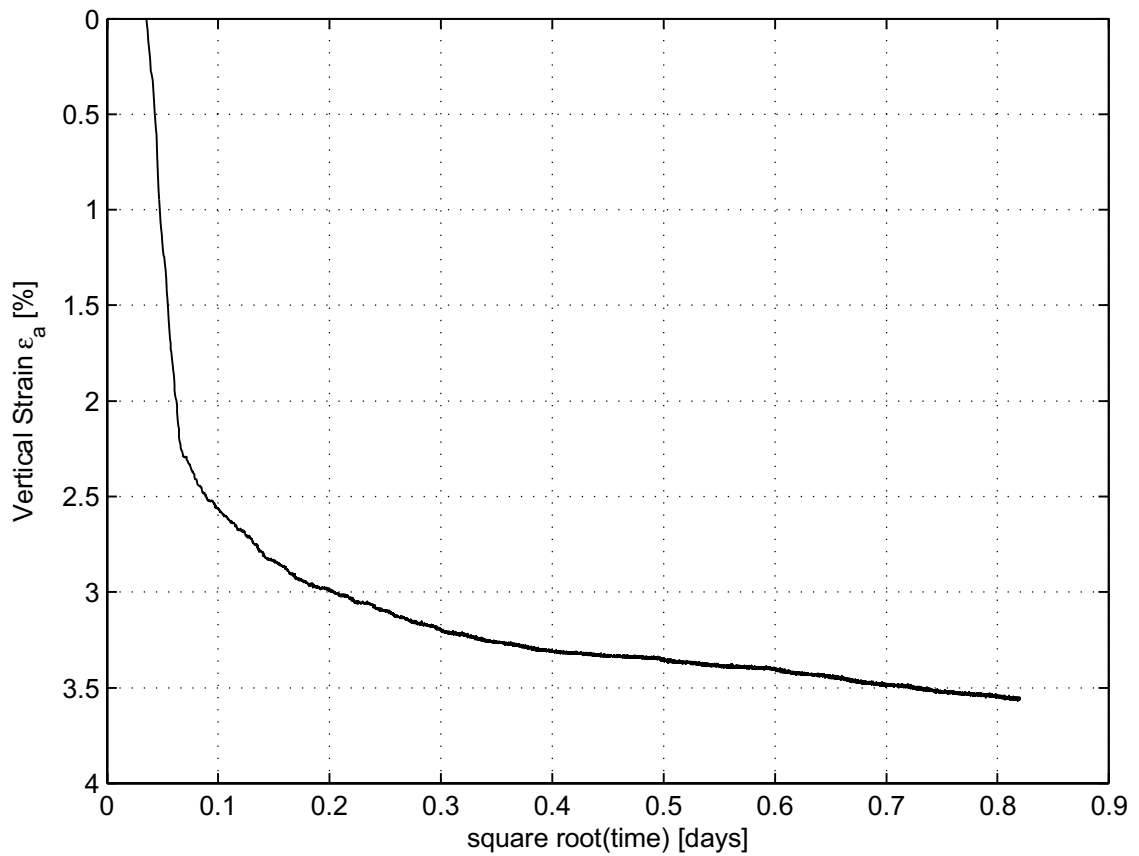
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Direct Simple Shear test on sample 20

Direct Simple Shear Test

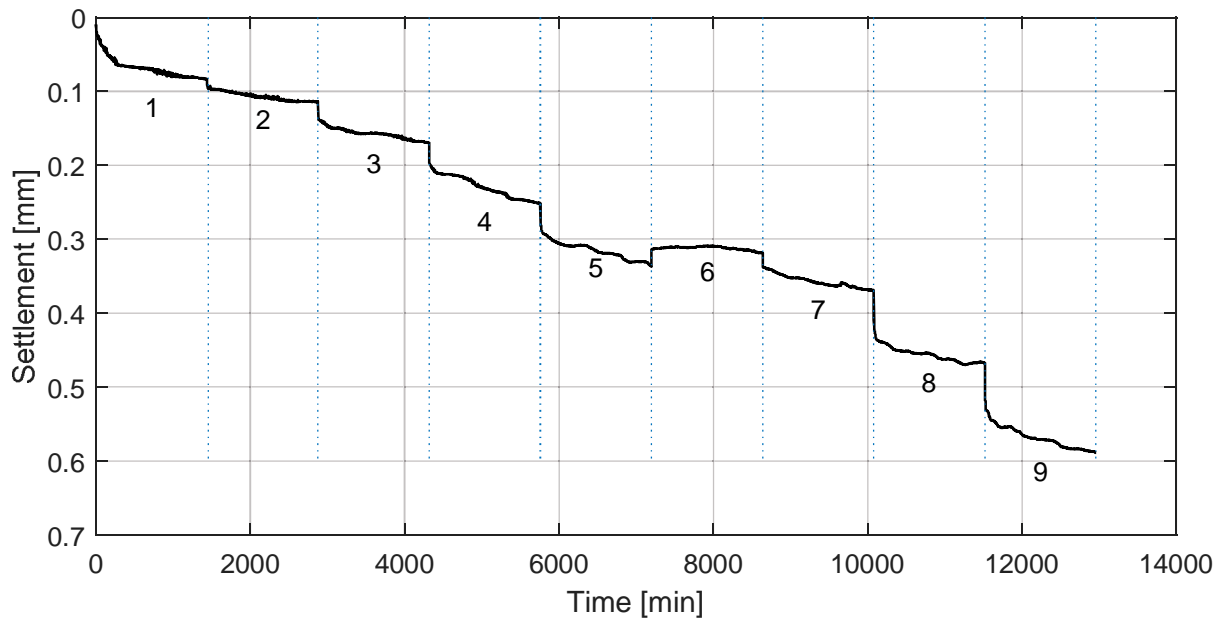
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*) Gecontroleerd en vrijgegeven door konstadi op 2020-10-26



General soil and test parameters

Soil description (NEN 5104)	KS4
Initial volumetric weight - wet [kN/m ³]	16.2
Initial volumetric weight - dry [kN/m ³]	14.0
Volumetric weight particles (γ_s) [kN/m ³](*)	18.0
Initial water content [%]	15.3
Initial sample height [mm]	30
Initial sample diameter [mm]	63
Final volumetric weight - wet [kN/m ³]	16.2
Final volumetric weight - dry [kN/m ³]	14.2
Final water content [%]	14.3
Type of test (wet/dry)	Wet
Visual disturbance sample	undisturbed
Startdate	2020-09-30
Enddate	2016-09-16
Sample disturbance index	-
Lab temperature [°C]	9.0
Pc' _{Becker} [kPa]	-
Pc' _{Janbu} [kPa]	-
(*) γ_s calculated with assumed complete saturation	

Load step number	Load [kPa]
1	2
2	5
3	10
4	20
5	40
6	20
7	40
8	80
9	160

Final saturation not reliable

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Boring B003, sample 1, depth 8.45 m till 8.40 m NAP

project
11205262.12

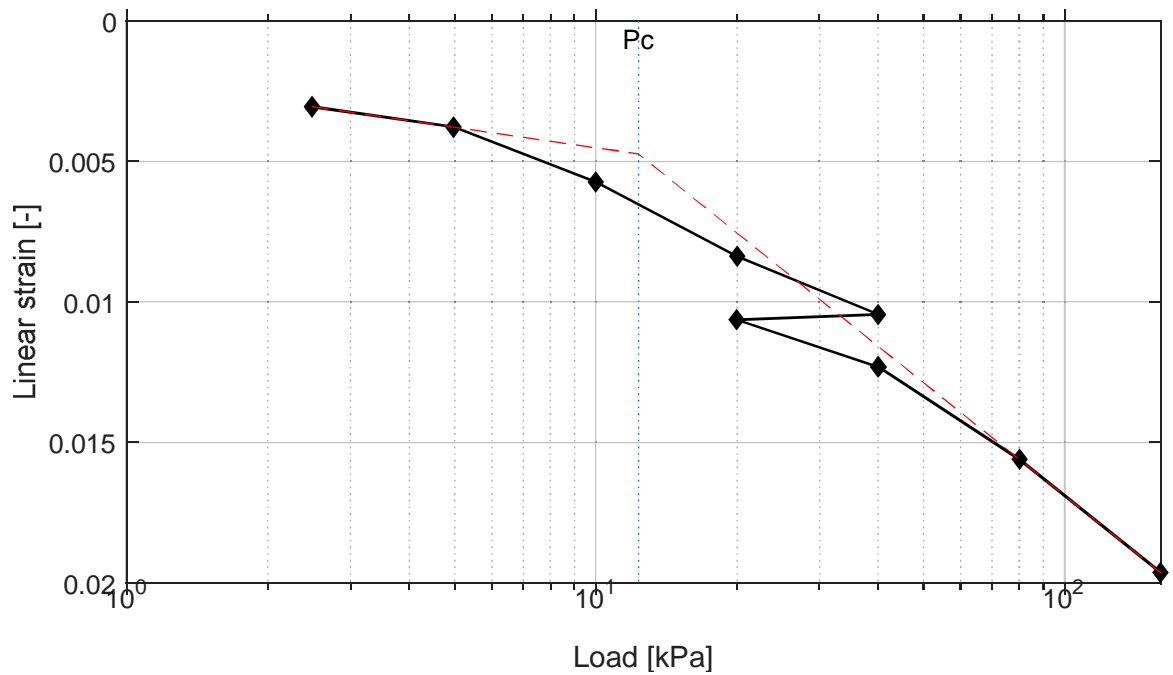
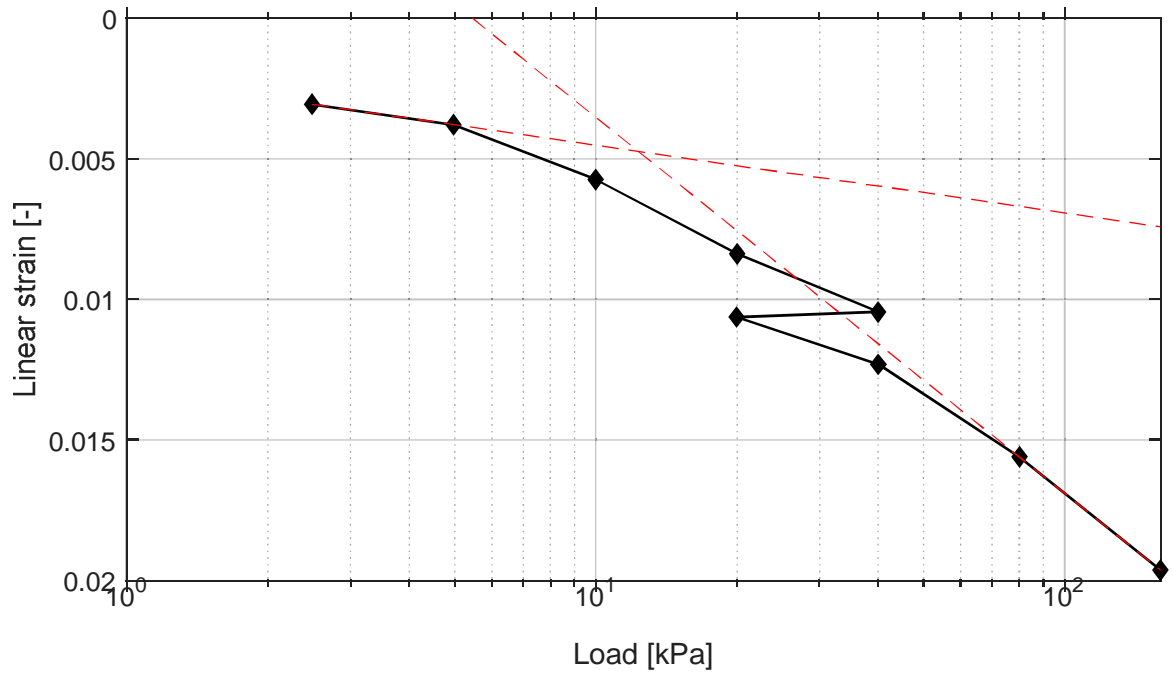
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Oedometer test conform NEN-EN-ISO 17892-5

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NEN-Bjerrum method



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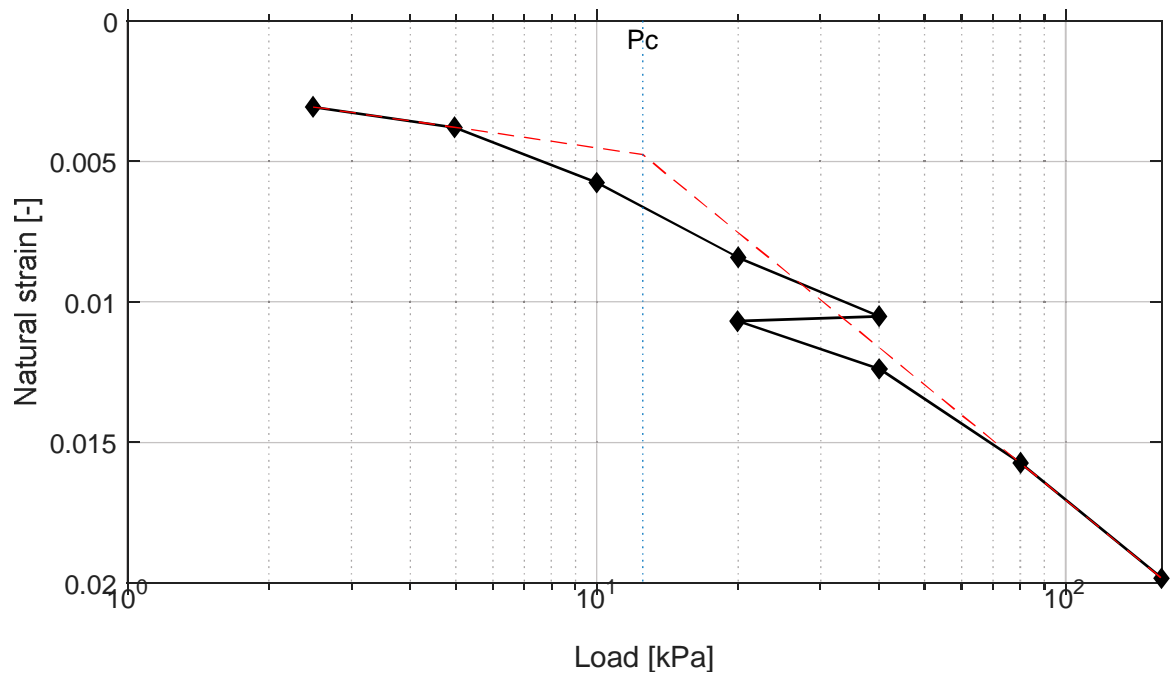
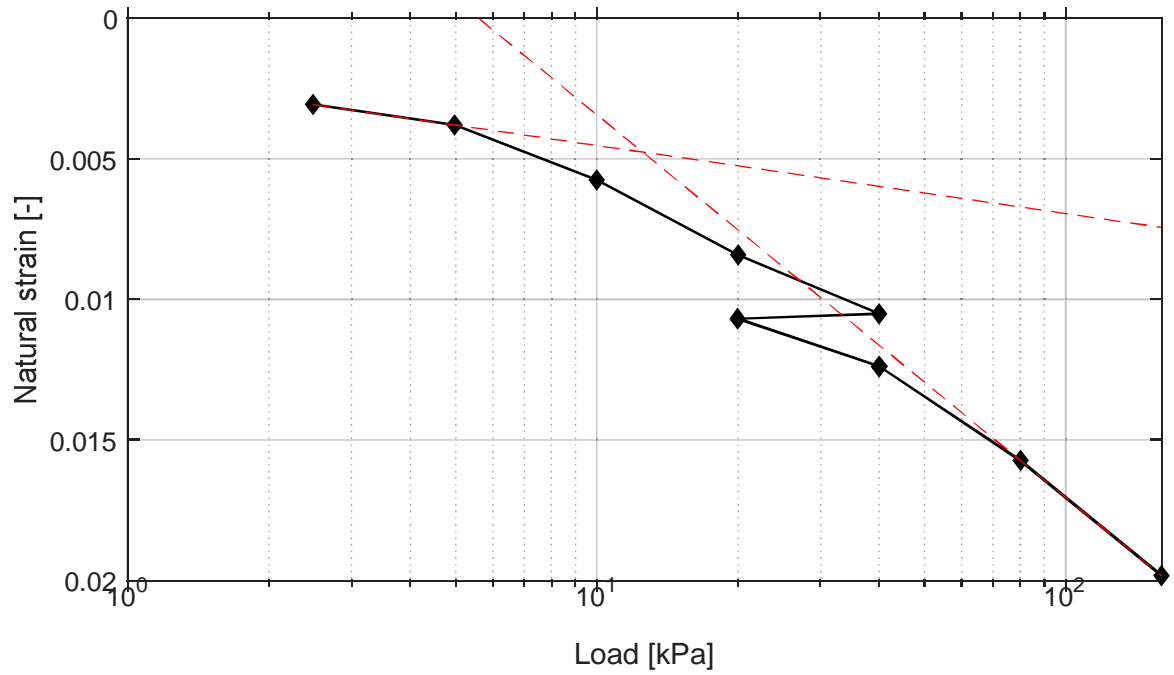
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Isotachen method



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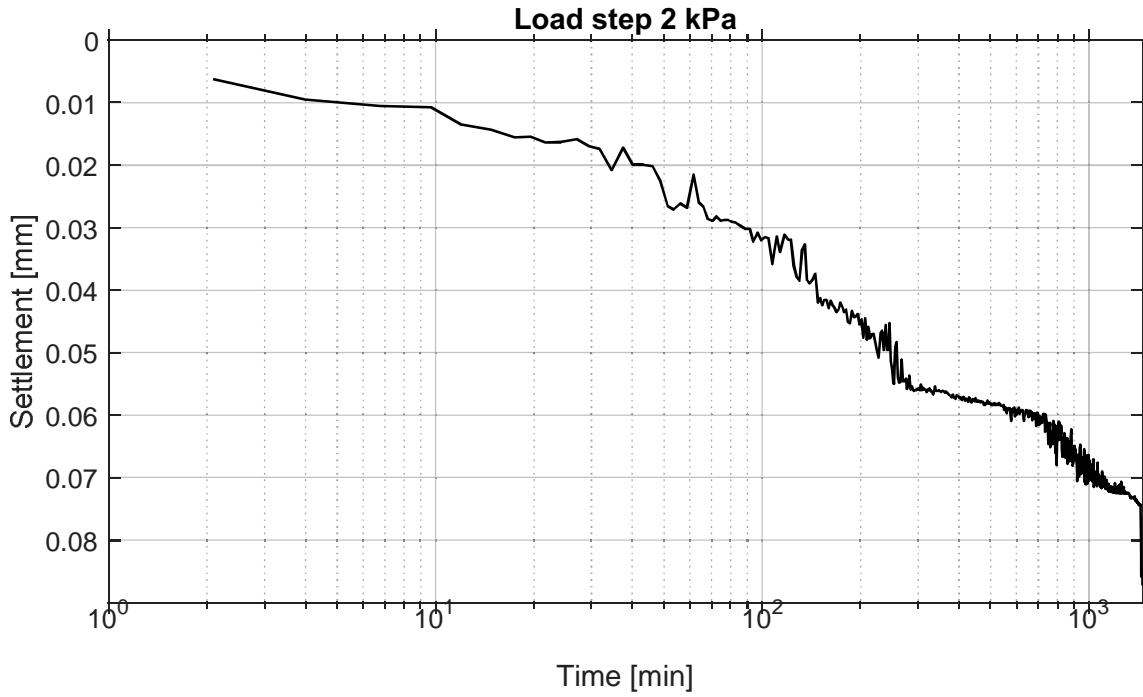
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Oedometer test conform NEN-EN-ISO 17892-5

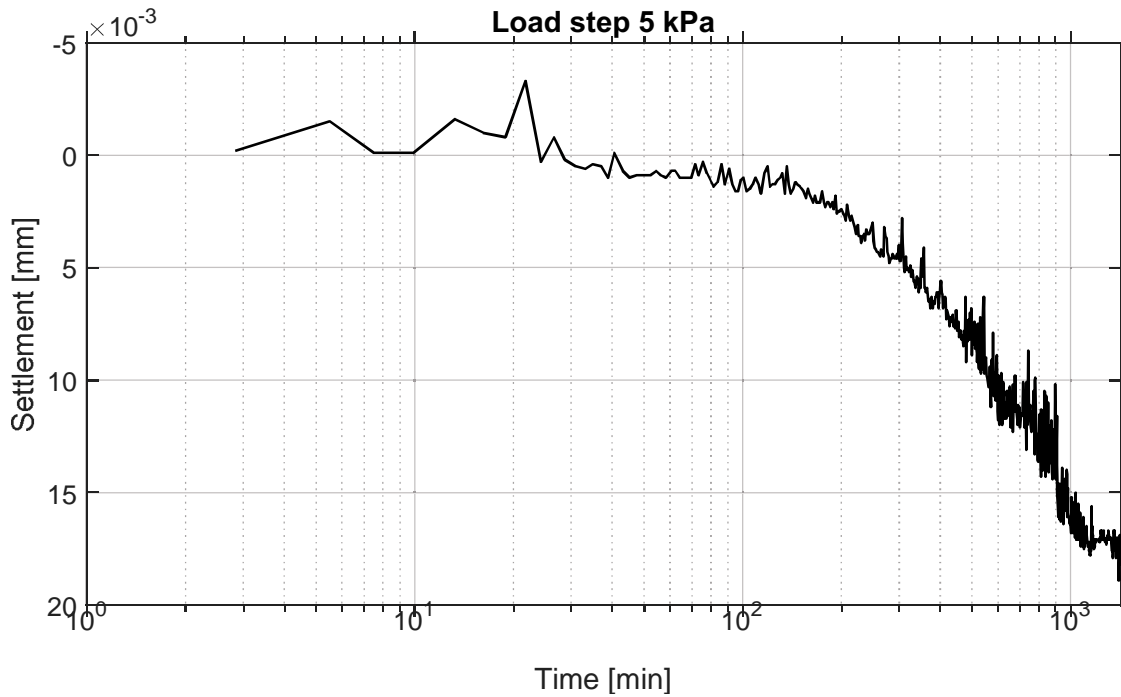
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Casagrande method (page 1/5)



No calculation performed.



No calculation performed.

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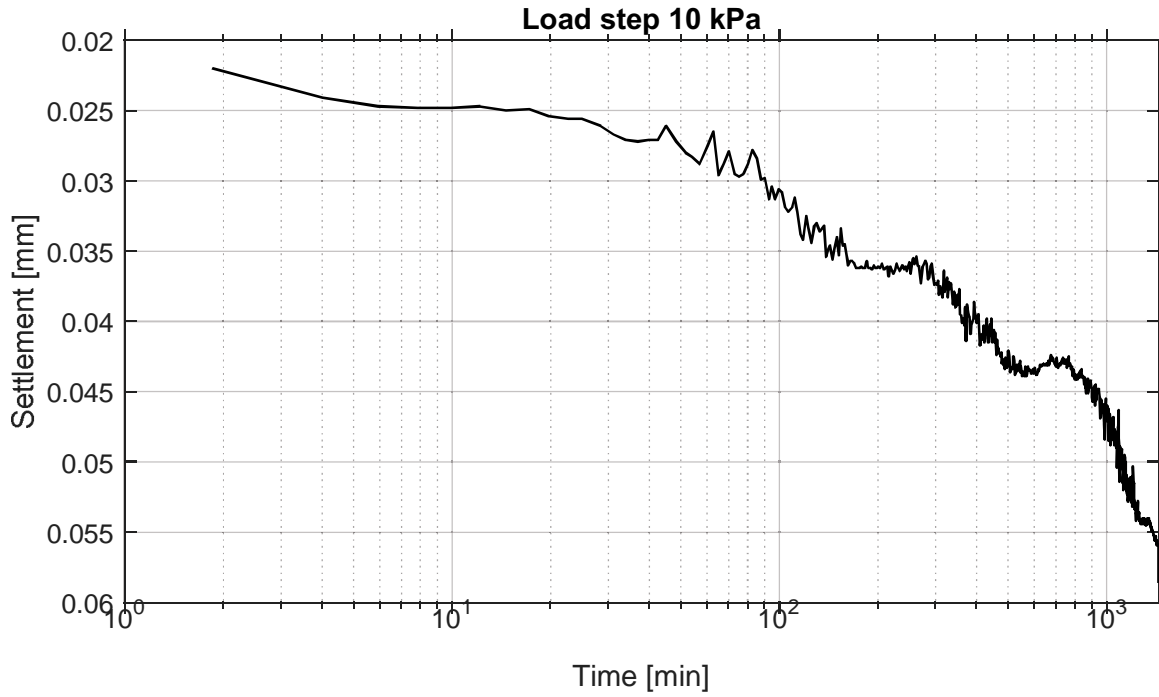
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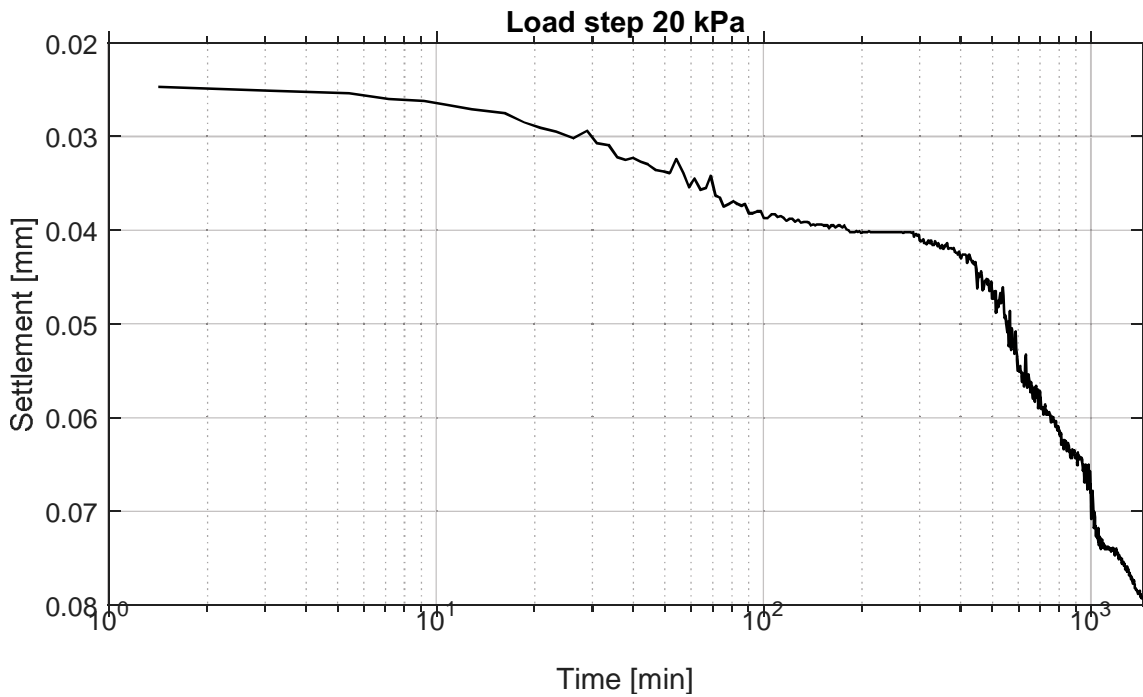
appendix
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4

Casagrande method (page 2/5)



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project
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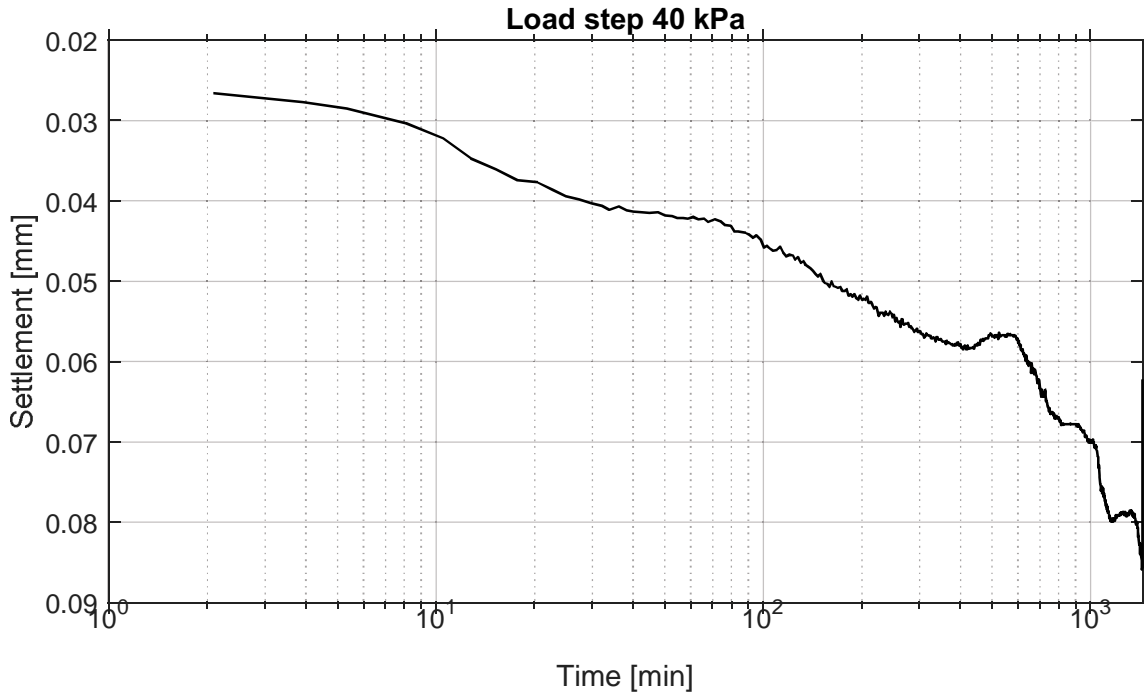
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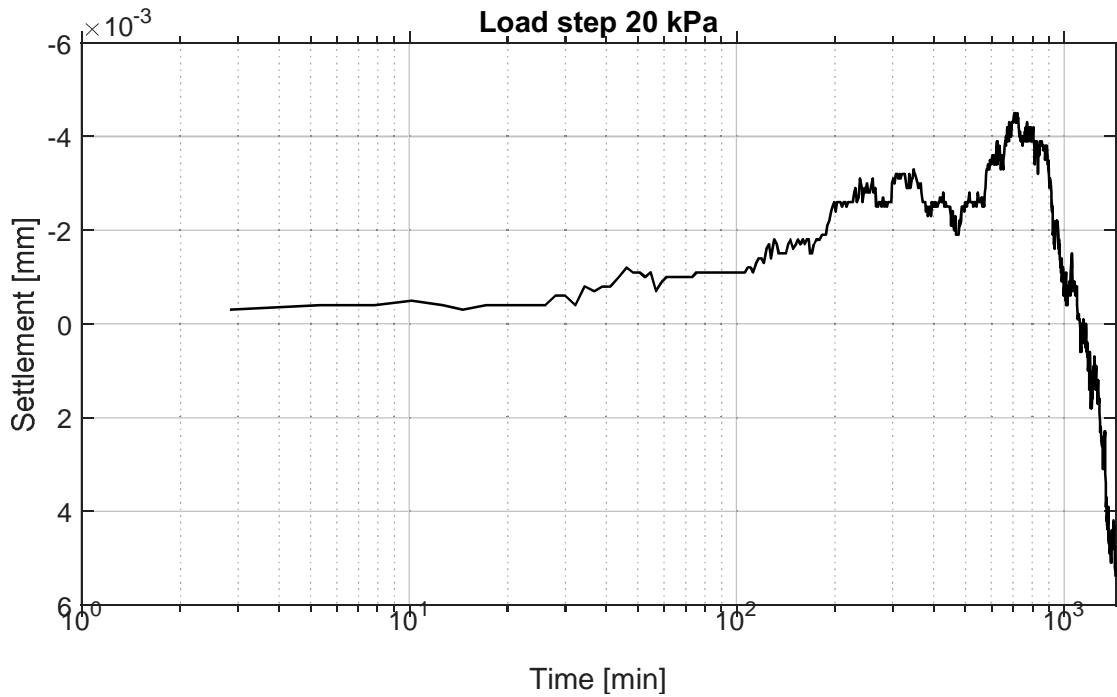
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5

*) Gecontroleerd en vrijgegeven door konstadi op 2020-12-22

Casagrande method (page 3/5)



No calculation performed.



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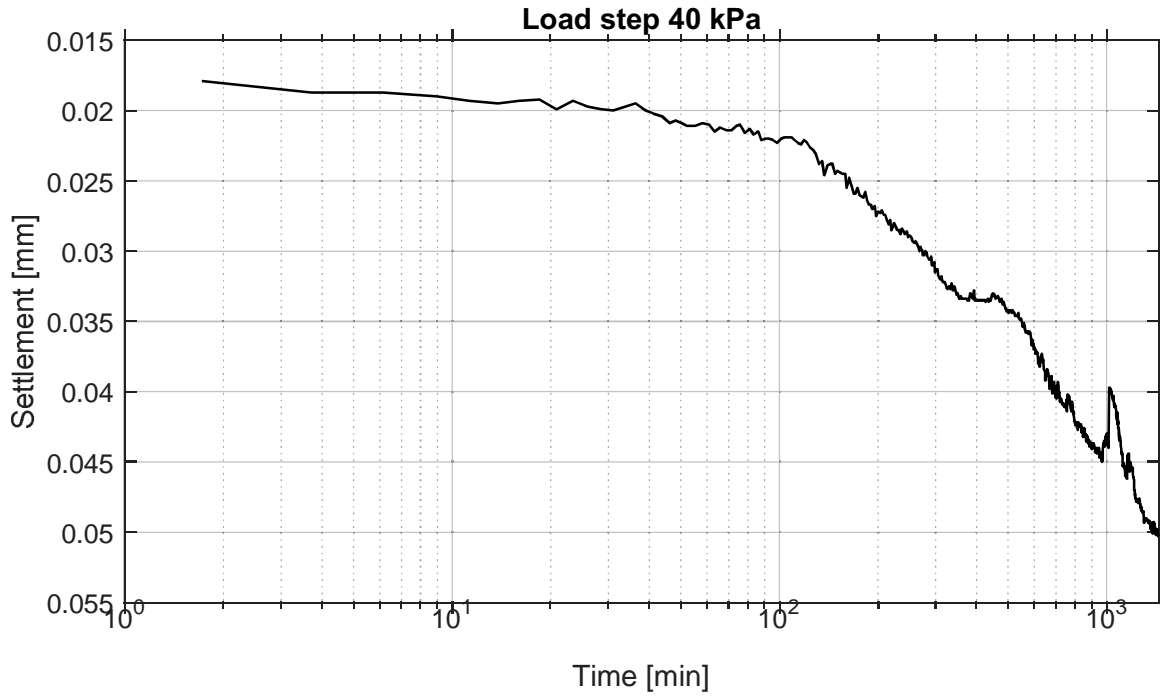
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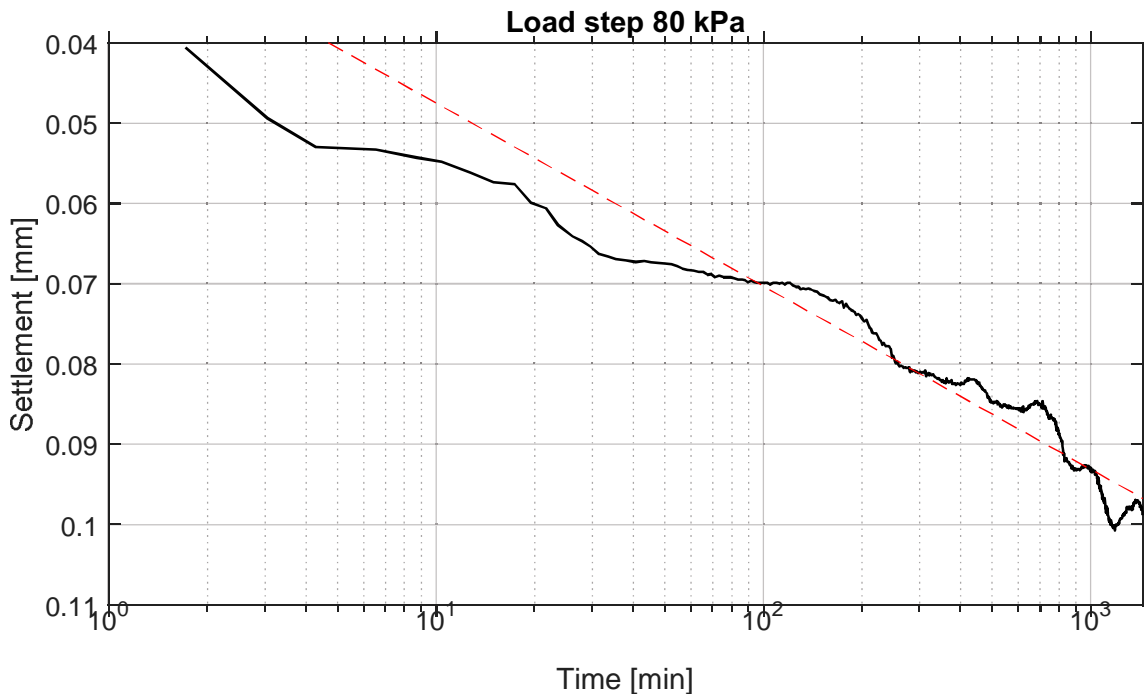
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*) Gecontroleerd en vrijgegeven door konstadi op 2020-12-22

Casagrande method (page 4/5)



No calculation performed.



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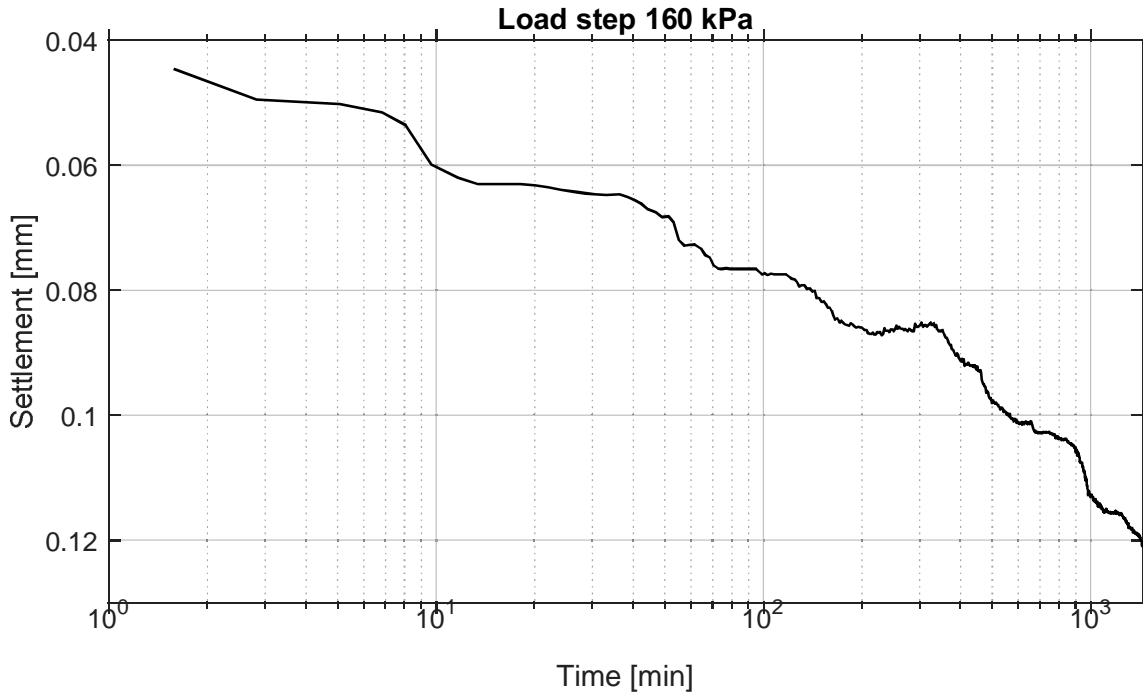
project
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1.1

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Casagrande method (page 5/5)



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project
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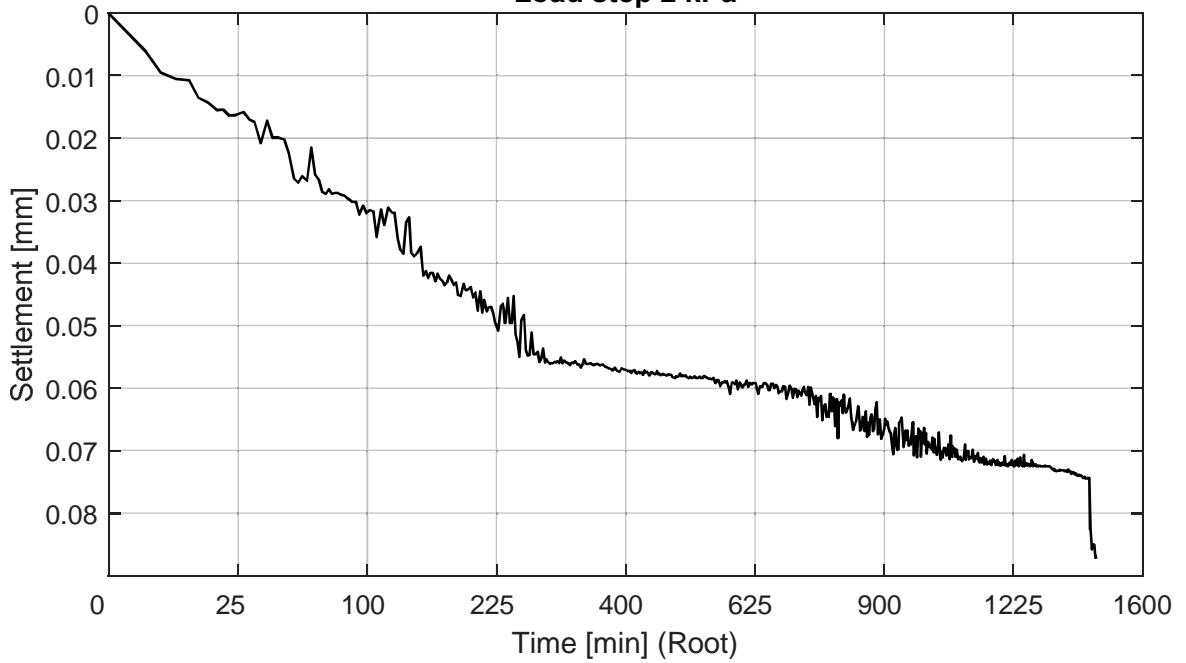
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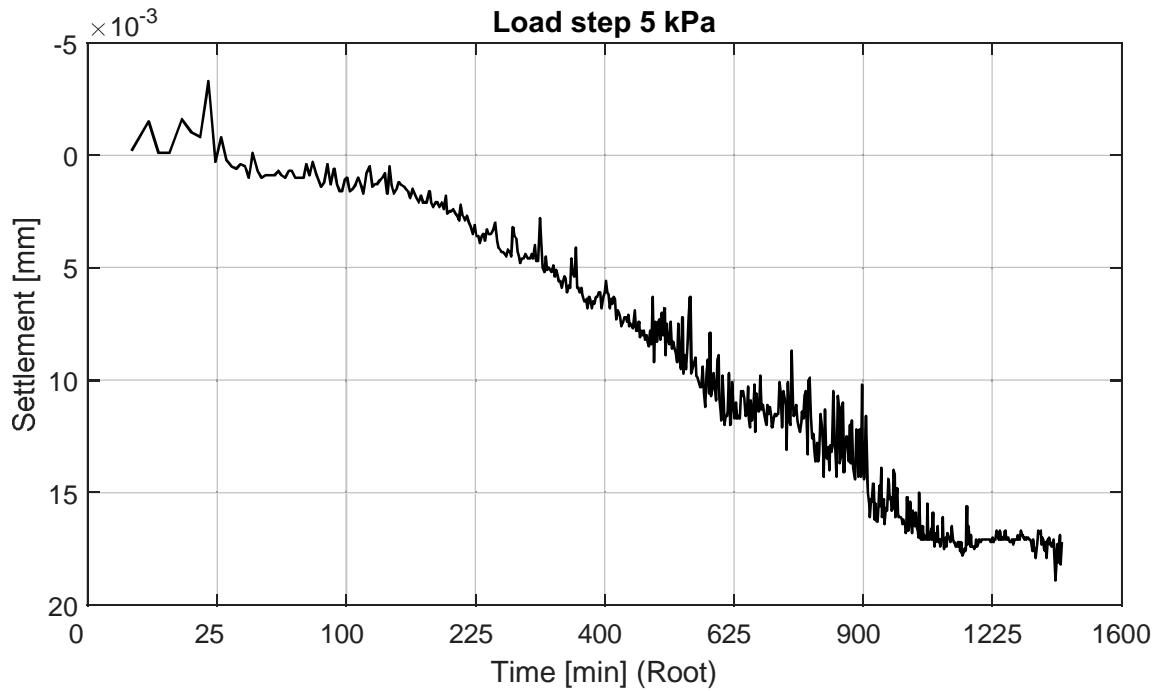
Taylor method (page 1/5)

Load step 2 kPa



No calculation performed.

Load step 5 kPa



No calculation performed.

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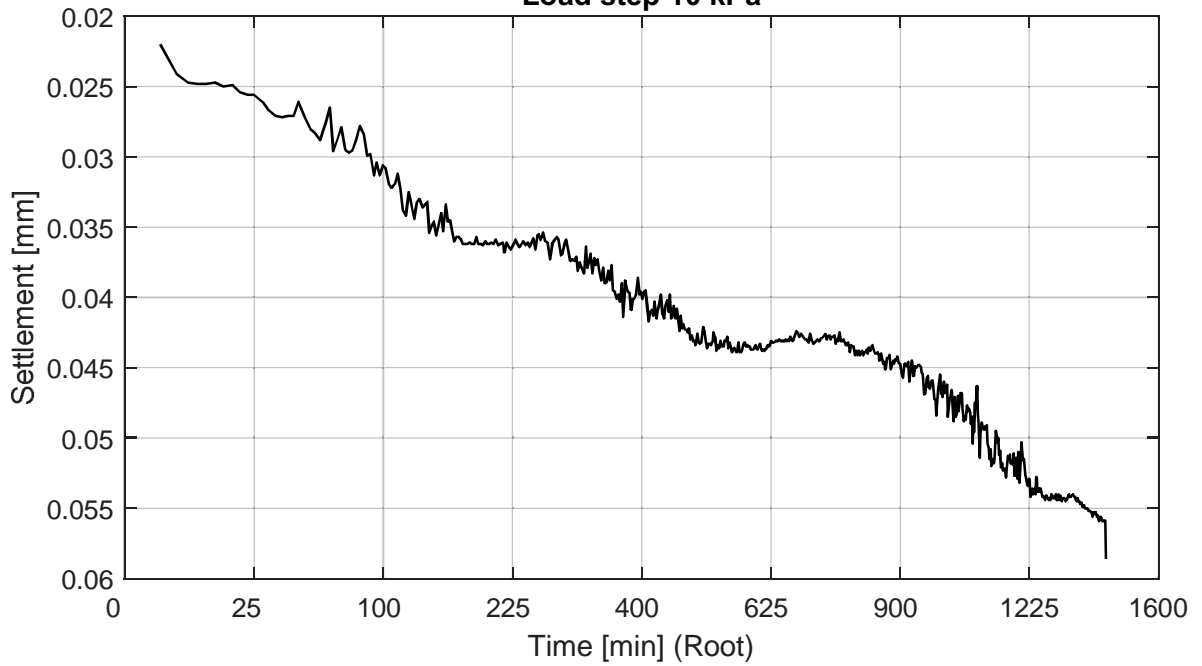
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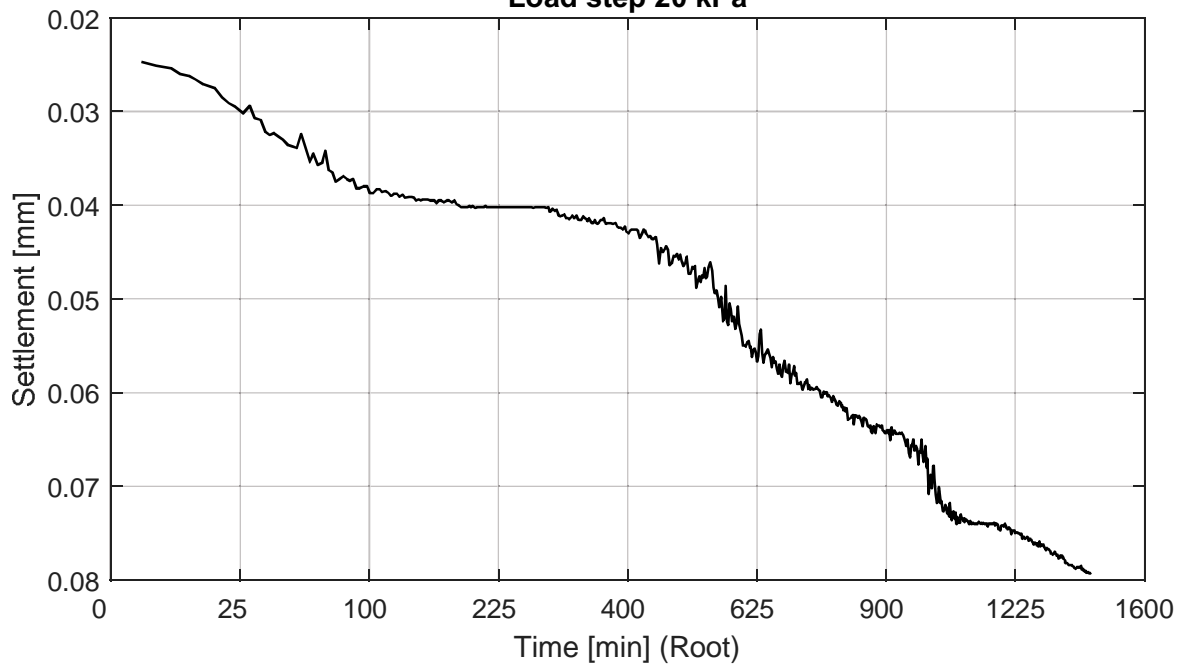
Taylor method (page 2/5)

Load step 10 kPa



No calculation performed.

Load step 20 kPa



No calculation performed.

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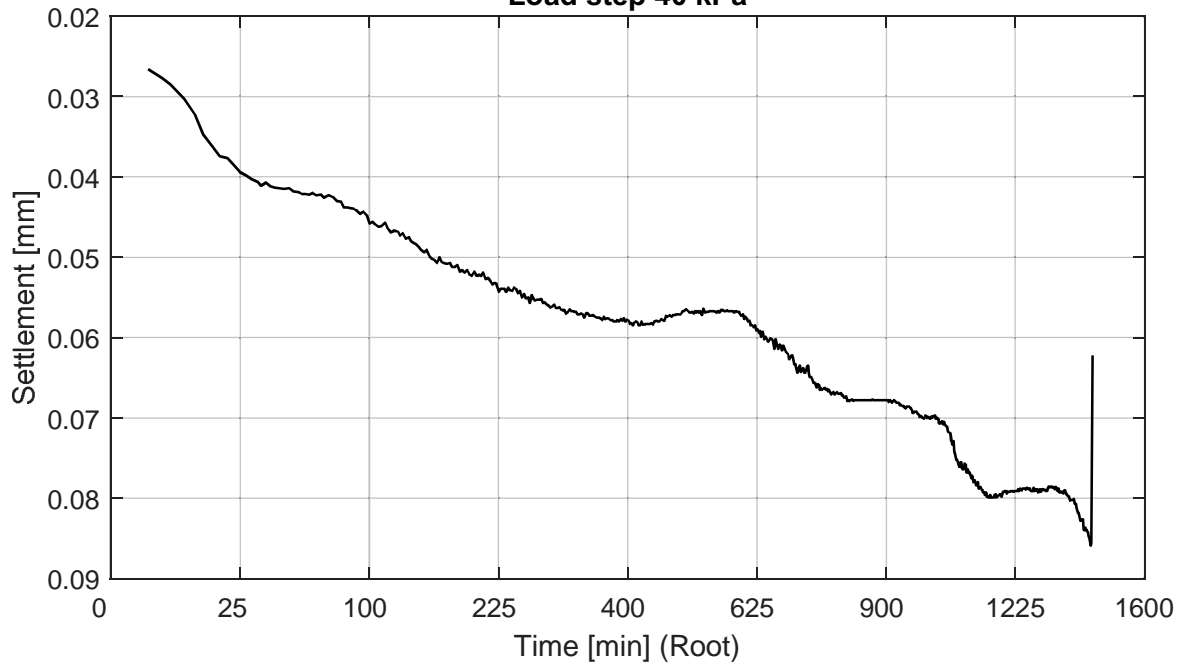
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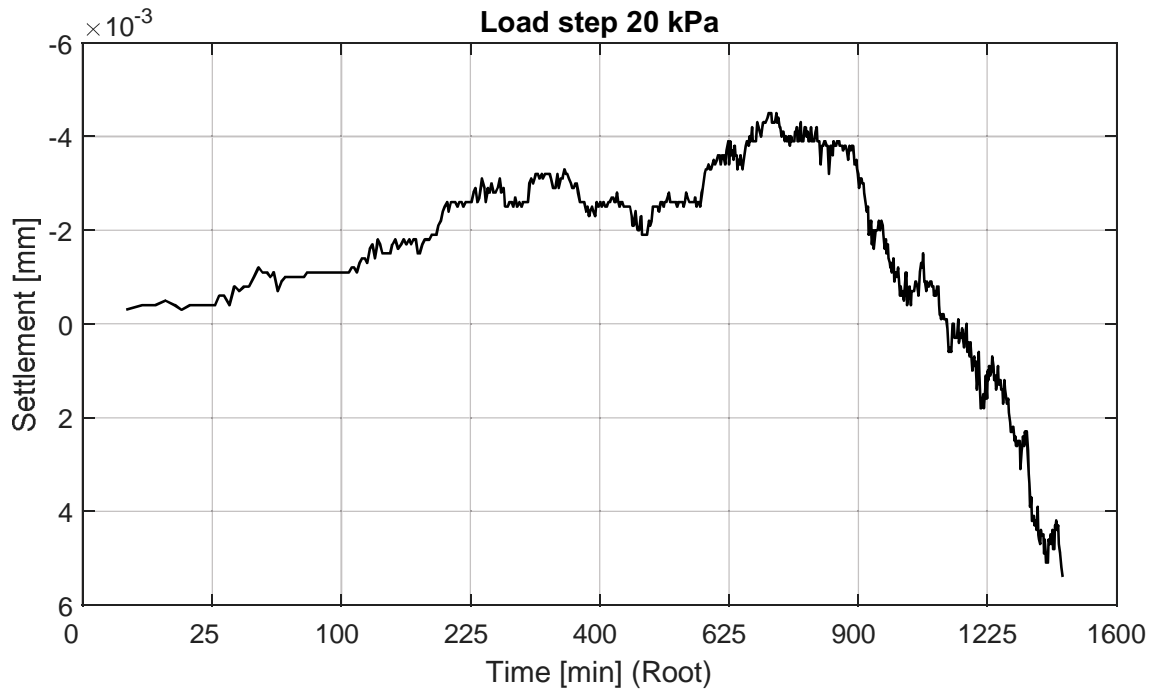
Taylor method (page 3/5)

Load step 40 kPa



No calculation performed.

Load step 20 kPa



No calculation performed.

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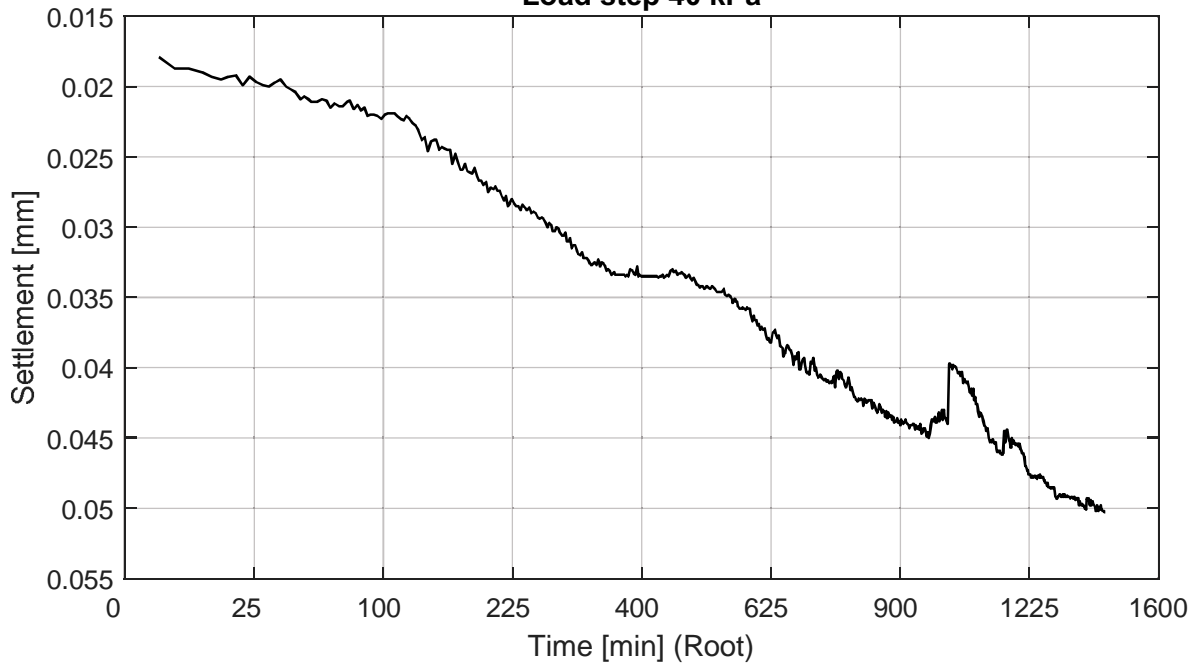
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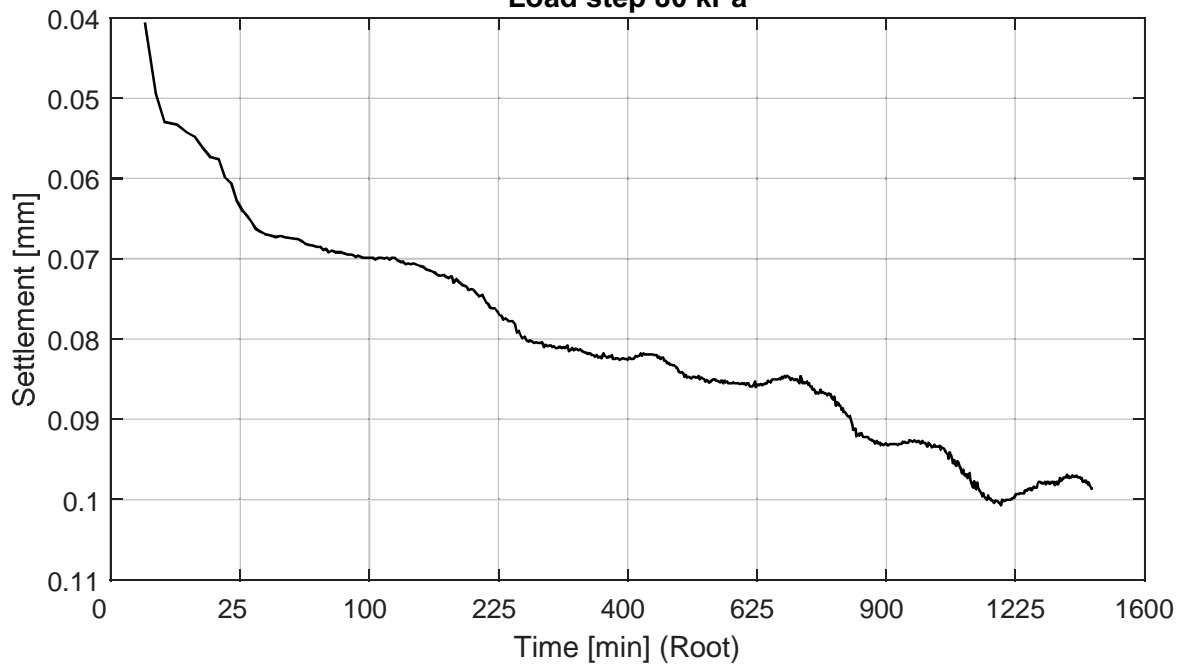
Taylor method (page 4/5)

Load step 40 kPa



No calculation performed.

Load step 80 kPa



No calculation performed.

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Oedometer test conform NEN-EN-ISO 17892-5

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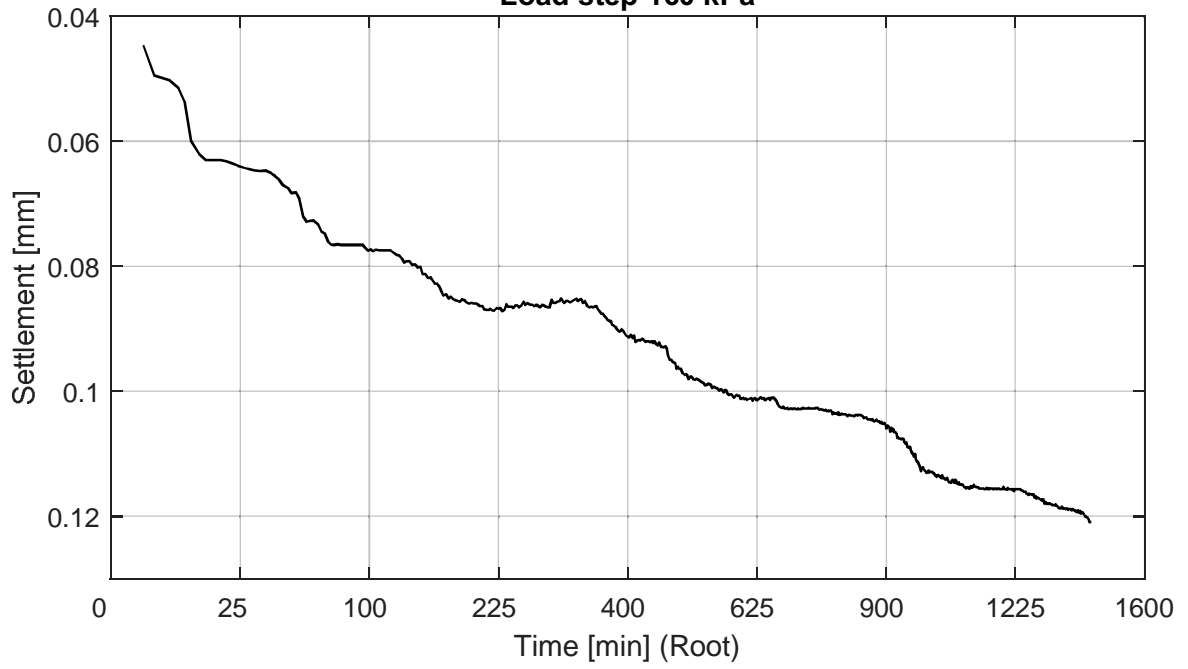
version
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Taylor method (page 5/5)

Load step 160 kPa



No calculation performed.

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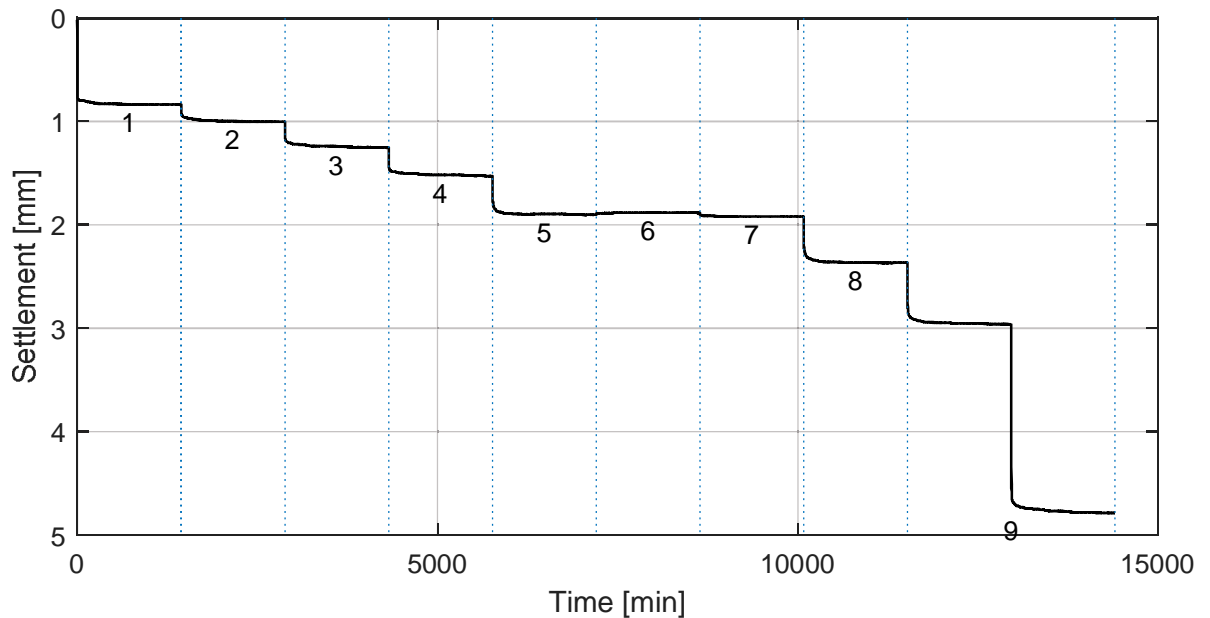
Oedometer test conform NEN-EN-ISO 17892-5

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11205262.12

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General soil and test parameters

Soil description (NEN 5104)	ZS4
Initial volumetric weight - wet [kN/m ³]	19.2
Initial volumetric weight - dry [kN/m ³]	15.5
Volumetric weight particles (γ_s) [kN/m ³](*)	24.8
Initial water content [%]	23.7
Initial sample height [mm]	30
Initial sample diameter [mm]	63
Final volumetric weight - wet [kN/m ³]	21.2
Final volumetric weight - dry [kN/m ³]	18.2
Final water content [%]	16.8
Type of test (wet/dry)	Wet
Visual disturbance sample	undisturbed
Startdate	2020-10-12
Enddate	2016-09-16
Sample disturbance index	-
Lab temperature [°C]	9.0
PC' _{Becker} [kPa]	-
PC' _{Janbu} [kPa]	-
(*) γ_s calculated with assumed complete saturation	

Load step number	Load [kPa]
1	13
2	26
3	52
4	104
5	208
6	104
7	208
8	416
9	832

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Boring B003, sample 7, depth 6.05 m till 6.00 m NAP

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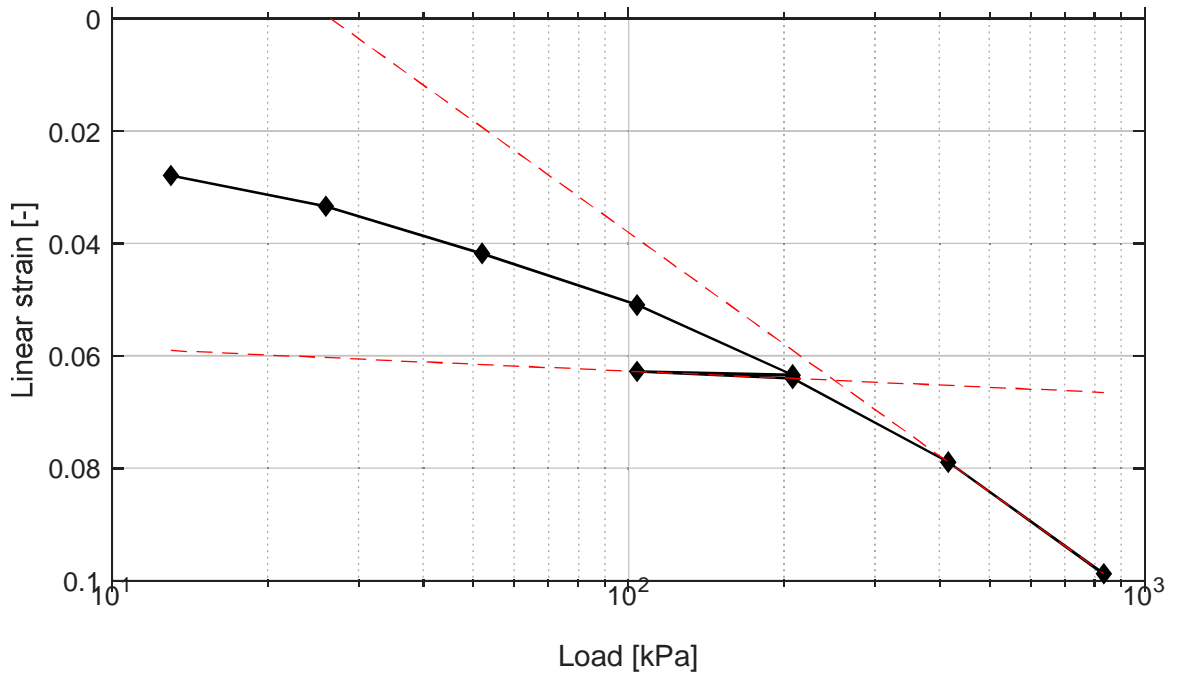
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Oedometer test conform NEN-EN-ISO 17892-5

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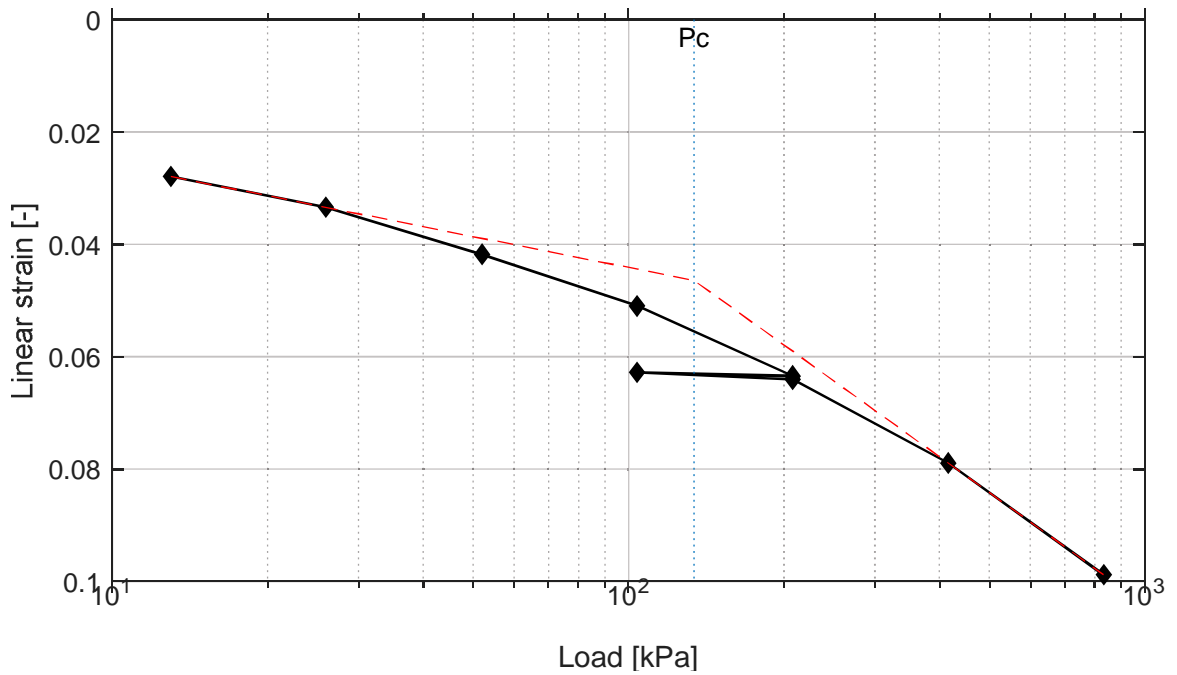
NEN-Bjerrum method



RR = 4.1e-03
CR = 6.6e-02

Ca = 1.2e-03

Vo = 1.60



Pc = 134.0 kPa

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project
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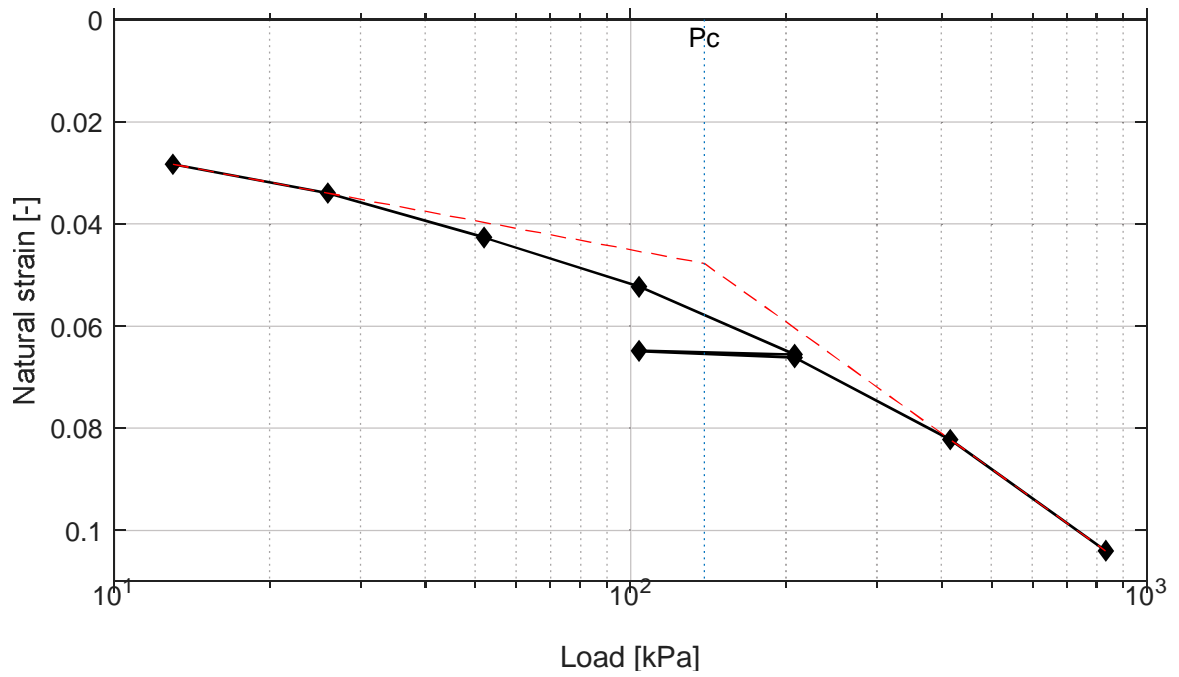
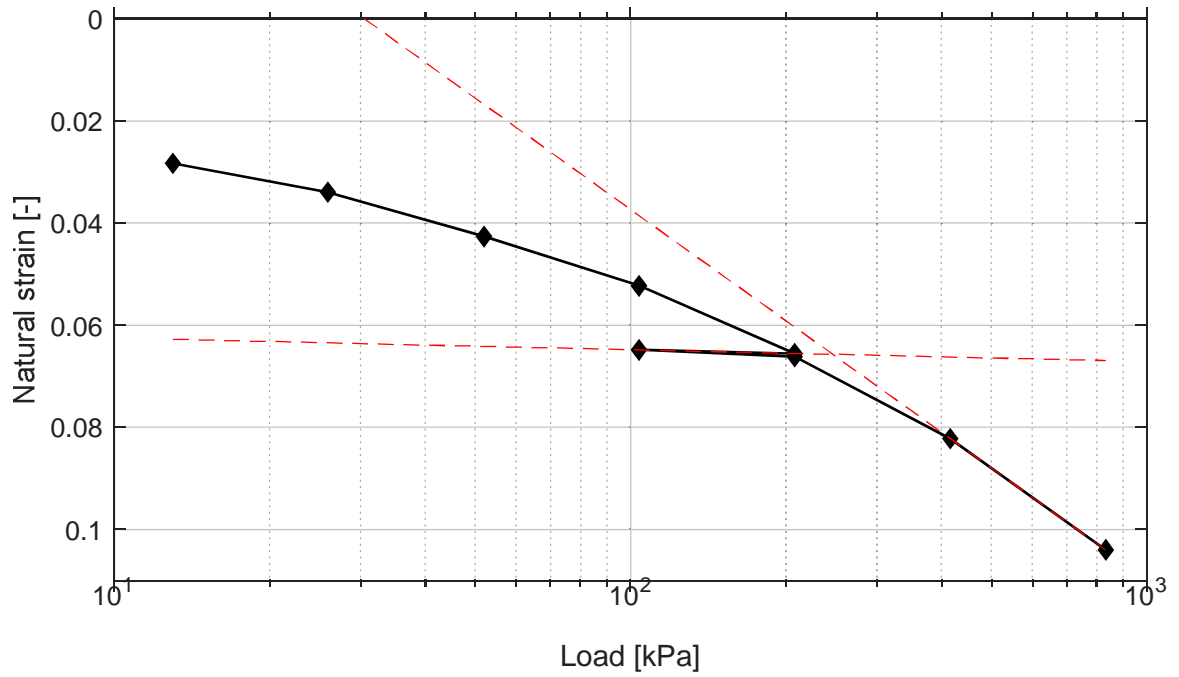
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Oedometer test conform NEN-EN-ISO 17892-5

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Isotachen method



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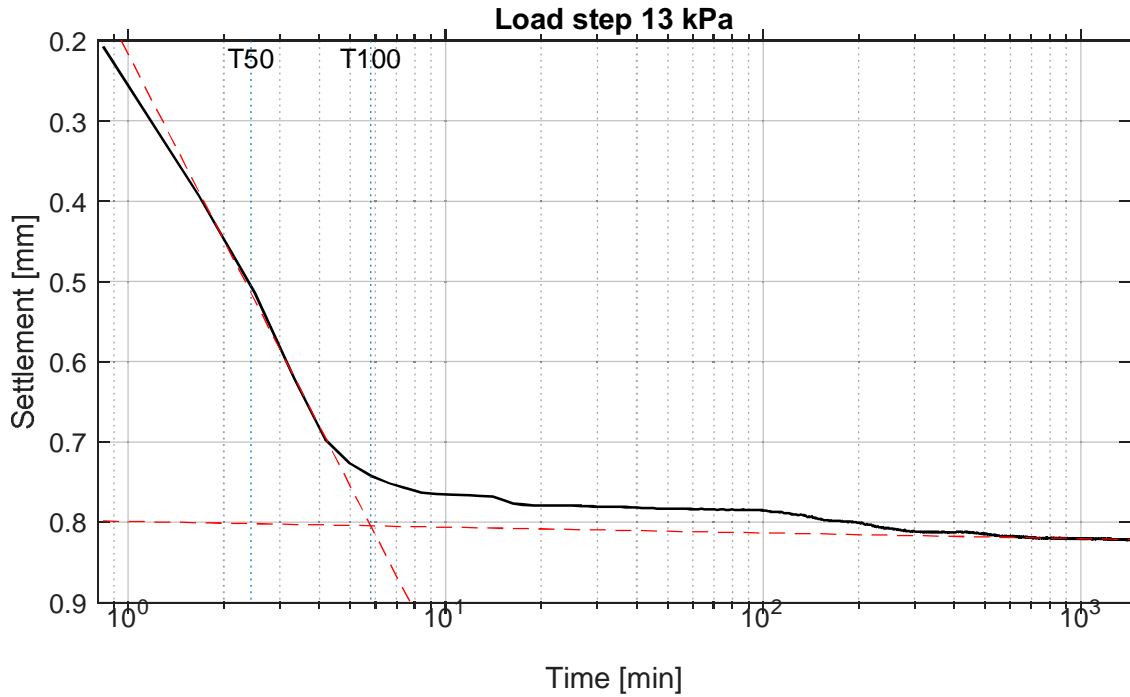
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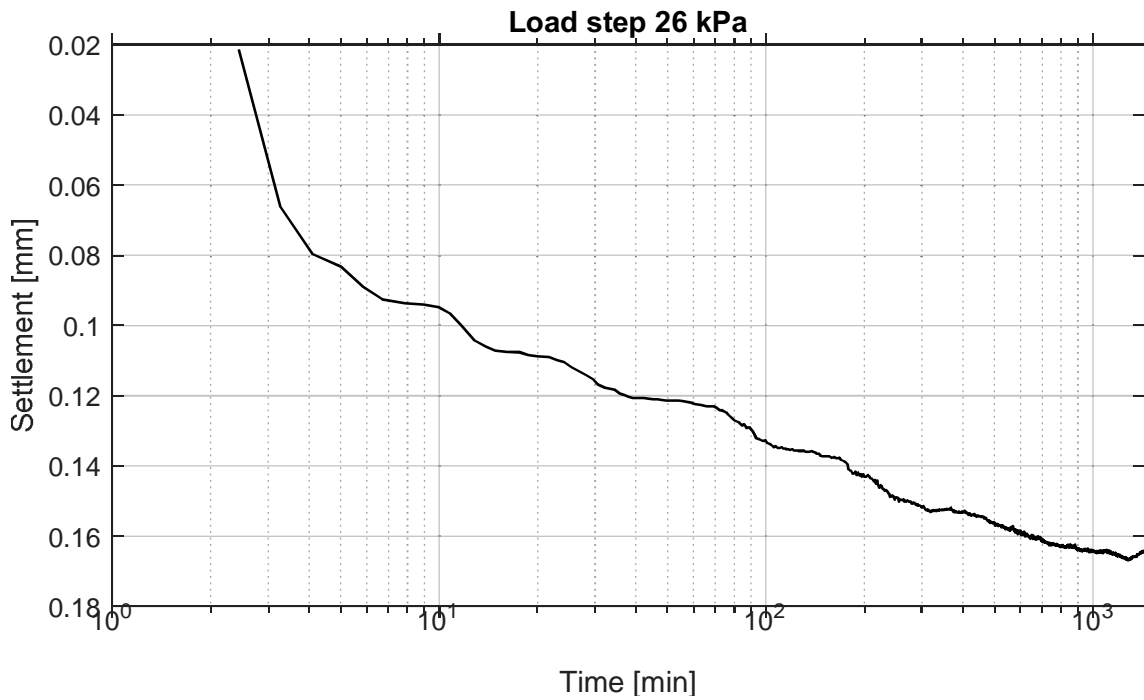
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3

Casagrande method (page 1/5)



$C_v = 2.9e-07 \text{ m}^2/\text{s}$
 $C_a = -$

$M_v = 1.5e-03 \text{ m}^2/\text{kN}$
 $K = 4.4e-09 \text{ m/s}$



No calculation performed.

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project
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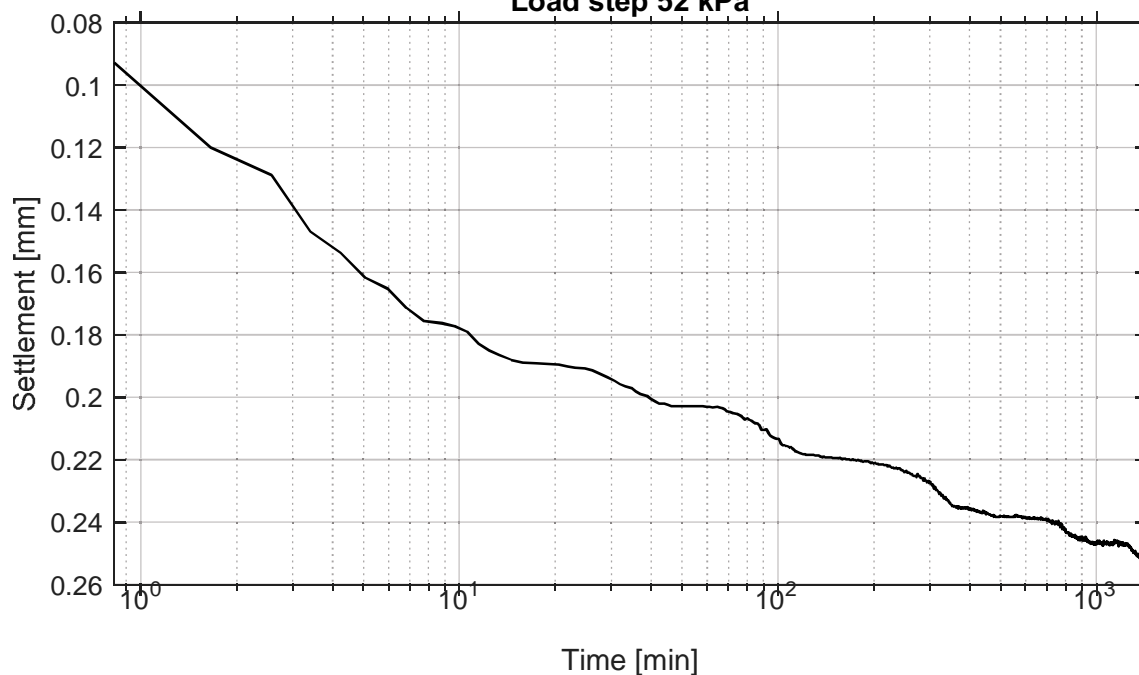
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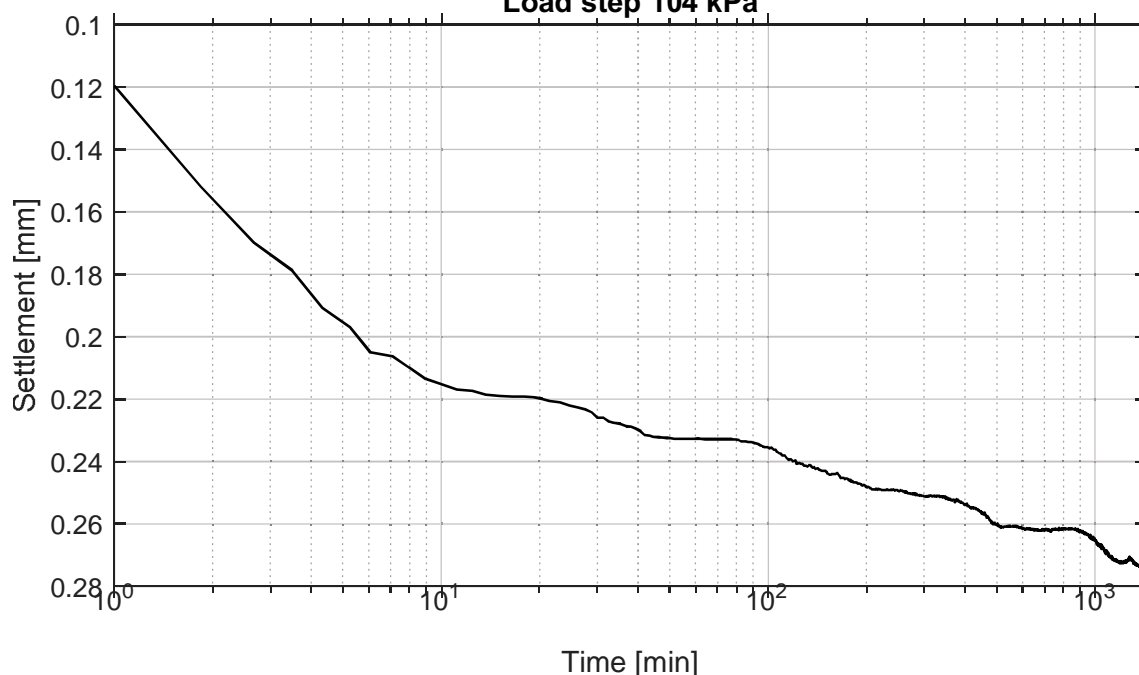
Casagrande method (page 2/5)

Load step 52 kPa



No calculation performed.

Load step 104 kPa



No calculation performed.



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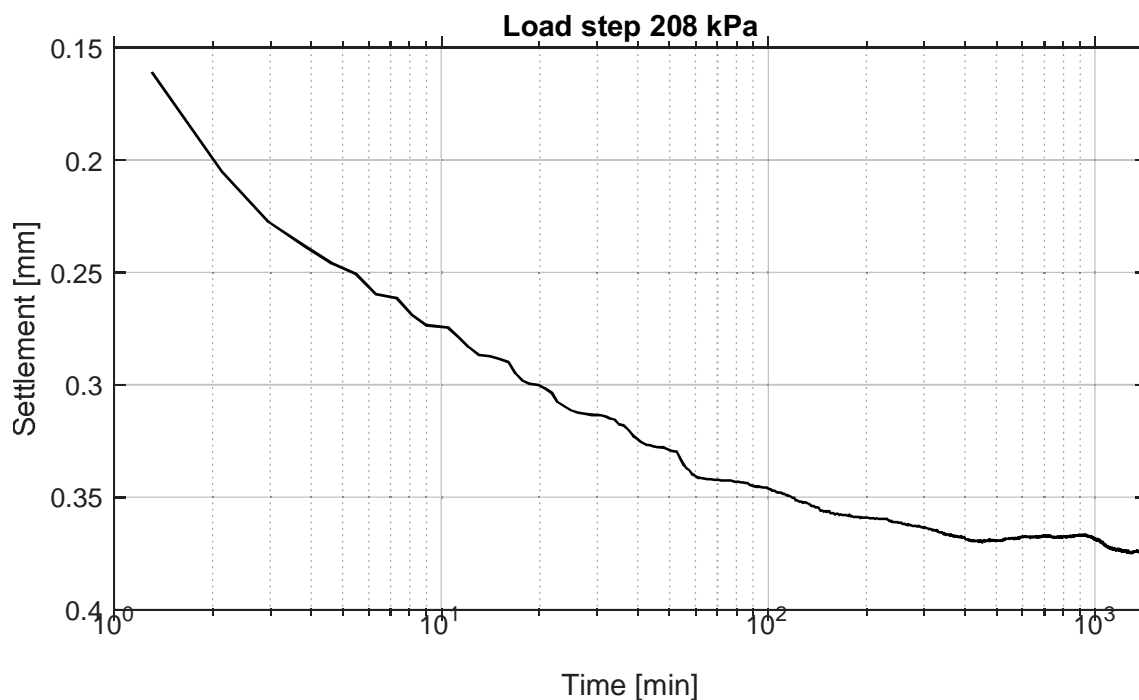
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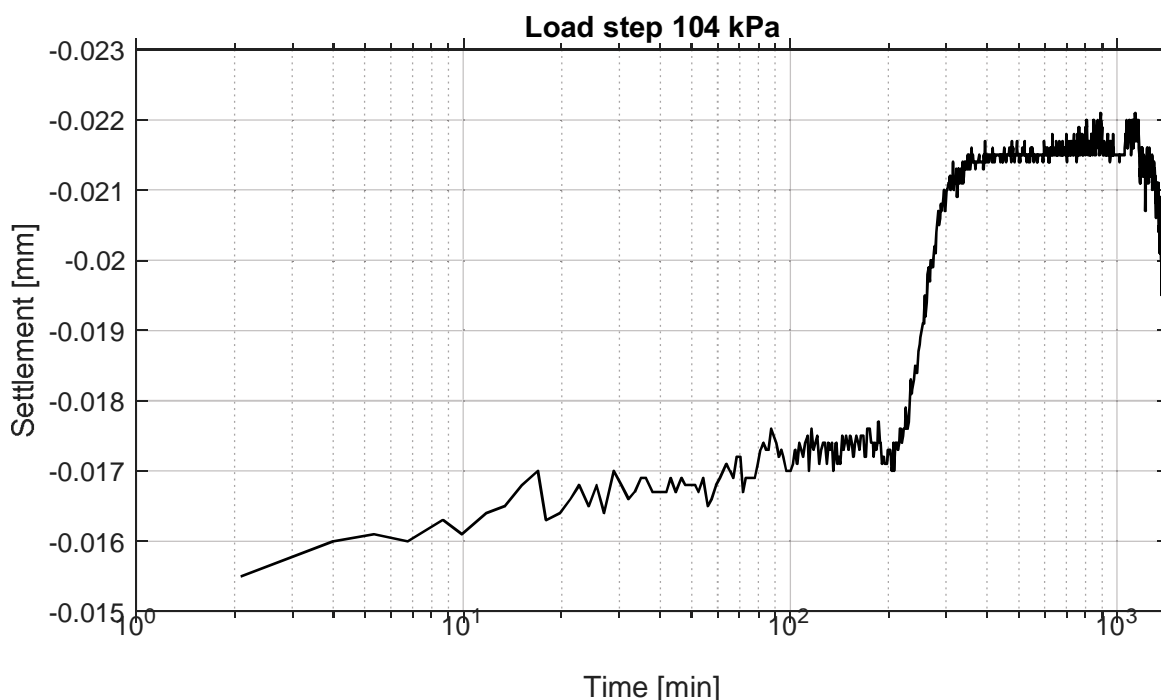
appendix	page
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*) Gecontroleerd en vrijgegeven door konstadi op 2020-12-19

Casagrande method (page 3/5)



No calculation performed.



No calculation performed.

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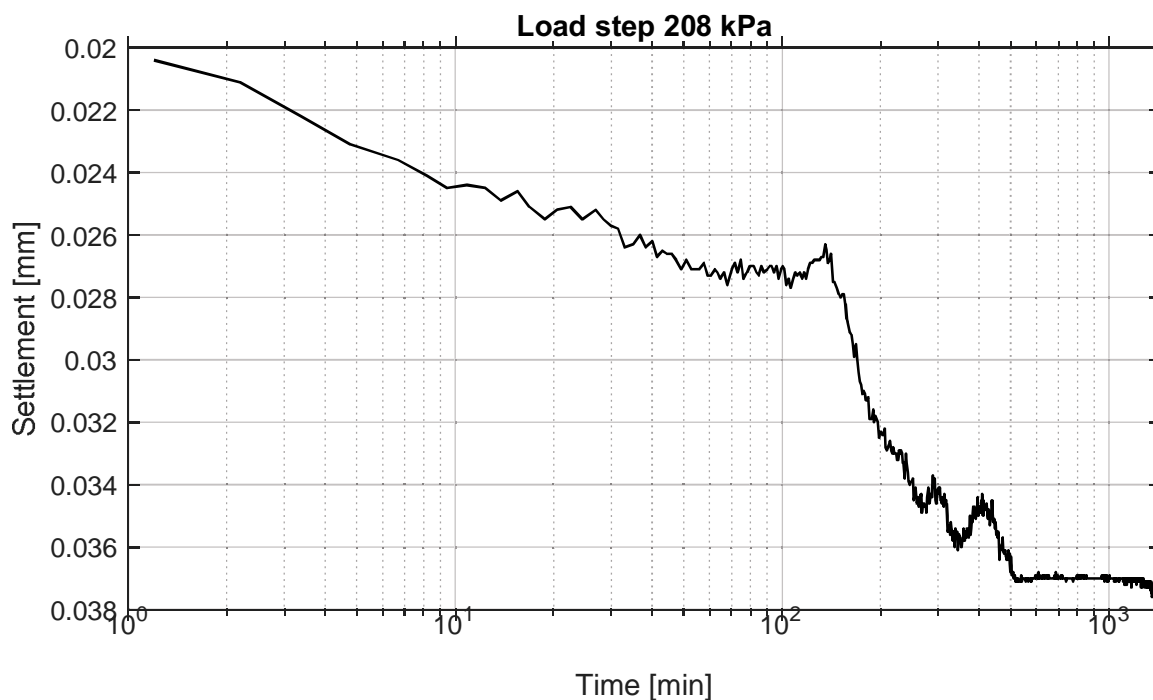
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SA7

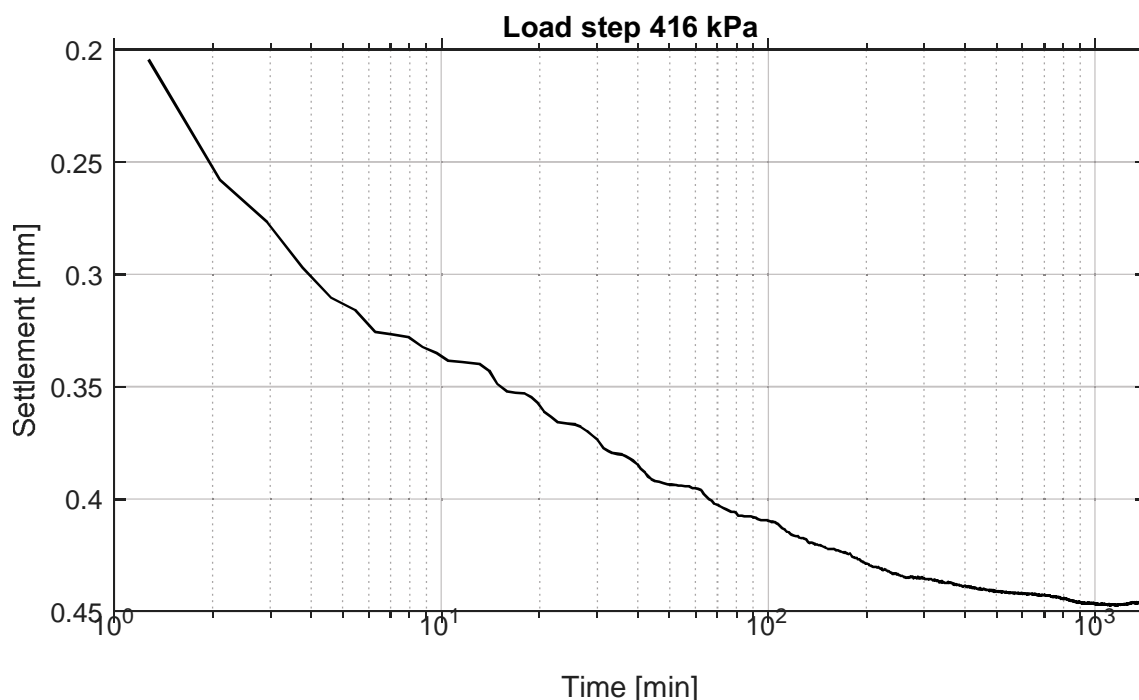
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*) Gecontroleerd en vrijgegeven door konstadi op 2020-12-19

Casagrande method (page 4/5)



No calculation performed.



No calculation performed.

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project
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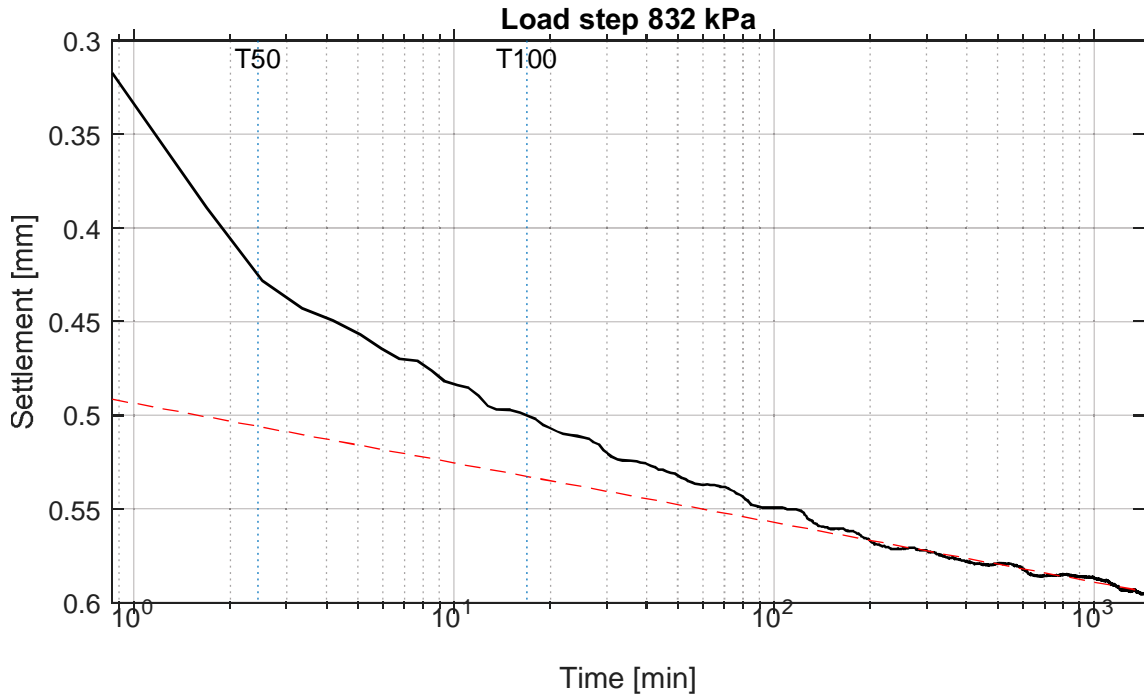
version
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Oedometer test conform NEN-EN-ISO 17892-5

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Casagrande method (page 5/5)



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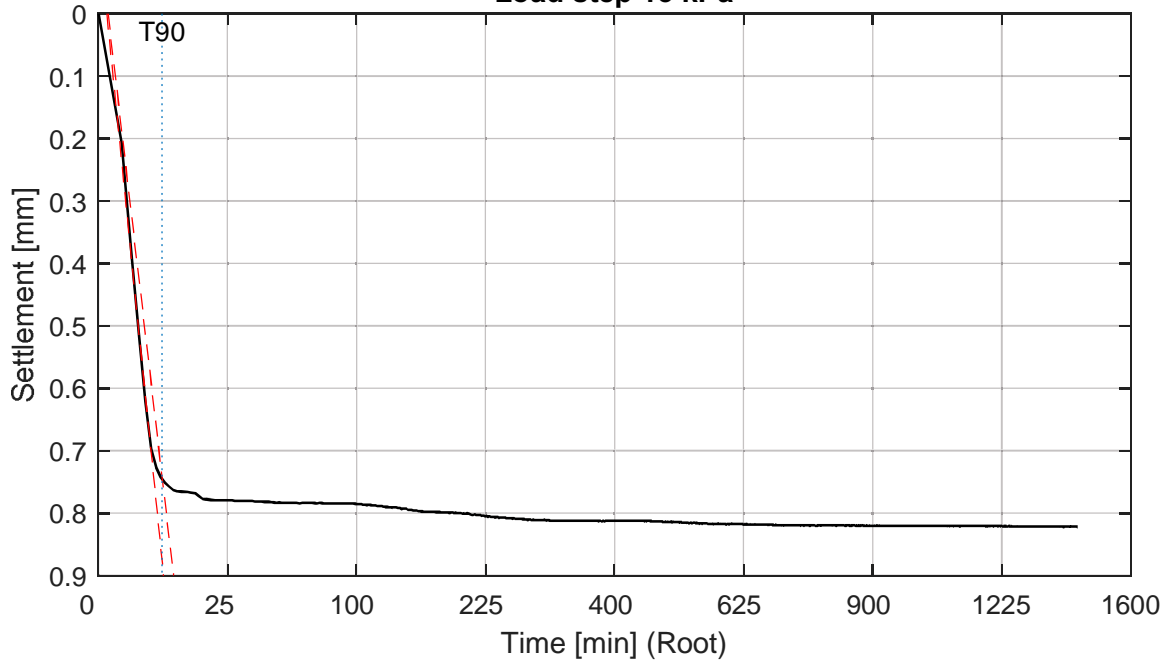
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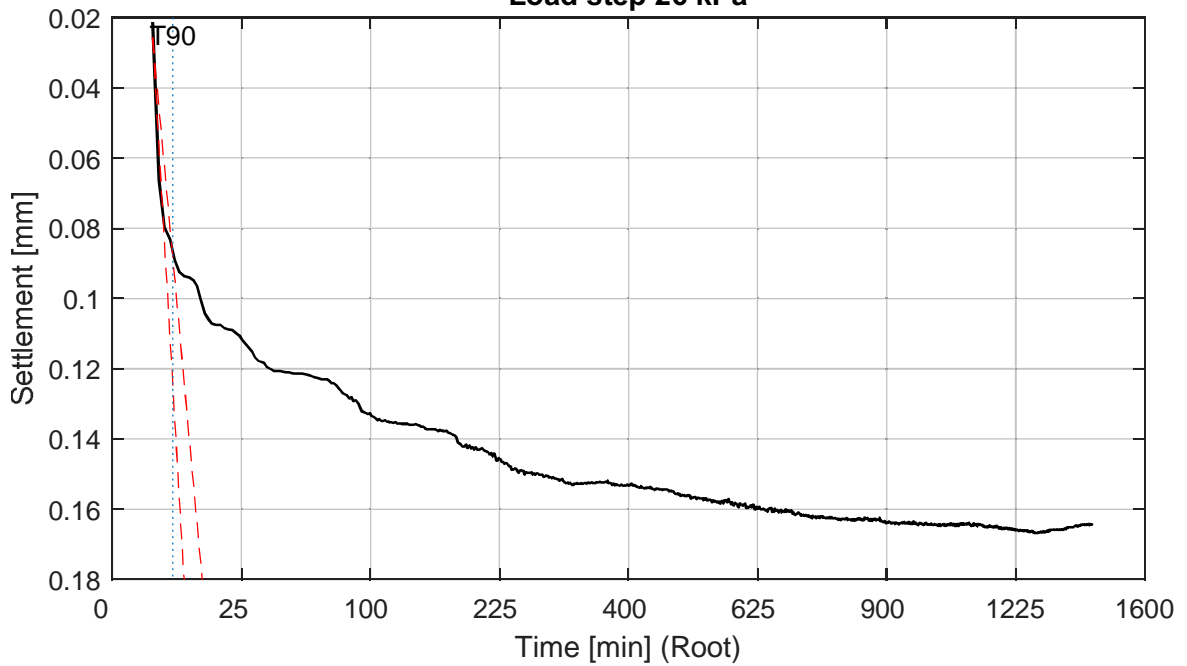
Taylor method (page 1/5)

Load step 13 kPa



$$C_v = 4.9e-07 \text{ m}^2/\text{s}$$

Load step 26 kPa



$$C_v = 5.4e-07 \text{ m}^2/\text{s}$$

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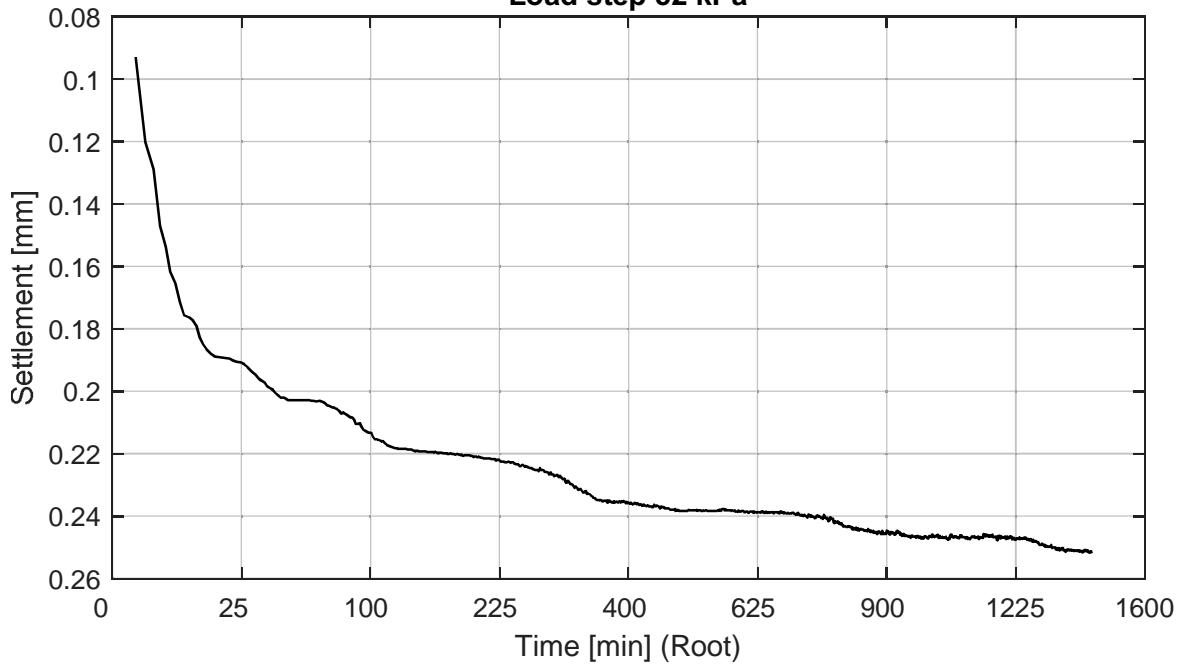
Oedometer test conform NEN-EN-ISO 17892-5

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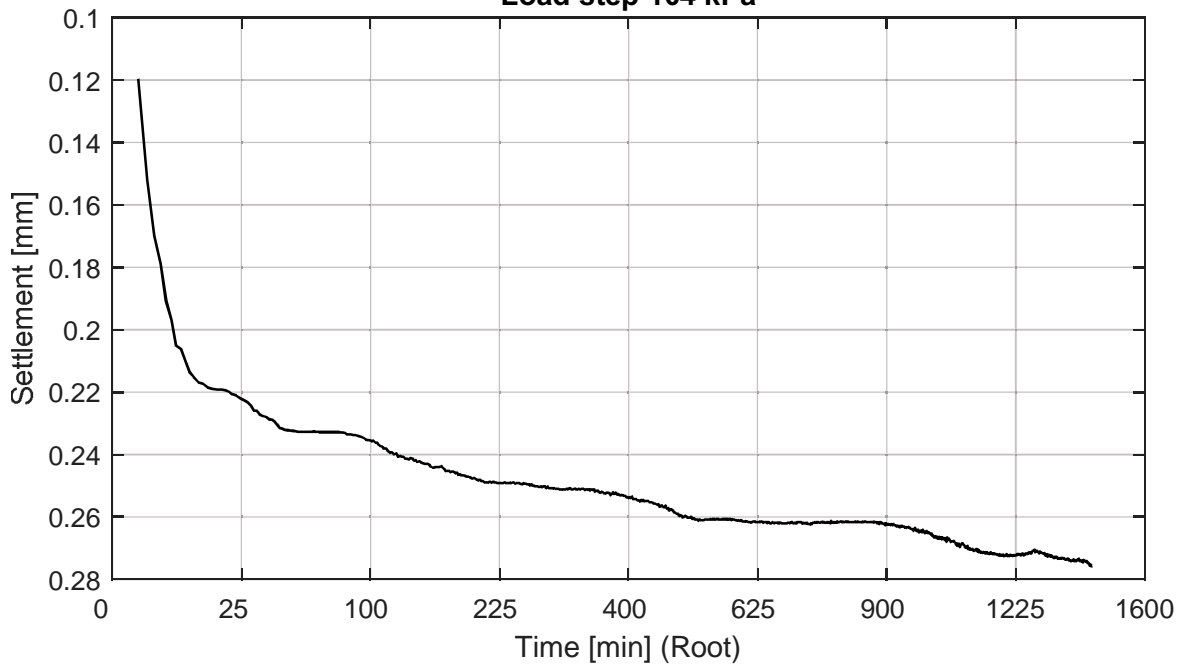
Taylor method (page 2/5)

Load step 52 kPa



No calculation performed.

Load step 104 kPa



No calculation performed.

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Boring B003, sample 7, depth 6.05 m till 6.00 m NAP

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11205262.12

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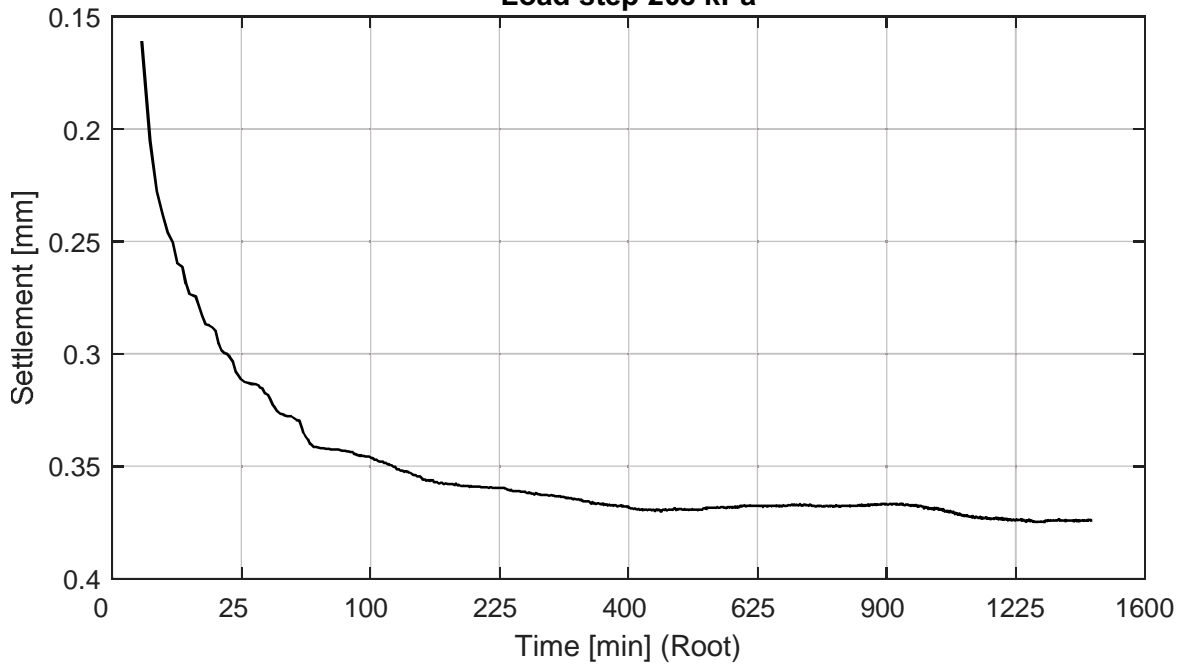
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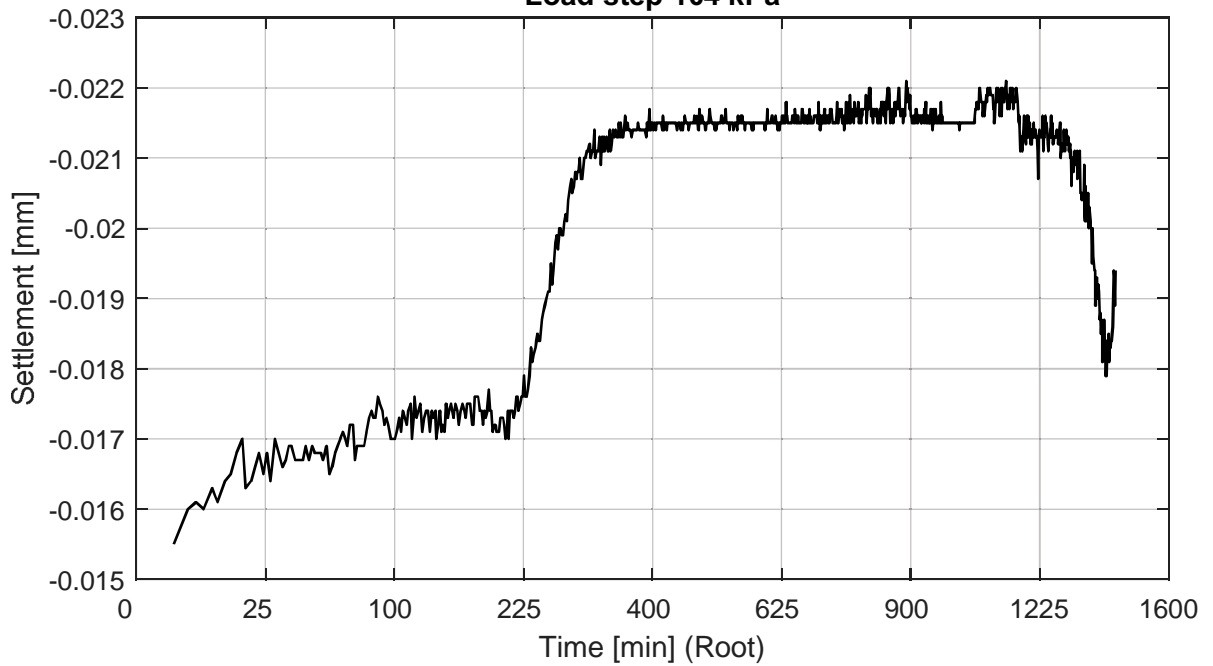
Taylor method (page 3/5)

Load step 208 kPa



No calculation performed.

Load step 104 kPa



No calculation performed.



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Boring B003, sample 7, depth 6.05 m till 6.00 m NAP

project	version
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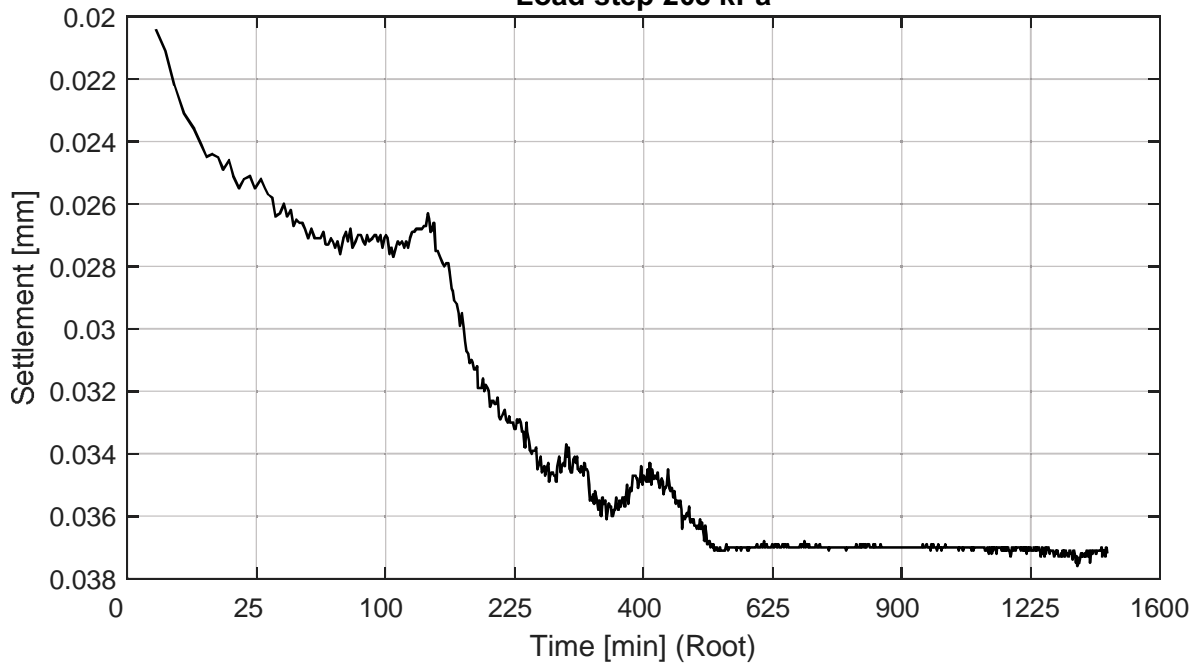
Oedometer test conform NEN-EN-ISO 17892-5

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*) Gecontroleerd en vrijgegeven door konstadi op 2020-12-19

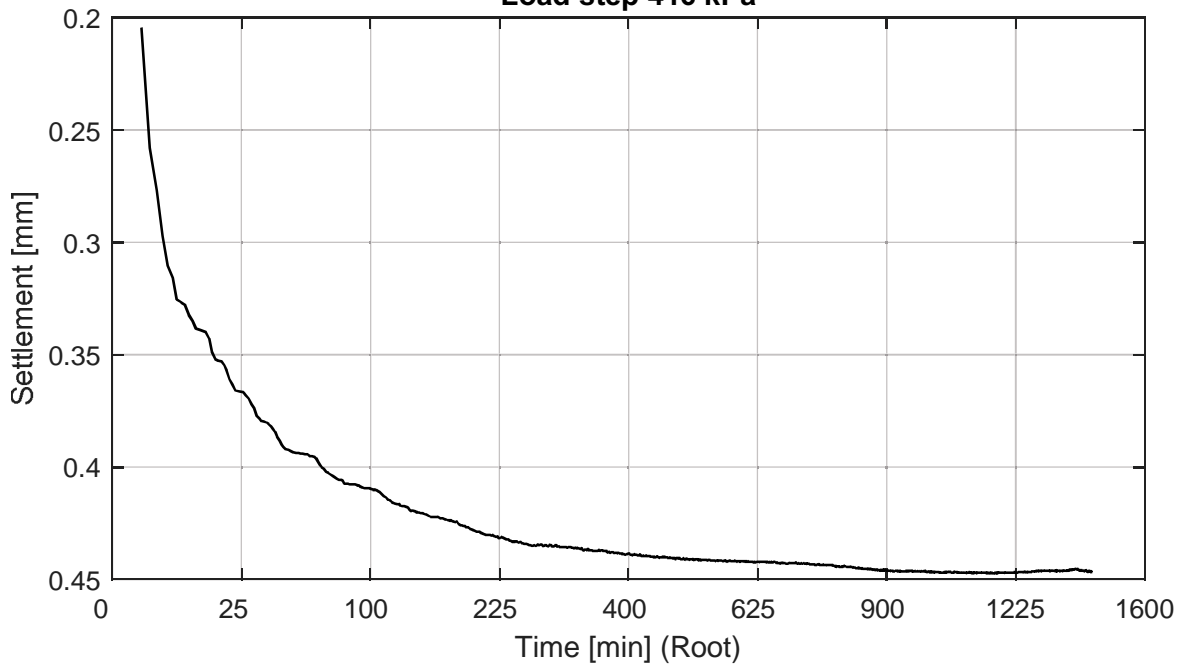
Taylor method (page 4/5)

Load step 208 kPa



No calculation performed.

Load step 416 kPa



No calculation performed.

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Boring B003, sample 7, depth 6.05 m till 6.00 m NAP

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version
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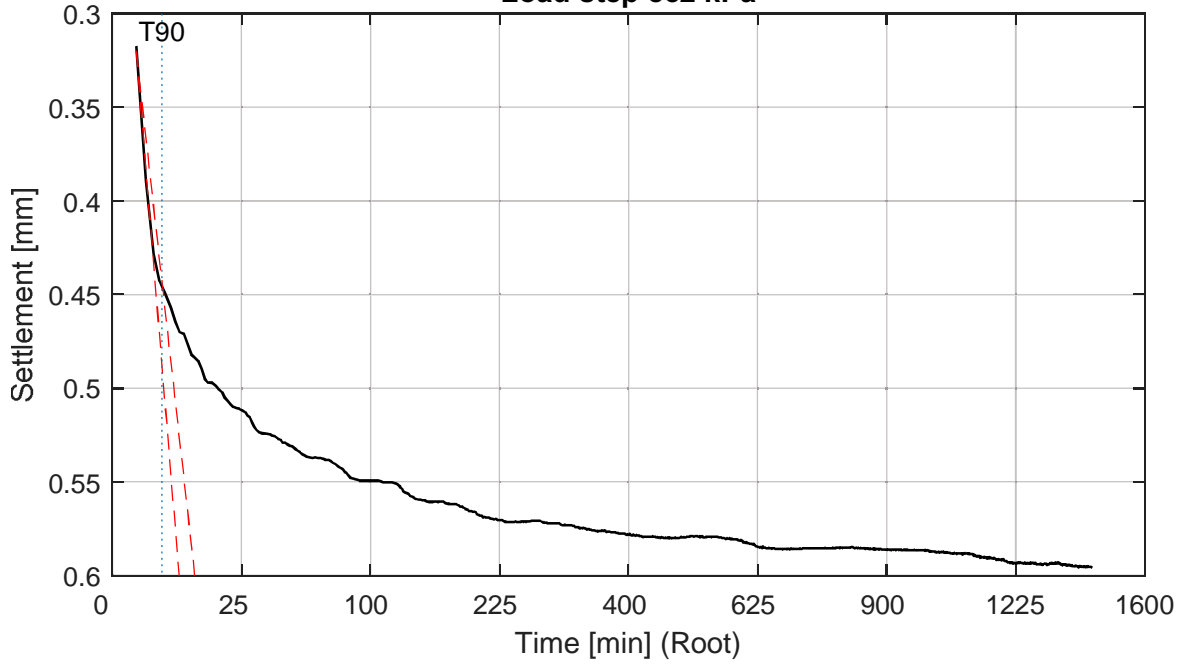
Oedometer test conform NEN-EN-ISO 17892-5

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Taylor method (page 5/5)

Load step 832 kPa



$C_v = 7.0e-07 \text{ m}^2/\text{s}$

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Boring B003, sample 7, depth 6.05 m till 6.00 m NAP

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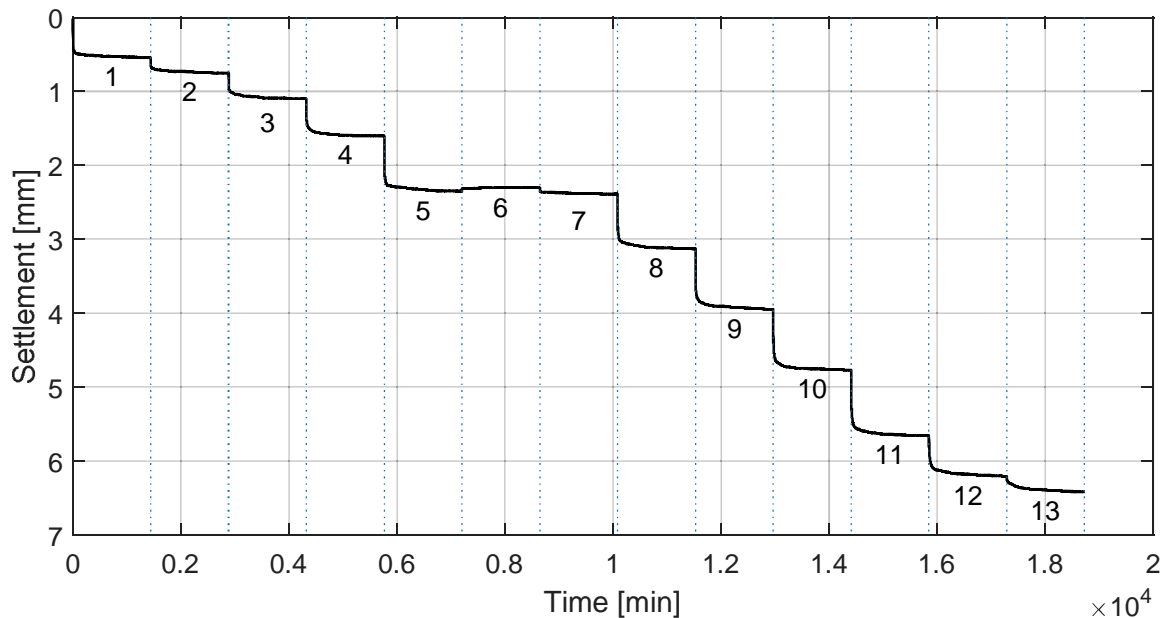
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Oedometer test conform NEN-EN-ISO 17892-5

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*) Gecontroleerd en vrijgegeven door konstadi op 2020-12-19



General soil and test parameters

Soil description (NEN 5104)	ZS4
Initial volumetric weight - wet [kN/m ³]	18.4
Initial volumetric weight - dry [kN/m ³]	14.9
Volumetric weight particles (γ_s)[kN/m ³](*)	23.2
Initial water content [%]	23.7
Initial sample height [mm]	30
Initial sample diameter [mm]	63
Final volumetric weight - wet [kN/m ³]	21.9
Final volumetric weight - dry [kN/m ³]	18.1
Final water content [%]	21.4
Type of test (wet/dry)	Wet
Visual disturbance sample	undisturbed
Startdate	2020-11-18
Enddate	2016-09-16
Sample disturbance index	-
Lab temperature [°C]	9.0
Pc' _{Becker} [kPa]	389.9
Pc' _{Janbu} [kPa]	-
(*) γ_s calculated with assumed complete saturation	

Load step number	Load [kPa]
1	13
2	26
3	52
4	104
5	208
6	104
7	208
8	416
9	832
10	1664
11	3327
12	5099
13	5999

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Boring B003, sample 7A, depth 6.05 m till 6.00 m NAP

Oedometer test conform NEN-EN-ISO 17892-5

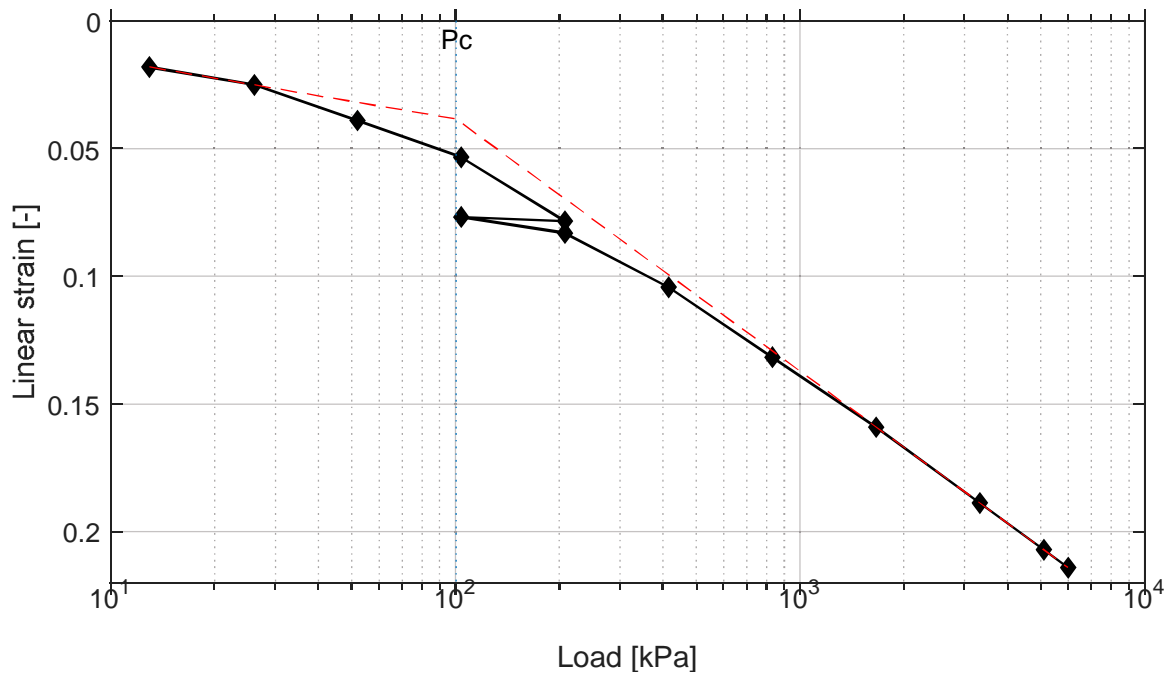
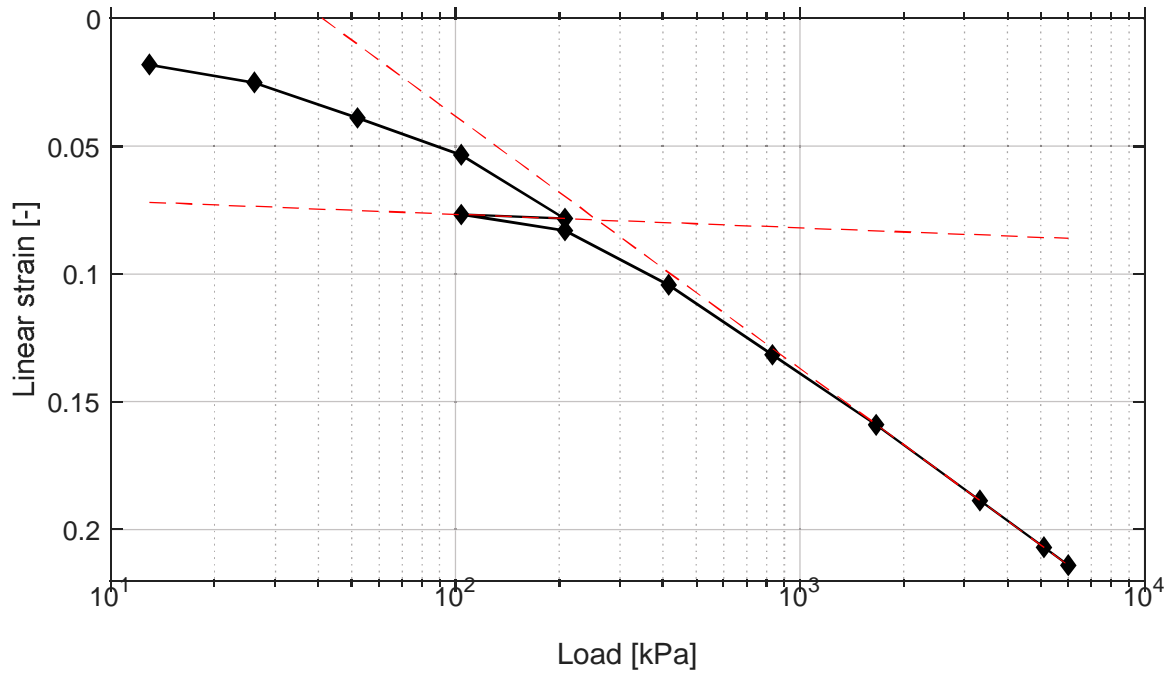
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NEN-Bjerrum method



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Boring B003, sample 7A, depth 6.05 m till 6.00 m NAP

Oedometer test conform NEN-EN-ISO 17892-5

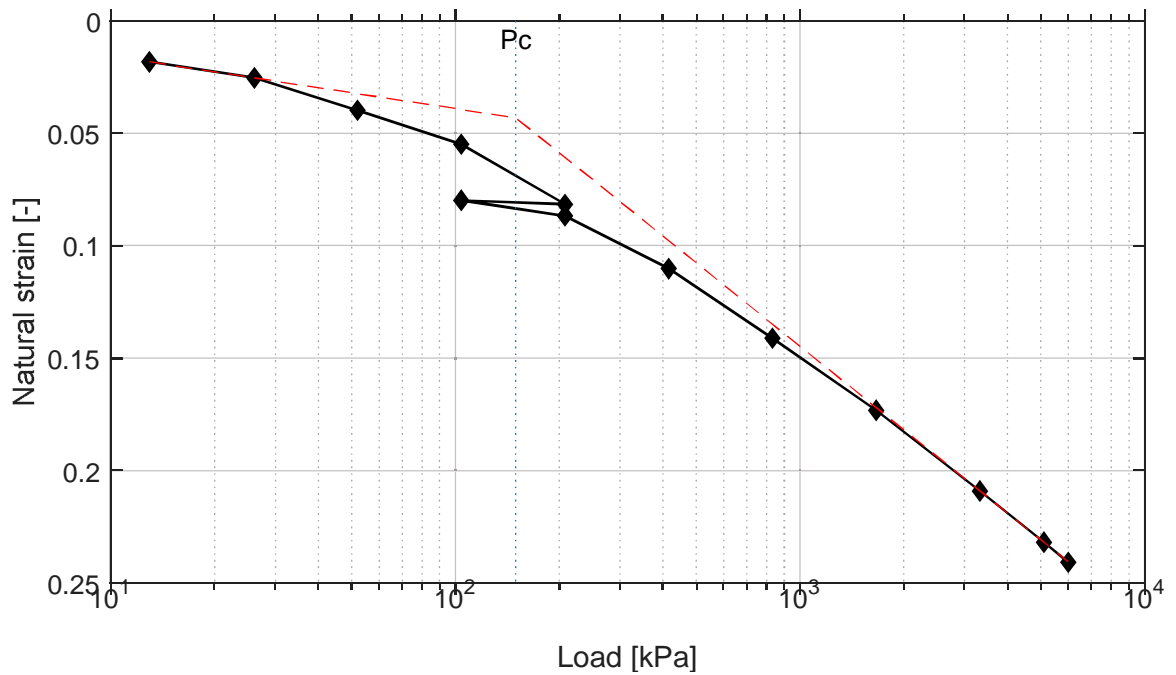
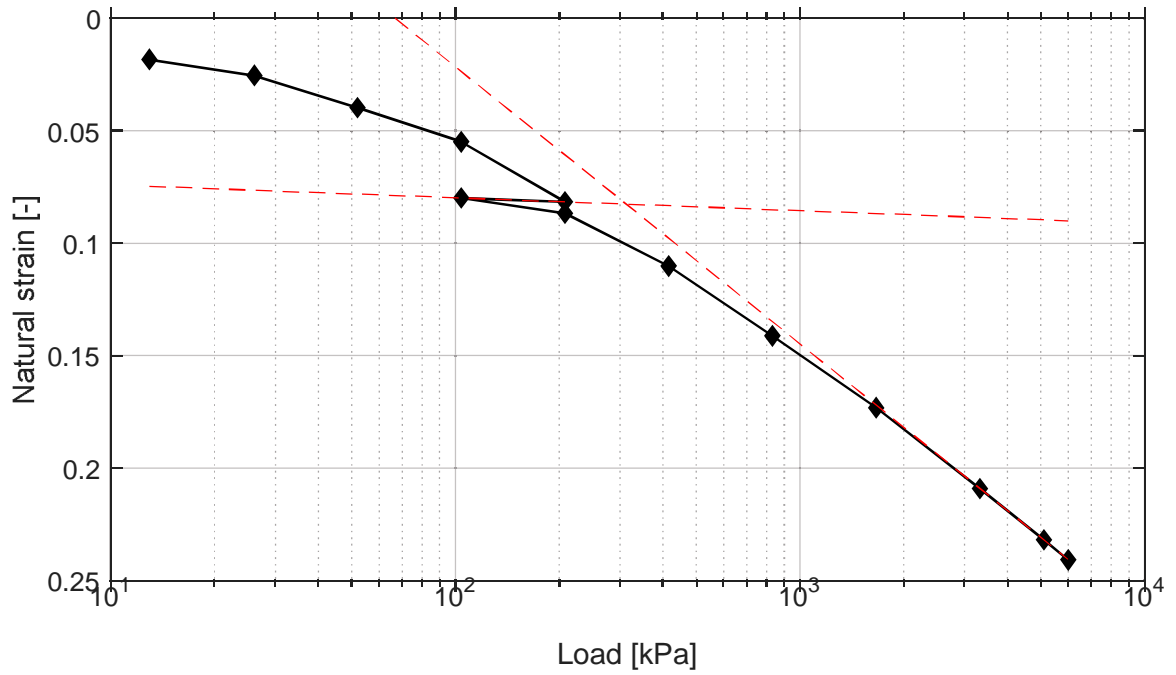
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Isotachen method



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Boring B003, sample 7A, depth 6.05 m till 6.00 m NAP

project
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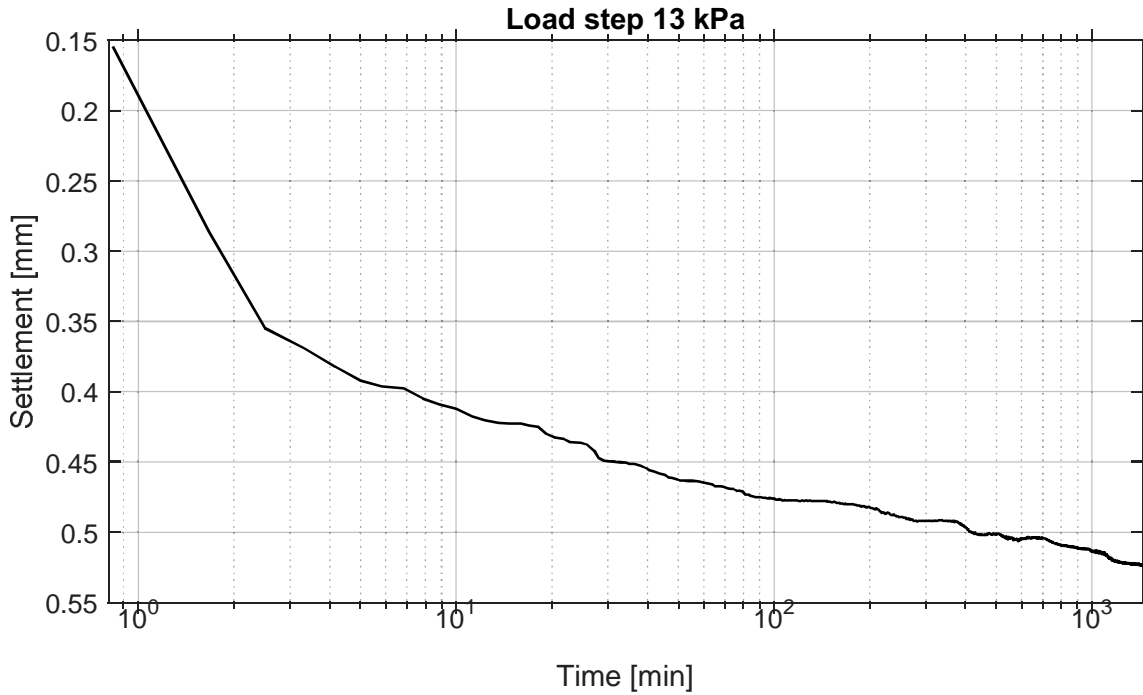
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Oedometer test conform NEN-EN-ISO 17892-5

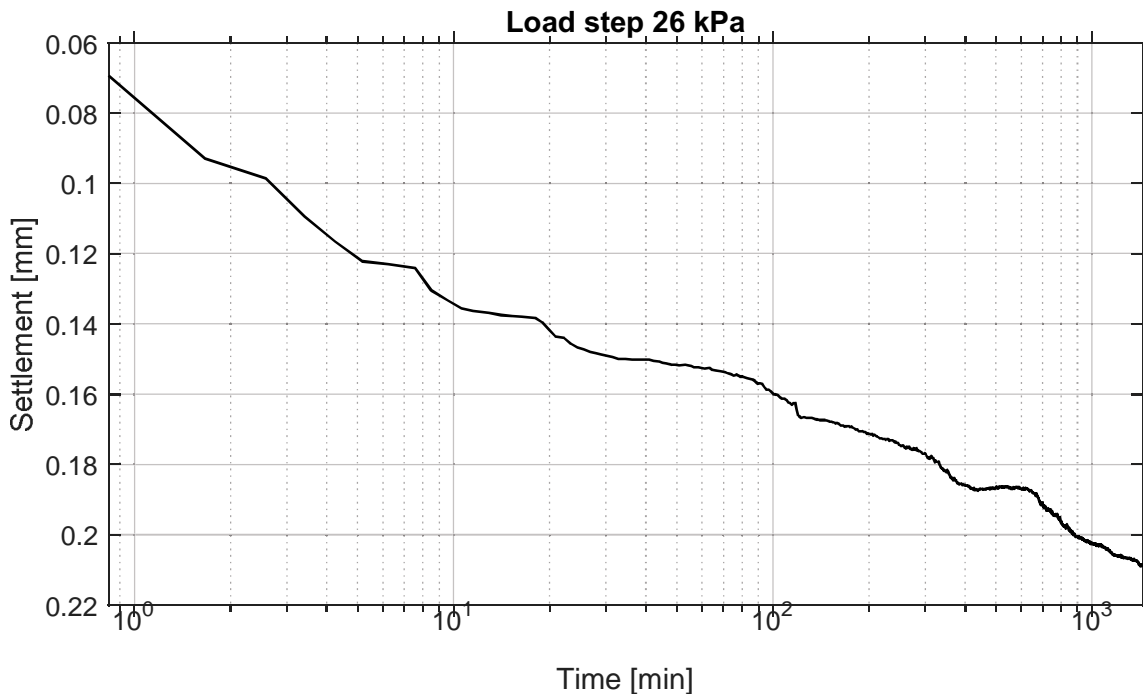
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Casagrande method (page 1/7)



No calculation performed.



No calculation performed.

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Oedometer test conform NEN-EN-ISO 17892-5

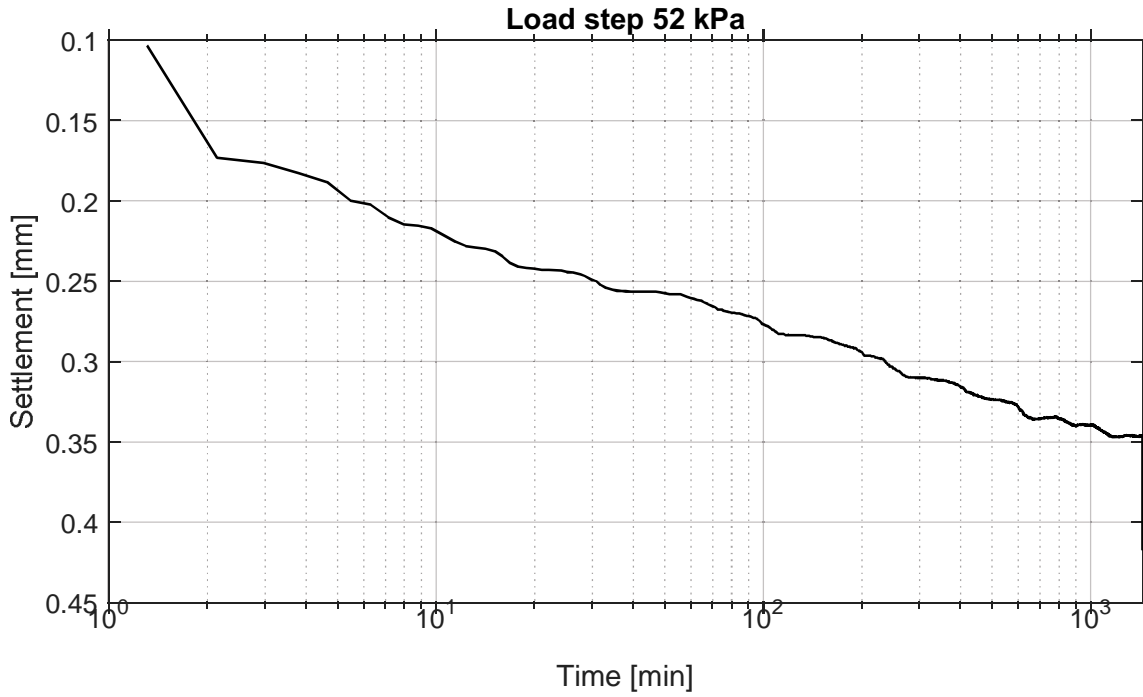
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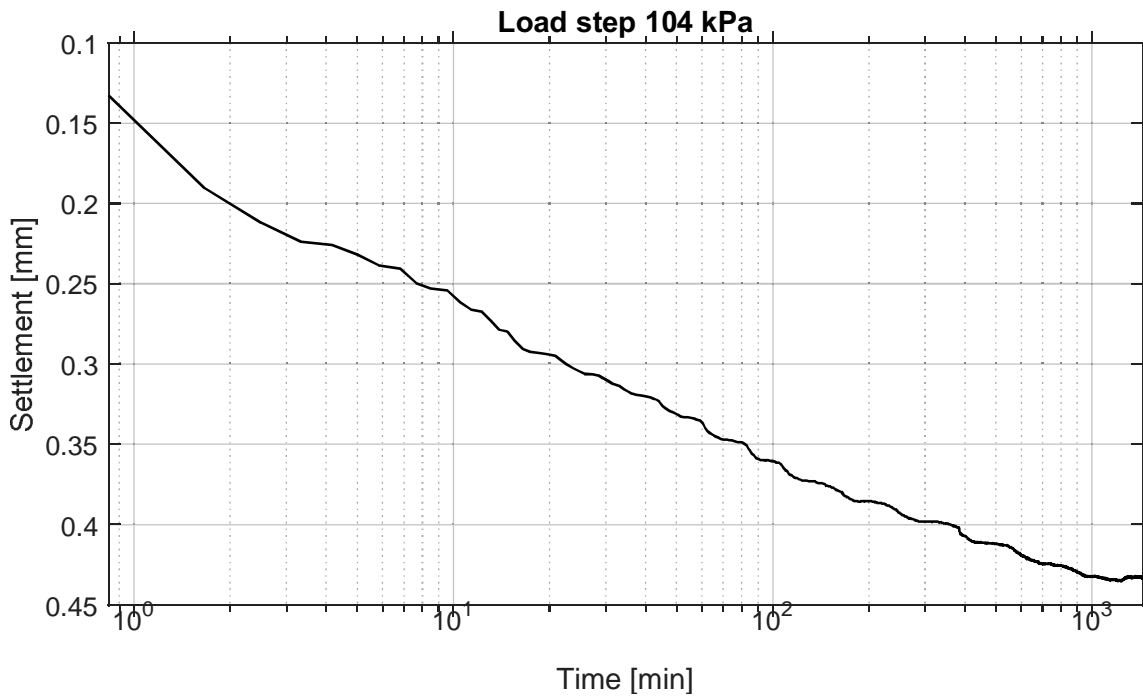
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Casagrande method (page 2/7)



No calculation performed.



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Oedometer test conform NEN-EN-ISO 17892-5

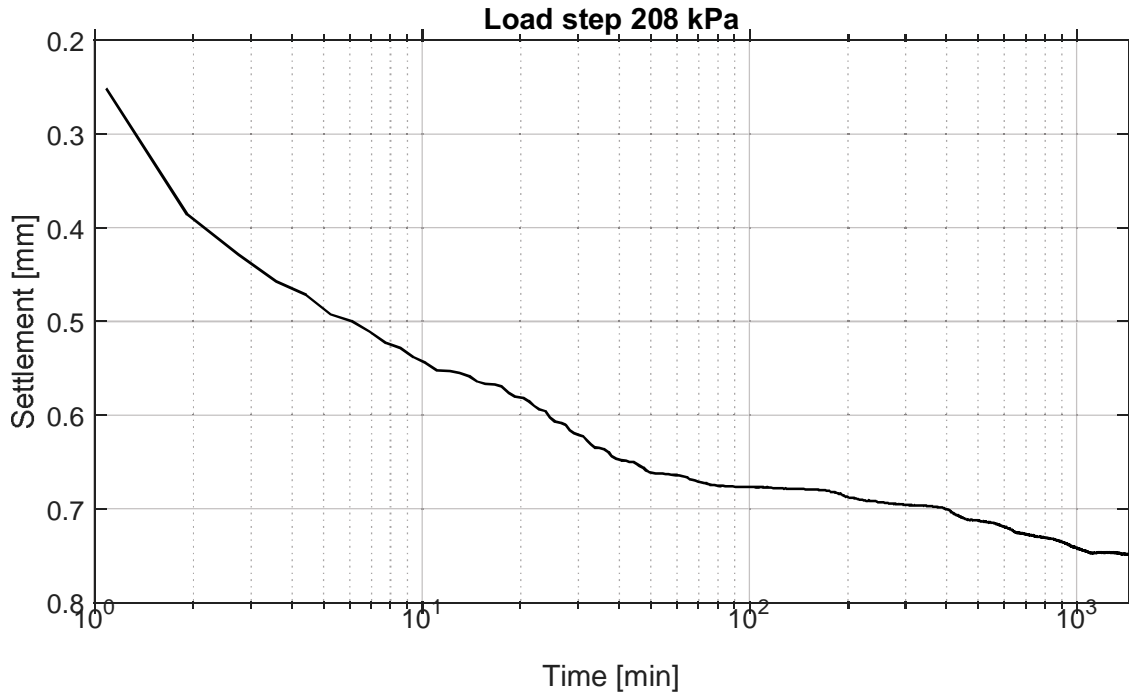
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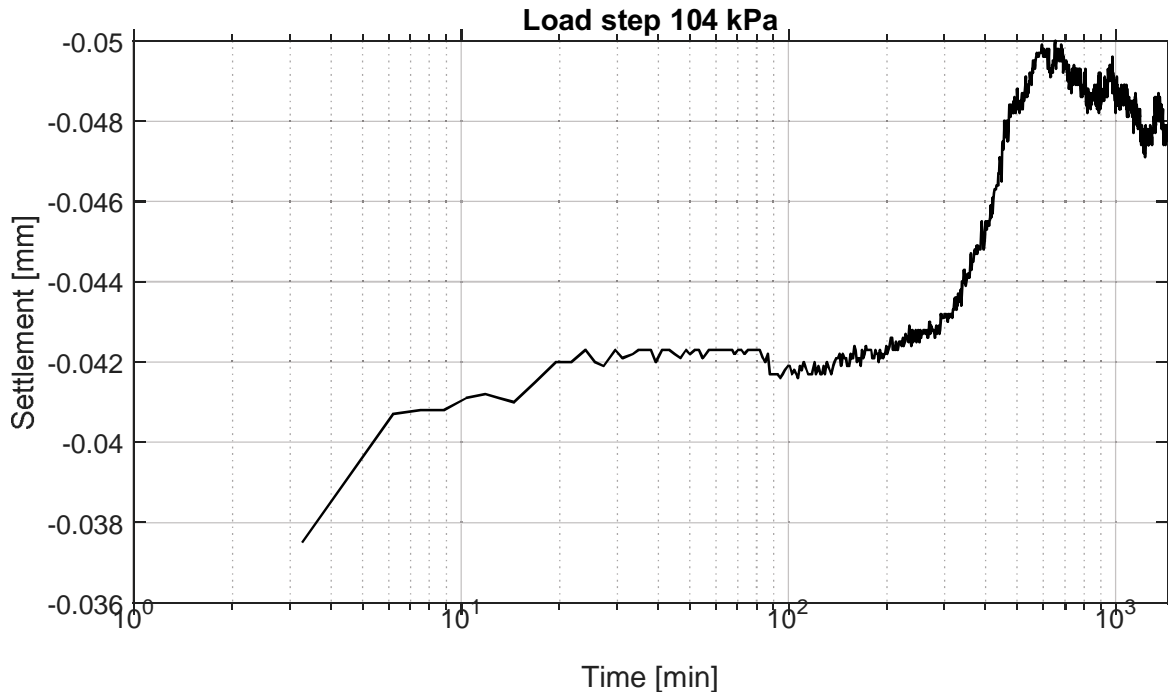
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Casagrande method (page 3/7)



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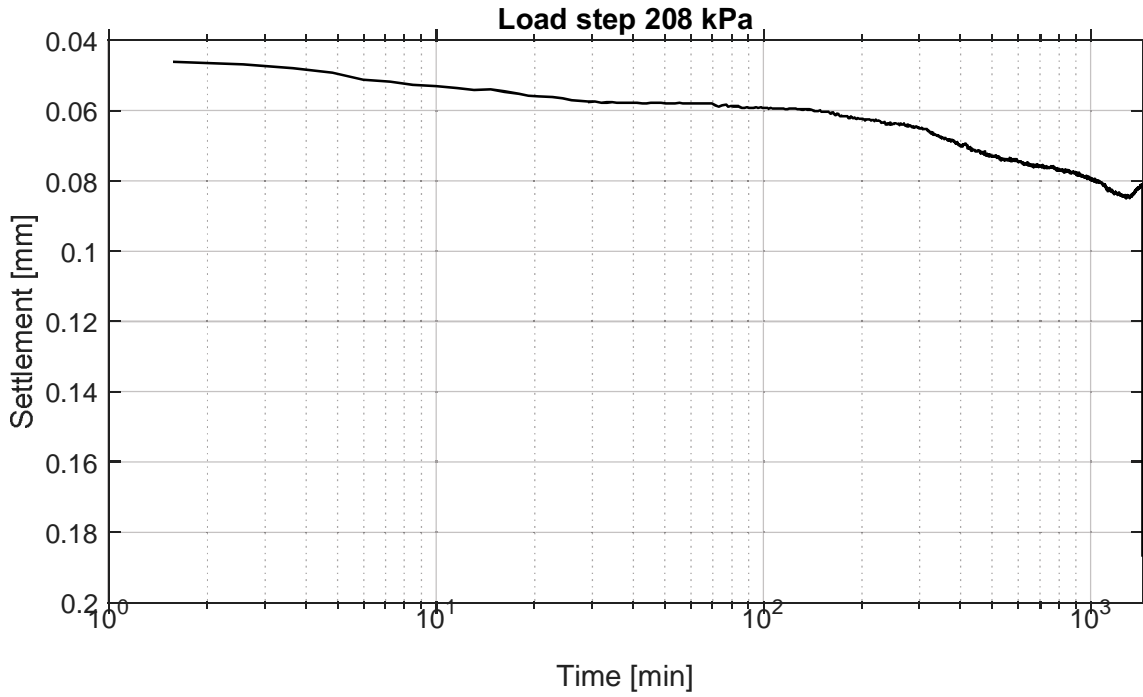


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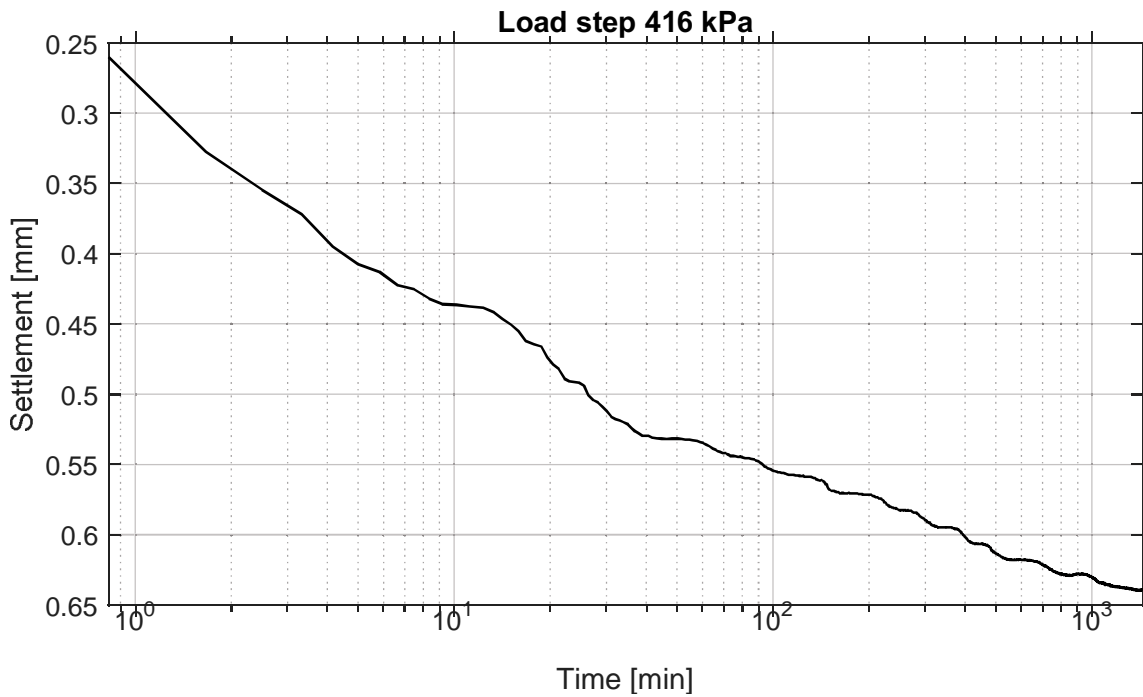
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	KPP WK01 2020 - Kennis voor Keringen : Verlenging metingen Boring B003, sample 7A, depth 6.05 m till 6.00 m NAP Oedometer test conform NEN-EN-ISO 17892-5				project 11205262.12
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Casagrande method (page 4/7)



No calculation performed.



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 Boring B003, sample 7A, depth 6.05 m till 6.00 m NAP

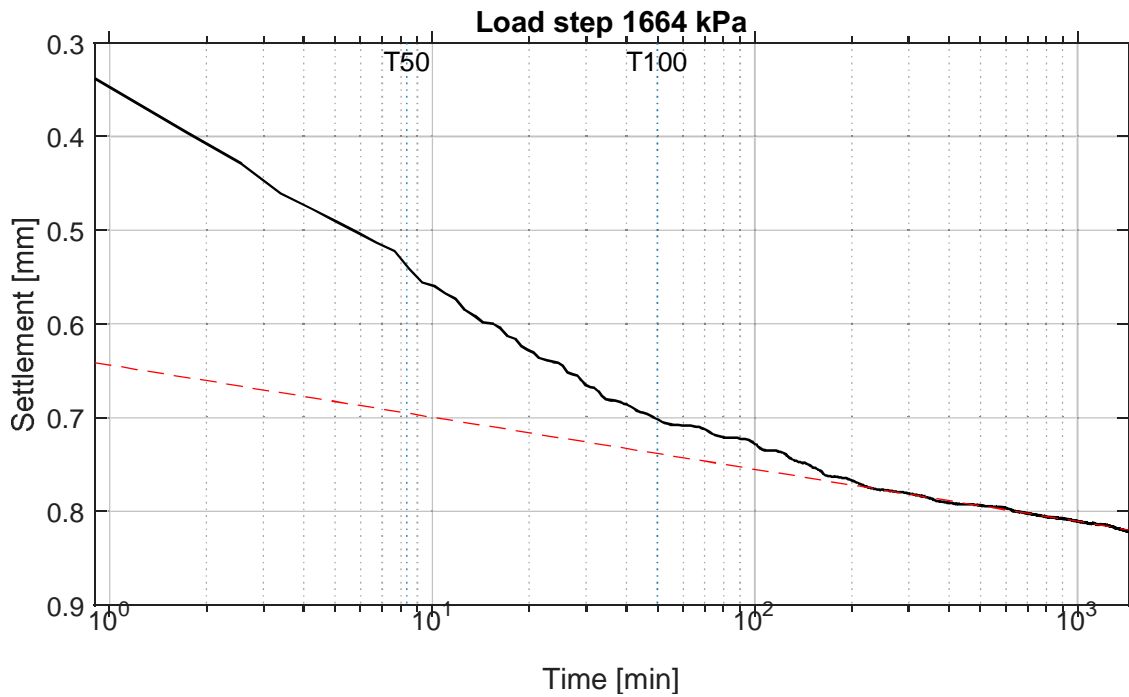
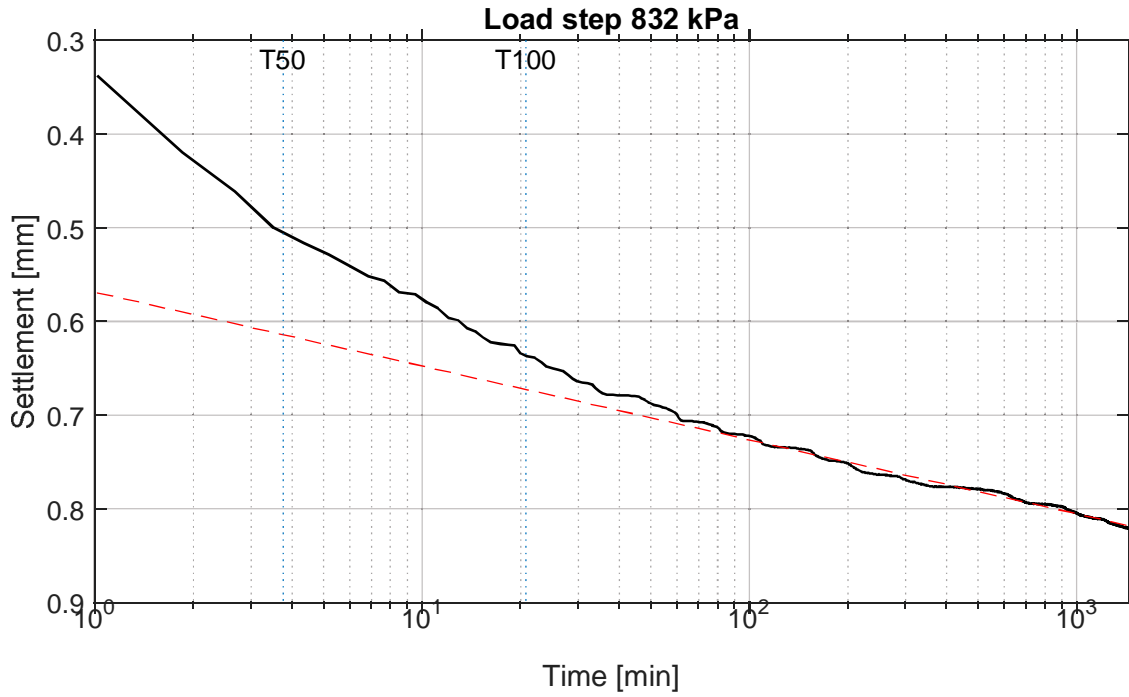
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Casagrande method (page 5/7)



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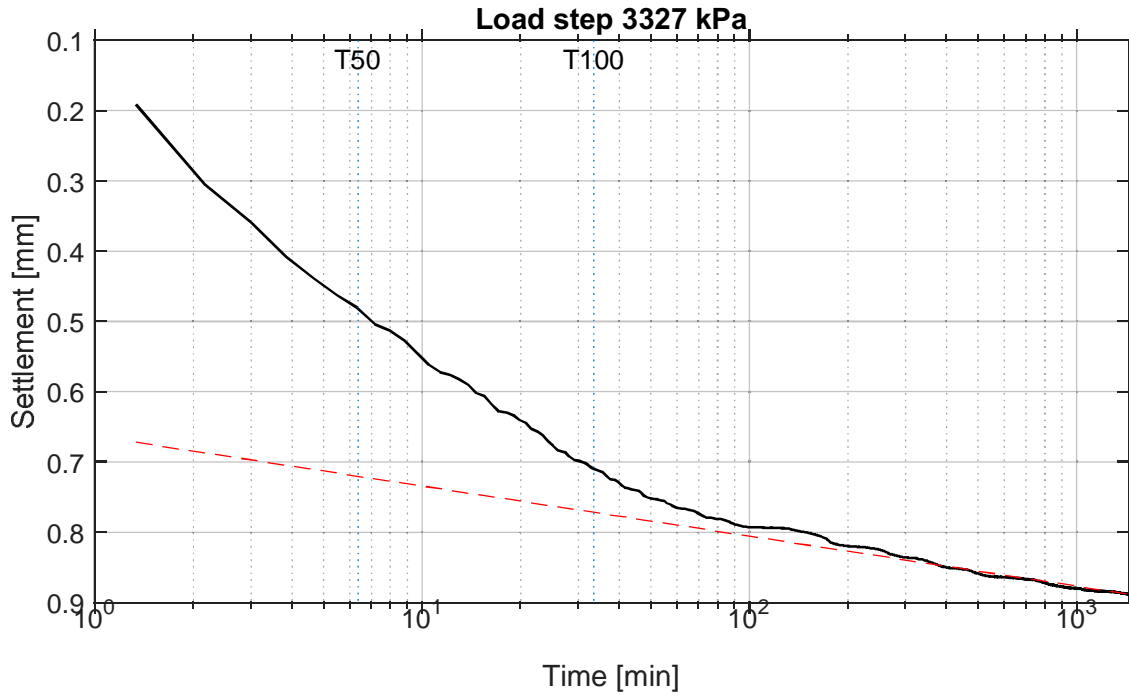
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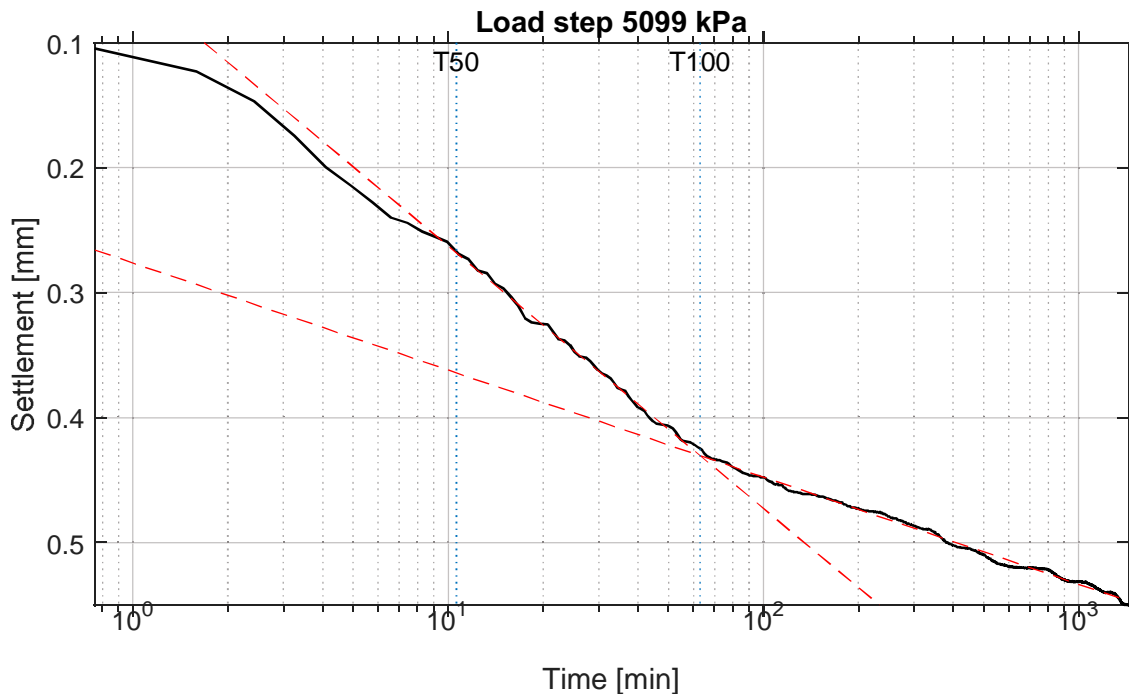
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Casagrande method (page 6/7)



No calculation performed.



$C_v = 4.4e-08 \text{ m}^2/\text{s}$
 $C_a = 3.5e-03$

$M_v = 7.6e-06 \text{ m}^2/\text{kN}$
 $K = 3.3e-12 \text{ m/s}$

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Oedometer test conform NEN-EN-ISO 17892-5

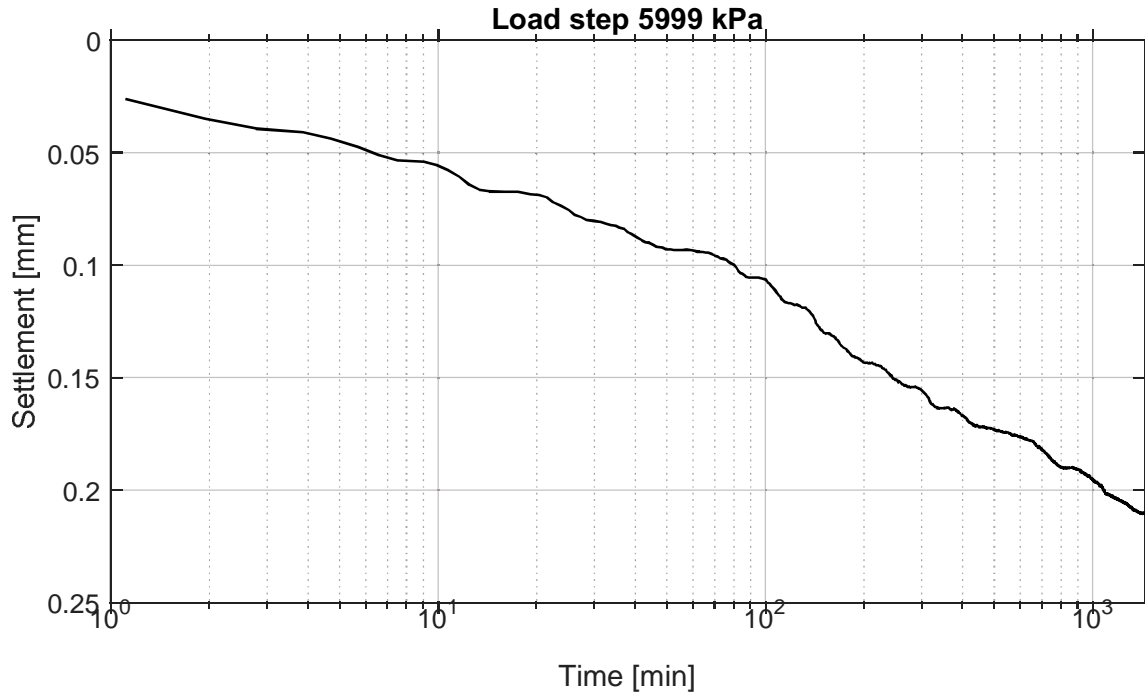
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Casagrande method (page 7/7)



No calculation performed.

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Boring B003, sample 7A, depth 6.05 m till 6.00 m NAP

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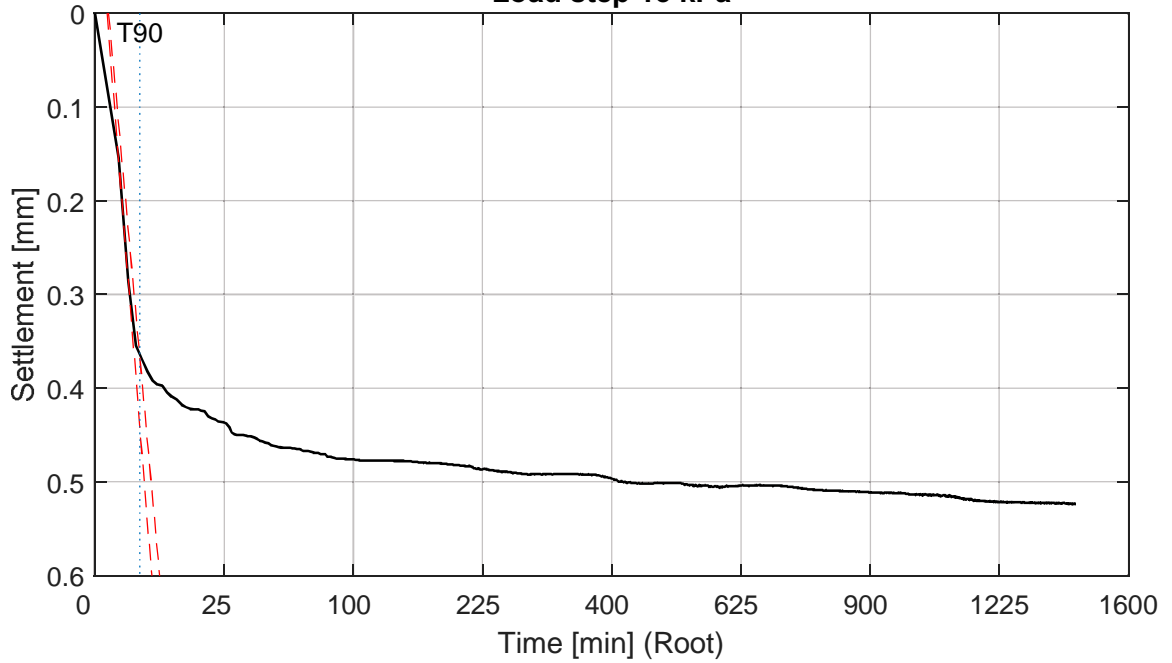
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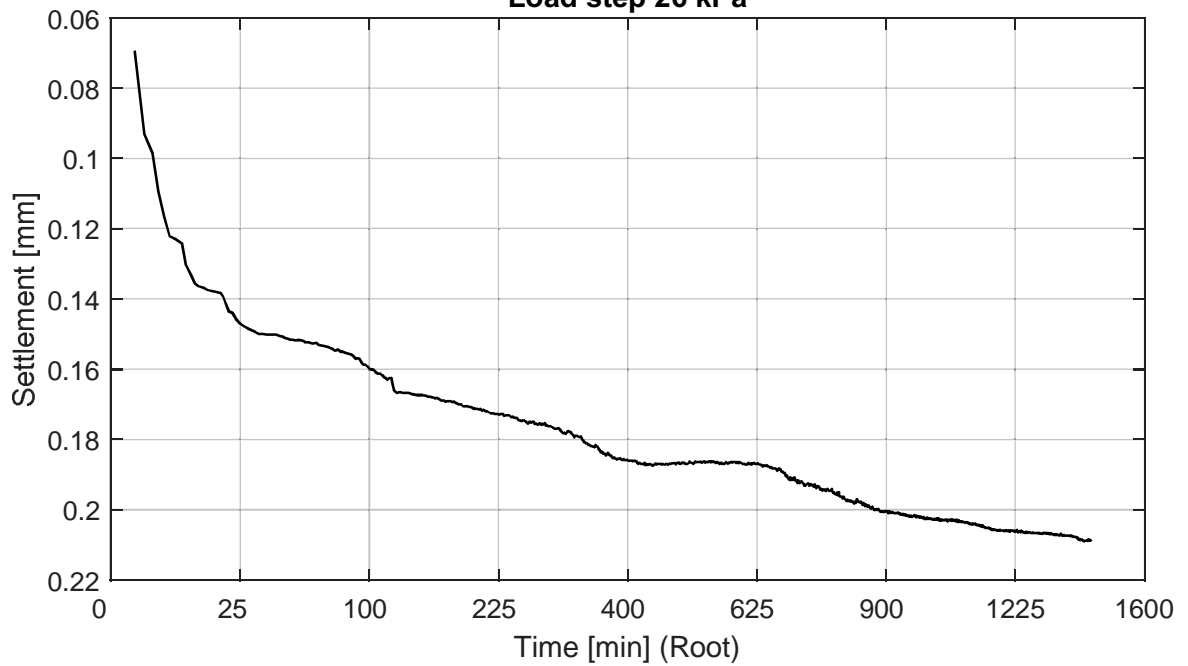
Taylor method (page 1/7)

Load step 13 kPa



$C_v = 1.0e-06 \text{ m}^2/\text{s}$

Load step 26 kPa



No calculation performed.

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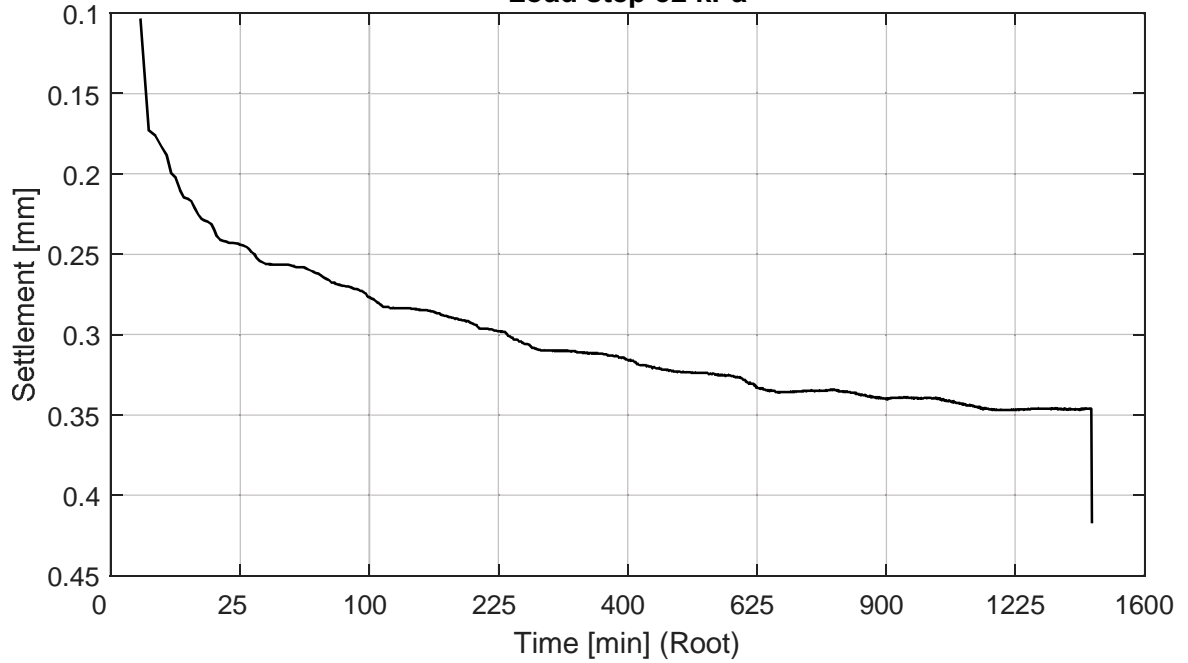
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Boring B003, sample 7A, depth 6.05 m till 6.00 m NAP
Oedometer test conform NEN-EN-ISO 17892-5

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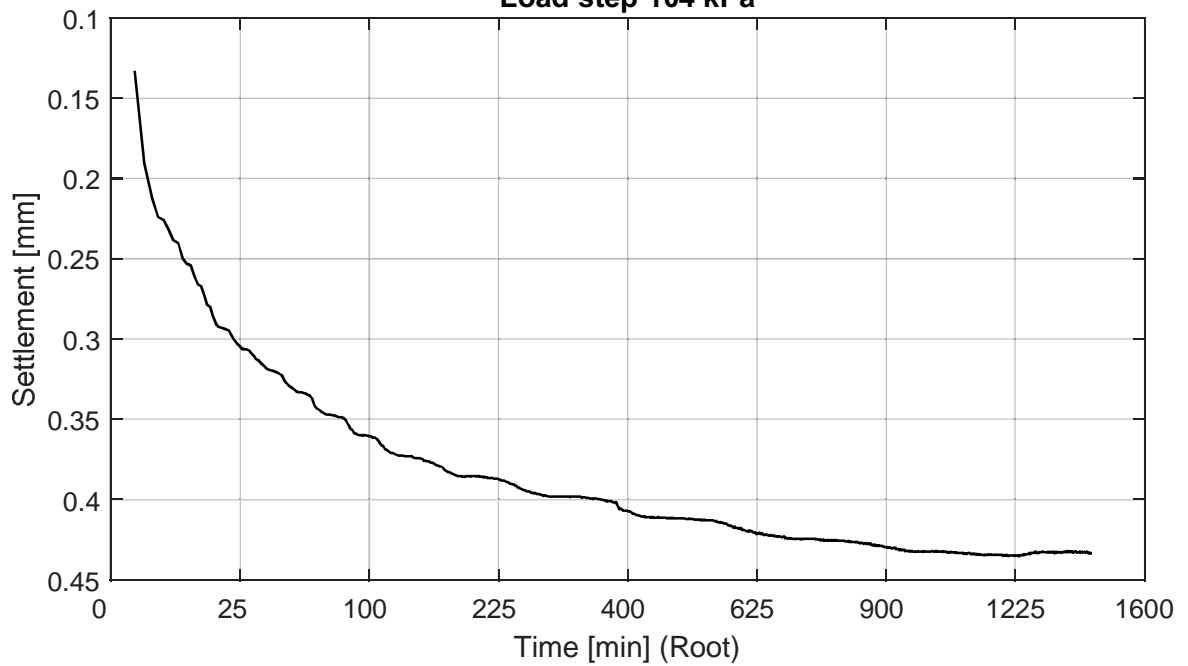
Taylor method (page 2/7)

Load step 52 kPa



No calculation performed.

Load step 104 kPa



No calculation performed.



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 Boring B003, sample 7A, depth 6.05 m till 6.00 m NAP

project	version
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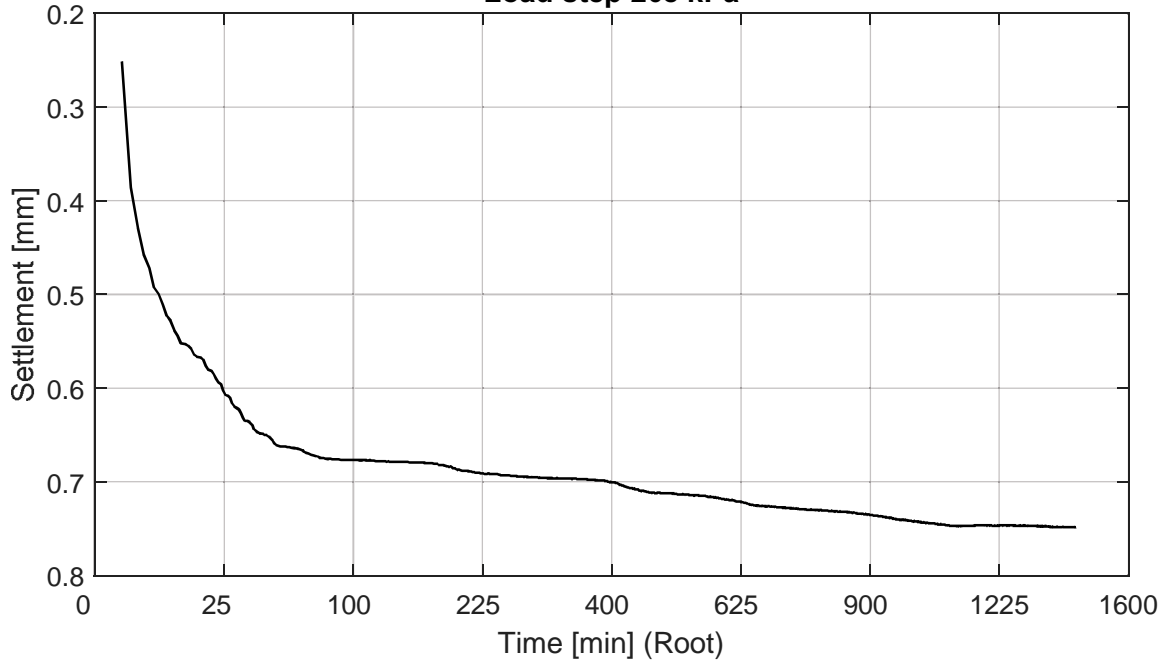
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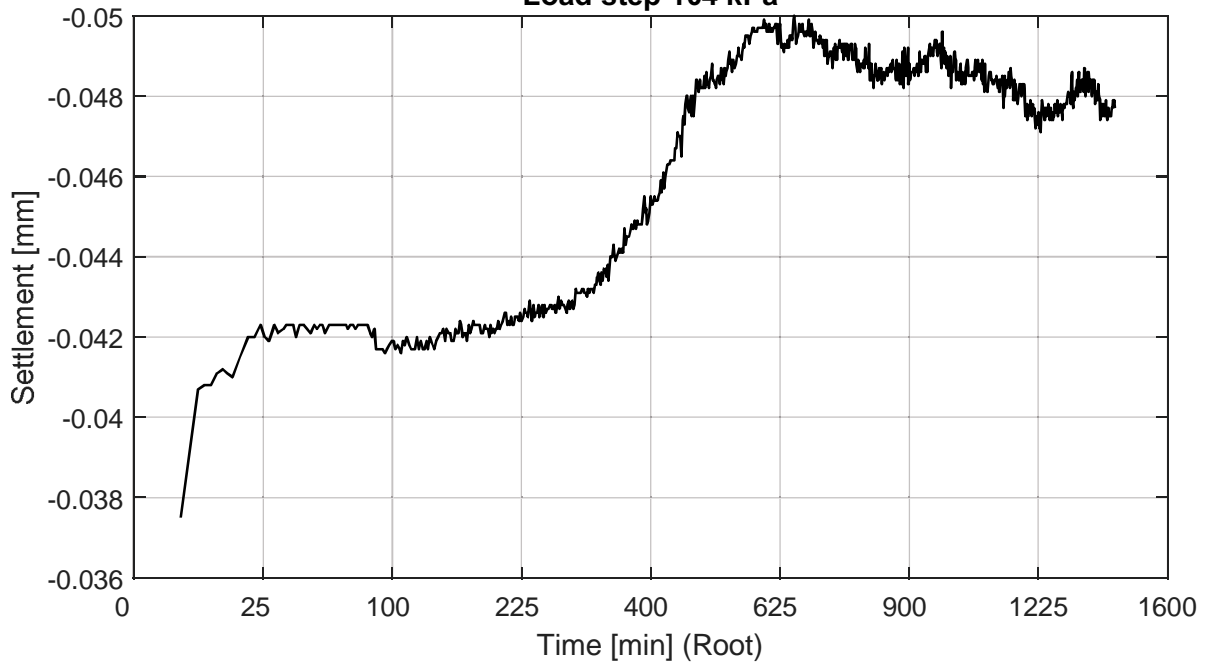
Taylor method (page 3/7)

Load step 208 kPa



No calculation performed.

Load step 104 kPa



No calculation performed.



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Boring B003, sample 7A, depth 6.05 m till 6.00 m NAP

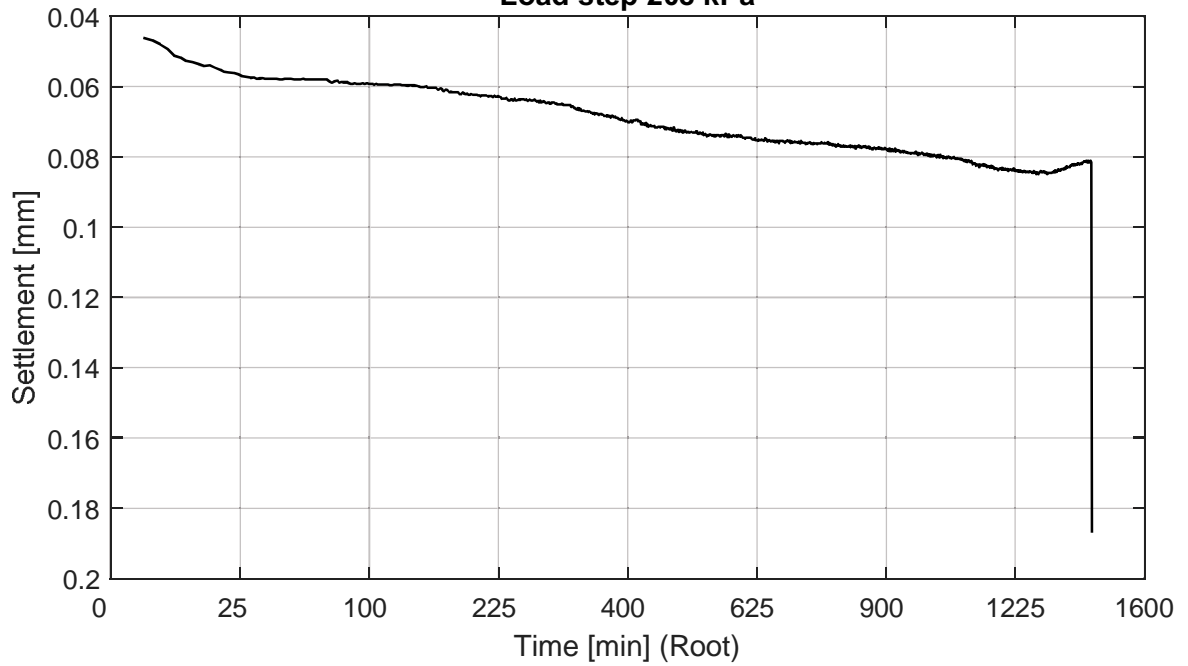
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11205262.12	1.1
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*) Gecontroleerd en vrijgegeven door konstadi op 2020-12-22

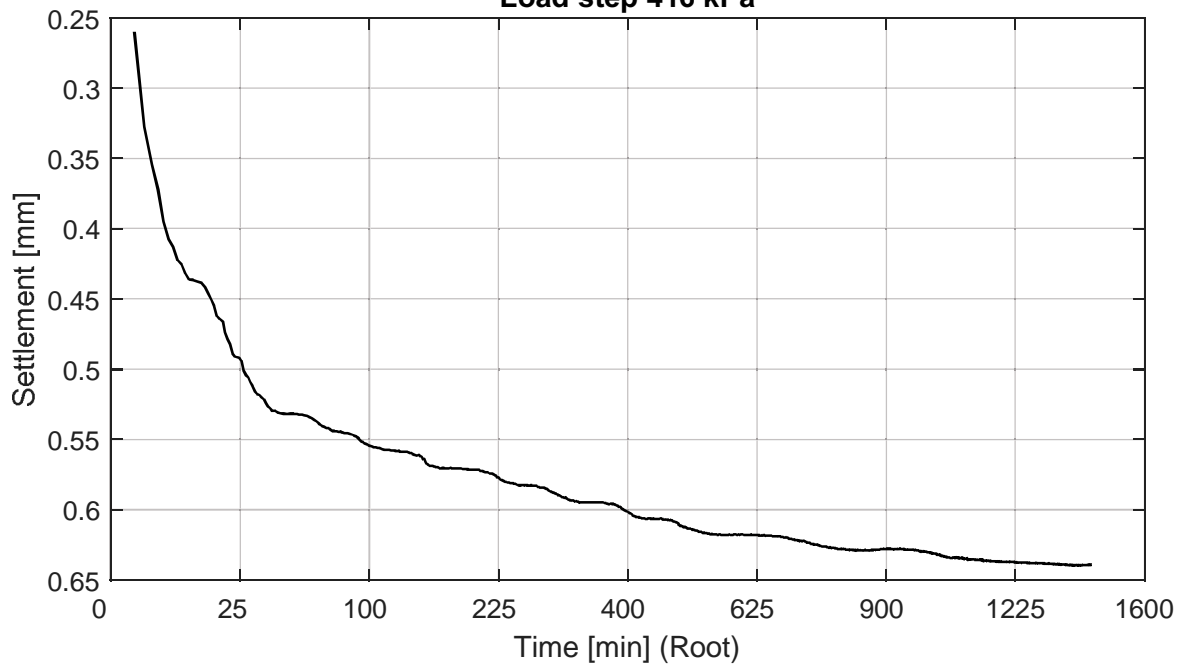
Taylor method (page 4/7)

Load step 208 kPa



No calculation performed.

Load step 416 kPa



No calculation performed.



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Boring B003, sample 7A, depth 6.05 m till 6.00 m NAP

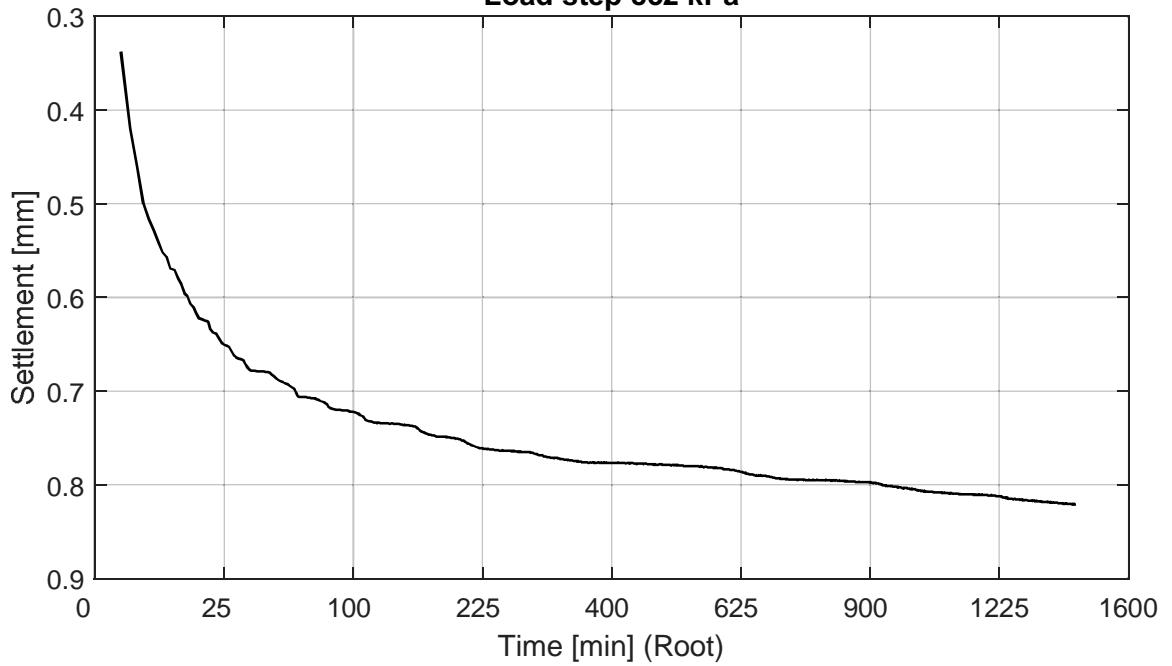
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11205262.12	1.1
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*) Gecontroleerd en vrijgegeven door konstadi op 2020-12-22

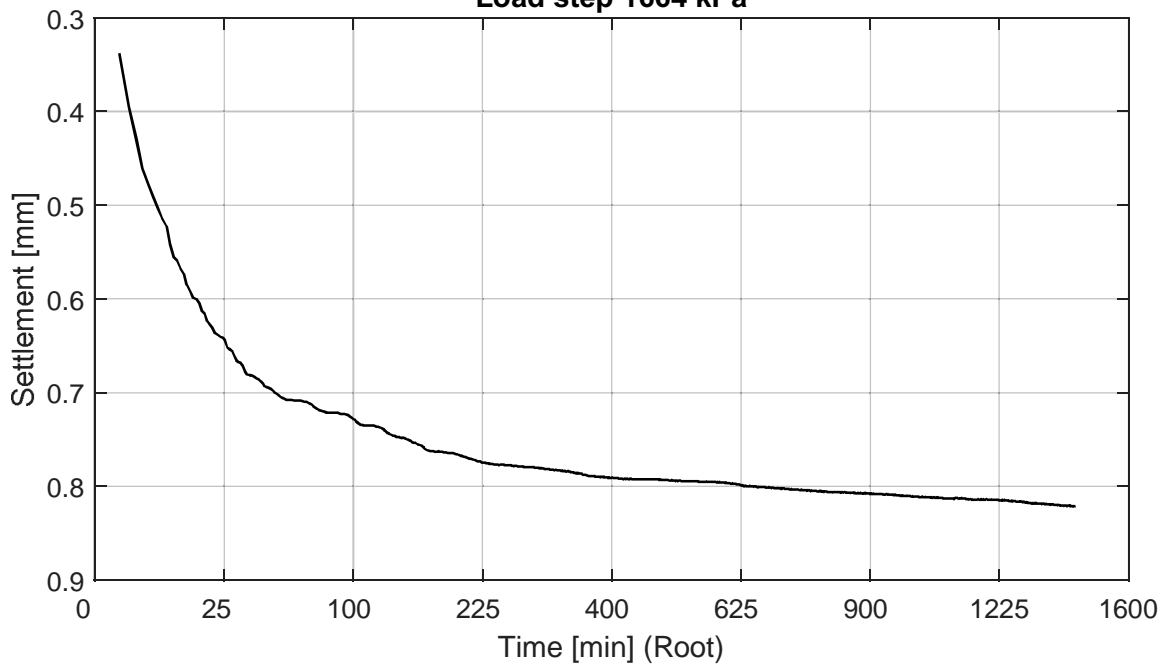
Taylor method (page 5/7)

Load step 832 kPa



No calculation performed.

Load step 1664 kPa



No calculation performed.



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 Boring B003, sample 7A, depth 6.05 m till 6.00 m NAP

project	version
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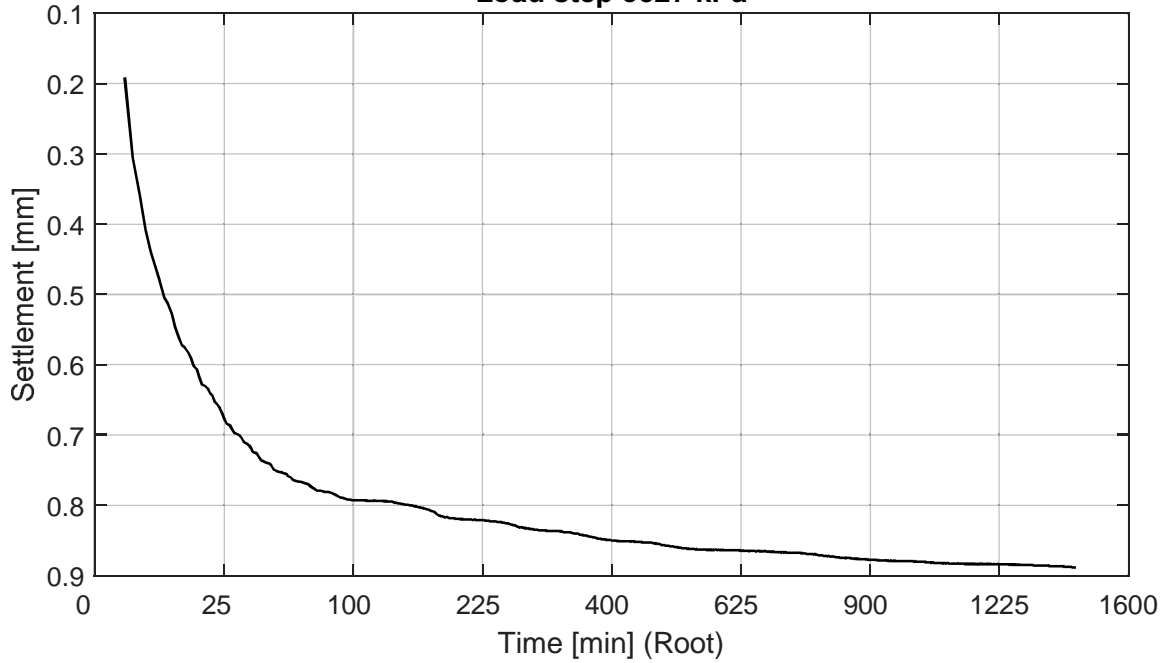
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*) Gecontroleerd en vrijgegeven door konstadi op 2020-12-22

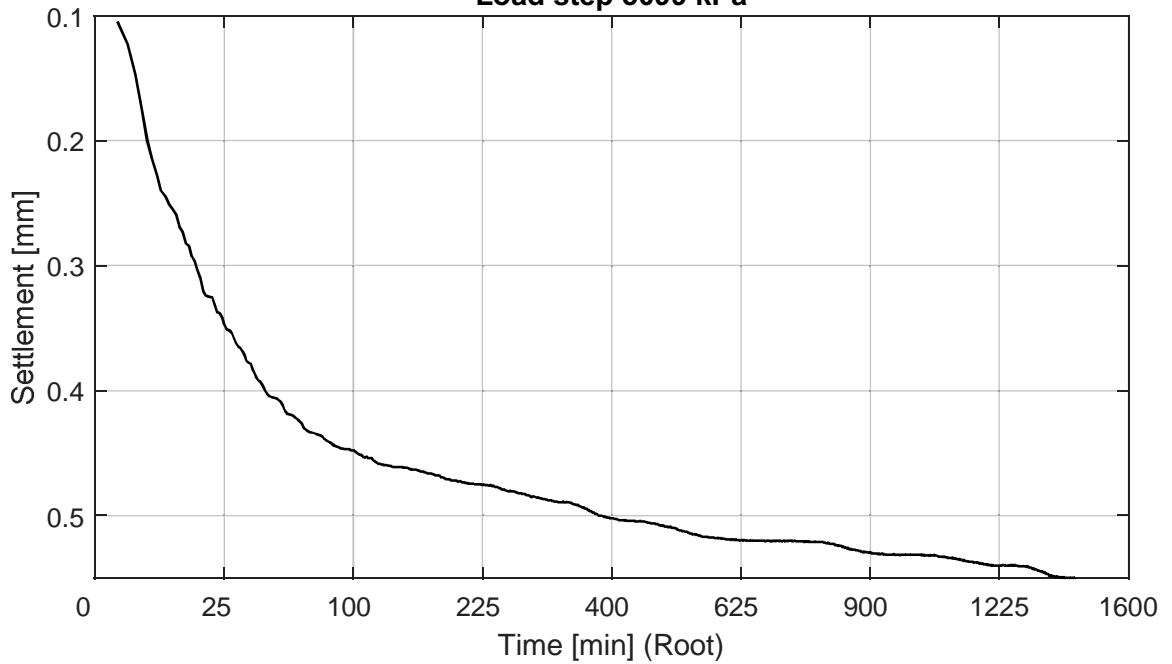
Taylor method (page 6/7)

Load step 3327 kPa



No calculation performed.

Load step 5099 kPa



No calculation performed.

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Boring B003, sample 7A, depth 6.05 m till 6.00 m NAP

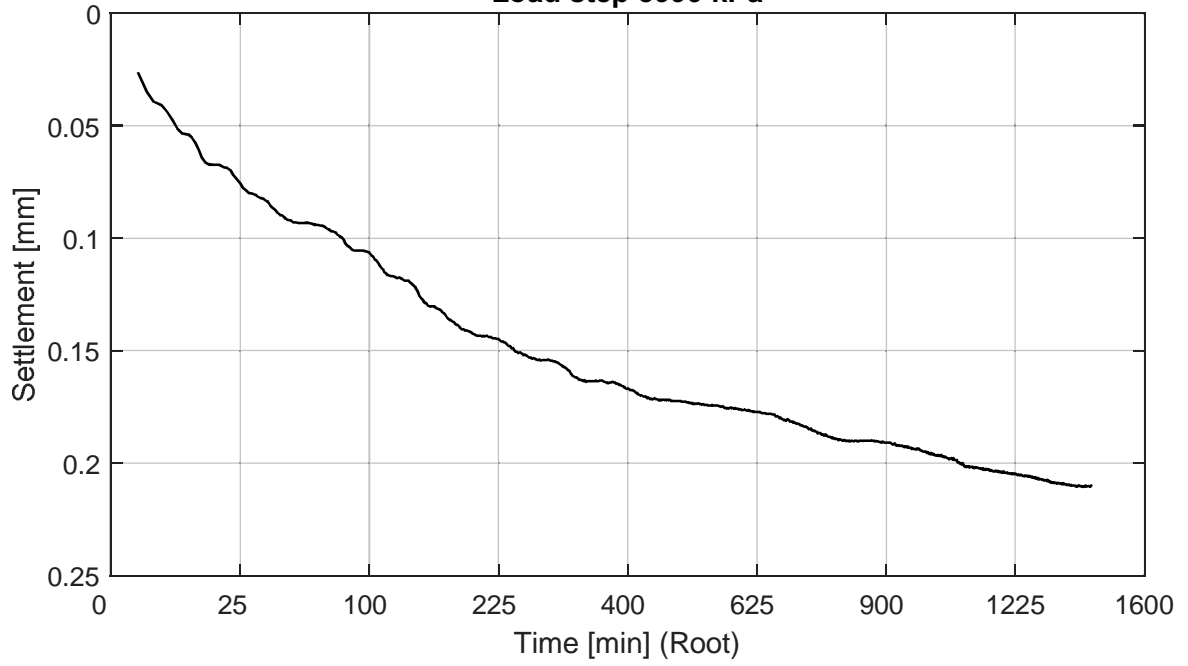
Oedometer test conform NEN-EN-ISO 17892-5

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*) Gecontroleerd en vrijgegeven door konstadi op 2020-12-22

Taylor method (page 7/7)

Load step 5999 kPa



No calculation performed.

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Boring B003, sample 7A, depth 6.05 m till 6.00 m NAP

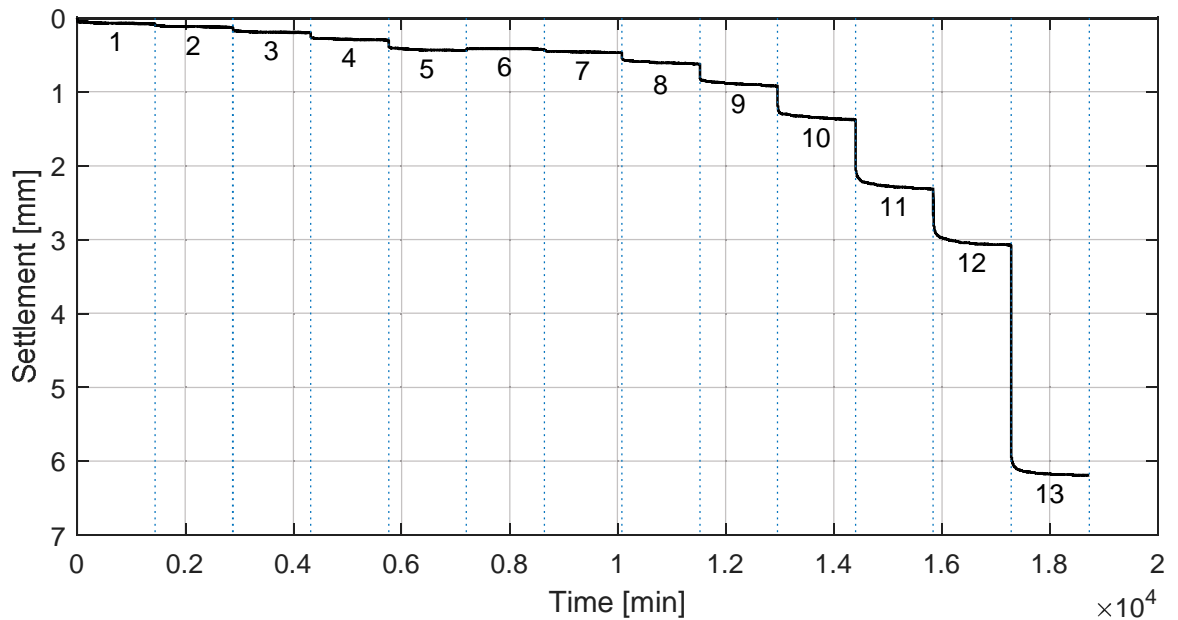
Oedometer test conform NEN-EN-ISO 17892-5

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General soil and test parameters

Soil description (NEN 5104)	KS1
Initial volumetric weight - wet [kN/m ³]	17.6
Initial volumetric weight - dry [kN/m ³]	15.6
Volumetric weight particles (γ_s) [kN/m ³] (*1)	19.6
Initial water content [%]	12.8
Initial sample height [mm]	30
Initial sample diameter [mm]	63
Final volumetric weight - wet [kN/m ³]	21.8
Final volumetric weight - dry [kN/m ³]	19.4
Final water content [%]	12.3
Type of test (wet/dry)	Wet
Visual disturbance sample	undisturbed
Startdate	2020-11-04
Enddate	2016-09-16
Sample disturbance index	-
Lab temperature [°C]	9.0
Pc' _{Becker} [kPa]	900.5
Pc' _{Janbu} [kPa]	-
(*1) γ_s calculated with assumed complete saturation	

Load step number	Load [kPa]
1	3
2	6
3	12
4	24
5	48
6	24
7	48
8	96
9	192
10	384
11	768
12	1200
13	5998

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Boring B203, sample 13, depth 9.65 m till 9.60 m NAP

project
11205262.12

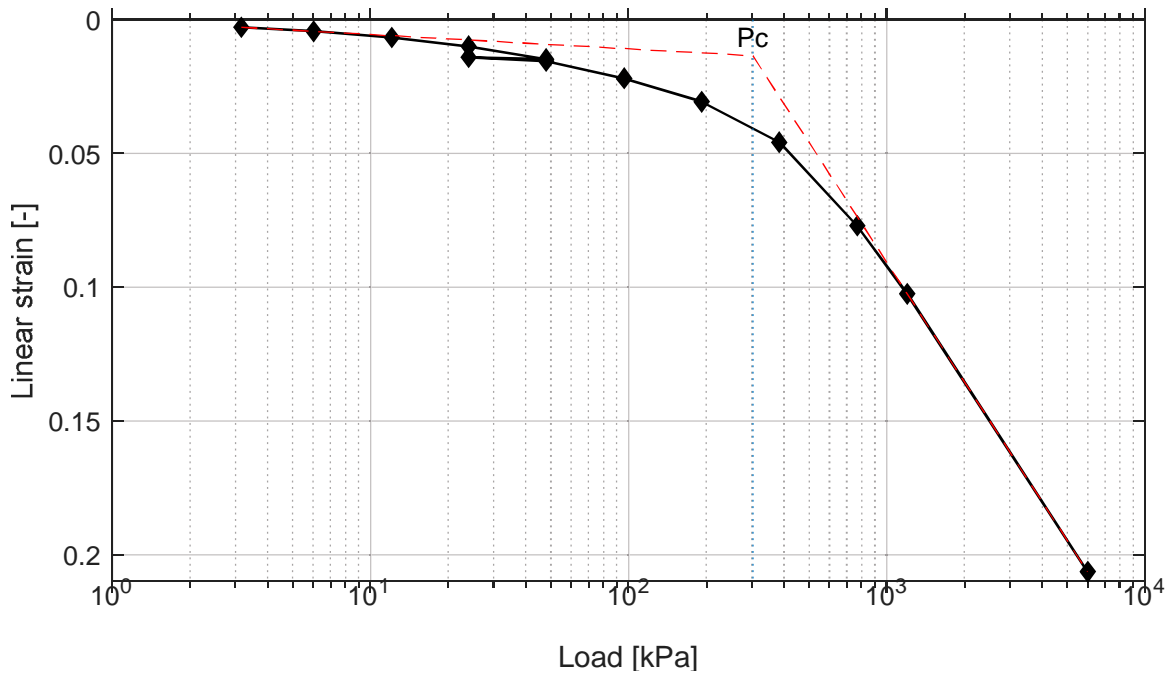
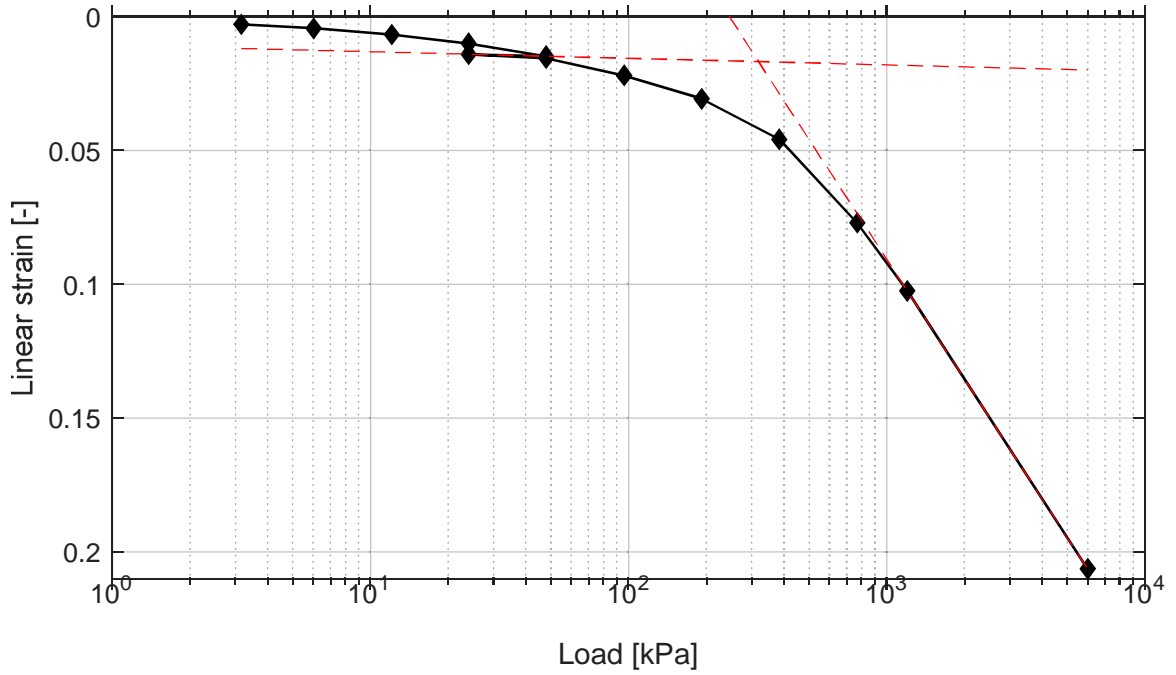
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Oedometer test conform NEN-EN-ISO 17892-5

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NEN-Bjerrum method



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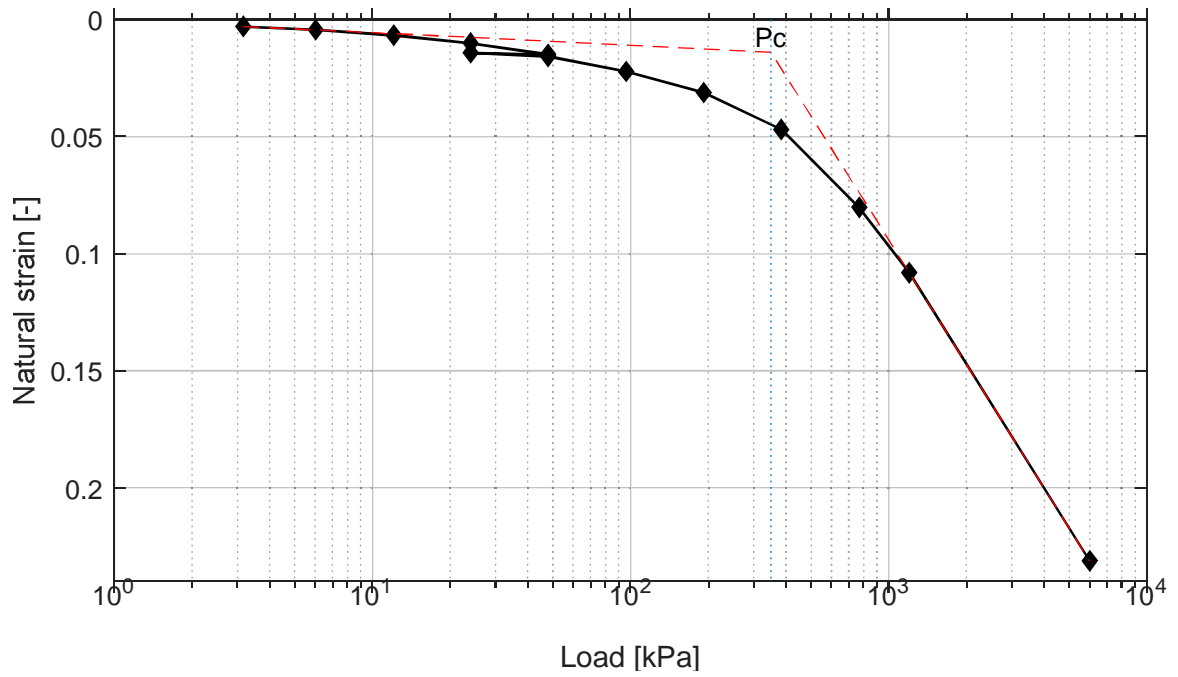
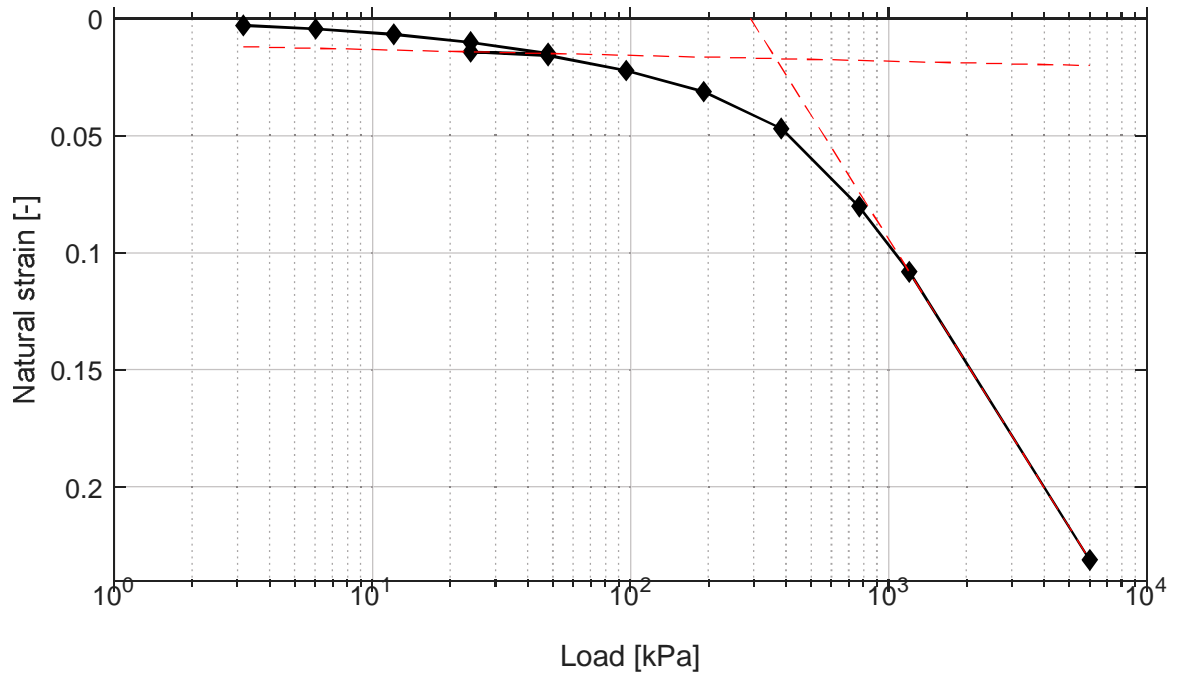
KPP WK01 2020 - Kennis voor Keringen : Verlenging metingen
Boring B203, sample 13, depth 9.65 m till 9.60 m NAP
Oedometer test conform NEN-EN-ISO 17892-5

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Isotachen method



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1.1

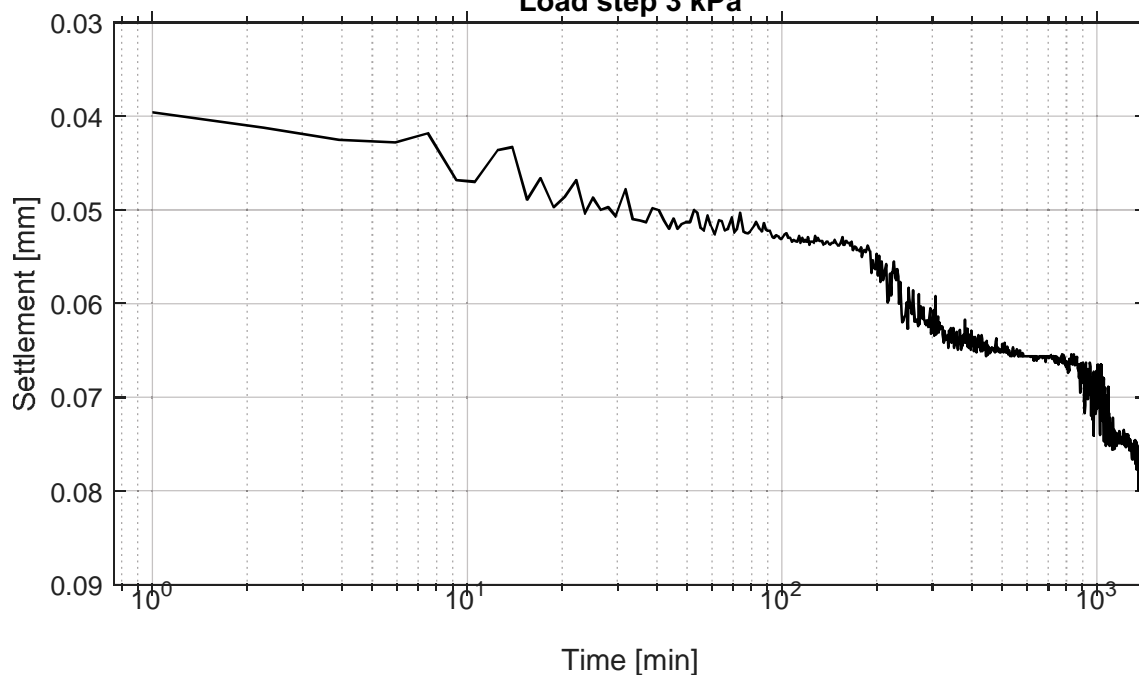
Oedometer test conform NEN-EN-ISO 17892-5

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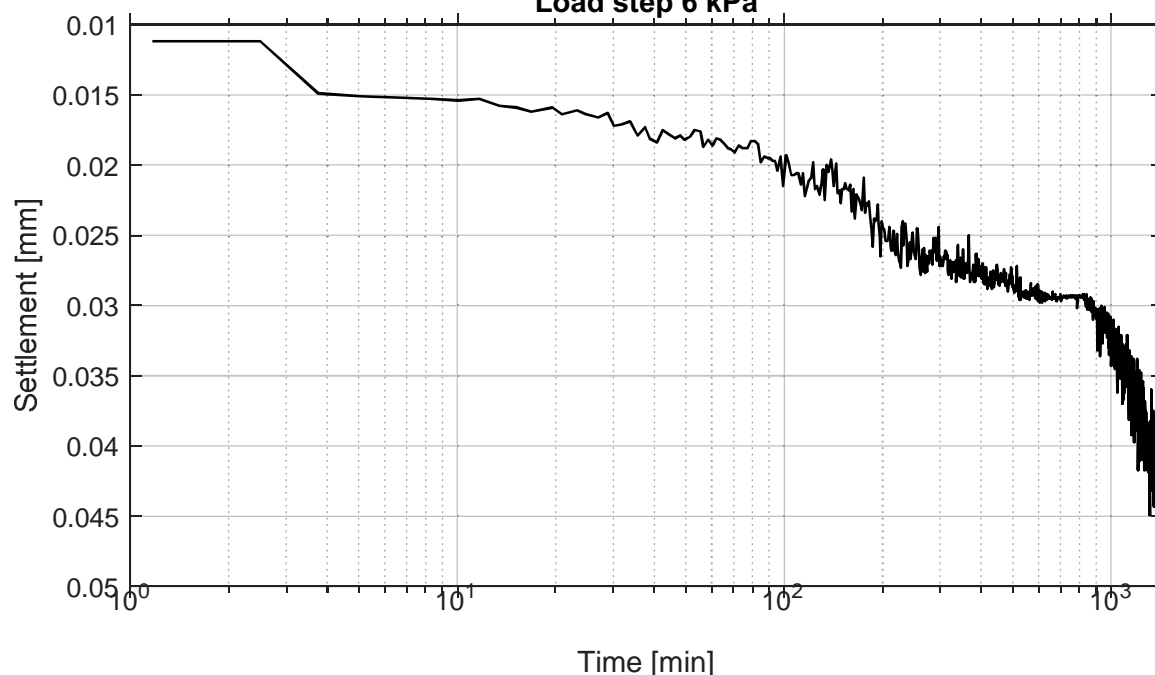
Casagrande method (page 1/7)

Load step 3 kPa



No calculation performed.

Load step 6 kPa



No calculation performed.

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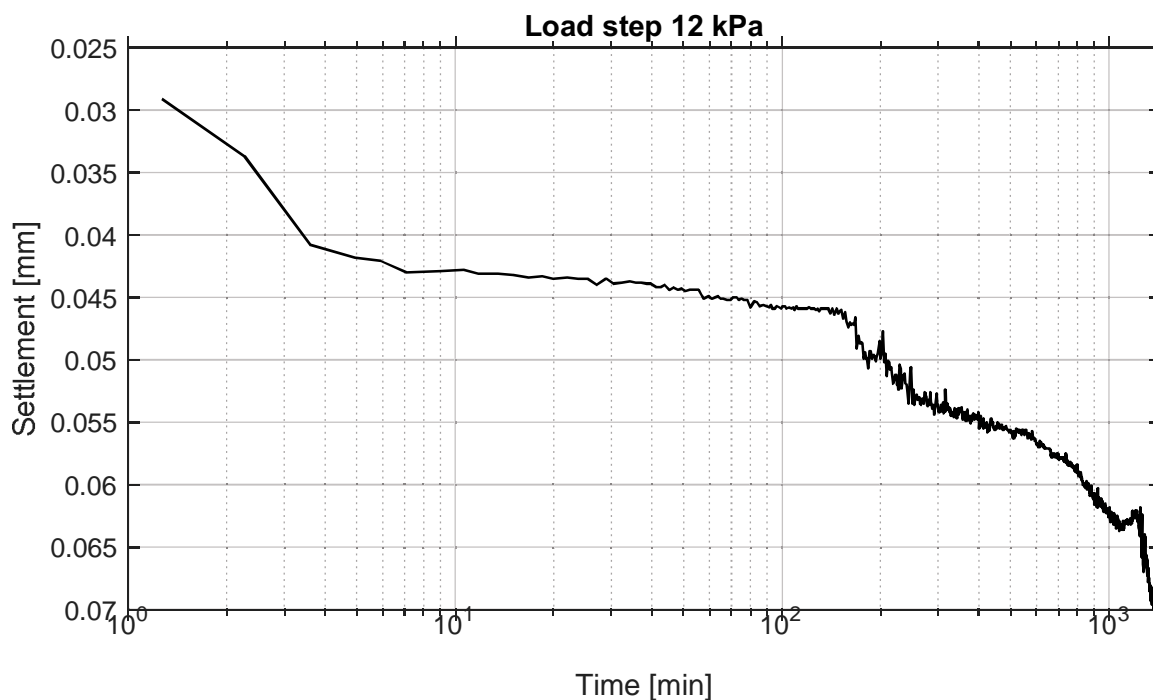
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Boring B203, sample 13, depth 9.65 m till 9.60 m NAP
Oedometer test conform NEN-EN-ISO 17892-5

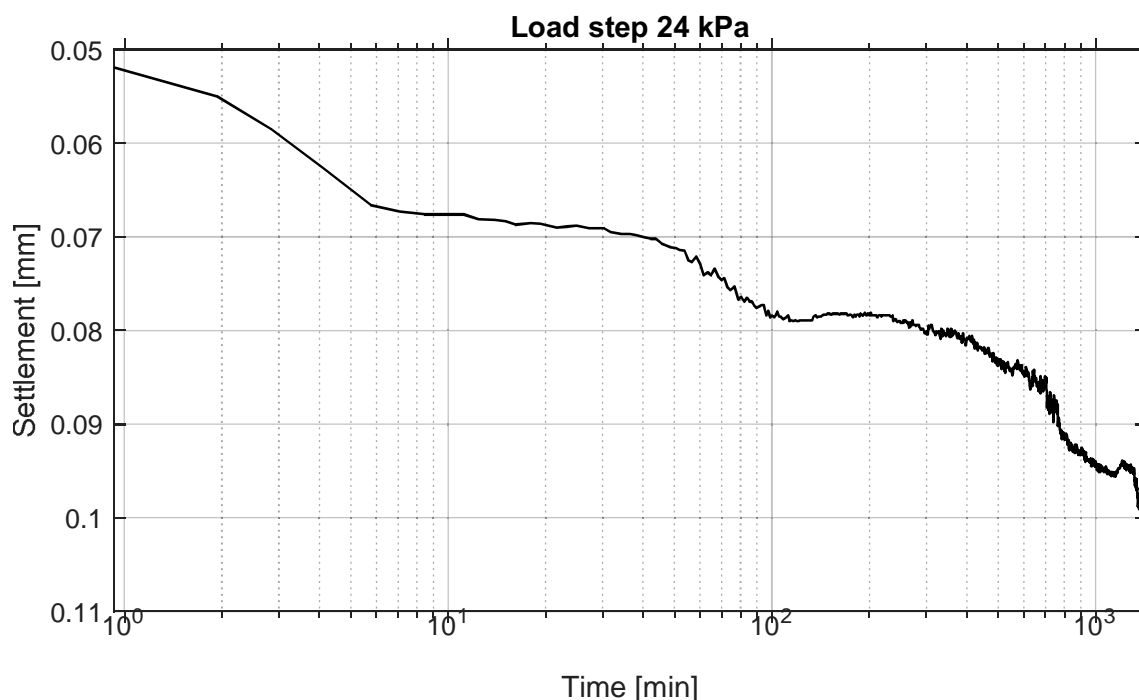
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Casagrande method (page 2/7)



No calculation performed.



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project
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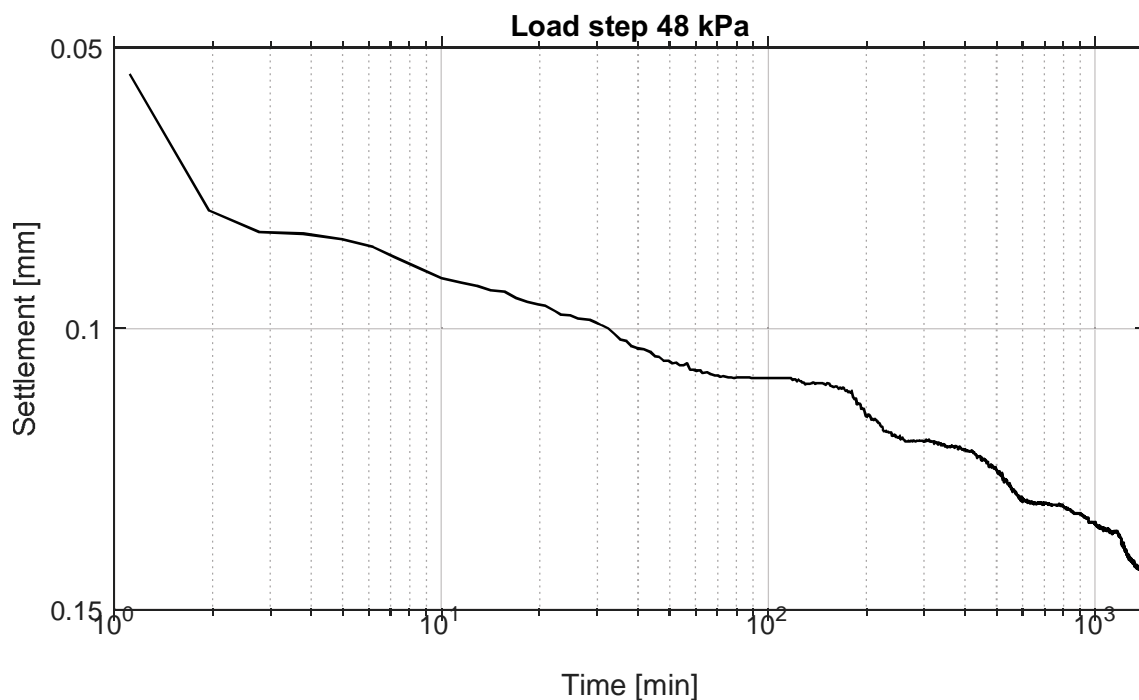
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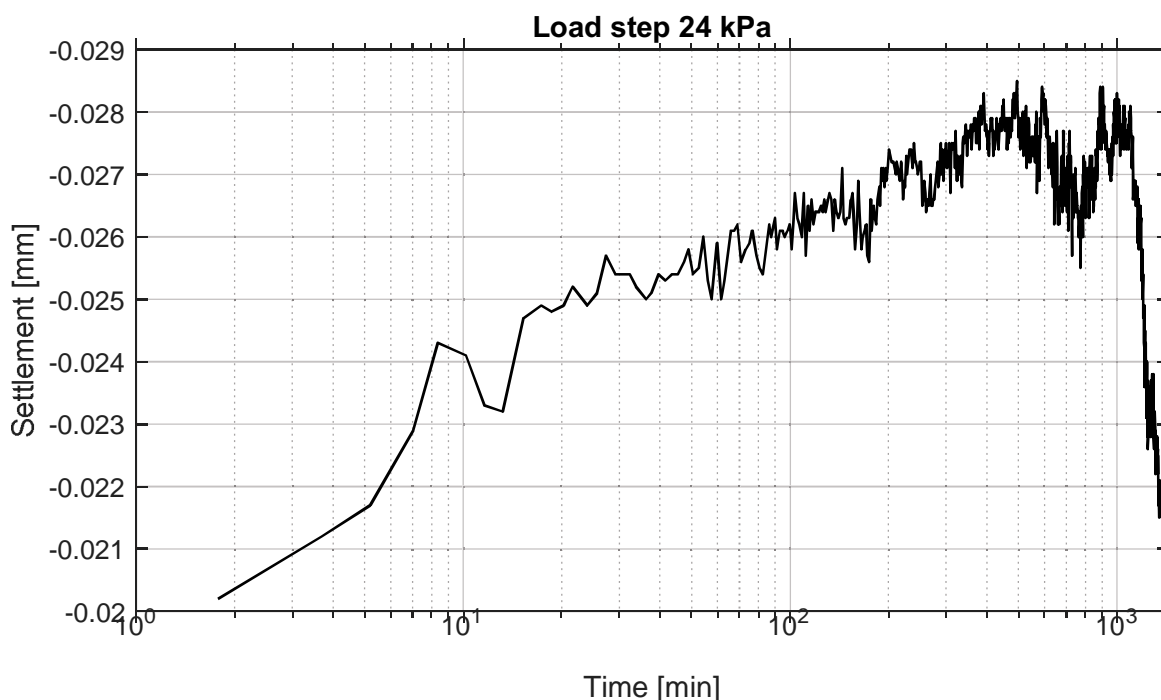
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Casagrande method (page 3/7)



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No calculation performed.

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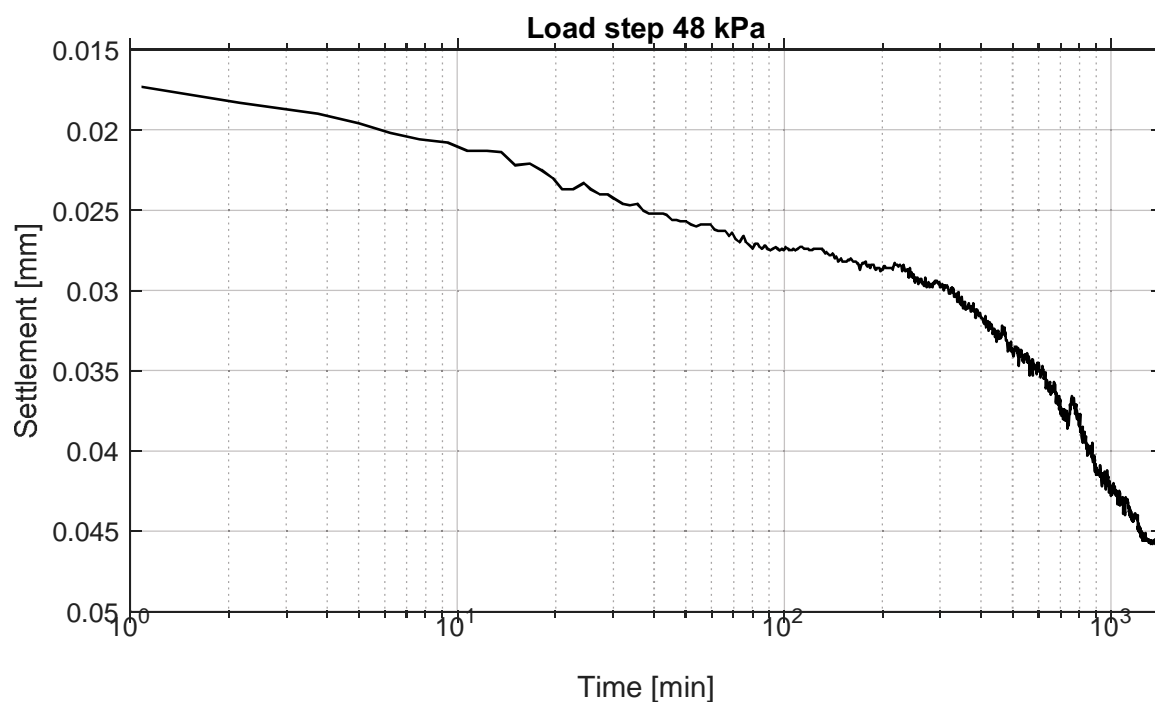
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Boring B203, sample 13, depth 9.65 m till 9.60 m NAP
Oedometer test conform NEN-EN-ISO 17892-5

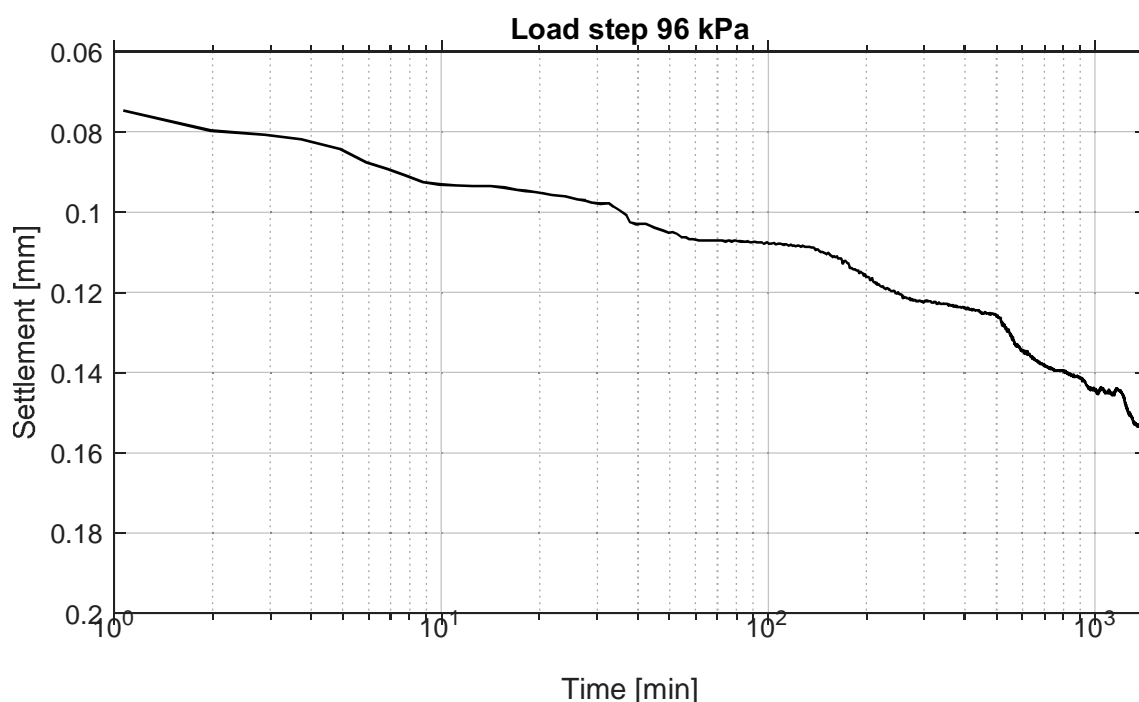
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11205262.12
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Casagrande method (page 4/7)



No calculation performed.



No calculation performed.

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project
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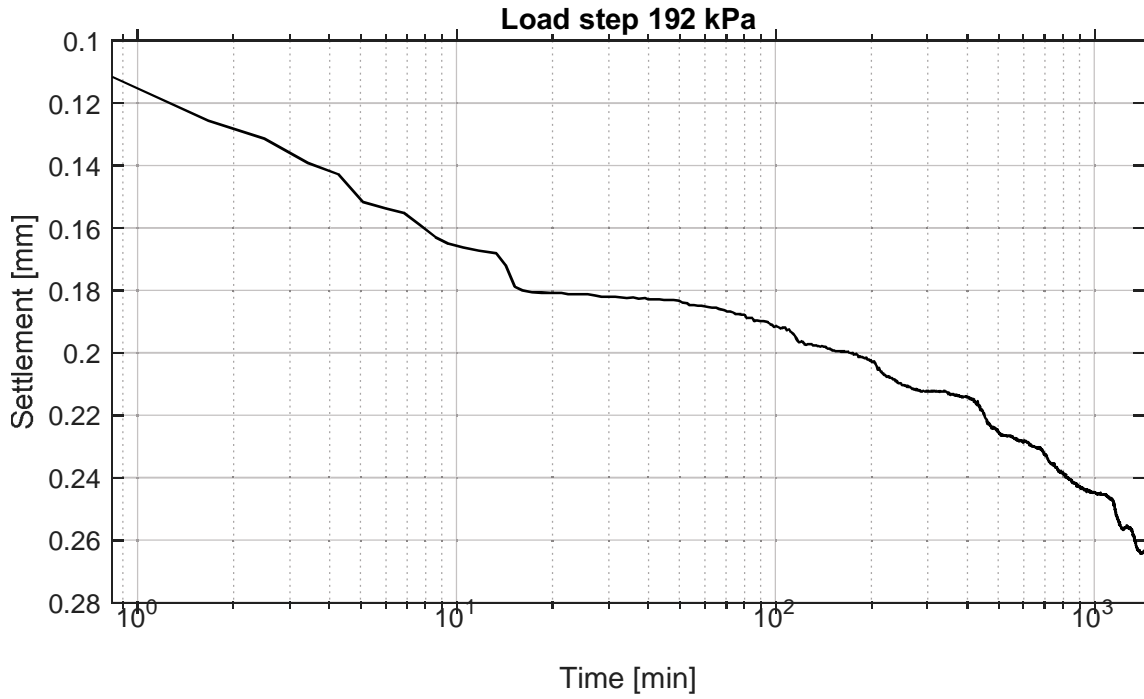
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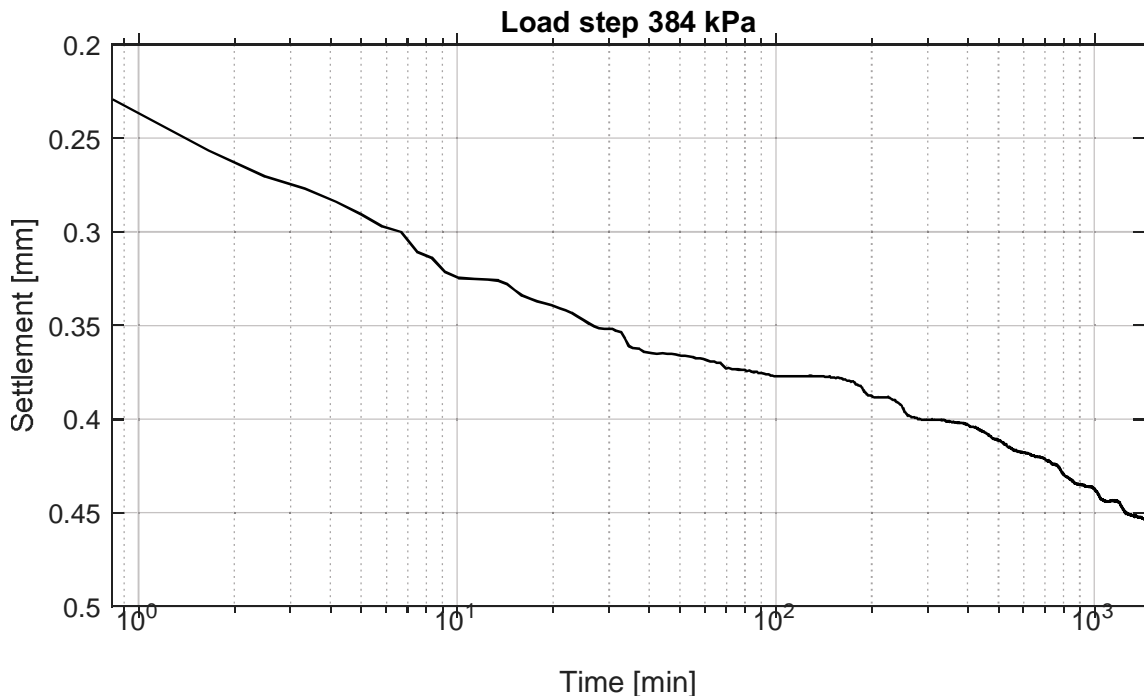
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Casagrande method (page 5/7)



No calculation performed.



No calculation performed.

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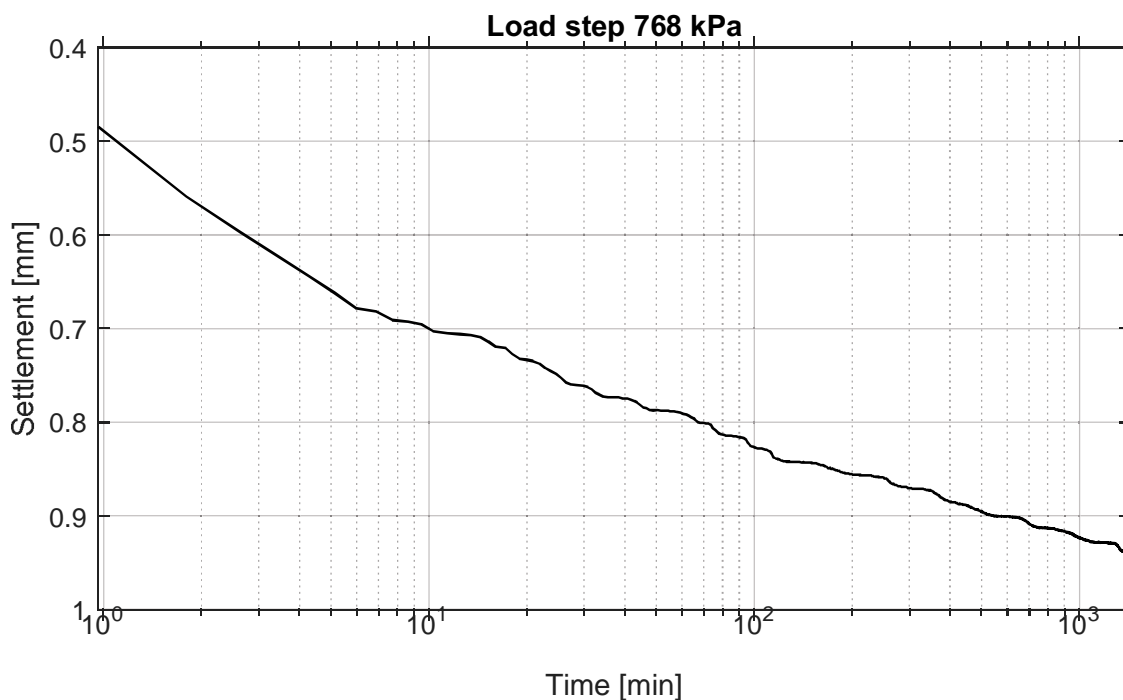
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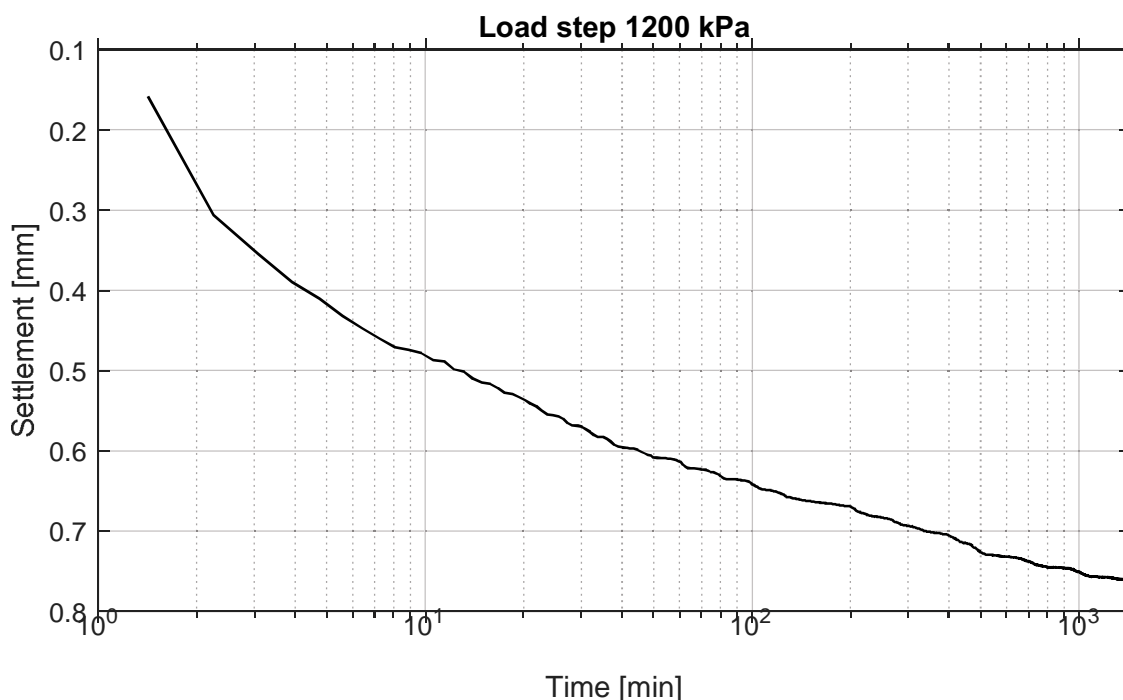
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Casagrande method (page 6/7)



No calculation performed.



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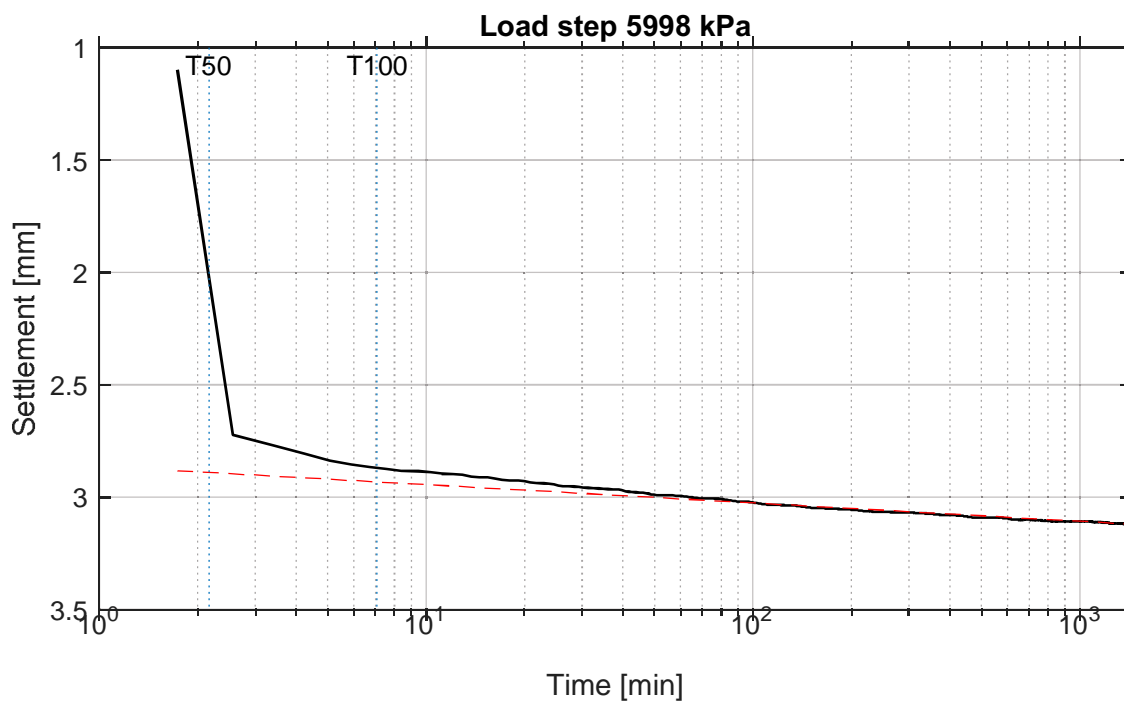
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Casagrande method (page 7/7)



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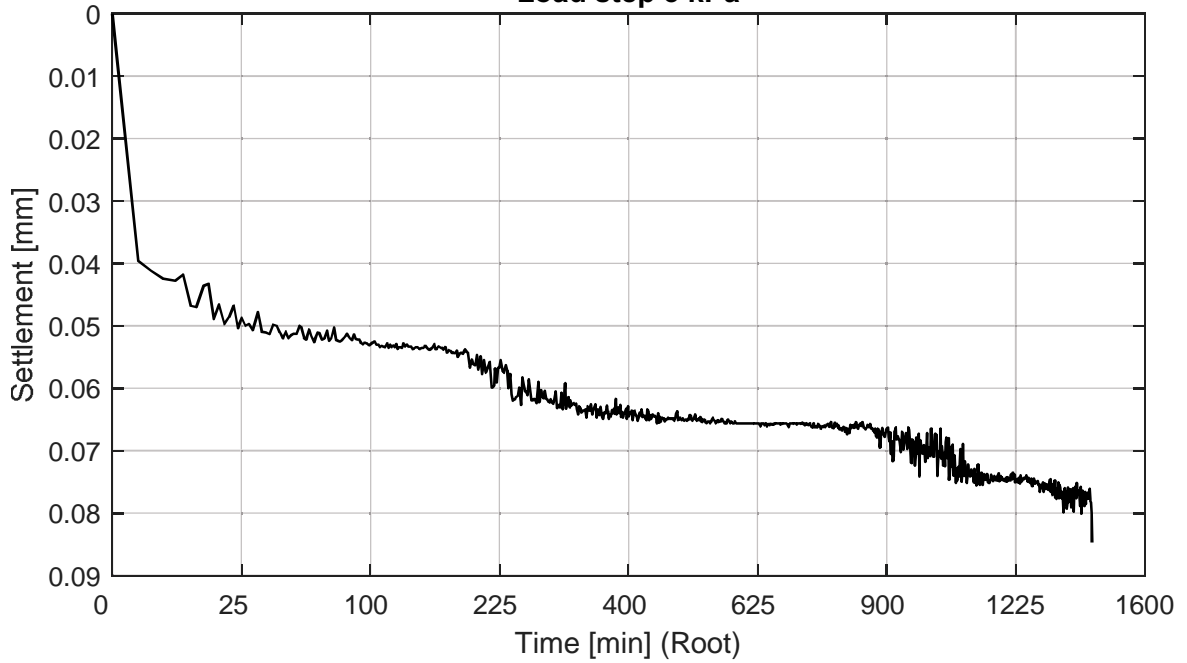
Oedometer test conform NEN-EN-ISO 17892-5

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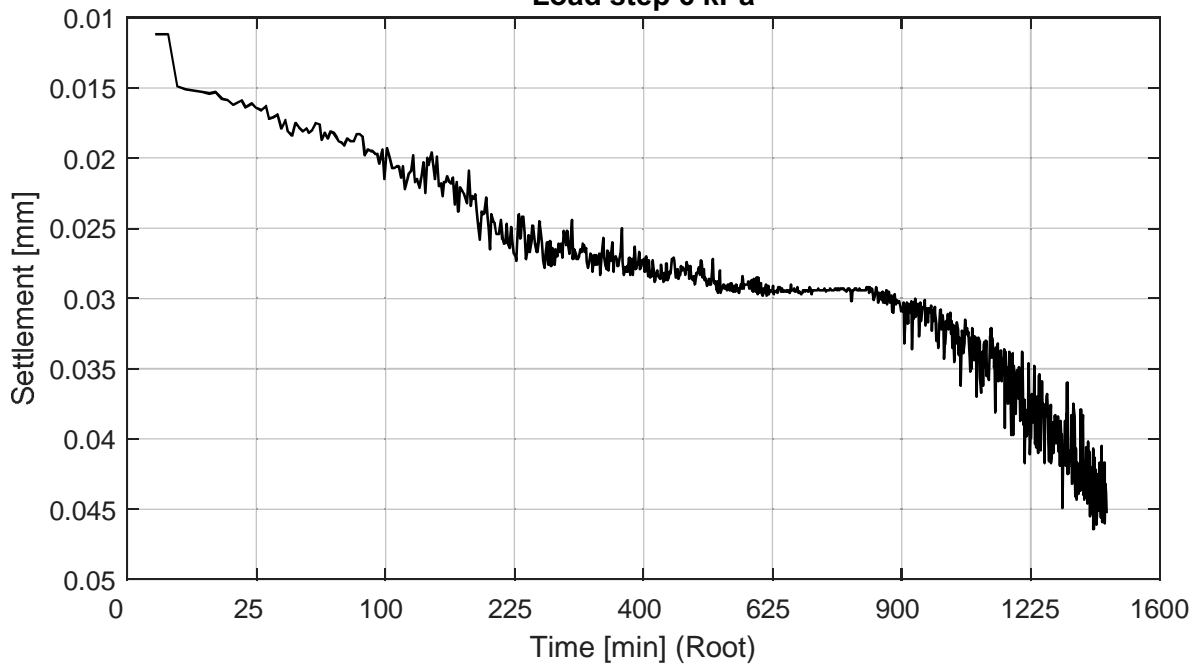
Taylor method (page 1/7)

Load step 3 kPa



No calculation performed.

Load step 6 kPa



No calculation performed.

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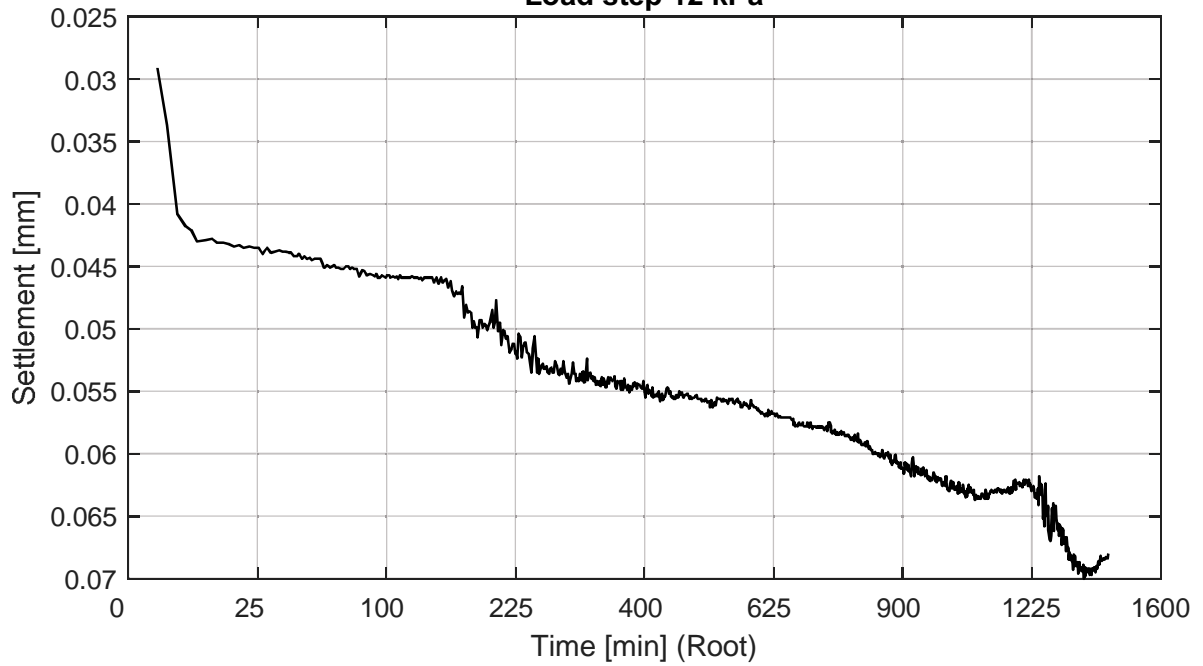
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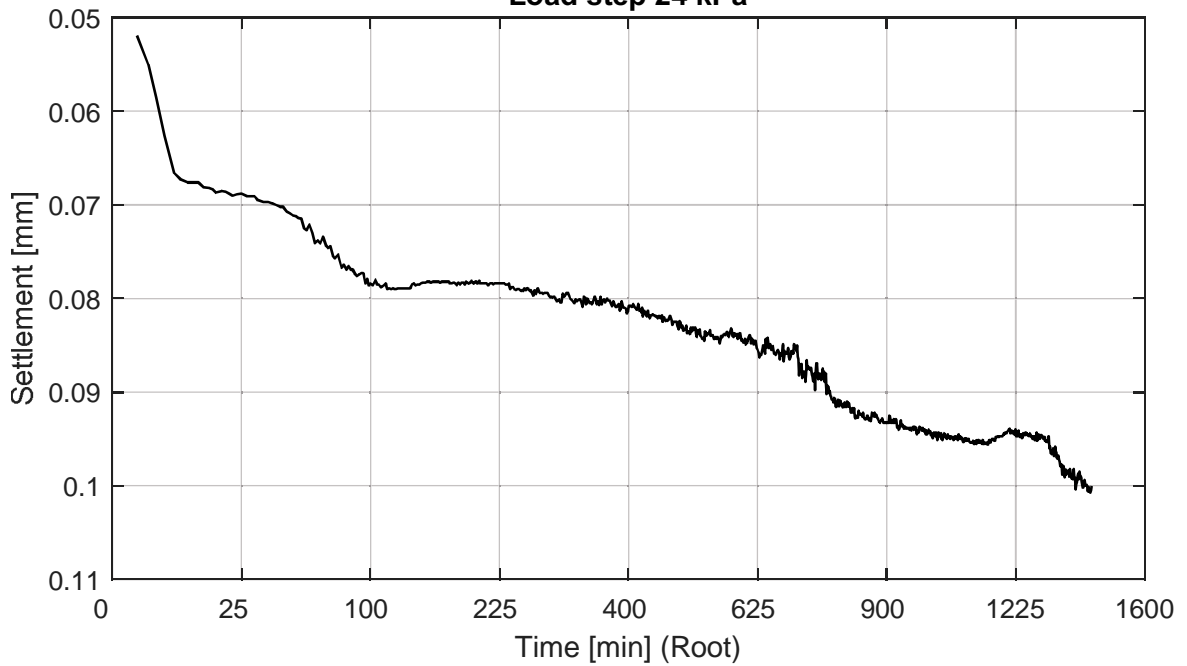
Taylor method (page 2/7)

Load step 12 kPa



No calculation performed.

Load step 24 kPa



No calculation performed.

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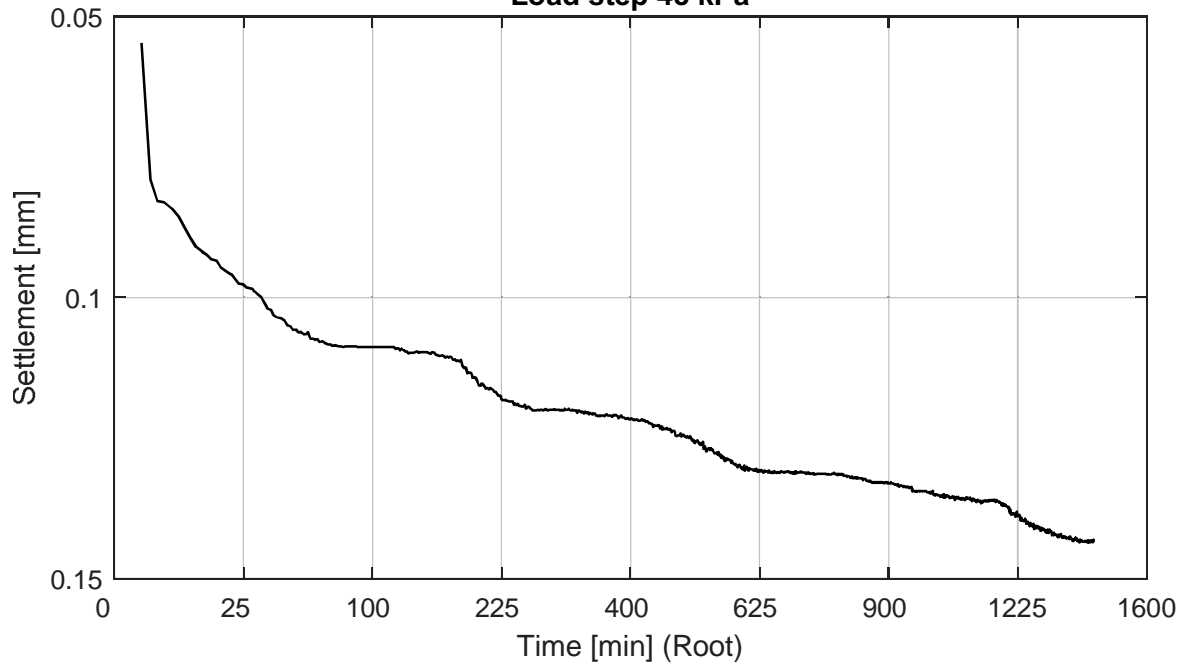
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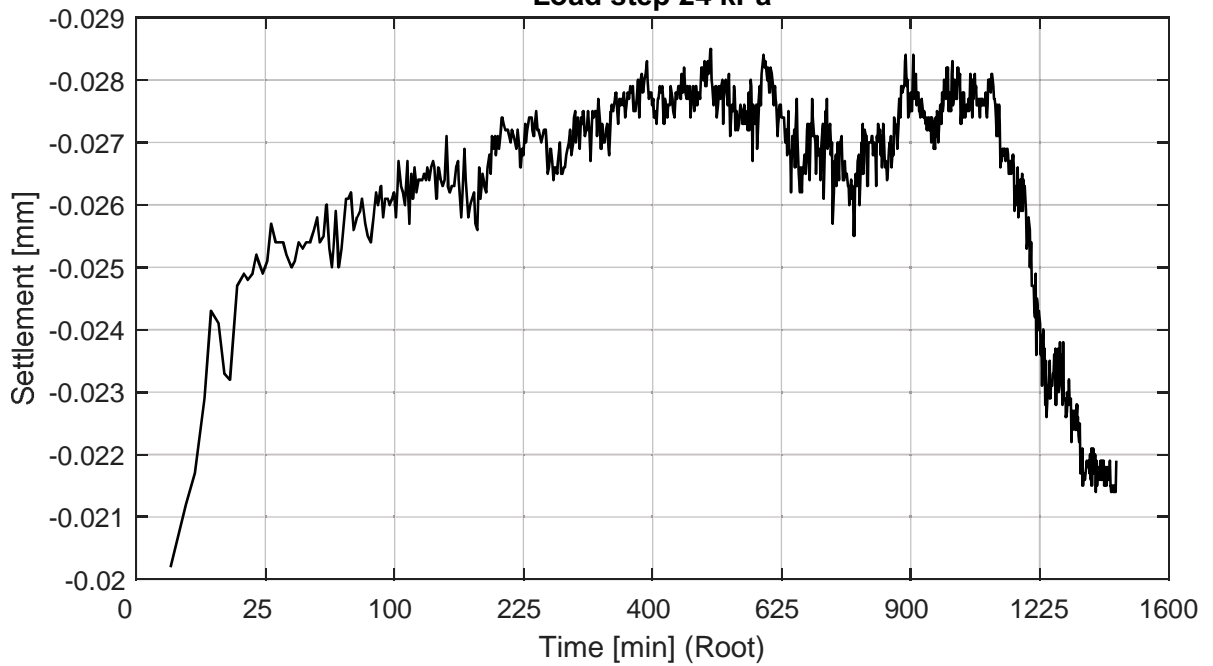
Taylor method (page 3/7)

Load step 48 kPa



No calculation performed.

Load step 24 kPa



No calculation performed.

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Oedometer test conform NEN-EN-ISO 17892-5

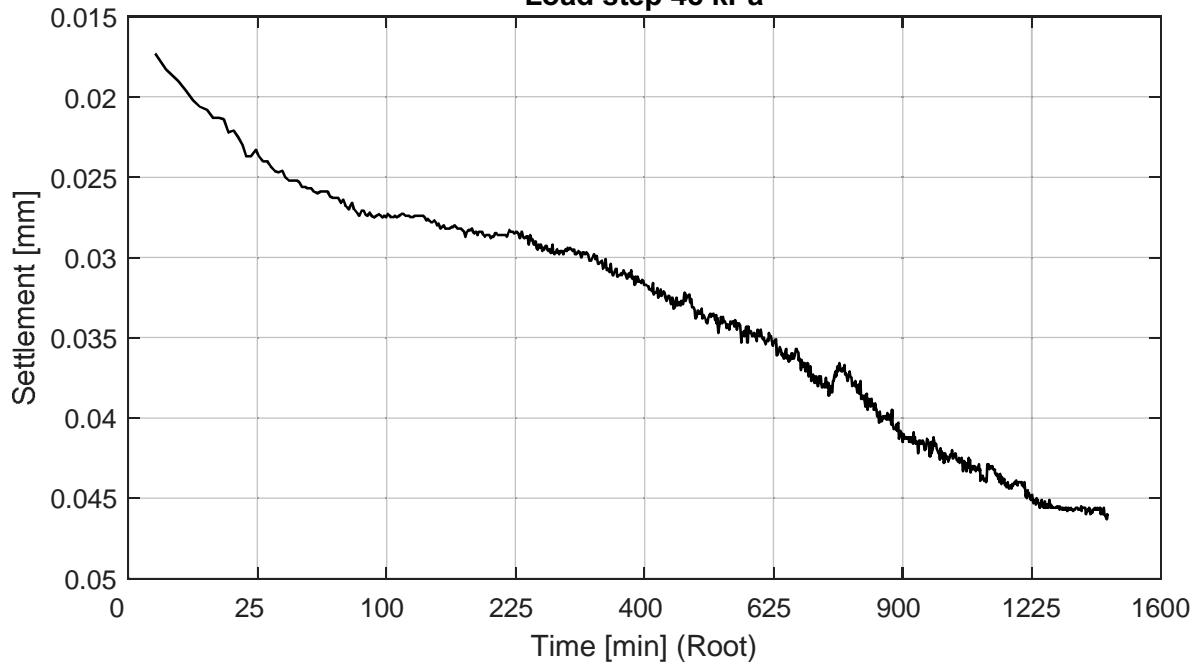
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*) Gecontroleerd en vrijgegeven door konstadi op 2020-12-19

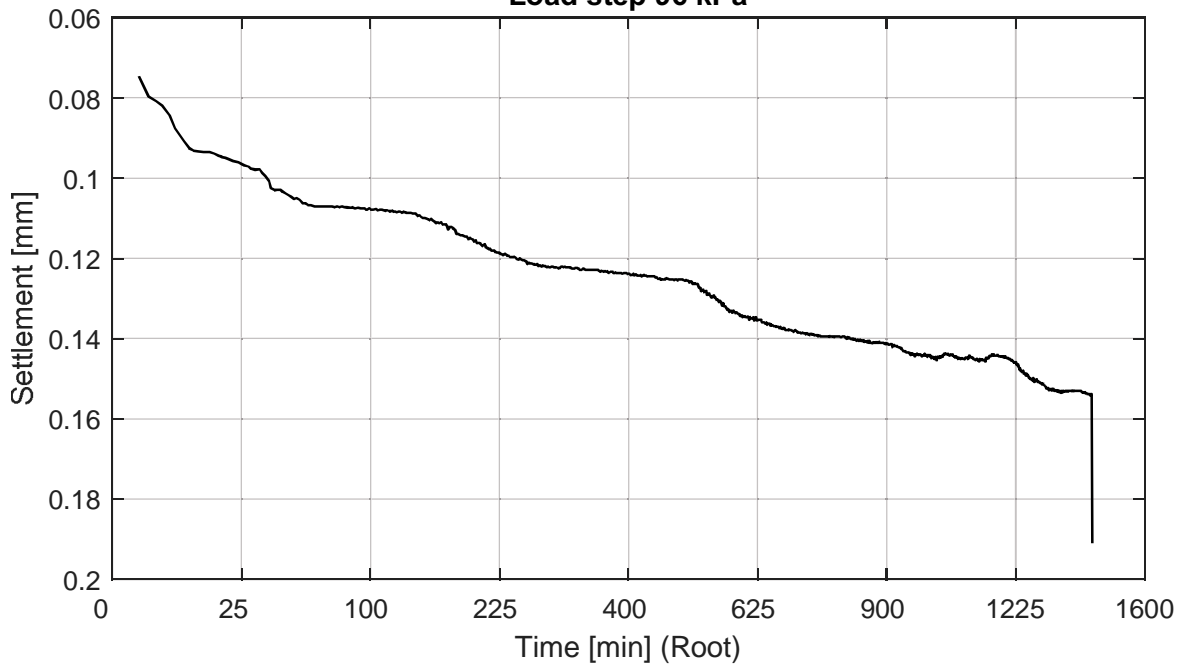
Taylor method (page 4/7)

Load step 48 kPa



No calculation performed.

Load step 96 kPa



No calculation performed.

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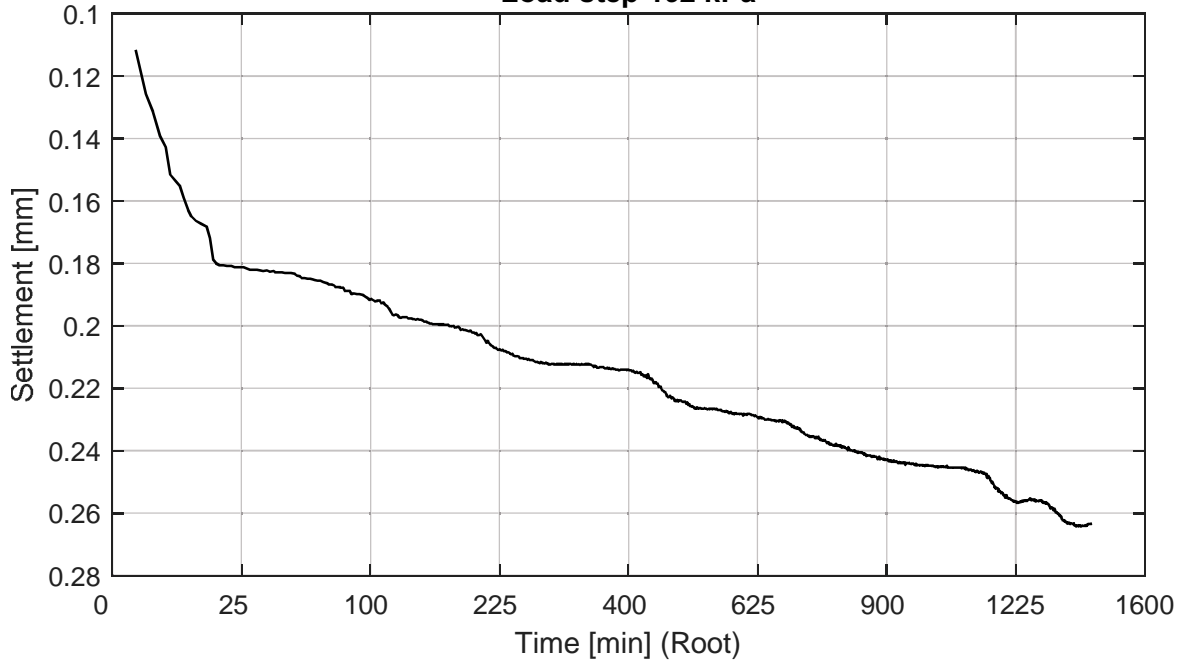
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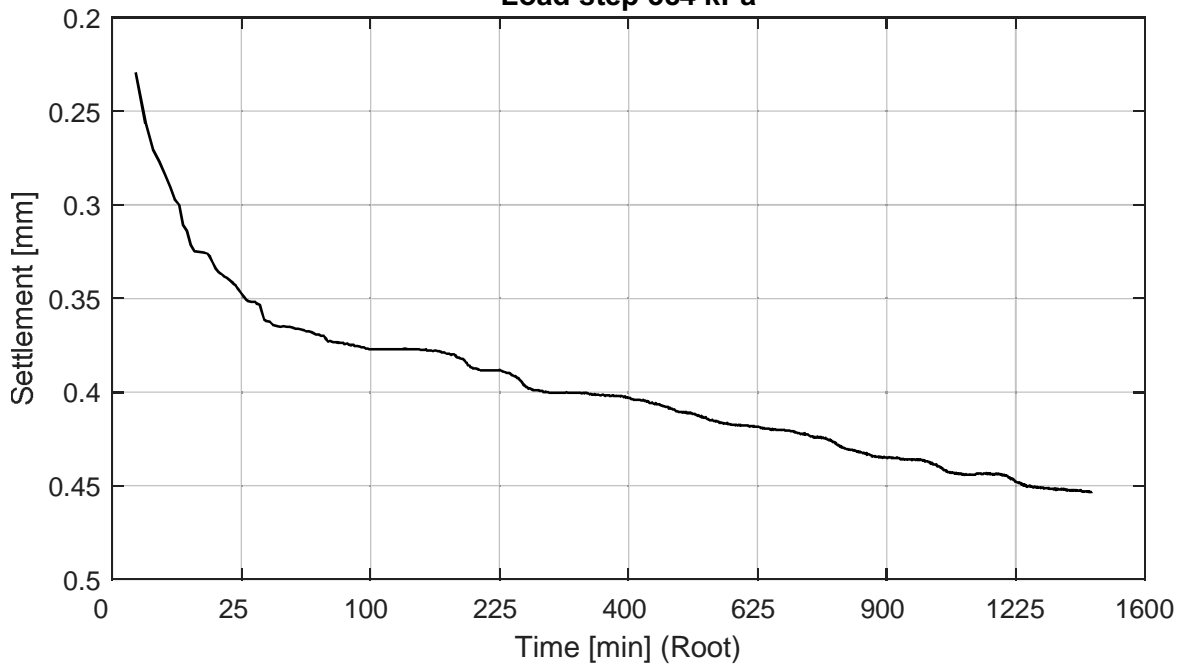
Taylor method (page 5/7)

Load step 192 kPa



No calculation performed.

Load step 384 kPa



No calculation performed.

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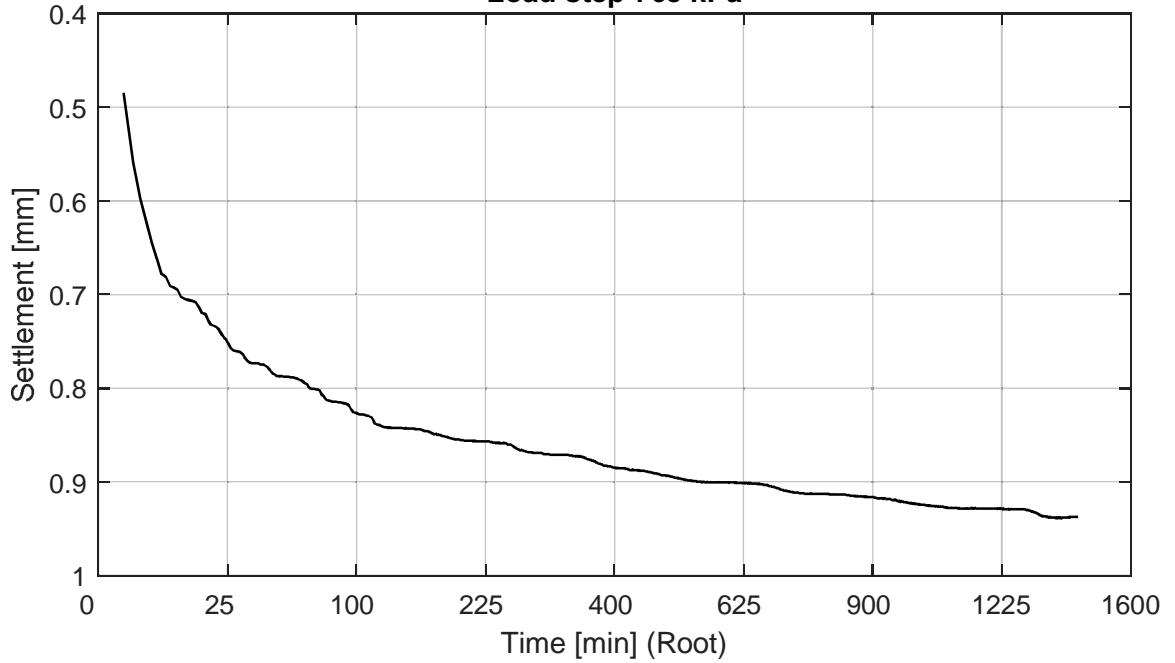
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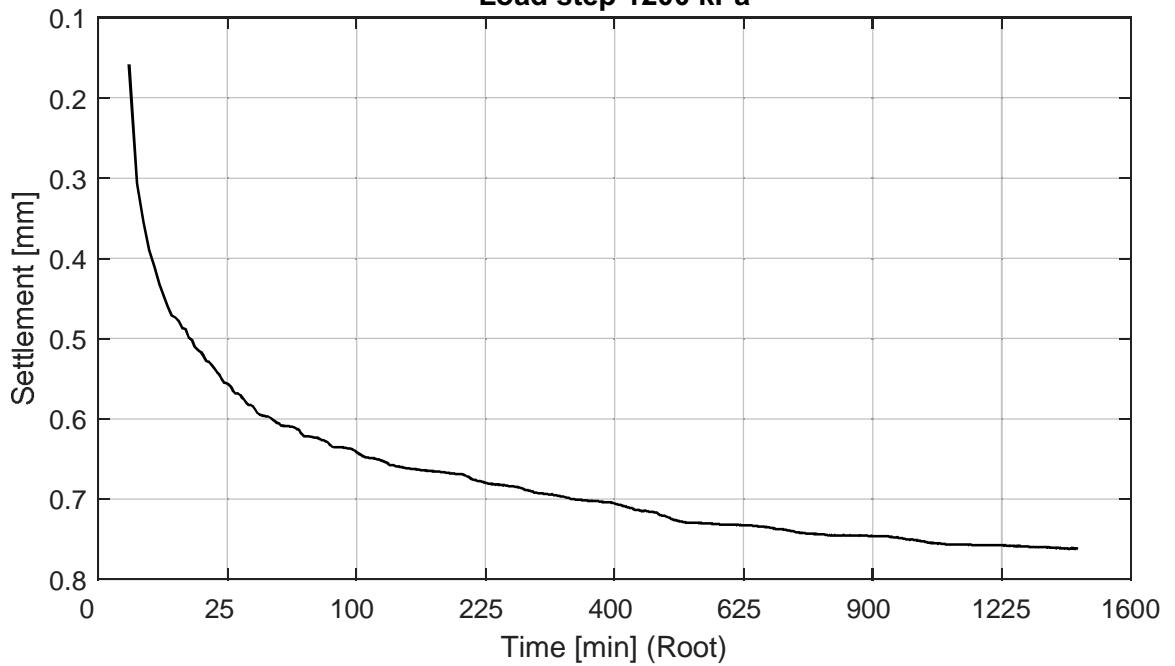
Taylor method (page 6/7)

Load step 768 kPa



No calculation performed.

Load step 1200 kPa



No calculation performed.



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Boring B203, sample 13, depth 9.65 m till 9.60 m NAP

project	version
11205262.12	1.1

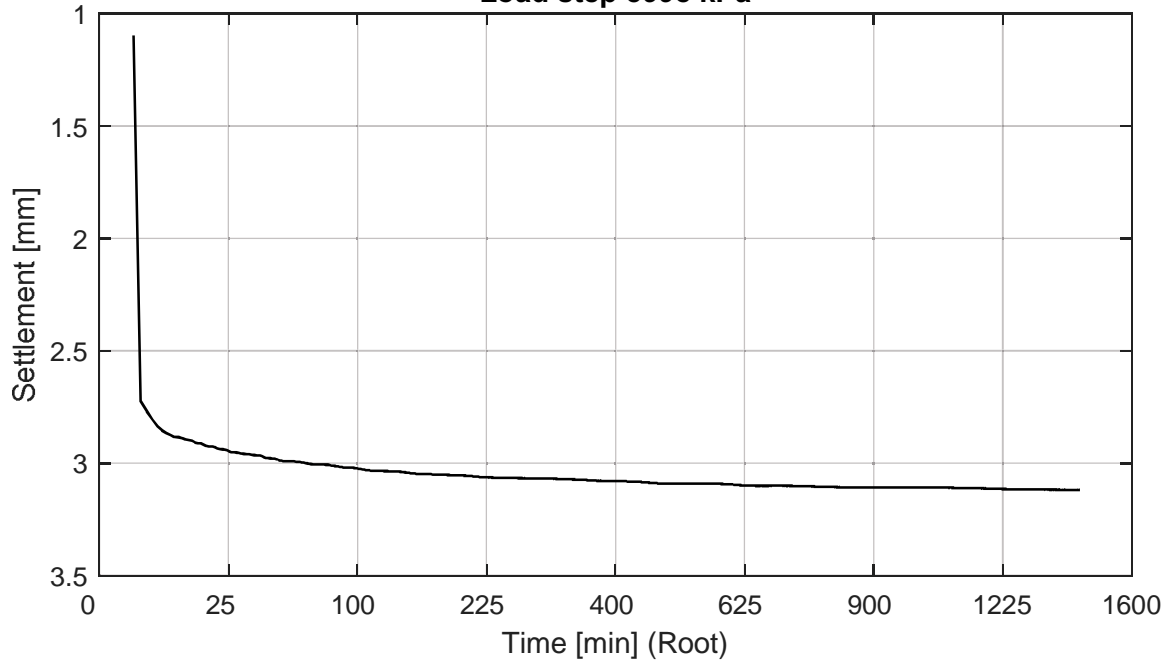
Oedometer test conform NEN-EN-ISO 17892-5

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Taylor method (page 7/7)

Load step 5998 kPa



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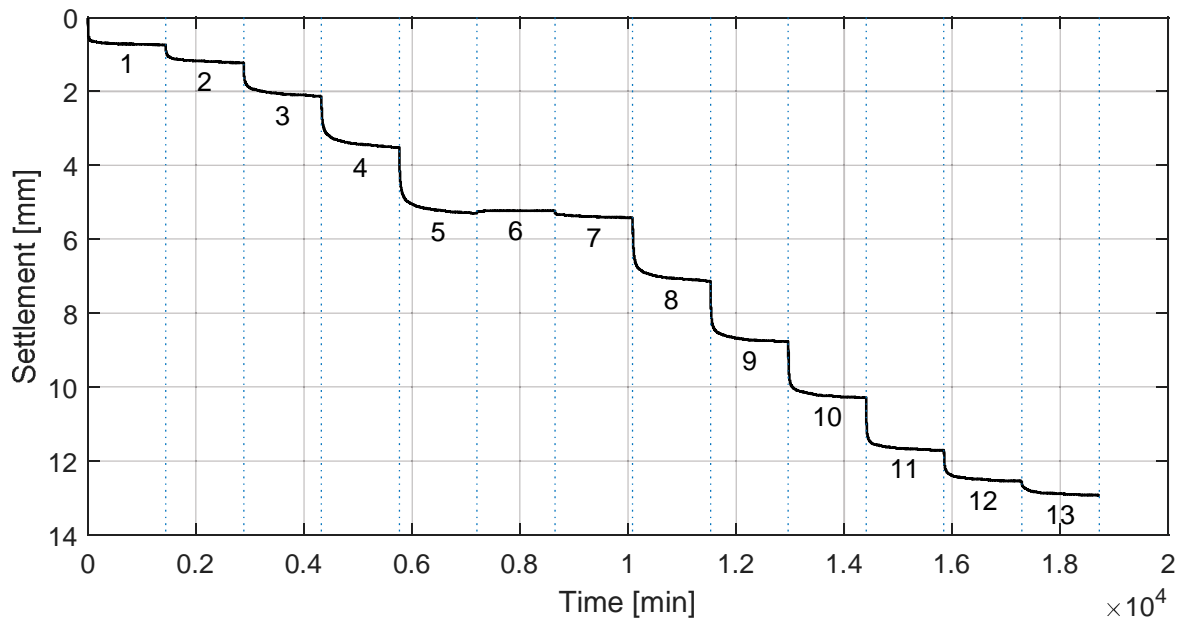
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General soil and test parameters

Soil description (NEN 5104)	KS2
Initial volumetric weight - wet [kN/m ³]	16.2
Initial volumetric weight - dry [kN/m ³]	10.2
Volumetric weight particles (γ_s)[kN/m ³](*)	26.4
Initial water content [%]	58.6
Initial sample height [mm]	30
Initial sample diameter [mm]	63
Final volumetric weight - wet [kN/m ³]	20.1
Final volumetric weight - dry [kN/m ³]	16.4
Final water content [%]	22.1
Type of test (wet/dry)	Wet
Visual disturbance sample	undisturbed
Startdate	2020-10-22
Enddate	2016-09-16
Sample disturbance index	-
Lab temperature [°C]	9.0
Pc' _{Becker} [kPa]	37.8
Pc' _{Janbu} [kPa]	-
(*) γ_s calculated with assumed complete saturation	

Load step number	Load [kPa]
1	12
2	24
3	48
4	96
5	192
6	96
7	192
8	384
9	768
10	1536
11	3072
12	4799
13	5999

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Boring B203, sample 19, depth 7.65 m till 7.60 m NAP

Oedometer test conform NEN-EN-ISO 17892-5

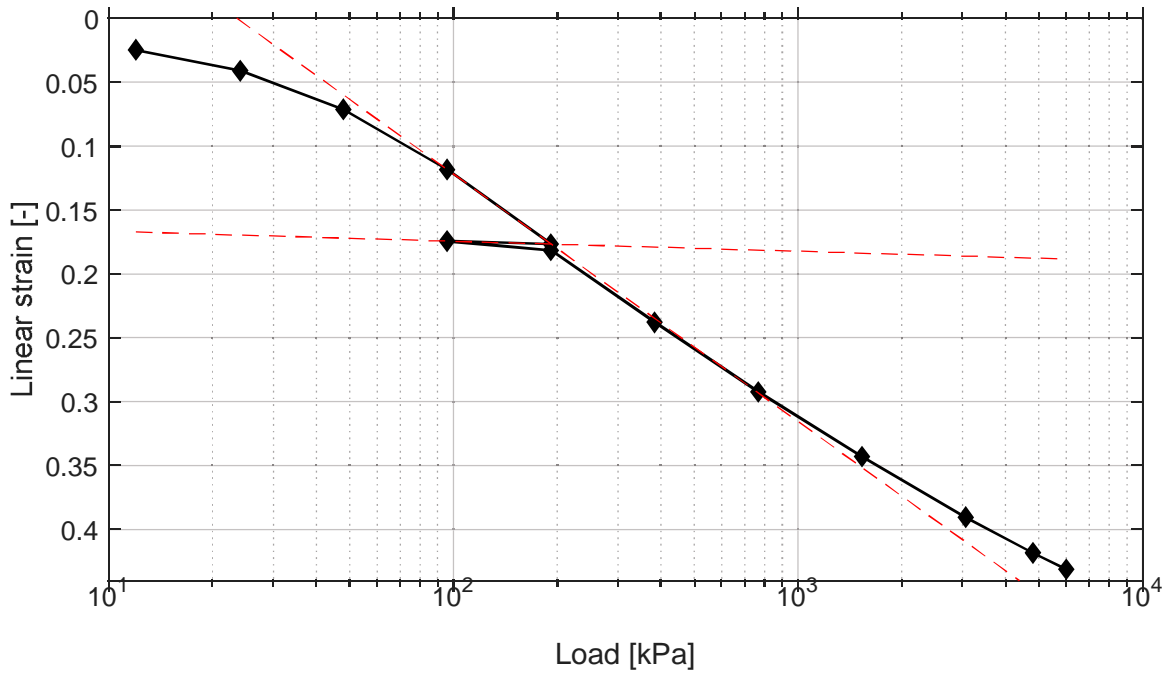
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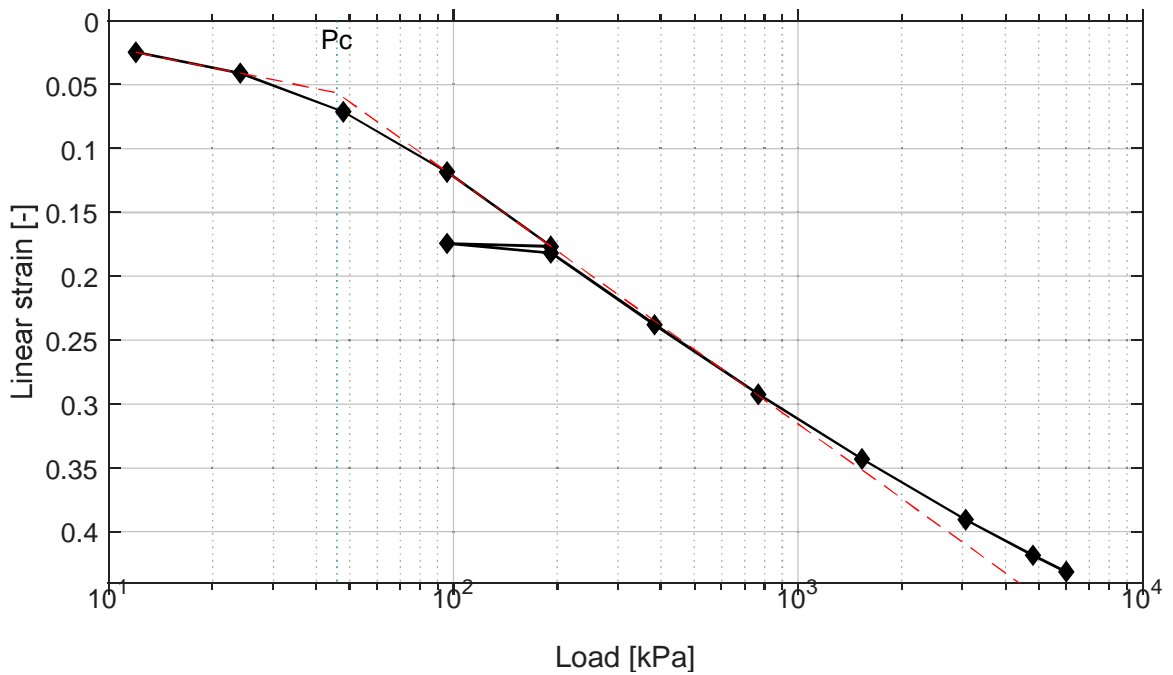
NEN-Bjerrum method



RR = 7.8e-03
CR = 1.9e-01

Ca = 9.1e-03

Vo = 2.58



Pc = 45.9 kPa



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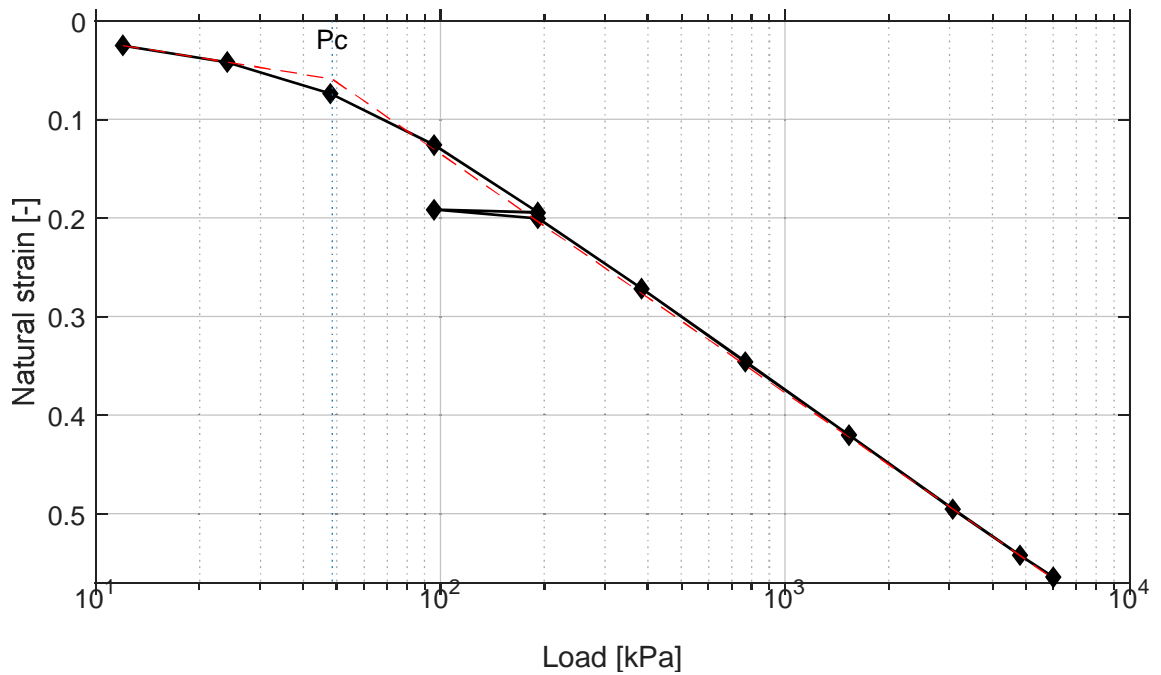
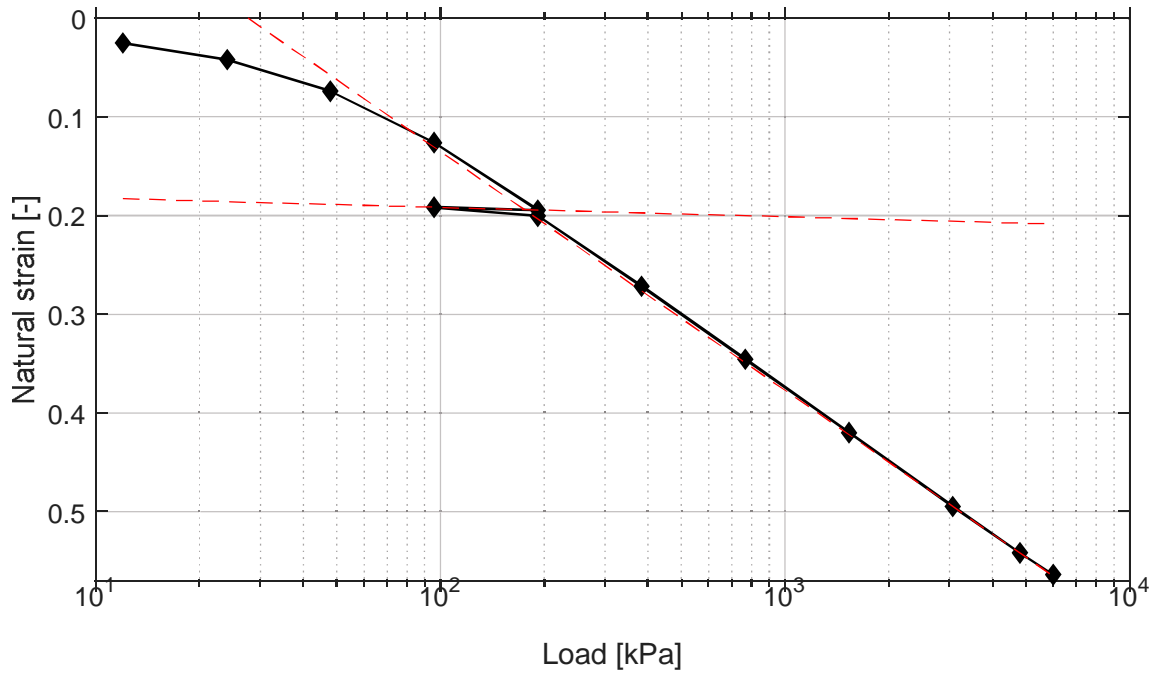
Boring B203, sample 19, depth 7.65 m till 7.60 m NAP

Oedometer test conform NEN-EN-ISO 17892-5

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Isotachen method



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Oedometer test conform NEN-EN-ISO 17892-5

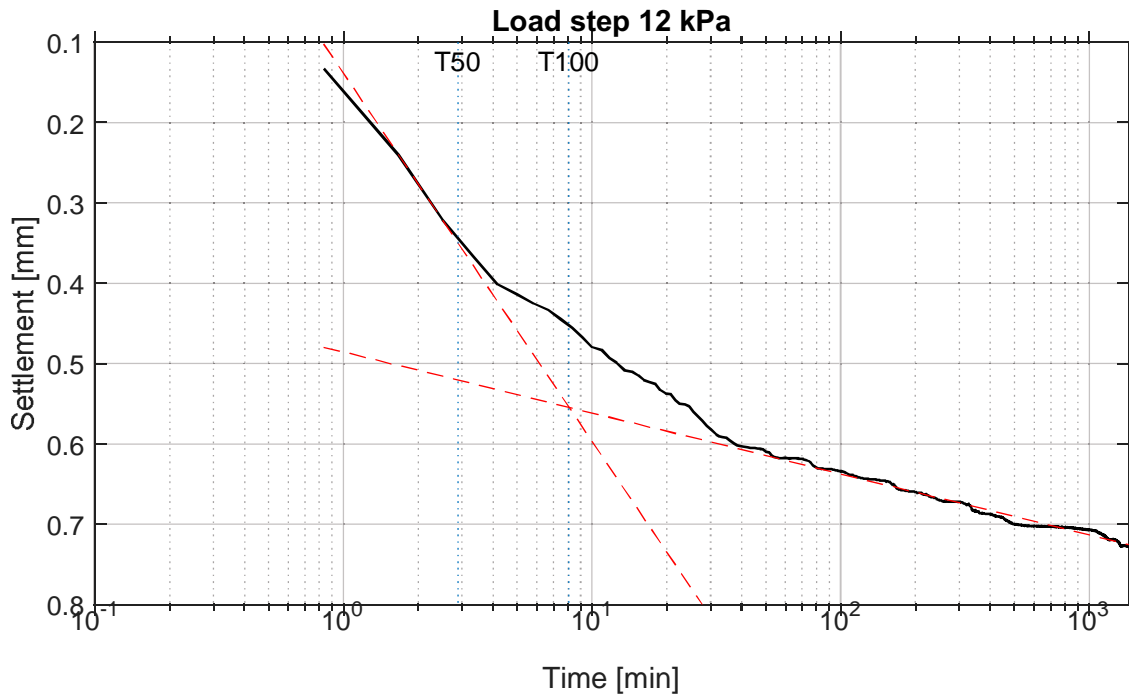
project
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version
1.1

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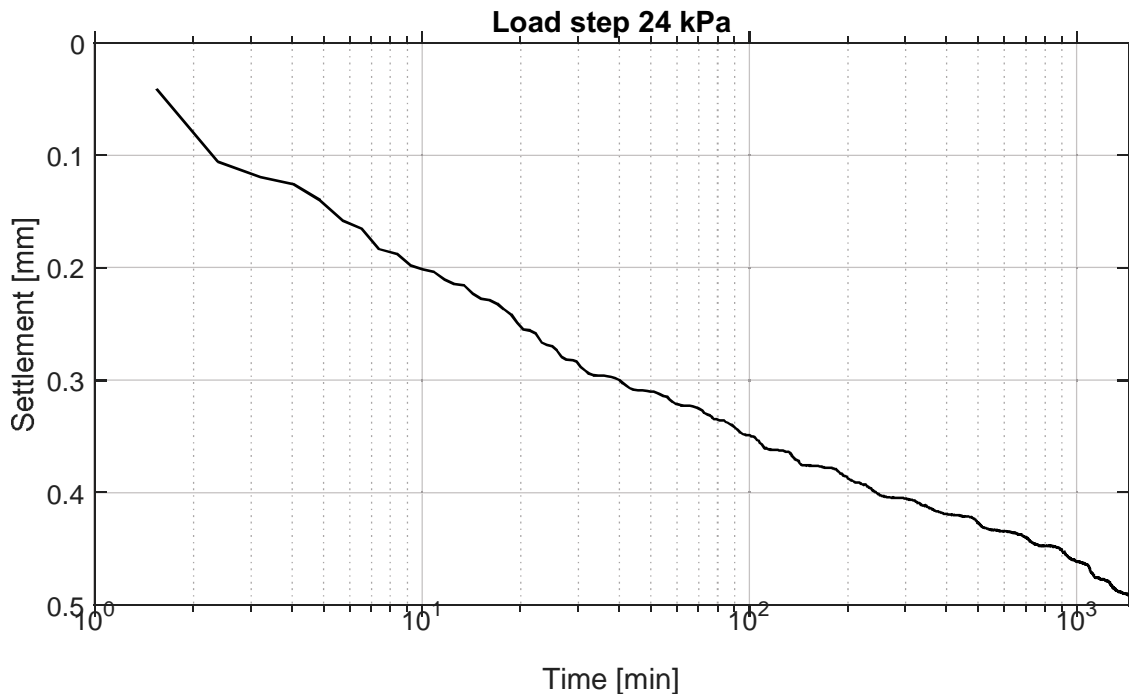
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Casagrande method (page 1/7)



$C_v = 2.5e-07 \text{ m}^2/\text{s}$
 $C_a = -$

$M_v = 1.2e-03 \text{ m}^2/\text{kN}$
 $K = 2.9e-09 \text{ m/s}$



No calculation performed.

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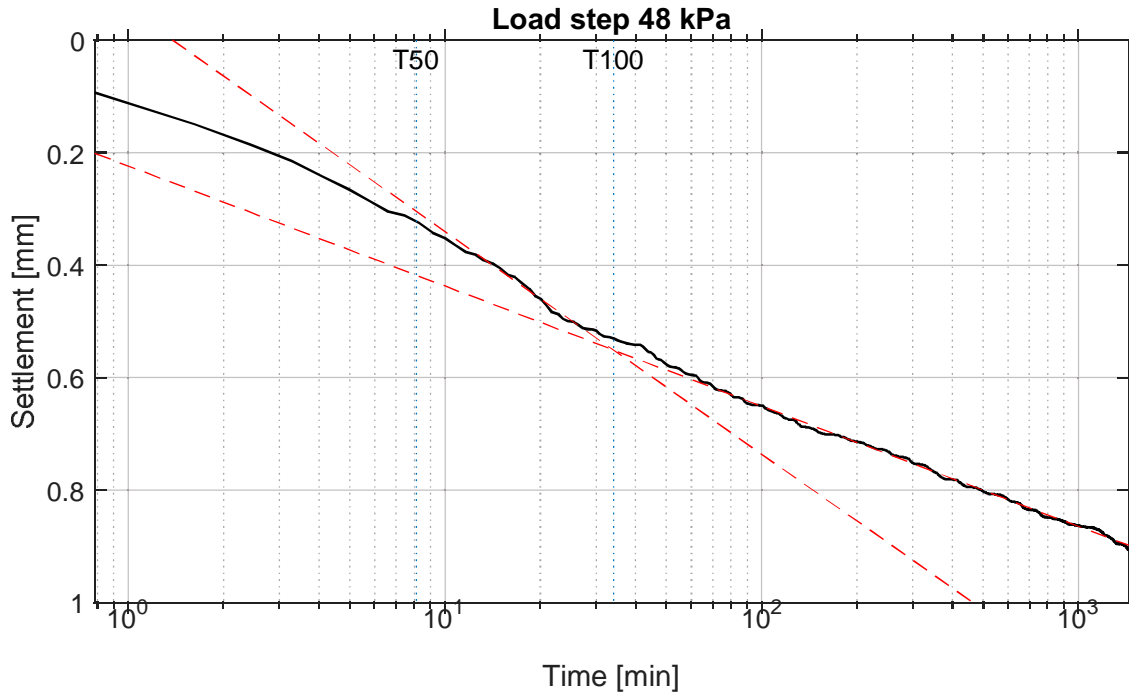
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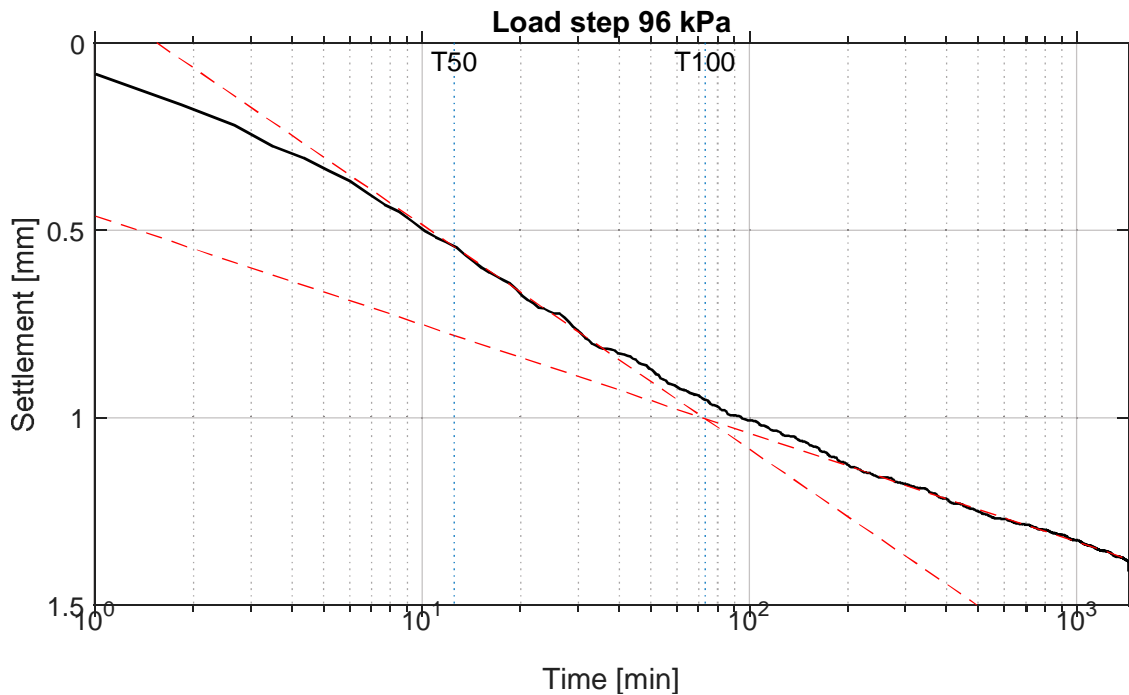
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Casagrande method (page 2/7)



$C_v = 8.1e-08 \text{ m}^2/\text{s}$
 $C_a = -$

$M_v = 6.7e-04 \text{ m}^2/\text{kN}$
 $K = 5.3e-10 \text{ m/s}$



$C_v = 4.8e-08 \text{ m}^2/\text{s}$
 $C_a = -$

$M_v = 6.9e-04 \text{ m}^2/\text{kN}$
 $K = 3.3e-10 \text{ m/s}$

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KPP WK01 2020 - Kennis voor Keringen : Verlenging metingen
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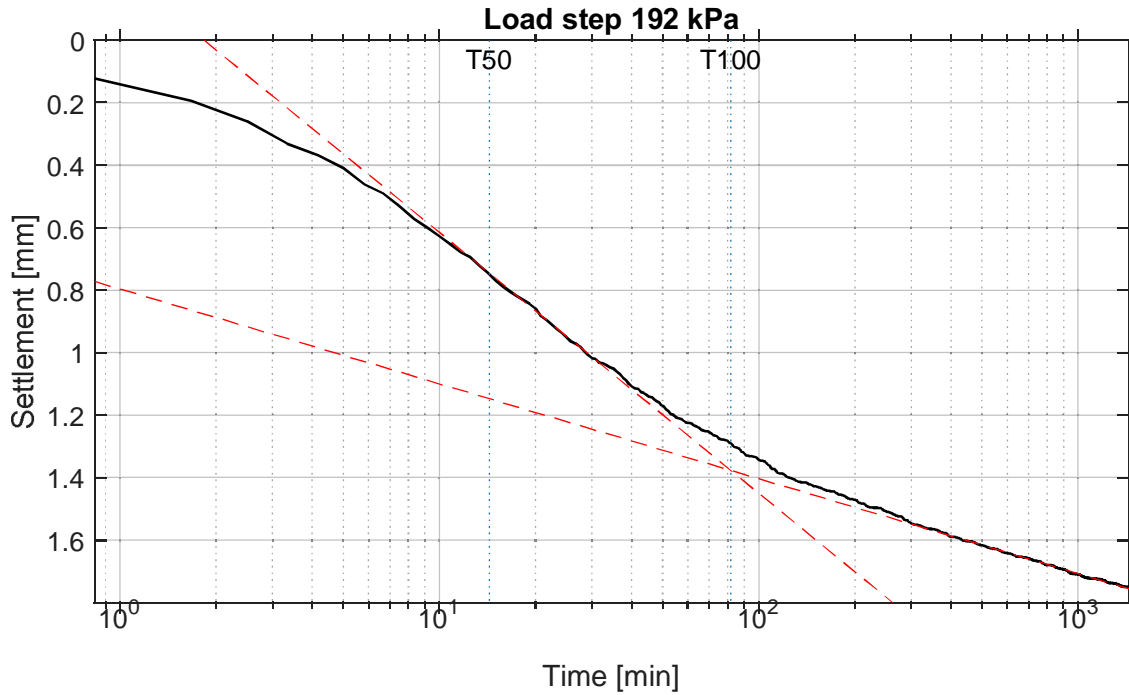
project	version
11205262.12	1.1

Oedometer test conform NEN-EN-ISO 17892-5

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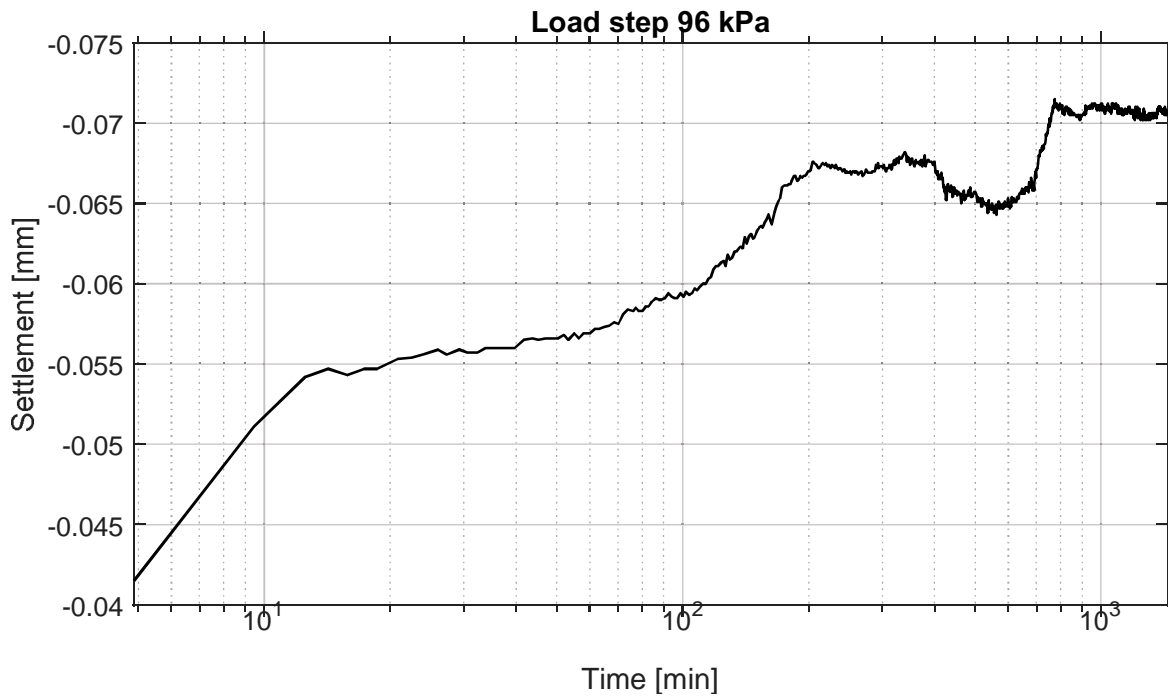
*) Gecontroleerd en vrijgegeven door konstadi op 2020-12-22

Casagrande method (page 3/7)



$C_v = 3.7e-08 \text{ m}^2/\text{s}$
 $C_a = -$

$M_v = 5.0e-04 \text{ m}^2/\text{kN}$
 $K = 1.8e-10 \text{ m/s}$



No calculation performed.

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Oedometer test conform NEN-EN-ISO 17892-5

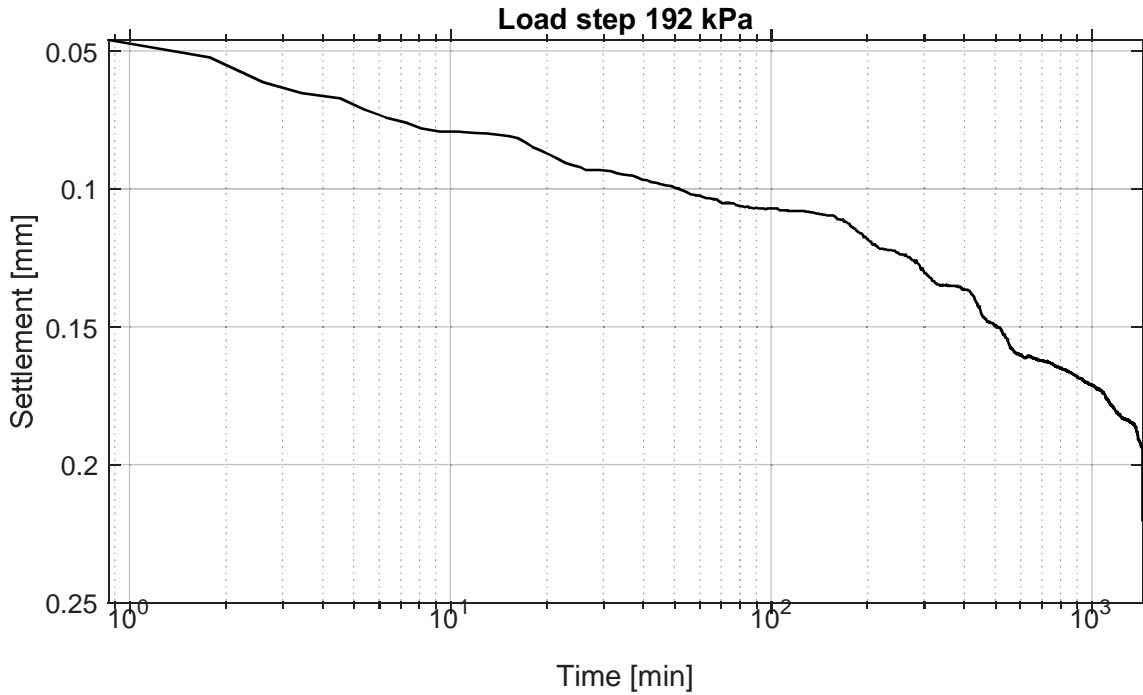
project
 11205262.12

version
 1.1

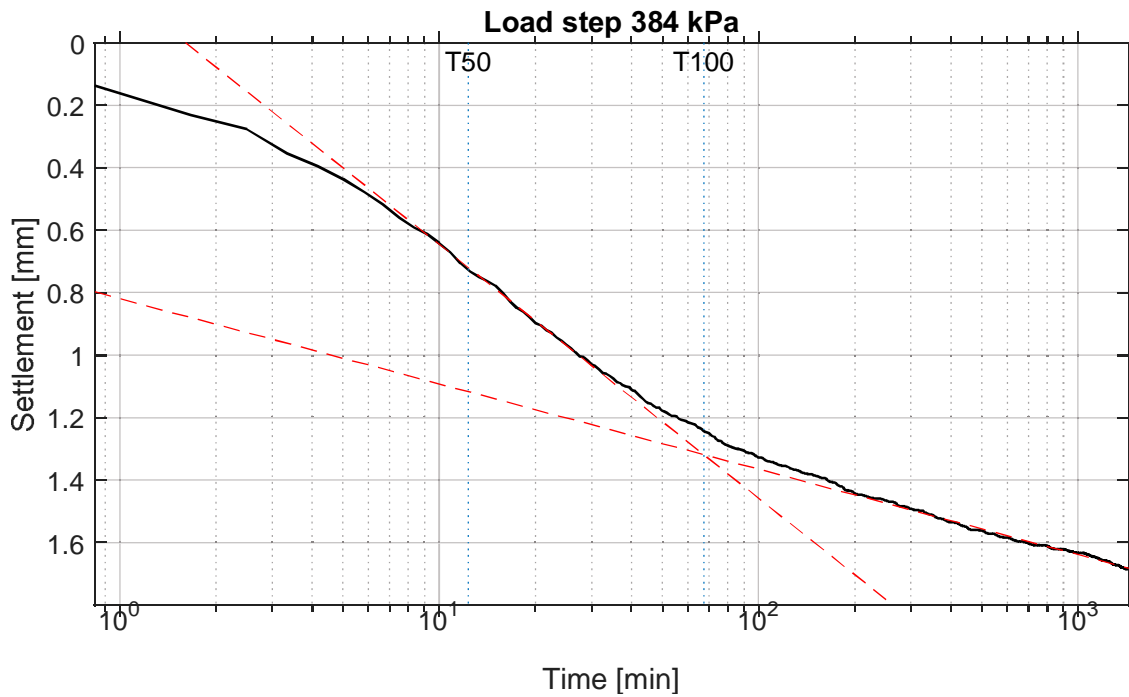
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Casagrande method (page 4/7)



No calculation performed.



$C_v = 3.7e-08 \text{ m}^2/\text{s}$
 $C_a = 1.1e-02$

$M_v = 2.5e-04 \text{ m}^2/\text{kN}$
 $K = 9.2e-11 \text{ m/s}$

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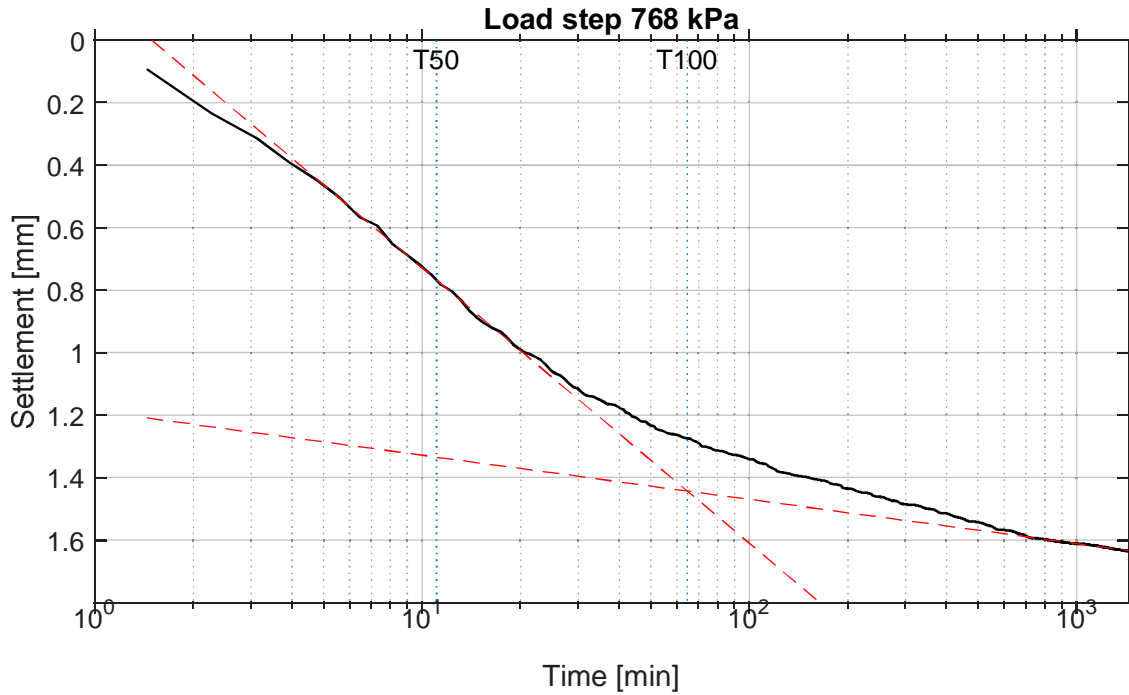
date	signed
2020-12-22	ess

KPP WK01 2020 - Kennis voor Keringen : Verlenging metingen
 Boring B203, sample 19, depth 7.65 m till 7.60 m NAP
 Oedometer test conform NEN-EN-ISO 17892-5

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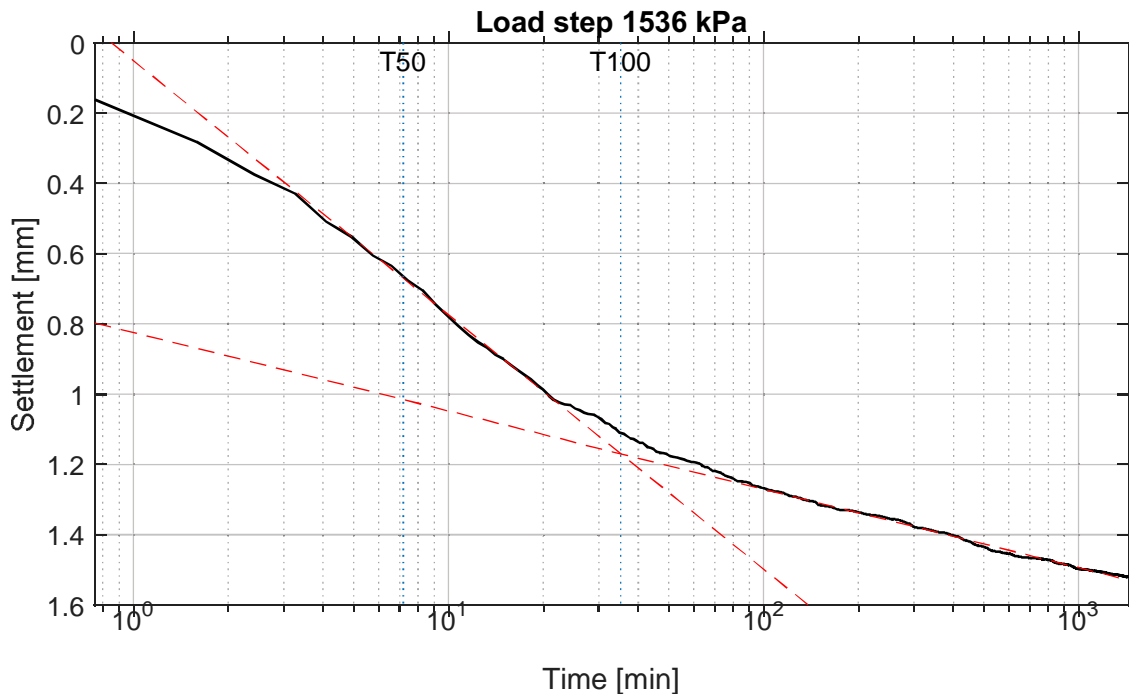
*) Gecontroleerd en vrijgegeven door konstadi op 2020-12-22

Casagrande method (page 5/7)



$C_v = 3.6e-08 \text{ m}^2/\text{s}$
 $C_a = 6.2e-03$

$M_v = 1.5e-04 \text{ m}^2/\text{kN}$
 $K = 5.4e-11 \text{ m/s}$



$C_v = 4.8e-08 \text{ m}^2/\text{s}$
 $C_a = 1.1e-02$

$M_v = 6.2e-05 \text{ m}^2/\text{kN}$
 $K = 2.9e-11 \text{ m/s}$

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Oedometer test conform NEN-EN-ISO 17892-5

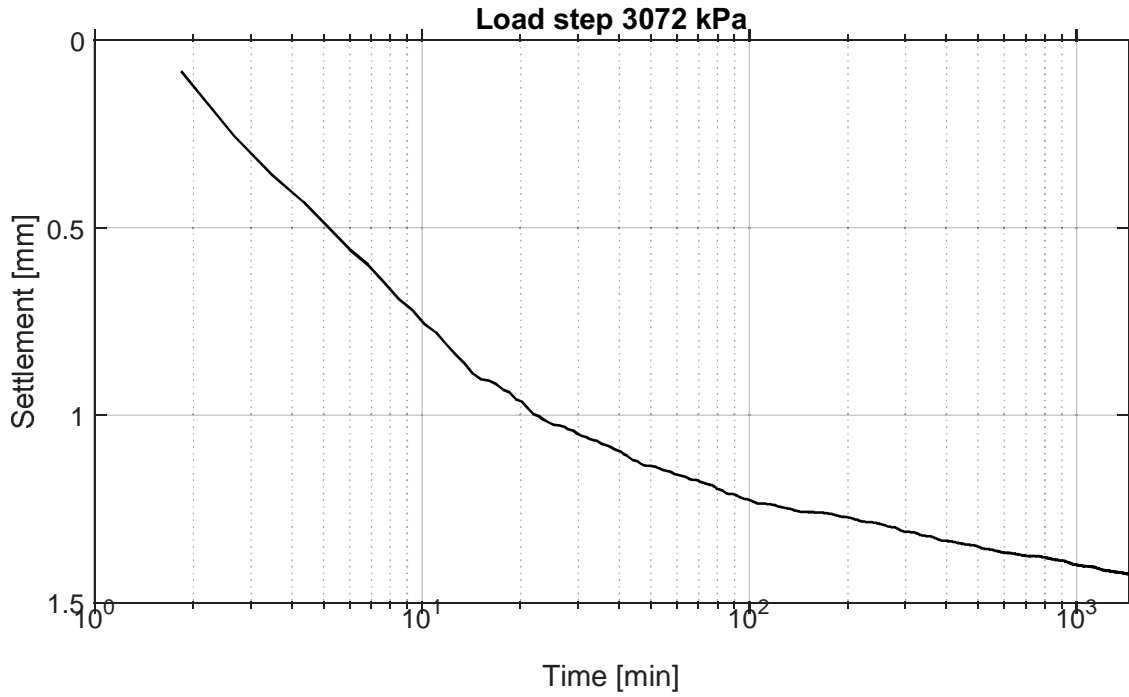
project
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version
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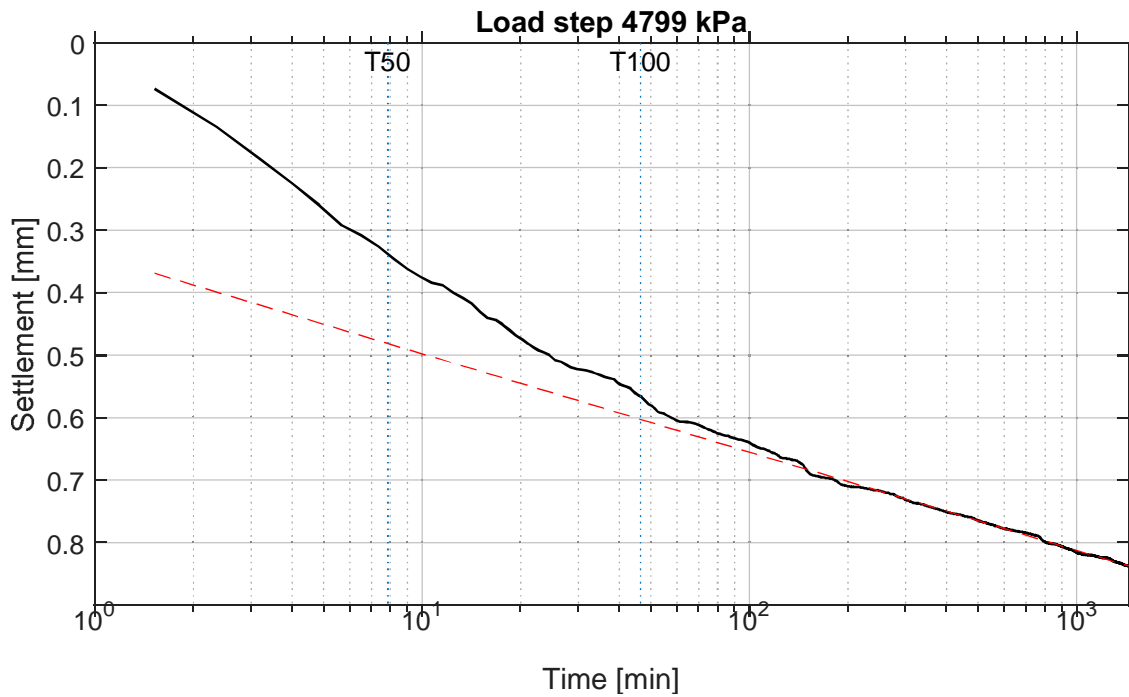
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Casagrande method (page 6/7)



No calculation performed.



No calculation performed.



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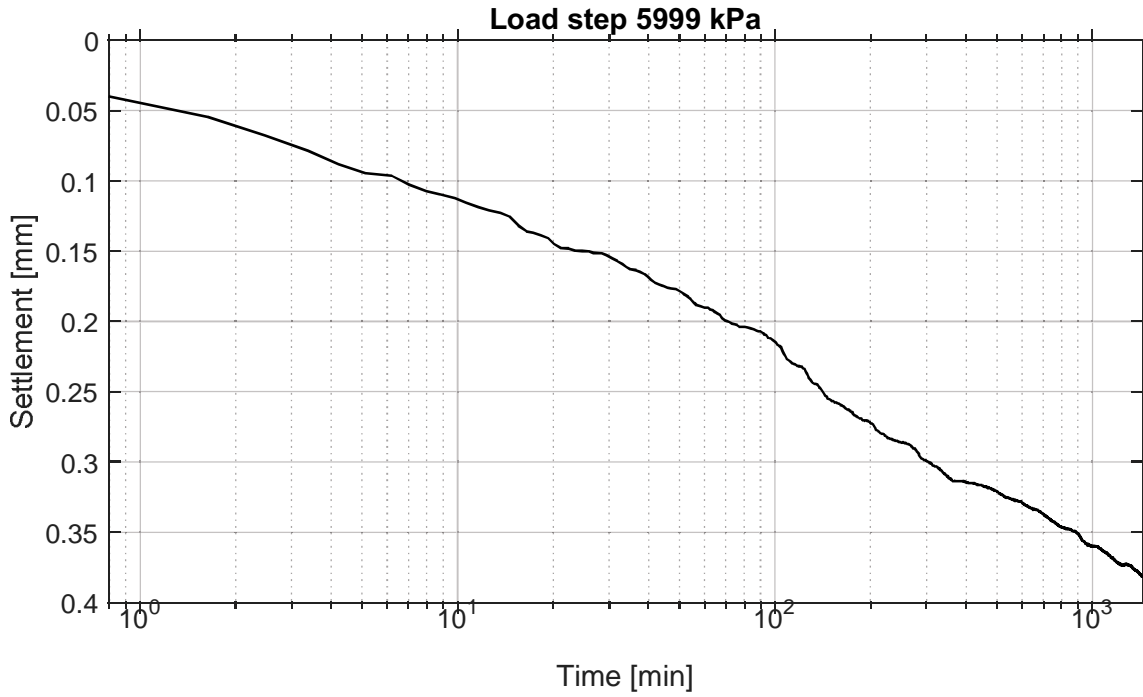
project	version
11205262.12	1.1

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*) Gecontroleerd en vrijgegeven door konstadi op 2020-12-22

Casagrande method (page 7/7)



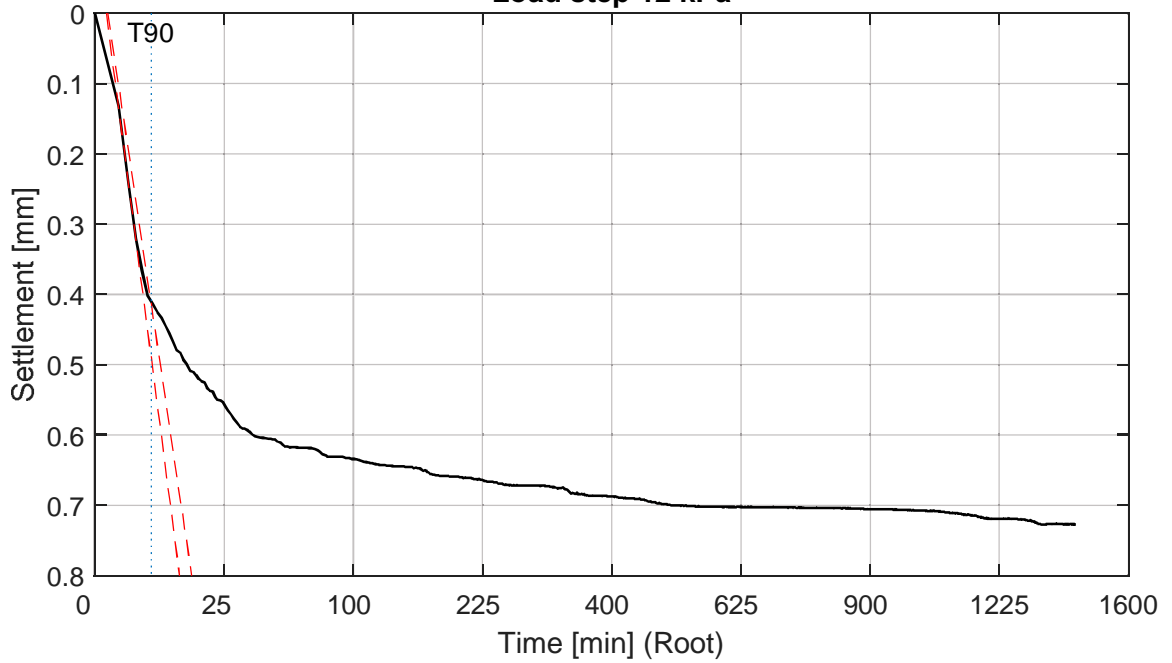
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		2020-12-22	ess
		project	version
KPP WK01 2020 - Kennis voor Keringen : Verlenging metingen Boring B203, sample 19, depth 7.65 m till 7.60 m NAP Oedometer test conform NEN-EN-ISO 17892-5		11205262.12	1.1
		appendix	page
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*) Gecontroleerd en vrijgegeven door konstadi op 2020-12-22

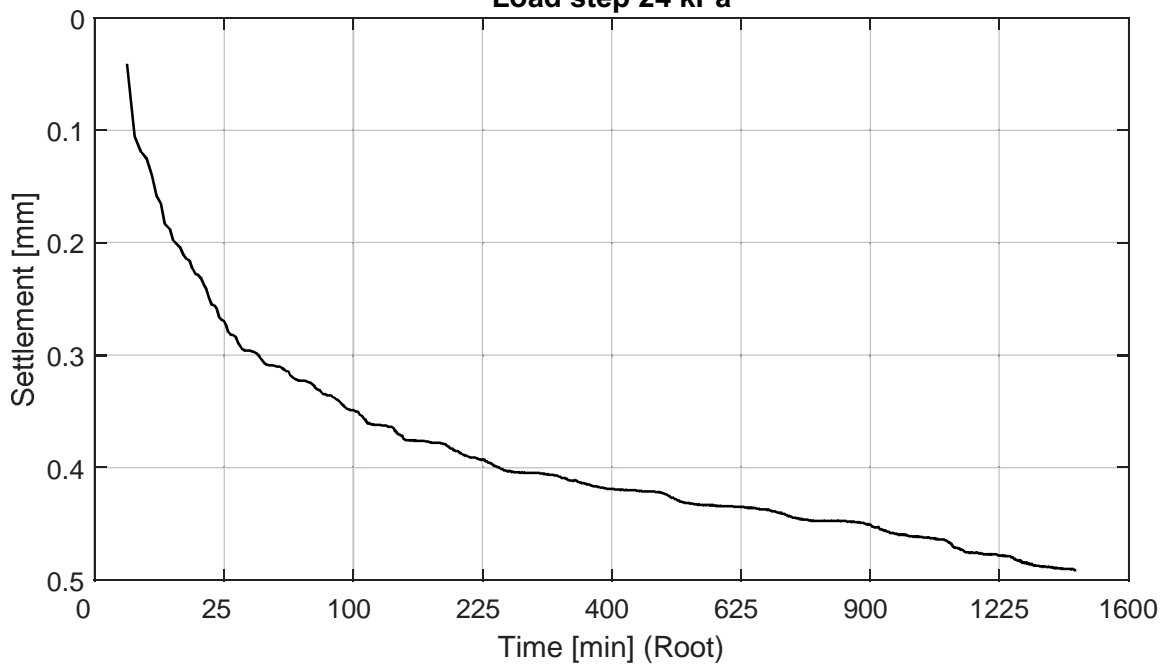
Taylor method (page 1/7)

Load step 12 kPa



$C_v = 6.4e-07 \text{ m}^2/\text{s}$

Load step 24 kPa



No calculation performed.

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Oedometer test conform NEN-EN-ISO 17892-5

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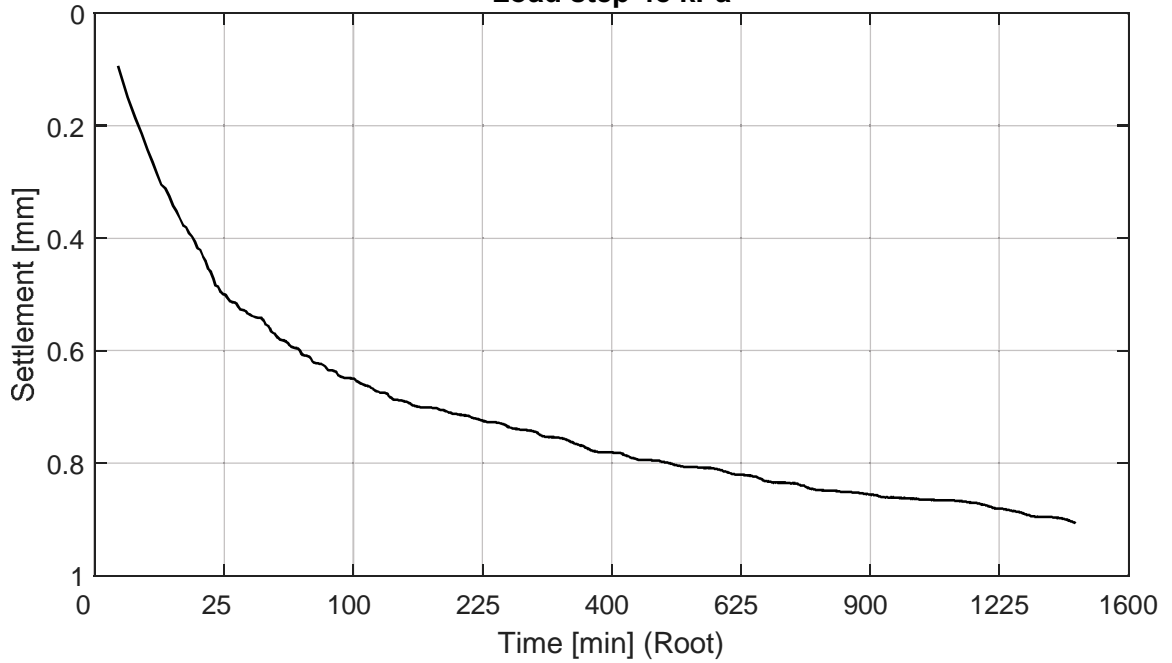
version
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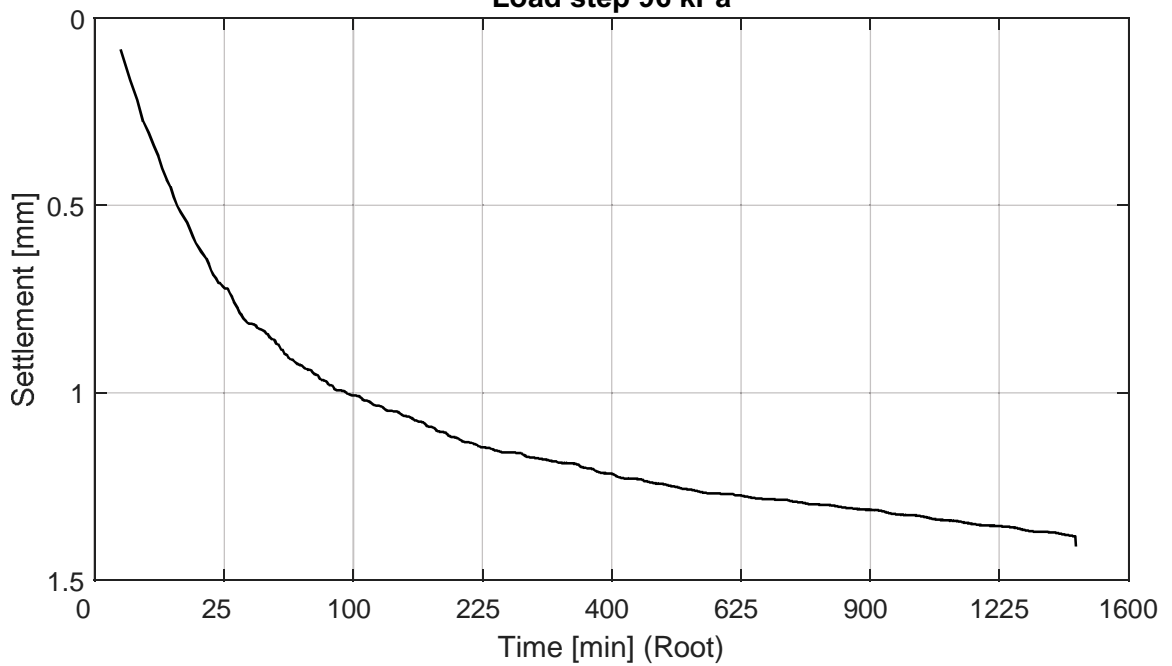
Taylor method (page 2/7)

Load step 48 kPa



No calculation performed.

Load step 96 kPa



No calculation performed.



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Boring B203, sample 19, depth 7.65 m till 7.60 m NAP

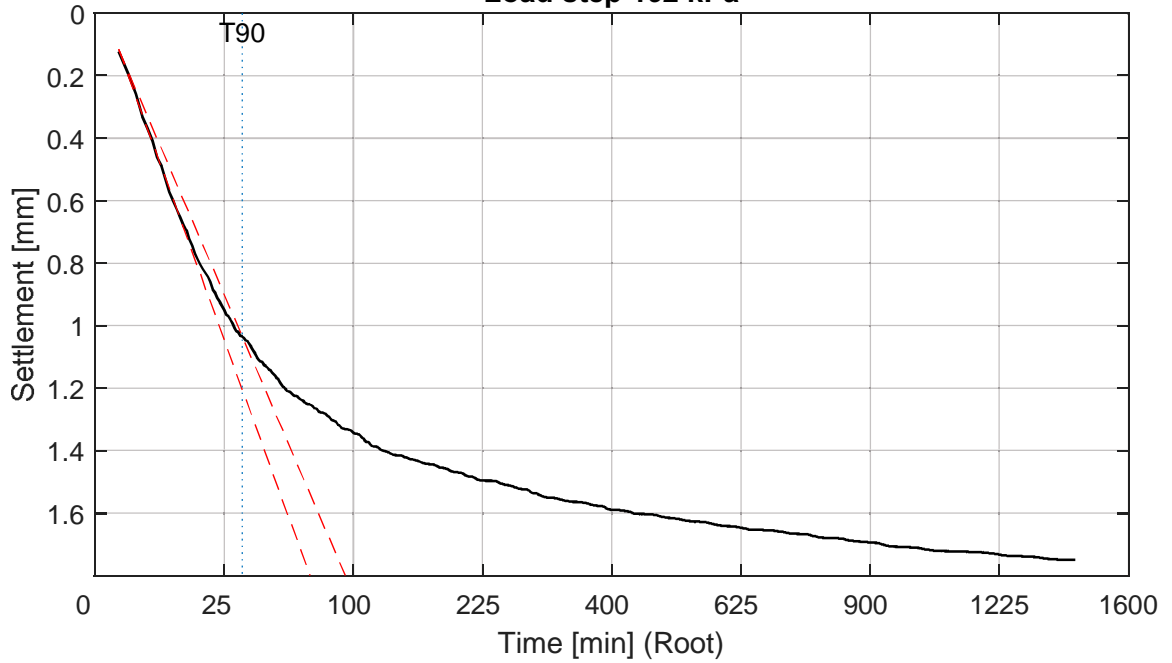
Oedometer test conform NEN-EN-ISO 17892-5

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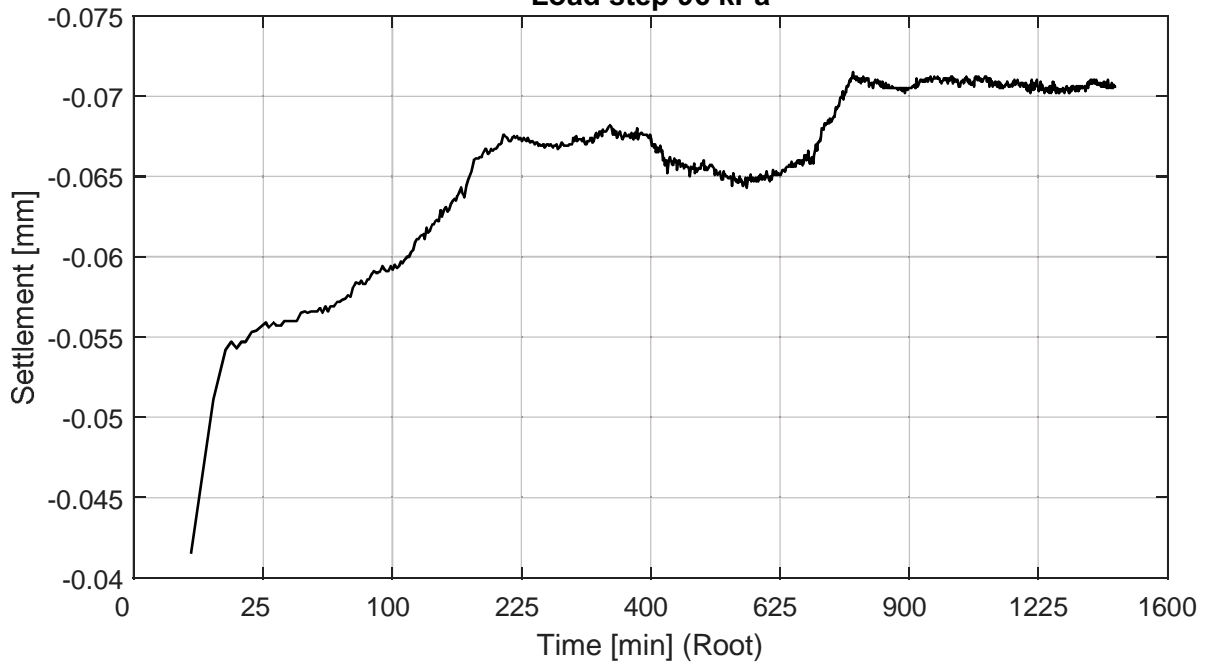
Taylor method (page 3/7)

Load step 192 kPa



$C_v = 6.9e-08 \text{ m}^2/\text{s}$

Load step 96 kPa



No calculation performed.

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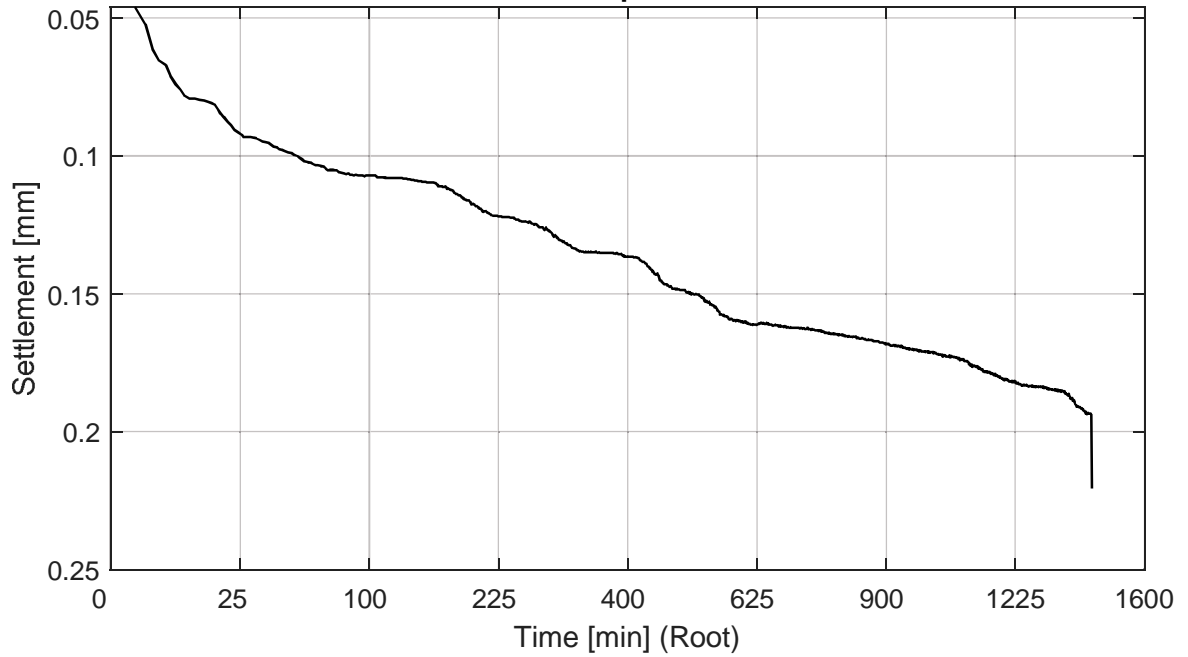
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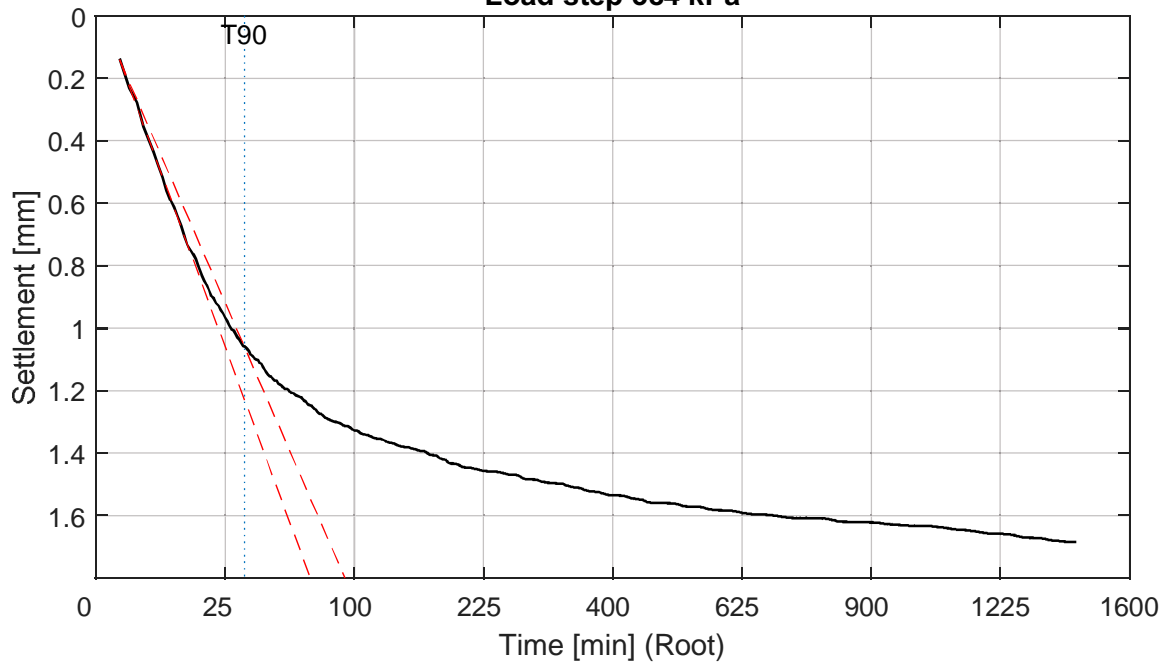
Taylor method (page 4/7)

Load step 192 kPa



No calculation performed.

Load step 384 kPa



$C_v = 5.8e-08 \text{ m}^2/\text{s}$

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Boring B203, sample 19, depth 7.65 m till 7.60 m NAP

Oedometer test conform NEN-EN-ISO 17892-5

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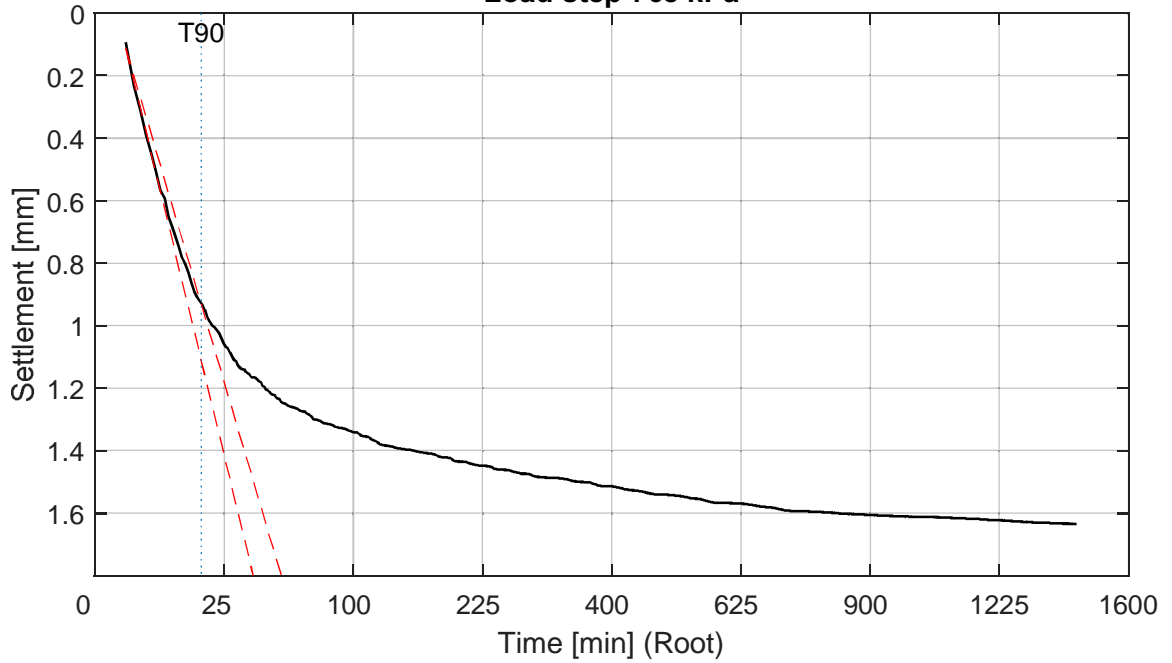
version
1.1

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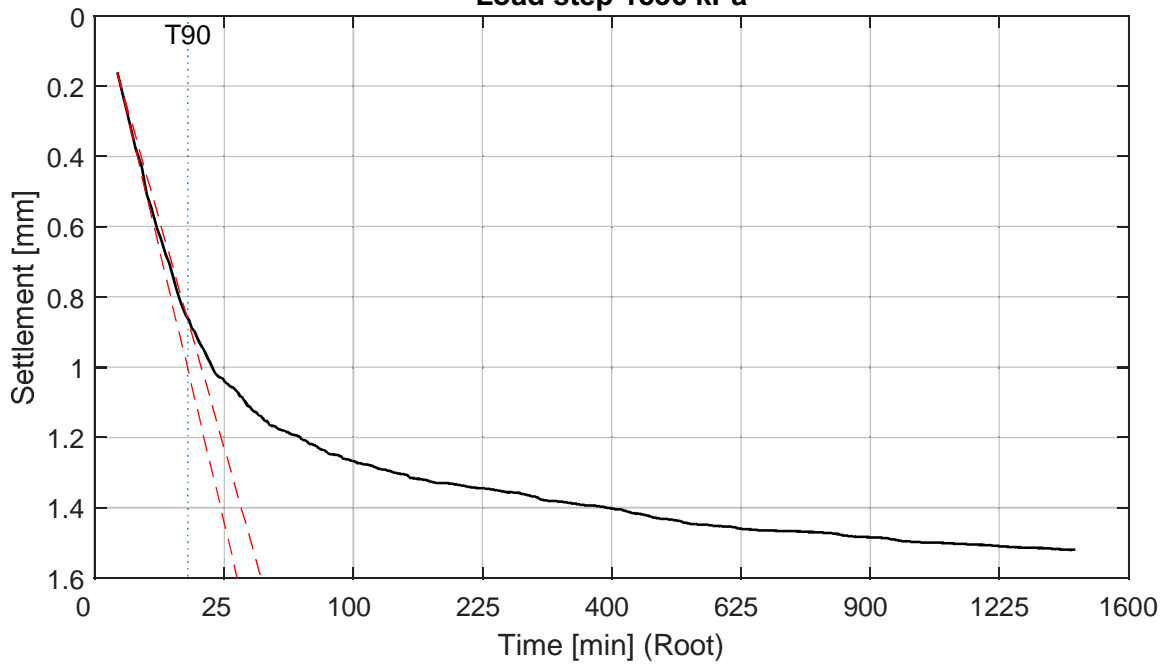
Taylor method (page 5/7)

Load step 768 kPa



$C_v = 9.9e-08 \text{ m}^2/\text{s}$

Load step 1536 kPa



$C_v = 1.1e-07 \text{ m}^2/\text{s}$

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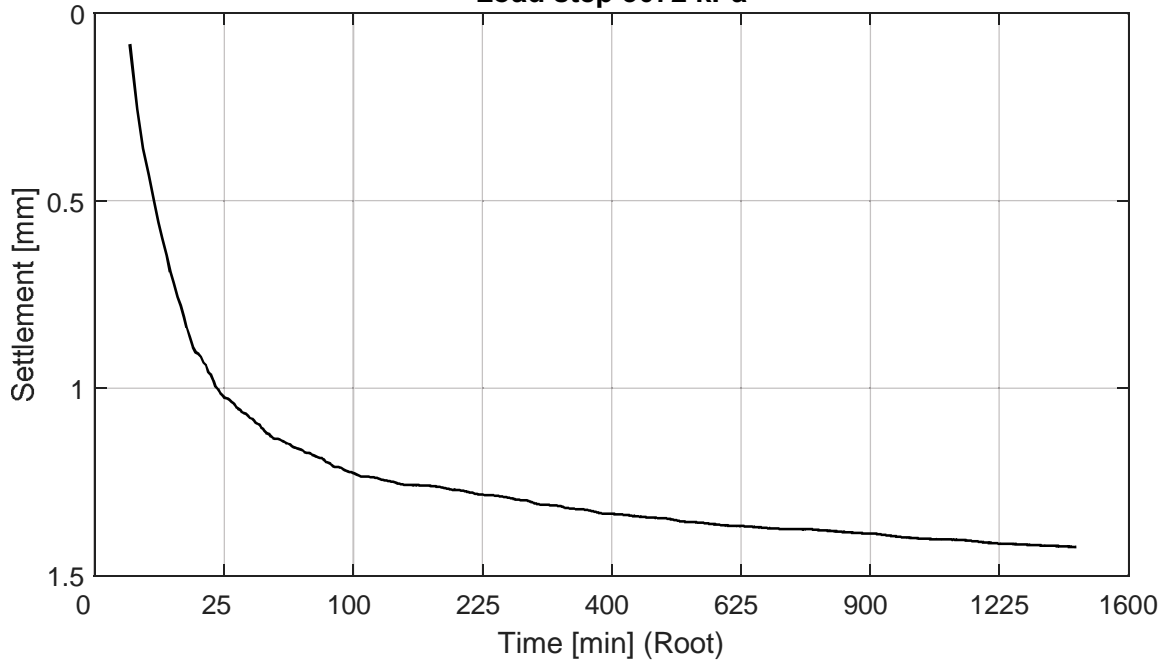
KPP WK01 2020 - Kennis voor Keringen : Verlenging metingen
Boring B203, sample 19, depth 7.65 m till 7.60 m NAP
Oedometer test conform NEN-EN-ISO 17892-5

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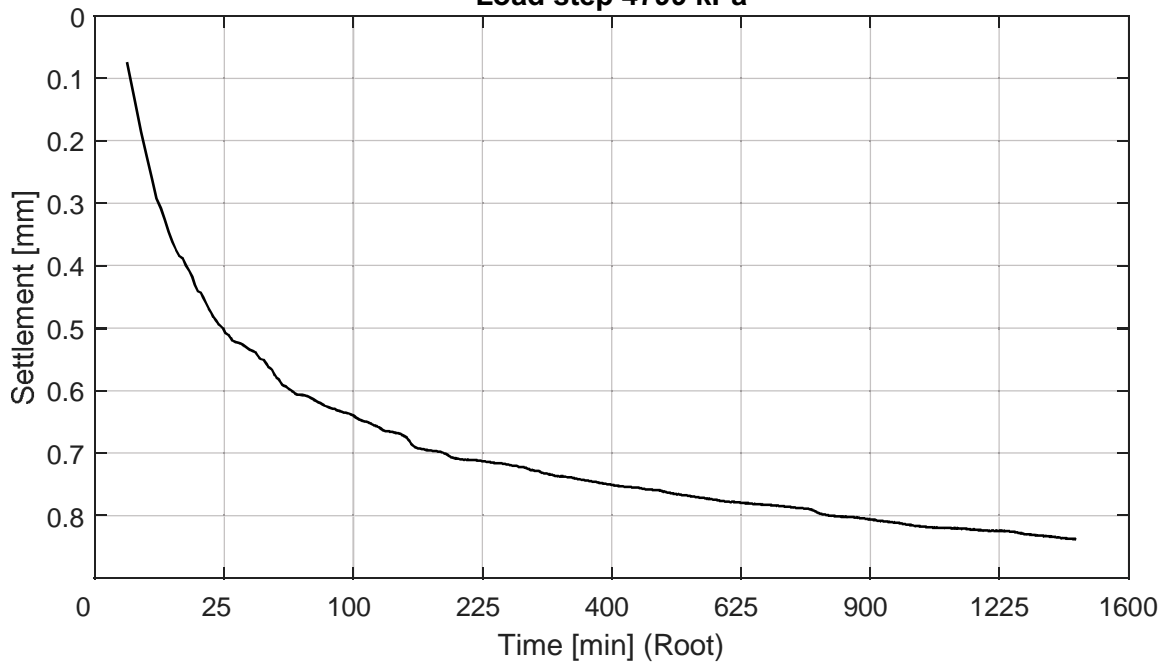
Taylor method (page 6/7)

Load step 3072 kPa



No calculation performed.

Load step 4799 kPa



No calculation performed.

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 Boring B203, sample 19, depth 7.65 m till 7.60 m NAP

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11205262.12	1.1

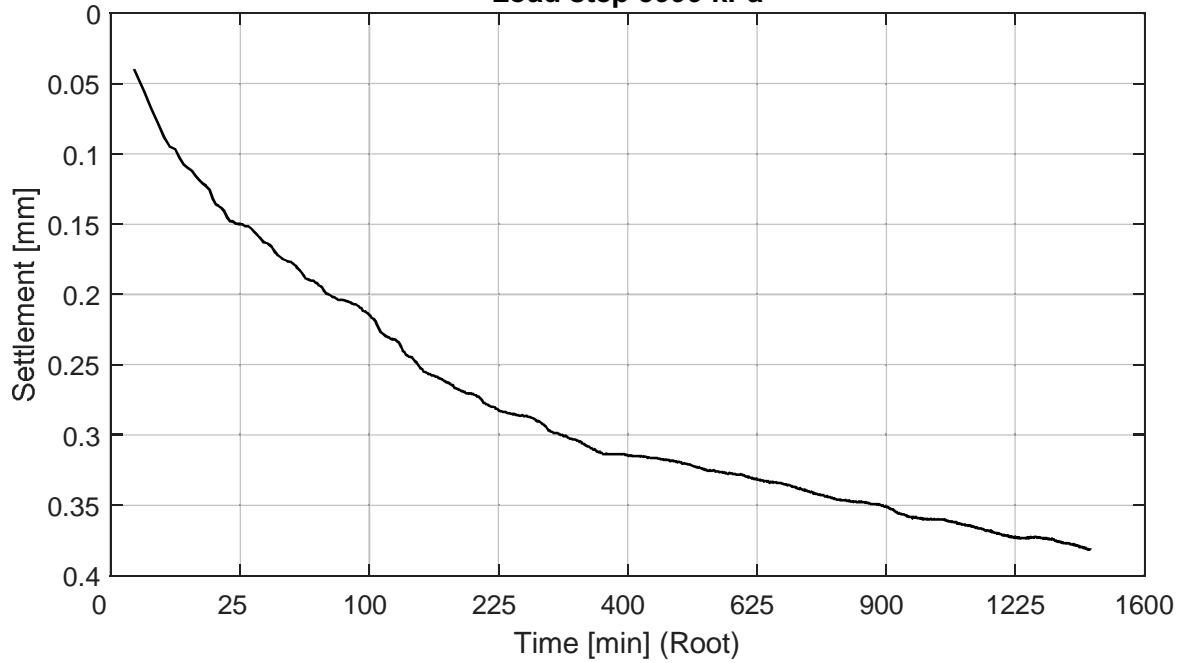
Oedometer test conform NEN-EN-ISO 17892-5

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Taylor method (page 7/7)

Load step 5999 kPa



No calculation performed.

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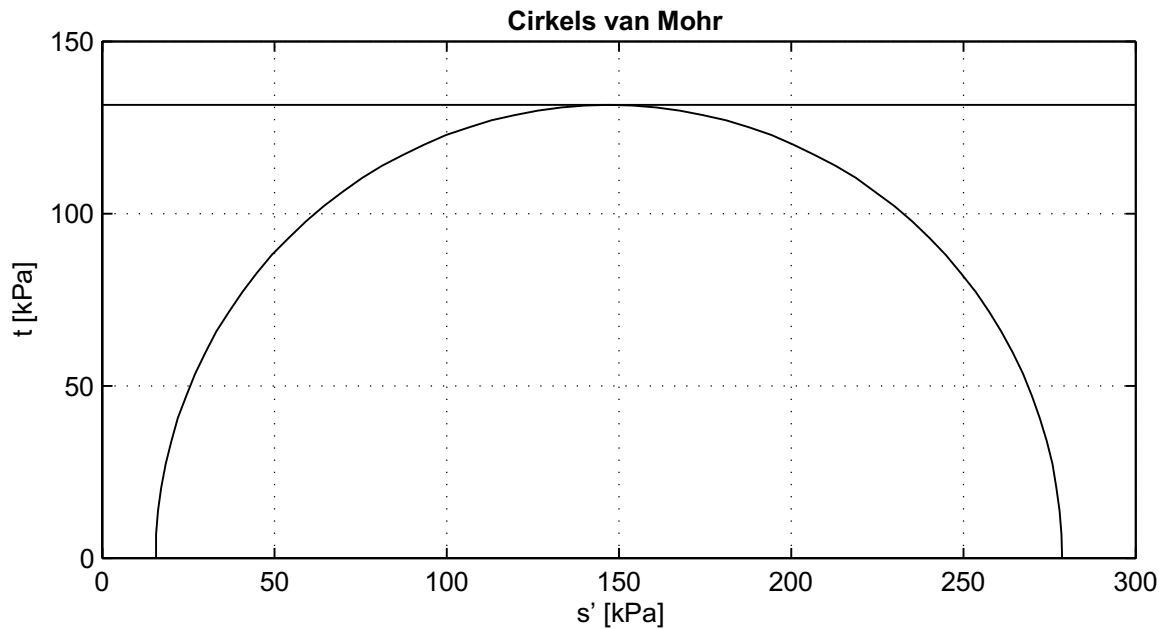
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Oedometer test conform NEN-EN-ISO 17892-5

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Cirkels criterium	maximum t
c_u [kPa]	131.5

Voor beproeving

Fasenummer	1
Monsternaam	3
m_i [g]	869.5
D_i [mm]	67.2
h_i [mm]	129.0
w_i [%]	15.6
$\rho_{i,bulk}$ [kg/m ³]	1900
$\rho_{i,dry}$ [kg/m ³]	1644
Grondsoort	klei

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KPP WK01 2020 – Kennis voor Keringen: Verlening metingen
Boring B003, Sample 3, depth 8.38 till 8.26m NAP

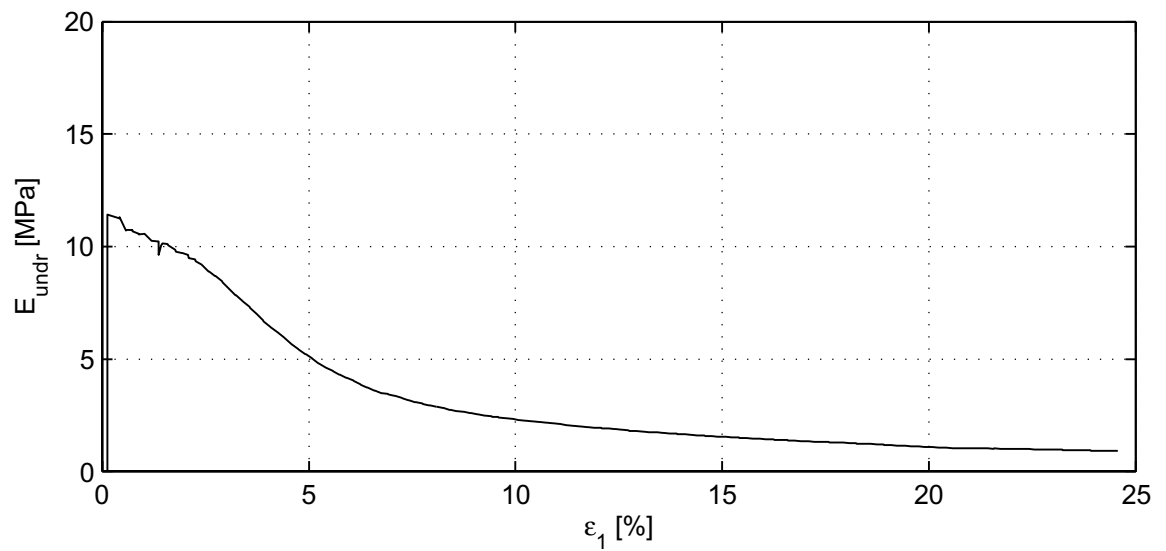
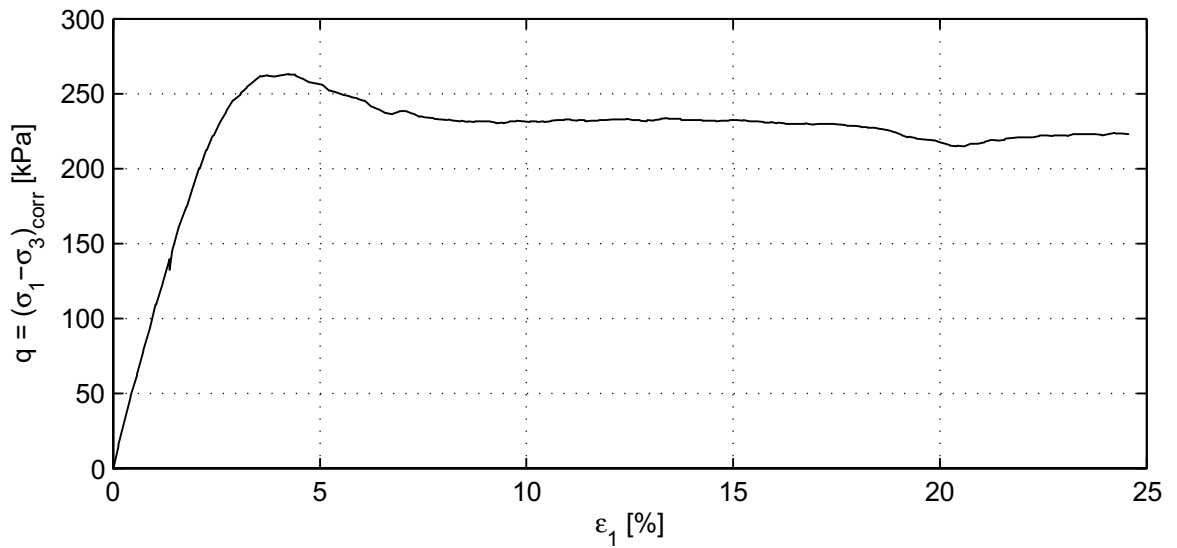
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Boring B003, Sample 3, depth 8.38 till 8.26m NAP

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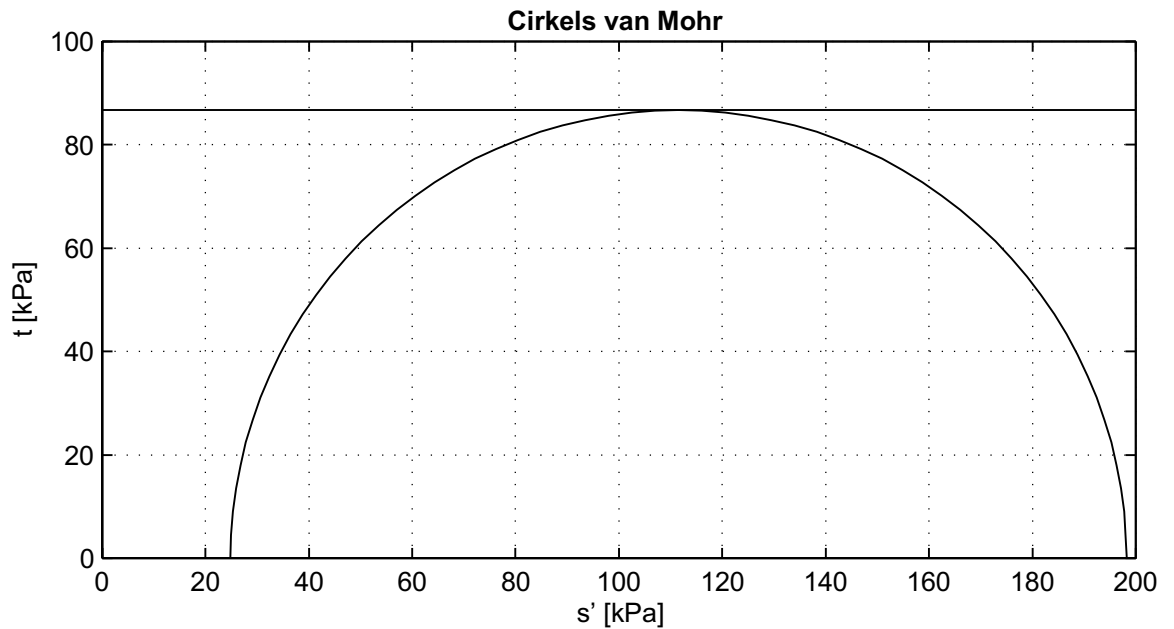
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 Boring B003, Sample 3, depth 8.38 till 8.26m NAP
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*) Gecontroleerd en vrijgegeven door konstadi op 2020-12-19



Cirkels criterium	maximum t
c_u [kPa]	86.7

Voor beproeving

Fasenummer	1
Monsternaam	5
m_i [g]	909.4
D_i [mm]	67.1
h_i [mm]	133.7
w_i [%]	25.4
$\rho_{i,bulk}$ [kg/m ³]	1923
$\rho_{i,dry}$ [kg/m ³]	1534
Grondsoort	klei

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venema

KPP WK01 2020 – Kennis voor Keringen: Verlenging metingen
Boring B003, Sample 5, depth 7.52 till 7.39m NAP

project
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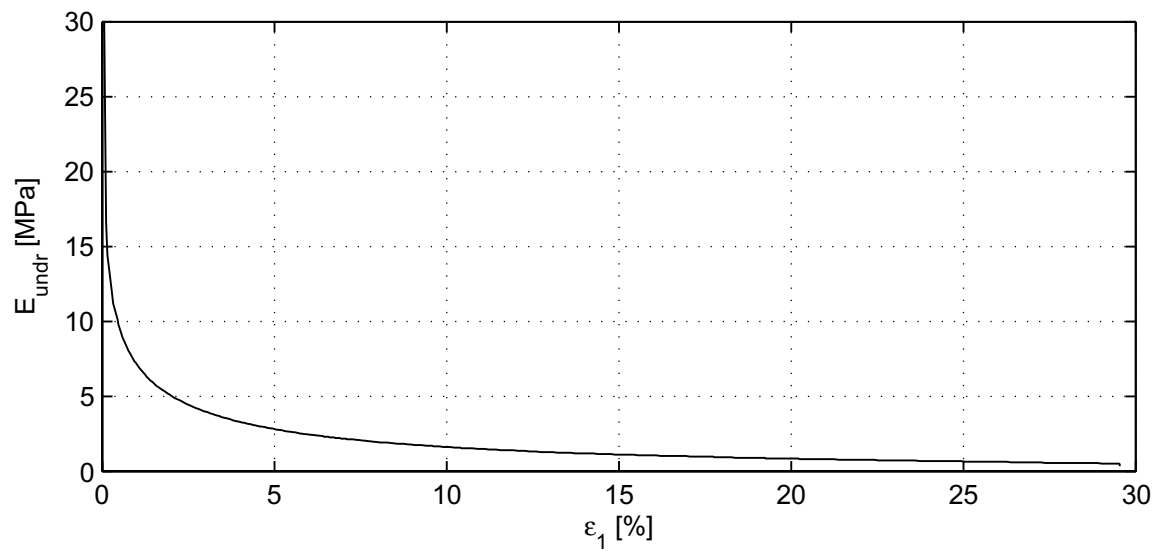
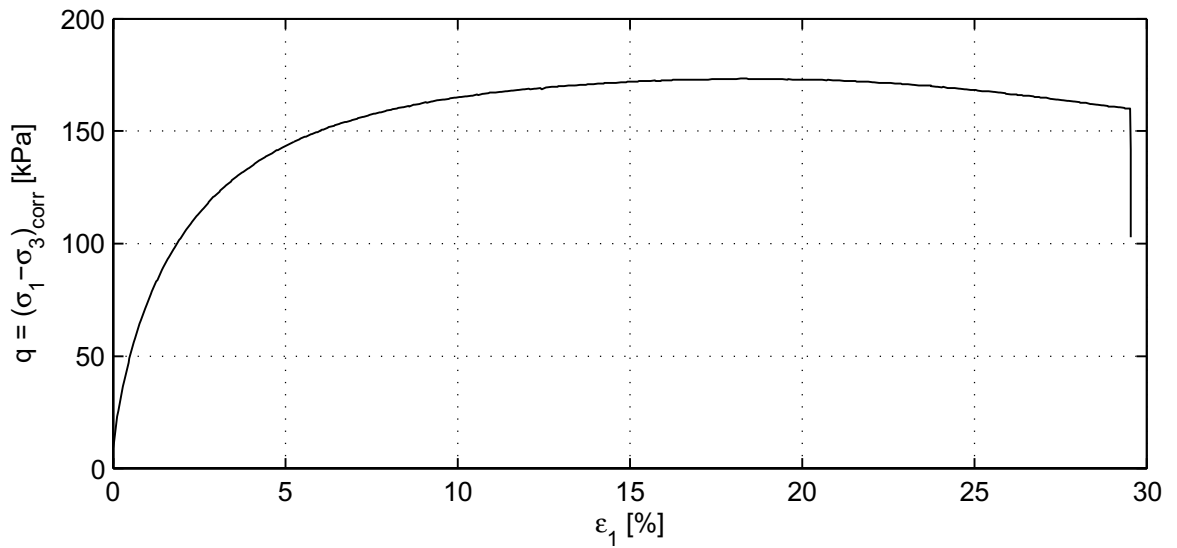
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Boring B003, Sample 5, depth 7.52 till 7.39m NAP

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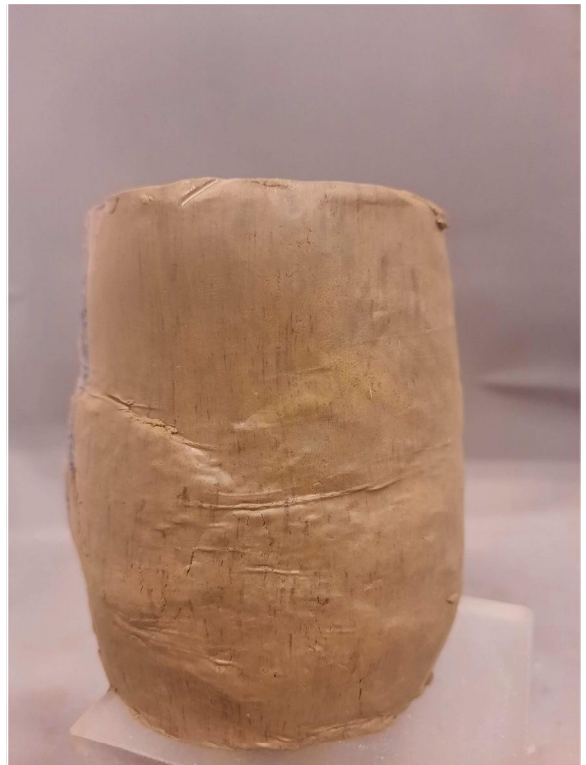
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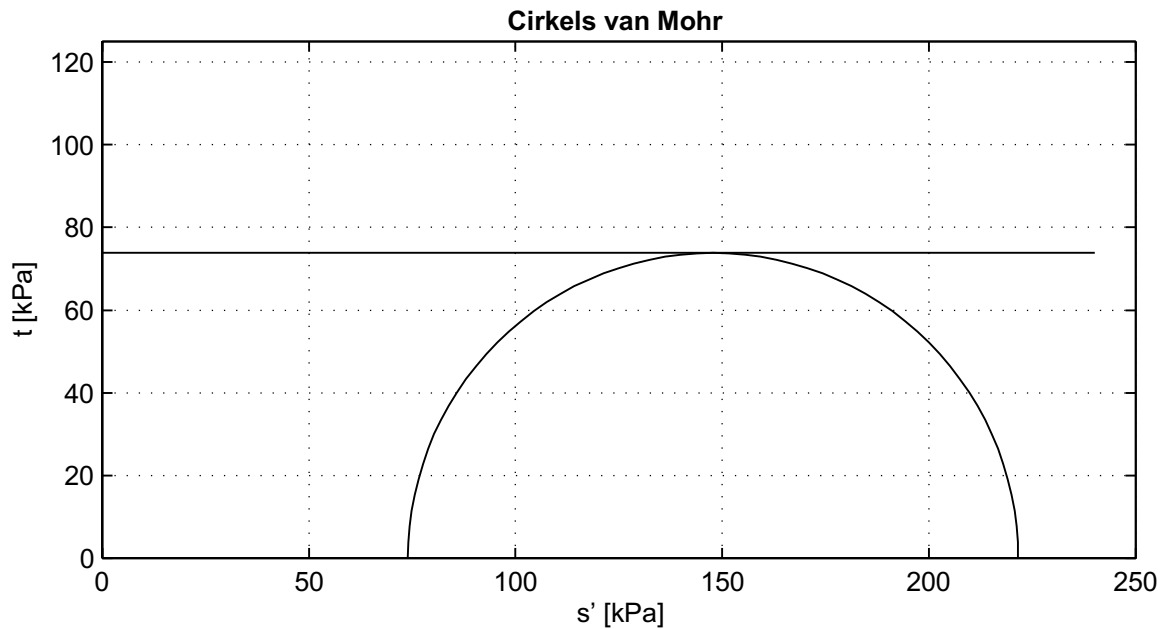
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	project	version
KPP WK01 2020 – Kennis voor Keringen: Verlenging metingen Boring B003, Sample 5, depth 7.52 till 7.39m NAP UU Triaxiaalproef (Singlestage) NEN-ISO 17892-8	11205262.12	1.1
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*) Gecontroleerd en vrijgegeven door konstadi op 2020-12-19



Cirkels criterium	maximum t
c_u [kPa]	73.8

Voor beproeving

Fasenummer	1
Monsternaam	11
m_i [g]	832.4
D_i [mm]	67.0
h_i [mm]	119.7
w_i [%]	27.7
$\rho_{i,bulk}$ [kg/m ³]	1972
$\rho_{i,dry}$ [kg/m ³]	1544
Grondsoort	klei

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Boring B003, Sample 11, depth 4.97 till 4.85m NAP

project
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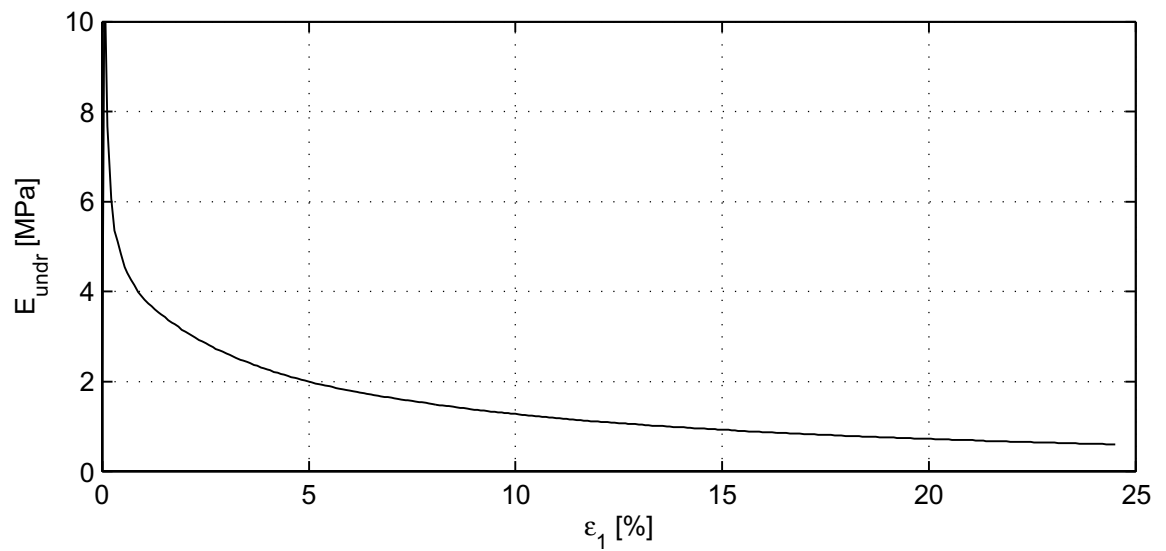
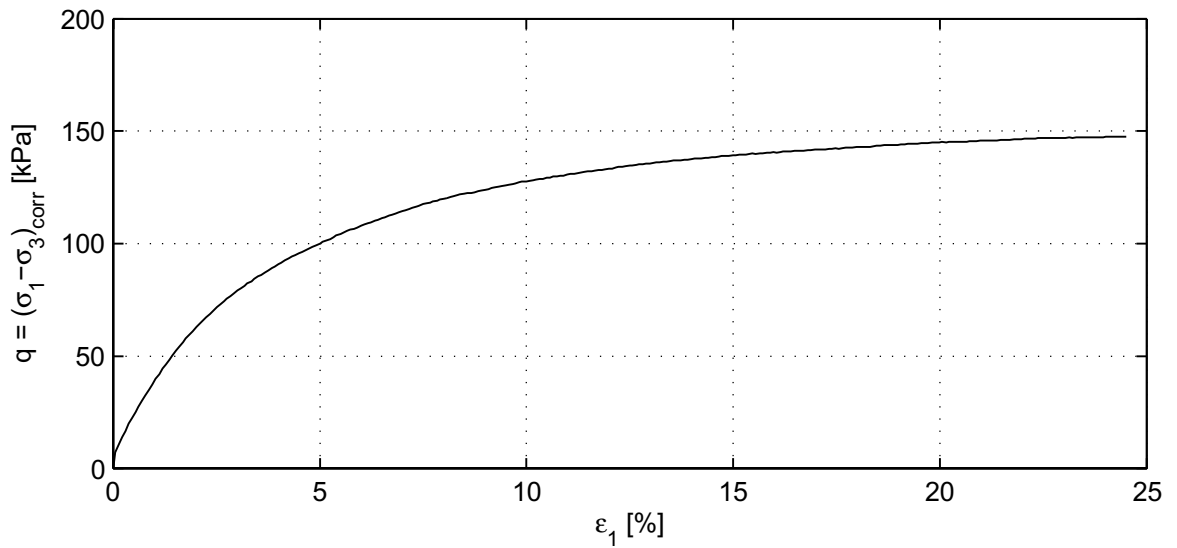
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Boring B003, Sample 11, depth 4.97 till 4.85m NAP

project
11205262.12

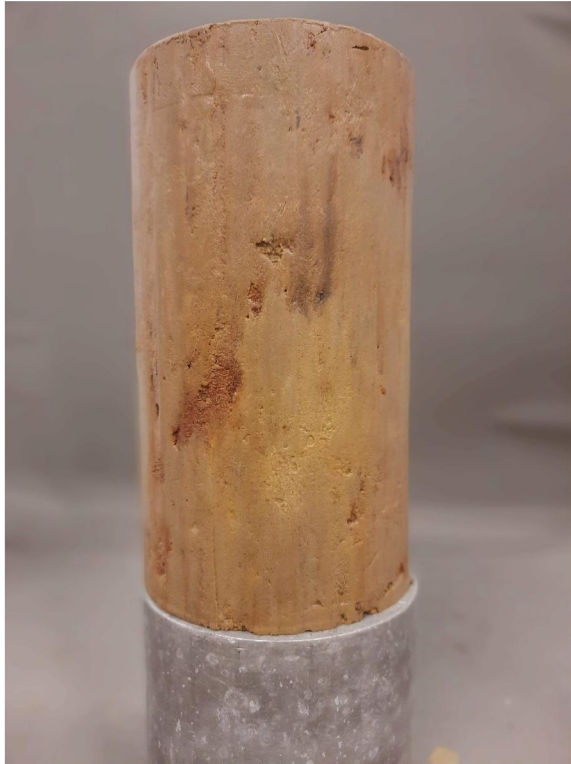
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project
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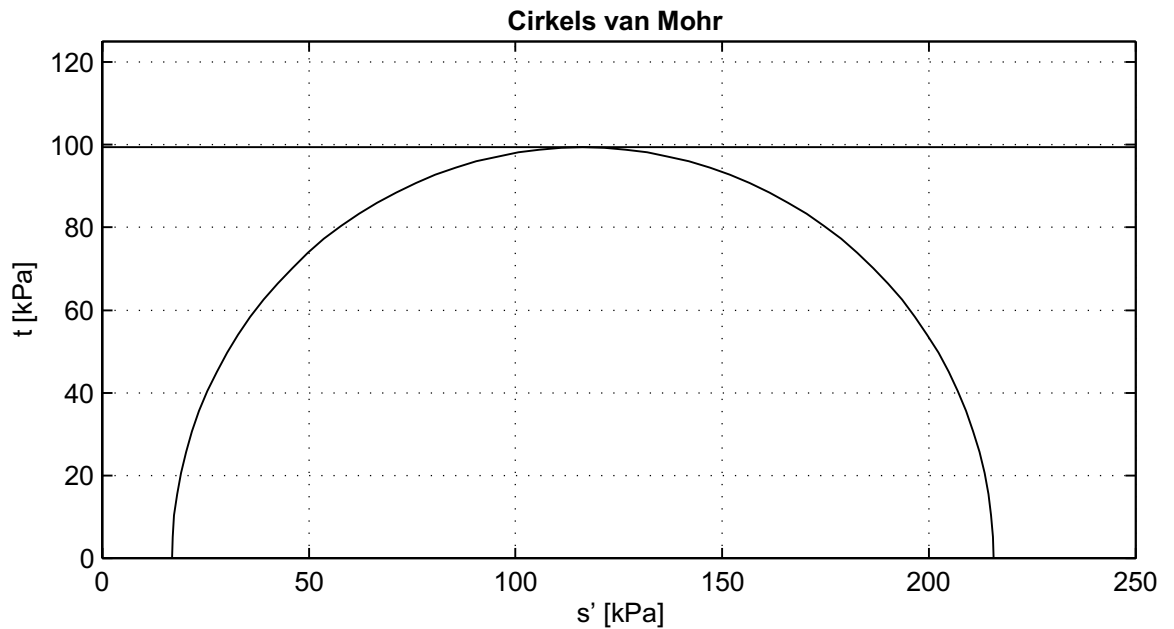
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Cirkels criterium	maximum t
c_u [kPa]	99.3

Voor beproeving

Fasenummer	1
Monsternaam	15
m_i [g]	853.0
D_i [mm]	67.0
h_i [mm]	128.7
w_i [%]	17.0
$\rho_{i,bulk}$ [kg/m ³]	1880
$\rho_{i,dry}$ [kg/m ³]	1606
Grondsoort	klei

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Boring B203, Sample 15, depth 9.79 till 9.66m NAP

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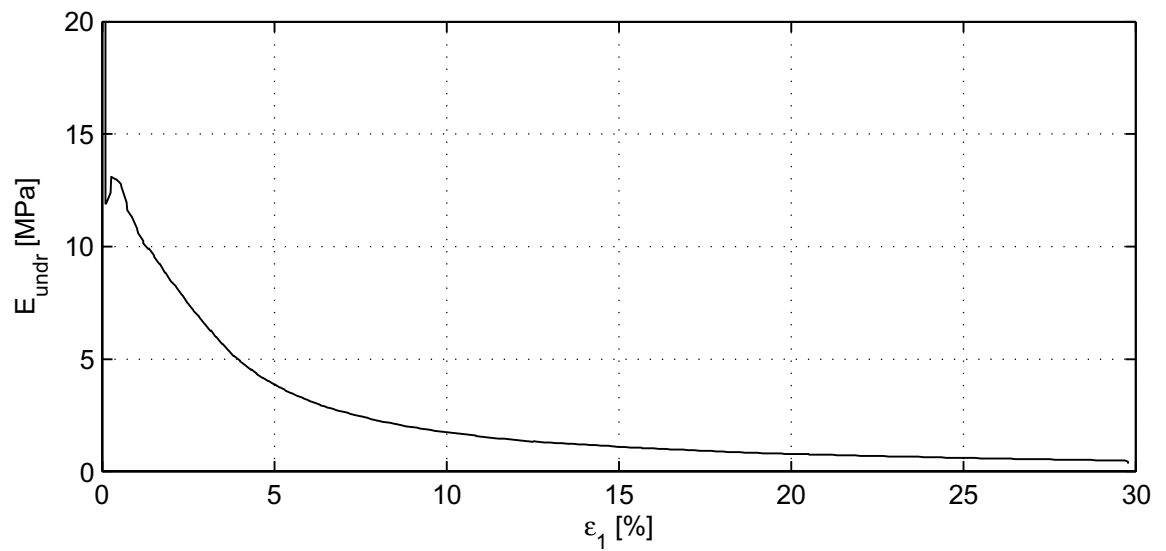
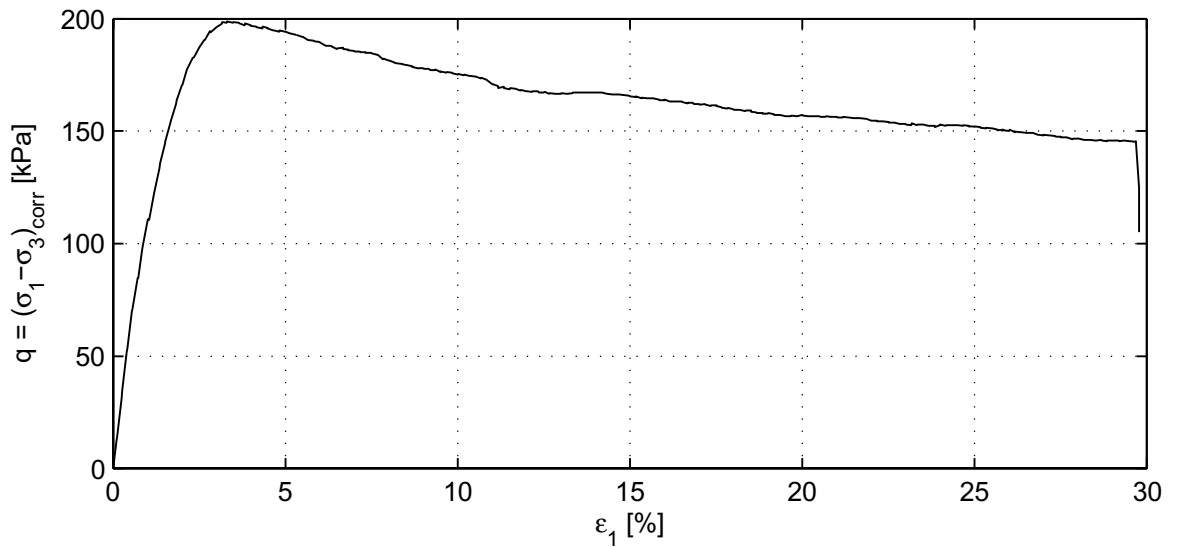
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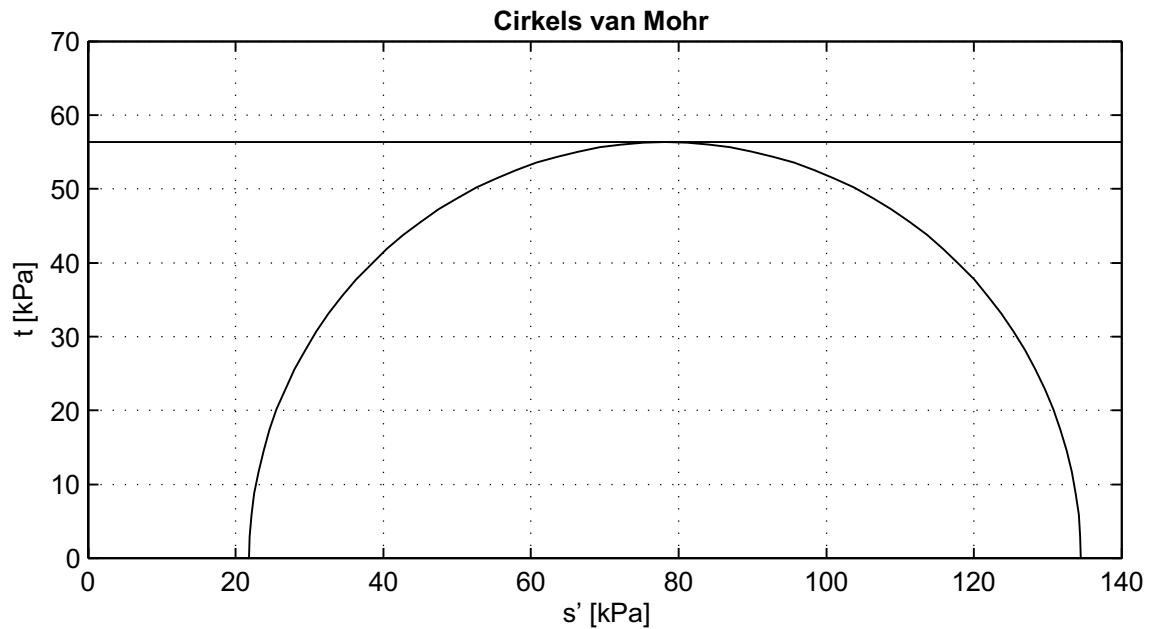
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Cirkels criterium	maximum t
c_u [kPa]	56.3

Voor beproeving

Fasenummer	1
Monsternaam	17
m_i [g]	917.7
D_i [mm]	66.8
h_i [mm]	134.5
w_i [%]	26.4
$\rho_{i,bulk}$ [kg/m ³]	1947
$\rho_{i,dry}$ [kg/m ³]	1541
Grondsoort	klei

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Boring B203, Sample 17, depth 8.98 till 8.85m NAP

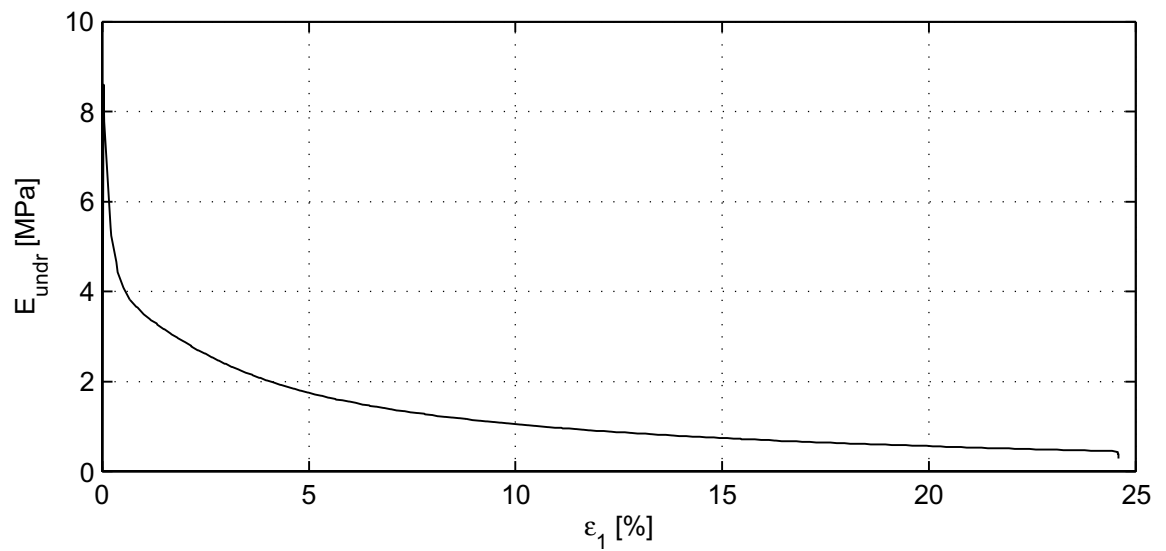
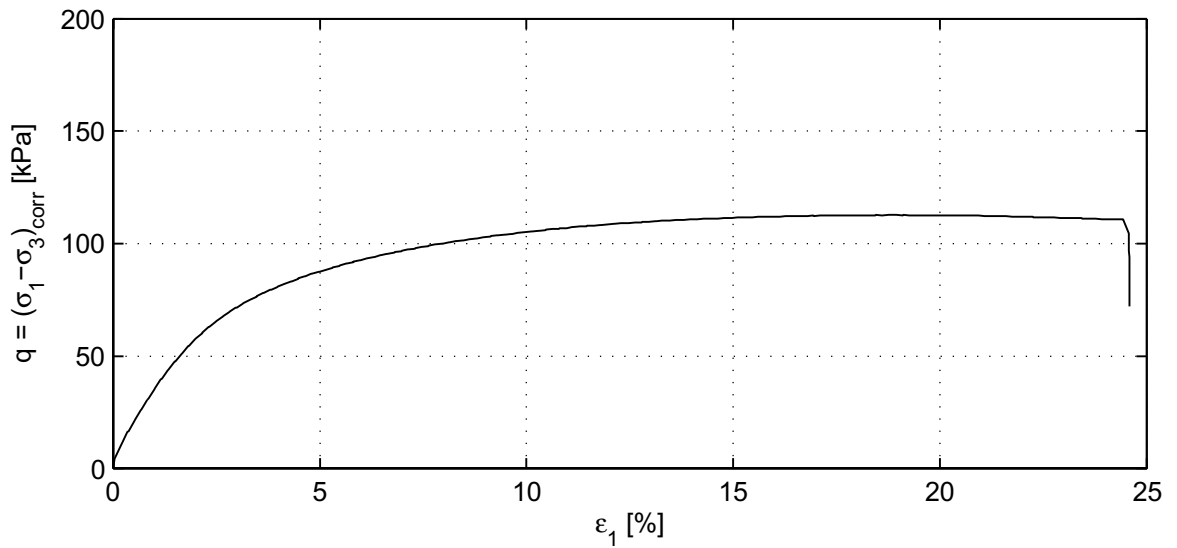
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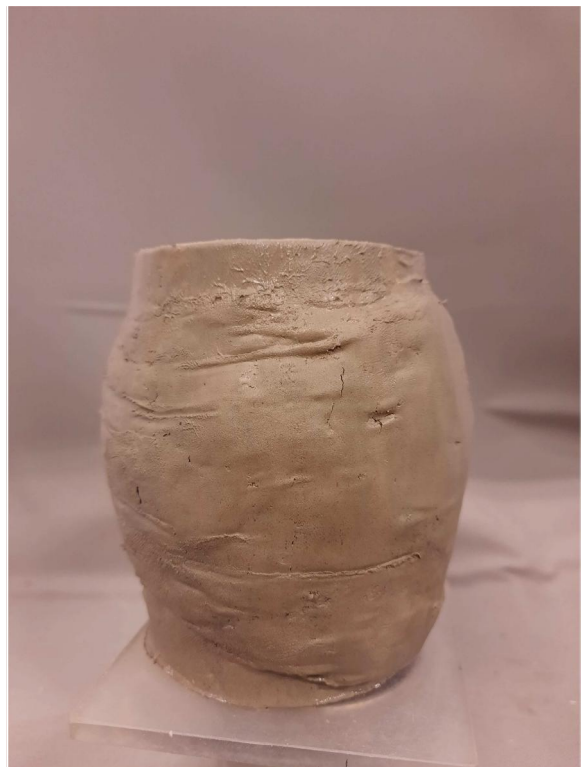
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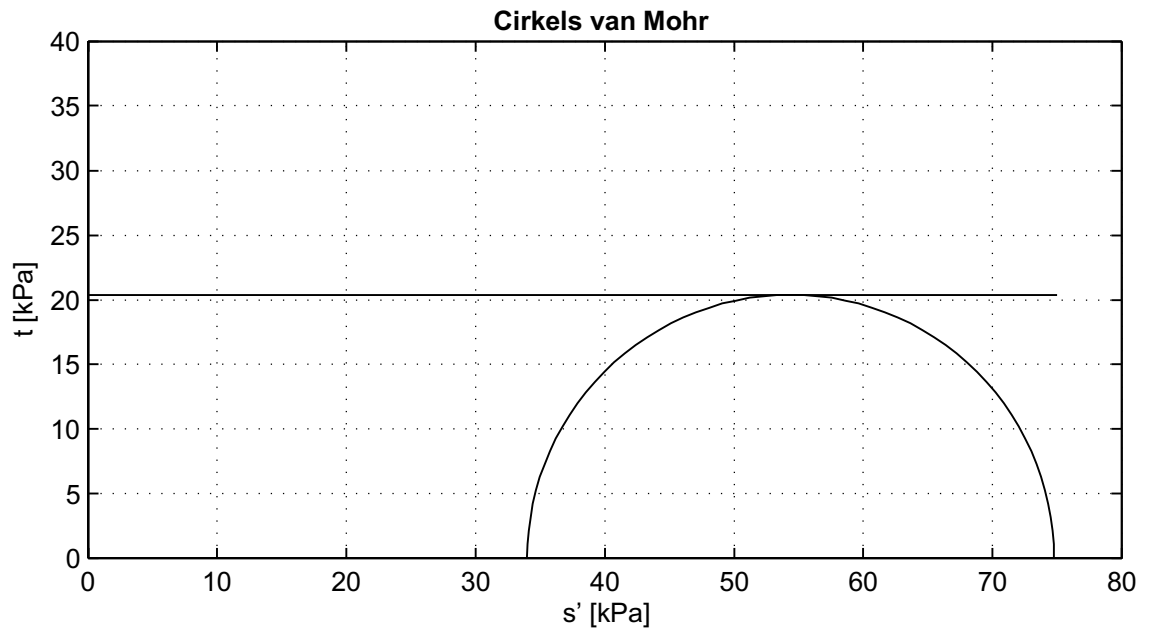
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Cirkels criterium	maximum t
c_u [kPa]	20.4

Voor beproeving

Fasenummer	1
Monsternaam	21
m_i [g]	730.2
D_i [mm]	67.0
h_i [mm]	128.1
w_i [%]	61.9
$\rho_{i,bulk}$ [kg/m ³]	1617
$\rho_{i,dry}$ [kg/m ³]	999
Grondsoort	klei

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Boring B203, Sample 21, depth 7.82 till 7.64m NAP

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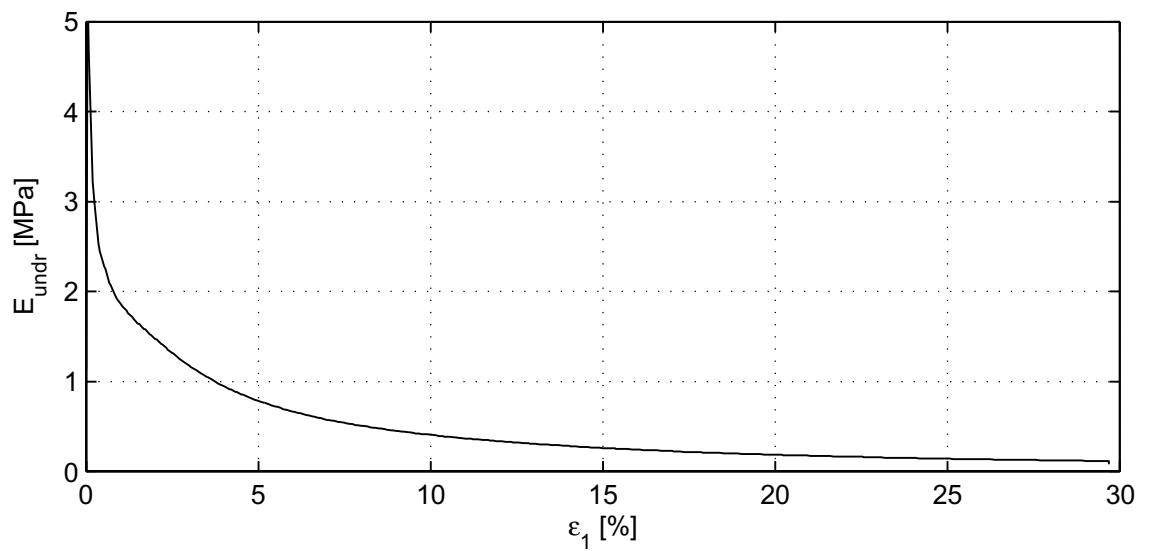
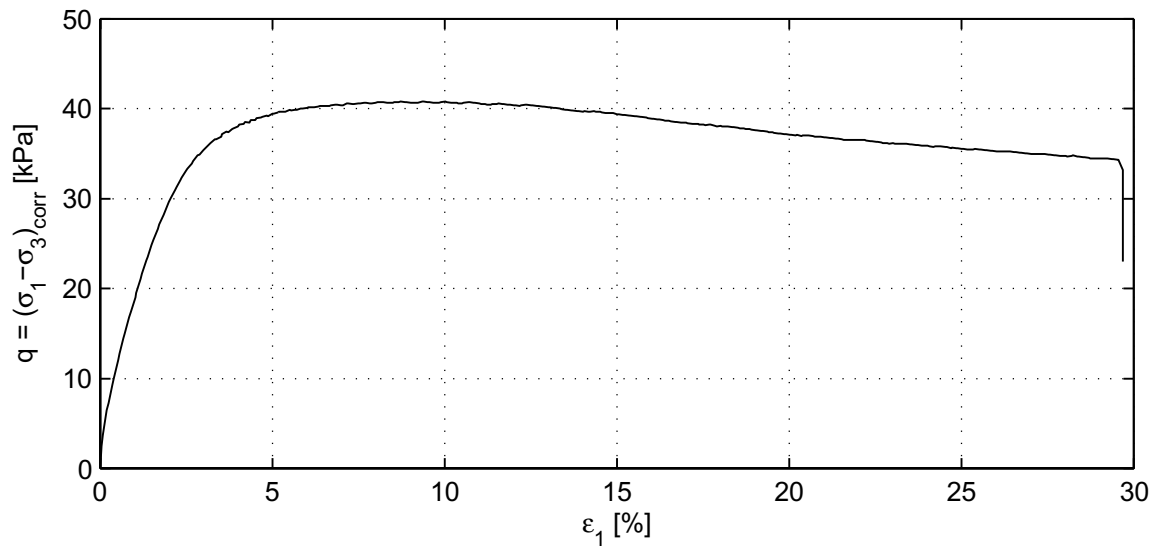
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