

PFIZER

PROJECT PEGASUS

***REPORT – GEOTECHNICAL INVESTIGATIONS AND
TOPOGRAPHICAL SURVEY***

FINAL REPORT

| Project No | Document No | Date | Written by |
|------------|-------------|-----------|----------------|
| 10067436 | 1G03001 | 16.Dec.05 | Lars Johansson |

PFIZER
PROJECT PEGASUS

REPORT – GEOTECHNICAL INVESTIGATIONS AND TOPOGRAPHICAL SURVEY

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0 GENERAL INFORMATION

The position of the investigated area is shown on an overview in appendix 13.

The purpose of the investigation has been to find out the geotechnical and topographical conditions for the development of a new building directly south of the head building (B200) at the Pfizer plant in Strängnäs, Sweden. The investigation also comprises the investigation of a new pipe rack between building B200 and B203.

1 GEOTECHNICAL FIELD INVESTIGATIONS

A programme of geotechnical field investigations was established by Jacobs Engineering and modified to Swedish conditions, available methods and regulations by WSP. Two experienced geotechnical field engineers from WSP during November 21 – 24, 2005, carried out the field investigations.

During the field investigations there have been 1 or 2 Geotech 604 machines working at the same time.

The field investigations were carried out with the following methods and quantities:

- CPT (Cone Penetration Test) in 6 points
- HfA (Ram sounding) in 6 points
- Vim (Weight sounding) in 4 points
- Skr (Auger sampling) in 4 points
- Kv (Piston sampling) in 2 points
- Vb (Vane test) in 4 points
- Rf (Standpipe with filter tip) in 2 points
- Pp (Standpipe with piezometer) in 2 points

To carry out some of the investigations, preboring through the upper soil crust has been used. Geotech 604 has been used for the pre-boring.

As several methods have been used in the same investigation point there has to be a certain distance of up to 0.5 m between the soundings to avoid disturbance in the results.

2 GROUND WATER MONITORING

WSP has installed groundwater monitoring standpipes in 4 points. 2 standpipes have filter tips, which were installed into till, and 2 standpipes have piezometer of type Geon, which were installed in the clay layer.

The standpipes have been monitored after the installation, though no results were achieved in the piezometers due to short time after installation. All standpipes have afterwards been monitored on December 8 and 22 by the sub-contractor Mälardalens Geoservice.

3 TOPOGRAPHICAL SURVEY

A programme of topographical survey was established by Jacobs Engineering and carried out by personnel from WSP at site during November 24 – 25, 2005. The survey has been carried out with geodetic total station and related to a local co-ordinate system used by Jacobs Engineering on drawings. The levels of ground etc. have been measured from refer-points of the Municipality of Strängnäs (height system RH70).

The sub-contractor Mälardalens Geoservice has carried out some complementary surveying during December 8.

The topographical survey has included measurements of dimensions and levels of certain pipes in the area according to requests from Jacobs Engineering. It has not been possible to carry out all the measurements due to that some manholes have been locked and other manholes have not been possible to find.

4 LABORATORY INVESTIGATIONS

Samples of soil have been analysed at the geotechnical laboratory of Sweco. The amount of laboratory investigations has been proposed by WSP and confirmed by Jacobs Engineering.

The laboratory analyses have included soil classification, moisture content, standard test of disturbed samples (includes classification, moisture content and liquid limit), particle size distribution, hydrometer test, standard test of undisturbed samples (includes soil classification, density, moisture content, liquid limit, fall-cone shear strength and sensitivity), oedometer testing and ground chemistry testing through the Soilbox method (includes resistivity, pH, content of SO₂, moisture content and conductivity).

Samples of the upper topsoil have not been brought to the laboratory, but classified at site by the geotechnical field engineer.

5 EVALUATION OF CPT

The results from the CPT have been evaluated by WSP, using the programme Conrad developed by SGI (the Swedish Geotechnical Institute).

6 EARLIER GEOTECHNICAL INVESTIGATIONS

At the Pfizer Plant there have been carried out some earlier geotechnical investigations. At the site of the pipe rack some earlier investigations were concluded in a report, established by the consultants Bo Orre Markråd AB on January 24, 2000. From the site of the planned building no earlier investigations have been found.

The results from the earlier geotechnical investigations have not been considered in this report.

7 PRESENTATION OF RESULTS

The results from the investigations are presented in appendices and on drawings attached to this report. As much as possible the presentation is made in the English language, unfortunately it has not been possible in all appendices due to the programmes that have been used.

On the plan, drawing No G10-01-001, the investigation points from the geotechnical investigations are presented together with information achieved during the topographical survey. The base map with existing buildings, ditches etc. used on this drawing has been delivered by Jacobs Engineering.

On the cross sections, drawings No G10-01-002 and G10-01-003, the results from the geotechnical investigations are presented. As mentioned in chapter 1 there is a certain distance between the different investigation methods to avoid disturbance, this may have resulted in some differences in depths of soil layers comparing the methods.

The symbols that have been used for the geotechnical presentation on the drawings refer to the Swedish geotechnical presentation system "System of notations for geotechnical investigations" developed by the Swedish Geotechnical Society (SGF) and the Society of Engineering Geology (BGS). This system is shown in appendix 12 (61 pages).

In appendices 1.1 – 6.4 the results of the evaluations of CPT according to chapter 5 are shown. For the understanding of these appendices a short translation guide is presented in appendix 14.

In appendix 7 - 8 the laboratory table of the disturbed and undisturbed analyses are shown.

In appendix 9 the results of the grain size distribution including hydrometer tests are shown.

In appendix 10.1 – 10.8 the results of the oedometer tests are shown.

In appendix 11 the results of the Soilbox method are shown.

In appendix 12 the results of the groundwater and pore pressure measurements are shown.

Örebro, December 16, 2005

WSP Civil Engineering

Geo department

A handwritten signature in black ink, appearing to be 'Lars O Johansson'.

Lars O Johansson

WSP Civil Engineering

Surveying department

A handwritten signature in black ink, appearing to be 'Ragnvald Persson'.

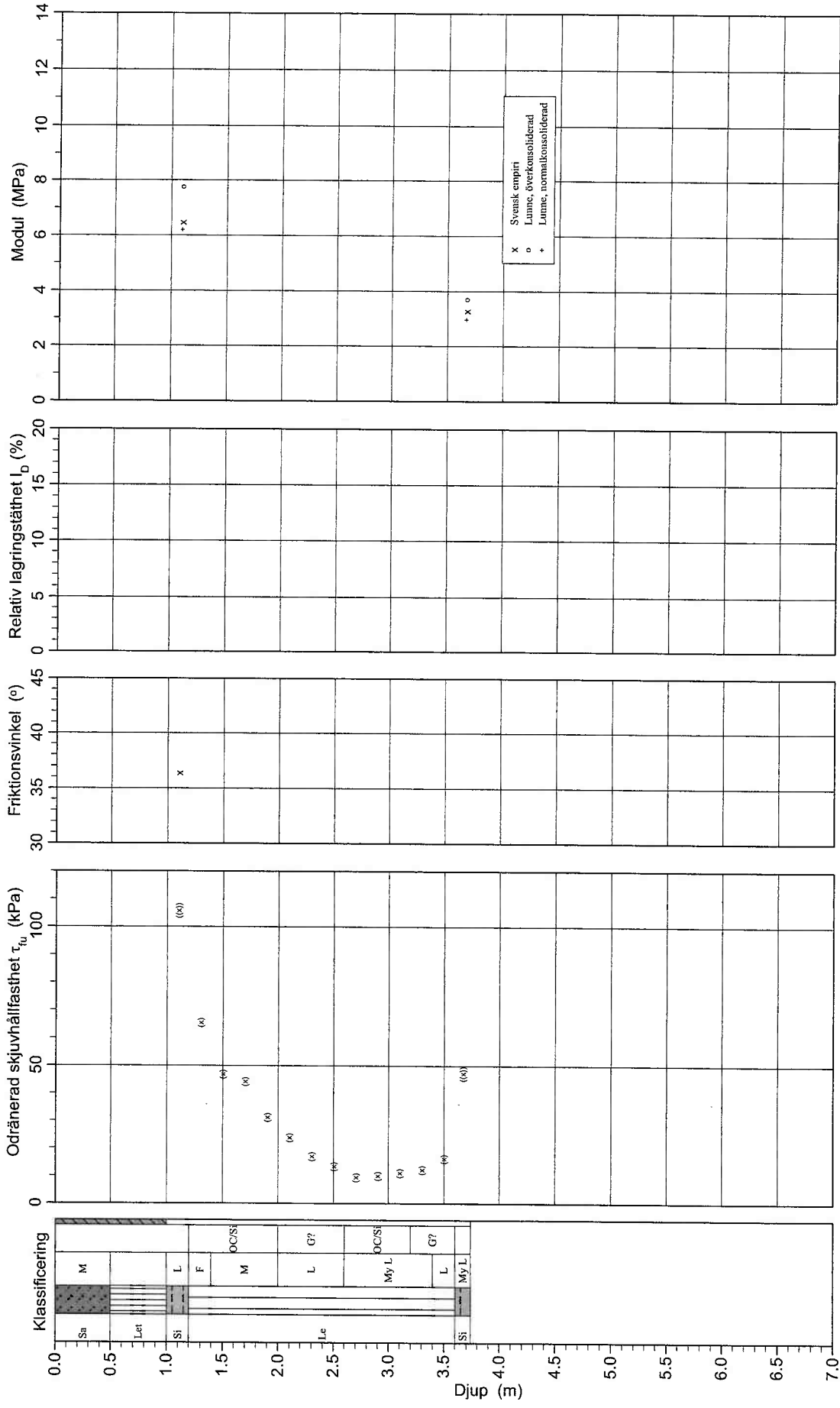
Ragnvald Persson

CPT sondering utvärderad enligt SGI Info 15

Referens my
 Nivå vid referens 0.00 m
 Grundvattenyta 2.10 m
 Startdjup 1.00 m

Förbormningsdjup 1.00 m
 Förbortat material
 Utrustning
 Geometri Normal

Projekt Project Pegasus
 Projekt nr 10067436
 Plats Pfizer Strängnäs
 Borrhål 1
 Datum 051125

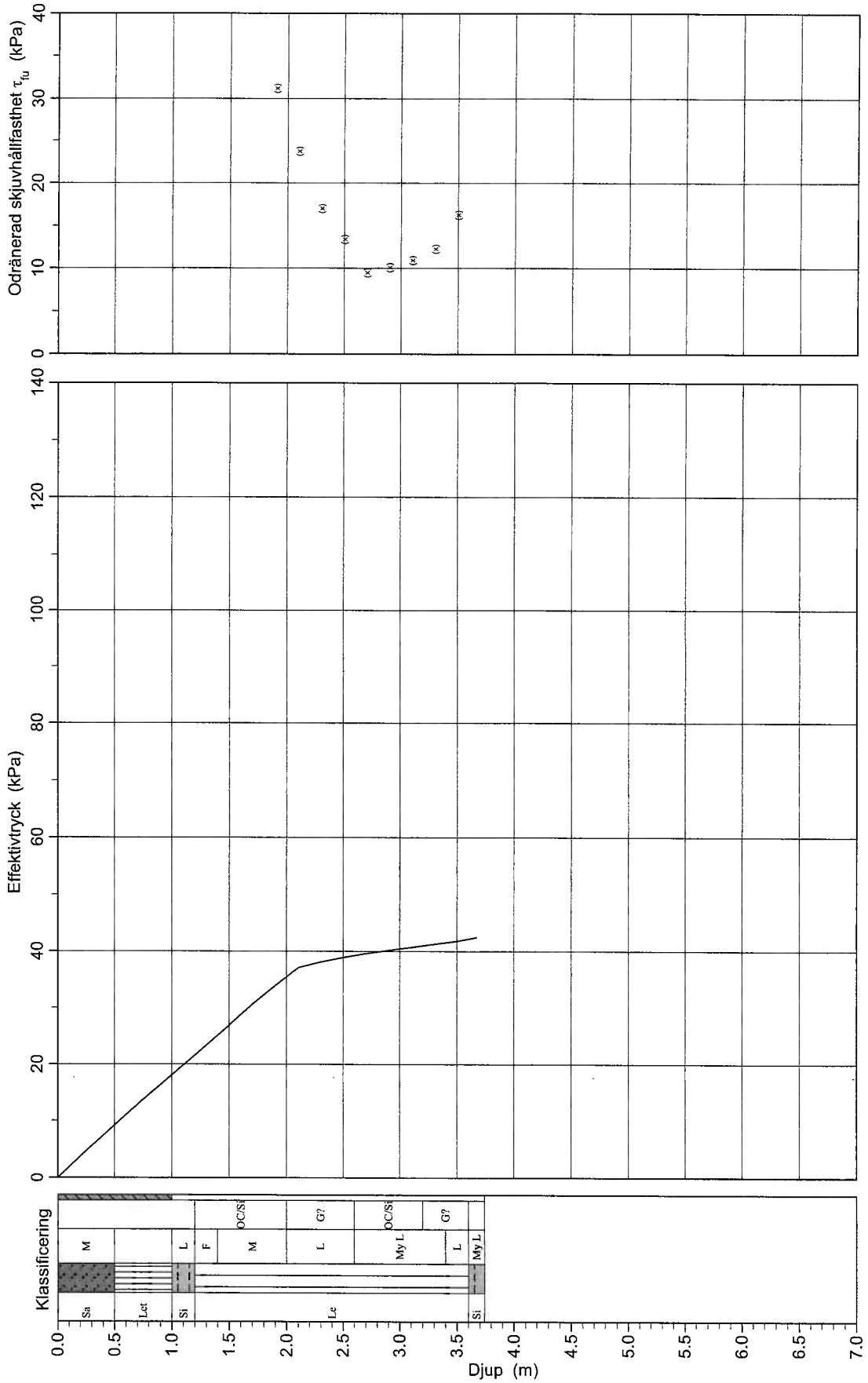


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Referens my
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 Grundvattentyta 2.10 m
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Förborrningsdjup 1.00 m
 Förborrat material
 Utrustning
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Projekt Project Pegasus
 Projekt nr 10067436
 Plats Pfizer Strängnäs
 Borrhål 1
 Datum 051125



Appendix 1.3

C P T - sondering

| Projekt Project Pegasus 10067436 | | Plats Pfizer Strängnäs Borrhål 1 Datum 051125 | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|----------------|-------------|---------------|---|---------------|------|---|----------|--|-----------------------------------|-----------|----------|----------|------------|------|--------|------|------|-------------|--------|------|------|------|-------|------|------|
| Förborrningsdjup 1.00 m Startdjup 1.00 m Stoppdjup 3.85 m Grundvattenyta 2.10 m Referens my Nivå vid referens 0.00 m | Förborrat material Geometri Normal Vätska i filter Operatör LOJ Utrustning <input checked="" type="checkbox"/> Portryck registrerat vid sondering | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kalibreringsdata Spets 3115 Inre friktion O_c 8.0 kPa Datum 2004-02-04 Inre friktion O_f 1.0 kPa Areafaktor a 0.650 Cross talk c_1 0.010 Areafaktor b 0.011 Cross talk c_2 0.010 | | Inmatade nollvärden <table border="1"> <thead> <tr> <th></th> <th>Portryck</th> <th>Friktion</th> <th>Spetstryck</th> </tr> </thead> <tbody> <tr> <td>Före</td> <td>101</td> <td>0</td> <td>0</td> </tr> <tr> <td>Efter</td> <td>100</td> <td>0</td> <td>0.02</td> </tr> </tbody> </table> | | | Portryck | Friktion | Spetstryck | Före | 101 | 0 | 0 | Efter | 100 | 0 | 0.02 | | | | | | | | | | | | | |
| | Portryck | Friktion | Spetstryck | | | | | | | | | | | | | | | | | | | | | | | | | |
| Före | 101 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Efter | 100 | 0 | 0.02 | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Portryck | Friktion | Spetstryck | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | Portryck | Friktion | Spetstryck | | | | | | | | | | | | | | | | | | | | | | | | | |
| Före | 101.00 | 0.00 | 0.00 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Efter | 100.00 | 0.00 | 0.02 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Diff | -1.00 | 0.00 | 0.02 | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Använd skalfaktorer vid beräkning | | Korrigerig Portryck Linjär Friktion Linjär Spetstryck Linjär | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Portrycksobservationer <table border="1"> <thead> <tr> <th>Djup (m)</th> <th>Portryck (kPa)</th> </tr> </thead> <tbody> <tr> <td>2.10</td> <td>0.00</td> </tr> </tbody> </table> | | Djup (m) | Portryck (kPa) | 2.10 | 0.00 | Skiktgränser <table border="1"> <thead> <tr> <th>Djup (m)</th> </tr> </thead> <tbody> <tr> <td> </td> </tr> </tbody> </table> | Djup (m) | | Klassificering <table border="1"> <thead> <tr> <th colspan="2">Djup (m)</th> <th rowspan="2">Densitet (ton/m³)</th> <th rowspan="2">Flytgräns</th> <th rowspan="2">Jordart</th> </tr> <tr> <th>Från</th> <th>Till</th> </tr> </thead> <tbody> <tr> <td>0.00</td> <td>0.50</td> <td>1.90</td> <td rowspan="2"> </td> <td rowspan="2">Sa M Let</td> </tr> <tr> <td>0.50</td> <td>1.00</td> <td>1.80</td> </tr> </tbody> </table> | Djup (m) | | Densitet (ton/m ³) | Flytgräns | Jordart | Från | Till | 0.00 | 0.50 | 1.90 | | Sa M Let | 0.50 | 1.00 | 1.80 | | | | |
| Djup (m) | Portryck (kPa) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.10 | 0.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Djup (m) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Djup (m) | | Densitet (ton/m ³) | Flytgräns | Jordart | | | | | | | | | | | | | | | | | | | | | | | | |
| Från | Till | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.00 | 0.50 | 1.90 | | Sa M Let | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.50 | 1.00 | 1.80 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Anmärkning | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Blad 1

C P T - sondering

Appendix 1.4

Sida 1 av 1

| Projekt Project Pegasus 10067436 | | | Plats Pfizer Strängnäs | | | | | | | | | | | |
|--|------|----------------|----------------------------|-------|--------------------|-------------|----------------------|-----------------------|--------------------|-----|------------|----------|-----------------|-----------------|
| | | | Borrhål 1 | | | | | | | | | | | |
| | | | Datum 051125 | | | | | | | | | | | |
| Djup (m) | | Klassificering | ρ t/m ³ | W_L | τ_{fa} kPa | ϕ ° | σ_{vo} kPa | σ'_{vo} kPa | σ'_c kPa | OCR | I_D % | E MPa | M_{OC} MPa | M_{NC} MPa |
| Från | Till | | | | | | | | | | | | | |
| 0.00 | 0.50 | Sa M | 1.90 | | | | 4.7 | 4.7 | | | | | | |
| 0.50 | 1.00 | Let | 1.80 | | | | 13.7 | 13.7 | | | | | | |
| 1.00 | 1.20 | Si L | 1.70 | | ((105.6)) | (36.3) | 19.8 | 19.8 | | | 6.5 | 7.8 | 6.2 | |
| 1.20 | 1.40 | Le F | OC/Si 1.85 | | (65.5) | | 23.3 | 23.3 | | | | | | |
| 1.40 | 1.60 | Le M | OC/Si 1.85 | | (46.8) | | 26.9 | 26.9 | | | | | | |
| 1.60 | 1.80 | Le M | OC/Si 1.85 | | (44.2) | | 30.6 | 30.6 | | | | | | |
| 1.80 | 2.00 | Le M | OC/Si 1.60 | | (31.2) | | 33.9 | 33.9 | | | | | | |
| 2.00 | 2.20 | Le L | G? 1.60 | | (23.7) | | 37.1 | 37.1 | | | | | | |
| 2.20 | 2.40 | Le L | G? 1.45 | | (17.0) | | 40.1 | 38.1 | | | | | | |
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Blad1

Statens geotekniska institut

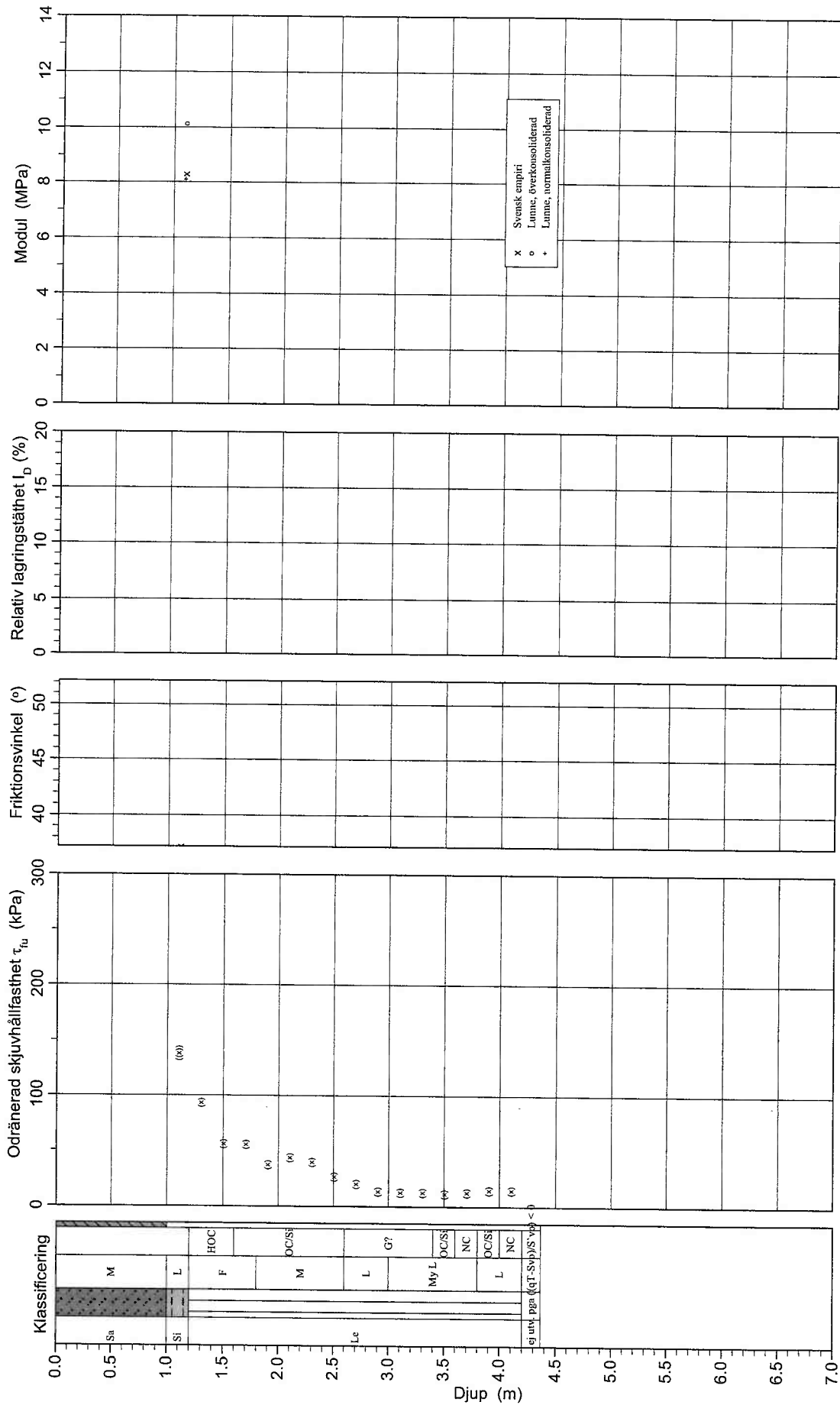
581 93 Linköping, telefon 013 - 20 18 00, fax 013 - 20 19 14

CPT sondering utvärderad enligt SGI Info 15

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 Startdjup 1.00 m

Förbörningsdjup 1.00 m
 Förborrat material
 Utrustning
 Geometri Normal

Projekt Project Pegasus
 Projekt nr 10067436
 Plats Strängnäs Pfizer
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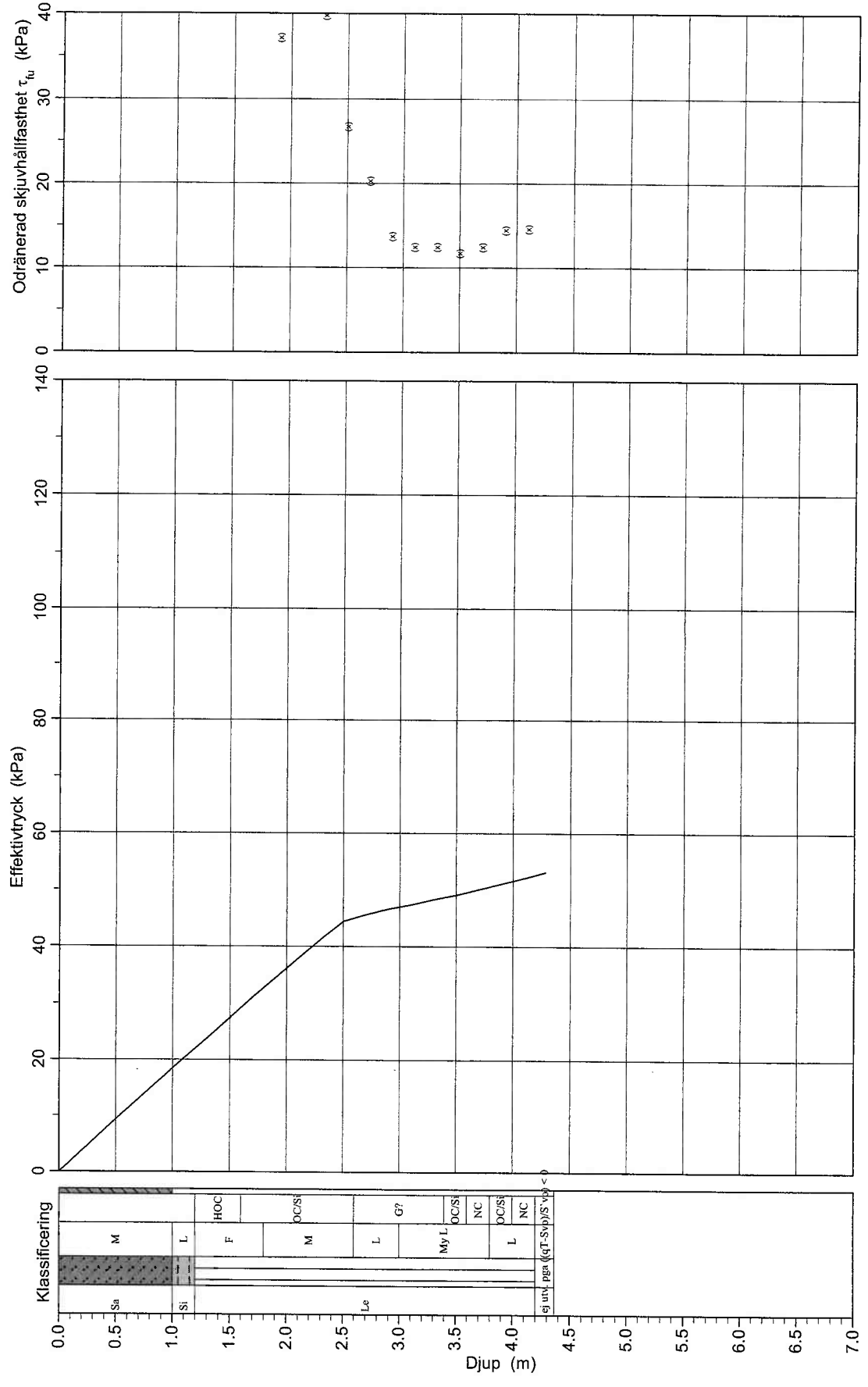


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C P T - sondering

Appendix 2.3

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|---|--|---|---------------------------|-----------------------------|----------|---|------------|--|--|---|----------|----------|-----------------------------------|-----------|---------|------|------|-------|--------|------|------|------|------|------|------|
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| Portryck Område Faktor | Friktion Område Faktor | Spetstryck Område Faktor | | | | | | | | | | | | | | | | | | | | | | | |
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| | Portryck | Friktion | Spetstryck | | | | | | | | | | | | | | | | | | | | | | |
| Före | 99.00 | 0.00 | 0.00 | | | | | | | | | | | | | | | | | | | | | | |
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| Diff | 5.00 | 1.00 | 0.12 | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Använd skalfaktorer vid beräkning | | Korrigerig Portryck Linjär Friktion Linjär Spetstryck Linjär | | | | | | | | | | | | | | | | | | | | | | | |
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| Djup (m) | Portryck (kPa) | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.50 | 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| Djup (m) | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Djup (m) | | Densitet (ton/m ³) | Flytgräns | Jordart | | | | | | | | | | | | | | | | | | | | | |
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| 0.00 | 1.00 | 1.90 | | Sa M | | | | | | | | | | | | | | | | | | | | | |
| Anmärkning | | | | | | | | | | | | | | | | | | | | | | | | | |

Blad3

C P T - sondering

Appendix 2.4

Sida 1 av 1

| Projekt Project Pegasus 10067436 | | | | Plats Strängnäs Pfizer Borrhål 2 Datum 051125 | | | | | | | | | | |
|--|------|---------------------------------|----------------------------|--|--------------------|-------------|----------------------|-----------------------|--------------------|-----|------------|----------|-----------------|-----------------|
| Djup (m) | | Klassificering | ρ t/m ³ | W_L | τ_{ru} kPa | ϕ ° | σ_{vo} kPa | σ'_{vo} kPa | σ'_c kPa | OCR | I_D % | E MPa | M_{OC} MPa | M_{NC} MPa |
| Från | Till | | | | | | | | | | | | | |
| 0.00 | 1.00 | Sa M | 1.90 | | | | 9.3 | 9.3 | | | | | | |
| 1.00 | 1.20 | Si L | 1.70 | | ((138.2)) | (37.1) | 20.3 | 20.3 | | | | 8.3 | 10.1 | 8.1 |
| 1.20 | 1.40 | Le F | HOC 1.90 | | (93.2) | | 23.8 | 23.8 | | | | | | |
| 1.40 | 1.60 | Le F | HOC 1.85 | | (55.4) | | 27.5 | 27.5 | | | | | | |
| 1.60 | 1.80 | Le F | OC/Si 1.85 | | (55.2) | | 31.1 | 31.1 | | | | | | |
| 1.80 | 2.00 | Le M | OC/Si 1.60 | | (37.2) | | 34.5 | 34.5 | | | | | | |
| 2.00 | 2.20 | Le M | OC/Si 1.85 | | (43.6) | | 37.9 | 37.9 | | | | | | |
| 2.20 | 2.40 | Le M | OC/Si 1.60 | | (39.7) | | 41.3 | 41.3 | | | | | | |
| 2.40 | 2.60 | Le M | OC/Si 1.60 | | (26.7) | | 44.4 | 44.4 | | | | | | |
| 2.60 | 2.80 | Le L | G? 1.60 | | (20.3) | | 47.6 | 45.6 | | | | | | |
| 2.80 | 3.00 | Le L | G? 1.45 | | (13.7) | | 50.6 | 46.6 | | | | | | |
| 3.00 | 3.20 | Le My L | G? 1.45 | | (12.5) | | 53.4 | 47.4 | | | | | | |
| 3.20 | 3.40 | Le My L | G? 1.45 | | (12.5) | | 56.3 | 48.3 | | | | | | |
| 3.40 | 3.60 | Le My L | OC/Si 1.45 | | (11.7) | | 59.1 | 49.1 | | | | | | |
| 3.60 | 3.80 | Le My L | NC 1.60 | | (12.5) | | 62.1 | 50.1 | | | | | | |
| 3.80 | 4.00 | Le L | OC/Si 1.45 | | (14.5) | | 65.1 | 51.1 | | | | | | |
| 4.00 | 4.20 | Le L | NC 1.60 | | (14.6) | | 68.1 | 52.1 | | | | | | |
| 4.20 | 4.36 | ej utv. pga ((qT-Svo)/S'vo) < 0 | 1.60 | | | | 70.9 | 53.1 | | | | | | |

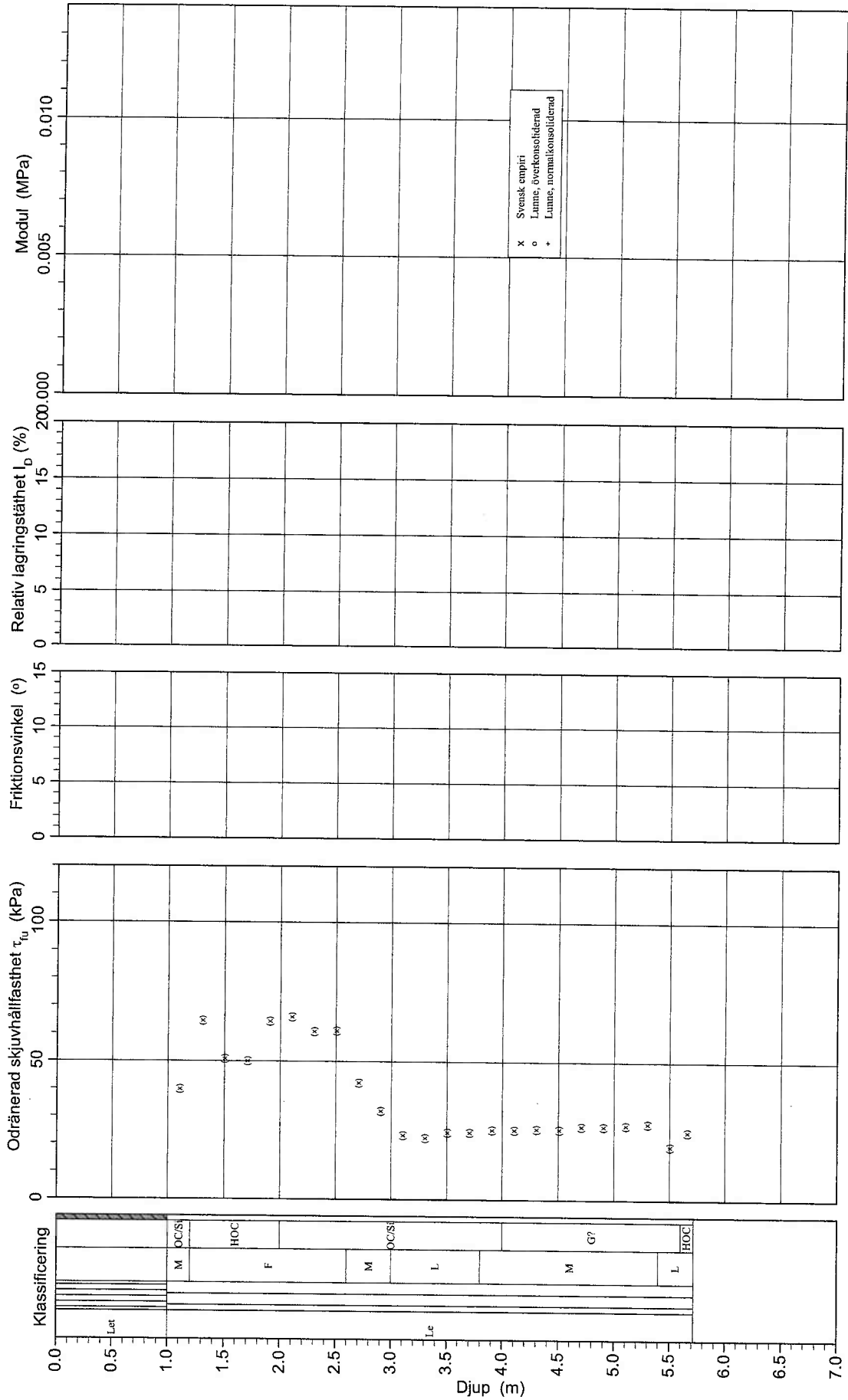
Blad3

CPT sondering utvärderad enligt SGI Info 15

Referens my
 Nivå vid referens 0.00 m
 Grundvattenyta 2.20 m
 Startdjup 1.00 m

Förborrningsdjup 1.00 m
 Förborrat material
 Utrustning
 Geometri Normal

Projekt Project Pegasus
 Projekt nr 10067436
 Plats Pfizer Strängnäs
 Borrhål 3
 Datum 051125

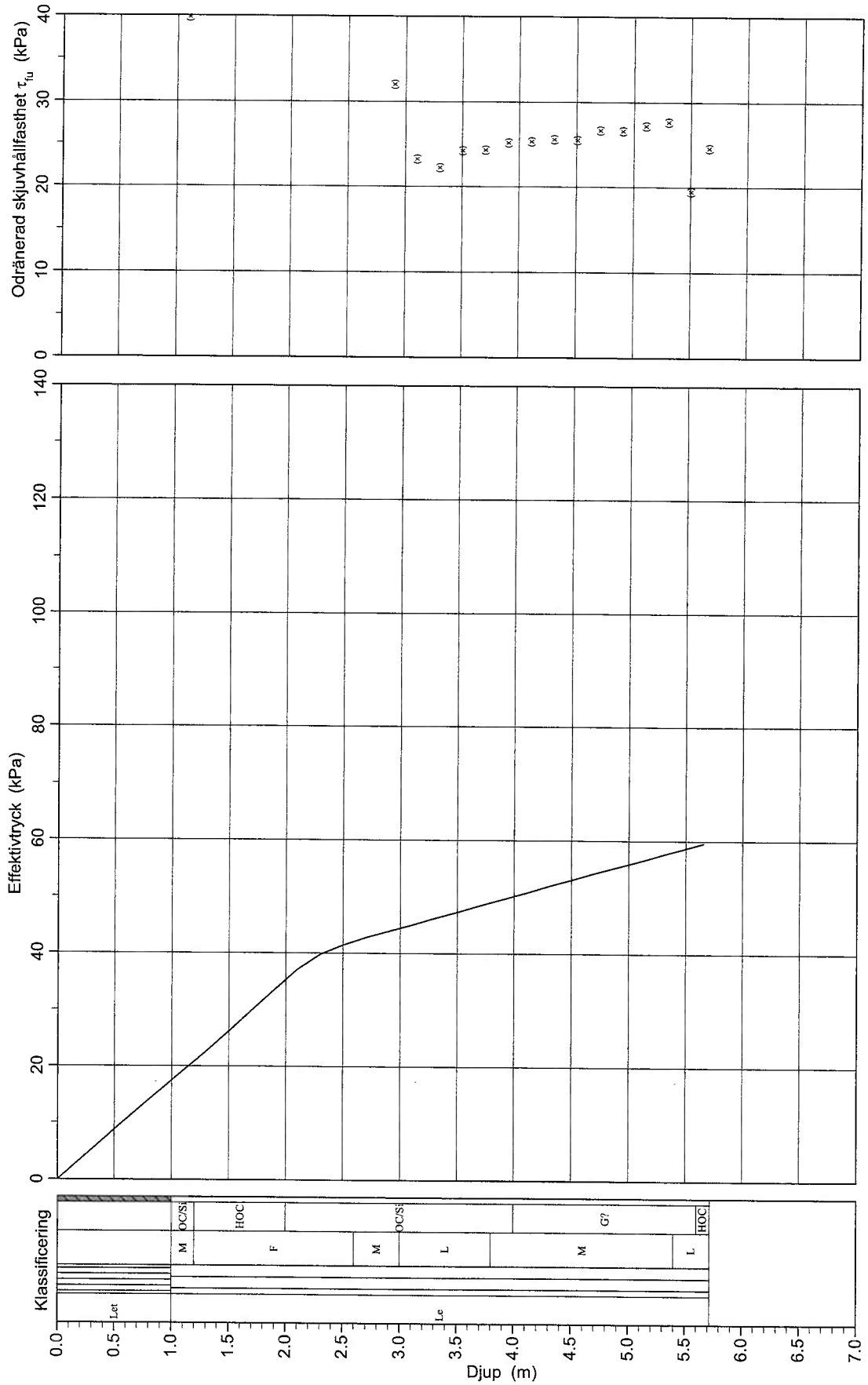


CPT sondering utvärderad enligt SGI Info 15

Referens my
 Nivå vid referens 0.00 m
 Grundvattentyta 2.20 m
 Startdjup 1.00 m

Förbörningsdjup 1.00 m
 Förborrat material
 Utrustning
 Geometri Normal

Projekt Project Pegasus
 Projekt nr 10067436
 Plats Pfizer Strängnäs
 Borrhål 3
 Datum 051125



C P T - sondering

| Projekt Project Pegasus 10067436 | | Plats Pfizer Strängnäs Borrhål 3 Datum 051125 | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|--------------------|-----------------------------------|-----------|---|------------|---|------|------|----------|----------|------------|------|--------|------|------|-------|--------|------|------|------|------|------|------|
| Förborrningsdjup 1.00 m Startdjup 1.00 m Stoppdjup 5.83 m Grundvattenyta 2.20 m Referens my Nivå vid referens 0.00 m | Förborrat material Geometri Normal Vätska i filter Operatör Utrustning <input checked="" type="checkbox"/> Portryck registrerat vid sondering | | | | | | | | | | | | | | | | | | | | | | | | |
| Kalibreringsdata Spets 3115 Inre friktion O_c 8.0 kPa Datum 2004-02-04 Inre friktion O_f 1.0 kPa Areafaktor a 0.650 Cross talk c_1 0.010 Areafaktor b 0.011 Cross talk c_2 0.010 | | Inmatade nollvärden <table border="1"> <thead> <tr> <th></th> <th>Portryck</th> <th>Friktion</th> <th>Spetstryck</th> </tr> </thead> <tbody> <tr> <td>Före</td> <td>100</td> <td>0</td> <td>0.02</td> </tr> <tr> <td>Efter</td> <td>106</td> <td>0</td> <td>0.12</td> </tr> </tbody> </table> | | | Portryck | Friktion | Spetstryck | Före | 100 | 0 | 0.02 | Efter | 106 | 0 | 0.12 | | | | | | | | | | |
| | Portryck | Friktion | Spetstryck | | | | | | | | | | | | | | | | | | | | | | |
| Före | 100 | 0 | 0.02 | | | | | | | | | | | | | | | | | | | | | | |
| Efter | 106 | 0 | 0.12 | | | | | | | | | | | | | | | | | | | | | | |
| Skalfaktorer <table border="1"> <thead> <tr> <th>Portryck Område</th> <th>Friktion Faktor</th> <th>Spetstryck Område Faktor</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> | | Portryck Område | Friktion Faktor | Spetstryck Område Faktor | | | | Beräknade nollvärden (kPa) <table border="1"> <thead> <tr> <th></th> <th>Portryck</th> <th>Friktion</th> <th>Spetstryck</th> </tr> </thead> <tbody> <tr> <td>Före</td> <td>100.00</td> <td>0.00</td> <td>0.02</td> </tr> <tr> <td>Efter</td> <td>106.00</td> <td>0.00</td> <td>0.12</td> </tr> <tr> <td>Diff</td> <td>6.00</td> <td>0.00</td> <td>0.10</td> </tr> </tbody> </table> | | | Portryck | Friktion | Spetstryck | Före | 100.00 | 0.00 | 0.02 | Efter | 106.00 | 0.00 | 0.12 | Diff | 6.00 | 0.00 | 0.10 |
| Portryck Område | Friktion Faktor | Spetstryck Område Faktor | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Portryck | Friktion | Spetstryck | | | | | | | | | | | | | | | | | | | | | | |
| Före | 100.00 | 0.00 | 0.02 | | | | | | | | | | | | | | | | | | | | | | |
| Efter | 106.00 | 0.00 | 0.12 | | | | | | | | | | | | | | | | | | | | | | |
| Diff | 6.00 | 0.00 | 0.10 | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Använd skalfaktorer vid beräkning | | Korrigerig Portryck Linjär Friktion Linjär Spetstryck Linjär | | | | | | | | | | | | | | | | | | | | | | | |
| Portrycksobservationer <table border="1"> <thead> <tr> <th>Djup (m)</th> <th>Portryck (kPa)</th> </tr> </thead> <tbody> <tr> <td>2.20</td> <td>0.00</td> </tr> </tbody> </table> | | Djup (m) | Portryck (kPa) | 2.20 | 0.00 | Skiktgränser <table border="1"> <thead> <tr> <th>Djup (m)</th> </tr> </thead> <tbody> <tr> <td> </td> </tr> </tbody> </table> | | Djup (m) | | | | | | | | | | | | | | | | | |
| Djup (m) | Portryck (kPa) | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.20 | 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| Djup (m) | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Klassificering <table border="1"> <thead> <tr> <th colspan="2">Djup (m)</th> <th rowspan="2">Densitet (ton/m³)</th> <th rowspan="2">Flytgräns</th> <th rowspan="2">Jordart</th> </tr> <tr> <th>Från</th> <th>Till</th> </tr> </thead> <tbody> <tr> <td>0.00</td> <td>1.00</td> <td>1.80</td> <td> </td> <td>Let</td> </tr> </tbody> </table> | | Djup (m) | | Densitet (ton/m ³) | Flytgräns | Jordart | Från | Till | 0.00 | 1.00 | 1.80 | | Let | | | | | | | | | | | | |
| Djup (m) | | Densitet (ton/m ³) | Flytgräns | | | | Jordart | | | | | | | | | | | | | | | | | | |
| Från | Till | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.00 | 1.00 | 1.80 | | Let | | | | | | | | | | | | | | | | | | | | | |
| Anmärkning | | | | | | | | | | | | | | | | | | | | | | | | | |

C P T - sondering

Appendix 3.4

Sida 1 av 1

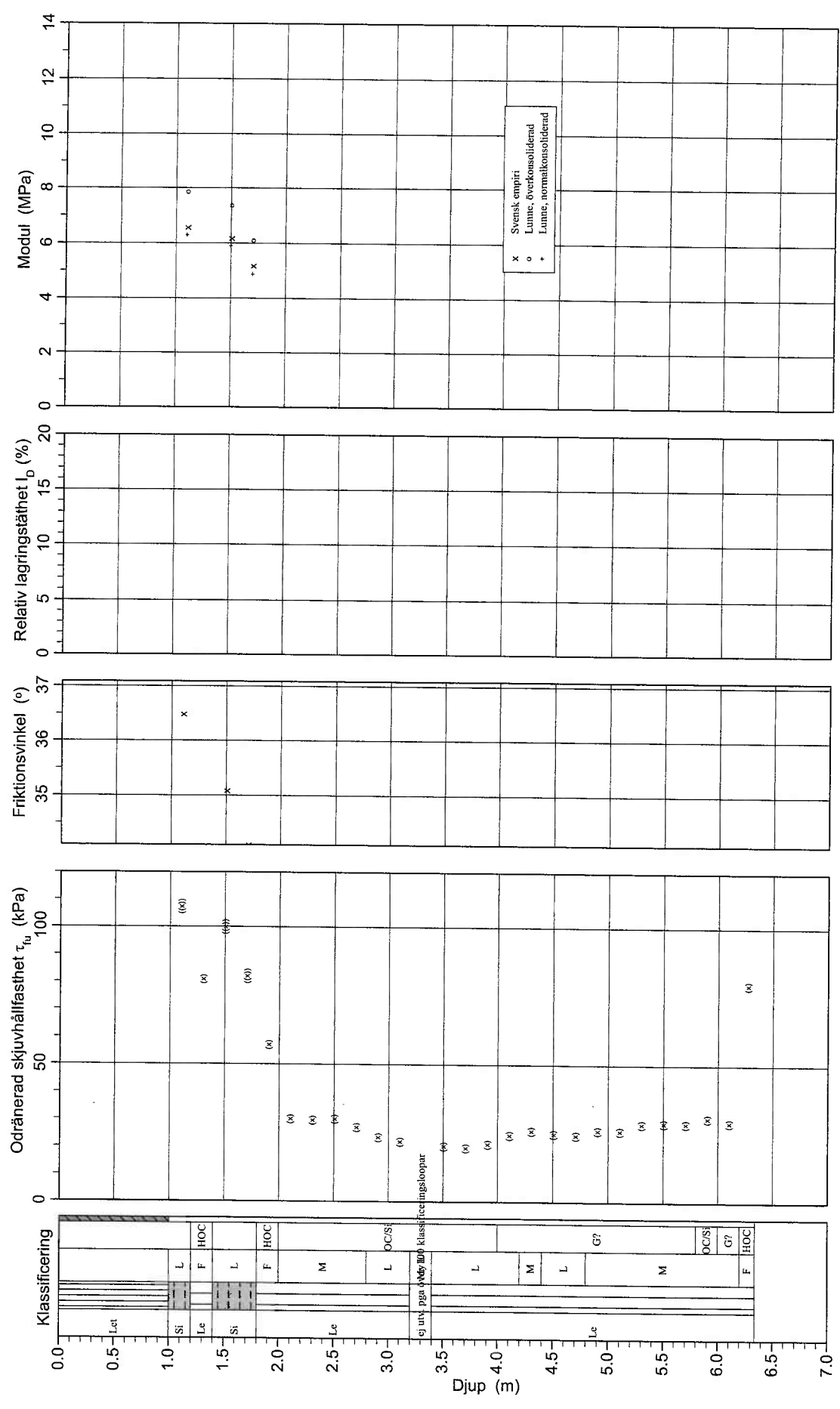
| Projekt Project Pegasus 10067436 | | | | Plats Pfizer Strängnäs | | | | | | | | | | |
|--|------|----------------|----------------------------|---------------------------|--------------------|-----------------|----------------------|-----------------------|--------------------|-----|------------|----------|-----------------|-----------------|
| | | | | Borrhål 3 | | Datum 051125 | | | | | | | | |
| Djup (m) | | Klassificering | ρ t/m ³ | W_L | τ_{fu} kPa | ϕ ° | σ_{vo} kPa | σ'_{vo} kPa | σ'_c kPa | OCR | I_D % | E MPa | M_{OC} MPa | M_{NC} MPa |
| Från | Till | | | | | | | | | | | | | |
| 0.00 | 1.00 | Let | 1.80 | | | | 8.8 | 8.8 | | | | | | |
| 1.00 | 1.20 | Le M | OC/Si 1.60 | | (39.8) | | 19.2 | 19.2 | | | | | | |
| 1.20 | 1.40 | Le F | HOC 1.85 | | (64.6) | | 22.6 | 22.6 | | | | | | |
| 1.40 | 1.60 | Le F | HOC 1.85 | | (50.8) | | 26.2 | 26.2 | | | | | | |
| 1.60 | 1.80 | Le F | HOC 1.85 | | (50.0) | | 29.9 | 29.9 | | | | | | |
| 1.80 | 2.00 | Le F | HOC 1.85 | | (64.3) | | 33.5 | 33.5 | | | | | | |
| 2.00 | 2.20 | Le F | OC/Si 1.85 | | (66.1) | | 37.1 | 37.1 | | | | | | |
| 2.20 | 2.40 | Le F | OC/Si 1.85 | | (60.9) | | 40.8 | 39.8 | | | | | | |
| 2.40 | 2.60 | Le F | OC/Si 1.85 | | (61.0) | | 44.4 | 41.4 | | | | | | |
| 2.60 | 2.80 | Le M | OC/Si 1.60 | | (42.2) | | 47.8 | 42.8 | | | | | | |
| 2.80 | 3.00 | Le M | OC/Si 1.60 | | (32.0) | | 50.9 | 43.9 | | | | | | |
| 3.00 | 3.20 | Le L | OC/Si 1.60 | | (23.2) | | 54.1 | 45.1 | | | | | | |
| 3.20 | 3.40 | Le L | OC/Si 1.60 | | (22.2) | | 57.2 | 46.2 | | | | | | |
| 3.40 | 3.60 | Le L | OC/Si 1.60 | | (24.2) | | 60.3 | 47.3 | | | | | | |
| 3.60 | 3.80 | Le L | OC/Si 1.60 | | (24.3) | | 63.5 | 48.5 | | | | | | |
| 3.80 | 4.00 | Le M | OC/Si 1.60 | | (25.1) | | 66.6 | 49.6 | | | | | | |
| 4.00 | 4.20 | Le M | G? 1.60 | | (25.3) | | 69.7 | 50.7 | | | | | | |
| 4.20 | 4.40 | Le M | G? 1.60 | | (25.5) | | 72.9 | 51.9 | | | | | | |
| 4.40 | 4.60 | Le M | G? 1.60 | | (25.5) | | 76.0 | 53.0 | | | | | | |
| 4.60 | 4.80 | Le M | G? 1.60 | | (26.6) | | 79.2 | 54.2 | | | | | | |
| 4.80 | 5.00 | Le M | G? 1.60 | | (26.6) | | 82.3 | 55.3 | | | | | | |
| 5.00 | 5.20 | Le M | G? 1.60 | | (27.1) | | 85.4 | 56.4 | | | | | | |
| 5.20 | 5.40 | Le M | G? 1.60 | | (27.6) | | 88.6 | 57.6 | | | | | | |
| 5.40 | 5.60 | Le L | G? 1.60 | | (19.5) | | 91.7 | 58.7 | | | | | | |
| 5.60 | 5.71 | Le L | HOC 1.60 | | (24.6) | | 94.2 | 59.6 | | | | | | |

Blad2

CPT sondering utvärderad enligt SGI Info 15

Projekt Project Pegasus
 Projekt nr 10067436
 Plats Strängnäs
 Borrhål 4
 Datum 051124

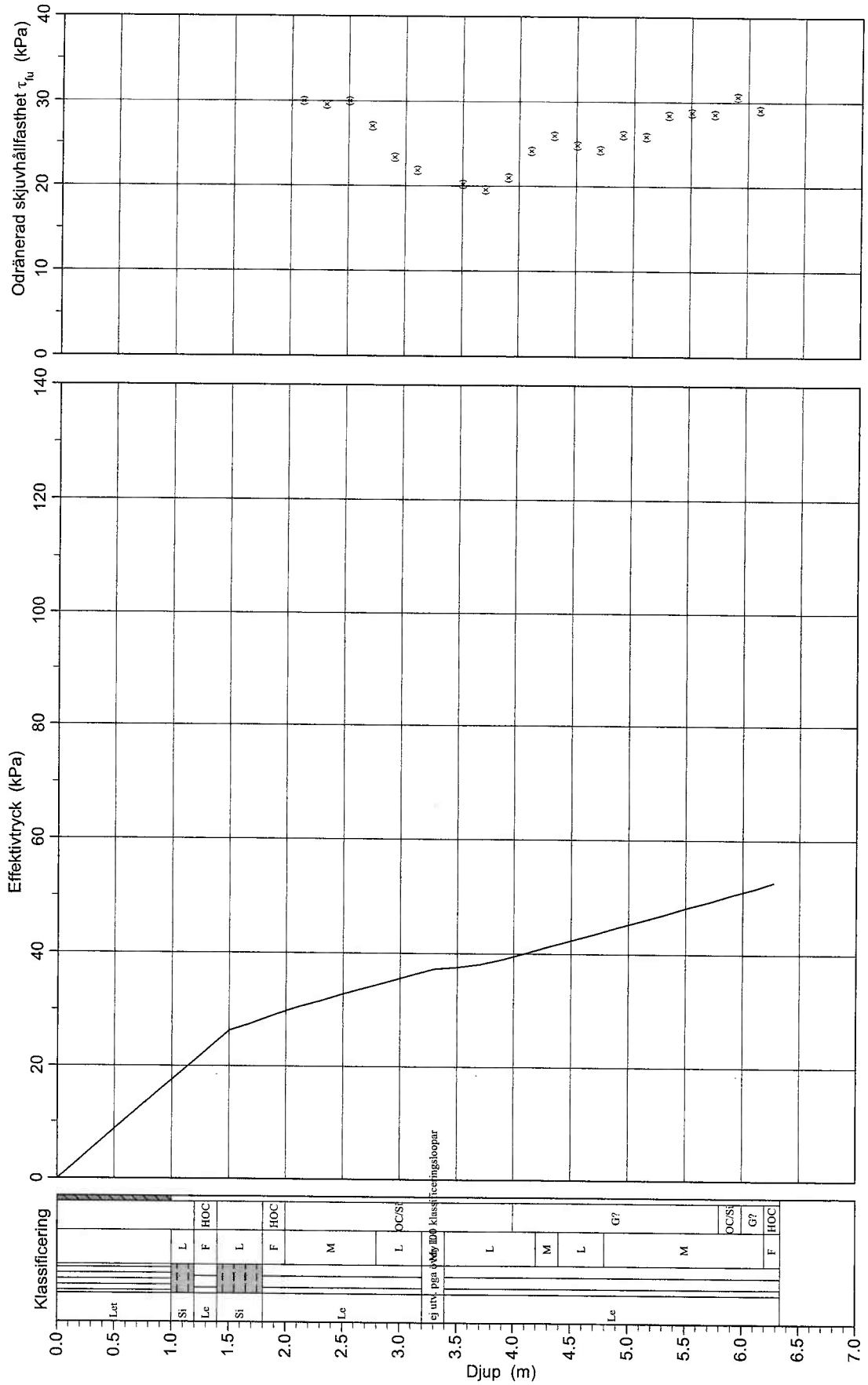
Referens my Förborrningsdjup 1.00 m
 Nivå vid referens 0.00 m Förborrat material
 Grundvattenyta 1.50 m Utrustning
 Startdjup 1.00 m Geometri Normal



CPT sondering utvärderad enligt SGI Info 15

Projekt Project Pegasus
 Projekt nr 10067436
 Plats Strängnäs
 Borrhål 4
 Datum 051124

Referens my
 Nivå vid referens 0.00 m
 Grundvattentyta 1.50 m
 Startdjup 1.00 m
 Förborrningsdjup 1.00 m
 Förborrat material
 Utrustning
 Geometri Normal



C P T - sondering

| Projekt Project Pegasus 10067436 | | Plats Strängnäs Borrhål 4 Datum 051124 | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|---------------------------|-----------------------------|----------|---|------------|---|---|---|----------|----------|-----------------------------------|-----------|---------|------|------|-------|--------|------|------|------|------|------|------|
| Förborrningsdjup 1.00 m Startdjup 1.00 m Stoppdjup 6.45 m Grundvattenyta 1.50 m Referens my Nivå vid referens 0.00 m | Förborrat material Geometri Normal Vätska i filter Operatör LOJ Utrustning <input checked="" type="checkbox"/> Portryck registrerat vid sondering | | | | | | | | | | | | | | | | | | | | | | | | |
| Kalibreringsdata Spets 3115 Inre friktion O_c 8.0 kPa Datum 2004-02-04 Inre friktion O_f 1.0 kPa Areafaktor a 0.650 Cross talk c_1 0.010 Areafaktor b 0.011 Cross talk c_2 0.010 | | Inmatade nollvärden <table border="1"> <thead> <tr> <th></th> <th>Portryck</th> <th>Friktion</th> <th>Spetstryck</th> </tr> </thead> <tbody> <tr> <td>Före</td> <td>100</td> <td>0</td> <td>0</td> </tr> <tr> <td>Efter</td> <td>107</td> <td>0</td> <td>0.22</td> </tr> </tbody> </table> | | | Portryck | Friktion | Spetstryck | Före | 100 | 0 | 0 | Efter | 107 | 0 | 0.22 | | | | | | | | | | |
| | Portryck | Friktion | Spetstryck | | | | | | | | | | | | | | | | | | | | | | |
| Före | 100 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | |
| Efter | 107 | 0 | 0.22 | | | | | | | | | | | | | | | | | | | | | | |
| Skalfaktorer <table border="1"> <thead> <tr> <th>Portryck Område Faktor</th> <th>Friktion Område Faktor</th> <th>Spetstryck Område Faktor</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> | | Portryck Område Faktor | Friktion Område Faktor | Spetstryck Område Faktor | | | | Beräknade nollvärden (kPa) <table border="1"> <thead> <tr> <th></th> <th>Portryck</th> <th>Friktion</th> <th>Spetstryck</th> </tr> </thead> <tbody> <tr> <td>Före</td> <td>100.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>Efter</td> <td>107.00</td> <td>0.00</td> <td>0.22</td> </tr> <tr> <td>Diff</td> <td>7.00</td> <td>0.00</td> <td>0.22</td> </tr> </tbody> </table> | | | Portryck | Friktion | Spetstryck | Före | 100.00 | 0.00 | 0.00 | Efter | 107.00 | 0.00 | 0.22 | Diff | 7.00 | 0.00 | 0.22 |
| Portryck Område Faktor | Friktion Område Faktor | Spetstryck Område Faktor | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Portryck | Friktion | Spetstryck | | | | | | | | | | | | | | | | | | | | | | |
| Före | 100.00 | 0.00 | 0.00 | | | | | | | | | | | | | | | | | | | | | | |
| Efter | 107.00 | 0.00 | 0.22 | | | | | | | | | | | | | | | | | | | | | | |
| Diff | 7.00 | 0.00 | 0.22 | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Använd skalfaktorer vid beräkning | | Korrigerings Portryck Linjär Friktion Linjär Spetstryck Linjär | | | | | | | | | | | | | | | | | | | | | | | |
| Portrycksobservationer <table border="1"> <thead> <tr> <th>Djup (m)</th> <th>Portryck (kPa)</th> </tr> </thead> <tbody> <tr> <td>1.50</td> <td>0.00</td> </tr> </tbody> </table> | | Djup (m) | Portryck (kPa) | 1.50 | 0.00 | Skiktgränser <table border="1"> <thead> <tr> <th>Djup (m)</th> </tr> </thead> <tbody> <tr> <td> </td> </tr> </tbody> </table> | Djup (m) | | Klassificering <table border="1"> <thead> <tr> <th colspan="2">Djup (m)</th> <th>Densitet (ton/m³)</th> <th>Flytgräns</th> <th>Jordart</th> </tr> <tr> <th>Från</th> <th>Till</th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>0.00</td> <td>1.00</td> <td>1.80</td> <td> </td> <td>Let</td> </tr> </tbody> </table> | | Djup (m) | | Densitet (ton/m ³) | Flytgräns | Jordart | Från | Till | | | | 0.00 | 1.00 | 1.80 | | Let |
| Djup (m) | Portryck (kPa) | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.50 | 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| Djup (m) | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Djup (m) | | Densitet (ton/m ³) | Flytgräns | Jordart | | | | | | | | | | | | | | | | | | | | | |
| Från | Till | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.00 | 1.00 | 1.80 | | Let | | | | | | | | | | | | | | | | | | | | | |
| Anmärkning | | | | | | | | | | | | | | | | | | | | | | | | | |

CPT - sondering

Appendix 4.4

Sida 1 av 1

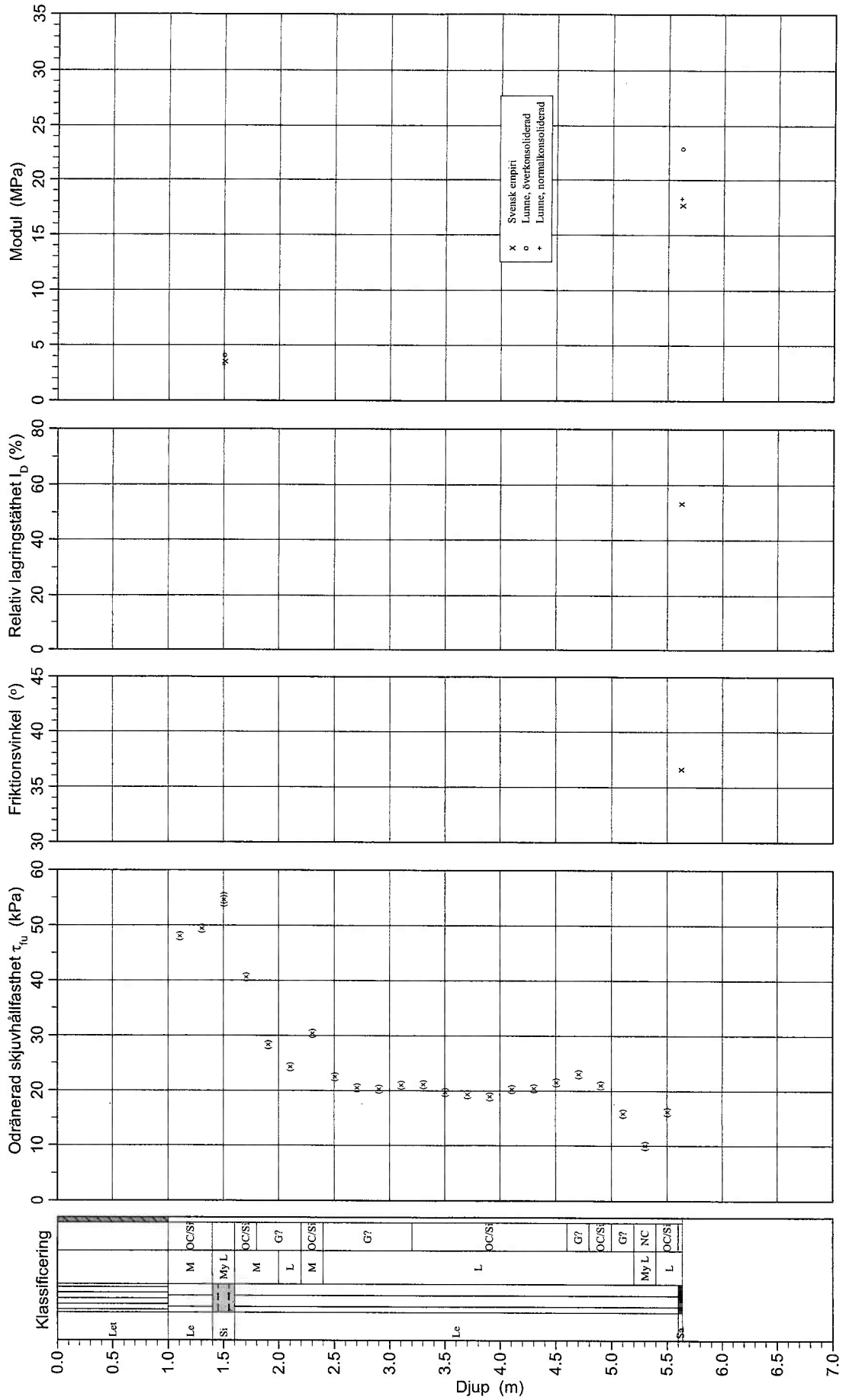
| Projekt Project Pegasus 10067436 | | | | Plats Strängnäs Borrhål 4 Datum 051124 | | | | | | | | | | |
|--|------|---|----------------------------|---|--------------------|-------------|----------------------|-----------------------|--------------------|-----|------------|----------|-----------------|-----------------|
| Djup (m) | | Klassificering | ρ t/m ³ | w_L | τ_{fu} kPa | ϕ ° | σ_{vo} kPa | σ'_{vo} kPa | σ'_c kPa | OCR | I_D % | E MPa | M_{OC} MPa | M_{NC} MPa |
| Från | Till | | | | | | | | | | | | | |
| 0.00 | 1.00 | Let | 1.80 | | | | 8.8 | 8.8 | | | | | | |
| 1.00 | 1.20 | Si L | 1.70 | | ((107.2)) | (36.5) | 19.3 | 19.3 | | | 6.6 | 7.9 | 6.3 | |
| 1.20 | 1.40 | Le F | HOC 1.85 | | (80.8) | | 22.8 | 22.8 | | | | | | |
| 1.40 | 1.60 | Si L | 1.70 | | ((99.8)) | (35.1) | 26.3 | 26.3 | | | 6.2 | 7.4 | 5.9 | |
| 1.60 | 1.80 | Si L | 1.70 | | ((82.0)) | (34.1) | 29.6 | 27.6 | | | 5.2 | 6.1 | 4.9 | |
| 1.80 | 2.00 | Le F | HOC 1.85 | | (57.0) | | 33.1 | 29.1 | | | | | | |
| 2.00 | 2.20 | Le M | OC/Si 1.60 | | (30.0) | | 36.5 | 30.5 | | | | | | |
| 2.20 | 2.40 | Le M | OC/Si 1.60 | | (29.5) | | 39.6 | 31.6 | | | | | | |
| 2.40 | 2.60 | Le M | OC/Si 1.60 | | (30.0) | | 42.8 | 32.8 | | | | | | |
| 2.60 | 2.80 | Le M | OC/Si 1.60 | | (27.0) | | 45.9 | 33.9 | | | | | | |
| 2.80 | 3.00 | Le L | OC/Si 1.60 | | (23.4) | | 49.1 | 35.1 | | | | | | |
| 3.00 | 3.20 | Le L | OC/Si 1.60 | | (21.8) | | 52.2 | 36.2 | | | | | | |
| 3.20 | 3.40 | ej utv. pga över 100 klassificeringskoppar My L | OC/Si 1.60 | | | | 55.3 | 37.3 | | | | | | |
| 3.40 | 3.60 | Le L | OC/Si 1.30 | | (20.2) | | 57.6 | 37.6 | | | | | | |
| 3.60 | 3.80 | Le L | OC/Si 1.30 | | (19.5) | | 60.1 | 38.1 | | | | | | |
| 3.80 | 4.00 | Le L | OC/Si 1.60 | | (21.0) | | 63.0 | 39.0 | | | | | | |
| 4.00 | 4.20 | Le L | G? 1.60 | | (24.1) | | 66.1 | 40.1 | | | | | | |
| 4.20 | 4.40 | Le M | G? 1.60 | | (25.9) | | 69.3 | 41.3 | | | | | | |
| 4.40 | 4.60 | Le L | G? 1.60 | | (24.8) | | 72.4 | 42.4 | | | | | | |
| 4.60 | 4.80 | Le L | G? 1.60 | | (24.3) | | 75.5 | 43.5 | | | | | | |
| 4.80 | 5.00 | Le M | G? 1.60 | | (26.1) | | 78.7 | 44.7 | | | | | | |
| 5.00 | 5.20 | Le M | G? 1.60 | | (25.9) | | 81.8 | 45.8 | | | | | | |
| 5.20 | 5.40 | Le M | G? 1.60 | | (28.4) | | 85.0 | 47.0 | | | | | | |
| 5.40 | 5.60 | Le M | G? 1.60 | | (28.7) | | 88.1 | 48.1 | | | | | | |
| 5.60 | 5.80 | Le M | G? 1.60 | | (28.5) | | 91.2 | 49.2 | | | | | | |
| 5.80 | 6.00 | Le M | OC/Si 1.60 | | (30.7) | | 94.4 | 50.4 | | | | | | |
| 6.00 | 6.20 | Le M | G? 1.60 | | (29.1) | | 97.5 | 51.5 | | | | | | |
| 6.20 | 6.34 | Le F | HOC 1.85 | | (79.3) | | 100.4 | 52.7 | | | | | | |

Blad1

CPT sondering utvärderad enligt SGI Info 15

Projekt Project Pegasus
Projekt nr 10067436
Plats Pfizer Strängnäs
Borrhål 5
Datum 051125

Referens my
Nivå vid referens 0.00 m
Grundvattentyta 2.00 m
Startdjup 1.00 m
Förborrningsdjup 1.00 m
Förborrat material
Utrustning
Geometri Normal

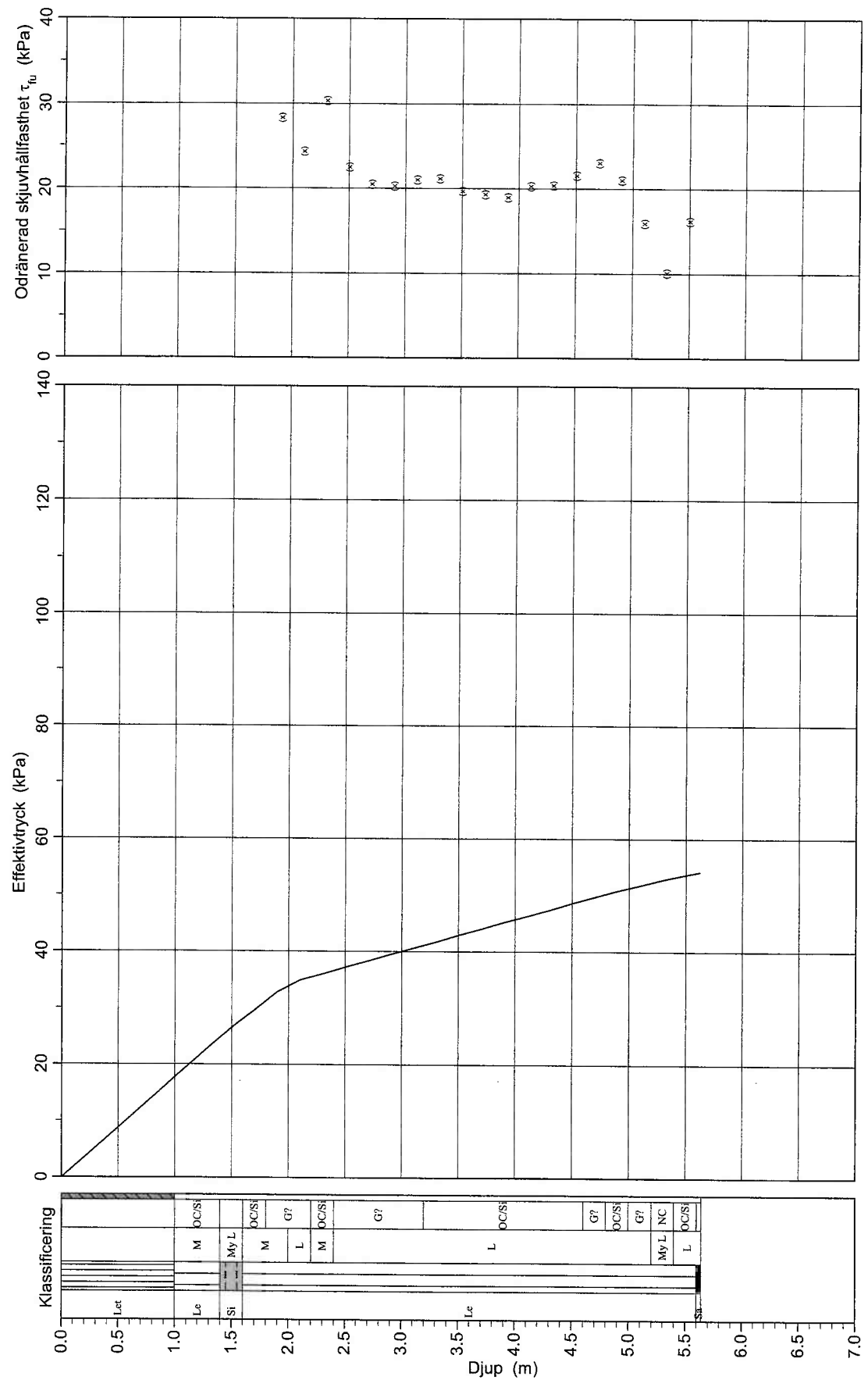


CPT sondering utvärderad enligt SGI Info 15

Referens my
 Nivå vid referens 0.00 m
 Grundvattentyta 2.00 m
 Startdjup 1.00 m

Förbörningsdjup 1.00 m
 Förborrat material
 Utrustning
 Geometri Normal

Projekt Project Pegasus
 Projekt nr 10067436
 Plats Pfizer Strängnäs
 Borrhål 5
 Datum 051125



C P T - sondering

| Projekt Project Pegasus 10067436 | | Plats Pfizer Strängnäs Borrhål 5 Datum 051125 | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|----------------|------------|----------|---|---------------|------|--|---|--|-------|----------|-----------|----------|------------|------|-----------------------|------|------|-------|--------|------|------|------|-------|------|------|
| Förborrningsdjup 1.00 m Startdjup 1.00 m Stoppdjup 5.75 m Grundvattenyta 2.00 m Referens my Nivå vid referens 0.00 m | Förborrat material Geometri Normal Vätska i filter Operatör LOJ Utrustning <input checked="" type="checkbox"/> Portryck registrerat vid sondering | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kalibreringsdata Spets 3115 Inre friktion O_c 8.0 kPa Datum 2004-02-04 Inre friktion O_f 1.0 kPa Areafaktor a 0.650 Cross talk c_1 0.010 Areafaktor b 0.011 Cross talk c_2 0.010 | | Inmatade nollvärden <table border="1"> <thead> <tr> <th></th> <th>Portryck</th> <th>Friktion</th> <th>Spetstryck</th> </tr> </thead> <tbody> <tr> <td>Före</td> <td>100</td> <td>0</td> <td>0</td> </tr> <tr> <td>Efter</td> <td>111</td> <td>3</td> <td>0.18</td> </tr> </tbody> </table> | | | Portryck | Friktion | Spetstryck | Före | 100 | 0 | 0 | Efter | 111 | 3 | 0.18 | | | | | | | | | | | | | |
| | Portryck | Friktion | Spetstryck | | | | | | | | | | | | | | | | | | | | | | | | | |
| Före | 100 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Efter | 111 | 3 | 0.18 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skalfaktorer <table border="1"> <thead> <tr> <th>Portryck</th> <th>Friktion</th> <th>Spetstryck</th> </tr> <tr> <th>Område</th> <th>Faktor</th> <th>Område Faktor</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> | | Portryck | Friktion | Spetstryck | Område | Faktor | Område Faktor | | | | Beräknade nollvärden (kPa) <table border="1"> <thead> <tr> <th></th> <th>Portryck</th> <th>Friktion</th> <th>Spetstryck</th> </tr> </thead> <tbody> <tr> <td>Före</td> <td>100.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>Efter</td> <td>111.00</td> <td>3.00</td> <td>0.18</td> </tr> <tr> <td>Diff</td> <td>11.00</td> <td>3.00</td> <td>0.18</td> </tr> </tbody> </table> | | | Portryck | Friktion | Spetstryck | Före | 100.00 | 0.00 | 0.00 | Efter | 111.00 | 3.00 | 0.18 | Diff | 11.00 | 3.00 | 0.18 |
| Portryck | Friktion | Spetstryck | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Område | Faktor | Område Faktor | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Portryck | Friktion | Spetstryck | | | | | | | | | | | | | | | | | | | | | | | | | |
| Före | 100.00 | 0.00 | 0.00 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Efter | 111.00 | 3.00 | 0.18 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Diff | 11.00 | 3.00 | 0.18 | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Använd skalfaktorer vid beräkning | | Korrigerig Portryck Linjär Friktion Linjär Spetstryck Linjär | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Portrycksobservationer <table border="1"> <thead> <tr> <th>Djup (m)</th> <th>Portryck (kPa)</th> </tr> </thead> <tbody> <tr> <td>2.00</td> <td>0.00</td> </tr> </tbody> </table> | | Djup (m) | Portryck (kPa) | 2.00 | 0.00 | Skiktgränser <table border="1"> <thead> <tr> <th>Djup (m)</th> </tr> </thead> <tbody> <tr> <td> </td> </tr> </tbody> </table> | Djup (m) | | Klassificering <table border="1"> <thead> <tr> <th colspan="2">Djup (m)</th> <th>Densitet</th> <th rowspan="2">Flytgräns</th> <th rowspan="2">Jordart</th> </tr> <tr> <th>Från</th> <th>Till</th> <th>(ton/m³)</th> </tr> </thead> <tbody> <tr> <td>0.00</td> <td>1.00</td> <td>1.80</td> <td> </td> <td>Let</td> </tr> </tbody> </table> | | Djup (m) | | Densitet | Flytgräns | Jordart | Från | Till | (ton/m ³) | 0.00 | 1.00 | 1.80 | | Let | | | | | |
| Djup (m) | Portryck (kPa) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.00 | 0.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Djup (m) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Djup (m) | | Densitet | Flytgräns | Jordart | | | | | | | | | | | | | | | | | | | | | | | | |
| Från | Till | (ton/m ³) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.00 | 1.00 | 1.80 | | Let | | | | | | | | | | | | | | | | | | | | | | | | |
| Anmärkning | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

CPT - sondering

Appendix 5.4

Sida 1 av 1

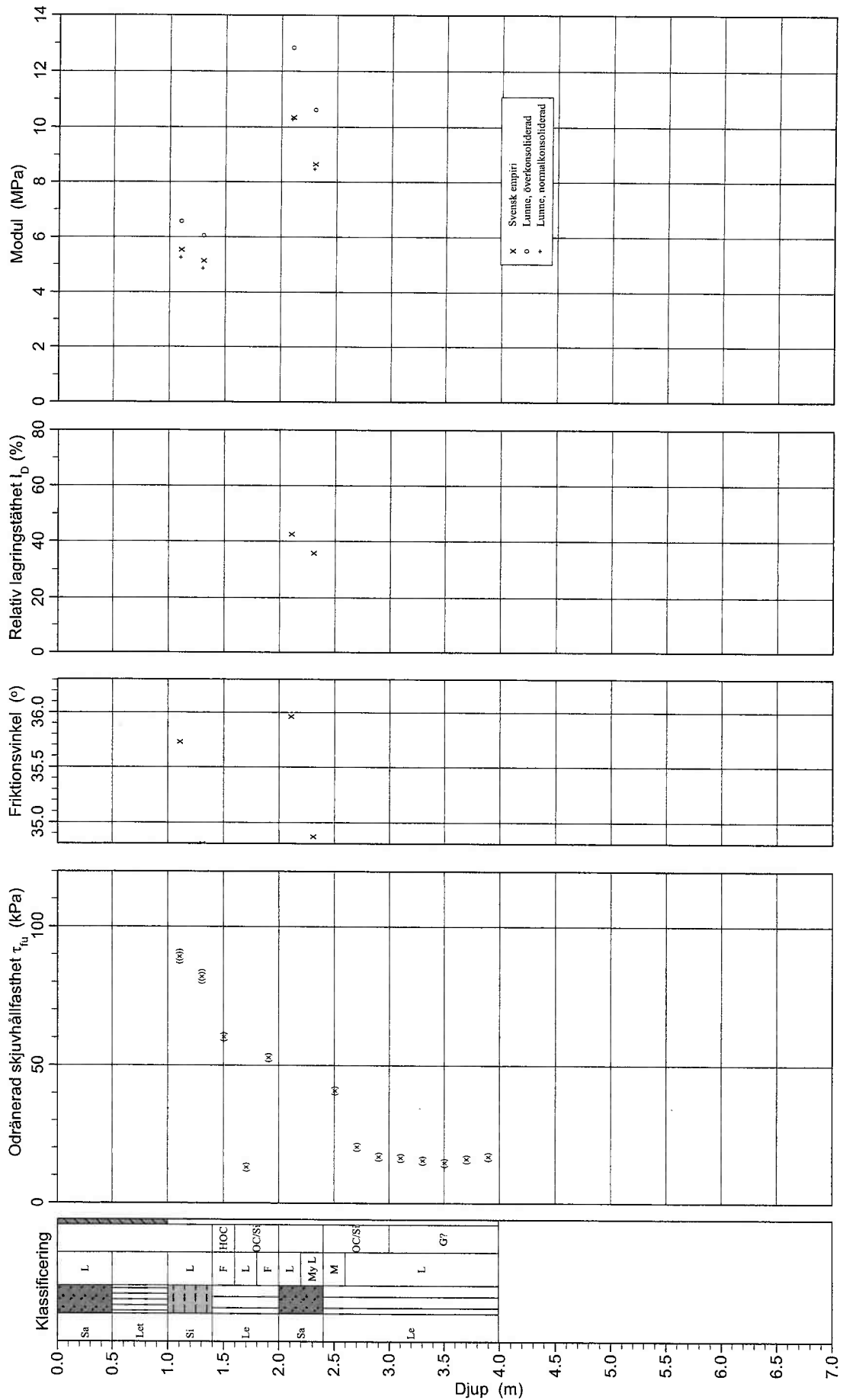
| Projekt Project Pegasus 10067436 | | | | Plats Pfizer Strängnäs | | | | | | | | | | |
|--|------|----------------|----------------------------|---------------------------|--------------------|-------------|----------------------|-----------------------|--------------------|------|------------|----------|-----------------|-----------------|
| | | | | Borrhål 5 | | | | Datum 051125 | | | | | | |
| Djup (m) | | Klassificering | ρ t/m ³ | w_L | τ_{fu} kPa | ϕ ° | σ_{vo} kPa | σ'_{vo} kPa | σ'_c kPa | OCR | I_D % | E MPa | M_{OC} MPa | M_{NC} MPa |
| Från | Till | | | | | | | | | | | | | |
| 0.00 | 1.00 | Let | 1.80 | | | | 8.8 | 8.8 | | | | | | |
| 1.00 | 1.20 | Le M | OC/Si 1.85 | | (48.0) | | 19.5 | 19.5 | | | | | | |
| 1.20 | 1.40 | Le M | OC/Si 1.85 | | (49.4) | | 23.1 | 23.1 | | | | | | |
| 1.40 | 1.60 | Si My L | 1.60 | | ((54.6)) | | 26.5 | 26.5 | | | 3.6 | 4.1 | 3.3 | |
| 1.60 | 1.80 | Le M | OC/Si 1.60 | | (40.6) | | 29.6 | 29.6 | | | | | | |
| 1.80 | 2.00 | Le M | G? 1.60 | | (28.3) | | 32.8 | 32.8 | | | | | | |
| 2.00 | 2.20 | Le L | G? 1.60 | | (24.3) | | 35.9 | 34.9 | | | | | | |
| 2.20 | 2.40 | Le M | OC/Si 1.60 | | (30.4) | | 39.0 | 36.0 | | | | | | |
| 2.40 | 2.60 | Le L | G? 1.60 | | (22.5) | | 42.2 | 37.2 | | | | | | |
| 2.60 | 2.80 | Le L | G? 1.60 | | (20.5) | | 45.3 | 38.3 | | | | | | |
| 2.80 | 3.00 | Le L | G? 1.60 | | (20.3) | | 48.5 | 39.5 | | | | | | |
| 3.00 | 3.20 | Le L | G? 1.60 | | (21.0) | | 51.6 | 40.6 | | | | | | |
| 3.20 | 3.40 | Le L | OC/Si 1.60 | | (21.1) | | 54.7 | 41.7 | | | | | | |
| 3.40 | 3.60 | Le L | OC/Si 1.60 | | (19.7) | | 57.9 | 42.9 | | | | | | |
| 3.60 | 3.80 | Le L | OC/Si 1.60 | | (19.3) | | 61.0 | 44.0 | | | | | | |
| 3.80 | 4.00 | Le L | OC/Si 1.60 | | (18.9) | | 64.2 | 45.2 | | | | | | |
| 4.00 | 4.20 | Le L | OC/Si 1.60 | | (20.3) | | 67.3 | 46.3 | | | | | | |
| 4.20 | 4.40 | Le L | OC/Si 1.60 | | (20.4) | | 70.4 | 47.4 | | | | | | |
| 4.40 | 4.60 | Le L | OC/Si 1.60 | | (21.5) | | 73.6 | 48.6 | | | | | | |
| 4.60 | 4.80 | Le L | G? 1.60 | | (23.0) | | 76.7 | 49.7 | | | | | | |
| 4.80 | 5.00 | Le L | OC/Si 1.60 | | (21.0) | | 79.9 | 50.9 | | | | | | |
| 5.00 | 5.20 | Le L | G? 1.45 | | (15.9) | | 82.8 | 51.8 | | | | | | |
| 5.20 | 5.40 | Le My L | NC 1.60 | | (10.0) | | 85.8 | 52.8 | | | | | | |
| 5.40 | 5.60 | Le L | OC/Si 1.30 | | (16.2) | | 88.7 | 53.7 | | | | | | |
| 5.60 | 5.64 | Sa L | 1.80 | | | 36.6 | 90.3 | 54.1 | | 53.4 | 17.7 | 22.9 | 18.3 | |

Blad2

CPT sondering utvärderad enligt SGI Info 15

Referens my Förbörningsdjup 1.00 m
 Nivå vid referens 0.00 m Förbörat material
 Grundvattenyta 2.30 m Utrustning
 Startdjup 1.00 m Geometri Normal

Projekt Project Pegasus
 Projekt nr 10067436
 Plats Pfizer Strängnäs
 Borrhål 6
 Datum 051125

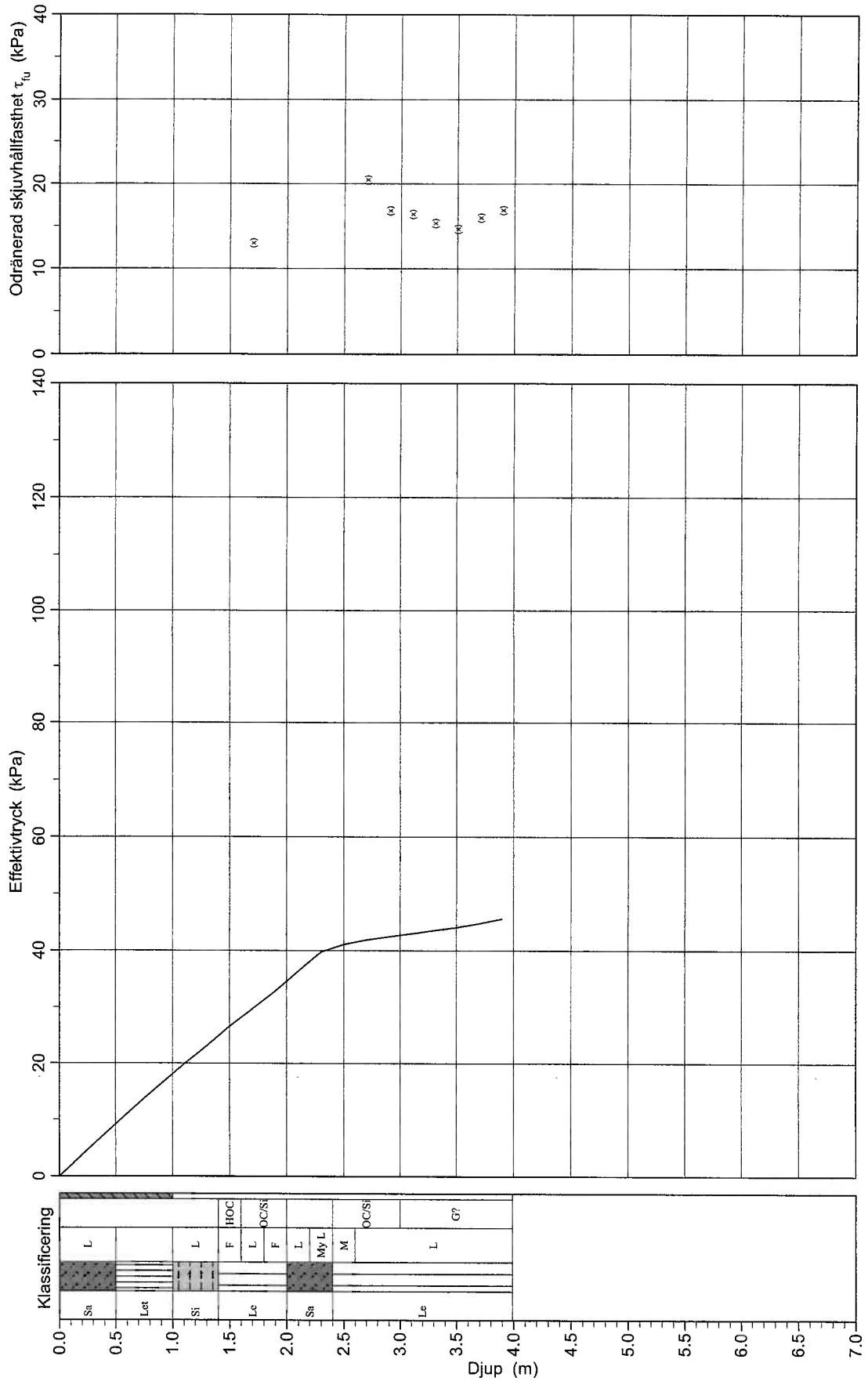


CPT sondering utvärderad enligt SGI Info 15

Referens my
 Nivå vid referens 0.00 m
 Grundvattenyta 2.30 m
 Startdjup 1.00 m

Förbormningsdjup 1.00 m
 Förborrat material
 Utrustning
 Geometri Normal

Projekt Project Pegasus
 Projekt nr 10067436
 Plats Pfizer Strängnäs
 Borrhål 6
 Datum 051125



C P T - sondering

| Projekt Project Pegasus 10067436 | | Plats Pfizer Strängnäs Borrhål 6 Datum 051125 | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---------------------------|-----------------------------|----------|---|------------|--|---|----------|----------|-----------------------------------|------------|---------|--------|------|------|-------|--------|------|------|------|-------|------|------|-----|
| Förborrningsdjup 1.00 m Startdjup 1.00 m Stoppdjup 4.10 m Grundvattenyta 2.30 m Referens my Nivå vid referens 0.00 m | Förborrat material Geometri Normal Vätska i filter Operatör LOJ Utrustning <input checked="" type="checkbox"/> Portryck registrerat vid sondering | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kalibreringsdata Spets 3115 Inre friktion O_c 8.0 kPa Datum 2004-02-04 Inre friktion O_f 1.0 kPa Areafaktor a 0.650 Cross talk c_1 0.010 Areafaktor b 0.011 Cross talk c_2 0.010 | | Inmatade nollvärden <table border="1"> <thead> <tr> <th></th> <th>Portryck</th> <th>Friktion</th> <th>Spetstryck</th> </tr> </thead> <tbody> <tr> <td>Före</td> <td>100</td> <td>0</td> <td>0</td> </tr> <tr> <td>Efter</td> <td>112</td> <td>3</td> <td>0.1</td> </tr> </tbody> </table> | | | Portryck | Friktion | Spetstryck | Före | 100 | 0 | 0 | Efter | 112 | 3 | 0.1 | | | | | | | | | | | |
| | Portryck | Friktion | Spetstryck | | | | | | | | | | | | | | | | | | | | | | | |
| Före | 100 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | |
| Efter | 112 | 3 | 0.1 | | | | | | | | | | | | | | | | | | | | | | | |
| Skalfaktorer <table border="1"> <thead> <tr> <th>Portryck Område Faktor</th> <th>Friktion Område Faktor</th> <th>Spetstryck Område Faktor</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> | | Portryck Område Faktor | Friktion Område Faktor | Spetstryck Område Faktor | | | | Beräknade nollvärden (kPa) <table border="1"> <thead> <tr> <th></th> <th>Portryck</th> <th>Friktion</th> <th>Spetstryck</th> </tr> </thead> <tbody> <tr> <td>Före</td> <td>100.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>Efter</td> <td>112.00</td> <td>3.00</td> <td>0.10</td> </tr> <tr> <td>Diff</td> <td>12.00</td> <td>3.00</td> <td>0.10</td> </tr> </tbody> </table> | | | Portryck | Friktion | Spetstryck | Före | 100.00 | 0.00 | 0.00 | Efter | 112.00 | 3.00 | 0.10 | Diff | 12.00 | 3.00 | 0.10 | |
| Portryck Område Faktor | Friktion Område Faktor | Spetstryck Område Faktor | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Portryck | Friktion | Spetstryck | | | | | | | | | | | | | | | | | | | | | | | |
| Före | 100.00 | 0.00 | 0.00 | | | | | | | | | | | | | | | | | | | | | | | |
| Efter | 112.00 | 3.00 | 0.10 | | | | | | | | | | | | | | | | | | | | | | | |
| Diff | 12.00 | 3.00 | 0.10 | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Använd skalfaktorer vid beräkning | | Korrigerig Portryck Linjär Friktion Linjär Spetstryck Linjär | | | | | | | | | | | | | | | | | | | | | | | | |
| Portrycksobservationer <table border="1"> <thead> <tr> <th>Djup (m)</th> <th>Portryck (kPa)</th> </tr> </thead> <tbody> <tr> <td>2.30</td> <td>0.00</td> </tr> </tbody> </table> | | Djup (m) | Portryck (kPa) | 2.30 | 0.00 | Skiktgränser <table border="1"> <thead> <tr> <th>Djup (m)</th> </tr> </thead> <tbody> <tr> <td> </td> </tr> </tbody> </table> | Djup (m) | | Klassificering <table border="1"> <thead> <tr> <th colspan="2">Djup (m)</th> <th rowspan="2">Densitet (ton/m³)</th> <th rowspan="2">Flytgräns</th> <th rowspan="2">Jordart</th> </tr> <tr> <th>Från</th> <th>Till</th> </tr> </thead> <tbody> <tr> <td>0.00</td> <td>0.50</td> <td>1.90</td> <td> </td> <td>Sa L</td> </tr> <tr> <td>0.50</td> <td>1.00</td> <td>1.80</td> <td> </td> <td>Let</td> </tr> </tbody> </table> | Djup (m) | | Densitet (ton/m ³) | Flytgräns | Jordart | Från | Till | 0.00 | 0.50 | 1.90 | | Sa L | 0.50 | 1.00 | 1.80 | | Let |
| Djup (m) | Portryck (kPa) | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.30 | 0.00 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Djup (m) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Djup (m) | | Densitet (ton/m ³) | Flytgräns | Jordart | | | | | | | | | | | | | | | | | | | | | | |
| Från | Till | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.00 | 0.50 | 1.90 | | Sa L | | | | | | | | | | | | | | | | | | | | | | |
| 0.50 | 1.00 | 1.80 | | Let | | | | | | | | | | | | | | | | | | | | | | |
| Anmärkning | | | | | | | | | | | | | | | | | | | | | | | | | | |

C P T - sondering

Appendix 6.4

Sida 1 av 1

| Projekt Project Pegasus 10067436 | | | | Plats Pfizer Strängnäs Borrhål 6 Datum 051125 | | | | | | | | | | |
|--|------|----------------|----------------------------|--|--------------------|-------------|----------------------|-----------------------|--------------------|------|------------|----------|-----------------|-----------------|
| Djup (m) | | Klassificering | ρ t/m ³ | W_L | τ_{fu} kPa | ϕ ° | σ_{vo} kPa | σ'_{vo} kPa | σ'_c kPa | OCR | I_D % | E MPa | M_{OC} MPa | M_{NC} MPa |
| Från | Till | | | | | | | | | | | | | |
| 0.00 | 0.50 | Sa L | 1.90 | | | | 4.7 | 4.7 | | | | | | |
| 0.50 | 1.00 | Let | 1.80 | | | | 13.7 | 13.7 | | | | | | |
| 1.00 | 1.20 | Si L | 1.70 | | ((89.3)) | (35.7) | 19.8 | 19.8 | | | 5.5 | 6.6 | 5.3 | |
| 1.20 | 1.40 | Si L | 1.70 | | ((82.1)) | (34.8) | 23.2 | 23.2 | | | 5.1 | 6.1 | 4.9 | |
| 1.40 | 1.60 | Le F | 1.85 | | | | 26.6 | 26.6 | | | | | | |
| 1.60 | 1.80 | Le L | 1.30 | | | | 29.7 | 29.7 | | | | | | |
| 1.80 | 2.00 | Le F | 1.85 | | | | 32.8 | 32.8 | | | | | | |
| 2.00 | 2.20 | Sa L | 1.80 | | | 36.0 | 36.4 | 36.4 | | 42.5 | 10.3 | 12.8 | 10.3 | |
| 2.20 | 2.40 | Sa My L | 1.70 | | | 34.9 | 39.8 | 39.8 | | 35.8 | 8.7 | 10.6 | 8.5 | |
| 2.40 | 2.60 | Le M | 1.60 | | (40.9) | | 43.1 | 41.1 | | | | | | |
| 2.60 | 2.80 | Le L | 1.30 | | (20.5) | | 45.9 | 41.9 | | | | | | |
| 2.80 | 3.00 | Le L | 1.30 | | (16.8) | | 48.5 | 42.5 | | | | | | |
| 3.00 | 3.20 | Le L | 1.30 | | (16.4) | | 51.0 | 43.0 | | | | | | |
| 3.20 | 3.40 | Le L | 1.30 | | (15.3) | | 53.6 | 43.6 | | | | | | |
| 3.40 | 3.60 | Le L | 1.30 | | (14.6) | | 56.1 | 44.1 | | | | | | |
| 3.60 | 3.80 | Le L | 1.45 | | (16.0) | | 58.8 | 44.8 | | | | | | |
| 3.80 | 3.99 | Le L | 1.45 | | (16.9) | | 61.6 | 45.6 | | | | | | |

Blad3

Soil analysis

| | | |
|---|--|---|
| Project Pegasus Pfizer | | |
| Project no 1 006 7436-02 | Contractor WSP Samhällsbyggnad, Örebro | Reviewed Reference no 14612 |
| Sample date 2005-11-23 - 2005-11-24 | Sample equipment Skr | Date/Sign 2005-12-09 Investigate date 2005-11-28 - 2005-12-06 |

| Location | Depth [m] | Soil classification / (ocular soil classification by SGF 1981) Legend of symbols (by SGF/BGS Beteckningssystem 2001:1) | Natural water content w [%] | Liquid limit w _L [%] | Frost heav. capacity ¹⁾ |
|----------|-----------|--|-----------------------------|---------------------------------|------------------------------------|
| 1 | 0.1-0.4 | Man made ground/ Browngrey gravelly silty sand, FgrsiSa | | | 3B/2 |
| | 0.4-1.0 | Browngrey rustspotted dry crust clay, Let | 26 | | 4B/3 |
| | 1.0-1.5 | Greybrown varved clay dry crust character, vLe(t) | 33 | | 4B/3 |
| | 1.5-2.0 | Greybrown varved clay, vLe (Referencelevel = Ground level) | 38 | | 4B/3 |
| 3 | 0.1-0.5 | Man made ground/ Browngrey rustspotted dry crust clay with thin siltylayer and gravelgrain, FLet (si) | 16 | | 4B/3 |
| | 0.5-0.7 | Man made ground/ Browngrey gravelly sand with lumps of clay, FgrSa | | | 2/1 |
| | 0.7-1.0 | Man made ground/ Grey sandy silty clay with gravelgrain, FsasiLe | 26 | | 5A/4 |
| | 1.0-1.5 | Browngrey rustspotted dry crust clay, Let | 31 | | 4B/3 |
| | 1.5-2.0 | Browngrey rustspotted varved dry crust clay, vLet (Referencelevel = Ground level) | 44 | | 4B/3 |
| 4 | 0.1-0.3 | Man made ground/ Browngrey rustspotted poorly silty dry crust clay, F(si)Let | 29 | | 4B/3 |
| | 0.3-0.5 | Man made ground/ Gray sandy silty dry crust clay with gravelgrain, FsasiLet | 27 | 50 | 5A/4 |
| | 0.5-1.0 | Grey rustspotted dry crust clay, Let | 26 | 55 | 4B/3 |
| | 1.0-2.0 | Browngrey rustspotted varved clay dry crust character, vLe(t) | 43 | | 4B/3 |
| | 2.0-2.5 | Greybrown varved clay, vLe (Referencelevel = Ground level) (Ground water level = 1.50 m beneath ground level 2005-11-23) | 52 | 60 | 4B/3 |
| | | | | | |
| 5 | 0.1-1.0 | Browngrey rustspotted dry crust clay, Let | 27 | | 4B/3 |
| | 1.0-1.5 | Greybrown rustspotted varved clay dry crust character, vLe(t) | 40 | | 4B/3 |
| | 1.5-2.0 | Greybrown rustspotted varved clay, vLe (Referencelevel = Ground level) | 44 | | 4B/3 |

1) Classification by Anläggnings AMA 98.

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Soil analysis

| | | |
|------------------------------------|--|---|
| Project Pegasus Pfizer | | |
| Project no 1 006 7436-02 | Contractor WSP Samhällsbyggnad, Örebro | Reviewed Reference no 14612 |
| Sample date 2005-11-23 | Sample equipment Skr, Kv St II ø 50mm | Date/Sign 2005-12-09 Investigate date 2005-11-28 - 2005-11-29 |

| Location | Depth [m] | Soil classification / (ocular soil classification by SGF 1981) Legend of symbols (by SGF/BGS Beteckningssystem 2001:1) | Bulk density ρ [t/m ³] | Natural water ratio w [%] | Liquid limit w_L [%] | Sensitivity S_t | Undr. shear strain _{tu} [kPa] ¹⁾ | Frost heaving capacity 2) | Rem |
|----------|-----------|--|---|--------------------------------|---------------------------|----------------------|---|------------------------------|-----|
| 1 | 0.1-0.4 | Man made ground/ Browngrey gravelly silty sand, FgrsiSa | | | | | | 3B/2 | |
| | 0.4-1.0 | Browngrey rustspotted dry crust clay, Let | | 26 | | | | 4B/3 | |
| | 1.0-1.5 | Greybrown varved clay | | 33 | | | | 4B/3 | |
| | 1.5-2.0 | Greybrown varved clay, vLe | | 38 | | | | 4B/3 | |
| | 3.0 | Grey varved clay, vLe (Referencelevel = Ground level) | 1,65 | 62 | 46 | 16 | 10 | 4B/3 | |
| 4 | 0.1-0.3 | Man made ground/ Browngrey rustspotted poorly silty dry crust clay, F(si)Let | | 29 | | | | 4B/3 | |
| | 0.3-0.5 | Man made ground/ Gray sandy silty dry crust clay with gravelgrain, FsasiLet | | 27 | 50 | | | 5A/4 | |
| | 0.5-1.0 | Grey rustspotted dry crust clay, Let | | 26 | 55 | | | 4B/3 | |
| | 1.0-2.0 | Browngrey rustspotted varved clay dry crust character, vLe(t) | | 43 | | | | 4B/3 | |
| | 2.0-2.5 | Greybrown varved clay, vLe | | 52 | 60 | | | 4B/3 | |
| | 2.5 | Browngrey rustspotted varved clay, vLe | 1,74 | 51 | 57 | 11 | 30 | 4B/3 | |
| | 3.5 | Browngrey sulphidespotted varved clay, suvLe | 1,60 | 65 | 49 | 27 | 12 | 4B/3 | |
| | 4.5 | Grey varved clay, vLe | 1,69 | 52 | 36 | 57 | 12 | 4B/3 | |
| | 5.5 | Grey varved clay with sulphidelayer, vLe (su)vLe (Referencelevel = Ground level) (Ground water level = 1.50 m beneath ground level 2005-11-23) | 1,68 | 61 | 46 | 35 | 16 | 4B/3 | |

1) Uncorrected value. Correction is recommended by SGF-INFO nr 3

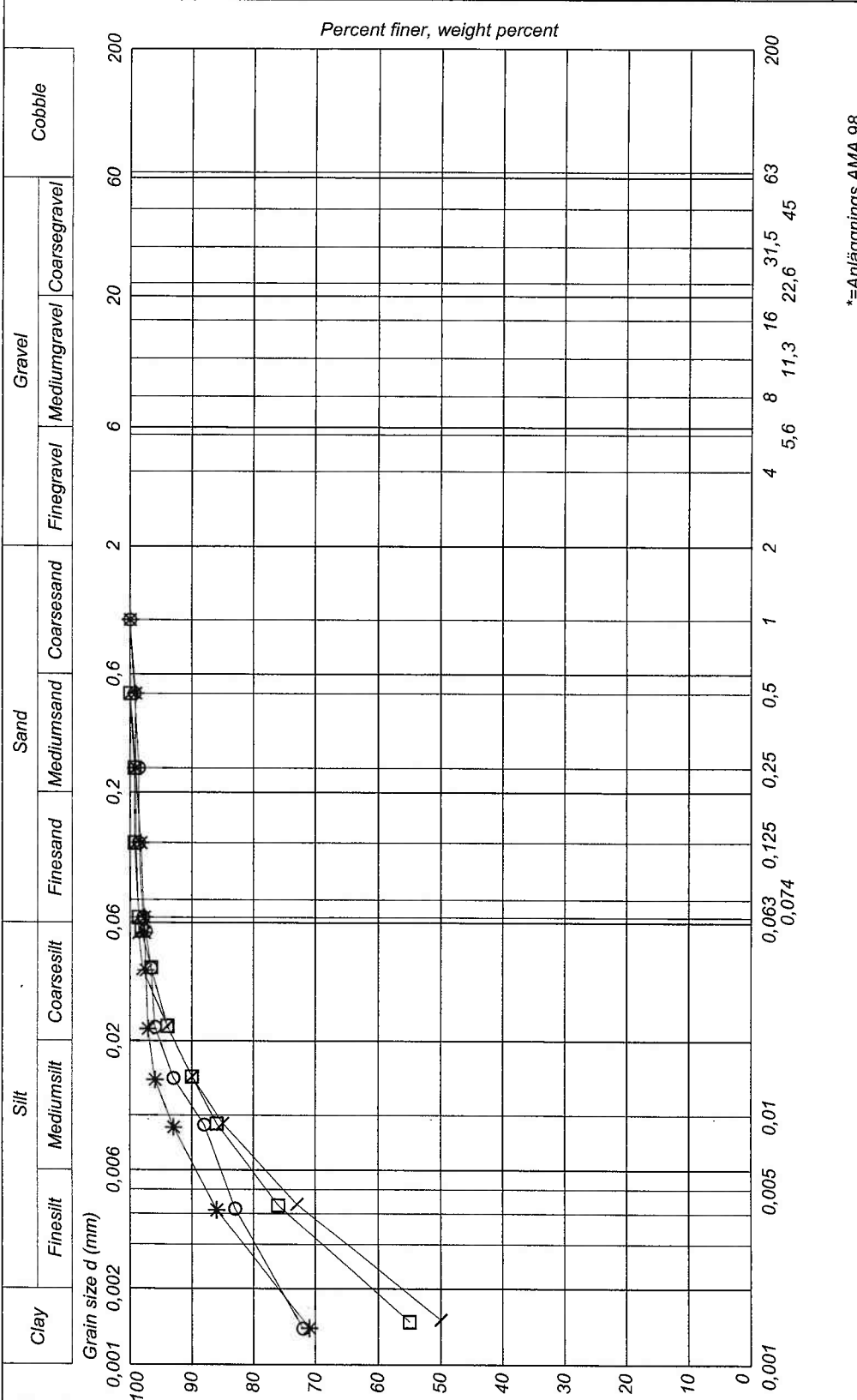
2) Classification by Anläggnings AMA 98

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Grainsize Distribution
according to SS027123 and SS027124

| | | |
|--|-------------------------------|----------------------------|
| Project: Pegasus Pfizer | | Date: 2005-12-07 |
| Project no: 1 006 7436-02 | Sampledate: 2005-11-29 | Reference no: 14612 |
| Contractor: WSP Samhällsbyggnad, Örebro | | Reviewed/Sign: |



| Location | Sieved legend | Depth (m) | Soil classification | Quantity Sieved (g) | Ignition loss % | Mat. % > mm | *Anläggnings AMA 98 | | | | | | | |
|----------|---------------|-----------|---|---------------------|-----------------|-------------|---------------------|-------|-----|-----|-------|-------|-------|-------|
| | | | | | | | Frost-heavy cap | d10 | d60 | d90 | 0,014 | 0,011 | 0,006 | 0,014 |
| 1 | — | 1,0-1,5 | Graybrown varved clay dry crust character | 112 | | | 4B/3* | 0,002 | | | | | | |
| 3 | ○ | 1,5-2,0 | Browngray rustspotted varved dry crust clay | 144 | | | 4B/3* | | | | | | | |
| 4 | * | 1,0-2,0 | Browngray rustspotted varved clay dry crust character | 118 | | | 4B/3* | | | | | | | |
| 5 | □ | 1,0-1,5 | Graybrown rustspotted varved clay dry crust character | 146 | | | 4B/3* | 0,002 | | | | | | |

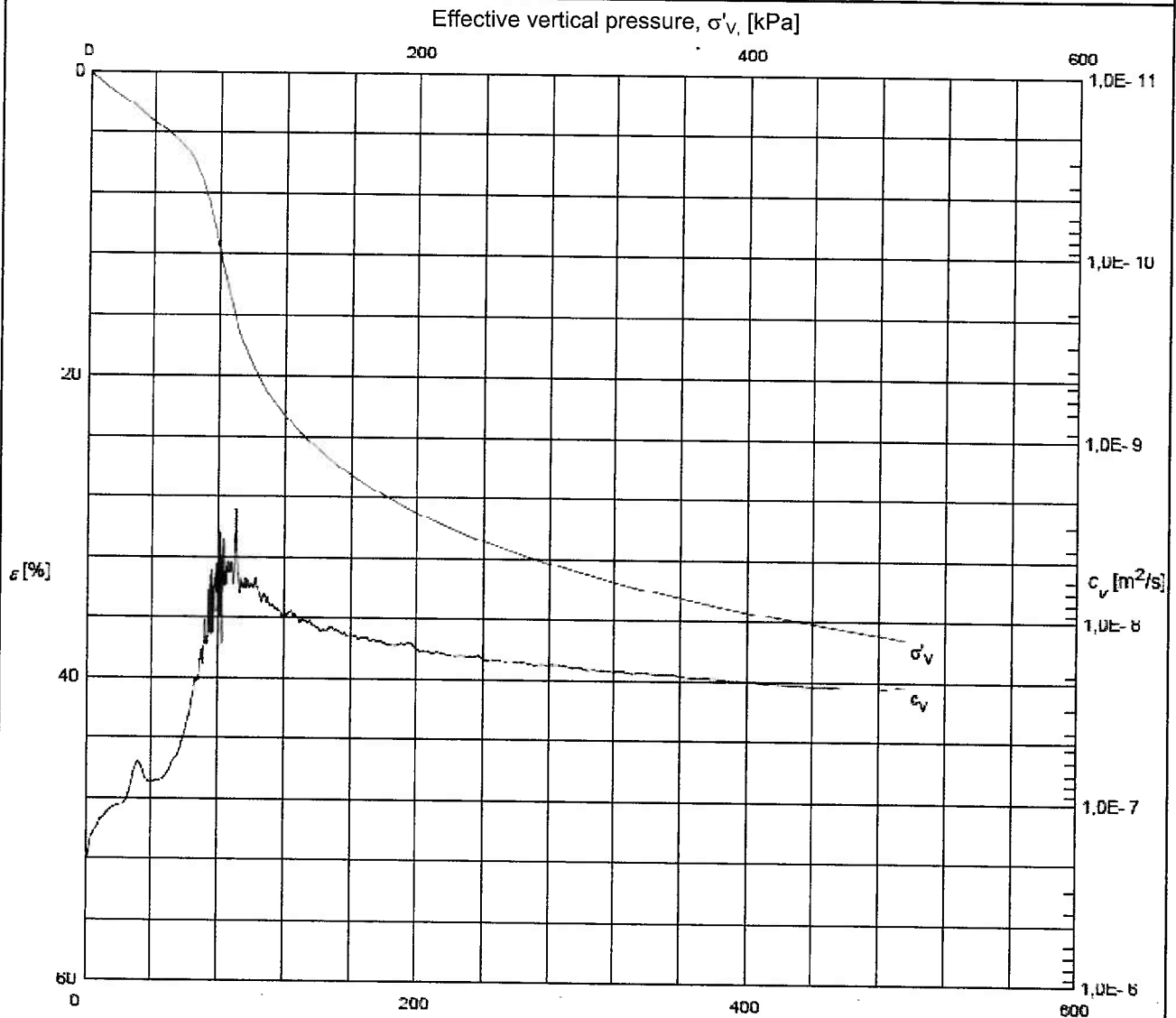
SWECO GEOLAB, Gjørwellsgatan 22, Box 34044
SE-100 26 STOCKHOLM, SWEDEN, Phone +46(8)695 60 00, Fax +46(8)695 63 60
geolab@sweco.se, www.sweco.se/geolab, A part of SWECO VBB AB

[https://geolab.sweco.se/WebServices/GeoWebService.aspx?op=GetProject\(14612\)](https://geolab.sweco.se/WebServices/GeoWebService.aspx?op=GetProject(14612))



Oedometer test, CRS

| | | | |
|---|---|--------------------------|----------------------------|
| Project Pegasus Pfizer | | | |
| Project no 1 006 7436-02 | Contractor WSP Samhällsbyggnad, Örebro | Date/Sign 2005-12-07 | Ref. no/Reviewed 14612 |
| Location 4 | Depth [m] 3,5 | Apparatus nr 1 | |
| Bulk density [t/m ³] 1,60 | Water ratio [%] 65 | Test temp. [°C] 20 | Sample diameter [mm] 50 |
| Soil Classification Brown grey sulphidespotted varved clay | | Sample height [mm] 20 | Def. speed [%/h] 0,74 |



The test is performed and evaluated according to Swedish Standard SS 027 126. At the evaluation of the c_v and k_i , a correction has been made so that the values are equivalent to a temperature of 7° C. The equipment own deformation is observed.

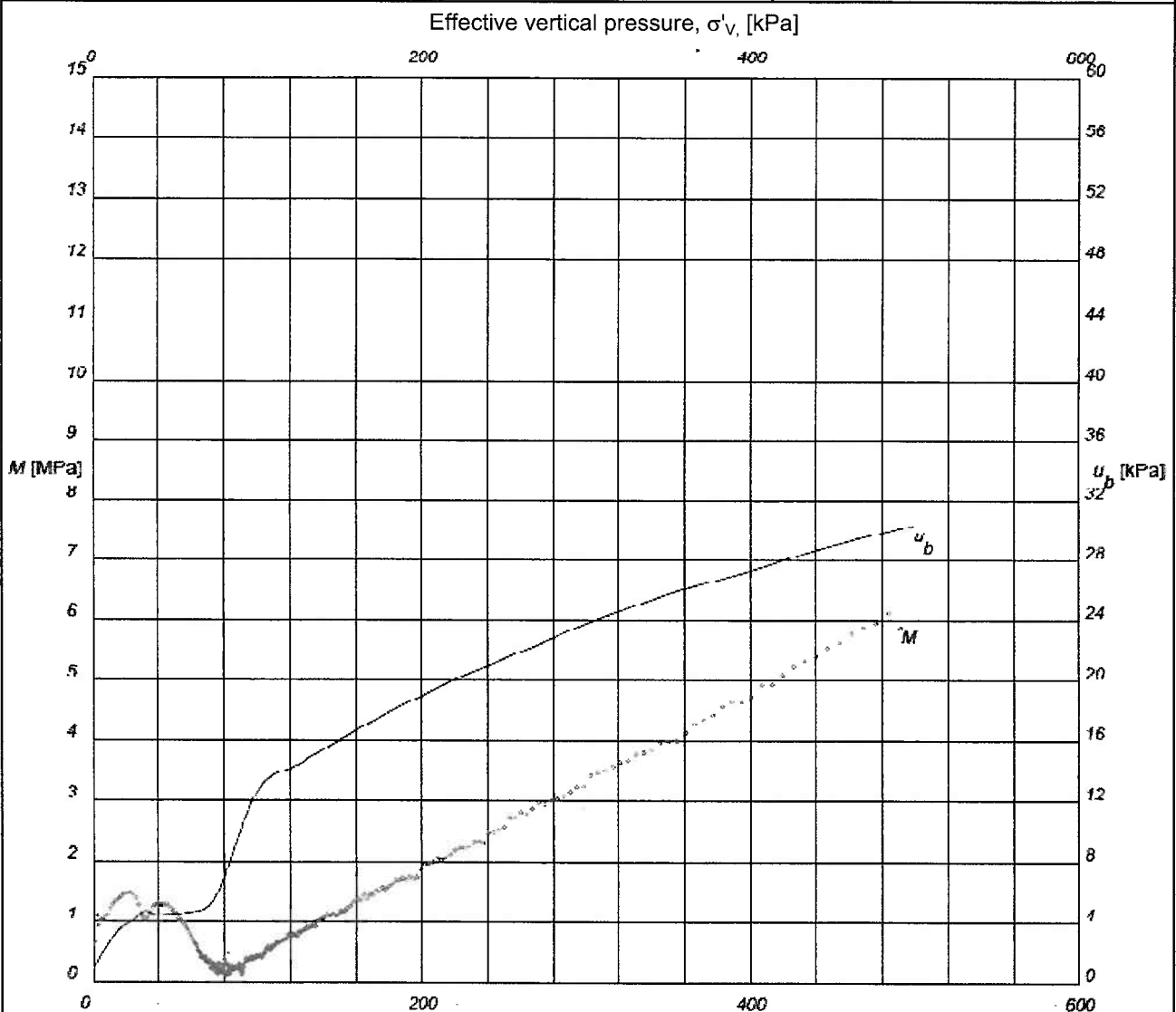
| σ'_c kPa | M_L , kPa | σ'_L kPa | M' | $C_{v,min}$ m ² /s | k_i m/s | β'_k |
|-----------------|-------------|-----------------|------|-------------------------------|-----------|------------|
| 57 | 216 | 76 | 14,6 | 5,3E-9 | 8,3E-10 | 3,6 |

Remark



Evaluation of modulus and control of porpressure

| | | | | |
|---------------------------------|---------------------------------------|------------------|----------------------|------|
| Project Pegasus Pfizer | | | | |
| Project no | Contractor | Date/Sign | 2005-12-07 | |
| 1 006 7436-02 | WSP Samhällsbyggnad, Örebro | Ref. no/Reviewed | 14612 | |
| Location | 4 | Depth [m] | 3,5 | |
| Bulkdensity [t/m ³] | 1,60 | Water ratio [%] | 65 | |
| Test temp. [°C] | | 20 | | |
| Soil Classification | Browngrey sulphidespotted varved clay | | Apparatus nr | 1 |
| | | | Sample diameter [mm] | 50 |
| | | | Sample height[mm] | 20 |
| | | | Def.speed [%/h] | 0,74 |



The test is performed and evaluated according to Swedish Standard SS 027 126. The equipment own deformation is observed.

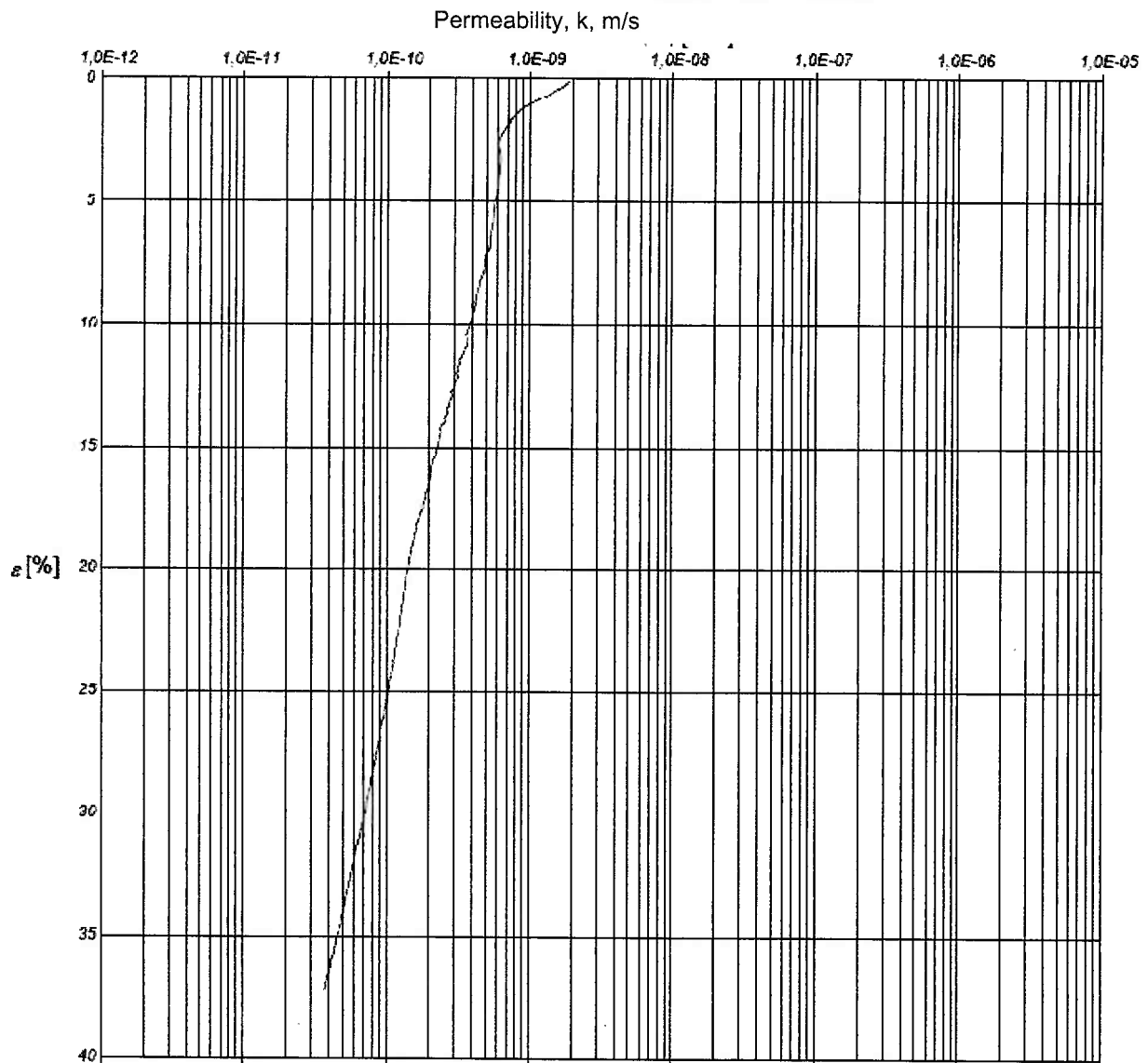
| M' | σ'_L kPa |
|------|-----------------|
| 14,6 | 76 |

Remark



Evaluation of permeability

| | | | | | | |
|---------------------------------|--|-----------------|----|------------------|----------------------|------|
| Project Pegasus Pfizer | | | | | | |
| Project no | Contractor | | | Date/Sign | 2005-12-07 | |
| 1 006 7436-02 | WSP Samhällsbyggnad, Örebro | | | Ref. no/Reviewed | 14612 | |
| Location | 4 | Depth [m] | | 3,5 | Apparatus nr | |
| Bulkdensity [t/m ³] | 1,60 | Water ratio [%] | 65 | Test temp. [°C] | 20 | |
| Soil Classification | Brown grey sulphidespotted varved clay | | | | Sample diameter [mm] | 50 |
| | | | | | Sample height [mm] | 20 |
| | | | | | Def. speed [%/h] | 0,74 |



The test is performed and evaluated according to Swedish Standard SS 027 126. At the evaluation of the permeability k , a correction has been made so that the values are equivalent to a temperature of 7° C.

| k_i m/s | β'_k |
|-----------|------------|
| 8,3E-10 | 3,6 |

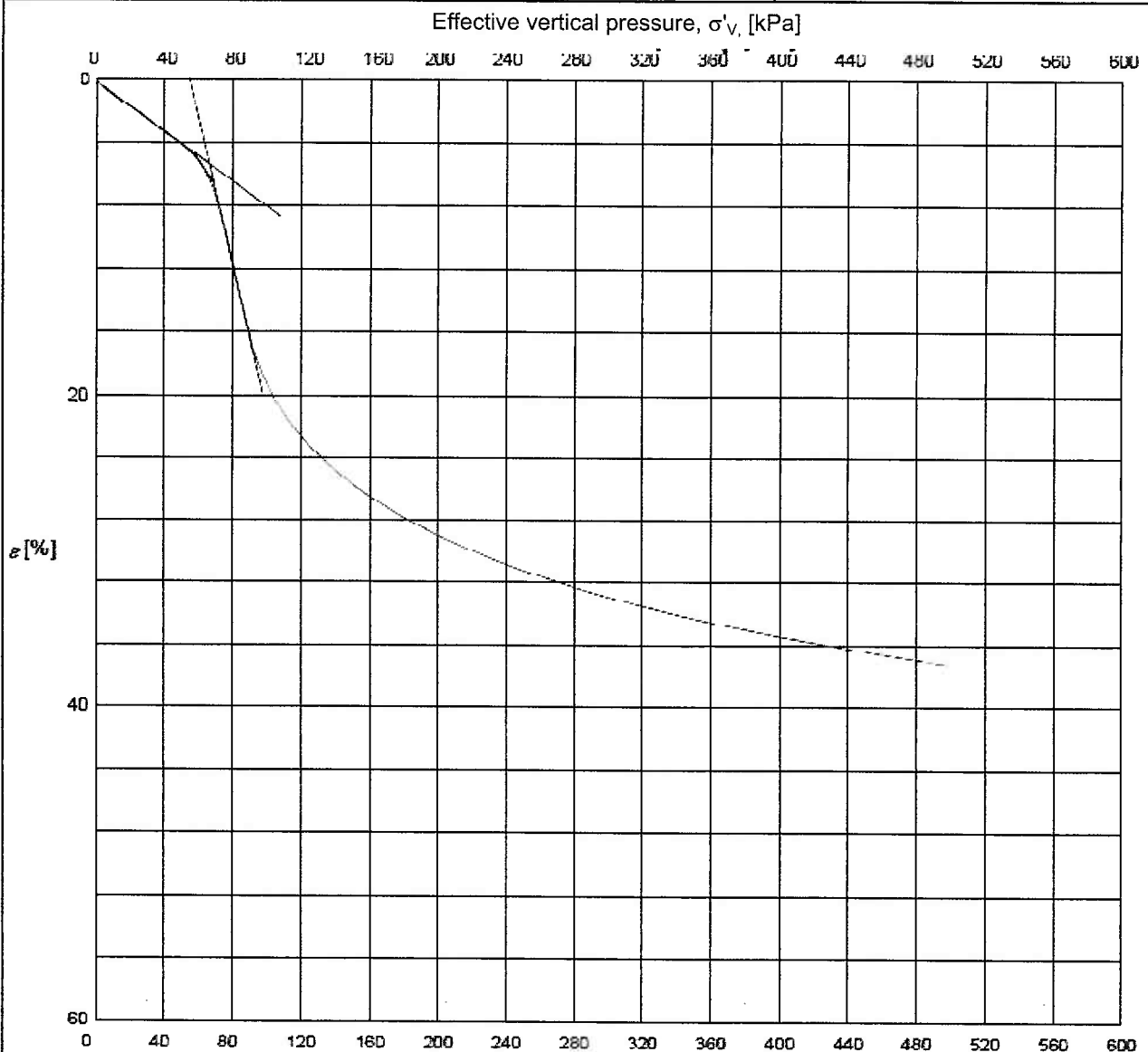
Remark



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Evaluation of preconsolidation pressure and linear modulus

| | | |
|---|---|---|
| Project Pegasus Pfizer | | |
| Project no 1 006 7436-02 | Contractor WSP Samhällsbyggnad, Örebro | Date/Sign 2005-12-07 Ref. no/Reviewed 14612 |
| Location 4 | Depth [m] 3,5 | Apparatus nr 1 |
| Bulk density [t/m ³] 1,60 | Water ratio [%] 65 | Test temp. [°C] 20 |
| Soil Classification Brown-grey sulphidespotted varved clay | | Sample diameter [mm] 50 |
| | | Sample height [mm] 20 |
| | | Def. speed [%/h] 0,74 |



The test is performed and evaluated according to Swedish Standard SS 027 126. The equipment own deformation is observed.

| σ'_c kPa | M_L , kPa | σ'_L kPa |
|-----------------|-------------|-----------------|
| 57 | 216 | 76 |

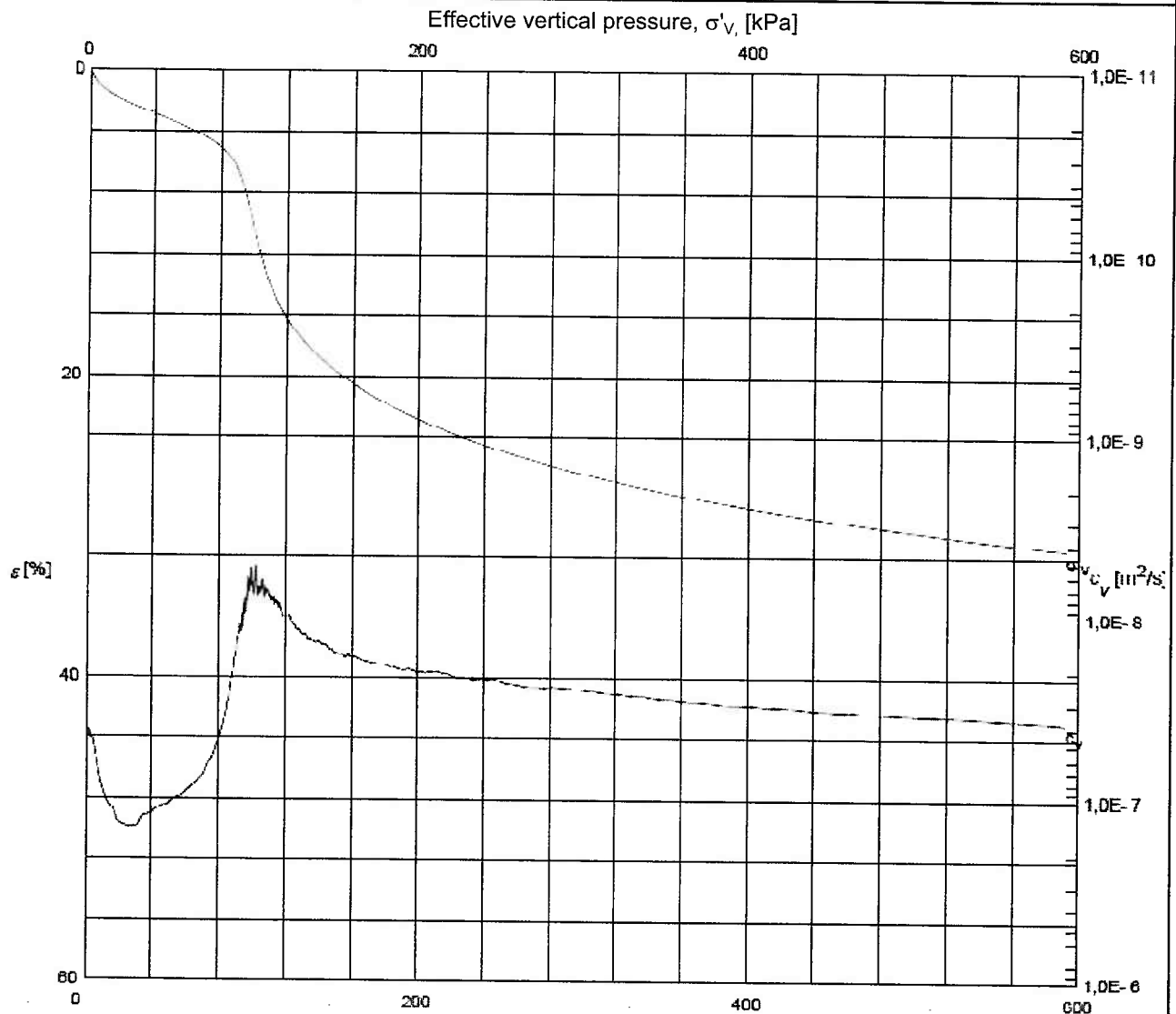
Remark



P:\2172\Uppdrag 2005\14612\CRS 4 3,5m 051205en.xls

Oedometer test, CRS

| | | | | | | |
|----------------------------------|-------------------------------------|-----------------|----|------------------|----------------------|------|
| Project Pegasus Pfizer | | | | | | |
| Project no | Contractor | | | Date/Sign | 2005-12-09 | |
| 1 006 7436-02 | WSP Samhällsbyggnad, Örebro | | | Ref. no/Reviewed | 14612 | |
| Location | 4 | Depth [m] | | 5,5 | Apparatus nr | |
| Bulk density [t/m ³] | 1,68 | Water ratio [%] | 61 | Test temp. [°C] | 20 | |
| Soil Classification | Grey varved clay with sulphidelayer | | | | Sample diameter [mm] | 50 |
| | | | | | Sample height [mm] | 20 |
| | | | | | Def. speed [%/h] | 0,74 |



The test is performed and evaluated according to Swedish Standard SS 027 126. At the evaluation of the c_ϕ and k , a correction has been made so that the values are equivalent to a temperature of 7° C. The equipment own deformation is observed.

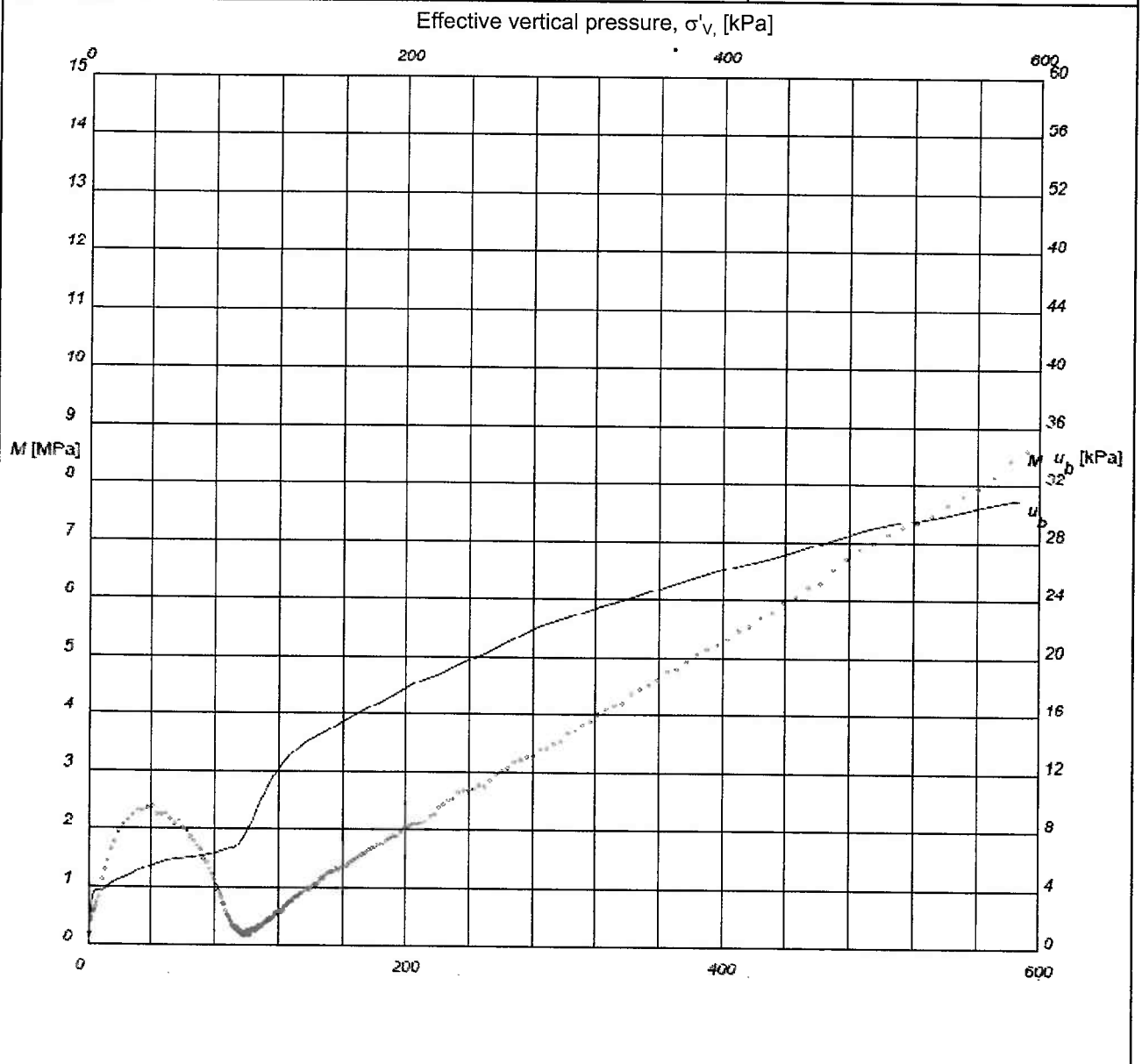
| σ'_c kPa | M_L , kPa | σ'_L kPa | M' | $C_{v,min}$ m ² /s | k_i m/s | β'_k |
|-----------------|-------------|-----------------|------|-------------------------------|-----------|------------|
| 74 | 230 | 89 | 17,7 | 6,5E-9 | 7,4E-10 | 3,9 |

Remark



Evaluation of modulus and control of porpressure

| | | | | |
|---------------------------------|-------------------------------------|------------------|----------------------|------|
| Project Pegasus Pfizer | | | | |
| Project no | Contractor | Date/Sign | 2005-12-09 | |
| 1 006 7436-02 | WSP Samhällsbyggnad, Örebro | Ref. no/Reviewed | 14612 | |
| Location | 4 | Depth [m] | 5,5 | |
| Bulkdensity [t/m ³] | 1,68 | Water ratio [%] | 61 | |
| Test temp. [°C] | 20 | | Apparatus nr | 1 |
| Soil Classification | Grey varved clay with sulphidelayer | | Sample diameter [mm] | 50 |
| | | | Sample height[mm] | 20 |
| | | | Def. speed [%/h] | 0,74 |



The test is performed and evaluated according to Swedish Standard SS 027 126. The equipment own deformation is observed.

| | |
|------|-----------------|
| M' | σ'_L kPa |
| 17,7 | 89 |

Remark



Evaluation of permeability

| | | | | |
|---------------------------------|-------------------------------------|----------------------|-----------------|----|
| Project Pegasus Pfizer | | | | |
| Project no | Contractor | Date/Sign | 2005-12-09 | |
| 1 006 7436-02 | WSP Samhällsbyggnad, Örebro | Ref. no/Reviewed | 14612 | |
| Location | 4 | Depth [m] | 5,5 | |
| Bulkdensity [t/m ³] | 1,68 | Water ratio [%] | 61 | |
| Soil Classification | Grey varved clay with sulphidelayer | | Test temp. [°C] | 20 |
| | | Apparatus nr | 1 | |
| | | Sample diameter [mm] | 50 | |
| | | Sample height[mm] | 20 | |
| | | Def.speed [%/h] | 0,74 | |

Permeability, k, m/s

The test is performed and evaluated according to Swedish Standard SS 027 126. At the evaluation of the permeability k, a correction has been made so that the values are equivalent to a temperature of 7° C.

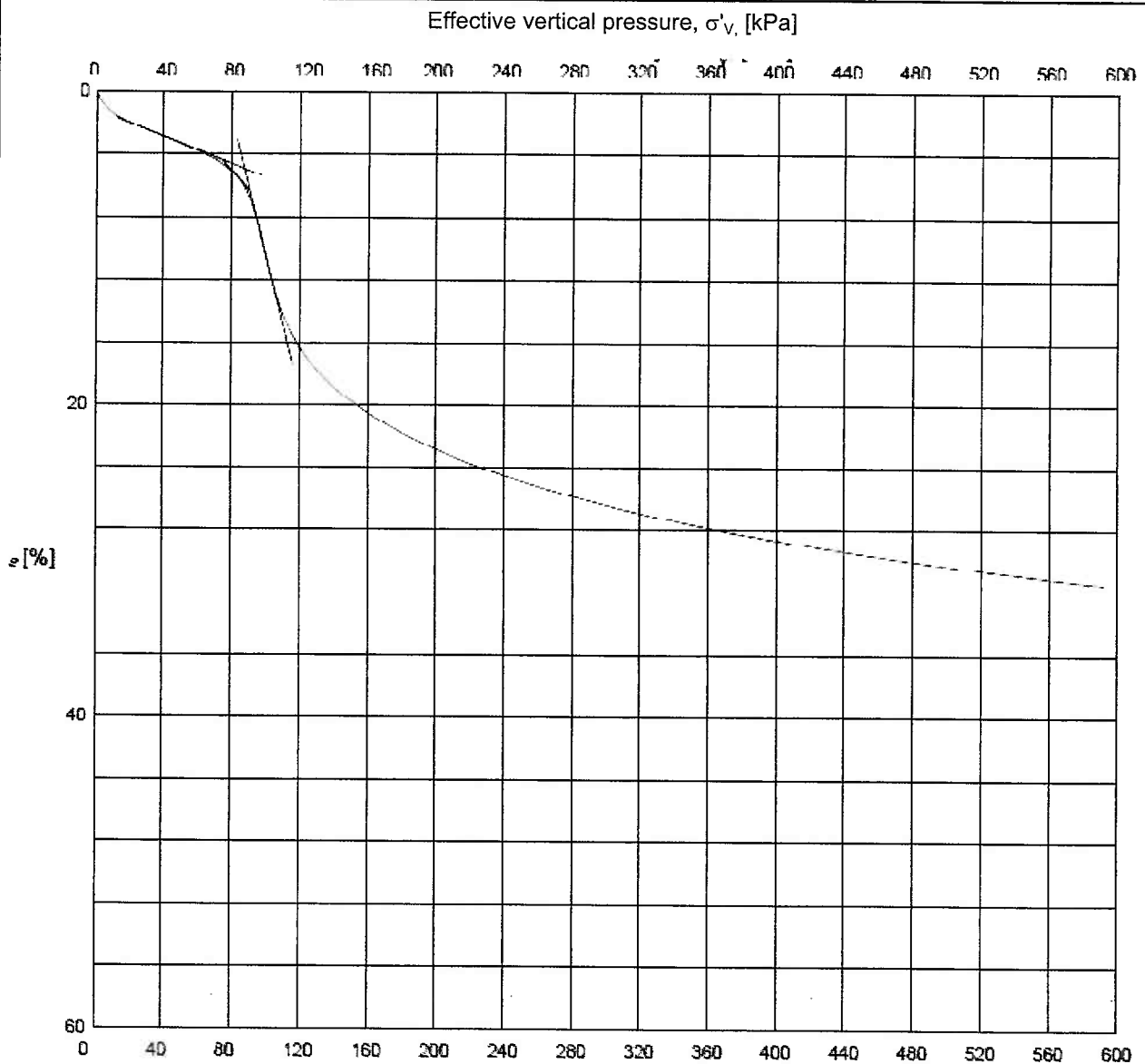
| | |
|-----------|------------|
| k_i m/s | β'_k |
| 6,5E-9 | 3,9 |

Remark



Evaluation of preconsolidation pressure and linear modulus

| | | |
|--|---|--|
| Project Pegasus Pfizer | | |
| Project no 1 006 7436-02 | Contractor WSP Samhällsbyggnad, Örebro | Date/Sign 2005-12-09 Ref. no/Reviewed 14612 |
| Location 4 | Depth [m] 5,5 | Apparatus nr 1 |
| Bulk density [t/m^3] 1,68 | Water ratio [%] 61 | Test temp. [°C] 20 |
| Soil Classification Grey varved clay with sulphidelayer | | Sample diameter [mm] 50 Sample height [mm] 20 Def. speed [%/h] 0,74 |



The test is performed and evaluated according to Swedish Standard SS 027 126. The equipment own deformation is observed.

| σ'_c kPa | M_L , kPa | σ'_L kPa |
|-----------------|-------------|-----------------|
| 74 | 230 | 89 |

Remark



Corrosion test

| | | |
|---|---|--|
| Project Pegasus Pfizer | | |
| <i>Project no</i> 1 006 7436-02 | <i>Contractor</i> WSP Samhällsbyggnad, Örebro | <i>Reviewed</i> <i>Reference no</i> 14612 |
| <i>Sample date</i> 2005-11-23 - 2005-11-24 | <i>Analysesmethod</i> Corrosive properties in soil by modified Soilbox method¹ | <i>Date/Sign</i> 2005-12-07 <i>Investigate date</i> 2005-12-05 |

| Location | Depth [m] | Soil classification ² | Resistivity at 12° C [ohm.cm] | pH | Sulphide SO ₂ | Natural water content w [%] | Conductivity mS/cm |
|----------|-----------|----------------------------------|-------------------------------|-----|--------------------------|-----------------------------|--------------------|
| 1 | 3.0 | Gray varved clay | 2140 | 7,8 | present | 63 | 0,26 |
| 4 | 2.5 | Brown rustspotted varved clay | 1670 | 7,6 | none | 52 | 0,23 |

- 1) Establishes the corrosive properties of soil material for iron tubes (VRS-N) according to Gustavsberg Div. VVS Oct. 1986
2) Ocular soil classification according to SGF (1981)

Limits

Resistivity, Soilbox > 2500 ohm.cm
pH: > 5
Sulphide: none

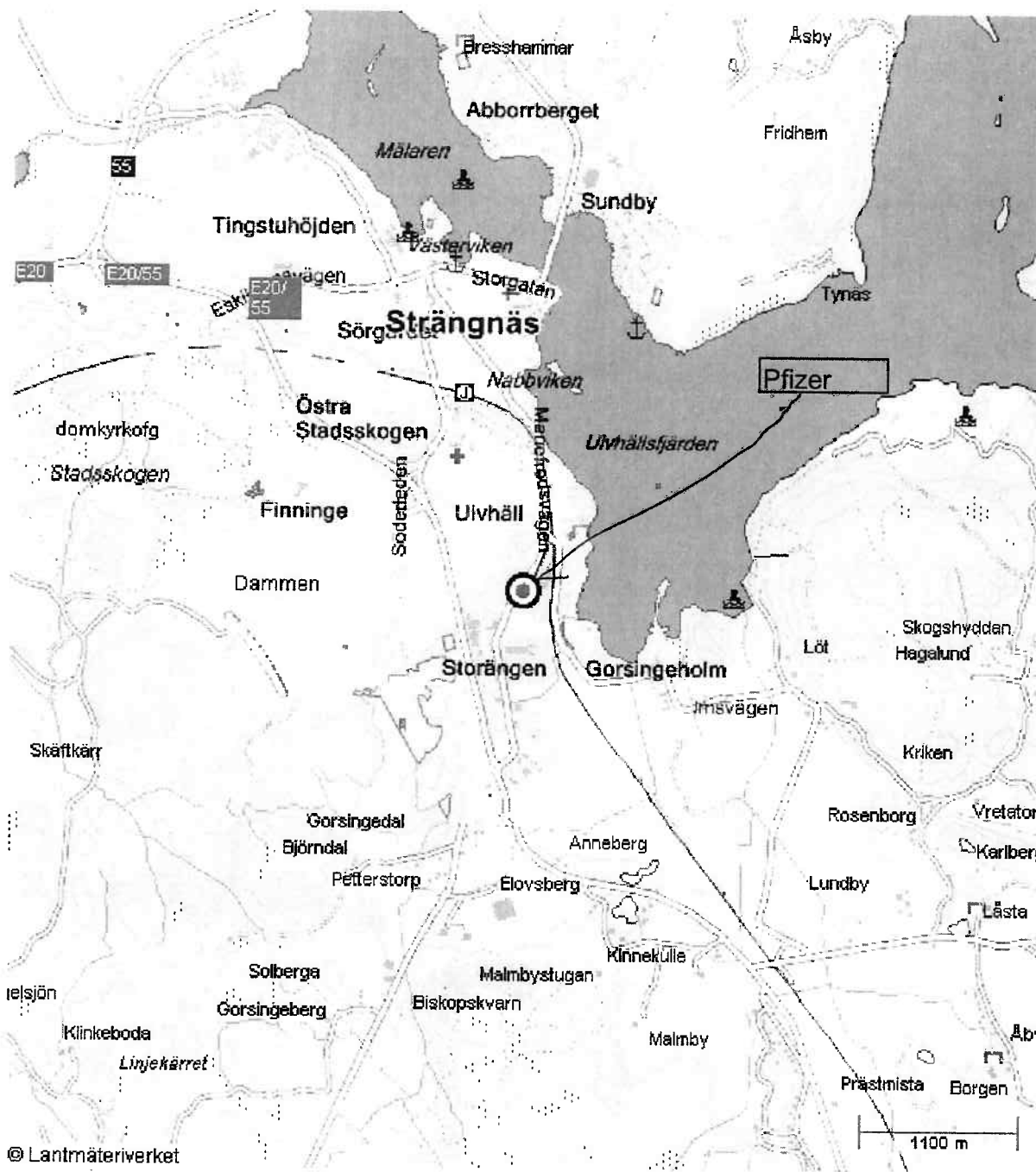
Comments

GROUNDWATER AND PORE PREASSURE MEASUREMENTS

| <u>POINT</u> | <u>DATE</u> | <u>GROUNDW. LVL</u> | <u>PORE PR. LVL</u> | <u>COMMENT</u> |
|--------------|--------------|---------------------|---------------------|--------------------------|
| 1 | 8 Dec, 2005 | | +2.55 | |
| 1 | 22 Dec, 2005 | | +2.44 | |
| 3 | 24 Nov, 2005 | +2.87 | | The level not stabilised |
| 3 | 8 Dec, 2005 | +1.64 | | |
| 3 | 22 Dec, 2005 | +1.63 | | |
| 4 | 8 Dec, 2005 | | +1.52 | |
| 4 | 22 Dec, 2005 | | +1.44 | |
| 5 | 24 Nov, 2005 | +1.72 | | |
| 5 | 8 Dec, 2005 | +1.97 | | |
| 5 | 22 Dec, 2005 | +1.69 | | |



📍 Mariefredsvägen 37, 64541 STRÄNGNÄS



TRANSLATION GUIDE TO CONRAD EVALUATION

| | |
|-------------------------------|---|
| Använd skalfaktor | Scale factor that has been used |
| Beräknade nollvärden | Calculated neutral values |
| Frikionsvinkel | Angle of internal friction |
| Förborrat material | Pre-drilled material |
| Förbormningsdjup | Pre-drilling depth |
| Geometri | Geometry |
| Grundvattenyta | Groundwater table |
| Inmatade nollvärden | Input neutral values |
| Kalibreringsdata | Values of calibration |
| Klassificering | Denomination |
| Korrigerig | Revision |
| Nivå vid referens | Level at reference |
| Odränerad skjuvhållfasthet | Undrained shear strength |
| Portrycksobservationer | Observations of pore pressure |
| Referens : my | Reference : ground surface |
| Relativ lagringstäthet | Relative density |
| Skiktgräns | Limit of layer |
| Startdjup / Stoppdjup | Depth at which CPT starts / stops |
| Utrustning | Equipment |
| Utvärderad enligt SGI info 15 | Evaluated according to SGI (Swedish Geotechnical Institute) "info 15" |