



ASFALDI PAIGALDAMISE JA KVALITEEDI TAGAMISE TEHNOLOOGIAID TUTVUSTAV TEABEPÄEV

7. august 2014, Avinurme Elulaadikeskuses

11.00 – 12.30 I osa:

* Maanteeameti teedehituse kvaliteedipoliitikast

Kaupo Sirk, Maanteeamet

* Vögele asfaltitüürid ja eri riikide kasutamise kogemused

Marcio Cavalcanti Happle, Joseph Vögele AG, Saksamaa

* Asfalkatte eluea suurendamine termoskaneerimise seadmetega

Conny Andersson, Adelo AB, Rootsi

Conny Andersson

C A Konsult and Adelo AB



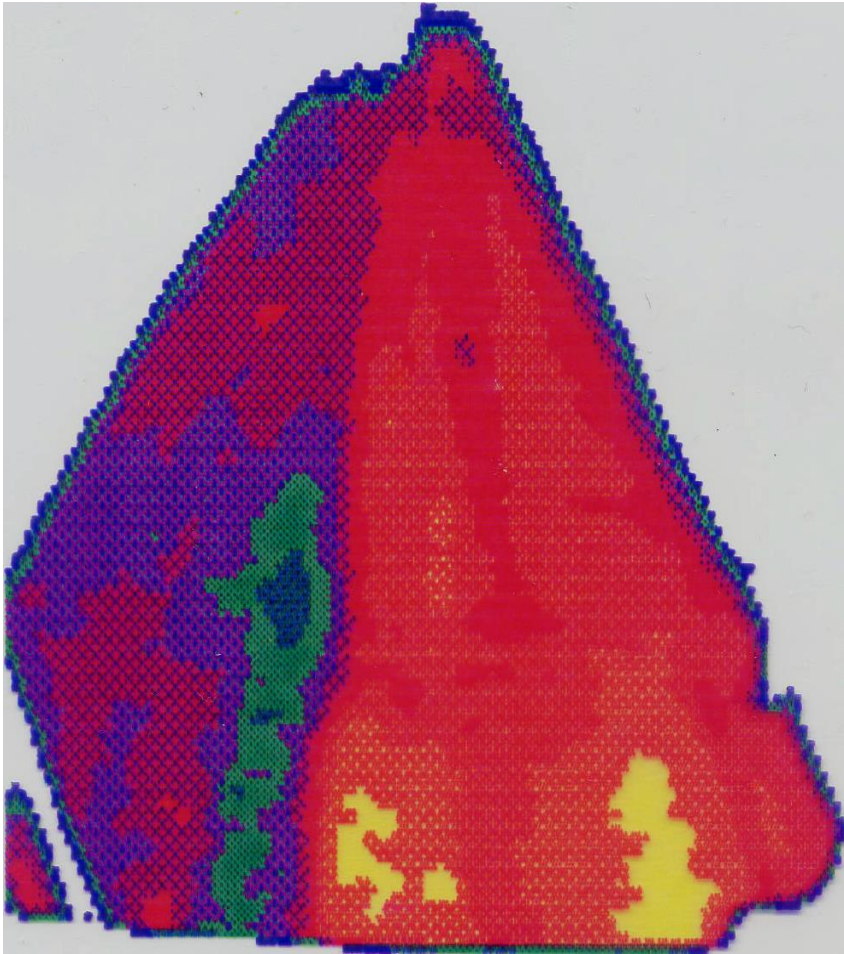
ADELO AB

Speciality

- A = Asphalt
- D = Distribution: management of asphalt
- E = Economy: productivity and bonus
- LO = Logistic

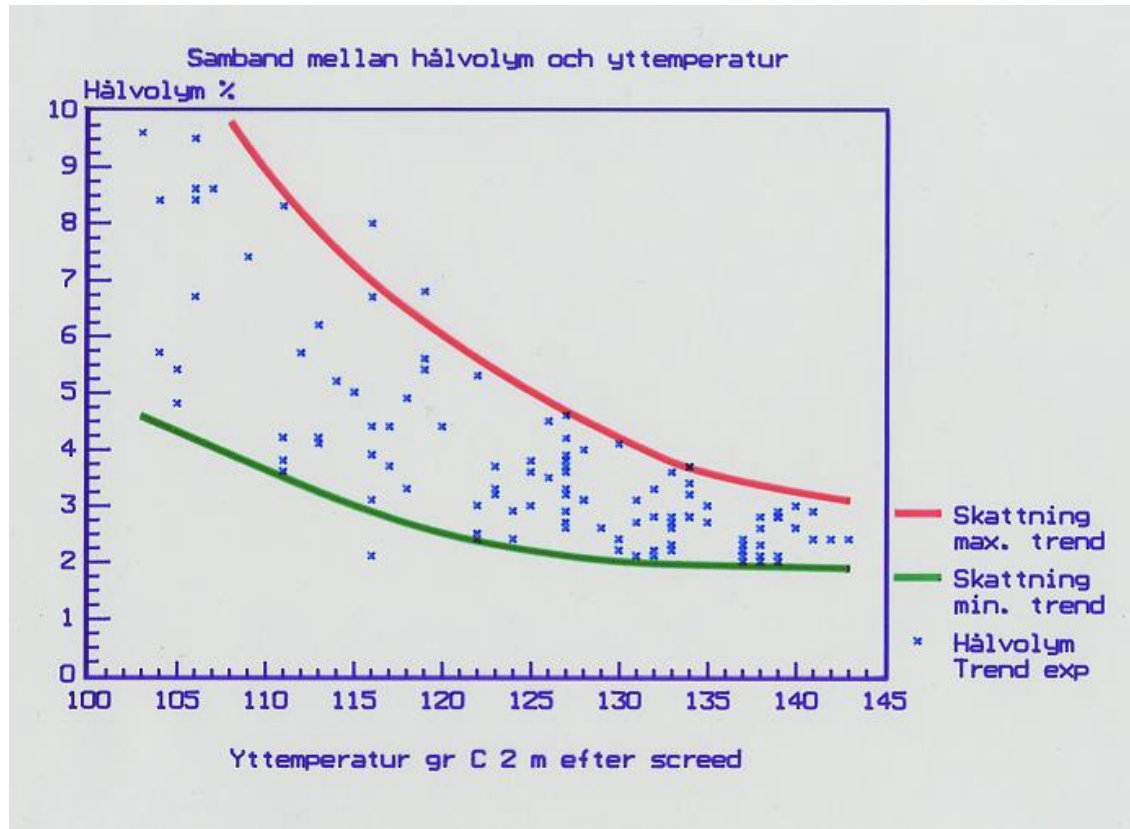
IR-kamera

Start 1988



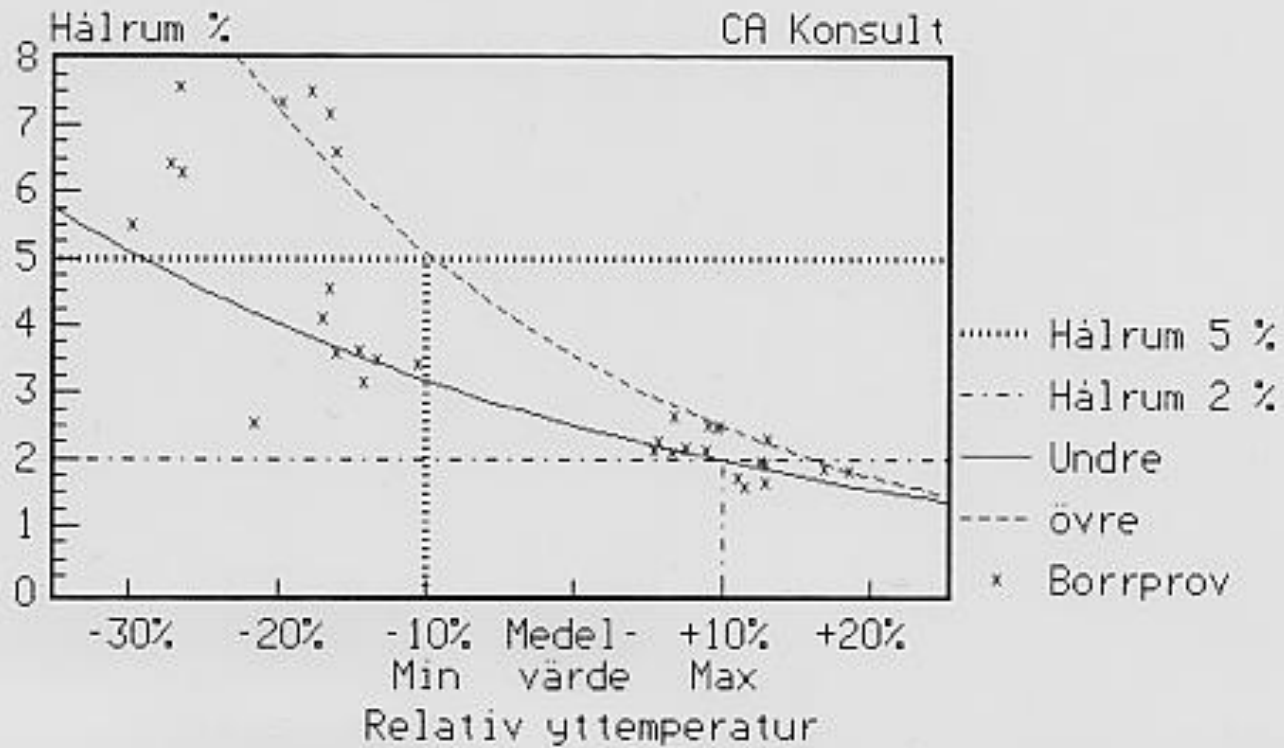
Resultat from a test 1988

Aircontent and Temp



Valuation of IR-Thermography 1991

Samband: Relativ yttemperatur - Hålrum
Utvärdering av generella gränser

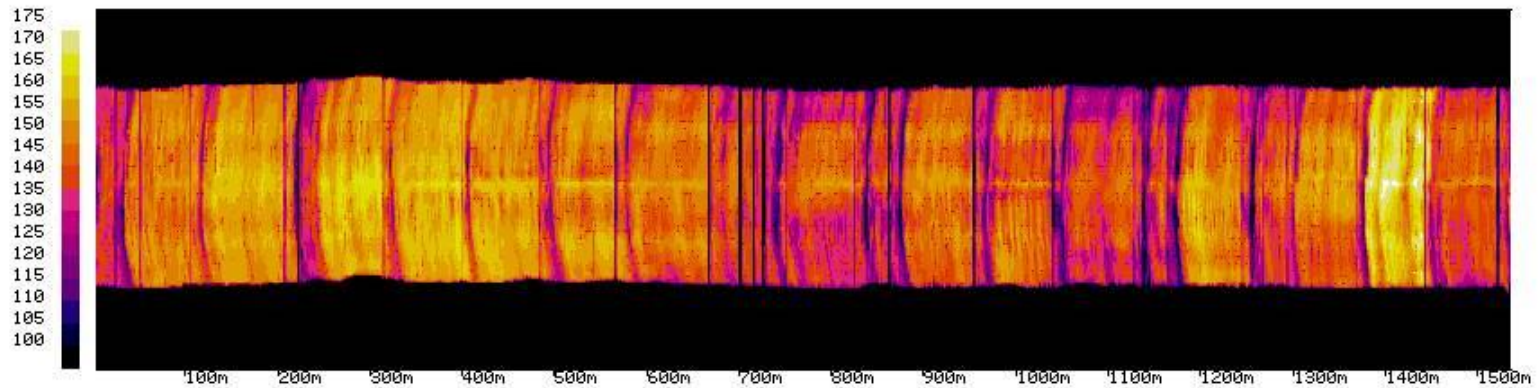


IR-kamera

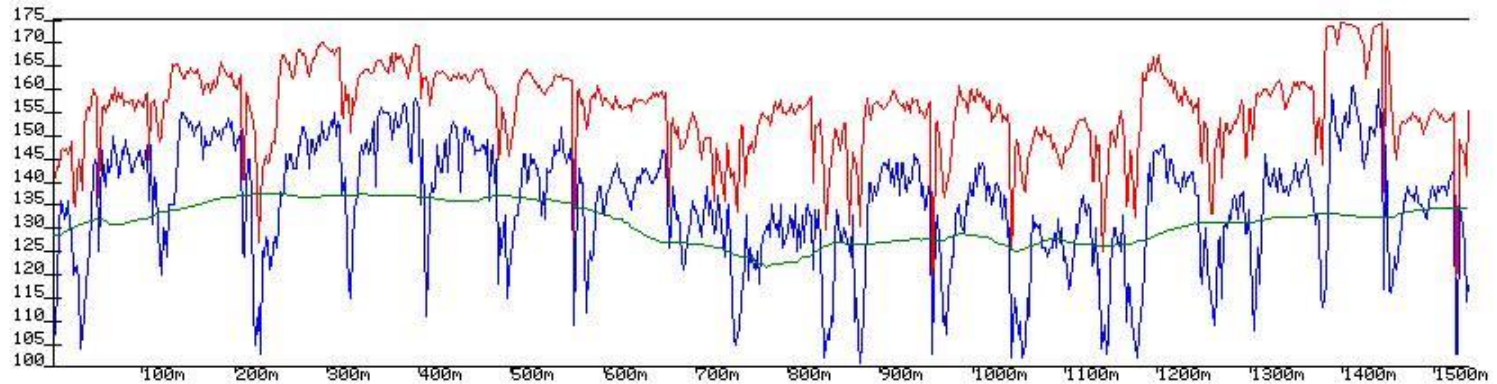
GPT start 1994



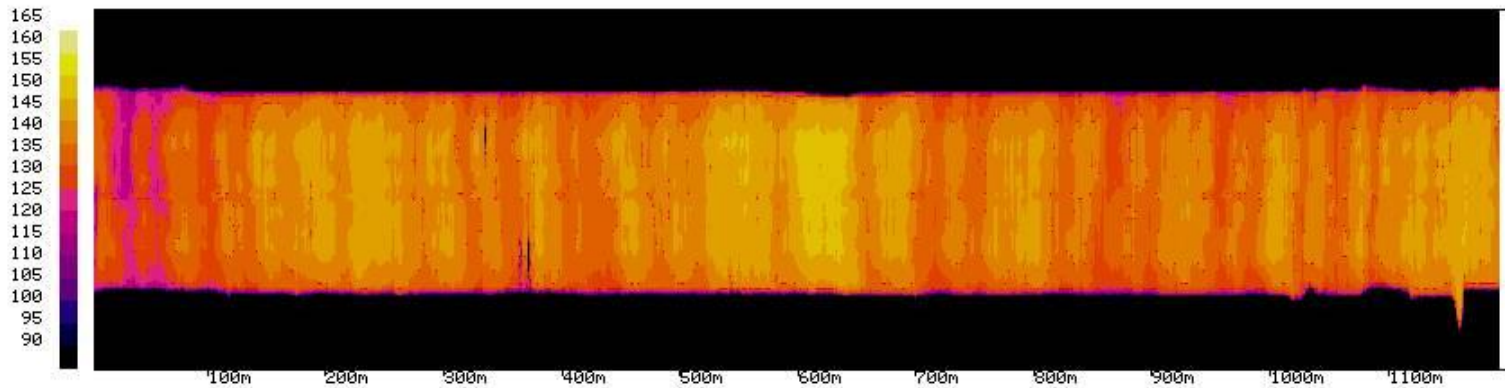
Bad homogeneity



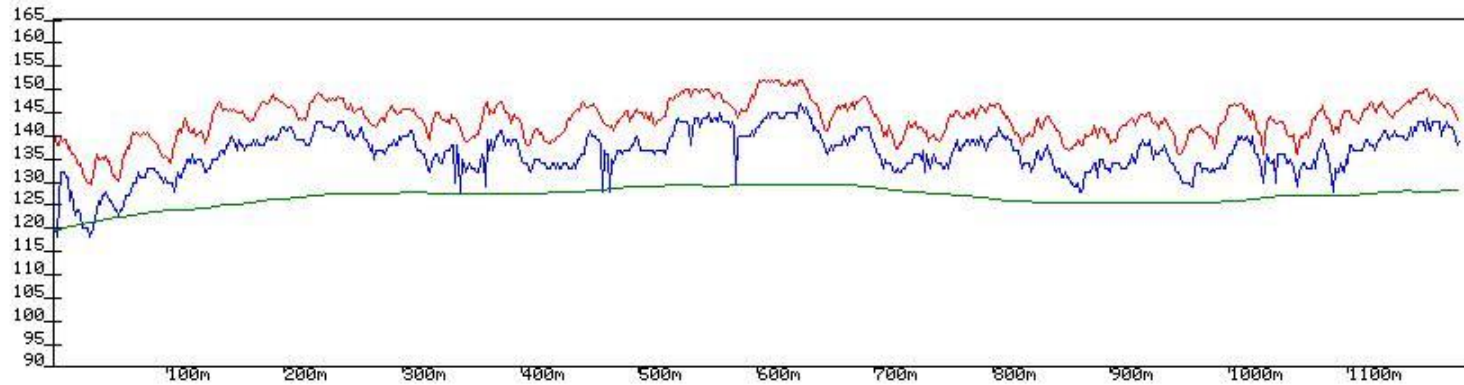
LOGNAMN: 2003100803.log
SIDA: 1/1



Good homogeneity



LOGGNAMN: 2004061402.log
SIDA: 1/1



Production

Technical problems that lead to reduced lifetime

Varying moisture content of raw materials

Stone material separation when handling

Temperature variation in the production

Time for storage in the hot silo

Poor insulation of the finished product in silo

Loading Technology

Standard on the design of trucks

Storage on trucks

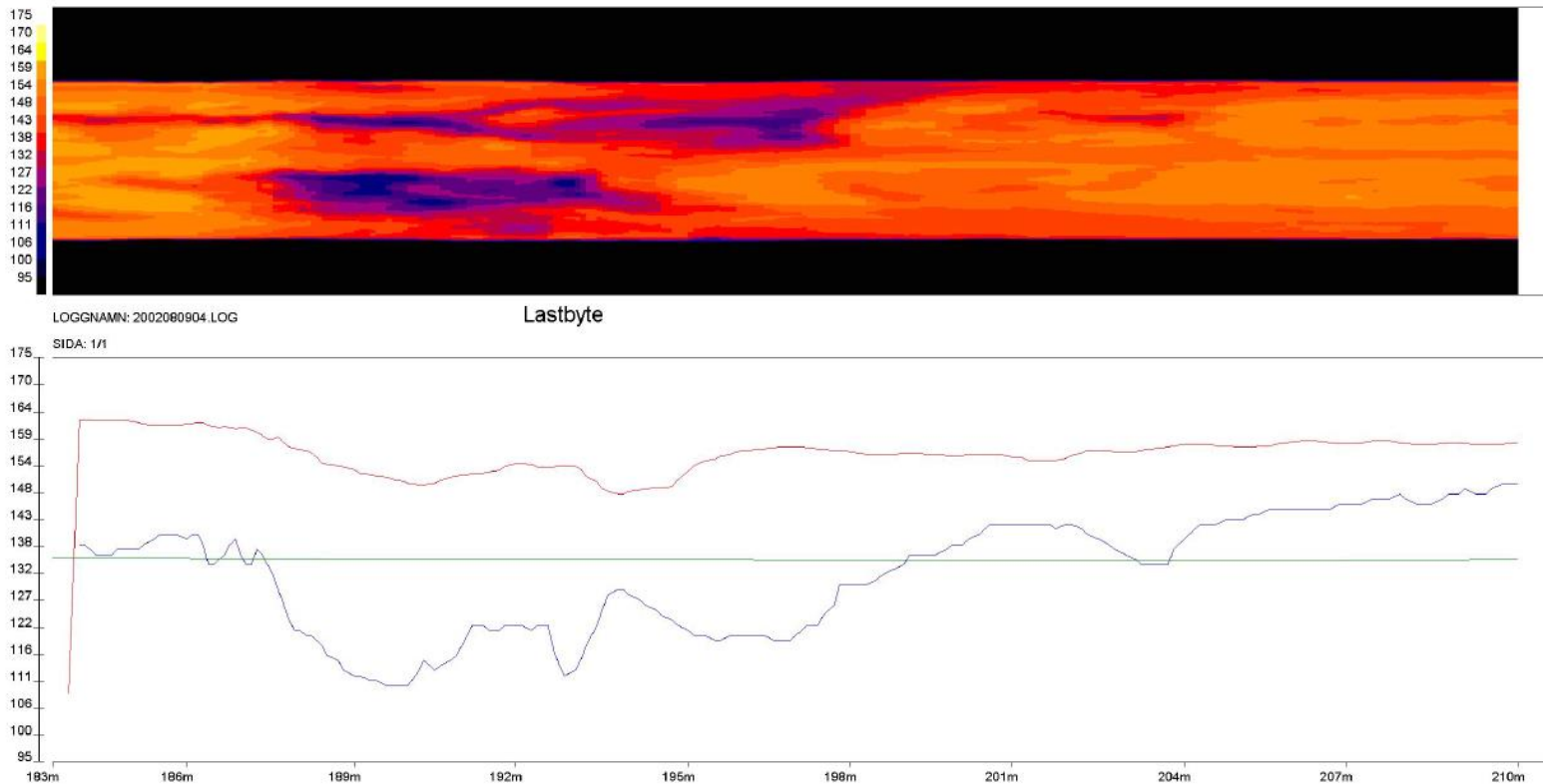
Long transport distances

Accumulation of cooled and segregated asphalt in the hopper

Discontinuous distribution of asphalt in the screed

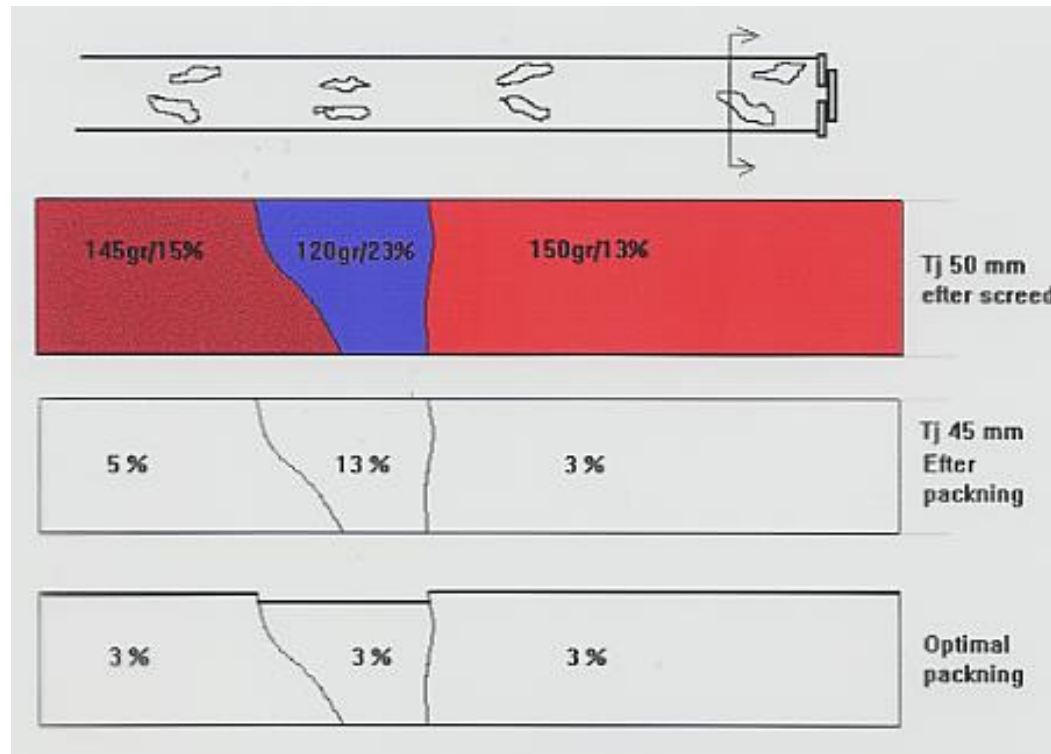
Discontinuous paving

Infrared map of the area for the replacement of trucks



27 m

Theory of compaction in the area for the replacement of trucks



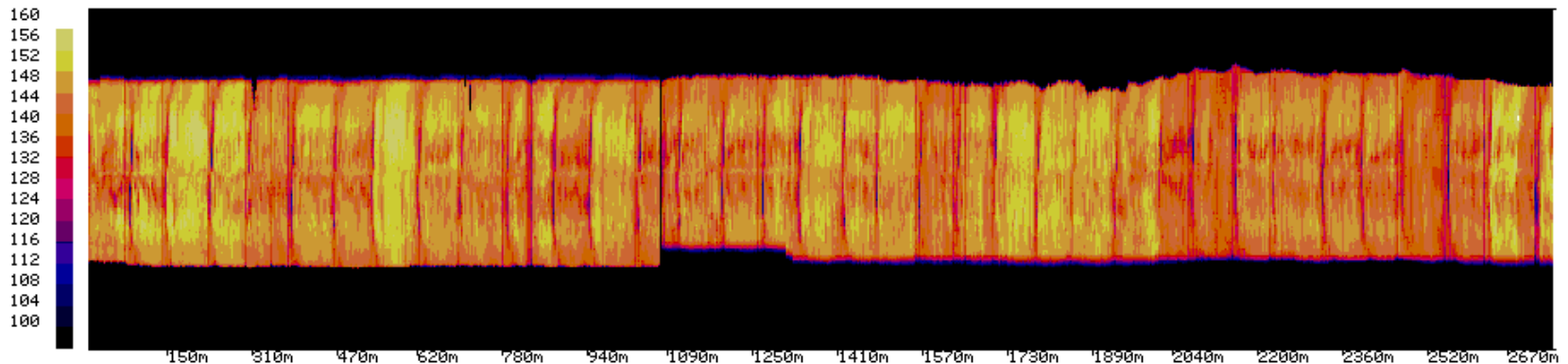
Problems with road damage

E4 east of Linköping



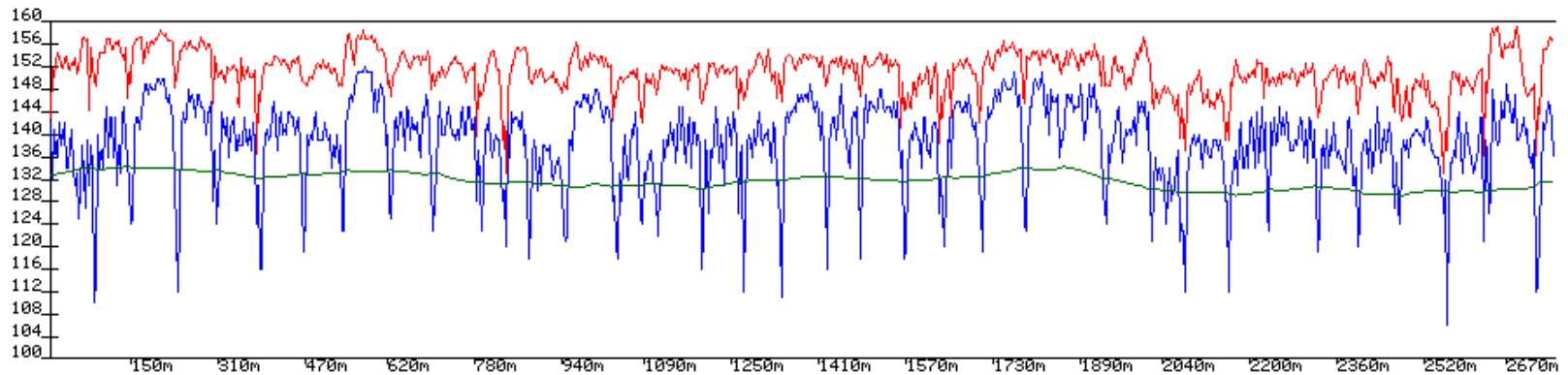
Risk factor 2,5 %

Percentage share of risk for bad compaction

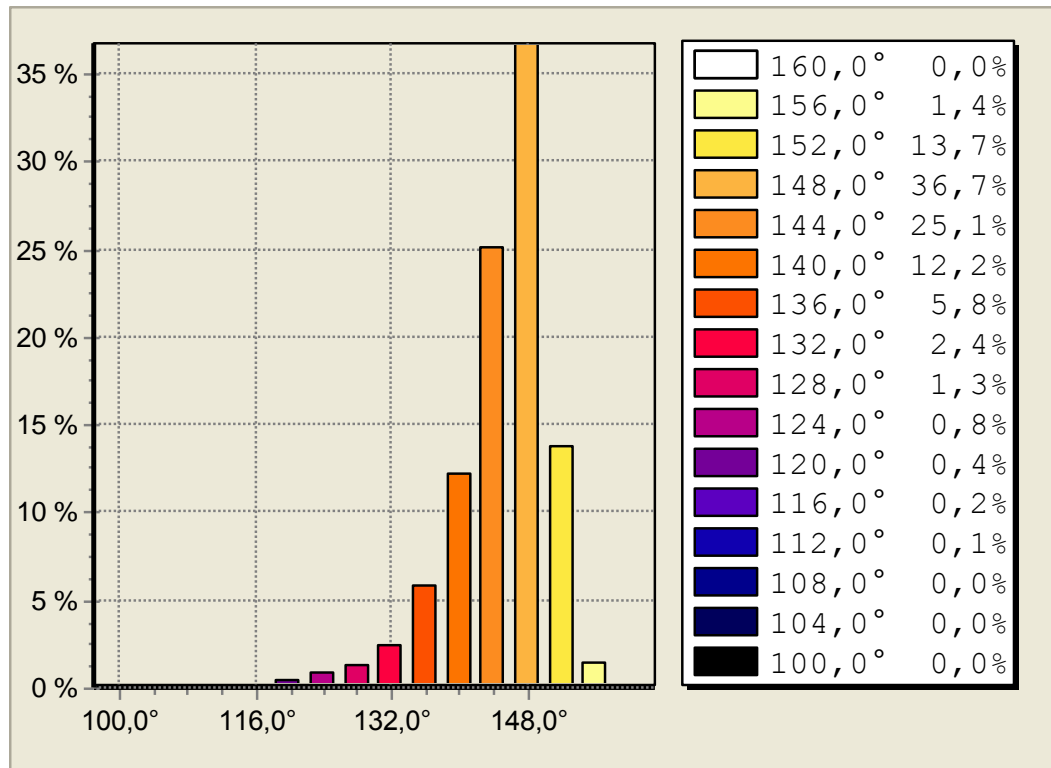


LOGGNAMN: 2008-08-05-01.LOG

SIDA: 1/1

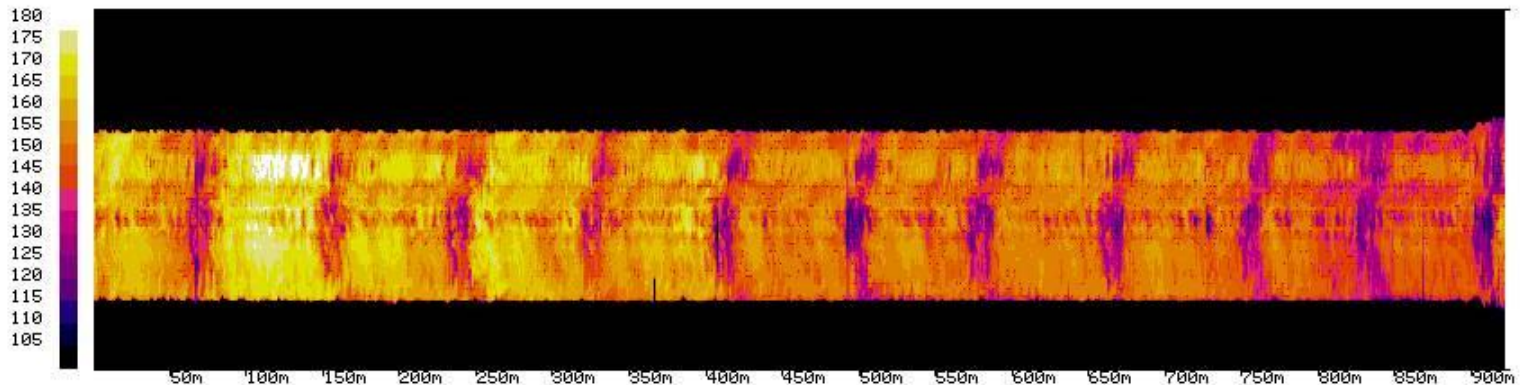


Temperature distribution of the above infrared image, 2008-05-01-01

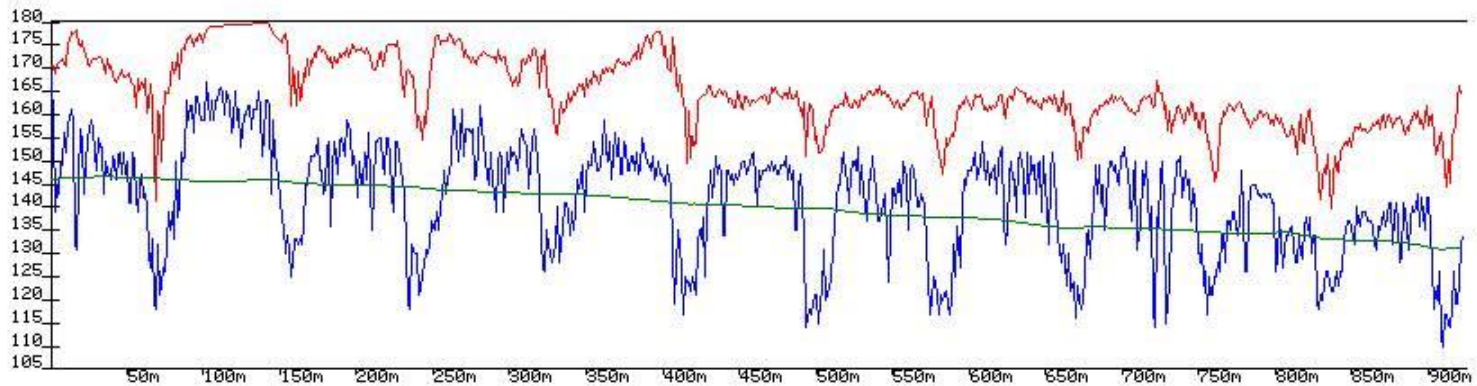


Conventional production, Estonia

Risk Factor 7,4 %



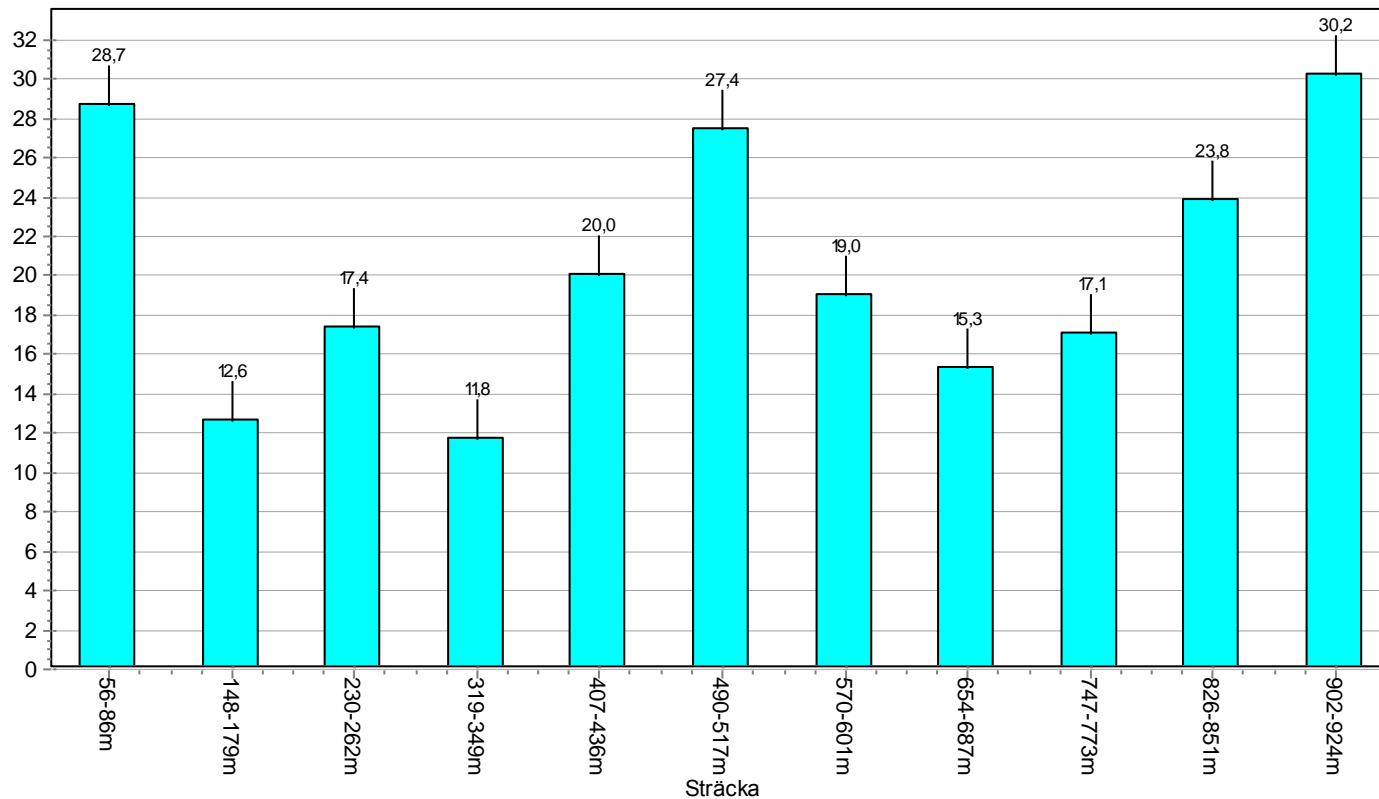
LOGGNAMN: 2014-08-06-03.log
SIDA: 1/1



Riskarea pro truckchange, 20,3 m²

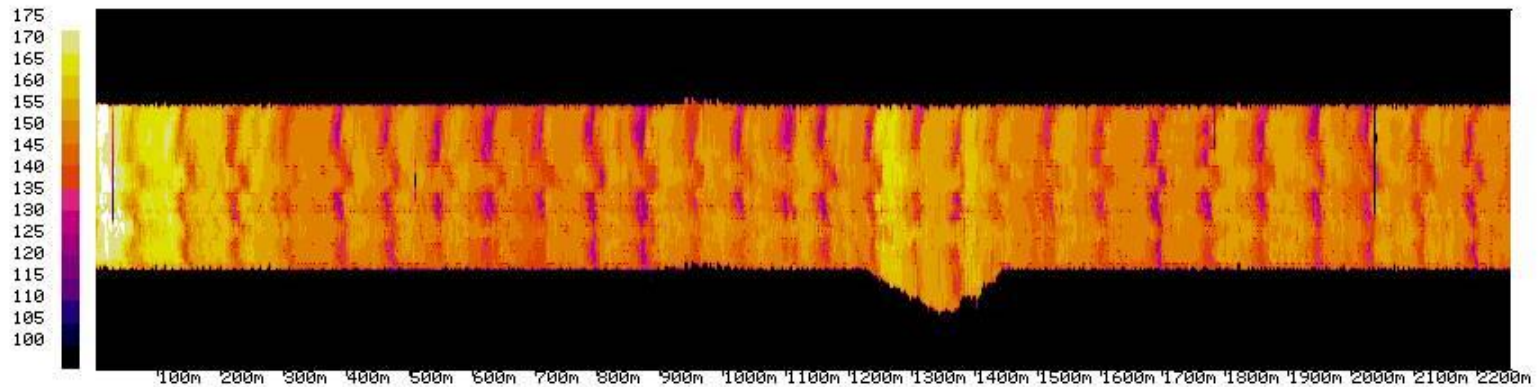
Riskyta per lastbyte 2014-08-06-03

Medelvärde av lastbyten med riskyta: 20,3 m²

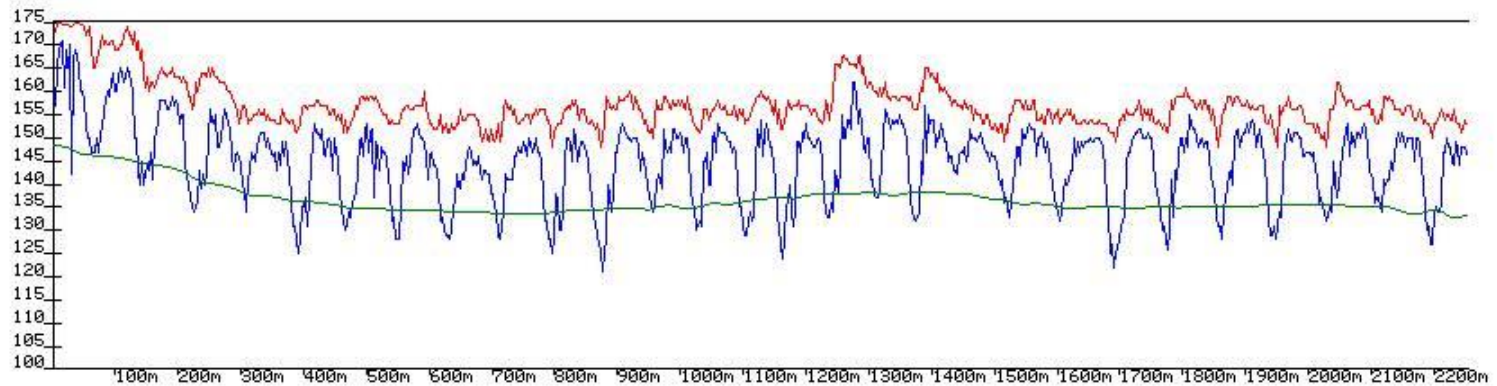


Production with Feeder, Estonia

Risk Factor 2,7 %



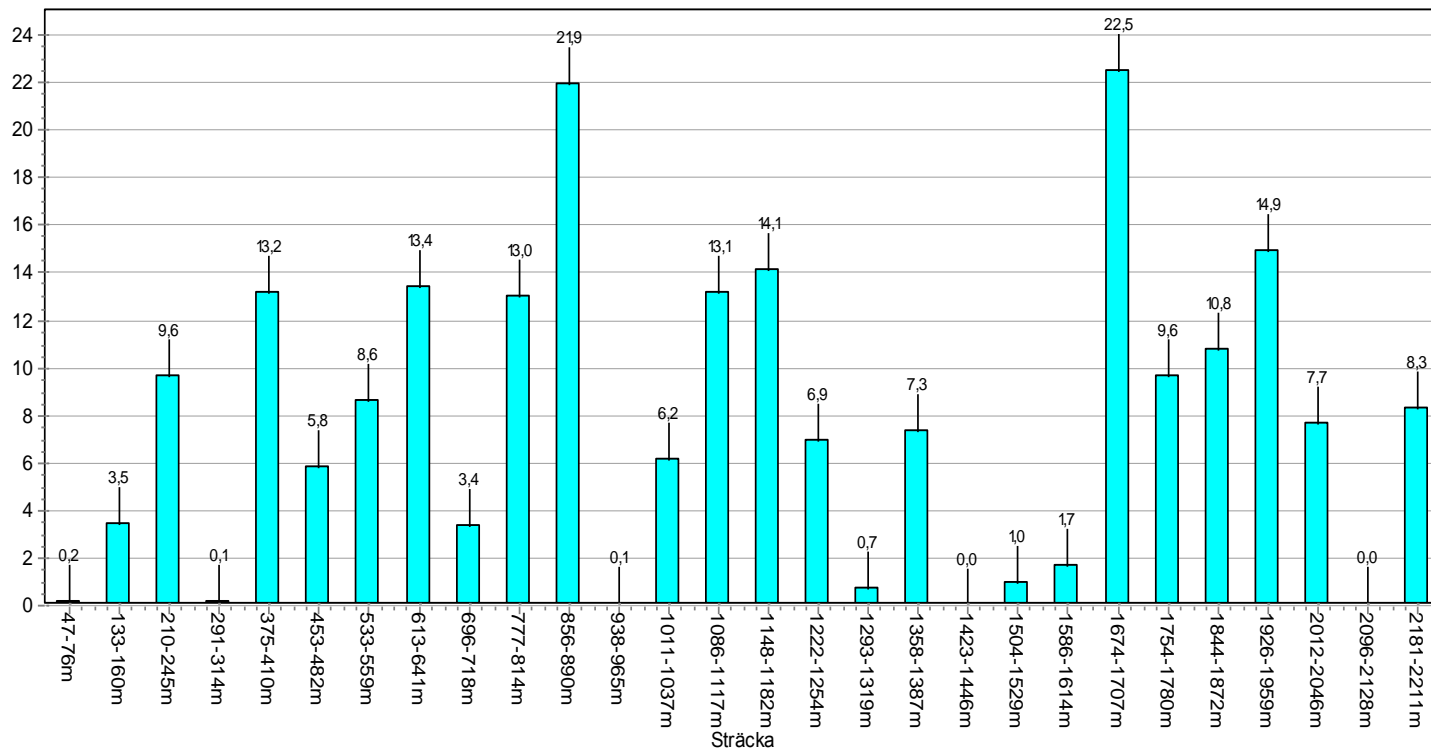
LOGGNAMN: 2014-08-05-02.log
SIDA: 1/1



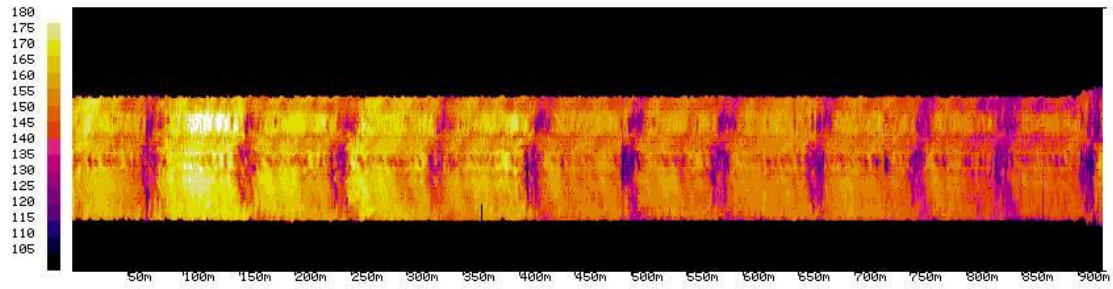
Riskarea pro truckchange, 7,8 m²

Riskyta per lastbyte 2014-08-05-02

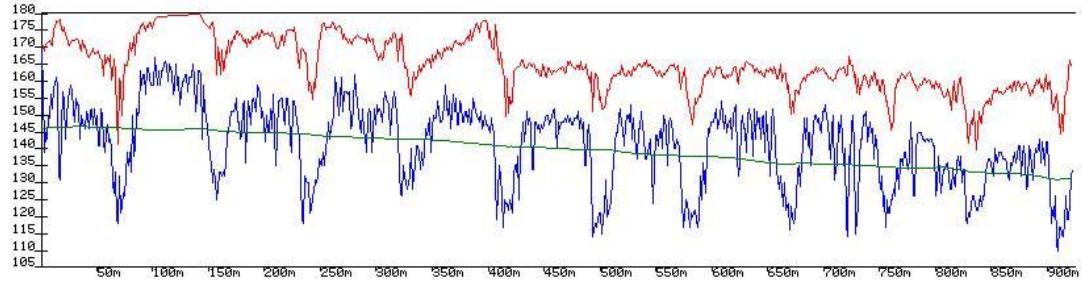
Medelvärde av lastbyten med riskyta: 7,8 m²



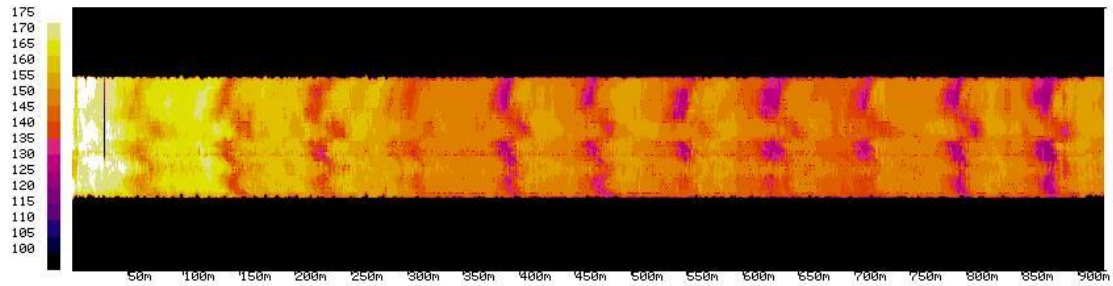
Conventional



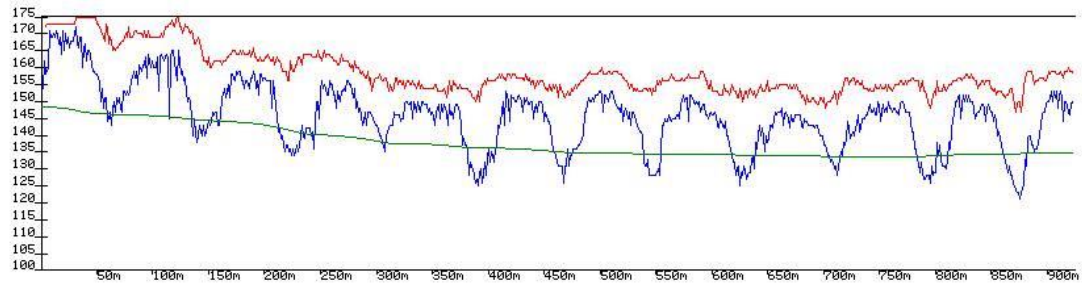
LOGGNAMN: 2014-08-06-03.log
SIDA: 1/1



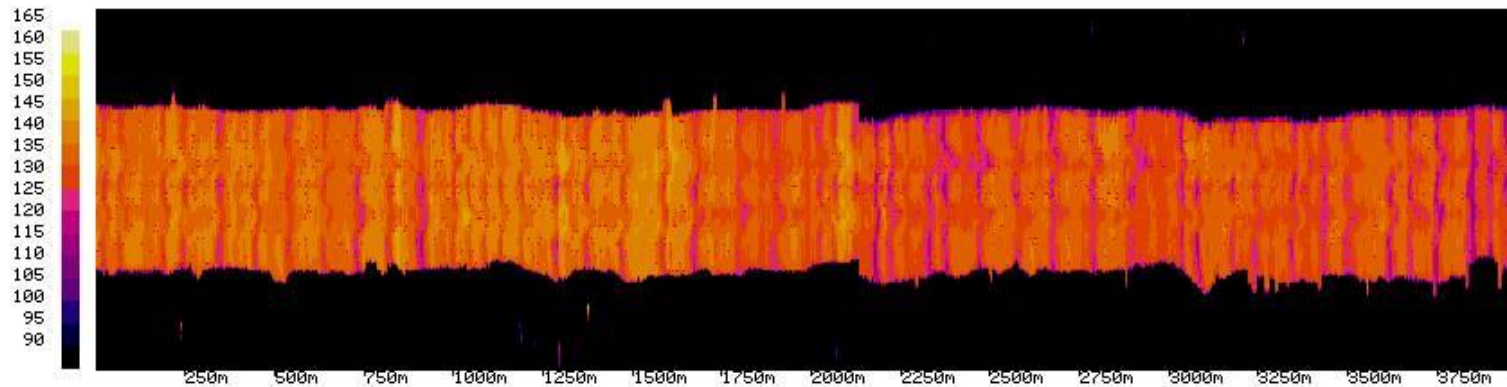
Feeder



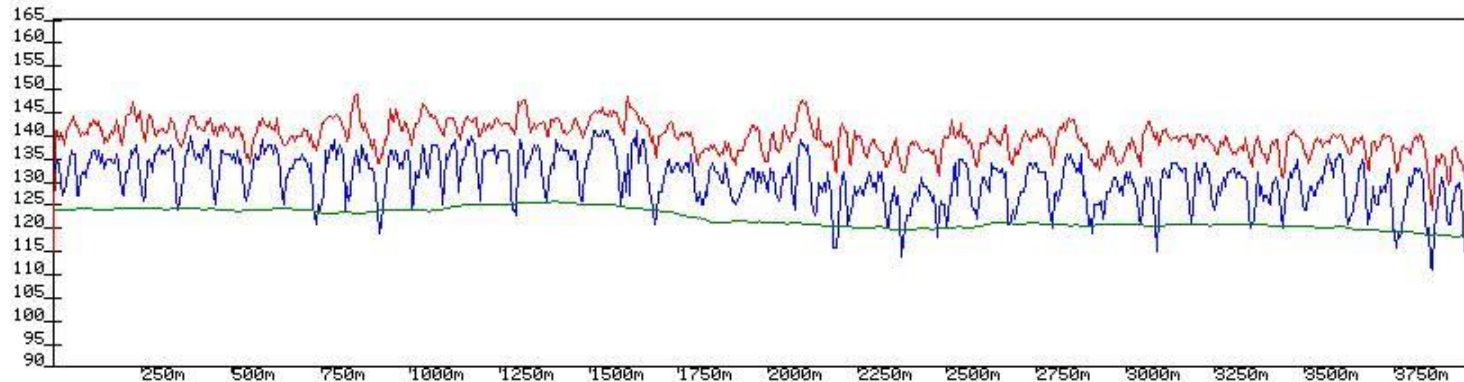
LOGGNAMN: 2014-08-05-02.log
SIDA: 1/1



Optimal production with Feeder, Risk Factor 0,4 %



LOGGNAMN: 2013-05-21-01.log
SIDA: 1/1

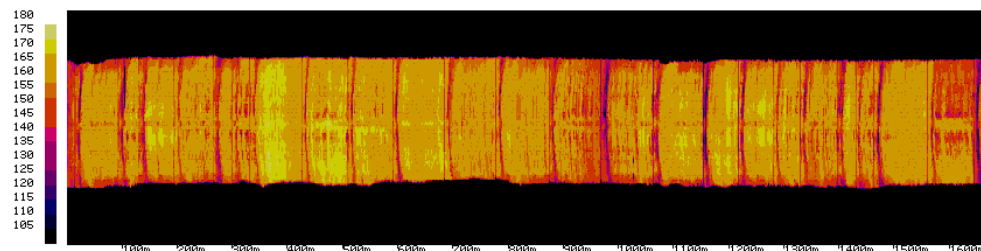


Inspection of pavement 2013-04-09-10

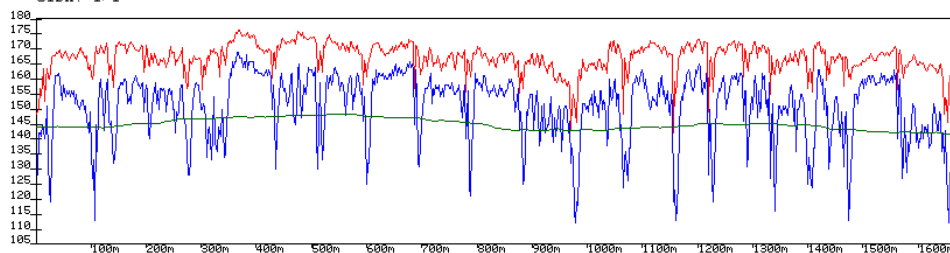
E20 Södertälje



ABS 16 E20 Södertälje 1998 Risk factor 4,3 %

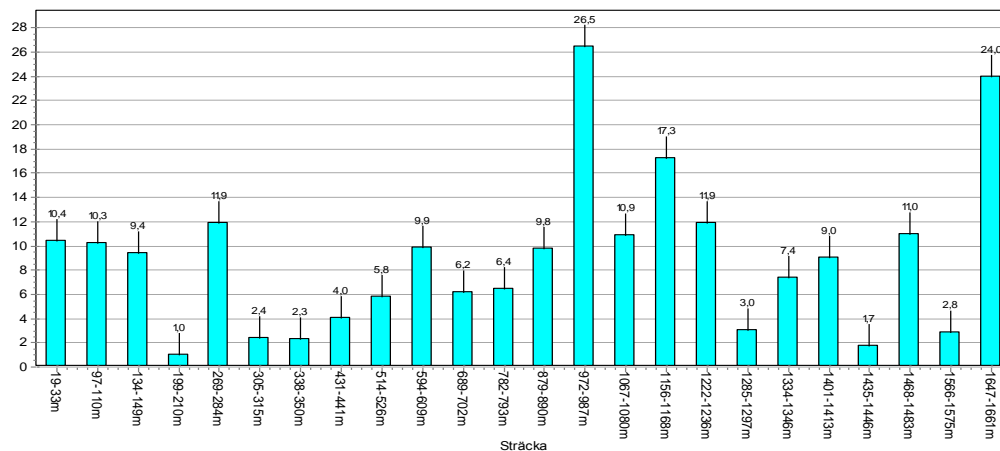


LOGGNAMN: 98080304.log
SIDA: 1/1

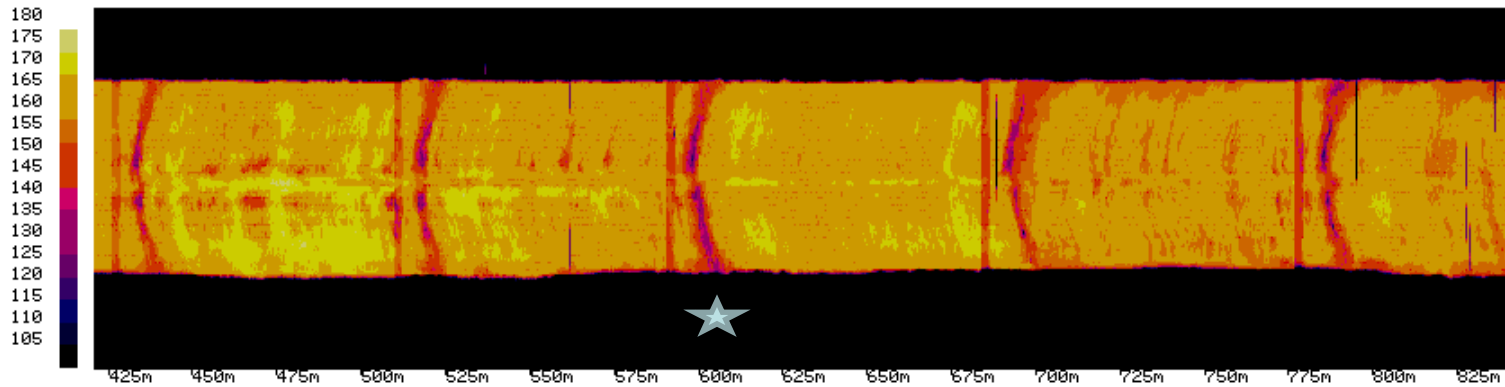


Riskyta per lastbyte 98080304

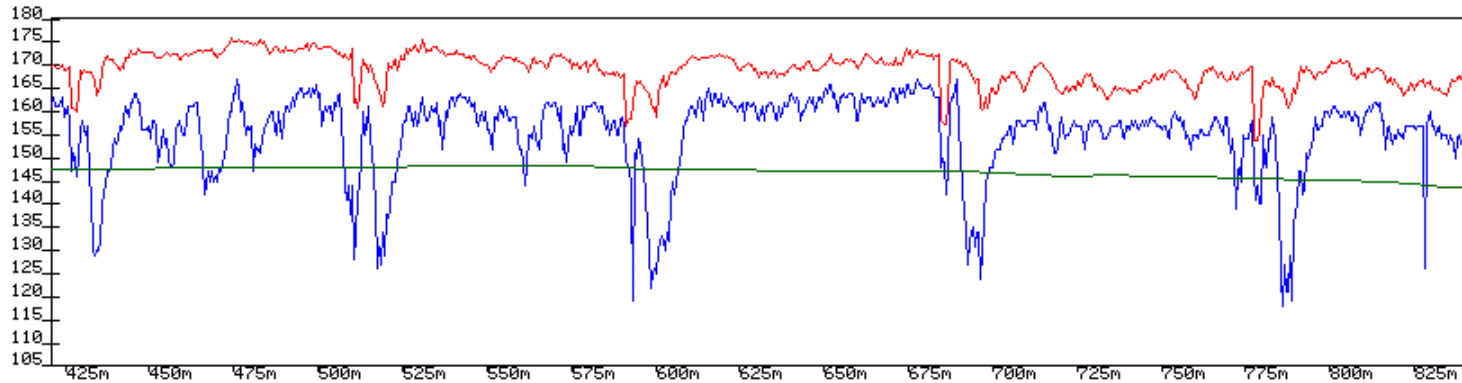
Medelvärde av lastbyten med riskyta: 9,0 m²



Section 19422 – 19842

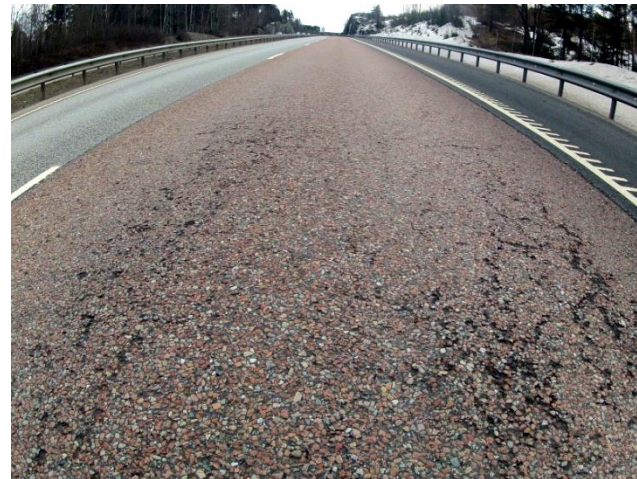
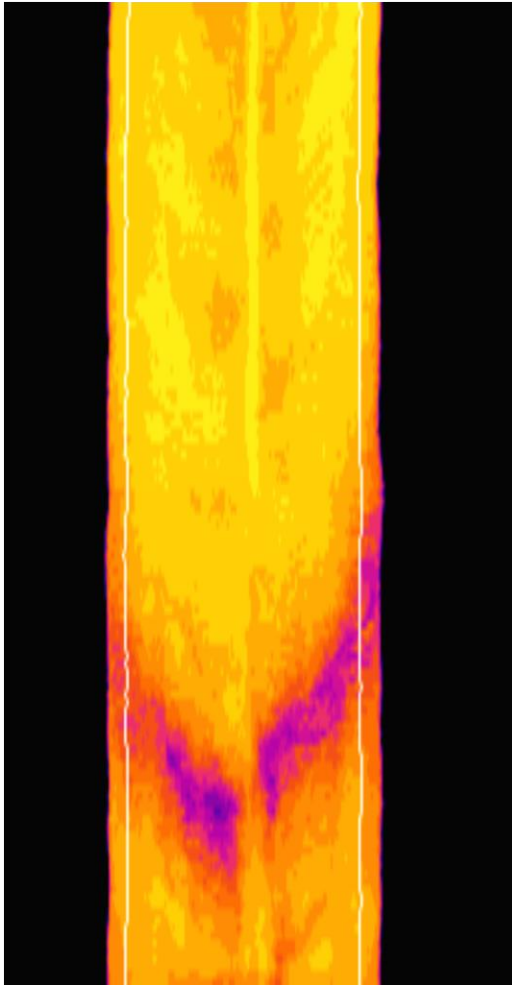


LOGGNAMN: 98080304.log
SIDA: 2/4

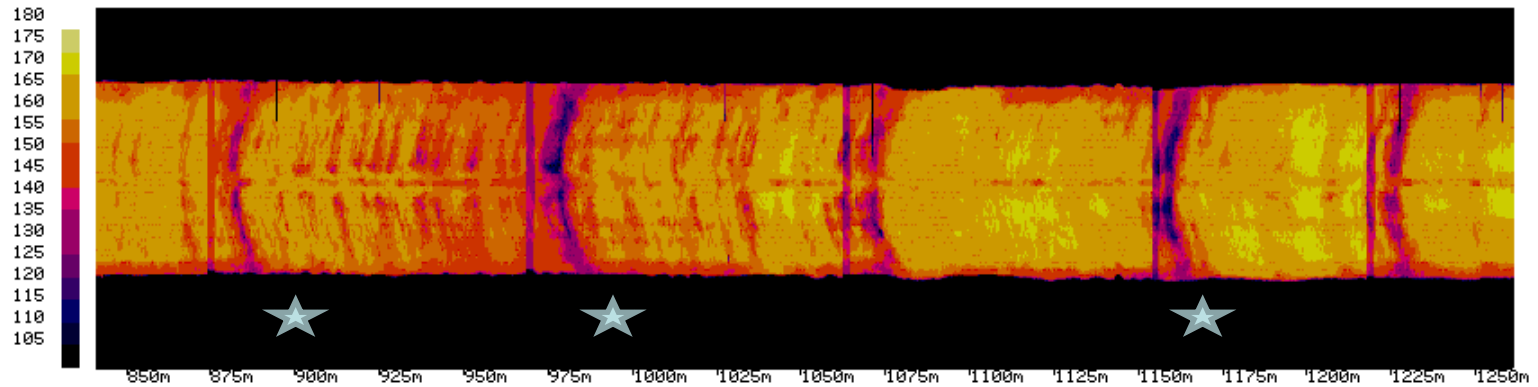


Section 19595 – 19625

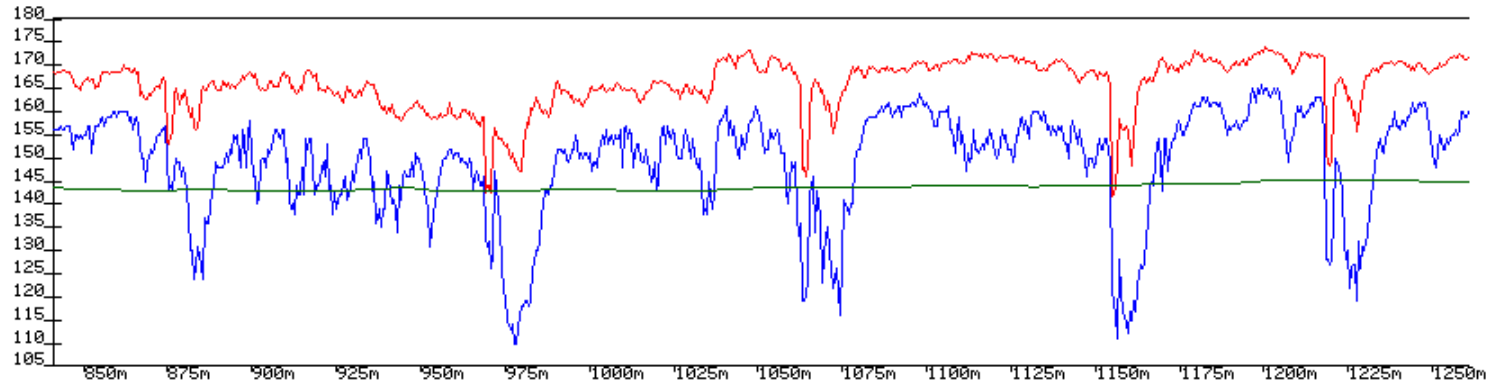
Risk area 9,9 m²



Sektion 19842 - 20262

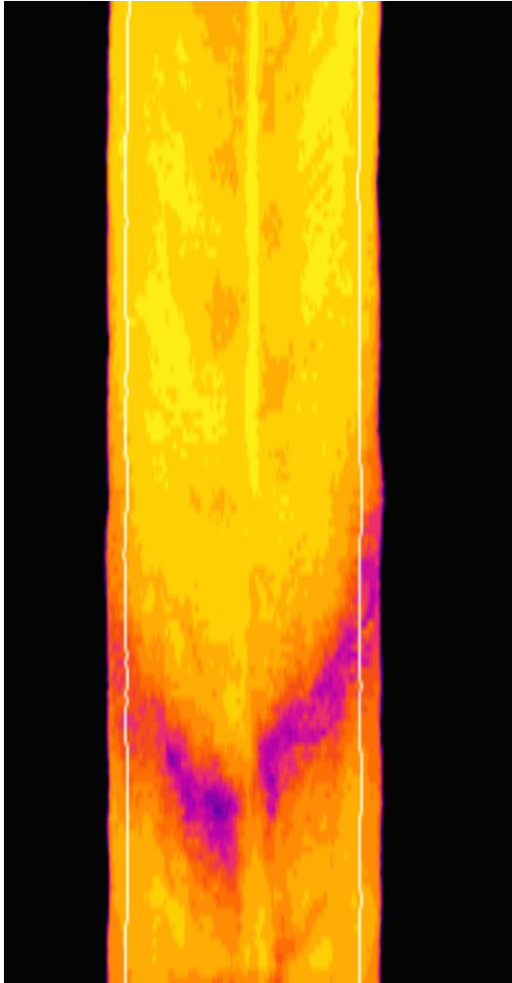


LOGGNAMN: 98080304.log
SIDA: 3/4



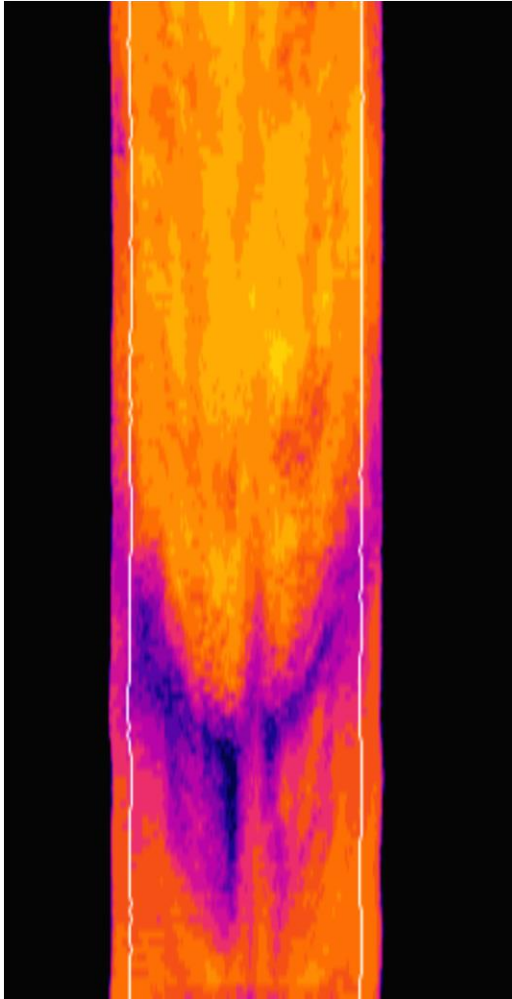
Sektion 19878 – 19908

Riskyta 9,8 m²



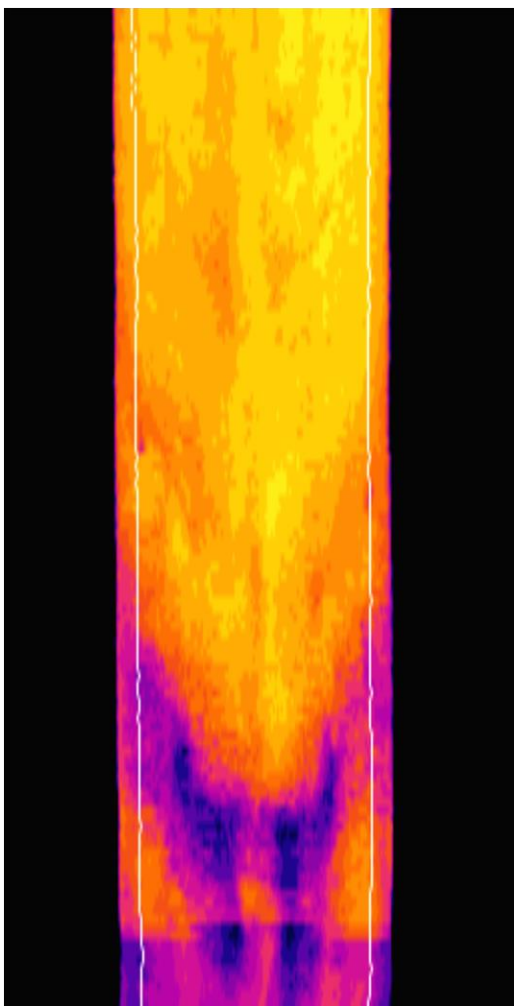
Sektion 19973 – 20003

Riskyta 26,5 m²



Sektion 20156 – 20186

Riskyta 17,3 m²

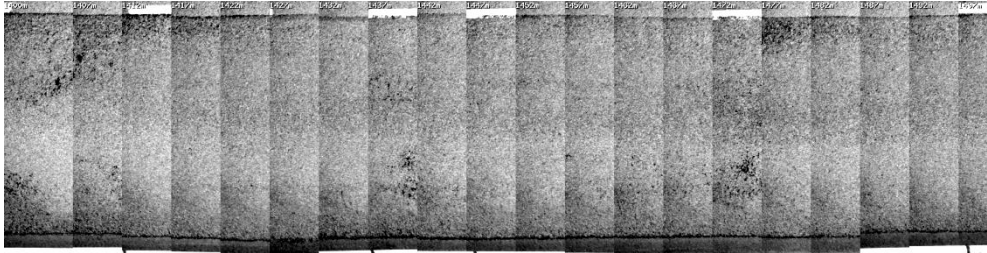
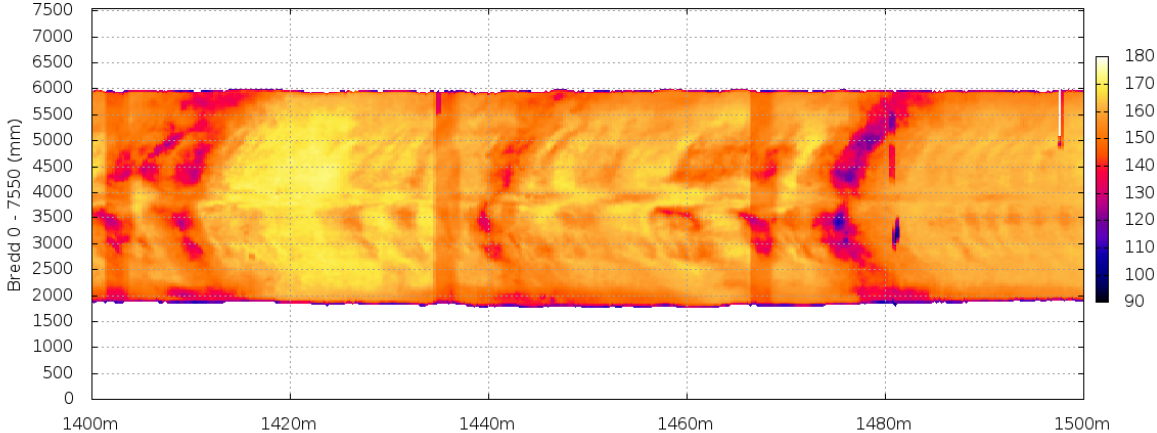


Risk area

9

1,7

11 m2



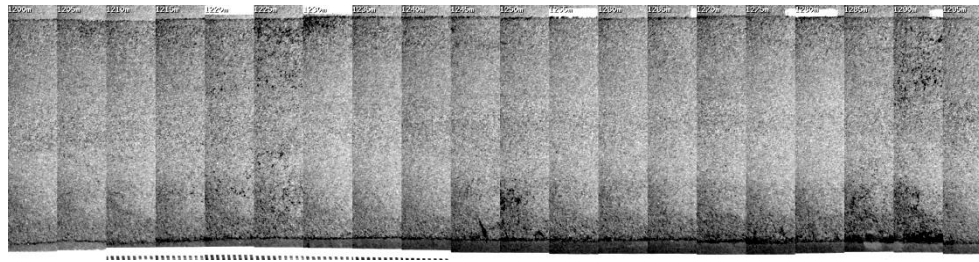
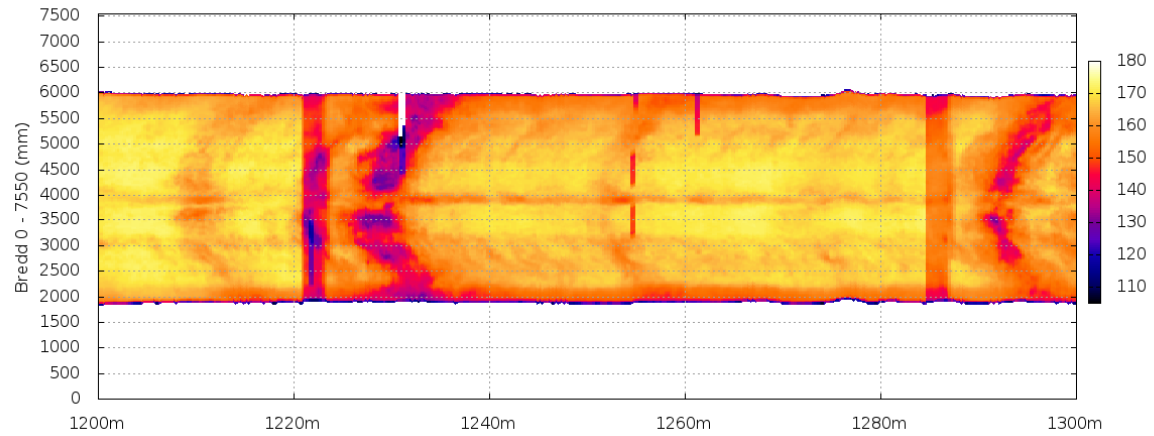
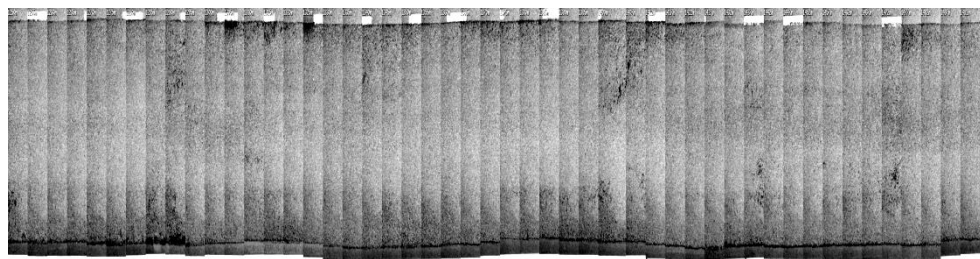
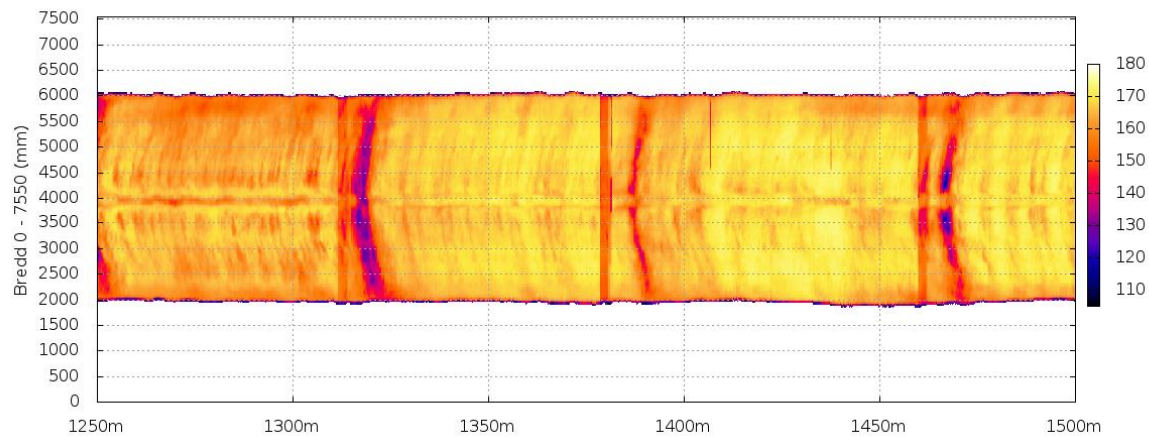
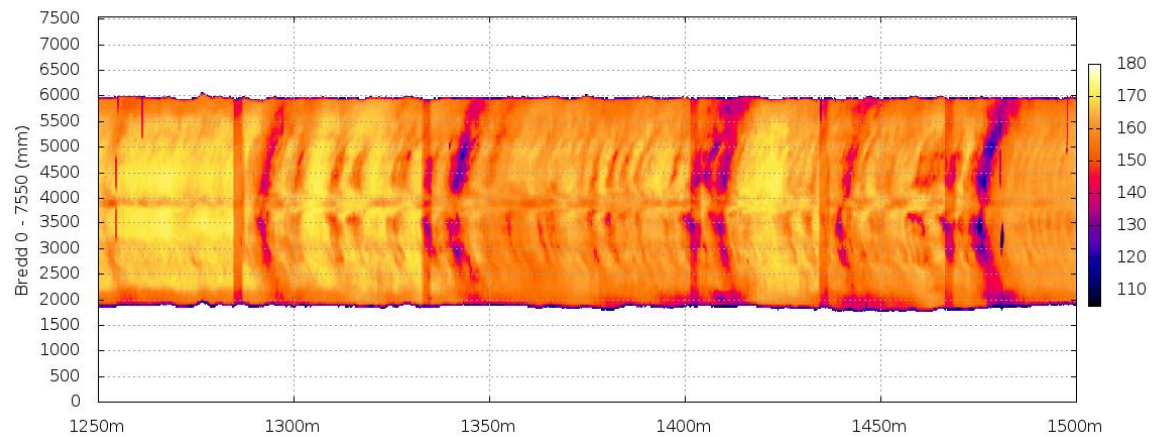


ABb 16



ABS 16



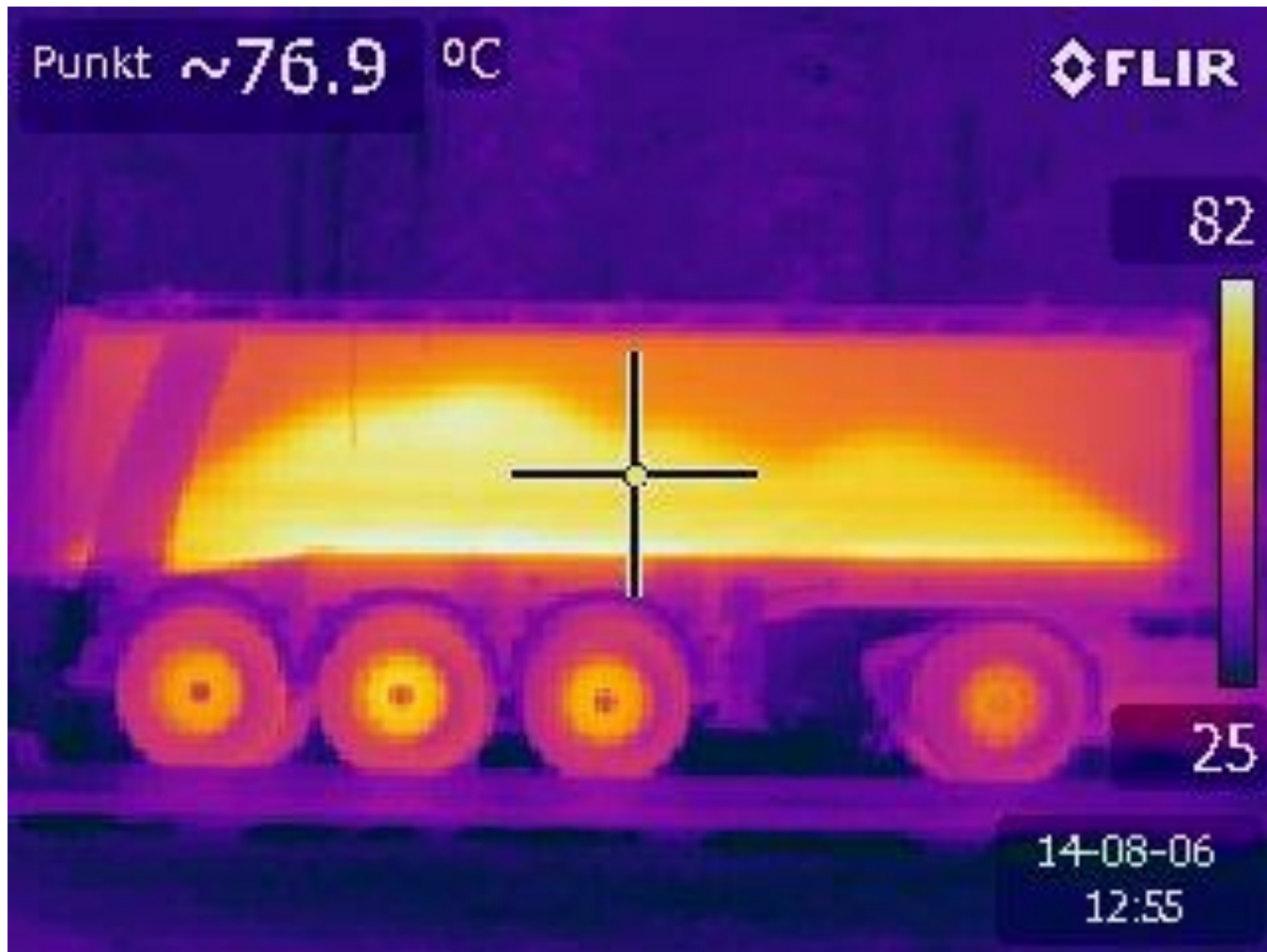
Inspection in Estonia



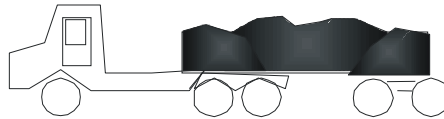
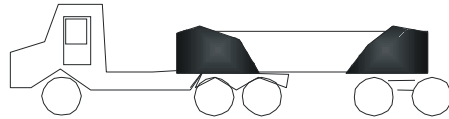
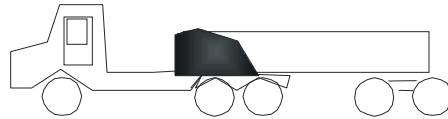
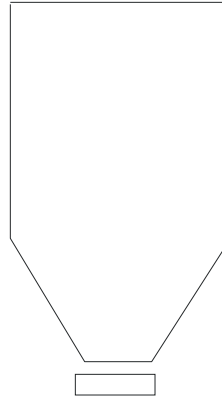




Transport of asphalt



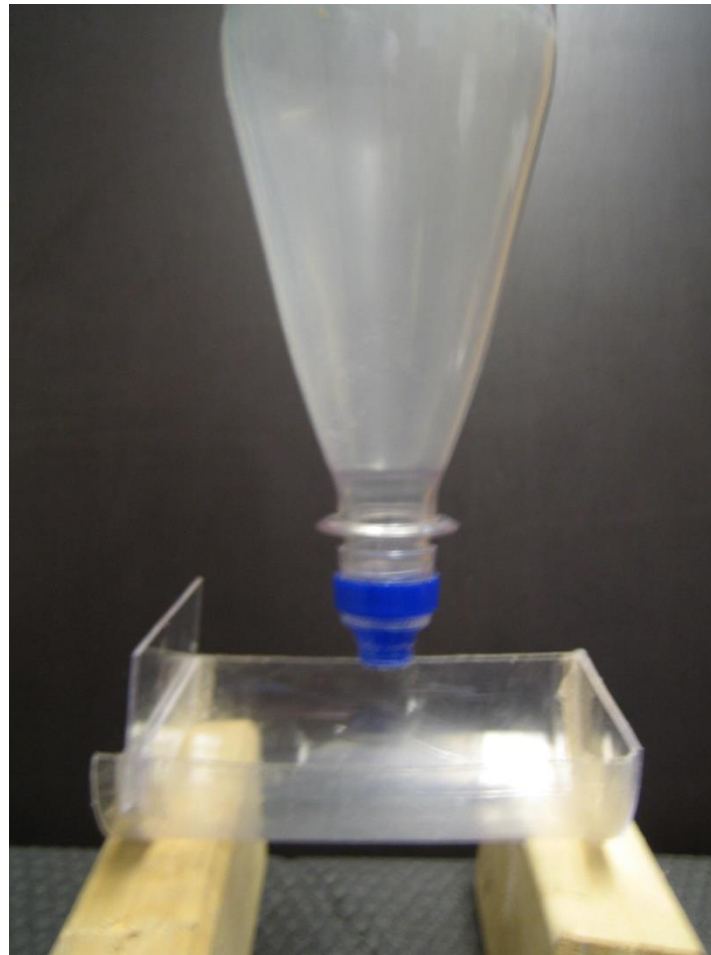
Loading technique



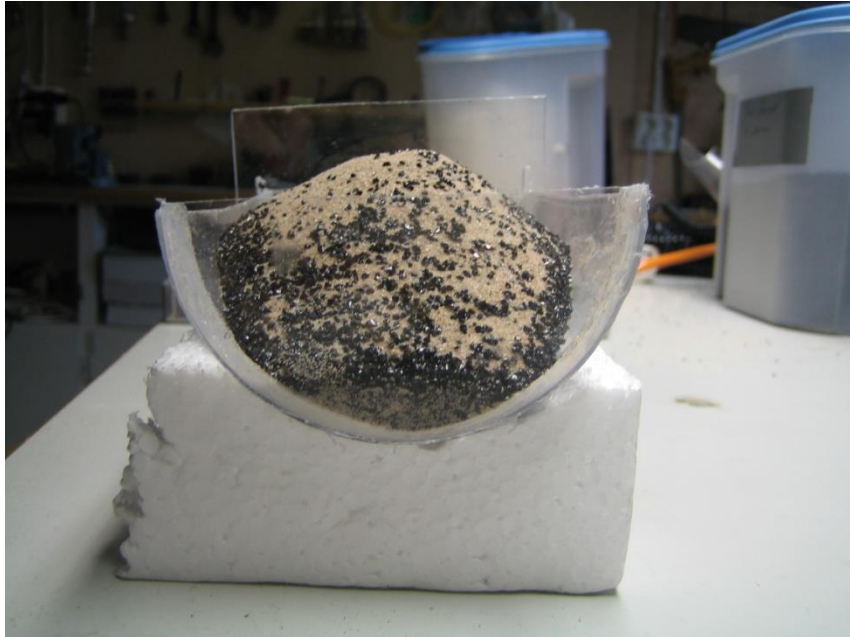
Asphalt trucks with round bottom



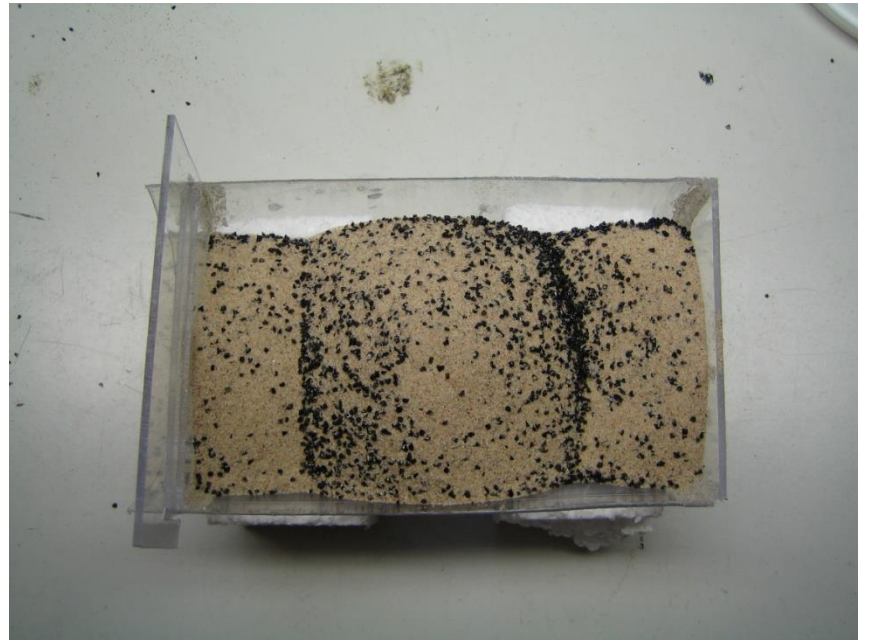
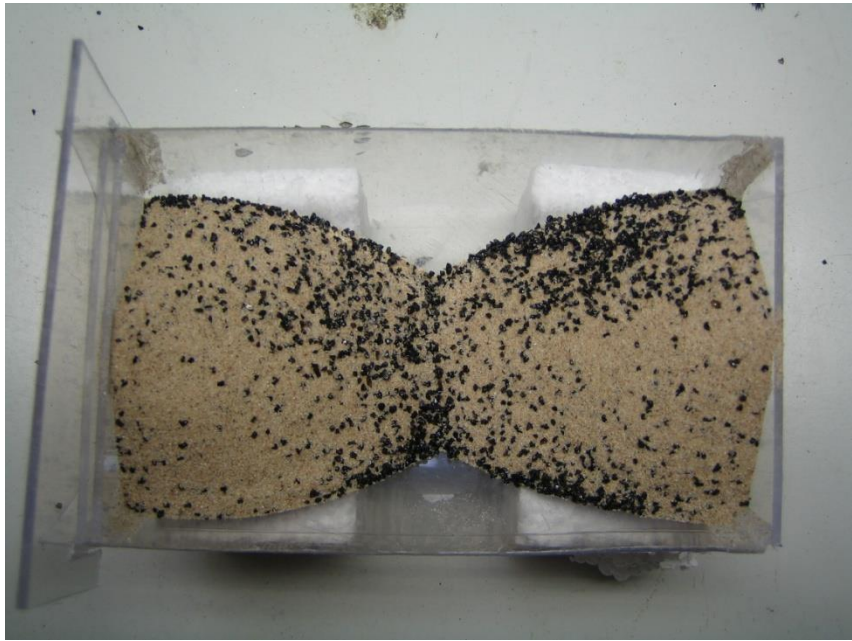
Loading technology illustrated in model test

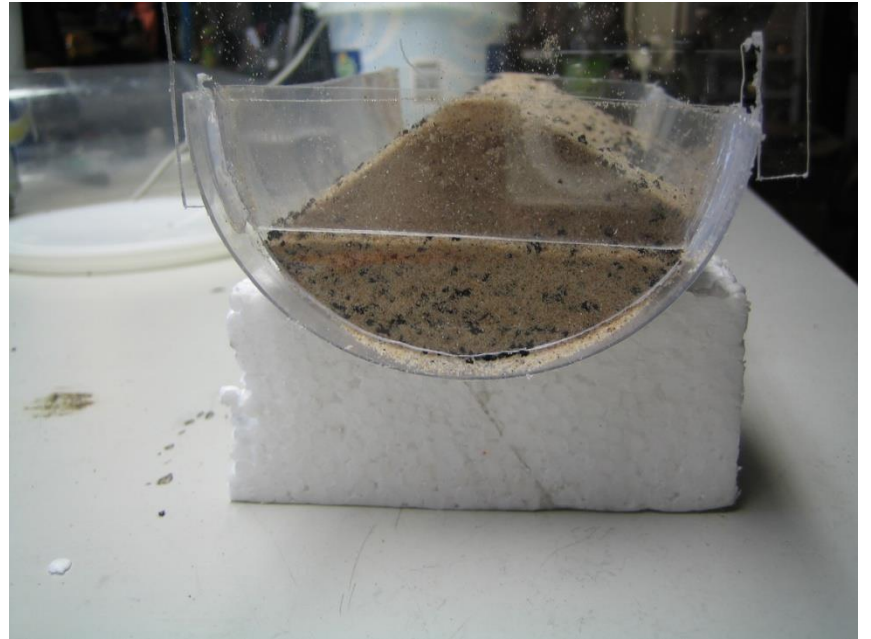
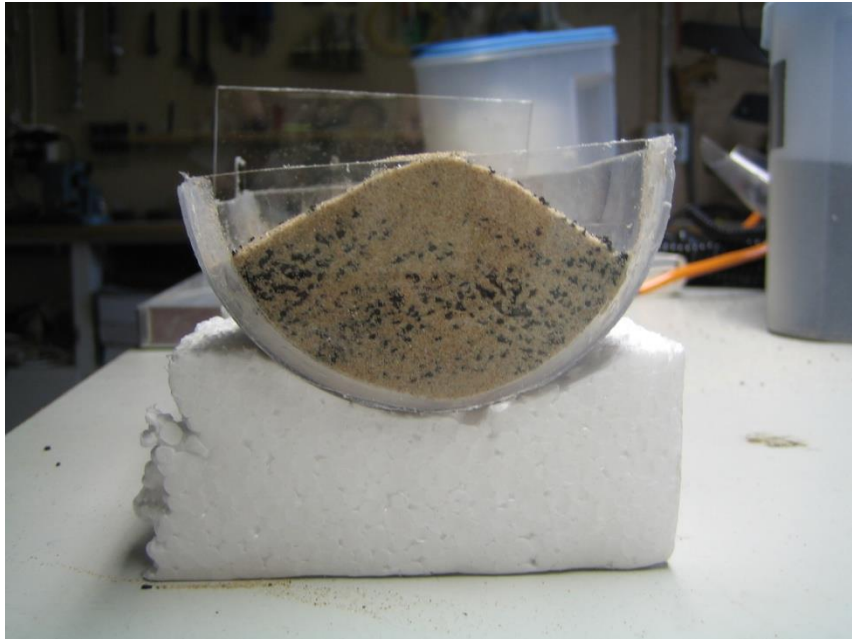










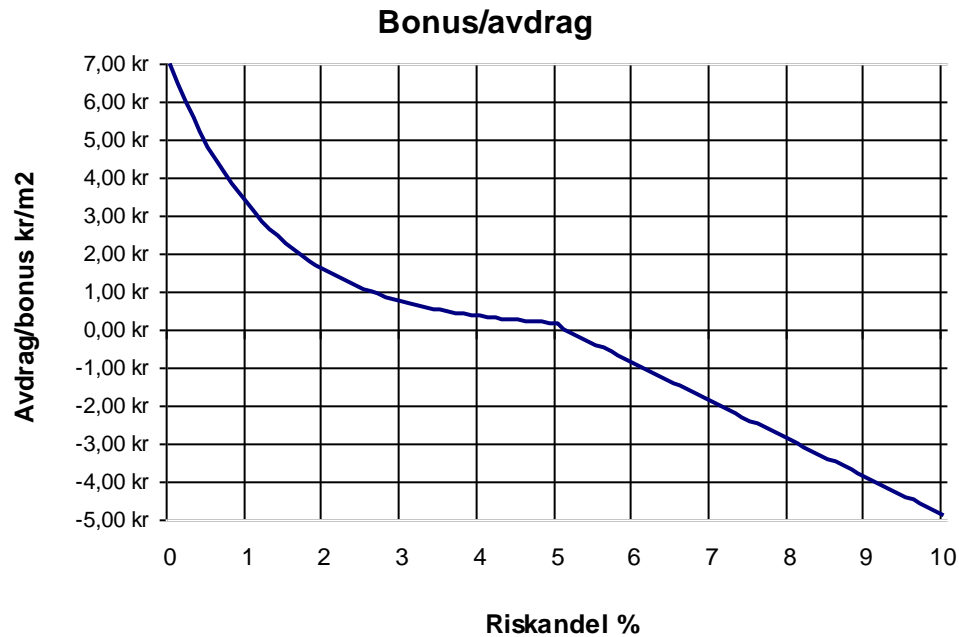




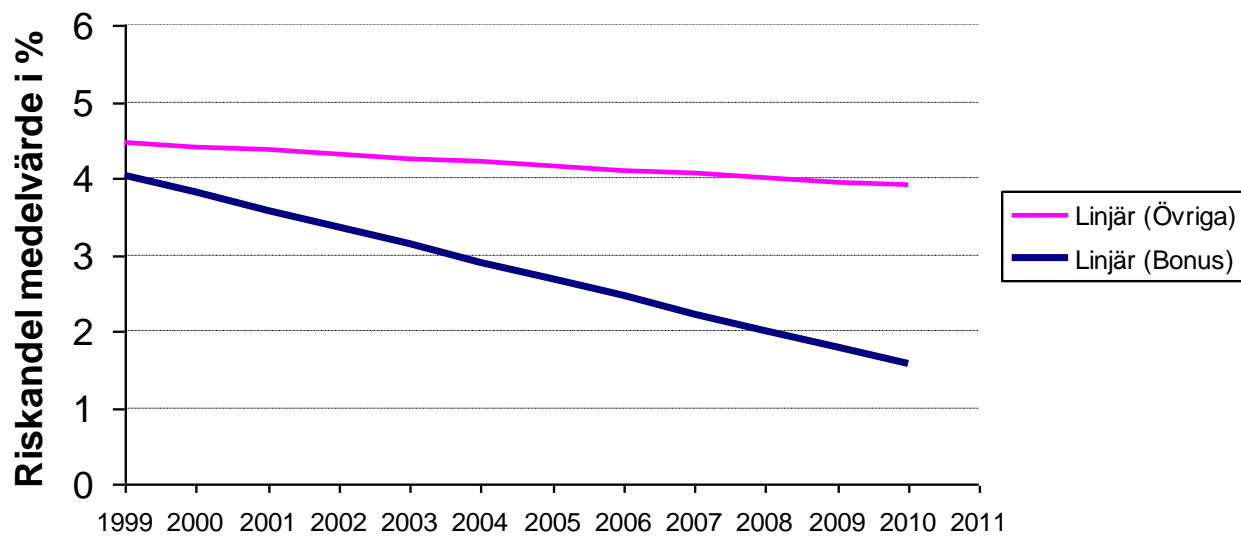


Bonus and deduction system

Start 1998



Trend för riskandel Region Stockholm



The end