

PROGRAM

Monday, September 3

- 11.00 – 16.00 **Short Course 1 – PFAS – meeting room B-24**
Dynamic investigations with mobile lab at PFAS-impacted sites
please see separate program in the compendium
- 13.00 – 16.00 **Short Course 2 – Geostatistics – meeting room B-21**
An overview of Geostatistics for contaminated site characterization
please see separate program in the compendium
- 18.00 – 18.30 Transportation to Welcome Reception by bus or walk
- 18.30 Welcome reception at Kulturværftet, Helsingør incl. a light serving and drinks
Entertainment: Sct. Olai Vocal Ensemble

Tuesday, September 4

- 09.00 – 09.50 Registration and coffee/tea buffet
- 10.00 – 11.30 **Opening Session / Welcome
Lecture hall Jorns**
Ida Holm Olesen, Chairman, ATV Soil and Groundwater
Arne Rokkjær, Coordinator of the NORDROCS 2018 Organizing Committee
Key note presentation
Risk assessment of contaminated sites to water resources:
The role of the contaminant mass discharge approach?
Professor Poul L. Bjerg, DTU Environment, Denmark
Key note presentation
Sustainable remediation in practice
Professor Paul Nathanail, University of Nottingham, UK
- 11.50 - 12.50 **Session A – lecture hall Øresund**
**EPA from the 4 Nordic countries
Risk management - regulatory
perspectives**
Risk assessment/risk management - leaning
towards the more regulatory requirements with
regard to Risk assessment and the regulatory
challenges in risk - based decision making.
*Chair: Tom Heron, Senior Vice President,
Environment, Energy, Water and Informatics,
NIRAS Denmark*
*Senior Advisor Kine Martinsen, Norwegian
Environment Agency*
Technical Advisor Preben Bruun, Danish EPA
*Senior Advisor Jussi Reinkainen, Finnish
Environment Institute*
*Senior Scientific Officer Magdalena Gleisner,
Swedish EPA*
- Session B – lecture hall Jorns**
**Remediation – of Soil and Groundwater
Part I (B)**
*Chair: Marja Tuomela, Ph.D., Co-op Bionautical
and University of Helsinki, Finland*
Environmental forensics. Searching for a major
unknown PCE source in an industrial area using
different tools, Birkerød, Denmark
*M.Sc., Ph.D. Thomas Hauerberg Larsen,
Orbicon, Denmark*
Development of an iron-based soil mixing
remediation method for energyefficient
treatment of chlorinated solvents
*Ph.D. Per Lindh, Swedish Geotechnical Institut,
Sweden*
Da Nang – an outstanding thermal remedy 5
years later
*Sales and Product Manager Niels Ploug,
Krüger, Denmark*

12.50 – 13.40 Lunch, poster session and exhibition, matchmaking .
Matchmaking arranged by *Danish Soil Partnership and Innovation Network for Environmental Technologies*

13.40 – 14.10 Poster session, exhibition and matchmaking
Matchmaking arranged by *Danish Soil Partnership and Innovation Network for Environmental Technologies*

14.10 – 15.30 **Session C – lecture hall Øresund**

Sustainability and Reuse - Part I

Chair: Jarno Laitinen, M.Sc., Project Manager, Pirkanmaa ELY-Centre, Finland

Key note presentation: A sustainability perspective on reuse and remediation
Professor Kristina Lindström, University of Helsinki, Finland

Reuse of concrete and risk assessments related to the expansion of Oslo Airport Gardermoen
Project Manager Ida Kristine Buraas, Golder, Norway

Efficient soil reuse – imperative for sustainable land management
Senior Advisor Jussi Reinikainen, Finnish Environment Institute, Finland

15.30 – 16.20 Poster session and exhibition, matchmaking, coffee/tea break
Matchmaking arranged by *Danish Soil Partnership and Innovation Network for Environmental Technologies*

16.20 - 17.40 **Session E – lecture hall Øresund**

Sustainability and Reuse - Part II

Chair: Environmental expert Aura Nousiainen, Pöyry, Finland

Sustainable remediation assessment: How to include the societal cost in the equation?
Managing Director Jan Haemers, Haemers Technologies, Belgium

Strategic approach to climate protection and soil management to fulfill the Sustainable Development Goals (SDG 11, 12 and 13)
Joan Krogh, NIRAS, Denmark

Remediation of PCB-polluted soil using biochar: the uptake of PCBs in earthworms, plants and passive samplers – a pot experiment
Sigurbjörg Hjartardóttir, NGI, Norway

Sustainable and digital management in large infrastructure projects of acid producing rock and soil containing naturally high levels of heavy metals
M.Sc., Env.consultant Lars-André Erstad and Project Manager, Env.consultant Eva Aakre, Rambøll-Sweco ANS, Norway

19.00 – 19.30 Welcome drink and Polka Tesch – entertainment/music

19.30 - Conference dinner and dance. The Man – dance band

Session D – lecture hall Jorns

Remediation – of Soil and Groundwater Part II

Chair: Annika Sidelmann Fjordbøge, Researcher, Ph.D., DTU Environment, Denmark

Key note presentation: *In situ* bioremediation of contaminated soil; comparison and combination of different approaches
Professor Martin Romantschuk, University of Helsinki, Finland

Multidisciplinary approach to characterize natural degradation of PCE
Ph.D.-student Sofia Aakesson, Lund University, Sweden

Tools and concepts for quantifying *in situ* degradation rates at contaminated sites
Chief Consultant, Ph.D. Nina Tuxen, Capital Region of Denmark

Session F – lecture hall Jorns

Risk Assessment of Soil and Groundwater

Chair: Head of Dept., Ph.D. Mette Christophersen, Rambøll, Denmark

Key note presentation: Assessment of *in-situ* natural and enhanced chlorinated ethenes degradation by use of isotopic and molecular biology techniques
Associate professor Mette M. Broholm, DTU Environment, Technical University of Denmark

Direct radiotracer rate measurements of groundwater contaminants in intact cores – method and first results on *cis*-DCE dechlorination
Senior Researcher, Ph.D. Rasmus Jakobsen, GEUS, Denmark

Bacterial population dynamics in a groundwater plume from a heating oil spill quantified via 16 S rRNA gene amplicon sequencing
R&D Project Manager Poul Larsen, DMR, Denmark

Wednesday, September 5

8.30 – 09.50

Session G – lecture hall Øresund

Contaminated Sediments – Risk Assessment and Remediation - Part I

Chair: M.Sc. Paul Cappelen, Geotechnical Institute, Norway

Key note presentation: In-situ remediation of contaminated sediments: Combining strong sorption with microbial dechlorination
Professor Upal Ghosh, University of Maryland Baltimore County, USA

The Norwegian Management System of Risk Assessment - Contaminated Sediments
M.Sc., Senior Adviser Hilde B. Keilen, Norwegian Environmental Agency, Norway

Dispersal pathways of contaminants from organic-rich sediments – a field study of fibrous sediments in northern Sweden
Dr. Sarah Josefsson, SGU, Sweden

Session H – lecture hall Jorns

Investigation and monitoring of Soil and Groundwater - Part I

Chair: Associate Professor Mette Broholm, DTU Environment, Technical University of Denmark

Key note presentation: How groundwater velocity measurements can strongly support aquifer characterisation studies
Professor John Frederick Devlin, University of Kansas, USA

Multiple fluorescent dyes as a tool for understanding fate and transport for large scale plumes
Project Director Nicklas Larsson, NIRAS, Sweden

Porewater sampling in the unsaturated zone – a novel technique for measuring seepage concentrations directly
R&D Project Manager Poul Larsen, DMR, Denmark

9.50 – 10.20

Coffee/tea break

10.20 - 11.40

Session I – lecture hall Øresund

Contaminated Sediments – Risk Assessment and Remediation - Part II

Chair: M.Sc., Environmental Consultant Peter Harms-Ringdahl, EnviFix, Sweden

TREASURE: Novel and innovative methods used to characterize two of Sweden's contaminated fiberbank sediment sites
Professor Ian Snowball, Uppsala University, Sweden

Remediation of Oskarshamn hamn: challenges and lessons learned from contractor point of view
Regional Manager Bart van Renterghem, Envisan, Belgium

Quantification of microplastics in sediments from benthic and coastal environments
M.Sc. Heidi Knutsen, NGI, Norway

Nontarget analysis of sediment samples from Copenhagen, Denmark
Ph.D.-student Josephine Lübeck, University of Copenhagen, Denmark

Session J – lecture hall Jorns

Investigation and monitoring of Soil and Groundwater - Part II

Chair: Associate Professor Patrick van Hees, Eurofins, Sweden

High Resolution Site Characterization and 3D Geological Modelling – Tools for Interpretation of Plume Migration in a Complex Geology
M.Sc. Bo Tegner Bay, COWI, Denmark

Development of an innovative methodology for monitoring of in situ remediation of chlorinated solvents – the MIRACHL-project
Ph.D. Haakan Rosqvist, Lund University and Tyréns, Sweden

Use of geostatistical modelling in investigation of soil contamination - working toward a better definition of remedial mass and volume
R&D Manager, Ph.D. Per Loll, DMR, Denmark

Do we as practitioners have a general challenge with leaking wells causing cross-contamination to deeper aquifers? Swedish and Danish results and paths forward
Project Manager Maria Heisterberg Hansen, NIRAS, Denmark, and Environmental Consultant Filip Nilsson, NIRAS, Sweden

11.40 - 12.40

Lunch, poster session and exhibition

12.40 – 13.10

Poster session and exhibition

13.10 – 14.30

Session K – lecture hall Øresund

Management

Chair: Environmental Scientist Anna Kruger, City of Vestarås, Sweden

Key note presentation: Strategic decisions, while planning and implementing the challenging remediation project in the heavily polluted harbor in Oskarshamn, Sweden – the municipal perspective
Bodil Liedberg Jönsson, Strategic Development Manager, Municipality of Oskarshamn, Sweden

Stakeholder engagement in strategic research agendas related to soil and land use management
Ph.D. Yvonne Ohlsson, Swedish Geotechnical Institute, Sweden

The Finnish Clean Soil Program. A national state-funded program to investigate and remediate sustainably the significant risks to human health and the environment due to land contamination
M.Sc., Project Manager Jarno Laitinen, Centre for Economic Development-, Transport and the Environment, Finland

14.30 – 15.10

Poster session and exhibition, coffee/tea break

15.10 – 16.30

Session M – lecture hall Øresund

Indoor Air

Chair: R&D Manager Per Loll, DMR, Denmark

A detection dog, man's best friend during indoor air investigations
Mette Algreen, Projectleader, Ph.D., Orbicon, Denmark

Vapor Intrusion Gas Source Investigation by use of Stable Isotopes and Radiocarbon Dating
Environmental Engineer Katrine Moes Kristensen, NIRAS, Denmark

Revisiting dry-cleaning sites -30 years of improving environmental investigations from the perspective of a public authority
Environmental Engineer, Ph.D. Sanne Skov Nielsen, Region of Southern Denmark

Modelling of air flow in capillary break layers. A new approach to determine governing mechanisms in balanced ventilation systems preventing vapor intrusion of volatile pollutants
Project Manager Jakob Washington Skovsgaard, Ramboll, Denmark

Session L – lecture hall Jorns

Surface Water - Interaction from Soil, Sediment and Groundwater

Chair: Research Manager Marianne Olsen, Norwegian Institute for Water Research, Norway

Key note presentation: Contaminant response in a multistress environment
Professor Katrine Borgå, University of Oslo, Norway

Bodø Airport – The story of PFAS' way from soil, through storm water to biota
Head of Section Marianne Kvønnås, NGI, Norway

Using temperature to assess interaction between contaminated groundwater and surface water
Ph.D., Hydrogeologist Gro Lilbaek, NIRAS, Denmark

Session N – lecture hall Jorns

PFAS

Chair: Ph.D. Morten Jartun, Norwegian Institute for Water Research, Norway

Immobilization of PFAS contaminated sandy soil from a Norwegian firefighting training facility
Director of Landfill and Contaminated Soil Hilmar T. Sævarsson, Lindum

PFAS Handbook: What, how and where to look, what are the risks and can we be sure?
Senior Consultant Jacqueline Falkenberg, NIRAS, Denmark

Mobility of PFAS: Do lysimeter results reflect concentrations monitored in a groundwater plume?
Regional Manager, M.Sc. Mikael Takala, Vahanen Environment Oy, Finland

What is the total budget of PFAS in contaminated soil and how does total oxidizable precursor (TOP) assay help comprehend the picture?
Associate Professor Patrick van Hees, Eurofins, Sweden

Thursday, September 6

09.00 – 13.30 **Technical tour 1**
Visit to practice range for fire fighting
please see separate program in the compendium

09.00 – 13.30 **Technical tour 2**
Innovation Garage, Skovlunde
please see separate program in the compendium

Social program

Monday September 3

18.30 Meet and greet / Welcome reception
Kulturværftet, Allegade 2, DK-3000 Helsingør, incl. musical entertainment, St. Olai Vocal Ensemble and a light serving.

Bus leaves Konventum at 18.00 - optional walk (approx. 2,7 km along the coast)

Evening meal at own expense – conference secretariat can provide a list of local restaurants

Tuesday September 4

19.00 Drink and musical entertainment, Band Polka Tesch, at 19.00 in the lobby and lecture hall Jorns

19.30 Conference dinner at 19.30 in the Restaurant at Konventum

22.00 (approx.) Dancing after dinner with band “The Man” in the Salon and Bar ”Mødestedet”

Adjustments may occur