

Natural Analogue Working Group NAWG-18 workshop, Manchester, UK, 9-11th June 2026

Programme

Talks: 15 min presentations +5 min Q/A

Meeting room: Room G.03, ground floor of the Williamson Building, University of Manchester

	Sessions/Topics	Presenter	Session chair
MONDAY June 8th			
18:00→	<i>Pre-meeting meet-up: The Bank, 57, Mosley Street, Manchester. Join us for an informal get together in an Old Manchester Bank Pub!</i>		
TUESDAY June 9th			
1 Introduction and keynote			
9:00-9:10	Welcome and programme of the workshop, practical info	Heini Reijonen, GTK Simon Norris, NWS and Kevin Taylor, University of Manchester	Kevin Taylor
9:10-09:40	Brief history of NAWG	Russell Alexander	
2 NA studies in RWM projects worldwide			
9:40-10:00	NWS programme – recent updates	Simon Norris, NWS	Kevin Taylor
10:00-10:20	Approach to compilation of a natural analogue database for geological disposal programme	Yusaku Takubo, NUMO	
10:20-10:50	Coffee/tea		
10:50-11:10	Natural Analogues in support of the Swiss Safety Case (NTB 24-10) within the General Licence Application submitted in 2024	Raphael Wüst, Nagra	
11:10-11:30	A Dutch natural analogue for disposal of depleted uranium	Erika Neeft, COVRA	
3a Studies on host rocks and migration studies			
11:30-11:50	Natural outcrops for understanding variability of Jurassic lower strength sedimentary rocks in the UK	Kevin Taylor, University of Manchester	Simon Norris
11:50-12:10	Endmember lithological variability of the Triassic Mercia Mudstone Group, northwest England: implications for nuclear waste disposal concepts.	Holly Mills, University of Manchester	
12:10-13:30	Lunch		

13:30-13:50	Use of natural analogues to test the consistency of K_d values in performance assessment	James Crawford, Kemakta Konsult AB	
13:50-14:10	Paleohydrogeological controls on natural tracer profiles in Northern Switzerland	Tim Schöne, GFZ Helmholtz Centre for Geosciences	
14:10-14:30	Trace element study in sediment and groundwater of Paleogene Formations in Zeeland, the Netherlands	Alwina Hoving, TNO Geological Survey of the Netherlands	
14:30-14:50	Simulation of iodine migration at Cigar Lake – A natural analog study	Theresa Hennig, GFZ Helmholtz Centre for Geosciences	
14:50-15:20	Coffee/tea		
4a EBS – Clay analogues (Session on Tsukinuno bentonites)			
15:20-15:40	International Bentonite Longevity (IBL) project: an introduction and overview of Phases A and B	Russell Alexander	Erika Neeft
15:40-16:00	International Bentonite Longevity (IBL) project: The potential for bentonite erosion under river flow condition	Ryosuke Kikutchi, University of Hokkaido	
16:00-16:20	International Bentonite Longevity (IBL) project: Deformation and heterogeneity & outlook for Phase C	Heini Reijonen, GTK	
16:20-16:40	Multiscale microstructural controls on swelling behaviour of cemented bentonite	Tobimaru Ishiwata, Hokkaido University	
16:40-17:00	International Bentonite Longevity (IBL) project: Microbial analysis of Tsukinuno mine bentonite as a natural analogue for a nuclear waste repository (Online)	Rachel Beaver, University of Waterloo	
19:00-	<i>Dinner at and Italian restaurant “Gusto” in the centre of Manchester. 4 Lloyd Street, Manchester.</i>		
WEDNESDAY June 10th			
5 EBS – Waste analogues			
9:00-9:20	Insights into uranium behaviour mediated by indigenous bacteria across pH conditions	Dawoon Jeong, KAERI	Heini Reijonen
9:20-9:40	Insights into long-term vitrified waste corrosion mechanisms learned from glasses exposed to complex natural environments	Clare Thorpe, University of Sheffield	
9:40-10:00	From experiments to modelling: natural and anthropic glass analogue studies for nuclear waste confinement matrix	Delphine Neff, CEA	
4b EBS – Clay analogues			

10:00-10:20	Deep geological Kiirunavaara smectites, northern Sweden: a natural analogue of long-term stability of clay minerals	Raphael Schneeberger (presented by Raphael Wüst), Nagra	Erika Neeft
10:20-10:50	Coffee/tea		
10:50-11:10	MORO project: insights to spatial stability and integrity of montmorillonite in crystalline fractured environments, Finland	Heini Reijonen, GTK	
3b Studies on host rocks and migration studies			
11:10-11:30	Influence of groundwater residence time on radionuclides and bentonite colloids retention at the Grimsel Test Site	Francesca Quinto, KIT/INE	Simon Norris
11:30-11:50	Charge reversal and competitive sorption of trivalent ions on aluminosilicate surfaces: Implications for radionuclide retention in crystalline host rocks	Bahram Hosseini Monjezi, KIT/INE	
6 EBS – Container analogues			
11:50-12:10	Michigan International Copper Analogue (MICA) II project – recent advances	Heini Reijonen, GTK	Milena Schoenhofen-Romer
12:30-13:30	Lunch		
13:30-13:50	The oldest steel in the world?	Russell Alexander	
7 Stakeholder communications			
13:50-14:10	geosafe.info European Web site: A bilingual (English and Nation State language) pedagogical website with a content managed quiz feature enabling municipalities and communities to understand what siting a DGR involves. Additionally, a restricted user area for comms between graduates, Universities, TSO's, Municipalities, Regulators and WMO's.	Colin Wales, SITEX	Simon Norris
14:10-14:30	NATSTRAT the new EURAD-2 WP proposal	Heini Reijonen, GTK	
8 Special session on Harpur Hill – field trip site			
14:30-14:50	Geomicrobiological studies in a high-pH system, Harpur Hill, Derbyshire, UK	Rebecca Snow	Heini Reijonen
14:50-15:20	Coffee/tea		
15:20-15:40	Harpur hill geology	Russell Alexander	
Closing of the workshop			
15:40~16:30	Closing remarks and way forward with NAWG – publication plans	Heini Reijonen + all	
THURSDAY June 11th			

9:00-15:30	Field trip to Harpur Hill by bus* (picnic lunch) Pick-up point: Manchester Museum, Oxford Road (opposite to Williamson Building) The terrain needs good shoes (trainers or similar) and might be wet and muddy. The field often contain livestock (cows). Otherwise follow the forecast for the gear for a day out.
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