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# Bryan Lovell Meeting 2019:

## Role of geological science in the decarbonisation of power production, heat, transport and industry

21 – 23 January 2019

### Poster Programme

#### **A new research facility: kick-starting future opportunities in subsurface mine water geothermal heat and heat storage**

J. Birkin<sup>1</sup> & K. Shorter<sup>1</sup>

<sup>1</sup>British Geological Society, Keyworth, Nottingham, United Kingdom

#### **Scaled cavern formation by salt dissolution: gas storage in the Permian halite**

Katherine A. Daniels<sup>1</sup>, Jon F. Harrington<sup>1</sup>, Lorraine P. Field<sup>1</sup> and David J. Evans<sup>1</sup>

<sup>1</sup>British Geological Survey, Nicker Hill, Keyworth, Nottinghamshire, NG12 5GG, UK.

#### **Linking Redox Processes and Black Shale Resource Potential**

J. Emmings<sup>a,b</sup>, S. Poulton<sup>c</sup>, G. Jenkin<sup>b</sup>, S. Davies<sup>b</sup>, C. Vane<sup>a</sup>, M. Leng<sup>a,d</sup>, M. Stephenson<sup>a</sup>, A. Lamb<sup>a</sup>, Vicky Moss-Hayes<sup>a</sup>

<sup>a</sup>British Geological Survey, Keyworth, Nottingham, NG12 5GG, UK

#### **Carbon capture and storage on the East Irish Sea Basin**

Davide Gamboa<sup>1</sup>, John D. O. Williams<sup>2</sup>, Michelle Bentham<sup>2</sup>, David Schofield<sup>3</sup>, Andrew Mitchell<sup>4</sup>

<sup>1</sup> British Geological Survey, Columbus House, Greenmeadow Springs, Tongwynlais, Cardiff, CF15 7NE, UK

#### **Quantifying geological CO<sub>2</sub> storage security to deliver on climate mitigation**

Juan Alcalde<sup>a</sup>, Stephanie Flude<sup>b,c</sup>, Mark Wilkinson<sup>b</sup>, Gareth Johnson<sup>b</sup>, Katriona Edlmann<sup>b</sup>, Clare E. Bond<sup>a</sup>, Vivian Scott<sup>b</sup>, Stuart M.V. Gilfillan<sup>b</sup>, Xènia Ogaya<sup>d</sup> and R. Stuart Haszeldine<sup>b</sup>.

<sup>a</sup>Geology and Petroleum Geology, University of Aberdeen, School of Geosciences, Kings College, Aberdeen, AB24 3UE, UK

#### **Subsurface capacity for energy storage onshore and offshore UK: CO<sub>2</sub>, CAES, Hydrogen**

Stuart Haszeldine<sup>1</sup>, Mark Wilkinson, Stuart Gilfillan, Gareth Johnson, Julien Mouilli-Castillo, Jon Scafidi, Niklas Heinemann, Dimitri Mignard

<sup>1</sup>School Of Geosciences, University Of Edinburgh

#### **Europe's cobalt resource potential for supply to low-carbon vehicles**

S. Horn<sup>1</sup>, E. Petavratzi<sup>1</sup>, G. Gunn<sup>1</sup>, R. Shaw<sup>1</sup>, F. Wall<sup>2</sup>

<sup>1</sup>British Geological Survey, Nicker Hill, Keyworth, Nottingham, NG12 5GG

#### **Run-of-the-River Micro Hydro Power – Feasibility and Value**

Dr. M. Johansson<sup>1</sup>

<sup>1</sup>Geode-Energy Ltd, 1-9, Central Square, Cardiff, CF10 1AU, United Kingdom

#### **Assessing the feasibility of the “all-in-one” concept in the UK North Sea: offsetting carbon capture and storage costs with methane and geothermal energy production through reuse of a hydrocarbon field**

Jonathan Scafidi and Stuart M.V. Gilfillan

School of GeoSciences, University of Edinburgh, James Hutton Road, Edinburgh, EH9 3FE, UK.

#### **Mine water: a sustainable renewable energy resource?**

Fiona Todd, Dr Chris McDermott, Dr Andrew Fraser Harris, Dr Stuart Gilfillan and Dr Alex Bond

<sup>1</sup>University of Edinburgh, Old College, South Bridge, Edinburgh EH8 9YL

<sup>2</sup>Quintessa Ltd, First Floor, West Wing, Videcom House, Newtown Rd, Henley-on-Thames RG9 1HG