

Investigators and institution	Title/description of research	Proposed analytes	Agreed sample request
Dr J Renshaw, Prof Z. Shipton, Mr M Schiltz Strathclyde University	Bacterial ecology of abandoned coal mine geothermal: the role of species inoculated during drilling on corrosion, scaling, and biofouling.	Bacterial ecology: (16s rRNA) Fluid chemistry (field): temp, dissolved oxygen, Eh, pH, and EC Fluid chemistry (lab): alkalinity, pH, EC, major and minor cations, major anions, and ammonium	<i>During-drilling and/or time dependent sample call:</i> Site GGERFS10 returned drilling fluid and borehole waters Sites GGERFS01-05 returned drilling fluid, tank refill fluid, borehole cleaning water, initial groundwater, pump test groundwater
Dr J De Rezende, Dr R Pereira Heriot-Watt University	Establishing baseline geochemistry of drilling and well development fluids and potential effects on microbiology	Microbiology analysis. Next-generation of organic matter analysis to measure DOM leachates from source rock and return fluids using a liquid chromatography-organic carbon detector-organic nitrogen detector (LC-OCD-OND)	<i>During-drilling and/or time dependent sample call:</i> Sites GGERFS01-05 rock cuttings samples, returned drilling fluid, borehole waters, borehole cleaning water, initial groundwater, pump test groundwater
Prof A Boyce, Dr N Burnside, Mr D Walls SUERC and University of Glasgow	S isotope analytical programme on water and rock chippings. Delineating the behaviour of the S cycle before, during (and after) drilling.	Sulphide and sulfate petrography and S isotope analyses. O + H isotopes ($\delta^{18}\text{O}$ and $\delta^2\text{H}$), sulphate, TDIC, pH, alkalinity, major cation/anion	<i>During-drilling and/or time dependent sample call:</i> Site GGERFS10 returned drilling fluid and borehole waters, core samples, pyrite Sites GGERFS01-05 rock cuttings samples, returned drilling fluid, borehole waters, borehole cleaning water, pump test groundwater
Dr L Newsome Exeter University	Understanding the microbiology of geothermal systems	Cell counts, qPCR and 16S rRNA amplicon sequencing	<i>During-drilling and/or time dependent sample call:</i> Sites GGERFS01-05 rock cuttings samples, returned drilling fluid, borehole cleaning water, initial groundwater
Dr S. Gilfillan, Dr G Johnson Universities of Edinburgh and Strathclyde	Baseline gas stratigraphy of Glasgow UKGEOS site	Gas composition and isotopes (C1-3 , O_2 , N_2 , CO_2); $\delta^{13}\text{C} + \delta^2\text{H}$ of CH_4 ; $\delta^{13}\text{C} + \delta^{18}\text{O}$ of CO_2 (if present)	<i>During-drilling and/or time dependent sample call:</i> Site GGERFS10 core samples Sites GGERFS01-05 rock cuttings samples
Dr I Beverland, Dr T Beattie	Monitoring of air pollution during borehole drilling activities	Air pollutants ($\text{PM}_{2.5}$, black carbon & NO_2)	<i>During-drilling and/or time dependent sample call:</i> Site GGERFS01-05 access during borehole construction

