

Publications: Papers, books & book chapters

- Ala-aho, P.**, Rossi, P.M., Isokangas, E. & Kløve, B., 2015. *Fully integrated surface-subsurface flow modelling of groundwater-lake interaction in an esker aquifer: Model verification with stable isotopes and airborne thermal imaging*. Journal of Hydrology 522, 391-406.
- Ala-aho, P.**, Rossi, P.M. & Kløve, B., 2015. *Estimation of temporal and spatial variations in groundwater recharge in unconfined sand aquifers using Scots pine inventories*. Hydrology and Earth Systems Science, 19, 1961-1976.
- Eskelinen, R., **Ala-aho, P.**, Rossi, P.M. & Kløve, B. 2015. *A GIS-based method for predicting groundwater discharge areas in esker aquifers*. Environment and Earth Science, DOI 10.1007/s12665-015-4491-7.
- Jyväsjärvi, J., Marttila, H., Rossi, P.M., **Ala-aho, P.**, Olofsson, B., Nisell, J., Backman, B., Ilmonen, J., Virtanen, R., Paasivirta, L., Britschgi, R., Kløve, B. & Muotka, T. 2015. *Climate-induced warming imposes a threat to North European spring ecosystems*. Global Change Biology, DOI 10.1111/gcb.1306
- Blumstock, M.**, **Tetzlaff, D.**, Malcolm, I.A., Nuetzmann, G. & **Soulsby, C.** 2015. *Baseflow dynamics: multi-tracer surveys to assess groundwater contributions to montane streams under low flows*. Journal of Hydrology. doi:10.1016/j.jhydrol.2015.05.019
- Wacey, D., Saunders, M., Kong, C., **Brasier, A.** & Brasier, M. 2015. *3.46 Ga Apex chert 'microfossils' reinterpreted as mineral artefacts produced during phyllosilicate exfoliation*. Gondwana Research. DOI: 10.1016/j.gr.2015.07.010.
- Kerr, G.B., Prave, A.R., Martin, A.P., Fallick, A.E., **Brasier, AT.** & Park, R.G. 2015. *The Palaeoproterozoic global carbon cycle: insights from the Loch Maree Group, NW Scotland*. Journal of the Geological Society. DOI: 10.1144/jgs2014-042.
- R.W.H. Butler**, Eggenhuisen, J.T., Houghton, P. & McCaffrey, W.D. 2015. *Interpreting syndepositional sediment remobilization and deformation beneath submarine gravity flows; a kinematic boundary layer approach*. Journal of the Geological Society, doi:10.1144/jgs2014-150.
- Pace, P., Scisciani, V., **Butler, R.**, **Iacopini, D.**, Esetime, P. & Hodgson, N. 2015. *Inversion structures in a foreland domain: Seismic examples from the Italian Adriatic Sea*. Interpretation, vol 3, no. 4, pp. 1-16. DOI: 10.1190/INT-2015-0013.1.
- Dickson, N.E.M., **Comte, J-C.**, Renard, P., Straubhaar, J.A., McKinley, J.M. & Ofterdinger, U. 2015. *Integrating aerial geophysical data in multiple-point statistics simulations to assist groundwater flow models*. Hydrogeology Journal, 23(5), 883-900. doi: 10.1007/s10040-015-1258-x.
- Alsulami, S., Paton, D.A. & **Cornwell, D.G.** 2015. *Tectonic variation and structural evolution of the West Greenland continental margin*. AAPG Bulletin, vol 99, no. 9, pp. 1689-1711.
- Kahraman, M., **Cornwell, D.G.**, **Thompson, D.A.**, Rost, S., Houseman, G.A., Turkelli, N., Teoman, U., Altuncu Poyraz, S., Utkucu, M. & Gulen, L. 2015. *Crustal-scale shear zones and heterogeneous structure beneath the North Anatolian Fault Zone, Turkey, revealed by a high-density seismometer array*. Earth and Planetary Science Letters, vol 430, pp. 129-139.
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Publications (continued...)

Prudencio, J., J. M. Ibáñez, E. Del Pezzo, J. Martí, A. García-Yeguas & **L. De Siena**. 2015. *3D Attenuation Tomography of the Volcanic Island of Tenerife (Canary Islands)*. *Surveys in Geophysics* 36, no. 5: 693-716.

Blockley, S.P.E., **Edwards, K.J., Schofield, J.E.**, Pyne-O'Donnell, S.D.F., Jensen, B.J.L., Matthews, I.P., Cook, G.T., Wallace, K.L. & Froese, D. 2015. First evidence of cryptotephra in palaeoenvironmental records associated with Norse occupation sites in Greenland. *Quaternary Geochronology* 27, 145-157.

Edwards, K.J., Fyfe, R.M., Hunt, C.O. & **Schofield, J.E.** 2015. Moving forwards? Palynology and the human dimension. *Journal of Archaeological Science* 56, 117-132.

El Diasty, W.Sh., Mostafa, A.R., El Beialy, S.Y., El Adl, H.A. & **Edwards, K.J.** 2015. Upper Cretaceous–Early Paleogene source rock geochemistry and correlation with some Egyptian mummy bitumen and oil from the southern Gulf of Suez, Egypt. *Arabian Journal of Geosciences*. DOI 10.1007/s12517-015-1855-y.

Streeter, R., Dugmore, A.J., Lawson, I.T., Erlendsson, E. & **Edwards, K.J.** 2015. The onset of the palaeoanthropocene in Iceland: changes to complex natural systems. *The Holocene* 25, 1662-1675.

Whittington, G., **Edwards, K.J.**, Zanchetta, G., Fallick, A.E., Bunting, M.J., Keen, D.H. & Bryant, C.L. 2015. Late glacial and early Holocene climates of the Atlantic margins of Europe: stable isotope, mollusc and pollen records from Orkney, Scotland. *Quaternary Science Reviews*. 122, 112-130.

Sachau, T., Bons, P.D. & **Gomez-Rivas, E.** 2015. *Transport efficiency and dynamics of hydraulic fracture networks*. *Frontiers in Physics*, 3:63

Healy, D., Blenkinsop, T. G., Timms, N. E., Meredith, P. G., Mitchell, T. M. & Cooke, M. L. 2015. *Polymodal faulting: Time for a new angle on shear failure*. *Journal of Structural Geology*, 80, 57-71.

Ene, P., Kuchle, J., Alvarenga, R., **Iacopini, D.** & Goldberg, K. 2015. *Half-Graben Complex Evolution: the Rift Section of Campos Basin Based on Seismic Stratigraphic Analysis*. *Pesquisas em Geociências*, vol 42, no. 1, pp. 45-59.

Haines, T.J., **Neilson, J.E., Healy, D.**, Michie, E.A.H. & Aplin, A.C. 2015. *The impact of carbonate texture on the quantification of total porosity by image analysis*. *Computers and Geosciences*, v.85, p.112-125.

Davies, D. R., **Rawlinson, N.**, Iaffaldano, G. & Campbell, I. H. 2015. *Lithospheric controls on magma composition along Earth's longest continental hotspot track*, *Nature*, 525, 511-514.

Pilia, S., **Rawlinson, N.**, Direen, N.G., Reading, A.M., Cayley, R., Prior, L. & Arroucau, P. 2015. *Linking mainland Australia and Tasmania using ambient seismic noise tomography: Implications for the tectonic evolution of the east Gondwana margin*. *Gondwana Research*, 28, 1212-1217.

Rawlinson, N., Kennett, B. L. N. & Salmon, M. 2015. *Origin of lateral heterogeneities in the upper mantle beneath southeast Australia from seismic tomography*. In A Khan & F Deschamps (eds), *The Earth's heterogeneous mantle*, 47-78, Springer.

Publications (continued...)

Rice, C.M., Mark, D.F., Selby, D., **Neilson, J.E.** & Davidheiser-Kroll, B. 2015. *The age and geological setting of quartz vein-hosted gold mineralization at Curraghinalt, Northern Ireland: Implications for genesis and classification*. Economic Geology.

Silva-Sánchez, N., **Schofield, J.E.**, **Mighall, T.M.**, Martínez Cortizas, A., **Edwards, K.J.** & Foster, I. 2015. *Climate changes, lead pollution and soil erosion in South Greenland over the past 700 years reconstructed from an ombrotrophic bog*. Quaternary Research 84, 159-173.

Soulsby, C., **Birkel, C.**, **Geris, J.**, & **Tetzlaff, D.** 2015. *Spatial disaggregation of time-variant stream water age composition in urbanised catchments*. Hydrological Processes. DOI: 10.1002/hyp.10500

Barr, I. & **Spagnolo, M.** 2015. *Understanding controls on cirque floor altitudes: insights from Kamchatka*. Geomorphology, 248, 1-13. doi:10.1016/j.geomorph.2015.07.004.

Sprengr, M., Volkmann, THM., Blume, T. & Weiler, M. 2015. *Estimating flow and transport parameters in the unsaturated zone with pore water stable isotopes*. Hydrology and Earth System Sciences, vol 19, no. 6, pp. 2617-2635. DOI: 10.5194/hess-19-2617-2015

Sprengr, M., Herbstritt, B. & Weiler, M. 2015. *Established methods and new opportunities for pore water stable isotope analysis* Hydrological Processes. early view DOI: 10.1002/hyp.10643

Ali, G., **Tetzlaff, D.**, **Soulsby, C.**, **McDonnell, J.J.**, Carey, S., Laudon, H., McGuire, KJ. Buttle, JM., Seibert, J. & Shanley, J. 2015. *Threshold hydrologic response across contrasting Northern catchments*. Hydrological Processes. DOI: 10.1002/hyp.10527.

Altuncu Poyraz, S., Teoman, MU., Turkelli, N., Kahraman, M., Cambaz, D., Mutlu, A., Rost, S., Houseman, GA., **Thompson, D.A.**, **Cornwell, D.**, Utkucu, M. & Gulen, L. 2015. *New constraints on micro-seismicity and stress state in the western part of the North Anatolian Fault Zone: Observations from a dense seismic array*. Tectonophysics, vol 656, pp. 190-201.

Thompson, D.A., Kendall, J-M, Helffrich, G., Bastow, I.D., Wookey, J. & Snyder, D. 2015. *CAN-HK: An a priori crustal model for the Canadian Shield*. Seismological Research Letters, vol 86, no. 5, pp. 1374-1382. DOI: 10.1785/0220150015.

Wiltshire, P.E.J., Hawksworth, D.L. & **Edwards, K.J.** 2015. *Palynological and mycological analyses reveal the consumption of a mixture of psychotropic plant and fungal material in a suspicious death*. Journal of Forensic and Legal Medicine 34, 73-80.

Wiltshire, P.E.J., Hawksworth, D.L. & **Edwards, K.J.** 2015. *A rapid and efficient method for evaluation of suspect testimony: palynological scanning*. Journal of Forensic Sciences. doi: 10.1111/1556-4029.12835

Wiltshire, P.E.J., Hawksworth, D.L., Webb, J.A. & **Edwards, K.J.** 2015. *Two sources and two kinds of trace evidence: enhancing the links between clothing, footwear and crime scene*. Forensic Science International 254, 231-242.

Funding

Clare Bond and **Rob Butler** are the Co-Is on a new JIP - the Fold-Thrust Research Group – which began in September. **Hannah Watkins** is the postdoctoral research fellow employed on the project. With funding for three years from InterOil, Oil Search and Santos, the project will have a strong focus on exploration in PNG.

Alex Brasier is the PI on a new project - Recreating Habitable Environments of the Early Earth: Understanding Ancient Processes and Detecting Ancient Life. Funded by a Royal Society Research Grant, with £15k for geobiochemical laboratory equipment.

Enrique Gomez-Rivas has been awarded a small grant (€1,700) for a research visit from the Microdynamics of Ice international research network, funded by the European Science Foundation (ESF): “Deformation microstructures, fracturing and fluid flow through salt rocks: insights from the Cabanasses mine (Ebro Basin, Barcelona, NE Spain)”.

Dave Healy has secured £358k from NERC for a new project – Quantifying the Anisotropy of Permeability in Stressed Rock. This is a joint project with University College London (UCL) with Dr Tom Mitchell and Prof. Phil Meredith, with a total value of £838k (~£1m fEC). Aberdeen is the Lead Organisation. UCL will complete a novel deformation cell capable of applying truly triaxial stresses to large (50 mm) rock samples and simultaneously measure their permeability in 3 directions. A 3-year PDRA at Aberdeen will quantify the evolution of porosity and permeability with stress, and model the consequences for fault stability and seismic activity, with Prof. Fred Cappa in Nice.

Ben Kneller reports that Petrochina and BP have both confirmed their participation in Ben Kneller’s JIP PRAX-2 - Predicting Reservoir Architecture in Deep-water Systems, joining Statoil and Det Norske.

Conferences, Presentations

Bas Buddendorf, PhD student in the hydrology group, supervised by **Chris Soulsby** and **Josie Geris** presented on his work on hydropower impacts on the connectivity of aquatic ecosystems at the 9th Symposium for European Freshwater Sciences in Geneva, Switzerland.

Bourhane A., Cordier E., Join J-L., Ibrahim K., **Comte J.C.** 2015. Groundwater vulnerability to seawater intrusion in volcanic islands inferred from harmonic decomposition of hydrogeological time series, AQUA 2015 - 42nd Annual Congress of the International Association of Hydrogeologists, Rome, 13th-18th Sept.

Members of the **Deep Water Systems** research group gave presentations at the annual BG research forum, including **Guilherme Bozetti**, **Matheus Sobiesiak**, **Amanda Santa Catharina**, **Thisiane Dos Santos**, **Qun Liu**, **Dugmar Mendez Fermin**, and **Larissa Hansen**.

Enrique Gomez-Rivas attended the 15th Bathurst Conference of Carbonate Sedimentologists in early July, where he gave a talk entitled “Stylolite networks as a primary control on the geometry of massive diagenetic alterations”, and presented a poster on “Fluid flow and the formation of massive hydrothermal alterations in carbonates”.

Conferences, Presentations (continued...)

Enrique Gomez-Rivas attended the 20th International Conference on Deformation Mechanisms, Rheology and Tectonics (DRT), in Aachen (Germany), where he gave talk on 11th September entitled: "Can stylolite networks control the geometry of hydrothermal alterations?"

Dave Healy gave a talk at the EAGE Faults & Top Seals conference in Almeria (20-24th September) entitled 'Permeability Anisotropy in Faulted Sandstone - Implications for Fault Seal' (co-authored by **Natalie Farrell**). **Roberto Rizzo** presented a poster 'Permeability Estimation in a Multi-fractured Top Seal'. **Sarah Weihmann** presented a poster 'Predicting Hydraulically Conductive Fractures - A Comparison of Methods'.

Chris Soulsby gave a seminar to the Department of Environmental Systems Science at ETH Zurich, Switzerland.

Esteem

Rob Butler gave an invited keynote talk: at the 12th Emile Argand Alpine Workshop, Montgenevre, September 2015: Geological inheritance and Alpine Tectonics: implications for the temporal evolution of orogens.

Luca De Siena gave three invited talks at (1) the University of Salerno, (2) the INGV - Osservatorio Vesuviano, and (3) the RIISC Lab., University of Napoli (Italy) in the frame of a new cooperation funded by the Royal Society of Edinburgh-Academia dei Lincei bilateral travel grant.

Luca De Siena gave an invited talk at the University of Münster (Germany) in the frame of a new cooperation funded by the COPS Santander Mobility Award.

Enrique Gomez-Rivas chaired a session on "Fault Processes, Fault rock evolution and Seismicity" at the 20th International Conference on Deformation Mechanisms, Rheology and Tectonics (DRT), in Aachen (Germany) on 11th September.

Nick Schofield won the DG Roberts/Peter Ziegler prize for Best Paper at the 8th Petroleum Geology Conference of Northwest Europe, for his presentation 'Intrusive and extrusive sequences and their interactions with hydrocarbon systems - a key geoscience challenge?'

Chris Soulsby gave a keynote talk at the annual meeting of the international EU COST action CONNECTEUR: Connecting European Connectivity Research, held at the University of Durham.

Doerthe Tetzlaff gave an invited talk at the "Frontiers in Ecohydrology and Freshwater Science" seminar series at the IGB Leibniz Institute in Berlin, Germany.

Field work & visits

Jean-Christophe Comte and **Baptiste Marteau** led a 4 day geophysical survey in River Ehen, in the Lake District National Park, NW England, using the School's new electrical resistivity tomography kit. The survey aimed to provide high-resolution imaging of the internal sedimentary structure of an alluvial fan located in the upper reaches of the Ehen. Survey data will be used to both help preliminary understanding of the lithological controls on flow and sediment dynamics in this ecologically important river and as pilot research for further funding application. The survey forms part of a wider river restoration project being undertaken in the Ehen, currently funded by the Environment Agency and United Utilities (the local water company) and directed by **Chris Gibbins**.

Jean-Christophe Comte visited at the end of August the Institute of Research for Development IRD and the Water Resource Directorate in Cotonou, Benin, as part of the EuropeAid/African Union research Grant GRIBA 'Groundwater resources in basement rock of Africa' (co-investigator). He delivered two seminars for PhD and MSc students in Hydrology and Geophysics of the University of Abomey Calavi and the hydrogeology staff of the Water Directorate; and also co-convened the GRIBA project closing workshop gathering Benin research partners and water stakeholders.

Dave Healy, Roberto Rizzo and **Enrique Gomez-Rivas** visited the Spireslack open-cast coal pit in Ayrshire to build a virtual outcrop model of fracture network data, using a well-exposed pavement of the Macdonald limestone (Carboniferous).

John Howell has been busy with field work: with **Colm Pierce** doing virtual outcrop work in Ireland 3rd - 8th August; with Dougal Jerram in Namibia 19th - 25th August; with **Magda Chmielewska, James Mullins, Eva Zimmer, Luca Agostini** and **Mustafizur Rahman** (and a group from Bergen), on the Yorkshire Coast 7th - 12th September; and with **Colm Pierce** in Arizona doing Ground Penetrating Radar (GPR) 14th - 22nd September.

Ben Kneller spent three weeks at Ocean College of Zhejiang University (#3 in China) on a Chinese Government's High-End Foreign Experts Short-Term Recruitment Program. He also visited (with his PhD student **Pan Li**) China University of Geosciences at Wuhan, where he was made Visiting Professor. He and Pan visited the State Key Laboratory for Marine Science at Tongji University in Shanghai, where they discussed participation in a deep-water turbidity current monitoring program in the South China Sea, offshore Taiwan.

Matteo Spagnolo spent two weeks in the USA working with Prof. Shuster (University of California at Berkeley) on a project aiming to use cosmogenic noble gases on glacial deposits to reconstruct the climate of the past 25,000 years in the European Alps.

Outreach, training & media

Rob Butler ran a two-week training course for the NERC Oil and Gas CDT on Exploration in extreme environments, with Rod Graham in the French Alps (August-September 2015). Attended by 29 PhD students from throughout the UK and supported by Shell and Statoil.

Outreach (continued...)

John Howell gave a talk at the annual Tech Fest: Geology for Climbers and Walkers.

Nick Rawlinson's recent Nature paper (see Publications, above) made the front page of the Guardian newspaper (online) on September 15th:

<http://www.theguardian.com/world/2015/sep/15/worlds-longest-continental-volcano-chain-discovered-in-australia>

Other

Wu Jianan arrived from China with a China Scholarship Council grant, to start his PhD with **Ben Kneller** on deepwater system architecture.

The **Tectonics & Geophysics staff** will organise 21st International Conference on Deformation Mechanisms, Rheology and Tectonics (DRT) in Ullapool in May 2017. **Enrique Gomez-Rivas** coordinated and presented the UoA bid at the 2015 edition of this conference, in Aachen (Germany).

Enrique Gomez-Rivas and **John Howell** have a new PhD student: Shuqing Yao. She will work on "Improved understanding of fluid flow in partially dolomitised hydrocarbon reservoirs".

Dr. Juan Diego Martín-Martín (Lecturer in Sedimentary Petrology at the University of Barcelona) visited our department for one month, from 22nd June to 23rd July, to work with **Enrique Gomez-Rivas** on characterisation of hydrothermal dolomitisation fronts and their impact on reservoir quality distribution in carbonate reservoirs.

Dr. Albert Griera (Lecturer in Structural Geology at the Autonomous University of Barcelona) visited our department from 30th August until 9th September, to work with **Enrique Gomez-Rivas** on the development of a C++ code to simulate trace element diffusion with fractionation, and to couple it with deformation and dynamic recrystallisation processes. Albert came with a short exchange visit grant funded by the European Science Foundation (ESF).

John Parnell reports that we have been joined by **Liam Bullock** (PDRA) and **Joe Armstrong** (PhD), both working on the NERC TEASE project (tellurium and selenium in organic-rich sediments).

Congratulations to **Patricia Wiltshire**, who successfully defended her PhD thesis ('Developing Forensic Palynology').

Success for 6th "Aberdeen Catchment Science" Postgraduate Summer school at the Northern Rivers Institute: an advanced summer school on catchment science for PhD students and Post Docs was held for the fifth time in August at the **Northern Rivers Institute**. The 5-day short course was organised by **Professors Jeff McDonnell** (6th Century Chair), **Chris Soulsby**, **Doerthe Tetzlaff** and **Dr Josie Geris**. 30 students from 18 countries attended the workshop. The organisers were assisted by internationally-leading instructors Professor Keith Beven from the University of Lancaster (the World's most highly cited hydrologist) and Dr Rick Hooper, the Director of CUAHSI (Consortium of Universities for the Advancement of Hydrologic Science) in the US. This high-level course aimed to be a master-class for a selective group of

Other (continued...)

international students interested in a “hands-on” catchment science curriculum, focusing on northern catchments, runoff processes and combined hydrometric, isotope/chemical tracer and modelling techniques in catchment hydrology. Four days of lectures and exercises on data analysis and modelling were supported by a one day field trip in the middle of the week. The trip went to the River Dee and the experimental catchment of the Girnock Burn near Ballater. The course was enormously successful; feedback from the students was overwhelmingly positive.

In his role as a member of the AGU (American Geophysical Union) Fellows Selection Committee, **Chris Soulsby** attended the annual selection meeting in Washington DC, US.

Dr. Pertti Ala-Aho, who received his PhD from the University of Oulu, Finland started his work as a postdoc in **Chris Soulsby**'s NERC funded “SIWA” project in August. Pertti's research aims to improve the understanding of integrated surface and subsurface hydrological processes in cold climate environments.

Matthias Sprenger, who received his PhD from the University of Freiburg, Germany, started his work as a postdoc in **Doerthe Tetzlaff**'s ERC funded project VeWa in September. Matthias expertise lies in using stable isotope tracers, in particular to understand and predict hydrological processes within the vadose zone.

Aaron Neil, who received his MSc and BSc at University of Durham, started his PhD under the supervision of **Doerthe Tetzlaff**, Norval Strachan and **Chris Soulsby**. Aaron's PhD is funded through the Scottish Government's HYDRONATION program and the topic is “Linking small-scale hydrological flow paths, connectivity and microbiological transport to protect remote private water supplies”.

Doerthe Tetzlaff and **Chris Soulsby** spent two weeks at the Department of Environmental Systems Science at the ETH Zurich, Switzerland in September collaborating with Professor Jim Kirchner.

The Swedish Ambassador to The UK, HE Nicola Clase, visited the University on 8th September. Professor **Doerthe Tetzlaff** was asked to present an overview of hers and her team's research on “Resilience of water resources under climate change in northern regions” which was extremely well received leading to discussions on the topic of climate change and resilience.

Claire Tunaley, PhD student in the Hydrology group and supervised by **Chris Soulsby** and **Doerthe Tetzlaff**, attended a postgraduate summer school on Carbon Dynamics at SLU Umea, Sweden, which is held every two years. She combined her visit to also attend the annual Krycklan symposium at SLU Umea, Sweden.

And finally, **Clive Rice** has found gold. Literally. In his own words:

Honeaite: A new gold-thallium-telluride from the Yilgarn Craton

Clive Rice , John Still*, Mark Welch**, Alan Criddle** and Chris Stanley**. *AU, **Natural History Museum, London.*

Honeaite was discovered by the late Russell Honea, a consulting mineralogist, at the Karonie gold mine in the Eastern Goldfields province of Western Australia. He suspected it might be a new mineral but didn't have the time or equipment available to prove it. So, via a mutual acquaintance in Colorado, it arrived on my desk in 1999. John Still and I readily established the chemistry, petrography and some of the optics but the crystals were too small at <50 microns to extract for a structural analysis. There the matter rested until last year when we discovered a few larger c.90 micron grains, from which Mark Welch at the NHM carried out a full structural analysis.

Honeaite is bluish grey with a reflectance of about 50% in air. The formula is Au_3TlTe_2 . It is orthorhombic and has a unique structure with no synthetic analogues. It comprises corrugated {100} sheets of connected 6 membered rings of $TeAu_3$ polyhedra. Thallium atoms form rows connecting adjacent corrugated sheets of $TeAu_3$ polyhedra. The mineral has been approved by the Commission on New Minerals and a paper will appear in the Mineralogical Magazine.

The mineralization is late Archaean and amphibolite-hosted within a shear zone and probably falls into the orogenic gold category. However, the additional presence of molybdenite and bismuth tellurides suggest it may be intrusion-related instead. Mineral relationships show that the mineralization is post peak metamorphism and ductile deformation and is related to brittle structures. Thus, it was probably emplaced during late orogenic uplift and cooling. Work is continuing.

Next copy deadline: December 7th, 2015

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