



Welcome to the SMU Geothermal Lab newsletter for August. This month we get to thank those who helped over the summer, offer job openings and job seekers, and give you a list of events to learn more about the Earth.

SMU Geothermal Laboratory Notes

Matt Hornbach led another **field studies trip** this summer with undergraduate and graduate students from the SMU Huffington Department of Earth Sciences. They were a fantastic Geo-Team! The field trip included stops in Colorado, Wyoming, Montana, Idaho, and Utah with the students studying geology and measuring heat flow in water and research wells. Thanks to **John LaFave**, **James Swierc**, and **Mike Richter** in Montana, **Kevin Boyce** and **Bern Hinckley** in Wyoming, **Matt Sares** in Colorado for helping us locate wells to log, and to the geothermal team at **Idaho National Laboratory** for showing students you really can get a job in geothermal energy research and enjoy working as a team.



Thank you to [GeoShack](#) for donating use of a **Schonstedt Magnetic Locator** for the field studies trip. Using the locator, we were able to find four additional wells “lost” since the 1970’s that had pipes cut below ground level. We now have 10 wells in the Marysville, Montana area that are part of a research project studying changes in near surface temperatures.

The SMU Geothermal Lab enjoyed meeting with **7 Fulbright scholars from Egypt** who were taking part in a 10 week program on renewable energy at TAMU under **Sergio Capareda**. Joe Batir, Casey Brokaw, Alex Santos, Cathy Pace, and Maria outlined their geothermal research and gave them a tour of the lab.

As part of the 2016 SMU Power Plays conference, we collected **resumes** from attendees and others interested in employment in the geothermal and oil and gas industry. Looking to **hire someone**? Check out the resumes at <http://www.smu.edu/Dedman/Academics/Programs/GeothermalLab/Conference/Resumes>. Looking for a job? Email your resume to geothermal@smu.edu to be included next time.

The American Geosciences Institute has updated their **Geoscience Handbook**. Included in the new version is the SMU Geothermal Lab **Heat Flow Map** of the Conterminous United States from 2011. More information: <http://www.agiweb.org/pubs/pubdetail.html?item=300311>.

Congratulations

Congratulations to the **st1 Deep Heat** project on reaching a drill hole depth of **3,000 meters**. Good luck as you continue to drill. More information:

<https://translate.google.com/translate?hl=en&sl=fi&u=http://www.st1.fi/deepheat&prev=search>.

Congratulations to **Geothermal Technologies Office** and the **University of Utah** for successfully demonstrating **stimulation techniques** for enhanced geothermal system (EGS). The project at the Raft

River Geothermal Field in Idaho used stimulation techniques to connect a previously isolated injection well with existing power production wells. More information: <http://energy.gov/eere/articles/eere-success-story-geothermal-technology-breakthrough-idaho-building-upon-previous-egs>.

Congratulations to the teams from Roosevelt High School, Yale University and Carnegie Mellon University for winning the U.S. Department of Energy Geothermal Technologies Office's **Geothermal Design Challenge**. See the infographics from the eleven finalists at <http://caesenergy.org/geothermaldesign/geothermal-design-challenge-2016-round-3-infographic-finalists/>.

Congratulations to **Turboden** on being awarded the **COGEN Europe Recognition Award 2016** for its geothermal cogeneration plants in the Technology and Innovation category. More information: http://www.turboden.eu/en/public/press/20160623_Turboden_Cogen%20Europe%20Award_ENG.pdf.

Congratulations to the **Environmentally Friendly Drilling Systems (EFD)** program for their inclusion in the Hess stockholder's 2015 Sustainability Report. More information: <http://www.hess.com/sustainability/sustainability-reports>.

Job Openings

The **University of Utah** has a job opening in **energy geoscience**. Half the job will be with the Department of Geology and Geophysics at the Associate Professor or Professor level and the other half with the Energy & Geoscience Institute at the Senior Research Scientist level. More information: <http://www.earth.utah.edu/>.

The **University of Canterbury** in Christchurch, New Zealand has a job opening for an **assistant professor** in Mechanical Engineering in thermal sciences. Areas of interest include Energy Conversion, Heat and Mass Transfer, Renewable Energy, Sustainability and Energy Policy, and Turbomachinery. More information: <https://ucvacancies.canterbury.ac.nz/>.

Funding Opportunity

The **Department of Energy** has announced a Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) **funding opportunity** that seeks to develop advanced methods to access the subsurface (DE-FOA-0001618). Letters of intent are due Tuesday **September 6, 2016**. More information: <http://science.energy.gov/sbir/funding-opportunities/>.

Geothermal News and Notes

Since the SMU Power Plays conference **NREL** has been following up with several companies that are interested in demonstration projects using the **free DOE turbines**. "The SMU conference was a great opportunity for NREL to connect with the industry to develop opportunities" said Tom Williams, the former Geothermal Program Manager at NREL. "There was a lot of interest in pursuing projects in low-temperature and coproduction applications, and a couple of the companies have projects that may be an excellent fit." While the current projects are moving forward NREL is still accepting expression of interest in participating in the demonstration; future partnerships will be considered if the current projects don't progress. For additional information on the project, or to discuss a potential application for one of the free turbines, email tom.williams@nrel.gov.

For an update on the University of North Dakota project generating **geothermal power from an oil well**, check out the recent article in ThinkGeoEnergy at <http://www.thinkgeoenergy.com/first-commercial-project-producing-geothermal-power-from-oil-and-gas-well/>.

Do you know of wells with **high volumes of salty water**? **SaltPower** is developing osmotic power generation and is looking for sites with high volumes of salty water flow from wells. You can read more about SaltPower at <https://stateofgreen.com/en/news/salt-power-to-produce-co2-neutral-electricity> and download their brochure at <https://issuu.com/saltpower/docs/saltpowerbrochure-4-2016>.

The U.S. Energy Information Administration has published **construction cost information for electric power generators**. See a comparison of costs for different energy sources, including geothermal at <http://www.eia.gov/todayinenergy/detail.cfm?id=26532>.

There is a lot going on at the Texas Renewable Energy Industries Alliance (TREIA) these days:

- Check out their updated **website** at <http://www.treia.org/>.
- **Save the date** for TREIA's GridNEXT conference, **November 9-11, 2016** in Georgetown, Texas. More information: <http://www.treia.org/conference/>.
- Participate in a **webinar** on All Things Renewable prior to the GridNEXT conference. The next webinar is on August 23, 2016 at noon Central Time and is titled Solar Development in Texas. See the full list of upcoming webinars at <http://www.treia.org/2016-webinars/>.

Geothermal Heat Pump News and Notes

The next International Ground Source Heat Pump Association **Accredited Installer Workshop** will be in Stillwater, Oklahoma, **August 24-26, 2016**. See the full schedule of training classes at: http://www.igshpa.okstate.edu/training/training_events.asp.

Check the July issue of GEO Industry News for a great interview with **GEO Chairman Joe Parsons** and **IGSHPA President John Turley** as they discuss efforts to enhance the geothermal heat pump industry. More information: <https://www.geoexchange.org/wp-content/uploads/GEO-Industry-News-July-2016.pdf>.

The International Ground Source Heat Pump Association has issued a **Call for Papers** for their 2017 Technical/Research Conference in Denver, Colorado on March 14-16, 2017. Abstracts are due **September 1, 2016**. More information: <http://www.igshpa.okstate.edu/conf/>.

Other Event Details

Registration is open for the Houston Geological Society **2016 Africa Conference**, September 12-14, 2016 in Houston, Texas. More information: <https://www.hgs.org/civicrm/event/info?reset=1&id=1575>.

Abstracts for the 2017 **Stanford Geothermal Workshop** are due Tuesday **18th October 2016**. The workshop is February 13-14, 2017 at Stanford University, California. More information: <https://pangea.stanford.edu/researchgroups/geothermal/stanford-geothermal-workshop>.

Registration is open for the **40th GRC Annual Meeting & GEA GEOEXPO+**, October 23-26, 2016, Sacramento, California. More information: https://my.geothermal.org/GRC/Event_Display.aspx?EventKey=AM2016. Check out the new **GEA GEOEXPO+** website at <http://geothermalexpo.org/>.

There will be a **Direct Use Networking Event** at the GRC Annual Meeting this fall. The event hosted by IEA Geothermal and US DOE Geothermal will be on **Tuesday October 25, 2016** from 4 pm – 5:30 pm in Sacramento, California. Pre-registration is required. More information: <http://iea-gia.org/international-direct-use-networking-event/>.

Save the Date for Groundwater Week, formerly Groundwater Expo, **December 6-8, 2016** in Las Vegas, Nevada. More information: <http://groundwaterweek.com/>.

Calendar

August 23, 2016 - TREIA webinar Solar Development in Texas, noon CT. More information: <http://www.treia.org/2016-webinars/>.

August 30-31, 2016 - Best of RPSEA 10 years of Research Technology Conference, Galveston, Texas. More information: <http://www.rpsea.org/events/503/>.

September 12-14, 2016 - Houston Geological Society 2016 Africa Conference, Houston, Texas. More information: <https://www.hgs.org/civicrm/event/info?reset=1&id=1575>.

October 16-21, 2016 - SEG Annual Meeting, Dallas, Texas. More information: <http://seg.org/Events/Annual-Meeting>.

October 23-26, 2016 - GRC Annual Meeting & GEA GEOEXPO+, Sacramento, California. More information: <http://www.geothermal.org/> and <http://geothermalexpo.org/>.

October 25, 2016 - Direct Use Networking Event, Sacramento, California. More information: <http://iea-gia.org/international-direct-use-networking-event/>.

November 9-11, 2016 - TREIA's GridNEXT conference, Georgetown, Texas. More information: <http://www.treia.org/conference/>.

23-25 November 2016 - 38th New Zealand Geothermal Workshop, Auckland, New Zealand. More information: <http://www.geothermalworkshop.co.nz/>.

December 13-15, 2016 – Power-Gen – Renewable Energy World International, Orlando, Florida. More information: <http://www.rewintl.com/index.html>.