

NREL NATIONAL GEOTHERMAL STUDENT COMPETITION JUNE 2011

Jim Evans, Geo-Heat Center, Oregon Institute of Technology, Klamath Falls, OR

The inaugural competition of the 2010-2011 National Geothermal Student Competition, sponsored by the National Renewable Energy Laboratory and the U.S. Department of Energy, was held in Santa Fe, NM, on June 23rd, 2011. All 11 teams presented their respective reports in a 20 minute presentation followed by a 10 minute question and answer section. The report titles and winners of the competition were:

Colorado School of Mines: *Investigation of Geothermal Resource Potential in the San Luis Basin.* 2nd place.

Faculty/Team Head: Dr. Richard (Ric) Wendlandt, rwendland@mines.edu, Department of Geology and Geological Engineering; Student Team Members: Graduate Students: Laura Garchar (M.S.), Elisabeth Easley (M.S.), Mitchell Bennett (M.S.), Joyce Hoopes (M.S.), Rachel Woolf (M.S.); Undergraduate Student: Banks Beasley

Oregon Institute of Technology: *The Feasibility of Geothermal Potential in the Rio Grande Rift Area of New Mexico and Texas.*

Professor/Team Head: Tonya "Toni" Boyd, toni.boyd@oit.edu, Senior Engineer, Geo-Heat Center, Oregon Institute of Technology; Student Team Members: Undergraduate Students: Jonathan Hall, Reginald Boyle, Samuel Cole, Phillip Maddi, Kevin McBride, Callen Hass, Aleena Anderson, Joseph Miranda, Michael Benedict, James Evans, Casey Coulson.

Pennsylvania State University: *Resource Assessment and Utilization of Low-Through High-Enthalpy Geothermal Fluids From the Rio Grande Rift Region of New Mexico and Colorado.*

Professor/Team Head: Dr. Derek Elsworth, elsworth@psu.edu, Penn State, Sarma Pisupati, Penn State, Uday Turaga, ADI Analytics and Penn State; Student Team Members: Graduate Student Advisor: Ghazal Izadi (Ph.D. Candidate); Graduate Students: Divya Chandra, Caleb Conrad, Vaibhav Rajput, Anukalp Narasimharaju; Undergraduate Students: Derek Hall, Nick Montebello, Emilia Phelan, Andrew Weiner.

San Diego State University: *Geophysical Evaluation by the SAGE Group of a Newly Discovered Geothermal Prospect Near Santa Fe, New Mexico.*

Faculty/Team Head: Dr. George Jiracek, george.jiracek@geology.sdsu.edu, Professor Emeritus, Department of Geological Sciences, San Diego State University; SAGE Faculty/Collaborators: Shawn Biehler, University of California-Riverside; Scott Baldrige, Los Alamos National Laboratory; John Ferguson, University of Texas-Dallas; Larry Braile, Purdue University; Louise Pellerin, Green Engineering; Paul Bedrosian, USGS; Darcy McPhee, USGS; Cathy Snelson, National Center for Nuclear Security; Student Team Members: Graduate Students: Jason Chang, University of California - Berkeley; Daniel Feucht, University of California - Berkeley; Christian Hardwick, University of Utah; Undergraduate

Students: Karl Bloor, San Diego State University; Ben Phrampus, Baylor University; Emily Tursack, Brown University; and approximately 30 graduate and undergraduate students who will attend SAGE 2011.

Stanford University: *Exploration and Development Plan for the Eastern San Luis Basin Rio Grande Rift, Colorado.*

Professor/Team Head: Sarah Pistone, MS; Student Team Members: Graduate Students: Matt Ganser (Ph.D.), mpganser@stanford.edu, Pablo Garcia Del Real (Ph.D.), John Murphy (M.S.), Lena Perkins (Ph.D.).

Texas A&M University: *Assessment of the Geothermal Potential of the Rio Grande Rift.*

Faculty/Team Head: Dr. George Moridis, GJMoridis@lbl.gov, Visiting Professor, Department of Petroleum Engineering, TAMU Deputy Program Lead for Energy Resources - Staff Scientist - Earth Sciences Division, Lawrence Berkeley National Laboratory (LBNL); Student Team Members: Graduate Students: Daegil Yang (PhD), Akkharachai Limpasurat (PhD), Mojtaba Ardali (PhD), Olufemi Olorode (MS), Tioluwanimi Odunowo (MS), Nimish D. Pandya (MS), Manuel Cossio (MS).

University of California, Davis: *A Unique Approach to Managing Complex Geothermal Datasets: An Integrated Multidisciplinary Re-evaluation of the Geothermal System at Valles Caldera, New Mexico, Using an Immersive Three-Dimensional (3D) Visualization Environment.* 1st place.

Faculty: Dr. Peter Schiffman, pschifman@ucdavis.edu, Professor, Department of Geology, UCD; Dr. Robert Zierenberg, Professor, Department of Geology, UCD; Dr. James McClain, Professor, Department of Geology, UCD; Dr. Bill Glassley, Director, California Geothermal Energy Collaborative; Student Team Members: Graduate Students: Scott Bennett, Austin Elliott, Andrew Fowler, Maya Wildgoose, Amy Williams; Undergraduate Students: Leslie Barnes, Carolyn Cantwell, Kevin Delano, Sam Hawkes, Rachael Johnson, Rita Martin, Kevin Renlund.

University of Idaho: *Evaluating the Geothermal Potential of the Rio Grande Rift using Spatial-Statistical Methods.* 3rd place.

Professor/Team Head: Travis Kelsay, kels8638@vandals.uidaho.edu; Jennifer Hinds, U-Idaho Geological Sciences staff from Tullahoma, Tenn.; Jerry Fairley, Associate Professor of Geological Science; Student Team: Graduate Students: Jessica Osterloh, Ryan Pollyea, Alex Wagner.

University of North Dakota: *Evaluation of Geothermal Potential for Selected Resources in the Rio Grande Rift: Albuquerque Basin.*

Faculty/Team Head: Dr. Will Gosnold, William.gosnold@email.und.edu, Professor of Geophysics and Chair of the

Department of Geology and Geological Engineering; Student Team Members: Graduate Students: Kirtipal Barse, James Crowell, Anna Crowell, Samir Dahal, Rob Klenner, Mark McDonald, Dilojan Senanayake, Eric Zimny; Undergraduate Students: Bailey Bubach, Alexander Padgett, Angelle van Oploo, Preston Wahl.

University of Utah: *Geothermal Potential of the Rio Grande Rift: From Exploration to Production.*

Team Head: Dr. David S. Chapman, david.chapman@utah.edu, Distinguished Professor of Geophysics, Dean Emeritus, The Graduate School, Department of Geology and Geophysics, University of Utah; Supporting Faculty: Dr. Rick Allis, Director, Utah Geological Survey Adjunct Professor, Department of Geology and Geophysics, University of Utah; Dr. Joe Moore, Research Professor, Department of Civil and Environmental Engineering, and Adjunct Professor, Department of Geology and Geophysics, University of Utah; Student Team Members: Graduate Students: Danielle D'Afonso (M.S.), Christian Hardwick (M.S.), Becky Hollingshaus (M.S.), Michal Kordy (Ph.D.), Kevin Smith (Ph.D.), Stan Smith (M.S.); Undergraduate Student: Ruthann Shurtleff.

Virginia Polytechnic Institute and State University: *Assessment of the Scientific, Technical, Socio-Economic and Cultural Issues Associated with the Development of*

Geothermal Resources in the Rio Grande Rift Region of the Southwest United States.

Faculty/Team Head: Dr. Robert J. Bodnar, rjb@vt.edu, University Distinguished Professor and C. C. Garvin Professor of Geochemistry; Student Team Members: Undergraduate Students: Shelbie Bennett, Michael Ciampa, Meg Collins, Craig Cunningham, David Dorsett, Kerry Anne Douglas, Anthony D. Frayne, Kaylee Hershfeld, Rebecca Horne, Nicholas Higgins, Matt Kadilak, Steven Langhi, Heather Scott, Joshua Seay, Mark Stamper, Alli Vallowe, Michael Vliet, James Ward.

The prize for the winners included sending two of the team members to the GRC, October 23-26, 2011, in San Diego, CA. The teams presenting their reports at the GRC are:

Presentation: Oregon Institute of Technology, Pennsylvania State University

Poster: University of California, Davis; Colorado School of Mines; Oregon Institute of Technology; Pennsylvania State University; San Diego State University; University of North Dakota; University of Utah

Additional information can be found at the NREL Geothermal Competition website: <http://www.nrel.gov/geothermal/competition.html>



GEO-HEAT CENTER
Oregon Institute of Technology
Klamath Falls, OR 97601-8801

Non-Profit
Organization
U.S. Postage
PAID
Klamath Falls, OR
Permit No. 45