
ROBERT W. STACEY

PRESENT POSITION

Senior Reservoir Engineer, GeothermEx, Inc.

EXPERTISE

- Geothermal reservoir development, management and long-term operations and maintenance
- Numerical reservoir simulation (TETRAD and TOUGH2 expertise)
- Quantitative project economic risk analysis through stochastic process modeling
- Cross-functional project management between finance, resource, drilling and operations
- Well testing, well test analysis, and reservoir engineering training
- Design, coordination and implementation of well testing, instrumentation and downhole measurements
- Data acquisition system design and installation for experimental projects

EDUCATION

Engineer's Degree in Energy Resources Engineering, Stanford University, 2008
Thesis: "The Impact of Dynamic Dissolution on Carbon Dioxide Sequestration in Aquifers"

M.S. in Petroleum Engineering, Stanford University, 2006
Thesis: "Electrical Impedance Tomography"

B.S. in Civil and Environmental Engineering, University of Vermont, 2004

EXPERIENCE

Senior Reservoir Engineer, GeothermEx, Inc., 2008 to 2011; 2014 to Present

- Developing detailed numerical reservoir models to aid developers in optimizing their field management and development strategies. The models are developed by combining the conceptual geologic model with geochemical, pressure, enthalpy, and tracer test data. Models developed to date have included: Los Humeros and Cerro Prieto, Mexico; San Emidio, Blue Mountain and Desert Peak, Nevada; South Geysers, California;
- Developing well testing programs, managing well testing procedures, and implementing well test data collection systems for multiple developers for various projects including:

Hudson Ranch, Orita, South Geysers, and Brawley, California; Meager Creek, Canada; Blue Mountain, and Desert Peak, Nevada; Terceira, Portugal; San Jacinto, Nicaragua

- Managed well testing and EGS stimulation activities at Desert Peak, Nevada as part of the US Department of Energy's Geothermal Technologies Program

Senior Reservoir Engineer, GeoGlobal Energy LLC, 2011 to 2014

- Conducted resource evaluations, reserves estimations and drilling due diligence at the following geothermal fields in East Africa: Longonot, and Suswa in Kenya, and Corbetti and Aluto-Lagano in Ethiopia (2013-2014)
- Developed a comprehensive risk modeling software package to properly capture and communicate resource and economic risk to the investment community. The software is intended to be used throughout all phases of geothermal development (Exploration, development, operation, and expansion). (April 2013 – Aug 2014)
- Seconded to Santiago, Chile to develop and train the Chilean Geoscience and Operations teams in geothermal reservoir engineering and well testing. (Aug 2012 – April 2013)
- Managed all field testing and logging activities in Chile. Including 120day multi-well production testing program at Tolhuaca. (Jan 2012 – April 2013)
- Reservoir Engineering Software Development: well testing data collection, well test analysis, power plant modeling and wellbore simulation. (Aug 2011 – Jan 2012)

Geothermal Reservoir Engineer, ÍSOR (Iceland GeoSurvey), Summer 2007

- Analysis and design of multi-step injection tests for geothermal wells
- Development of graphical user interface for the TOUGH2 geothermal reservoir simulator
- Creation of a new well test inversion program based upon principles of super-position, enabling the incorporation of long-term production data
- Collaboration with geologists to incorporate drilling data into a 3-dimensional geologic reservoir model

Geothermal Reservoir Engineering Research Assistant, Stanford University, 2004 - 2008

- Performed core-scale steam-water relative permeability experiments
- Taught graduate level course on the principles of multi-phase flow in porous media
- Developed 3D electrical-impedance tomography hardware to measure in situ water saturation of cores

Staff Engineer, CSS Environmental Services, Inc, 2005 to 2006

- Quantification of subsurface TCE mass estimates for Superfund site closure

- Evaluation of applicability of state and federal regulations on a project-specific basis
- Development of best management practices; preparation of quarterly monitoring reports and technical updates
- Collaboration on geological and historical investigations of contaminated sites
- Soil, air, and water sampling during hazardous site remediation

Construction Foreman, Stacey Construction, Inc., 1996 - 2002

- Negotiation of vendor quotes for preparation of project bids
- Supervision of laborers on state highway and utility maintenance projects
- Calculation of material quantities, surveys of site layouts, and negotiation of schedules with subcontractors

MEMBERSHIPS

Geothermal Resources Council
Society of Petroleum Engineers
Tau Beta Pi

CITIZENSHIP

USA

AWARDS

Cedric K. Ferguson Medal – International SPE award for outstanding professional achievement under age 35 in petroleum engineering – 2010 Nominee

Centennial Teaching Assistant Award – Awarded to outstanding teaching assistant in the Stanford School of Earth Sciences, 2007-08

Brigham Award – Awarded to best department citizen in the Stanford Energy Resources Engineering Department, 2008

PUBLICATIONS

Stacey, R.W., S. Sanyal, J. Potter, and T. Wideman. "Effectiveness of Selective Borehole Enlargement to Improve Flow Performance of Geothermal Wells", Transactions, Geothermal Resources Council, Vol. 34, 2011

Pistone, S., R.W. Stacey, and R. Horne. "The Significance of CO₂ Solubility in Geothermal Reservoirs", Proceedings of the Thirty-Sixth Workshop on Geothermal Reservoir Engineering, Stanford Geothermal Program, 2011.

- Stacey, R.W., S. Pistone, and R. Horne. "CO₂ as an EGS Working Fluid - The Effects of Dynamic Dissolution on CO₂-Water Multiphase Flow", Transactions, Geothermal Resources Council, Vol. 33, 2010.
- Stacey, R.W., A. Robertson-Tait, P. Drakos, and E. Zemach. "EGS Stimulation of Well 27-15, Desert Peak Geothermal Field, Nevada", Transactions, Geothermal Resources Council, Vol. 33, 2010.
- Stacey, R.W., K. Li and R.N. Horne. "Electrical Impedance Tomography (EIT) technique for real-time saturation monitoring", SPE Journal, vol. 14, no. 1, SPE 103124, March 2009.
- Stacey, R.W., K. Li and R.N. Horne, "Determining Saturation Using Electrical Impedance Tomography (EIT)", Geothermal Resources Council, Transactions, Vol. 30, pp. 953-957, 2006.
- Stacey, R.W., K. Li and R.N. Horne, "Electrical Impedance Tomography (EIT) Method for Saturation Determination", Proceedings of the Thirty-First Workshop on Geothermal Reservoir Engineering, Stanford Geothermal Program, pp. 502-507, 2006.
- Hayden, N.J., J. Diebold, C. Farrell, R.W. Stacey and J. Laible. "Characterization and removal of DNAPL from sand and sand/clay layered media", Journal of Contaminant Hydrology, vol. 86, pp. 53-71, 2006.
- Willson, C.S., R.W. Stacey, K. Ham, and K.E. Thompson, 2004. "Investigating the correlation of nonwetting phase liquids and pore scale geometry and topology using synchrotron X-ray tomography", Proceedings of 2004 49th Annual Conference, Developments in X-Ray Tomography IV, vol. 5535, pp. 101-111, 2004.