

Nicholas Hinz

Position: Senior Geologist

*Technical Expertise: Geologic Mapping and Structural Geology
Geothermal Resource Evaluation
Well Targeting*

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EXPERIENCE SUMMARY

Nicholas Hinz has 20 years of field-based experience with structural geology and geothermal projects located throughout North America, East Africa, Turkey, Indonesia, Central Asia and the Caribbean. The geothermal projects have included broad regional assessments and evaluations of individual resources, including both volcano-hosted and fault-hosted, deep circulation systems. He specializes in detailed geologic mapping and stress calculations for the purpose of characterizing fracture permeability, refining conceptual models, and drill targeting. Hinz has completed projects in a variety of geologic settings including volcanic arcs, rifts, and along continental strike-slip fault zones. He also frequently leads field trips for professional organizations and assists with geothermal training workshops for students and professionals.

EDUCATION

M.S. Geology University of Nevada, Reno, 2004

B.A. Geology Whitman College, 1998

PROFESSIONAL SOCIETIES

American Geophysical Union

Geothermal Resources Council

Geological Society of America

International Geothermal Association

Geological Society of Nevada

Nevada Petroleum and Geothermal Society

The Geological Society of London

Int'l Assoc. of Volc. and Chemistry of the Earth's Interior

SELECTED PROJECT EXPERIENCE

City of Akutan

- Comprehensive geologic mapping, structural analyses, conceptual modeling, and drill targeting at **Hot Springs Bay Valley, Mt Akutan, Alaska.**

Dena Nezziddi Development Corp.

- Comprehensive geologic mapping, structural analyses, drill targeting at **Ross River, Canada.**

Geothermal Development Company, Kenya



- Comprehensive geologic mapping, structural analyses, conceptual modeling, and drill targeting at **Mt Suswa**.

Geothermal Resources Department, Uganda

- Structural mapping, conceptual modeling, and drill targeting at **Kibiro, Panyimur, Buranga, and Katwe**.

KS Orka

- Lidar analysis and structural field mapping, conceptual modeling, and drill targeting at **Sorik Marapi, Indonesia**.

Open Mountain Energy

- Lidar analysis, structural mapping, conceptual modeling, and drill targeting at **Star Peak, Nevada**.

Sierra Geothermal Power Corp.

- Comprehensive geologic mapping, structural analyses, and drill targeting at **Reese River, Nevada**.

Sis Enerji

- Structural mapping, structural analyses, conceptual modeling, and drill targeting at **Sogukyurt, Turkey**.

Tanzanian Geothermal Development Company

- Comprehensive geologic mapping, conceptual modeling, and drill targeting at **Songwe**.

U.S. Department of Energy

- **Global assessment of 74 productive volcanic centers** in subduction arc including structural geology analysis, and development of metrics for exploration and resource evaluation.
- Regional geothermal assessment of the **Cascade and Aleutian arcs, California, Oregon, Washington, and Alaska**.
- Re-logging of cuttings and core from 30 wells, co-development of a detailed 3D geologic model with well data, map data, and geophysics at **Bradys, Nevada**.
- Comprehensive geologic mapping of faults and surface manifestations, structural analyses at **Salt Wells, Nevada**.
- Comprehensive geologic mapping of faults and surface manifestations, structural analyses at **Lee-Allen, Nevada**.

U.S. Navy Geothermal Program Office



- Comprehensive geologic mapping, structural analyses, thermal modeling, drill targeting at **Hawthorne, Nevada.**

PROFESSIONAL ACTIVITIES

- 2018 **National Geothermal Academy, University of Nevada Reno, Conceptual Modelling**—Co-taught a one-week conceptual modelling course on volcano-hosted and deep circulation geothermal systems (June 18-22).
- 2017 **Geothermal Resources Council Workshop, Conceptual Modelling II**—Designing materials for a new series of exercises on conceptual modeling of a fault hosted geothermal systems and helped lead the workshop (September 29-30).
- 2017 **IRENA-GGA Meeting**—Invited to speak on a panel discussion for a 2 day conference, *Working Together to Promote Geothermal Energy Towards a Sustainable Energy Future, High Level Conference of the Global Geothermal Alliance*, Florence, Italy (September 11-12).
- 2017 **Geothermal Resources Council**—Served on GRC 2017 Annual Meeting Technical Program Review Committee tasked with reviewing submitted papers (June 1-5).
- 2017 **Yukon Geological Survey Geothermal Workshop**, Invited speaker for a geothermal exploration workshop hosted by the YGS with focus on geothermal in Canada (June 1).
- 2017 **Geological Society of America**—Co-convener of a session at the Geological Society of America Cordilleran Section meeting in Honolulu, HI, May 23-25 (T14. Advances in Geothermal Resource Investigation).
- 2016 **Geothermal Resources Council Workshop, Conceptual Modelling I**—Designed materials and led an exercise on conceptual modeling of a fault hosted geothermal system (October 21-22).
- 2016 **United Nations Environmental Program, Technical Workshop, Rwanda**—Invited presenter for a 3 day workshop, *Geologic Development and Geophysics of the Western Branch of the Greater EARS Region*, Kigali, Rwanda (March 9-11). Presented on two topics, including comparing and contrasting geothermal resources in the Basin and Range with those in the western branch of the EARS, and secondly on selected exploration methods for amagmatic resources.
- 2015 **Earth Science Week Field Trip**—Co-leader of two, one-day field trips focused on the geology of the Mount Rose area of the Carson Range and north Lake Tahoe (October 17-18).
- 2015 **Geothermal Resources Council Field Trip**—Co-leader of a post-meeting field trip on the Structural Controls of McGinness and Salt Wells geothermal areas (September 23-25).
- 2015 **National Park Service, Tule Springs Fossil Beds National Monument**—Participated in a two-day geological resources inventory (GRI) scoping session for this new Monument (July 14-15).
- 2015 **Department of Energy Peer Review**—Presented the strategy for drill target selection and well design for lower Hot Springs Bay Valley, Akutan, Alaska. DOE-funded drilling will commence in 2016 (May 12).
- 2015 **Geothermal Resources Council**—Served on GRC 2015 Annual Meeting Technical Program Review Committee tasked with reviewing submitted papers (May 5).
- 2014 **USGS STATEMAP Review Panel Field Trip**—Co-leader of a one-day field trip for the STATEMAP review panel (December).
- 2014 **National Geothermal Academy**—Gave 3 presentations during the 2 week National Geothermal Academy held in Reno by UNR in conjunction with GRC (July).
- 2014 **Geothermal Resources Council**—Served on GRC 2014 Annual Meeting Technical Program Review Committee tasked with reviewing submitted papers and organizing technical sessions (May 13-14).



- 2014 **Nevada Petroleum and Geothermal Society**—Gave a talk (invited) at a monthly dinner meeting for NPGS (Jan. 8)
- 2013 **Geothermal Resources Council Workshop**—Presented a segment of a 2 day pre-meeting workshop, *21st Century Geothermal Exploration*, at the 2013 Geothermal Resources Council Annual Meeting (September 29-30).
- 2013 **Great Basin Center for Geothermal Energy**—Participated in a field trip to Iceland to learn about Iceland geothermal systems (August).
- 2013 **Geothermal Resources Council**—Served on GRC 2013 Annual Meeting Technical Program Review Committee tasked with reviewing submitted papers and organizing technical sessions (May 13-14).
- 2012 **Geothermal Resources Council Field Trips**—Co-leader of pre- and post-meeting field trips on the Structural Controls of Geothermal Systems in the Western Great Basin, visiting several geothermal fields in western Nevada (September 29-30 and October 4-5).
- 2012 **Geothermal Resources Council**—Served on GRC 2012 Annual Meeting Technical Program Review Committee tasked with reviewing submitted papers and organizing technical sessions (May 16-17).
- 2011 **Geothermal Resources Council**—Served on GRC 2011 Annual Meeting Technical Program Review Committee tasked with reviewing submitted papers and organizing technical sessions (May 15-16).
- 2010 **Friends of the Pleistocene Field Trip**—Lead a stop on the Pacific Cell Friends of the Pleistocene Field Trip on the structural controls of geothermal systems near Hawthorne, NV (September 18).
- 2009 **Geothermal Resources Council Field Trip**—Structural Controls of Geothermal Systems in the Western Great Basin, Co-leader of a 2-day field trip visiting several geothermal fields in western Nevada (October 3-4).
- 2007 **Nevada Petroleum Society Field Trip**—Lead at stop on the NPS annual field trip—*Geology, Geothermal Resources and Petroleum Exploration of Neogene Basins in the Reno, Nevada Area*.
- 2005 **Geological Society of America Field Trip**—Co-leader of a pre-meeting field trip for Annual Meeting in Salt Lake City entitled *Transect Across the Northern Walker Lane, Northwest Nevada and Northeast California: An Incipient Transform Fault Along the Pacific – North American Plate Boundary* (October 13-15).
- 2003 **Student Association for International Water Issues, Haiti**—Drinking water resource investigation in Haiti (January).
- 2000 **Damdin Da Fund, Quaternary Geology, Mongolia**—This project brought together 7 Mongolian research faculty and graduate students and 7 research faculty and graduate students from the USA to build momentum and interest for the Mongolians in the earth sciences (July-August).

PUBLICATIONS

Peer-Reviewed

- Siler, D.L., Hinz, N.H., Faulds, J.E., Mayhew, B., Dering, G.M., and Edwards, J., *in review*, Three-dimensional geologic and geothermal potential modeling of Great Basin geothermal systems: Geothermal Energy.
- Siler, D.L., Hinz, N.H., and Faulds, J.E., 2018, Stress concentrations at structural discontinuities and the controls of permeability and fluid flow in geothermal fields: Geological Society of America Bulletin, 16 p., <https://doi.org/10.1130/B31729.1>
- Lautze, N., Thomas, D., Waller, D., Hinz, N., Frazer, N., and Apuzen-Ito, G., 2017, Play Fairway Analysis of Geothermal Resources across the State of Hawaii: 3. Use of Development



- Viability as one criteria to prioritize future exploration activities: Geothermics, <https://doi.org/10.1016/j.geothermics.2017.07.005>.
- Lautze, N., Thomas, D., **Hinz, N.**, Apuzen-Ito, G., Frazer, N., and Waller, D., 2017, Play fairway analysis of geothermal resources across the State of Hawaii: 1. Description and justification of geological, geophysical, and geochemical datasets: Geothermics, <https://doi.org/10.1016/j.geothermics.2017.02.001>.
- Ito, G., Frazier, N., Lautze, N., Thomas, D., **Hinz, H.**, Waller, D., Whittier, R., and Wallen, E., 2016, Play fairway analysis of geothermal resources across the State of Hawaii: 2. Resource Probability Mapping: Geothermics, <http://dx.doi.org/10.1016/j.geothermics.2016.11.004>.
- Witter, J.B., Siler, D.L., Faulds, J.E., and **Hinz, N.H.**, 2016, 3D Geophysical inversion modelling of gravity data to test the 3D geological model of the Bradys geothermal area, Nevada, USA: Geothermal Energy, v. 4, no. 14, 21 p.
- Stelling, P., Shevenell, L., **Hinz, N.**, Coolbaugh, M., Melosh, G., and Cumming, W., 2016, Geothermal systems in volcanic arcs I: Volcanic characteristics and surface manifestations as indicators of geothermal potential and favorability worldwide: Journal of Volcanology and Geothermal Research, v. 324, p. 57-72.
- Faulds, J.E., Schreiber, B.C., Langenheim, V.E., **Hinz, N.H.**, Shaw, T., Heizler, M.T., Perkins, M.E., El Tabakh, M., and Kunk, M.J., 2016, Paleogeographic implications of late Miocene lacustrine and nonmarine evaporate deposits in the Lake Mead region: Immediate precursors to the Colorado River: Geosphere, v. 12, no. 3, p. 1-47.
- Hinz, N.H.**, Coolbaugh, M.F., and Faulds, J.E., 2015, Geothermal resource potential assessment – White Pine County, Nevada: Nevada Bureau of Mines and Geology Report 15, 21 p.
- Stelling, P., **Hinz, N.H.**, Kolker, A., and Ohren, M. 2015, Exploration of the Hot Springs Bay Valley (HSBV) Geothermal Resource Area, Akutan, Alaska: Geothermics, v. 57, p. 127-144.
- Henry, C.D., **Hinz, N.H.**, Faulds, J.E., Colgan, J.P., John, J.P., Brooks, E.R., Cassel, E.J., Garside, L.J., Davis, D.E., and Castor, S.B., 2012, Eocene-early Miocene paleotopography of the Sierra Nevada – Great Basin – Nevadaplano Based on Widespread Ash-flow Tuffs and Paleovalleys: Geosphere, v. 8, no. 1, p. 1-27.
- Hinz, N.H.**, Faulds, J.E., and Henry, C.D., 2009, Tertiary volcanic stratigraphy and paleotopography of the Diamond and Fort Sage Mountains – Constraining slip along the Honey Lake Fault Zone in the northern Walker Lane, northeastern California and western Nevada, *In* Oldow, J.S., and Cashman, P.H., eds., Late Cenozoic structure and evolution of the Great Basin – Sierra Nevada Transition: Geological Society of America Special Paper 447, p. 101-131.
- Faulds, J.E., Henry, C.D., and **Hinz, N.H.**, 2005, Kinematics of the northern Walker Lane: An incipient transform fault along the Pacific – North American plate boundary: Geology, v. 33, no. 6, p. 505-508.

Conference Proceedings Papers

- Siler, D.L., **Hinz, N.H.**, Faulds, J.E., Ayling, B., Blake, K., Tiedeman, A., Sabin, A., Blankenship, D., Kennedy, M., Rhodes, G. Sophy, M.J., Glen, J.M.G., Phelps, G.A., Fortuna, M., Queen, J., and Witter, J.B., 2018, The geologic and structural framework of the Fallon FORGE site: 43rd Workshop on Geothermal Reservoir Engineering, Stanford University, Stanford, CA, Feb. 12-14, 7 p.
- Lautze, N., Thomas, D., Ito, G., Frazer, N., Martel, S., **Hinz, N.**, and Whittier, R., 2017, Review of the Hawaii Play Fairway Phase 2 Activities: 43rd Workshop on Geothermal Reservoir Engineering, Stanford University, Stanford, CA, Feb. 12-14, 9 p.
- Faulds, J.E., **Hinz, N.H.**, Coolbaugh, M.F., Shevenell, L.A., 2017, Discovering New Geothermal Systems in the Great Basin Region, Western USA: An Integrated Approach for Establishing Geothermal Play Fairways: Proceedings 39th New Zealand Geothermal Workshop, 21 - 25 November 2017, Rotorua, New Zealand, 7 p. [keynote paper].



- Kipngok, J., Magnússon, R., Melosh, G., **Hinz, N.**, Cumming, W., Haizlip, J., Harvey, M., Lopeyok T., Mwakirani, R., Wamalwa A.M., Malimo S.J. and Auko L.O., 2017, Geothermal conceptual model of Suswa Volcano, Kenya: Geothermal Resources Council Transactions, v. 41, p. 1153-1171.
- McConville, E.G., Faulds, J.E., **Hinz, N.H.**, Ramelli, A.R., Coolbaugh, M.F., Shevenell, L., Siler, D.L., and Bourdeau-Hernikl, J., 2017, A play fairway approach to geothermal exploration in Crescent Valley, Nevada: Geothermal Resources Council Transactions, v. 41, p. 1213-1221.
- Craig, J.W., Faulds, J.E., Shevenell, L.A., and **Hinz, N.H.**, 2017, Discovery and analysis of a potential blind geothermal system in southern Gabbs Valley, western NV: Geothermal Resources Council Transactions, v. 41, p. 2258-2264.
- Blankenship, D., Kennedy, M., Majer, E.L., **Hinz, N.**, Faulds, J., Ayling, B., Blake, K., Tiedeman, A., Sabin, A., Lazaro, M., Akerley, J., Siler, D., Kaven, J.O., Phelps, G., Hickman, S., Glen, J., Williams, C., Robertson-Tait, A., Hackett, L., and Pettit, W., 2017, Proposed Fallon FORGE site: Phase 2 update: Proceedings, 42nd Workshop on Geothermal Reservoir Engineering, Stanford University, Stanford, CA, Feb. 13-15, SGP-TR-212, 7 p.
- Faulds, J.E., Coolbaugh, M.F., **Hinz, N.H.**, Sadowski, A., Shevenell, L.A., McConville, E., Craig, J., Sladek, C., and Siler, D.L., 2017, Progress report on the Nevada Play Fairway Project: Integrated geological, geochemical, and geophysical analyses of possible new geothermal systems in the Great Basin region: 42nd Workshop on Geothermal Reservoir Engineering, Stanford University, Stanford, CA, Feb. 13-15, 12 p.
- Lautze, N., Thomas, D., Whittier, R., Martel, S., Ito, G., Frazer, N., Hill, G., Martin, T., Wannamaker, P., and **Hinz, N.**, 2017, Improving a 2015 map of geothermal resource probability across the State of Hawaii: 42nd Workshop on Geothermal Reservoir Engineering, Stanford University, Stanford, CA, Feb. 13-15, 8 p.
- Hinz, N.H.**, Coolbaugh, M., Faulds, J.E., Shevenell, L., and Stelling, P., 2016, Regional quantitative play fairway analysis: Methodology, global examples, and application for the East African Rift System: Proceedings, 6th African Rift Geothermal Conference, Addis Ababa, Ethiopia, 2nd – 4th November, 2016, 12 p.
- Faulds, J.E., **Hinz, N.H.**, Coolbaugh, M.F., Shevenell, L.A., and Siler, D.L., 2016, The Nevada play fairway project – Phase II: Initial search for the new viable geothermal systems in the Great Basin region, western USA: Geothermal Resources Council Transactions, v. 40, p. 535-540.
- Siler, D.L., Blake, K., Sabin, A., Lazaro, M., Meade, D., Blankenship, D., Kennedy, B.M., McCulloch, J., DeOreo, S., Hickman, S., Glen, J., Kaven, O., Schoenball, M., Williams, C., Phelps, G., Faulds, J.E., **Hinz, N.H.**, and Robertson-Tait, A., 2016, The geologic framework of the West Flank of Coso FORGE site: Geothermal Resources Council Transactions, v. 40, p. 585-595.
- Siler, D.L., **Hinz, N.H.**, Faulds, J.E., Tobin, B., Blake, K., Tiedeman, A., Sabin, A., Blankenship, D., Kennedy, M., Rhodes, G., Nordquist, J., Hickman, S., Glen, J., Williams, C., Robertson-Tait, A., and Calvin, W., 2016, The geologic framework of the Fallon FORGE site: Geothermal Resources Council Transactions, v. 40, p. 573-584.
- Witter, J.B., Stelling, P., Knapp, P., and **Hinz, N.H.**, 2016, 3D geophysical inversion modelling of gravity data as a subsurface exploration tool with an example from the Akutan (Alaska, USA) geothermal area: Geothermal Resources Council Transactions, v. 40, p. 647-657.
- Lautze, N., Thomas, D., Hill, G., Wallin, E., Whittier, R., Martel, S., Ito, G., Frazer, N., and **Hinz, N.**, 2016, Phase 2 activities to improve a 2015 play fairway analysis of geothermal potential across the State of Hawaii: Geothermal Resources Council Transactions, v. 40, p. 559-565.
- Hinz, N.H.**, Coolbaugh, M., Shevenell, L., Melosh, G., Cumming, W., and Stelling, P., 2016, Structural–tectonic settings for globally productive subduction arc volcanic centers: Proceedings, 41st Workshop on Geothermal Reservoir Engineering, Stanford University, Stanford, CA, Feb. 22-24, 8 p.



- Hinz, N.H.**, Faulds, J.E., Siler, D.L., Tobin, B., Blake, K., Tiedeman, A., Sabin, A., Blankenship, D., Kennedy, M., Rhodes, G., Nordquist, J., Hickman, S., Glen, J., Williams, C., Robertson-Tait, A., and Calvin, W., 2016, Stratigraphic and structural framework of the proposed Fallon FORGE site, Nevada: 41st Workshop on Geothermal Reservoir Engineering, Stanford University, Stanford, CA, Feb. 22-24, 12 p.
- Faulds, J.E., **Hinz, N.H.**, Coolbaugh, M.F., Siler, D.L., Shevenell, L.A., Queen, J.H., dePolo, C.M., Hammond, W.C., and Kreemer, C., 2016, Discovering geothermal systems in the Great Basin region: an integrated geologic, geochemical, and geophysical approach for establishing geothermal play fairways: Proceedings, 41st Workshop on Geothermal Reservoir Engineering, Stanford University, Stanford, CA, Feb. 22-24, 15 p.
- Lautze, N., Thomas, D., **Hinz, N.**, Ito, G., Frazer, N., and Waller, D., 2016, Hawaii play fairway analysis: Discussion of phase 1 results: Proceedings, 41st Workshop on Geothermal Reservoir Engineering, Stanford University, Stanford, CA, Feb. 22-24, 7 p.
- Siler, D.L., Faulds, J.E., **Hinz, N.H.**, and Queen, J., 2016, 3D analysis of geothermal fluid flow favorability; Brady's, Nevada, USA: Proceedings, 41st Workshop on Geothermal Reservoir Engineering, Stanford University, Stanford, CA, Feb. 22-24, 10 p.
- Sabin A., Blake, K., Lazaro, M., Meade, D., Blankenship, D., Kennedy, M., McCulloch, J., DeOreo, S., Hickman, S., Glen, J., Kaven, O., Schoenball, M., Williams, C., Phelps, G., Faulds, J.E., **Hinz, N.**, Calvin, W., Siler, D., and Robertson-Tait, A., 2016, Geologic setting of the West Flank, a FORGE site adjacent to the Coso geothermal field, 41st Workshop on Geothermal Reservoir Engineering, Stanford University, Stanford, CA, Feb. 22-24, 11 p.
- Shevenell, L., Coolbaugh, M., **Hinz, N.H.**, Stelling, P., Melosh, G., Cumming, W., and Kreemer, C., 2015, Preliminary ranking of geothermal potential in the Cascade and Aleutian volcanic arcs, Part I: Data collection: Geothermal Resources Council Transactions, v. 39, p. 771-784.
- Hinz, N.H.**, Coolbaugh, M., Shevenell, L., Melosh, G., Cumming, W., and Stelling, P., 2015, Preliminary ranking of geothermal potential in the Cascade and Aleutian volcanic arcs, part II: Structural-tectonic settings of the volcanic centers: Geothermal Resources Council Transactions, v. 39, p. 717-725.
- Coolbaugh, M., Shevenell, L., **Hinz, N.H.**, Stelling, P., Melosh, G., Cumming, W., Kremmer, C., and Wilmarth, M., 2015, Preliminary ranking of geothermal potential in the Cascade and Aleutian volcanic arcs, part III: Regional data review and modeling: Geothermal Resources Council Transactions, v. 39, p. 677-690.
- Lautze, N., Thomas, D., **Hinz, N.**, Frazer, N., Ito, G., Waller, D., Schuchmann, H., and Brady, M., 2015, Integration of data in a play fairway analysis of geothermal potential across the State of Hawaii: Geothermal Resources Council Transactions, v. 39, p. 733-737.
- Siler, D.L., Faulds, J.E., and **Hinz, N.H.**, 2015, Earthquake-related stress concentration in fault zones and permeability generation in geothermal systems: Geothermal Resources Council Transactions, v. 39, p. 437-444.
- Faulds, J.E., **Hinz, N.H.**, Coolbaugh, M.F., Shevenell, L.A., Siler, D.L., dePolo, C.M., Hammond, W.H., Kreemer, C.W., Oppliger, G., Wannamaker, P.E., Queen, J., and Visser, C., 2015, Integrated geologic and geophysical approach for establishing geothermal play fairways and discovering blind geothermal systems in the great basin region, western USA: a progress report: Geothermal Resources Council Transactions, v. 39, p. 691-700.
- Faulds, J.E., Blankenship, D., **Hinz, N.H.**, Sabin, A., Nordquist, J., Hickman, S., Glen, J., Kennedy, M., Robertson-Tait, A., Williams, C., and Calvin, W., 2015, Geologic setting of the proposed Fallon FORGE site, Nevada: Suitability for EGS research and development: Geothermal Resources Council Transactions, v. 39, p. 293-301.
- Sabin, A., Blake, K., Lazaro, M., Blankenship, D., Kennedy, M., McCullough, J., DeOreo, S., Hickman, S., Glen, J., Kaven, O., Williams, C., Phelps, G., Faulds, J., **Hinz, N.**, Calvin, W., Siler, D., and Robinson-Tait, A., 2015, Geologic setting of the proposed west flank FORGE site, California:



- Suitability for EGS research and development: Geothermal Resources Council Transactions, v. 39, p. 345-352.
- Hinz, N.H.**, Coolbaugh, M.F., Faulds, J.E., Siler, D.L., and Dering, G.M., 2015, Building the next generation of regional geothermal potential maps: Examples from the Great Basin region, western USA: Proceedings, World Geothermal Congress 2015, Melbourne, Australia, 12 p.
- Faulds, N.H., and **Hinz, N.H.**, 2015, Favorable tectonic and structural settings of geothermal settings in the Great Basin Region, western USA: Proxies for discovering blind geothermal systems: Proceedings, World Geothermal Congress 2015, Melbourne, Australia, 6 p.
- Siler, D.L., Faulds, J.E., and **Hinz, N.H.**, 2015, Regional and local geothermal potential evaluation: Examples from the Great Basin, USA, Iceland and East Africa: Proceedings, World Geothermal Congress 2015, Melbourne, Australia, 10 p.
- Hinz, N.H.**, Faulds, J.E., and Coolbaugh, M.F., 2014, Association of fault terminations with fluid flow in the Salt Wells geothermal field, Nevada, USA: Geothermal Resources Council Transactions, v. 38, p. 3-9.
- Faulds, J.E., **Hinz, N.H.**, Dering, G.M., and Siler, D.L., 2013, The hybrid model – the most accommodating structural setting for geothermal power generation in the Great Basin, western USA: Geothermal Resources Council Transactions, v. 37, p. 3-10.
- Hinz, N.H.**, Faulds, J.E., and Siler, D.L., 2013, Developing systematic workflow from field work to quantitative 3D modeling for successful exploration of structurally controlled geothermal systems: Geothermal Resources Council Transactions, v. 37, p. 275-280.
- Ohren, M., Bailey, A., **Hinz, N.**, Oppliger, G., Hernandez, J., Rickard, W., and Dering, G., 2013, Akutan geothermal area exploration results and pre-drilling resource model: Geothermal Resources Council Transactions, v. 37, p. 301-308.
- Cashman, P.H., Faulds, J.E., and **Hinz, N.H.**, 2012, Regional variations in structural controls on geothermal systems in the Great Basin: Geothermal Resources Council Transactions, v. 36, p. 25-30.
- Faulds, J.E., **Hinz, N.H.**, and Kreemer, C.W., 2012, Regional patterns of geothermal activity in the Great Basin Region, western USA: Correlation with strain rates: Geothermal Resources Council Transactions, v. 36, p. 897-902.
- Faulds, J.E., **Hinz, N.H.**, and Coolbaugh, M.F., 2011, Structural investigations of Great Basin geothermal fields: Applications and implications, in Steininger, R., and Pennell, B., eds., Great Basin evolution and metallogeny: Geological Society of Nevada 2010 Symposium Volume, p. 361-372.
- Faulds, J.E., **Hinz, N.H.**, Coolbaugh, M.F., Cashman, P.H., Kratt, C., Dering, G., Edwards, J., Mayhew, B., and McLachlan, H., 2011, Assessment of favorable structural settings of geothermal systems in the Great Basin, Western USA: Geothermal Resources Council Transactions, v. 35, p. 777-784.
- Hinz, N.H.**, Faulds, J.E., and Stroup, C., 2011, Stratigraphic and structural framework of the Reese River geothermal area, Lander County, Nevada: A new conceptual structural model: Geothermal Resources Council Transactions, v. 35, p. 827-832.
- Skord, J., Cashman, P.H., Coolbaugh, M., and **Hinz, N.H.**, 2011, Mapping hydrothermal upwelling outflow and outflow zones, preliminary results from two-meter temperature data and geologic analysis at Lee Allen Springs and Salt Wells basin: Geothermal Resources Council Transactions, v. 35, p. 1017-1022.
- Bell, J., and **Hinz, N.**, 2010, Young Walker basin faults provide new insights into structural relations controlling geothermal potential at the Hawthorne Army Weapons Depot, central Nevada: Geothermal Resources Council Transactions, v. 34, p. 751-754.
- Hinz, N. H.**, Faulds, J. E., Moeck, I., Bell, J.W., and Oldow, J.S., 2010, Structural controls of three blind geothermal resources at the Hawthorne Ammunitions Depot, west-central Nevada: Geothermal Resources Council Transactions, v. 34, p. 785-790.



- Moeck, I., **Hinz, N.**, Faulds, J., Bell, J., Kell-Hills, A., and Louie, J., 2010, 3D geological mapping as a new method in geothermal exploration: A case study from central Nevada: Geothermal Resources Council Transactions, v. 34, p. 807–812.
- Shoffner, J., Li, Y., **Hinz, N.**, Sabin, A., Lazaro, M., and Alm, S., 2010, Understanding fault characteristics and sediment depth for geothermal exploration using 3D gravity inversion in Walker Valley, California: Geothermal Resources Council Transactions, v. 34, p. 633-636.
- Hinz, N.H.**, Faulds, J.E., and Oppliger, G.L., 2008, Structural controls of Lee-Allen Hot Springs, southern Churchill County, western Nevada: A small pull-apart in the dextral shear zone of the Walker Lane: Geothermal Resources Council Transactions, v. 32, p. 285-290.
- Hinz, N.H.**, 1997, Late Quaternary deglaciation, flooding, and tectonism(?) of upper Clarks Fork Valley, Park County, Wyoming, *In*, Tenth Keck Research Symposium in Geology, Proceedings: Beloit College, p 162-165.

Geologic Maps

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