
LOGAN HACKETT, PG

PRESENT POSITION

Senior Geochemist/Geologist

EXPERTISE

Mr. Hackett's expertise includes geochemical field methods and evaluation techniques, structural and stratigraphic geology and field geologic methods, mineralogy, well drilling, well logging, well testing, conceptual/ hydrogeologic modeling, and field program and project management and budgeting. He works with fluids sampling at springs and wells, fluid and gas chemical data interpretation, computer database management and graphical displays of geochemical and geologic data, isotope chemistry, field analysis equipment design and fabrication, geologic and geochemical resource model creation and depiction, and resource drilling and development planning. Mr. Hackett is a certified professional geologist in the state of Wyoming and has over ten years of experience as a teaching, research, and consulting geochemist and geologist.

EDUCATION

M.S. in Geochemistry, Colorado School of Mines (CO) 2006

Yellowstone Bighorn Research Association Geologic Field Program (MT) 2003

B.S. in Environ. Science (Geosciences focus and minor in Chemistry) Drexel Univ. (PA) 2002

EXPERIENCE

GeothermEx, Inc., Richmond, California 2011- present

- Fluids sampling and site assessment in the Western US, Alaska, South America, and Turkey
- Well-site and remote geologic and drilling support for operations in the Western US, South America, and Turkey
- Fluid geochemical resource evaluation during exploration, development, and ongoing production stages for resources worldwide
- Comprehensive geoscientific evaluations for geothermal resources worldwide
- Design and population of relational databases (MS-Access) of geothermal resources worldwide
- Resource due diligence evaluation for risk mitigation and financing for projects worldwide

Columbine Well Logging, Inc. Littleton, Colorado 2011

Lead Well Site and Logging Geologist

- Spearheaded geosteering technical support and work product generation initiative in Colorado's DJ Basin
- Supported oil and gas operators on contracted mud-rotary drilling rigs, with work including geologic and gas chromatograph data logging and lithologic interval identification; rig data and downhole tool data collection, correlation, and interpretation; lag calculation; and drilling prognosis, well plan, and drilling activity report review
- Analyzed cores and cuttings from vertical and horizontal wells in DJ Basin lithology for numerous operators
- Picked formation tops and lithologic contacts; provided geosteering guidance; selected core and casing points
- Used and maintained gas analysis equipment including gas chromatograph and gas traps
- Prepared and presented daily and borehole completion geologic well logs, data summaries, and daily drilling progress reports to clients
- Gained experience with surface and downhole directional tools and real-time data from survey instruments including gamma, resistivity, microscope, and PTS wireline

Horizon Well Logging, Inc. Lompoc, California 2010-2011

Geothermal Well Site and Logging Geologist

- Provided on-site geologist support for mud-rotary drilling rigs, including geologic logging and lithologic interval identification; rig oversight, rig data collection, and wireline survey oversight; drilling plan review; drill pipe and BHA tallying; lag calculation; and drilling fluid loss calculation
- Picked formation tops and constrained lithologic contacts; picked casing points
- Used and maintained rig and logging instruments, including gas sensors, pit probes, thermocouples, transducers, data collection equipment, and logging computers employing use of WITS real-time data upload
- Monitored and summarized results of multiple injection, flow, casing, and blow-out preventer tests
- Worked with proprietary real-time rig data depiction and logging software to prepare client requested work products
- Prepared and presented daily and project completion geologic well logs, daily drilling progress reports, drilling parameter curves, and running total mud loss spreadsheets
- Collaborated daily with company drilling manager, project geologist, company man, tool-pusher, mud engineers, directional team, drillers, and rig hands for data acquisition and dissemination
- Logged sedimentary (clastic and carbonate), igneous, and metamorphic (intrusive and extrusive) core, cuttings, and outcrops in diverse geothermal energy field areas in the US and abroad

Tetra Tech, Inc. Boulder, Colorado 2005-2010

Geologist/Geochemist, Technical and Business Consultant

- Performed 2- and 3-dimensional geologic, hydrogeologic, and geochemical visualization design
- Applied techniques of geologic field mapping; surveying; stratigraphic sequence logging; and data collection, including pump and draw-down tests
- Managed geologic and hydrogeologic drilling investigations during long-term fieldwork efforts
- Deployed borehole data collection instruments and interpreted data
- Designed, constructed, and developed monitoring, injection, and extraction wells for sampling
- Managed projects, developed client relations, prepared proposals, and worked on business development
- Wrote, published, and presented technical research

Slope and Basin Consortium Golden, Colorado 2006

Fieldwork Assistant

- Measured, logged, and interpreted stratigraphic sections in the Guadalupe Mountains, west Texas

United States Geological Survey Lakewood, Colorado 2003-2005

Geologist and Laboratory Manager, Mineral Resources Team

- Transcribed and interpreted previously rendered geologic sections for correlation
- Built electronic database to assist analysis of geologic sections
- Managed laboratory procedures for Dr. Anita Harris, conodont Color Alteration Index lead researcher
- Processed and organized conodont samples from numerous locations for geological age dating

RELEVANT COURSEWORK

Applied sequence stratigraphy; carbonate diagenesis and geochemistry; stratigraphy and sedimentology; structural geology; petrology of igneous and metamorphic systems; optical mineralogy of igneous, sedimentary, and metamorphic rocks; aqueous geochemistry; stable and nuclear isotope geochemistry; laboratory instrument operation (gas chromatograph mechanics); invertebrate paleontology; methods of geologic field mapping and logging in varied terrains; geophysics

SOFTWARE EXPERIENCE

MS Office Suite including Visio and Project, Petrel, LPlot, LogPlot, HorizonLog, Horizon DataHub, RockWorks, Surfer, Grapher, WATCHWORKS, Geochemists Work Bench, some PETRA experience, MVS, SADA, MAROS, Canvas, Adobe Illustrator, some GIS experience

CERTIFICATIONS

Wyoming Professional Geologist, OSHA 40 hr HAZWOPER, OSHA 10 and 30 hr Construction Safety, H₂S Gas Safety, Marathon Oil Corp. Site Safety, EnCana Corp. Site Safety, Adult CPR, Standard First Aid, Wilderness First Aid, Designated Field Health and Safety Coordinator

PUBLICATIONS

Fowler, A.P.G., Hackett, L.B., and Klein, C.W., Reformulation and Performance Evaluation of the Sulfate-Water Oxygen Isotope Geothermometer. GRC Transactions, Vol. 37.

Eberle, J. J., Fricke, C. H., Humphrey, J. D., Hackett, L., Newbrey, M. G., and Hutchison, J. H., Seasonal Variability in Arctic Temperatures During Early Eocene Time, EPSL 296 (2010) 481–486, 2010.

Hackett, L., Howe, R., and Powell, D., Building a Consensus Vision using Conceptual Site Models, oral presentation at the US EPA Triad National Conference. Amherst, MA, June 10-12, 2008.

Hackett, L., Howe, R., and Burhan, Y., Use of Passive Flux Meter (PFM) Technology to Refine a Conceptual Site Model for Chlorinated Solvent Nature and Extent Characterization, MCRD Parris Island, South Carolina: A Field Demonstration, oral presentation at the Batelle Conference for Remediation of Chlorinated Solvents and Recalcitrant Compounds. Monterey, CA, May 18-22, 2008.

Eberle, J.J., Fricke, H., Humphrey, J.D., and Hackett, L., Ellesmere Island as an Arctic Counterpoint to the Mid-Latitudes: Isotopic Similarities, Differences, and Their Relevance to Paleoenvironmental Research, oral presentation at the Geological Society of America National Convention. Denver, CO, October 28-31, 2007.

Hackett, L., Howe, R.A., and Hageman, C., Use of a Conceptual Site Model and Innovative Technologies to Delineate Acid Mine Drainage Sources, Little James Creek Watershed, Colorado, poster presentation at the Geological Society of America Regional Convention. St. George, UT, May 7-9, 2007.

Eberle, J.J., Humphrey, J.D., and Hackett, L., Oxygen Isotope Estimates of Mean Annual Temperature for an Early Eocene, Terrestrial Environment in the Canadian High Arctic: Oral Presentation at the Geological Society of America National Convention, Philadelphia, PA, October 22-25, 2006.

Hackett, L., Stable Oxygen Isotope Analysis of Biogenic Phosphate: An Application to the Early Eocene [Master's Thesis], Colorado School of Mines, 2005. 143p.