6107 Ashford Falls Lane Sugar Land, Texas 77479 832-940-8013 joecuriale1@gmail.com

SUMMARY

Petroleum Geochemist with over 30 years of domestic and international experience in the oil and gas industry. Expertise in petroleum geochemical and geological data acquisition and interpretation in an integrated petroleum system context. Proven success using bulk, molecular and isotopic evaluation methods, including thermal maturity, kinetics and basin modeling techniques. Worldwide experience in conventional and unconventional plays, project management, personnel supervision and administration.

- Oil and Gas Analysis
- Source Rock Evaluation
- Play Risking / Assessment
- Reservoir / Production Studies
- Technical Presentation
- Database Design and Management
- Project Management
- Basin Modeling
- Site Remediation

PROFESSIONAL EXPERIENCE

GEOCHEMICAL ADVISORY SERVICES

2016-PRESENT

Petroleum Geochemist

Specialist in all components of oil, gas and source rock evaluation in basins worldwide.

CHEVRON (FORMERLY WITH UNION OIL/UNOCAL), TEXAS AND CALIFORNIA Staff/Research Geochemist

1981 - 2015

Performed all aspects of geochemistry, with experience in more than 100 sedimentary basins in over 40 countries.

- Applied geochemical and geological principles to problems in petroleum exploration, field development, product evaluation, environmental assessment and property remediation.
- Assessed source rock potential, petroleum migration and reservoir continuity for risk assessment.
- Evaluated source-rock reservoir (resource) plays to assess richness, generation, phase and sweet spots, using the full suite of geochemical and geological parameters.
- Acquired and interpreted molecular, isotopic and elemental data for crude oil, natural gas, solid bitumens, waters, sediments, sedimentary rocks and soils for application throughout the value chain.
- Applied basin models for risk assessment at the conceptual (1d/2d/3d) and practical (1d) levels, with a focus on integration of geochemical data as model ground-truth parameters.
- Managed multi-year technical projects integrating basinwide geological/geochemical data for use in evaluation at the regional, play, prospect and field scales.
- Designed and conducted petroleum geochemical research over three decades and published results and interpretations in the peer-reviewed literature.
- Developed and presented several 3- to 5-day courses in exploration geochemistry, reservoir geochemistry, sequence stratigraphy and petroleum systems.
- Presented invited keynote lectures and multi-day courses at universities, NOCs and institutes in U.S., Canada, Mexico, U.K., Germany, France, Venezuela, Tanzania, Pakistan, India, China, Myanmar and Japan.
- Designed and managed stand-alone, networked and web/portal-based databases for archival and retrieval of geological and geochemical data.
- Provided expert written and oral communication of results at all technical and managerial levels.

OKLAHOMA GEOLOGICAL SURVEY, OKLAHOMA

1977-1981

Graduate Research Assistant and Visiting Research Associate

Responsible for design and construction of an online pyrolysis-gas chromatograph; groundwater analyses.

LEG 67, GLOMAR CHALLENGER - DSDP, OFFSHORE GUATEMALA Shipboard Organic Geochemist

1979

Responsible for organic matter analysis of acquired whole core.

PROFESSIONAL EXPERIENCE – DETAILS

- ➤ <u>Project Management</u>: Circum-Borneo (Indonesia) Regional Oil/Source Rock Study; North Slope (Alaska) Regional Geochemistry Project; Marathon Foldbelt (west Texas) Geochemical Study; Brahmaputra Basins Regional Geochemical Study; Mercury Environmental Geochemistry Project; Regional West Africa Geochemical Study; PaleoGIS Source Rock Distribution in the South Atlantic; Source Rock Retrodiction via Paleoclimate assessment; cochaired corporate-wide technology conferences.
- **Several hundred internal (corporate) and external (peer-reviewed) publications.** See publications list.
- **Geochemical, geological and environmental studies and research projects** in more than 100 sedimentary basins in over 40 countries. List of experience by sedimentary basins available on request.
- ➤ <u>Software Literacy</u>: Experienced with SAS, Multichrom, Incos, VG 11-250, VG OPUS, DEC-LIMS, MDL Chemlab, Datamaster, Grams32, Einsight, PeakView, ChromView, Statistica, ArcGIS, TimeCreator Pro, pIGI, Isologica, Timescale Creator Pro, climate modeling packages, FRogi and Malcom.

PROFESSIONAL SOCIETY INVOLVEMENT (Partial List)

- Memberships: American Association of Petroleum Geologists; Geochemical Society; Sigma Xi Scientific Research Society; European Association of Organic Geochemists; The Society of Organic Petrology (TSOP); Houston Geological Society; American Institute of Professional Geologists
- ➤ Professional Society Involvement (multi-year contributions since 1981): ACS Geochemistry Division 1989-1994 (Nominating Committee; Program Committee); Geochemical Society Organic Geochemistry Division (Chairman-elect 1991-1993; Chairman 1993-1995; Treibs Medal Committee 1999-2002); TSOP (Swaine Best Paper Committee Chair; Castaño Honorary Membership Committee; Honorary Member Committee; Best Student Paper Committee; Councilor); EAOG (Student Travel Awards Committee)
- ➤ Editorships: Organic Geochemistry (Executive Editor, 1992-2002; Associate Editor, 2005-2015); International Journal of Coal Geology (Associate Editor, 2009-2015); Journal of Unconventional Oil and Gas Resources (Associate Editor, 2014-present); also compiled and edited special issues for various journals
- Academic Involvement: Numerous university guest lecture and invited speaker presentations worldwide; Adjunct Professorships at University of Houston (US) and Curtin University (Perth, Australia)
- ➤ Primary or Co-Convener: 2016 TSOP Conference, Houston; 2013 AAPG-GTW Liquids-Rich Unconventionals, Vancouver; 2006 SEPM Research Conference Earth Systems Modeling, Salt Lake City; 1989 ACS OG Pacifichem Symposium, Honolulu; and many other oral and poster sessions at conventions/conferences of the ACS, AAPG, IGC, GSA, EAOG, TSOP, and other organizations.
- ➤ Award Recipient: various, including 2016 Castaño Honorary Membership Award, TSOP; 1992 Medal of Merit Award, CSPG; ACS Best Paper; etc.
- ➤ Book and Peer Reviewer for (partial listing): <u>AAPG Bulletin</u>, <u>Organic Geochemistry</u>, <u>Geochimica et Cosmochimica Acta</u>, <u>Bulletin of Canadian Petroleum Geology</u>, <u>Applied Geochemistry</u>, <u>Environmental Science & Technology</u>, <u>Fuel</u>, <u>Energy & Fuels</u>, National Science Foundation, US Department of Energy, American Chemical Society Petroleum Research Fund
- Licensed Professional Geoscientist: Texas License Number 652

EDUCATION and PROFESSIONAL DEVELOPMENT

Ph.D. Geology, Specialization in Organic Geochemistry, University of Oklahoma, Norman. **B.A. Chemistry, Specialization in the Earth Sciences**, UC San Diego/Scripps. Minor: Economics

Over 30 continuing education courses in geology, geophysics, geochemistry, drilling and production, environmental science, modeling, risk analysis, project management, leadership training, database development