



## LEON ADEN

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I have 37 years of oil and gas industry technical and leadership experience in subsurface characterization, first line management, and advisory capacities. I have a proven track record valuing and implementing divergent evaluation early in analyses and am effective at influencing without authority. I spent much of my professional life advancing large-scale geoscience understanding across a spectrum of geologic, engineering, and business management. As part of the Bifrost Energy team, I strive to seek innovative solutions that bridge the world's transition to a more sustainable energy future.

Team Leadership | Collaboration | Career Development | Quantitative Structural Geology & Tectonics  
Regional Geology | Stratigraphic Analysis | Basin History Analysis | Seismic Interpretation  
Regional Geology | Field Development | Development Planning

### PROFESSIONAL EXPERIENCE

#### **Bifrost Energy, Houston TX** **Chief Innovation Officer**

**March 2020 – Present**

[www.bifrostenergy.com](http://www.bifrostenergy.com)

Responsible for envisioning and actioning complex traditional extraction opportunities and leveraging industry extraction techniques toward new uses that progress environmental and social projects that align with UN sustainability goals of “meeting the needs of the present without compromising the ability of future generations to meet their own needs”.

#### **UNIVERSITY OF IOWA**

**July 2019-Present**

#### **Adjunct Professor, Department of Earth & Environmental Sciences**

Developed and delivered a course entitled “*Applied Geoscience in Petroleum System Analysis*”.

The course was structured around a student-led basin history analysis. Course objectives include decision making, teamwork/team influencing, and dealing with uncertainty, in addition to traditional science-based analysis with imperfect datasets.

#### **EXXONMOIL EXPLORATION**

**November 2013-February 2019**

#### **PNG Highlands Exploration**

Individual contributor within a team charged with generating new opportunities in the Western Highlands. Undefined initial role led to construction of a regional structural model identifying prospective trends hidden beneath surface geology. Role required integrating structural geologic theory, surface geology, LiDAR and satellite derived elevation datasets, well, seismic, and potential fields datasets into plausible interpretations that lend support to, and guide business decisions associated with seismic acquisition, prospect maturation, prospect monitoring, and post-well analyses, including recycling post-well conclusions into next-generation interpretations. Role included mentoring shorter-service geoscientists in “what and why” things are done, not focusing on “how” things are done.



## **EXXONMOBIL DEVELOPMENT**

**May 2012-November 2013**

### **Geoscience Supervisor Russia Sakhalin-1 (Odoptu)**

Supervisor of a team charged with constructing a history-matched geologic interpretation of the Odoptu Field and future recommendations for full field development. Role required ensuring a fully integrated set of geoscience inputs, culminating in a geologic model that met company best practices and regulatory expectations. Position worked with reservoir engineering to complete a fully integrated subsurface model and worked with development planning and project management to ensure the best development plan for implementation. Non-traditional roles included developing a regional plan for data acquisition, exploration/appraisal potential within the development/production asset life cycle, and EMDC geoscience lead for ExxonMobil's migration to new campus work location.

## **EXXONMOBIL EXPLORATION**

**July 2007-May 2012**

### **Emerging Thematics / Arctic Thematic**

Supervisor of a team charged with developing new ways to approach proven and unproven basins, focusing on basins with severe complexity issues. Role required ensuring a global description of geoscience and assessment attributes (Regional Geology and Basin Analysis using 2D seismic data), a virtual network of geoscience and engineering professionals that ensured upstream initiatives were seamlessly progressed (technology development), learnings were shared and implemented where appropriate, research was focused on both near-term application and longer-term breakthrough, and development discussions pulled forward in time.

## **EXXONMOBIL DEVELOPMENT**

**Sept 2004-July 2007**

### **Geoscience Supervisor Nigeria Deepwater (Operated)**

Led a team of ~25 geologists and geophysicists and worked with reservoir engineering to execute development and production start-up of Erha and Erha North fields. Designed and endorsed development locations and seismic surveys, including attributes associated with 4D seismic planning. Member of Project Leadership Team charged with delivering project on time, on budget, and with flawless safety. Key member of development planning team charged with funding Erha North expansion and cross-functional integrated efforts to progress Bosi discoveries.

## **EXXONMOBIL UPSTREAM RESEARCH**

**Aug 2003-Sept 2004**

### **Skill Area Advisor**

Structure, Seal, Gravity, and Magnetic Skill Area Advisor, charged with career planning, project deployment and research planning for skill area members at EMURC. Member of Reservoir Characterization section working on predictive modeling to better predict producing behavior of clastic reservoirs.

## **EXXONMOBIL EXPLORATION**

**Mar 2001-Aug 2003**

### **Technology Advisor**

Provided perspective to projects and line management (through VPs) related to pursuit, drilling, evaluation, assessment, and evaluation of opportunities. Developed and kept relevant a relative seriatim of opportunities across business lines. Areas of direct responsibility: W. Africa, S. America (Andean/Caribbean), and Europe.



## **EXXONMOBIL EXPLORATION**

**Mar 1999-Mar 2001**

### **Geoscience Supervisor North Angola/Congo (Non-Operated)**

Led a team of ~20 geologists and geophysicists to advance acreage evaluation, co-venture exploration focus, drill well design/approval, assessment and appraisal needs across five deepwater blocks in the Congo Basin. Planned work effort tailored to leverage ExxonMobil strengths and overall evaluation desires into plans that crossed multiple Operators (including ExxonMobil) and co-venture groups.

## **EXXON EXPLORATION**

**Aug 1990-Mar 1999**

### **Exploration Geoscientist**

Team member on active exploration projects in onshore Trinidad and Papua New Guinea. Accomplishments included increasing levels of responsibility in both technical evaluation and negotiation. Developed strong expertise in quantitative structural geology, and tectonic/basin-scale and local play analyses. Utilized 2D seismic interpretation in conjunction with production-scale reservoir mapping (where available) to develop integrated structural-stratigraphic models that led to prospect identification. Operations and technical lead for 3 wildcats during time period.

## **EXXON COMPANY, USA**

**Jun 1982-Aug 1990**

### **Production Geoscientist**

Individual contributor charged with field surveillance; work-over recommendation, and production and outpost well generation in a variety of fields on the King Ranch and Austin Chalk horizontal well opportunities. Accomplishments included ramping up oil production in a historically gas dominated field. Developed strong expertise in stratigraphic, well-based correlations and appreciation for data control, quality, and use.

## **EDUCATION AND TRAINING**

UNIVERSITY OF IOWA – Iowa City, Iowa

**Bachelor of Science (Geology) – Aug 1980**

**Master of Science (Geology) – May 1982**

Thesis: Clay Mineralogy and Depositional Environments of Upper Cherokee (Desmoinesian) Mudrocks, Eastern Kansas, Western Missouri, and Northeastern Oklahoma

## **NOTABLE ACTIVITIES, PUBLICATIONS AND ACHIEVEMENTS**

Recruiter: ExxonMobil geoscience (thru 2013)

University of Iowa College of Liberal Arts and Sciences Dean's Advisory Board: 2001-2015 (Chair 2009-2012)

Publication: Master's Thesis, South-Central GSA, 1982 (Oklahoma), Abstract with Programs (Oral Presentation)

Publication: Oral Presentation-AAPG: Caribbean 2021 Technical Symposium

Achievement: Senior Author, Best Poster, International AAPG Meeting, 1996 (Venezuela)