Chemical Engineer specializing in laboratory management, experimental measurement and research on Petroleum Thermodynamics

**PROFILE**

* Over six years experience managing a research laboratory.
* Eleven years experience in laboratory work, both independent and team laboratory research with applications in crude oil research.
* Expertise in rheology, density and calorimetry.
* Experience in coordinating, scheduling and planning projects and writing professional reports.
* Experience in conduct duties at managerial level that include some human resource.

**EDUCATION**

**M.Eng., Engineering Management,** *University of Alberta* 2008 - 2011

Capstone Project: *Creativity: A literature review of its different aspects*

**M.Sc., Chemical Engineering,** *Universidad Central de Venezuela, Venezuela,* 1999 – 2004

Thesis: *Evaluation of the effect of the crude oil viscosity on the solution-gas drive production mechanism*.

**B.Sc**., **Chemical Engineering,** *Universidad Central de Venezuela, Venezuela,* 1990 – 1994

**Advanced Technologist, Chemical Process**, *University Institute of Technology (IUT) Region Capital, Venezuela*, 1986 – 1989

**WORK EXPERIENCE HISTORY**

**Sessional Instructor,** *University of Alberta* Jan 2018 – Present

*Chemical & Materials Engineering Department*

* Guide undergrad students in the Chemical Engineering Design II course in aspects related to the techno-economic feasibility of their assigned design project.

**Research Associate / Lab Manager,** *University of Alberta* Dec2011- Dec 2017

*Chemical & Materials Engineering Department*

* Overall responsibility for day to day operations in the Petroleum Thermodynamics laboratory used by approximately 20 researchers. These responsibility include, but are not limited to:
  + Safety supervision and safety training of research members as well as newcomers and ensuring that environmental and safety practices are followed in the lab in compliance with the Environmental, Health and Safety Policy at the University of Alberta.
  + Project coordination with Postdoctoral fellows as well as PhD and Master students
  + Recruiting, direct supervision and training of summer students e.g., co-op, international students, etc.
  + Developing Standard Operating Procedures for laboratory equipment.
  + Overseeing the operations and quality of work in the laboratory, as well as data collection, analysis and results.
* Assisting in the writing of analytical research results for laboratory meetings, research papers, presentations and publications, seminars and scientific conferences.
* Giving support to the PI in the review and editing of graduate dissertations and undergrad reports
* Coordinating tasks with other laboratories in the department of Chemical Engineering at the University of Alberta, as well as other research groups outside campus such as the University of Calgary, University of Victoria and the Institut Francais du Pétrole (IFP).
* Assisted and coordinated the organization of Technical Review meetings for the Industrial Research Chair.
* Overseeing the financial activities in the group including interviewing potential researchers, payroll activities, keeping the group website (http://www.jmshaw.ualberta.ca up) to good, etc.

**Research Engineer,** *University of Alberta*  Sep2006 – Nov 2011

*Chemical & Materials Engineering Department*

* Carried out research projects in the area of Petroleum Thermodynamic, including the design and selection of the measurements, data analysis and report preparation.
* Assisted in the writing of analytical research results for research papers, presentations and publications.
* Trained PhD and Master Students, co-op students, international students, etc., in laboratory norms.
* Ensured that research team members followed lab procedures and that expected environmental and safety practices were followed in the Petroleum Thermodynamic laboratory.
* Characterized crude oil and crude oil subfraction samples using different techniques e.g., Differential Scanning Calorimetry (DSC-TG), Rheometry, Density Meter, Acoustic Spectroscopy, etc.
* Ensured that the laboratory was well supplied with materials, spare parts and chemicals, and that the equipment was maintained.

**Research Technologist,** *University of Alberta*  Feb2006 - Aug 2006

*Chemical & Materials Engineering Department*

* Characterization of alumina samples using techniques such as: X-ray photoelectron spectroscopy (XPS), Differential Scanning Calorimetry (DSC), Temperature-Programmed Desorption (TPD), X-rays Diffraction, thermogravimetric Analysis (TGA)
* Preparation and calcination of catalysts using platinum, palladium and others metals as supporters
* Analysis of the data generated from the different experiments performed

**CERTIFICATES / COURSES / CONFERENCES**

* P.Eng. (Professional Engineering of Alberta License).
* AFLCA (Alberta Fitness Leadership Certification Association) (1) Exercise Theory Course, YMCA, Edmonton, Alberta, February 9-11, 2018. (2) Group Exercise Fundamentals, University of Alberta, Edmonton, Alberta, February 20-21, 2018.
* Becerra, Mildred;Linden, Nicolas; Escobar, Nympha; Shaw, John M.; Rheology of Reconstituted Safaniya Vacuum Residue Based on Physical and Chemical Separation. 67th Canadian Chemical Engineering Conference (CSChE 2017), October 22-25, Edmonton, Alberta, Canada. (Oral Presentation)
* Attended the Partial Upgrading Bitumen workshop held in Calgary on October 3, 2017.
* Emergency First Aid – Level A CPR and AED, Edmonton, Alberta, September 2017.
* Poster Presentation:Becerra, Mildred; Linden, Nicolas; Escobar, Nympha; Shaw, John M.; Rheology of Reconstituted Safaniya Vacuum Residue Based on Physical and Chemical Separation. Petrophase 2017, June 11 - 15, Le Havre, France.
* Attended COSIA 2017 Oil Sands Innovation Summit, which was held in Calgary March 20-22, 2017. The following workshops were attended: Introduction to Oil Sands and Water and Oil Sands In Situ Production.
* Participation in the University of Alberta, Student Success Center, Winter 2017 Graduate Workshops "Writing and Effective Funding Proposal".
* Synergy of Rheological Data Analysis and Modeling, ICR 2012 – XVIth International Congress on Rheology Lisbon, Portugal, 2012.
* Supervisory Leadership Program, University of Alberta, Edmonton, April 2011.
* Practice Your Presentation Skills: Level 1, MITACS, Edmonton, Alberta 2011.
* Foundations of Project Management I: A Team Based Approach, MITACS, Edmonton, Alberta 2011.

**References – Upon request**