### **JUAN JOSE FERNANDEZ ALVAREZ**

46 Whispering Thicket PI ◊ Tomball, TX, 77375 979-450-1915 (Mobile) ◊ juan.fernandez@anadarko.com

**EDUCATION** 

12/08 **Texas A&M University** College Station, Texas

M.S. in Petroleum Engineering; GPA: 3.88/4.0

06/04 University of Zulia Maracaibo, Venezuela

B.S. Mechanical Engineering; GPA: 3.56/4.0 (5<sup>th</sup> among 128 students)

#### **WORK EXPERIENCE**

**08/14 – Present**Anadarko Petroleum Corporation

The Woodlands, Texas

Sr. Reservoir Engineer – International Exploration – South America

- Support G&G staff with commercial evaluation of prospects in offshore Colombia.
- Responsible for prospect inventory and portfolio management.
- Preparation of economic evaluations for AFE package support documentation.
- Coordination and support of pressure (MDT) and sampling operations during drilling operations.

### 05/12 – 08/14 Anadarko Petroleum Corporation

The Woodlands, Texas

Sr. Reservoir Engineer – Mozambique International Operations

- Well testing operations (DST and Interference Test) offshore Mozambique in water depths from 1000-1600m on board the Deepwater Millenium.
- On-site support for decisions involving modifications of well test flow sequence based on equipment constraints.
- Perform on-site nodal analysis and choke calculations to adjust surface equipment to achieve expected flow rates (as per test design).
- On-site Pressure Transient Analysis and interpretation.
- Incorporate results from PTA in reservoir model, perform reservoir simulation and adjust test design on the fly if necessary (mainly on flow duration of extended flow sequence).
- Responsible for coordinating and supporting operations working with multiple service companies.
- Reservoir Simulation and History Match using structured/unstructured grids.
- Support IPM modeling and simulation using Petroleum Experts suite (Prosper, Mbal, GAP).
- Support completion strategy of development wells in Mozambique using Nodal Analysis.

### 11/11 – 05/12 Anadarko Petroleum Corporation Denver, Colorado

Reservoir Engineer - CBM PRB -Deep Horizontal Play

- Responsible for developing a workflow to utilize nodal analysis to evaluate and optimize artificial lift in horizontal wells.
- Developed workflow to utilize OFM to perform decline curve analysis on operated and non-operated wells.
- Support the creation of a completion database to identify drivers in production performance.
- Support the creation of a database to track competitor activity in the Basin.
- · Competitor studies combining well performance, decline curve analysis and completion data.
- Economic evaluation of NON-OP AFEs.

### 06/11 – 11/11 Anadarko Petroleum Corporation

Denver, Colorado

Reservoir Engineer – CBM PRB – Asset Team

- Responsible for estimating reserves for current discoveries and uncaptured opportunities, and responsible for SEC reserves studies, lease sale analyses and acquisition evaluations.
- Support construction of annual budget, corporate planning and business development needs as necessary.
- Assist in various budget and planning exercises for entire CBM assigned area in addition to non-op specific assets (budget, portfolio, MBX management, SEC reserve forecasts, etc.).
- Conduct special project evaluations in support of JV contract negotiations, midstream opportunities and asset level economic look backs
- Liaise with JV operators with regards to development planning, cost scheduling and performance tracking.

### 11/10 – 06/11 Anadarko Petroleum Corporation

Denver, Colorado

Reservoir Engineer - CBM PRB - Special Studies Team

- Member of Special Studies Team in charge of developing workflows and creating skillset to improve forecasting methodology on the CBM reservoir engineering team through an expanded CBM toolkit that included Fekete Fast CBM, Welltest, OFM and SpotFire
- Project lead in well testing developing CBM well testing workflow including methodology, test design, execution, data gathering and analysis using Fekete WellTest and Sapphire.
- Recommend, manage and integrate various reservoir studies including reservoir modeling, geochemistry, PVT, production performance, pressure transient tests and other data in planning future development.
- Conduct CBM performance studies, prepare field development plans, production forecast, reserve estimates, and carry out economic analyses.
- Perform CBM simulation studies for better prediction of performance and reserves adds.
- Plan and evaluate development drilling and workover requirements, prepare technical work program AFEs and justifications.
- Utilize CBM software to identify appropriate production mode for potential development.
- Develop and design well testing programs, evaluate and interpret well test data to estimate reservoir properties, predict future well
  performance and identify ultimate reserves.
- Identify and apply appropriate new technology to estimate reserves, forecast well performance in order to minimize production uncertainties.
- Compile detailed engineering reports of studies performed and prepare numerous technical presentations for delivery to asset team, management, partners and regulatory agencies.

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Mentor asset engineers.

#### 01/09 - 11/10

#### **Anadarko Petroleum Corporation**

Gillette, Wyoming

Base Production Engineer/Team Lead - CBM PRB

- Assist field operations to optimize existing production and reduce operating cost by providing recommendations to optimize dewatering.
- Design and selection of artificial lift systems for gas-well dewatering with a special focus on ESP systems.
- Evaluation and optimization of artificial lift systems using nodal analysis to model different wellbore configurations and the impact on productivity and equipment performance.
- Work with artificial lift providers in tracking failures and identifying opportunities to optimize equipment performance.
- Technical and economic evaluation of wellwork operations to optimize coalbed gas productivity.
- Organize and complete route reviews for forecasting and identifying wellwork opportunities.
- Optimization of surface equipment for gas and water transportation and selection of gas and water metering equipment.
- Provide drilling and completion recommendations to maximize dewatering time.
- Aid in monitoring performance of surface production facilities and production processes.
- Maintain base production by prioritizing workovers, providing procedures, actively supervising daily wellwork activities, and maintaining
  acceptable economic results through monthly workover lookbacks performed by the base production engineering staff, completions and
  workovers team.
- Prepare recommendations for improvement in production operations and evaluate facilities expansion requirements in conventional and wellhead compression systems.
- Provide support to wellwork operations by designing tools using 3D CAD software
- Compile detailed engineering reports of studies performed and prepare numerous technical presentations for delivery to asset team, management, partners and regulatory agencies.
- Mentor new engineers.

#### 09/07 - 12/08

#### Department of Petroleum Engineering. Texas A&M University

College Station, Texas

Graduate Research Assistant

- Design of a high-pressure research flow loop for the experimental investigation of liquid loading in gas wells (MS Thesis)
- Developed a skillset using IPM modeling software to perform Nodal Analysis and evaluate surface networks to optimize full field development strategies.

05/08 - 08/08 TOTAL E&P USA INC. Houston, Texas

Internship in Offshore Field Operations

- Developed a program to manage PDG (Permanent Downhole Gauges) data to be used for well testing and production analysis.
- Derived explanations for unexpected organic deposition for a well, and recommended mitigation strategies.
- Generated process flow diagrams in Excel to compare equipment design with current operating conditions.
- Reviewed correlations commonly used to study liquid loading
- Generated macro in VBA to calculate minimum gas velocity and flowrate for all available models.
- Conducted feasibility study on production enhancement by chemical injection using foaming agents.
- Conducted a study to verify hydrate plugging during slickline operation to replace a leaking SCSSV.
- Flow assurance program to estimate chemical to use, volume and rate.
- Created Phase diagrams to identify reservoir fluid types based on PVT analyses performed on all wells.

#### 02/07 - 08/07

### Department of Petroleum Engineering. Texas A&M University

College Station, Texas

Graduate Research Assistant

Evaluated the technical and economic feasibility of adapting alternative sources of energy to power drilling rigs.

02/04 - 12/06 John Crane Venezuela C.A Maracaibo, Venezuela

Applications Engineer

- Selected and designed all parts involved in a mechanical sealing system.
- Provided field assistance for the installation of mechanical seals when needed.
- Conducted plant inspections to verify performance of the products and to evaluate opportunities for improvements.
- Provided technical-economic proposals to improve sealing solutions in rotating equipment.
- Developed failure analysis reports.
- Involved in multidisciplinary teams to establish Six Sigma practices in different productive processes within the company.

# 05/03 - 06/04

#### **Wood Group ESP**

Maracaibo, Venezuela

- Design of a transmission system for reels used to store and transfer power cables in electric submersible equipment.
- Developed preventive maintenance plans for the machinery shop and test banks.
- Modified hydraulic system of a spooler.
- Designed an electric system for spooler operation.

#### **SKILLS**

- Computer: PEEP, Nexus, IPM (PROSPER, MBAL,GAP), Kappa (Saphire, Topaze, Rubis, Diamant), PDB, Rodstar, OFM, Fekete WellTest, Fekete FAST CBM, Bivius, SpotFire, OpenWells, AutoCAD 2D & 3D, SOLID EDGE 2D &3D, Microsoft Access, Visual Basic.
- Languages: English (fluent), French (advanced), Portuguese (intermediate) and Spanish (mother tongue).

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#### **AWARDS & PUBLICATIONS**

- Paper SPE 170829, "Evaluation of Reservoir Connectivity and Hydrocarbon Resource Size in a Deep Water Gas Field Using Multi-Well Interference Tests" presented at the 2014 SPE Annual Technical Conference and Exhibition held in Amsterdam, The Netherlands, 27-29 October 2014
- Paper SPE 122786, "Design of a High-Pressure Research Flow Loop for the Experimental Investigation of Liquid Loading in Gas Wells" presented at the 2009 SPE Latin American and Caribbean Petroleum Engineering Conference held in Cartagena, Colombia, 31 May–3 June 2009.
- 2009 Faculty Award of Excellence for Outstanding Research at the Master's Degree Level. Harold Vance Department of Petroleum Engineering, Texas A&M University, College Station, TX, May 15 2009
- Sessions winner and first place in the 11<sup>th</sup> Annual Student Research Week. March 2008.
- Recipient of the John Calhoun Fellowship. Harold Vance Department of Petroleum Engineering. 2007.
- Beneficiary of student scholarship of the Gran Mariscal de Ayacucho Foundation. 1998-2004.

#### **ORGANIZATIONS**

- Society of Petroleum Engineers (SPE).
- American Society of Mechanical Engineers (ASME)