

## **PROFILE**

Petroleum engineer with a diverse background, seven years of experience working in the Oil and Gas Industry, four years of which involved thermal / heavy oil field and project development. Strong technical worker with practical understanding of the key drivers behind a successful SAGD operation, in both mature and greenfield applications. Reputation for working in a high pressure environment and achieving multiple deliverables while prioritizing business needs. Recognized for promoting a team environment, mentoring and collaboration.

## **SELECTED HIGHLIGHTS**

- Introduced and developed a forecasting model which coupled in-house analytical forecasting models with steam allocation across the full field, resulting in more accurate long term forecasts
- Managed the completion of the LRP for the Surmont Project for multiple years, coordinating with various disciplines and groups to agree on required inputs, and subsequently developing a management approved forecast
- Used STARS simulations to optimize steam pressure of top and bottom water pads to reduce leak-off, allow for more effective circulation, reduce iSOR and improve well reliability
- Approached and persuaded management to pilot various subsurface technologies including NCG injection for Thief Zone mitigation
- Coached new team members on unique technical skills and workflows that increased their confidence and performance

## **PROFESSIONAL EXPERIENCE**

**Reservoir Engineer, Oil Sands Subsurface**  
*ConocoPhillips, Calgary, Alberta*

2012 to 2017

Provided subsurface development and forecast engineering for existing and greenfield pads, de-bottlenecking projects, and internal business processes (LRP, X+Y, emerging technologies). Created tools and scripts to improve existing workflows. Provided simulations and field analysis to support operations on existing Surmont 1 production, and Surmont 2 ramp-up monitoring and forecasting.

- Managed reservoir and production optimization for existing 5,000 bbl/d Surmont 1 pad, and 24 new well pairs on Surmont 2 with a ramp-up target of 16,000 bbl/d
- Created proof of concept for and managed the development of the Integrated Asset Model, a forecasting tool which accounted for steam allocation across all of Surmont in order to optimize full field iSOR
- Built STARS model to optimize operational strategy for thief zone pads to limit risk of Top and Bottom Water interaction, helping to start-up problem wells and recommending ESP Acceleration for problem pads
- Collaborated with a multi-disciplinary team to complete a lease wide subsurface risk analysis in order to select the location of future sustaining pads for Surmont 1, achieving management and Houston approval on the final assessment
- Provided forecasting and subsurface work for approval of \$65M S1 Debottlenecking AFE, which included a steam generator retrofit and sustaining resource assessment

**Process Engineer, Western Canadian Business Unit**

2011 to 2012

*ConocoPhillips, Calgary, Alberta*

Supported operations engineers across the Western Canadian Business Unit. Worked on process design, including PSV, dehydrator and separator sizing, plant process optimization, and flare system analysis. Evaluated plant divestitures for operational expense savings.

- Built HYSYS model for Lodgepole Gas Plant to improve liquids recovery, by switching to high pressure process
- Recommended changes to design of Elmworth Gas Plant flare system to ensure safe blowdown of plant
- Managed shifting priorities as project needs changed across the business unit

**Field Optimization Engineer, Eckville Area**

2010 to 2011

*ConocoPhillips, Eckville, Alberta*

Daily interaction with operations team to troubleshoot downhole and surface equipment. Installation, optimization and troubleshooting of rod pumps, plunger lifts and other artificial lift equipment. Collaboration with completions team to ensure safe and swift well interventions. Explored new technologies to reduce operating expenses and increase production. Daily activity on SCADA systems to monitor and optimize wells.

**EDUCATION**

**Bachelor of Science in Oil and Gas Engineering;** University of Calgary, Alberta, Canada; 2010

**TECHNICAL SKILLS**

OFM, SPOTFIRE, STARS, SCADA Systems, AccuMap, Nodal Analysis Software (Piper and GAP), Petrel, HYSYS, VBA, MATLAB, Python, SAP, and Microsoft Office