

Ms. Luedke-Chan has over 14 years of experience working in the petroleum industry. Currently, Beverly is working to determine the optimal artificial lift method for the new Orion heavy oil development on the North Slope of Alaska. She has recently been involved in several special projects including mapping, upgrading and modernizing the metering system for the Greater Prudhoe Bay produced and seawater injection systems, planning and implementing the new Eileen West End water and miscible injectant floods, and providing input to the Polaris Area Injection Order regarding mechanical integrity issues. Her recent experience also includes working in the United Kingdom on a group of Southern North Sea gas fields - ensuring integrity and availability of the well stock and delivering on an offshore well intervention program. Prior to 1998 Beverly worked in the main Prudhoe Bay Field as part of a multidisciplinary resource team generating economic development opportunities to provide significant additions to the base, maximizing base production while reducing costs, and concentrating on long term depletion planning in order to maximize field life and overall recovery and profitability. From 1990 through most of 1993, Beverly was supervising a variety of well interventions in the Endicott Field to keep field production at plateau. Beverly also has experience working heavy oil in the Midway-Sunset Field near Bakersfield, and oil and coalbed methane wells in the San Juan Basin.

### **PROFESSIONAL EXPERIENCE**

#### **2000 - PRESENT: PETROTECHNICAL RESOURCES OF ALASKA, LLC.**

2004: Petroleum Engineer – Viscous Oil Team (Greater Prudhoe Bay, Alaska)

Compare various artificial lift methods including gas lift, electric submersible pumps and jet pumps using reservoir properties, well design criteria and facility constraints. Determine the most cost effective method or combination of methods for input into the overall facility design.

2003-2004: Production Engineer – Prudhoe Bay, Alaska

Map the entire water process from the injection pumps at each facility to the individual injectors as part of the conversion of separate injection systems for each major facility in Prudhoe Bay to one combined produced water system and an expanded seawater injection system. Determine and help implement an overall metering scheme including master meters at each facility and a new water accounting and allocation process.

2000 – 2003: Production/Wells Engineer – Eileen West End (Greater Prudhoe Bay, Alaska)

Design and implement a new waterflood and EOR flood to replace the existing gas cap gas re-injection scheme, using a combination of wellwork, non-rig workovers, rig workovers, sidetracks and new wells. Optimize production based on a variety of facilities limitations and plan new facilities and debottlenecking projects where appropriate. Plan and implement new wells, rig and coiled tubing sidetracks, especially in the previously uneconomic Northwest Eileen fault blocks. Establish criteria for candidate selection and write wellwork and surveillance programs.

2000: Petroleum Engineer – Viscous Oil Team (Greater Prudhoe Bay, Alaska)

Provide input to the Polaris Area Injection Order regarding mechanical integrity issues and present to AOGCC.

#### **1990 to 1999: BP EXPLORATION**

1998 - 1999: Wells Management Leader – Southern North Sea, UK.

Managed well services contracts, gained experience in depleted gas wells, established the SNS Well Examination Scheme under new regulations, helped transition to operatorship of two additional gas fields including resolution of outstanding well issues. Worked several feasibility studies including unsupported coiled tubing operations on small platforms.

1993 - 1997: Production/Wells Engineer - Prudhoe Bay, AK.

Led development teams that resulted in 14 sanctioned new well/sidetrack programs. Performed water shut-offs that reduced water production by ~15,000 bwpd (at water handling costs of \$0.20/bbl, saved ~\$1 million/year in operating costs). Helped develop high angle wellbores for waterfloods. Pursued new, leveraging technologies to benefit PBU and the industry, including gel water shut-offs, multilaterals, etc.

1990 - 1993: North Slope Production Engineer and Gas Lift Engineer – Endicott, AK.

Performed a wide variety of well surveillance and interventions in the field, including use of slickline, braided line, electric line and coiled tubing units. Supervised rig completions, managed production testing program and as gas lift engineer moved the field from 5 gas lifted wells to approximately 40.

### **TECHNICAL and ANALYTICAL SKILLS**

- ◆ Leading multidisciplined teams to delivery of sanctioned new well and sidetrack programs
- ◆ Identifying and planning well interventions and prioritizing them against other projects to maximize profitability
- ◆ Ensuring long term integrity and reliability of mature wells, at the lowest possible cost
- ◆ Production optimization in a waterflood including injection targeting, gas lift optimization and managing produced fluids
- ◆ Experience in both offshore and Arctic operations
- ◆ Ability to maximize value of a fully integrated multidisciplinary team
- ◆ Solid background in petroleum engineering with 14 years of production/well engineering skills
- ◆ Strong organizational and communication skills