# Artificial Lift

## E-Lift

The sub committee met on May 15, 2003 to scope out the details of a potential field test of E-Lift to assist in determining the viability of a Joint Industry Project. A draft scope was prepared and distributed to the sub committee members for review, and will be discussed at the June 17, 2003 meeting.

## High Volume SAGD Gear Pump

EnCana presented results of a field test of a Weir Hydraulic Submersible Pump system at Senlac, including the impacts of hydraulic drive systems on artificial lift performance and cost implications. Aspects still to be tested include; surface recycle, low sub cool, and high vapor/liquid ratios. The sub committee will utilize this information to advance the potential testing of the gear pump.

## Low Pressure SAGD Wellbore Architecture

The project continues to be behind schedule. A participants meeting is scheduled for June 11, 2003 to review progress to-date, outstanding items, and next steps.

# Fluid Injection Technology

## Flue Gas Injection Project

Operations has still not been able to obtain continuous injection due to mechanical problems with the compressor. Operational problems are expected to be corrected.

# Lateral and Vertical Pressure Communication

## Piezometer data

Promore made a presentation describing instrument drift and accuracy at the sub committee meeting May 7, 2003. During the first month of service, a low range gauge typically demonstrates an elastic downward drift of 1 kPa, then remain stable. Higher range gauges have a lower magnitude of drift. This elastic drift may be managed by including a correction in the data gathering system. Sub committee members are interested in understanding the entire system prior to accepting the correction as a solution.

## Injection Projects

The sub committee continues to evaluate three potential re-injection pilots. One option is to move gas from one pool to another for re-pressurization. A second option is to conduct flue gas miscible flood after gas production. A third option is

to inject water. The sub committee continues to define the scope and objectives of pilot options.

# Shut-in Data Gathering and Interpretation

## Interpretation

Nothing new to report.

# Low Pressure SAGD Performance

## Performance

Members reported back to the subcommittee regarding impact of sub cool. Generally, reservoir modeling of SAGD to date has been conducted at sow sub cools and is unstable at low pressures and low sub cool. Coupling the wellbore affects with reservoir performance is problematic with questionable accuracy. Attempts are usually unsuccessful and unstable due to the lack of detail to describe the multiphase conditions in the wellbore; especially considering the changing conditions from the horizontal to vertical sections.

## Field Testing

The sub committee has prepared a draft scope for a field test of LP SAGD that incorporates understanding performance at low sub cools. Additionally, Deer Creek Energy has proposed a test at its Joslyn pilot between 900 and 1400 kPa. Operating groups are to check with their management and express their willingness to participate at the June 17, 2003 meeting.