

Monthly Progress Report – January 2006
Gas Over Bitumen Technical Solution
Industry & Government Collaboration

General Comments

Technical sub committees are preparing work plans and activities. As a result, most topic areas have nothing new to report.

Artificial Lift

Thermal Wellbore Simulator

Nothing new to report.

Bench Scale Testing of Lift Systems

Nothing new to report.

Suncor Low Pressure Artificial Lift Proposal

Nothing new to report.

Fluid Injection Technology

Paramount GRIPE Pilot

Flue gas injection is operating at a 90 % service factor at a VRR of 1.25.

Paramount made interim presentation to EUB.

ConocoPhillips observation well date is now down loaded.

EnCana Air Re-pressuring Pilots

Project received AEUB approval.

Plan on April 2006 ignition.

Low Pressure SAGD Performance

Total LP SAGD Field Testing

Nothing new to report.

LP SAGD Field Testing Proposal

Nothing new to report.

Reservoir Lab Testing

Nothing new to report.

Other Business

IETP

ADOE is advancing industry input to the format of annual IETP reports.

Second round applications are in and being processed.

Expanded Funding

The Services Agreement was executed by all parties.

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The final Participation Agreement was distributed. Agreement must be executed by February 14, 2006.

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General Comments

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Artificial Lift

Thermal Wellbore Simulator

Nothing new to report.

Bench Scale Testing of Lift Systems

Nothing new to report.

Suncor Low Pressure Artificial Lift Proposal

Nothing new to report.

Fluid Injection Technology

Paramount GRIPE Pilot

Flue gas injection continues at a VRR of 1.15.

Static gradient pressure surveys were conducted on 6 wells; production and injection wells.

EnCana Air Re-pressuring Pilots

Nothing new to report.

Low Pressure SAGD Performance

Total LP SAGD Field Testing

Production well under went a sand clean out and change of ESP.

LP SAGD Field Testing Proposal

Nothing new to report.

Reservoir Lab Testing

Phase 1 is complete and final report was issued.

Devon has joined the program, allowing the study to add a Surmont bitumen sample, and testing on all three samples at low temperatures.

The second phase is likely to be complete late in 2006, due to the fact that re-methanization at low temperatures is a lengthy process.

Other Business

IETP

Nothing new to report.

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Expanded Funding

16 organizations have signed the Participation Agreement; BP, Chamaelo, ConocoPhillips, Devon, EnCana, Husky, Imperial, Laricina, North American Oil Sands, Nexen, Paramount Energy Trust, Paramount Resources, Petro-Canada, Suncor, Total, and Vault.

The Participation Agreement is also being reviewed by Jacobs, Murphy, and Shell.

Monthly Progress Report – March 2006
Gas Over Bitumen Technical Solution
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General Comments

Technical sub committees have advanced work plans and activities. A total of 35 projects were identified and reviewed. 17 projects received priority after the first round of technical review and were categorized in to 3 groupings; Vertical and Lateral Communication & Re-pressuring, LP SAGD Impact & Artificial Lift, and Alternate Processes & Other Issues. The projects were ranked with a high/medium impact, priority in each grouping, whether a project should be considered, and a suggested sponsor. The remaining 18 projects are on the list as future consideration.

The next steps will include; sub committee members review of the priority project list; consider which projects their organization is interested in sponsoring or participation; establishing smaller focus groups to develop the project scope, deliverables, timelines, resources required, cost estimates, and whether to issue a request for proposal or to direct contract the work; and to report back to the larger group where member companies decide on JIP participation

Artificial Lift

Thermal Wellbore Simulator

ConocoPhillips, Husky, Nexen, Petro-Canada, Suncor and Total are participants, at a fee of \$20,000 per participant.

Program code is complete and is being tested, and the windows interface will be developed.

Bench Scale Testing of Lift Systems

Final interim report was presented March 16. Participants are developing the scope of next phase

Suncor Low Pressure Artificial Lift Proposal

The Can-K pump has failed 3 times resulting in more design work. The project is currently operating with ESP's. Suncor plans a presentation to participants within the next couple of weeks.

Fluid Injection Technology

Paramount GRIPE Pilot

Nothing new to report.

EnCana Air Re-pressuring Pilots

Nothing new to report.

Low Pressure SAGD Performance

Total LP SAGD Field Testing

Well pair is back on production after a sand clean out.

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LP SAGD Field Testing Proposal

Nothing new to report.

Reservoir Lab Testing

Phase 2 scope has been agreed to by original participants. Laricina and Devon have agreed to join.

Project scope has been expanded to include low temperature (10 C) measurements and a full test on a Surmont sample. ARC is waiting on the Surmont sample and the IETP funds to roll back into the project. Funds will be available once Paramount receives the royalty credit.

New agreements are being prepared.

Other Business

IETP

Nothing new to report.

Monthly Progress Report – April 2006
Gas Over Bitumen Technical Solution
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General Comments

Technical sub committees continue to advance work plans and activities.

Smaller groups have been established to develop the project scope, deliverables, timelines, resources required, cost estimates, and whether to issue a request for proposal or to direct contract the work. Sub groups to report on progress May 18.

Artificial Lift

Thermal Wellbore Simulator

The project is progressing on budget and on schedule.

Bench Scale Testing of Lift Systems

Final meeting for Phase 1 was held March 16. North American and Chevron have joined the JIP. Three pumps are being considered for the second phase.

Suncor Low Pressure Artificial Lift Proposal

Nothing new to report.

Fluid Injection Technology

Paramount GRIPE Pilot

Nothing new to report.

EnCana Air Re-pressuring Pilots

Section 16 reservoir pressure is stabilizing near 2100 kPa.

Section 15 test is progressing with compressor start up expected in mid May.

EnCAID project is also progressing. The injector is being competed. Steam injection for preheat prior to combustion expected in Q3 2006.

Low Pressure SAGD Performance

Total LP SAGD Field Testing

The well pair operated for 3 weeks when the ESP motor seal failed. The pump was replaced and is back on production. Production performance has not yet improved due to a suspected blockage in the injector. A workover is planned to resolve the problem.

LP SAGD Field Testing Proposal

Nothing new to report.

Reservoir Lab Testing

Surmont sample has been collected and yet to be delivered to ARC. Phase 2 agreements are in place and work program ready to go.

Other Business

IETP

Nothing new to report.

Progress Report – August 2006
Gas Over Bitumen Technical Solution
Industry & Government Collaboration

General Comments

Technical sub committees continue to advance work plans and activities. Progress continues to be slow due to summer breaks and limited resources.

Artificial Lift

Thermal Wellbore Simulator

Petro Study will conduct a simulator demonstration for JIP participants. Details still to be determined.

Bench Scale Testing of Lift Systems

Nothing new to report regarding the gear pump test.

The supplier of the HGP system did not share its test information to the technical sub committee in August. The sub committee hopes to have this presentation in October.

Fluid Injection Technology

Paramount GRIPE Pilot

Nothing new to report.

EnCana Air Re-pressuring Pilots

Nothing new to report.

Low Pressure SAGD Performance

Total LP SAGD Field Testing

Nothing new to report.

Reservoir Lab Testing

Testing of MacKay sample is complete.

Dead oil testing of Surmont sample is complete. Now saturating sample with methane.

Dead oil and live oil testing of Christina Lake at 10 degrees Celsius is complete. Next step is to conduct high temperature testing.

Final report on target for December 31, 2006.

Progress Report – September 2006
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General Comments

Technical sub committees continue to advance work plans and activities. Progress continues to be slow due to limited resources.

Artificial Lift

Thermal Wellbore Simulator

Progress meeting with Petro Study was held August 17. A test model will be rolled out to JIP participants in October/November.

Bench Scale Testing of Lift Systems

The gear pump system is now on the bench test. The power pack has been tested with some problems being resolved. Next step is to start testing the downhole pump.

There are no commitments for testing another pump at this time.

C-FER has approved the release of reports to IETP. Reports may be available on the EUB website once IETP confidentiality period expires.

The supplier of the HGP system did not share its test information to the technical sub committee in September. The sub committee has scheduled this presentation in October.

Fluid Injection Technology

Paramount GRIPE Pilot

The project continues to have corrosion issues. Latest incident was an injection line leak. Suspected cause is loss of corrosion inhibition chemical injection due to plugging of injection system.

Flue gas injection and methane production is stable at 2 to 2.5 MMscf/d, when operations are on line.

Nitrogen has not been detected in the methane production.

EnCana Air Re-pressuring Pilots

Christina Lake Section 16 pressures are stabilizing.

Christina Lake Section 15 pressure is increasing.

EnCaid VRR is 1.03. Combustion is observed with temperature increases at the observation wells. Project update presentation will be made to the EUB, with a follow-up presentation to the GOB technical sub committee.

Low Pressure SAGD Performance

Total LP SAGD Field Testing

ESP intake pressure is approximately 530 kPa, temperature 142C. Pump SubCool 21C. Production rate remains significantly lower (165 m³/d) than before pump replacement in July. Injection pressure is approximately 1100 kPa.

Reservoir Lab Testing

MacKay sample is complete.

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Christina Lake sample is saturated and undergoing testing.

Surmont is saturated and waiting on testing.

Potential Research Funding

15 organizations responded to a questionnaire to determine interest in a base program. 2 have not responded.

13 organizations are likely to participate in a base research program if annual costs are \$50M to \$100M per participant per year. 2 organizations will not participate in a base program at this level.

5 organizations may participate in a base research program if annual costs are \$100M to \$200M per participant per year. 10 organizations will not participate in a base program at this level.

12 organizations responded to the need for confidentiality. 6 wish to have confidentiality and 6 do not.

Conclusion: There is sufficient interest to advance a base research program with some confidentiality provisions.

Progress Report – October 2006
Gas Over Bitumen Technical Solution
Industry & Government Collaboration

General Comments

The Steering Committee meet on October 24, 2006 to deal with the lack of resources to advance initiatives targeted to a technical solution and charged the joint meetings of the Artificial Lift and Low Pressure SAGD technical sub committees to focus on 2 or 3 of the most important potential work items at a time, to define the scope, deliverables, timelines, and potential costs. These workshop discussions will be held over the next few months going through the list of work items until a potential base research program is defined. Alberta Research Council will attend with the intent of having enough understanding and framework to make a proposal to the Steering Committee to manage the base research program.

As a result of these activities, the Steering Committee will next meet in January 2007, and once a quarter thereafter.

Artificial Lift

Thermal Wellbore Simulator

Simulator has been demonstrated to JIP members. A training session and distribution of the software will be held in November.

Bench Scale Testing of Lift Systems

Nothing new to report.

Fluid Injection Technology

Paramount GRIPE Pilot

Flue gas injection has been down since August repairing corroded steel pipe between the wellhead shack and wellhead. Injection is expected to commence November 7.

EnCana Air Re-pressuring Pilots

Nothing new to report.

Low Pressure SAGD Performance

Total LP SAGD Field Testing

Steam injection is currently shut down due to apparent plugging along the well. This impairs steam chamber conformance along the well pair decreasing production rates.

Reservoir Lab Testing

Christina Lake sample is complete and the Surmont sample is being tested.

The final report is expected by year end.

Potential Research Funding

Survey results indicate the potential for a base program of approximately \$1 million. The base program is expected to be identified over the next few months.

Confidentiality will be dealt with after the base program is defined.

Progress Report – November December 2006 and January 2007
Gas Over Bitumen Technical Solution
Industry & Government Collaboration

General Comments

As directed by the Steering Committee on October 24, 2006, the Artificial Lift and Low Pressure SAGD sub committees met three times with good attendance. Good progress was made in a number of the high priority areas.

Preparations for three workshops are progressing. The first will be held on March 15, 2007, to discuss ways to advance down hole instrumentation. The second will be held on May 17, 2007 to discuss re-pressuring fluid injection types. The third will be held on September 20, 2007 to discuss advancing solvent/co-injection recovery applications.

In addition to the workshops, the scope of five potential Joint Industry Projects are advancing: down hole instrumentation; impact of non condensable gas; understanding solvent compositions, availability, and supply; development of guidelines for choosing injection fluids for the purpose of re-pressuring a gas over bitumen zone; and history matching of SAGD field data.

Artificial Lift

Bench Scale Testing of Lift Systems

Nothing new to report.

Fluid Injection Technology

Paramount GRIPE Pilot

Nothing new to report.

EnCana Air Re-pressuring Pilots

Christina Lake re-pressuring pressure has increased from 1600 kPa to 2500 kPa. An application to re-pressure the large gas pool to the east has been filed with AEUB and will be made public once the application is deemed to be complete.

EnCAID project is maintaining balanced injection and production conditions, combustion is ongoing, and the front is close to an observation well.

Low Pressure SAGD Performance

Total LP SAGD Field Testing

Steam injection is currently shut down due to apparent plugging along the well. This impairs steam chamber conformance along the well pair decreasing production rates.

Reservoir Lab Testing

Program is expected to be complete by the end of January and the report issued in early February.

Potential Base Research Program

The scope of the potential base research program will be defined once the technical sub committees develop the scope of a sufficient number of research areas.