facilitating technology solutions
Facilitating innovation, collaborative research and technology development, demonstration and deployment for a responsible Western Canadian upstream hydrocarbon energy industry

PTAC Technical Areas
- CO2 Enhanced Hydrocarbon Recovery
- Coalbed Methane / Unconventional Gas
- Drilling
- e-Business
- Eco-Efficiency / Emission Reduction / Energy Efficiency
- Environment
  - Air
  - Ecological
  - Soil and Groundwater
  - Water
- Health and Safety
- Heavy Oil
- Heavy Oil Transportation
- Inactive Wells
- Innovation
- Instrumentation / Measurement
- Natural Gas Production
- Oil Production
- Oil Sands
- Pipelines
- R&D Funding
- Reservoir / Geoscience
- Resource Access
- Telecommunications
- Well Completion
2005 key accomplishments
facilitating technology solutions

**Launched technology roadmaps for unconventional gas and unconventional heavy oil**

**Completed the Alberta portion of the Energy Innovation Network (EnergyINet) Increased Recovery of Oil and Gas Business Case**

**Completed the majority of the deliverables for Phase 1 of the Technology for Emission Reduction and Eco-Efficiency (TEREE) initiative**

**Facilitated the launch of 23 R&D projects or new project phases**

**Facilitated the world’s largest Unconventional Gas Conference hosted by the Canadian Society for Unconventional Gas (CSUG)**

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**Message from the Board of Directors**

PTAC Petroleum Technology Alliance Canada is the leading organization facilitating innovation, collaborative research and technology development, demonstration and deployment for a responsible Western Canadian upstream hydrocarbon energy industry. In 2005, PTAC facilitated 23 projects, 16 Technology Information Sessions, 10 forums, 11 workshops and one conference. PTAC brought government, industry and academia together for several important projects and initiatives in 2005. PTAC handled both the project management and banking for 10 projects which totalled $1.2 million.

One of the most significant projects completed in 2005 was the Alberta portion of the Energy Innovation Network (EnergyINet) Increased Recovery of Oil and Gas Business Case Project. This entire project, valued at $978 thousand, was developed to provide a detailed business case for increasing recovery factors in reserves of oil and gas in the Western Canadian Sedimentary Basin (WCSB). Funded by the Alberta Energy Research Institute (AERI) and industry, the project has identified in which pools project participants could deploy both existing and new technology to significantly increase oil and gas production and recoverable reserves.

PTAC also launched the Unconventional Gas Technology Roadmap and the Expanding Heavy Oil and Bitumen Resources While Mitigating Greenhouse Gas (GHG) Emissions and Increasing Sustainability Technologies Roadmap in 2005, to provide guidance on future research and technology needs of the industry.

PTAC’s Technology for Emission Reduction and Eco-Efficiency (TEREE) initiative, that seeks to identify the top opportunity areas and technologies to reduce GHGs and emissions, completed several significant projects in 2005. These included the Fire Tube Immersion Heater Project to improve heater efficiency and a project on Conventional Heavy Oil R&D Needs Including GHG Intensity Reduction. In addition, PTAC released the Barriers to Deployment of Environmental Technologies Report, which provides a series of recommendations to increase implementation of best practice technologies to improve environmental performance in the upstream oil and gas industry. In total, PTAC facilitated the launch of 23 projects or new project phases valued at $9.7 million during 2005, bringing the total number of projects launched since inception in 1996 to 200 with a value of $123.2 million.

In 2005, PTAC facilitated the world’s largest Unconventional Gas Conference (hosted by CSUG). PTAC also facilitated forums on:

- Air Research
- CO2 Enhanced Oil and Gas Recovery
- Distributed Power Generation and Energy Efficiency
- Driving Safety Technology
- Ecological Issues Research and Resource Access Priorities
- Energy Conservation and Air Emissions Technologies
- Innovative Drilling Technologies and Best Practices
- Soil and Groundwater Research
- Water Efficiency and Innovation
- Wireless and Telecommunications Technology
- PTAC also launched the Water Innovation Planning Committee, Unconventional Gas Technology Roadmap Committee, Heavy Oil Transportation Committee and the Unconventional Heavy Oil Technology Roadmap Committee in 2005.
- PTAC’s contact database holds over 10,000 technical contacts from industry, academia, government and others.

On behalf of the Board, we would like to express our appreciation to PTAC staff and volunteers for their outstanding contributions to our success.

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Eric Lloyd, President

Mike Singleton, Chairman
PTAC Launches Technology Roadmaps for Unconventional Gas and Unconventional Heavy Oil

In 2005, PTAC launched two technology roadmaps: the Unconventional Gas Technology Roadmap (UGTR) and the Expanding Heavy Oil and Bitumen Resources While Mitigating GHG Emissions and Increasing Sustainability Technologies Roadmap. The Canadian Unconventional Gas Technology Roadmap for coalbed methane, tight gas, shale gas and gas hydrates outlines the business and societal challenges to development, the state of the current recovery technology and the best avenues for improved or new technology. Canadian unconventional resources may hold the key to greater future gas supply. However, the nature of these reserves, and the way they are trapped in the reservoirs, makes access difficult and costly. Technology development holds the key to unlocking these reserves, both to improve recovery and reduce costs.

The development of a technology roadmap is a way to increase awareness of the opportunity offered by unconventional gas and bring the future development opportunity under the review of a wide stakeholder base. In this way, the industry can gain consensus on the technical challenges, help legislators understand those challenges, and where necessary make an appropriate response to encourage further development of these resources.

The UGTR will cover the WCSB and is expected to be made available to the public by May 31, 2006.

Natural Resources Canada contracted PTAC to develop the Expanding Heavy Oil and Bitumen Resources While Mitigating GHG Emissions and Increasing Sustainability Technologies Roadmap to support research and technology development (R&D) for the eventual development of deposits in the next 20-30 years. The funding contribution for the project is provided by the Climate Change Technology and Innovation Initiative, with the project focused on identifying potential technologies having the potential to lower GHG intensities of future developments. Sustainability, environment (air, water, land), economic and security (societal safety, risk management and energy supply) criteria will also be considered. The resources targeted include:

- Intermediate Zone Oil Sands currently deemed not to be economic with existing technology
- Heavy oil in the “Carbonate Triangle” of Alberta
- Un-cemented deep sands south of Cold Lake and surrounding Lloydminster
- Small surface bitumen deposits in Saskatchewan
- Oil sands under tailings

The PTAC Unconventional Heavy Oil Technology Roadmap Steering Committee was constituted to guide the development of this Roadmap. This roadmap is expected to be made available to the public by May 31, 2006. Roadmaps have gained wide acceptance as an excellent way to bring industry, government and societal groups together and guide cooperative work.

PTAC Nears Completion of TEREE Phase 1

PTAC’s TEREE initiative, which takes a one-window approach toward identifying the top opportunity areas to reduce GHGs and emissions and reduce costs, is close to completion.

Providing a toolbox of best practice solutions and proven, cutting edge technologies to the oil and gas sector, TEREE has made excellent progress facilitating:

- Recognition and understanding of key emission reduction issues
- Identification and evaluation of existing eco-efficient technology and best practice solutions to address these key issues
- Development of new technologies and best practices that address identified gaps
- Transfer into practice new and existing technology and best practice based solutions

The TEREE initiative formed with significant funding from Western Economic Diversification Canada in early 2003 is nearly complete. Since inception, six significant projects: Fire Tube Immersion Heater Optimization Project, Barriers to Deployment of Environmental Technologies Study, Efficiency Enhancements with REM AFR Systems Case Study, SRU Incinerator Optimization, Spectrasyne-Optical Measurement Technology Study and Conventional Heavy Oil R&D Needs Including GHG Intensity Reduction have been completed.

PTAC’s TEREE initiative has been successful working with producers, industry, non-governmental organizations and government to move projects forward to encourage energy efficiency to reduce GHGs and emissions.
Outlook for 2006

In 2006, PTAC will continue to work with industry, academia, governments and collaborating associations as the preferred vehicle for facilitation of upstream hydrocarbon energy R&D.

PTAC expects to enter into a significant Memorandum of Understanding (MOU) on Research and Innovation with the Canadian Association of Petroleum Producers (CAPP), the Petroleum Services Association of Canada (PSAC) and the Small Explorers and Producers Association of Canada (SEPAC) in May 2006. This MOU is expected to result in improved identification of industry R&D needs, more effective influence of government R&D policy, a new mechanism for funding R&D projects, improved association communication on R&D and greater long-term financial stability for PTAC.

PTAC also intends to build a stronger relationship with EnergyINet by jointly contracting a Director of Increased Recovery focused on both unconventional gas and conventional oil and gas R&D for both organizations.

PTAC expects to proceed with Phase 2 of the TEREE initiative with funding from Western Diversification, the Alberta Government, Environment Canada and industry. Seven new TEREE projects valued at over $3 million are expected to be launched in 2006. Two remaining TEREE studies, Sulphur Recovery Unit Optimization and Emissions and Efficiency Enhancements with REM AFR Systems, are expected to wrap up TEREE Phase 1 in early 2006.

PTAC will be moving into new office space on the fourth floor of the Chevron Building in June 2006. This new space will ensure our office needs are met for the next five years, while remaining in close proximity to most of our industry contacts in the Calgary downtown core.

PTAC will work toward increasing its membership to include more stakeholders from all points along the hydrocarbon energy continuum, such as emerging production, oil sands, pipeline and service and supply companies as well as royalty trusts.

PTAC will continue to collaborate with stakeholders to complete the British Columbia and Saskatchewan portions of the EnergyINet Increased Recovery Business Case project. PTAC will also complete the ongoing technology roadmaps for unconventional gas and unconventional heavy oil.

PTAC will continue to facilitate the CAPP/SEPAC Environmental Research Advisory Council (ERAC) process in 2006, including facilitating 15 research projects. PTAC expects to host a number of information sessions, workshops and technical meetings in the environmental technical area. Three research forums will address air, soil, and ecological issues.

PTAC will facilitate a two day Water Innovation in the Oilpatch Conference in June 2006. The Shallow Gas Technology Forum will be held in March 2006.

PTAC’s Driving Safety Working Group has identified the top driving safety issues in the upstream oil and gas industry and will focus on the physical and behavioural technologies available at the Driving Safety Technology Forum in April 2006.

PTAC offers a variety of services to its members and the upstream hydrocarbon energy industry. For more information on PTAC’s value please visit PTAC’s web site at www.ptac.org/memser1.html.

Facilitating innovation, collaborative research and technology development, demonstration and deployment for a responsible Western Canadian upstream hydrocarbon energy industry

Ongoing R&D Projects

PTAC facilitated 23 R&D projects or project phases in 2005. PTAC provides a neutral forum for industry to: solicit proposals, launch projects and identify opportunities, problems and potential solutions that require research or technology development. PTAC also ensures existing R&D is identified to raise industry awareness and minimize duplication. R&D proposals that meet the research or technology criteria are invited to present their proposal in a fair hearing of interested industry contacts. Please see www.ptac.org/projects1.html for a current list of projects.

Technology Information Sessions

PTAC facilitated 16 Technology Information Sessions attended by over 900 participants in 2005. PTAC facilitates Technology Information Sessions for members to: solicit interest, feedback, participation or potential funding for new R&D projects; find industry partners to complete proposed R&D or technology development (such as field test or pilot sites) or to report on field test or pilot results; provide information on technology-related services; and market new technology to the Canadian oil and gas industry. More information is available at www.ptac.org/tis1.html.

Forums, Workshops and Conferences

A total of over 3100 participants attended 22 forums, workshops and conferences hosted by PTAC in 2005. This includes the Seventh Annual Unconventional Gas Conference hosted by CSUG and facilitated by PTAC.

PTAC forums focus on specific needs or technical areas. Information is shared on new technologies, case studies, and the objectives and results of current research.

PTAC conducts workshops to provide opportunities for participants to clearly define R&D issues, to identify potential solutions and to select the best approach to move forward. Potential suppliers of R&D have the opportunity to hear firsthand about issues and to contribute their expertise and ideas for solutions. PTAC hosts the workshops and provides the necessary facilitation, administrative support and coordination to launch projects. When identified, PTAC issues Request for Proposals (RFPs) and Expressions of Interest for each priority issue. Once those who will consider supporting the R&D have been identified, proposals are solicited from potential suppliers. PTAC brings together the interested organizations in a structured way that leads to new R&D, while protecting proprietary interests. Please see www.ptac.org/forums1.html and www.ptac.org/workshops1.html for more information.

Eric Lloyd
President

Denis Gaudet
Director, Technology Transfer

Arlene Merling
Manager, Operations

Lorie Frei
Operations and Web Site Administrator
**PTAC Knowledge Centre**

The PTAC Knowledge Centre provides public access to non-proprietary technical information on commercially available upstream oil and gas related technologies. The collection focuses on sustainable, eco-efficient, energy efficient and GHG-reducing technologies.

The Knowledge Centre offers access to 13 core energy and premier technical databases. The Information Specialist provides literature searches and documents to technical steering committees, project performers, researchers and others, to help identify technologies and research needs, avoid duplicate research and monitor industry trends.

Knowledge Centre services include literature searches, search alerts, contact information for subject experts in industry, government and academia, and information on local, national and international events.

PTAC members are invited to provide non-proprietary technical information, in hard copy or electronic format, to PTAC for display in the Knowledge Centre. Relevant materials are accepted on an ongoing basis.

**Programs and Incentives**

On behalf of Natural Resources Canada’s Office of Energy Efficiency, PTAC continues to deliver the energy and emission audit incentive to identify energy and emission reduction opportunities and to provide access to information to encourage implementation of recommendations to reduce energy use.

Several events are hosted by PTAC in Alberta and Saskatchewan that focus on technical issues relating to energy use and encourage energy efficiency in the upstream oil and gas industry.

PTAC added ten new topic areas to the Oil and Gas Energy Efficiency section of the Knowledge Centre in 2005: thermal heavy oil, sour gas, compressors, conventional heavy oil, sweet gas, water management, flare management, fire heaters, cogeneration and vent gas management.

PTAC continues to facilitate the ERAC funding program on behalf of CAPP. ERAC projects are collaboratively funded and managed by PTAC technical steering committees. Fifteen projects were approved for 2005 totaling $1 million dollars. These projects provide science-based solutions to current and emerging environmental issues that are critical to the industry.

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“"I am currently involved with the Soil and Groundwater Research Committee and Salinity Working Group of PTAC. As an upstream oil and gas industry representative, I feel that this involvement is valuable as PTAC facilitates collaborative R&D work with government and regulators that is an integral part of industry’s commitment to improve environmental performance. I greatly enjoy working towards the goal of providing practical, science-based solutions to environmental challenges."”

Chris Meloche, Husky Energy Inc.

“"PTAC has facilitated some valuable interactions between industry and government that have led to improved environmental management in Alberta."”

Gordon Dinwoodie, Alberta Environment
Technical Committees

PTAC’s technical committees help to identify opportunities for research and technology development; raise awareness of existing R&D; find solutions including soliciting proposals and launching new projects; and inform appropriate industry people of new R&D proposals.

PTAC has 21 technical areas and requires participation from senior technical people to identify important issues that require technology transfer or R&D. To obtain more information please contact PTAC.

PTAC facilitates the following committees:

- Air Issues Research Planning Committee (ARPC)
- CO2 Enhanced Hydrocarbon Recovery (EHR) Steering Committee
- Drilling Innovators Advisory Group
- Driving Safety Working Group
- Ecological Research Planning Committee
- Heavy Oil Transportation Committee
- Natural Gas and Conventional Oil Recovery (NGCOR) Energy Innovation Network (EnergyINet) Advisory Group
- EnergyINet Increased Recovery of Oil and Gas Business Case Working Group
- Resource Access Technology Committee
- Soil Research Planning Committee
- Salinity Working Group
- Weathered Hydrocarbon Project Committee
- Technology for Emission Reduction and Eco-Efficiency (TEREE) Steering Committee
- TEREE Marketing Subcommittee
- TEREE Project Evaluation Subcommittee
- Unconventional Gas Technology Roadmap (UGTR) Technical Steering Committee
- UGTR Technical Writer Group
- Unconventional Heavy Oil Steering Committee
- Water Innovation Planning Committee

R&D Projects or New Project Phases Launched in 2005

PTAC facilitated the launch of 23 projects or new project phases valued at $9.7 million during 2005.

Coalbed Methane / Unconventional Gas

- Unconventional Gas Technology Roadmap

Environment

- Assessment of Phytoremediation as an In Situ Technique for Cleaning Oil Contaminated Sites Phases 1 and 2
- Assessment of Species at Risk (SARA) Setback Distances Relative to Oil and Gas Activities
- Biodiversity
- Catalytic Combustion for the Elimination of Methane, BTEX and other VOC
- Development of Generic Site Assessment Criteria for Salinity Below the Root Zone
- Effect of Sour Fuel Composition on Flare Combustion Efficiency
- Environmentally Acceptable Endpoints for Weathered/Aged Petroleum Hydrocarbons
- Grizzly Bear Habitat Mapping and Modeling in Alberta
- Imaging the Fate and Transport of Salts with Time-lapse Resistivity
- Measurement of Soot Emissions from Flares
- Native Species for the Sandy Soils Disturbances of the Parkland Ecoregion
- Recovery of Caribou Ranges in Alberta, Boreal and West Central
- Removing the Wellsite Footprint
- Resolving Air Flow over Elevated Terrain to Improve Dispersion Modelling for Sour Gas Flares
- Toxicity Testing for Methanol, Amine and Glycol Quality Guideline Development

Heavy Oil

- Expanding Heavy Oil and Bitumen Resources While Mitigating GHG Emissions and Increasing Sustainability Technologies

Innovation

- R&D Oil and Gas Database

Reservoir Recovery/Geoscience

- EnergyINet Increased Recovery of Conventional Oil and Gas Business Case

Technology for Emission Reduction and Eco-Efficiency

- Conventional Heavy Oil R&D Needs Including GHG Intensity Reduction
- Efficiency Enhancements with REM AFR Systems Case Study
- Fire Tube Immersion Heater Optimization Project
- SRU Incinerator Optimization Phase 1

For further information, please refer to PTAC’s newsletters at www.ptac.org/ptalk1.html or to the project index on PTAC’s web site at www.ptac.org/projects1.html.

“I consider my membership in PTAC’s ARPC and TEREE committees to be essential to my role as Environmental Specialist - Air Issues. These committees provide invaluable avenues for information regarding the technology and science of emissions, emissions monitoring and emissions reduction. PTAC currently represents the best opportunity for me to collaborate with industry, government, and non-governmental organizations to not only move emissions technology and science forward but to actually apply the learnings.”

Sean Reilly, Talisman Energy Inc.
Auditor’s Report

We have audited the statement of financial position of PTAC PETROLEUM TECHNOLOGY ALLIANCE CANADA as at DECEMBER 31, 2005 and the statements of operations, changes in net assets and cash flow for the year then ended. These financial statements are the responsibility of the organization’s management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In common with many not for profit organizations, the organization derives revenue from events and other sources, the completeness of which is not susceptible to satisfactory audit verification. Accordingly, our verification of these revenues was limited to the amounts recorded in the records of the organization and we were not able to determine whether any adjustments might be necessary to revenue, excess of revenue over expenditures, assets and surplus.

In our opinion, except for the effects of adjustments, if any, which might have determined to be necessary had we been able to satisfy ourselves concerning the completeness of the revenue referred to in the preceding paragraph, these financial statements present fairly, in all material respects, the financial position of the organization as at DECEMBER 31, 2005 and the results of its operations and its cash flow for the year then ended in accordance with Canadian generally accepted accounting principles.

Lo Porter Hetu
Certified General Accountants
Calgary, Alberta
February 10, 2006

Summarized Balance Sheet
As at December 31, 2005, with comparative figures for 2004.

<table>
<thead>
<tr>
<th>Assets</th>
<th>2005</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>$51,617</td>
<td>$350,449</td>
</tr>
<tr>
<td>Marketable securities</td>
<td>349,375</td>
<td>525,108</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>673,546</td>
<td>505,746</td>
</tr>
<tr>
<td>Prepaid expenses</td>
<td>50,266</td>
<td>8,510</td>
</tr>
<tr>
<td>Total Assets</td>
<td>1,124,804</td>
<td>1,389,813</td>
</tr>
<tr>
<td>Capital assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Liabilities</td>
<td>$1,165,103</td>
<td>$1,435,832</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Liabilities</th>
<th>2005</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts payable, accrued liabilities</td>
<td>$454,248</td>
<td>$705,181</td>
</tr>
<tr>
<td>Deferred revenue</td>
<td>320,782</td>
<td>187,821</td>
</tr>
<tr>
<td>Deferred contributions</td>
<td>$775,030</td>
<td>$893,002</td>
</tr>
<tr>
<td>Total Liabilities</td>
<td>775,030</td>
<td>1,163,793</td>
</tr>
<tr>
<td>Net Assets</td>
<td>390,073</td>
<td>272,039</td>
</tr>
<tr>
<td>Invested in capital assets</td>
<td>40,299</td>
<td>46,019</td>
</tr>
<tr>
<td>Unrestricted</td>
<td>390,073</td>
<td>226,020</td>
</tr>
<tr>
<td>Total Net Assets</td>
<td>1,165,103</td>
<td>1,435,832</td>
</tr>
</tbody>
</table>

Summarized Statement of Operations

<table>
<thead>
<tr>
<th>Revenue</th>
<th>2005</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership</td>
<td>$467,339</td>
<td>$390,062</td>
</tr>
<tr>
<td>Events and Other</td>
<td>816,809</td>
<td>626,686</td>
</tr>
<tr>
<td>Contracts and Projects</td>
<td>1,701,560</td>
<td>1,361,661</td>
</tr>
<tr>
<td>Interest</td>
<td>9,443</td>
<td>4,497</td>
</tr>
<tr>
<td>Total Revenue</td>
<td>$2,995,151</td>
<td>$2,382,906</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expenses</th>
<th>2005</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating</td>
<td>$2,877,117</td>
<td>$2,399,404</td>
</tr>
<tr>
<td>Excess (deficiency) of revenue over expenses</td>
<td>118,034</td>
<td>(16,498)</td>
</tr>
<tr>
<td>Surplus beginning of year</td>
<td>327,039</td>
<td>288,537</td>
</tr>
<tr>
<td>Surplus, end of year</td>
<td>$390,073</td>
<td>$272,039</td>
</tr>
</tbody>
</table>

The complete audited financial statements of PTAC for the year ended December 31, 2005 are available from PTAC offices upon request.
Board of Directors
As of March 15, 2006

Mike Singleton, Chair, PTAC
Director, Technology Planning & Integration,
Suncor Energy Inc.

Rich Kerr, Past Chair, PTAC
Chief Engineer, Nexen Inc.

Eric Lloyd, President, PTAC
Petroleum Technology Alliance Canada

Graham Campbell
Director, Office of Energy R&D,
Natural Resources Canada

Claude Durocher
President, Schlumberger of Canada

Cal Fairbanks
Vice President, Canada HSE Inc.

Fred Hutchings
President & CEO, VaporTech Energy Services

Eddy Isaacs
Managing Director, Alberta Energy Research Institute

Pam Lulman
Manager, Exploration, Operations and Services,
ConocoPhillips Canada Limited

David Molinski
Assistant Deputy Minister,
BC Ministry of Energy, Mines and Petroleum

Brian Moreland
Vice President, Strategy and Planning
Burlington Resources Canada Ltd.

Phillip Murray
Vice President, Energy Technologies,
Alberta Research Council

Susan Payne
Manager, Technical Services, Engineering and Project Management,
Husky Energy Inc.

Ken Putt
Managing Director, K.W. Putt Consulting Inc.

Randy Rudolph
Manager, Air Quality Services,
AMEC Earth & Environmental

Dave Rushford
Vice President, Calgary BU Upstream Operations Onshore, EnCana Corporation

Laurie Schramm
President and CEO,
Saskatchewan Research Council

Earle Shirley
Executive Manager, Applications Branch,
Alberta Energy and Utilities Board

Rolf Stokhuyzen
Industrial Technology Advisor, Alberta/NWT,
National Research Council’s Industrial Research Assistance Program

Bill Svreck
Professor, Department of Chemical and Petroleum Engineering, University of Calgary

Chuck Szumrlo
Vice President, Enbridge Pipelines Inc.

Murray Todd
President, Todd Resources

Lorraine Whale
Consultant to the Shell Global Research Program on Oil Sands and Heavy Oil,
Shell Canada Limited

Membership Revenue by Category
At year-end 2005 PTAC had 217 members grossing $548,400 revenue as shown in the graph below. PTAC members produce approximately 78% of Canadian oil and gas. Visit www.ptac.org/members1.html for more information on PTAC members.

Project Expenditure by Technical Area since Inception
PTAC has facilitated the launch of 200 projects valued at $123.2 million since inception in 1996. PTAC facilitated the launch of 23 projects or new project phases valued at $9.7 million in 2005.
30 Producers
Anadarko Canada Corporation
BP Canada Energy Company
Baytex Energy Trust
Burlington Resources Canada Energy Ltd.
Canadian Natural Resources Ltd.
ChevronExxon
ConocoPhillips Canada
Devon Energy Corporation
Dominion Exploration Canada Ltd.
EnCana Corporation
Enertark Inc.
Huks Energy Inc.
IFP Technologies (Canada) Inc.
Imperial Oil Limited
MGV Energy Inc.
Nexen Inc.
Paramount Resources Ltd.
Pengrowth Management Limited
Penn West Petroleum Ltd.
Petro-Canada Resources
Pioneer Natural Resources Company Inc.
Point Energy Ltd.
PrimeWest Energy Inc.
Samson Canada Ltd.
Shell Canada Limited
Suncor Inc. – Resources Group
Talisman Energy Inc.
Total Exploration & Production Ltd.
Trident Exploration Corporation
Western Gas Resources Canada Company

4 Transporters/Midstream Processors
Duke Energy Gas Transmission
Enbridge Inc.
Keyera Energy Ltd.
Kinder Morgan CO2 Company, L.P.

163 Service and Supply Companies
3M Canada – Oil and Gas Division
Accurate Inc.
Acres Parsons E&C Ltd.
Advanced Geotechnology Inc.
Advanced Measurements Inc. – Oil and Gas Division
AGAT Laboratories Ltd. – Hydrocarbon Division
Air & Gas Compression Systems Ltd.
Air Liquide Canada Inc.
Afilo Laval – Process Technology Oilfield Market Unit
Alpine Environmental Ltd.
ALS Environmental
AMEC Earth & Environmental
Amtech Aircraft Aerial Limited
APA Petroleum Engineering Inc.
Aquapure Ventures
Avril Enterprises
Ashton Jenkins Mann Petroleum Consultants
Bekaert CEB Technologies Canada Ltd.
Bell Mobility
BII Services Company Canada
Boreal Laser Inc.
Brenntag Stinnes Logistics
Brine-Add Fluids Ltd.
Burnet, Duckworth & Palmer – Energy Business Unit
Caltex Ltd.
Canada Tech Corp
Canadian Fertilizers Limited
Canrion Systems Inc.
Canxus Environmental Inc.
Century Far Services
Champion Technologies Ltd.
Chinook Engineering
Chinook Environmental Services Ltd.
Cleantech Engineering Ltd.
Computer Modelling Group Ltd.
Cotel Group plc
Corion Diamond Products
Crcra Geomatics Corporation
Crimtech Services Ltd.
Custom Environmental Services Ltd.
Daily Oil Bulletin
Data-Drill Communications
Decision Dynamics Technology, Ltd.